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United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street Building 201
Richmond, CA 94804

Date: **11/13/2019**

Subject: **Analytical Testing Results - Project R20S14**
WorkOrder **1910069**

From: **Peter Husby, Director**
EPA Region 9 Laboratory
EMD-3-1

To: **Alana Lee**
California Site Cleanup Section 3
SFD-7-3

Attached are the results from the analysis of samples from the **MEW OU3 FY2020 Vapor Intrusion Investigation** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Audrey Johnson at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

Volatile Organic Compounds by GC/MS

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 1910069**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 11/13/19 08:56
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
F6-017-2ft-28d-7d	1910069-01	Radiello 130	10/24/19 16:10	10/28/19 14:50
F5-064-2ft-28d-7d	1910069-02	Radiello 130	10/24/19 15:10	10/28/19 14:50
F5-062-2ft-28d-7d	1910069-03	Radiello 130	10/24/19 15:35	10/28/19 14:50
F5-060-2ft-28d-7d	1910069-04	Radiello 130	10/24/19 15:44	10/28/19 14:50
F5-054-1.5ft-28d-7d	1910069-05	Radiello 130	10/24/19 16:24	10/28/19 14:50
F6-006-2ft-28d-7d	1910069-06	Radiello 130	10/24/19 16:00	10/28/19 14:50
F6-008-2ft-28d-7d	1910069-07	Radiello 130	10/24/19 16:05	10/28/19 14:50

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 1910069**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 11/13/19 08:56
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1910069-01									**Radiello 130 - Sampled: 10/24/19 16:10**
Sample ID: F6-017-2ft-28d-7d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	J, Q2, U	0.03	ug/m³ Air	B19K004	11/04/19	11/08/19	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.04	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.04	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		0.07		0.04	"	"	"	"	Radiello D1
Chloroform		4.1	J, Q12	0.03	"	"	"	"	Radiello D1
Trichloroethene		4.1		0.04	"	"	"	"	Radiello D1
Tetrachloroethene		1.1		0.04	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			102 %	*90-110%*		"	"	"	
Lab ID: 1910069-02									**Radiello 130 - Sampled: 10/24/19 15:10**
Sample ID: F5-064-2ft-28d-7d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	J, Q2, U	0.33	ug/m³ Air	B19K004	11/04/19	11/08/19	Radiello D1
trans-1,2-Dichloroethene		1.3		0.41	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.40	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		9.6		0.41	"	"	"	"	Radiello D1
Chloroform		10	J, Q12	0.34	"	"	"	"	Radiello D1
Trichloroethene		140		0.37	"	"	"	"	Radiello D1
Tetrachloroethene		180		0.43	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			99 %	*90-110%*		"	"	"	
Lab ID: 1910069-03									**Radiello 130 - Sampled: 10/24/19 15:35**
Sample ID: F5-062-2ft-28d-7d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	J, Q2, U	0.33	ug/m³ Air	B19K004	11/04/19	11/08/19	Radiello D1
trans-1,2-Dichloroethene		1.4		0.41	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.40	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		13		0.41	"	"	"	"	Radiello D1
Chloroform		7.5	J, Q12	0.34	"	"	"	"	Radiello D1
Trichloroethene		78		0.37	"	"	"	"	Radiello D1
Tetrachloroethene		91		0.43	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			100 %	*90-110%*		"	"	"	
Lab ID: 1910069-04									**Radiello 130 - Sampled: 10/24/19 15:44**
Sample ID: F5-060-2ft-28d-7d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	J, Q2, U	3.3	ug/m³ Air	B19K004	11/04/19	11/08/19	Radiello D1
trans-1,2-Dichloroethene		3.1	C1, J	4.1	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	4	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		26		4.1	"	"	"	"	Radiello D1
Chloroform		13	J, Q12	3.4	"	"	"	"	Radiello D1
Trichloroethene		300		3.7	"	"	"	"	Radiello D1
Tetrachloroethene		280		4.3	"	"	"	"	Radiello D1

United States Environmental Protection Agency
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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 1910069**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 11/13/19 08:56
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1910069-04									**Radiello 130 - Sampled: 10/24/19 15:44**
Sample ID: F5-060-2ft-28d-7d									**Volatile Organic Compounds Collected on Passive Air Sampling Devices**
Surrogate: Toluene-d8			99 %	*90-110%*		*B19K004*	*11/04/19*	*11/08/19*	
Lab ID: 1910069-05									**Radiello 130 - Sampled: 10/24/19 16:24**
Sample ID: F5-054-1.5ft-28d-7d									**Volatile Organic Compounds Collected on Passive Air Sampling Devices**
1,1-Dichloroethene		ND	J, Q2, U	3.3	ug/m³ Air	B19K004	11/04/19	11/08/19	Radiello D1
trans-1,2-Dichloroethene		6.1		4.1	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	4	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		70		4.1	"	"	"	"	Radiello D1
Chloroform		13	J, Q12	3.4	"	"	"	"	Radiello D1
Trichloroethene		500		3.7	"	"	"	"	Radiello D1
Tetrachloroethene		380		4.3	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			99 %	*90-110%*		"	"	"	
Lab ID: 1910069-06									**Radiello 130 - Sampled: 10/24/19 16:00**
Sample ID: F6-006-2ft-28d-7d									**Volatile Organic Compounds Collected on Passive Air Sampling Devices**
1,1-Dichloroethene		0.18	C1, J, Q2	0.33	ug/m³ Air	B19K004	11/04/19	11/08/19	Radiello D1
trans-1,2-Dichloroethene		0.87		0.41	"	"	"	"	Radiello D1
1,1-Dichloroethane		0.21	C1, J	0.40	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		13		0.41	"	"	"	"	Radiello D1
Chloroform		5.2	J, Q12	0.34	"	"	"	"	Radiello D1
Trichloroethene	RE1	440		3.7	"	"	"	11/08/19	Radiello D1
Tetrachloroethene		25		0.43	"	"	"	11/08/19	Radiello D1
Surrogate: Toluene-d8			100 %	*90-110%*		"	"	"	
Lab ID: 1910069-07									**Radiello 130 - Sampled: 10/24/19 16:05**
Sample ID: F6-008-2ft-28d-7d									**Volatile Organic Compounds Collected on Passive Air Sampling Devices**
1,1-Dichloroethene	RE2	ND	U, J, Q2	0.33	ug/m³ Air	B19K004	11/04/19	11/11/19	Radiello D1
trans-1,2-Dichloroethene	RE2	0.58		0.41	"	"	"	"	Radiello D1
1,1-Dichloroethane	RE2	ND	U	0.40	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene	RE2	7.8		0.41	"	"	"	"	Radiello D1
Chloroform	RE2	7.8	J, Q12	0.34	"	"	"	"	Radiello D1
Trichloroethene	RE2	170		0.37	"	"	"	"	Radiello D1
Tetrachloroethene	RE2	13		0.43	"	"	"	"	Radiello D1
Surrogate: Toluene-d8	*RE2*		101 %	*90-110%*		"	"	"	

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Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 11/13/19 08:56
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

EPA Region 9 Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B19K004 - Passive Air Sampler										
Blank (B19K004-BLK1)				Prepared: 11/04/19 Analyzed: 11/08/19						
1,1-Dichloroethene	ND	0.13	ug/m³ Air							U, J, Q2
trans-1,2-Dichloroethene	ND	0.16	ug/m³ Air							U
1,1-Dichloroethane	ND	0.16	ug/m³ Air							U
cis-1,2-Dichloroethene	ND	0.16	ug/m³ Air							U
Chloroform	ND	0.13	ug/m³ Air							U, J, Q12
Trichloroethene	ND	0.14	ug/m³ Air							U
Tetrachloroethene	ND	0.17	ug/m³ Air							U
Surrogate: Toluene-d8	*1020*		ug/m³ Air	*992*		*102*	*90-110*			
LCS (B19K004-BS1)				Prepared: 11/04/19 Analyzed: 11/08/19						
1,1-Dichloroethene	6.10	0.13	ug/m³ Air	13.1		47	49-125			
trans-1,2-Dichloroethene	10.0	0.16	ug/m³ Air	16.0		62	47-131			
1,1-Dichloroethane	11.0	0.16	ug/m³ Air	15.7		70	53-126			
cis-1,2-Dichloroethene	12.5	0.16	ug/m³ Air	16.0		78	58-127			
Chloroform	11.3	0.13	ug/m³ Air	13.2		85	61-128			
Trichloroethene	12.5	0.14	ug/m³ Air	14.4		87	65-116			
Tetrachloroethene	14.7	0.17	ug/m³ Air	16.8		88	58-118			
Surrogate: Toluene-d8	*1000*		ug/m³ Air	*992*		*101*	*90-110*			
LCS Dup (B19K004-BSD1)				Prepared: 11/04/19 Analyzed: 11/08/19						
1,1-Dichloroethene	4.98	0.13	ug/m³ Air	13.1		38	49-125	20	38	
trans-1,2-Dichloroethene	9.10	0.16	ug/m³ Air	16.0		57	47-131	9	14	
1,1-Dichloroethane	9.55	0.16	ug/m³ Air	15.7		61	53-126	14	31	
cis-1,2-Dichloroethene	10.4	0.16	ug/m³ Air	16.0		65	58-127	19	28	
Chloroform	9.00	0.13	ug/m³ Air	13.2		68	61-128	22	20	
Trichloroethene	12.1	0.14	ug/m³ Air	14.4		84	65-116	3	22	
Tetrachloroethene	17.3	0.17	ug/m³ Air	16.8		103	58-118	16	24	
Surrogate: Toluene-d8	*1030*		ug/m³ Air	*992*		*104*	*90-110*			

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Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 11/13/19 08:56
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

EPA Region 9 Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S19K006 - B19K004										
Instrument Blank (S19K006-IBL1)				Prepared & Analyzed: 11/08/19						
1,1-Dichloroethene	ND	0.0	ug/L							U
trans-1,2-Dichloroethene	ND	0.0	ug/L							U
1,1-Dichloroethane	ND	0.0	ug/L							U
cis-1,2-Dichloroethene	ND	0.0	ug/L							U
Chloroform	ND	0.0	ug/L							U
1,1,1-Trichloroethane	ND	0.0	ug/L							U
Carbon tetrachloride	ND	0.0	ug/L							U
1,2-Dichloroethane	ND	0.0	ug/L							U
Trichloroethene	ND	0.0	ug/L							U
Toluene	ND	0.0	ug/L							U
1,1,2-Trichloroethane	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Chlorobenzene	ND	0.0	ug/L							U
1,1,1,2-Tetrachloroethane	ND	0.0	ug/L							U
Ethylbenzene	ND	0.0	ug/L							U
m&p-Xylene	ND	0.0	ug/L							U
o-Xylene	ND	0.0	ug/L							U
1,1,2,2-Tetrachloroethane	ND	0.0	ug/L							U
1,3,5-Trimethylbenzene	ND	0.0	ug/L							U
1,2,4-Trimethylbenzene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*0.00*		ug/L				*90-110*			*U*
Batch S19K038 - B19K004										
Instrument Blank (S19K038-IBL1)				Prepared & Analyzed: 11/11/19						
1,1-Dichloroethene	ND	0.0	ug/L							U
trans-1,2-Dichloroethene	ND	0.0	ug/L							U
1,1-Dichloroethane	ND	0.0	ug/L							U
cis-1,2-Dichloroethene	ND	0.0	ug/L							U
Chloroform	ND	0.0	ug/L							U
Trichloroethene	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*4930*		ug/L	*200000*		*2*	*90-110*			

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Project Manager:	Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 1910069**
Project Number:	R20S14	**75 Hawthorne Street**	**Reported:** 11/13/19 08:56
Project:	MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Qualifiers and Comments

Q2	The laboratory control standard associated with this sample did not meet recovery criteria for this analyte (see LCS results for this batch in QC summary).
Q12	Blank spike/blank spike duplicate precision criteria were not met for this analyte (see BS/BSD results for this batch in QC summary).
J	The reported result for this analyte should be considered an estimated value.
C1	The reported concentration for this analyte is below the quantitation limit.
U	Not Detected
NR	Not Reported
RE1, RE2, etc:	Result is from a sample re-analysis.

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VOA Passive: BS1/BSD1 failed 1,1-DCE %R low and RPD for chloroform. BS1/BSD1 were re-run as BS2/BSD2. BS2 fail %R for 1,1-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethane, and cis-1,1-dichloroethene. Also, BS2/BSD2 failed RPD. Result for BS reported from first run. I.S. recovery for sample 1910069-07RE2 (10X DL) was within QC limits; therefore, no flags were applied. TD 11/12/19

VOA Passive samplers: The Radiellos were deployed for 28 days (longer than normal) which could lead to breakthrough. For the highest sample, 1910069-05, the "reportable" compounds total was about 900 ug/m3. The total extract concentration of the "reportable" compounds was about 13,000ug/L *100 or (1.3 mg/mL). Based on the manufacturer literature, the amount is within the cartridge loading tolerance.

According to the manufacturer literature, Code 130 cartridge has a very large loading capacity: about 80 mg, corresponding to an overall VOCs concentration of 3,000-3,500 mg/m3 sampled for 8 hours or 70,000-80,000 mg/m3 sampled for 14 days.

The only exception is that If there may have been other volatiles present in the air which we did not analyze for/observe but that is always the case. ZAR 11/12/19

WORK ORDER

Printed: 10/29/2019 10:50:55AM

1910069

EPA Region 9 Laboratory

Client: **California Site Cleanup Section 3**
Project: **MEW OU3 FY2020 Vapor Intrusion Investigation**
Project Number: **R20S14**

Report To:
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3141
Fax: (415) 947-3526

Project Contact
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone :(415) 972-3141
Fax: (415) 947-3526

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
Envelope 1	Envelope	12	Yes	Yes	Yes	No	No	

Date Due:	11/11/19 17:00 (14 day TAT)	SDG:	19301C
Received By:	Bob Hopeman	Date Received:	10/28/19 14:50
Logged In By:	Jessica Caldeira	Date Logged In:	10/29/19 08:46

Analysis	Hold Time Expires	Comments
1910069-01 F6-017-2ft-28d-7d [Radiello 130] Sampled 10/24/19 16:10 (GMT-08:00) Pacific Time (US &		**351A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes
1910069-02 F5-064-2ft-28d-7d [Radiello 130] Sampled 10/24/19 15:10 (GMT-08:00) Pacific Time (US &		**352A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes
1910069-03 F5-062-2ft-28d-7d [Radiello 130] Sampled 10/24/19 15:35 (GMT-08:00) Pacific Time (US &		**353A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes
1910069-04 F5-060-2ft-28d-7d [Radiello 130] Sampled 10/24/19 15:44 (GMT-08:00) Pacific Time (US &		**354A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes
1910069-05 F5-054-1.5ft-28d-7d [Radiello 130] Sampled 10/24/19 16:24 (GMT-08:00) Pacific Time (US &		**355A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes
1910069-06 F6-006-2ft-28d-7d [Radiello 130] Sampled 10/24/19 16:00 (GMT-08:00) Pacific Time (US &		**356A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes

WORK ORDER

Printed: 10/29/2019 10:50:55AM

1910069

EPA Region 9 Laboratory

Client: **California Site Cleanup Section 3** **Project Number:** **R20S14**
Project: **MEW OU3 FY2020 Vapor Intrusion Investigation**

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1910069-07 F6-008-2ft-28d-7d [Radiello 130] Sampled 10/24/19 16:05 (GMT-08:00) Pacific Time (US &		**357A**
VOCs, Passive Samplers	04/21/20	see analyte list in project notes

Reviewed By

Date

U.S. Environmental Protection Agency

CHAIN OF CUSTODY RECORD

EPA REGION 9
75 Hawthorne Street
San Francisco, California 94105

Project / Case Number: MEW - 09M6 OU3 / R19S09

MEW OU03 - 2019 Sewer Pathway Sampling

EPA Project Manager contact: Alana Lee, 415-972-3141 Lee.Alana@epa.gov

EPA R9 Richmond Laboratory

Samplers: (Signature) Alana Lee

Analysis Requested: TCE, PCE, cis-trans,1,2-DCE, chloroform

Start Date /Time	End Date/Time	Matrix	Comp	Grab	EPA ID Number	Unique ID	Number of Containers	RAD130 - Solvent Extraction	TCE/PCE Screen (ug/m3)	AVG Temperature (deg F)	
9/26/2019 17:40	10/24/2019 16:10	Air	x		F6-017-2ft-28d-7d	351A	1	X	<10	70	200 Evandale
9/26/2019 18:05	10/24/2019 15:10	Air	x		F5-064-2ft-28d-7d	352A	1	X	<20	70	wet - 46 Evandale
9/26/2019 18:08	10/24/2019 15:35	Air	x		F5-062-2ft-28d-7d	353A	1	X	20-80	70	wet - Evandale/Emily
9/26/2019 18:12	10/24/2019 15:44	Air	x		F5-060-2ft-28d-7d	354A	1	X	100-800	70	dirty - Leong/Evandale corner
9/26/2019 18:24	10/24/2019 16:24	Air	x		F5-054-1.5ft-28d-7d	355A	1	X	100-1000	70	wet- 850 Leong
9/26/2019 18:32	10/24/2019 16:00	Air	x		F6-006-2ft-28d-7d	356A	1	X	500-1000	70	dry - 159 Fairchild
9/26/2019 18:39	10/24/2019 16:05	Air	x		F6-008-2ft-28d-7d	357A	1	X	500-1000	70	dry - 277 Fairchild west

Alana Lee 10/24/2019

Relinquished by: (Signature) Alana Lee — Date/Time 10/28/2019 — HAND DELIVER 1450

Received by: (Signature) Date/Time

Relinquished by: (Signature) Date/Time

Received for Laboratory by: (Signature) — Date/Time 10/28/19

Temp

Seals Intact? (Y/N)

Conditions / Remarks

Table of Contents

JL 10/29/19

Cooler/Box/Env 1 of 1

1337 South 46th Street
Richmond, CA 94804

U.S. Environmental Protection Agency
Region 9 Richmond Laboratory

Sample Receipt Checklist

Note in WO memo any items outside acceptable limits.

R20514 ~~R19809~~ JL 10/29/19

Project No: ~~R19809~~ **Work Order No(s):** 1910069 **Date:** 10/29/19 **by** RJ

CUSTODY SEALS Are Intact? ☒ Yes ☐ No ☐ N/A-none

Check if applies: ☒ External Seals ☐ Internal Seals ☒ Hand Delivered

TEMPERATURE 12.2 °C

Within Acceptable Range? (If preservation is "store cool at 4°C," use 0-6°C for acceptable range.) ☐ Yes ☒ No ☒ Ambient OK 12.2

Measured by: ☒ IR thermometer ☐ Probe thermometer inserted in provided temp. blank

☐ Provided Temp Blank was not used because _____

Check if applies: ☐ No ice present ☐ Insufficient/Melted Ice ☐ Tissue Received Frozen

☒ Still cooling (sampled today & iced) ☐ Delivery Delay ☐ Previously Frozen

SAMPLE CONTAINERS Are Intact? ☒ Yes ☐ No

Check if applies and identify sample IDs in comments:

☐ Bottle/Jar/Vial broken ☐ Cap broken or loose ☐ Insufficient sample amount

☐ Other _____

CHAIN OF CUSTODY

COC forms are present? ☒ Yes ☐ No

COC forms are consistent with sample labels? ☒ Yes ☐ No ☐ N/A-no COC form

Check if applies: ☐ Missing "relinquished by" signature

TAT and analyses match TDF or scheduling? ☒ Yes ☐ No

Check if applies: ☐ Preliminary Results ☐ Rush Request ☐ 7-day TAT

Samples are received within hold times? ☒ Yes ☐ No ☐ N/A-no hold times

Check if applies: ☐ Expires soon; notify analyst ☐ Expired

All shipping and sample containers are accounted for? ☒ Yes ☐ No

PRESERVATION / FILTRATION

Samples were filtered in field? ☐ Yes ☐ No ☒ N/A

Filtration is correctly identified on samples? ☐ Yes ☐ No ☒ N/A

Check if applies: ☐ Analyst to filter

Check if applies: ☐ Notify analyst to check for methyl mercury analysis and low-level mercury analysis by 1631

Samples were preserved in field? ☐ Yes ☐ No ☒ N/A

Check if applies: ☐ Analyst to preserve ☐ Sample Receiving to preserve (see page 2)

Preservation is correctly identified on samples? ☐ Yes ☐ No ☒ N/A

Field-preserved samples (excluding VOA vials for VOC analyses) have correct pH? ☐ Yes ☐ No ☒ N/A

Check if verified:

☐ Sulfide: pH >9 NaOH/Zinc acetate

☐ Cyanide: pH >12 NaOH

☐ Metals: pH <2 HNO_3

☐ Ferrous Iron: pH <2 HCl

☐ TOC/DOC: pH <2 H_2SO_4/H_3PO_4 (not HCl)

☐ Ammonia / Nitrate/Nitrite / TKN / Phosphorus: pH <2 H2SO4

☐ Other: _____

FOLLOW-UP / COMMENTS / UNUSUAL CHARACTERISTICS OBSERVED (for example, sample is pink):

_____

_____

_____

_____

_____

_____

FORM #: Q016
REV #: 2
REV. DATE: 07/29/19

Exposure Time in Minutes

	Sample number	Retrieved Date (XX/XX/XXXX)	Retrieved Time	Deployed Date	Deployed Time	Minutes	Start temp C	End temp C	Avg temp K	Plate #
1	F6-017-2ft-28d-7d	10/24/19	16:10	09/26/19	17:40	40230	21.11	21.11	294.26	L351A
2	F5-064-2ft-28d-7d	10/24/19	15:10	09/26/19	18:05	40145	21.11	21.11	294.26	L352A
3	F5-062-2ft-28d-7d	10/24/19	15:35	09/26/19	18:08	40167	21.11	21.11	294.26	L353A
4	F5-060-2ft-28d-7d	10/24/19	15:44	09/26/19	18:12	40172	21.11	21.11	294.26	L354A
5	F5-054-1.5ft-28d-7d	10/24/19	16:24	09/26/19	18:24	40200	21.11	21.11	294.26	L355A
6	F6-006-2ft-28d-7d	10/24/19	16:00	09/26/19	18:32	40168	21.11	21.11	294.26	L356A
7	F6-008-2ft-28d-7d	10/24/19	16:05	09/26/19	18:39	40166	21.11	21.11	294.26	L357A

BATCH

B19K004

Batch Date: 11/04/2019

Batch Matrix: Radiello 130

Batch Analyses:

VOCs, Passive Samplers

PREPARATION BENCH SHEET

B19K004

EPA Region 9 Laboratory

Project: R20S14

Printed: 11/12/2019 11:33:08AM

Matrix: Radiello 13 **Analysis: VOCs, Passive Sampler** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 1930061**

Lab Number	SampleName	Prepared	Initial (Tube)	Final (mL)	Source ID	Spike ID 1	ul Spike 1	Prepared by	Extraction Comments
1910069-01 A	F6-017-2ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-02 A	F5-064-2ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-02RE1 A	F5-064-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/11/2019 by TD
1910069-03 A	F5-062-2ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-03RE1 A	F5-062-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/11/2019 by TD
1910069-03RE2 A	F5-062-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/11/2019 by TD
1910069-03RE3 A	F5-062-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/12/2019 by TD
1910069-04 A	F5-060-2ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-05 A	F5-054-1.5ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-06 A	F6-006-2ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-06RE1 A	F6-006-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/11/2019 by TD
1910069-07 A	F6-008-2ft-28d-7d	11/04/19 06:06	1	2				TD	see analyte list in project notes
1910069-07RE1 A	F6-008-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/11/2019 by TD
1910069-07RE2 A	F6-008-2ft-28d-7d	11/04/19 06:06	1	2				TD	Added 11/12/2019 by TD
B19K004-BLK1	Blank	11/04/19 06:06	1	2				TD	
B19K004-BS1	LCS	11/04/19 06:06	1	2		1937059	5	TD	
B19K004-BS2	LCS	11/04/19 06:06	1	2		1937059	5	TD	Added 11/12/2019 by TD
B19K004-BSD1	LCS Dup	11/04/19 06:06	1	2		1937059	5	TD	
B19K004-BSD2	LCS Dup	11/04/19 06:06	1	2		1937059	5	TD	Added 11/12/2019 by TD
B19K004-MRL1	MRL Check	11/04/19 06:06	1	2		1940009	5	TD	

Batch Approval: ZAR 11/12/19

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PREPARATION BENCH SHEET

B19K004

EPA Region 9 Laboratory

Project: R20S14

Printed: 11/12/2019 11:33:08AM

Matrix: Radiello 13 **Analysis: QC** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 1930061**

Lab Number	SampleName	Prepared	Initial (Tube)	Final (mL)	Source ID	Spike ID 1	ul Spike 1	Prepared by	Extraction Comments

Batch Comments

Reagents

Reagent #	Description
1835089	passive air Radiello tubes
1945001	Carbon disulfide

Batch Approval: ZAR 11/12/19

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Calibration

1911007

Calibration Date: 11/08/2019

Instrument: AG5975CV

Calibration Analyses:

VOCs, Passive Samplers

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2019\
Method File : 110819.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Mon Nov 11 06:00:05 2019
Response Via : Initial Calibration

Calibration Files
25 =11081903.D 10 =11081904.D 5 =11081909.D 1 =11081906.D .15 =11081907.D .05 =11081908.D

		Compound	25	10	5	1	.15	.05	Avg	%RSD
1)	I	2-Fluorotoluene	----------ISTD----------							
2)	T	1,1-Dichloroet...	0.233	0.187	0.295	0.234	0.222	0.213	0.231	15.62
3)	T	trans-1,2-Dich...	0.243	0.199	0.294	0.221	0.241	0.225	0.237	13.51
4)	T	1,1-Dichloroet...	0.295	0.250	0.361	0.278	0.297	0.294	0.296	12.40
5)	T	cis-1,2-Dichlo...	0.278	0.239	0.332	0.261	0.281	0.272	0.277	11.15
6)	T	Chloroform	0.317	0.276	0.371	0.301	0.324	0.318	0.318	9.89
7)	T	1,1,1-Trichlor...	0.305	0.278	0.352	0.303	0.326	0.307	0.312	7.97
8)	T	Carbon tetrach...	0.282	0.264	0.321	0.285	0.295	0.295	0.290	6.51
9)	T	Benzene	0.752	0.704	0.856	0.774	0.853		0.788	8.36
10)	T	1,2-Dichloroet...	0.240	0.222	0.290	0.246	0.259	0.259	0.253	9.11
11)	T	Trichloroethene	0.228	0.218	0.252	0.232	0.245	0.259	0.239	6.61
12)	S	Toluene-d8	0.770	0.777	0.801	0.812	0.821	0.868	0.808	4.37
13)	T	Toluene	0.887	0.952	0.956	1.001	1.019	1.061	0.979	6.21
14)	T	1,1,2-Trichlor...	0.213	0.215	0.221	0.224	0.228	0.257	0.227	7.13
15)	T	Tetrachloroethene	0.267	0.290	0.275	0.287	0.294	0.296	0.285	3.97
16)	T	Chlorobenzene	0.673	0.759	0.683	0.735	0.746	0.767	0.727	5.48
17)	T	1,1,1,2-Tetrac...	0.234	0.266	0.242	0.255	0.257	0.317	0.262	11.23
18)	T	Ethylbenzene	1.035	1.243	1.092	1.237	1.277	1.256	1.190	8.45
19)	T	m&p-Xylene	0.769	0.940	0.823	0.946	0.966	0.963	0.901	9.30
[illegible])	T	o-Xylene	0.844	1.029	0.867	0.987	1.011	1.031	0.962	8.76
[illegible])	T	1,1,2,2-Tetrac...	0.370	0.461	0.388	0.437	0.451	0.453	0.427	8.99
[illegible])	T	1,3,5-Trimethy...	0.839	1.152	0.905	1.073	1.098	1.105	1.028	12.23
[illegible])	T	1,2,4-Trimethy...	0.837	1.187	0.908	1.098	1.132	1.122	1.047	13.39
[illegible])	T	Naphthalene	1.416	2.346	1.535	1.803	1.904	1.833	1.806	17.99
[illegible])		2-Fluorotoluen...			0.623				0.623	0.00
[illegible])		1,1-Dichloroet...			0.208				0.208	0.00
[illegible])		trans-1,2-Dich...			0.200				0.200	0.00
[illegible])		1,1-Dichloroet...			0.262				0.262	0.00
[illegible])		cis-1,2-Dichlo...			0.226				0.226	0.00
[illegible])		Chloroform SCAN			0.252				0.252	0.00
[illegible])		1,1,1-Trichlor...			0.220				0.220	0.00
[illegible])		Carbon tetrach...			0.206				0.206	0.00
[illegible])		Benzene SCAN			0.553				0.553	0.00
[illegible])		1,2-Dichloroet...			0.206				0.206	0.00
[illegible])		Trichloroethen...			0.162				0.162	0.00
[illegible])		Toluene-d8 SCAN			0.507				0.507	0.00
[illegible])		Toluene SCAN			0.625				0.625	0.00
[illegible])		1,1,2-Trichlor...			0.142				0.142	0.00
[illegible])		Tetrachloroeth...			0.166				0.166	0.00
[illegible])		Chlorobenzene ...			0.423				0.423	0.00
[illegible])		1,1,1,2-Tetrac...			0.152				0.152	0.00
[illegible])		Ethylbenzene SCAN			0.711				0.711	0.00

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Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2019\
Method File : 110819.M

43)	m&p-Xylene SCAN	1.020	1.020	0.00
44)	o-Xylene SCAN	0.542	0.542	0.00
45)	1,1,2,2-Tetrac...	0.263	0.263	0.00
46)	1,3,5-Trimethy...	0.552	0.552	0.00
47)	1,2,4-Trimethy...	0.543	0.543	0.00
48)	Naphthalene SCAN	0.898	0.898	0.00

(#) = Out of Range

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Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2019\
Method File : 110819.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Mon Nov 11 06:00:05 2019
Response Via : Initial Calibration

Total Cpnds : 48

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	2-Fluorotoluene	-109	10.803	1.000	A	1	A	B
2	T	1,1-Dichloroethene	-61	2.958	0.274	A	1	A	B
3	T	trans-1,2-Dichloroethene	-61	4.122	0.382	A	1	A	B
4	T	1,1-Dichloroethane	-63	4.852	0.449	A	1	A	B
5	T	cis-1,2-Dichloroethene	-61	5.874	0.544	A	1	A	B
6	T	Chloroform	-83	6.454	0.597	A	1	A	B
7	T	1,1,1-Trichloroethane	-97	6.711	0.621	A	2	A	B
8	T	Carbon tetrachloride	-117	6.988	0.647	A	1	A	B
9	T	Benzene	-78	7.301	0.676	A	1	A	B
10	T	1,2-Dichloroethane	-62	7.356	0.681	A	1	A	B
11	T	Trichloroethene	-130	8.391	0.777	A	3	A	B
12	S	Toluene-d8	-98	10.311	0.954	A	1	A	B
13	T	Toluene	-91	10.412	0.964	A	1	A	B
14	T	1,1,2-Trichloroethane	-97	11.069	1.025	A	1	A	B
15	T	Tetrachloroethene	-166	11.265	1.043	A	1	A	B
16	T	Chlorobenzene	-112	12.599	1.166	A	1	A	B
17	T	1,1,1,2-Tetrachloroethane	-131	12.751	1.180	A	1	A	B
18	T	Ethylbenzene	-91	12.811	1.186	A	2	A	B
19	T	m&p-Xylene	-91	13.001	1.203	A	2	A	B
20	T	o-Xylene	-91	13.616	1.260	A	1	A	B
21	T	1,1,2,2-Tetrachloroethane	-83	14.714	1.362	A	1	A	B
22	T	1,3,5-Trimethylbenzene	-105	15.185	1.406	A	1	A	B
23	T	1,2,4-Trimethylbenzene	-105	15.761	1.459	A	1	A	B
24	T	Naphthalene	-128	17.824	1.650	A	1	A	B
25		2-Fluorotoluene SCAN	109	10.801	1.000	A	1	A	B
26		1,1-Dichloroethene SCAN	61	2.957	0.274	A	2	A	B
27		trans-1,2-Dichloroethene SCAN	61	4.121	0.381	A	2	A	B
28		1,1-Dichloroethane SCAN	63	4.857	0.450	A	2	A	B
29		cis-1,2-Dichloroethene SCAN	61	5.872	0.544	A	3	A	B
30		Chloroform SCAN	83	6.452	0.597	A	2	A	B
31		1,1,1-Trichloroethane SCAN	97	6.710	0.621	A	2	A	B
32		Carbon tetrachloride SCAN	117	6.986	0.647	A	3	A	B
33		Benzene SCAN	78	7.318	0.677	A	3	A	B
34		1,2-Dichloroethane SCAN	62	7.355	0.681	A	2	A	B
35		Trichloroethene SCAN	130	8.385	0.776	A	3	A	B
36		Toluene-d8 SCAN	98	10.310	0.954	A	1	A	B
37		Toluene SCAN	91	10.416	0.964	A	2	A	B
38		1,1,2-Trichloroethane SCAN	97	11.062	1.024	A	3	A	B
39		Tetrachloroethene SCAN	166	11.264	1.043	A	3	A	B
40		Chlorobenzene SCAN	112	12.597	1.166	A	3	A	B
41		1,1,1,2-Tetrachloroethane SCAN	131	12.755	1.181	A	3	A	B
42		Ethylbenzene SCAN	91	12.810	1.186	A	2	A	B
43		m&p-Xylene SCAN	91	13.004	1.204	A	3	A	B
44		o-Xylene SCAN	91	13.619	1.261	A	2	A	B
45		1,1,2,2-Tetrachloroethane SCAN	83	14.717	1.362	A	2	A	B
46		1,3,5-Trimethylbenzene SCAN	105	15.184	1.406	A	2	A	B
47		1,2,4-Trimethylbenzene SCAN	105	15.759	1.459	A	3	A	B
48		Naphthalene SCAN	128	17.823	1.650	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

110819.M Mon Nov 11 06:23:13 2019

CHEMSTATION CONCENTRATION REPORT

AG5975C
B19K004-BSD1
0
11/8/2019
Mon Nov 11 06:00:05 2019
TD

#	Name	L1	L2	L3	L4	L5	L6
1)	2-Fluorotoluene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00
2)	1,1-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
3)	trans-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
4)	1,1-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
5)	cis-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
6)	Chloroform	25000.00	10000.00	5000.00	1000.00	150.00	50.00
7)	1,1,1-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
8)	Carbon tetrachloride	25000.00	10000.00	5000.00	1000.00	150.00	50.00
9)	Benzene	25000.00	10000.00	5000.00	1000.00	150.00	1.00
10)	1,2-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
11)	Trichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
12)	Toluene-d8	25000.00	10000.00	5000.00	1000.00	150.00	50.00
13)	Toluene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
14)	1,1,2-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
15)	Tetrachloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
16)	Chlorobenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
17)	1,1,1,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
18)	Ethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
19)	m&p-Xylene	50000.00	20000.00	10000.00	2000.00	300.00	100.00
20)	o-Xylene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
21)	1,1,2,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
22)	1,3,5-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
23)	1,2,4-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
24)	Naphthalene	25000.00	10000.00	5000.00	1000.00	150.00	50.00

CHEMSTATION AREA COUNT REPORT

AG5975C
B19K004-BSD1
0
11/8/2019
Mon Nov 11 06:00:05 2019
TD

#	Name	L1	L2	L3	L4	L5	L6
1)	2-Fluorotoluene	136396	98006	150594	105642	101471	154973
2)	1,1-Dichloroethene	159190	36663	44487	4942	1171	824
3)	trans-1,2-Dichloroethene	165718	38972	44249	4669	734	349
4)	1,1-Dichloroethane	201524	48913	54389	5874	903	456
5)	cis-1,2-Dichloroethene	189316	46885	50021	5516	856	421
6)	Chloroform	216368	54081	55930	6362	986	493
7)	1,1,1-Trichloroethane	208287	54511	52991	6409	993	475
8)	Carbon tetrachloride	192024	51739	48328	6015	899	457
9)	Benzene	512609	137982	128872	16360	2596	1498
10)	1,2-Dichloroethane	163732	43452	43679	5191	789	402
11)	Trichloroethene	155318	42642	37875	4902	746	402
12)	Toluene-d8	525058	152261	120578	17158	2498	1345
13)	Toluene	605016	186634	144037	21142	3101	1645
14)	1,1,2-Trichloroethane	145223	42227	33313	4732	695	399
15)	Tetrachloroethene	182195	56774	41429	6055	896	458
16)	Chlorobenzene	458666	148793	102865	15523	2272	1188
17)	1,1,1,2-Tetrachloroethane	159333	52111	36387	5396	781	491
18)	Ethylbenzene	706054	243701	164412	26129	3886	1947
19)	m&p-Xylene	1048721	368513	247808	39976	5879	2984
20)	o-Xylene	575374	201780	130523	20857	3079	1598
21)	1,1,2,2-Tetrachloroethane	252035	90407	58407	9232	1373	702
22)	1,3,5-Trimethylbenzene	572080	225782	136251	22671	3341	1712
23)	1,2,4-Trimethylbenzene	570669	232620	136813	23206	3445	1739
24)	Naphthalene	965468	459805	231113	38088	5795	2840

SCV REPORT

Instrument Name: AG5975C
Sample Name: S19K006-SCV1
Misc Info: 1930062 5 mg/L
Date Acquired: 11/8/2019
QLast Update: Mon Nov 11 06:00:05 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.803	5000	5000.00	100%	70	130	pass
2)	1,1-Dichloroethene	2.958	5000	5177.16	104%	70	130	pass
3)	trans-1,2-Dichloroethene	4.122	5000	4982.18	100%	70	130	pass
4)	1,1-Dichloroethane	4.852	5000	4893.65	98%	70	130	pass
5)	cis-1,2-Dichloroethene	5.874	5000	4998.18	100%	70	130	pass
6)	Chloroform	6.454	5000	4931.20	99%	70	130	pass
7)	1,1,1-Trichloroethane	6.711	5000	4996.13	100%	70	130	pass
8)	Carbon tetrachloride	6.988	5000	4955.93	99%	70	130	pass
9)	Benzene	7.301	5000	4879.45	98%	70	130	pass
10)	1,2-Dichloroethane	7.356	5000	4672.84	93%	70	130	pass
11)	Trichloroethene	8.391	5000	4989.86	100%	70	130	pass
12)	Toluene-d8	10.311	5000	4784.09	96%	70	130	pass
13)	Toluene	10.412	5000	5151.82	103%	70	130	pass
14)	1,1,2-Trichloroethane	11.069	5000	4961.28	99%	70	130	pass
15)	Tetrachloroethene	11.265	5000	5149.35	103%	70	130	pass
16)	Chlorobenzene	12.599	5000	5104.75	102%	70	130	pass
17)	1,1,1,2-Tetrachloroethane	12.751	5000	5022.22	100%	70	130	pass
18)	Ethylbenzene	12.811	5000	5114.05	102%	70	130	pass
19)	m&p-Xylene	13.001	10000	10311.30	103%	70	130	pass
20)	o-Xylene	13.616	5000	5097.78	102%	70	130	pass
21)	1,1,2,2-Tetrachloroethane	14.714	5000	5013.28	100%	70	130	pass
22)	1,3,5-Trimethylbenzene	15.185	5000	5035.64	101%	70	130	pass
23)	1,2,4-Trimethylbenzene	15.761	5000	4902.66	98%	70	130	pass
24)	Naphthalene	17.824	5000	4697.67	94%	70	130	pass

SEQUENCE

S19K006

Sequence Date: 11/08/2019

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B19K004	SEQUENCE #:	S19J006 11/08/19
BATCH #:		ANALYSIS:	VOA Passive Air. ICAL / R20S14

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
DOCUMENTATION	ANALYST: Bench sheet(s) attached? REVIEWER: Bench sheet(s) reviewed?	☐	Y	Y	
	ANALYST: Sequence log(s) attached? REVIEWER: Sequence log(s) reviewed?	☐	Y	Y	
	ANALYST: Every run has a PDF in LIMS? REVIEWER: Every PDF reviewed?	☐	Y	Y	
INITIAL CALIBRATION	Date of Initial Calibration used: If applicable, note date of "Last Update" in Comments.	Mon Nov 11 06:00:05 2019			
	Initial Calibration ID (LIMS number):	1911007			
	ICAL within QC criteria?	☐	Y	Y	
	SCV within QC criteria?	☐	Y	Y	
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?	☐	Y	Y	
	CCV(s) within QC criteria?	☑			
	QLS(s) within QC criteria?	☑			
	CB(s) or storage blank(s) within QC criteria?	☑			
	Other instrument checks within QC criteria? Specify if applicable.	☑			
BATCH QCs	Method blanks < 1/2 QL?	☐	Y	Y	
	LCS(s) or SRM(s) within QC criteria?	☐	N	N	BS/BSD fail 1,1-DCE %R LOW; Chloroform fails RDP
	MSs/MSDs and/or DUPs within QC criteria?	☑			
	Other method-specific QCs within QC criteria? Specify if applicable.	☑			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B19K004	SEQUENCE #:	S19J006 11/08/19
BATCH #:		ANALYSIS:	VOA Passive Air. ICAL / R20S14

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	N	N	1910069-07 (10X DL) fails high
	Surrogates within QC criteria?	☐	Y	Y	
SAMPLE DATA	Were samples prepared & analyzed within holding time?	☐	Y	Y	
	If samples need to be re-run, were RE(s) made in LIMS?	☐	Y	Y	
	Do any samples need to be re-digested or re-extracted?	✔			
	Were all data qualifiers appropriately applied?	☐	Y	Y	
	Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable.	✔			
MANUAL INT	Were manual integrations performed and documented? Specify if applicable.	☐	Y	Y	

APPROVALS	ANALYST INITIALS & DATE:	TD 11/11/19
	REVIEWED BY:	Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2019.11.12 10:48:14 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2019\110819\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	11081901.D	1	S19K006-IBL1		8 Nov 2019 10:36
2	11081902.D	1	S19K006-TUN1	BFB 1940006	8 Nov 2019 10:58
3	11081903.D	1	S19K006-CAL1	1930055 25 mg/L	8 Nov 2019 11:07
4	11081904.D	1	S19K006-CAL2	1930056 10 mg/L	8 Nov 2019 11:31
5	11081905.D	1	S19K006-CAL3	1930057 5 mg/L	8 Nov 2019 11:54
6	11081906.D	1	S19K006-CAL4	1930058 1 mg/L	8 Nov 2019 12:18
7	11081907.D	1	S19K006-CAL5	1930059 0.15 mg/L	8 Nov 2019 12:42
8	11081908.D	1	S19K006-CAL6	1930060 0.05 mg/L	8 Nov 2019 13:05
5	11081909.D	1	S19K006-CAL7	1930057 5 mg/L RE	8 Nov 2019 13:29
9	11081910.D	1	S19K006-SCV1	1930062 5 mg/L	8 Nov 2019 13:52
10	11081911.D	1	B19K004-BLK1		8 Nov 2019 14:16
11	11081912.D	1	B19K004-BS1		8 Nov 2019 14:40
12	11081913.D	1	B19K004-BSD1		8 Nov 2019 15:03
13	11081914.D	1	B19K004-MRL1		8 Nov 2019 15:27
14	11081915.D	100	1910069-02RE1	495-5	8 Nov 2019 15:51
15	11081916.D	100	1910069-03RE1	495-5	8 Nov 2019 16:14
16	11081917.D	100	1910069-04	495-5	8 Nov 2019 16:38
17	11081918.D	100	1910069-05	495-5	8 Nov 2019 17:01
18	11081919.D	100	1910069-06RE1	495-5	8 Nov 2019 17:25
19	11081920.D	100	1910069-07RE1	495-5	8 Nov 2019 17:49
15	11081921.D	100	1910069-03RE2	495-5	8 Nov 2019 18:12
20	11081922.D	1	1910069-01	495-5	8 Nov 2019 18:36
21	11081923.D	10	1910069-02	450-50	8 Nov 2019 19:00
22	11081924.D	10	1910069-03	450-50	8 Nov 2019 19:23
23	11081925.D	10	1910069-06	450-50	8 Nov 2019 19:47
24	11081926.D	10	1910069-07	450-50	8 Nov 2019 20:11

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2019\110819\11081902.D
Tune Time : 8 Nov 2019 10:58

Daily Calibration File : C:\msdchem\1\Ravioli Data\2019\110819\11081909.D

File	Sample	Surrogate Recovery %	Internal Standard Responses	
			150594	
11081903.D	S19K006-CAL1	476*	136396	
11081904.D	S19K006-CAL2	192*	98006	
11081905.D	S19K006-CAL3	101	399944*	NOT USED
11081906.D	S19K006-CAL4	20*	105642	
11081907.D	S19K006-CAL5	3*	101471	
11081908.D	S19K006-CAL6	1*	154973	
11081909.D	S19K006-CAL7	99	150594	RA of CAL3
11081910.D	S19K006-SC	96	109961	
11081911.D	B19K004-BL	102	115401	
11081912.D	B19K004-BS1	101	196266	
11081913.D	B19K004-BSD1	104	148309	
11081914.D	B19K004-MRL1	103	119252	
11081915.D	1910069-02RE1	100	97765	100X DL
11081916.D	1910069-03RE1	100	391601*	100X DL
11081917.D	1910069-04	99	186269	100X DL
11081918.D	1910069-05	99	278766	100X DL
11081919.D	1910069-06RE1	99	90834	100X DL
11081920.D	1910069-07 RE1	100	172961	100X DL
11081921.D	1910069-03RE2	100	261286	RA for IS 100X DL
11081922.D	1910069-01	102	154496	
11081923.D	1910069-02	99	137356	10X DL

```
11081924.D
         1910069-03  100                    200139       10X DL
-----------------------------------------------------------------------------
11081925.D
         1910069-06  100                    159963       10X DL
-----------------------------------------------------------------------------
11081926.D
         1910069-07  101                    304225*      10X DL
-----------------------------------------------------------------------------
(fails) - fails 12hr time check   * - fails criteria

    Created: Mon Nov 11 06:26:19 2019  AG5975C
```

Analysis Sequence

S19K006

Project: R20S14
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1911007 Printed: 11/12/2019 8:09 am

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S19K006-IBL1	Instrument Blank	1	11/8/19 10:36			TD	11081901.D	
S19K006-TUN1	BFB	2	11/8/19 10:58	1940006		TD	11081902.D	
S19K006-CAL1	Cal Standard	3	11/8/19 11:07	1930055		TD	11081903.D	
S19K006-CAL2	Cal Standard	4	11/8/19 11:31	1930056		TD	11081904.D	
S19K006-CAL3	Cal Standard	5	11/8/19 11:54	1930057		TD	11081905.D	
S19K006-CAL4	Cal Standard	6	11/8/19 12:18	1930058		TD	11081906.D	
S19K006-CAL5	Cal Standard	7	11/8/19 12:42	1930059		TD	11081907.D	
S19K006-CAL6	Cal Standard	8	11/8/19 13:05	1930060		TD	11081908.D	
S19K006-CAL7	CAL Standard	9	11/8/19 13:29	1930057		TD	11081909.D	
S19K006-SCV1	Secondary Cal Check	10	11/8/19 13:52	1930062		TD	11081910.D	
B19K004-BLK1	Blank	11	11/8/19 14:16			TD	11081911.D	
B19K004-BS1	LCS	12	11/8/19 14:40			TD	11081912.D	
B19K004-BSD1	LCS Dup	13	11/8/19 15:03			TD	11081913.D	
B19K004-MRL1	MRL Check	14	11/8/19 15:27			TD	11081914.D	
1910069-02RE1 A	F5-064-2ft-28d-7d	15	11/8/19 15:51			TD	11081915.D	
1910069-03RE1 A	F5-062-2ft-28d-7d	16	11/8/19 16:14			TD	11081916.D	
1910069-04 A	F5-060-2ft-28d-7d	17	11/8/19 16:38			TD	11081917.D	
1910069-05 A	F5-054-1.5ft-28d-7d	18	11/8/19 17:01			TD	11081918.D	
1910069-06RE1 A	F6-006-2ft-28d-7d	19	11/8/19 17:25			TD	11081919.D	
1910069-07RE1 A	F6-008-2ft-28d-7d	20	11/8/19 17:49			TD	11081920.D	
1910069-03RE2 A	F5-062-2ft-28d-7d	21	11/8/19 18:12			TD	11081921.D	
1910069-01 A	F6-017-2ft-28d-7d	22	11/8/19 18:36			TD	11081922.D	

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Analysis Sequence

S19K006

(Continued)

Project: R20S14
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1911007 Printed: 11/12/2019 8:09 am

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
1910069-02 A	F5-064-2ft-28d-7d	23	11/8/19 19:00			TD	11081923.D	
1910069-03 A	F5-062-2ft-28d-7d	24	11/8/19 19:23			TD	11081924.D	
1910069-06 A	F6-006-2ft-28d-7d	25	11/8/19 19:47			TD	11081925.D	
1910069-07 A	F6-008-2ft-28d-7d	26	11/8/19 20:11			TD	11081926.D	

Sequence Comments

Reagents

Reagent #	Description

SEQUENCE DATA

S19K006

S19K006-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081901.D
Acq On : 8 Nov 2019 10:36
InstName : AG5975C
Operator : TD
Sample : S19K006-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 11 06:14:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

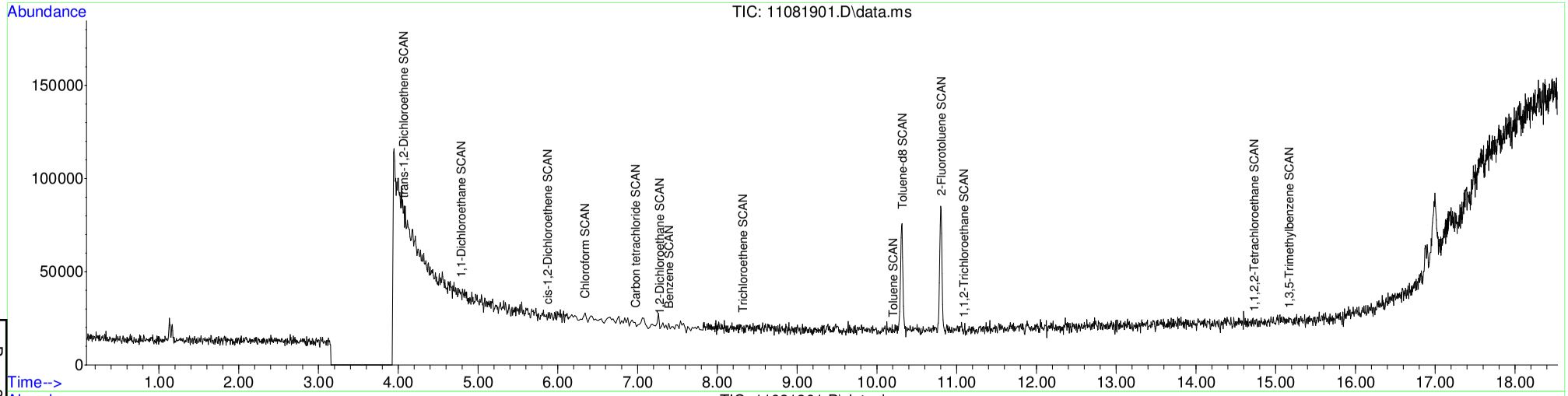
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	89406	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	69811	4831.93	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 96.64%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	10.807	109	57398	5153.48	ug/L	95
27) trans-1,2-Dichloroethe...	4.068	61	137	38.30	ug/L #	37
28) 1,1-Dichloroethane SCAN	4.784	63	103	21.98	ug/L #	56
29) cis-1,2-Dichloroethene...	5.872	61	166	41.03	ug/L #	39
30) Chloroform SCAN	6.342	83	871	193.27	ug/L #	29
32) Carbon tetrachloride SCAN	6.968	117	145	39.33	ug/L #	1
33) Benzene SCAN	7.391	78	3196	323.26	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.281	62	148	40.13	ug/L #	39
35) Trichloroethene SCAN	8.318	130	65	22.43	ug/L #	5
36) Toluene-d8 SCAN	10.316	98	43165	4765.45	ug/L	92
37) Toluene SCAN	10.209	91	303	27.13	ug/L	76
38) 1,1,2-Trichloroethane ...	11.092	97	159	62.43	ug/L #	29
45) 1,1,2,2-Tetrachloroeth...	14.727	83	109	23.15	ug/L #	2
46) 1,3,5-Trimethylbenzene...	15.169	105	258	26.15	ug/L #	35

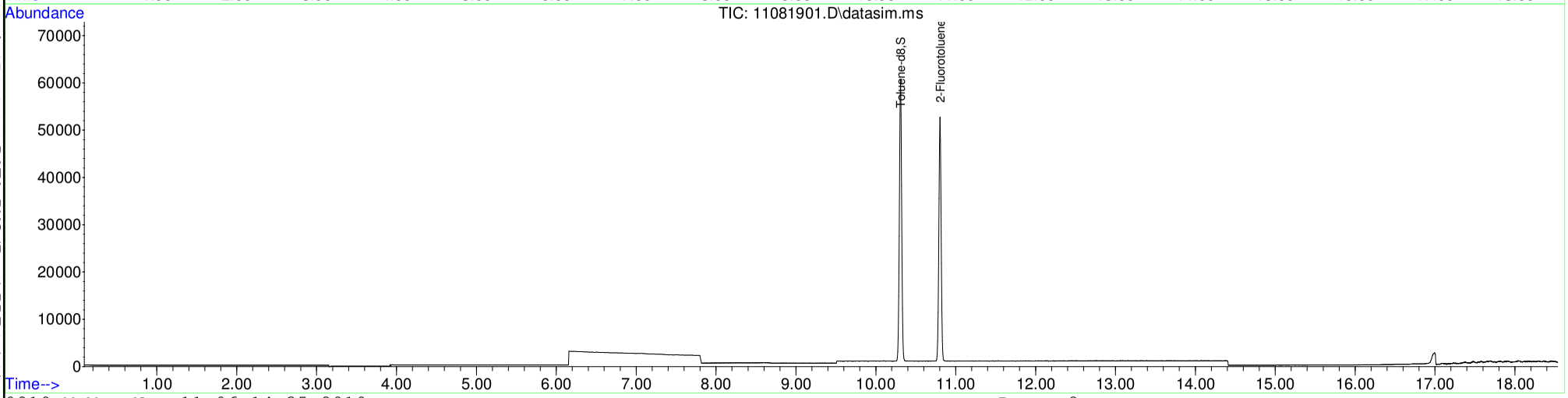
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081901.D
Acq On : 8 Nov 2019 10:36
InstName : AG5975C
Operator : TD
Sample : S19K006-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 11 06:14:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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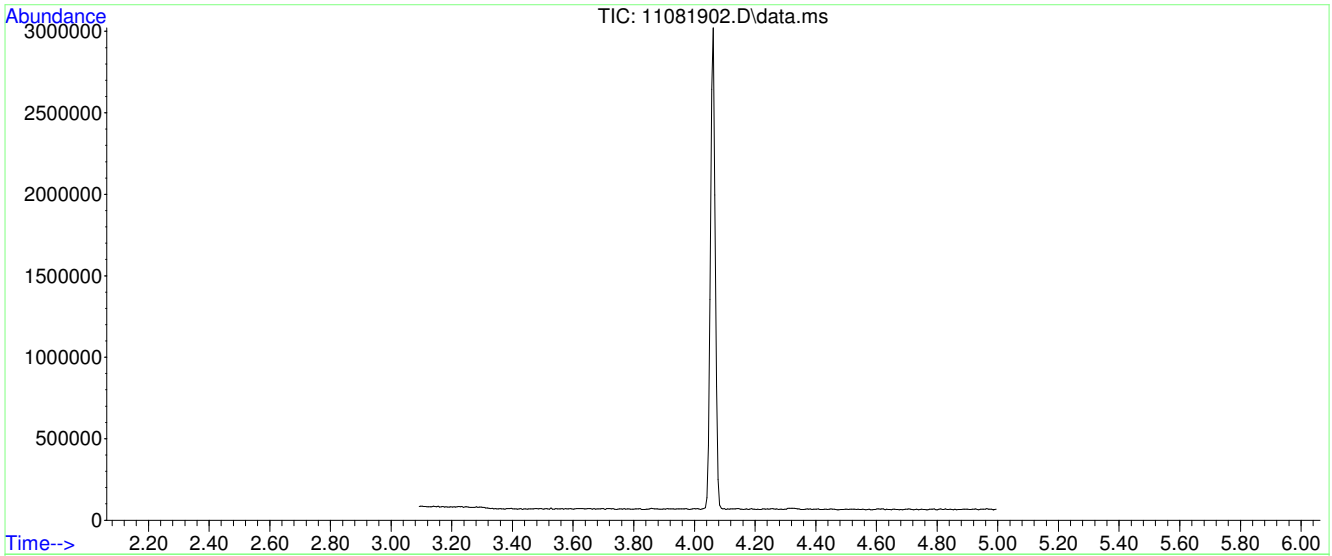
S19K006-TUN1

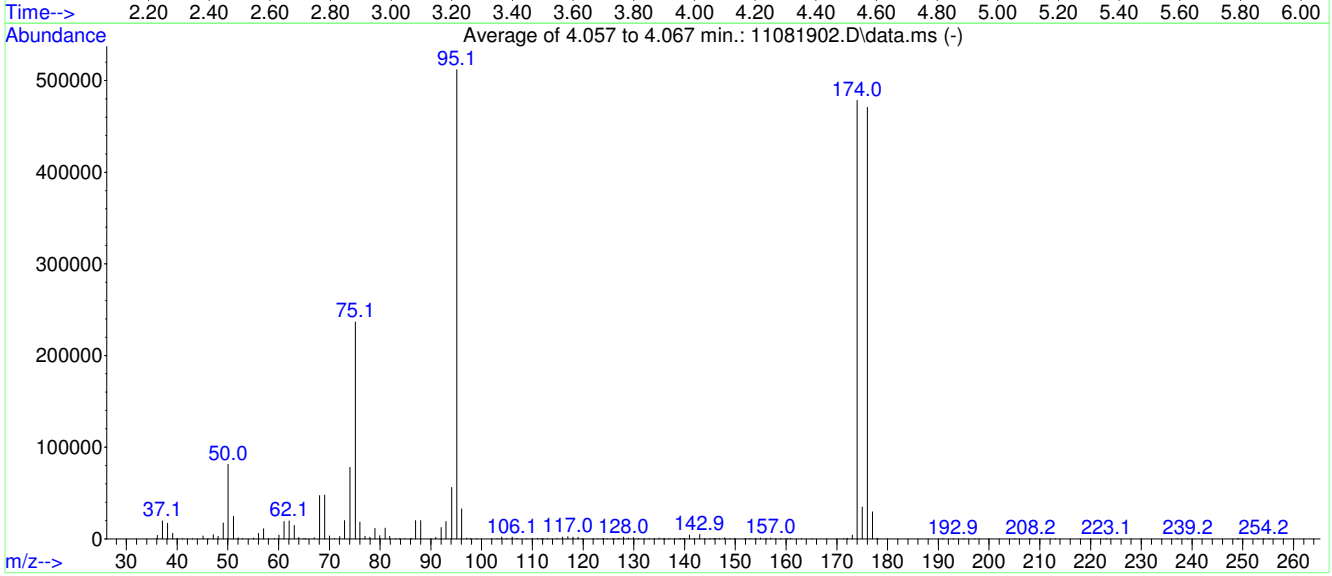
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081902.D
Acq On : 8 Nov 2019 10:58
Operator : TD
Sample : S19K006-TUN1
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Nov 08 09:54:58 2019





AutoFind: Scans 185, 186, 187; Background Corrected with Scan 176

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	81445	PASS
75	95	30	60	46.2	236631	PASS
95	95	100	100	100.0	511732	PASS
96	95	5	9	6.4	32596	PASS
173	174	0.00	2	0.9	4127	PASS
174	95	50	120	93.5	478336	PASS
175	174	5	9	7.2	34557	PASS
176	174	95	101	98.4	470720	PASS
177	176	5	9	6.2	29380	PASS

Average of 4.057 to 4.067 min.: 11081902.D\data.ms
S19K006-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	3805	49.10	17298	61.05	19039	72.05	2385
37.10	19649	50.05	81445	62.10	19458	73.00	19834
38.10	16848	51.10	24644	63.10	14613	74.05	78096
39.10	6089	52.05	1199	64.00	1467	75.10	236631
40.00	366	52.90	88	64.95	170	76.00	18231
41.10	121	55.05	986	65.30	121	77.00	2706
43.05	206	56.05	6000	67.00	1059	77.95	1755
45.10	3155	57.05	10941	68.05	47248	79.00	11380
46.10	278	58.05	313	69.10	47739	79.95	3364
47.10	4508	59.15	210	70.05	3295	81.00	11689
48.05	2833	60.05	4033	71.05	78	81.90	2751

Average of 4.057 to 4.067 min.: 11081902.D\data.ms
S19K006-TUN1
Modified:subtracted

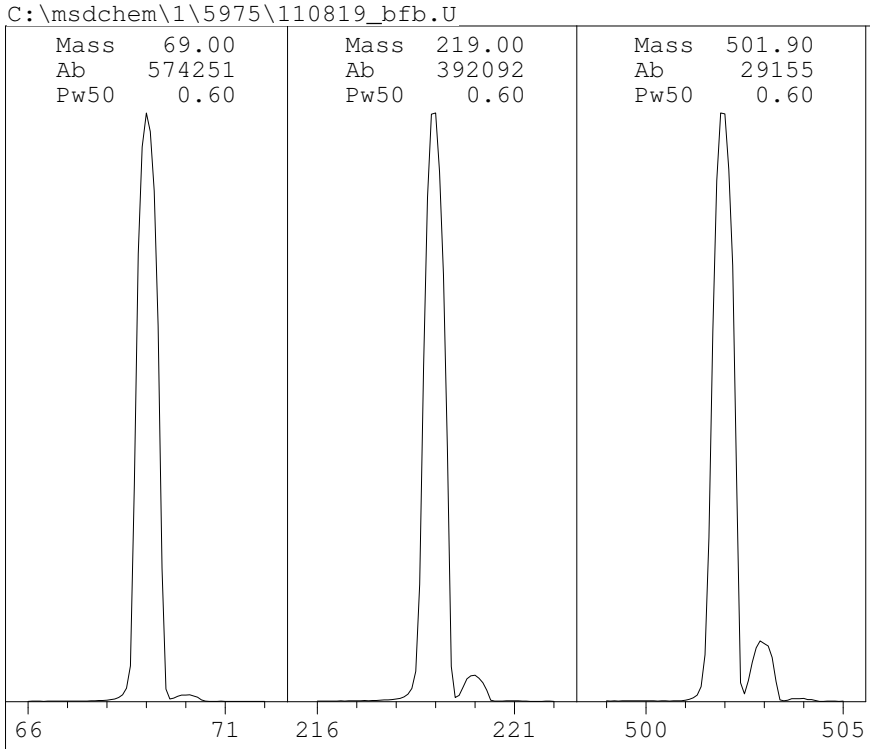
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	152	95.10	511732	108.90	66	119.90	52
83.85	73	96.05	32596	109.95	360	122.00	220
84.90	164	97.05	719	111.05	409	122.95	231
86.00	254	97.85	152	111.85	198	123.90	104
86.20	286	99.00	51	112.15	242	124.05	158
87.00	19778	102.00	62	112.95	395	124.85	151
88.00	19949	103.05	178	114.85	586	125.85	208
90.95	1528	103.95	1945	115.95	1716	126.10	132
92.05	12442	104.90	669	117.00	2636	126.90	168
93.00	19011	106.05	1838	118.00	1883	127.10	86
94.10	55924	106.95	573	119.00	1935	127.95	1873

Average of 4.057 to 4.067 min.: 11081902.D\data.ms
S19K006-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.90	1014	138.90	168	146.90	448	156.20	58
129.95	1641	139.20	70	147.90	1067	157.00	1006
130.90	554	139.70	95	148.95	220	158.00	63
132.10	140	139.95	403	149.85	537	158.95	611
133.00	116	140.95	4216	151.90	167	160.30	54
134.05	168	141.90	528	152.05	35	160.90	616
135.00	737	142.95	4748	152.90	622	163.00	163
135.80	157	144.00	286	153.90	70	165.10	107
136.10	59	145.00	493	154.05	251	171.30	229
136.95	587	145.85	531	154.95	925	172.10	435
138.10	171	146.10	151	156.00	81	173.05	4127

Average of 4.057 to 4.067 min.: 11081902.D\data.ms
S19K006-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	478336	208.20	139				
175.00	34557	209.15	137				
176.00	470720	213.10	110				
177.00	29380	223.10	172				
177.90	559	237.10	70				
178.10	336	239.20	125				
190.90	111	249.00	59				
192.95	148	249.20	59				
195.00	62	253.00	90				
197.20	91	254.15	119				
205.10	68	255.20	59				

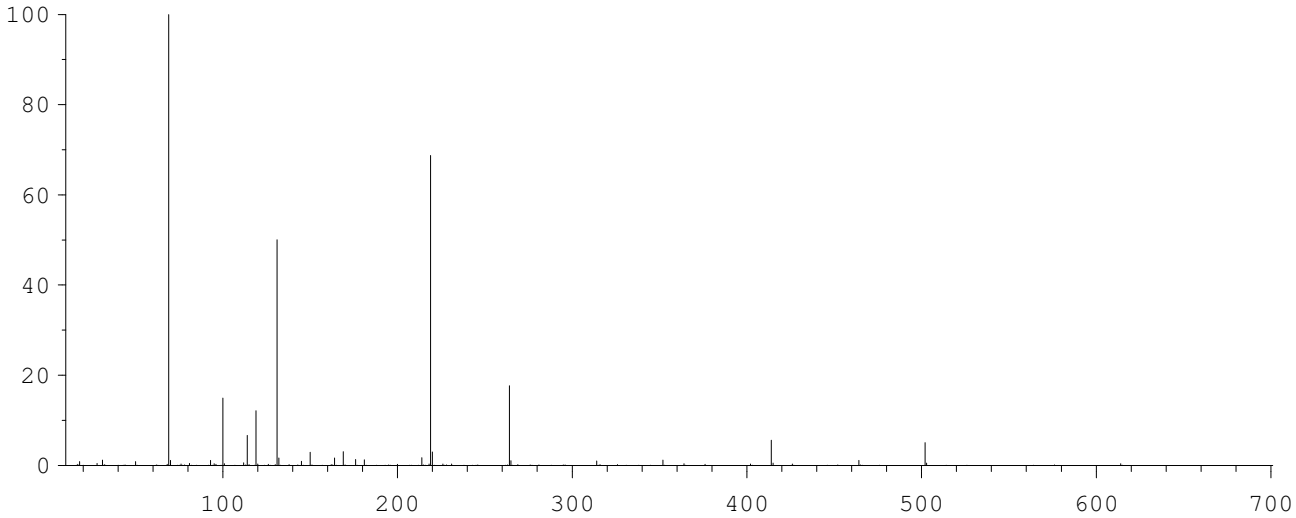


Ion Pol	Pos	MassGain	-1184
		MassOffs	-34
Emission	34.6	AmuGain	978
EIEnrgy	69.9	AmuOffs	122.50
Filament	1	Wid219	-0.009
		DC Pol	Pos
Repeller	29.12		
IonFcus	88.3	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Turbo Speed	100
MS Quad	150	HiVac	0.00e00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
133 peaks Base: 69.00 Abundance: 561728



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	561728	100.00	70.00	6039	1.08
219.00	386176	68.75	220.00	16728	4.33
502.10	28528	5.08	503.00	2732	9.58

Air/Water Check: H20~0.87% N2~0.42% O2~0.20% CO2~0.12% N2/H2O~47.75%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 36580
Repeller Maximum 35 volts using ion 219; Gain Factor 0.37

MassGain Values(Samples): -1171(3) -1163(2) -1155(1) -1124(0) -1038(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.5	122.5	122.5	122.5	122.5	122.5	122.5
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S19K006-CAL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081903.D
Acq On : 8 Nov 2019 11:07
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL1
Misc : 1930055 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 11 05:50:26 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration

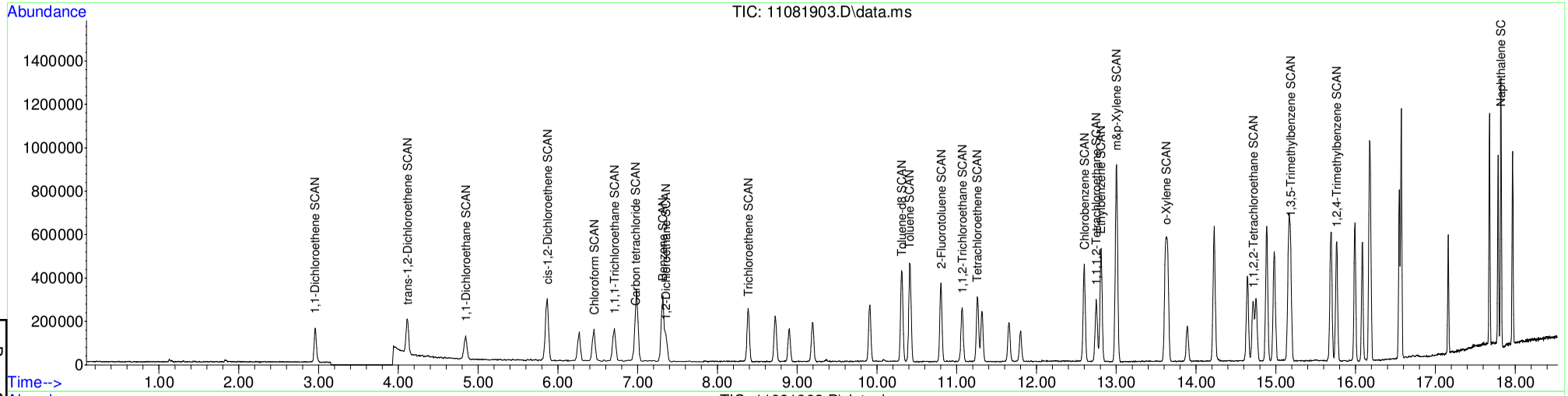
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	136396	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	525058	23821.48 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 476.43%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	159190	18762.30 ug/L	97
3] trans-1,2-Dichloroethene	4.109	61	165820	25631.04 ug/L	99
4] 1,1-Dichloroethane	4.839	63	201524	24970.32 ug/L	98
5] cis-1,2-Dichloroethene	5.867	61	189346	25044.68 ug/L	98
6] Chloroform	6.435	83	216368	24946.09 ug/L	100
7] 1,1,1-Trichloroethane	6.693	97	208287	24479.72 ug/L	97
8] Carbon tetrachloride	6.969	117	192024	24254.42 ug/L	99
9] Benzene	7.301	78	512609	23856.06 ug/L	98
10] 1,2-Dichloroethane	7.337	62	163732	23753.63 ug/L	99
11] Trichloroethene	8.387	130	155318	23834.91 ug/L	95
13] Toluene	10.412	91	605016	22644.52 ug/L	80
14] 1,1,2-Trichloroethane	11.063	97	145218	23497.31 ug/L	87
15] Tetrachloroethene	11.265	166	182195	23457.24 ug/L	100
16] Chlorobenzene	12.599	112	458666	23125.73 ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.751	131	159333	22323.16 ug/L	100
18] Ethylbenzene	12.807	91	706054	21750.21 ug/L	99
19] m&p-Xylene	13.001	91	1048721	42667.51 ug/L	84
20] o-Xylene	13.616	91	575374	21934.37 ug/L	91
21] 1,1,2,2-Tetrachloroethane	14.714	83	252035	21657.49 ug/L	97
22] 1,3,5-Trimethylbenzene	15.180	105	572080	20391.07 ug/L	99
23] 1,2,4-Trimethylbenzene	15.761	105	570669	19973.54 ug/L	97
24] Naphthalene	17.822	128	965468	19598.59 ug/L	95
25) 2-Fluorotoluene SCAN	10.801	109	84299	4961.25 ug/L	87
26) 1,1-Dichloroethene SCAN	2.957	61	108217	19076.79 ug/L	99
27) trans-1,2-Dichloroethe...	4.114	61	109482	20061.48 ug/L	97
28) 1,1-Dichloroethane SCAN	4.844	63	133657	18697.25 ug/L	99
29) cis-1,2-Dichloroethene...	5.866	61	128648	20844.63 ug/L	95
30) Chloroform SCAN	6.452	83	143236	20833.90 ug/L	95
31) 1,1,1-Trichloroethane ...	6.710	97	135670	22606.77 ug/L	95
32) Carbon tetrachloride SCAN	6.968	117	117130	20823.54 ug/L	95
33) Benzene SCAN	7.318	78	334935	22206.19 ug/L	99
34) 1,2-Dichloroethane SCAN	7.355	62	113025	20086.63 ug/L	96
35) Trichloroethene SCAN	8.390	130	94849	21450.68 ug/L	91
36) Toluene-d8 SCAN	10.310	98	337073	24392.76 ug/L	93
37) Toluene SCAN	10.410	91	395917	23237.48 ug/L	92
38) 1,1,2-Trichloroethane ...	11.068	97	92738	23866.36 ug/L	90
39) Tetrachloroethene SCAN	11.258	166	108987	24094.33 ug/L	92
40) Chlorobenzene SCAN	12.597	112	280367	24268.65 ug/L	94
41) 1,1,1,2-Tetrachloroeth...	12.750	131	98618	23762.28 ug/L	91
42) Ethylbenzene SCAN	12.810	91	445726	22986.75 ug/L	96
43) m&p-Xylene SCAN	13.004	91	661592	23782.01 ug/L	95
44) o-Xylene SCAN	13.619	91	360277	24353.16 ug/L	93
45) 1,1,2,2-Tetrachloroeth...	14.712	83	172392	23999.11 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.184	105	352018	23385.42 ug/L	100
47) 1,2,4-Trimethylbenzene...	15.764	105	346441	23381.55 ug/L	98
48) Naphthalene SCAN	17.823	128	557642	22758.12 ug/L	96

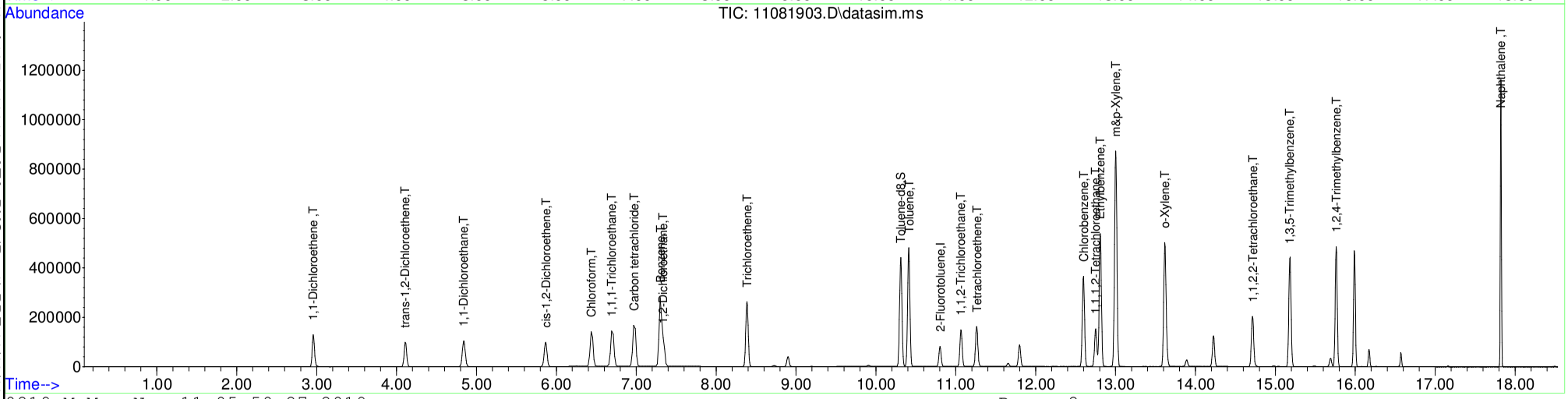
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081903.D
Acq On : 8 Nov 2019 11:07
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL1
Misc : 1930055 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 11 05:50:26 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration





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S19K006-CAL2

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081904.D
Acq On : 8 Nov 2019 11:31
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL2
Misc : 1930056 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 05:50:30 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration

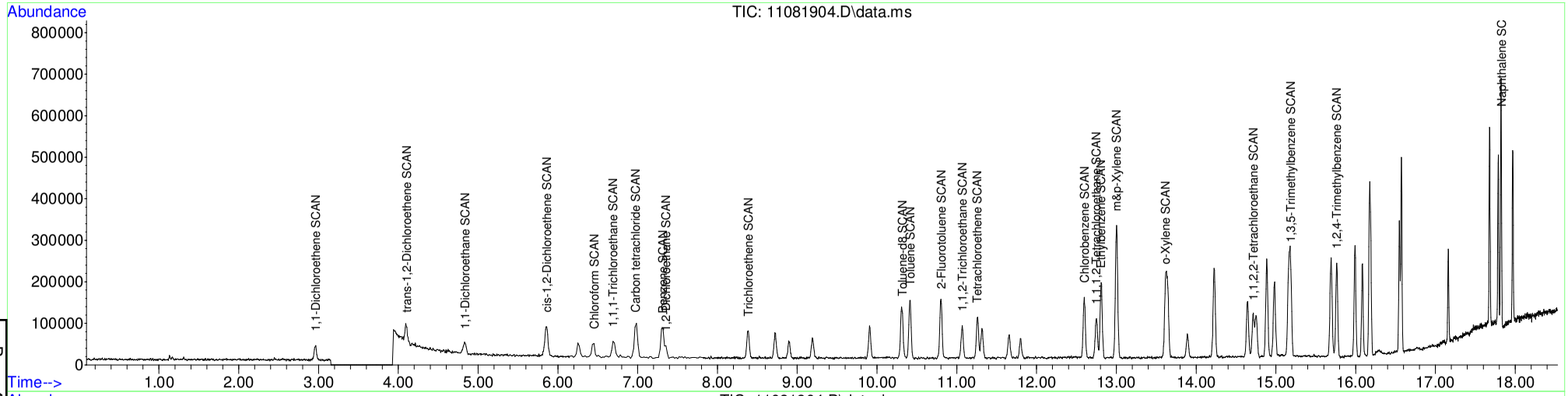
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.802	109	98006	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	152261	9613.89 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 192.28%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	36663	6013.78 ug/L	98
3] trans-1,2-Dichloroethene	4.095	61	38972	8383.61 ug/L	99
4] 1,1-Dichloroethane	4.832	63	48913	8434.72 ug/L	99
5] cis-1,2-Dichloroethene	5.860	61	46885	8630.62 ug/L	98
6] Chloroform	6.435	83	54081	8677.67 ug/L	99
7] 1,1,1-Trichloroethane	6.693	97	54511	8916.15 ug/L	98
8] Carbon tetrachloride	6.969	117	51739	9094.99 ug/L	98
9] Benzene	7.300	78	137982	8936.84 ug/L	99
10] 1,2-Dichloroethane	7.337	62	43452	8773.14 ug/L	100
11] Trichloroethene	8.382	130	42642	9107.06 ug/L	95
13] Toluene	10.411	91	186634	9721.56 ug/L	79
14] 1,1,2-Trichloroethane	11.063	97	42227	9509.04 ug/L	87
15] Tetrachloroethene	11.259	166	56774	10172.76 ug/L	100
16] Chlorobenzene	12.598	112	148793	10440.72 ug/L	89
17] 1,1,1,2-Tetrachloroethane	12.751	131	52111	10160.81 ug/L	100
18] Ethylbenzene	12.811	91	243701	10447.97 ug/L	100
19] m&p-Xylene	13.001	91	368513	20866.00 ug/L	84
20] o-Xylene	13.616	91	201780	10705.38 ug/L	92
21] 1,1,2,2-Tetrachloroethane	14.713	83	90407	10811.81 ug/L	97
22] 1,3,5-Trimethylbenzene	15.184	105	225782	11200.09 ug/L	99
23] 1,2,4-Trimethylbenzene	15.760	105	232620	11330.96 ug/L	98
24] Naphthalene	17.824	128	459805	12990.01 ug/L	95
25) 2-Fluorotoluene SCAN	10.807	109	62383	5109.56 ug/L	95
26) 1,1-Dichloroethene SCAN	2.967	61	25259	6196.91 ug/L	96
27) trans-1,2-Dichloroethe...	4.101	61	26120	6661.04 ug/L	97
28) 1,1-Dichloroethane SCAN	4.837	63	34047	6628.48 ug/L	98
29) cis-1,2-Dichloroethene...	5.859	61	33520	7558.65 ug/L	94
30) Chloroform SCAN	6.452	83	38083	7709.01 ug/L	85
31) 1,1,1-Trichloroethane ...	6.691	97	35025	8122.35 ug/L	89
32) Carbon tetrachloride SCAN	6.968	117	33642	8323.72 ug/L	97
33) Benzene SCAN	7.318	78	95302	8793.56 ug/L	99
34) 1,2-Dichloroethane SCAN	7.354	62	31107	7693.78 ug/L	98
35) Trichloroethene SCAN	8.385	130	27391	8621.15 ug/L	91
36) Toluene-d8 SCAN	10.315	98	98206	9890.63 ug/L	95
37) Toluene SCAN	10.416	91	121515	9925.76 ug/L	94
38) 1,1,2-Trichloroethane ...	11.068	97	28666	10267.02 ug/L	88
39) Tetrachloroethene SCAN	11.257	166	35846	11028.84 ug/L	93
40) Chlorobenzene SCAN	12.597	112	90516	10904.18 ug/L	92
41) 1,1,1,2-Tetrachloroeth...	12.750	131	31342	10510.12 ug/L	90
42) Ethylbenzene SCAN	12.810	91	152940	10976.90 ug/L	97
43) m&p-Xylene SCAN	13.004	91	232964	11654.57 ug/L	95
44) o-Xylene SCAN	13.614	91	127061	11953.09 ug/L	92
45) 1,1,2,2-Tetrachloroeth...	14.712	83	62843	12175.42 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.183	105	141823	13112.21 ug/L	97
47) 1,2,4-Trimethylbenzene...	15.764	105	141594	13299.58 ug/L	100
48) Naphthalene SCAN	17.823	128	267095	15170.35 ug/L	95

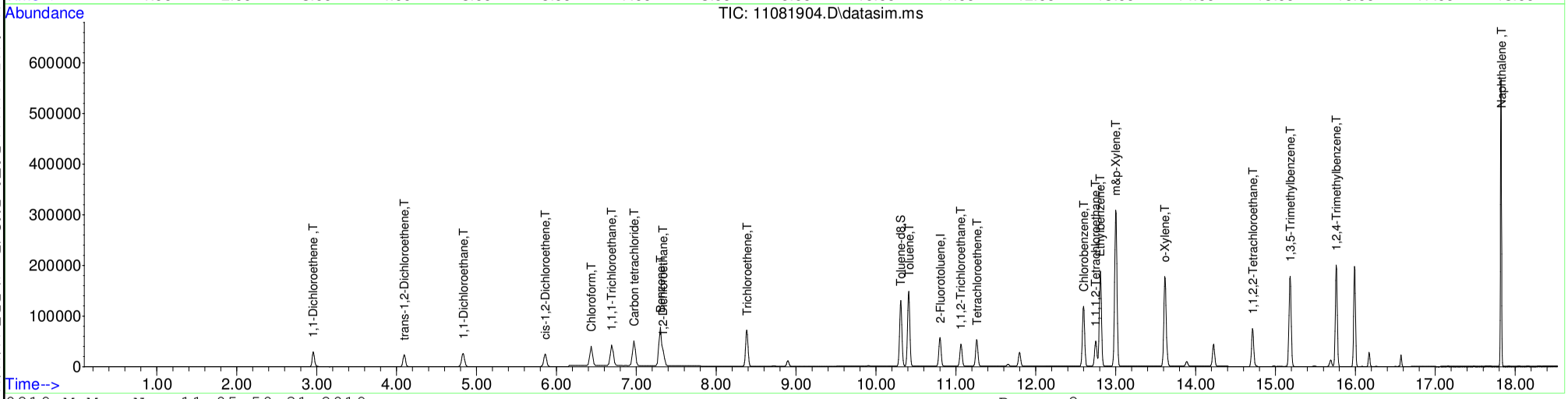
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081904.D
Acq On : 8 Nov 2019 11:31
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL2
Misc : 1930056 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 05:50:30 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration





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S19K006-CAL3

Quantitation Report (Not Reviewed)

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Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081905.D
Acq On : 8 Nov 2019 11:54
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL3
Misc : 1930057 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

NOT USED

SEE CAL7

Quant Time: Nov 11 05:50:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration

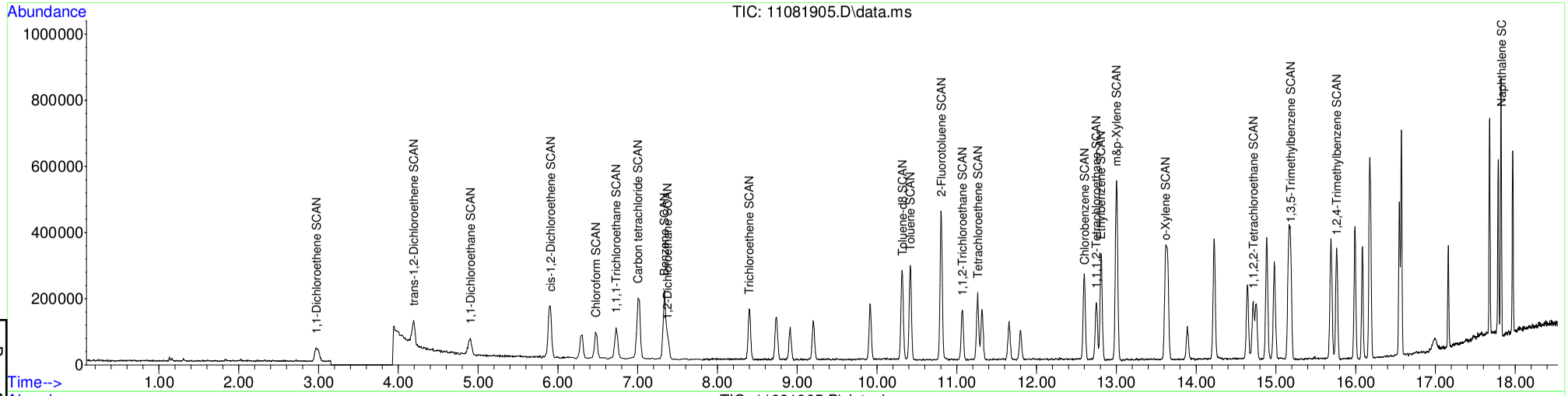
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 2-Fluorotoluene	10.802	109	399944	5000.00 ug/L	0.00	IS ↑
System Monitoring Compounds						
12) Toluene-d8	10.317	98	326037	5044.65 ug/L	0.00	
Spiked Amount 5000.000	Range 90 - 110		Recovery = 100.89%			
Target Compounds					Qvalue	
2] 1,1-Dichloroethene	2.973	61	77292	3106.76 ug/L	97	
3] trans-1,2-Dichloroethene	4.188	61	87976	4637.63 ug/L	99	
4] 1,1-Dichloroethane	4.898	63	110931	4687.62 ug/L	99	
5] cis-1,2-Dichloroethene	5.900	61	109349	4932.61 ug/L	98	
6] Chloroform	6.472	83	119556	4700.92 ug/L	94	
7] 1,1,1-Trichloroethane	6.730	97	116279	4660.67 ug/L	90	
8] Carbon tetrachloride	7.006	117	114742	4942.65 ug/L	95	
9] Benzene	7.319	78	321800	5107.41 ug/L	99	
10] 1,2-Dichloroethane	7.356	62	103495	5120.57 ug/L	98	
11] Trichloroethene	8.399	130	98497	5154.86 ug/L	95	
13] Toluene	10.411	91	379582	4845.12 ug/L	79	
14] 1,1,2-Trichloroethane	11.069	97	89073	4915.26 ug/L	86	
15] Tetrachloroethene	11.265	166	110822	4865.96 ug/L	100	
16] Chlorobenzene	12.598	112	277285	4767.91 ug/L	90	
17] 1,1,1,2-Tetrachloroethane	12.751	131	97347	4651.31 ug/L	100	
18] Ethylbenzene	12.806	91	429827	4515.66 ug/L	100	
19] m&p-Xylene	13.001	91	639383	8871.58 ug/L	84	
20] o-Xylene	13.616	91	345851	4496.42 ug/L	92	
21] 1,1,2,2-Tetrachloroethane	14.713	83	154230	4519.79 ug/L	97	
22] 1,3,5-Trimethylbenzene	15.184	105	349467	4248.07 ug/L	99	
23] 1,2,4-Trimethylbenzene	15.760	105	351391	4194.34 ug/L	98	
24] Naphthalene	17.824	128	602738	4172.71 ug/L	95	
25) 2-Fluorotoluene SCAN	10.801	109	246609	4949.71 ug/L	95	
26) 1,1-Dichloroethene SCAN	2.972	61	52142	3134.73 ug/L	98	
27) trans-1,2-Dichloroethe...	4.194	61	60950	3808.87 ug/L	96	
28) 1,1-Dichloroethane SCAN	4.903	63	73553	3509.04 ug/L	97	
29) cis-1,2-Dichloroethene...	5.905	61	74006	4089.41 ug/L	93	
30) Chloroform SCAN	6.471	83	80118	3974.21 ug/L	97	
31) 1,1,1-Trichloroethane ...	6.728	97	78137	4440.32 ug/L	86	
32) Carbon tetrachloride SCAN	7.005	117	74382	4509.79 ug/L	96	
33) Benzene SCAN	7.336	78	208935	4724.19 ug/L	99	
34) 1,2-Dichloroethane SCAN	7.373	62	70030	4244.43 ug/L	91	
35) Trichloroethene SCAN	8.398	130	62540	4823.57 ug/L	92	
36) Toluene-d8 SCAN	10.315	98	208801	5153.14 ug/L	93	
37) Toluene SCAN	10.416	91	241493	4833.84 ug/L	95	
38) 1,1,2-Trichloroethane ...	11.068	97	55735	4891.69 ug/L	90	
39) Tetrachloroethene SCAN	11.263	166	65281	4921.86 ug/L	88	
40) Chlorobenzene SCAN	12.602	112	167736	4951.62 ug/L	95	
41) 1,1,1,2-Tetrachloroeth...	12.750	131	59750	4909.90 ug/L	88	
42) Ethylbenzene SCAN	12.810	91	276348	4860.36 ug/L	94	
43) m&p-Xylene SCAN	13.004	91	401257	4919.07 ug/L	96	
44) o-Xylene SCAN	13.614	91	217710	5018.80 ug/L	94	
45) 1,1,2,2-Tetrachloroeth...	14.712	83	103744	4925.42 ug/L	95	
46) 1,3,5-Trimethylbenzene...	15.183	105	213169	4829.55 ug/L	97	
47) 1,2,4-Trimethylbenzene...	15.764	105	217318	5001.98 ug/L	99	
48) Naphthalene SCAN	17.823	128	353434	4919.17 ug/L	95	

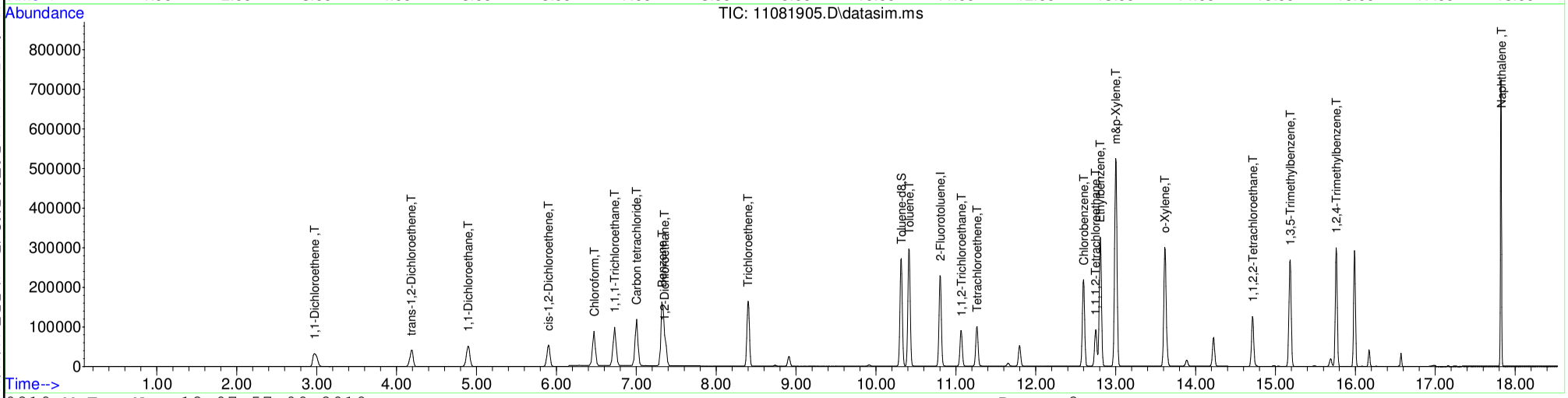
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081905.D
Acq On : 8 Nov 2019 11:54
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL3
Misc : 1930057 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 11 05:50:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration





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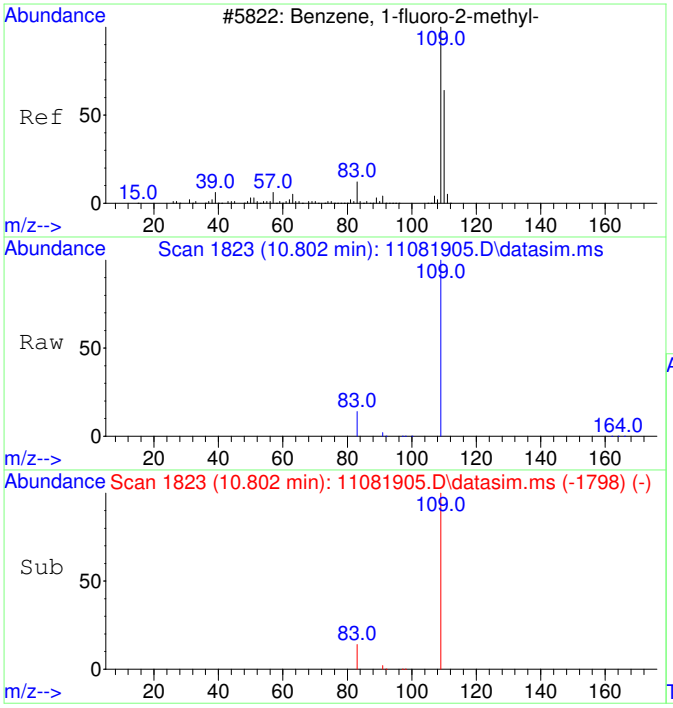
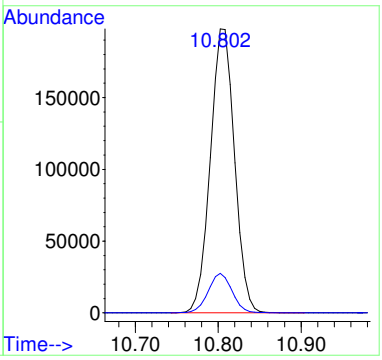
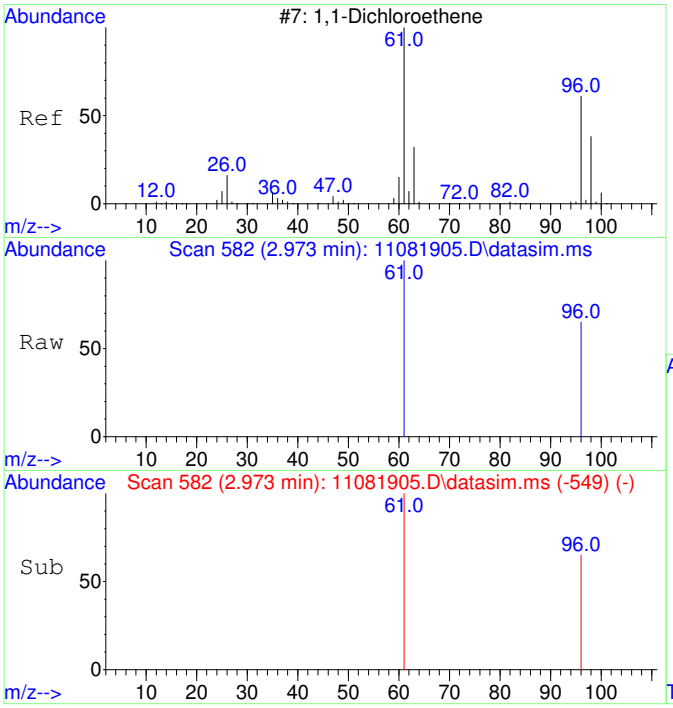


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.802 min Scan# 1823
Delta R.T. -0.001 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:109 Resp: 399944

Ion	Ratio	Lower	Upper
109	100		
83	13.5	0.0	42.3

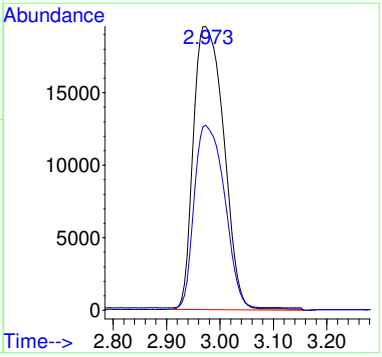


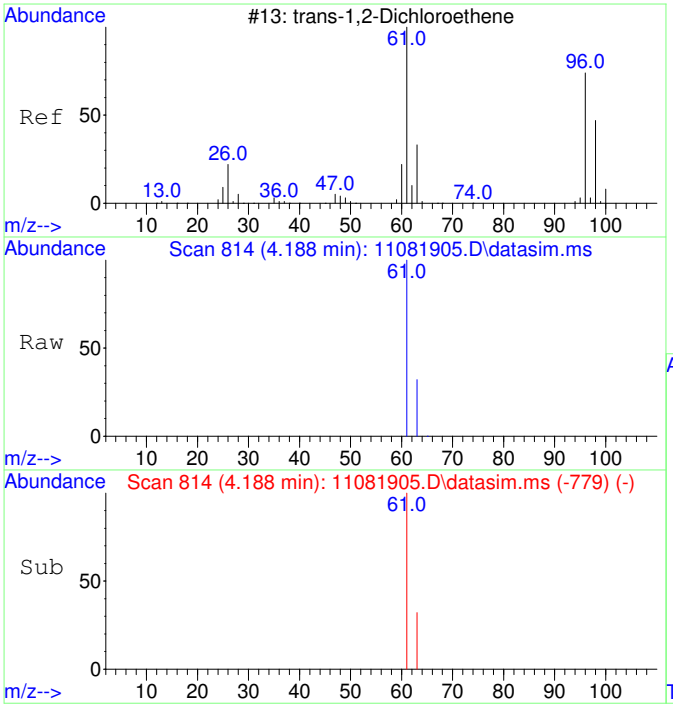


#2
1,1-Dichloroethene
Concen: 3106.76 ug/L
RT: 2.973 min Scan# 582
Delta R.T. 0.015 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 61 Resp: 77292

Ion	Ratio	Lower	Upper
61	100		
96	63.7	31.4	91.4

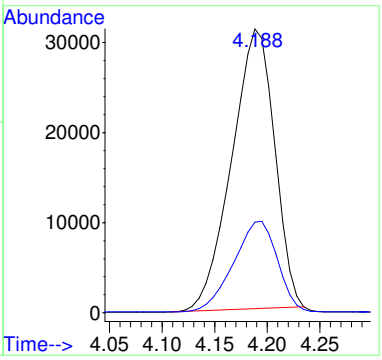


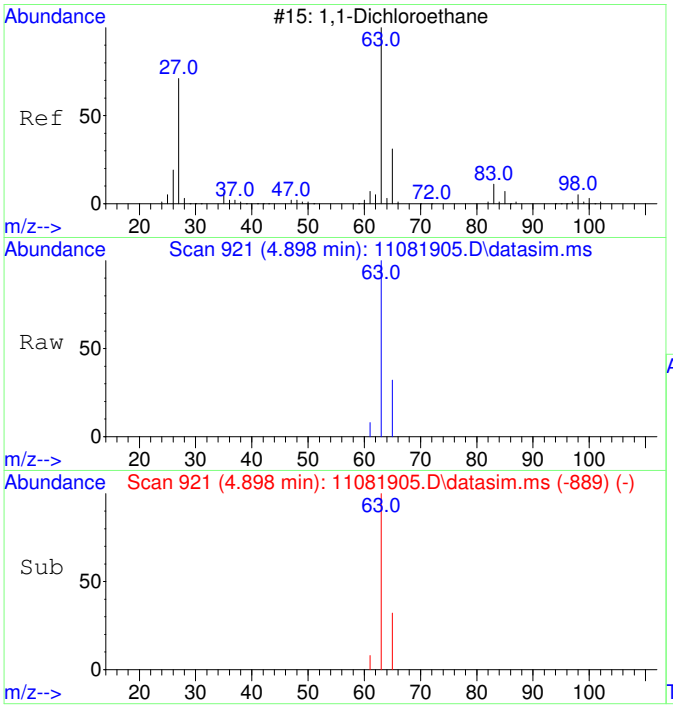


#3
trans-1,2-Dichloroethene
Concen: 4637.63 ug/L
RT: 4.188 min Scan# 814
Delta R.T. 0.079 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 61 Resp: 87976

Ion	Ratio	Lower	Upper
61	100		
63	33.2	2.8	62.8

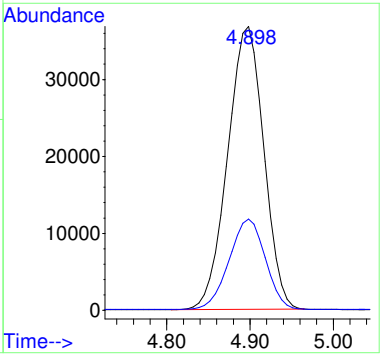


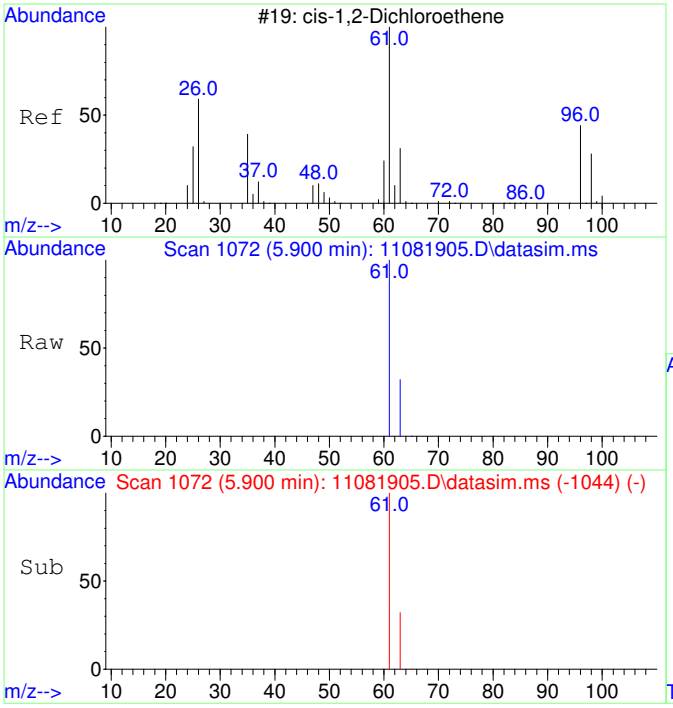


#4
1,1-Dichloroethane
Concen: 4687.62 ug/L
RT: 4.898 min Scan# 921
Delta R.T. 0.060 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 63 Resp: 110931

Ion	Ratio	Lower	Upper
63	100		
65	31.8	1.0	61.0

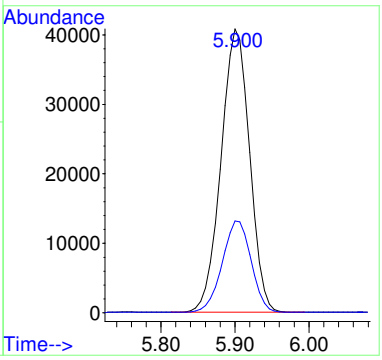


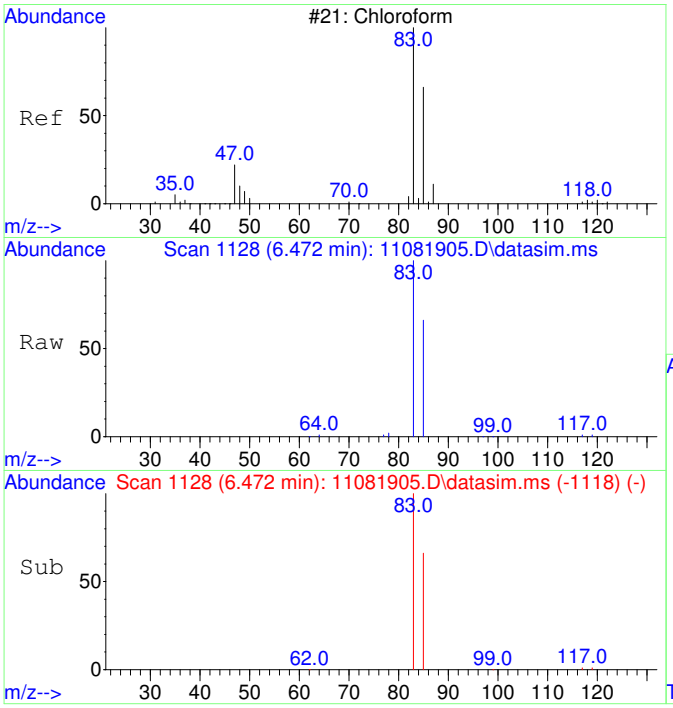


#5
cis-1,2-Dichloroethene
Concen: 4932.61 ug/L
RT: 5.900 min Scan# 1072
Delta R.T. 0.033 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 61 Resp: 109349

Ion	Ratio	Lower	Upper
61	100		
63	32.5	1.4	61.4

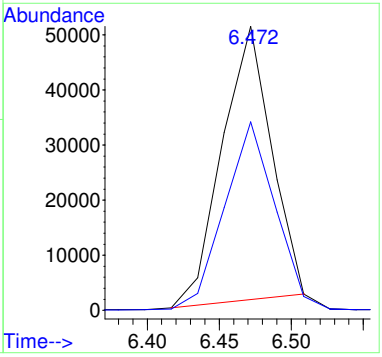


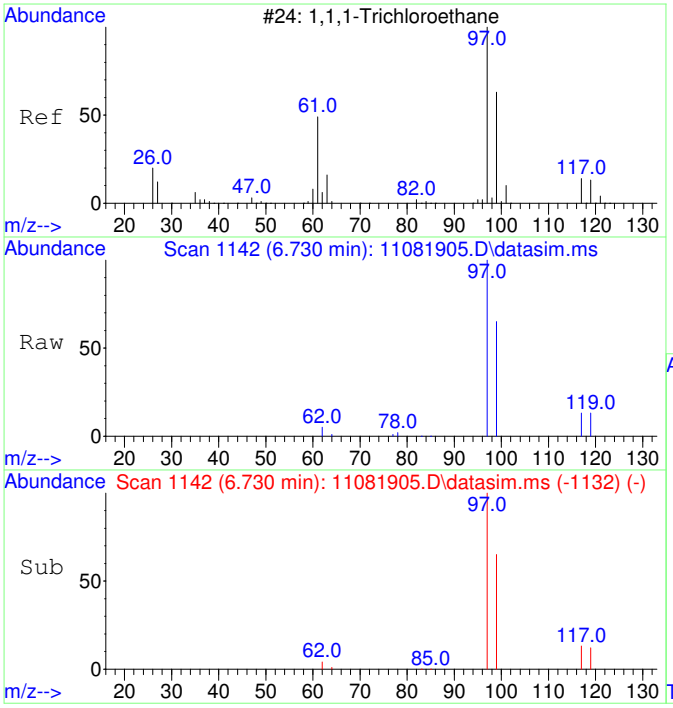


#6
Chloroform
Concen: 4700.92 ug/L
RT: 6.472 min Scan# 1128
Delta R.T. 0.037 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 83 Resp: 119556

Ion	Ratio	Lower	Upper
83	100		
85	70.3	35.8	95.8

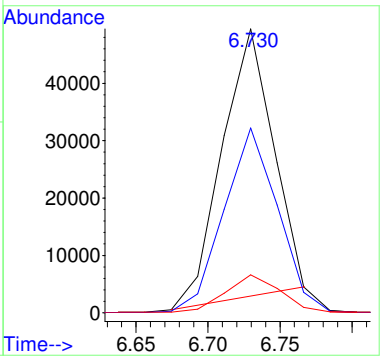


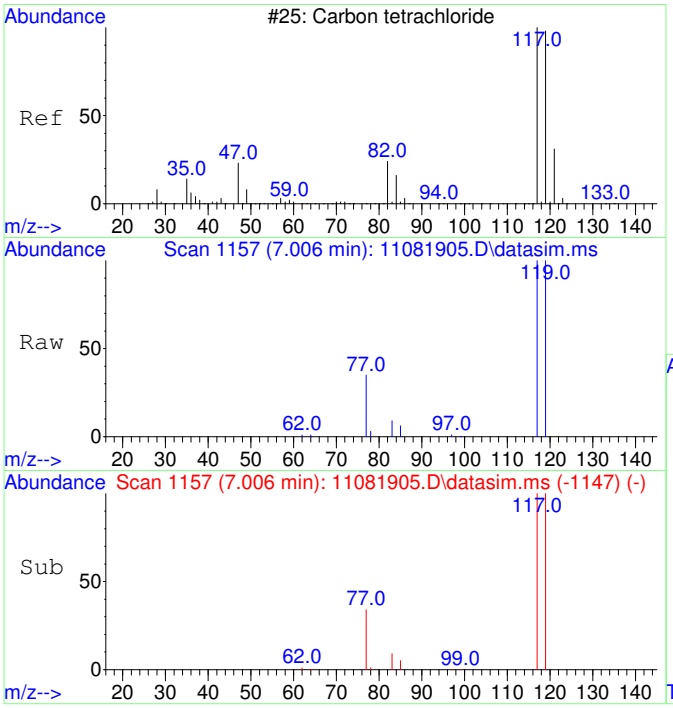


#7
1,1,1-Trichloroethane
Concen: 4660.67 ug/L
RT: 6.730 min Scan# 1142
Delta R.T. 0.037 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 97 Resp: 116279

Ion	Ratio	Lower	Upper
97	100		
99	72.1	32.9	92.9
117	14.7	0.0	43.6

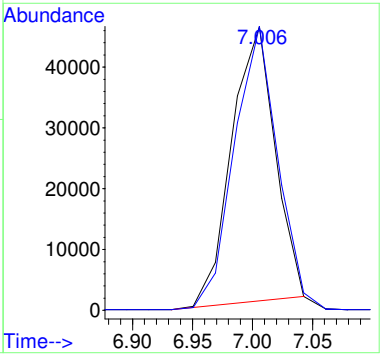


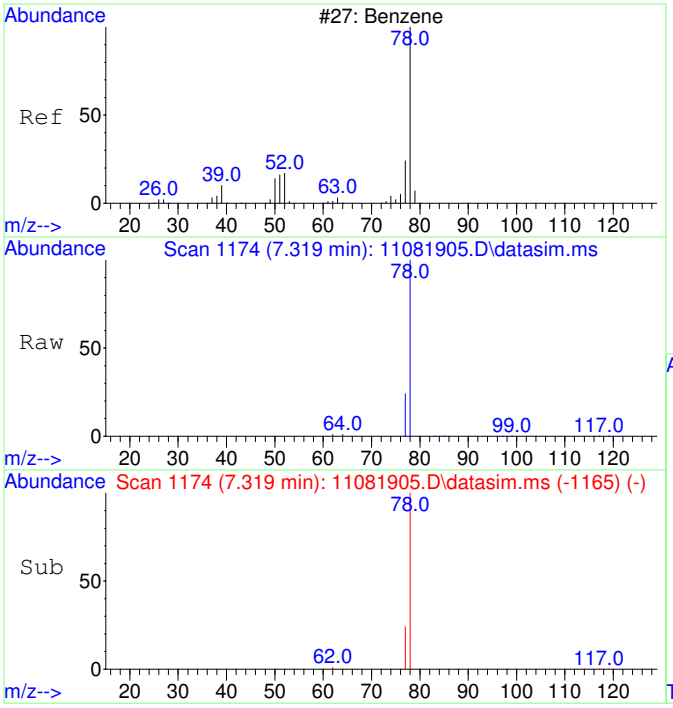


#8
Carbon tetrachloride
Concen: 4942.65 ug/L
RT: 7.006 min Scan# 1157
Delta R.T. 0.037 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:117 Resp: 114742

Ion	Ratio	Lower	Upper
117	100		
119	103.1	68.1	128.1

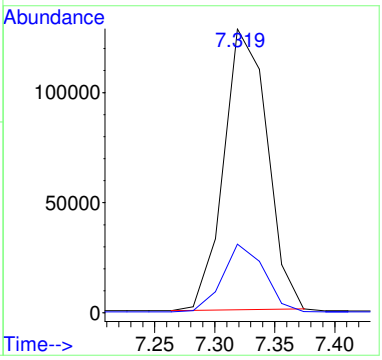


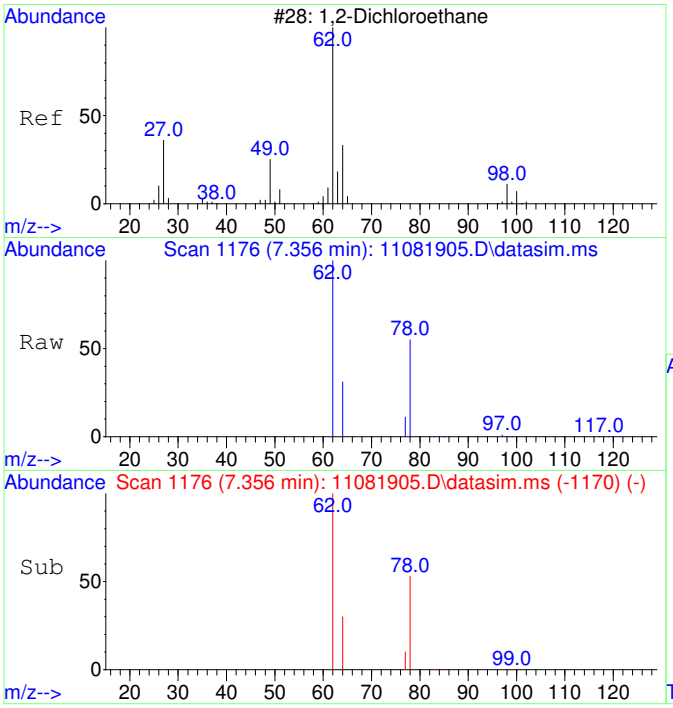


#9
Benzene
Concen: 5107.41 ug/L
RT: 7.319 min Scan# 1174
Delta R.T. 0.018 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 78 Resp: 321800

Ion	Ratio	Lower	Upper
78	100		
77	23.1	0.0	53.7

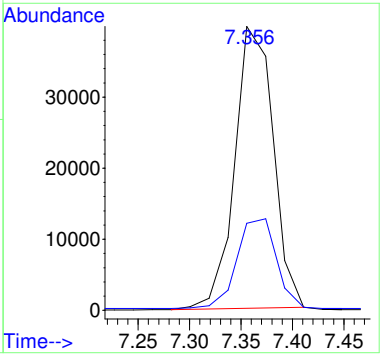


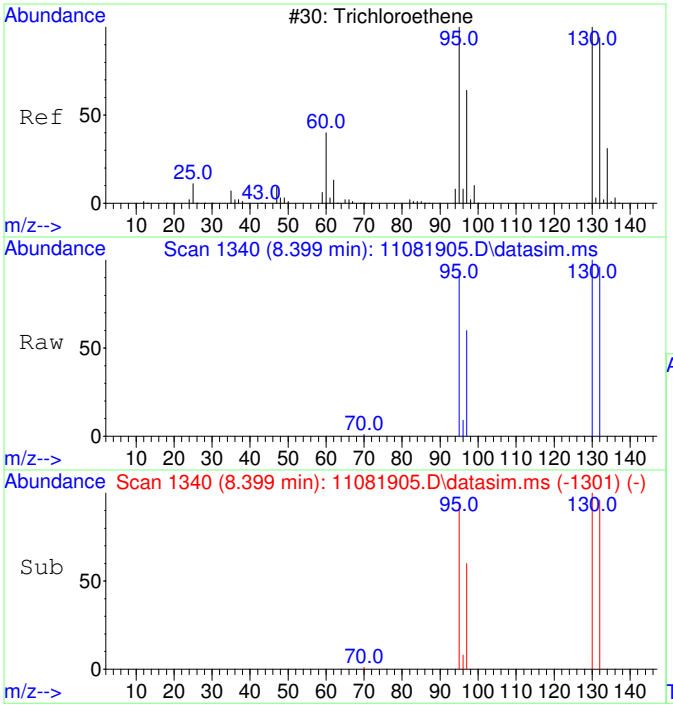


#10
1,2-Dichloroethane
Concen: 5120.57 ug/L
RT: 7.356 min Scan# 1176
Delta R.T. 0.018 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 62 Resp: 103495

Ion	Ratio	Lower	Upper
62	100		
64	32.6	3.5	63.5

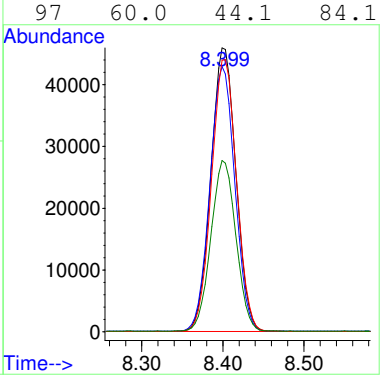


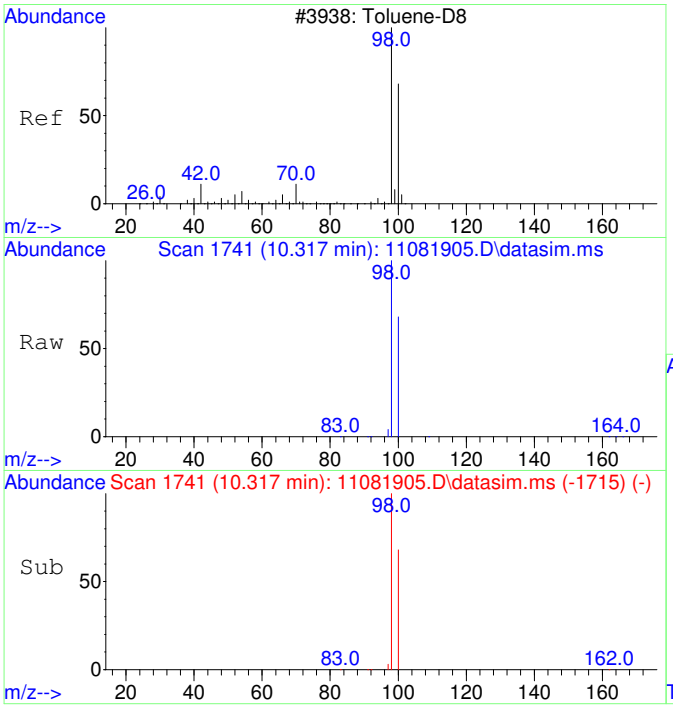


#11
Trichloroethene
Concen: 5154.86 ug/L
RT: 8.399 min Scan# 1340
Delta R.T. 0.012 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:130 Resp: 98497

Ion	Ratio	Lower	Upper
130	100		
95	93.1	70.1	130.1
132	96.0	74.3	114.3
97	60.0	44.1	84.1

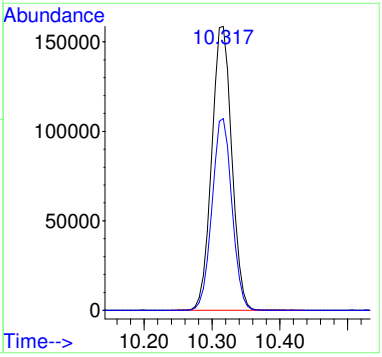


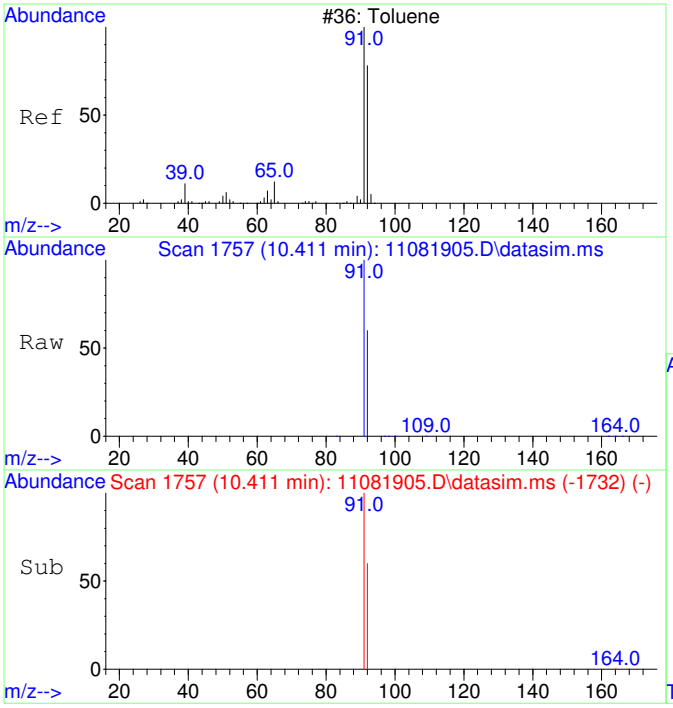


#12
Toluene-d8
Concen: 5044.65 ug/L
RT: 10.317 min Scan# 1741
Delta R.T. 0.006 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 98 Resp: 326037

Ion	Ratio	Lower	Upper
98	100		
100	66.9	38.4	98.4

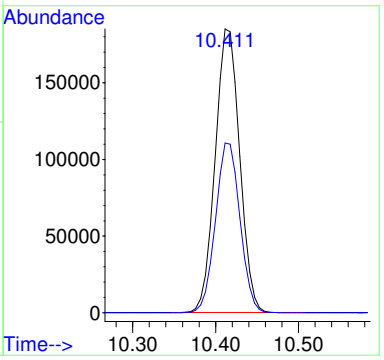


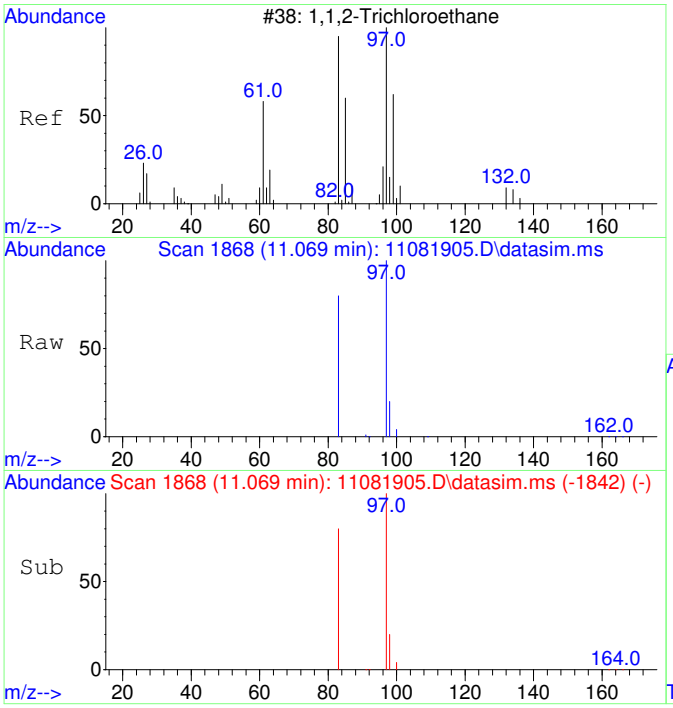


#13
Toluene
Concen: 4845.12 ug/L
RT: 10.411 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 379582

Ion	Ratio	Lower	Upper
91	100		
92	59.8	47.7	107.7

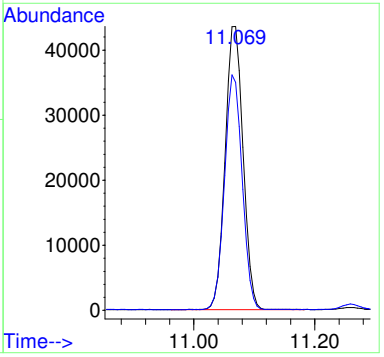


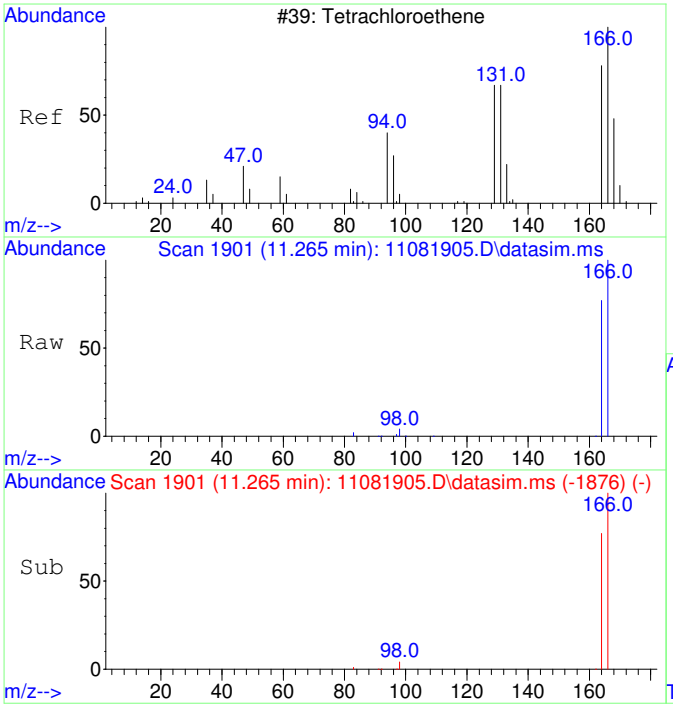


#14
1,1,2-Trichloroethane
Concen: 4915.26 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. 0.006 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 97 Resp: 89073

Ion	Ratio	Lower	Upper
97	100		
83	81.7	65.0	125.0

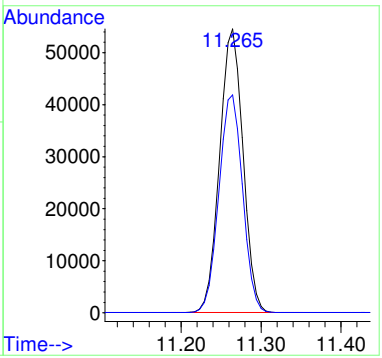


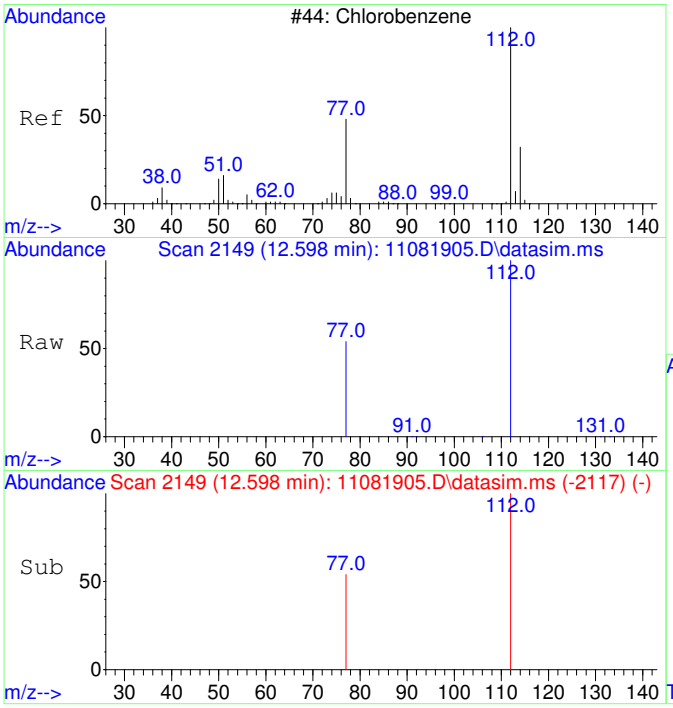


#15
Tetrachloroethene
Concen: 4865.96 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:166 Resp: 110822

Ion	Ratio	Lower	Upper
166	100		
164	77.8	47.9	107.9

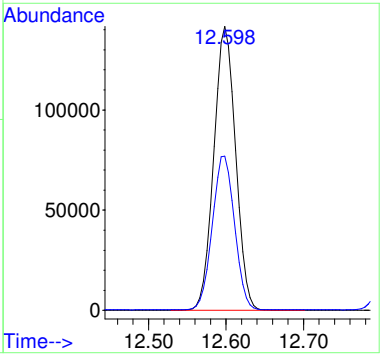


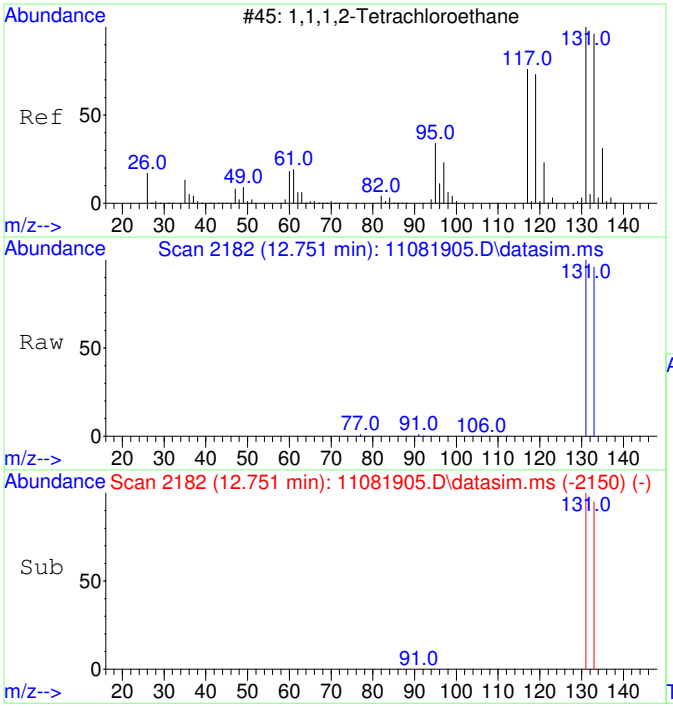


#16
Chlorobenzene
Concen: 4767.91 ug/L
RT: 12.598 min Scan# 2149
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:112 Resp: 277285

Ion	Ratio	Lower	Upper
112	100		
77	55.2	18.3	78.3

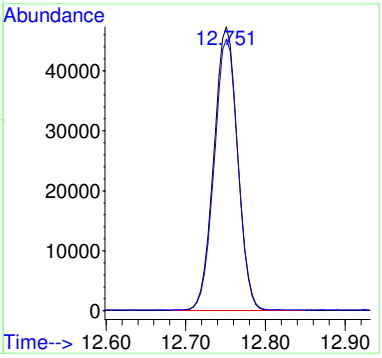


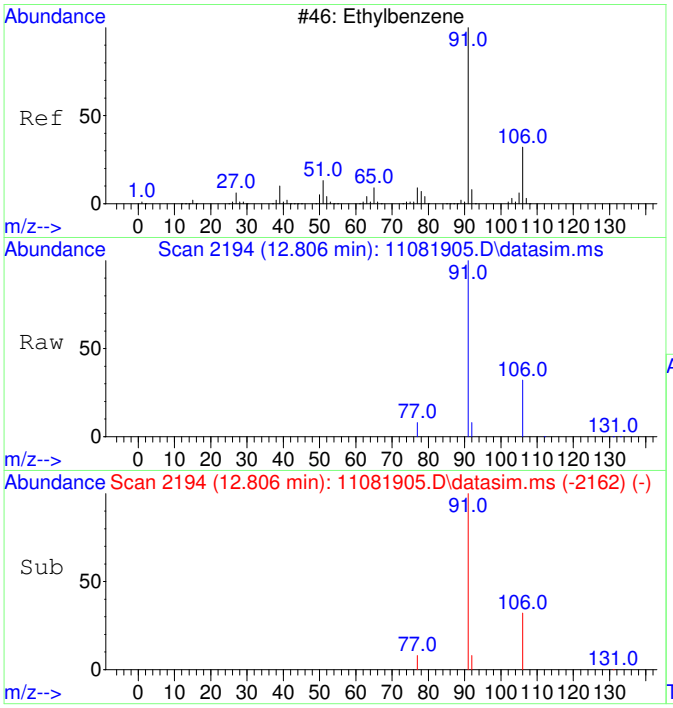


#17
1,1,1,2-Tetrachloroethane
Concen: 4651.31 ug/L
RT: 12.751 min Scan# 2182
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:131 Resp: 97347

Ion	Ratio	Lower	Upper
131	100		
133	95.8	66.1	126.1

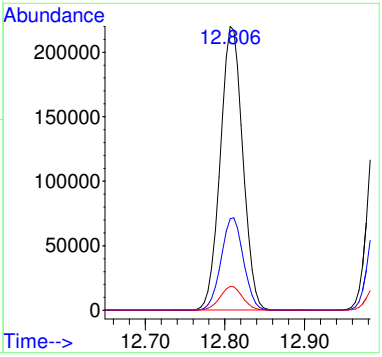


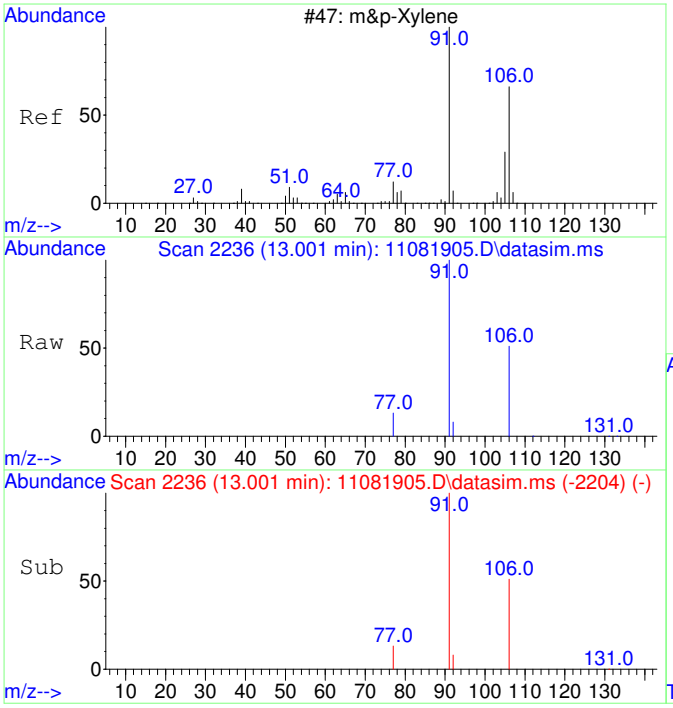


#18
Ethylbenzene
Concen: 4515.66 ug/L
RT: 12.806 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 429827

Ion	Ratio	Lower	Upper
91	100		
106	32.5	2.3	62.3
77	8.3	0.0	38.6

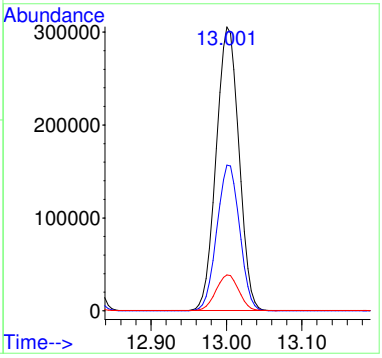


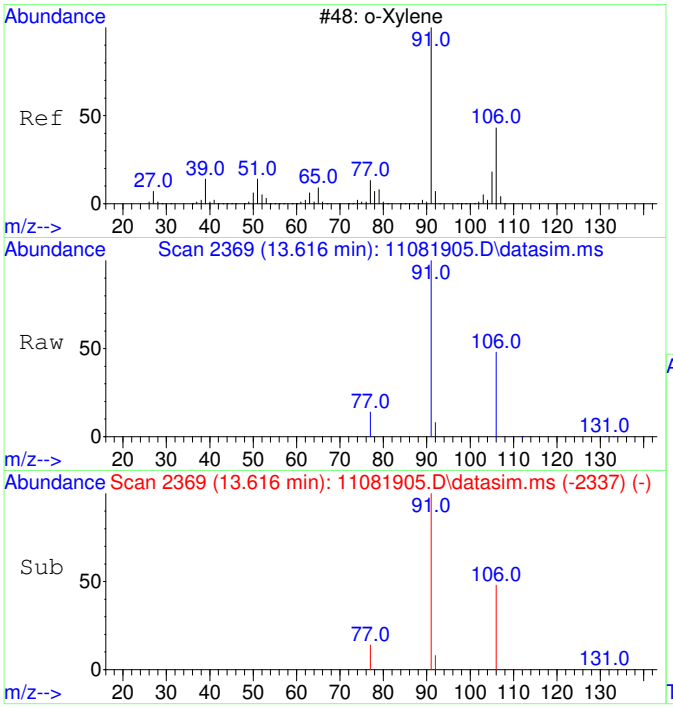


#19
m&p-Xylene
Concen: 8871.58 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 639383

Ion	Ratio	Lower	Upper
91	100		
106	51.3	35.9	95.9
77	12.6	0.0	41.9

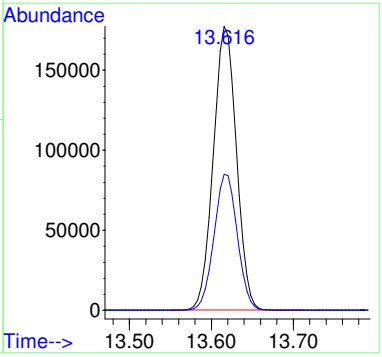


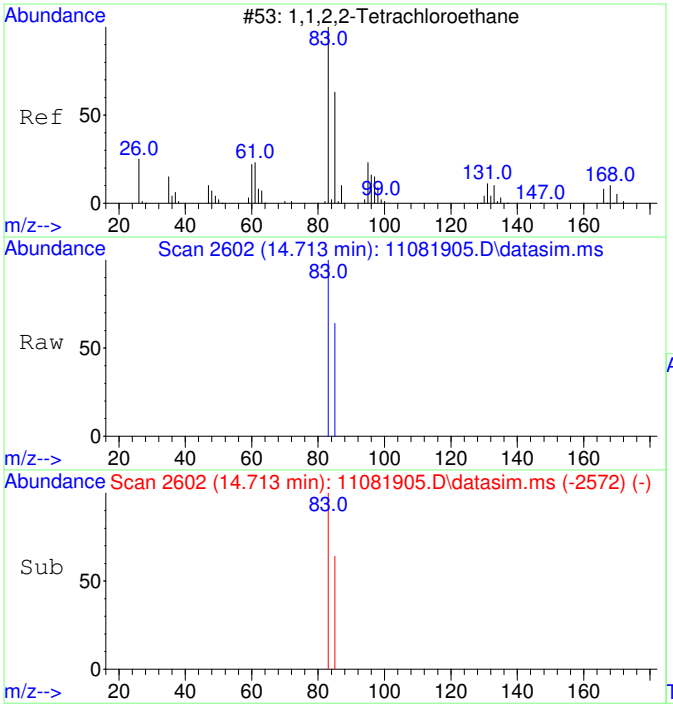


#20
o-Xylene
Concen: 4496.42 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 345851

Ion	Ratio	Lower	Upper
91	100		
106	48.4	13.0	73.0

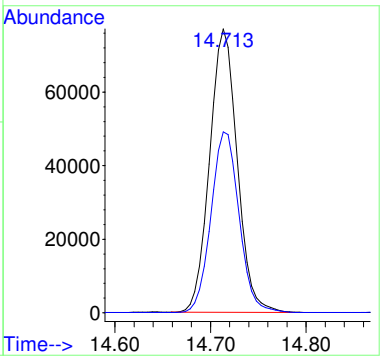


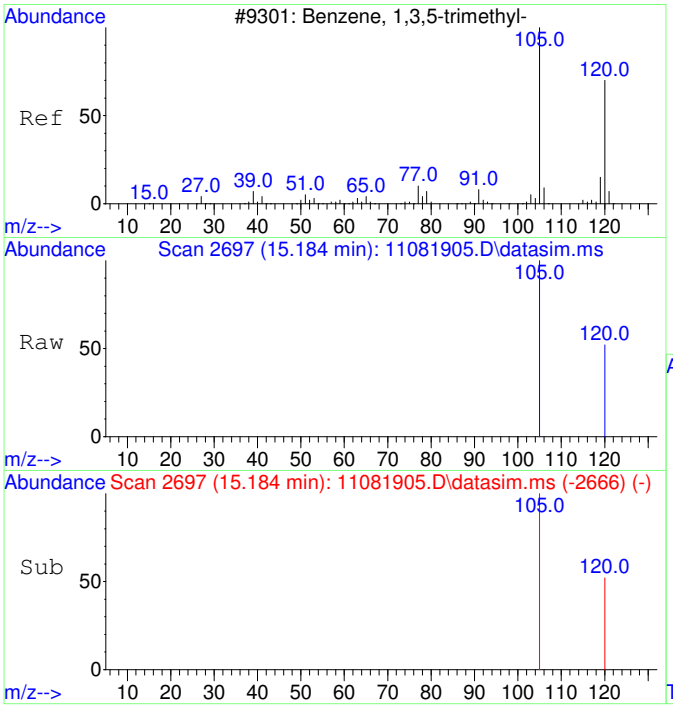


#21
1,1,2,2-Tetrachloroethane
Concen: 4519.79 ug/L
RT: 14.713 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 83 Resp: 154230

Ion	Ratio	Lower	Upper
83	100		
85	64.8	32.7	92.7

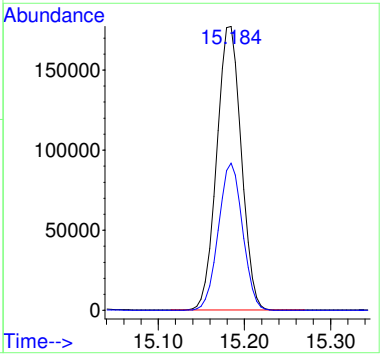


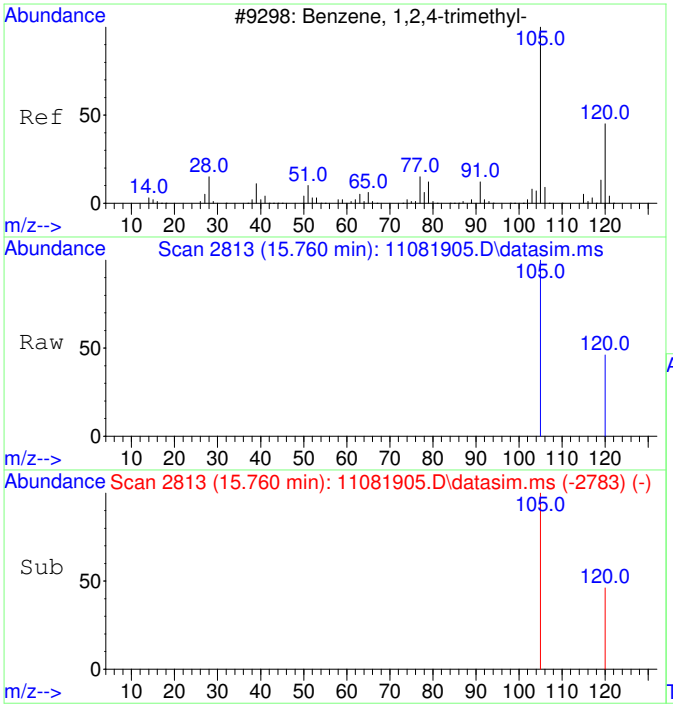


#22
1,3,5-Trimethylbenzene
Concen: 4248.07 ug/L
RT: 15.184 min Scan# 2697
Delta R.T. 0.005 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:105 Resp: 349467

Ion	Ratio	Lower	Upper
105	100		
120	51.0	20.1	80.1

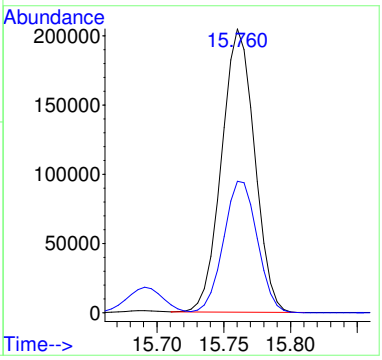


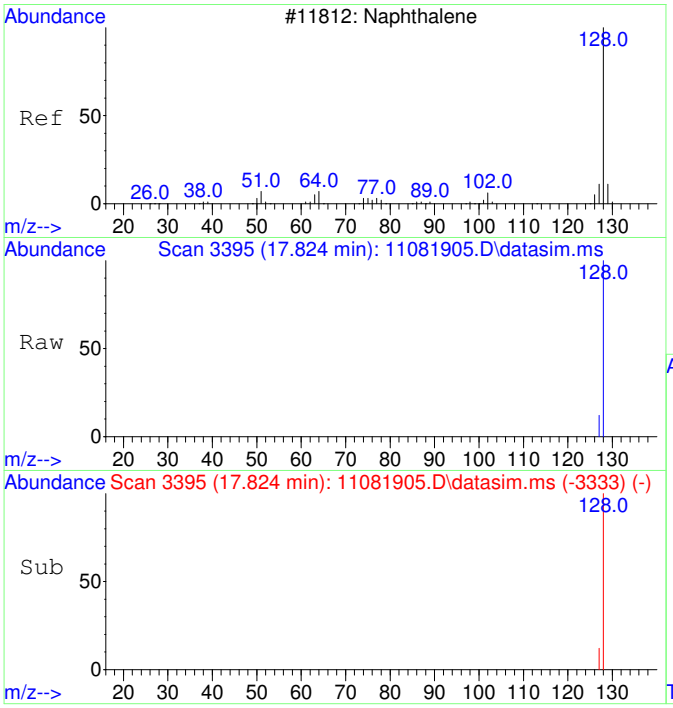


#23
1,2,4-Trimethylbenzene
Concen: 4194.34 ug/L
RT: 15.760 min Scan# 2813
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:105 Resp: 351391

Ion	Ratio	Lower	Upper
105	100		
120	46.8	15.2	75.2

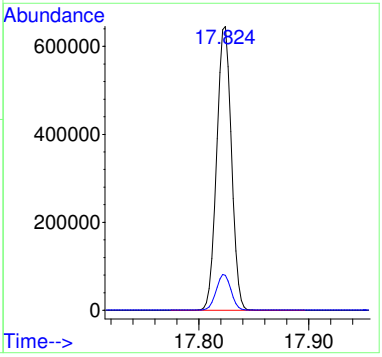


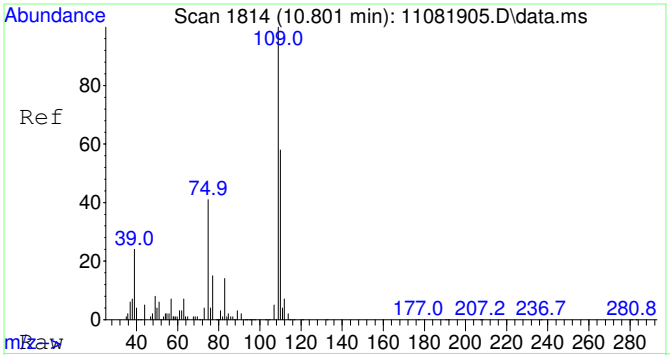


#24
Naphthalene
Concen: 4172.71 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. 0.002 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:128 Resp: 602738

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	40.7

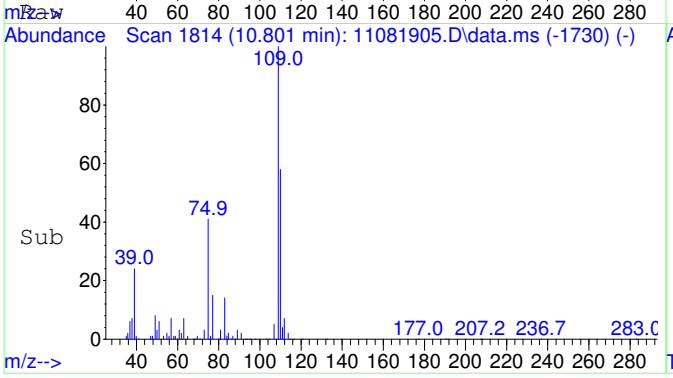


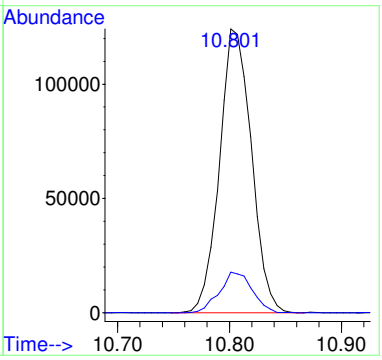


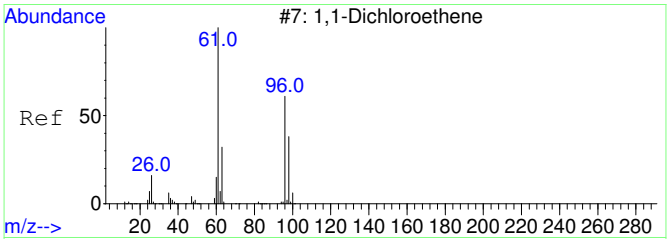
#25
2-Fluorotoluene SCAN
Concen: 4949.71 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:109 Resp: 246609

Ion	Ratio	Lower	Upper
109	100		
83	14.8	0.0	42.8



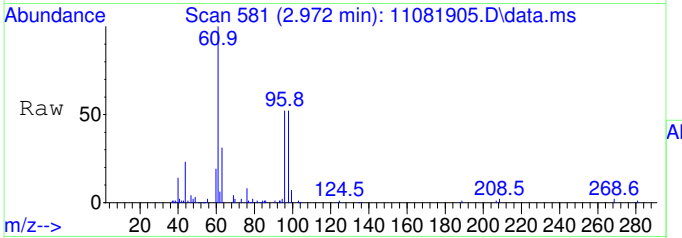


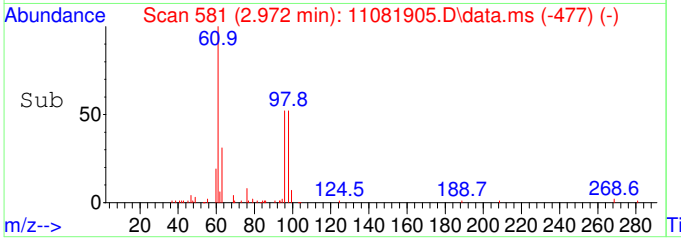


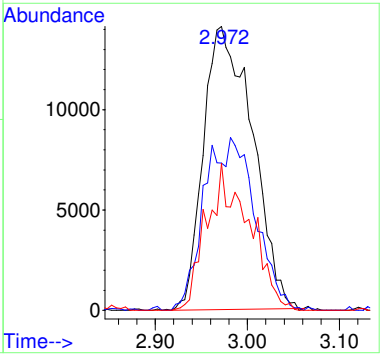
#26
1,1-Dichloroethene SCAN
Concen: 3134.73 ug/L
RT: 2.972 min Scan# 581
Delta R.T. 0.015 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

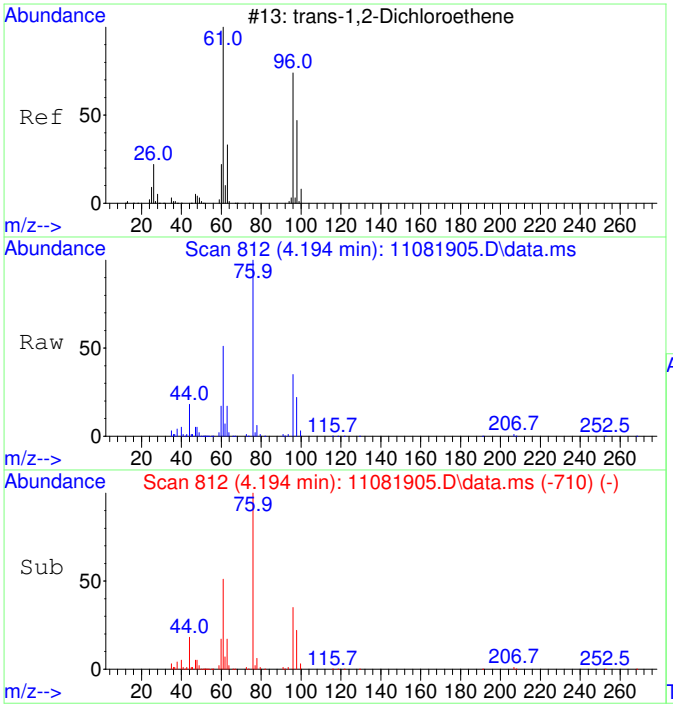
Tgt Ion: 61 Resp: 52142

Ion	Ratio	Lower	Upper
61	100		
96	63.6	32.2	92.2
98	44.7	12.8	72.8





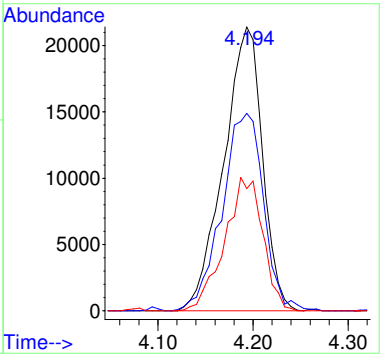


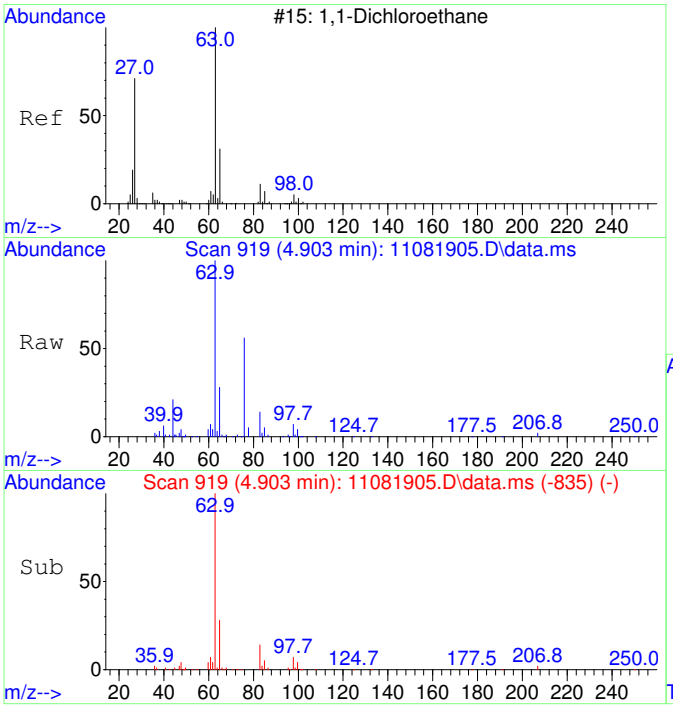


#27
trans-1,2-Dichloroethene SCAN
Concen: 3808.87 ug/L
RT: 4.194 min Scan# 812
Delta R.T. 0.079 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 61 Resp: 60950

Ion	Ratio	Lower	Upper
61	100		
96	74.7	41.8	101.8
98	46.2	19.2	79.2

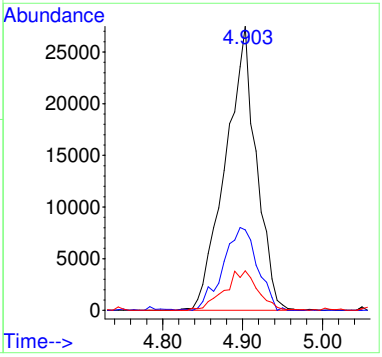


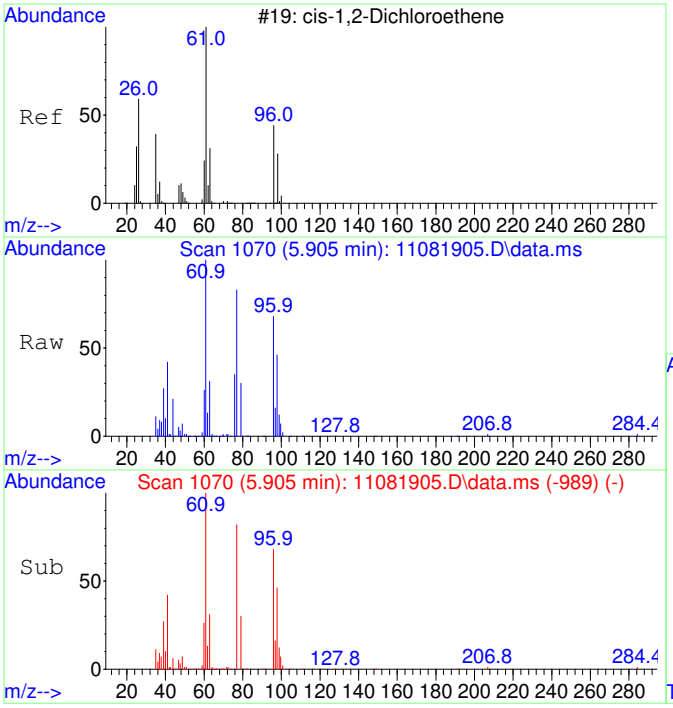


#28
1,1-Dichloroethane SCAN
Concen: 3509.04 ug/L
RT: 4.903 min Scan# 919
Delta R.T. 0.060 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 63 Resp: 73553

Ion	Ratio	Lower	Upper
63	100		
65	32.7	5.1	65.1
83	15.2	0.0	44.9

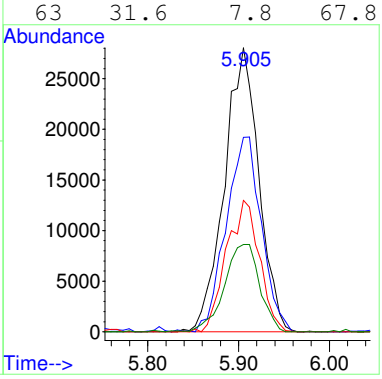


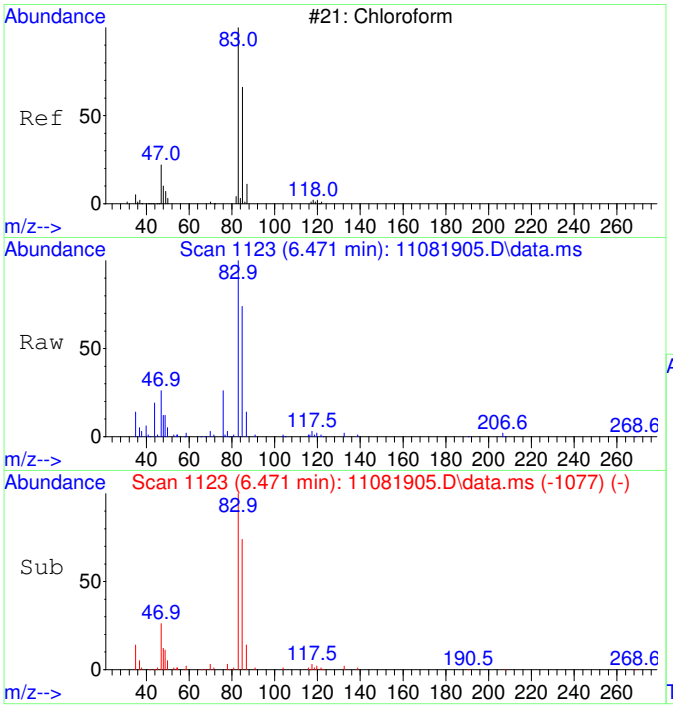


#29
cis-1,2-Dichloroethene SCAN
Concen: 4089.41 ug/L
RT: 5.905 min Scan# 1070
Delta R.T. 0.040 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 61 Resp: 74006

Ion	Ratio	Lower	Upper
61	100		
96	69.8	32.9	92.9
98	44.4	14.3	74.3
63	31.6	7.8	67.8

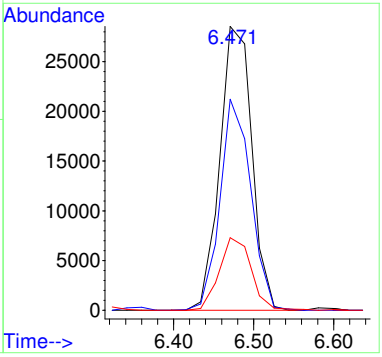


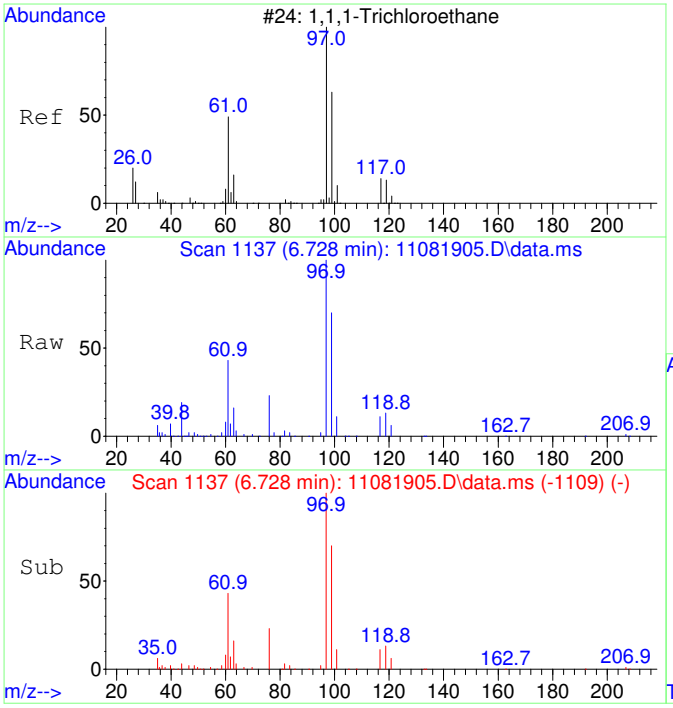


#30
Chloroform SCAN
Concen: 3974.21 ug/L
RT: 6.471 min Scan# 1123
Delta R.T. 0.018 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 83 Resp: 80118

Ion	Ratio	Lower	Upper
83	100		
85	71.3	39.1	99.1
47	25.7	0.0	53.1

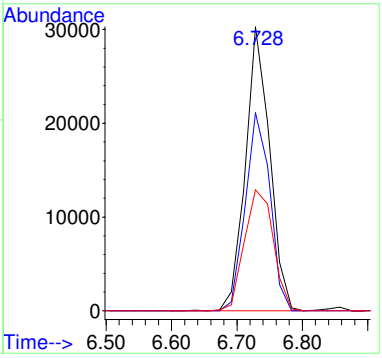


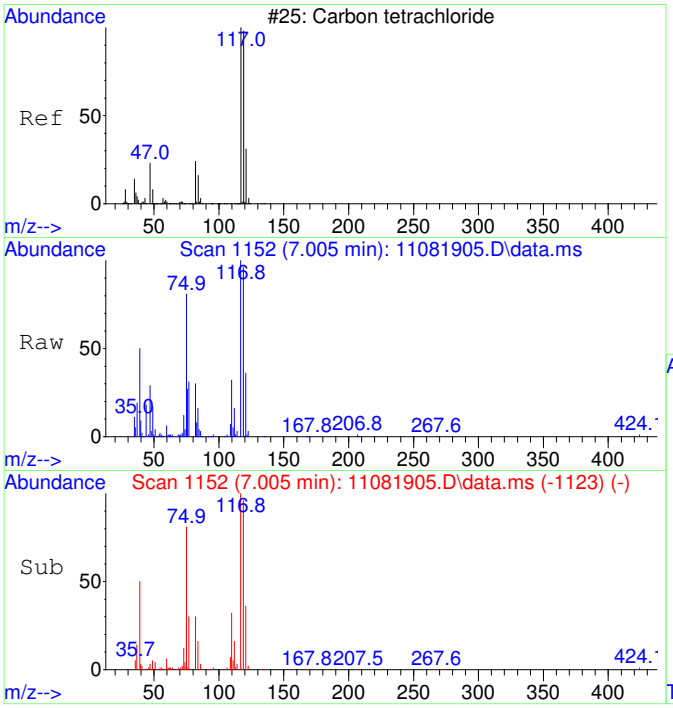


#31
1,1,1-Trichloroethane SCAN
Concen: 4440.32 ug/L
RT: 6.728 min Scan# 1137
Delta R.T. 0.018 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 97 Resp: 78137

Ion	Ratio	Lower	Upper
97	100		
99	70.7	32.6	92.6
61	50.6	9.4	69.4

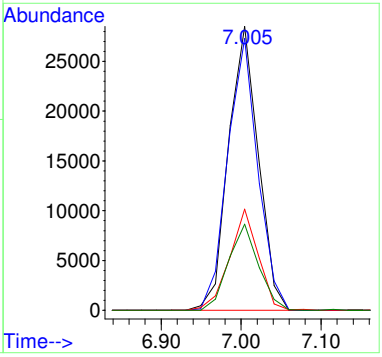


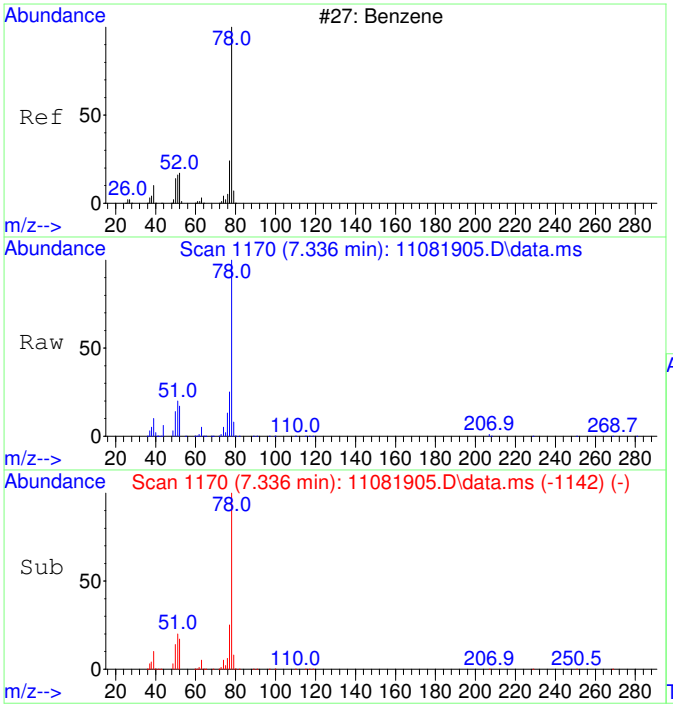


#32
Carbon tetrachloride SCAN
Concen: 4509.79 ug/L
RT: 7.005 min Scan# 1152
Delta R.T. 0.037 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:117 Resp: 74382

Ion	Ratio	Lower	Upper
117	100		
119	96.8	63.7	123.7
121	34.6	4.6	64.6
82	30.7	0.0	55.3

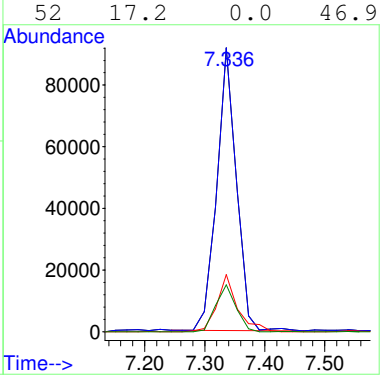


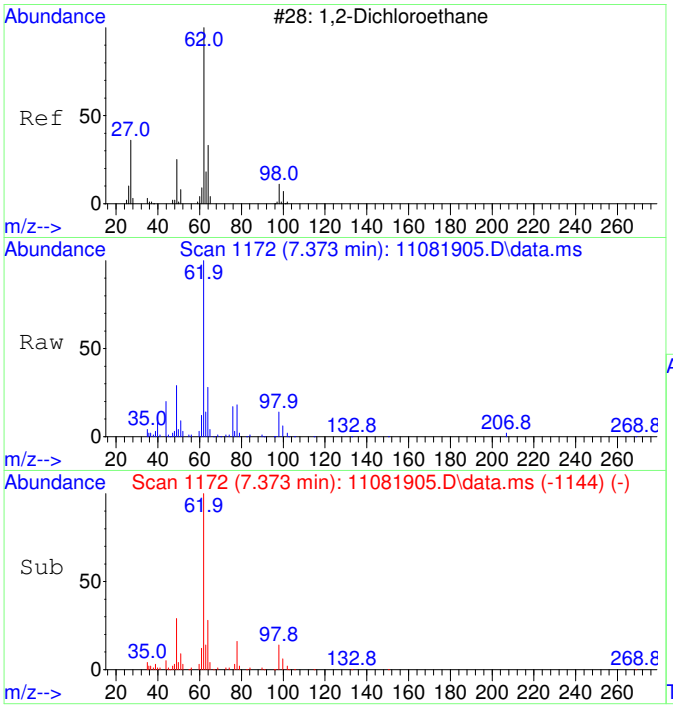


#33
Benzene SCAN
Concen: 4724.19 ug/L
RT: 7.336 min Scan# 1170
Delta R.T. 0.018 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 78 Resp: 208935

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	21.2	0.0	49.2
52	17.2	0.0	46.9

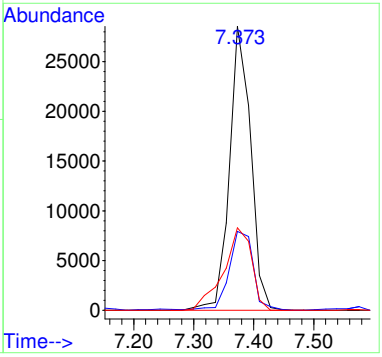


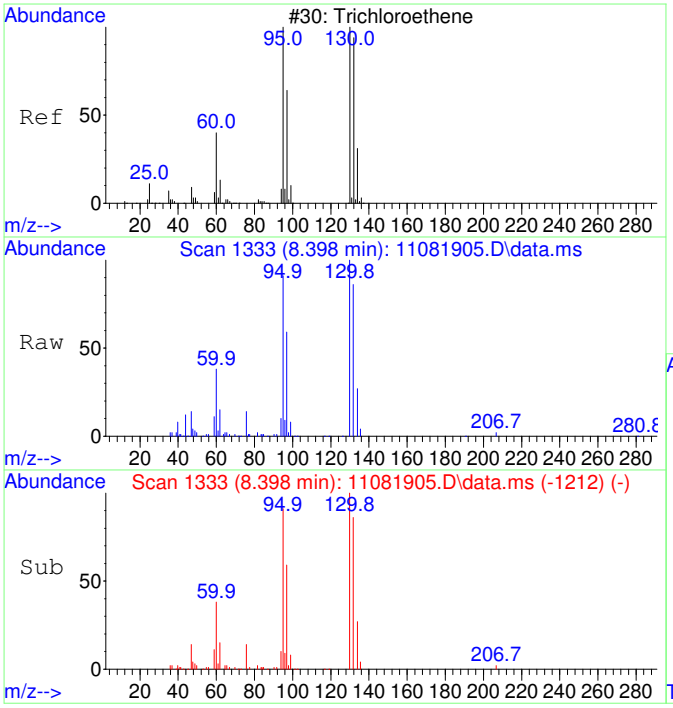


#34
1,2-Dichloroethane SCAN
Concen: 4244.43 ug/L
RT: 7.373 min Scan# 1172
Delta R.T. 0.018 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 62 Resp: 70030

Ion	Ratio	Lower	Upper
62	100		
64	31.4	3.3	63.3
49	38.7	0.8	60.8

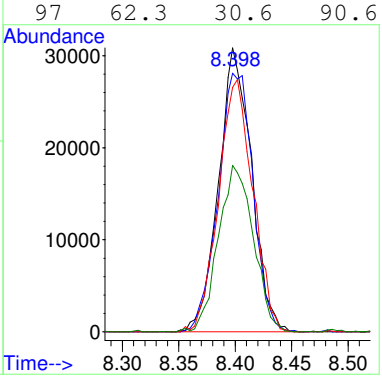


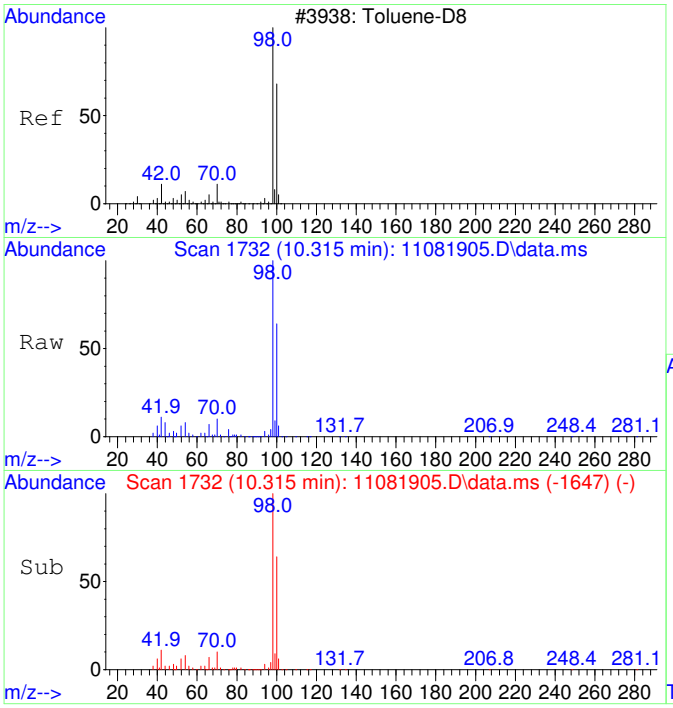


#35
Trichloroethene SCAN
Concen: 4823.57 ug/L
RT: 8.398 min Scan# 1333
Delta R.T. 0.008 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:130 Resp: 62540

Ion	Ratio	Lower	Upper
130	100		
95	96.4	61.4	121.4
132	92.6	75.5	135.5
97	62.3	30.6	90.6

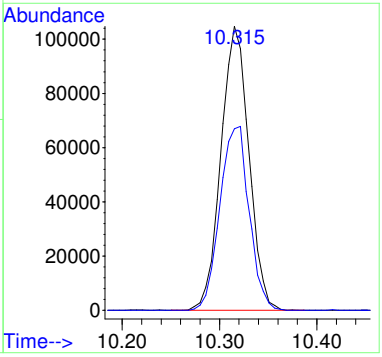


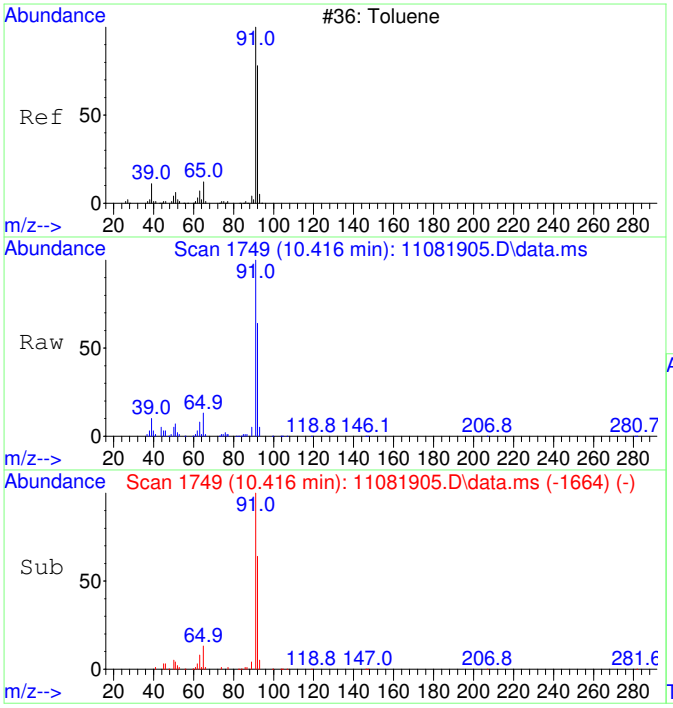


#36
Toluene-d8 SCAN
Concen: 5153.14 ug/L
RT: 10.315 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 98 Resp: 208801

Ion	Ratio	Lower	Upper
98	100		
100	67.7	32.2	92.2

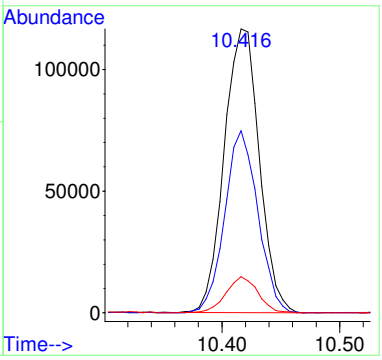


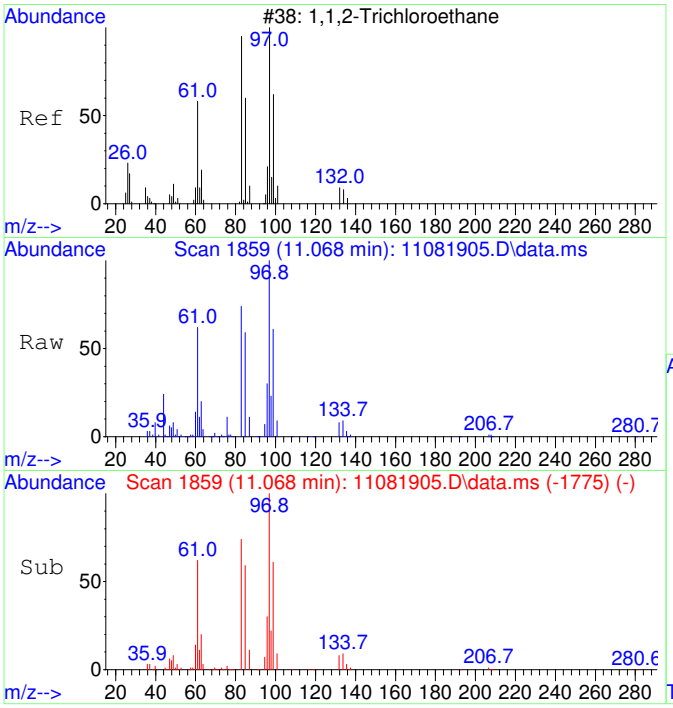


#37
Toluene SCAN
Concen: 4833.84 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.006 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 241493

Ion	Ratio	Lower	Upper
91	100		
92	60.6	34.3	94.3
65	11.7	0.0	45.2

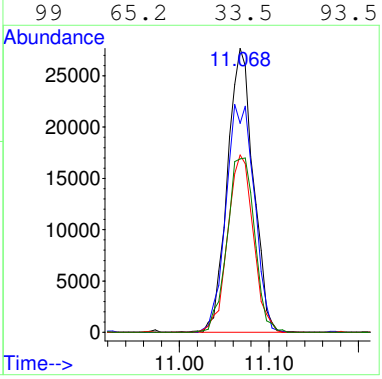


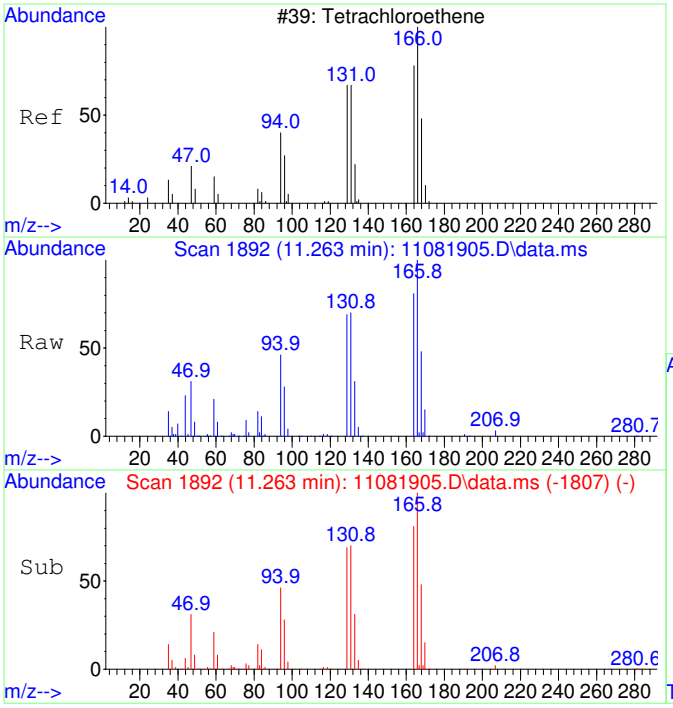


#38
1,1,2-Trichloroethane SCAN
Concen: 4891.69 ug/L
RT: 11.068 min Scan# 1859
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 97 Resp: 55735

Ion	Ratio	Lower	Upper
97	100		
83	87.9	73.8	133.8
61	61.7	38.9	98.9
99	65.2	33.5	93.5

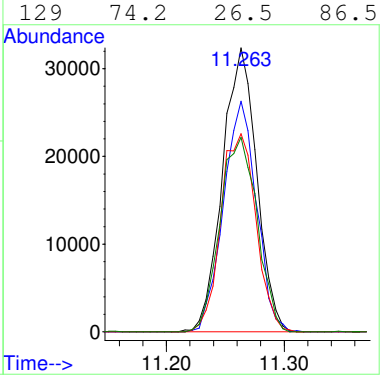


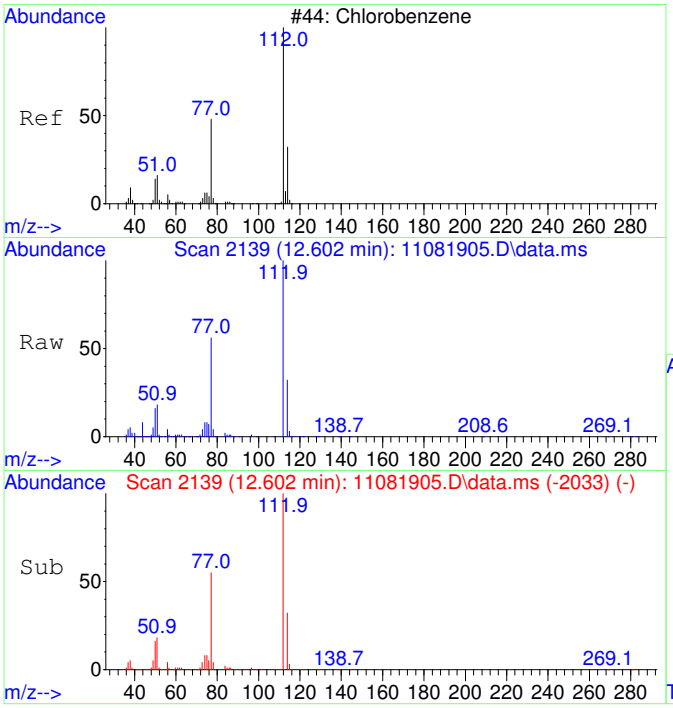


#39
Tetrachloroethene SCAN
Concen: 4921.86 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. 0.006 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:166 Resp: 65281

Ion	Ratio	Lower	Upper
166	100		
164	78.5	41.7	101.7
131	71.8	36.7	96.7
129	74.2	26.5	86.5

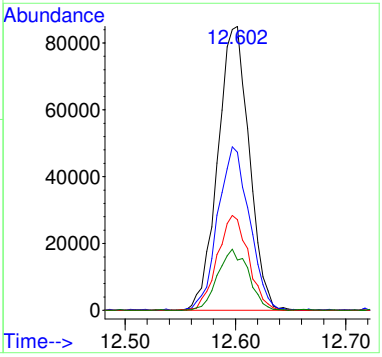


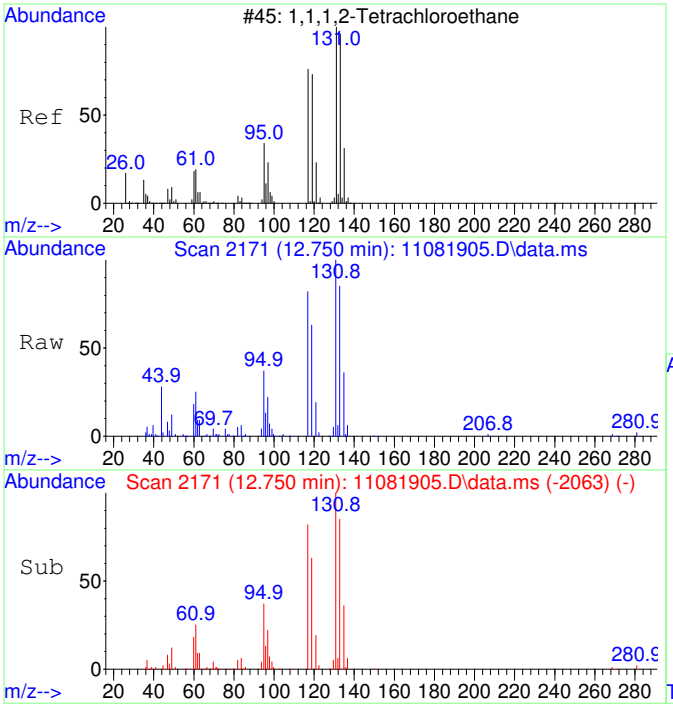


#40
Chlorobenzene SCAN
Concen: 4951.62 ug/L
RT: 12.602 min Scan# 2139
Delta R.T. 0.004 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:112 Resp: 167736

Ion	Ratio	Lower	Upper
112	100		
77	58.1	22.8	82.8
114	33.1	3.9	63.9
51	21.2	0.0	48.2

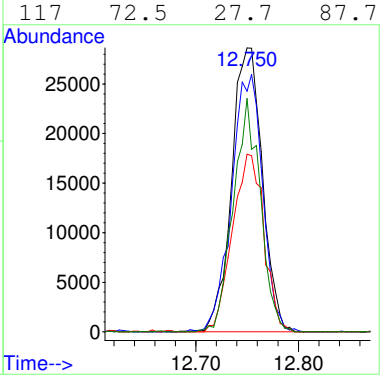


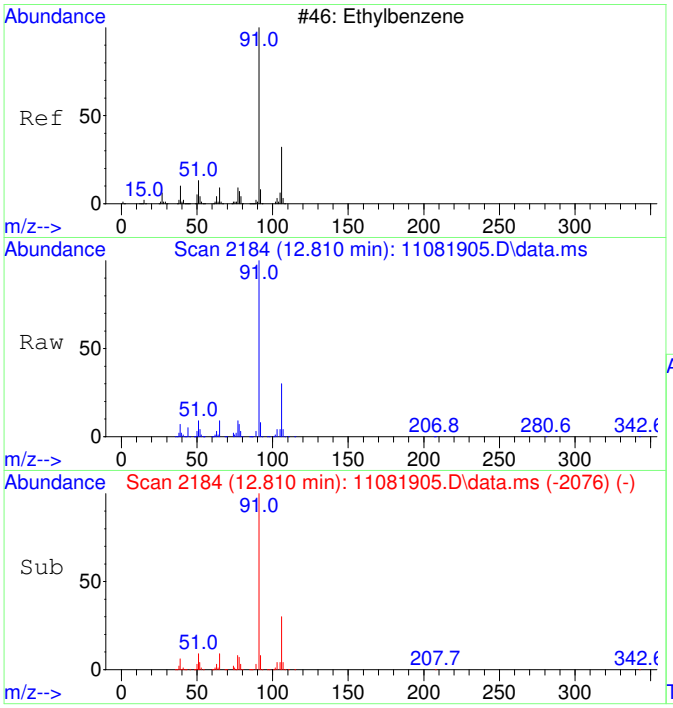


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 4909.90 ug/L
RT: 12.750 min Scan# 2171
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:131 Resp: 59750

Ion	Ratio	Lower	Upper
131	100		
133	91.4	72.3	132.3
119	63.8	28.1	88.1
117	72.5	27.7	87.7

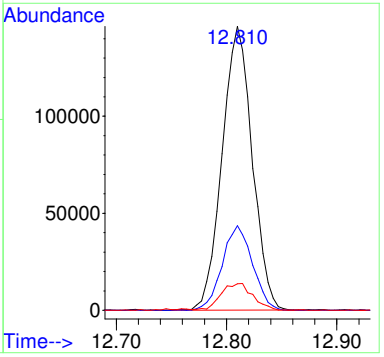


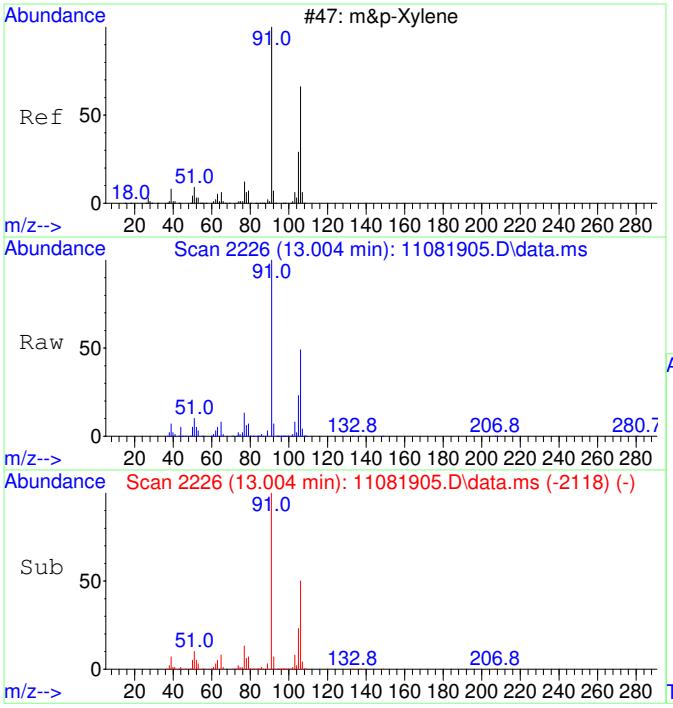


#42
Ethylbenzene SCAN
Concen: 4860.36 ug/L
RT: 12.810 min Scan# 2184
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 276348

Ion	Ratio	Lower	Upper
91	100		
106	30.0	3.6	63.6
51	9.8	0.0	41.2

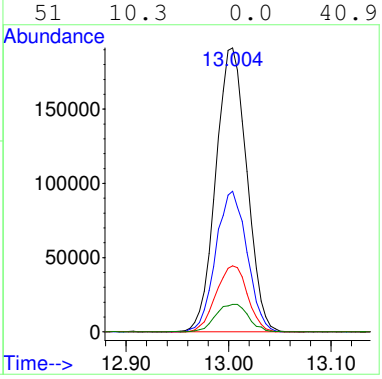


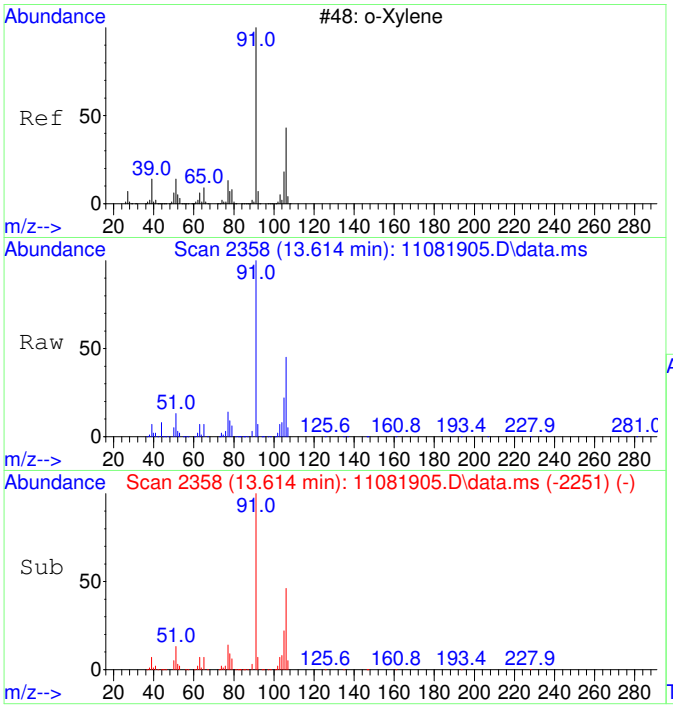


#43
m&p-Xylene SCAN
Concen: 4919.07 ug/L
RT: 13.004 min Scan# 2226
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 401257

Ion	Ratio	Lower	Upper
91	100		
106	50.0	22.9	82.9
105	23.7	0.0	55.8
51	10.3	0.0	40.9

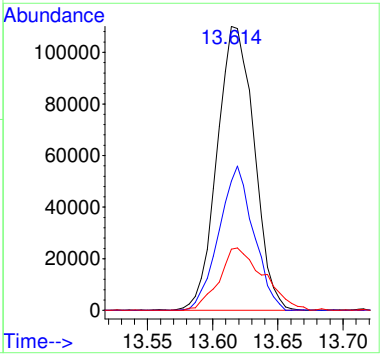


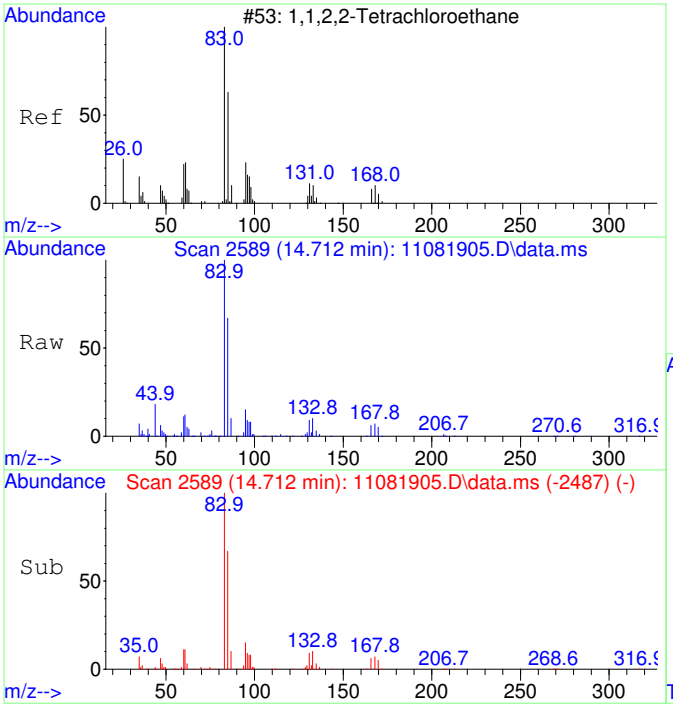


#44
o-Xylene SCAN
Concen: 5018.80 ug/L
RT: 13.614 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 91 Resp: 217710

Ion	Ratio	Lower	Upper
91	100		
106	47.6	17.0	77.0
105	26.2	0.0	47.3

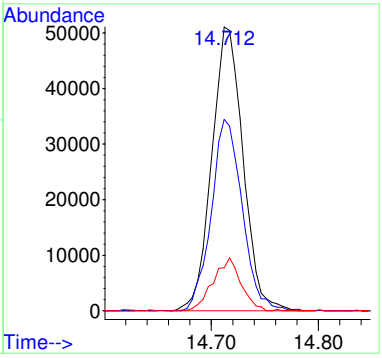


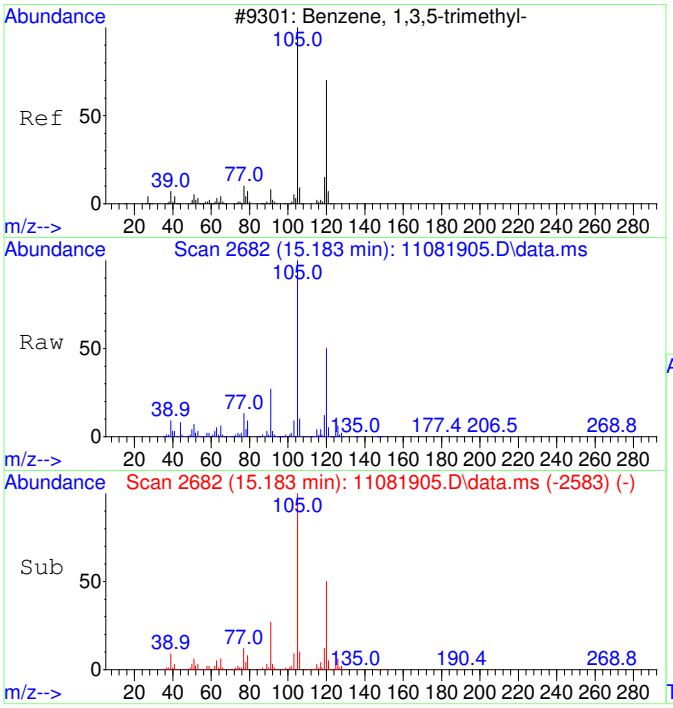


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 4925.42 ug/L
RT: 14.712 min Scan# 2589
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion: 83 Resp: 103744

Ion	Ratio	Lower	Upper
83	100		
85	66.7	33.6	93.6
95	16.7	0.0	50.6

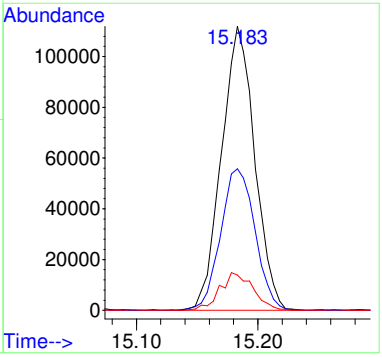


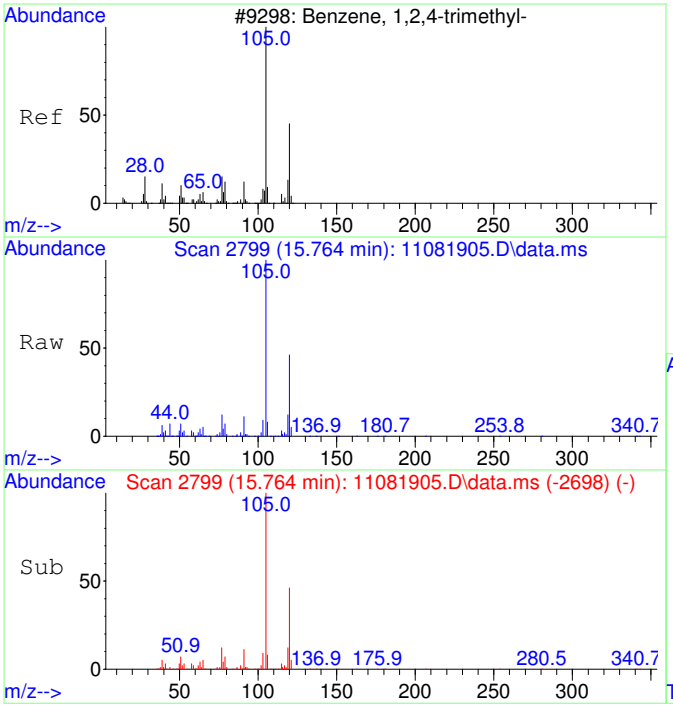


#46
1,3,5-Trimethylbenzene SCAN
Concen: 4829.55 ug/L
RT: 15.183 min Scan# 2682
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:105 Resp: 213169

Ion	Ratio	Lower	Upper
105	100		
120	51.6	19.2	79.2
119	13.3	0.0	43.3

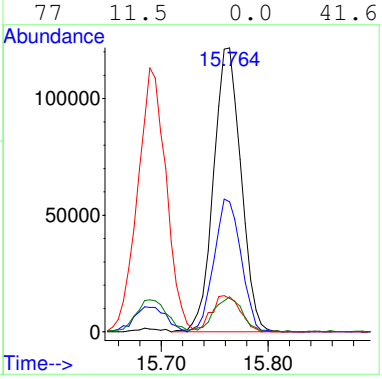


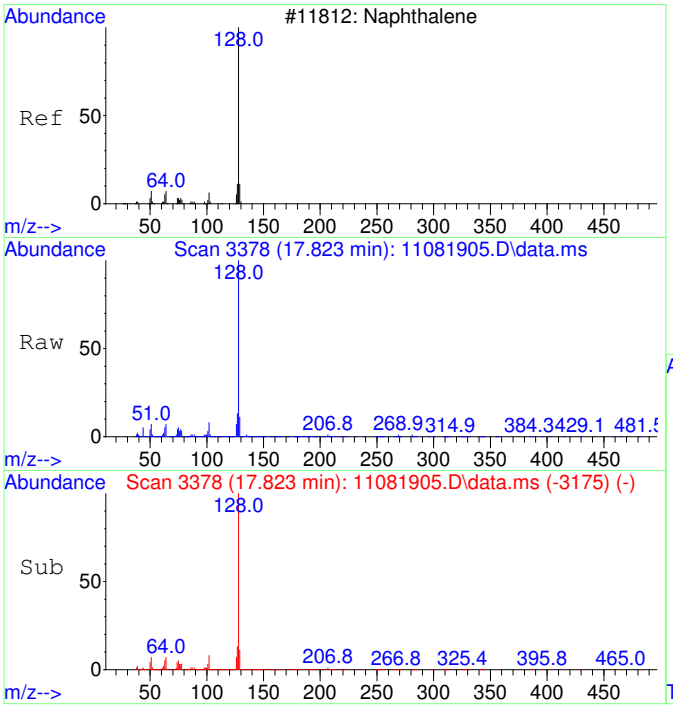


#47
1,2,4-Trimethylbenzene SCAN
Concen: 5001.98 ug/L
RT: 15.764 min Scan# 2799
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:105 Resp: 217318

Ion	Ratio	Lower	Upper
105	100		
120	46.1	15.6	75.6
119	12.5	0.0	41.8
77	11.5	0.0	41.6

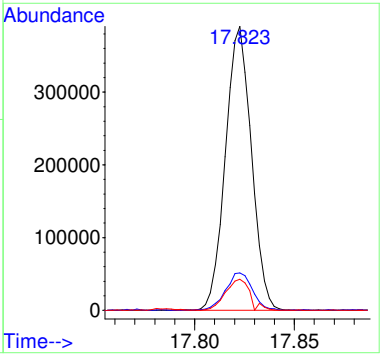




#48
Naphthalene SCAN
Concen: 4919.17 ug/L
RT: 17.823 min Scan# 3378
Delta R.T. -0.000 min
Lab File: 11081905.D
Acq: 8 Nov 2019 11:54

Tgt Ion:128 Resp: 353434

Ion	Ratio	Lower	Upper
128	100		
127	13.5	0.0	40.7
129	10.3	0.0	40.9



S19K006-CAL4

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081906.D
Acq On : 8 Nov 2019 12:18
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL4
Misc : 1930058 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 11 05:56:18 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:53:57 2019
Response via : Initial Calibration

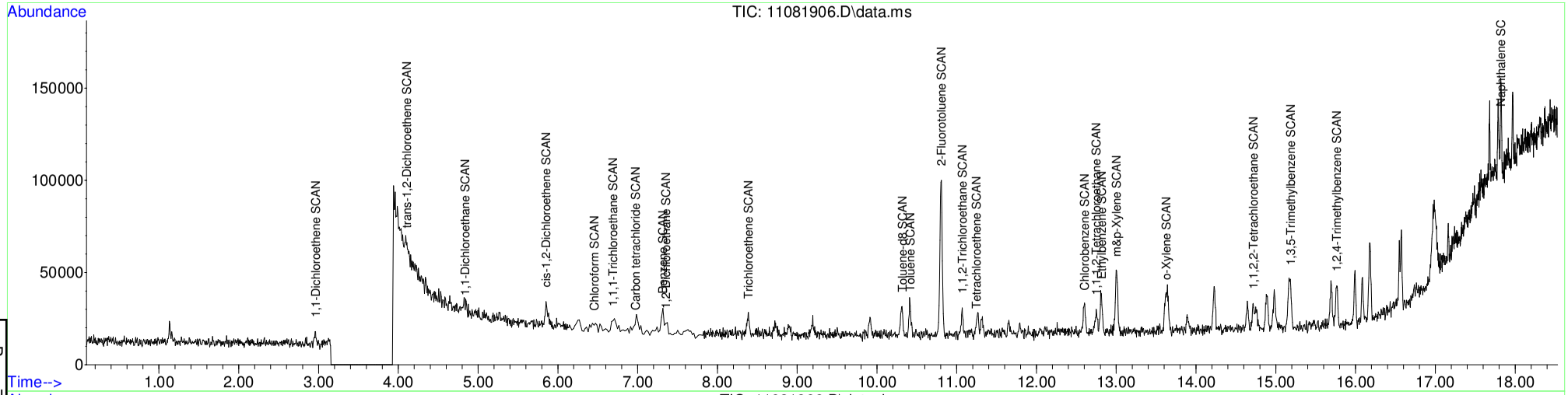
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	105642	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	17158	1002.06	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 20.04%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	4942	875.65	ug/L	94
3] trans-1,2-Dichloroethene	4.102	61	4669	982.69	ug/L	100
4] 1,1-Dichloroethane	4.839	63	5874	986.27	ug/L	99
5] cis-1,2-Dichloroethene	5.860	61	5516	976.47	ug/L	98
6] Chloroform	6.435	83	6362	984.43	ug/L	98
7] 1,1,1-Trichloroethane	6.693	97	6409	1005.37	ug/L	99
8] Carbon tetrachloride	6.969	117	6015	1000.47	ug/L	98
9] Benzene	7.301	78	16360	995.95	ug/L	100
10] 1,2-Dichloroethane	7.337	62	5191	992.80	ug/L	99
11] Trichloroethene	8.387	130	4902	974.80	ug/L	96
13] Toluene	10.412	91	21142	1022.95	ug/L	79
14] 1,1,2-Trichloroethane	11.069	97	4732	987.48	ug/L	85
15] Tetrachloroethene	11.259	166	6055	1005.34	ug/L	100
16] Chlorobenzene	12.599	112	15523	1008.14	ug/L	89
17] 1,1,1,2-Tetrachloroethane	12.751	131	5396	974.98	ug/L	99
18] Ethylbenzene	12.811	91	26129	1041.72	ug/L	100
19] m&p-Xylene	13.001	91	39976	2109.05	ug/L	84
20] o-Xylene	13.616	91	20857	1026.93	ug/L	91
21] 1,1,2,2-Tetrachloroethane	14.714	83	9232	1025.14	ug/L	98
22] 1,3,5-Trimethylbenzene	15.185	105	22671	1048.59	ug/L	99
23] 1,2,4-Trimethylbenzene	15.761	105	23206	1053.67	ug/L	98
24] Naphthalene	17.824	128	38088	1000.80	ug/L	91
25) 2-Fluorotoluene SCAN	10.807	109	67032	5145.24	ug/L	97
26) 1,1-Dichloroethene SCAN	2.962	61	3339	1212.16	ug/L	91
27) trans-1,2-Dichloroethe...	4.107	61	2919	906.55	ug/L	70
28) 1,1-Dichloroethane SCAN	4.837	63	5038	1296.55	ug/L	92
29) cis-1,2-Dichloroethene...	5.852	61	4630	1184.26	ug/L	93
30) Chloroform SCAN	6.452	83	5707	1348.37	ug/L	82
31) 1,1,1-Trichloroethane ...	6.692	97	3877	939.23	ug/L	86
32) Carbon tetrachloride SCAN	6.968	117	4370	1112.11	ug/L	81
33) Benzene SCAN	7.318	78	14539	1317.21	ug/L	99
34) 1,2-Dichloroethane SCAN	7.355	62	5431	1468.01	ug/L	85
35) Trichloroethene SCAN	8.385	130	3400	1029.09	ug/L	93
36) Toluene-d8 SCAN	10.316	98	12056	1092.96	ug/L	95
37) Toluene SCAN	10.416	91	14397	1128.50	ug/L	90
38) 1,1,2-Trichloroethane ...	11.068	97	2952	1002.58	ug/L #	84
39) Tetrachloroethene SCAN	11.246	166	3326	964.42	ug/L #	71
40) Chlorobenzene SCAN	12.597	112	9801	1106.05	ug/L	74
41) 1,1,1,2-Tetrachloroeth...	12.750	131	3628	1149.38	ug/L	97
42) Ethylbenzene SCAN	12.815	91	17633	1207.82	ug/L	95
43) m&p-Xylene SCAN	13.004	91	25754	1214.94	ug/L	96
44) o-Xylene SCAN	13.619	91	14300	1243.34	ug/L	93
45) 1,1,2,2-Tetrachloroeth...	14.717	83	6336	1156.07	ug/L	97
46) 1,3,5-Trimethylbenzene...	15.184	105	14590	1295.58	ug/L	98
47) 1,2,4-Trimethylbenzene...	15.764	105	15007	1307.17	ug/L	95
48) Naphthalene SCAN	17.823	128	21325	1142.12	ug/L	92

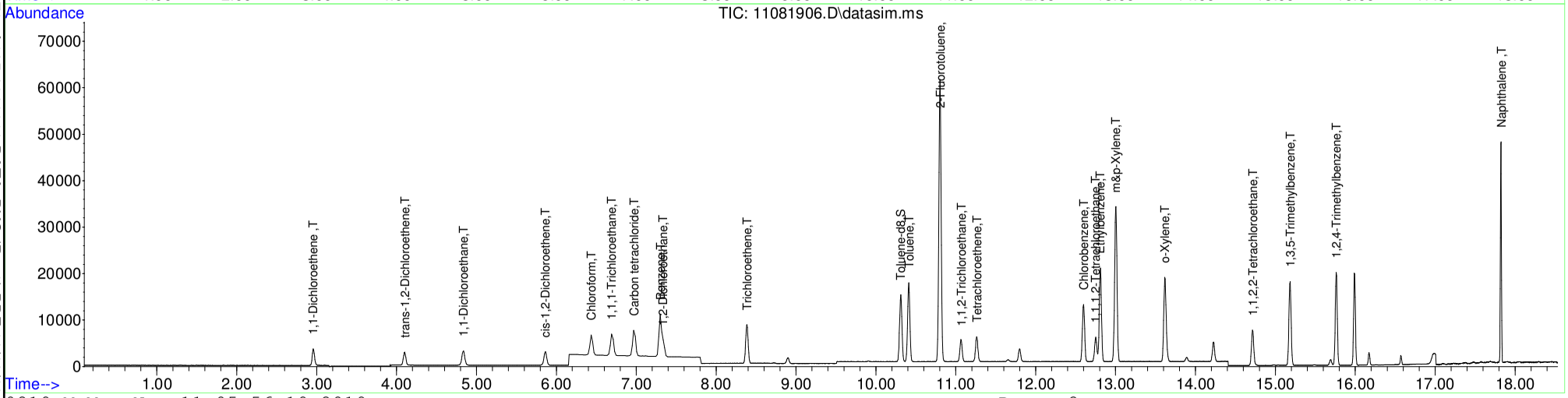
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081906.D
Acq On : 8 Nov 2019 12:18
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL4
Misc : 1930058 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 11 05:56:18 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:53:57 2019
Response via : Initial Calibration





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S19K006-CAL5

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081907.D
Acq On : 8 Nov 2019 12:42
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 11 05:56:54 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:56:46 2019
Response via : Initial Calibration

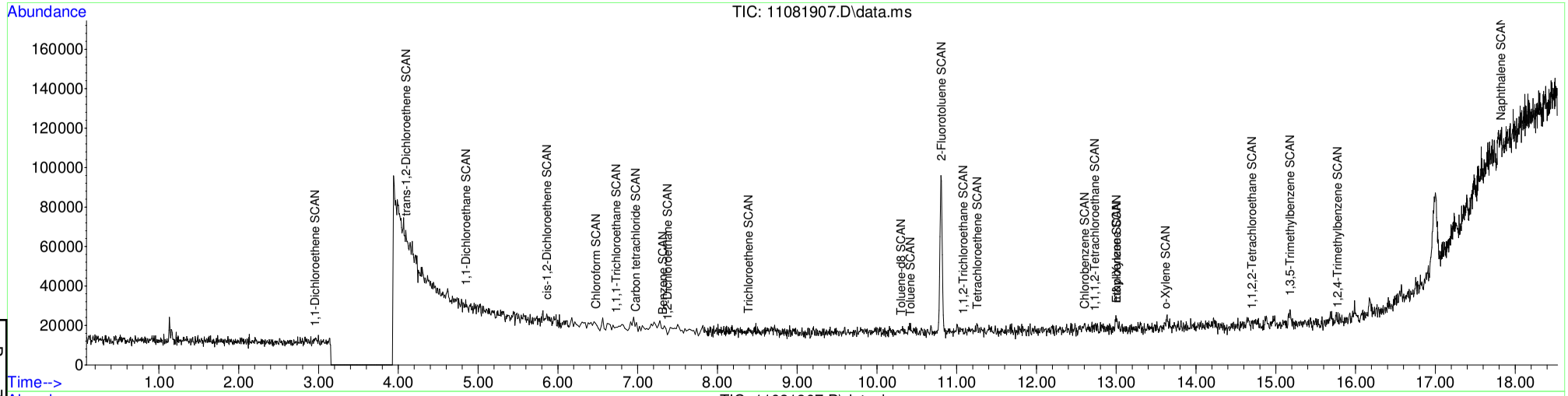
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	101471	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	2498	151.88	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 3.04%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	1171	216.01	ug/L	69
3] trans-1,2-Dichloroethene	4.102	61	734	160.84	ug/L	98
4] 1,1-Dichloroethane	4.832	63	903	157.85	ug/L	97
5] cis-1,2-Dichloroethene	5.860	61	856	157.76	ug/L	94
6] Chloroform	6.435	83	986	158.84	ug/L	95
7] 1,1,1-Trichloroethane	6.693	97	993	162.17	ug/L	96
8] Carbon tetrachloride	6.969	117	899	155.68	ug/L	99
9] Benzene	7.301	78	2596	164.53	ug/L	99
10] 1,2-Dichloroethane	7.338	62	789	157.10	ug/L	100
11] Trichloroethene	8.383	130	746	154.45	ug/L	97
13] Toluene	10.412	91	3101	156.21	ug/L	80
14] 1,1,2-Trichloroethane	11.069	97	695	151.00	ug/L	87
15] Tetrachloroethene	11.259	166	896	154.88	ug/L	98
16] Chlorobenzene	12.599	112	2272	153.62	ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.747	131	781	146.92	ug/L	91
18] Ethylbenzene	12.811	91	3886	161.30	ug/L	98
19] m&p-Xylene	13.001	91	5879	322.91	ug/L	82
20] o-Xylene	13.621	91	3079	157.83	ug/L	94
21] 1,1,2,2-Tetrachloroethane	14.714	83	1373	158.73	ug/L	95
22] 1,3,5-Trimethylbenzene	15.185	105	3341	160.88	ug/L	99
23] 1,2,4-Trimethylbenzene	15.761	105	3445	162.85	ug/L	98
24] Naphthalene	17.824	128	5795	158.53	ug/L	96
25) 2-Fluorotoluene SCAN	10.801	109	64982	5192.92	ug/L	97
26) 1,1-Dichloroethene SCAN	2.952	61	211	79.75	ug/L #	45
27) trans-1,2-Dichloroethe...	4.094	61	299	96.68	ug/L #	52
28) 1,1-Dichloroethane SCAN	4.844	63	643	172.28	ug/L	78
29) cis-1,2-Dichloroethene...	5.859	61	831	221.29	ug/L #	72
30) Chloroform SCAN	6.471	83	1618	397.99	ug/L #	32
31) 1,1,1-Trichloroethane ...	6.729	97	927	233.80	ug/L #	55
32) Carbon tetrachloride SCAN	6.968	117	845	223.88	ug/L #	54
33) Benzene SCAN	7.318	78	5272	497.27	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.373	62	1033	290.70	ug/L #	56
35) Trichloroethene SCAN	8.390	130	349	109.98	ug/L #	72
36) Toluene-d8 SCAN	10.304	98	1696	160.07	ug/L	98
37) Toluene SCAN	10.416	91	2886	235.52	ug/L	81
38) 1,1,2-Trichloroethane ...	11.080	97	300	106.08	ug/L #	65
39) Tetrachloroethene SCAN	11.252	166	709	214.04	ug/L #	51
40) Chlorobenzene SCAN	12.607	112	1958	230.05	ug/L #	50
41) 1,1,1,2-Tetrachloroeth...	12.732	131	65	21.44	ug/L #	1
42) Ethylbenzene SCAN	13.000	91	3807	271.49	ug/L	66
43) m&p-Xylene SCAN	13.000	91	4188	205.69	ug/L	90
44) o-Xylene SCAN	13.615	91	2218	200.78	ug/L	73
45) 1,1,2,2-Tetrachloroeth...	14.703	83	230	43.69	ug/L #	14
46) 1,3,5-Trimethylbenzene...	15.174	105	3367	311.28	ug/L	71
47) 1,2,4-Trimethylbenzene...	15.774	105	2551	231.34	ug/L #	49
48) Naphthalene SCAN	17.821	128	3636	202.74	ug/L	70

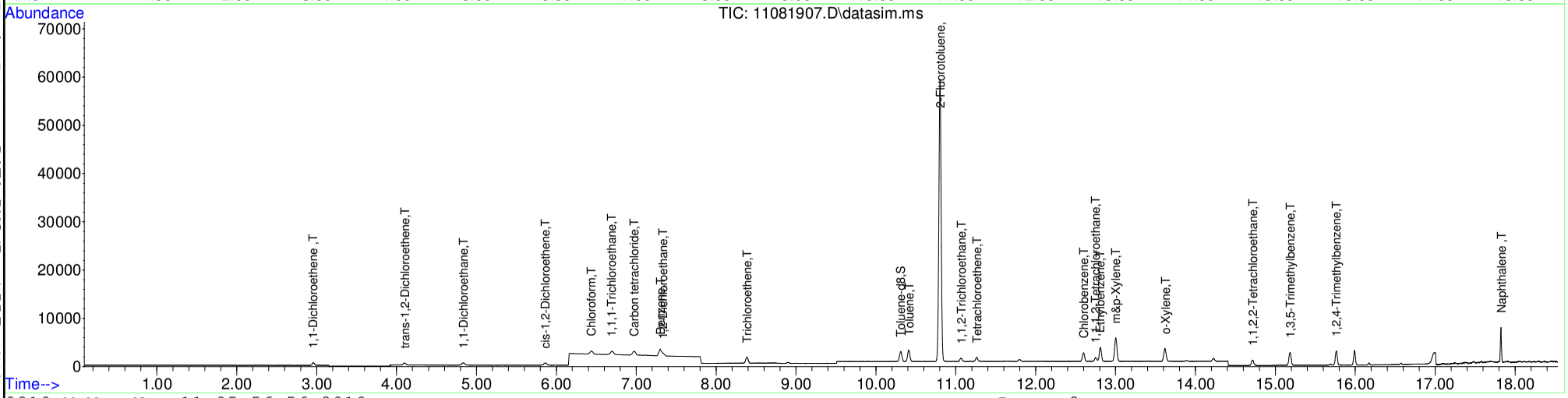
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081907.D
Acq On : 8 Nov 2019 12:42
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 11 05:56:54 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:56:46 2019
Response via : Initial Calibration





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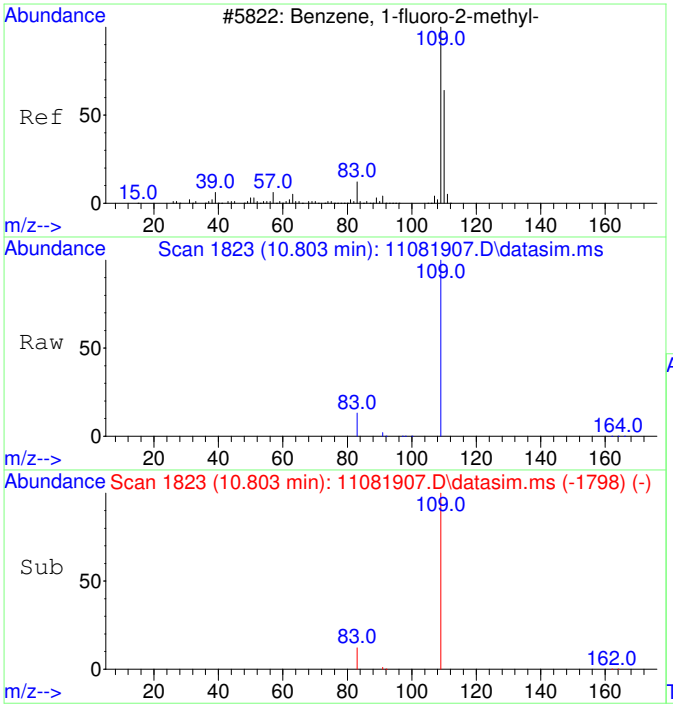
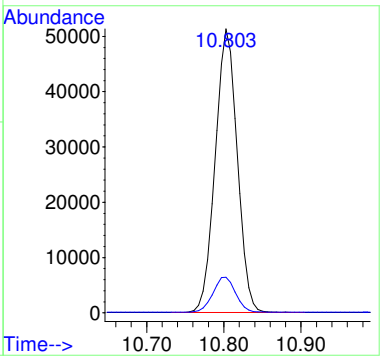
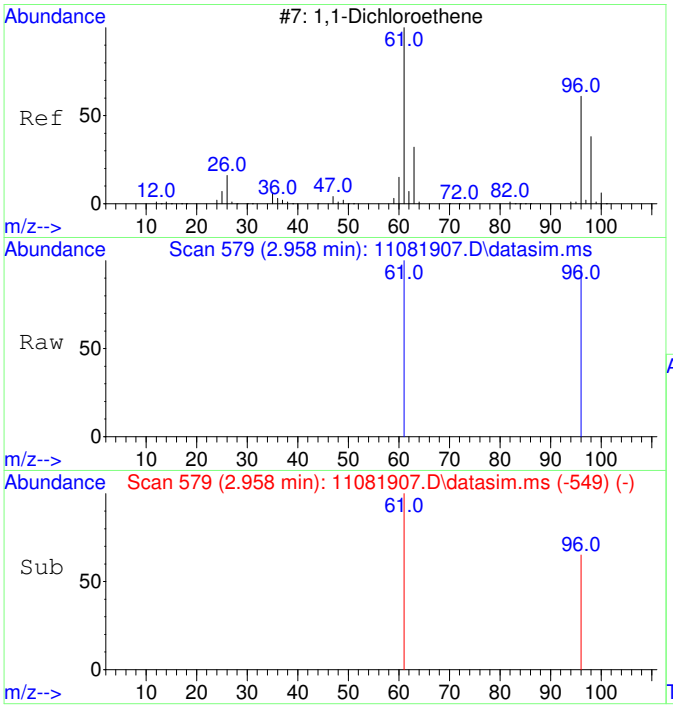


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:109 Resp: 101471

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	42.3

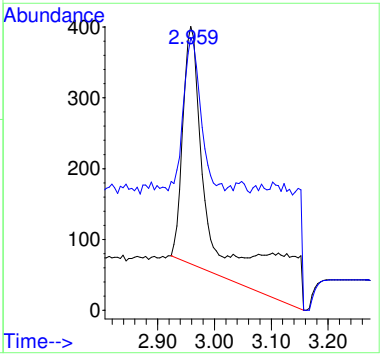




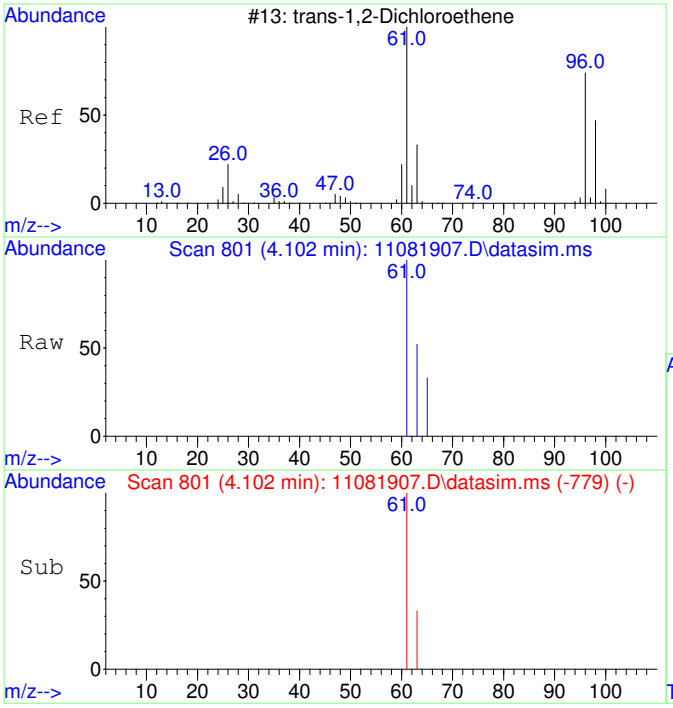
#2
1,1-Dichloroethene
Concen: 216.01 ug/L
RT: 2.958 min Scan# 579
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 1171

Ion	Ratio	Lower	Upper
61	100		
96	37.6	31.4	91.4



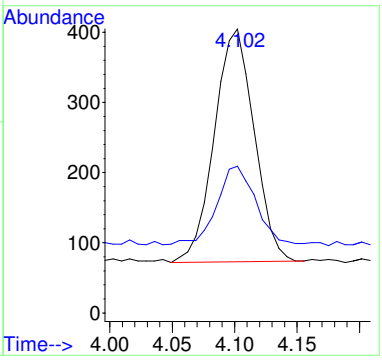
Before MI:
IMPROPER
BASELINE

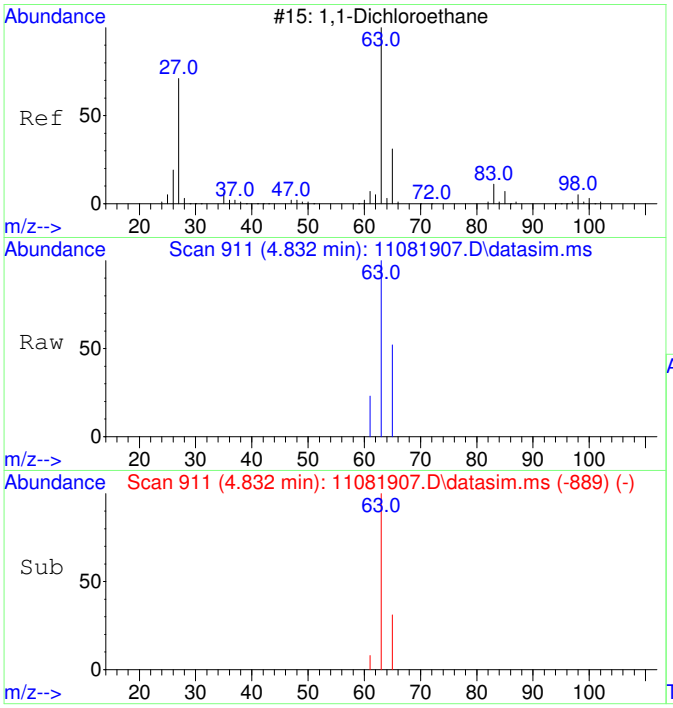


#3
trans-1,2-Dichloroethene
Concen: 160.84 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 734

Ion	Ratio	Lower	Upper
61	100		
63	33.9	2.8	62.8

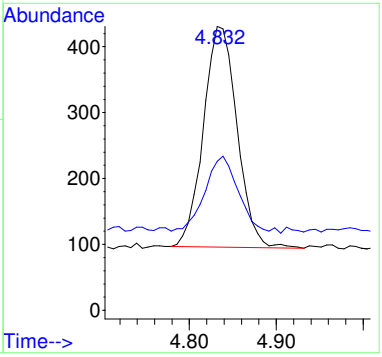


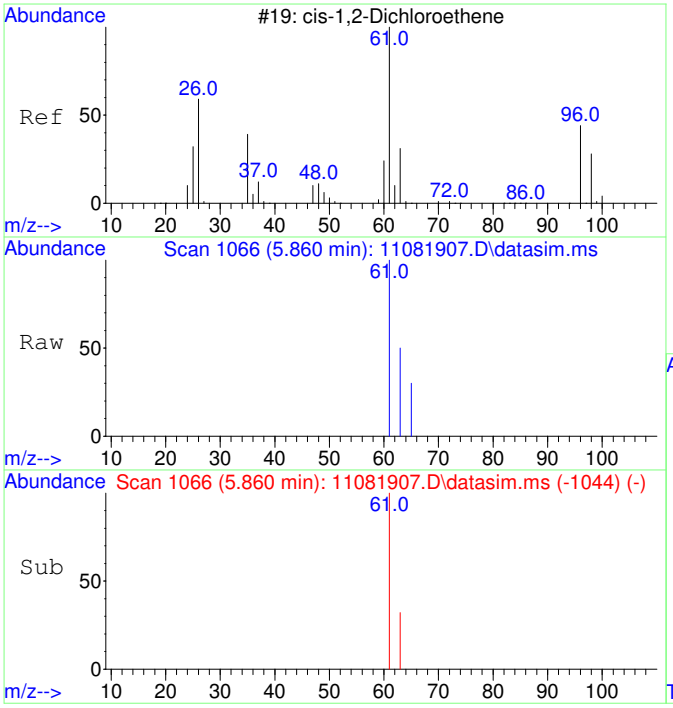


#4
1,1-Dichloroethane
Concen: 157.85 ug/L
RT: 4.832 min Scan# 911
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 63 Resp: 903

Ion	Ratio	Lower	Upper
63	100		
65	32.9	1.0	61.0

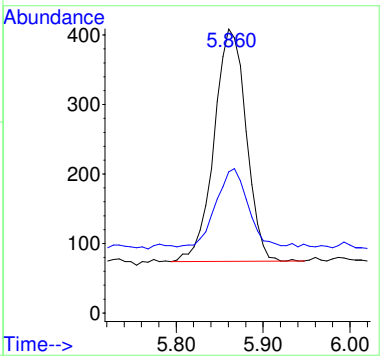


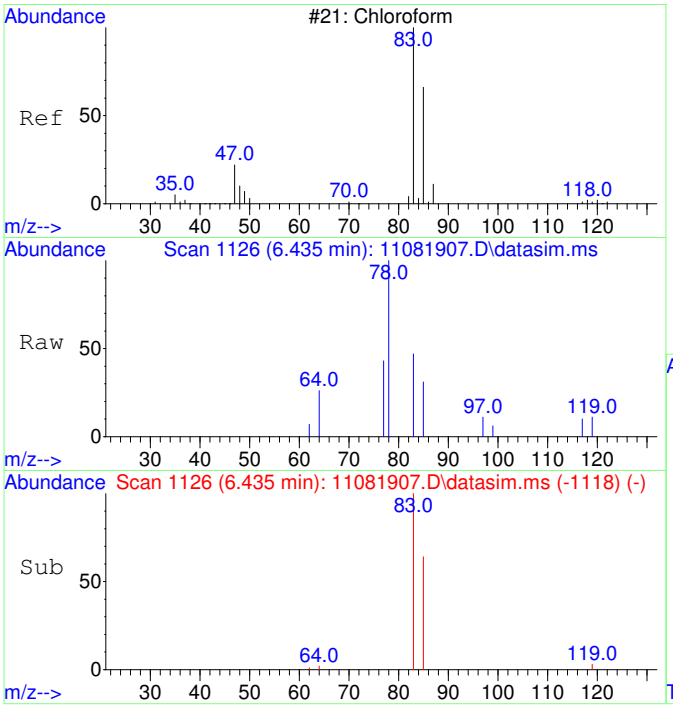


#5
cis-1,2-Dichloroethene
Concen: 157.76 ug/L
RT: 5.860 min Scan# 1066
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 856

Ion	Ratio	Lower	Upper
61	100		
63	34.8	1.4	61.4

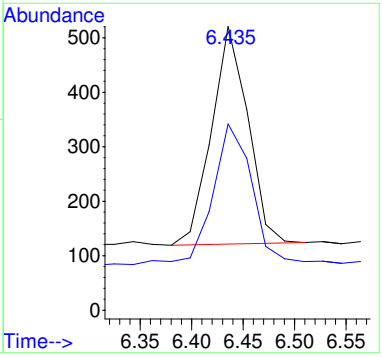


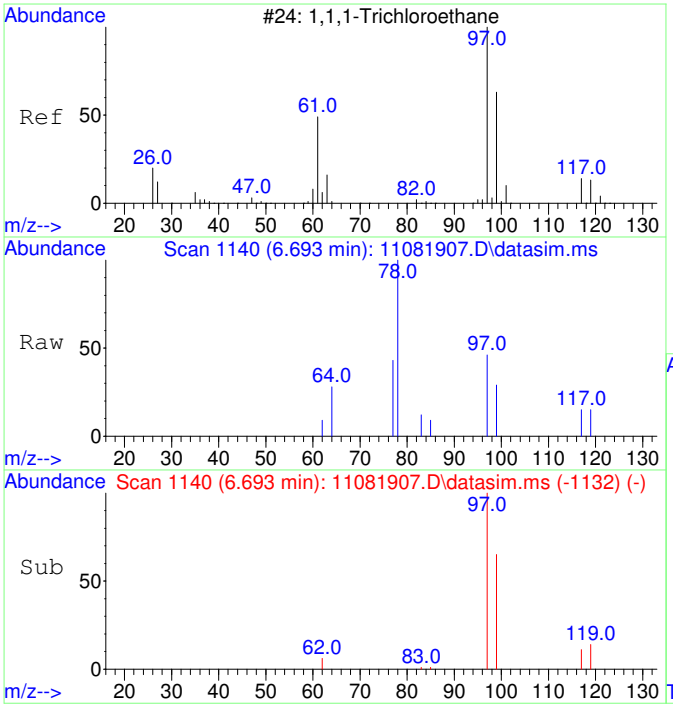


#6
Chloroform
Concen: 158.84 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 986

Ion	Ratio	Lower	Upper
83	100		
85	69.7	35.8	95.8

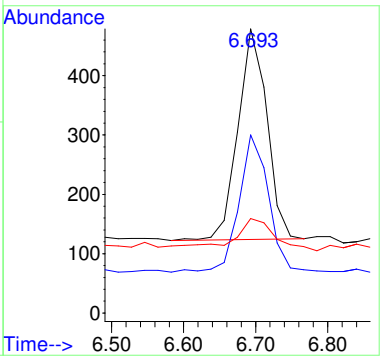


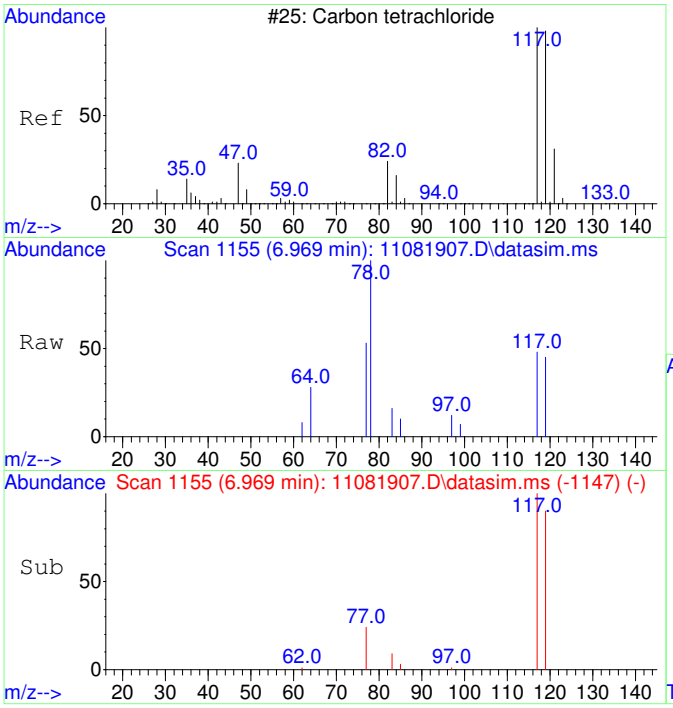


#7
1,1,1-Trichloroethane
Concen: 162.17 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 993

Ion	Ratio	Lower	Upper
97	100		
99	66.2	32.9	92.9
117	14.4	0.0	43.6

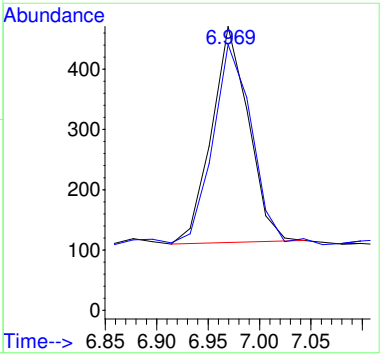


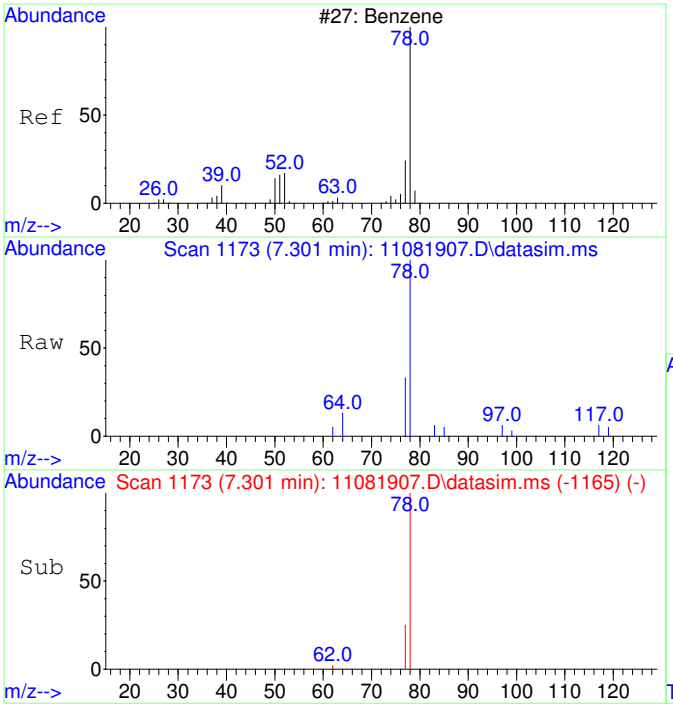


#8
Carbon tetrachloride
Concen: 155.68 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:117 Resp: 899

Ion	Ratio	Lower	Upper
117	100		
119	99.6	68.1	128.1

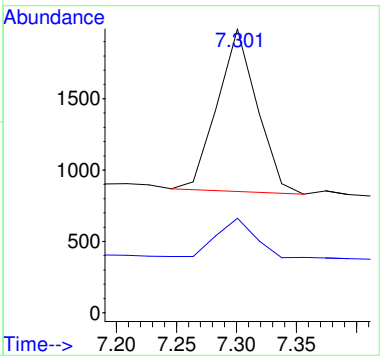


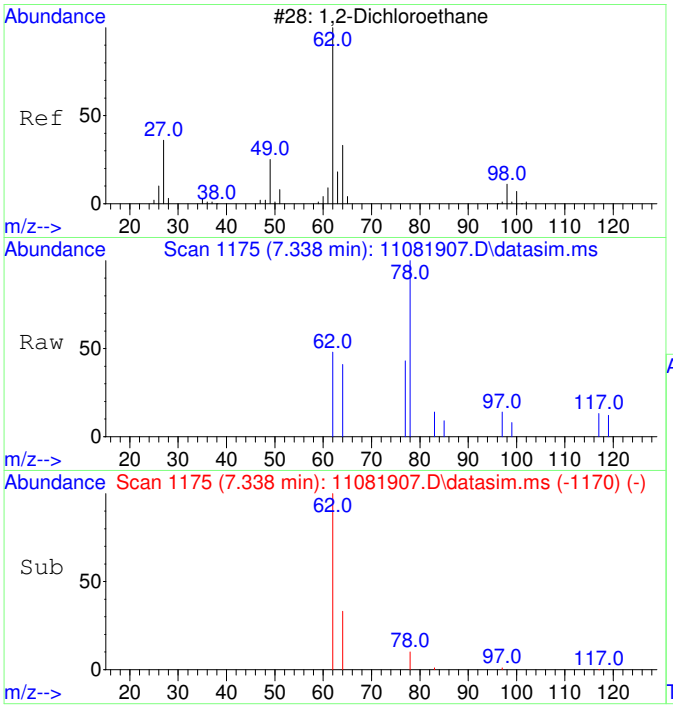


#9
Benzene
Concen: 164.53 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 78 Resp: 2596

Ion	Ratio	Lower	Upper
78	100		
77	24.4	0.0	53.7

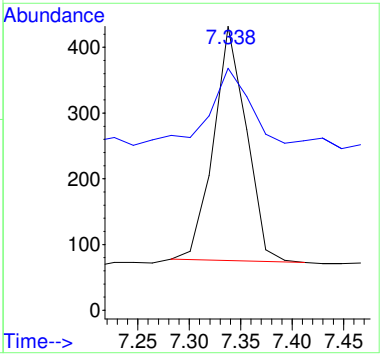


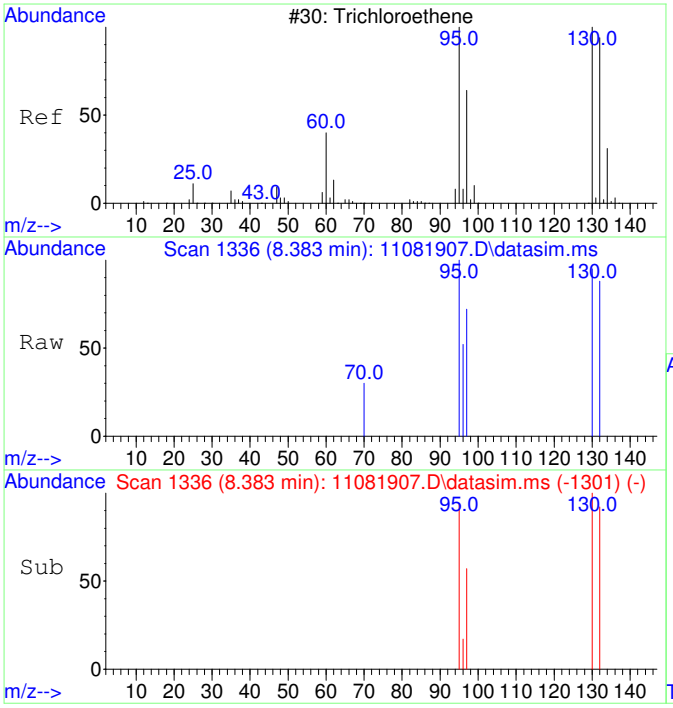


#10
1,2-Dichloroethane
Concen: 157.10 ug/L
RT: 7.338 min Scan# 1175
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 62 Resp: 789

Ion	Ratio	Lower	Upper
62	100		
64	33.7	3.5	63.5

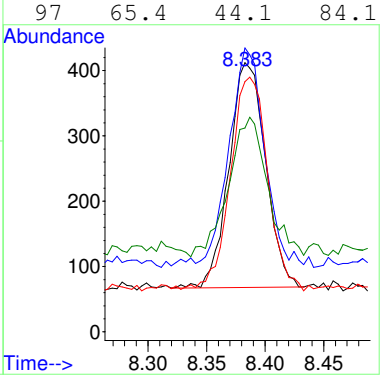


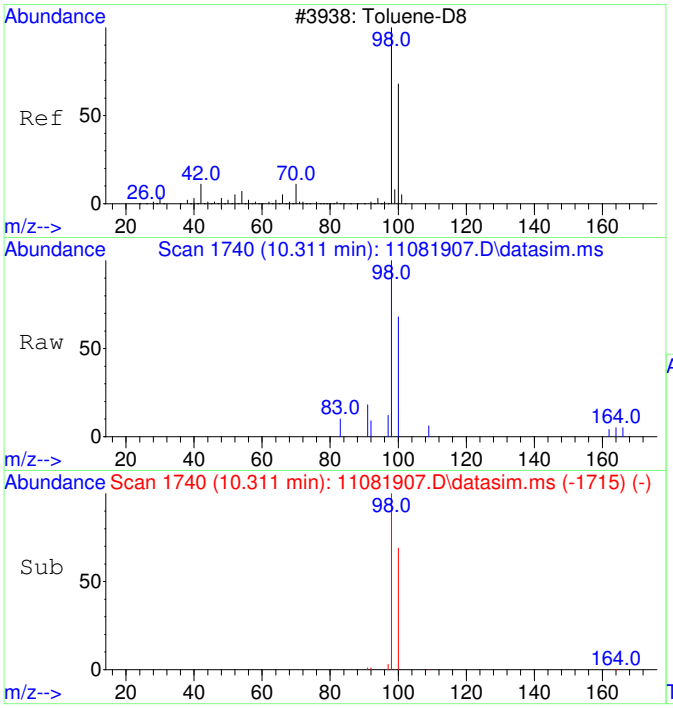


#11
Trichloroethene
Concen: 154.45 ug/L
RT: 8.383 min Scan# 1336
Delta R.T. -0.004 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:130 Resp: 746

Ion	Ratio	Lower	Upper
130	100		
95	94.6	70.1	130.1
132	96.6	74.3	114.3
97	65.4	44.1	84.1

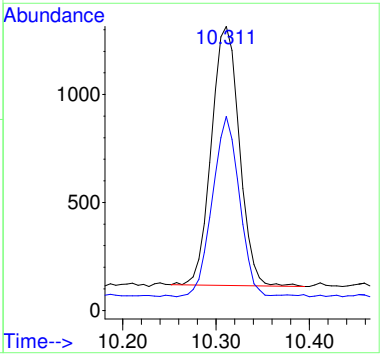


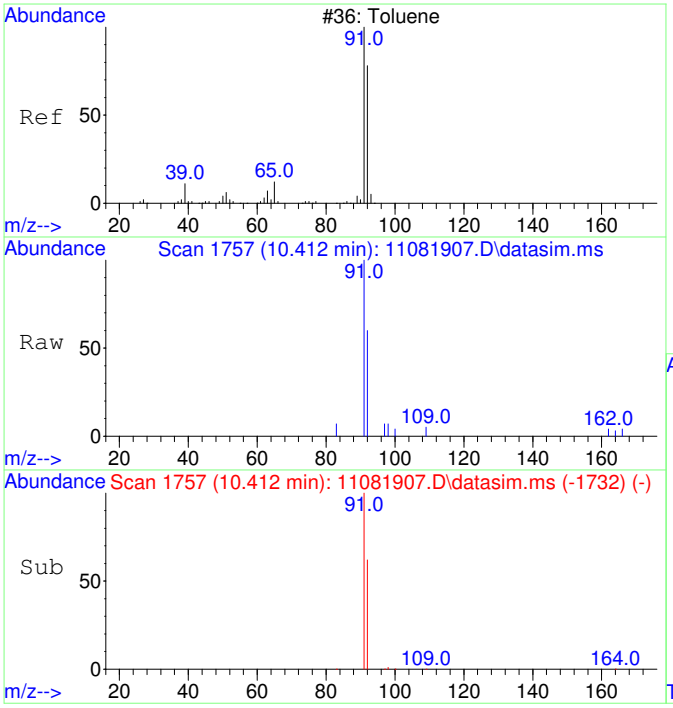


#12
Toluene-d8
Concen: 151.88 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 98 Resp: 2498

Ion	Ratio	Lower	Upper
98	100		
100	66.7	38.4	98.4

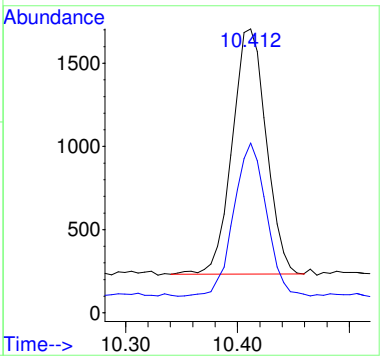


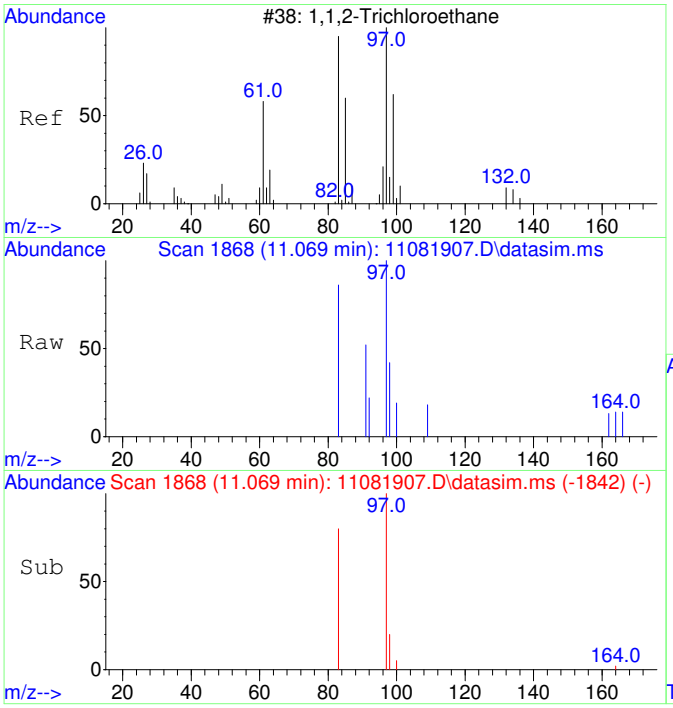


#13
Toluene
Concen: 156.21 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3101

Ion	Ratio	Lower	Upper
91	100		
92	60.1	47.7	107.7

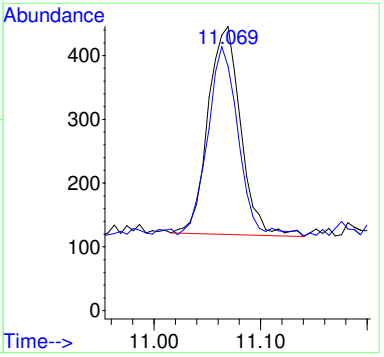


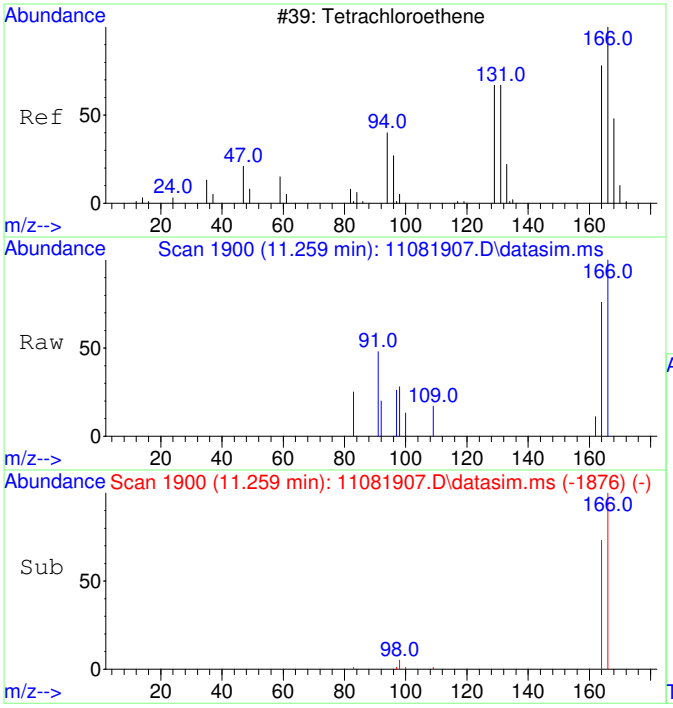


#14
1,1,2-Trichloroethane
Concen: 151.00 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. 0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 695

Ion	Ratio	Lower	Upper
97	100		
83	82.4	65.0	125.0

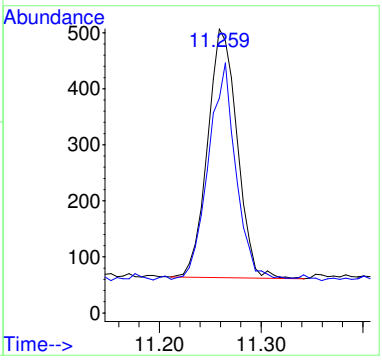


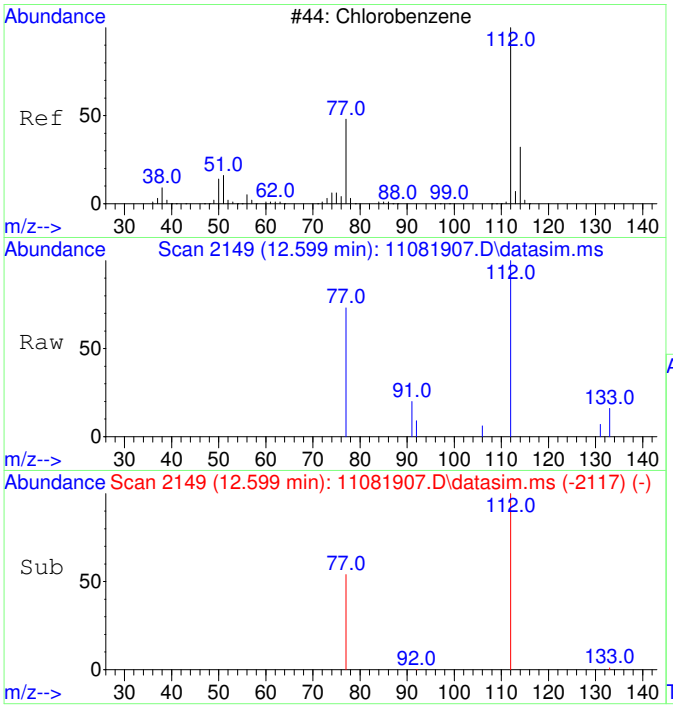


#15
Tetrachloroethene
Concen: 154.88 ug/L
RT: 11.259 min Scan# 1900
Delta R.T. -0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:166 Resp: 896

Ion	Ratio	Lower	Upper
166	100		
164	80.0	47.9	107.9

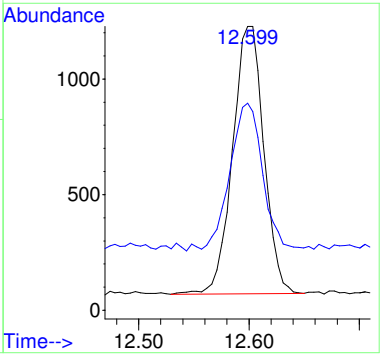


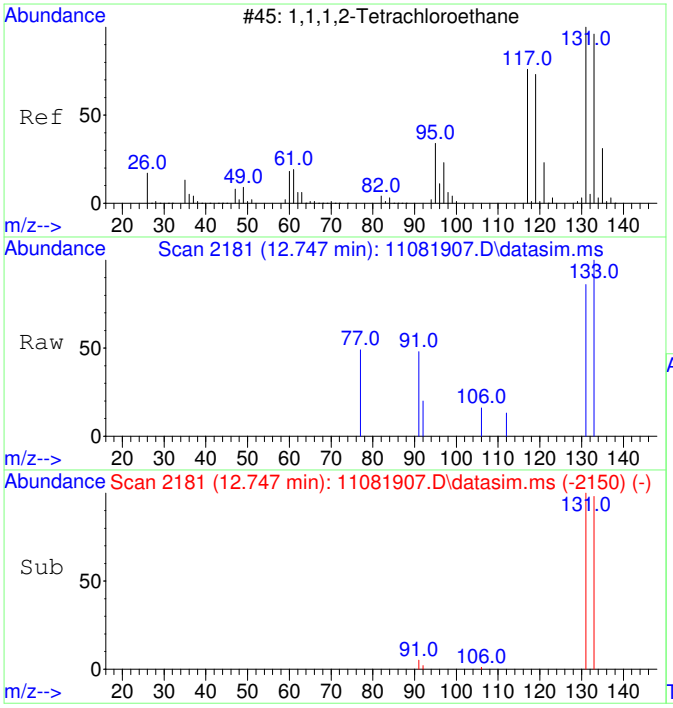


#16
Chlorobenzene
Concen: 153.62 ug/L
RT: 12.599 min Scan# 2149
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:112 Resp: 2272

Ion	Ratio	Lower	Upper
112	100		
77	55.1	18.3	78.3

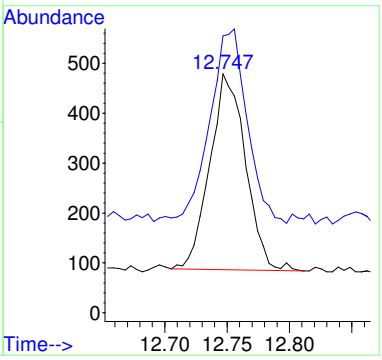


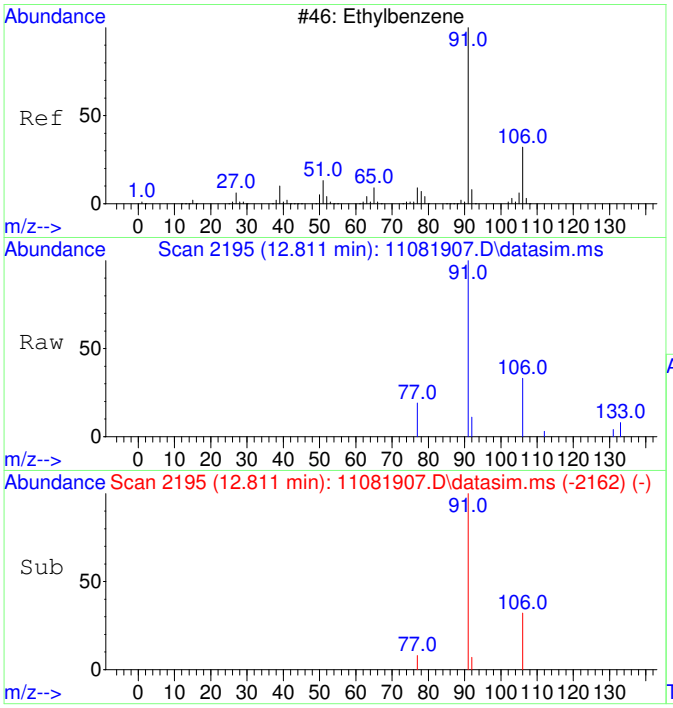


#17
1,1,1,2-Tetrachloroethane
Concen: 146.92 ug/L
RT: 12.747 min Scan# 2181
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:131 Resp: 781

Ion	Ratio	Lower	Upper
131	100		
133	105.0	66.1	126.1

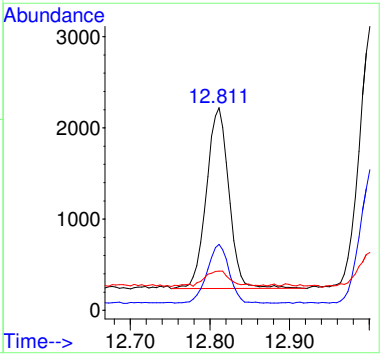


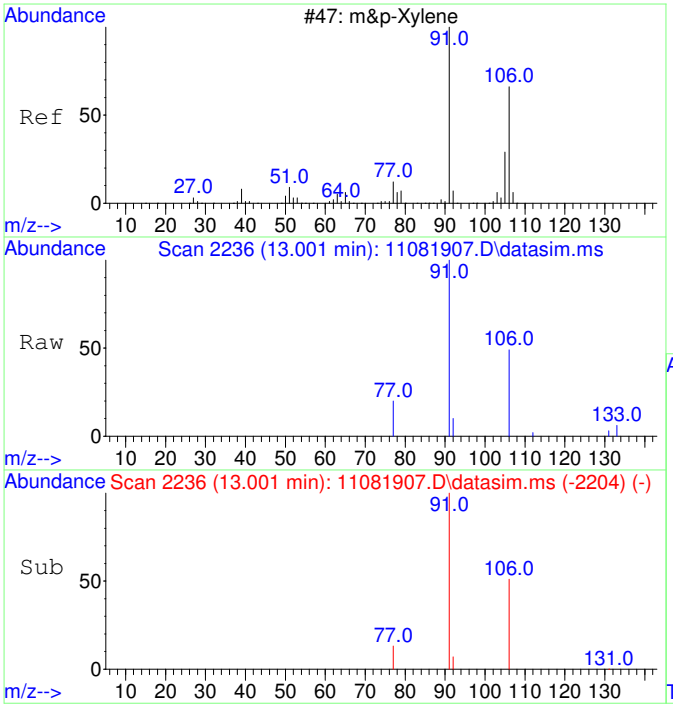


#18
Ethylbenzene
Concen: 161.30 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. 0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3886

Ion	Ratio	Lower	Upper
91	100		
106	31.5	2.3	62.3
77	10.6	0.0	38.6

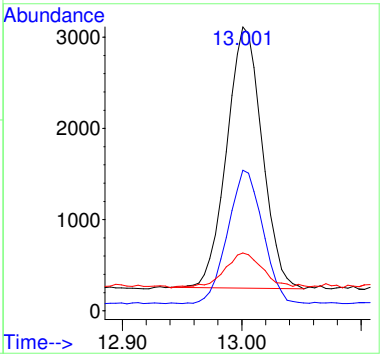


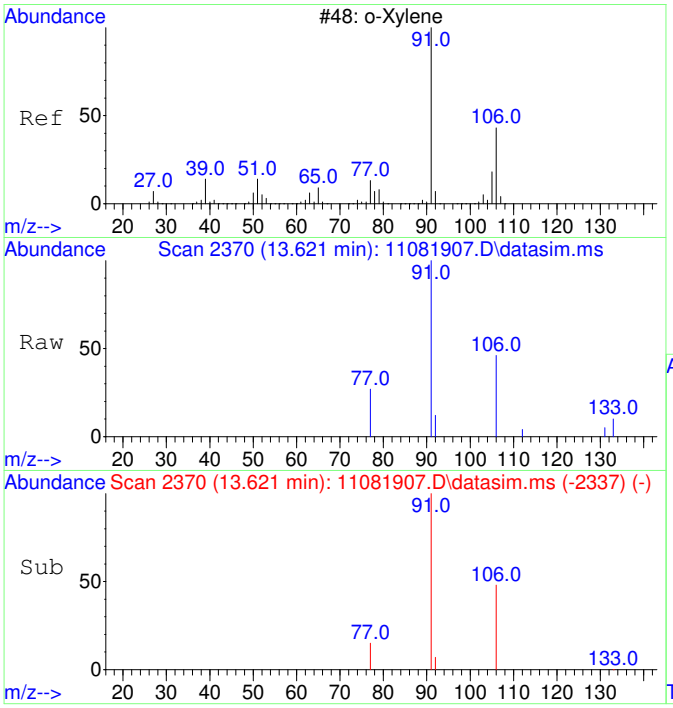


#19
m&p-Xylene
Concen: 322.91 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 5879

Ion	Ratio	Lower	Upper
91	100		
106	50.2	35.9	95.9
77	14.4	0.0	41.9

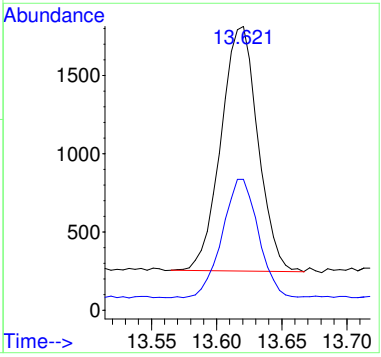


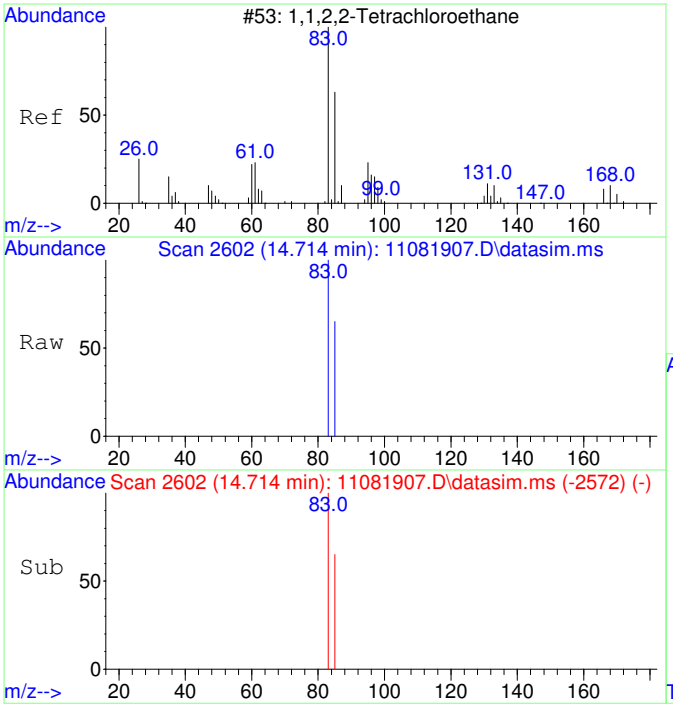


#20
o-Xylene
Concen: 157.83 ug/L
RT: 13.621 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3079

Ion	Ratio	Lower	Upper
91	100		
106	47.0	13.0	73.0

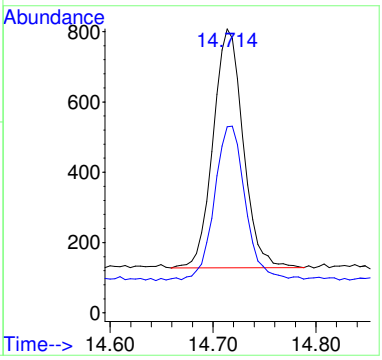


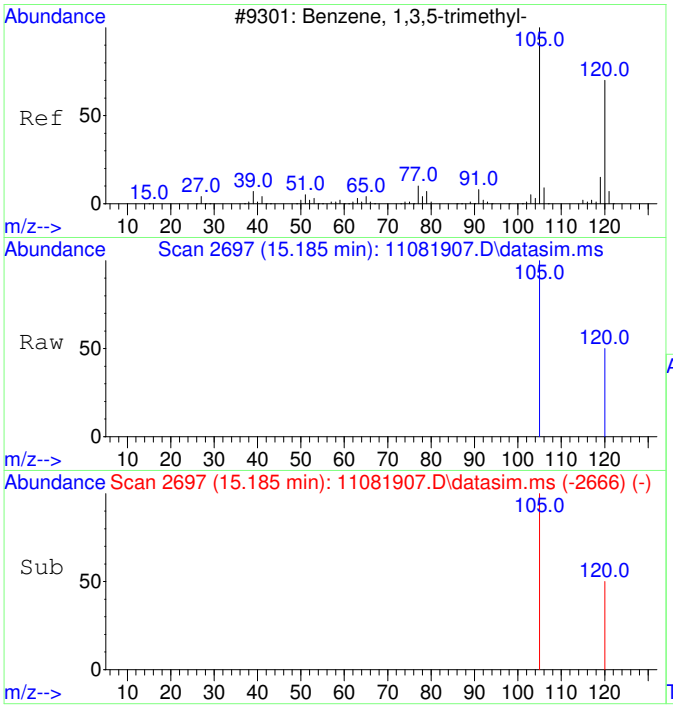


#21
1,1,2,2-Tetrachloroethane
Concen: 158.73 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 1373

Ion	Ratio	Lower	Upper
83	100		
85	66.4	32.7	92.7

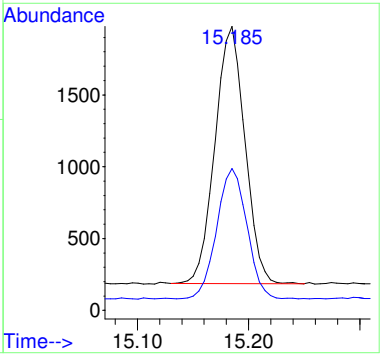


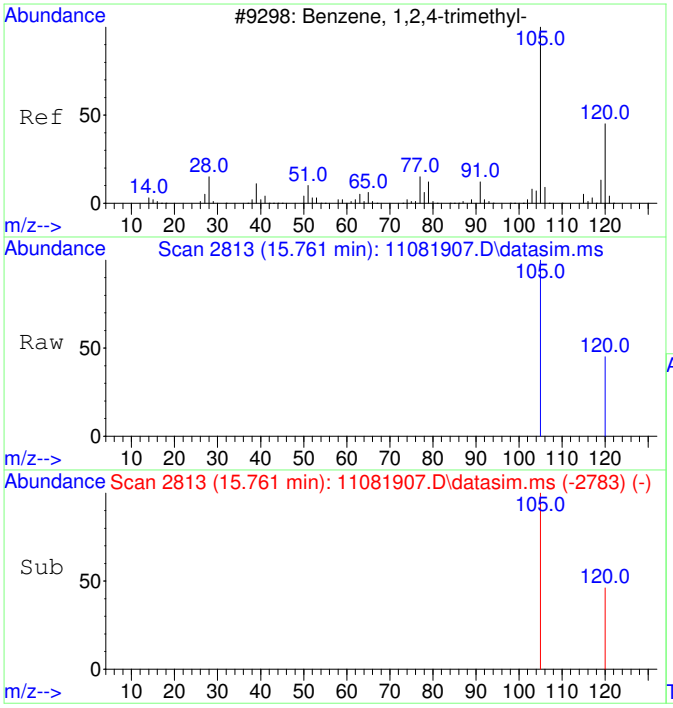


#22
1,3,5-Trimethylbenzene
Concen: 160.88 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. 0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 3341

Ion	Ratio	Lower	Upper
105	100		
120	51.1	20.1	80.1

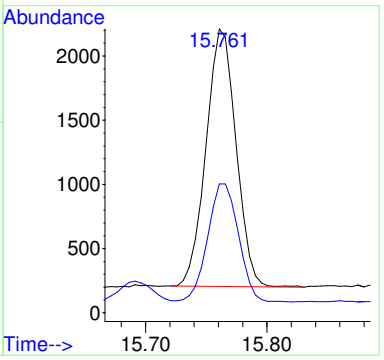


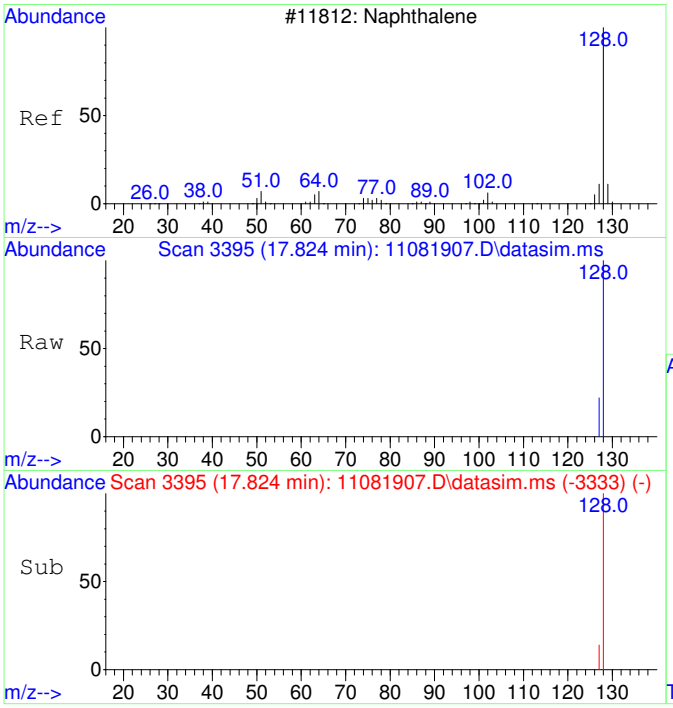


#23
1,2,4-Trimethylbenzene
Concen: 162.85 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 3445

Ion	Ratio	Lower	Upper
105	100		
120	46.4	15.2	75.2

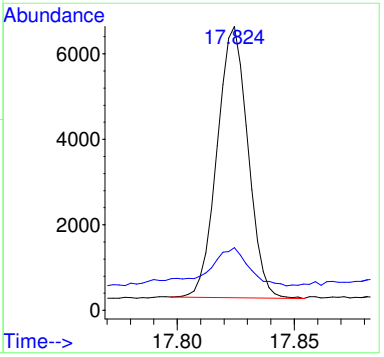


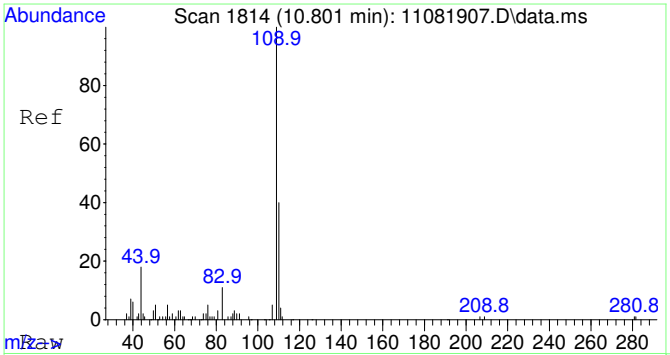


#24
Naphthalene
Concen: 158.53 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. 0.003 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:128 Resp: 5795

Ion	Ratio	Lower	Upper
128	100		
127	12.4	0.0	40.7

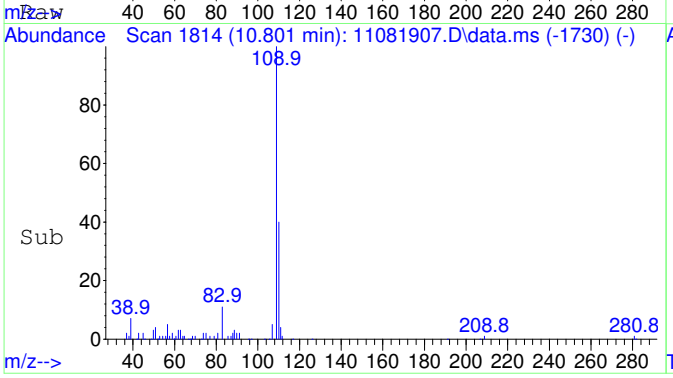


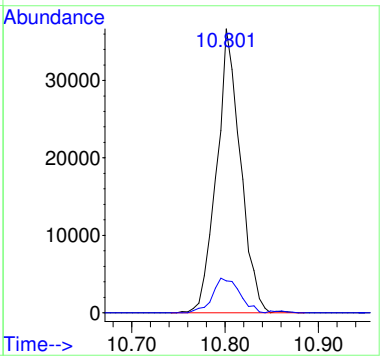


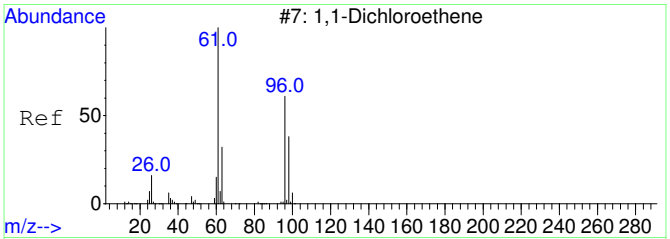
#25
2-Fluorotoluene SCAN
Concen: 5192.92 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:109 Resp: 64982

Ion	Ratio	Lower	Upper
109	100		
83	14.0	0.0	42.8



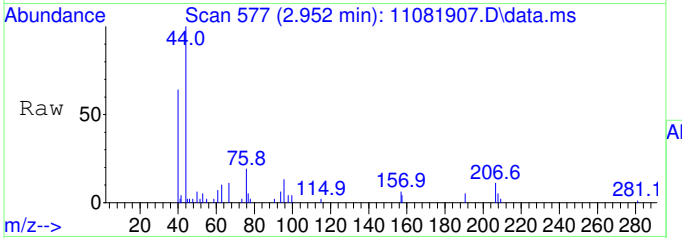


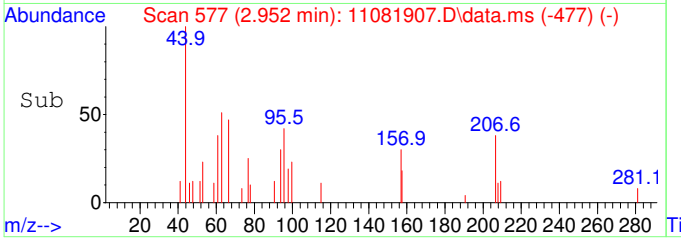


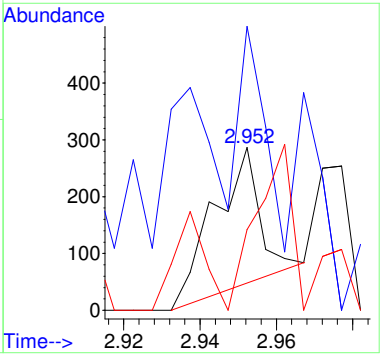
#26
1,1-Dichloroethene SCAN
Concen: 79.75 ug/L
RT: 2.952 min Scan# 577
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

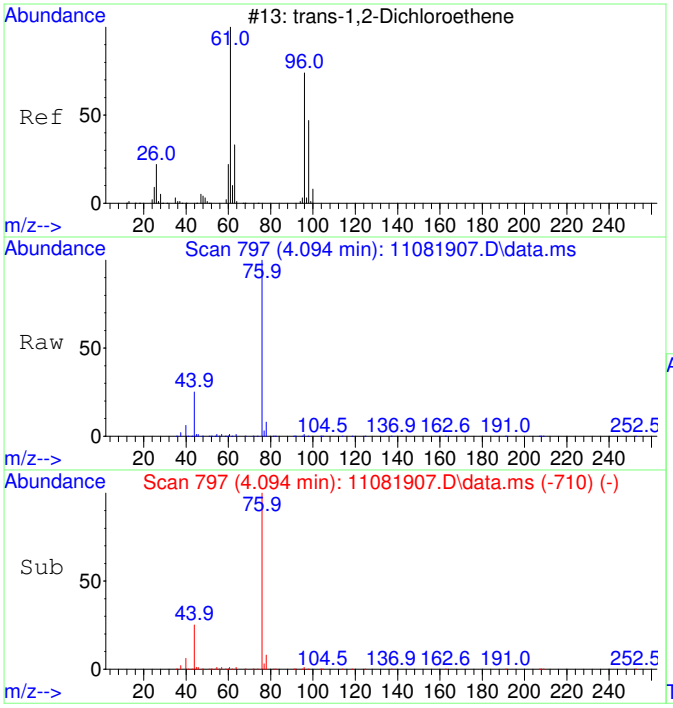
Tgt Ion: 61 Resp: 211

Ion	Ratio	Lower	Upper
61	100		
96	71.1	32.2	92.2
98	117.5	12.8	72.8#





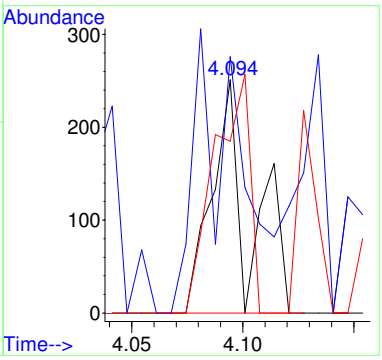


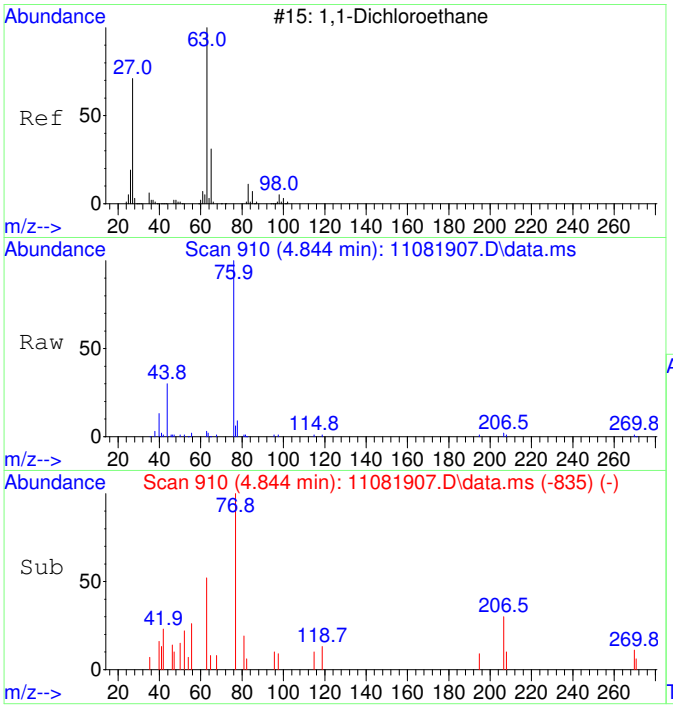


#27
trans-1,2-Dichloroethene SCAN
Concen: 96.68 ug/L
RT: 4.094 min Scan# 797
Delta R.T. -0.020 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 299

Ion	Ratio	Lower	Upper
61	100		
96	100.7	41.8	101.8
98	96.0	19.2	79.2#

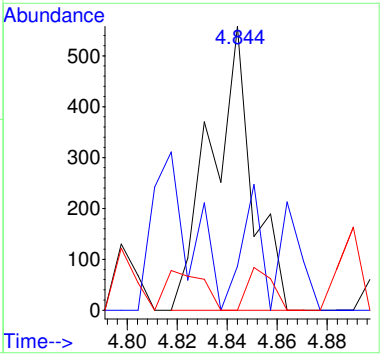


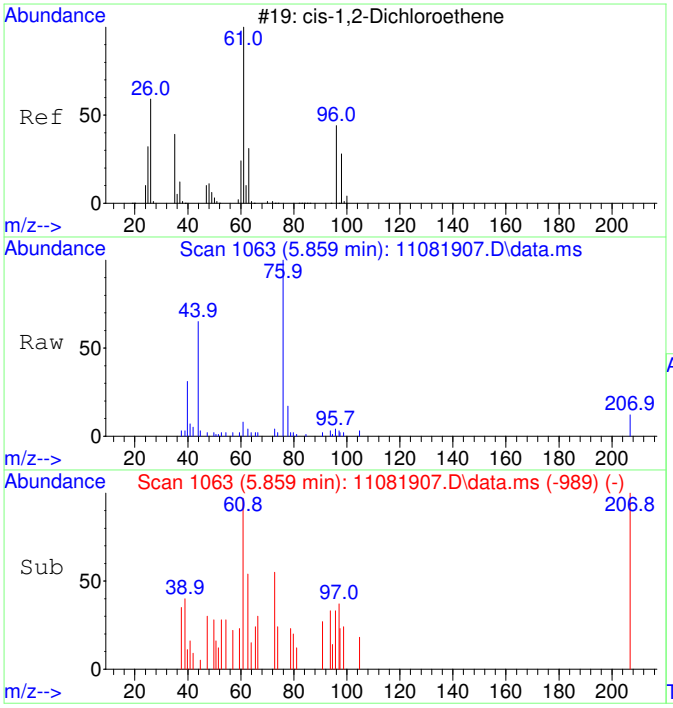


#28
1,1-Dichloroethane SCAN
Concen: 172.28 ug/L
RT: 4.844 min Scan# 910
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 63 Resp: 643

Ion	Ratio	Lower	Upper
63	100		
65	20.7	5.1	65.1
83	9.0	0.0	44.9

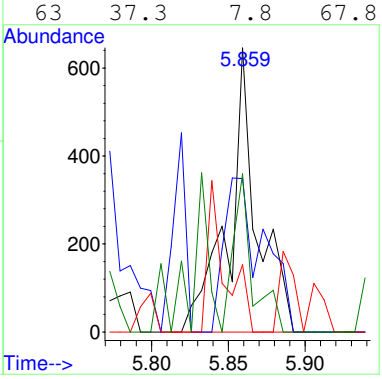


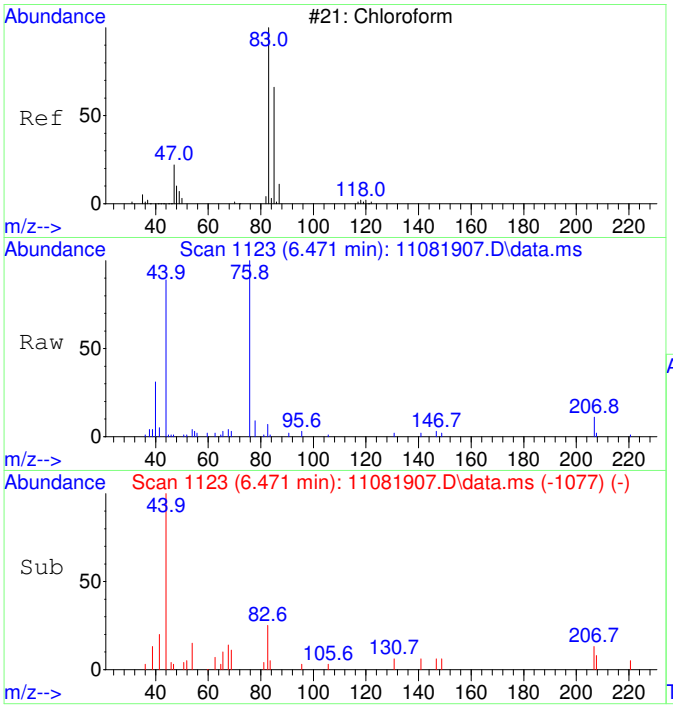


#29
cis-1,2-Dichloroethene SCAN
Concen: 221.29 ug/L
RT: 5.859 min Scan# 1063
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 831

Ion	Ratio	Lower	Upper
61	100		
96	75.7	32.9	92.9
98	0.0	14.3	74.3#
63	37.3	7.8	67.8

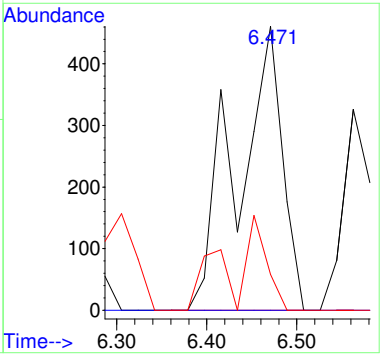


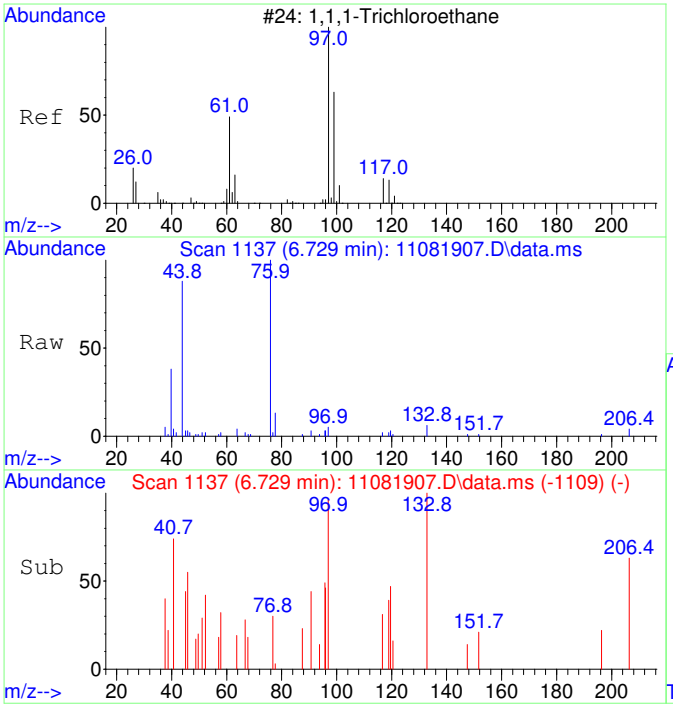


#30
Chloroform SCAN
Concen: 397.99 ug/L
RT: 6.471 min Scan# 1123
Delta R.T. 0.019 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 1618

Ion	Ratio	Lower	Upper
83	100		
85	0.0	39.1	99.1#
47	14.5	0.0	53.1

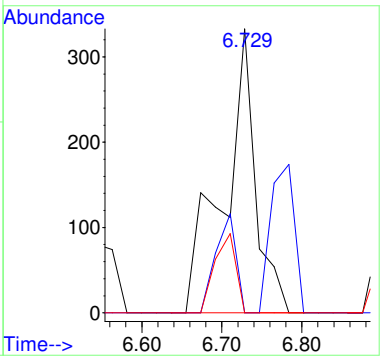


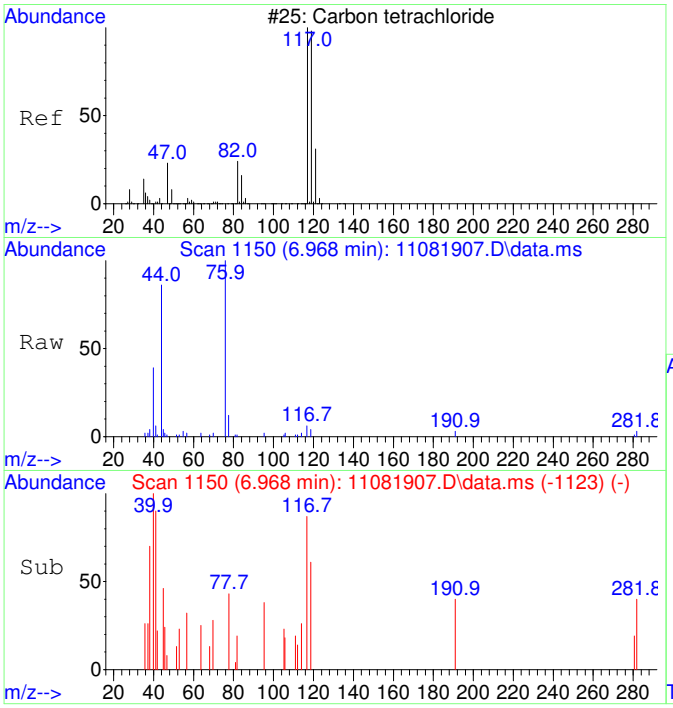


#31
1,1,1-Trichloroethane SCAN
Concen: 233.80 ug/L
RT: 6.729 min Scan# 1137
Delta R.T. 0.019 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 927

Ion	Ratio	Lower	Upper
97	100		
99	22.1	32.6	92.6#
61	18.6	9.4	69.4

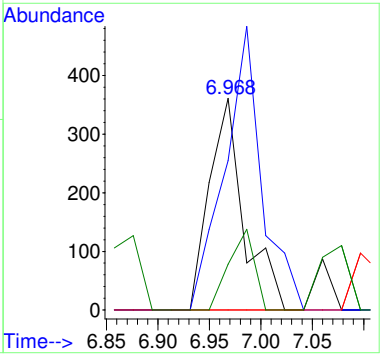


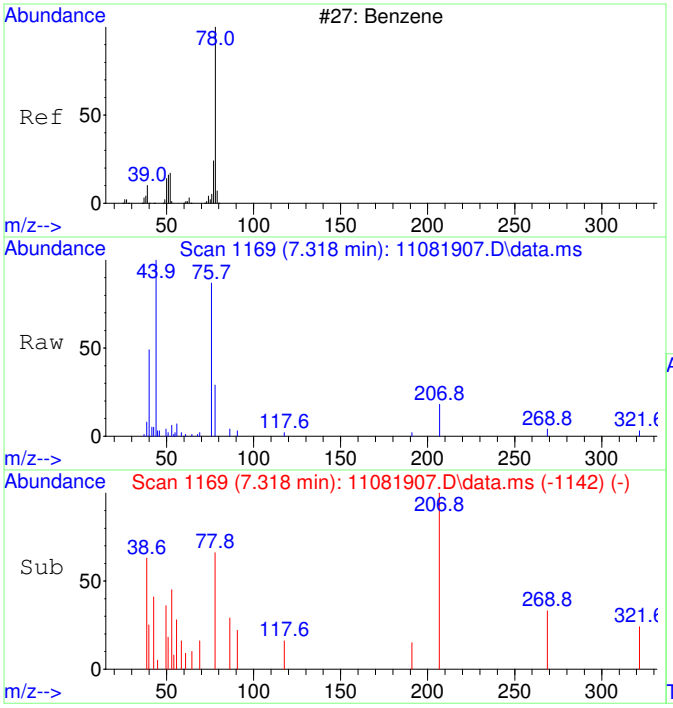


#32
Carbon tetrachloride SCAN
Concen: 223.88 ug/L
RT: 6.968 min Scan# 1150
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:117 Resp: 845

Ion	Ratio	Lower	Upper
117	100		
119	143.9	63.7	123.7#
121	0.0	4.6	64.6#
82	28.3	0.0	55.3

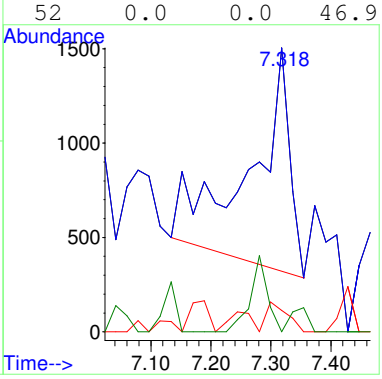


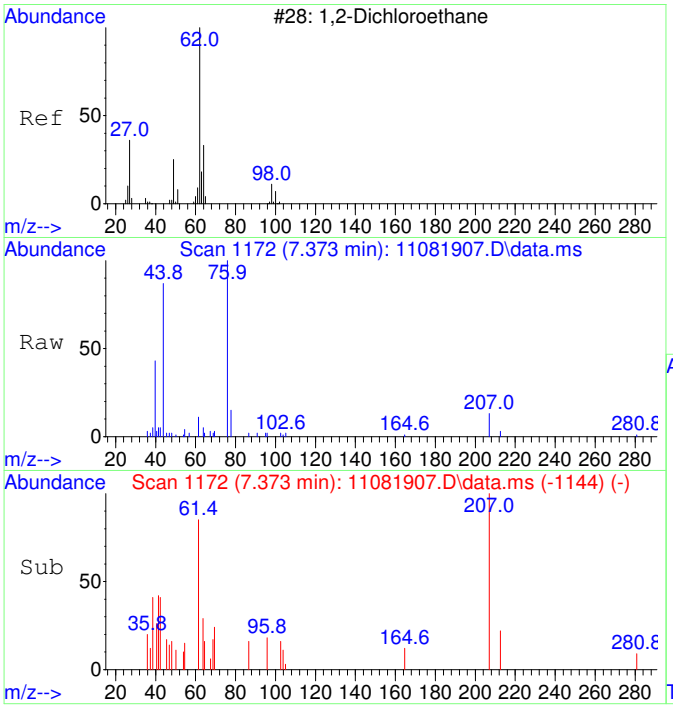


#33
Benzene SCAN
Concen: 497.27 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 78 Resp: 5272

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.2
52	0.0	0.0	46.9

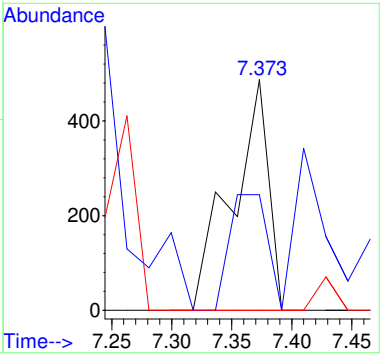


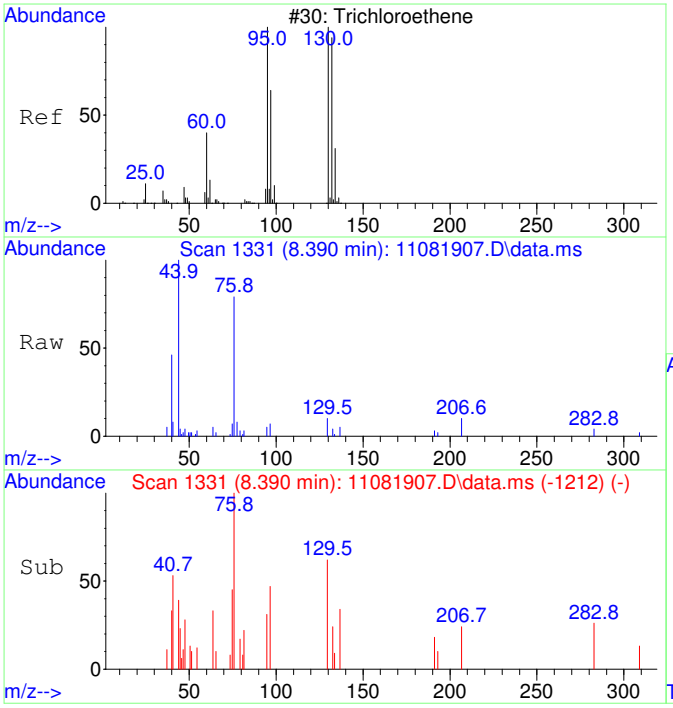


#34
1,2-Dichloroethane SCAN
Concen: 290.70 ug/L
RT: 7.373 min Scan# 1172
Delta R.T. 0.019 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 62 Resp: 1033

Ion	Ratio	Lower	Upper
62	100		
64	52.2	3.3	63.3
49	0.0	0.8	60.8#

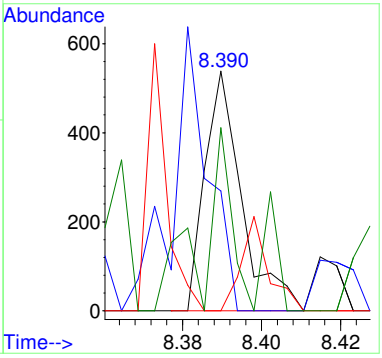


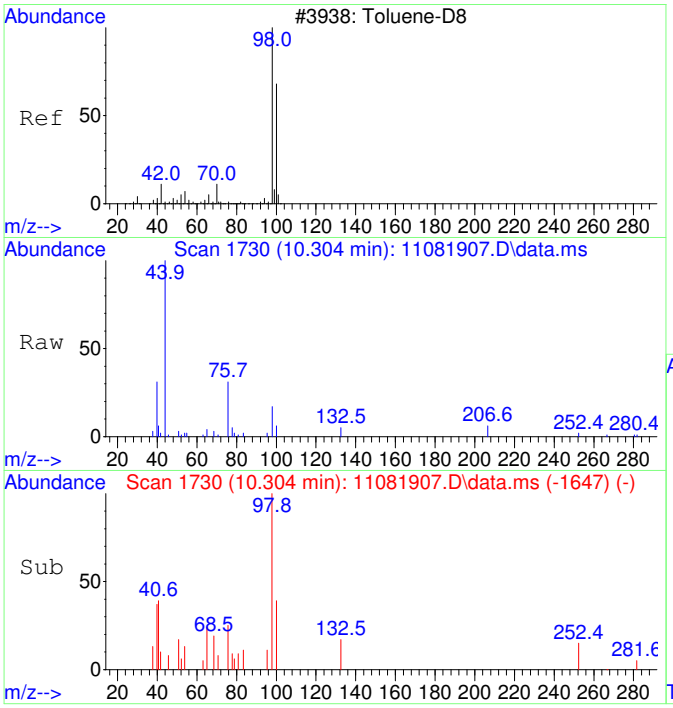


#35
Trichloroethene SCAN
Concen: 109.98 ug/L
RT: 8.390 min Scan# 1331
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:130 Resp: 349

Ion	Ratio	Lower	Upper
130	100		
95	115.8	61.4	121.4
132	57.9	75.5	135.5#
97	61.9	30.6	90.6

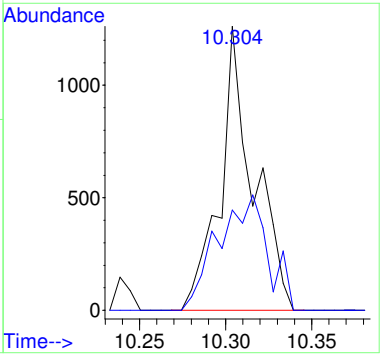


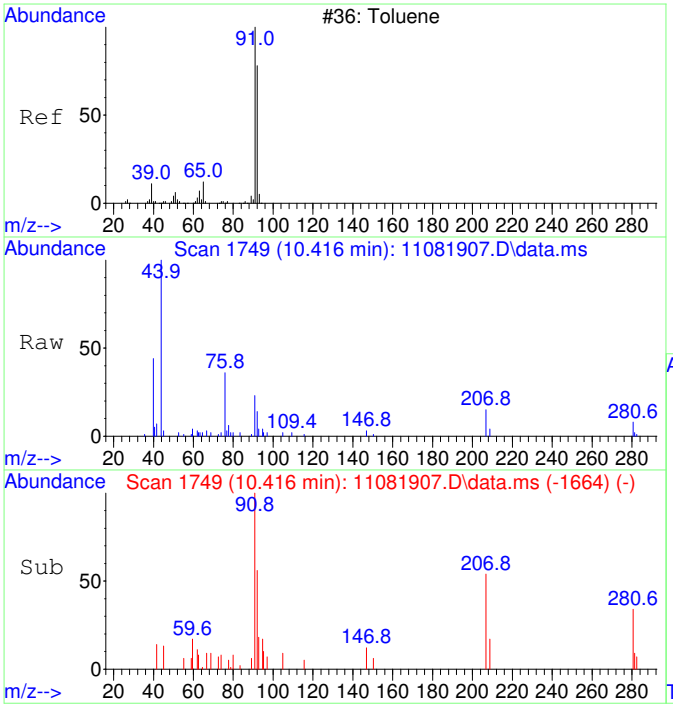


#36
Toluene-d8 SCAN
Concen: 160.07 ug/L
RT: 10.304 min Scan# 1730
Delta R.T. -0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 98 Resp: 1696

Ion	Ratio	Lower	Upper
98	100		
100	60.8	32.2	92.2

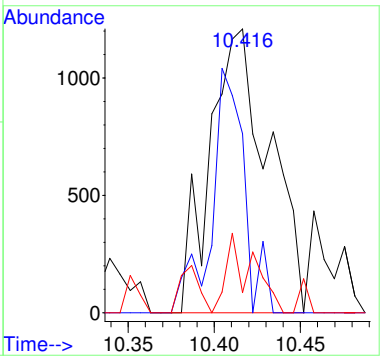


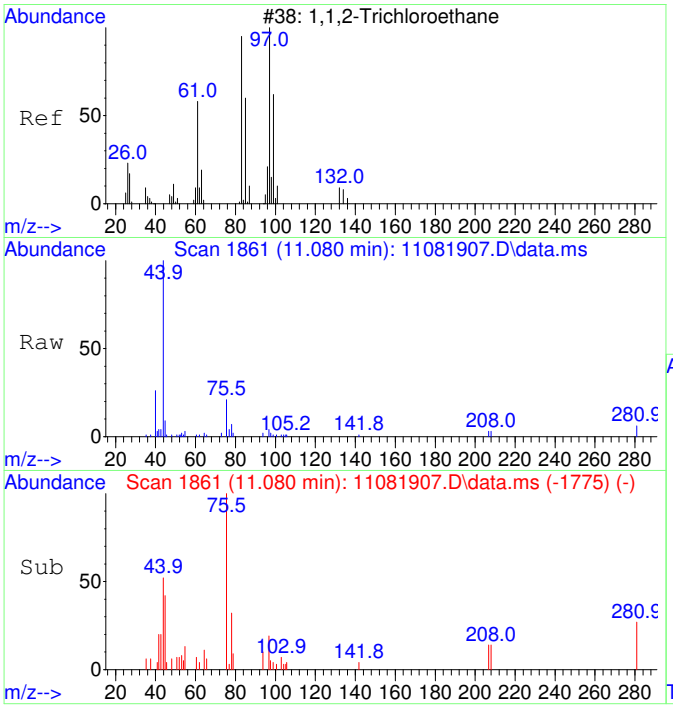


#37
Toluene SCAN
Concen: 235.52 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 2886

Ion	Ratio	Lower	Upper
91	100		
92	47.2	34.3	94.3
65	12.4	0.0	45.2

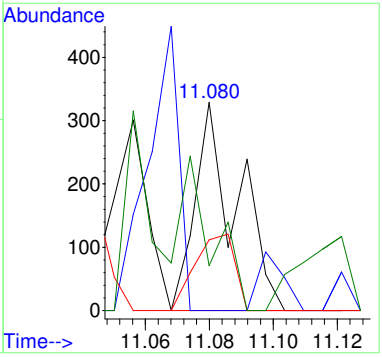


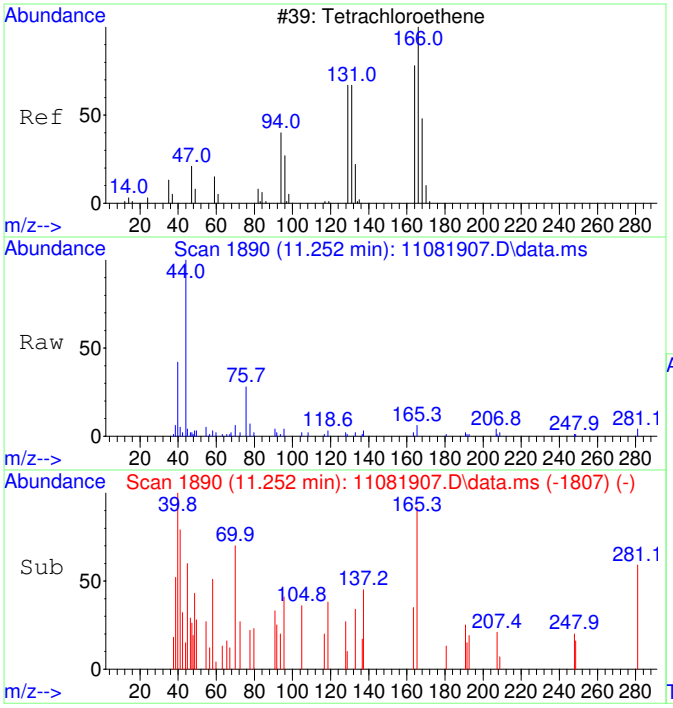


#38
1,1,2-Trichloroethane SCAN
Concen: 106.08 ug/L
RT: 11.080 min Scan# 1861
Delta R.T. 0.012 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 300

Ion	Ratio	Lower	Upper
97	100		
83	101.0	73.8	133.8
61	0.0	38.9	98.9#
99	36.0	33.5	93.5

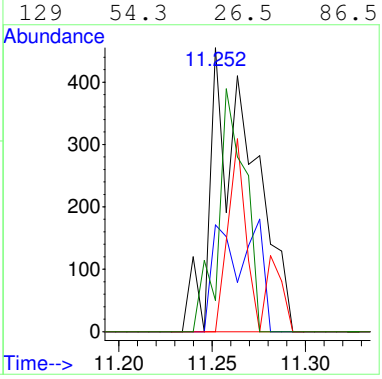


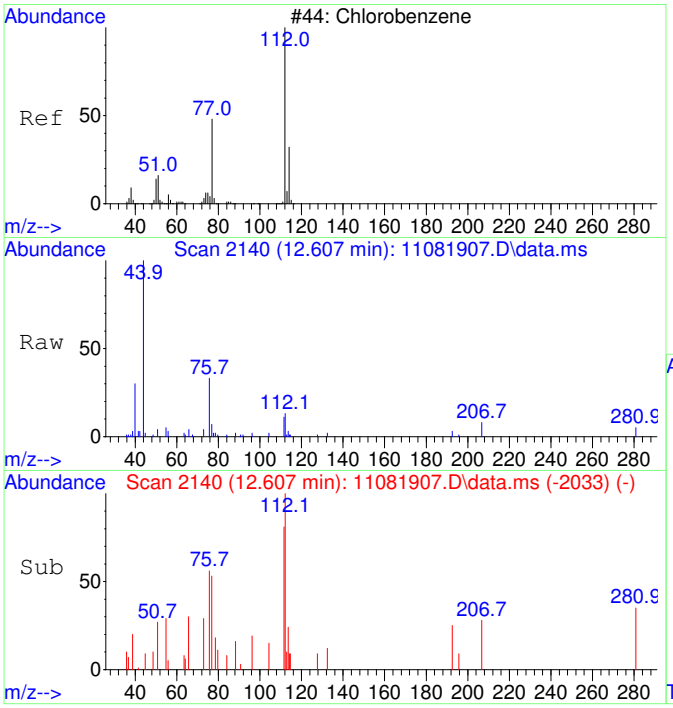


#39
Tetrachloroethene SCAN
Concen: 214.04 ug/L
RT: 11.252 min Scan# 1890
Delta R.T. -0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:166 Resp: 709

Ion	Ratio	Lower	Upper
166	100		
164	0.0	41.7	101.7#
131	28.5	36.7	96.7#
129	54.3	26.5	86.5

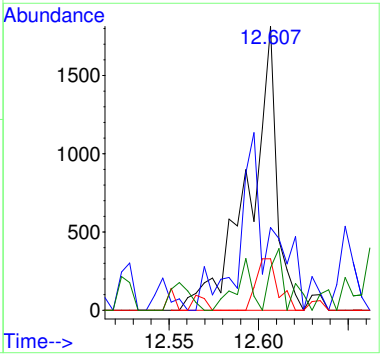


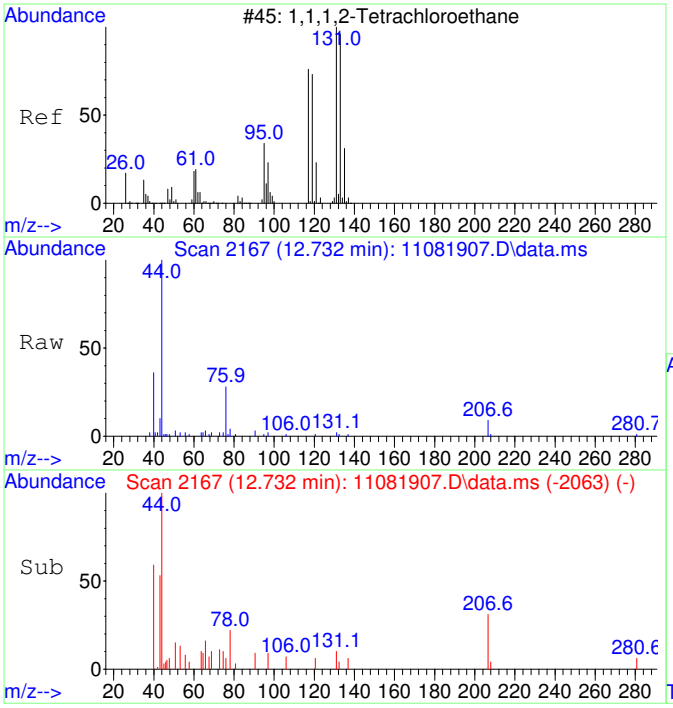


#40
Chlorobenzene SCAN
Concen: 230.05 ug/L
RT: 12.607 min Scan# 2140
Delta R.T. 0.009 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:112 Resp: 1958

Ion	Ratio	Lower	Upper
112	100		
77	0.0	22.8	82.8#
114	14.4	3.9	63.9
51	13.3	0.0	48.2

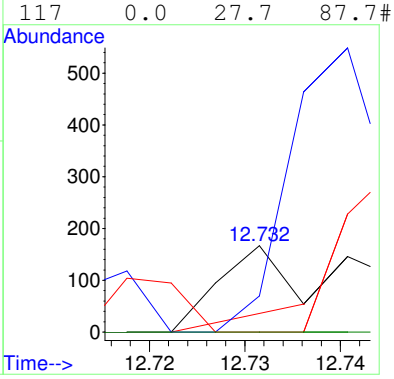


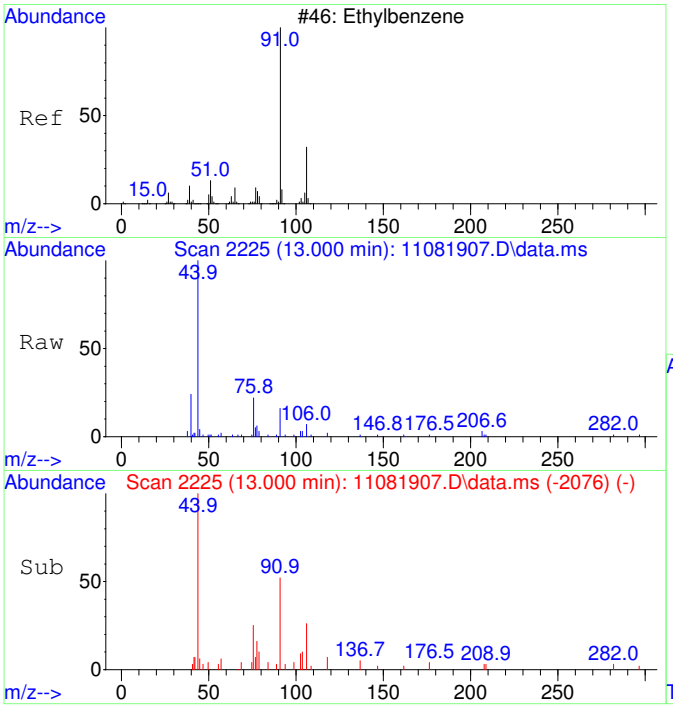


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 21.44 ug/L
RT: 12.732 min Scan# 2167
Delta R.T. -0.018 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:131 Resp: 65

Ion	Ratio	Lower	Upper
131	100		
133	823.1	72.3	132.3#
119	216.9	28.1	88.1#
117	0.0	27.7	87.7#

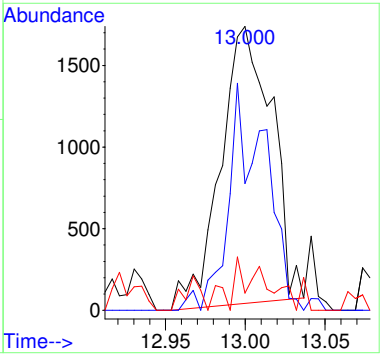


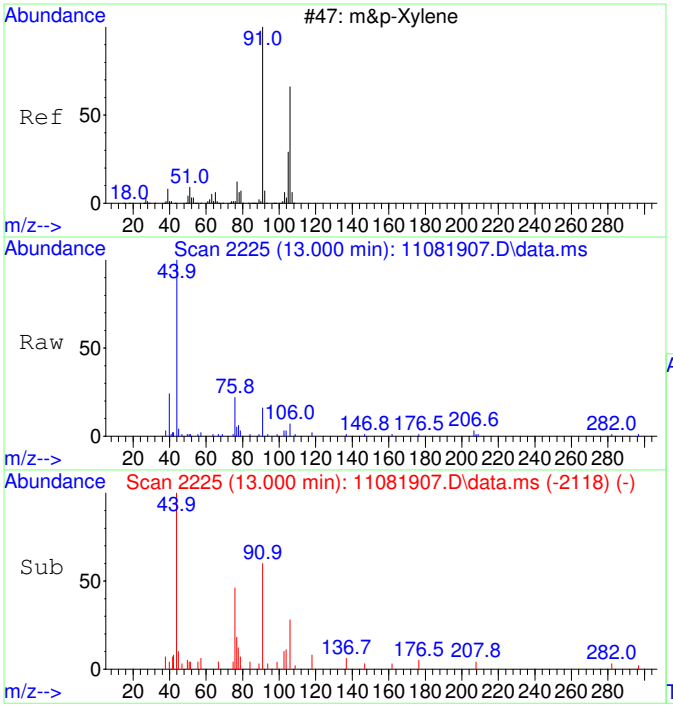


#42
Ethylbenzene SCAN
Concen: 271.49 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3807

Ion	Ratio	Lower	Upper
91	100		
106	59.1	3.6	63.6
51	12.5	0.0	41.2

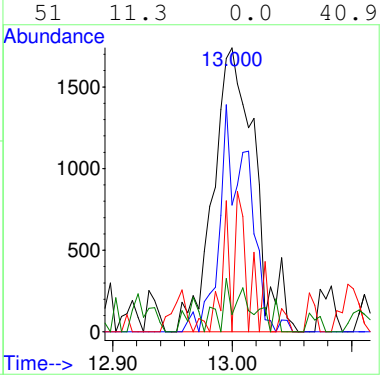


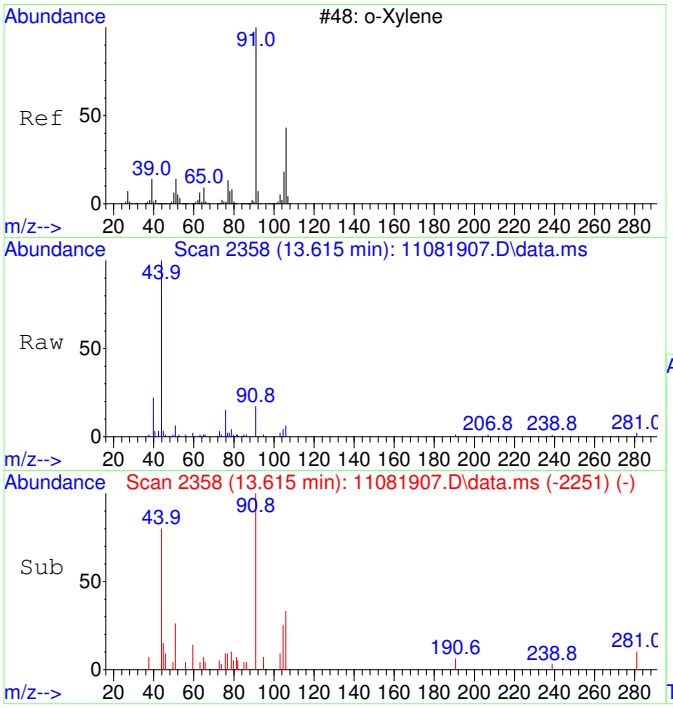


#43
m&p-Xylene SCAN
Concen: 205.69 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 4188

Ion	Ratio	Lower	Upper
91	100		
106	53.7	22.9	82.9
105	8.8	0.0	55.8
51	11.3	0.0	40.9

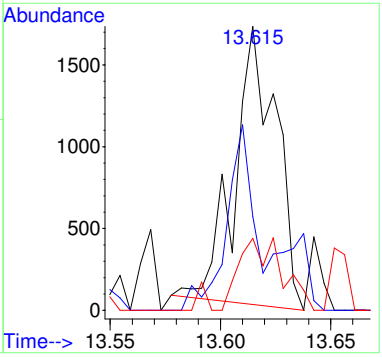


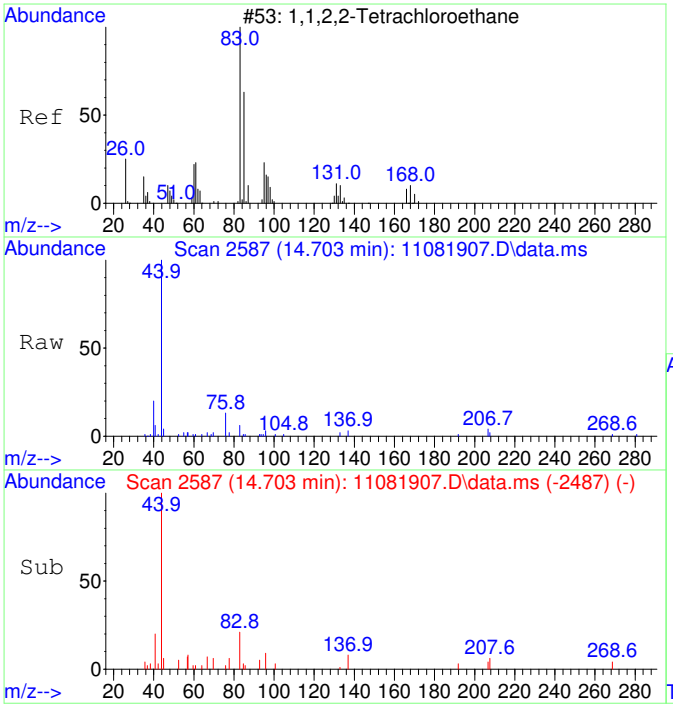


#44
o-Xylene SCAN
Concen: 200.78 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 2218

Ion	Ratio	Lower	Upper
91	100		
106	27.6	17.0	77.0
105	27.0	0.0	47.3

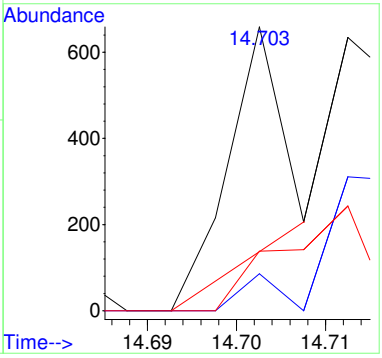


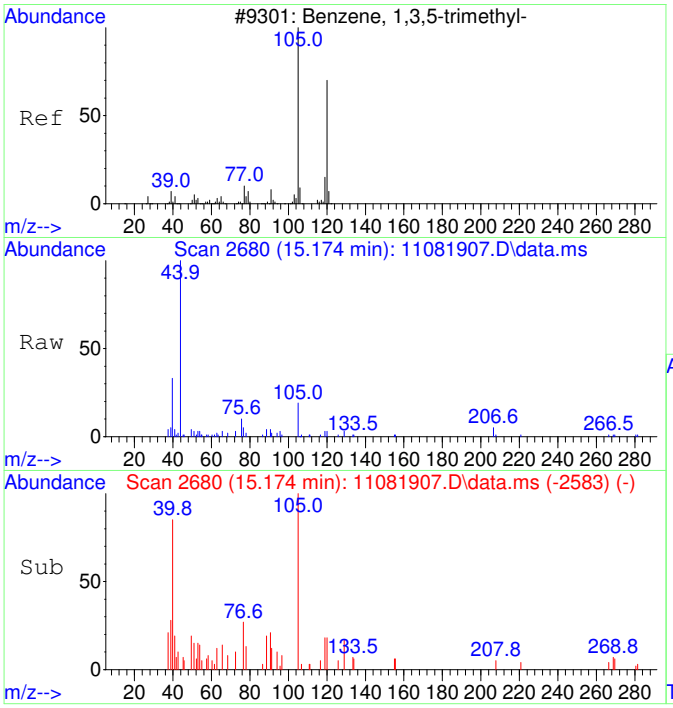


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 43.69 ug/L
RT: 14.703 min Scan# 2587
Delta R.T. -0.010 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 230

Ion	Ratio	Lower	Upper
83	100		
85	0.0	33.6	93.6#
95	67.8	0.0	50.6#

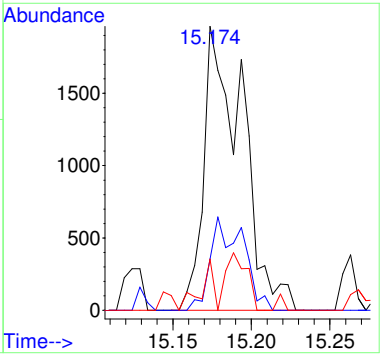


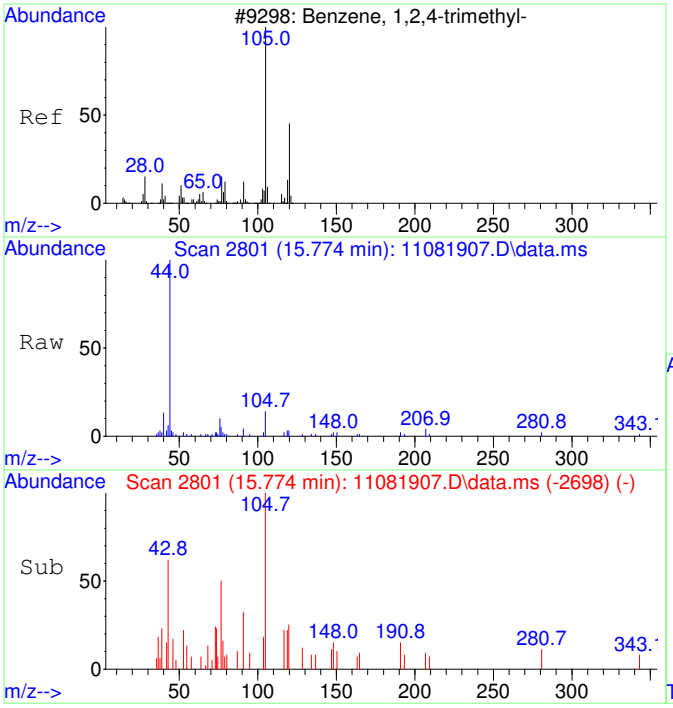


#46
1,3,5-Trimethylbenzene SCAN
Concen: 311.28 ug/L
RT: 15.174 min Scan# 2680
Delta R.T. -0.010 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 3367

Ion	Ratio	Lower	Upper
105	100		
120	27.6	19.2	79.2
119	5.8	0.0	43.3

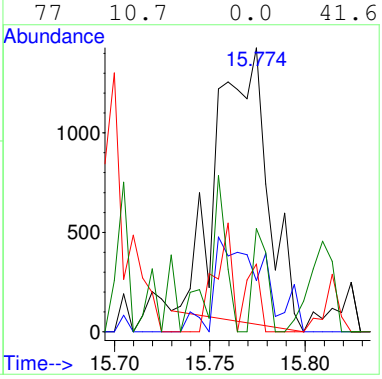


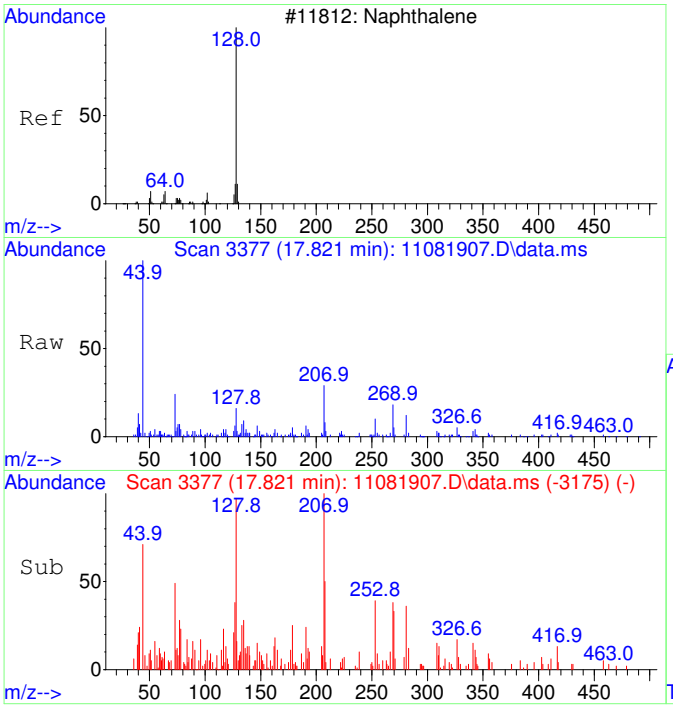


#47
1,2,4-Trimethylbenzene SCAN
Concen: 231.34 ug/L
RT: 15.774 min Scan# 2801
Delta R.T. 0.010 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 2551

Ion	Ratio	Lower	Upper
105	100		
120	0.0	15.6	75.6#
119	0.0	0.0	41.8
77	10.7	0.0	41.6





#48
Naphthalene SCAN
Concen: 202.74 ug/L
RT: 17.821 min Scan# 3377
Delta R.T. -0.002 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:128 Resp: 3636

Ion	Ratio	Lower	Upper
128	100		
127	31.1	0.0	40.7
129	8.7	0.0	40.9

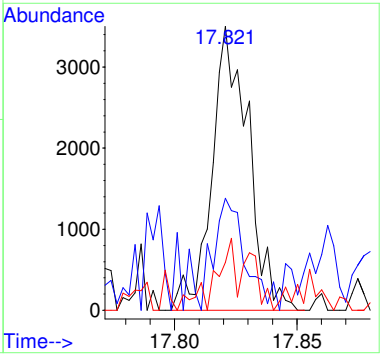


Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081907.D
Acq On : 8 Nov 2019 12:42
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
TD at 6:05 am, Nov 11, 2019

M.I. Approved By:
ZR at 11:36 am, Nov 12, 2019

Quant Time: Nov 11 05:56:54 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:56:46 2019
Response via : Initial Calibration

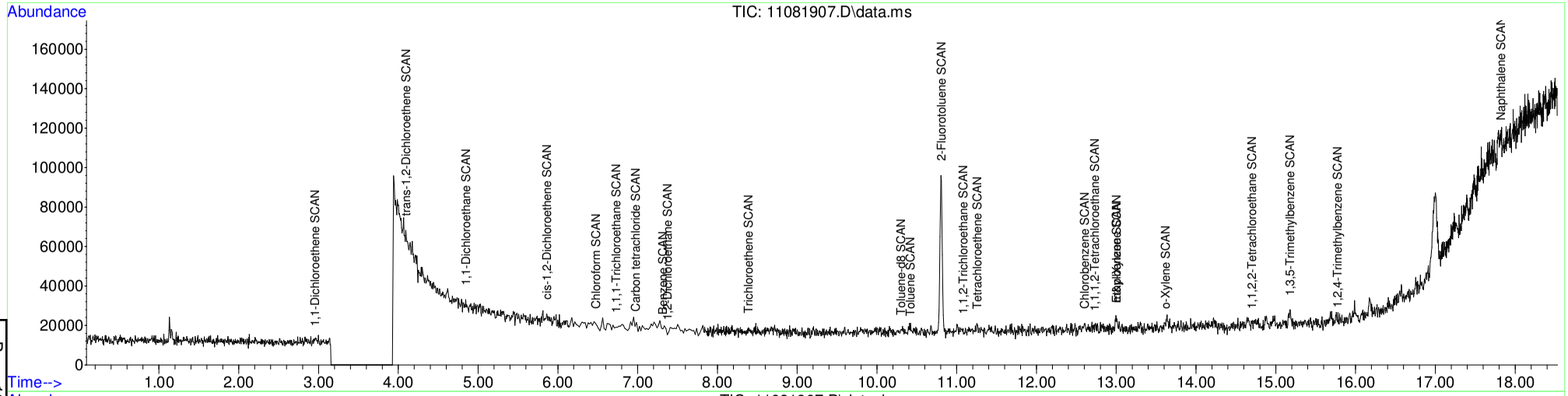
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	101471	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	2498	151.88	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 3.04%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	676m	124.70	ug/L	
3] trans-1,2-Dichloroethene	4.102	61	734	160.84	ug/L	98
4] 1,1-Dichloroethane	4.832	63	903	157.85	ug/L	97
5] cis-1,2-Dichloroethene	5.860	61	856	157.76	ug/L	94
6] Chloroform	6.435	83	986	158.84	ug/L	95
7] 1,1,1-Trichloroethane	6.693	97	993	162.17	ug/L	96
8] Carbon tetrachloride	6.969	117	899	155.68	ug/L	99
9] Benzene	7.301	78	2596	164.53	ug/L	99
10] 1,2-Dichloroethane	7.338	62	789	157.10	ug/L	100
11] Trichloroethene	8.383	130	746	154.45	ug/L	97
13] Toluene	10.412	91	3101	156.21	ug/L	80
14] 1,1,2-Trichloroethane	11.069	97	695	151.00	ug/L	87
15] Tetrachloroethene	11.259	166	896	154.88	ug/L	98
16] Chlorobenzene	12.599	112	2272	153.62	ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.747	131	781	146.92	ug/L	91
18] Ethylbenzene	12.811	91	3886	161.30	ug/L	98
19] m&p-Xylene	13.001	91	5879	322.91	ug/L	82
20] o-Xylene	13.621	91	3079	157.83	ug/L	94
21] 1,1,2,2-Tetrachloroethane	14.714	83	1373	158.73	ug/L	95
22] 1,3,5-Trimethylbenzene	15.185	105	3341	160.88	ug/L	99
23] 1,2,4-Trimethylbenzene	15.761	105	3445	162.85	ug/L	98
24] Naphthalene	17.824	128	5795	158.53	ug/L	96
25) 2-Fluorotoluene SCAN	10.801	109	64982	5192.92	ug/L	97
26) 1,1-Dichloroethene SCAN	2.952	61	211	79.75	ug/L #	45
27) trans-1,2-Dichloroethe...	4.094	61	299	96.68	ug/L #	52
28) 1,1-Dichloroethane SCAN	4.844	63	643	172.28	ug/L	78
29) cis-1,2-Dichloroethene...	5.859	61	831	221.29	ug/L #	72
30) Chloroform SCAN	6.471	83	1618	397.99	ug/L #	32
31) 1,1,1-Trichloroethane ...	6.729	97	927	233.80	ug/L #	55
32) Carbon tetrachloride SCAN	6.968	117	845	223.88	ug/L #	54
33) Benzene SCAN	7.318	78	5272	497.27	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.373	62	1033	290.70	ug/L #	56
35) Trichloroethene SCAN	8.390	130	349	109.98	ug/L #	72
36) Toluene-d8 SCAN	10.304	98	1696	160.07	ug/L	98
37) Toluene SCAN	10.416	91	2886	235.52	ug/L	81
38) 1,1,2-Trichloroethane ...	11.080	97	300	106.08	ug/L #	65
39) Tetrachloroethene SCAN	11.252	166	709	214.04	ug/L #	51
40) Chlorobenzene SCAN	12.607	112	1958	230.05	ug/L #	50
41) 1,1,1,2-Tetrachloroeth...	12.732	131	65	21.44	ug/L #	1
42) Ethylbenzene SCAN	13.000	91	3807	271.49	ug/L	66
43) m&p-Xylene SCAN	13.000	91	4188	205.69	ug/L	90
44) o-Xylene SCAN	13.615	91	2218	200.78	ug/L	73
45) 1,1,2,2-Tetrachloroeth...	14.703	83	230	43.69	ug/L #	14
46) 1,3,5-Trimethylbenzene...	15.174	105	3367	311.28	ug/L	71
47) 1,2,4-Trimethylbenzene...	15.774	105	2551	231.34	ug/L #	49
48) Naphthalene SCAN	17.821	128	3636	202.74	ug/L	70

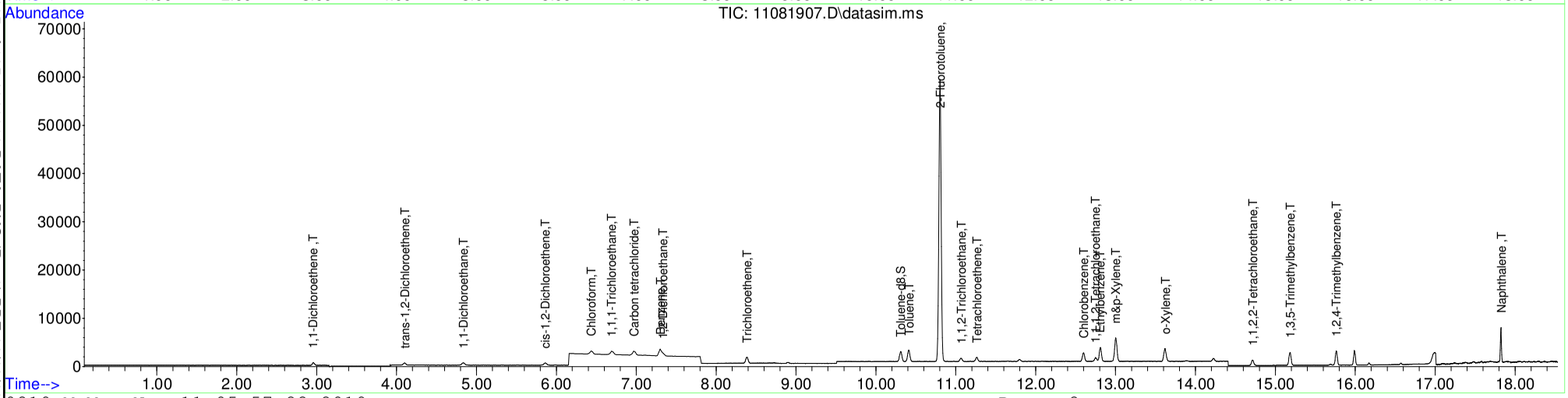
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081907.D
Acq On : 8 Nov 2019 12:42
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 11 05:56:54 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:56:46 2019
Response via : Initial Calibration





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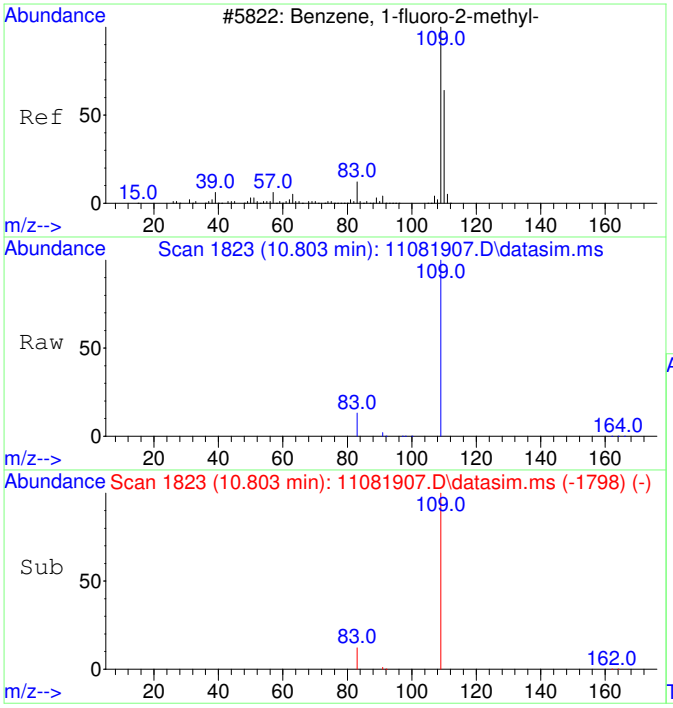
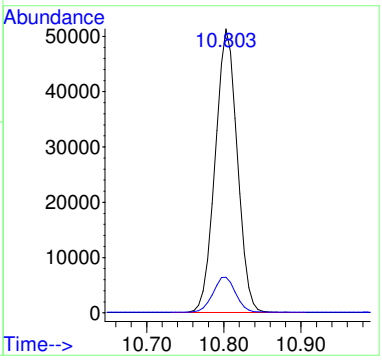
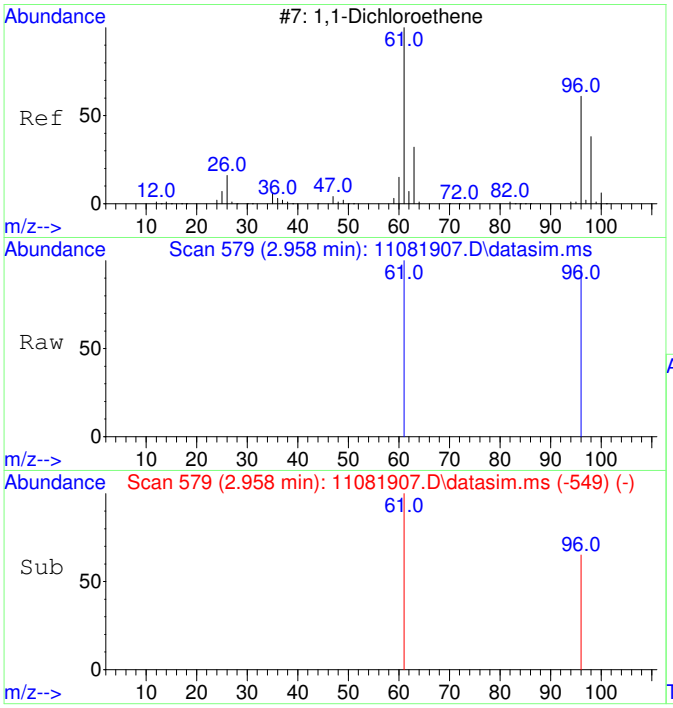


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:109 Resp: 101471

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	42.3

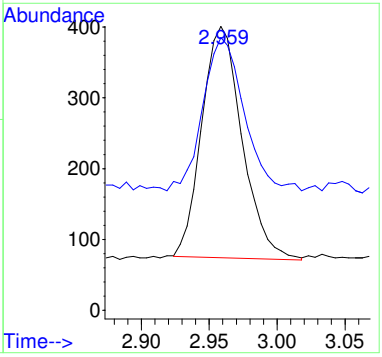


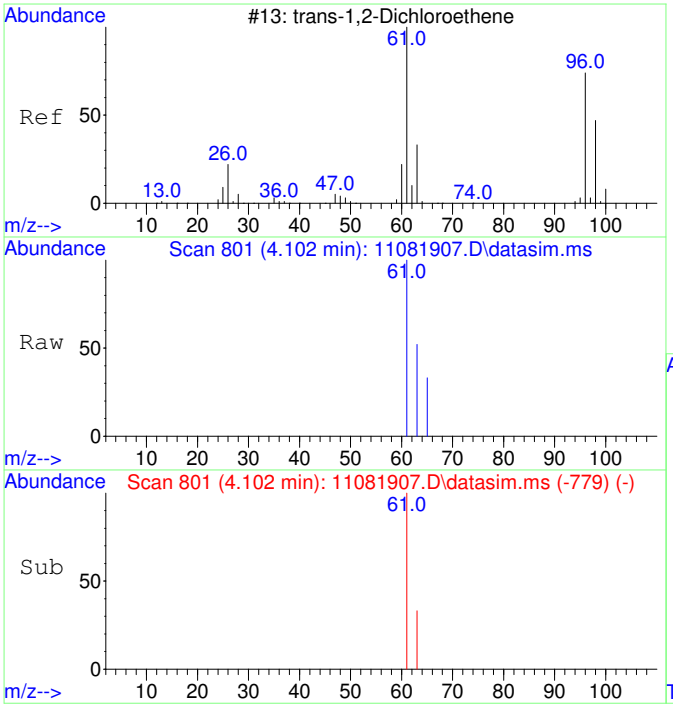


#2
1,1-Dichloroethene
Concen: 124.70 ug/L m
RT: 2.958 min Scan# 579
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 676

Ion	Ratio	Lower	Upper
61	100		
96	65.1	31.4	91.4

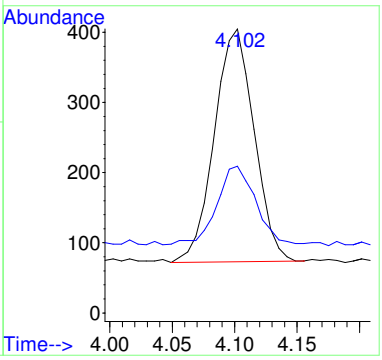


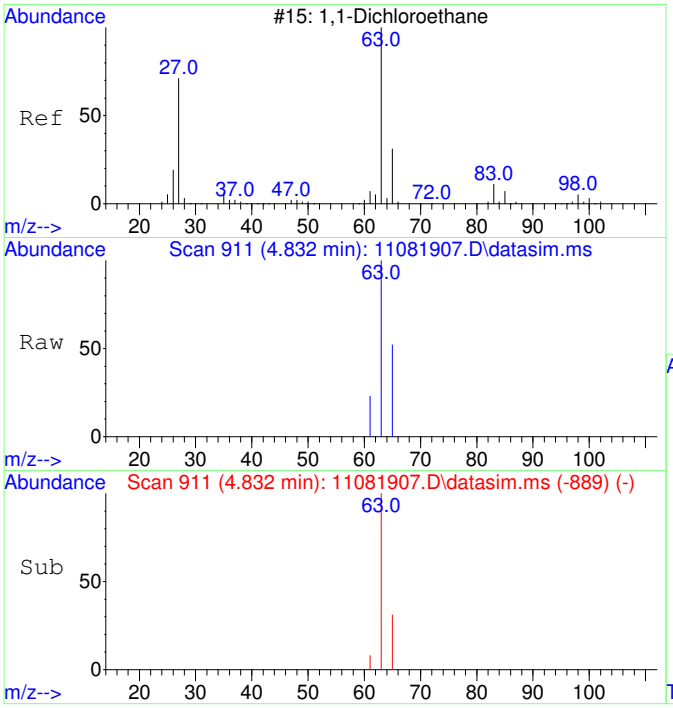


#3
trans-1,2-Dichloroethene
Concen: 160.84 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 734

Ion	Ratio	Lower	Upper
61	100		
63	33.9	2.8	62.8

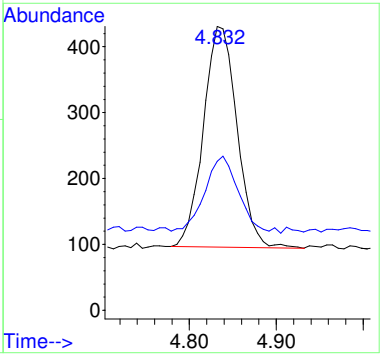


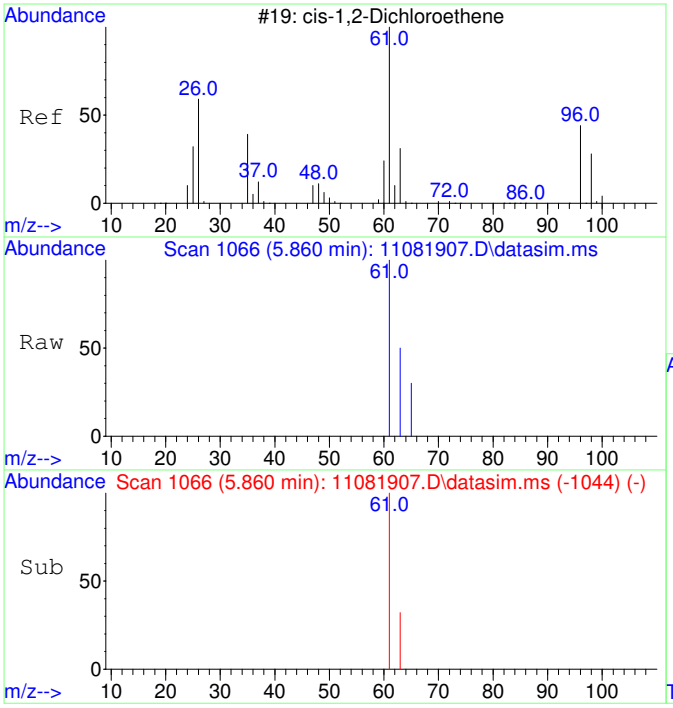


#4
1,1-Dichloroethane
Concen: 157.85 ug/L
RT: 4.832 min Scan# 911
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 63 Resp: 903

Ion	Ratio	Lower	Upper
63	100		
65	32.9	1.0	61.0

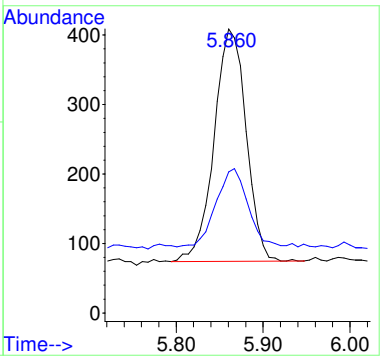


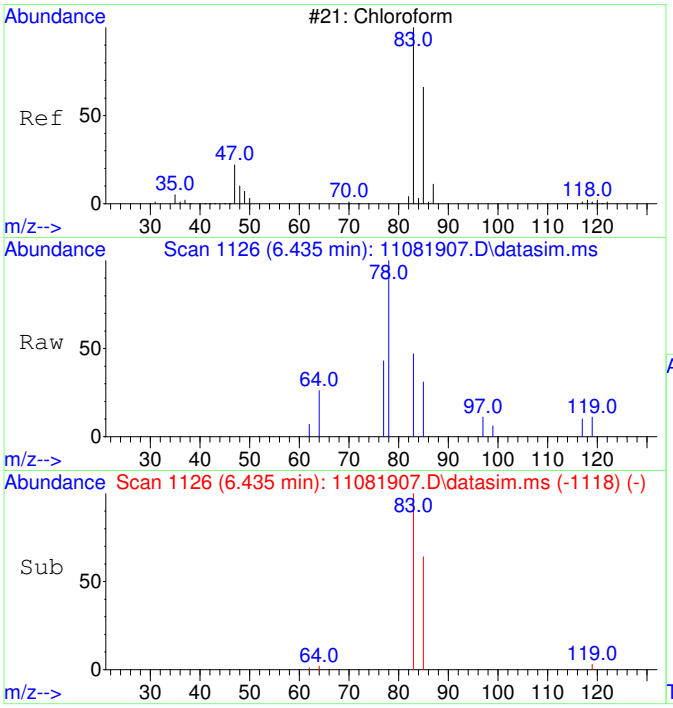


#5
cis-1,2-Dichloroethene
Concen: 157.76 ug/L
RT: 5.860 min Scan# 1066
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 856

Ion	Ratio	Lower	Upper
61	100		
63	34.8	1.4	61.4

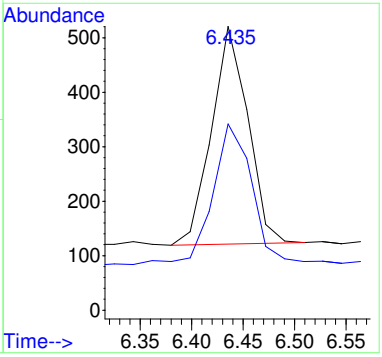


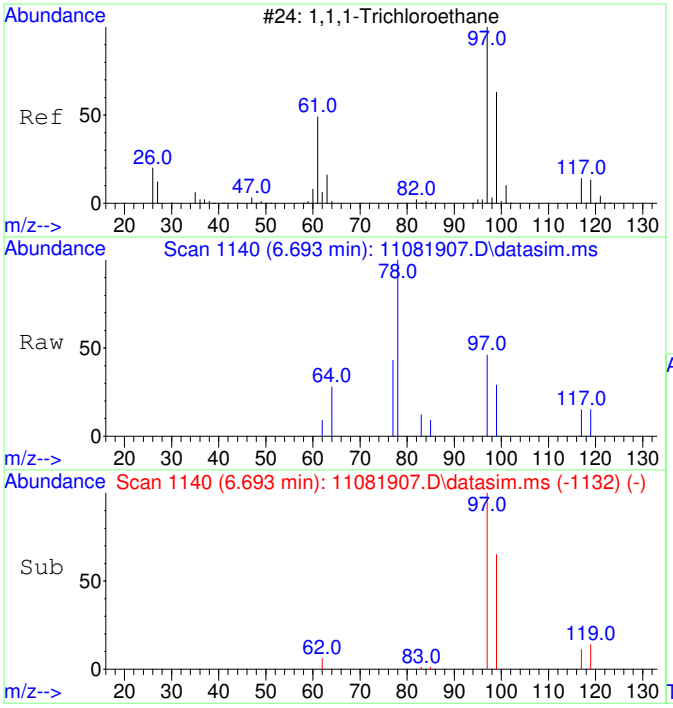


#6
Chloroform
Concen: 158.84 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 986

Ion	Ratio	Lower	Upper
83	100		
85	69.7	35.8	95.8

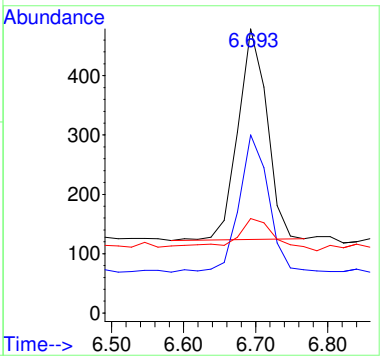


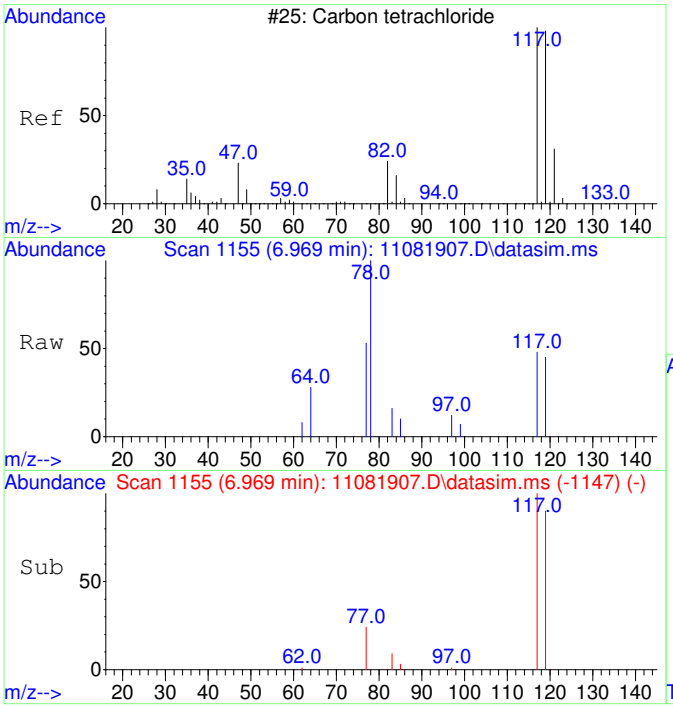


#7
1,1,1-Trichloroethane
Concen: 162.17 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 993

Ion	Ratio	Lower	Upper
97	100		
99	66.2	32.9	92.9
117	14.4	0.0	43.6

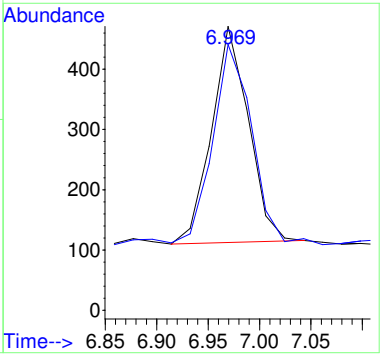


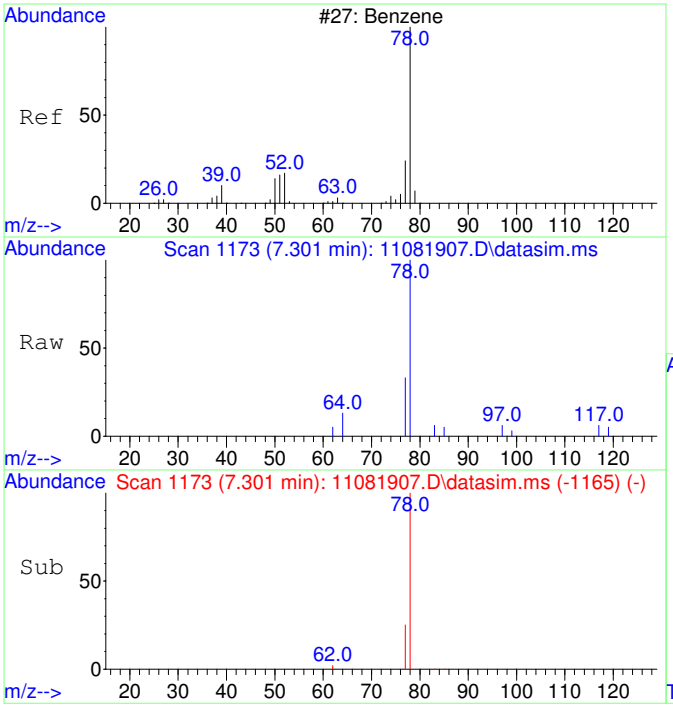


#8
Carbon tetrachloride
Concen: 155.68 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:117 Resp: 899

Ion	Ratio	Lower	Upper
117	100		
119	99.6	68.1	128.1

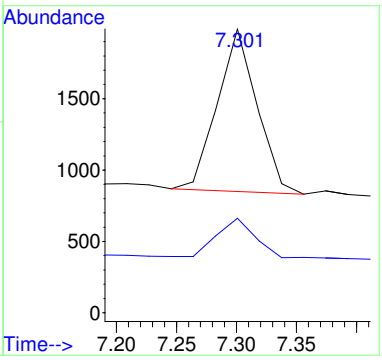


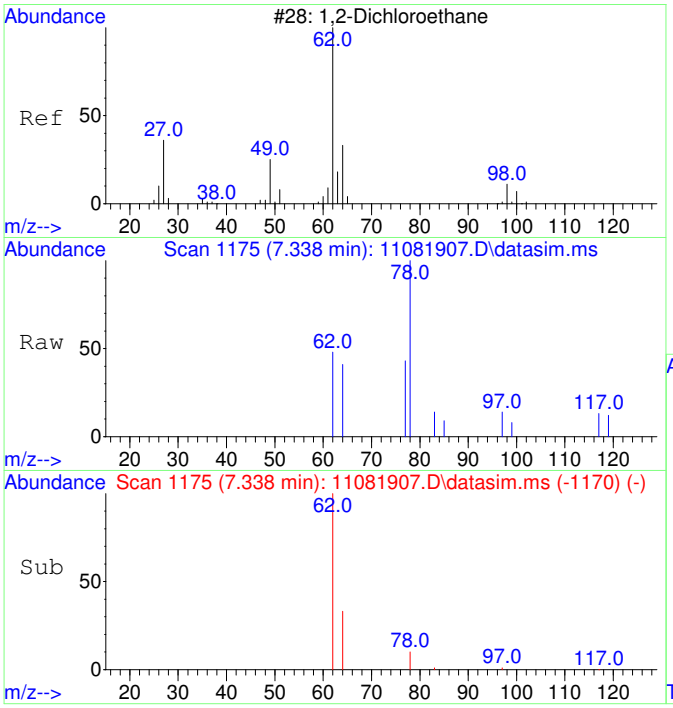


#9
Benzene
Concen: 164.53 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 78 Resp: 2596

Ion	Ratio	Lower	Upper
78	100		
77	24.4	0.0	53.7

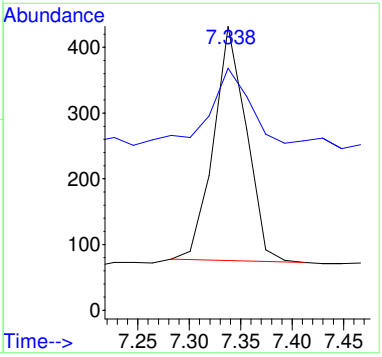


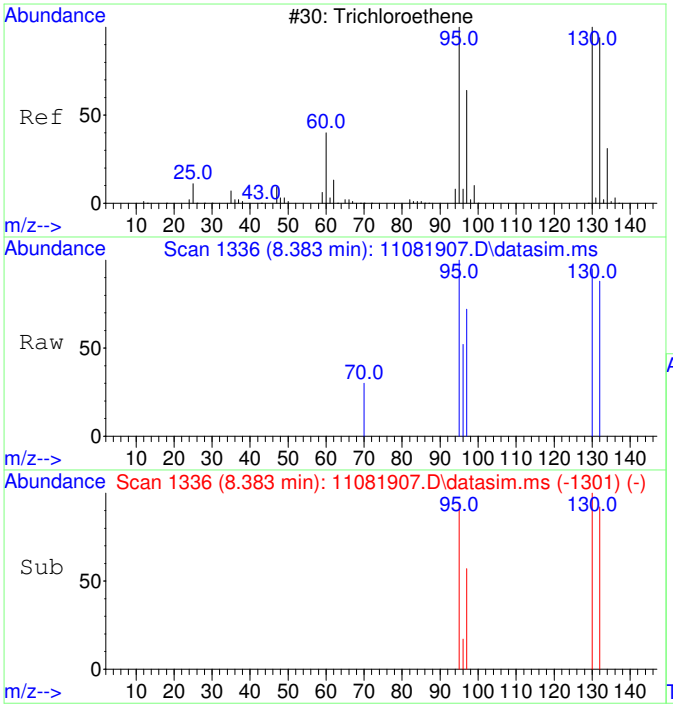


#10
1,2-Dichloroethane
Concen: 157.10 ug/L
RT: 7.338 min Scan# 1175
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 62 Resp: 789

Ion	Ratio	Lower	Upper
62	100		
64	33.7	3.5	63.5

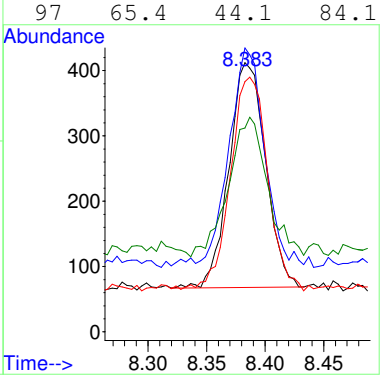


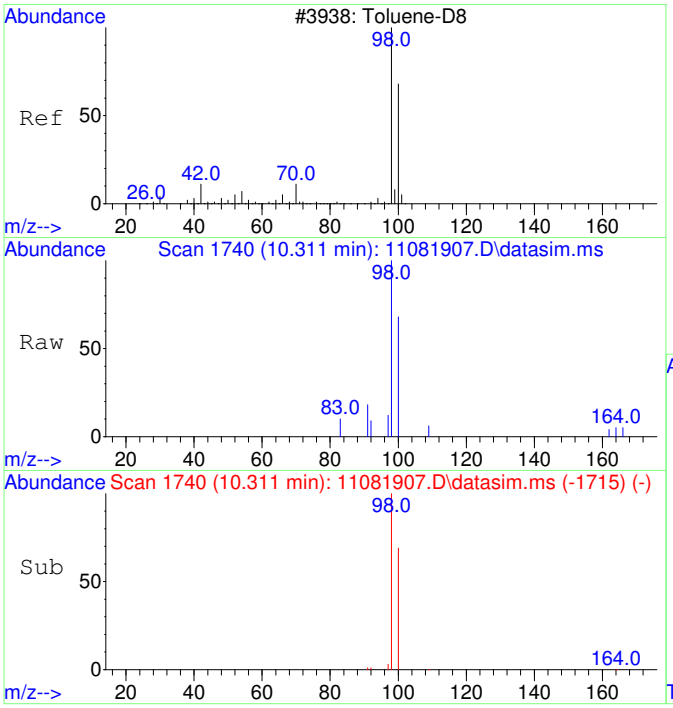


#11
Trichloroethene
Concen: 154.45 ug/L
RT: 8.383 min Scan# 1336
Delta R.T. -0.004 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:130 Resp: 746

Ion	Ratio	Lower	Upper
130	100		
95	94.6	70.1	130.1
132	96.6	74.3	114.3
97	65.4	44.1	84.1

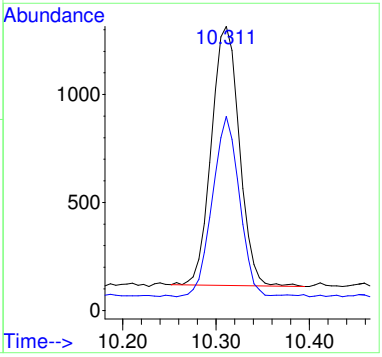


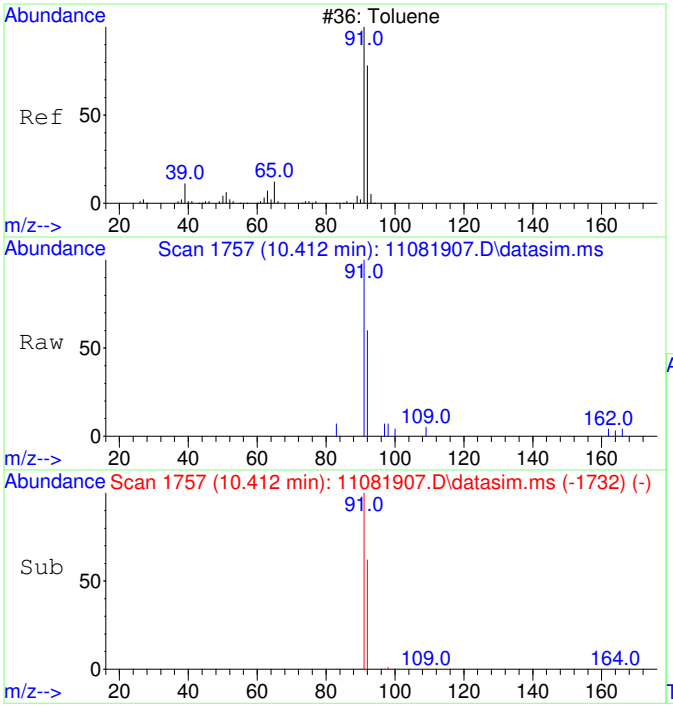


#12
Toluene-d8
Concen: 151.88 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 98 Resp: 2498

Ion	Ratio	Lower	Upper
98	100		
100	66.7	38.4	98.4

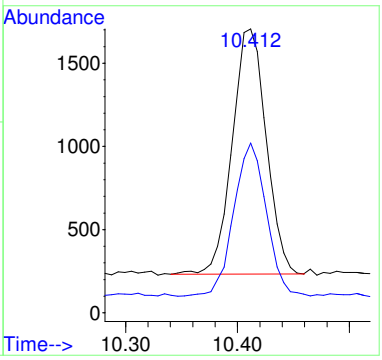


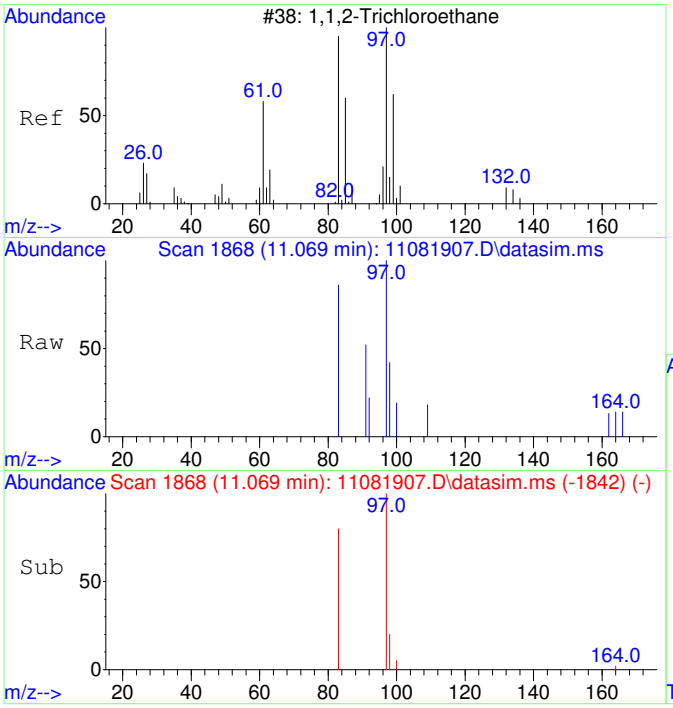


#13
Toluene
Concen: 156.21 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3101

Ion	Ratio	Lower	Upper
91	100		
92	60.1	47.7	107.7

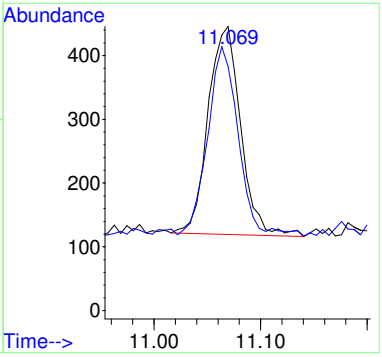


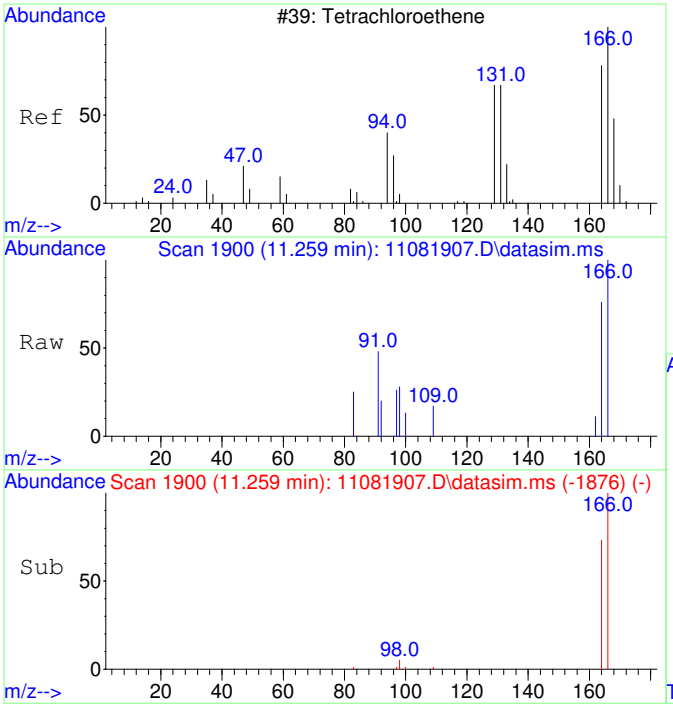


#14
1,1,2-Trichloroethane
Concen: 151.00 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. 0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 695

Ion	Ratio	Lower	Upper
97	100		
83	82.4	65.0	125.0

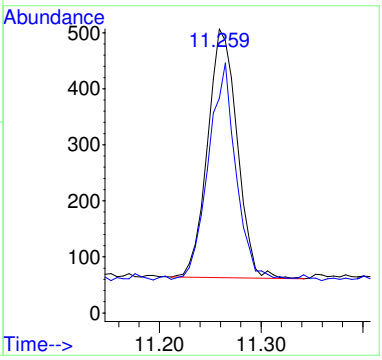


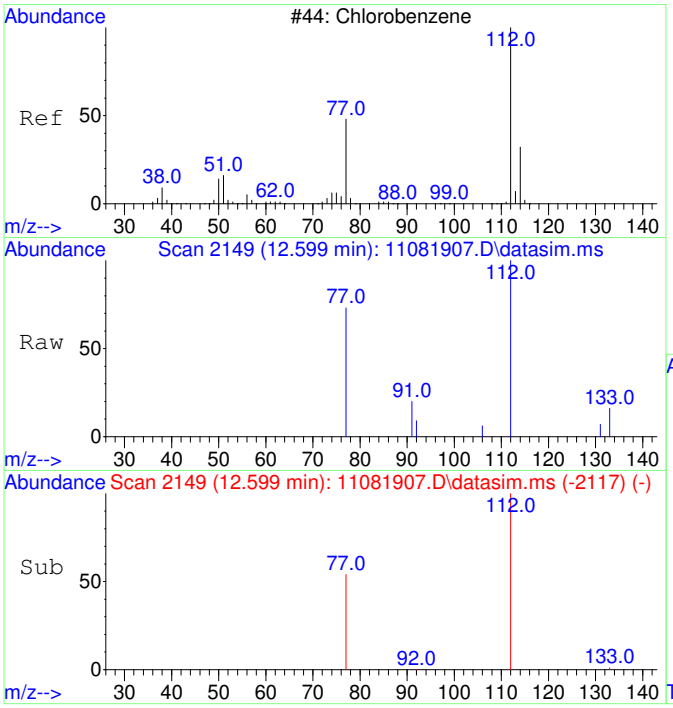


#15
Tetrachloroethene
Concen: 154.88 ug/L
RT: 11.259 min Scan# 1900
Delta R.T. -0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:166 Resp: 896

Ion	Ratio	Lower	Upper
166	100		
164	80.0	47.9	107.9

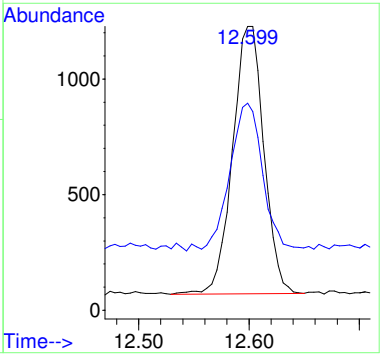


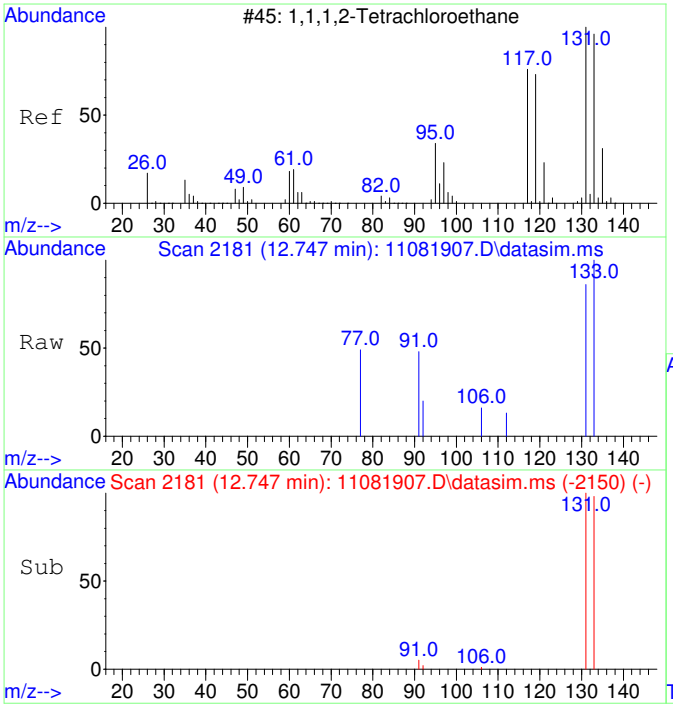


#16
Chlorobenzene
Concen: 153.62 ug/L
RT: 12.599 min Scan# 2149
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:112 Resp: 2272

Ion	Ratio	Lower	Upper
112	100		
77	55.1	18.3	78.3

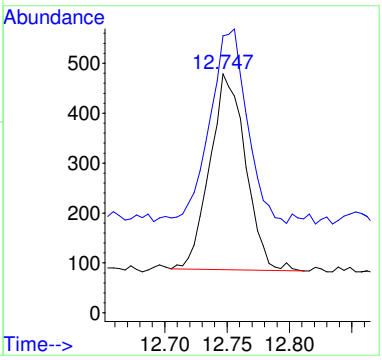


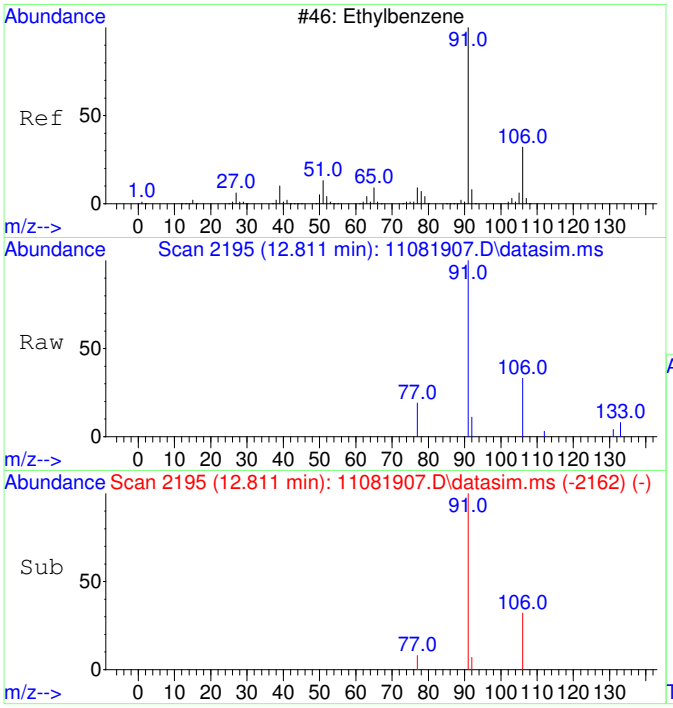


#17
1,1,1,2-Tetrachloroethane
Concen: 146.92 ug/L
RT: 12.747 min Scan# 2181
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:131 Resp: 781

Ion	Ratio	Lower	Upper
131	100		
133	105.0	66.1	126.1

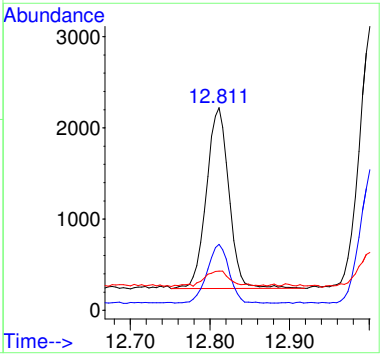


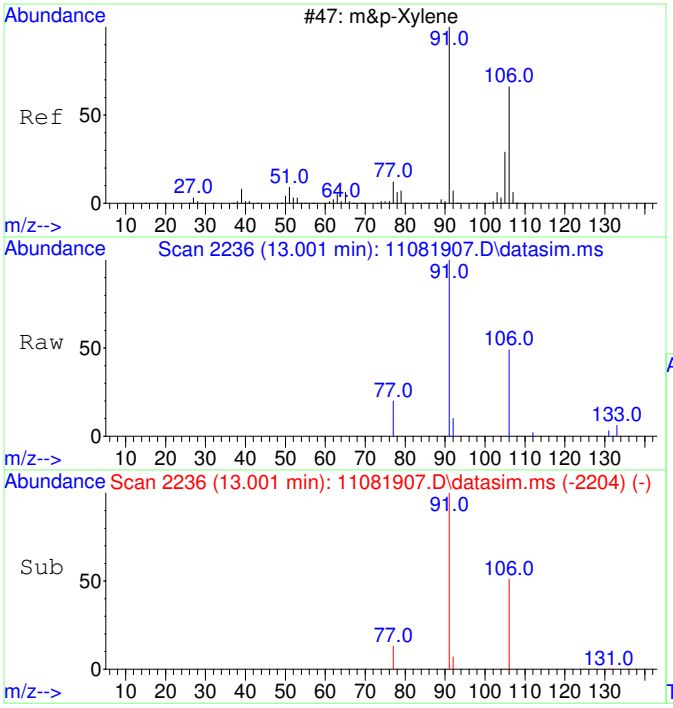


#18
Ethylbenzene
Concen: 161.30 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. 0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3886

Ion	Ratio	Lower	Upper
91	100		
106	31.5	2.3	62.3
77	10.6	0.0	38.6

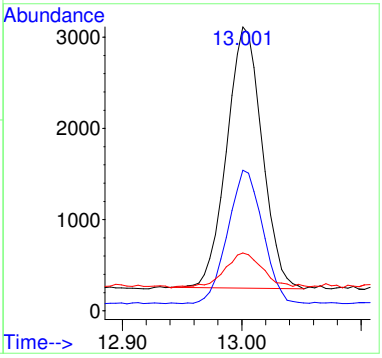


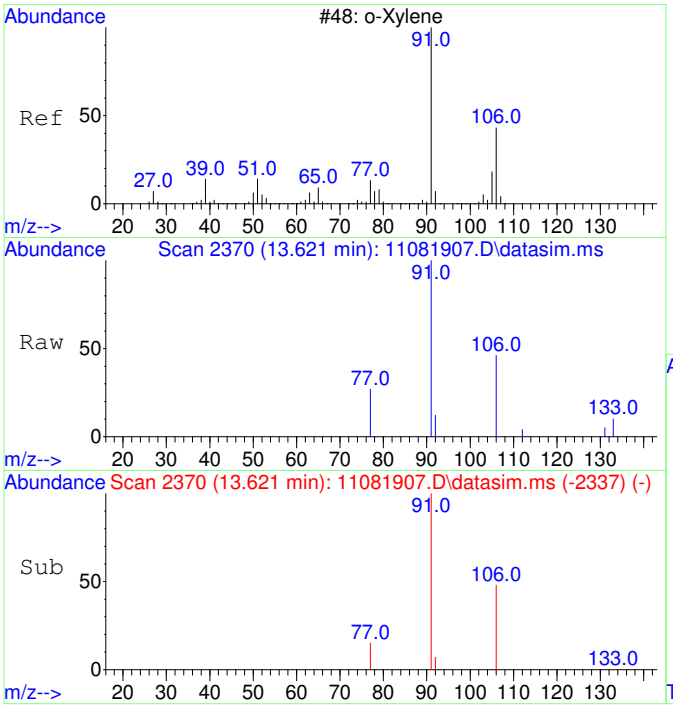


#19
m&p-Xylene
Concen: 322.91 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 5879

Ion	Ratio	Lower	Upper
91	100		
106	50.2	35.9	95.9
77	14.4	0.0	41.9

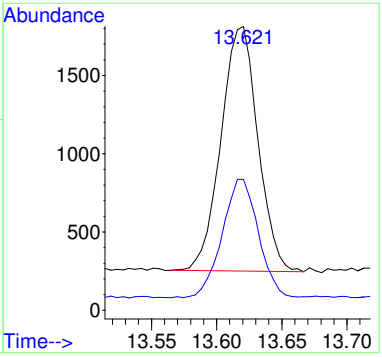


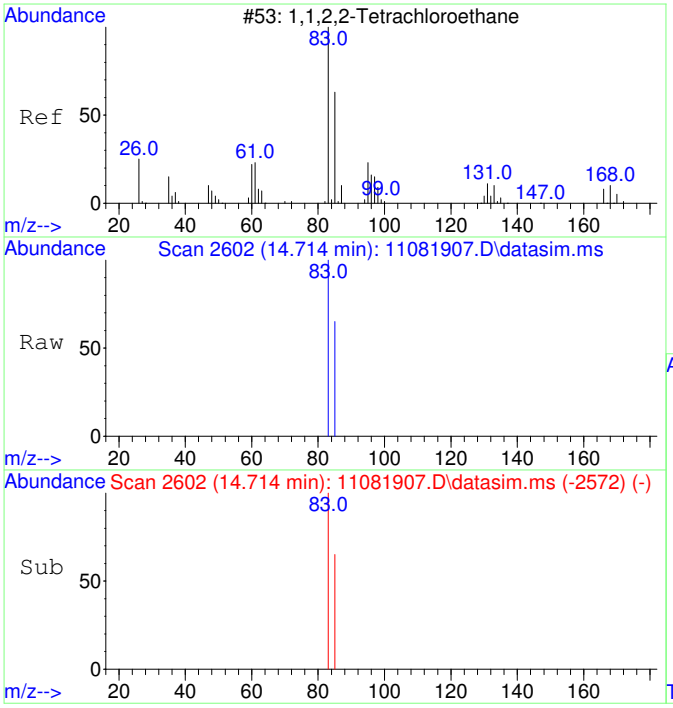


#20
o-Xylene
Concen: 157.83 ug/L
RT: 13.621 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3079

Ion	Ratio	Lower	Upper
91	100		
106	47.0	13.0	73.0

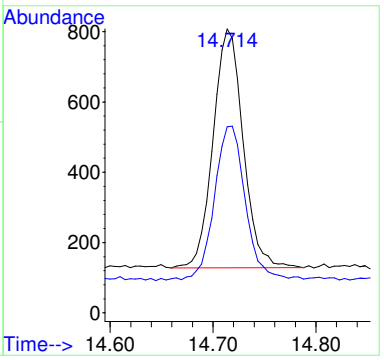


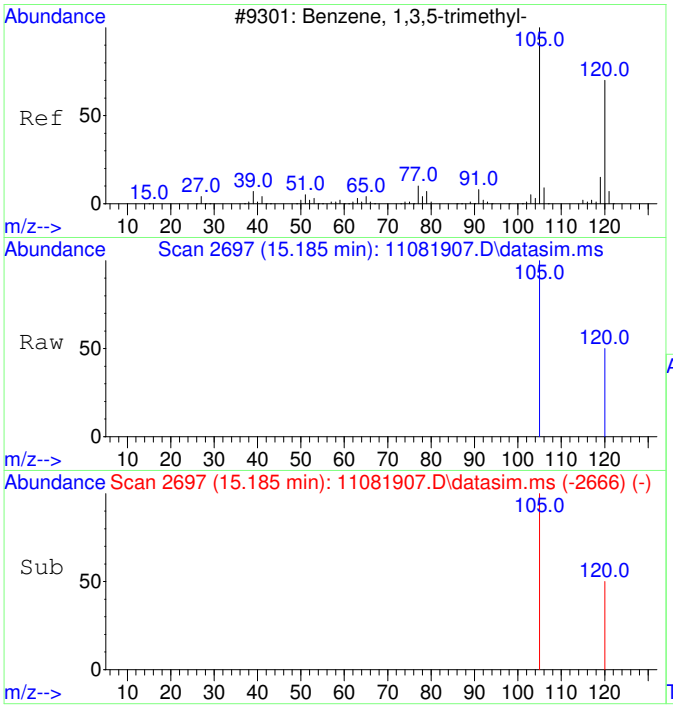


#21
1,1,2,2-Tetrachloroethane
Concen: 158.73 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 1373

Ion	Ratio	Lower	Upper
83	100		
85	66.4	32.7	92.7

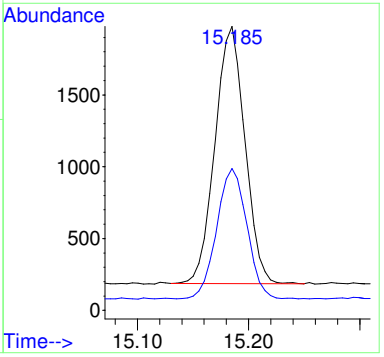


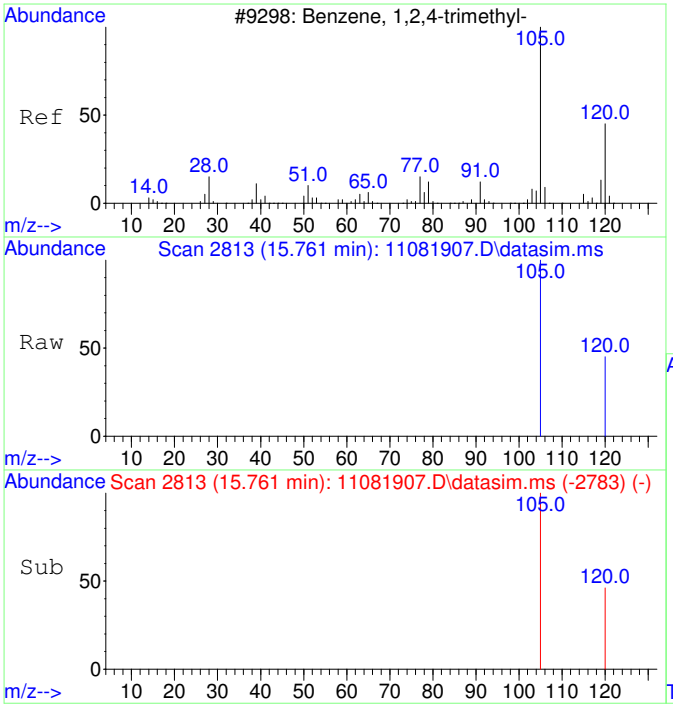


#22
1,3,5-Trimethylbenzene
Concen: 160.88 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. 0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 3341

Ion	Ratio	Lower	Upper
105	100		
120	51.1	20.1	80.1

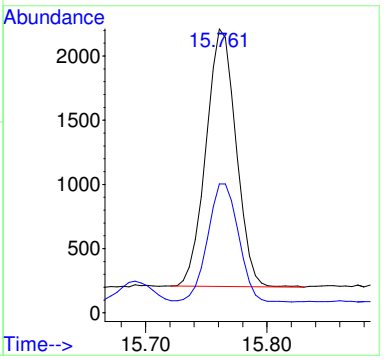


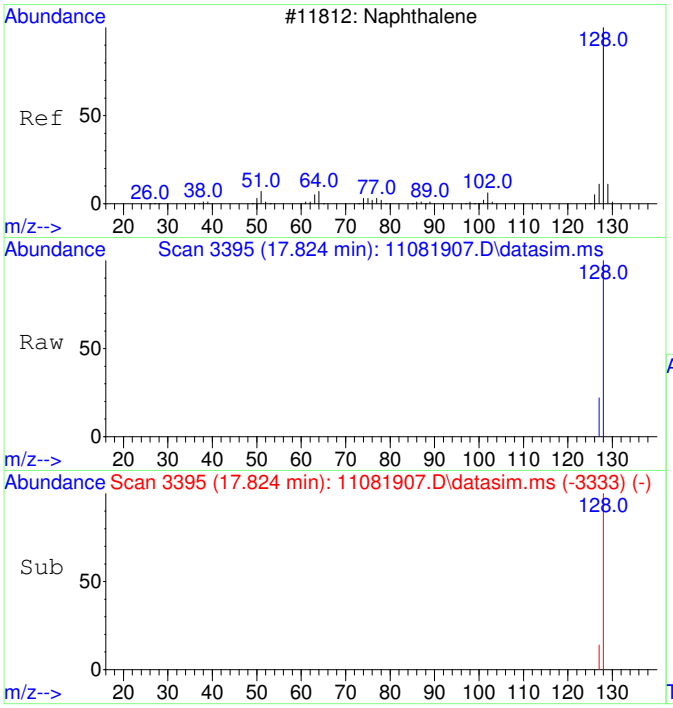


#23
1,2,4-Trimethylbenzene
Concen: 162.85 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 3445

Ion	Ratio	Lower	Upper
105	100		
120	46.4	15.2	75.2

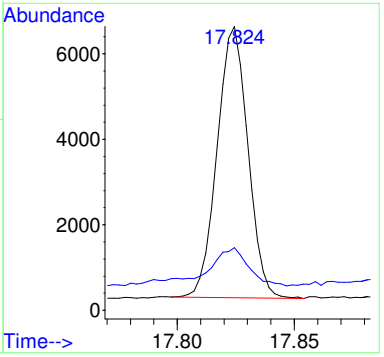


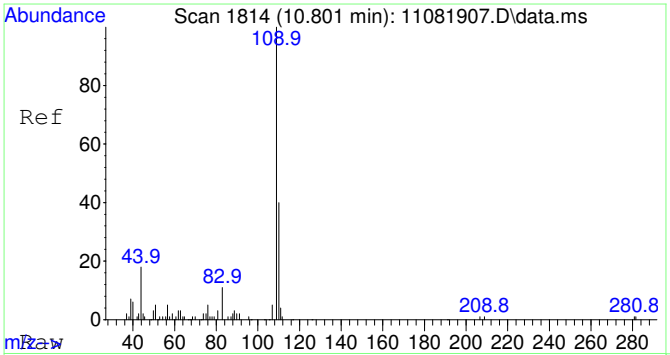


#24
Naphthalene
Concen: 158.53 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. 0.003 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:128 Resp: 5795

Ion	Ratio	Lower	Upper
128	100		
127	12.4	0.0	40.7

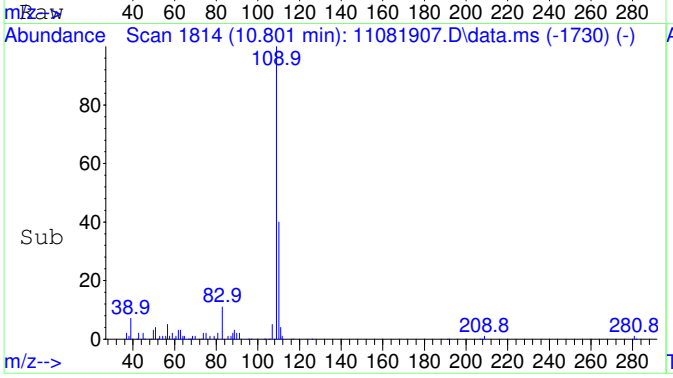


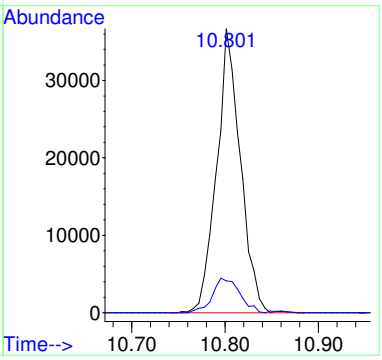


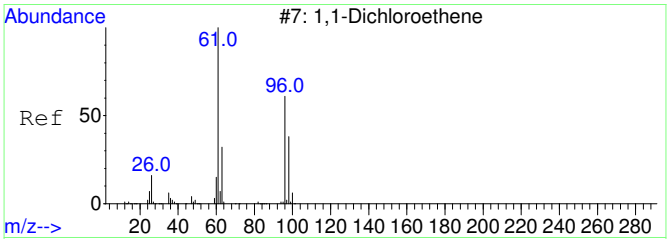
#25
2-Fluorotoluene SCAN
Concen: 5192.92 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:109 Resp: 64982

Ion	Ratio	Lower	Upper
109	100		
83	14.0	0.0	42.8



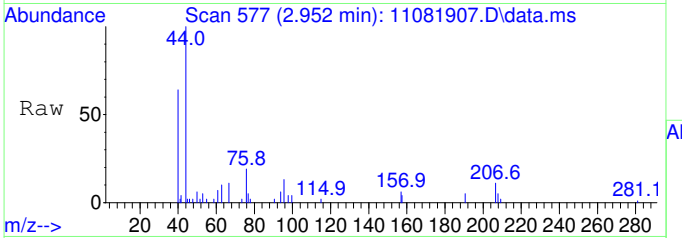


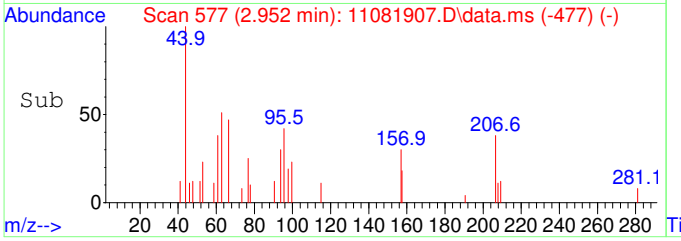


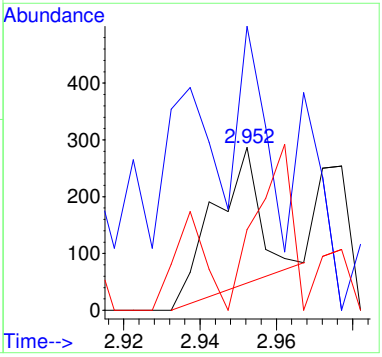
#26
1,1-Dichloroethene SCAN
Concen: 79.75 ug/L
RT: 2.952 min Scan# 577
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

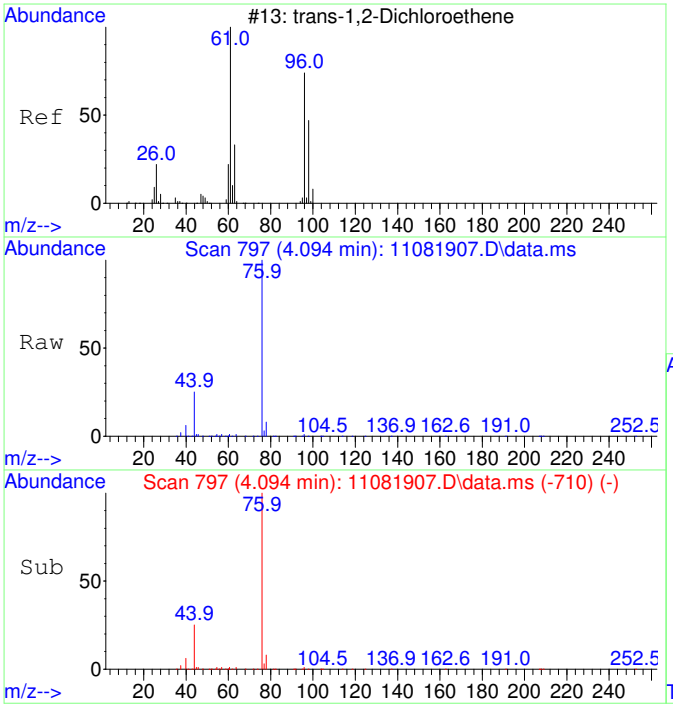
Tgt Ion: 61 Resp: 211

Ion	Ratio	Lower	Upper
61	100		
96	71.1	32.2	92.2
98	117.5	12.8	72.8#





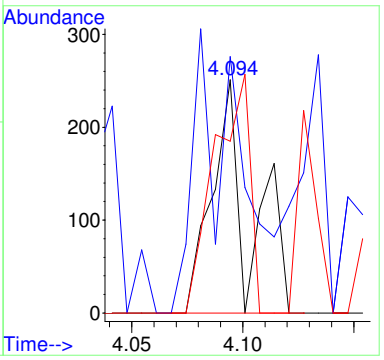


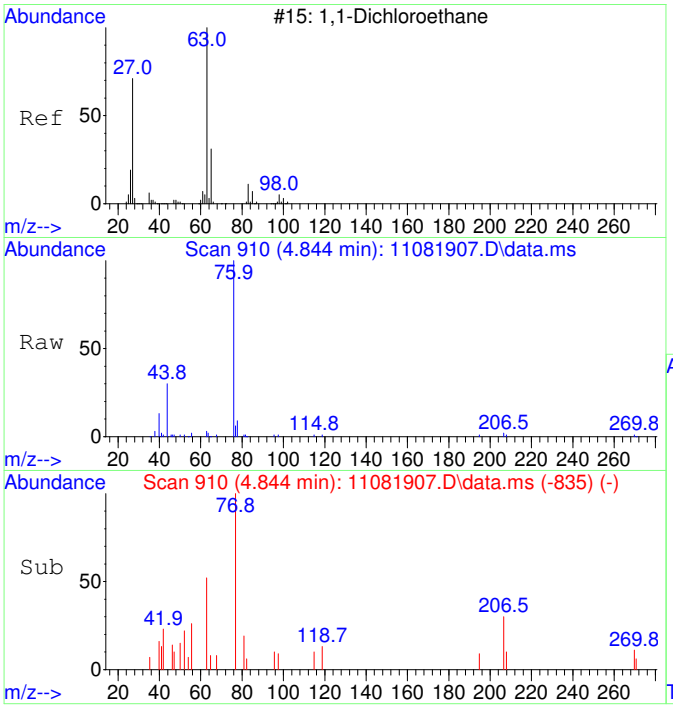


#27
trans-1,2-Dichloroethene SCAN
Concen: 96.68 ug/L
RT: 4.094 min Scan# 797
Delta R.T. -0.020 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 299

Ion	Ratio	Lower	Upper
61	100		
96	100.7	41.8	101.8
98	96.0	19.2	79.2#

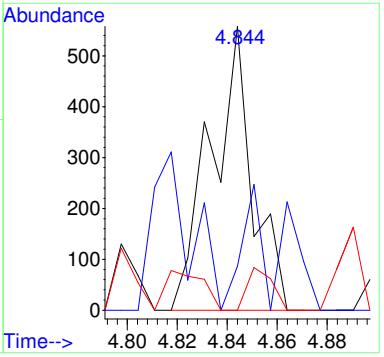


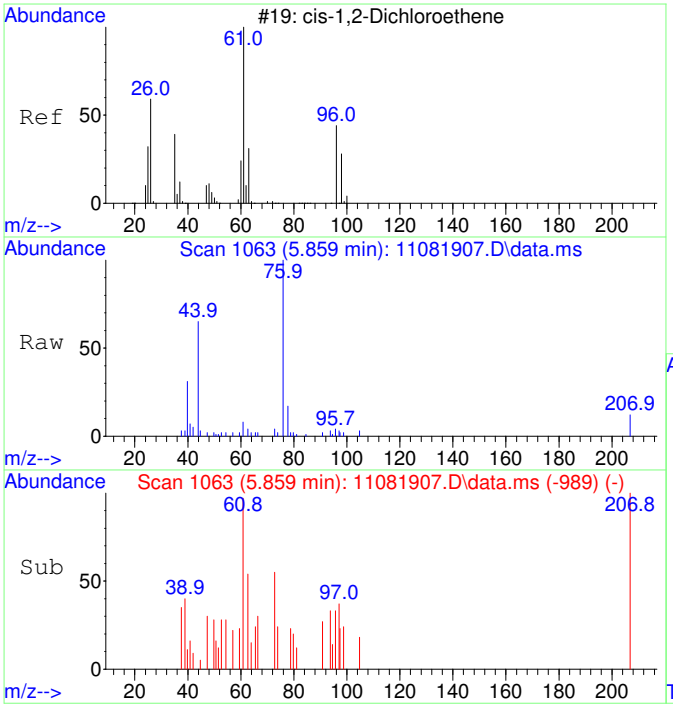


#28
1,1-Dichloroethane SCAN
Concen: 172.28 ug/L
RT: 4.844 min Scan# 910
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 63 Resp: 643

Ion	Ratio	Lower	Upper
63	100		
65	20.7	5.1	65.1
83	9.0	0.0	44.9

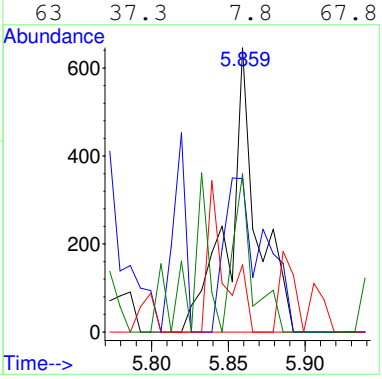


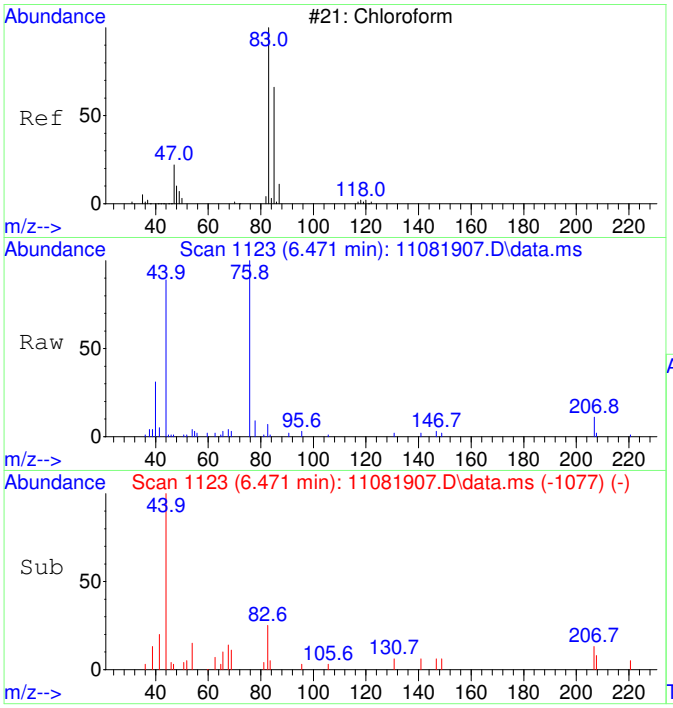


#29
cis-1,2-Dichloroethene SCAN
Concen: 221.29 ug/L
RT: 5.859 min Scan# 1063
Delta R.T. -0.007 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 61 Resp: 831

Ion	Ratio	Lower	Upper
61	100		
96	75.7	32.9	92.9
98	0.0	14.3	74.3#
63	37.3	7.8	67.8

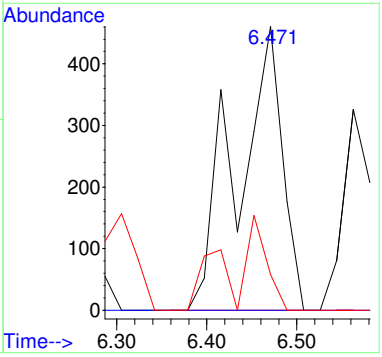


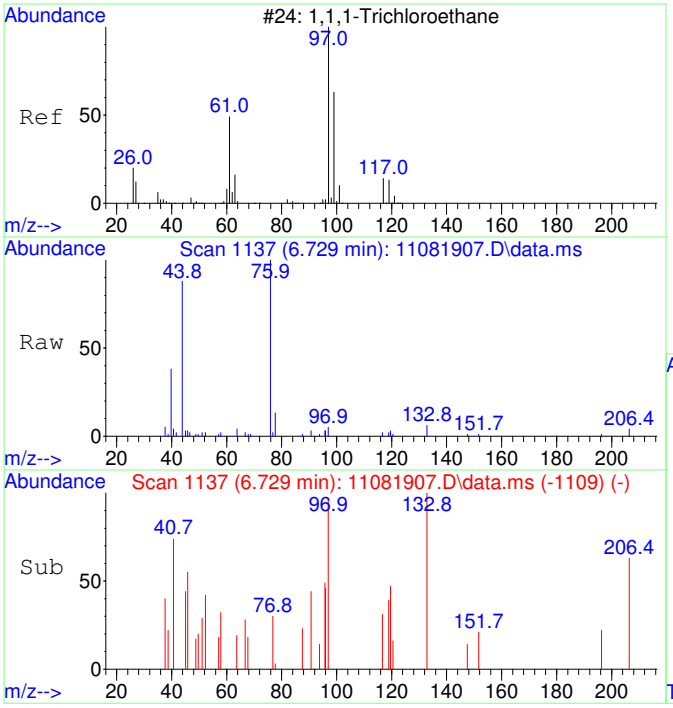


#30
Chloroform SCAN
Concen: 397.99 ug/L
RT: 6.471 min Scan# 1123
Delta R.T. 0.019 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 1618

Ion	Ratio	Lower	Upper
83	100		
85	0.0	39.1	99.1#
47	14.5	0.0	53.1

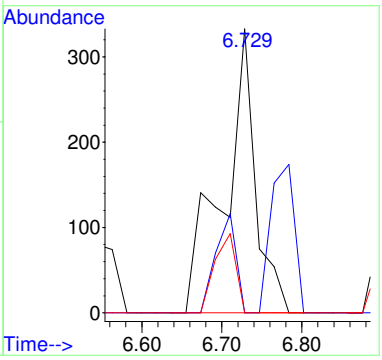


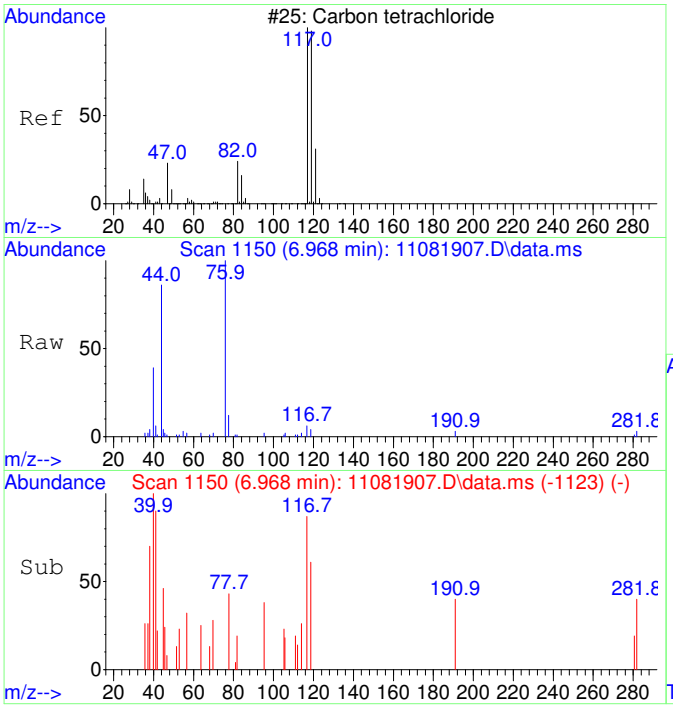


#31
1,1,1-Trichloroethane SCAN
Concen: 233.80 ug/L
RT: 6.729 min Scan# 1137
Delta R.T. 0.019 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 927

Ion	Ratio	Lower	Upper
97	100		
99	22.1	32.6	92.6#
61	18.6	9.4	69.4

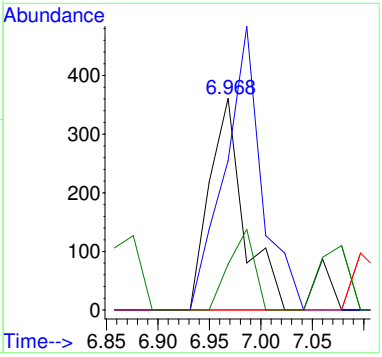


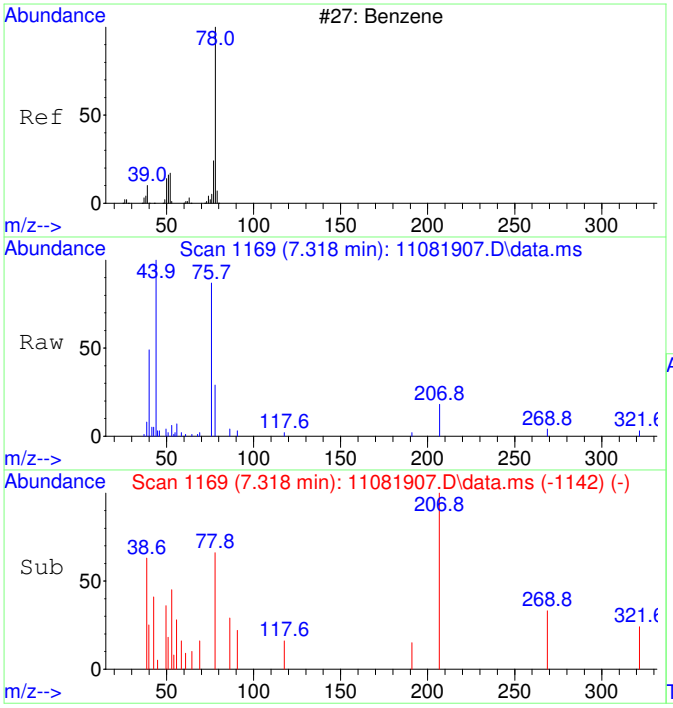


#32
Carbon tetrachloride SCAN
Concen: 223.88 ug/L
RT: 6.968 min Scan# 1150
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:117 Resp: 845

Ion	Ratio	Lower	Upper
117	100		
119	143.9	63.7	123.7#
121	0.0	4.6	64.6#
82	28.3	0.0	55.3

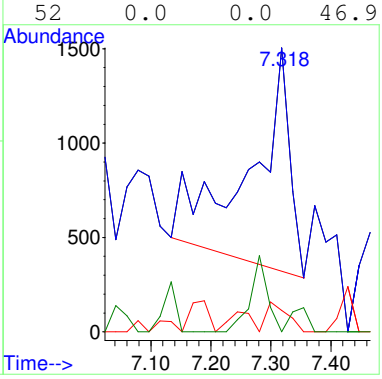


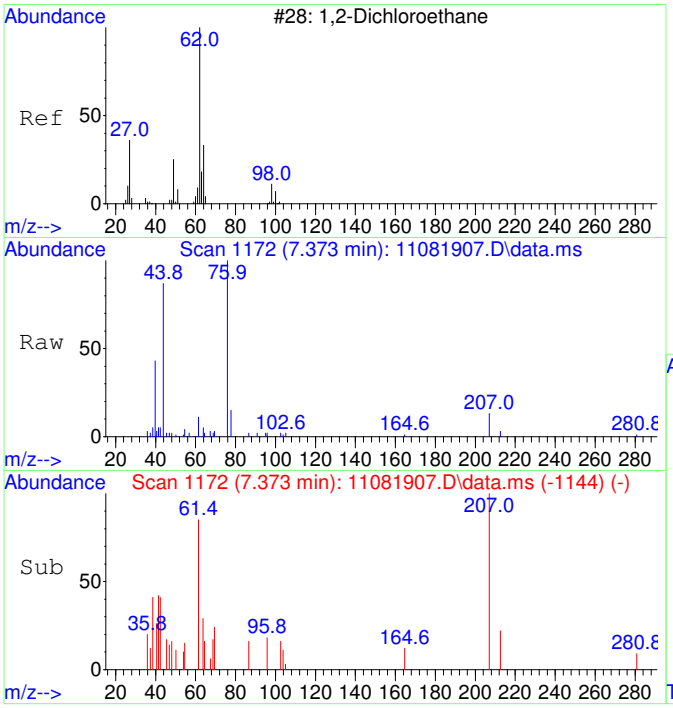


#33
Benzene SCAN
Concen: 497.27 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 78 Resp: 5272

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.2
52	0.0	0.0	46.9

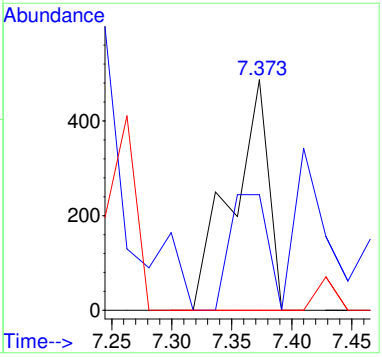


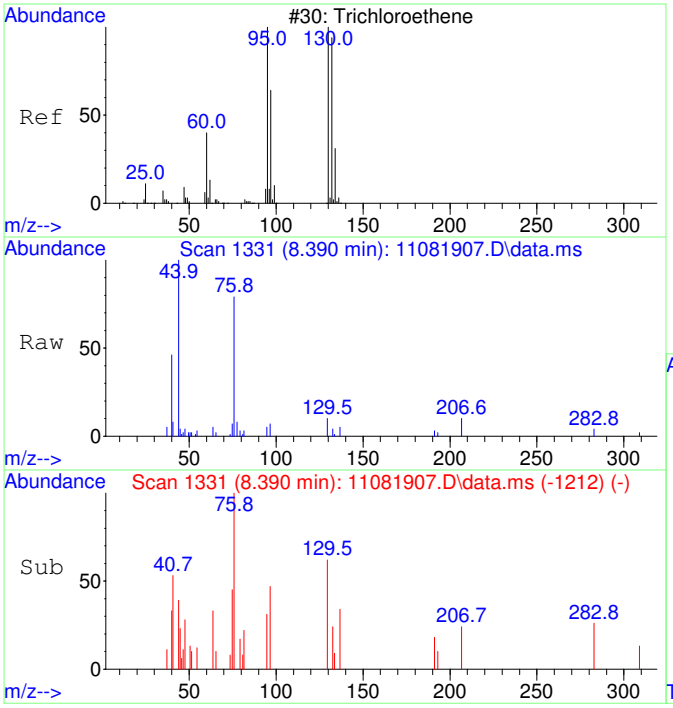


#34
1,2-Dichloroethane SCAN
Concen: 290.70 ug/L
RT: 7.373 min Scan# 1172
Delta R.T. 0.019 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 62 Resp: 1033

Ion	Ratio	Lower	Upper
62	100		
64	52.2	3.3	63.3
49	0.0	0.8	60.8#

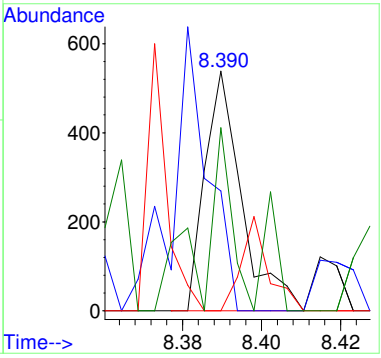


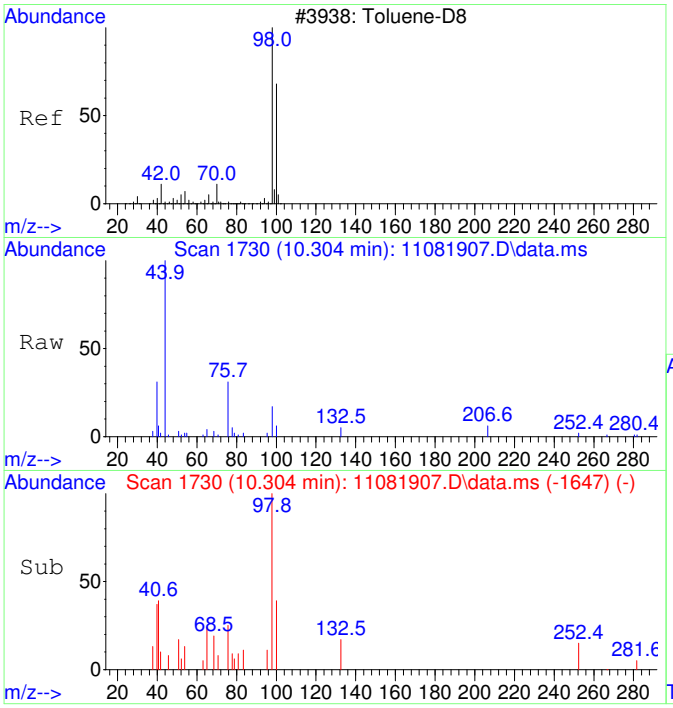


#35
Trichloroethene SCAN
Concen: 109.98 ug/L
RT: 8.390 min Scan# 1331
Delta R.T. 0.000 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:130 Resp: 349

Ion	Ratio	Lower	Upper
130	100		
95	115.8	61.4	121.4
132	57.9	75.5	135.5#
97	61.9	30.6	90.6

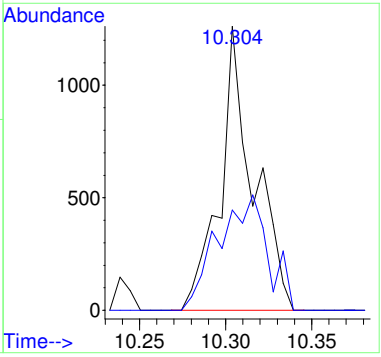


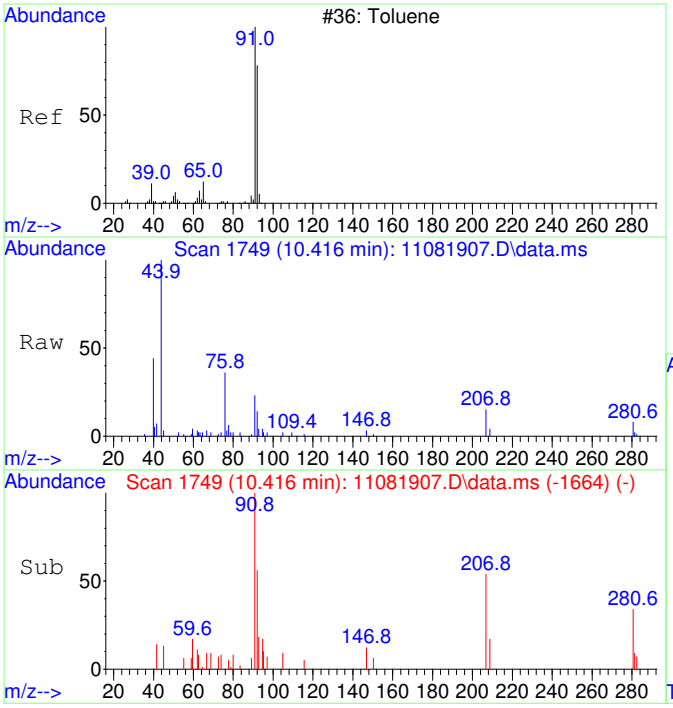


#36
Toluene-d8 SCAN
Concen: 160.07 ug/L
RT: 10.304 min Scan# 1730
Delta R.T. -0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 98 Resp: 1696

Ion	Ratio	Lower	Upper
98	100		
100	60.8	32.2	92.2

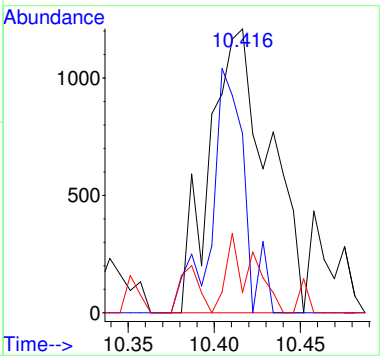


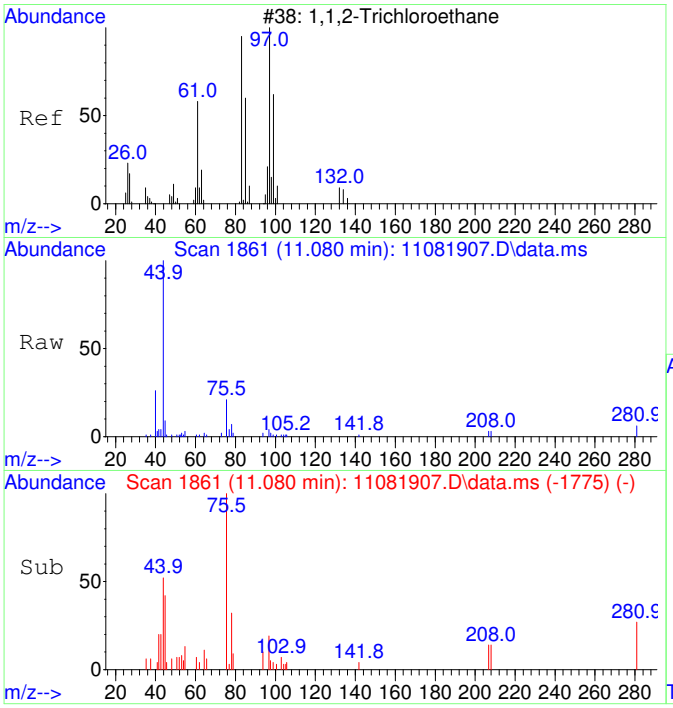


#37
Toluene SCAN
Concen: 235.52 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 2886

Ion	Ratio	Lower	Upper
91	100		
92	47.2	34.3	94.3
65	12.4	0.0	45.2

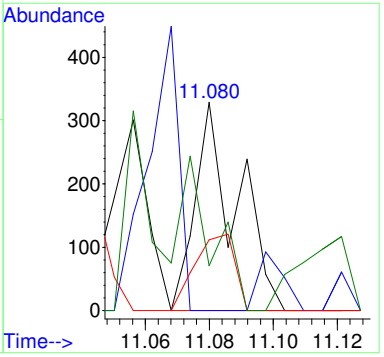


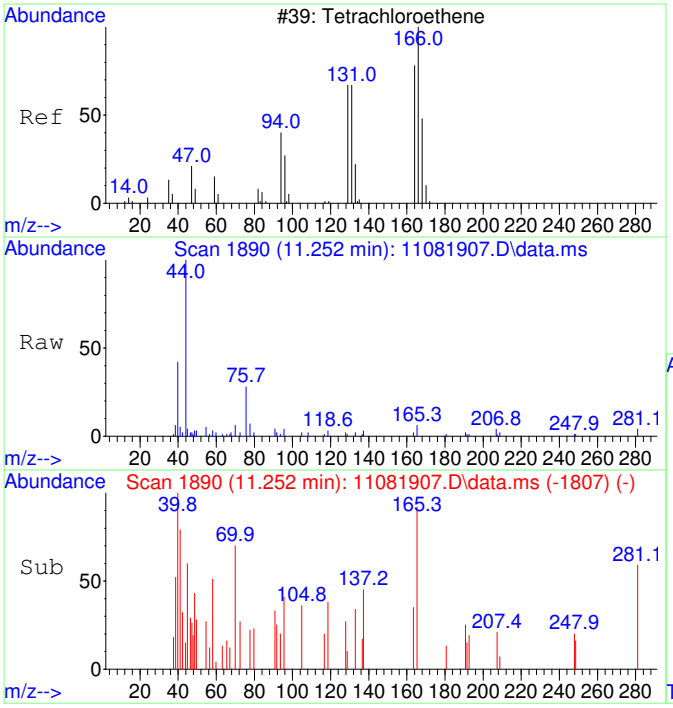


#38
1,1,2-Trichloroethane SCAN
Concen: 106.08 ug/L
RT: 11.080 min Scan# 1861
Delta R.T. 0.012 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 97 Resp: 300

Ion	Ratio	Lower	Upper
97	100		
83	101.0	73.8	133.8
61	0.0	38.9	98.9#
99	36.0	33.5	93.5

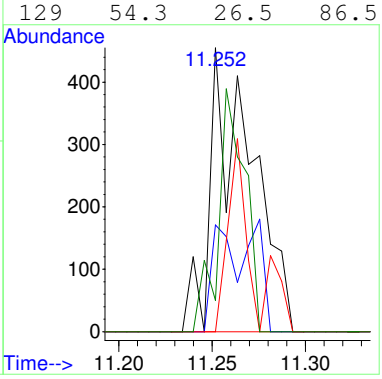


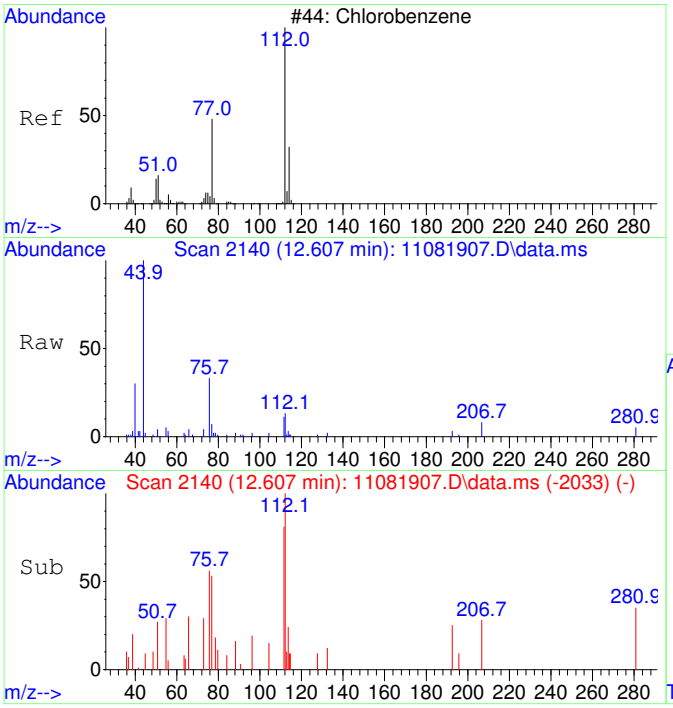


#39
Tetrachloroethene SCAN
Concen: 214.04 ug/L
RT: 11.252 min Scan# 1890
Delta R.T. -0.006 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:166 Resp: 709

Ion	Ratio	Lower	Upper
166	100		
164	0.0	41.7	101.7#
131	28.5	36.7	96.7#
129	54.3	26.5	86.5

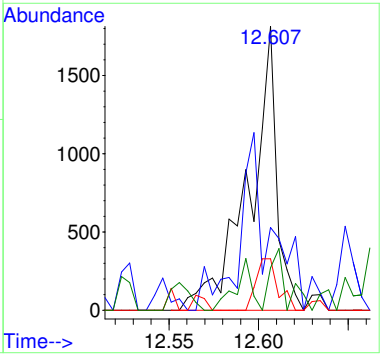


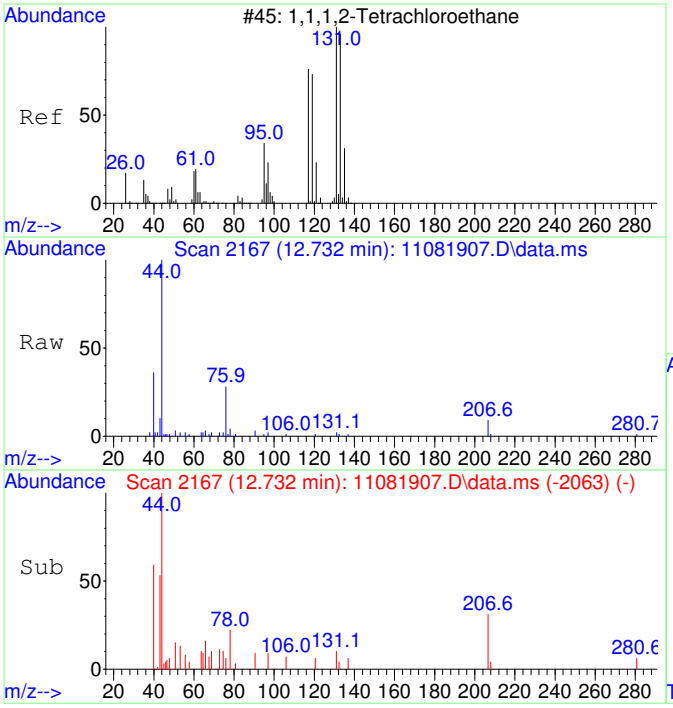


#40
Chlorobenzene SCAN
Concen: 230.05 ug/L
RT: 12.607 min Scan# 2140
Delta R.T. 0.009 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:112 Resp: 1958

Ion	Ratio	Lower	Upper
112	100		
77	0.0	22.8	82.8#
114	14.4	3.9	63.9
51	13.3	0.0	48.2

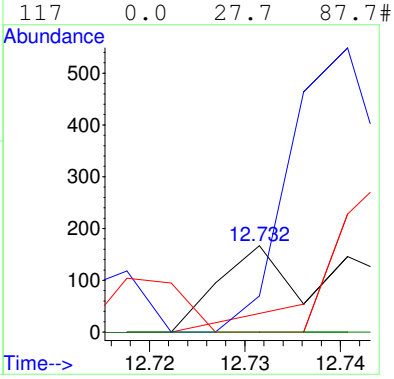


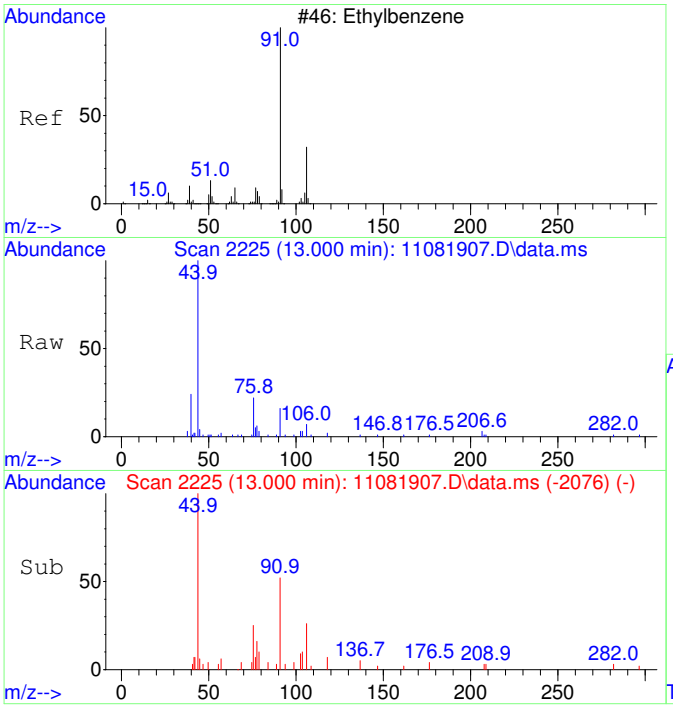


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 21.44 ug/L
RT: 12.732 min Scan# 2167
Delta R.T. -0.018 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:131 Resp: 65

Ion	Ratio	Lower	Upper
131	100		
133	823.1	72.3	132.3#
119	216.9	28.1	88.1#
117	0.0	27.7	87.7#

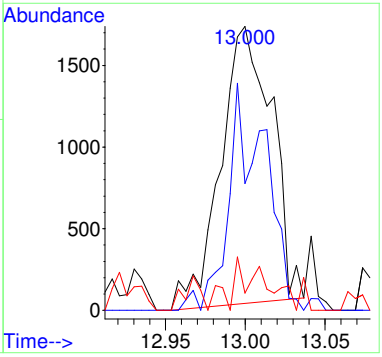


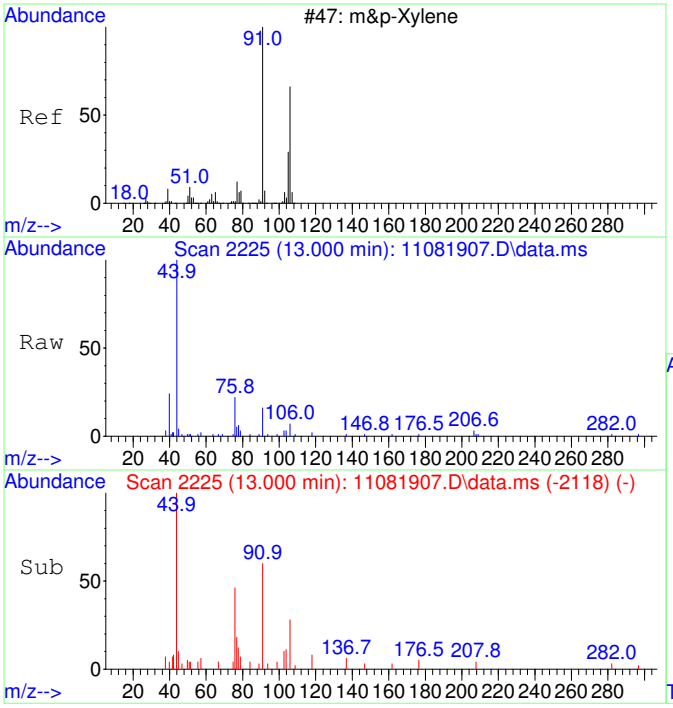


#42
Ethylbenzene SCAN
Concen: 271.49 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 3807

Ion	Ratio	Lower	Upper
91	100		
106	59.1	3.6	63.6
51	12.5	0.0	41.2

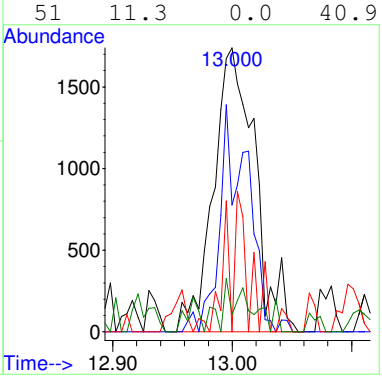


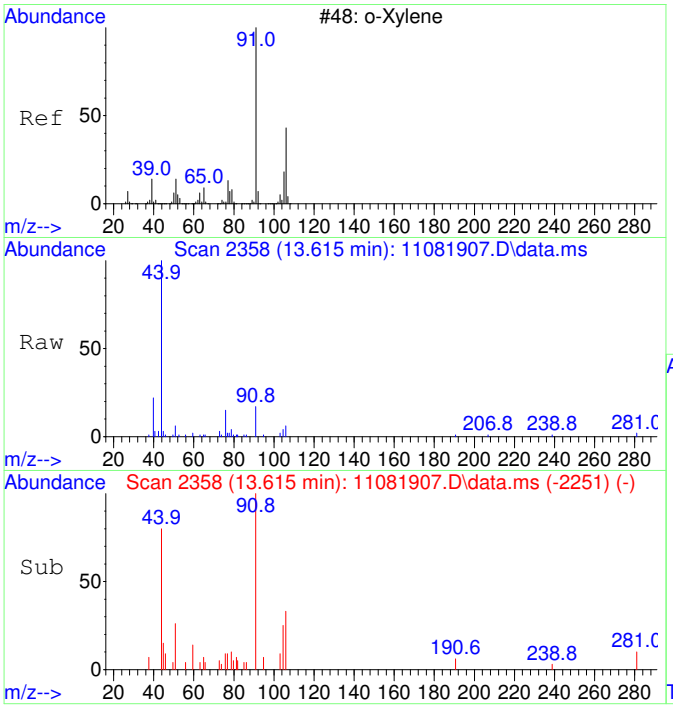


#43
m&p-Xylene SCAN
Concen: 205.69 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 4188

Ion	Ratio	Lower	Upper
91	100		
106	53.7	22.9	82.9
105	8.8	0.0	55.8
51	11.3	0.0	40.9

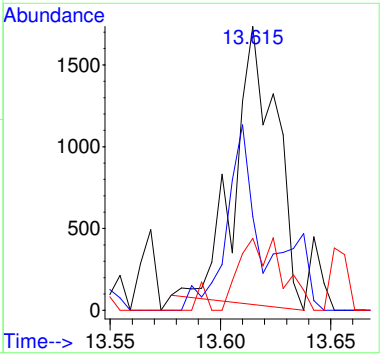


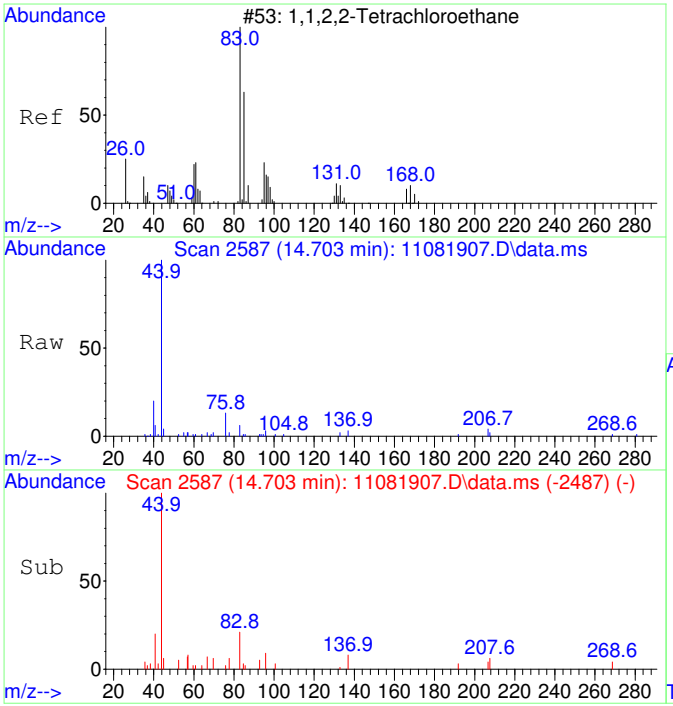


#44
o-Xylene SCAN
Concen: 200.78 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 91 Resp: 2218

Ion	Ratio	Lower	Upper
91	100		
106	27.6	17.0	77.0
105	27.0	0.0	47.3

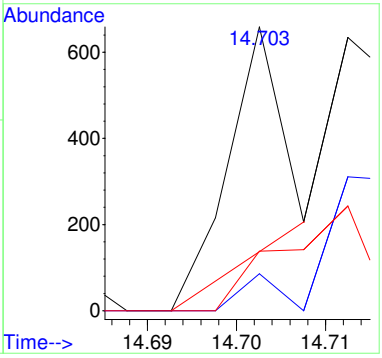


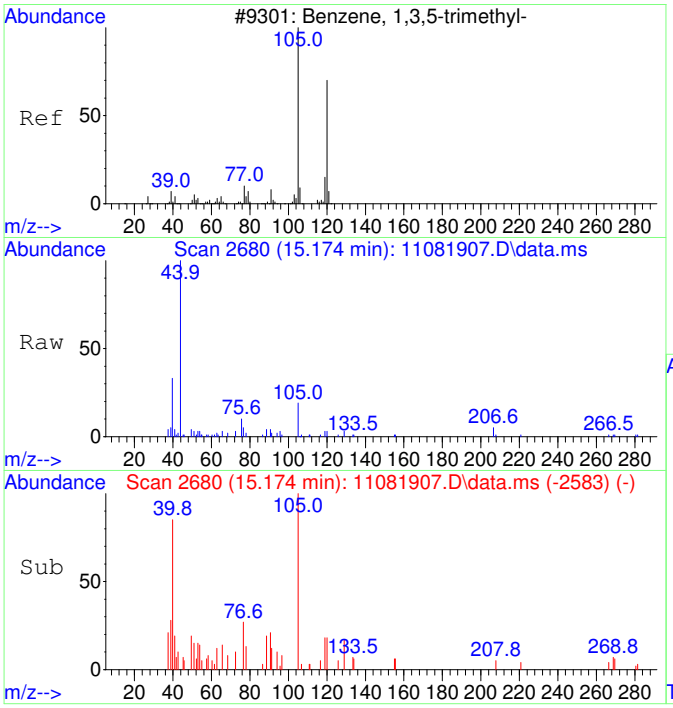


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 43.69 ug/L
RT: 14.703 min Scan# 2587
Delta R.T. -0.010 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion: 83 Resp: 230

Ion	Ratio	Lower	Upper
83	100		
85	0.0	33.6	93.6#
95	67.8	0.0	50.6#

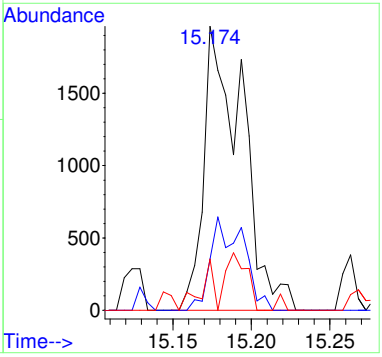


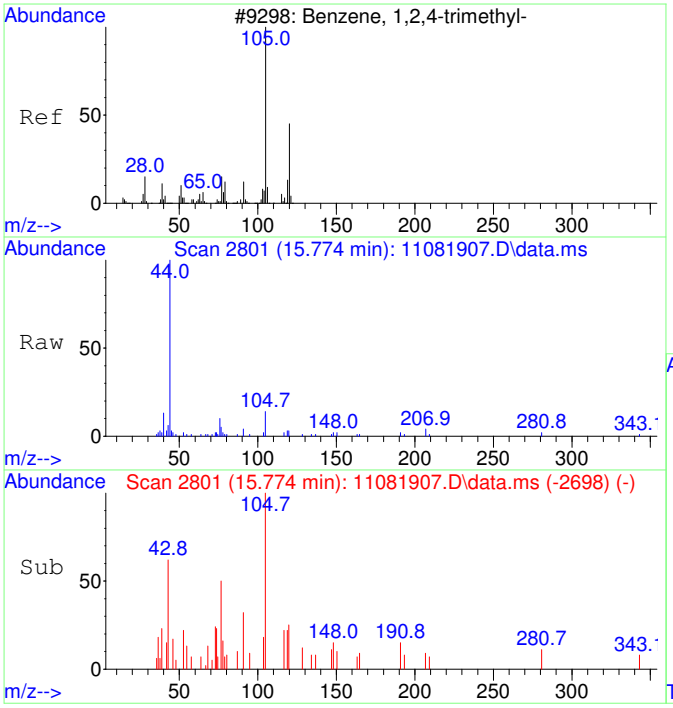


#46
1,3,5-Trimethylbenzene SCAN
Concen: 311.28 ug/L
RT: 15.174 min Scan# 2680
Delta R.T. -0.010 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 3367

Ion	Ratio	Lower	Upper
105	100		
120	27.6	19.2	79.2
119	5.8	0.0	43.3

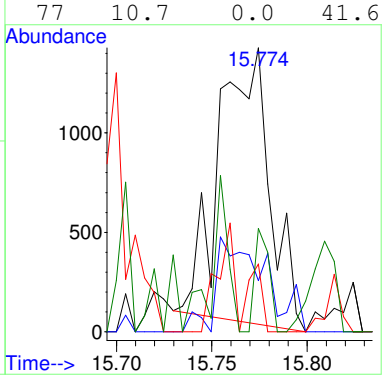


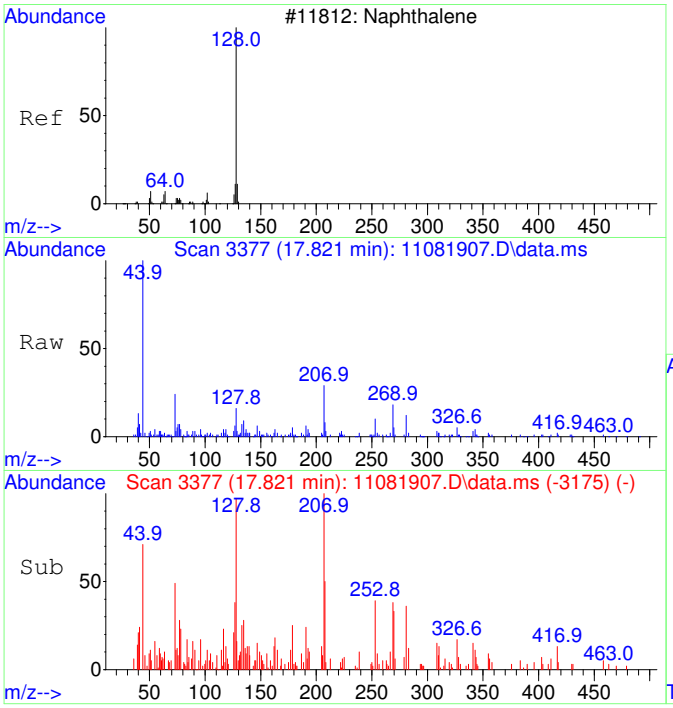


#47
1,2,4-Trimethylbenzene SCAN
Concen: 231.34 ug/L
RT: 15.774 min Scan# 2801
Delta R.T. 0.010 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:105 Resp: 2551

Ion	Ratio	Lower	Upper
105	100		
120	0.0	15.6	75.6#
119	0.0	0.0	41.8
77	10.7	0.0	41.6

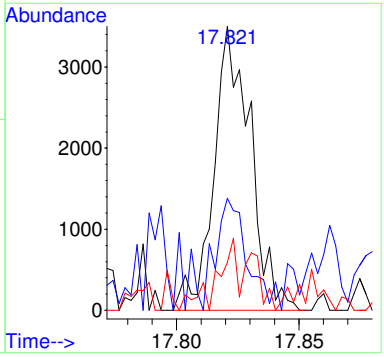




#48
Naphthalene SCAN
Concen: 202.74 ug/L
RT: 17.821 min Scan# 3377
Delta R.T. -0.002 min
Lab File: 11081907.D
Acq: 8 Nov 2019 12:42

Tgt Ion:128 Resp: 3636

Ion	Ratio	Lower	Upper
128	100		
127	31.1	0.0	40.7
129	8.7	0.0	40.9



S19K006-CAL6

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081908.D
Acq On : 8 Nov 2019 13:05
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL6
Misc : 1930060 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 11 05:57:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:57:33 2019
Response via : Initial Calibration

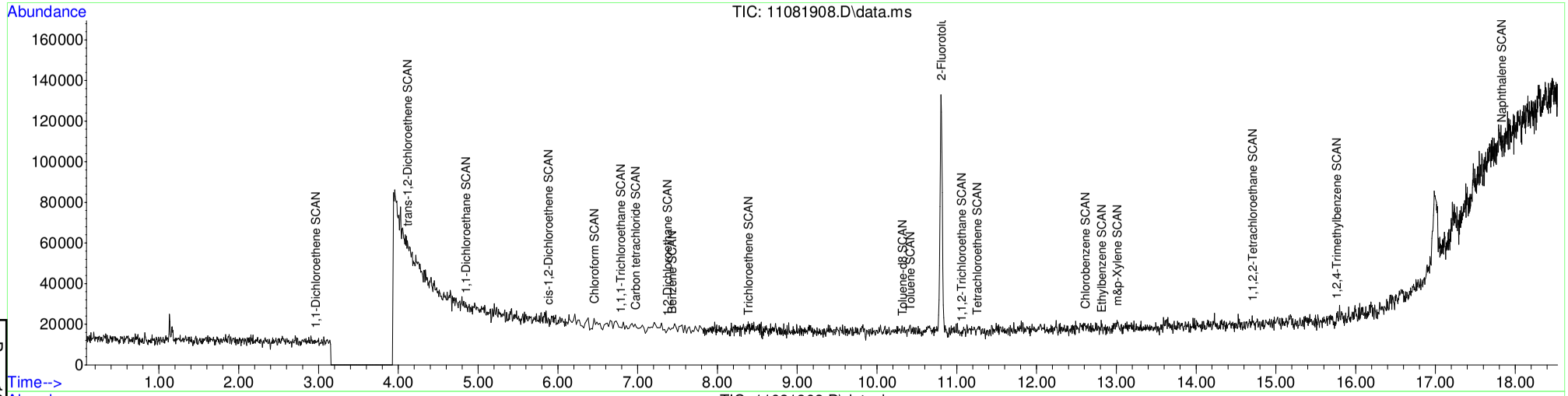
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.802	109	154973	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	1345	53.55	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.07%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	824	99.61	ug/L	66
3] trans-1,2-Dichloroethene	4.108	61	349	50.07	ug/L	82
4] 1,1-Dichloroethane	4.845	63	456	52.19	ug/L	90
5] cis-1,2-Dichloroethene	5.867	61	421	50.80	ug/L	90
6] Chloroform	6.435	83	493	52.00	ug/L	98
7] 1,1,1-Trichloroethane	6.693	97	475	50.79	ug/L	86
8] Carbon tetrachloride	6.969	117	457	51.82	ug/L	99
9] Benzene	7.300	78	1498	62.17	ug/L	93
10] 1,2-Dichloroethane	7.337	62	402	52.41	ug/L	91
11] Trichloroethene	8.386	130	402	54.49	ug/L	91
13] Toluene	10.411	91	1645	54.26	ug/L	82
14] 1,1,2-Trichloroethane	11.069	97	399	56.76	ug/L	96
15] Tetrachloroethene	11.259	166	458	51.84	ug/L	91
16] Chlorobenzene	12.603	112	1188	52.59	ug/L	75
17] 1,1,1,2-Tetrachloroethane	12.756	131	491	60.48	ug/L	95
18] Ethylbenzene	12.806	91	1947	52.91	ug/L	99
19] m&p-Xylene	13.005	91	2984	107.32	ug/L	84
20] o-Xylene	13.616	91	1598	53.63	ug/L	93
21] 1,1,2,2-Tetrachloroethane	14.713	83	702	53.14	ug/L	95
22] 1,3,5-Trimethylbenzene	15.184	105	1712	53.98	ug/L	99
23] 1,2,4-Trimethylbenzene	15.765	105	1739	53.83	ug/L	98
24] Naphthalene	17.824	128	2840	50.87	ug/L	97
25) 2-Fluorotoluene SCAN	10.801	109	94892	4965.17	ug/L	96
26) 1,1-Dichloroethene SCAN	2.967	61	94	23.26	ug/L #	1
27) trans-1,2-Dichloroethe...	4.114	61	264	55.89	ug/L #	53
28) 1,1-Dichloroethane SCAN	4.850	63	123	21.58	ug/L #	1
29) cis-1,2-Dichloroethene...	5.885	61	640	111.59	ug/L #	51
30) Chloroform SCAN	6.452	83	495	79.72	ug/L #	25
31) 1,1,1-Trichloroethane ...	6.784	97	218	36.00	ug/L #	26
32) Carbon tetrachloride SCAN	6.968	117	183	31.75	ug/L #	1
33) Benzene SCAN	7.428	78	1005	62.07	ug/L #	86
34) 1,2-Dichloroethane SCAN	7.373	62	552	101.71	ug/L #	46
35) Trichloroethene SCAN	8.381	130	119	24.55	ug/L #	38
36) Toluene-d8 SCAN	10.321	98	587	36.28	ug/L #	8
37) Toluene SCAN	10.416	91	632	33.77	ug/L #	17
38) 1,1,2-Trichloroethane ...	11.062	97	108	25.00	ug/L #	1
39) Tetrachloroethene SCAN	11.251	166	134	26.49	ug/L #	44
40) Chlorobenzene SCAN	12.606	112	584	44.93	ug/L #	80
42) Ethylbenzene SCAN	12.814	91	959	44.78	ug/L	99
43) m&p-Xylene SCAN	13.009	91	1320	42.45	ug/L	77
45) 1,1,2,2-Tetrachloroeth...	14.702	83	249	30.97	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.759	105	1310	77.78	ug/L #	77
48) Naphthalene SCAN	17.825	128	1875	68.46	ug/L	61

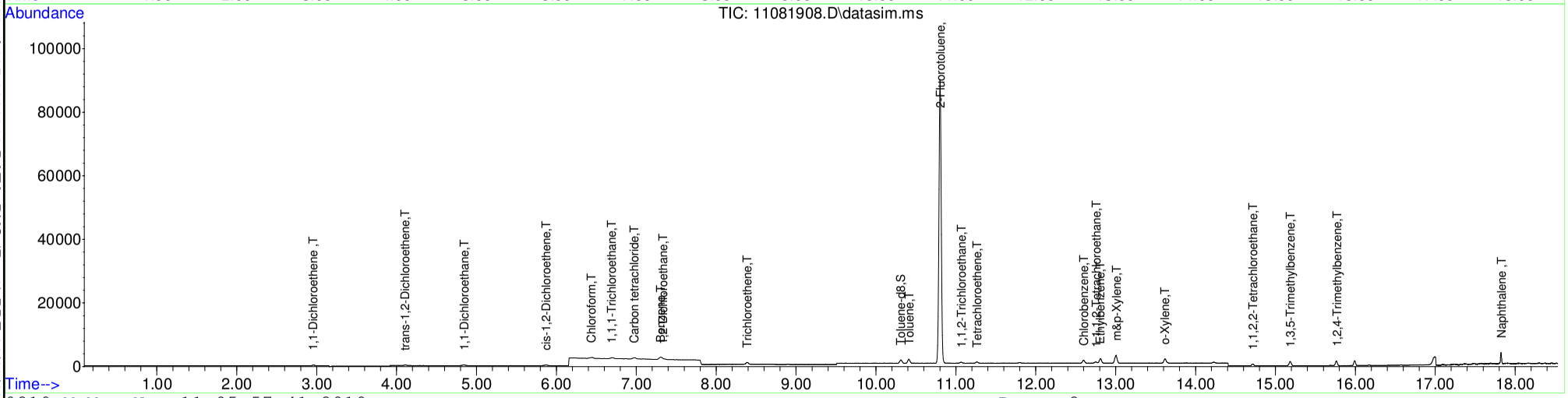
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081908.D
Acq On : 8 Nov 2019 13:05
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL6
Misc : 1930060 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 11 05:57:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:57:33 2019
Response via : Initial Calibration





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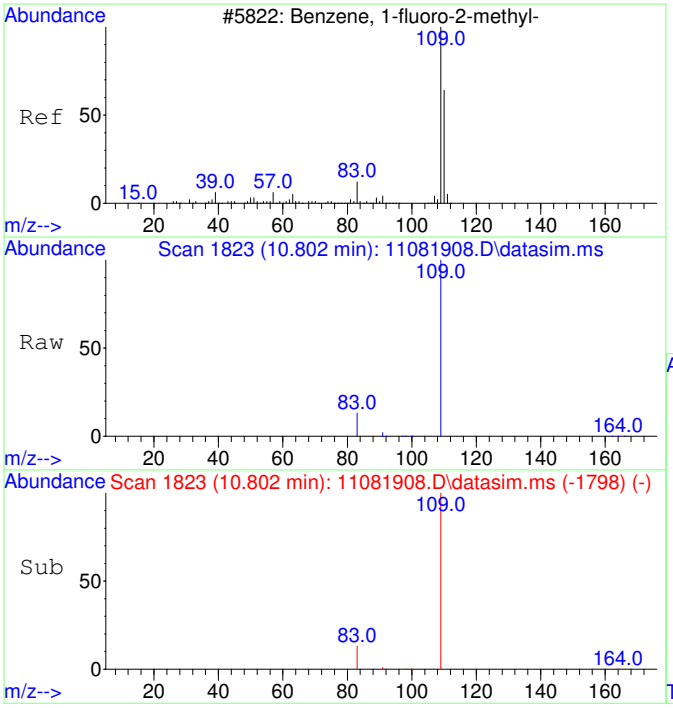
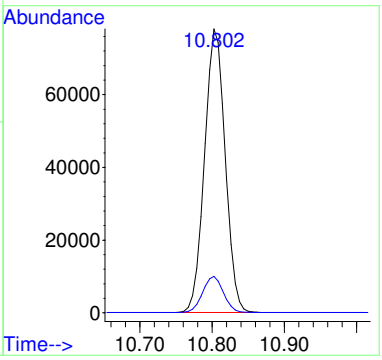
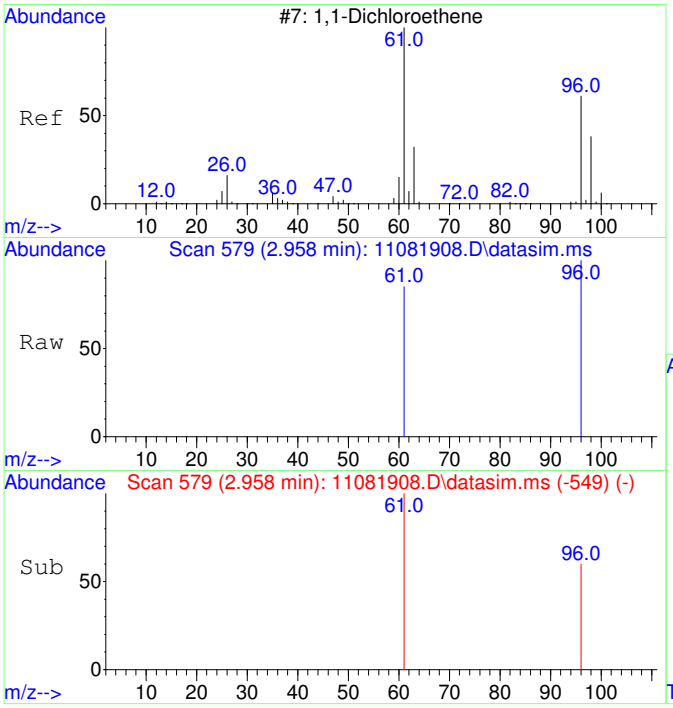


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.802 min Scan# 1823
Delta R.T. -0.001 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:109 Resp: 154973

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	42.3

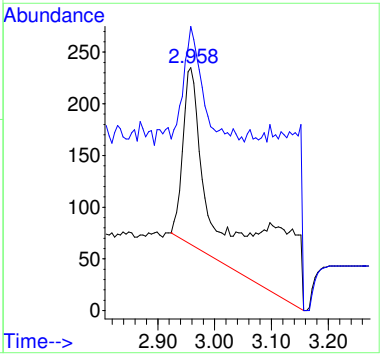




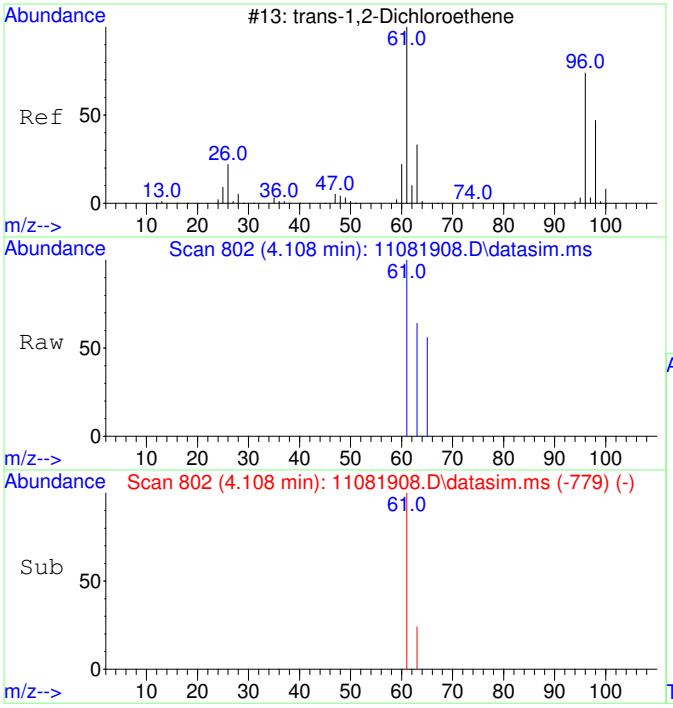
#2
1,1-Dichloroethene
Concen: 99.61 ug/L
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 824

Ion	Ratio	Lower	Upper
61	100		
96	87.4	31.4	91.4



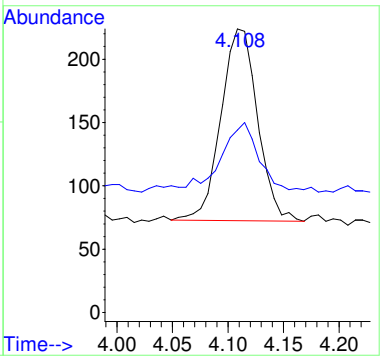
Before MI:
IMPROPER
BASELINE

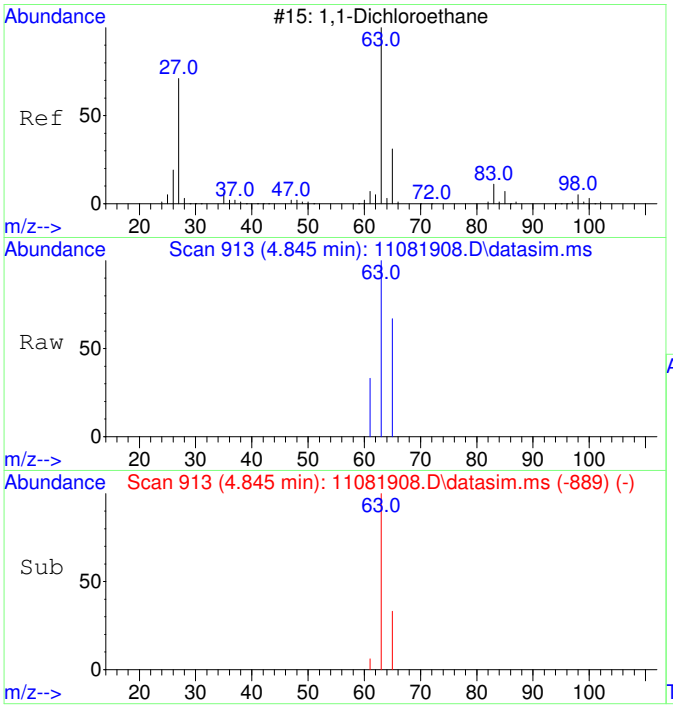


#3
trans-1,2-Dichloroethene
Concen: 50.07 ug/L
RT: 4.108 min Scan# 802
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 349

Ion	Ratio	Lower	Upper
61	100		
63	43.0	2.8	62.8

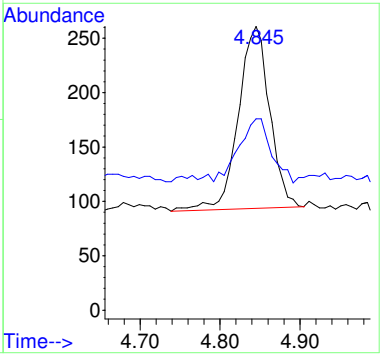


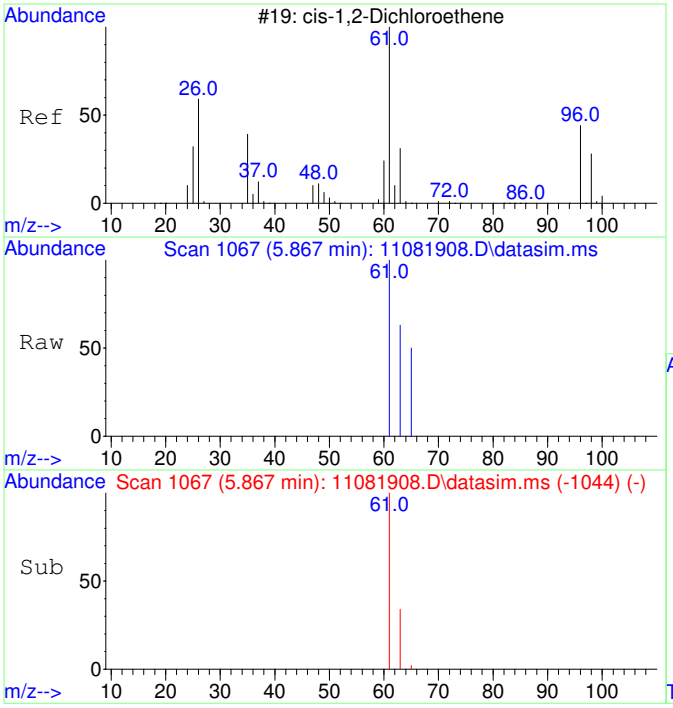


#4
1,1-Dichloroethane
Concen: 52.19 ug/L
RT: 4.845 min Scan# 913
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 63 Resp: 456

Ion	Ratio	Lower	Upper
63	100		
65	36.4	1.0	61.0

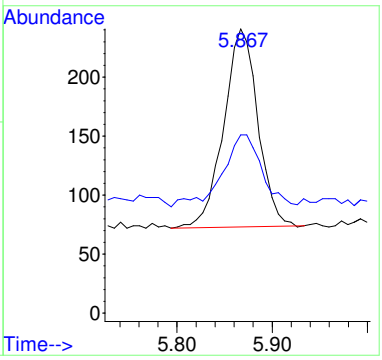


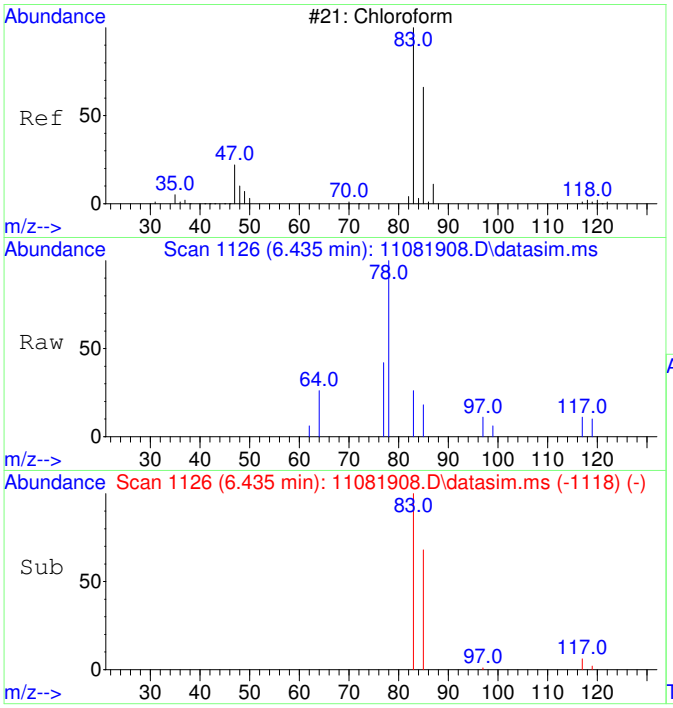


#5
cis-1,2-Dichloroethene
Concen: 50.80 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 421

Ion	Ratio	Lower	Upper
61	100		
63	37.1	1.4	61.4

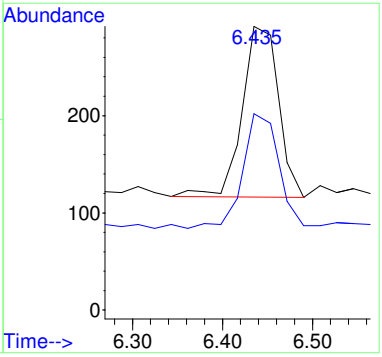


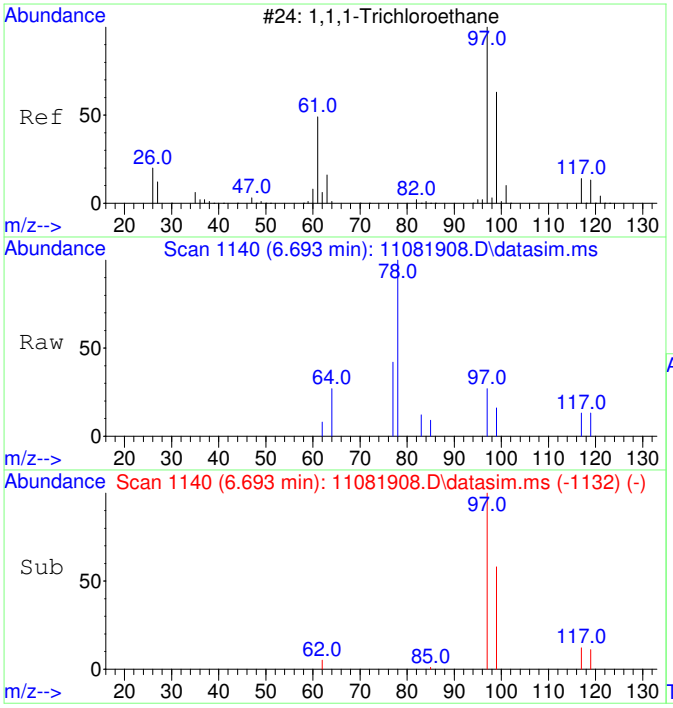


#6
Chloroform
Concen: 52.00 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 493

Ion	Ratio	Lower	Upper
83	100		
85	67.5	35.8	95.8

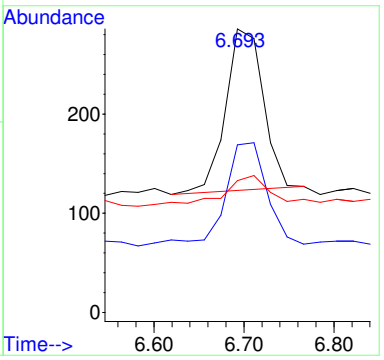


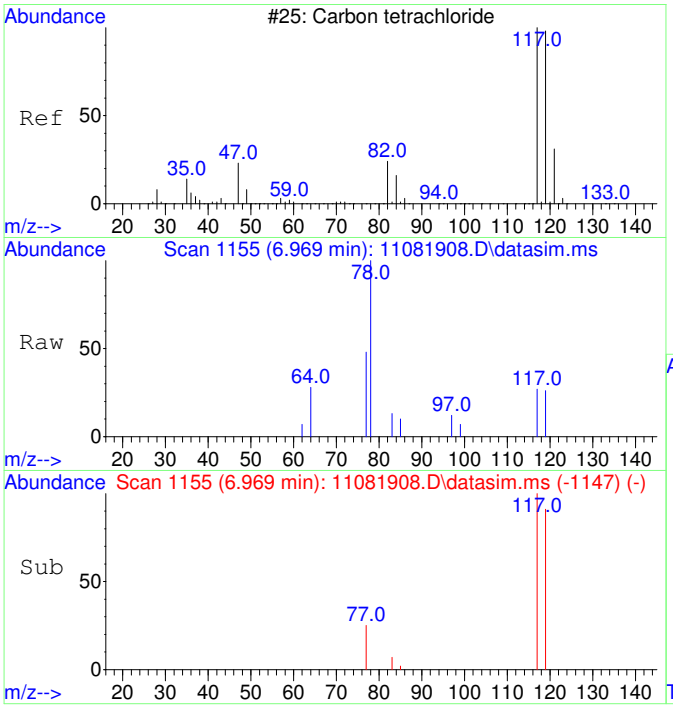


#7
1,1,1-Trichloroethane
Concen: 50.79 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 475

Ion	Ratio	Lower	Upper
97	100		
99	72.0	32.9	92.9
117	23.6	0.0	43.6

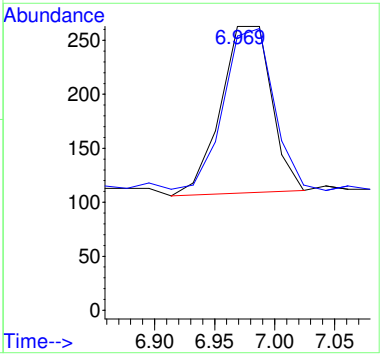


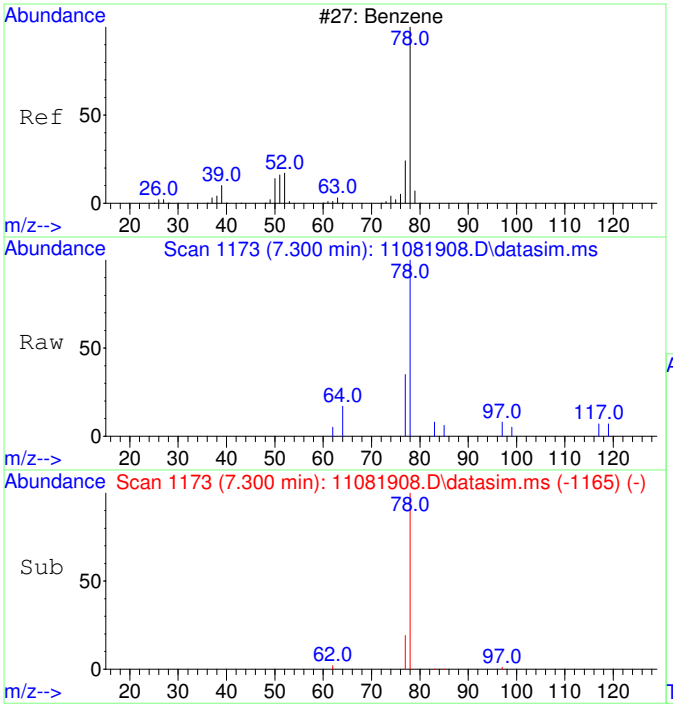


#8
Carbon tetrachloride
Concen: 51.82 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:117 Resp: 457

Ion	Ratio	Lower	Upper
117	100		
119	97.2	68.1	128.1

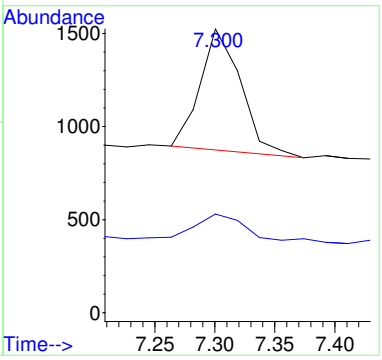


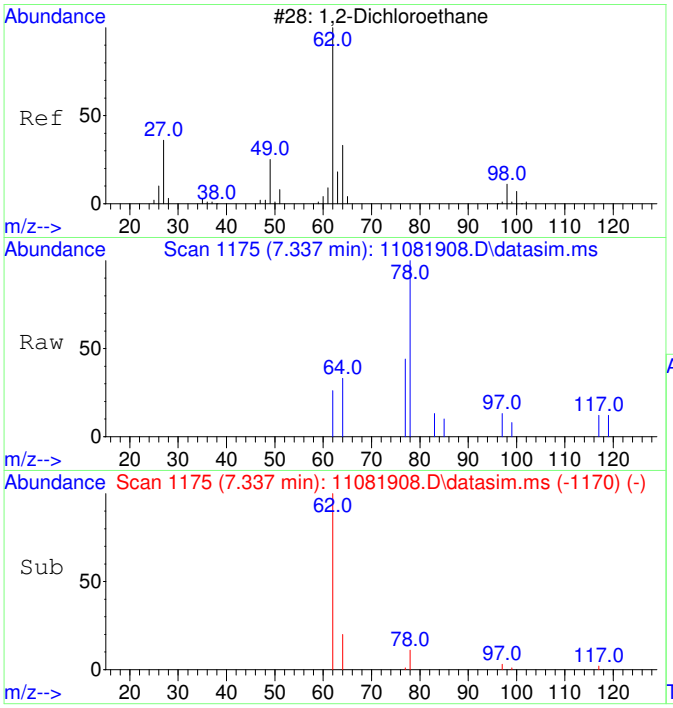


#9
Benzene
Concen: 62.17 ug/L
RT: 7.300 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 78 Resp: 1498

Ion	Ratio	Lower	Upper
78	100		
77	27.0	0.0	53.7

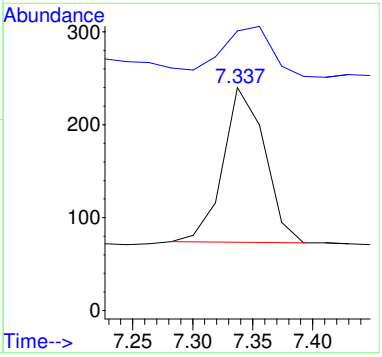


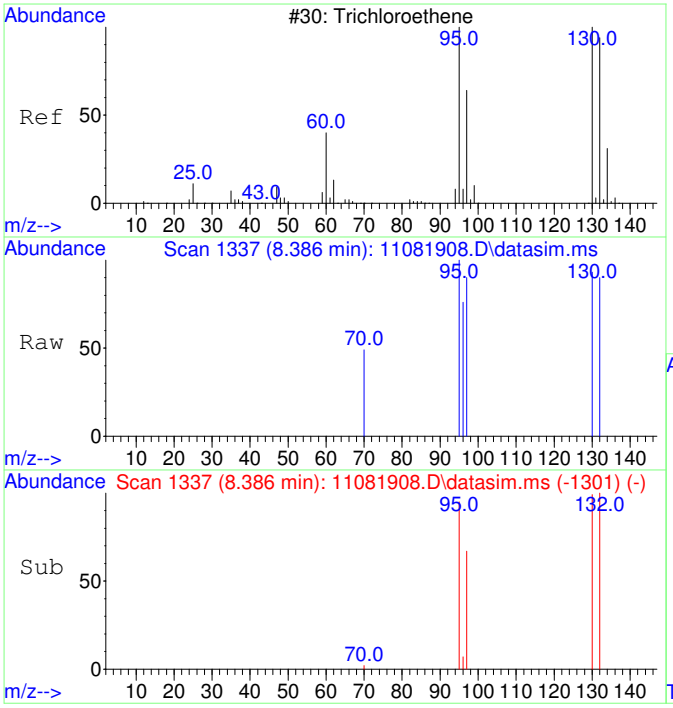


#10
1,2-Dichloroethane
Concen: 52.41 ug/L
RT: 7.337 min Scan# 1175
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 62 Resp: 402

Ion	Ratio	Lower	Upper
62	100		
64	38.6	3.5	63.5

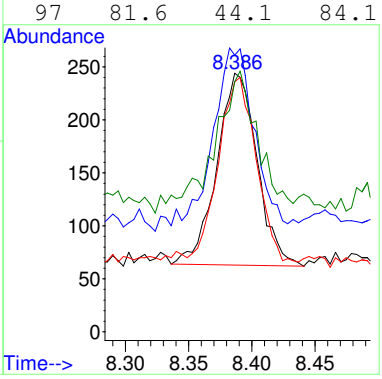


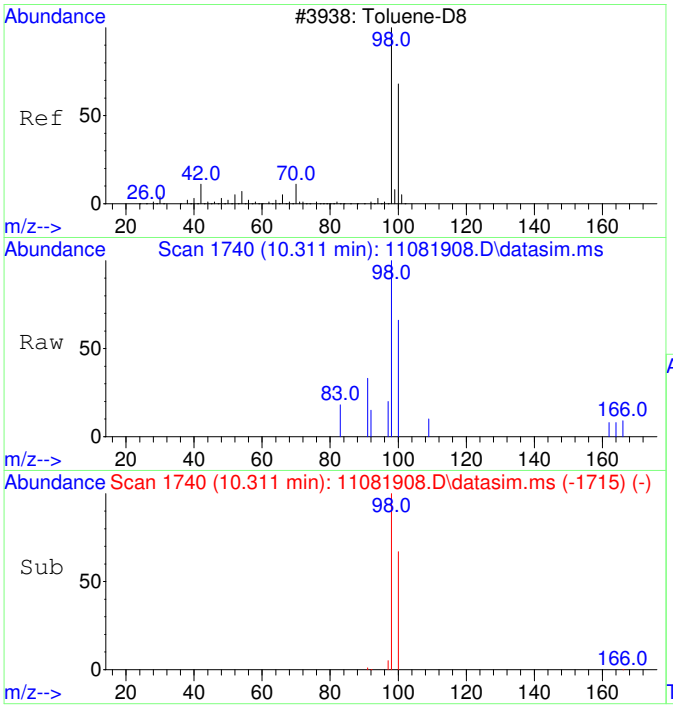


#11
Trichloroethene
Concen: 54.49 ug/L
RT: 8.386 min Scan# 1337
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:130 Resp: 402

Ion	Ratio	Lower	Upper
130	100		
95	92.8	70.1	130.1
132	92.0	74.3	114.3
97	81.6	44.1	84.1

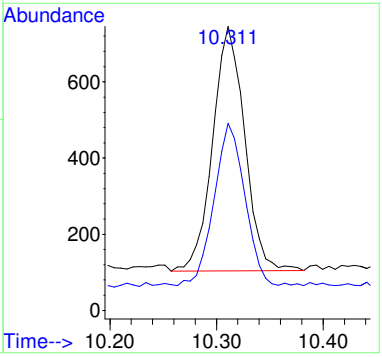


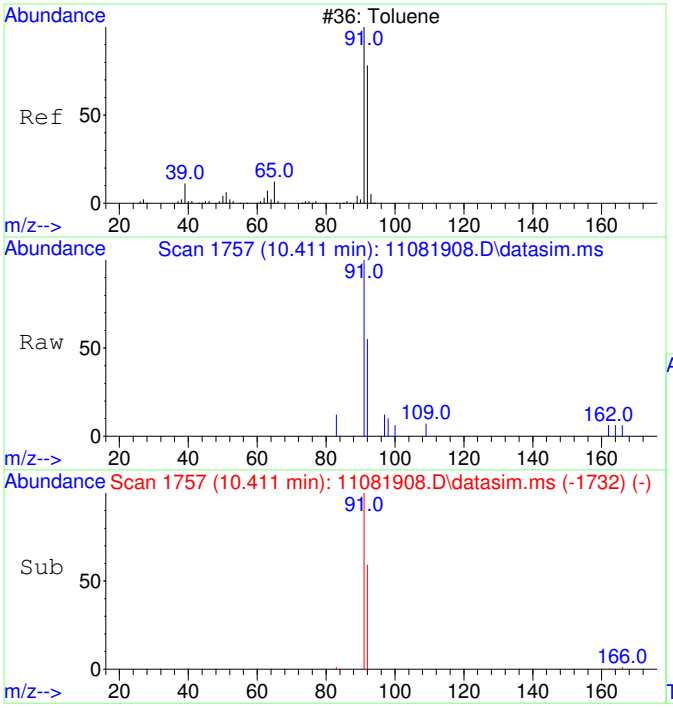


#12
Toluene-d8
Concen: 53.55 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 98 Resp: 1345

Ion	Ratio	Lower	Upper
98	100		
100	63.5	38.4	98.4

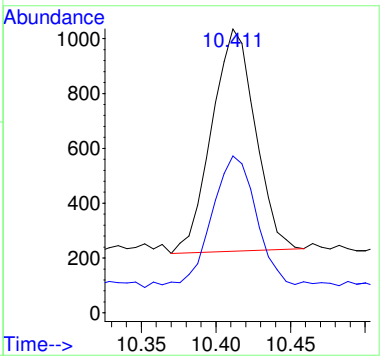


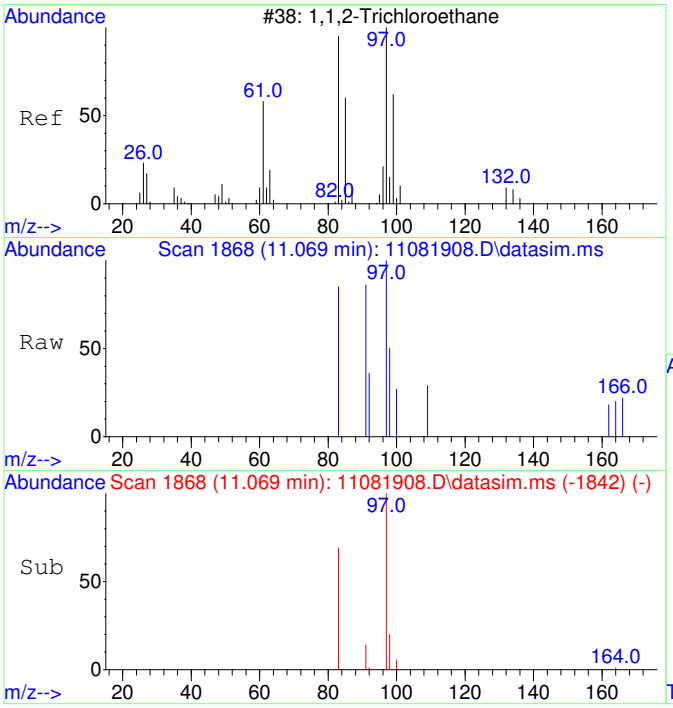


#13
Toluene
Concen: 54.26 ug/L
RT: 10.411 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1645

Ion	Ratio	Lower	Upper
91	100		
92	61.7	47.7	107.7

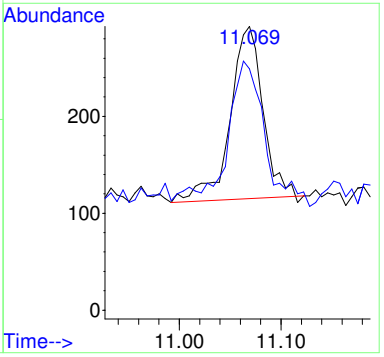


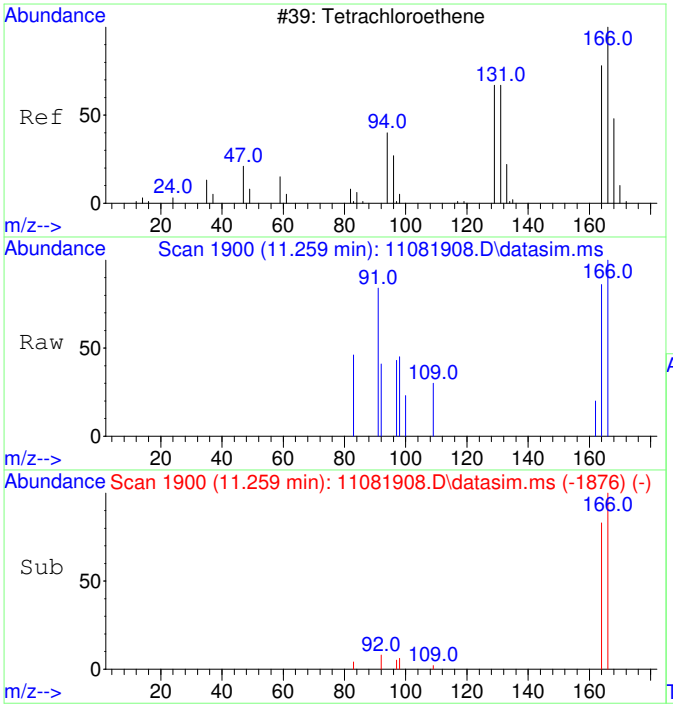


#14
1,1,2-Trichloroethane
Concen: 56.76 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 399

Ion	Ratio	Lower	Upper
97	100		
83	91.5	65.0	125.0

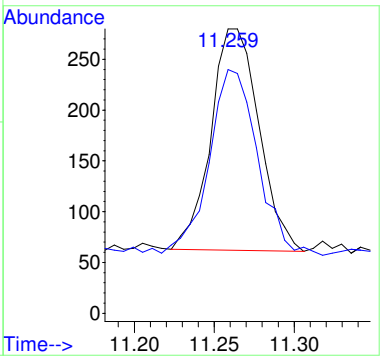


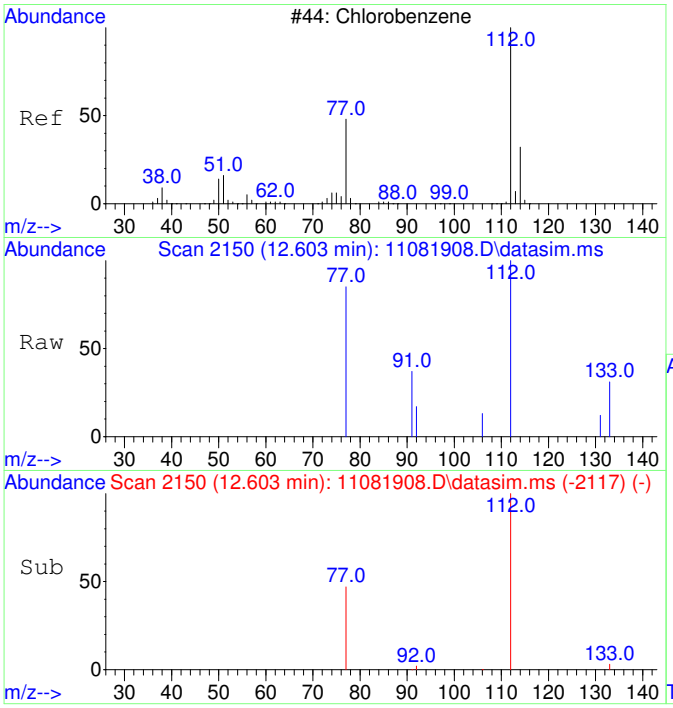


#15
Tetrachloroethene
Concen: 51.84 ug/L
RT: 11.259 min Scan# 1900
Delta R.T. -0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:166 Resp: 458

Ion	Ratio	Lower	Upper
166	100		
164	85.6	47.9	107.9

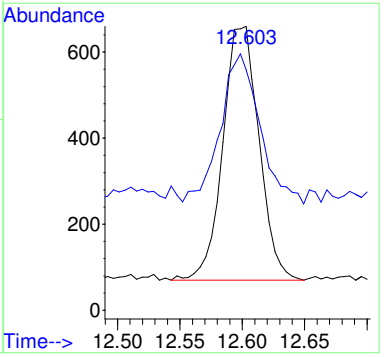


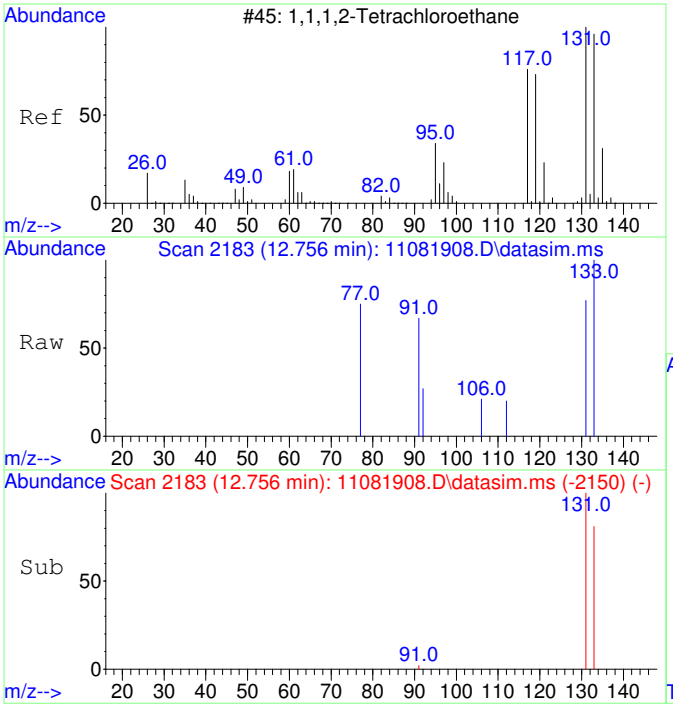


#16
Chlorobenzene
Concen: 52.59 ug/L
RT: 12.603 min Scan# 2150
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:112 Resp: 1188

Ion	Ratio	Lower	Upper
112	100		
77	65.0	18.3	78.3

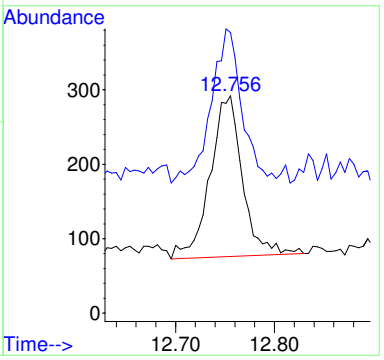


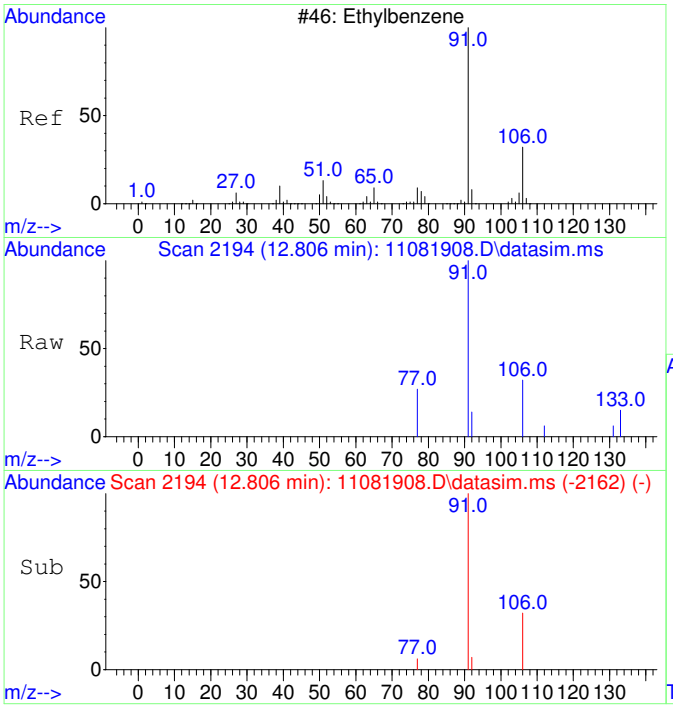


#17
1,1,1,2-Tetrachloroethane
Concen: 60.48 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:131 Resp: 491

Ion	Ratio	Lower	Upper
131	100		
133	91.2	66.1	126.1

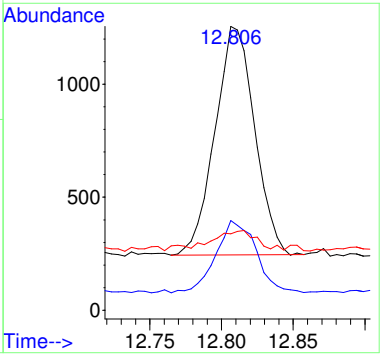


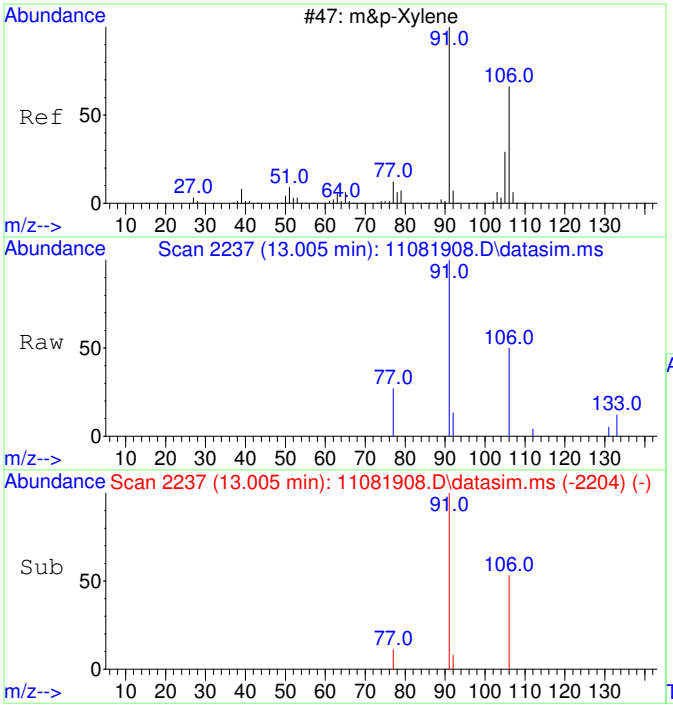


#18
Ethylbenzene
Concen: 52.91 ug/L
RT: 12.806 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1947

Ion	Ratio	Lower	Upper
91	100		
106	32.2	2.3	62.3
77	9.2	0.0	38.6

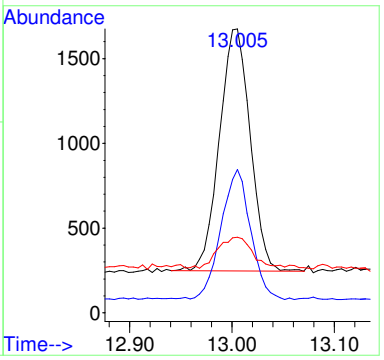


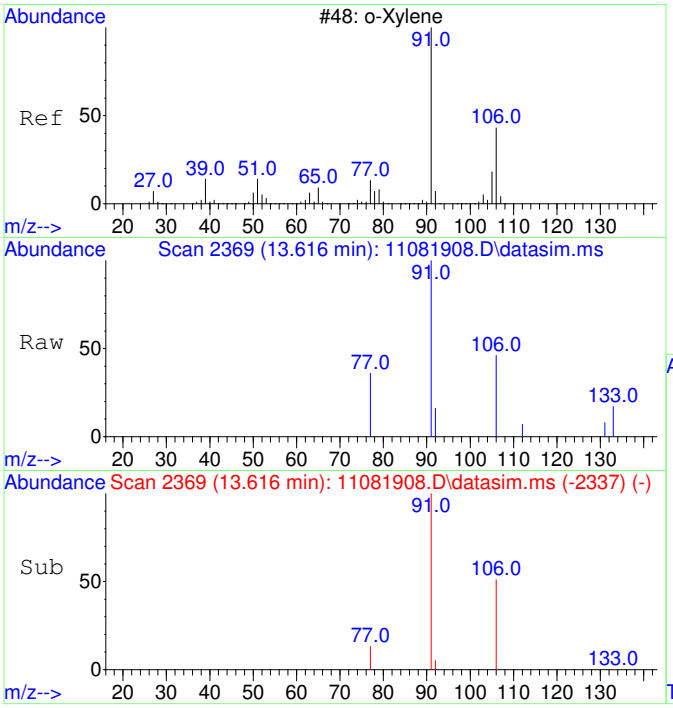


#19
m&p-Xylene
Concen: 107.32 ug/L
RT: 13.005 min Scan# 2237
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 2984

Ion	Ratio	Lower	Upper
91	100		
106	51.1	35.9	95.9
77	13.8	0.0	41.9

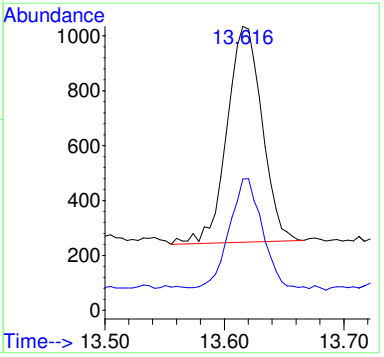


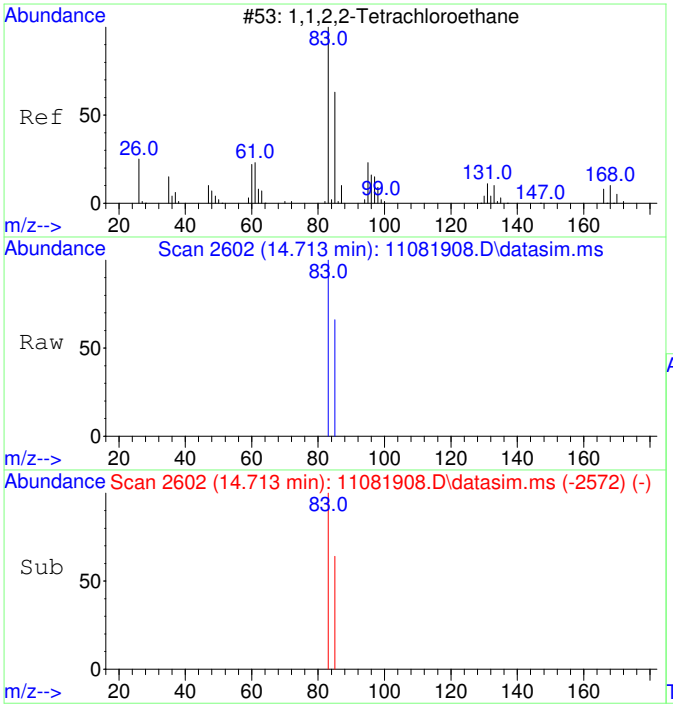


#20
o-Xylene
Concen: 53.63 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1598

Ion	Ratio	Lower	Upper
91	100		
106	47.6	13.0	73.0

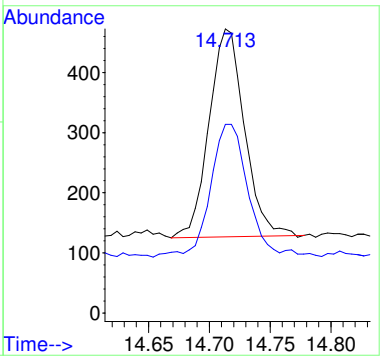


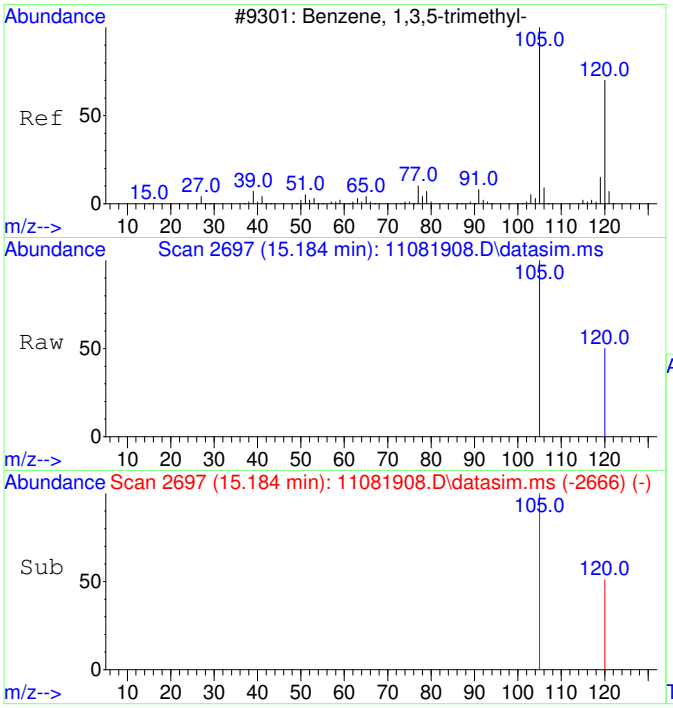


#21
1,1,2,2-Tetrachloroethane
Concen: 53.14 ug/L
RT: 14.713 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 702

Ion	Ratio	Lower	Upper
83	100		
85	66.4	32.7	92.7

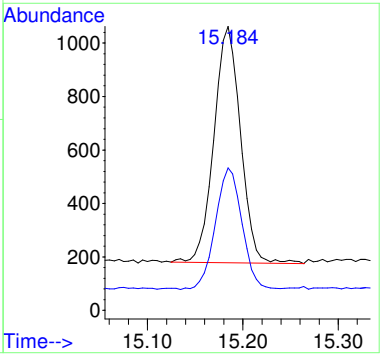


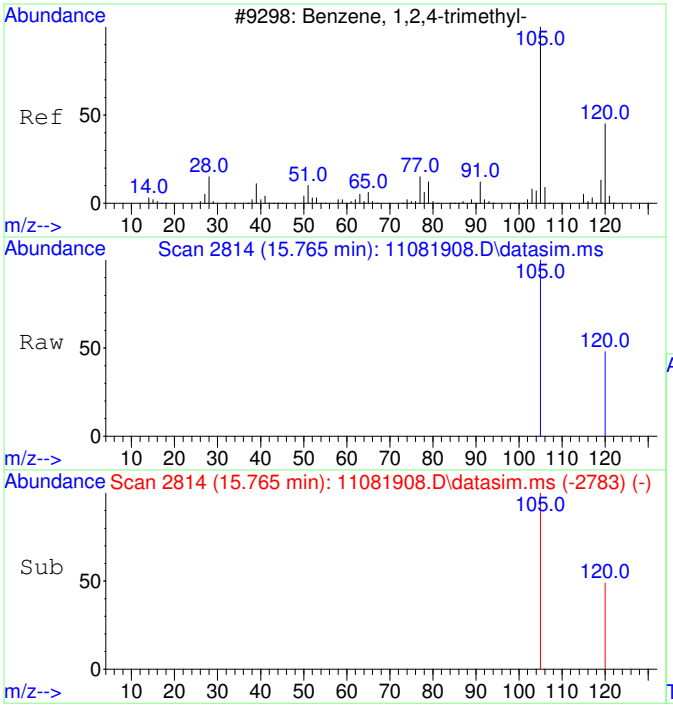


#22
1,3,5-Trimethylbenzene
Concen: 53.98 ug/L
RT: 15.184 min Scan# 2697
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:105 Resp: 1712

Ion	Ratio	Lower	Upper
105	100		
120	50.8	20.1	80.1

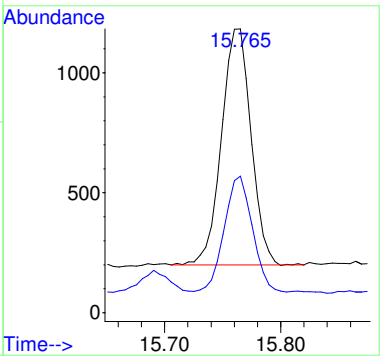


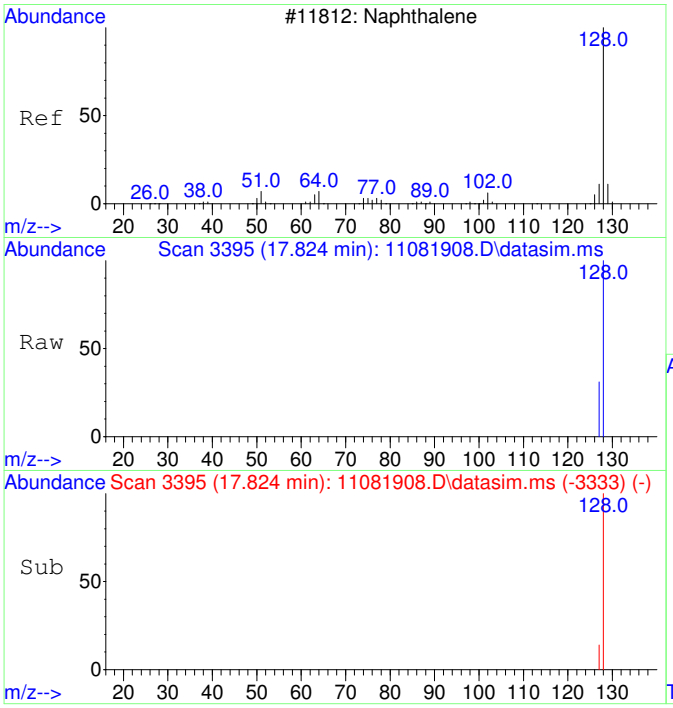


#23
1,2,4-Trimethylbenzene
Concen: 53.83 ug/L
RT: 15.765 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:105 Resp: 1739

Ion	Ratio	Lower	Upper
105	100		
120	46.3	15.2	75.2

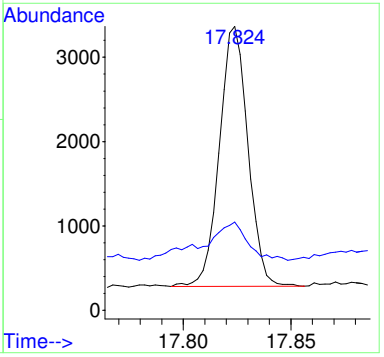


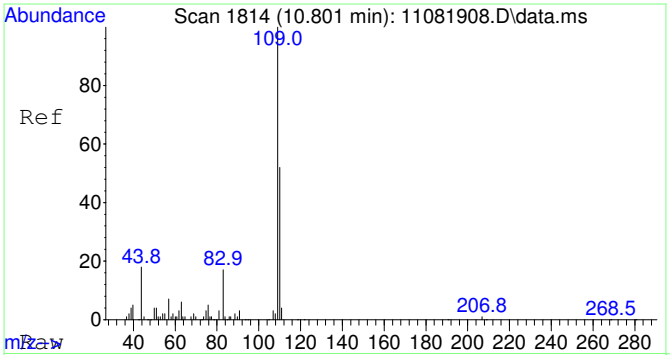


#24
Naphthalene
Concen: 50.87 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. 0.002 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:128 Resp: 2840

Ion	Ratio	Lower	Upper
128	100		
127	9.5	0.0	40.7

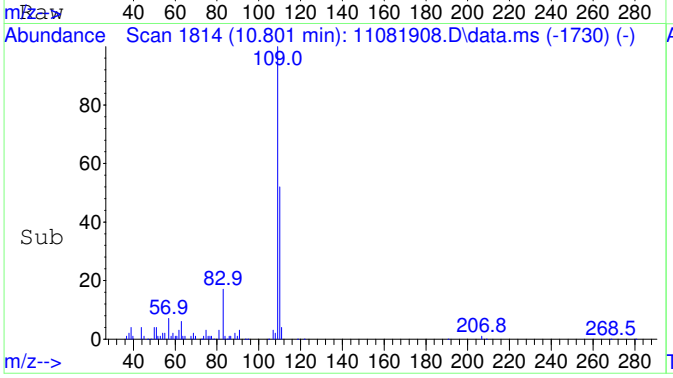


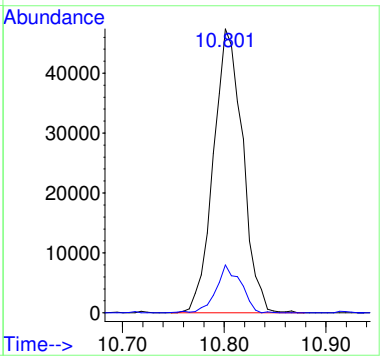


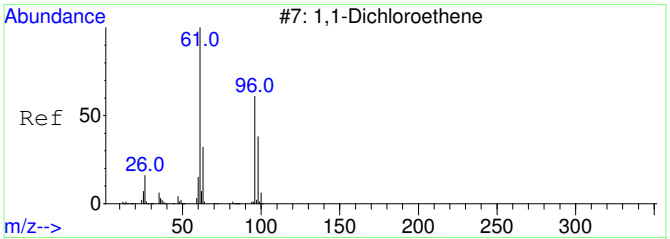
#25
2-Fluorotoluene SCAN
Concen: 4965.17 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:109 Resp: 94892

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	42.8



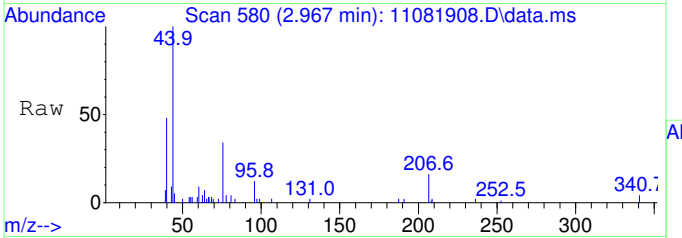


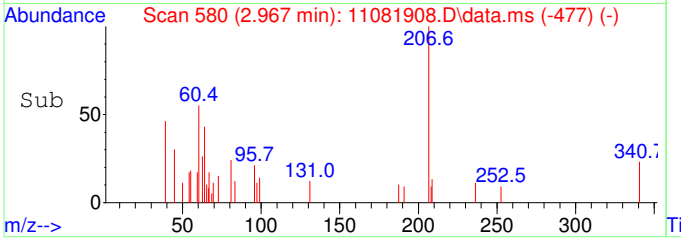


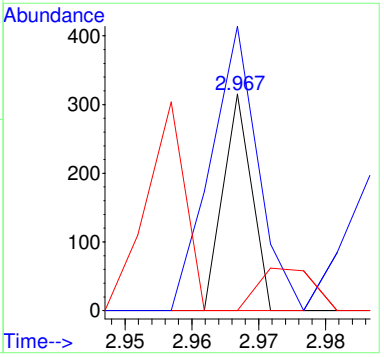
#26
1,1-Dichloroethene SCAN
Concen: 23.26 ug/L
RT: 2.967 min Scan# 580
Delta R.T. 0.010 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

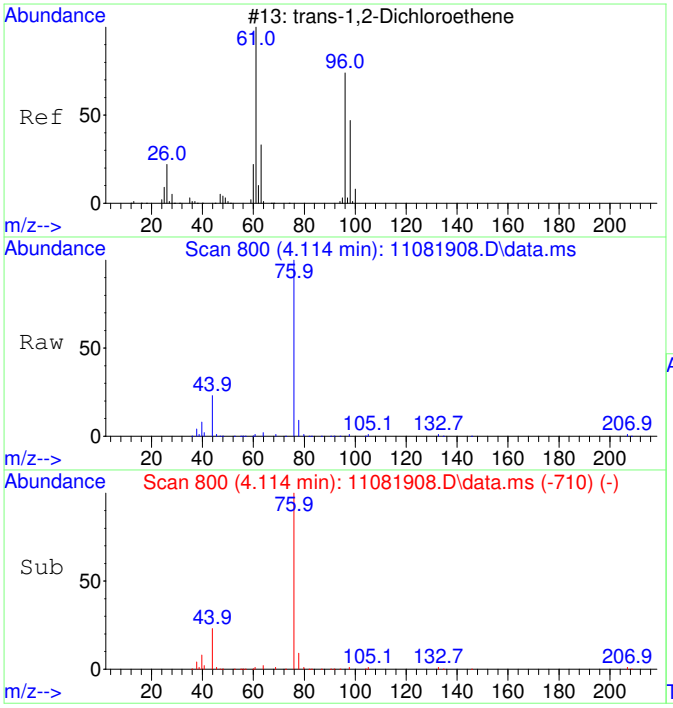
Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	217.0	32.2	92.2#
98	130.9	12.8	72.8#





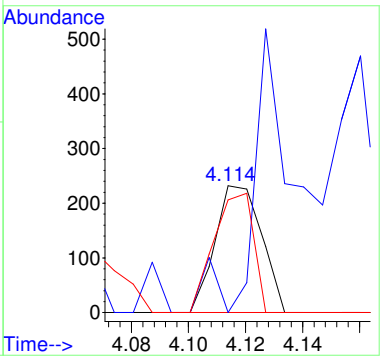


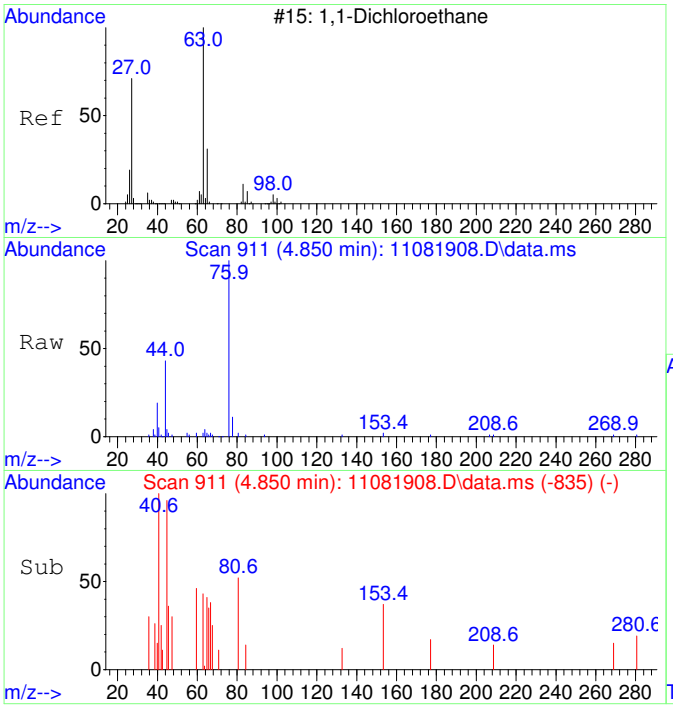


#27
trans-1,2-Dichloroethene SCAN
Concen: 55.89 ug/L
RT: 4.114 min Scan# 800
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 264

Ion	Ratio	Lower	Upper
61	100		
96	112.1	41.8	101.8#
98	79.9	19.2	79.2#

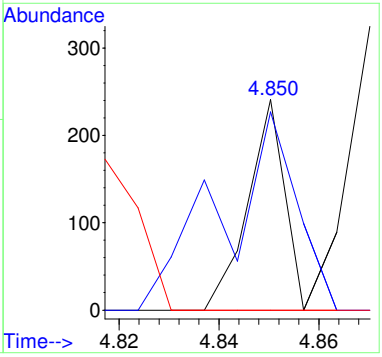


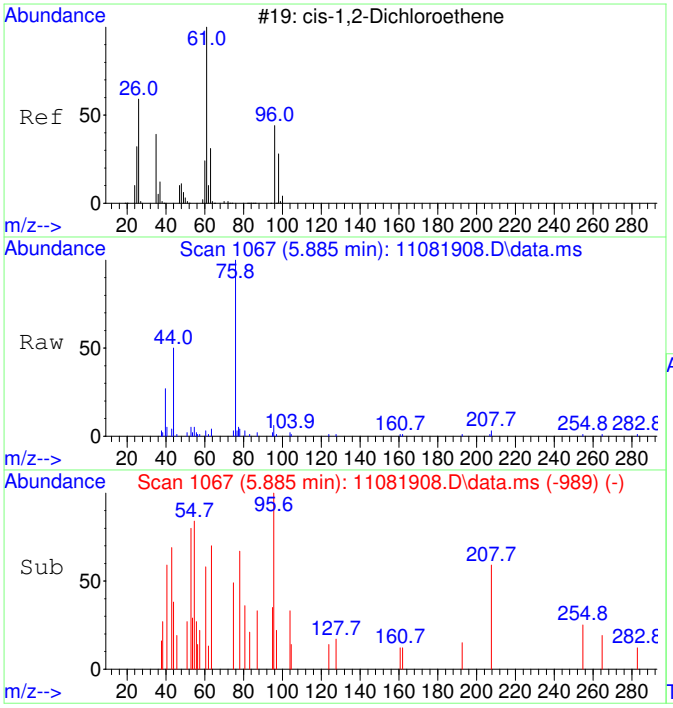


#28
1,1-Dichloroethane SCAN
Concen: 21.58 ug/L
RT: 4.850 min Scan# 911
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 63 Resp: 123

Ion	Ratio	Lower	Upper
63	100		
65	191.9	5.1	65.1#
83	0.0	0.0	44.9

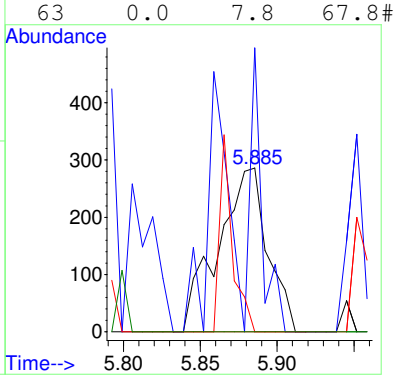


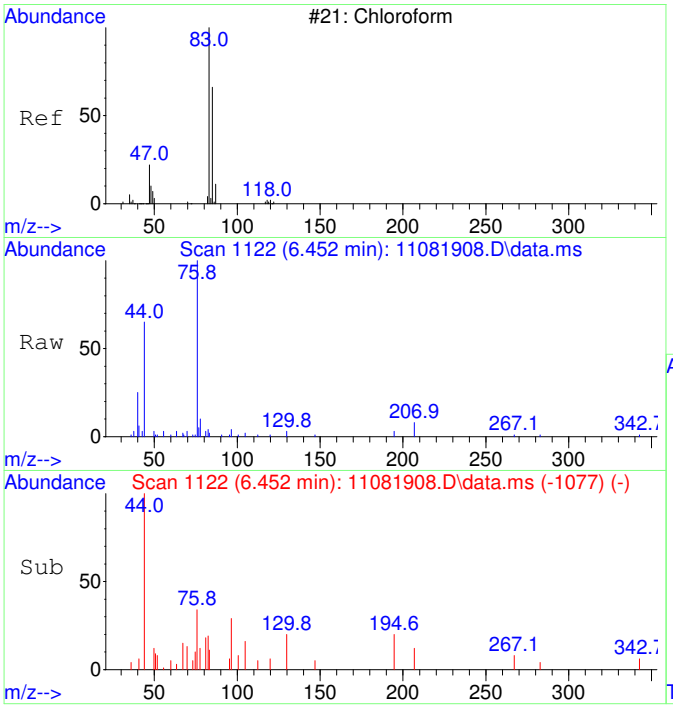


#29
cis-1,2-Dichloroethene SCAN
Concen: 111.59 ug/L
RT: 5.885 min Scan# 1067
Delta R.T. 0.020 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 640

Ion	Ratio	Lower	Upper
61	100		
96	41.3	32.9	92.9
98	0.0	14.3	74.3#
63	0.0	7.8	67.8#

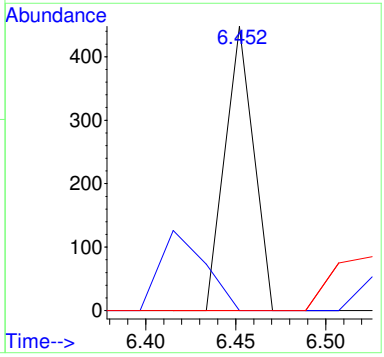


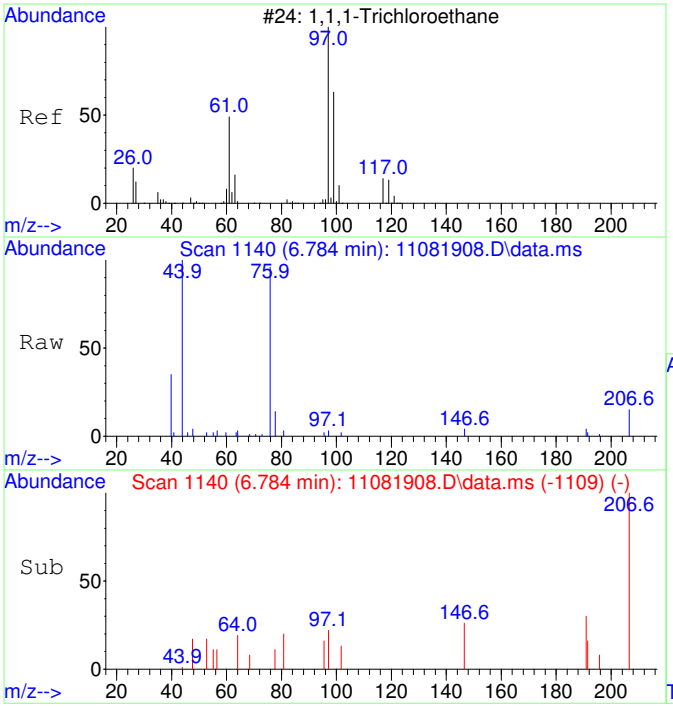


#30
Chloroform SCAN
Concen: 79.72 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 495

Ion	Ratio	Lower	Upper
83	100		
85	0.0	39.1	99.1#
47	0.0	0.0	53.1

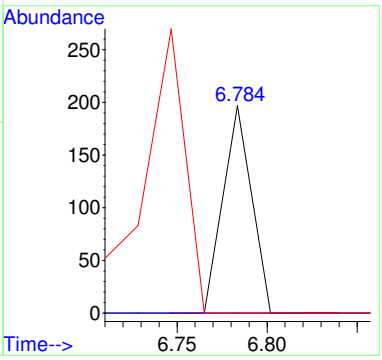


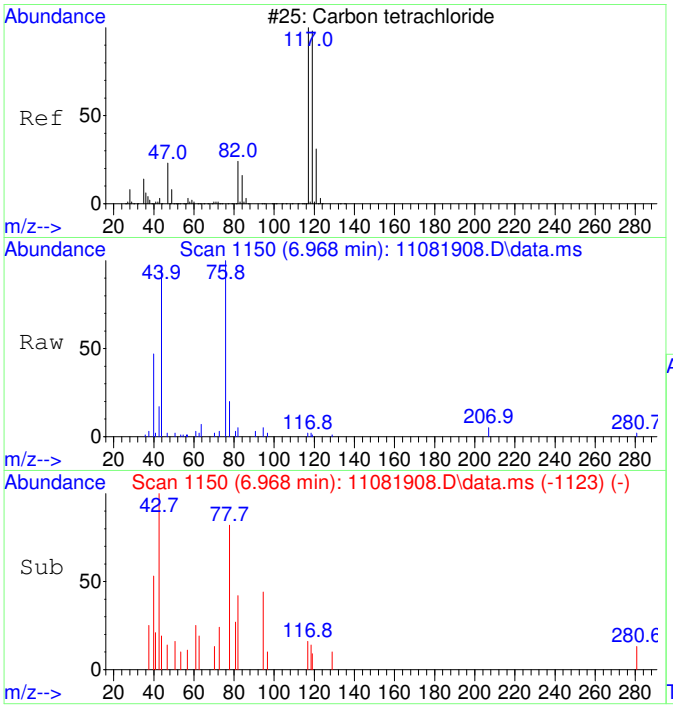


#31
1,1,1-Trichloroethane SCAN
Concen: 36.00 ug/L
RT: 6.784 min Scan# 1140
Delta R.T. 0.073 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 218

Ion	Ratio	Lower	Upper
97	100		
99	0.0	32.6	92.6#
61	0.0	9.4	69.4#

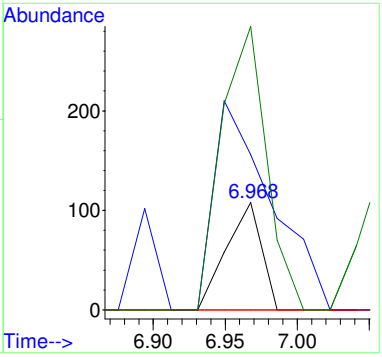


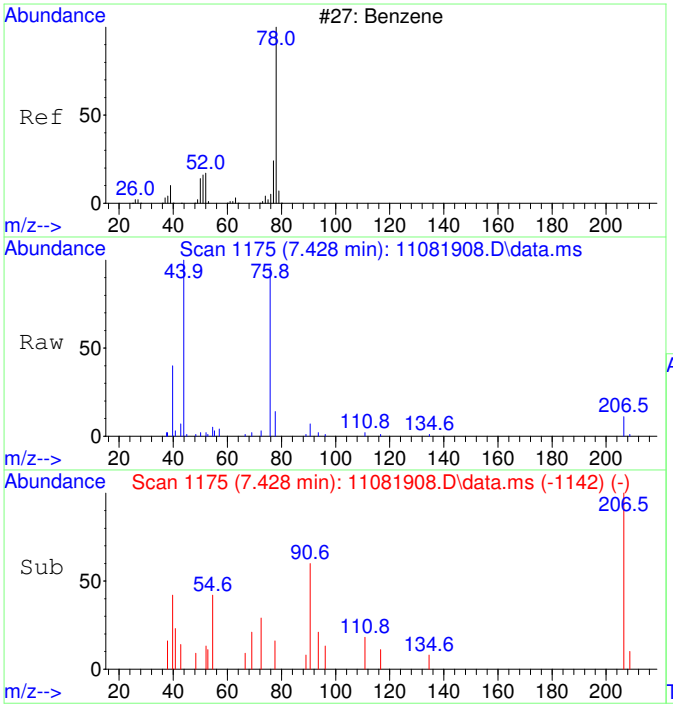


#32
Carbon tetrachloride SCAN
Concen: 31.75 ug/L
RT: 6.968 min Scan# 1150
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:117 Resp: 183

Ion	Ratio	Lower	Upper
117	100		
119	319.1	63.7	123.7#
121	0.0	4.6	64.6#
82	339.3	0.0	55.3#

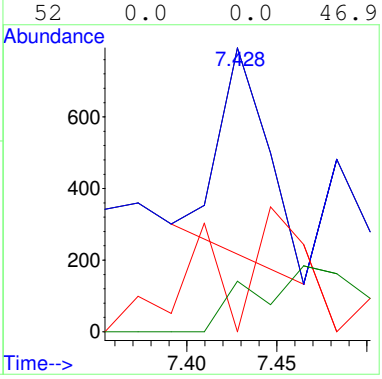


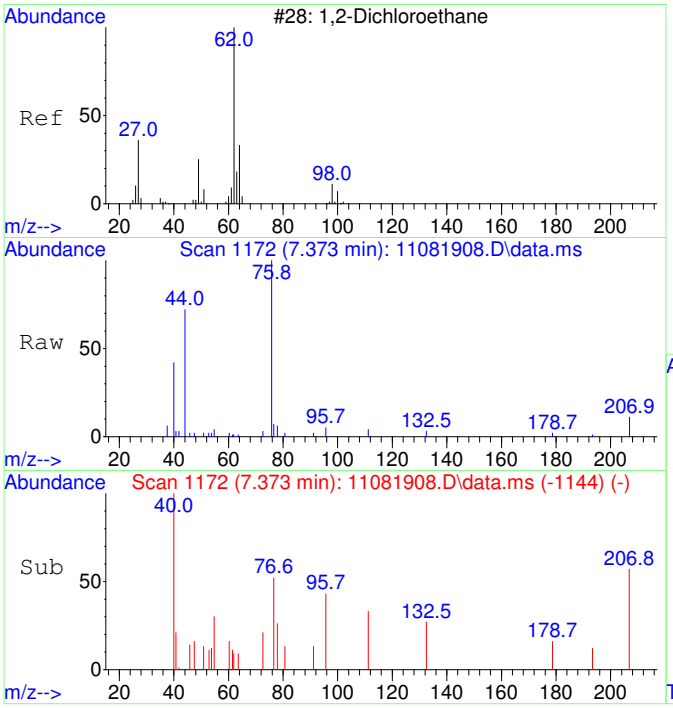


#33
Benzene SCAN
Concen: 62.07 ug/L
RT: 7.428 min Scan# 1175
Delta R.T. 0.110 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 78 Resp: 1005

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	49.8	0.0	49.2#
52	0.0	0.0	46.9

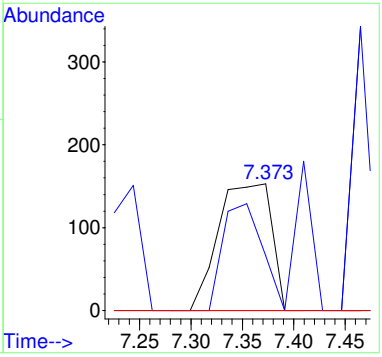


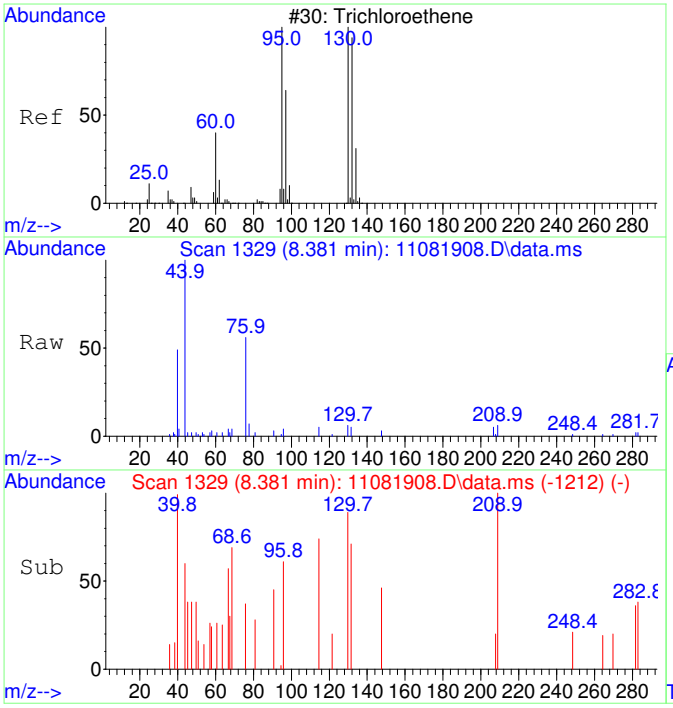


#34
1,2-Dichloroethane SCAN
Concen: 101.71 ug/L
RT: 7.373 min Scan# 1172
Delta R.T. 0.018 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 62 Resp: 552

Ion	Ratio	Lower	Upper
62	100		
64	63.0	3.3	63.3
49	0.0	0.8	60.8#

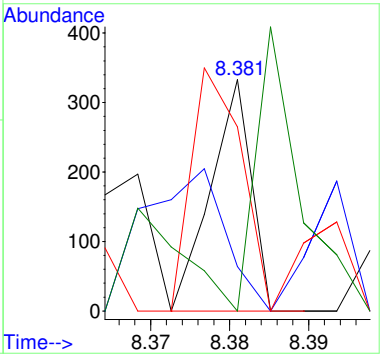


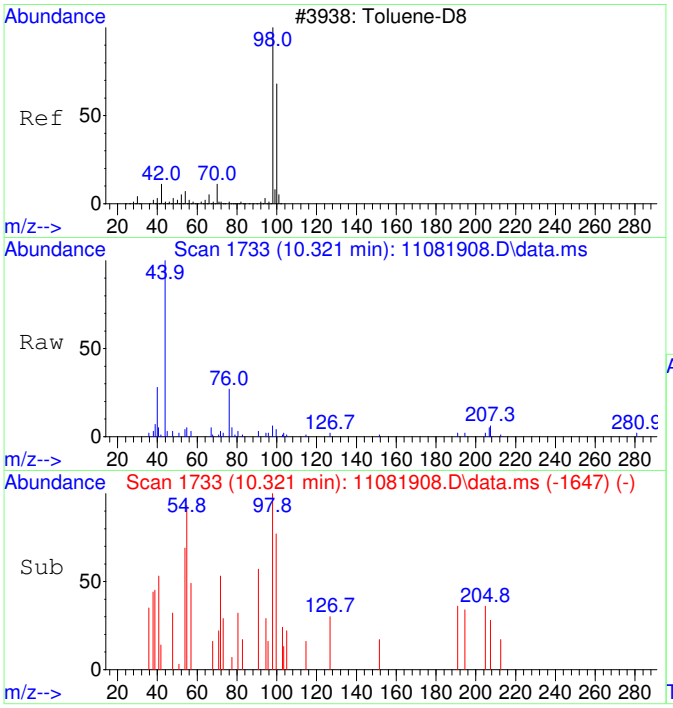


#35
Trichloroethene SCAN
Concen: 24.55 ug/L
RT: 8.381 min Scan# 1329
Delta R.T. -0.009 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:130 Resp: 119

Ion	Ratio	Lower	Upper
130	100		
95	121.8	61.4	121.4#
132	178.2	75.5	135.5#
97	130.3	30.6	90.6#

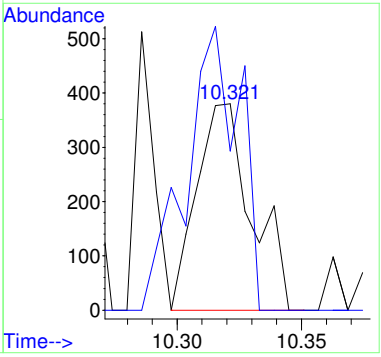


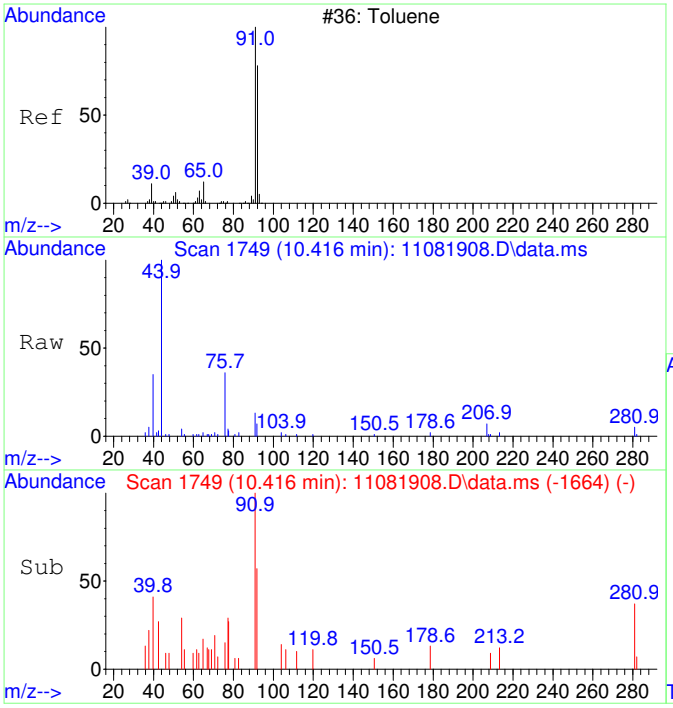


#36
Toluene-d8 SCAN
Concen: 36.28 ug/L
RT: 10.321 min Scan# 1733
Delta R.T. 0.012 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 98 Resp: 587

Ion	Ratio	Lower	Upper
98	100		
100	133.2	32.2	92.2#

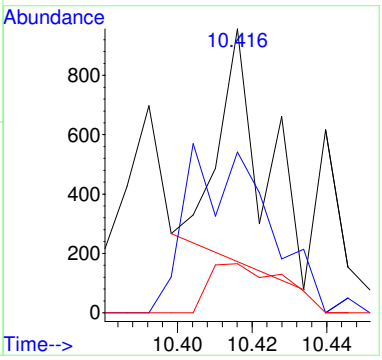


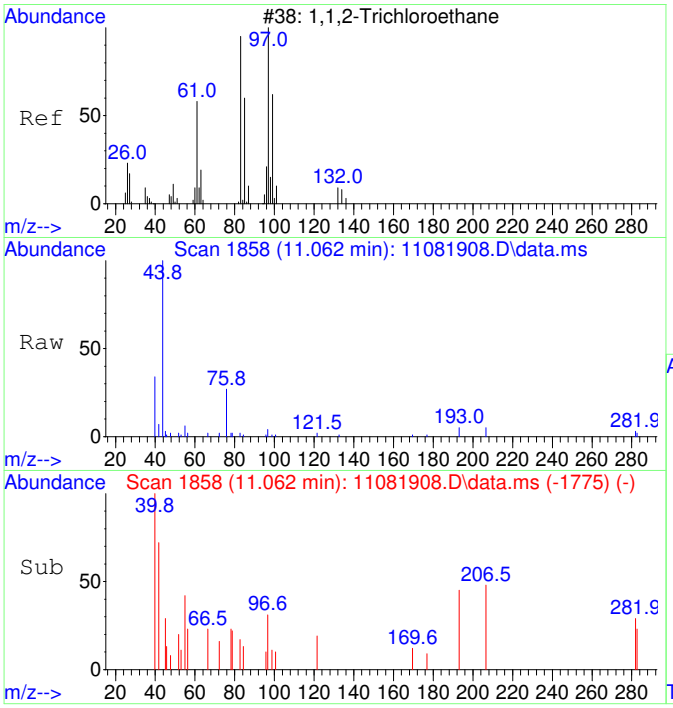


#37
Toluene SCAN
Concen: 33.77 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 632

Ion	Ratio	Lower	Upper
91	100		
92	135.6	34.3	94.3#
65	36.4	0.0	45.2

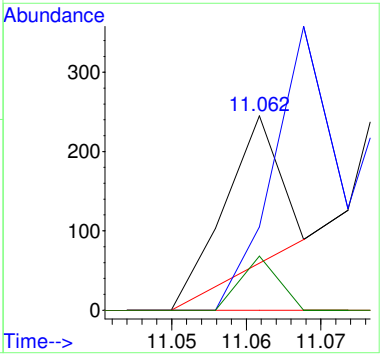


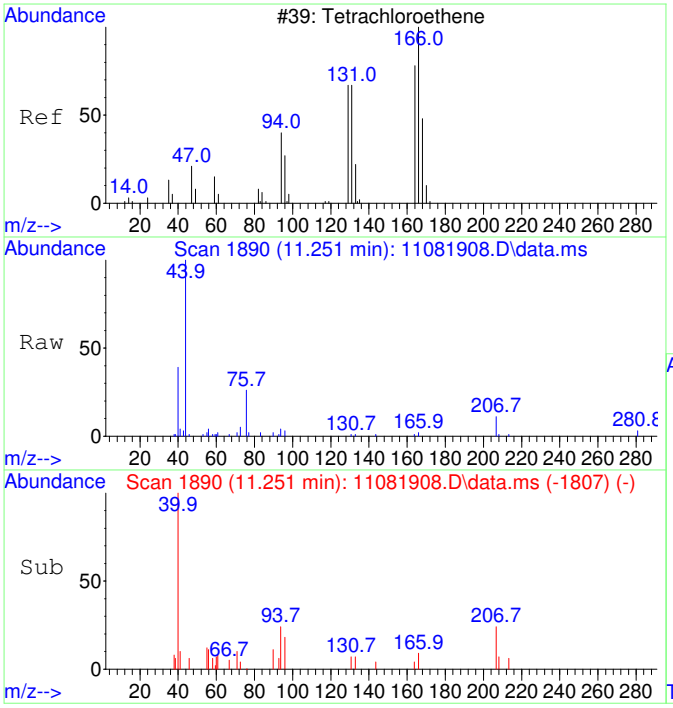


#38
1,1,2-Trichloroethane SCAN
Concen: 25.00 ug/L
RT: 11.062 min Scan# 1858
Delta R.T. -0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 108

Ion	Ratio	Lower	Upper
97	100		
83	325.0	73.8	133.8#
61	0.0	38.9	98.9#
99	0.0	33.5	93.5#

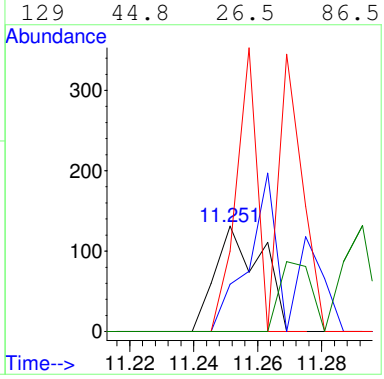


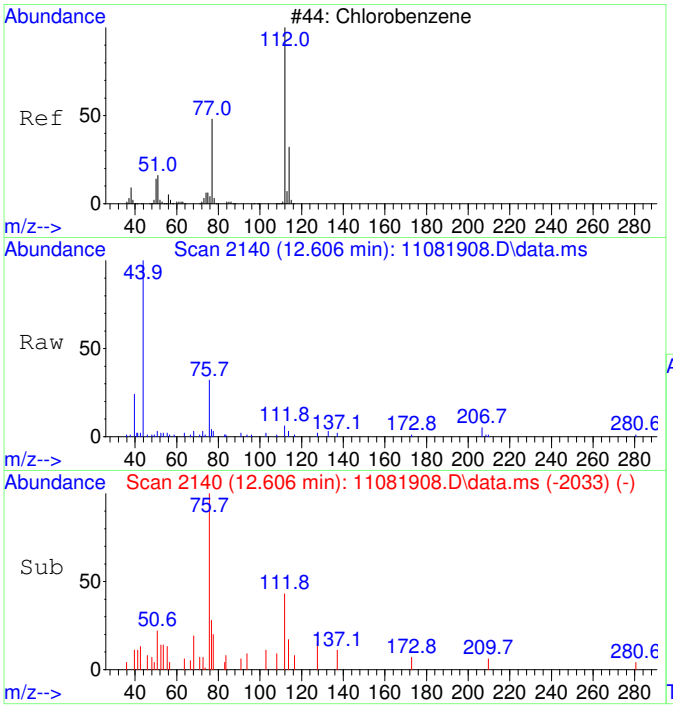


#39
Tetrachloroethene SCAN
Concen: 26.49 ug/L
RT: 11.251 min Scan# 1890
Delta R.T. -0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:166 Resp: 134

Ion	Ratio	Lower	Upper
166	100		
164	136.6	41.7	101.7#
131	120.1	36.7	96.7#
129	44.8	26.5	86.5

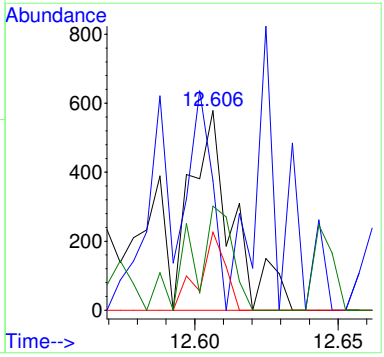


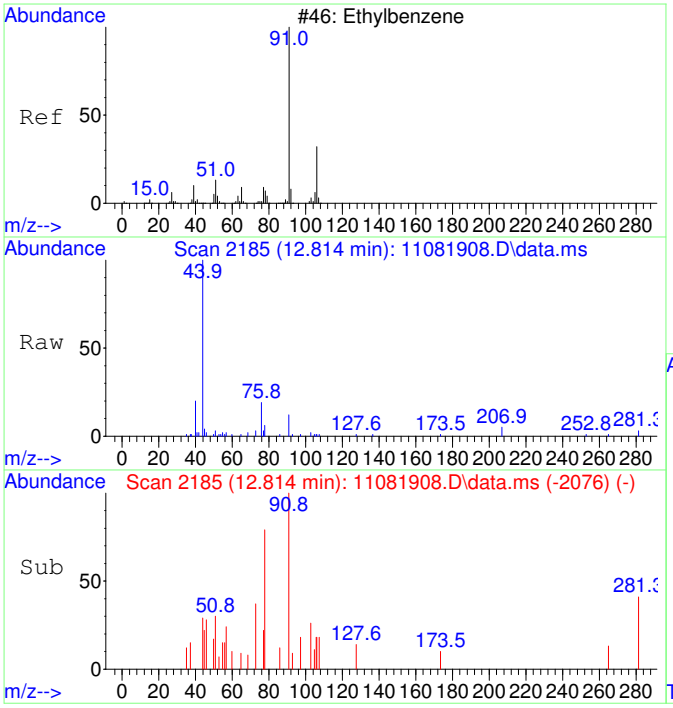


#40
Chlorobenzene SCAN
Concen: 44.93 ug/L
RT: 12.606 min Scan# 2140
Delta R.T. 0.009 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:112 Resp: 584

Ion	Ratio	Lower	Upper
112	100		
77	50.3	22.8	82.8
114	24.1	3.9	63.9
51	50.7	0.0	48.2#

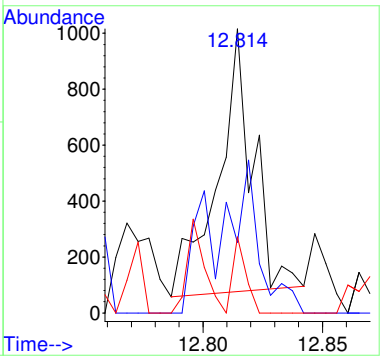


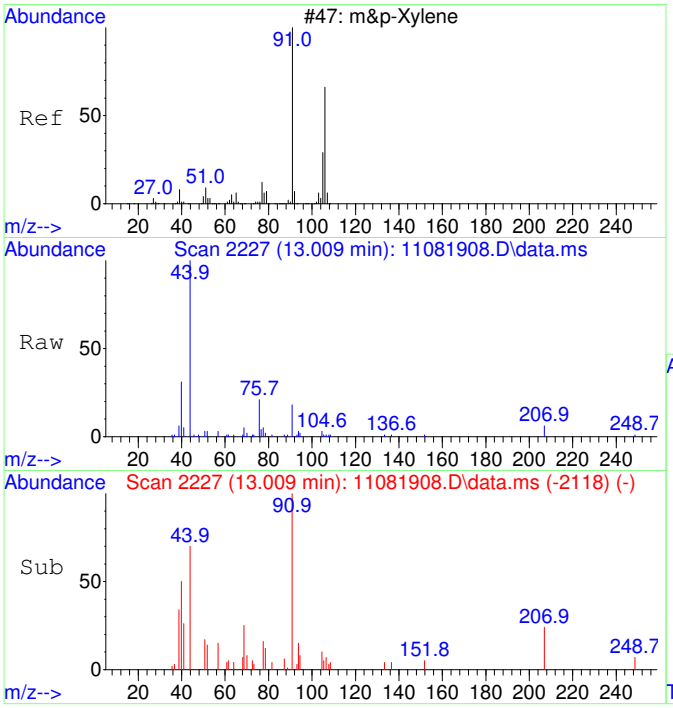


#42
Ethylbenzene SCAN
Concen: 44.78 ug/L
RT: 12.814 min Scan# 2185
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 959

Ion	Ratio	Lower	Upper
91	100		
106	32.6	3.6	63.6
51	10.8	0.0	41.2

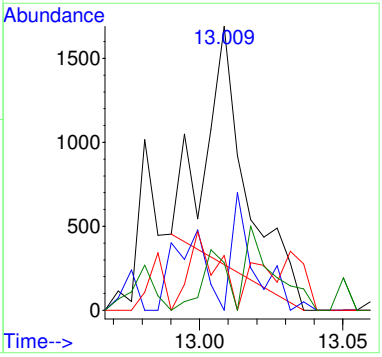


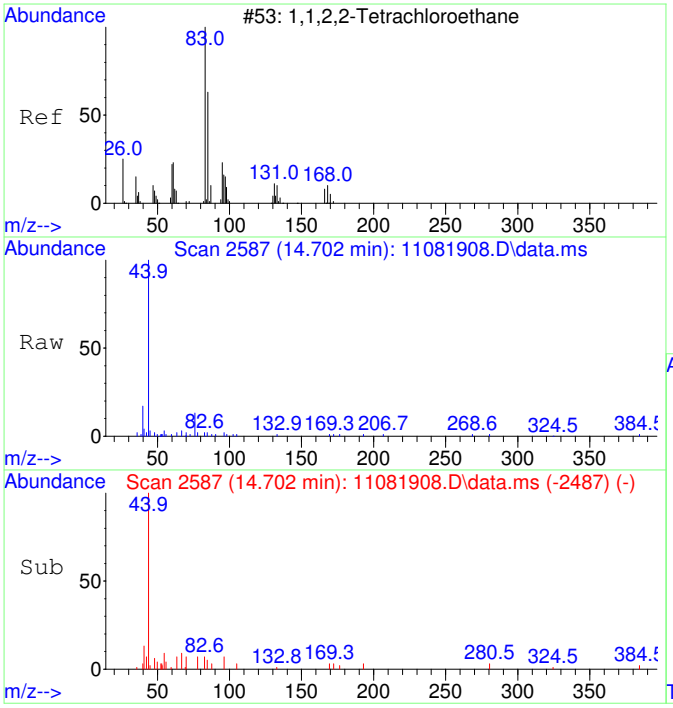


#43
m&p-Xylene SCAN
Concen: 42.45 ug/L
RT: 13.009 min Scan# 2227
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1320

Ion	Ratio	Lower	Upper
91	100		
106	28.1	22.9	82.9
105	24.3	0.0	55.8
51	16.3	0.0	40.9

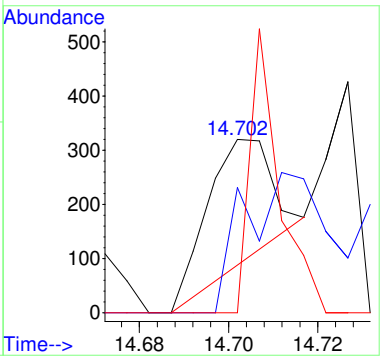


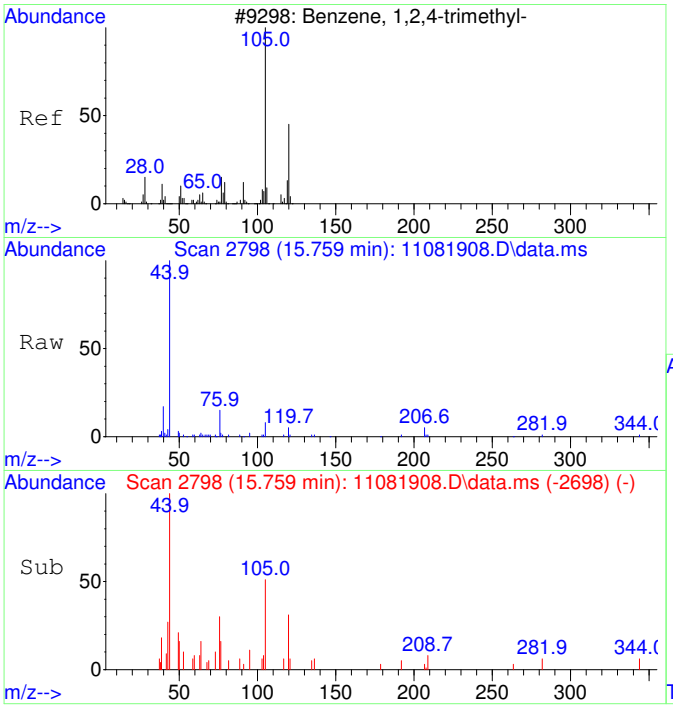


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 30.97 ug/L
RT: 14.702 min Scan# 2587
Delta R.T. -0.010 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 249

Ion	Ratio	Lower	Upper
83	100		
85	167.9	33.6	93.6#
95	95.6	0.0	50.6#

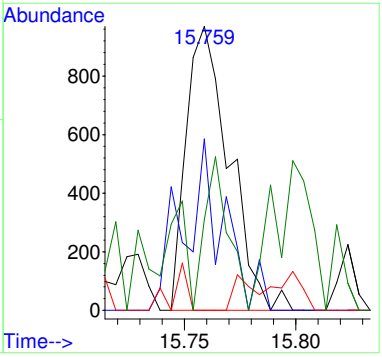


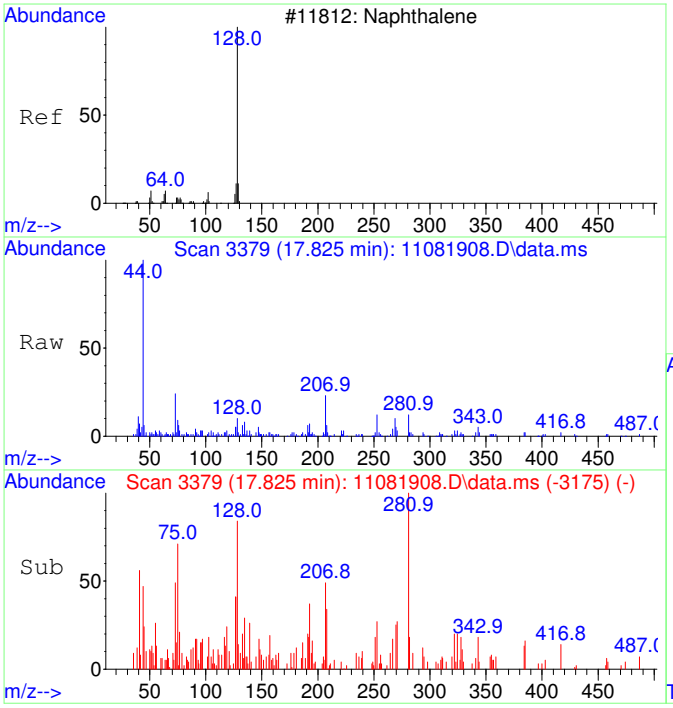


#47
1,2,4-Trimethylbenzene SCAN
Concen: 77.78 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.005 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:105 Resp: 1310

Ion	Ratio	Lower	Upper
105	100		
120	55.6	15.6	75.6
119	0.0	0.0	41.8
77	29.5	0.0	41.6

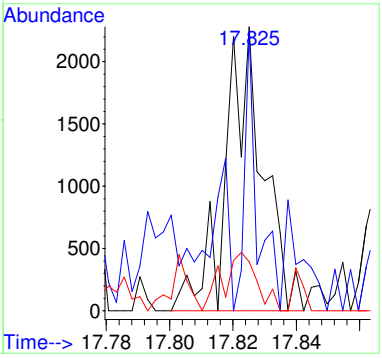




#48
Naphthalene SCAN
Concen: 68.46 ug/L
RT: 17.825 min Scan# 3379
Delta R.T. 0.002 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:128 Resp: 1875

Ion	Ratio	Lower	Upper
128	100		
127	32.6	0.0	40.7
129	18.6	0.0	40.9



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081908.D
Acq On : 8 Nov 2019 13:05
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL6
Misc : 1930060 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
TD at 6:07 am, Nov 11, 2019

M.I. Approved By:
ZR at 10:14 am, Nov 12, 2019

Quant Time: Nov 11 05:57:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:57:33 2019
Response via : Initial Calibration

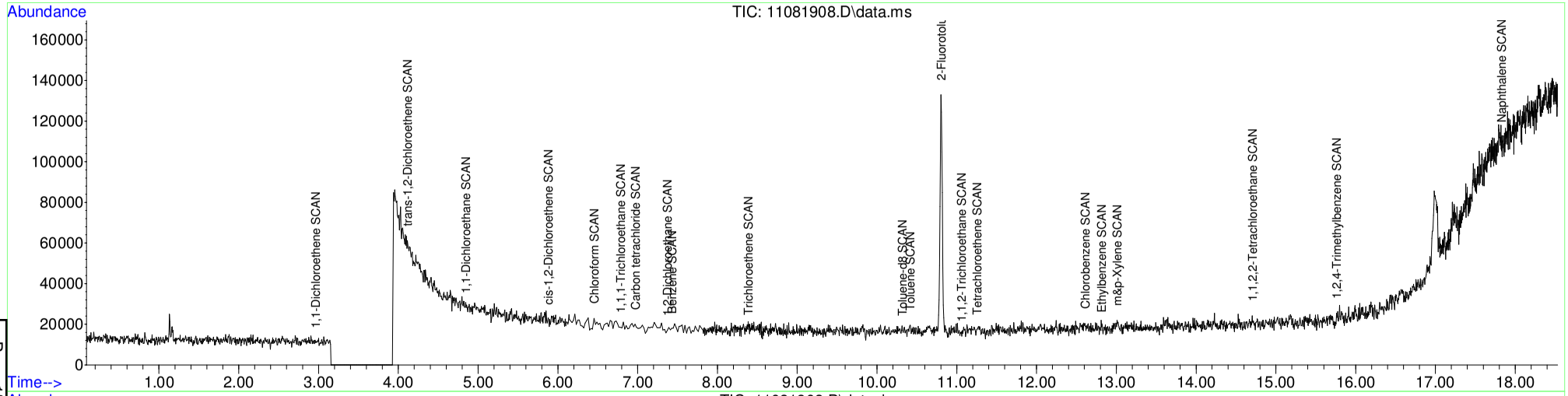
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.802	109	154973	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	1345	53.55	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.07%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	330m	39.89	ug/L	
3] trans-1,2-Dichloroethene	4.108	61	349	50.07	ug/L	82
4] 1,1-Dichloroethane	4.845	63	456	52.19	ug/L	90
5] cis-1,2-Dichloroethene	5.867	61	421	50.80	ug/L	90
6] Chloroform	6.435	83	493	52.00	ug/L	98
7] 1,1,1-Trichloroethane	6.693	97	475	50.79	ug/L	86
8] Carbon tetrachloride	6.969	117	457	51.82	ug/L	99
9] Benzene	7.300	78	1498	62.17	ug/L	93
10] 1,2-Dichloroethane	7.337	62	402	52.41	ug/L	91
11] Trichloroethene	8.386	130	402	54.49	ug/L	91
13] Toluene	10.411	91	1645	54.26	ug/L	82
14] 1,1,2-Trichloroethane	11.069	97	399	56.76	ug/L	96
15] Tetrachloroethene	11.259	166	458	51.84	ug/L	91
16] Chlorobenzene	12.603	112	1188	52.59	ug/L	75
17] 1,1,1,2-Tetrachloroethane	12.756	131	491	60.48	ug/L	95
18] Ethylbenzene	12.806	91	1947	52.91	ug/L	99
19] m&p-Xylene	13.005	91	2984	107.32	ug/L	84
20] o-Xylene	13.616	91	1598	53.63	ug/L	93
21] 1,1,2,2-Tetrachloroethane	14.713	83	702	53.14	ug/L	95
22] 1,3,5-Trimethylbenzene	15.184	105	1712	53.98	ug/L	99
23] 1,2,4-Trimethylbenzene	15.765	105	1739	53.83	ug/L	98
24] Naphthalene	17.824	128	2840	50.87	ug/L	97
25) 2-Fluorotoluene SCAN	10.801	109	94892	4965.17	ug/L	96
26) 1,1-Dichloroethene SCAN	2.967	61	94	23.26	ug/L #	1
27) trans-1,2-Dichloroethe...	4.114	61	264	55.89	ug/L #	53
28) 1,1-Dichloroethane SCAN	4.850	63	123	21.58	ug/L #	1
29) cis-1,2-Dichloroethene...	5.885	61	640	111.59	ug/L #	51
30) Chloroform SCAN	6.452	83	495	79.72	ug/L #	25
31) 1,1,1-Trichloroethane ...	6.784	97	218	36.00	ug/L #	26
32) Carbon tetrachloride SCAN	6.968	117	183	31.75	ug/L #	1
33) Benzene SCAN	7.428	78	1005	62.07	ug/L #	86
34) 1,2-Dichloroethane SCAN	7.373	62	552	101.71	ug/L #	46
35) Trichloroethene SCAN	8.381	130	119	24.55	ug/L #	38
36) Toluene-d8 SCAN	10.321	98	587	36.28	ug/L #	8
37) Toluene SCAN	10.416	91	632	33.77	ug/L #	17
38) 1,1,2-Trichloroethane ...	11.062	97	108	25.00	ug/L #	1
39) Tetrachloroethene SCAN	11.251	166	134	26.49	ug/L #	44
40) Chlorobenzene SCAN	12.606	112	584	44.93	ug/L #	80
42) Ethylbenzene SCAN	12.814	91	959	44.78	ug/L	99
43) m&p-Xylene SCAN	13.009	91	1320	42.45	ug/L	77
45) 1,1,2,2-Tetrachloroeth...	14.702	83	249	30.97	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.759	105	1310	77.78	ug/L #	77
48) Naphthalene SCAN	17.825	128	1875	68.46	ug/L	61

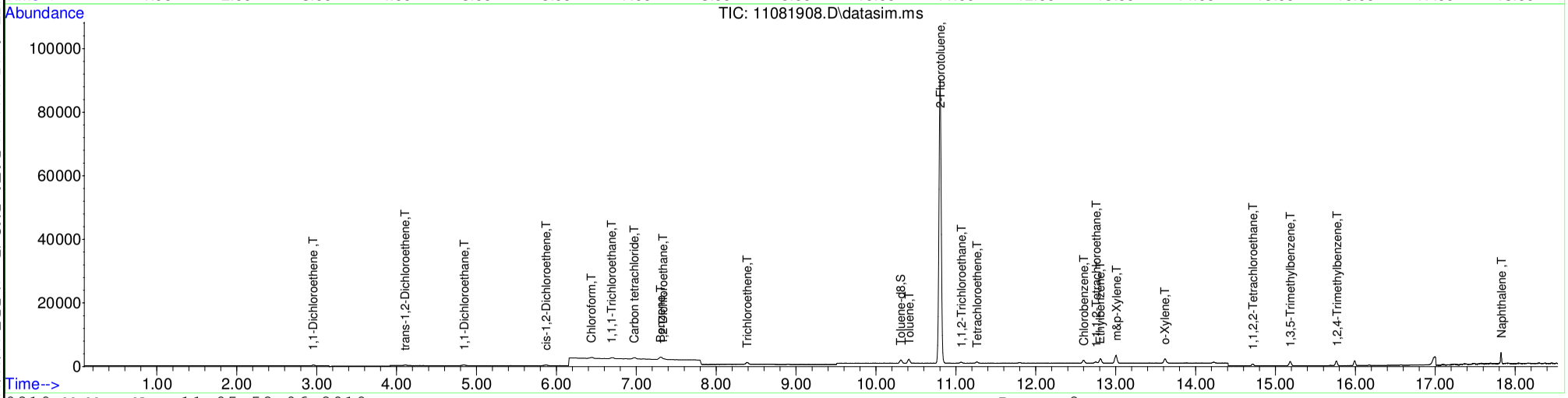
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081908.D
Acq On : 8 Nov 2019 13:05
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL6
Misc : 1930060 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 11 05:57:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:57:33 2019
Response via : Initial Calibration





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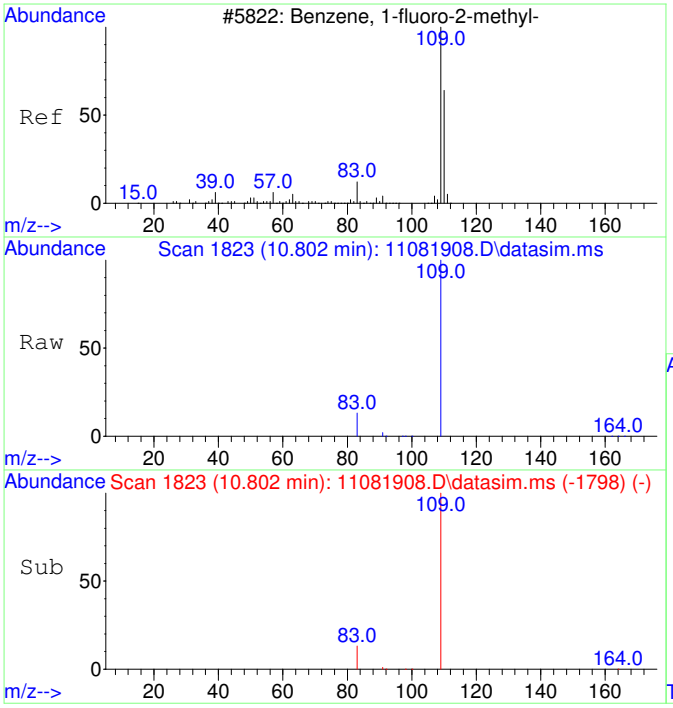
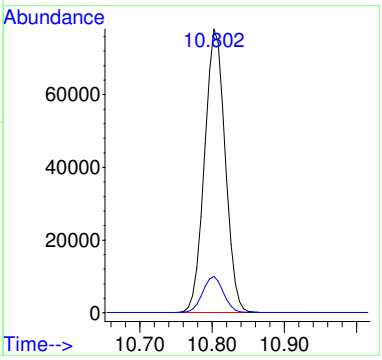
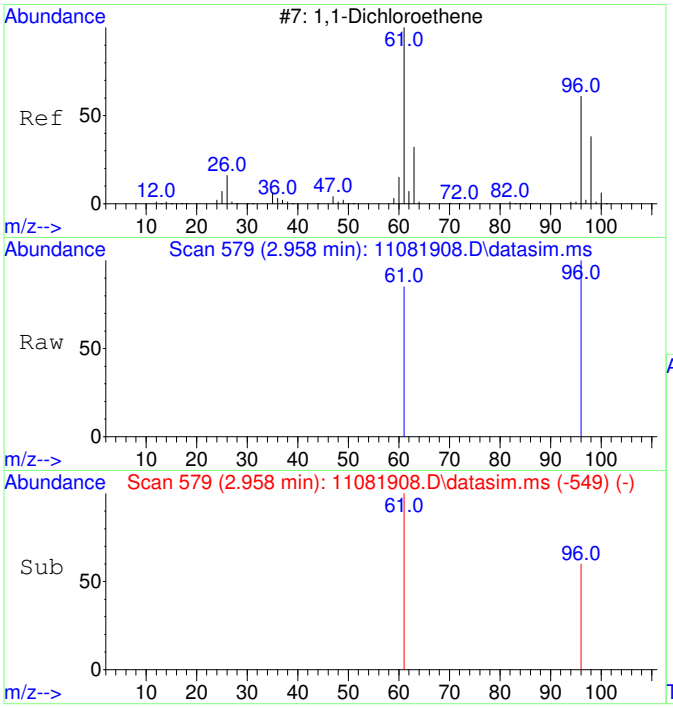


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.802 min Scan# 1823
Delta R.T. -0.001 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:109 Resp: 154973

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	42.3

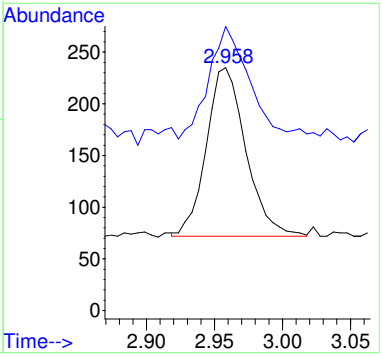


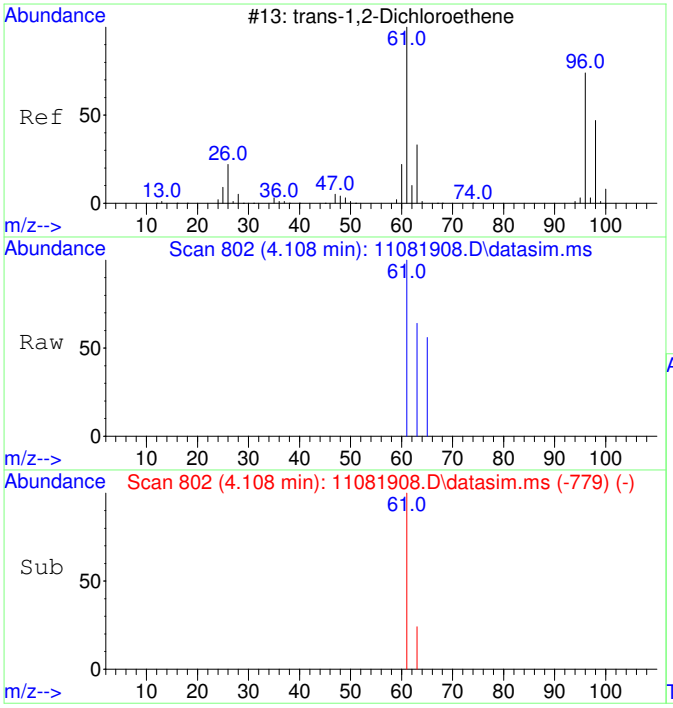


#2
1,1-Dichloroethene
Concen: 39.89 ug/L m
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 330

Ion	Ratio	Lower	Upper
61	100		
96	218.2	31.4	91.4#

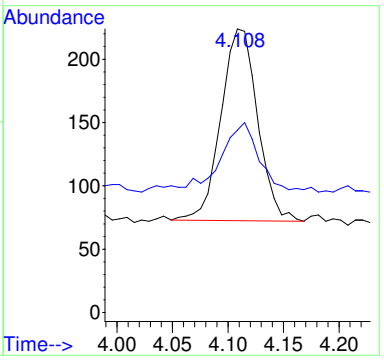


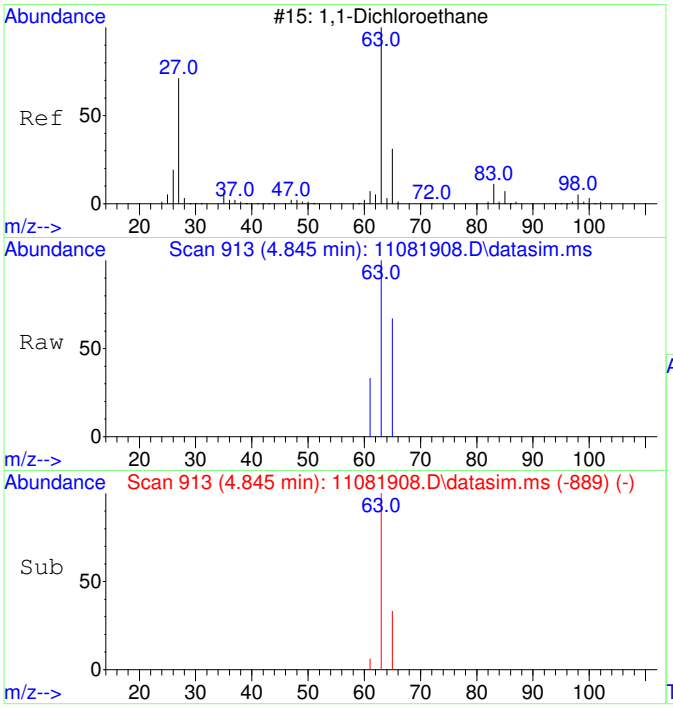


#3
trans-1,2-Dichloroethene
Concen: 50.07 ug/L
RT: 4.108 min Scan# 802
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 349

Ion	Ratio	Lower	Upper
61	100		
63	43.0	2.8	62.8

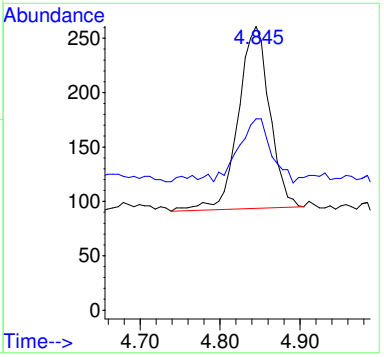


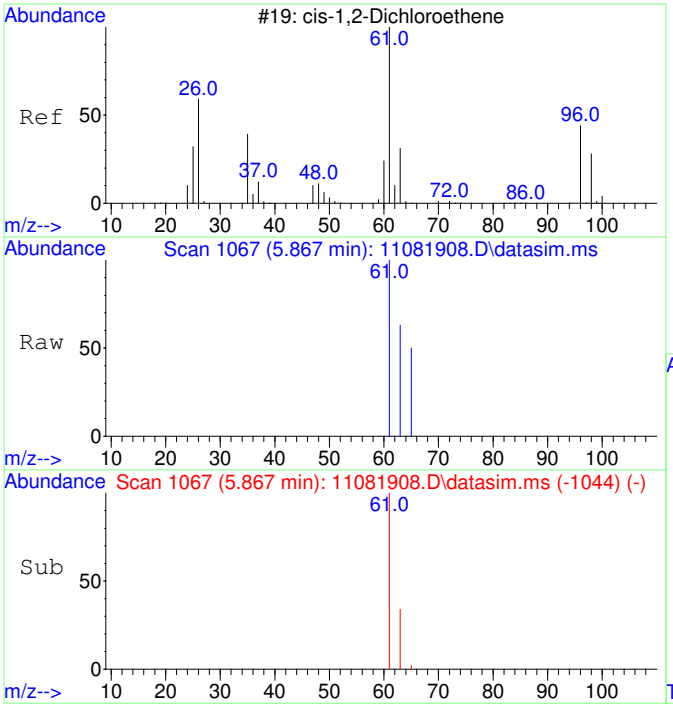


#4
1,1-Dichloroethane
Concen: 52.19 ug/L
RT: 4.845 min Scan# 913
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 63 Resp: 456

Ion	Ratio	Lower	Upper
63	100		
65	36.4	1.0	61.0

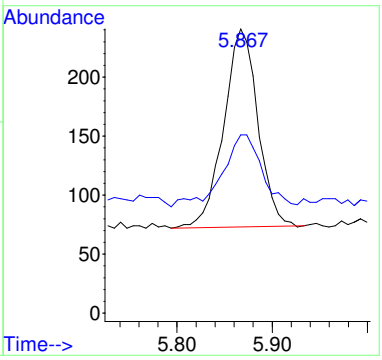


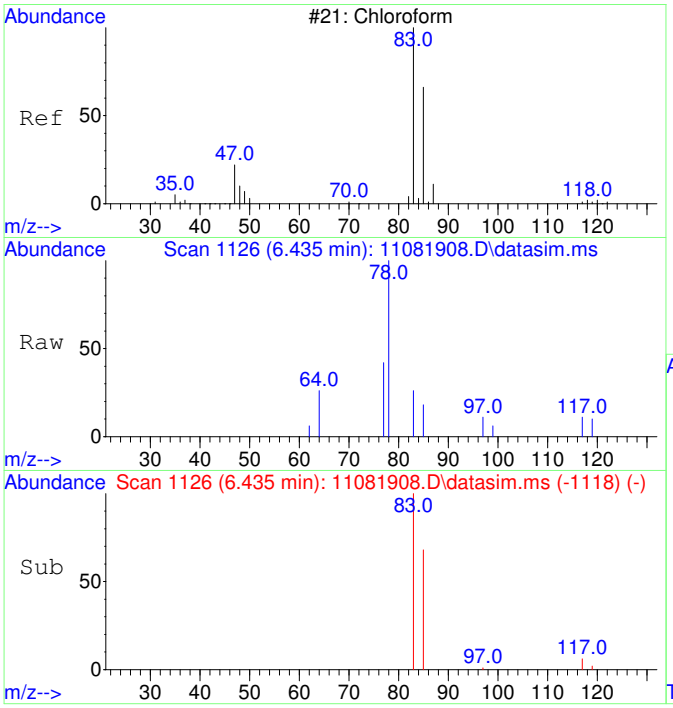


#5
cis-1,2-Dichloroethene
Concen: 50.80 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 421

Ion	Ratio	Lower	Upper
61	100		
63	37.1	1.4	61.4

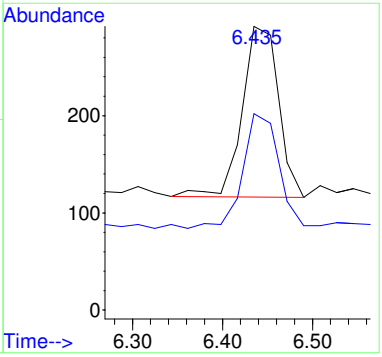


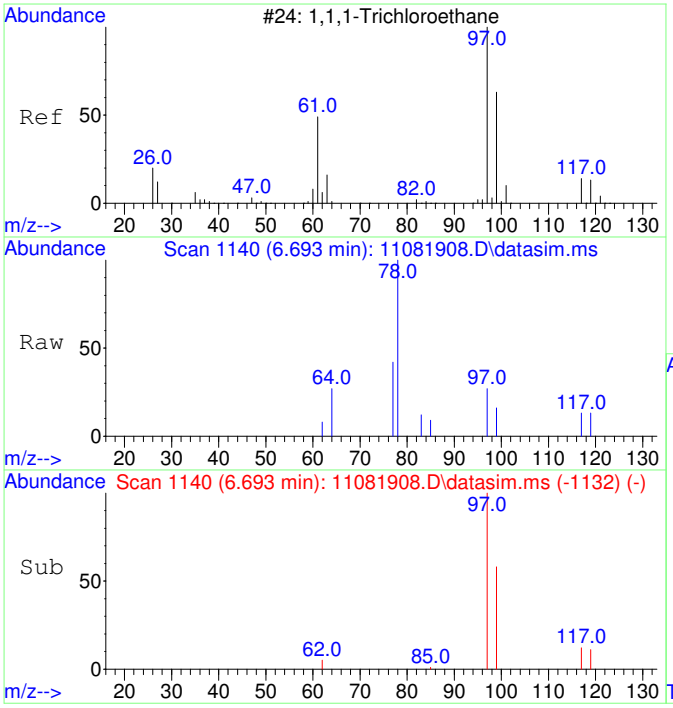


#6
Chloroform
Concen: 52.00 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 493

Ion	Ratio	Lower	Upper
83	100		
85	67.5	35.8	95.8

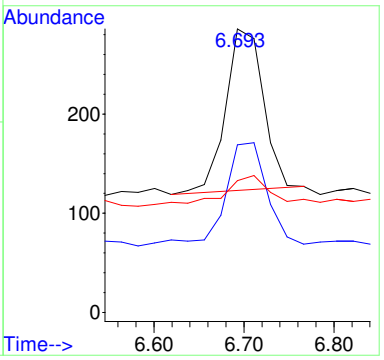


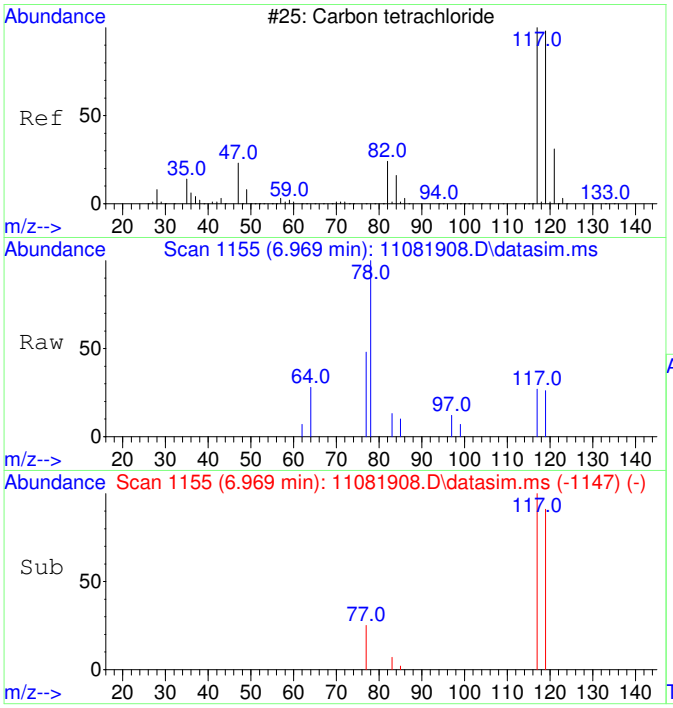


#7
1,1,1-Trichloroethane
Concen: 50.79 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 475

Ion	Ratio	Lower	Upper
97	100		
99	72.0	32.9	92.9
117	23.6	0.0	43.6

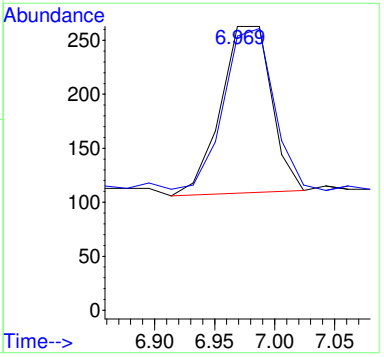


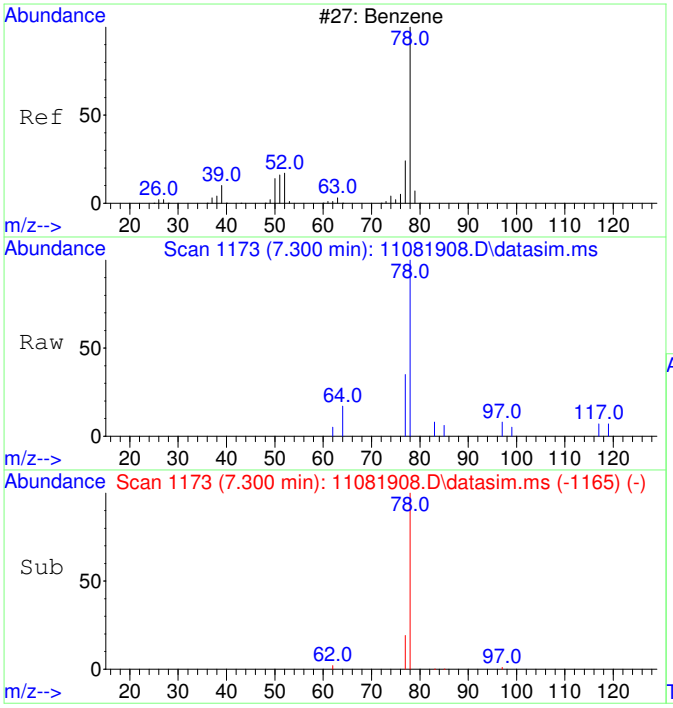


#8
Carbon tetrachloride
Concen: 51.82 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:117 Resp: 457

Ion	Ratio	Lower	Upper
117	100		
119	97.2	68.1	128.1

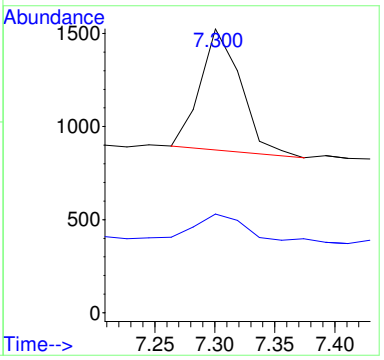


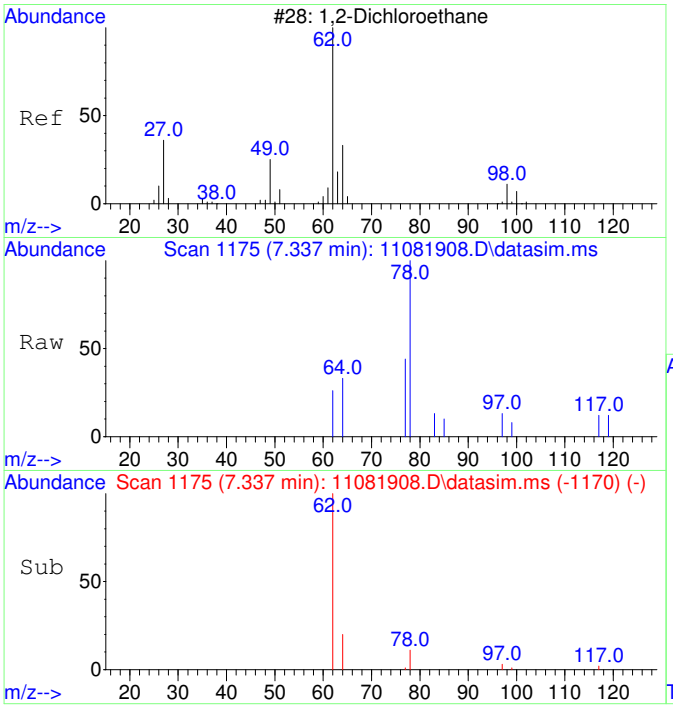


#9
Benzene
Concen: 62.17 ug/L
RT: 7.300 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 78 Resp: 1498

Ion	Ratio	Lower	Upper
78	100		
77	27.0	0.0	53.7

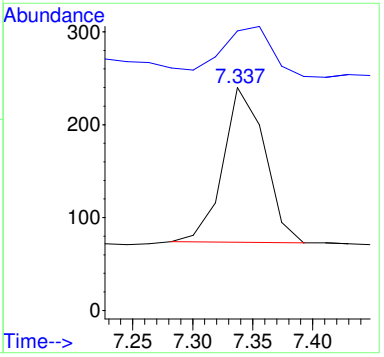


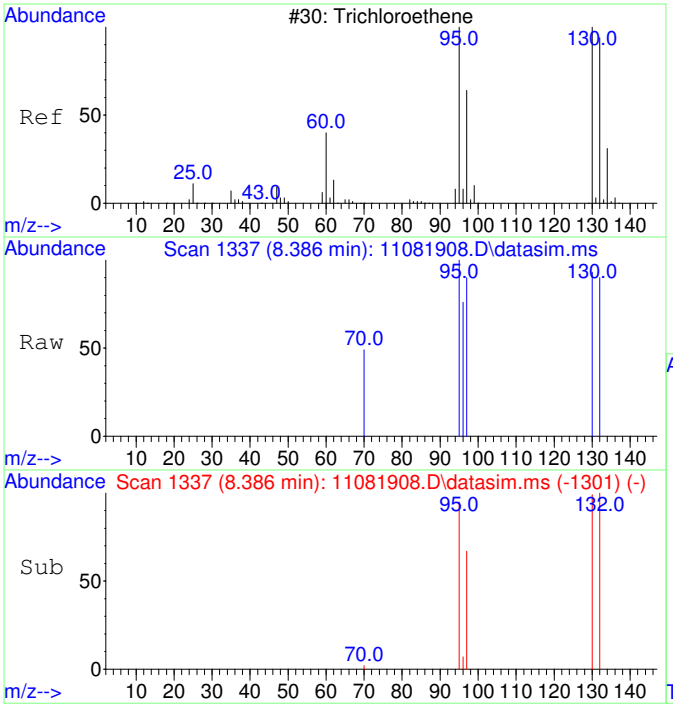


#10
1,2-Dichloroethane
Concen: 52.41 ug/L
RT: 7.337 min Scan# 1175
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 62 Resp: 402

Ion	Ratio	Lower	Upper
62	100		
64	38.6	3.5	63.5

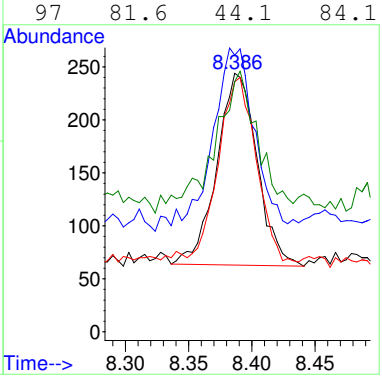


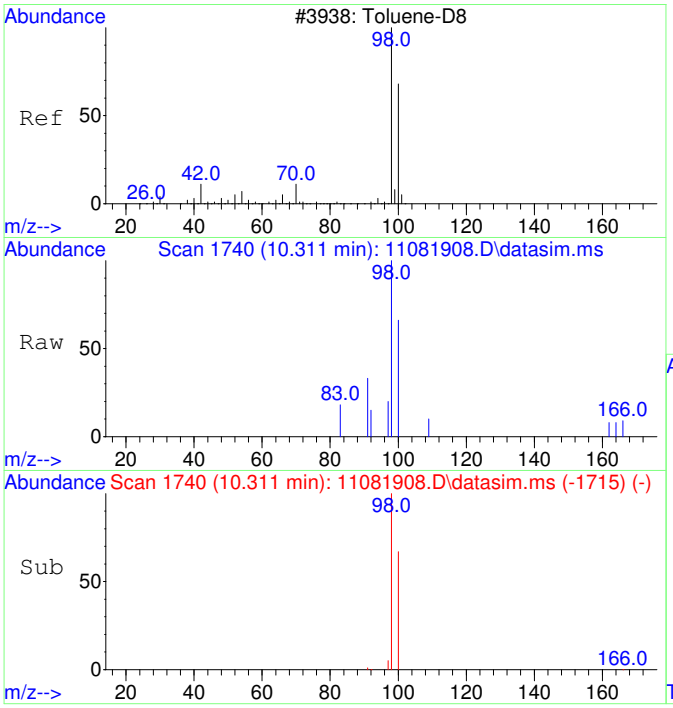


#11
Trichloroethene
Concen: 54.49 ug/L
RT: 8.386 min Scan# 1337
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:130 Resp: 402

Ion	Ratio	Lower	Upper
130	100		
95	92.8	70.1	130.1
132	92.0	74.3	114.3
97	81.6	44.1	84.1

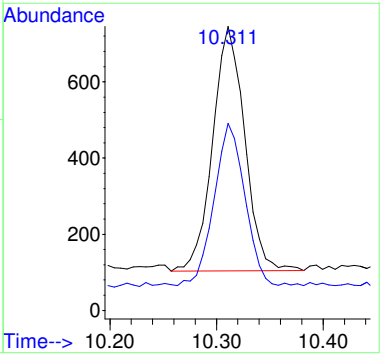


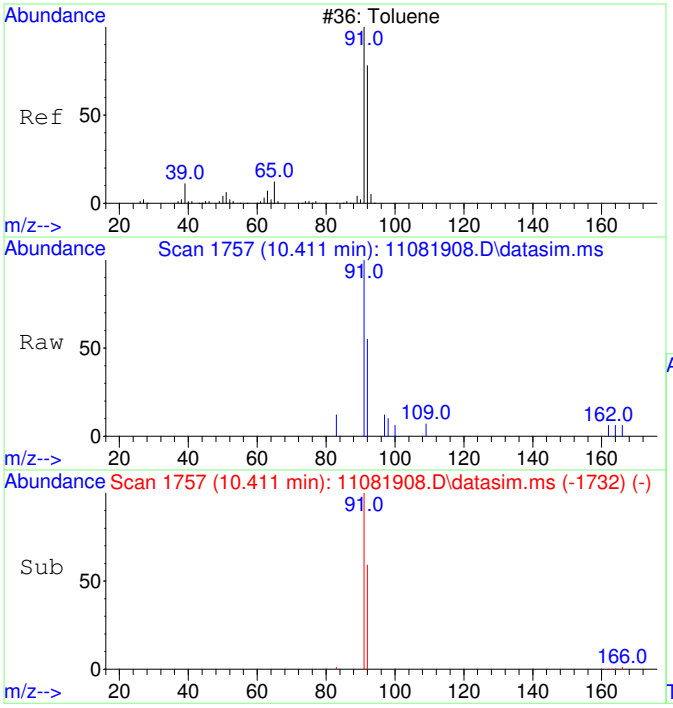


#12
Toluene-d8
Concen: 53.55 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 98 Resp: 1345

Ion	Ratio	Lower	Upper
98	100		
100	63.5	38.4	98.4

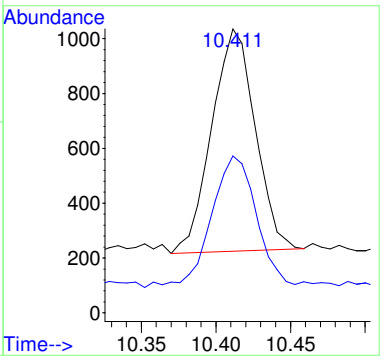


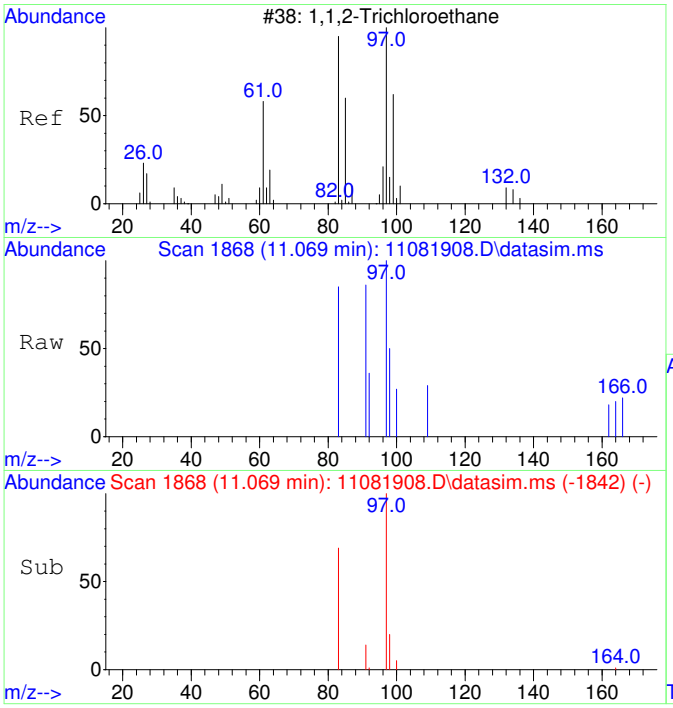


#13
Toluene
Concen: 54.26 ug/L
RT: 10.411 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1645

Ion	Ratio	Lower	Upper
91	100		
92	61.7	47.7	107.7

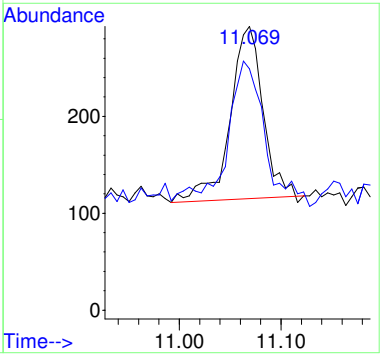


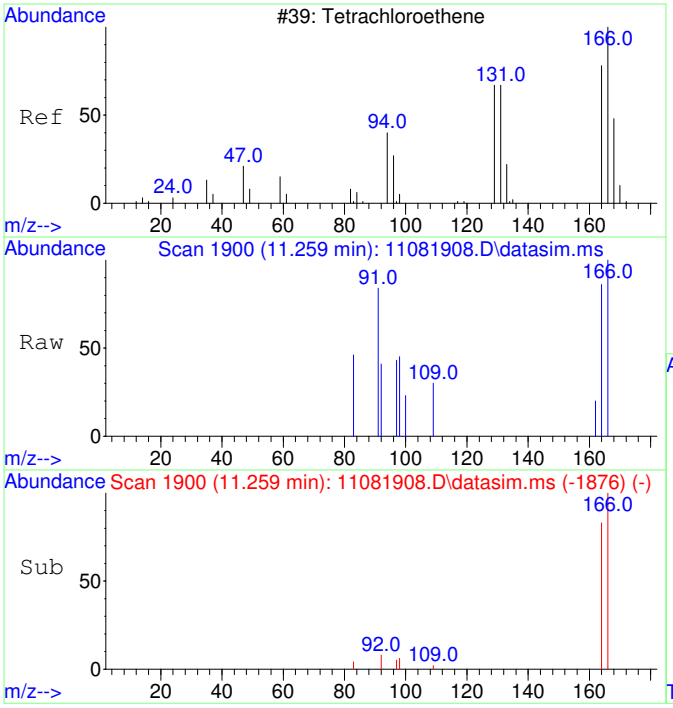


#14
1,1,2-Trichloroethane
Concen: 56.76 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 399

Ion	Ratio	Lower	Upper
97	100		
83	91.5	65.0	125.0

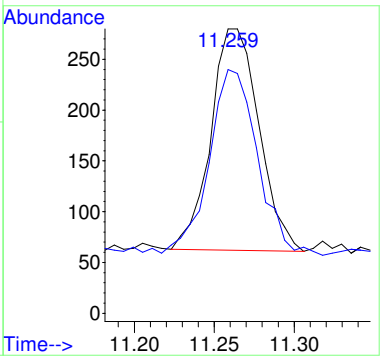


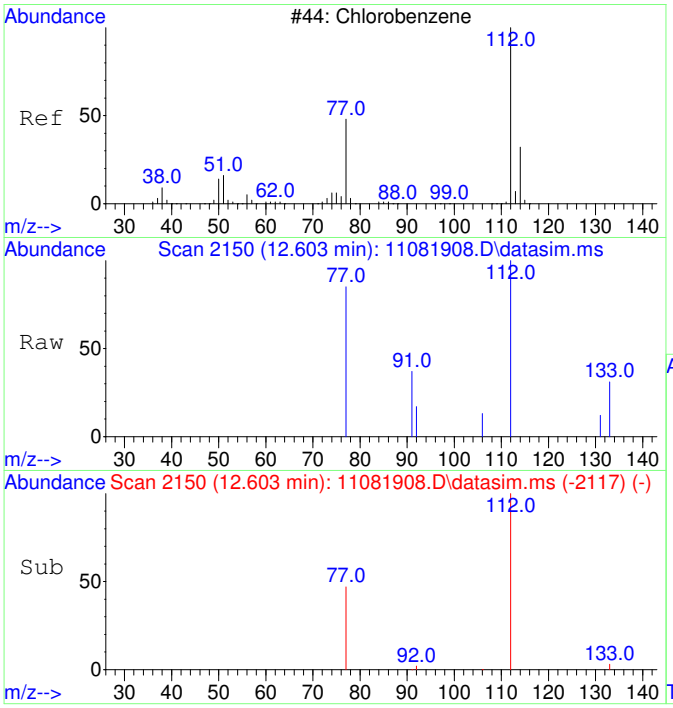


#15
Tetrachloroethene
Concen: 51.84 ug/L
RT: 11.259 min Scan# 1900
Delta R.T. -0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:166 Resp: 458

Ion	Ratio	Lower	Upper
166	100		
164	85.6	47.9	107.9

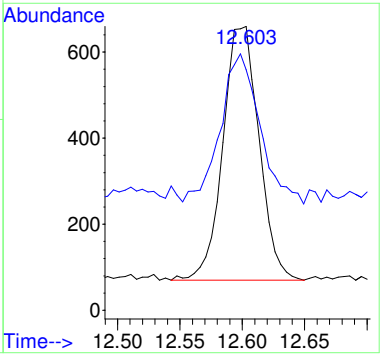


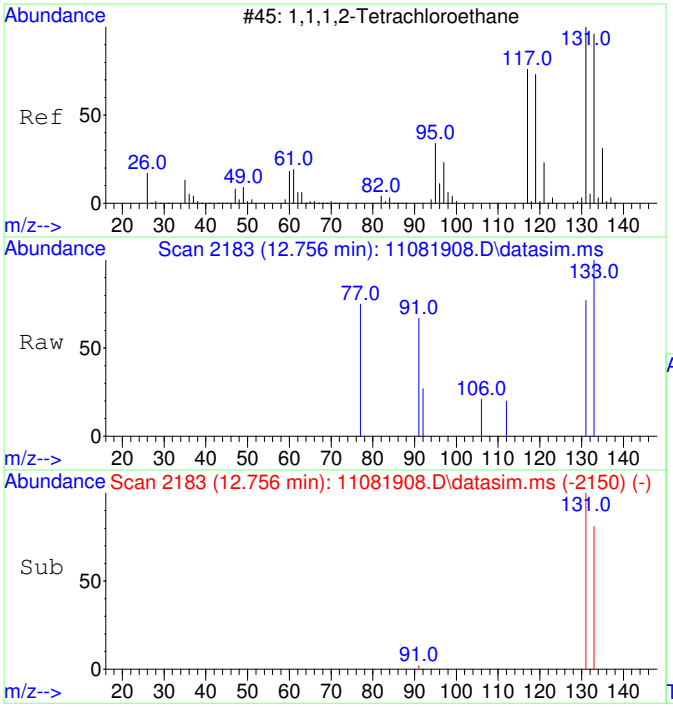


#16
Chlorobenzene
Concen: 52.59 ug/L
RT: 12.603 min Scan# 2150
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:112 Resp: 1188

Ion	Ratio	Lower	Upper
112	100		
77	65.0	18.3	78.3

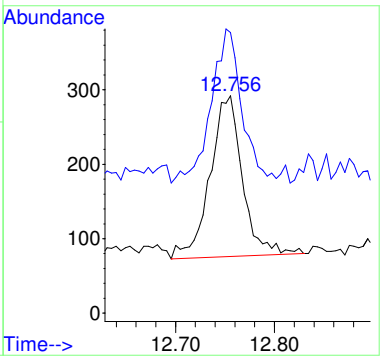


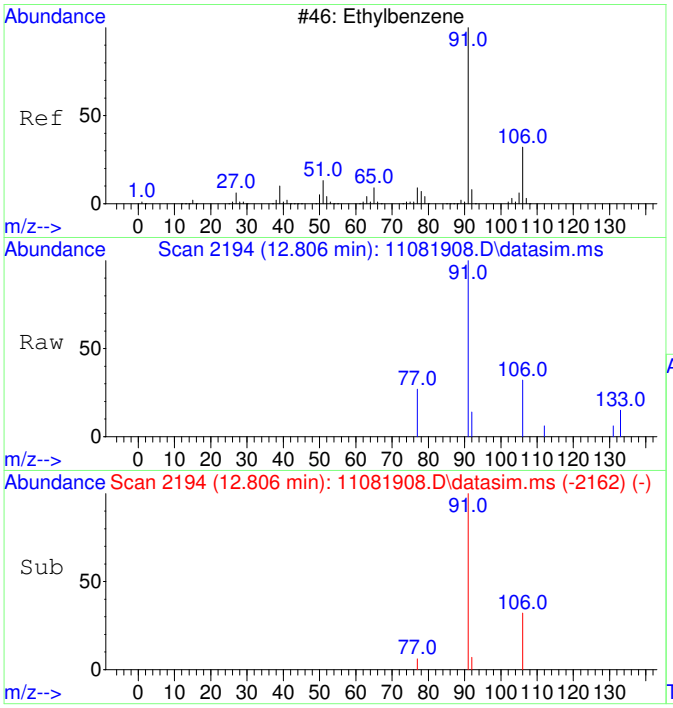


#17
1,1,1,2-Tetrachloroethane
Concen: 60.48 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:131 Resp: 491

Ion	Ratio	Lower	Upper
131	100		
133	91.2	66.1	126.1

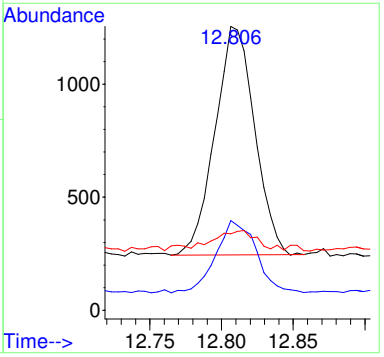


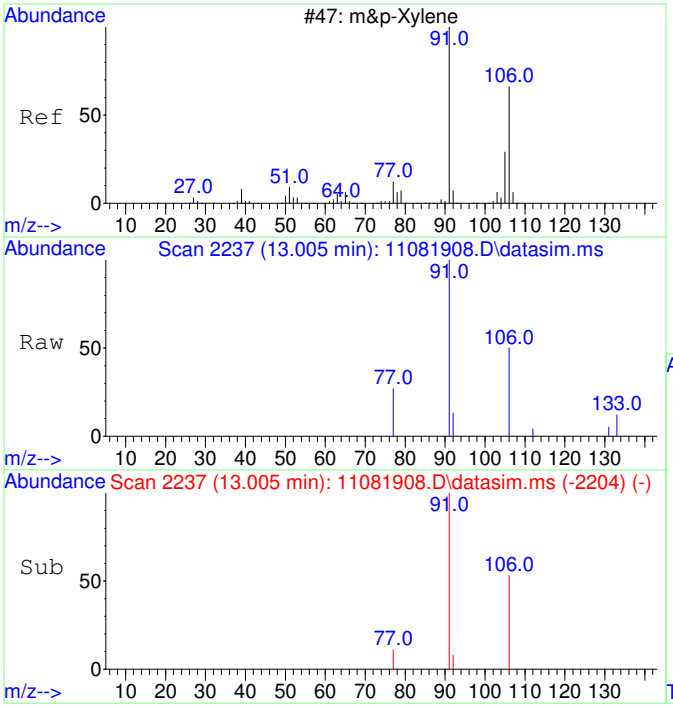


#18
Ethylbenzene
Concen: 52.91 ug/L
RT: 12.806 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1947

Ion	Ratio	Lower	Upper
91	100		
106	32.2	2.3	62.3
77	9.2	0.0	38.6

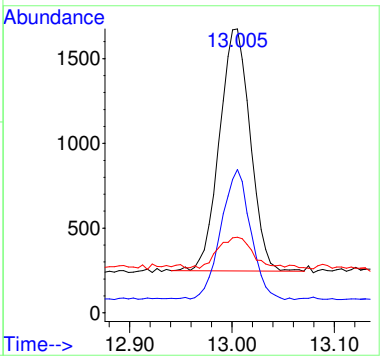


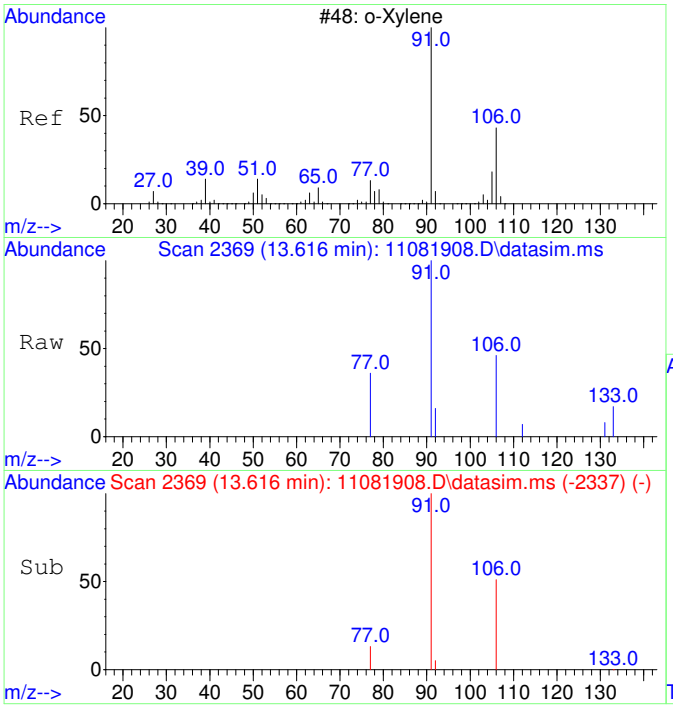


#19
m&p-Xylene
Concen: 107.32 ug/L
RT: 13.005 min Scan# 2237
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 2984

Ion	Ratio	Lower	Upper
91	100		
106	51.1	35.9	95.9
77	13.8	0.0	41.9

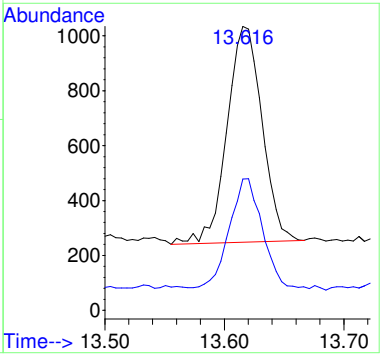


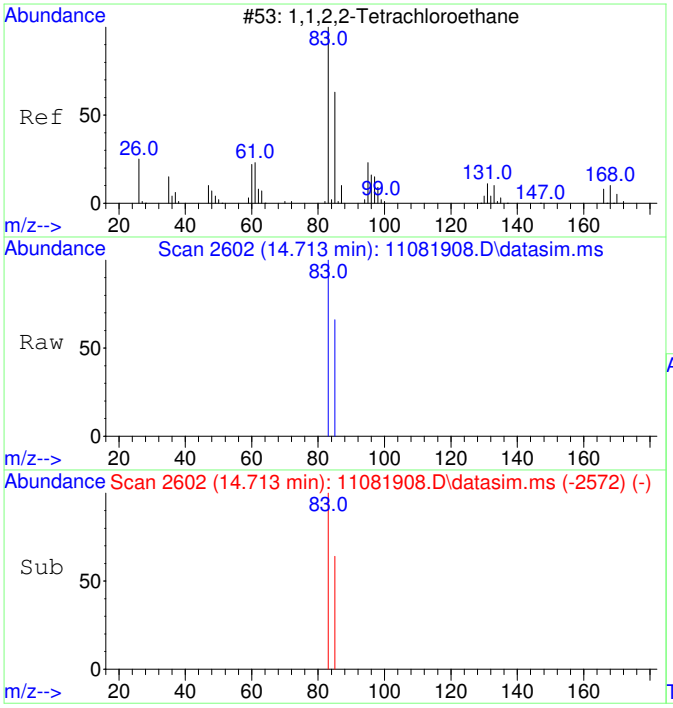


#20
o-Xylene
Concen: 53.63 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1598

Ion	Ratio	Lower	Upper
91	100		
106	47.6	13.0	73.0

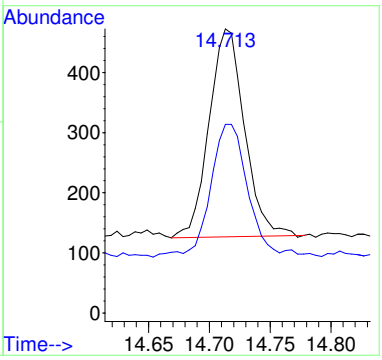


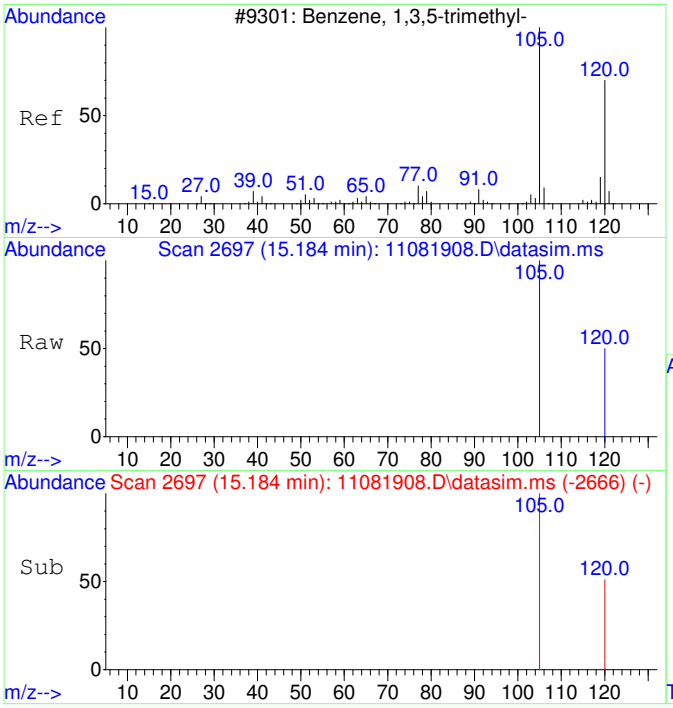


#21
1,1,2,2-Tetrachloroethane
Concen: 53.14 ug/L
RT: 14.713 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 702

Ion	Ratio	Lower	Upper
83	100		
85	66.4	32.7	92.7

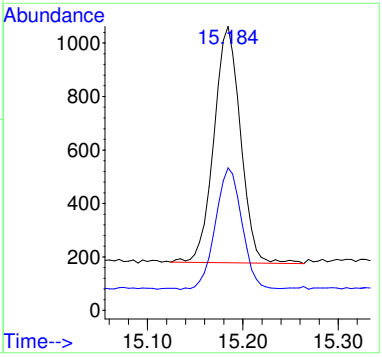


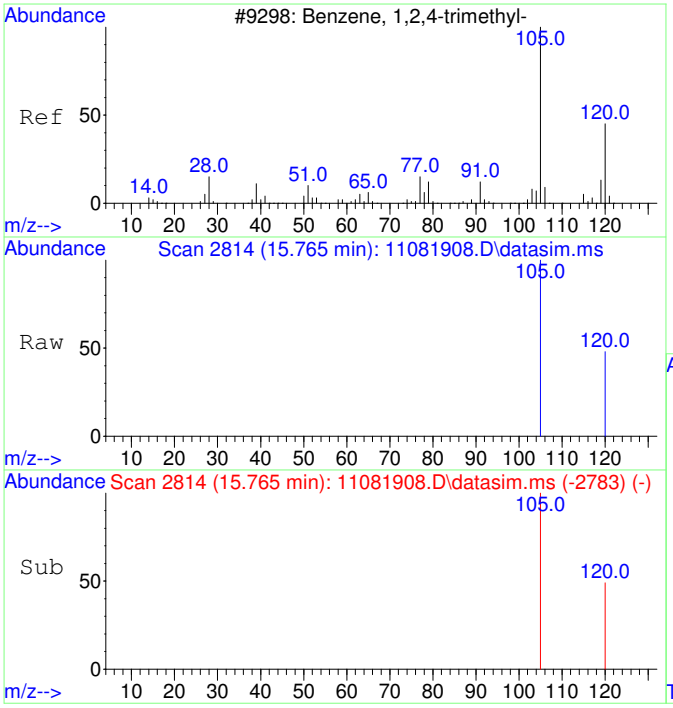


#22
1,3,5-Trimethylbenzene
Concen: 53.98 ug/L
RT: 15.184 min Scan# 2697
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:105 Resp: 1712

Ion	Ratio	Lower	Upper
105	100		
120	50.8	20.1	80.1

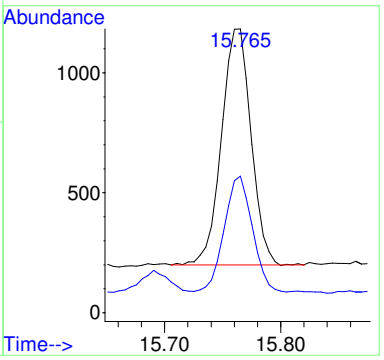


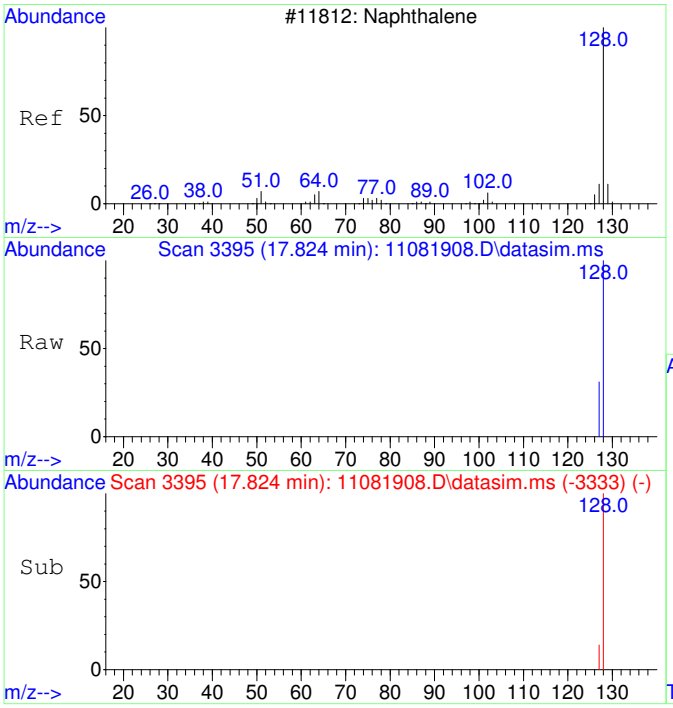


#23
1,2,4-Trimethylbenzene
Concen: 53.83 ug/L
RT: 15.765 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:105 Resp: 1739

Ion	Ratio	Lower	Upper
105	100		
120	46.3	15.2	75.2

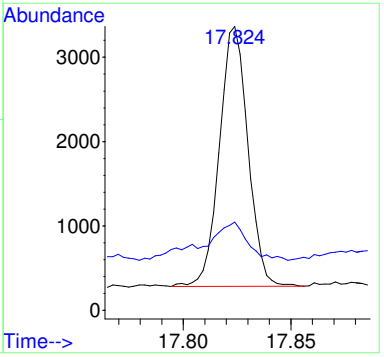


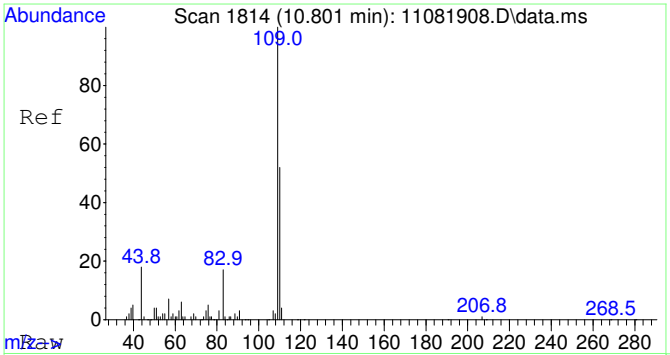


#24
Naphthalene
Concen: 50.87 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. 0.002 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:128 Resp: 2840

Ion	Ratio	Lower	Upper
128	100		
127	9.5	0.0	40.7

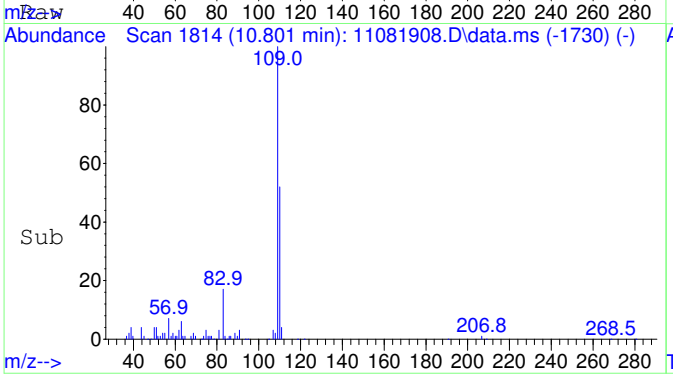


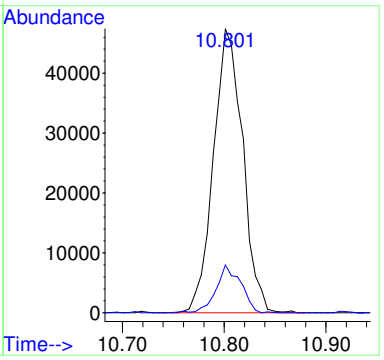


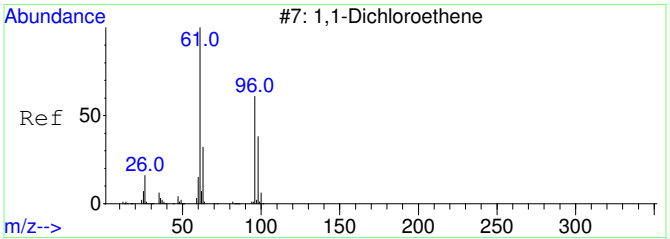
#25
2-Fluorotoluene SCAN
Concen: 4965.17 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:109 Resp: 94892

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	42.8



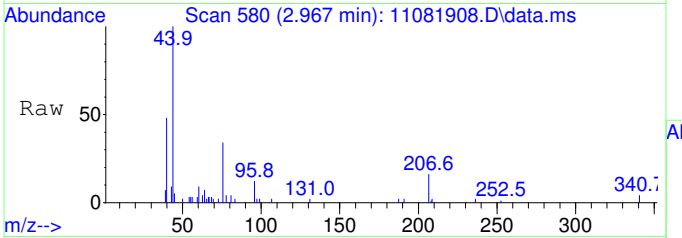


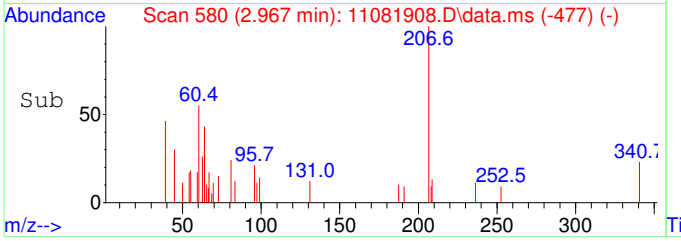


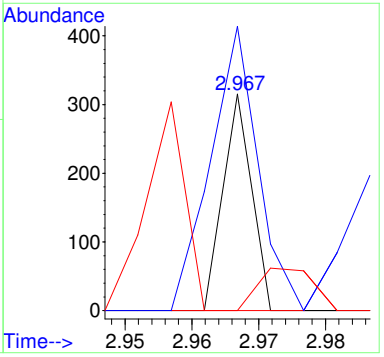
#26
1,1-Dichloroethene SCAN
Concen: 23.26 ug/L
RT: 2.967 min Scan# 580
Delta R.T. 0.010 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

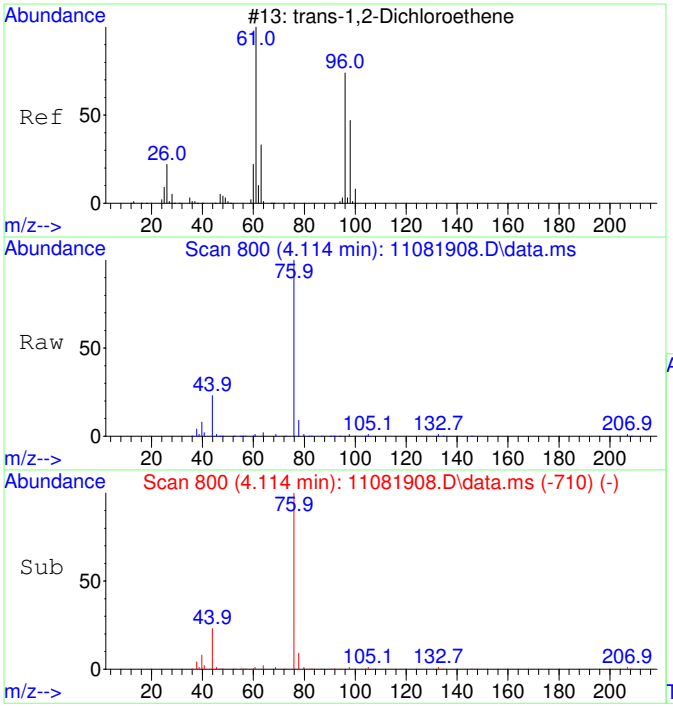
Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	217.0	32.2	92.2#
98	130.9	12.8	72.8#





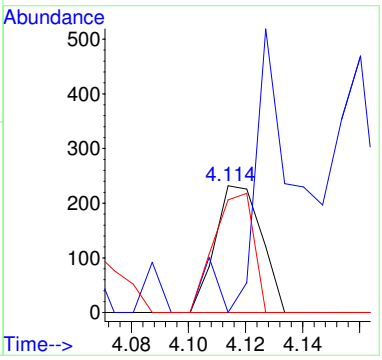


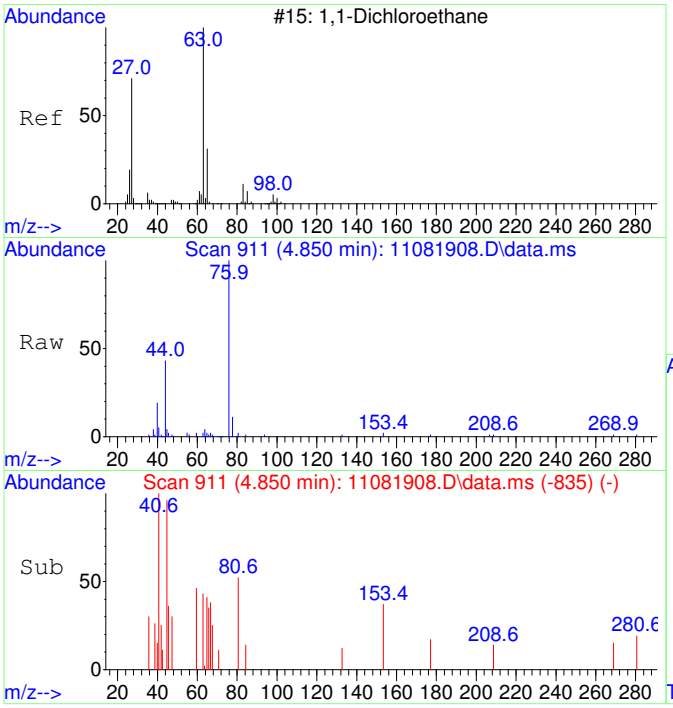


#27
trans-1,2-Dichloroethene SCAN
Concen: 55.89 ug/L
RT: 4.114 min Scan# 800
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 264

Ion	Ratio	Lower	Upper
61	100		
96	112.1	41.8	101.8#
98	79.9	19.2	79.2#

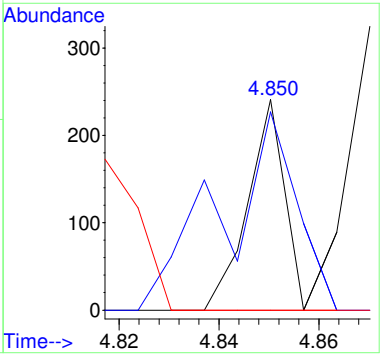


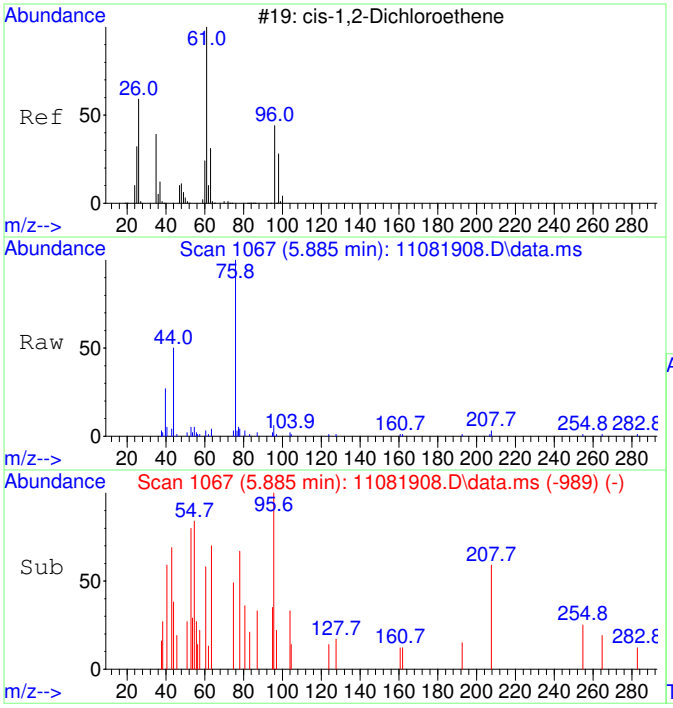


#28
1,1-Dichloroethane SCAN
Concen: 21.58 ug/L
RT: 4.850 min Scan# 911
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 63 Resp: 123

Ion	Ratio	Lower	Upper
63	100		
65	191.9	5.1	65.1#
83	0.0	0.0	44.9

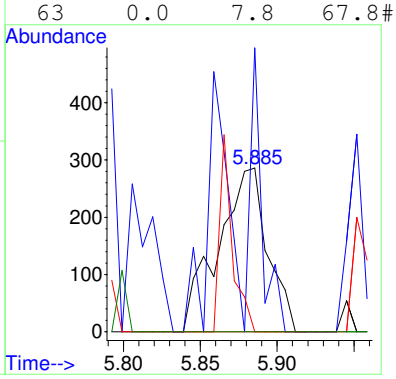


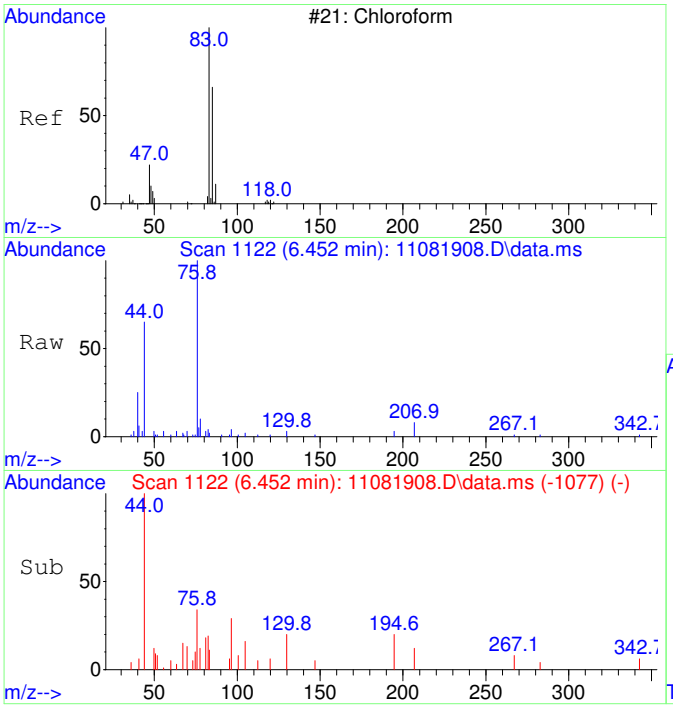


#29
cis-1,2-Dichloroethene SCAN
Concen: 111.59 ug/L
RT: 5.885 min Scan# 1067
Delta R.T. 0.020 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 61 Resp: 640

Ion	Ratio	Lower	Upper
61	100		
96	41.3	32.9	92.9
98	0.0	14.3	74.3#
63	0.0	7.8	67.8#

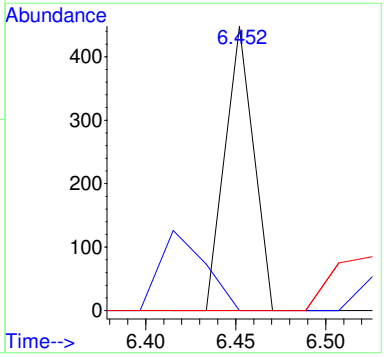


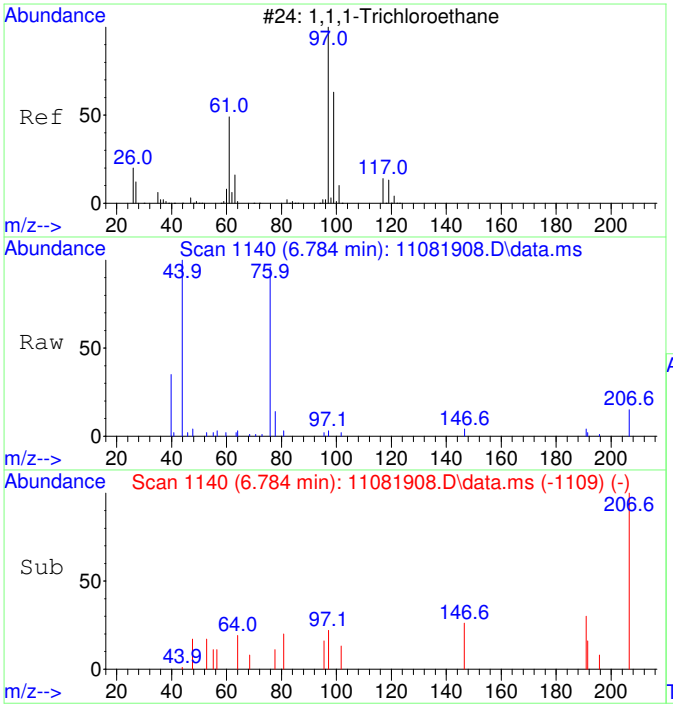


#30
Chloroform SCAN
Concen: 79.72 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 495

Ion	Ratio	Lower	Upper
83	100		
85	0.0	39.1	99.1#
47	0.0	0.0	53.1

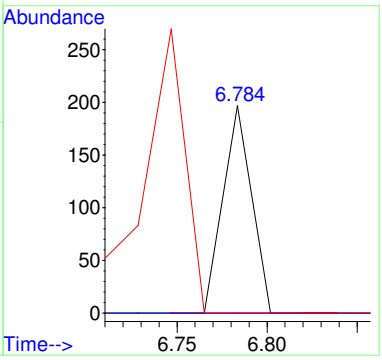


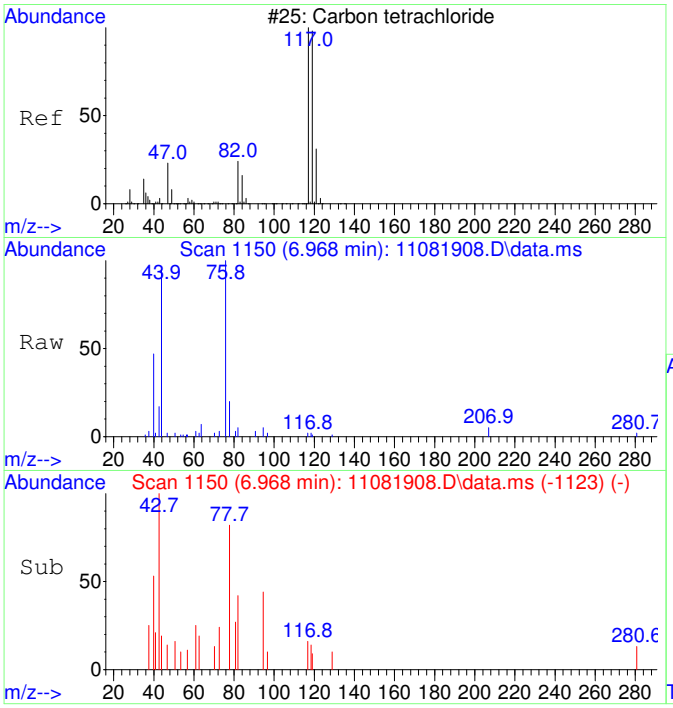


#31
1,1,1-Trichloroethane SCAN
Concen: 36.00 ug/L
RT: 6.784 min Scan# 1140
Delta R.T. 0.073 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 218

Ion	Ratio	Lower	Upper
97	100		
99	0.0	32.6	92.6#
61	0.0	9.4	69.4#

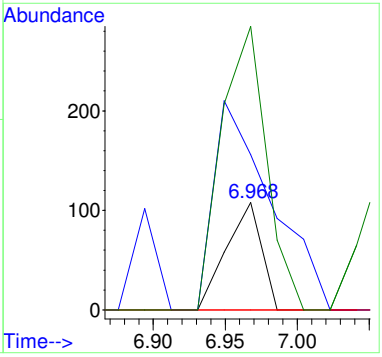


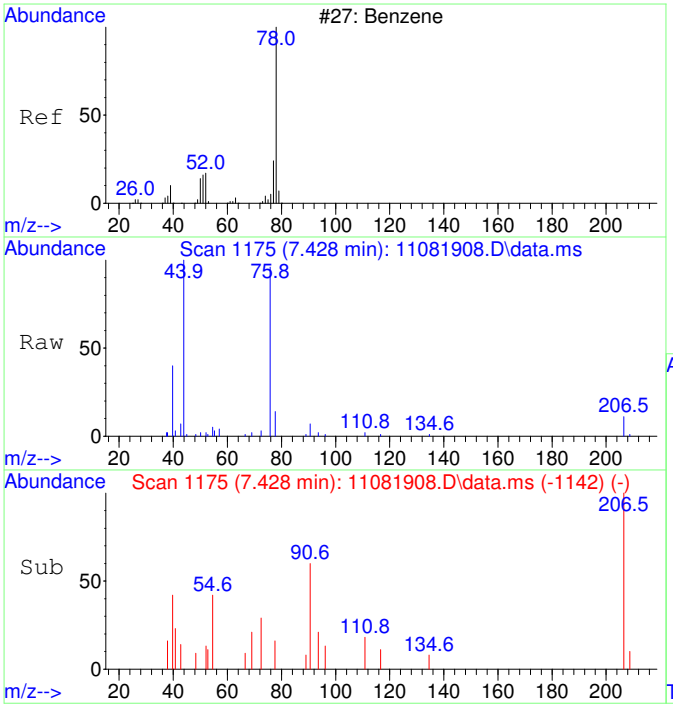


#32
Carbon tetrachloride SCAN
Concen: 31.75 ug/L
RT: 6.968 min Scan# 1150
Delta R.T. -0.000 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:117 Resp: 183

Ion	Ratio	Lower	Upper
117	100		
119	319.1	63.7	123.7#
121	0.0	4.6	64.6#
82	339.3	0.0	55.3#

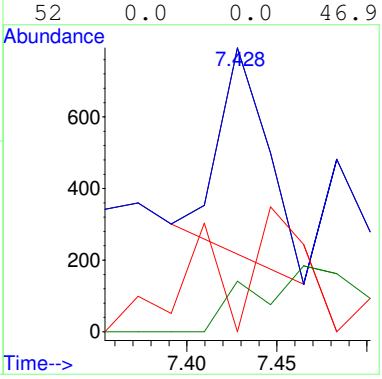


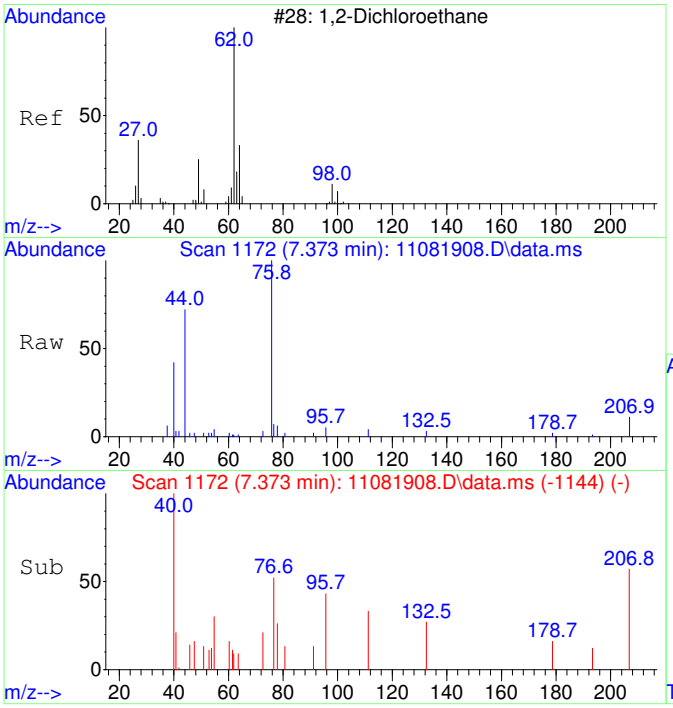


#33
Benzene SCAN
Concen: 62.07 ug/L
RT: 7.428 min Scan# 1175
Delta R.T. 0.110 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 78 Resp: 1005

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	49.8	0.0	49.2#
52	0.0	0.0	46.9

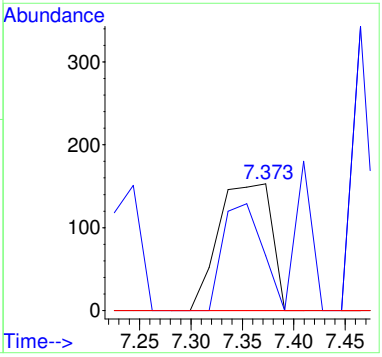


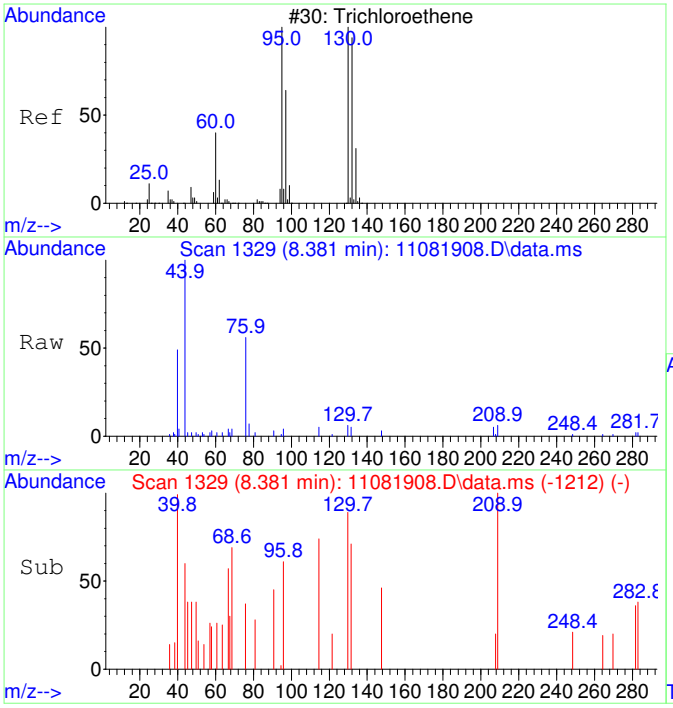


#34
1,2-Dichloroethane SCAN
Concen: 101.71 ug/L
RT: 7.373 min Scan# 1172
Delta R.T. 0.018 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 62 Resp: 552

Ion	Ratio	Lower	Upper
62	100		
64	63.0	3.3	63.3
49	0.0	0.8	60.8#

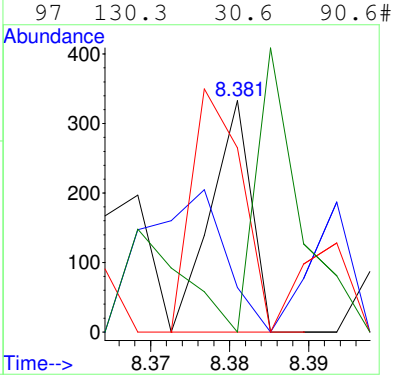


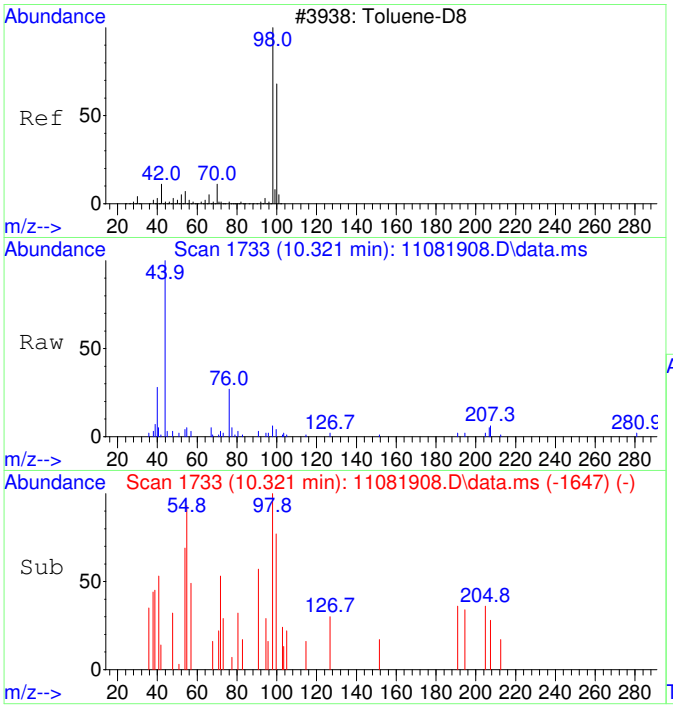


#35
Trichloroethene SCAN
Concen: 24.55 ug/L
RT: 8.381 min Scan# 1329
Delta R.T. -0.009 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:130 Resp: 119

Ion	Ratio	Lower	Upper
130	100		
95	121.8	61.4	121.4#
132	178.2	75.5	135.5#
97	130.3	30.6	90.6#

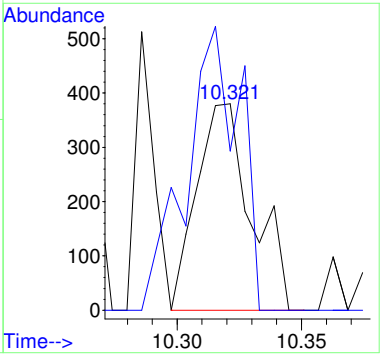


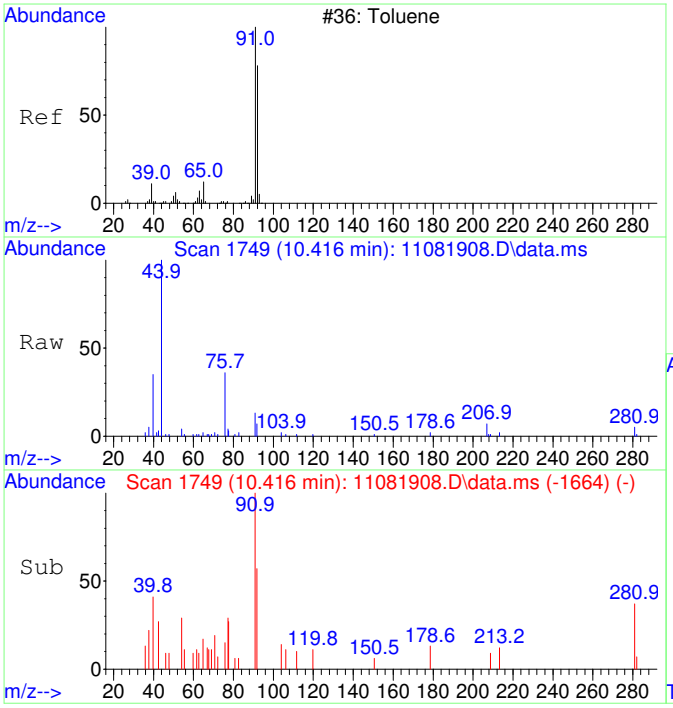


#36
Toluene-d8 SCAN
Concen: 36.28 ug/L
RT: 10.321 min Scan# 1733
Delta R.T. 0.012 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 98 Resp: 587

Ion	Ratio	Lower	Upper
98	100		
100	133.2	32.2	92.2#

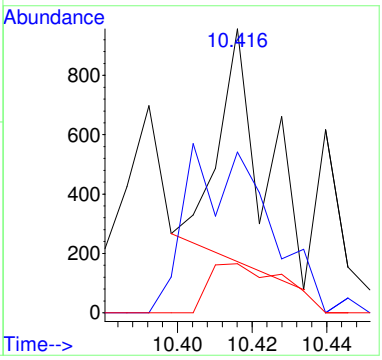


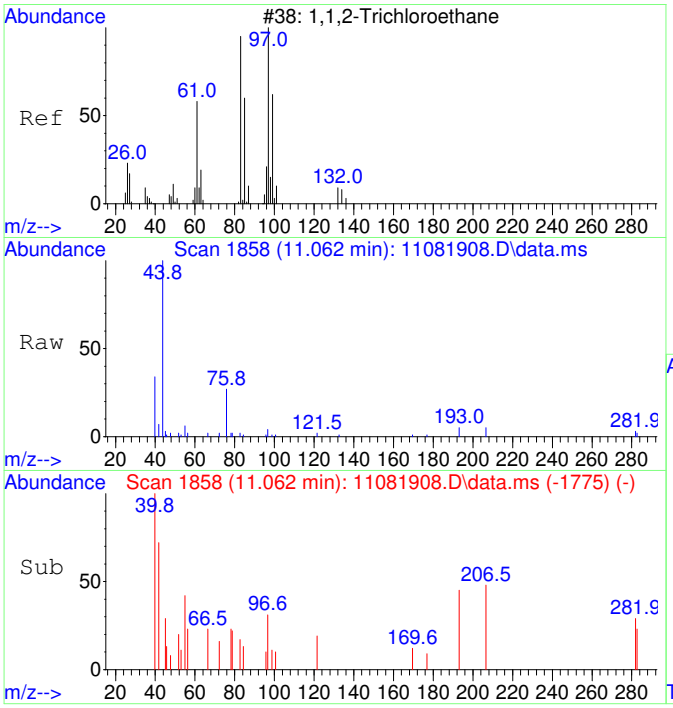


#37
Toluene SCAN
Concen: 33.77 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 632

Ion	Ratio	Lower	Upper
91	100		
92	135.6	34.3	94.3#
65	36.4	0.0	45.2

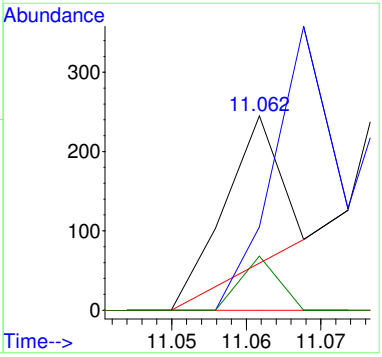


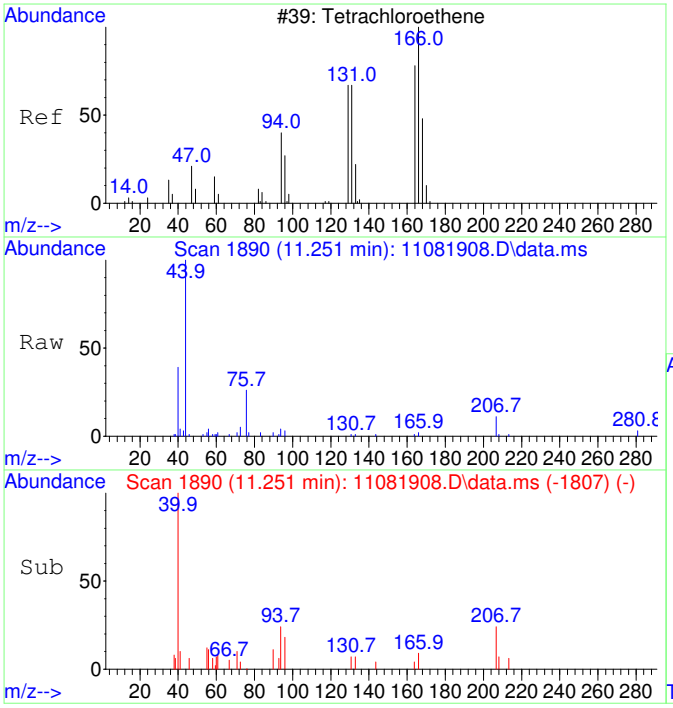


#38
1,1,2-Trichloroethane SCAN
Concen: 25.00 ug/L
RT: 11.062 min Scan# 1858
Delta R.T. -0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 97 Resp: 108

Ion	Ratio	Lower	Upper
97	100		
83	325.0	73.8	133.8#
61	0.0	38.9	98.9#
99	0.0	33.5	93.5#

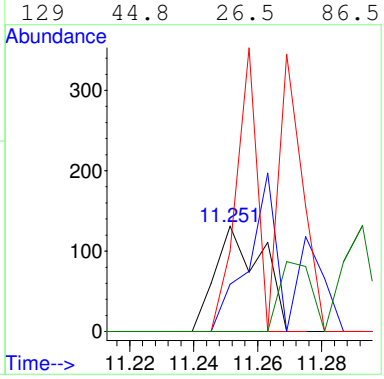


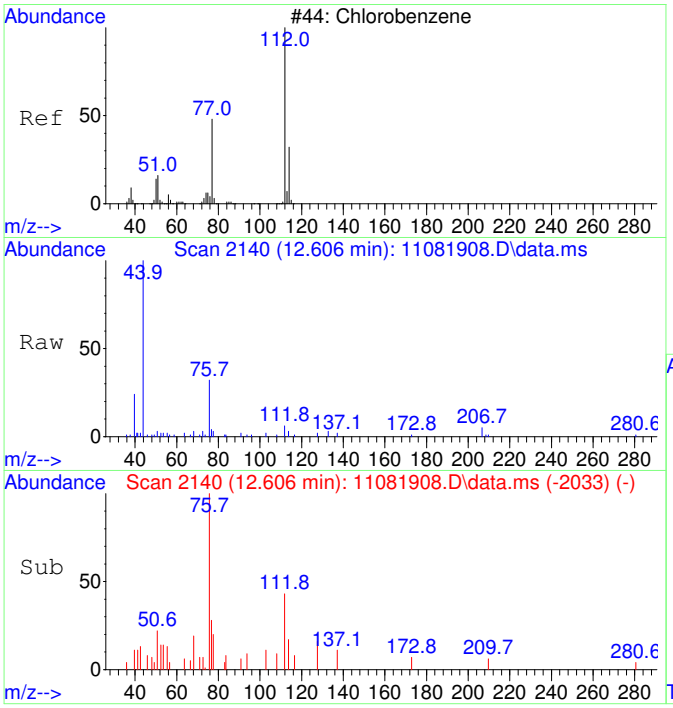


#39
Tetrachloroethene SCAN
Concen: 26.49 ug/L
RT: 11.251 min Scan# 1890
Delta R.T. -0.006 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:166 Resp: 134

Ion	Ratio	Lower	Upper
166	100		
164	136.6	41.7	101.7#
131	120.1	36.7	96.7#
129	44.8	26.5	86.5

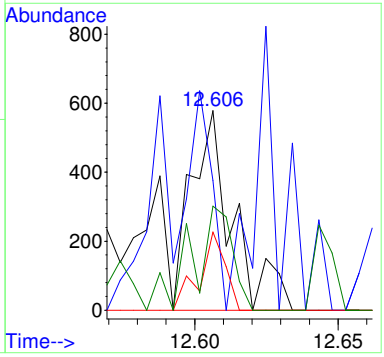


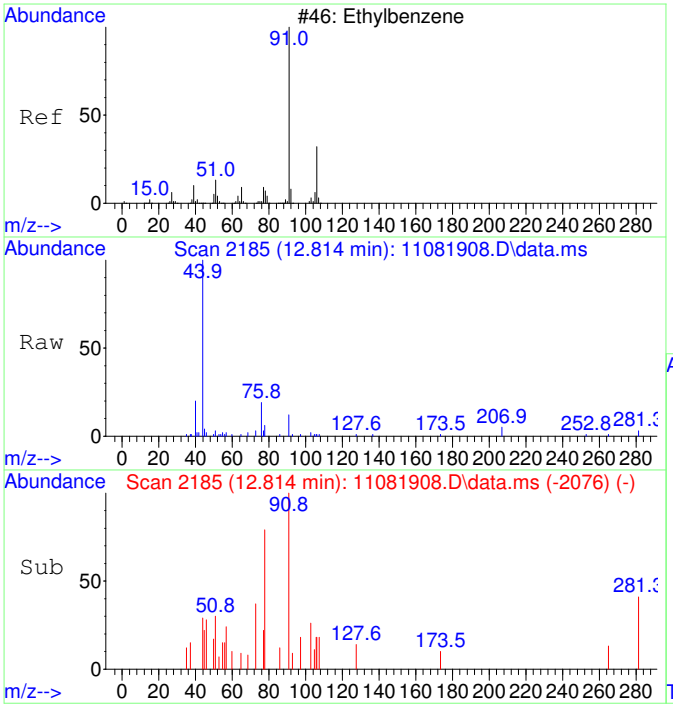


#40
Chlorobenzene SCAN
Concen: 44.93 ug/L
RT: 12.606 min Scan# 2140
Delta R.T. 0.009 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:112 Resp: 584

Ion	Ratio	Lower	Upper
112	100		
77	50.3	22.8	82.8
114	24.1	3.9	63.9
51	50.7	0.0	48.2#

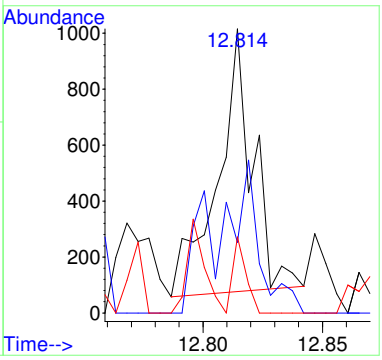


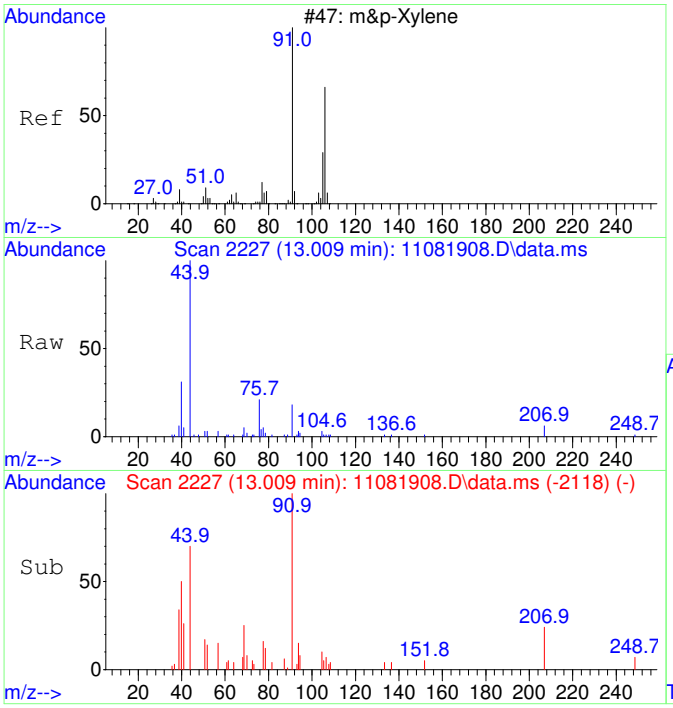


#42
Ethylbenzene SCAN
Concen: 44.78 ug/L
RT: 12.814 min Scan# 2185
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 959

Ion	Ratio	Lower	Upper
91	100		
106	32.6	3.6	63.6
51	10.8	0.0	41.2

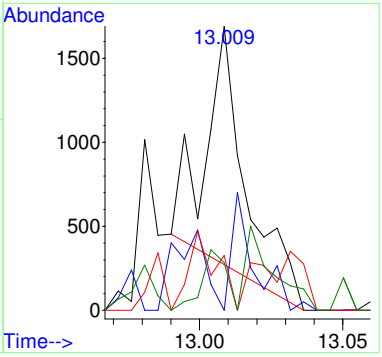


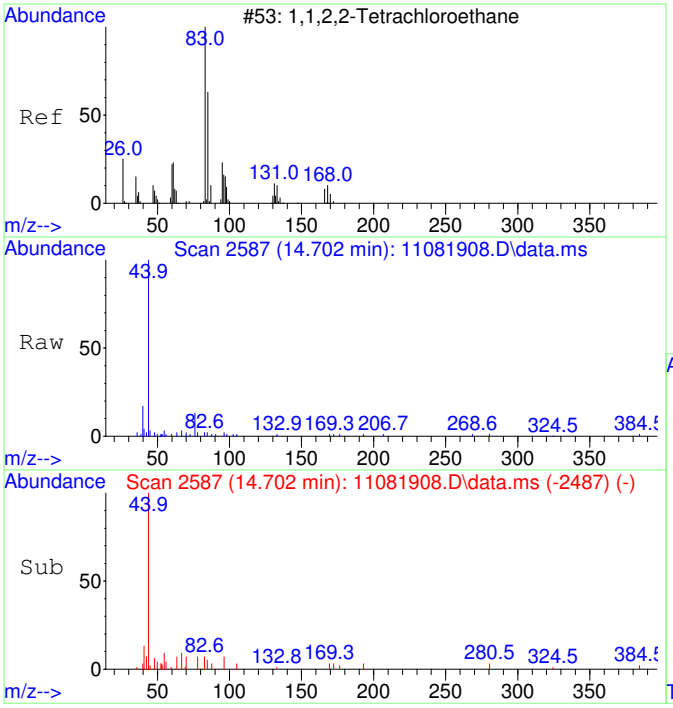


#43
m&p-Xylene SCAN
Concen: 42.45 ug/L
RT: 13.009 min Scan# 2227
Delta R.T. 0.004 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 91 Resp: 1320

Ion	Ratio	Lower	Upper
91	100		
106	28.1	22.9	82.9
105	24.3	0.0	55.8
51	16.3	0.0	40.9

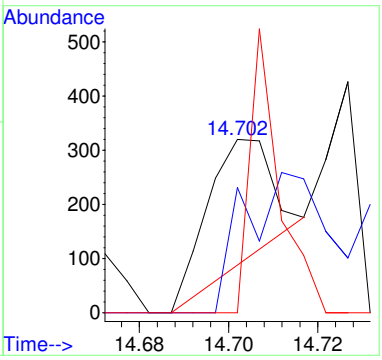


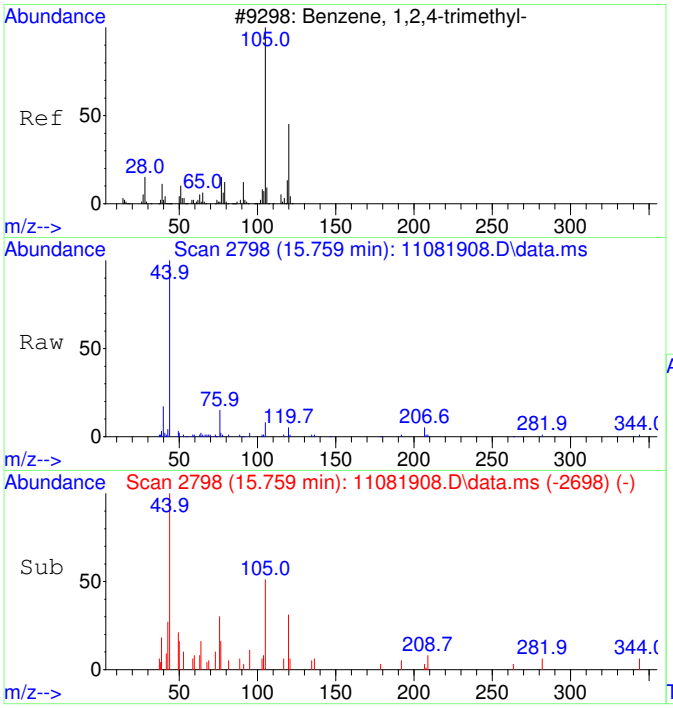


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 30.97 ug/L
RT: 14.702 min Scan# 2587
Delta R.T. -0.010 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion: 83 Resp: 249

Ion	Ratio	Lower	Upper
83	100		
85	167.9	33.6	93.6#
95	95.6	0.0	50.6#

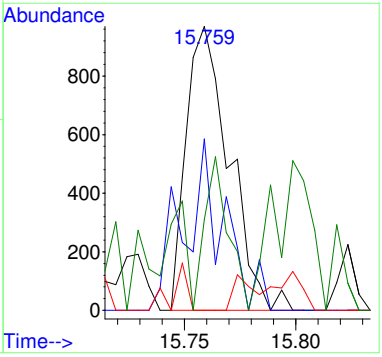


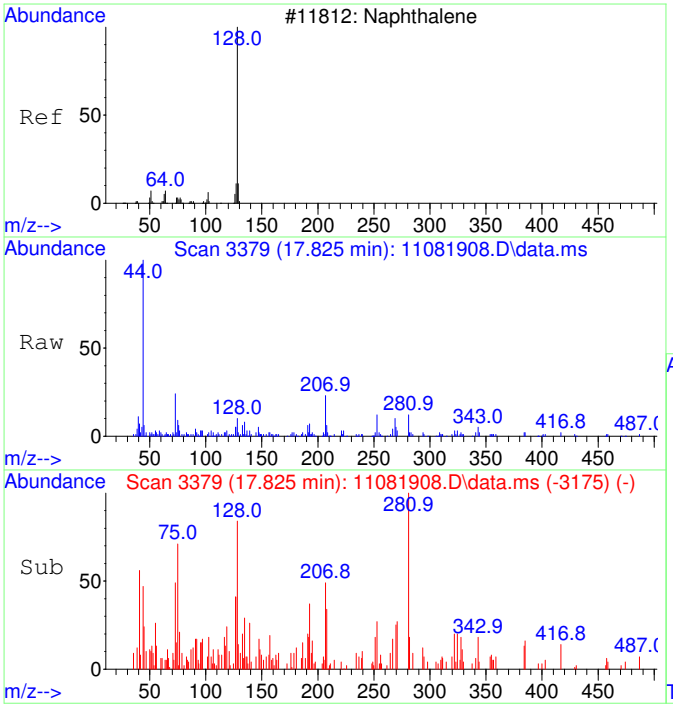


#47
1,2,4-Trimethylbenzene SCAN
Concen: 77.78 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.005 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:105 Resp: 1310

Ion	Ratio	Lower	Upper
105	100		
120	55.6	15.6	75.6
119	0.0	0.0	41.8
77	29.5	0.0	41.6

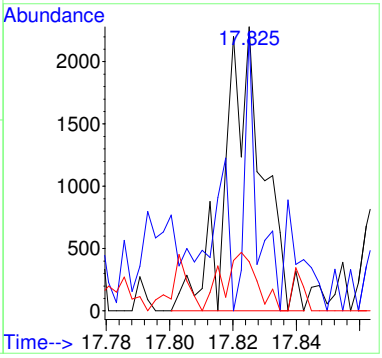




#48
Naphthalene SCAN
Concen: 68.46 ug/L
RT: 17.825 min Scan# 3379
Delta R.T. 0.002 min
Lab File: 11081908.D
Acq: 8 Nov 2019 13:05

Tgt Ion:128 Resp: 1875

Ion	Ratio	Lower	Upper
128	100		
127	32.6	0.0	40.7
129	18.6	0.0	40.9



S19K006-CAL7

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081909.D
Acq On : 8 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL7 (Sig #1); S19K006-CAL3 (Sig #2)
Misc : 1930057 5 mg/L RE
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 11 05:59:40 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:58:16 2019
Response via : Initial Calibration

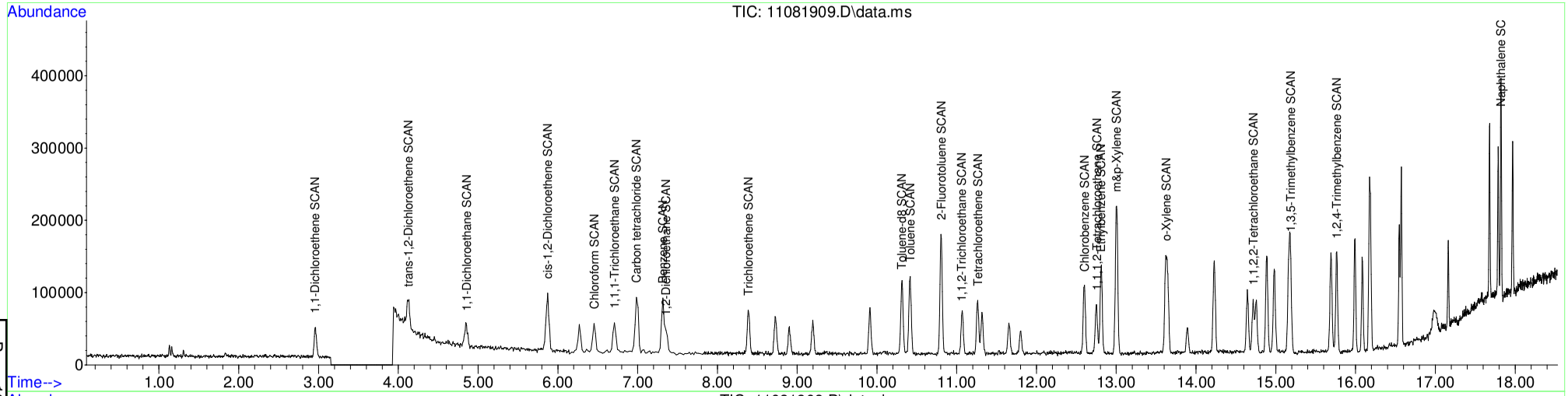
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	150594	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	120578	4939.97	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 98.80%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	44487	6909.45	ug/L	97
3] trans-1,2-Dichloroethene	4.122	61	44249	6533.21	ug/L	99
4] 1,1-Dichloroethane	4.852	63	54389	6406.25	ug/L	98
5] cis-1,2-Dichloroethene	5.874	61	50021	6211.76	ug/L	98
6] Chloroform	6.454	83	55930	6071.09	ug/L	99
7] 1,1,1-Trichloroethane	6.711	97	52991	5831.31	ug/L	98
8] Carbon tetrachloride	6.988	117	48328	5638.93	ug/L	98
9] Benzene	7.301	78	128872	5503.54	ug/L	99
10] 1,2-Dichloroethane	7.356	62	43679	5860.23	ug/L	98
11] Trichloroethene	8.391	130	37875	5283.54	ug/L	95
13] Toluene	10.412	91	144037	4888.88	ug/L	79
14] 1,1,2-Trichloroethane	11.069	97	33313	4876.72	ug/L	87
15] Tetrachloroethene	11.265	166	41429	4825.40	ug/L	100
16] Chlorobenzene	12.599	112	102865	4686.42	ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.751	131	36387	4612.10	ug/L	99
18] Ethylbenzene	12.811	91	164412	4598.23	ug/L	100
19] m&p-Xylene	13.001	91	247808	9171.34	ug/L	84
20] o-Xylene	13.616	91	130523	4508.21	ug/L	92
21] 1,1,2,2-Tetrachloroethane	14.714	83	58407	4549.69	ug/L	97
22] 1,3,5-Trimethylbenzene	15.185	105	136251	4420.81	ug/L	99
23] 1,2,4-Trimethylbenzene	15.761	105	136813	4357.75	ug/L	97
24] Naphthalene	17.824	128	231113	4260.04	ug/L	95
25) 2-Fluorotoluene SCAN	10.801	109	93801	5050.80	ug/L	92
26) 1,1-Dichloroethene SCAN	2.957	61	31316	7975.17	ug/L	97
27) trans-1,2-Dichloroethe...	4.121	61	30127	6563.62	ug/L	95
28) 1,1-Dichloroethane SCAN	4.857	63	39463	7124.45	ug/L	95
29) cis-1,2-Dichloroethene...	5.872	61	34071	6113.35	ug/L	88
30) Chloroform SCAN	6.452	83	37954	6290.56	ug/L	98
31) 1,1,1-Trichloroethane ...	6.710	97	33130	5630.23	ug/L	91
32) Carbon tetrachloride SCAN	6.986	117	31052	5543.49	ug/L	95
33) Benzene SCAN	7.318	78	83265	5291.91	ug/L	100
34) 1,2-Dichloroethane SCAN	7.355	62	31063	5890.07	ug/L	88
35) Trichloroethene SCAN	8.385	130	24410	5182.88	ug/L	93
36) Toluene-d8 SCAN	10.310	98	76285	4851.41	ug/L	87
37) Toluene SCAN	10.416	91	94057	5171.88	ug/L	96
38) 1,1,2-Trichloroethane ...	11.062	97	21451	5110.71	ug/L	92
39) Tetrachloroethene SCAN	11.264	166	24971	5079.38	ug/L	87
40) Chlorobenzene SCAN	12.597	112	63776	5048.85	ug/L	94
41) 1,1,1,2-Tetrachloroeth...	12.755	131	22911	5091.76	ug/L	91
42) Ethylbenzene SCAN	12.810	91	107045	5143.65	ug/L	95
43) m&p-Xylene SCAN	13.004	91	153574	5082.26	ug/L	97
44) o-Xylene SCAN	13.619	91	81669	4981.27	ug/L	93
45) 1,1,2,2-Tetrachloroeth...	14.717	83	39655	5075.71	ug/L	92
46) 1,3,5-Trimethylbenzene...	15.184	105	83099	5176.46	ug/L	98
47) 1,2,4-Trimethylbenzene...	15.759	105	81796	4998.02	ug/L	96
48) Naphthalene SCAN	17.823	128	135268	5082.16	ug/L	96

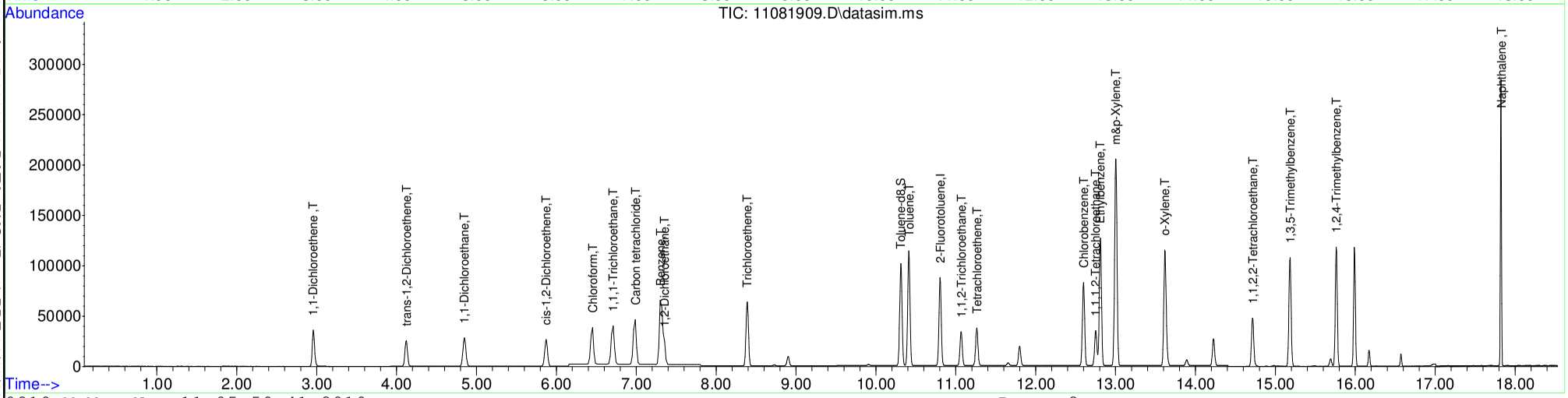
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081909.D
Acq On : 8 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K006-CAL7 (Sig #1); S19K006-CAL3 (Sig #2)
Misc : 1930057 5 mg/L RE
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 11 05:59:40 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 05:58:16 2019
Response via : Initial Calibration





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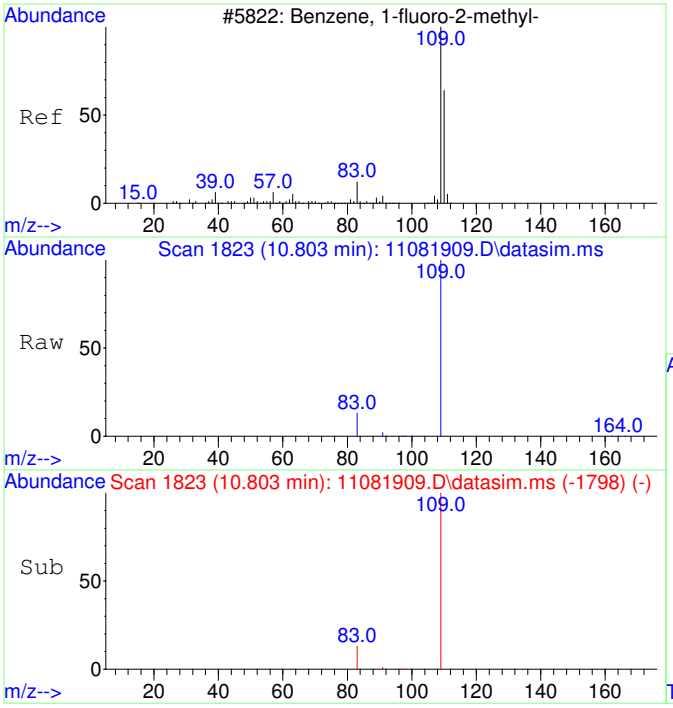
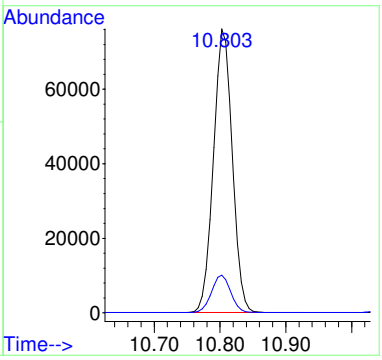
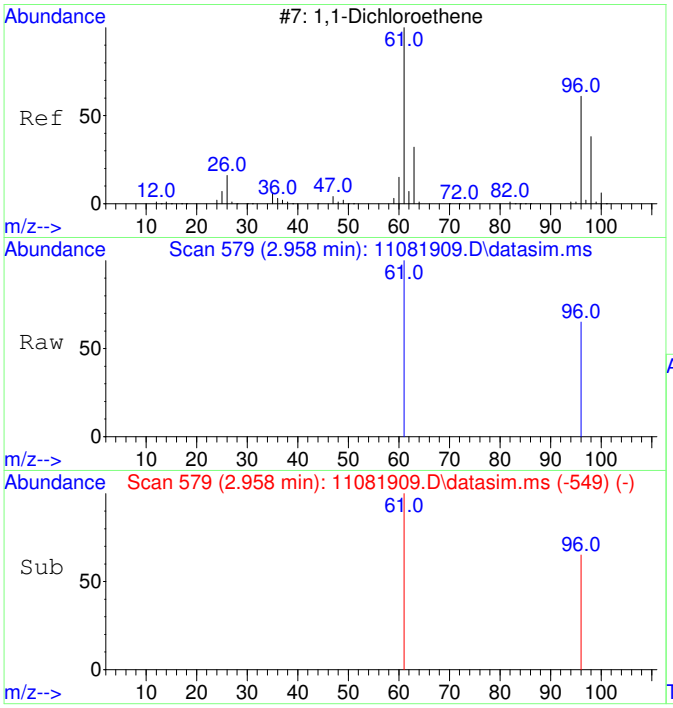


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:109 Resp: 150594

Ion	Ratio	Lower	Upper
109	100		
83	13.3	0.0	42.3

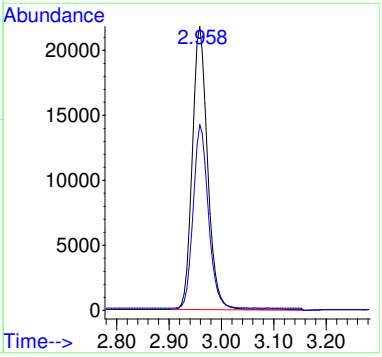


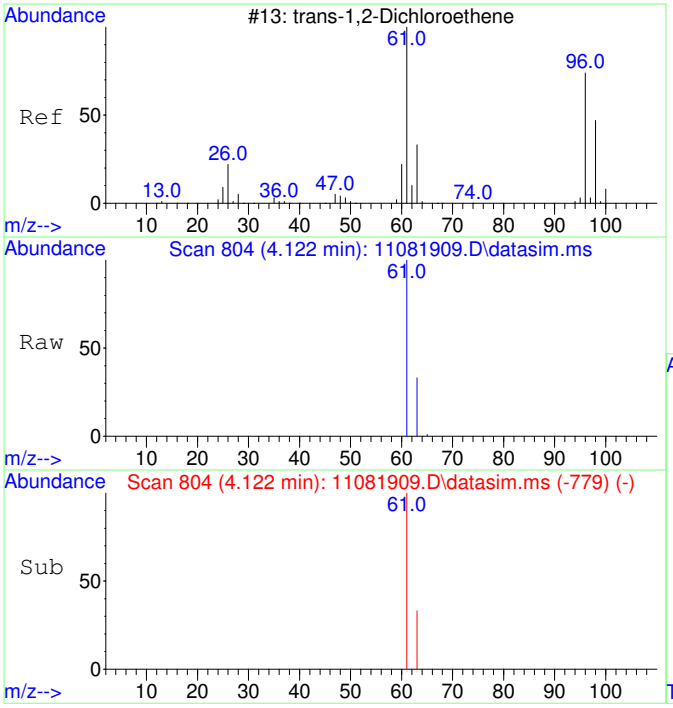


#2
1,1-Dichloroethene
Concen: 6909.45 ug/L
RT: 2.958 min Scan# 579
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 61 Resp: 44487

Ion	Ratio	Lower	Upper
61	100		
96	63.6	31.4	91.4

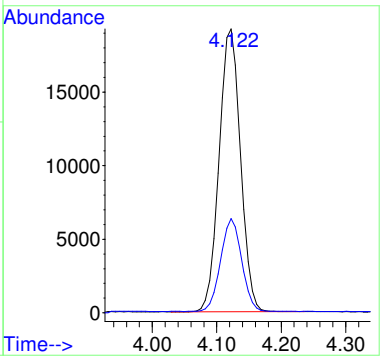


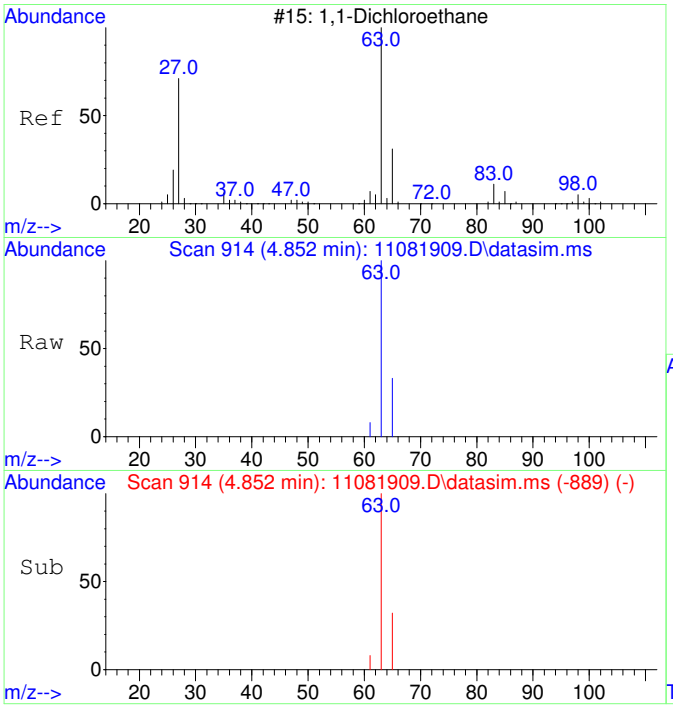


#3
trans-1,2-Dichloroethene
Concen: 6533.21 ug/L
RT: 4.122 min Scan# 804
Delta R.T. 0.013 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 61 Resp: 44249

Ion	Ratio	Lower	Upper
61	100		
63	32.3	2.8	62.8

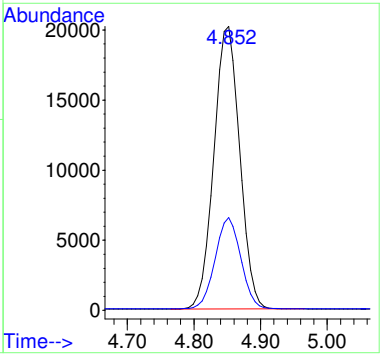


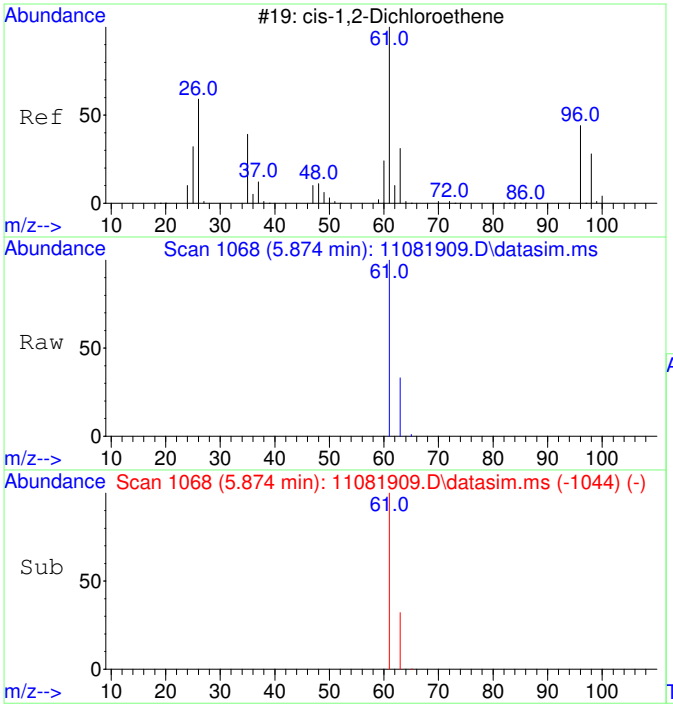


#4
1,1-Dichloroethane
Concen: 6406.25 ug/L
RT: 4.852 min Scan# 914
Delta R.T. 0.013 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 63 Resp: 54389

Ion	Ratio	Lower	Upper
63	100		
65	31.9	1.0	61.0

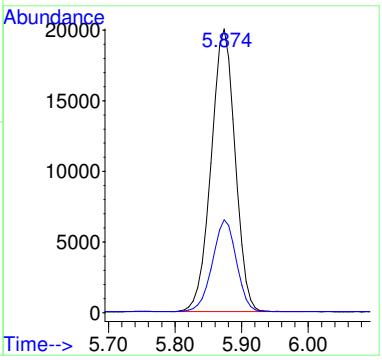


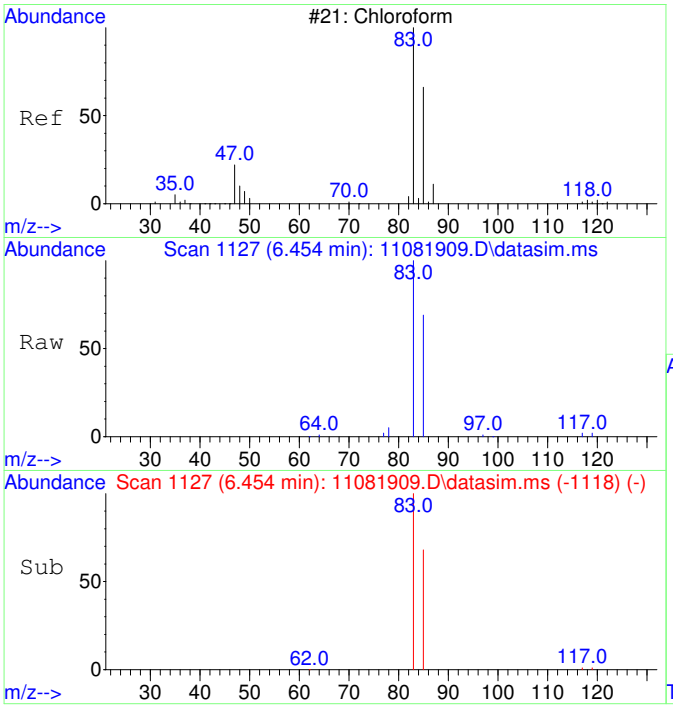


#5
cis-1,2-Dichloroethene
Concen: 6211.76 ug/L
RT: 5.874 min Scan# 1068
Delta R.T. 0.007 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 61 Resp: 50021

Ion	Ratio	Lower	Upper
61	100		
63	32.4	1.4	61.4

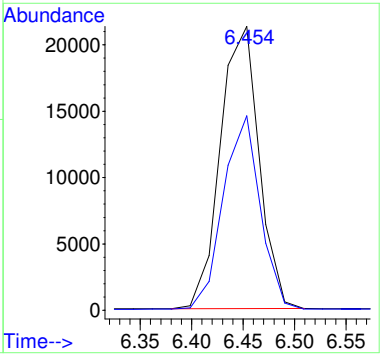


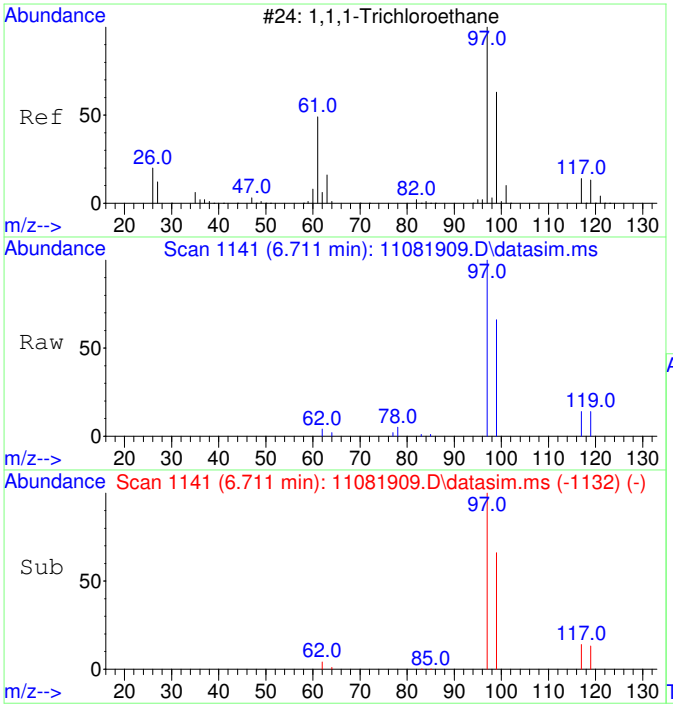


#6
Chloroform
Concen: 6071.09 ug/L
RT: 6.454 min Scan# 1127
Delta R.T. 0.018 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 83 Resp: 55930

Ion	Ratio	Lower	Upper
83	100		
85	65.2	35.8	95.8

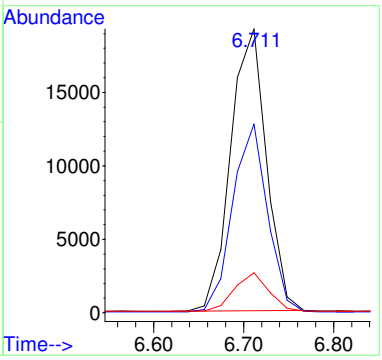


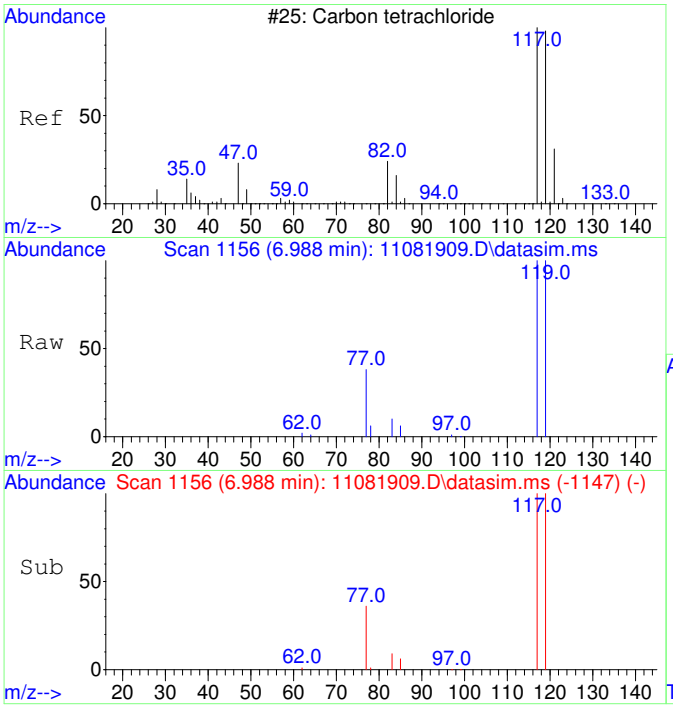


#7
1,1,1-Trichloroethane
Concen: 5831.31 ug/L
RT: 6.711 min Scan# 1141
Delta R.T. 0.018 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 97 Resp: 52991

Ion	Ratio	Lower	Upper
97	100		
99	64.5	32.9	92.9
117	13.0	0.0	43.6

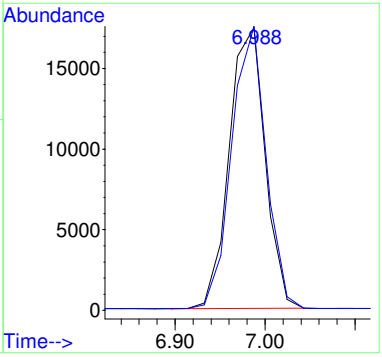


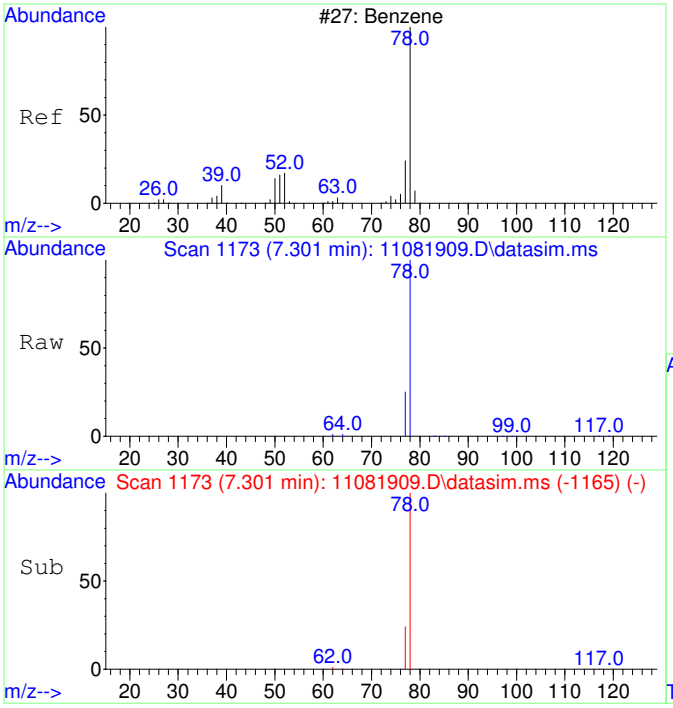


#8
Carbon tetrachloride
Concen: 5638.93 ug/L
RT: 6.988 min Scan# 1156
Delta R.T. 0.018 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:117 Resp: 48328

Ion	Ratio	Lower	Upper
117	100		
119	96.0	68.1	128.1

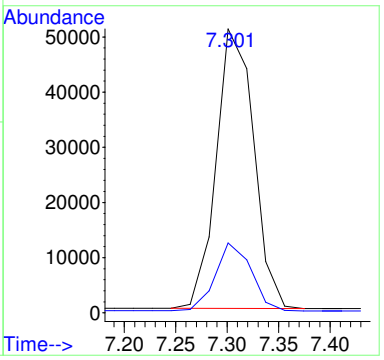


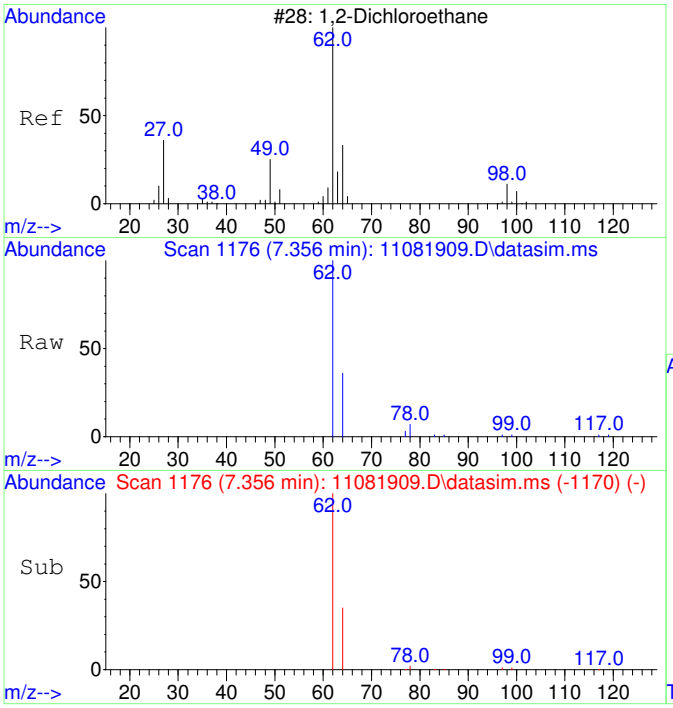


#9
Benzene
Concen: 5503.54 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 78 Resp: 128872

Ion	Ratio	Lower	Upper
78	100		
77	23.2	0.0	53.7

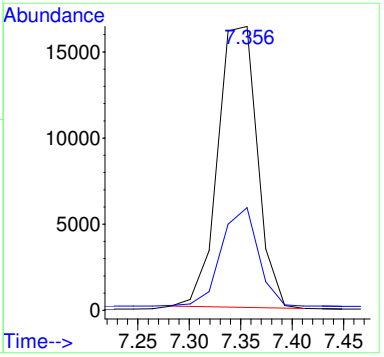


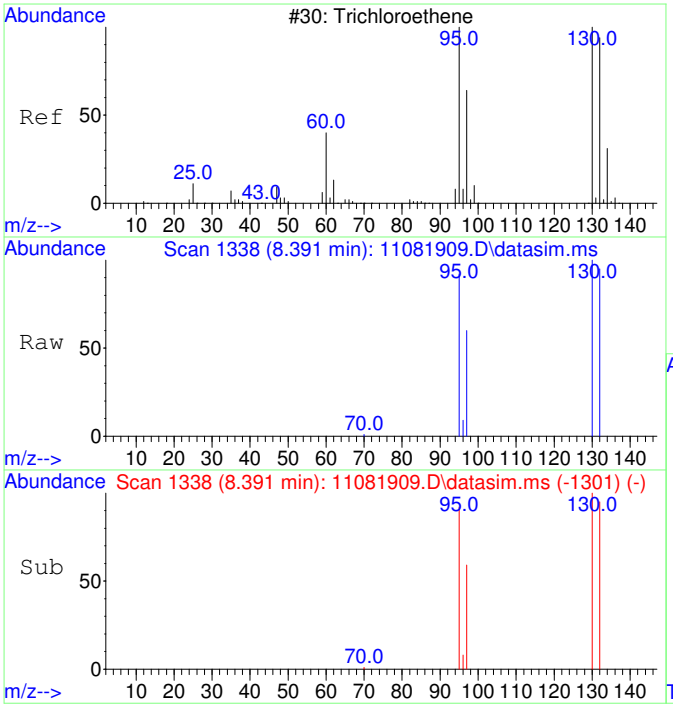


#10
1,2-Dichloroethane
Concen: 5860.23 ug/L
RT: 7.356 min Scan# 1176
Delta R.T. 0.018 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 62 Resp: 43679

Ion	Ratio	Lower	Upper
62	100		
64	32.4	3.5	63.5

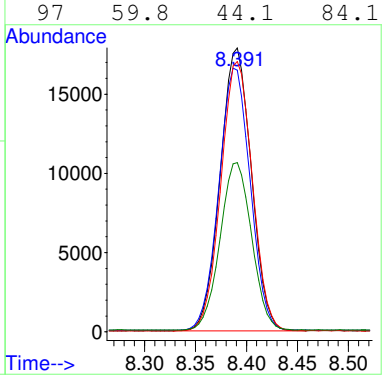


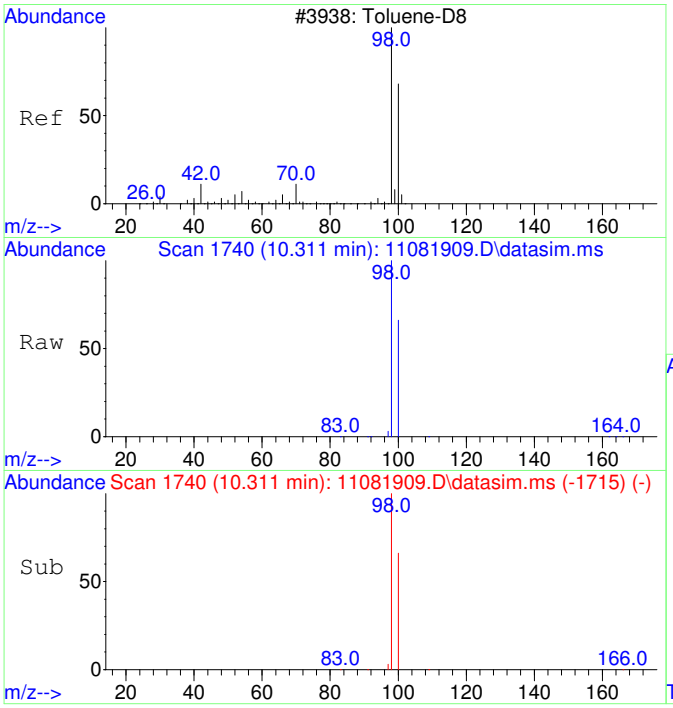


#11
Trichloroethene
Concen: 5283.54 ug/L
RT: 8.391 min Scan# 1338
Delta R.T. 0.004 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:130 Resp: 37875

Ion	Ratio	Lower	Upper
130	100		
95	93.4	70.1	130.1
132	96.0	74.3	114.3
97	59.8	44.1	84.1

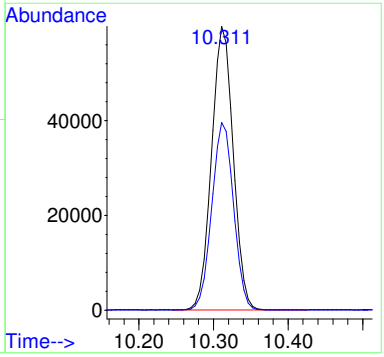


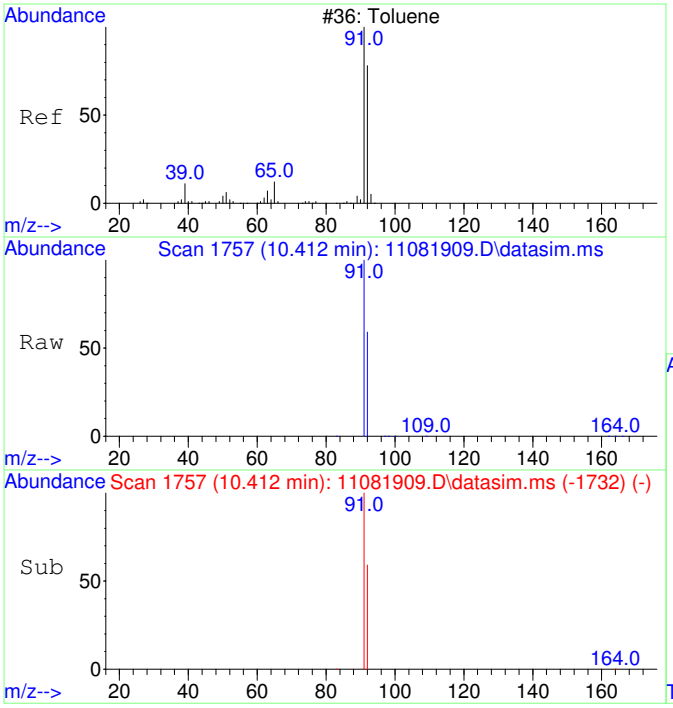


#12
Toluene-d8
Concen: 4939.97 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 98 Resp: 120578

Ion	Ratio	Lower	Upper
98	100		
100	66.4	38.4	98.4

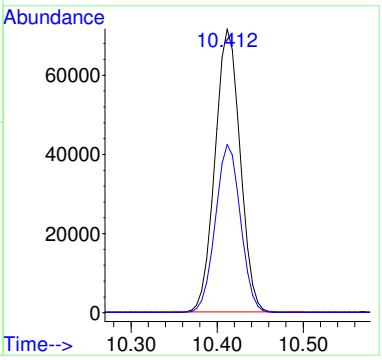


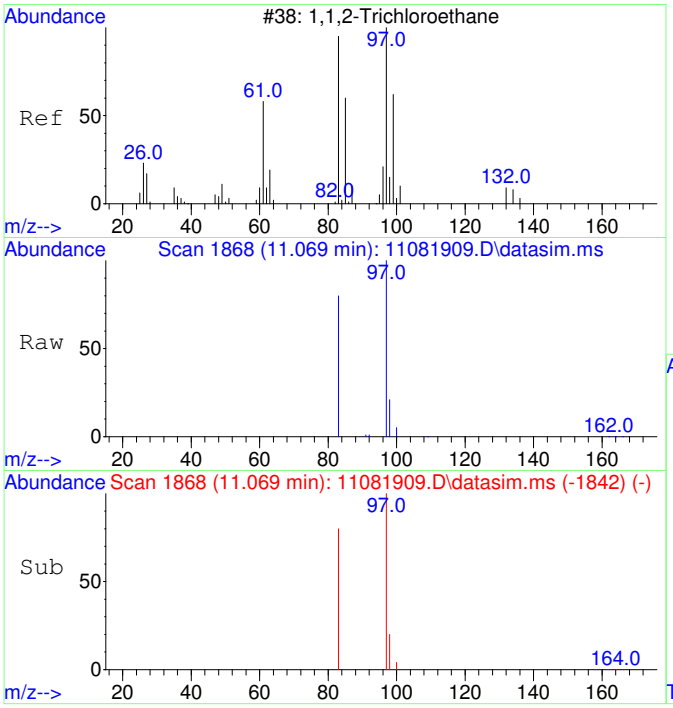


#13
Toluene
Concen: 4888.88 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 144037

Ion	Ratio	Lower	Upper
91	100		
92	59.4	47.7	107.7

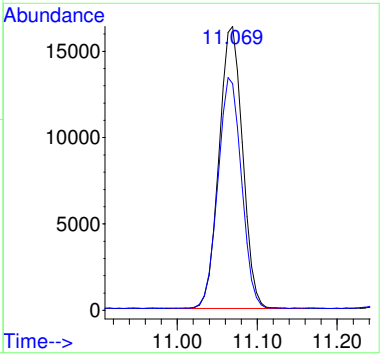


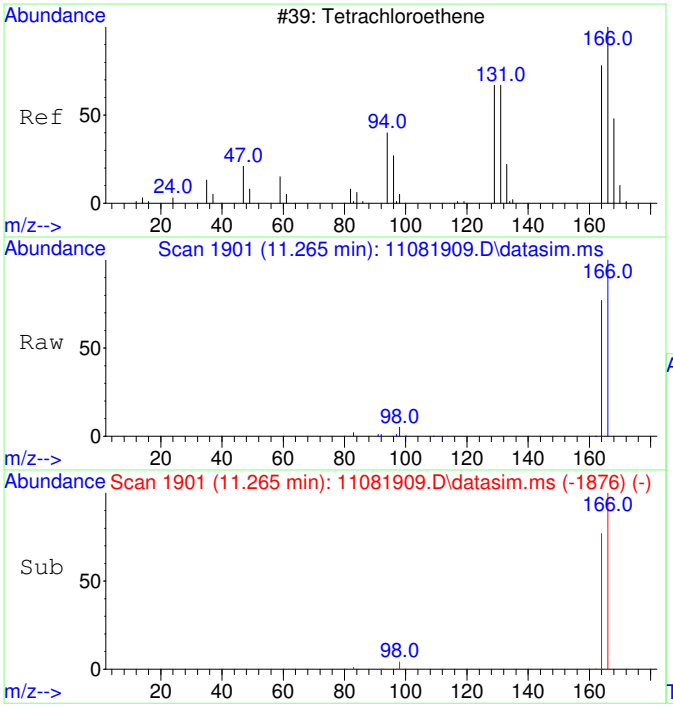


#14
1,1,2-Trichloroethane
Concen: 4876.72 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. 0.006 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 97 Resp: 33313

Ion	Ratio	Lower	Upper
97	100		
83	82.0	65.0	125.0

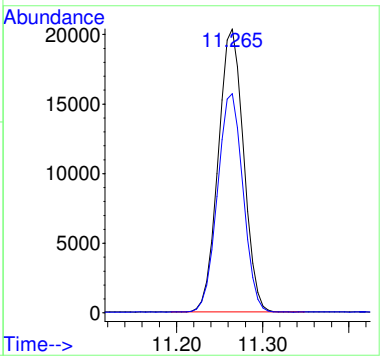


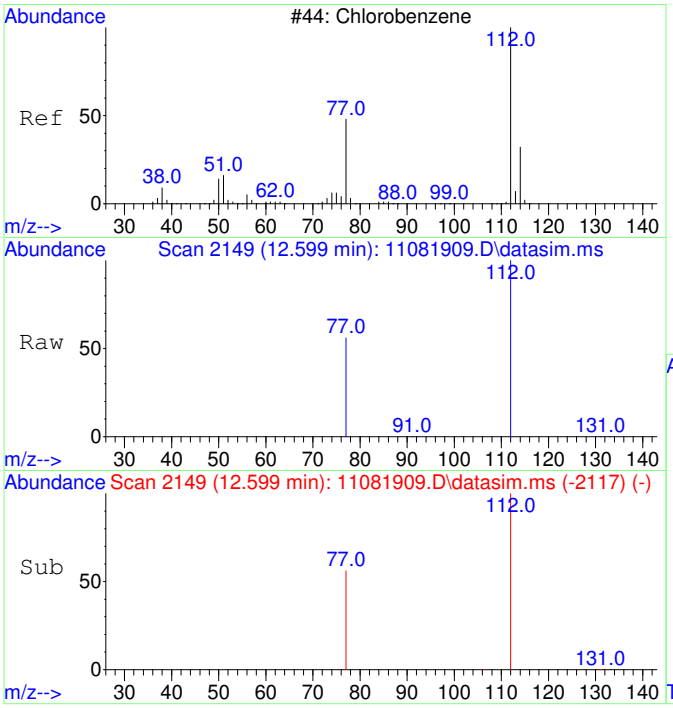


#15
Tetrachloroethene
Concen: 4825.40 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:166 Resp: 41429

Ion	Ratio	Lower	Upper
166	100		
164	77.7	47.9	107.9

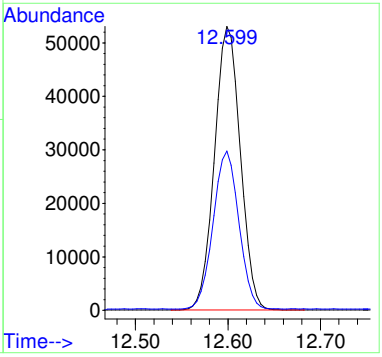


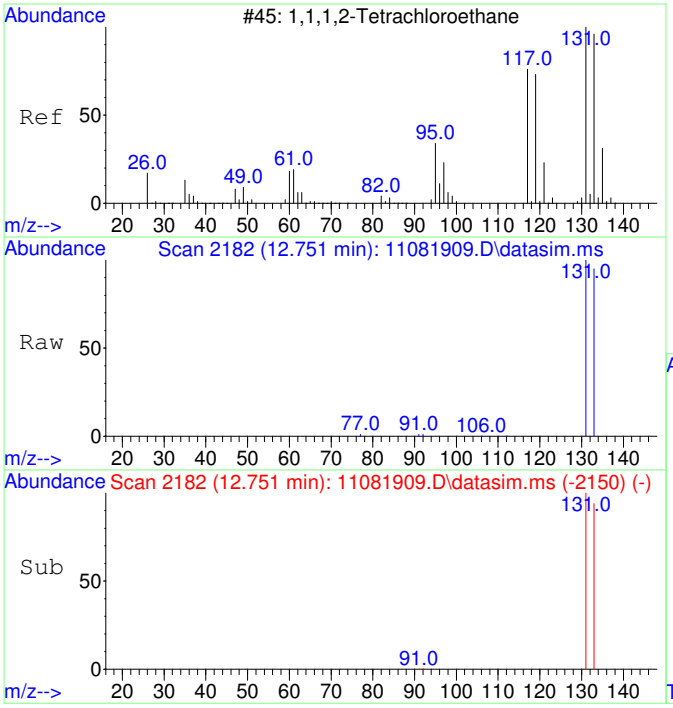


#16
Chlorobenzene
Concen: 4686.42 ug/L
RT: 12.599 min Scan# 2149
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:112 Resp: 102865

Ion	Ratio	Lower	Upper
112	100		
77	55.2	18.3	78.3

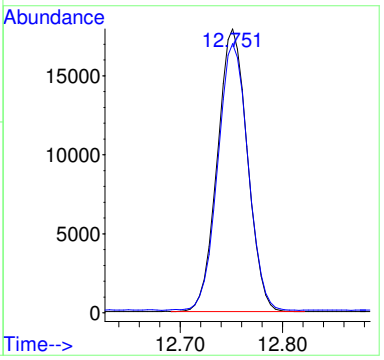


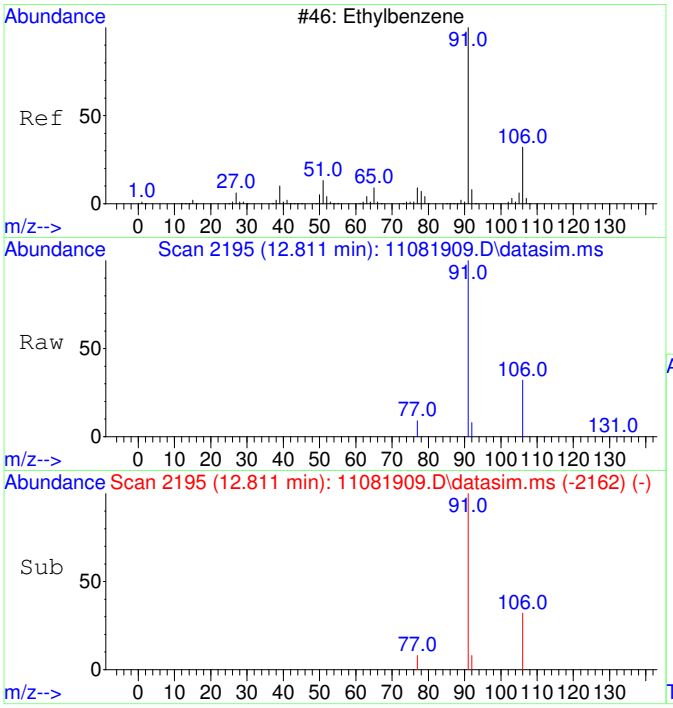


#17
1,1,1,2-Tetrachloroethane
Concen: 4612.10 ug/L
RT: 12.751 min Scan# 2182
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:131 Resp: 36387

Ion	Ratio	Lower	Upper
131	100		
133	95.1	66.1	126.1

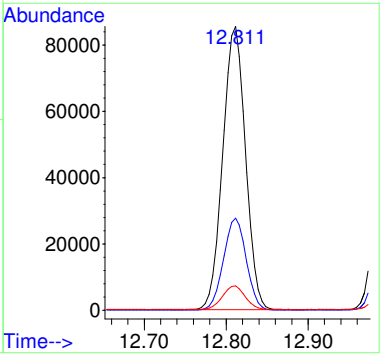


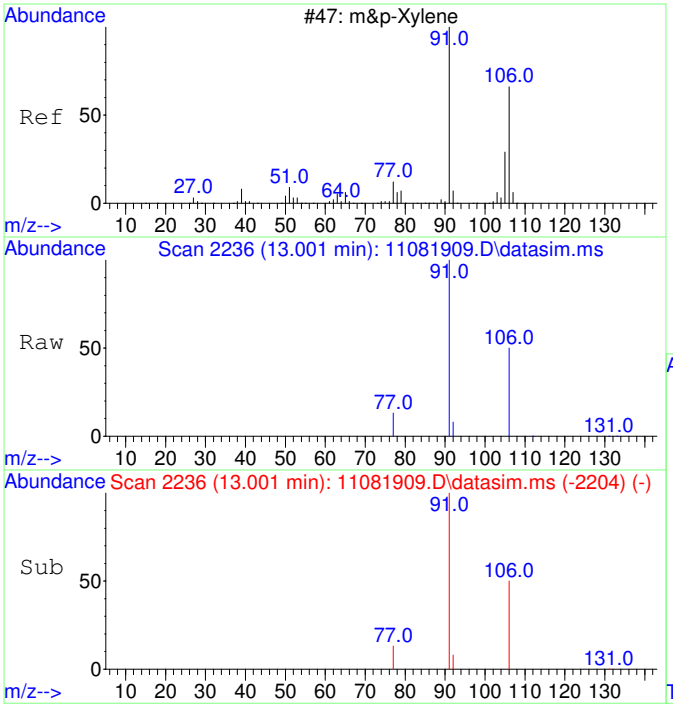


#18
Ethylbenzene
Concen: 4598.23 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. 0.005 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 164412

Ion	Ratio	Lower	Upper
91	100		
106	32.5	2.3	62.3
77	8.4	0.0	38.6

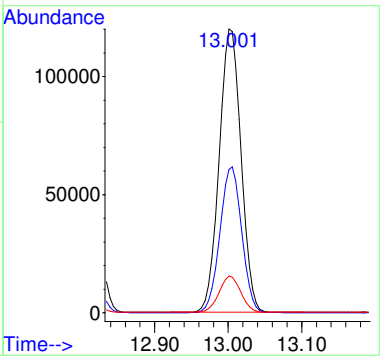


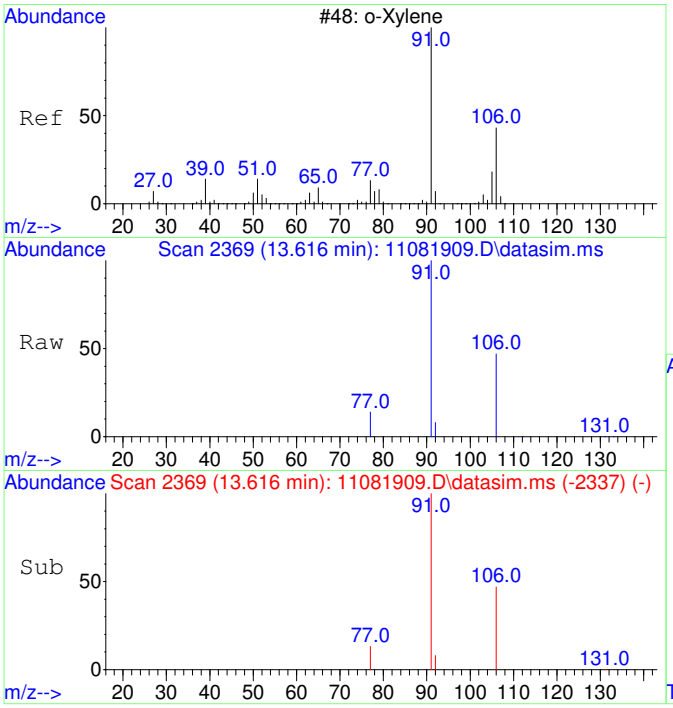


#19
m&p-Xylene
Concen: 9171.34 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 247808

Ion	Ratio	Lower	Upper
91	100		
106	51.2	35.9	95.9
77	12.7	0.0	41.9

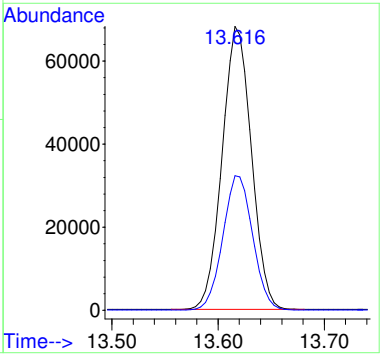


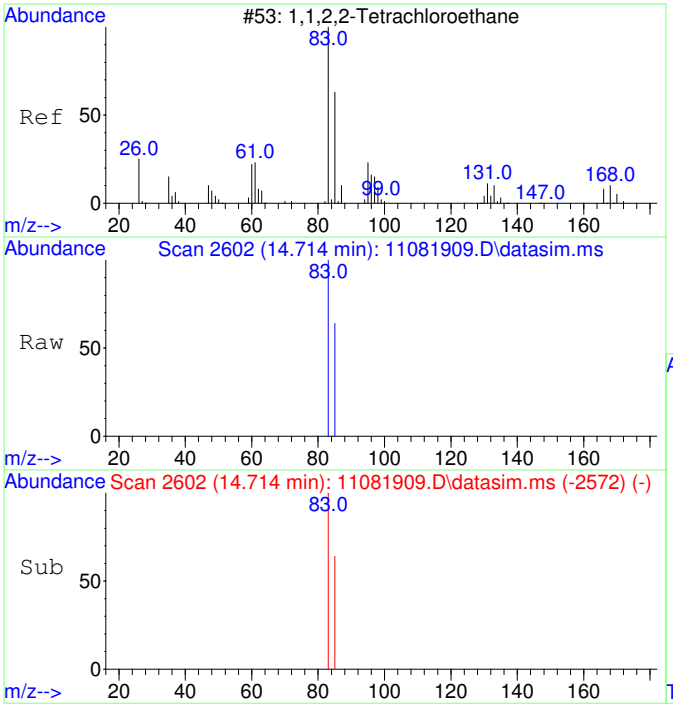


#20
o-Xylene
Concen: 4508.21 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 130523

Ion	Ratio	Lower	Upper
91	100		
106	48.3	13.0	73.0

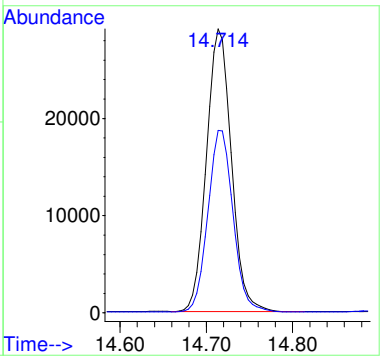


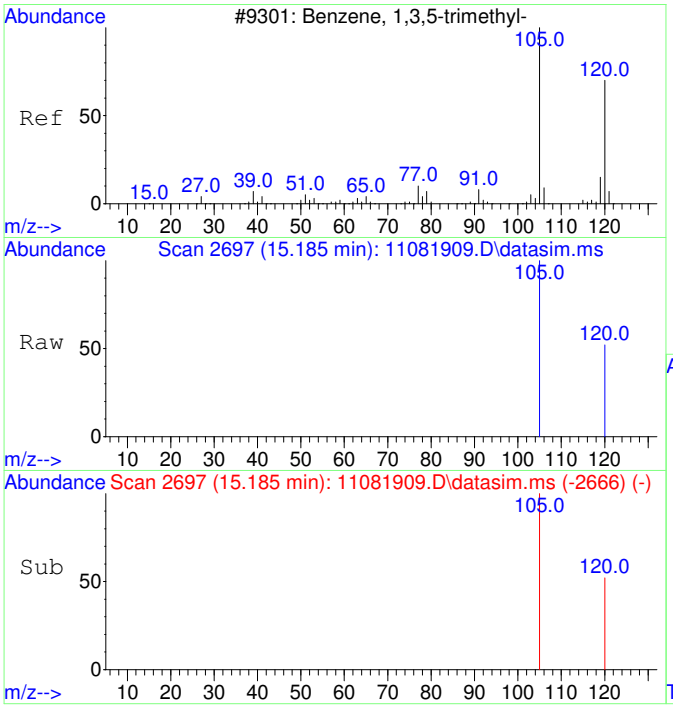


#21
1,1,2,2-Tetrachloroethane
Concen: 4549.69 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 83 Resp: 58407

Ion	Ratio	Lower	Upper
83	100		
85	64.7	32.7	92.7

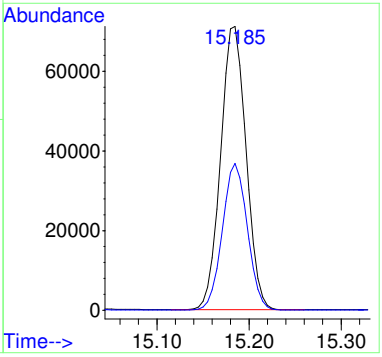


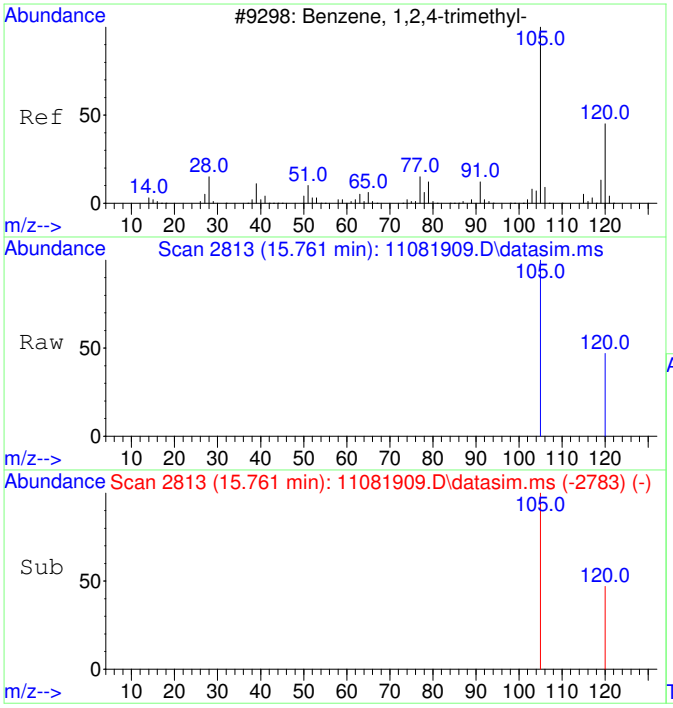


#22
1,3,5-Trimethylbenzene
Concen: 4420.81 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. 0.005 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:105 Resp: 136251

Ion	Ratio	Lower	Upper
105	100		
120	50.8	20.1	80.1

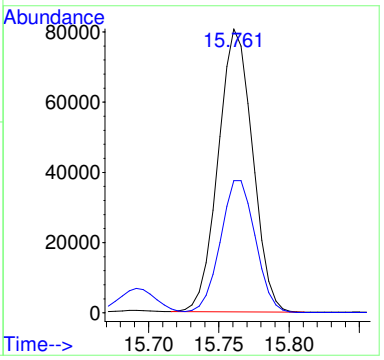


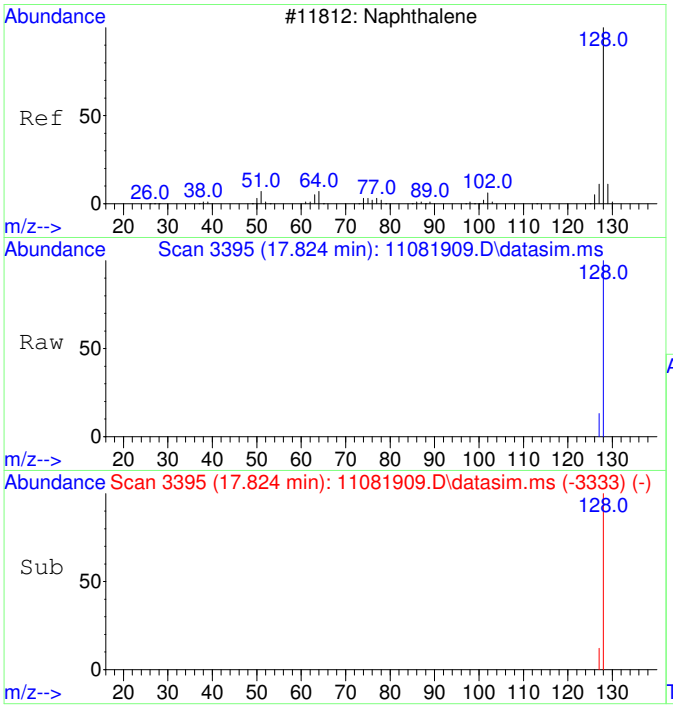


#23
1,2,4-Trimethylbenzene
Concen: 4357.75 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:105 Resp: 136813

Ion	Ratio	Lower	Upper
105	100		
120	46.8	15.2	75.2

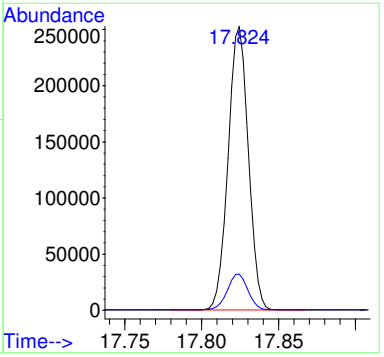


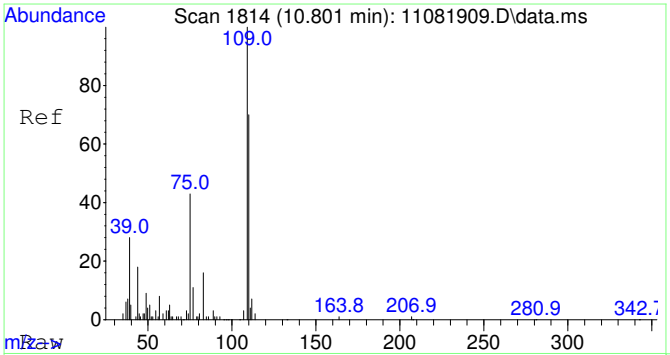


#24
Naphthalene
Concen: 4260.04 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. 0.003 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:128 Resp: 231113

Ion	Ratio	Lower	Upper
128	100		
127	12.7	0.0	40.7

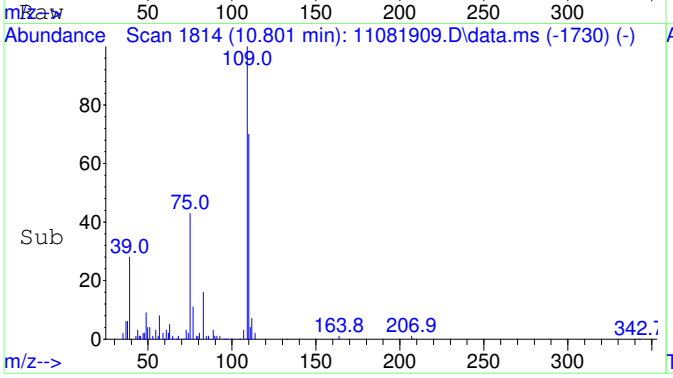


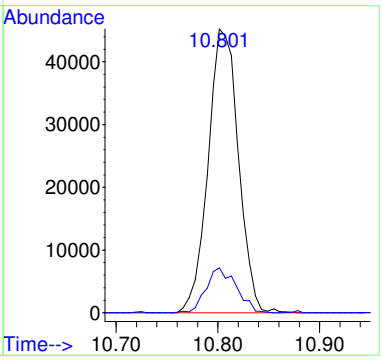


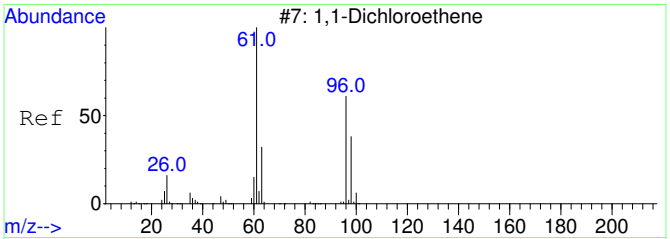
#25
2-Fluorotoluene SCAN
Concen: 5050.80 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:109 Resp: 93801

Ion	Ratio	Lower	Upper
109	100		
83	15.8	0.0	42.8



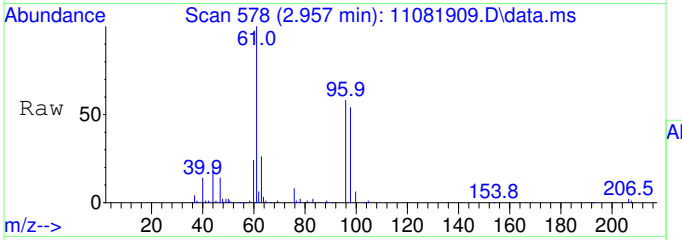


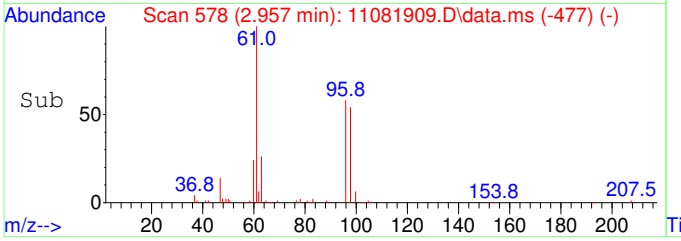


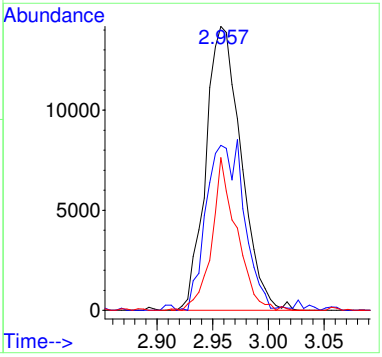
#26
1,1-Dichloroethene SCAN
Concen: 7975.17 ug/L
RT: 2.957 min Scan# 578
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

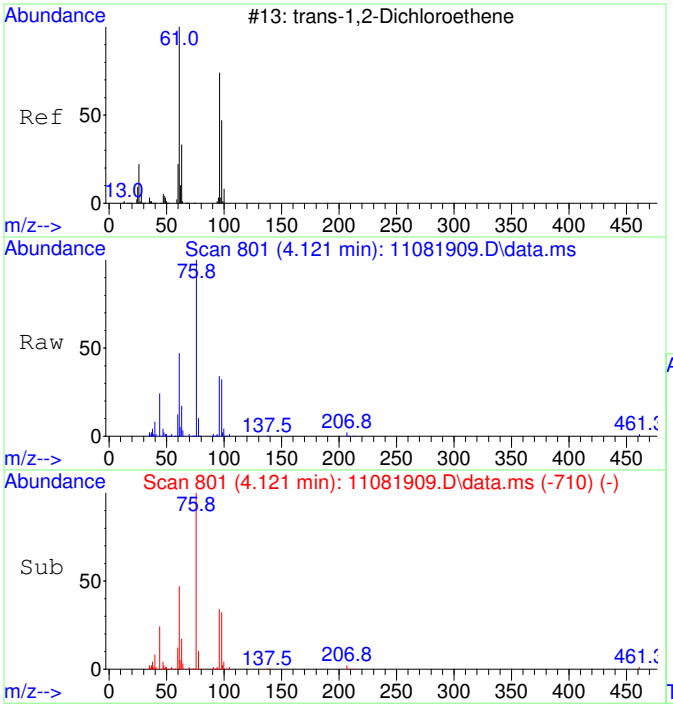
Tgt Ion: 61 Resp: 31316

Ion	Ratio	Lower	Upper
61	100		
96	62.5	32.2	92.2
98	37.8	12.8	72.8





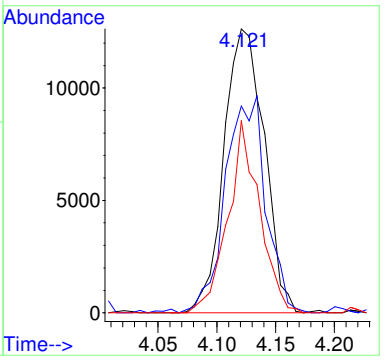


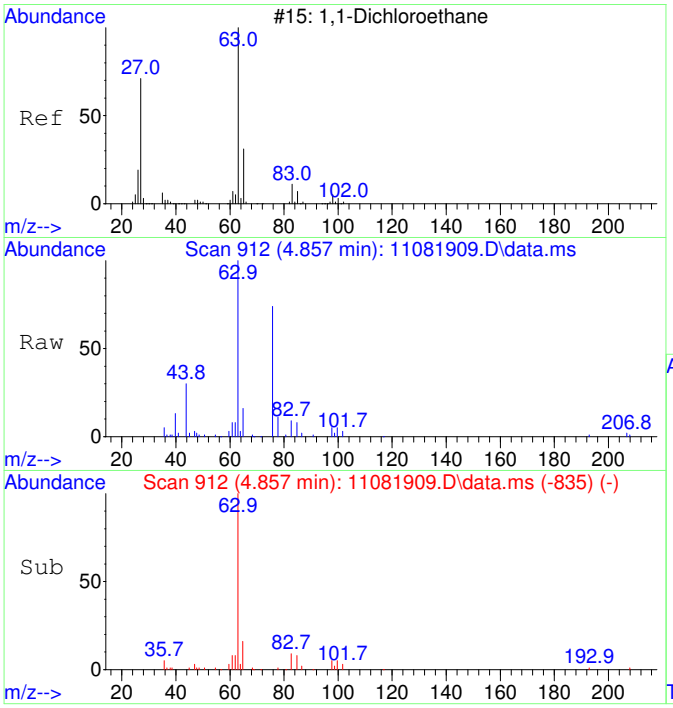


#27
trans-1,2-Dichloroethene SCAN
Concen: 6563.62 ug/L
RT: 4.121 min Scan# 801
Delta R.T. 0.007 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 61 Resp: 30127

Ion	Ratio	Lower	Upper
61	100		
96	76.5	41.8	101.8
98	52.8	19.2	79.2

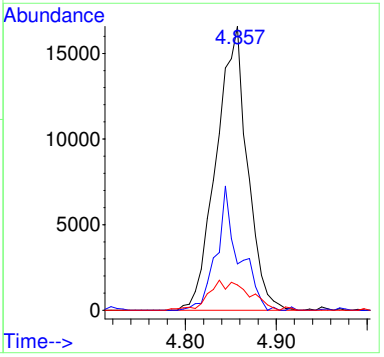


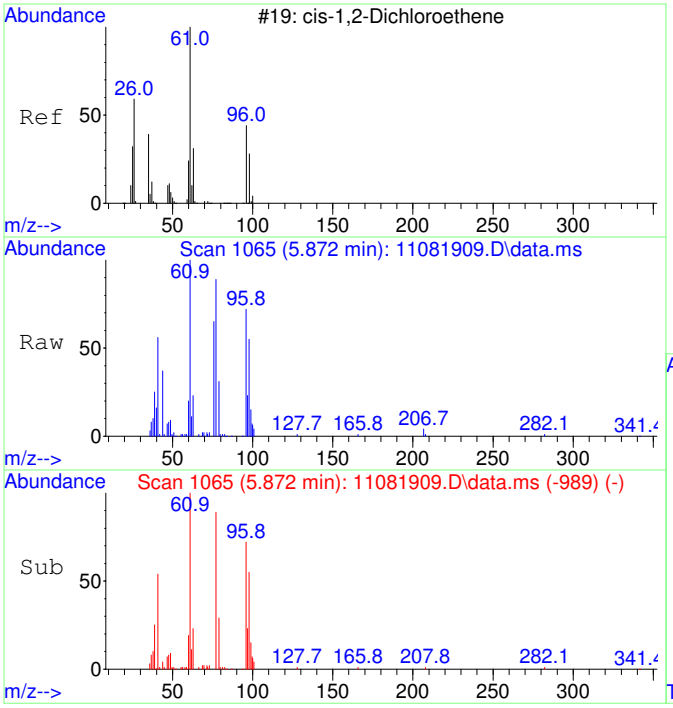


#28
1,1-Dichloroethane SCAN
Concen: 7124.45 ug/L
RT: 4.857 min Scan# 912
Delta R.T. 0.013 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 63 Resp: 39463

Ion	Ratio	Lower	Upper
63	100		
65	31.6	5.1	65.1
83	13.5	0.0	44.9

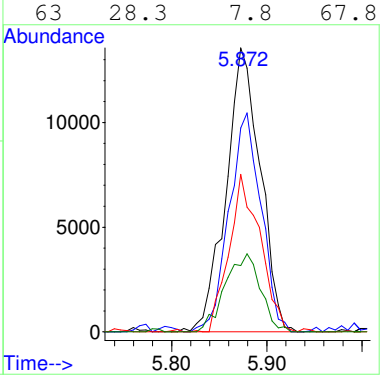


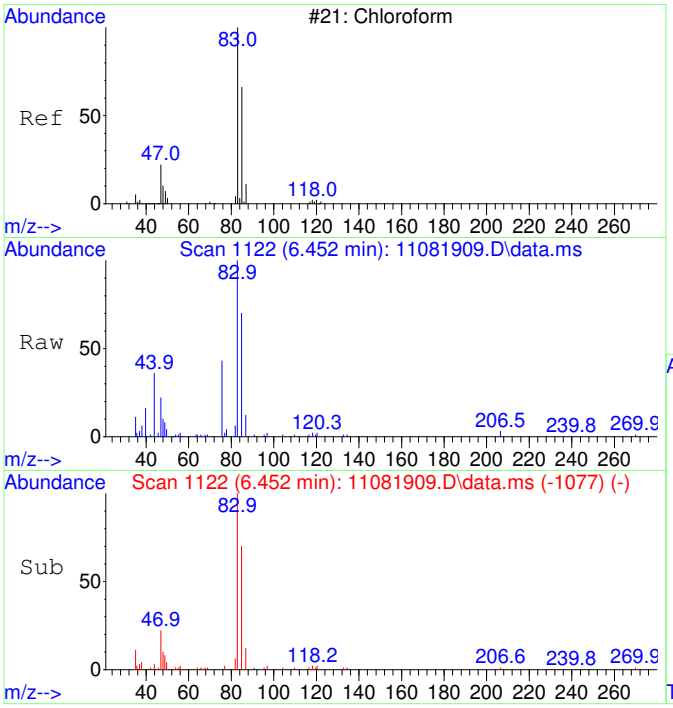


#29
cis-1,2-Dichloroethene SCAN
Concen: 6113.35 ug/L
RT: 5.872 min Scan# 1065
Delta R.T. 0.007 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 61 Resp: 34071

Ion	Ratio	Lower	Upper
61	100		
96	71.9	32.9	92.9
98	50.3	14.3	74.3
63	28.3	7.8	67.8

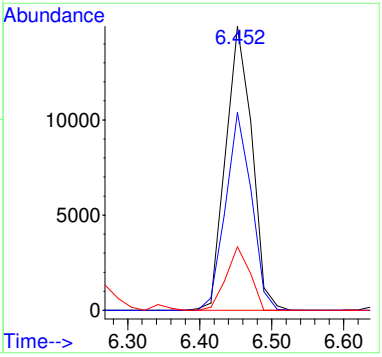


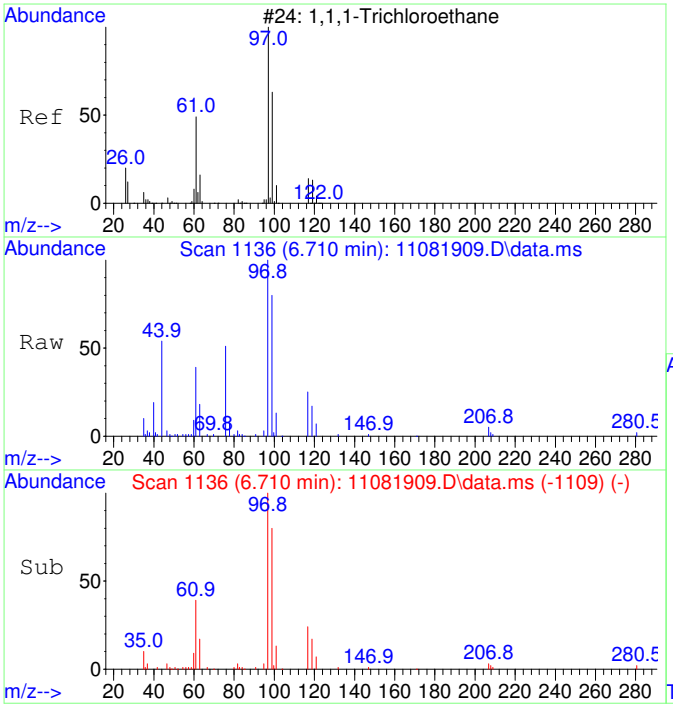


#30
Chloroform SCAN
Concen: 6290.56 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 83 Resp: 37954

Ion	Ratio	Lower	Upper
83	100		
85	68.3	39.1	99.1
47	20.2	0.0	53.1

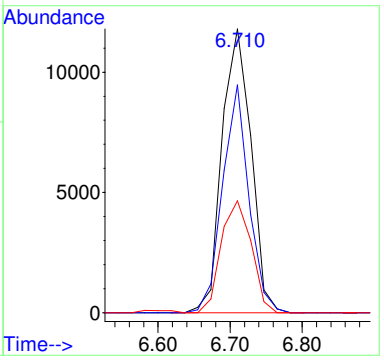


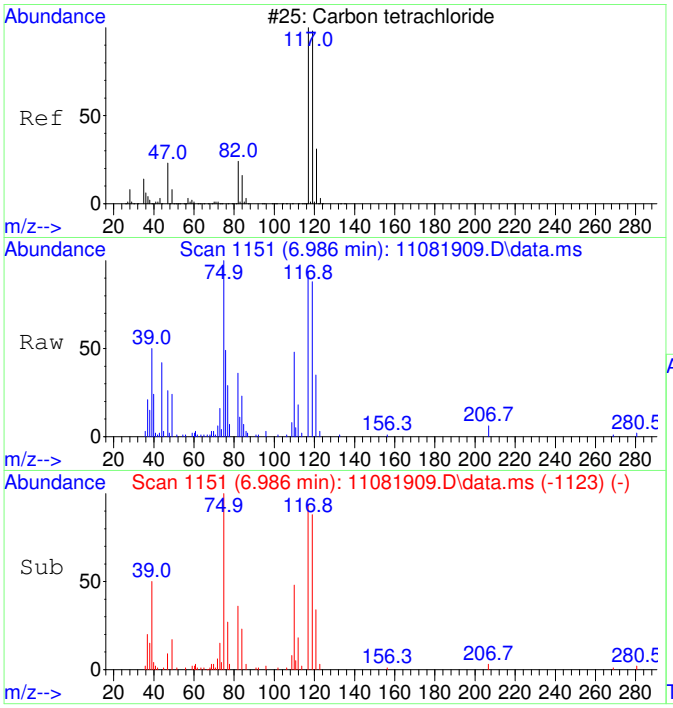


#31
1,1,1-Trichloroethane SCAN
Concen: 5630.23 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 97 Resp: 33130

Ion	Ratio	Lower	Upper
97	100		
99	72.8	32.6	92.6
61	41.1	9.4	69.4

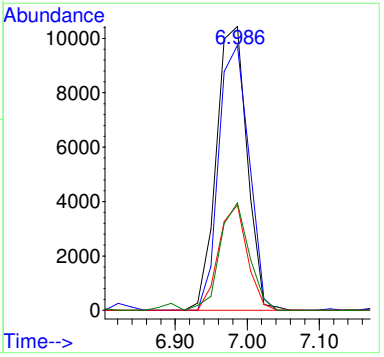


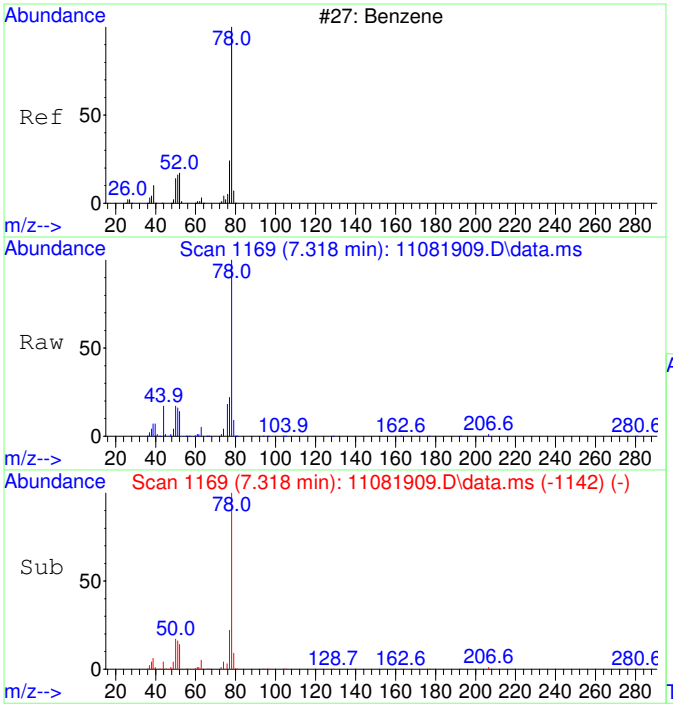


#32
Carbon tetrachloride SCAN
Concen: 5543.49 ug/L
RT: 6.986 min Scan# 1151
Delta R.T. 0.018 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:117 Resp: 31052

Ion	Ratio	Lower	Upper
117	100		
119	91.5	63.7	123.7
121	34.4	4.6	64.6
82	37.2	0.0	55.3

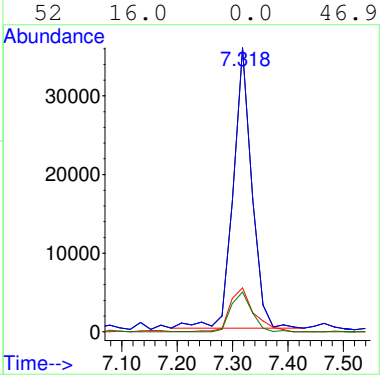


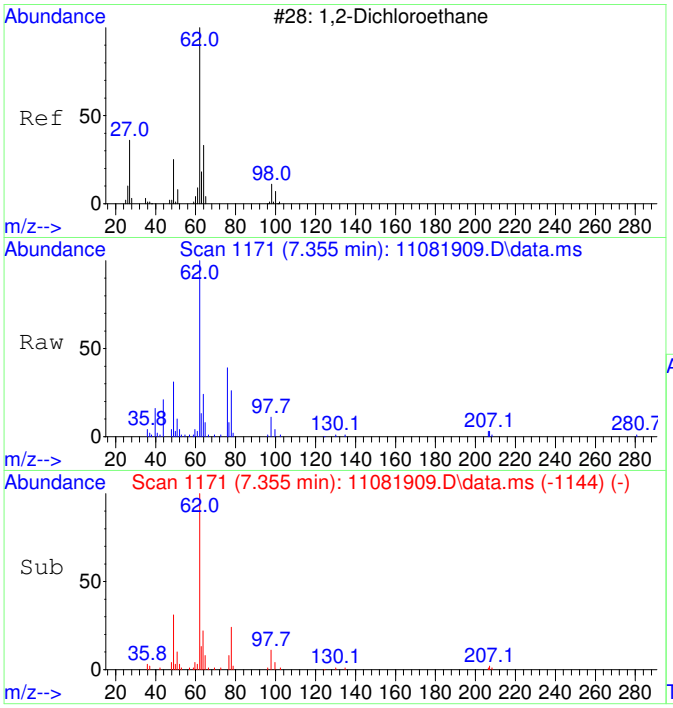


#33
Benzene SCAN
Concen: 5291.91 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 78 Resp: 83265

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	19.8	0.0	49.2
52	16.0	0.0	46.9

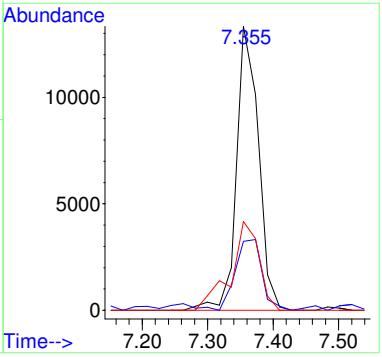


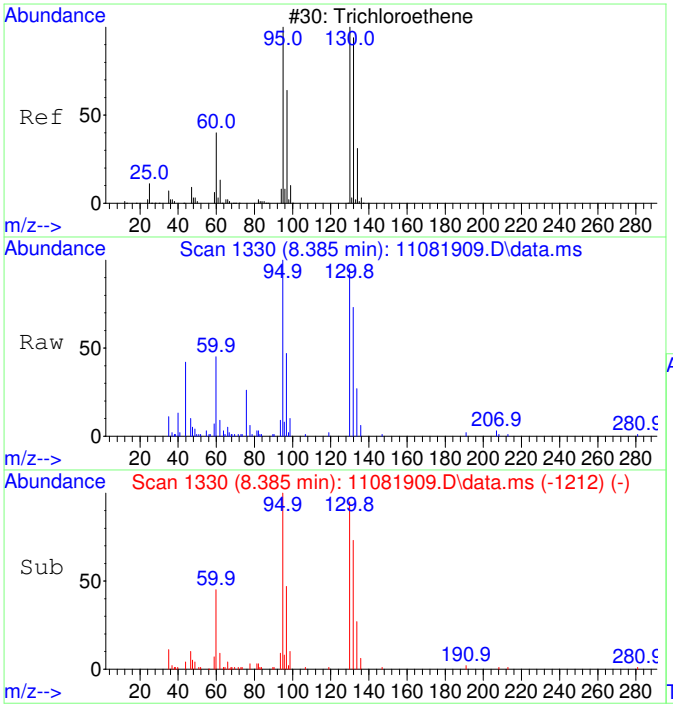


#34
1,2-Dichloroethane SCAN
Concen: 5890.07 ug/L
RT: 7.355 min Scan# 1171
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 62 Resp: 31063

Ion	Ratio	Lower	Upper
62	100		
64	29.2	3.3	63.3
49	40.5	0.8	60.8

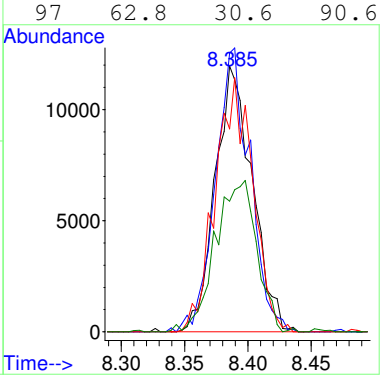


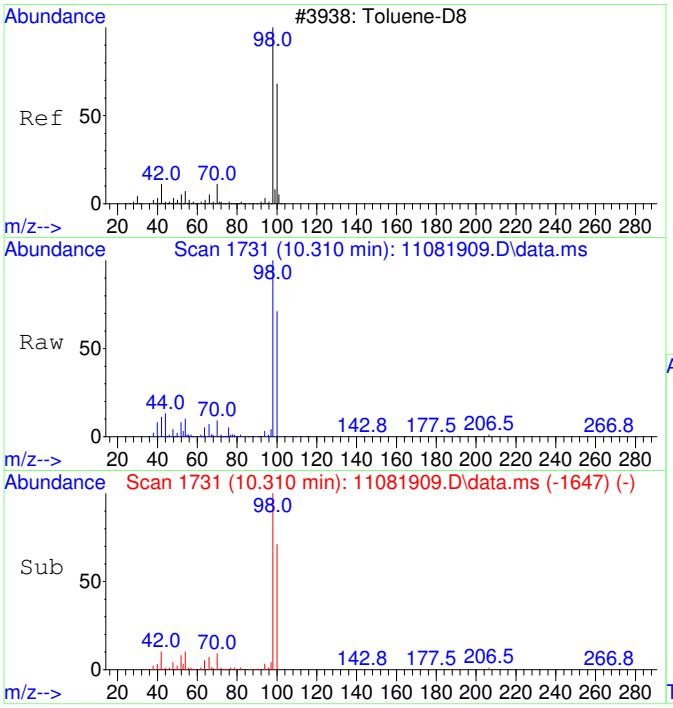


#35
Trichloroethene SCAN
Concen: 5182.88 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.004 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:130 Resp: 24410

Ion	Ratio	Lower	Upper
130	100		
95	99.5	61.4	121.4
132	96.5	75.5	135.5
97	62.8	30.6	90.6

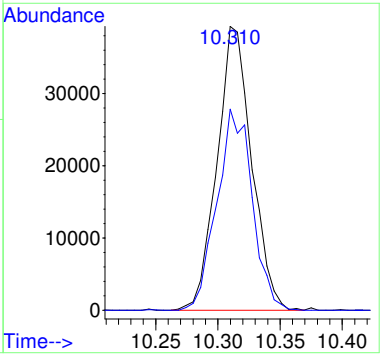


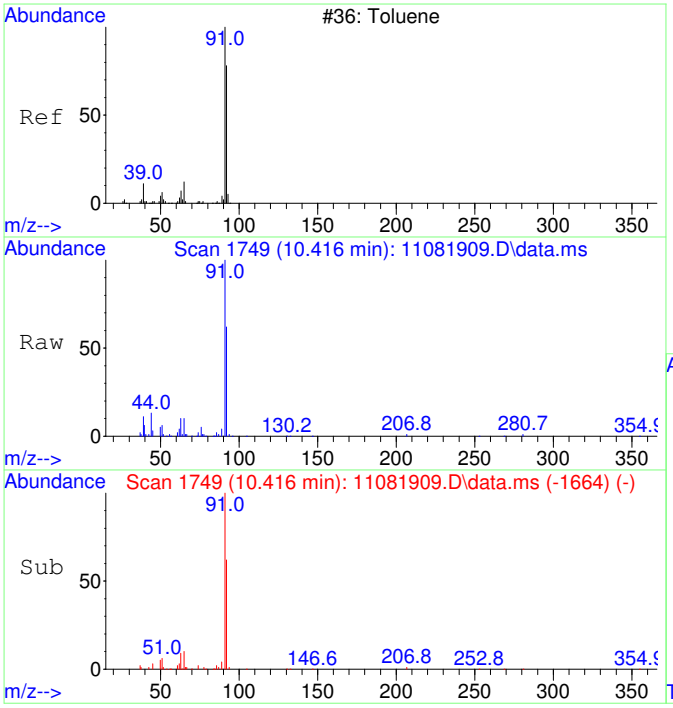


#36
Toluene-d8 SCAN
Concen: 4851.41 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 98 Resp: 76285

Ion	Ratio	Lower	Upper
98	100		
100	72.1	32.2	92.2

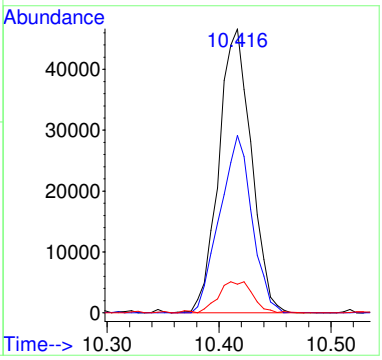


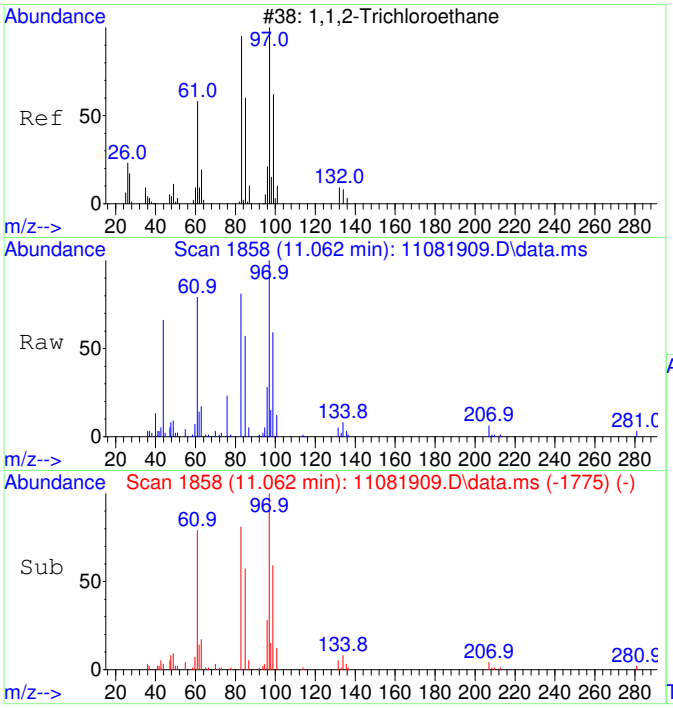


#37
Toluene SCAN
Concen: 5171.88 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.006 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 94057

Ion	Ratio	Lower	Upper
91	100		
92	61.9	34.3	94.3
65	11.9	0.0	45.2

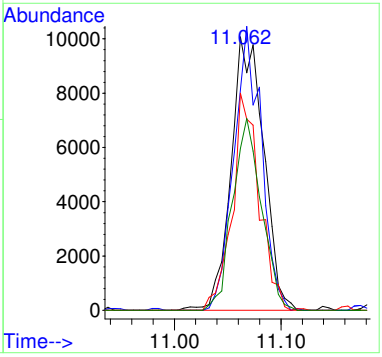


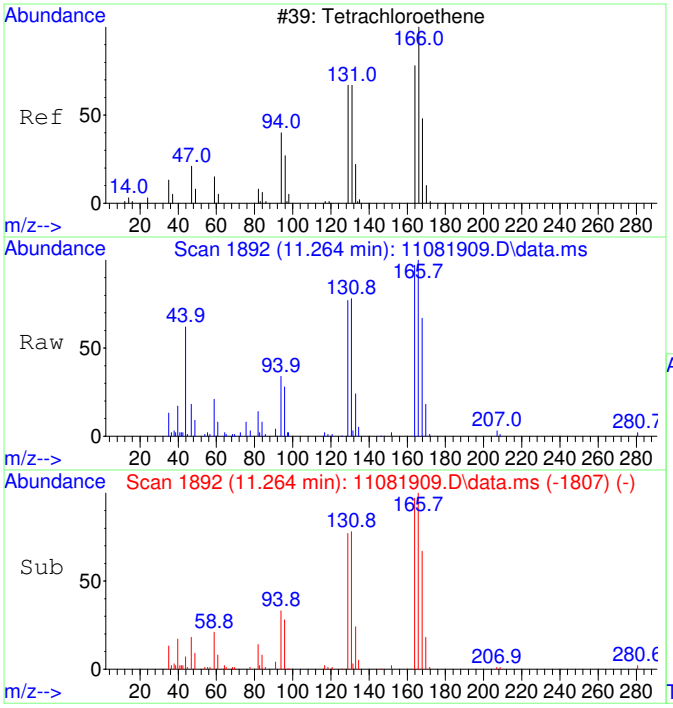


#38
1,1,2-Trichloroethane SCAN
Concen: 5110.71 ug/L
RT: 11.062 min Scan# 1858
Delta R.T. -0.006 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 97 Resp: 21451

Ion	Ratio	Lower	Upper
97	100		
83	88.1	73.8	133.8
61	66.0	38.9	98.9
99	62.7	33.5	93.5

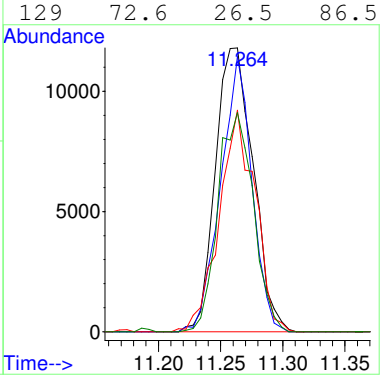


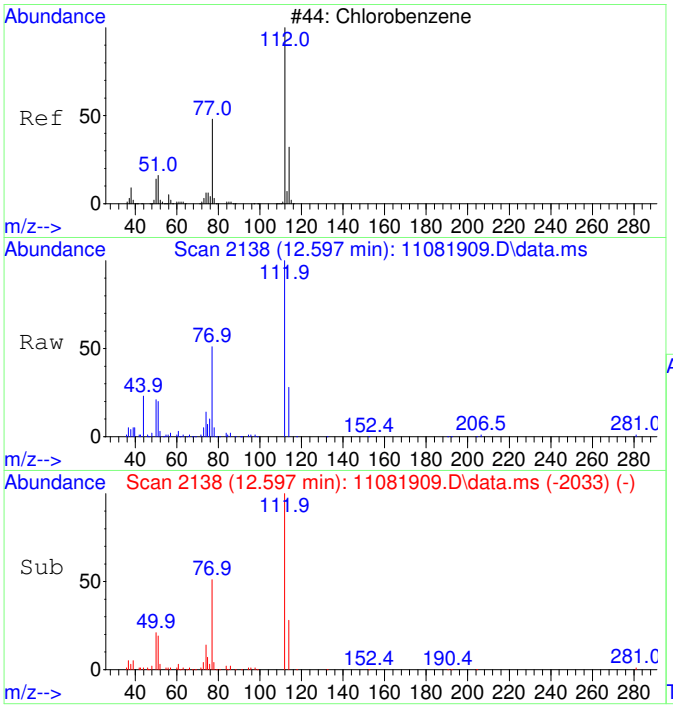


#39
Tetrachloroethene SCAN
Concen: 5079.38 ug/L
RT: 11.264 min Scan# 1892
Delta R.T. 0.006 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:166 Resp: 24971

Ion	Ratio	Lower	Upper
166	100		
164	80.4	41.7	101.7
131	74.0	36.7	96.7
129	72.6	26.5	86.5

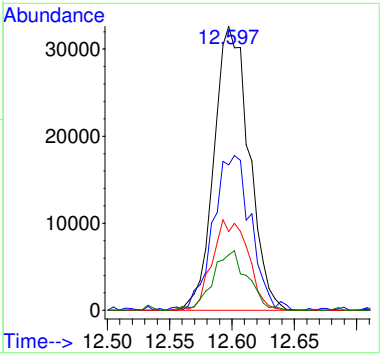


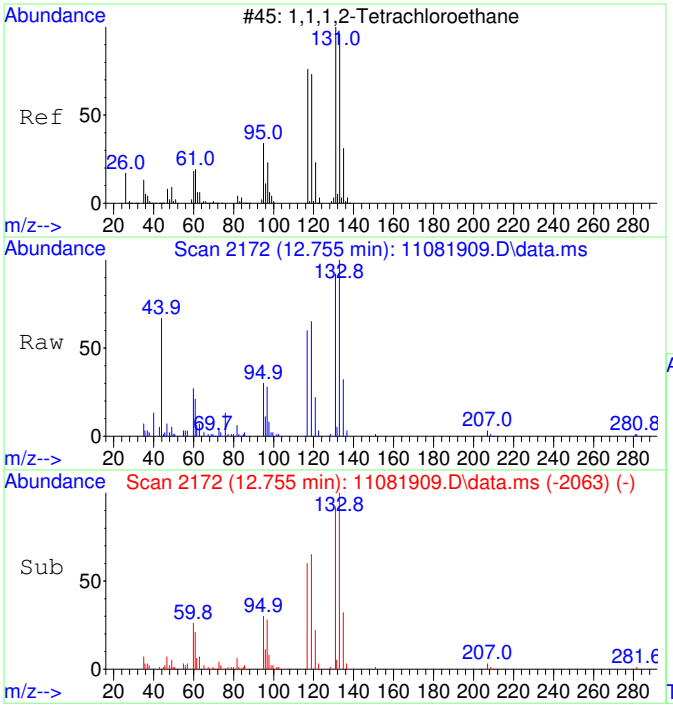


#40
Chlorobenzene SCAN
Concen: 5048.85 ug/L
RT: 12.597 min Scan# 2138
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:112 Resp: 63776

Ion	Ratio	Lower	Upper
112	100		
77	58.8	22.8	82.8
114	32.6	3.9	63.9
51	20.8	0.0	48.2

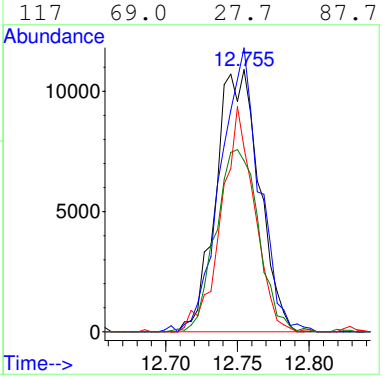


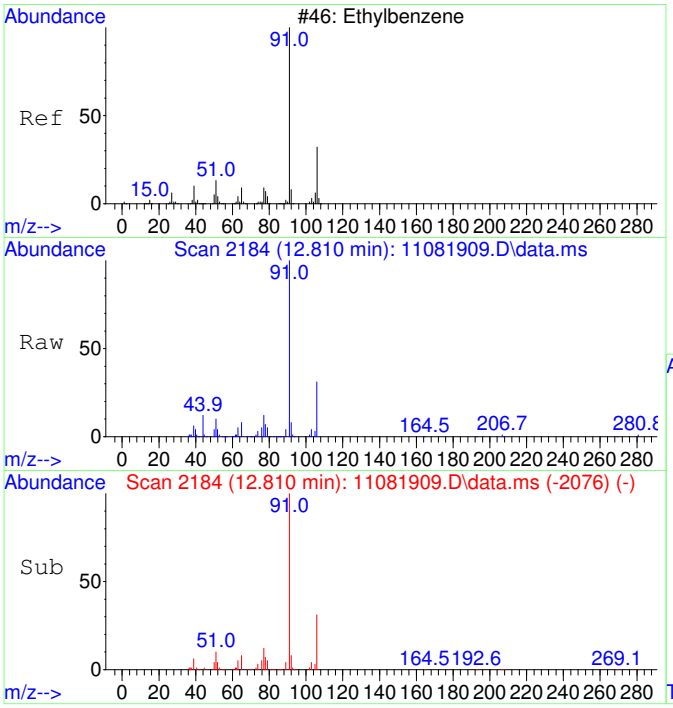


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 5091.76 ug/L
RT: 12.755 min Scan# 2172
Delta R.T. 0.005 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:131 Resp: 22911

Ion	Ratio	Lower	Upper
131	100		
133	97.7	72.3	132.3
119	66.2	28.1	88.1
117	69.0	27.7	87.7

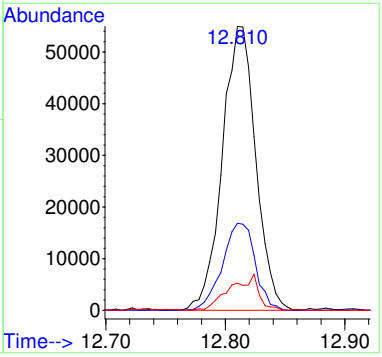


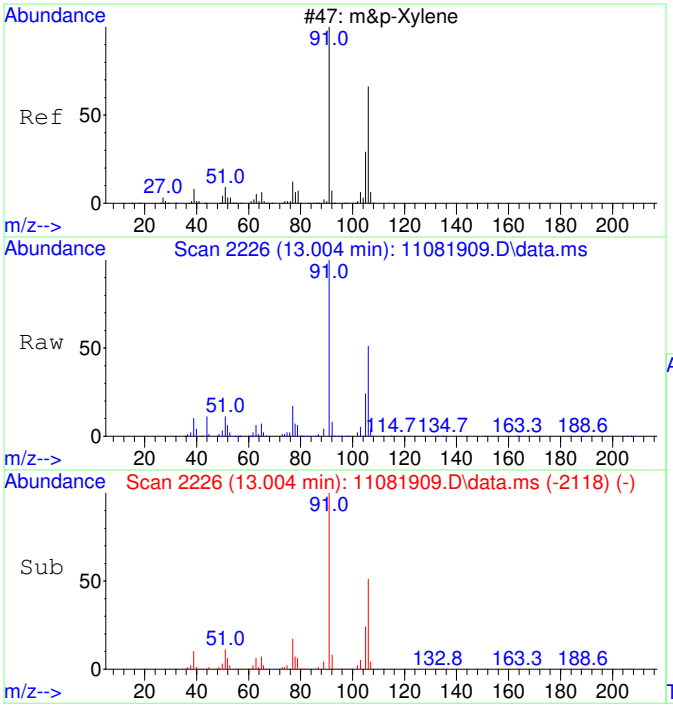


#42
Ethylbenzene SCAN
Concen: 5143.65 ug/L
RT: 12.810 min Scan# 2184
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 107045

Ion	Ratio	Lower	Upper
91	100		
106	30.1	3.6	63.6
51	10.9	0.0	41.2

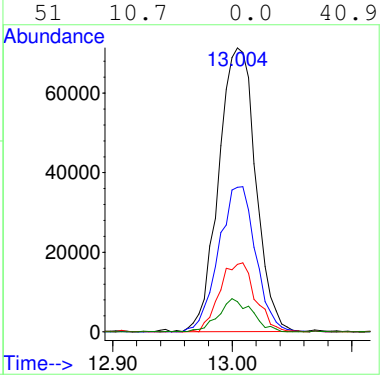


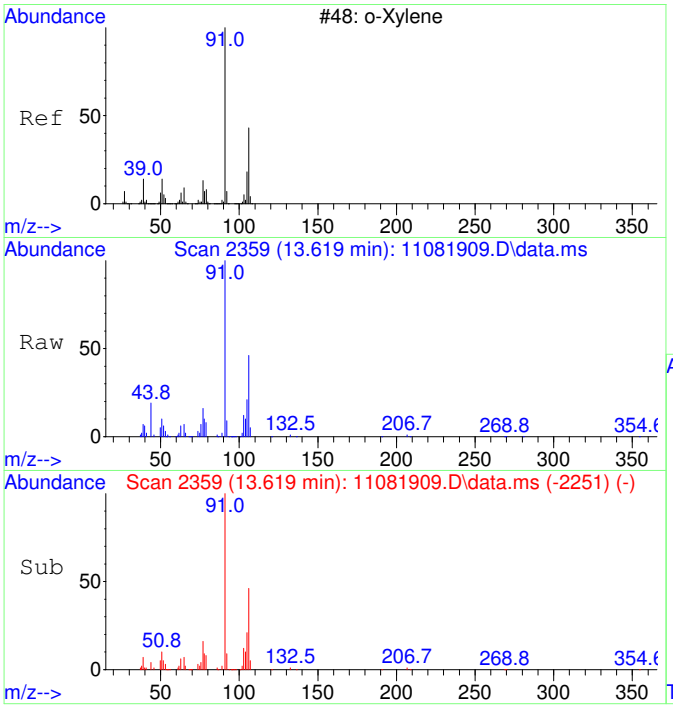


#43
m&p-Xylene SCAN
Concen: 5082.26 ug/L
RT: 13.004 min Scan# 2226
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 153574

Ion	Ratio	Lower	Upper
91	100		
106	51.1	22.9	82.9
105	23.6	0.0	55.8
51	10.7	0.0	40.9

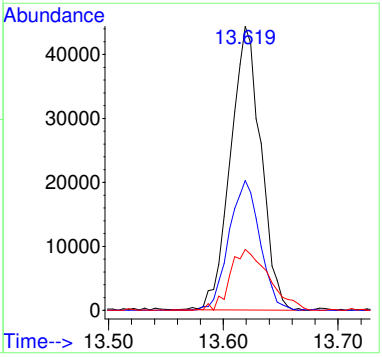


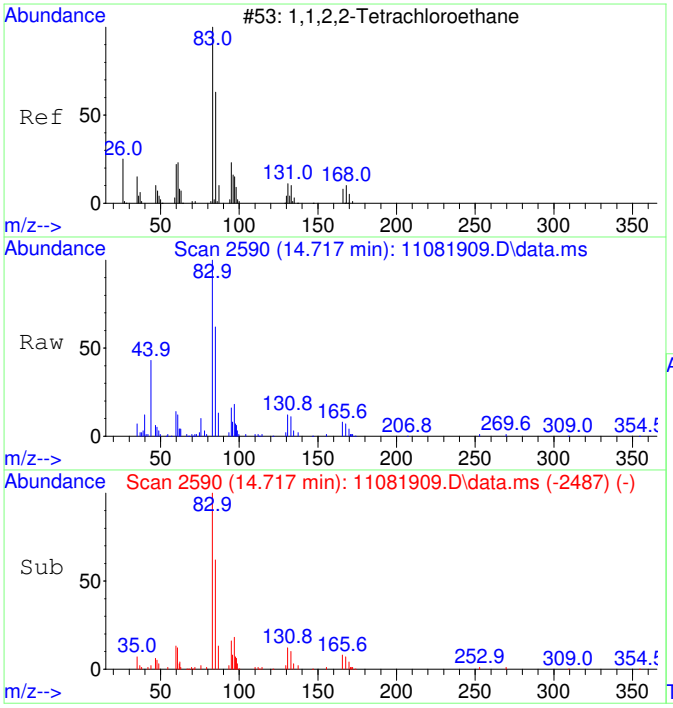


#44
o-Xylene SCAN
Concen: 4981.27 ug/L
RT: 13.619 min Scan# 2359
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 91 Resp: 81669

Ion	Ratio	Lower	Upper
91	100		
106	46.7	17.0	77.0
105	27.3	0.0	47.3

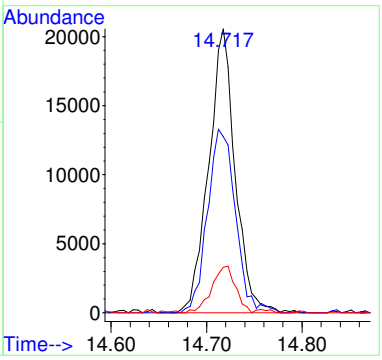


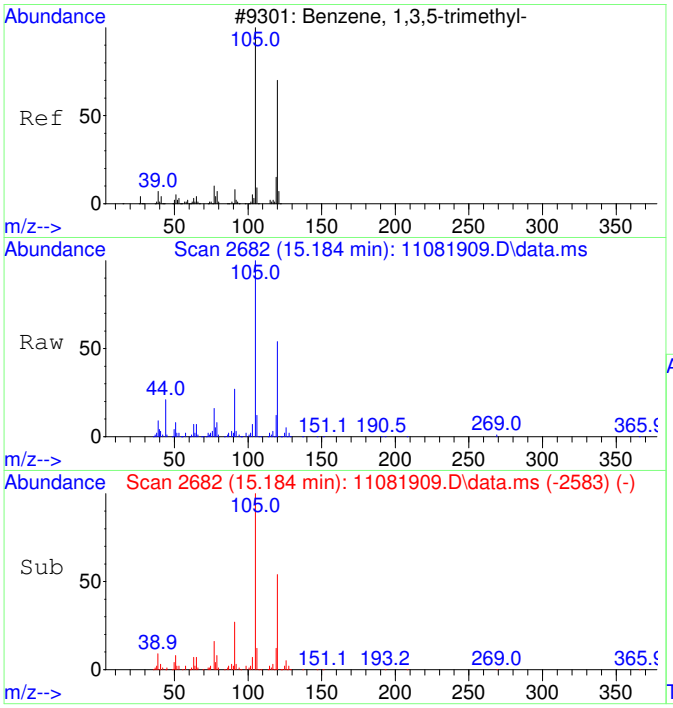


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 5075.71 ug/L
RT: 14.717 min Scan# 2590
Delta R.T. 0.005 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion: 83 Resp: 39655

Ion	Ratio	Lower	Upper
83	100		
85	68.3	33.6	93.6
95	14.8	0.0	50.6

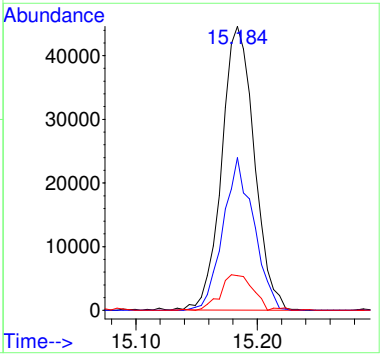


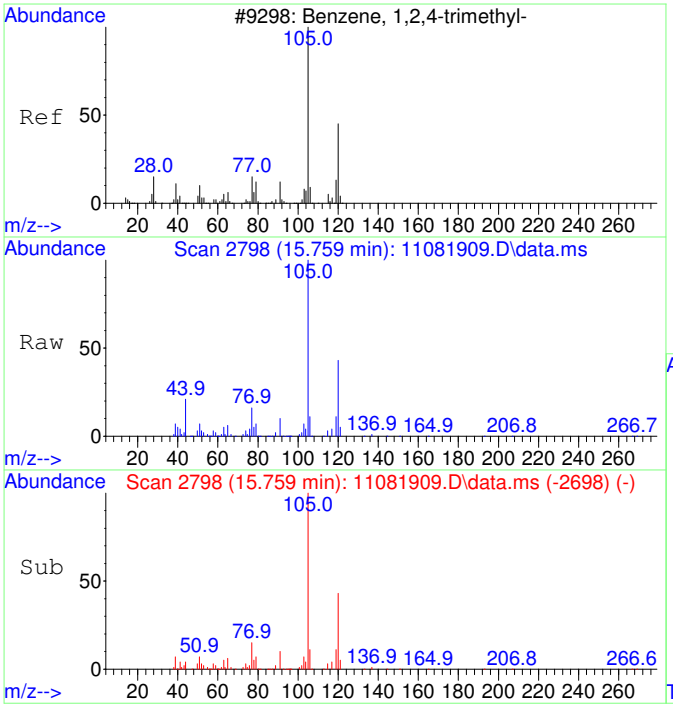


#46
1,3,5-Trimethylbenzene SCAN
Concen: 5176.46 ug/L
RT: 15.184 min Scan# 2682
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:105 Resp: 83099

Ion	Ratio	Lower	Upper
105	100		
120	50.8	19.2	79.2
119	12.8	0.0	43.3

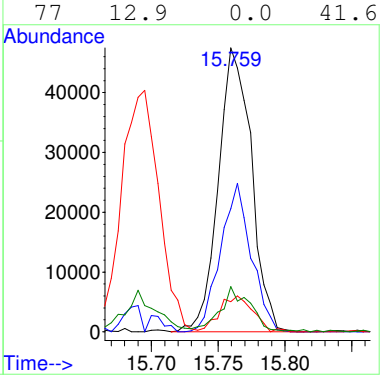


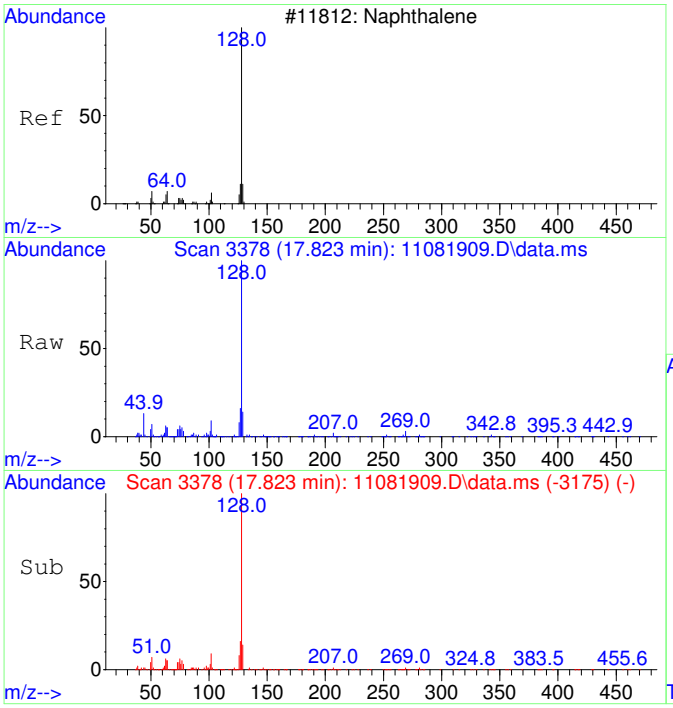


#47
1,2,4-Trimethylbenzene SCAN
Concen: 4998.02 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.005 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:105 Resp: 81796

Ion	Ratio	Lower	Upper
105	100		
120	48.6	15.6	75.6
119	12.1	0.0	41.8
77	12.9	0.0	41.6

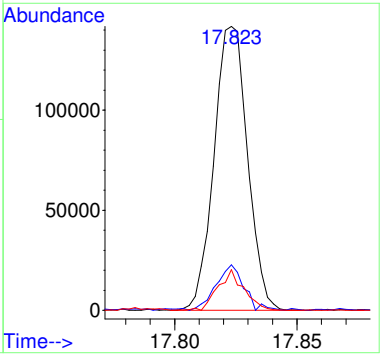




#48
Naphthalene SCAN
Concen: 5082.16 ug/L
RT: 17.823 min Scan# 3378
Delta R.T. 0.000 min
Lab File: 11081909.D
Acq: 8 Nov 2019 13:29

Tgt Ion:128 Resp: 135268

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	40.7
129	11.1	0.0	40.9



S19K006-SCV1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081910.D
Acq On : 8 Nov 2019 13:52
InstName : AG5975C
Operator : TD
Sample : S19K006-SCV1
Misc : 1930062 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 11 06:14:50 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

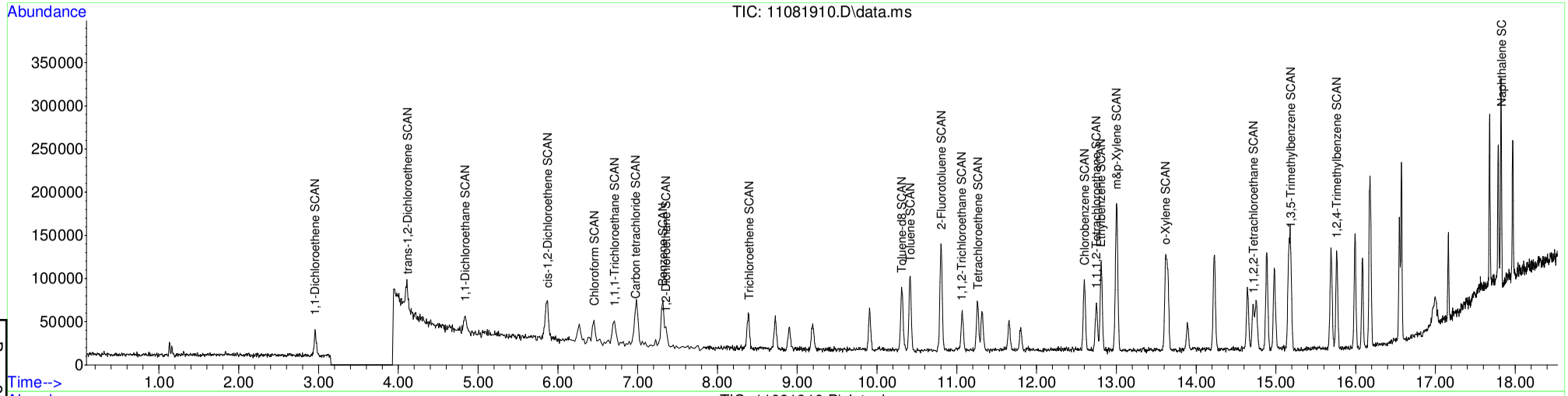
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.802	109	109961	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	85011	4784.09 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 95.68%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	26278	5177.16 ug/L	99
3] trans-1,2-Dichloroethene	4.102	61	25988	4982.18 ug/L	100
4] 1,1-Dichloroethane	4.838	63	31840	4893.65 ug/L	100
5] cis-1,2-Dichloroethene	5.867	61	30465	4998.18 ug/L	100
6] Chloroform	6.435	83	34481	4931.20 ug/L	100
7] 1,1,1-Trichloroethane	6.693	97	34271	4996.13 ug/L	100
8] Carbon tetrachloride	6.969	117	31632	4955.93 ug/L	100
9] Benzene	7.300	78	84527	4879.45 ug/L	100
10] 1,2-Dichloroethane	7.337	62	25967	4672.84 ug/L	97
11] Trichloroethene	8.386	130	26214	4989.86 ug/L	100
13] Toluene	10.411	91	110969	5151.82 ug/L	100
14] 1,1,2-Trichloroethane	11.069	97	24719	4961.28 ug/L	100
15] Tetrachloroethene	11.264	166	32244	5149.35 ug/L	99
16] Chlorobenzene	12.598	112	81623	5104.75 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.751	131	28899	5022.22 ug/L	99
18] Ethylbenzene	12.811	91	133837	5114.05 ug/L	100
19] m&p-Xylene	13.001	91	204321	10311.30 ug/L	100
20] o-Xylene	13.615	91	107806	5097.78 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.713	83	47034	5013.28 ug/L	100
22] 1,3,5-Trimethylbenzene	15.184	105	113896	5035.64 ug/L	100
23] 1,2,4-Trimethylbenzene	15.760	105	112927	4902.66 ug/L	100
24] Naphthalene	17.824	128	186566	4697.67 ug/L	100
25) 2-Fluorotoluene SCAN	10.801	109	70998	5182.96 ug/L	94
26) 1,1-Dichloroethene SCAN	2.957	61	18016	3939.41 ug/L	92
27) trans-1,2-Dichloroethe...	4.114	61	18437	4190.57 ug/L	94
28) 1,1-Dichloroethane SCAN	4.837	63	22795	3955.38 ug/L	97
29) cis-1,2-Dichloroethene...	5.872	61	22185	4458.75 ug/L	94
30) Chloroform SCAN	6.452	83	24684	4453.45 ug/L	90
31) 1,1,1-Trichloroethane ...	6.710	97	24931	5152.97 ug/L	96
32) Carbon tetrachloride SCAN	6.968	117	20529	4527.07 ug/L	94
33) Benzene SCAN	7.317	78	57814	4754.55 ug/L	99
34) 1,2-Dichloroethane SCAN	7.354	62	19993	4407.31 ug/L	78
35) Trichloroethene SCAN	8.393	130	15948	4473.81 ug/L	94
36) Toluene-d8 SCAN	10.309	98	55383	4971.37 ug/L	91
37) Toluene SCAN	10.416	91	74155	5398.69 ug/L	98
38) 1,1,2-Trichloroethane ...	11.062	97	17471	5577.11 ug/L	92
39) Tetrachloroethene SCAN	11.263	166	19994	5482.80 ug/L	95
40) Chlorobenzene SCAN	12.597	112	50606	5433.55 ug/L	99
41) 1,1,1,2-Tetrachloroeth...	12.750	131	17879	5343.65 ug/L	98
42) Ethylbenzene SCAN	12.810	91	84915	5431.97 ug/L	95
43) m&p-Xylene SCAN	13.004	91	124691	5559.76 ug/L	99
44) o-Xylene SCAN	13.614	91	71494	5994.48 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.722	83	31080	5366.88 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.183	105	71455	5888.11 ug/L	97
47) 1,2,4-Trimethylbenzene...	15.764	105	68250	5713.60 ug/L	98
48) Naphthalene SCAN	17.823	128	108682	5501.76 ug/L	99

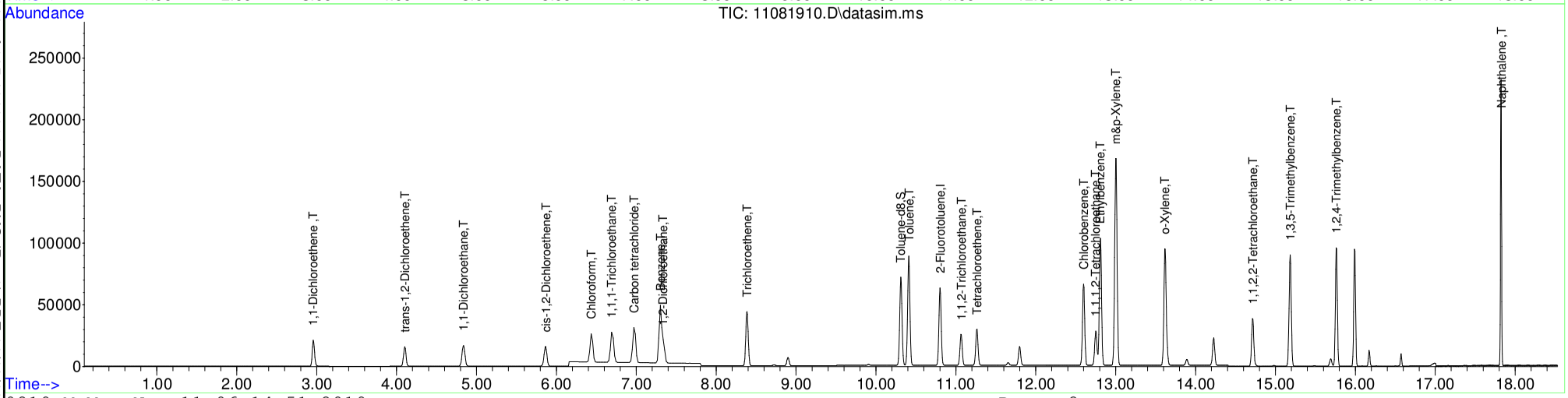
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081910.D
Acq On : 8 Nov 2019 13:52
InstName : AG5975C
Operator : TD
Sample : S19K006-SCV1
Misc : 1930062 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 11 06:14:50 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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B19K004-BLK1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081911.D
Acq On : 8 Nov 2019 14:16
InstName : AG5975C
Operator : TD
Sample : B19K004-BLK1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 11 06:16:17 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

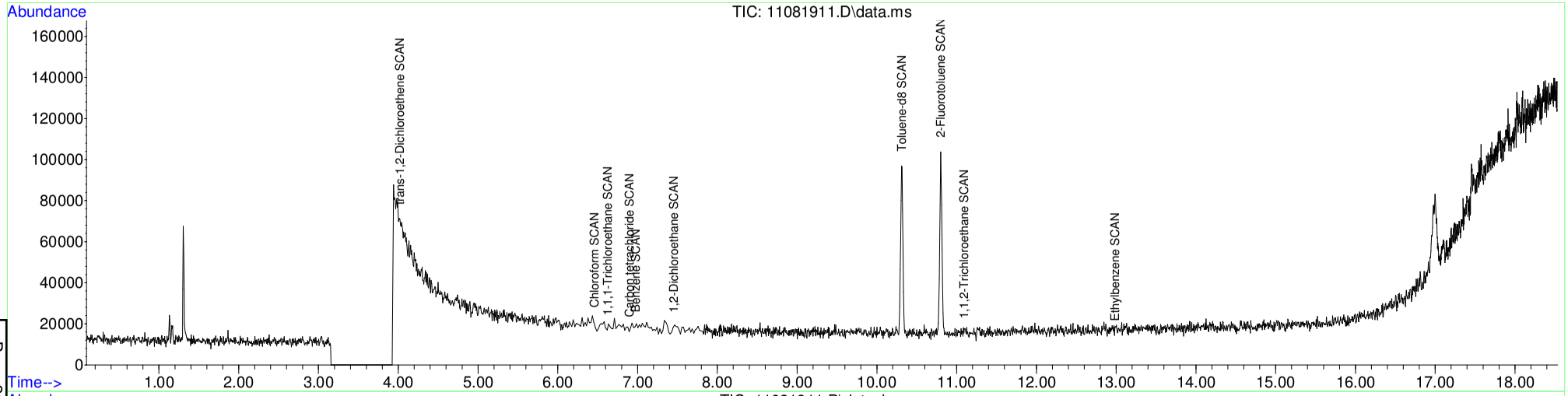
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	115401	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	95572	5124.89	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 102.50%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	10.801	109	71440	4969.38	ug/L	93
27) trans-1,2-Dichloroethe...	4.021	61	138	29.89	ug/L #	1
30) Chloroform SCAN	6.452	83	264	45.39	ug/L #	25
31) 1,1,1-Trichloroethane ...	6.618	97	343	67.55	ug/L #	21
32) Carbon tetrachloride SCAN	6.894	117	366	76.91	ug/L #	19
33) Benzene SCAN	6.968	78	1466	114.88	ug/L	92
34) 1,2-Dichloroethane SCAN	7.447	62	144	30.25	ug/L #	1
36) Toluene-d8 SCAN	10.310	98	62440	5340.62	ug/L	91
38) 1,1,2-Trichloroethane ...	11.092	97	70	21.29	ug/L #	34
42) Ethylbenzene SCAN	12.981	91	347	21.15	ug/L	82

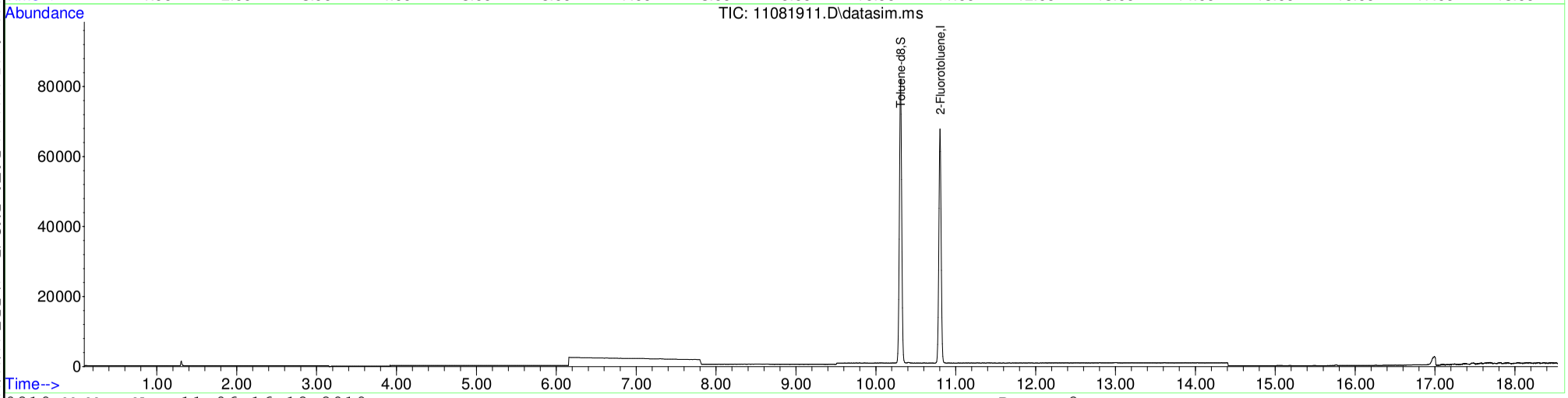
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081911.D
Acq On : 8 Nov 2019 14:16
InstName : AG5975C
Operator : TD
Sample : B19K004-BLK1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 11 06:16:17 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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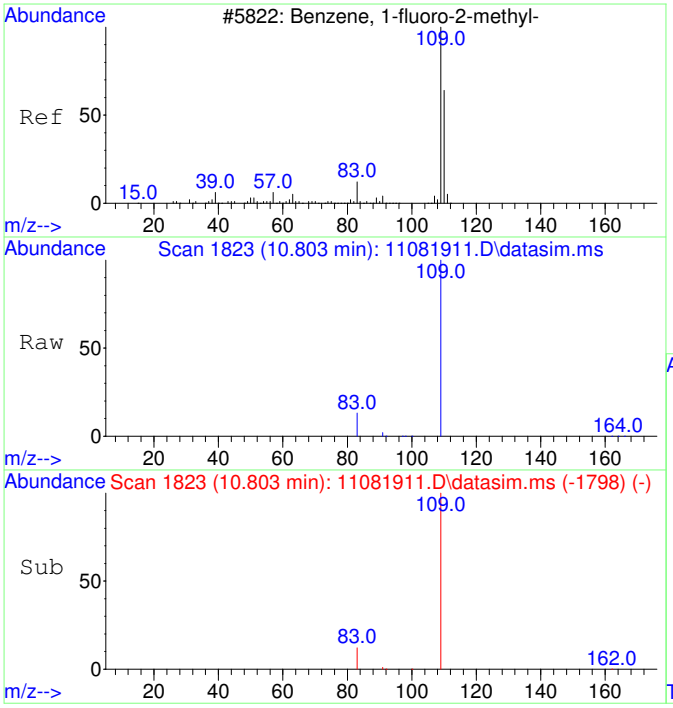
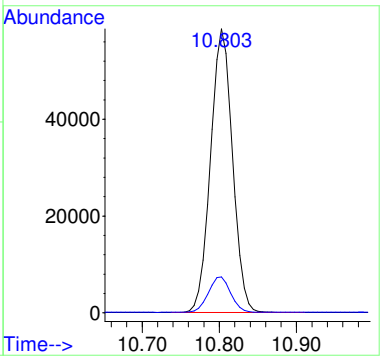
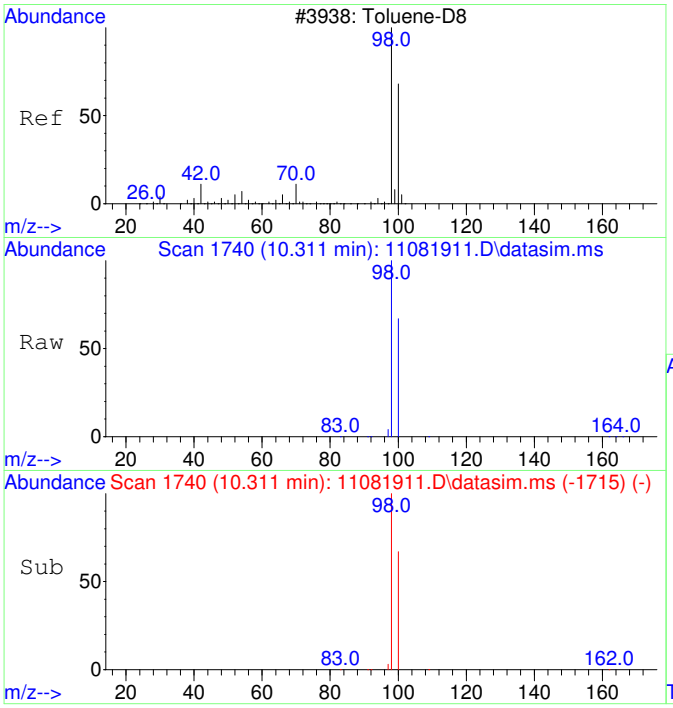


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion:109 Resp: 115401

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

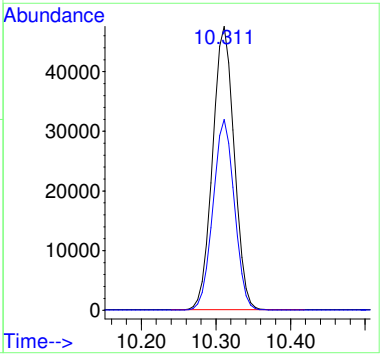


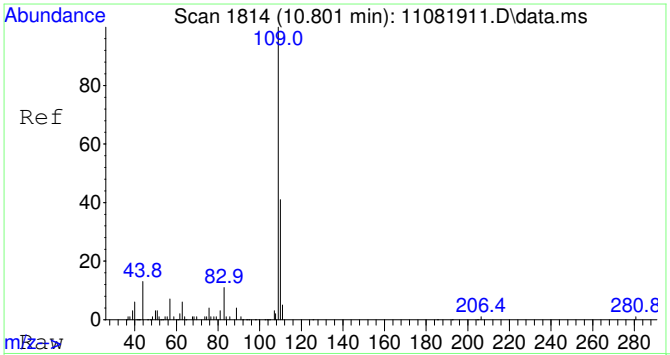


#12
Toluene-d8
Concen: 5124.89 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 98 Resp: 95572

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

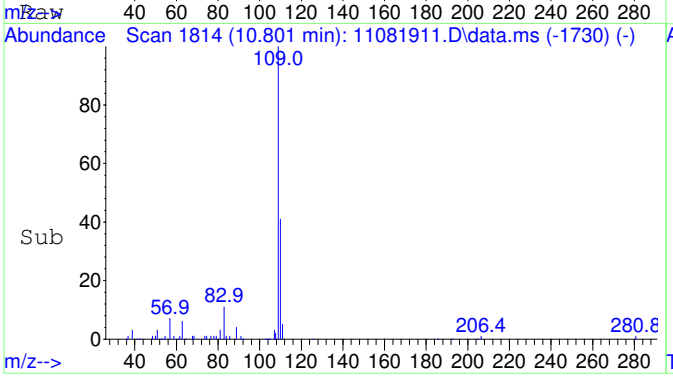


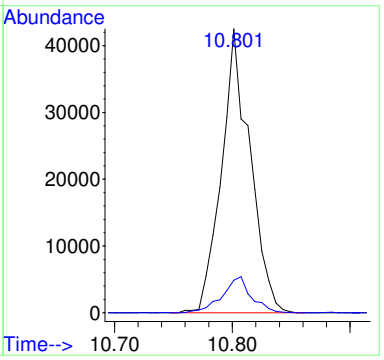


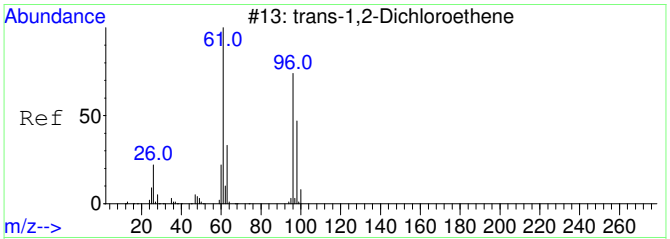
#25
2-Fluorotoluene SCAN
Concen: 4969.38 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion:109 Resp: 71440

Ion	Ratio	Lower	Upper
109	100		
83	12.9	0.0	45.8



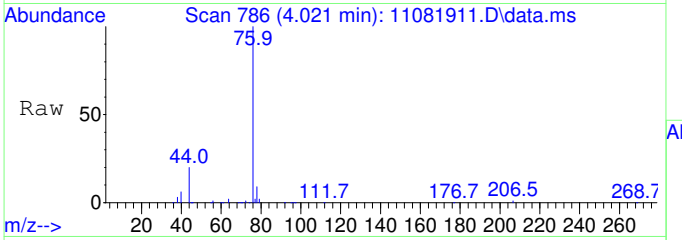


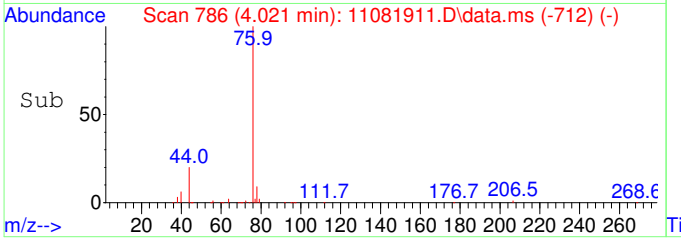


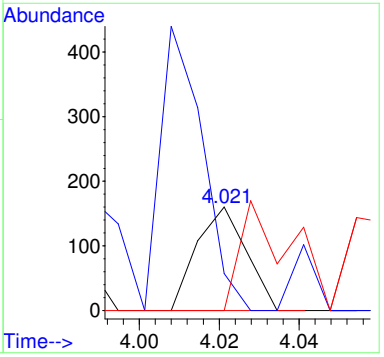
#27
trans-1,2-Dichloroethene SCAN
Concen: 29.89 ug/L
RT: 4.021 min Scan# 786
Delta R.T. -0.100 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

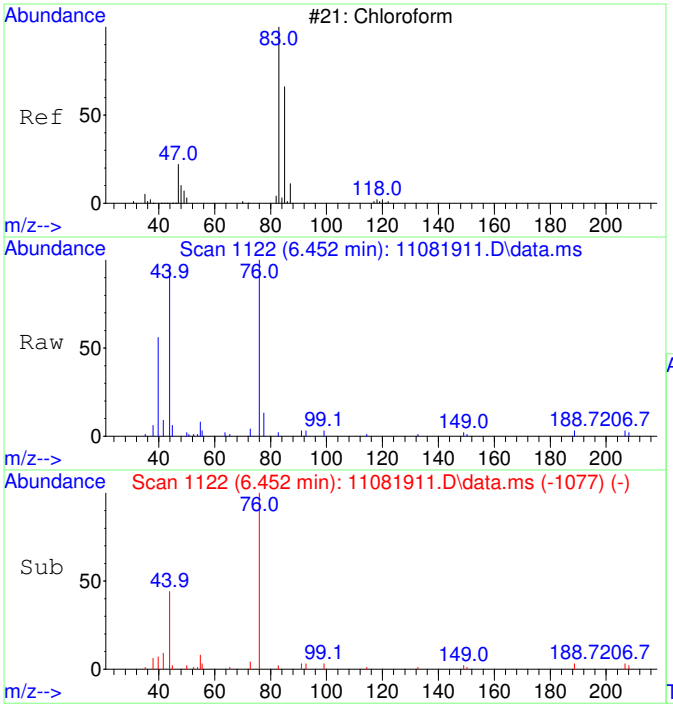
Tgt Ion: 61 Resp: 138

Ion	Ratio	Lower	Upper
61	100		
96	323.2	46.5	106.5#
98	107.2	22.8	82.8#





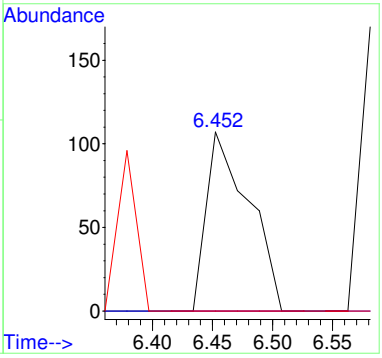


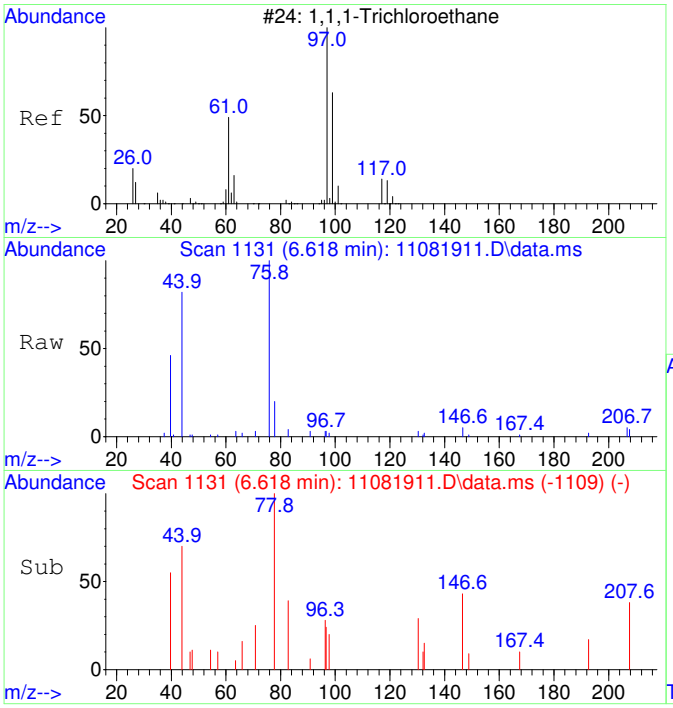


#30
Chloroform SCAN
Concen: 45.39 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 83 Resp: 264

Ion	Ratio	Lower	Upper
83	100		
85	0.0	38.3	98.3#
47	0.0	0.0	50.2

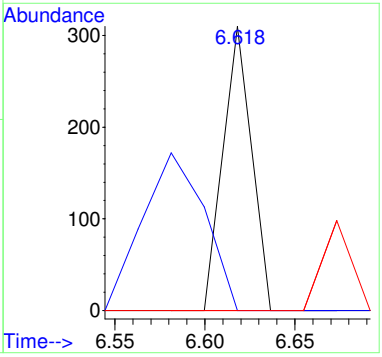


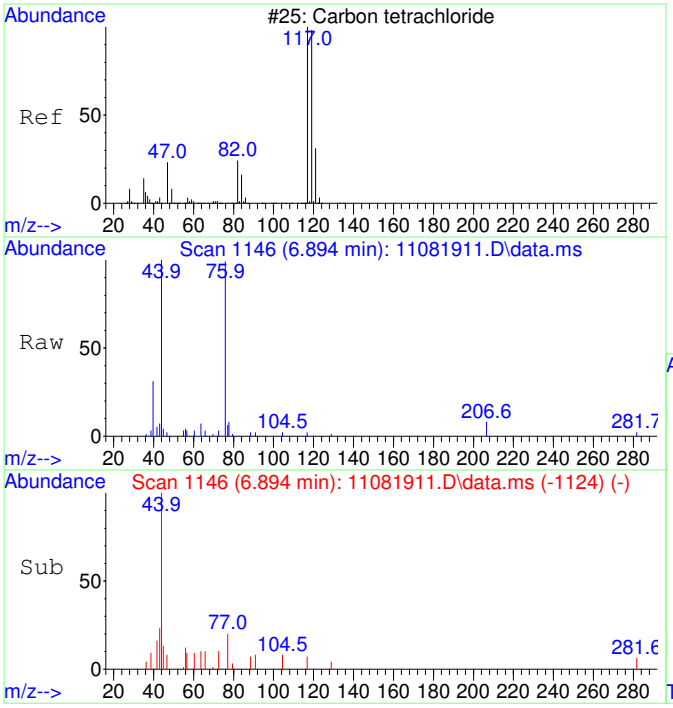


#31
1,1,1-Trichloroethane SCAN
Concen: 67.55 ug/L
RT: 6.618 min Scan# 1131
Delta R.T. -0.092 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 97 Resp: 343

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

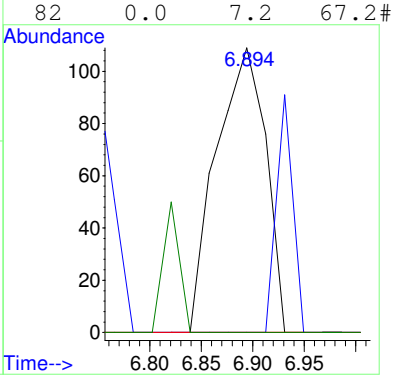


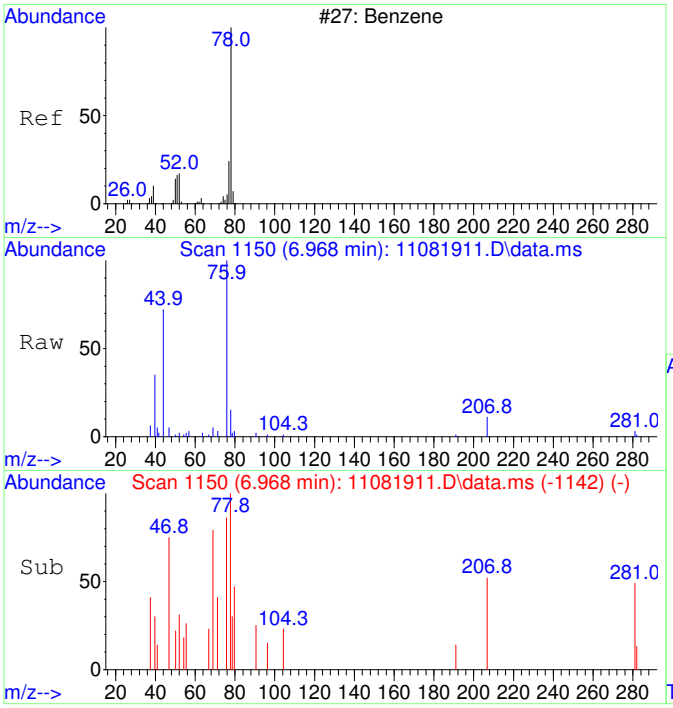


#32
Carbon tetrachloride SCAN
Concen: 76.91 ug/L
RT: 6.894 min Scan# 1146
Delta R.T. -0.092 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion:117 Resp: 366

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

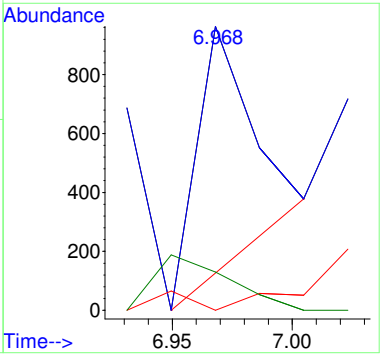


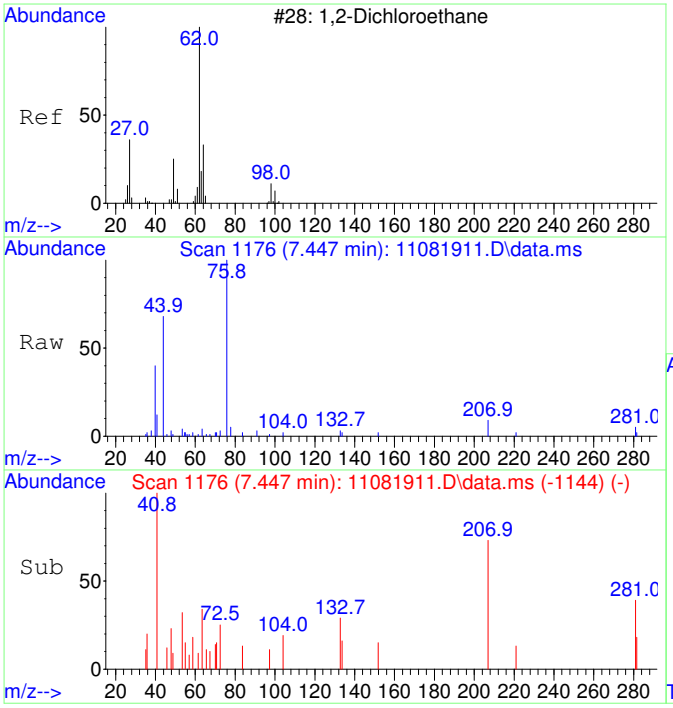


#33
Benzene SCAN
Concen: 114.88 ug/L
RT: 6.968 min Scan# 1150
Delta R.T. -0.350 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 78 Resp: 1466

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	5.0	0.0	49.8
52	28.0	0.0	46.0

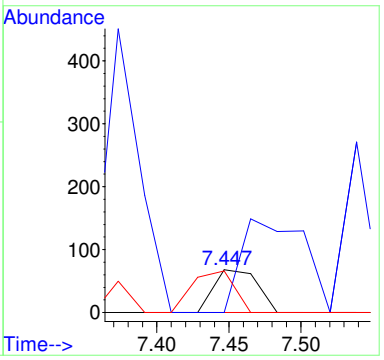


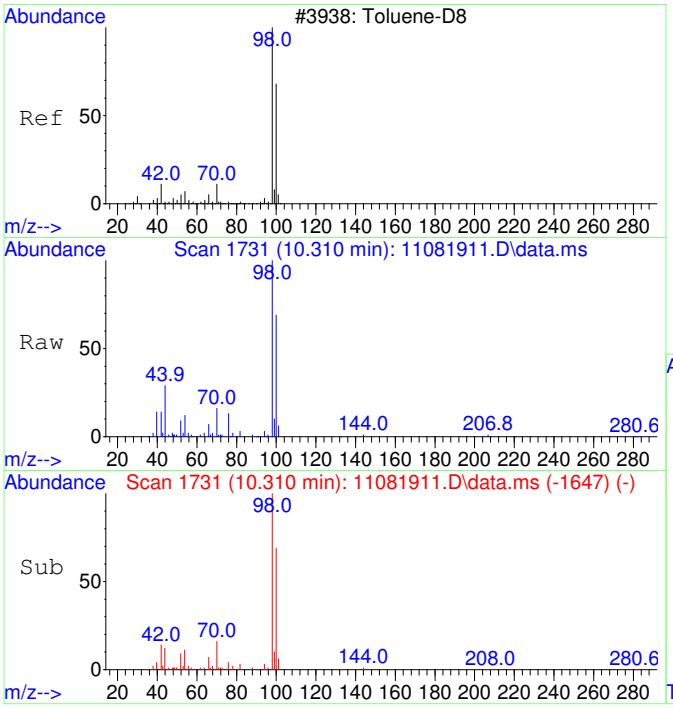


#34
1,2-Dichloroethane SCAN
Concen: 30.25 ug/L
RT: 7.447 min Scan# 1176
Delta R.T. 0.092 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 62 Resp: 144

Ion	Ratio	Lower	Upper
62	100		
64	313.2	0.0	59.2#
49	93.8	10.5	70.5#

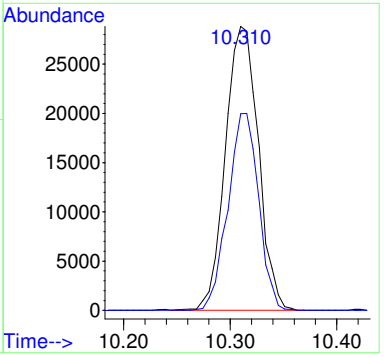


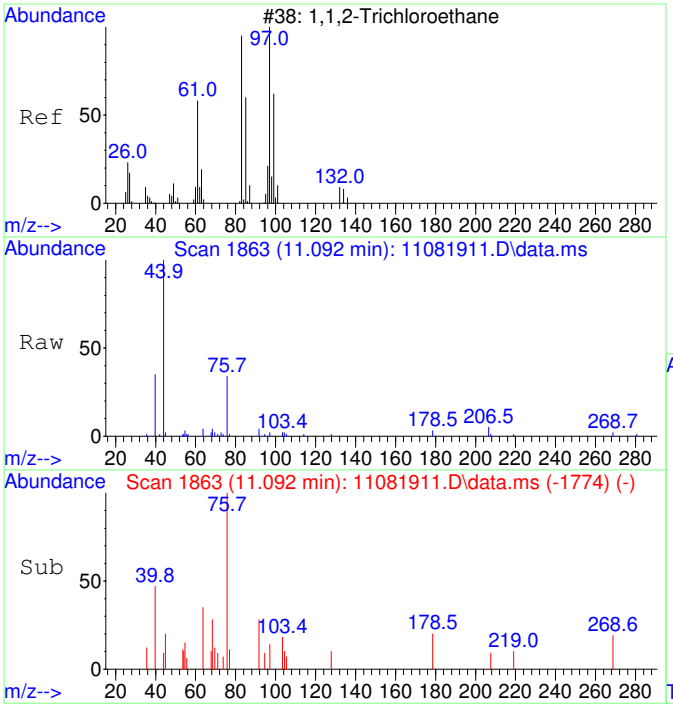


#36
Toluene-d8 SCAN
Concen: 5340.62 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 98 Resp: 62440

Ion	Ratio	Lower	Upper
98	100		
100	64.4	42.1	102.1

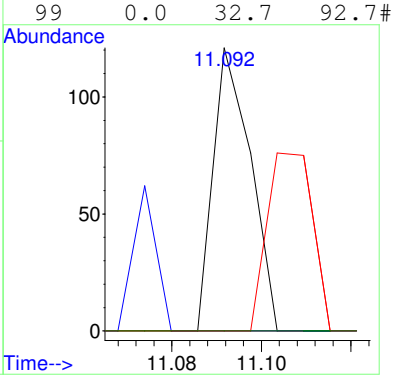


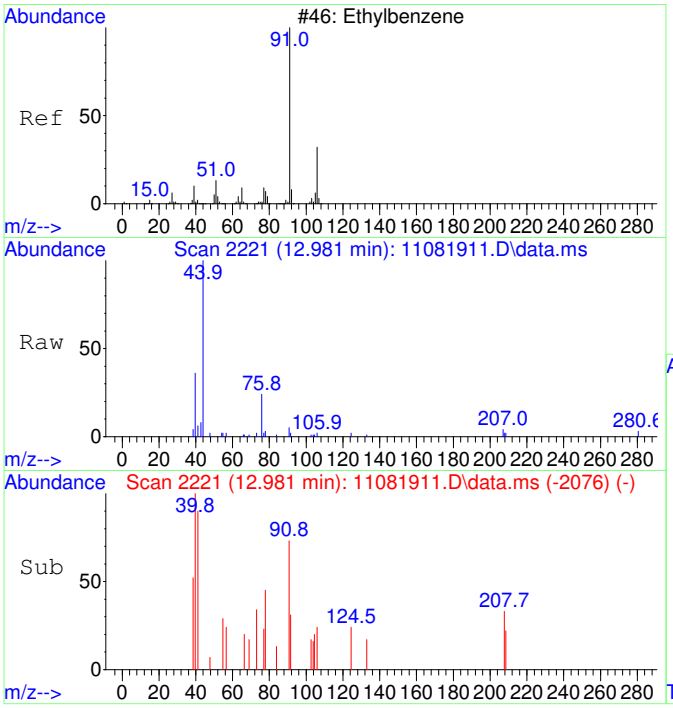


#38
1,1,2-Trichloroethane SCAN
Concen: 21.29 ug/L
RT: 11.092 min Scan# 1863
Delta R.T. 0.030 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 97 Resp: 70

Ion	Ratio	Lower	Upper
97	100		
83	0.0	58.1	118.1#
61	77.1	36.0	96.0
99	0.0	32.7	92.7#

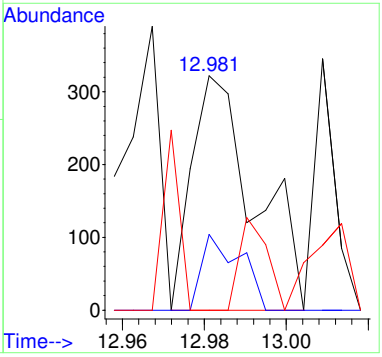




#42
Ethylbenzene SCAN
Concen: 21.15 ug/L
RT: 12.981 min Scan# 2221
Delta R.T. 0.171 min
Lab File: 11081911.D
Acq: 8 Nov 2019 14:16

Tgt Ion: 91 Resp: 347

Ion	Ratio	Lower	Upper
91	100		
106	19.9	0.1	60.1
51	17.3	0.0	40.9



B19K004-BS1

Blanks Spike or Blank Spike Duplicate

Instrument Name: AG5975C
Sample Name: B19K004-BS1
Misc Info: 0
Date Acquired: 11/8/2019
QLast Update: Mon Nov 11 06:00:05 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.803	5000	5000.00	100%	70	130	pass
2)	**1,1-Dichloroethene**	**2.958**	**5000**	**2337.64**	**47%**	**49**	**125**	**FAIL**
3)	**trans-1,2-Dichloroethene**	**4.122**	**5000**	**3123.99**	**62%**	**47**	**131**	**pass**
4)	**1,1-Dichloroethane**	**4.852**	**5000**	**3503.04**	**70%**	**53**	**126**	**pass**
5)	**cis-1,2-Dichloroethene**	**5.874**	**5000**	**3908.76**	**78%**	**58**	**127**	**pass**
6)	**Chloroform**	**6.454**	**5000**	**4253.10**	**85%**	**61**	**128**	**pass**
7)	**1,1,1-Trichloroethane**	**6.711**	**5000**	**4167.66**	**83%**	**60**	**120**	pass
9)	Benzene	7.301	5000	4134.72	83%	69	111	pass
11)	**Trichloroethene**	**8.391**	**5000**	**4351.19**	**87%**	**65**	**116**	**pass**
13)	Toluene	10.412	5000	4430.98	89%	64	124	pass
15)	**Tetrachloroethene**	**11.265**	**5000**	**4380.65**	**88%**	**58**	**118**	**pass**
17)	1,1,1,2-Tetrachloroethane	12.751	5000	4475.71	90%	69	129	**pass**
19)	m&p-Xylene	13.001	10000	8710.65	87%	66	126	pass
21)	1,1,2,2-Tetrachloroethane	14.714	5000	4384.54	88%	62	122	pass
23)	1,2,4-Trimethylbenzene	15.761	5000	4313.25	86%	63	123	pass
25)	2-Fluorotoluene SCAN	10.801	5000	5160.66	103%	64	124	pass
27)	trans-1,2-Dichloroethene SCAN	4.121	5000	2567.12	51%	83	110	FAIL
29)	cis-1,2-Dichloroethene SCAN	5.872	5000	3473.78	69%	58	118	pass
31)	1,1,1-Trichloroethane SCAN	6.710	5000	4048.74	81%	59	119	pass
33)	Benzene SCAN	7.318	5000	4087.59	82%	69	129	pass
35)	Trichloroethene SCAN	8.385	5000	3966.93	79%	69	129	pass
37)	Toluene SCAN	10.416	5000	4549.30	91%	66	126	pass
39)	Tetrachloroethene SCAN	11.264	5000	4498.96	90%	59	119	pass
41)	1,1,1,2-Tetrachloroethane SCAN	12.755	5000	5133.72	103%	62	122	pass
43)	m&p-Xylene SCAN	13.004	5000	4853.04	97%	68	128	pass
45)	1,1,2,2-Tetrachloroethane SCAN	14.717	5000	4911.33	98%	63	123	pass
47)	1,2,4-Trimethylbenzene SCAN	15.759	5000	5082.83	102%	20	110	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081912.D
Acq On : 8 Nov 2019 14:40
InstName : AG5975C
Operator : TD
Sample : B19K004-BS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 11 06:16:29 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

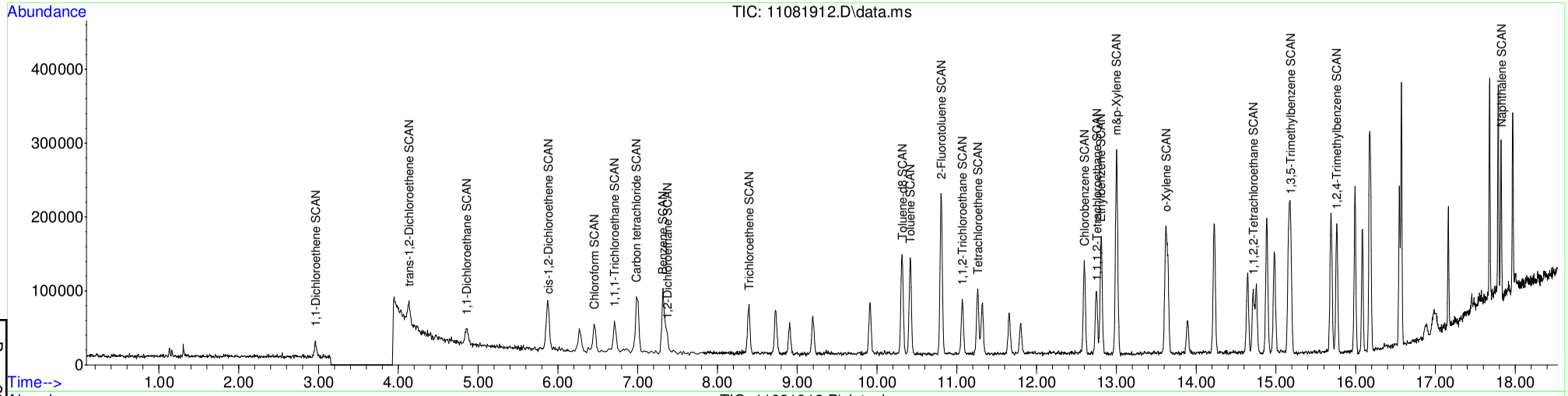
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	196266	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	160310	5054.51 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.09%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	21178	2337.64 ug/L	99
3] trans-1,2-Dichloroethene	4.129	61	29085	3123.99 ug/L	100
4] 1,1-Dichloroethane	4.852	63	40681	3503.04 ug/L	100
5] cis-1,2-Dichloroethene	5.874	61	42524	3908.76 ug/L	100
6] Chloroform	6.453	83	53081	4253.10 ug/L	100
7] 1,1,1-Trichloroethane	6.711	97	51026	4167.66 ug/L	100
8] Carbon tetrachloride	6.987	117	46721	4101.13 ug/L	99
9] Benzene	7.319	78	127843	4134.72 ug/L	100
10] 1,2-Dichloroethane	7.356	62	41977	4232.18 ug/L	98
11] Trichloroethene	8.391	130	40800	4351.19 ug/L	100
13] Toluene	10.412	91	170352	4430.98 ug/L	100
14] 1,1,2-Trichloroethane	11.069	97	40490	4553.07 ug/L	100
15] Tetrachloroethene	11.265	166	48960	4380.65 ug/L	100
16] Chlorobenzene	12.599	112	125158	4385.45 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.751	131	45968	4475.71 ug/L	99
18] Ethylbenzene	12.811	91	205561	4400.71 ug/L	100
19] m&p-Xylene	13.001	91	308075	8710.65 ug/L	100
20] o-Xylene	13.616	91	161707	4284.11 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.713	83	73421	4384.54 ug/L	100
22] 1,3,5-Trimethylbenzene	15.185	105	178393	4418.93 ug/L	100
23] 1,2,4-Trimethylbenzene	15.760	105	177328	4313.25 ug/L	100
24] Naphthalene	17.824	128	165762	2338.45 ug/L	100
25) 2-Fluorotoluene SCAN	10.801	109	126177	5160.66 ug/L	98
26) 1,1-Dichloroethene SCAN	2.962	61	14071	1723.82 ug/L	95
27) trans-1,2-Dichloroethe...	4.134	61	20159	2567.12 ug/L	97
28) 1,1-Dichloroethane SCAN	4.857	63	28481	2768.84 ug/L	91
29) cis-1,2-Dichloroethene...	5.886	61	30850	3473.78 ug/L	91
30) Chloroform SCAN	6.452	83	37536	3794.22 ug/L	90
31) 1,1,1-Trichloroethane ...	6.710	97	34963	4048.74 ug/L	89
32) Carbon tetrachloride SCAN	6.986	117	31568	3900.23 ug/L	93
33) Benzene SCAN	7.318	78	88715	4087.59 ug/L	99
34) 1,2-Dichloroethane SCAN	7.373	62	32319	3991.60 ug/L	80
35) Trichloroethene SCAN	8.398	130	25240	3966.93 ug/L	96
36) Toluene-d8 SCAN	10.315	98	106003	5331.04 ug/L	90
37) Toluene SCAN	10.416	91	111533	4549.30 ug/L	94
38) 1,1,2-Trichloroethane ...	11.068	97	27245	4872.72 ug/L	96
39) Tetrachloroethene SCAN	11.263	166	29283	4498.96 ug/L	97
40) Chlorobenzene SCAN	12.597	112	75727	4555.40 ug/L	97
41) 1,1,1,2-Tetrachloroeth...	12.754	131	30658	5133.72 ug/L	94
42) Ethylbenzene SCAN	12.810	91	131698	4720.04 ug/L	95
43) m&p-Xylene SCAN	13.004	91	194267	4853.04 ug/L	99
44) o-Xylene SCAN	13.619	91	106169	4987.39 ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.717	83	50765	4911.33 ug/L	95
46) 1,3,5-Trimethylbenzene...	15.183	105	107918	4982.31 ug/L	99
47) 1,2,4-Trimethylbenzene...	15.764	105	108369	5082.83 ug/L	99
48) Naphthalene SCAN	17.823	128	97940	2777.78 ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081912.D
Acq On : 8 Nov 2019 14:40
InstName : AG5975C
Operator : TD
Sample : B19K004-BS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 11 06:16:29 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration



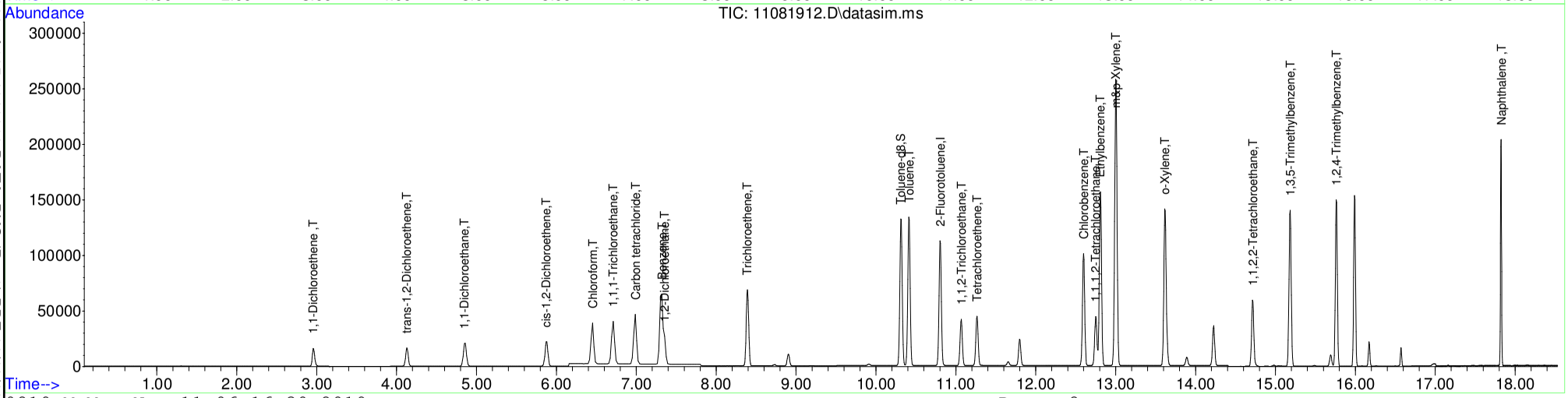


Table of Contents

B19K004-BSD1

Blanks Spike or Blank Spike Duplicate

Instrument Name: AG5975C
Sample Name: B19K004-BSD1
Misc Info: 0
Date Acquired: 11/8/2019
QLast Update: Mon Nov 11 06:00:05 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.803	5000	5000.00	100%	70	130	pass
2)	**1,1-Dichloroethene**	**2.958**	**5000**	**1907.41**	**38%**	**49**	**125**	**FAIL**
3)	**trans-1,2-Dichloroethene**	**4.109**	**5000**	**2844.81**	**57%**	**47**	**131**	**pass**
4)	**1,1-Dichloroethane**	**4.839**	**5000**	**3033.70**	**61%**	**53**	**126**	**pass**
5)	**cis-1,2-Dichloroethene**	**5.867**	**5000**	**3234.66**	**65%**	**58**	**127**	**pass**
6)	**Chloroform**	**6.435**	**5000**	**3403.57**	**68%**	**61**	**128**	**pass**
7)	**1,1,1-Trichloroethane**	**6.693**	**5000**	**3823.62**	**76%**	**60**	**120**	pass
9)	Benzene	7.301	5000	3838.71	77%	69	111	pass
11)	**Trichloroethene**	**8.387**	**5000**	**4217.59**	**84%**	**65**	**116**	**pass**
13)	Toluene	10.412	5000	4871.20	97%	64	124	pass
15)	**Tetrachloroethene**	**11.265**	**5000**	**5154.22**	**103%**	**58**	**118**	**pass**
17)	1,1,1,2-Tetrachloroethane	12.751	5000	5289.16	106%	69	129	**pass**
19)	m&p-Xylene	13.001	10000	10924.48	109%	66	126	pass
21)	1,1,2,2-Tetrachloroethane	14.714	5000	5178.24	104%	62	122	pass
23)	1,2,4-Trimethylbenzene	15.761	5000	5696.45	114%	63	123	pass
25)	2-Fluorotoluene SCAN	10.801	5000	5130.51	103%	64	124	pass
27)	trans-1,2-Dichloroethene SCAN	4.114	5000	2396.88	48%	83	110	FAIL
29)	cis-1,2-Dichloroethene SCAN	5.866	5000	2995.32	60%	58	118	pass
31)	1,1,1-Trichloroethane SCAN	6.710	5000	3165.14	63%	59	119	pass
33)	Benzene SCAN	7.318	5000	3764.62	75%	69	129	pass
35)	Trichloroethene SCAN	8.390	5000	4091.37	82%	69	129	pass
37)	Toluene SCAN	10.410	5000	5160.49	103%	66	126	pass
39)	Tetrachloroethene SCAN	11.258	5000	5123.19	102%	59	119	pass
41)	1,1,1,2-Tetrachloroethane SCAN	12.750	5000	5683.11	114%	62	122	pass
43)	m&p-Xylene SCAN	13.004	5000	6241.48	125%	68	128	pass
45)	1,1,2,2-Tetrachloroethane SCAN	14.712	5000	5704.89	114%	63	123	pass
47)	1,2,4-Trimethylbenzene SCAN	15.764	5000	6724.98	134%	20	110	FAIL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081913.D
Acq On : 8 Nov 2019 15:03
InstName : AG5975C
Operator : TD
Sample : B19K004-BSD1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 08 15:22:28 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration

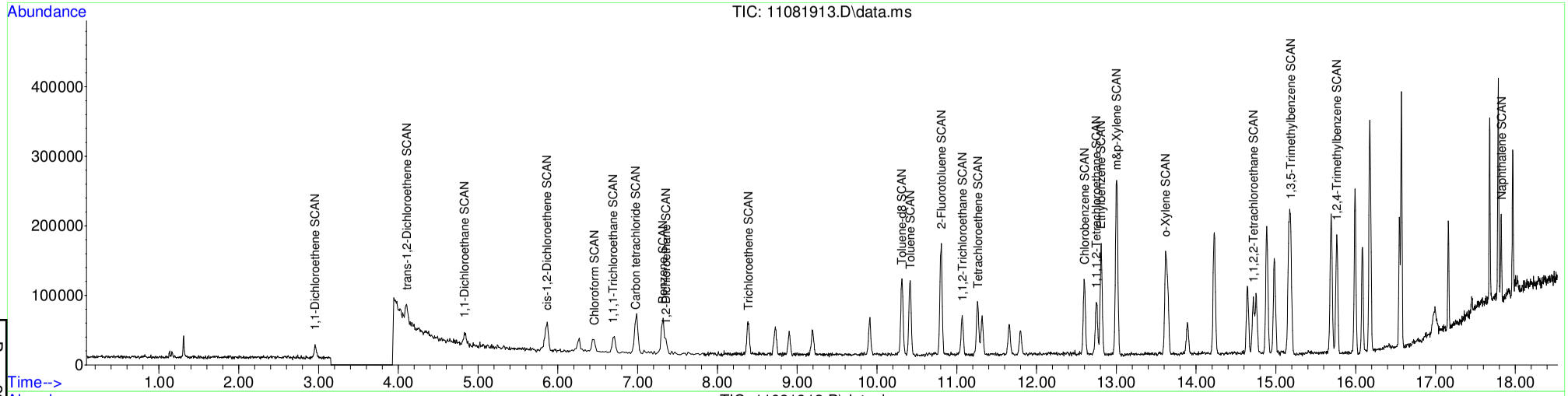
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	148309	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	124879	5210.57 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 104.21%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.959	61	17597	1907.41 ug/L	99
3] trans-1,2-Dichloroethene	4.102	61	20012	2844.81 ug/L	99
4] 1,1-Dichloroethane	4.832	63	26622	3033.70 ug/L	99
5] cis-1,2-Dichloroethene	5.861	61	26591	3234.66 ug/L	98
6] Chloroform	6.435	83	32099	3403.57 ug/L	99
7] 1,1,1-Trichloroethane	6.693	97	35375	3823.62 ug/L	98
8] Carbon tetrachloride	6.969	117	34229	3976.16 ug/L	98
9] Benzene	7.301	78	89689	3838.71 ug/L	99
10] 1,2-Dichloroethane	7.338	62	26804	3576.27 ug/L	100
11] Trichloroethene	8.383	130	29884	4217.59 ug/L	95
13] Toluene	10.412	91	141516	4871.20 ug/L	79
14] 1,1,2-Trichloroethane	11.063	97	30608	4554.77 ug/L	87
15] Tetrachloroethene	11.259	166	43530	5154.22 ug/L	100
16] Chlorobenzene	12.597	112	107919	5004.16 ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.750	131	41049	5289.16 ug/L	100
18] Ethylbenzene	12.810	91	196176	5557.83 ug/L	100
19] m&p-Xylene	13.000	91	291964	10924.48 ug/L	84
20] o-Xylene	13.619	91	150111	5262.86 ug/L	92
21] 1,1,2,2-Tetrachloroethane	14.712	83	65524	5178.24 ug/L	98
22] 1,3,5-Trimethylbenzene	15.183	105	182040	5967.39 ug/L	99
23] 1,2,4-Trimethylbenzene	15.759	105	176970	5696.45 ug/L	98
24] Naphthalene	17.823	128	86913	1622.58 ug/L	94
25) 2-Fluorotoluene SCAN	10.807	109	94789	5130.51 ug/L	96
26) 1,1-Dichloroethene SCAN	2.957	61	12153	1970.28 ug/L	95
27) trans-1,2-Dichloroethe...	4.101	61	14223	2396.88 ug/L	96
28) 1,1-Dichloroethane SCAN	4.831	63	19315	2484.93 ug/L	94
29) cis-1,2-Dichloroethene...	5.859	61	20101	2995.32 ug/L	91
30) Chloroform SCAN	6.452	83	22359	2990.92 ug/L	91
31) 1,1,1-Trichloroethane ...	6.692	97	20654	3165.14 ug/L	86
32) Carbon tetrachloride SCAN	6.968	117	22964	3754.64 ug/L	93
33) Benzene SCAN	7.318	78	61741	3764.62 ug/L	100
34) 1,2-Dichloroethane SCAN	7.355	62	20400	3334.24 ug/L	95
35) Trichloroethene SCAN	8.386	130	19671	4091.37 ug/L	92
36) Toluene-d8 SCAN	10.310	98	81765	5441.75 ug/L	93
37) Toluene SCAN	10.411	91	95603	5160.49 ug/L	92
38) 1,1,2-Trichloroethane ...	11.068	97	21065	4985.68 ug/L	87
39) Tetrachloroethene SCAN	11.264	166	25198	5123.19 ug/L	81
40) Chlorobenzene SCAN	12.596	112	66498	5293.73 ug/L	92
41) 1,1,1,2-Tetrachloroeth...	12.749	131	25646	5683.11 ug/L	92
42) Ethylbenzene SCAN	12.809	91	125934	5972.92 ug/L	98
43) m&p-Xylene SCAN	12.998	91	188797	6241.48 ug/L	94
44) o-Xylene SCAN	13.618	91	93248	5796.86 ug/L	94
45) 1,1,2,2-Tetrachloroeth...	14.716	83	44559	5704.89 ug/L	95
46) 1,3,5-Trimethylbenzene...	15.182	105	114282	6982.20 ug/L	100
47) 1,2,4-Trimethylbenzene...	15.763	105	108346	6724.98 ug/L	99
48) Naphthalene SCAN	17.824	128	52060	1953.98 ug/L	92

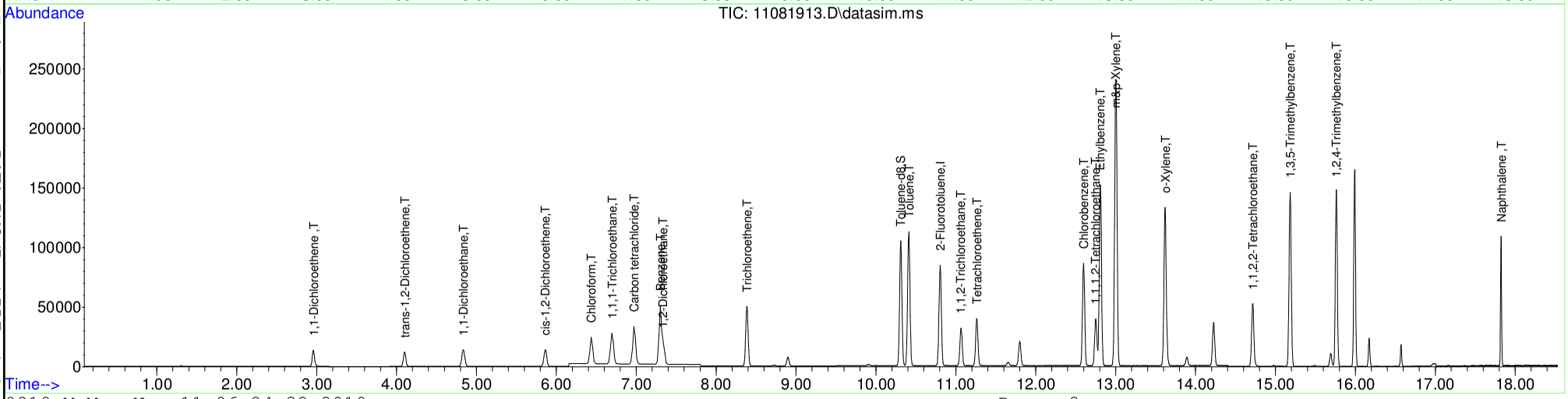
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081913.D
Acq On : 8 Nov 2019 15:03
InstName : AG5975C
Operator : TD
Sample : B19K004-BSD1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 08 15:22:28 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Nov 08 13:48:47 2019
Response via : Initial Calibration





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B19K004-MRL1

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081914.D
Acq On : 8 Nov 2019 15:27
InstName : AG5975C
Operator : TD
Sample : B19K004-MRL1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 11 06:19:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

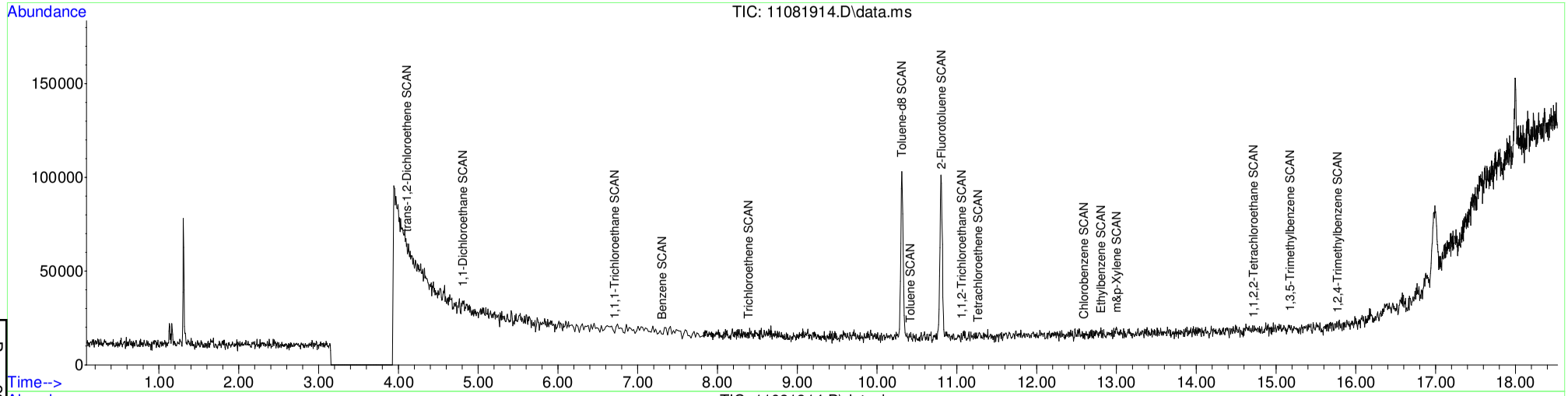
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	119252	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	99389	5157.46 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 103.15%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	605	109.91 ug/L	71
3] trans-1,2-Dichloroethene	4.095	61	191	33.76 ug/L	74
4] 1,1-Dichloroethane	4.832	63	259	36.71 ug/L	93
5] cis-1,2-Dichloroethene	5.860	61	248	37.52 ug/L	79
6] Chloroform	6.435	83	304	40.09 ug/L	98
7] 1,1,1-Trichloroethane	6.693	97	324	43.55 ug/L	92
8] Carbon tetrachloride	6.969	117	324	46.81 ug/L	93
9] Benzene	7.301	78	819	43.59 ug/L	68
10] 1,2-Dichloroethane	7.337	62	222	36.84 ug/L	49
11] Trichloroethene	8.387	130	270	47.39 ug/L #	82
13] Toluene	10.412	91	1352	57.88 ug/L	99
14] 1,1,2-Trichloroethane	11.069	97	282	52.19 ug/L	87
15] Tetrachloroethene	11.265	166	340	50.07 ug/L	93
16] Chlorobenzene	12.599	112	827	47.69 ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.756	131	348	55.77 ug/L	98
18] Ethylbenzene	12.811	91	1568	55.25 ug/L	98
19] m&p-Xylene	13.005	91	2456	114.29 ug/L	100
20] o-Xylene	13.616	91	1170	51.01 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.714	83	474	46.59 ug/L	95
22] 1,3,5-Trimethylbenzene	15.185	105	1428	58.22 ug/L	98
23] 1,2,4-Trimethylbenzene	15.761	105	1439	57.61 ug/L	96
25) 2-Fluorotoluene SCAN	10.807	109	74201	4994.76 ug/L	95
27) trans-1,2-Dichloroethe...	4.101	61	248	51.98 ug/L	83
28) 1,1-Dichloroethane SCAN	4.804	63	236	37.76 ug/L #	73
31) 1,1,1-Trichloroethane ...	6.710	97	464	88.43 ug/L #	52
33) Benzene SCAN	7.299	78	1476	111.93 ug/L #	89
35) Trichloroethene SCAN	8.385	130	116	30.01 ug/L #	52
36) Toluene-d8 SCAN	10.310	98	66583	5511.07 ug/L	91
37) Toluene SCAN	10.410	91	1618	108.62 ug/L #	37
38) 1,1,2-Trichloroethane ...	11.056	97	201	59.16 ug/L #	39
39) Tetrachloroethene SCAN	11.263	166	80	20.23 ug/L #	21
40) Chlorobenzene SCAN	12.583	112	506	50.10 ug/L #	24
42) Ethylbenzene SCAN	12.805	91	1042	61.46 ug/L	91
43) m&p-Xylene SCAN	12.999	91	535	22.00 ug/L #	38
45) 1,1,2,2-Tetrachloroeth...	14.717	83	554	88.21 ug/L #	40
46) 1,3,5-Trimethylbenzene...	15.174	105	790	60.03 ug/L	89
47) 1,2,4-Trimethylbenzene...	15.764	105	1072	82.75 ug/L	78

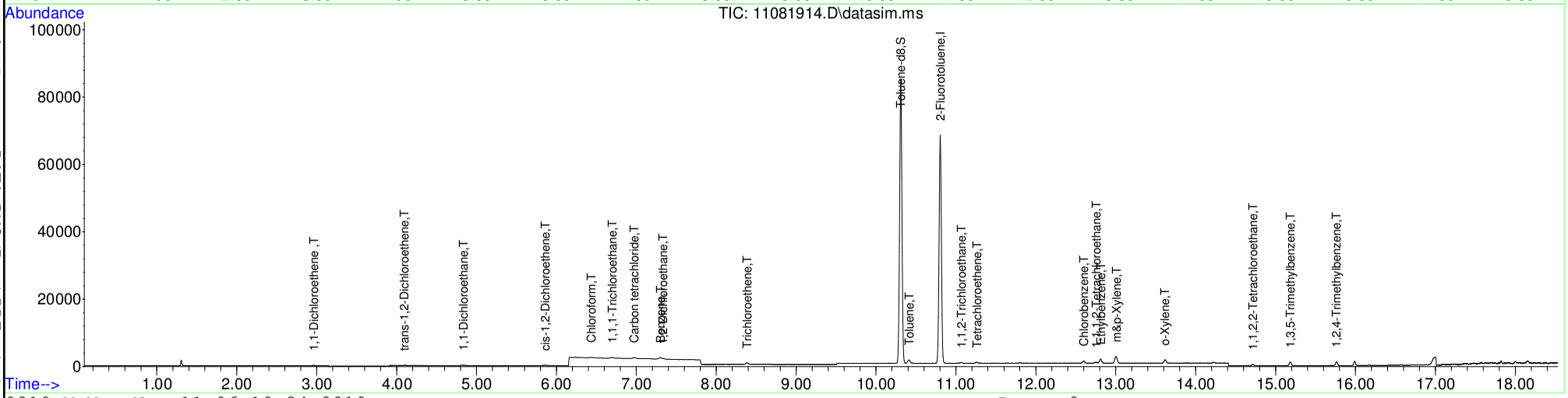
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081914.D
Acq On : 8 Nov 2019 15:27
InstName : AG5975C
Operator : TD
Sample : B19K004-MRL1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 11 06:19:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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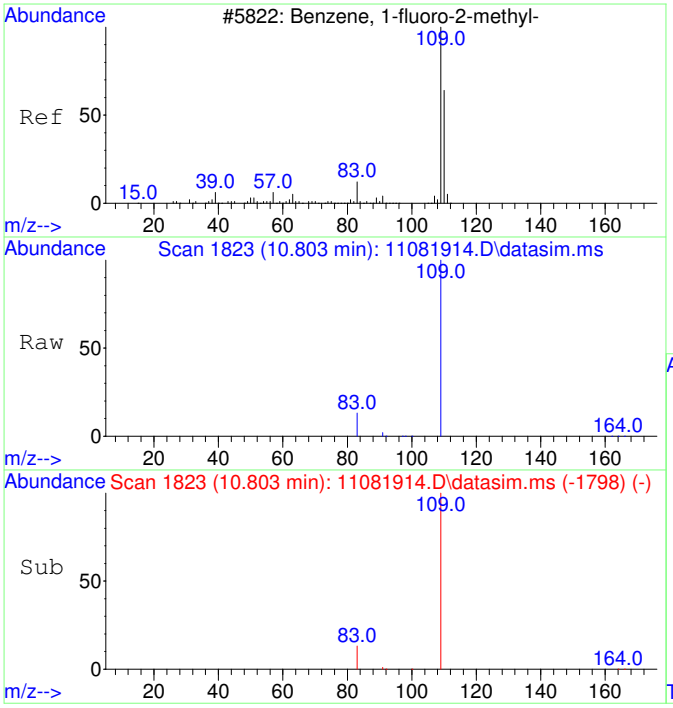
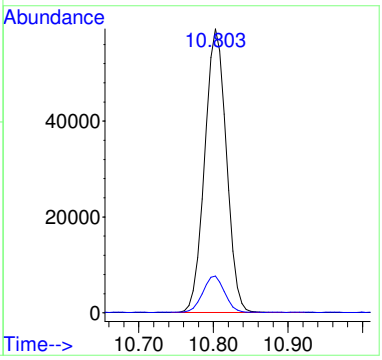
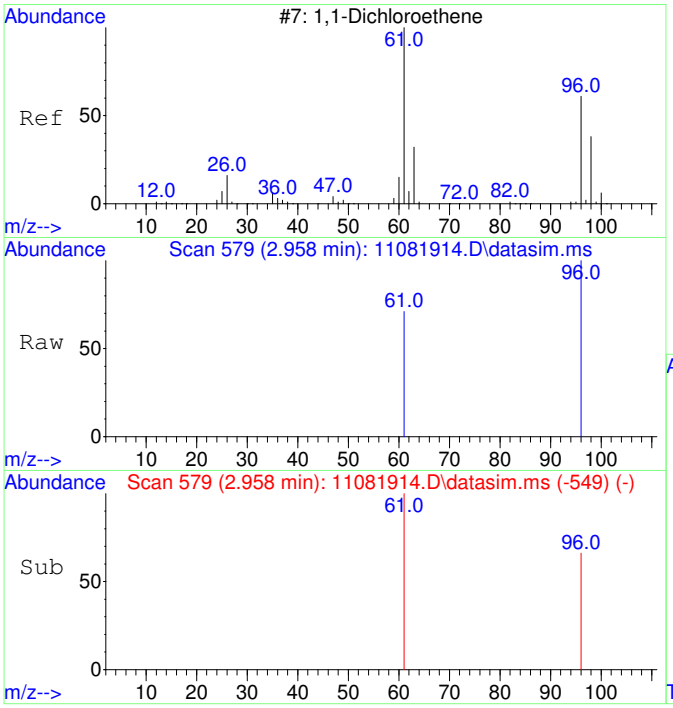


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:109 Resp: 119252

Ion	Ratio	Lower	Upper
109	100		
83	12.8	0.0	43.3

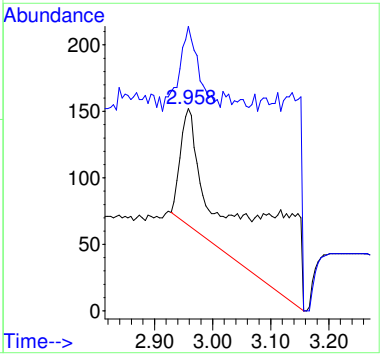




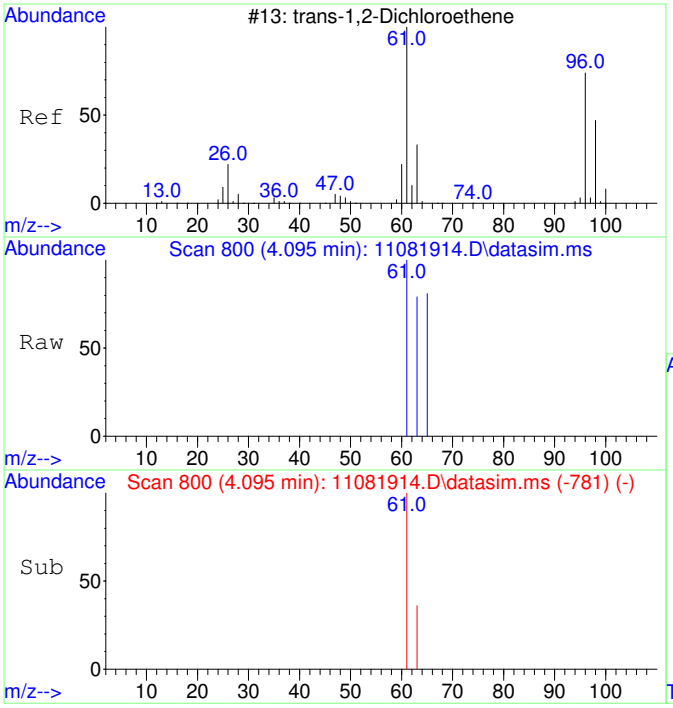
#2
1,1-Dichloroethene
Concen: 109.91 ug/L
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 605

Ion	Ratio	Lower	Upper
61	100		
96	86.3	33.6	93.6



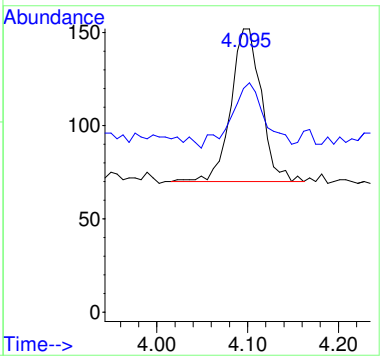
Before MI:
IMPROPER
BASELINE

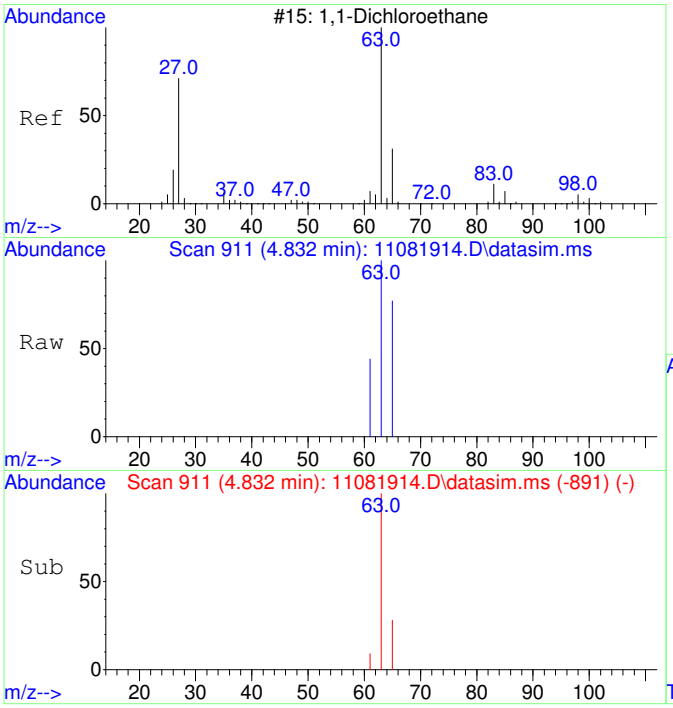


#3
trans-1,2-Dichloroethene
Concen: 33.76 ug/L
RT: 4.095 min Scan# 800
Delta R.T. -0.027 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 191

Ion	Ratio	Lower	Upper
61	100		
63	46.6	2.3	62.3

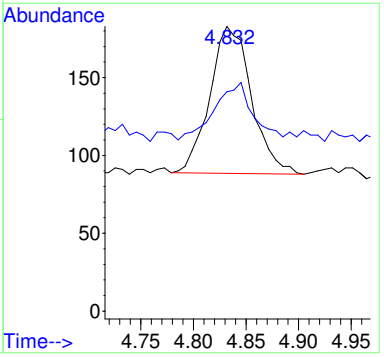


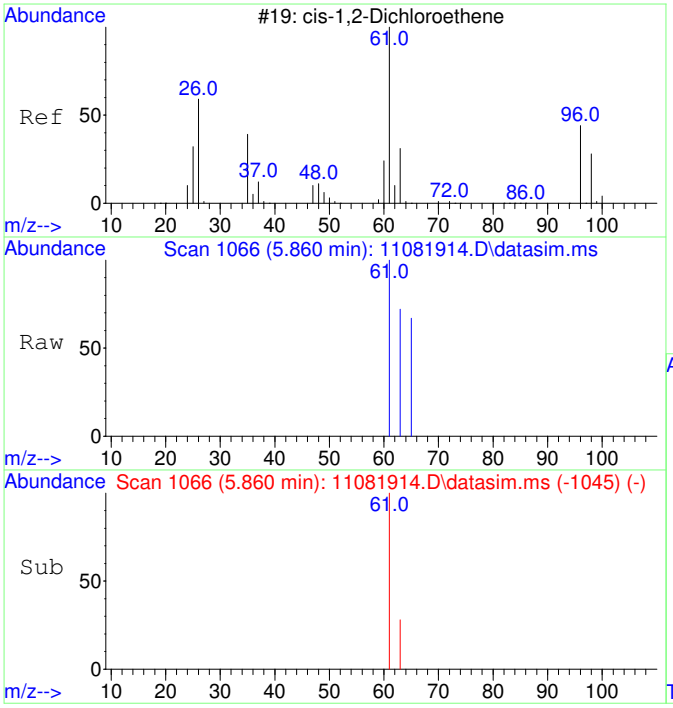


#4
1,1-Dichloroethane
Concen: 36.71 ug/L
RT: 4.832 min Scan# 911
Delta R.T. -0.020 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 63 Resp: 259

Ion	Ratio	Lower	Upper
63	100		
65	35.5	1.9	61.9

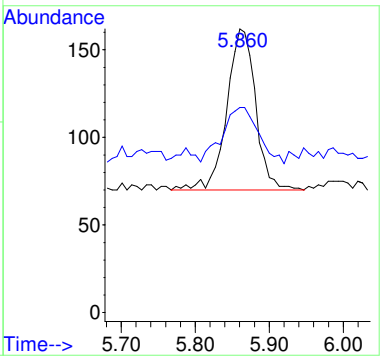


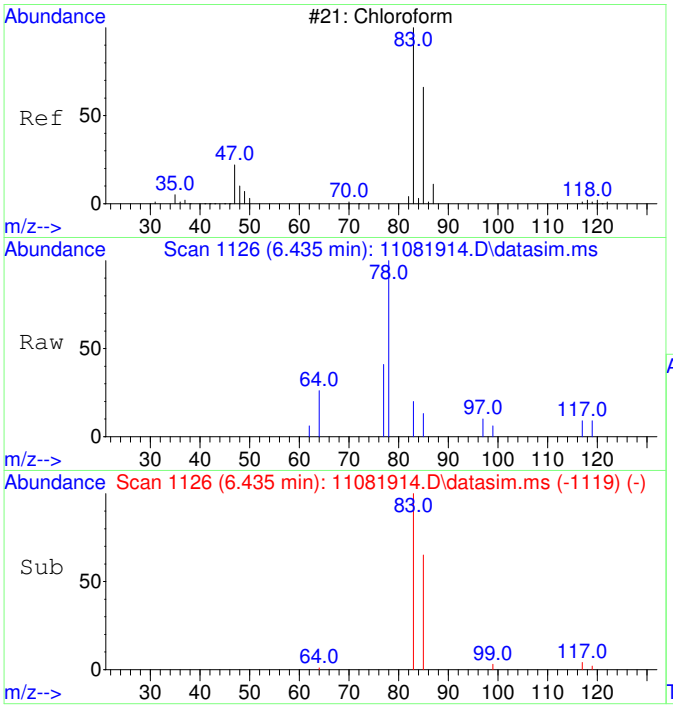


#5
cis-1,2-Dichloroethene
Concen: 37.52 ug/L
RT: 5.860 min Scan# 1066
Delta R.T. -0.013 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 248

Ion	Ratio	Lower	Upper
61	100		
63	44.0	2.4	62.4

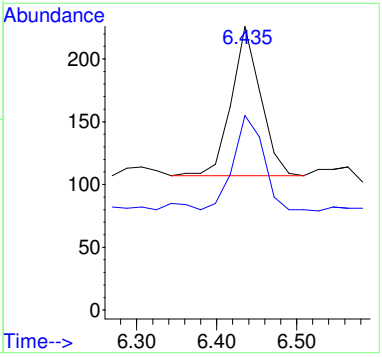


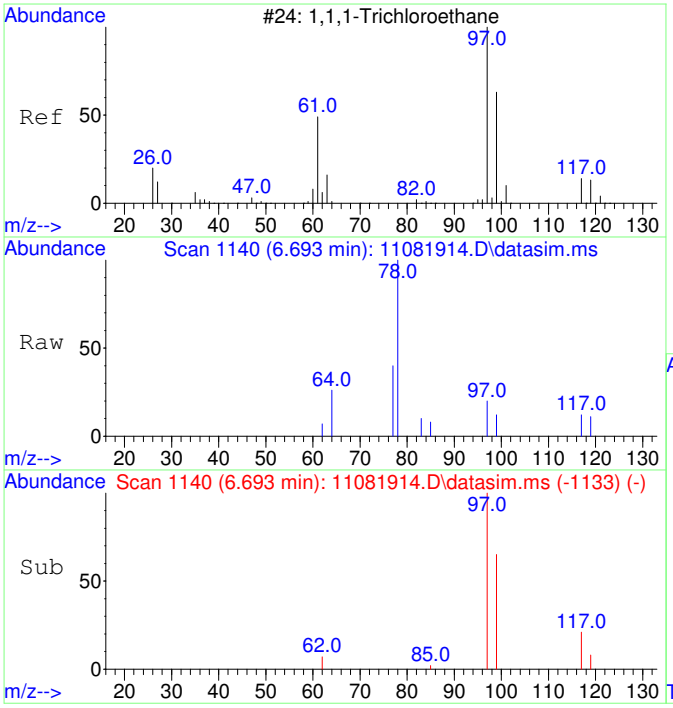


#6
Chloroform
Concen: 40.09 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 83 Resp: 304

Ion	Ratio	Lower	Upper
83	100		
85	66.4	35.2	95.2

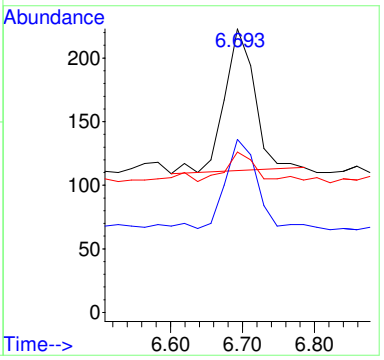


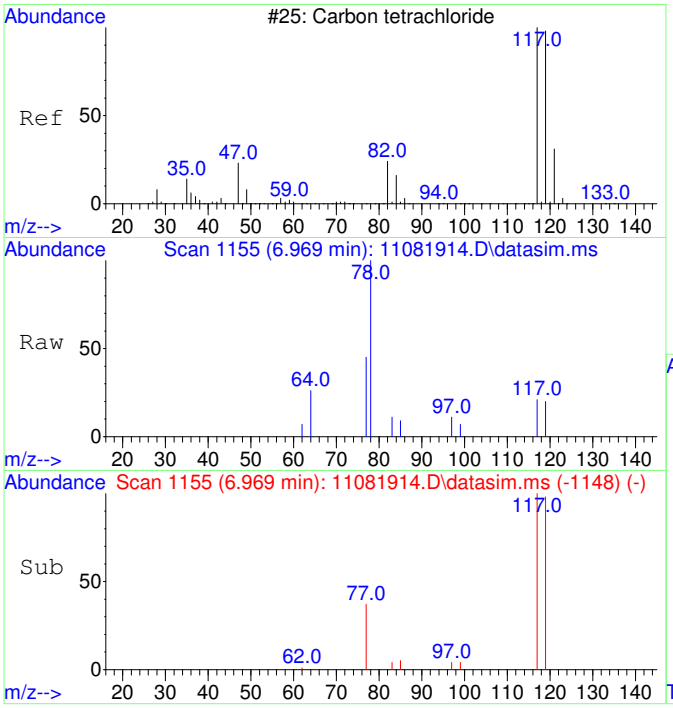


#7
1,1,1-Trichloroethane
Concen: 43.55 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 324

Ion	Ratio	Lower	Upper
97	100		
99	59.6	34.5	94.5
117	19.1	0.0	43.0

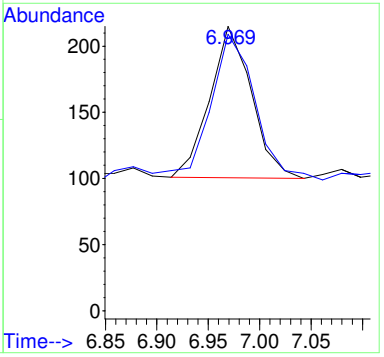


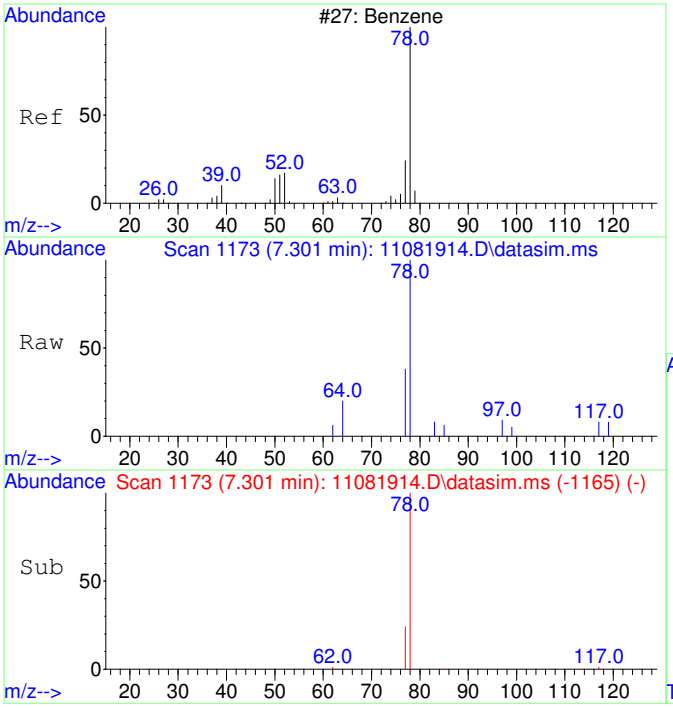


#8
Carbon tetrachloride
Concen: 46.81 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:117 Resp: 324

Ion	Ratio	Lower	Upper
117	100		
119	103.1	66.0	126.0

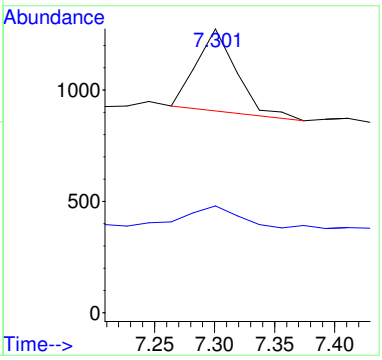


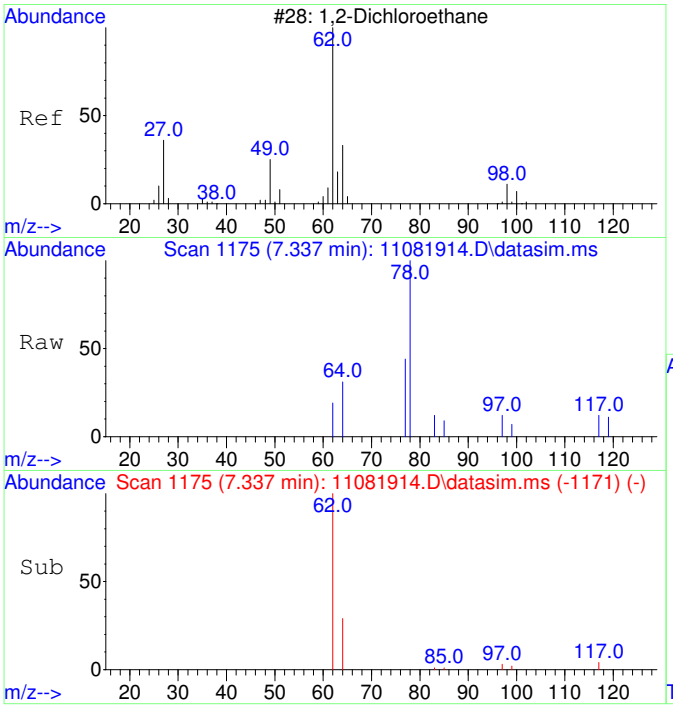


#9
Benzene
Concen: 43.59 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 78 Resp: 819

Ion	Ratio	Lower	Upper
78	100		
77	38.6	0.0	53.2

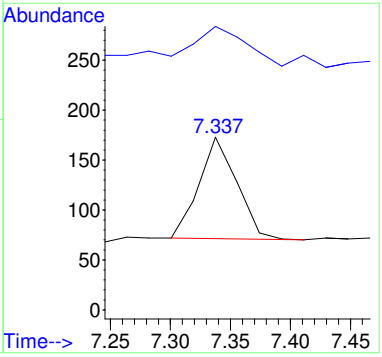


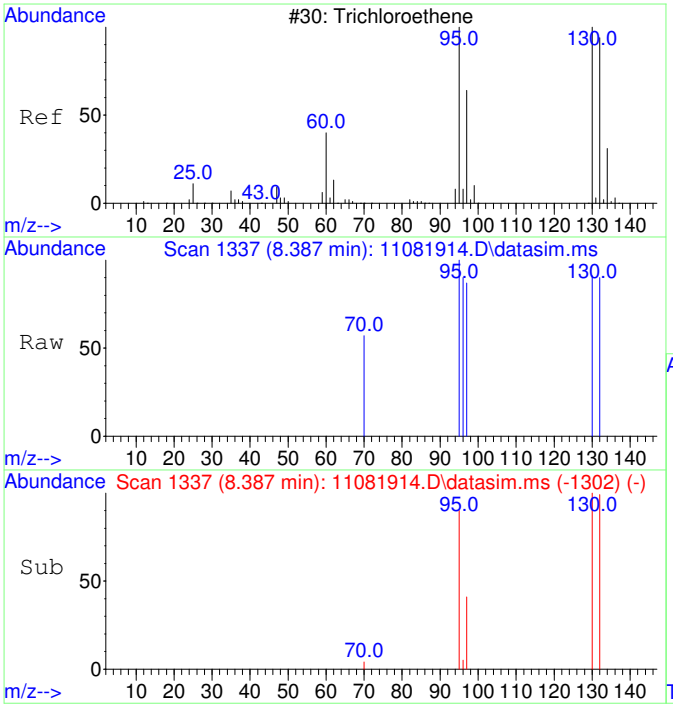


#10
1,2-Dichloroethane
Concen: 36.84 ug/L
RT: 7.337 min Scan# 1175
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 62 Resp: 222

Ion	Ratio	Lower	Upper
62	100		
64	60.8	2.4	62.4

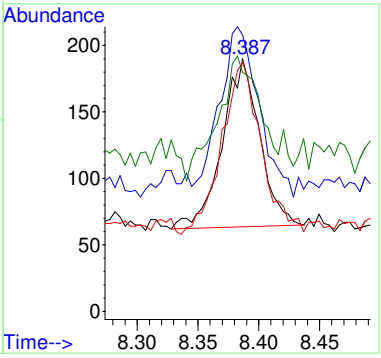


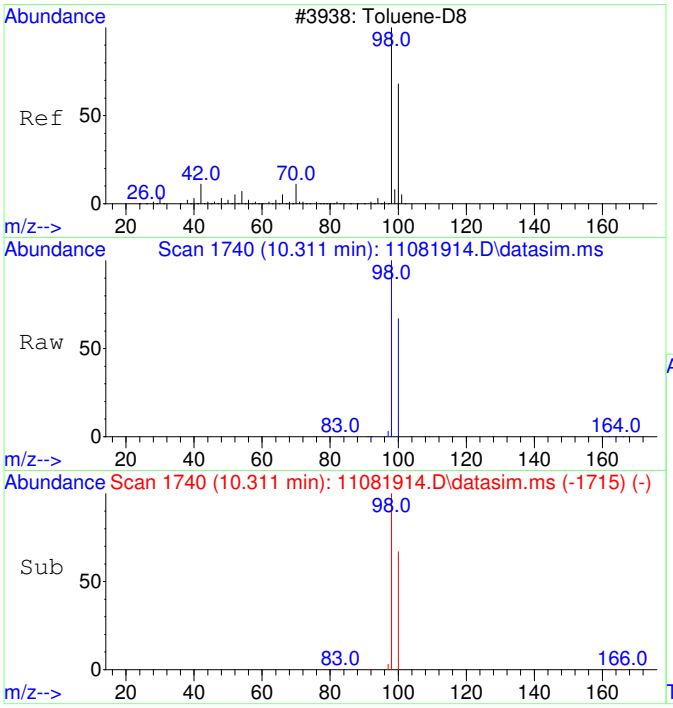


#11
Trichloroethene
Concen: 47.39 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:130 Resp: 270

Ion	Ratio	Lower	Upper
130	100		
95	107.0	63.4	123.4
132	108.5	76.0	116.0
97	84.1	39.8	79.8#

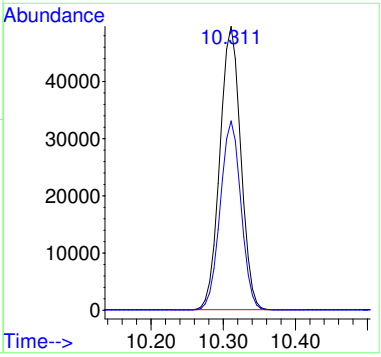


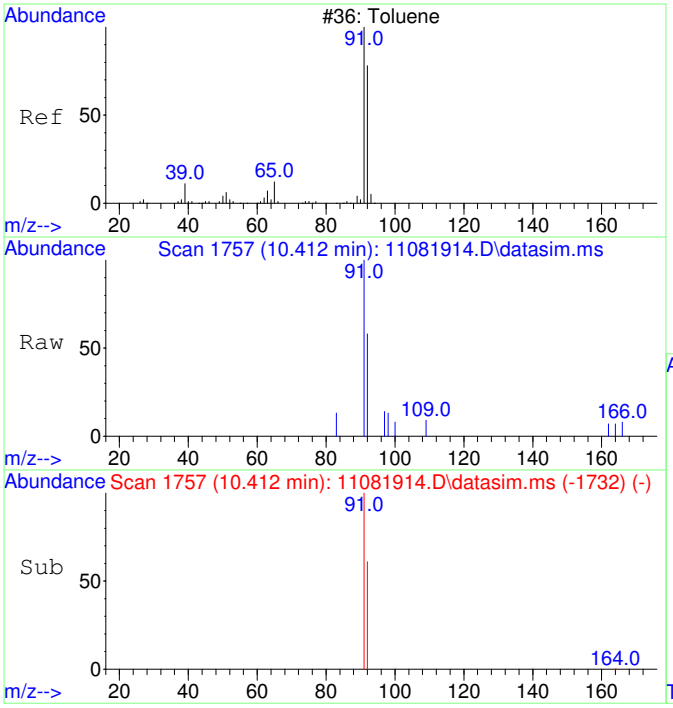


#12
Toluene-d8
Concen: 5157.46 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 98 Resp: 99389

Ion	Ratio	Lower	Upper
98	100		
100	66.3	36.4	96.4

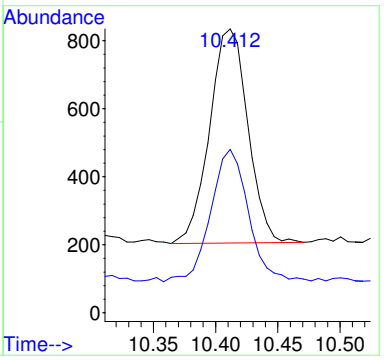


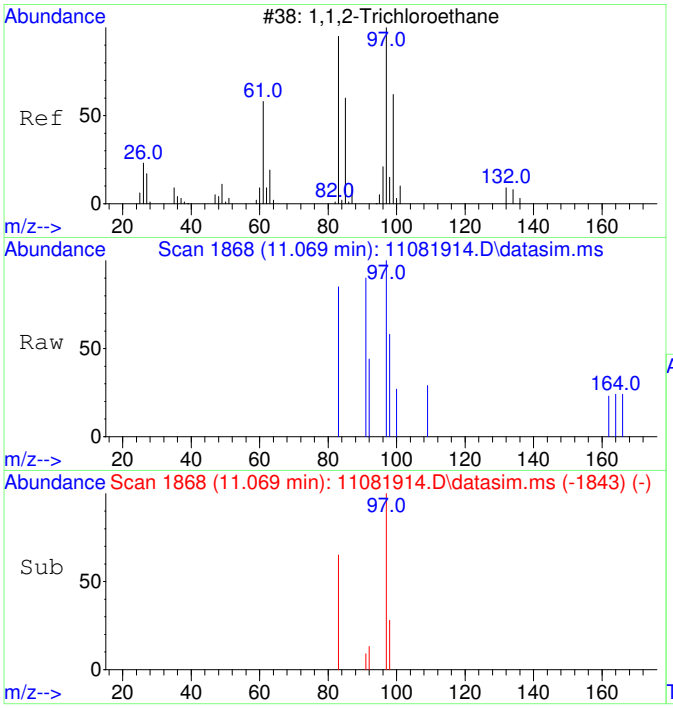


#13
Toluene
Concen: 57.88 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1352

Ion	Ratio	Lower	Upper
91	100		
92	60.3	29.4	89.4

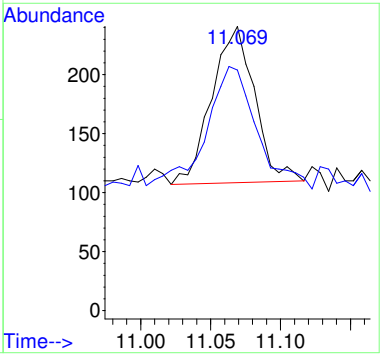


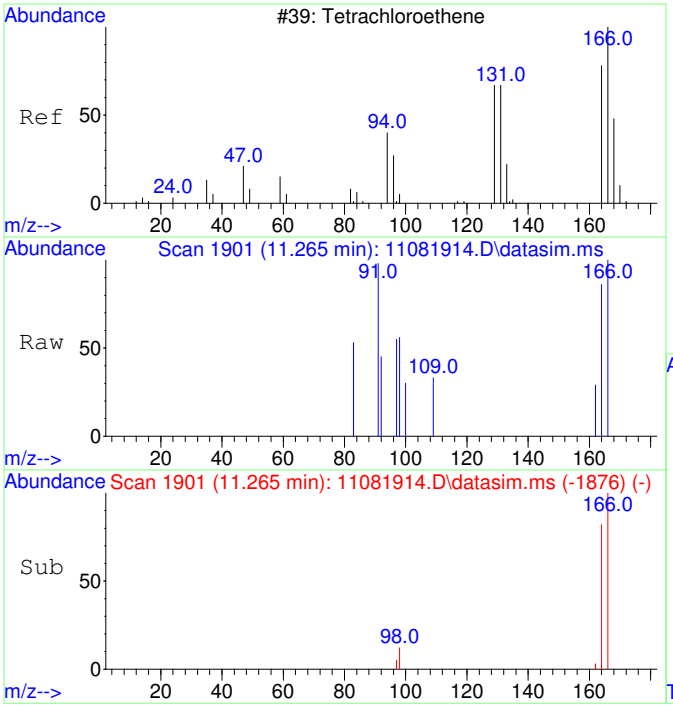


#14
1,1,2-Trichloroethane
Concen: 52.19 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 282

Ion	Ratio	Lower	Upper
97	100		
83	94.0	52.0	112.0

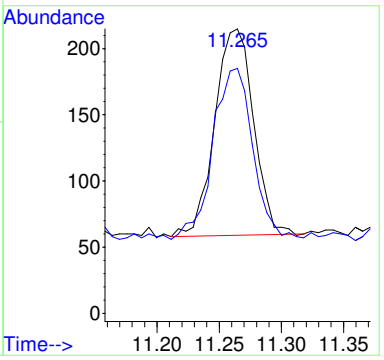


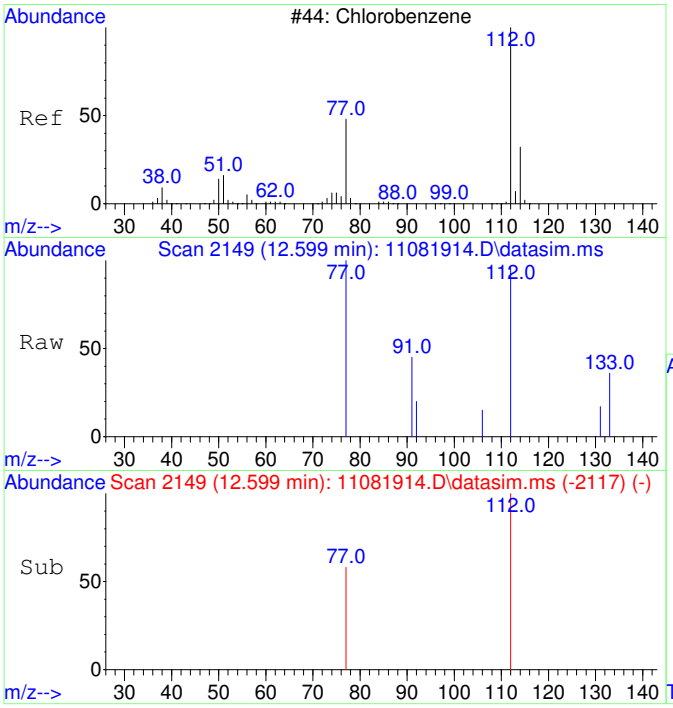


#15
Tetrachloroethene
Concen: 50.07 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:166 Resp: 340

Ion	Ratio	Lower	Upper
166	100		
164	84.1	47.7	107.7

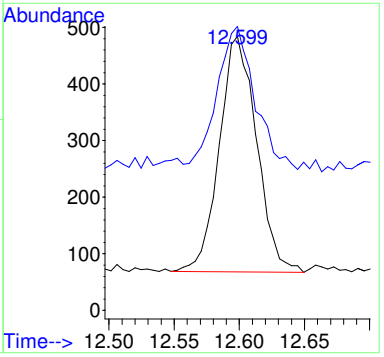


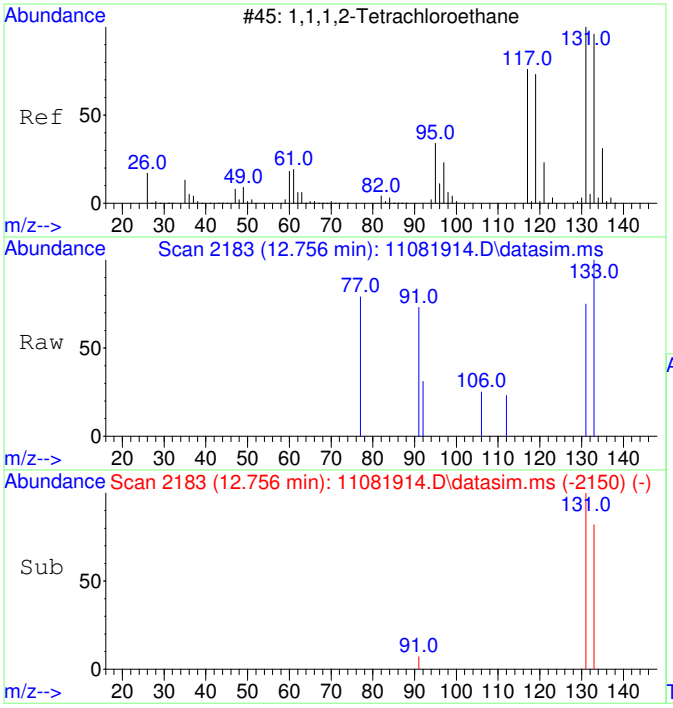


#16
Chlorobenzene
Concen: 47.69 ug/L
RT: 12.599 min Scan# 2149
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:112 Resp: 827

Ion	Ratio	Lower	Upper
112	100		
77	62.5	25.2	85.2

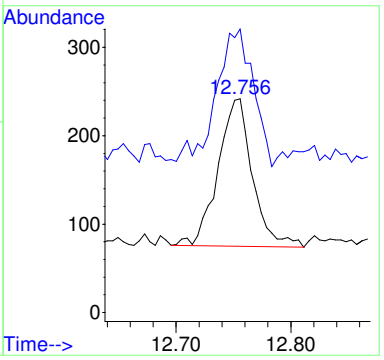


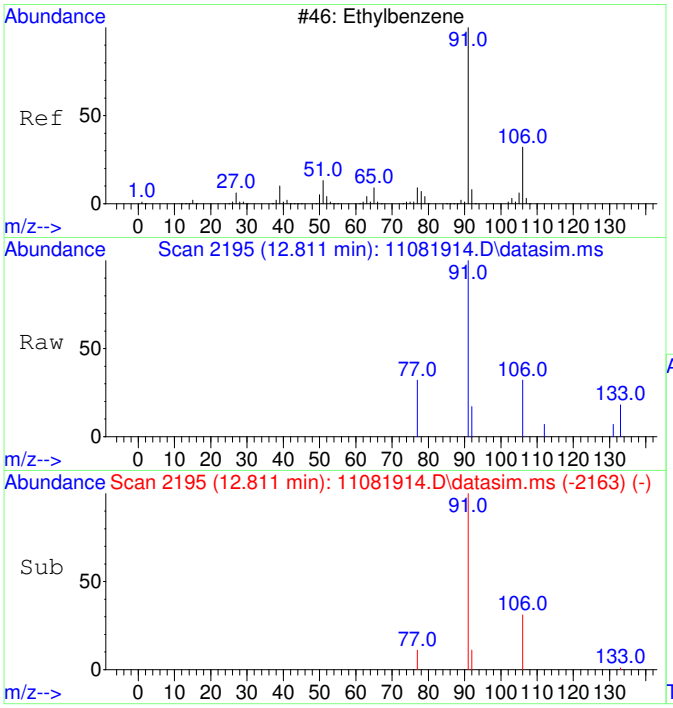


#17
1,1,1,2-Tetrachloroethane
Concen: 55.77 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.004 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:131 Resp: 348

Ion	Ratio	Lower	Upper
131	100		
133	97.1	65.1	125.1

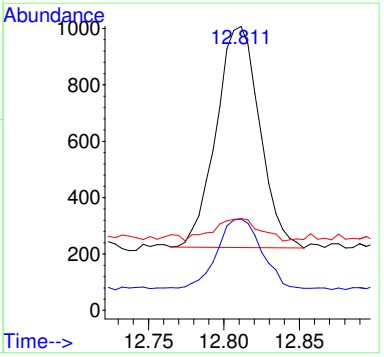


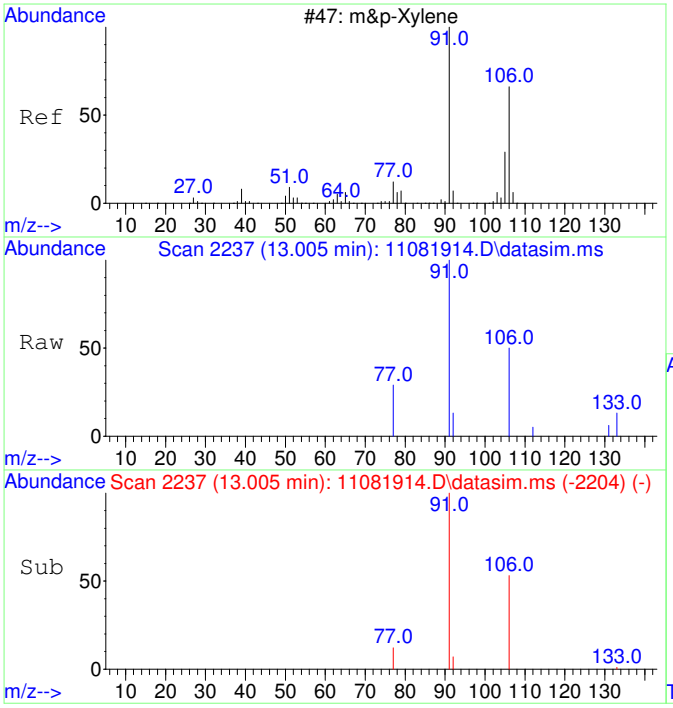


#18
Ethylbenzene
Concen: 55.25 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1568

Ion	Ratio	Lower	Upper
91	100		
106	32.2	2.5	62.5
77	10.5	0.0	38.4

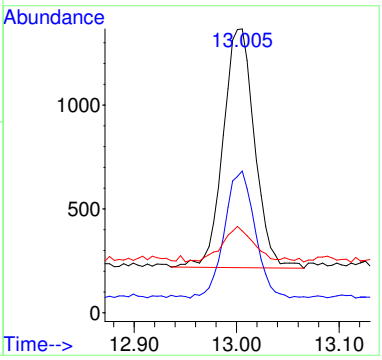


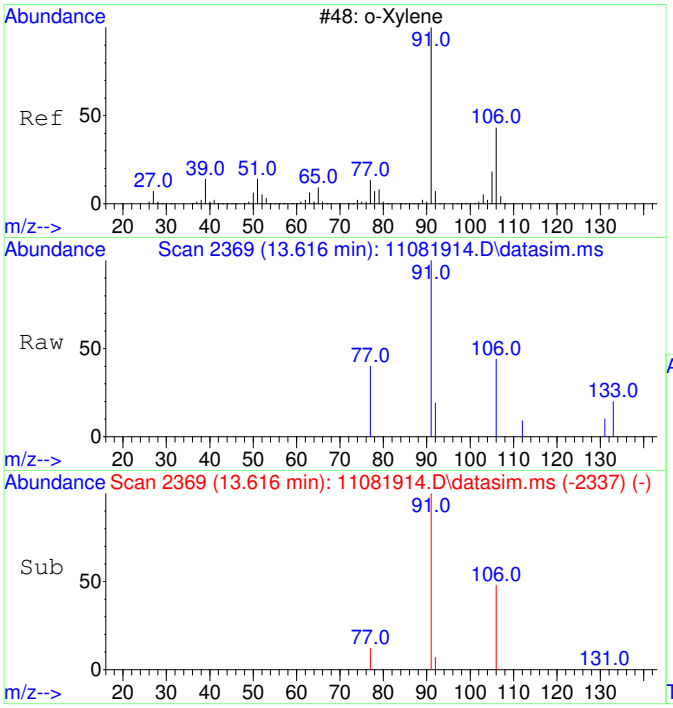


#19
m&p-Xylene
Concen: 114.29 ug/L
RT: 13.005 min Scan# 2237
Delta R.T. 0.004 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 2456

Ion	Ratio	Lower	Upper
91	100		
106	51.1	21.2	81.2
77	13.1	0.0	42.7

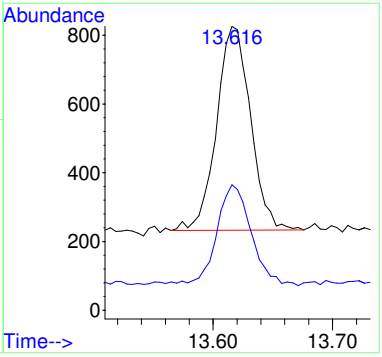


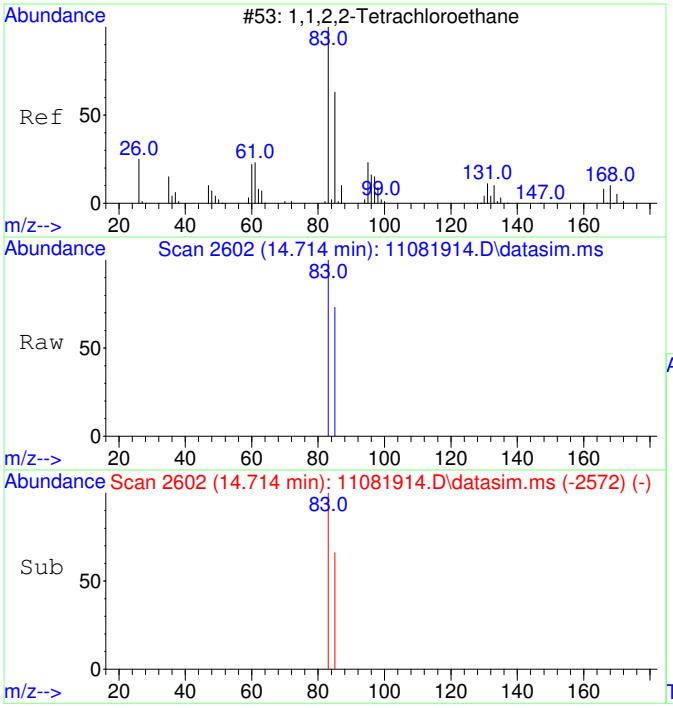


#20
o-Xylene
Concen: 51.01 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1170

Ion	Ratio	Lower	Upper
91	100		
106	50.5	18.3	78.3

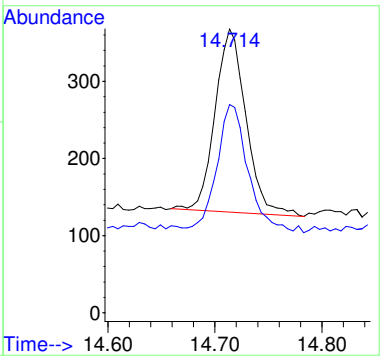


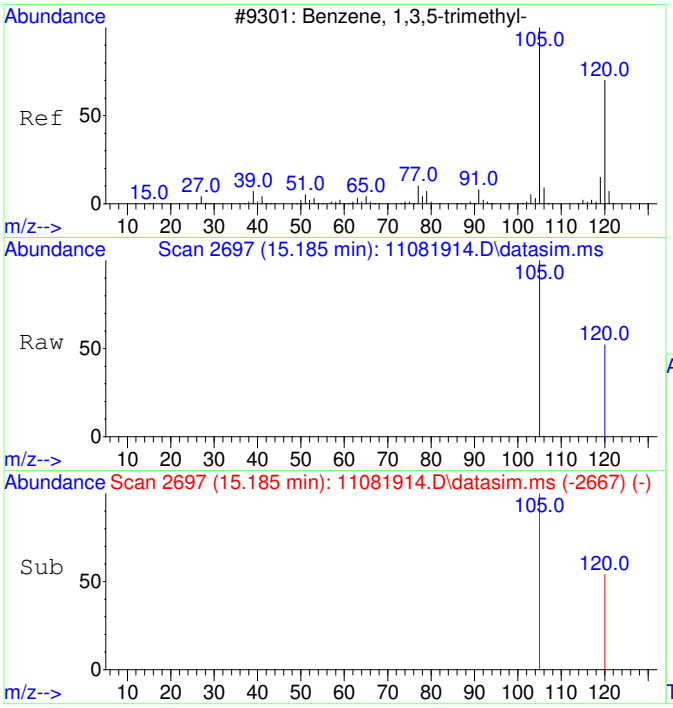


#21
1,1,2,2-Tetrachloroethane
Concen: 46.59 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 83 Resp: 474

Ion	Ratio	Lower	Upper
83	100		
85	69.0	34.7	94.7

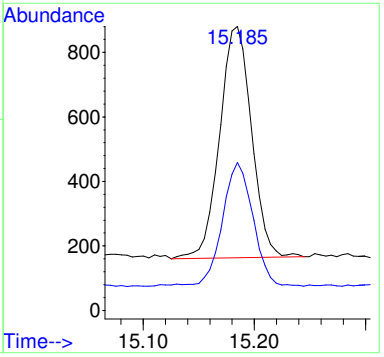


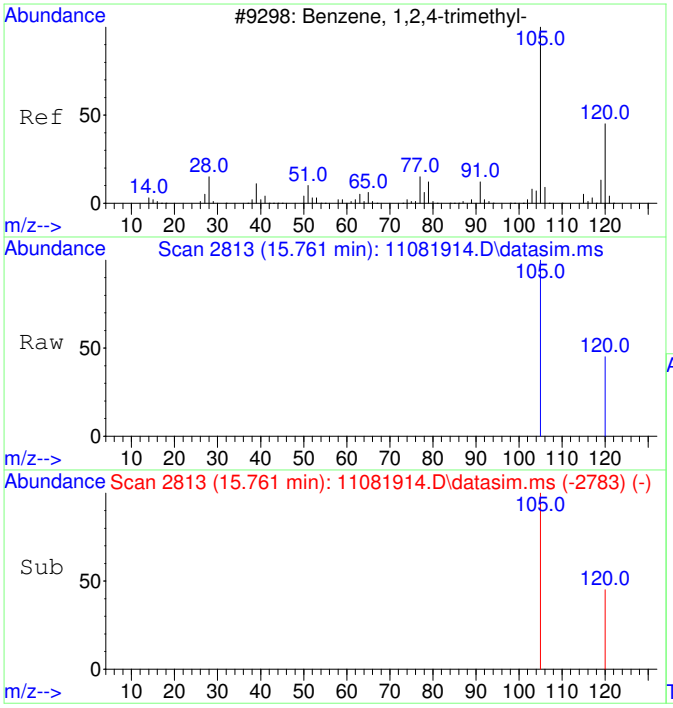


#22
1,3,5-Trimethylbenzene
Concen: 58.22 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 1428

Ion	Ratio	Lower	Upper
105	100		
120	49.6	20.8	80.8

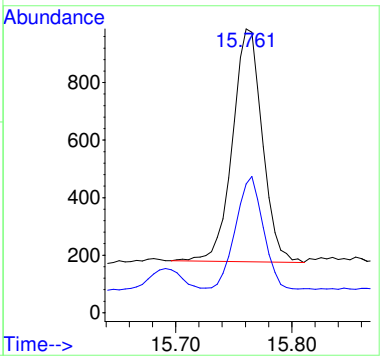


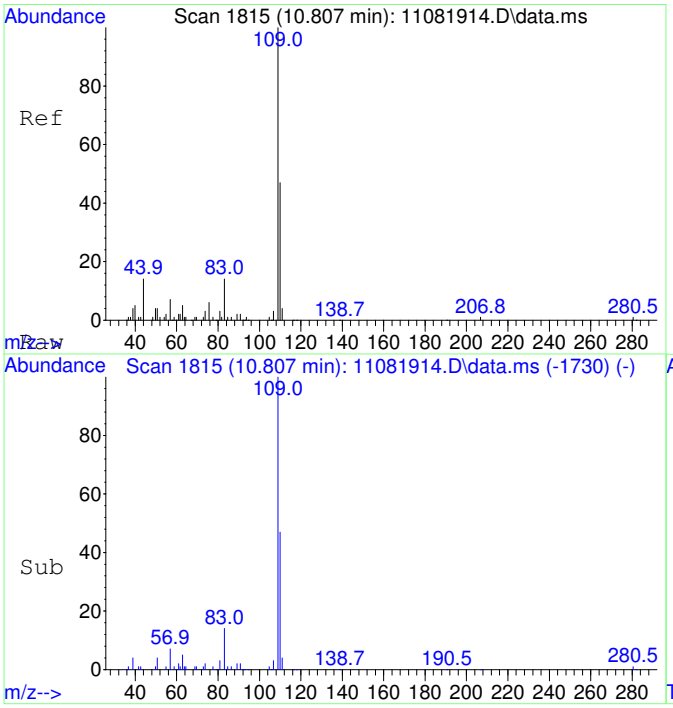


#23
1,2,4-Trimethylbenzene
Concen: 57.61 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 1439

Ion	Ratio	Lower	Upper
105	100		
120	44.4	16.8	76.8

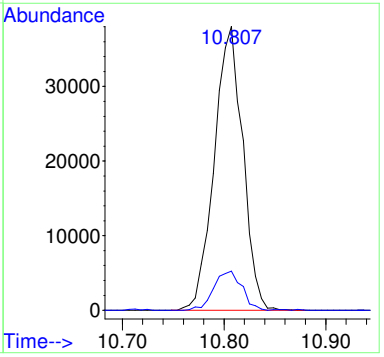


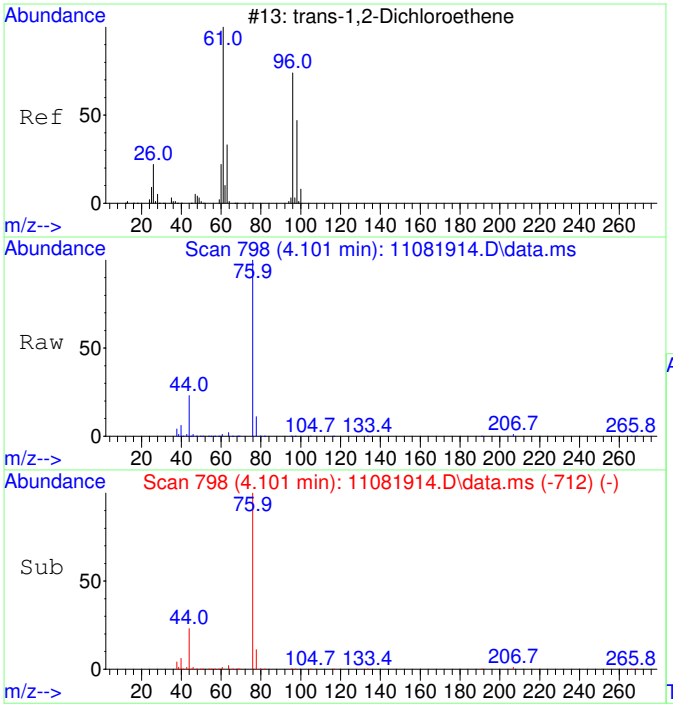


#25
2-Fluorotoluene SCAN
Concen: 4994.76 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:109 Resp: 74201

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	45.8

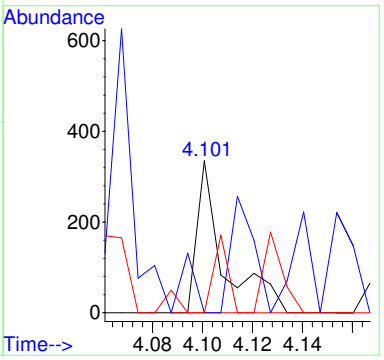


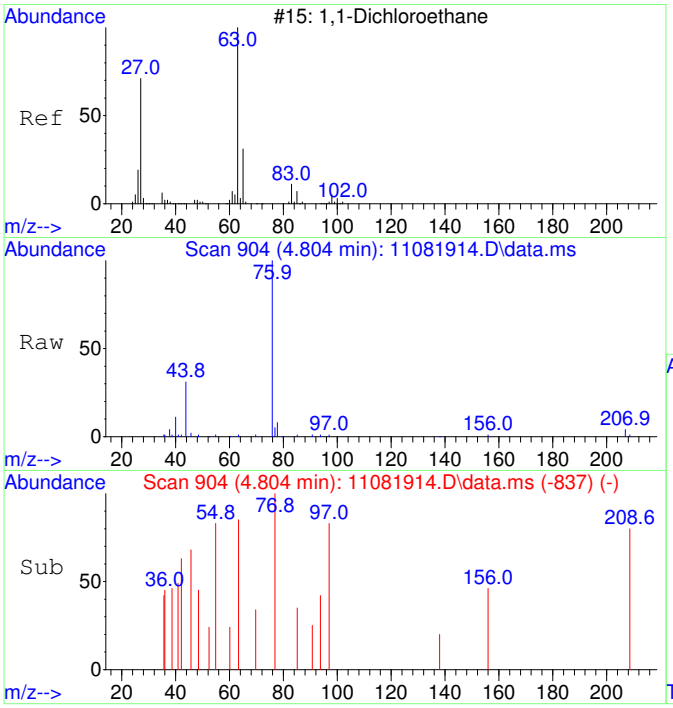


#27
trans-1,2-Dichloroethene SCAN
Concen: 51.98 ug/L
RT: 4.101 min Scan# 798
Delta R.T. -0.020 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 248

Ion	Ratio	Lower	Upper
61	100		
96	66.9	46.5	106.5
98	35.5	22.8	82.8

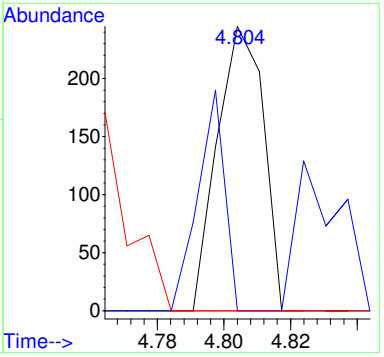


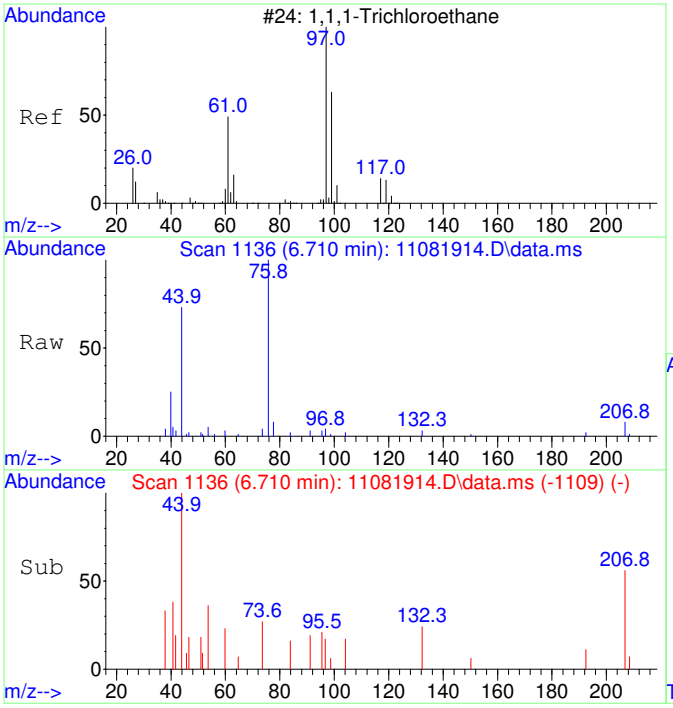


#28
1,1-Dichloroethane SCAN
Concen: 37.76 ug/L
RT: 4.804 min Scan# 904
Delta R.T. -0.053 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 63 Resp: 236

Ion	Ratio	Lower	Upper
63	100		
65	44.9	1.6	61.6
83	0.0	0.0	43.5

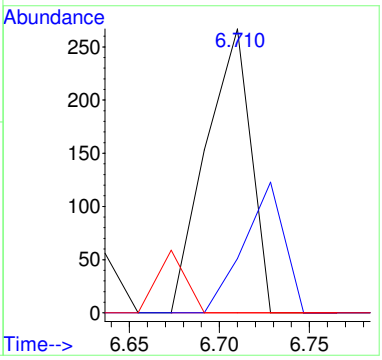


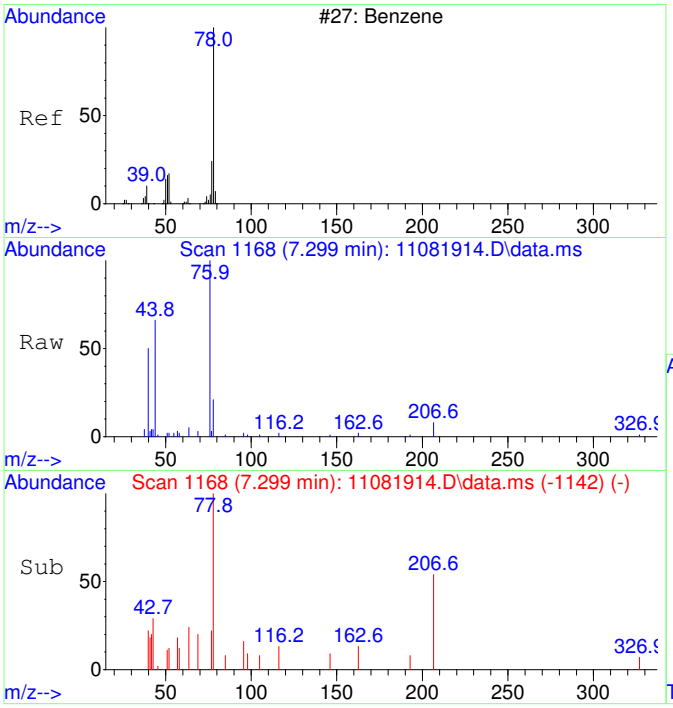


#31
1,1,1-Trichloroethane SCAN
Concen: 88.43 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 464

Ion	Ratio	Lower	Upper
97	100		
99	41.4	42.8	102.8#
61	0.0	11.1	71.1#

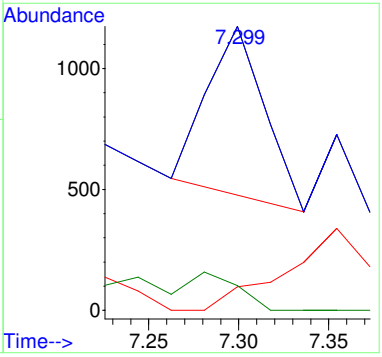


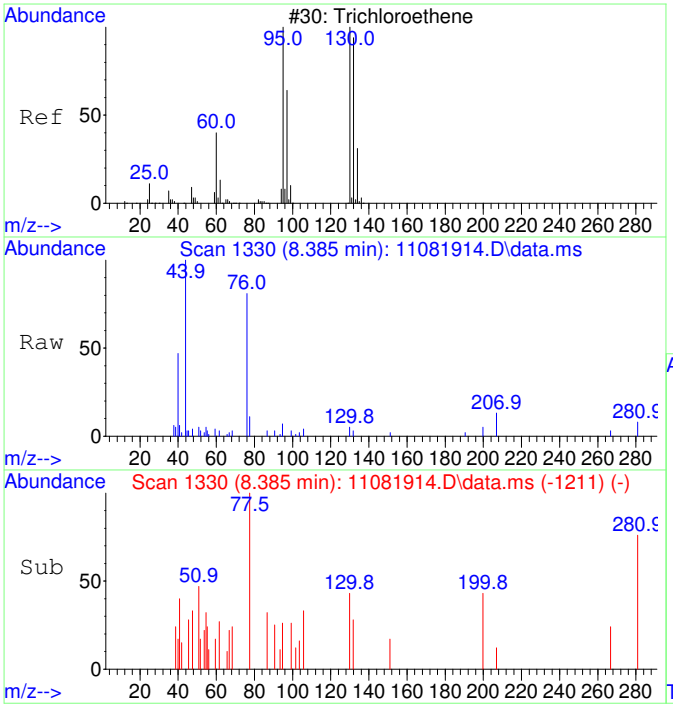


#33
Benzene SCAN
Concen: 111.93 ug/L
RT: 7.299 min Scan# 1168
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 78 Resp: 1476

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

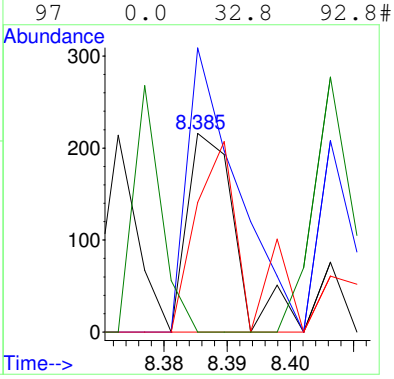


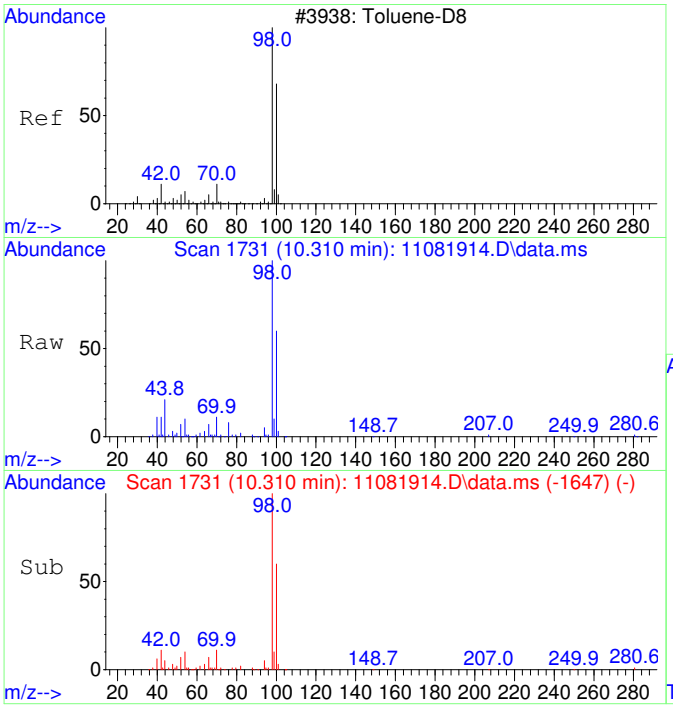


#35
Trichloroethene SCAN
Concen: 30.01 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:130 Resp: 116

Ion	Ratio	Lower	Upper
130	100		
95	149.1	69.5	129.5#
132	121.6	66.5	126.5
97	0.0	32.8	92.8#

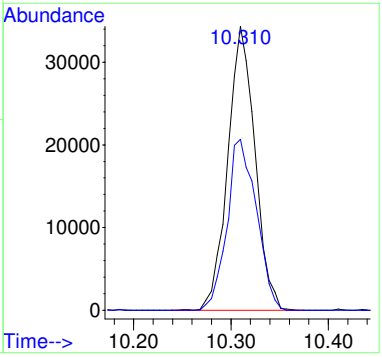


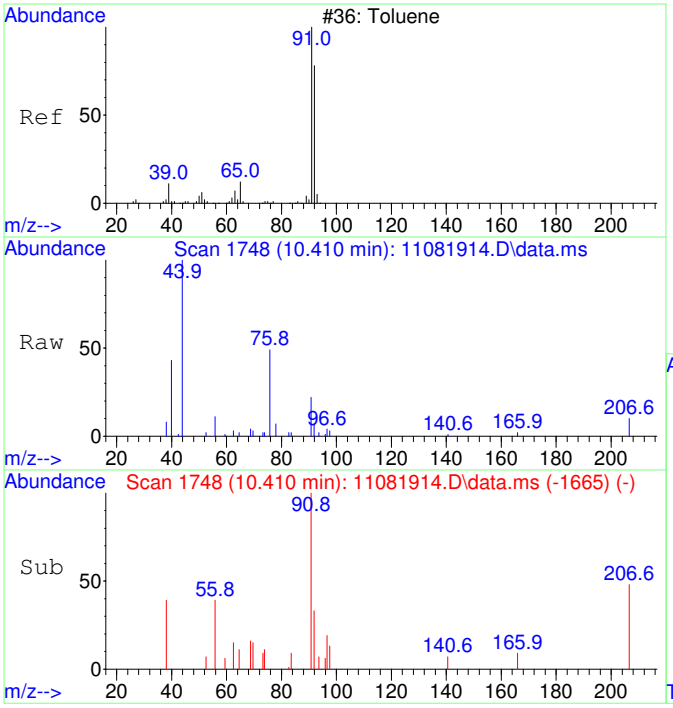


#36
Toluene-d8 SCAN
Concen: 5511.07 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 98 Resp: 66583

Ion	Ratio	Lower	Upper
98	100		
100	65.0	42.1	102.1

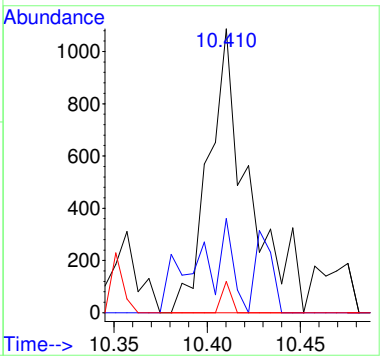


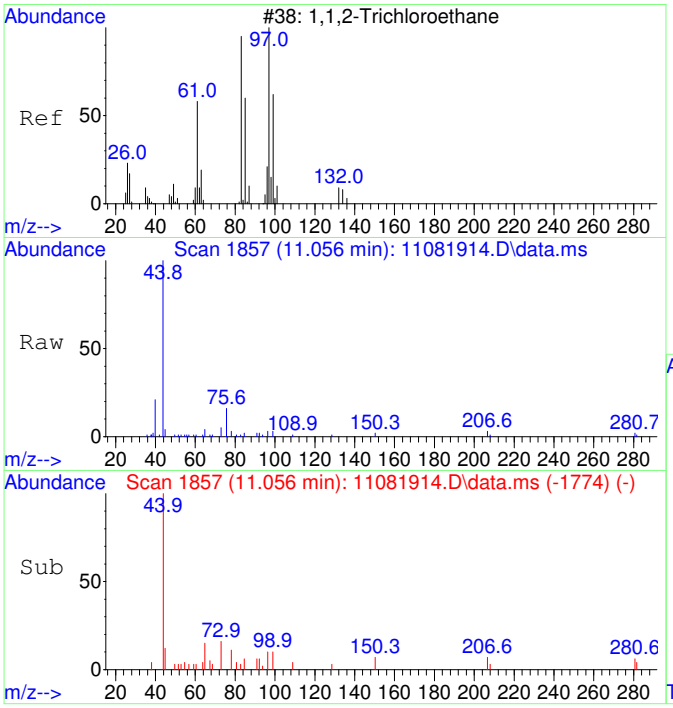


#37
Toluene SCAN
Concen: 108.62 ug/L
RT: 10.410 min Scan# 1748
Delta R.T. -0.006 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1618

Ion	Ratio	Lower	Upper
91	100		
92	9.0	31.9	91.9#
65	0.0	0.0	41.9

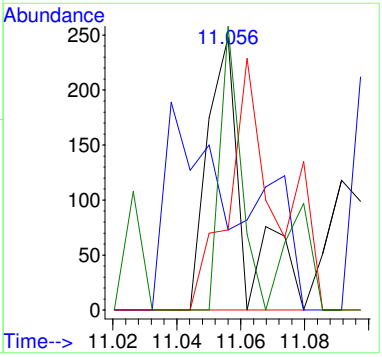


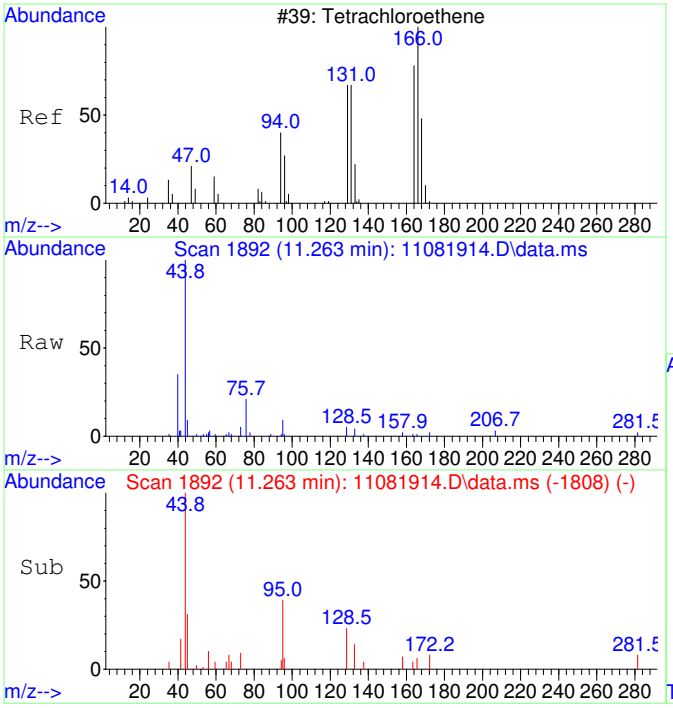


#38
1,1,2-Trichloroethane SCAN
Concen: 59.16 ug/L
RT: 11.056 min Scan# 1857
Delta R.T. -0.006 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 201

Ion	Ratio	Lower	Upper
97	100		
83	0.0	58.1	118.1#
61	118.9	36.0	96.0#
99	57.7	32.7	92.7

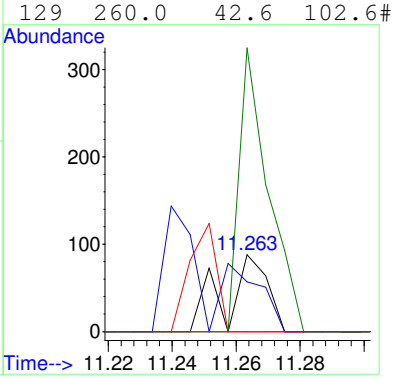


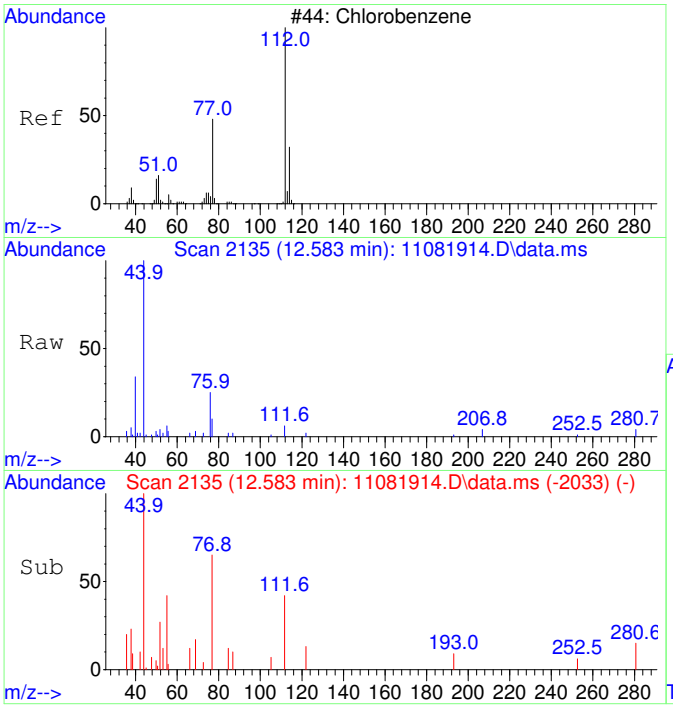


#39
Tetrachloroethene SCAN
Concen: 20.23 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:166 Resp: 80

Ion	Ratio	Lower	Upper
166	100		
164	82.5	50.4	110.4
131	91.3	44.0	104.0
129	260.0	42.6	102.6#

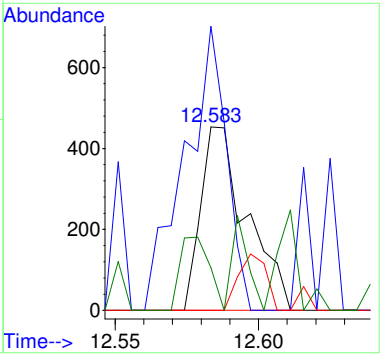


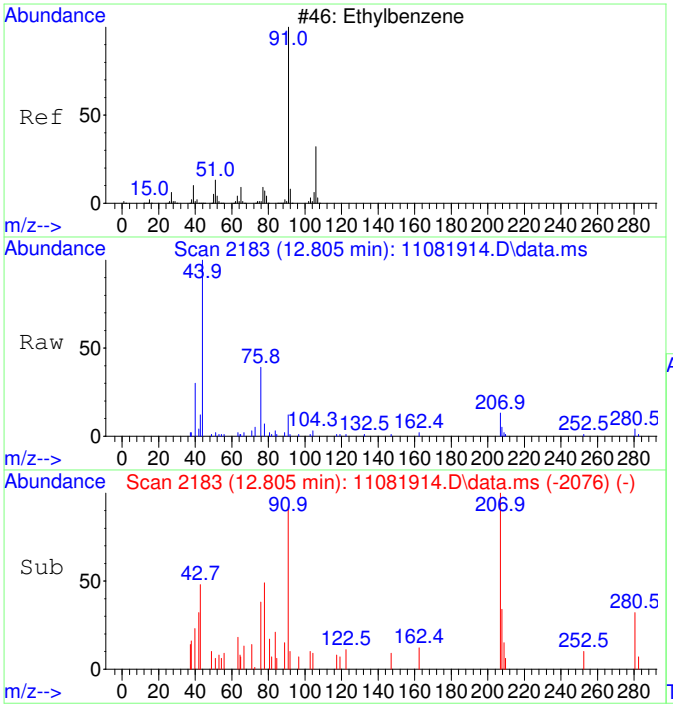


#40
Chlorobenzene SCAN
Concen: 50.10 ug/L
RT: 12.583 min Scan# 2135
Delta R.T. -0.014 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:112 Resp: 506

Ion	Ratio	Lower	Upper
112	100		
77	139.9	28.8	88.8#
114	0.0	2.6	62.6#
51	25.5	0.0	50.8

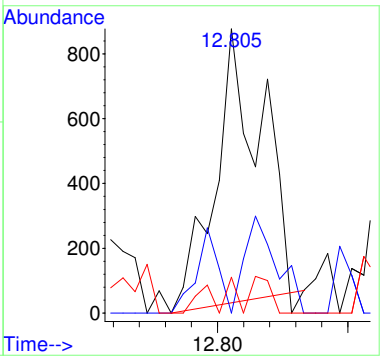


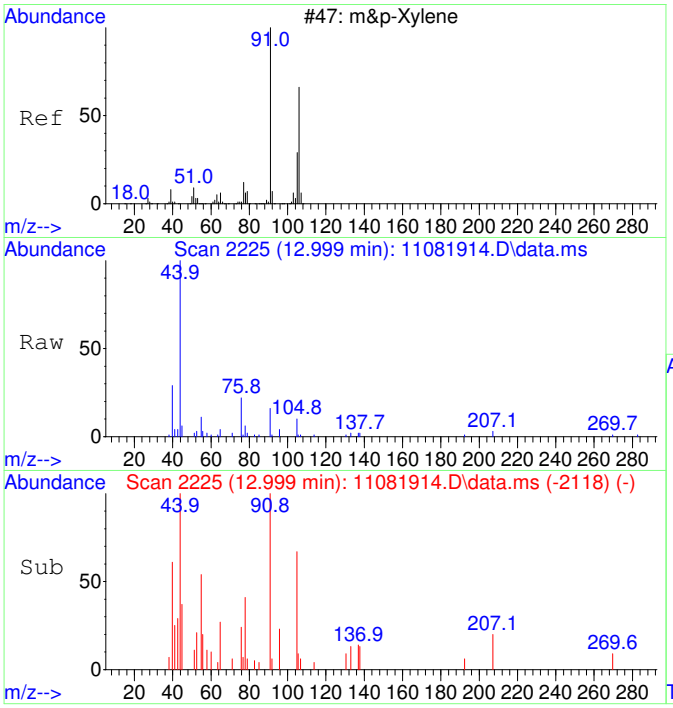


#42
Ethylbenzene SCAN
Concen: 61.46 ug/L
RT: 12.805 min Scan# 2183
Delta R.T. -0.005 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1042

Ion	Ratio	Lower	Upper
91	100		
106	24.8	0.1	60.1
51	8.6	0.0	40.9

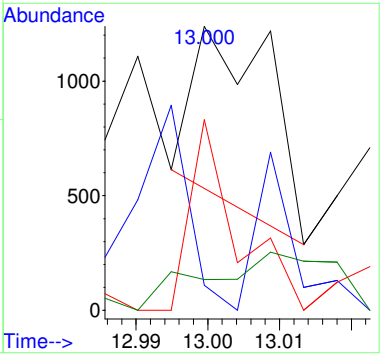


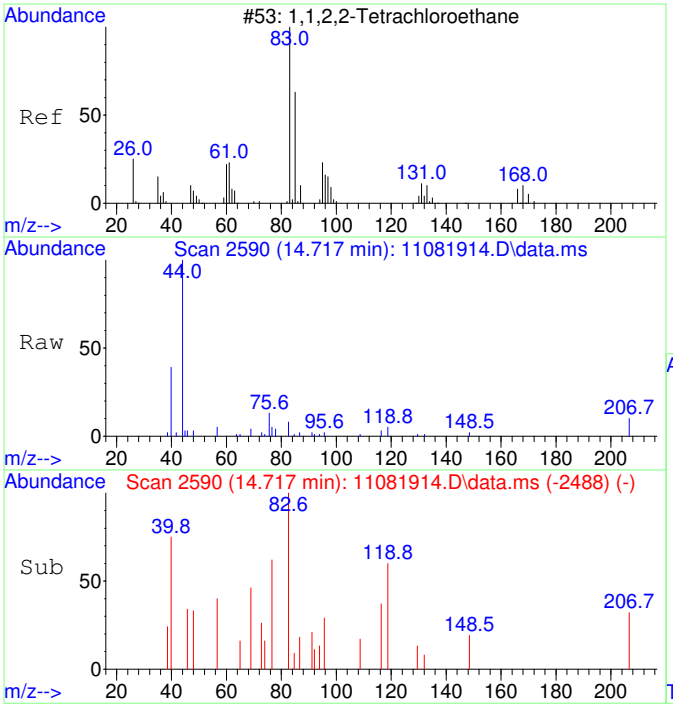


#43
m&p-Xylene SCAN
Concen: 22.00 ug/L
RT: 12.999 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 535

Ion	Ratio	Lower	Upper
91	100		
106	89.0	21.1	81.1#
105	70.3	0.0	53.6#
51	0.0	0.0	40.7

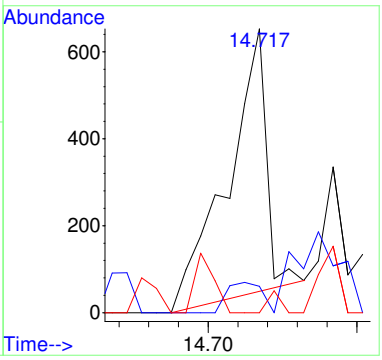


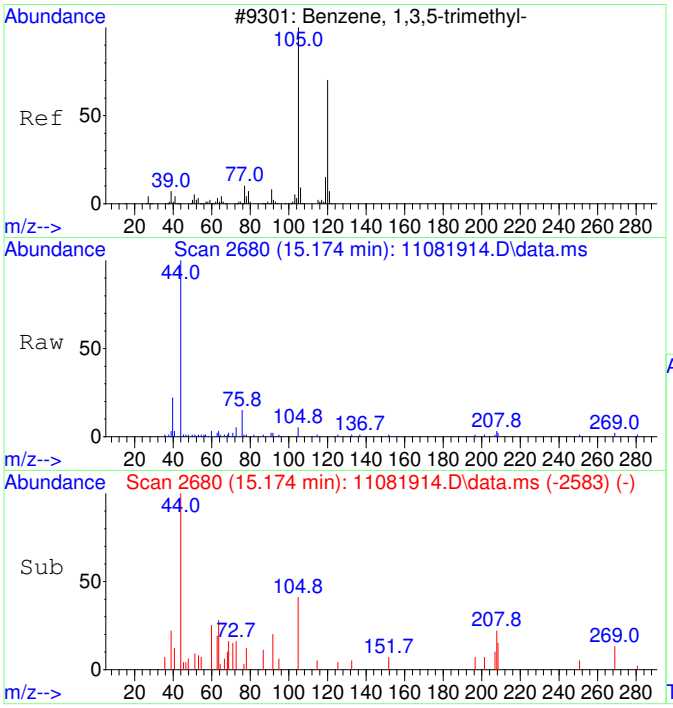


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 88.21 ug/L
RT: 14.717 min Scan# 2590
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 83 Resp: 554

Ion	Ratio	Lower	Upper
83	100		
85	10.3	38.3	98.3#
95	11.2	0.0	44.8

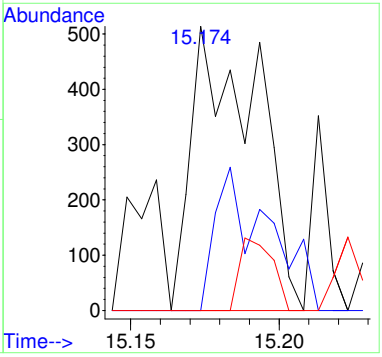


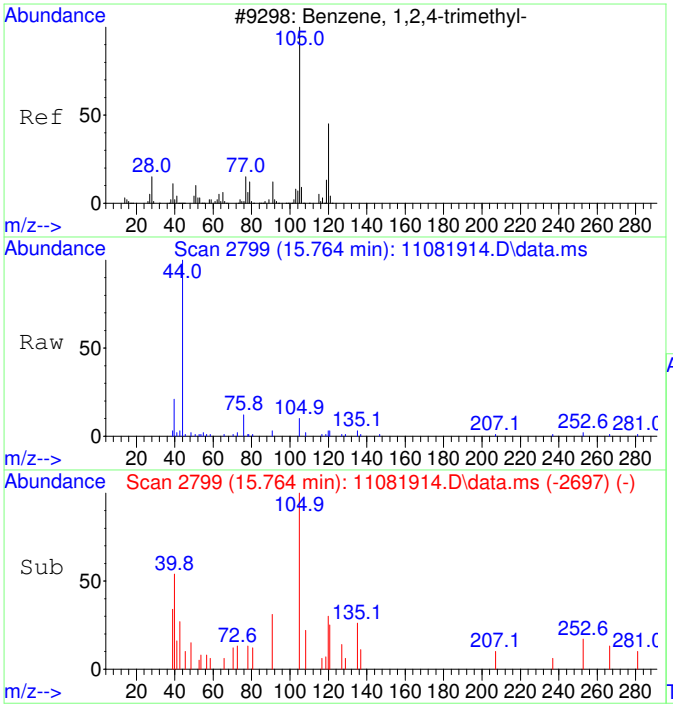


#46
1,3,5-Trimethylbenzene SCAN
Concen: 60.03 ug/L
RT: 15.174 min Scan# 2680
Delta R.T. -0.010 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 790

Ion	Ratio	Lower	Upper
105	100		
120	40.9	20.8	80.8
119	12.8	0.0	42.8

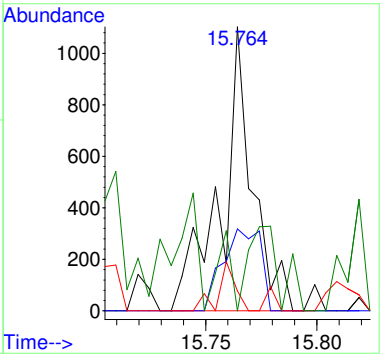




#47
1,2,4-Trimethylbenzene SCAN
Concen: 82.75 ug/L
RT: 15.764 min Scan# 2799
Delta R.T. 0.005 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 1072

Ion	Ratio	Lower	Upper
105	100		
120	35.2	18.6	78.6
119	9.3	0.0	42.1
77	30.9	0.0	42.9



Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081914.D
Acq On : 8 Nov 2019 15:27
InstName : AG5975C
Operator : TD
Sample : B19K004-MRL1
Misc :
ALS Vial : 13 Sample Multiplier: 1

M.I. Performed By:
TD at 7:55 am, Nov 11, 2019

M.I. Approved By:
ZR at 10:35 am, Nov 12, 2019

Quant Time: Nov 11 06:19:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

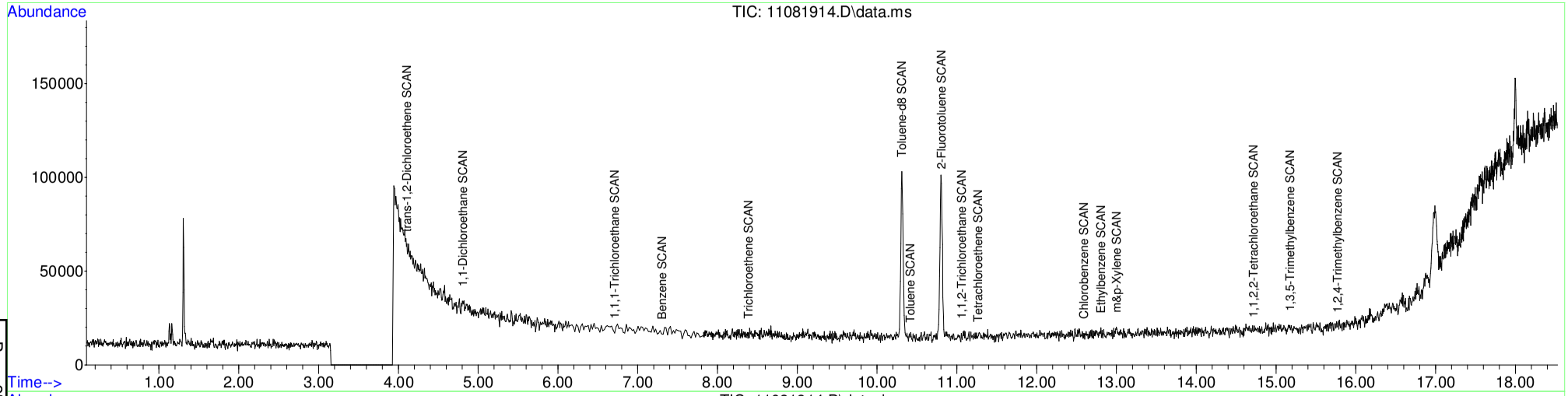
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	119252	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	99389	5157.46	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 103.15%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	152m	27.61	ug/L	
3] trans-1,2-Dichloroethene	4.095	61	191	33.76	ug/L	74
4] 1,1-Dichloroethane	4.832	63	259	36.71	ug/L	93
5] cis-1,2-Dichloroethene	5.860	61	248	37.52	ug/L	79
6] Chloroform	6.435	83	304	40.09	ug/L	98
7] 1,1,1-Trichloroethane	6.693	97	324	43.55	ug/L	92
8] Carbon tetrachloride	6.969	117	324	46.81	ug/L	93
9] Benzene	7.301	78	819	43.59	ug/L	68
10] 1,2-Dichloroethane	7.337	62	222	36.84	ug/L	49
11] Trichloroethene	8.387	130	270	47.39	ug/L #	82
13] Toluene	10.412	91	1352	57.88	ug/L	99
14] 1,1,2-Trichloroethane	11.069	97	282	52.19	ug/L	87
15] Tetrachloroethene	11.265	166	340	50.07	ug/L	93
16] Chlorobenzene	12.599	112	827	47.69	ug/L	90
17] 1,1,1,2-Tetrachloroethane	12.756	131	348	55.77	ug/L	98
18] Ethylbenzene	12.811	91	1568	55.25	ug/L	98
19] m&p-Xylene	13.005	91	2456	114.29	ug/L	100
20] o-Xylene	13.616	91	1170	51.01	ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.714	83	474	46.59	ug/L	95
22] 1,3,5-Trimethylbenzene	15.185	105	1428	58.22	ug/L	98
23] 1,2,4-Trimethylbenzene	15.761	105	1439	57.61	ug/L	96
25) 2-Fluorotoluene SCAN	10.807	109	74201	4994.76	ug/L	95
27) trans-1,2-Dichloroethe...	4.101	61	248	51.98	ug/L	83
28) 1,1-Dichloroethane SCAN	4.804	63	236	37.76	ug/L #	73
31) 1,1,1-Trichloroethane ...	6.710	97	464	88.43	ug/L #	52
33) Benzene SCAN	7.299	78	1476	111.93	ug/L #	89
35) Trichloroethene SCAN	8.385	130	116	30.01	ug/L #	52
36) Toluene-d8 SCAN	10.310	98	66583	5511.07	ug/L	91
37) Toluene SCAN	10.410	91	1618	108.62	ug/L #	37
38) 1,1,2-Trichloroethane ...	11.056	97	201	59.16	ug/L #	39
39) Tetrachloroethene SCAN	11.263	166	80	20.23	ug/L #	21
40) Chlorobenzene SCAN	12.583	112	506	50.10	ug/L #	24
42) Ethylbenzene SCAN	12.805	91	1042	61.46	ug/L	91
43) m&p-Xylene SCAN	12.999	91	535	22.00	ug/L #	38
45) 1,1,2,2-Tetrachloroeth...	14.717	83	554	88.21	ug/L #	40
46) 1,3,5-Trimethylbenzene...	15.174	105	790	60.03	ug/L	89
47) 1,2,4-Trimethylbenzene...	15.764	105	1072	82.75	ug/L	78

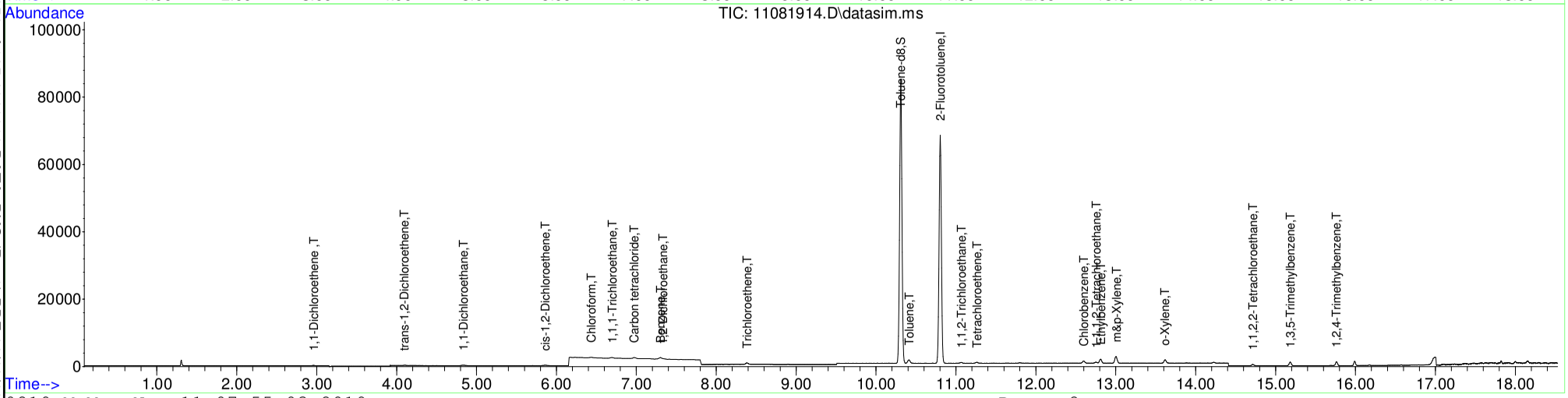
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081914.D
Acq On : 8 Nov 2019 15:27
InstName : AG5975C
Operator : TD
Sample : B19K004-MRL1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 11 06:19:33 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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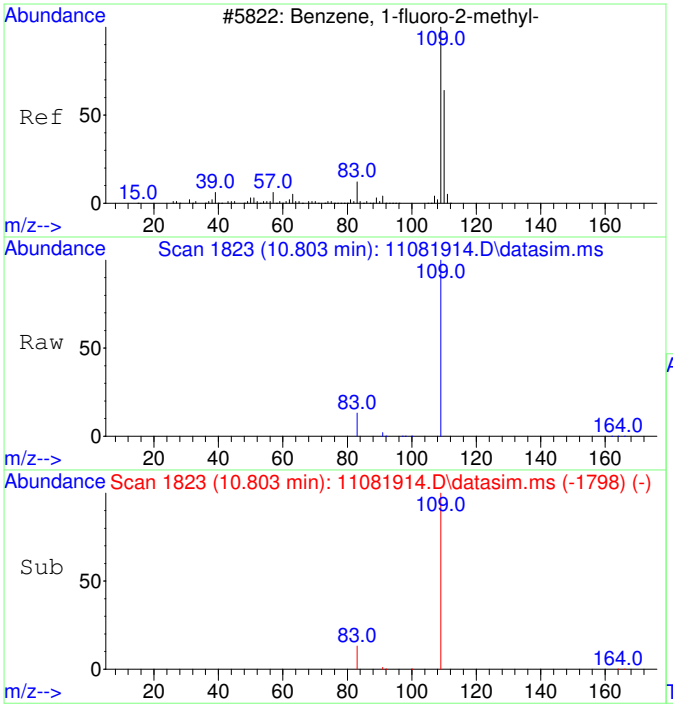
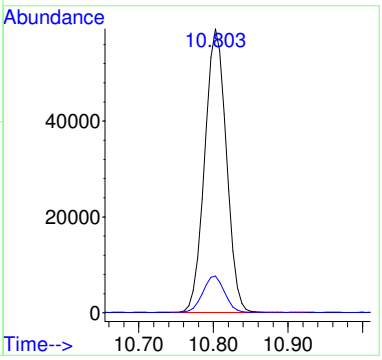
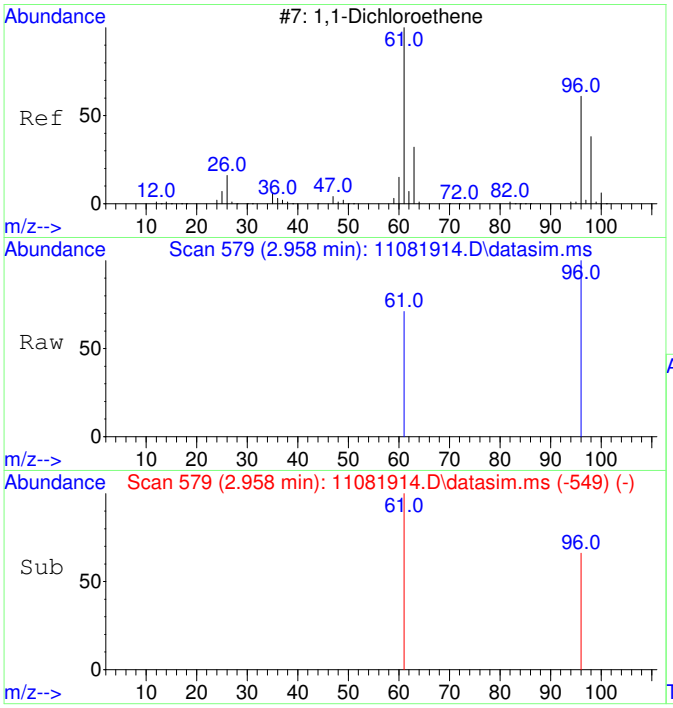


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:109 Resp: 119252

Ion	Ratio	Lower	Upper
109	100		
83	12.8	0.0	43.3

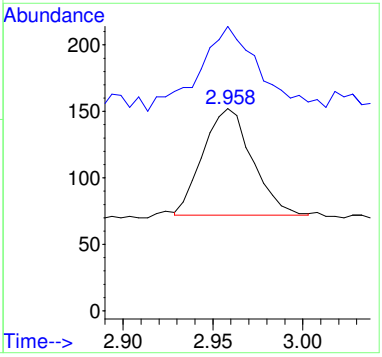


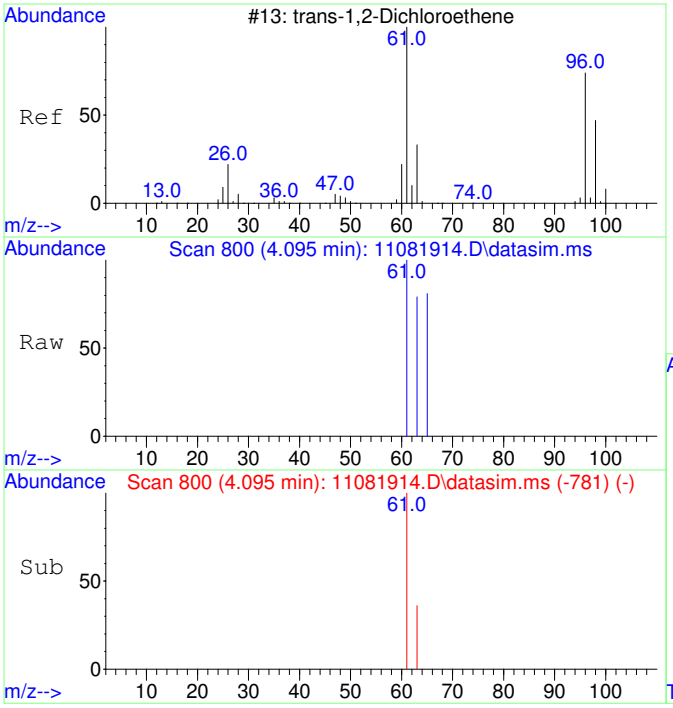


#2
1,1-Dichloroethene
Concen: 27.61 ug/L m
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 152

Ion	Ratio	Lower	Upper
61	100		
96	343.4	33.6	93.6#

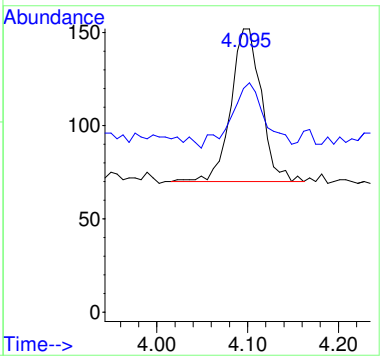


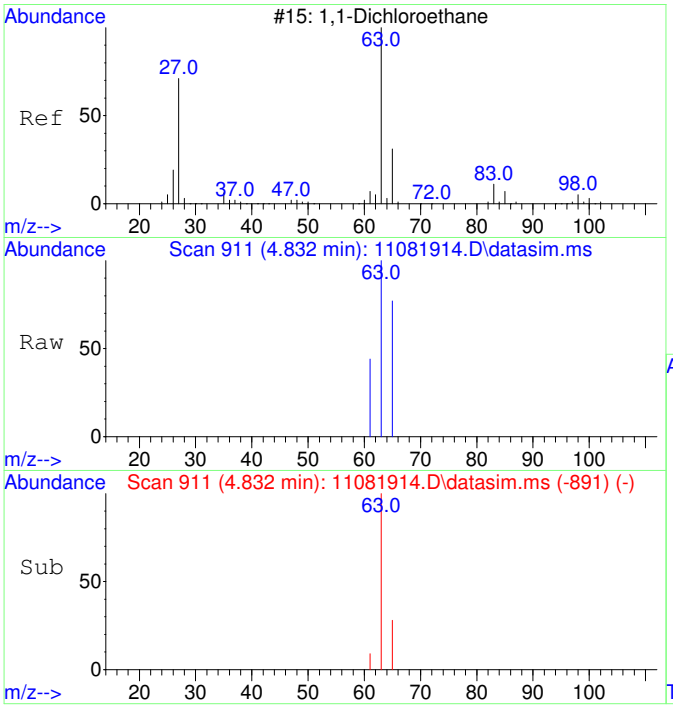


#3
trans-1,2-Dichloroethene
Concen: 33.76 ug/L
RT: 4.095 min Scan# 800
Delta R.T. -0.027 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 191

Ion	Ratio	Lower	Upper
61	100		
63	46.6	2.3	62.3

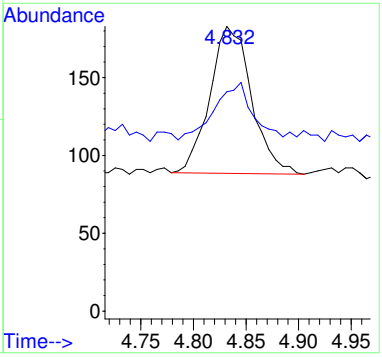


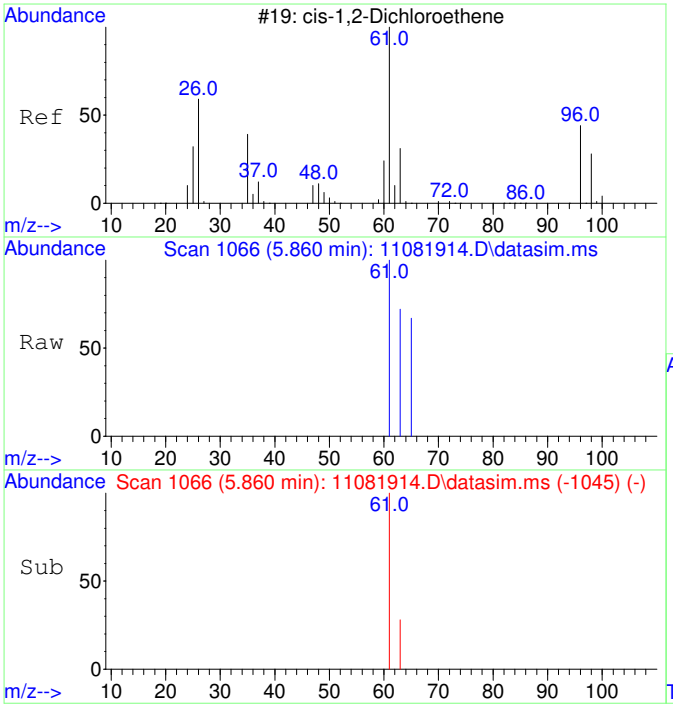


#4
1,1-Dichloroethane
Concen: 36.71 ug/L
RT: 4.832 min Scan# 911
Delta R.T. -0.020 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 63 Resp: 259

Ion	Ratio	Lower	Upper
63	100		
65	35.5	1.9	61.9

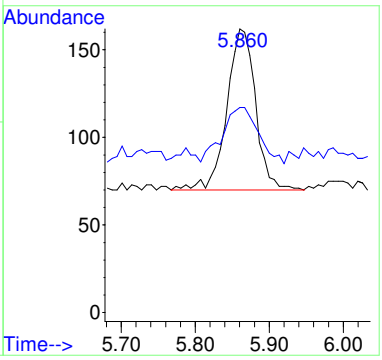


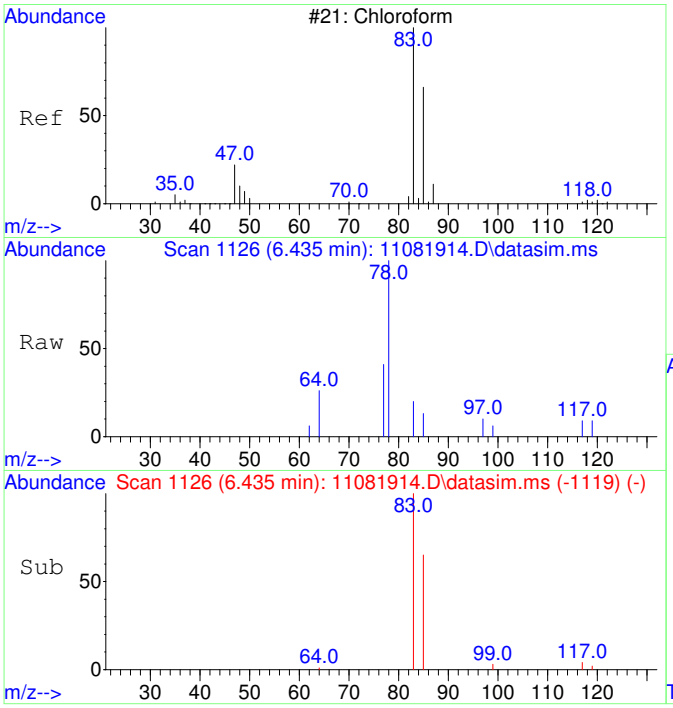


#5
cis-1,2-Dichloroethene
Concen: 37.52 ug/L
RT: 5.860 min Scan# 1066
Delta R.T. -0.013 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 248

Ion	Ratio	Lower	Upper
61	100		
63	44.0	2.4	62.4

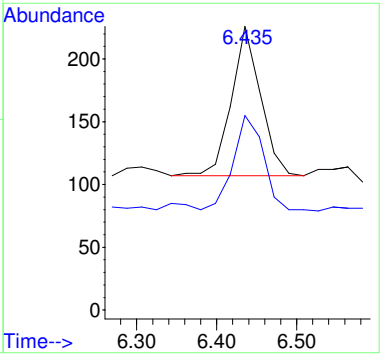


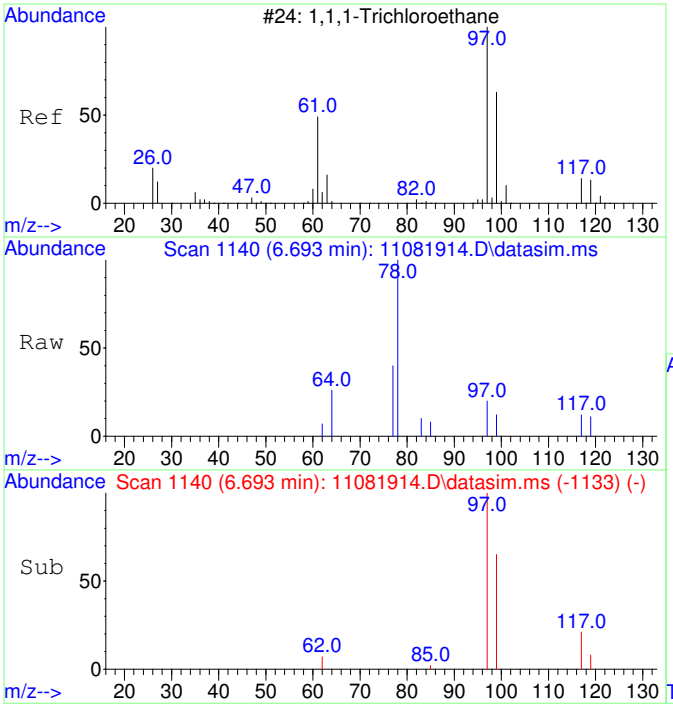


#6
Chloroform
Concen: 40.09 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 83 Resp: 304

Ion	Ratio	Lower	Upper
83	100		
85	66.4	35.2	95.2

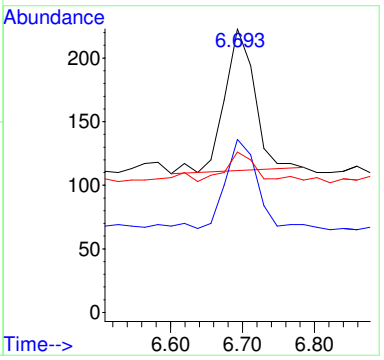


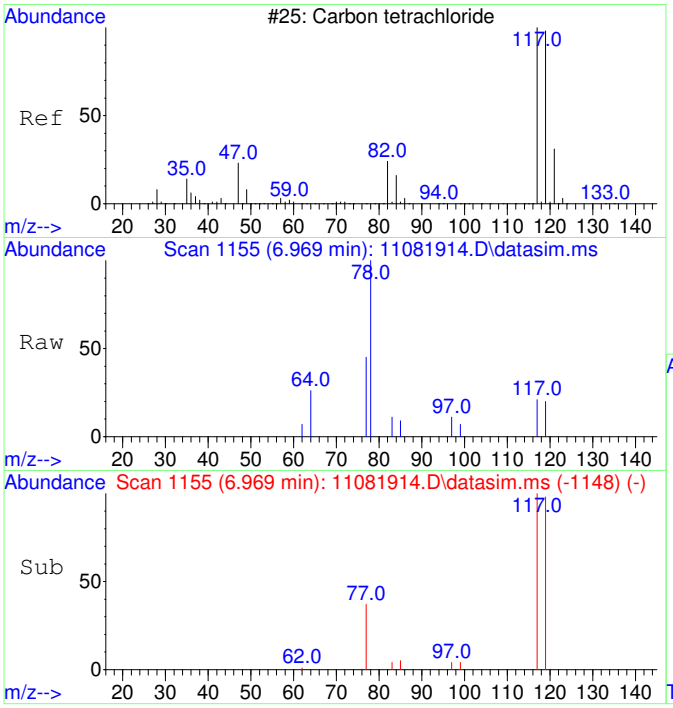


#7
1,1,1-Trichloroethane
Concen: 43.55 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 324

Ion	Ratio	Lower	Upper
97	100		
99	59.6	34.5	94.5
117	19.1	0.0	43.0

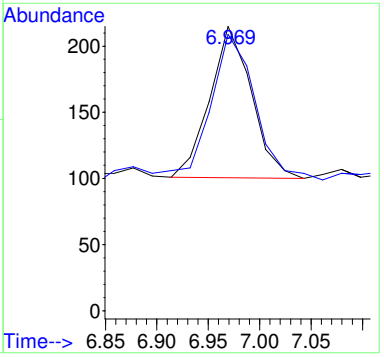


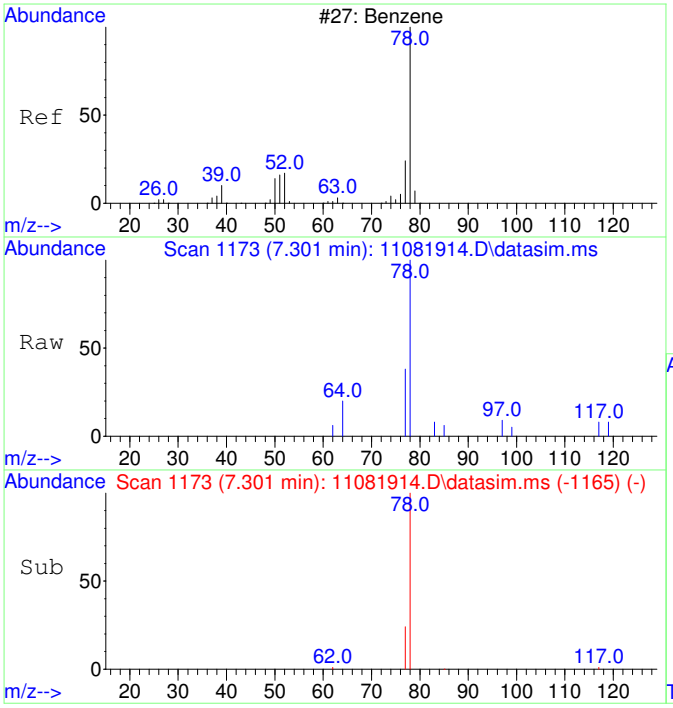


#8
Carbon tetrachloride
Concen: 46.81 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:117 Resp: 324

Ion	Ratio	Lower	Upper
117	100		
119	103.1	66.0	126.0

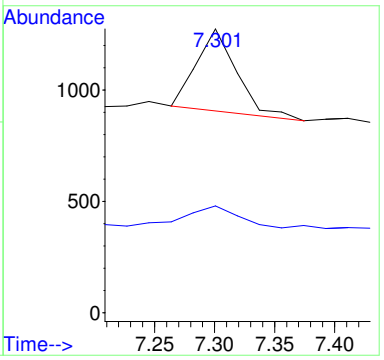


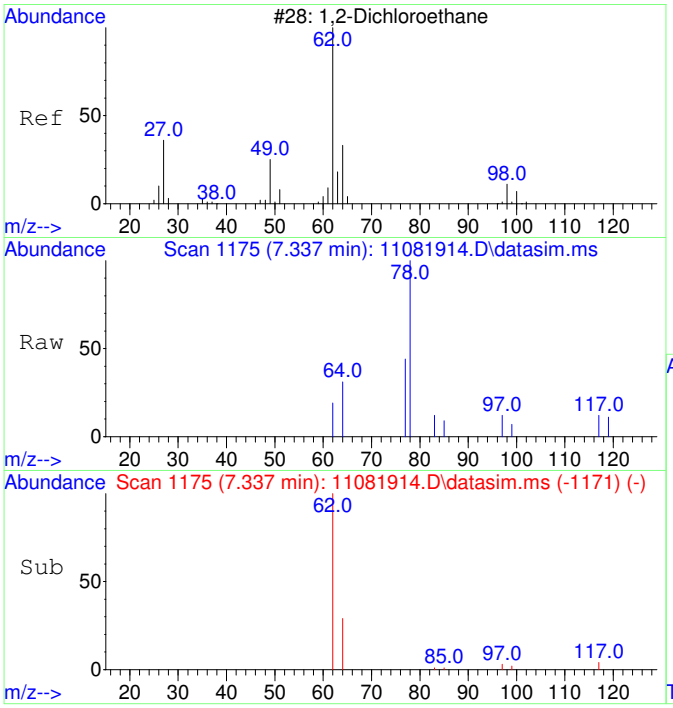


#9
Benzene
Concen: 43.59 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 78 Resp: 819

Ion	Ratio	Lower	Upper
78	100		
77	38.6	0.0	53.2

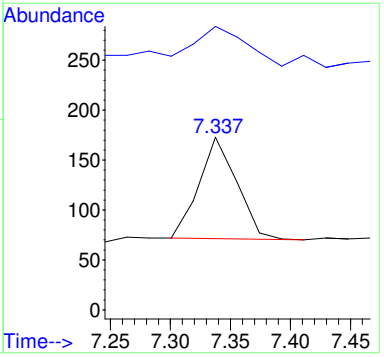


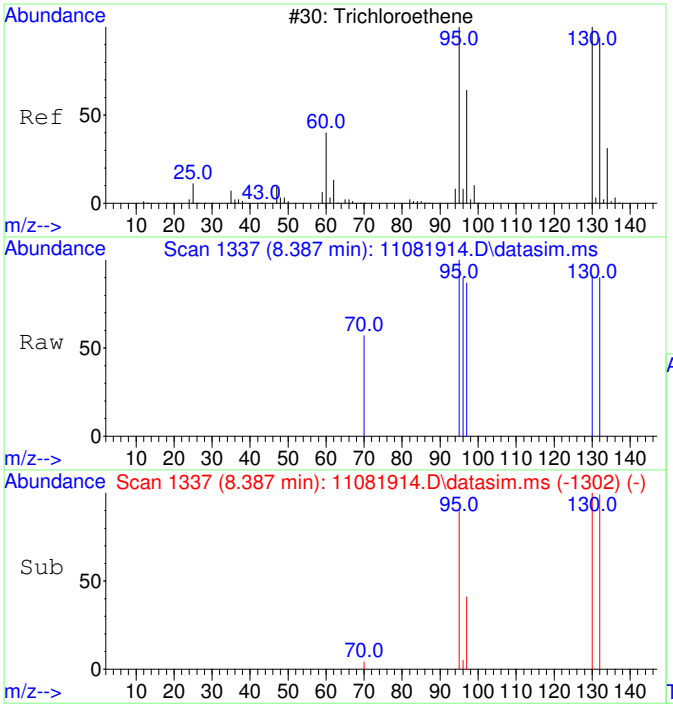


#10
1,2-Dichloroethane
Concen: 36.84 ug/L
RT: 7.337 min Scan# 1175
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 62 Resp: 222

Ion	Ratio	Lower	Upper
62	100		
64	60.8	2.4	62.4

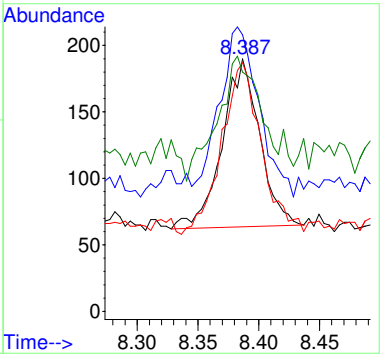


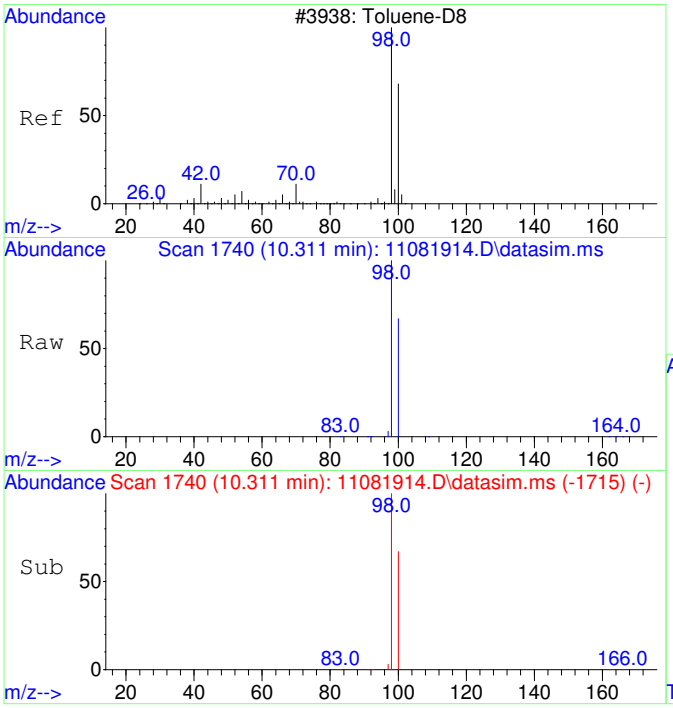


#11
Trichloroethene
Concen: 47.39 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:130 Resp: 270

Ion	Ratio	Lower	Upper
130	100		
95	107.0	63.4	123.4
132	108.5	76.0	116.0
97	84.1	39.8	79.8#

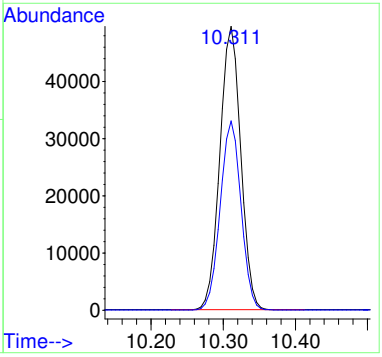


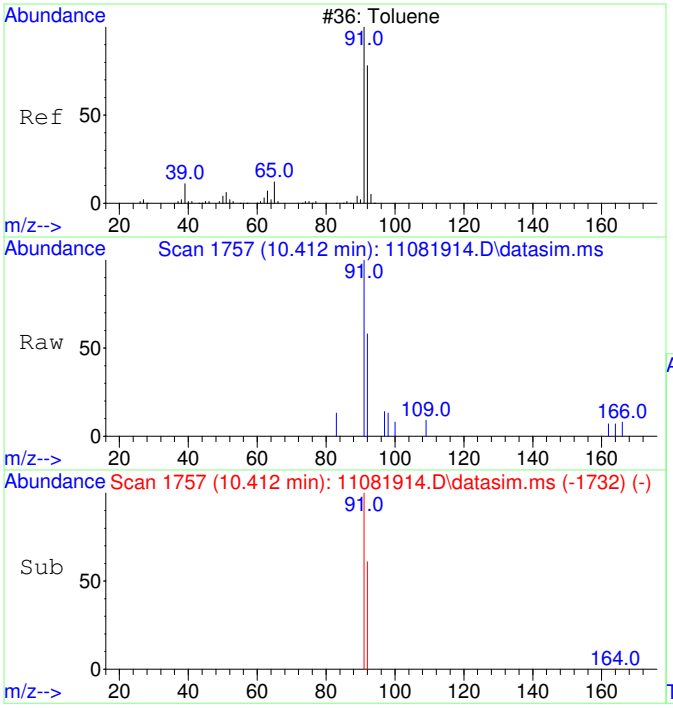


#12
Toluene-d8
Concen: 5157.46 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 98 Resp: 99389

Ion	Ratio	Lower	Upper
98	100		
100	66.3	36.4	96.4

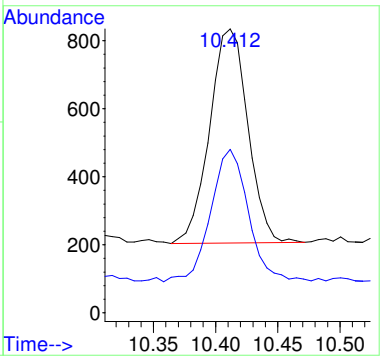


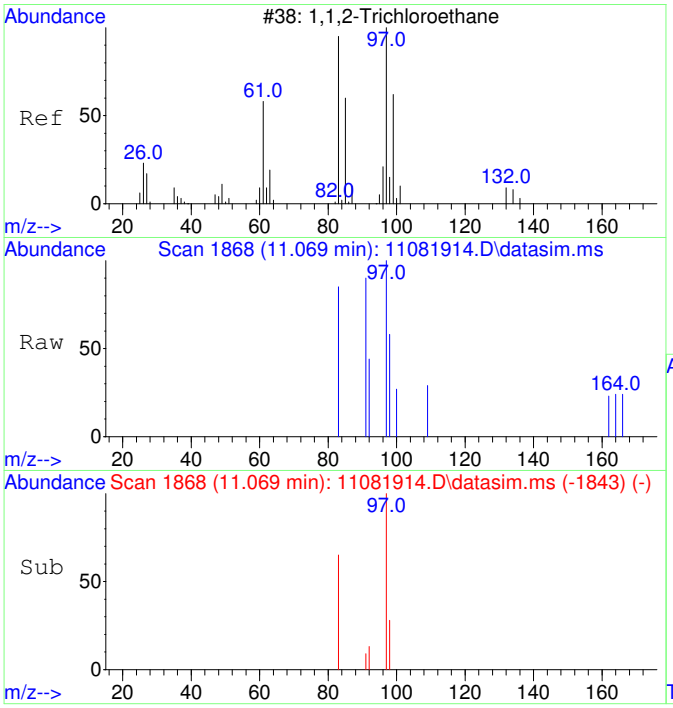


#13
Toluene
Concen: 57.88 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1352

Ion	Ratio	Lower	Upper
91	100		
92	60.3	29.4	89.4

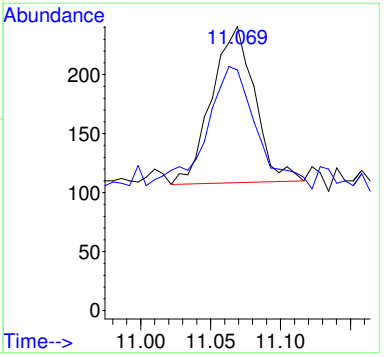


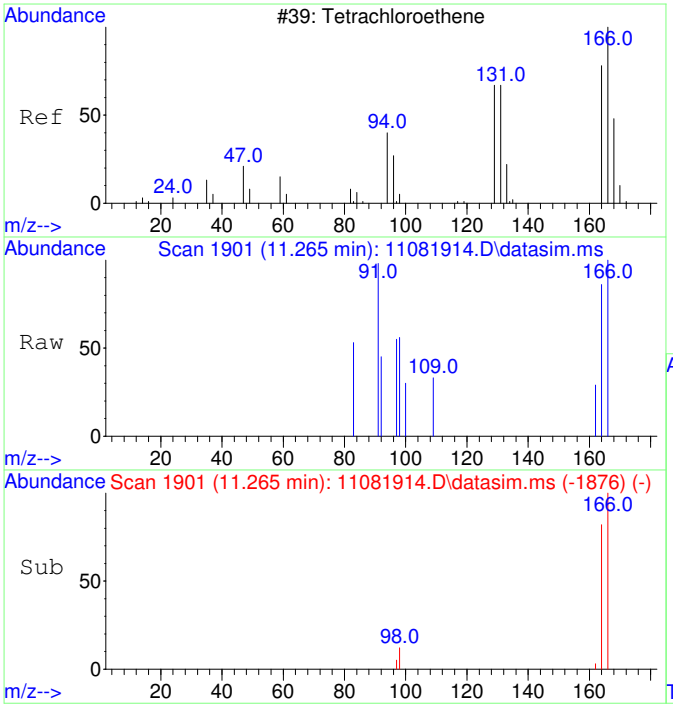


#14
1,1,2-Trichloroethane
Concen: 52.19 ug/L
RT: 11.069 min Scan# 1868
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 282

Ion	Ratio	Lower	Upper
97	100		
83	94.0	52.0	112.0

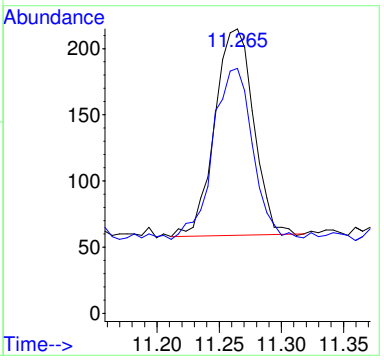


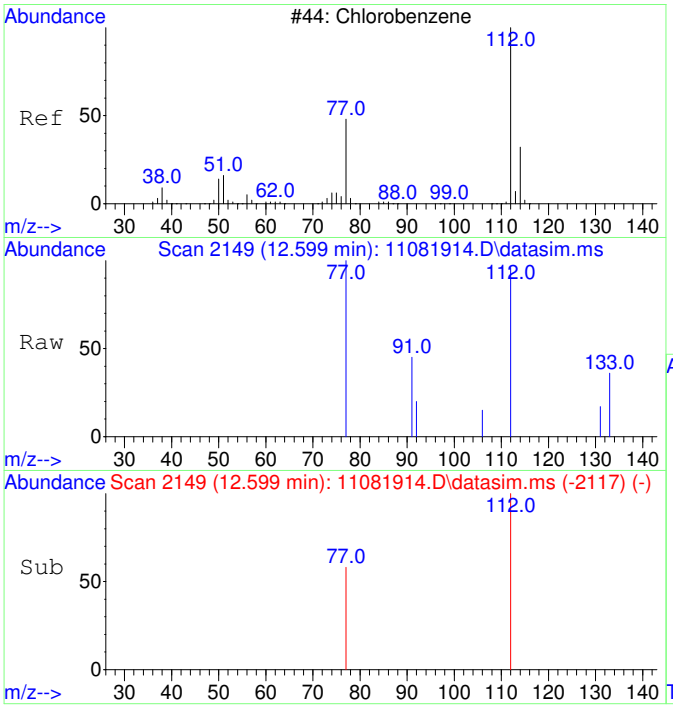


#15
Tetrachloroethene
Concen: 50.07 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:166 Resp: 340

Ion	Ratio	Lower	Upper
166	100		
164	84.1	47.7	107.7

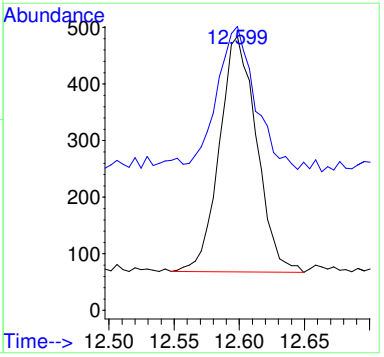


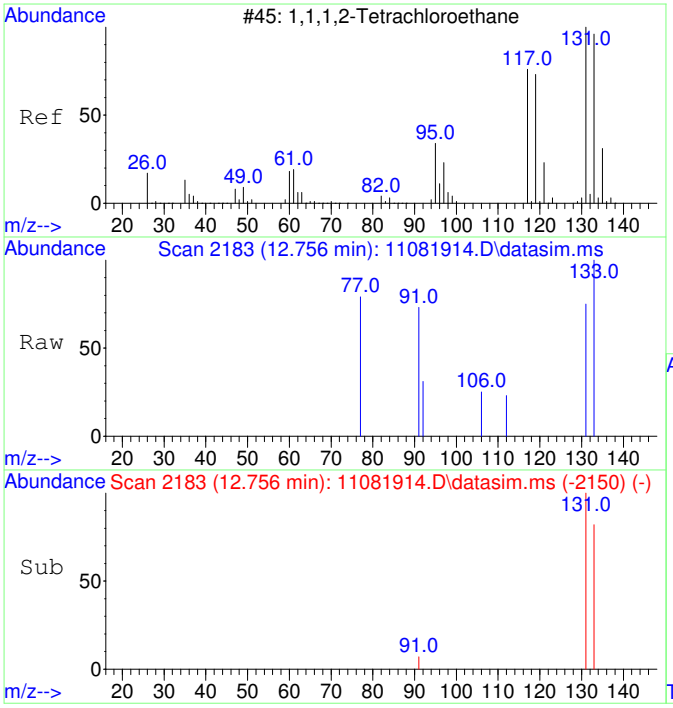


#16
Chlorobenzene
Concen: 47.69 ug/L
RT: 12.599 min Scan# 2149
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:112 Resp: 827

Ion	Ratio	Lower	Upper
112	100		
77	62.5	25.2	85.2

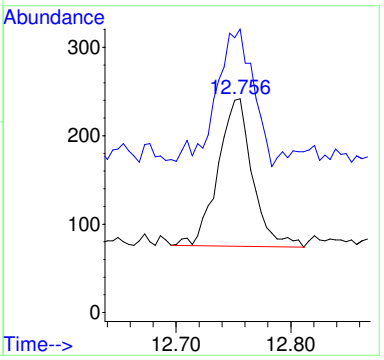


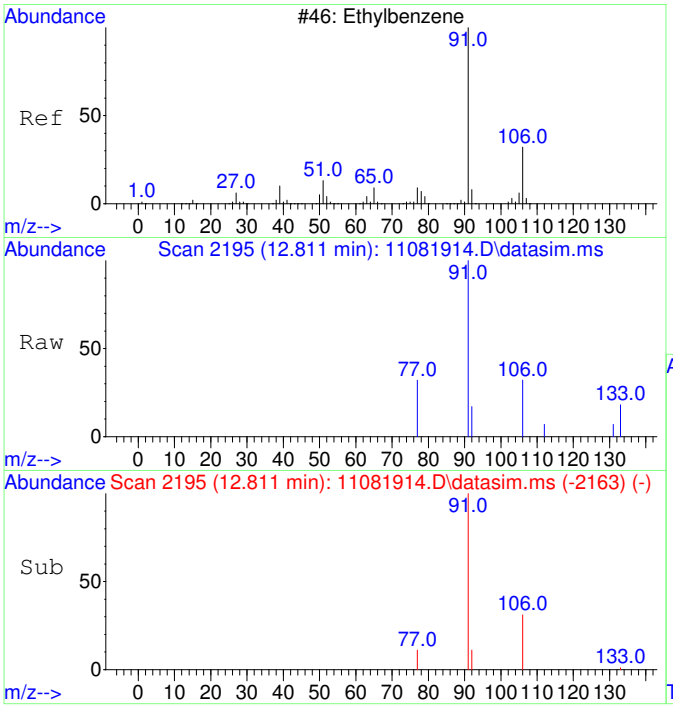


#17
1,1,1,2-Tetrachloroethane
Concen: 55.77 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.004 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:131 Resp: 348

Ion	Ratio	Lower	Upper
131	100		
133	97.1	65.1	125.1

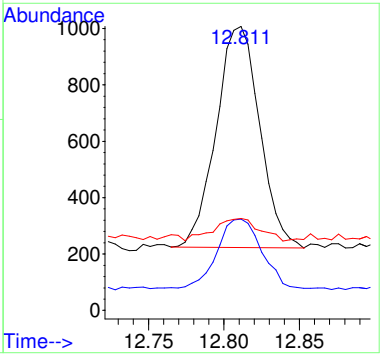


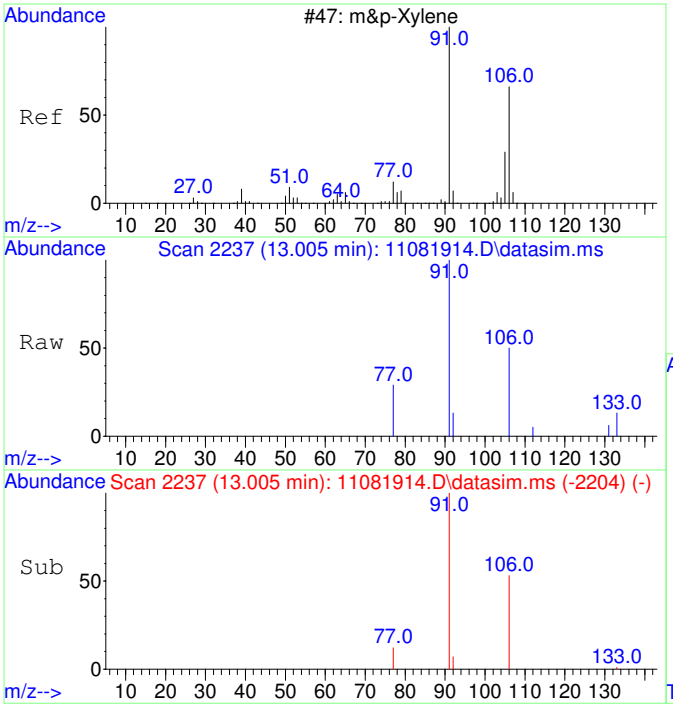


#18
Ethylbenzene
Concen: 55.25 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1568

Ion	Ratio	Lower	Upper
91	100		
106	32.2	2.5	62.5
77	10.5	0.0	38.4

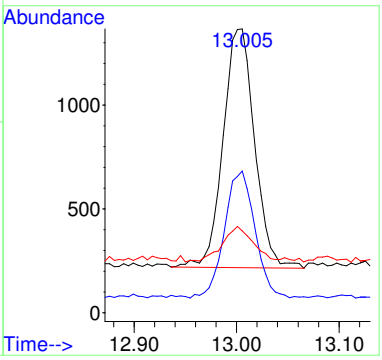


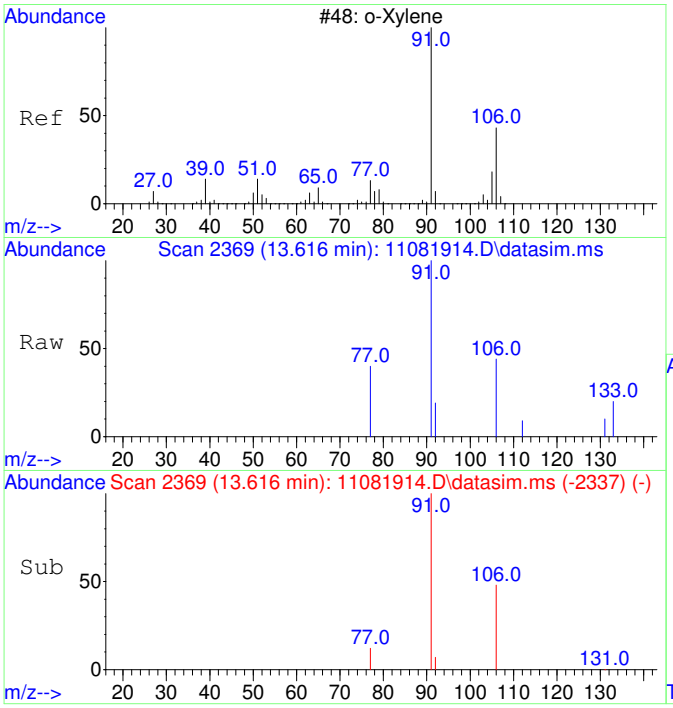


#19
m&p-Xylene
Concen: 114.29 ug/L
RT: 13.005 min Scan# 2237
Delta R.T. 0.004 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 2456

Ion	Ratio	Lower	Upper
91	100		
106	51.1	21.2	81.2
77	13.1	0.0	42.7

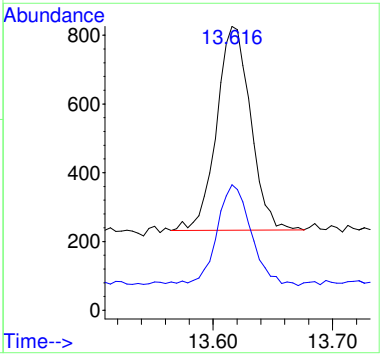


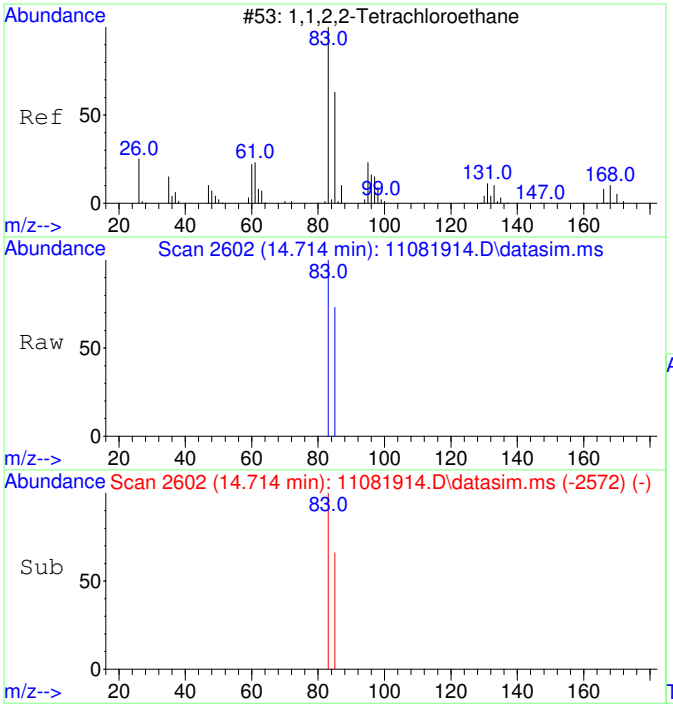


#20
o-Xylene
Concen: 51.01 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1170

Ion	Ratio	Lower	Upper
91	100		
106	50.5	18.3	78.3

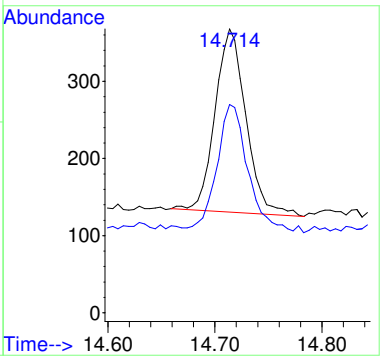


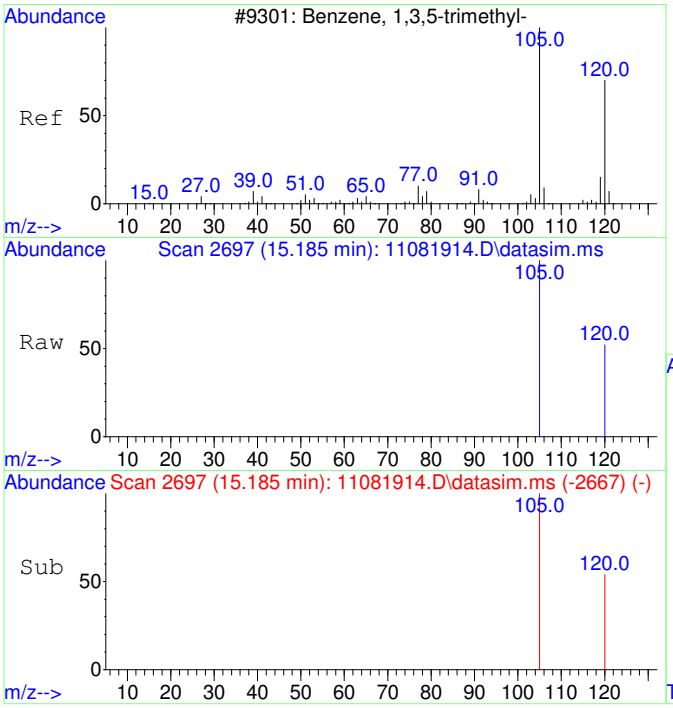


#21
1,1,2,2-Tetrachloroethane
Concen: 46.59 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 83 Resp: 474

Ion	Ratio	Lower	Upper
83	100		
85	69.0	34.7	94.7

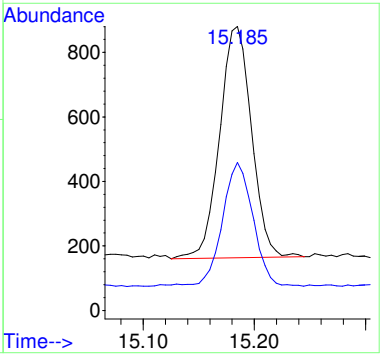


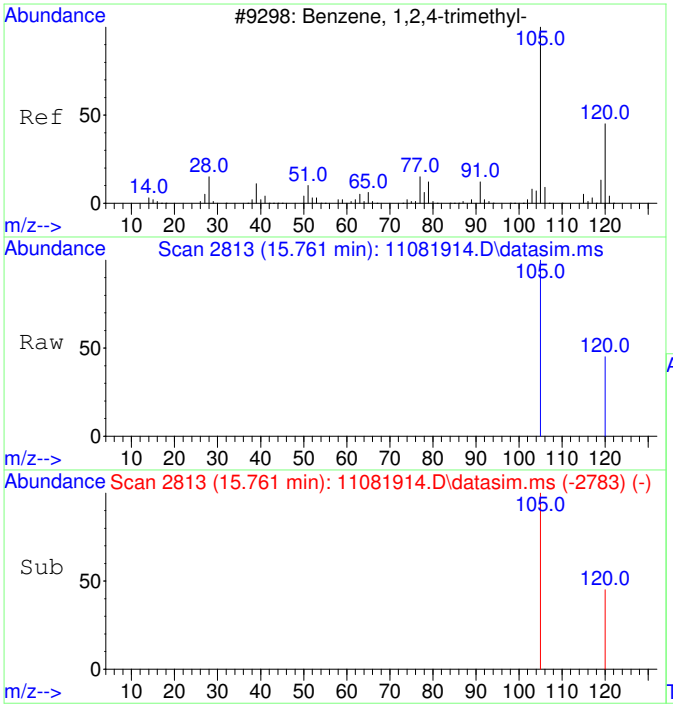


#22
1,3,5-Trimethylbenzene
Concen: 58.22 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 1428

Ion	Ratio	Lower	Upper
105	100		
120	49.6	20.8	80.8

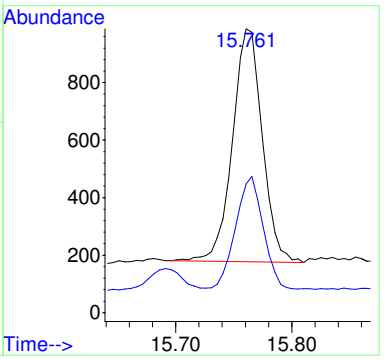


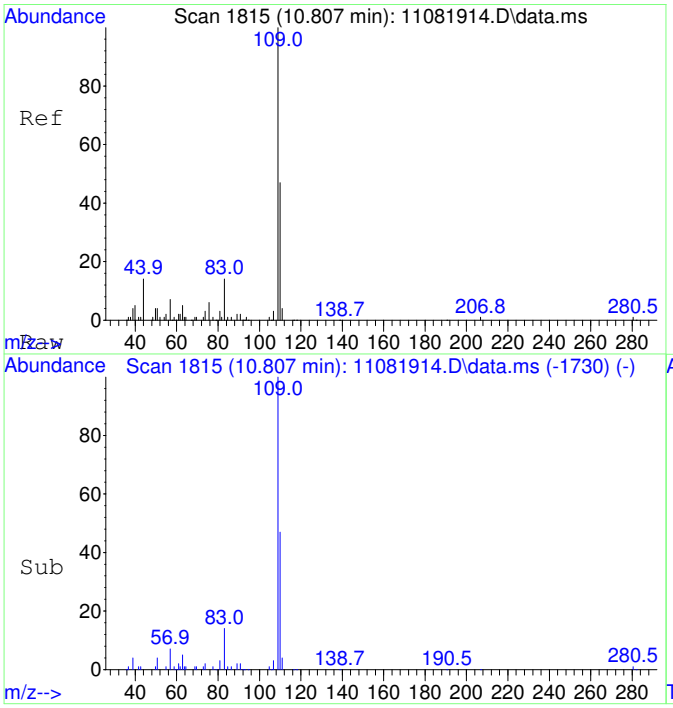


#23
1,2,4-Trimethylbenzene
Concen: 57.61 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 1439

Ion	Ratio	Lower	Upper
105	100		
120	44.4	16.8	76.8

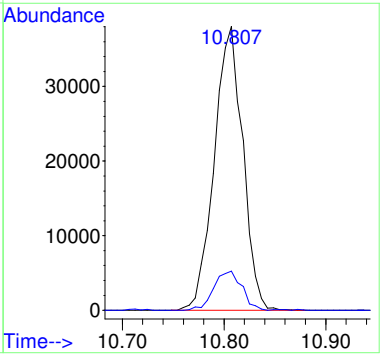


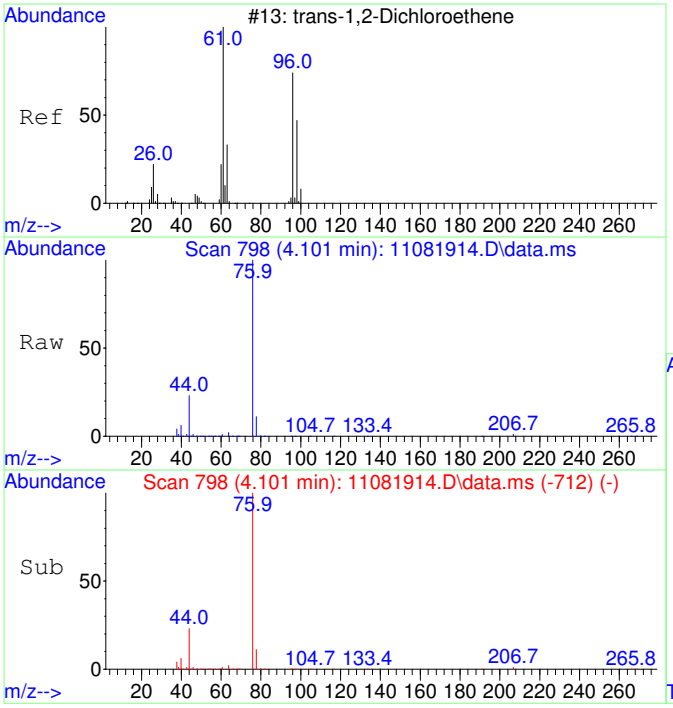


#25
2-Fluorotoluene SCAN
Concen: 4994.76 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:109 Resp: 74201

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	45.8

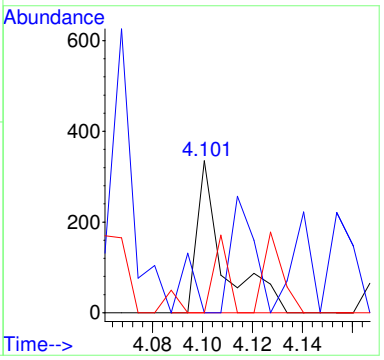


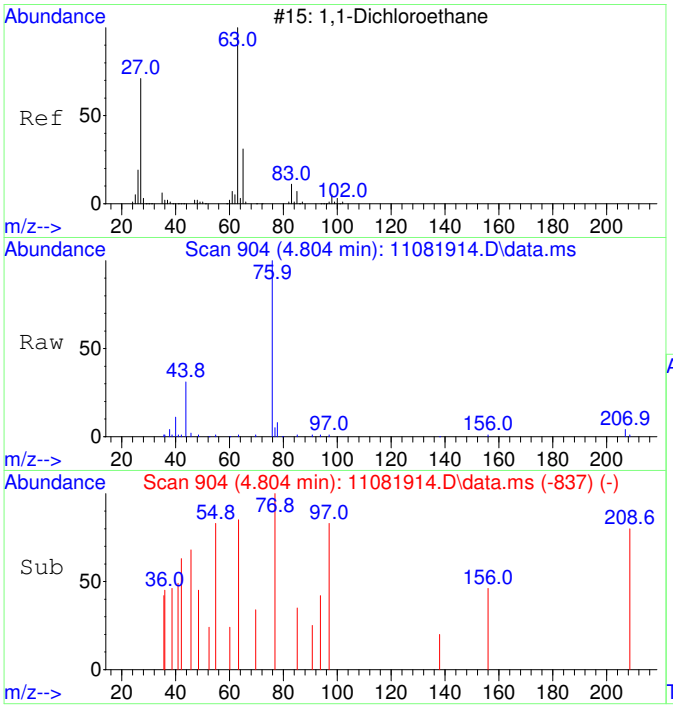


#27
trans-1,2-Dichloroethene SCAN
Concen: 51.98 ug/L
RT: 4.101 min Scan# 798
Delta R.T. -0.020 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 61 Resp: 248

Ion	Ratio	Lower	Upper
61	100		
96	66.9	46.5	106.5
98	35.5	22.8	82.8

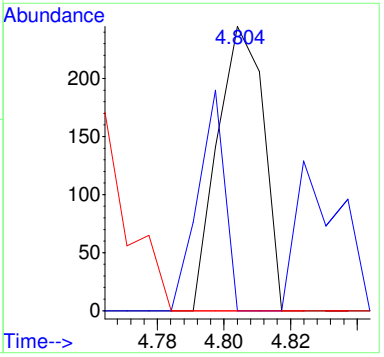


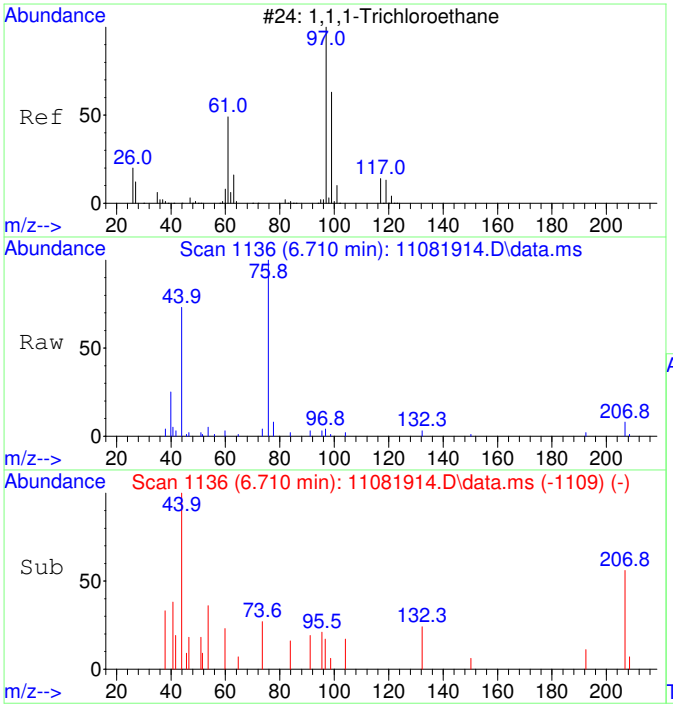


#28
1,1-Dichloroethane SCAN
Concen: 37.76 ug/L
RT: 4.804 min Scan# 904
Delta R.T. -0.053 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 63 Resp: 236

Ion	Ratio	Lower	Upper
63	100		
65	44.9	1.6	61.6
83	0.0	0.0	43.5

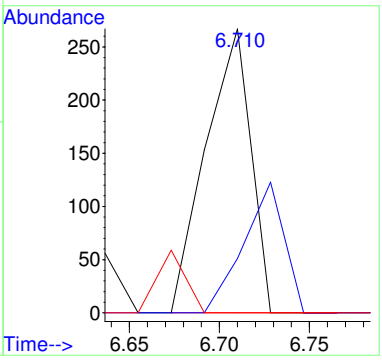


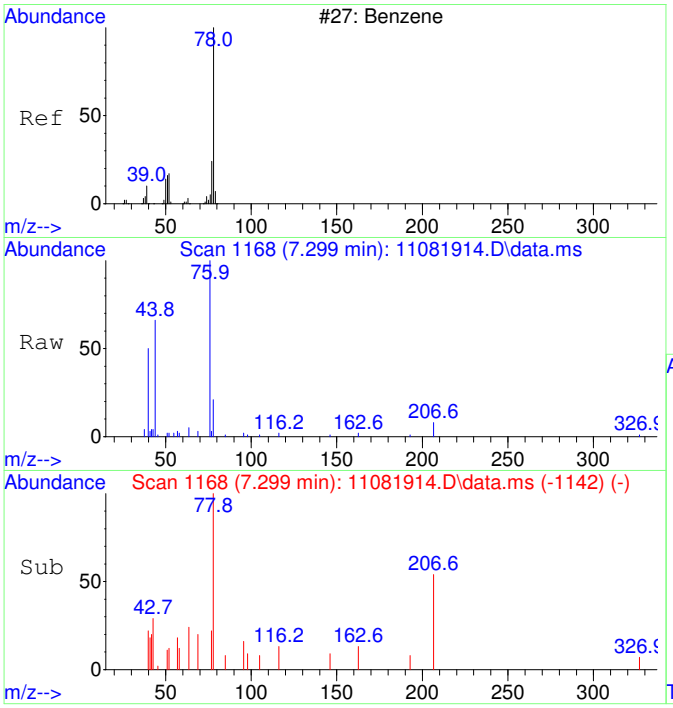


#31
1,1,1-Trichloroethane SCAN
Concen: 88.43 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 464

Ion	Ratio	Lower	Upper
97	100		
99	41.4	42.8	102.8#
61	0.0	11.1	71.1#

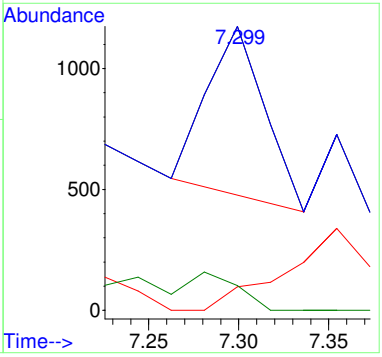


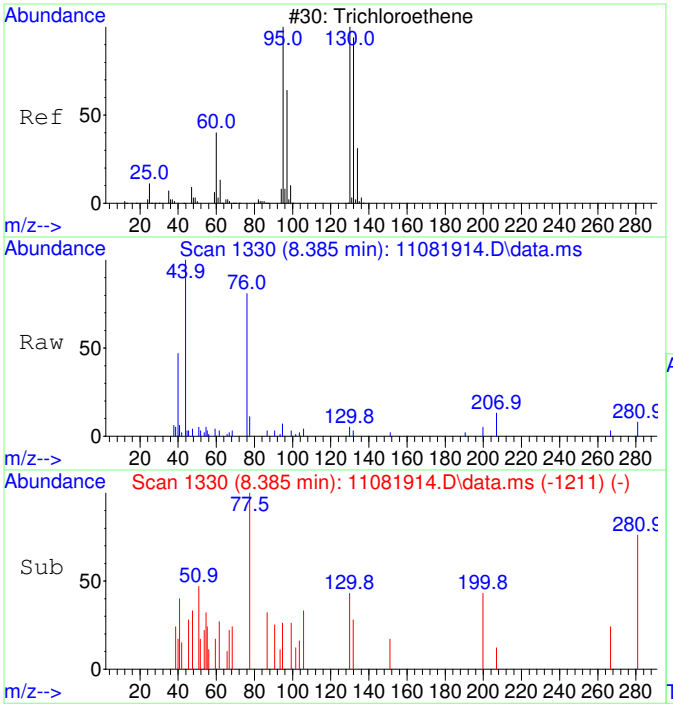


#33
Benzene SCAN
Concen: 111.93 ug/L
RT: 7.299 min Scan# 1168
Delta R.T. -0.019 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 78 Resp: 1476

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

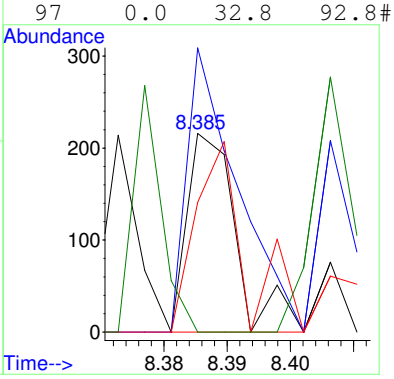


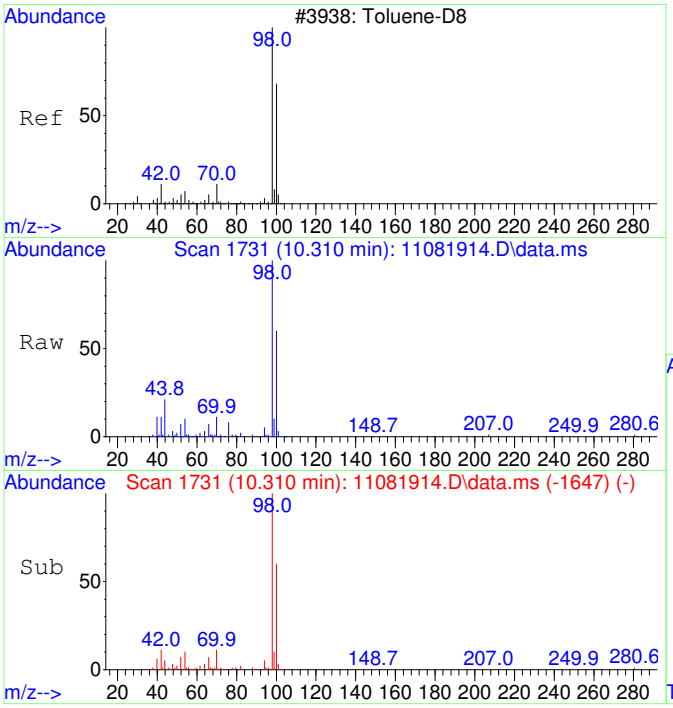


#35
Trichloroethene SCAN
Concen: 30.01 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:130 Resp: 116

Ion	Ratio	Lower	Upper
130	100		
95	149.1	69.5	129.5#
132	121.6	66.5	126.5
97	0.0	32.8	92.8#

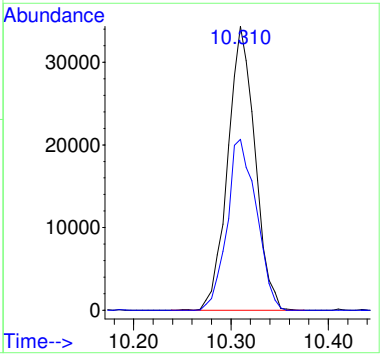


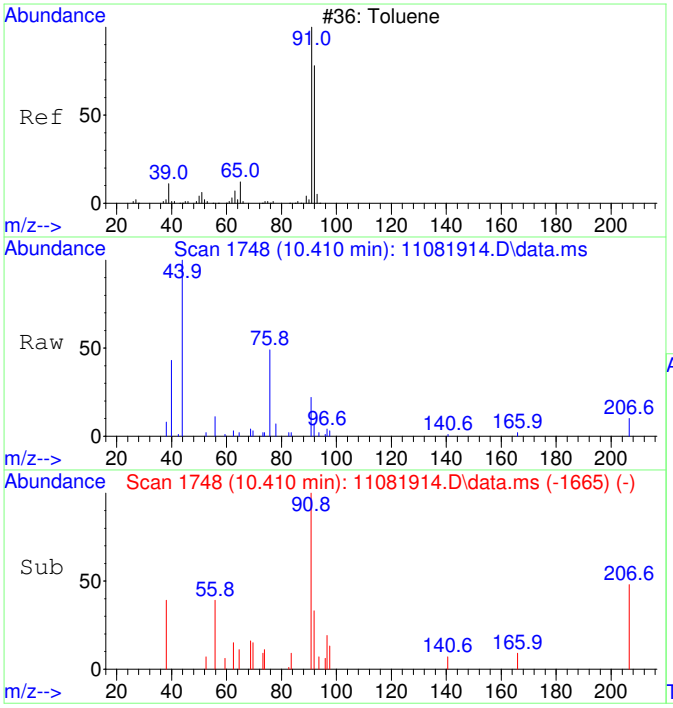


#36
Toluene-d8 SCAN
Concen: 5511.07 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 98 Resp: 66583

Ion	Ratio	Lower	Upper
98	100		
100	65.0	42.1	102.1

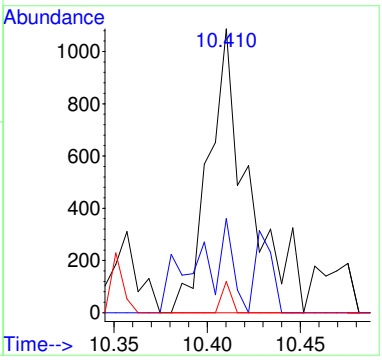


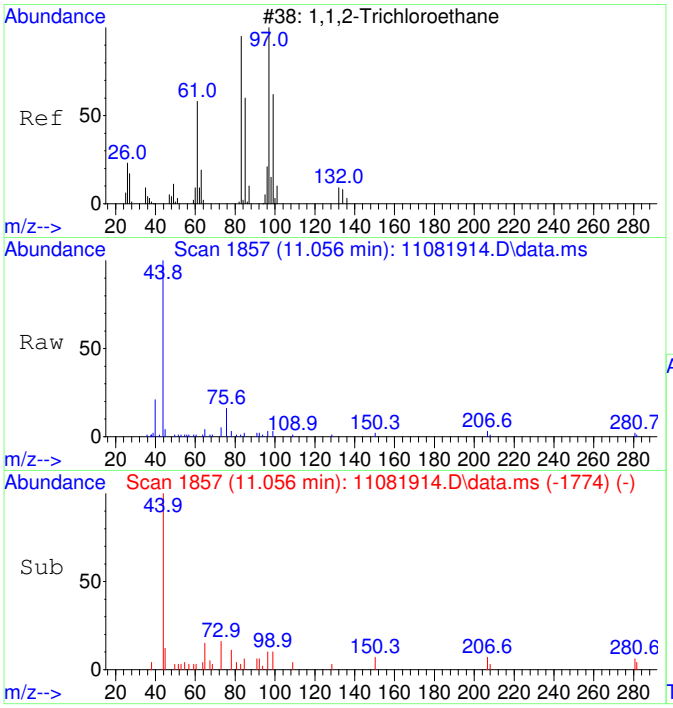


#37
Toluene SCAN
Concen: 108.62 ug/L
RT: 10.410 min Scan# 1748
Delta R.T. -0.006 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1618

Ion	Ratio	Lower	Upper
91	100		
92	9.0	31.9	91.9#
65	0.0	0.0	41.9

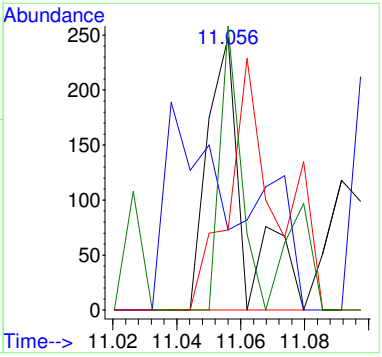


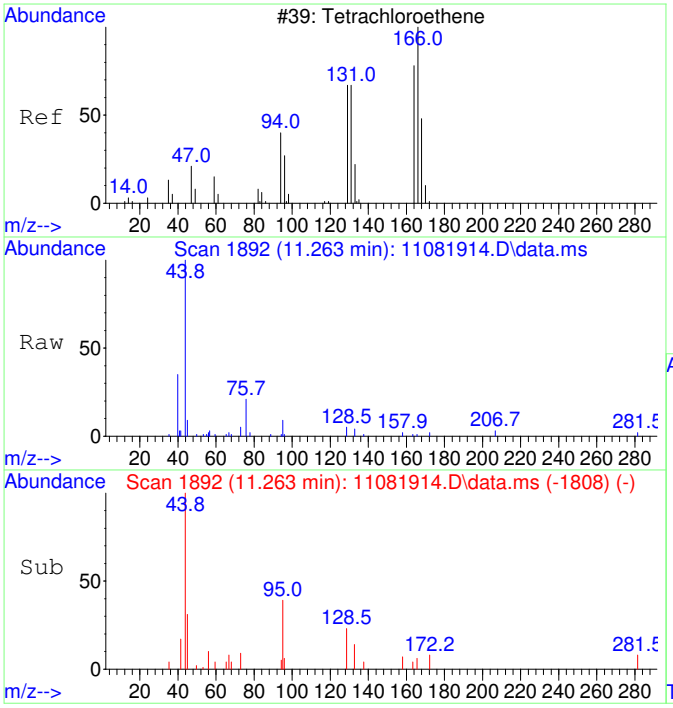


#38
1,1,2-Trichloroethane SCAN
Concen: 59.16 ug/L
RT: 11.056 min Scan# 1857
Delta R.T. -0.006 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 97 Resp: 201

Ion	Ratio	Lower	Upper
97	100		
83	0.0	58.1	118.1#
61	118.9	36.0	96.0#
99	57.7	32.7	92.7

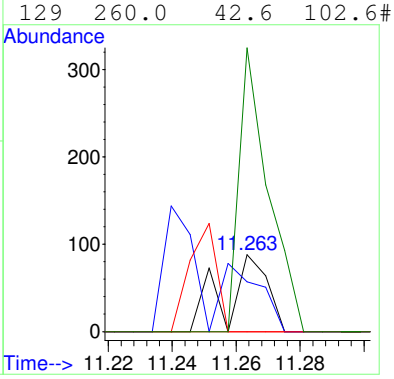


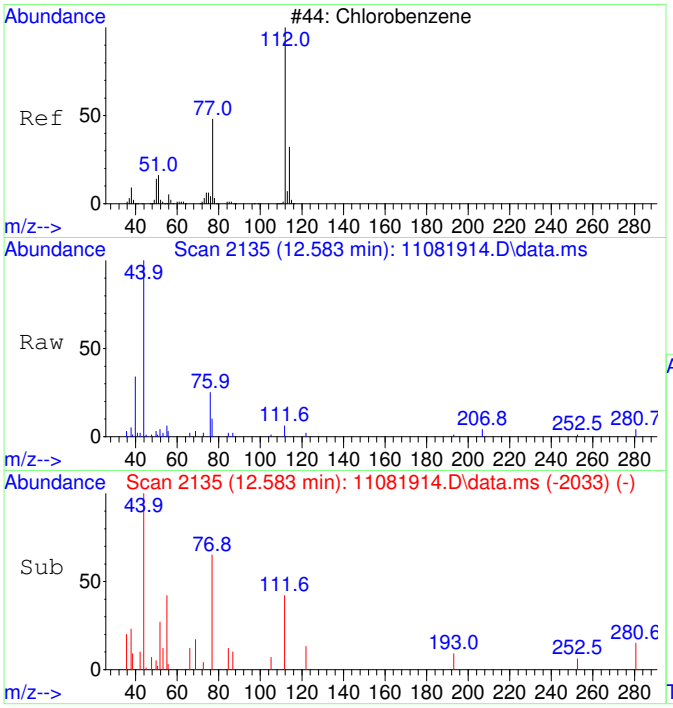


#39
Tetrachloroethene SCAN
Concen: 20.23 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:166 Resp: 80

Ion	Ratio	Lower	Upper
166	100		
164	82.5	50.4	110.4
131	91.3	44.0	104.0
129	260.0	42.6	102.6#

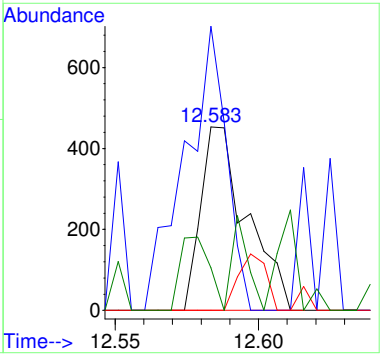


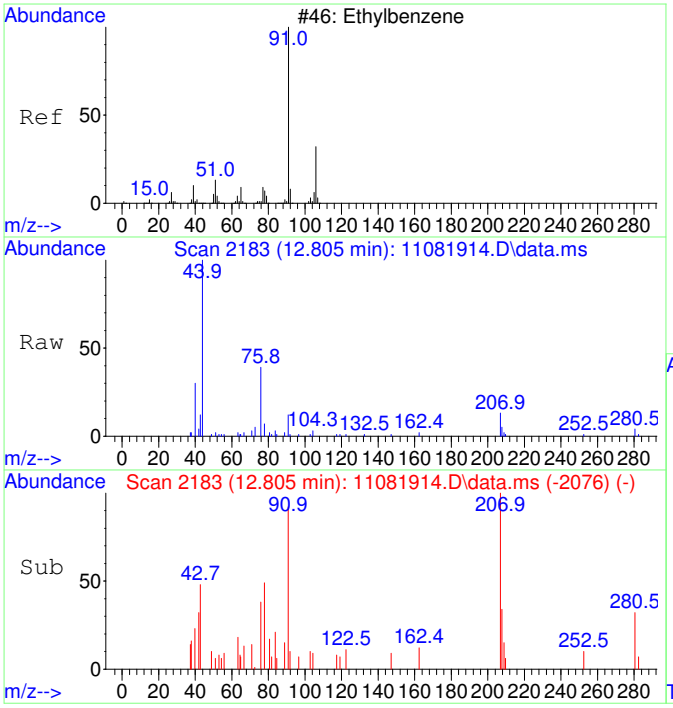


#40
Chlorobenzene SCAN
Concen: 50.10 ug/L
RT: 12.583 min Scan# 2135
Delta R.T. -0.014 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:112 Resp: 506

Ion	Ratio	Lower	Upper
112	100		
77	139.9	28.8	88.8#
114	0.0	2.6	62.6#
51	25.5	0.0	50.8

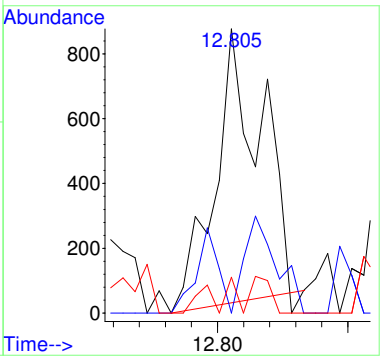


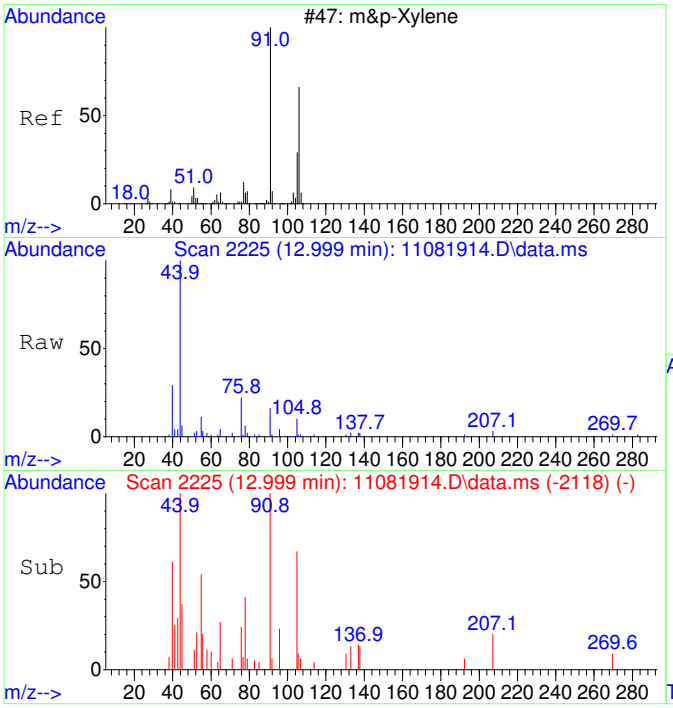


#42
Ethylbenzene SCAN
Concen: 61.46 ug/L
RT: 12.805 min Scan# 2183
Delta R.T. -0.005 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 1042

Ion	Ratio	Lower	Upper
91	100		
106	24.8	0.1	60.1
51	8.6	0.0	40.9

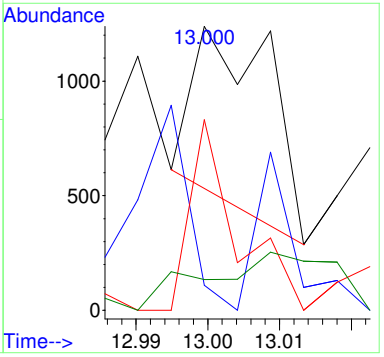


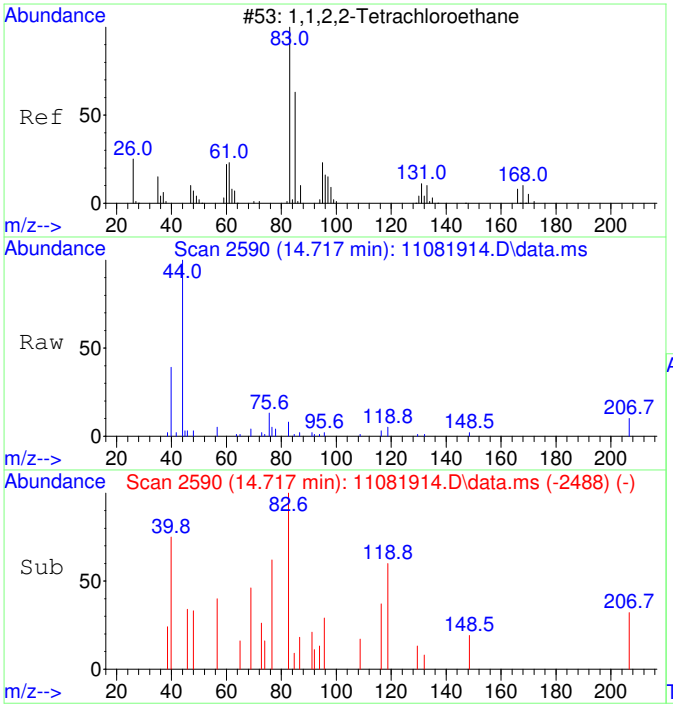


#43
m&p-Xylene SCAN
Concen: 22.00 ug/L
RT: 12.999 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 91 Resp: 535

Ion	Ratio	Lower	Upper
91	100		
106	89.0	21.1	81.1#
105	70.3	0.0	53.6#
51	0.0	0.0	40.7

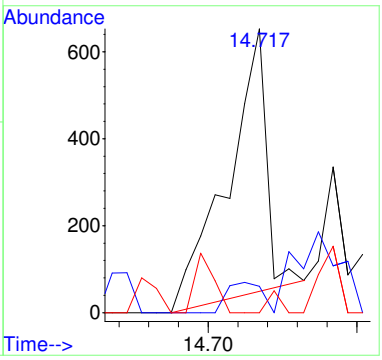


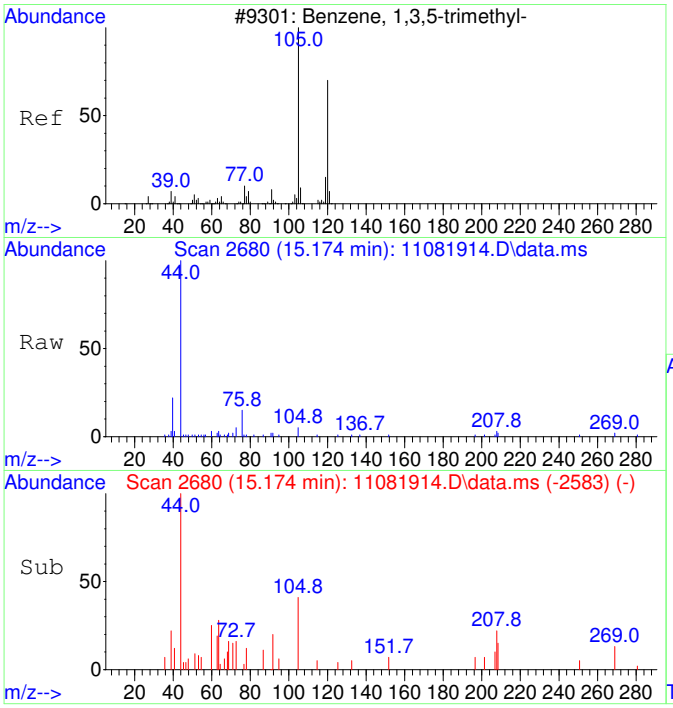


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 88.21 ug/L
RT: 14.717 min Scan# 2590
Delta R.T. -0.000 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion: 83 Resp: 554

Ion	Ratio	Lower	Upper
83	100		
85	10.3	38.3	98.3#
95	11.2	0.0	44.8

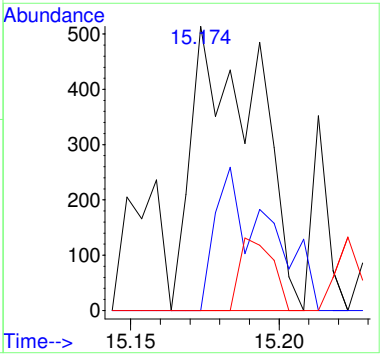


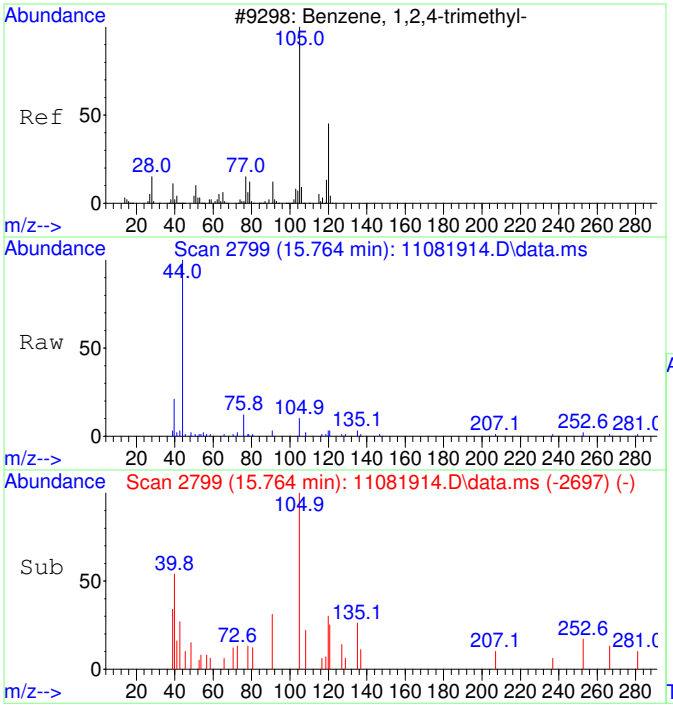


#46
1,3,5-Trimethylbenzene SCAN
Concen: 60.03 ug/L
RT: 15.174 min Scan# 2680
Delta R.T. -0.010 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 790

Ion	Ratio	Lower	Upper
105	100		
120	40.9	20.8	80.8
119	12.8	0.0	42.8

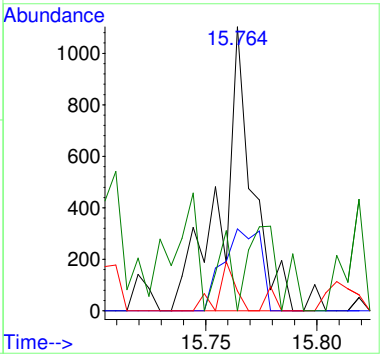




#47
1,2,4-Trimethylbenzene SCAN
Concen: 82.75 ug/L
RT: 15.764 min Scan# 2799
Delta R.T. 0.005 min
Lab File: 11081914.D
Acq: 8 Nov 2019 15:27

Tgt Ion:105 Resp: 1072

Ion	Ratio	Lower	Upper
105	100		
120	35.2	18.6	78.6
119	9.3	0.0	42.1
77	30.9	0.0	42.9



1910069-04

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081917.D
Acq On : 8 Nov 2019 16:38
InstName : AG5975C
Operator : TD
Sample : 1910069-04 (Sig #1); 1910069-04RE1 (Sig #2)
Misc : 495-5
ALS Vial : 16 Sample Multiplier: 100

REPORT

Quant Time: Nov 11 06:19:51 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

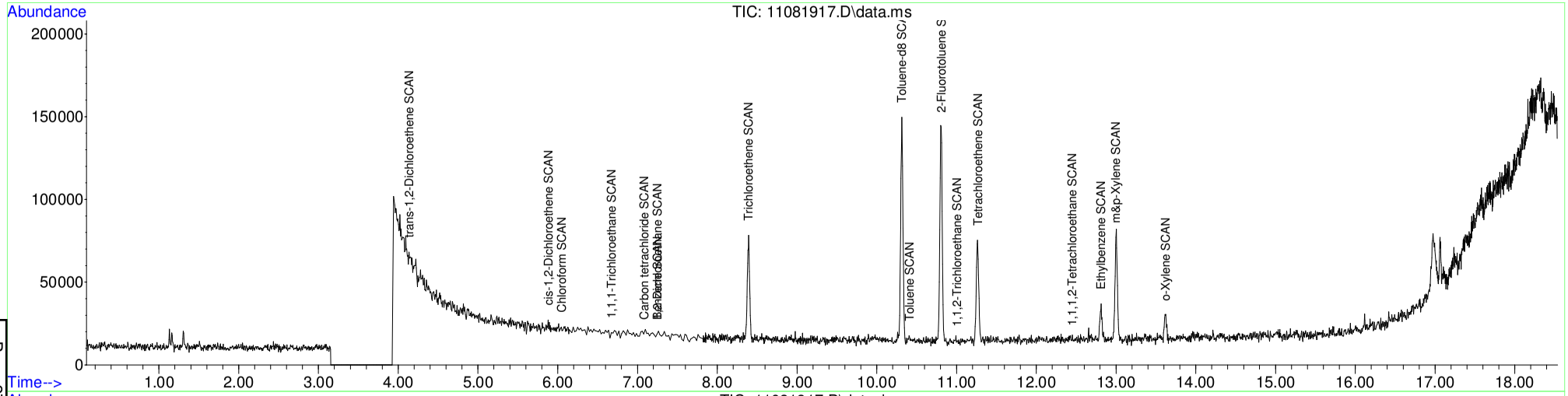
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	186269	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	148805	4943.56	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 98.87%			
Target Compounds						Qvalue
3] trans-1,2-Dichloroethene	4.129	61	340	38.48	ug/L	88
5] cis-1,2-Dichloroethene	5.874	61	3330	322.52	ug/L	99
6] Chloroform	6.454	83	2328	196.54	ug/L	98
11] Trichloroethene	8.391	130	36220	4070.06	ug/L	100
13] Toluene	10.412	91	3091	84.71	ug/L	99
15] Tetrachloroethene	11.265	166	34576	3259.69	ug/L	99
18] Ethylbenzene	12.810	91	25011	564.18	ug/L	100
19] m&p-Xylene	13.000	91	71497	2130.03	ug/L	100
20] o-Xylene	13.619	91	16475	459.90	ug/L	100
25) 2-Fluorotoluene SCAN	10.807	109	111134	4789.35	ug/L	97
27) trans-1,2-Dichloroethe...	4.134	61	234	31.40	ug/L #	51
29) cis-1,2-Dichloroethene...	5.879	61	2260	268.14	ug/L	71
30) Chloroform SCAN	6.045	83	209	22.26	ug/L	69
31) 1,1,1-Trichloroethane ...	6.673	97	244	29.77	ug/L #	21
32) Carbon tetrachloride SCAN	7.079	117	272	35.41	ug/L #	1
33) Benzene SCAN	7.244	78	879	42.67	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.244	62	187	24.34	ug/L #	39
35) Trichloroethene SCAN	8.394	130	23568	3902.94	ug/L	96
36) Toluene-d8 SCAN	10.316	98	98780	5234.40	ug/L	93
37) Toluene SCAN	10.405	91	2907	124.94	ug/L	80
38) 1,1,2-Trichloroethane ...	11.003	97	182	34.30	ug/L #	21
39) Tetrachloroethene SCAN	11.264	166	20509	3320.06	ug/L	95
41) 1,1,1,2-Tetrachloroeth...	12.448	131	145	25.58	ug/L #	59
42) Ethylbenzene SCAN	12.813	91	18190	686.92	ug/L	96
43) m&p-Xylene SCAN	12.998	91	46206	1216.24	ug/L	99
44) o-Xylene SCAN	13.618	91	11369	562.73	ug/L	86

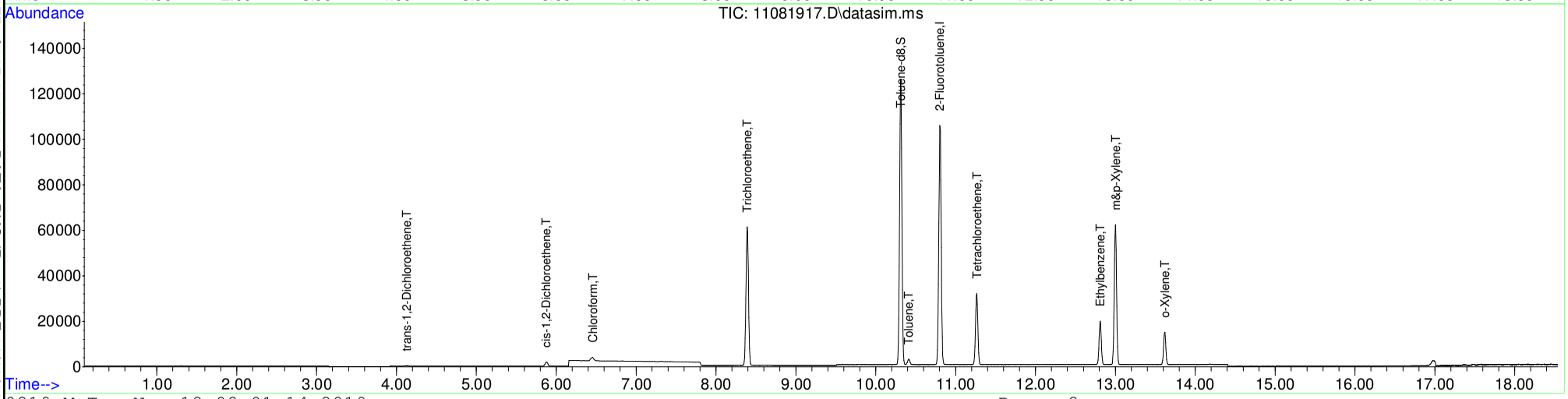
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081917.D
Acq On : 8 Nov 2019 16:38
InstName : AG5975C
Operator : TD
Sample : 1910069-04 (Sig #1); 1910069-04RE1 (Sig #2)
Misc : 495-5
ALS Vial : 16 Sample Multiplier: 100

Quant Time: Nov 11 06:19:51 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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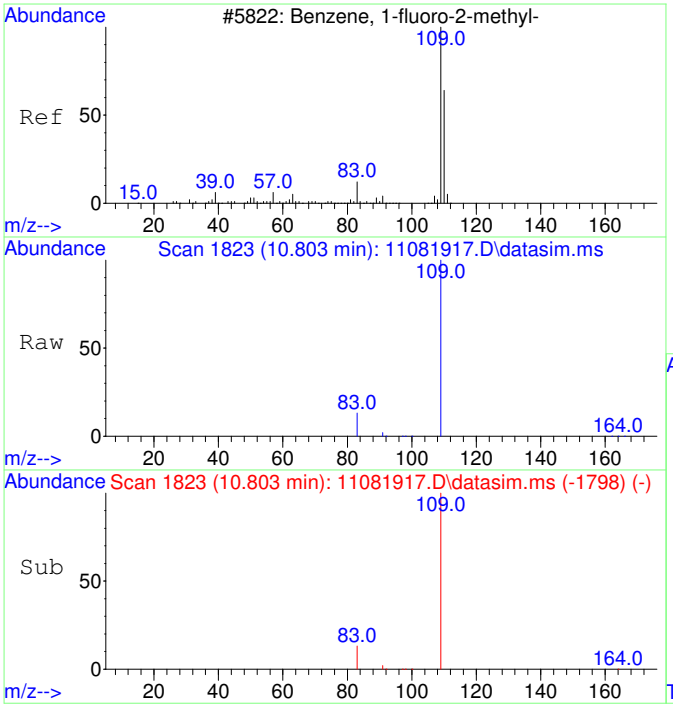
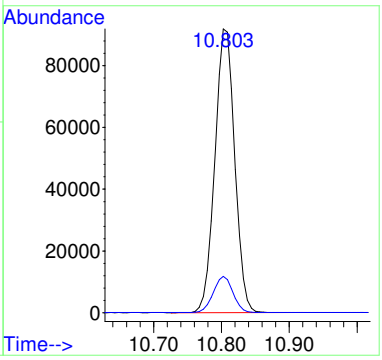
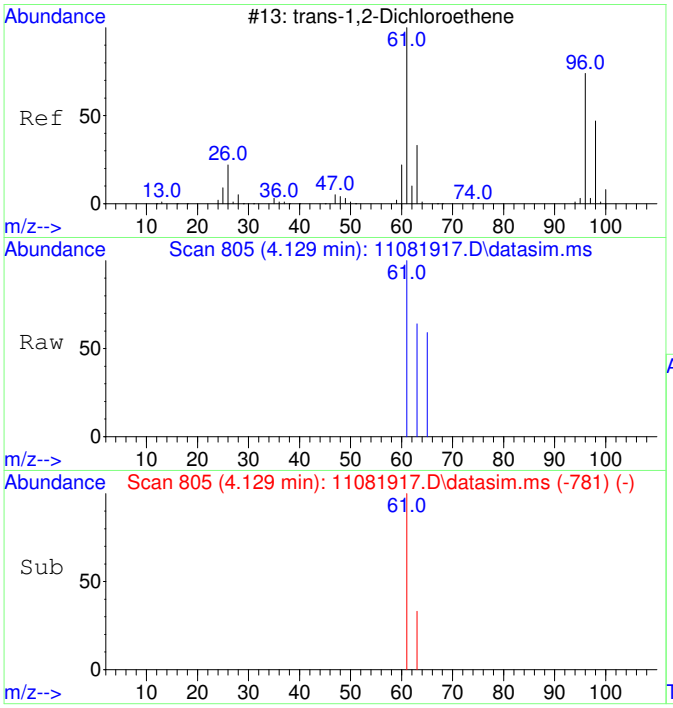


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:109 Resp: 186269

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

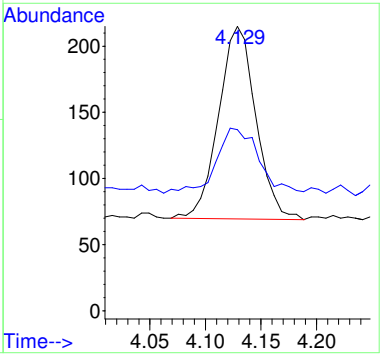


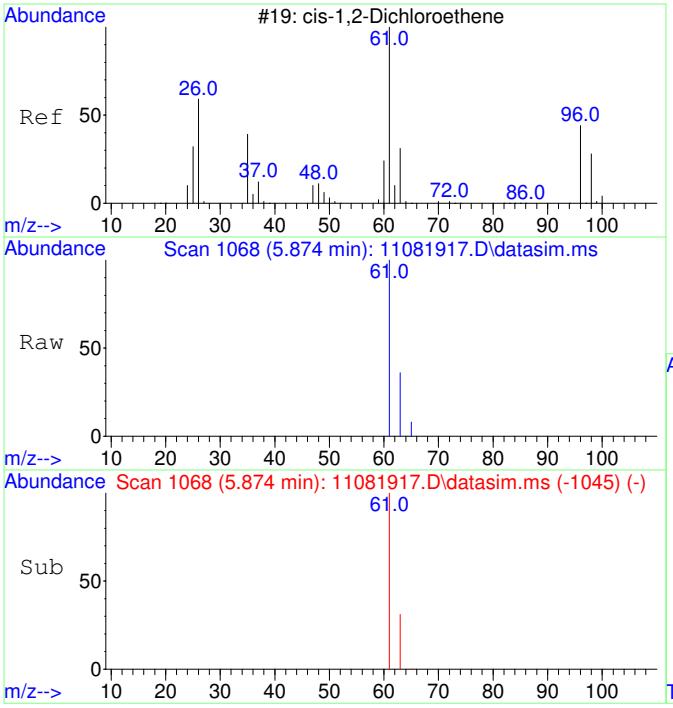


#3
trans-1,2-Dichloroethene
Concen: 38.48 ug/L
RT: 4.129 min Scan# 805
Delta R.T. 0.007 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 61 Resp: 340

Ion	Ratio	Lower	Upper
61	100		
63	39.1	2.3	62.3

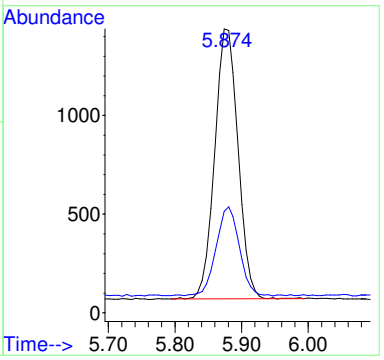


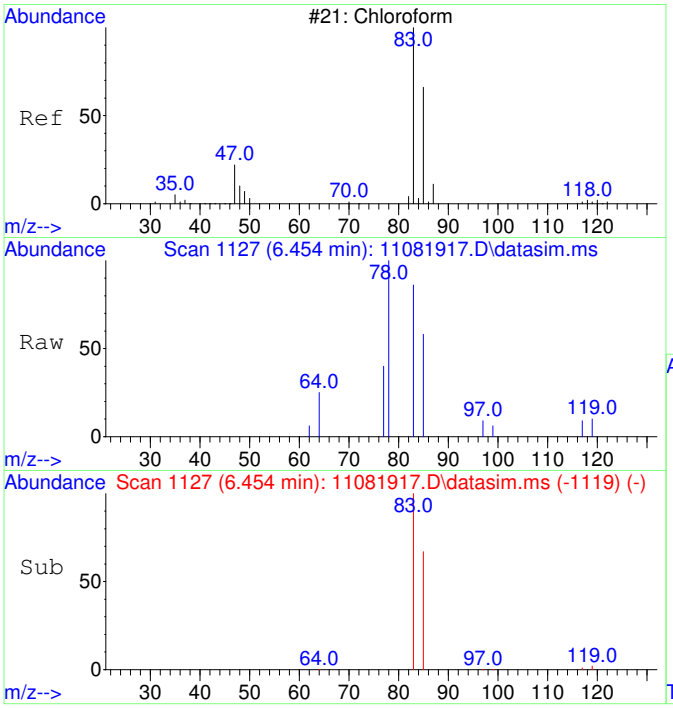


#5
cis-1,2-Dichloroethene
Concen: 322.52 ug/L
RT: 5.874 min Scan# 1068
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 61 Resp: 3330

Ion	Ratio	Lower	Upper
61	100		
63	32.8	2.4	62.4

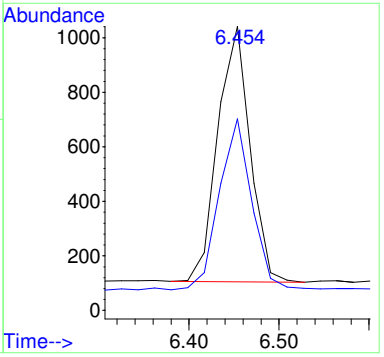


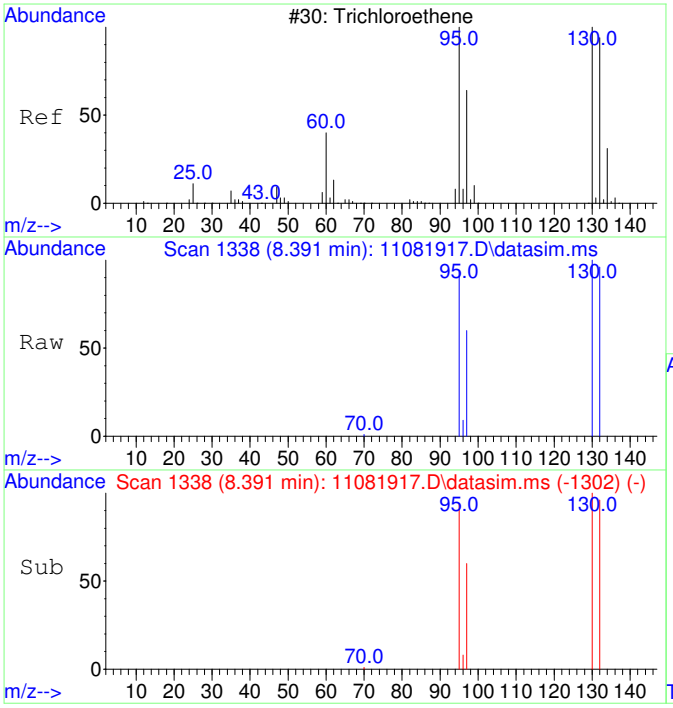


#6
Chloroform
Concen: 196.54 ug/L
RT: 6.454 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 83 Resp: 2328

Ion	Ratio	Lower	Upper
83	100		
85	66.6	35.2	95.2

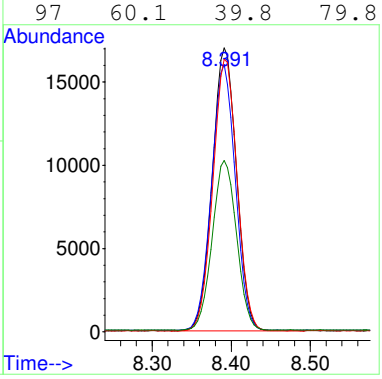


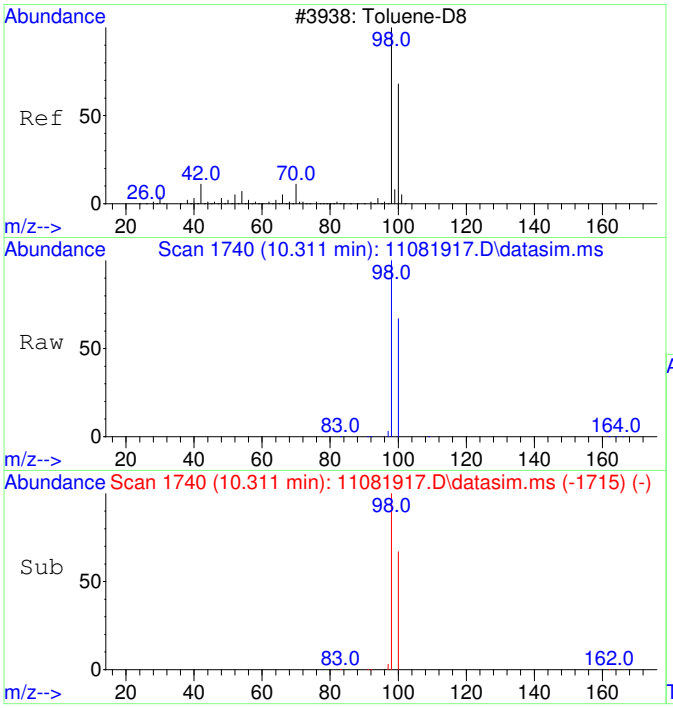


#11
Trichloroethene
Concen: 4070.06 ug/L
RT: 8.391 min Scan# 1338
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:130 Resp: 36220

Ion	Ratio	Lower	Upper
130	100		
95	92.6	63.4	123.4
132	96.1	76.0	116.0
97	60.1	39.8	79.8

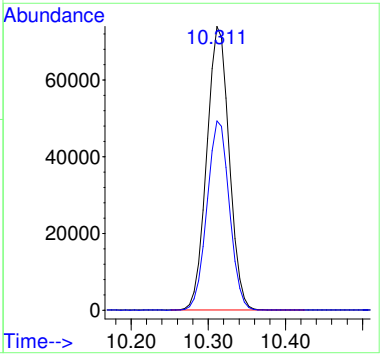


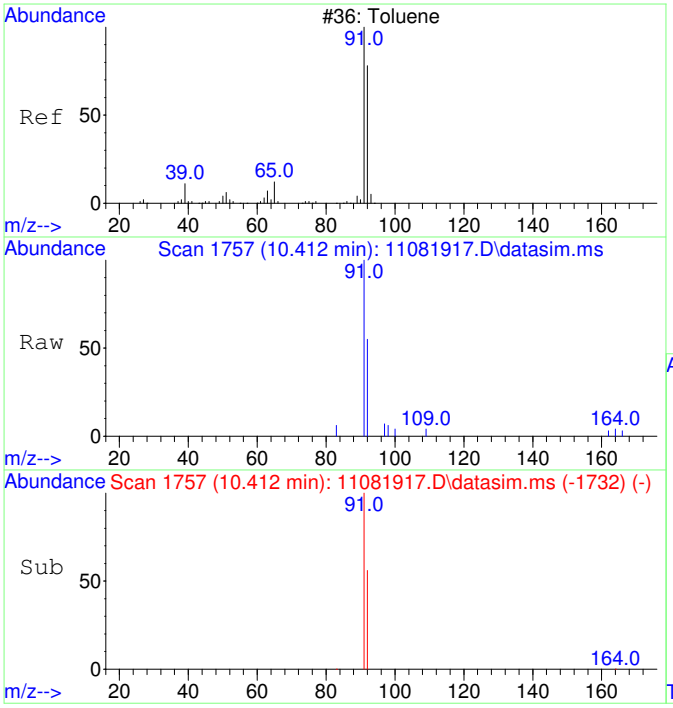


#12
Toluene-d8
Concen: 4943.56 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 98 Resp: 148805

Ion	Ratio	Lower	Upper
98	100		
100	66.6	36.4	96.4

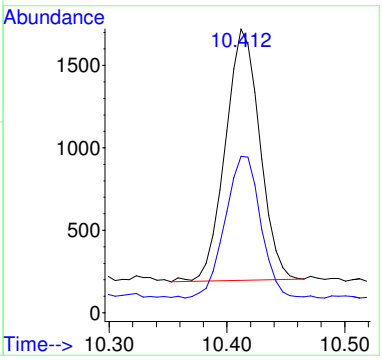


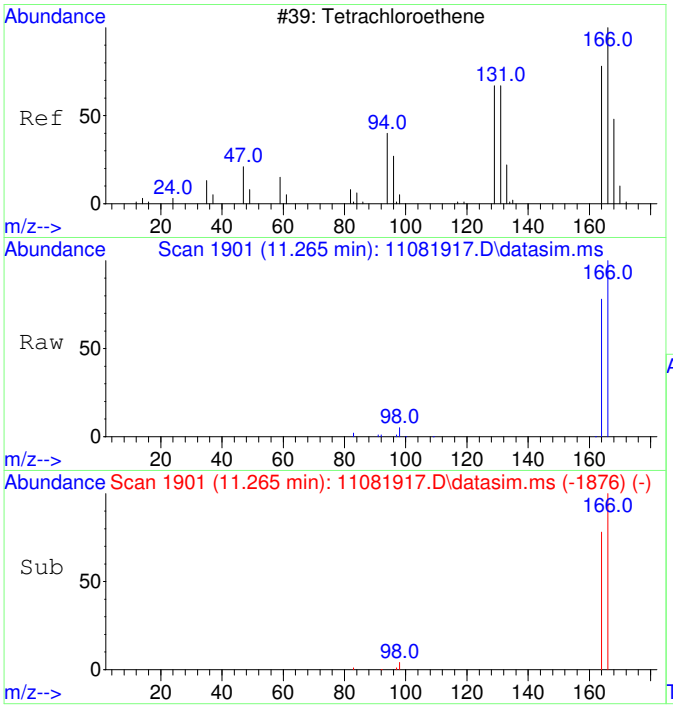


#13
Toluene
Concen: 84.71 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 3091

Ion	Ratio	Lower	Upper
91	100		
92	58.3	29.4	89.4

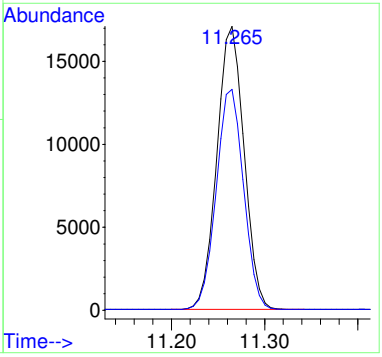


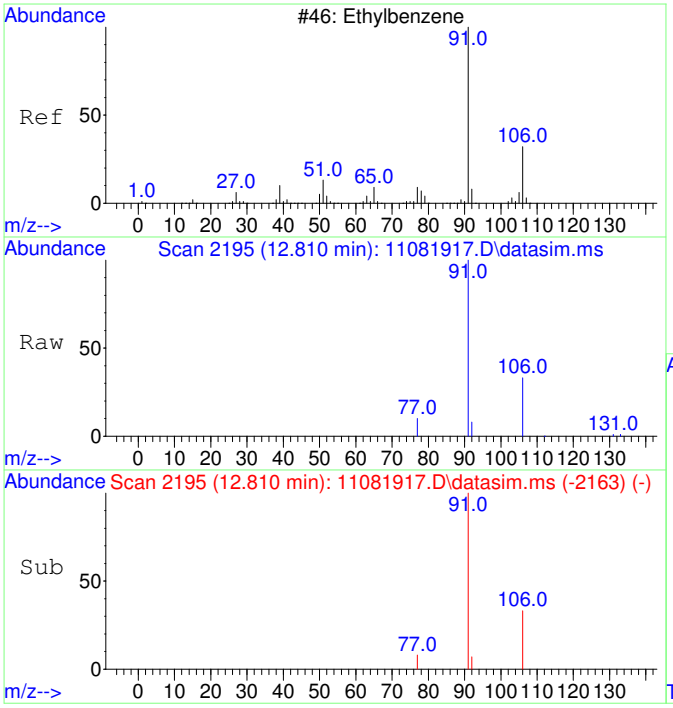


#15
Tetrachloroethene
Concen: 3259.69 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:166 Resp: 34576

Ion	Ratio	Lower	Upper
166	100		
164	78.2	47.7	107.7

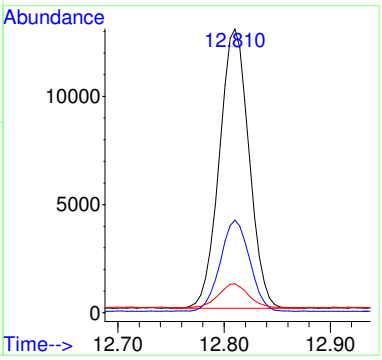


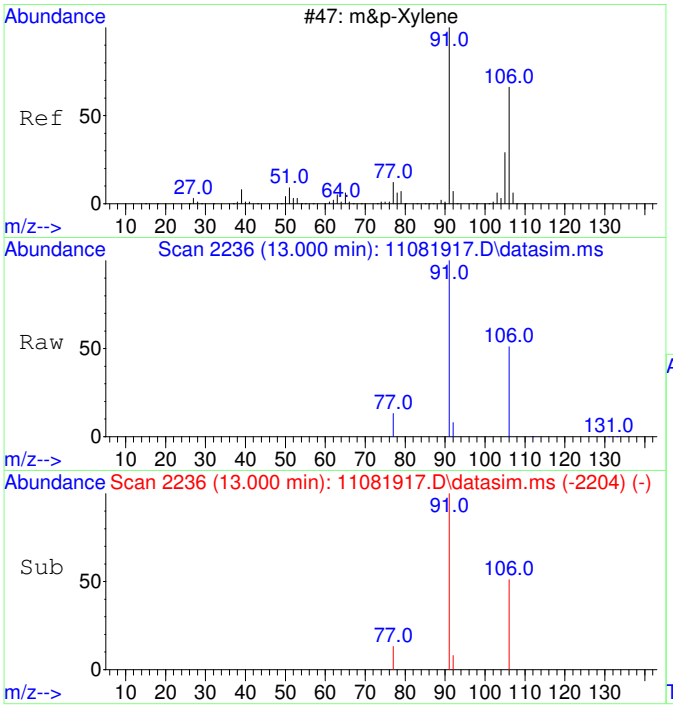


#18
Ethylbenzene
Concen: 564.18 ug/L
RT: 12.810 min Scan# 2195
Delta R.T. -0.001 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 25011

Ion	Ratio	Lower	Upper
91	100		
106	32.6	2.5	62.5
77	8.5	0.0	38.4

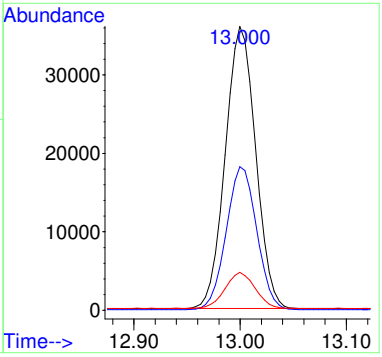


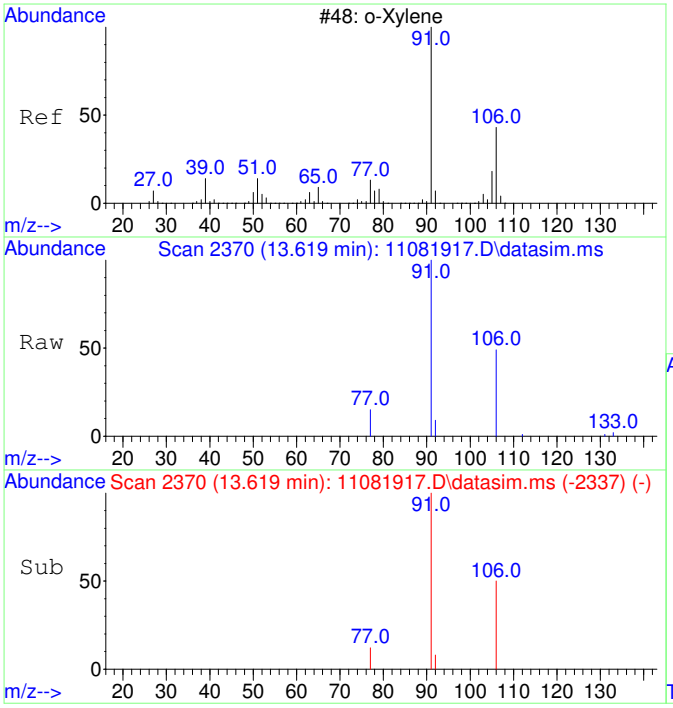


#19
m&p-Xylene
Concen: 2130.03 ug/L
RT: 13.000 min Scan# 2236
Delta R.T. -0.001 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 71497

Ion	Ratio	Lower	Upper
91	100		
106	51.0	21.2	81.2
77	12.7	0.0	42.7

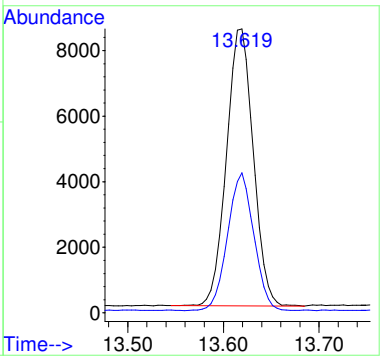


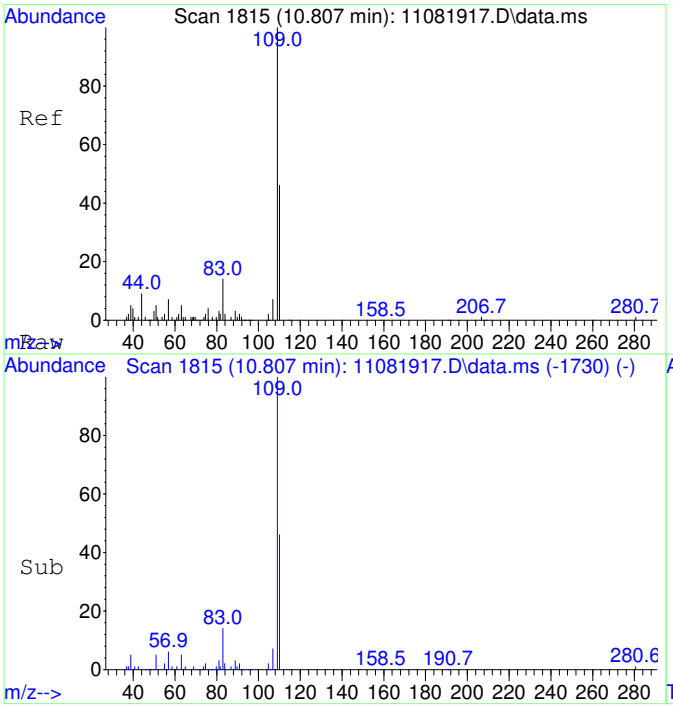


#20
o-Xylene
Concen: 459.90 ug/L
RT: 13.619 min Scan# 2370
Delta R.T. 0.003 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 16475

Ion	Ratio	Lower	Upper
91	100		
106	48.5	18.3	78.3

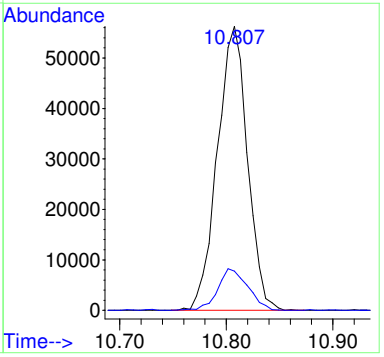


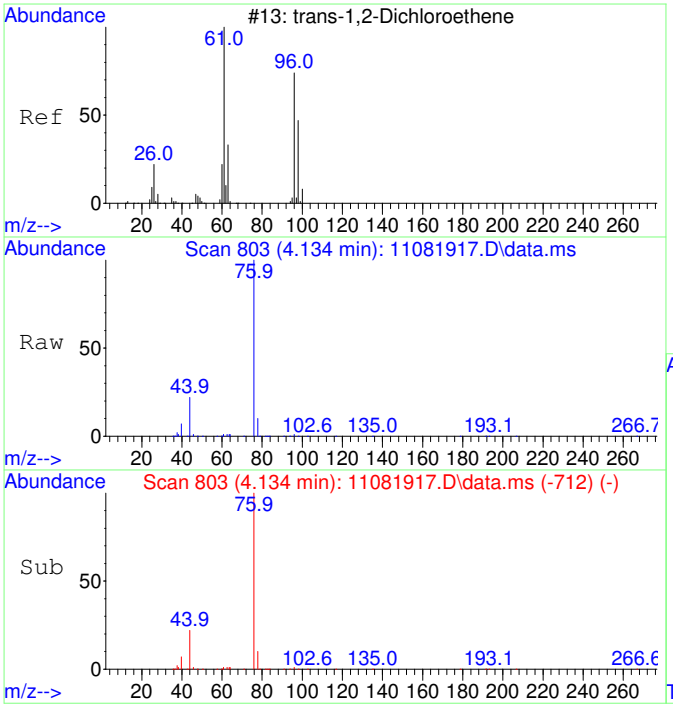


#25
2-Fluorotoluene SCAN
Concen: 4789.35 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:109 Resp: 111134

Ion	Ratio	Lower	Upper
109	100		
83	14.6	0.0	45.8

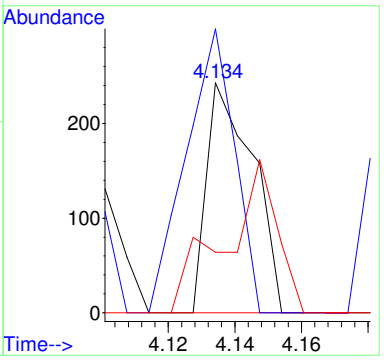


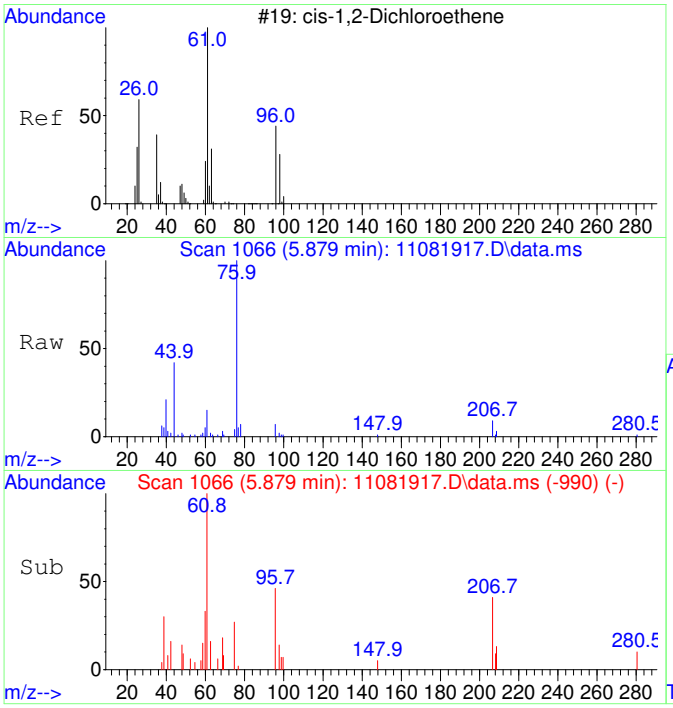


#27
trans-1,2-Dichloroethene SCAN
Concen: 31.40 ug/L
RT: 4.134 min Scan# 803
Delta R.T. 0.013 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 61 Resp: 234

Ion	Ratio	Lower	Upper
61	100		
96	129.5	46.5	106.5#
98	75.2	22.8	82.8

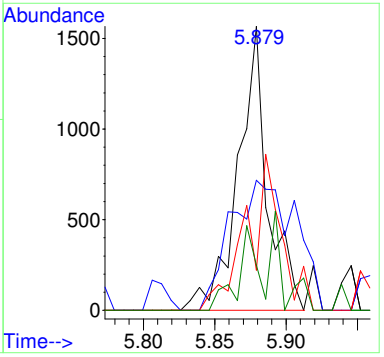


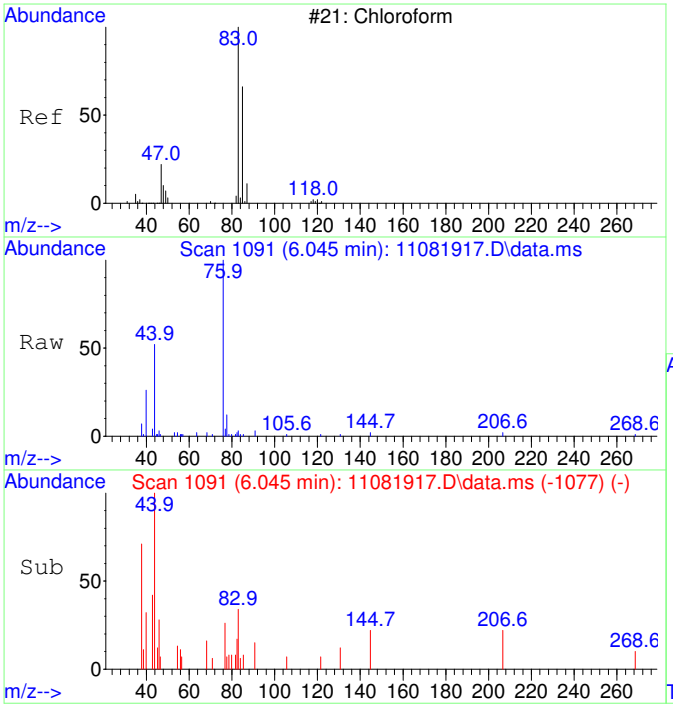


#29
cis-1,2-Dichloroethene SCAN
Concen: 268.14 ug/L
RT: 5.879 min Scan# 1066
Delta R.T. 0.007 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 61 Resp: 2260

Ion	Ratio	Lower	Upper
61	100		
96	99.6	41.9	101.9
98	63.0	20.3	80.3
63	8.5	0.0	58.3

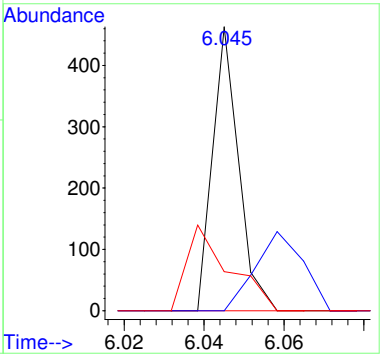


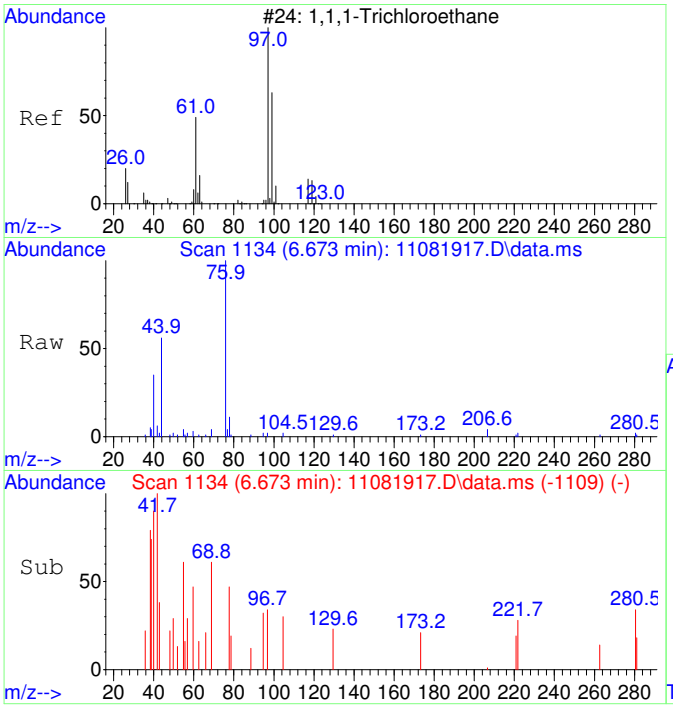


#30
Chloroform SCAN
Concen: 22.26 ug/L
RT: 6.045 min Scan# 1091
Delta R.T. -0.407 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 83 Resp: 209

Ion	Ratio	Lower	Upper
83	100		
85	51.2	38.3	98.3
47	49.8	0.0	50.2

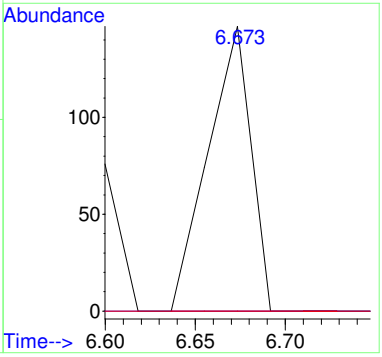


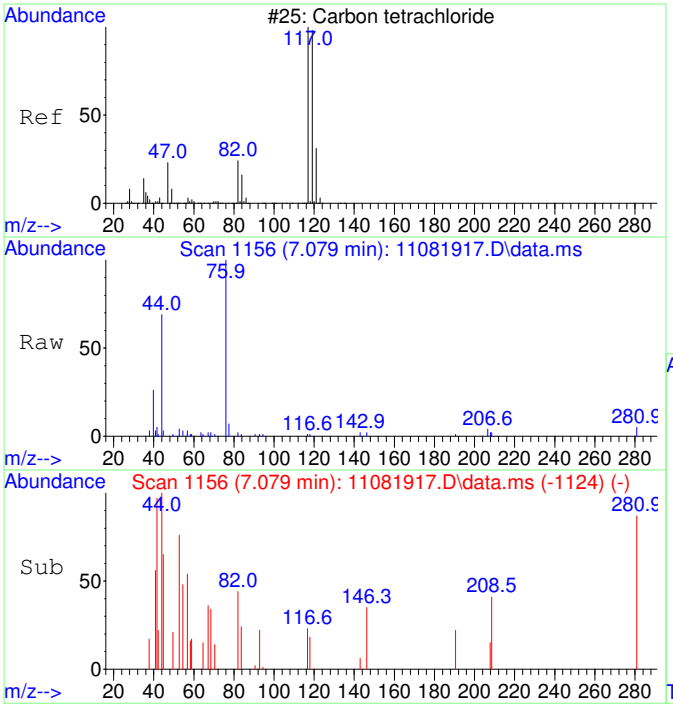


#31
1,1,1-Trichloroethane SCAN
Concen: 29.77 ug/L
RT: 6.673 min Scan# 1134
Delta R.T. -0.037 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 97 Resp: 244

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

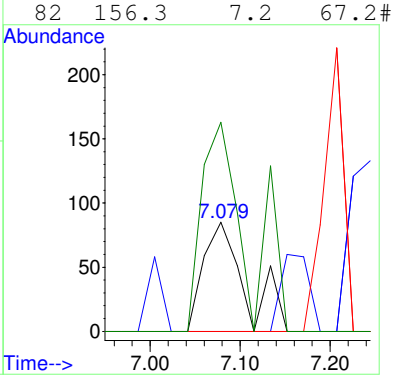


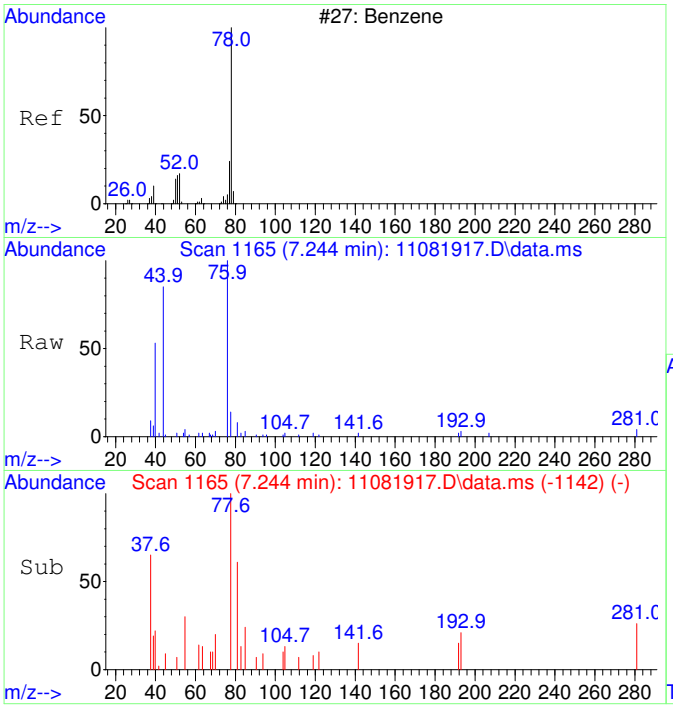


#32
Carbon tetrachloride SCAN
Concen: 35.41 ug/L
RT: 7.079 min Scan# 1156
Delta R.T. 0.092 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:117 Resp: 272

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	156.3	7.2	67.2#

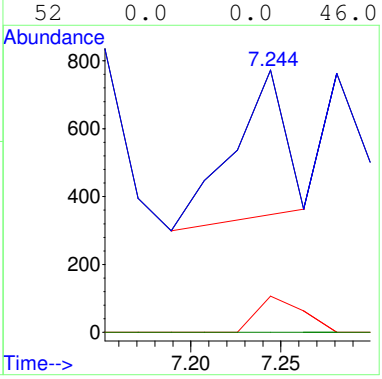


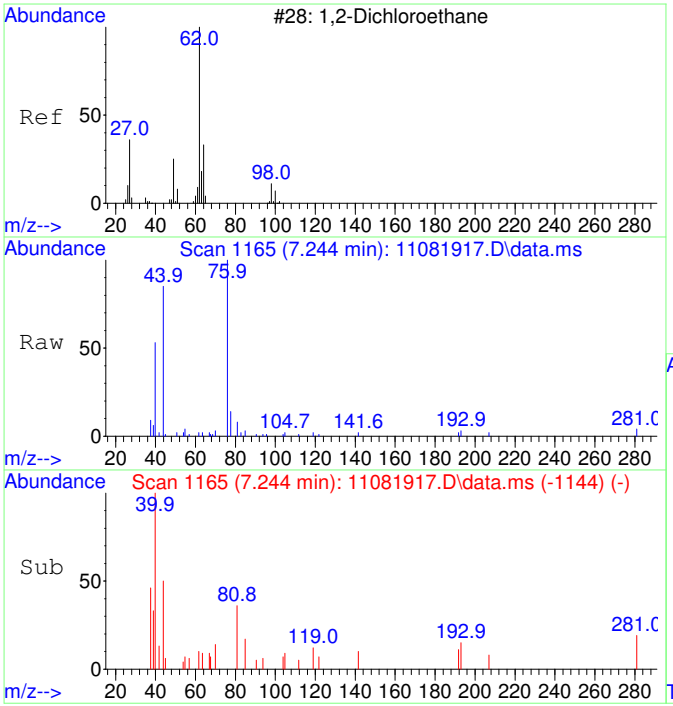


#33
Benzene SCAN
Concen: 42.67 ug/L
RT: 7.244 min Scan# 1165
Delta R.T. -0.074 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 78 Resp: 879

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

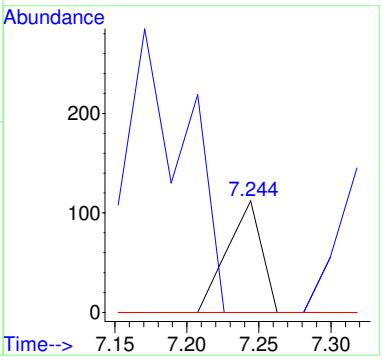


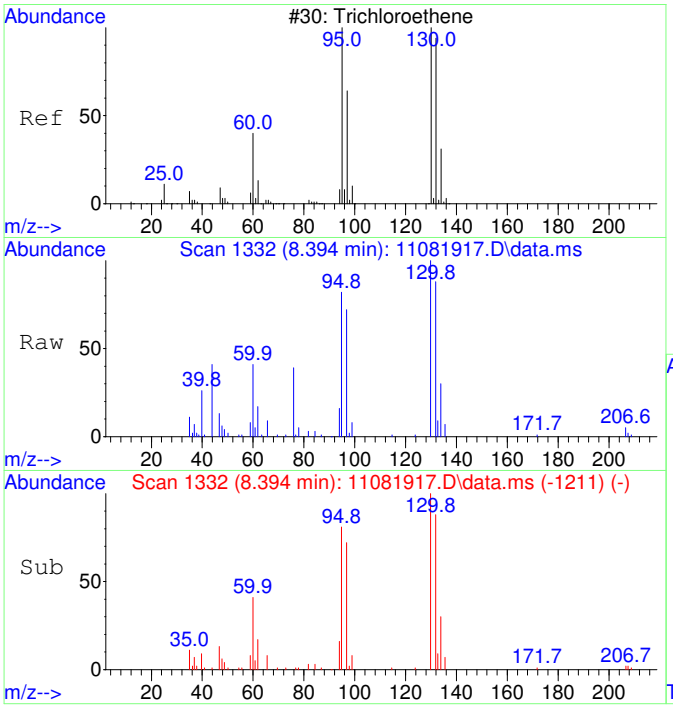


#34
1,2-Dichloroethane SCAN
Concen: 24.34 ug/L
RT: 7.244 min Scan# 1165
Delta R.T. -0.110 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 62 Resp: 187

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

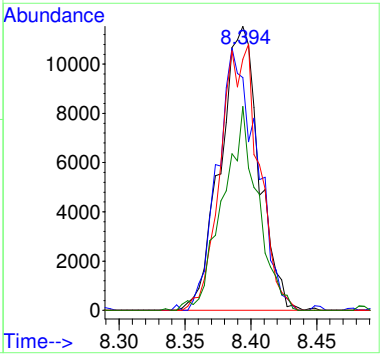


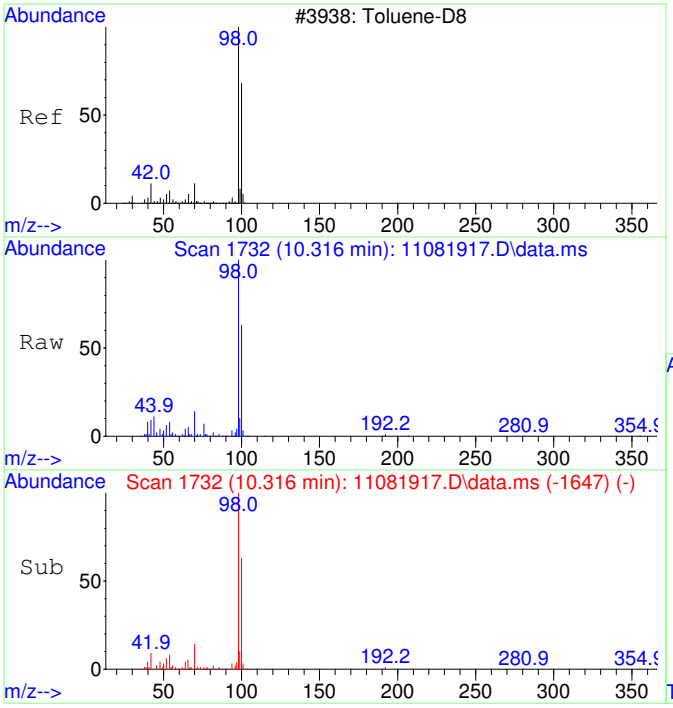


#35
Trichloroethene SCAN
Concen: 3902.94 ug/L
RT: 8.394 min Scan# 1332
Delta R.T. 0.008 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:130 Resp: 23568

Ion	Ratio	Lower	Upper
130	100		
95	93.7	69.5	129.5
132	92.4	66.5	126.5
97	64.6	32.8	92.8

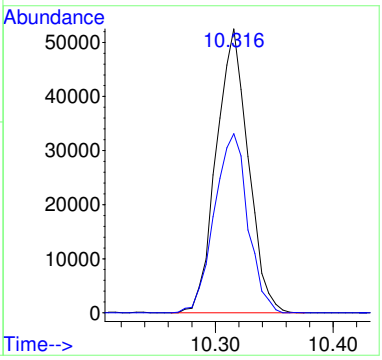


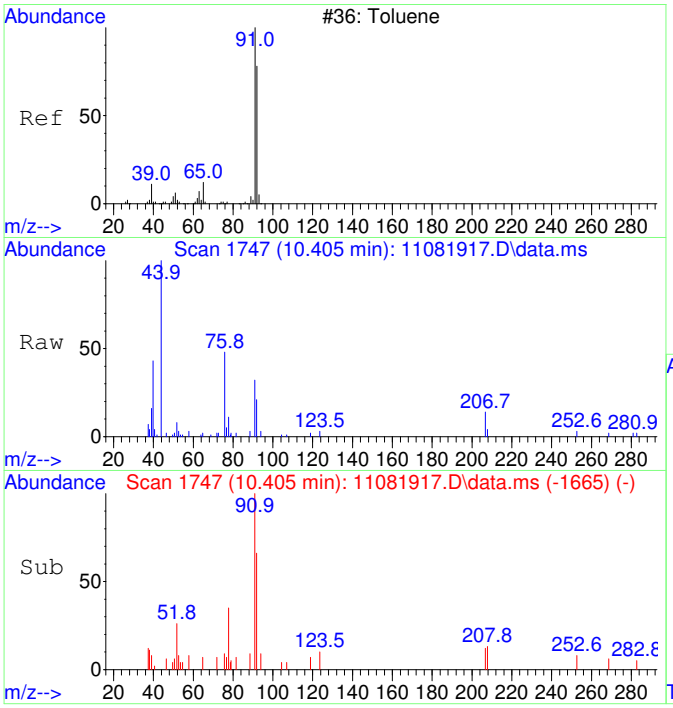


#36
Toluene-d8 SCAN
Concen: 5234.40 ug/L
RT: 10.316 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 98 Resp: 98780

Ion	Ratio	Lower	Upper
98	100		
100	66.3	42.1	102.1

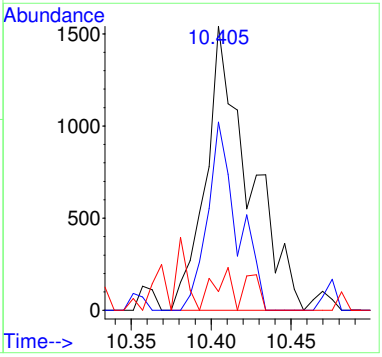


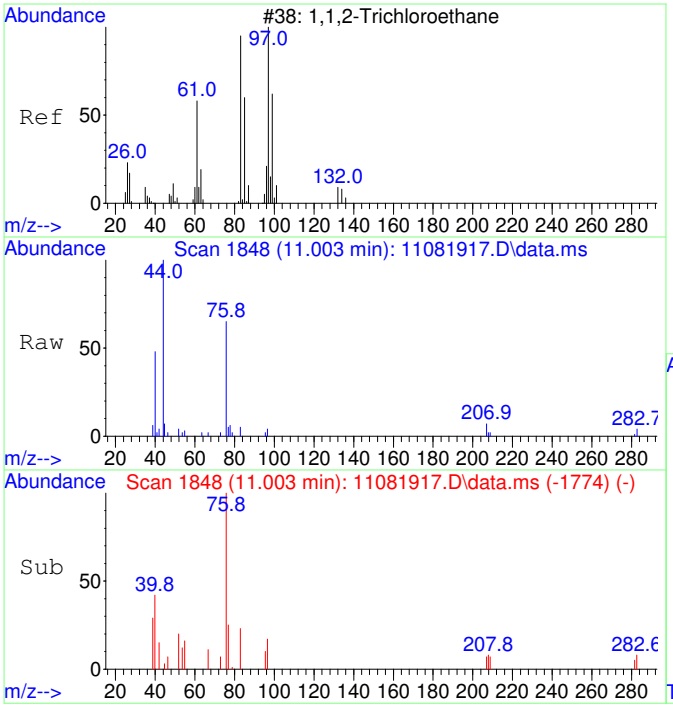


#37
Toluene SCAN
Concen: 124.94 ug/L
RT: 10.405 min Scan# 1747
Delta R.T. -0.012 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 2907

Ion	Ratio	Lower	Upper
91	100		
92	45.7	31.9	91.9
65	6.2	0.0	41.9

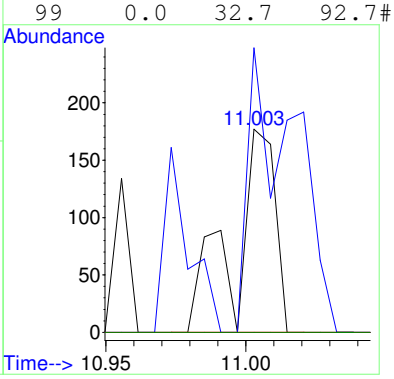


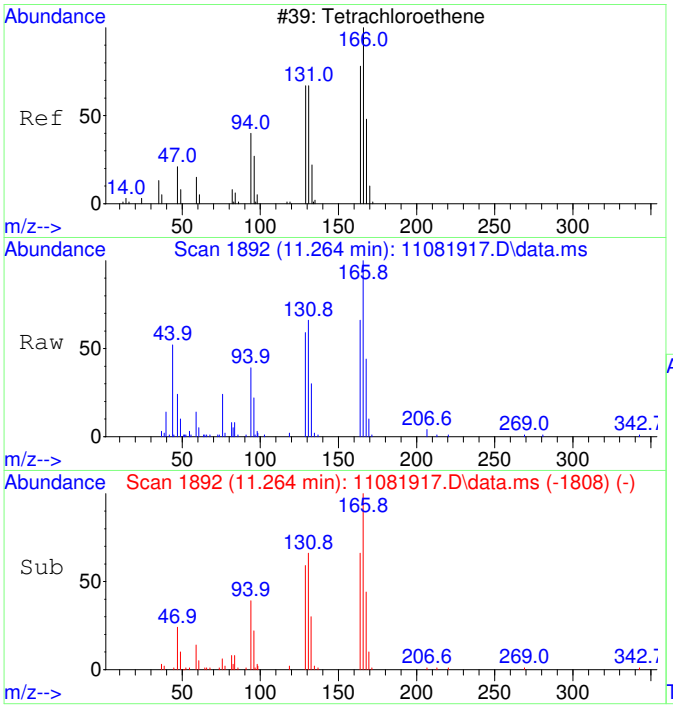


#38
1,1,2-Trichloroethane SCAN
Concen: 34.30 ug/L
RT: 11.003 min Scan# 1848
Delta R.T. -0.059 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 97 Resp: 182

Ion	Ratio	Lower	Upper
97	100		
83	157.1	58.1	118.1#
61	0.0	36.0	96.0#
99	0.0	32.7	92.7#

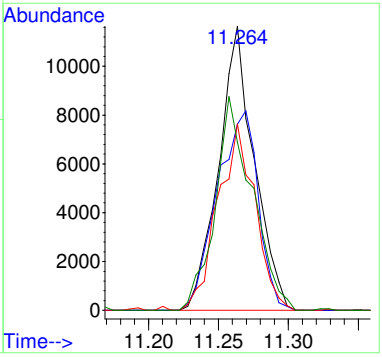


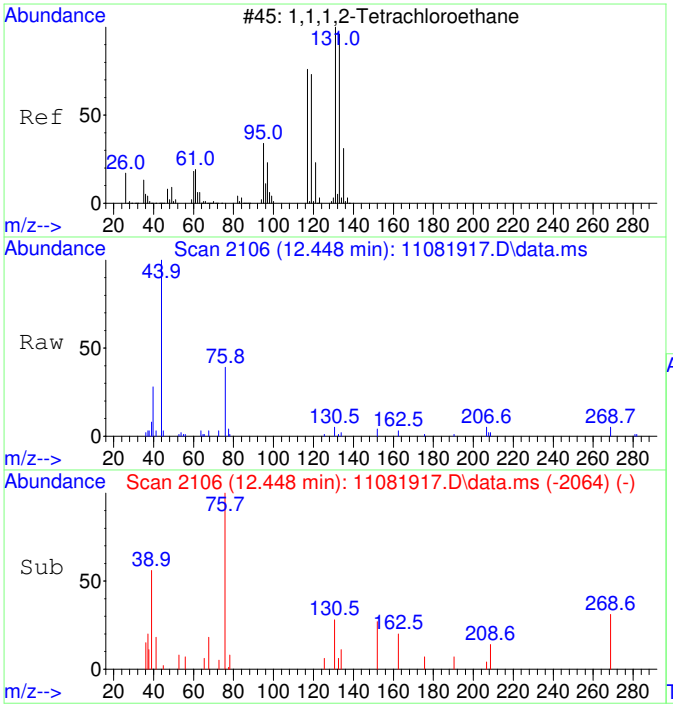


#39
Tetrachloroethene SCAN
Concen: 3320.06 ug/L
RT: 11.264 min Scan# 1892
Delta R.T. 0.000 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:166 Resp: 20509

Ion	Ratio	Lower	Upper
166	100		
164	81.1	50.4	110.4
131	68.3	44.0	104.0
129	78.0	42.6	102.6

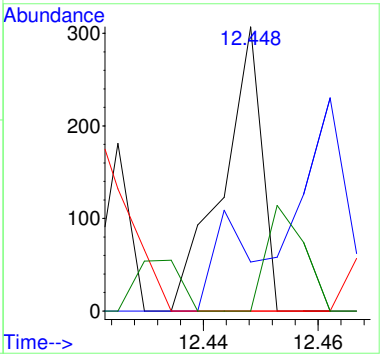


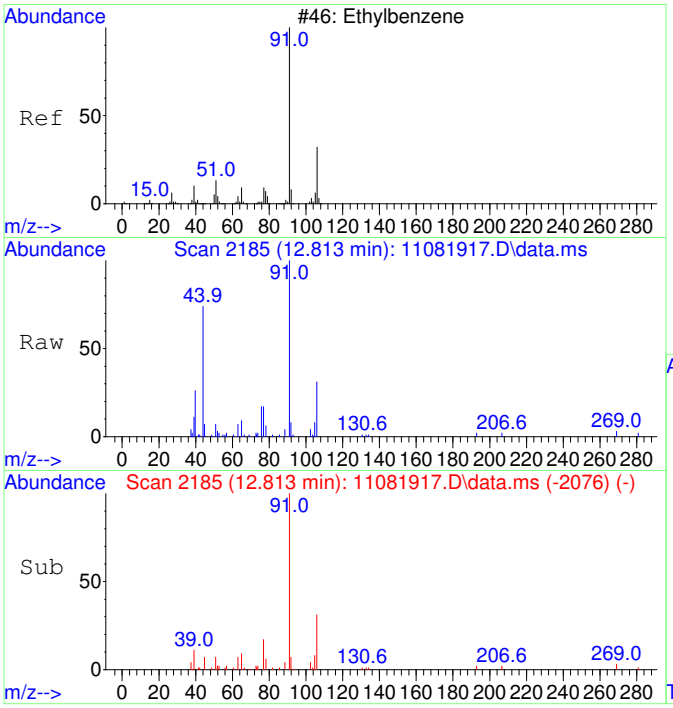


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 25.58 ug/L
RT: 12.448 min Scan# 2106
Delta R.T. -0.306 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion:131 Resp: 145

Ion	Ratio	Lower	Upper
131	100		
133	86.2	67.7	127.7
119	0.0	36.2	96.2#
117	35.9	39.0	99.0#

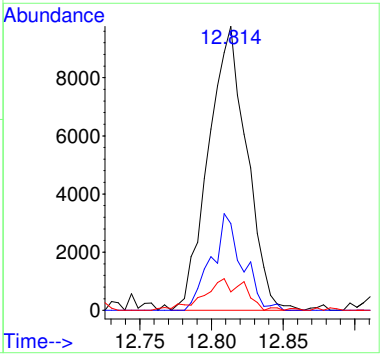


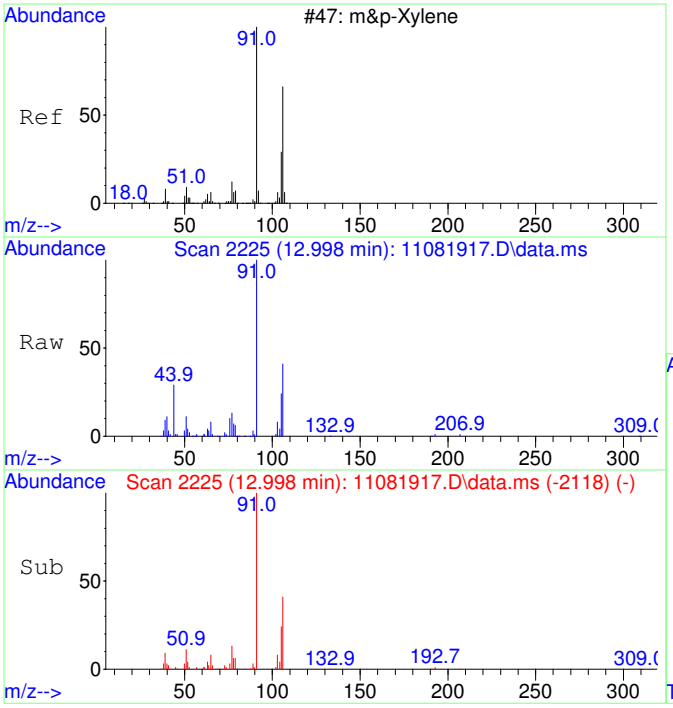


#42
Ethylbenzene SCAN
Concen: 686.92 ug/L
RT: 12.813 min Scan# 2185
Delta R.T. 0.003 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 18190

Ion	Ratio	Lower	Upper
91	100		
106	27.5	0.1	60.1
51	11.8	0.0	40.9

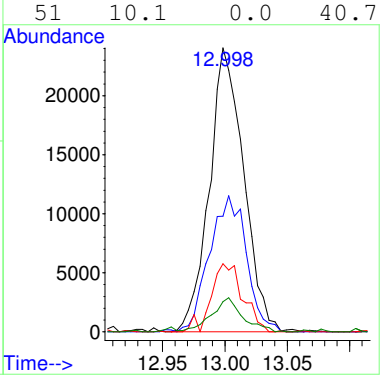


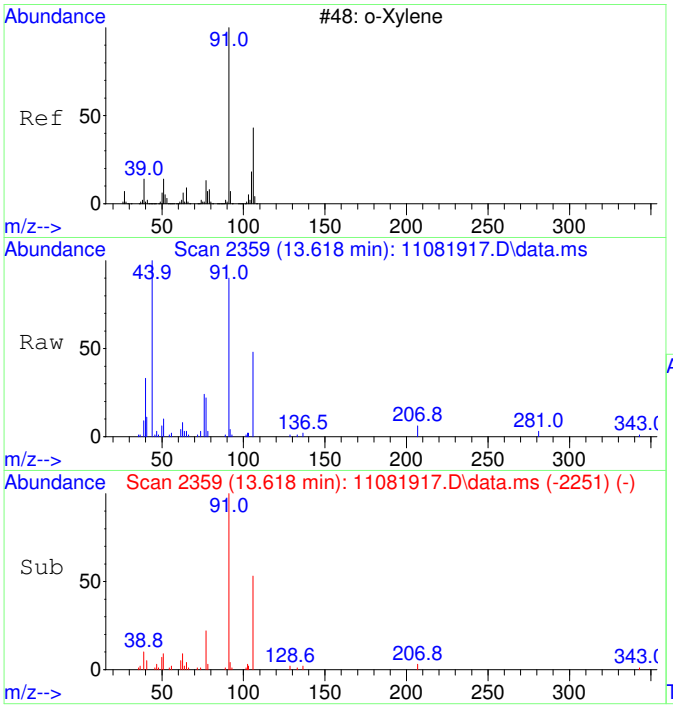


#43
m&p-Xylene SCAN
Concen: 1216.24 ug/L
RT: 12.998 min Scan# 2225
Delta R.T. -0.006 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 46206

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.1	81.1
105	22.2	0.0	53.6
51	10.1	0.0	40.7

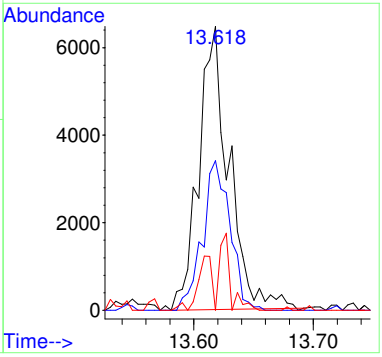




#44
o-Xylene SCAN
Concen: 562.73 ug/L
RT: 13.618 min Scan# 2359
Delta R.T. -0.001 min
Lab File: 11081917.D
Acq: 8 Nov 2019 16:38

Tgt Ion: 91 Resp: 11369

Ion	Ratio	Lower	Upper
91	100		
106	48.2	16.7	76.7
105	9.8	0.0	57.3



1910069-05

Quantitation Report (Not Reviewed)

REPORT

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081918.D
Acq On : 8 Nov 2019 17:01
InstName : AG5975C
Operator : TD
Sample : 1910069-05 (Sig #1); 1910069-05RE1 (Sig #2)
Misc : 495-5
ALS Vial : 17 Sample Multiplier: 100

Quant Time: Nov 11 06:19:57 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

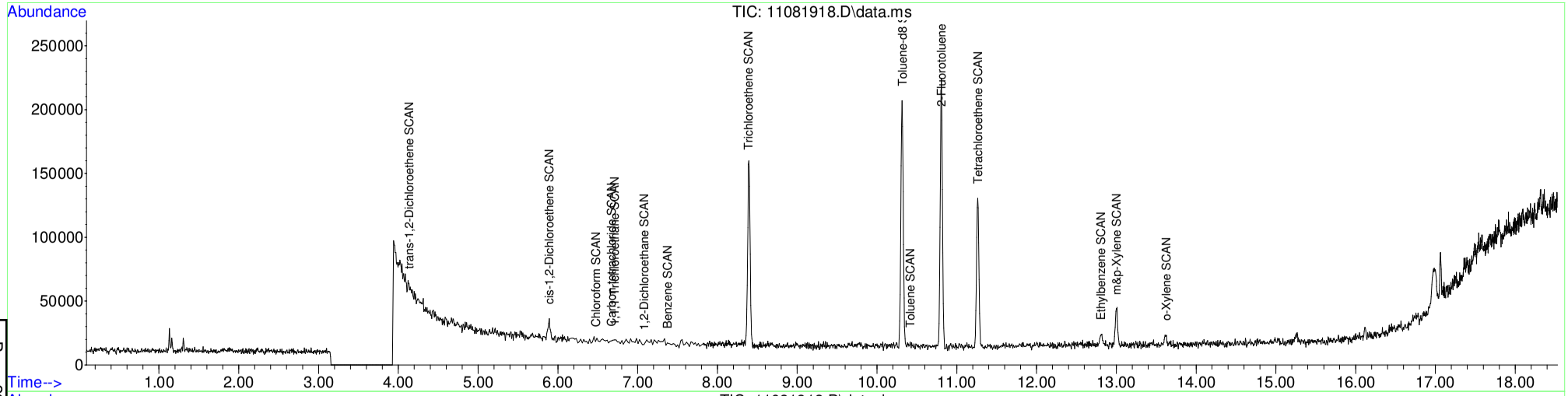
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.808	109	278766	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	223739	4966.67	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.33%			
Target Compounds						Qvalue
3] trans-1,2-Dichloroethene	4.148	61	986	74.56	ug/L	95
5] cis-1,2-Dichloroethene	5.887	61	13282	859.55	ug/L	99
6] Chloroform	6.453	83	3335	188.13	ug/L	100
11] Trichloroethene	8.395	130	91097	6840.02	ug/L	99
13] Toluene	10.417	91	1903	34.85	ug/L	97
15] Tetrachloroethene	11.264	166	70575	4445.83	ug/L	100
18] Ethylbenzene	12.811	91	11596	174.78	ug/L	100
19] m&p-Xylene	13.001	91	32512	647.21	ug/L	100
20] o-Xylene	13.615	91	8276	154.37	ug/L	99
25) 2-Fluorotoluene SCAN	10.807	109	170265	4902.93	ug/L	93
27) trans-1,2-Dichloroethe...	4.134	61	284	25.46	ug/L #	68
29) cis-1,2-Dichloroethene...	5.892	61	8743	693.13	ug/L	88
30) Chloroform SCAN	6.470	83	1946	138.49	ug/L #	21
31) 1,1,1-Trichloroethane ...	6.710	97	1067	86.99	ug/L #	21
32) Carbon tetrachloride SCAN	6.673	117	370	32.18	ug/L #	19
33) Benzene SCAN	7.373	78	4417	143.29	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.078	62	328	28.52	ug/L #	1
35) Trichloroethene SCAN	8.389	130	58344	6456.04	ug/L	98
36) Toluene-d8 SCAN	10.315	98	144497	5116.32	ug/L	96
37) Toluene SCAN	10.416	91	1568	45.03	ug/L	71
39) Tetrachloroethene SCAN	11.263	166	42096	4553.47	ug/L	95
42) Ethylbenzene SCAN	12.810	91	9062	228.66	ug/L	86
43) m&p-Xylene SCAN	13.004	91	20259	356.32	ug/L	94
44) o-Xylene SCAN	13.628	91	6296	208.23	ug/L	84

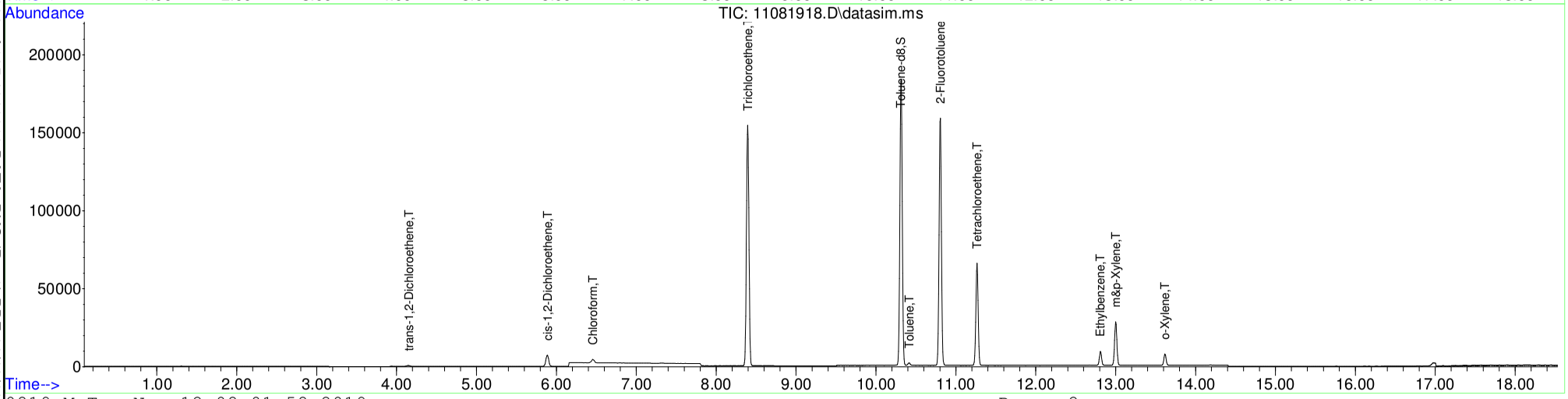
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081918.D
Acq On : 8 Nov 2019 17:01
InstName : AG5975C
Operator : TD
Sample : 1910069-05 (Sig #1); 1910069-05RE1 (Sig #2)
Misc : 495-5
ALS Vial : 17 Sample Multiplier: 100

Quant Time: Nov 11 06:19:57 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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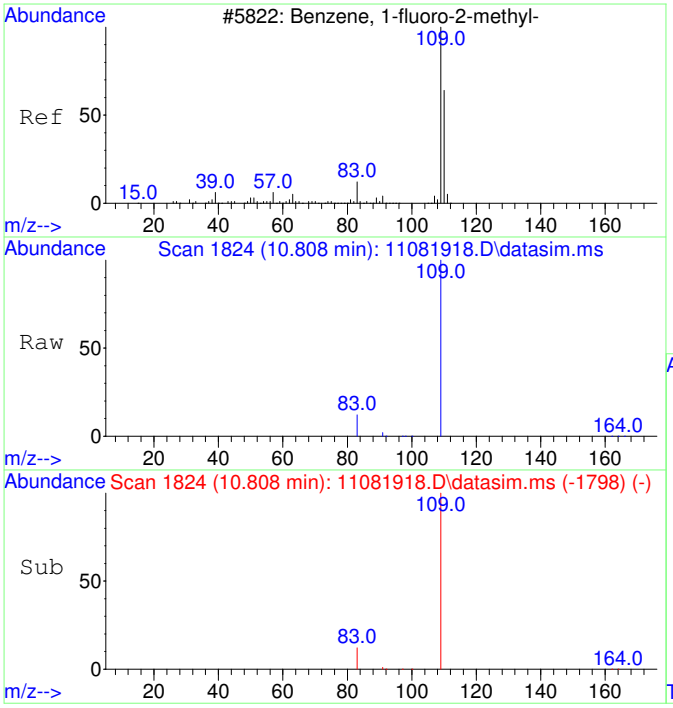
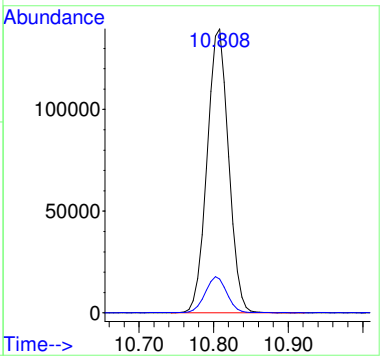
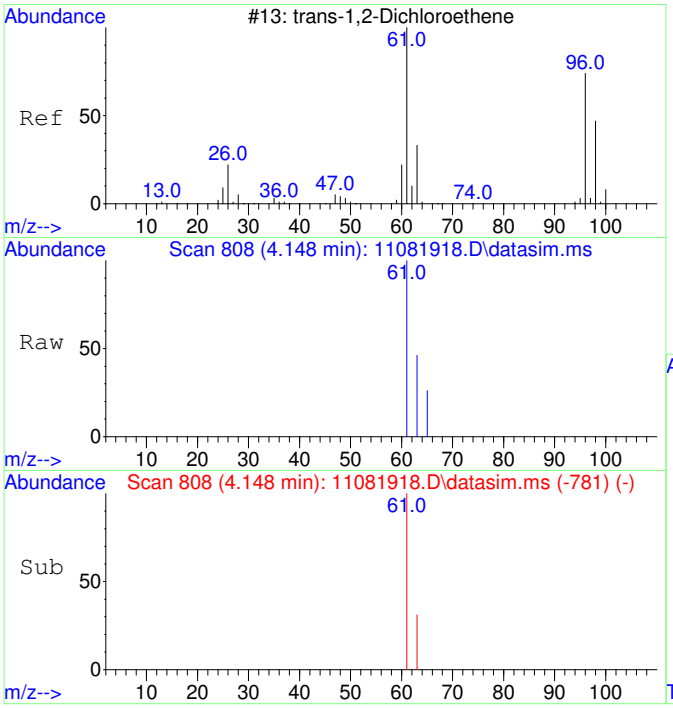


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.808 min Scan# 1824
Delta R.T. 0.005 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:109 Resp: 278766

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

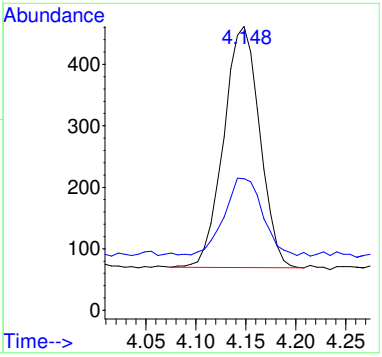


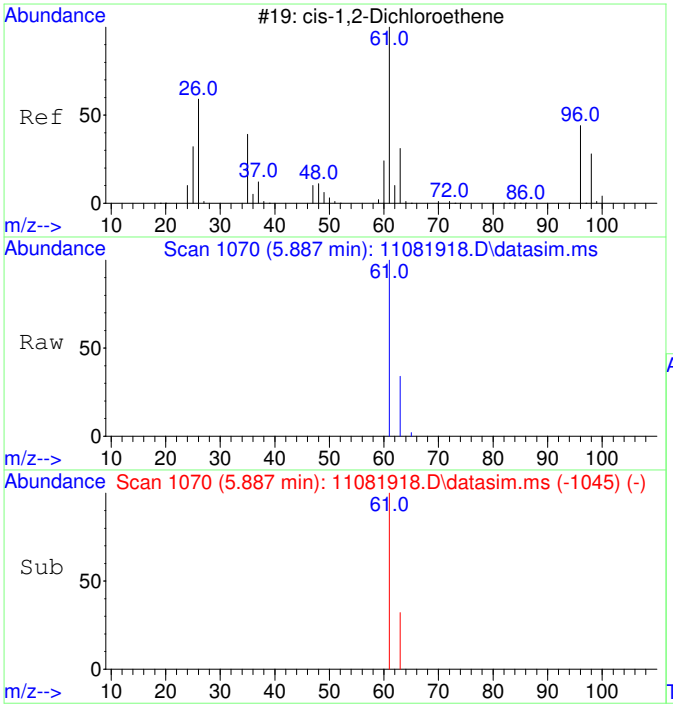


#3
trans-1,2-Dichloroethene
Concen: 74.56 ug/L
RT: 4.148 min Scan# 808
Delta R.T. 0.026 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 61 Resp: 986

Ion	Ratio	Lower	Upper
61	100		
63	34.9	2.3	62.3

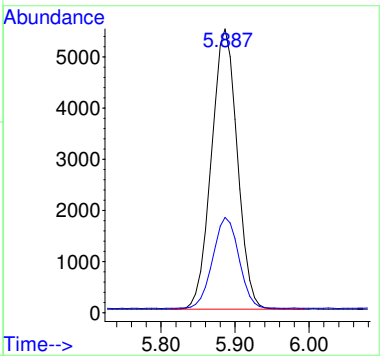


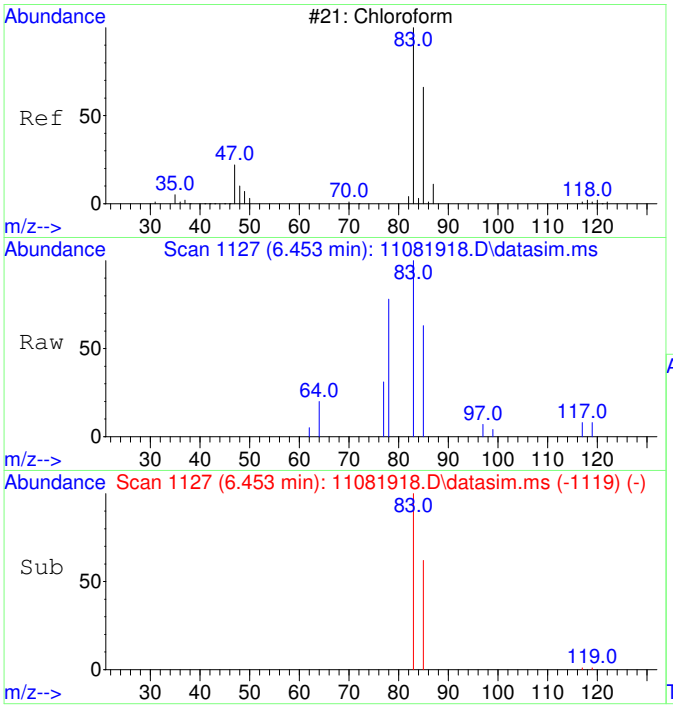


#5
cis-1,2-Dichloroethene
Concen: 859.55 ug/L
RT: 5.887 min Scan# 1070
Delta R.T. 0.013 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 61 Resp: 13282

Ion	Ratio	Lower	Upper
61	100		
63	33.0	2.4	62.4

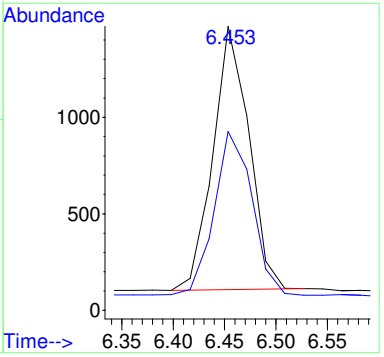


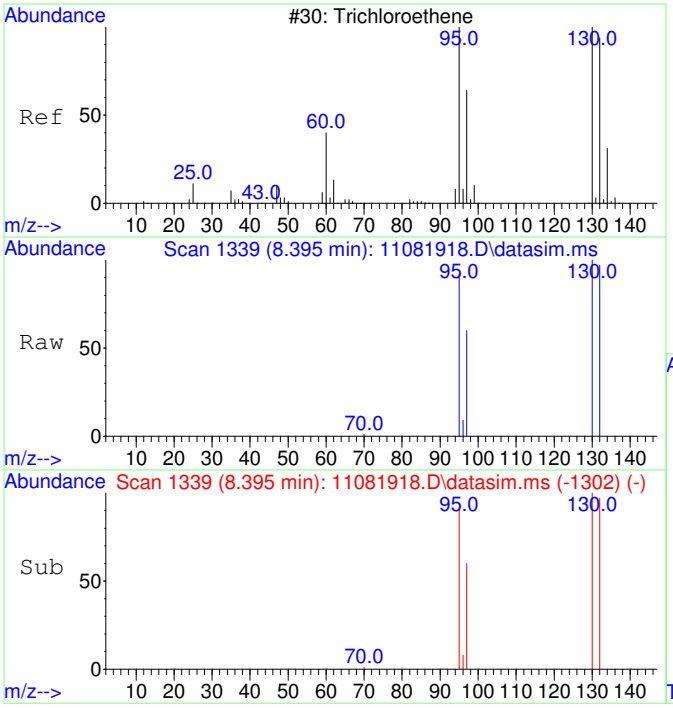


#6
Chloroform
Concen: 188.13 ug/L
RT: 6.453 min Scan# 1127
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 83 Resp: 3335

Ion	Ratio	Lower	Upper
83	100		
85	65.2	35.2	95.2

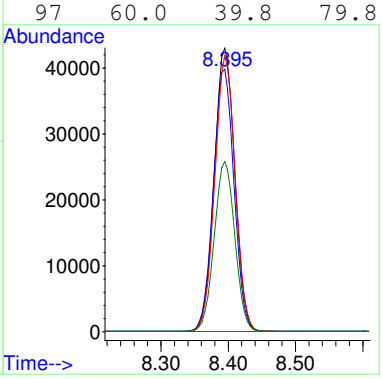


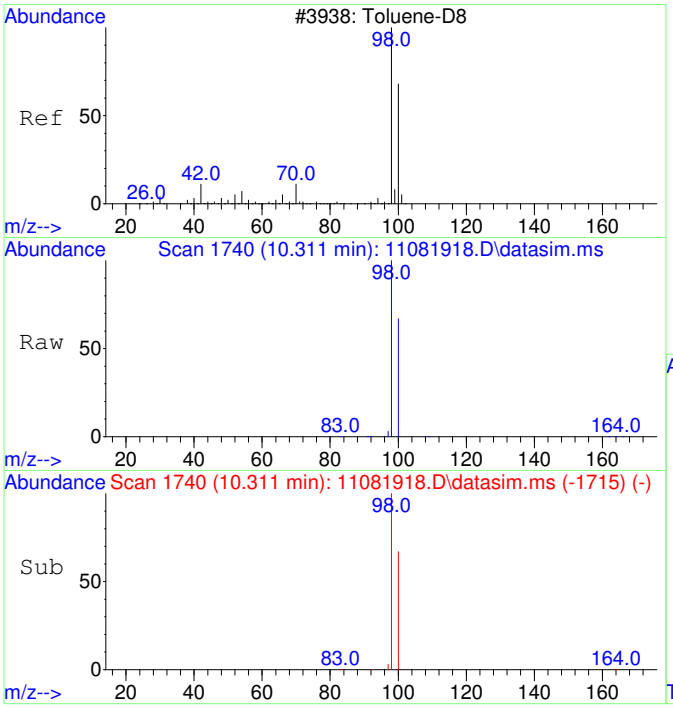


#11
Trichloroethene
Concen: 6840.02 ug/L
RT: 8.395 min Scan# 1339
Delta R.T. 0.004 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:130 Resp: 91097

Ion	Ratio	Lower	Upper
130	100		
95	92.9	63.4	123.4
132	96.6	76.0	116.0
97	60.0	39.8	79.8

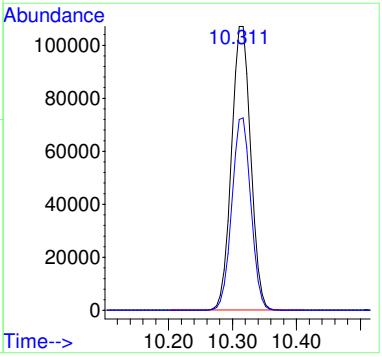


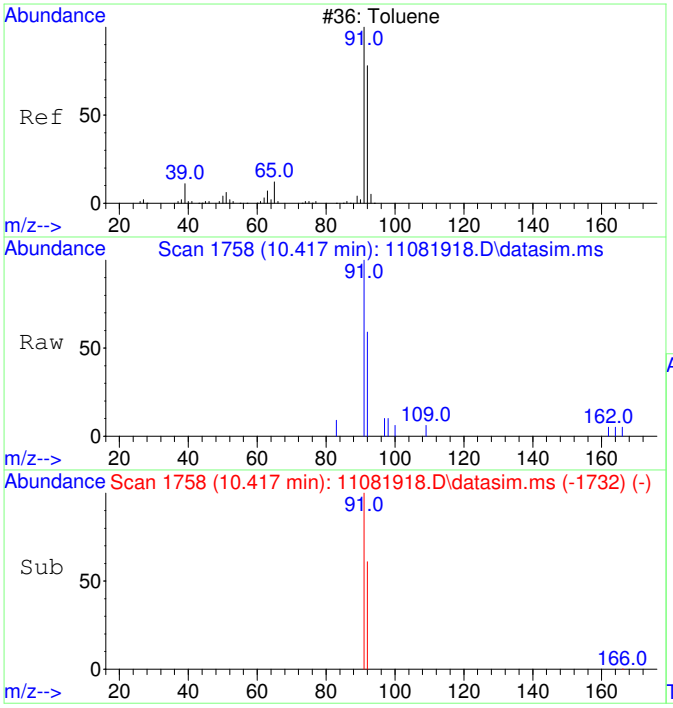


#12
Toluene-d8
Concen: 4966.67 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 98 Resp: 223739

Ion	Ratio	Lower	Upper
98	100		
100	67.0	36.4	96.4

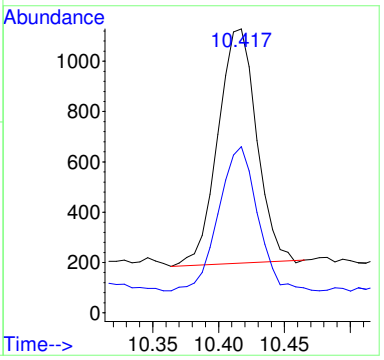


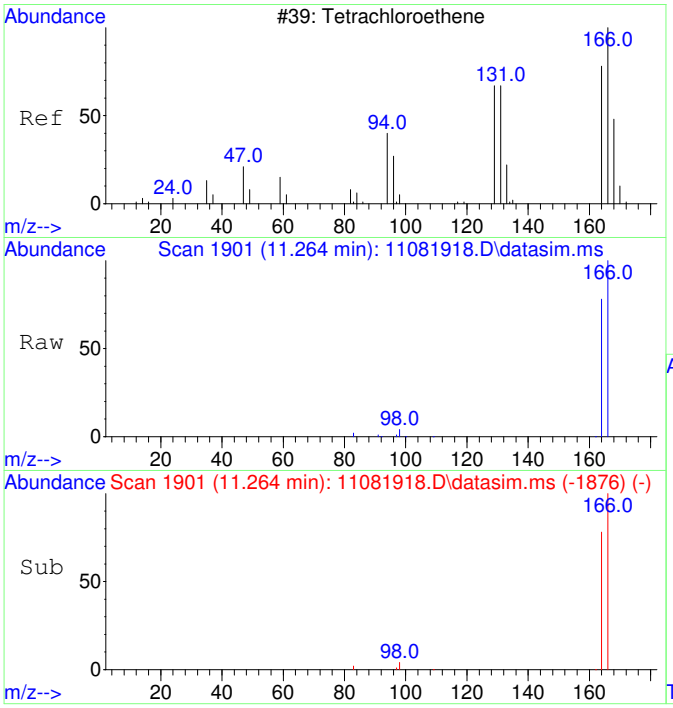


#13
Toluene
Concen: 34.85 ug/L
RT: 10.417 min Scan# 1758
Delta R.T. 0.005 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 1903

Ion	Ratio	Lower	Upper
91	100		
92	62.0	29.4	89.4

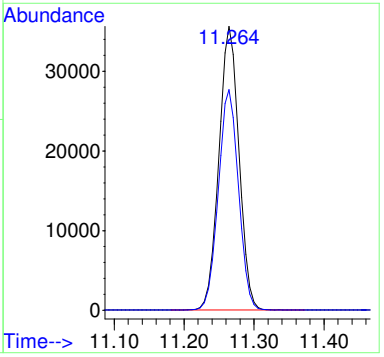


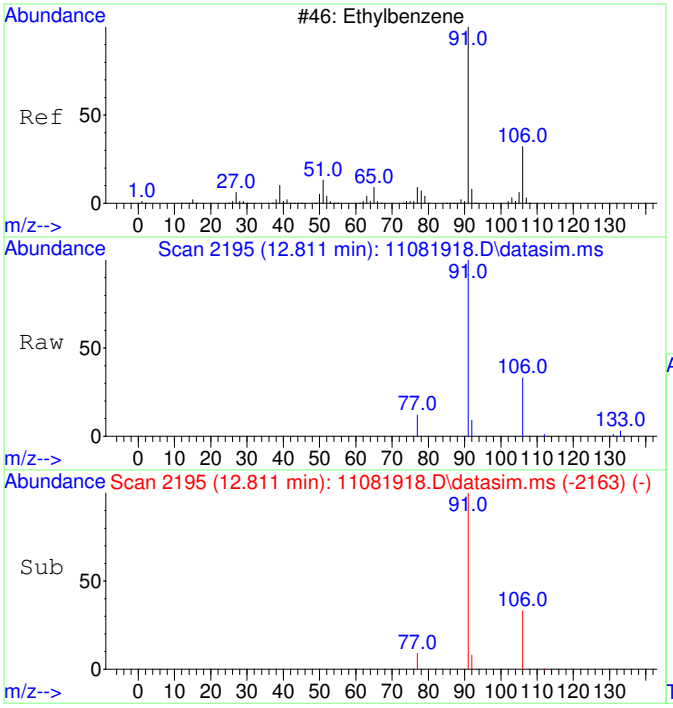


#15
Tetrachloroethene
Concen: 4445.83 ug/L
RT: 11.264 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:166 Resp: 70575

Ion	Ratio	Lower	Upper
166	100		
164	77.9	47.7	107.7

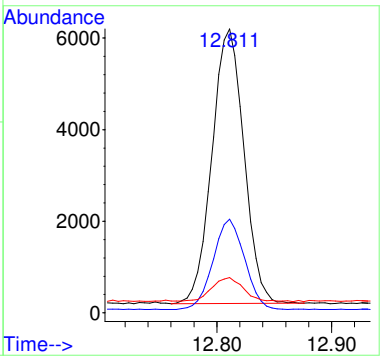


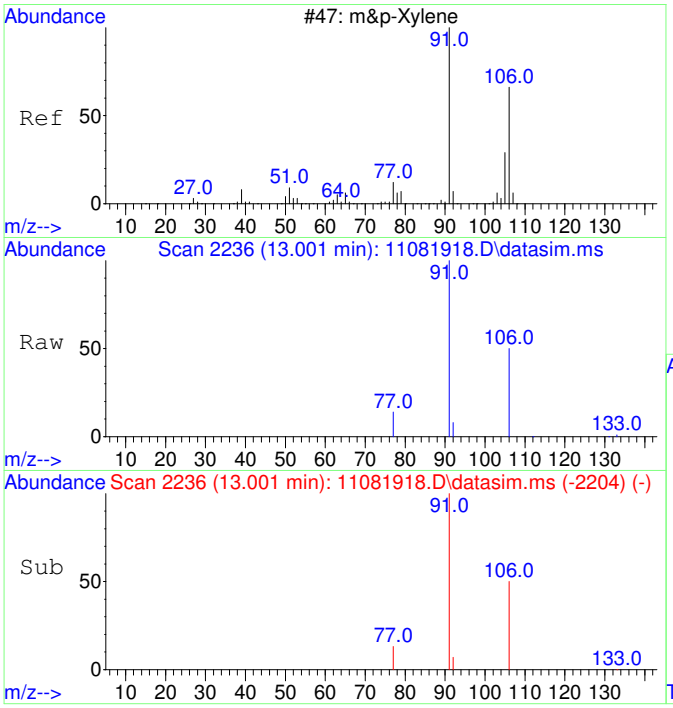


#18
Ethylbenzene
Concen: 174.78 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 11596

Ion	Ratio	Lower	Upper
91	100		
106	32.4	2.5	62.5
77	8.2	0.0	38.4

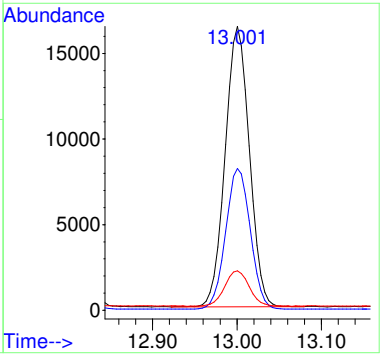


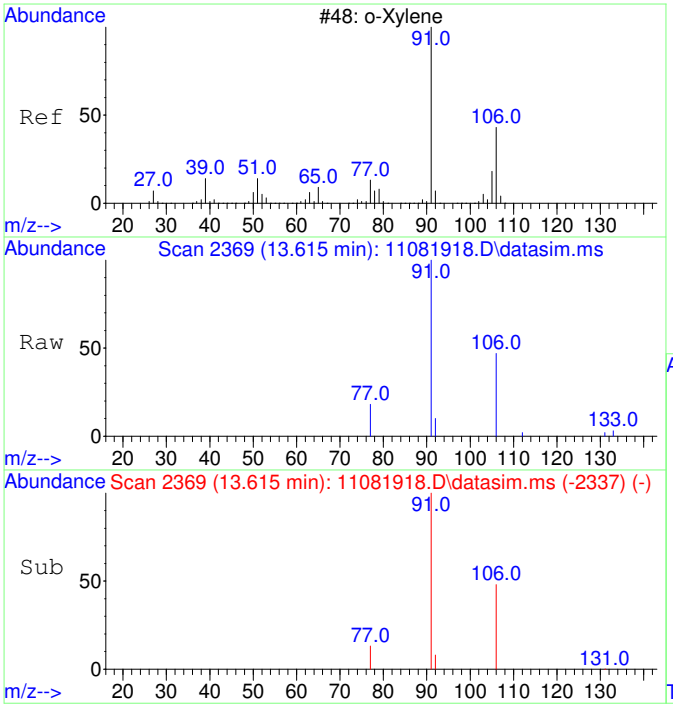


#19
m&p-Xylene
Concen: 647.21 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 32512

Ion	Ratio	Lower	Upper
91	100		
106	50.9	21.2	81.2
77	13.0	0.0	42.7

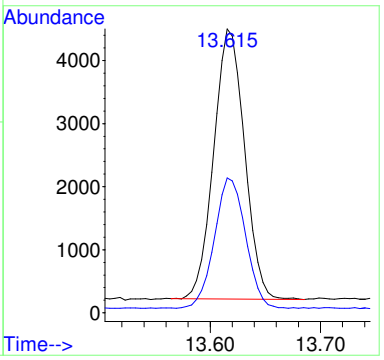


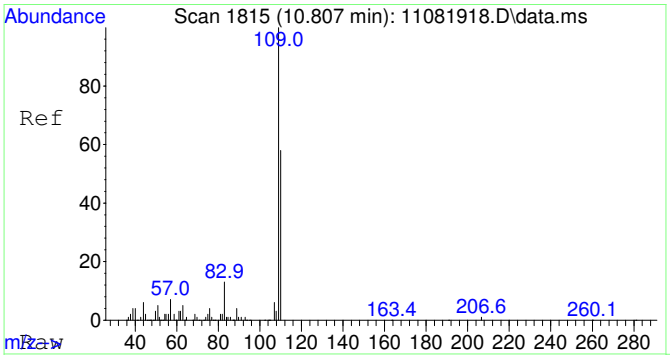


#20
o-Xylene
Concen: 154.37 ug/L
RT: 13.615 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 8276

Ion	Ratio	Lower	Upper
91	100		
106	48.8	18.3	78.3

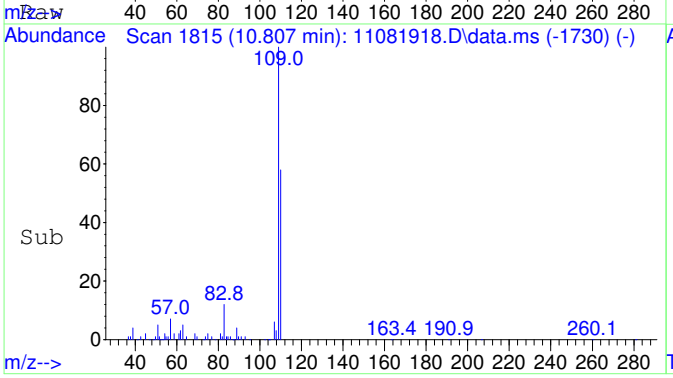


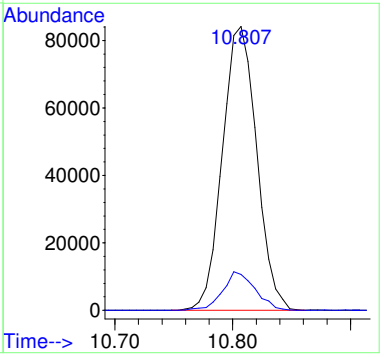


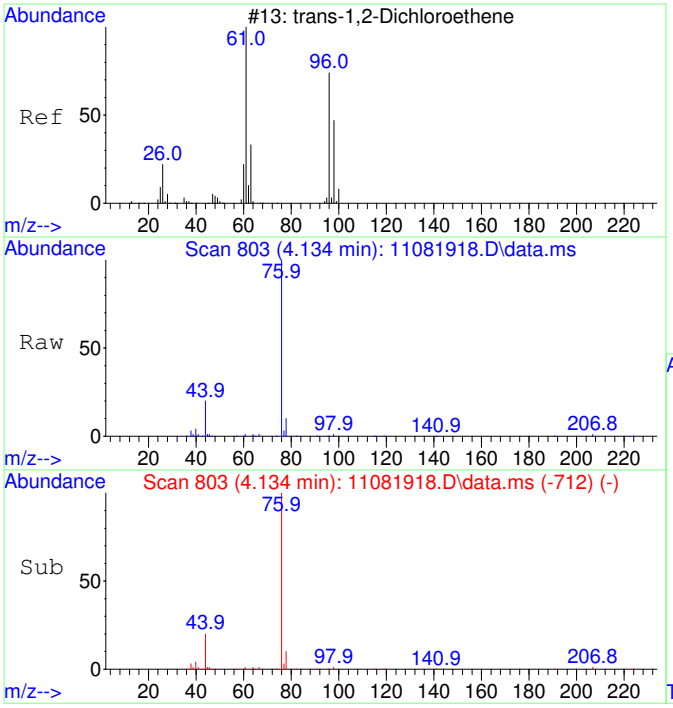
#25
2-Fluorotoluene SCAN
Concen: 4902.93 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.005 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:109 Resp: 170265

Ion	Ratio	Lower	Upper
109	100		
83	12.9	0.0	45.8



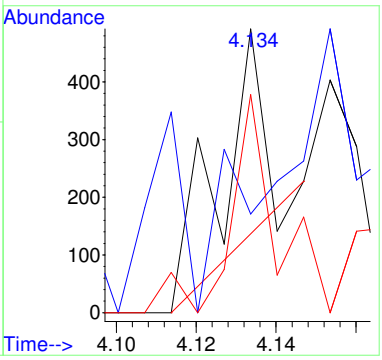


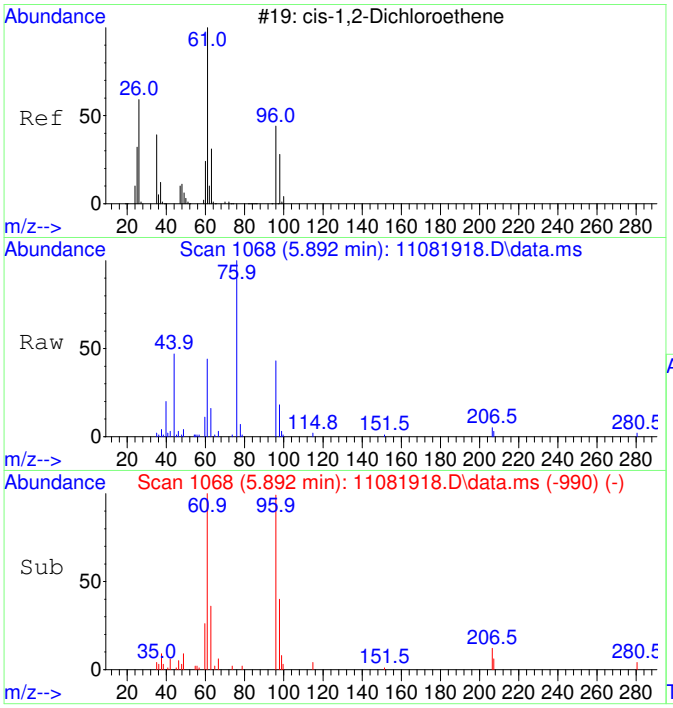


#27
trans-1,2-Dichloroethene SCAN
Concen: 25.46 ug/L
RT: 4.134 min Scan# 803
Delta R.T. 0.013 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 61 Resp: 284

Ion	Ratio	Lower	Upper
61	100		
96	74.3	46.5	106.5
98	105.6	22.8	82.8#

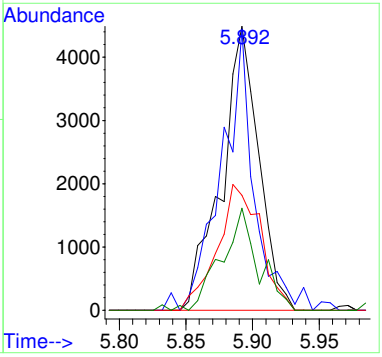


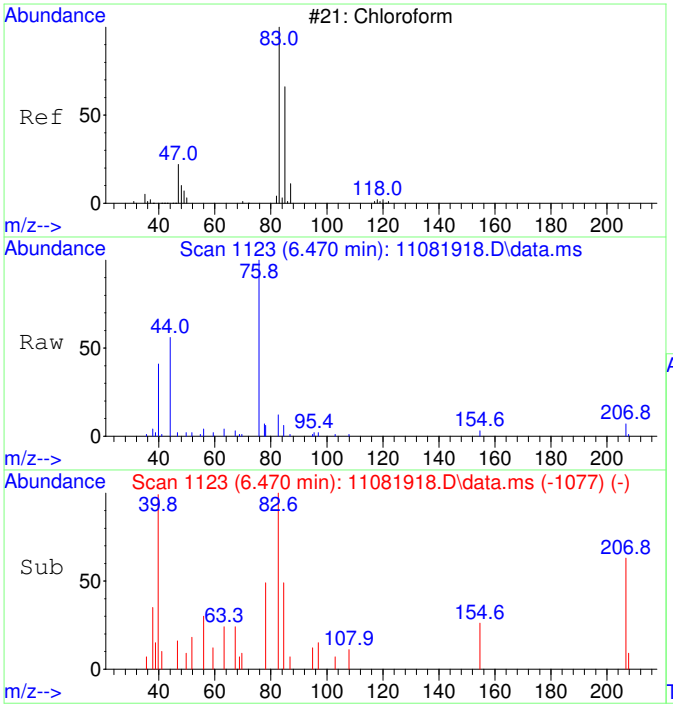


#29
cis-1,2-Dichloroethene SCAN
Concen: 693.13 ug/L
RT: 5.892 min Scan# 1068
Delta R.T. 0.019 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 61 Resp: 8743

Ion	Ratio	Lower	Upper
61	100		
96	88.5	41.9	101.9
98	51.0	20.3	80.3
63	35.5	0.0	58.3

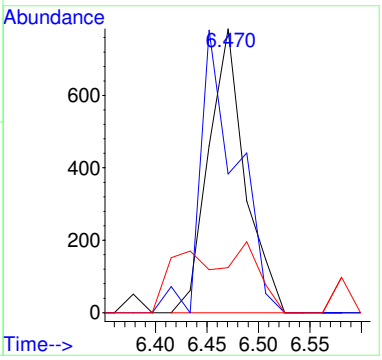


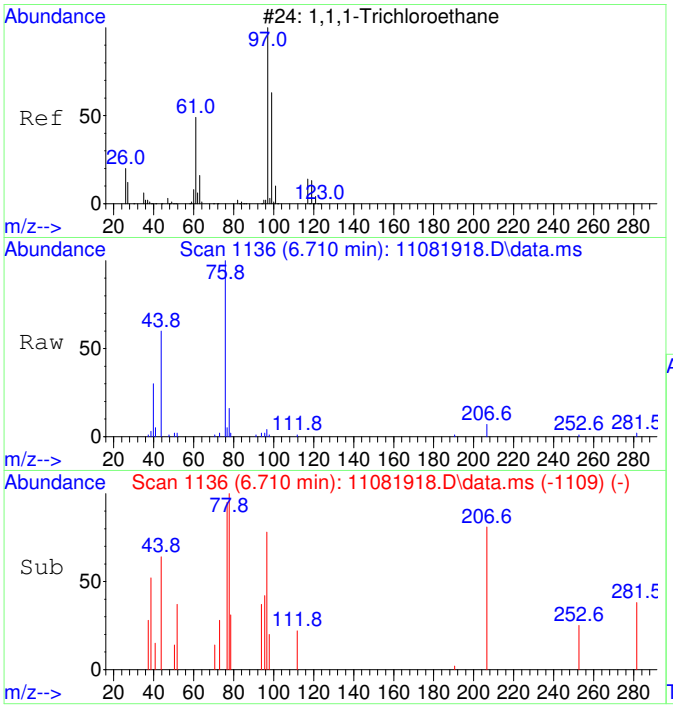


#30
Chloroform SCAN
Concen: 138.49 ug/L
RT: 6.470 min Scan# 1123
Delta R.T. 0.018 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 83 Resp: 1946

Ion	Ratio	Lower	Upper
83	100		
85	0.0	38.3	98.3#
47	47.6	0.0	50.2

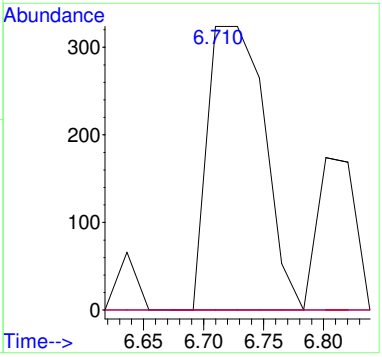


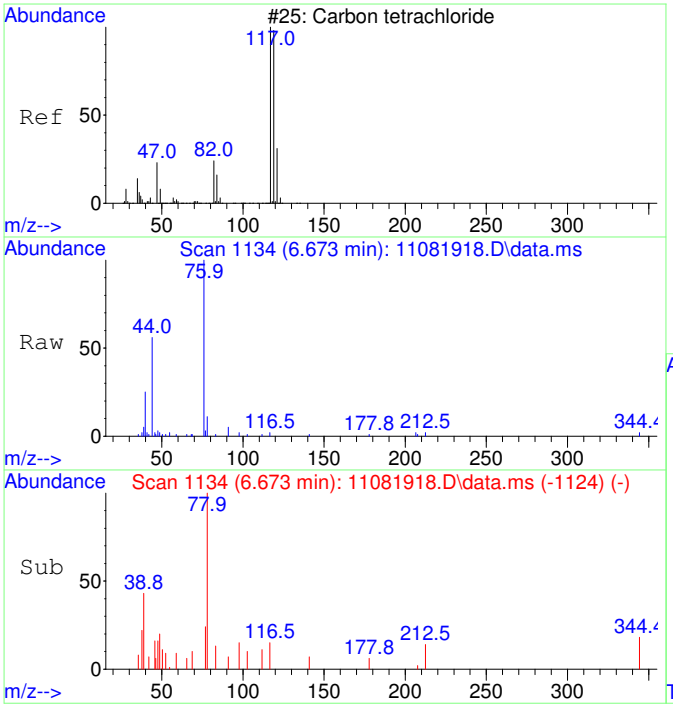


#31
1,1,1-Trichloroethane SCAN
Concen: 86.99 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 97 Resp: 1067

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

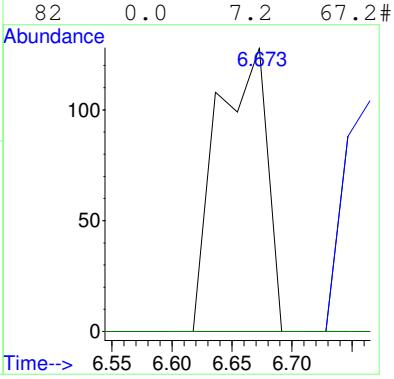


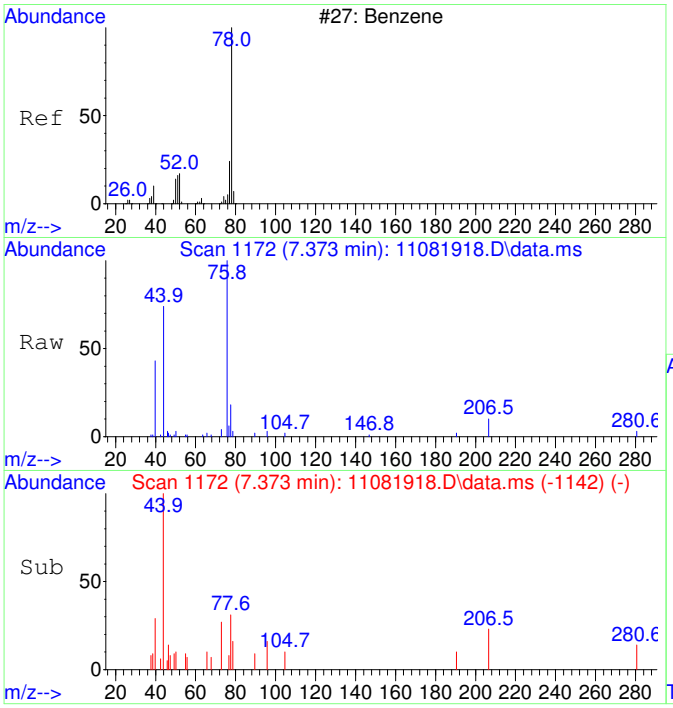


#32
Carbon tetrachloride SCAN
Concen: 32.18 ug/L
RT: 6.673 min Scan# 1134
Delta R.T. -0.313 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:117 Resp: 370

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

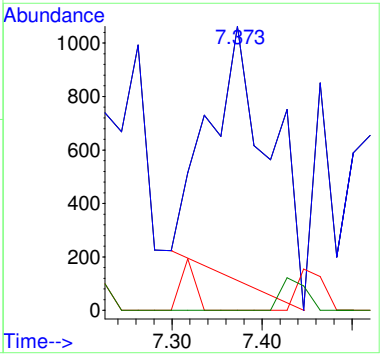


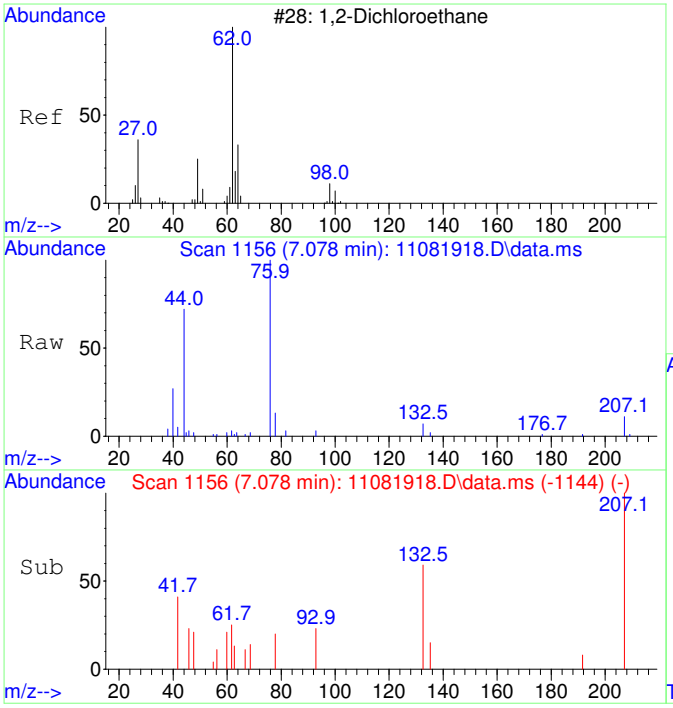


#33
Benzene SCAN
Concen: 143.29 ug/L
RT: 7.373 min Scan# 1172
Delta R.T. 0.055 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 78 Resp: 4417

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

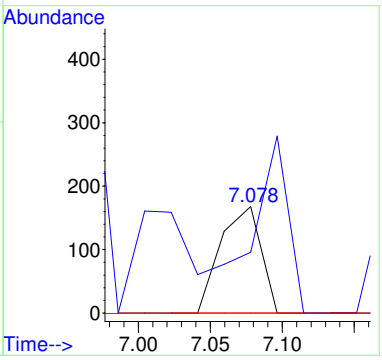


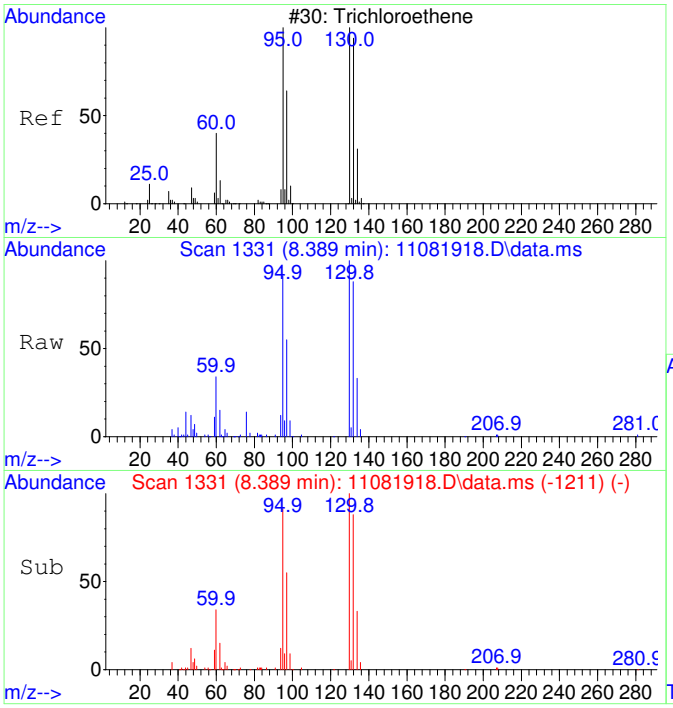


#34
1,2-Dichloroethane SCAN
Concen: 28.52 ug/L
RT: 7.078 min Scan# 1156
Delta R.T. -0.277 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 62 Resp: 328

Ion	Ratio	Lower	Upper
62	100		
64	111.3	0.0	59.2#
49	0.0	10.5	70.5#

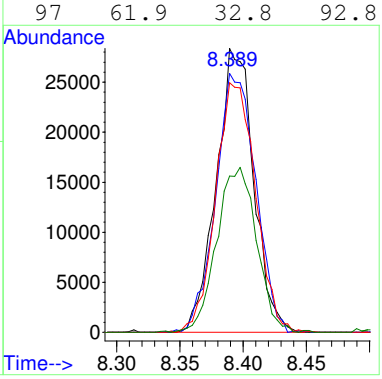


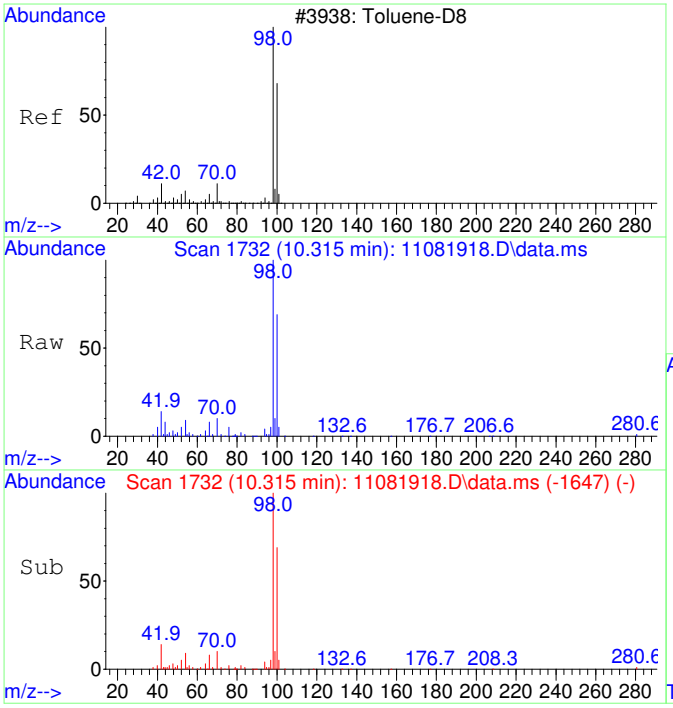


#35
Trichloroethene SCAN
Concen: 6456.04 ug/L
RT: 8.389 min Scan# 1331
Delta R.T. 0.004 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:130 Resp: 58344

Ion	Ratio	Lower	Upper
130	100		
95	96.7	69.5	129.5
132	93.7	66.5	126.5
97	61.9	32.8	92.8

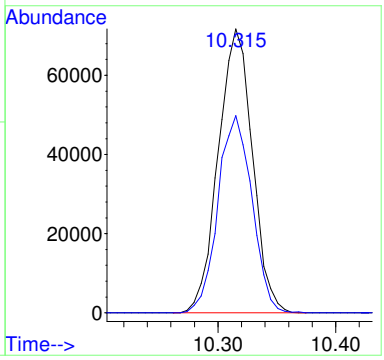


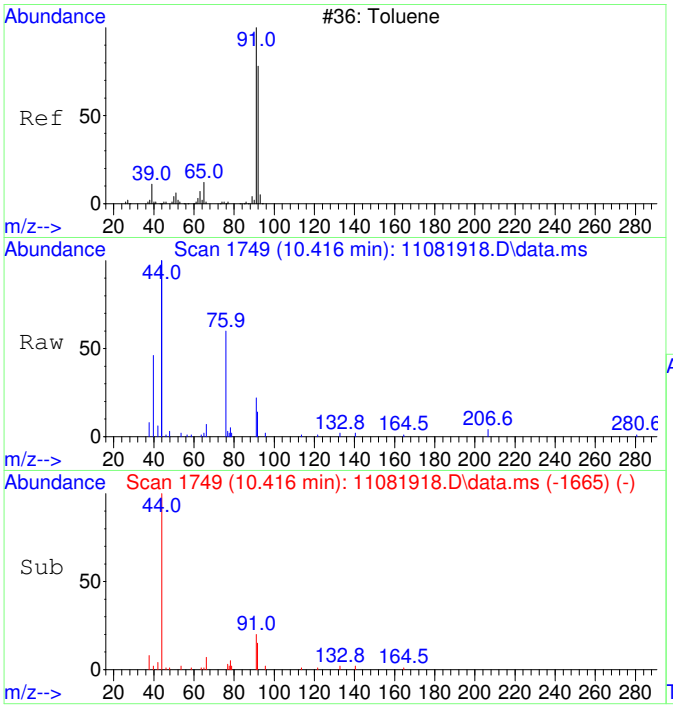


#36
Toluene-d8 SCAN
Concen: 5116.32 ug/L
RT: 10.315 min Scan# 1732
Delta R.T. 0.005 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 98 Resp: 144497

Ion	Ratio	Lower	Upper
98	100		
100	69.1	42.1	102.1

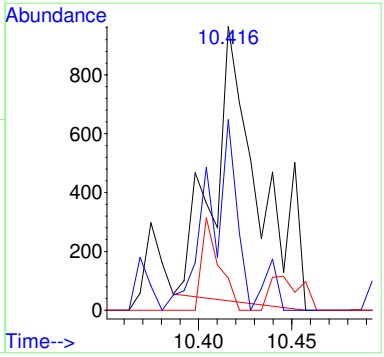


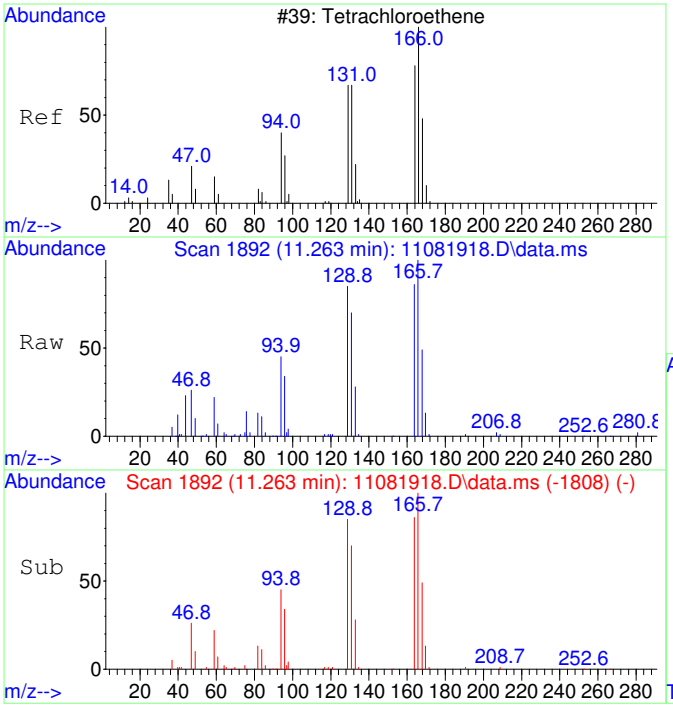


#37
Toluene SCAN
Concen: 45.03 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 1568

Ion	Ratio	Lower	Upper
91	100		
92	36.1	31.9	91.9
65	13.1	0.0	41.9

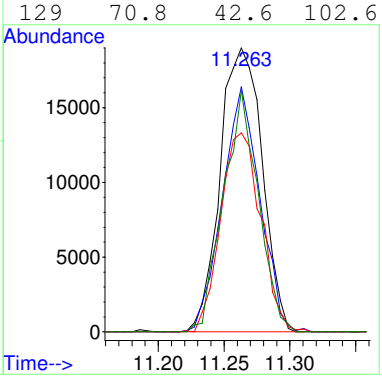


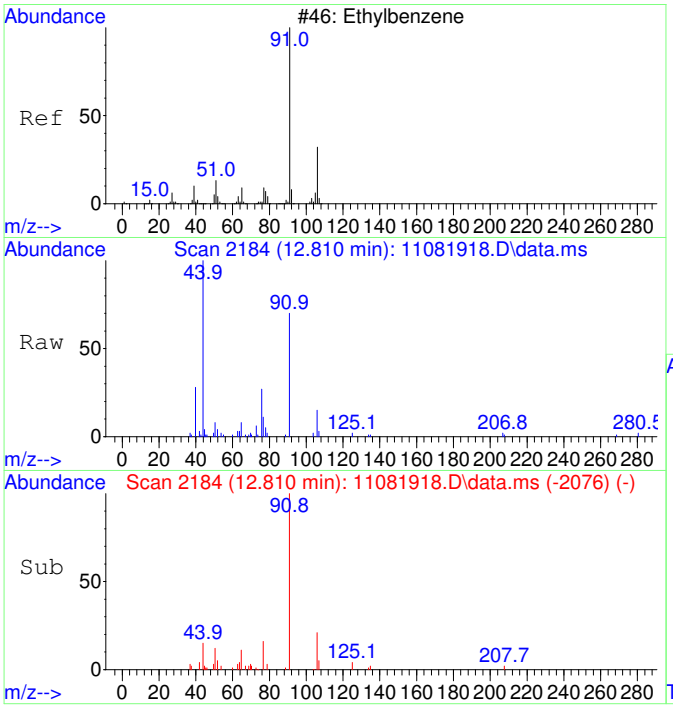


#39
Tetrachloroethene SCAN
Concen: 4553.47 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion:166 Resp: 42096

Ion	Ratio	Lower	Upper
166	100		
164	77.0	50.4	110.4
131	67.0	44.0	104.0
129	70.8	42.6	102.6

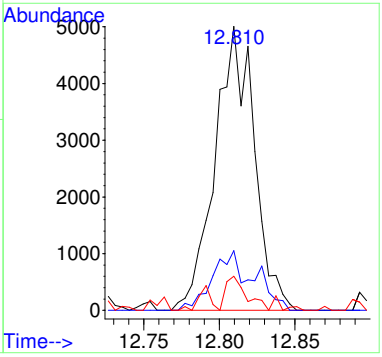


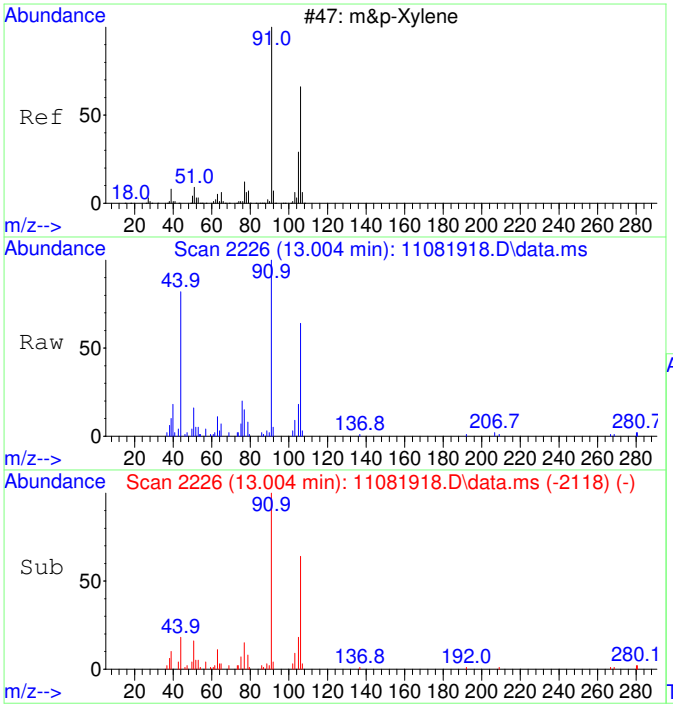


#42
Ethylbenzene SCAN
Concen: 228.66 ug/L
RT: 12.810 min Scan# 2184
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 9062

Ion	Ratio	Lower	Upper
91	100		
106	22.0	0.1	60.1
51	6.3	0.0	40.9

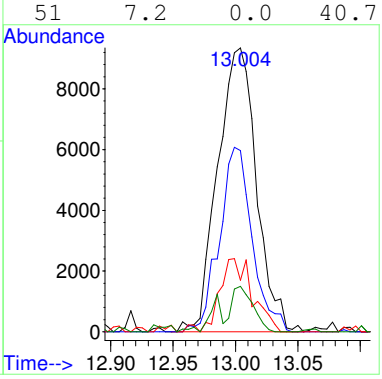


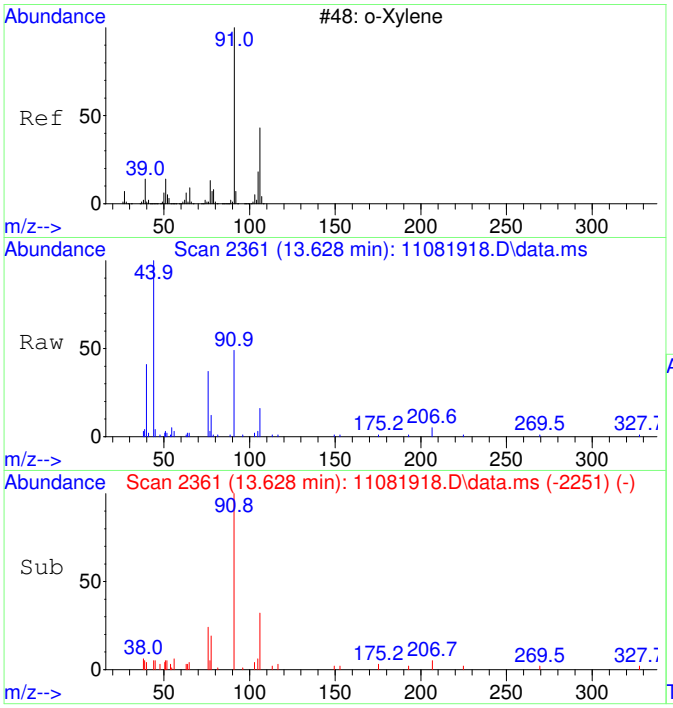


#43
m&p-Xylene SCAN
Concen: 356.32 ug/L
RT: 13.004 min Scan# 2226
Delta R.T. -0.000 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 20259

Ion	Ratio	Lower	Upper
91	100		
106	54.9	21.1	81.1
105	21.4	0.0	53.6
51	7.2	0.0	40.7

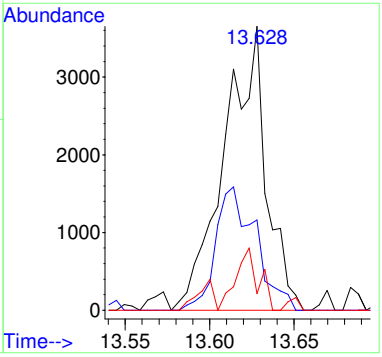




#44
o-Xylene SCAN
Concen: 208.23 ug/L
RT: 13.628 min Scan# 2361
Delta R.T. 0.009 min
Lab File: 11081918.D
Acq: 8 Nov 2019 17:01

Tgt Ion: 91 Resp: 6296

Ion	Ratio	Lower	Upper
91	100		
106	41.4	16.7	76.7
105	11.8	0.0	57.3



1910069-06RE1

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081919.D
Acq On : 8 Nov 2019 17:25
InstName : AG5975C
Operator : TD
Sample : 1910069-06RE1
Misc : 495-5
ALS Vial : 18 Sample Multiplier: 100

Quant Time: Nov 11 06:20:03 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

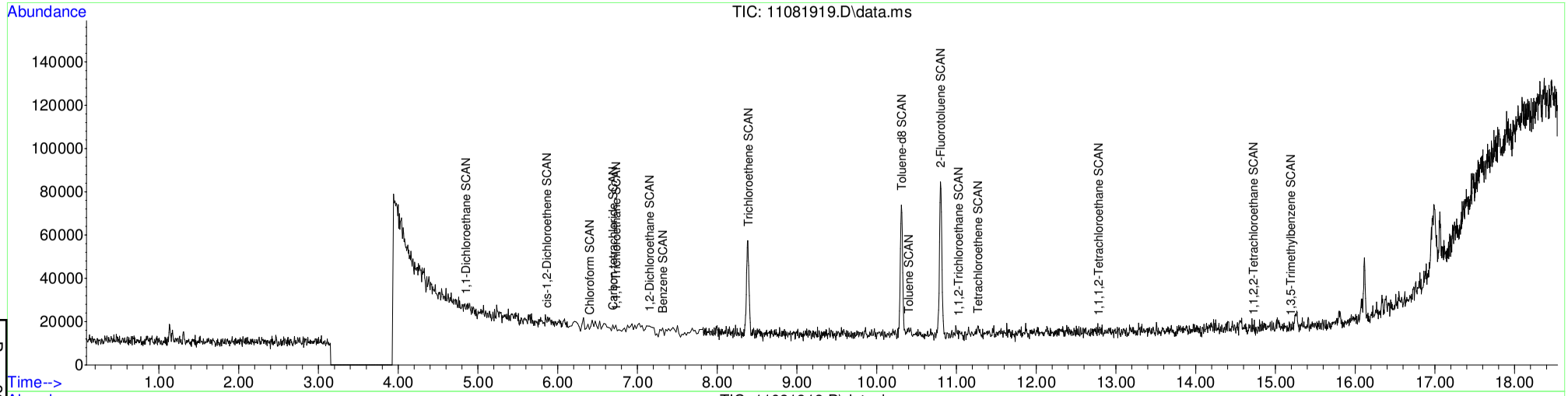
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	90834	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	72699	4952.71	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.05%			
Target Compounds						Qvalue
5] cis-1,2-Dichloroethene	5.860	61	956	189.87	ug/L	97
6] Chloroform	6.435	83	523	90.54	ug/L	98
11] Trichloroethene	8.382	130	26078	6009.24	ug/L	100
13] Toluene	10.412	91	3205	180.13	ug/L	98
15] Tetrachloroethene	11.259	166	1826	353.02	ug/L	99
25) 2-Fluorotoluene SCAN	10.801	109	57227	5057.35	ug/L	97
28) 1,1-Dichloroethane SCAN	4.844	63	127	26.68	ug/L #	19
29) cis-1,2-Dichloroethene...	5.866	61	766	186.37	ug/L #	46
30) Chloroform SCAN	6.397	83	1078	235.45	ug/L #	25
31) 1,1,1-Trichloroethane ...	6.728	97	245	61.30	ug/L #	21
32) Carbon tetrachloride SCAN	6.692	117	182	48.59	ug/L #	19
33) Benzene SCAN	7.318	78	3910	389.26	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.152	62	273	72.85	ug/L #	1
35) Trichloroethene SCAN	8.385	130	15973	5424.35	ug/L	93
36) Toluene-d8 SCAN	10.310	98	45761	4972.62	ug/L	95
37) Toluene SCAN	10.404	91	3211	282.99	ug/L	76
38) 1,1,2-Trichloroethane ...	11.020	97	97	37.48	ug/L #	40
39) Tetrachloroethene SCAN	11.263	166	1185	393.38	ug/L #	65
41) 1,1,1,2-Tetrachloroeth...	12.787	131	62	22.43	ug/L #	1
45) 1,1,2,2-Tetrachloroeth...	14.727	83	192	40.14	ug/L #	24
46) 1,3,5-Trimethylbenzene...	15.188	105	232	23.14	ug/L #	35

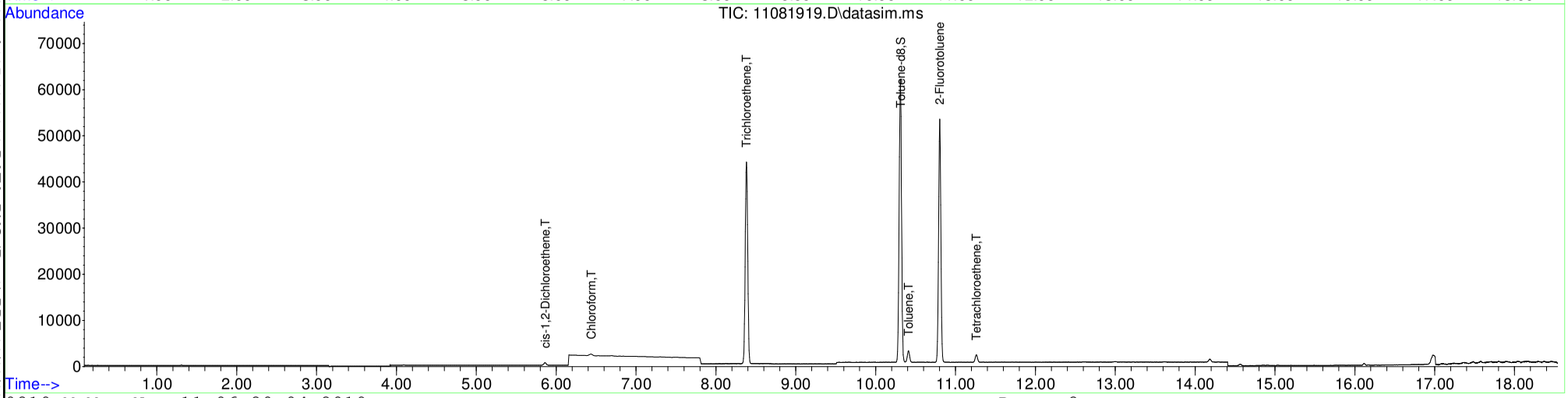
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081919.D
Acq On : 8 Nov 2019 17:25
InstName : AG5975C
Operator : TD
Sample : 1910069-06RE1
Misc : 495-5
ALS Vial : 18 Sample Multiplier: 100

Quant Time: Nov 11 06:20:03 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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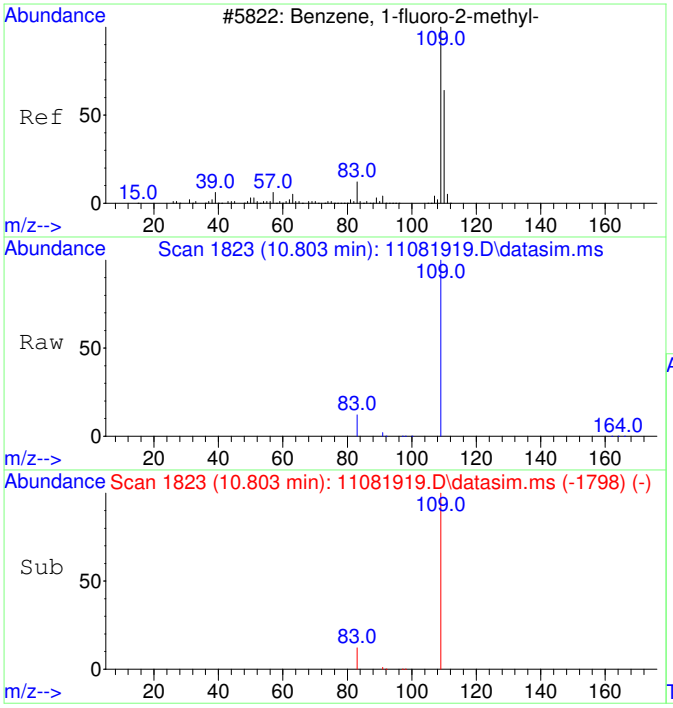
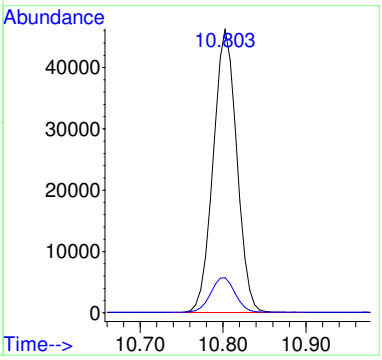
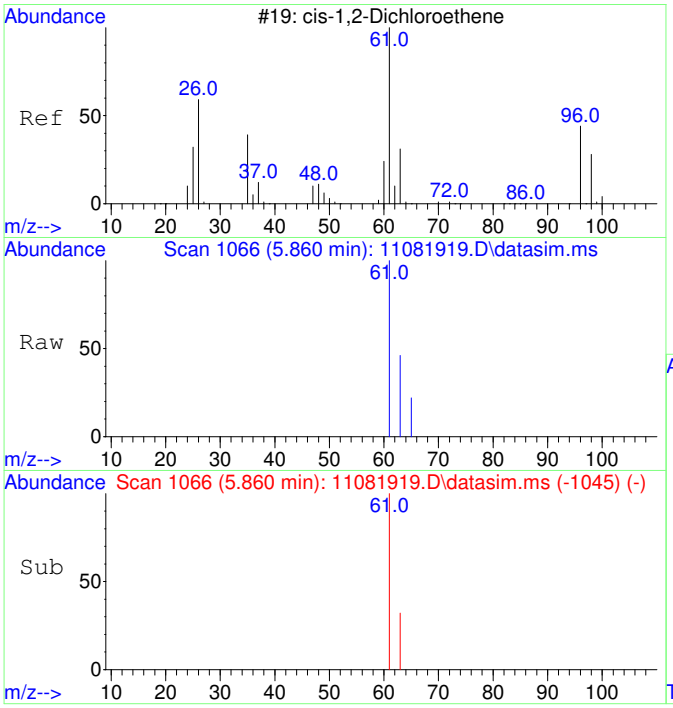


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:109 Resp: 90834

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

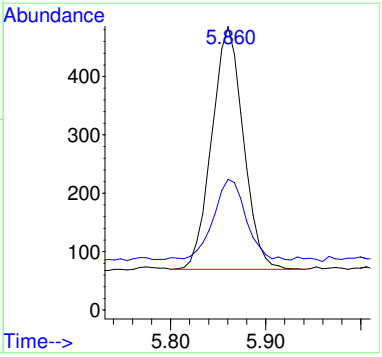


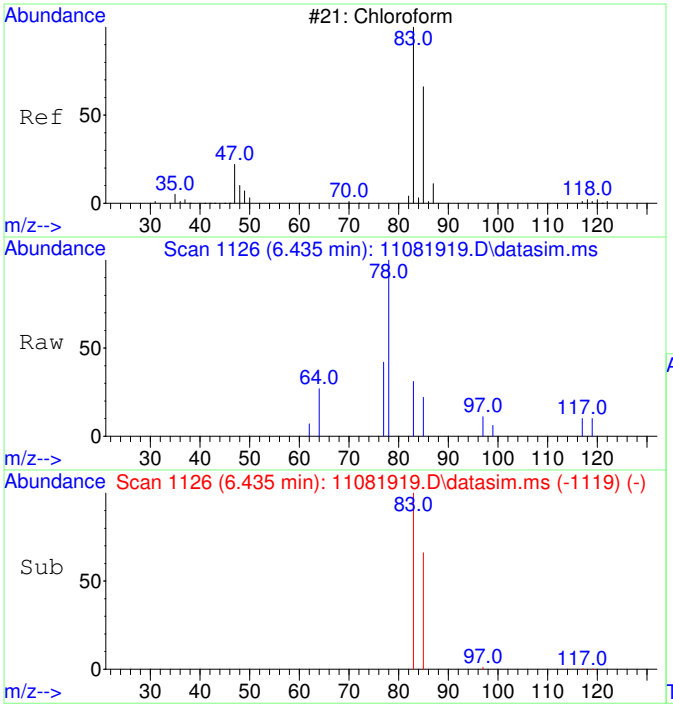


#5
cis-1,2-Dichloroethene
Concen: 189.87 ug/L
RT: 5.860 min Scan# 1066
Delta R.T. -0.013 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 61 Resp: 956

Ion	Ratio	Lower	Upper
61	100		
63	34.1	2.4	62.4

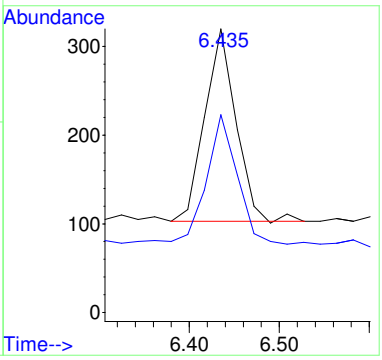


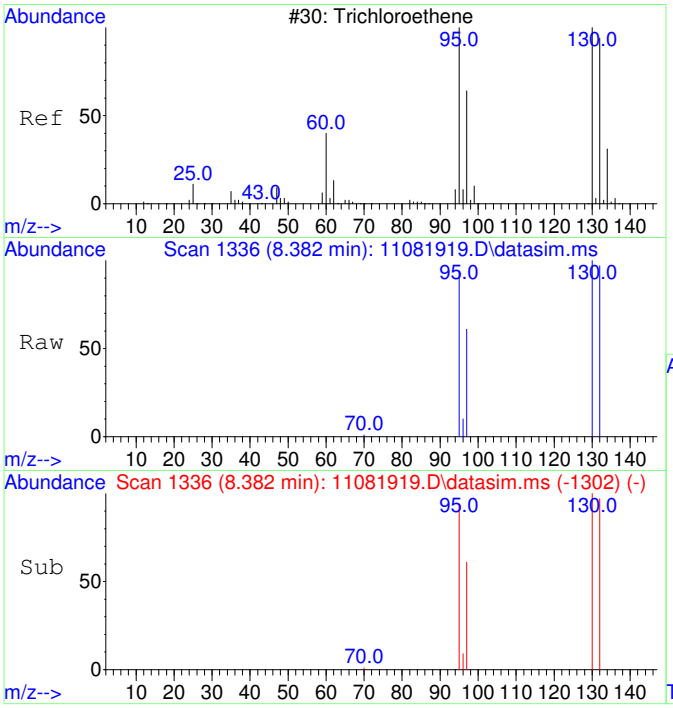


#6
Chloroform
Concen: 90.54 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.019 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 83 Resp: 523

Ion	Ratio	Lower	Upper
83	100		
85	67.1	35.2	95.2

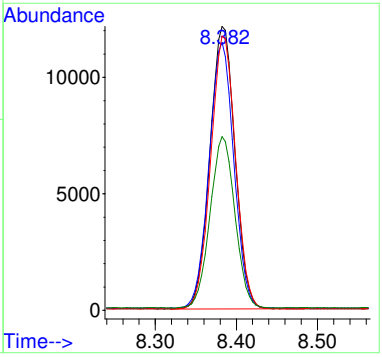


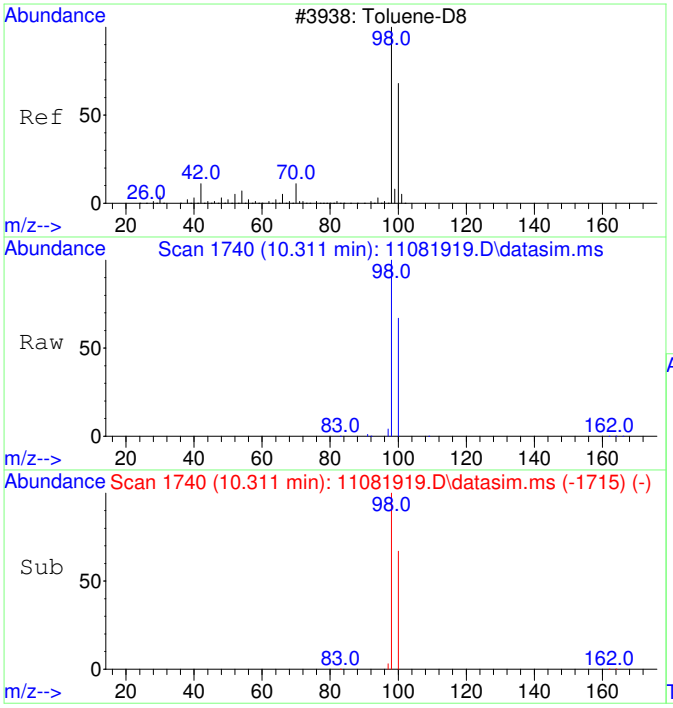


#11
Trichloroethene
Concen: 6009.24 ug/L
RT: 8.382 min Scan# 1336
Delta R.T. -0.009 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:130 Resp: 26078

Ion	Ratio	Lower	Upper
130	100		
95	92.8	63.4	123.4
132	95.8	76.0	116.0
97	59.9	39.8	79.8

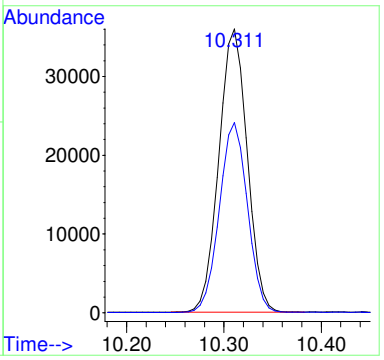


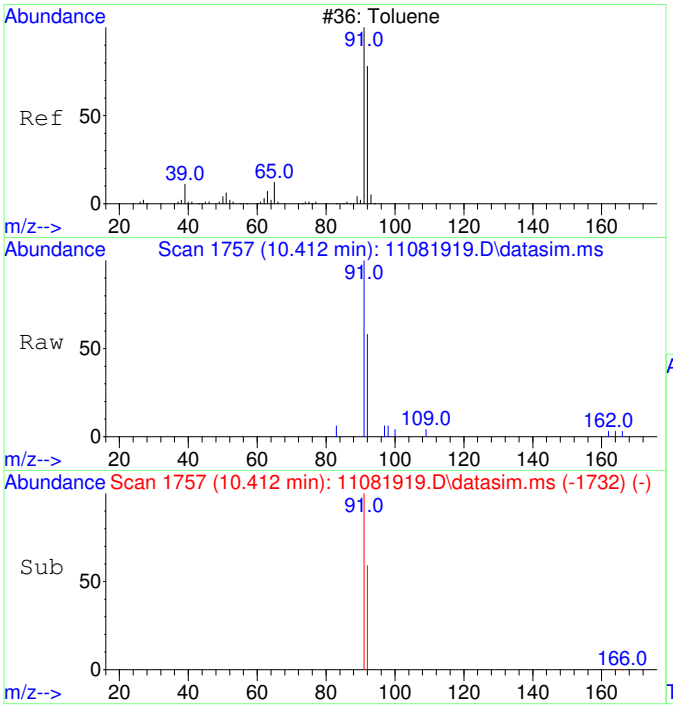


#12
Toluene-d8
Concen: 4952.71 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 98 Resp: 72699

Ion	Ratio	Lower	Upper
98	100		
100	66.4	36.4	96.4

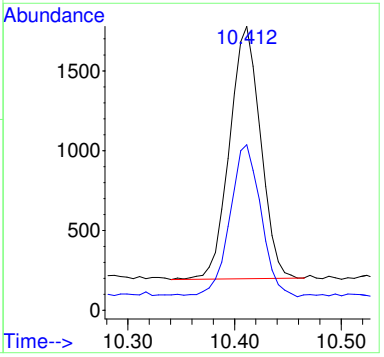


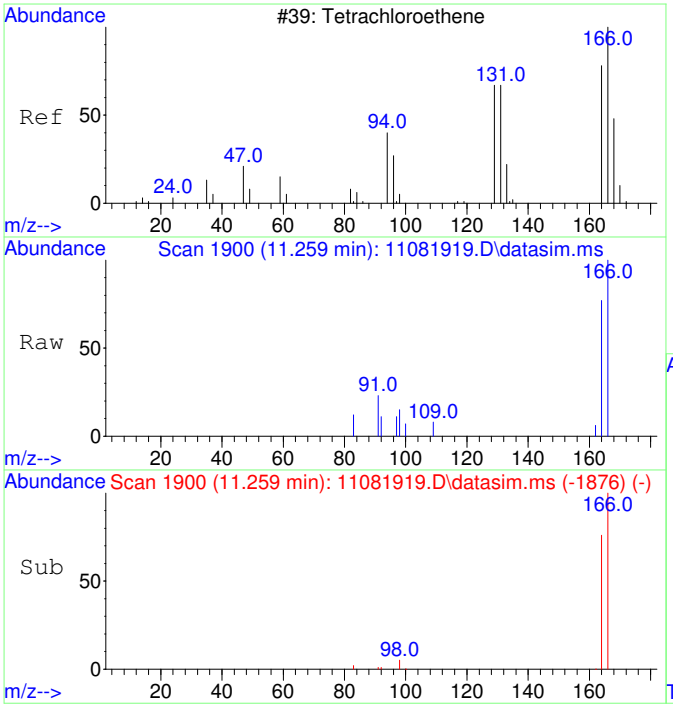


#13
Toluene
Concen: 180.13 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 91 Resp: 3205

Ion	Ratio	Lower	Upper
91	100		
92	60.9	29.4	89.4

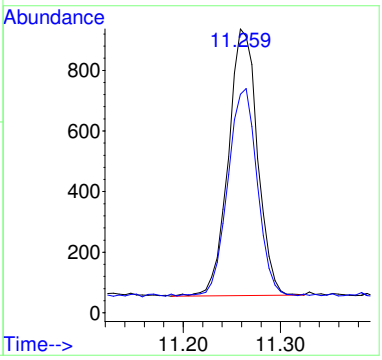


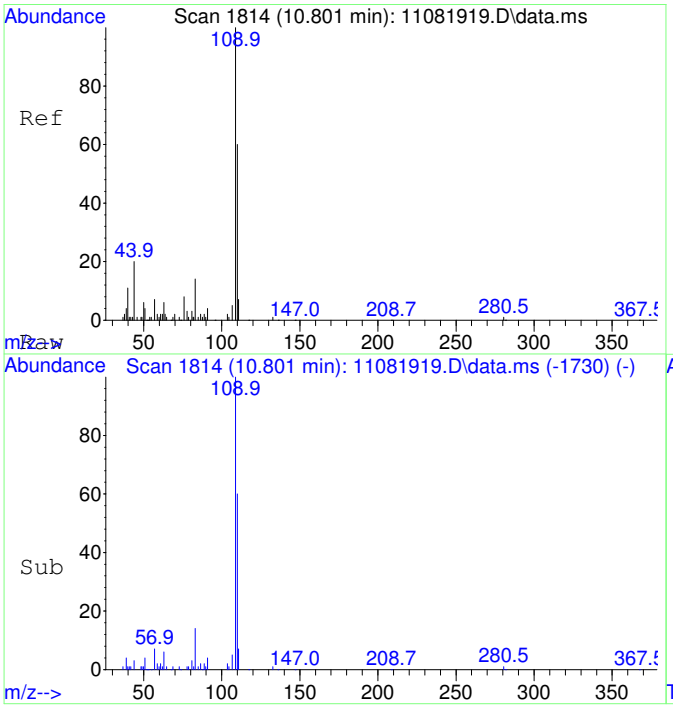


#15
Tetrachloroethene
Concen: 353.02 ug/L
RT: 11.259 min Scan# 1900
Delta R.T. -0.006 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:166 Resp: 1826

Ion	Ratio	Lower	Upper
166	100		
164	78.2	47.7	107.7

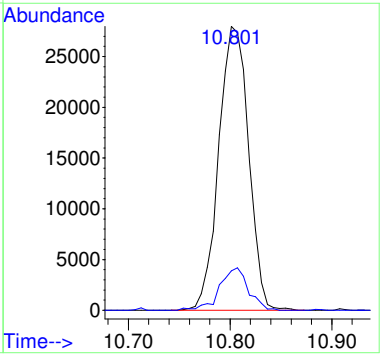


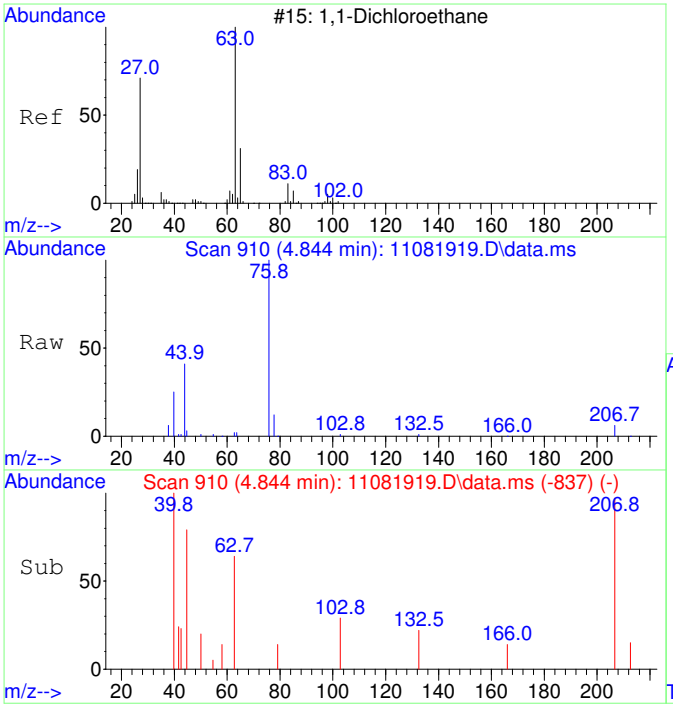


#25
2-Fluorotoluene SCAN
Concen: 5057.35 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:109 Resp: 57227

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	45.8

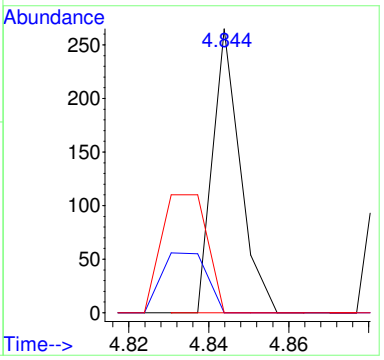


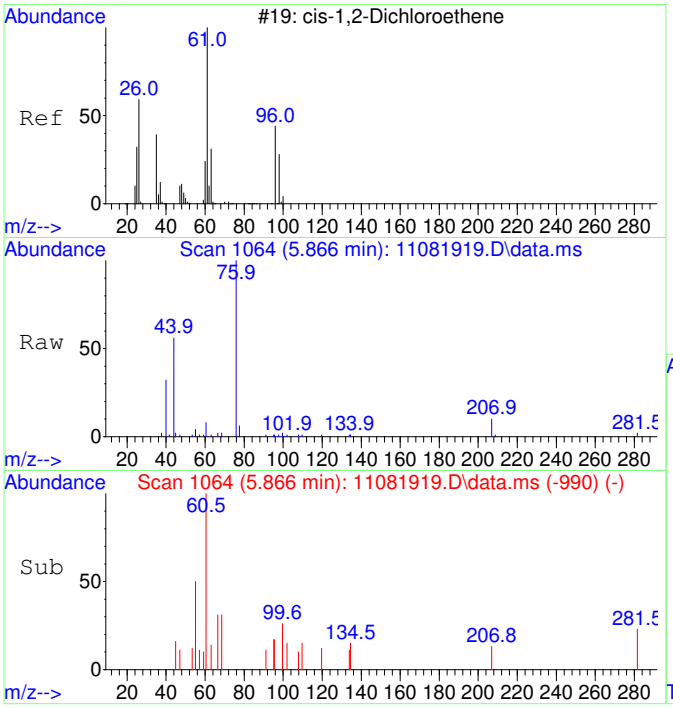


#28
1,1-Dichloroethane SCAN
Concen: 26.68 ug/L
RT: 4.844 min Scan# 910
Delta R.T. -0.013 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 63 Resp: 127

Ion	Ratio	Lower	Upper
63	100		
65	0.0	1.6	61.6#
83	69.3	0.0	43.5#

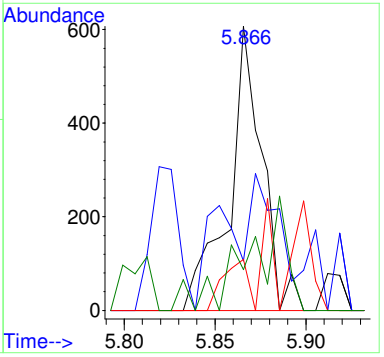


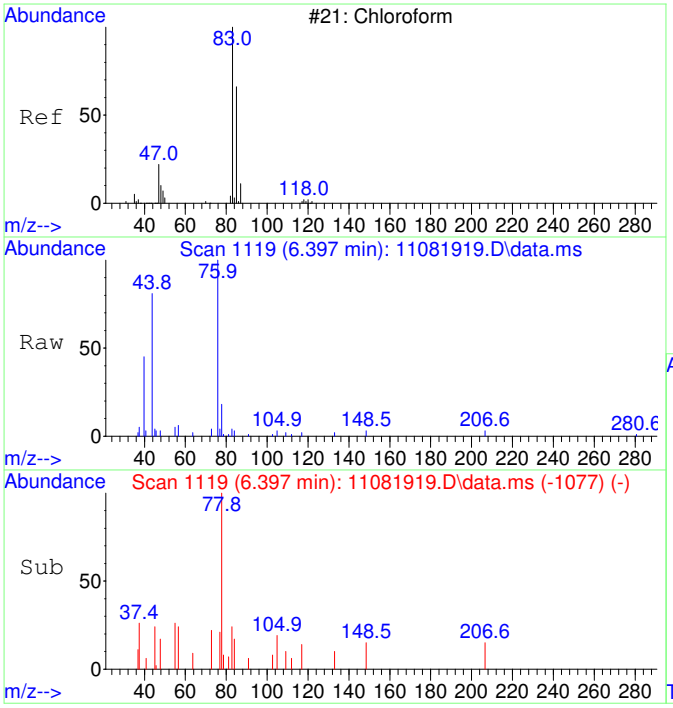


#29
cis-1,2-Dichloroethene SCAN
Concen: 186.37 ug/L
RT: 5.866 min Scan# 1064
Delta R.T. -0.007 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 61 Resp: 766

Ion	Ratio	Lower	Upper
61	100		
96	25.7	41.9	101.9#
98	13.7	20.3	80.3#
63	0.0	0.0	58.3

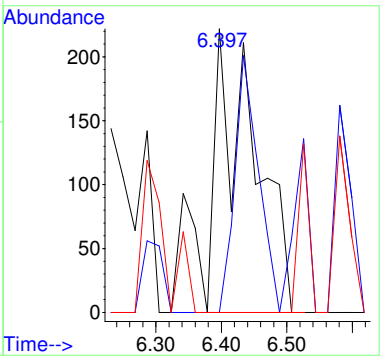


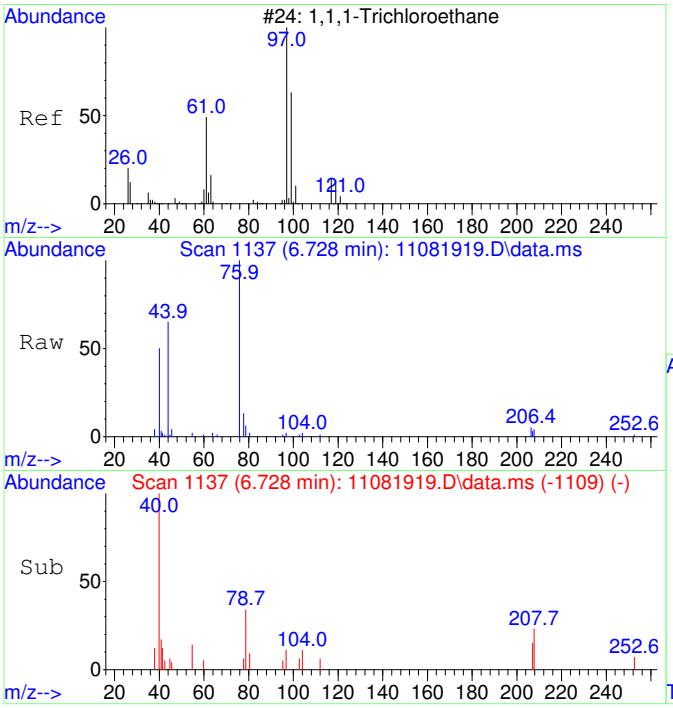


#30
Chloroform SCAN
Concen: 235.45 ug/L
RT: 6.397 min Scan# 1119
Delta R.T. -0.055 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 83 Resp: 1078

Ion	Ratio	Lower	Upper
83	100		
85	0.0	38.3	98.3#
47	0.0	0.0	50.2

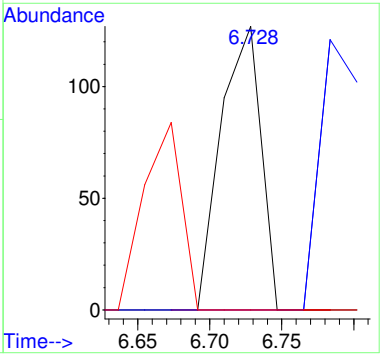


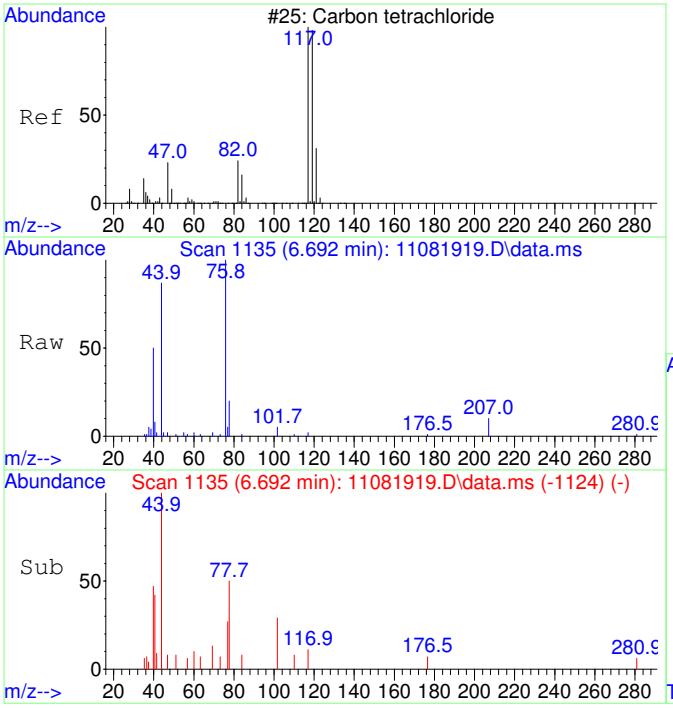


#31
1,1,1-Trichloroethane SCAN
Concen: 61.30 ug/L
RT: 6.728 min Scan# 1137
Delta R.T. 0.018 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 97 Resp: 245

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

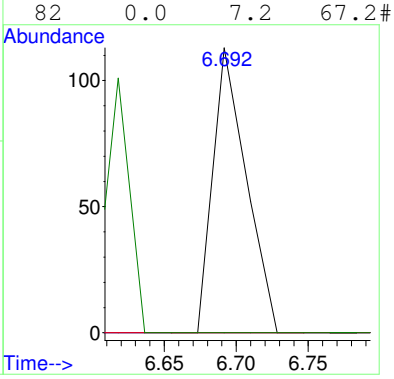


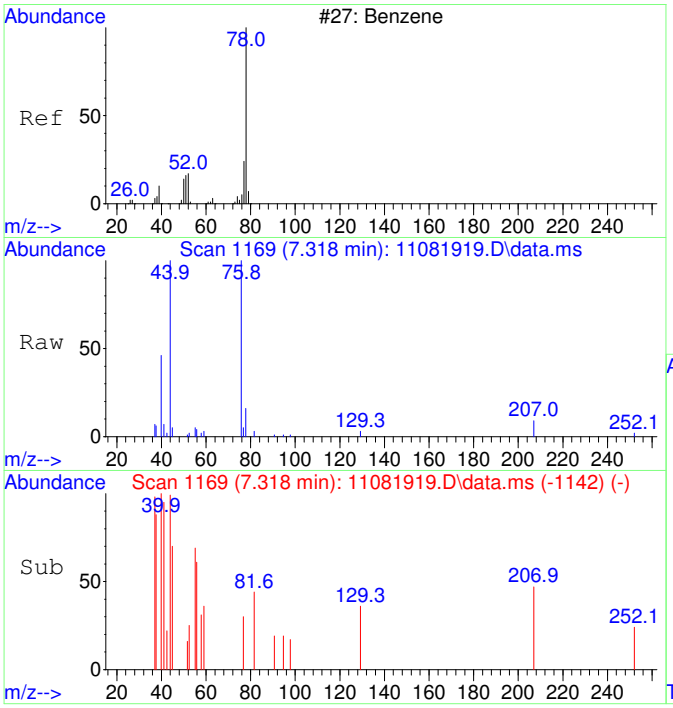


#32
Carbon tetrachloride SCAN
Concen: 48.59 ug/L
RT: 6.692 min Scan# 1135
Delta R.T. -0.295 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:117 Resp: 182

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

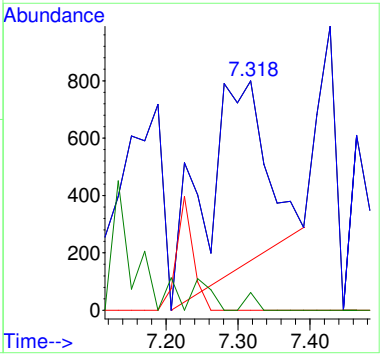


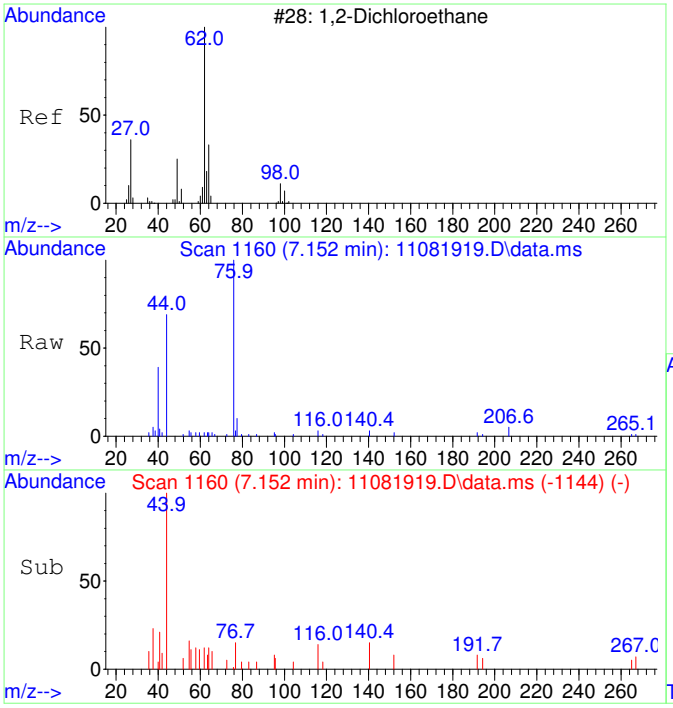


#33
Benzene SCAN
Concen: 389.26 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 78 Resp: 3910

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

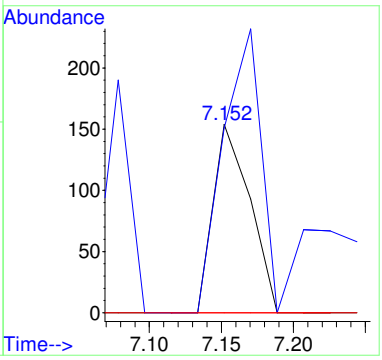


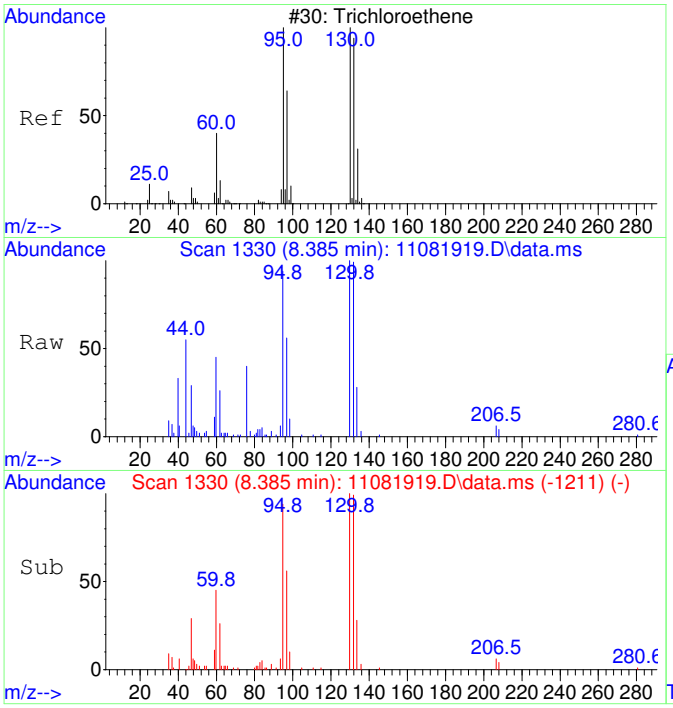


#34
1,2-Dichloroethane SCAN
Concen: 72.85 ug/L
RT: 7.152 min Scan# 1160
Delta R.T. -0.203 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 62 Resp: 273

Ion	Ratio	Lower	Upper
62	100		
64	141.8	0.0	59.2#
49	0.0	10.5	70.5#

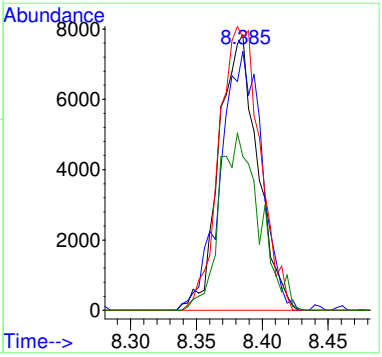


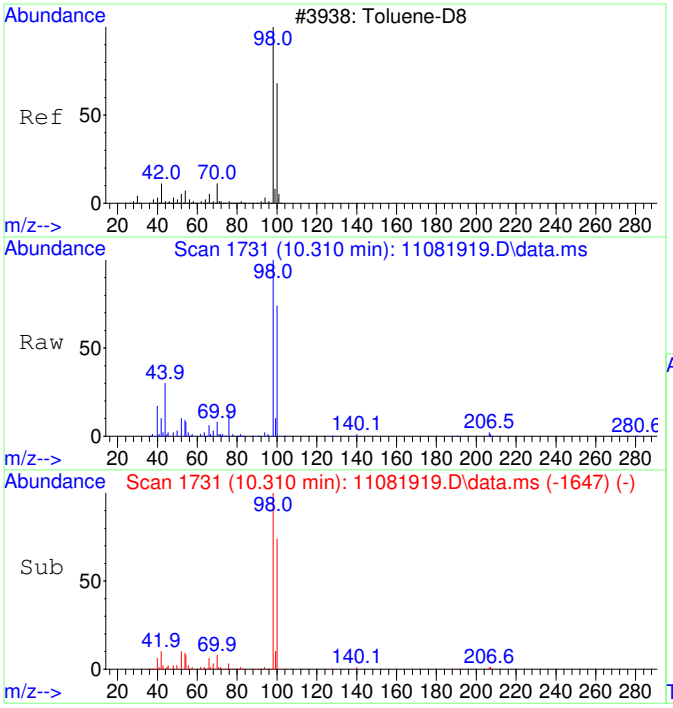


#35
Trichloroethene SCAN
Concen: 5424.35 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:130 Resp: 15973

Ion	Ratio	Lower	Upper
130	100		
95	100.9	69.5	129.5
132	109.9	66.5	126.5
97	67.7	32.8	92.8

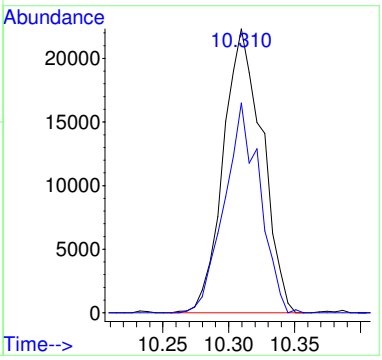


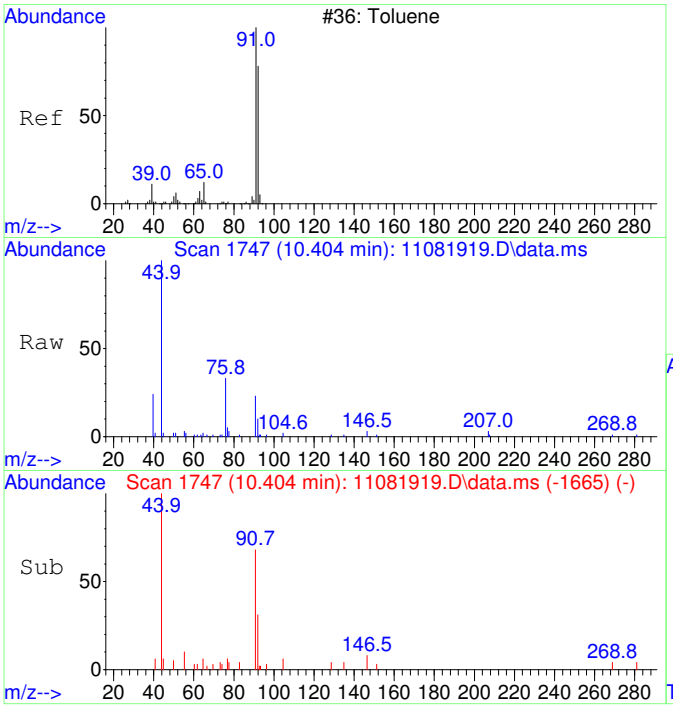


#36
Toluene-d8 SCAN
Concen: 4972.62 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 98 Resp: 45761

Ion	Ratio	Lower	Upper
98	100		
100	67.6	42.1	102.1

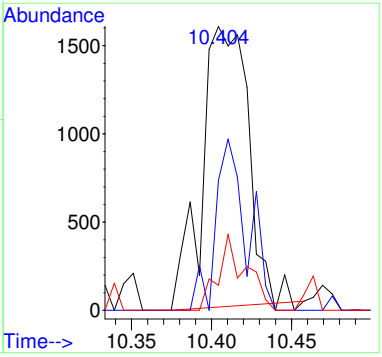


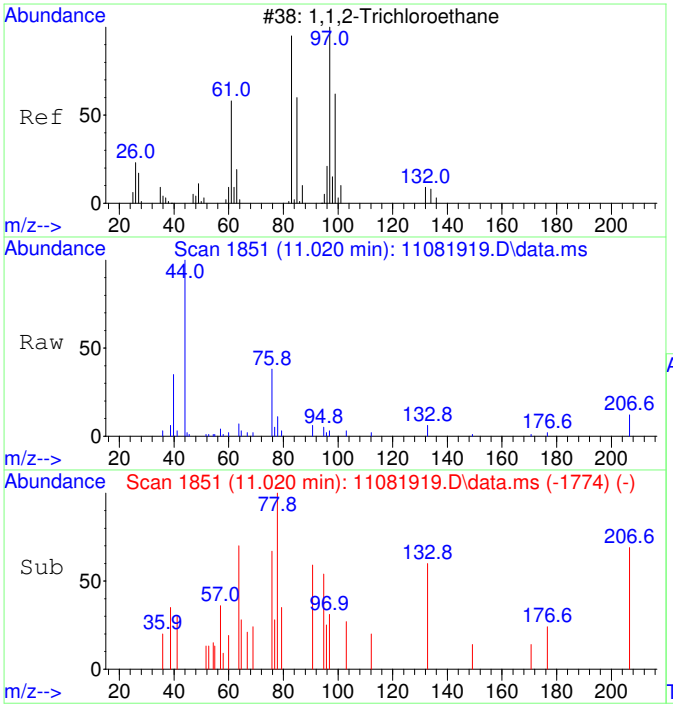


#37
Toluene SCAN
Concen: 282.99 ug/L
RT: 10.404 min Scan# 1747
Delta R.T. -0.012 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 91 Resp: 3211

Ion	Ratio	Lower	Upper
91	100		
92	41.2	31.9	91.9
65	16.2	0.0	41.9

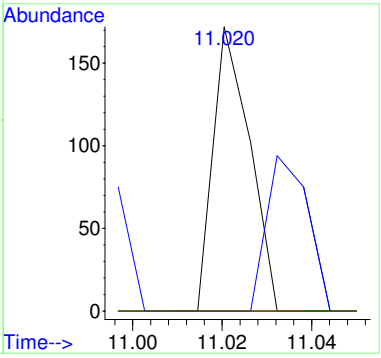


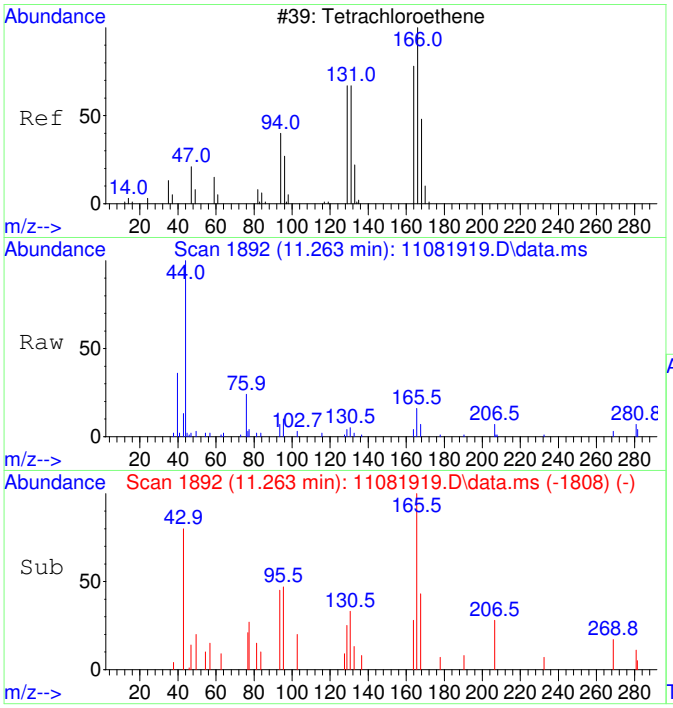


#38
1,1,2-Trichloroethane SCAN
Concen: 37.48 ug/L
RT: 11.020 min Scan# 1851
Delta R.T. -0.042 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 97 Resp: 97

Ion	Ratio	Lower	Upper
97	100		
83	61.9	58.1	118.1
61	0.0	36.0	96.0#
99	0.0	32.7	92.7#

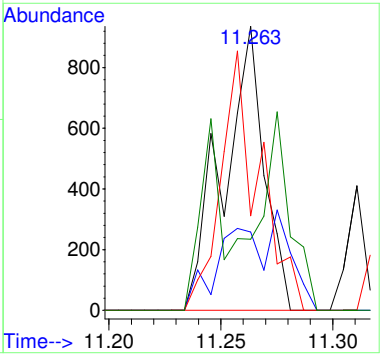


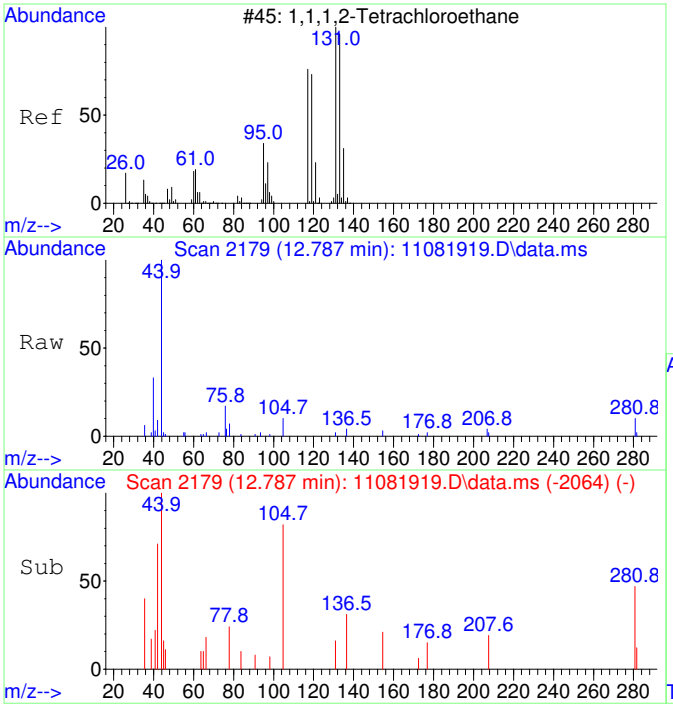


#39
Tetrachloroethene SCAN
Concen: 393.38 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:166 Resp: 1185

Ion	Ratio	Lower	Upper
166	100		
164	50.7	50.4	110.4
131	85.5	44.0	104.0
129	24.9	42.6	102.6#

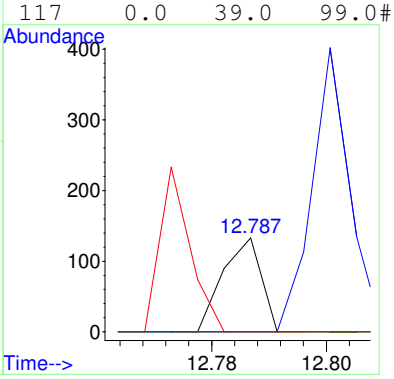


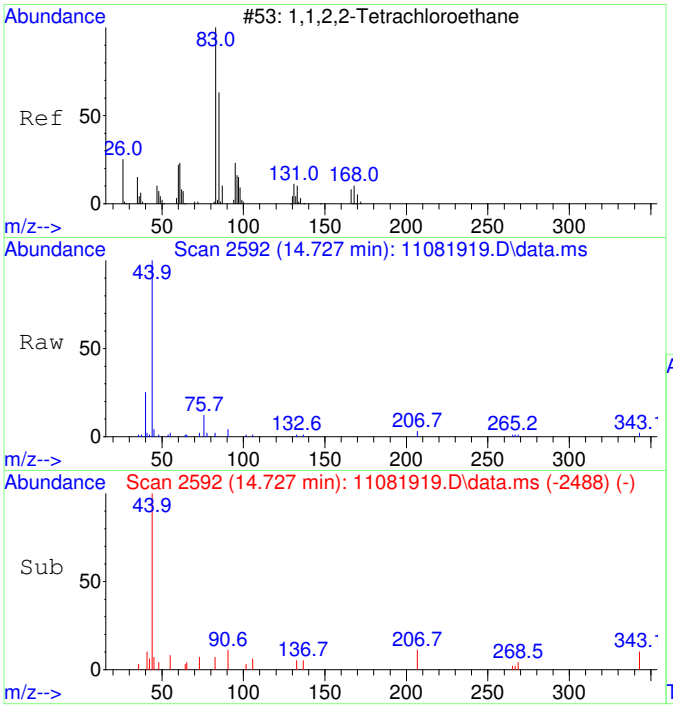


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 22.43 ug/L
RT: 12.787 min Scan# 2179
Delta R.T. 0.032 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:131 Resp: 62

Ion	Ratio	Lower	Upper
131	100		
133	290.3	67.7	127.7#
119	0.0	36.2	96.2#
117	0.0	39.0	99.0#

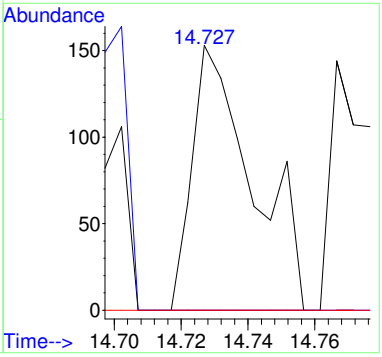


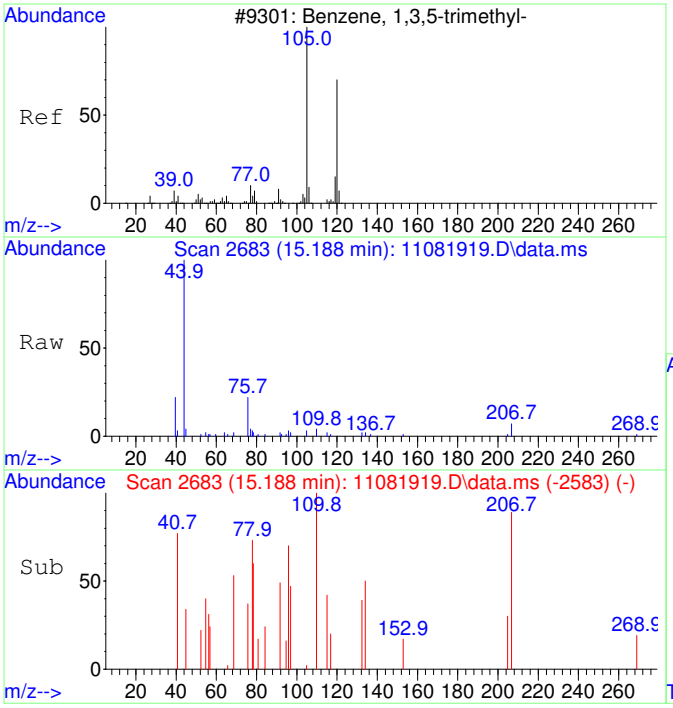


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 40.14 ug/L
RT: 14.727 min Scan# 2592
Delta R.T. 0.009 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion: 83 Resp: 192

Ion	Ratio	Lower	Upper
83	100		
85	0.0	38.3	98.3#
95	0.0	0.0	44.8

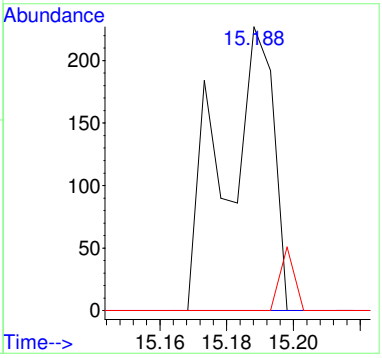




#46
1,3,5-Trimethylbenzene SCAN
Concen: 23.14 ug/L
RT: 15.188 min Scan# 2683
Delta R.T. 0.005 min
Lab File: 11081919.D
Acq: 8 Nov 2019 17:25

Tgt Ion:105 Resp: 232

Ion	Ratio	Lower	Upper
105	100		
120	0.0	20.8	80.8#
119	0.0	0.0	42.8



1910069-01

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081922.D
Acq On : 8 Nov 2019 18:36
InstName : AG5975C
Operator : TD
Sample : 1910069-01
Misc : 495-5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 11 06:20:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

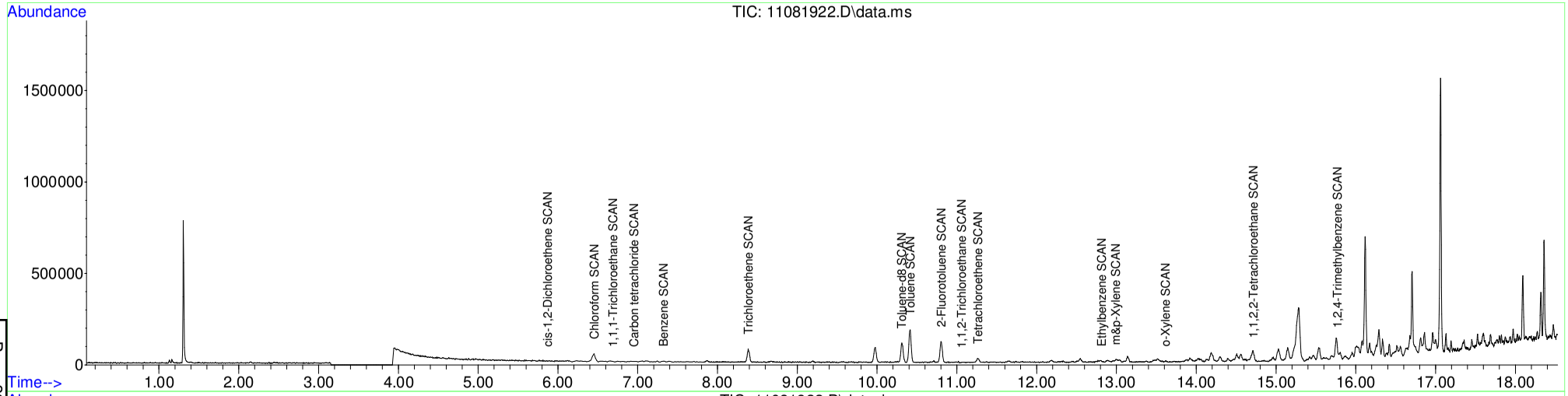
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	154496	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	127888	5122.43	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 102.45%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.097	61	233	32.67	ug/L	97
5] cis-1,2-Dichloroethene	5.867	61	702	81.97	ug/L	96
6] Chloroform	6.435	83	60235	6131.16	ug/L	100
8] Carbon tetrachloride	6.969	117	926	103.26	ug/L	91
9] Benzene	7.301	78	5793	238.01	ug/L	96
11] Trichloroethene	8.387	130	41592	5634.90	ug/L	99
13] Toluene	10.412	91	236721	7821.99	ug/L	100
14] 1,1,2-Trichloroethane	10.998	97	892	127.42	ug/L #	15
15] Tetrachloroethene	11.265	166	11306	1285.09	ug/L	99
18] Ethylbenzene	12.807	91	5903	160.54	ug/L	98
19] m&p-Xylene	13.001	91	15255	547.94	ug/L	99
20] o-Xylene	13.616	91	5276	177.57	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.704	83	6176	468.53	ug/L #	46
22] 1,3,5-Trimethylbenzene	15.185	105	1175	36.97	ug/L	57
23] 1,2,4-Trimethylbenzene	15.761	105	4048	125.08	ug/L	88
25) 2-Fluorotoluene SCAN	10.801	109	95810	4978.10	ug/L	96
29) cis-1,2-Dichloroethene...	5.866	61	192	27.46	ug/L #	34
30) Chloroform SCAN	6.452	83	39704	5098.44	ug/L	97
31) 1,1,1-Trichloroethane ...	6.692	97	605	89.00	ug/L #	21
32) Carbon tetrachloride SCAN	6.949	117	1045	164.02	ug/L #	35
33) Benzene SCAN	7.318	78	6479	379.23	ug/L	97
35) Trichloroethene SCAN	8.385	130	26704	5331.74	ug/L	96
36) Toluene-d8 SCAN	10.310	98	83322	5323.30	ug/L	95
37) Toluene SCAN	10.416	91	153482	7952.92	ug/L	98
38) 1,1,2-Trichloroethane ...	11.062	97	109	24.77	ug/L #	45
39) Tetrachloroethene SCAN	11.258	166	6855	1337.93	ug/L	93
42) Ethylbenzene SCAN	12.810	91	3908	177.93	ug/L	97
43) m&p-Xylene SCAN	12.995	91	11713	371.72	ug/L	83
44) o-Xylene SCAN	13.615	91	4047	241.51	ug/L #	51
45) 1,1,2,2-Tetrachloroeth...	14.717	83	541	66.49	ug/L #	27
47) 1,2,4-Trimethylbenzene...	15.764	105	3191	190.13	ug/L #	68

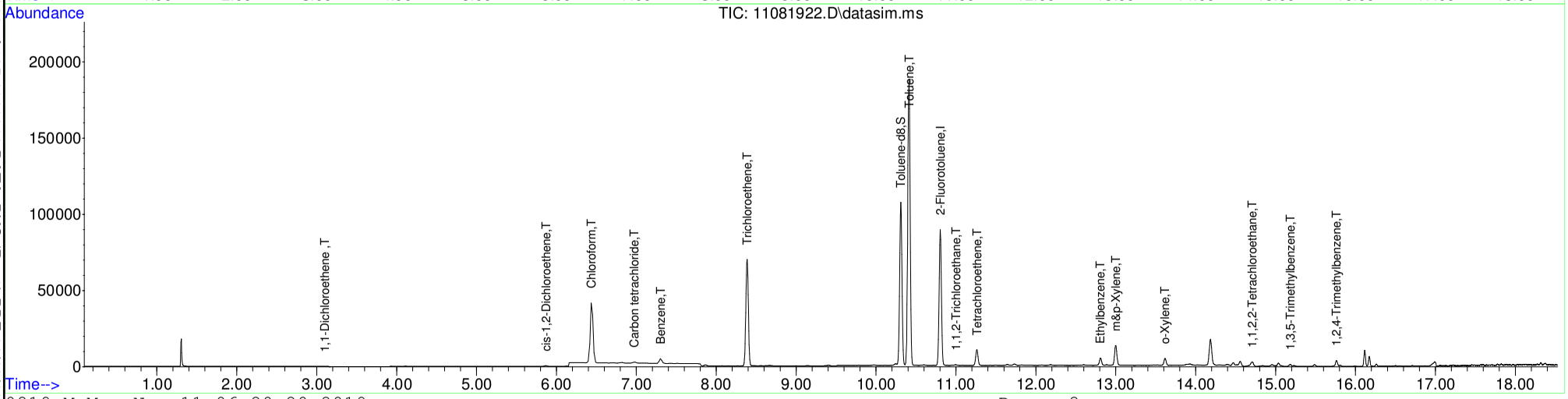
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081922.D
Acq On : 8 Nov 2019 18:36
InstName : AG5975C
Operator : TD
Sample : 1910069-01
Misc : 495-5
ALS Vial : 20 Sample Multiplier: 100

Quant Time: Nov 11 06:20:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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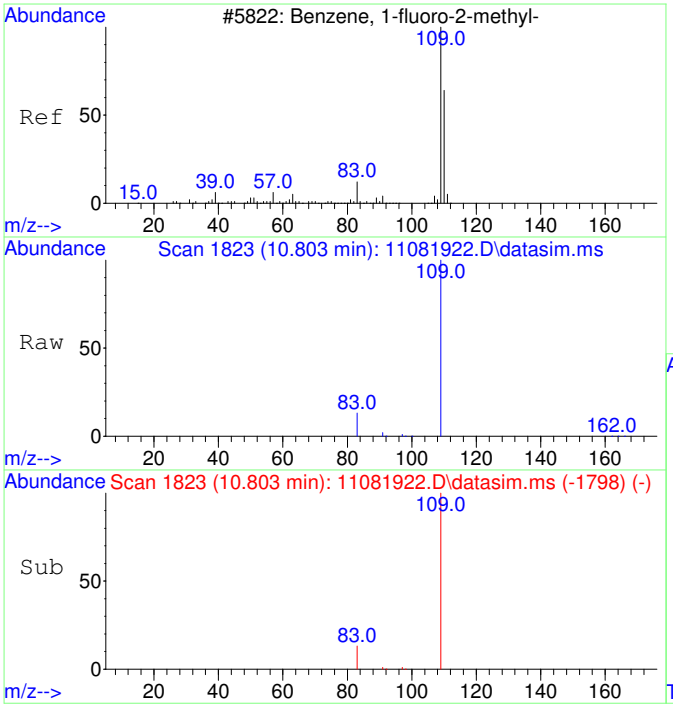
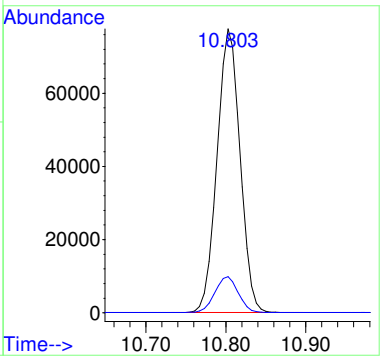
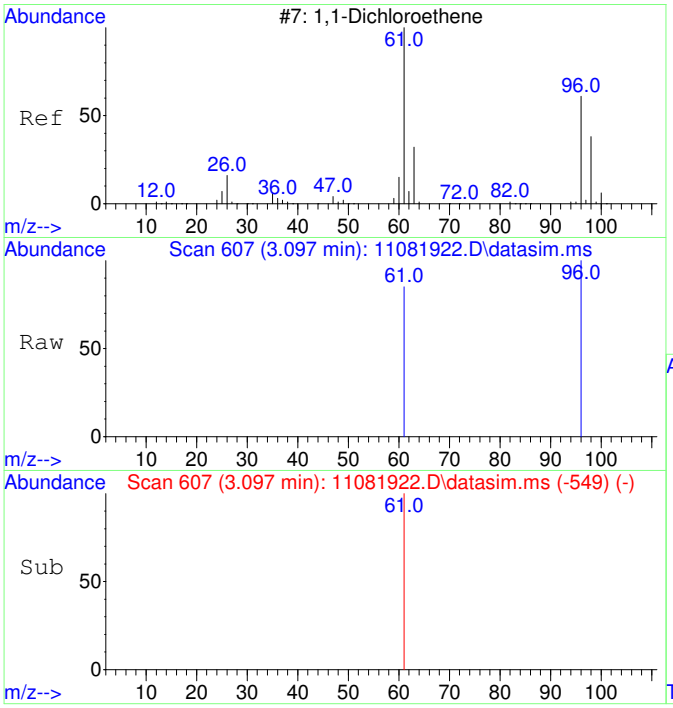


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:109 Resp: 154496

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

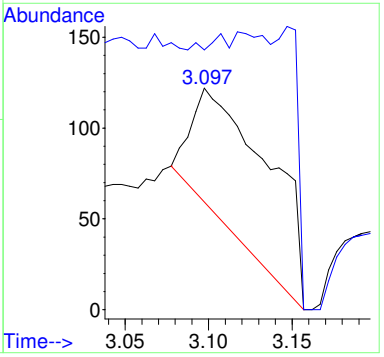




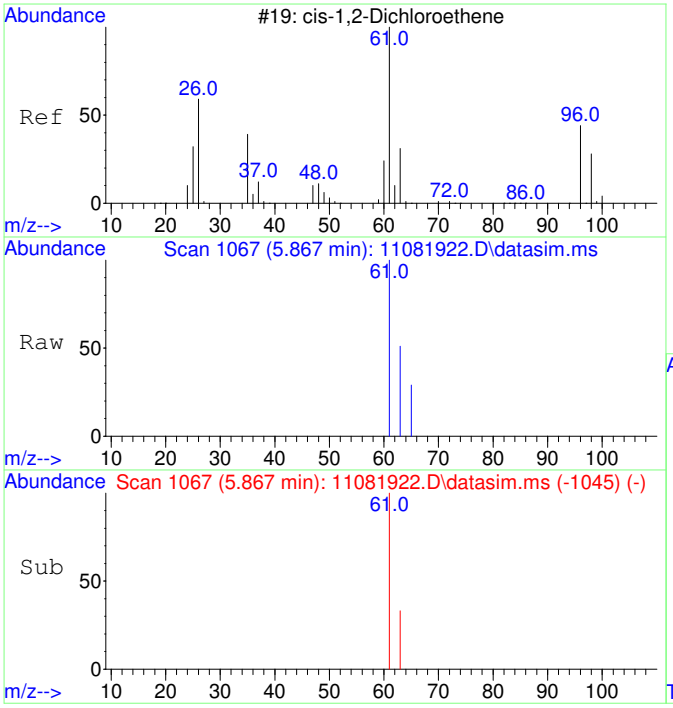
#2
1,1-Dichloroethene
Concen: 32.67 ug/L
RT: 3.097 min Scan# 607
Delta R.T. 0.139 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 61 Resp: 233

Ion	Ratio	Lower	Upper
61	100		
96	60.9	33.6	93.6



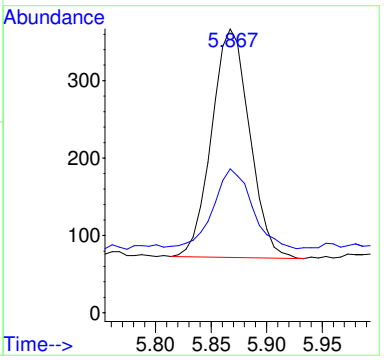
Before MI:
IMPROPER
BASELINE

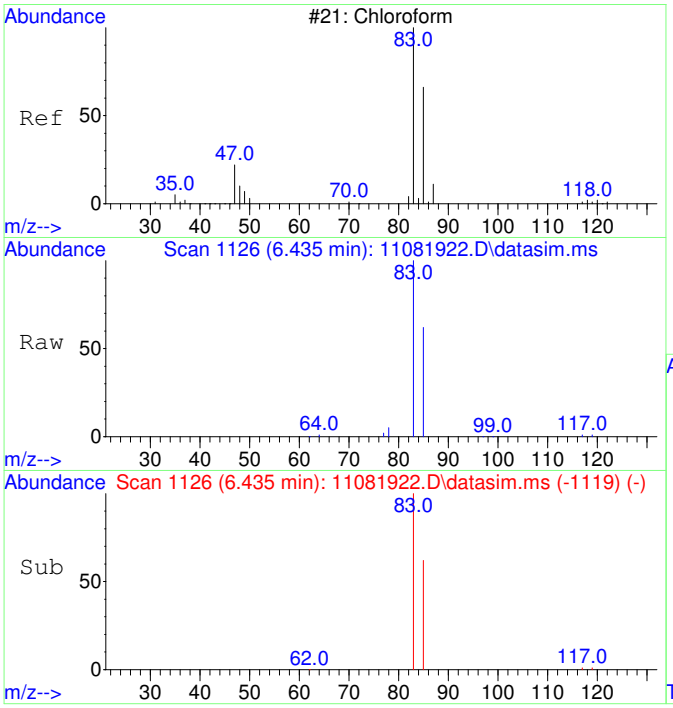


#5
cis-1,2-Dichloroethene
Concen: 81.97 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 61 Resp: 702

Ion	Ratio	Lower	Upper
61	100		
63	34.9	2.4	62.4

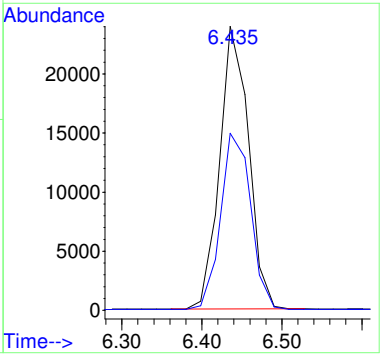


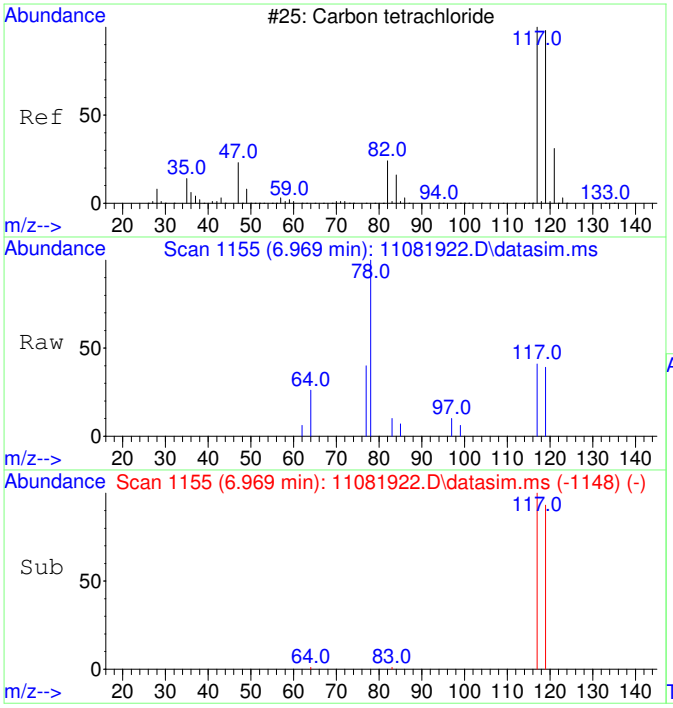


#6
Chloroform
Concen: 6131.16 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 60235

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.2	95.2

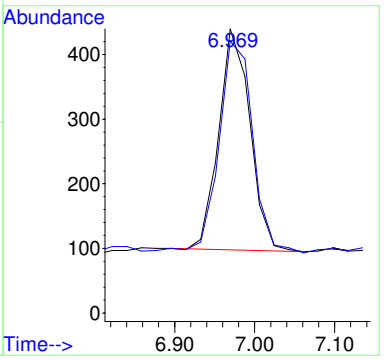


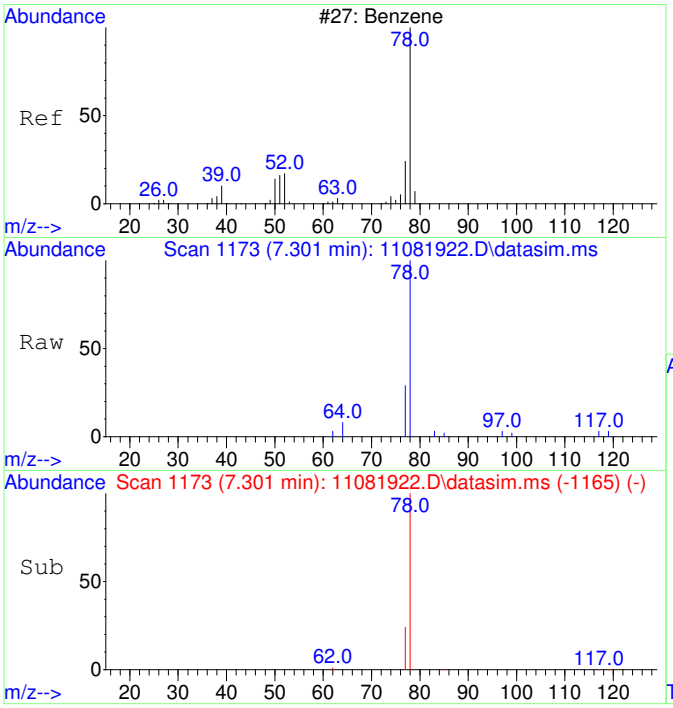


#8
Carbon tetrachloride
Concen: 103.26 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.018 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:117 Resp: 926

Ion	Ratio	Lower	Upper
117	100		
119	105.0	66.0	126.0

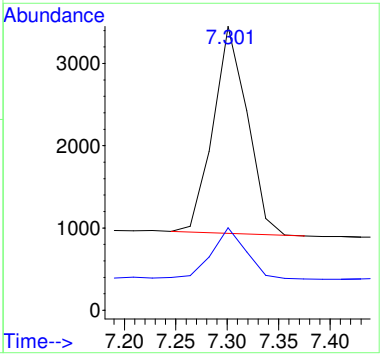


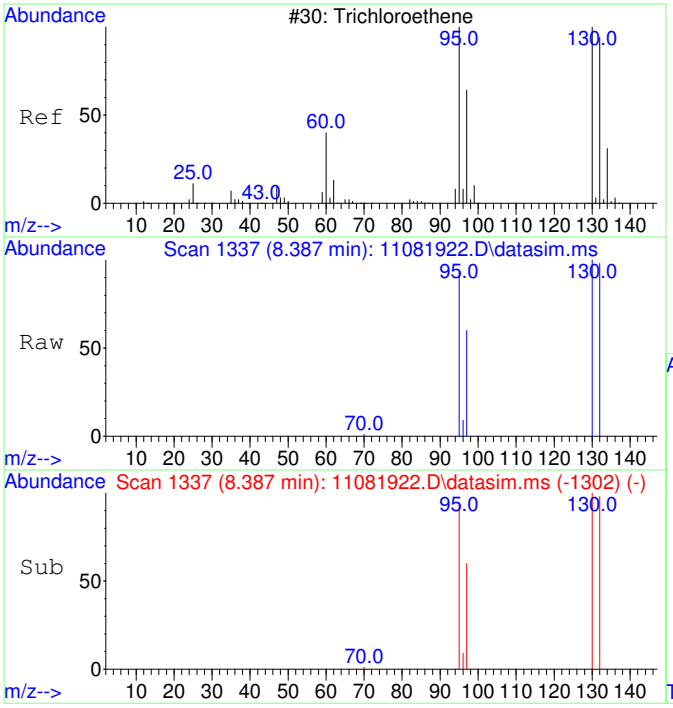


#9
Benzene
Concen: 238.01 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 78 Resp: 5793

Ion	Ratio	Lower	Upper
78	100		
77	25.1	0.0	53.2

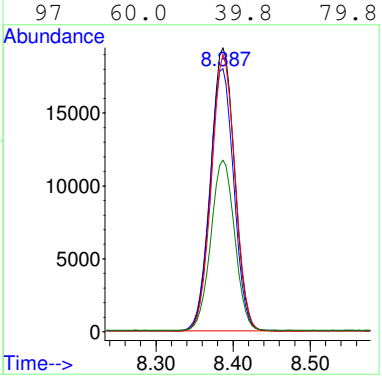


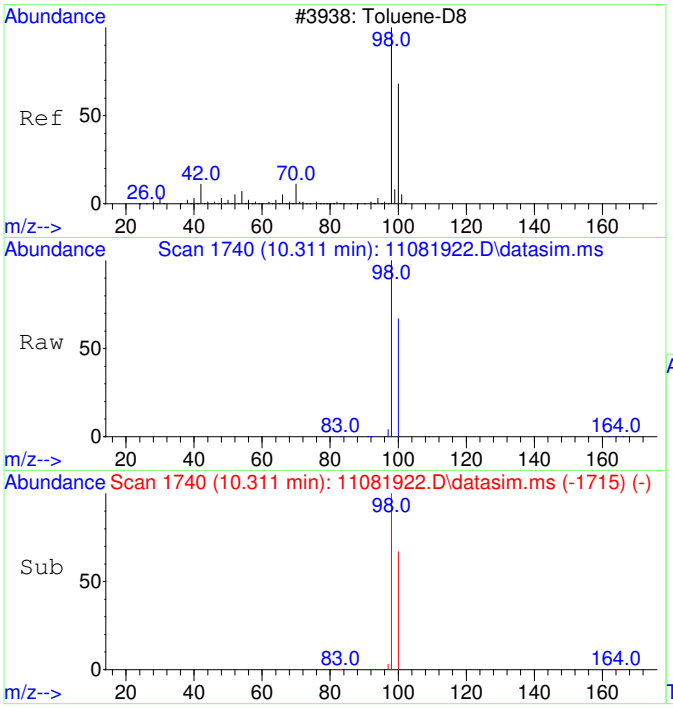


#11
Trichloroethene
Concen: 5634.90 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:130 Resp: 41592

Ion	Ratio	Lower	Upper
130	100		
95	92.8	63.4	123.4
132	96.5	76.0	116.0
97	60.0	39.8	79.8

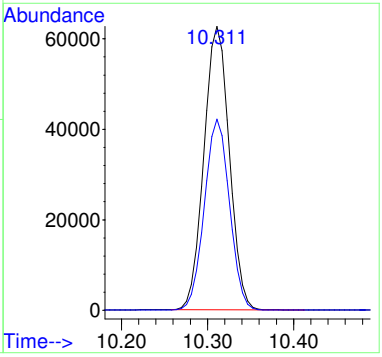


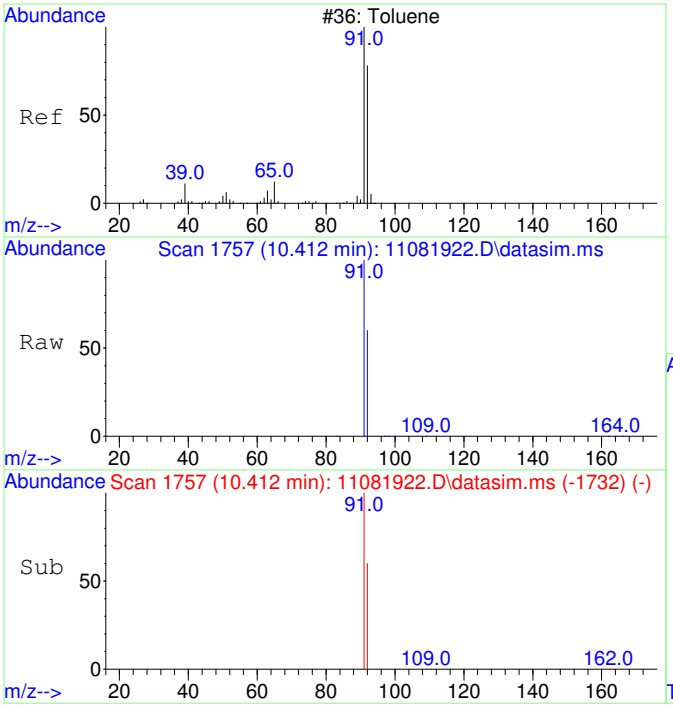


#12
Toluene-d8
Concen: 5122.43 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 98 Resp: 127888

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

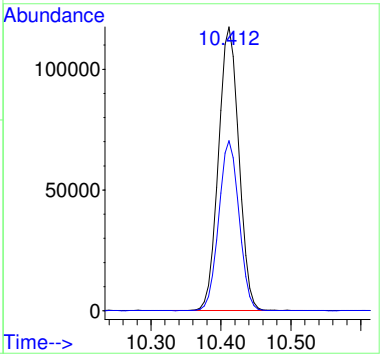


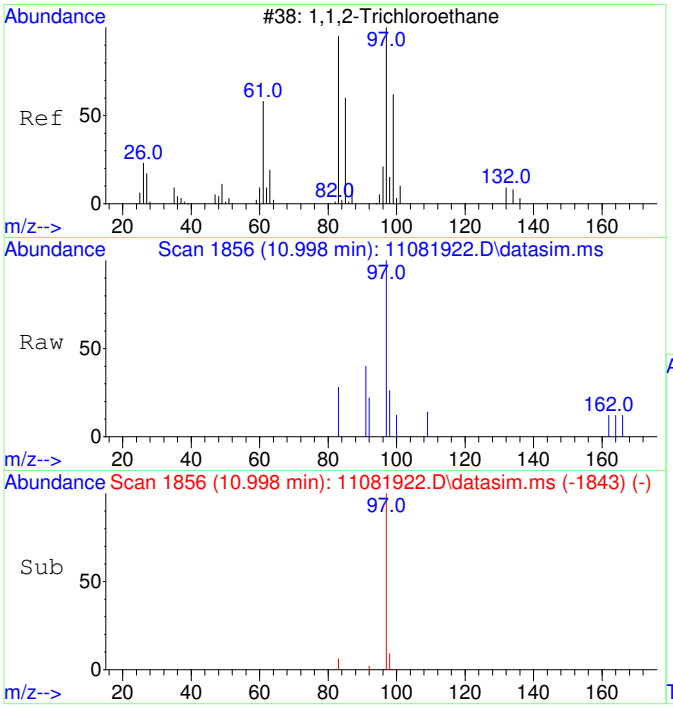


#13
Toluene
Concen: 7821.99 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 236721

Ion	Ratio	Lower	Upper
91	100		
92	59.6	29.4	89.4

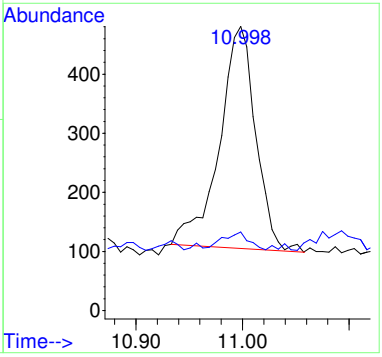


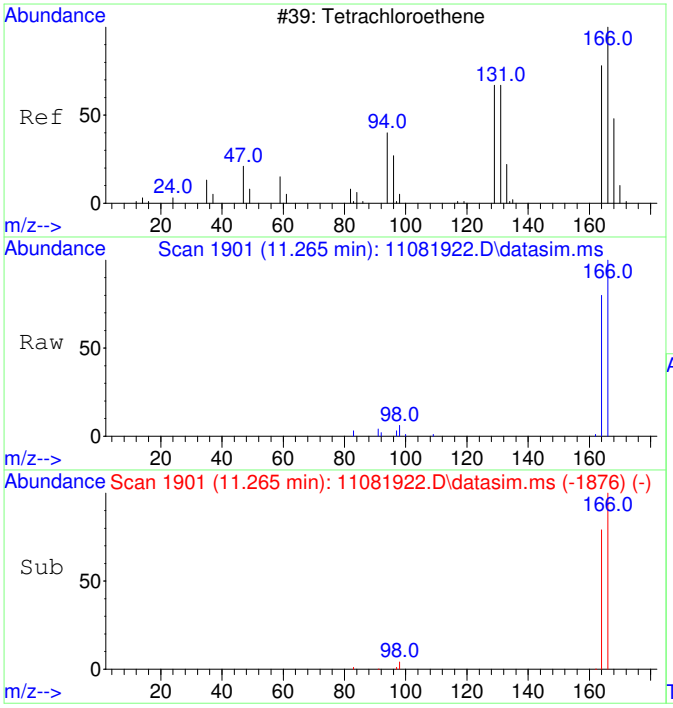


#14
1,1,2-Trichloroethane
Concen: 127.42 ug/L
RT: 10.998 min Scan# 1856
Delta R.T. -0.071 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 97 Resp: 892

Ion	Ratio	Lower	Upper
97	100		
83	5.6	52.0	112.0#

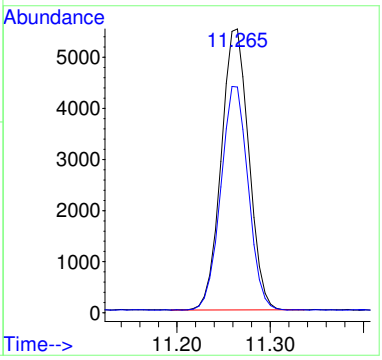


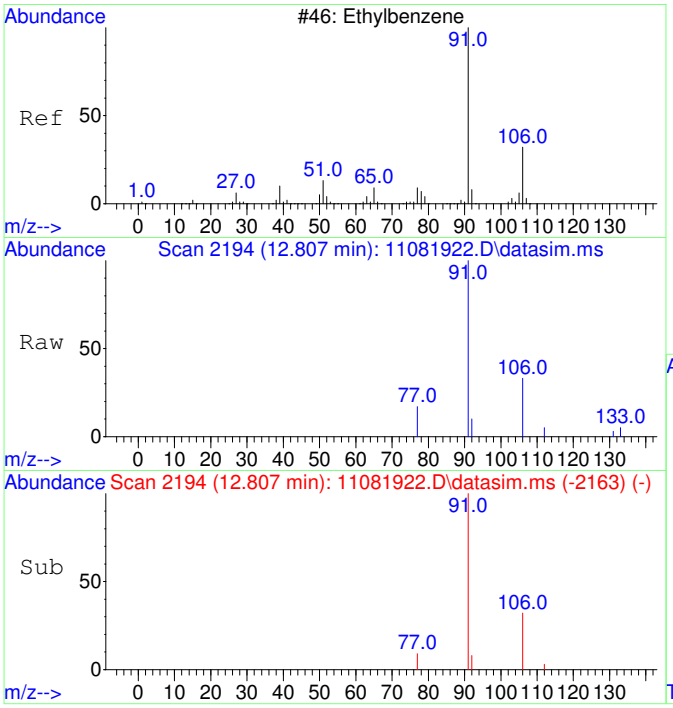


#15
Tetrachloroethene
Concen: 1285.09 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:166 Resp: 11306

Ion	Ratio	Lower	Upper
166	100		
164	78.9	47.7	107.7

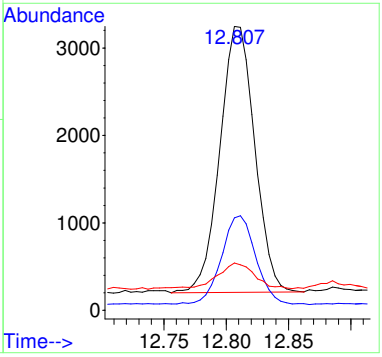


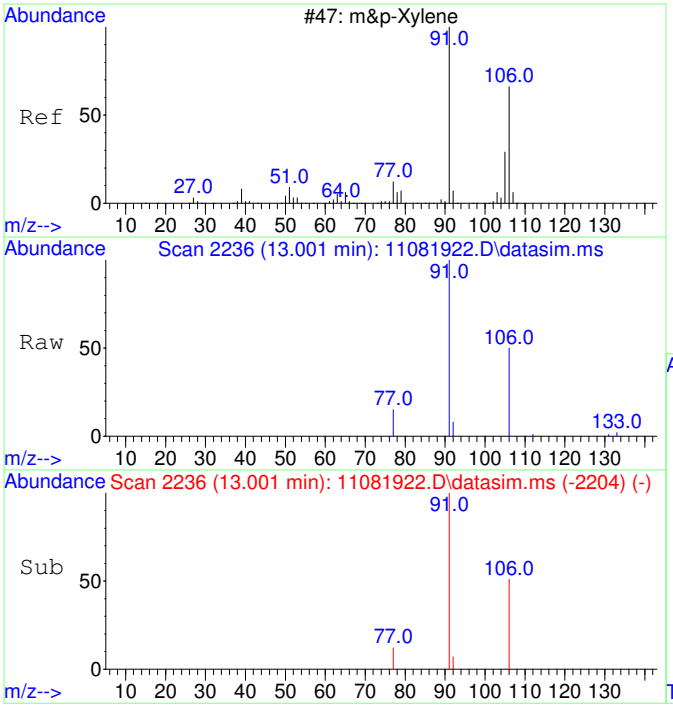


#18
Ethylbenzene
Concen: 160.54 ug/L
RT: 12.807 min Scan# 2194
Delta R.T. -0.005 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 5903

Ion	Ratio	Lower	Upper
91	100		
106	32.7	2.5	62.5
77	11.0	0.0	38.4

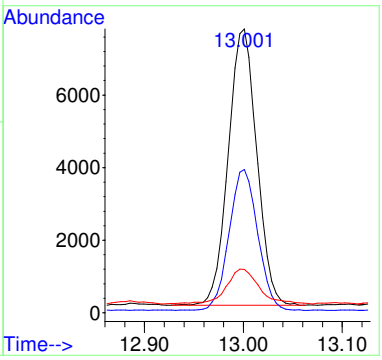


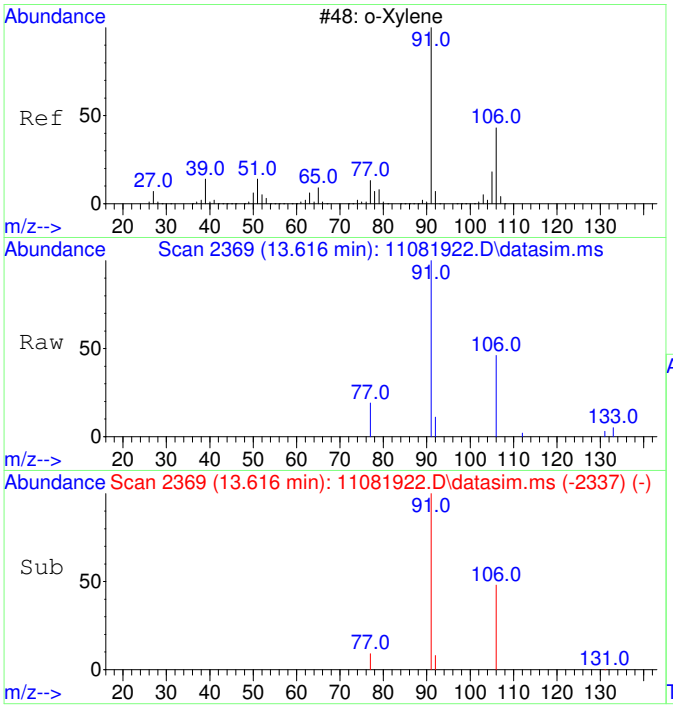


#19
m&p-Xylene
Concen: 547.94 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 15255

Ion	Ratio	Lower	Upper
91	100		
106	51.0	21.2	81.2
77	14.5	0.0	42.7

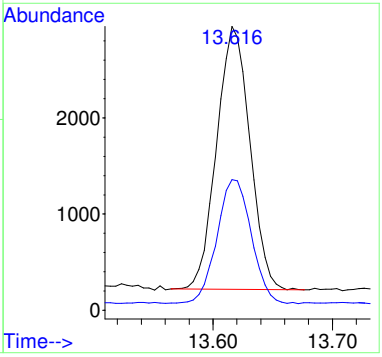


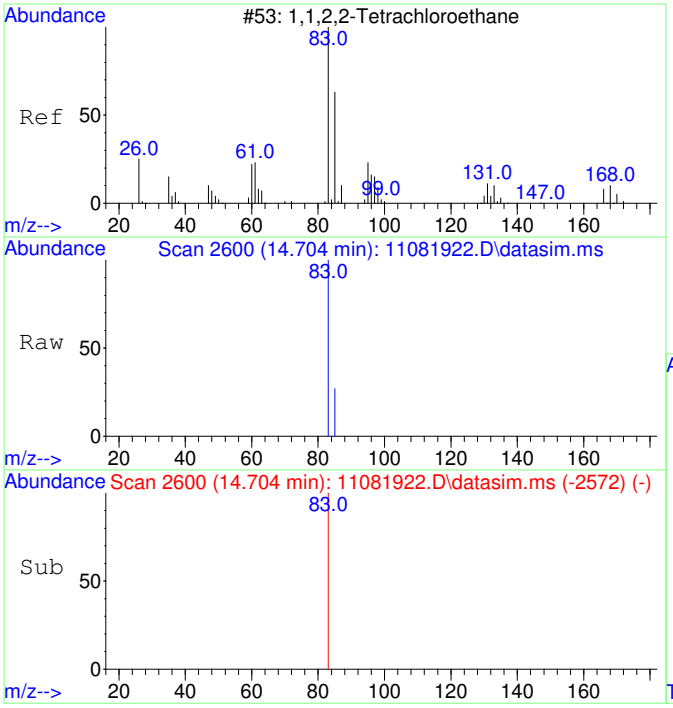


#20
o-Xylene
Concen: 177.57 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 5276

Ion	Ratio	Lower	Upper
91	100		
106	48.8	18.3	78.3

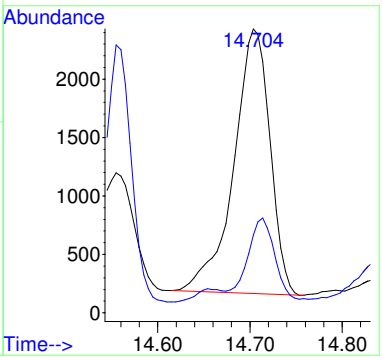


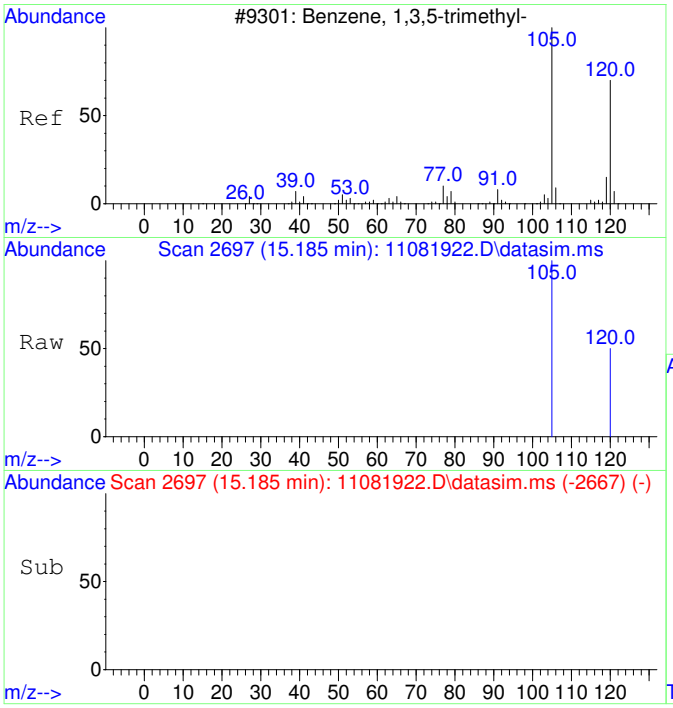


#21
1,1,2,2-Tetrachloroethane
Concen: 468.53 ug/L
RT: 14.704 min Scan# 2600
Delta R.T. -0.010 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 6176

Ion	Ratio	Lower	Upper
83	100		
85	22.4	34.7	94.7#

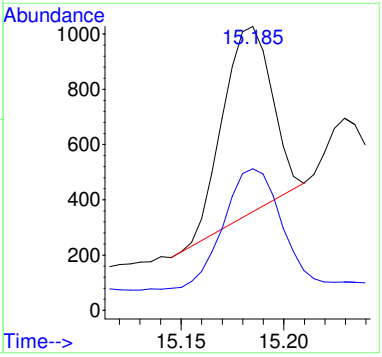


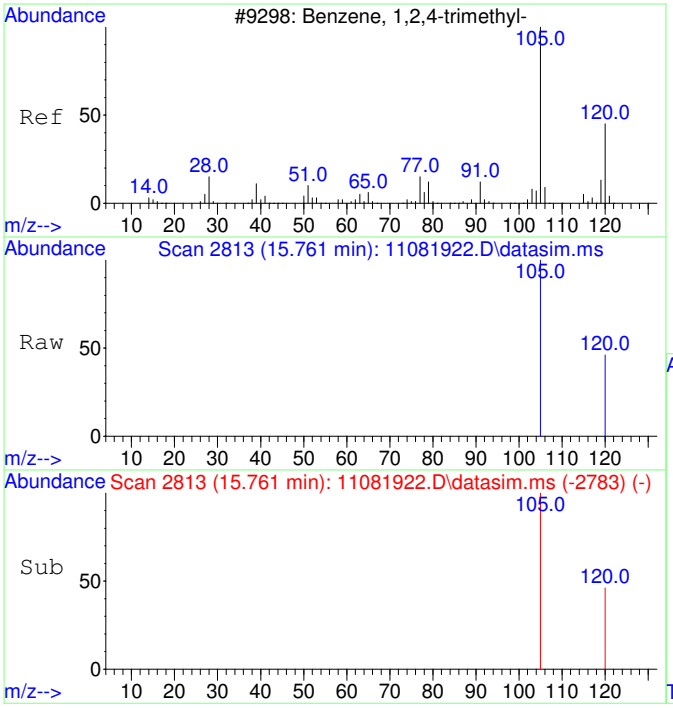


#22
1,3,5-Trimethylbenzene
Concen: 36.97 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:105 Resp: 1175

Ion	Ratio	Lower	Upper
105	100		
120	80.4	20.8	80.8

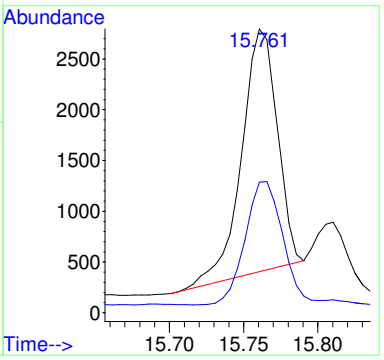


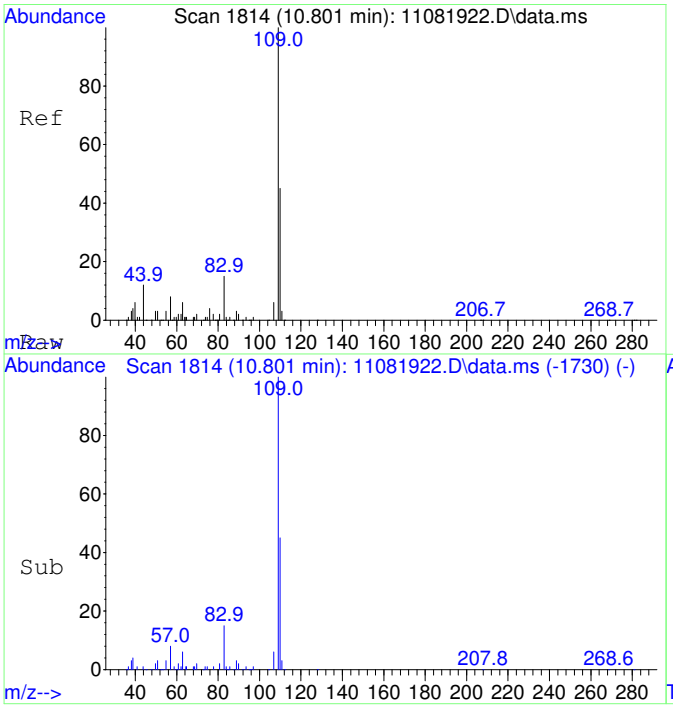


#23
1,2,4-Trimethylbenzene
Concen: 125.08 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:105 Resp: 4048

Ion	Ratio	Lower	Upper
105	100		
120	54.6	16.8	76.8

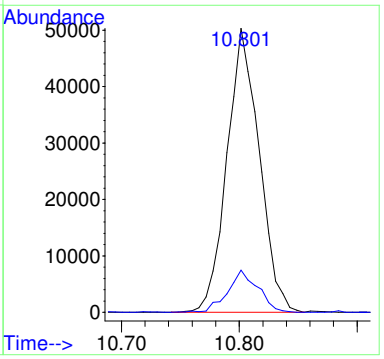


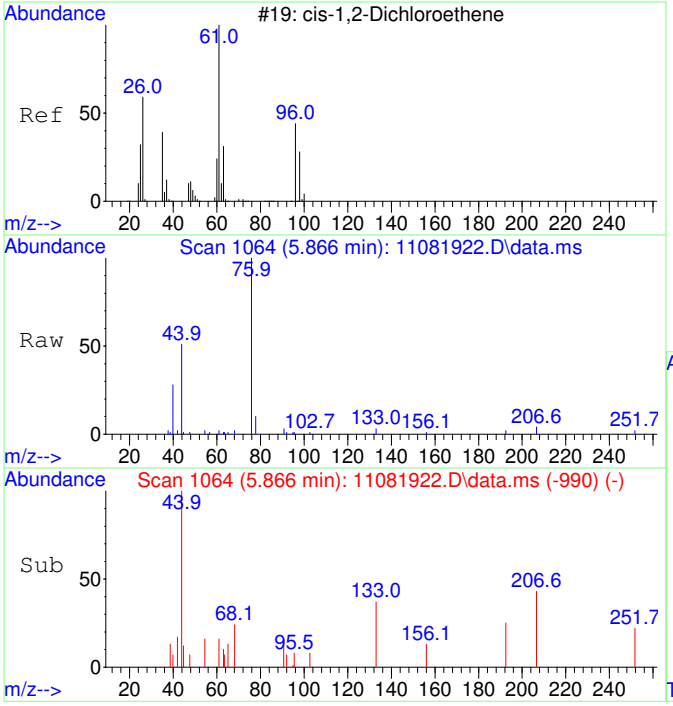


#25
2-Fluorotoluene SCAN
Concen: 4978.10 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:109 Resp: 95810

Ion	Ratio	Lower	Upper
109	100		
83	14.0	0.0	45.8

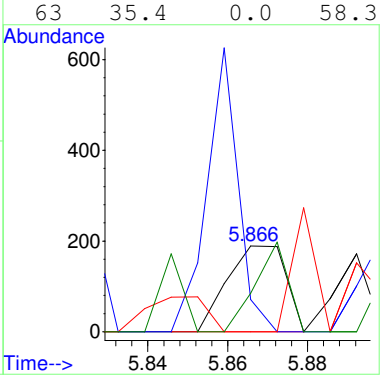


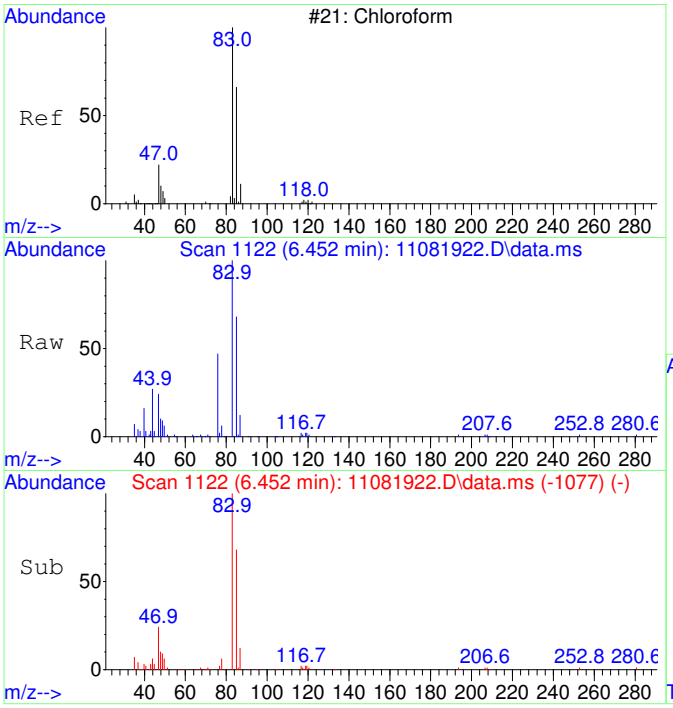


#29
cis-1,2-Dichloroethene SCAN
Concen: 27.46 ug/L
RT: 5.866 min Scan# 1064
Delta R.T. -0.007 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 61 Resp: 192

Ion	Ratio	Lower	Upper
61	100		
96	176.0	41.9	101.9#
98	42.2	20.3	80.3
63	35.4	0.0	58.3

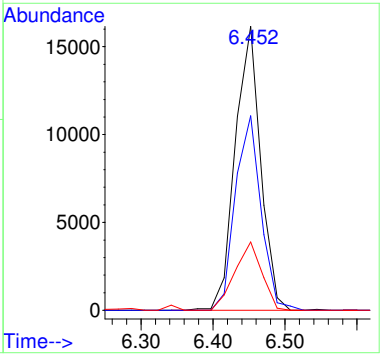


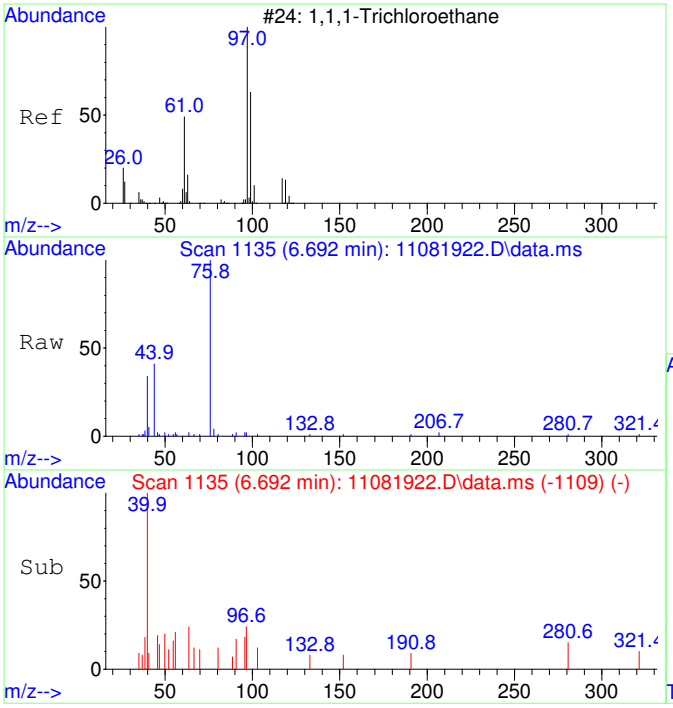


#30
Chloroform SCAN
Concen: 5098.44 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 39704

Ion	Ratio	Lower	Upper
83	100		
85	69.0	38.3	98.3
47	25.7	0.0	50.2

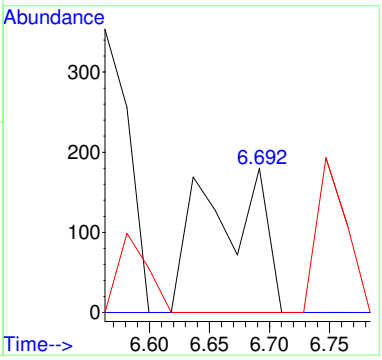


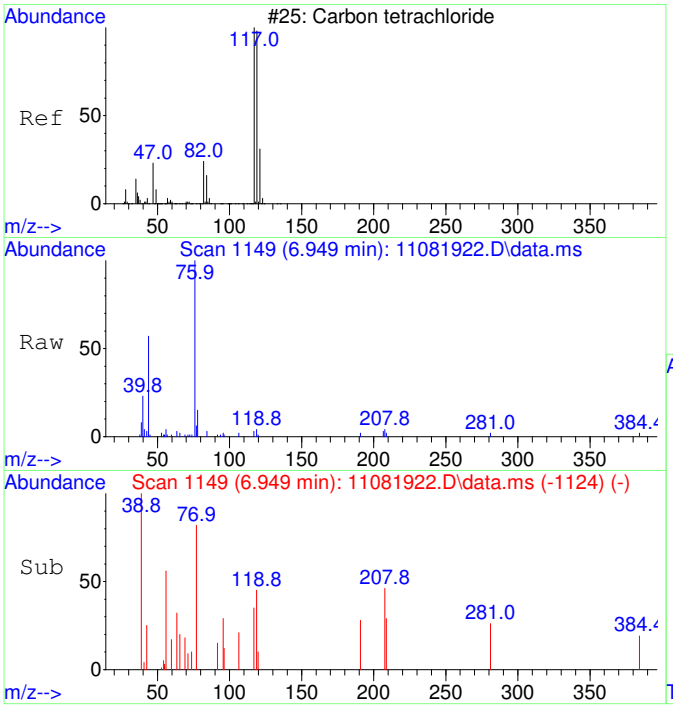


#31
1,1,1-Trichloroethane SCAN
Concen: 89.00 ug/L
RT: 6.692 min Scan# 1135
Delta R.T. -0.018 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 97 Resp: 605

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

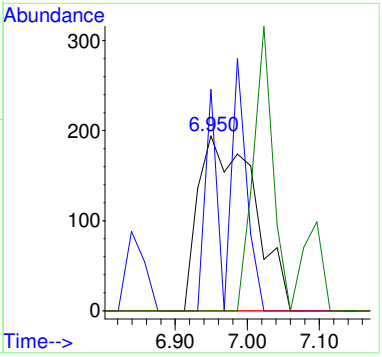


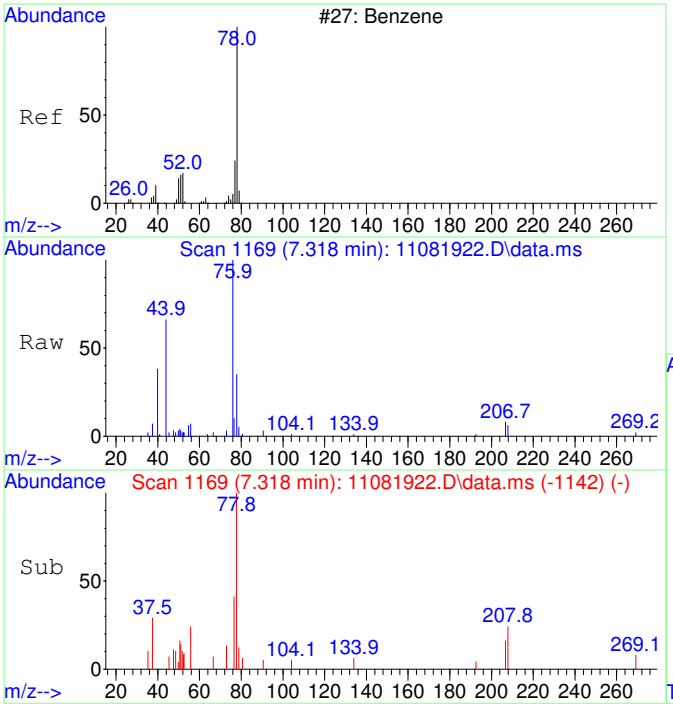


#32
Carbon tetrachloride SCAN
Concen: 164.02 ug/L
RT: 6.949 min Scan# 1149
Delta R.T. -0.037 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:117 Resp: 1045

Ion	Ratio	Lower	Upper
117	100		
119	26.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

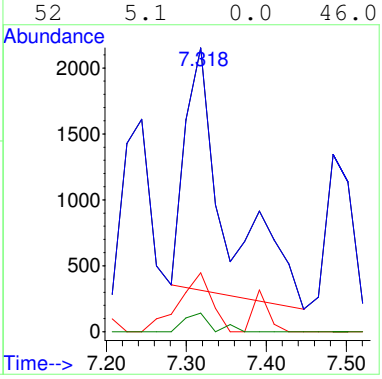


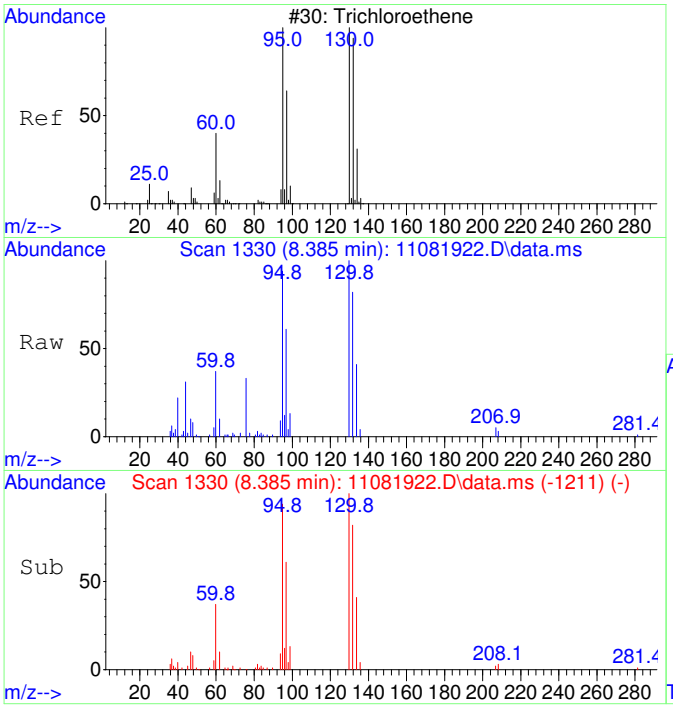


#33
Benzene SCAN
Concen: 379.23 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 78 Resp: 6479

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	19.7	0.0	49.8
52	5.1	0.0	46.0

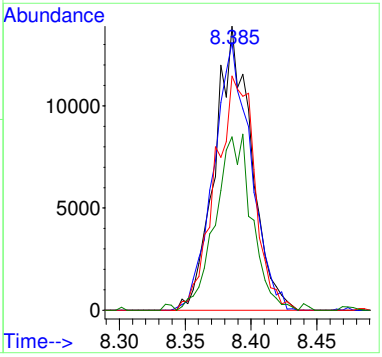


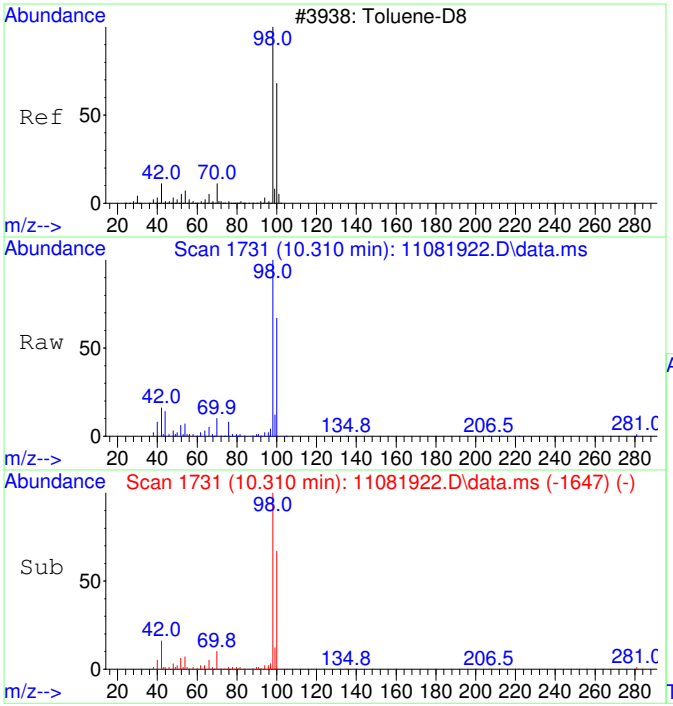


#35
Trichloroethene SCAN
Concen: 5331.74 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:130 Resp: 26704

Ion	Ratio	Lower	Upper
130	100		
95	96.7	69.5	129.5
132	89.1	66.5	126.5
97	61.9	32.8	92.8

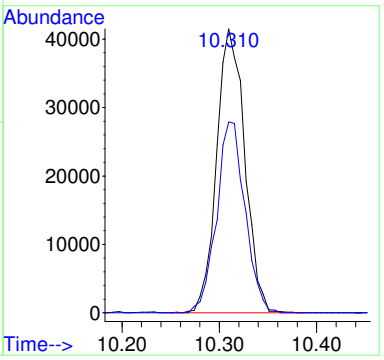


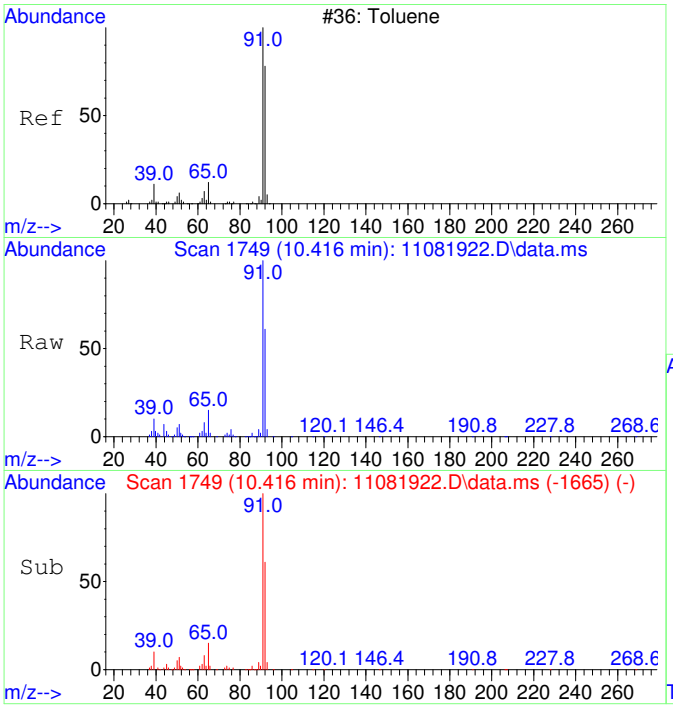


#36
Toluene-d8 SCAN
Concen: 5323.30 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 98 Resp: 83322

Ion	Ratio	Lower	Upper
98	100		
100	67.8	42.1	102.1

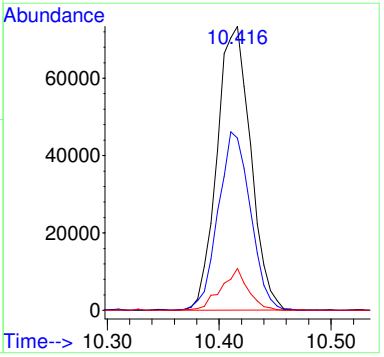


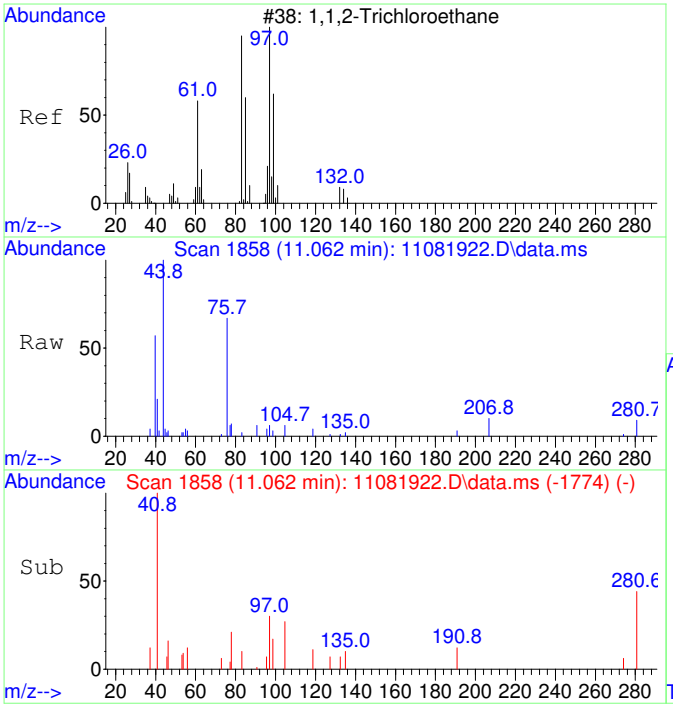


#37
Toluene SCAN
Concen: 7952.92 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 153482

Ion	Ratio	Lower	Upper
91	100		
92	60.4	31.9	91.9
65	11.9	0.0	41.9

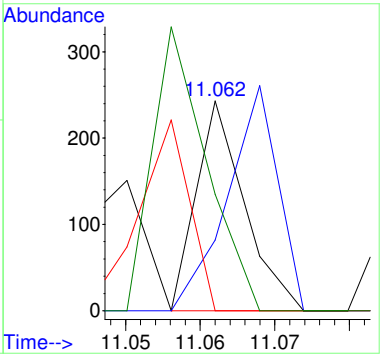


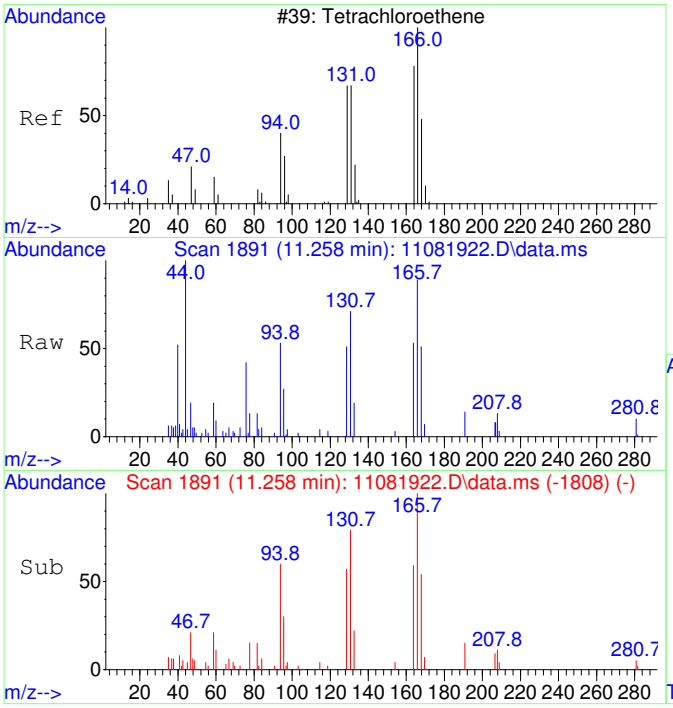


#38
1,1,2-Trichloroethane SCAN
Concen: 24.77 ug/L
RT: 11.062 min Scan# 1858
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 97 Resp: 109

Ion	Ratio	Lower	Upper
97	100		
83	111.9	58.1	118.1
61	96.3	36.0	96.0#
99	151.4	32.7	92.7#

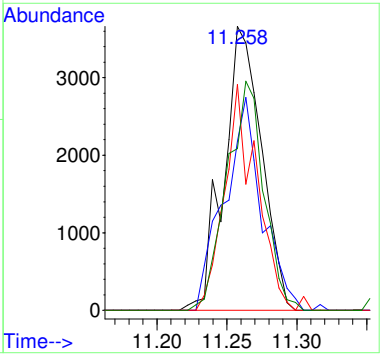


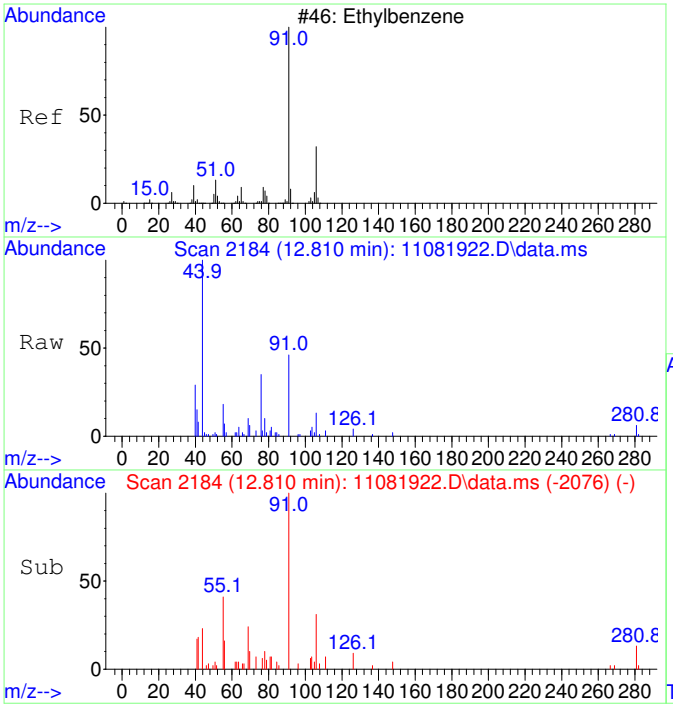


#39
Tetrachloroethene SCAN
Concen: 1337.93 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:166 Resp: 6855

Ion	Ratio	Lower	Upper
166	100		
164	75.2	50.4	110.4
131	67.7	44.0	104.0
129	78.9	42.6	102.6

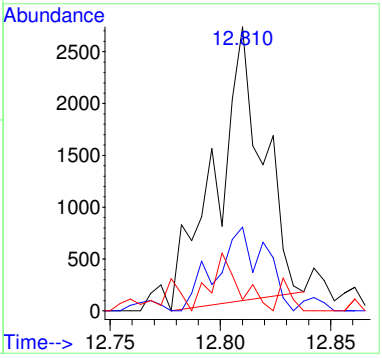


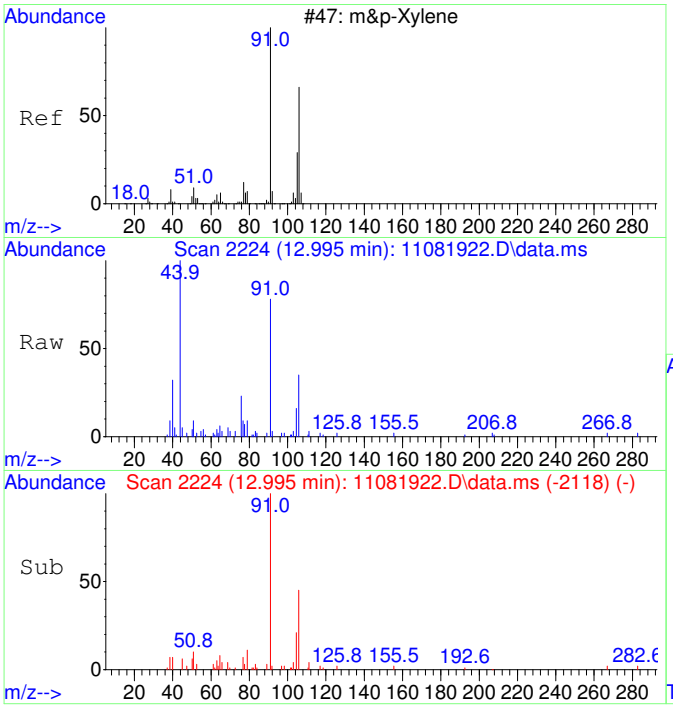


#42
Ethylbenzene SCAN
Concen: 177.93 ug/L
RT: 12.810 min Scan# 2184
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 3908

Ion	Ratio	Lower	Upper
91	100		
106	31.5	0.1	60.1
51	12.7	0.0	40.9

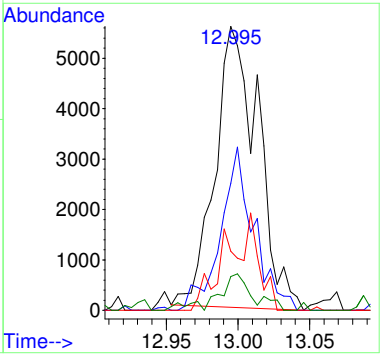


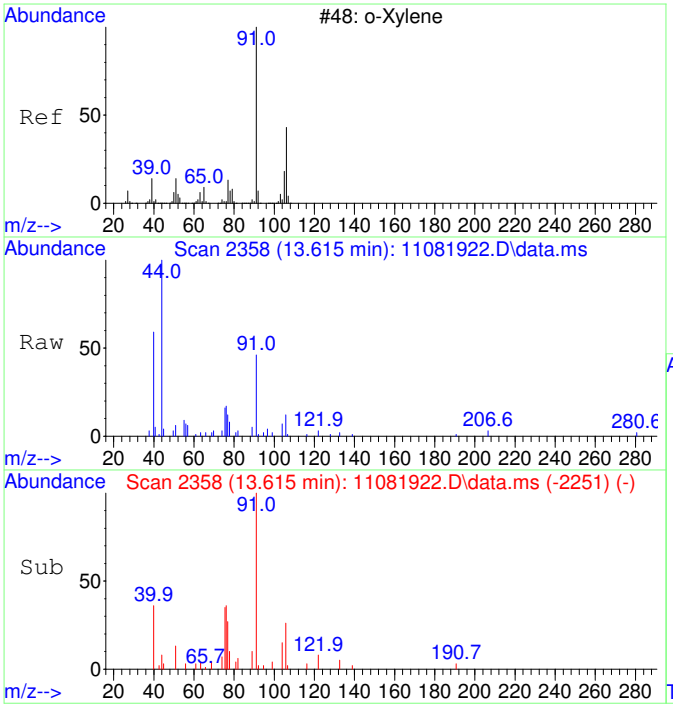


#43
m&p-Xylene SCAN
Concen: 371.72 ug/L
RT: 12.995 min Scan# 2224
Delta R.T. -0.009 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 11713

Ion	Ratio	Lower	Upper
91	100		
106	44.6	21.1	81.1
105	6.6	0.0	53.6
51	6.6	0.0	40.7

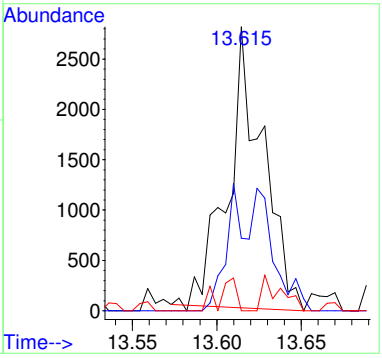


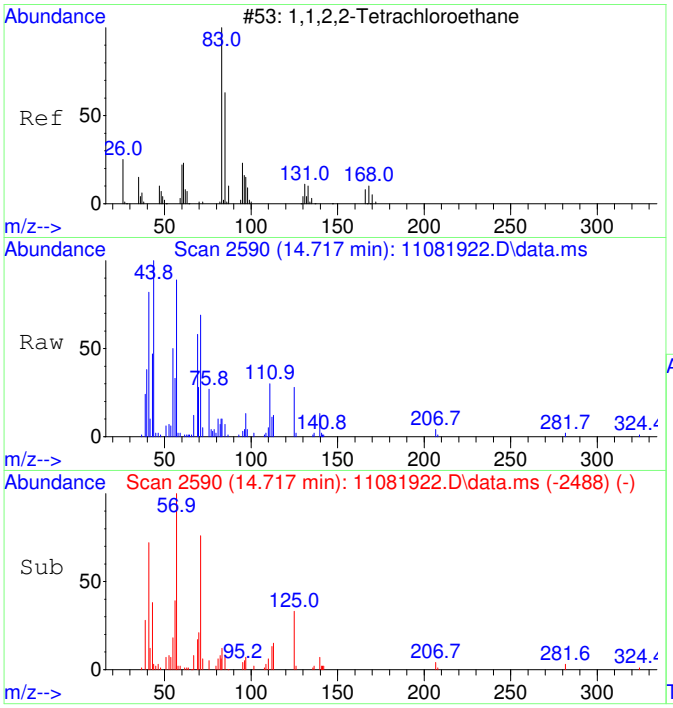


#44
o-Xylene SCAN
Concen: 241.51 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 4047

Ion	Ratio	Lower	Upper
91	100		
106	11.0	16.7	76.7#
105	5.8	0.0	57.3

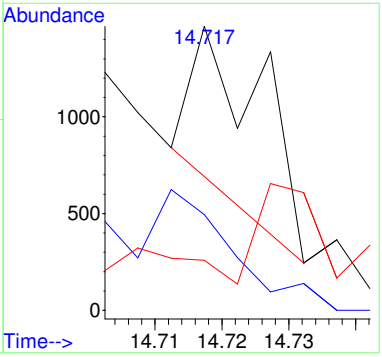


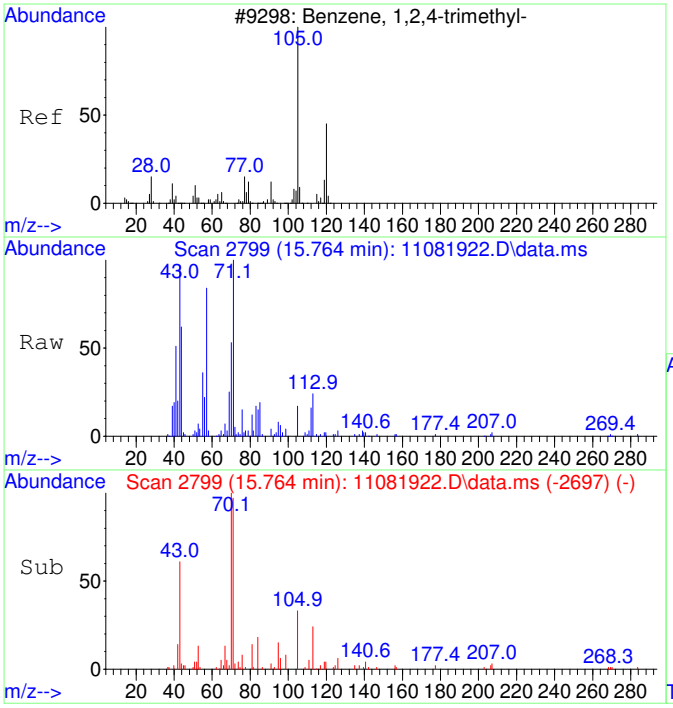


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 66.49 ug/L
RT: 14.717 min Scan# 2590
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 541

Ion	Ratio	Lower	Upper
83	100		
85	93.5	38.3	98.3
95	124.0	0.0	44.8#

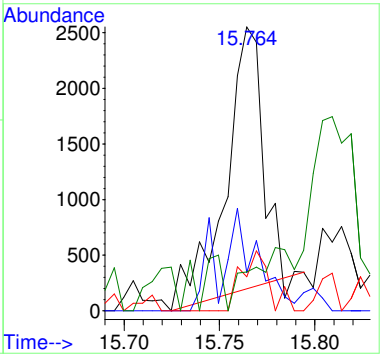




#47
1,2,4-Trimethylbenzene SCAN
Concen: 190.13 ug/L
RT: 15.764 min Scan# 2799
Delta R.T. 0.005 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:105 Resp: 3191

Ion	Ratio	Lower	Upper
105	100		
120	23.9	18.6	78.6
119	17.3	0.0	42.1
77	0.0	0.0	42.9



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081922.D
Acq On : 8 Nov 2019 18:36
InstName : AG5975C
Operator : TD
Sample : 1910069-01
Misc : 495-5
ALS Vial : 20 Sample Multiplier: 1

M.I. Performed By:
TD at 7:44 am, Nov 11, 2019

M.I. Approved By:
ZR at 10:38 am, Nov 12, 2019

Quant Time: Nov 11 06:20:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	154496	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	127888	5122.43	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 102.45%			
Target Compounds						Qvalue
5] cis-1,2-Dichloroethene	5.867	61	702	81.97	ug/L	96
6] Chloroform	6.435	83	60235	6131.16	ug/L	100
8] Carbon tetrachloride	6.969	117	926	103.26	ug/L	91
9] Benzene	7.301	78	5793	238.01	ug/L	96
11] Trichloroethene	8.387	130	41592	5634.90	ug/L	99
13] Toluene	10.412	91	236721	7821.99	ug/L	100
14] 1,1,2-Trichloroethane	10.998	97	892	127.42	ug/L #	15
15] Tetrachloroethene	11.265	166	11306	1285.09	ug/L	99
18] Ethylbenzene	12.807	91	5903	160.54	ug/L	98
19] m&p-Xylene	13.001	91	15255	547.94	ug/L	99
20] o-Xylene	13.616	91	5276	177.57	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.704	83	6176	468.53	ug/L #	46
22] 1,3,5-Trimethylbenzene	15.185	105	1175	36.97	ug/L	57
23] 1,2,4-Trimethylbenzene	15.761	105	4048	125.08	ug/L	88
25) 2-Fluorotoluene SCAN	10.801	109	95810	4978.10	ug/L	96
29) cis-1,2-Dichloroethene...	5.866	61	192	27.46	ug/L #	34
30) Chloroform SCAN	6.452	83	39704	5098.44	ug/L	97
31) 1,1,1-Trichloroethane ...	6.692	97	605	89.00	ug/L #	21
32) Carbon tetrachloride SCAN	6.949	117	1045	164.02	ug/L #	35
33) Benzene SCAN	7.318	78	6479	379.23	ug/L	97
35) Trichloroethene SCAN	8.385	130	26704	5331.74	ug/L	96
36) Toluene-d8 SCAN	10.310	98	83322	5323.30	ug/L	95
37) Toluene SCAN	10.416	91	153482	7952.92	ug/L	98
38) 1,1,2-Trichloroethane ...	11.062	97	109	24.77	ug/L #	45
39) Tetrachloroethene SCAN	11.258	166	6855	1337.93	ug/L	93
42) Ethylbenzene SCAN	12.810	91	3908	177.93	ug/L	97
43) m&p-Xylene SCAN	12.995	91	11713	371.72	ug/L	83
44) o-Xylene SCAN	13.615	91	4047	241.51	ug/L #	51
45) 1,1,2,2-Tetrachloroeth...	14.717	83	541	66.49	ug/L #	27
47) 1,2,4-Trimethylbenzene...	15.764	105	3191	190.13	ug/L #	68

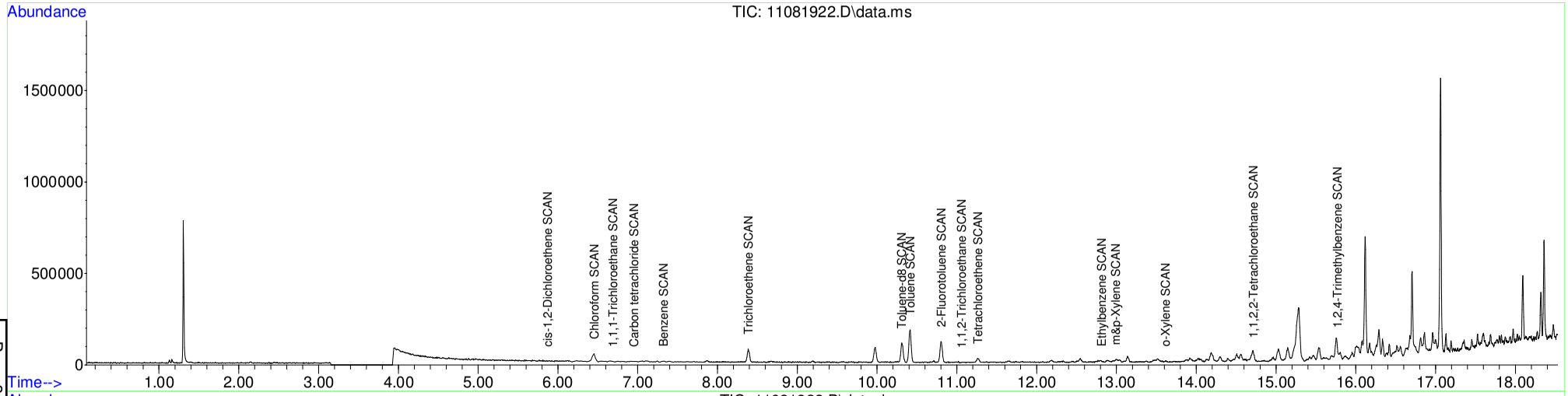
1,1-DCE < 1/2 QL

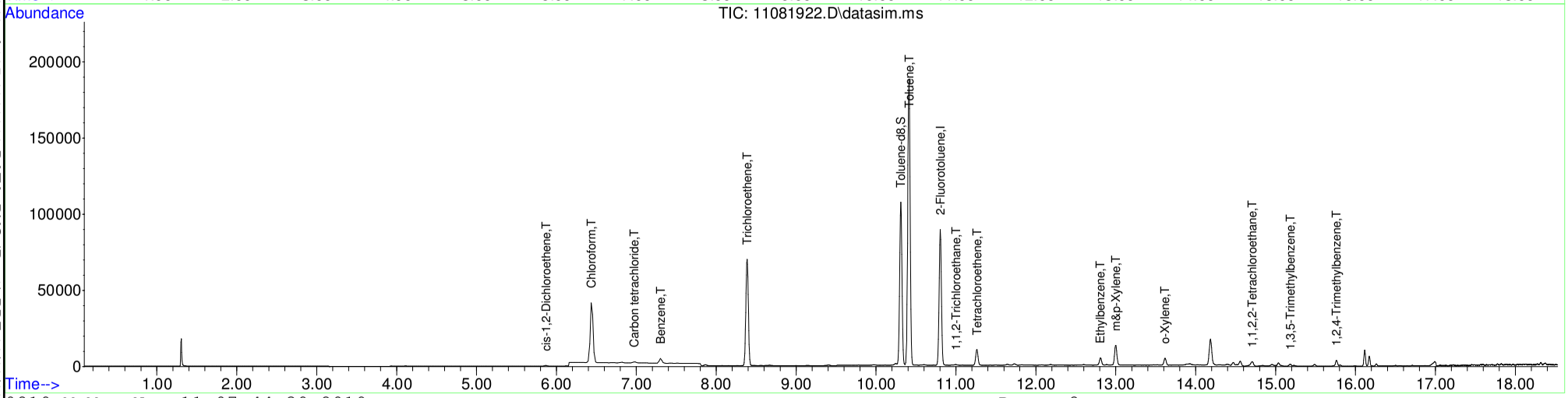
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081922.D
Acq On : 8 Nov 2019 18:36
InstName : AG5975C
Operator : TD
Sample : 1910069-01
Misc : 495-5
ALS Vial : 20 Sample Multiplier: 100

Quant Time: Nov 11 06:20:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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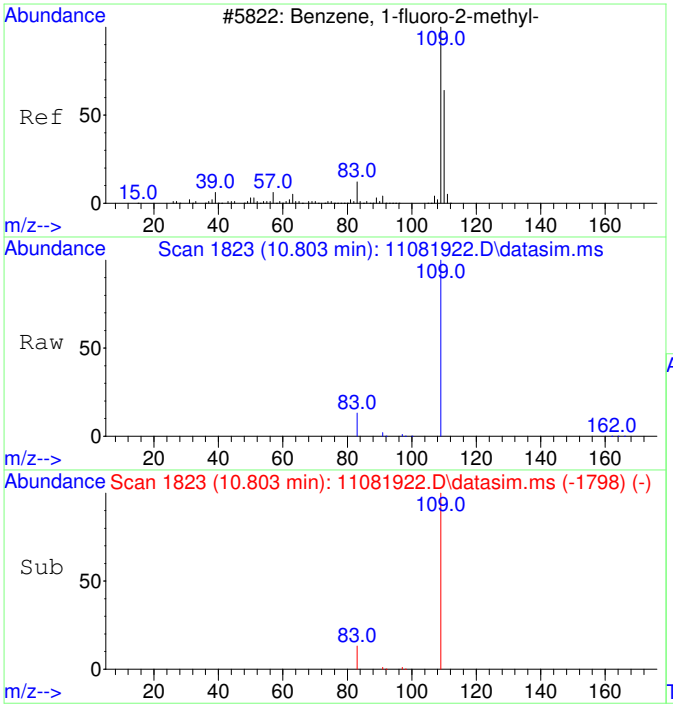
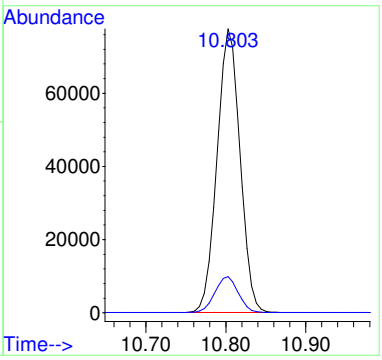
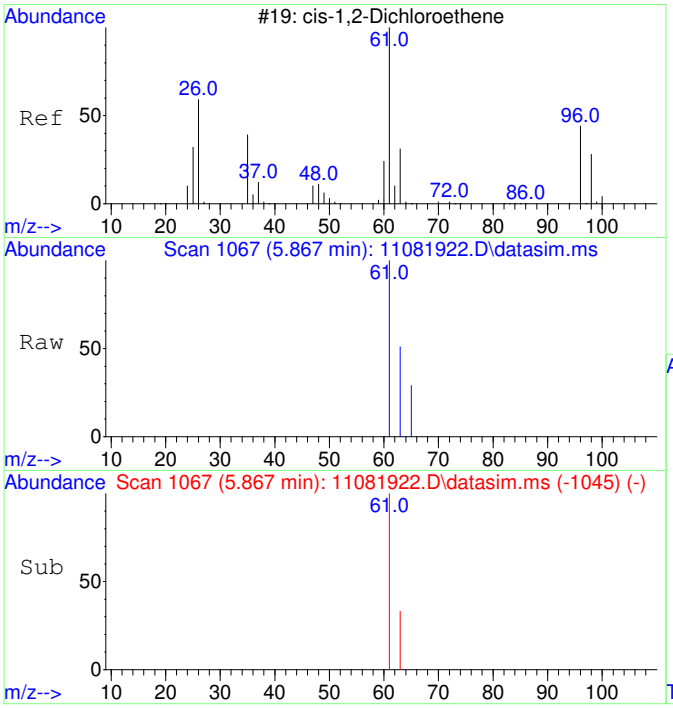


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:109 Resp: 154496

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

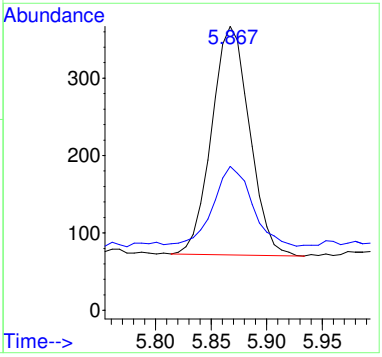


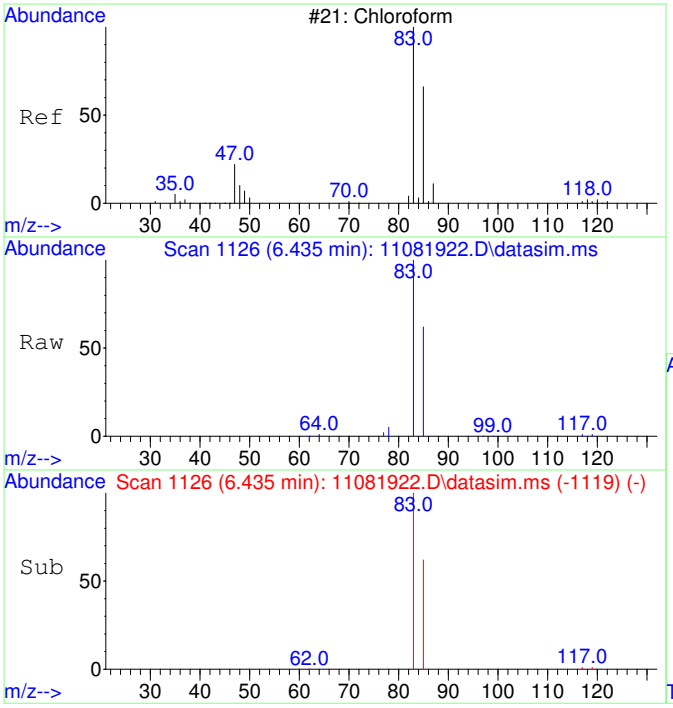


#5
cis-1,2-Dichloroethene
Concen: 81.97 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 61 Resp: 702

Ion	Ratio	Lower	Upper
61	100		
63	34.9	2.4	62.4

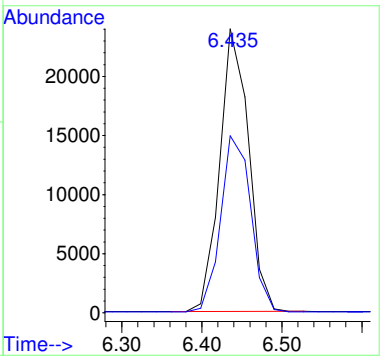


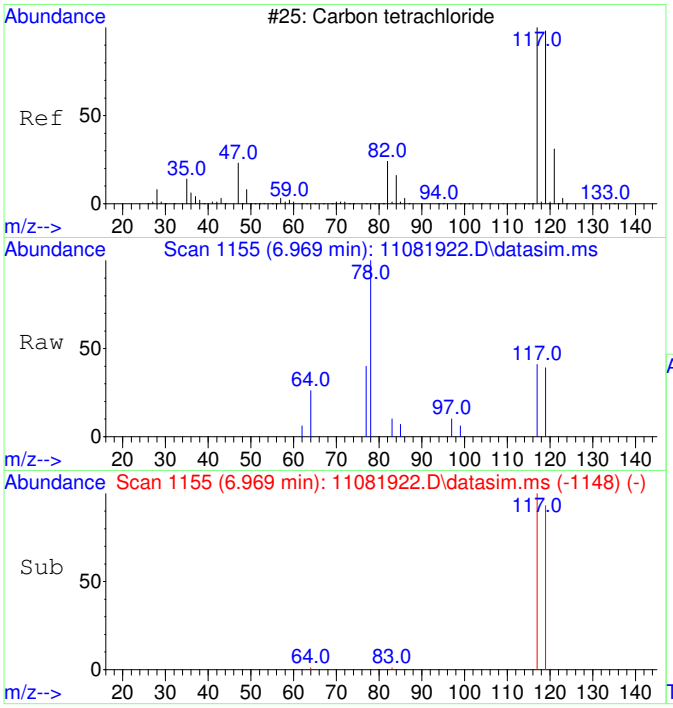


#6
Chloroform
Concen: 6131.16 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 60235

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.2	95.2

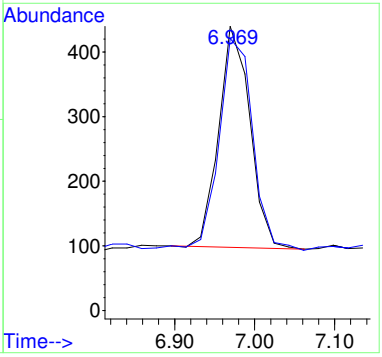


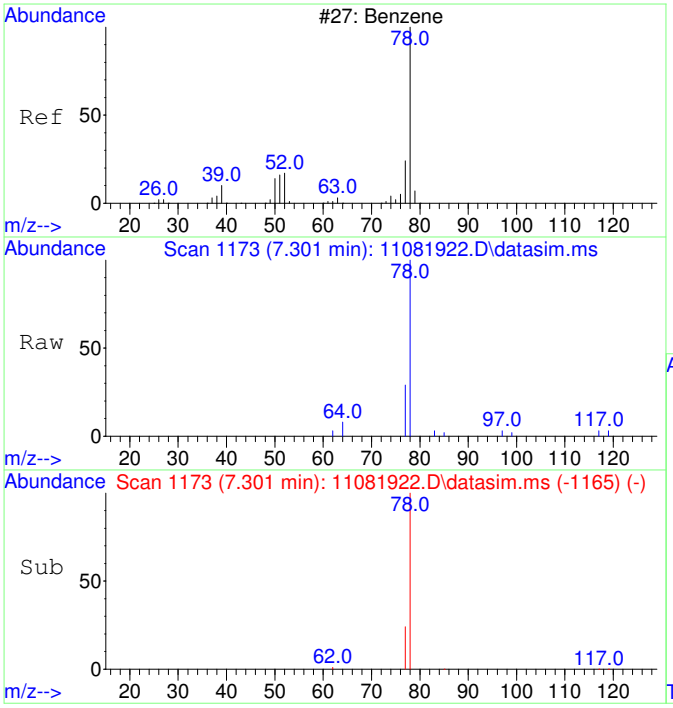


#8
Carbon tetrachloride
Concen: 103.26 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.018 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:117 Resp: 926

Ion	Ratio	Lower	Upper
117	100		
119	105.0	66.0	126.0

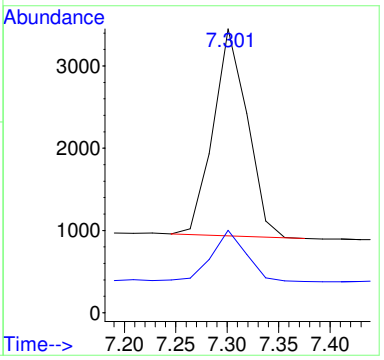


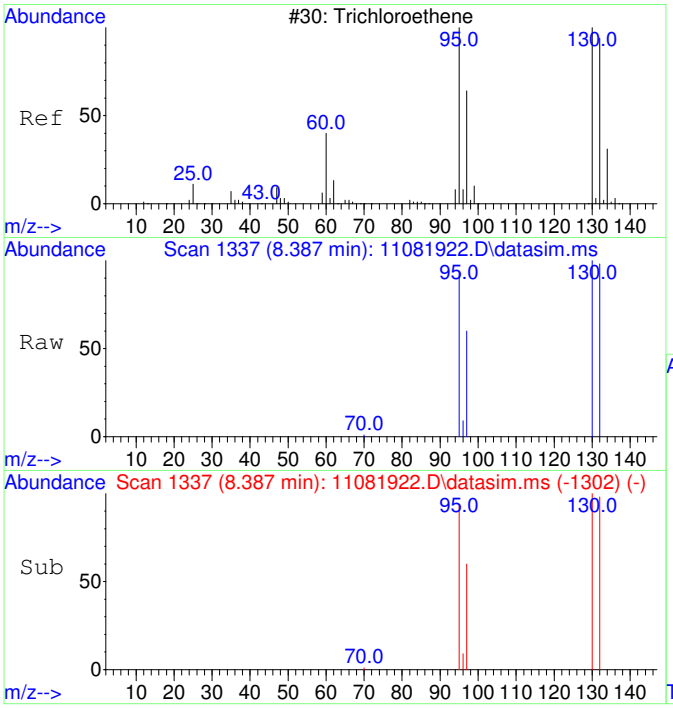


#9
Benzene
Concen: 238.01 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 78 Resp: 5793

Ion	Ratio	Lower	Upper
78	100		
77	25.1	0.0	53.2

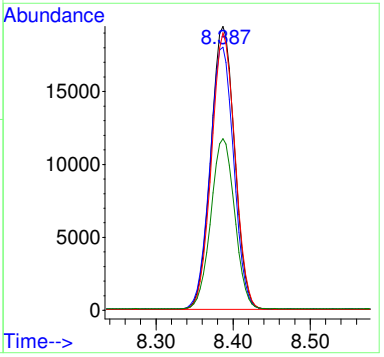


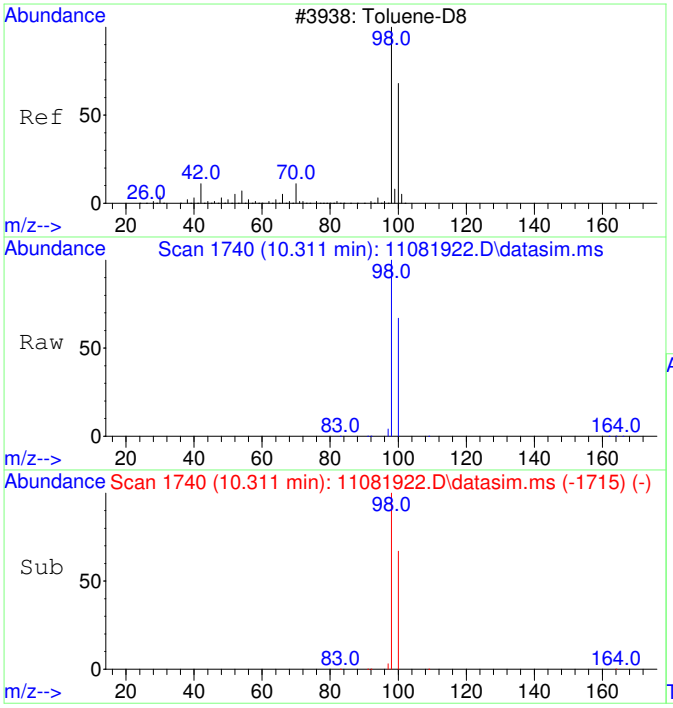


#11
Trichloroethene
Concen: 5634.90 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:130 Resp: 41592

Ion	Ratio	Lower	Upper
130	100		
95	92.8	63.4	123.4
132	96.5	76.0	116.0
97	60.0	39.8	79.8

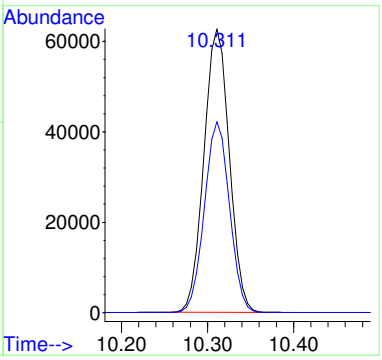


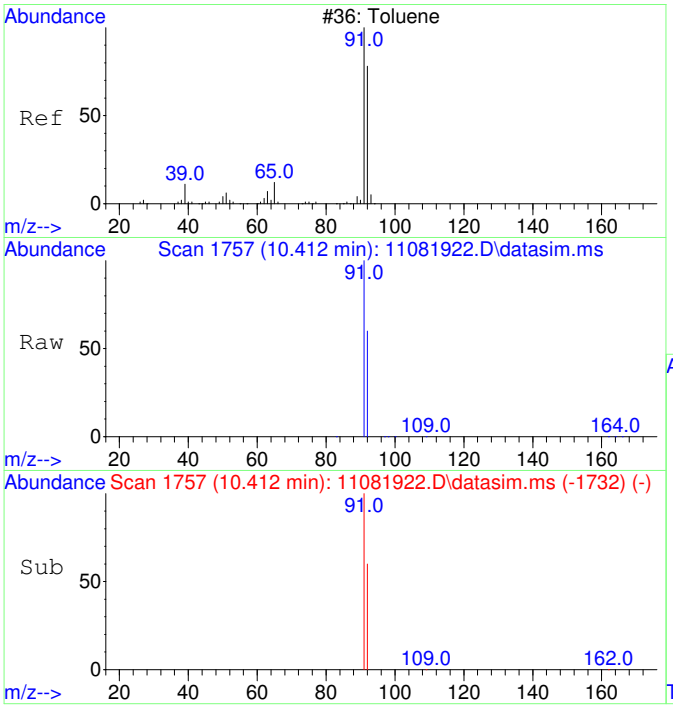


#12
Toluene-d8
Concen: 5122.43 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 98 Resp: 127888

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

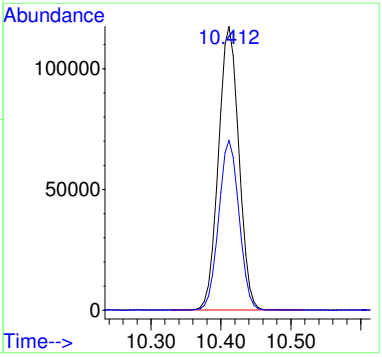


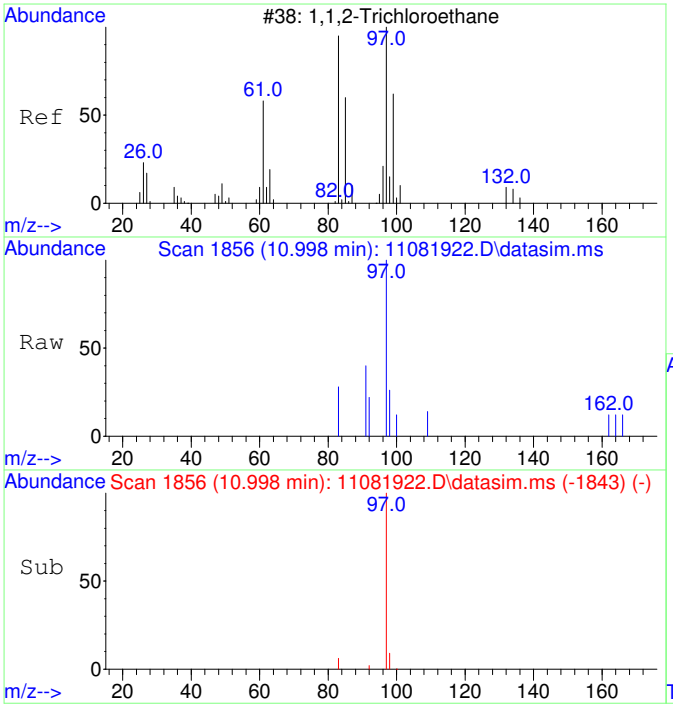


#13
Toluene
Concen: 7821.99 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 236721

Ion	Ratio	Lower	Upper
91	100		
92	59.6	29.4	89.4

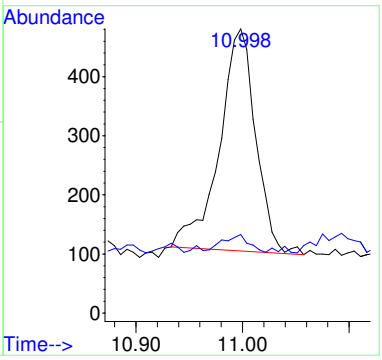


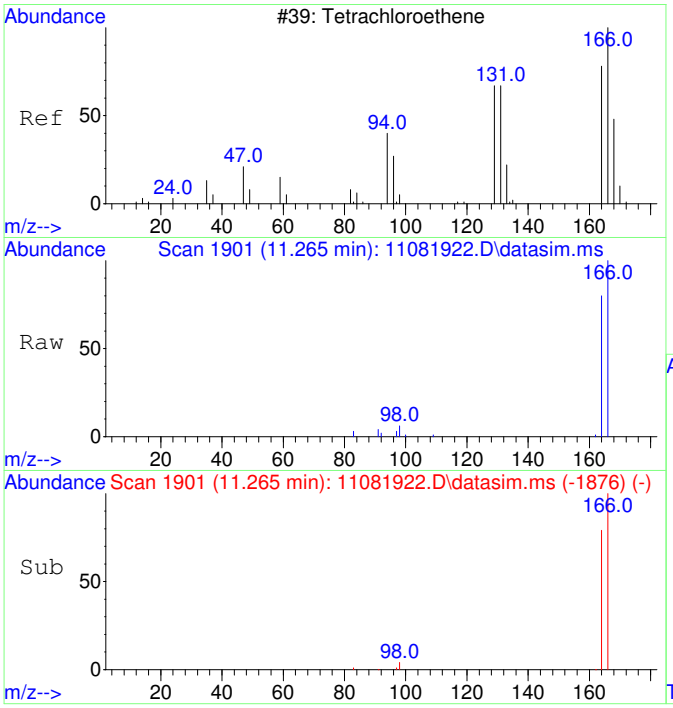


#14
1,1,2-Trichloroethane
Concen: 127.42 ug/L
RT: 10.998 min Scan# 1856
Delta R.T. -0.071 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 97 Resp: 892

Ion	Ratio	Lower	Upper
97	100		
83	5.6	52.0	112.0#

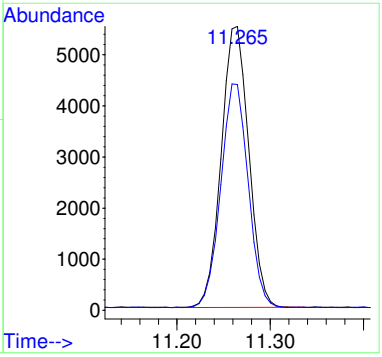


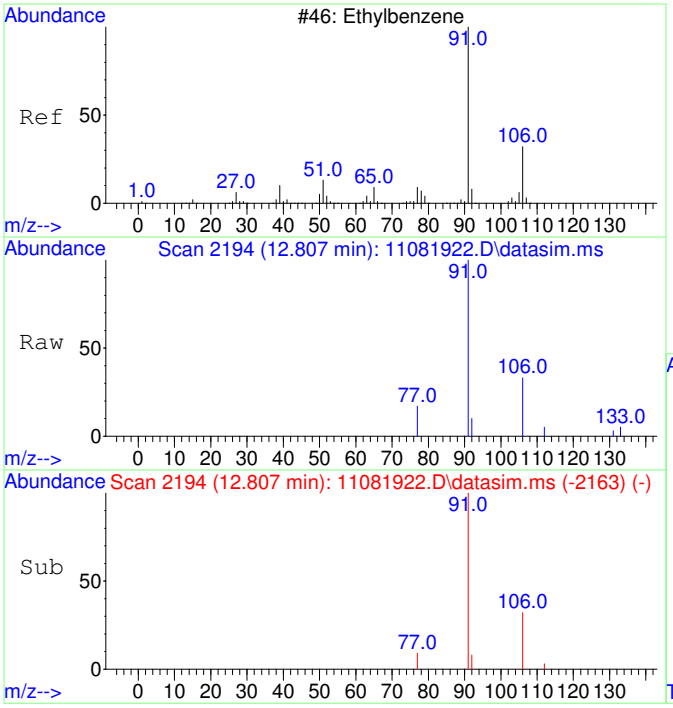


#15
Tetrachloroethene
Concen: 1285.09 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:166 Resp: 11306

Ion	Ratio	Lower	Upper
166	100		
164	78.9	47.7	107.7

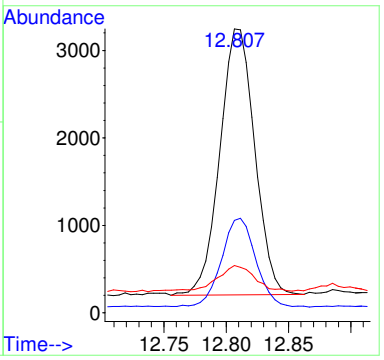


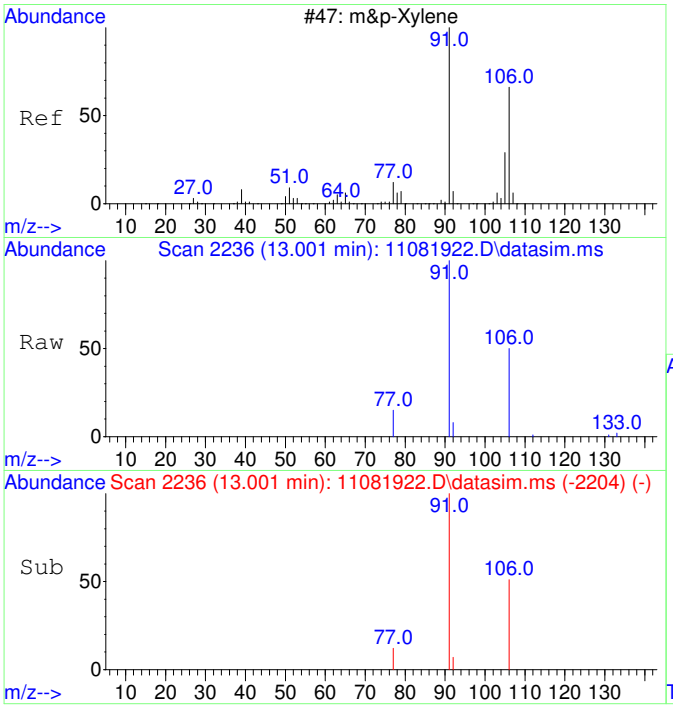


#18
Ethylbenzene
Concen: 160.54 ug/L
RT: 12.807 min Scan# 2194
Delta R.T. -0.005 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 5903

Ion	Ratio	Lower	Upper
91	100		
106	32.7	2.5	62.5
77	11.0	0.0	38.4

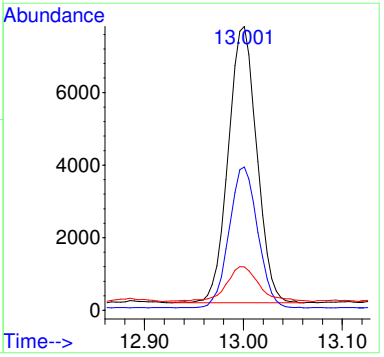


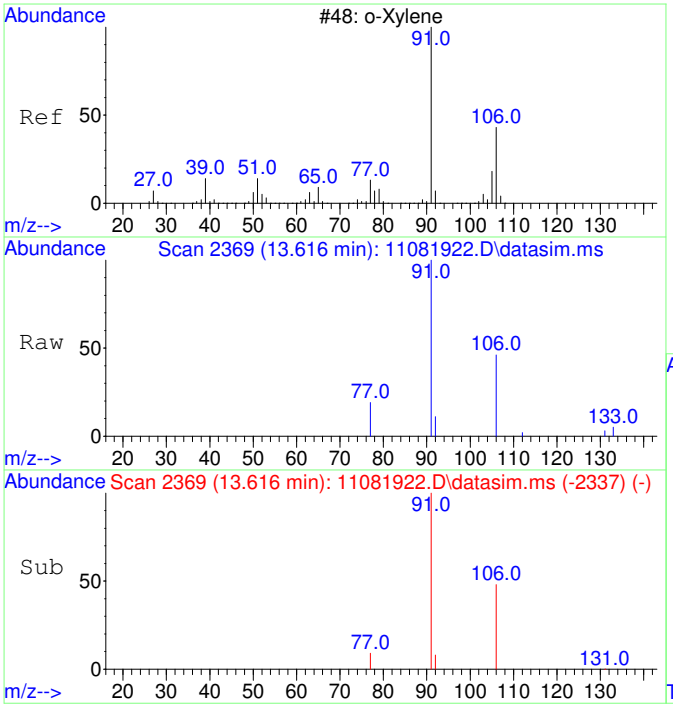


#19
m&p-Xylene
Concen: 547.94 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 15255

Ion	Ratio	Lower	Upper
91	100		
106	51.0	21.2	81.2
77	14.5	0.0	42.7

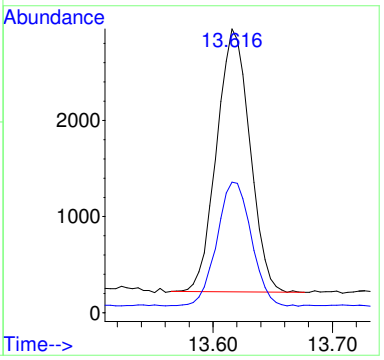


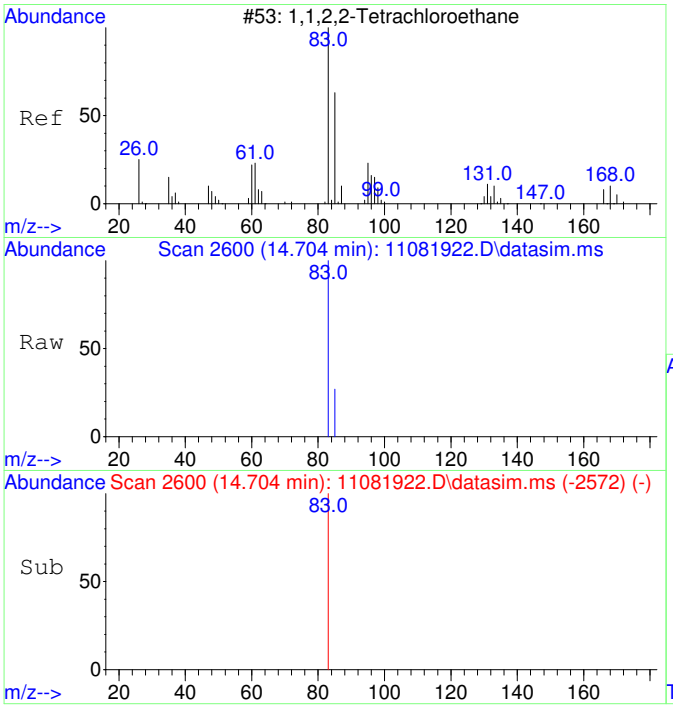


#20
o-Xylene
Concen: 177.57 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 5276

Ion	Ratio	Lower	Upper
91	100		
106	48.8	18.3	78.3

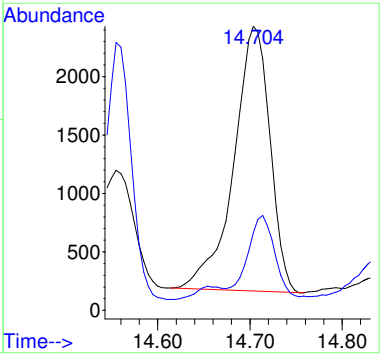


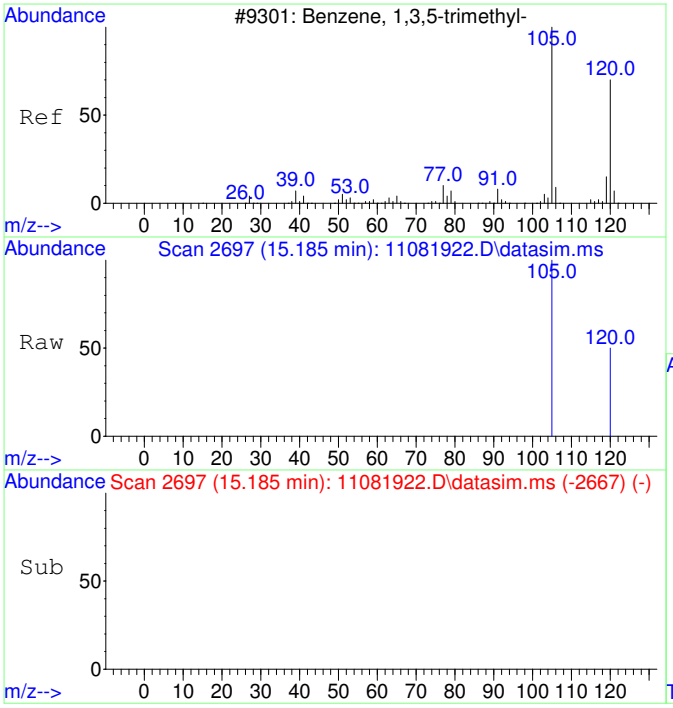


#21
1,1,2,2-Tetrachloroethane
Concen: 468.53 ug/L
RT: 14.704 min Scan# 2600
Delta R.T. -0.010 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 6176

Ion	Ratio	Lower	Upper
83	100		
85	22.4	34.7	94.7#

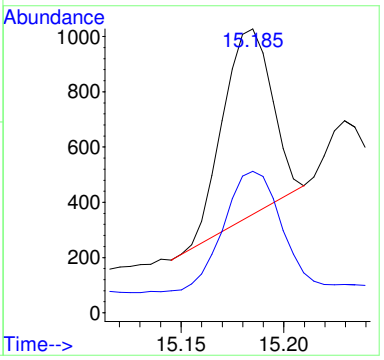


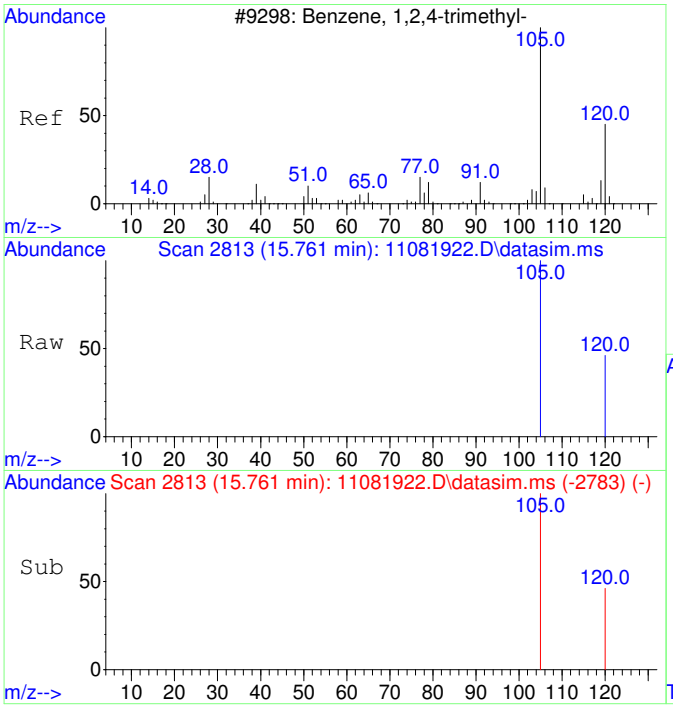


#22
1,3,5-Trimethylbenzene
Concen: 36.97 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:105 Resp: 1175

Ion	Ratio	Lower	Upper
105	100		
120	80.4	20.8	80.8

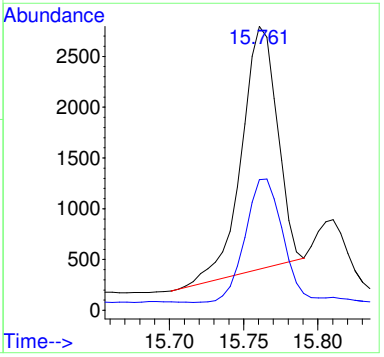


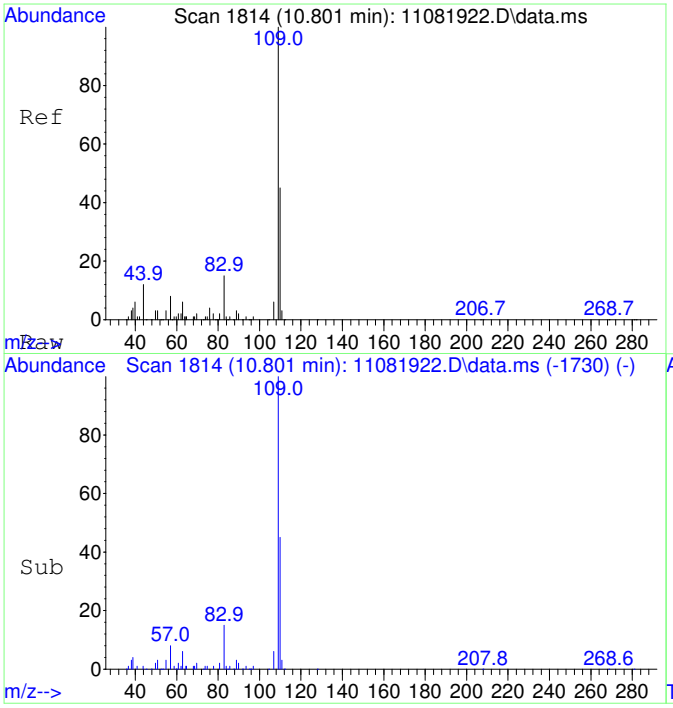


#23
1,2,4-Trimethylbenzene
Concen: 125.08 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:105 Resp: 4048

Ion	Ratio	Lower	Upper
105	100		
120	54.6	16.8	76.8

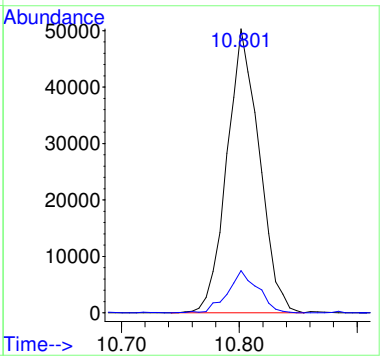


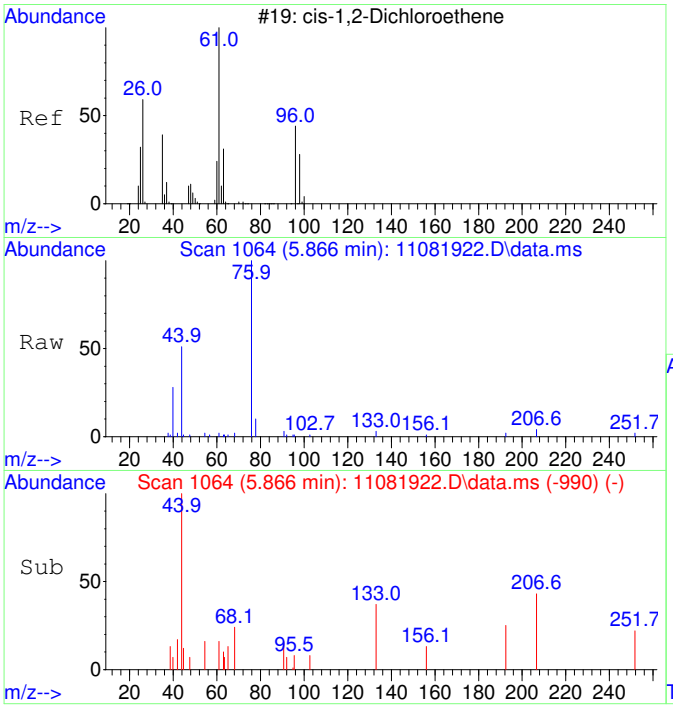


#25
2-Fluorotoluene SCAN
Concen: 4978.10 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:109 Resp: 95810

Ion	Ratio	Lower	Upper
109	100		
83	14.0	0.0	45.8

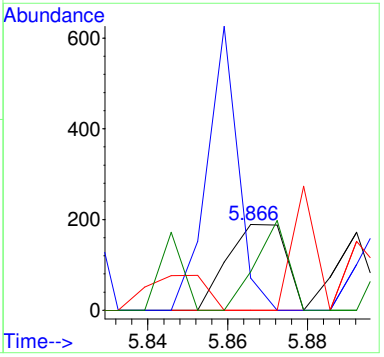


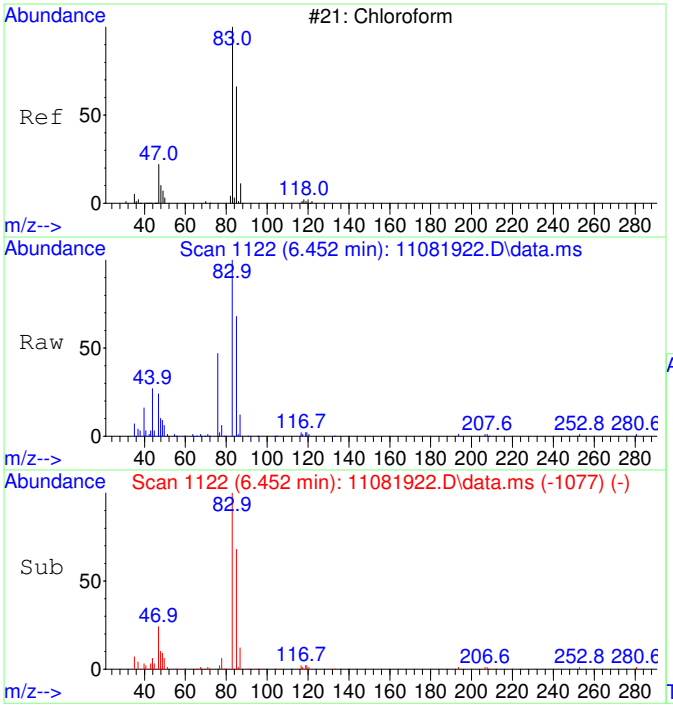


#29
cis-1,2-Dichloroethene SCAN
Concen: 27.46 ug/L
RT: 5.866 min Scan# 1064
Delta R.T. -0.007 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 61 Resp: 192

Ion	Ratio	Lower	Upper
61	100		
96	176.0	41.9	101.9#
98	42.2	20.3	80.3
63	35.4	0.0	58.3

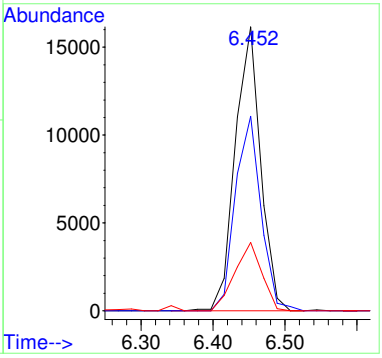


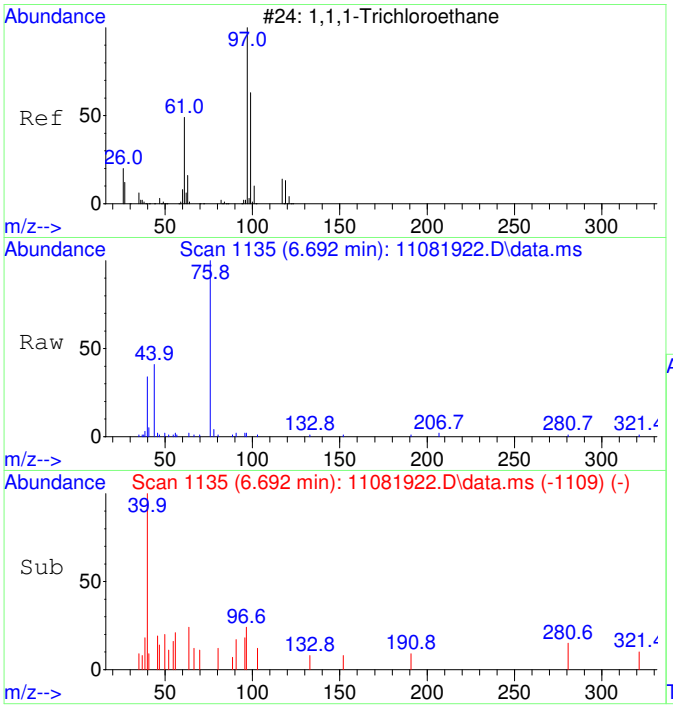


#30
Chloroform SCAN
Concen: 5098.44 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 39704

Ion	Ratio	Lower	Upper
83	100		
85	69.0	38.3	98.3
47	25.7	0.0	50.2

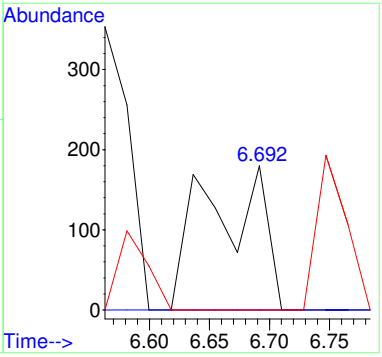


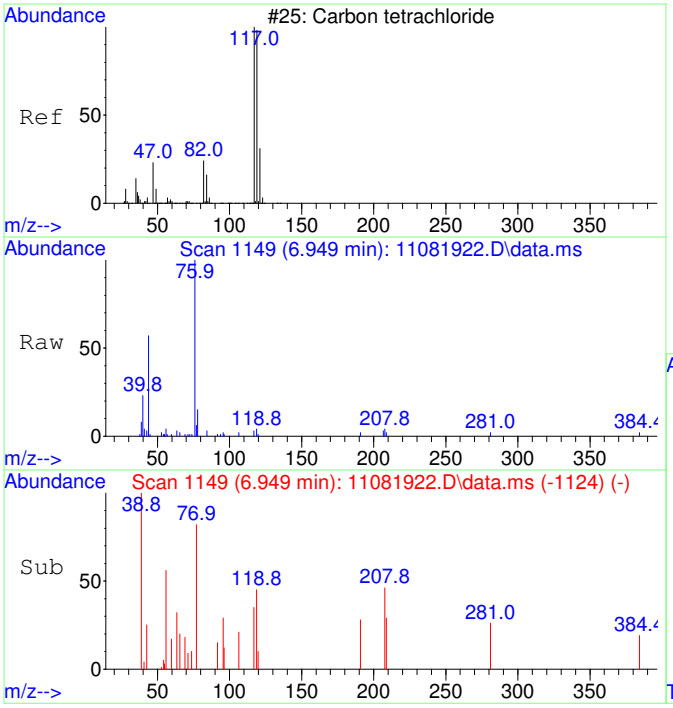


#31
1,1,1-Trichloroethane SCAN
Concen: 89.00 ug/L
RT: 6.692 min Scan# 1135
Delta R.T. -0.018 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 97 Resp: 605

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

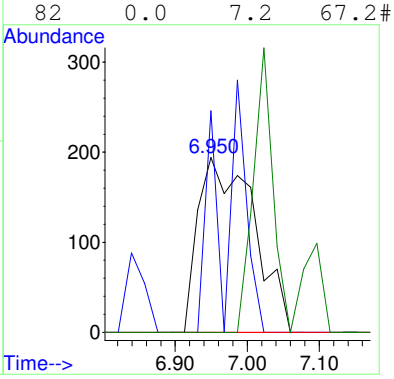


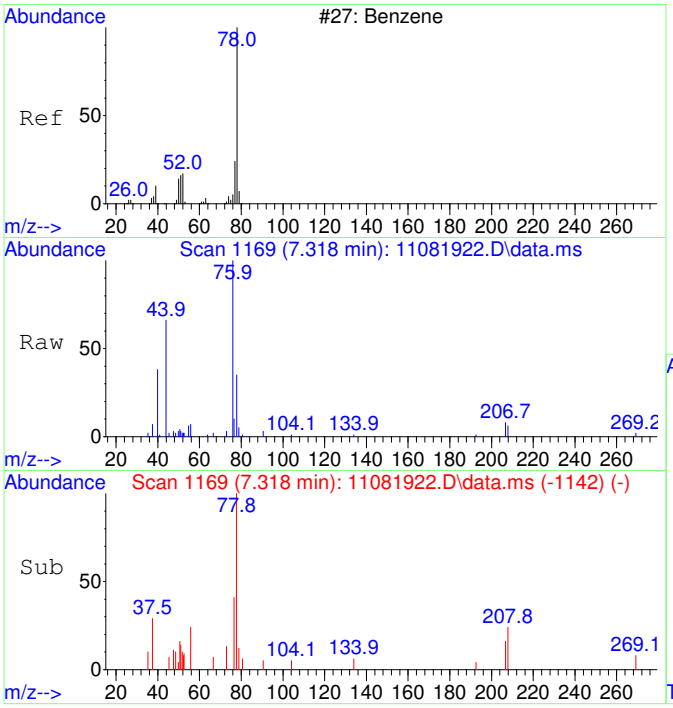


#32
Carbon tetrachloride SCAN
Concen: 164.02 ug/L
RT: 6.949 min Scan# 1149
Delta R.T. -0.037 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:117 Resp: 1045

Ion	Ratio	Lower	Upper
117	100		
119	26.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

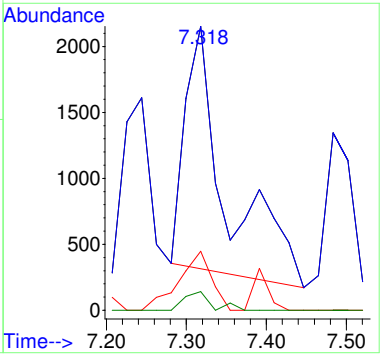


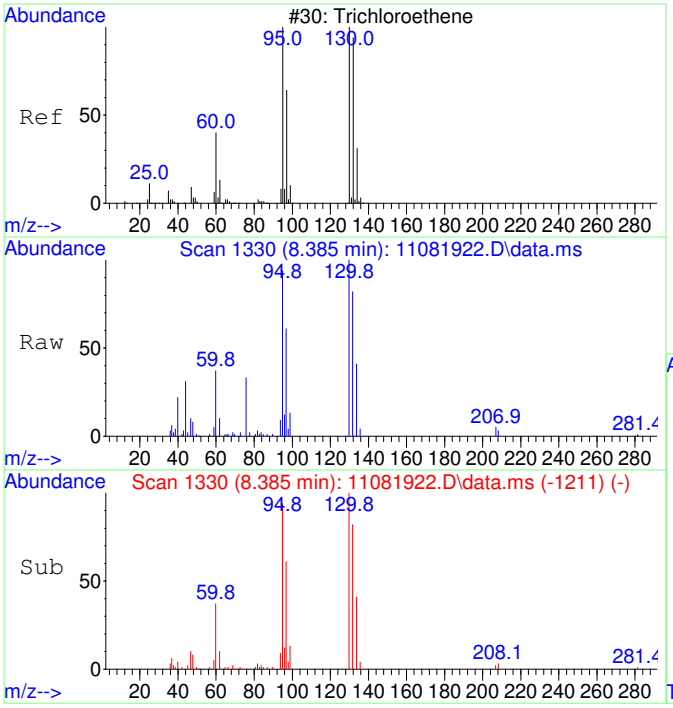


#33
Benzene SCAN
Concen: 379.23 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 78 Resp: 6479

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	19.7	0.0	49.8
52	5.1	0.0	46.0

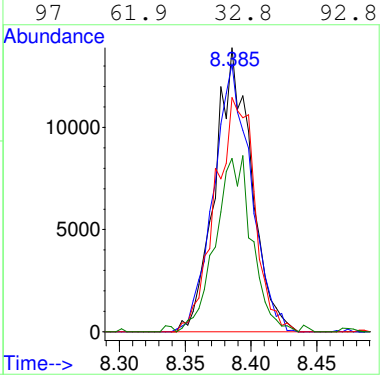


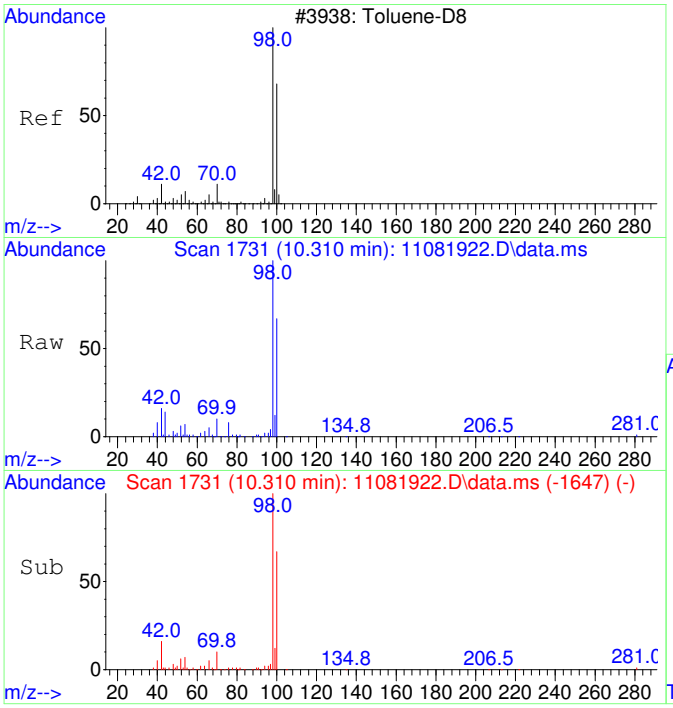


#35
Trichloroethene SCAN
Concen: 5331.74 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:130 Resp: 26704

Ion	Ratio	Lower	Upper
130	100		
95	96.7	69.5	129.5
132	89.1	66.5	126.5
97	61.9	32.8	92.8

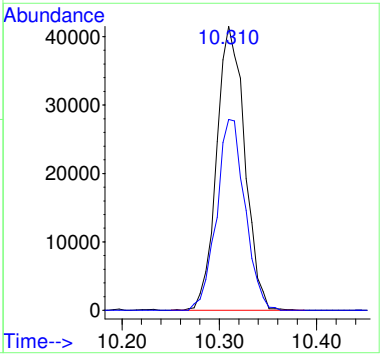


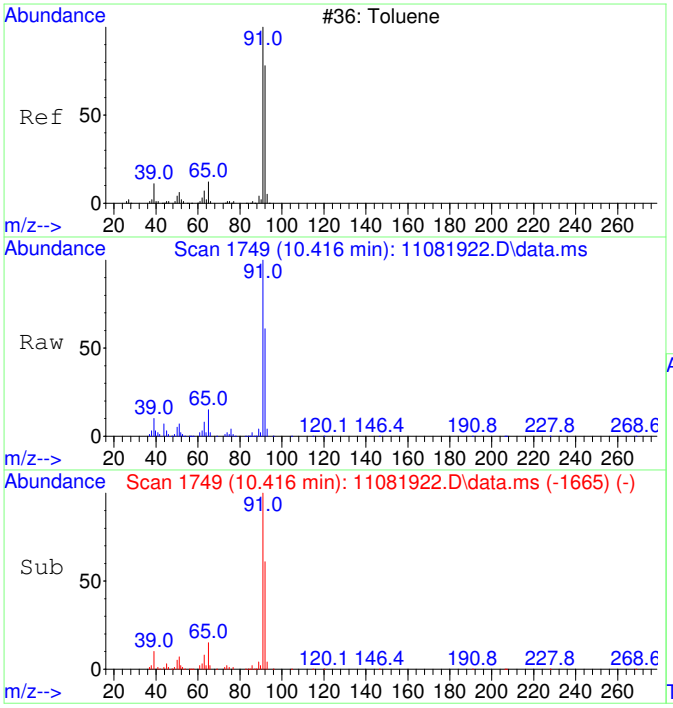


#36
Toluene-d8 SCAN
Concen: 5323.30 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 98 Resp: 83322

Ion	Ratio	Lower	Upper
98	100		
100	67.8	42.1	102.1

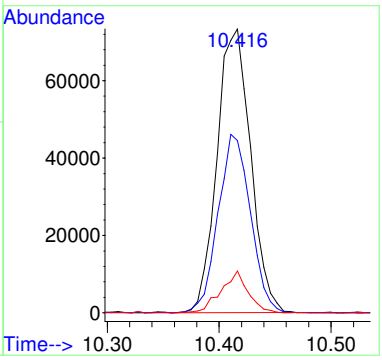


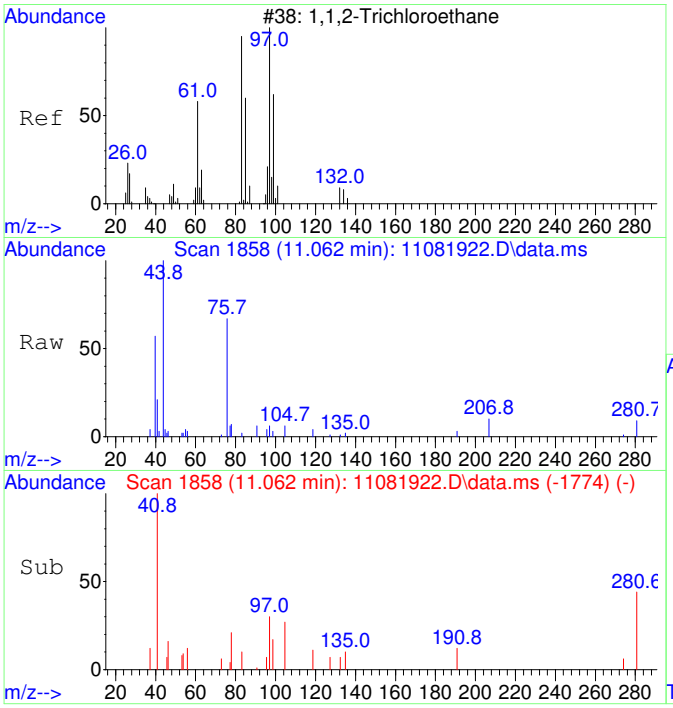


#37
Toluene SCAN
Concen: 7952.92 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 153482

Ion	Ratio	Lower	Upper
91	100		
92	60.4	31.9	91.9
65	11.9	0.0	41.9

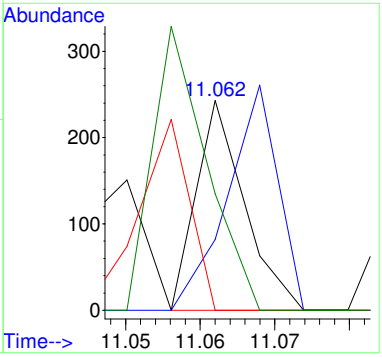


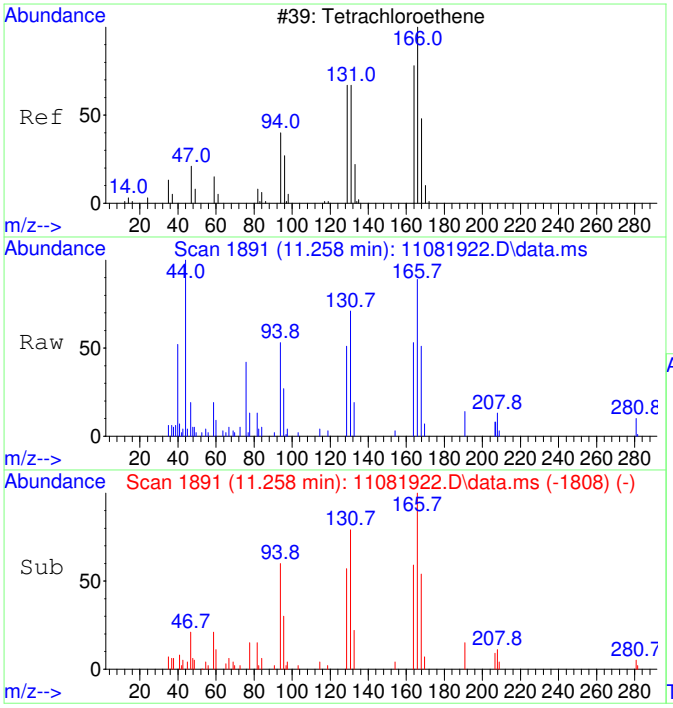


#38
1,1,2-Trichloroethane SCAN
Concen: 24.77 ug/L
RT: 11.062 min Scan# 1858
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 97 Resp: 109

Ion	Ratio	Lower	Upper
97	100		
83	111.9	58.1	118.1
61	96.3	36.0	96.0#
99	151.4	32.7	92.7#

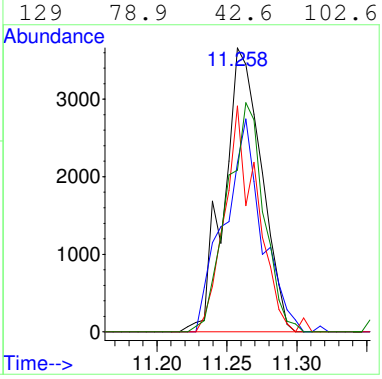


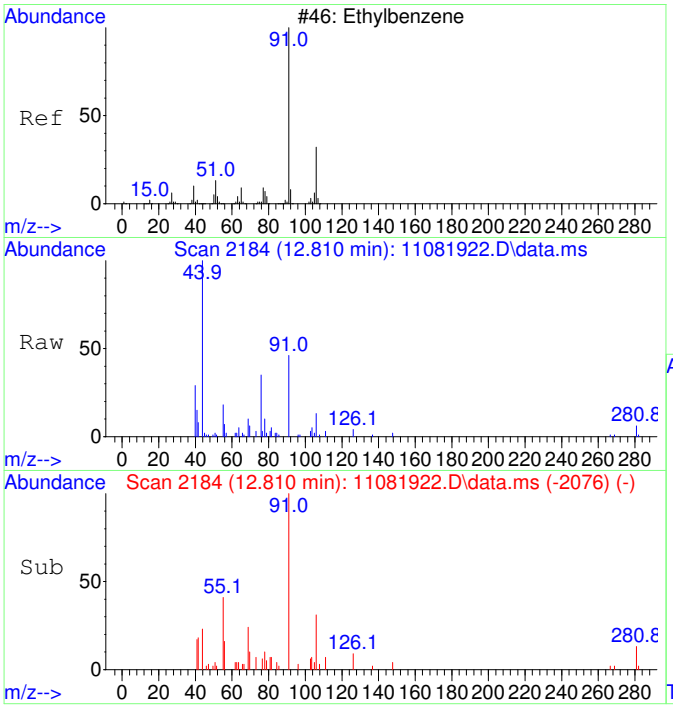


#39
Tetrachloroethene SCAN
Concen: 1337.93 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:166 Resp: 6855

Ion	Ratio	Lower	Upper
166	100		
164	75.2	50.4	110.4
131	67.7	44.0	104.0
129	78.9	42.6	102.6

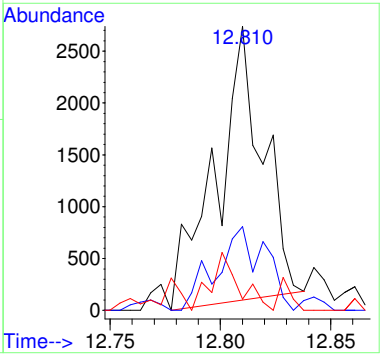


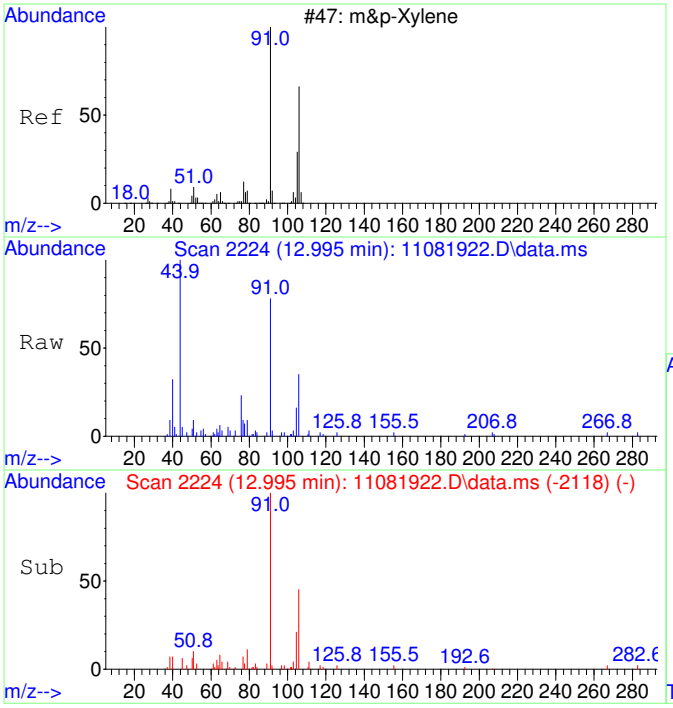


#42
Ethylbenzene SCAN
Concen: 177.93 ug/L
RT: 12.810 min Scan# 2184
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 3908

Ion	Ratio	Lower	Upper
91	100		
106	31.5	0.1	60.1
51	12.7	0.0	40.9

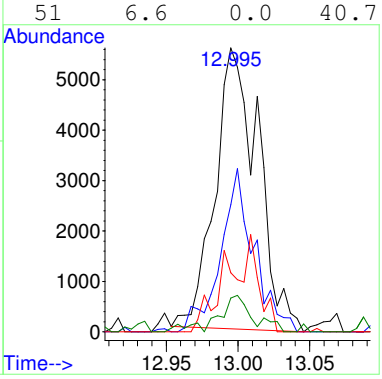


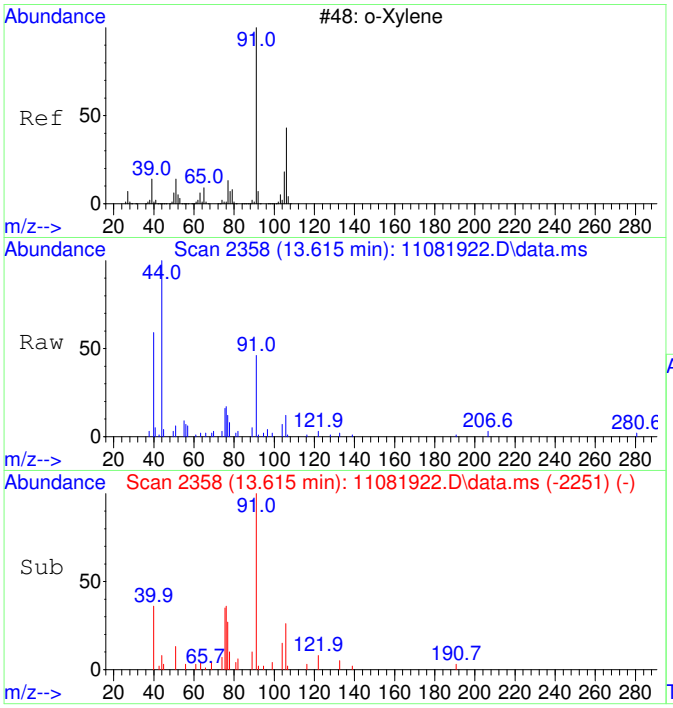


#43
m&p-Xylene SCAN
Concen: 371.72 ug/L
RT: 12.995 min Scan# 2224
Delta R.T. -0.009 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 11713

Ion	Ratio	Lower	Upper
91	100		
106	44.6	21.1	81.1
105	6.6	0.0	53.6
51	6.6	0.0	40.7

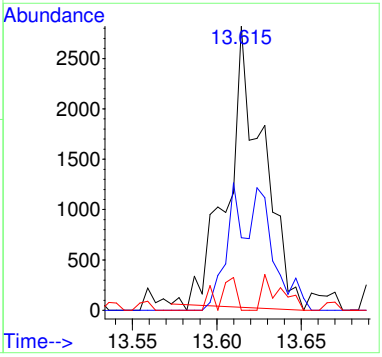


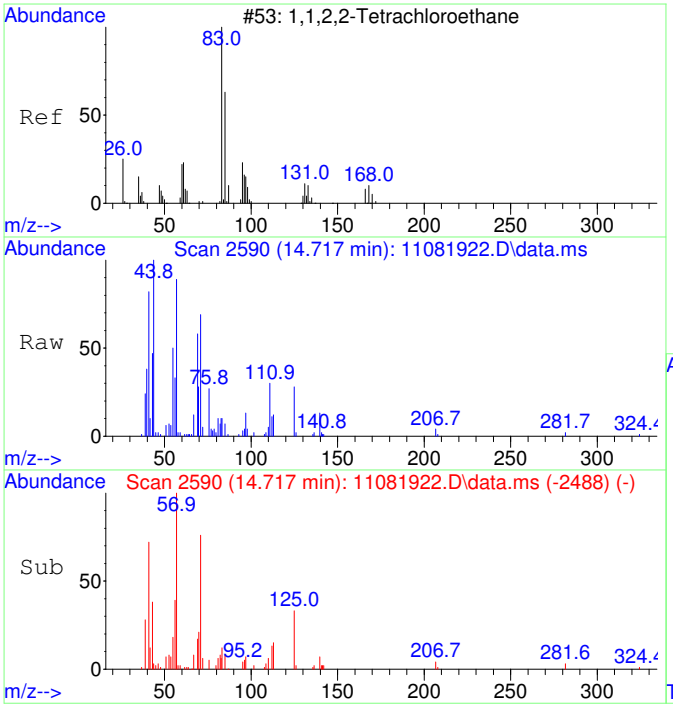


#44
o-Xylene SCAN
Concen: 241.51 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 91 Resp: 4047

Ion	Ratio	Lower	Upper
91	100		
106	11.0	16.7	76.7#
105	5.8	0.0	57.3

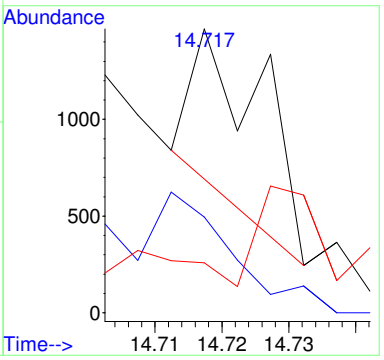


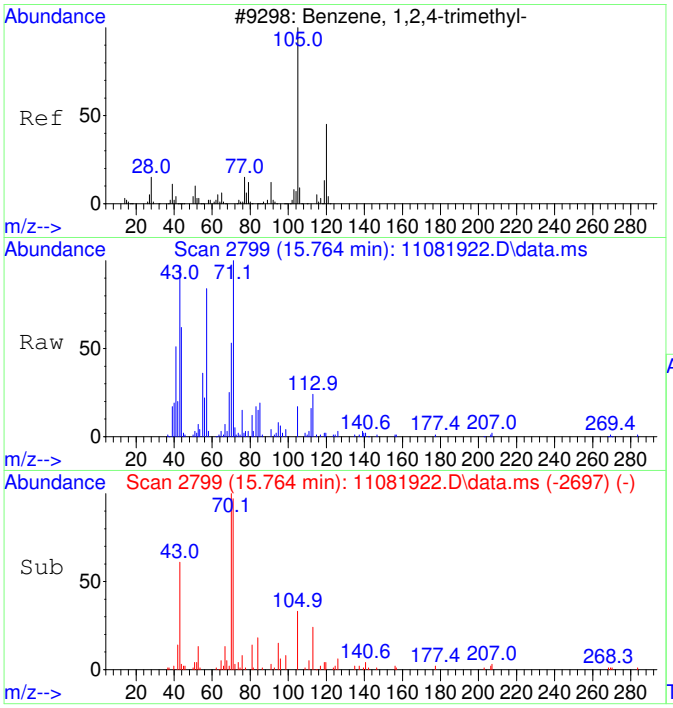


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 66.49 ug/L
RT: 14.717 min Scan# 2590
Delta R.T. -0.000 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion: 83 Resp: 541

Ion	Ratio	Lower	Upper
83	100		
85	93.5	38.3	98.3
95	124.0	0.0	44.8#

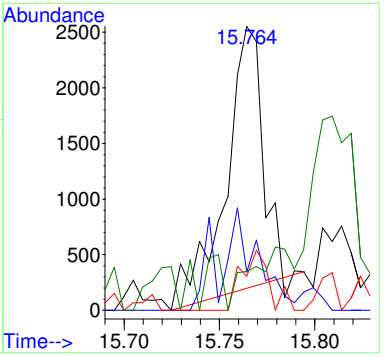




#47
1,2,4-Trimethylbenzene SCAN
Concen: 190.13 ug/L
RT: 15.764 min Scan# 2799
Delta R.T. 0.005 min
Lab File: 11081922.D
Acq: 8 Nov 2019 18:36

Tgt Ion:105 Resp: 3191

Ion	Ratio	Lower	Upper
105	100		
120	23.9	18.6	78.6
119	17.3	0.0	42.1
77	0.0	0.0	42.9



1910069-02

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081923.D
Acq On : 8 Nov 2019 19:00
InstName : AG5975C
Operator : TD
Sample : 1910069-02
Misc : 450-50
ALS Vial : 21 Sample Multiplier: 10

REPORT

Quant Time: Nov 11 06:20:25 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

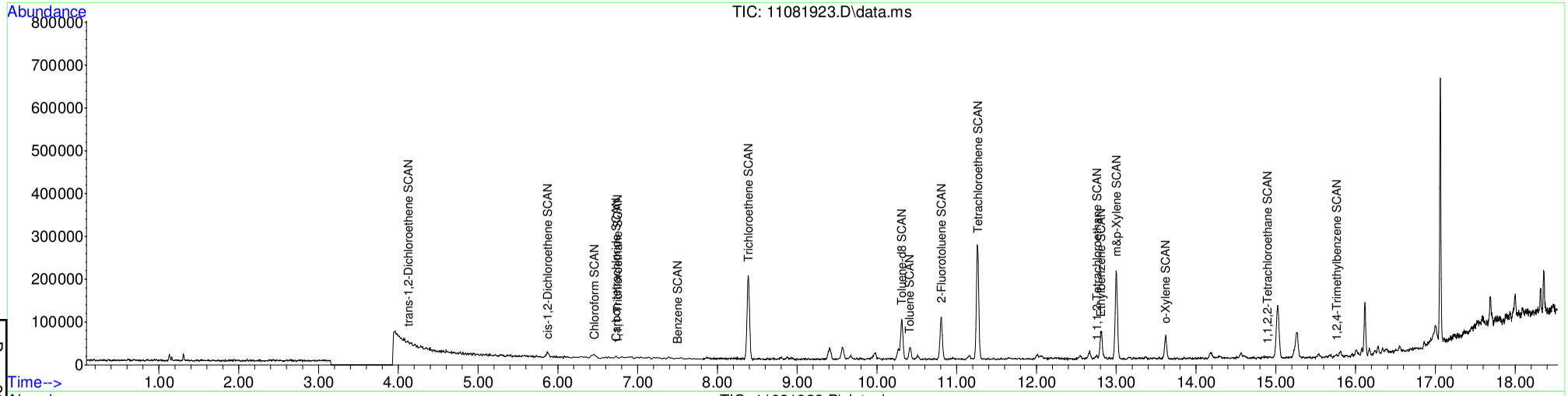
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	137356	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	110415	4974.43 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.49%		
Target Compounds					Qvalue
3] trans-1,2-Dichloroethene	4.109	61	1002	153.78 ug/L	98
5] cis-1,2-Dichloroethene	5.867	61	8968	1177.87 ug/L	99
6] Chloroform	6.435	83	12960	1483.78 ug/L	100
8] Carbon tetrachloride	6.969	117	180	22.58 ug/L	92
9] Benzene	7.301	78	1081	49.96 ug/L	76
11] Trichloroethene	8.387	130	125269	19089.27 ug/L	99
13] Toluene	10.412	91	34299	1274.77 ug/L	100
14] 1,1,2-Trichloroethane	10.986	97	161	25.87 ug/L #	15
15] Tetrachloroethene	11.265	166	160324	20497.13 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.663	131	322	44.80 ug/L #	1
18] Ethylbenzene	12.807	91	84407	2582.01 ug/L	100
19] m&p-Xylene	13.001	91	230909	9328.94 ug/L	100
20] o-Xylene	13.616	91	52983	2005.70 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.709	83	252	21.50 ug/L #	30
22] 1,3,5-Trimethylbenzene	15.185	105	600	21.24 ug/L	71
23] 1,2,4-Trimethylbenzene	15.761	105	1370	47.62 ug/L	76
25) 2-Fluorotoluene SCAN	10.807	109	86658	5064.44 ug/L	93
27) trans-1,2-Dichloroethe...	4.121	61	596	108.45 ug/L	77
29) cis-1,2-Dichloroethene...	5.872	61	7492	1205.43 ug/L	91
30) Chloroform SCAN	6.452	83	12141	1753.59 ug/L	81
31) 1,1,1-Trichloroethane ...	6.747	97	177	29.29 ug/L #	21
32) Carbon tetrachloride SCAN	6.728	117	401	70.79 ug/L #	19
33) Benzene SCAN	7.502	78	438	28.84 ug/L	87
35) Trichloroethene SCAN	8.390	130	80105	17989.62 ug/L	97
36) Toluene-d8 SCAN	10.310	98	70779	5086.22 ug/L	95
37) Toluene SCAN	10.410	91	23053	1343.59 ug/L	98
39) Tetrachloroethene SCAN	11.263	166	95475	20959.64 ug/L	98
41) 1,1,1,2-Tetrachloroeth...	12.754	131	95	22.73 ug/L #	30
42) Ethylbenzene SCAN	12.810	91	56640	2900.59 ug/L	97
43) m&p-Xylene SCAN	13.000	91	145873	5207.00 ug/L	97
44) o-Xylene SCAN	13.614	91	36997	2483.36 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.891	83	263	36.36 ug/L	78
47) 1,2,4-Trimethylbenzene...	15.759	105	1438	96.37 ug/L	88

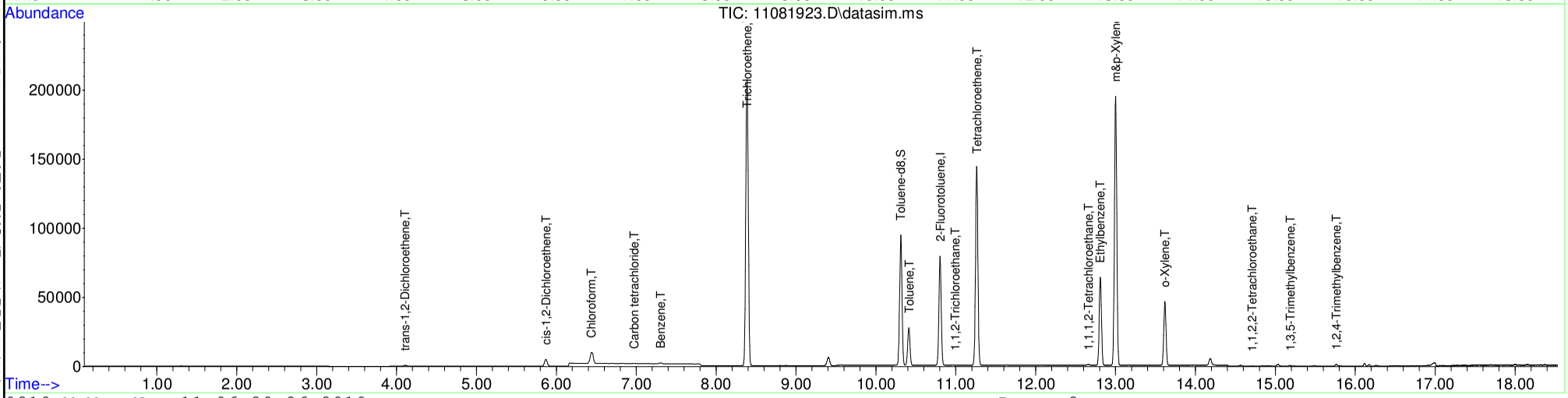
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081923.D
Acq On : 8 Nov 2019 19:00
InstName : AG5975C
Operator : TD
Sample : 1910069-02
Misc : 450-50
ALS Vial : 21 Sample Multiplier: 10

Quant Time: Nov 11 06:20:25 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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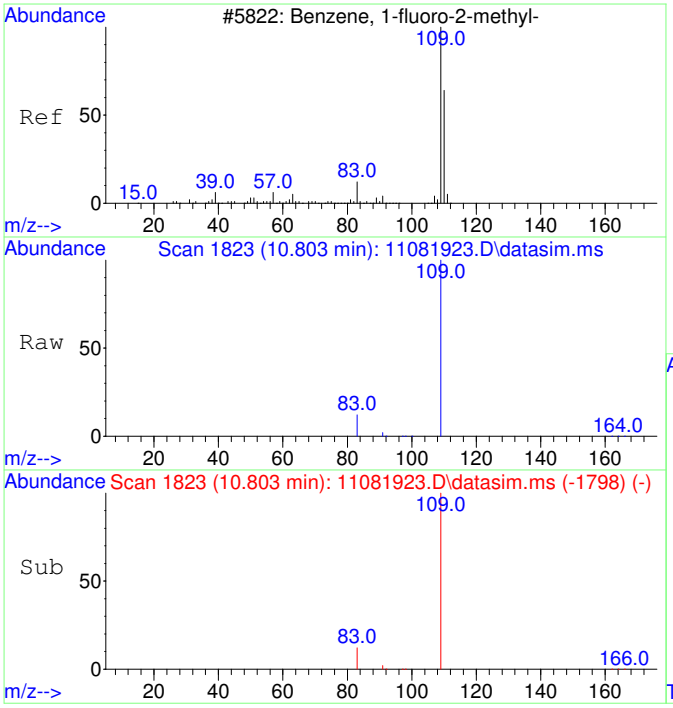
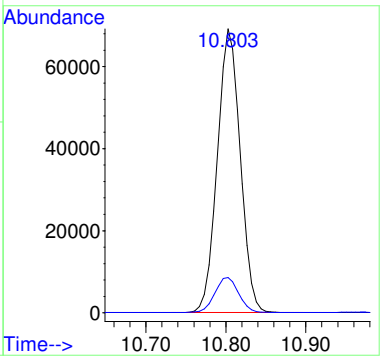
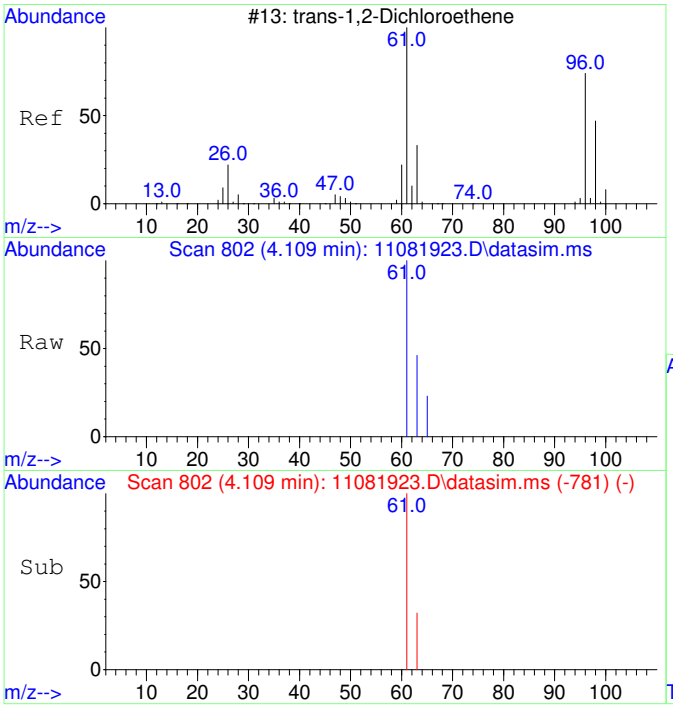


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:109 Resp: 137356

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

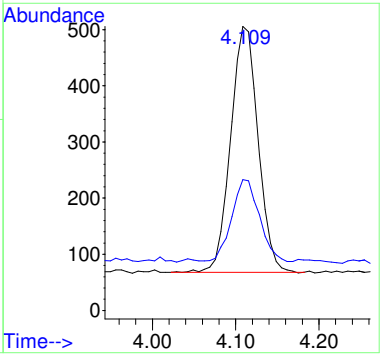


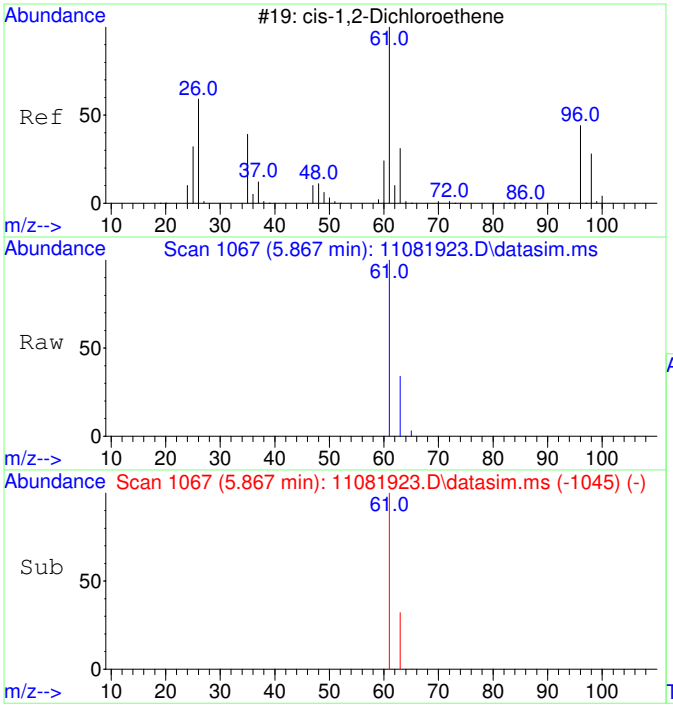


#3
trans-1,2-Dichloroethene
Concen: 153.78 ug/L
RT: 4.109 min Scan# 802
Delta R.T. -0.013 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 61 Resp: 1002

Ion	Ratio	Lower	Upper
61	100		
63	33.2	2.3	62.3

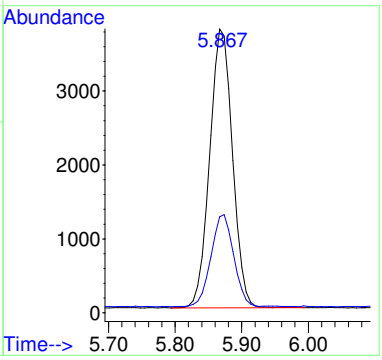


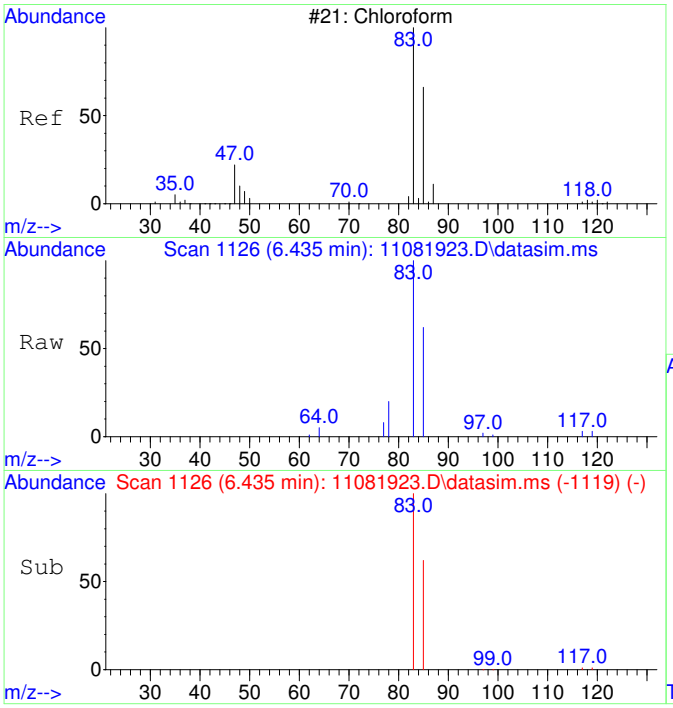


#5
cis-1,2-Dichloroethene
Concen: 1177.87 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 61 Resp: 8968

Ion	Ratio	Lower	Upper
61	100		
63	32.7	2.4	62.4

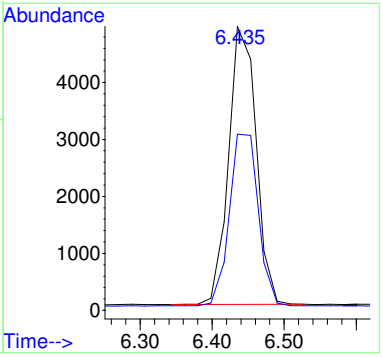


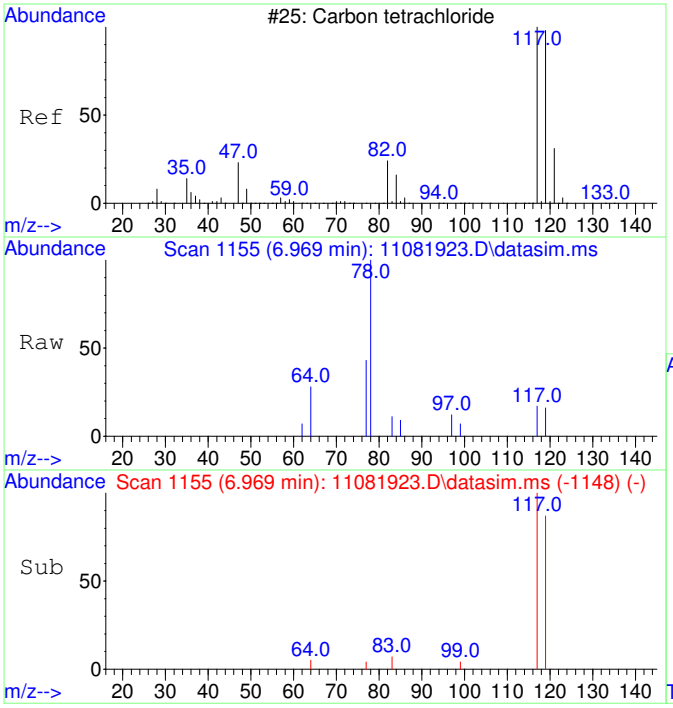


#6
Chloroform
Concen: 1483.78 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.019 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 83 Resp: 12960

Ion	Ratio	Lower	Upper
83	100		
85	65.0	35.2	95.2

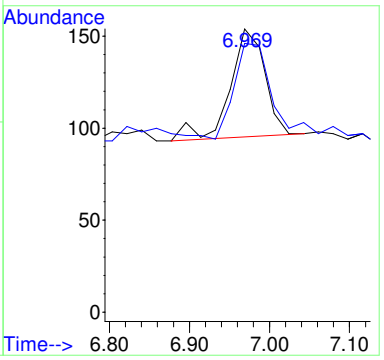


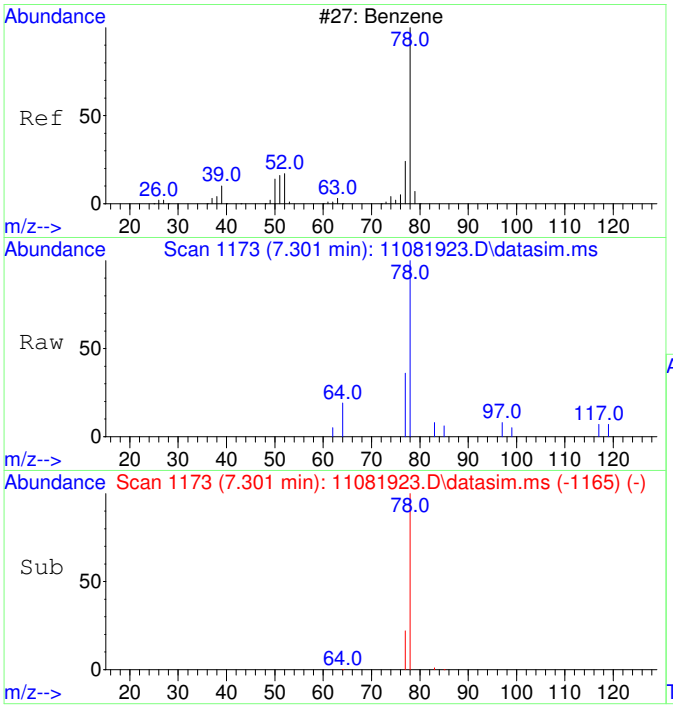


#8
Carbon tetrachloride
Concen: 22.58 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.019 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:117 Resp: 180

Ion	Ratio	Lower	Upper
117	100		
119	87.8	66.0	126.0

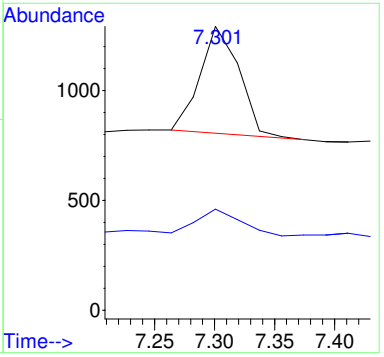


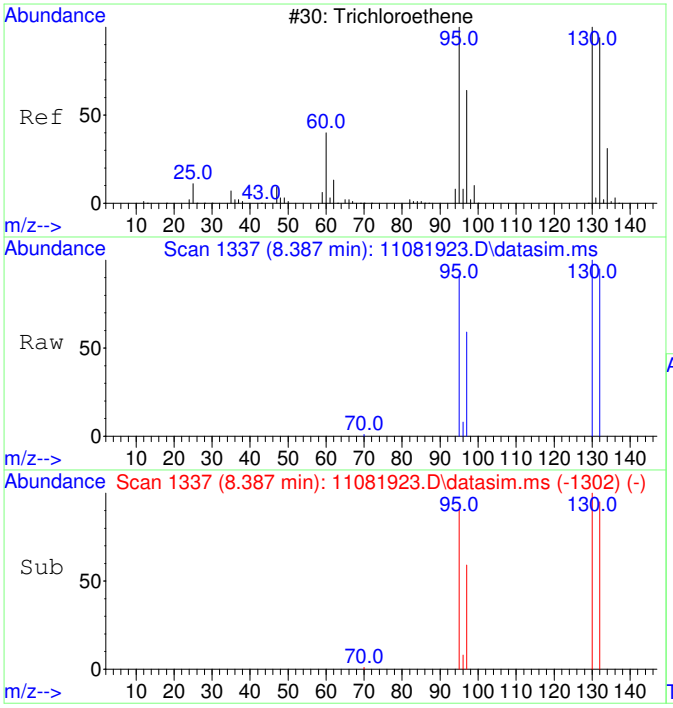


#9
Benzene
Concen: 49.96 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 78 Resp: 1081

Ion	Ratio	Lower	Upper
78	100		
77	35.1	0.0	53.2

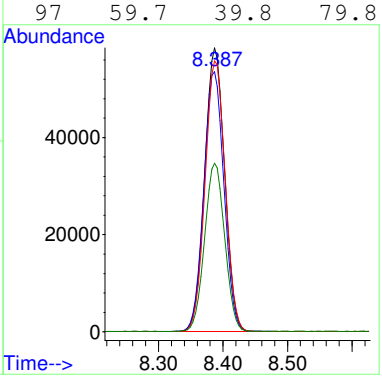


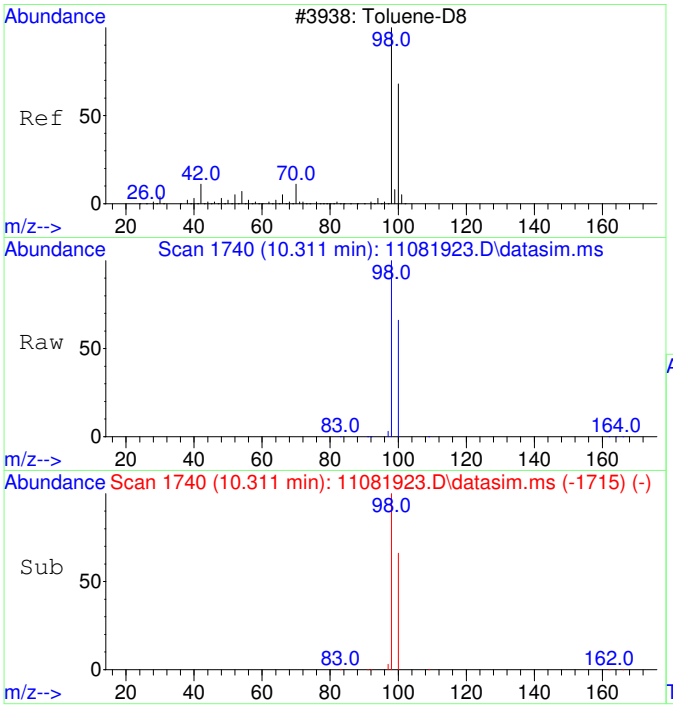


#11
Trichloroethene
Concen: 19089.27 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:130 Resp: 125269

Ion	Ratio	Lower	Upper
130	100		
95	92.4	63.4	123.4
132	96.2	76.0	116.0
97	59.7	39.8	79.8

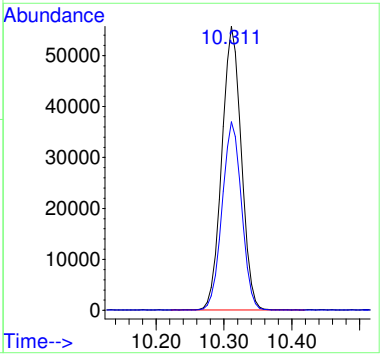


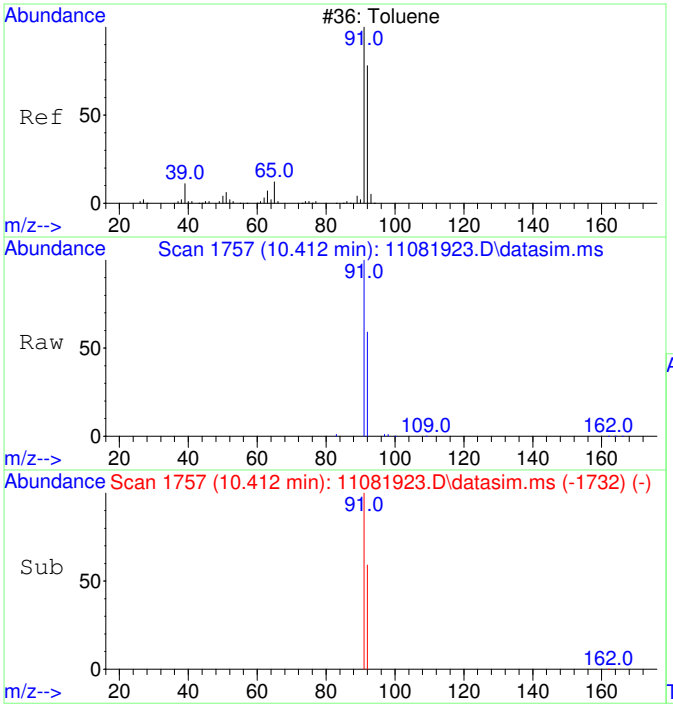


#12
Toluene-d8
Concen: 4974.43 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 98 Resp: 110415

Ion	Ratio	Lower	Upper
98	100		
100	66.4	36.4	96.4

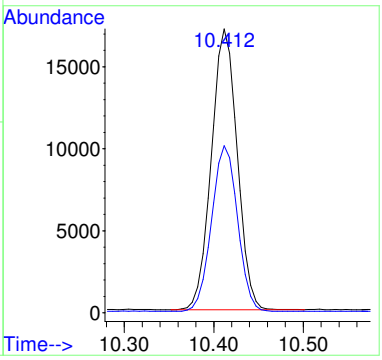


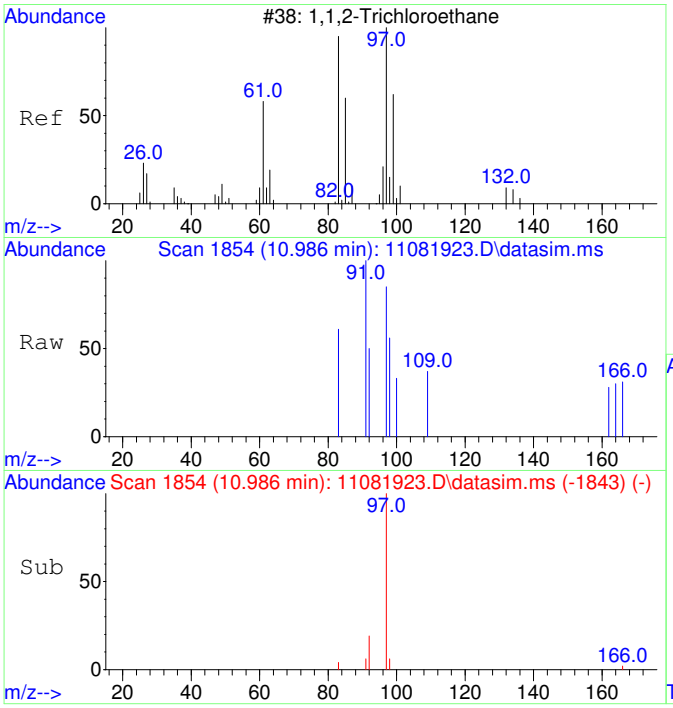


#13
Toluene
Concen: 1274.77 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 34299

Ion	Ratio	Lower	Upper
91	100		
92	59.3	29.4	89.4

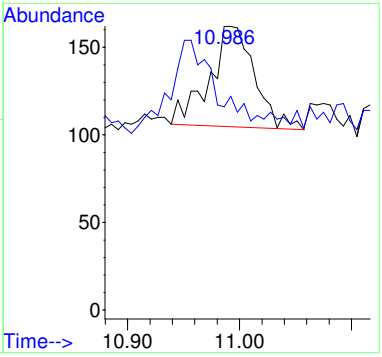


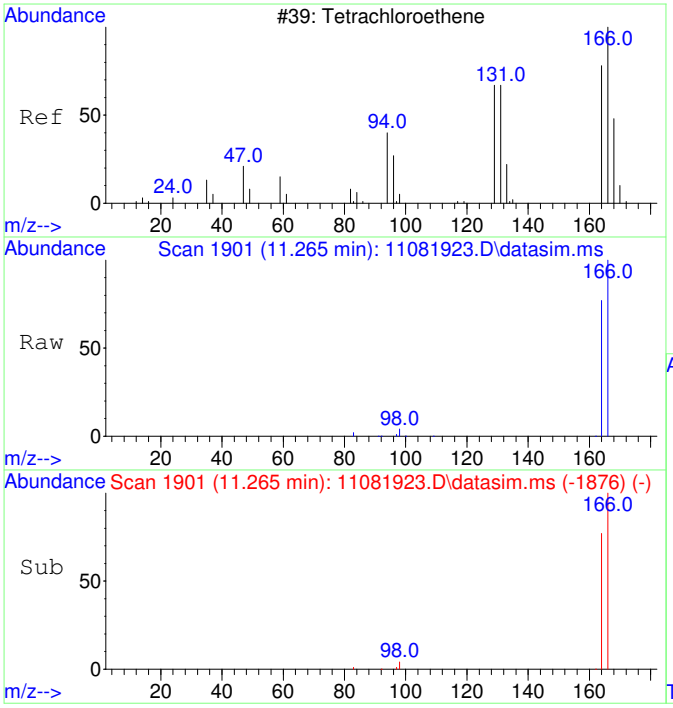


#14
1,1,2-Trichloroethane
Concen: 25.87 ug/L
RT: 10.986 min Scan# 1854
Delta R.T. -0.083 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 97 Resp: 161

Ion	Ratio	Lower	Upper
97	100		
83	6.2	52.0	112.0#

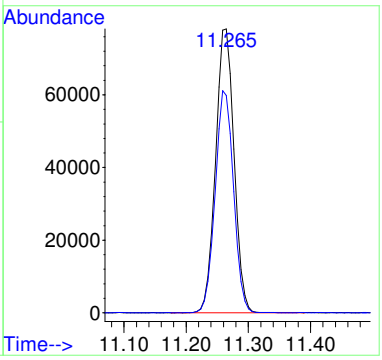


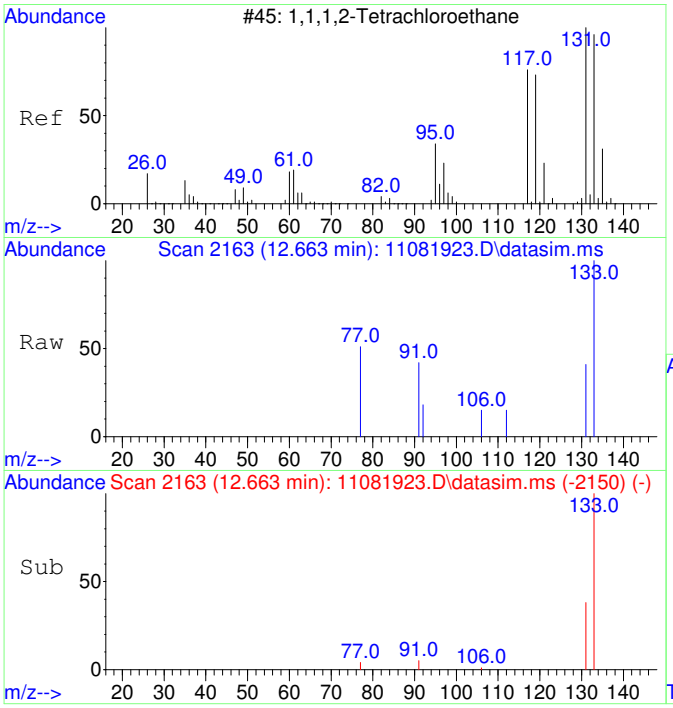


#15
Tetrachloroethene
Concen: 20497.13 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:166 Resp: 160324

Ion	Ratio	Lower	Upper
166	100		
164	78.0	47.7	107.7

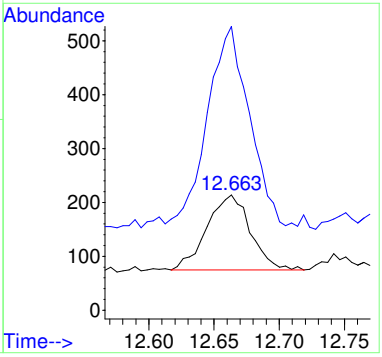


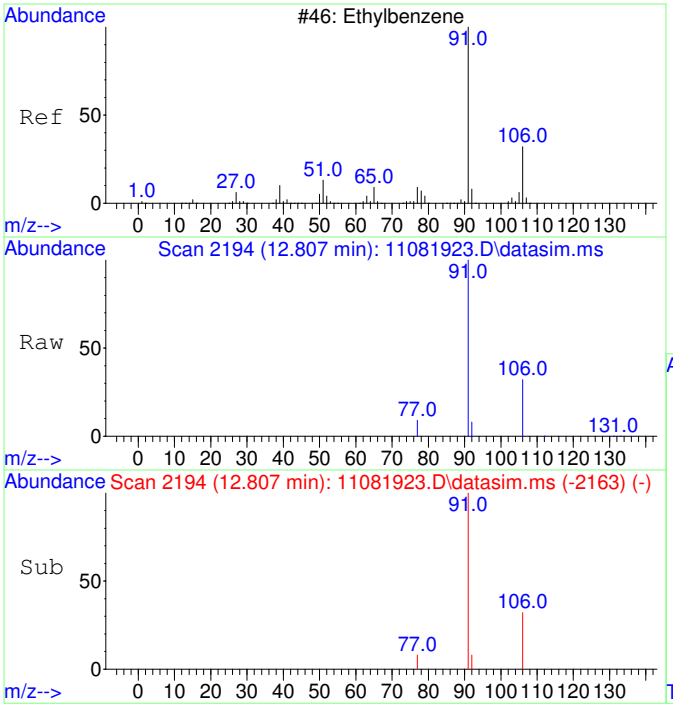


#17
1,1,1,2-Tetrachloroethane
Concen: 44.80 ug/L
RT: 12.663 min Scan# 2163
Delta R.T. -0.088 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:131 Resp: 322

Ion	Ratio	Lower	Upper
131	100		
133	253.1	65.1	125.1#

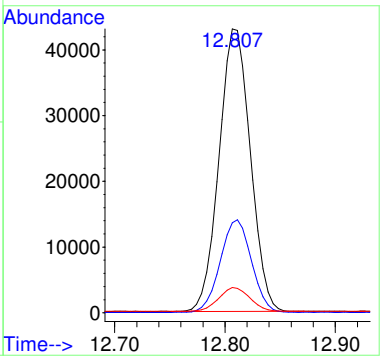


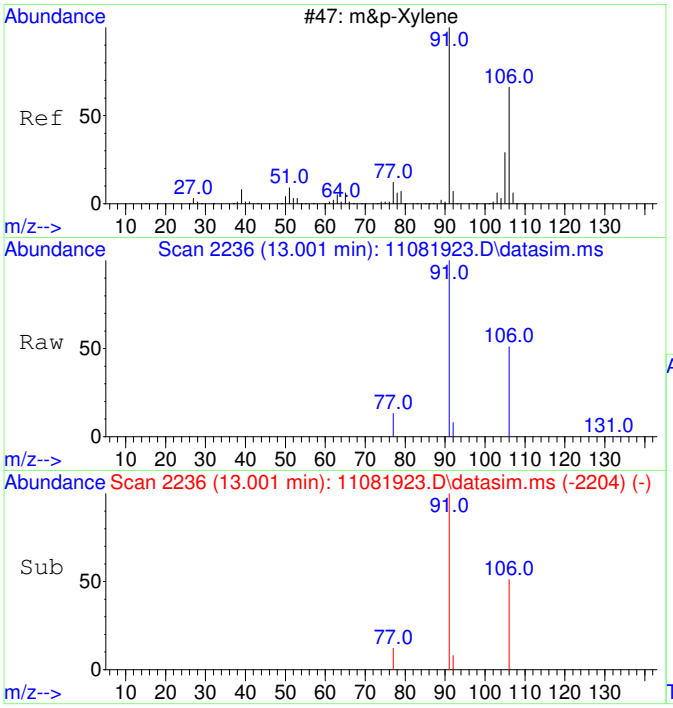


#18
Ethylbenzene
Concen: 2582.01 ug/L
RT: 12.807 min Scan# 2194
Delta R.T. -0.005 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 84407

Ion	Ratio	Lower	Upper
91	100		
106	32.5	2.5	62.5
77	8.4	0.0	38.4

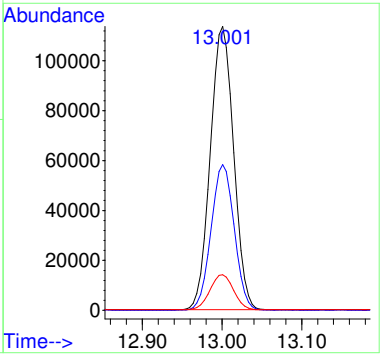


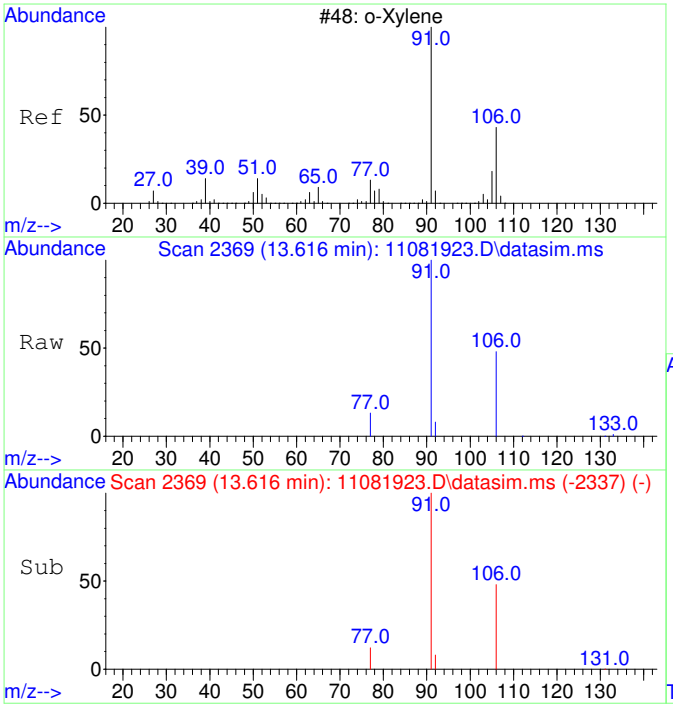


#19
m&p-Xylene
Concen: 9328.94 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 230909

Ion	Ratio	Lower	Upper
91	100		
106	51.0	21.2	81.2
77	12.5	0.0	42.7

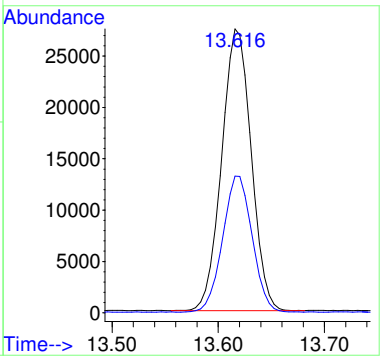


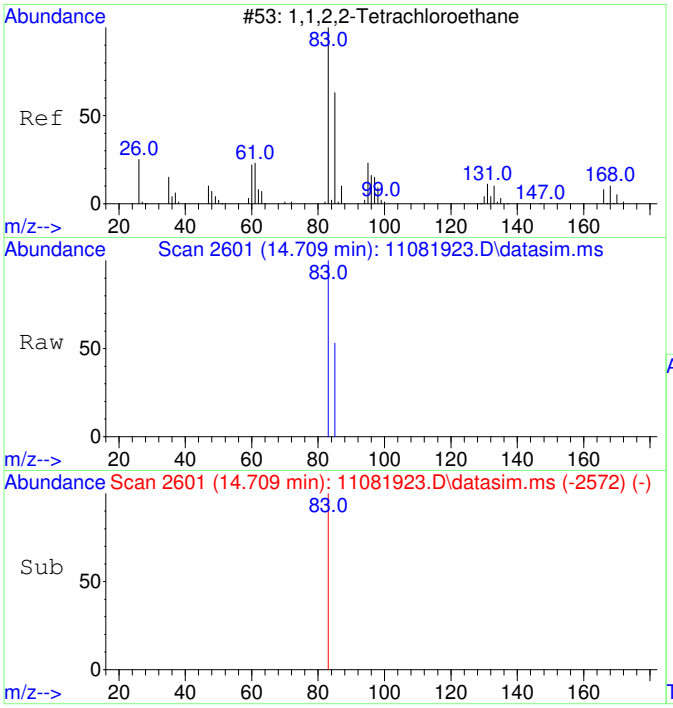


#20
o-Xylene
Concen: 2005.70 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 52983

Ion	Ratio	Lower	Upper
91	100		
106	48.1	18.3	78.3

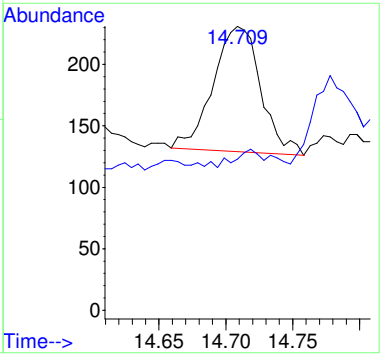


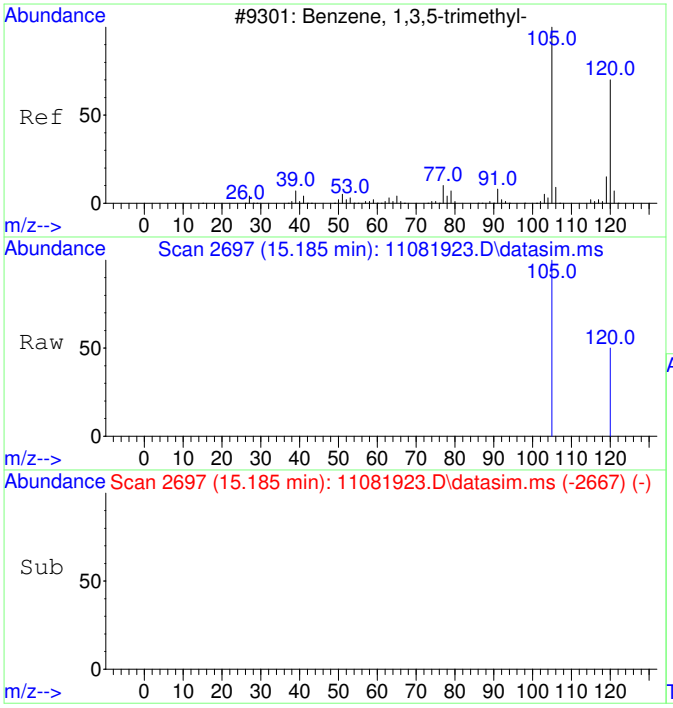


#21
1,1,2,2-Tetrachloroethane
Concen: 21.50 ug/L
RT: 14.709 min Scan# 2601
Delta R.T. -0.005 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 83 Resp: 252

Ion	Ratio	Lower	Upper
83	100		
85	9.5	34.7	94.7#

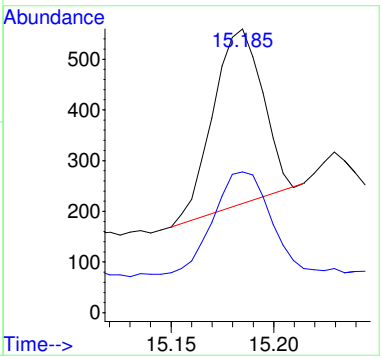


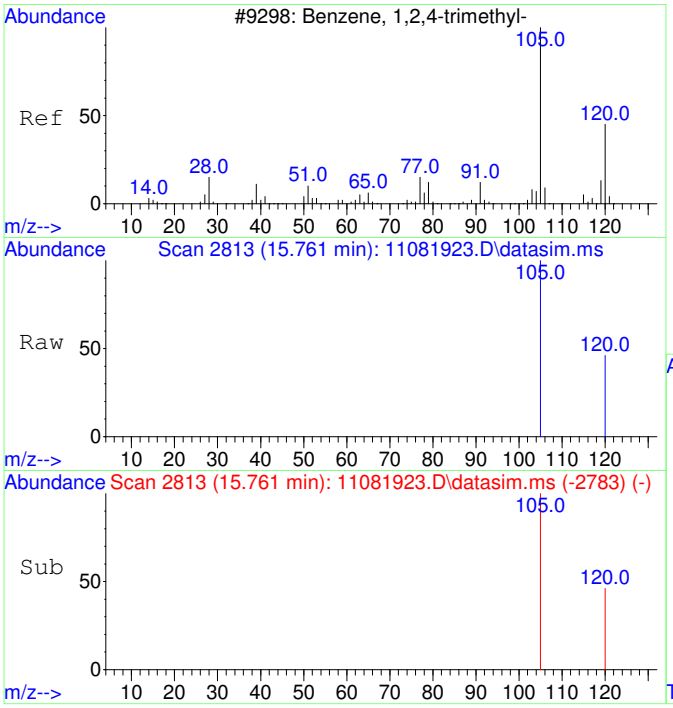


#22
1,3,5-Trimethylbenzene
Concen: 21.24 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:105 Resp: 600

Ion	Ratio	Lower	Upper
105	100		
120	71.0	20.8	80.8

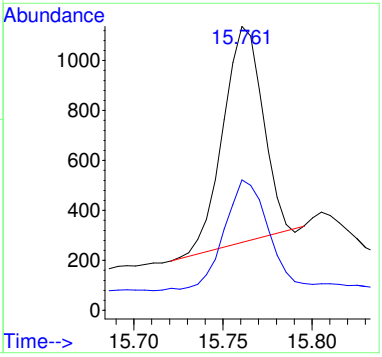


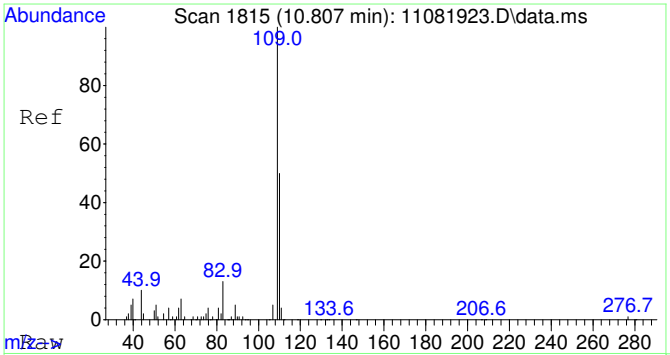


#23
1,2,4-Trimethylbenzene
Concen: 47.62 ug/L
RT: 15.761 min Scan# 2813
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:105 Resp: 1370

Ion	Ratio	Lower	Upper
105	100		
120	63.0	16.8	76.8

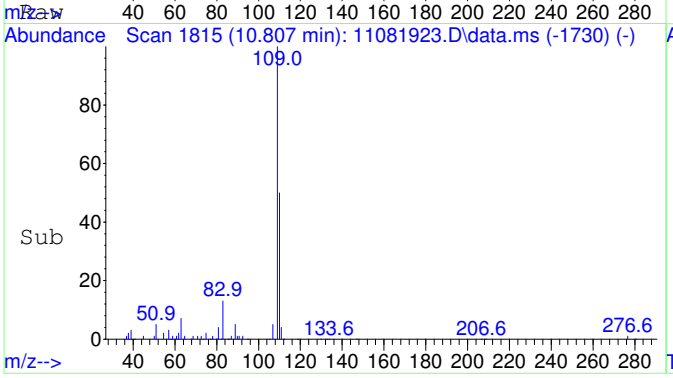


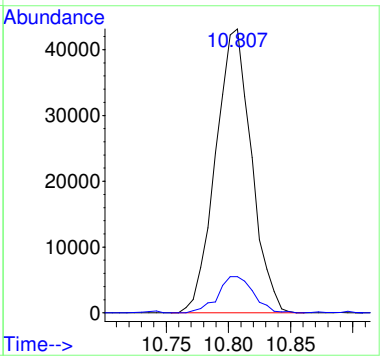


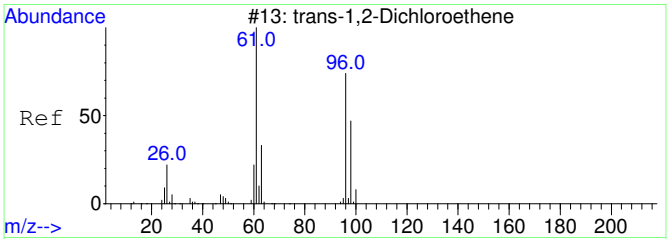
#25
2-Fluorotoluene SCAN
Concen: 5064.44 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:109 Resp: 86658

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	45.8



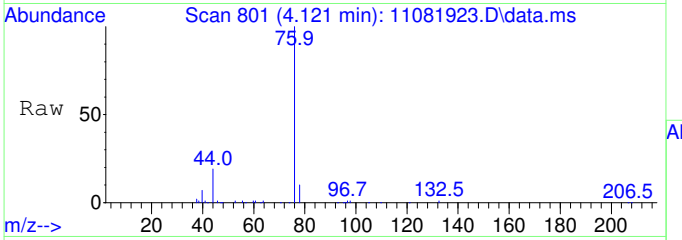


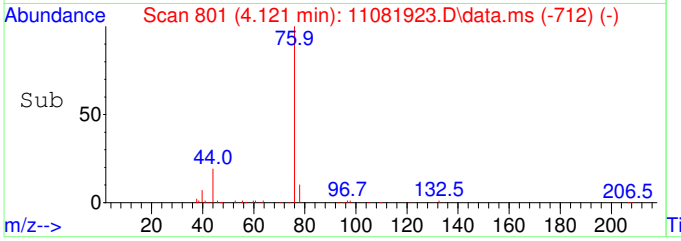


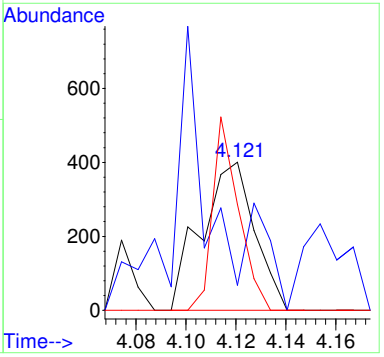
#27
trans-1,2-Dichloroethene SCAN
Concen: 108.45 ug/L
RT: 4.121 min Scan# 801
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

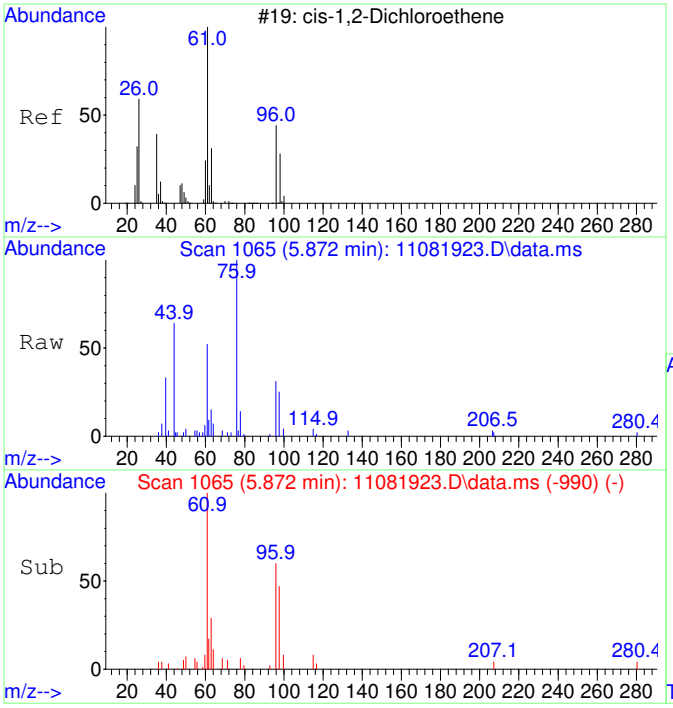
Tgt Ion: 61 Resp: 596

Ion	Ratio	Lower	Upper
61	100		
96	100.8	46.5	106.5
98	63.6	22.8	82.8





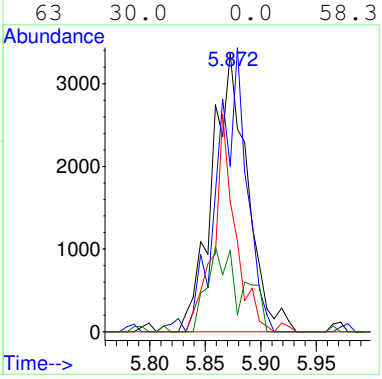


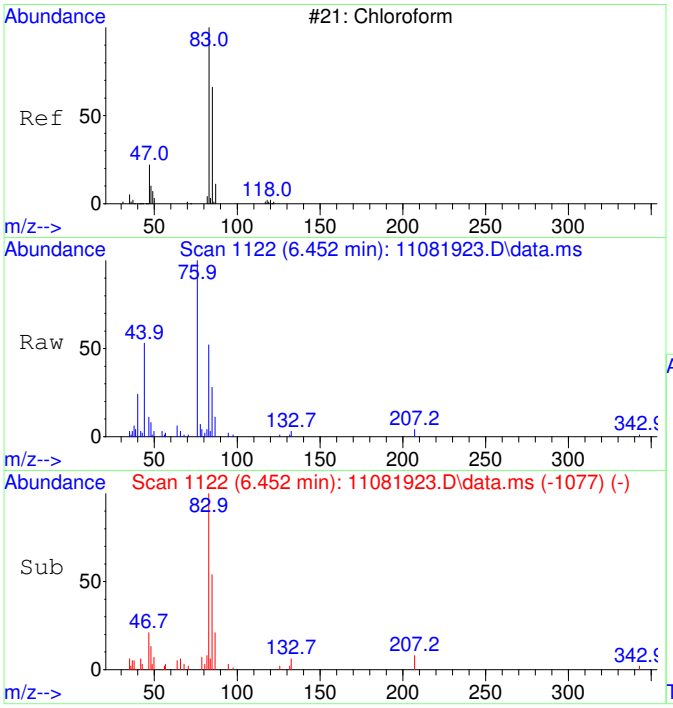


#29
cis-1,2-Dichloroethene SCAN
Concen: 1205.43 ug/L
RT: 5.872 min Scan# 1065
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 61 Resp: 7492

Ion	Ratio	Lower	Upper
61	100		
96	84.8	41.9	101.9
98	47.3	20.3	80.3
63	30.0	0.0	58.3

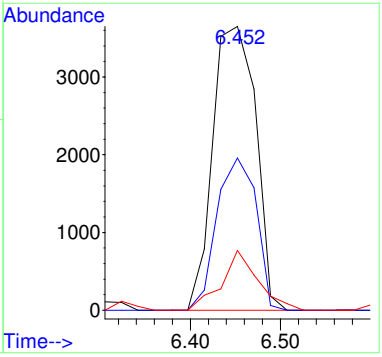


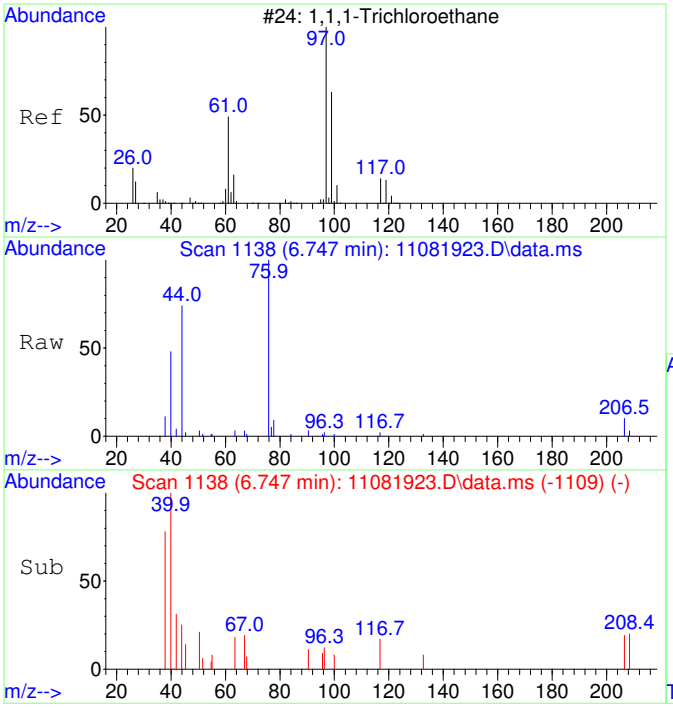


#30
Chloroform SCAN
Concen: 1753.59 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 83 Resp: 12141

Ion	Ratio	Lower	Upper
83	100		
85	49.3	38.3	98.3
47	17.8	0.0	50.2

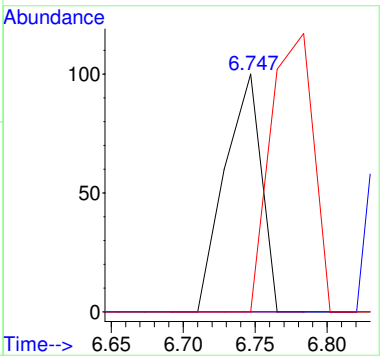


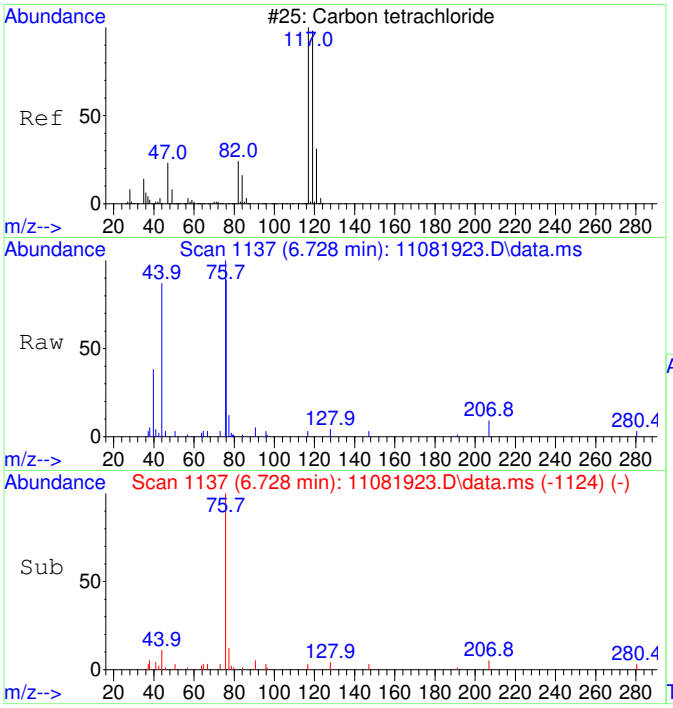


#31
1,1,1-Trichloroethane SCAN
Concen: 29.29 ug/L
RT: 6.747 min Scan# 1138
Delta R.T. 0.037 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 97 Resp: 177

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

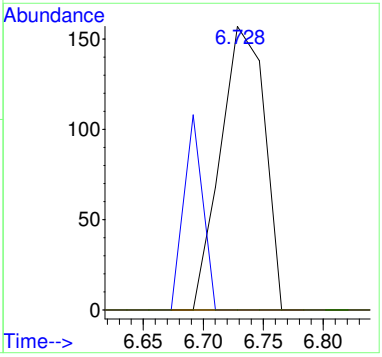


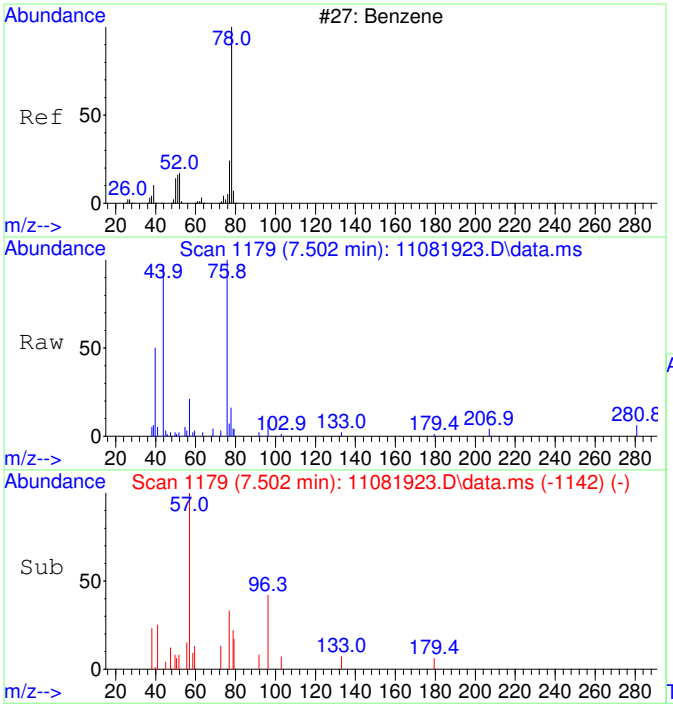


#32
Carbon tetrachloride SCAN
Concen: 70.79 ug/L
RT: 6.728 min Scan# 1137
Delta R.T. -0.258 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:117 Resp: 401

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

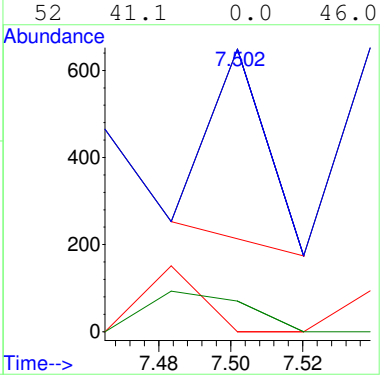


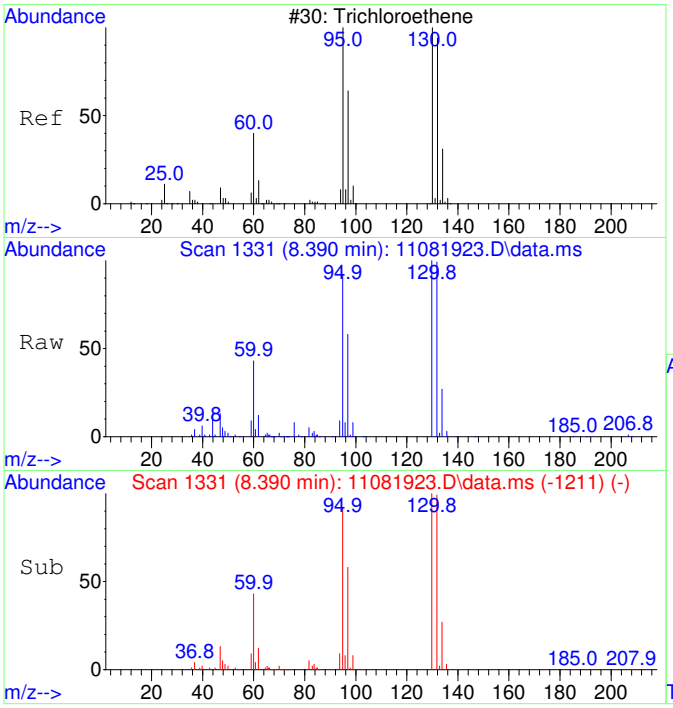


#33
Benzene SCAN
Concen: 28.84 ug/L
RT: 7.502 min Scan# 1179
Delta R.T. 0.184 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 78 Resp: 438

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	38.1	0.0	49.8
52	41.1	0.0	46.0

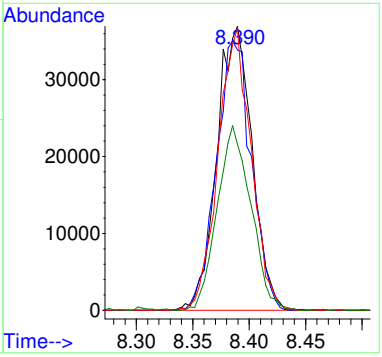


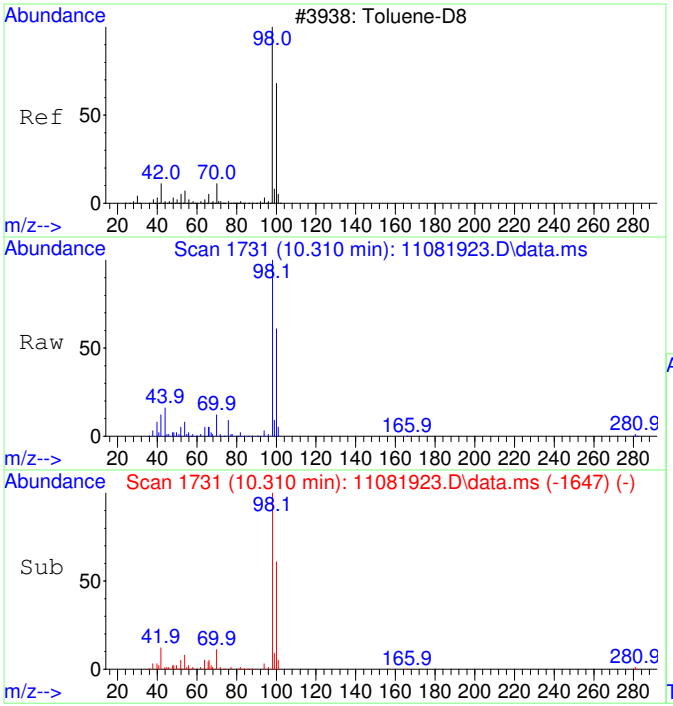


#35
Trichloroethene SCAN
Concen: 17989.62 ug/L
RT: 8.390 min Scan# 1331
Delta R.T. 0.004 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:130 Resp: 80105

Ion	Ratio	Lower	Upper
130	100		
95	94.9	69.5	129.5
132	93.3	66.5	126.5
97	62.1	32.8	92.8

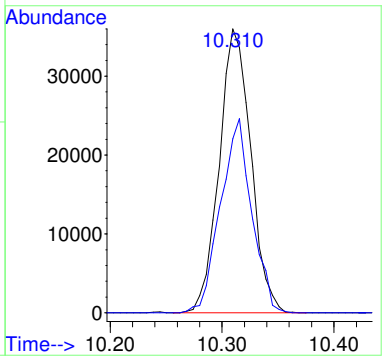


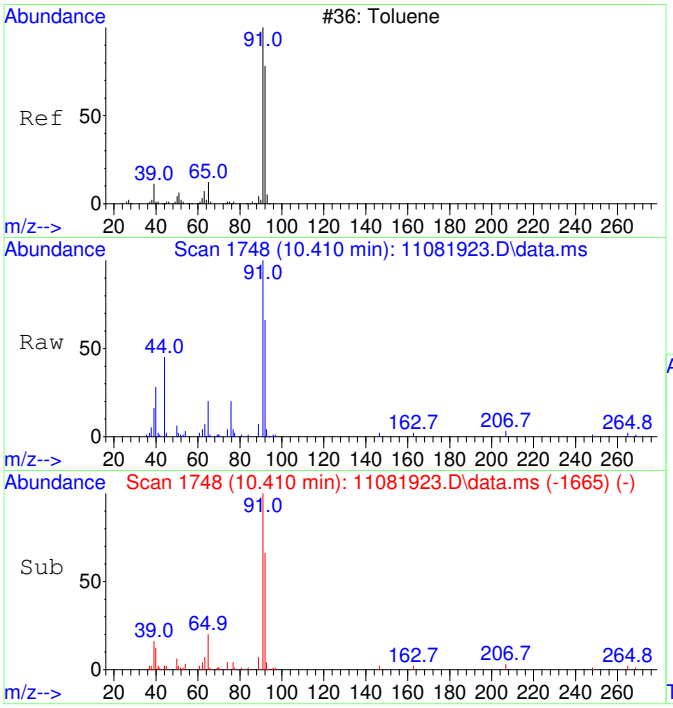


#36
Toluene-d8 SCAN
Concen: 5086.22 ug/L
RT: 10.310 min Scan# 1731
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 98 Resp: 70779

Ion	Ratio	Lower	Upper
98	100		
100	67.6	42.1	102.1

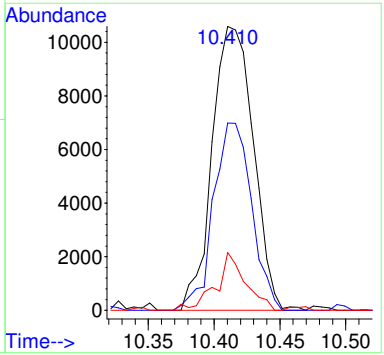


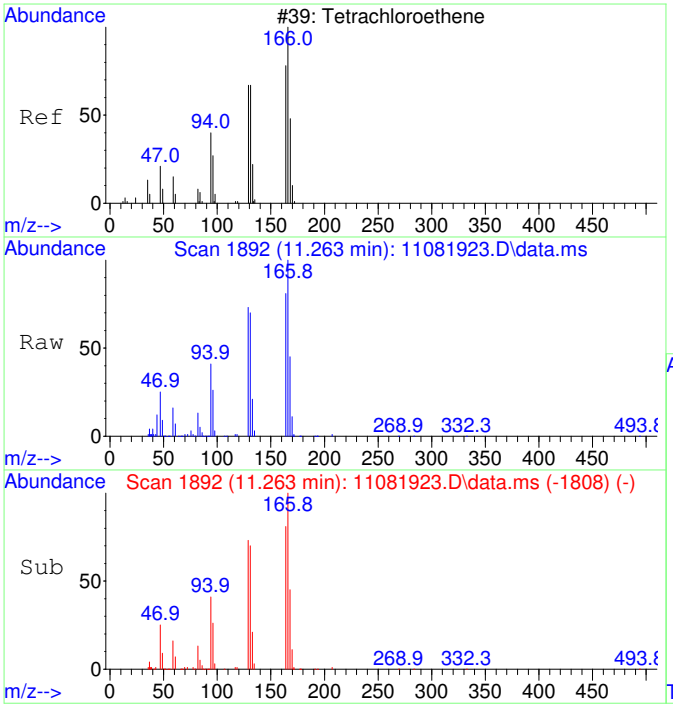


#37
Toluene SCAN
Concen: 1343.59 ug/L
RT: 10.410 min Scan# 1748
Delta R.T. -0.006 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 23053

Ion	Ratio	Lower	Upper
91	100		
92	61.0	31.9	91.9
65	14.5	0.0	41.9

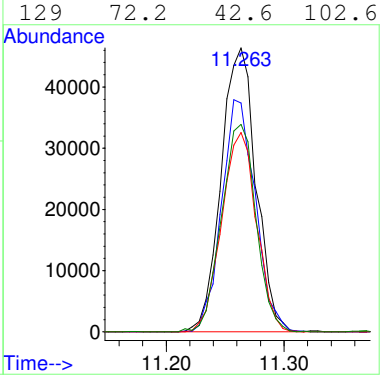


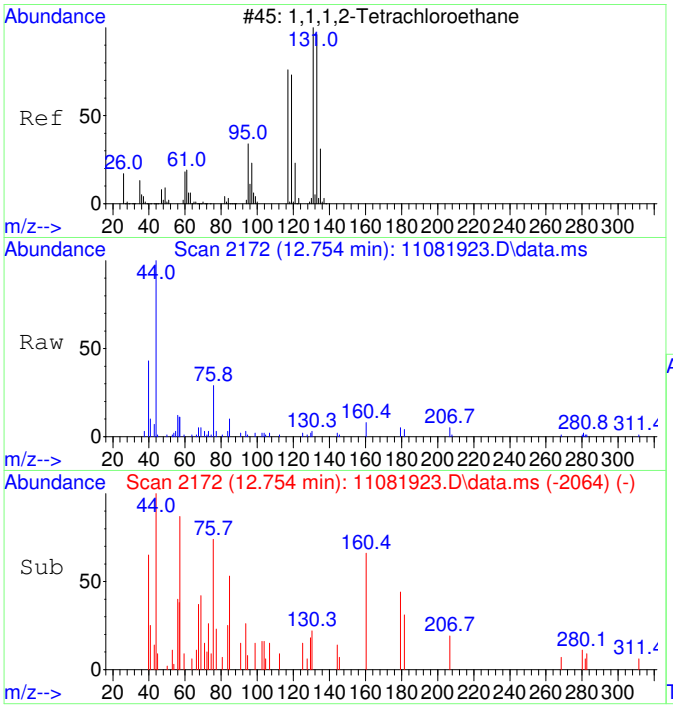


#39
Tetrachloroethene SCAN
Concen: 20959.64 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:166 Resp: 95475

Ion	Ratio	Lower	Upper
166	100		
164	79.0	50.4	110.4
131	70.2	44.0	104.0
129	72.2	42.6	102.6

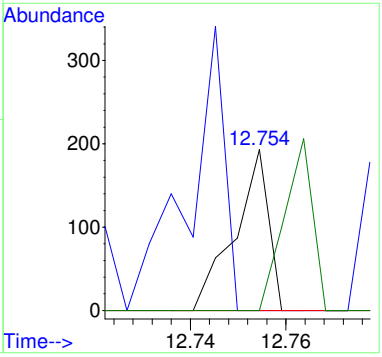


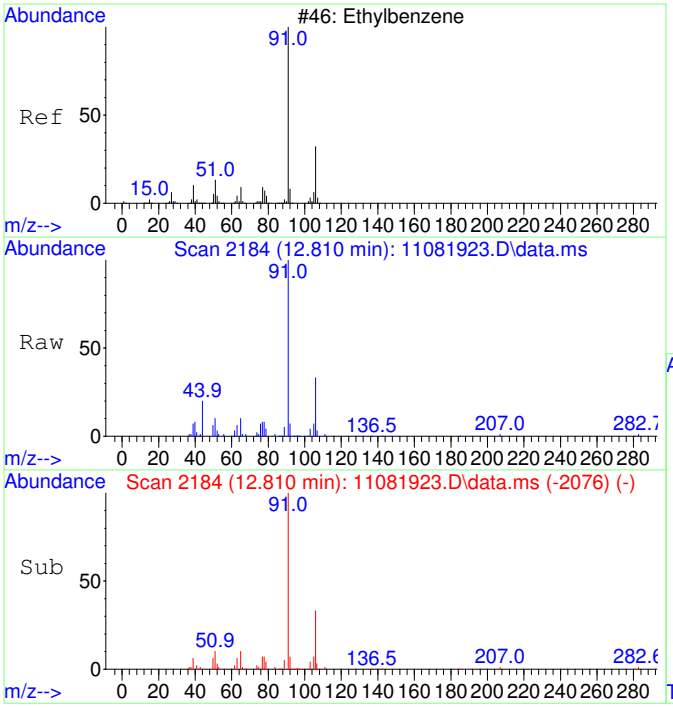


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 22.73 ug/L
RT: 12.754 min Scan# 2172
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:131 Resp: 95

Ion	Ratio	Lower	Upper
131	100		
133	189.5	67.7	127.7#
119	0.0	36.2	96.2#
117	89.5	39.0	99.0

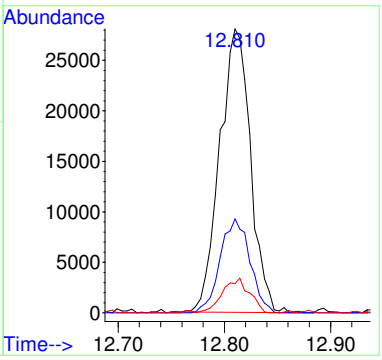


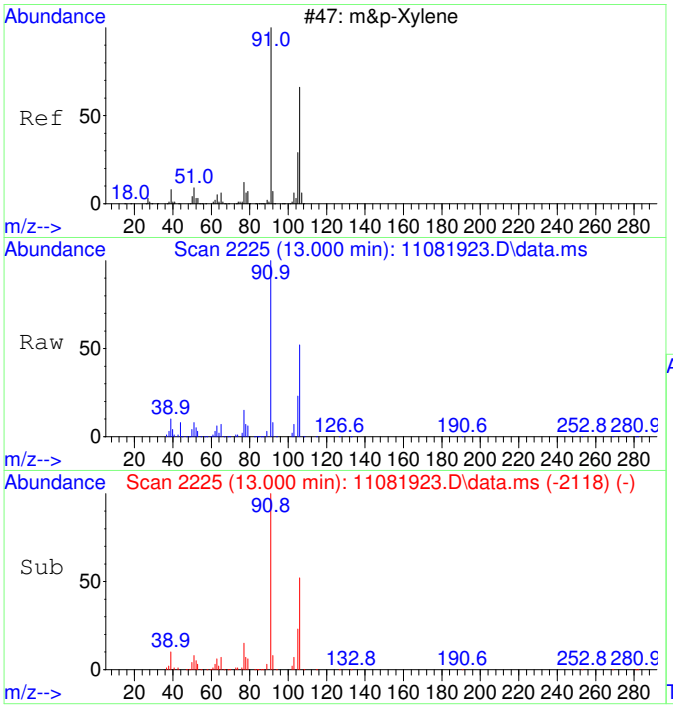


#42
Ethylbenzene SCAN
Concen: 2900.59 ug/L
RT: 12.810 min Scan# 2184
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 56640

Ion	Ratio	Lower	Upper
91	100		
106	32.1	0.1	60.1
51	10.7	0.0	40.9

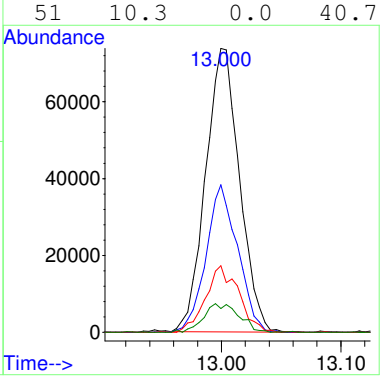


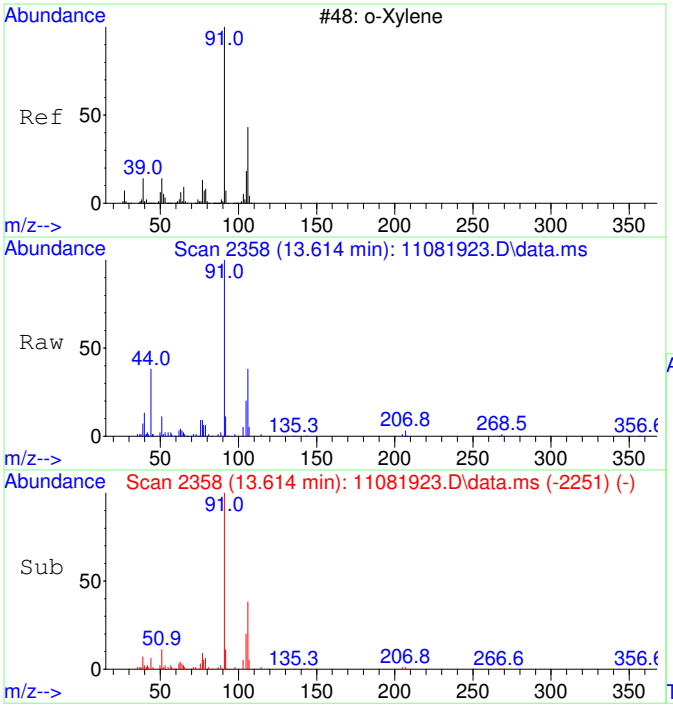


#43
m&p-Xylene SCAN
Concen: 5207.00 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 145873

Ion	Ratio	Lower	Upper
91	100		
106	48.6	21.1	81.1
105	22.9	0.0	53.6
51	10.3	0.0	40.7

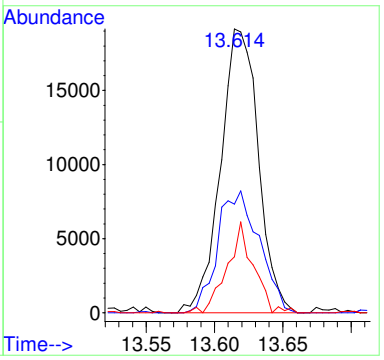


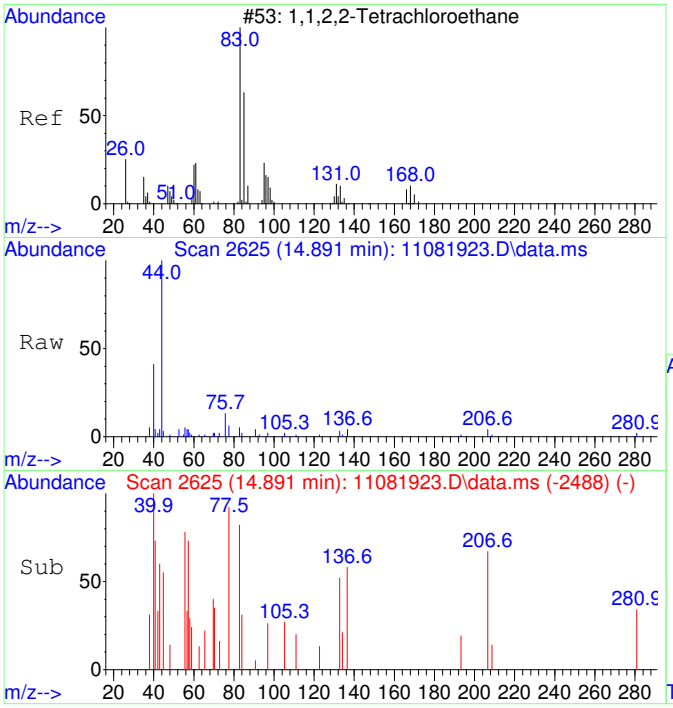


#44
o-Xylene SCAN
Concen: 2483.36 ug/L
RT: 13.614 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 91 Resp: 36997

Ion	Ratio	Lower	Upper
91	100		
106	47.2	16.7	76.7
105	22.4	0.0	57.3

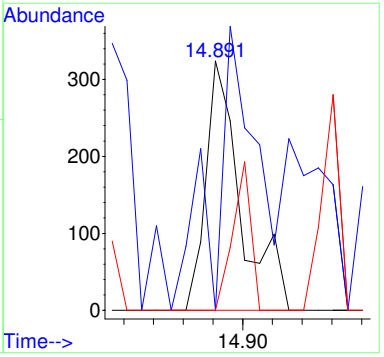


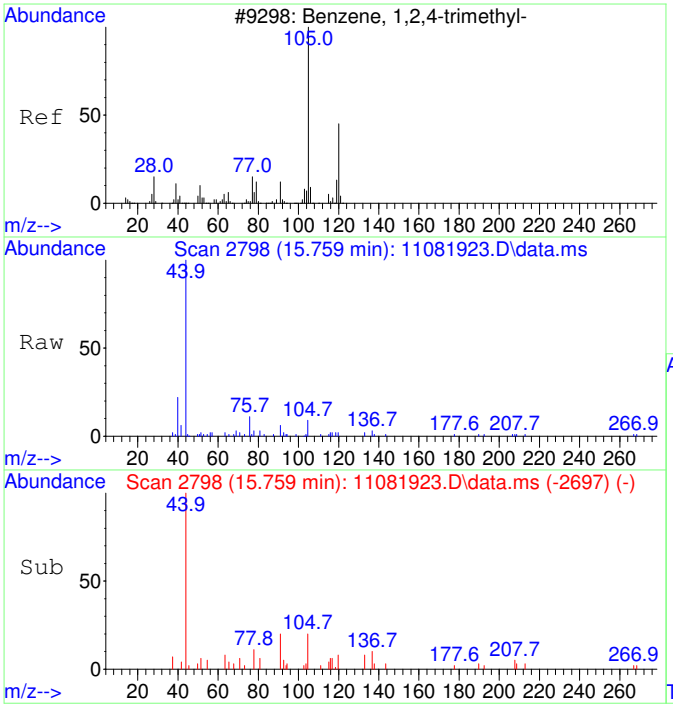


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 36.36 ug/L
RT: 14.891 min Scan# 2625
Delta R.T. 0.173 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion: 83 Resp: 263

Ion	Ratio	Lower	Upper
83	100		
85	83.3	38.3	98.3
95	31.2	0.0	44.8

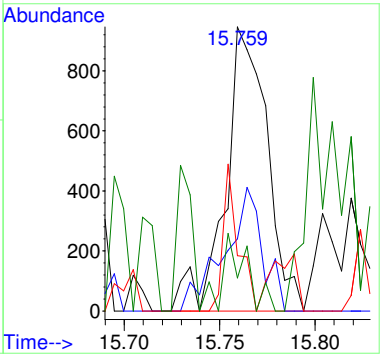




#47
1,2,4-Trimethylbenzene SCAN
Concen: 96.37 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11081923.D
Acq: 8 Nov 2019 19:00

Tgt Ion:105 Resp: 1438

Ion	Ratio	Lower	Upper
105	100		
120	40.0	18.6	78.6
119	18.8	0.0	42.1
77	14.0	0.0	42.9



1910069-03

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081924.D
Acq On : 8 Nov 2019 19:23
InstName : AG5975C
Operator : TD
Sample : 1910069-03
Misc : 450-50
ALS Vial : 22 Sample Multiplier: 10

REPORT

Quant Time: Nov 11 06:20:32 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

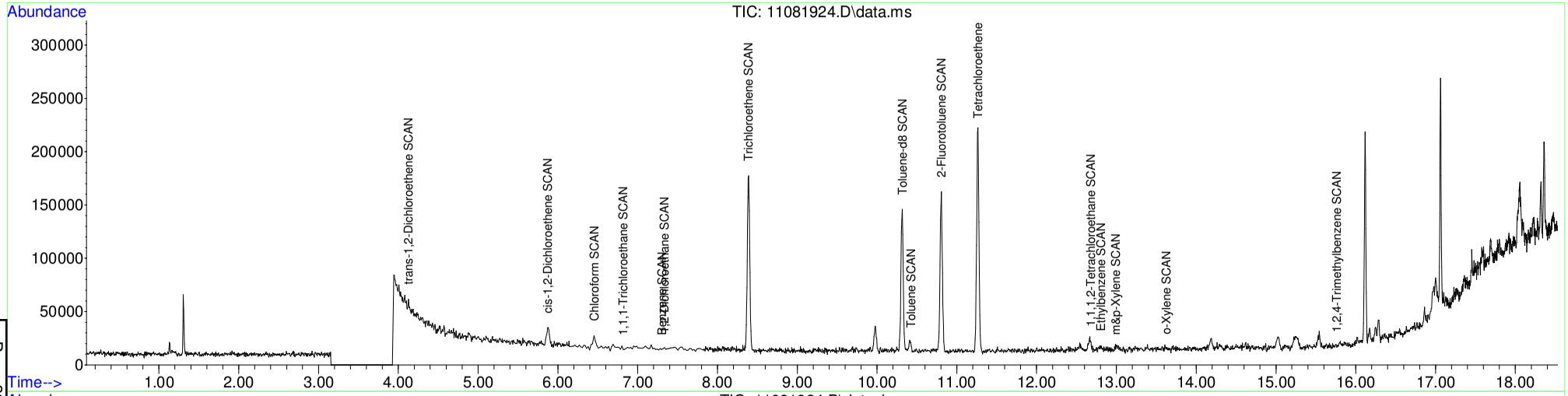
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	200139	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	161261	4986.10 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.72%		
Target Compounds					Qvalue
3] trans-1,2-Dichloroethene	4.122	61	1636	172.32 ug/L	96
5] cis-1,2-Dichloroethene	5.874	61	18271	1646.95 ug/L	100
6] Chloroform	6.454	83	14096	1107.58 ug/L	100
11] Trichloroethene	8.391	130	101020	10564.99 ug/L	99
13] Toluene	10.412	91	12359	315.25 ug/L	100
15] Tetrachloroethene	11.265	166	120505	10573.42 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.664	131	442	42.20 ug/L #	1
18] Ethylbenzene	12.807	91	1316	27.63 ug/L	99
19] m&p-Xylene	13.001	91	3760	104.25 ug/L	96
20] o-Xylene	13.616	91	1228	31.90 ug/L	97
25) 2-Fluorotoluene SCAN	10.807	109	125832	5046.96 ug/L	95
27) trans-1,2-Dichloroethe...	4.128	61	1049	131.00 ug/L	84
29) cis-1,2-Dichloroethene...	5.873	61	13677	1510.26 ug/L	93
30) Chloroform SCAN	6.452	83	8389	831.57 ug/L	80
31) 1,1,1-Trichloroethane ...	6.821	97	244	27.71 ug/L #	21
33) Benzene SCAN	7.300	78	610	27.56 ug/L #	82
34) 1,2-Dichloroethane SCAN	7.336	62	220	26.65 ug/L #	1
35) Trichloroethene SCAN	8.390	130	64830	9992.04 ug/L	97
36) Toluene-d8 SCAN	10.316	98	102001	5030.50 ug/L	94
37) Toluene SCAN	10.422	91	9204	368.16 ug/L	93
39) Tetrachloroethene SCAN	11.258	166	73514	11075.93 ug/L	96
41) 1,1,1,2-Tetrachloroeth...	12.676	131	156	25.62 ug/L #	71
42) Ethylbenzene SCAN	12.806	91	923	32.44 ug/L	95
43) m&p-Xylene SCAN	12.990	91	3165	77.54 ug/L #	54
44) o-Xylene SCAN	13.629	91	640	29.48 ug/L	75
47) 1,2,4-Trimethylbenzene...	15.760	105	496	22.81 ug/L #	53

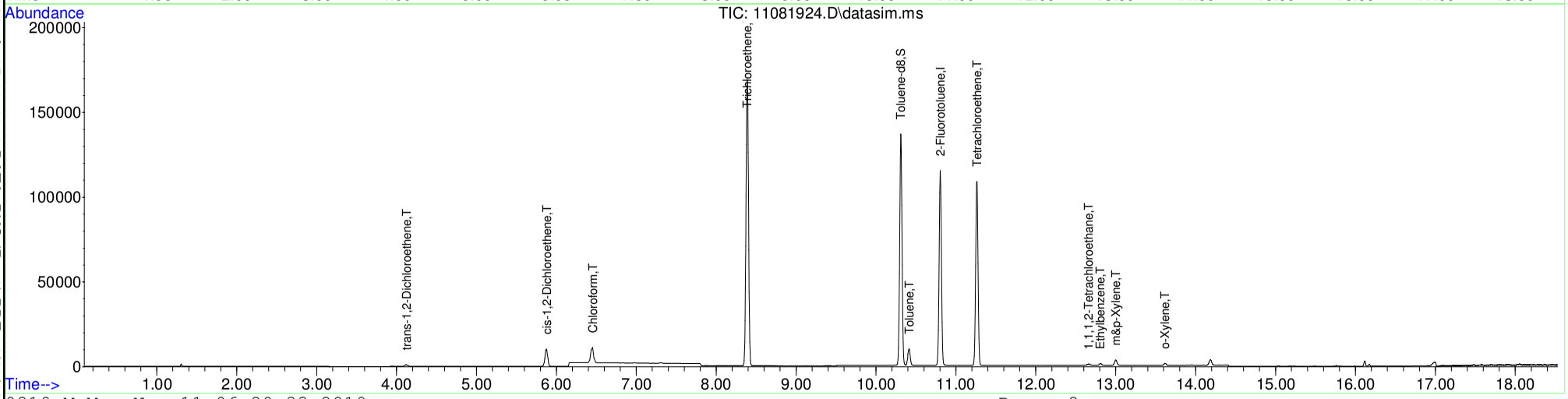
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081924.D
Acq On : 8 Nov 2019 19:23
InstName : AG5975C
Operator : TD
Sample : 1910069-03
Misc : 450-50
ALS Vial : 22 Sample Multiplier: 10

Quant Time: Nov 11 06:20:32 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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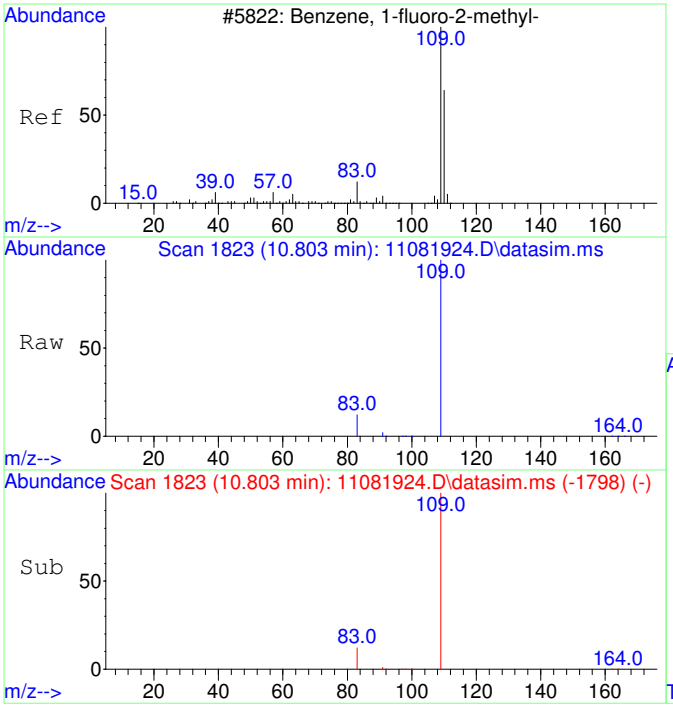
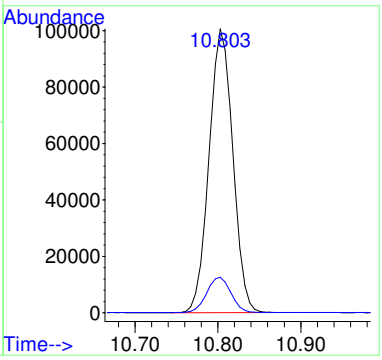
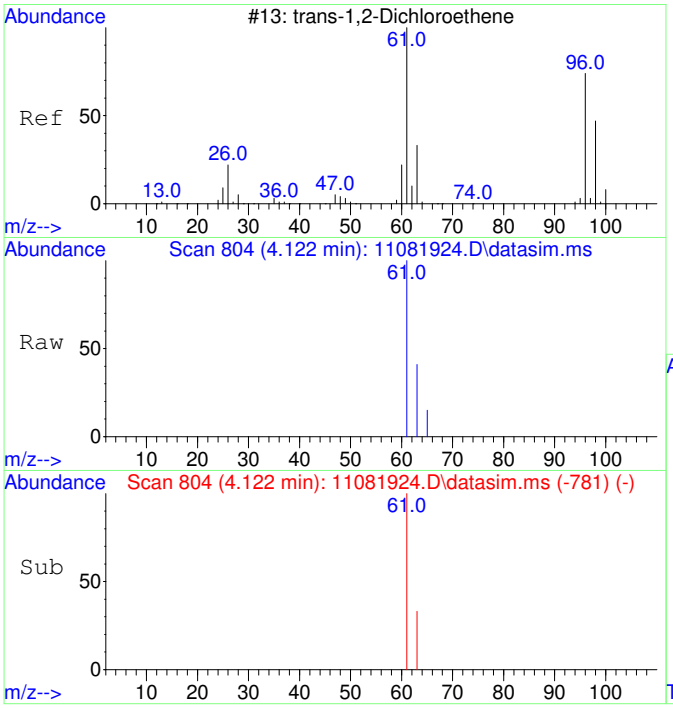


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:109 Resp: 200139

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

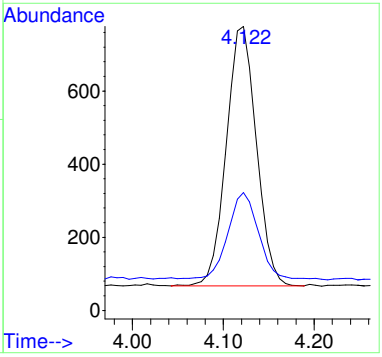


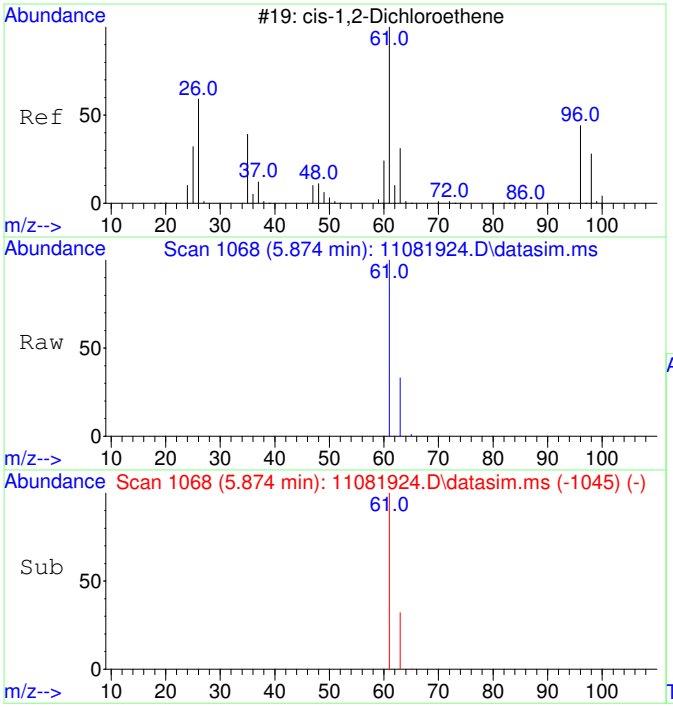


#3
trans-1,2-Dichloroethene
Concen: 172.32 ug/L
RT: 4.122 min Scan# 804
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 61 Resp: 1636

Ion	Ratio	Lower	Upper
61	100		
63	34.7	2.3	62.3

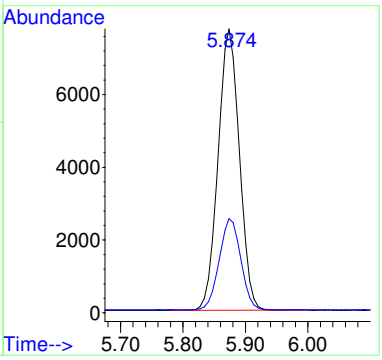


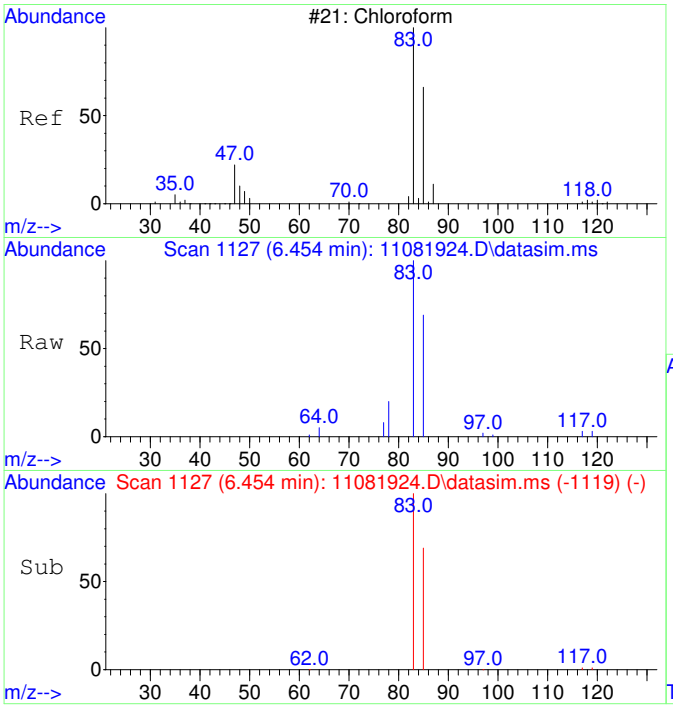


#5
cis-1,2-Dichloroethene
Concen: 1646.95 ug/L
RT: 5.874 min Scan# 1068
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 61 Resp: 18271

Ion	Ratio	Lower	Upper
61	100		
63	32.7	2.4	62.4

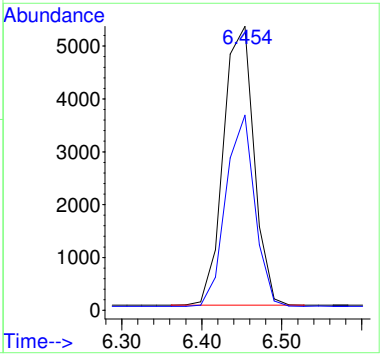


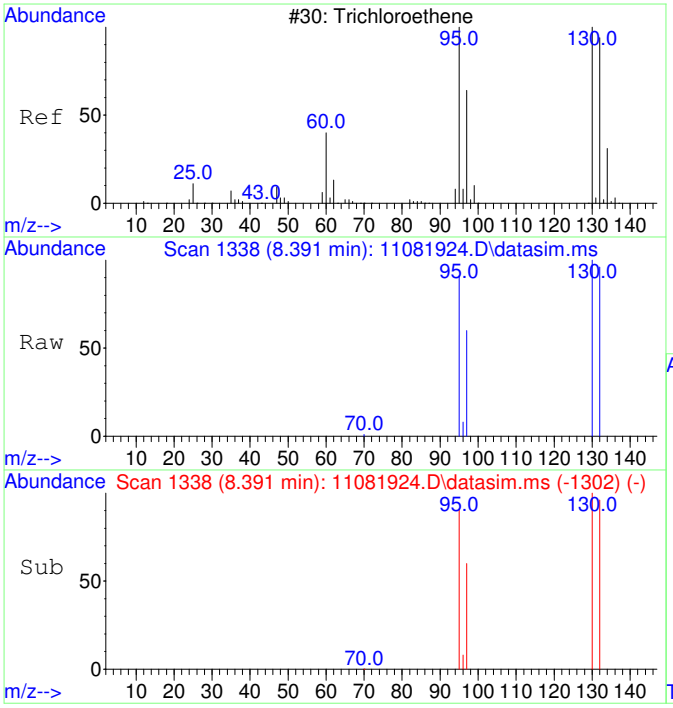


#6
Chloroform
Concen: 1107.58 ug/L
RT: 6.454 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 83 Resp: 14096

Ion	Ratio	Lower	Upper
83	100		
85	64.9	35.2	95.2

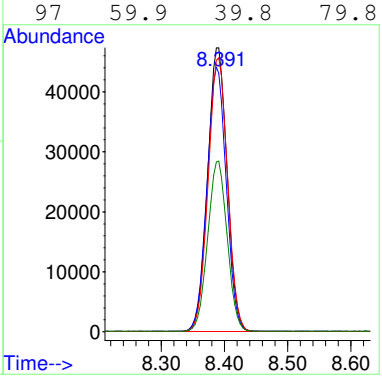


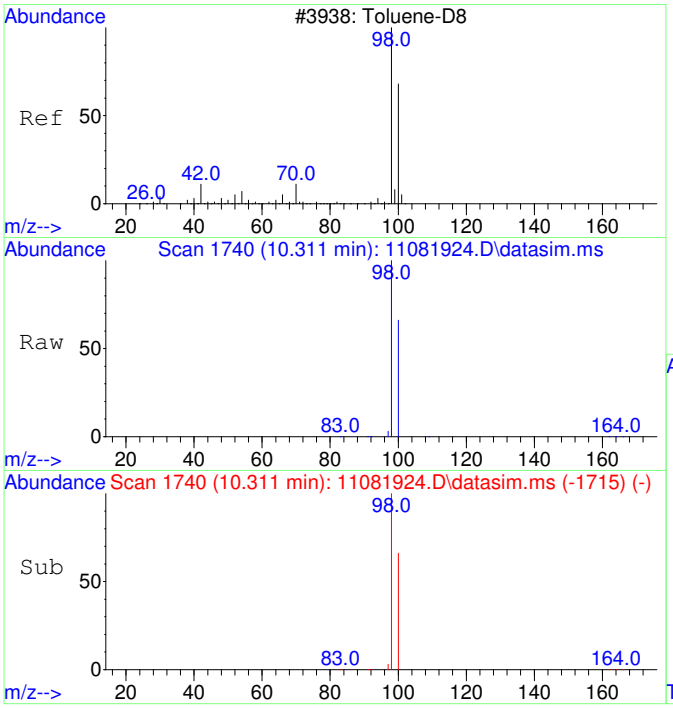


#11
Trichloroethene
Concen: 10564.99 ug/L
RT: 8.391 min Scan# 1338
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:130 Resp: 101020

Ion	Ratio	Lower	Upper
130	100		
95	92.5	63.4	123.4
132	96.4	76.0	116.0
97	59.9	39.8	79.8

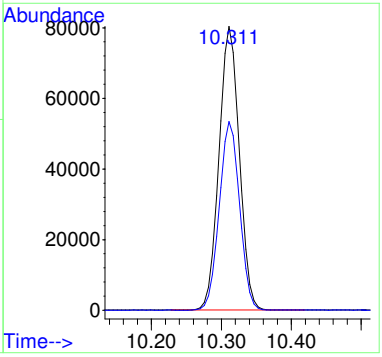


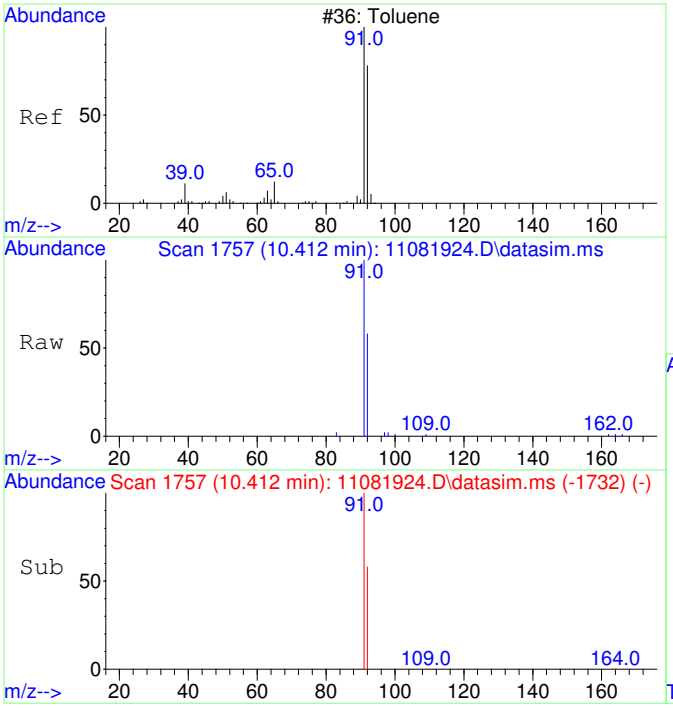


#12
Toluene-d8
Concen: 4986.10 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 98 Resp: 161261

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

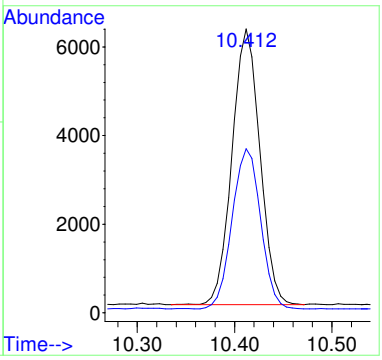


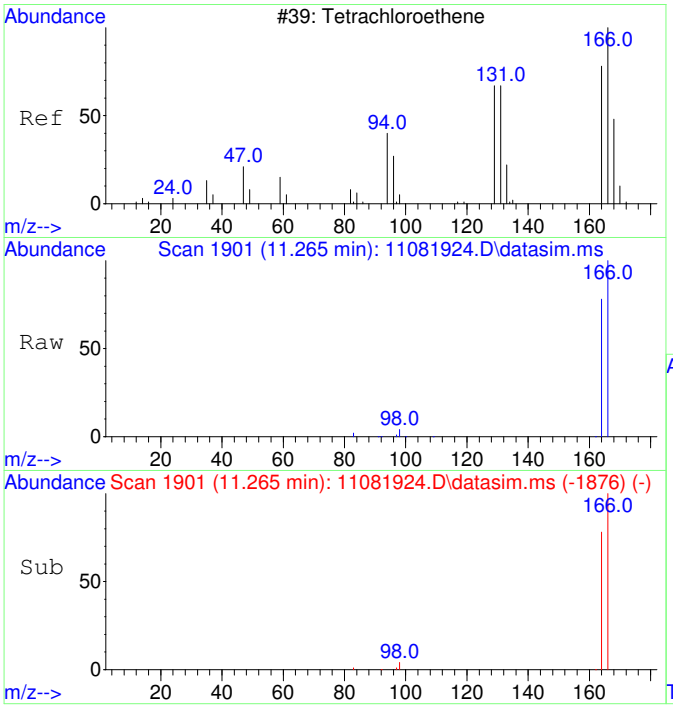


#13
Toluene
Concen: 315.25 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 12359

Ion	Ratio	Lower	Upper
91	100		
92	59.5	29.4	89.4

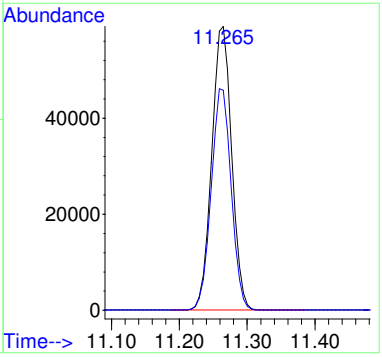


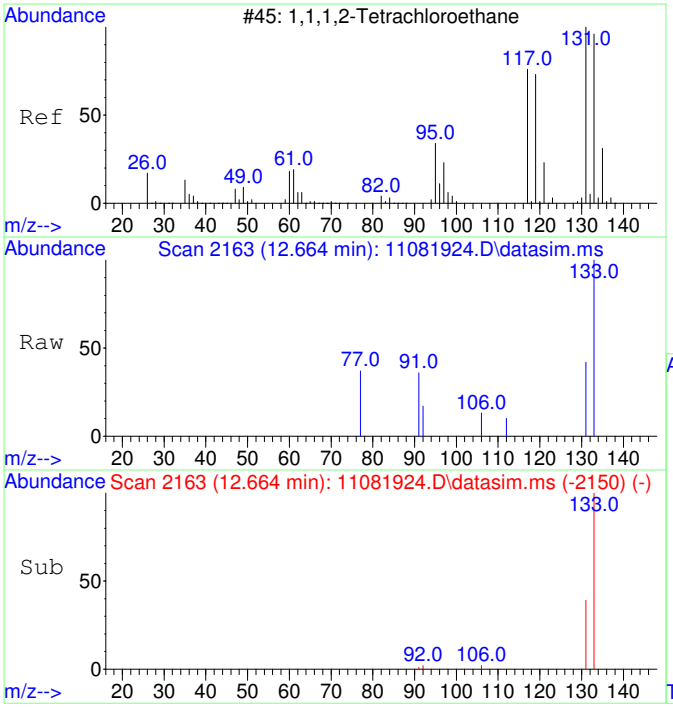


#15
Tetrachloroethene
Concen: 10573.42 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:166 Resp: 120505

Ion	Ratio	Lower	Upper
166	100		
164	78.1	47.7	107.7

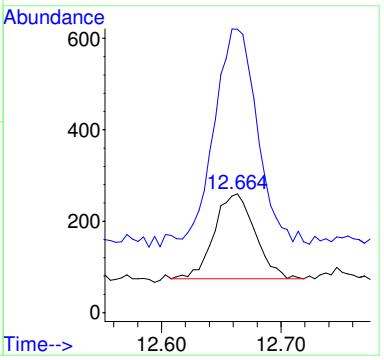


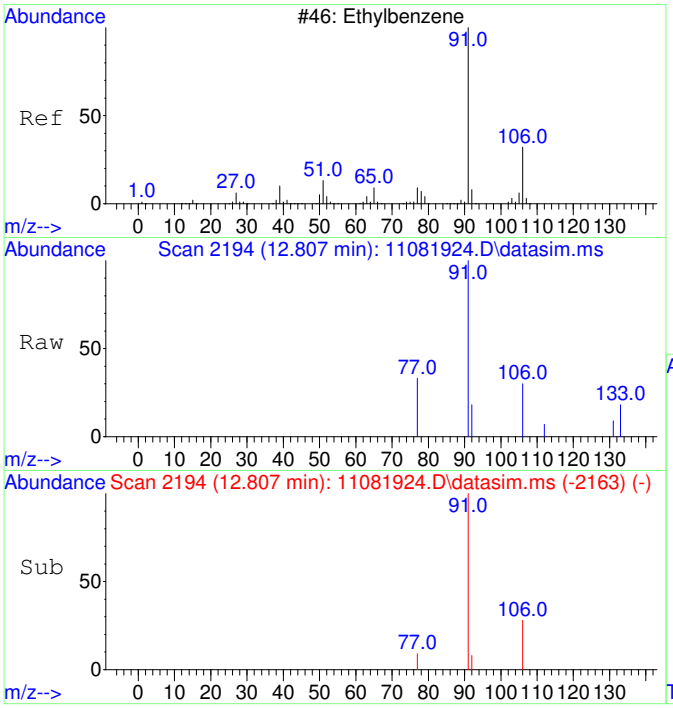


#17
1,1,1,2-Tetrachloroethane
Concen: 42.20 ug/L
RT: 12.664 min Scan# 2163
Delta R.T. -0.088 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:131 Resp: 442

Ion	Ratio	Lower	Upper
131	100		
133	265.4	65.1	125.1#

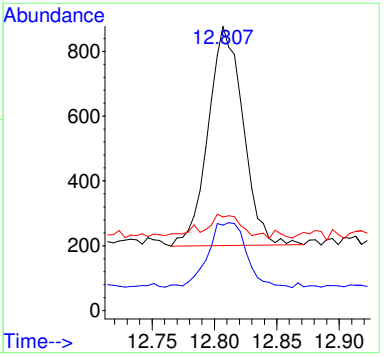


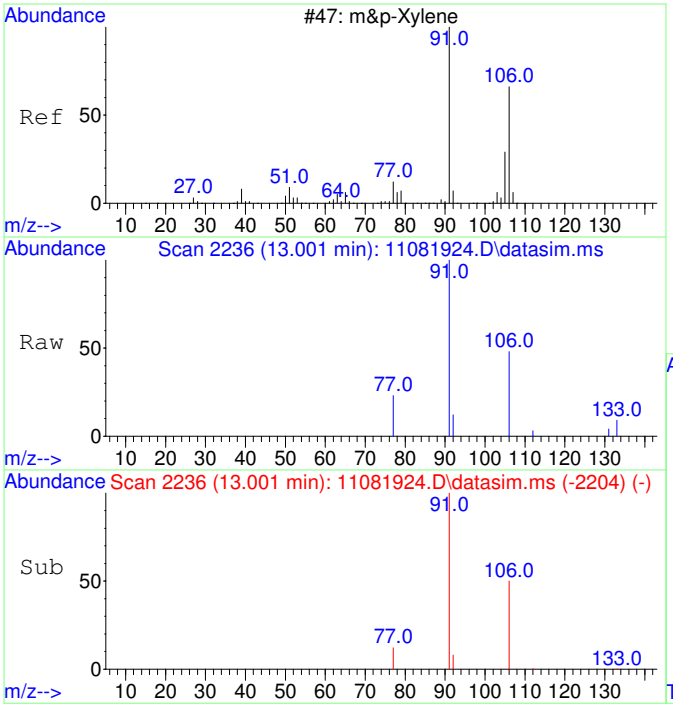


#18
Ethylbenzene
Concen: 27.63 ug/L
RT: 12.807 min Scan# 2194
Delta R.T. -0.005 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 1316

Ion	Ratio	Lower	Upper
91	100		
106	32.8	2.5	62.5
77	7.0	0.0	38.4

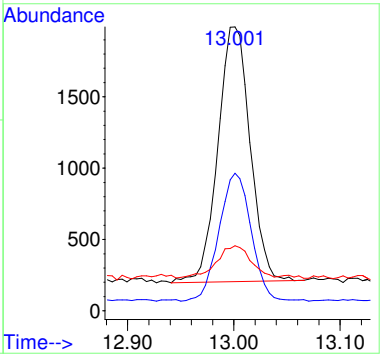


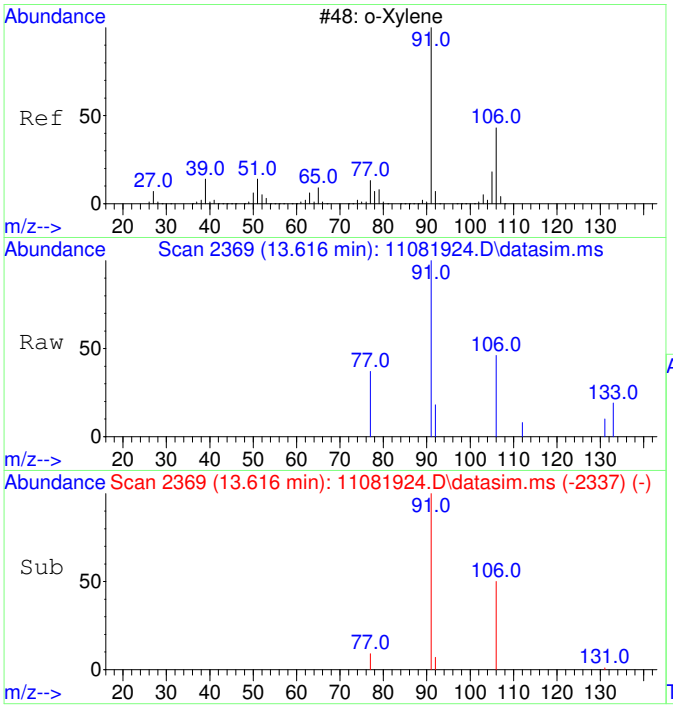


#19
m&p-Xylene
Concen: 104.25 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 3760

Ion	Ratio	Lower	Upper
91	100		
106	49.3	21.2	81.2
77	15.5	0.0	42.7

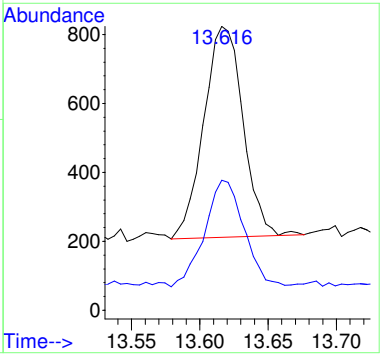


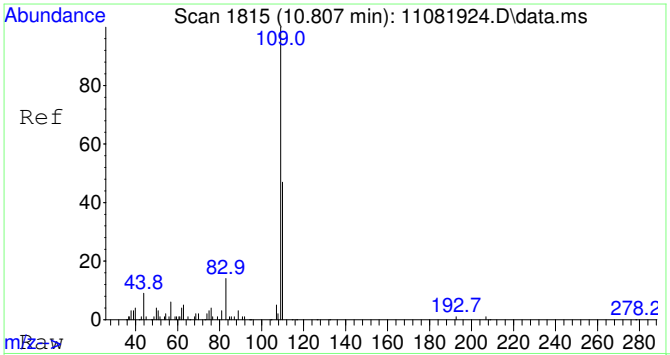


#20
o-Xylene
Concen: 31.90 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 1228

Ion	Ratio	Lower	Upper
91	100		
106	50.7	18.3	78.3

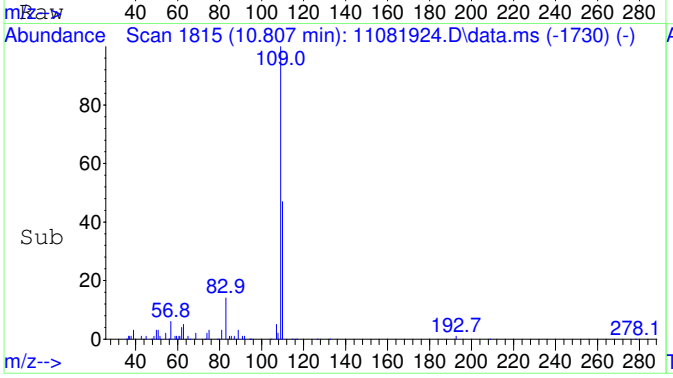


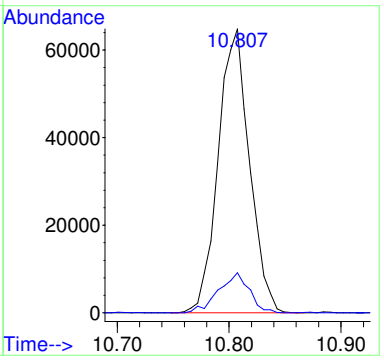


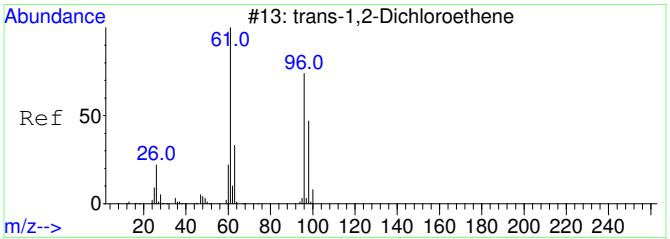
#25
2-Fluorotoluene SCAN
Concen: 5046.96 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:109 Resp: 125832

Ion	Ratio	Lower	Upper
109	100		
83	13.8	0.0	45.8



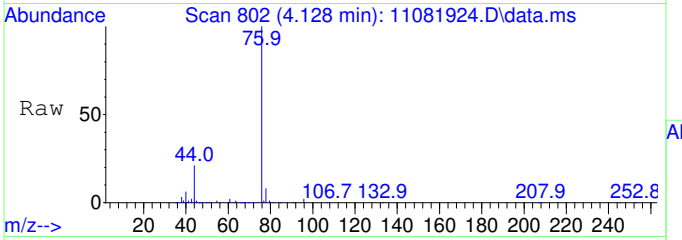


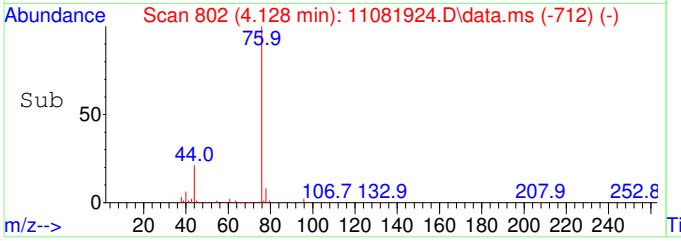


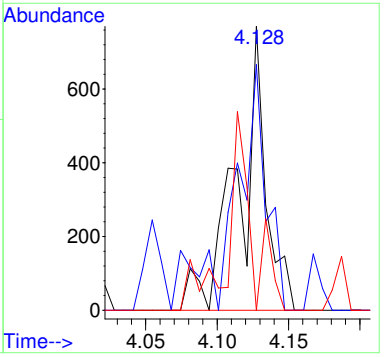
#27
trans-1,2-Dichloroethene SCAN
Concen: 131.00 ug/L
RT: 4.128 min Scan# 802
Delta R.T. 0.007 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

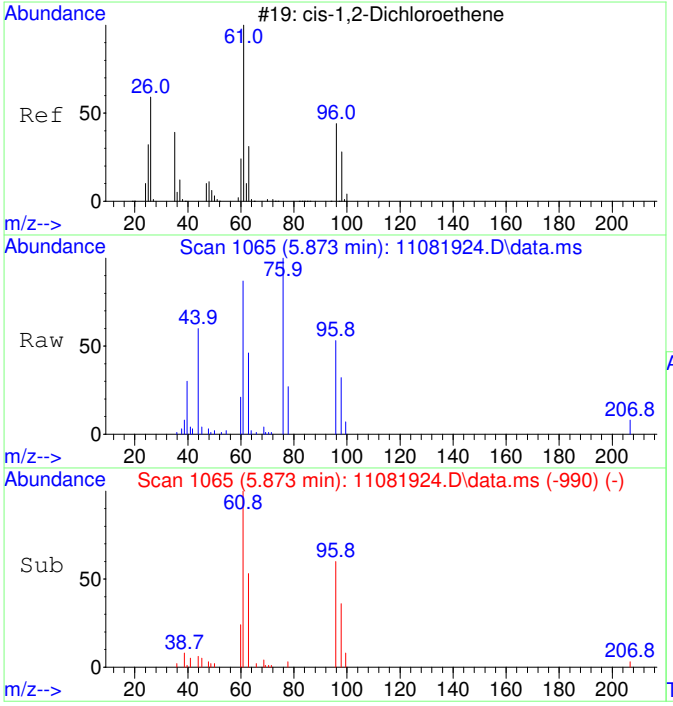
Tgt Ion: 61 Resp: 1049

Ion	Ratio	Lower	Upper
61	100		
96	81.6	46.5	106.5
98	30.8	22.8	82.8





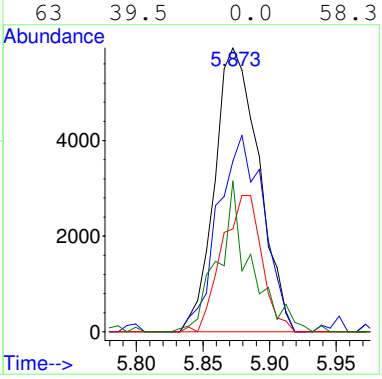


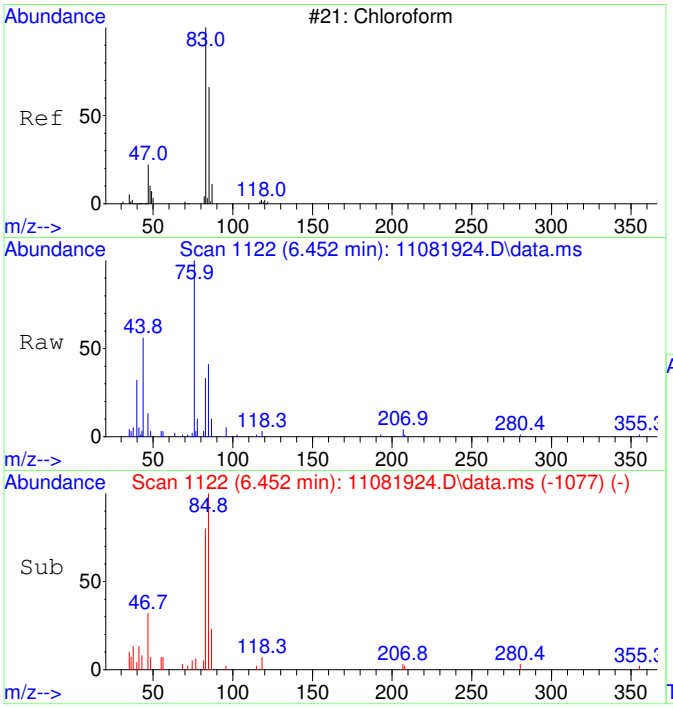


#29
cis-1,2-Dichloroethene SCAN
Concen: 1510.26 ug/L
RT: 5.873 min Scan# 1065
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 61 Resp: 13677

Ion	Ratio	Lower	Upper
61	100		
96	72.0	41.9	101.9
98	43.3	20.3	80.3
63	39.5	0.0	58.3

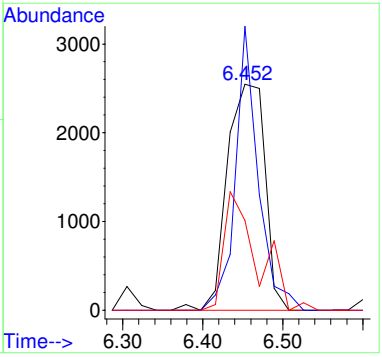


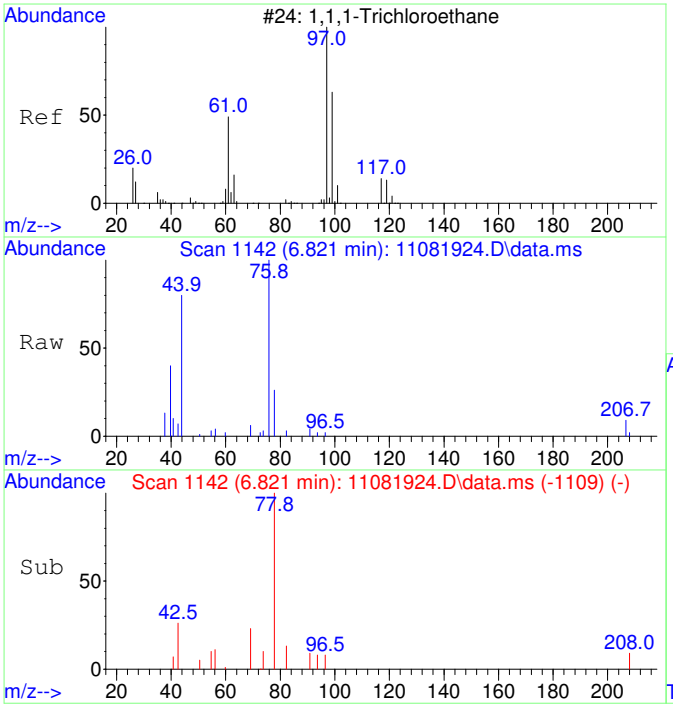


#30
Chloroform SCAN
Concen: 831.57 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 83 Resp: 8389

Ion	Ratio	Lower	Upper
83	100		
85	75.9	38.3	98.3
47	46.8	0.0	50.2

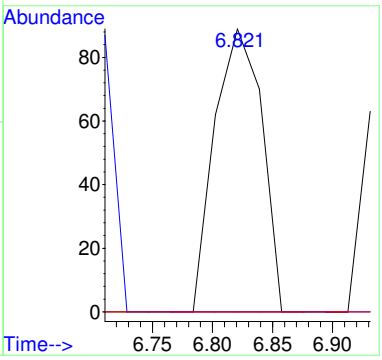


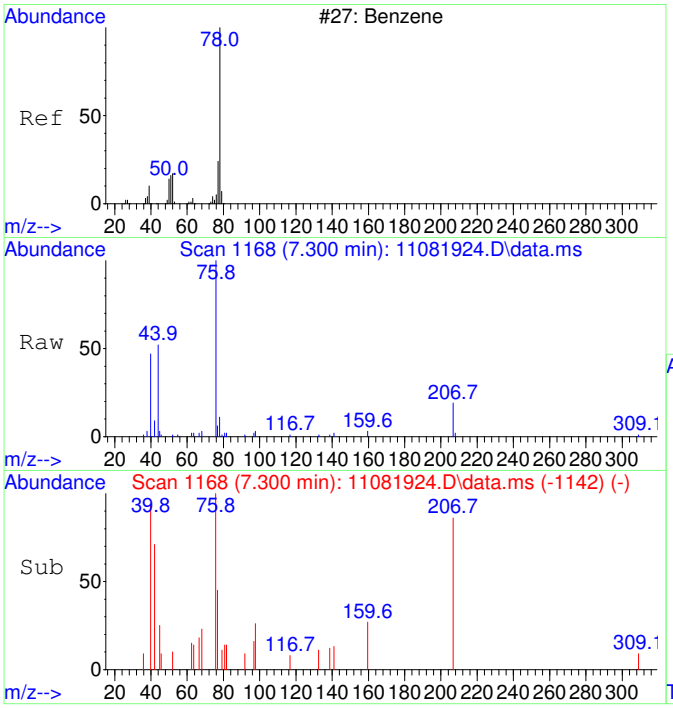


#31
1,1,1-Trichloroethane SCAN
Concen: 27.71 ug/L
RT: 6.821 min Scan# 1142
Delta R.T. 0.111 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 97 Resp: 244

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

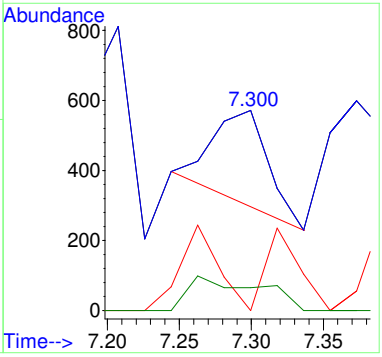


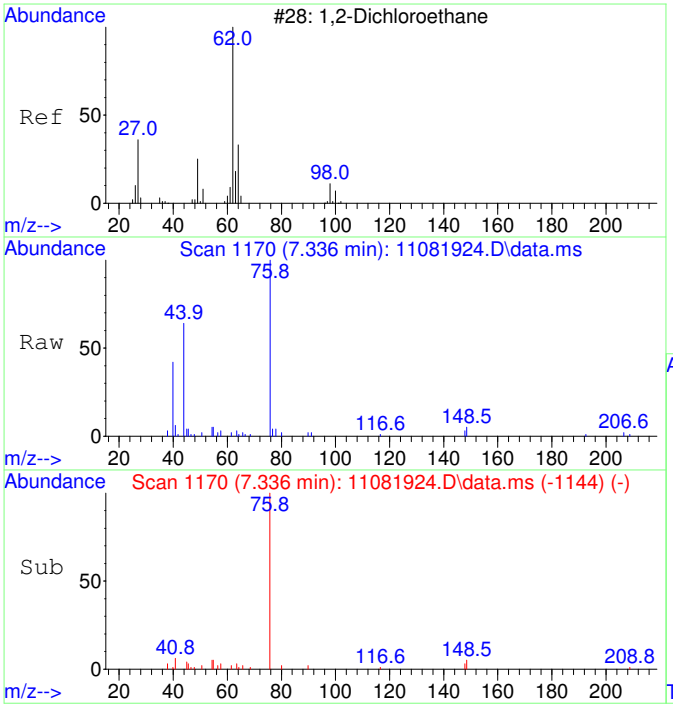


#33
Benzene SCAN
Concen: 27.56 ug/L
RT: 7.300 min Scan# 1168
Delta R.T. -0.018 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 78 Resp: 610

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	61.3	0.0	49.8#
52	0.0	0.0	46.0

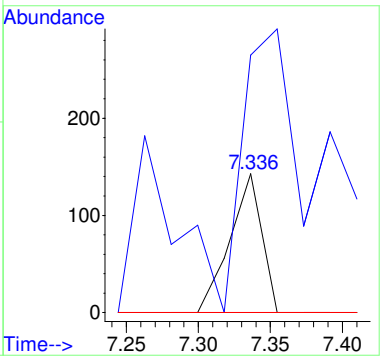


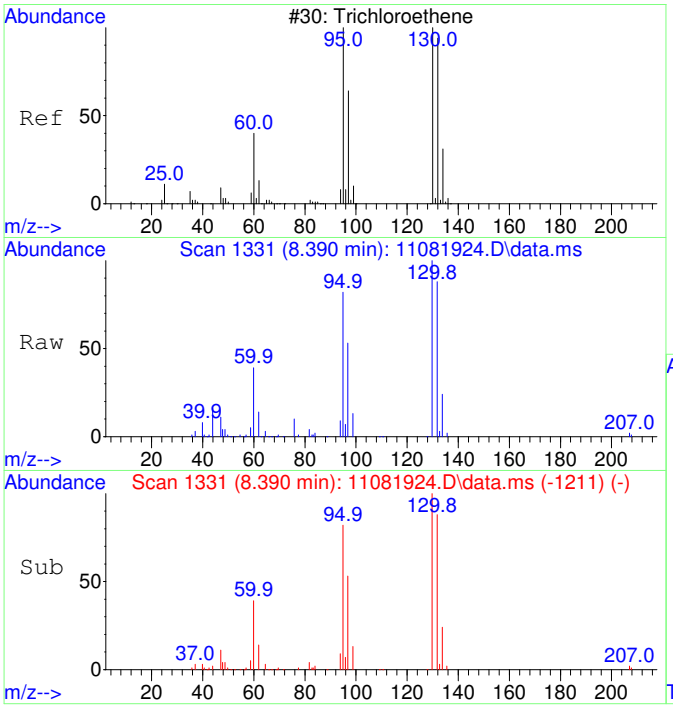


#34
1,2-Dichloroethane SCAN
Concen: 26.65 ug/L
RT: 7.336 min Scan# 1170
Delta R.T. -0.018 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 62 Resp: 220

Ion	Ratio	Lower	Upper
62	100		
64	650.0	0.0	59.2#
49	0.0	10.5	70.5#

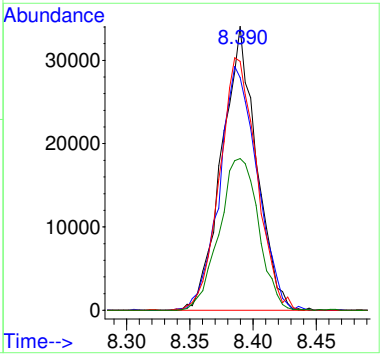


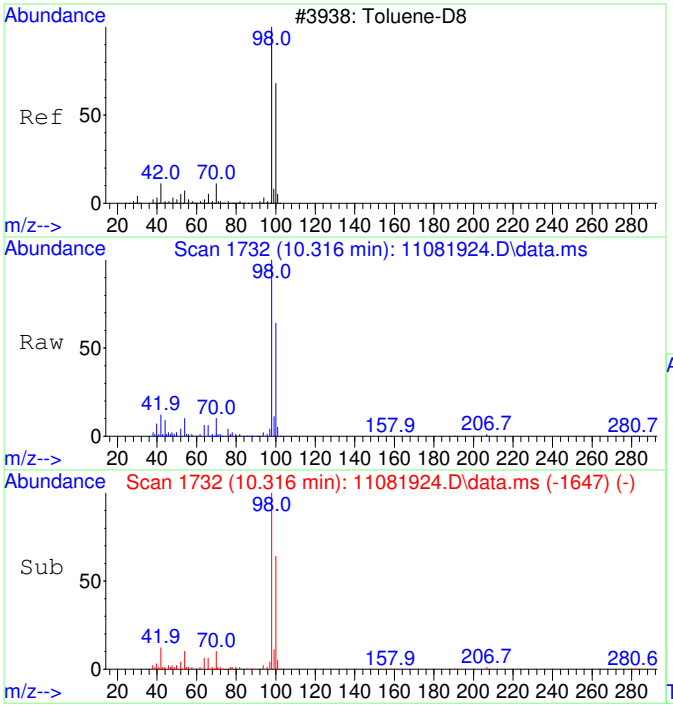


#35
Trichloroethene SCAN
Concen: 9992.04 ug/L
RT: 8.390 min Scan# 1331
Delta R.T. 0.004 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:130 Resp: 64830

Ion	Ratio	Lower	Upper
130	100		
95	93.9	69.5	129.5
132	95.1	66.5	126.5
97	60.8	32.8	92.8

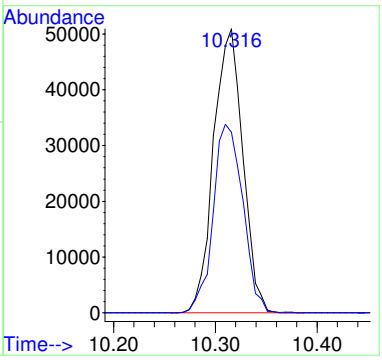


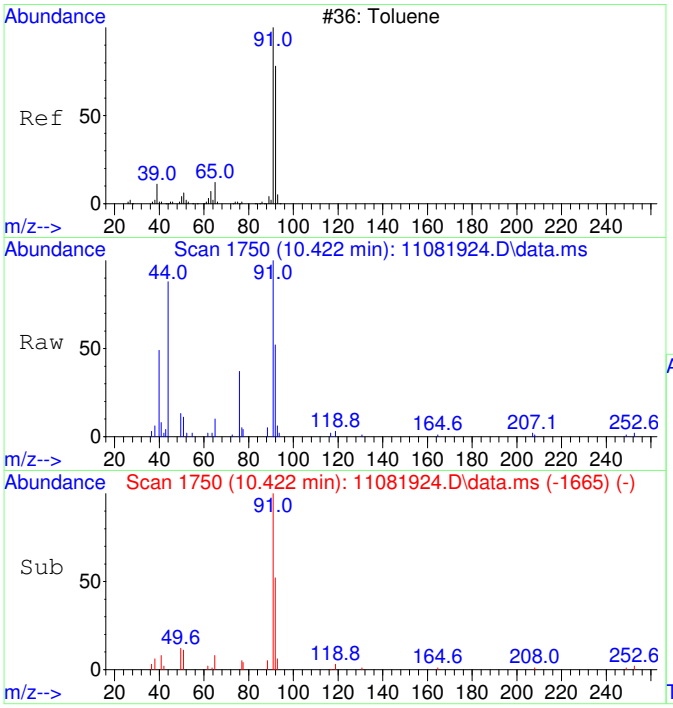


#36
Toluene-d8 SCAN
Concen: 5030.50 ug/L
RT: 10.316 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 98 Resp: 102001

Ion	Ratio	Lower	Upper
98	100		
100	67.3	42.1	102.1

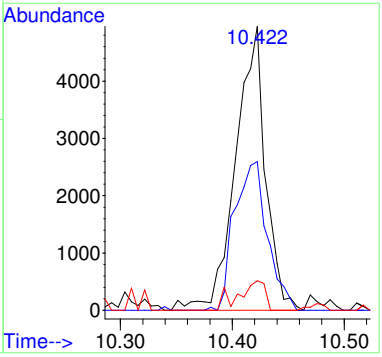


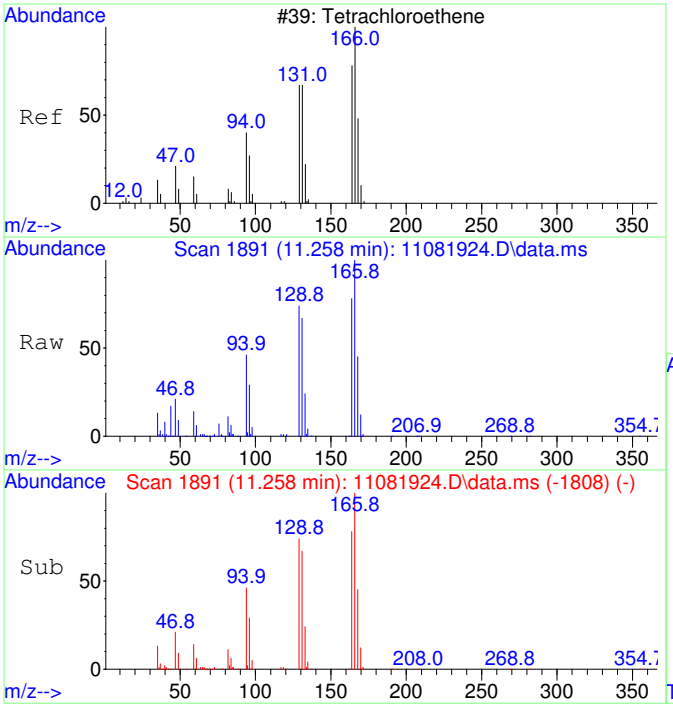


#37
Toluene SCAN
Concen: 368.16 ug/L
RT: 10.422 min Scan# 1750
Delta R.T. 0.006 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 9204

Ion	Ratio	Lower	Upper
91	100		
92	57.5	31.9	91.9
65	6.7	0.0	41.9

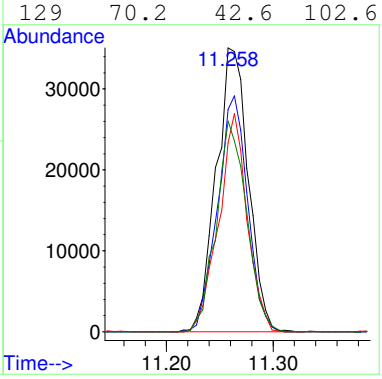


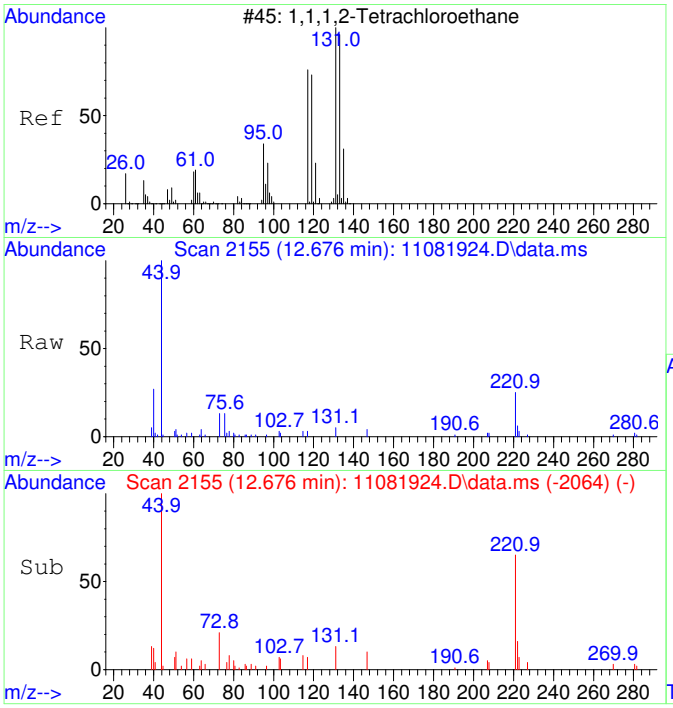


#39
Tetrachloroethene SCAN
Concen: 11075.93 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:166 Resp: 73514

Ion	Ratio	Lower	Upper
166	100		
164	78.3	50.4	110.4
131	68.2	44.0	104.0
129	70.2	42.6	102.6

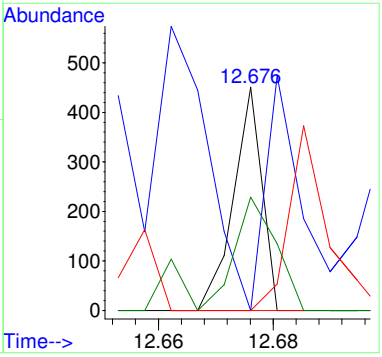


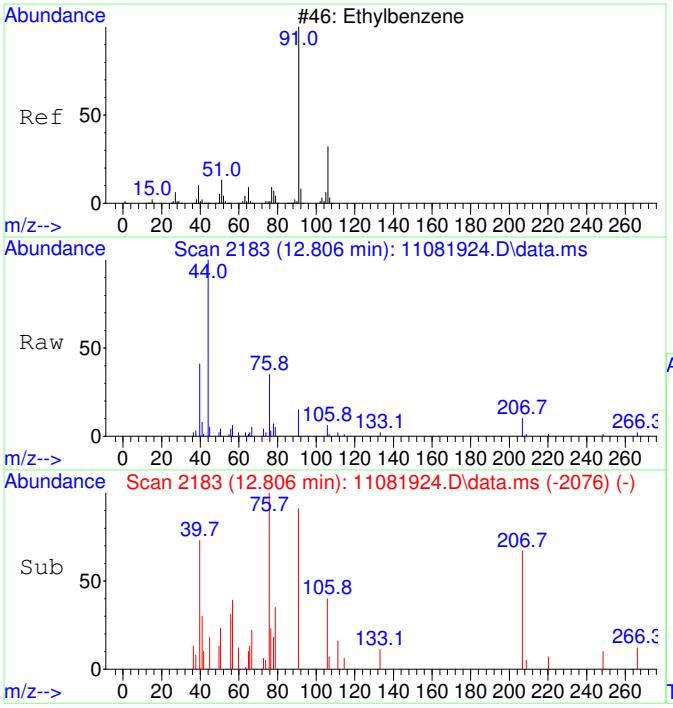


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 25.62 ug/L
RT: 12.676 min Scan# 2155
Delta R.T. -0.079 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:131 Resp: 156

Ion	Ratio	Lower	Upper
131	100		
133	110.3	67.7	127.7
119	109.6	36.2	96.2#
117	92.3	39.0	99.0

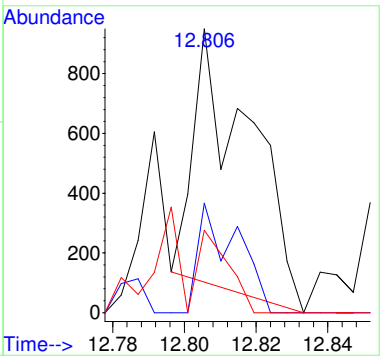


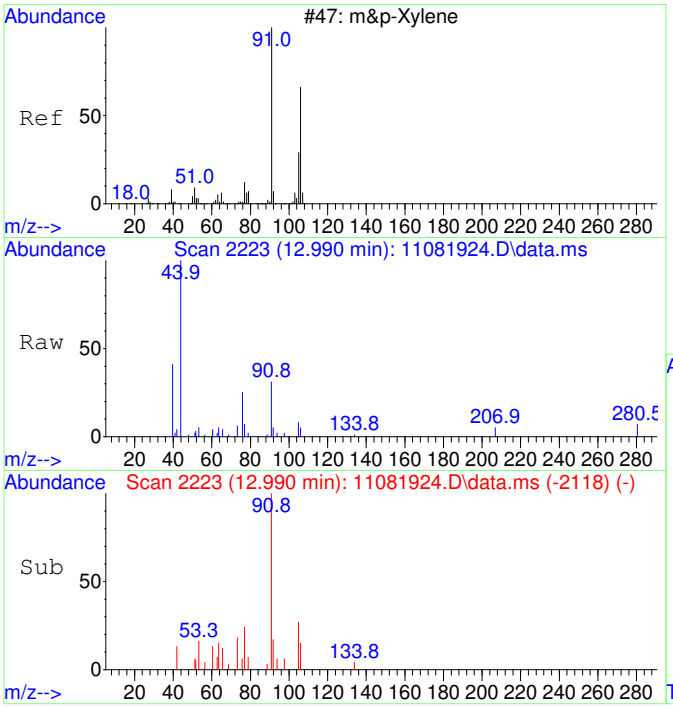


#42
Ethylbenzene SCAN
Concen: 32.44 ug/L
RT: 12.806 min Scan# 2183
Delta R.T. -0.005 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 923

Ion	Ratio	Lower	Upper
91	100		
106	29.8	0.1	60.1
51	17.9	0.0	40.9

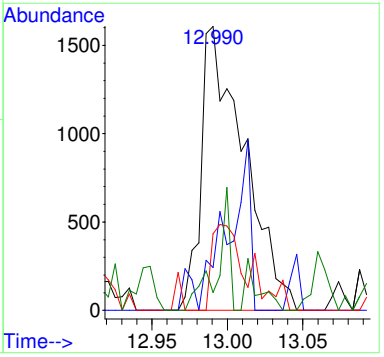


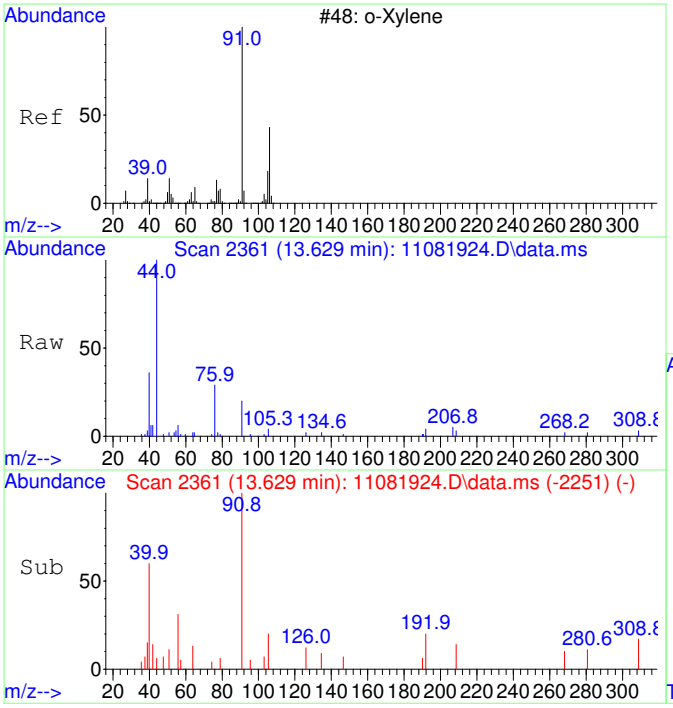


#43
m&p-Xylene SCAN
Concen: 77.54 ug/L
RT: 12.990 min Scan# 2223
Delta R.T. -0.014 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 3165

Ion	Ratio	Lower	Upper
91	100		
106	0.0	21.1	81.1#
105	25.5	0.0	53.6
51	12.7	0.0	40.7

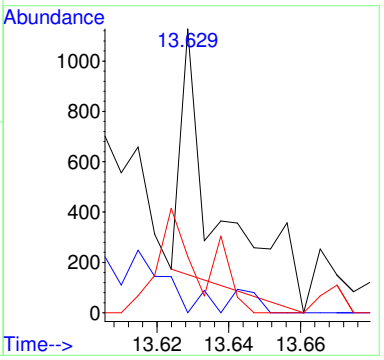


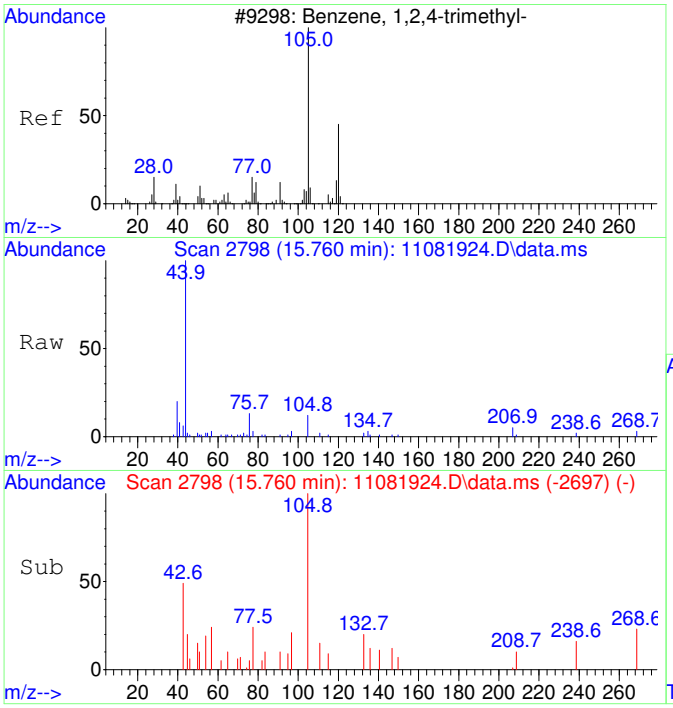


#44
o-Xylene SCAN
Concen: 29.48 ug/L
RT: 13.629 min Scan# 2361
Delta R.T. 0.009 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion: 91 Resp: 640

Ion	Ratio	Lower	Upper
91	100		
106	41.6	16.7	76.7
105	55.9	0.0	57.3

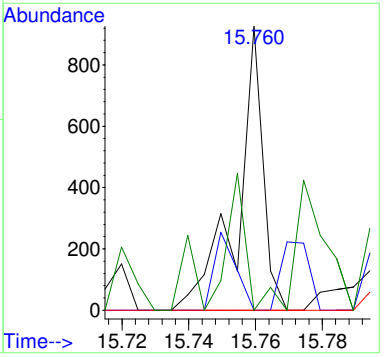




#47
1,2,4-Trimethylbenzene SCAN
Concen: 22.81 ug/L
RT: 15.760 min Scan# 2798
Delta R.T. 0.000 min
Lab File: 11081924.D
Acq: 8 Nov 2019 19:23

Tgt Ion:105 Resp: 496

Ion	Ratio	Lower	Upper
105	100		
120	23.2	18.6	78.6
119	0.0	0.0	42.1
77	51.8	0.0	42.9#



1910069-06

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081925.D
Acq On : 8 Nov 2019 19:47
InstName : AG5975C
Operator : TD
Sample : 1910069-06
Misc : 450-50
ALS Vial : 23 Sample Multiplier: 10

Quant Time: Nov 11 06:20:38 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

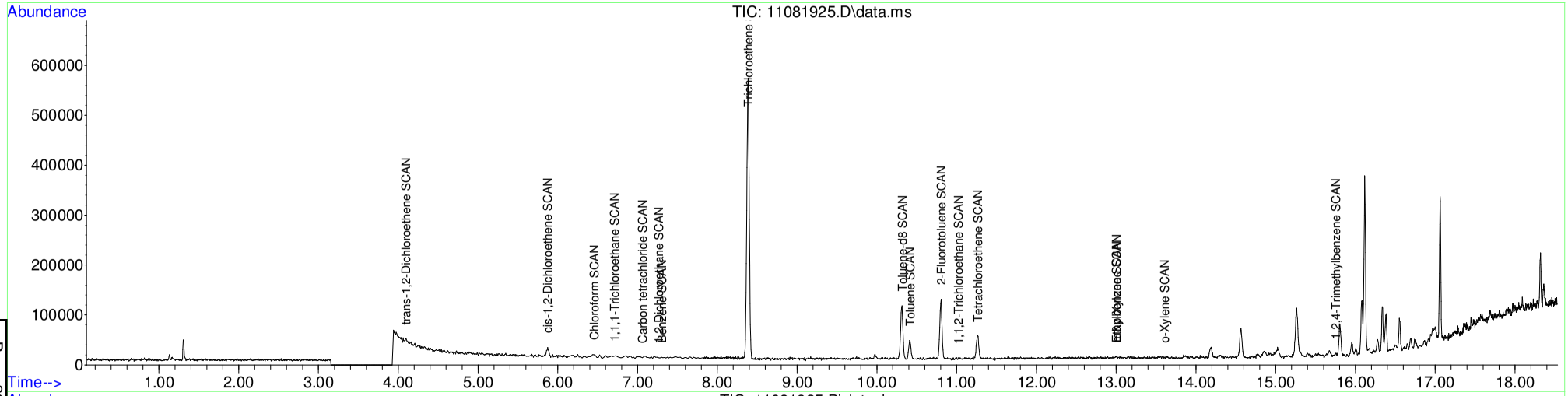
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	159963	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	128715	4979.35 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.59%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.954	61	629	85.19 ug/L	90
3] trans-1,2-Dichloroethene	4.102	61	810	106.75 ug/L	93
4] 1,1-Dichloroethane	4.839	63	249	26.31 ug/L	65
5] cis-1,2-Dichloroethene	5.867	61	14155	1596.39 ug/L	100
6] Chloroform	6.435	83	7837	770.44 ug/L	99
7] 1,1,1-Trichloroethane	6.693	97	1076	107.83 ug/L	98
11] Trichloroethene	8.387	130	361538	47307.26 ug/L OC	99
13] Toluene	10.412	91	46516	1484.50 ug/L	100
15] Tetrachloroethene	11.265	166	26595	2919.60 ug/L	100
19] m&p-Xylene	13.001	91	2051	71.15 ug/L	98
20] o-Xylene	13.616	91	1337	43.46 ug/L	96
25) 2-Fluorotoluene SCAN	10.807	109	101189	5077.90 ug/L	93
27) trans-1,2-Dichloroethe...	4.101	61	479	74.84 ug/L #	50
29) cis-1,2-Dichloroethene...	5.872	61	9988	1379.91 ug/L	90
30) Chloroform SCAN	6.452	83	5192	643.92 ug/L	96
31) 1,1,1-Trichloroethane ...	6.710	97	946	134.41 ug/L #	43
32) Carbon tetrachloride SCAN	7.060	117	165	25.01 ug/L #	19
33) Benzene SCAN	7.299	78	2301	130.08 ug/L #	89
34) 1,2-Dichloroethane SCAN	7.263	62	146	22.12 ug/L #	39
35) Trichloroethene SCAN	8.386	130	225063	43400.47 ug/L	99
36) Toluene-d8 SCAN	10.316	98	84186	5194.68 ug/L	94
37) Toluene SCAN	10.416	91	33277	1665.37 ug/L	92
38) 1,1,2-Trichloroethane ...	11.021	97	166	36.43 ug/L #	50
39) Tetrachloroethene SCAN	11.269	166	17771	3349.92 ug/L	93
42) Ethylbenzene SCAN	13.000	91	2154	94.72 ug/L	84
43) m&p-Xylene SCAN	13.000	91	2154	66.02 ug/L	86
44) o-Xylene SCAN	13.605	91	1301	74.99 ug/L #	48
47) 1,2,4-Trimethylbenzene...	15.755	105	633	36.43 ug/L #	11

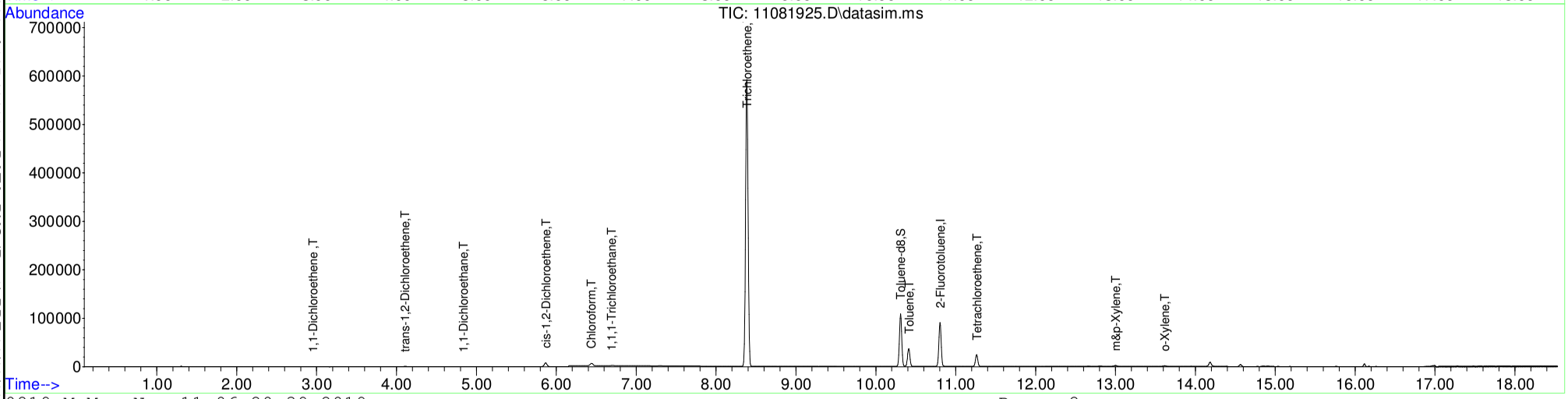
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081925.D
Acq On : 8 Nov 2019 19:47
InstName : AG5975C
Operator : TD
Sample : 1910069-06
Misc : 450-50
ALS Vial : 23 Sample Multiplier: 10

Quant Time: Nov 11 06:20:38 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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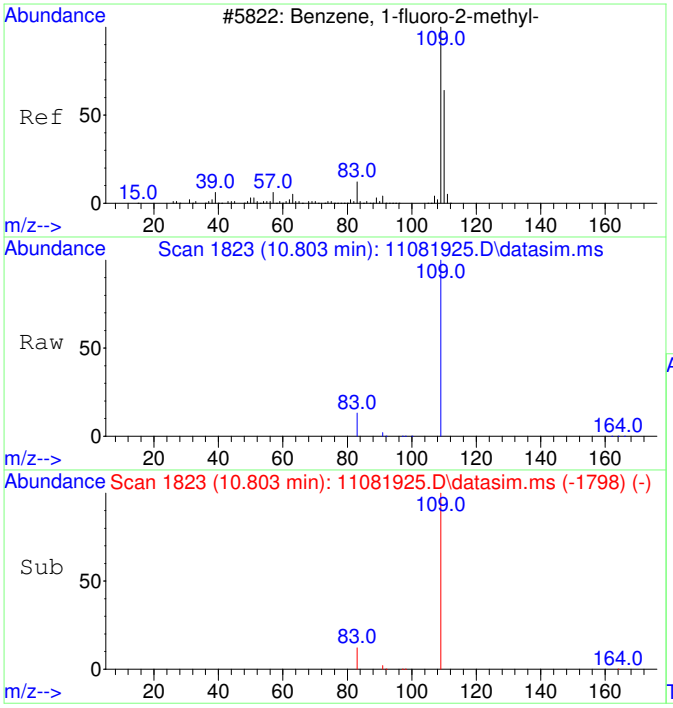
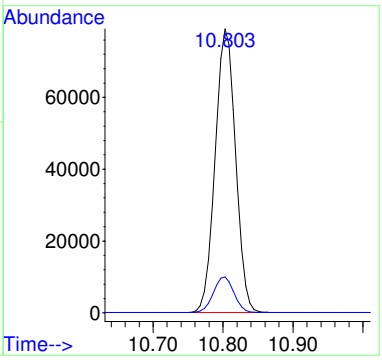
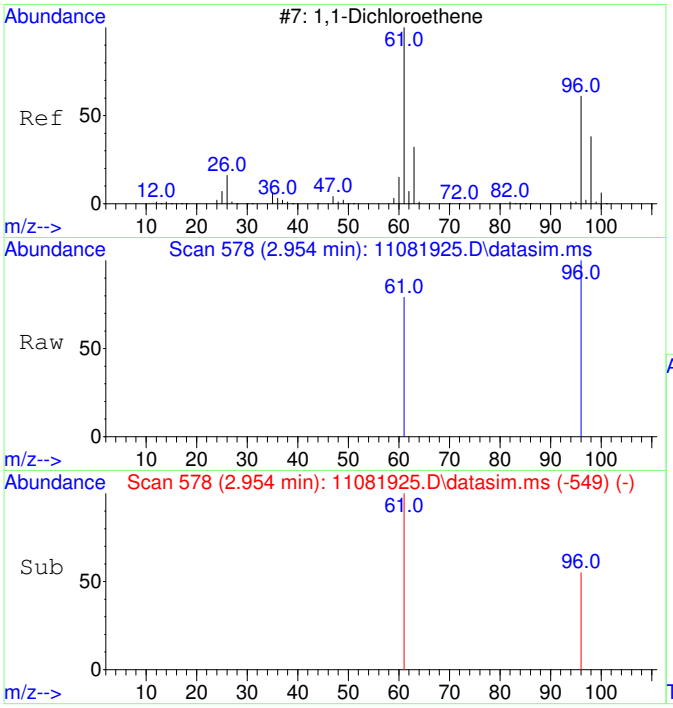


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:109 Resp: 159963

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

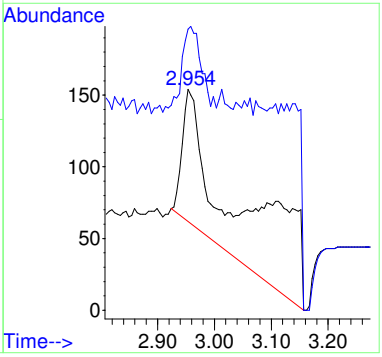




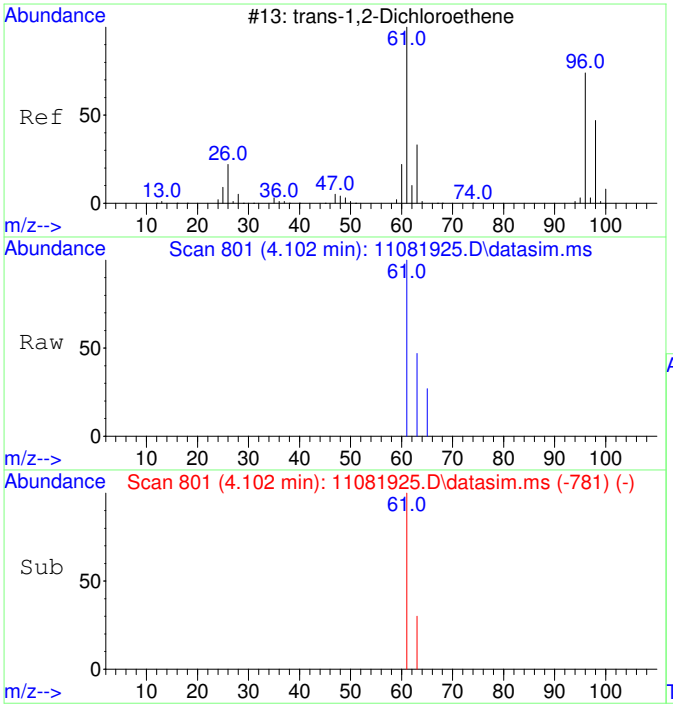
#2
1,1-Dichloroethene
Concen: 85.19 ug/L
RT: 2.954 min Scan# 578
Delta R.T. -0.005 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 629

Ion	Ratio	Lower	Upper
61	100		
96	71.7	33.6	93.6



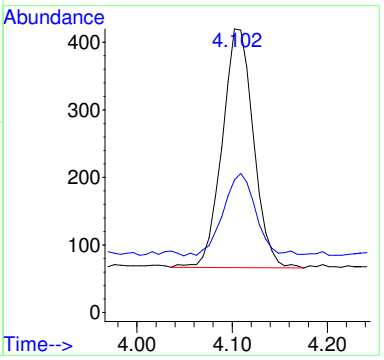
Before MI:
IMPROPER
BASELINE

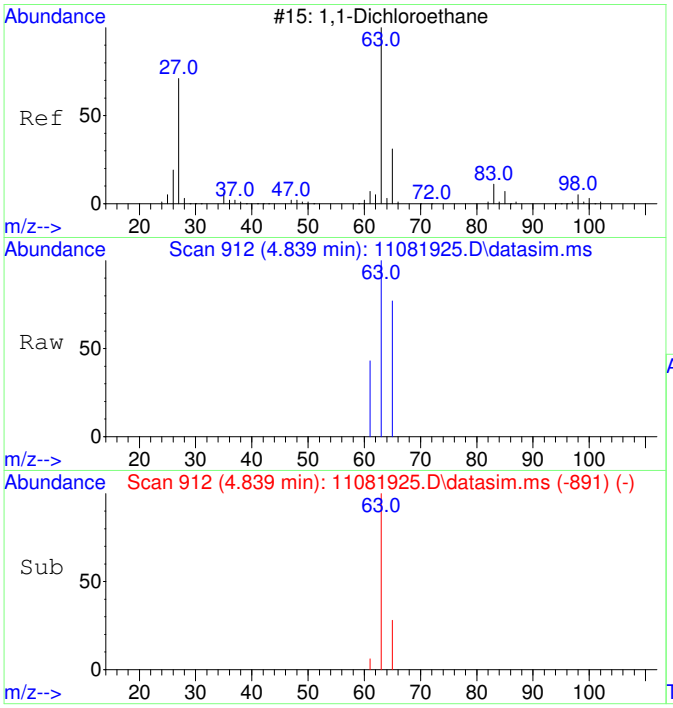


#3
trans-1,2-Dichloroethene
Concen: 106.75 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.020 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 810

Ion	Ratio	Lower	Upper
61	100		
63	36.2	2.3	62.3

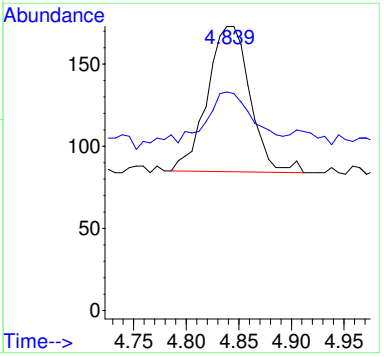


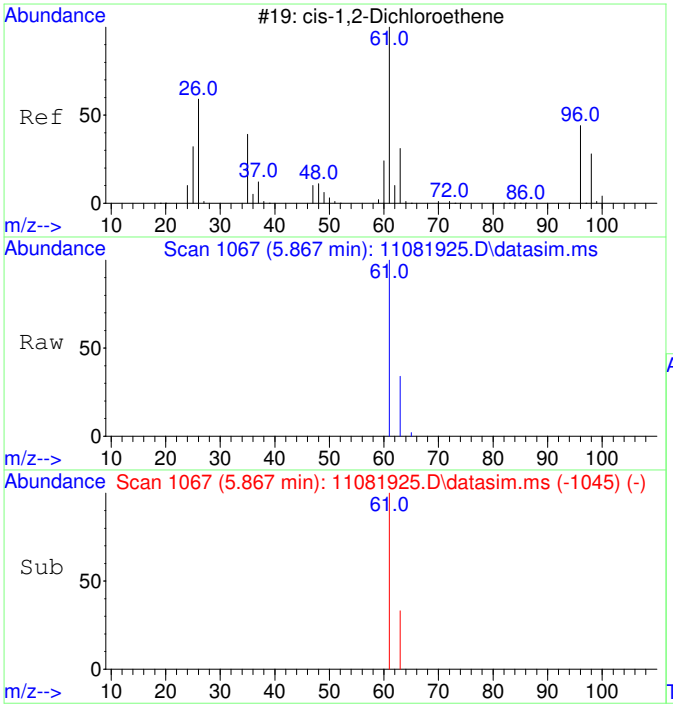


#4
1,1-Dichloroethane
Concen: 26.31 ug/L
RT: 4.839 min Scan# 912
Delta R.T. -0.013 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 63 Resp: 249

Ion	Ratio	Lower	Upper
63	100		
65	51.4	1.9	61.9

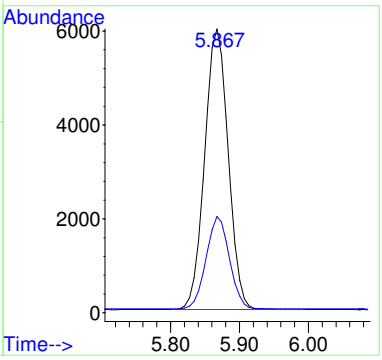


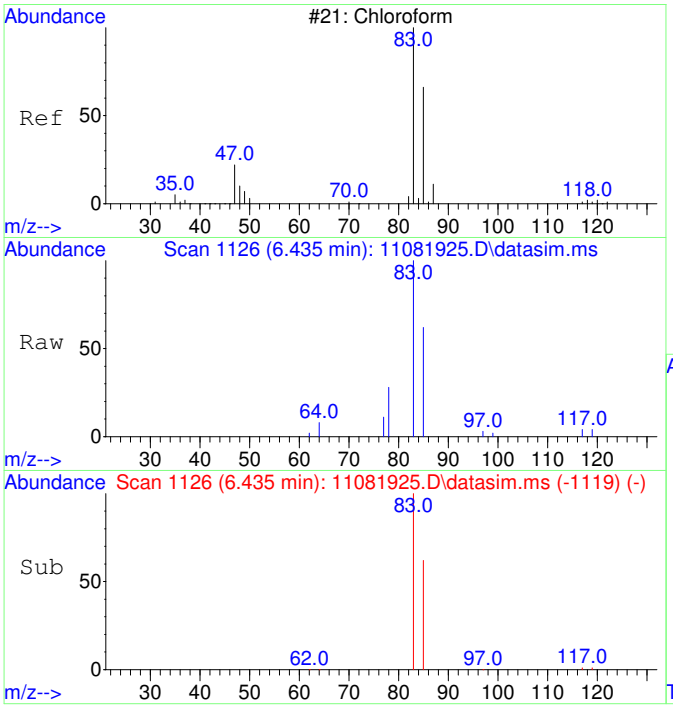


#5
cis-1,2-Dichloroethene
Concen: 1596.39 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 14155

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.4	62.4

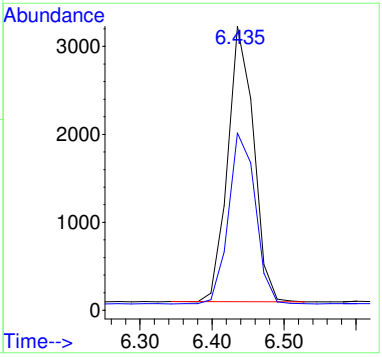


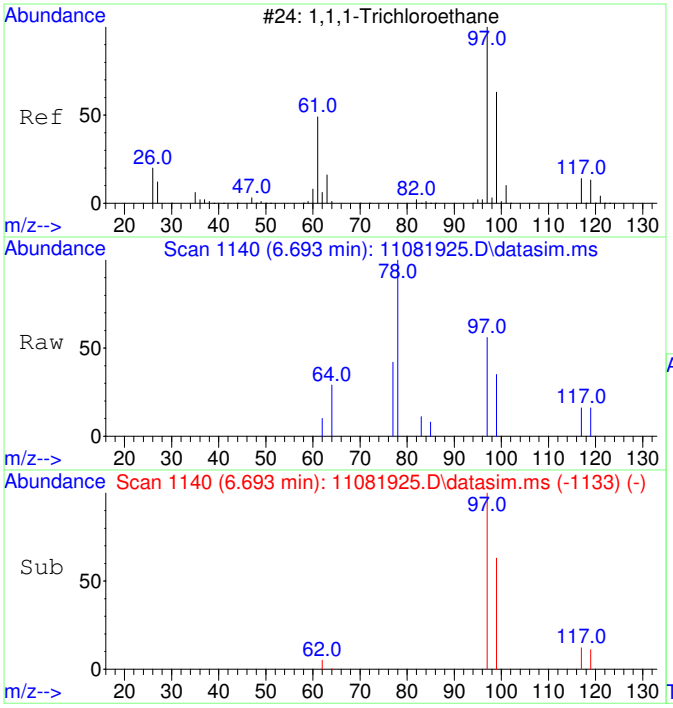


#6
Chloroform
Concen: 770.44 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 83 Resp: 7837

Ion	Ratio	Lower	Upper
83	100		
85	64.3	35.2	95.2

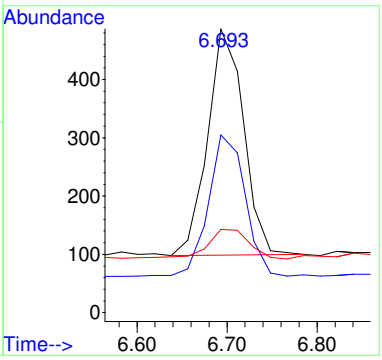


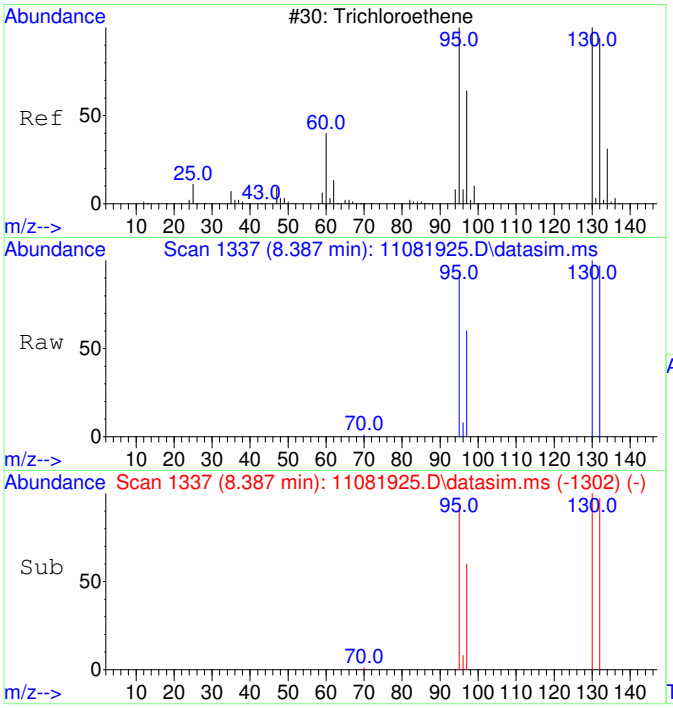


#7
1,1,1-Trichloroethane
Concen: 107.83 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 97 Resp: 1076

Ion	Ratio	Lower	Upper
97	100		
99	63.4	34.5	94.5
117	15.6	0.0	43.0

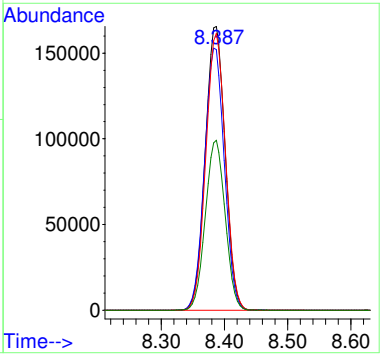


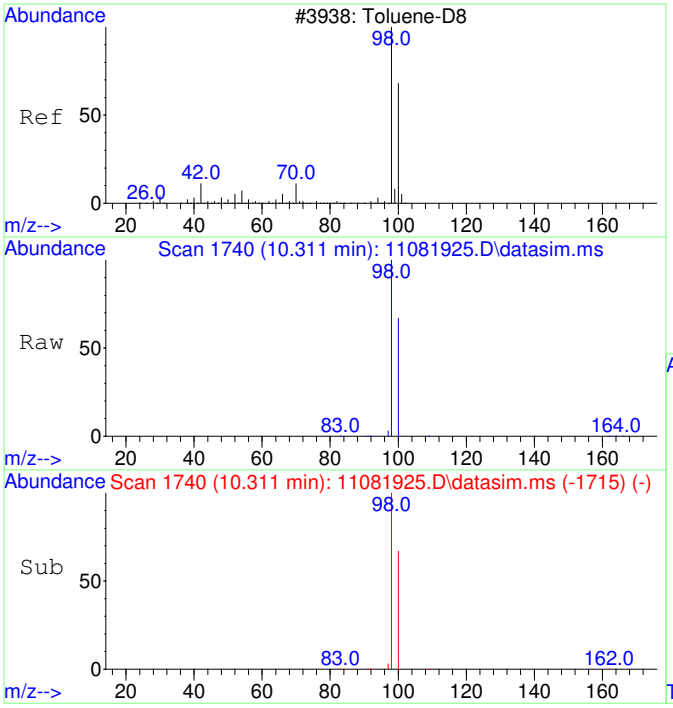


#11
Trichloroethene
Concen: 47307.26 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:130 Resp: 361538

Ion	Ratio	Lower	Upper
130	100		
95	92.2	63.4	123.4
132	96.5	76.0	116.0
97	59.5	39.8	79.8

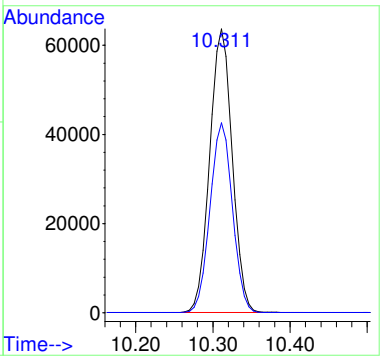


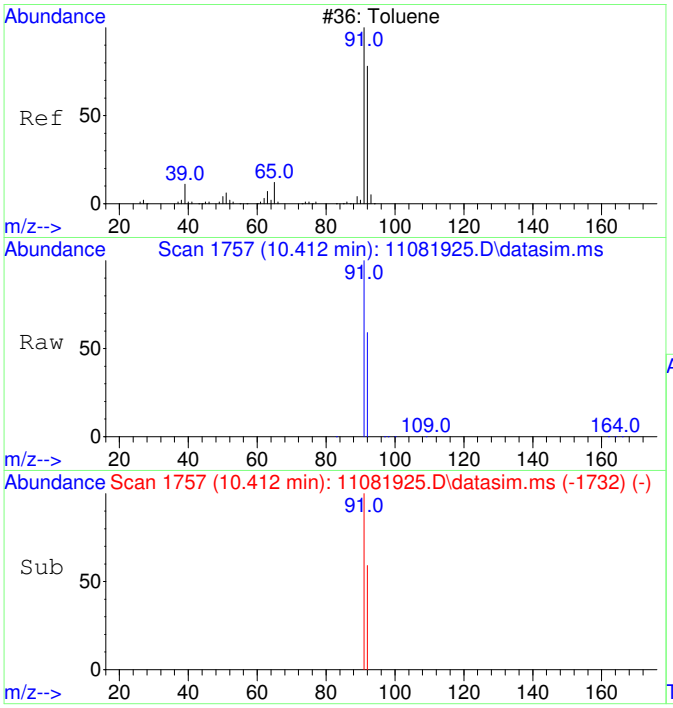


#12
Toluene-d8
Concen: 4979.35 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 98 Resp: 128715

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

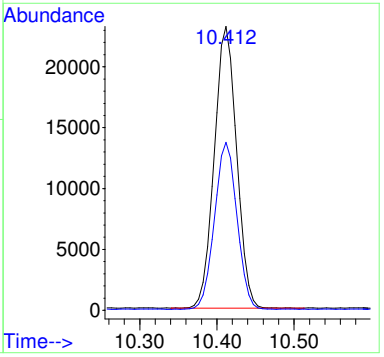


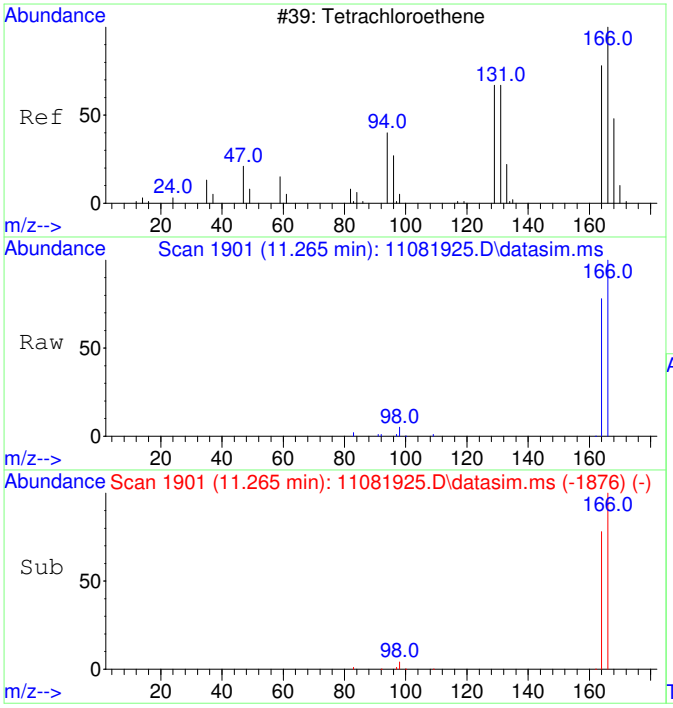


#13
Toluene
Concen: 1484.50 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 46516

Ion	Ratio	Lower	Upper
91	100		
92	59.4	29.4	89.4

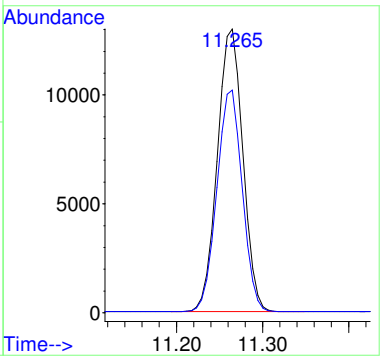


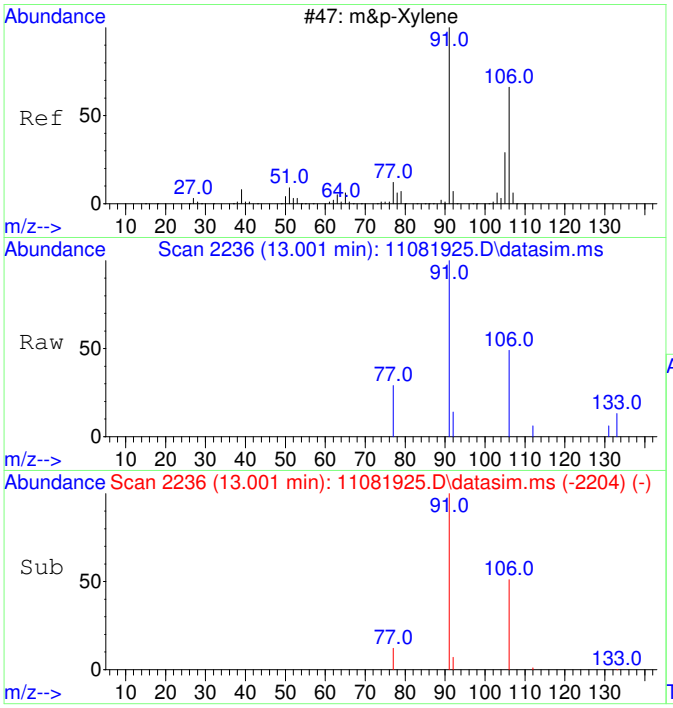


#15
Tetrachloroethene
Concen: 2919.60 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:166 Resp: 26595

Ion	Ratio	Lower	Upper
166	100		
164	78.1	47.7	107.7

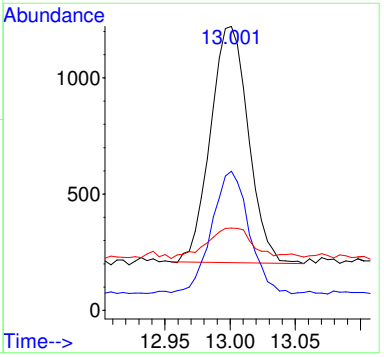


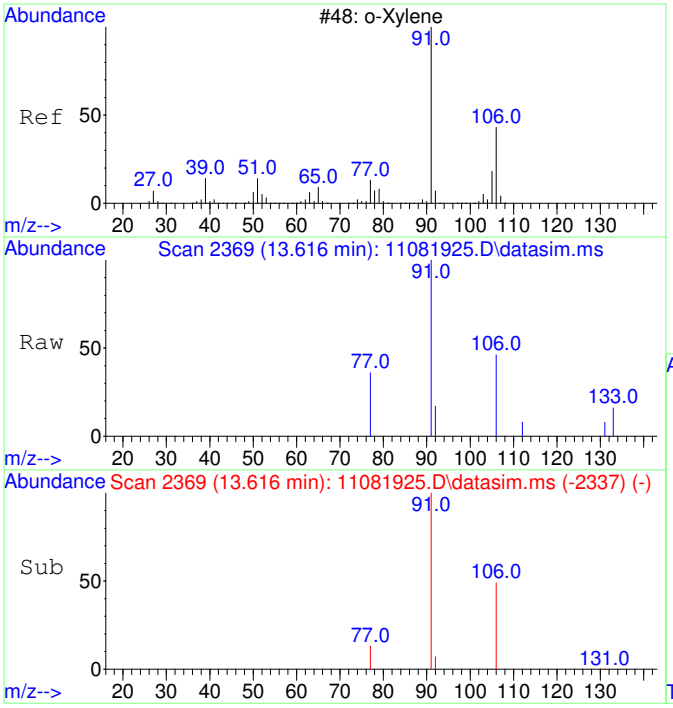


#19
m&p-Xylene
Concen: 71.15 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 2051

Ion	Ratio	Lower	Upper
91	100		
106	50.7	21.2	81.2
77	15.5	0.0	42.7

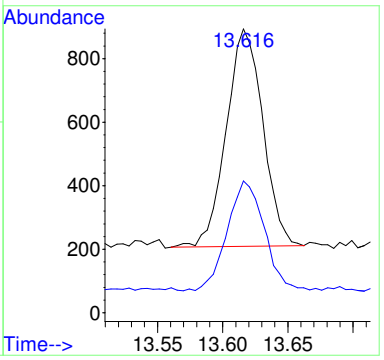


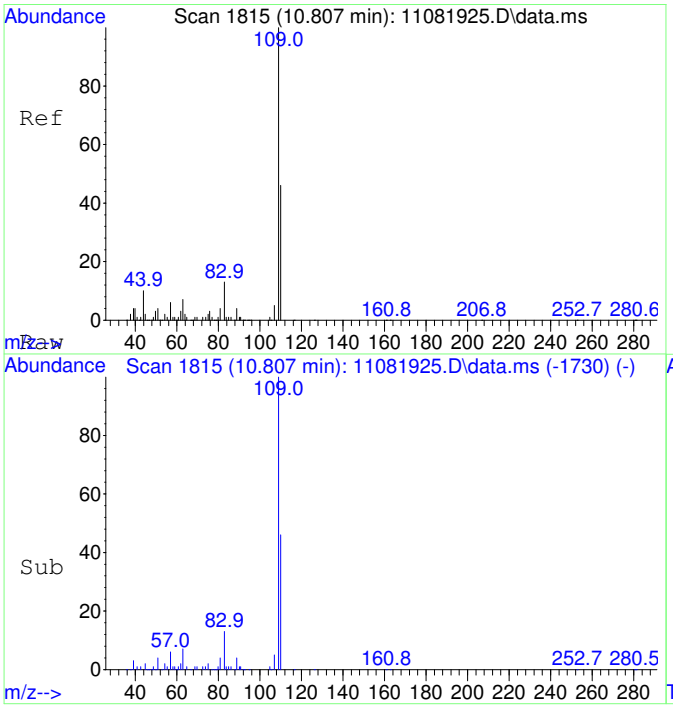


#20
o-Xylene
Concen: 43.46 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 1337

Ion	Ratio	Lower	Upper
91	100		
106	50.7	18.3	78.3

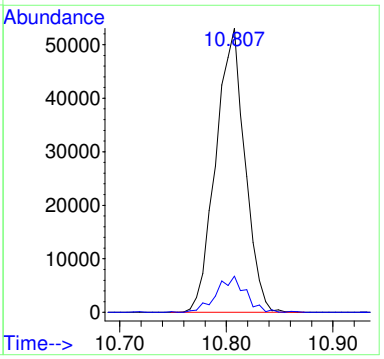


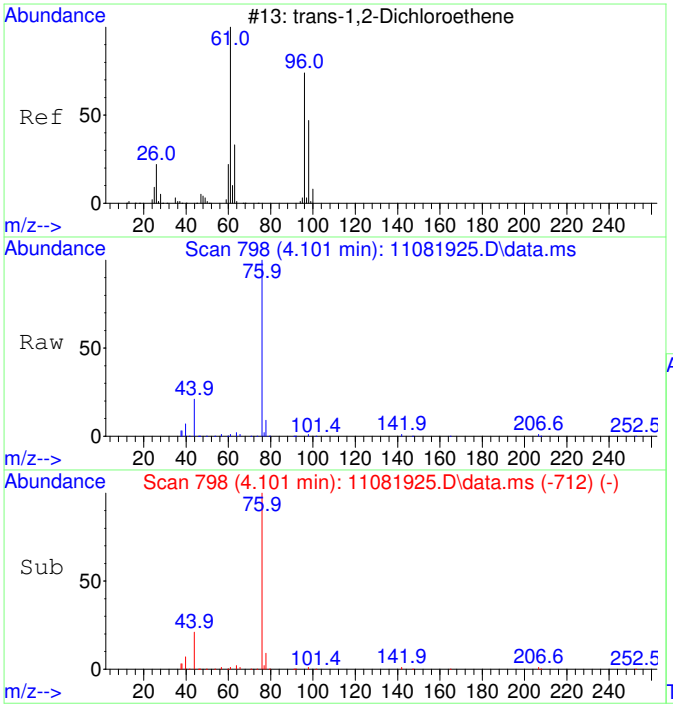


#25
2-Fluorotoluene SCAN
Concen: 5077.90 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:109 Resp: 101189

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	45.8

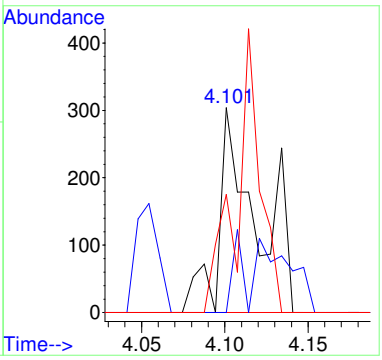


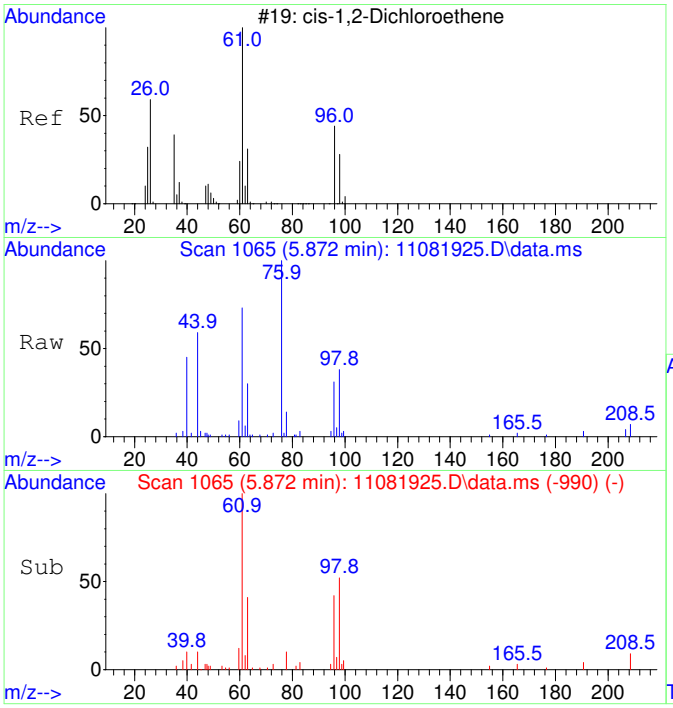


#27
trans-1,2-Dichloroethene SCAN
Concen: 74.84 ug/L
RT: 4.101 min Scan# 798
Delta R.T. -0.020 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 479

Ion	Ratio	Lower	Upper
61	100		
96	33.0	46.5	106.5#
98	88.3	22.8	82.8#

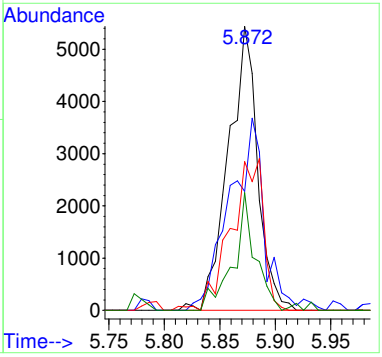


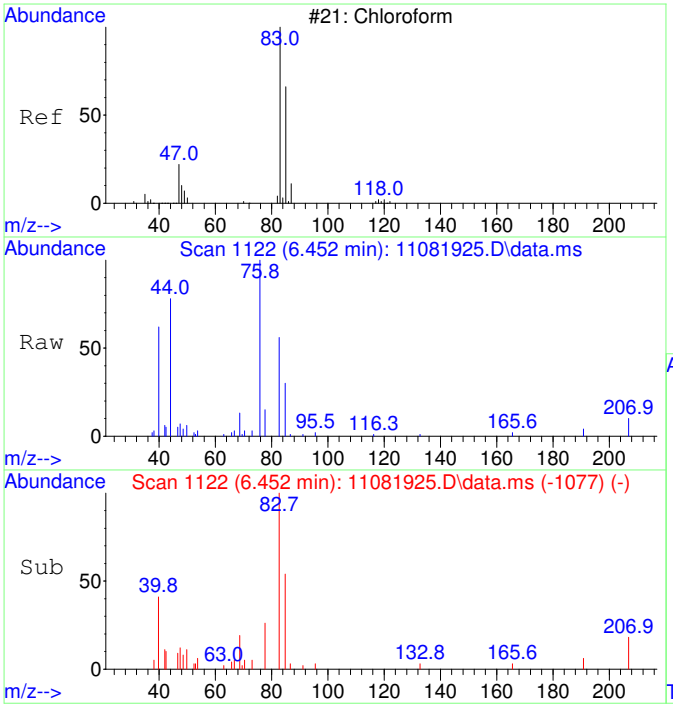


#29
cis-1,2-Dichloroethene SCAN
Concen: 1379.91 ug/L
RT: 5.872 min Scan# 1065
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 9988

Ion	Ratio	Lower	Upper
61	100		
96	80.1	41.9	101.9
98	59.5	20.3	80.3
63	29.9	0.0	58.3

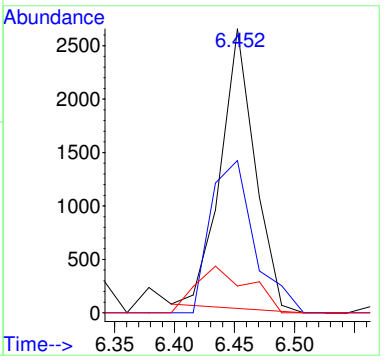


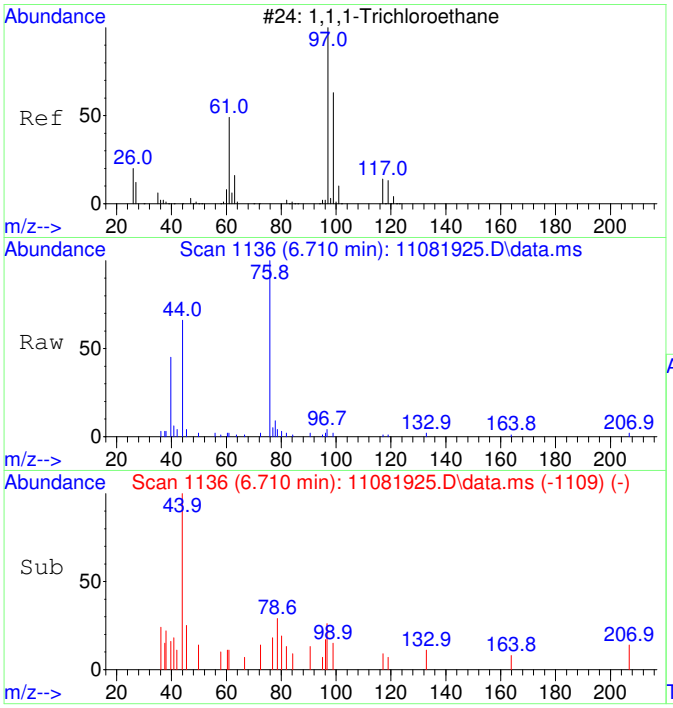


#30
Chloroform SCAN
Concen: 643.92 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 83 Resp: 5192

Ion	Ratio	Lower	Upper
83	100		
85	70.0	38.3	98.3
47	26.0	0.0	50.2

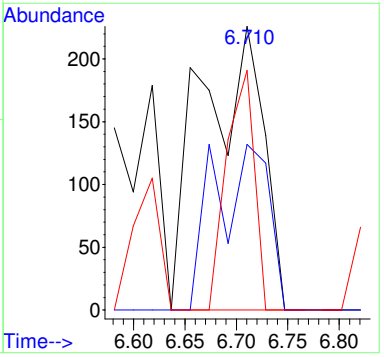


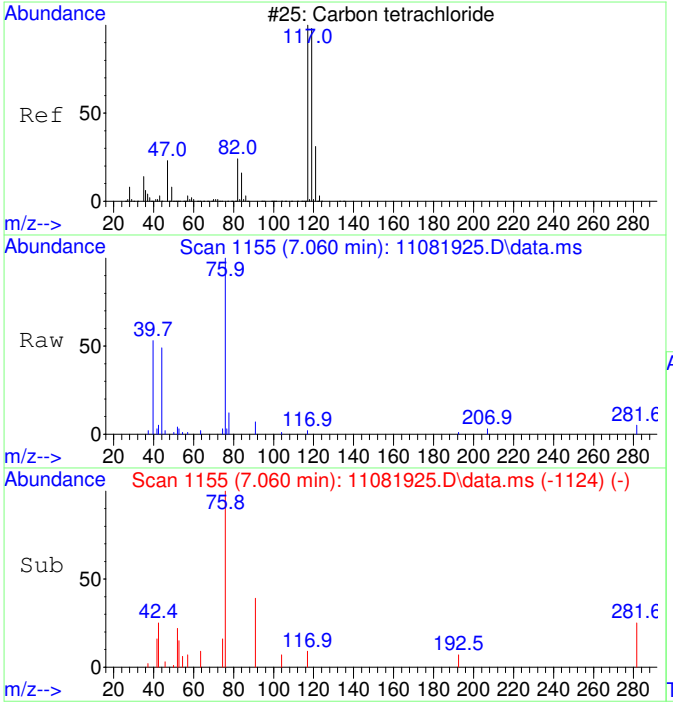


#31
1,1,1-Trichloroethane SCAN
Concen: 134.41 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 97 Resp: 946

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	38.2	11.1	71.1

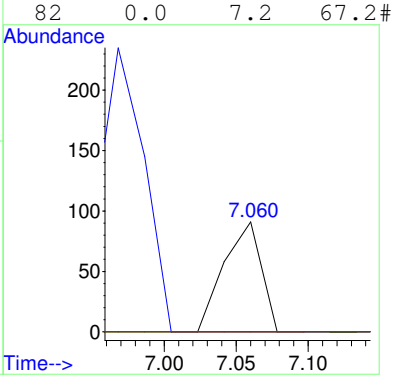


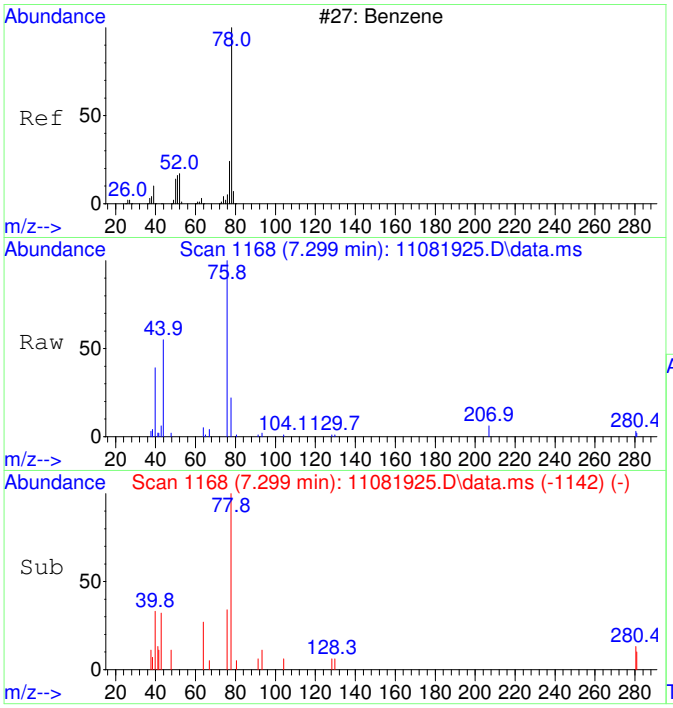


#32
Carbon tetrachloride SCAN
Concen: 25.01 ug/L
RT: 7.060 min Scan# 1155
Delta R.T. 0.074 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:117 Resp: 165

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

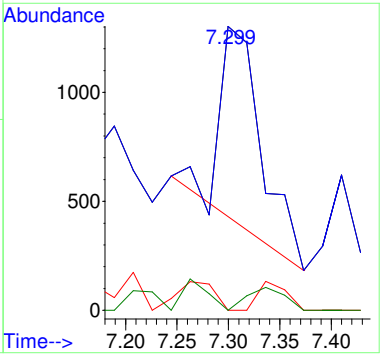


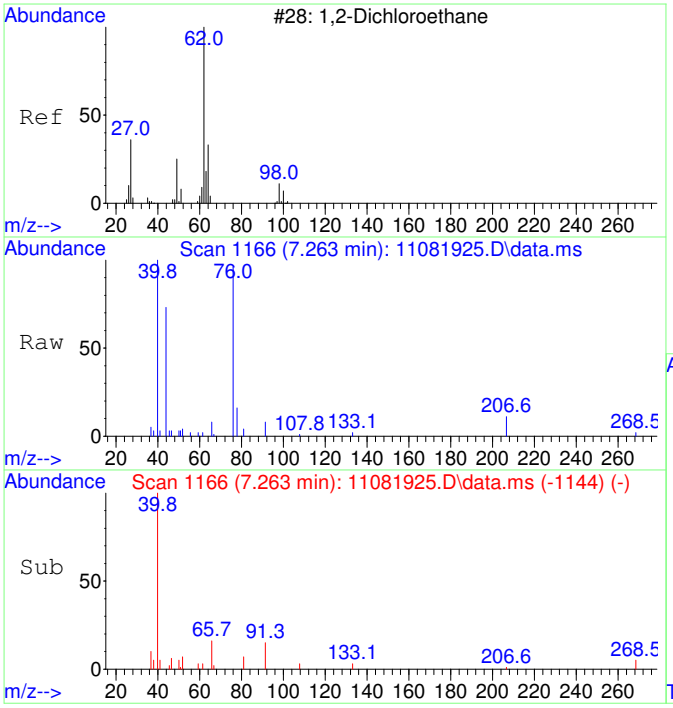


#33
Benzene SCAN
Concen: 130.08 ug/L
RT: 7.299 min Scan# 1168
Delta R.T. -0.018 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 78 Resp: 2301

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

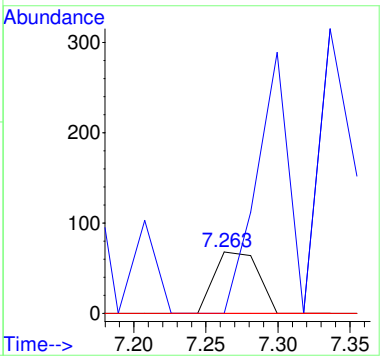


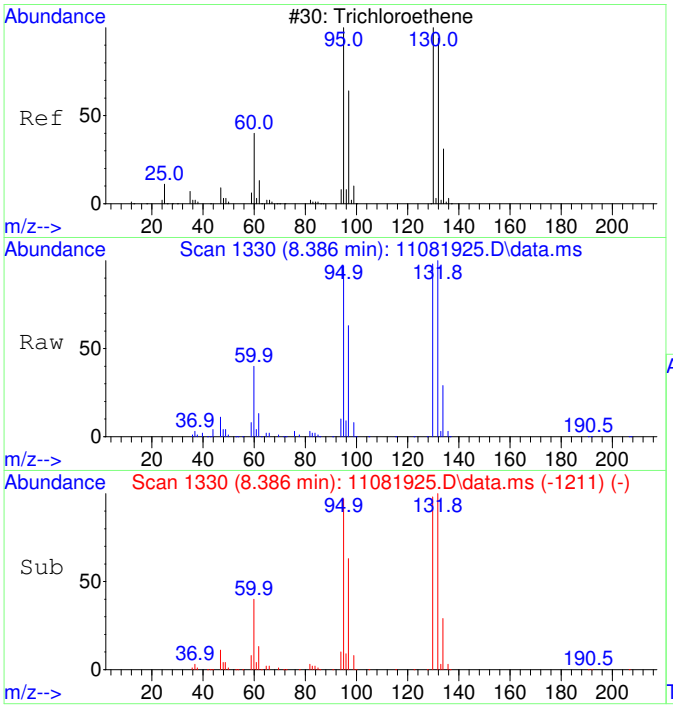


#34
1,2-Dichloroethane SCAN
Concen: 22.12 ug/L
RT: 7.263 min Scan# 1166
Delta R.T. -0.092 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 62 Resp: 146

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

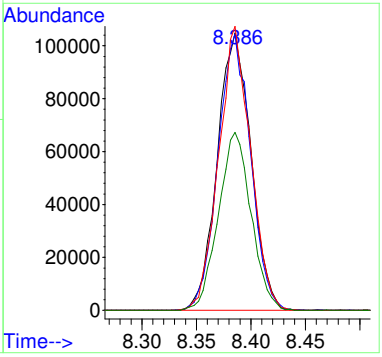


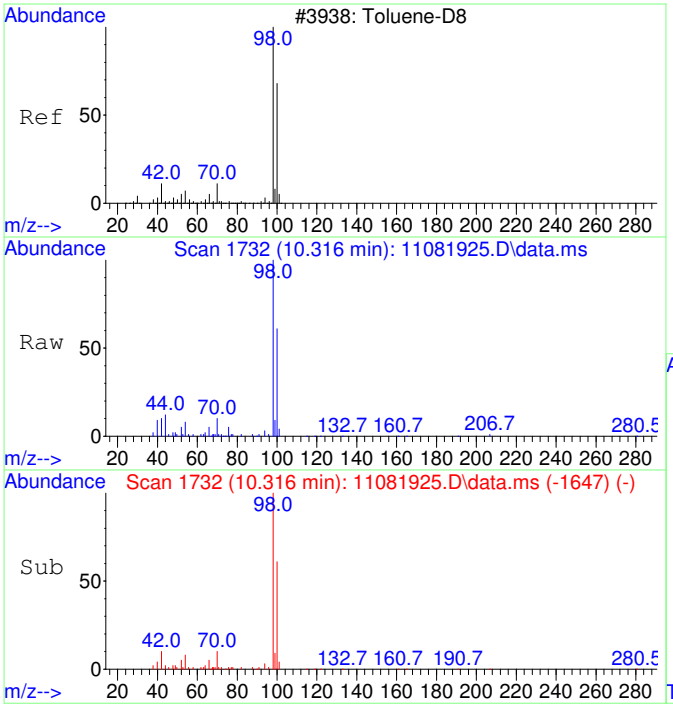


#35
Trichloroethene SCAN
Concen: 43400.47 ug/L
RT: 8.386 min Scan# 1330
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:130 Resp: 225063

Ion	Ratio	Lower	Upper
130	100		
95	96.5	69.5	129.5
132	96.9	66.5	126.5
97	62.2	32.8	92.8

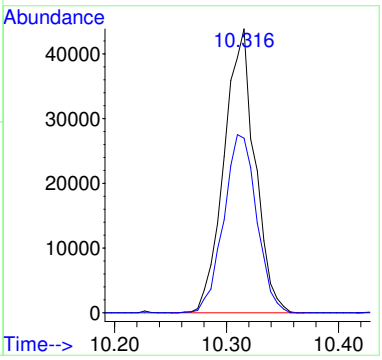


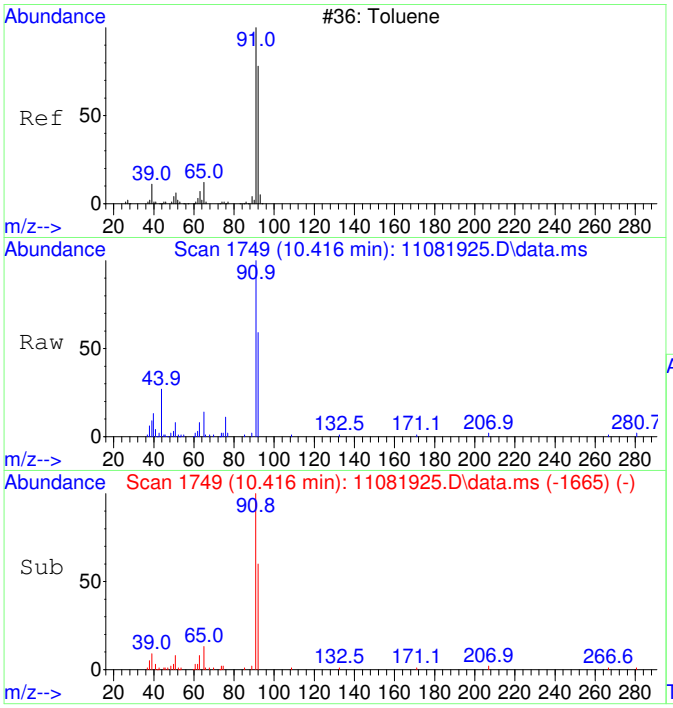


#36
Toluene-d8 SCAN
Concen: 5194.68 ug/L
RT: 10.316 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 98 Resp: 84186

Ion	Ratio	Lower	Upper
98	100		
100	66.9	42.1	102.1

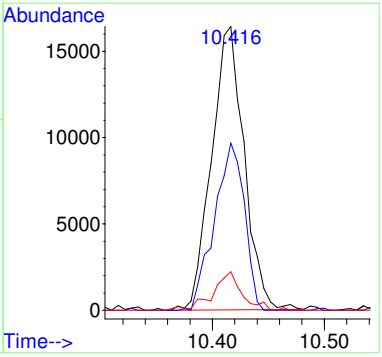


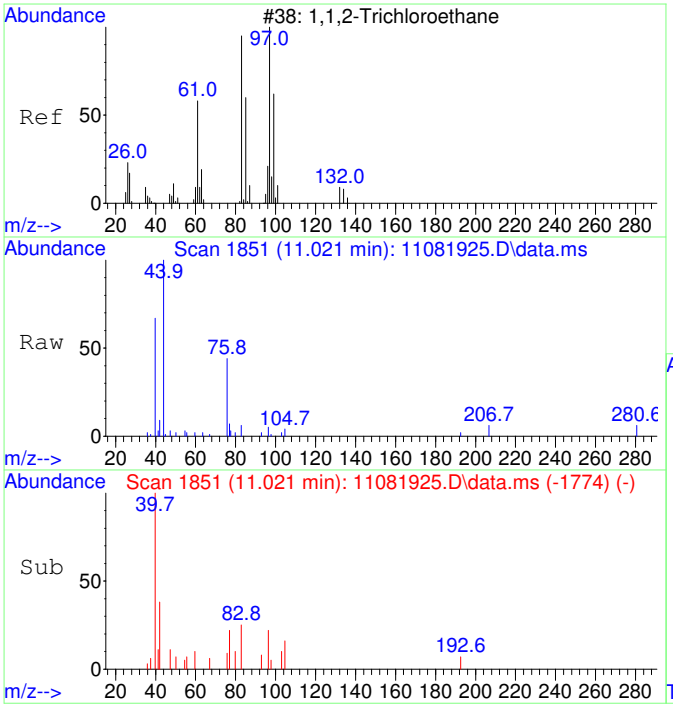


#37
Toluene SCAN
Concen: 1665.37 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 33277

Ion	Ratio	Lower	Upper
91	100		
92	54.3	31.9	91.9
65	12.0	0.0	41.9

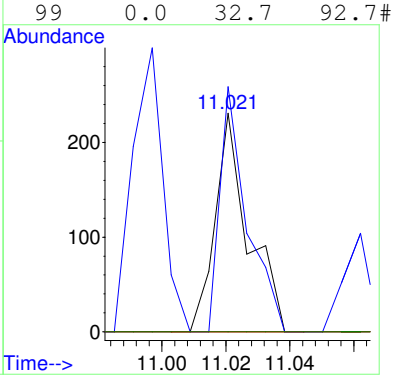


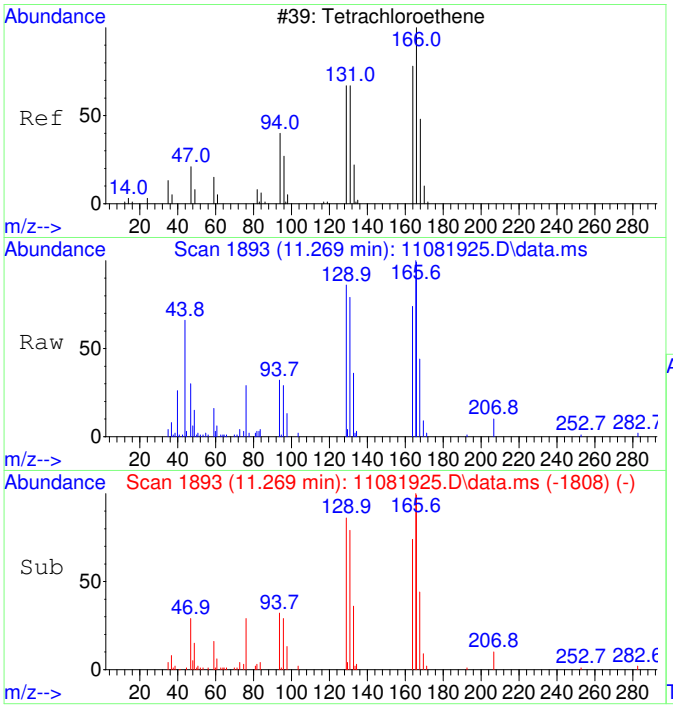


#38
1,1,2-Trichloroethane SCAN
Concen: 36.43 ug/L
RT: 11.021 min Scan# 1851
Delta R.T. -0.041 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 97 Resp: 166

Ion	Ratio	Lower	Upper
97	100		
83	92.2	58.1	118.1
61	0.0	36.0	96.0#
99	0.0	32.7	92.7#

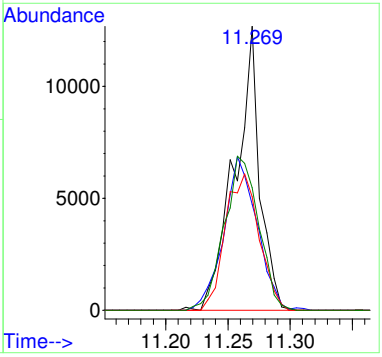


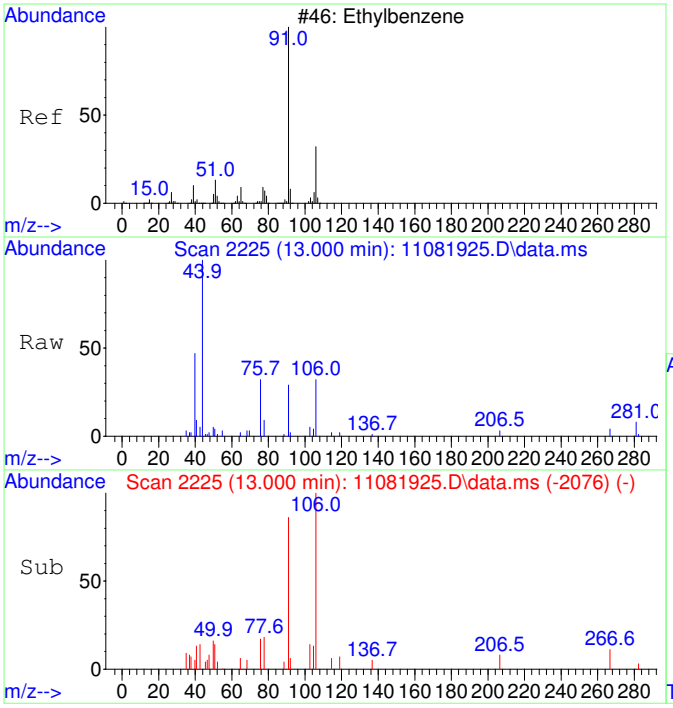


#39
Tetrachloroethene SCAN
Concen: 3349.92 ug/L
RT: 11.269 min Scan# 1893
Delta R.T. 0.006 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:166 Resp: 17771

Ion	Ratio	Lower	Upper
166	100		
164	72.2	50.4	110.4
131	65.1	44.0	104.0
129	74.5	42.6	102.6

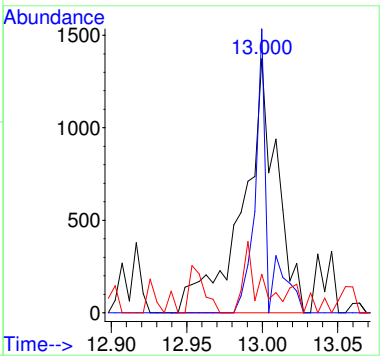


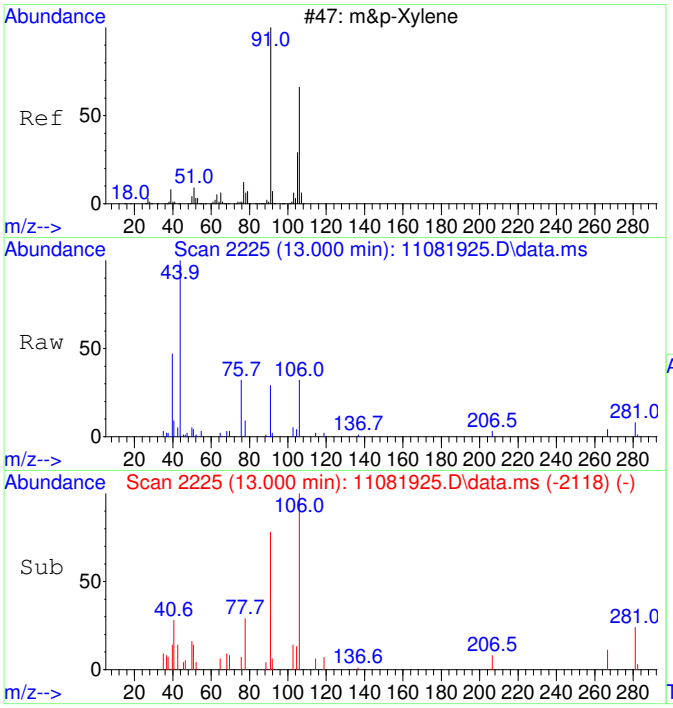


#42
Ethylbenzene SCAN
Concen: 94.72 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 2154

Ion	Ratio	Lower	Upper
91	100		
106	41.4	0.1	60.1
51	10.5	0.0	40.9

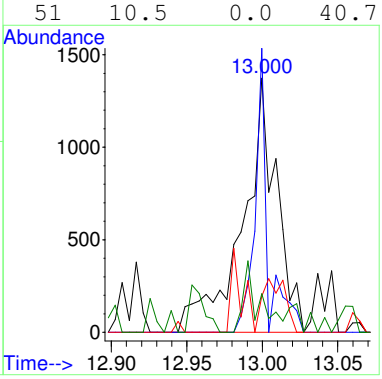


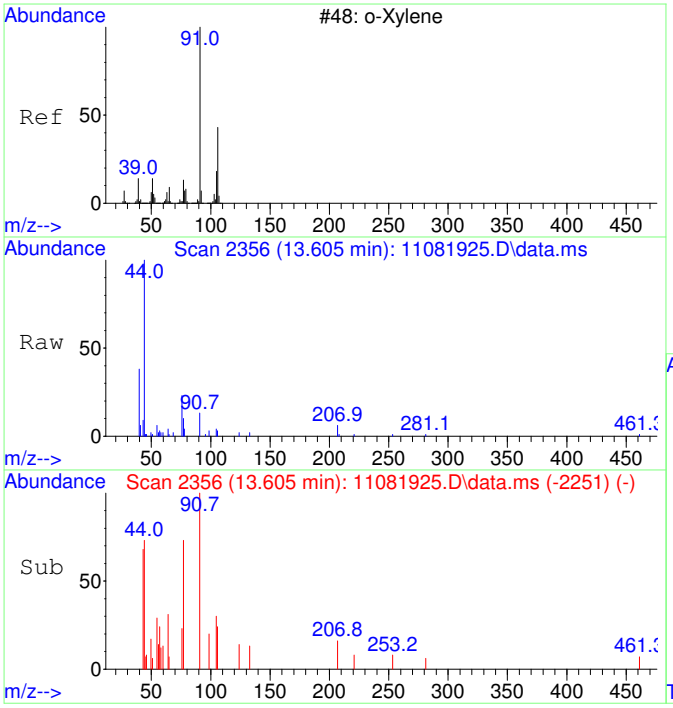


#43
m&p-Xylene SCAN
Concen: 66.02 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 2154

Ion	Ratio	Lower	Upper
91	100		
106	41.4	21.1	81.1
105	14.0	0.0	53.6
51	10.5	0.0	40.7

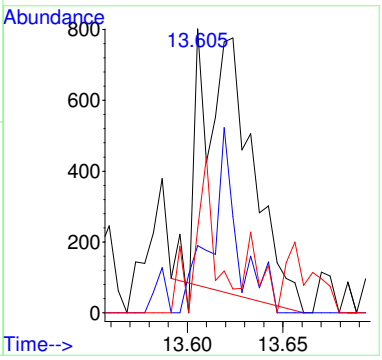


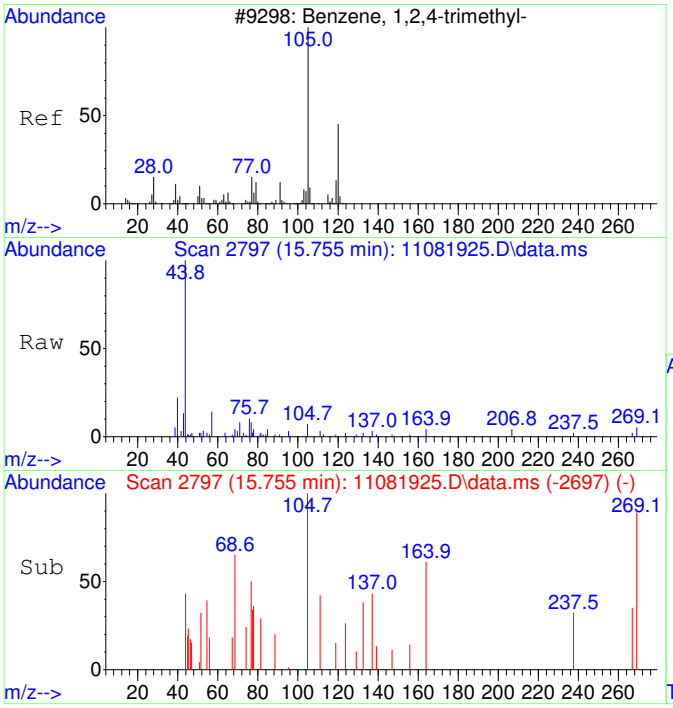


#44
o-Xylene SCAN
Concen: 74.99 ug/L
RT: 13.605 min Scan# 2356
Delta R.T. -0.014 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 1301

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.7	76.7#
105	16.8	0.0	57.3

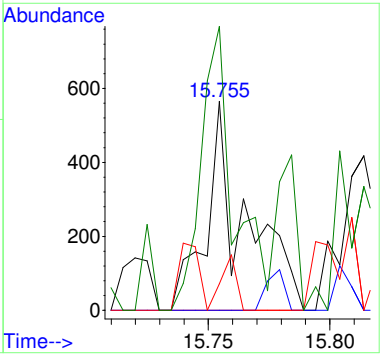




#47
1,2,4-Trimethylbenzene SCAN
Concen: 36.43 ug/L
RT: 15.755 min Scan# 2797
Delta R.T. -0.005 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:105 Resp: 633

Ion	Ratio	Lower	Upper
105	100		
120	0.0	18.6	78.6#
119	16.6	0.0	42.1
77	103.0	0.0	42.9#



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081925.D
Acq On : 8 Nov 2019 19:47
InstName : AG5975C
Operator : TD
Sample : 1910069-06
Misc : 450-50
ALS Vial : 23 Sample Multiplier: 10

M.I. Performed By:
TD at 7:50 am, Nov 11, 2019

M.I. Approved By:
ZR at 10:45 am, Nov 12, 2019

Quant Time: Nov 11 06:20:38 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

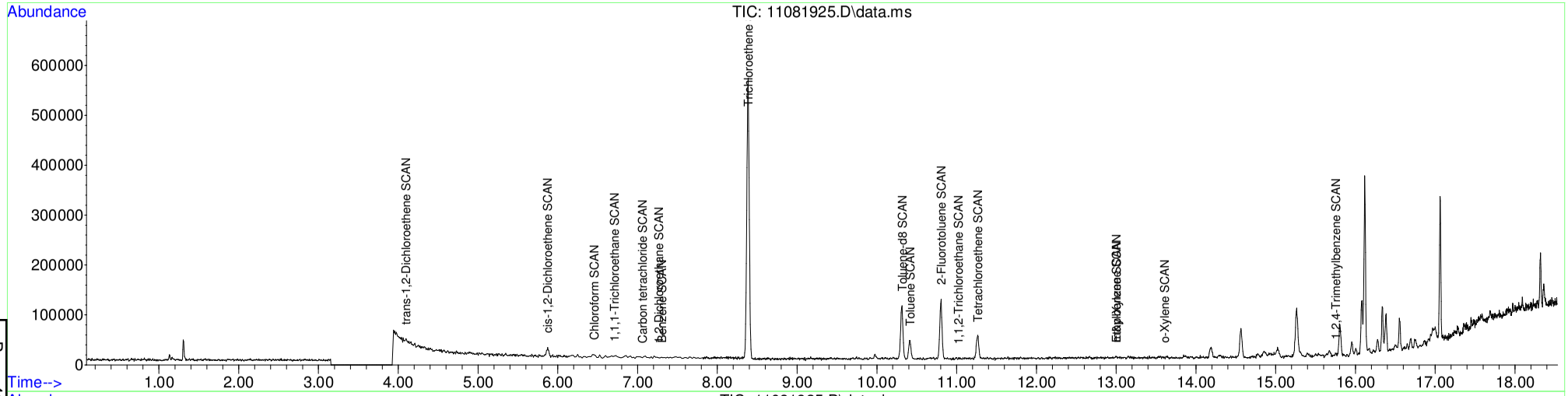
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	159963	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	128715	4979.35 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.59%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.954	61	194m	26.27 ug/L	
3] trans-1,2-Dichloroethene	4.102	61	810	106.75 ug/L	93
4] 1,1-Dichloroethane	4.839	63	249	26.31 ug/L	65
5] cis-1,2-Dichloroethene	5.867	61	14155	1596.39 ug/L	100
6] Chloroform	6.435	83	7837	770.44 ug/L	99
7] 1,1,1-Trichloroethane	6.693	97	1076	107.83 ug/L	98
11] Trichloroethene	8.387	130	361538	47307.26 ug/L OC	99
13] Toluene	10.412	91	46516	1484.50 ug/L	100
15] Tetrachloroethene	11.265	166	26595	2919.60 ug/L	100
19] m&p-Xylene	13.001	91	2051	71.15 ug/L	98
20] o-Xylene	13.616	91	1337	43.46 ug/L	96
25) 2-Fluorotoluene SCAN	10.807	109	101189	5077.90 ug/L	93
27) trans-1,2-Dichloroethe...	4.101	61	479	74.84 ug/L #	50
29) cis-1,2-Dichloroethene...	5.872	61	9988	1379.91 ug/L	90
30) Chloroform SCAN	6.452	83	5192	643.92 ug/L	96
31) 1,1,1-Trichloroethane ...	6.710	97	946	134.41 ug/L #	43
32) Carbon tetrachloride SCAN	7.060	117	165	25.01 ug/L #	19
33) Benzene SCAN	7.299	78	2301	130.08 ug/L #	89
34) 1,2-Dichloroethane SCAN	7.263	62	146	22.12 ug/L #	39
35) Trichloroethene SCAN	8.386	130	225063	43400.47 ug/L	99
36) Toluene-d8 SCAN	10.316	98	84186	5194.68 ug/L	94
37) Toluene SCAN	10.416	91	33277	1665.37 ug/L	92
38) 1,1,2-Trichloroethane ...	11.021	97	166	36.43 ug/L #	50
39) Tetrachloroethene SCAN	11.269	166	17771	3349.92 ug/L	93
42) Ethylbenzene SCAN	13.000	91	2154	94.72 ug/L	84
43) m&p-Xylene SCAN	13.000	91	2154	66.02 ug/L	86
44) o-Xylene SCAN	13.605	91	1301	74.99 ug/L #	48
47) 1,2,4-Trimethylbenzene...	15.755	105	633	36.43 ug/L #	11

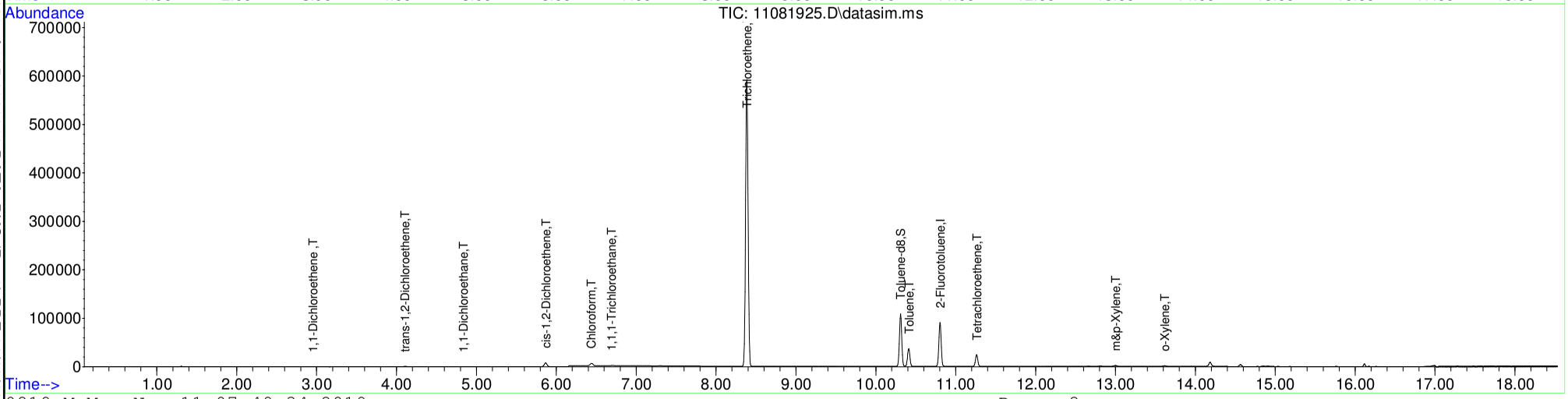
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081925.D
Acq On : 8 Nov 2019 19:47
InstName : AG5975C
Operator : TD
Sample : 1910069-06
Misc : 450-50
ALS Vial : 23 Sample Multiplier: 10

Quant Time: Nov 11 06:20:38 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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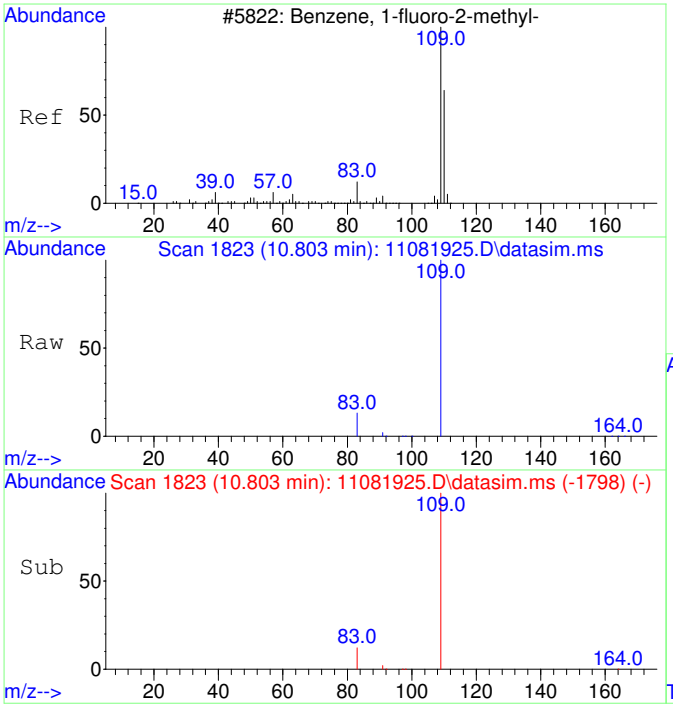
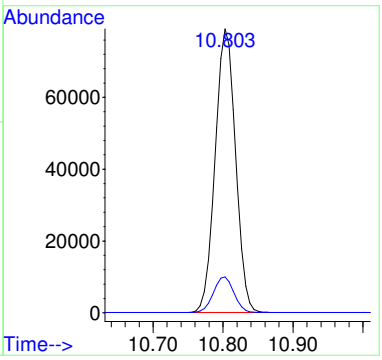
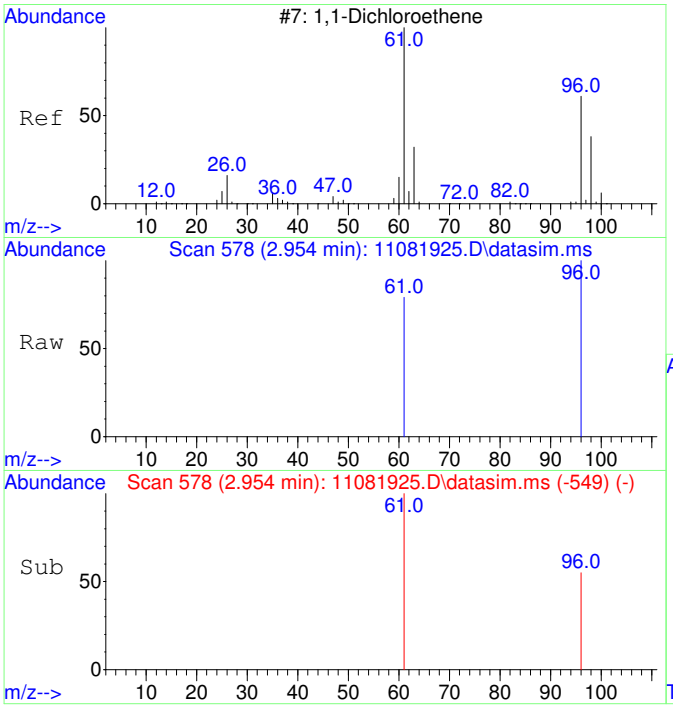


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:109 Resp: 159963

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

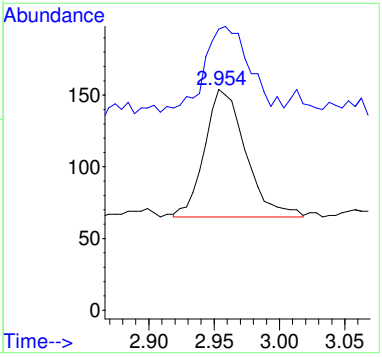


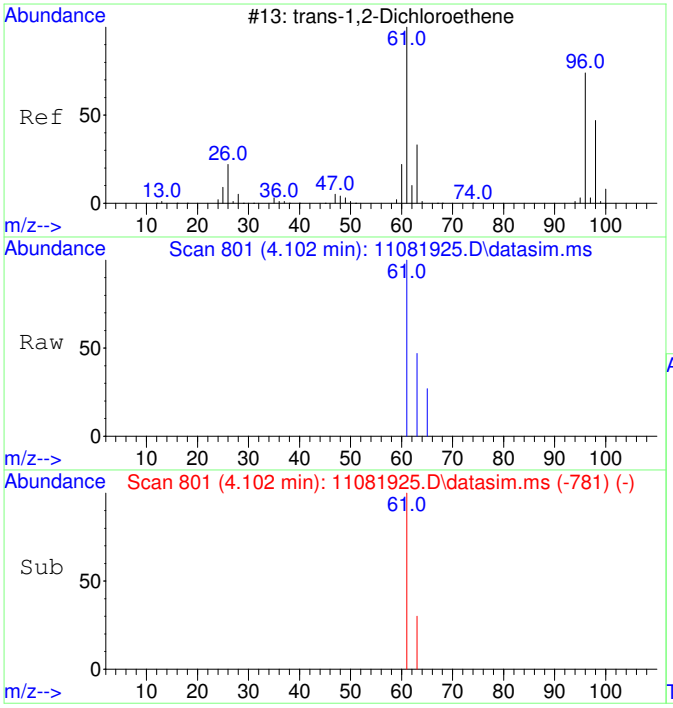


#2
1,1-Dichloroethene
Concen: 26.27 ug/L m
RT: 2.954 min Scan# 578
Delta R.T. -0.005 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 194

Ion	Ratio	Lower	Upper
61	100		
96	232.5	33.6	93.6#

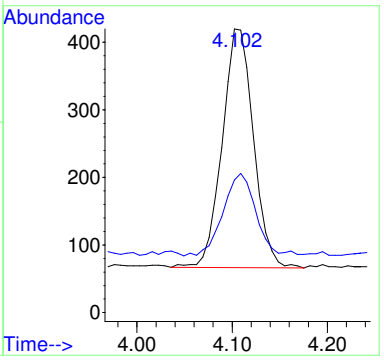


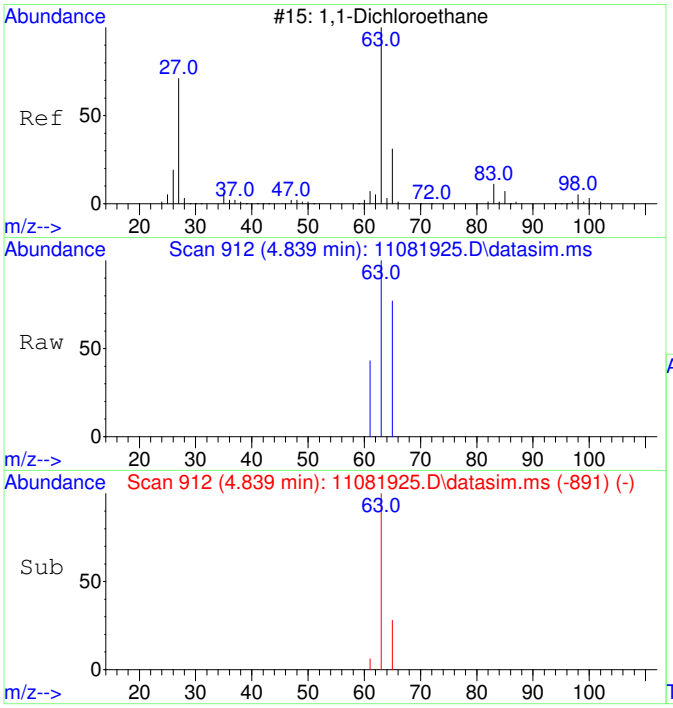


#3
trans-1,2-Dichloroethene
Concen: 106.75 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.020 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 810

Ion	Ratio	Lower	Upper
61	100		
63	36.2	2.3	62.3

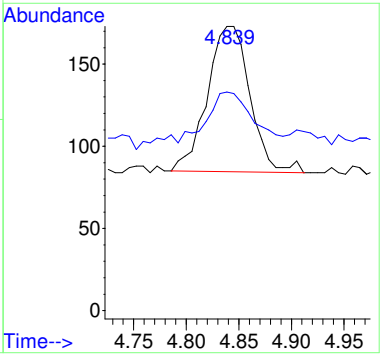


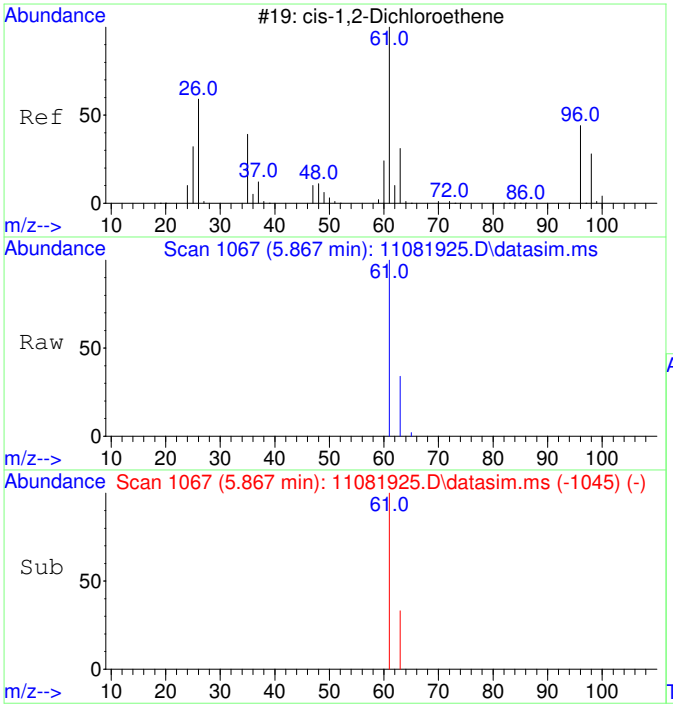


#4
1,1-Dichloroethane
Concen: 26.31 ug/L
RT: 4.839 min Scan# 912
Delta R.T. -0.013 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 63 Resp: 249

Ion	Ratio	Lower	Upper
63	100		
65	51.4	1.9	61.9

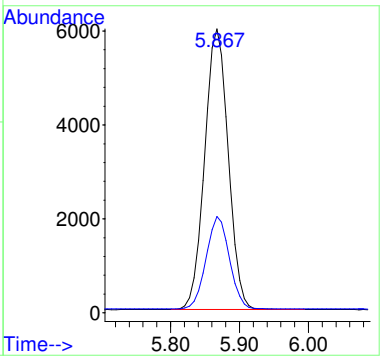


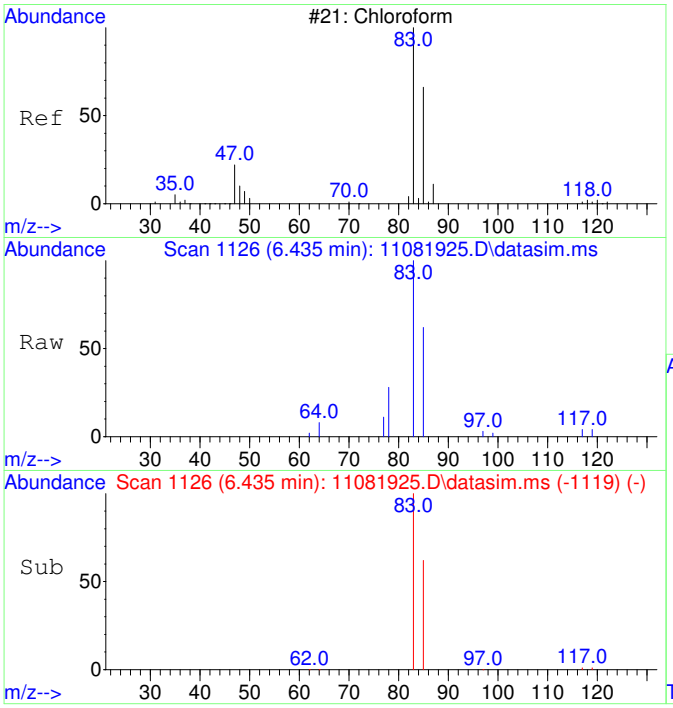


#5
cis-1,2-Dichloroethene
Concen: 1596.39 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 14155

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.4	62.4

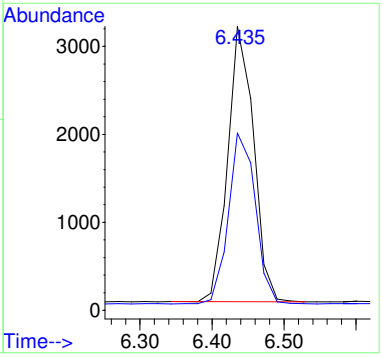


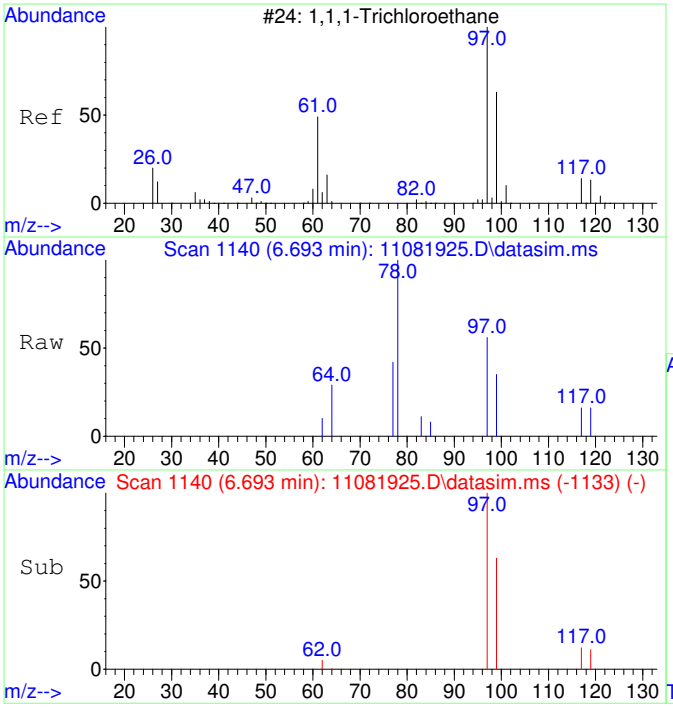


#6
Chloroform
Concen: 770.44 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 83 Resp: 7837

Ion	Ratio	Lower	Upper
83	100		
85	64.3	35.2	95.2

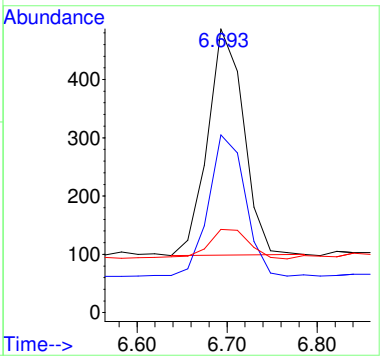


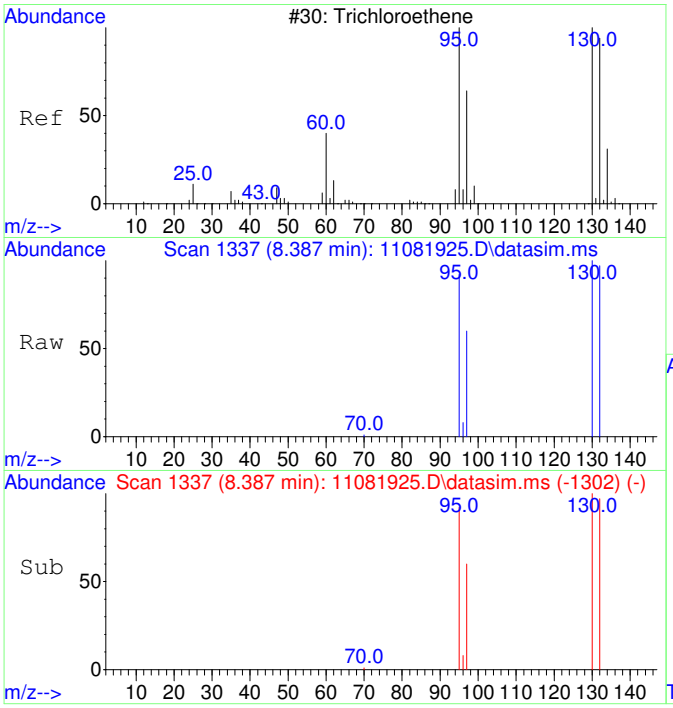


#7
1,1,1-Trichloroethane
Concen: 107.83 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 97 Resp: 1076

Ion	Ratio	Lower	Upper
97	100		
99	63.4	34.5	94.5
117	15.6	0.0	43.0

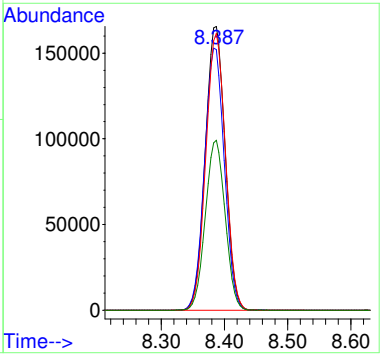


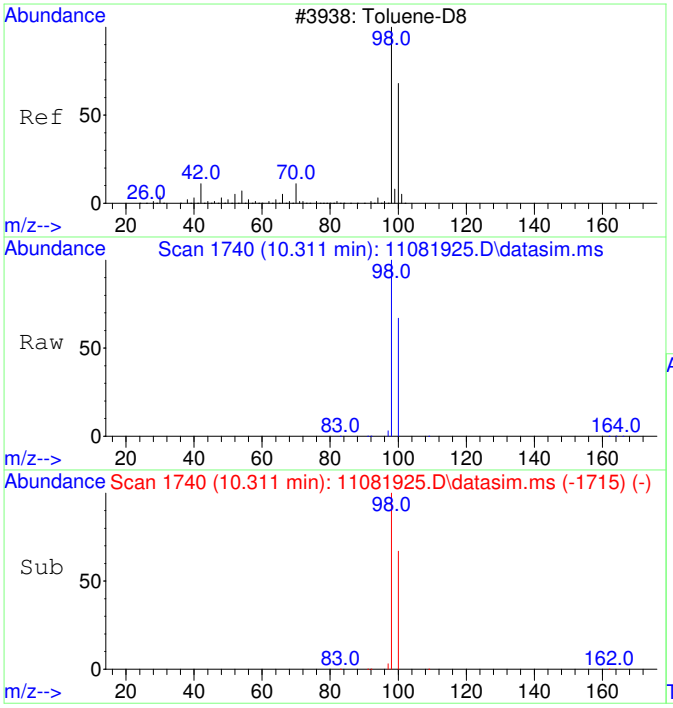


#11
Trichloroethene
Concen: 47307.26 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:130 Resp: 361538

Ion	Ratio	Lower	Upper
130	100		
95	92.2	63.4	123.4
132	96.5	76.0	116.0
97	59.5	39.8	79.8

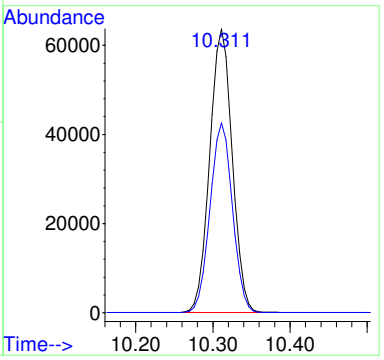


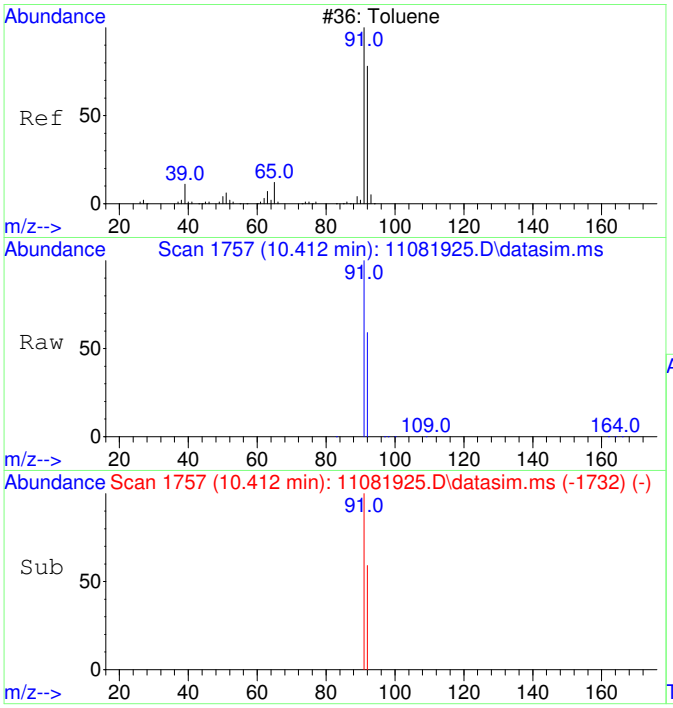


#12
Toluene-d8
Concen: 4979.35 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 98 Resp: 128715

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

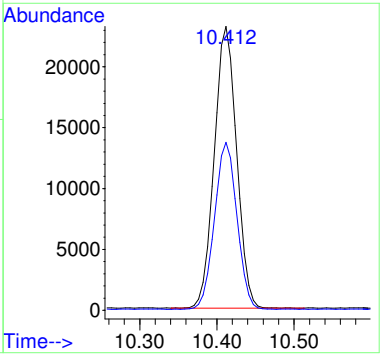


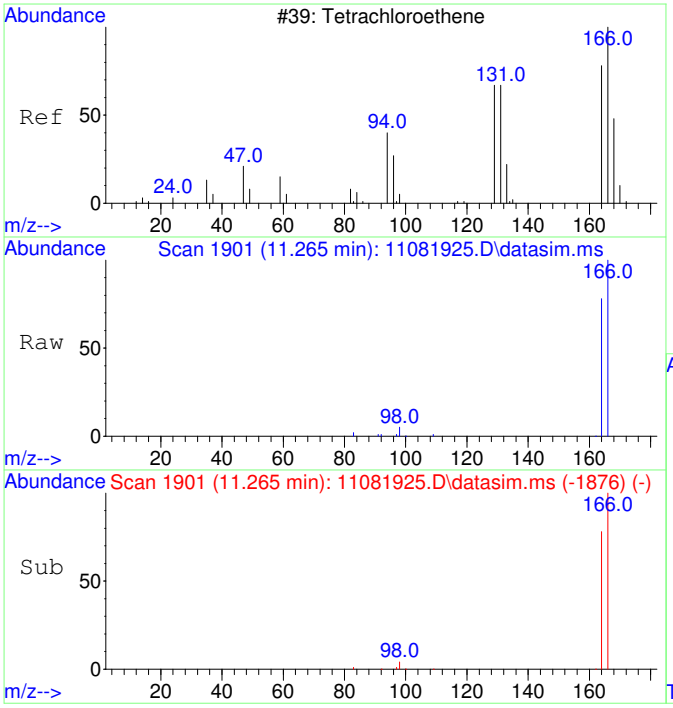


#13
Toluene
Concen: 1484.50 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 46516

Ion	Ratio	Lower	Upper
91	100		
92	59.4	29.4	89.4

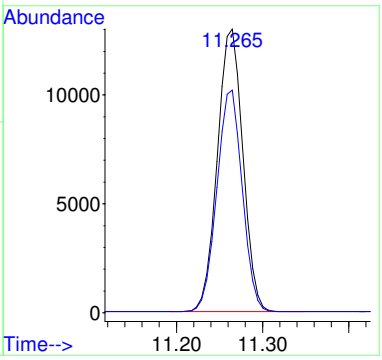


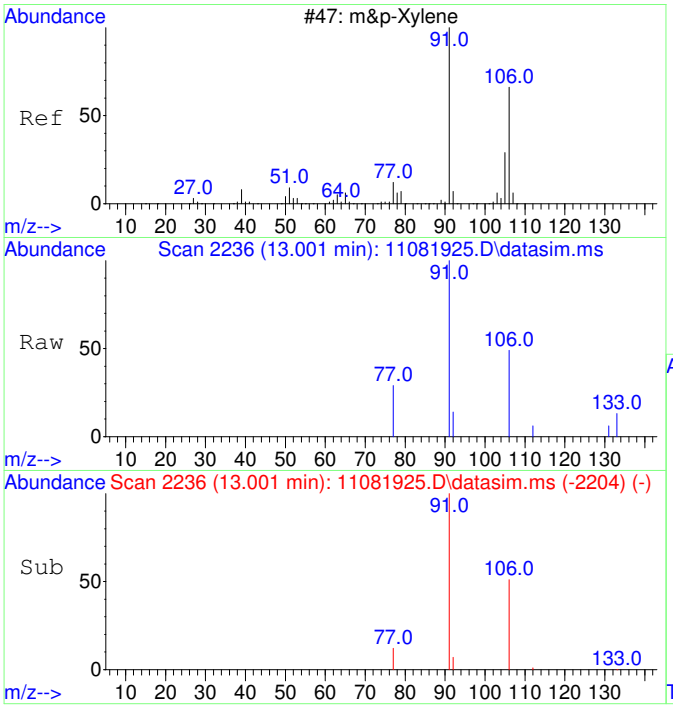


#15
Tetrachloroethene
Concen: 2919.60 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:166 Resp: 26595

Ion	Ratio	Lower	Upper
166	100		
164	78.1	47.7	107.7

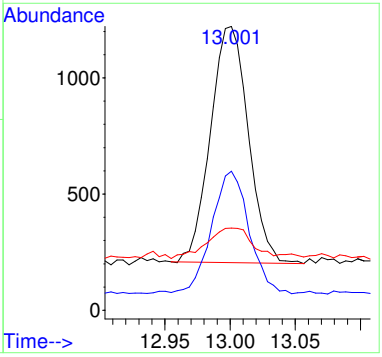


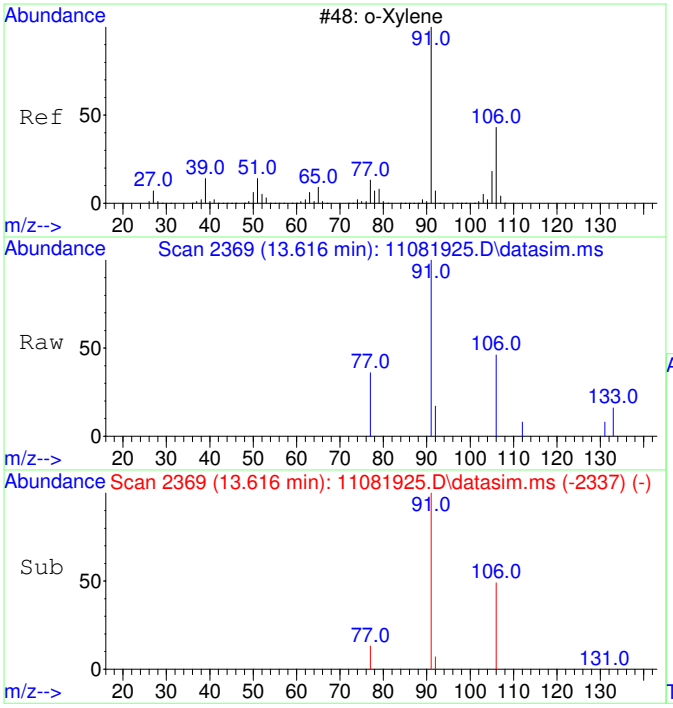


#19
m&p-Xylene
Concen: 71.15 ug/L
RT: 13.001 min Scan# 2236
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 2051

Ion	Ratio	Lower	Upper
91	100		
106	50.7	21.2	81.2
77	15.5	0.0	42.7

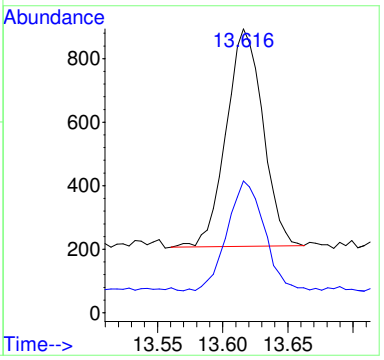


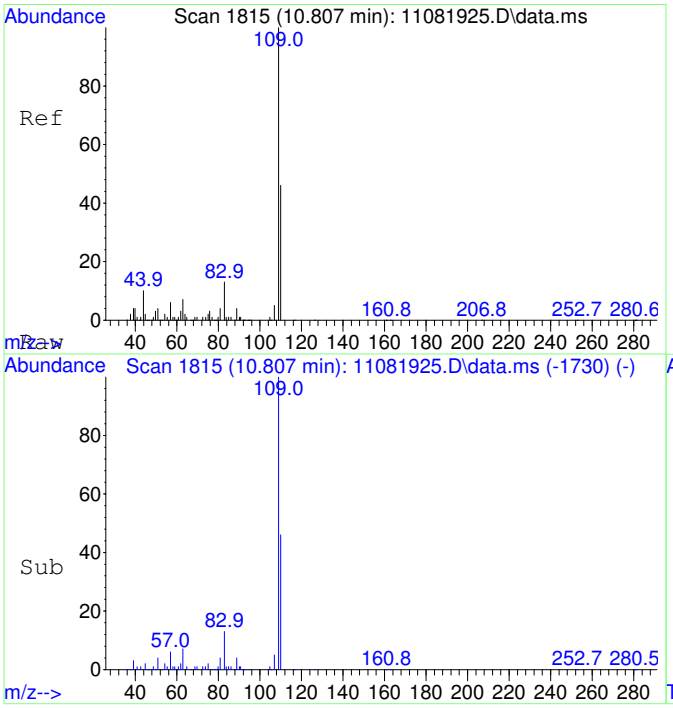


#20
o-Xylene
Concen: 43.46 ug/L
RT: 13.616 min Scan# 2369
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 1337

Ion	Ratio	Lower	Upper
91	100		
106	50.7	18.3	78.3

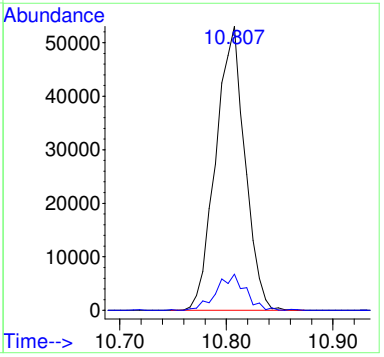


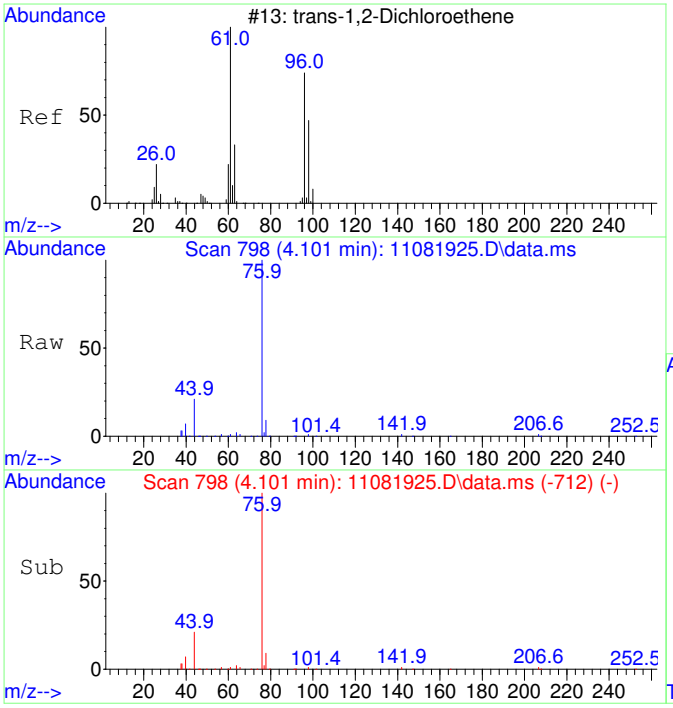


#25
2-Fluorotoluene SCAN
Concen: 5077.90 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:109 Resp: 101189

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	45.8

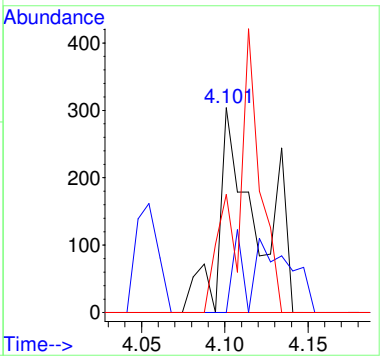


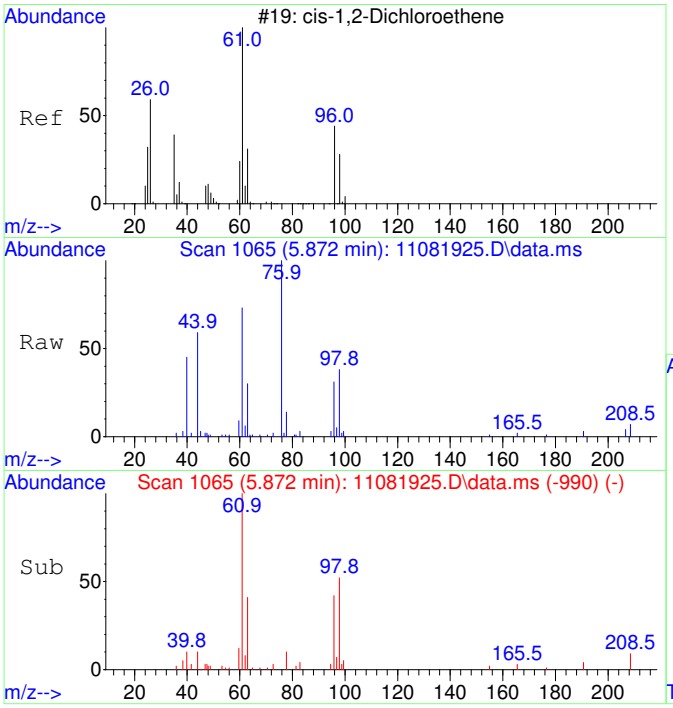


#27
trans-1,2-Dichloroethene SCAN
Concen: 74.84 ug/L
RT: 4.101 min Scan# 798
Delta R.T. -0.020 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 479

Ion	Ratio	Lower	Upper
61	100		
96	33.0	46.5	106.5#
98	88.3	22.8	82.8#

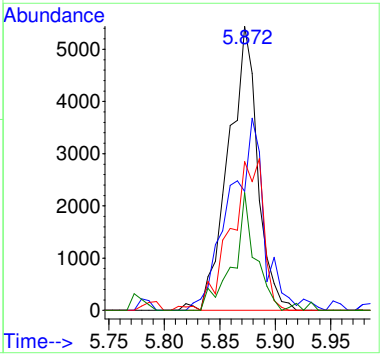


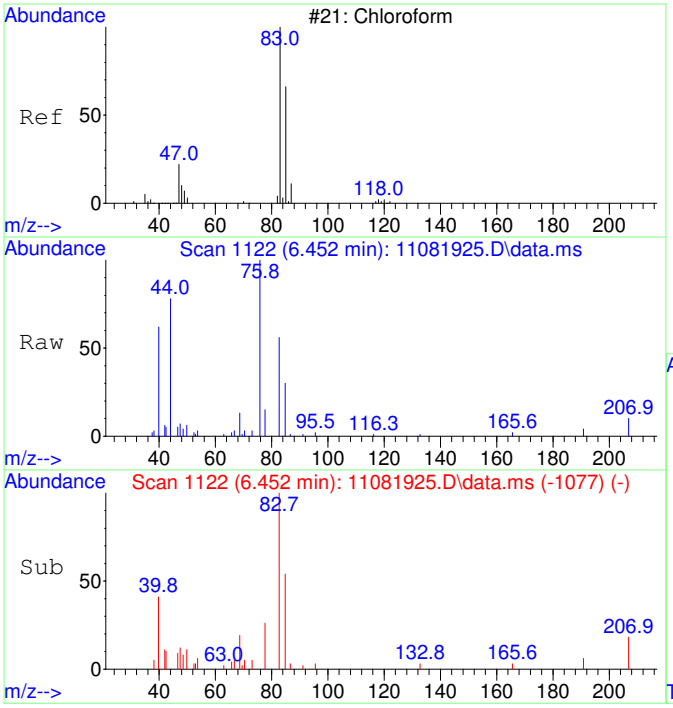


#29
cis-1,2-Dichloroethene SCAN
Concen: 1379.91 ug/L
RT: 5.872 min Scan# 1065
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 61 Resp: 9988

Ion	Ratio	Lower	Upper
61	100		
96	80.1	41.9	101.9
98	59.5	20.3	80.3
63	29.9	0.0	58.3

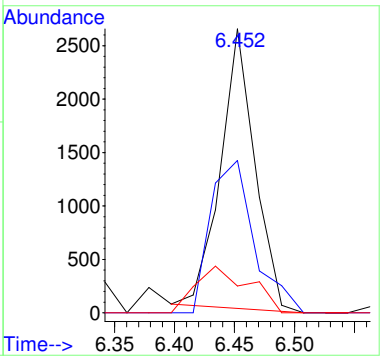


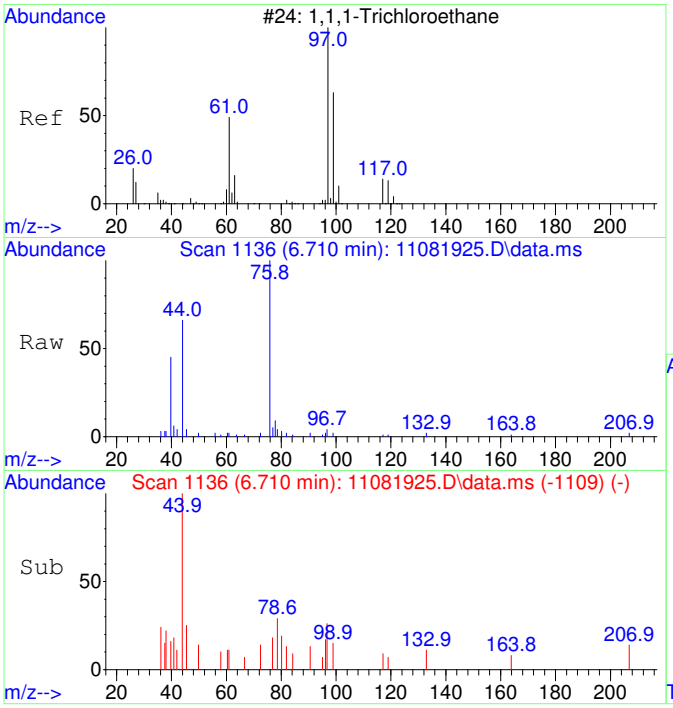


#30
Chloroform SCAN
Concen: 643.92 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 83 Resp: 5192

Ion	Ratio	Lower	Upper
83	100		
85	70.0	38.3	98.3
47	26.0	0.0	50.2

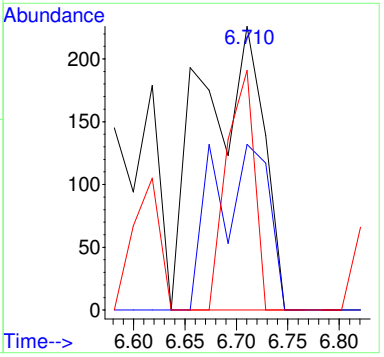


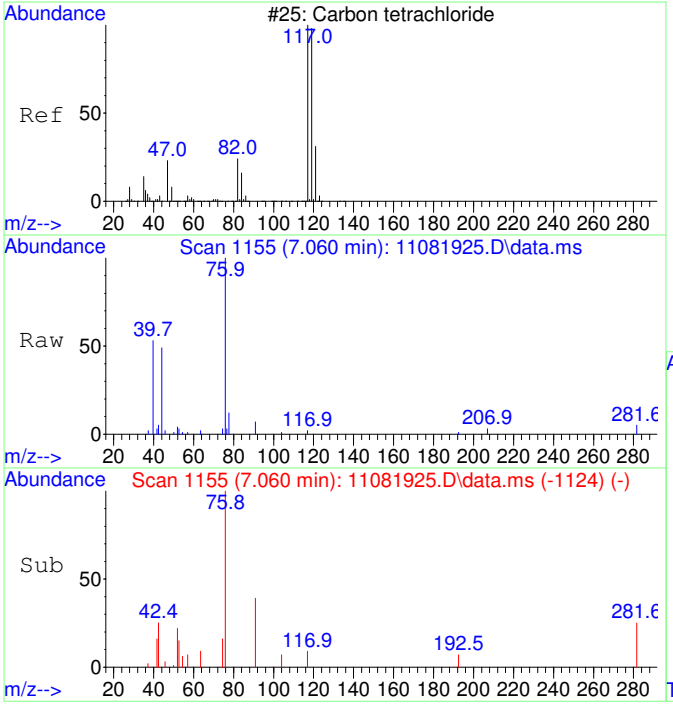


#31
1,1,1-Trichloroethane SCAN
Concen: 134.41 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 97 Resp: 946

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	38.2	11.1	71.1

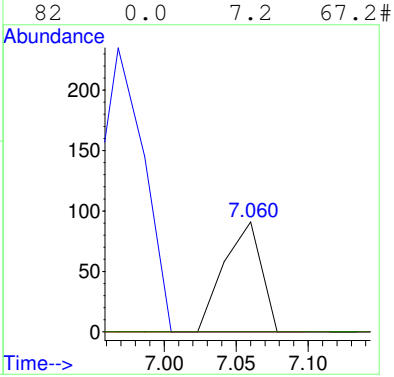


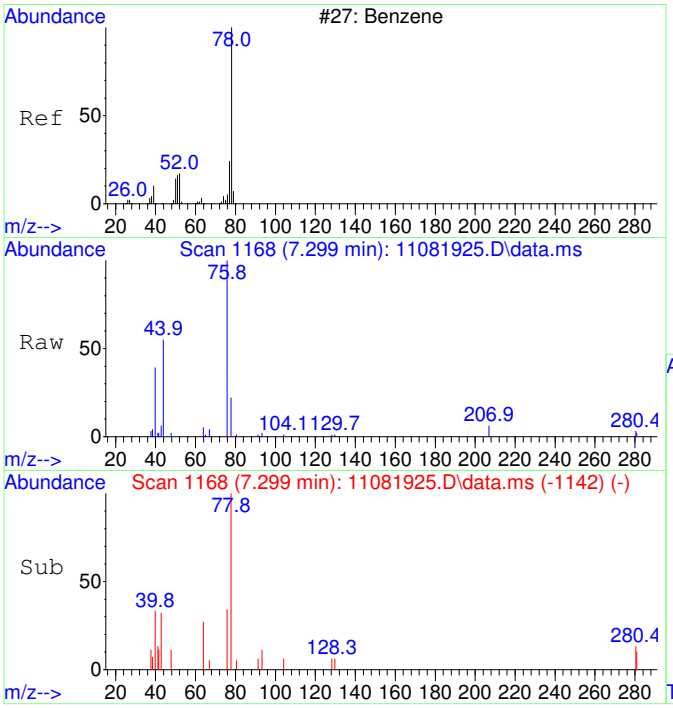


#32
Carbon tetrachloride SCAN
Concen: 25.01 ug/L
RT: 7.060 min Scan# 1155
Delta R.T. 0.074 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:117 Resp: 165

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

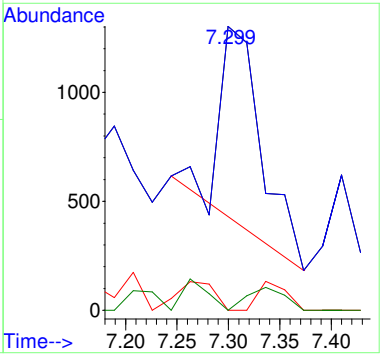


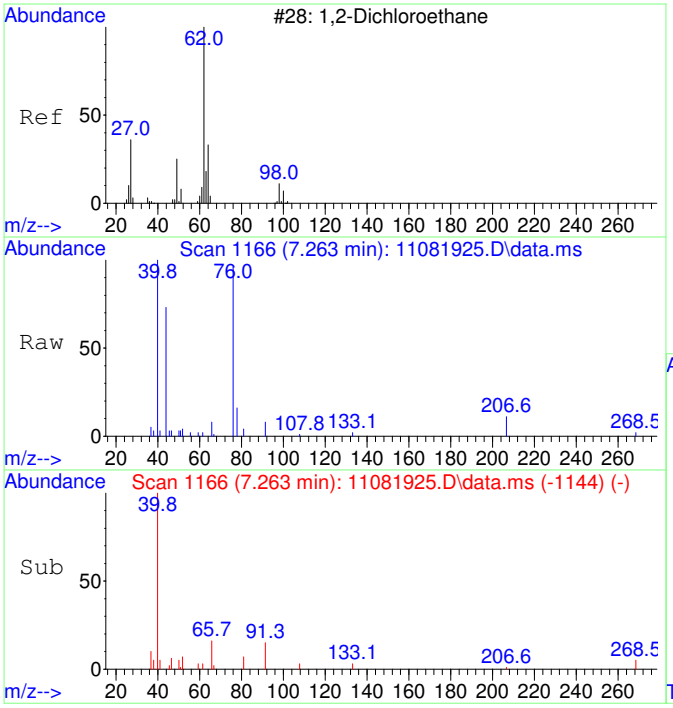


#33
Benzene SCAN
Concen: 130.08 ug/L
RT: 7.299 min Scan# 1168
Delta R.T. -0.018 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 78 Resp: 2301

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

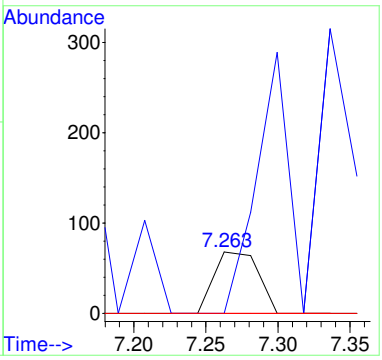


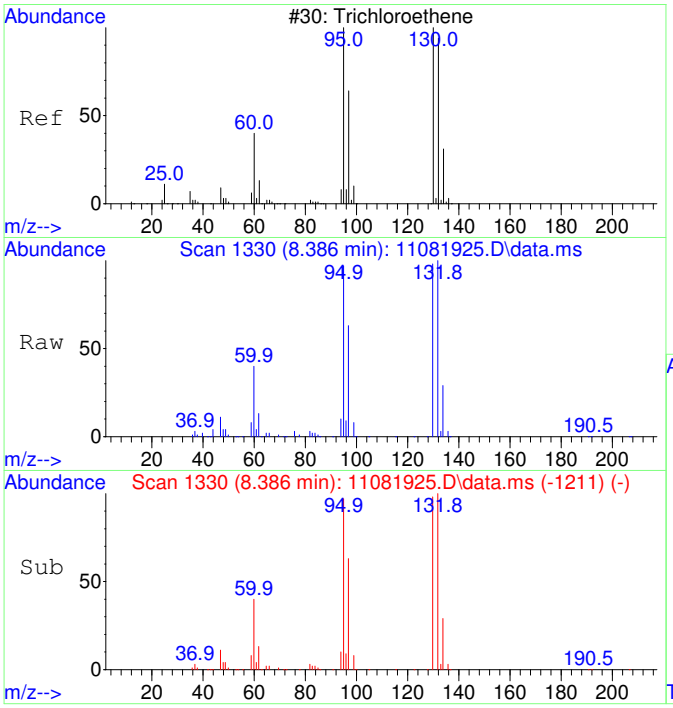


#34
1,2-Dichloroethane SCAN
Concen: 22.12 ug/L
RT: 7.263 min Scan# 1166
Delta R.T. -0.092 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 62 Resp: 146

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

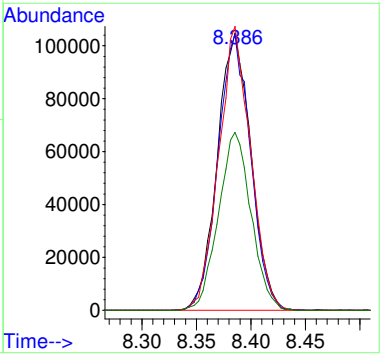


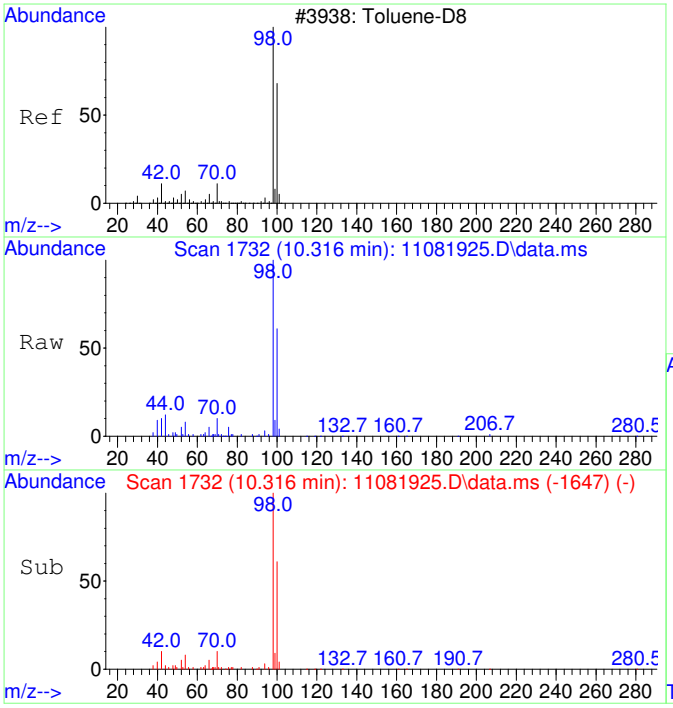


#35
Trichloroethene SCAN
Concen: 43400.47 ug/L
RT: 8.386 min Scan# 1330
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:130 Resp: 225063

Ion	Ratio	Lower	Upper
130	100		
95	96.5	69.5	129.5
132	96.9	66.5	126.5
97	62.2	32.8	92.8

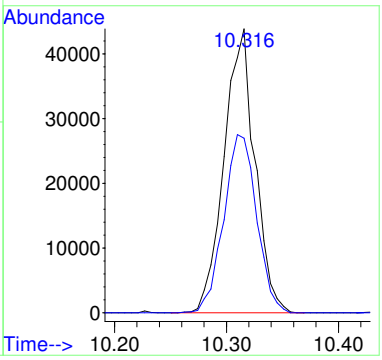


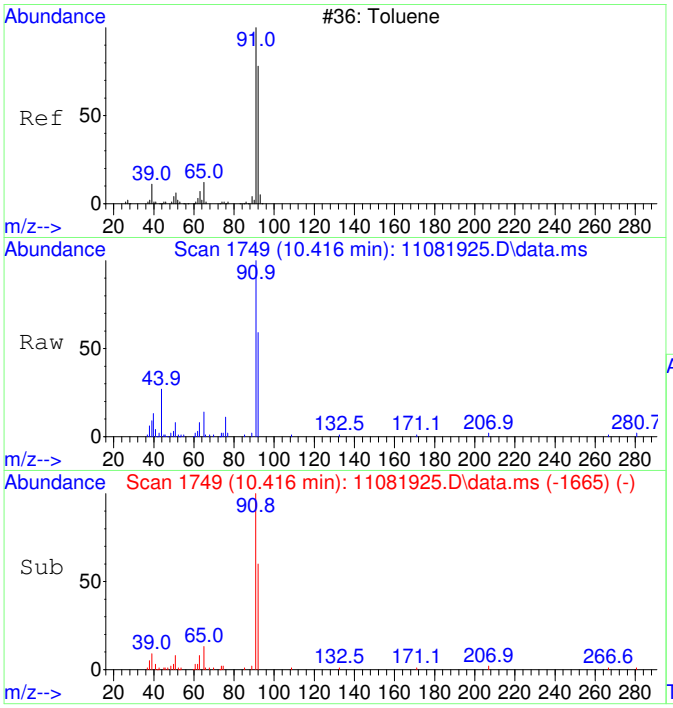


#36
Toluene-d8 SCAN
Concen: 5194.68 ug/L
RT: 10.316 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 98 Resp: 84186

Ion	Ratio	Lower	Upper
98	100		
100	66.9	42.1	102.1

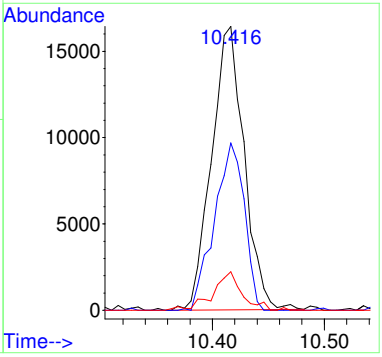


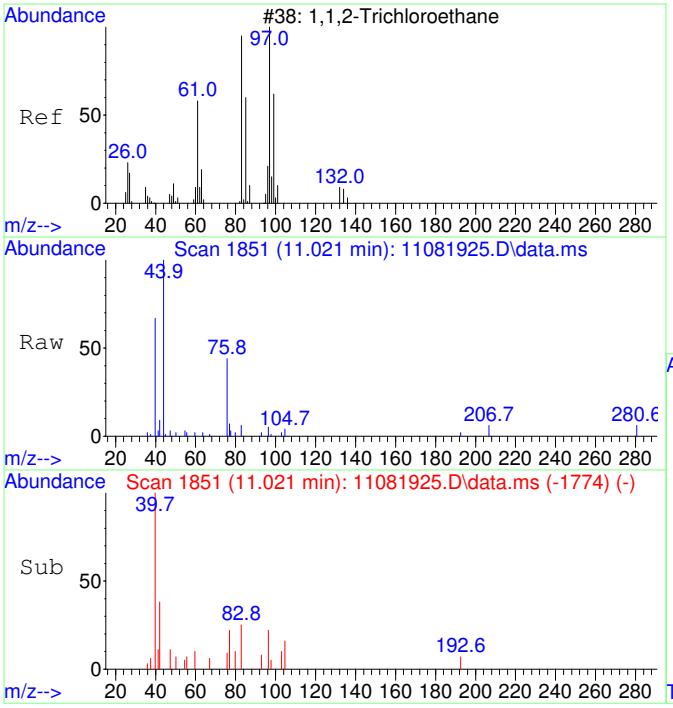


#37
Toluene SCAN
Concen: 1665.37 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. 0.000 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 33277

Ion	Ratio	Lower	Upper
91	100		
92	54.3	31.9	91.9
65	12.0	0.0	41.9

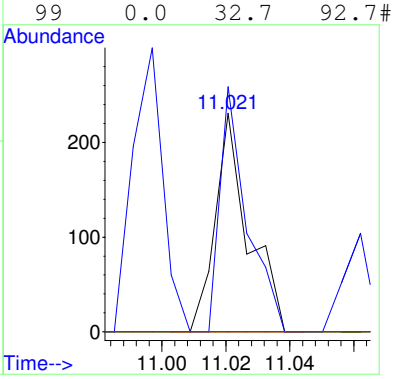


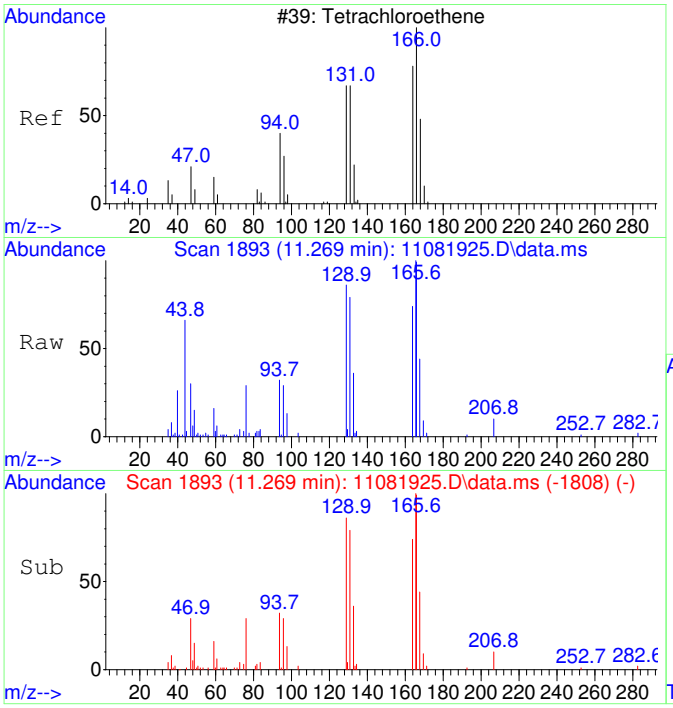


#38
1,1,2-Trichloroethane SCAN
Concen: 36.43 ug/L
RT: 11.021 min Scan# 1851
Delta R.T. -0.041 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 97 Resp: 166

Ion	Ratio	Lower	Upper
97	100		
83	92.2	58.1	118.1
61	0.0	36.0	96.0#
99	0.0	32.7	92.7#

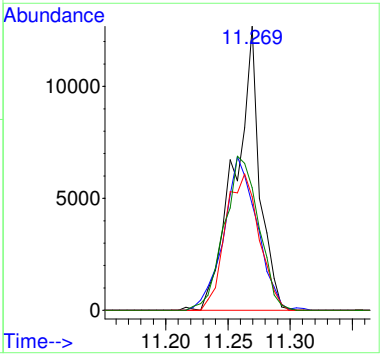


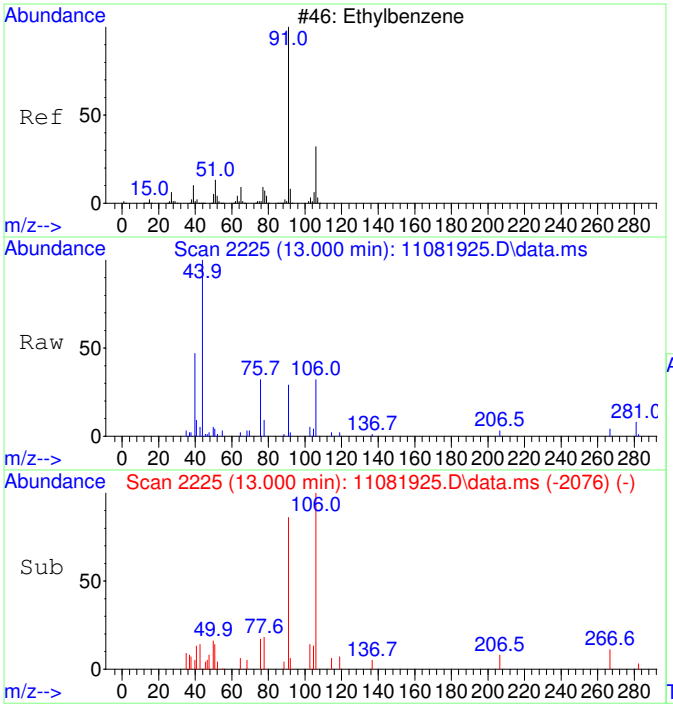


#39
Tetrachloroethene SCAN
Concen: 3349.92 ug/L
RT: 11.269 min Scan# 1893
Delta R.T. 0.006 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:166 Resp: 17771

Ion	Ratio	Lower	Upper
166	100		
164	72.2	50.4	110.4
131	65.1	44.0	104.0
129	74.5	42.6	102.6

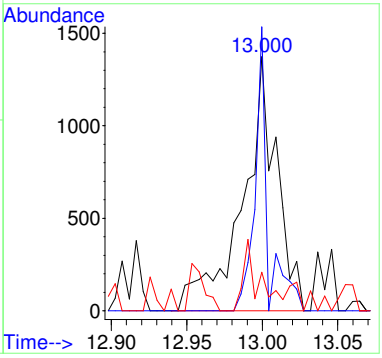


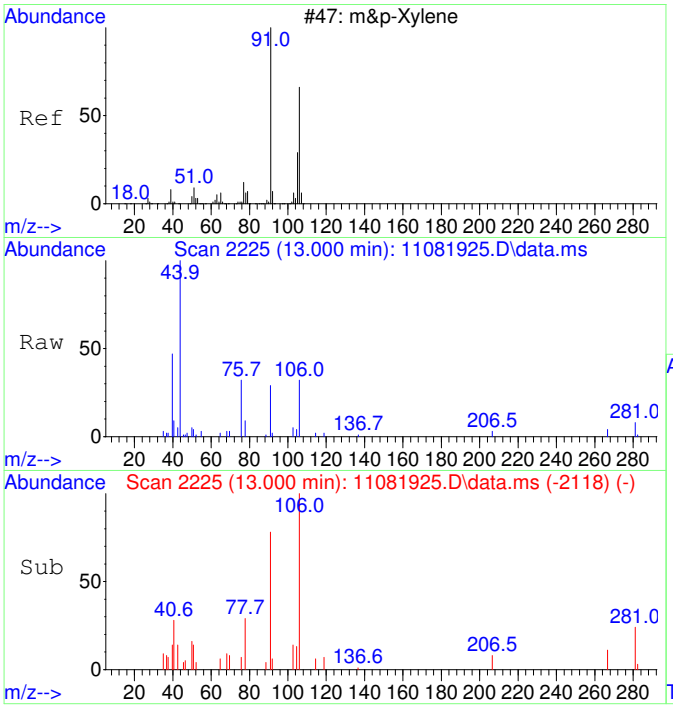


#42
Ethylbenzene SCAN
Concen: 94.72 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 2154

Ion	Ratio	Lower	Upper
91	100		
106	41.4	0.1	60.1
51	10.5	0.0	40.9

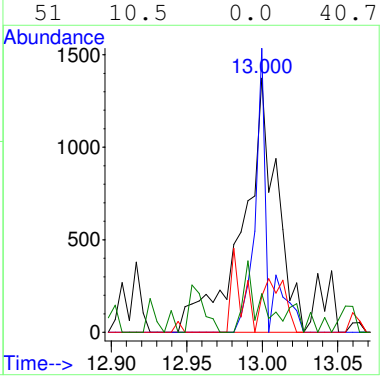


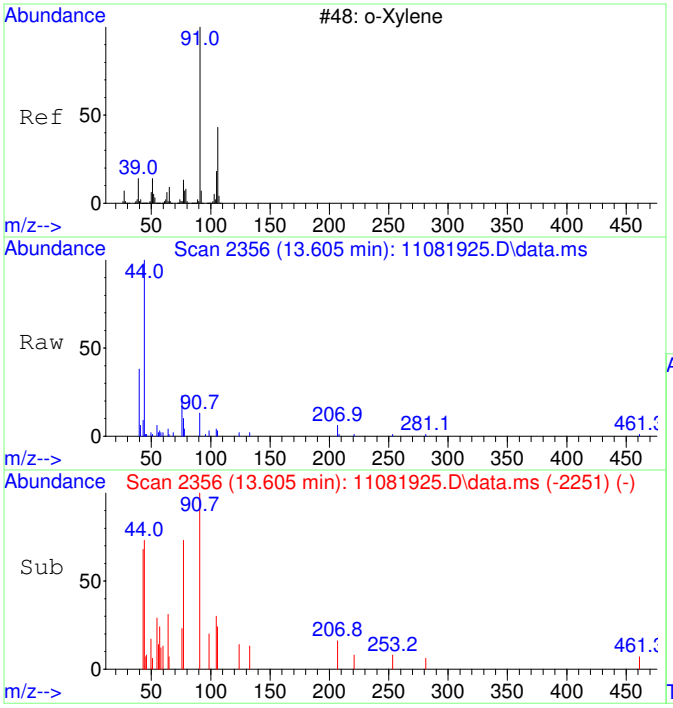


#43
m&p-Xylene SCAN
Concen: 66.02 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 2154

Ion	Ratio	Lower	Upper
91	100		
106	41.4	21.1	81.1
105	14.0	0.0	53.6
51	10.5	0.0	40.7

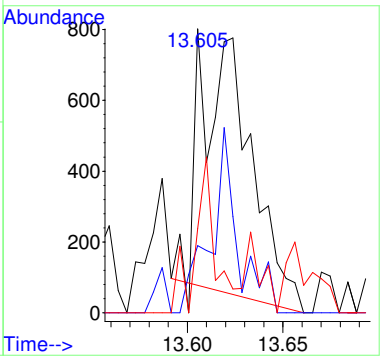


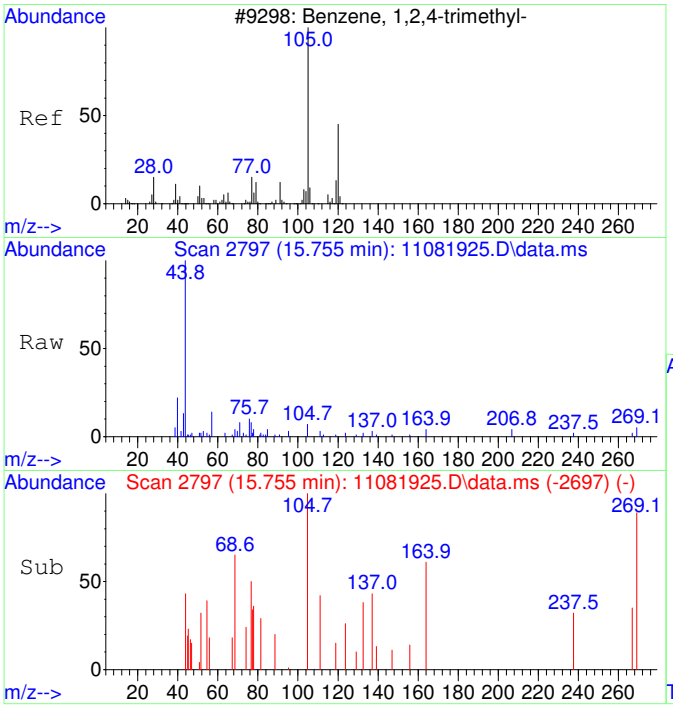


#44
o-Xylene SCAN
Concen: 74.99 ug/L
RT: 13.605 min Scan# 2356
Delta R.T. -0.014 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion: 91 Resp: 1301

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.7	76.7#
105	16.8	0.0	57.3

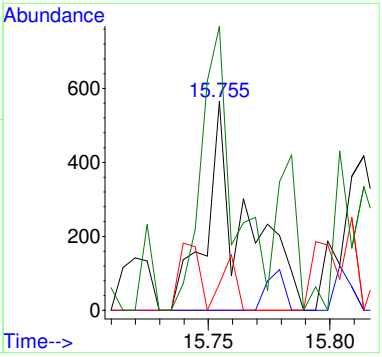




#47
1,2,4-Trimethylbenzene SCAN
Concen: 36.43 ug/L
RT: 15.755 min Scan# 2797
Delta R.T. -0.005 min
Lab File: 11081925.D
Acq: 8 Nov 2019 19:47

Tgt Ion:105 Resp: 633

Ion	Ratio	Lower	Upper
105	100		
120	0.0	18.6	78.6#
119	16.6	0.0	42.1
77	103.0	0.0	42.9#



SEQUENCE

S19K038

Sequence Date: 11/11/2019

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B19K004	SEQUENCE #:	S19J038 11/11/19
BATCH #:		ANALYSIS:	VOA Passive Air. R20S14

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
DOCUMENTATION	ANALYST: Bench sheet(s) attached? REVIEWER: Bench sheet(s) reviewed?	☐	Y	Y	
	ANALYST: Sequence log(s) attached? REVIEWER: Sequence log(s) reviewed?	☐	Y	Y	
	ANALYST: Every run has a PDF in LIMS? REVIEWER: Every PDF reviewed?	☐	Y	Y	
INITIAL CALIBRATION	Date of Initial Calibration used: If applicable, note date of "Last Update" in Comments.	Mon Nov 11 06:00:05 2019			
	Initial Calibration ID (LIMS number):	1911007			
	ICAL within QC criteria?	✔			
	SCV within QC criteria?	✔			
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?	☐	Y	Y	
	CCV(s) within QC criteria?	☐	Y	Y	
	QLS(s) within QC criteria?	☐	Y	Y	
	CB(s) or storage blank(s) within QC criteria?	✔			
	Other instrument checks within QC criteria? Specify if applicable.	✔			
BATCH QCs	Method blanks < 1/2 QL?	✔			
	LCS(s) or SRM(s) within QC criteria?	☐	N	N	* SEE COMMENTS
	MSs/MSDs and/or DUPs within QC criteria?	✔			
	Other method-specific QCs within QC criteria? Specify if applicable.	✔			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B19K004	SEQUENCE #:	S19J038 11/11/19
BATCH #:		ANALYSIS:	VOA Passive Air. R20S14

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	Y	Y	1910069-03RE3 (conf.10X DL) fails high
	Surrogates within QC criteria?	☐	Y	Y	
SAMPLE DATA	Were samples prepared & analyzed within holding time?	☐	Y	Y	
	If samples need to be re-run, were RE(s) made in LIMS?	✔			
	Do any samples need to be re-digested or re-extracted?	✔			
	Were all data qualifiers appropriately applied?	☐	Y	Y	
	Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable.	✔			
MANUAL INT	Were manual integrations performed and documented? Specify if applicable.	☐	Y	Y	

APPROVALS	ANALYST INITIALS & DATE:	TD 11/12/19
	REVIEWED BY:	Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2019.11.12 11:12:18 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

*BS1/BSD1 were re-run as BS2/BSD2. BS2 fail %R for 1,1-Dichloroethene, rans-1,2-Dichloroethene, 1,1-Dichloroethane, and cis-1,1-Dichloroethene. Also BS2/BSD2 fail RPD.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2019\111119\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	11111901.D	1	S19K038-IBL1		11 Nov 2019 9:21
2	11111902.D	1	S19K038-TUN1	BFB 1940006	11 Nov 2019 9:42
3	11111903.D	1	S19K038-CCV1	1930057 5 mg/L	11 Nov 2019 13:06
4	11111904.D	1	S19K038-CRL1	1930060 0.05 mg/L	11 Nov 2019 13:29
5	11111905.D	1	B19K004-BS2	for low %R	11 Nov 2019 14:18
6	11111906.D	1	B19K004-BSD2	for low %R	11 Nov 2019 14:41
7	11111907.D	10	1910069-03RE3	conf. (450-50)	11 Nov 2019 15:05
8	11111908.D	10	1910069-07RE2	for high IS (450-50)	11 Nov 2019 15:29

GC/MS QA-QC Check Report

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Tune File : C:\msdchem\1\Ravioli Data\2019\111119\11111902.D
Tune Time : 11 Nov 2019 9:42

Daily Calibration File : C:\msdchem\1\Ravioli Data\2019\111119\11111903.D

File	Sample	Surrogate Recovery %	Internal Standard Responses		
			102582		
11111903.D	S19K038-CC	101	102582		
11111904.D	S19K038-CR	1*	189989		
11111905.D	B19K004-BS2	103	141668		
11111906.D	B19K004-BSD2	105	286422*		
11111907.D	1910069-03RE3	101	255552*	CONF	10X
11111908.D	1910069-07RE2	101	201123	RA for high IS	10X

(fails) - fails 12hr time check * - fails criteria

Created: Tue Nov 12 06:19:30 2019 AG5975C

Analysis Sequence

S19K038

Project: R20S14
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1911007 Printed: 11/12/2019 8:08 am

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S19K038-IBL1	Instrument Blank	1	11/11/19 9:21		1930061	TD	11111901.D	
S19K038-TUN1	BFB	2	11/11/19 9:42	1940006		TD	11111902.D	
S19K038-CCV1	Calibration Check	3	11/11/19 13:06	1930057		TD	11111903.D	
S19K038-CRL1	Instrument RL Check	4	11/11/19 13:29	1930060		TD	11111904.D	
B19K004-BS2	LCS	5	11/11/19 14:18			TD	11111905.D	
B19K004-BSD2	LCS Dup	6	11/11/19 14:41			TD	11111906.D	
1910069-03RE3 A	F5-062-2ft-28d-7d	7	11/11/19 15:05			TD	11111907.D	
1910069-07RE2 A	F6-008-2ft-28d-7d	8	11/11/19 15:29			TD	11111908.D	

Sequence Comments

Reagents

Reagent #	Description

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SEQUENCE DATA

S19K038

S19K038-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111901.D
Acq On : 11 Nov 2019 9:21
InstName : AG5975C
Operator : TD
Sample : S19K038-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 11 13:25:53 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

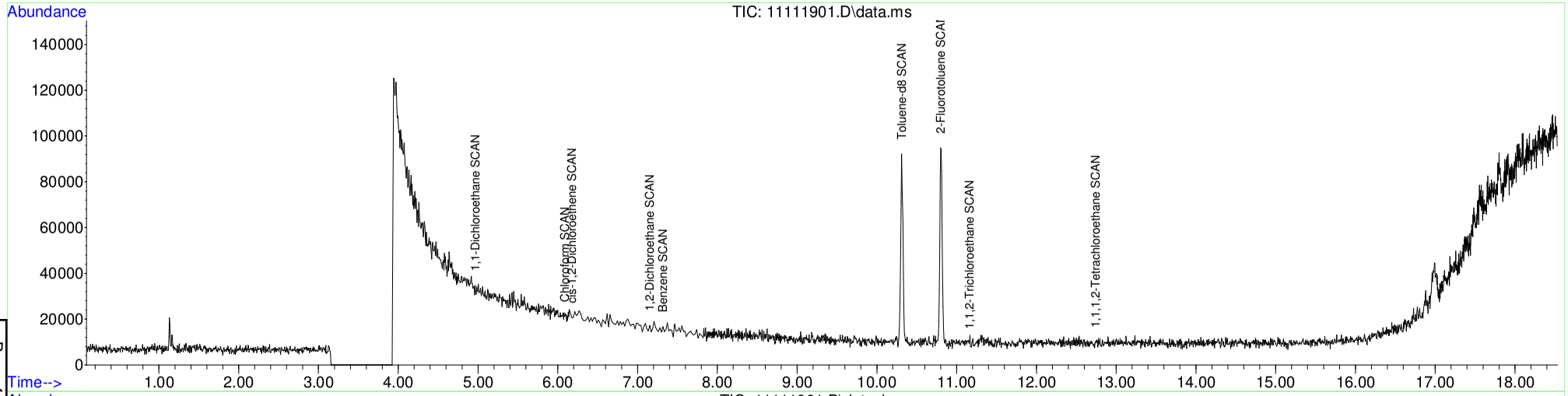
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	121307	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	96689	4932.35	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 98.65%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	10.801	109	76940	5091.39	ug/L	98
28) 1,1-Dichloroethane SCAN	4.963	63	155	24.38	ug/L #	50
29) cis-1,2-Dichloroethene...	6.176	61	133	24.23	ug/L #	1
30) Chloroform SCAN	6.085	83	182	29.76	ug/L #	25
33) Benzene SCAN	7.318	78	1622	120.91	ug/L #	89
34) 1,2-Dichloroethane SCAN	7.152	62	231	46.16	ug/L #	39
36) Toluene-d8 SCAN	10.310	98	60317	4907.86	ug/L	96
38) 1,1,2-Trichloroethane ...	11.157	97	315	91.15	ug/L #	47
41) 1,1,1,2-Tetrachloroeth...	12.736	131	99	26.82	ug/L #	43

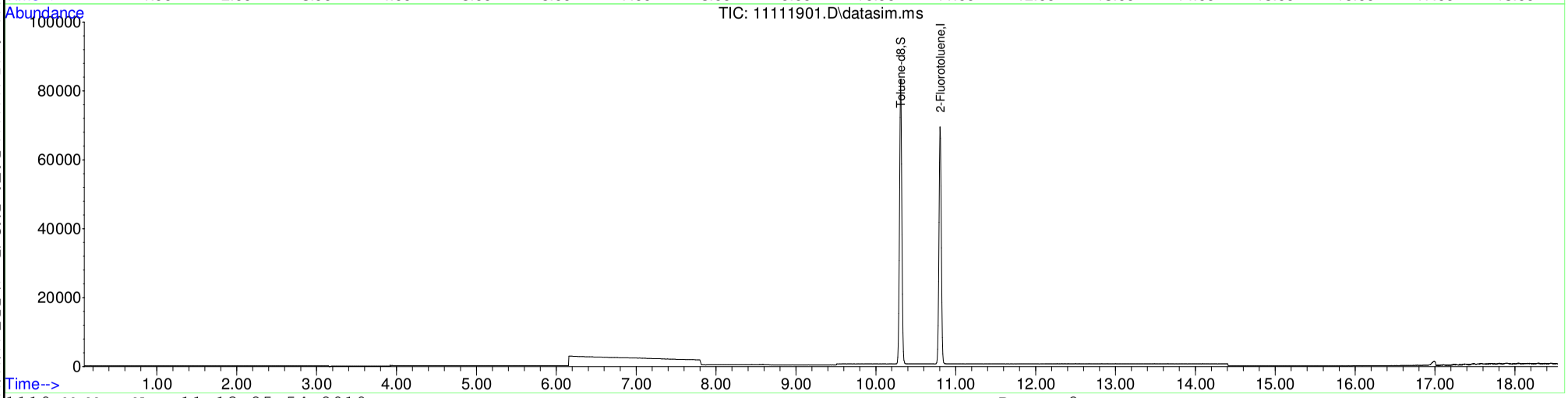
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111901.D
Acq On : 11 Nov 2019 9:21
InstName : AG5975C
Operator : TD
Sample : S19K038-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 11 13:25:53 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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S19K038-TUN1

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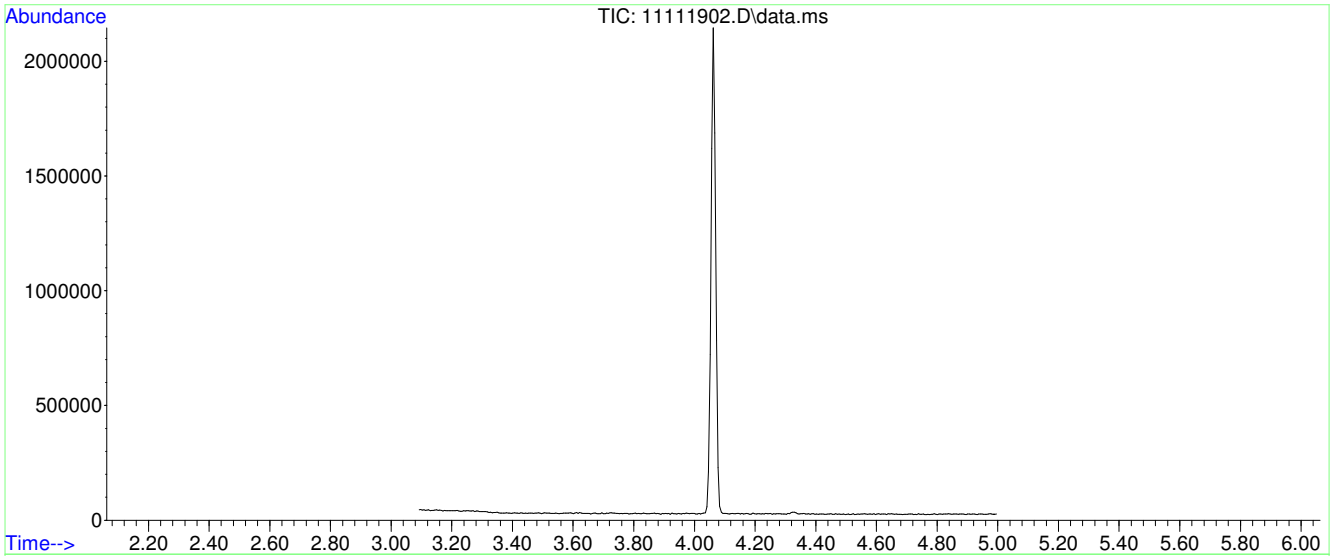
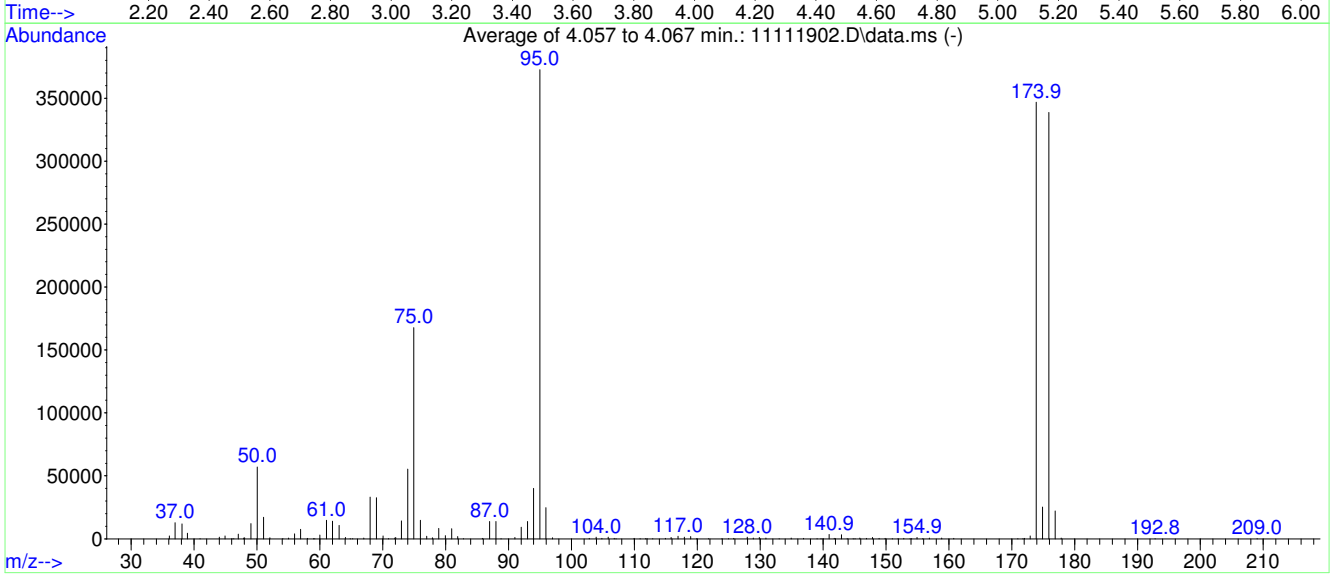
Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111902.D
Acq On : 11 Nov 2019 9:42
Operator : TD
Sample : S19K038-TUN1
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Mon Nov 11 06:00:05 2019





AutoFind: Scans 185, 186, 187; Background Corrected with Scan 177

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	57064	PASS
75	95	30	60	45.0	167759	PASS
95	95	100	100	100.0	372565	PASS
96	95	5	9	6.6	24755	PASS
173	174	0.00	2	0.7	2299	PASS
174	95	50	120	93.1	346816	PASS
175	174	5	9	7.3	25216	PASS
176	174	95	101	97.7	338688	PASS
177	176	5	9	6.5	22083	PASS

Average of 4.057 to 4.067 min.: 11111902.D\data.ms
S19K038-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	2392	48.05	908	59.20	64	70.05	2302
37.00	12924	49.05	12106	60.00	2945	70.90	73
38.10	11939	50.05	57064	61.05	14730	71.90	546
38.95	4383	51.05	17100	62.00	14126	72.05	1189
40.95	60	52.05	745	63.05	10710	72.95	14151
44.00	1424	54.10	51	64.05	1136	74.00	55307
44.95	2293	55.05	648	64.85	218	74.95	167759
46.05	249	56.00	3910	65.20	154	76.00	14839
46.30	147	56.95	7636	67.00	579	77.00	1992
47.05	3632	58.05	287	68.00	33048	77.90	965
47.90	654	59.00	89	69.00	32739	78.90	8325

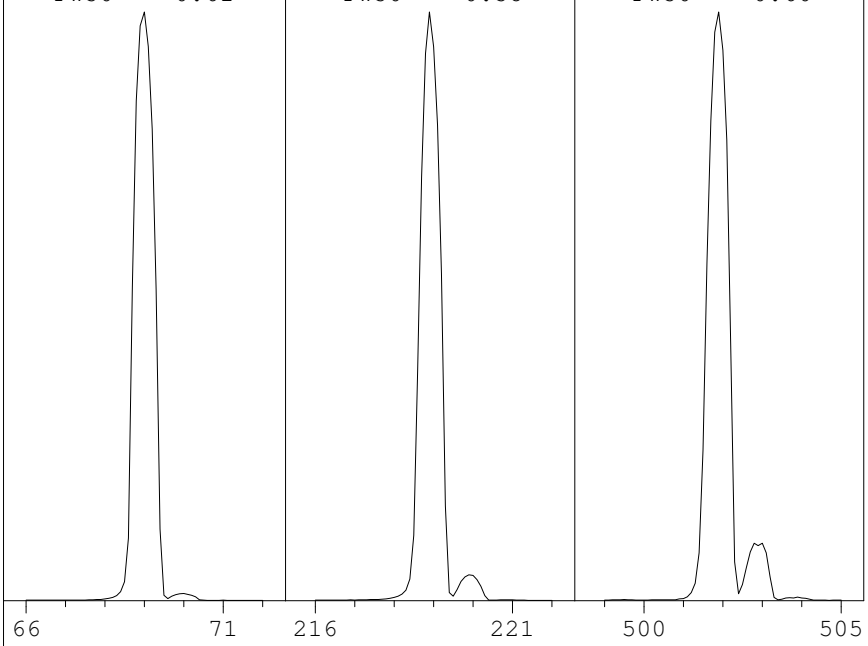
Average of 4.057 to 4.067 min.: 11111902.D\data.ms
S19K038-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
79.95	2472	94.00	40141	110.90	252	123.95	210
80.95	8078	95.00	372565	111.80	54	125.00	124
81.90	1770	95.95	24755	112.00	62	125.80	280
82.85	249	97.00	743	112.95	148	127.95	1316
85.85	288	102.85	322	114.95	411	128.90	641
87.00	13675	103.95	1414	115.85	1008	129.85	1202
88.00	13811	104.85	474	116.95	1987	130.90	609
88.80	183	105.85	1226	117.95	1296	133.05	223
91.00	1029	106.80	327	118.95	1747	134.95	538
92.00	9252	107.10	148	119.90	114	136.90	307
93.00	13876	109.95	264	121.80	67	139.05	181

Average of 4.057 to 4.067 min.: 11111902.D\data.ms
S19K038-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.70	115	147.85	1017	158.85	546	192.80	248
140.00	139	148.90	370	160.80	419	209.00	189
140.95	3436	149.85	361	171.00	58		
141.80	261	151.00	51	171.80	110		
142.00	160	151.95	115	172.05	351		
142.95	3340	152.85	319	172.95	2299		
143.85	193	153.85	161	173.90	346816		
144.80	200	154.10	125	174.90	25216		
145.10	211	154.95	1057	175.90	338688		
145.85	693	155.85	237	176.90	22083		
146.90	269	156.90	582	177.85	732		

Mass	69.00	Mass	218.90	Mass	501.90
Ab	749412	Ab	561404	Ab	42761
Pw50	0.61	Pw50	0.58	Pw50	0.60

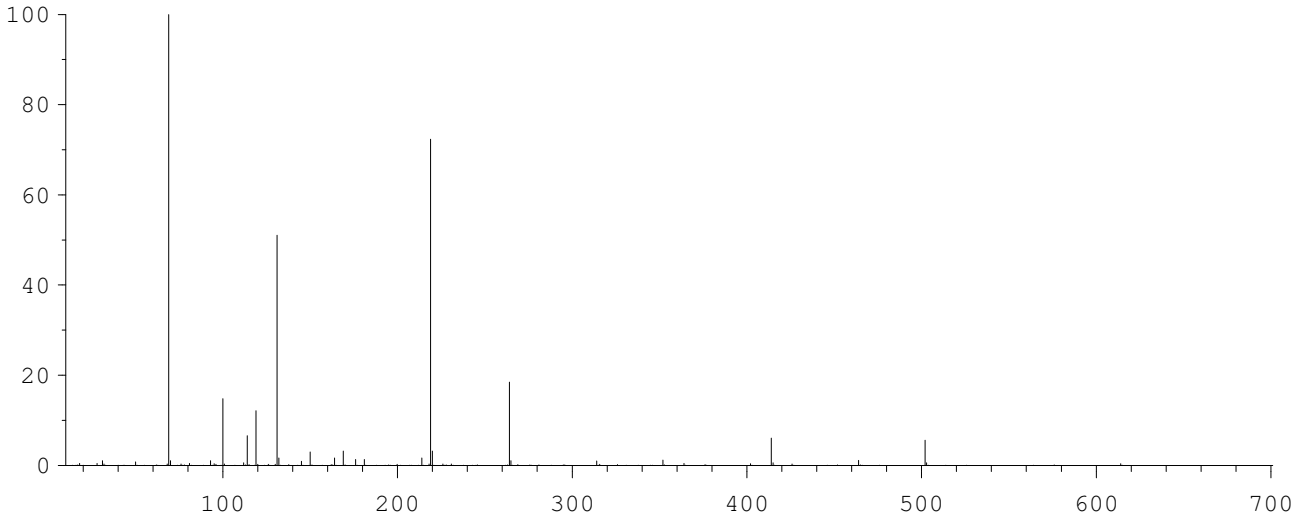


Ion Pol	Pos	MassGain	-1192
		MassOffs	-36
Emission	34.6	AmuGain	978
EIEnrgy	69.9	AmuOffs	122.50
Filament	1	Wid219	-0.009
		DC Pol	Pos
Repeller	29.12		
IonFcus	88.3	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Turbo Speed	100
MS Quad	150	HiVac	0.00e00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
157 peaks Base: 69.00 Abundance: 744960



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	744960	100.00	70.00	8030	1.08
219.00	538688	72.31	220.00	23512	4.36
502.00	41616	5.59	503.00	4312	10.36

Air/Water Check: H20~0.48% N2~0.47% O2~0.31% CO2~0.04% N2/H2O~99.77%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 38479
Repeller Maximum 35 volts using ion 219; Gain Factor 0.38

MassGain Values(Samples): -1179(3) -1171(2) -1163(1) -1133(0) -1046(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.5	122.5	122.5	122.5	122.5	122.5	122.5
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S19K038-CCV1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111903.D
Acq On : 11 Nov 2019 13:06
InstName : AG5975C
Operator : TD
Sample : S19K038-CCV1
Misc : 1930057 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 11 13:26:01 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.03min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	2-Fluorotoluene	1.000	1.000	0.0	68	0.00
2	T	1,1-Dichloroethene	0.231	0.262	-13.4	60	0.00
3	T	trans-1,2-Dichloroethene	0.237	0.252	-6.3	58	-0.03#
4	T	1,1-Dichloroethane	0.296	0.313	-5.7	59	-0.02
5	T	cis-1,2-Dichloroethene	0.277	0.284	-2.5	58	-0.01
6	T	Chloroform	0.318	0.318	0.0	58	-0.02
7	T	1,1,1-Trichloroethane	0.312	0.309	1.0	60	-0.02
8	T	Carbon tetrachloride	0.290	0.279	3.8	59	-0.02
9	T	Benzene	0.788	0.774	1.8	62	0.00
10	T	1,2-Dichloroethane	0.253	0.228	9.9	54	-0.02
11	T	Trichloroethene	0.239	0.227	5.0	61	0.00
12	S	Toluene-d8	0.808	0.814	-0.7	69	0.00
13	T	Toluene	0.979	0.975	0.4	69	0.00
14	T	1,1,2-Trichloroethane	0.227	0.213	6.2	65	0.00
15	T	Tetrachloroethene	0.285	0.273	4.2	68	0.00
16	T	Chlorobenzene	0.727	0.721	0.8	72	0.00
17	T	1,1,1,2-Tetrachloroethane	0.262	0.245	6.5	69	0.00
18	T	Ethylbenzene	1.190	1.186	0.3	74	0.00
19	T	m&p-Xylene	0.901	0.904	-0.3	75	0.00
20	T	o-Xylene	0.962	0.952	1.0	75	0.00
21	T	1,1,2,2-Tetrachloroethane	0.427	0.407	4.7	71	0.00
22	T	1,3,5-Trimethylbenzene	1.028	1.032	-0.4	78	0.00
23	T	1,2,4-Trimethylbenzene	1.047	1.044	0.3	78	0.00
24	T	Naphthalene	1.806	1.819	-0.7	81	0.00
25		2-Fluorotoluene SCAN	0.623	0.623	0.0	68	0.00
26		1,1-Dichloroethene SCAN	0.208	0.190	8.7	62	0.00
27		trans-1,2-Dichloroethene SC	0.200	0.176	12.0	60	-0.03
28		1,1-Dichloroethane SCAN	0.262	0.201	23.3	52	-0.03
29		cis-1,2-Dichloroethene SCAN	0.226	0.232	-2.7	70	-0.01
30		Chloroform SCAN	0.252	0.223	11.5	60	-0.02
31		1,1,1-Trichloroethane SCAN	0.220	0.208	5.5	64	-0.02
32		Carbon tetrachloride SCAN	0.206	0.206	0.0	68	-0.02
33		Benzene SCAN	0.553	0.567	-2.5	70	-0.02
34		1,2-Dichloroethane SCAN	0.206	0.213	-3.4	70	0.00
35		Trichloroethene SCAN	0.162	0.139	14.2	58	0.00
36		Toluene-d8 SCAN	0.507	0.541	-6.7	73	0.00
37		Toluene SCAN	0.625	0.632	-1.1	69	0.00
38		1,1,2-Trichloroethane SCAN	0.142	0.166	-16.9	79	0.00
39		Tetrachloroethene SCAN	0.166	0.177	-6.6	73	0.00
40		Chlorobenzene SCAN	0.423	0.491	-16.1	79	0.00
41		1,1,1,2-Tetrachloroethane S	0.152	0.160	-5.3	72	0.00
42		Ethylbenzene SCAN	0.711	0.812	-14.2	78	0.00
43		m&p-Xylene SCAN	1.020	1.207	-18.3	81	0.00
44		o-Xylene SCAN	0.542	0.617	-13.8	77	0.00
45		1,1,2,2-Tetrachloroethane S	0.263	0.295	-12.2	76	0.00
46		1,3,5-Trimethylbenzene SCAN	0.552	0.668	-21.0	82	0.00
47		1,2,4-Trimethylbenzene SCAN	0.543	0.656	-20.8	82	0.00
48		Naphthalene SCAN	0.898	0.003#	99.7#	0#	0.40#

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

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111903.D
Acq On : 11 Nov 2019 13:06
InstName : AG5975C
Operator : TD
Sample : S19K038-CCV1
Misc : 1930057 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 11 13:26:01 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

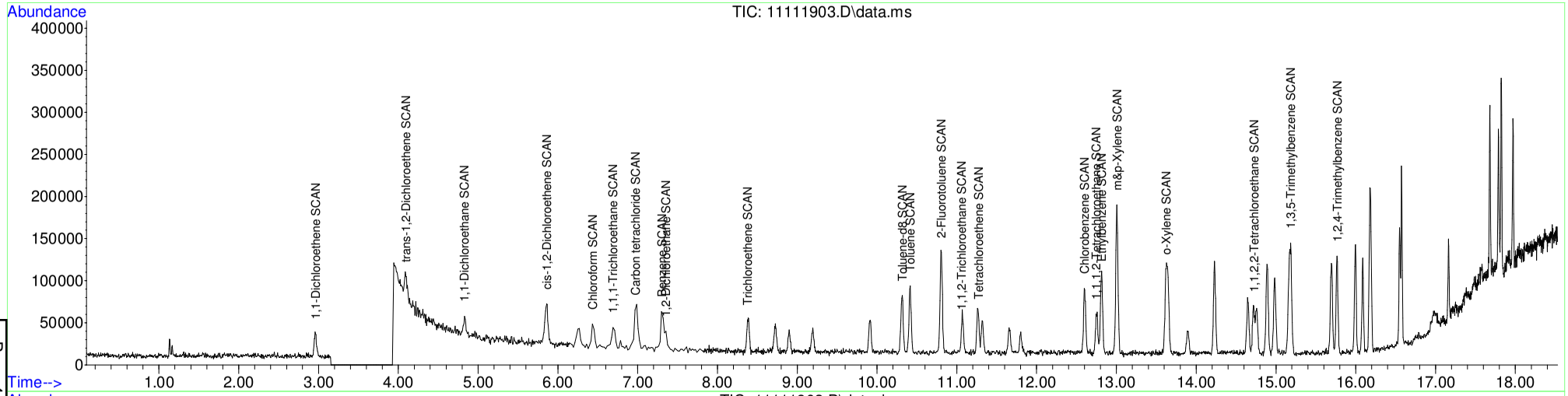
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	102582	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	83519	5038.22 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 100.76%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.959	61	26892	5679.23 ug/L	100
3] trans-1,2-Dichloroethene	4.089	61	25814	5304.81 ug/L	99
4] 1,1-Dichloroethane	4.832	63	32066	5282.90 ug/L	100
5] cis-1,2-Dichloroethene	5.861	61	29089	5115.72 ug/L	99
6] Chloroform	6.435	83	32659	5006.60 ug/L	99
7] 1,1,1-Trichloroethane	6.693	97	31729	4958.28 ug/L	100
8] Carbon tetrachloride	6.969	117	28648	4811.27 ug/L	100
9] Benzene	7.301	78	79380	4911.95 ug/L	100
10] 1,2-Dichloroethane	7.338	62	23433	4520.17 ug/L	94
11] Trichloroethene	8.383	130	23242	4742.37 ug/L	100
13] Toluene	10.412	91	99990	4976.03 ug/L	100
14] 1,1,2-Trichloroethane	11.069	97	21799	4689.94 ug/L	99
15] Tetrachloroethene	11.265	166	27986	4790.84 ug/L	100
16] Chlorobenzene	12.603	112	73981	4959.63 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.751	131	25085	4672.99 ug/L	100
18] Ethylbenzene	12.811	91	121705	4984.99 ug/L	100
19] m&p-Xylene	13.006	91	185387	10028.76 ug/L	100
20] o-Xylene	13.621	91	97639	4949.13 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.719	83	41707	4765.26 ug/L	100
22] 1,3,5-Trimethylbenzene	15.185	105	105846	5016.35 ug/L	100
23] 1,2,4-Trimethylbenzene	15.766	105	107046	4981.63 ug/L	100
24] Naphthalene	17.825	128	186642	5037.64 ug/L	100
25) 2-Fluorotoluene SCAN	10.807	109	63957	5004.80 ug/L	97
26) 1,1-Dichloroethene SCAN	2.962	61	19446	4557.96 ug/L	98
27) trans-1,2-Dichloroethe...	4.094	61	18026	4391.88 ug/L	90
28) 1,1-Dichloroethane SCAN	4.831	63	20627	3836.65 ug/L	80
29) cis-1,2-Dichloroethene...	5.859	61	23831	5134.09 ug/L	85
30) Chloroform SCAN	6.434	83	22861	4421.24 ug/L	86
31) 1,1,1-Trichloroethane ...	6.692	97	21336	4727.14 ug/L	94
32) Carbon tetrachloride SCAN	6.968	117	21105	4988.87 ug/L	88
33) Benzene SCAN	7.300	78	58165	5127.50 ug/L	99
34) 1,2-Dichloroethane SCAN	7.355	62	21811	5153.93 ug/L	74
35) Trichloroethene SCAN	8.377	130	14277	4293.15 ug/L	86
36) Toluene-d8 SCAN	10.316	98	55517	5341.87 ug/L	93
37) Toluene SCAN	10.416	91	64781	5055.49 ug/L	97
38) 1,1,2-Trichloroethane ...	11.062	97	17045	5832.52 ug/L	92
39) Tetrachloroethene SCAN	11.270	166	18136	5331.04 ug/L	98
40) Chlorobenzene SCAN	12.598	112	50339	5793.67 ug/L	97
41) 1,1,1,2-Tetrachloroeth...	12.745	131	16442	5267.65 ug/L	95
42) Ethylbenzene SCAN	12.810	91	83262	5709.35 ug/L	99
43) m&p-Xylene SCAN	13.004	91	123858	5919.88 ug/L	95
44) o-Xylene SCAN	13.624	91	63253	5685.00 ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.722	83	30215	5592.82 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.184	105	68497	6050.37 ug/L	96
47) 1,2,4-Trimethylbenzene...	15.765	105	67269	6036.56 ug/L	100

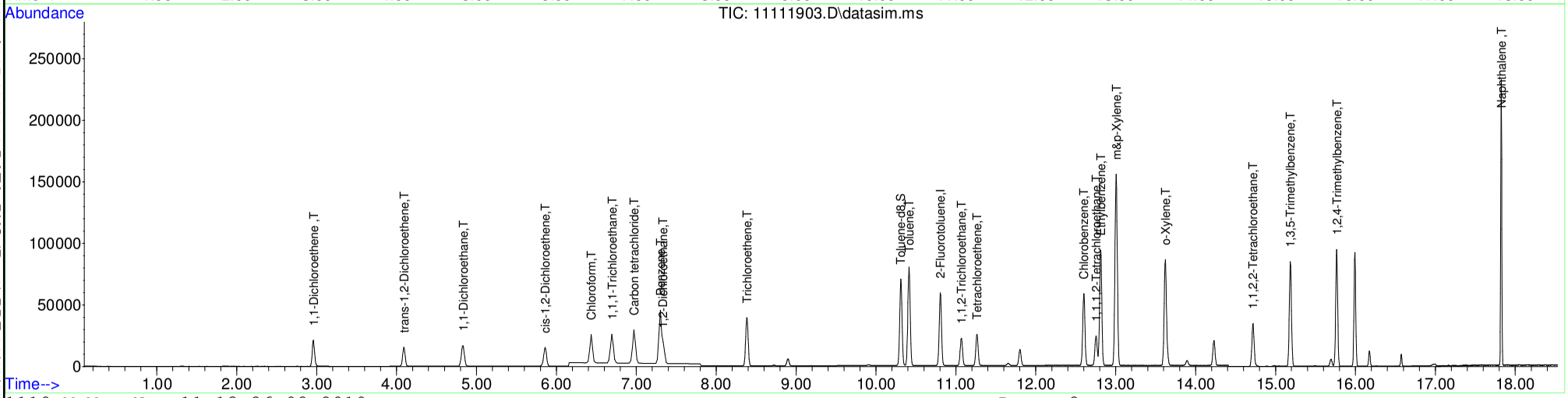
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111903.D
Acq On : 11 Nov 2019 13:06
InstName : AG5975C
Operator : TD
Sample : S19K038-CCV1
Misc : 1930057 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 11 13:26:01 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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S19K038-CRL1

QLS REPORT

Instrument Name: AG5975C
Sample Name: S19K038-CRL1
Misc Info: 1930060 0.05 mg/L
Date Acquired: 11/11/19 13:29
QLast Update: Mon Nov 11 06:00:05 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.803	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	2.958	50.0	37.40	75%	60	140	pass
3)	trans-1,2-Dichloroethene	4.122	50.0	38.72	77%	60	140	pass
4)	1,1-Dichloroethane	4.852	50.0	39.14	78%	60	140	pass
5)	cis-1,2-Dichloroethene	5.874	50.0	38.74	77%	60	140	pass
6)	Chloroform	6.454	50.0	42.63	85%	60	140	pass
7)	1,1,1-Trichloroethane	6.711	50.0	40.33	81%	60	140	pass
8)	Carbon tetrachloride	6.988	50.0	41.62	83%	60	140	pass
10)	1,2-Dichloroethane	7.356	50.0	39.89	80%	60	140	pass
11)	Trichloroethene	8.391	50.0	49.69	99%	60	140	pass
12)	Toluene-d8	10.311	50.0	54.78	110%	60	140	pass
13)	Toluene	10.412	50.0	57.61	115%	60	140	pass
14)	1,1,2-Trichloroethane	11.069	50.0	49.37	99%	60	140	pass
15)	Tetrachloroethene	11.265	50.0	53.24	106%	60	140	pass
16)	Chlorobenzene	12.599	50.0	55.96	112%	60	140	pass
17)	1,1,1,2-Tetrachloroethane	12.751	50.0	56.33	113%	60	140	pass
18)	Ethylbenzene	12.811	50.0	57.48	115%	60	140	pass
19)	m&p-Xylene	13.001	100.0	116.81	117%	60	140	pass
20)	o-Xylene	13.616	50.0	57.56	115%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.714	50.0	56.32	113%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.185	50.0	61.52	123%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.761	50.0	61.56	123%	60	140	pass
24)	Naphthalene	17.824	50.0	64.46	129%	60	140	pass

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

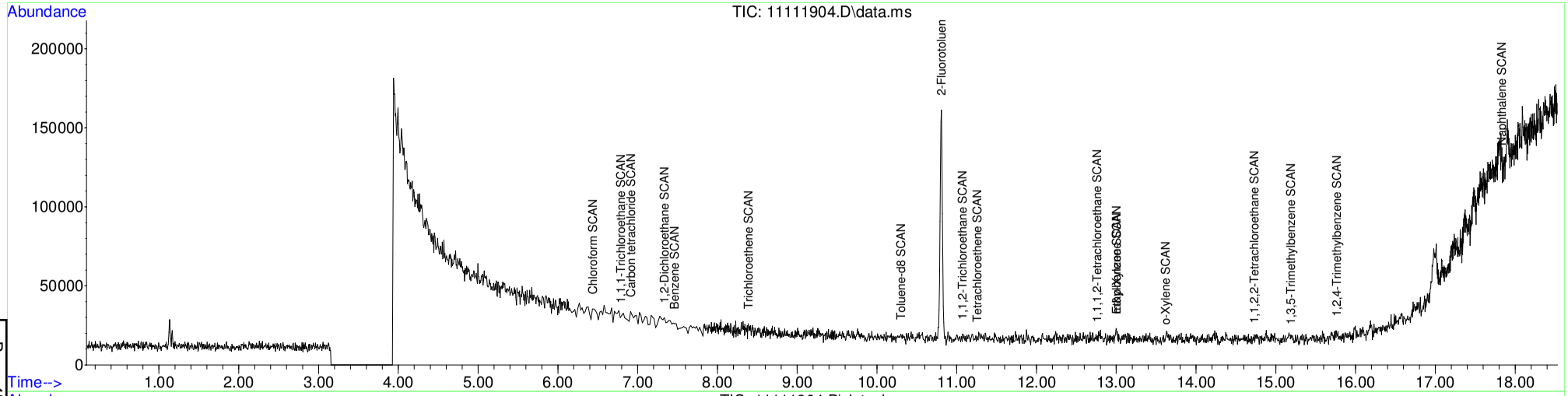
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	189989	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	1682	54.78	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.10%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	784	89.40	ug/L	89
3] trans-1,2-Dichloroethene	4.102	61	349	38.72	ug/L	80
4] 1,1-Dichloroethane	4.839	63	440	39.14	ug/L	98
5] cis-1,2-Dichloroethene	5.867	61	408	38.74	ug/L	84
6] Chloroform	6.435	83	515	42.63	ug/L	97
7] 1,1,1-Trichloroethane	6.693	97	478	40.33	ug/L	97
8] Carbon tetrachloride	6.969	117	459	41.62	ug/L	93
9] Benzene	7.301	78	1595	53.29	ug/L	79
10] 1,2-Dichloroethane	7.338	62	383	39.89	ug/L	52
11] Trichloroethene	8.387	130	451	49.69	ug/L	96
13] Toluene	10.412	91	2144	57.61	ug/L	97
14] 1,1,2-Trichloroethane	11.063	97	425	49.37	ug/L	99
15] Tetrachloroethene	11.265	166	576	53.24	ug/L	96
16] Chlorobenzene	12.603	112	1546	55.96	ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.756	131	560	56.33	ug/L	93
18] Ethylbenzene	12.811	91	2599	57.48	ug/L	94
19] m&p-Xylene	13.006	91	3999	116.81	ug/L	98
20] o-Xylene	13.620	91	2103	57.56	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.714	83	913	56.32	ug/L	99
22] 1,3,5-Trimethylbenzene	15.185	105	2404	61.52	ug/L	99
23] 1,2,4-Trimethylbenzene	15.766	105	2450	61.56	ug/L	100
24] Naphthalene	17.824	128	4423	64.46	ug/L	99
25) 2-Fluorotoluene SCAN	10.807	109	123406	5214.08	ug/L	98
30) Chloroform SCAN	6.434	83	392	40.93	ug/L #	1
31) 1,1,1-Trichloroethane ...	6.784	97	172	20.58	ug/L #	21
32) Carbon tetrachloride SCAN	6.913	117	559	71.35	ug/L #	19
33) Benzene SCAN	7.465	78	2182	103.86	ug/L	91
34) 1,2-Dichloroethane SCAN	7.336	62	752	95.95	ug/L #	39
35) Trichloroethene SCAN	8.385	130	138	22.41	ug/L #	49
36) Toluene-d8 SCAN	10.298	98	827	42.97	ug/L #	58
38) 1,1,2-Trichloroethane ...	11.074	97	216	39.91	ug/L #	57
39) Tetrachloroethene SCAN	11.258	166	201	31.90	ug/L #	44
41) 1,1,1,2-Tetrachloroeth...	12.759	131	117	20.24	ug/L #	11
42) Ethylbenzene SCAN	13.000	91	1895	70.16	ug/L	90
43) m&p-Xylene SCAN	13.000	91	1954	50.43	ug/L	72
44) o-Xylene SCAN	13.615	91	1255	60.90	ug/L #	53
45) 1,1,2,2-Tetrachloroeth...	14.732	83	703	70.26	ug/L #	63
46) 1,3,5-Trimethylbenzene...	15.184	105	878	41.87	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.759	105	2052	99.42	ug/L	73
48) Naphthalene SCAN	17.826	128	3098	90.77	ug/L	94

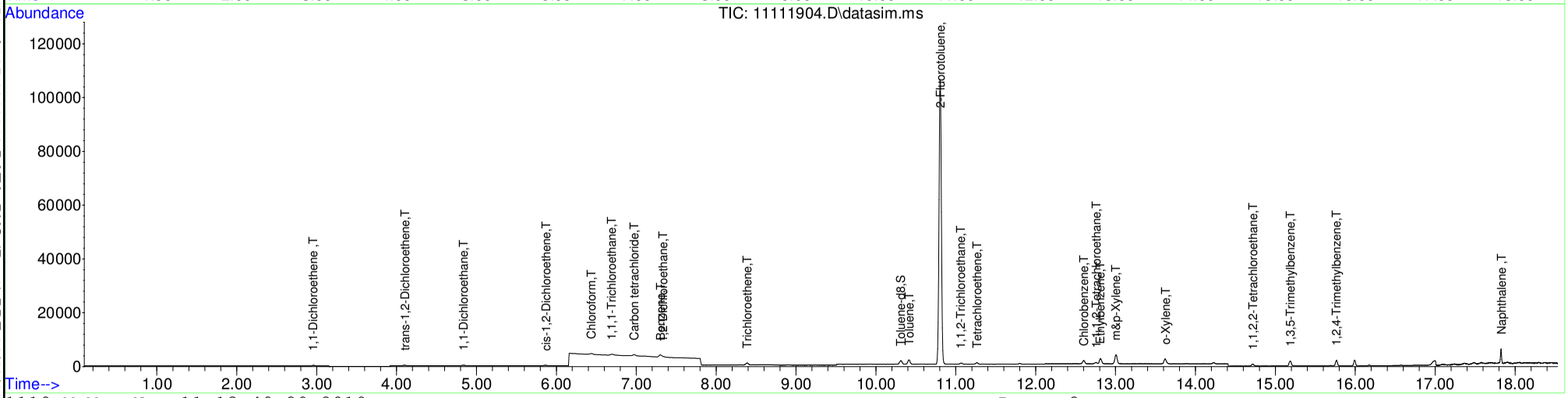
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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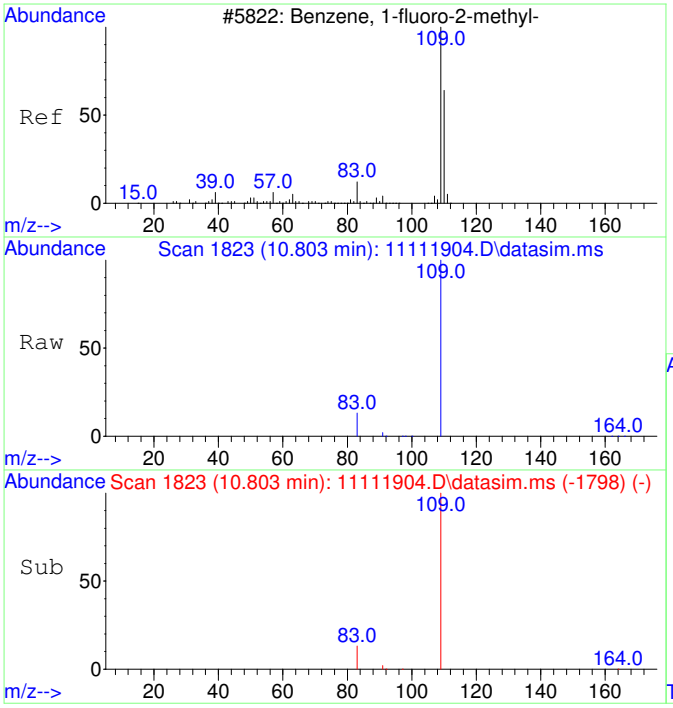
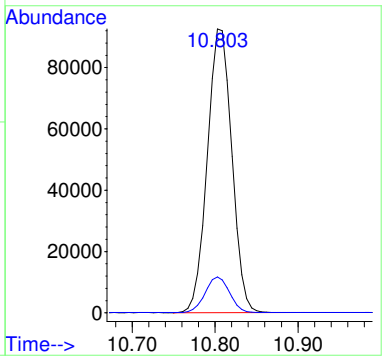
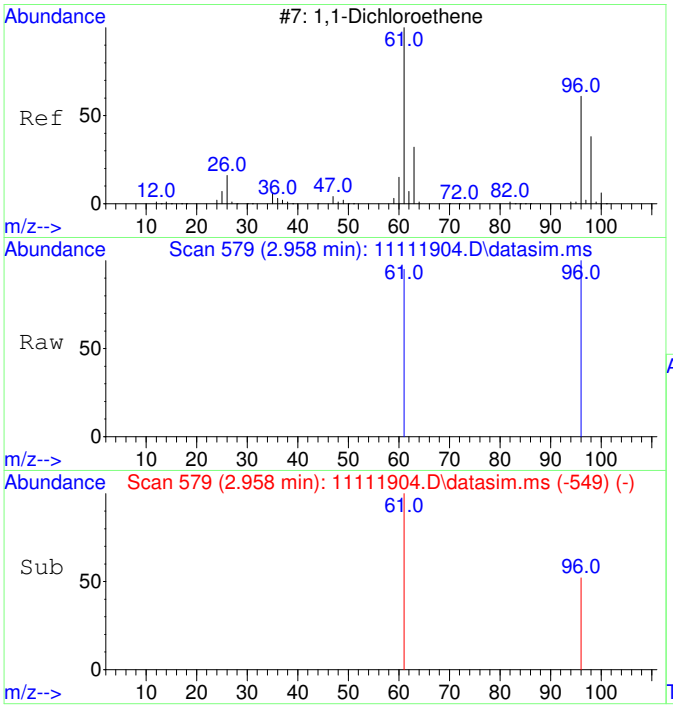


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 189989

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

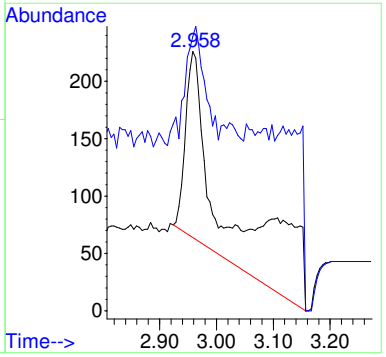




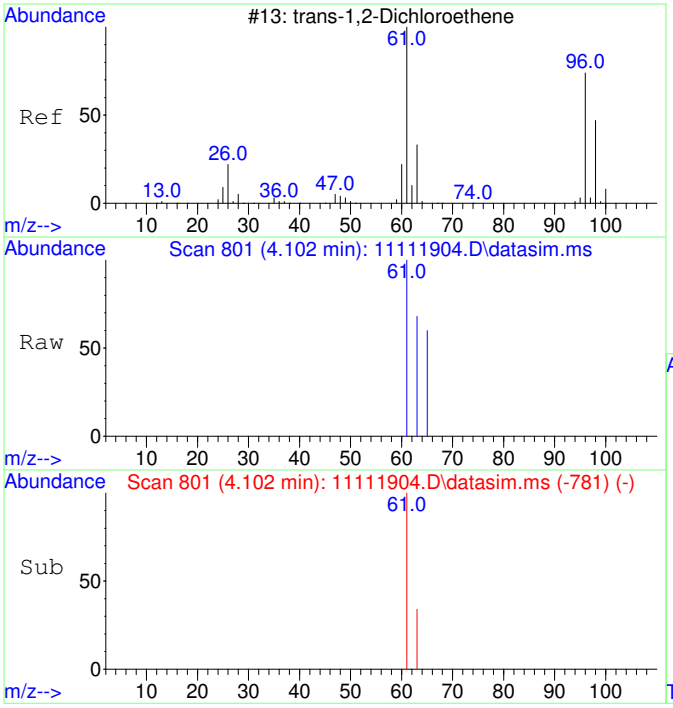
#2
1,1-Dichloroethene
Concen: 89.40 ug/L
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 784

Ion	Ratio	Lower	Upper
61	100		
96	71.9	33.6	93.6



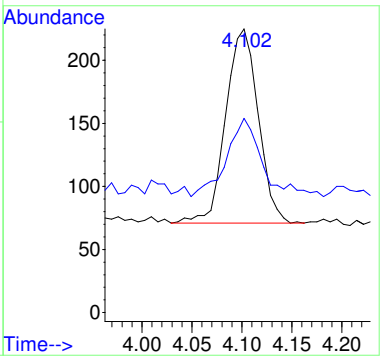
Before MI:
IMPROPER
BASELINE

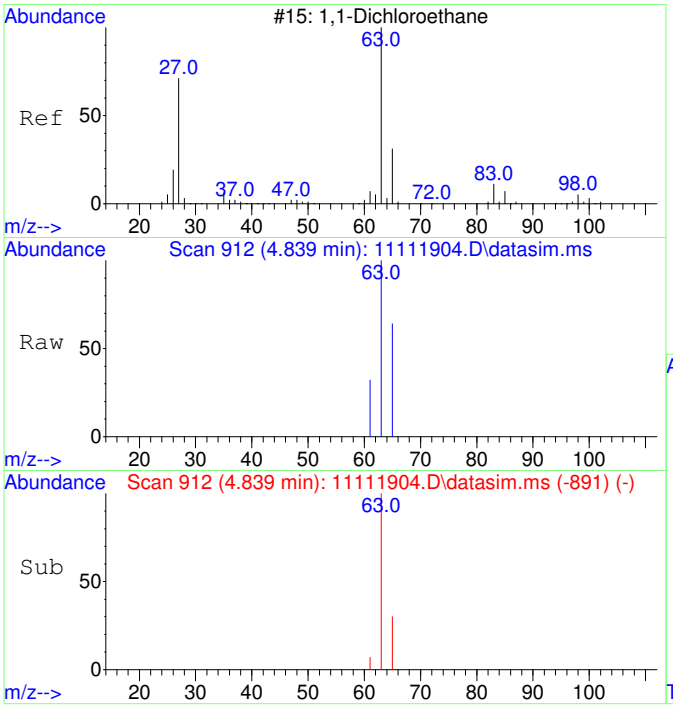


#3
trans-1,2-Dichloroethene
Concen: 38.72 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.020 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 349

Ion	Ratio	Lower	Upper
61	100		
63	43.6	2.3	62.3

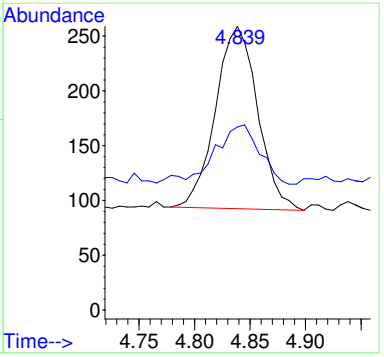


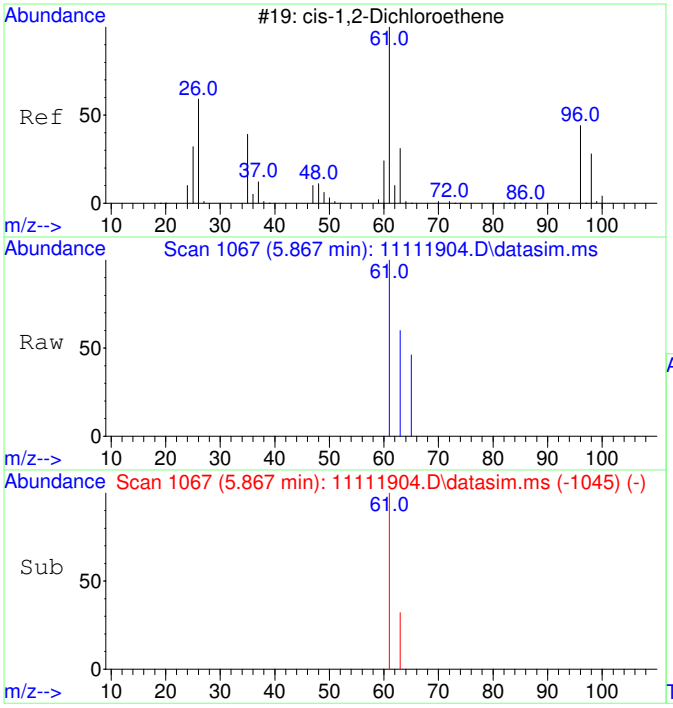


#4
1,1-Dichloroethane
Concen: 39.14 ug/L
RT: 4.839 min Scan# 912
Delta R.T. -0.013 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 63 Resp: 440

Ion	Ratio	Lower	Upper
63	100		
65	33.0	1.9	61.9

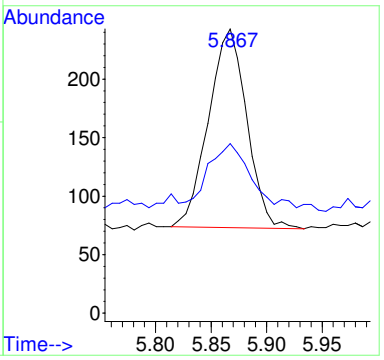


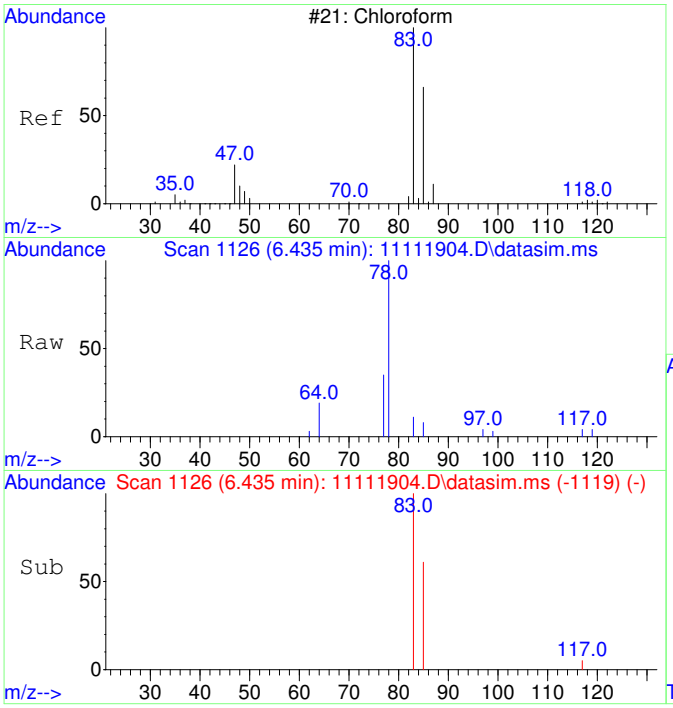


#5
cis-1,2-Dichloroethene
Concen: 38.74 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 408

Ion	Ratio	Lower	Upper
61	100		
63	41.2	2.4	62.4

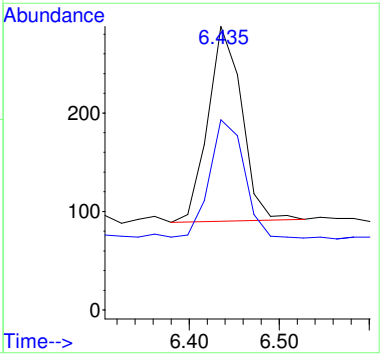


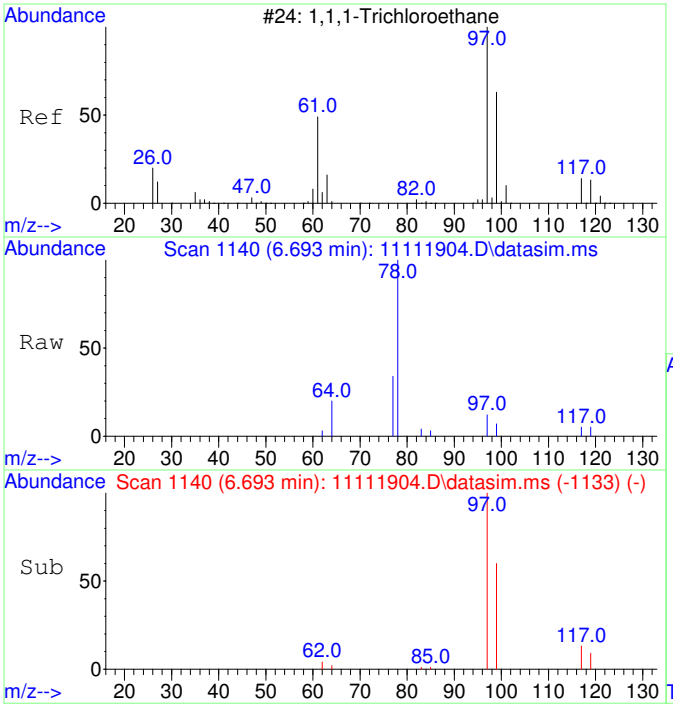


#6
Chloroform
Concen: 42.63 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 515

Ion	Ratio	Lower	Upper
83	100		
85	62.7	35.2	95.2

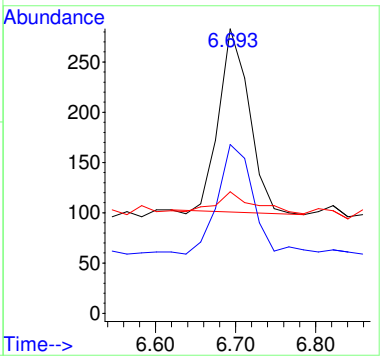


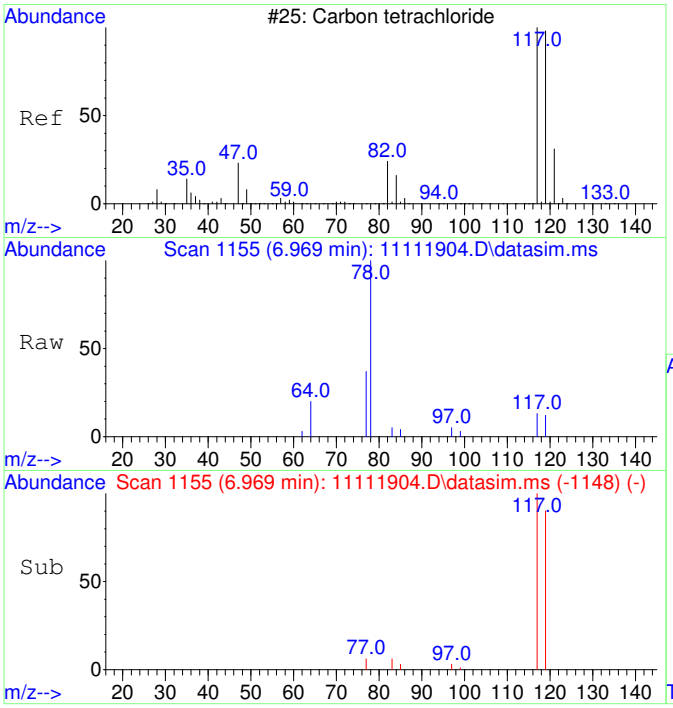


#7
1,1,1-Trichloroethane
Concen: 40.33 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 478

Ion	Ratio	Lower	Upper
97	100		
99	66.5	34.5	94.5
117	15.3	0.0	43.0

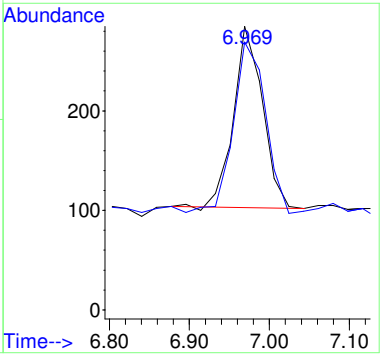


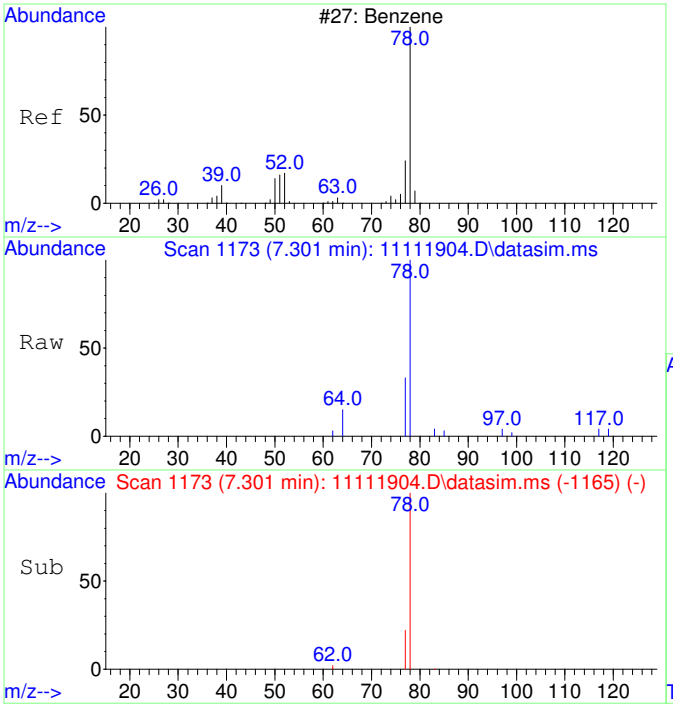


#8
Carbon tetrachloride
Concen: 41.62 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 459

Ion	Ratio	Lower	Upper
117	100		
119	103.3	66.0	126.0

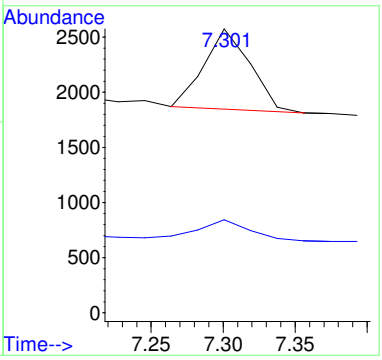


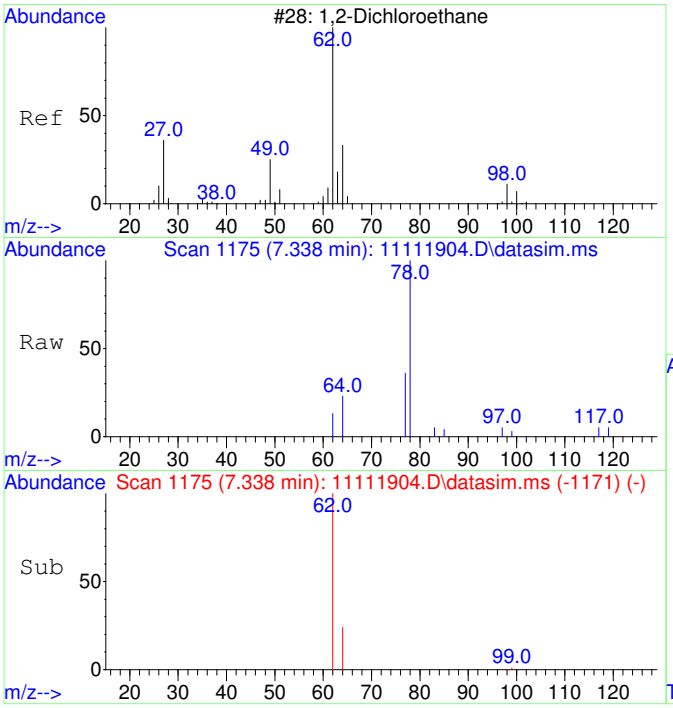


#9
Benzene
Concen: 53.29 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 1595

Ion	Ratio	Lower	Upper
78	100		
77	33.6	0.0	53.2

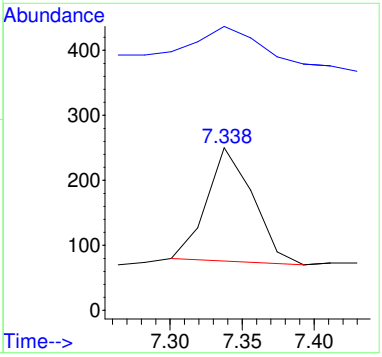


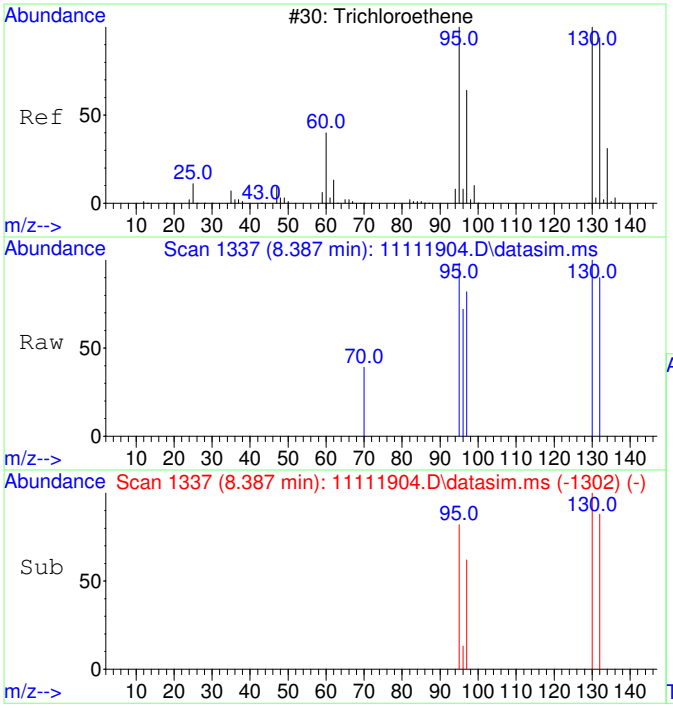


#10
1,2-Dichloroethane
Concen: 39.89 ug/L
RT: 7.338 min Scan# 1175
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 383

Ion	Ratio	Lower	Upper
62	100		
64	59.5	2.4	62.4

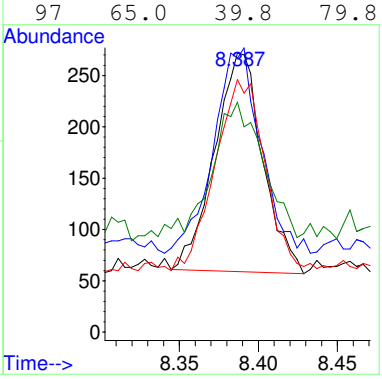


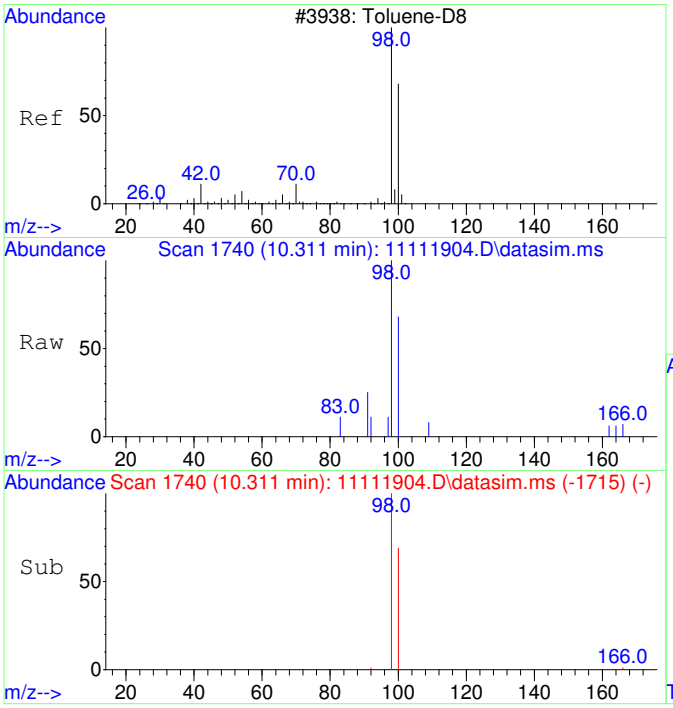


#11
Trichloroethene
Concen: 49.69 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 451

Ion	Ratio	Lower	Upper
130	100		
95	92.0	63.4	123.4
132	90.5	76.0	116.0
97	65.0	39.8	79.8

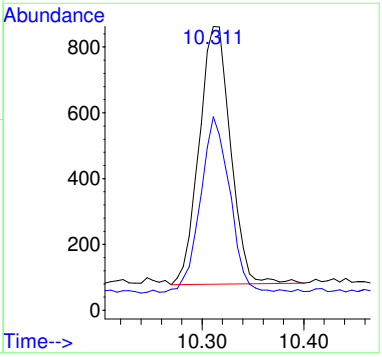


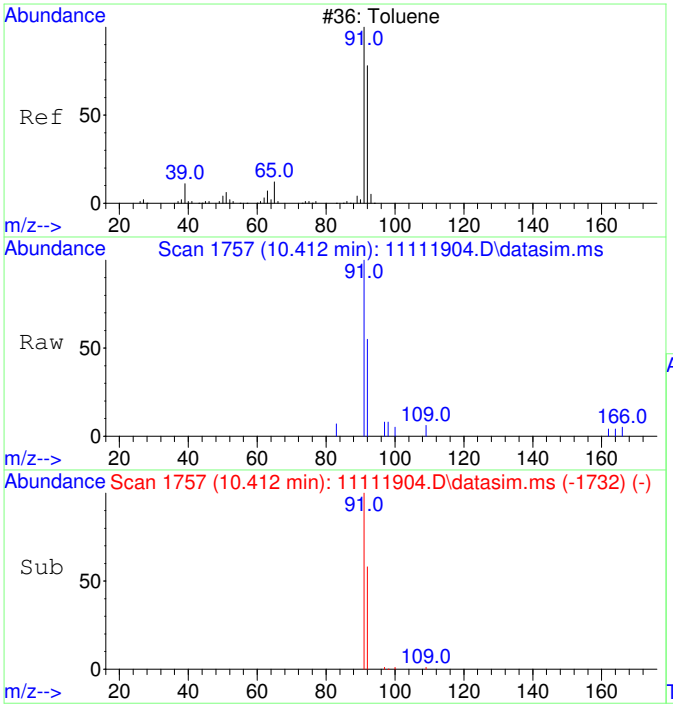


#12
Toluene-d8
Concen: 54.78 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 1682

Ion	Ratio	Lower	Upper
98	100		
100	62.7	36.4	96.4

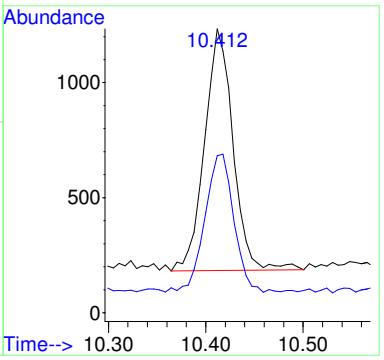


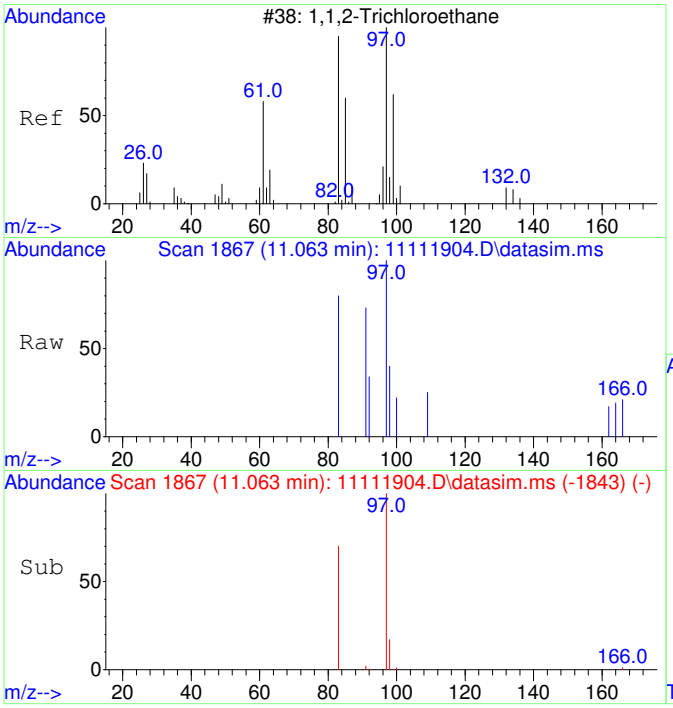


#13
Toluene
Concen: 57.61 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2144

Ion	Ratio	Lower	Upper
91	100		
92	57.5	29.4	89.4

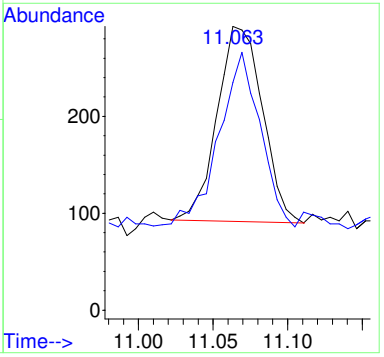


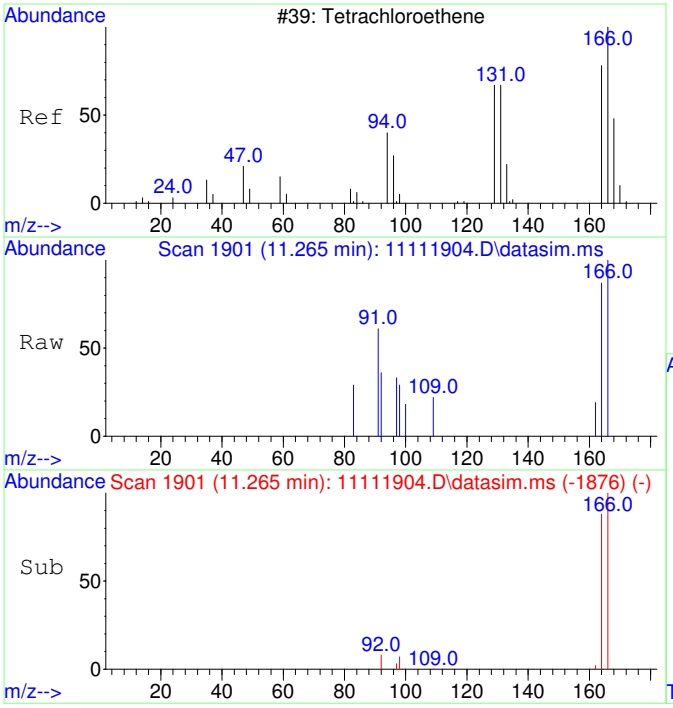


#14
1,1,2-Trichloroethane
Concen: 49.37 ug/L
RT: 11.063 min Scan# 1867
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 425

Ion	Ratio	Lower	Upper
97	100		
83	81.4	52.0	112.0

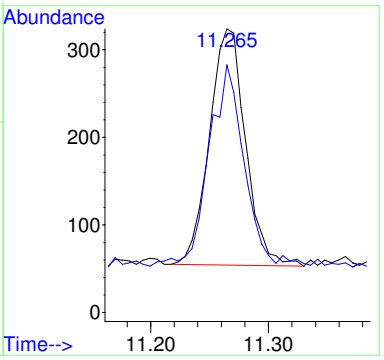


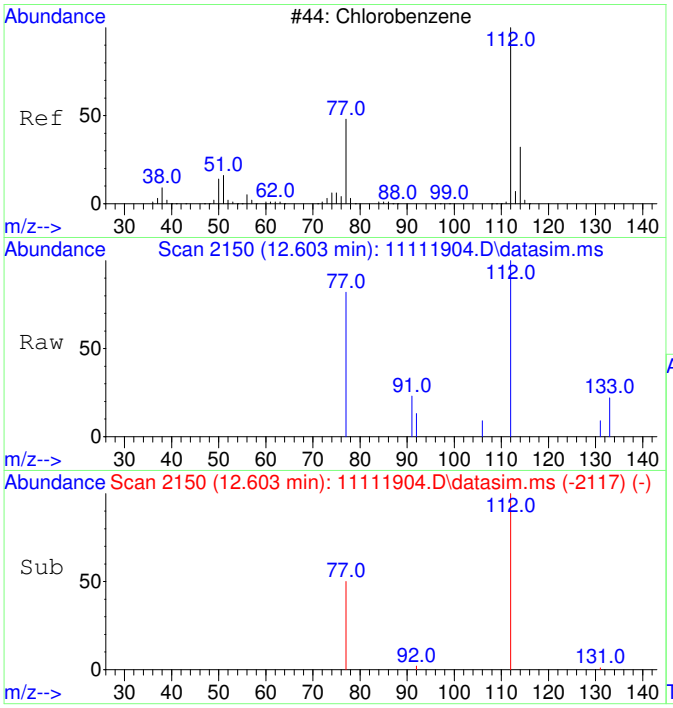


#15
Tetrachloroethene
Concen: 53.24 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 576

Ion	Ratio	Lower	Upper
166	100		
164	81.6	47.7	107.7

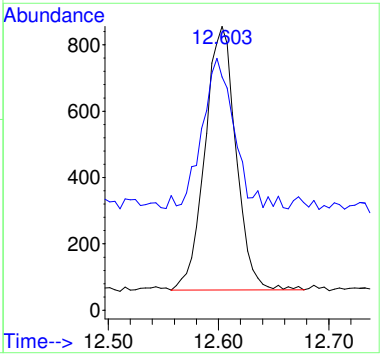


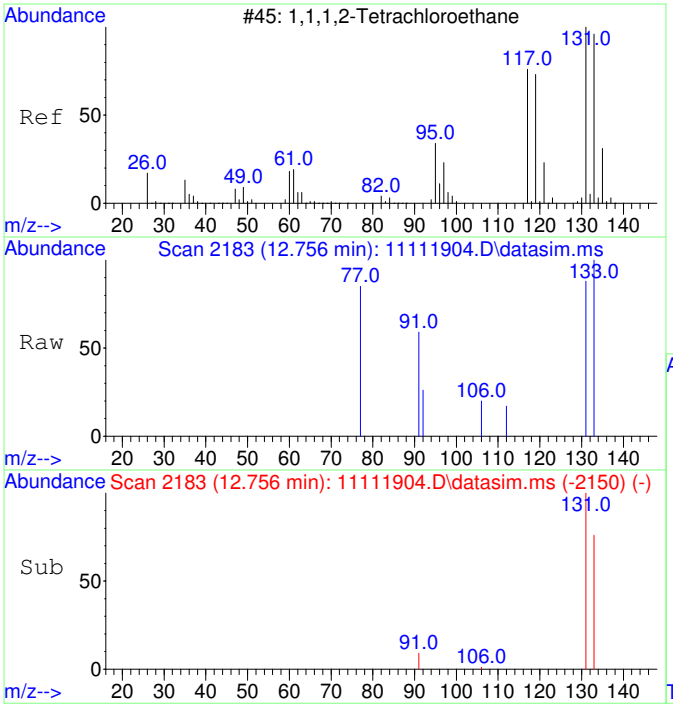


#16
Chlorobenzene
Concen: 55.96 ug/L
RT: 12.603 min Scan# 2150
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:112 Resp: 1546

Ion	Ratio	Lower	Upper
112	100		
77	57.1	25.2	85.2

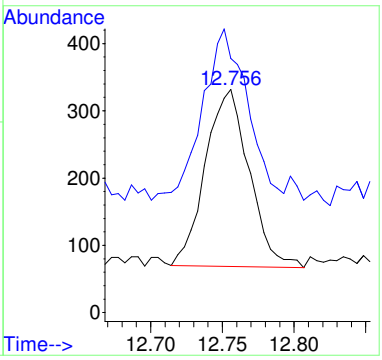


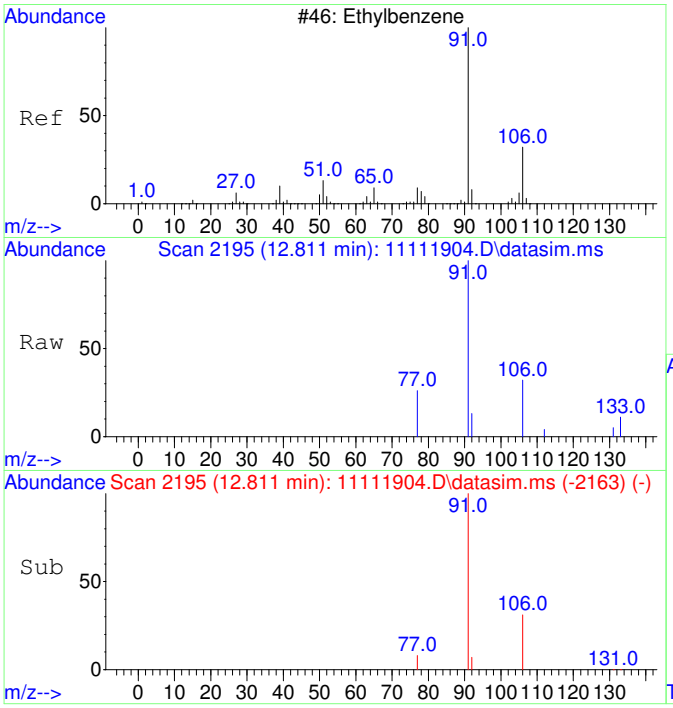


#17
1,1,1,2-Tetrachloroethane
Concen: 56.33 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 560

Ion	Ratio	Lower	Upper
131	100		
133	102.0	65.1	125.1

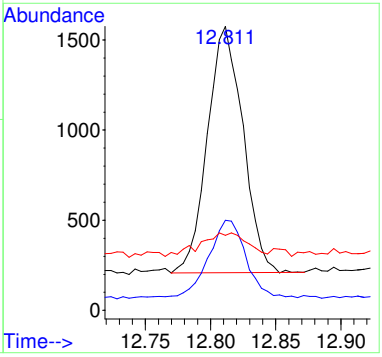


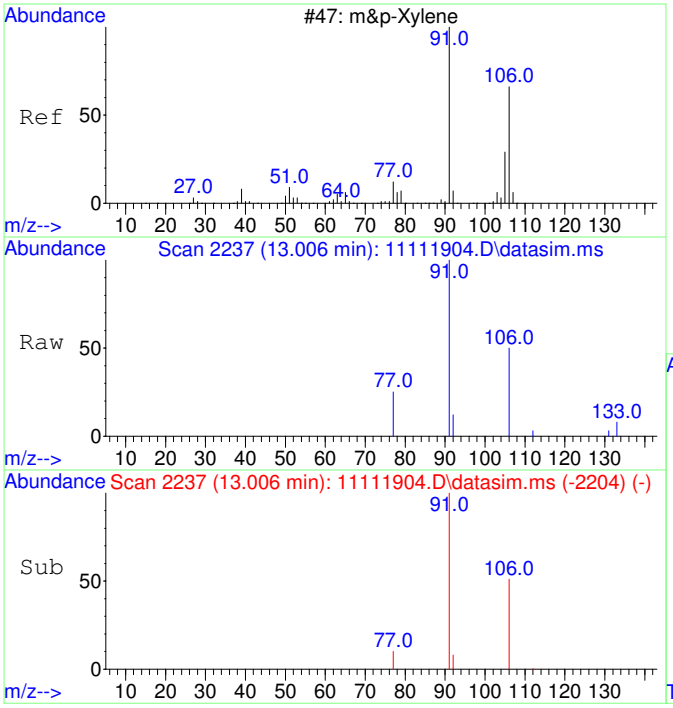


#18
Ethylbenzene
Concen: 57.48 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2599

Ion	Ratio	Lower	Upper
91	100		
106	35.1	2.5	62.5
77	12.4	0.0	38.4

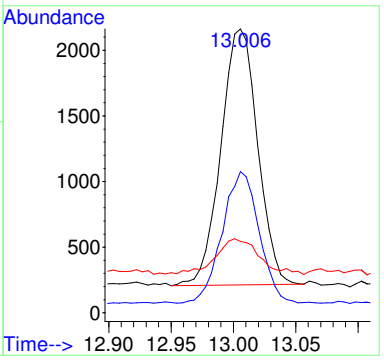


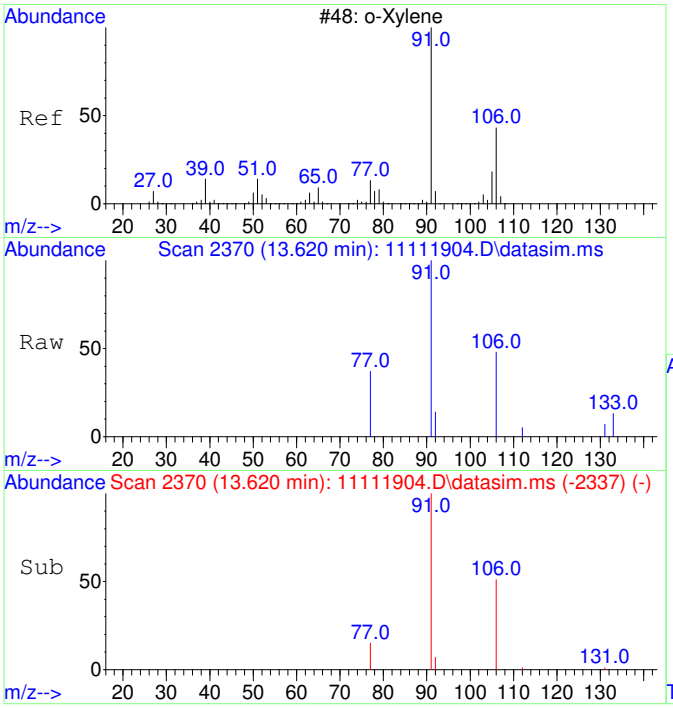


#19
m&p-Xylene
Concen: 116.81 ug/L
RT: 13.006 min Scan# 2237
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 3999

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.2	81.2
77	16.7	0.0	42.7

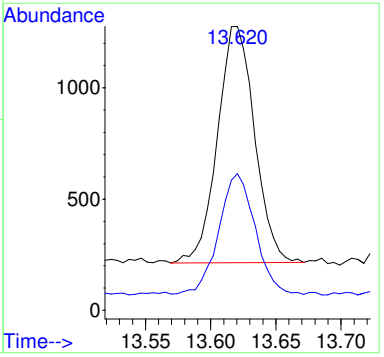


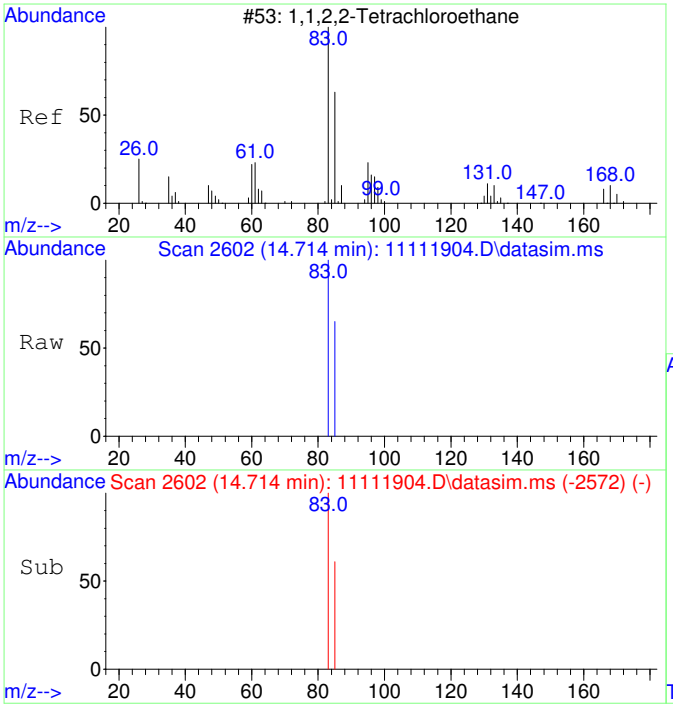


#20
o-Xylene
Concen: 57.56 ug/L
RT: 13.620 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2103

Ion	Ratio	Lower	Upper
91	100		
106	49.8	18.3	78.3

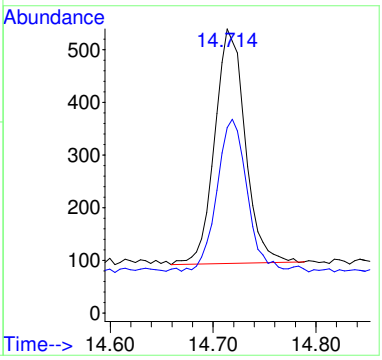


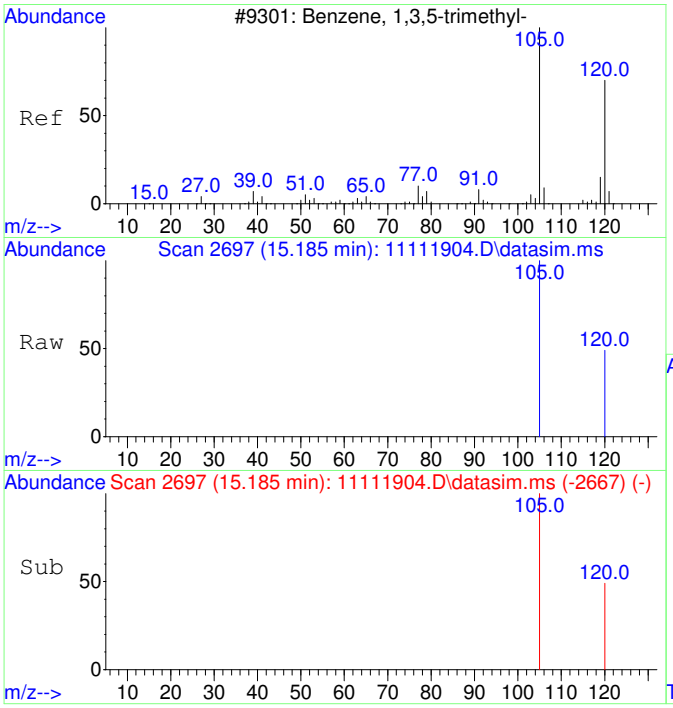


#21
1,1,2,2-Tetrachloroethane
Concen: 56.32 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 913

Ion	Ratio	Lower	Upper
83	100		
85	64.1	34.7	94.7

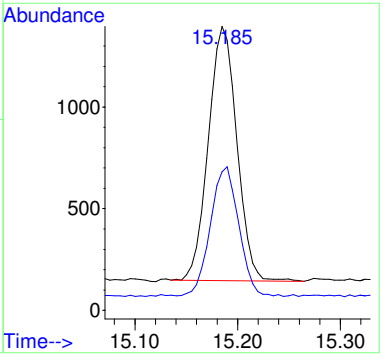


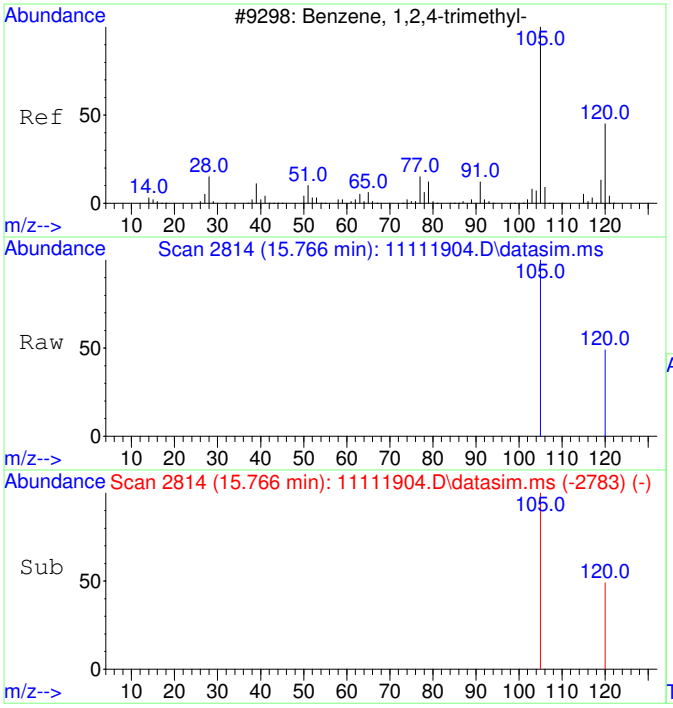


#22
1,3,5-Trimethylbenzene
Concen: 61.52 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2404

Ion	Ratio	Lower	Upper
105	100		
120	50.1	20.8	80.8

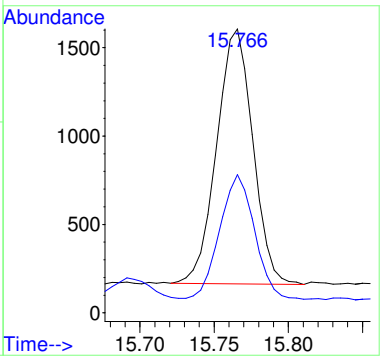


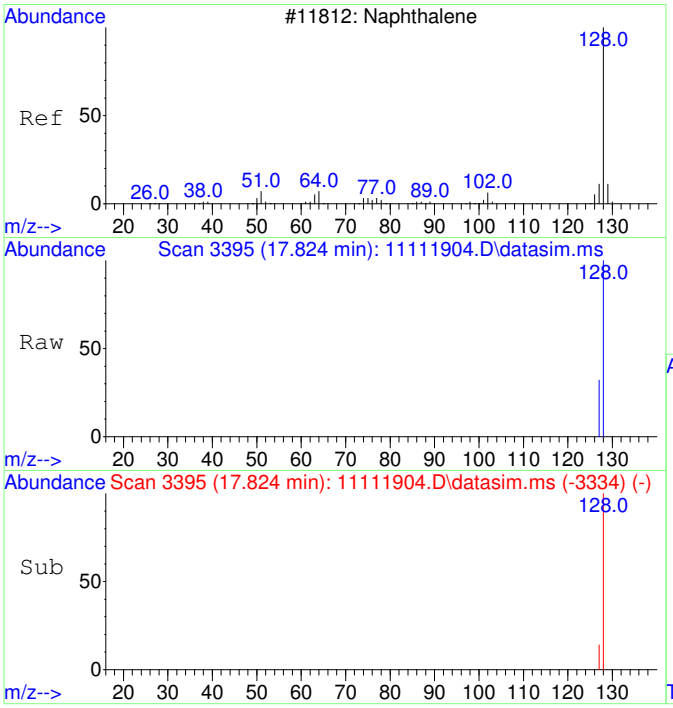


#23
1,2,4-Trimethylbenzene
Concen: 61.56 ug/L
RT: 15.766 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2450

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.8	76.8

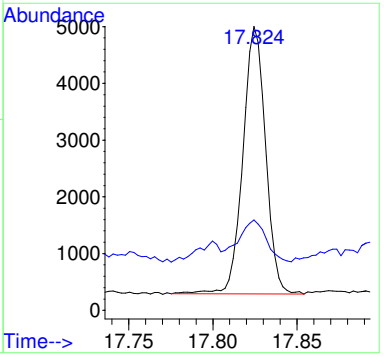


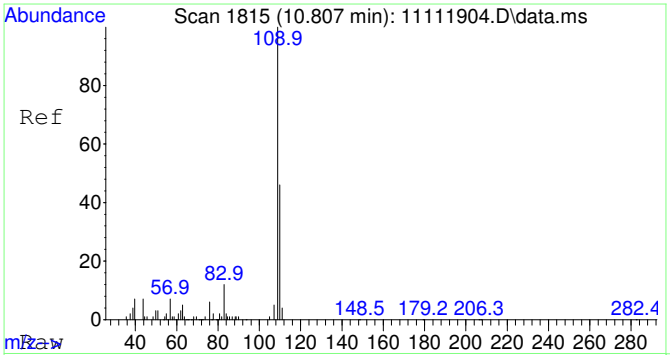


#24
Naphthalene
Concen: 64.46 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 4423

Ion	Ratio	Lower	Upper
128	100		
127	13.0	0.0	42.7

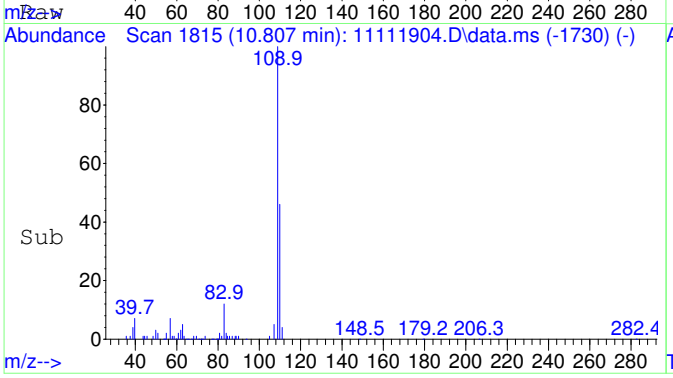


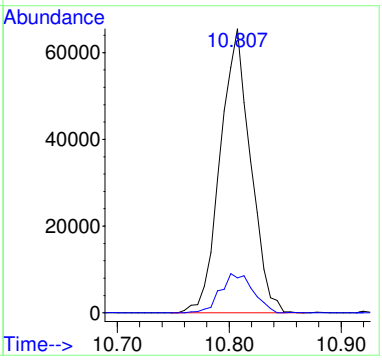


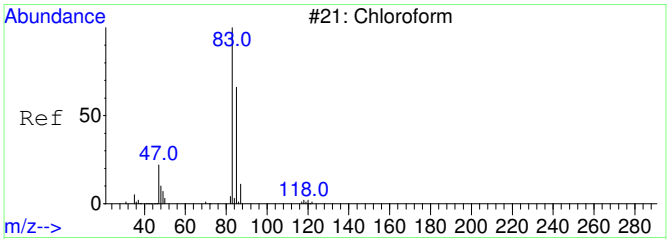
#25
2-Fluorotoluene SCAN
Concen: 5214.08 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 123406

Ion	Ratio	Lower	Upper
109	100		
83	14.9	0.0	45.8



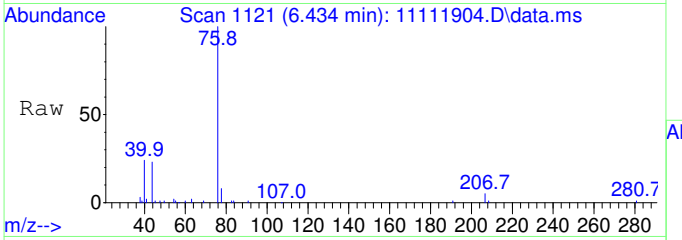


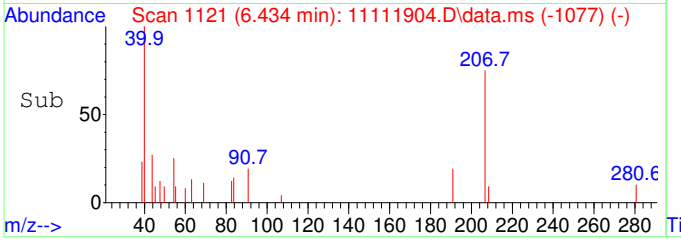


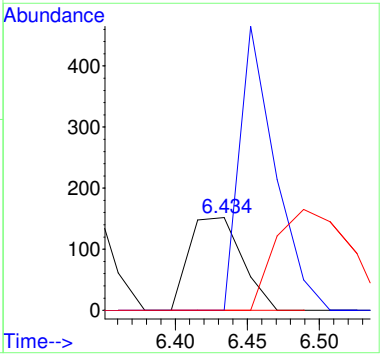
#30
Chloroform SCAN
Concen: 40.93 ug/L
RT: 6.434 min Scan# 1121
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

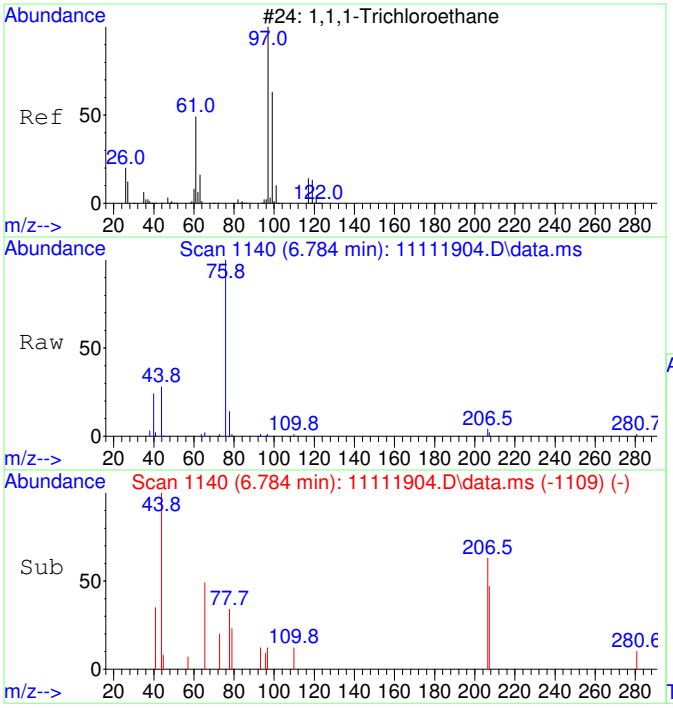
Tgt Ion: 83 Resp: 392

Ion	Ratio	Lower	Upper
83	100		
85	205.6	38.3	98.3#
47	0.0	0.0	50.2





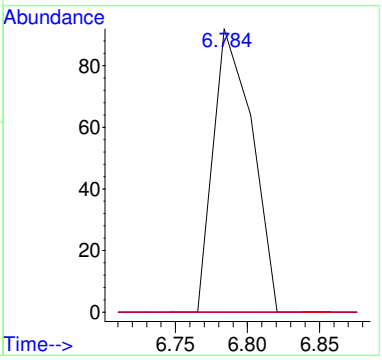


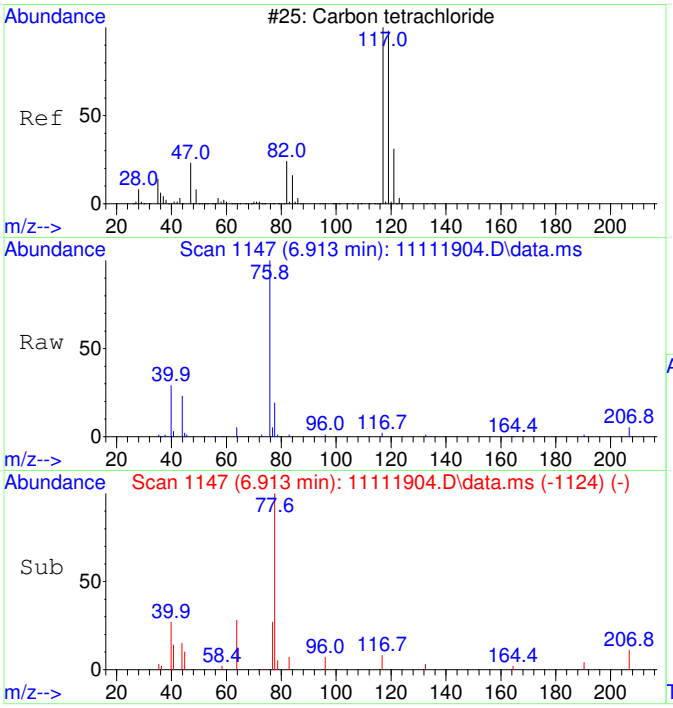


#31
1,1,1-Trichloroethane SCAN
Concen: 20.58 ug/L
RT: 6.784 min Scan# 1140
Delta R.T. 0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 172

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

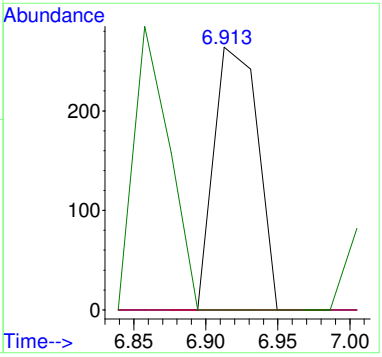


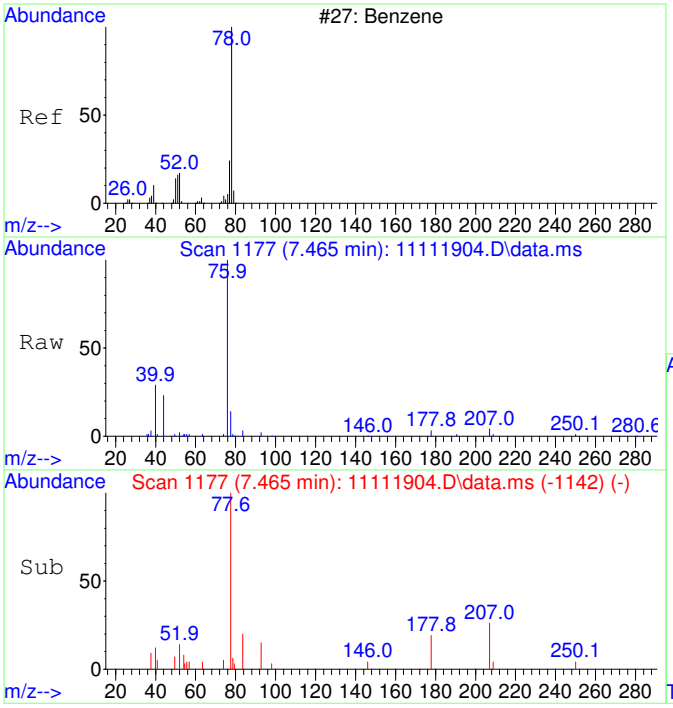


#32
Carbon tetrachloride SCAN
Concen: 71.35 ug/L
RT: 6.913 min Scan# 1147
Delta R.T. -0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 559

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

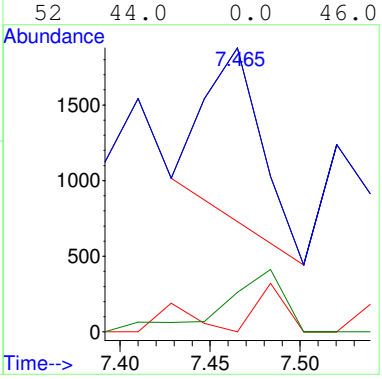


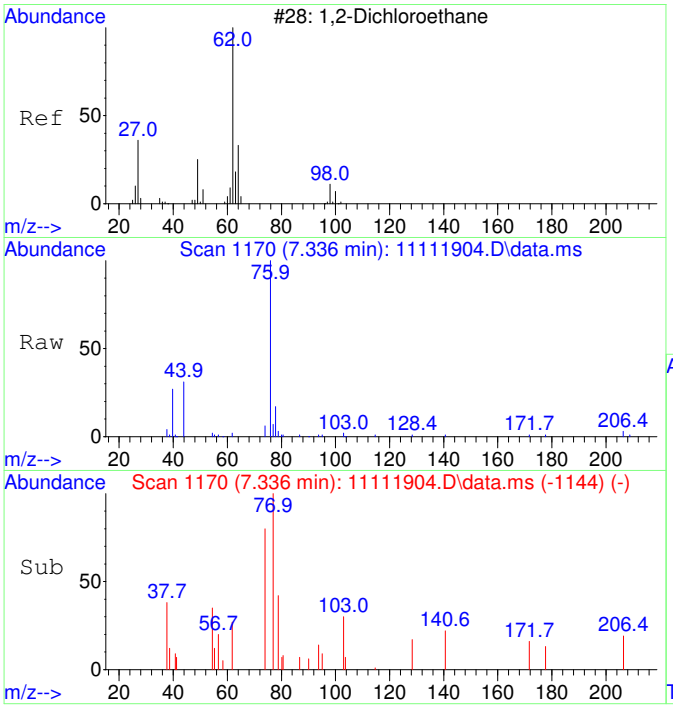


#33
Benzene SCAN
Concen: 103.86 ug/L
RT: 7.465 min Scan# 1177
Delta R.T. 0.147 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 2182

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	16.3	0.0	49.8
52	44.0	0.0	46.0

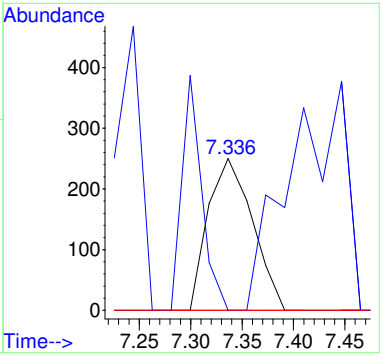


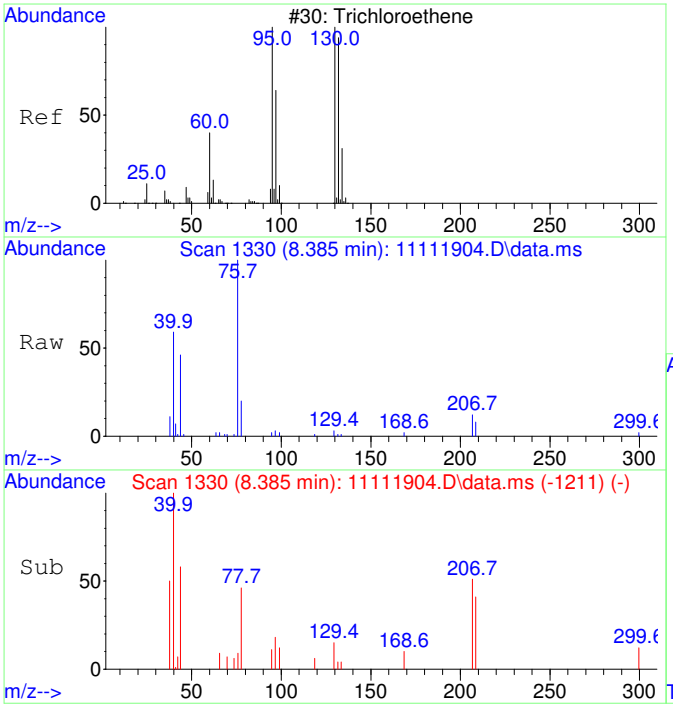


#34
1,2-Dichloroethane SCAN
Concen: 95.95 ug/L
RT: 7.336 min Scan# 1170
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 752

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

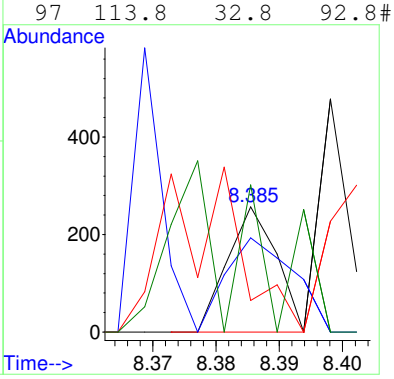


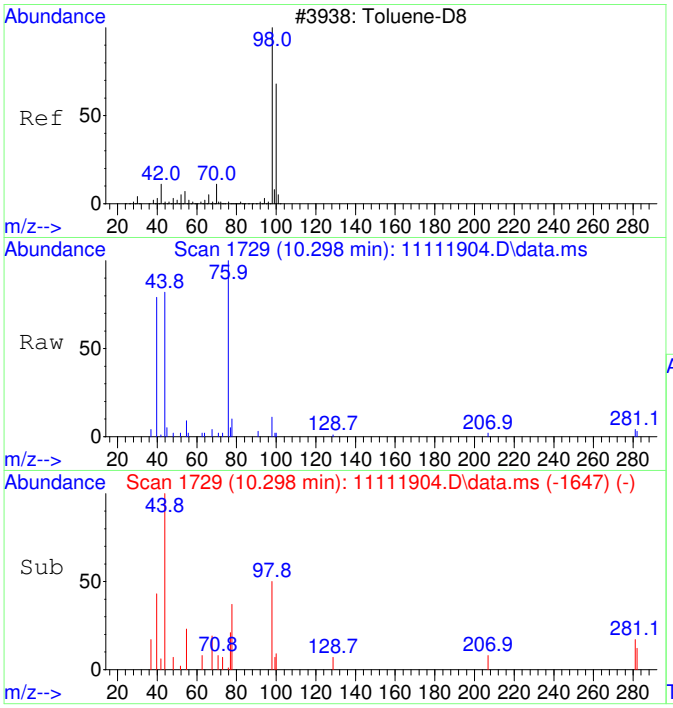


#35
Trichloroethene SCAN
Concen: 22.41 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 138

Ion	Ratio	Lower	Upper
130	100		
95	103.6	69.5	129.5
132	185.5	66.5	126.5#
97	113.8	32.8	92.8#

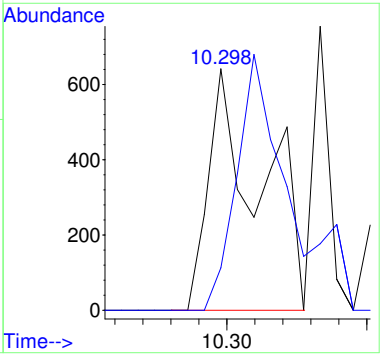


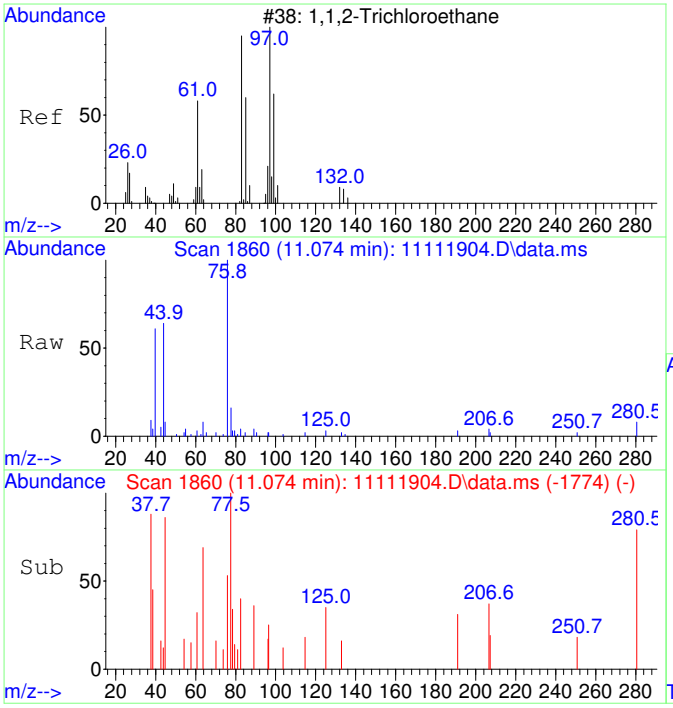


#36
Toluene-d8 SCAN
Concen: 42.97 ug/L
RT: 10.298 min Scan# 1729
Delta R.T. -0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 827

Ion	Ratio	Lower	Upper
98	100		
100	106.9	42.1	102.1#

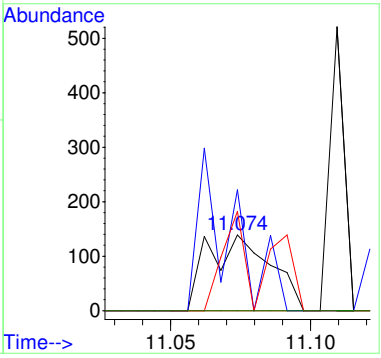


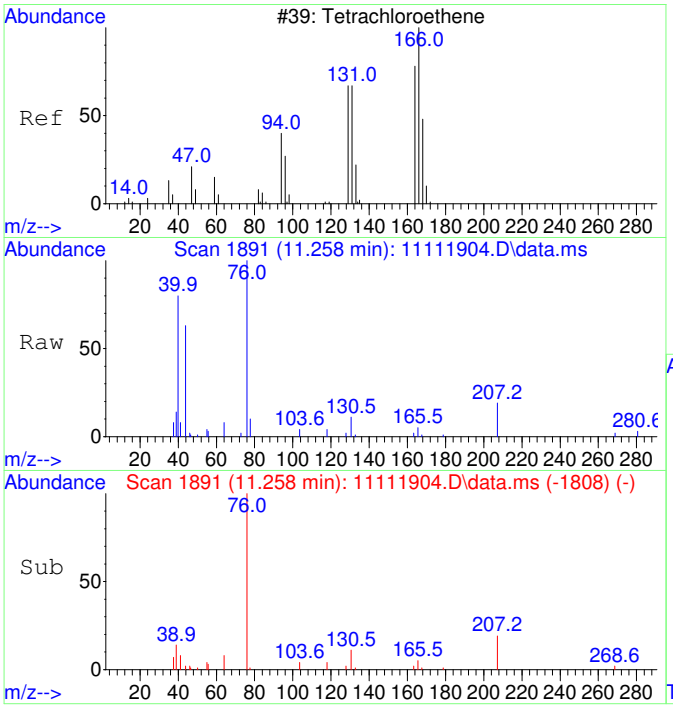


#38
1,1,2-Trichloroethane SCAN
Concen: 39.91 ug/L
RT: 11.074 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 216

Ion	Ratio	Lower	Upper
97	100		
83	116.7	58.1	118.1
61	46.3	36.0	96.0
99	0.0	32.7	92.7#

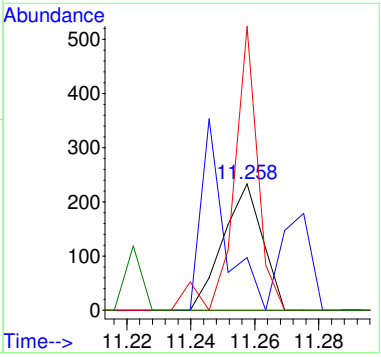


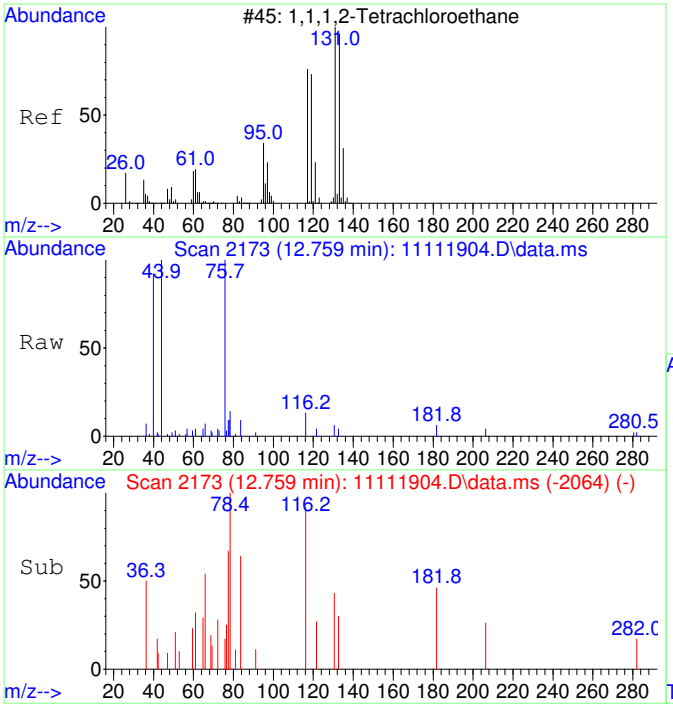


#39
Tetrachloroethene SCAN
Concen: 31.90 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 201

Ion	Ratio	Lower	Upper
166	100		
164	92.0	50.4	110.4
131	136.3	44.0	104.0#
129	0.0	42.6	102.6#

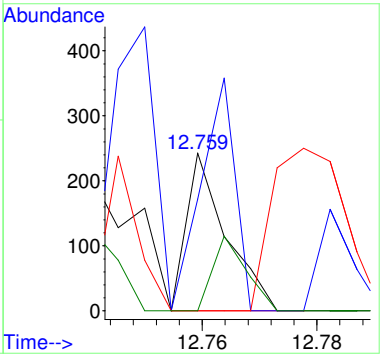


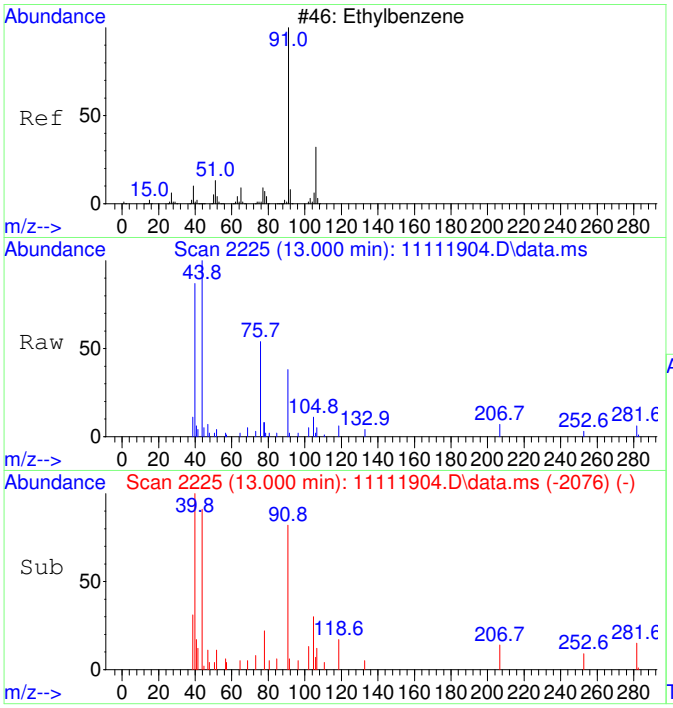


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.24 ug/L
RT: 12.759 min Scan# 2173
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 117

Ion	Ratio	Lower	Upper
131	100		
133	191.5	67.7	127.7#
119	0.0	36.2	96.2#
117	0.0	39.0	99.0#

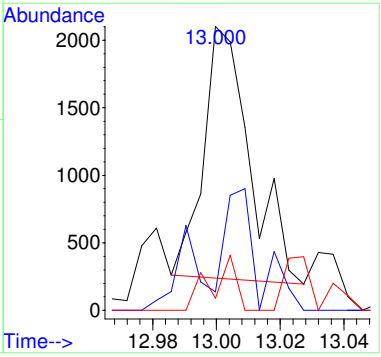


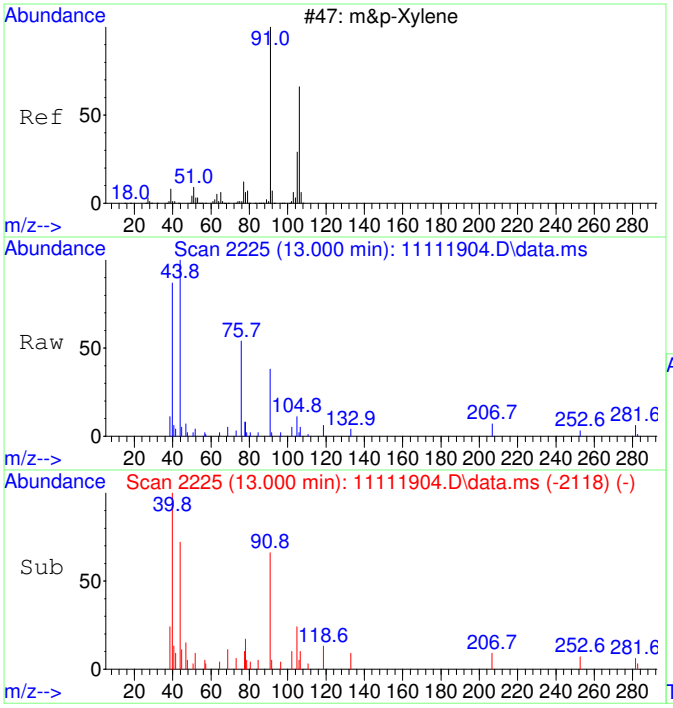


#42
Ethylbenzene SCAN
Concen: 70.16 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1895

Ion	Ratio	Lower	Upper
91	100		
106	22.6	0.1	60.1
51	11.3	0.0	40.9

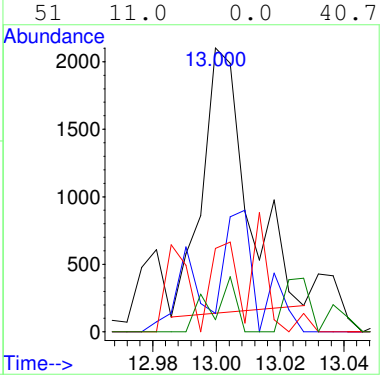


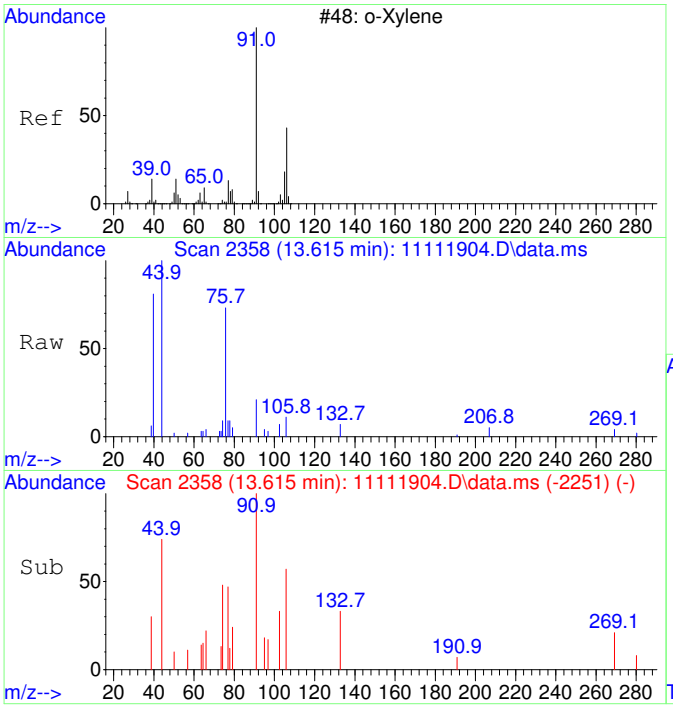


#43
m&p-Xylene SCAN
Concen: 50.43 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1954

Ion	Ratio	Lower	Upper
91	100		
106	22.0	21.1	81.1
105	17.8	0.0	53.6
51	11.0	0.0	40.7

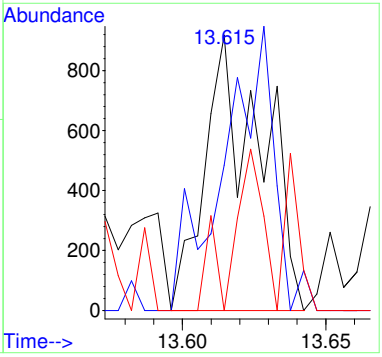


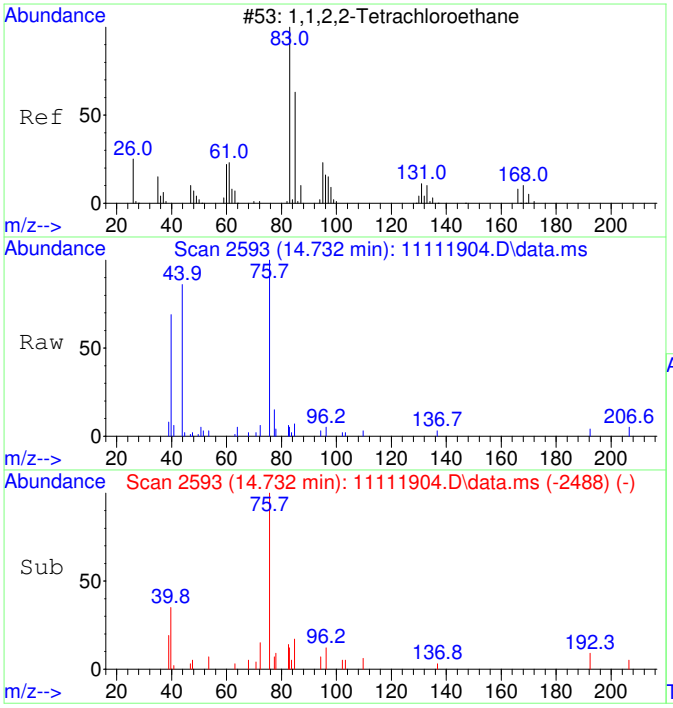


#44
o-Xylene SCAN
Concen: 60.90 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1255

Ion	Ratio	Lower	Upper
91	100		
106	92.7	16.7	76.7#
105	32.7	0.0	57.3

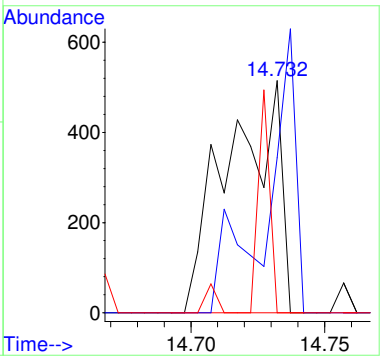


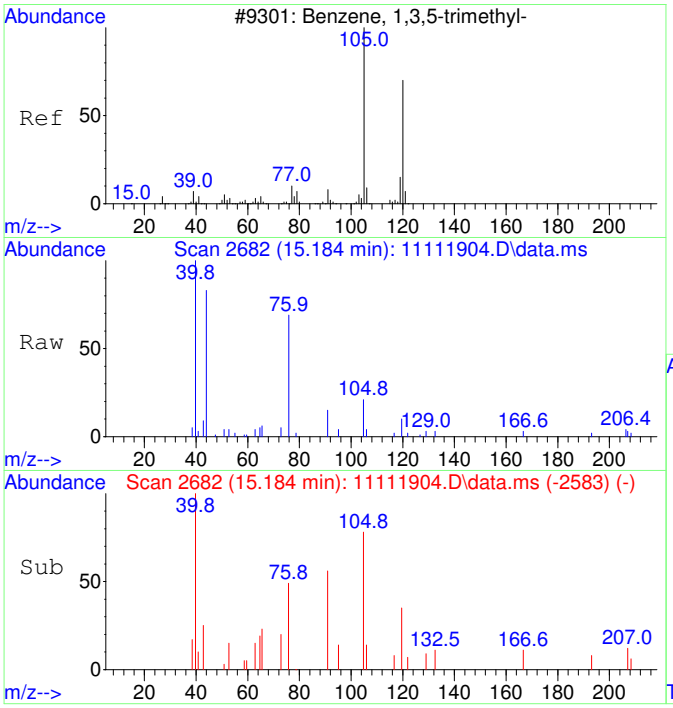


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 70.26 ug/L
RT: 14.732 min Scan# 2593
Delta R.T. 0.015 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 703

Ion	Ratio	Lower	Upper
83	100		
85	34.7	38.3	98.3#
95	20.9	0.0	44.8

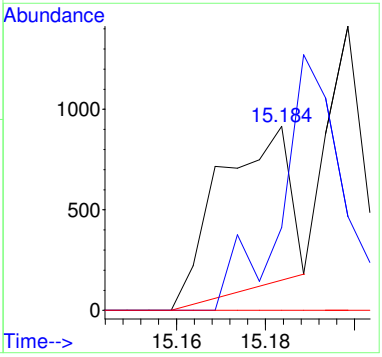


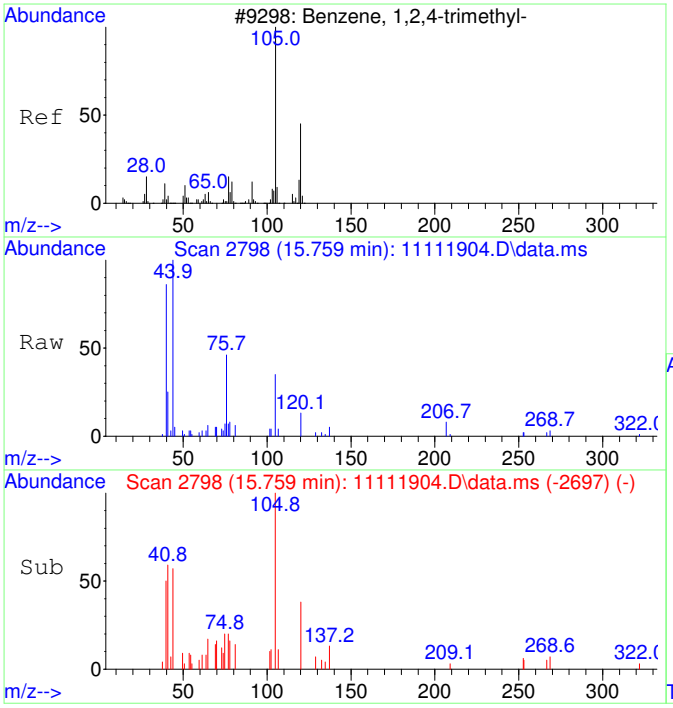


#46
1,3,5-Trimethylbenzene SCAN
Concen: 41.87 ug/L
RT: 15.184 min Scan# 2682
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 878

Ion	Ratio	Lower	Upper
105	100		
120	145.4	20.8	80.8#
119	0.0	0.0	42.8

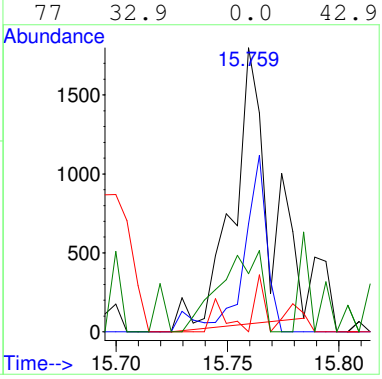


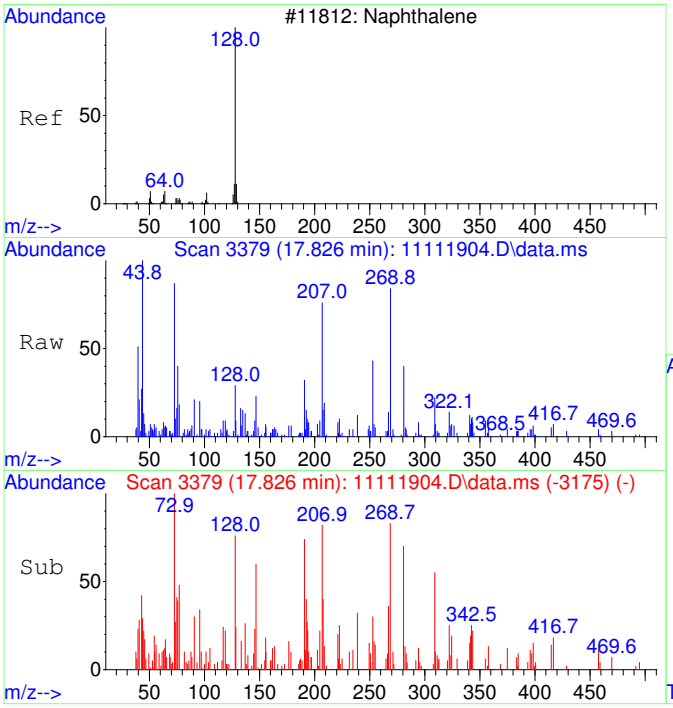


#47
1,2,4-Trimethylbenzene SCAN
Concen: 99.42 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2052

Ion	Ratio	Lower	Upper
105	100		
120	33.5	18.6	78.6
119	4.6	0.0	42.1
77	32.9	0.0	42.9

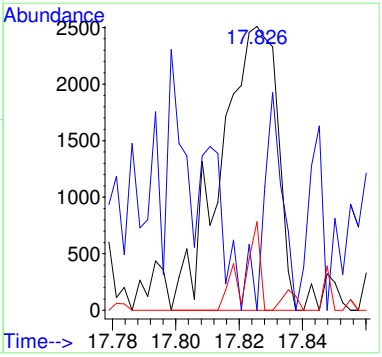




#48
Naphthalene SCAN
Concen: 90.77 ug/L
RT: 17.826 min Scan# 3379
Delta R.T. 0.002 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 3098

Ion	Ratio	Lower	Upper
128	100		
127	16.1	0.0	43.3
129	9.0	0.0	41.1



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 1:51 pm, Nov 11, 2019

M.I. Approved By:
ZR at 11:07 am, Nov 12, 2019

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

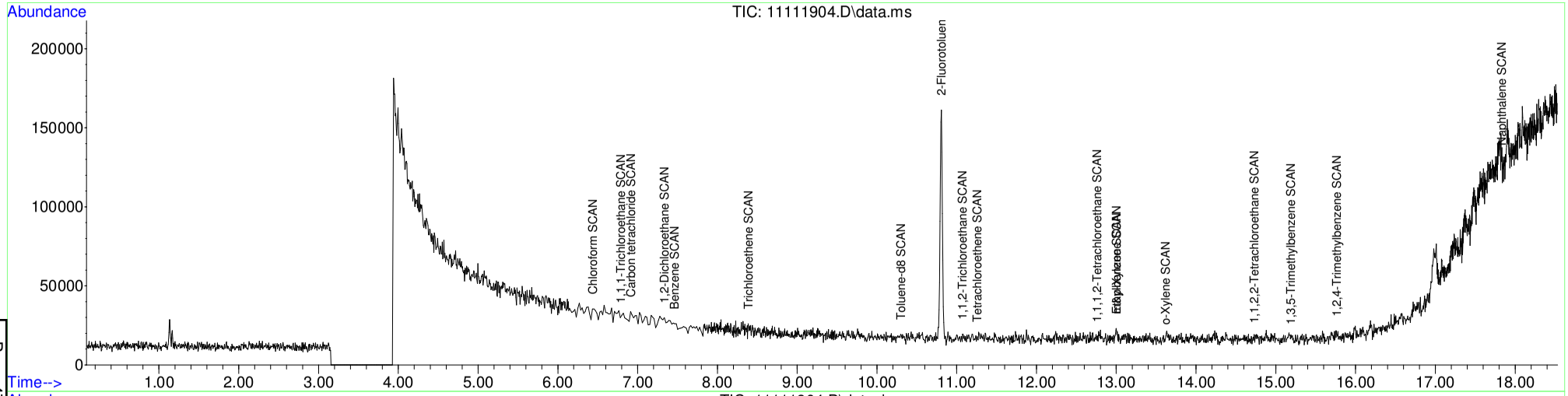
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	189989	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	1682	54.78	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.10%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	328m	37.40	ug/L	
3] trans-1,2-Dichloroethene	4.102	61	349	38.72	ug/L	80
4] 1,1-Dichloroethane	4.839	63	440	39.14	ug/L	98
5] cis-1,2-Dichloroethene	5.867	61	408	38.74	ug/L	84
6] Chloroform	6.435	83	515	42.63	ug/L	97
7] 1,1,1-Trichloroethane	6.693	97	478	40.33	ug/L	97
8] Carbon tetrachloride	6.969	117	459	41.62	ug/L	93
9] Benzene	7.301	78	1595	53.29	ug/L	79
10] 1,2-Dichloroethane	7.338	62	383	39.89	ug/L	52
11] Trichloroethene	8.387	130	451	49.69	ug/L	96
13] Toluene	10.412	91	2144	57.61	ug/L	97
14] 1,1,2-Trichloroethane	11.063	97	425	49.37	ug/L	99
15] Tetrachloroethene	11.265	166	576	53.24	ug/L	96
16] Chlorobenzene	12.603	112	1546	55.96	ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.756	131	560	56.33	ug/L	93
18] Ethylbenzene	12.811	91	2599	57.48	ug/L	94
19] m&p-Xylene	13.006	91	3999	116.81	ug/L	98
20] o-Xylene	13.620	91	2103	57.56	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.714	83	913	56.32	ug/L	99
22] 1,3,5-Trimethylbenzene	15.185	105	2404	61.52	ug/L	99
23] 1,2,4-Trimethylbenzene	15.766	105	2450	61.56	ug/L	100
24] Naphthalene	17.824	128	4423	64.46	ug/L	99
25) 2-Fluorotoluene SCAN	10.807	109	123406	5214.08	ug/L	98
30) Chloroform SCAN	6.434	83	392	40.93	ug/L #	1
31) 1,1,1-Trichloroethane ...	6.784	97	172	20.58	ug/L #	21
32) Carbon tetrachloride SCAN	6.913	117	559	71.35	ug/L #	19
33) Benzene SCAN	7.465	78	2182	103.86	ug/L	91
34) 1,2-Dichloroethane SCAN	7.336	62	752	95.95	ug/L #	39
35) Trichloroethene SCAN	8.385	130	138	22.41	ug/L #	49
36) Toluene-d8 SCAN	10.298	98	827	42.97	ug/L #	58
38) 1,1,2-Trichloroethane ...	11.074	97	216	39.91	ug/L #	57
39) Tetrachloroethene SCAN	11.258	166	201	31.90	ug/L #	44
41) 1,1,1,2-Tetrachloroeth...	12.759	131	117	20.24	ug/L #	11
42) Ethylbenzene SCAN	13.000	91	1895	70.16	ug/L	90
43) m&p-Xylene SCAN	13.000	91	1954	50.43	ug/L	72
44) o-Xylene SCAN	13.615	91	1255	60.90	ug/L #	53
45) 1,1,2,2-Tetrachloroeth...	14.732	83	703	70.26	ug/L #	63
46) 1,3,5-Trimethylbenzene...	15.184	105	878	41.87	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.759	105	2052	99.42	ug/L	73
48) Naphthalene SCAN	17.826	128	3098	90.77	ug/L	94

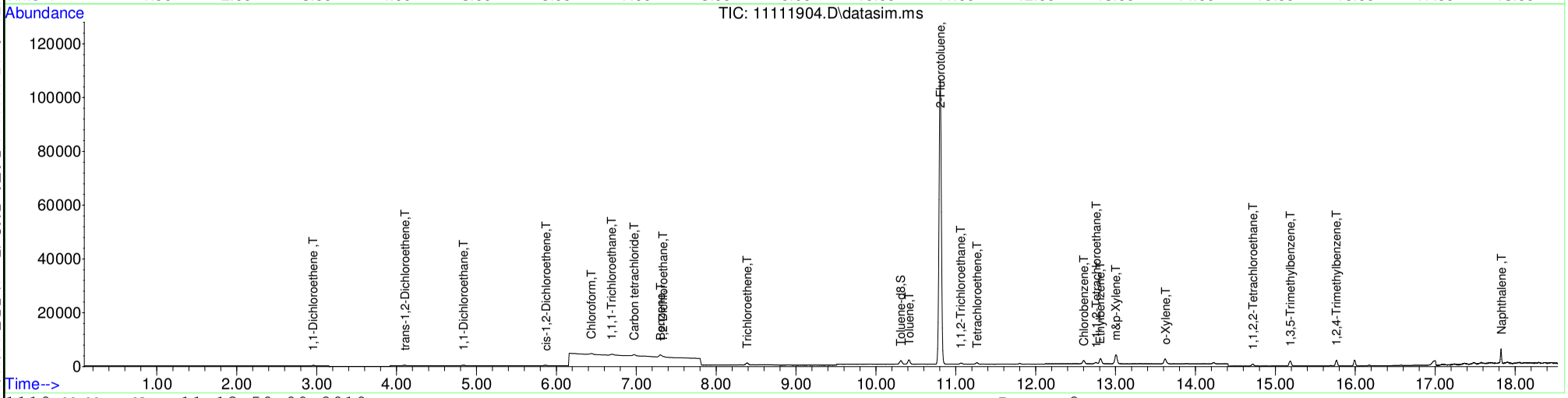
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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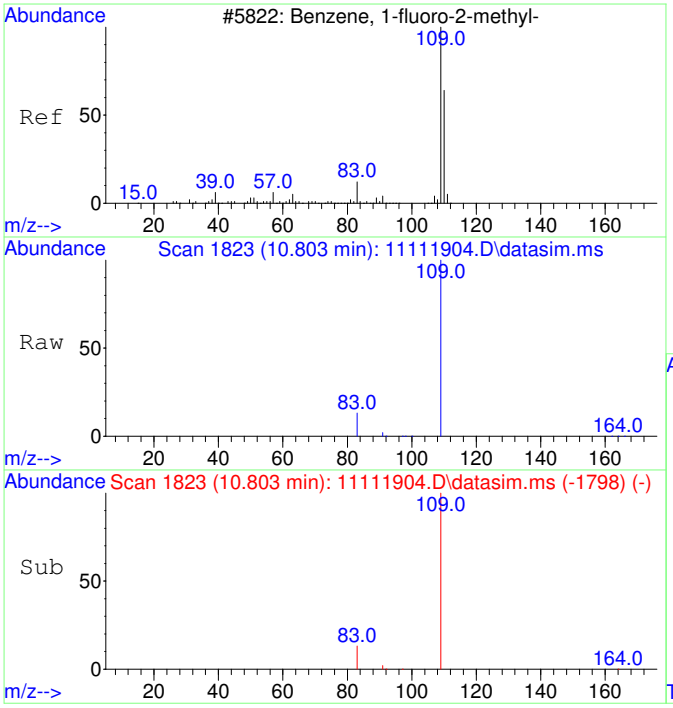
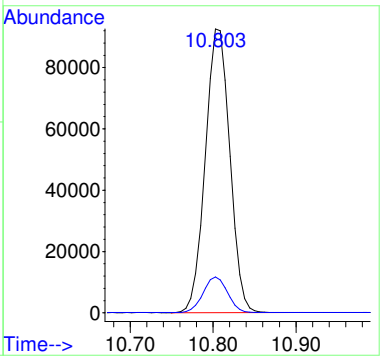
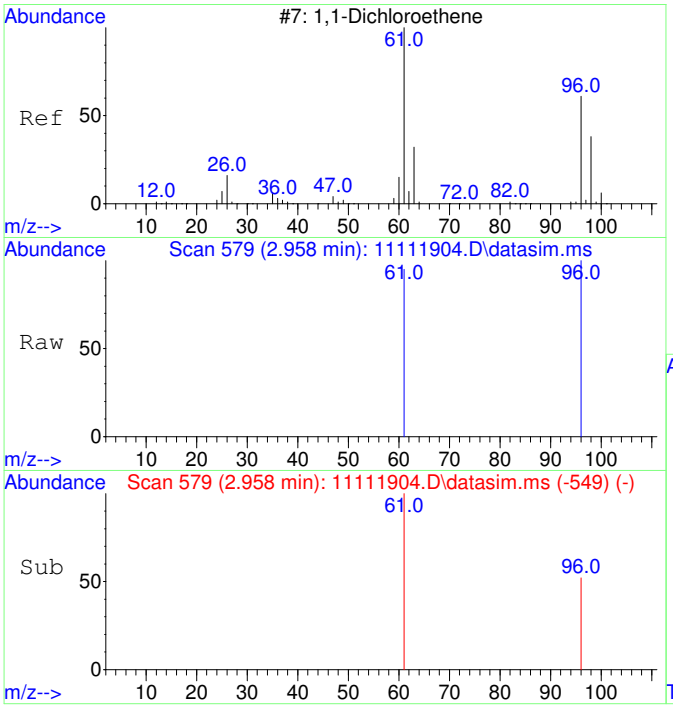


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 189989

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

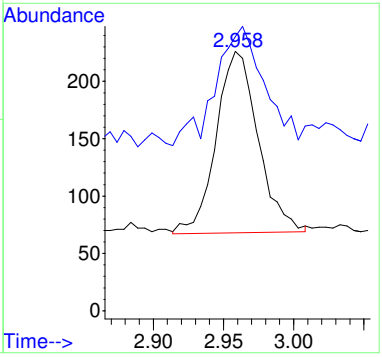


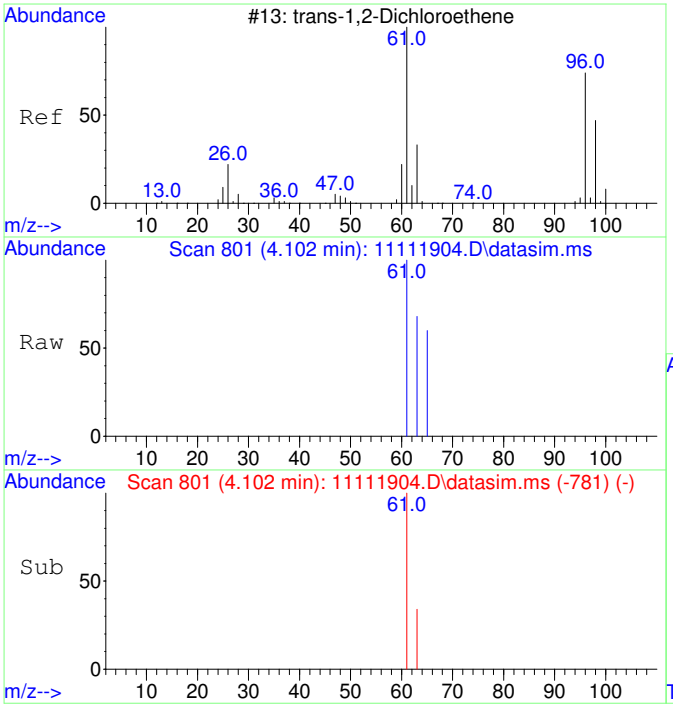


#2
1,1-Dichloroethene
Concen: 37.40 ug/L m
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 328

Ion	Ratio	Lower	Upper
61	100		
96	172.0	33.6	93.6#

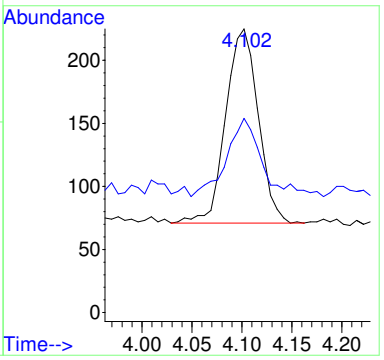


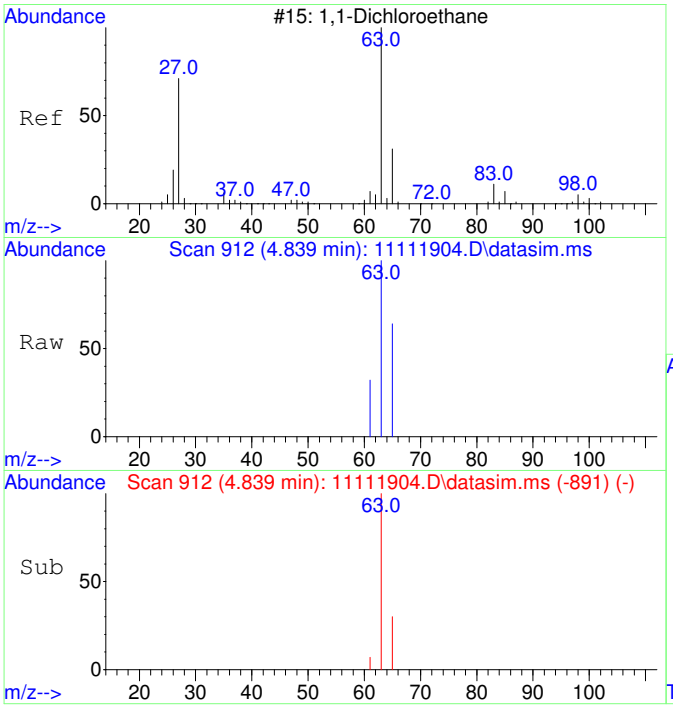


#3
trans-1,2-Dichloroethene
Concen: 38.72 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.020 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 349

Ion	Ratio	Lower	Upper
61	100		
63	43.6	2.3	62.3

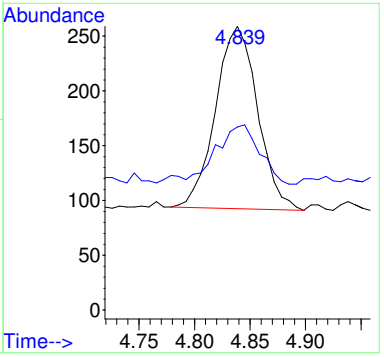


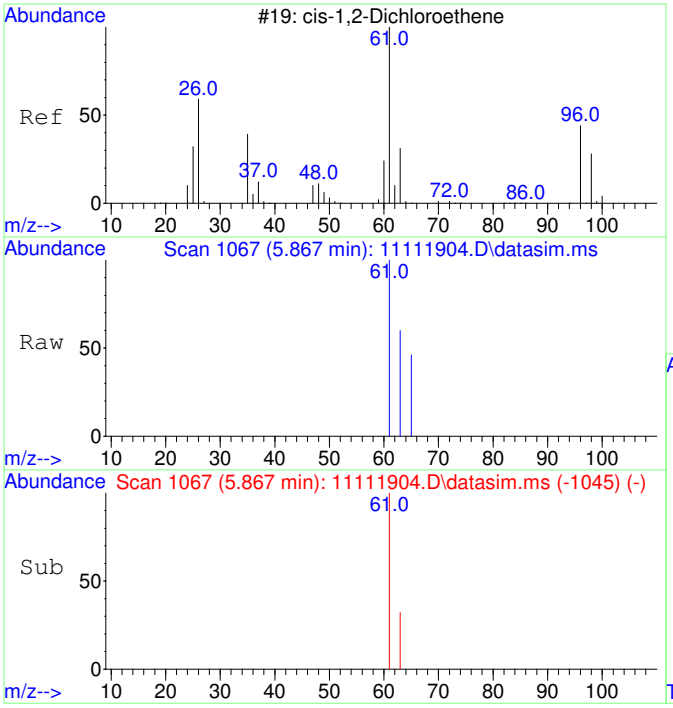


#4
1,1-Dichloroethane
Concen: 39.14 ug/L
RT: 4.839 min Scan# 912
Delta R.T. -0.013 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 63 Resp: 440

Ion	Ratio	Lower	Upper
63	100		
65	33.0	1.9	61.9

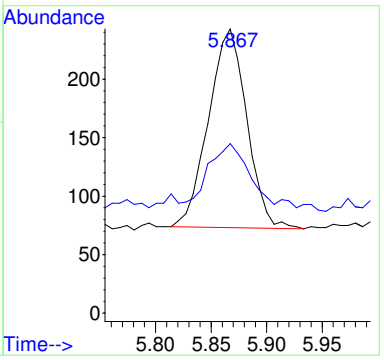


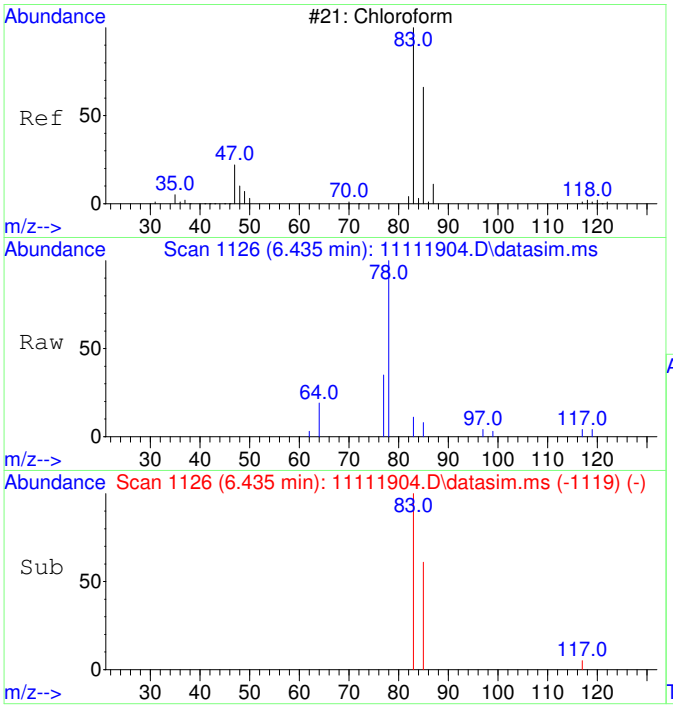


#5
cis-1,2-Dichloroethene
Concen: 38.74 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 408

Ion	Ratio	Lower	Upper
61	100		
63	41.2	2.4	62.4

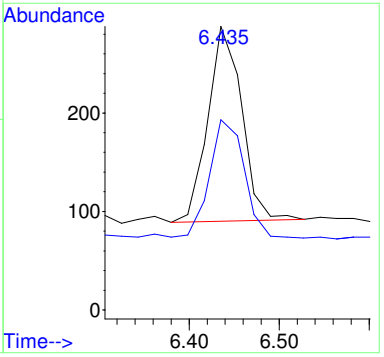


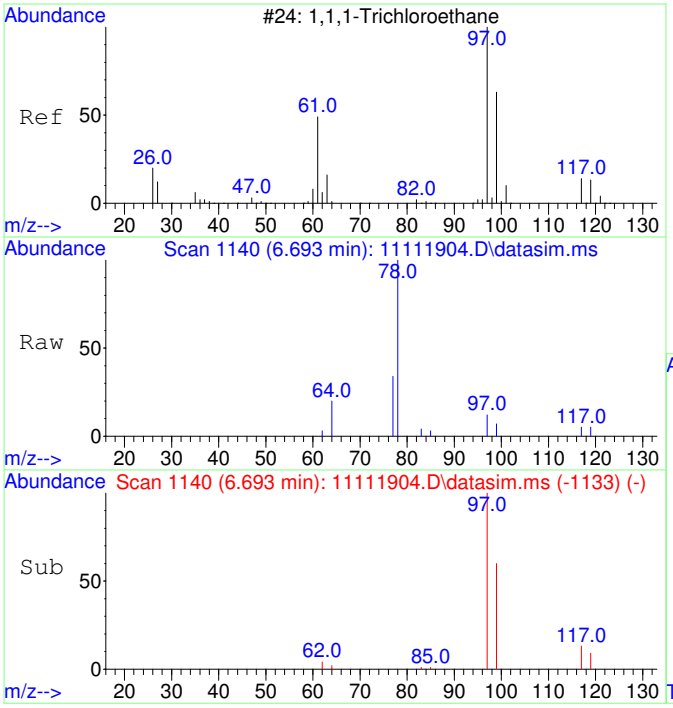


#6
Chloroform
Concen: 42.63 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 515

Ion	Ratio	Lower	Upper
83	100		
85	62.7	35.2	95.2

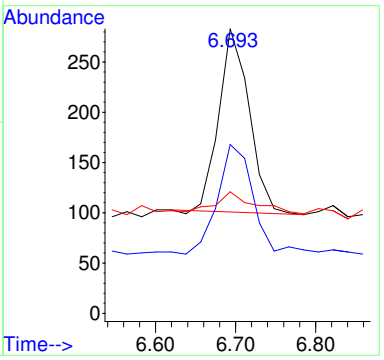


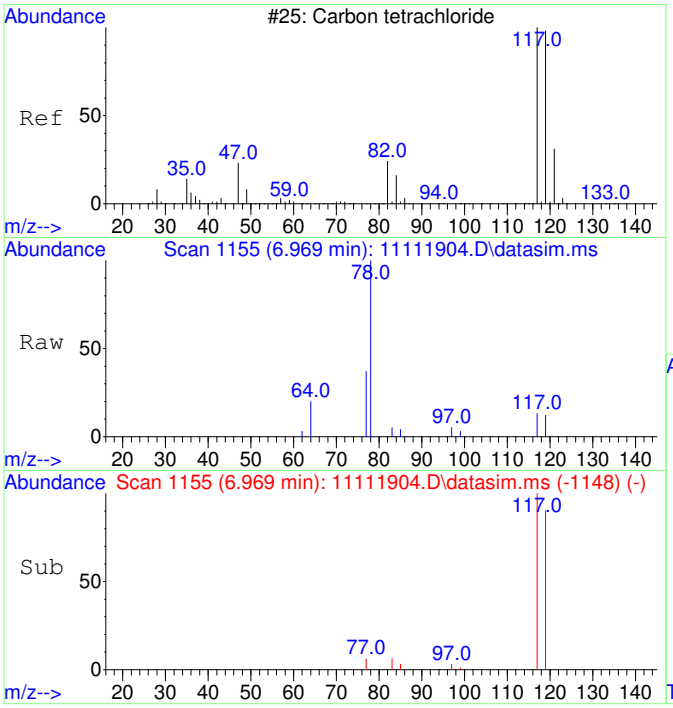


#7
1,1,1-Trichloroethane
Concen: 40.33 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 478

Ion	Ratio	Lower	Upper
97	100		
99	66.5	34.5	94.5
117	15.3	0.0	43.0

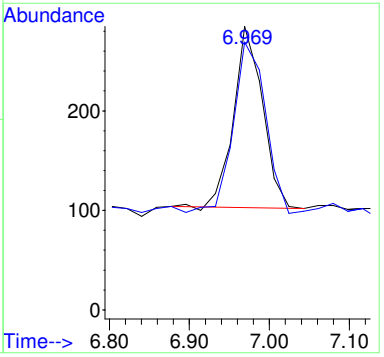


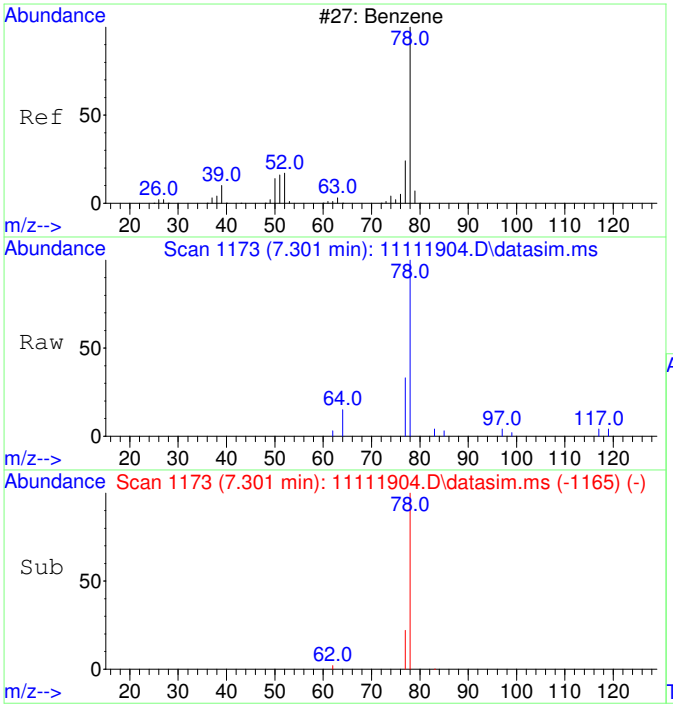


#8
Carbon tetrachloride
Concen: 41.62 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 459

Ion	Ratio	Lower	Upper
117	100		
119	103.3	66.0	126.0

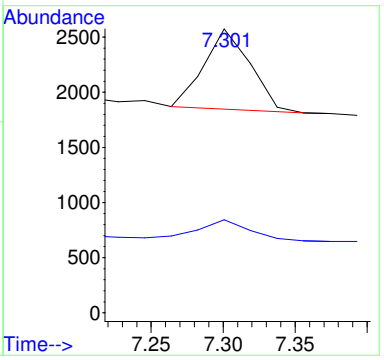


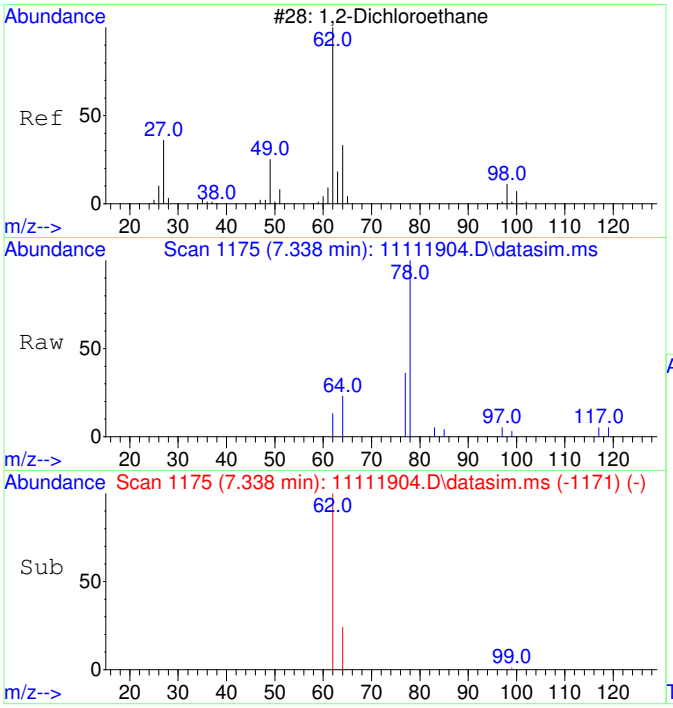


#9
Benzene
Concen: 53.29 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 1595

Ion	Ratio	Lower	Upper
78	100		
77	33.6	0.0	53.2

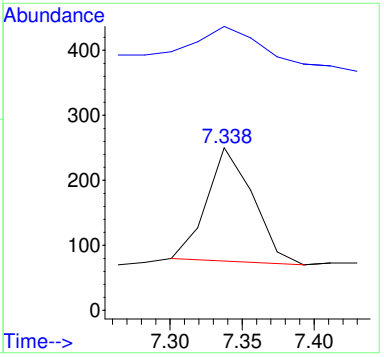


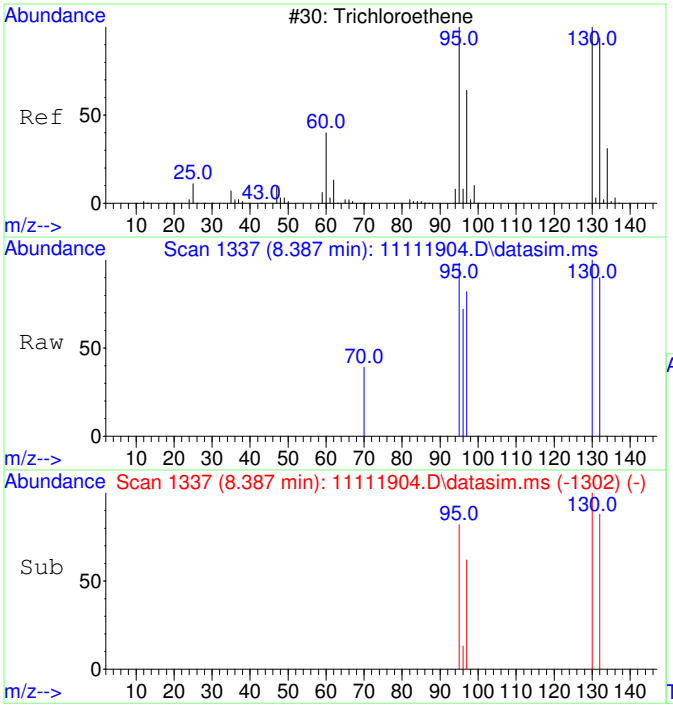


#10
1,2-Dichloroethane
Concen: 39.89 ug/L
RT: 7.338 min Scan# 1175
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 383

Ion	Ratio	Lower	Upper
62	100		
64	59.5	2.4	62.4

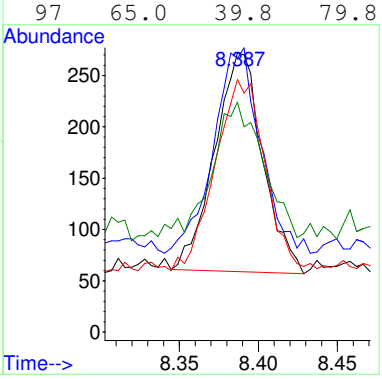


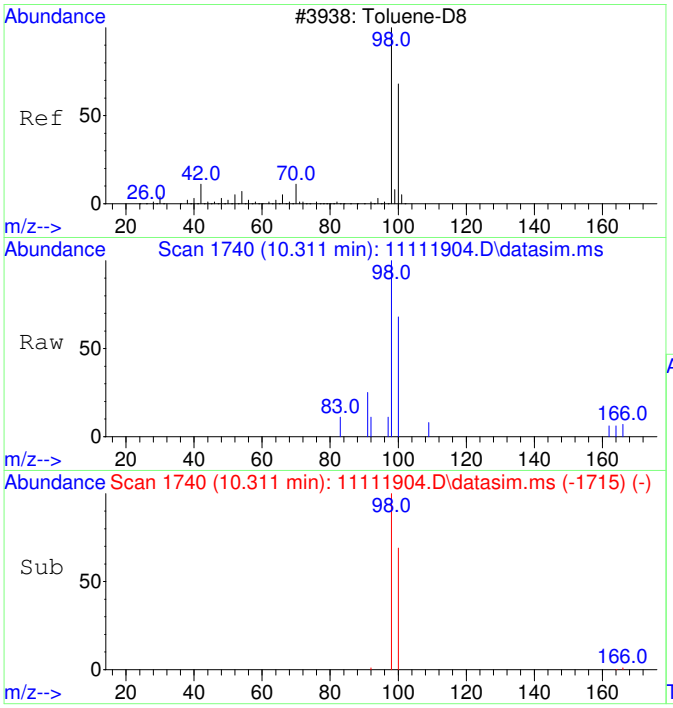


#11
Trichloroethene
Concen: 49.69 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 451

Ion	Ratio	Lower	Upper
130	100		
95	92.0	63.4	123.4
132	90.5	76.0	116.0
97	65.0	39.8	79.8

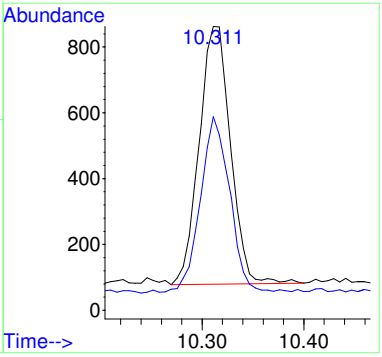


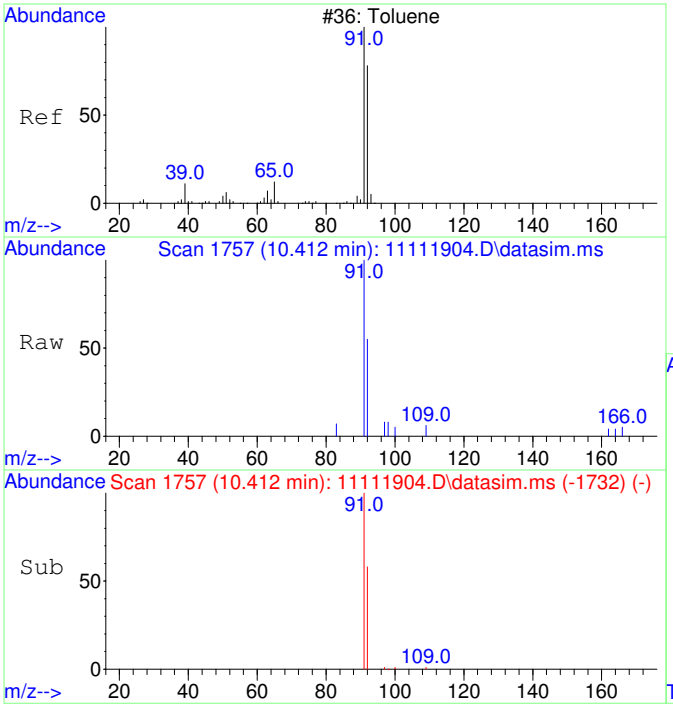


#12
Toluene-d8
Concen: 54.78 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 1682

Ion	Ratio	Lower	Upper
98	100		
100	62.7	36.4	96.4

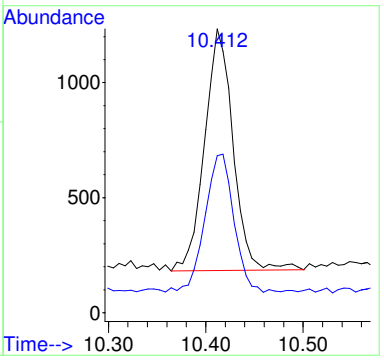


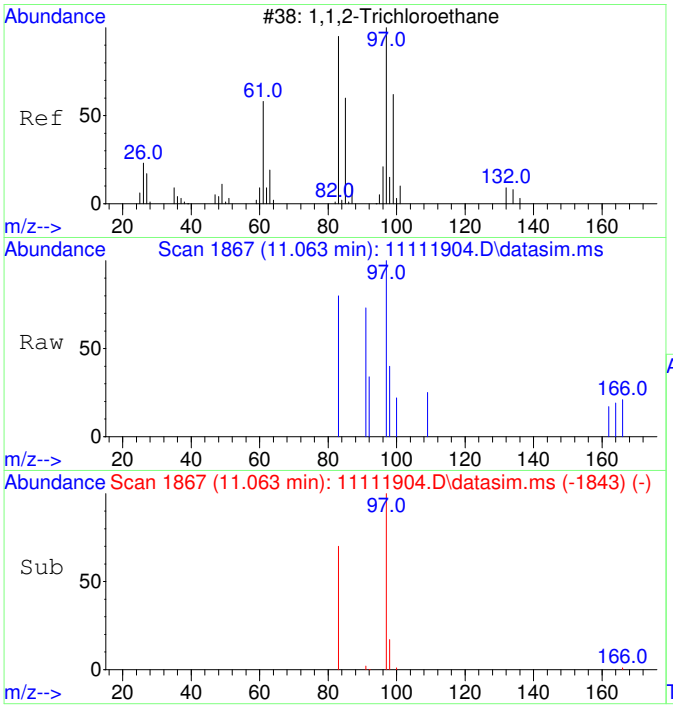


#13
Toluene
Concen: 57.61 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2144

Ion	Ratio	Lower	Upper
91	100		
92	57.5	29.4	89.4

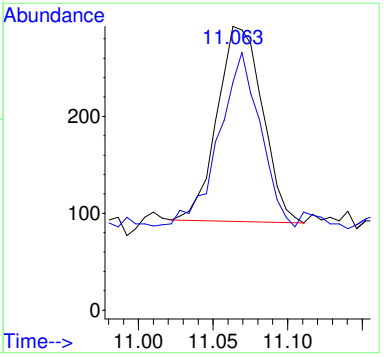


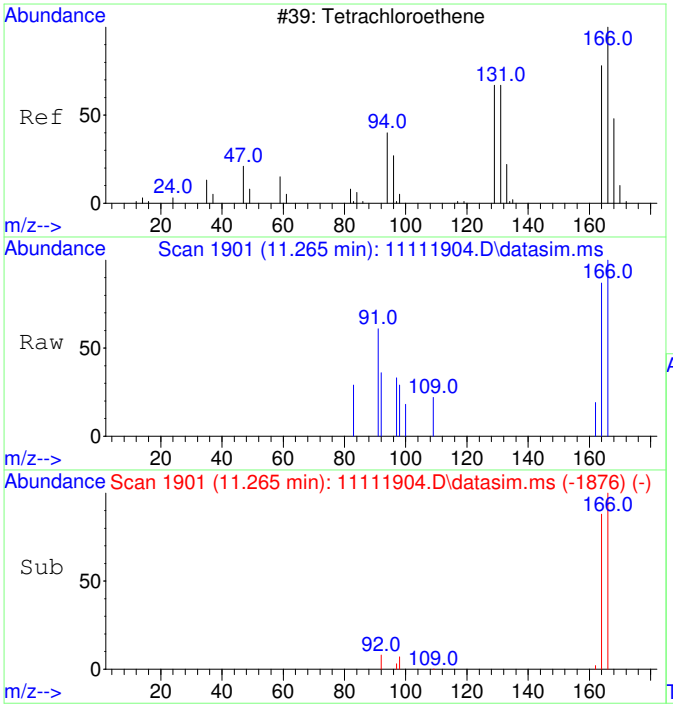


#14
1,1,2-Trichloroethane
Concen: 49.37 ug/L
RT: 11.063 min Scan# 1867
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 425

Ion	Ratio	Lower	Upper
97	100		
83	81.4	52.0	112.0

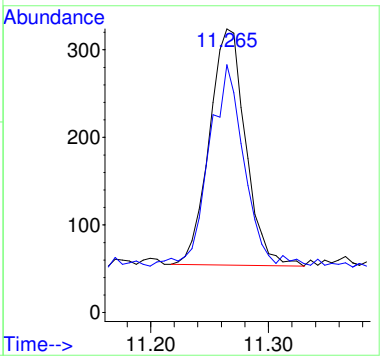


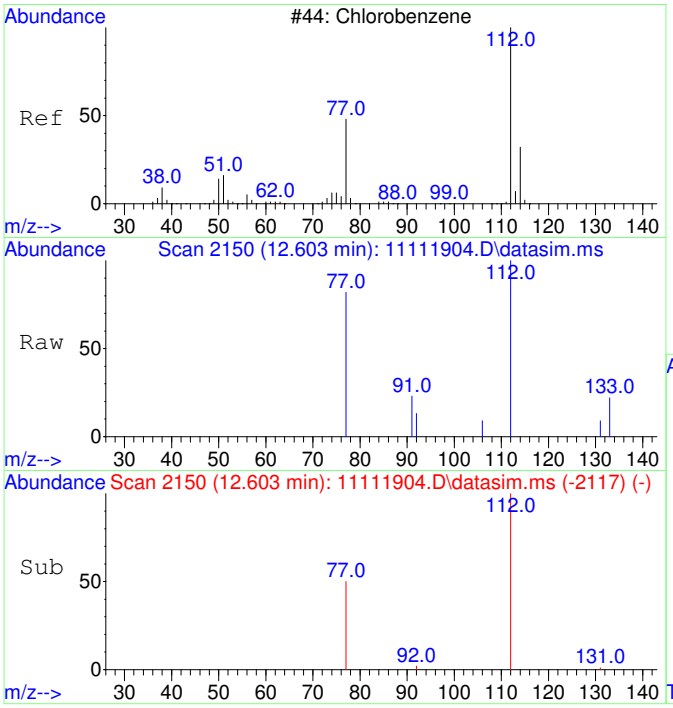


#15
Tetrachloroethene
Concen: 53.24 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 576

Ion	Ratio	Lower	Upper
166	100		
164	81.6	47.7	107.7

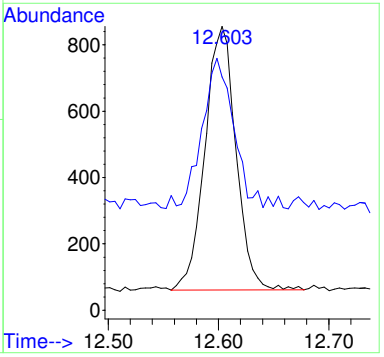


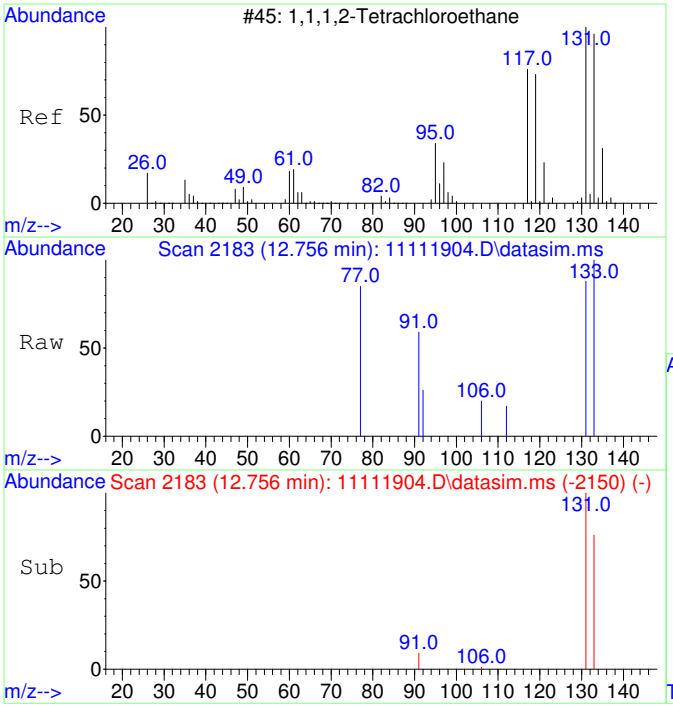


#16
Chlorobenzene
Concen: 55.96 ug/L
RT: 12.603 min Scan# 2150
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:112 Resp: 1546

Ion	Ratio	Lower	Upper
112	100		
77	57.1	25.2	85.2

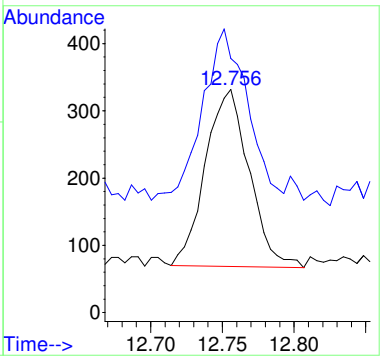


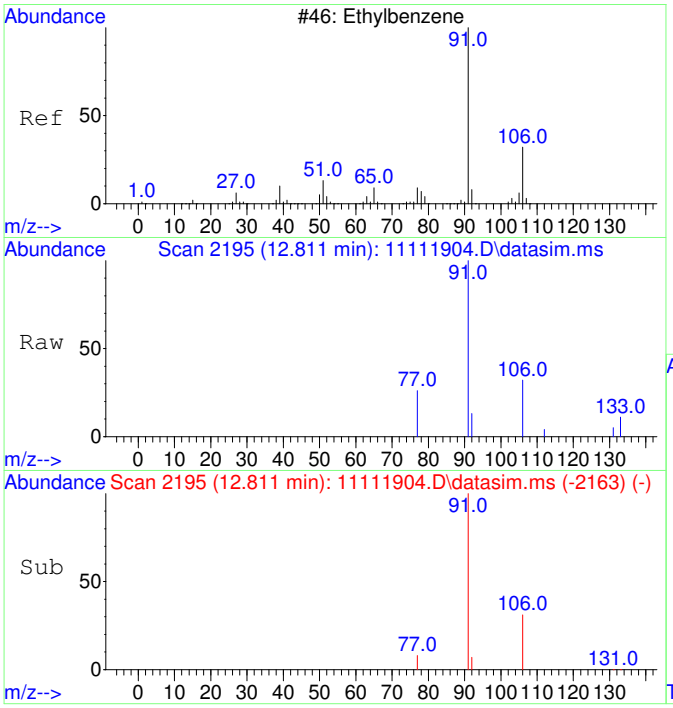


#17
1,1,1,2-Tetrachloroethane
Concen: 56.33 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 560

Ion	Ratio	Lower	Upper
131	100		
133	102.0	65.1	125.1

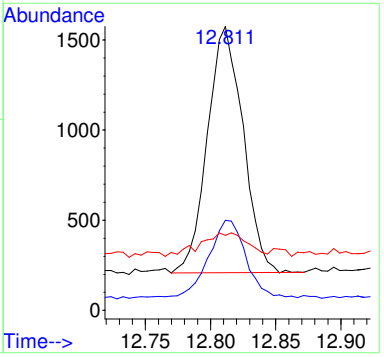


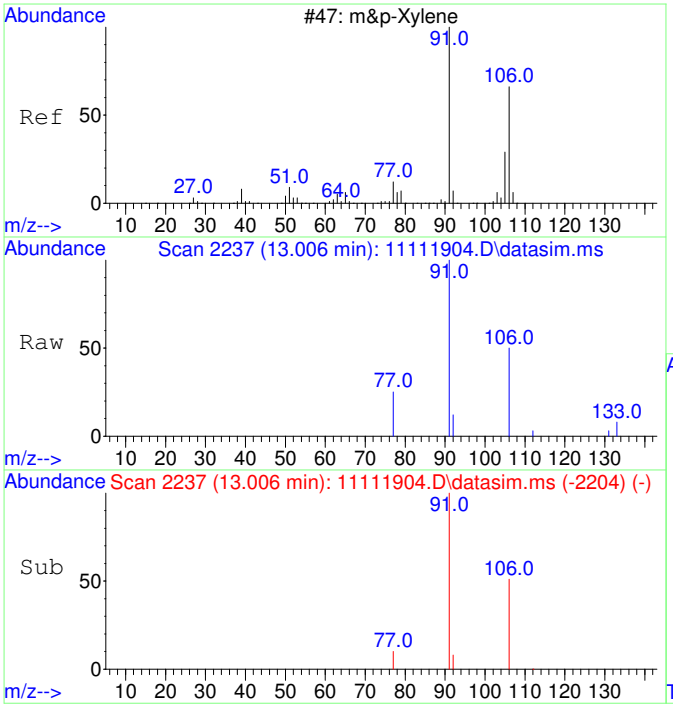


#18
Ethylbenzene
Concen: 57.48 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2599

Ion	Ratio	Lower	Upper
91	100		
106	35.1	2.5	62.5
77	12.4	0.0	38.4

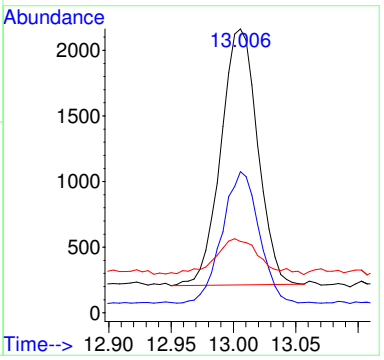


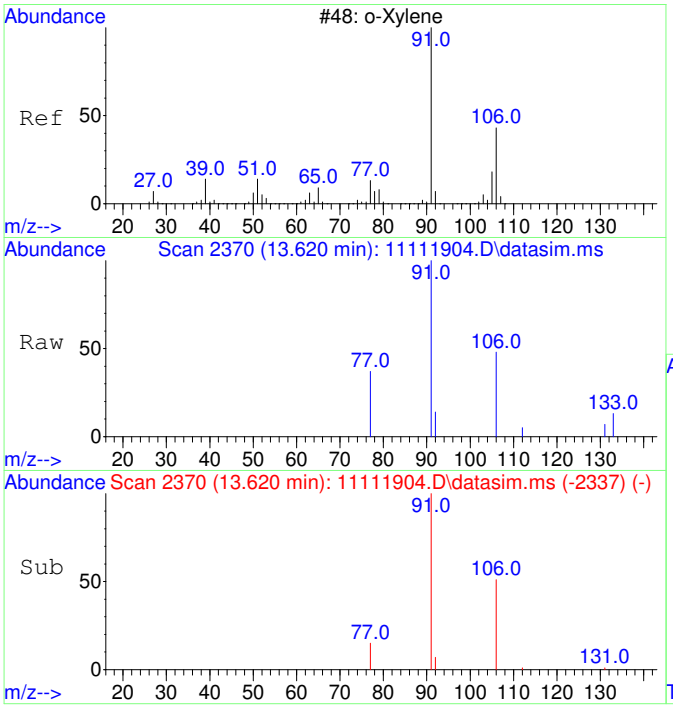


#19
m&p-Xylene
Concen: 116.81 ug/L
RT: 13.006 min Scan# 2237
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 3999

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.2	81.2
77	16.7	0.0	42.7

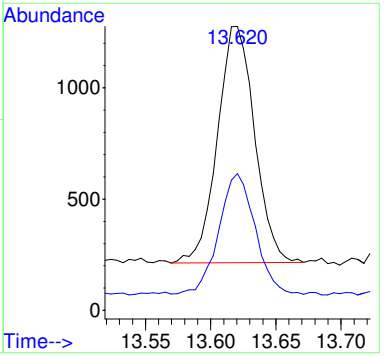


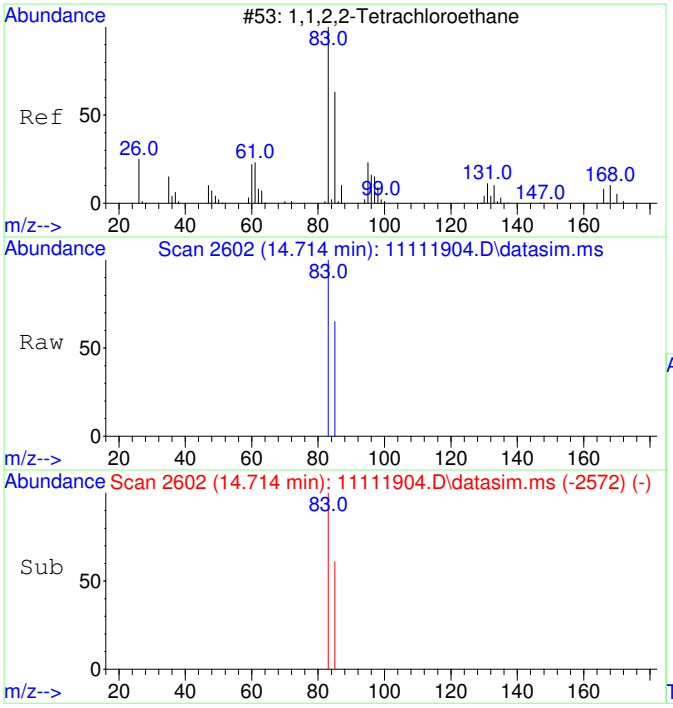


#20
o-Xylene
Concen: 57.56 ug/L
RT: 13.620 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2103

Ion	Ratio	Lower	Upper
91	100		
106	49.8	18.3	78.3

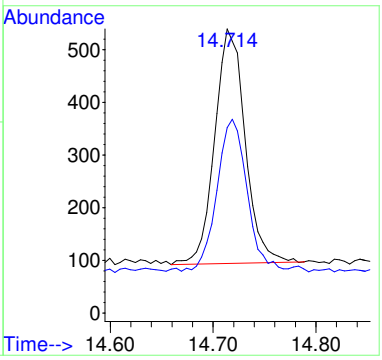


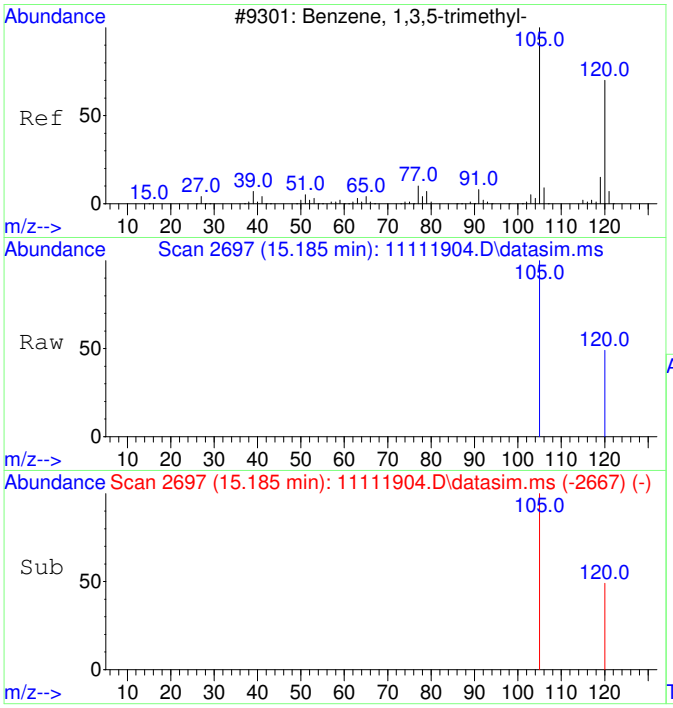


#21
1,1,2,2-Tetrachloroethane
Concen: 56.32 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 913

Ion	Ratio	Lower	Upper
83	100		
85	64.1	34.7	94.7

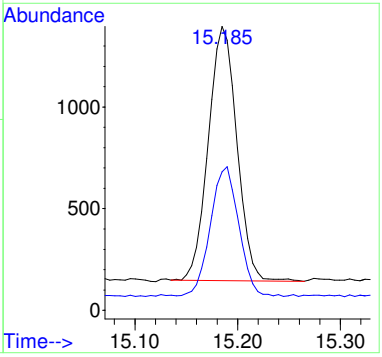


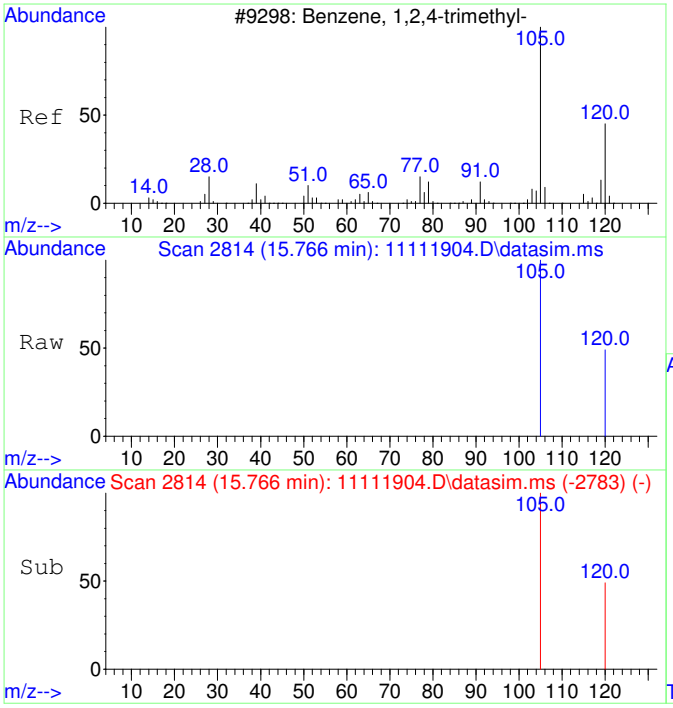


#22
1,3,5-Trimethylbenzene
Concen: 61.52 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2404

Ion	Ratio	Lower	Upper
105	100		
120	50.1	20.8	80.8

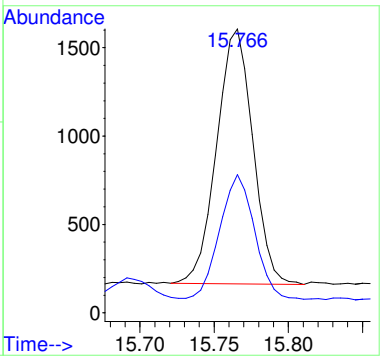


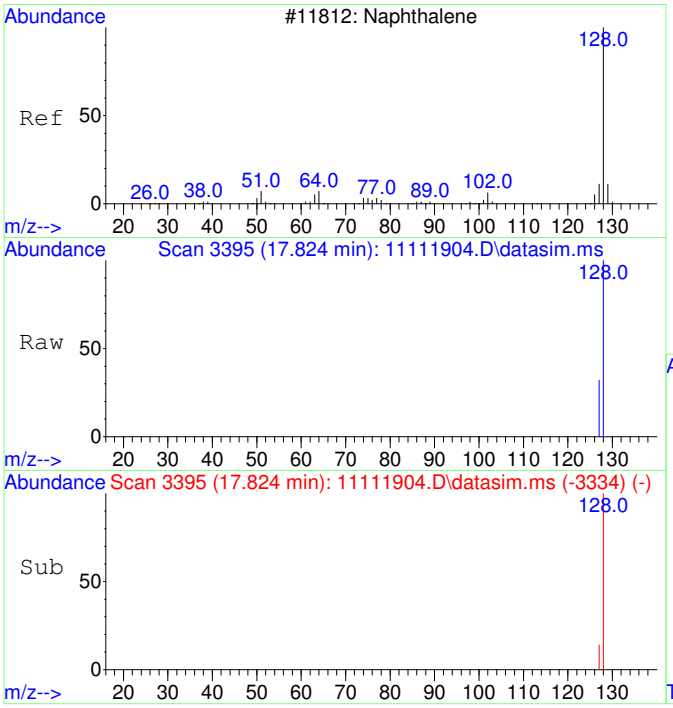


#23
1,2,4-Trimethylbenzene
Concen: 61.56 ug/L
RT: 15.766 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2450

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.8	76.8

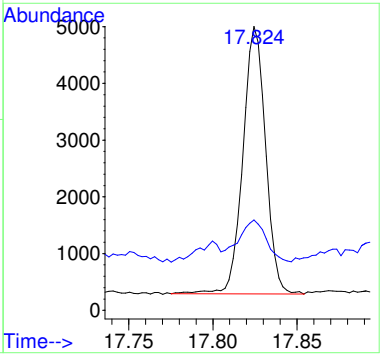


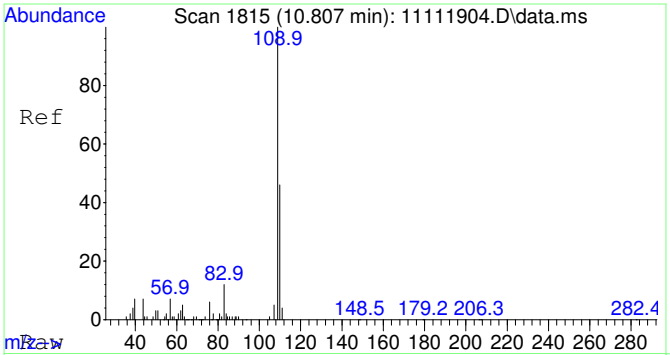


#24
Naphthalene
Concen: 64.46 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 4423

Ion	Ratio	Lower	Upper
128	100		
127	13.0	0.0	42.7

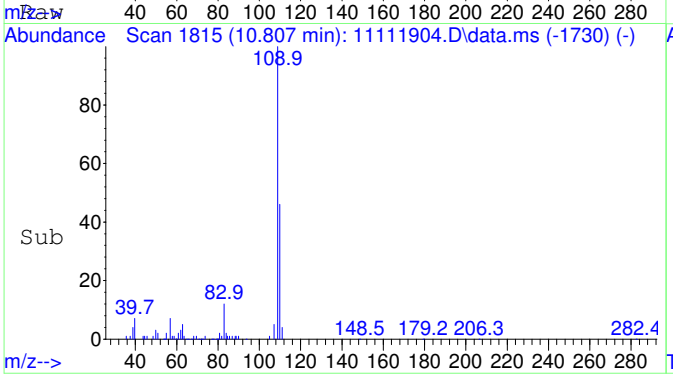


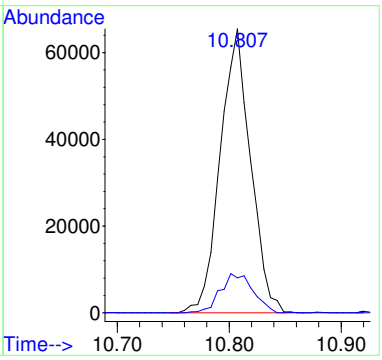


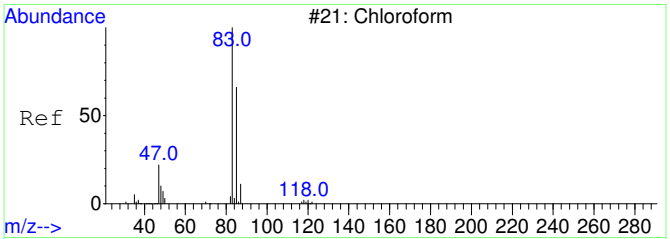
#25
2-Fluorotoluene SCAN
Concen: 5214.08 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 123406

Ion	Ratio	Lower	Upper
109	100		
83	14.9	0.0	45.8



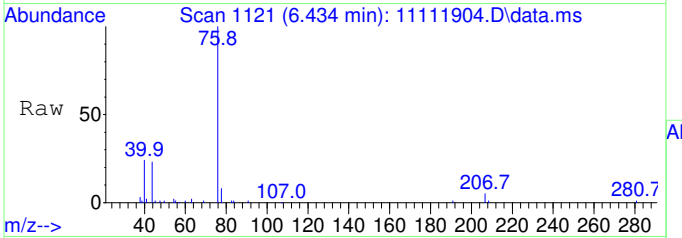


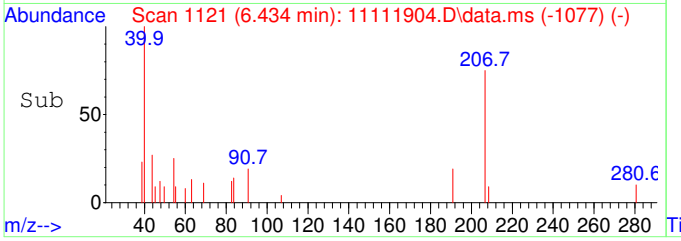


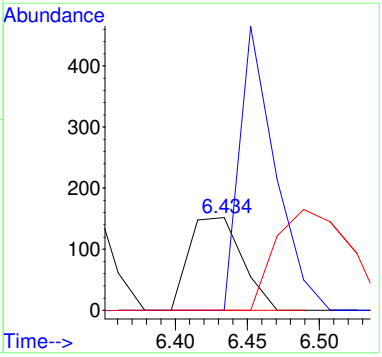
#30
Chloroform SCAN
Concen: 40.93 ug/L
RT: 6.434 min Scan# 1121
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

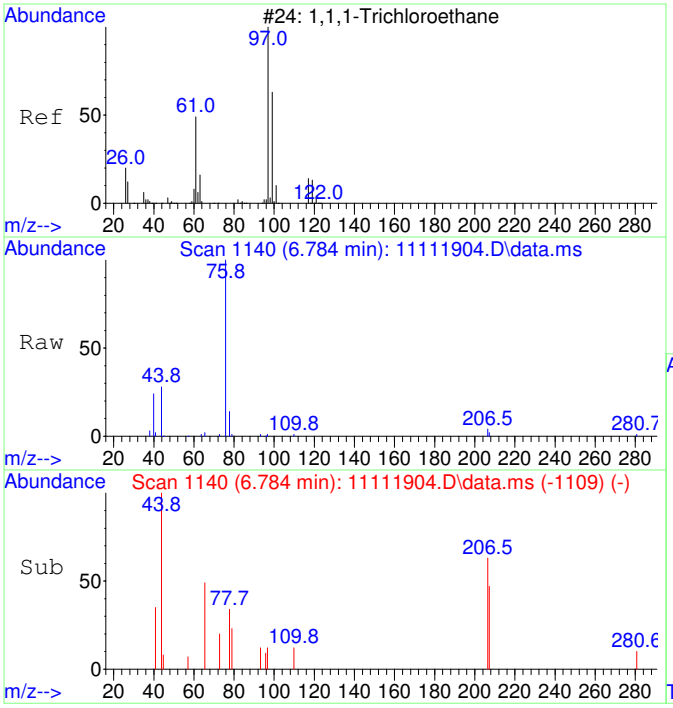
Tgt Ion: 83 Resp: 392

Ion	Ratio	Lower	Upper
83	100		
85	205.6	38.3	98.3#
47	0.0	0.0	50.2





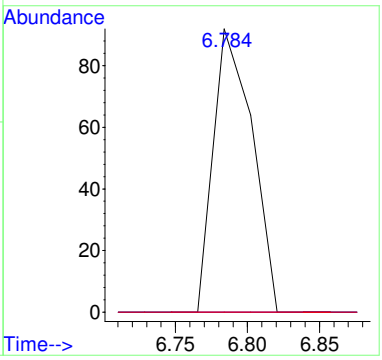


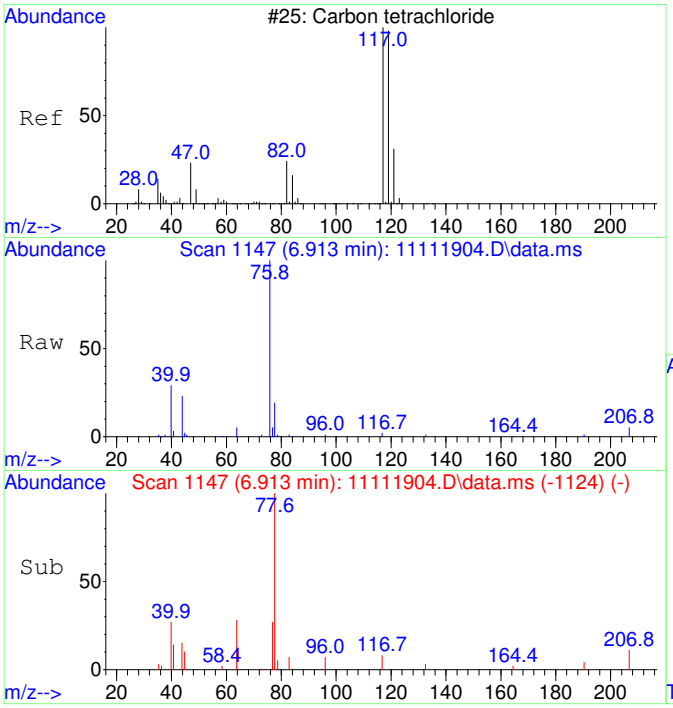


#31
1,1,1-Trichloroethane SCAN
Concen: 20.58 ug/L
RT: 6.784 min Scan# 1140
Delta R.T. 0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 172

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

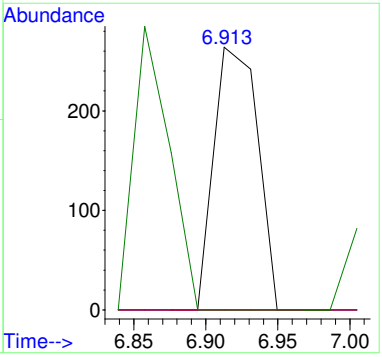


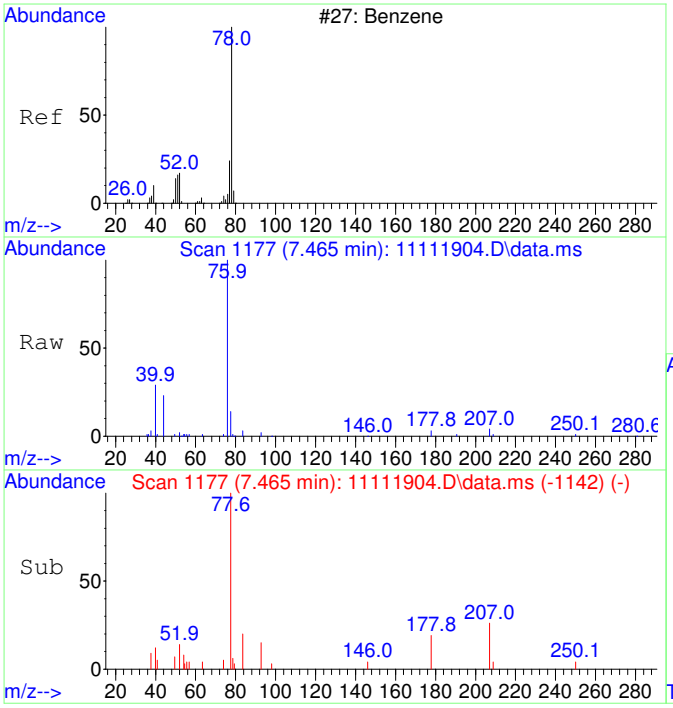


#32
Carbon tetrachloride SCAN
Concen: 71.35 ug/L
RT: 6.913 min Scan# 1147
Delta R.T. -0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 559

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

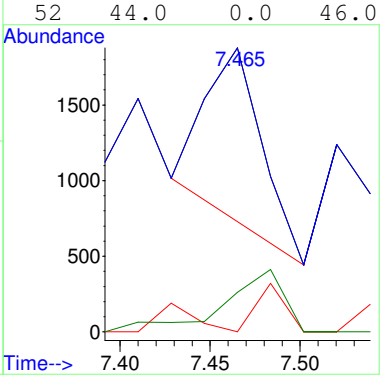


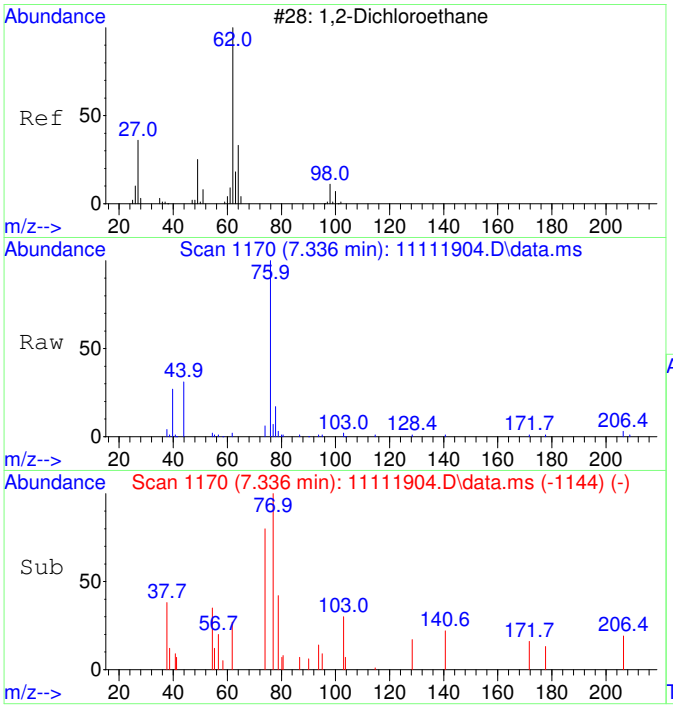


#33
Benzene SCAN
Concen: 103.86 ug/L
RT: 7.465 min Scan# 1177
Delta R.T. 0.147 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 2182

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	16.3	0.0	49.8
52	44.0	0.0	46.0

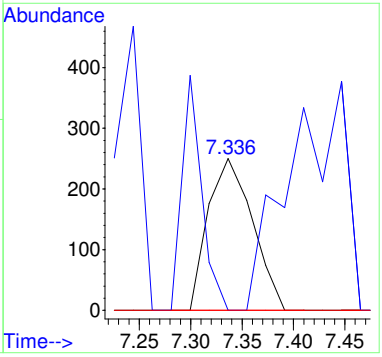


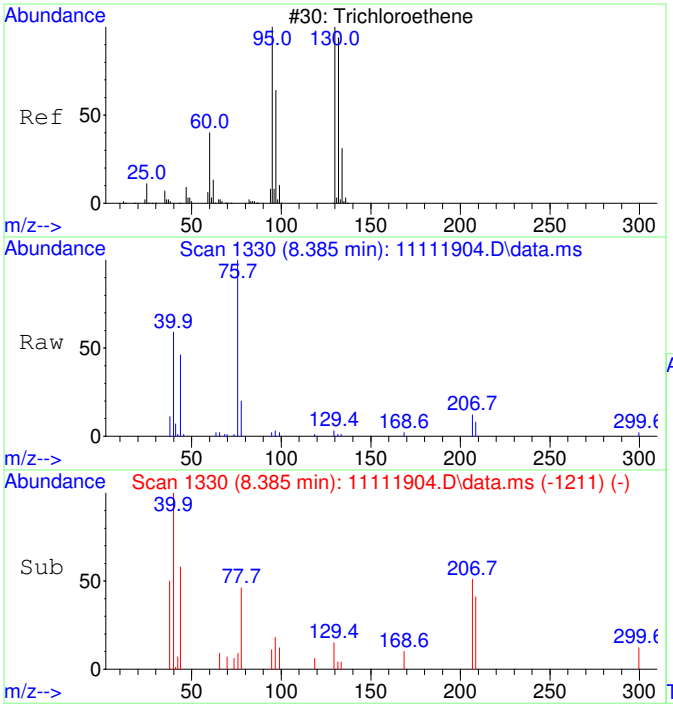


#34
1,2-Dichloroethane SCAN
Concen: 95.95 ug/L
RT: 7.336 min Scan# 1170
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 752

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

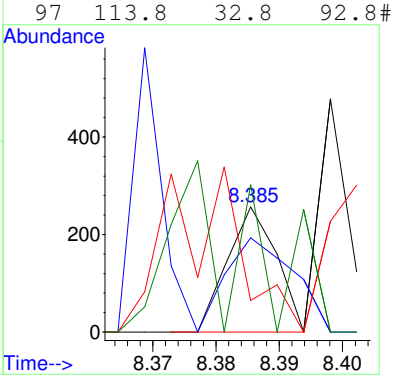


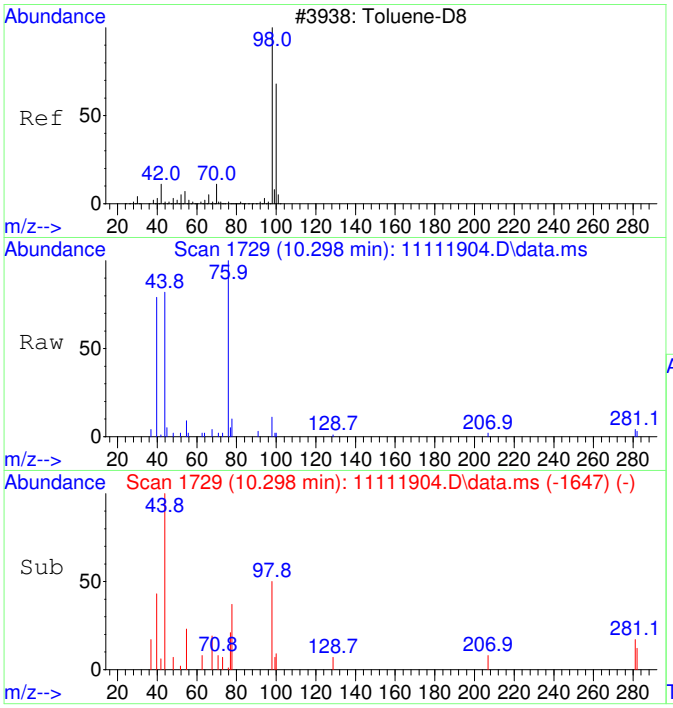


#35
Trichloroethene SCAN
Concen: 22.41 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 138

Ion	Ratio	Lower	Upper
130	100		
95	103.6	69.5	129.5
132	185.5	66.5	126.5#
97	113.8	32.8	92.8#

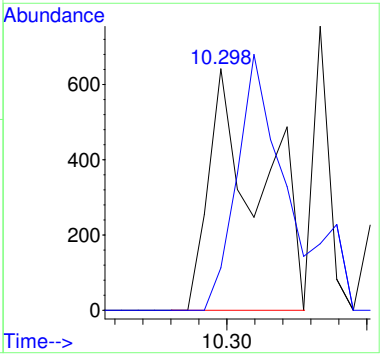


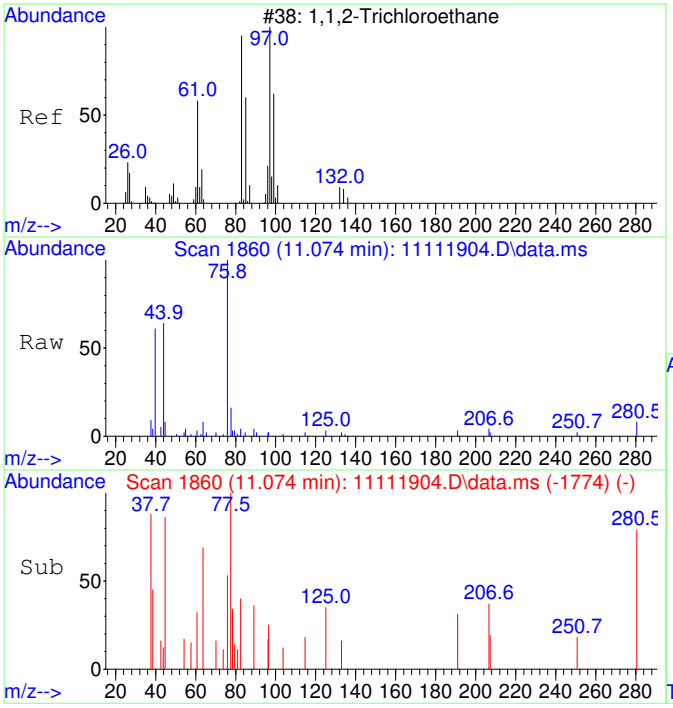


#36
Toluene-d8 SCAN
Concen: 42.97 ug/L
RT: 10.298 min Scan# 1729
Delta R.T. -0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 827

Ion	Ratio	Lower	Upper
98	100		
100	106.9	42.1	102.1#

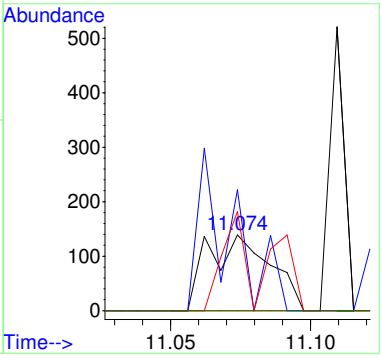


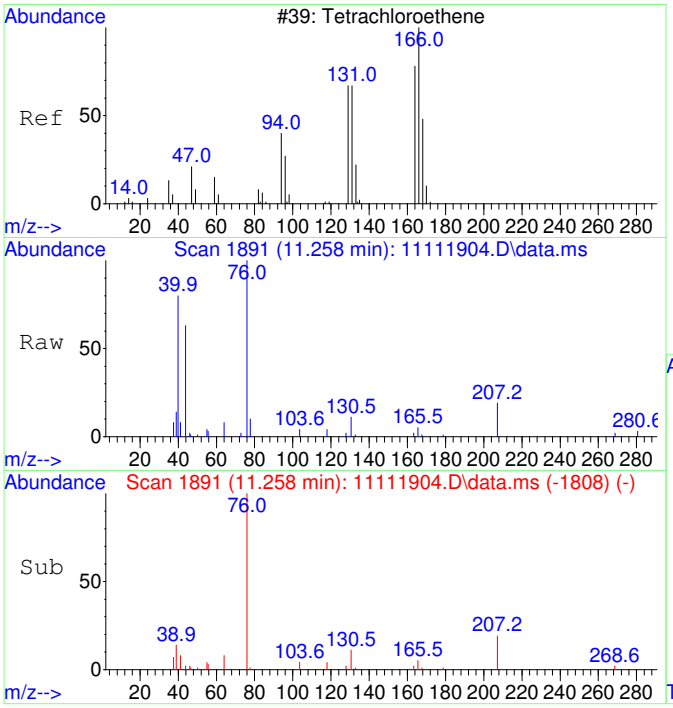


#38
1,1,2-Trichloroethane SCAN
Concen: 39.91 ug/L
RT: 11.074 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 216

Ion	Ratio	Lower	Upper
97	100		
83	116.7	58.1	118.1
61	46.3	36.0	96.0
99	0.0	32.7	92.7#

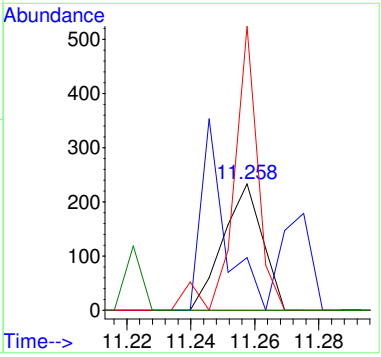


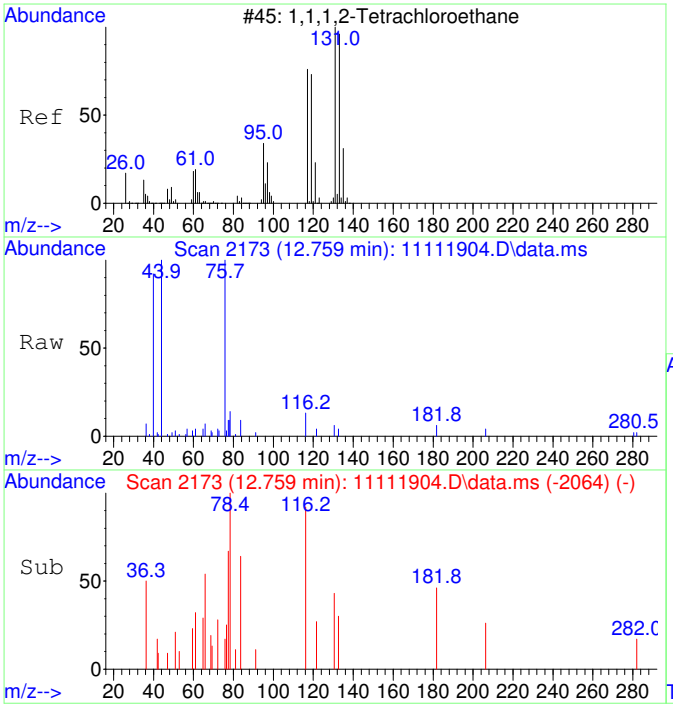


#39
Tetrachloroethene SCAN
Concen: 31.90 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 201

Ion	Ratio	Lower	Upper
166	100		
164	92.0	50.4	110.4
131	136.3	44.0	104.0#
129	0.0	42.6	102.6#

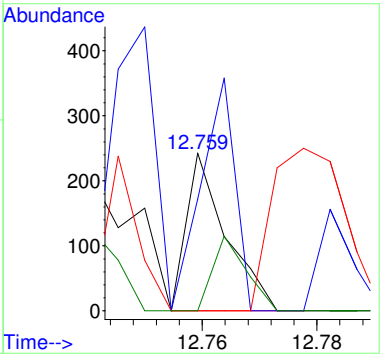


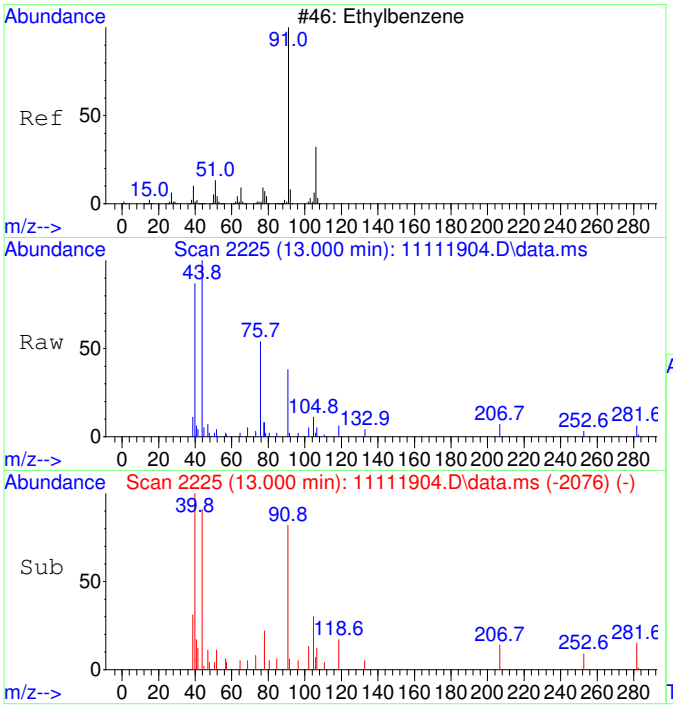


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.24 ug/L
RT: 12.759 min Scan# 2173
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 117

Ion	Ratio	Lower	Upper
131	100		
133	191.5	67.7	127.7#
119	0.0	36.2	96.2#
117	0.0	39.0	99.0#

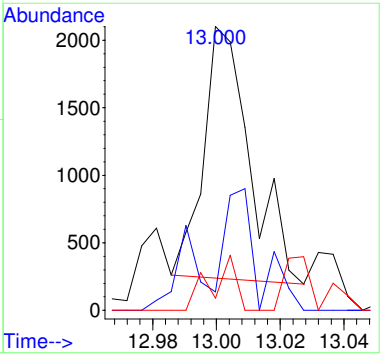


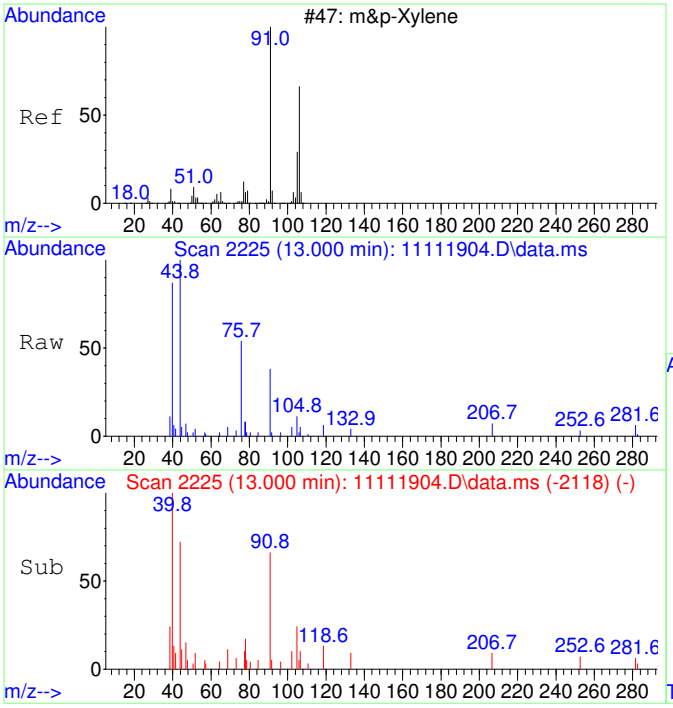


#42
Ethylbenzene SCAN
Concen: 70.16 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1895

Ion	Ratio	Lower	Upper
91	100		
106	22.6	0.1	60.1
51	11.3	0.0	40.9

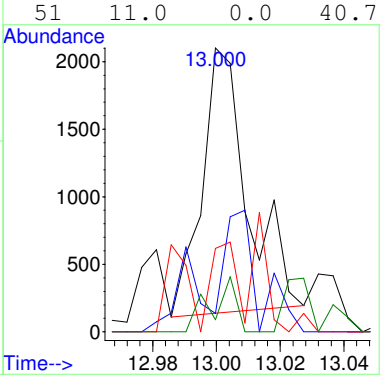


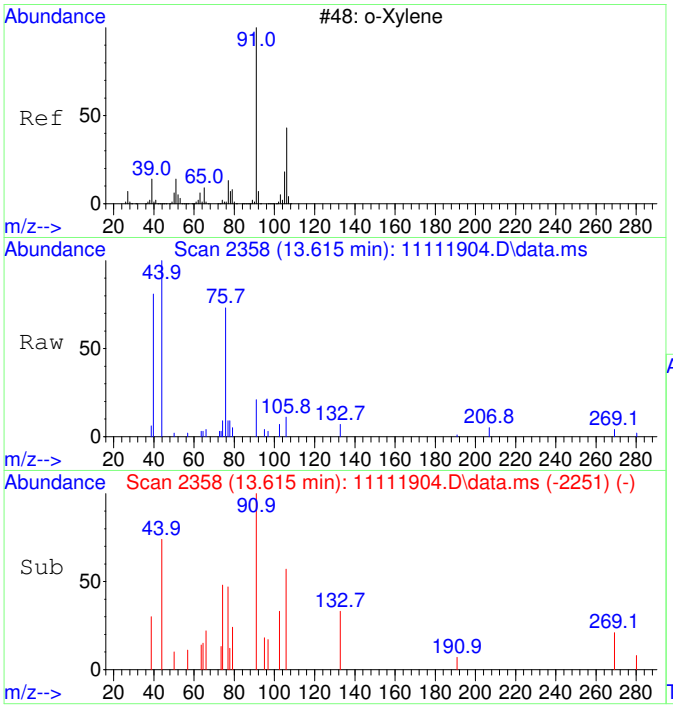


#43
m&p-Xylene SCAN
Concen: 50.43 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1954

Ion	Ratio	Lower	Upper
91	100		
106	22.0	21.1	81.1
105	17.8	0.0	53.6
51	11.0	0.0	40.7

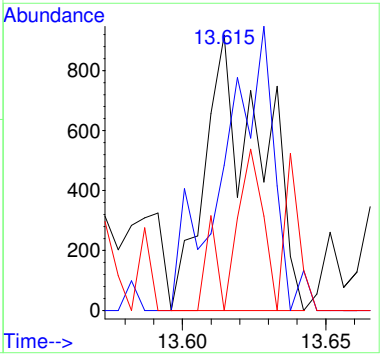


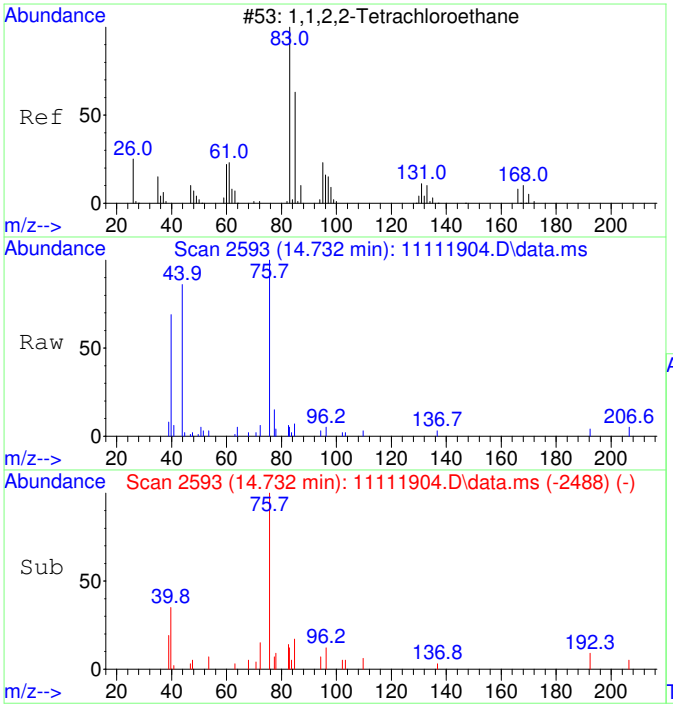


#44
o-Xylene SCAN
Concen: 60.90 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1255

Ion	Ratio	Lower	Upper
91	100		
106	92.7	16.7	76.7#
105	32.7	0.0	57.3

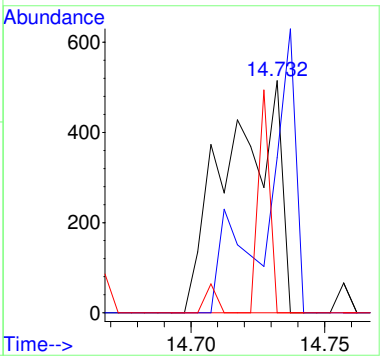


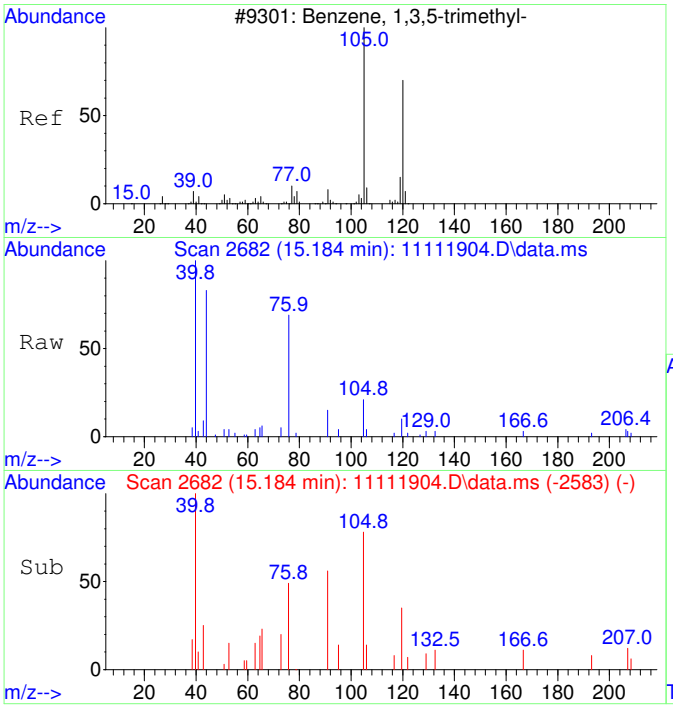


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 70.26 ug/L
RT: 14.732 min Scan# 2593
Delta R.T. 0.015 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 703

Ion	Ratio	Lower	Upper
83	100		
85	34.7	38.3	98.3#
95	20.9	0.0	44.8

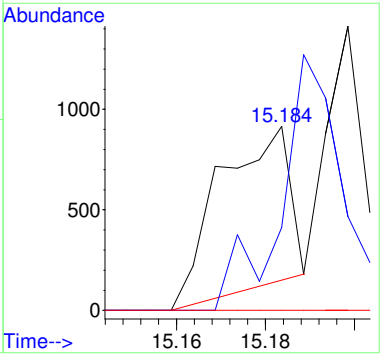


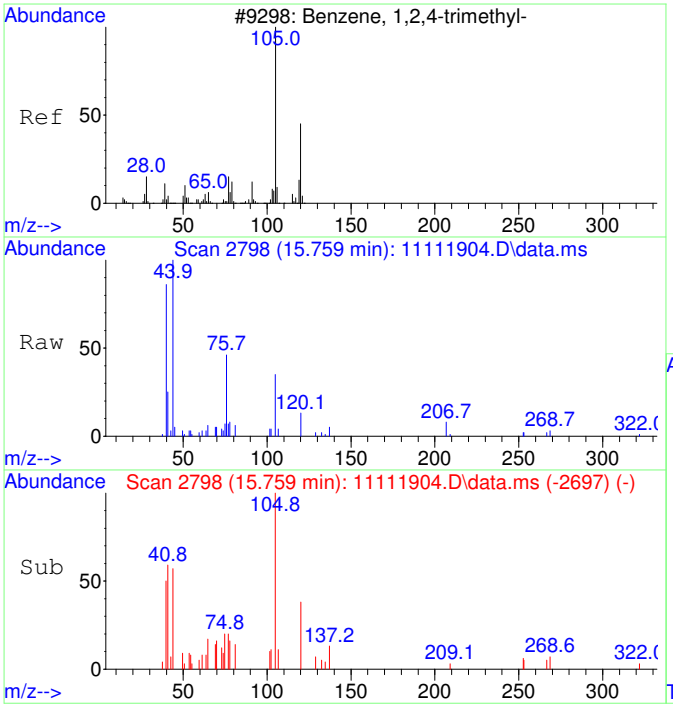


#46
1,3,5-Trimethylbenzene SCAN
Concen: 41.87 ug/L
RT: 15.184 min Scan# 2682
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 878

Ion	Ratio	Lower	Upper
105	100		
120	145.4	20.8	80.8#
119	0.0	0.0	42.8

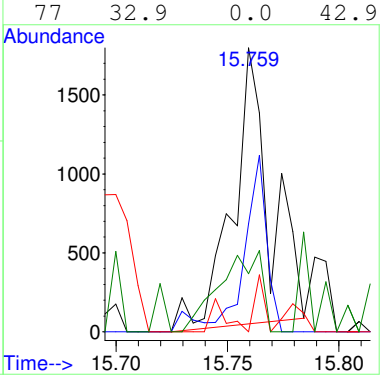


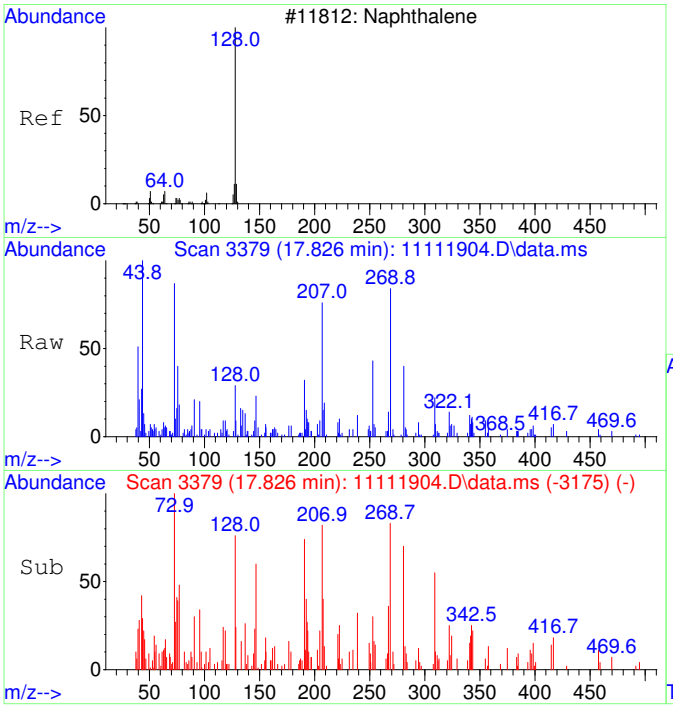


#47
1,2,4-Trimethylbenzene SCAN
Concen: 99.42 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2052

Ion	Ratio	Lower	Upper
105	100		
120	33.5	18.6	78.6
119	4.6	0.0	42.1
77	32.9	0.0	42.9

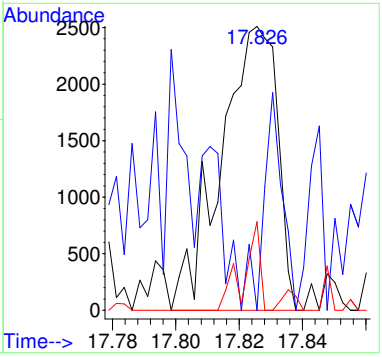




#48
Naphthalene SCAN
Concen: 90.77 ug/L
RT: 17.826 min Scan# 3379
Delta R.T. 0.002 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 3098

Ion	Ratio	Lower	Upper
128	100		
127	16.1	0.0	43.3
129	9.0	0.0	41.1



1910069-07RE2

Table of Contents

Before Manual Integration

REPORT

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111908.D
Acq On : 11 Nov 2019 15:29
InstName : AG5975C
Operator : TD
Sample : 1910069-07RE2
Misc : for high IS (450-50)
ALS Vial : 8 Sample Multiplier: 10

Quant Time: Nov 11 15:47:47 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

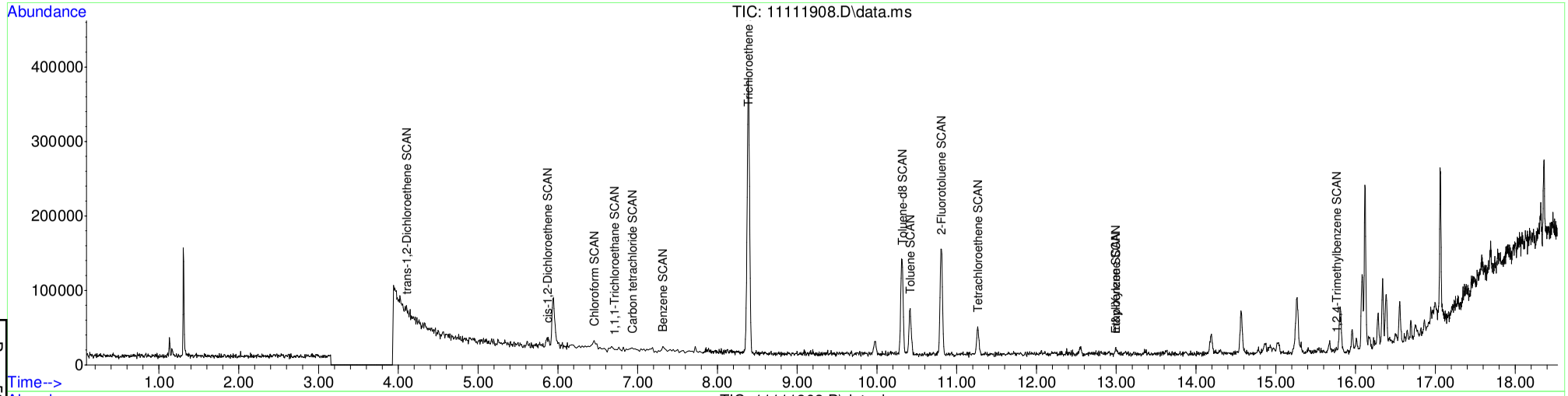
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	201123	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	164560	5063.21 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.26%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	743	80.03 ug/L #	51
3] trans-1,2-Dichloroethene	4.109	61	677	70.96 ug/L	94
4] 1,1-Dichloroethane	4.845	63	265	22.27 ug/L	79
5] cis-1,2-Dichloroethene	5.867	61	10632	953.68 ug/L	100
6] Chloroform	6.435	83	14659	1146.18 ug/L	100
7] 1,1,1-Trichloroethane	6.693	97	783	62.41 ug/L	97
8] Carbon tetrachloride	6.988	117	278	23.81 ug/L	93
9] Benzene	7.301	78	1630	51.44 ug/L	75
11] Trichloroethene	8.387	130	222036	23107.61 ug/L	100
13] Toluene	10.412	91	74496	1890.90 ug/L	100
15] Tetrachloroethene	11.265	166	17091	1492.27 ug/L	99
18] Ethylbenzene	12.811	91	1944	40.61 ug/L	96
19] m&p-Xylene	13.006	91	4993	137.76 ug/L	99
20] o-Xylene	13.620	91	2224	57.50 ug/L	100
23] 1,2,4-Trimethylbenzene	15.766	105	1148	27.25 ug/L	84
25) 2-Fluorotoluene SCAN	10.801	109	127464	5087.40 ug/L	98
27) trans-1,2-Dichloroethe...	4.107	61	398	49.46 ug/L #	51
29) cis-1,2-Dichloroethene...	5.866	61	9049	994.33 ug/L	90
30) Chloroform SCAN	6.452	83	9336	920.91 ug/L	87
31) 1,1,1-Trichloroethane ...	6.710	97	844	95.38 ug/L #	37
32) Carbon tetrachloride SCAN	6.931	117	484	58.35 ug/L #	19
33) Benzene SCAN	7.318	78	1443	64.88 ug/L #	89
35) Trichloroethene SCAN	8.385	130	144256	22124.94 ug/L	98
36) Toluene-d8 SCAN	10.316	98	108796	5339.37 ug/L	90
37) Toluene SCAN	10.416	91	50691	2017.70 ug/L	94
39) Tetrachloroethene SCAN	11.263	166	10246	1536.15 ug/L	82
42) Ethylbenzene SCAN	12.990	91	4342	151.86 ug/L	68
43) m&p-Xylene SCAN	12.990	91	4342	105.85 ug/L #	51
47) 1,2,4-Trimethylbenzene...	15.759	105	1484	67.92 ug/L	70

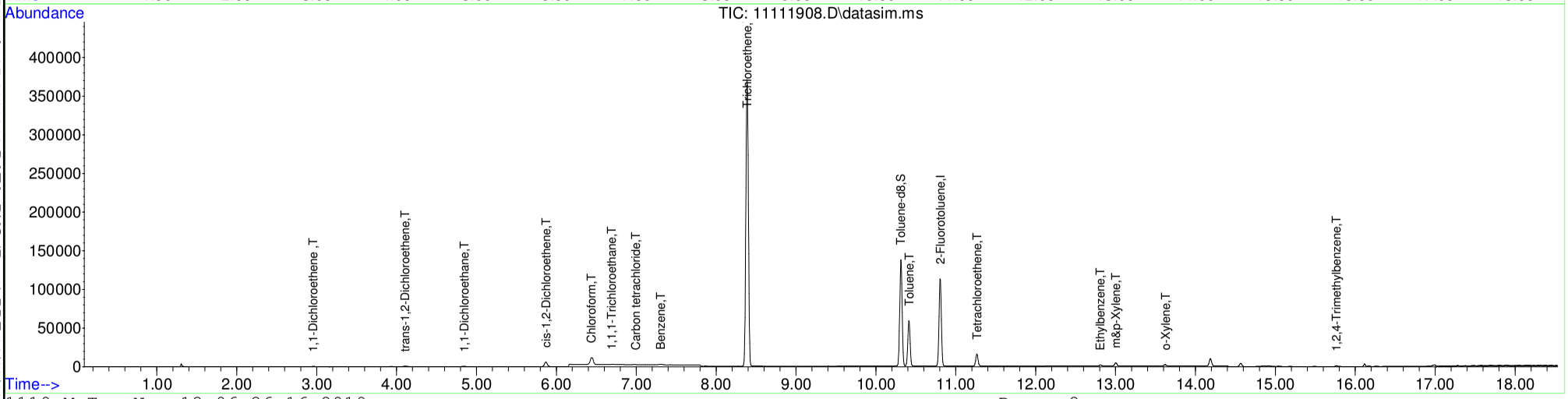
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111908.D
Acq On : 11 Nov 2019 15:29
InstName : AG5975C
Operator : TD
Sample : 1910069-07RE2
Misc : for high IS (450-50)
ALS Vial : 8 Sample Multiplier: 10

Quant Time: Nov 11 15:47:47 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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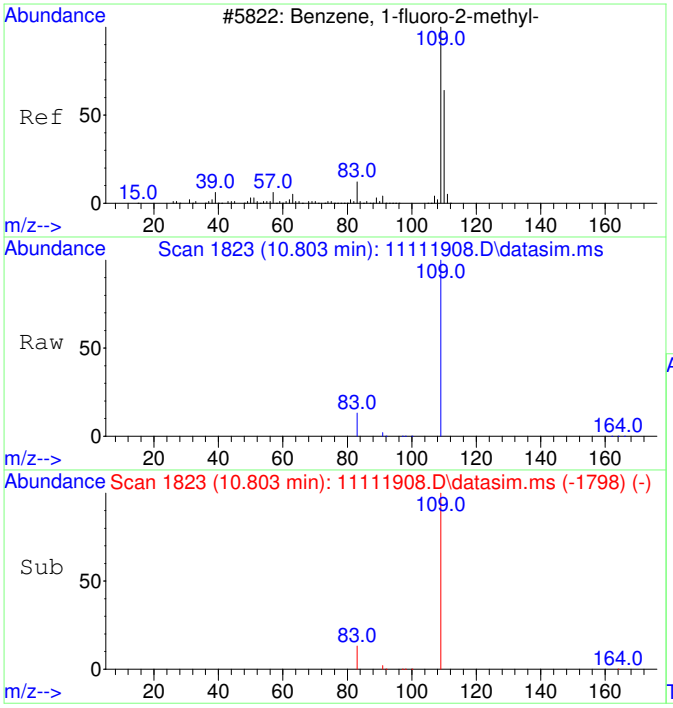
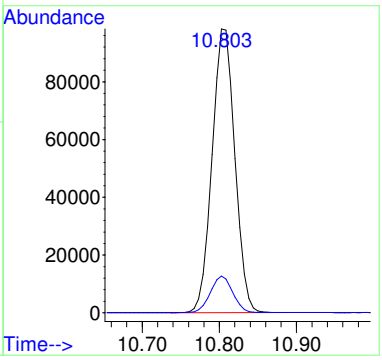
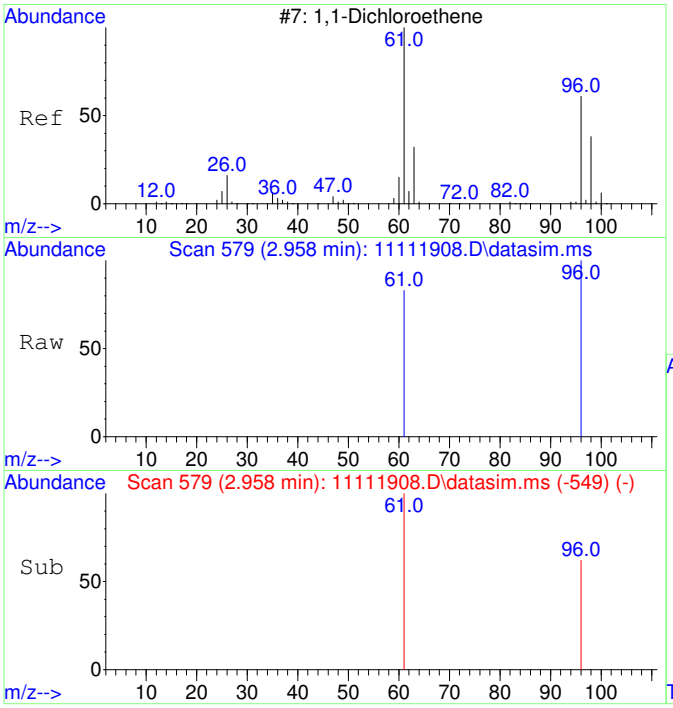


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:109 Resp: 201123

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

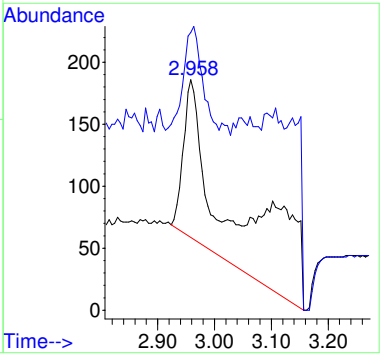




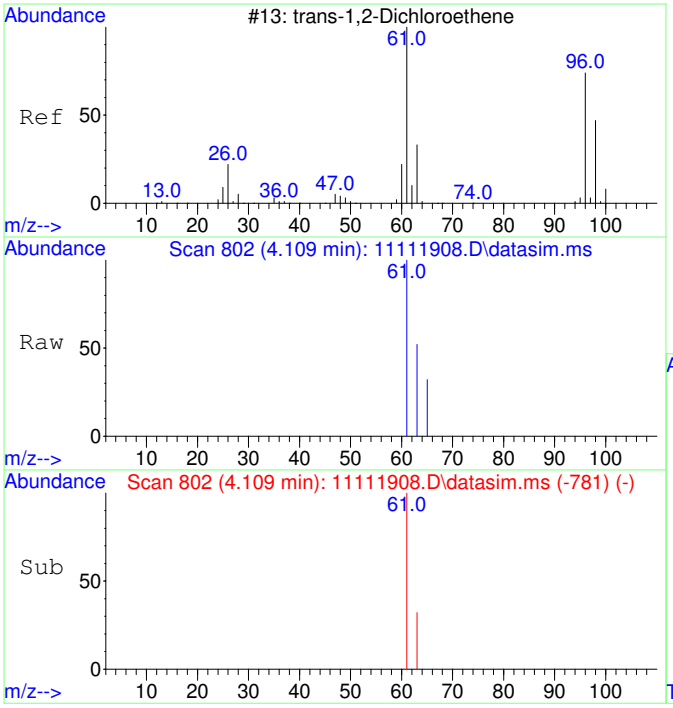
#2
1,1-Dichloroethene
Concen: 80.03 ug/L
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 743

Ion	Ratio	Lower	Upper
61	100		
96	25.0	33.6	93.6#



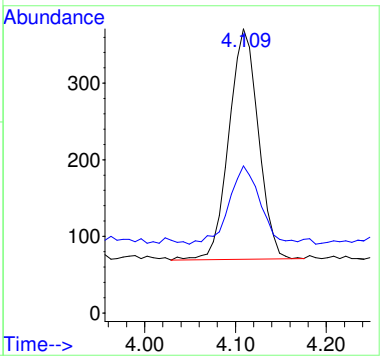
Before MI:
IMPROPER
BASELINE

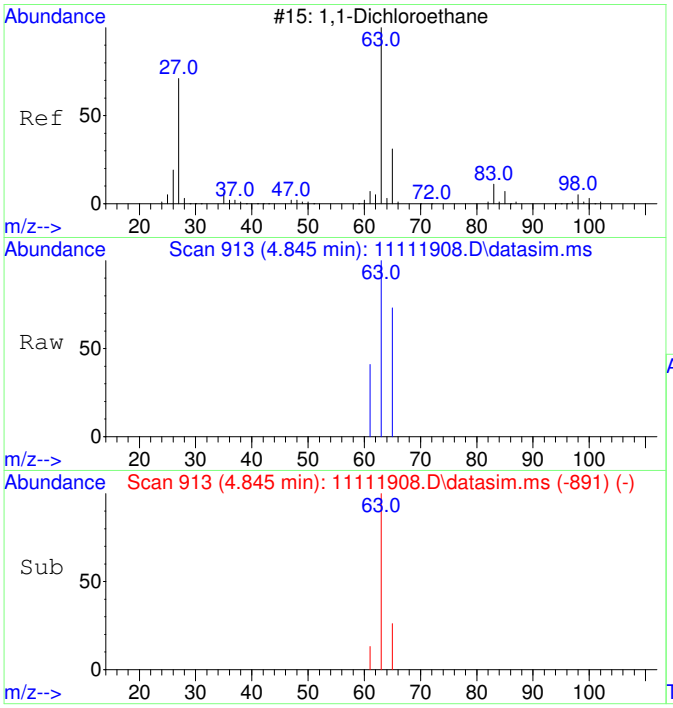


#3
trans-1,2-Dichloroethene
Concen: 70.96 ug/L
RT: 4.109 min Scan# 802
Delta R.T. -0.013 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 677

Ion	Ratio	Lower	Upper
61	100		
63	35.7	2.3	62.3

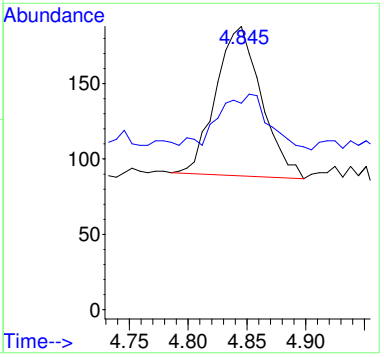


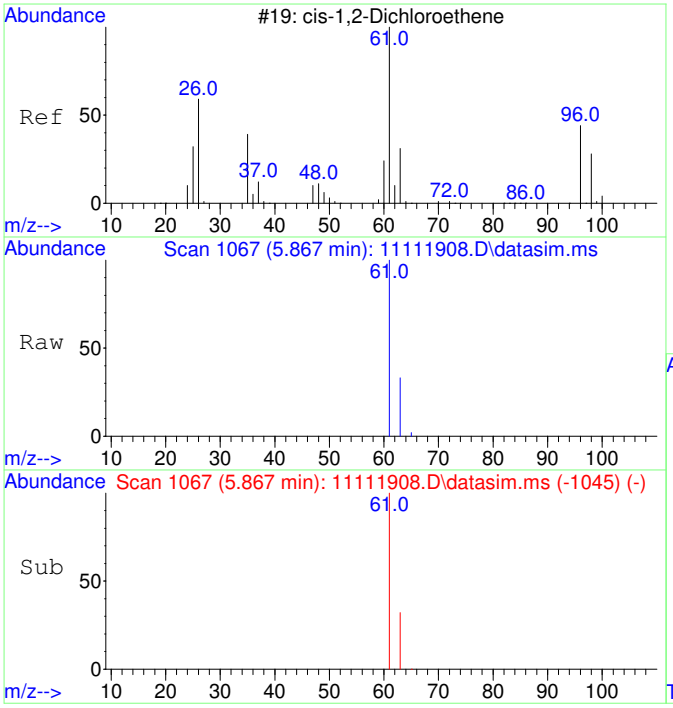


#4
1,1-Dichloroethane
Concen: 22.27 ug/L
RT: 4.845 min Scan# 913
Delta R.T. -0.007 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 63 Resp: 265

Ion	Ratio	Lower	Upper
63	100		
65	43.4	1.9	61.9

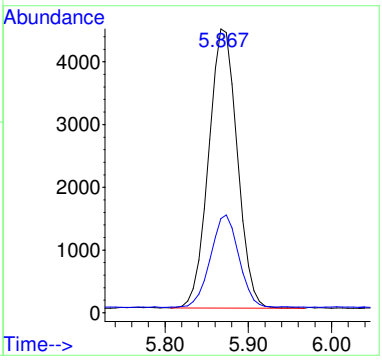


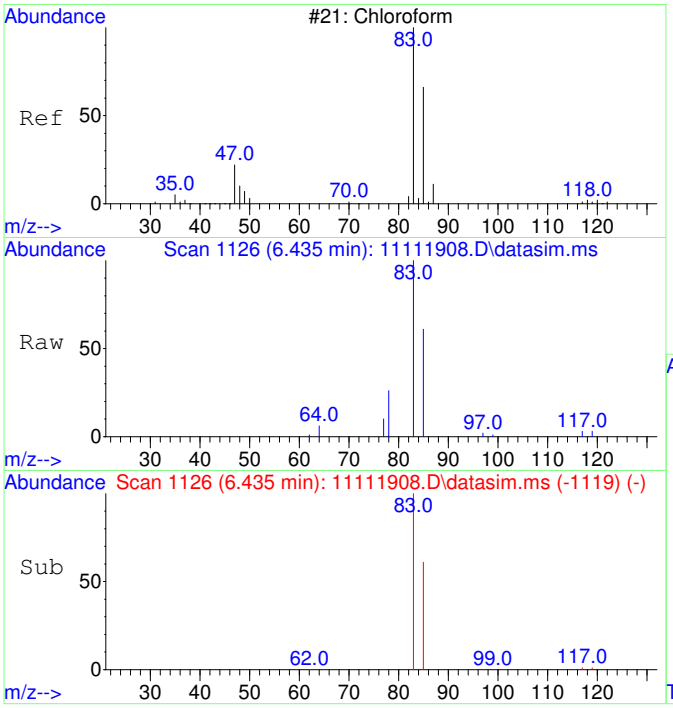


#5
cis-1,2-Dichloroethene
Concen: 953.68 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 10632

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.4	62.4

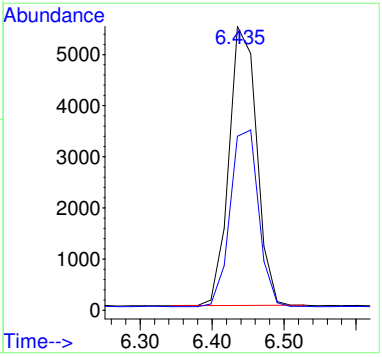


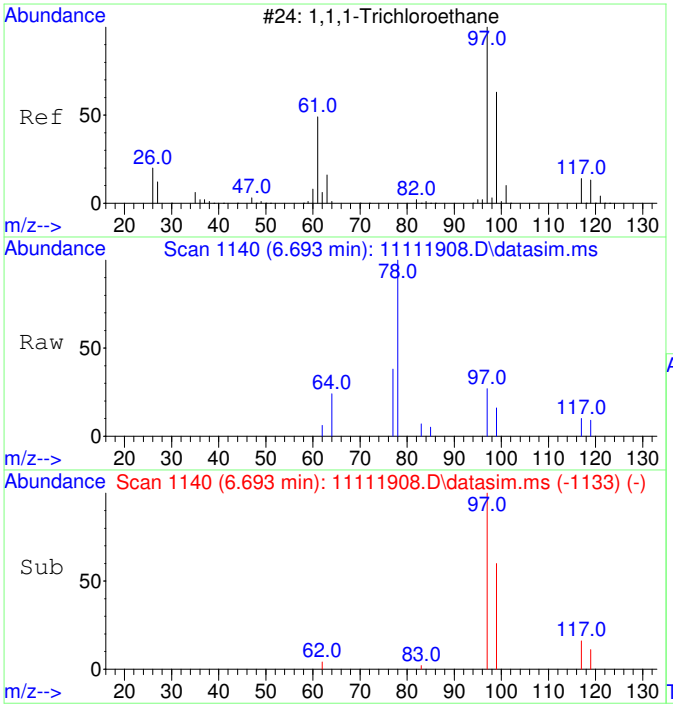


#6
Chloroform
Concen: 1146.18 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 83 Resp: 14659

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.2	95.2

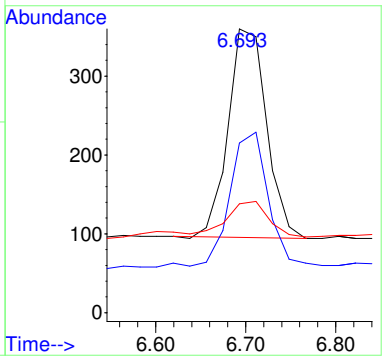


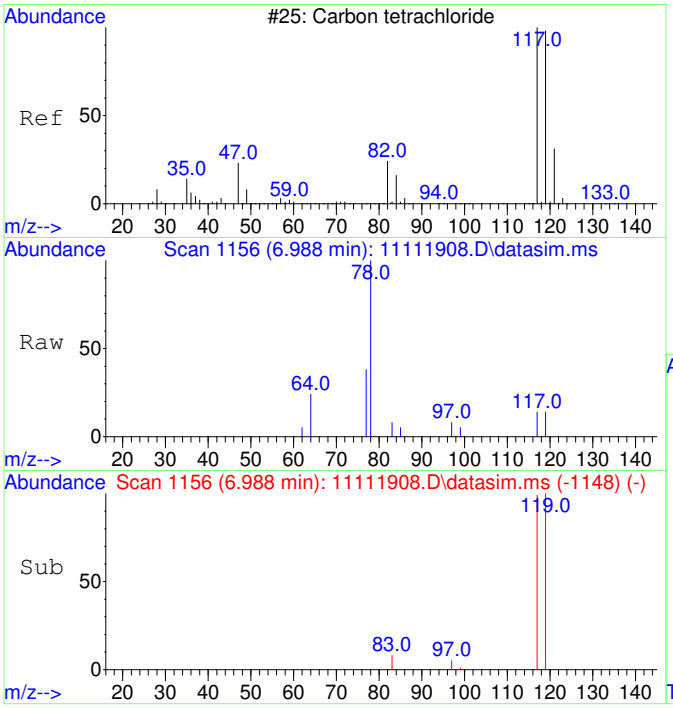


#7
1,1,1-Trichloroethane
Concen: 62.41 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 97 Resp: 783

Ion	Ratio	Lower	Upper
97	100		
99	65.4	34.5	94.5
117	18.6	0.0	43.0

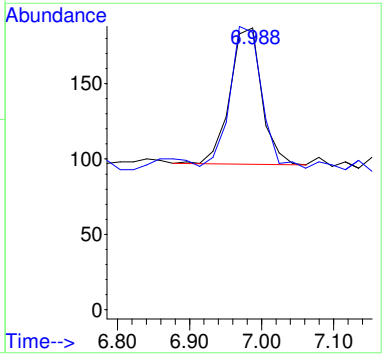


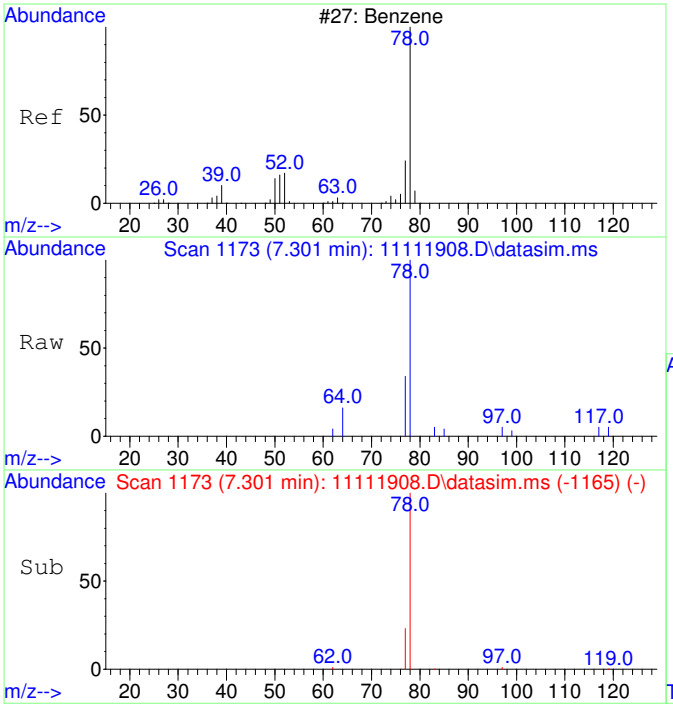


#8
Carbon tetrachloride
Concen: 23.81 ug/L
RT: 6.988 min Scan# 1156
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:117 Resp: 278

Ion	Ratio	Lower	Upper
117	100		
119	103.2	66.0	126.0

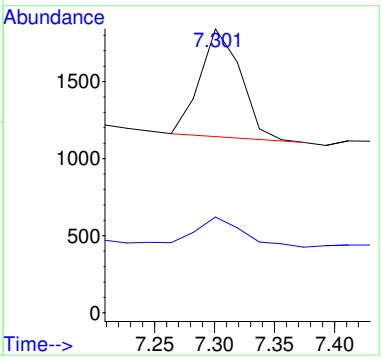


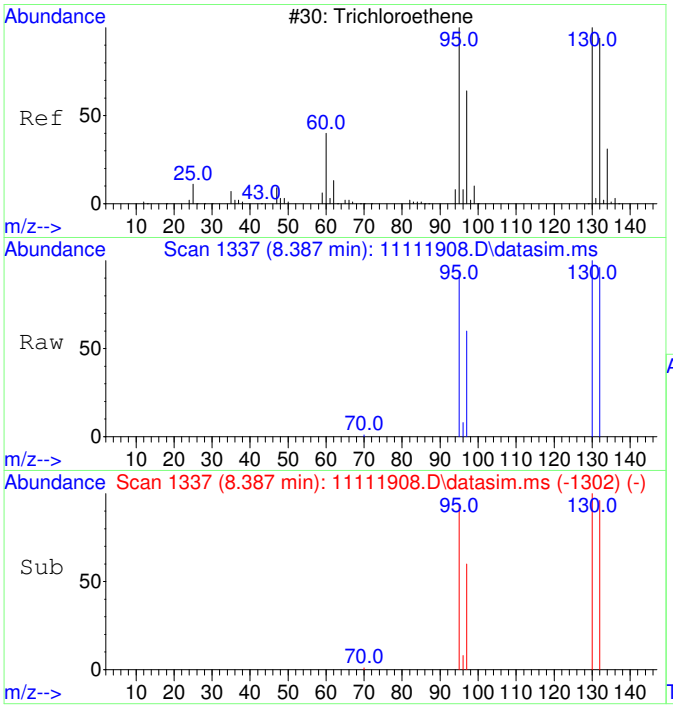


#9
Benzene
Concen: 51.44 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 78 Resp: 1630

Ion	Ratio	Lower	Upper
78	100		
77	35.6	0.0	53.2

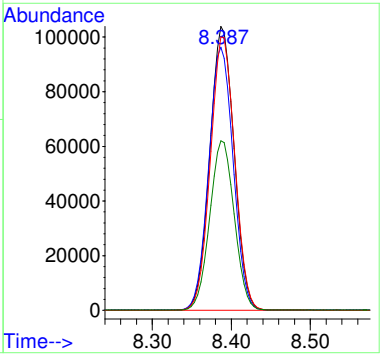


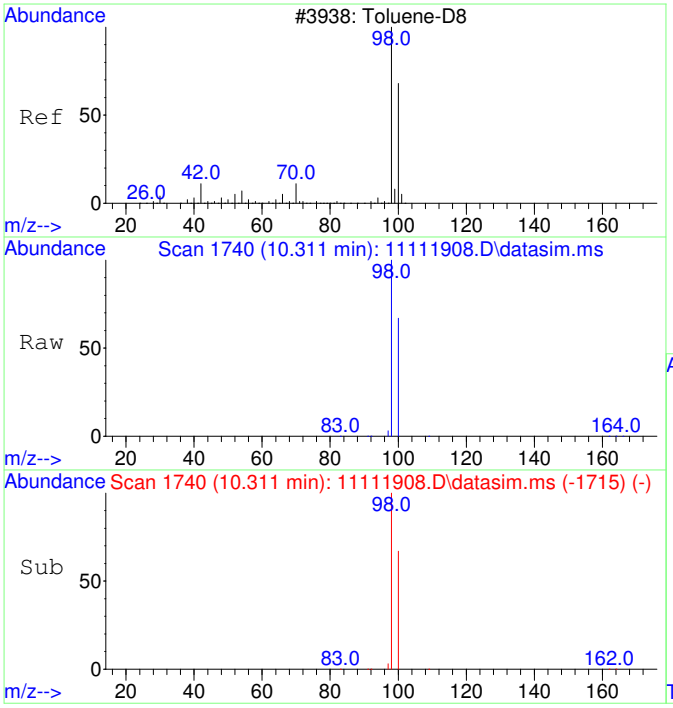


#11
Trichloroethene
Concen: 23107.61 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:130 Resp: 222036

Ion	Ratio	Lower	Upper
130	100		
95	93.3	63.4	123.4
132	96.5	76.0	116.0
97	60.1	39.8	79.8

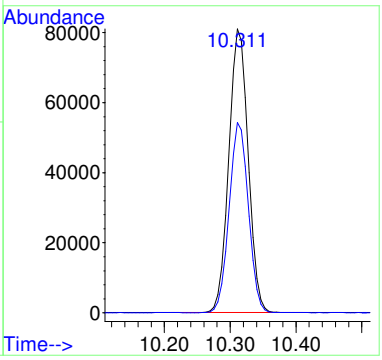


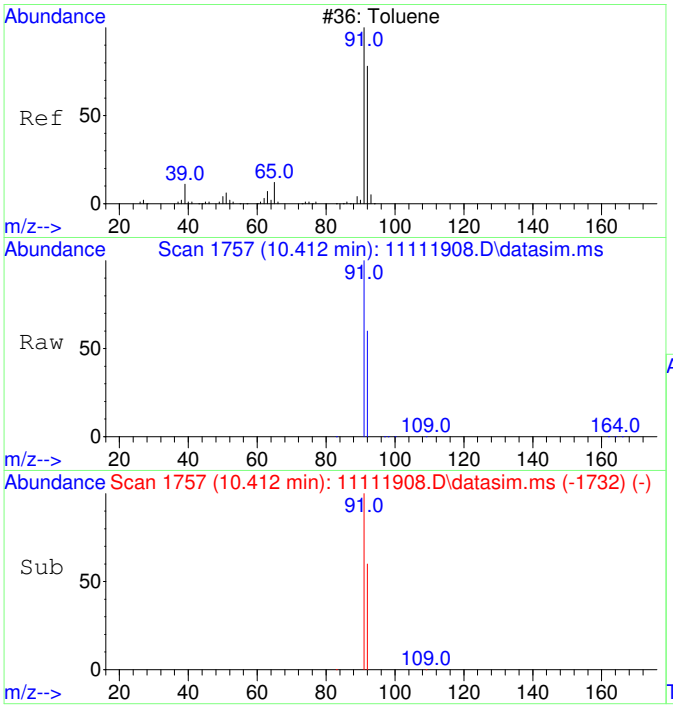


#12
Toluene-d8
Concen: 5063.21 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 98 Resp: 164560

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

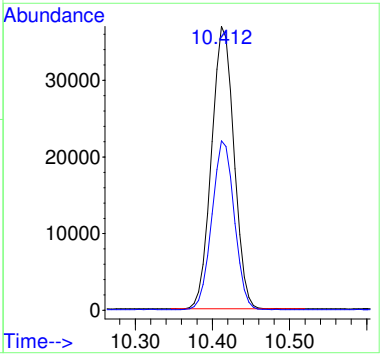


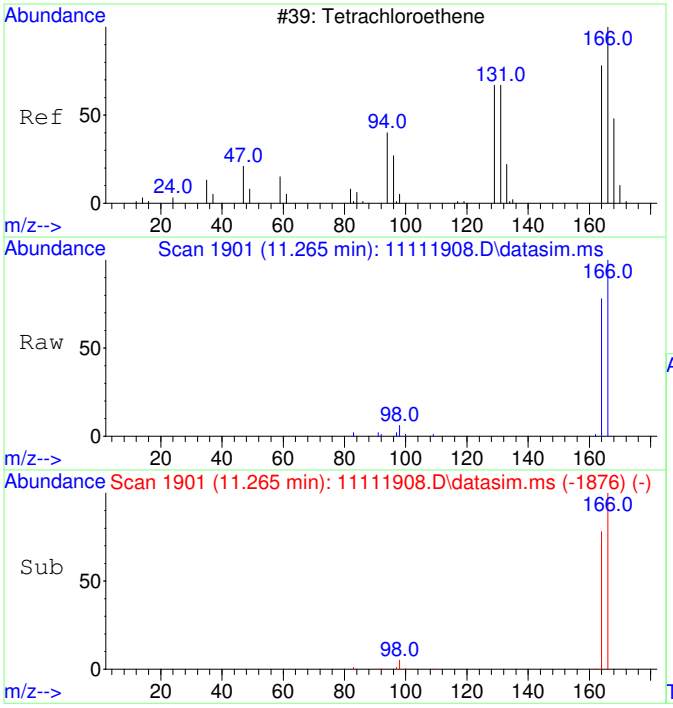


#13
Toluene
Concen: 1890.90 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 74496

Ion	Ratio	Lower	Upper
91	100		
92	59.5	29.4	89.4

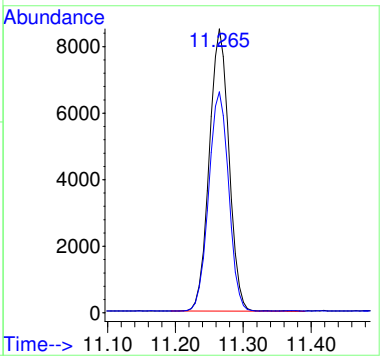


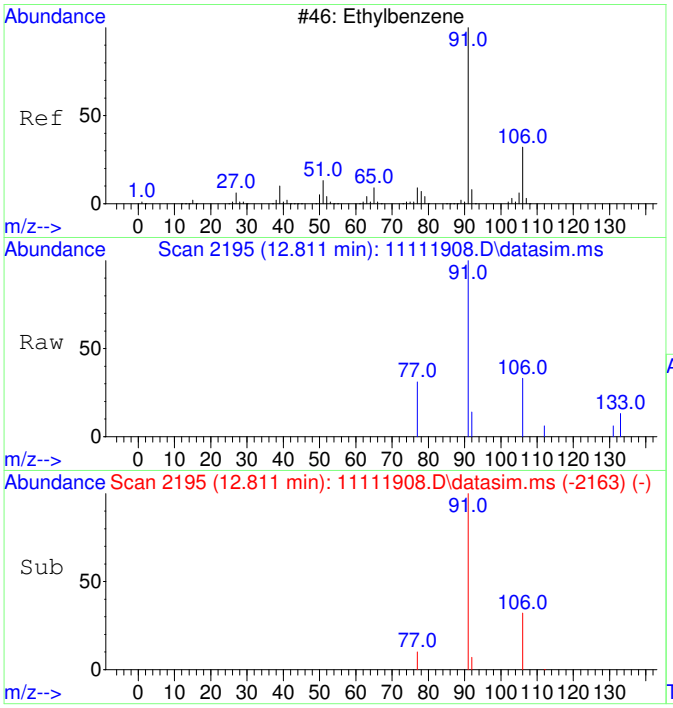


#15
Tetrachloroethene
Concen: 1492.27 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:166 Resp: 17091

Ion	Ratio	Lower	Upper
166	100		
164	78.6	47.7	107.7

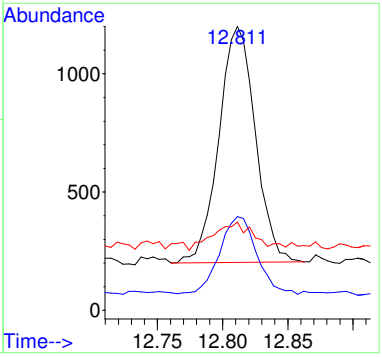


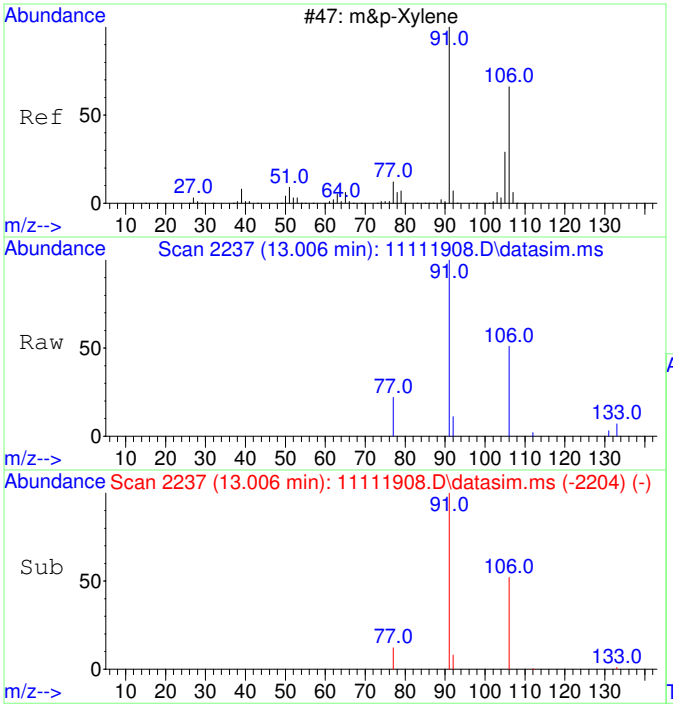


#18
Ethylbenzene
Concen: 40.61 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 1944

Ion	Ratio	Lower	Upper
91	100		
106	33.1	2.5	62.5
77	13.1	0.0	38.4

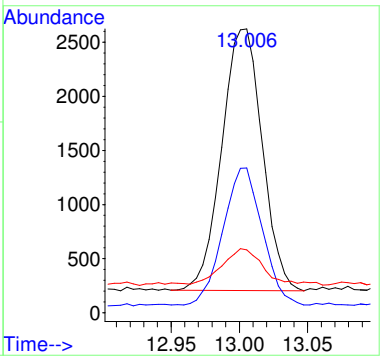


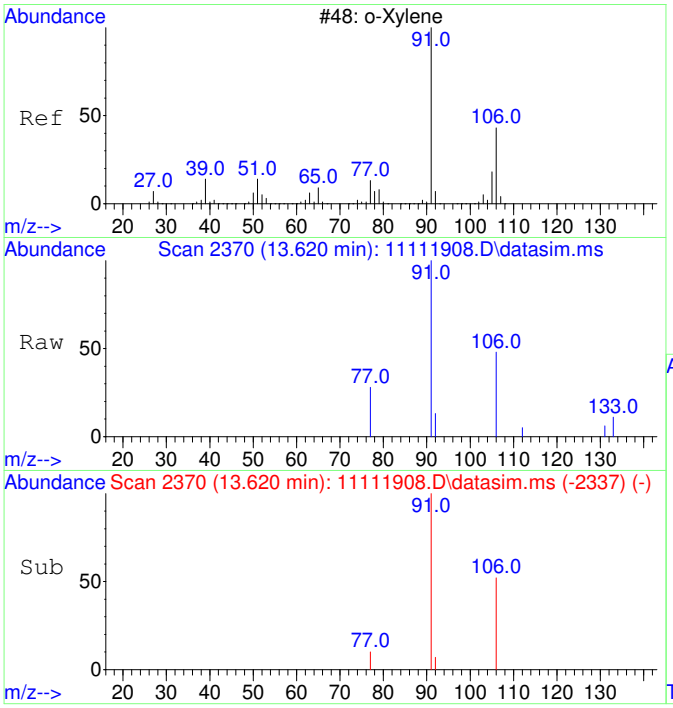


#19
m&p-Xylene
Concen: 137.76 ug/L
RT: 13.006 min Scan# 2237
Delta R.T. 0.005 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 4993

Ion	Ratio	Lower	Upper
91	100		
106	50.7	21.2	81.2
77	13.2	0.0	42.7

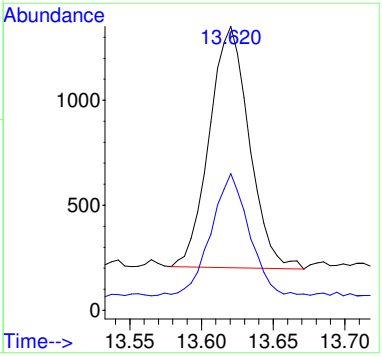


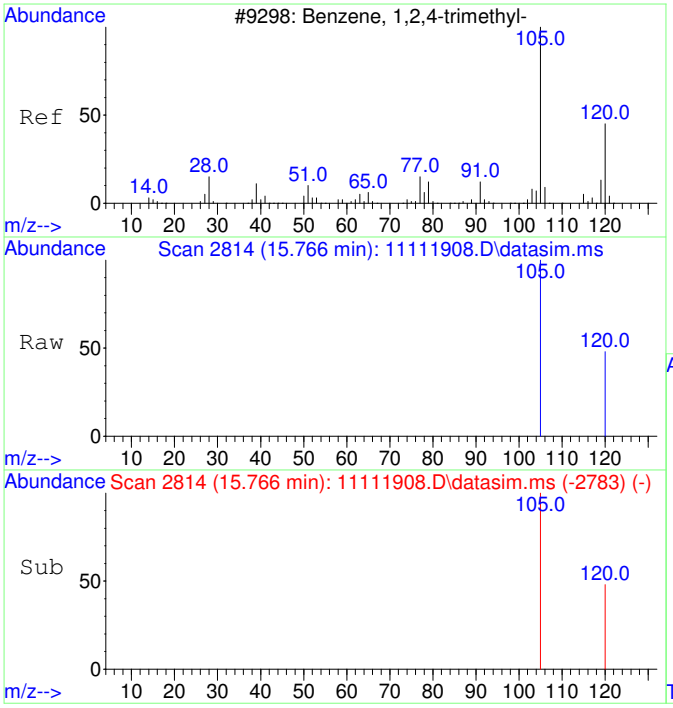


#20
o-Xylene
Concen: 57.50 ug/L
RT: 13.620 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 2224

Ion	Ratio	Lower	Upper
91	100		
106	48.2	18.3	78.3

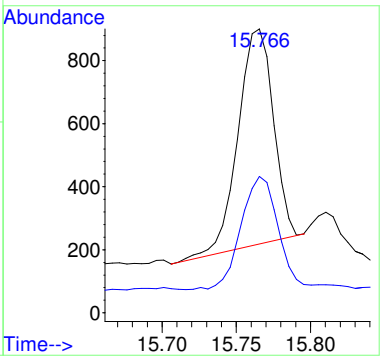


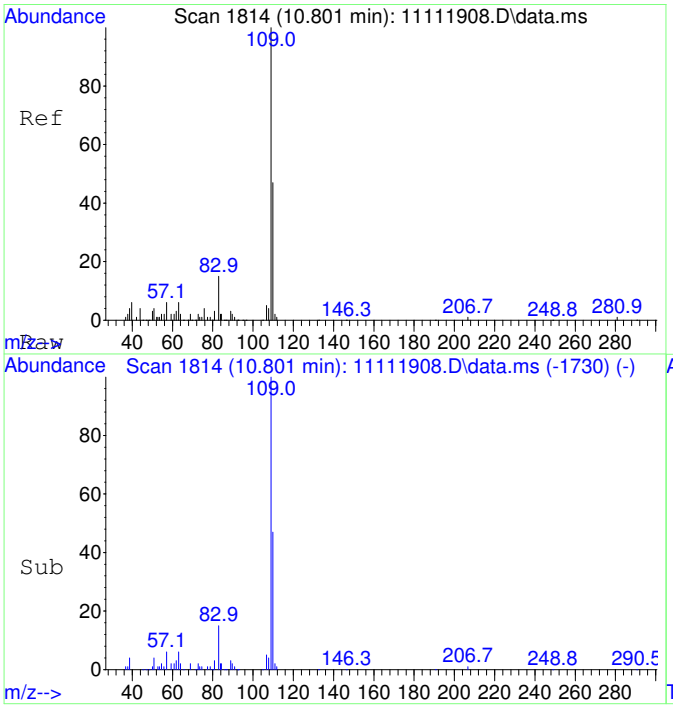


#23
1,2,4-Trimethylbenzene
Concen: 27.25 ug/L
RT: 15.766 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:105 Resp: 1148

Ion	Ratio	Lower	Upper
105	100		
120	57.8	16.8	76.8

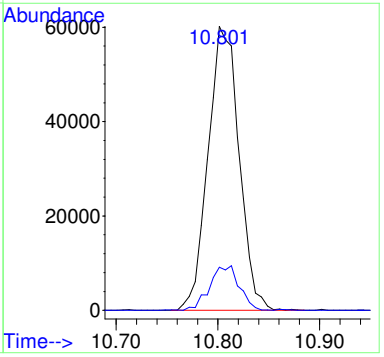


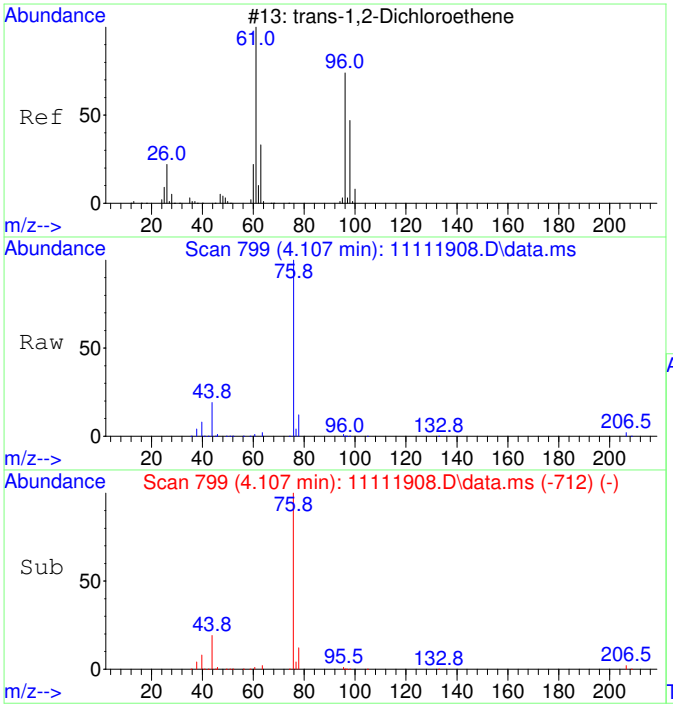


#25
2-Fluorotoluene SCAN
Concen: 5087.40 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:109 Resp: 127464

Ion	Ratio	Lower	Upper
109	100		
83	14.8	0.0	45.8

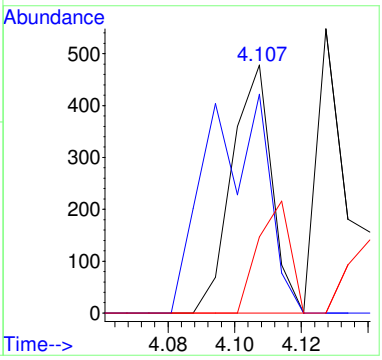


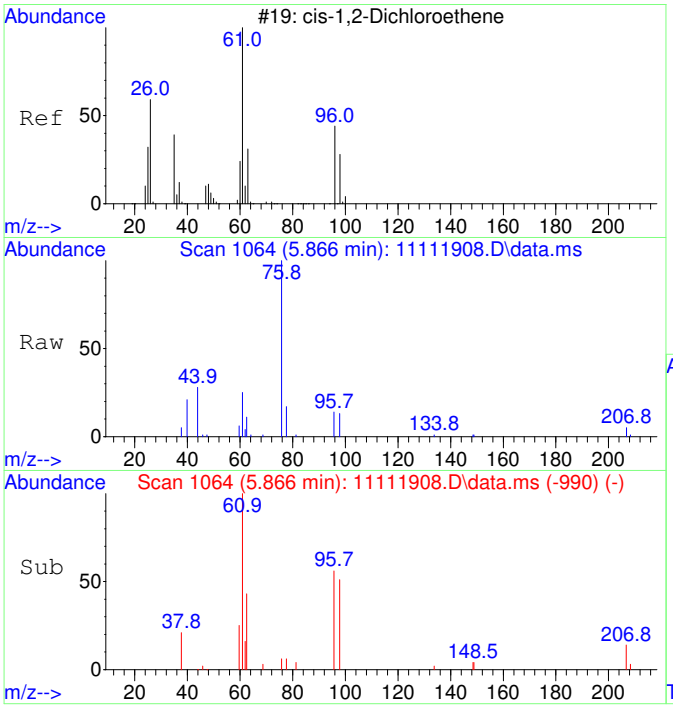


#27
trans-1,2-Dichloroethene SCAN
Concen: 49.46 ug/L
RT: 4.107 min Scan# 799
Delta R.T. -0.013 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 398

Ion	Ratio	Lower	Upper
61	100		
96	133.4	46.5	106.5#
98	36.2	22.8	82.8

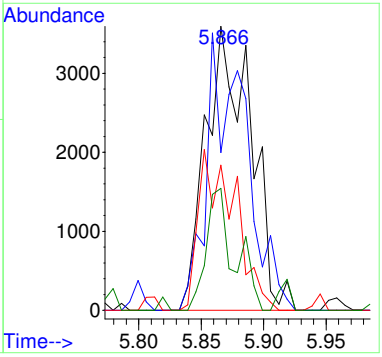


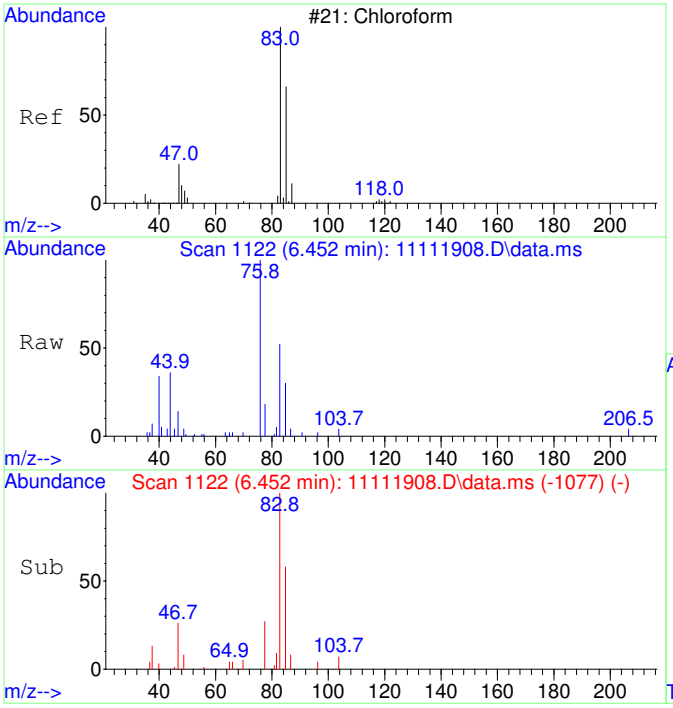


#29
cis-1,2-Dichloroethene SCAN
Concen: 994.33 ug/L
RT: 5.866 min Scan# 1064
Delta R.T. -0.007 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 9049

Ion	Ratio	Lower	Upper
61	100		
96	84.2	41.9	101.9
98	45.7	20.3	80.3
63	26.6	0.0	58.3

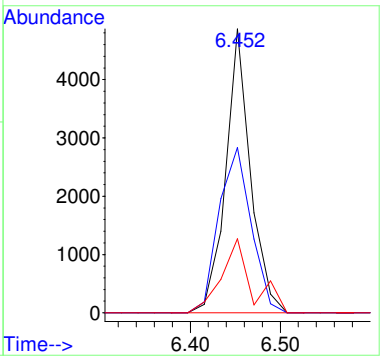


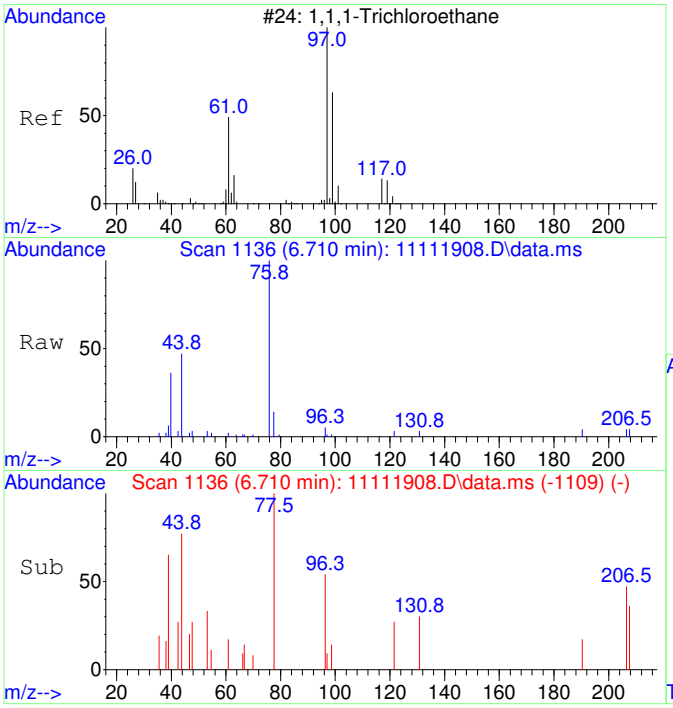


#30
Chloroform SCAN
Concen: 920.91 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 83 Resp: 9336

Ion	Ratio	Lower	Upper
83	100		
85	75.7	38.3	98.3
47	32.1	0.0	50.2

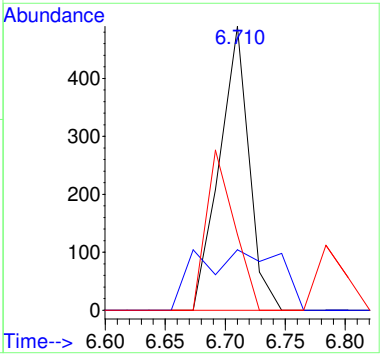


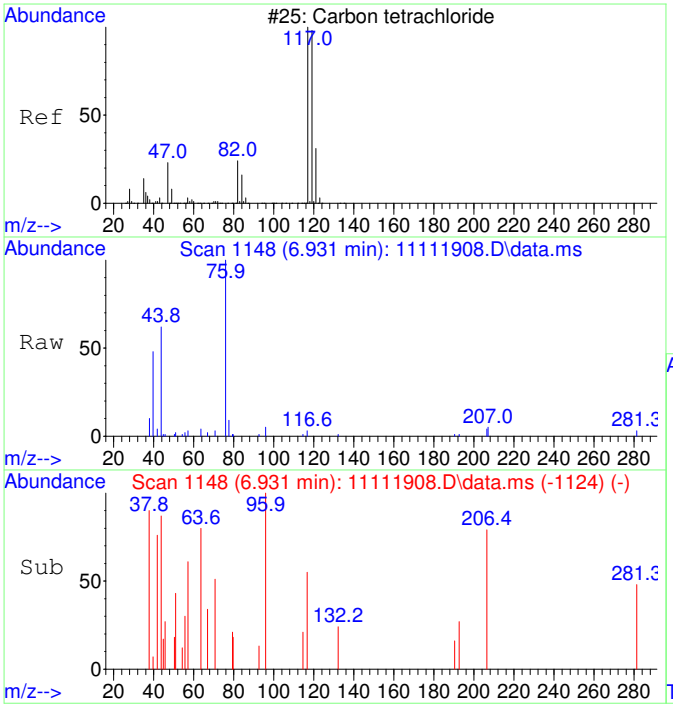


#31
1,1,1-Trichloroethane SCAN
Concen: 95.38 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 97 Resp: 844

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	53.3	11.1	71.1

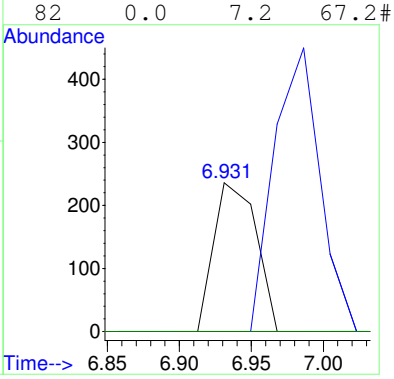


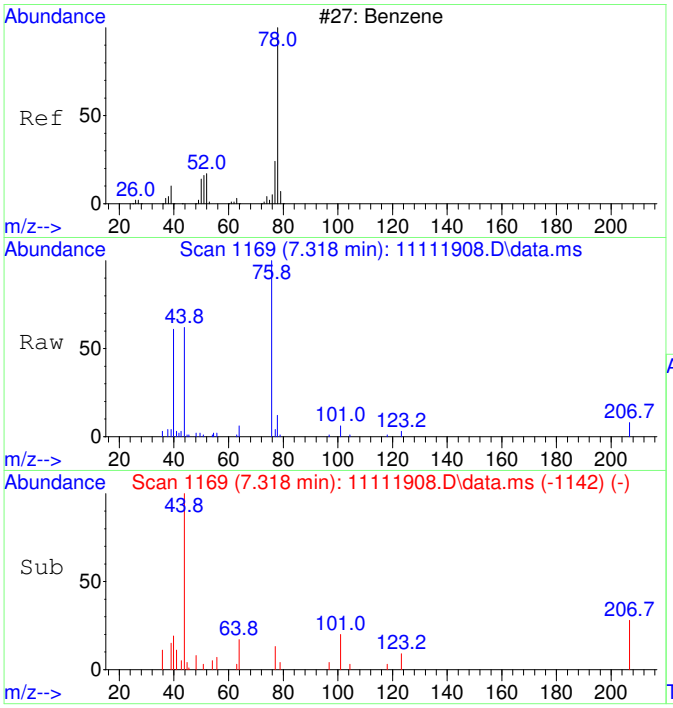


#32
Carbon tetrachloride SCAN
Concen: 58.35 ug/L
RT: 6.931 min Scan# 1148
Delta R.T. -0.055 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:117 Resp: 484

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

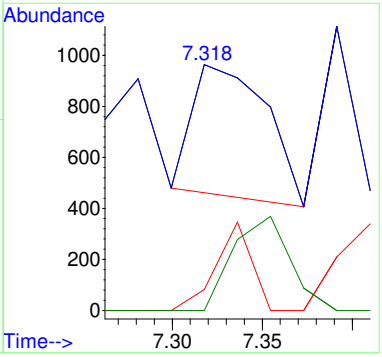


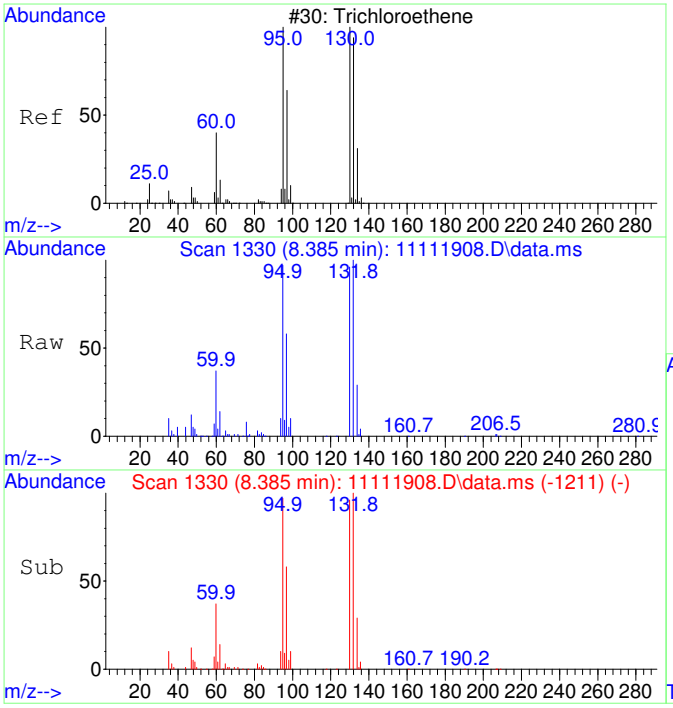


#33
Benzene SCAN
Concen: 64.88 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 78 Resp: 1443

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

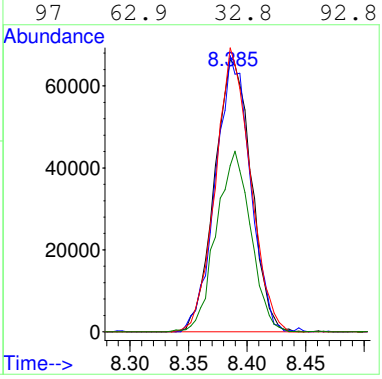


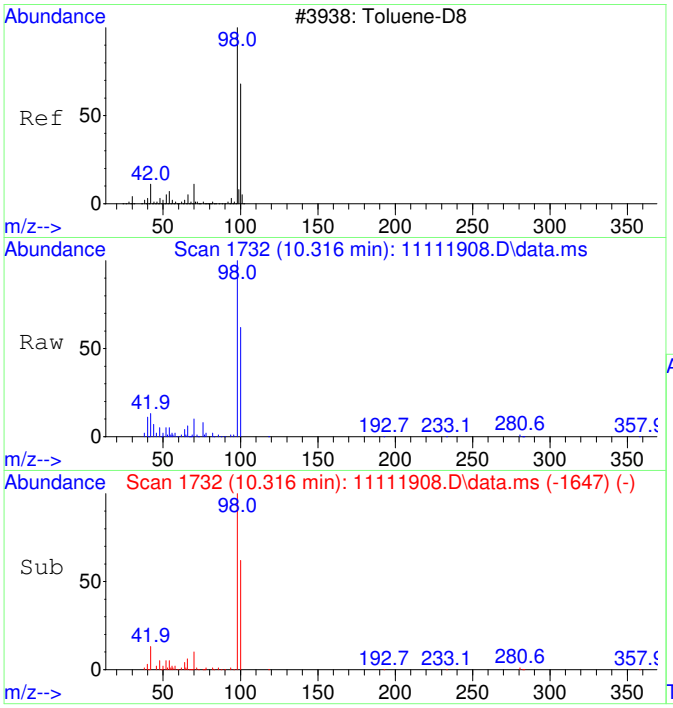


#35
Trichloroethene SCAN
Concen: 22124.94 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:130 Resp: 144256

Ion	Ratio	Lower	Upper
130	100		
95	95.9	69.5	129.5
132	99.2	66.5	126.5
97	62.9	32.8	92.8

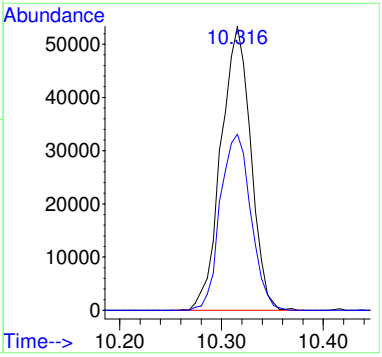


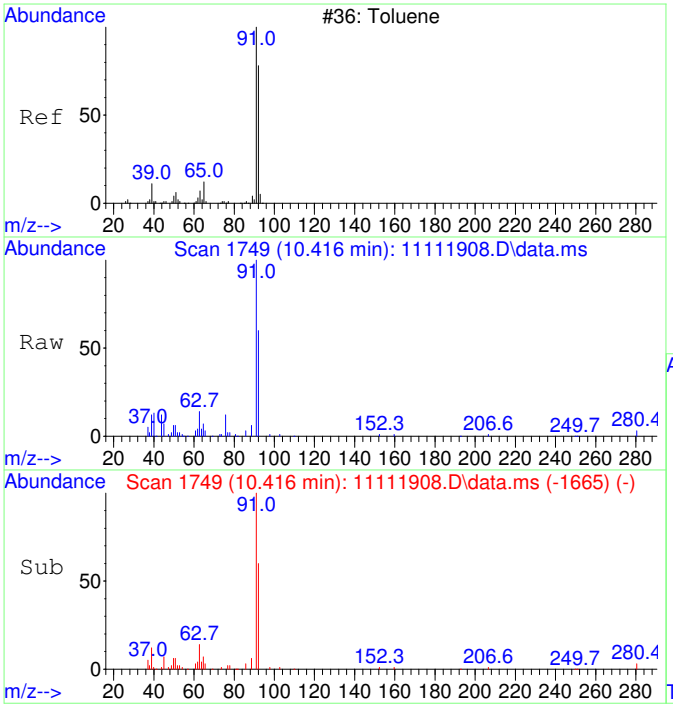


#36
Toluene-d8 SCAN
Concen: 5339.37 ug/L
RT: 10.316 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 98 Resp: 108796

Ion	Ratio	Lower	Upper
98	100		
100	63.5	42.1	102.1

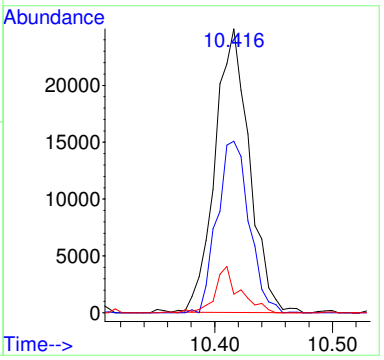


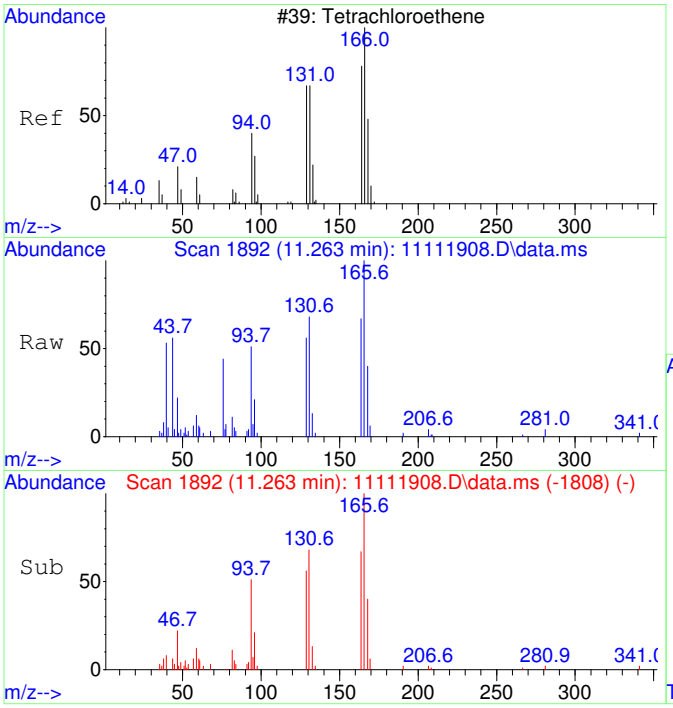


#37
Toluene SCAN
Concen: 2017.70 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 50691

Ion	Ratio	Lower	Upper
91	100		
92	56.4	31.9	91.9
65	11.7	0.0	41.9

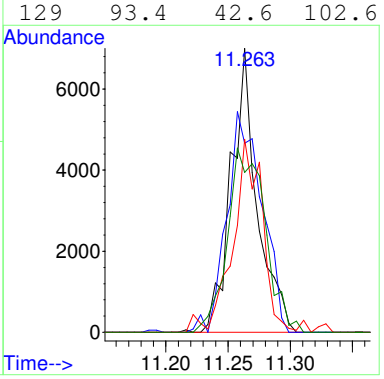


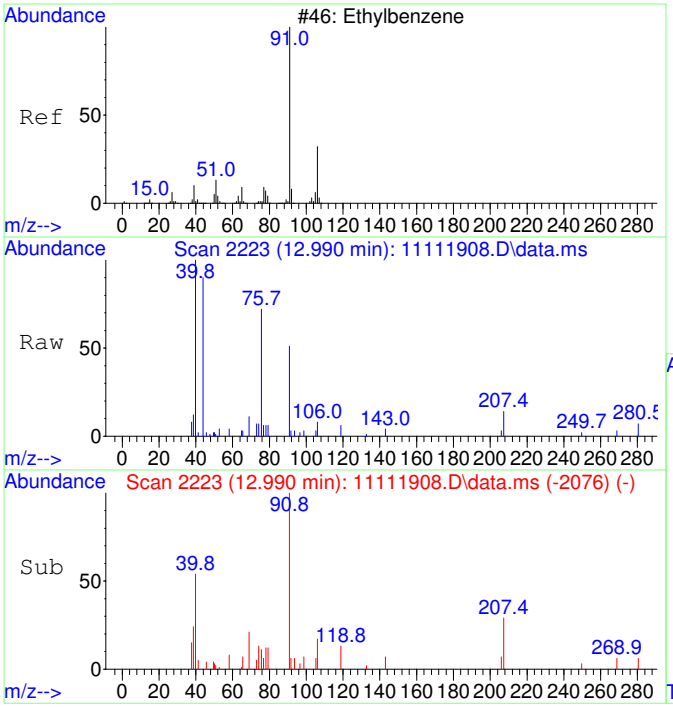


#39
Tetrachloroethene SCAN
Concen: 1536.15 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:166 Resp: 10246

Ion	Ratio	Lower	Upper
166	100		
164	104.9	50.4	110.4
131	75.3	44.0	104.0
129	93.4	42.6	102.6

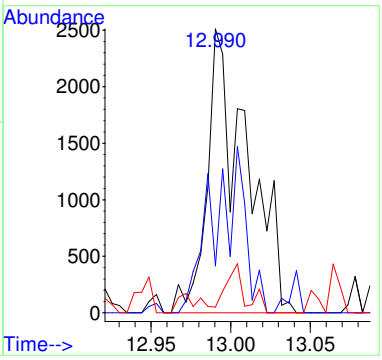


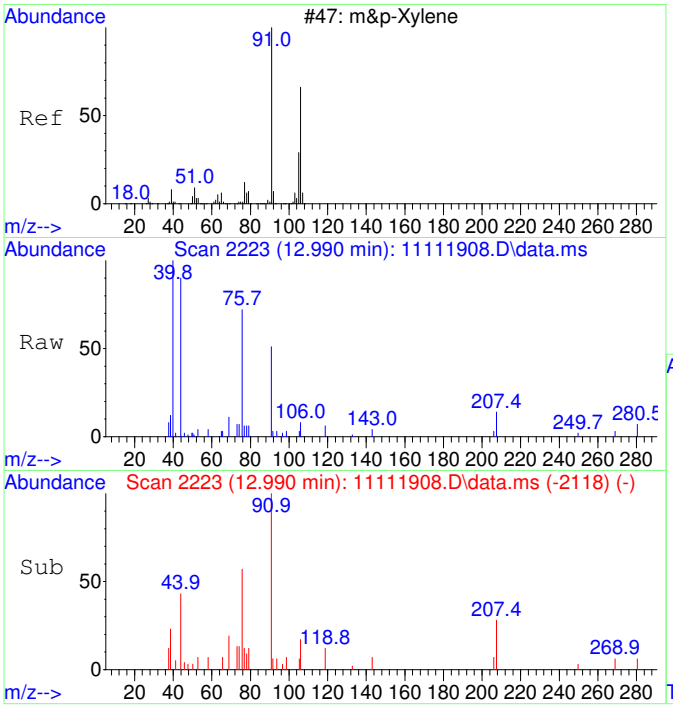


#42
Ethylbenzene SCAN
Concen: 151.86 ug/L
RT: 12.990 min Scan# 2223
Delta R.T. 0.180 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 4342

Ion	Ratio	Lower	Upper
91	100		
106	10.4	0.1	60.1
51	2.9	0.0	40.9

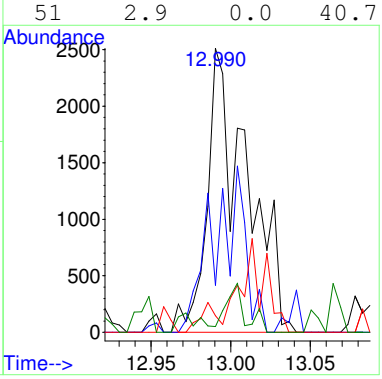


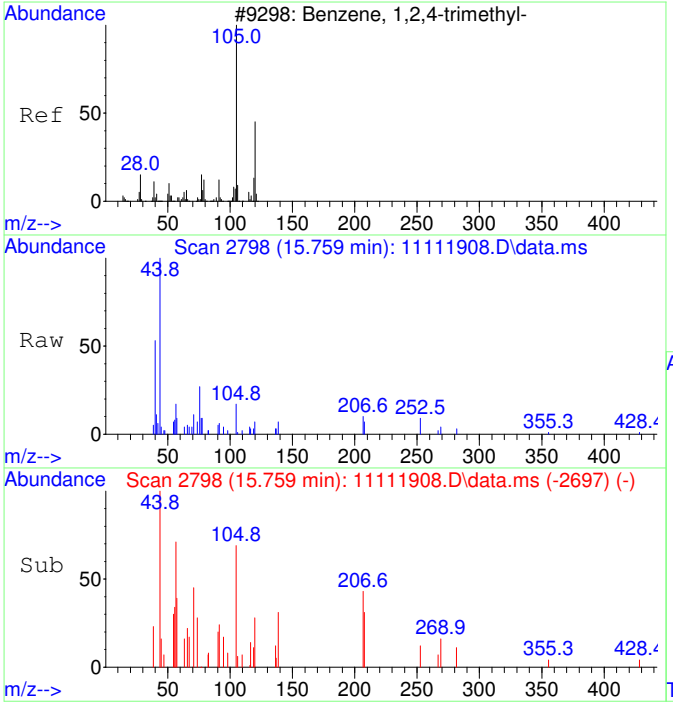


#43
m&p-Xylene SCAN
Concen: 105.85 ug/L
RT: 12.990 min Scan# 2223
Delta R.T. -0.014 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 4342

Ion	Ratio	Lower	Upper
91	100		
106	10.4	21.1	81.1#
105	3.3	0.0	53.6
51	2.9	0.0	40.7

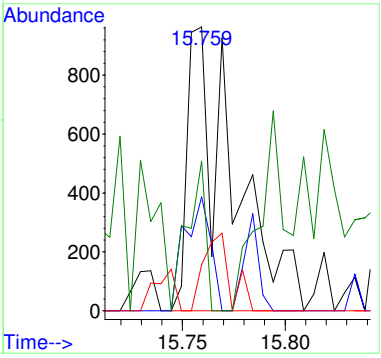




#47
1,2,4-Trimethylbenzene SCAN
Concen: 67.92 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:105 Resp: 1484

Ion	Ratio	Lower	Upper
105	100		
120	23.0	18.6	78.6
119	15.9	0.0	42.1
77	21.6	0.0	42.9



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111908.D
Acq On : 11 Nov 2019 15:29
InstName : AG5975C
Operator : TD
Sample : 1910069-07RE2
Misc : for high IS (450-50)
ALS Vial : 8 Sample Multiplier: 10

REPORT

M.I. Performed By:
TD at 6:30 am, Nov 12, 2019

M.I. Approved By:
ZR at 11:11 am, Nov 12, 2019

Quant Time: Nov 11 15:47:47 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

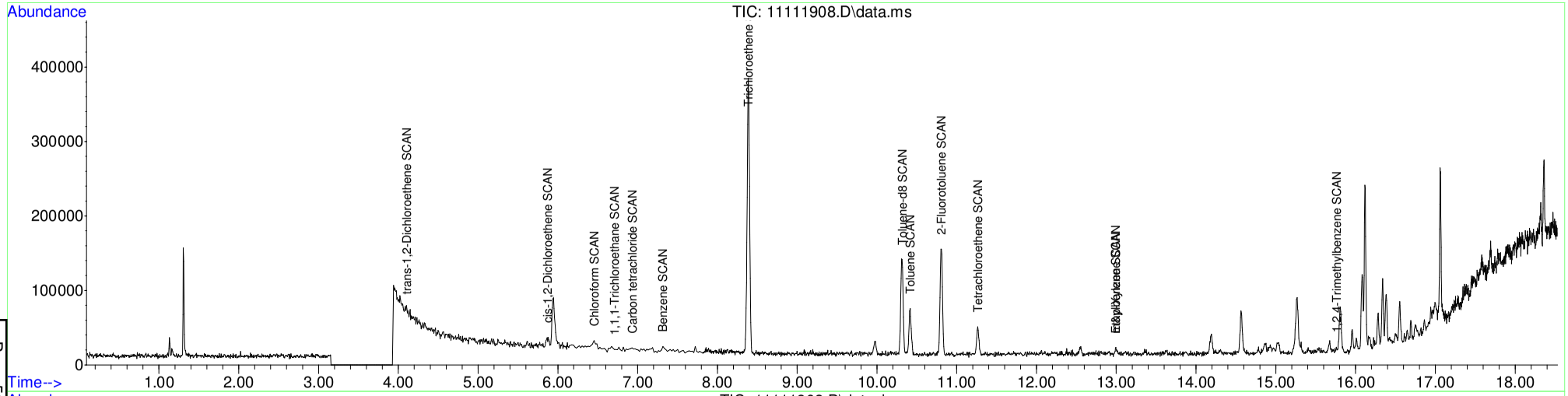
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.803	109	201123	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	164560	5063.21 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.26%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	226m	24.34 ug/L	
3] trans-1,2-Dichloroethene	4.109	61	677	70.96 ug/L	94
4] 1,1-Dichloroethane	4.845	63	265	22.27 ug/L	79
5] cis-1,2-Dichloroethene	5.867	61	10632	953.68 ug/L	100
6] Chloroform	6.435	83	14659	1146.18 ug/L	100
7] 1,1,1-Trichloroethane	6.693	97	783	62.41 ug/L	97
8] Carbon tetrachloride	6.988	117	278	23.81 ug/L	93
9] Benzene	7.301	78	1630	51.44 ug/L	75
11] Trichloroethene	8.387	130	222036	23107.61 ug/L	100
13] Toluene	10.412	91	74496	1890.90 ug/L	100
15] Tetrachloroethene	11.265	166	17091	1492.27 ug/L	99
18] Ethylbenzene	12.811	91	1944	40.61 ug/L	96
19] m&p-Xylene	13.006	91	4993	137.76 ug/L	99
20] o-Xylene	13.620	91	2224	57.50 ug/L	100
23] 1,2,4-Trimethylbenzene	15.766	105	1148	27.25 ug/L	84
25) 2-Fluorotoluene SCAN	10.801	109	127464	5087.40 ug/L	98
27) trans-1,2-Dichloroethe...	4.107	61	398	49.46 ug/L #	51
29) cis-1,2-Dichloroethene...	5.866	61	9049	994.33 ug/L	90
30) Chloroform SCAN	6.452	83	9336	920.91 ug/L	87
31) 1,1,1-Trichloroethane ...	6.710	97	844	95.38 ug/L #	37
32) Carbon tetrachloride SCAN	6.931	117	484	58.35 ug/L #	19
33) Benzene SCAN	7.318	78	1443	64.88 ug/L #	89
35) Trichloroethene SCAN	8.385	130	144256	22124.94 ug/L	98
36) Toluene-d8 SCAN	10.316	98	108796	5339.37 ug/L	90
37) Toluene SCAN	10.416	91	50691	2017.70 ug/L	94
39) Tetrachloroethene SCAN	11.263	166	10246	1536.15 ug/L	82
42) Ethylbenzene SCAN	12.990	91	4342	151.86 ug/L	68
43) m&p-Xylene SCAN	12.990	91	4342	105.85 ug/L #	51
47) 1,2,4-Trimethylbenzene...	15.759	105	1484	67.92 ug/L	70

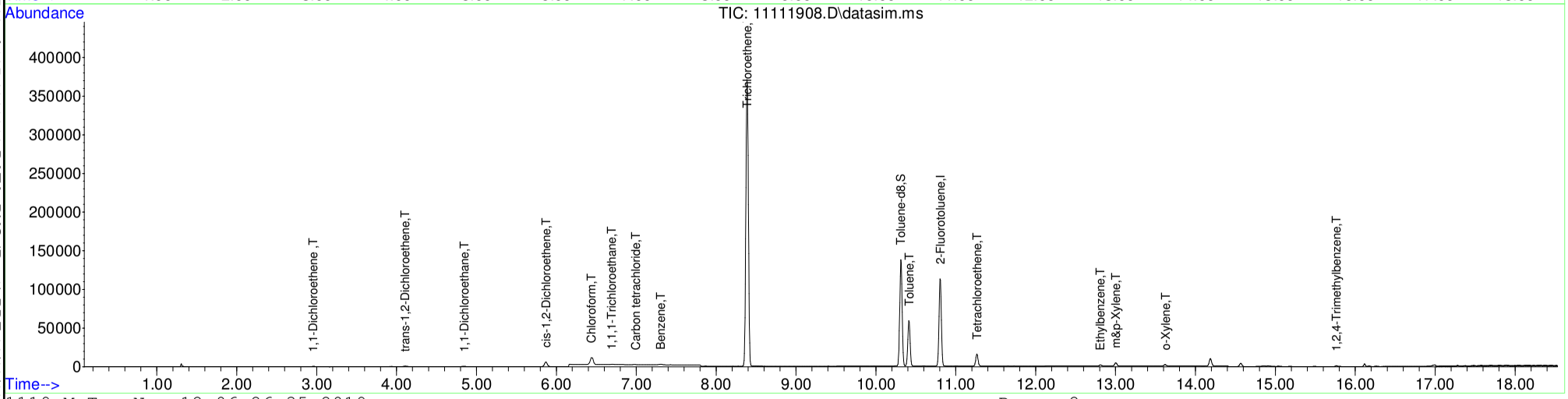
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111908.D
Acq On : 11 Nov 2019 15:29
InstName : AG5975C
Operator : TD
Sample : 1910069-07RE2
Misc : for high IS (450-50)
ALS Vial : 8 Sample Multiplier: 10

Quant Time: Nov 11 15:47:47 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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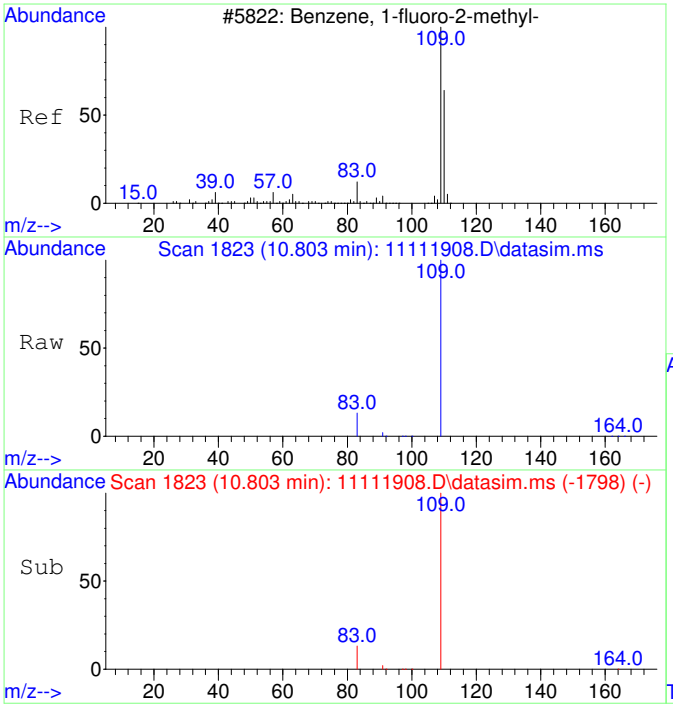
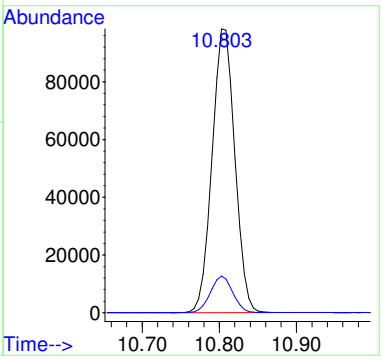
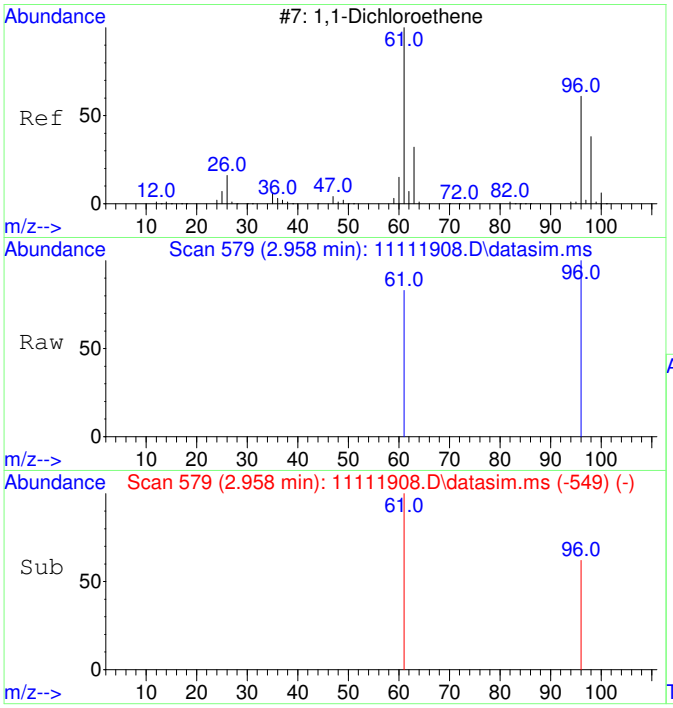


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:109 Resp: 201123

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

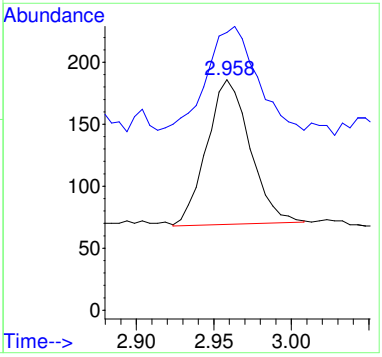


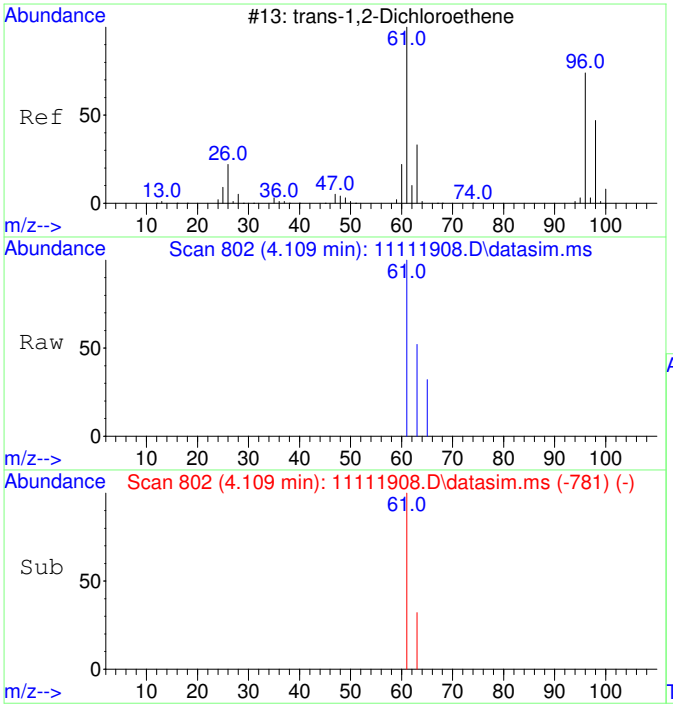


#2
1,1-Dichloroethene
Concen: 24.34 ug/L m
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 226

Ion	Ratio	Lower	Upper
61	100		
96	82.3	33.6	93.6

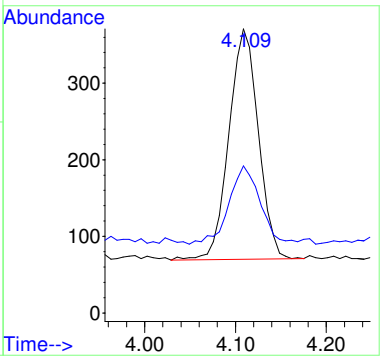


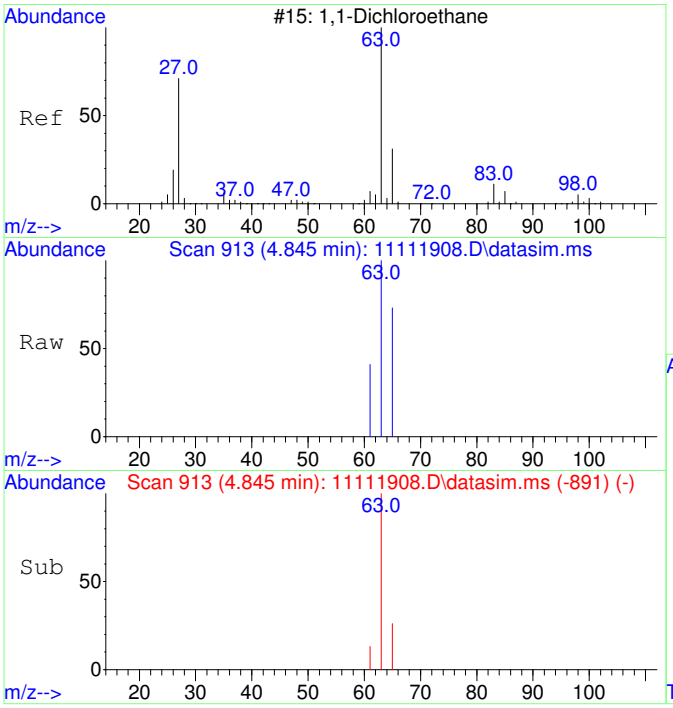


#3
trans-1,2-Dichloroethene
Concen: 70.96 ug/L
RT: 4.109 min Scan# 802
Delta R.T. -0.013 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 677

Ion	Ratio	Lower	Upper
61	100		
63	35.7	2.3	62.3

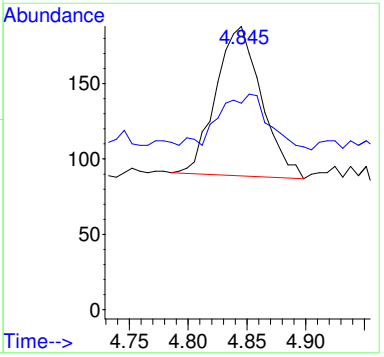


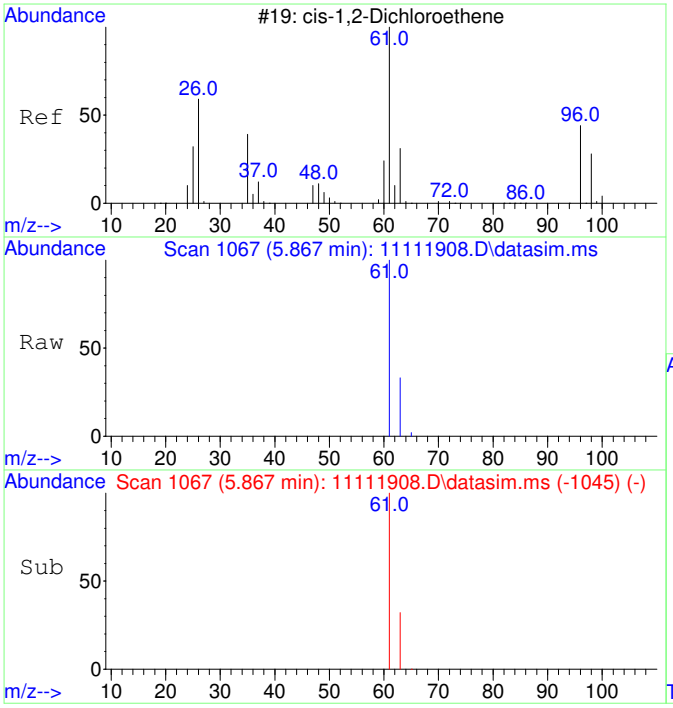


#4
1,1-Dichloroethane
Concen: 22.27 ug/L
RT: 4.845 min Scan# 913
Delta R.T. -0.007 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 63 Resp: 265

Ion	Ratio	Lower	Upper
63	100		
65	43.4	1.9	61.9

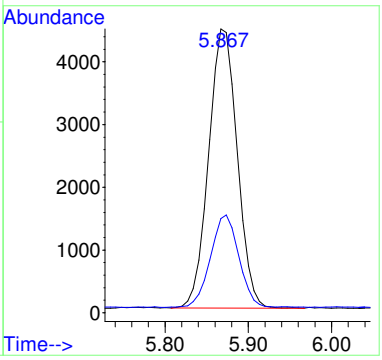


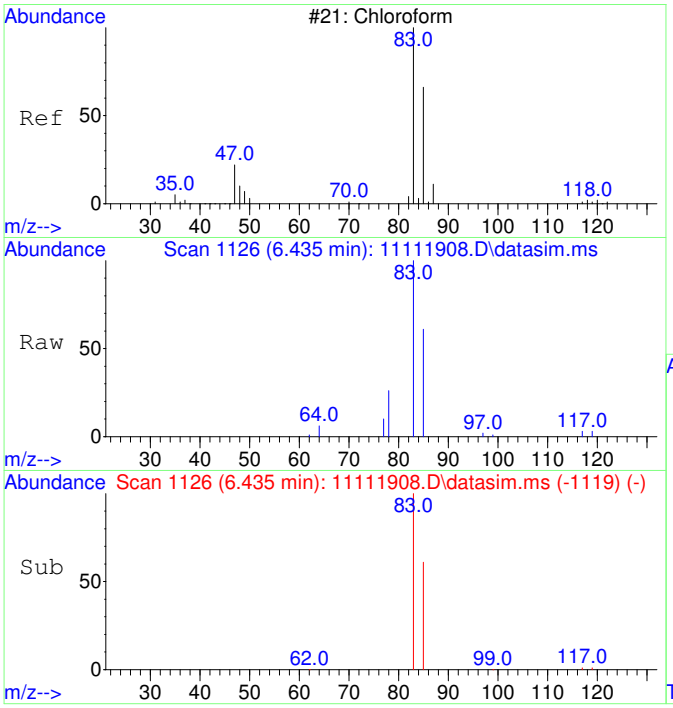


#5
cis-1,2-Dichloroethene
Concen: 953.68 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 10632

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.4	62.4

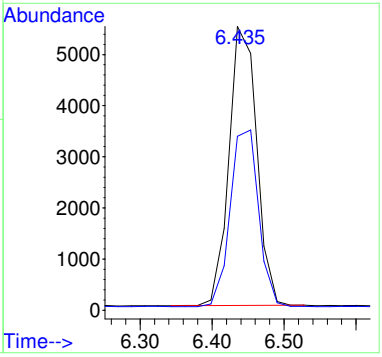


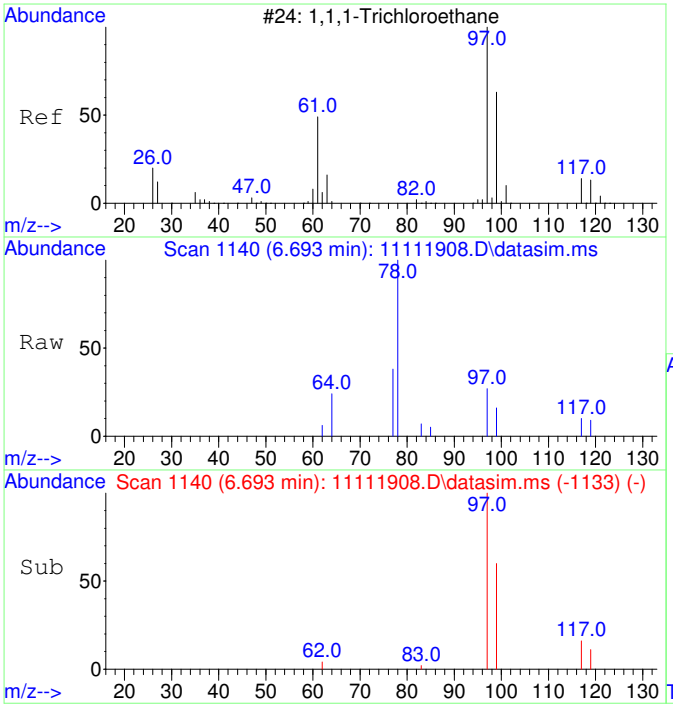


#6
Chloroform
Concen: 1146.18 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 83 Resp: 14659

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.2	95.2

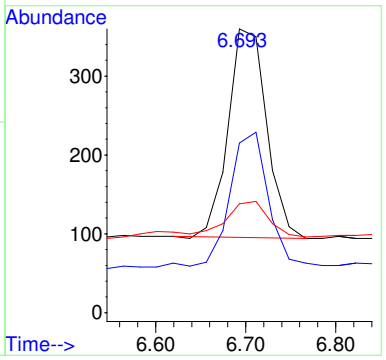


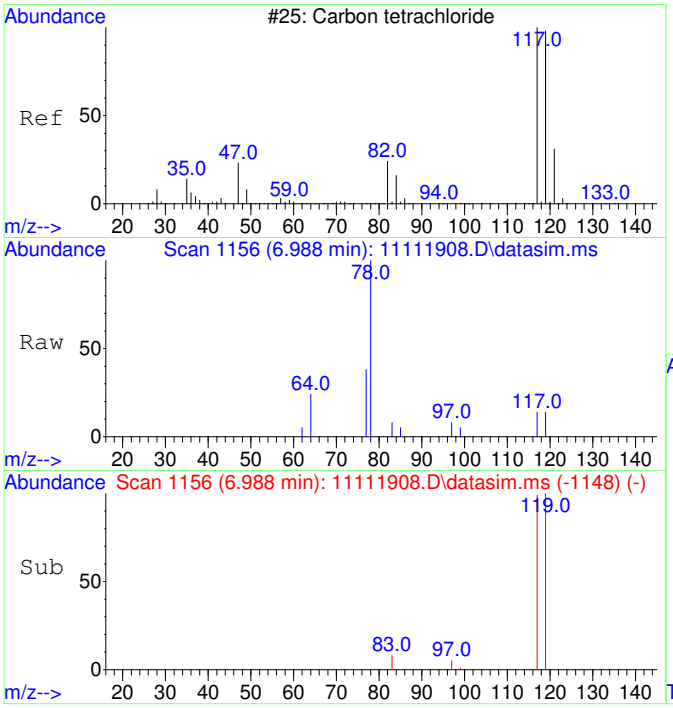


#7
1,1,1-Trichloroethane
Concen: 62.41 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 97 Resp: 783

Ion	Ratio	Lower	Upper
97	100		
99	65.4	34.5	94.5
117	18.6	0.0	43.0

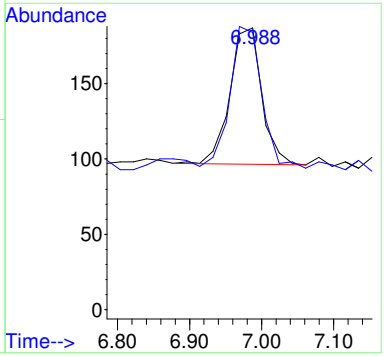


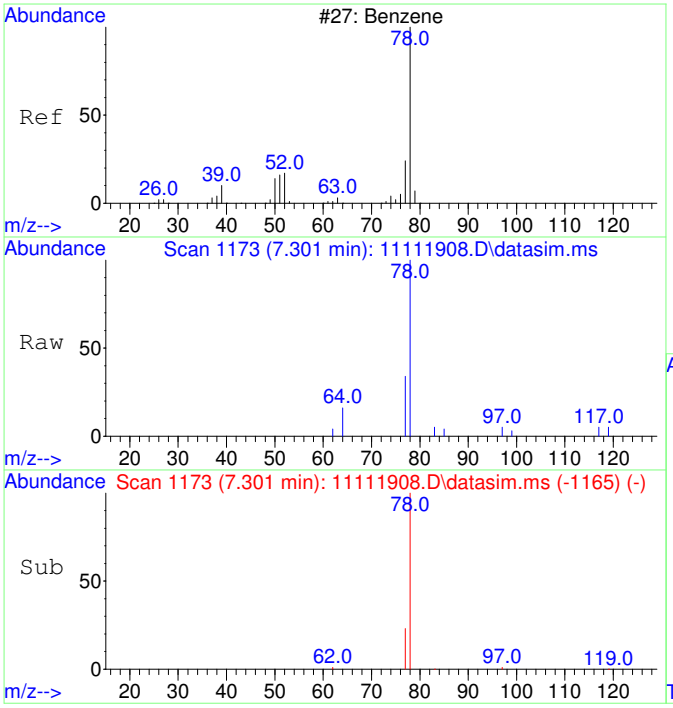


#8
Carbon tetrachloride
Concen: 23.81 ug/L
RT: 6.988 min Scan# 1156
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:117 Resp: 278

Ion	Ratio	Lower	Upper
117	100		
119	103.2	66.0	126.0

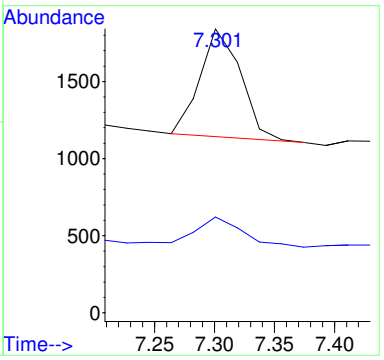


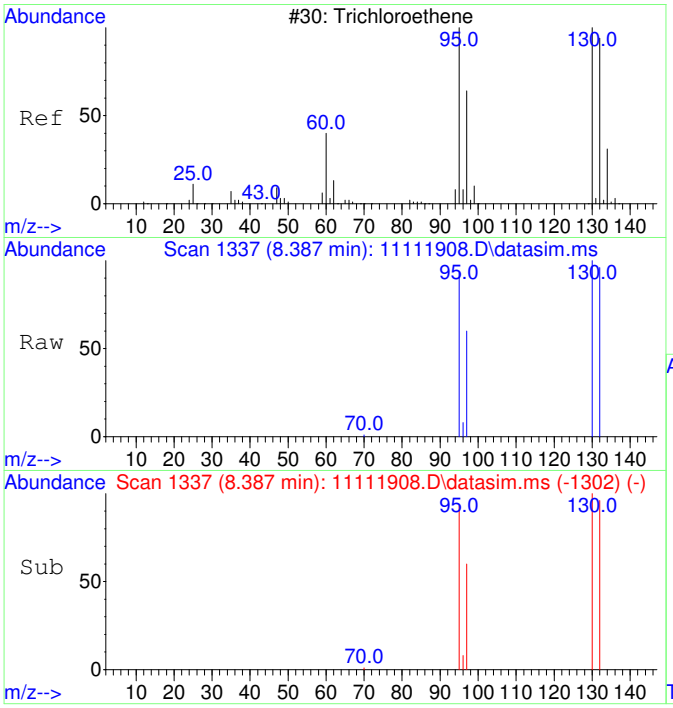


#9
Benzene
Concen: 51.44 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 78 Resp: 1630

Ion	Ratio	Lower	Upper
78	100		
77	35.6	0.0	53.2

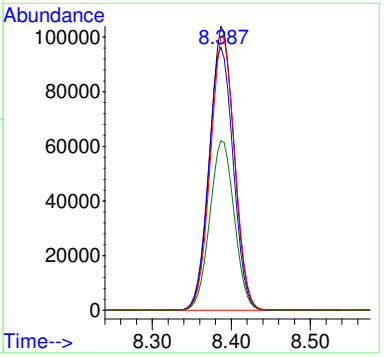


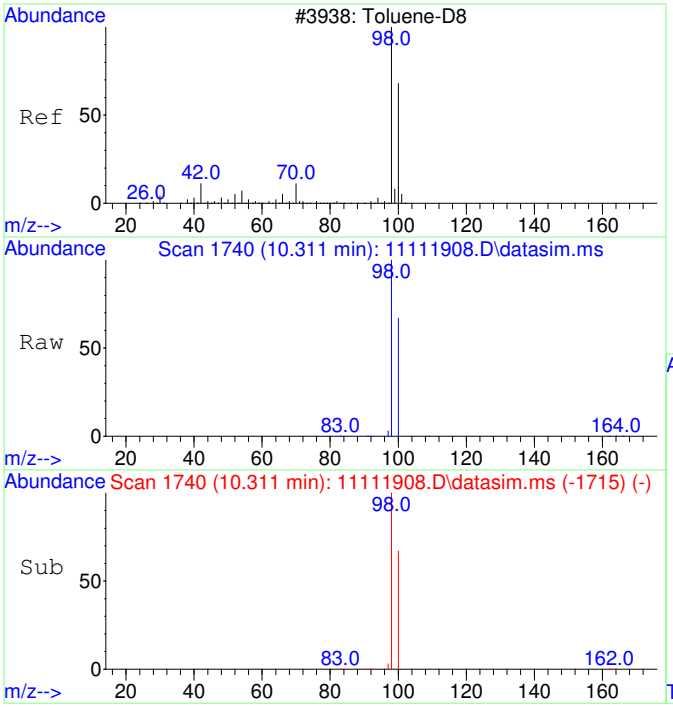


#11
Trichloroethene
Concen: 23107.61 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:130 Resp: 222036

Ion	Ratio	Lower	Upper
130	100		
95	93.3	63.4	123.4
132	96.5	76.0	116.0
97	60.1	39.8	79.8

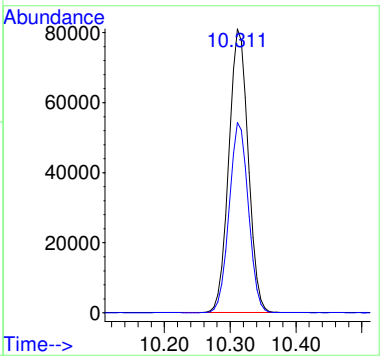


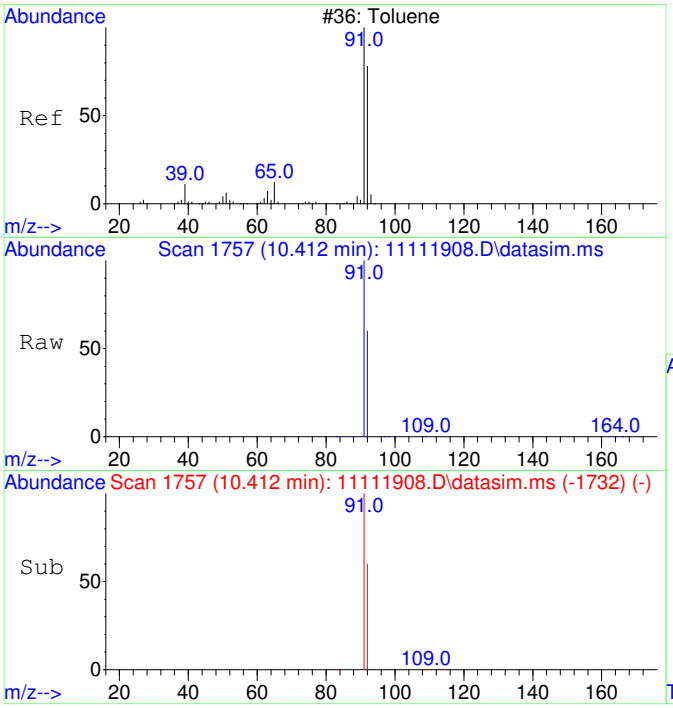


#12
Toluene-d8
Concen: 5063.21 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 98 Resp: 164560

Ion	Ratio	Lower	Upper
98	100		
100	66.5	36.4	96.4

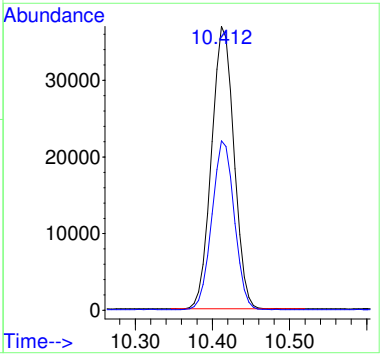


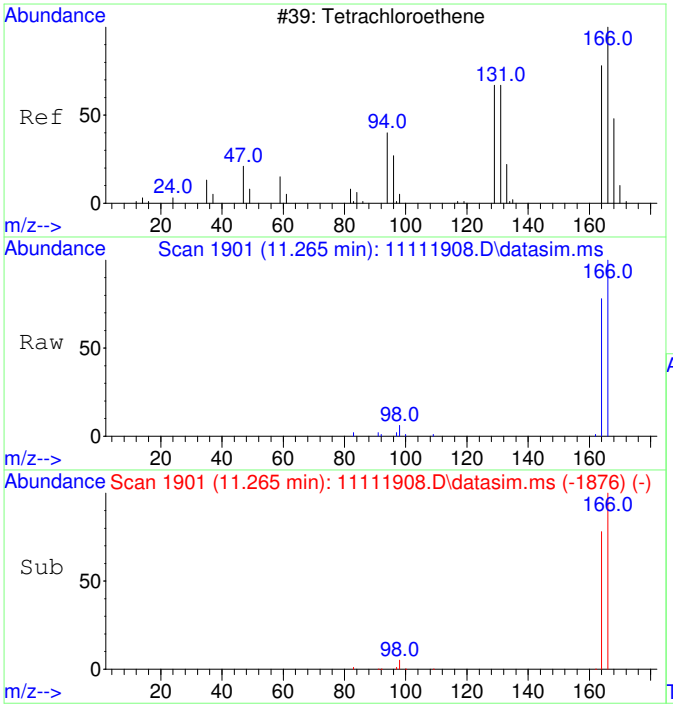


#13
Toluene
Concen: 1890.90 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 74496

Ion	Ratio	Lower	Upper
91	100		
92	59.5	29.4	89.4

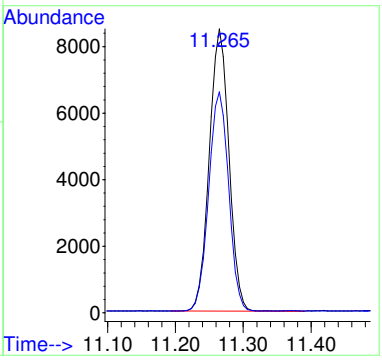


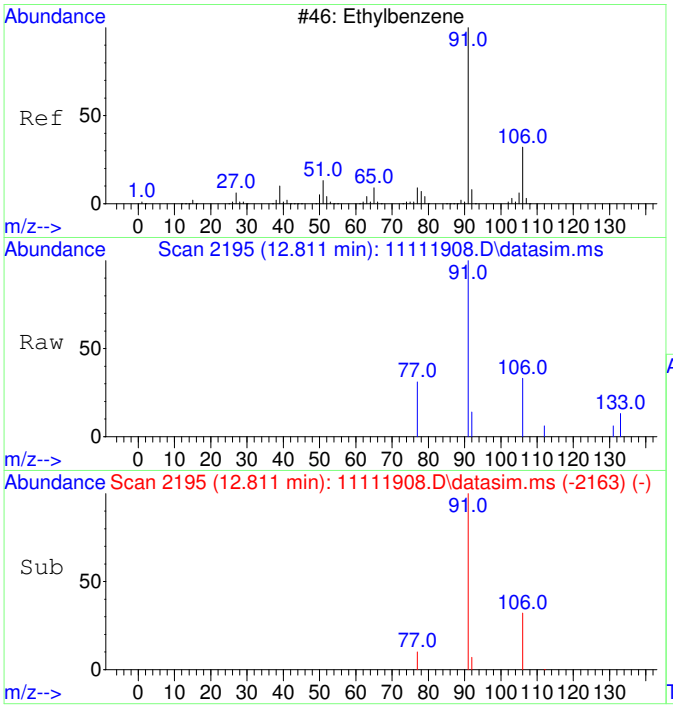


#15
Tetrachloroethene
Concen: 1492.27 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:166 Resp: 17091

Ion	Ratio	Lower	Upper
166	100		
164	78.6	47.7	107.7

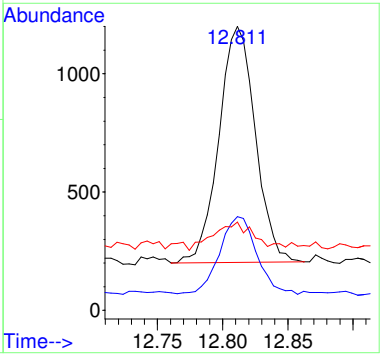


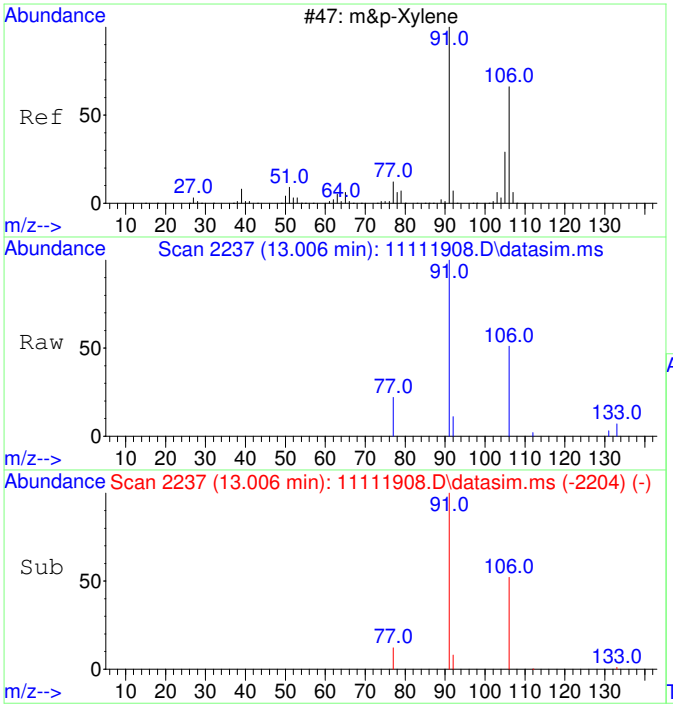


#18
Ethylbenzene
Concen: 40.61 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 1944

Ion	Ratio	Lower	Upper
91	100		
106	33.1	2.5	62.5
77	13.1	0.0	38.4

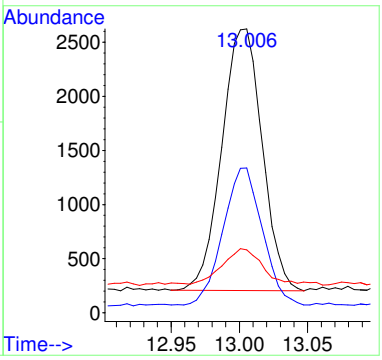


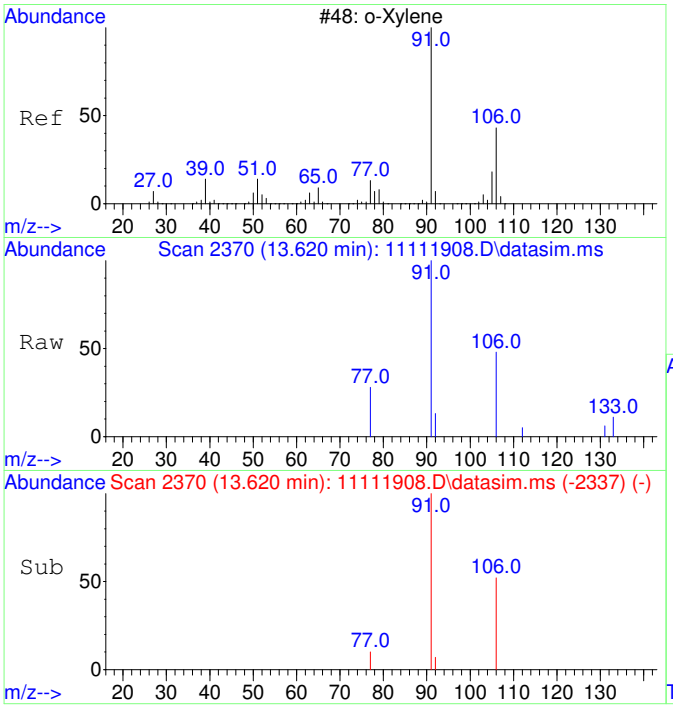


#19
m&p-Xylene
Concen: 137.76 ug/L
RT: 13.006 min Scan# 2237
Delta R.T. 0.005 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 4993

Ion	Ratio	Lower	Upper
91	100		
106	50.7	21.2	81.2
77	13.2	0.0	42.7

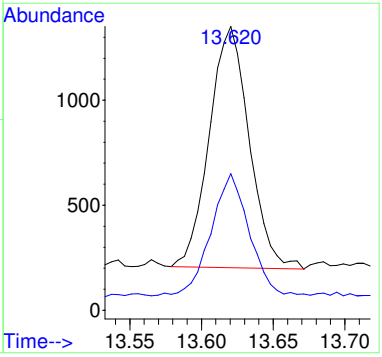


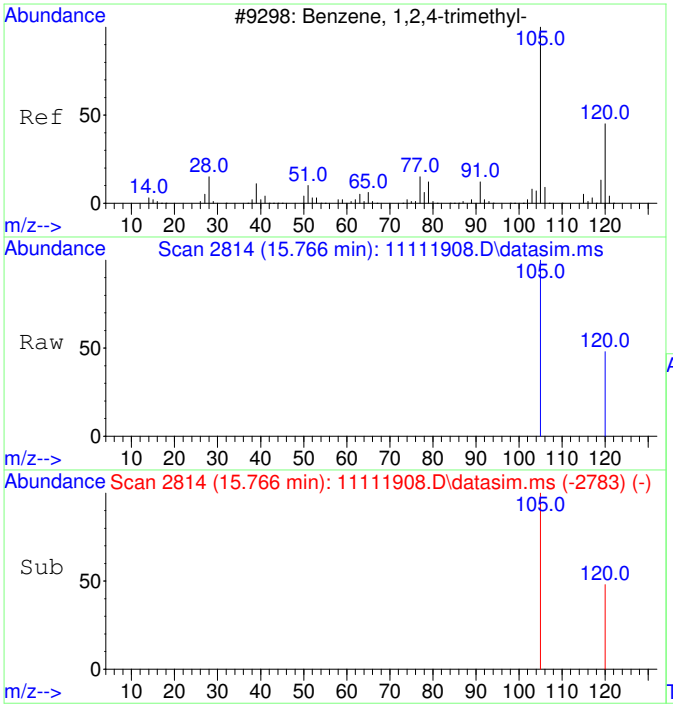


#20
o-Xylene
Concen: 57.50 ug/L
RT: 13.620 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 2224

Ion	Ratio	Lower	Upper
91	100		
106	48.2	18.3	78.3

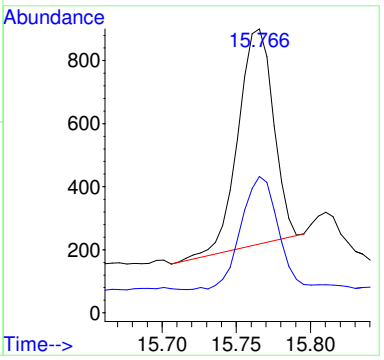


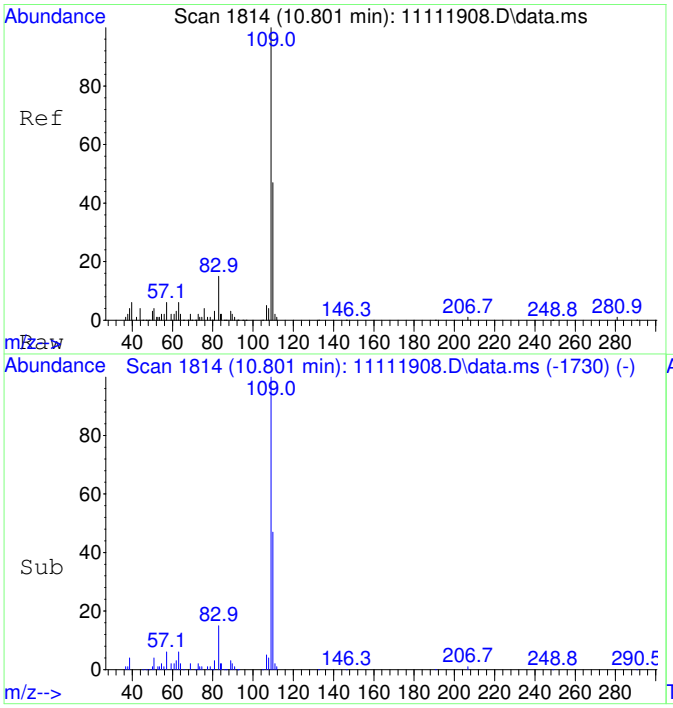


#23
1,2,4-Trimethylbenzene
Concen: 27.25 ug/L
RT: 15.766 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:105 Resp: 1148

Ion	Ratio	Lower	Upper
105	100		
120	57.8	16.8	76.8

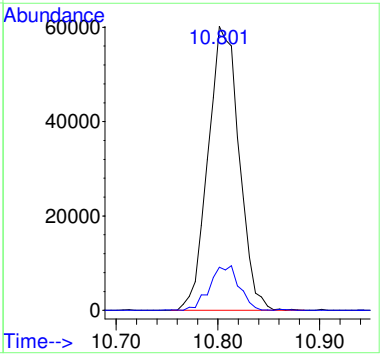


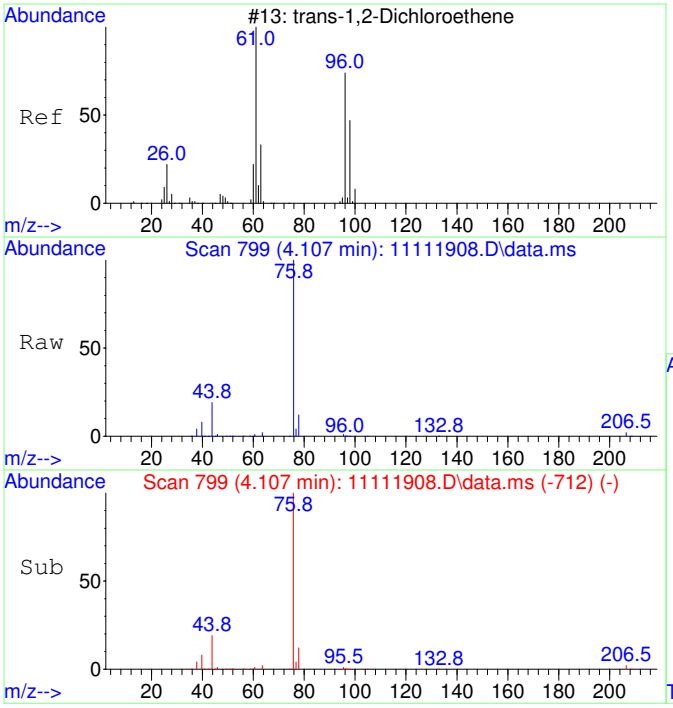


#25
2-Fluorotoluene SCAN
Concen: 5087.40 ug/L
RT: 10.801 min Scan# 1814
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:109 Resp: 127464

Ion	Ratio	Lower	Upper
109	100		
83	14.8	0.0	45.8

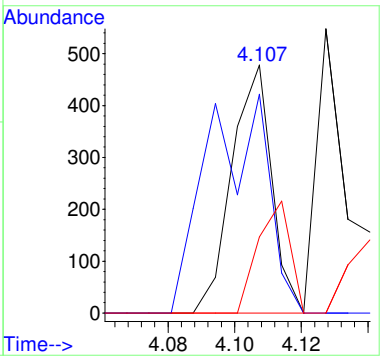


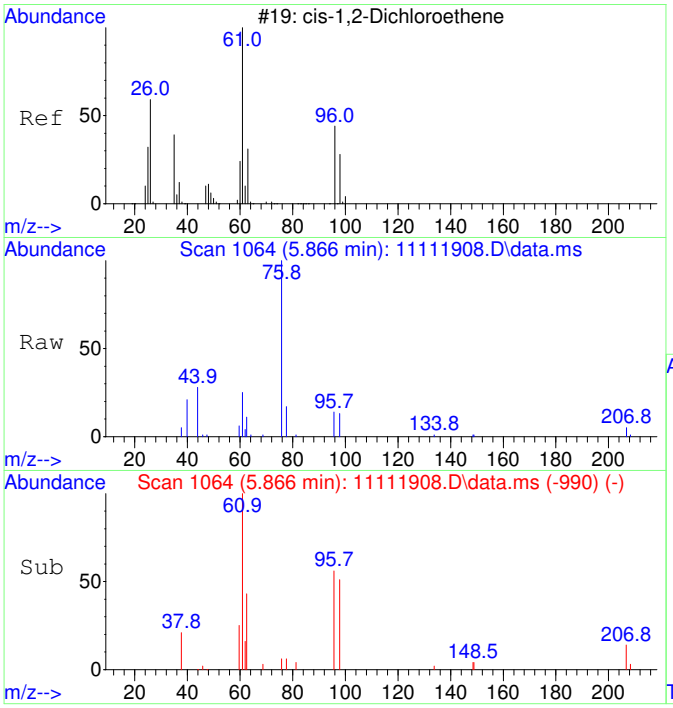


#27
trans-1,2-Dichloroethene SCAN
Concen: 49.46 ug/L
RT: 4.107 min Scan# 799
Delta R.T. -0.013 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 398

Ion	Ratio	Lower	Upper
61	100		
96	133.4	46.5	106.5#
98	36.2	22.8	82.8

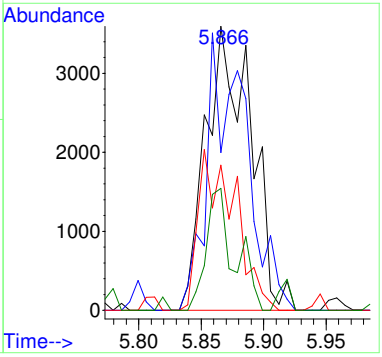


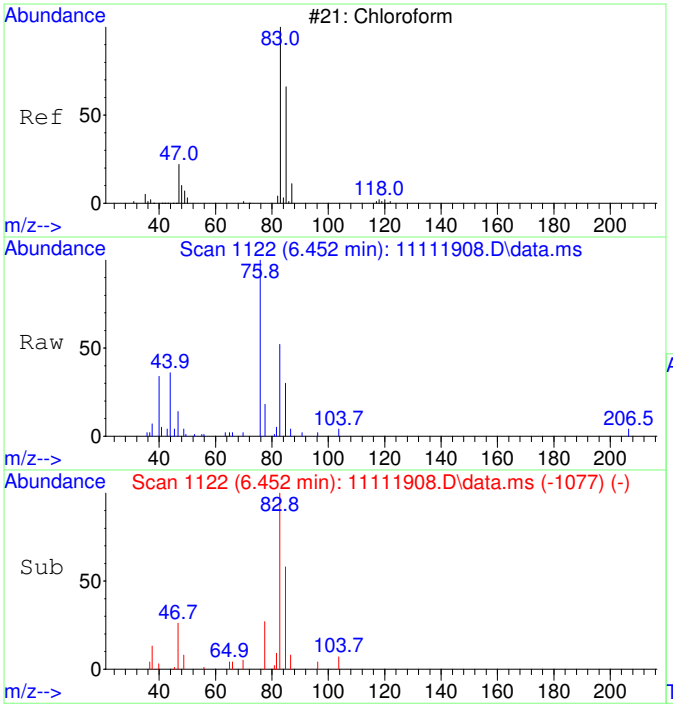


#29
cis-1,2-Dichloroethene SCAN
Concen: 994.33 ug/L
RT: 5.866 min Scan# 1064
Delta R.T. -0.007 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 61 Resp: 9049

Ion	Ratio	Lower	Upper
61	100		
96	84.2	41.9	101.9
98	45.7	20.3	80.3
63	26.6	0.0	58.3

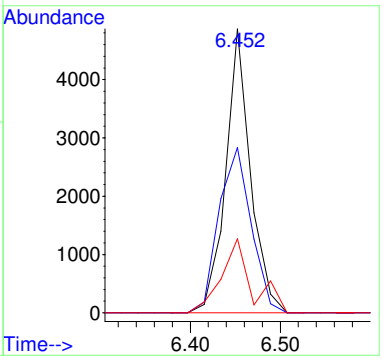


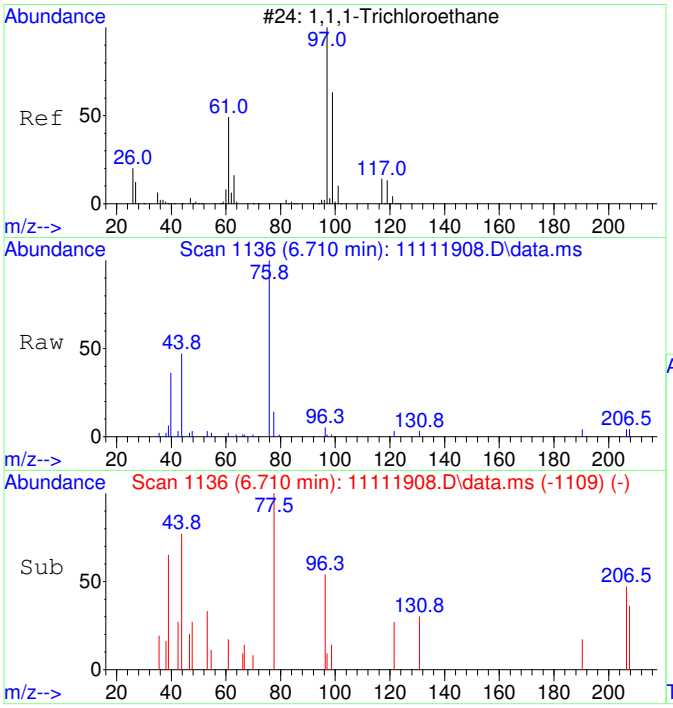


#30
Chloroform SCAN
Concen: 920.91 ug/L
RT: 6.452 min Scan# 1122
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 83 Resp: 9336

Ion	Ratio	Lower	Upper
83	100		
85	75.7	38.3	98.3
47	32.1	0.0	50.2

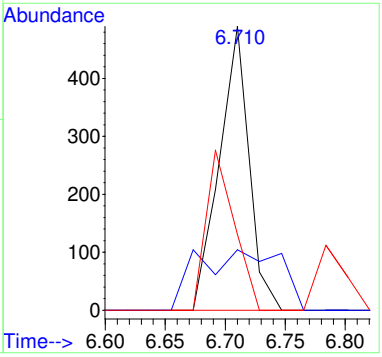


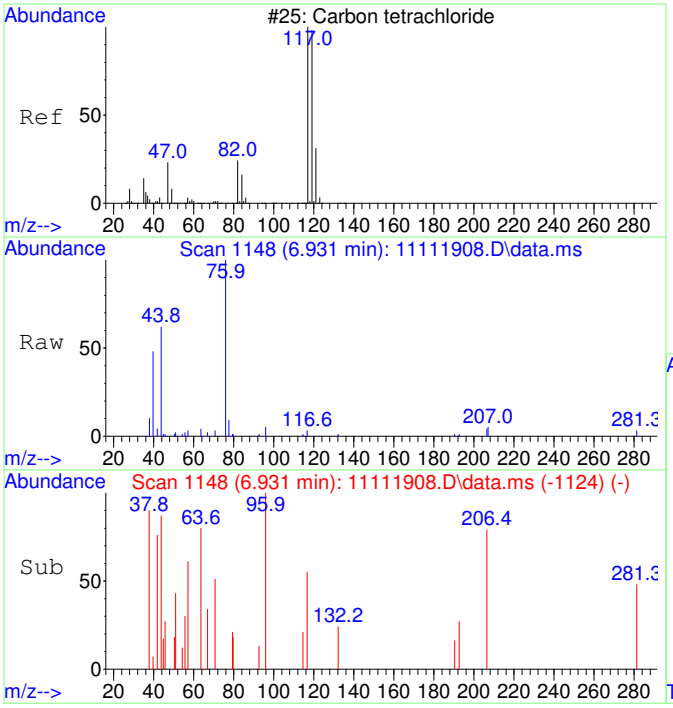


#31
1,1,1-Trichloroethane SCAN
Concen: 95.38 ug/L
RT: 6.710 min Scan# 1136
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 97 Resp: 844

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	53.3	11.1	71.1

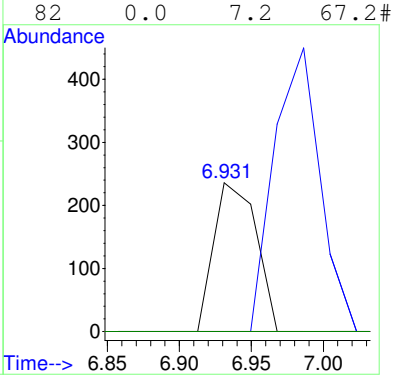


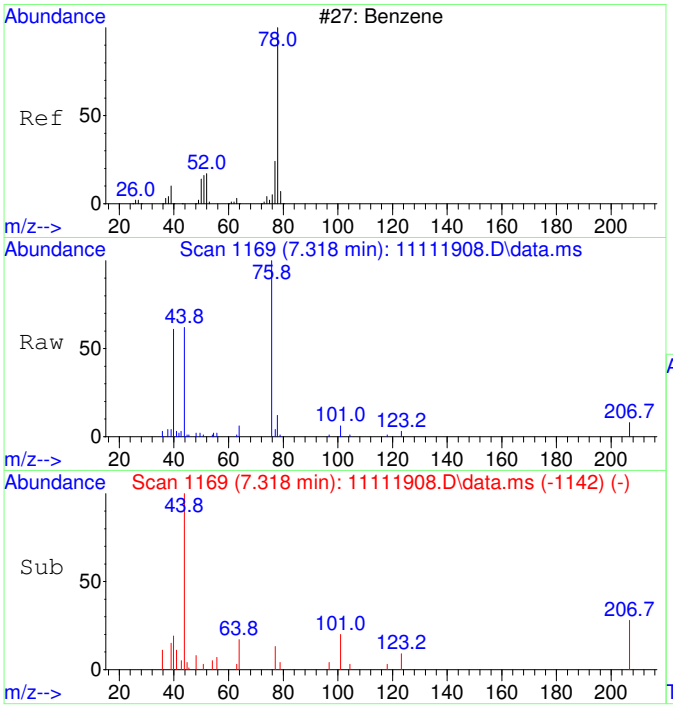


#32
Carbon tetrachloride SCAN
Concen: 58.35 ug/L
RT: 6.931 min Scan# 1148
Delta R.T. -0.055 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:117 Resp: 484

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

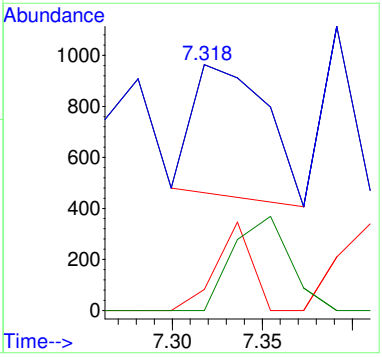


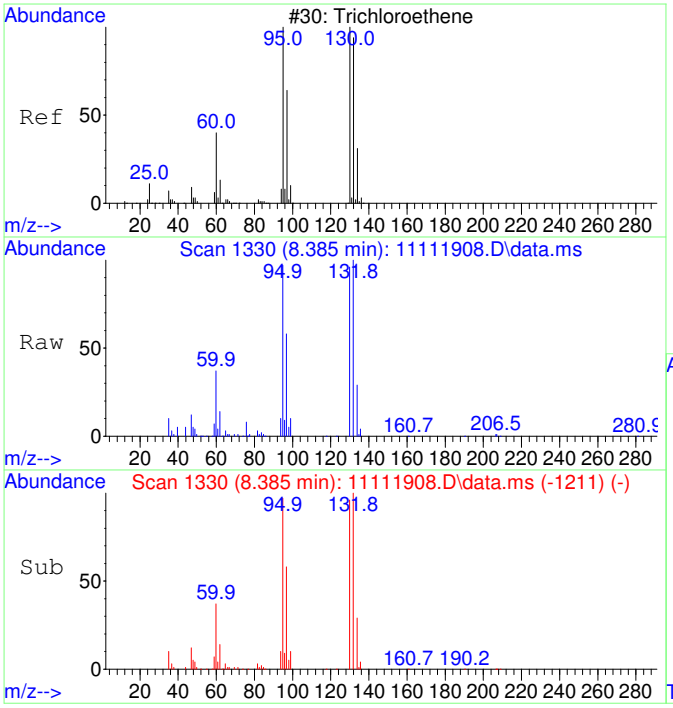


#33
Benzene SCAN
Concen: 64.88 ug/L
RT: 7.318 min Scan# 1169
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 78 Resp: 1443

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.8
52	0.0	0.0	46.0

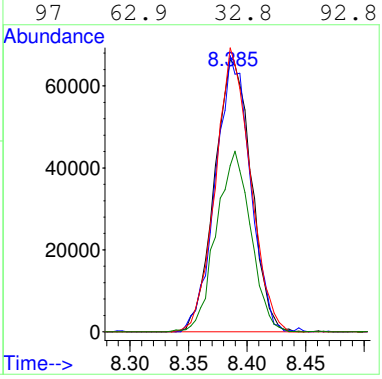


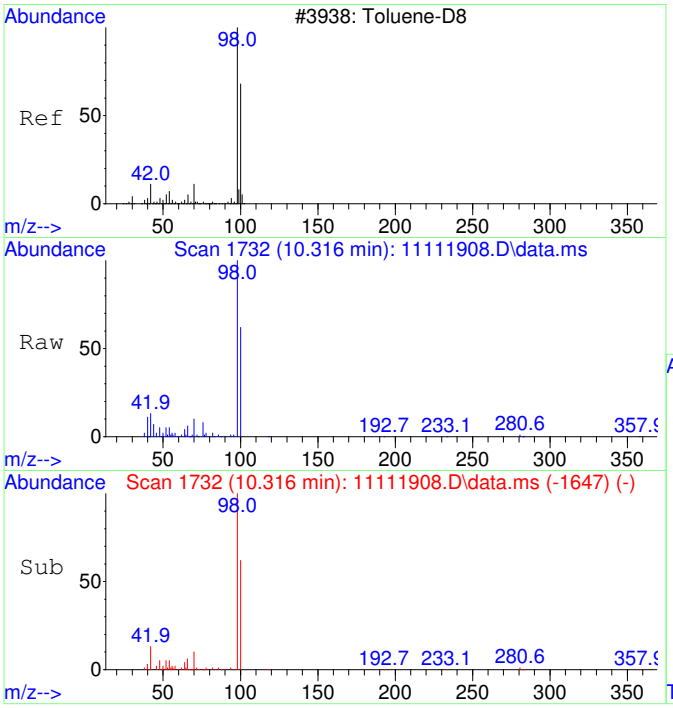


#35
Trichloroethene SCAN
Concen: 22124.94 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:130 Resp: 144256

Ion	Ratio	Lower	Upper
130	100		
95	95.9	69.5	129.5
132	99.2	66.5	126.5
97	62.9	32.8	92.8

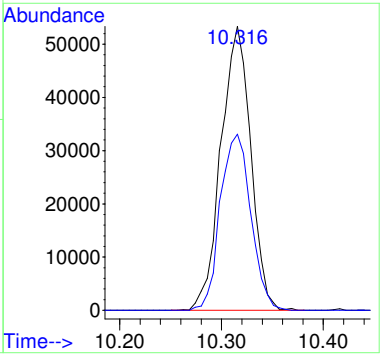


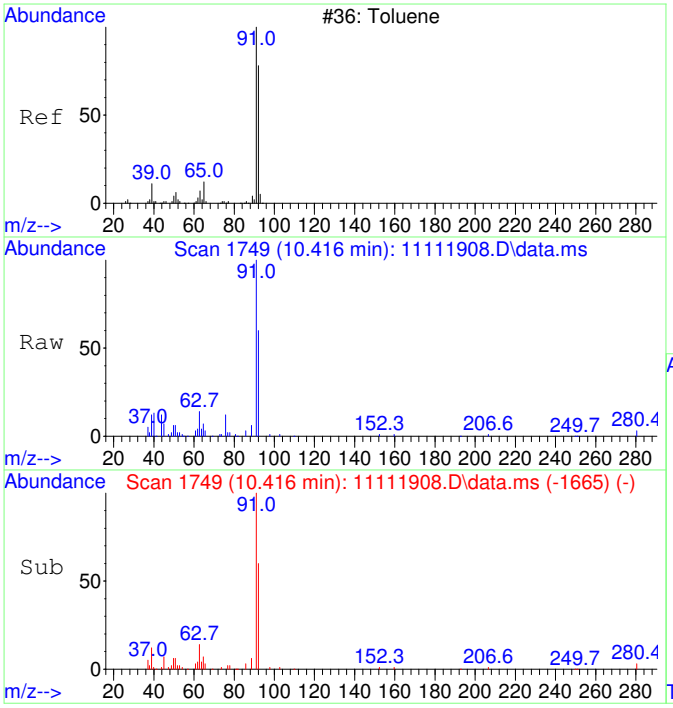


#36
Toluene-d8 SCAN
Concen: 5339.37 ug/L
RT: 10.316 min Scan# 1732
Delta R.T. 0.006 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 98 Resp: 108796

Ion	Ratio	Lower	Upper
98	100		
100	63.5	42.1	102.1

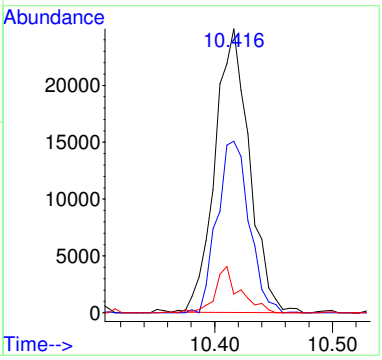


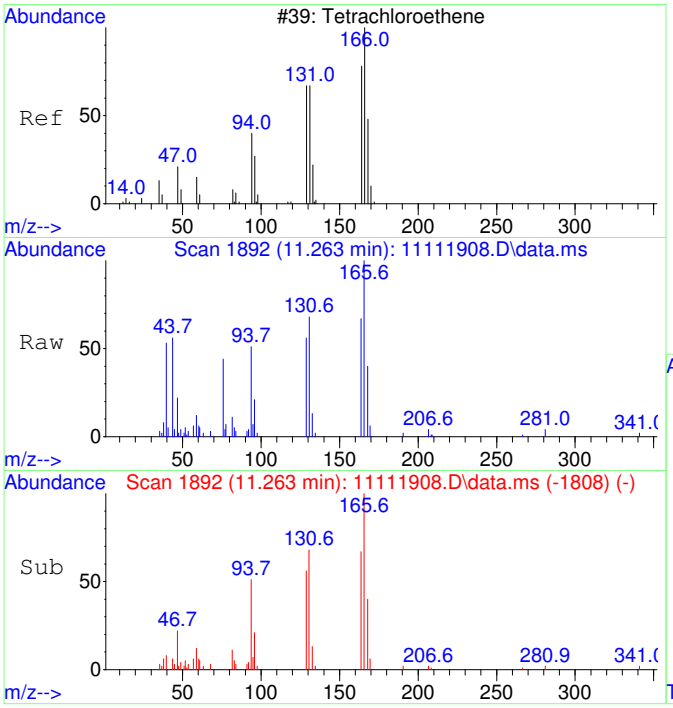


#37
Toluene SCAN
Concen: 2017.70 ug/L
RT: 10.416 min Scan# 1749
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 50691

Ion	Ratio	Lower	Upper
91	100		
92	56.4	31.9	91.9
65	11.7	0.0	41.9

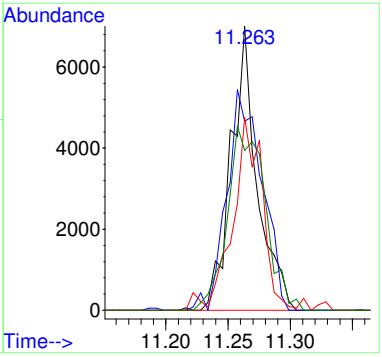


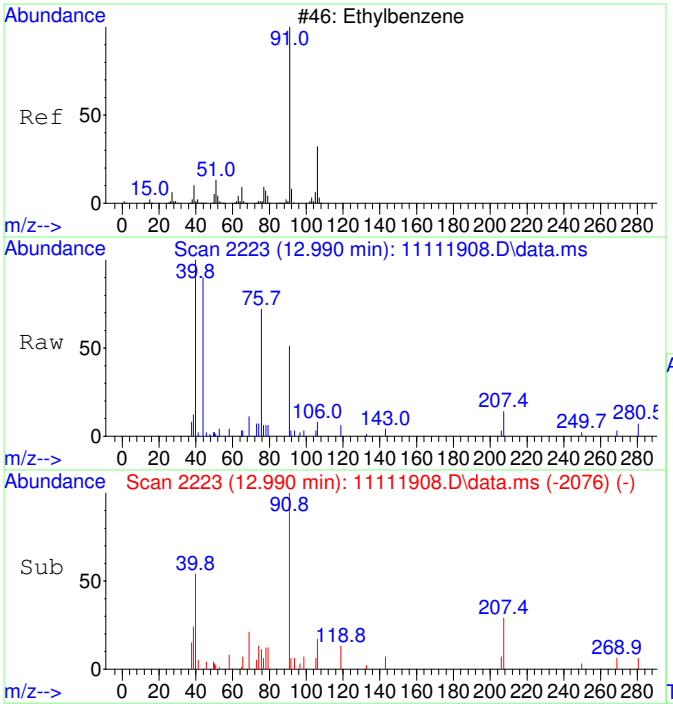


#39
Tetrachloroethene SCAN
Concen: 1536.15 ug/L
RT: 11.263 min Scan# 1892
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:166 Resp: 10246

Ion	Ratio	Lower	Upper
166	100		
164	104.9	50.4	110.4
131	75.3	44.0	104.0
129	93.4	42.6	102.6

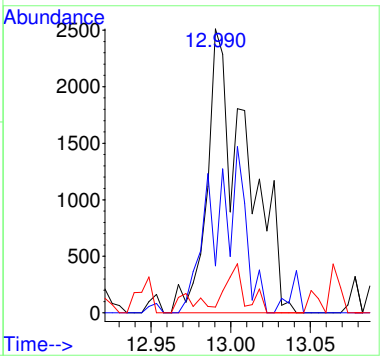


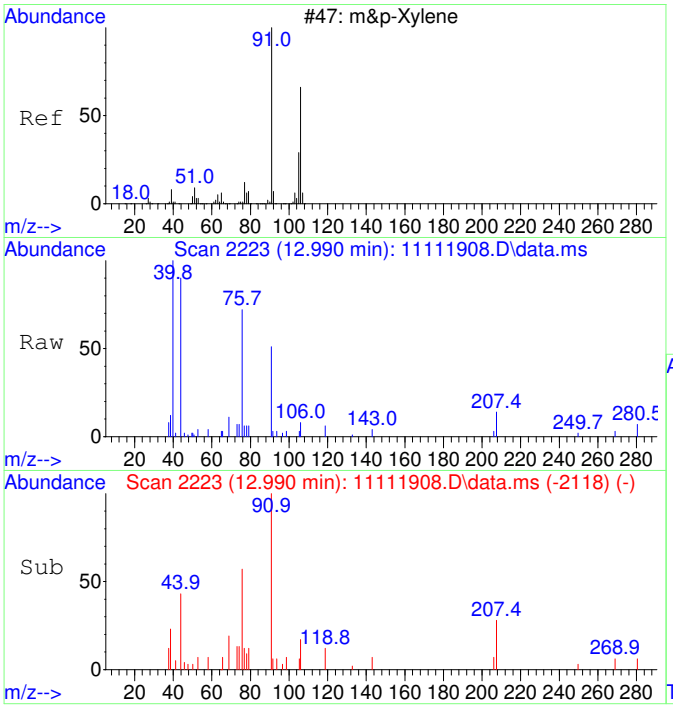


#42
Ethylbenzene SCAN
Concen: 151.86 ug/L
RT: 12.990 min Scan# 2223
Delta R.T. 0.180 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 4342

Ion	Ratio	Lower	Upper
91	100		
106	10.4	0.1	60.1
51	2.9	0.0	40.9

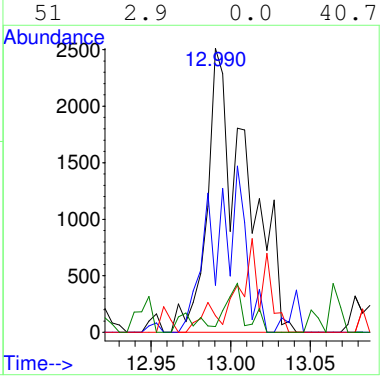


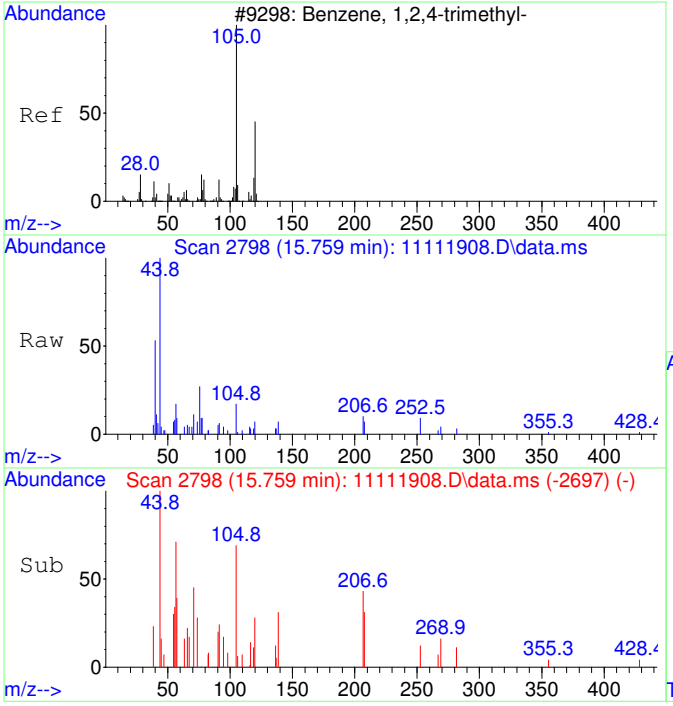


#43
m&p-Xylene SCAN
Concen: 105.85 ug/L
RT: 12.990 min Scan# 2223
Delta R.T. -0.014 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion: 91 Resp: 4342

Ion	Ratio	Lower	Upper
91	100		
106	10.4	21.1	81.1#
105	3.3	0.0	53.6
51	2.9	0.0	40.7

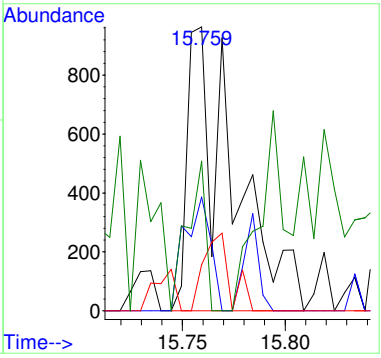




#47
1,2,4-Trimethylbenzene SCAN
Concen: 67.92 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11111908.D
Acq: 11 Nov 2019 15:29

Tgt Ion:105 Resp: 1484

Ion	Ratio	Lower	Upper
105	100		
120	23.0	18.6	78.6
119	15.9	0.0	42.1
77	21.6	0.0	42.9



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory

SDG: 19301C

Client: California Site Cleanup Section 3

Project: MEW OU3 FY2020 Vapor Intrusion Investigation

Instrument ID: AG5975CV

Calibration: 1911007

Sequence: S19K038

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S19K038-CRL1	1,1-Dichloroethene	50.0	37.4	75	ug/L	60 - 140
	trans-1,2-Dichloroethene	50.0	38.7	77	ug/L	60 - 140
	1,1-Dichloroethane	50.0	39.1	78	ug/L	60 - 140
	cis-1,2-Dichloroethene	50.0	38.7	77	ug/L	60 - 140
	Chloroform	50.0	42.6	85	ug/L	60 - 140
	Trichloroethene	50.0	49.7	99	ug/L	60 - 140
	Tetrachloroethene	50.0	53.2	106	ug/L	60 - 140
	Toluene-d8	50.0	54.8	110	ug/L	60 - 140

QLS REPORT

Instrument Name: AG5975C
Sample Name: S19K038-CRL1
Misc Info: 1930060 0.05 mg/L
Date Acquired: 11/11/19 13:29
QLast Update: Mon Nov 11 06:00:05 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.803	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	2.958	50.0	37.40	75%	60	140	pass
3)	trans-1,2-Dichloroethene	4.122	50.0	38.72	77%	60	140	pass
4)	1,1-Dichloroethane	4.852	50.0	39.14	78%	60	140	pass
5)	cis-1,2-Dichloroethene	5.874	50.0	38.74	77%	60	140	pass
6)	Chloroform	6.454	50.0	42.63	85%	60	140	pass
7)	1,1,1-Trichloroethane	6.711	50.0	40.33	81%	60	140	pass
8)	Carbon tetrachloride	6.988	50.0	41.62	83%	60	140	pass
10)	1,2-Dichloroethane	7.356	50.0	39.89	80%	60	140	pass
11)	Trichloroethene	8.391	50.0	49.69	99%	60	140	pass
12)	Toluene-d8	10.311	50.0	54.78	110%	60	140	pass
13)	Toluene	10.412	50.0	57.61	115%	60	140	pass
14)	1,1,2-Trichloroethane	11.069	50.0	49.37	99%	60	140	pass
15)	Tetrachloroethene	11.265	50.0	53.24	106%	60	140	pass
16)	Chlorobenzene	12.599	50.0	55.96	112%	60	140	pass
17)	1,1,1,2-Tetrachloroethane	12.751	50.0	56.33	113%	60	140	pass
18)	Ethylbenzene	12.811	50.0	57.48	115%	60	140	pass
19)	m&p-Xylene	13.001	100.0	116.81	117%	60	140	pass
20)	o-Xylene	13.616	50.0	57.56	115%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.714	50.0	56.32	113%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.185	50.0	61.52	123%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.761	50.0	61.56	123%	60	140	pass
24)	Naphthalene	17.824	50.0	64.46	129%	60	140	pass

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

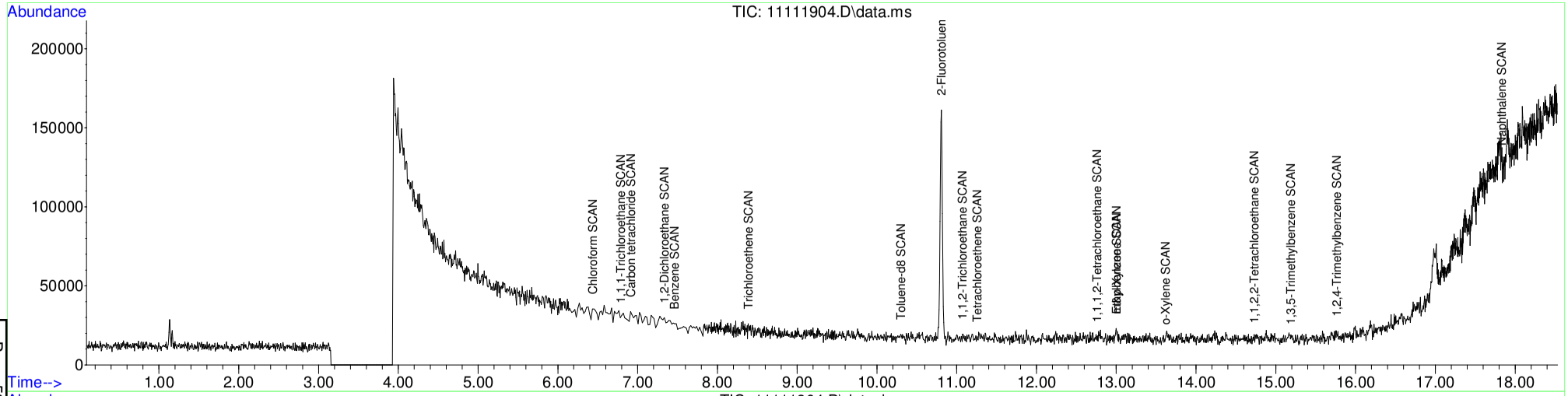
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	189989	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	1682	54.78	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.10%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	784	89.40	ug/L	89
3] trans-1,2-Dichloroethene	4.102	61	349	38.72	ug/L	80
4] 1,1-Dichloroethane	4.839	63	440	39.14	ug/L	98
5] cis-1,2-Dichloroethene	5.867	61	408	38.74	ug/L	84
6] Chloroform	6.435	83	515	42.63	ug/L	97
7] 1,1,1-Trichloroethane	6.693	97	478	40.33	ug/L	97
8] Carbon tetrachloride	6.969	117	459	41.62	ug/L	93
9] Benzene	7.301	78	1595	53.29	ug/L	79
10] 1,2-Dichloroethane	7.338	62	383	39.89	ug/L	52
11] Trichloroethene	8.387	130	451	49.69	ug/L	96
13] Toluene	10.412	91	2144	57.61	ug/L	97
14] 1,1,2-Trichloroethane	11.063	97	425	49.37	ug/L	99
15] Tetrachloroethene	11.265	166	576	53.24	ug/L	96
16] Chlorobenzene	12.603	112	1546	55.96	ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.756	131	560	56.33	ug/L	93
18] Ethylbenzene	12.811	91	2599	57.48	ug/L	94
19] m&p-Xylene	13.006	91	3999	116.81	ug/L	98
20] o-Xylene	13.620	91	2103	57.56	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.714	83	913	56.32	ug/L	99
22] 1,3,5-Trimethylbenzene	15.185	105	2404	61.52	ug/L	99
23] 1,2,4-Trimethylbenzene	15.766	105	2450	61.56	ug/L	100
24] Naphthalene	17.824	128	4423	64.46	ug/L	99
25) 2-Fluorotoluene SCAN	10.807	109	123406	5214.08	ug/L	98
30) Chloroform SCAN	6.434	83	392	40.93	ug/L #	1
31) 1,1,1-Trichloroethane ...	6.784	97	172	20.58	ug/L #	21
32) Carbon tetrachloride SCAN	6.913	117	559	71.35	ug/L #	19
33) Benzene SCAN	7.465	78	2182	103.86	ug/L	91
34) 1,2-Dichloroethane SCAN	7.336	62	752	95.95	ug/L #	39
35) Trichloroethene SCAN	8.385	130	138	22.41	ug/L #	49
36) Toluene-d8 SCAN	10.298	98	827	42.97	ug/L #	58
38) 1,1,2-Trichloroethane ...	11.074	97	216	39.91	ug/L #	57
39) Tetrachloroethene SCAN	11.258	166	201	31.90	ug/L #	44
41) 1,1,1,2-Tetrachloroeth...	12.759	131	117	20.24	ug/L #	11
42) Ethylbenzene SCAN	13.000	91	1895	70.16	ug/L	90
43) m&p-Xylene SCAN	13.000	91	1954	50.43	ug/L	72
44) o-Xylene SCAN	13.615	91	1255	60.90	ug/L #	53
45) 1,1,2,2-Tetrachloroeth...	14.732	83	703	70.26	ug/L #	63
46) 1,3,5-Trimethylbenzene...	15.184	105	878	41.87	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.759	105	2052	99.42	ug/L	73
48) Naphthalene SCAN	17.826	128	3098	90.77	ug/L	94

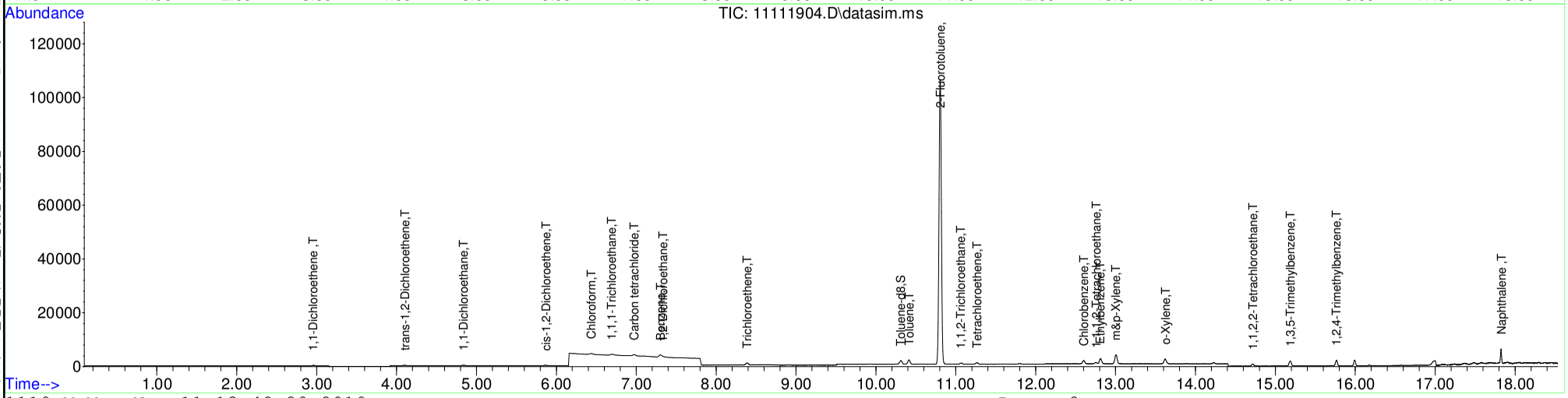
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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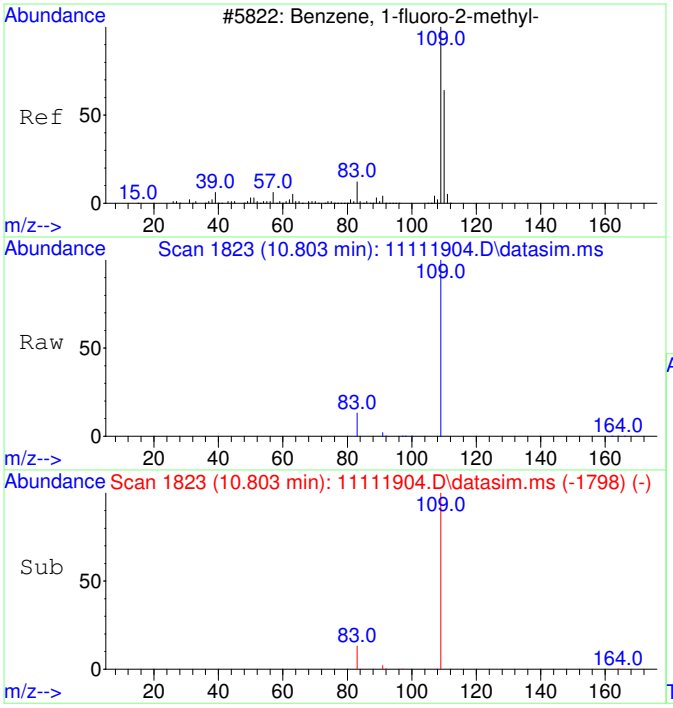
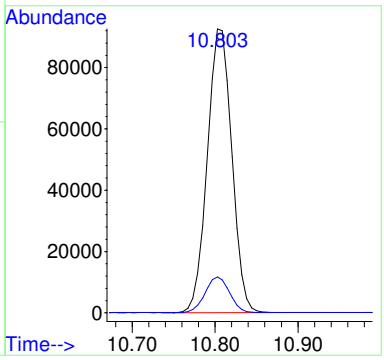
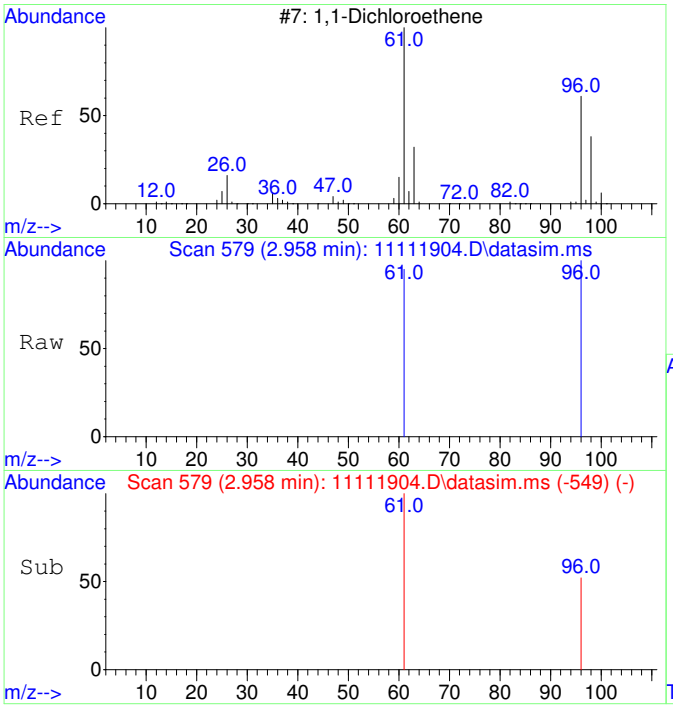


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 189989

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

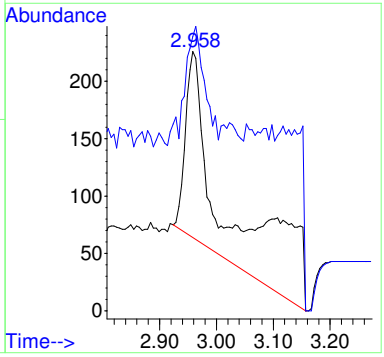




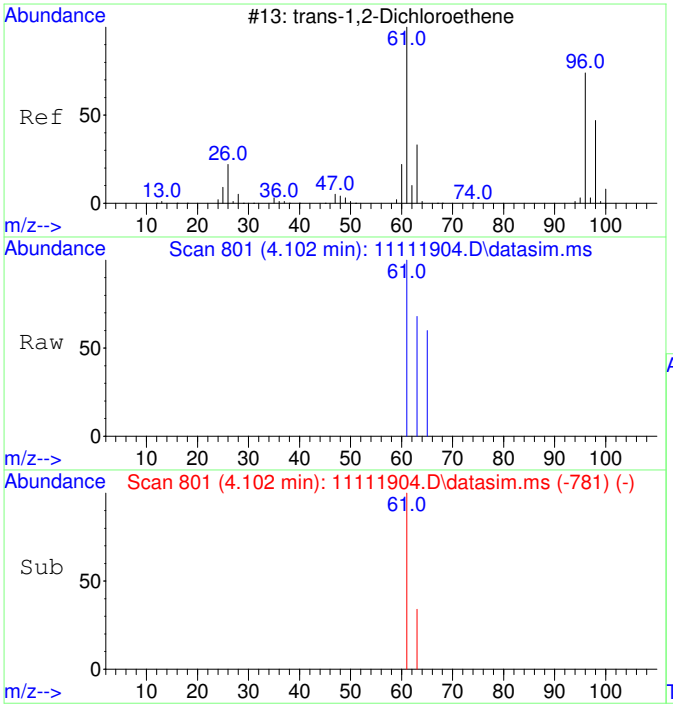
#2
1,1-Dichloroethene
Concen: 89.40 ug/L
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 784

Ion	Ratio	Lower	Upper
61	100		
96	71.9	33.6	93.6



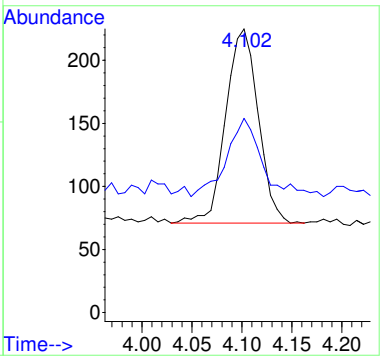
Before MI:
IMPROPER
BASELINE

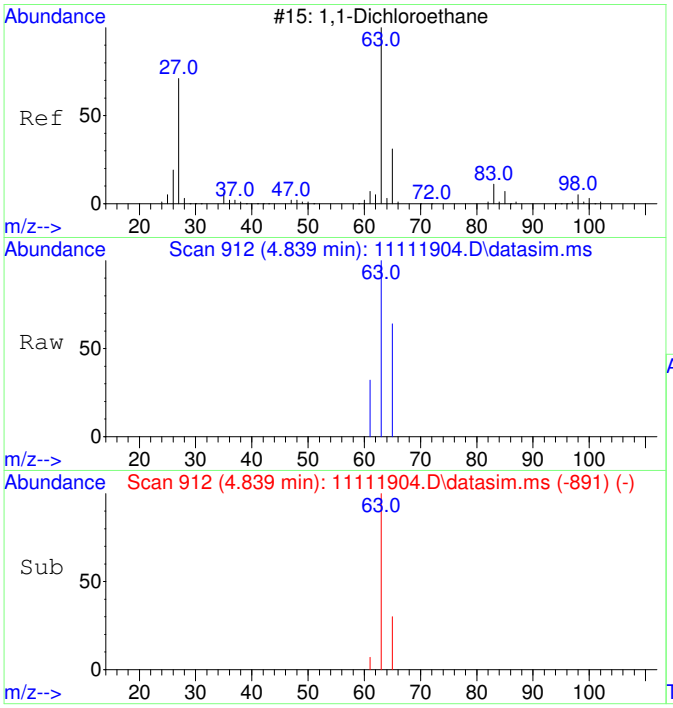


#3
trans-1,2-Dichloroethene
Concen: 38.72 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.020 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 349

Ion	Ratio	Lower	Upper
61	100		
63	43.6	2.3	62.3

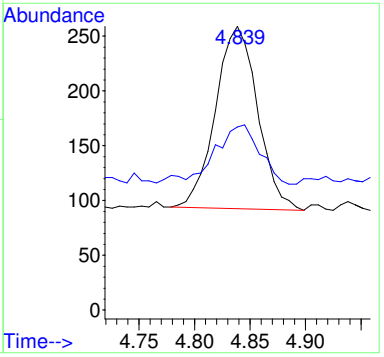


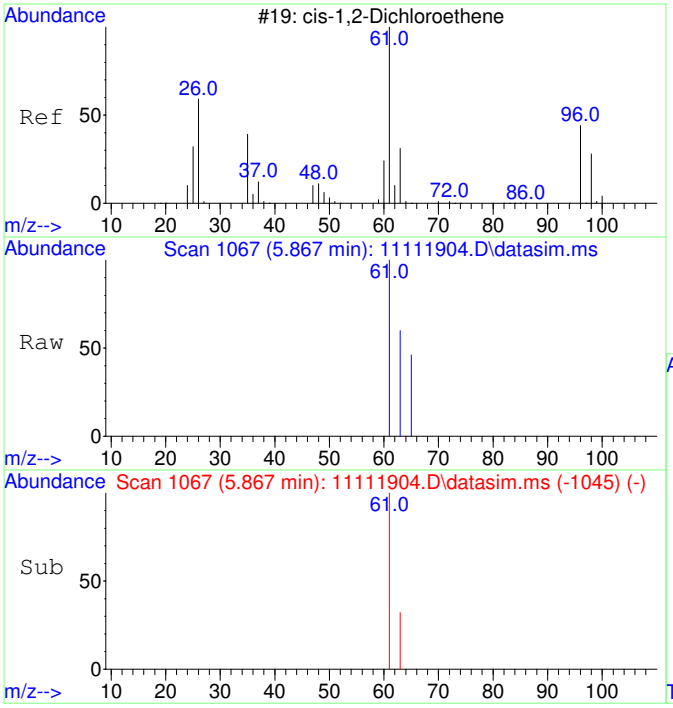


#4
1,1-Dichloroethane
Concen: 39.14 ug/L
RT: 4.839 min Scan# 912
Delta R.T. -0.013 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 63 Resp: 440

Ion	Ratio	Lower	Upper
63	100		
65	33.0	1.9	61.9

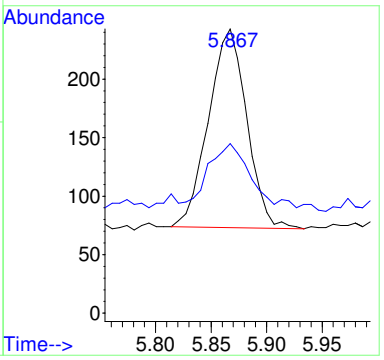


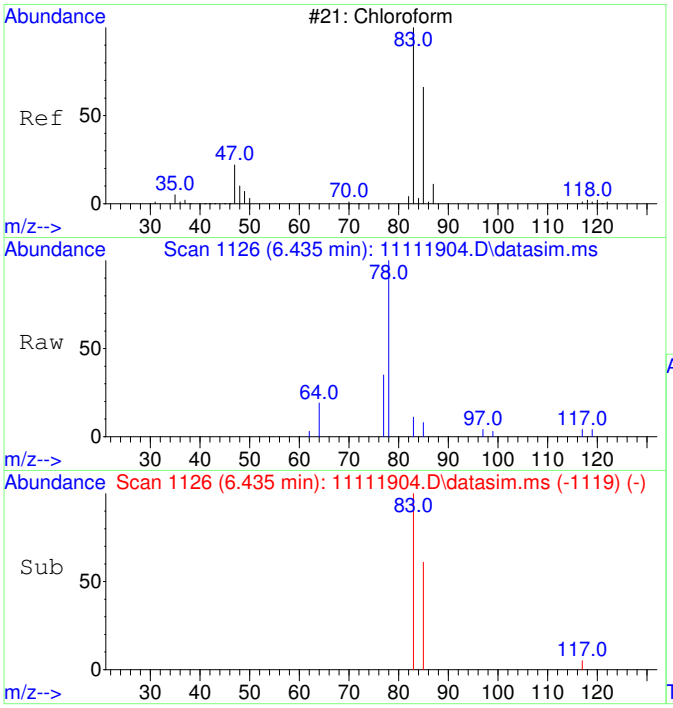


#5
cis-1,2-Dichloroethene
Concen: 38.74 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 408

Ion	Ratio	Lower	Upper
61	100		
63	41.2	2.4	62.4

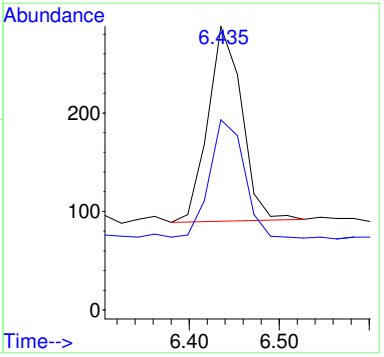


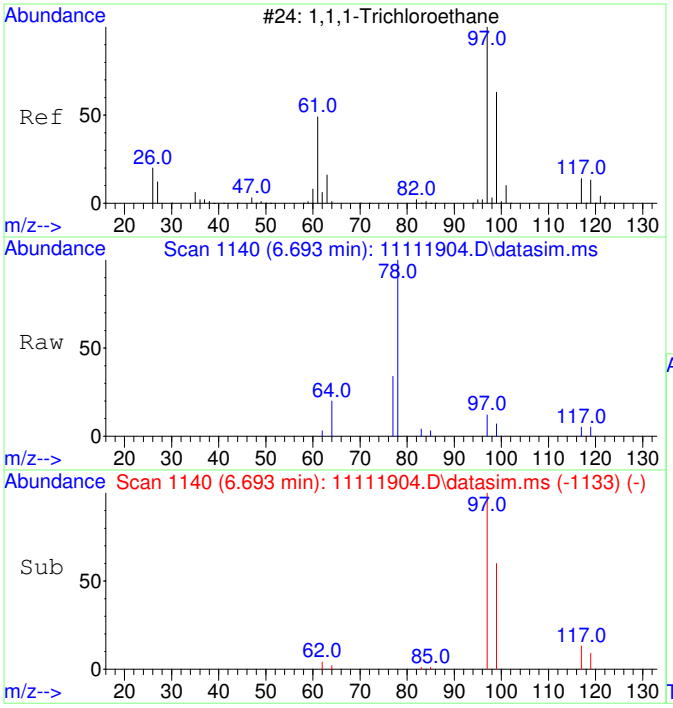


#6
Chloroform
Concen: 42.63 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 515

Ion	Ratio	Lower	Upper
83	100		
85	62.7	35.2	95.2

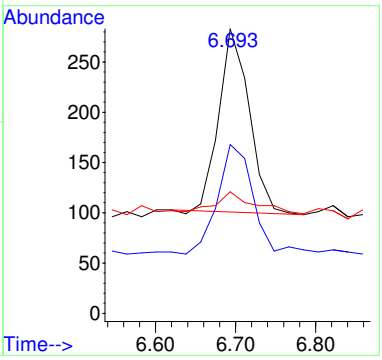


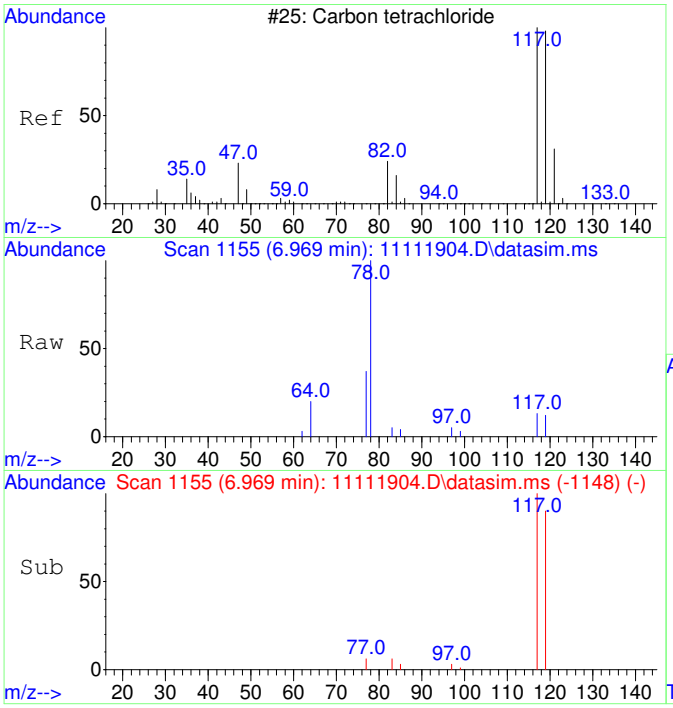


#7
1,1,1-Trichloroethane
Concen: 40.33 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 478

Ion	Ratio	Lower	Upper
97	100		
99	66.5	34.5	94.5
117	15.3	0.0	43.0

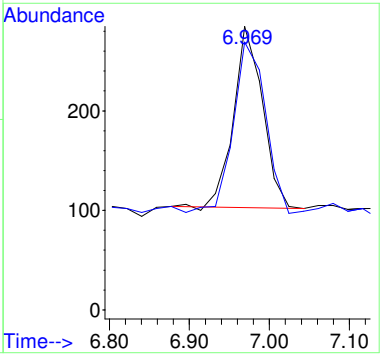


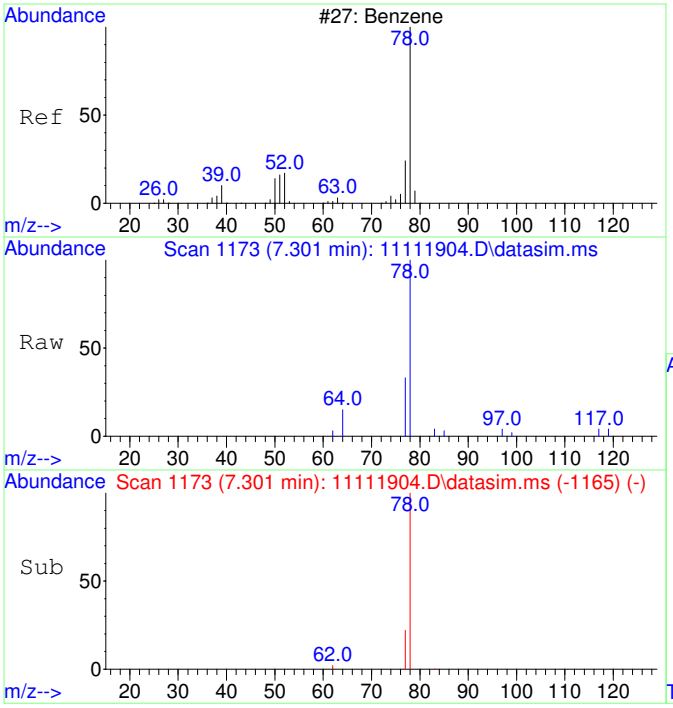


#8
Carbon tetrachloride
Concen: 41.62 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 459

Ion	Ratio	Lower	Upper
117	100		
119	103.3	66.0	126.0

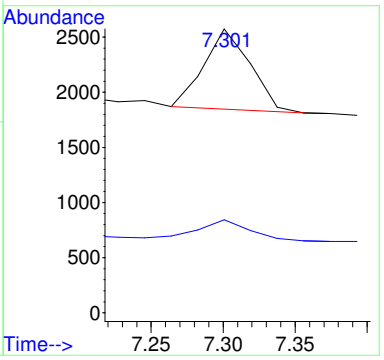


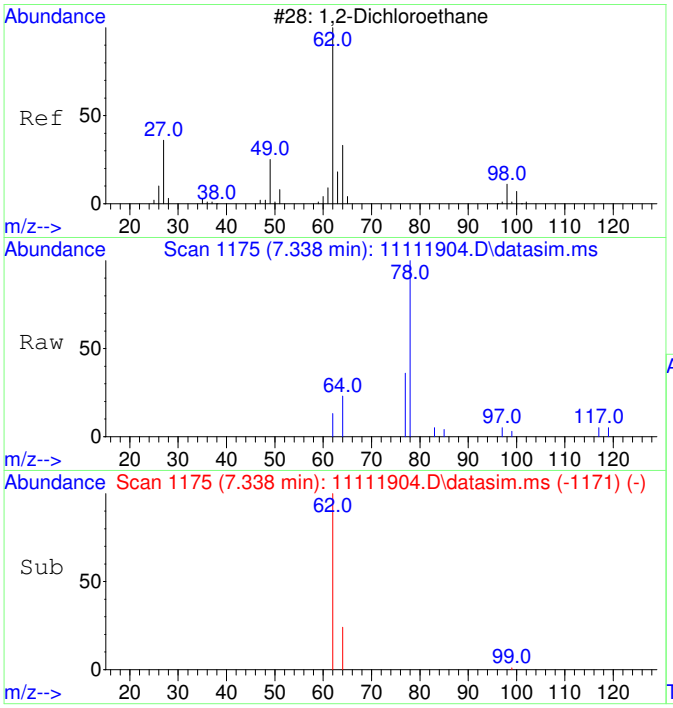


#9
Benzene
Concen: 53.29 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 1595

Ion	Ratio	Lower	Upper
78	100		
77	33.6	0.0	53.2

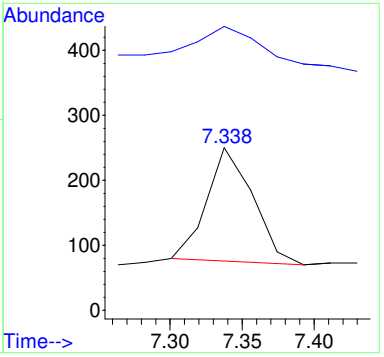


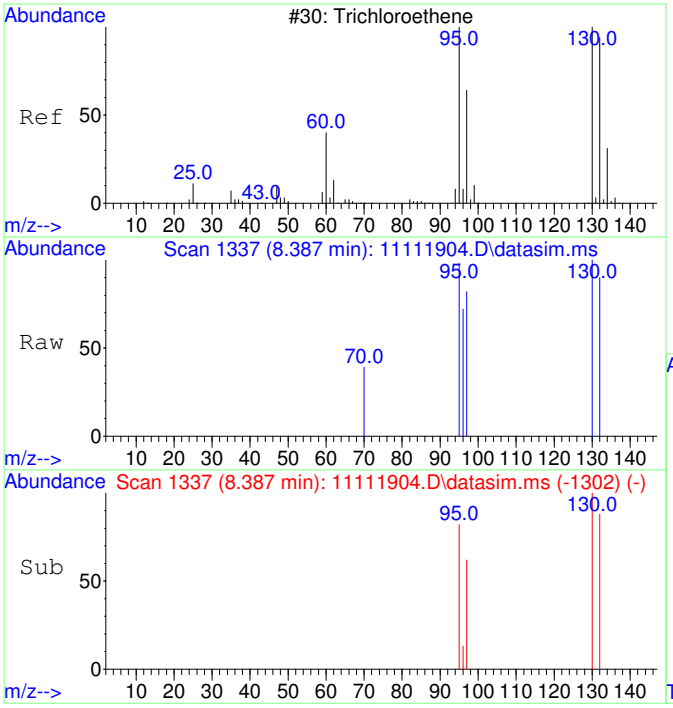


#10
1,2-Dichloroethane
Concen: 39.89 ug/L
RT: 7.338 min Scan# 1175
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 383

Ion	Ratio	Lower	Upper
62	100		
64	59.5	2.4	62.4

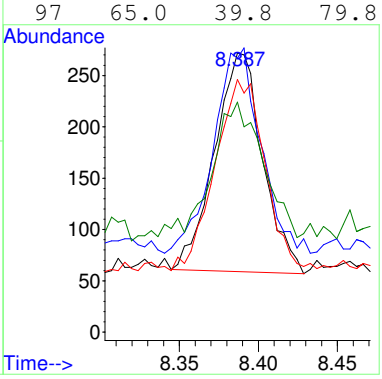


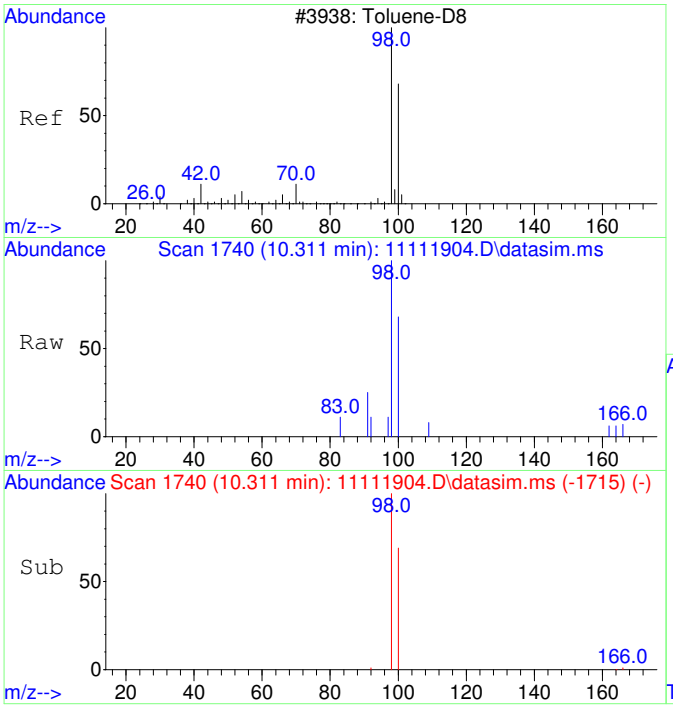


#11
Trichloroethene
Concen: 49.69 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 451

Ion	Ratio	Lower	Upper
130	100		
95	92.0	63.4	123.4
132	90.5	76.0	116.0
97	65.0	39.8	79.8

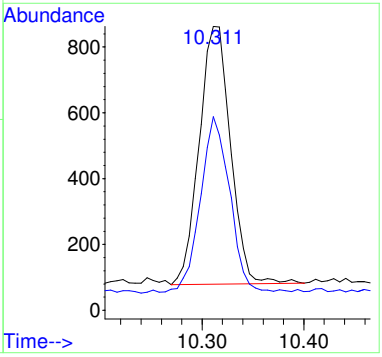


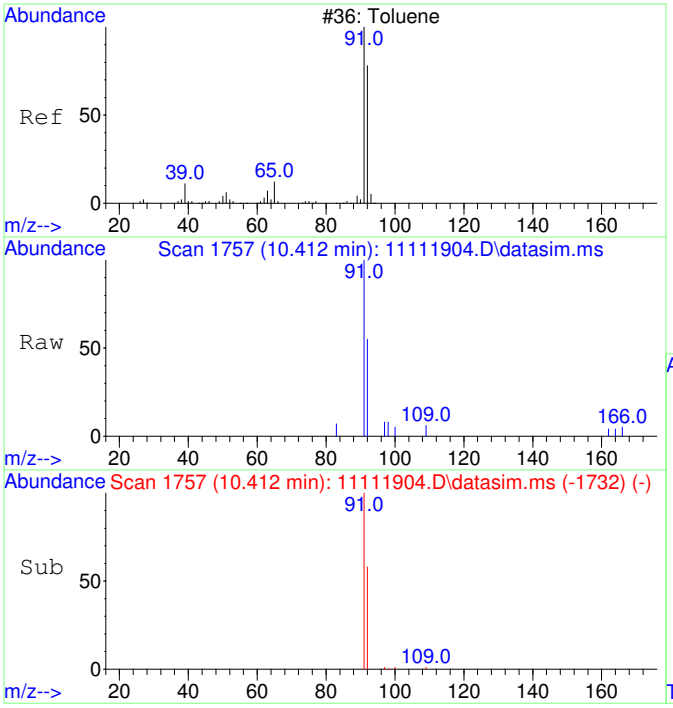


#12
Toluene-d8
Concen: 54.78 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 1682

Ion	Ratio	Lower	Upper
98	100		
100	62.7	36.4	96.4

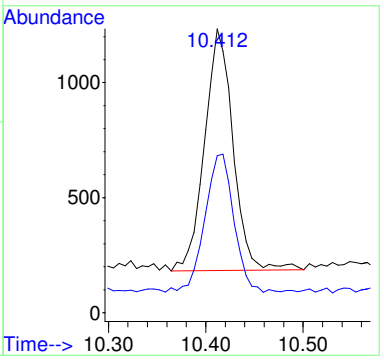


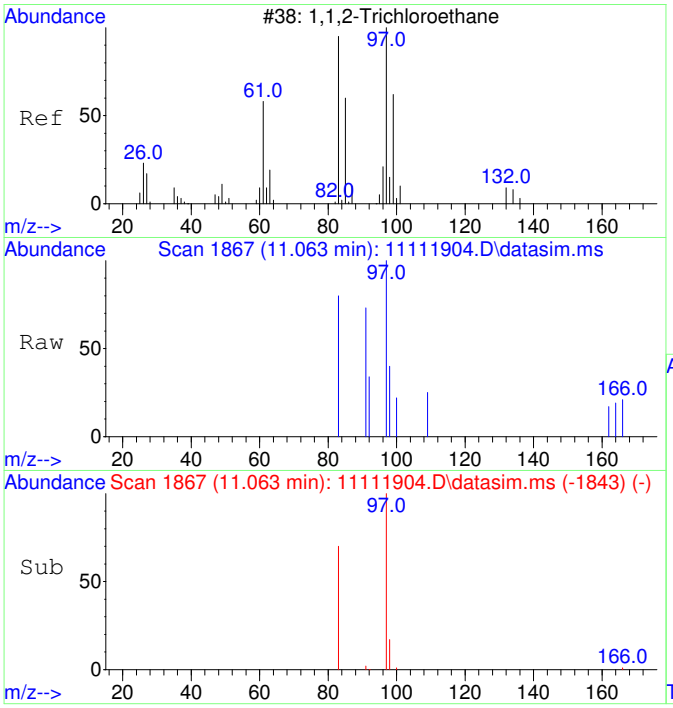


#13
Toluene
Concen: 57.61 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2144

Ion	Ratio	Lower	Upper
91	100		
92	57.5	29.4	89.4

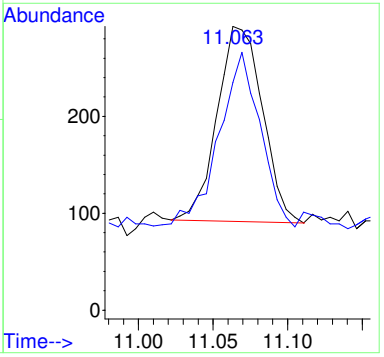


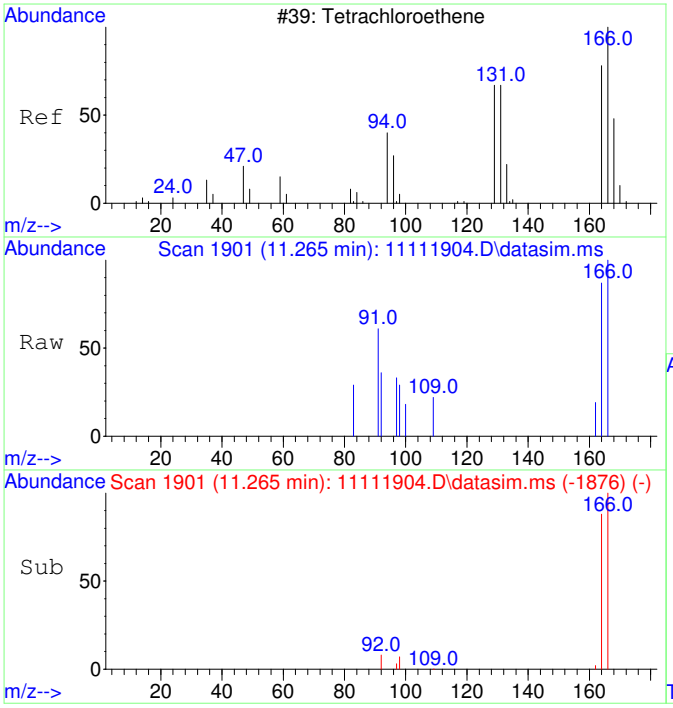


#14
1,1,2-Trichloroethane
Concen: 49.37 ug/L
RT: 11.063 min Scan# 1867
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 425

Ion	Ratio	Lower	Upper
97	100		
83	81.4	52.0	112.0

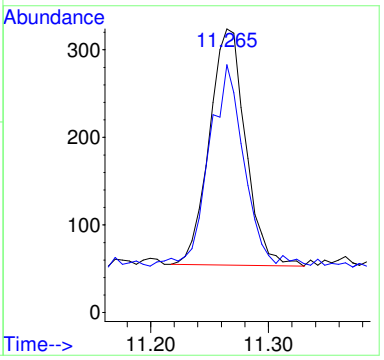


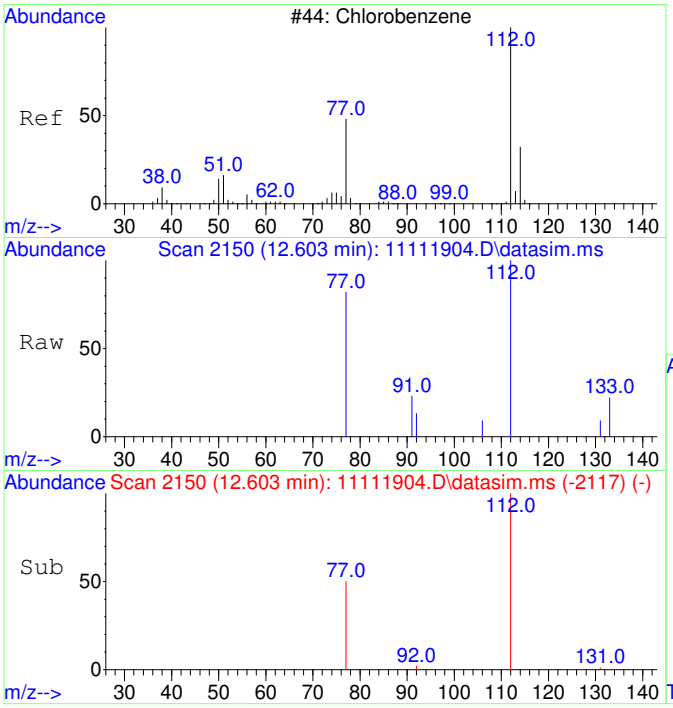


#15
Tetrachloroethene
Concen: 53.24 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 576

Ion	Ratio	Lower	Upper
166	100		
164	81.6	47.7	107.7

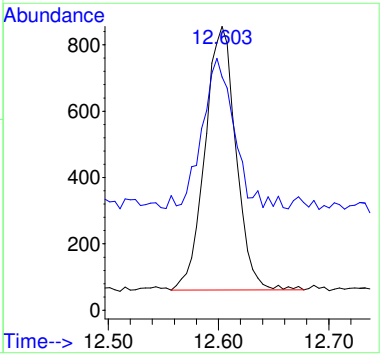


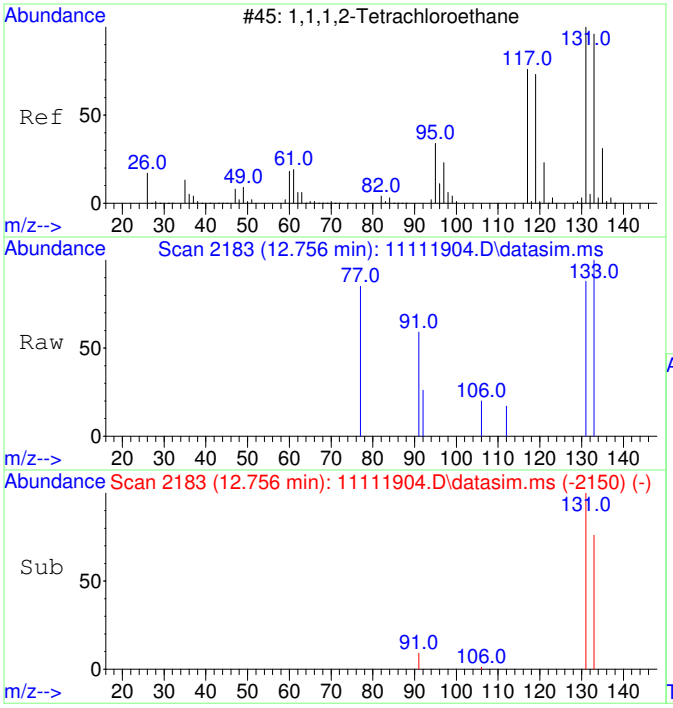


#16
Chlorobenzene
Concen: 55.96 ug/L
RT: 12.603 min Scan# 2150
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:112 Resp: 1546

Ion	Ratio	Lower	Upper
112	100		
77	57.1	25.2	85.2

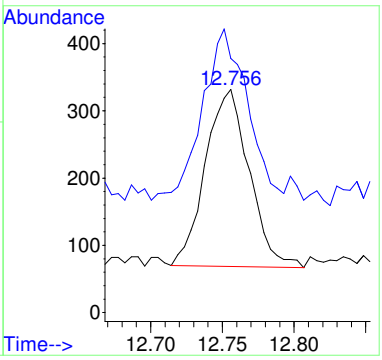


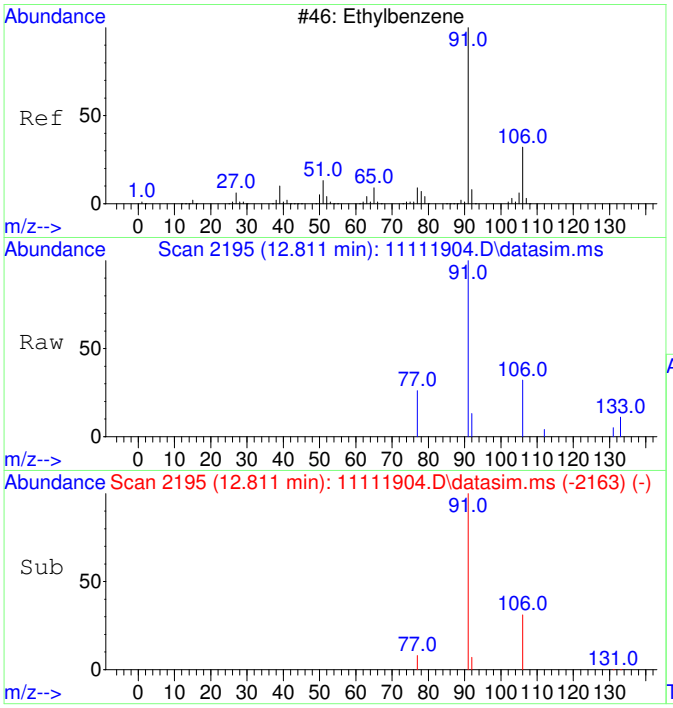


#17
1,1,1,2-Tetrachloroethane
Concen: 56.33 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 560

Ion	Ratio	Lower	Upper
131	100		
133	102.0	65.1	125.1

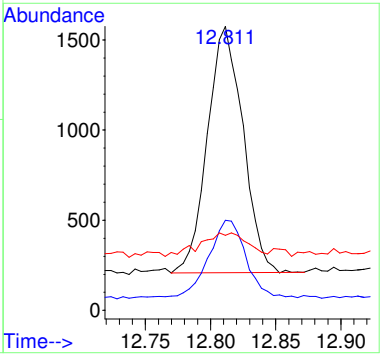


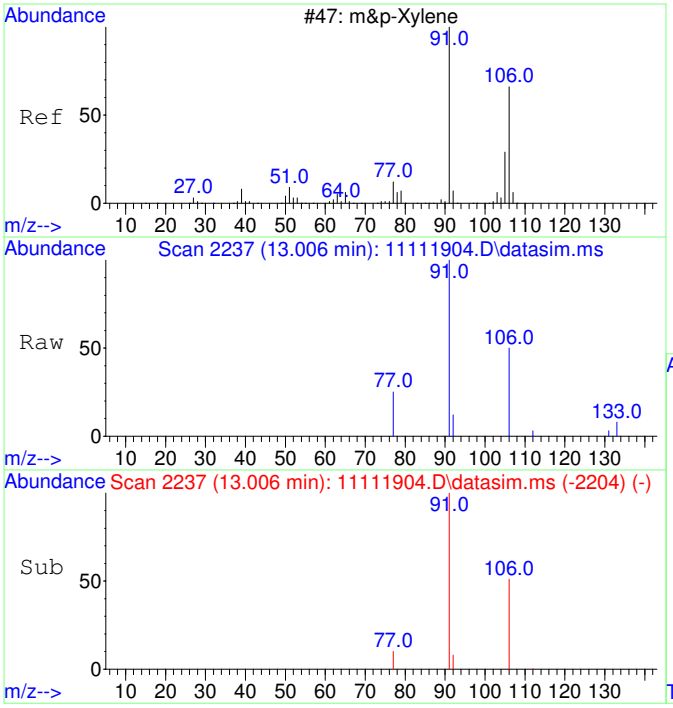


#18
Ethylbenzene
Concen: 57.48 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2599

Ion	Ratio	Lower	Upper
91	100		
106	35.1	2.5	62.5
77	12.4	0.0	38.4

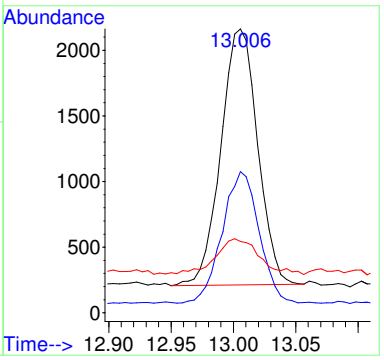


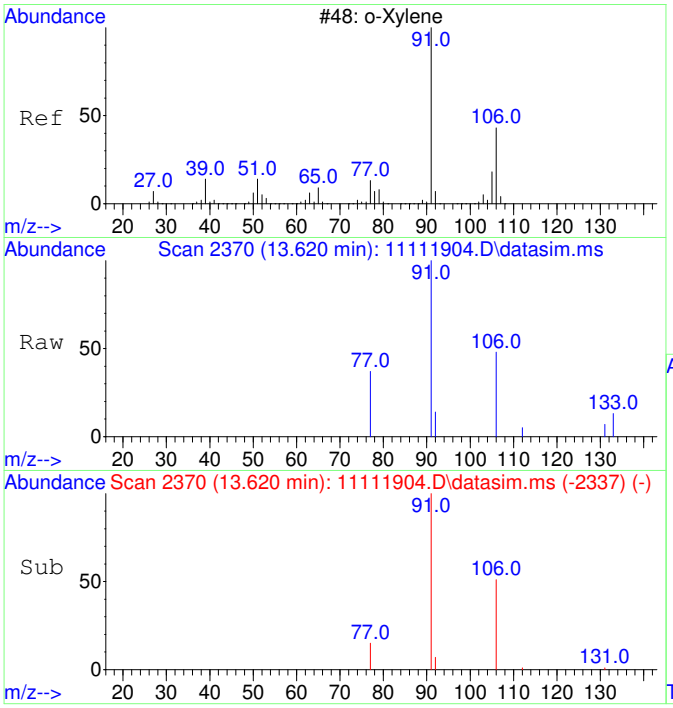


#19
m&p-Xylene
Concen: 116.81 ug/L
RT: 13.006 min Scan# 2237
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 3999

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.2	81.2
77	16.7	0.0	42.7

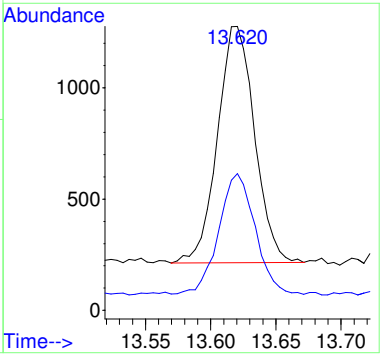


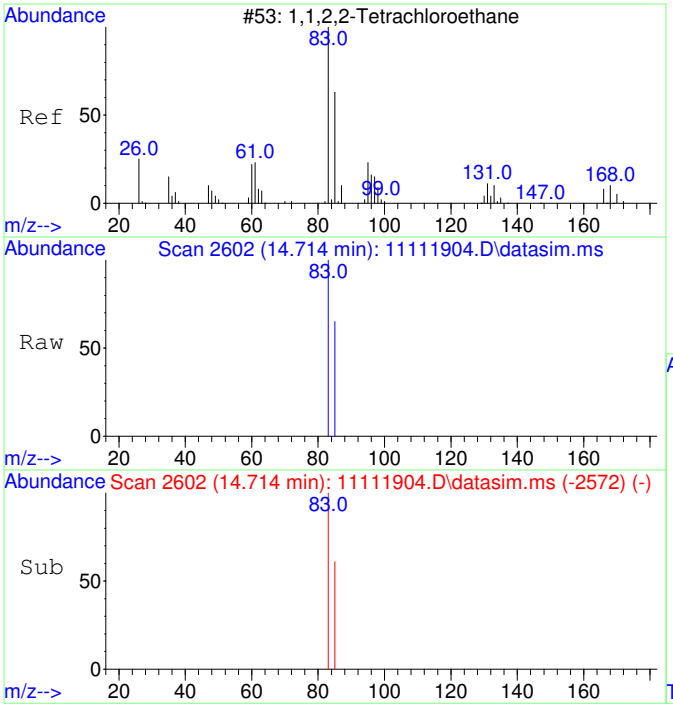


#20
o-Xylene
Concen: 57.56 ug/L
RT: 13.620 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2103

Ion	Ratio	Lower	Upper
91	100		
106	49.8	18.3	78.3

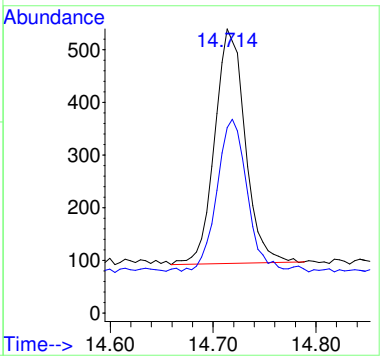


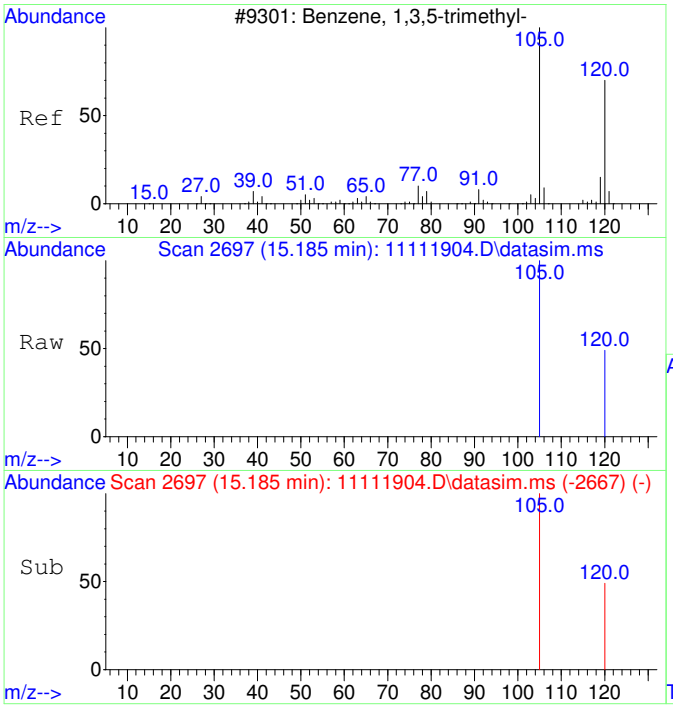


#21
1,1,2,2-Tetrachloroethane
Concen: 56.32 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 913

Ion	Ratio	Lower	Upper
83	100		
85	64.1	34.7	94.7

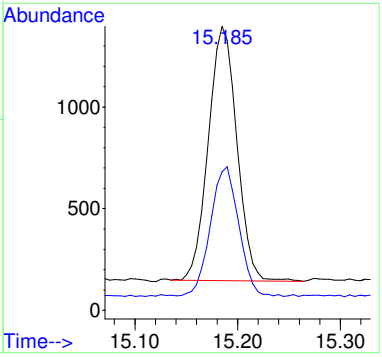


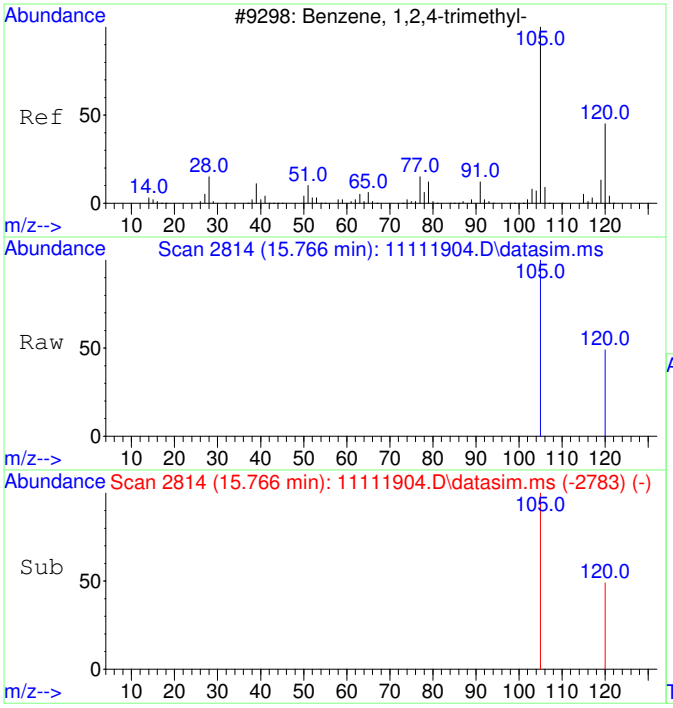


#22
1,3,5-Trimethylbenzene
Concen: 61.52 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2404

Ion	Ratio	Lower	Upper
105	100		
120	50.1	20.8	80.8

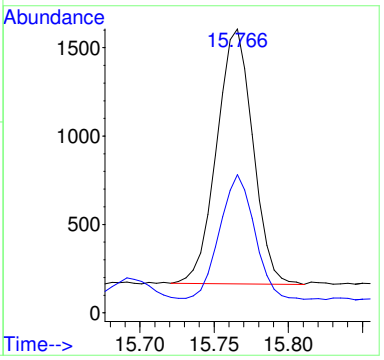


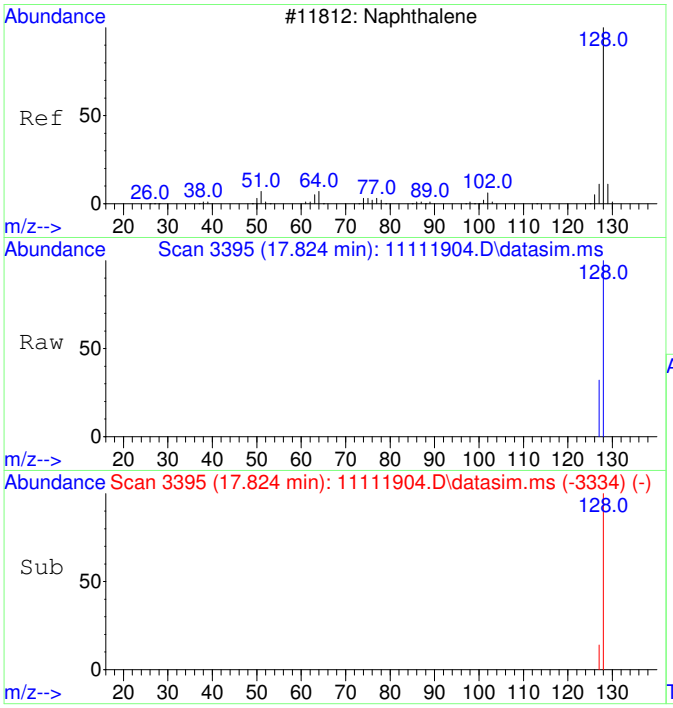


#23
1,2,4-Trimethylbenzene
Concen: 61.56 ug/L
RT: 15.766 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2450

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.8	76.8

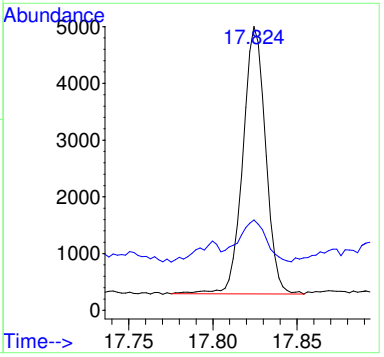


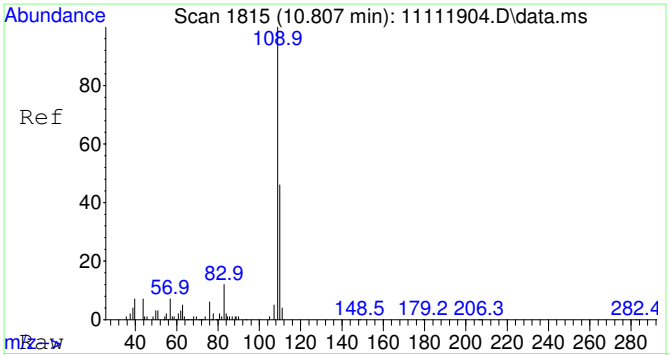


#24
Naphthalene
Concen: 64.46 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 4423

Ion	Ratio	Lower	Upper
128	100		
127	13.0	0.0	42.7

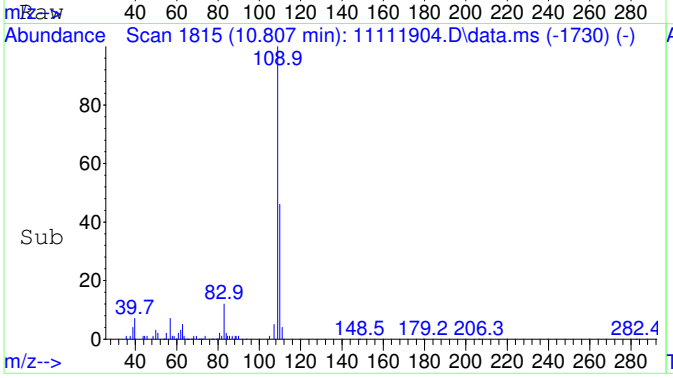


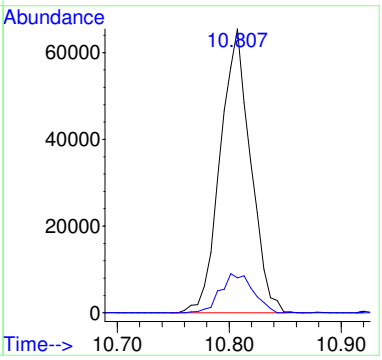


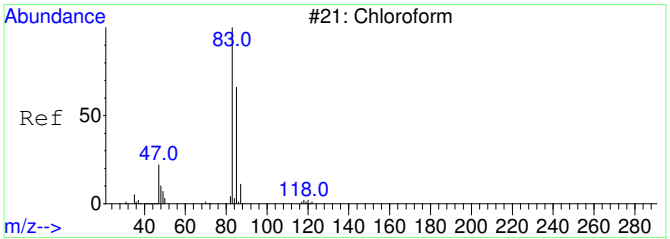
#25
2-Fluorotoluene SCAN
Concen: 5214.08 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 123406

Ion	Ratio	Lower	Upper
109	100		
83	14.9	0.0	45.8



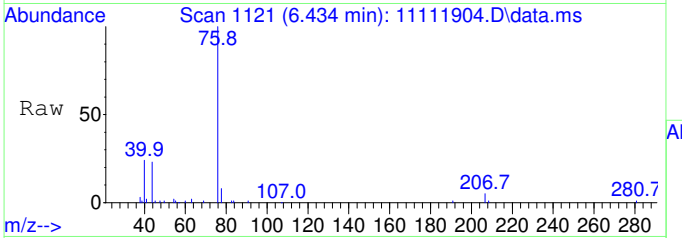


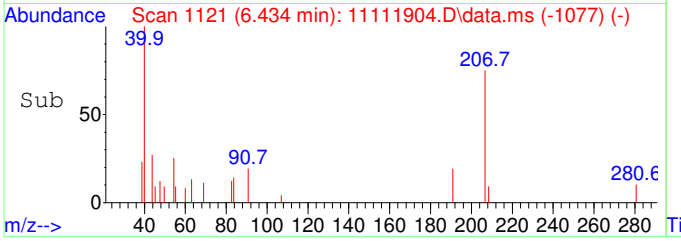


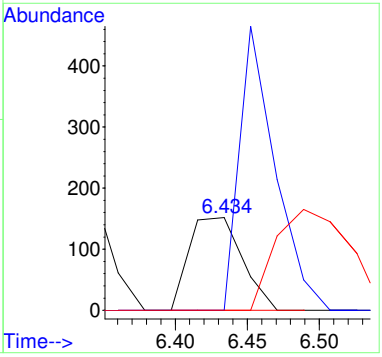
#30
Chloroform SCAN
Concen: 40.93 ug/L
RT: 6.434 min Scan# 1121
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

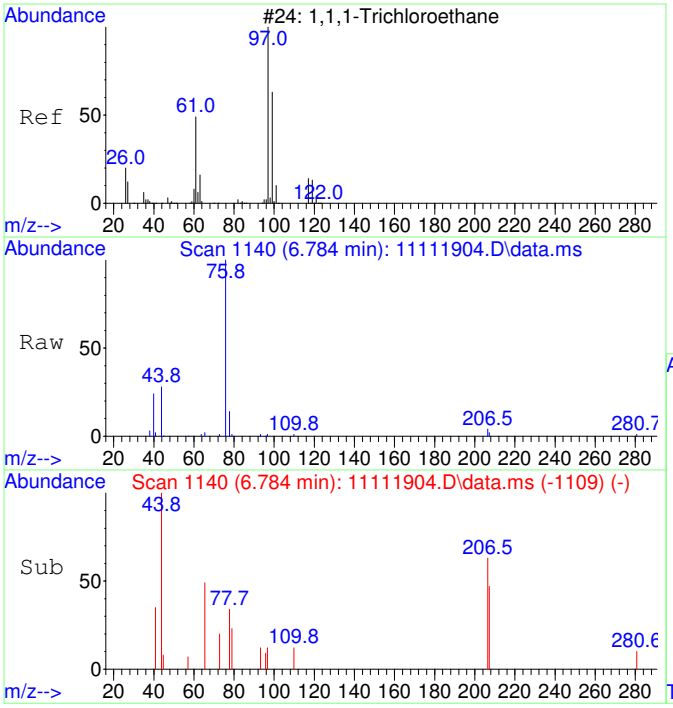
Tgt Ion: 83 Resp: 392

Ion	Ratio	Lower	Upper
83	100		
85	205.6	38.3	98.3#
47	0.0	0.0	50.2





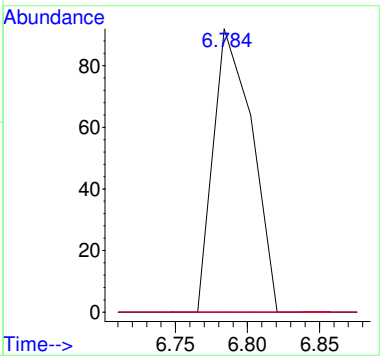


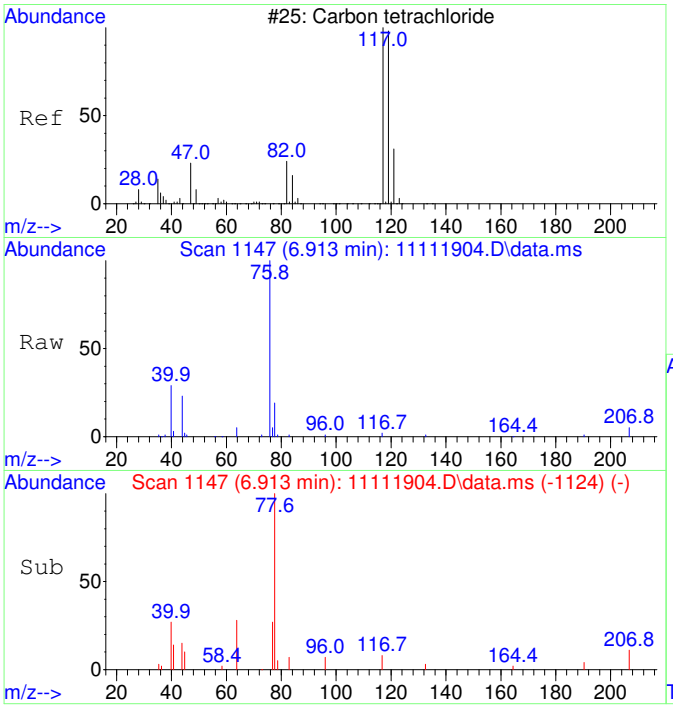


#31
1,1,1-Trichloroethane SCAN
Concen: 20.58 ug/L
RT: 6.784 min Scan# 1140
Delta R.T. 0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 172

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

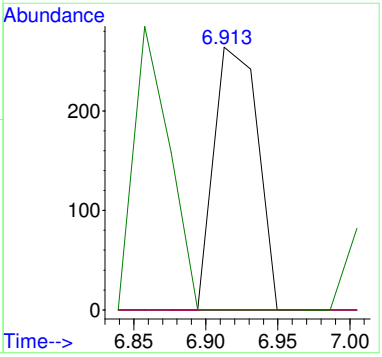


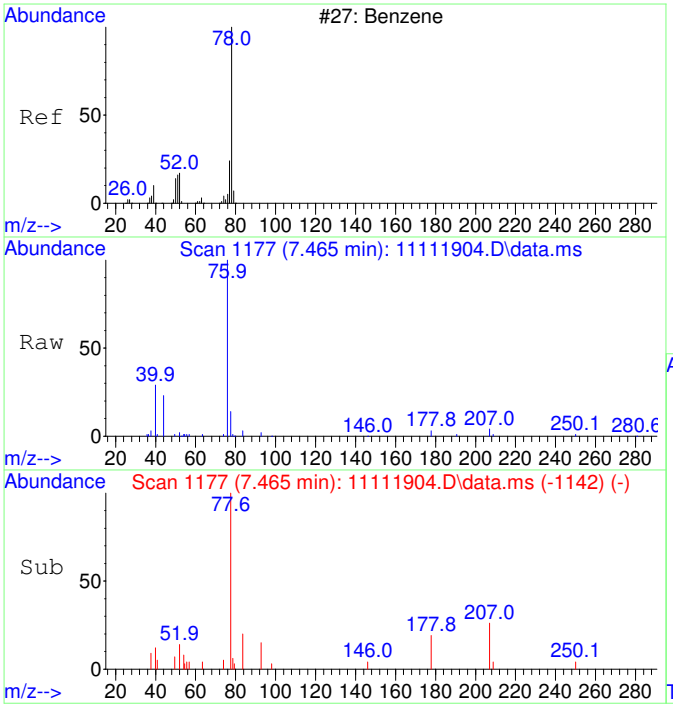


#32
Carbon tetrachloride SCAN
Concen: 71.35 ug/L
RT: 6.913 min Scan# 1147
Delta R.T. -0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 559

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

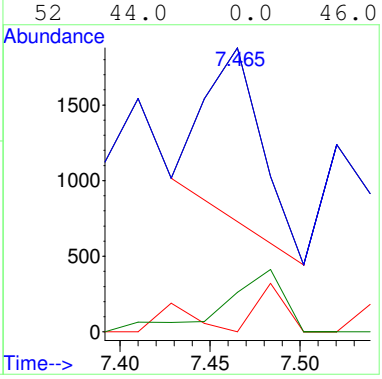


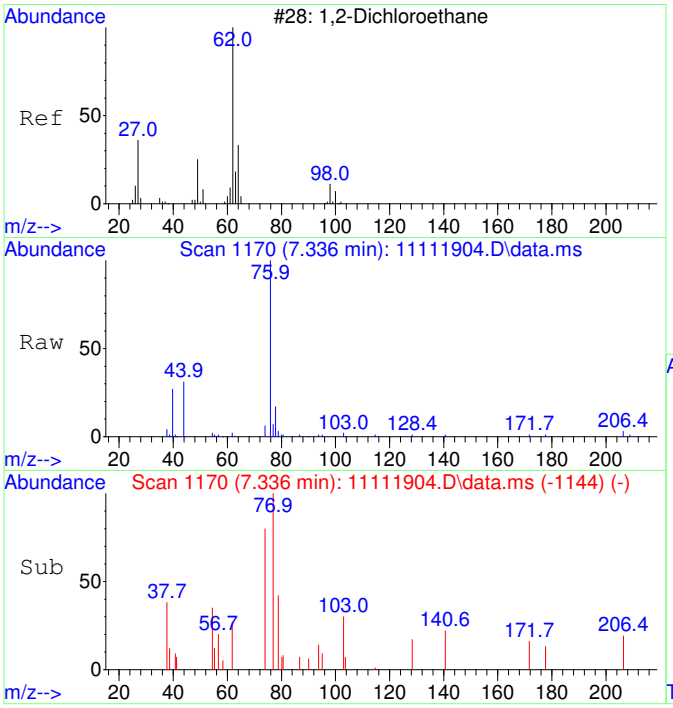


#33
Benzene SCAN
Concen: 103.86 ug/L
RT: 7.465 min Scan# 1177
Delta R.T. 0.147 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 2182

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	16.3	0.0	49.8
52	44.0	0.0	46.0

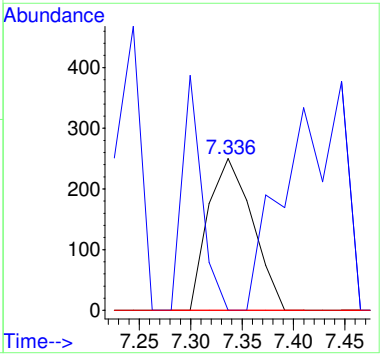


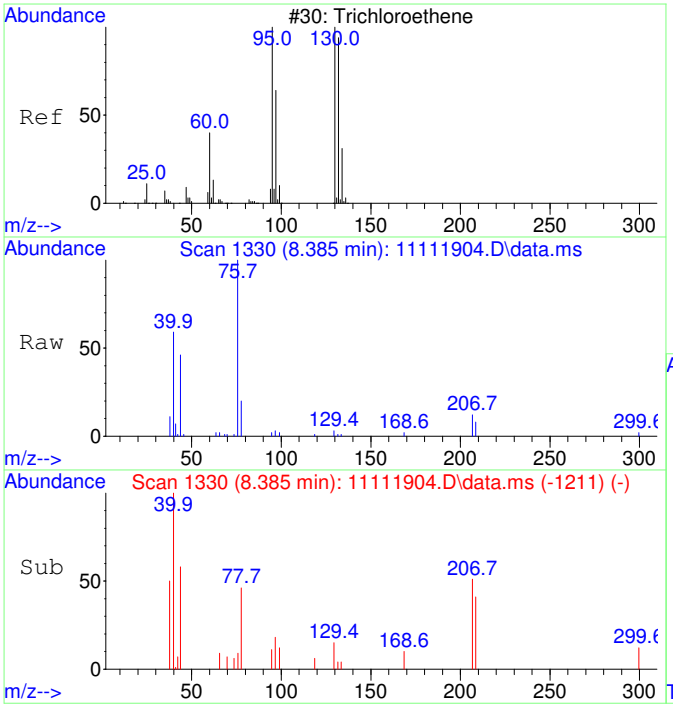


#34
1,2-Dichloroethane SCAN
Concen: 95.95 ug/L
RT: 7.336 min Scan# 1170
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 752

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

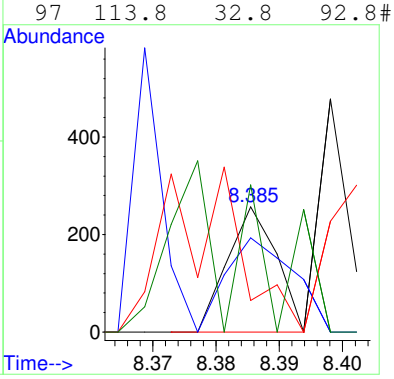


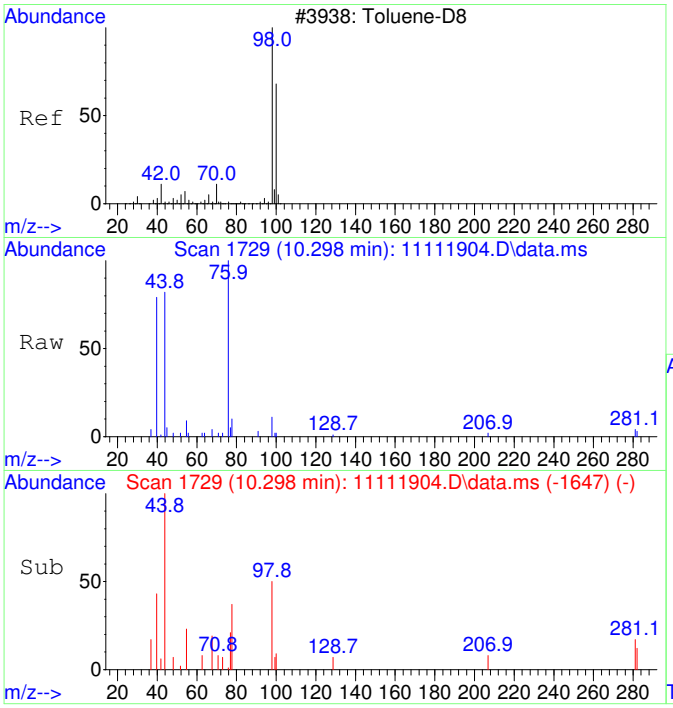


#35
Trichloroethene SCAN
Concen: 22.41 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 138

Ion	Ratio	Lower	Upper
130	100		
95	103.6	69.5	129.5
132	185.5	66.5	126.5#
97	113.8	32.8	92.8#

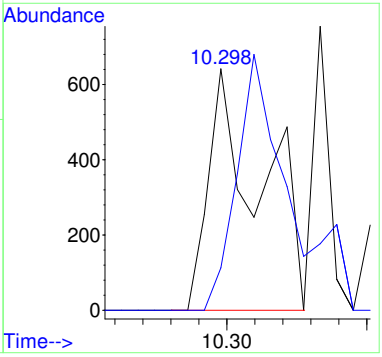


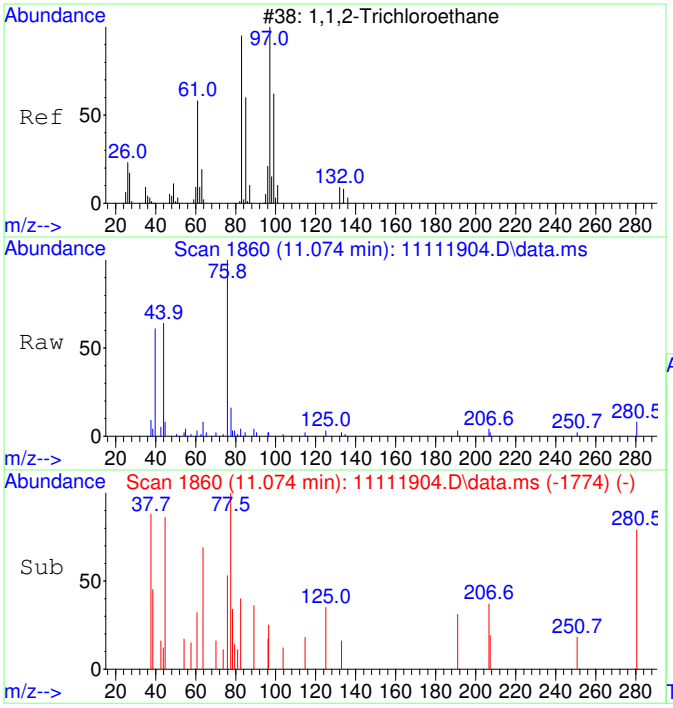


#36
Toluene-d8 SCAN
Concen: 42.97 ug/L
RT: 10.298 min Scan# 1729
Delta R.T. -0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 827

Ion	Ratio	Lower	Upper
98	100		
100	106.9	42.1	102.1#

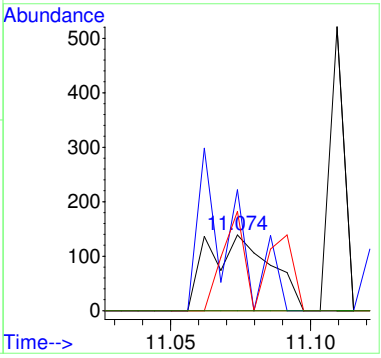


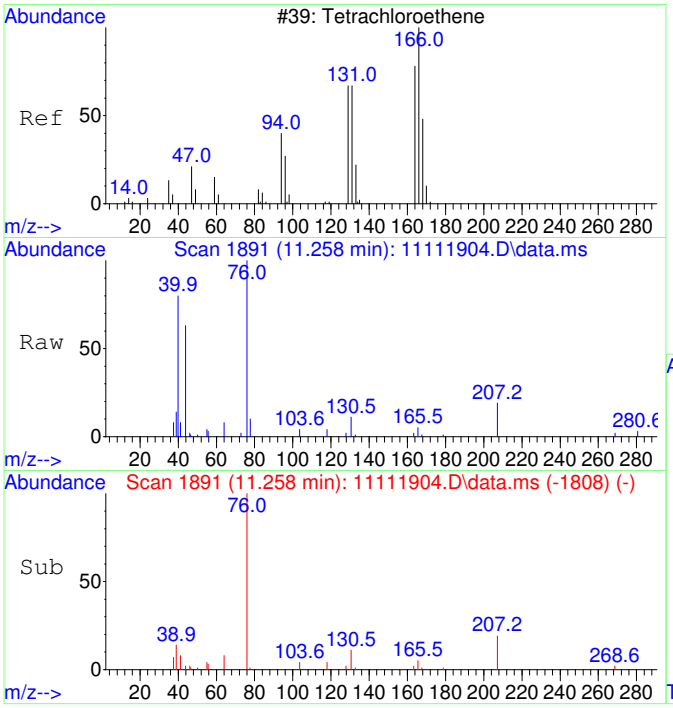


#38
1,1,2-Trichloroethane SCAN
Concen: 39.91 ug/L
RT: 11.074 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 216

Ion	Ratio	Lower	Upper
97	100		
83	116.7	58.1	118.1
61	46.3	36.0	96.0
99	0.0	32.7	92.7#

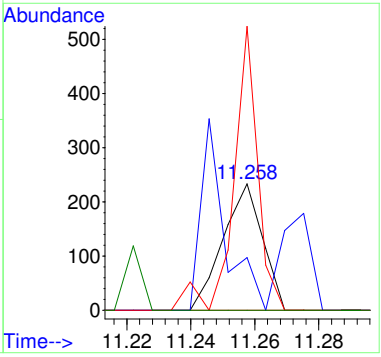


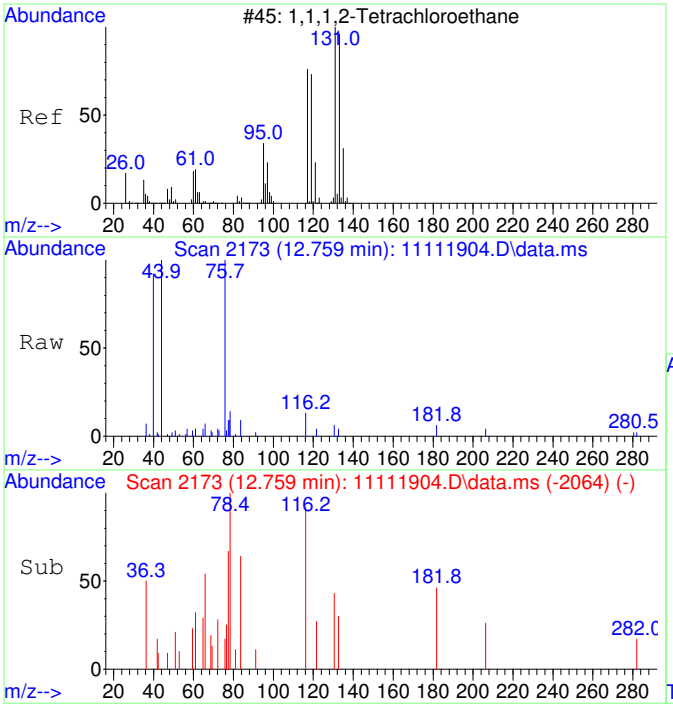


#39
Tetrachloroethene SCAN
Concen: 31.90 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 201

Ion	Ratio	Lower	Upper
166	100		
164	92.0	50.4	110.4
131	136.3	44.0	104.0#
129	0.0	42.6	102.6#

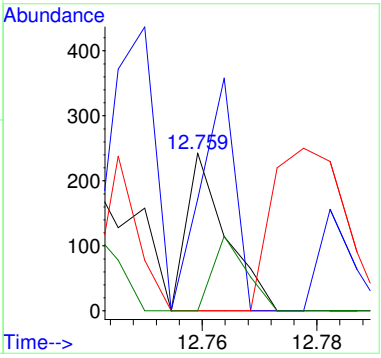


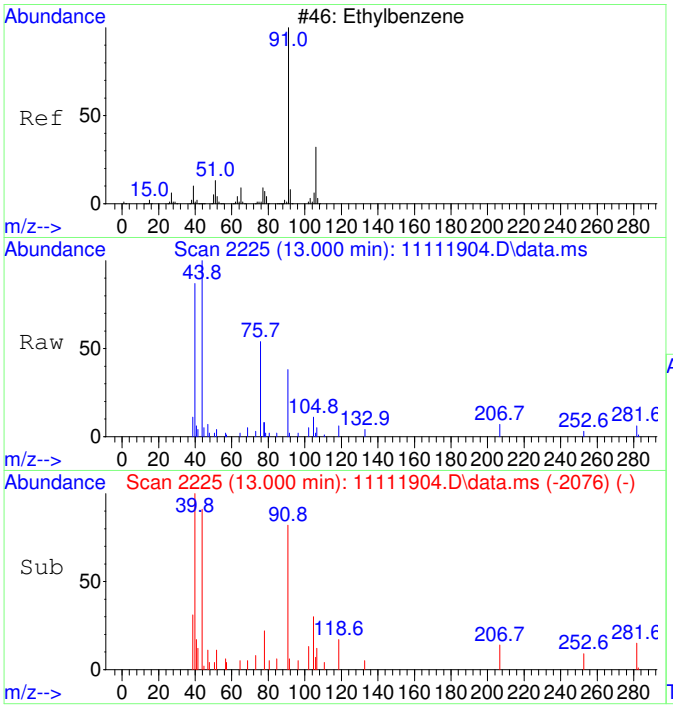


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.24 ug/L
RT: 12.759 min Scan# 2173
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 117

Ion	Ratio	Lower	Upper
131	100		
133	191.5	67.7	127.7#
119	0.0	36.2	96.2#
117	0.0	39.0	99.0#

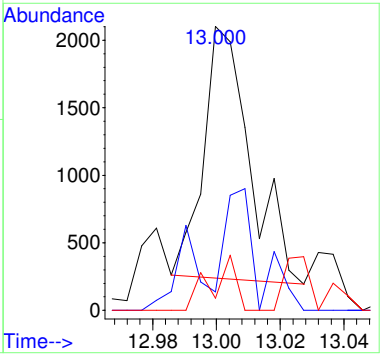


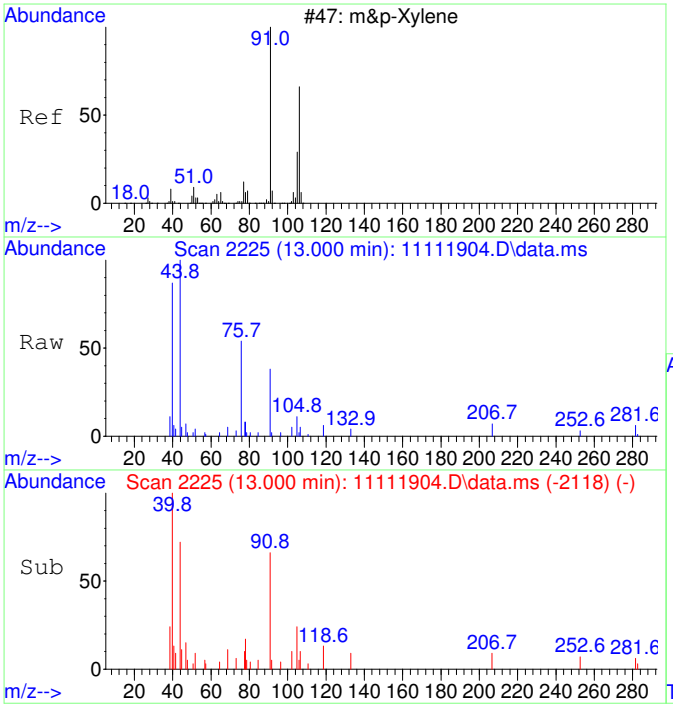


#42
Ethylbenzene SCAN
Concen: 70.16 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1895

Ion	Ratio	Lower	Upper
91	100		
106	22.6	0.1	60.1
51	11.3	0.0	40.9

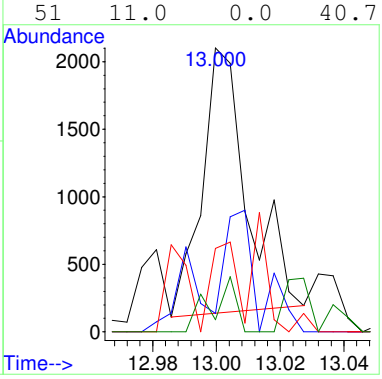


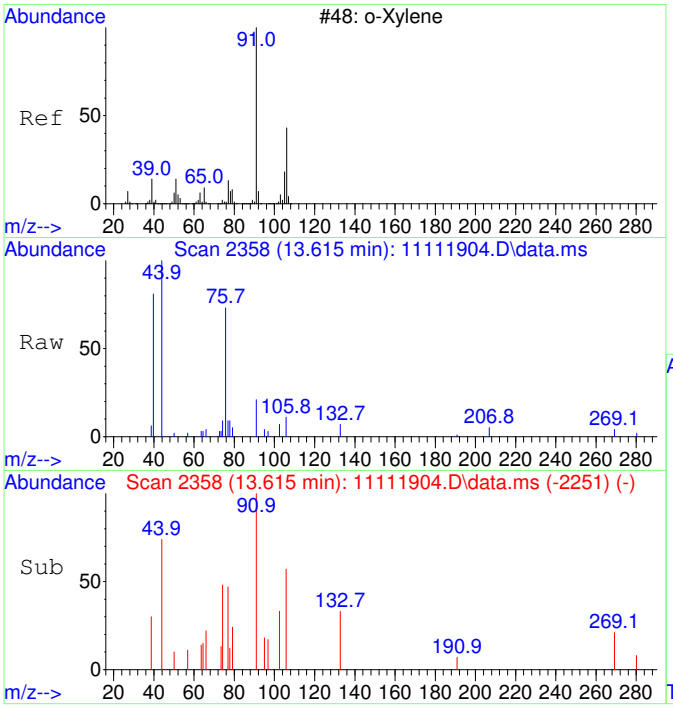


#43
m&p-Xylene SCAN
Concen: 50.43 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1954

Ion	Ratio	Lower	Upper
91	100		
106	22.0	21.1	81.1
105	17.8	0.0	53.6
51	11.0	0.0	40.7

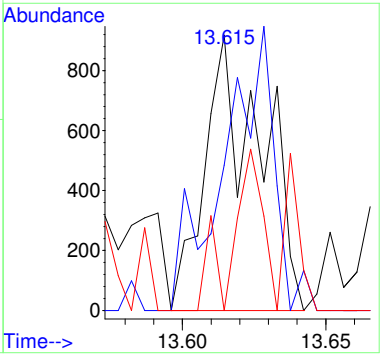


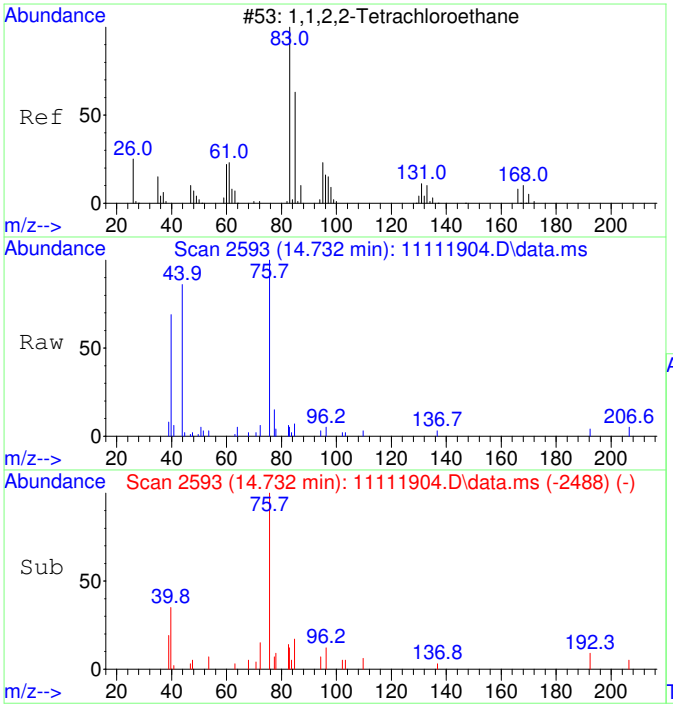


#44
o-Xylene SCAN
Concen: 60.90 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1255

Ion	Ratio	Lower	Upper
91	100		
106	92.7	16.7	76.7#
105	32.7	0.0	57.3

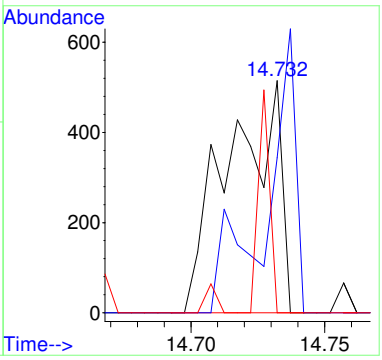


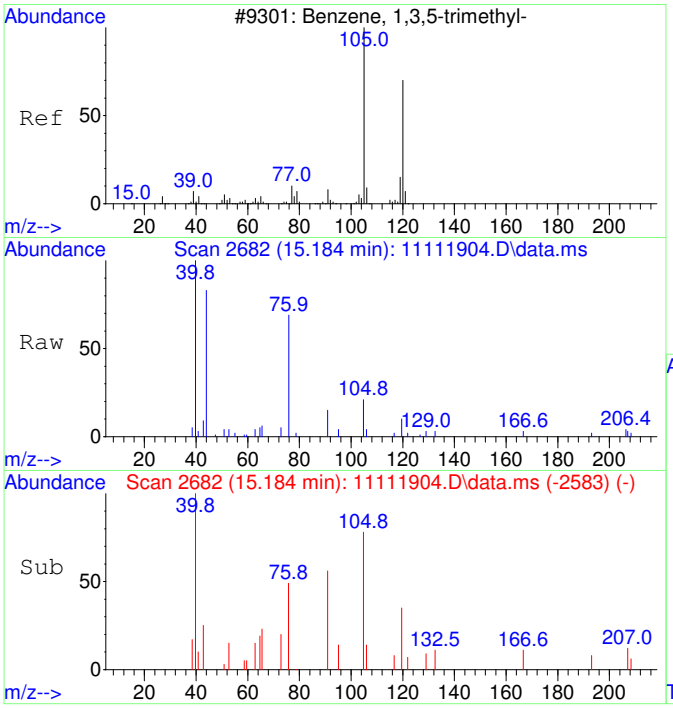


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 70.26 ug/L
RT: 14.732 min Scan# 2593
Delta R.T. 0.015 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 703

Ion	Ratio	Lower	Upper
83	100		
85	34.7	38.3	98.3#
95	20.9	0.0	44.8

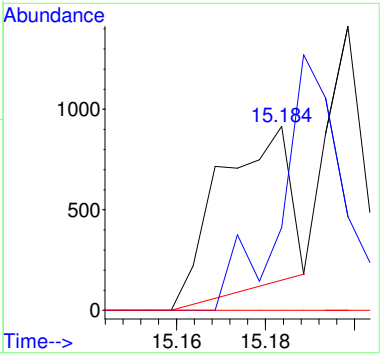


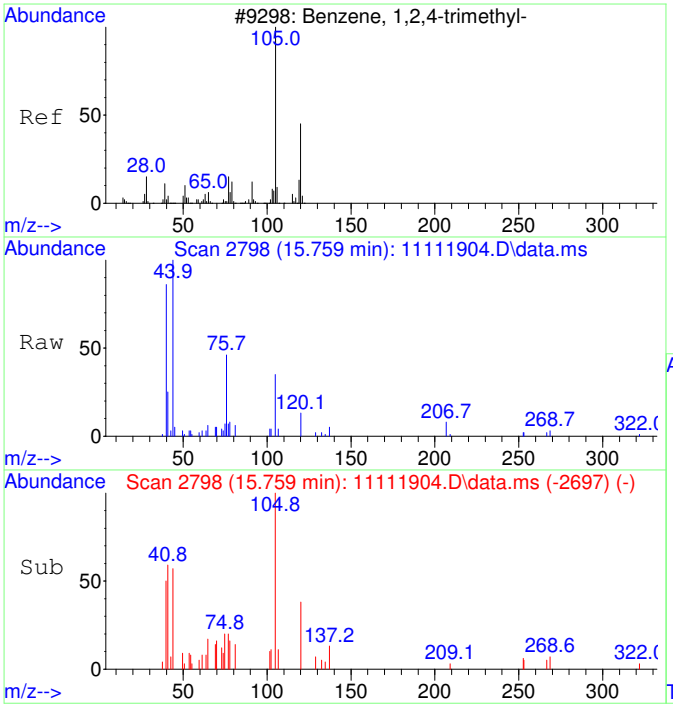


#46
1,3,5-Trimethylbenzene SCAN
Concen: 41.87 ug/L
RT: 15.184 min Scan# 2682
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 878

Ion	Ratio	Lower	Upper
105	100		
120	145.4	20.8	80.8#
119	0.0	0.0	42.8

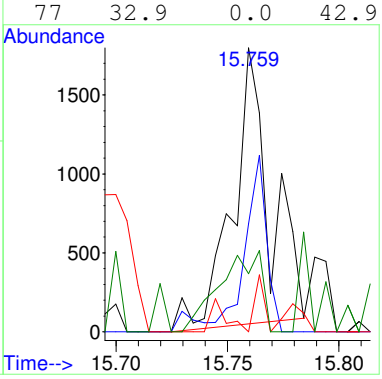


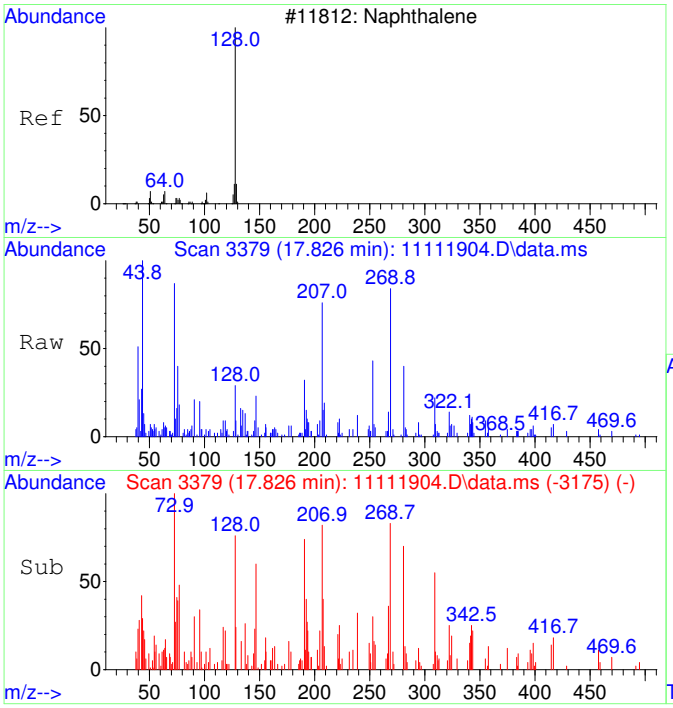


#47
1,2,4-Trimethylbenzene SCAN
Concen: 99.42 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2052

Ion	Ratio	Lower	Upper
105	100		
120	33.5	18.6	78.6
119	4.6	0.0	42.1
77	32.9	0.0	42.9

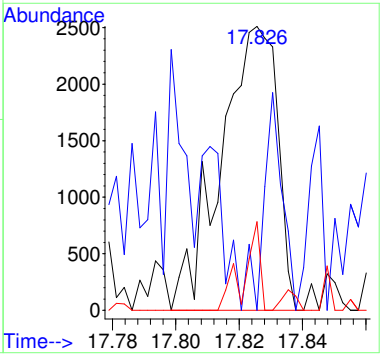




#48
Naphthalene SCAN
Concen: 90.77 ug/L
RT: 17.826 min Scan# 3379
Delta R.T. 0.002 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 3098

Ion	Ratio	Lower	Upper
128	100		
127	16.1	0.0	43.3
129	9.0	0.0	41.1



Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 1:51 pm, Nov 11, 2019

M.I. Approved By:
ZR at 11:07 am, Nov 12, 2019

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

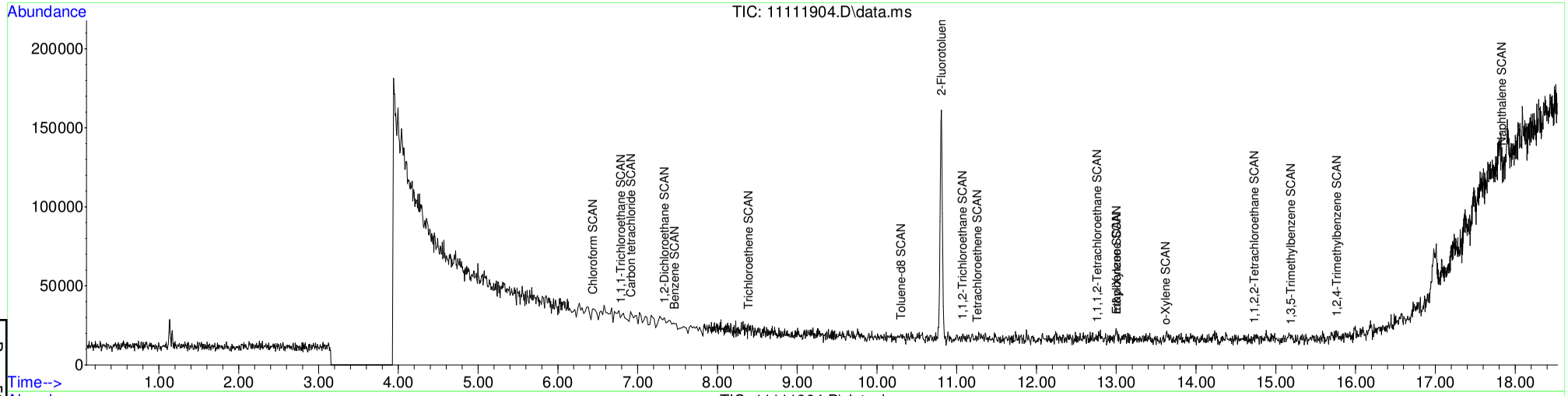
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.803	109	189989	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.311	98	1682	54.78	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.10%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	2.958	61	328m	37.40	ug/L	
3] trans-1,2-Dichloroethene	4.102	61	349	38.72	ug/L	80
4] 1,1-Dichloroethane	4.839	63	440	39.14	ug/L	98
5] cis-1,2-Dichloroethene	5.867	61	408	38.74	ug/L	84
6] Chloroform	6.435	83	515	42.63	ug/L	97
7] 1,1,1-Trichloroethane	6.693	97	478	40.33	ug/L	97
8] Carbon tetrachloride	6.969	117	459	41.62	ug/L	93
9] Benzene	7.301	78	1595	53.29	ug/L	79
10] 1,2-Dichloroethane	7.338	62	383	39.89	ug/L	52
11] Trichloroethene	8.387	130	451	49.69	ug/L	96
13] Toluene	10.412	91	2144	57.61	ug/L	97
14] 1,1,2-Trichloroethane	11.063	97	425	49.37	ug/L	99
15] Tetrachloroethene	11.265	166	576	53.24	ug/L	96
16] Chlorobenzene	12.603	112	1546	55.96	ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.756	131	560	56.33	ug/L	93
18] Ethylbenzene	12.811	91	2599	57.48	ug/L	94
19] m&p-Xylene	13.006	91	3999	116.81	ug/L	98
20] o-Xylene	13.620	91	2103	57.56	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.714	83	913	56.32	ug/L	99
22] 1,3,5-Trimethylbenzene	15.185	105	2404	61.52	ug/L	99
23] 1,2,4-Trimethylbenzene	15.766	105	2450	61.56	ug/L	100
24] Naphthalene	17.824	128	4423	64.46	ug/L	99
25) 2-Fluorotoluene SCAN	10.807	109	123406	5214.08	ug/L	98
30) Chloroform SCAN	6.434	83	392	40.93	ug/L #	1
31) 1,1,1-Trichloroethane ...	6.784	97	172	20.58	ug/L #	21
32) Carbon tetrachloride SCAN	6.913	117	559	71.35	ug/L #	19
33) Benzene SCAN	7.465	78	2182	103.86	ug/L	91
34) 1,2-Dichloroethane SCAN	7.336	62	752	95.95	ug/L #	39
35) Trichloroethene SCAN	8.385	130	138	22.41	ug/L #	49
36) Toluene-d8 SCAN	10.298	98	827	42.97	ug/L #	58
38) 1,1,2-Trichloroethane ...	11.074	97	216	39.91	ug/L #	57
39) Tetrachloroethene SCAN	11.258	166	201	31.90	ug/L #	44
41) 1,1,1,2-Tetrachloroeth...	12.759	131	117	20.24	ug/L #	11
42) Ethylbenzene SCAN	13.000	91	1895	70.16	ug/L	90
43) m&p-Xylene SCAN	13.000	91	1954	50.43	ug/L	72
44) o-Xylene SCAN	13.615	91	1255	60.90	ug/L #	53
45) 1,1,2,2-Tetrachloroeth...	14.732	83	703	70.26	ug/L #	63
46) 1,3,5-Trimethylbenzene...	15.184	105	878	41.87	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.759	105	2052	99.42	ug/L	73
48) Naphthalene SCAN	17.826	128	3098	90.77	ug/L	94

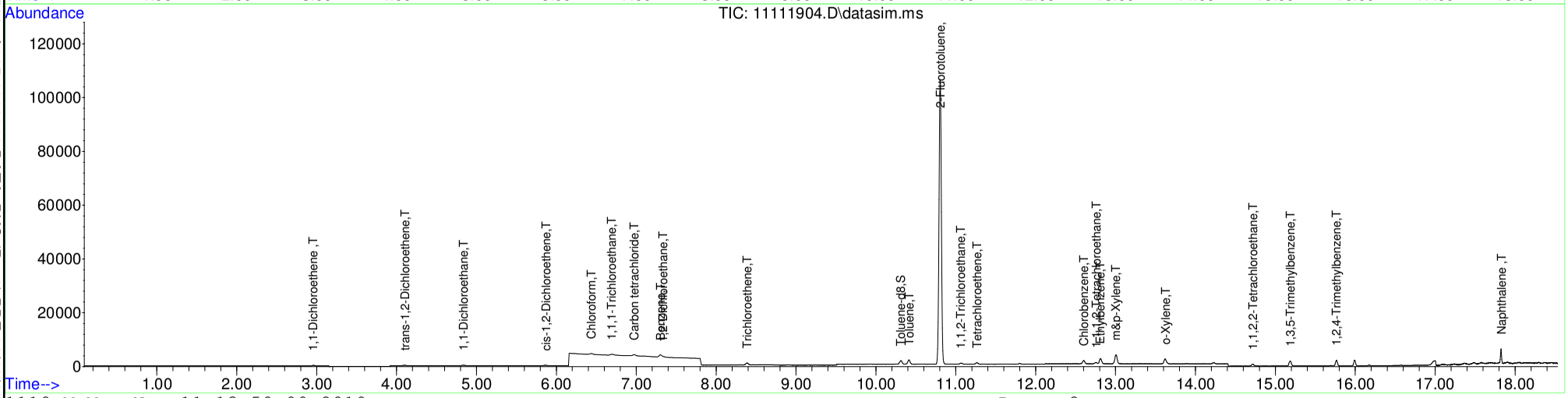
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\111119\
Data File : 11111904.D
Acq On : 11 Nov 2019 13:29
InstName : AG5975C
Operator : TD
Sample : S19K038-CRL1
Misc : 1930060 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 11 13:48:39 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\111119.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration





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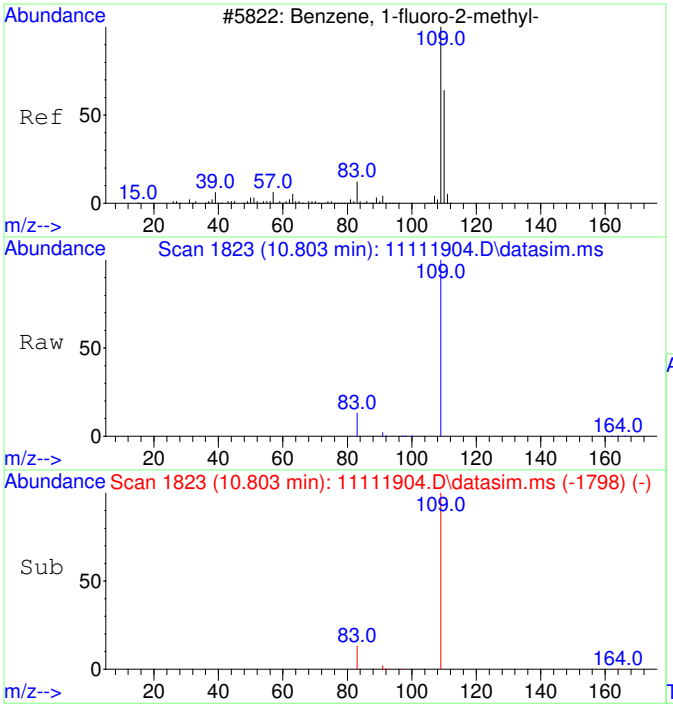
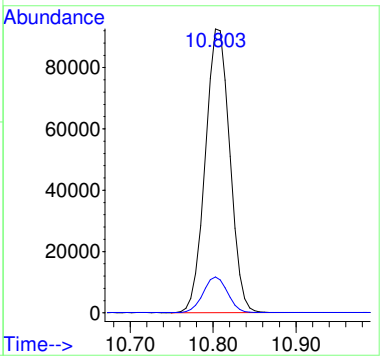
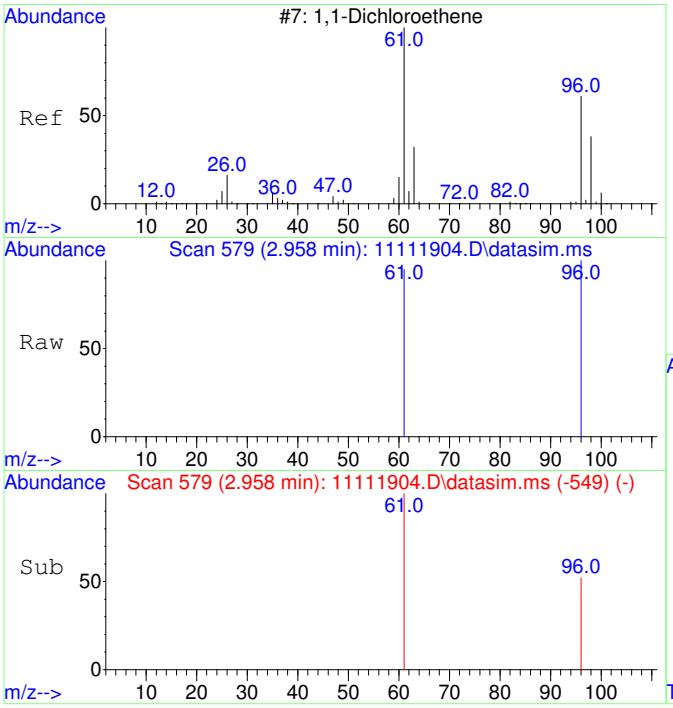


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.803 min Scan# 1823
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 189989

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

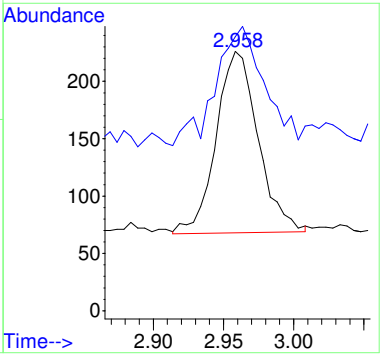


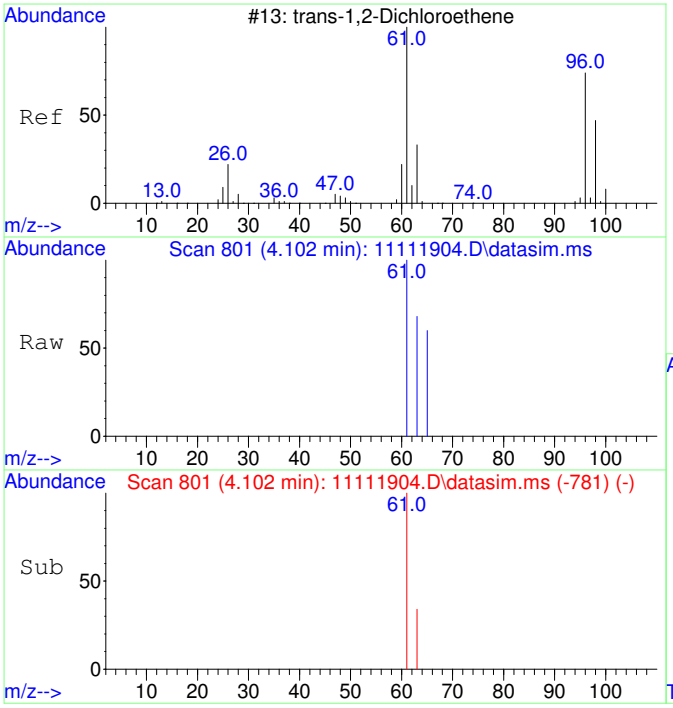


#2
1,1-Dichloroethene
Concen: 37.40 ug/L m
RT: 2.958 min Scan# 579
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 328

Ion	Ratio	Lower	Upper
61	100		
96	172.0	33.6	93.6#

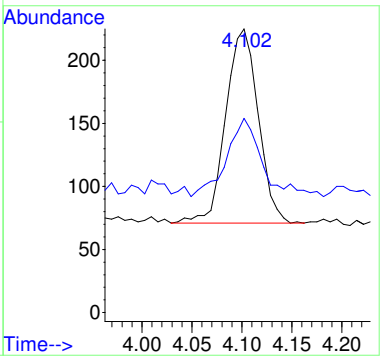


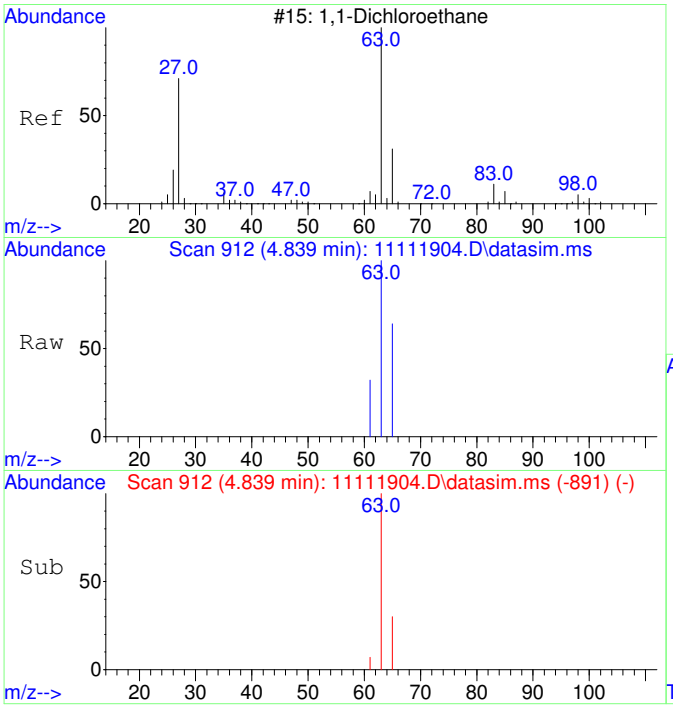


#3
trans-1,2-Dichloroethene
Concen: 38.72 ug/L
RT: 4.102 min Scan# 801
Delta R.T. -0.020 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 349

Ion	Ratio	Lower	Upper
61	100		
63	43.6	2.3	62.3

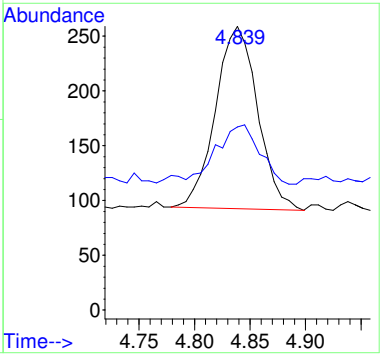


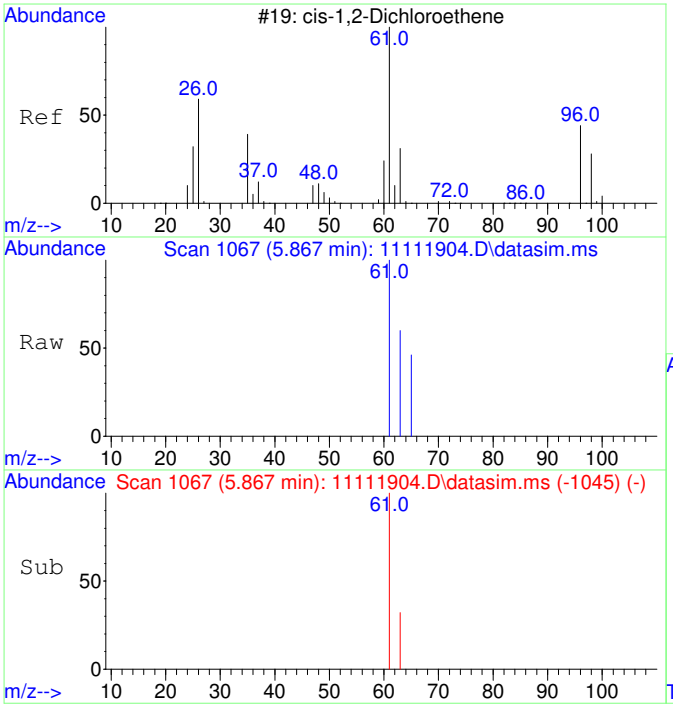


#4
1,1-Dichloroethane
Concen: 39.14 ug/L
RT: 4.839 min Scan# 912
Delta R.T. -0.013 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 63 Resp: 440

Ion	Ratio	Lower	Upper
63	100		
65	33.0	1.9	61.9

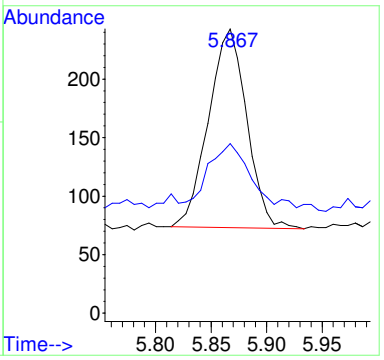


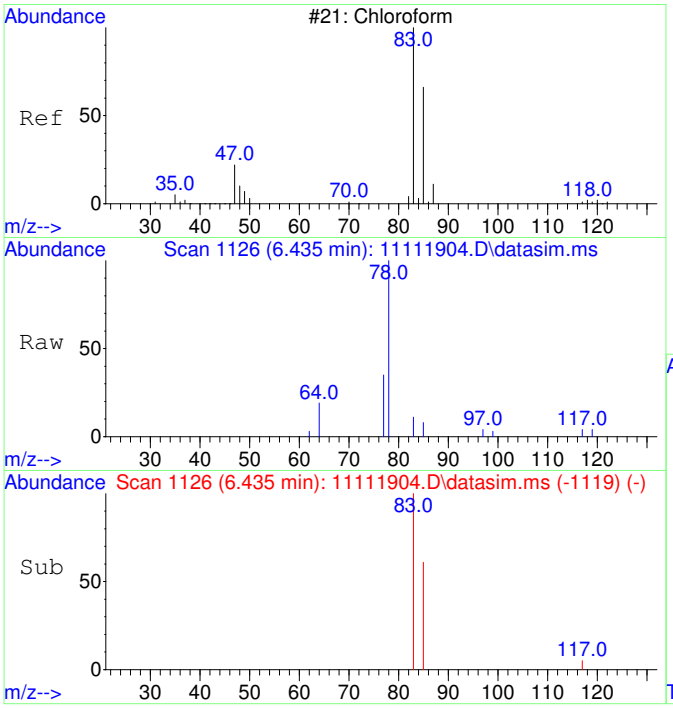


#5
cis-1,2-Dichloroethene
Concen: 38.74 ug/L
RT: 5.867 min Scan# 1067
Delta R.T. -0.007 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 61 Resp: 408

Ion	Ratio	Lower	Upper
61	100		
63	41.2	2.4	62.4

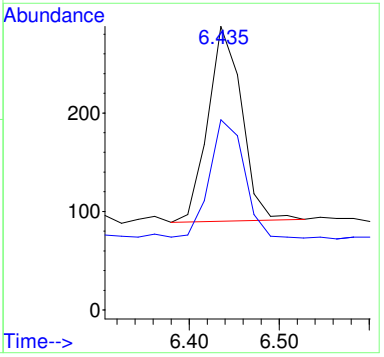


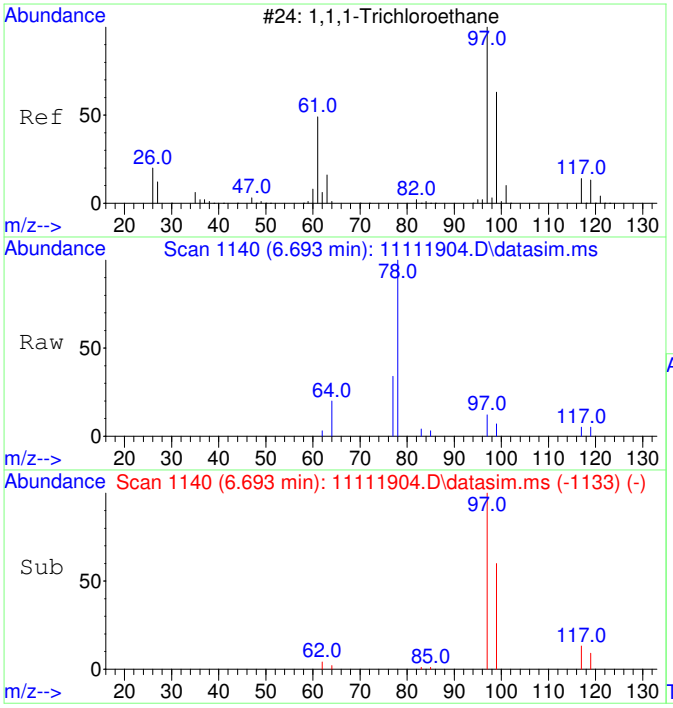


#6
Chloroform
Concen: 42.63 ug/L
RT: 6.435 min Scan# 1126
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 515

Ion	Ratio	Lower	Upper
83	100		
85	62.7	35.2	95.2

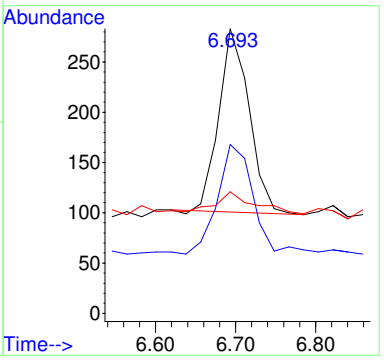


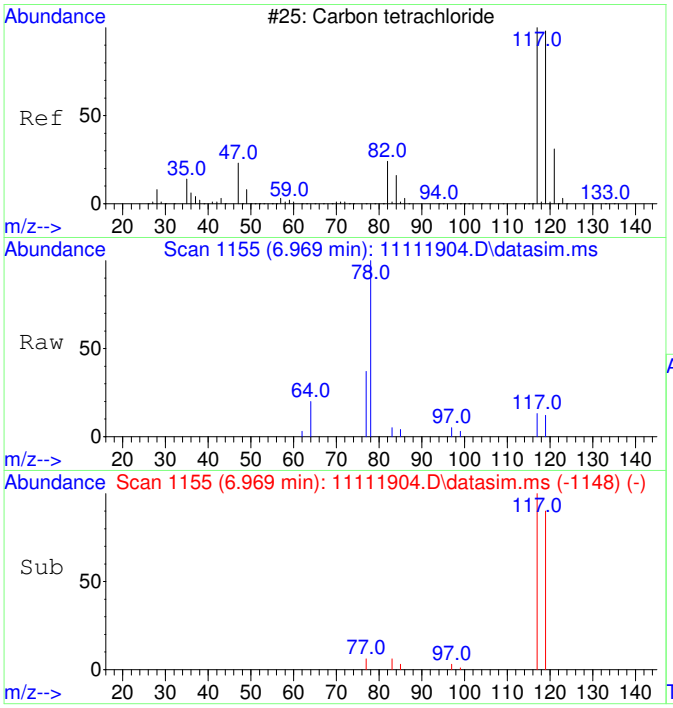


#7
1,1,1-Trichloroethane
Concen: 40.33 ug/L
RT: 6.693 min Scan# 1140
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 478

Ion	Ratio	Lower	Upper
97	100		
99	66.5	34.5	94.5
117	15.3	0.0	43.0

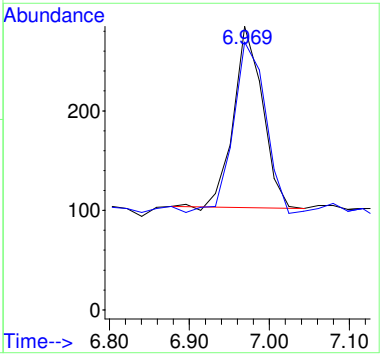


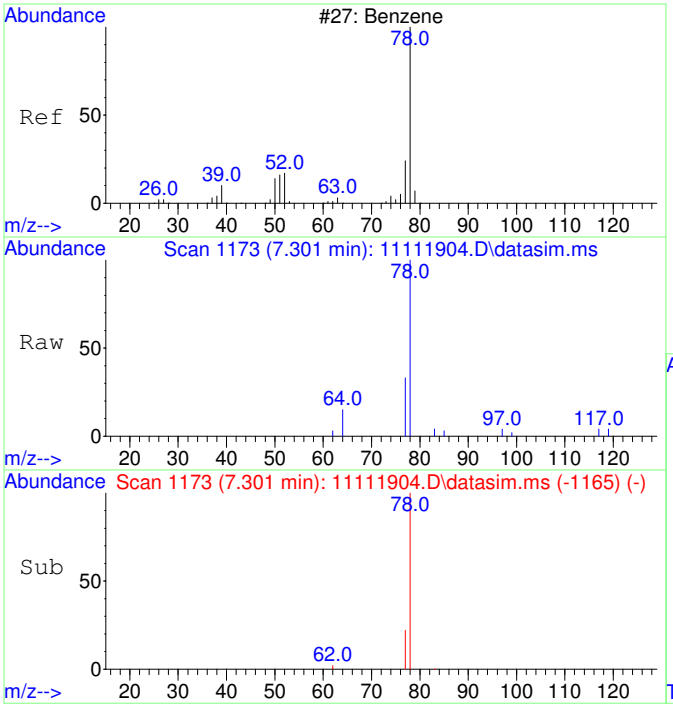


#8
Carbon tetrachloride
Concen: 41.62 ug/L
RT: 6.969 min Scan# 1155
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 459

Ion	Ratio	Lower	Upper
117	100		
119	103.3	66.0	126.0

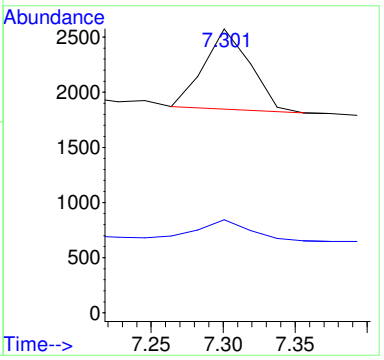


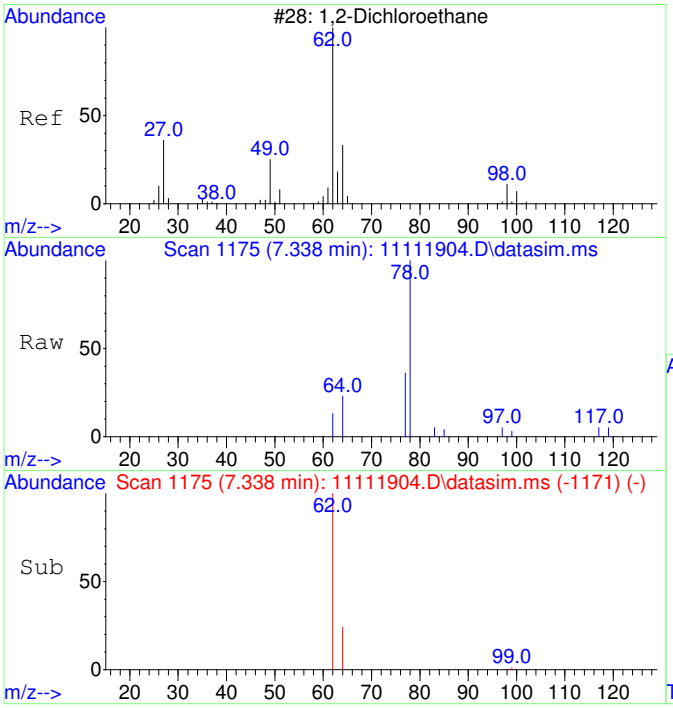


#9
Benzene
Concen: 53.29 ug/L
RT: 7.301 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 1595

Ion	Ratio	Lower	Upper
78	100		
77	33.6	0.0	53.2

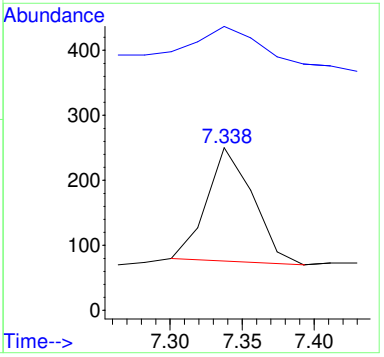


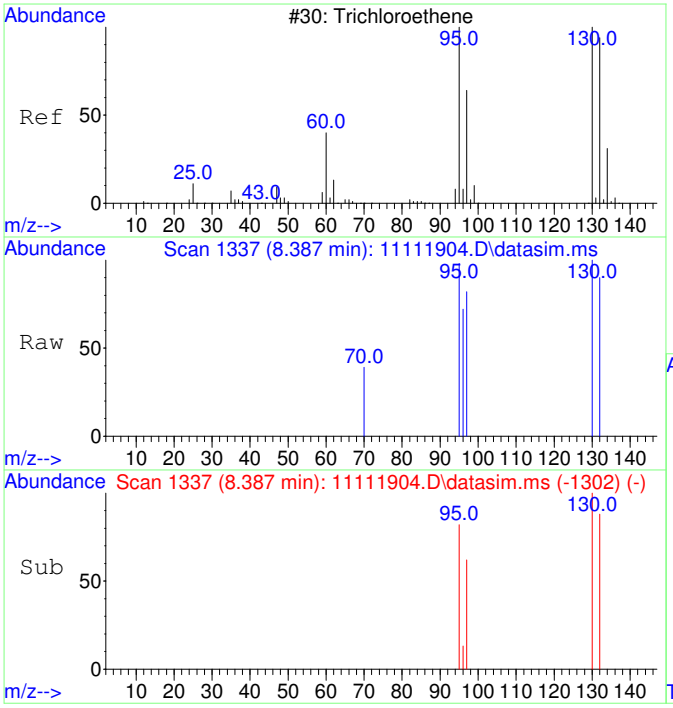


#10
1,2-Dichloroethane
Concen: 39.89 ug/L
RT: 7.338 min Scan# 1175
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 383

Ion	Ratio	Lower	Upper
62	100		
64	59.5	2.4	62.4

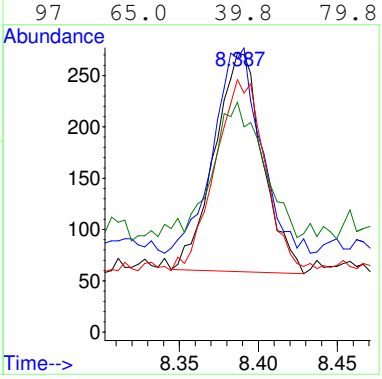


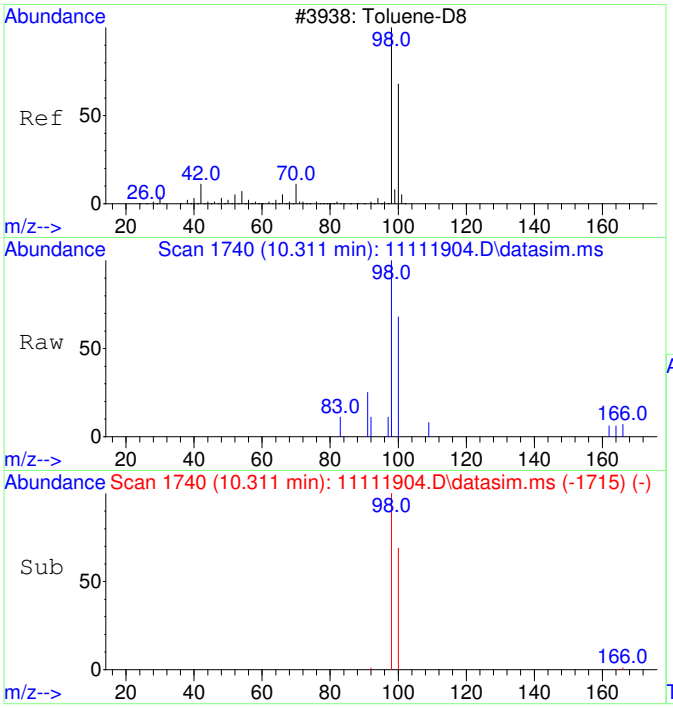


#11
Trichloroethene
Concen: 49.69 ug/L
RT: 8.387 min Scan# 1337
Delta R.T. -0.004 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 451

Ion	Ratio	Lower	Upper
130	100		
95	92.0	63.4	123.4
132	90.5	76.0	116.0
97	65.0	39.8	79.8

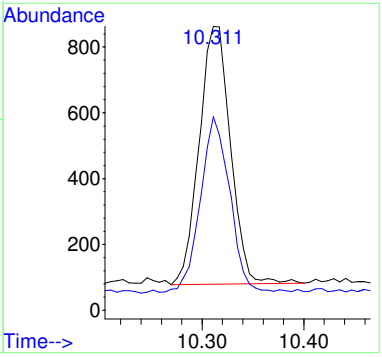


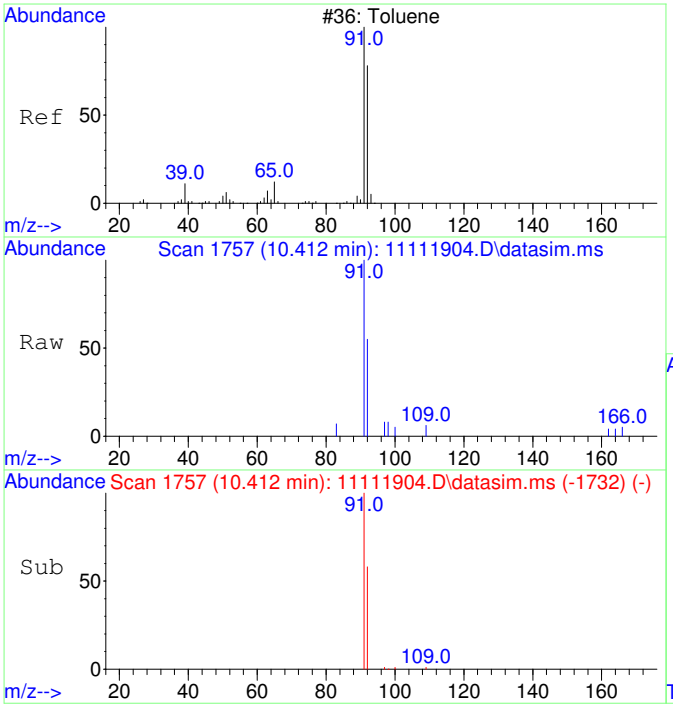


#12
Toluene-d8
Concen: 54.78 ug/L
RT: 10.311 min Scan# 1740
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 1682

Ion	Ratio	Lower	Upper
98	100		
100	62.7	36.4	96.4

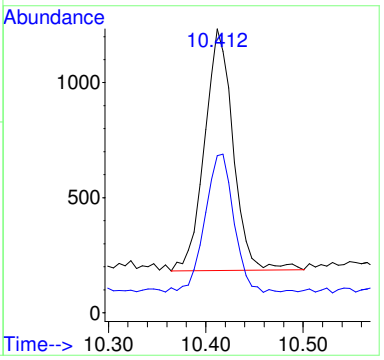


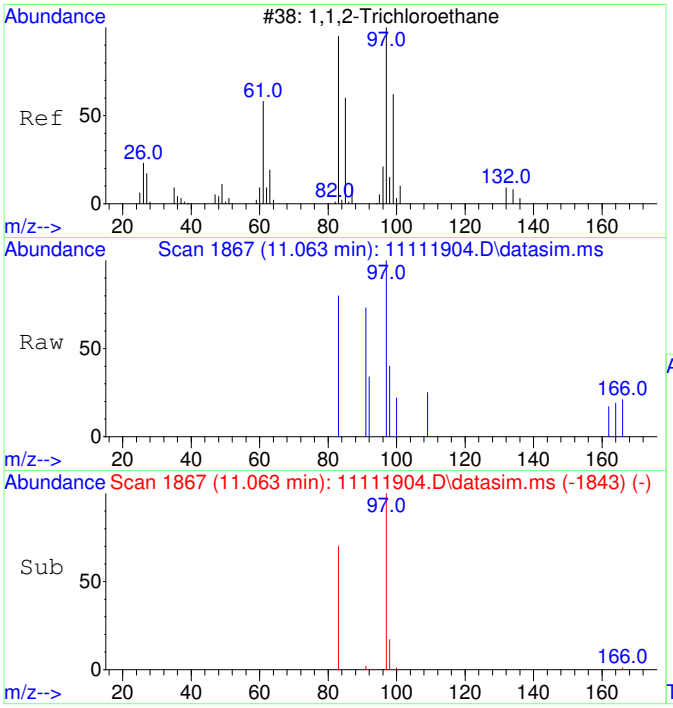


#13
Toluene
Concen: 57.61 ug/L
RT: 10.412 min Scan# 1757
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2144

Ion	Ratio	Lower	Upper
91	100		
92	57.5	29.4	89.4

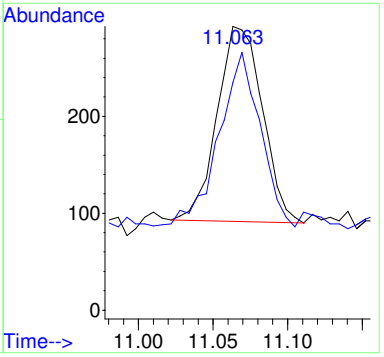


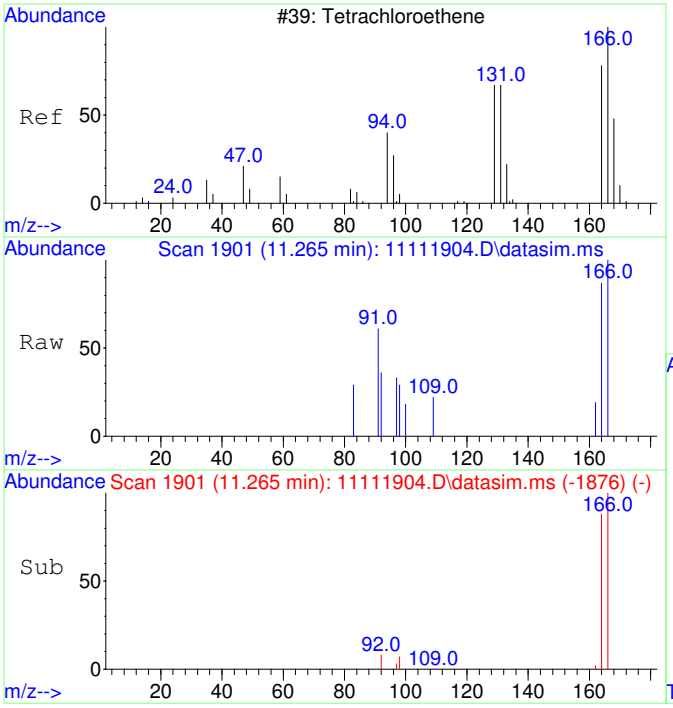


#14
1,1,2-Trichloroethane
Concen: 49.37 ug/L
RT: 11.063 min Scan# 1867
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 425

Ion	Ratio	Lower	Upper
97	100		
83	81.4	52.0	112.0

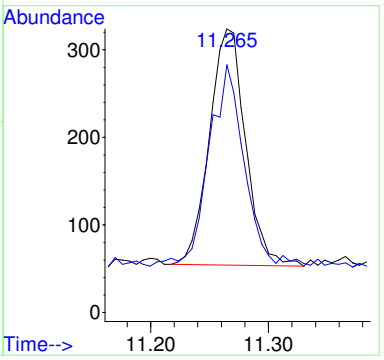


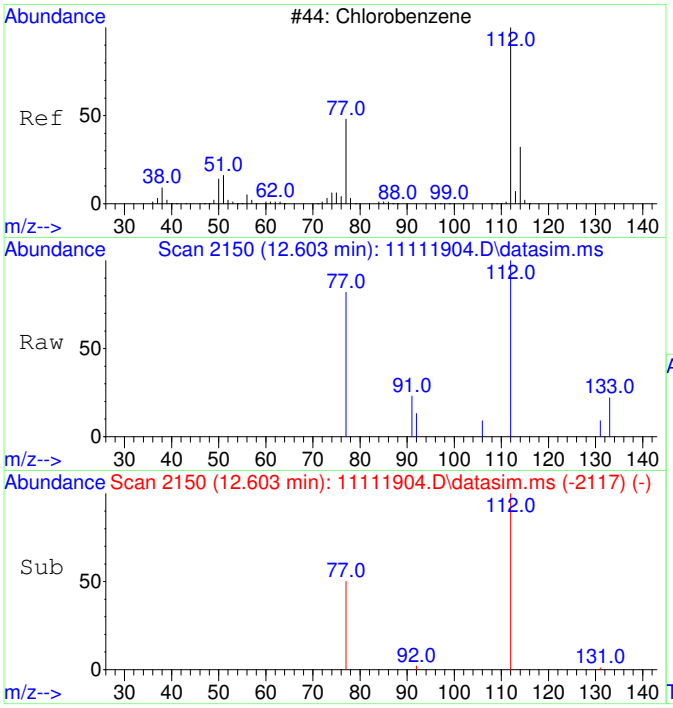


#15
Tetrachloroethene
Concen: 53.24 ug/L
RT: 11.265 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 576

Ion	Ratio	Lower	Upper
166	100		
164	81.6	47.7	107.7

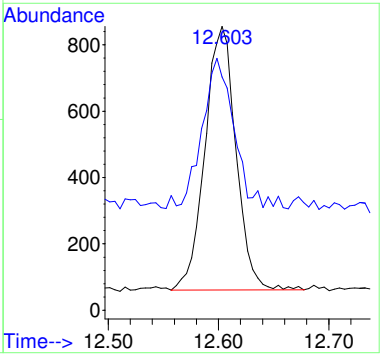


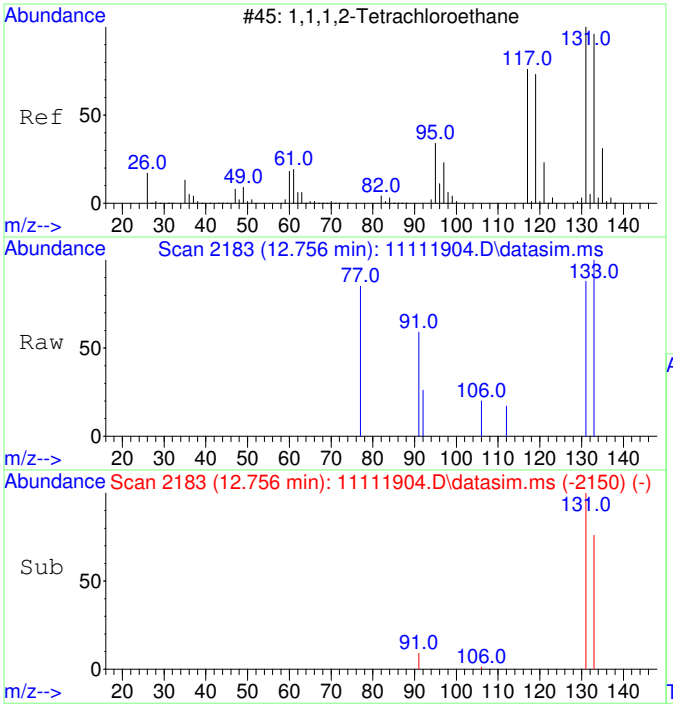


#16
Chlorobenzene
Concen: 55.96 ug/L
RT: 12.603 min Scan# 2150
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:112 Resp: 1546

Ion	Ratio	Lower	Upper
112	100		
77	57.1	25.2	85.2

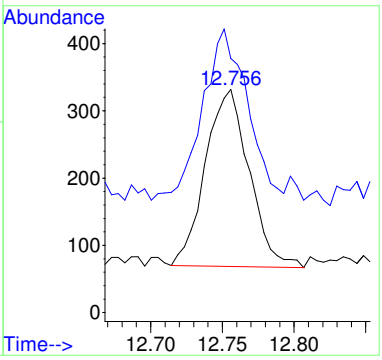


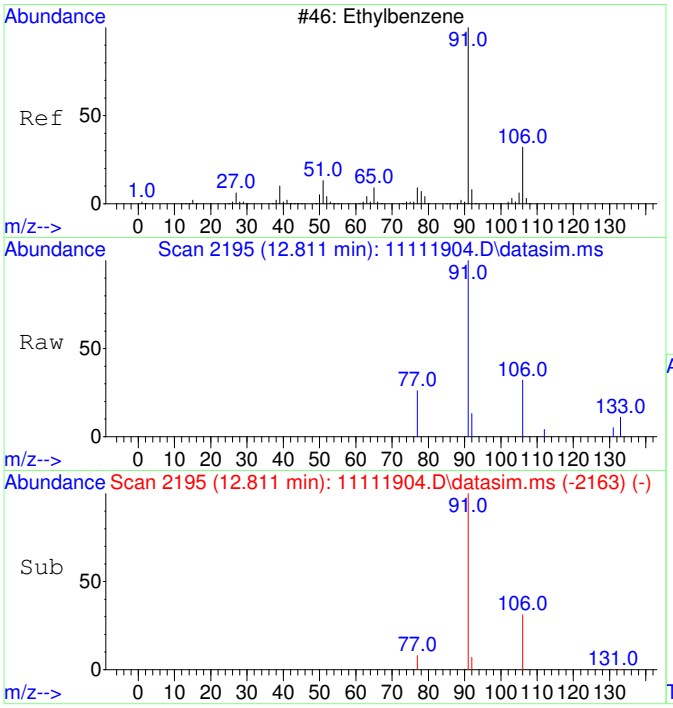


#17
1,1,1,2-Tetrachloroethane
Concen: 56.33 ug/L
RT: 12.756 min Scan# 2183
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 560

Ion	Ratio	Lower	Upper
131	100		
133	102.0	65.1	125.1

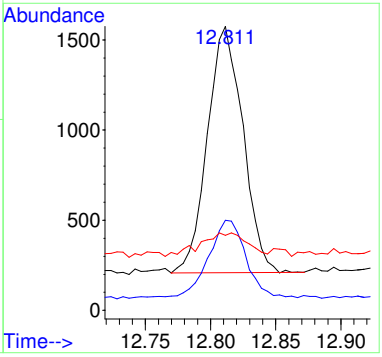


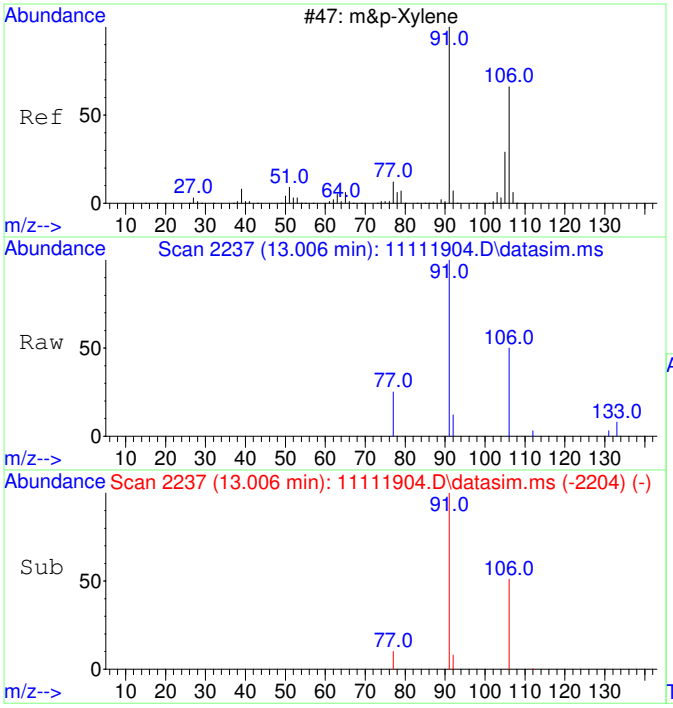


#18
Ethylbenzene
Concen: 57.48 ug/L
RT: 12.811 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2599

Ion	Ratio	Lower	Upper
91	100		
106	35.1	2.5	62.5
77	12.4	0.0	38.4

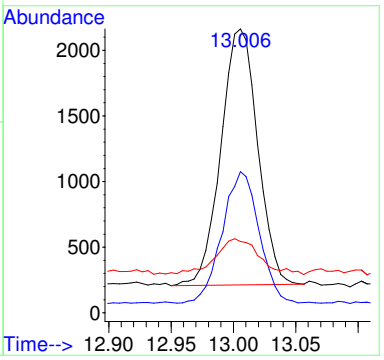


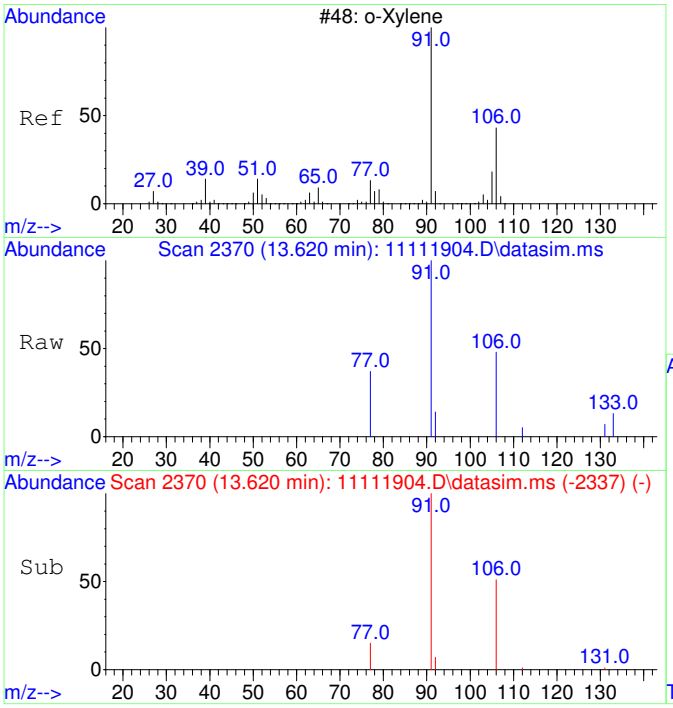


#19
m&p-Xylene
Concen: 116.81 ug/L
RT: 13.006 min Scan# 2237
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 3999

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.2	81.2
77	16.7	0.0	42.7

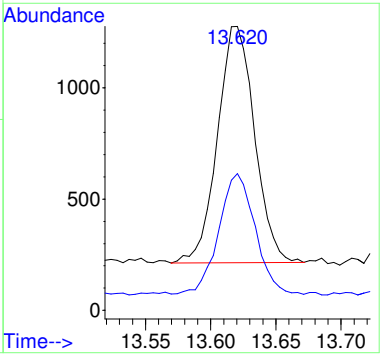


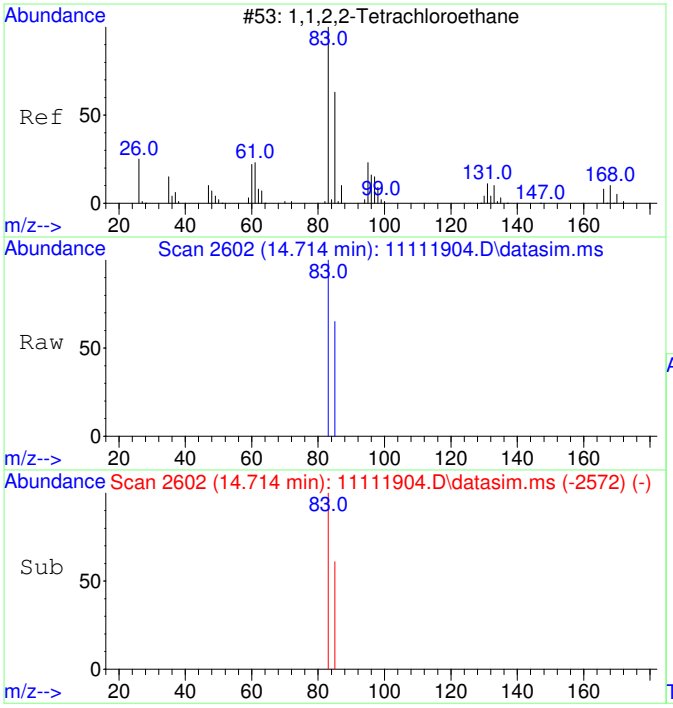


#20
o-Xylene
Concen: 57.56 ug/L
RT: 13.620 min Scan# 2370
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 2103

Ion	Ratio	Lower	Upper
91	100		
106	49.8	18.3	78.3

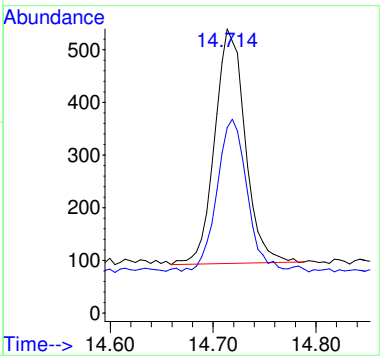


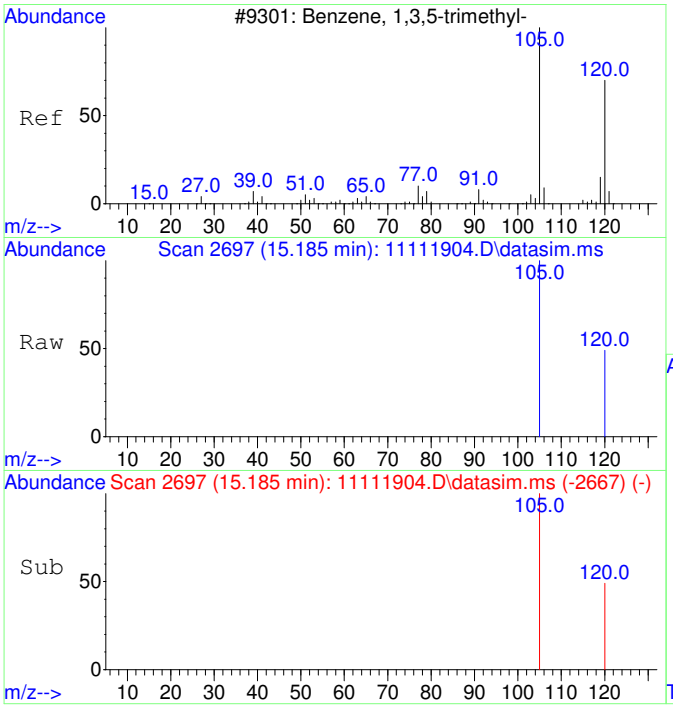


#21
1,1,2,2-Tetrachloroethane
Concen: 56.32 ug/L
RT: 14.714 min Scan# 2602
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 913

Ion	Ratio	Lower	Upper
83	100		
85	64.1	34.7	94.7

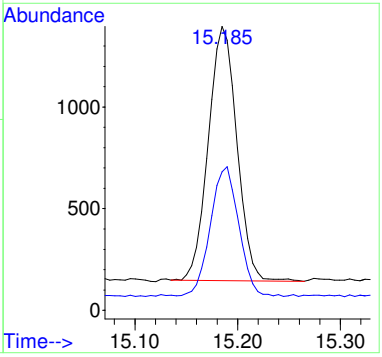


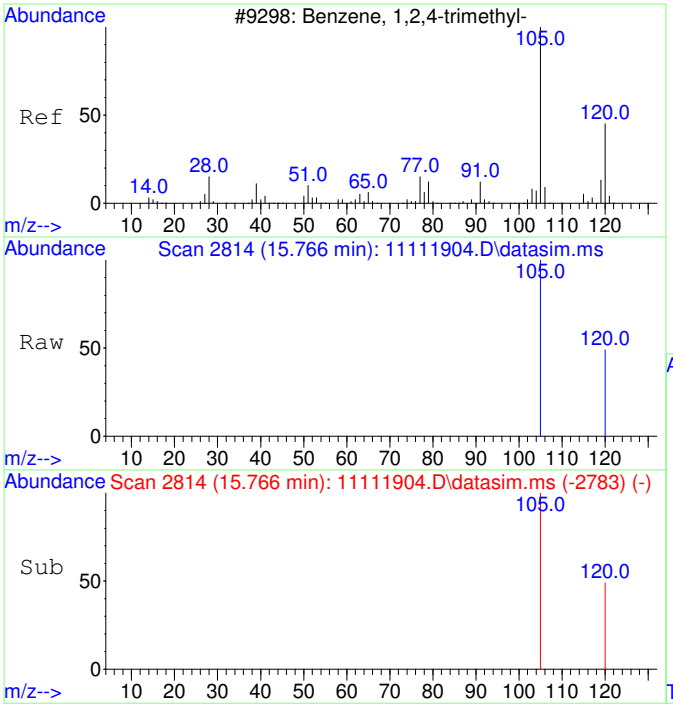


#22
1,3,5-Trimethylbenzene
Concen: 61.52 ug/L
RT: 15.185 min Scan# 2697
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2404

Ion	Ratio	Lower	Upper
105	100		
120	50.1	20.8	80.8

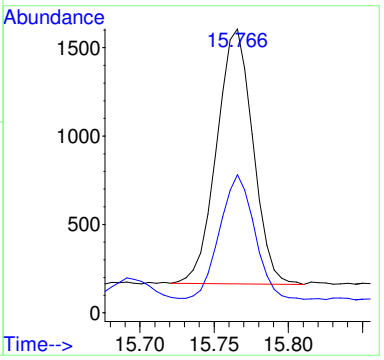


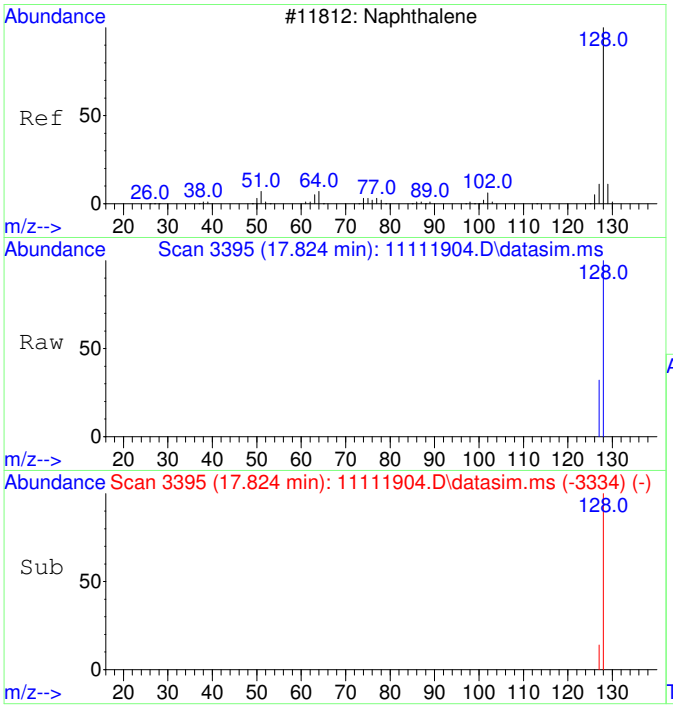


#23
1,2,4-Trimethylbenzene
Concen: 61.56 ug/L
RT: 15.766 min Scan# 2814
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2450

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.8	76.8

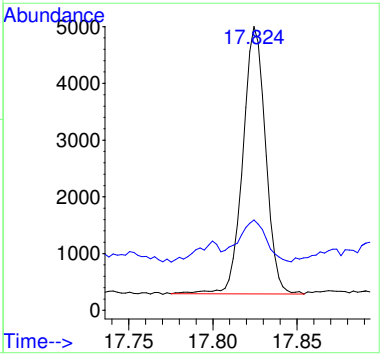


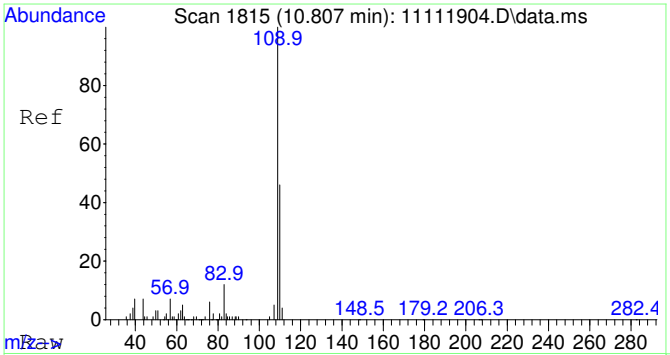


#24
Naphthalene
Concen: 64.46 ug/L
RT: 17.824 min Scan# 3395
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 4423

Ion	Ratio	Lower	Upper
128	100		
127	13.0	0.0	42.7

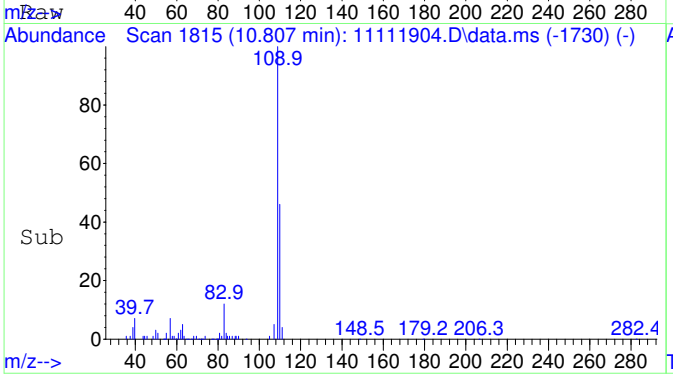


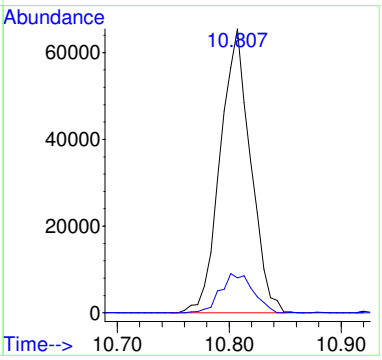


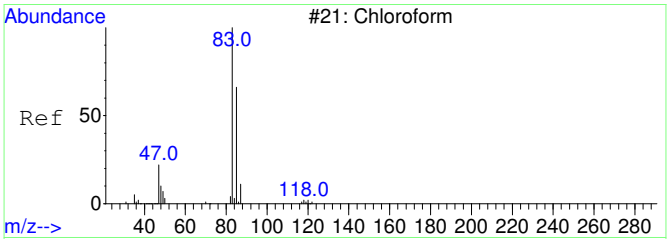
#25
2-Fluorotoluene SCAN
Concen: 5214.08 ug/L
RT: 10.807 min Scan# 1815
Delta R.T. 0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:109 Resp: 123406

Ion	Ratio	Lower	Upper
109	100		
83	14.9	0.0	45.8



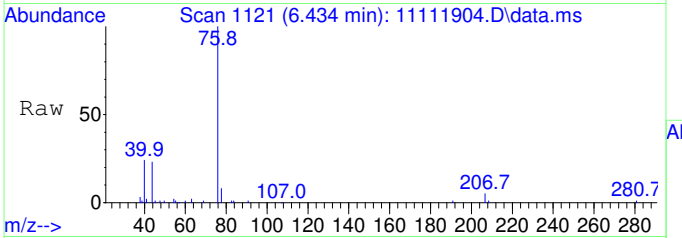


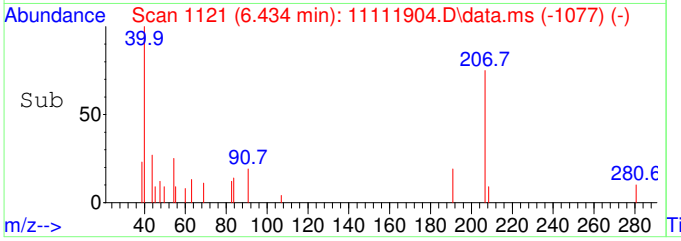


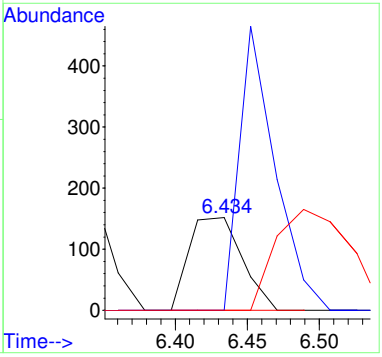
#30
Chloroform SCAN
Concen: 40.93 ug/L
RT: 6.434 min Scan# 1121
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

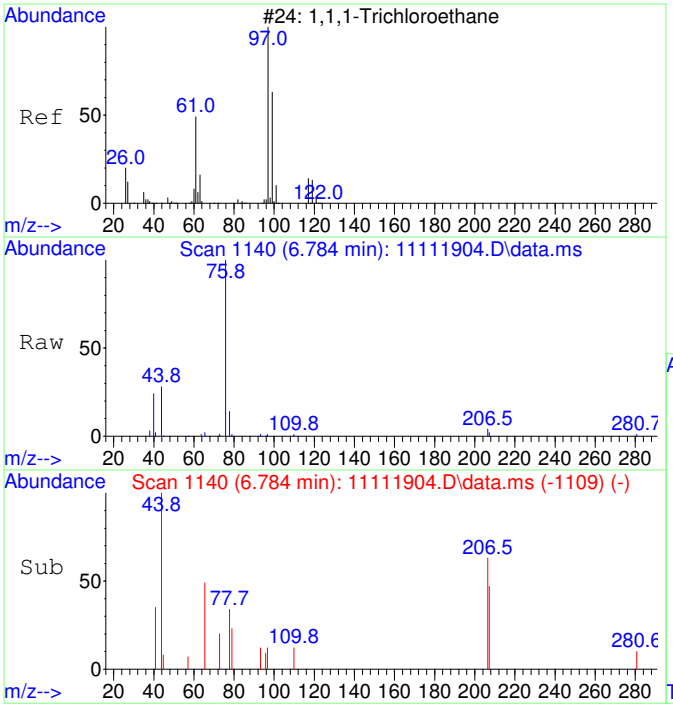
Tgt Ion: 83 Resp: 392

Ion	Ratio	Lower	Upper
83	100		
85	205.6	38.3	98.3#
47	0.0	0.0	50.2





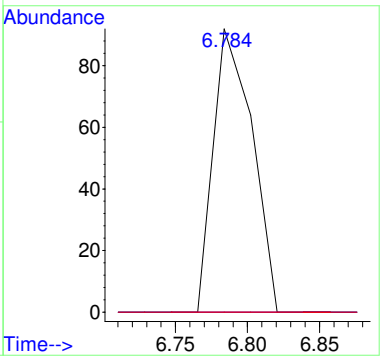


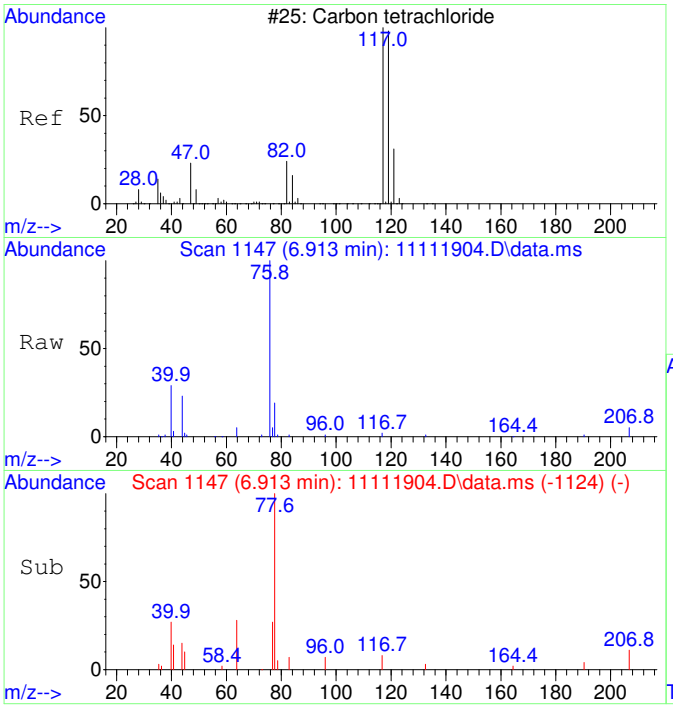


#31
1,1,1-Trichloroethane SCAN
Concen: 20.58 ug/L
RT: 6.784 min Scan# 1140
Delta R.T. 0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 172

Ion	Ratio	Lower	Upper
97	100		
99	0.0	42.8	102.8#
61	0.0	11.1	71.1#

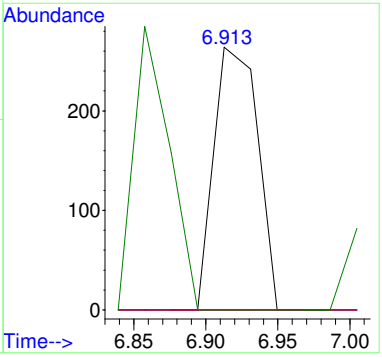


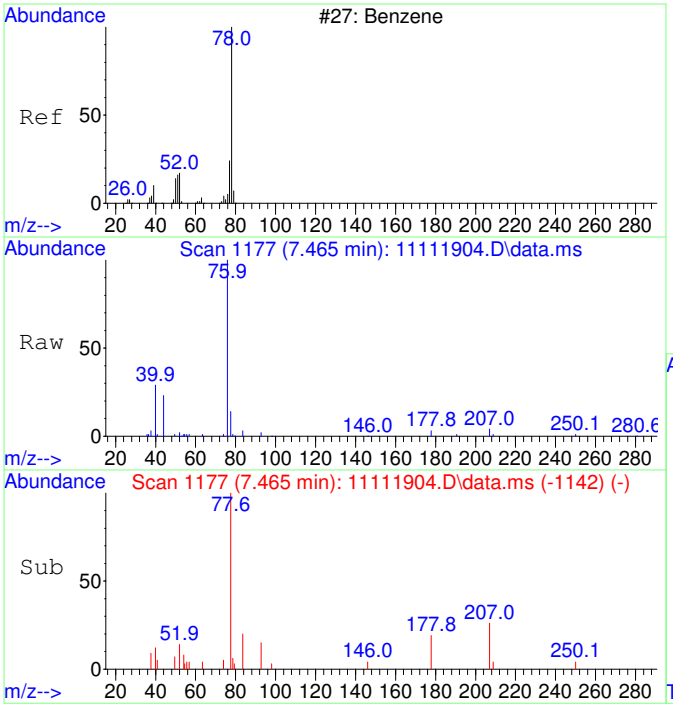


#32
Carbon tetrachloride SCAN
Concen: 71.35 ug/L
RT: 6.913 min Scan# 1147
Delta R.T. -0.074 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:117 Resp: 559

Ion	Ratio	Lower	Upper
117	100		
119	0.0	61.5	121.5#
121	0.0	4.4	64.4#
82	0.0	7.2	67.2#

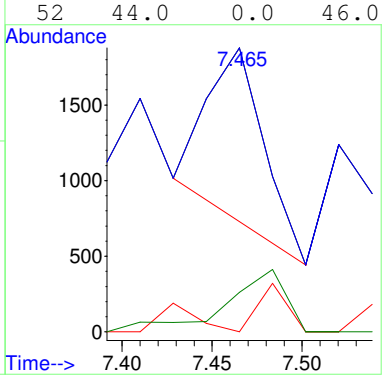


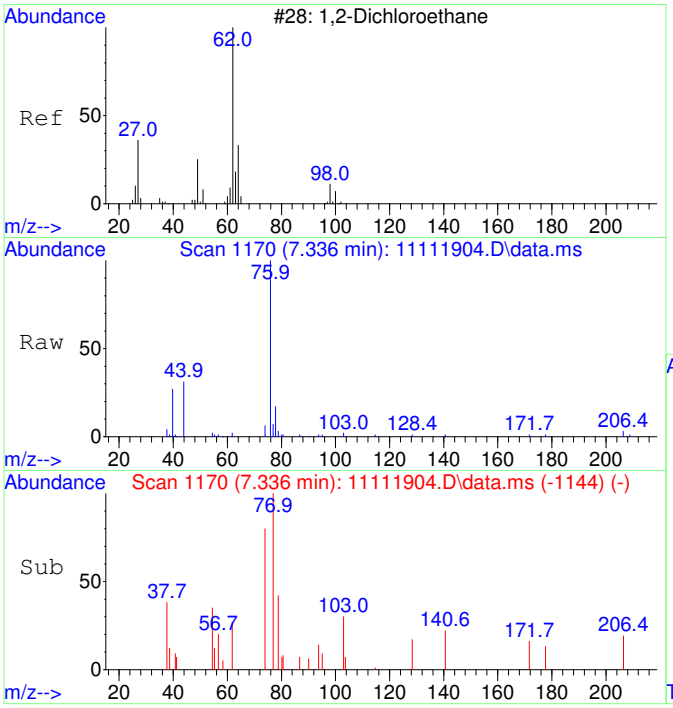


#33
Benzene SCAN
Concen: 103.86 ug/L
RT: 7.465 min Scan# 1177
Delta R.T. 0.147 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 78 Resp: 2182

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	16.3	0.0	49.8
52	44.0	0.0	46.0

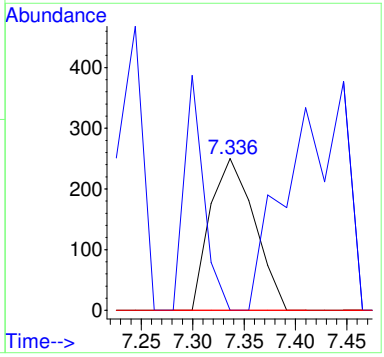


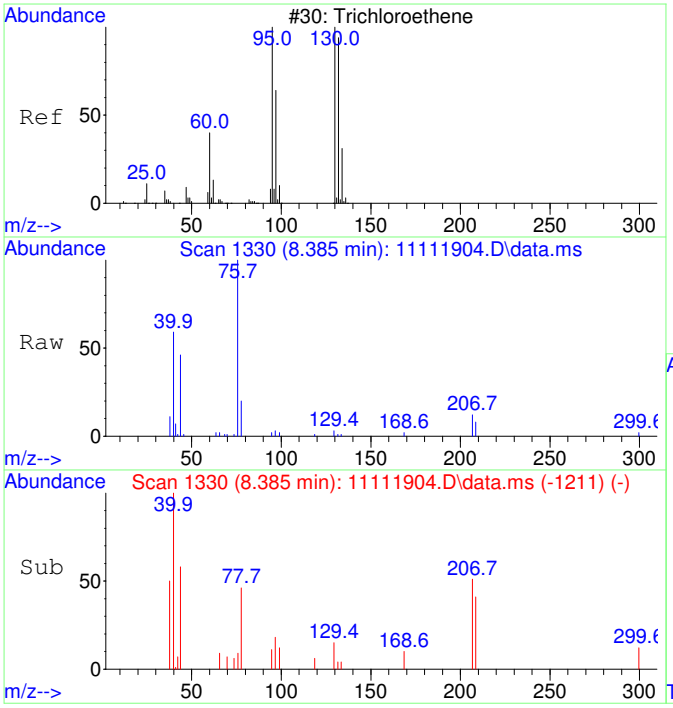


#34
1,2-Dichloroethane SCAN
Concen: 95.95 ug/L
RT: 7.336 min Scan# 1170
Delta R.T. -0.018 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 62 Resp: 752

Ion	Ratio	Lower	Upper
62	100		
64	0.0	0.0	59.2
49	0.0	10.5	70.5#

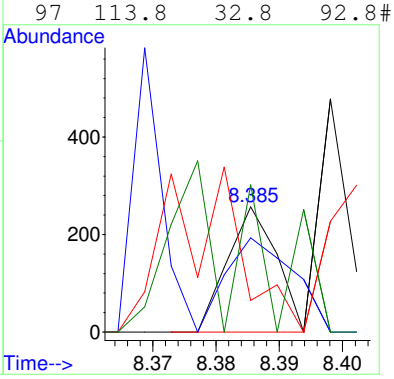


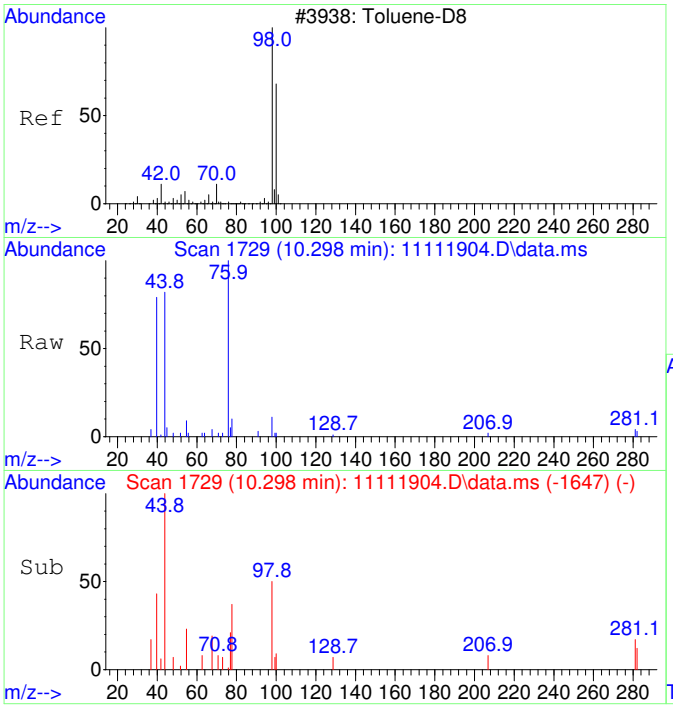


#35
Trichloroethene SCAN
Concen: 22.41 ug/L
RT: 8.385 min Scan# 1330
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:130 Resp: 138

Ion	Ratio	Lower	Upper
130	100		
95	103.6	69.5	129.5
132	185.5	66.5	126.5#
97	113.8	32.8	92.8#

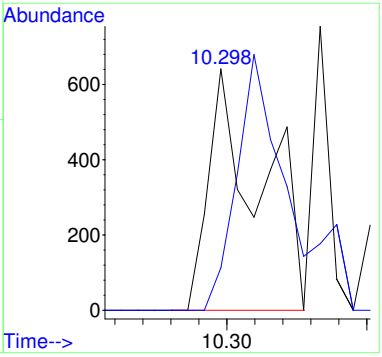


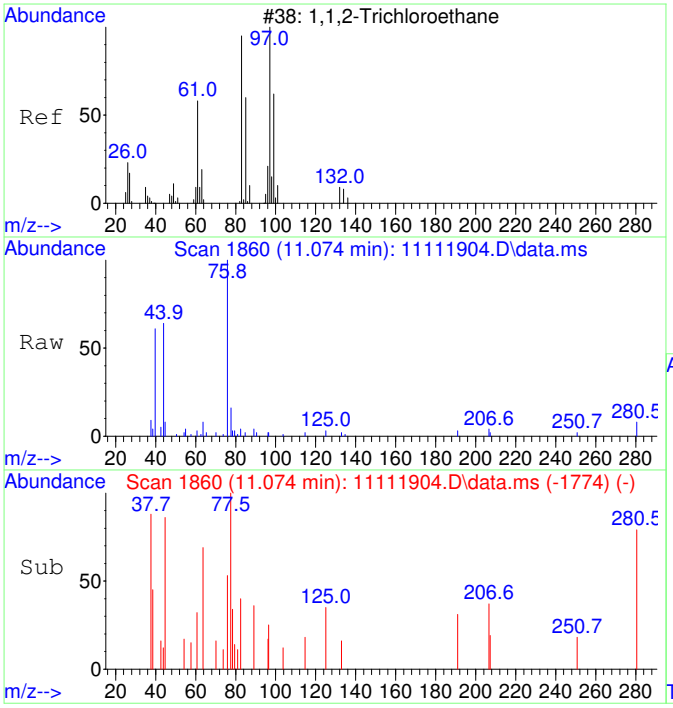


#36
Toluene-d8 SCAN
Concen: 42.97 ug/L
RT: 10.298 min Scan# 1729
Delta R.T. -0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 98 Resp: 827

Ion	Ratio	Lower	Upper
98	100		
100	106.9	42.1	102.1#

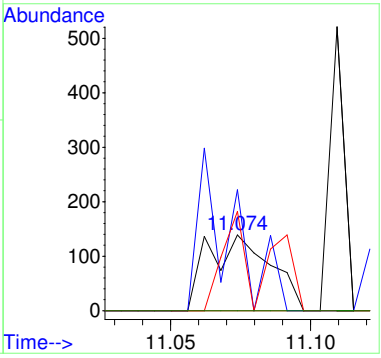


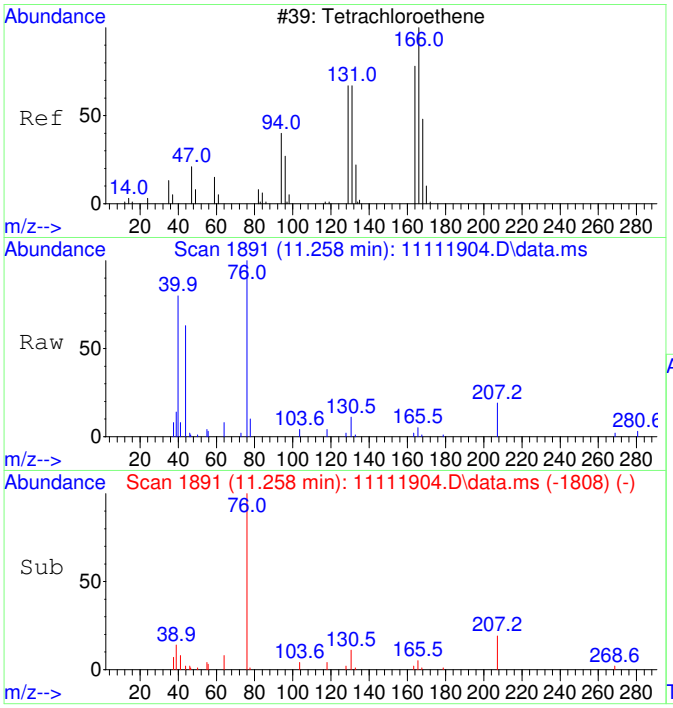


#38
1,1,2-Trichloroethane SCAN
Concen: 39.91 ug/L
RT: 11.074 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 97 Resp: 216

Ion	Ratio	Lower	Upper
97	100		
83	116.7	58.1	118.1
61	46.3	36.0	96.0
99	0.0	32.7	92.7#

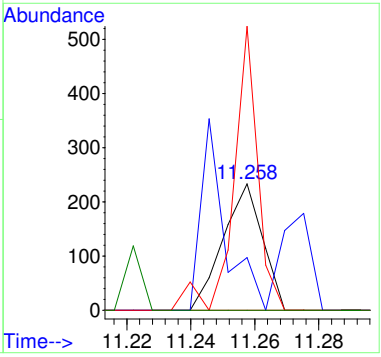


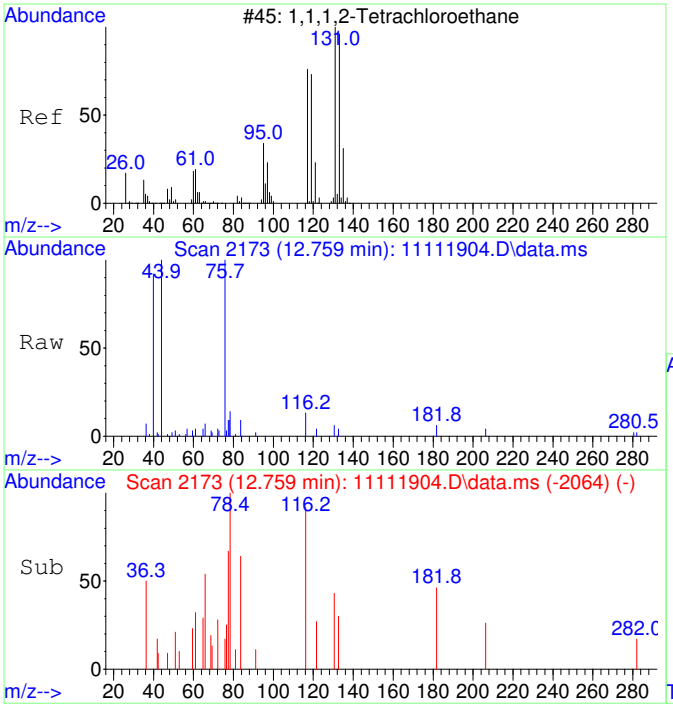


#39
Tetrachloroethene SCAN
Concen: 31.90 ug/L
RT: 11.258 min Scan# 1891
Delta R.T. -0.006 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:166 Resp: 201

Ion	Ratio	Lower	Upper
166	100		
164	92.0	50.4	110.4
131	136.3	44.0	104.0#
129	0.0	42.6	102.6#

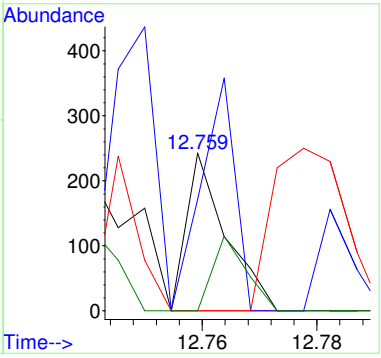


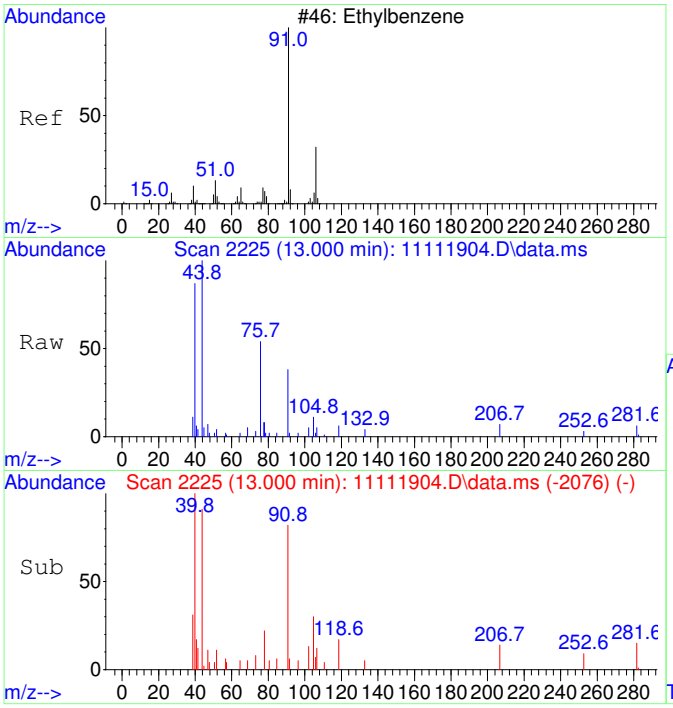


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.24 ug/L
RT: 12.759 min Scan# 2173
Delta R.T. 0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:131 Resp: 117

Ion	Ratio	Lower	Upper
131	100		
133	191.5	67.7	127.7#
119	0.0	36.2	96.2#
117	0.0	39.0	99.0#

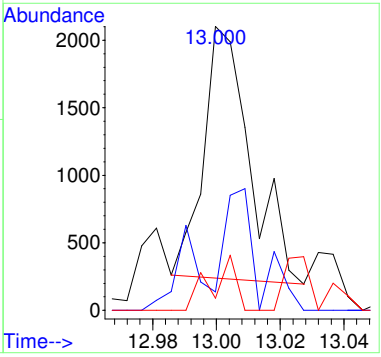


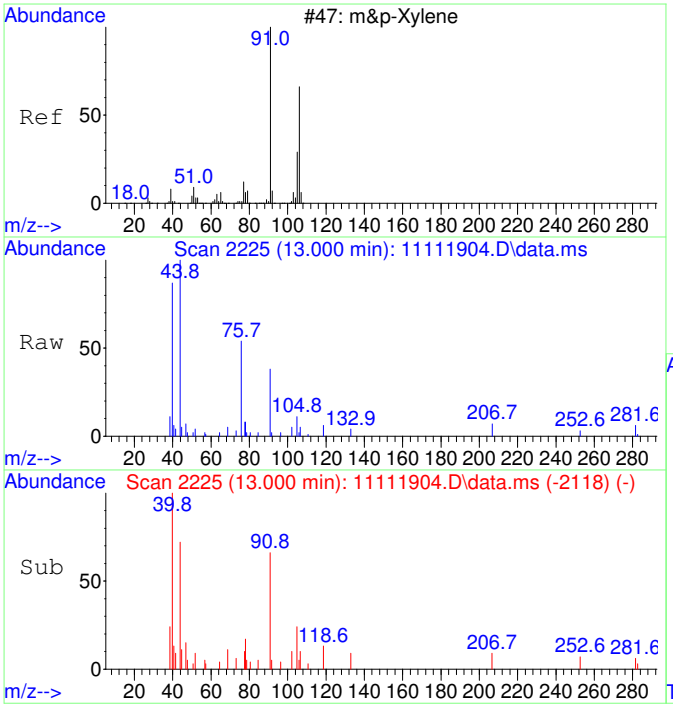


#42
Ethylbenzene SCAN
Concen: 70.16 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. 0.190 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1895

Ion	Ratio	Lower	Upper
91	100		
106	22.6	0.1	60.1
51	11.3	0.0	40.9

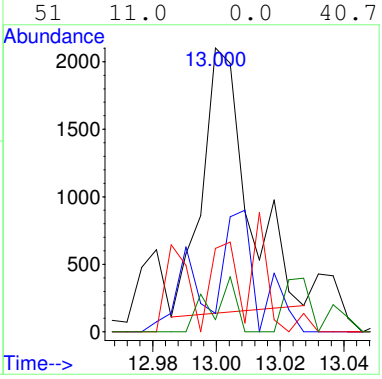


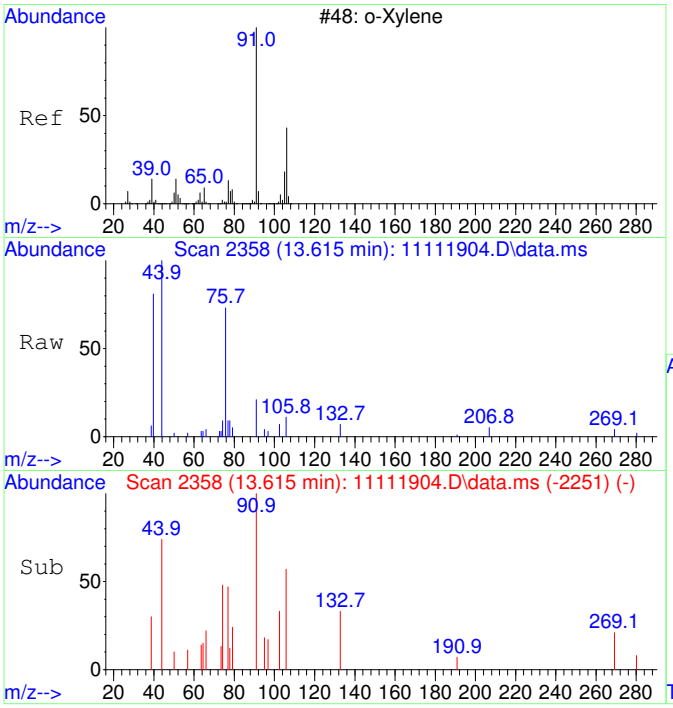


#43
m&p-Xylene SCAN
Concen: 50.43 ug/L
RT: 13.000 min Scan# 2225
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1954

Ion	Ratio	Lower	Upper
91	100		
106	22.0	21.1	81.1
105	17.8	0.0	53.6
51	11.0	0.0	40.7

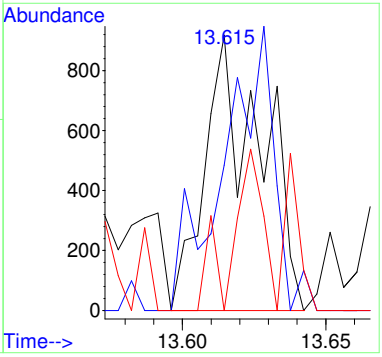


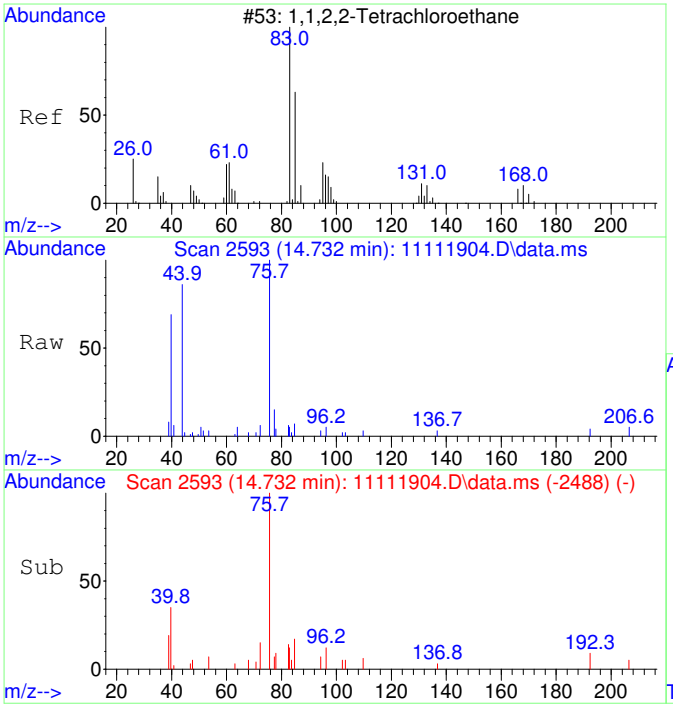


#44
o-Xylene SCAN
Concen: 60.90 ug/L
RT: 13.615 min Scan# 2358
Delta R.T. -0.005 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 91 Resp: 1255

Ion	Ratio	Lower	Upper
91	100		
106	92.7	16.7	76.7#
105	32.7	0.0	57.3

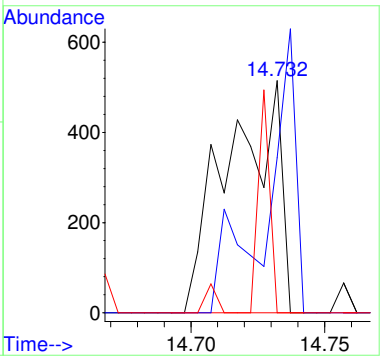


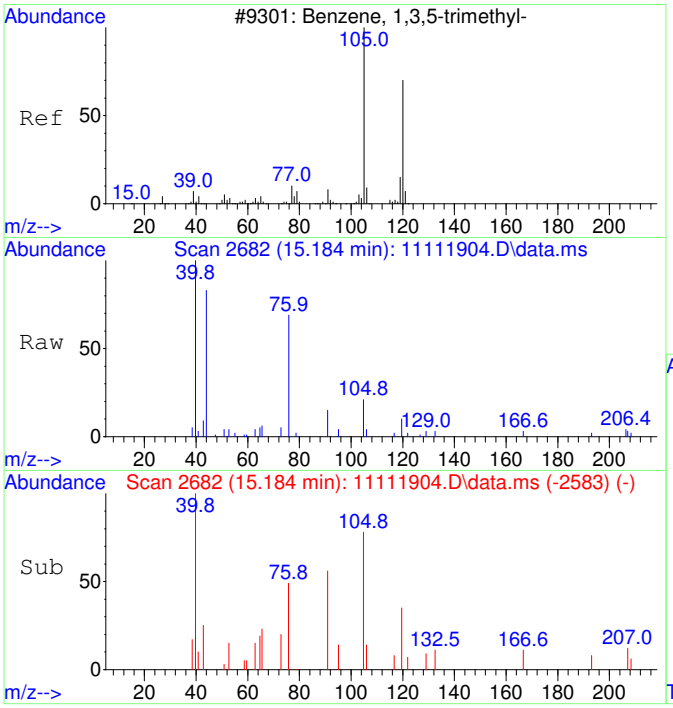


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 70.26 ug/L
RT: 14.732 min Scan# 2593
Delta R.T. 0.015 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion: 83 Resp: 703

Ion	Ratio	Lower	Upper
83	100		
85	34.7	38.3	98.3#
95	20.9	0.0	44.8

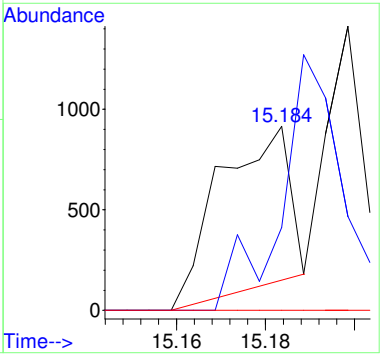


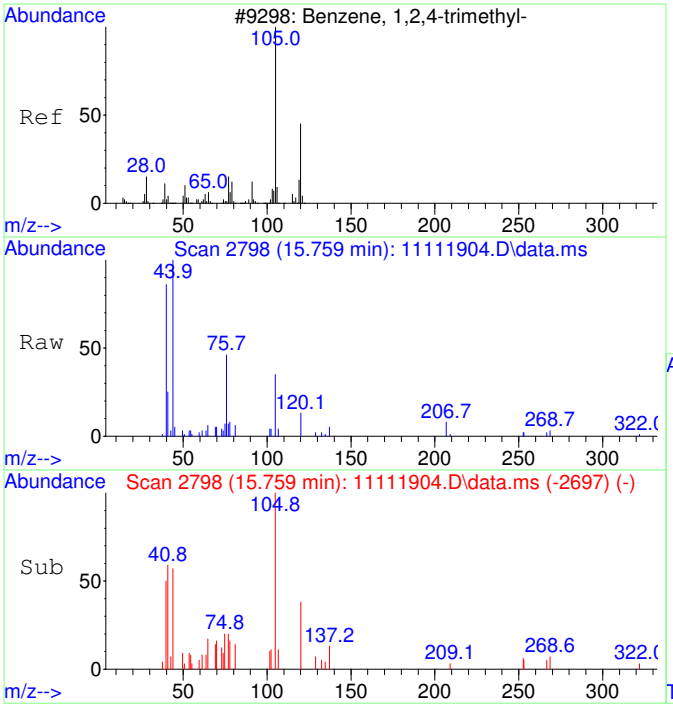


#46
1,3,5-Trimethylbenzene SCAN
Concen: 41.87 ug/L
RT: 15.184 min Scan# 2682
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 878

Ion	Ratio	Lower	Upper
105	100		
120	145.4	20.8	80.8#
119	0.0	0.0	42.8

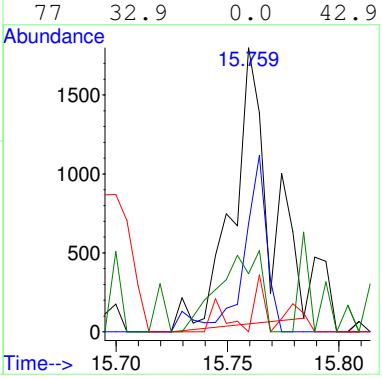


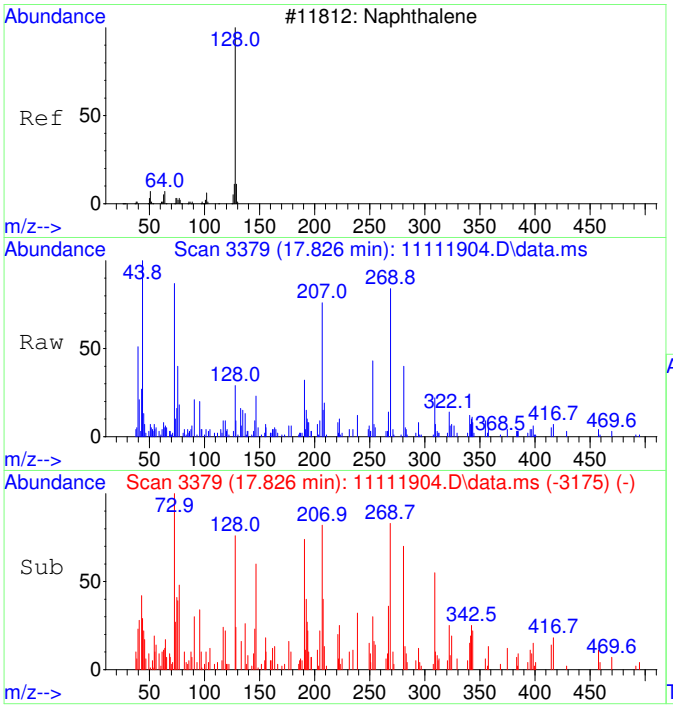


#47
1,2,4-Trimethylbenzene SCAN
Concen: 99.42 ug/L
RT: 15.759 min Scan# 2798
Delta R.T. -0.000 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:105 Resp: 2052

Ion	Ratio	Lower	Upper
105	100		
120	33.5	18.6	78.6
119	4.6	0.0	42.1
77	32.9	0.0	42.9

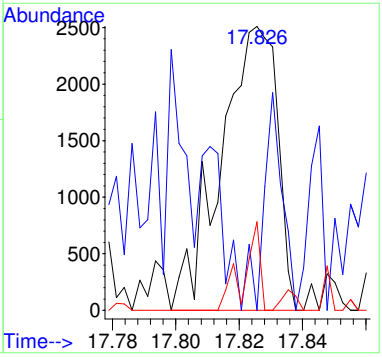




#48
Naphthalene SCAN
Concen: 90.77 ug/L
RT: 17.826 min Scan# 3379
Delta R.T. 0.002 min
Lab File: 11111904.D
Acq: 11 Nov 2019 13:29

Tgt Ion:128 Resp: 3098

Ion	Ratio	Lower	Upper
128	100		
127	16.1	0.0	43.3
129	9.0	0.0	41.1



SECOND SOURCE CALIBRATION CHECK

Radiello D1

Laboratory:	EPA Region 9 Laboratory	SDG:	19301C
Client:	California Site Cleanup Section 3	Project:	MEW OU3 FY2020 Vapor Intrusion Investigation
Instrument ID:	AG5975CV	Calibration:	1911007
Lab File ID:	11081910.D	Calibration Date:	11/08/19 07:19
Sequence:	S19K006	Injection Date:	11/08/19
Lab Sample ID:	S19K006-SCV1	Injection Time:	13:52

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	SCV	ICAL	SCV	MIN (#)	SCV	LIMIT (#)
1,1-Dichloroethene	L	5000	5180	0.2307981	0.2389756		3.5	30
trans-1,2-Dichloroethene	L	5000	4980	0.2371837	0.2363383		-0.4	30
1,1-Dichloroethane	L	5000	4890	0.2958497	0.2895572		-2.1	30
cis-1,2-Dichloroethene	L	5000	5000	0.2771536	0.2770528		-0.04	30
Chloroform	L	5000	4930	0.31795	0.3135748		-1.4	30
1,1,1-Trichloroethane	L	5000	5000	0.3119063	0.311665		-0.08	30
Carbon tetrachloride	L	5000	4960	0.2902238	0.2876656		-0.9	30
1,2-Dichloroethane	L	5000	4670	0.2526807	0.2361474		-6.5	30
Trichloroethene	L	5000	4990	0.2388782	0.2383936		-0.2	30
Toluene	L	5000	5150	0.9794271	1.009167		3.0	30
1,1,2-Trichloroethane	L	5000	4960	0.2265523	0.2247979		-0.8	30
Tetrachloroethene	L	5000	5150	0.2847265	0.2932312		3.0	30
Chlorobenzene	L	5000	5100	0.7270586	0.7422904		2.1	30
1,1,1,2-Tetrachloroethane	L	5000	5020	0.2616487	0.2628114		0.4	30
Ethylbenzene	L	5000	5110	1.189989	1.217132		2.3	30
m&p-Xylene	L	10000	10300	0.9010129	0.9290612		3.1	30
o-Xylene	L	5000	5100	0.9615978	0.9804021		2.0	30
1,1,2,2-Tetrachloroethane	L	5000	5010	0.4266002	0.4277335		0.3	30
1,3,5-Trimethylbenzene	L	5000	5040	1.028455	1.035785		0.7	30
1,2,4-Trimethylbenzene	L	5000	4900	1.047364	1.026973		-1.9	30
Toluene-d8	L	5000	4780	0.8079917	0.7731014		-4.3	30

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
Data File : 11081910.D
Acq On : 8 Nov 2019 13:52
InstName : AG5975C
Operator : TD
Sample : S19K006-SCV1
Misc : 1930062 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 11 06:14:50 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\110819.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.802	109	109961	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.311	98	85011	4784.09 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 95.68%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	2.958	61	26278	5177.16 ug/L	99
3] trans-1,2-Dichloroethene	4.102	61	25988	4982.18 ug/L	100
4] 1,1-Dichloroethane	4.838	63	31840	4893.65 ug/L	100
5] cis-1,2-Dichloroethene	5.867	61	30465	4998.18 ug/L	100
6] Chloroform	6.435	83	34481	4931.20 ug/L	100
7] 1,1,1-Trichloroethane	6.693	97	34271	4996.13 ug/L	100
8] Carbon tetrachloride	6.969	117	31632	4955.93 ug/L	100
9] Benzene	7.300	78	84527	4879.45 ug/L	100
10] 1,2-Dichloroethane	7.337	62	25967	4672.84 ug/L	97
11] Trichloroethene	8.386	130	26214	4989.86 ug/L	100
13] Toluene	10.411	91	110969	5151.82 ug/L	100
14] 1,1,2-Trichloroethane	11.069	97	24719	4961.28 ug/L	100
15] Tetrachloroethene	11.264	166	32244	5149.35 ug/L	99
16] Chlorobenzene	12.598	112	81623	5104.75 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.751	131	28899	5022.22 ug/L	99
18] Ethylbenzene	12.811	91	133837	5114.05 ug/L	100
19] m&p-Xylene	13.001	91	204321	10311.30 ug/L	100
20] o-Xylene	13.615	91	107806	5097.78 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.713	83	47034	5013.28 ug/L	100
22] 1,3,5-Trimethylbenzene	15.184	105	113896	5035.64 ug/L	100
23] 1,2,4-Trimethylbenzene	15.760	105	112927	4902.66 ug/L	100
24] Naphthalene	17.824	128	186566	4697.67 ug/L	100
25) 2-Fluorotoluene SCAN	10.801	109	70998	5182.96 ug/L	94
26) 1,1-Dichloroethene SCAN	2.957	61	18016	3939.41 ug/L	92
27) trans-1,2-Dichloroethe...	4.114	61	18437	4190.57 ug/L	94
28) 1,1-Dichloroethane SCAN	4.837	63	22795	3955.38 ug/L	97
29) cis-1,2-Dichloroethene...	5.872	61	22185	4458.75 ug/L	94
30) Chloroform SCAN	6.452	83	24684	4453.45 ug/L	90
31) 1,1,1-Trichloroethane ...	6.710	97	24931	5152.97 ug/L	96
32) Carbon tetrachloride SCAN	6.968	117	20529	4527.07 ug/L	94
33) Benzene SCAN	7.317	78	57814	4754.55 ug/L	99
34) 1,2-Dichloroethane SCAN	7.354	62	19993	4407.31 ug/L	78
35) Trichloroethene SCAN	8.393	130	15948	4473.81 ug/L	94
36) Toluene-d8 SCAN	10.309	98	55383	4971.37 ug/L	91
37) Toluene SCAN	10.416	91	74155	5398.69 ug/L	98
38) 1,1,2-Trichloroethane ...	11.062	97	17471	5577.11 ug/L	92
39) Tetrachloroethene SCAN	11.263	166	19994	5482.80 ug/L	95
40) Chlorobenzene SCAN	12.597	112	50606	5433.55 ug/L	99
41) 1,1,1,2-Tetrachloroeth...	12.750	131	17879	5343.65 ug/L	98
42) Ethylbenzene SCAN	12.810	91	84915	5431.97 ug/L	95
43) m&p-Xylene SCAN	13.004	91	124691	5559.76 ug/L	99
44) o-Xylene SCAN	13.614	91	71494	5994.48 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.722	83	31080	5366.88 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.183	105	71455	5888.11 ug/L	97
47) 1,2,4-Trimethylbenzene...	15.764	105	68250	5713.60 ug/L	98
48) Naphthalene SCAN	17.823	128	108682	5501.76 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\110819\
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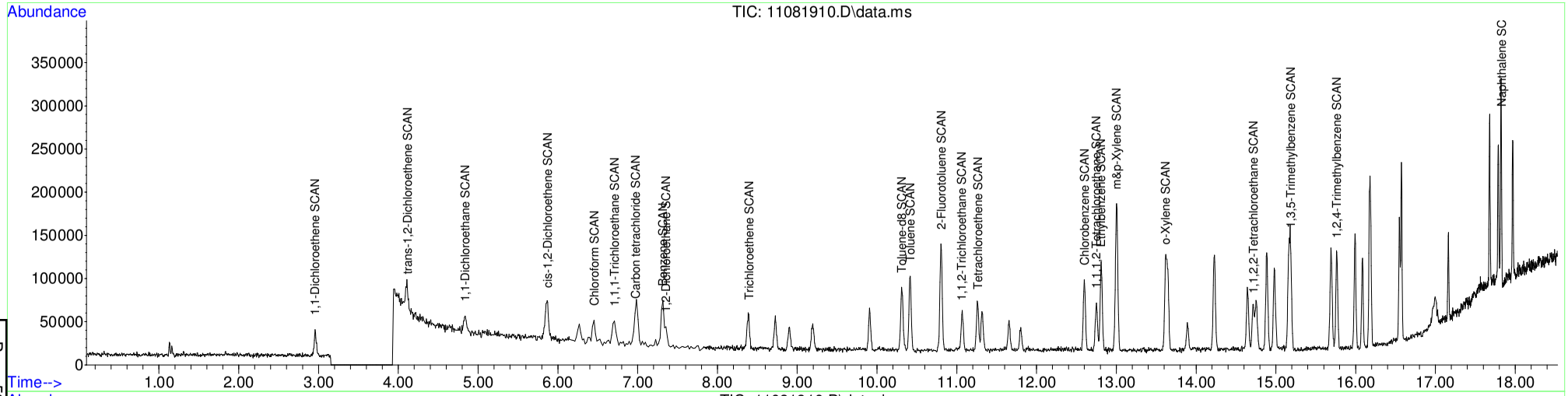
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Nov 11 06:00:05 2019
Response via : Initial Calibration



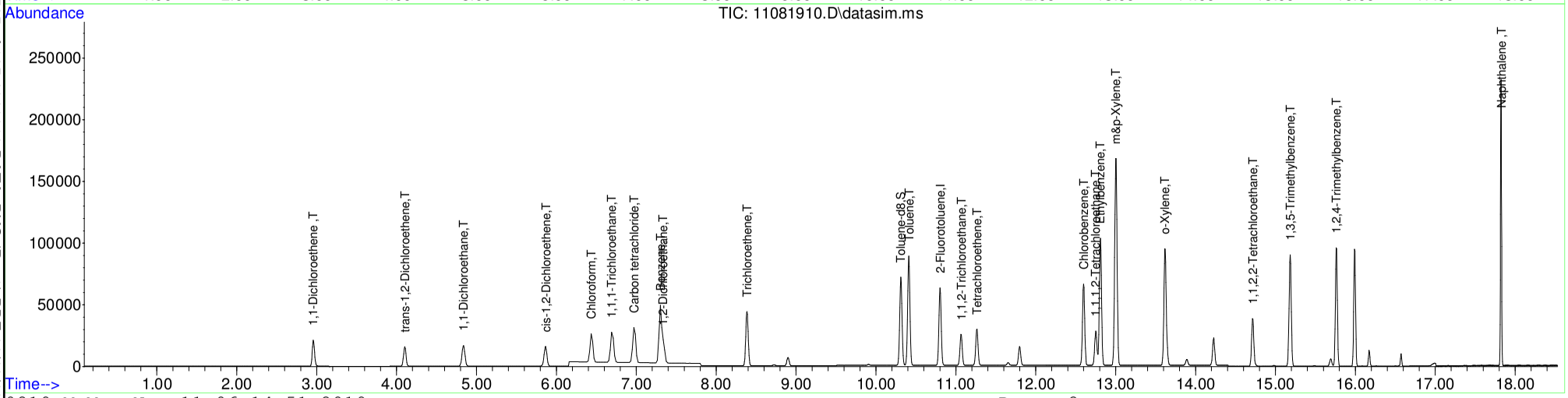


Table of Contents

Analytical Standard Record

EPA Region 9 Laboratory

1639096

Description:	2-Fluorotlouene	**Expires:**	12/31/29
Standard Type:	Other Solution	**Prepared:**	09/22/16
Solvent:	na	**Prepared By:**	** Vendor **
Final Volume (mls):	100	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/22/16 11:46 by RH
Vendor:		**Lot Numbe**	STBF8552V

Aldrich; Cat # F15323-100G, bar code #AU008468

Analyte	CAS Number	Concentration (ppm)
2-Fluorotoluene	95-52-3	1000000

SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:	2-FLUOROTOLUENE
	>= 99 %
Product Number:	F15323
Batch Number:	STBF8552V
Brand:	Aldrich
CAS Number:	95-52-3
Formula:	$CH_3C_6H_4F$
Formula Weight:	110.13
Quality Release Date:	14 SEP 2015

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS TO VERY FAINT YELLOW	VERY FAINT YELLOW
APPEARANCE (FORM)	LIQUID	LIQUID
COLOR (IN APHA)	≤ 50 APHA	40 APHA
PURITY (GC AREA %)	≥ 99.0 %	99.9 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

Dr. Claudia Geitner
Manager Quality Control
Steinheim, Germany

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Analytical Standard Record

EPA Region 9 Laboratory

1740051

Description:	VOA BFB tuning mix, stock STD.	**Expires:**	11/30/22
Standard Type:	Other Solution	**Prepared:**	10/03/17
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/03/17 14:36 by YNB
Vendor:	Restek	**Lot Numbe**	A0129653

RESTEK Cat No. 30003, LOT # A0129653, Bar code #AU009454

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	5000

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30003 **Lot No.:** A0129653

Description : VOA Tuning Compound Mix

VOA Tuning Compound Mix 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KOV) **Purity** 99%	5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
			+/- 280.4856	µg/mL	Unstressed
			+/- 287.0473	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

A4009453	1740050
54	51
55	52
56	53
57	54

Analytical Standard Record

EPA Region 9 Laboratory

1834077

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	04/30/20
Standard Type:	Other Solution	**Prepared:**	08/22/18
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/22/18 14:16 by YNB
Vendor:	Restek	**Lot Numbe**	A0136741

RESTEK, catalog # 30431, Barcode AU010405

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	2000
Bromobenzene	108-86-1	2000
Benzene	71-43-2	2000
4-Chlorotoluene	106-43-4	2000
2-Chlorotoluene	95-49-8	2000
2,2-Dichloropropane	594-20-7	2000
1,4-Dichlorobenzene	106-46-7	2000
1,3-Dichloropropane	142-28-9	2000
1,3-Dichlorobenzene	541-73-1	2000
1,3,5-Trimethylbenzene	108-67-8	2000
1,2-Dichloropropane	78-87-5	2000
1,1,1,2-Tetrachloroethane	630-20-6	2000
1,2-Dichlorobenzene	95-50-1	2000
Bromoform	75-25-2	2000
1,2-Dibromo-3-chloropropane	96-12-8	2000
1,2,4-Trimethylbenzene	95-63-6	2000
1,2,4-Trichlorobenzene	120-82-1	2000
1,2,3-Trichloropropane	96-18-4	2000
1,2,3-Trichlorobenzene	87-61-6	2000
1,1-Dichloropropene	563-58-6	2000
1,1-Dichloroethene	75-35-4	2000
1,1-Dichloroethane	75-34-3	2000
1,1,2-Trichloroethane	79-00-5	2000
1,1,2,2-Tetrachloroethane	79-34-5	2000
1,1,1-Trichloroethane	71-55-6	2000
1,2-Dichloroethane	107-06-2	2000
Hexachlorobutadiene	87-68-3	2000
trans-1,3-Dichloropropene	10061-02-6	2000
trans-1,2-Dichloroethene	156-60-5	2000
Toluene	108-88-3	2000

Analytical Standard Record

EPA Region 9 Laboratory

1834077

Tetrachloroethene	127-18-4	2000
tert-Butylbenzene	98-06-6	2000
Styrene	100-42-5	2000
sec-Butylbenzene	135-98-8	2000
Propylbenzene	103-65-1	2000
p-Isopropyltoluene	99-87-6	2000
o-Xylene	95-47-6	2000
Naphthalene	91-20-3	2000
Bromochloromethane	74-97-5	2000
Isopropylbenzene	98-82-8	2000
Bromodichloromethane	75-27-4	2000
Ethylbenzene	100-41-4	2000
Dichloromethane	75-09-2	2000
Dibromomethane	74-95-3	2000
cis-1,3-Dichloropropene	10061-01-5	2000
cis-1,2-Dichloroethene	156-59-2	2000
Chloroform	67-66-3	2000
Chlorodibromomethane	124-48-1	2000
Chlorobenzene	108-90-7	2000
Carbon tetrachloride	56-23-5	2000
Butylbenzene	104-51-8	2000
Trichloroethene	79-01-6	2000
m&p-Xylene	179601-23-1	4000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30431 **Lot No.:** A0136741

Description : 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1-dichloroethene		2,013.9 µg/mL	+/- 12.6926	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot SHBG8609V)		+/- 90.8373	µg/mL	Unstressed
	Purity 99%			+/- 100.7676	µg/mL	Stressed
2	Methylene chloride (dichloromethane)		2,011.9 µg/mL	+/- 12.6805	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBH7635)		+/- 90.7504	µg/mL	Unstressed
	Purity 99%			+/- 100.6713	µg/mL	Stressed
3	trans-1,2-Dichloroethene		2,012.8 µg/mL	+/- 12.6858	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot 09531AE)		+/- 90.7888	µg/mL	Unstressed
	Purity 99%			+/- 100.7138	µg/mL	Stressed
4	1,1-Dichloroethane		2,014.6 µg/mL	+/- 12.6972	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 358700)		+/- 90.8700	µg/mL	Unstressed
	Purity 99%			+/- 100.8039	µg/mL	Stressed
5	2,2-Dichloropropane		2,007.9 µg/mL	+/- 12.7311	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBR0622V)		+/- 90.5776	µg/mL	Unstressed
	Purity 98%			+/- 100.4774	µg/mL	Stressed
6	cis-1,2-Dichloroethene		2,006.3 µg/mL	+/- 12.7210	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBX5945V)		+/- 90.5059	µg/mL	Unstressed
	Purity 99%			+/- 100.3978	µg/mL	Stressed
7	chloroform		2,013.7 µg/mL	+/- 12.6914	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBH4477V)		+/- 90.8282	µg/mL	Unstressed
	Purity 99%			+/- 100.7576	µg/mL	Stressed

8	Bromochloromethane			2,007.2	µg/mL	+/-	12.7269	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00008541)			+/-	90.5481	µg/mL	Unstressed
	Purity	98%				+/-	100.4447	µg/mL	Stressed
9	1,1,1-trichloroethane			2,015.5	µg/mL	+/-	12.7030	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot B15W12061)			+/-	90.9117	µg/mL	Unstressed
	Purity	99%				+/-	100.8502	µg/mL	Stressed
10	1,1-Dichloropropene			2,007.3	µg/mL	+/-	12.7275	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot 180122JLM)			+/-	90.5525	µg/mL	Unstressed
	Purity	99%				+/-	100.4495	µg/mL	Stressed
11	carbon tetrachloride			2,012.4	µg/mL	+/-	12.6832	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBH8784)			+/-	90.7696	µg/mL	Unstressed
	Purity	99%				+/-	100.6926	µg/mL	Stressed
12	1,2-Dichloroethane			2,012.0	µg/mL	+/-	12.6808	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot MLBV4561V)			+/-	90.7527	µg/mL	Unstressed
	Purity	99%				+/-	100.6738	µg/mL	Stressed
13	Benzene			2,013.0	µg/mL	+/-	12.7635	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBG7317V)			+/-	90.8081	µg/mL	Unstressed
	Purity	99%				+/-	100.7331	µg/mL	Stressed
14	Trichloroethene			2,013.2	µg/mL	+/-	12.6884	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBH1955V)			+/-	90.8068	µg/mL	Unstressed
	Purity	99%				+/-	100.7338	µg/mL	Stressed
15	1,2-Dichloropropane			2,015.3	µg/mL	+/-	12.7019	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot BCBR0882V)			+/-	90.9038	µg/mL	Unstressed
	Purity	99%				+/-	100.8414	µg/mL	Stressed
16	bromodichloromethane			2,017.9	µg/mL	+/-	12.7179	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKBZ1865V)			+/-	91.0184	µg/mL	Unstressed
	Purity	97%				+/-	100.9686	µg/mL	Stressed
17	Dibromomethane			2,010.4	µg/mL	+/-	12.7470	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10201030)			+/-	90.6908	µg/mL	Unstressed
	Purity	99%				+/-	100.6030	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,014.3	µg/mL	+/-	12.6956	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 24555)			+/-	90.8587	µg/mL	Unstressed
	Purity	99%				+/-	100.7914	µg/mL	Stressed
19	Toluene			2,007.2	µg/mL	+/-	12.7269	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBH9895)			+/-	90.5480	µg/mL	Unstressed
	Purity	99%				+/-	100.4445	µg/mL	Stressed
20	trans-1,3-Dichloropropene			1,990.3	µg/mL	+/-	12.5442	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C795163)			+/-	89.7748	µg/mL	Unstressed
	Purity	97%				+/-	99.5890	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,014.0	µg/mL	+/-	12.6933	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.8418	µg/mL	Unstressed
	Purity	99%				+/-	100.7726	µg/mL	Stressed
22	1,3-Dichloropropane			2,014.3	µg/mL	+/-	12.7721	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)			+/-	90.8698	µg/mL	Unstressed
	Purity	99%				+/-	100.8015	µg/mL	Stressed
23	Tetrachloroethene			2,013.3	µg/mL	+/-	12.6888	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBH1014V)			+/-	90.8102	µg/mL	Unstressed
	Purity	99%				+/-	100.7376	µg/mL	Stressed

24	dibromochloromethane			2,018.7	µg/mL	+/-	12.7234	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKCC0877)				+/-	91.0572	µg/mL	Unstressed
	Purity 98%					+/-	101.0116	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,007.3	µg/mL	+/-	12.7278	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBP2268V)				+/-	90.5540	µg/mL	Unstressed
	Purity 99%					+/-	100.4512	µg/mL	Stressed
26	Chlorobenzene			2,015.4	µg/mL	+/-	12.7026	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBH4459V)				+/-	90.9083	µg/mL	Unstressed
	Purity 99%					+/-	100.8464	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,012.0	µg/mL	+/-	12.7576	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)				+/-	90.7660	µg/mL	Unstressed
	Purity 99%					+/-	100.6864	µg/mL	Stressed
28	Ethylbenzene			2,012.6	µg/mL	+/-	12.7612	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBJ0829)				+/-	90.7916	µg/mL	Unstressed
	Purity 99%					+/-	100.7147	µg/mL	Stressed
29	m-Xylene			2,006.8	µg/mL	+/-	12.7242	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBH8323)				+/-	90.5284	µg/mL	Unstressed
	Purity 99%					+/-	100.4228	µg/mL	Stressed
30	p-Xylene			2,007.9	µg/mL	+/-	12.7316	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBJ0052)				+/-	90.5811	µg/mL	Unstressed
	Purity 99%					+/-	100.4812	µg/mL	Stressed
31	o-Xylene			2,007.2	µg/mL	+/-	12.7271	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBH3432V)				+/-	90.5495	µg/mL	Unstressed
	Purity 99%					+/-	100.4462	µg/mL	Stressed
32	Styrene			2,013.6	µg/mL	+/-	12.7677	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKBV4061V)				+/-	90.8382	µg/mL	Unstressed
	Purity 99%					+/-	100.7664	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,007.0	µg/mL	+/-	12.7254	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10185056)				+/-	90.5375	µg/mL	Unstressed
	Purity 99%					+/-	100.4328	µg/mL	Stressed
34	bromoform			2,012.6	µg/mL	+/-	12.6846	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBD8459V)				+/-	90.7798	µg/mL	Unstressed
	Purity 99%					+/-	100.7038	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,016.7	µg/mL	+/-	12.7107	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)				+/-	90.9669	µg/mL	Unstressed
	Purity 99%					+/-	100.9115	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,005.9	µg/mL	+/-	12.7187	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)				+/-	90.4893	µg/mL	Unstressed
	Purity 99%					+/-	100.3794	µg/mL	Stressed
37	n-Propylbenzene			2,009.8	µg/mL	+/-	12.7432	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot WXBC3346V)				+/-	90.6638	µg/mL	Unstressed
	Purity 99%					+/-	100.5729	µg/mL	Stressed
38	Bromobenzene			2,007.3	µg/mL	+/-	12.7273	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot MKBD4032V)				+/-	90.5510	µg/mL	Unstressed
	Purity 99%					+/-	100.4478	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,011.1	µg/mL	+/-	12.7519	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBQ2165V)				+/-	90.7254	µg/mL	Unstressed
	Purity 99%					+/-	100.6413	µg/mL	Stressed

40	2-Chlorotoluene		2,006.4	µg/mL	+/-	12.7216	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/-	90.5104	µg/mL	Unstressed
	Purity 99%				+/-	100.4028	µg/mL	Stressed
41	4-Chlorotoluene		2,007.9	µg/mL	+/-	12.7314	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	90.5796	µg/mL	Unstressed
	Purity 99%				+/-	100.4795	µg/mL	Stressed
42	1,2,4-Trimethylbenzene		2,015.9	µg/mL	+/-	12.7822	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	90.9416	µg/mL	Unstressed
	Purity 98%				+/-	100.8811	µg/mL	Stressed
43	sec-Butylbenzene		2,006.7	µg/mL	+/-	12.7235	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/-	90.5239	µg/mL	Unstressed
	Purity 99%				+/-	100.4178	µg/mL	Stressed
44	p-Isopropyltoluene (p-Cymene)		2,008.7	µg/mL	+/-	12.7366	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKBS2604V)			+/-	90.6172	µg/mL	Unstressed
	Purity 99%				+/-	100.5212	µg/mL	Stressed
45	1,3-Dichlorobenzene		2,013.4	µg/mL	+/-	12.6898	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBM5751V)			+/-	90.8170	µg/mL	Unstressed
	Purity 99%				+/-	100.7451	µg/mL	Stressed
46	1,4-Dichlorobenzene		2,013.0	µg/mL	+/-	12.6871	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	90.7978	µg/mL	Unstressed
	Purity 99%				+/-	100.7238	µg/mL	Stressed
47	n-Butylbenzene		2,009.1	µg/mL	+/-	12.7392	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09418JJV)			+/-	90.6352	µg/mL	Unstressed
	Purity 99%				+/-	100.5412	µg/mL	Stressed
48	tert-Butylbenzene		2,010.4	µg/mL	+/-	12.7472	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	90.6923	µg/mL	Unstressed
	Purity 99%				+/-	100.6046	µg/mL	Stressed
49	1,2-Dichlorobenzene		2,011.3	µg/mL	+/-	12.6766	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	90.7222	µg/mL	Unstressed
	Purity 99%				+/-	100.6400	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		2,009.5	µg/mL	+/-	12.7417	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/-	90.6532	µg/mL	Unstressed
	Purity 99%				+/-	100.5613	µg/mL	Stressed
51	1,2,4-Trichlorobenzene		2,009.8	µg/mL	+/-	12.7434	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	90.6653	µg/mL	Unstressed
	Purity 99%				+/-	100.5746	µg/mL	Stressed
52	Hexachlorobutadiene		2,006.8	µg/mL	+/-	12.7244	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	90.5299	µg/mL	Unstressed
	Purity 99%				+/-	100.4245	µg/mL	Stressed
53	Naphthalene		2,011.8	µg/mL	+/-	12.7559	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBW2603V)			+/-	90.7540	µg/mL	Unstressed
	Purity 99%				+/-	100.6730	µg/mL	Stressed
54	1,2,3-Trichlorobenzene		2,007.1	µg/mL	+/-	12.7265	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBS4859V)			+/-	90.5450	µg/mL	Unstressed
	Purity 99%				+/-	100.4412	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

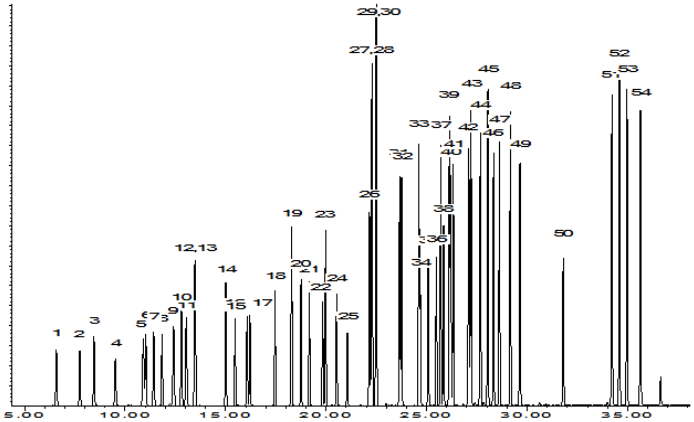
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician

Date Mixed: 02-Apr-2018 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 04-Apr-2018

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1843076

Description:	VOA 502/524 VOC Mix, Stock	**Expires:**	09/30/20
Standard Type:	Other Solution	**Prepared:**	10/24/18
Solvent:	MeOH	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	1.15	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/24/18 12:19 by YNB
Vendor:	Sigma Aldrich	**Lot Numbe**	LRAC0242

Sigma-Aldrich (Supelco), Cat # 502111, Lot# LRAC0242, bar code AU010601

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromo-3-chloropropane	96-12-8	2000
1,1,1,2-Tetrachloroethane	630-20-6	2000
Benzene	71-43-2	2000
4-Chlorotoluene	106-43-4	2000
2-Chlorotoluene	95-49-8	2000
2,2-Dichloropropane	594-20-7	2000
1,4-Dichlorobenzene	106-46-7	2000
1,3-Dichloropropane	142-28-9	2000
1,3-Dichlorobenzene	541-73-1	2000
1,3,5-Trimethylbenzene	108-67-8	2000
1,2-Dichloropropane	78-87-5	2000
1,2-Dichloroethane	107-06-2	2000
Bromochloromethane	74-97-5	2000
1,2-Dibromoethane (EDB)	106-93-4	2000
Bromodichloromethane	75-27-4	2000
1,2,4-Trimethylbenzene	95-63-6	2000
1,2,4-Trichlorobenzene	120-82-1	2000
1,2,3-Trimethylbenzene	526-73-8	2000
1,2,3-Trichloropropane	96-18-4	2000
1,2,3-Trichlorobenzene	87-61-6	2000
1,1-Dichloropropene	563-58-6	2000
1,1-Dichloroethene	75-35-4	2000
1,1-Dichloroethane	75-34-3	2000
1,1,2-Trichloroethane	79-00-5	2000
1,1,2,2-Tetrachloroethane	79-34-5	2000
1,1,1-Trichloroethane	71-55-6	2000
1,2-Dichlorobenzene	95-50-1	2000
Hexachlorobutadiene	87-68-3	2000
trans-1,3-Dichloropropene	10061-02-6	2000
trans-1,2-Dichloroethene	156-60-5	2000

Analytical Standard Record

EPA Region 9 Laboratory

1843076

Toluene	108-88-3	2000
Tetrachloroethene	127-18-4	2000
tert-Butylbenzene	98-06-6	2000
Styrene	100-42-5	2000
sec-Butylbenzene	135-98-8	2000
Propylbenzene	103-65-1	2000
p-Isopropyltoluene	99-87-6	2000
o-Xylene	95-47-6	2000
Naphthalene	91-20-3	2000
Bromobenzene	108-86-1	2000
Isopropylbenzene	98-82-8	2000
Trichloroethene	79-01-6	2000
Ethylbenzene	100-41-4	2000
Dichloromethane	75-09-2	2000
Dibromomethane	74-95-3	2000
cis-1,3-Dichloropropene	10061-01-5	2000
cis-1,2-Dichloroethene	156-59-2	2000
Chloroform	67-66-3	2000
Chlorodibromomethane	124-48-1	2000
Chlorobenzene	108-90-7	2000
Carbon tetrachloride	56-23-5	2000
Butylbenzene	104-51-8	2000
Bromoform	75-25-2	2000
m&p-Xylene	179601-23-1	4000

Certificate of Analysis

502/524 VOLATILE ORGANICS CALIBRATION

Certified Reference Material

Product ID 502111
Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

Analyte	*Units*	*Certified Value* [1,4]	*Analytical Value*	*Raw Material Purity,%*	*Raw Material lot*	*Elution order*	*CAS*
1,1-DICHLOROETHYLENE	µg/ml	2000 ± 170	2120	99.9998	LC08188	1	75-35-4
DICHLOROMETHANE	µg/ml	2000 ± 140	2040	99.99	SHBK1353	2	75-09-2
TRANS-1,2-DICHLOROETHYLENE	µg/ml	2000 ± 140	2040	99.7	MKBH9850V	3	156-60-5
1,1-DICHLOROETHANE	µg/ml	2001 ± 130	1980	99.9	LB68167	4	75-34-3
2,2-DICHLOROPROPANE	µg/ml	2000 ± 135	2010	98.4	BCBR0622V	5	594-20-7
CIS-1,2-DICHLOROETHYLENE	µg/ml	2001 ± 130	2010	99.9	LB73428	6	156-59-2
CHLOROFORM	µg/ml	2000 ± 120	2000	99.94	MKBV7632V	7	67-66-3
BROMOCHLOROMETHANE	µg/ml	2001 ± 110	1990	98.9	LB39040	8	74-97-5
1,1,1-TRICHLOROETHANE	µg/ml	2000 ± 140	2020	97.2	LC06533	9	71-55-6
1,1-DICHLOROPROPYLENE	µg/ml	2001 ± 125	1990	99.5	7738900	10	563-58-6
CARBON TETRACHLORIDE	µg/ml	2000 ± 140	1990	99.97	02041MB	11	56-23-5
1,2-DICHLOROETHANE	µg/ml	2001 ± 110	2010	99.9	LB74294	12	107-06-02
BENZENE	µg/ml	2000 ± 120	1970	99.99	SHBJ5344	13	71-43-2
TRICHLOROETHYLENE	µg/ml	2001 ± 110	2010	98.6	LB86674	14	79-01-6
1,2-DICHLOROPROPANE	µg/ml	2001 ± 120	1980	99.9	LC14320	15	78-87-5
BROMODICHLOROMETHANE	µg/ml	2001 ± 120	1980	97.9	MKCF8470	16	75-27-4
DIBROMOMETHANE	µg/ml	2001 ± 110	2030	98.8	LB81118	17	74-95-3
TRANS 1,3-DICHLOROPROPENE	µg/ml	2002 ± 120	1970	99	ZDMSLEK	18	10061-02-06
TOLUENE	µg/ml	2000 ± 110	2010	99.98	MKCF0747	19	108-88-3
CIS 1,3-DICHLOROPROPENE	µg/ml	2001 ± 120	1990	99.3	MKBZ5000V	20	10061-01-5
1,1,2-TRICHLOROETHANE	µg/ml	2000 ± 110	2010	99.9	LB87978	21	79-00-5
1,3-DICHLOROPROPANE	µg/ml	2000 ± 110	1990	99.9	LC10811	22	142-28-9
TETRACHLOROETHYLENE	µg/ml	2000 ± 110	2010	99.9	LB67182	23	127-18-4
DIBROMOCHLOROMETHANE	µg/ml	2000 ± 120	2020	96.5	LB89245	24	124-48-1

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rctechgroup@sial.com www.sigma-aldrich.com

Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

1,2-DIBROMOETHANE	µg/ml	2003 ± 110	2020	99.1	LB42792	25	106-93-4
CHLOROBENZENE	µg/ml	2000 ± 94	1990	99.9	LB93949	26	108-90-7
1,1,1,2-TETRACHLOROETHANE	µg/ml	2000 ± 110	1980	99.9	LC14810	27	630-20-6
ETHYLBENZENE	µg/ml	2000 ± 110	1980	99.87	SHBK2389	28	100-41-4
M-XYLENE	µg/ml	2002 ± 110	2000	99.8	LB87531	29	108-38-3
P-XYLENE	µg/ml	2000 ± 110	2000	99.9	LB73203	29	106-42-3
O-XYLENE	µg/ml	2000 ± 110	2000	99.5	LB92424	30	95-47-6
STYRENE	µg/ml	2000 ± 98	1990	99.9	LC17632	31	100-42-5
CUMENE	µg/ml	2000 ± 99	2010	99.9	LB89580	32	98-82-8
BROMOFORM	µg/ml	2001 ± 120	2050	96.1	67996PJ	33	75-25-2
1,1,2,2-TETRACHLOROETHANE	µg/ml	2000 ± 100	1990	99.9	LB51327	34	79-34-5
1,2,3-TRICHLOROPROPANE	µg/ml	2001 ± 99	2020	99	BCBH8722V	35	96-18-4
N-PROPYLBENZENE	µg/ml	2000 ± 100	1990	99.9	T2HFC	36	103-65-1
BROMOBENZENE	µg/ml	2001 ± 98	1980	99.5	LB99843	37	108-86-1
1,2,4-TRIMETHYLBENZENE	µg/ml	2000 ± 100	2020	98.9	LB97224	38	95-63-6
2-CHLOROTOLUENE	µg/ml	2001 ± 98	2010	99.9	LC01464	39	95-49-8
4-CHLOROTOLUENE	µg/ml	2001 ± 92	2000	99.9	LC02742	40	106-43-4
TERT-BUTYLBENZENE	µg/ml	2000 ± 93	2000	99.9	LB40373	41	98-06-6
1,3,5-TRIMETHYLBENZENE	µg/ml	2000 ± 94	1980	99.3	LB82157	42	108-67-8
SEC-BUTYLBENZENE	µg/ml	2000 ± 93	1990	99.4	LB77150	43	135-98-8
P-ISOPROPYLTOLUENE	µg/ml	2000 ± 88	1960	98.7	LB40003	44	99-87-6
1,4-DICHLOROBENZENE	µg/ml	2000 ± 88	2000	99.9	LB90630	45	106-46-7
1,3-DICHLOROBENZENE	µg/ml	2001 ± 94	2010	99.9	LC17654	46	541-73-1
N-BUTYLBENZENE	µg/ml	2000 ± 91	2010	99.9	LB81630	47	104-51-8
1,2-DICHLOROBENZENE	µg/ml	2001 ± 82	2010	99.4	LB58923	48	95-50-1
1,2-DIBROMO-3-CHLOROPROPANE	µg/ml	2000 ± 89	2060	96.8	LB06608	49	96-12-8
1,2,3-TRICHLOROBENZENE	µg/ml	2000 ± 73	2010	99.9	LC20450	50	87-61-6
HEXACHLOROBUTADIENE	µg/ml	2000 ± 81	2060	97.4	MKCD4346	51	87-68-3

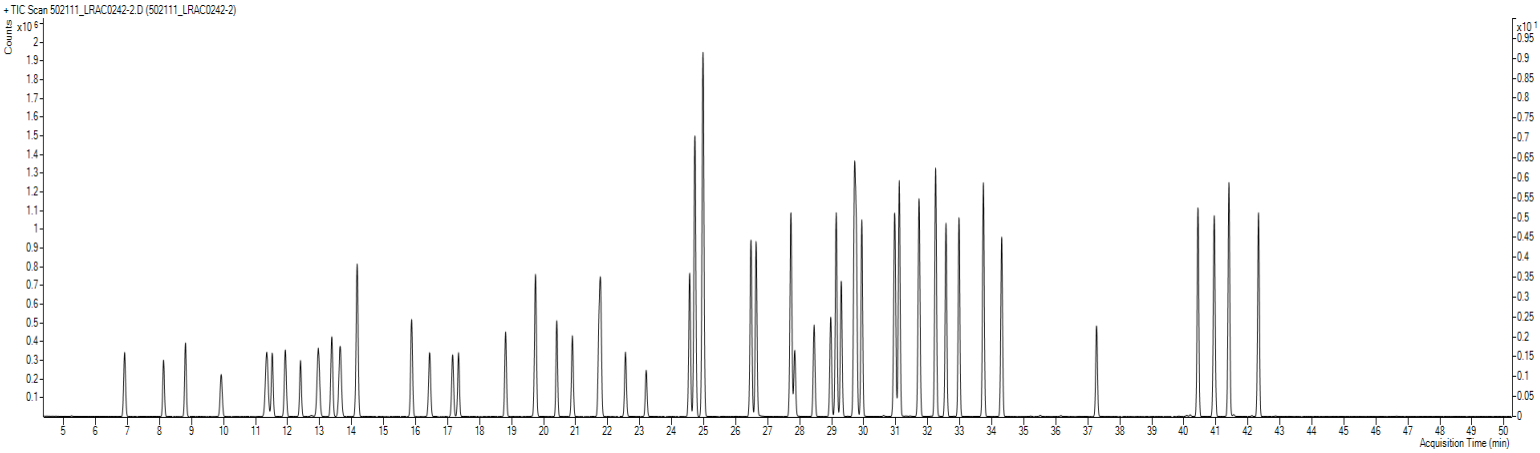
Certificate of Analysis

502/524 VOLATILE ORGANICS CALIBRATION

Certified Reference Material

Product ID 502111
Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

NAPHTHALENE	µg/ml	2000 ± 81	1990	99.9	16412TN	52	91-20-3
1,2,4-TRICHLOROBENZENE	µg/ml	2001 ± 67	2020	99.4	LB48083	53	120-82-1



Additional Information:

Analytical Method Parameters:

Column: VOCOL, 60 m x 0.25 mm x 1.5 µm df
35°C (4 min) to 200°C (5 min) at 4°C/min
Detector: MSD, 200°C
Injection Volume: 1 µL

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rctechgroup@sial.com www.sigma-aldrich.com

Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

1 Certified value - based on the gravimetric preparation and analytically verified by RTC with associated uncertainties from the preparation and analytical procedures.

4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Traceability: The standard was manufactured under an ISO/IEC 17025:2005 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2005 (ANAB Cert AT-1467) and ISO GUIDE 34:2009 (ANAB Cert AR-1470).

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

Robert O'Brien - QC Supervisor

Mark Pooler - QA Supervisor

Certification Date October 04, 2018
Version -1042018

Analytical Standard Record

EPA Region 9 Laboratory

1920043

Description:	Toluene-d8	Expires:	05/15/29
Standard Type:	Calibration Standa	Prepared:	05/15/19
Solvent:	na	Prepared By:	** Vendor **
Final Volume (mls):	0.1	Department:	Volatiles
Vials:	1	Last Edit:	05/15/19 13:00 by TD

Supelco; POS # 18C-262, bar code #AU0010911

Experation date changed, neat standard, per ZAR

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	1000000	ppm

Reviewed By Date

CERTIFICATE OF ANALYSIS

FROM VENDOR

IS NOT AVAILABLE.

Analytical Standard Record

EPA Region 9 Laboratory

1930051

Description:	Passive indoor air Surrogate Stock	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:31 by TD

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	10000	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1920043	Toluene-d8	05/15/19	** Vendor **	01/24/20	07/24/19 10:29 by TD	0.02

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930053

Description:	Passive indoor air stock std 50	Expires:	01/24/20
Standard Type:	Analyte Spike	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	20	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:33 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	50	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	50	ug/mL
Bromobenzene	108-86-1	50	ug/mL
Benzene	71-43-2	50	ug/mL
4-Chlorotoluene	106-43-4	50	ug/mL
2-Chlorotoluene	95-49-8	50	ug/mL
2,2-Dichloropropane	594-20-7	50	ug/mL
1,4-Dichlorobenzene	106-46-7	50	ug/mL
1,3-Dichloropropane	142-28-9	50	ug/mL
1,3-Dichlorobenzene	541-73-1	50	ug/mL
1,3,5-Trimethylbenzene	108-67-8	50	ug/mL
1,2-Dichloropropane	78-87-5	50	ug/mL
Bromodichloromethane	75-27-4	50	ug/mL
1,2-Dichlorobenzene	95-50-1	50	ug/mL
Bromoform	75-25-2	50	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	50	ug/mL
1,2,4-Trimethylbenzene	95-63-6	50	ug/mL
1,2,4-Trichlorobenzene	120-82-1	50	ug/mL
1,2,3-Trichloropropane	96-18-4	50	ug/mL
1,2,3-Trichlorobenzene	87-61-6	50	ug/mL
1,1-Dichloropropene	563-58-6	50	ug/mL
1,1-Dichloroethene	75-35-4	50	ug/mL
1,1-Dichloroethane	75-34-3	50	ug/mL
1,1,2-Trichloroethane	79-00-5	50	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	50	ug/mL
1,1,1-Trichloroethane	71-55-6	50	ug/mL
1,2-Dichloroethane	107-06-2	50	ug/mL
Isopropylbenzene	98-82-8	50	ug/mL
trans-1,3-Dichloropropene	10061-02-6	50	ug/mL
trans-1,2-Dichloroethene	156-60-5	50	ug/mL

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Toluene-d8	2037-26-5	50	ug/mL
Toluene	108-88-3	50	ug/mL
Tetrachloroethene	127-18-4	50	ug/mL
tert-Butylbenzene	98-06-6	50	ug/mL
Styrene	100-42-5	50	ug/mL
sec-Butylbenzene	135-98-8	50	ug/mL
Propylbenzene	103-65-1	50	ug/mL
p-Isopropyltoluene	99-87-6	50	ug/mL
o-Xylene	95-47-6	50	ug/mL
Bromochloromethane	74-97-5	50	ug/mL
m&p-Xylene	179601-23-1	100	ug/mL
Trichloroethene	79-01-6	50	ug/mL
Hexachlorobutadiene	87-68-3	50	ug/mL
Ethylbenzene	100-41-4	50	ug/mL
Dichloromethane	75-09-2	50	ug/mL
Dibromomethane	74-95-3	50	ug/mL
cis-1,3-Dichloropropene	10061-01-5	50	ug/mL
cis-1,2-Dichloroethene	156-59-2	50	ug/mL
Chloroform	67-66-3	50	ug/mL
Chlorodibromomethane	124-48-1	50	ug/mL
Chlorobenzene	108-90-7	50	ug/mL
Carbon tetrachloride	56-23-5	50	ug/mL
Butylbenzene	104-51-8	50	ug/mL
Naphthalene	91-20-3	50	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930051	Passive indoor air Surrogate Stock	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:31 by TD	0.1
1834077	VOA 502.2 CAL 2000 MEGA MIX, St	08/22/18	** Vendor **	01/24/20	07/24/19 10:28 by TD	0.5

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930054

Description:	Passive indoor air Internal Standard Stock	Expires:	01/24/20
Standard Type:	Internal Standard	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:34 by TD

Analyte	CAS Number	Concentration	Units
2-Fluorotoluene	95-52-3	10000	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1639096	2-Fluorotoluene	09/22/16	** Vendor **	12/31/29	09/22/17 11:57 by TD	0.02

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930055

Description:	Passive indoor air 25	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:37 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	25	ug/mL
Bromobenzene	108-86-1	25	ug/mL
Benzene	71-43-2	25	ug/mL
4-Chlorotoluene	106-43-4	25	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	25	ug/mL
2,2-Dichloropropane	594-20-7	25	ug/mL
1,4-Dichlorobenzene	106-46-7	25	ug/mL
1,3-Dichloropropane	142-28-9	25	ug/mL
1,3-Dichlorobenzene	541-73-1	25	ug/mL
1,3,5-Trimethylbenzene	108-67-8	25	ug/mL
1,2-Dichloropropane	78-87-5	25	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	25	ug/mL
1,2-Dichlorobenzene	95-50-1	25	ug/mL
Bromoform	75-25-2	25	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	25	ug/mL
1,2,4-Trimethylbenzene	95-63-6	25	ug/mL
1,2,4-Trichlorobenzene	120-82-1	25	ug/mL
1,2,3-Trichloropropane	96-18-4	25	ug/mL
1,2,3-Trichlorobenzene	87-61-6	25	ug/mL
1,1-Dichloropropene	563-58-6	25	ug/mL
1,1-Dichloroethene	75-35-4	25	ug/mL
1,1-Dichloroethane	75-34-3	25	ug/mL
1,1,2-Trichloroethane	79-00-5	25	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	25	ug/mL
1,1,1-Trichloroethane	71-55-6	25	ug/mL
1,2-Dichloroethane	107-06-2	25	ug/mL
Isopropylbenzene	98-82-8	25	ug/mL
trans-1,3-Dichloropropene	10061-02-6	25	ug/mL
trans-1,2-Dichloroethene	156-60-5	25	ug/mL

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1930055

Toluene-d8	2037-26-5	25	ug/mL
Toluene	108-88-3	25	ug/mL
Tetrachloroethene	127-18-4	25	ug/mL
tert-Butylbenzene	98-06-6	25	ug/mL
Styrene	100-42-5	25	ug/mL
sec-Butylbenzene	135-98-8	25	ug/mL
Propylbenzene	103-65-1	25	ug/mL
p-Isopropyltoluene	99-87-6	25	ug/mL
o-Xylene	95-47-6	25	ug/mL
Bromochloromethane	74-97-5	25	ug/mL
m&p-Xylene	179601-23-1	50	ug/mL
Bromodichloromethane	75-27-4	25	ug/mL
Hexachlorobutadiene	87-68-3	25	ug/mL
Ethylbenzene	100-41-4	25	ug/mL
Dichloromethane	75-09-2	25	ug/mL
Dibromomethane	74-95-3	25	ug/mL
cis-1,3-Dichloropropene	10061-01-5	25	ug/mL
cis-1,2-Dichloroethene	156-59-2	25	ug/mL
Chloroform	67-66-3	25	ug/mL
Chlorodibromomethane	124-48-1	25	ug/mL
Chlorobenzene	108-90-7	25	ug/mL
Carbon tetrachloride	56-23-5	25	ug/mL
Butylbenzene	104-51-8	25	ug/mL
Trichloroethene	79-01-6	25	ug/mL
Naphthalene	91-20-3	25	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.005
1930053	Passive indoor air stock std 50	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:33 by TD	5

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930056

Description:	Passive indoor air 10	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:37 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	10	ug/mL
Bromobenzene	108-86-1	10	ug/mL
Benzene	71-43-2	10	ug/mL
4-Chlorotoluene	106-43-4	10	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	10	ug/mL
2,2-Dichloropropane	594-20-7	10	ug/mL
1,4-Dichlorobenzene	106-46-7	10	ug/mL
1,3-Dichloropropane	142-28-9	10	ug/mL
1,3-Dichlorobenzene	541-73-1	10	ug/mL
1,3,5-Trimethylbenzene	108-67-8	10	ug/mL
1,2-Dichloropropane	78-87-5	10	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	10	ug/mL
1,2-Dichlorobenzene	95-50-1	10	ug/mL
Bromoform	75-25-2	10	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	10	ug/mL
1,2,4-Trimethylbenzene	95-63-6	10	ug/mL
1,2,4-Trichlorobenzene	120-82-1	10	ug/mL
1,2,3-Trichloropropane	96-18-4	10	ug/mL
1,2,3-Trichlorobenzene	87-61-6	10	ug/mL
1,1-Dichloropropene	563-58-6	10	ug/mL
1,1-Dichloroethene	75-35-4	10	ug/mL
1,1-Dichloroethane	75-34-3	10	ug/mL
1,1,2-Trichloroethane	79-00-5	10	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	10	ug/mL
1,1,1-Trichloroethane	71-55-6	10	ug/mL
1,2-Dichloroethane	107-06-2	10	ug/mL
Isopropylbenzene	98-82-8	10	ug/mL
trans-1,3-Dichloropropene	10061-02-6	10	ug/mL
trans-1,2-Dichloroethene	156-60-5	10	ug/mL

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Analytical Standard Record

EPA Region 9 Laboratory

1930056

Toluene-d8	2037-26-5	10	ug/mL
Toluene	108-88-3	10	ug/mL
Tetrachloroethene	127-18-4	10	ug/mL
tert-Butylbenzene	98-06-6	10	ug/mL
Styrene	100-42-5	10	ug/mL
sec-Butylbenzene	135-98-8	10	ug/mL
Propylbenzene	103-65-1	10	ug/mL
p-Isopropyltoluene	99-87-6	10	ug/mL
o-Xylene	95-47-6	10	ug/mL
Bromochloromethane	74-97-5	10	ug/mL
m&p-Xylene	179601-23-1	20	ug/mL
Bromodichloromethane	75-27-4	10	ug/mL
Hexachlorobutadiene	87-68-3	10	ug/mL
Ethylbenzene	100-41-4	10	ug/mL
Dichloromethane	75-09-2	10	ug/mL
Dibromomethane	74-95-3	10	ug/mL
cis-1,3-Dichloropropene	10061-01-5	10	ug/mL
cis-1,2-Dichloroethene	156-59-2	10	ug/mL
Chloroform	67-66-3	10	ug/mL
Chlorodibromomethane	124-48-1	10	ug/mL
Chlorobenzene	108-90-7	10	ug/mL
Carbon tetrachloride	56-23-5	10	ug/mL
Butylbenzene	104-51-8	10	ug/mL
Trichloroethene	79-01-6	10	ug/mL
Naphthalene	91-20-3	10	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.005
1930053	Passive indoor air stock std 50	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:33 by TD	2

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930057

Description:	Passive indoor air 5	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:38 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	5	ug/mL
Bromobenzene	108-86-1	5	ug/mL
Benzene	71-43-2	5	ug/mL
4-Chlorotoluene	106-43-4	5	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	5	ug/mL
2,2-Dichloropropane	594-20-7	5	ug/mL
1,4-Dichlorobenzene	106-46-7	5	ug/mL
1,3-Dichloropropane	142-28-9	5	ug/mL
1,3-Dichlorobenzene	541-73-1	5	ug/mL
1,3,5-Trimethylbenzene	108-67-8	5	ug/mL
1,2-Dichloropropane	78-87-5	5	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/mL
1,2-Dichlorobenzene	95-50-1	5	ug/mL
Bromoform	75-25-2	5	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	5	ug/mL
1,2,4-Trimethylbenzene	95-63-6	5	ug/mL
1,2,4-Trichlorobenzene	120-82-1	5	ug/mL
1,2,3-Trichloropropane	96-18-4	5	ug/mL
1,2,3-Trichlorobenzene	87-61-6	5	ug/mL
1,1-Dichloropropene	563-58-6	5	ug/mL
1,1-Dichloroethene	75-35-4	5	ug/mL
1,1-Dichloroethane	75-34-3	5	ug/mL
1,1,2-Trichloroethane	79-00-5	5	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/mL
1,1,1-Trichloroethane	71-55-6	5	ug/mL
1,2-Dichloroethane	107-06-2	5	ug/mL
Isopropylbenzene	98-82-8	5	ug/mL
trans-1,3-Dichloropropene	10061-02-6	5	ug/mL
trans-1,2-Dichloroethene	156-60-5	5	ug/mL

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1930057

Toluene-d8	2037-26-5	5	ug/mL
Toluene	108-88-3	5	ug/mL
Tetrachloroethene	127-18-4	5	ug/mL
tert-Butylbenzene	98-06-6	5	ug/mL
Styrene	100-42-5	5	ug/mL
sec-Butylbenzene	135-98-8	5	ug/mL
Propylbenzene	103-65-1	5	ug/mL
p-Isopropyltoluene	99-87-6	5	ug/mL
o-Xylene	95-47-6	5	ug/mL
Bromochloromethane	74-97-5	5	ug/mL
m&p-Xylene	179601-23-1	10	ug/mL
Bromodichloromethane	75-27-4	5	ug/mL
Hexachlorobutadiene	87-68-3	5	ug/mL
Ethylbenzene	100-41-4	5	ug/mL
Dichloromethane	75-09-2	5	ug/mL
Dibromomethane	74-95-3	5	ug/mL
cis-1,3-Dichloropropene	10061-01-5	5	ug/mL
cis-1,2-Dichloroethene	156-59-2	5	ug/mL
Chloroform	67-66-3	5	ug/mL
Chlorodibromomethane	124-48-1	5	ug/mL
Chlorobenzene	108-90-7	5	ug/mL
Carbon tetrachloride	56-23-5	5	ug/mL
Butylbenzene	104-51-8	5	ug/mL
Trichloroethene	79-01-6	5	ug/mL
Naphthalene	91-20-3	5	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.005
1930053	Passive indoor air stock std 50	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:33 by TD	1

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930058

Description:	Passive indoor air 1	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:38 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	1	ug/mL
Bromobenzene	108-86-1	1	ug/mL
Benzene	71-43-2	1	ug/mL
4-Chlorotoluene	106-43-4	1	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	1	ug/mL
2,2-Dichloropropane	594-20-7	1	ug/mL
1,4-Dichlorobenzene	106-46-7	1	ug/mL
1,3-Dichloropropane	142-28-9	1	ug/mL
1,3-Dichlorobenzene	541-73-1	1	ug/mL
1,3,5-Trimethylbenzene	108-67-8	1	ug/mL
1,2-Dichloropropane	78-87-5	1	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	1	ug/mL
1,2-Dichlorobenzene	95-50-1	1	ug/mL
Bromoform	75-25-2	1	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	1	ug/mL
1,2,4-Trimethylbenzene	95-63-6	1	ug/mL
1,2,4-Trichlorobenzene	120-82-1	1	ug/mL
1,2,3-Trichloropropane	96-18-4	1	ug/mL
1,2,3-Trichlorobenzene	87-61-6	1	ug/mL
1,1-Dichloropropene	563-58-6	1	ug/mL
1,1-Dichloroethene	75-35-4	1	ug/mL
1,1-Dichloroethane	75-34-3	1	ug/mL
1,1,2-Trichloroethane	79-00-5	1	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	1	ug/mL
1,1,1-Trichloroethane	71-55-6	1	ug/mL
1,2-Dichloroethane	107-06-2	1	ug/mL
Isopropylbenzene	98-82-8	1	ug/mL
trans-1,3-Dichloropropene	10061-02-6	1	ug/mL
trans-1,2-Dichloroethene	156-60-5	1	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930058

Toluene-d8	2037-26-5	1	ug/mL
Toluene	108-88-3	1	ug/mL
Tetrachloroethene	127-18-4	1	ug/mL
tert-Butylbenzene	98-06-6	1	ug/mL
Styrene	100-42-5	1	ug/mL
sec-Butylbenzene	135-98-8	1	ug/mL
Propylbenzene	103-65-1	1	ug/mL
p-Isopropyltoluene	99-87-6	1	ug/mL
o-Xylene	95-47-6	1	ug/mL
Bromochloromethane	74-97-5	1	ug/mL
m&p-Xylene	179601-23-1	2	ug/mL
Bromodichloromethane	75-27-4	1	ug/mL
Hexachlorobutadiene	87-68-3	1	ug/mL
Ethylbenzene	100-41-4	1	ug/mL
Dichloromethane	75-09-2	1	ug/mL
Dibromomethane	74-95-3	1	ug/mL
cis-1,3-Dichloropropene	10061-01-5	1	ug/mL
cis-1,2-Dichloroethene	156-59-2	1	ug/mL
Chloroform	67-66-3	1	ug/mL
Chlorodibromomethane	124-48-1	1	ug/mL
Chlorobenzene	108-90-7	1	ug/mL
Carbon tetrachloride	56-23-5	1	ug/mL
Butylbenzene	104-51-8	1	ug/mL
Trichloroethene	79-01-6	1	ug/mL
Naphthalene	91-20-3	1	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.005
1930053	Passive indoor air stock std 50	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:33 by TD	0.2

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930059

Description:	Passive indoor air 0.15	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:39 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	0.15	ug/mL
Bromobenzene	108-86-1	0.15	ug/mL
Benzene	71-43-2	0.15	ug/mL
4-Chlorotoluene	106-43-4	0.15	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	0.15	ug/mL
2,2-Dichloropropane	594-20-7	0.15	ug/mL
1,4-Dichlorobenzene	106-46-7	0.15	ug/mL
1,3-Dichloropropane	142-28-9	0.15	ug/mL
1,3-Dichlorobenzene	541-73-1	0.15	ug/mL
1,3,5-Trimethylbenzene	108-67-8	0.15	ug/mL
1,2-Dichloropropane	78-87-5	0.15	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	0.15	ug/mL
1,2-Dichlorobenzene	95-50-1	0.15	ug/mL
Bromoform	75-25-2	0.15	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	0.15	ug/mL
1,2,4-Trimethylbenzene	95-63-6	0.15	ug/mL
1,2,4-Trichlorobenzene	120-82-1	0.15	ug/mL
1,2,3-Trichloropropane	96-18-4	0.15	ug/mL
1,2,3-Trichlorobenzene	87-61-6	0.15	ug/mL
1,1-Dichloropropene	563-58-6	0.15	ug/mL
1,1-Dichloroethene	75-35-4	0.15	ug/mL
1,1-Dichloroethane	75-34-3	0.15	ug/mL
1,1,2-Trichloroethane	79-00-5	0.15	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	0.15	ug/mL
1,1,1-Trichloroethane	71-55-6	0.15	ug/mL
1,2-Dichloroethane	107-06-2	0.15	ug/mL
Isopropylbenzene	98-82-8	0.15	ug/mL
trans-1,3-Dichloropropene	10061-02-6	0.15	ug/mL
trans-1,2-Dichloroethene	156-60-5	0.15	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930059

Toluene-d8	2037-26-5	0.15	ug/mL
Toluene	108-88-3	0.15	ug/mL
Tetrachloroethene	127-18-4	0.15	ug/mL
tert-Butylbenzene	98-06-6	0.15	ug/mL
Styrene	100-42-5	0.15	ug/mL
sec-Butylbenzene	135-98-8	0.15	ug/mL
Propylbenzene	103-65-1	0.15	ug/mL
p-Isopropyltoluene	99-87-6	0.15	ug/mL
o-Xylene	95-47-6	0.15	ug/mL
Bromochloromethane	74-97-5	0.15	ug/mL
m&p-Xylene	179601-23-1	0.3	ug/mL
Bromodichloromethane	75-27-4	0.15	ug/mL
Hexachlorobutadiene	87-68-3	0.15	ug/mL
Ethylbenzene	100-41-4	0.15	ug/mL
Dichloromethane	75-09-2	0.15	ug/mL
Dibromomethane	74-95-3	0.15	ug/mL
cis-1,3-Dichloropropene	10061-01-5	0.15	ug/mL
cis-1,2-Dichloroethene	156-59-2	0.15	ug/mL
Chloroform	67-66-3	0.15	ug/mL
Chlorodibromomethane	124-48-1	0.15	ug/mL
Chlorobenzene	108-90-7	0.15	ug/mL
Carbon tetrachloride	56-23-5	0.15	ug/mL
Butylbenzene	104-51-8	0.15	ug/mL
Trichloroethene	79-01-6	0.15	ug/mL
Naphthalene	91-20-3	0.15	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.005
1930053	Passive indoor air stock std 50	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:33 by TD	0.03

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930060

Description:	Passive indoor air 0.05	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:40 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	0.05	ug/mL
Bromobenzene	108-86-1	0.05	ug/mL
Benzene	71-43-2	0.05	ug/mL
4-Chlorotoluene	106-43-4	0.05	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	0.05	ug/mL
2,2-Dichloropropane	594-20-7	0.05	ug/mL
1,4-Dichlorobenzene	106-46-7	0.05	ug/mL
1,3-Dichloropropane	142-28-9	0.05	ug/mL
1,3-Dichlorobenzene	541-73-1	0.05	ug/mL
1,3,5-Trimethylbenzene	108-67-8	0.05	ug/mL
1,2-Dichloropropane	78-87-5	0.05	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	0.05	ug/mL
1,2-Dichlorobenzene	95-50-1	0.05	ug/mL
Bromoform	75-25-2	0.05	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	0.05	ug/mL
1,2,4-Trimethylbenzene	95-63-6	0.05	ug/mL
1,2,4-Trichlorobenzene	120-82-1	0.05	ug/mL
1,2,3-Trichloropropane	96-18-4	0.05	ug/mL
1,2,3-Trichlorobenzene	87-61-6	0.05	ug/mL
1,1-Dichloropropene	563-58-6	0.05	ug/mL
1,1-Dichloroethene	75-35-4	0.05	ug/mL
1,1-Dichloroethane	75-34-3	0.05	ug/mL
1,1,2-Trichloroethane	79-00-5	0.05	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	0.05	ug/mL
1,1,1-Trichloroethane	71-55-6	0.05	ug/mL
1,2-Dichloroethane	107-06-2	0.05	ug/mL
Isopropylbenzene	98-82-8	0.05	ug/mL
trans-1,3-Dichloropropene	10061-02-6	0.05	ug/mL
trans-1,2-Dichloroethene	156-60-5	0.05	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930060

Toluene-d8	2037-26-5	0.05	ug/mL
Toluene	108-88-3	0.05	ug/mL
Tetrachloroethene	127-18-4	0.05	ug/mL
tert-Butylbenzene	98-06-6	0.05	ug/mL
Styrene	100-42-5	0.05	ug/mL
sec-Butylbenzene	135-98-8	0.05	ug/mL
Propylbenzene	103-65-1	0.05	ug/mL
p-Isopropyltoluene	99-87-6	0.05	ug/mL
o-Xylene	95-47-6	0.05	ug/mL
Bromochloromethane	74-97-5	0.05	ug/mL
m&p-Xylene	179601-23-1	0.1	ug/mL
Bromodichloromethane	75-27-4	0.05	ug/mL
Hexachlorobutadiene	87-68-3	0.05	ug/mL
Ethylbenzene	100-41-4	0.05	ug/mL
Dichloromethane	75-09-2	0.05	ug/mL
Dibromomethane	74-95-3	0.05	ug/mL
cis-1,3-Dichloropropene	10061-01-5	0.05	ug/mL
cis-1,2-Dichloroethene	156-59-2	0.05	ug/mL
Chloroform	67-66-3	0.05	ug/mL
Chlorodibromomethane	124-48-1	0.05	ug/mL
Chlorobenzene	108-90-7	0.05	ug/mL
Carbon tetrachloride	56-23-5	0.05	ug/mL
Butylbenzene	104-51-8	0.05	ug/mL
Trichloroethene	79-01-6	0.05	ug/mL
Naphthalene	91-20-3	0.05	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.005
1930053	Passive indoor air stock std 50	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:33 by TD	0.01

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930061

Description:	Passive air Surrogate/I.S. Working solution	Expires:	01/24/20
Standard Type:	Surrogate Spike	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	25	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:42 by TD

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	200	ug/mL
2-Fluorotoluene	95-52-3	200	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930051	Passive indoor air Surrogate Stock	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:31 by TD	0.5
1930054	Passive indoor air Internal Standard Sto	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:34 by TD	0.5

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930062

Description:	Passive indoor air SCV	Expires:	01/24/20
Standard Type:	Calibration Standa	Prepared:	07/24/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	07/24/19 10:43 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	5	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/mL
Benzene	71-43-2	5	ug/mL
4-Chlorotoluene	106-43-4	5	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	5	ug/mL
2,2-Dichloropropane	594-20-7	5	ug/mL
1,4-Dichlorobenzene	106-46-7	5	ug/mL
1,3-Dichloropropane	142-28-9	5	ug/mL
1,3-Dichlorobenzene	541-73-1	5	ug/mL
1,3,5-Trimethylbenzene	108-67-8	5	ug/mL
1,2-Dichloropropane	78-87-5	5	ug/mL
Bromochloromethane	74-97-5	5	ug/mL
1,2-Dichlorobenzene	95-50-1	5	ug/mL
Bromodichloromethane	75-27-4	5	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	5	ug/mL
1,2,4-Trimethylbenzene	95-63-6	5	ug/mL
1,2,4-Trichlorobenzene	120-82-1	5	ug/mL
1,2,3-Trimethylbenzene	526-73-8	5	ug/mL
1,2,3-Trichloropropane	96-18-4	5	ug/mL
1,2,3-Trichlorobenzene	87-61-6	5	ug/mL
1,1-Dichloropropene	563-58-6	5	ug/mL
1,1-Dichloroethene	75-35-4	5	ug/mL
1,1-Dichloroethane	75-34-3	5	ug/mL
1,1,2-Trichloroethane	79-00-5	5	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/mL
1,1,1-Trichloroethane	71-55-6	5	ug/mL
1,2-Dichloroethane	107-06-2	5	ug/mL
Isopropylbenzene	98-82-8	5	ug/mL
trans-1,3-Dichloropropene	10061-02-6	5	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930062

trans-1,2-Dichloroethene	156-60-5	5	ug/mL
Toluene-d8	2037-26-5	5	ug/mL
Toluene	108-88-3	5	ug/mL
Tetrachloroethene	127-18-4	5	ug/mL
tert-Butylbenzene	98-06-6	5	ug/mL
Styrene	100-42-5	5	ug/mL
sec-Butylbenzene	135-98-8	5	ug/mL
Propylbenzene	103-65-1	5	ug/mL
p-Isopropyltoluene	99-87-6	5	ug/mL
o-Xylene	95-47-6	5	ug/mL
Bromobenzene	108-86-1	5	ug/mL
m&p-Xylene	179601-23-1	10	ug/mL
Trichloroethene	79-01-6	5	ug/mL
Hexachlorobutadiene	87-68-3	5	ug/mL
Ethylbenzene	100-41-4	5	ug/mL
Dichloromethane	75-09-2	5	ug/mL
Dibromomethane	74-95-3	5	ug/mL
cis-1,3-Dichloropropene	10061-01-5	5	ug/mL
cis-1,2-Dichloroethene	156-59-2	5	ug/mL
Chloroform	67-66-3	5	ug/mL
Chlorodibromomethane	124-48-1	5	ug/mL
Chlorobenzene	108-90-7	5	ug/mL
Carbon tetrachloride	56-23-5	5	ug/mL
Butylbenzene	104-51-8	5	ug/mL
Bromoform	75-25-2	5	ug/mL
Naphthalene	91-20-3	5	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1930061	Passive air Surrogate/I.S. Working solu	07/24/19	Tatyana Dadiomov	01/24/20	07/24/19 10:42 by TD	0.25
1843076	VOA 502/524 VOC Mix, Stock	10/24/18	Yelena Borinshteyn	01/24/20	07/24/19 10:29 by TD	0.025

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1937059

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	03/31/21
Standard Type:	Other Solution	**Prepared:**	09/10/19
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/10/19 13:17 by YNB
Vendor:	Restek	**Lot Numbe**	A0146957

RESTEK, catalog # 30431, Barcode AU011275

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	2000
Bromobenzene	108-86-1	2000
Benzene	71-43-2	2000
4-Chlorotoluene	106-43-4	2000
2-Chlorotoluene	95-49-8	2000
2,2-Dichloropropane	594-20-7	2000
1,4-Dichlorobenzene	106-46-7	2000
1,3-Dichloropropane	142-28-9	2000
1,3-Dichlorobenzene	541-73-1	2000
1,3,5-Trimethylbenzene	108-67-8	2000
1,2-Dichloropropane	78-87-5	2000
1,1,1,2-Tetrachloroethane	630-20-6	2000
1,2-Dichlorobenzene	95-50-1	2000
Bromoform	75-25-2	2000
1,2-Dibromo-3-chloropropane	96-12-8	2000
1,2,4-Trimethylbenzene	95-63-6	2000
1,2,4-Trichlorobenzene	120-82-1	2000
1,2,3-Trichloropropane	96-18-4	2000
1,2,3-Trichlorobenzene	87-61-6	2000
1,1-Dichloropropene	563-58-6	2000
1,1-Dichloroethene	75-35-4	2000
1,1-Dichloroethane	75-34-3	2000
1,1,2-Trichloroethane	79-00-5	2000
1,1,2,2-Tetrachloroethane	79-34-5	2000
1,1,1-Trichloroethane	71-55-6	2000
1,2-Dichloroethane	107-06-2	2000
Hexachlorobutadiene	87-68-3	2000
trans-1,3-Dichloropropene	10061-02-6	2000
trans-1,2-Dichloroethene	156-60-5	2000
Toluene	108-88-3	2000

Analytical Standard Record

EPA Region 9 Laboratory

1937059

Tetrachloroethene	127-18-4	2000
tert-Butylbenzene	98-06-6	2000
Styrene	100-42-5	2000
sec-Butylbenzene	135-98-8	2000
Propylbenzene	103-65-1	2000
p-Isopropyltoluene	99-87-6	2000
o-Xylene	95-47-6	2000
Naphthalene	91-20-3	2000
Bromochloromethane	74-97-5	2000
Isopropylbenzene	98-82-8	2000
Bromodichloromethane	75-27-4	2000
Ethylbenzene	100-41-4	2000
Dichloromethane	75-09-2	2000
Dibromomethane	74-95-3	2000
cis-1,3-Dichloropropene	10061-01-5	2000
cis-1,2-Dichloroethene	156-59-2	2000
Chloroform	67-66-3	2000
Chlorodibromomethane	124-48-1	2000
Chlorobenzene	108-90-7	2000
Carbon tetrachloride	56-23-5	2000
Butylbenzene	104-51-8	2000
Trichloroethene	79-01-6	2000
m&p-Xylene	179601-23-1	4000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30431 **Lot No.:** A0146957

Description : 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1-dichloroethene	2,008.6 µg/mL	+/- 12.7358	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBG8609V)		+/- 90.6111	µg/mL	Unstressed
	Purity 99%		+/- 100.5146	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	2,007.1 µg/mL	+/- 12.7263	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBK5095)		+/- 90.5435	µg/mL	Unstressed
	Purity 99%		+/- 100.4395	µg/mL	Stressed
3	trans-1,2-Dichloroethene	2,005.2 µg/mL	+/- 12.7140	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/- 90.4563	µg/mL	Unstressed
	Purity 99%		+/- 100.3427	µg/mL	Stressed
4	1,1-Dichloroethane	2,003.1 µg/mL	+/- 12.7009	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 462600)		+/- 90.3630	µg/mL	Unstressed
	Purity 99%		+/- 100.2393	µg/mL	Stressed
5	2,2-Dichloropropane	2,000.3 µg/mL	+/- 12.6830	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot BCBT5124)		+/- 90.2358	µg/mL	Unstressed
	Purity 99%		+/- 100.0982	µg/mL	Stressed
6	cis-1,2-Dichloroethene	2,002.5 µg/mL	+/- 12.6972	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKBX5945V)		+/- 90.3369	µg/mL	Unstressed
	Purity 99%		+/- 100.2103	µg/mL	Stressed
7	chloroform	2,004.8 µg/mL	+/- 12.7115	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBJ9076)		+/- 90.4382	µg/mL	Unstressed
	Purity 99%		+/- 100.3227	µg/mL	Stressed

8	Bromochloromethane			2,000.7	µg/mL	+/-	12.6854	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00008541)			+/-	90.2525	µg/mL	Unstressed
	Purity	98%				+/-	100.1167	µg/mL	Stressed
9	1,1,1-trichloroethane			2,000.9	µg/mL	+/-	12.6872	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot 190123CG)			+/-	90.2652	µg/mL	Unstressed
	Purity	98%				+/-	100.1308	µg/mL	Stressed
10	1,1-Dichloropropene			2,004.3	µg/mL	+/-	12.7084	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot 190122JLM)			+/-	90.4163	µg/mL	Unstressed
	Purity	99%				+/-	100.2984	µg/mL	Stressed
11	carbon tetrachloride			2,004.5	µg/mL	+/-	12.7100	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBJ2110)			+/-	90.4277	µg/mL	Unstressed
	Purity	99%				+/-	100.3110	µg/mL	Stressed
12	1,2-Dichloroethane			2,007.5	µg/mL	+/-	12.7290	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot SHBJ6510)			+/-	90.5630	µg/mL	Unstressed
	Purity	99%				+/-	100.4612	µg/mL	Stressed
13	Benzene			2,004.2	µg/mL	+/-	12.7079	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBJ5344)			+/-	90.4126	µg/mL	Unstressed
	Purity	99%				+/-	100.2944	µg/mL	Stressed
14	Trichloroethene			2,003.4	µg/mL	+/-	12.7030	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBH1955V)			+/-	90.3781	µg/mL	Unstressed
	Purity	99%				+/-	100.2560	µg/mL	Stressed
15	1,2-Dichloropropane			2,007.7	µg/mL	+/-	12.7299	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot BCBR0882V)			+/-	90.5690	µg/mL	Unstressed
	Purity	99%				+/-	100.4678	µg/mL	Stressed
16	bromodichloromethane			2,016.1	µg/mL	+/-	12.7833	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKCF8470)			+/-	90.9495	µg/mL	Unstressed
	Purity	99%				+/-	100.8899	µg/mL	Stressed
17	Dibromomethane			2,002.3	µg/mL	+/-	12.6960	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10201030)			+/-	90.3278	µg/mL	Unstressed
	Purity	99%				+/-	100.2003	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,005.6	µg/mL	+/-	12.7170	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 25076)			+/-	90.4773	µg/mL	Unstressed
	Purity	99%				+/-	100.3661	µg/mL	Stressed
19	Toluene			2,000.7	µg/mL	+/-	12.6856	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBJ5659)			+/-	90.2539	µg/mL	Unstressed
	Purity	99%				+/-	100.1182	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,004.3	µg/mL	+/-	12.7083	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C797620)			+/-	90.4155	µg/mL	Unstressed
	Purity	98%				+/-	100.2975	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,007.0	µg/mL	+/-	12.7254	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.5375	µg/mL	Unstressed
	Purity	99%				+/-	100.4328	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.5	µg/mL	+/-	12.6909	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)			+/-	90.2918	µg/mL	Unstressed
	Purity	99%				+/-	100.1603	µg/mL	Stressed
23	Tetrachloroethene			2,005.1	µg/mL	+/-	12.7136	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBH9691)			+/-	90.4533	µg/mL	Unstressed
	Purity	99%				+/-	100.3394	µg/mL	Stressed

24	dibromochloromethane			2,003.7	µg/mL	+/-	12.7046	µg/mL	Gravimetric
	CAS #	124-48-1	(Lot MKCC0877)			+/-	90.3890	µg/mL	Unstressed
	Purity	98%				+/-	100.2681	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,000.7	µg/mL	+/-	12.6858	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBP2268V)			+/-	90.2557	µg/mL	Unstressed
	Purity	99%				+/-	100.1202	µg/mL	Stressed
26	Chlorobenzene			2,005.3	µg/mL	+/-	12.7147	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBH4459V)			+/-	90.4608	µg/mL	Unstressed
	Purity	99%				+/-	100.3477	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,001.7	µg/mL	+/-	12.6919	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)			+/-	90.2990	µg/mL	Unstressed
	Purity	99%				+/-	100.1683	µg/mL	Stressed
28	Ethylbenzene			2,001.6	µg/mL	+/-	12.6917	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBJ4278)			+/-	90.2972	µg/mL	Unstressed
	Purity	99%				+/-	100.1663	µg/mL	Stressed
29	m-Xylene			2,003.4	µg/mL	+/-	12.7031	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBJ2338)			+/-	90.3784	µg/mL	Unstressed
	Purity	99%				+/-	100.2563	µg/mL	Stressed
30	p-Xylene			2,001.8	µg/mL	+/-	12.6927	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBJ7329)			+/-	90.3044	µg/mL	Unstressed
	Purity	99%				+/-	100.1743	µg/mL	Stressed
31	o-Xylene			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBH7231)			+/-	90.4289	µg/mL	Unstressed
	Purity	99%				+/-	100.3124	µg/mL	Stressed
32	Styrene			2,001.4	µg/mL	+/-	12.6899	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKCC9766)			+/-	90.2845	µg/mL	Unstressed
	Purity	99%				+/-	100.1522	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,001.3	µg/mL	+/-	12.6894	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot P15E008)			+/-	90.2809	µg/mL	Unstressed
	Purity	99%				+/-	100.1482	µg/mL	Stressed
34	bromoform			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBJ4835)			+/-	90.4292	µg/mL	Unstressed
	Purity	99%				+/-	100.3127	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,005.5	µg/mL	+/-	12.7161	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)			+/-	90.4713	µg/mL	Unstressed
	Purity	99%				+/-	100.3594	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,002.0	µg/mL	+/-	12.6942	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)			+/-	90.3152	µg/mL	Unstressed
	Purity	99%				+/-	100.1863	µg/mL	Stressed
37	n-Propylbenzene			2,001.2	µg/mL	+/-	12.6891	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot WXBC3346V)			+/-	90.2791	µg/mL	Unstressed
	Purity	99%				+/-	100.1462	µg/mL	Stressed
38	Bromobenzene			2,003.2	µg/mL	+/-	12.7016	µg/mL	Gravimetric
	CAS #	108-86-1	(Lot WXBC5147V)			+/-	90.3675	µg/mL	Unstressed
	Purity	99%				+/-	100.2443	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,001.4	µg/mL	+/-	12.6904	µg/mL	Gravimetric
	CAS #	108-67-8	(Lot BCBS7648V)			+/-	90.2881	µg/mL	Unstressed
	Purity	99%				+/-	100.1562	µg/mL	Stressed

40	2-Chlorotoluene		2,003.5	µg/mL	+/-	12.7033	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/-	90.3802	µg/mL	Unstressed
	Purity 99%				+/-	100.2583	µg/mL	Stressed
41	4-Chlorotoluene		2,002.8	µg/mL	+/-	12.6990	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	90.3495	µg/mL	Unstressed
	Purity 99%				+/-	100.2243	µg/mL	Stressed
42	tert-Butylbenzene		2,002.2	µg/mL	+/-	12.6950	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	90.3206	µg/mL	Unstressed
	Purity 99%				+/-	100.1923	µg/mL	Stressed
43	1,2,4-Trimethylbenzene		2,001.6	µg/mL	+/-	12.6911	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	90.2932	µg/mL	Unstressed
	Purity 98%				+/-	100.1619	µg/mL	Stressed
44	sec-Butylbenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)		2,000.4	µg/mL	+/-	12.6835	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKCB7536)			+/-	90.2394	µg/mL	Unstressed
	Purity 99%				+/-	100.1022	µg/mL	Stressed
46	1,3-Dichlorobenzene		2,008.3	µg/mL	+/-	12.7339	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/-	90.5976	µg/mL	Unstressed
	Purity 99%				+/-	100.4995	µg/mL	Stressed
47	1,4-Dichlorobenzene		2,000.4	µg/mL	+/-	12.6836	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	90.2397	µg/mL	Unstressed
	Purity 99%				+/-	100.1025	µg/mL	Stressed
48	n-Butylbenzene		2,000.3	µg/mL	+/-	12.6833	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09804AE)			+/-	90.2376	µg/mL	Unstressed
	Purity 99%				+/-	100.1002	µg/mL	Stressed
49	1,2-Dichlorobenzene		2,005.0	µg/mL	+/-	12.7128	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/-	90.4472	µg/mL	Unstressed
	Purity 99%				+/-	100.3327	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		2,000.1	µg/mL	+/-	12.6820	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/-	90.2286	µg/mL	Unstressed
	Purity 99%				+/-	100.0902	µg/mL	Stressed
51	1,2,4-Trichlorobenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBJ9215)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
52	Hexachlorobutadiene		2,004.0	µg/mL	+/-	12.7064	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	90.4018	µg/mL	Unstressed
	Purity 99%				+/-	100.2824	µg/mL	Stressed
53	Naphthalene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBZ8680V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	µg/mL	Stressed
54	1,2,3-Trichlorobenzene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

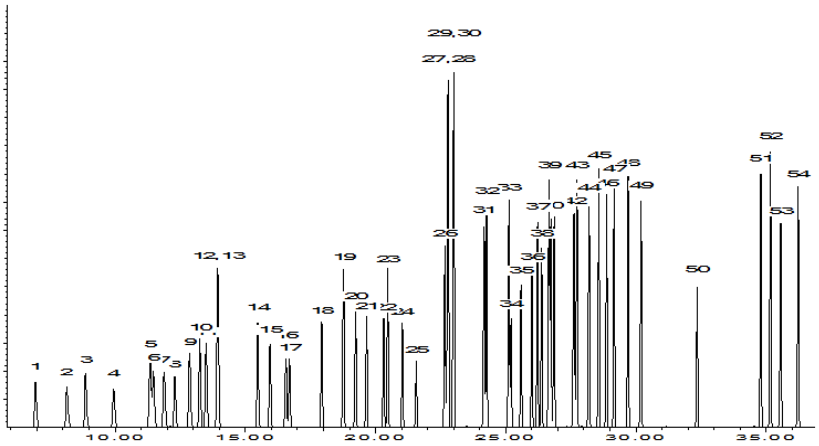
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Date Mixed: 12-Mar-2019 **Balance:** 1126342624

Fang-Yun Lo - QC Analyst

Date Passed: 20-Mar-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1940006

Description:	passive air WORKING BFB 50 mg/L	Expires:	03/30/20
Standard Type:	MS Tune Solution	Prepared:	09/30/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	5	Department:	Volatiles
Vials:	1	Last Edit:	09/30/19 11:24 by TD

Analyte	CAS Number	Concentration	Units
4-Bromofluorobenzene	460-00-4	50	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1740051	VOA BFB tuning mix, stock STD.	10/03/17	** Vendor **	03/30/20	09/30/19 11:24 by TD	0.05

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1940009

Description:	Passive indoor air MRL Spike	Expires:	03/30/20
Standard Type:	Analyte Spike	Prepared:	09/30/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	09/30/19 13:34 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	20	ug/mL
Bromobenzene	108-86-1	20	ug/mL
Benzene	71-43-2	20	ug/mL
4-Chlorotoluene	106-43-4	20	ug/mL
2-Chlorotoluene	95-49-8	20	ug/mL
2,2-Dichloropropane	594-20-7	20	ug/mL
1,4-Dichlorobenzene	106-46-7	20	ug/mL
1,3-Dichloropropane	142-28-9	20	ug/mL
1,3-Dichlorobenzene	541-73-1	20	ug/mL
1,3,5-Trimethylbenzene	108-67-8	20	ug/mL
1,2-Dichloropropane	78-87-5	20	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	20	ug/mL
1,2-Dichlorobenzene	95-50-1	20	ug/mL
Bromoform	75-25-2	20	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	20	ug/mL
1,2,4-Trimethylbenzene	95-63-6	20	ug/mL
1,2,4-Trichlorobenzene	120-82-1	20	ug/mL
1,2,3-Trichloropropane	96-18-4	20	ug/mL
1,2,3-Trichlorobenzene	87-61-6	20	ug/mL
1,1-Dichloropropene	563-58-6	20	ug/mL
1,1-Dichloroethene	75-35-4	20	ug/mL
1,1-Dichloroethane	75-34-3	20	ug/mL
1,1,2-Trichloroethane	79-00-5	20	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	20	ug/mL
1,1,1-Trichloroethane	71-55-6	20	ug/mL
1,2-Dichloroethane	107-06-2	20	ug/mL
Hexachlorobutadiene	87-68-3	20	ug/mL
trans-1,3-Dichloropropene	10061-02-6	20	ug/mL
trans-1,2-Dichloroethene	156-60-5	20	ug/mL
Toluene	108-88-3	20	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1940009

Tetrachloroethene	127-18-4	20	ug/mL
tert-Butylbenzene	98-06-6	20	ug/mL
Styrene	100-42-5	20	ug/mL
sec-Butylbenzene	135-98-8	20	ug/mL
Propylbenzene	103-65-1	20	ug/mL
p-Isopropyltoluene	99-87-6	20	ug/mL
o-Xylene	95-47-6	20	ug/mL
Naphthalene	91-20-3	20	ug/mL
Bromochloromethane	74-97-5	20	ug/mL
Isopropylbenzene	98-82-8	20	ug/mL
Bromodichloromethane	75-27-4	20	ug/mL
Ethylbenzene	100-41-4	20	ug/mL
Dichloromethane	75-09-2	20	ug/mL
Dibromomethane	74-95-3	20	ug/mL
cis-1,3-Dichloropropene	10061-01-5	20	ug/mL
cis-1,2-Dichloroethene	156-59-2	20	ug/mL
Chloroform	67-66-3	20	ug/mL
Chlorodibromomethane	124-48-1	20	ug/mL
Chlorobenzene	108-90-7	20	ug/mL
Carbon tetrachloride	56-23-5	20	ug/mL
Butylbenzene	104-51-8	20	ug/mL
Trichloroethene	79-01-6	20	ug/mL
m&p-Xylene	179601-23-1	40	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1937059	VOA 502.2 CAL 2000 MEGA MIX, St	09/10/19	** Vendor **	03/30/20	09/30/19 11:31 by TD	0.02

Reviewed By Date