Table of Contents

Lab Report 2

Batch Data (B19L093) 18

Raw Data (1911014) 21

QLS (S19L083) 425

Second Source (S19K083) 528

Standards PDFs 531

United States Environmental Protection Agency
Region 9 Laboratory

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

Date: **12/31/2019**

Subject: **Analytical Testing Results - Project R20S14**
WorkOrder **1912014**

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: 1912014**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 12/31/19 09:43
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
F5-062-2ft-3hr-dry	1912014-06	Radiello 130	12/09/19 16:55	12/12/19 10:30

Work Order 1912014

Analyses were cancelled for laboratory sample IDs 1912014-01, -02, -03, -04, and -05 due to the presence of water inside Radiello metal mesh screens.

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: 1912014**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 12/31/19 09:43
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: 1912014-06									**Radiello 130 - Sampled: 12/09/19 16:55**
Sample ID: F5-062-2ft-3hr-dry									
						Volatile Organic Compounds Collected on Passive Air Sampling Devices			
1,1-Dichloroethene		ND	U	8.1	ug/m³ Air	B19L093	12/20/19	12/20/19	Radiello D1
trans-1,2-Dichloroethene		37		9.9	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	9.8	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		270		9.9	"	"	"	"	Radiello D1
Chloroform		320		8.2	"	"	"	"	Radiello D1
Trichloroethene		570		8.9	"	"	"	"	Radiello D1
Tetrachloroethene		450		10	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			104 %	*90-110%*		"	"	"	

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 1912014**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 12/31/19 09:43
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 B19L093 - Passive Air Sampler										
Blank (B19L093-BLK1)				Prepared & Analyzed: 12/20/19						
1,1-Dichloroethene	ND	0.13	ug/m³ Air							U
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
Trichloroethene	ND	0.14	ug/m³ Air							U
Tetrachloroethene	ND	0.17	ug/m³ Air							U
Surrogate: Toluene-d8	*1040*		ug/m³ Air	*992*		*104*	*90-110*			
LCS (B19L093-BS1)				Prepared & Analyzed: 12/20/19						
1,1-Dichloroethene	10.7	0.13	ug/m³ Air	13.1		82	49-125			
trans-1,2-Dichloroethene	13.5	0.16	ug/m³ Air	16.0		84	47-131			
1,1-Dichloroethane	13.7	0.16	ug/m³ Air	15.7		87	53-126			
cis-1,2-Dichloroethene	14.4	0.16	ug/m³ Air	16.0		90	58-127			
Chloroform	11.9	0.13	ug/m³ Air	13.2		90	61-128			
Trichloroethene	13.1	0.14	ug/m³ Air	14.4		91	65-116			
1,1,2-Trichloroethane	13.6	0.15	ug/m³ Air	15.0		91	83-110			
Tetrachloroethene	15.2	0.17	ug/m³ Air	16.8		91	58-118			
1,1,2,2-Tetrachloroethane	14.6	0.17	ug/m³ Air	16.5		88	62-122			
Surrogate: Toluene-d8	*1040*		ug/m³ Air	*992*		*105*	*90-110*			
LCS Dup (B19L093-BSD1)				Prepared & Analyzed: 12/20/19						
1,1-Dichloroethene	11.4	0.13	ug/m³ Air	13.1		87	49-125	6	38	
trans-1,2-Dichloroethene	14.1	0.16	ug/m³ Air	16.0		88	47-131	4	14	
1,1-Dichloroethane	14.2	0.16	ug/m³ Air	15.7		90	53-126	3	31	
cis-1,2-Dichloroethene	14.8	0.16	ug/m³ Air	16.0		92	58-127	3	28	
Chloroform	12.1	0.13	ug/m³ Air	13.2		91	61-128	2	20	
Trichloroethene	13.0	0.14	ug/m³ Air	14.4		91	65-116	0.5	22	
1,1,2-Trichloroethane	13.5	0.15	ug/m³ Air	15.0		90	83-110	0.8	20	
Tetrachloroethene	14.9	0.17	ug/m³ Air	16.8		88	58-118	3	24	
1,1,2,2-Tetrachloroethane	14.3	0.17	ug/m³ Air	16.5		86	62-122	2	20	
Surrogate: Toluene-d8	*1050*		ug/m³ Air	*992*		*106*	*90-110*			

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: 1912014**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 12/31/19 09:43
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 S19L083 - B19L093										
Instrument Blank (S19L083-IBL1)				Prepared & Analyzed: 12/20/19						
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
1,1,2-Trichloroethane	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
1,1,2,2-Tetrachloroethane	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*5200*		ug/L	*200000*		*3*	*90-110*			

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: 1912014**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 12/31/19 09:43
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Qualifiers and Comments

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.

United States Environmental Protection Agency
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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 1912014**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 12/31/19 09:43
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

VOAs Passive: Samples -01, -02, -03, -04, and -05 were cancelled due to water presence inside the metal mesh. See attached email. TD 12/23/19

WORK ORDER

Printed: 12/13/2019 9:45:55AM

1912014

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	22	No	Yes	Yes	No	No	

Date Due:	01/02/20 17:00 (21 day TAT)	SDG:	19347C
Received By:	Richard Bauer	Date Received:	12/12/19 10:30
Logged In By:	Susan Lepe	Date Logged In:	12/13/19 08:49

Analysis	Hold Time Expires	Comments
1912014-01 F5-064-1ft-7d-wet [Radiello 130] Sampled 12/09/19 16:09 (GMT-08:00) Pacific Time (US &		**1841X**
VOCs, Passive Samplers	06/06/20	check COC for requested analytes
1912014-02 F5-054-2ft-7d-wet [Radiello 130] Sampled 12/09/19 16:38 (GMT-08:00) Pacific Time (US &		**1845X**
VOCs, Passive Samplers	06/06/20	check COC for requested analytes
1912014-03 F6-006-1ft-7d-wet [Radiello 130] Sampled 12/09/19 16:17 (GMT-08:00) Pacific Time (US &		**1842X**
VOCs, Passive Samplers	06/06/20	check COC for requested analytes
1912014-04 F6-010-1ft-7d-wet [Radiello 130] Sampled 12/09/19 16:26 (GMT-08:00) Pacific Time (US &		**1843X**
VOCs, Passive Samplers	06/06/20	check COC for requested analytes
1912014-05 F6-017-1ft-7d-wet [Radiello 130] Sampled 12/09/19 16:00 (GMT-08:00) Pacific Time (US &		**1840X**
VOCs, Passive Samplers	06/06/20	check COC for requested analytes
1912014-06 F5-062-2ft-3hr-dry [Radiello 130] Sampled 12/09/19 16:55 (GMT-08:00) Pacific Time (US &		**1844X**
VOCs, Passive Samplers	06/06/20	check COC for requested analytes

Reviewed By

Date

WORK ORDER

Printed: 12/13/2019 9:45:55AM

1912014

EPA Region 9 Laboratory

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

Reviewed By

Date

Rajabi, Ziyad

From: Bauer, Richard
Sent: Monday, December 23, 2019 8:18 AM
To: Hopeman, Bob
Cc: Rajabi, Ziyad; Obrien, Kathleen; Dadiomov, Tatyana
Subject: RE: Radiellos 1911014 MEW OU3

I will let Alana know that we are cancelling these samples.

_____

Richard Bauer
US EPA Region 9 Laboratory
1337 South 46th Street, Building 201
Richmond, CA 94804
(510) 412-2312

_____

From: Hopeman, Bob <Hopeman.Bob@epa.gov>
Sent: Friday, December 20, 2019 11:59 AM
To: Bauer, Richard <Bauer.Richard@epa.gov>
Cc: Rajabi, Ziyad <Rajabi.Ziyad@epa.gov>; Obrien, Kathleen <obrien.kathleen@epa.gov>; Dadiomov, Tatyana <Dadiomov.Tatyana@epa.gov>
Subject: Radiellos 1911014 MEW OU3

Hi Rich,

While extracting the Radiellos for work order 1911014 the normal 2.0 mL of carbon disulfide could not be added to samples -02, -03, -04, and -05. A lesser amount of CS2 was added to these tubes because the tubes quickly filled up and there was no more room. See attached bench sheet for final volume amounts.

The analyst originally thought these tubes must have a smaller internal diameter or that the Radiello devices themselves were larger than normal, accounting for the smaller interior volume in which to accommodate the solvent.

While transferring the CS2 into the autosampler vials the analyst noted distinct density layers in the pasture pipets. See photos.

Looking at the client sample names (see work order pdf) samples -01 through -05 all end with “wet”.

It is believed that there was water inside the metal mesh screens which was not readily visible upon inspection. The water occupied the internal volume of the tube so the nominal amount of solvent could not be added.

This has resulted in sample extracts that contain a significant amount of water.

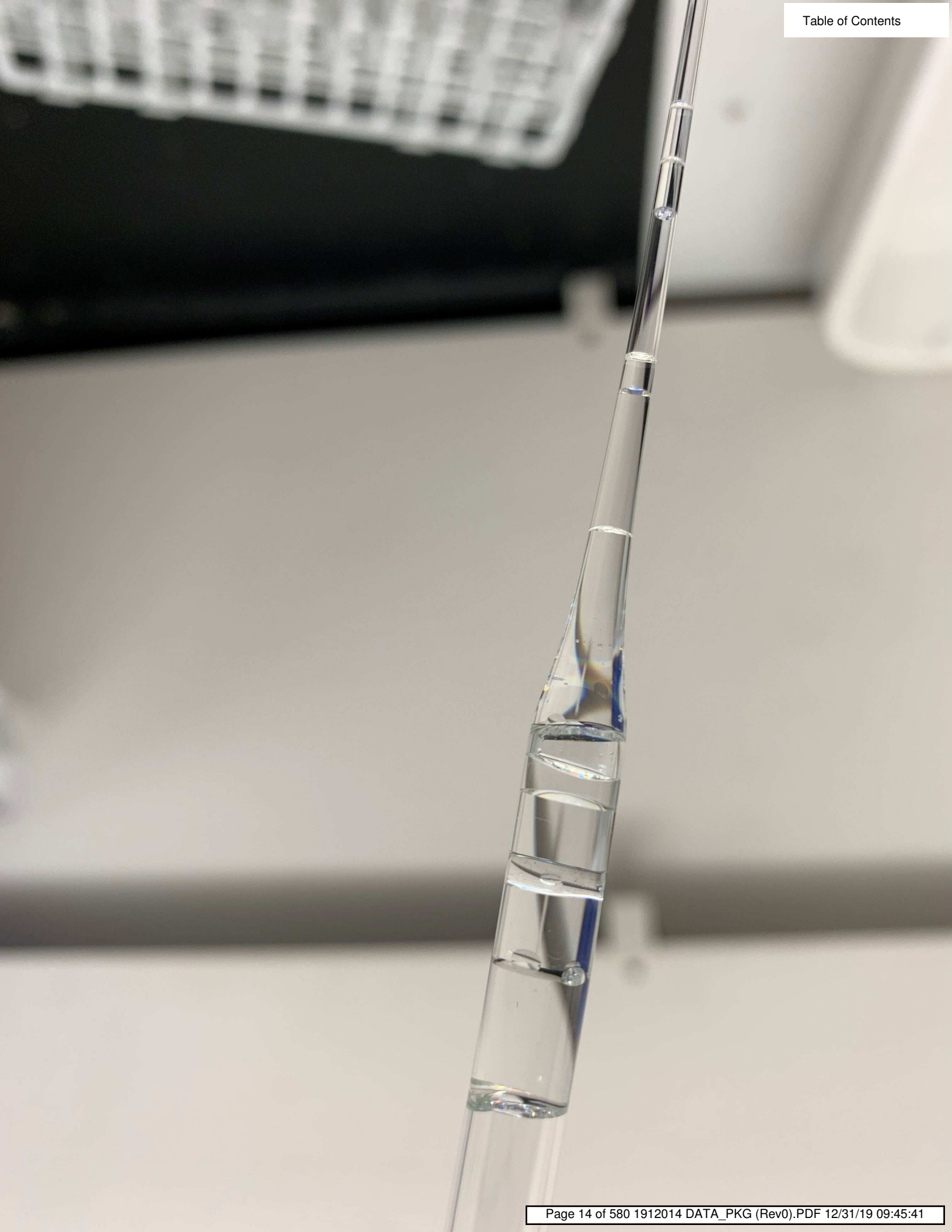
ESAT is proposing to not analyze extracts -01 through -05. The effect of water in the extracts on analyte quantitation is unknown. Additionally injecting water into the GC inlet would result in the water vapor overwhelming the interior volume of the injection port, resulting in backflash. Water is also detrimental to the column stationary phase.

Since the client sample names contained the word “wet” the sampler (Allana Lee) was presumably aware that the Radiellos had been exposed to significant amounts of moisture. ESAT would recommend informing the sampler(s) that if the tubes are wet that the laboratory is unable to analyze them.

Note: 1912014-06 has the word dry in the sample name and was able to take the nominal amount of CS2. We are proposing to run this one extract from that work order.

Please let us know if you would like to attempt to analyze the water containing extracts or if you need any more information regarding this matter.

Bob Hopeman
ICF/ESAT Region 9
510-412-2388



U.S. Environmental Protection Agency

CHAIN OF CUSTODY RECORD

EPA REGION 9
75 Hawthorne Street
San Francisco, California 94105

EPA R9 Case Number: R20S14 - MEW (M6) - OU3

Project Name: **MEW FY20 OU3 Sewer Pathway**

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

Laboratory: EPA R9 Richmond Lab

Samplers: (Signature) Alana Lee

Start Date End Date	Start End Time Time	Matrix	Comp	EPA ID Number	Unique ID	Number of Containers	RAD130 - Solvent Extraction	Temp (start-avg) - degree F	Temp (stop-avg) - degree F	TCE screen (ug/m3-if available)	COMMENTS: TCE, PCE, 1,1- DCA, cis- and trans-1,2-DCE,1,1-DCE, chloroform (tracer) - 21 day TAT
12/02/19 12/09/19	14:31 16:09	AIR	X	F5-064-1ft-7d-wet	1841X	1	1	50	60	<10	wet
12/02/19 12/09/19	14:39 16:38	AIR	X	F5-054-2ft-7d-wet	1845X	1	1	50	60	50-800	wet
12/02/19 12/09/19	14:45 16:17	AIR	X	F6-006-1ft-7d-wet	1842X	1	1	50	60	300-800	wet
12/02/19 12/09/19	14:56 16:26	AIR	X	F6-010-1ft-7d-wet	1843X	1	1	50	60	300-800	wet
12/02/19 12/09/19	15:03 16:00	AIR	X	F6-017-1ft-7d-wet	1840X	1	1	50	60	<10	sample wet / soaked - rain events
12/09/19 12/09/19	14:05 16:55	AIR	X	F5-062-2ft-3hr-dry	1844X	1	1	60	60	20-40	dry - same day 2 hr 40 min

Alana Lee 12/11/2019

Relinquished by: (Signature) Alana Lee Date/Time 12/11/2019 1525 via interoffice mail

Relinquished by: (Signature) Date/Time

Received for Laboratory by: (Signature) R.Baker Date/Time 12/12/19 1030

Temp 22

Seals Intact? (Y/N)

Conditions / Remarks No seals.

Table of Contents

Cooler/Box/Env 1 of 1

U.S. Environmental Protection Agency
Region 9 Richmond Laboratory

1337 South 46th Street
Richmond, CA 94804

Sample Receipt Checklist

Note in WO memo any items outside acceptable limits.

Project No: R20514 **Work Order No(s):** 1912014 **Date:** 12/12/19 **by** RJB/SL

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

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

TEMPERATURE 22 °C

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

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	F5-064-1ft-7d-wet	12/09/19	16:09	12/02/19	14:31	10178	10.00	15.56	285.93	1841X
2	F5-054-2ft-7d-wet	12/09/19	16:38	12/02/19	14:39	10199	10.00	15.56	285.93	1845X
3	F6-006-1ft-7d-wet	12/09/19	16:17	12/02/19	14:45	10172	10.00	15.56	285.93	1842X
4	F6-010-1ft-7d-wet	12/09/19	16:26	12/02/19	14:56	10170	10.00	15.56	285.93	1843X
5	F6-017-1ft-7d-wet	12/09/19	16:00	12/02/19	15:03	10137	10.00	15.56	285.93	1840X
6	F5-062-2ft-3hr-dry	12/09/19	16:55	12/09/19	14:05	170	15.56	15.56	288.71	1844X

Table of Contents

BATCH

B19L093

Batch Date: 12/20/2019

Batch Matrix: Radiello 130

Batch Analyses:

VOCs, Passive Samplers

PREPARATION BENCH SHEET

B19L093

EPA Region 9 Laboratory

Project: R20S18
Project: R20S19
Project: R20S14

Printed: 12/23/2019 1:42:31PM

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	ul Surrogate	Ext pH	Prepared by	Extraction Comments
1912013-01 A	NASA-B3-Rm120-Locker-BZ-7d	12/20/19 06:30	1	2				50		RH	check COC for requested analytes
1912013-02 A	NASA-B3-RR120-BZ-7d	12/20/19 06:30	1	2				50		RH	check COC for requested analytes
1912014-01 A	F5-064-1ft-7d-wet	12/20/19 06:30	1	2				50		RH	check COC for requested analytes
1912014-02 A	F5-054-2ft-7d-wet	12/20/19 06:30	1	1.4				50		RH	check COC for requested analytes
1912014-03 A	F6-006-1ft-7d-wet	12/20/19 06:30	1	1.4				50		RH	check COC for requested analytes
1912014-04 A	F6-010-1ft-7d-wet	12/20/19 06:30	1	1.4				50		RH	check COC for requested analytes
1912014-05 A	F6-017-1ft-7d-wet	12/20/19 06:30	1	1				50		RH	check COC for requested analytes
1912014-06 A	F5-062-2ft-3hr-dry	12/20/19 06:30	1	2				50		RH	check COC for requested analytes
1912015-01 A	RES161-FR1-BZ-7d	12/20/19 06:30	1	2				50		RH	check COC for requested analytes
1912015-02 A	RES161-OUT-7d	12/20/19 06:30	1	2				50		RH	check COC for requested analytes
B19L093-BLK1	Blank	12/20/19 06:30	1	2				50		RH	
B19L093-BS1	LCS	12/20/19 06:30	1	2		1937059	5	50		RH	
B19L093-BSD1	LCS Dup	12/20/19 06:30	1	2		1937059	5	50		RH	
B19L093-MRL1	MRL Check	12/20/19 06:30	1	2		1940009	5	50		RH	
B19L093-MRL2	MRL Check	12/20/19 06:30	1	2		1940009	5	50		RH	Added 12/23/2019 by TD

Batch Approval: TD 12/23/19

Table of Contents

PREPARATION BENCH SHEET

B19L093

EPA Region 9 Laboratory

Project: R20S18
Project: R20S19
Project: R20S14

Printed: 12/23/2019 1:42:31PM

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	ul Surrogate	Ext pH	Prepared by	Extraction Comments

Batch Comments

Reagents

Reagent #	Description
1835089	passive air Radiello tubes
1947010	Carbon disulfide

Batch Approval: TD 12/23/19

Page 20 of 580 1912014 DATA_PKG (Rev0).PDF 12/31/19 09:45:41

Table of Contents

Calibration

1911014

Calibration Date: 11/02/2019

Instrument: AG5975CV

Calibration Analyses:

VOCs, Passive Samplers

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2019\
Method File : 112019.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Nov 21 06:24:24 2019
Response Via : Initial Calibration

Calibration Files
25 =11201903.D 10 =11201904.D 5 =11201905.D 1 =11201906.D .15 =11201907.D .05 =11201908.D

		Compound	25	10	5	1	.15	.05	Avg	%RSD
1)	I	2-Fluorotoluene	----------ISTD----------							
2)	T	1,1-Dichloroet...	0.206	0.175	0.191	0.224	0.242	0.246	0.214	13.15
3)	T	trans-1,2-Dich...	0.209	0.183	0.192	0.208	0.250	0.274	0.219	16.05
4)	T	1,1-Dichloroet...	0.257	0.229	0.241	0.261	0.324	0.361	0.279	18.69
5)	T	cis-1,2-Dichlo...	0.243	0.220	0.229	0.244	0.295	0.309	0.257	14.32
6)	T	Chloroform	0.284	0.259	0.267	0.285	0.328	0.355	0.296	12.59
7)	T	1,1,1-Trichlor...	0.283	0.267	0.273	0.285	0.335	0.338	0.297	10.58
8)	T	Carbon tetrach...	0.267	0.256	0.261	0.272	0.320	0.315	0.282	9.98
9)	T	Benzene	0.697	0.683	0.695	0.727	0.933		0.747	14.09
10)	T	1,2-Dichloroet...	0.224	0.216	0.225	0.243	0.287	0.276	0.245	12.05
11)	T	Trichloroethene	0.218	0.215	0.218	0.225	0.247	0.251	0.229	6.94
12)	S	Toluene-d8	0.768	0.777	0.805	0.807	0.823	0.839	0.803	3.36
13)	T	Toluene	0.886	0.942	0.966	0.986	1.014	1.050	0.974	5.86
14)	T	1,1,2-Trichlor...	0.210	0.211	0.214	0.217	0.224	0.248	0.221	6.43
15)	T	Tetrachloroethene	0.280	0.292	0.299	0.298	0.298	0.297	0.294	2.48
16)	T	Chlorobenzene	0.704	0.756	0.771	0.769	0.728	0.735	0.744	3.54
17)	T	1,1,1,2-Tetrac...	0.241	0.256	0.262	0.265	0.255	0.278	0.260	4.77
18)	T	Ethylbenzene	1.076	1.207	1.246	1.279	1.238	1.165	1.202	6.05
19)	T	m&p-Xylene	0.808	0.907	0.943	0.980	0.932	0.924	0.916	6.35
[illegible])	T	o-Xylene	0.892	0.987	1.013	1.035	0.959	0.941	0.971	5.33
[illegible])	T	1,1,2,2-Tetrac...	0.410	0.444	0.456	0.461	0.436	0.410	0.436	5.11
[illegible])	T	1,3,5-Trimethy...	0.975	1.121	1.144	1.171	1.065	1.018	1.082	7.06
[illegible])	T	1,2,4-Trimethy...	0.982	1.139	1.165	1.206	1.107	1.038	1.106	7.51
[illegible])	T	Naphthalene	1.659	1.994	2.044	2.273	2.050	1.968	1.998	9.91
[illegible])		2-Fluorotoluen...			0.620				0.620	0.00
[illegible])		1,1-Dichloroet...			0.136				0.136	0.00
[illegible])		trans-1,2-Dich...			0.129				0.129	0.00
[illegible])		1,1-Dichloroet...			0.193				0.193	0.00
[illegible])		cis-1,2-Dichlo...			0.154				0.154	0.00
[illegible])		Chloroform SCAN			0.165				0.165	0.00
[illegible])		1,1,1-Trichlor...			0.189				0.189	0.00
[illegible])		Carbon tetrach...			0.162				0.162	0.00
[illegible])		Benzene SCAN			0.497				0.497	0.00
[illegible])		1,2-Dichloroet...			0.169				0.169	0.00
[illegible])		Trichloroethen...			0.127				0.127	0.00
[illegible])		Toluene-d8 SCAN			0.526				0.526	0.00
[illegible])		Toluene SCAN			0.614				0.614	0.00
[illegible])		1,1,2-Trichlor...			0.134				0.134	0.00
[illegible])		Tetrachloroeth...			0.178				0.178	0.00
[illegible])		Chlorobenzene ...			0.489				0.489	0.00
[illegible])		1,1,1,2-Tetrac...			0.158				0.158	0.00
[illegible])		Ethylbenzene SCAN			0.776				0.776	0.00

Page 22 of 580 191 2014 DATA_PKG (Rev0).PDF 12/31/19 09:45:41

Table of Contents

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2019\
Method File : 112019.M

43)	m&p-Xylene SCAN	1.164	1.164	0.00
44)	o-Xylene SCAN	0.660	0.660	0.00
45)	1,1,2,2-Tetrac...	0.297	0.297	0.00
46)	1,3,5-Trimethy...	0.690	0.690	0.00
47)	1,2,4-Trimethy...	0.700	0.700	0.00
48)	Naphthalene SCAN	1.131	1.131	0.00

(#) = Out of Range

Page 23 of 580 1912014 DATA_PKG (Rev0).PDF 12/31/19 09:45:41

Table of Contents

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2019\
Method File : 112019.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Nov 21 06:24:24 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	11.012	1.000	A	1	A	B
2	T	1,1-Dichloroethene	-61	3.120	0.283	A	1	A	B
3	T	trans-1,2-Dichloroethene	-61	4.310	0.391	A	1	A	B
4	T	1,1-Dichloroethane	-63	5.066	0.460	A	1	A	B
5	T	cis-1,2-Dichloroethene	-61	6.088	0.553	A	1	A	B
6	T	Chloroform	-83	6.664	0.605	A	1	A	B
7	T	1,1,1-Trichloroethane	-97	6.919	0.628	A	2	A	B
8	T	Carbon tetrachloride	-117	7.199	0.654	A	1	A	B
9	T	Benzene	-78	7.528	0.684	A	1	A	B
10	T	1,2-Dichloroethane	-62	7.564	0.687	A	1	A	B
11	T	Trichloroethene	-130	8.602	0.781	A	3	A	B
12	S	Toluene-d8	-98	10.519	0.955	A	1	A	B
13	T	Toluene	-91	10.613	0.964	A	1	A	B
14	T	1,1,2-Trichloroethane	-97	11.275	1.024	A	1	A	B
15	T	Tetrachloroethene	-166	11.474	1.042	A	1	A	B
16	T	Chlorobenzene	-112	12.813	1.164	A	1	A	B
17	T	1,1,1,2-Tetrachloroethane	-131	12.964	1.177	A	1	A	B
18	T	Ethylbenzene	-91	13.012	1.182	A	2	A	B
19	T	m&p-Xylene	-91	13.210	1.200	A	2	A	B
20	T	o-Xylene	-91	13.822	1.255	A	1	A	B
21	T	1,1,2,2-Tetrachloroethane	-83	14.921	1.355	A	1	A	B
22	T	1,3,5-Trimethylbenzene	-105	15.393	1.398	A	1	A	B
23	T	1,2,4-Trimethylbenzene	-105	15.939	1.447	A	1	A	B
24	T	Naphthalene	-128	17.932	1.628	A	1	A	B
25		2-Fluorotoluene SCAN	109	11.011	1.000	A	1	A	B
26		1,1-Dichloroethene SCAN	61	3.118	0.283	A	2	A	B
27		trans-1,2-Dichloroethene SCAN	61	4.322	0.392	A	2	A	B
28		1,1-Dichloroethane SCAN	63	5.071	0.461	A	2	A	B
29		cis-1,2-Dichloroethene SCAN	61	6.093	0.553	A	3	A	B
30		Chloroform SCAN	83	6.663	0.605	A	2	A	B
31		1,1,1-Trichloroethane SCAN	97	6.930	0.629	A	2	A	B
32		Carbon tetrachloride SCAN	117	7.186	0.653	A	3	A	B
33		Benzene SCAN	78	7.526	0.683	A	3	A	B
34		1,2-Dichloroethane SCAN	62	7.575	0.688	A	2	A	B
35		Trichloroethene SCAN	130	8.595	0.781	A	3	A	B
36		Toluene-d8 SCAN	98	10.528	0.956	A	1	A	B
37		Toluene SCAN	91	10.633	0.966	A	2	A	B
38		1,1,2-Trichloroethane SCAN	97	11.273	1.024	A	3	A	B
39		Tetrachloroethene SCAN	166	11.473	1.042	A	3	A	B
40		Chlorobenzene SCAN	112	12.812	1.163	A	3	A	B
41		1,1,1,2-Tetrachloroethane SCAN	131	12.963	1.177	A	3	A	B
42		Ethylbenzene SCAN	91	13.018	1.182	A	2	A	B
43		m&p-Xylene SCAN	91	13.209	1.200	A	3	A	B
44		o-Xylene SCAN	91	13.829	1.256	A	2	A	B
45		1,1,2,2-Tetrachloroethane SCAN	83	14.928	1.356	A	2	A	B
46		1,3,5-Trimethylbenzene SCAN	105	15.392	1.398	A	2	A	B
47		1,2,4-Trimethylbenzene SCAN	105	15.938	1.447	A	3	A	B
48		Naphthalene SCAN	128	17.931	1.628	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

112019.M Thu Nov 21 07:42:25 2019

CHEMSTATION AREA COUNT REPORT

AG5975C
S19K083-SCV2
1930062 5 mg/L
11/21/2019
Thu Nov 21 06:24:24 2019
TD

#	Name	L1	L2	L3	L4	L5	L6
1)	2-Fluorotoluene	120873	98547	108292	100280	59287	107392
2)	1,1-Dichloroethene	124580	34521	20720	4483	430	264
3)	trans-1,2-Dichloroethene	126566	36033	20828	4173	445	294
4)	1,1-Dichloroethane	155255	45078	26132	5237	577	388
5)	cis-1,2-Dichloroethene	146580	43276	24796	4888	525	332
6)	Chloroform	171482	50977	28935	5725	583	381
7)	1,1,1-Trichloroethane	171320	52569	29603	5716	596	363
8)	Carbon tetrachloride	161581	50445	28235	5454	569	338
9)	Benzene	421327	134529	75216	14573	1659	1048
10)	1,2-Dichloroethane	135427	42601	24336	4879	510	296
11)	Trichloroethene	131971	42376	23638	4506	439	270
12)	Toluene-d8	464072	153089	87122	16179	1464	901
13)	Toluene	535584	185724	104659	19773	1803	1128
14)	1,1,2-Trichloroethane	126979	41538	23180	4361	399	266
15)	Tetrachloroethene	169177	57566	32339	5981	530	319
16)	Chlorobenzene	425523	149075	83519	15420	1294	789
17)	1,1,1,2-Tetrachloroethane	145738	50451	28426	5309	453	299
18)	Ethylbenzene	650477	237908	134961	25661	2202	1251
19)	m&p-Xylene	976720	357718	204296	39321	3316	1985
20)	o-Xylene	539183	194596	109707	20759	1705	1011
21)	1,1,2,2-Tetrachloroethane	247627	87587	49373	9251	775	440
22)	1,3,5-Trimethylbenzene	589038	220914	123880	23485	1895	1093
23)	1,2,4-Trimethylbenzene	593392	224437	126161	24180	1969	1115
24)	Naphthalene	1002798	393080	221399	45582	3646	2114

CHEMSTATION CONCENTRATION REPORT

AG5975C
S19K083-SCV2
1930062 5 mg/L
11/21/2019
Thu Nov 21 06:24:24 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

SCV REPORT

Instrument Name: AG5975C
Sample Name: S19K083-SCV2
Misc Info: 1930062 5 mg/L
Date Acquired: 11/21/2019
QLast Update: Thu Nov 21 06:24:24 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	11.012	5000	5000.00	100%	70	130	pass
2)	1,1-Dichloroethene	3.120	5000	5995.53	120%	70	130	pass
3)	trans-1,2-Dichloroethene	4.310	5000	6109.98	122%	70	130	pass
4)	1,1-Dichloroethane	5.066	5000	5847.41	117%	70	130	pass
5)	cis-1,2-Dichloroethene	6.088	5000	6164.93	123%	70	130	pass
6)	Chloroform	6.664	5000	6105.89	122%	70	130	pass
7)	1,1,1-Trichloroethane	6.919	5000	5995.60	120%	70	130	pass
8)	Carbon tetrachloride	7.199	5000	5742.29	115%	70	130	pass
9)	Benzene	7.528	5000	5659.01	113%	70	130	pass
10)	1,2-Dichloroethane	7.564	5000	5947.60	119%	70	130	pass
11)	Trichloroethene	8.602	5000	5665.70	113%	70	130	pass
12)	Toluene-d8	10.519	5000	4769.21	95%	70	130	pass
13)	Toluene	10.613	5000	5009.87	100%	70	130	pass
14)	1,1,2-Trichloroethane	11.275	5000	5176.47	104%	70	130	pass
15)	Tetrachloroethene	11.474	5000	4822.11	96%	70	130	pass
16)	Chlorobenzene	12.813	5000	4646.00	93%	70	130	pass
17)	1,1,1,2-Tetrachloroethane	12.964	5000	4669.48	93%	70	130	pass
18)	Ethylbenzene	13.012	5000	4461.10	89%	70	130	pass
19)	m&p-Xylene	13.210	10000	8768.29	88%	70	130	pass
20)	o-Xylene	13.822	5000	4355.55	87%	70	130	pass
21)	1,1,2,2-Tetrachloroethane	14.921	5000	4377.23	88%	70	130	pass
22)	1,3,5-Trimethylbenzene	15.393	5000	4107.63	82%	70	130	pass
23)	1,2,4-Trimethylbenzene	15.939	5000	3962.29	79%	70	130	pass
24)	Naphthalene	17.932	5000	3547.41	71%	70	130	pass

SEQUENCE

S19K083

Sequence Date: 11/20/2019

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	ICAL	SEQUENCE #:	S19K083 11/20/19
BATCH #:		ANALYSIS:	VOA Passive Air.

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
DOCUMENTATION	ANALYST: Bench sheet(s) attached? REVIEWER: Bench sheet(s) reviewed?	✔			
	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.	Thu Nov 21 06:24:24 2019			
	Initial Calibration ID (LIMS number):	1911014			
	ICAL within QC criteria?		Y	Y	
	SCV within QC criteria?		Y	Y	*SEE COMMENTS
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?	✔			
	LCS(s) or SRM(s) within QC criteria?	✔			
	MSs/MSDs and/or DUPs within QC criteria?	✔			
	Other method-specific QCs within QC criteria? Specify if applicable.	✔			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	ICAL	SEQUENCE #:	S19K083 11/20/19
BATCH #:		ANALYSIS:	VOA Passive Air.

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	Y	Y	
	Surrogates within QC criteria?	✔			
SAMPLE DATA	Were samples prepared & analyzed within holding time?	✔			
	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?	✔			
	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 11/21/19
	REVIEWED BY:	Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2019.11.27 11:54:36 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

* Data for SCV1 was not collected due to injection error. SCV2 was analyzed on 11/21/19.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2019\112019\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	11201901.D	1	S19K083-IBL1		20 Nov 2019 8:52
2	11201902.D	1	S19K083-TUN1	BFB 1940006	20 Nov 2019 13:50
3	11201903.D	1	S19K083-CAL1	1930055 25 mg/L	20 Nov 2019 13:59
4	11201904.D	1	S19K083-CAL2	1930056 10 mg/L	20 Nov 2019 14:23
5	11201905.D	1	S19K083-CAL3	1930057 5 mg/L	20 Nov 2019 14:47
6	11201906.D	1	S19K083-CAL4	1930058 1 mg/L	20 Nov 2019 15:10
7	11201907.D	1	S19K083-CAL5	1930059 0.15 mg/L	20 Nov 2019 15:34
8	11201908.D	1	S19K083-CAL6	1930060 0.5 mg/L	20 Nov 2019 15:58
9	11201909.D	0	S19K083-SCV1	injection error	20 Nov 2019 15:58
2	11201910.D	1	S19K083-TUN2	BFB 1940006	21 Nov 2019 6:44
3	11201911.D	1	S19K083-SCV2	1930062 5 mg/L	21 Nov 2019 6:54

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2019\112019\11201902.D
Tune Time : 20 Nov 2019 13:50

Daily Calibration File : C:\msdchem\1\Ravioli Data\2019\112019\11201905.D

File	Sample	Surrogate Recovery %	Internal Standard Responses
			108292
No Quant Results for C:\msdchem\1\Ravioli Data\2019\112019\11201902.D			
11201903.D	S19K083-CA	478*	120873
11201904.D	S19K083-CA	193*	98547
11201905.D	S19K083-CA	100	108292
11201906.D	S19K083-CA	20*	100280
11201907.D	S19K083-CA	3*	59287
11201908.D	S19K083-CA	1*	107392
11201911.D	S19K083-SC	95	145454

(fails) - fails 12hr time check * - fails criteria

Created: Thu Nov 21 07:15:06 2019 AG5975C

Analysis Sequence

S19K083

Project:
Analysis:

Instrument: AG5975CV **Calibration ID:** 1911014 Printed: 11/21/2019 9:01 am

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S19K083-IBL1	Instrument Blank	1	11/20/19 8:52		1930061	TD	11201901.D	
S19K083-TUN1	BFB	2	11/20/19 13:50	1940006		TD	11201902.D	
S19K083-CAL1	Cal Standard	3	11/20/19 13:59	1930055		TD	11201903.D	
S19K083-CAL2	Cal Standard	4	11/20/19 14:23	1930056		TD	11201904.D	
S19K083-CAL3	Cal Standard	5	11/20/19 14:47	1930057		TD	11201905.D	
S19K083-CAL4	Cal Standard	6	11/20/19 15:10	1930058		TD	11201906.D	
S19K083-CAL5	Cal Standard	7	11/20/19 15:34	1930059		TD	11201907.D	
S19K083-CAL6	Cal Standard	8	11/20/19 15:58	1930060		TD	11201908.D	
S19K083-TUN2	BFB	9	11/21/19 6:44	1940006		TD	11201910.D	
S19K083-SCV2	Secondary Cal Check	10	11/21/19 6:54	1930062		TD	11201911.D	

Sequence Comments

Reagents

Reagent # **Description**

Table of Contents

SEQUENCE DATA

S19K083

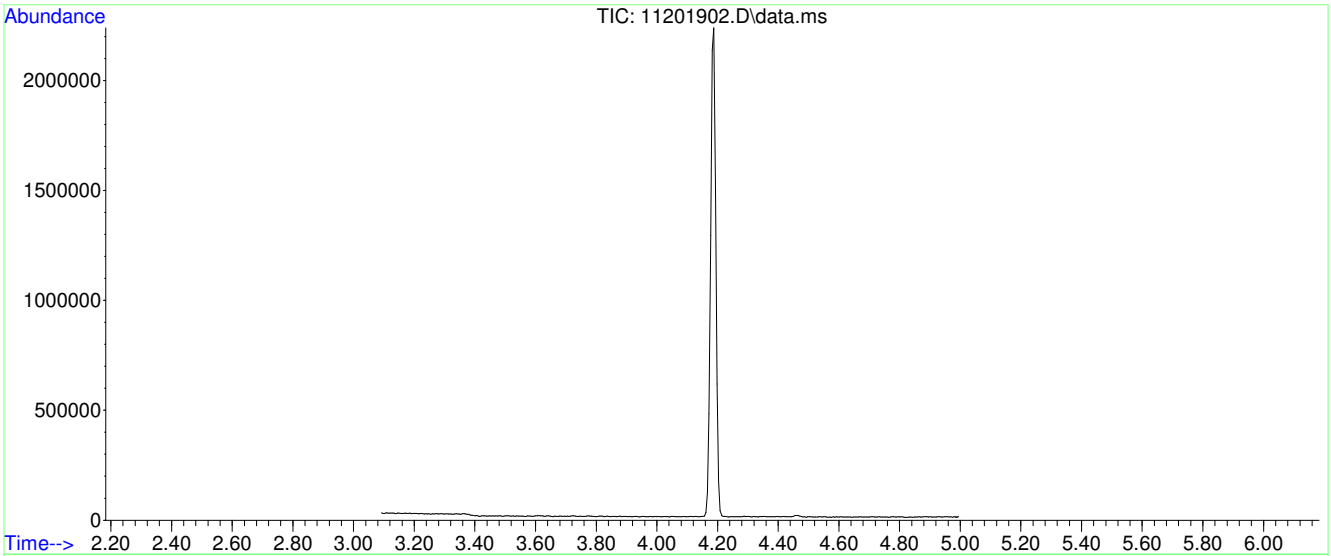
S19K083-TUN1

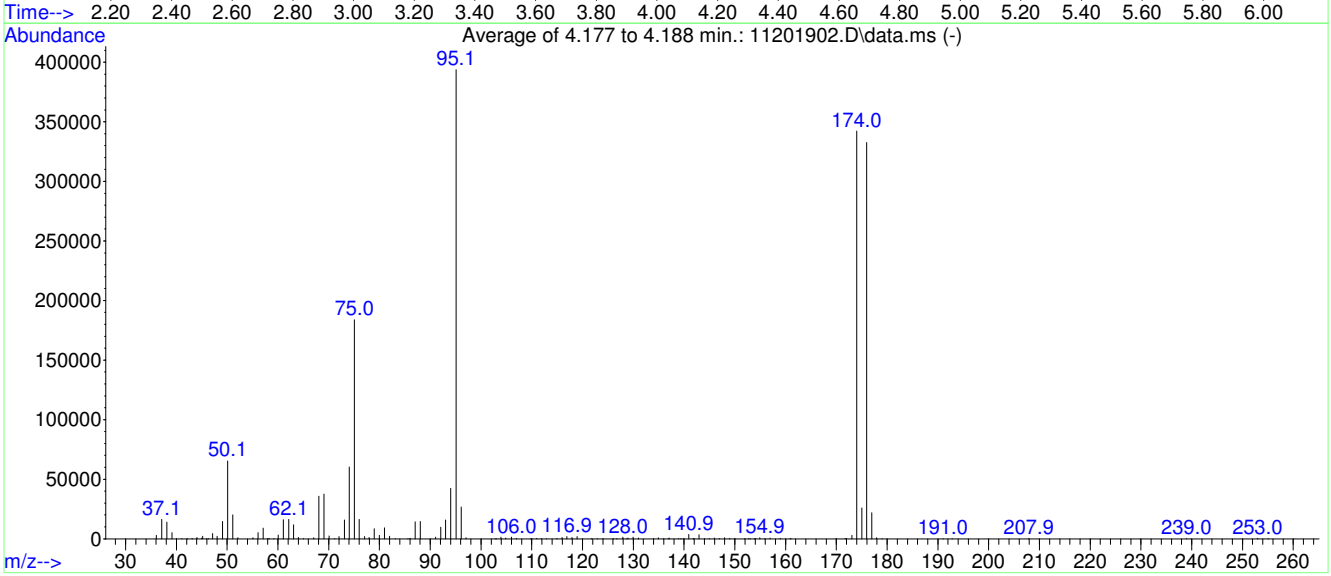
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201902.D
Acq On : 20 Nov 2019 13:50
Operator : TD
Sample : S19K083-TUN1
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Wed Nov 20 13:14:27 2019





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	65453	PASS
75	95	30	60	46.7	183703	PASS
95	95	100	100	100.0	393643	PASS
96	95	5	9	6.8	26629	PASS
173	174	0.00	2	0.9	2969	PASS
174	95	50	120	86.9	342229	PASS
175	174	5	9	7.5	25801	PASS
176	174	95	101	97.2	332565	PASS
177	176	5	9	6.6	21966	PASS

Average of 4.177 to 4.188 min.: 11201902.D\data.ms
S19K083-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	2951	45.95	230	58.05	351	69.05	37413
37.10	16353	46.30	157	58.30	106	70.05	2486
38.10	13999	47.10	4352	59.20	61	71.20	71
39.10	5245	48.00	2247	60.05	3154	72.05	2002
40.00	255	49.10	14512	61.05	15968	73.10	15907
41.10	19	50.10	65453	62.10	16282	74.05	60355
42.20	74	51.10	20019	63.10	11669	75.05	183703
43.10	312	52.10	1016	64.05	1221	76.00	16205
44.05	1271	55.05	811	65.05	267	77.05	1968
45.00	579	56.05	5184	67.05	964	77.95	1092
45.15	2240	57.10	9084	68.05	35699	78.95	8524

Average of 4.177 to 4.188 min.: 11201902.D\data.ms
S19K083-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.00	2828	94.05	42224	110.05	128	124.00	59
81.00	9320	95.10	393643	111.00	297	126.05	193
82.00	2151	96.10	26629	111.90	213	126.75	147
83.10	235	97.05	791	112.85	226	127.95	1327
85.60	113	102.80	71	114.95	343	128.70	102
86.00	329	103.10	246	115.95	1142	128.95	563
87.00	14238	103.90	1444	116.90	1996	129.95	1309
88.05	14602	104.85	633	117.90	1257	131.00	594
91.05	1297	106.00	1477	118.95	1831	134.00	67
92.05	9871	106.95	499	121.80	73	134.95	775
93.00	15787	109.80	70	122.90	177	136.00	50

Average of 4.177 to 4.188 min.: 11201902.D\data.ms
S19K083-TUN1
Modified:subtracted

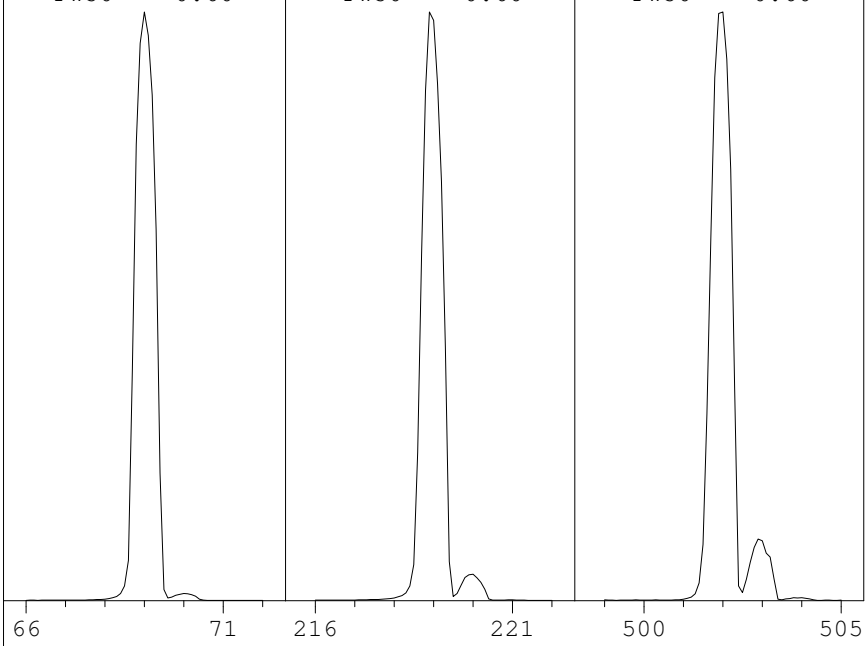
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
136.90	166	145.95	656	155.90	159	175.95	332565
137.05	536	147.00	257	156.95	735	177.00	21966
138.90	67	147.95	934	158.95	485	177.95	778
139.40	77	149.00	332	160.90	120	179.00	68
140.00	241	150.00	449	161.05	365	191.00	124
140.95	3584	151.95	178	170.00	52	192.80	66
141.80	157	152.70	64	171.75	357	207.95	125
141.95	387	153.00	185	172.00	255	239.00	77
142.95	3318	153.85	152	173.05	2969	253.00	350
144.00	179	154.10	80	174.00	342229	255.05	106
144.95	235	154.90	968	175.00	25801		

BFB Autotune

Wed Nov 20 09:37:18 2019 Instrument:

C:\MSDCHEM\1\5975\BFB_Atune.u

Mass	69.00	Mass	218.90	Mass	502.00
Ab	487307	Ab	365149	Ab	29178
Pw50	0.60	Pw50	0.60	Pw50	0.60



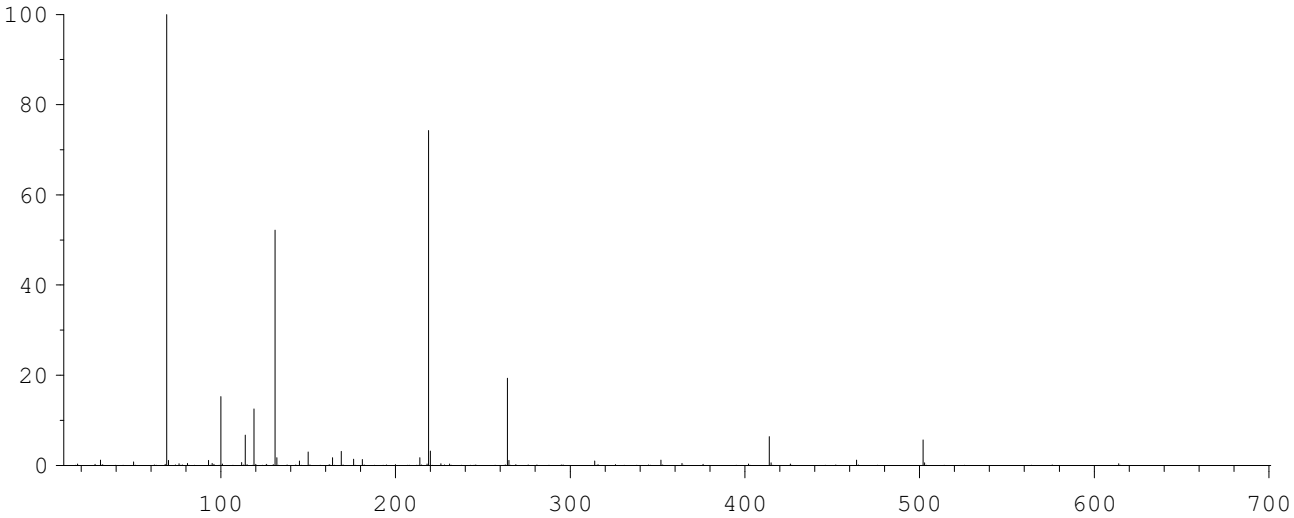
Ion Pol	Pos	MassGain	-1186
		MassOffs	-34
Emission	34.6	AmuGain	976
EIEnrgy	69.9	AmuOffs	122.06
Filament	1	Wid219	-0.008
		DC Pol	Pos
Repeller	29.12		
IonFcus	90.2	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

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

130 peaks Base: 69.00 Abundance: 476992



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	476992	100.00	70.00	5157	1.08
219.00	354368	74.29	220.00	15079	4.26
502.00	26952	5.65	503.00	2823	10.47

Air/Water Check: H20~0.34% N2~0.27% O2~0.15% CO2~0.04% N2/H2O~78.32%

Column(1) Flow: 0.9 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:

Ion Focus Maximum 90 volts using ion 502; EM Gain 31673

Repeller Maximum 35 volts using ion 219; Gain Factor 0.32

MassGain Values(Samples): -1173(3) -1165(2) -1148(1) -1128(0) -1042(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.1	122.1	122.1	122.1	122.1	122.1	122.1
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S19K083-CAL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201903.D
Acq On : 20 Nov 2019 13:59
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL1
Misc : 1930055 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 06:21:05 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

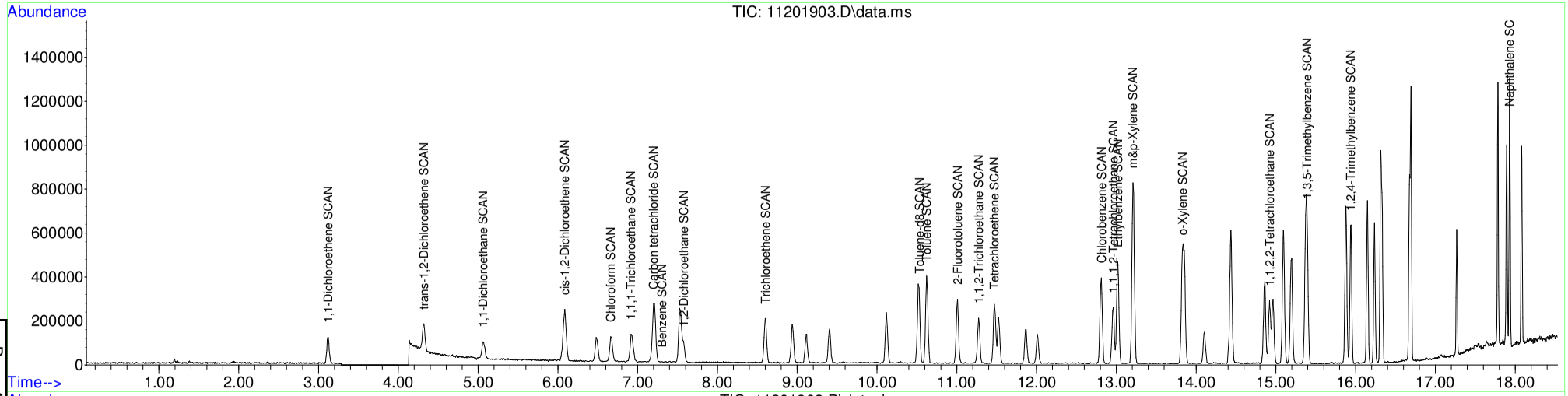
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	120873	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	464072	23906.71 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 478.13%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.116	61	124580	23991.49 ug/L	97
3] trans-1,2-Dichloroethene	4.316	61	126566	23859.17 ug/L	99
4] 1,1-Dichloroethane	5.066	63	155255	23022.40 ug/L	100
5] cis-1,2-Dichloroethene	6.088	61	146580	23637.11 ug/L	100
6] Chloroform	6.664	83	171482	23943.07 ug/L	99
7] 1,1,1-Trichloroethane	6.919	97	171320	23865.71 ug/L	99
8] Carbon tetrachloride	7.199	117	161581	23721.22 ug/L	99
9] Benzene	7.528	78	421327	23339.85 ug/L	100
10] 1,2-Dichloroethane	7.564	62	135427	22856.31 ug/L	99
11] Trichloroethene	8.602	130	131971	23829.13 ug/L	99
13] Toluene	10.613	91	535584	22742.66 ug/L	98
14] 1,1,2-Trichloroethane	11.275	97	126979	23796.57 ug/L	100
15] Tetrachloroethene	11.474	166	169177	23804.92 ug/L	98
16] Chlorobenzene	12.805	112	425523	23665.27 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.956	131	145738	23225.00 ug/L	99
18] Ethylbenzene	13.012	91	650477	22385.41 ug/L	99
19] m&p-Xylene	13.210	91	976720	44112.18 ug/L	99
20] o-Xylene	13.822	91	539183	22963.45 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.921	83	247627	23486.98 ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	589038	22513.79 ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	593392	22191.89 ug/L	99
24] Naphthalene	17.932	128	1002798	20759.35 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	73522	4902.68 ug/L	86
26) 1,1-Dichloroethene SCAN	3.122	61	87657	26673.89 ug/L #	14
27) trans-1,2-Dichloroethe...	4.315	61	86445	27764.90 ug/L	90
28) 1,1-Dichloroethane SCAN	5.065	63	103534	22221.68 ug/L	46
29) cis-1,2-Dichloroethene...	6.087	61	100942	27048.96 ug/L	91
30) Chloroform SCAN	6.663	83	111482	27977.16 ug/L	83
31) 1,1,1-Trichloroethane ...	6.918	97	110575	24138.86 ug/L	97
32) Carbon tetrachloride SCAN	7.198	117	99243	25298.28 ug/L	89
33) Benzene SCAN	7.307	78	1540	128.18 ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	97241	23731.88 ug/L	78
35) Trichloroethene SCAN	8.601	130	84212	27447.19 ug/L	89
36) Toluene-d8 SCAN	10.528	98	301808	23736.30 ug/L	95
37) Toluene SCAN	10.623	91	344903	23224.30 ug/L	99
38) 1,1,2-Trichloroethane ...	11.273	97	83463	25834.65 ug/L	79
39) Tetrachloroethene SCAN	11.473	166	98550	22893.86 ug/L	86
40) Chlorobenzene SCAN	12.812	112	263408	22260.81 ug/L	95
41) 1,1,1,2-Tetrachloroeth...	12.963	131	89826	23532.52 ug/L	99
42) Ethylbenzene SCAN	13.018	91	419070	22333.67 ug/L	96
43) m&p-Xylene SCAN	13.209	91	610076	21681.12 ug/L	98
44) o-Xylene SCAN	13.829	91	333253	20890.76 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.920	83	161203	22415.69 ug/L	98
46) 1,3,5-Trimethylbenzene...	15.392	105	364432	21861.42 ug/L	92
47) 1,2,4-Trimethylbenzene...	15.938	105	361042	21336.34 ug/L	97
48) Naphthalene SCAN	17.931	128	589154	21549.63 ug/L	95

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201903.D
Acq On : 20 Nov 2019 13:59
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL1
Misc : 1930055 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 06:21:05 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



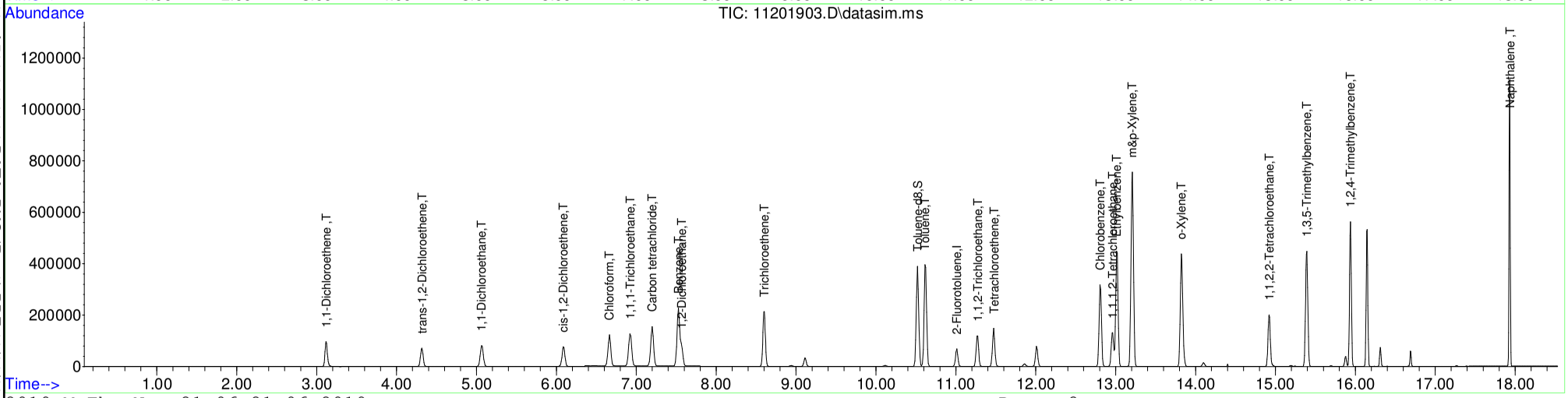


Table of Contents

S19K083-CAL2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201904.D
Acq On : 20 Nov 2019 14:23
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL2
Misc : 1930056 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 06:21:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

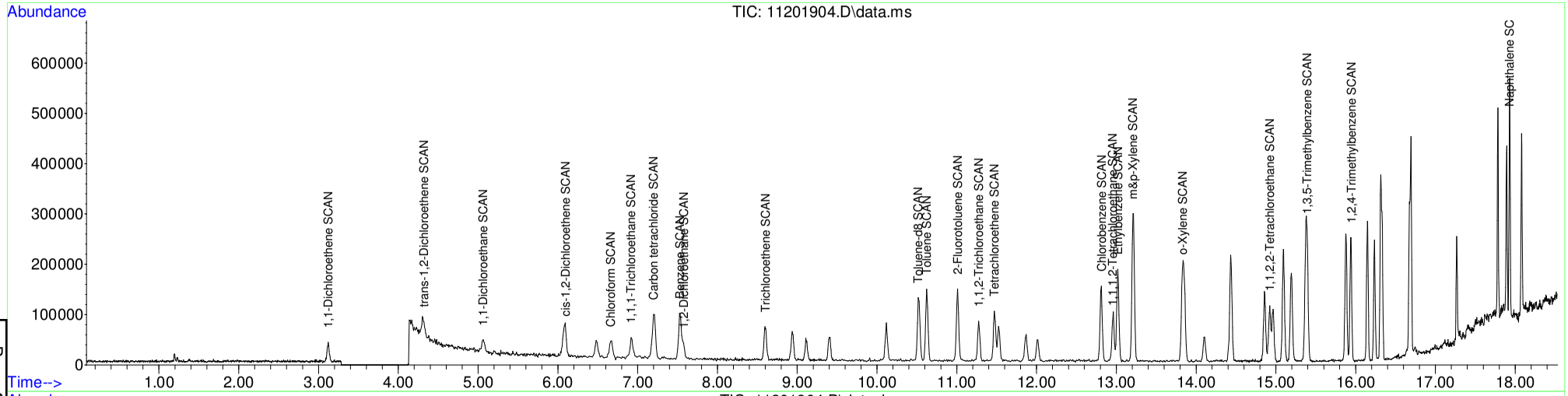
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	98547	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	153089	9673.07 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 193.46%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.120	61	34521	8154.14 ug/L	98
3] trans-1,2-Dichloroethene	4.310	61	36033	8331.53 ug/L	99
4] 1,1-Dichloroethane	5.066	63	45078	8198.90 ug/L	100
5] cis-1,2-Dichloroethene	6.088	61	43276	8559.59 ug/L	100
6] Chloroform	6.664	83	50977	8730.14 ug/L	99
7] 1,1,1-Trichloroethane	6.919	97	52569	8982.18 ug/L	100
8] Carbon tetrachloride	7.199	117	50445	9083.45 ug/L	100
9] Benzene	7.527	78	134529	9140.72 ug/L	100
10] 1,2-Dichloroethane	7.564	62	42601	8818.74 ug/L	99
11] Trichloroethene	8.597	130	42376	9385.03 ug/L	99
13] Toluene	10.613	91	185724	9673.14 ug/L	99
14] 1,1,2-Trichloroethane	11.274	97	41538	9548.03 ug/L	100
15] Tetrachloroethene	11.474	166	57566	9935.22 ug/L	100
16] Chlorobenzene	12.813	112	149075	10169.02 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.956	131	50451	9861.40 ug/L	100
18] Ethylbenzene	13.012	91	237908	10042.18 ug/L	100
19] m&p-Xylene	13.210	91	357718	19815.96 ug/L	100
20] o-Xylene	13.822	91	194596	10165.31 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.921	83	87587	10189.54 ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	220914	10356.53 ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	224437	10295.16 ug/L	100
24] Naphthalene	17.932	128	393080	9980.84 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	62932	5147.23 ug/L	93
26) 1,1-Dichloroethene SCAN	3.122	61	24796	9254.81 ug/L #	15
27) trans-1,2-Dichloroethe...	4.315	61	25695	10122.57 ug/L	94
28) 1,1-Dichloroethane SCAN	5.058	63	31569	8310.76 ug/L	40
29) cis-1,2-Dichloroethene...	6.100	61	27963	9190.70 ug/L	95
30) Chloroform SCAN	6.663	83	35815	11024.27 ug/L	88
31) 1,1,1-Trichloroethane ...	6.918	97	30673	8213.00 ug/L	96
32) Carbon tetrachloride SCAN	7.198	117	30502	9536.86 ug/L	86
33) Benzene SCAN	7.526	78	94581	9656.05 ug/L #	94
34) 1,2-Dichloroethane SCAN	7.575	62	30740	9201.79 ug/L	76
35) Trichloroethene SCAN	8.595	130	27898	11152.77 ug/L	89
36) Toluene-d8 SCAN	10.518	98	100172	9663.06 ug/L	99
37) Toluene SCAN	10.623	91	117404	9696.49 ug/L	96
38) 1,1,2-Trichloroethane ...	11.273	97	29839	11328.66 ug/L	77
39) Tetrachloroethene SCAN	11.473	166	30804	8777.19 ug/L #	79
40) Chlorobenzene SCAN	12.812	112	88003	9122.11 ug/L	96
41) 1,1,1,2-Tetrachloroeth...	12.955	131	30107	9674.30 ug/L	92
42) Ethylbenzene SCAN	13.018	91	150437	9833.63 ug/L	92
43) m&p-Xylene SCAN	13.209	91	219997	9589.60 ug/L	97
44) o-Xylene SCAN	13.829	91	119725	9205.57 ug/L	93
45) 1,1,2,2-Tetrachloroeth...	14.924	83	59412	10133.02 ug/L	99
46) 1,3,5-Trimethylbenzene...	15.392	105	131496	9675.21 ug/L	92
47) 1,2,4-Trimethylbenzene...	15.943	105	137454	9963.35 ug/L	96
48) Naphthalene SCAN	17.931	128	228478	10250.41 ug/L	96

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201904.D
Acq On : 20 Nov 2019 14:23
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL2
Misc : 1930056 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 06:21:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



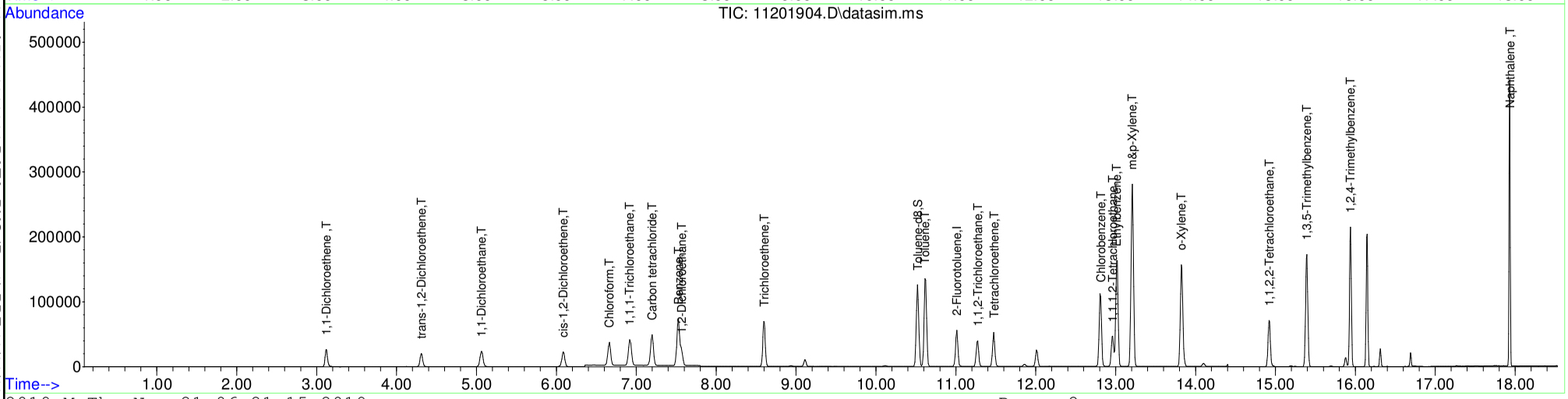


Table of Contents

S19K083-CAL3

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201905.D
Acq On : 20 Nov 2019 14:47
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL3
Misc : 1930057 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 06:21:25 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

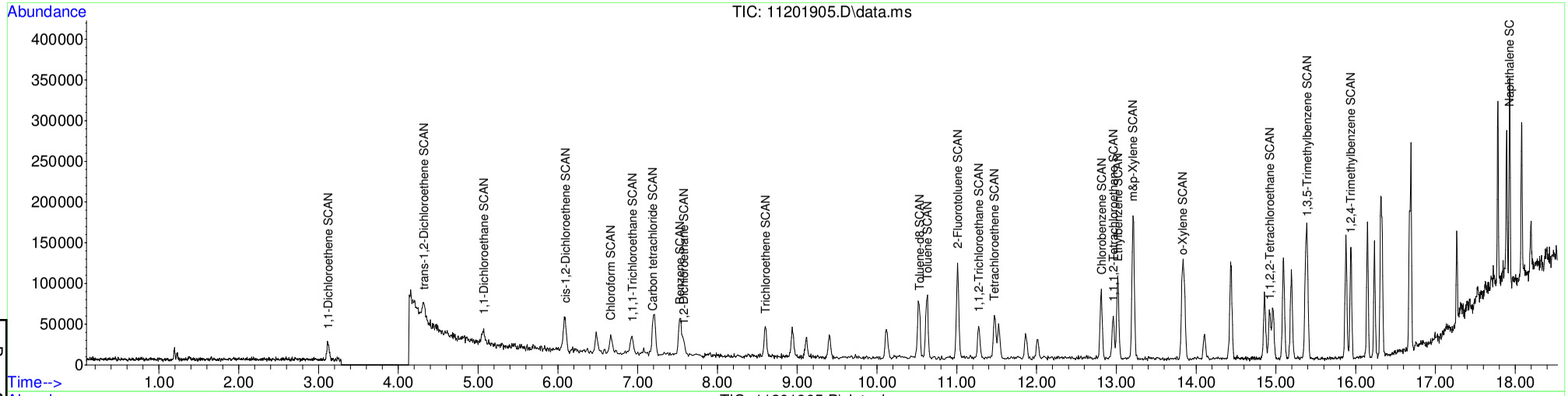
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	108292	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	87122	5009.51 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 100.19%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.120	61	20720	4453.81 ug/L	99
3] trans-1,2-Dichloroethene	4.310	61	20828	4382.47 ug/L	99
4] 1,1-Dichloroethane	5.066	63	26132	4325.24 ug/L	99
5] cis-1,2-Dichloroethene	6.088	61	24796	4463.08 ug/L	100
6] Chloroform	6.664	83	28935	4509.39 ug/L	99
7] 1,1,1-Trichloroethane	6.919	97	29603	4602.94 ug/L	100
8] Carbon tetrachloride	7.199	117	28235	4626.66 ug/L	99
9] Benzene	7.528	78	75216	4650.74 ug/L	99
10] 1,2-Dichloroethane	7.564	62	24336	4584.41 ug/L	99
11] Trichloroethene	8.602	130	23638	4764.02 ug/L	99
13] Toluene	10.613	91	104659	4960.47 ug/L	100
14] 1,1,2-Trichloroethane	11.275	97	23180	4848.74 ug/L	99
15] Tetrachloroethene	11.474	166	32339	5079.08 ug/L	99
16] Chlorobenzene	12.813	112	83519	5184.50 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.964	131	28426	5056.28 ug/L	99
18] Ethylbenzene	13.012	91	134961	5184.11 ug/L	100
19] m&p-Xylene	13.210	91	204296	10298.67 ug/L	100
20] o-Xylene	13.822	91	109707	5215.17 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.921	83	49373	5226.99 ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	123880	5284.93 ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	126161	5266.36 ug/L	100
24] Naphthalene	17.932	128	221399	5115.74 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	67177	5000.00 ug/L	100
26) 1,1-Dichloroethene SCAN	3.118	61	14721	5000.00 ug/L #	16
27) trans-1,2-Dichloroethe...	4.322	61	13947	5000.00 ug/L	89
28) 1,1-Dichloroethane SCAN	5.071	63	20871	5000.00 ug/L	57
29) cis-1,2-Dichloroethene...	6.093	61	16717	5000.00 ug/L	93
30) Chloroform SCAN	6.663	83	17850	5000.00 ug/L	90
31) 1,1,1-Trichloroethane ...	6.930	97	20520	5000.00 ug/L	79
32) Carbon tetrachloride SCAN	7.186	117	17573	5000.00 ug/L	89
33) Benzene SCAN	7.526	78	53818	5000.00 ug/L #	97
34) 1,2-Dichloroethane SCAN	7.575	62	18355	5000.00 ug/L	90
35) Trichloroethene SCAN	8.595	130	13744	5000.00 ug/L	92
36) Toluene-d8 SCAN	10.528	98	56958	5000.00 ug/L	93
37) Toluene SCAN	10.633	91	66526	5000.00 ug/L #	88
38) 1,1,2-Trichloroethane ...	11.273	97	14472	5000.00 ug/L	85
39) Tetrachloroethene SCAN	11.473	166	19283	5000.00 ug/L #	86
40) Chlorobenzene SCAN	12.812	112	53006	5000.00 ug/L	94
41) 1,1,1,2-Tetrachloroeth...	12.963	131	17099	5000.00 ug/L	93
42) Ethylbenzene SCAN	13.018	91	84055	5000.00 ug/L	99
43) m&p-Xylene SCAN	13.209	91	126049	5000.00 ug/L	98
44) o-Xylene SCAN	13.829	91	71459	5000.00 ug/L	98
45) 1,1,2,2-Tetrachloroeth...	14.928	83	32215	5000.00 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.392	105	74675	5000.00 ug/L	91
47) 1,2,4-Trimethylbenzene...	15.938	105	75801	5000.00 ug/L	95
48) Naphthalene SCAN	17.931	128	122469	5000.00 ug/L #	71

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201905.D
Acq On : 20 Nov 2019 14:47
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL3
Misc : 1930057 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 06:21:25 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



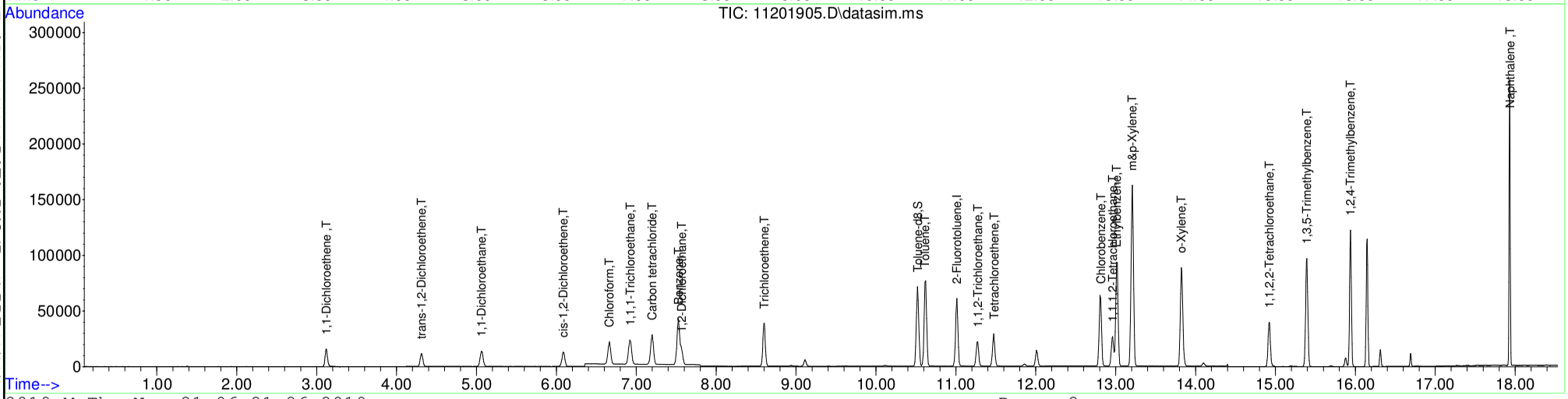
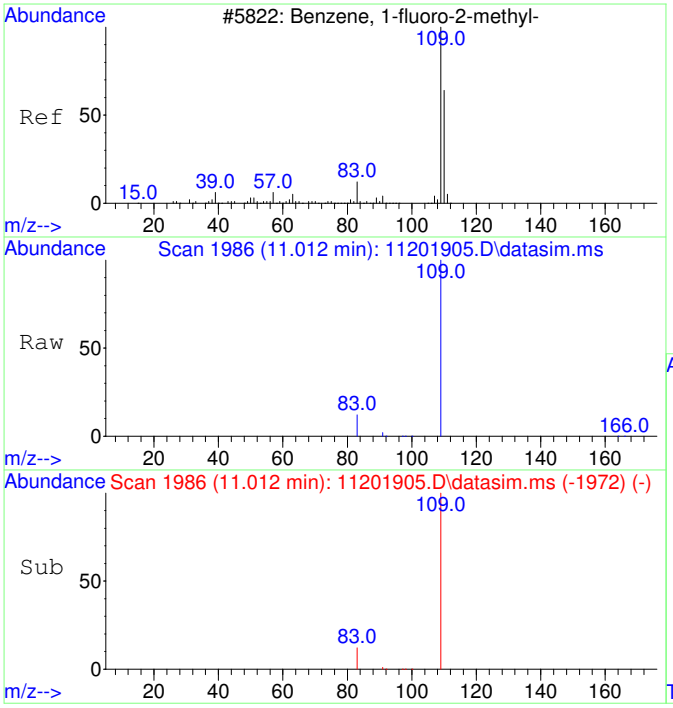


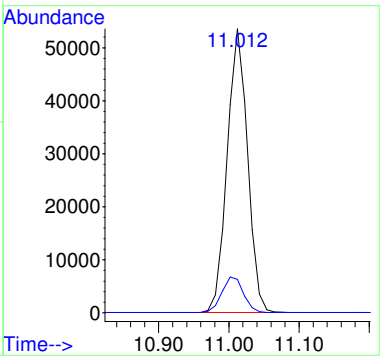
Table of Contents

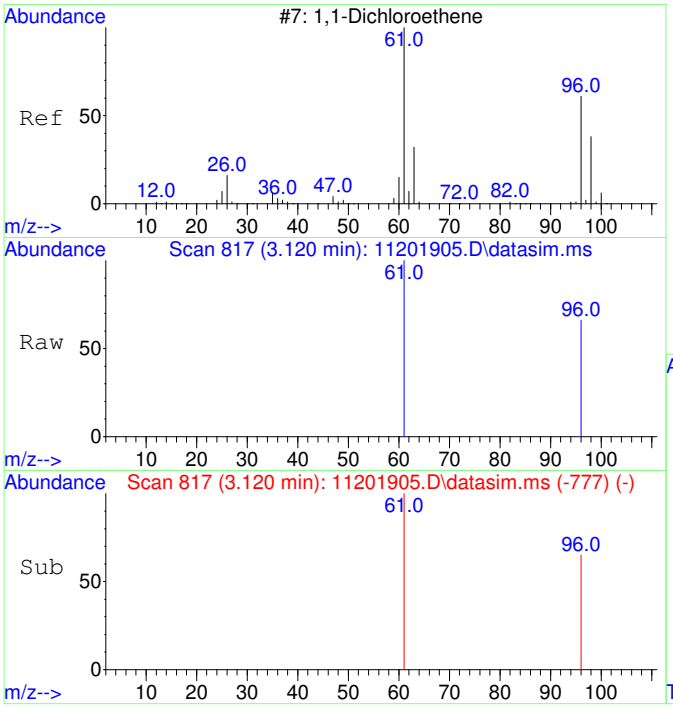


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:109 Resp: 108292

Ion	Ratio	Lower	Upper
109	100		
83	13.3	0.0	43.3

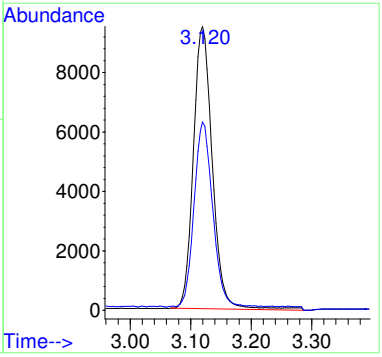


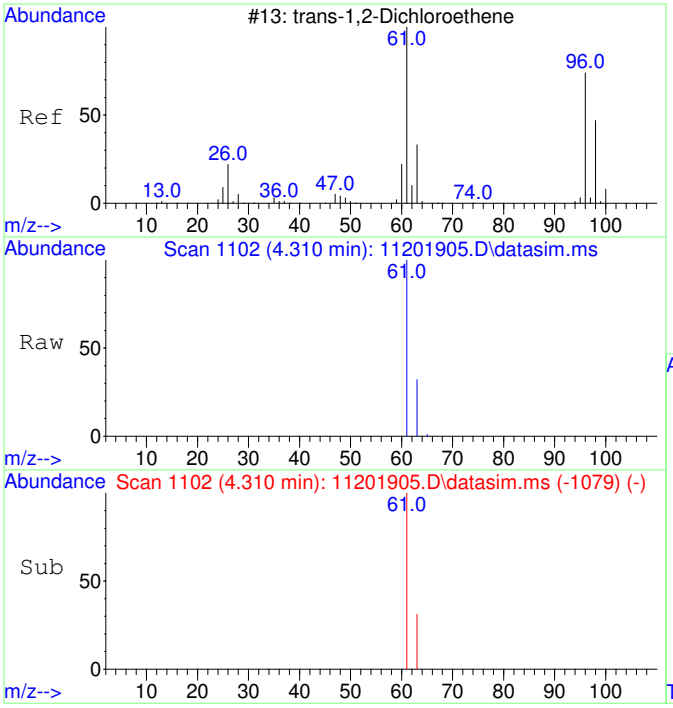


#2
1,1-Dichloroethene
Concen: 4453.81 ug/L
RT: 3.120 min Scan# 817
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 61 Resp: 20720

Ion	Ratio	Lower	Upper
61	100		
96	63.5	32.4	92.4

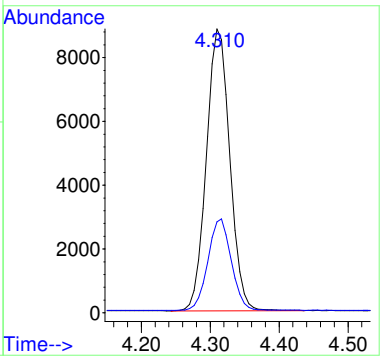


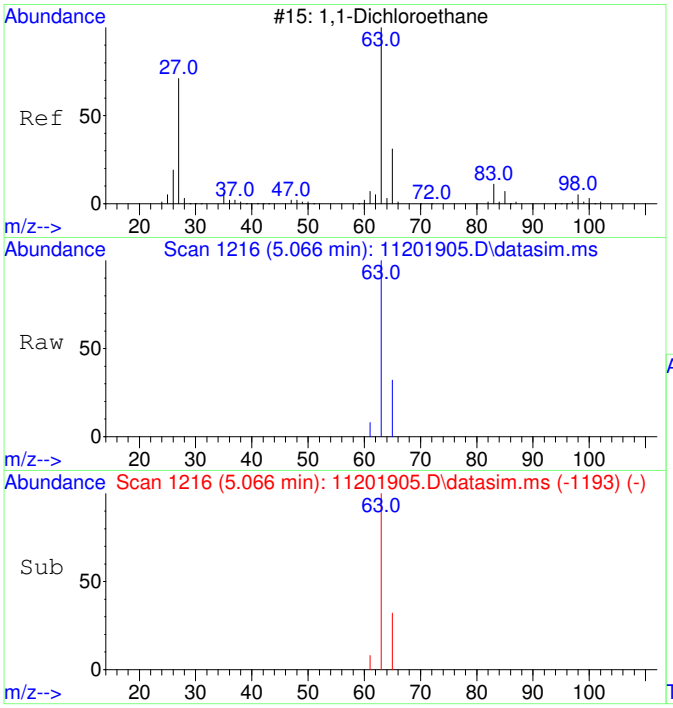


#3
trans-1,2-Dichloroethene
Concen: 4382.47 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 61 Resp: 20828

Ion	Ratio	Lower	Upper
61	100		
63	32.3	2.6	62.6

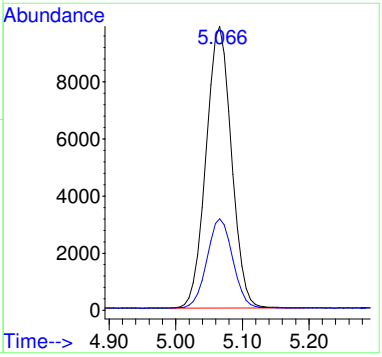


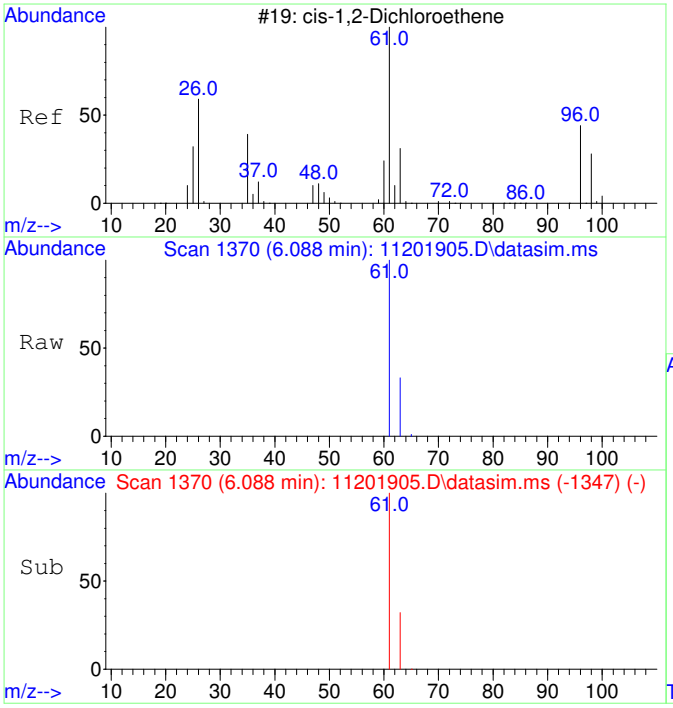


#4
1,1-Dichloroethane
Concen: 4325.24 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 63 Resp: 26132

Ion	Ratio	Lower	Upper
63	100		
65	31.9	1.6	61.6

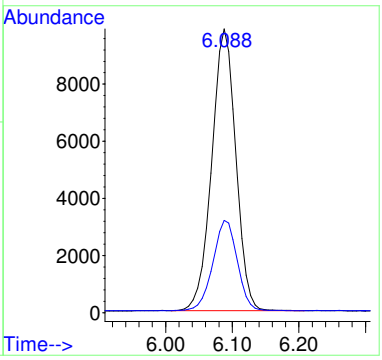


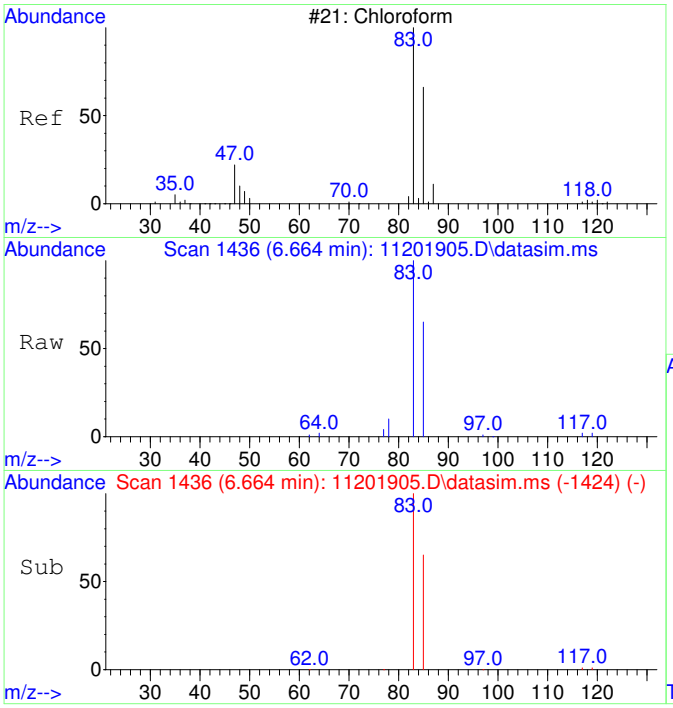


#5
cis-1,2-Dichloroethene
Concen: 4463.08 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 61 Resp: 24796

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.6	62.6

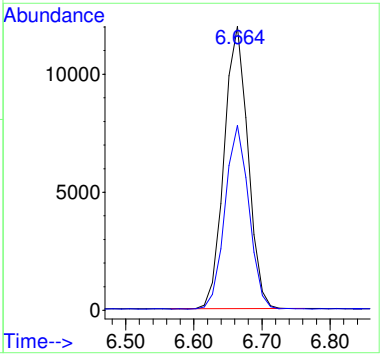


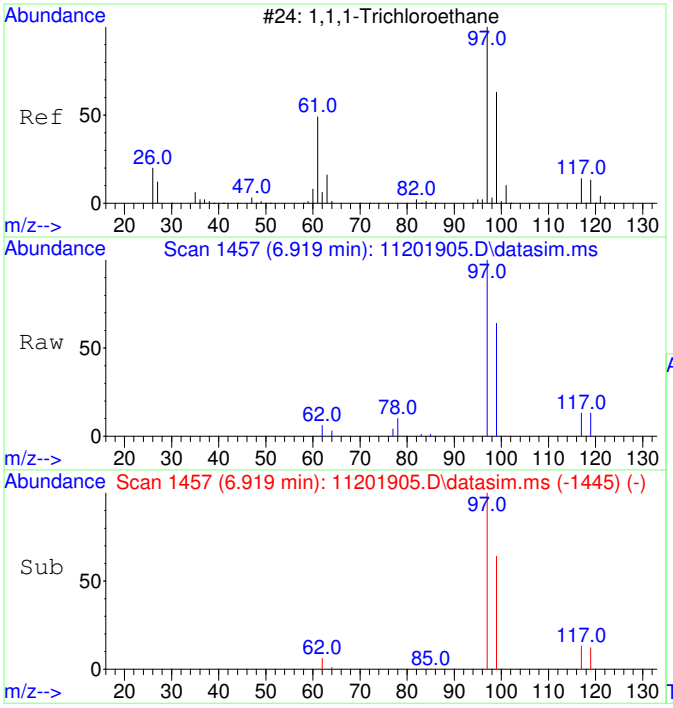


#6
Chloroform
Concen: 4509.39 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 83 Resp: 28935

Ion	Ratio	Lower	Upper
83	100		
85	65.0	34.4	94.4

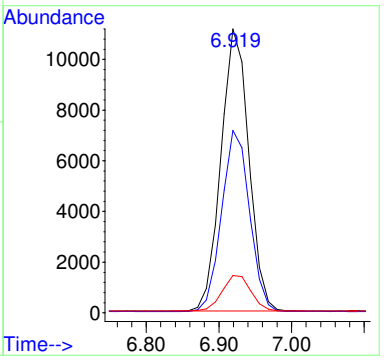


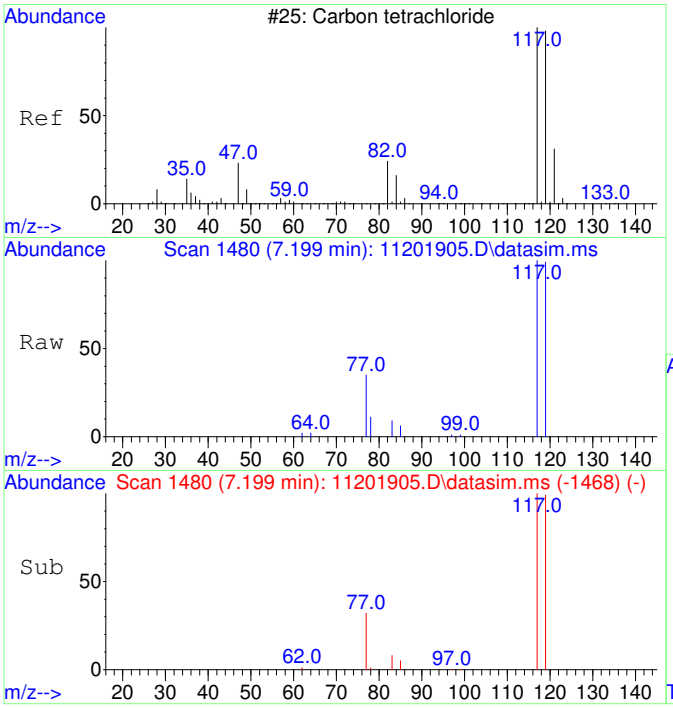


#7
1,1,1-Trichloroethane
Concen: 4602.94 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 97 Resp: 29603

Ion	Ratio	Lower	Upper
97	100		
99	64.4	34.3	94.3
117	13.0	0.0	43.2

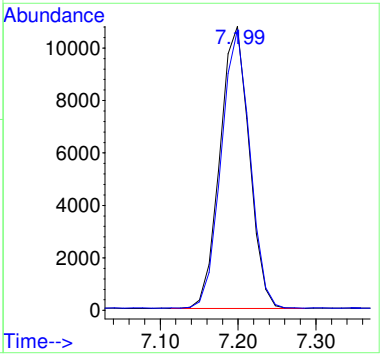


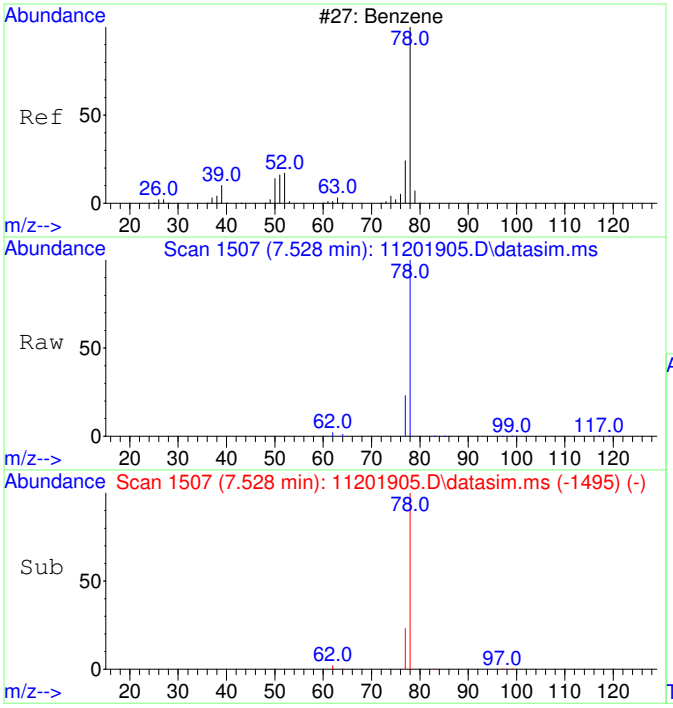


#8
Carbon tetrachloride
Concen: 4626.66 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:117 Resp: 28235

Ion	Ratio	Lower	Upper
117	100		
119	96.5	66.0	126.0

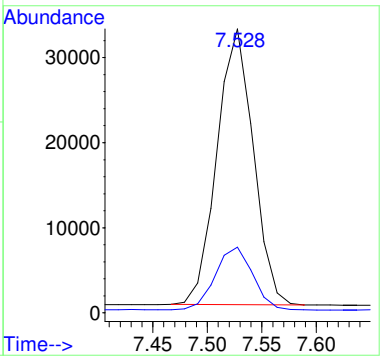


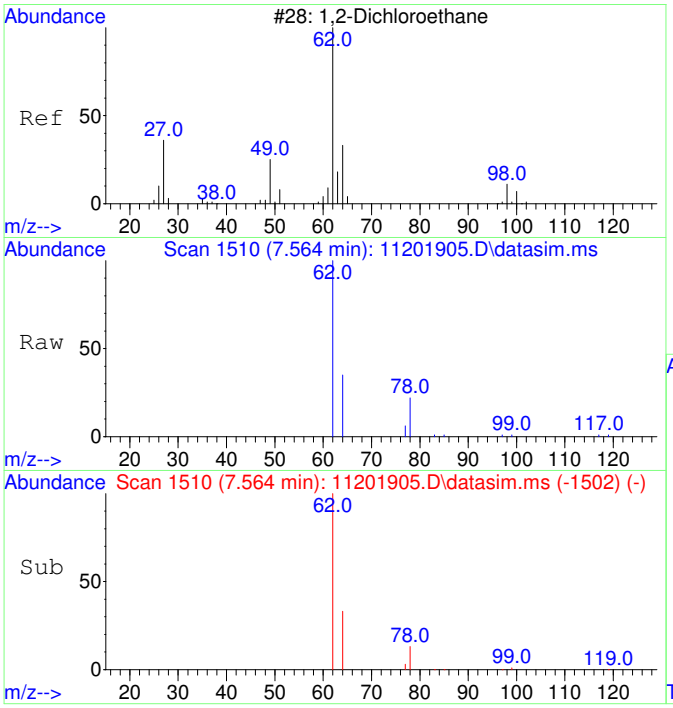


#9
Benzene
Concen: 4650.74 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 78 Resp: 75216

Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	53.2

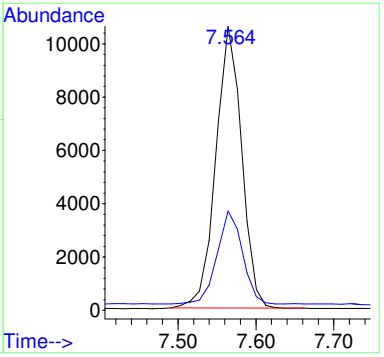


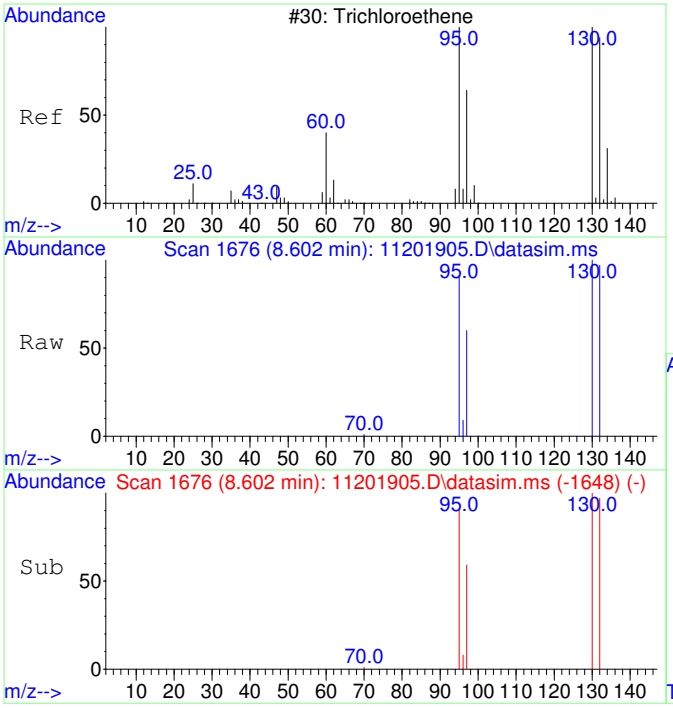


#10
1,2-Dichloroethane
Concen: 4584.41 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 62 Resp: 24336

Ion	Ratio	Lower	Upper
62	100		
64	32.4	1.9	61.9

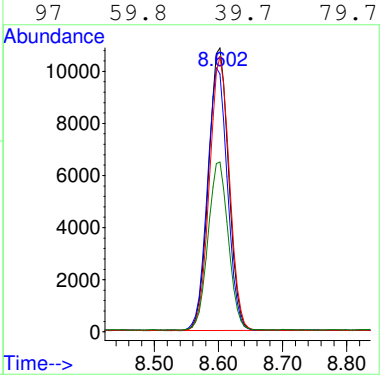


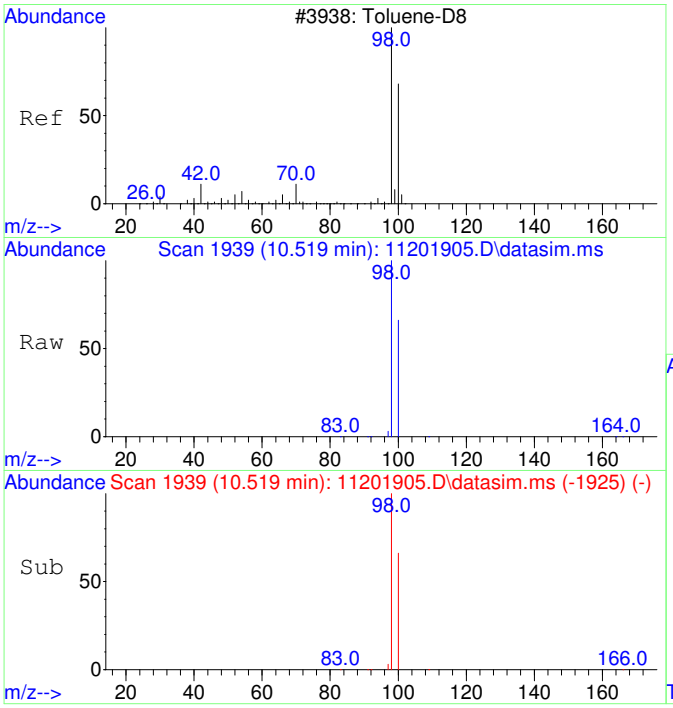


#11
Trichloroethene
Concen: 4764.02 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:130 Resp: 23638

Ion	Ratio	Lower	Upper
130	100		
95	92.3	61.1	121.1
132	95.8	75.7	115.7
97	59.8	39.7	79.7

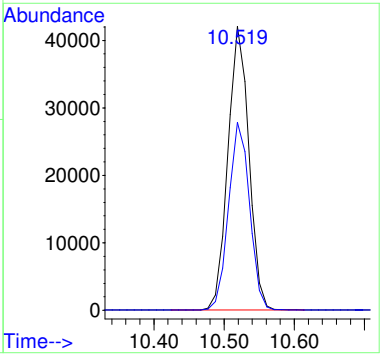


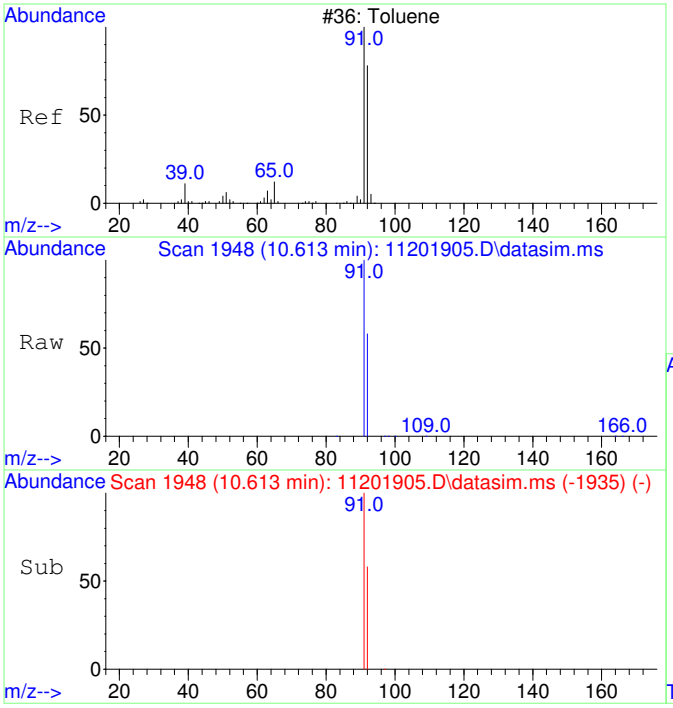


#12
Toluene-d8
Concen: 5009.51 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 98 Resp: 87122

Ion	Ratio	Lower	Upper
98	100		
100	66.2	37.1	97.1

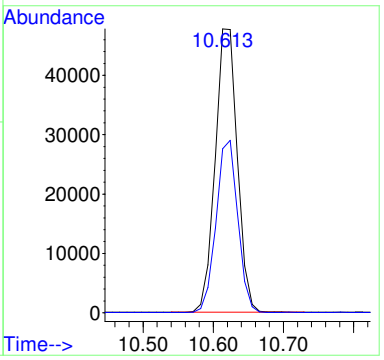


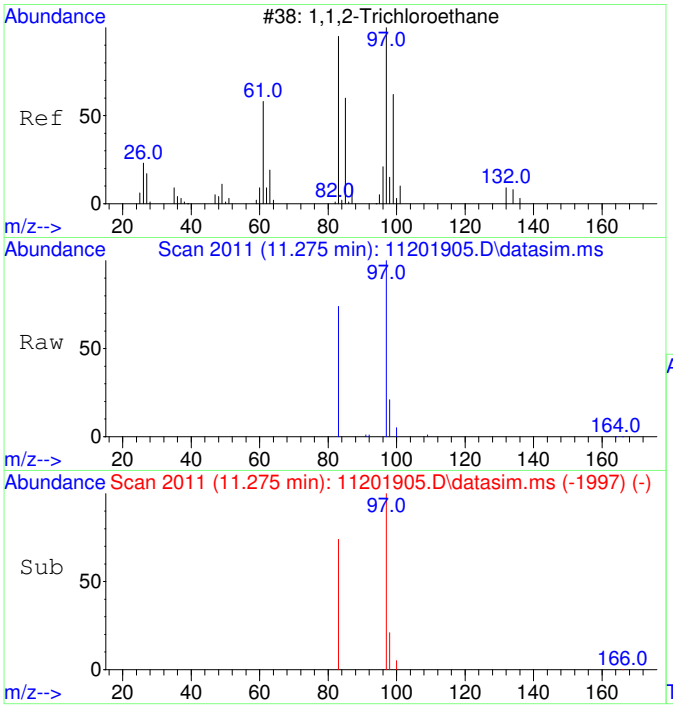


#13
Toluene
Concen: 4960.47 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.011 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 104659

Ion	Ratio	Lower	Upper
91	100		
92	59.4	29.0	89.0

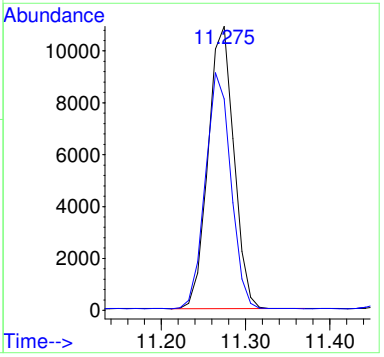


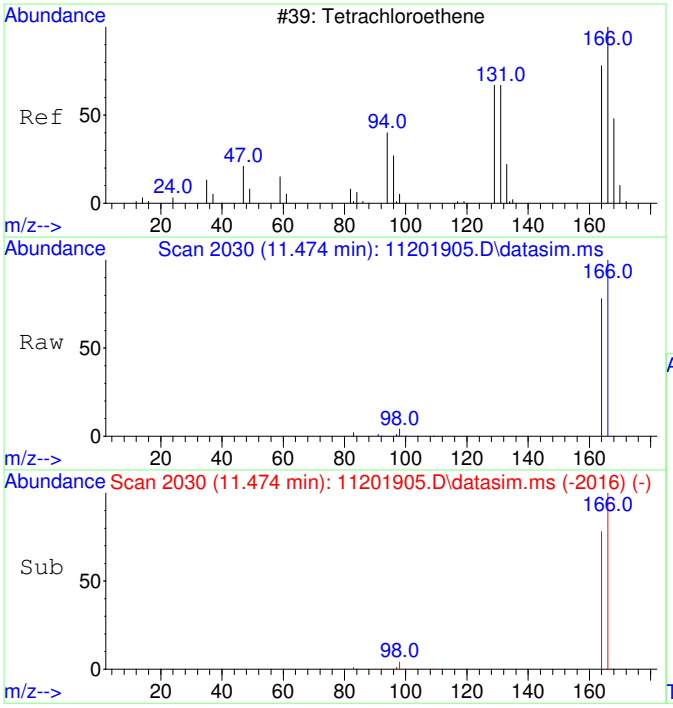


#14
1,1,2-Trichloroethane
Concen: 4848.74 ug/L
RT: 11.275 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 97 Resp: 23180

Ion	Ratio	Lower	Upper
97	100		
83	82.5	51.8	111.8

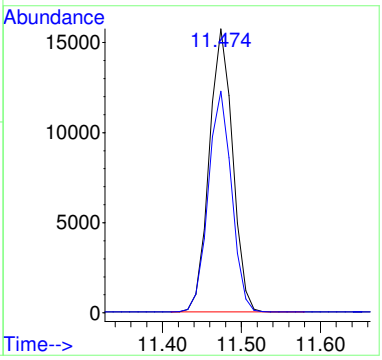


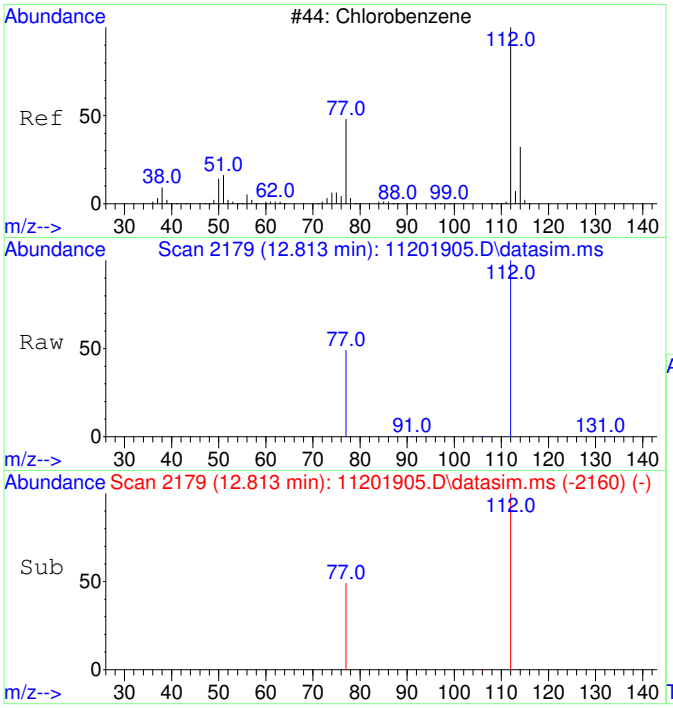


#15
Tetrachloroethene
Concen: 5079.08 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:166 Resp: 32339

Ion	Ratio	Lower	Upper
166	100		
164	77.6	48.6	108.6

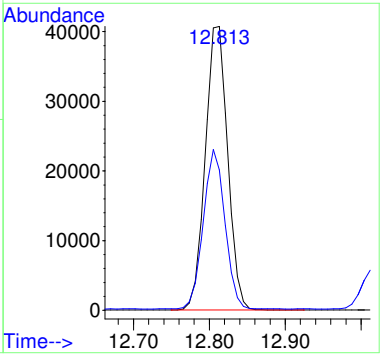


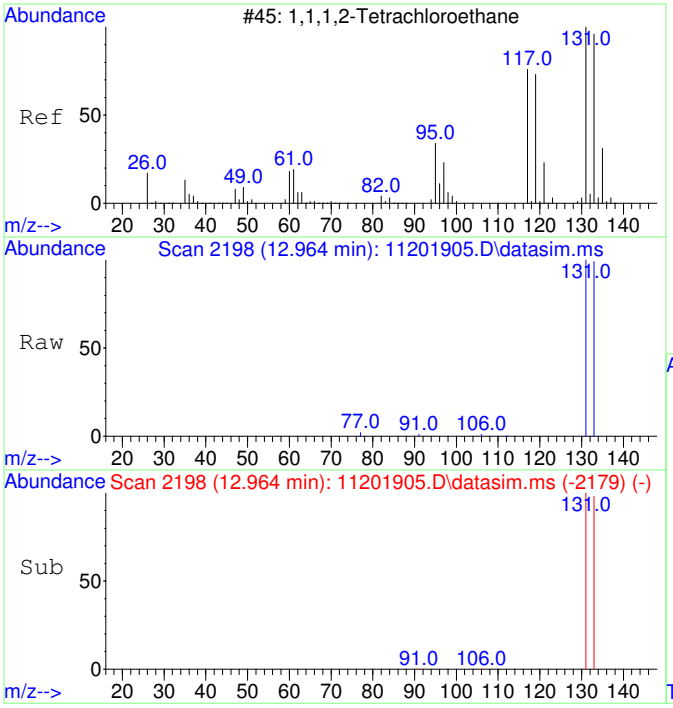


#16
Chlorobenzene
Concen: 5184.50 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:112 Resp: 83519

Ion	Ratio	Lower	Upper
112	100		
77	54.2	24.7	84.7

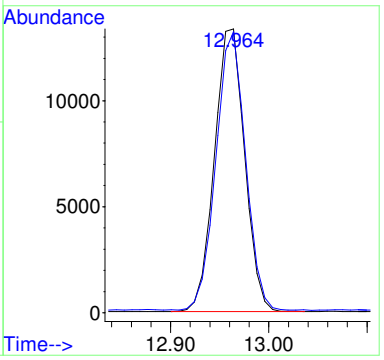


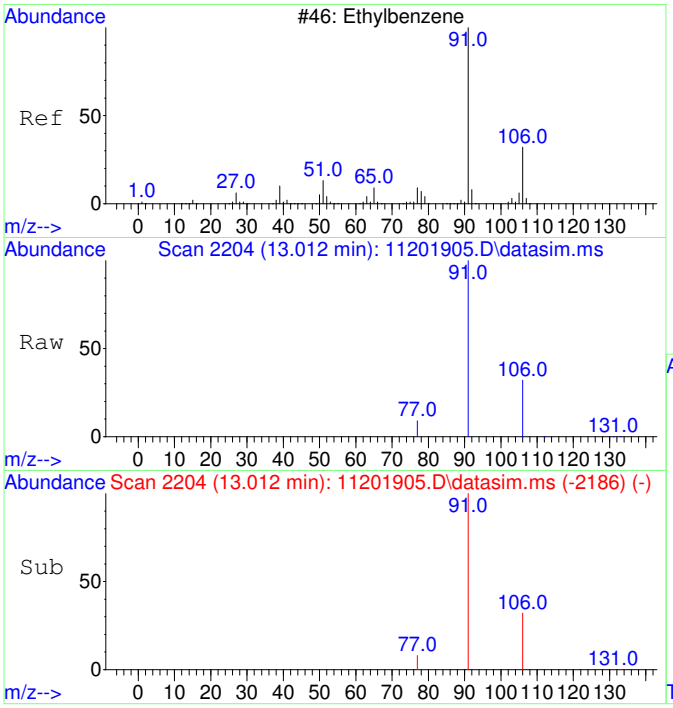


#17
1,1,1,2-Tetrachloroethane
Concen: 5056.28 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:131 Resp: 28426

Ion	Ratio	Lower	Upper
131	100		
133	96.0	66.6	126.6

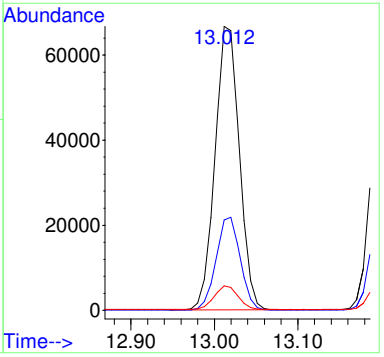


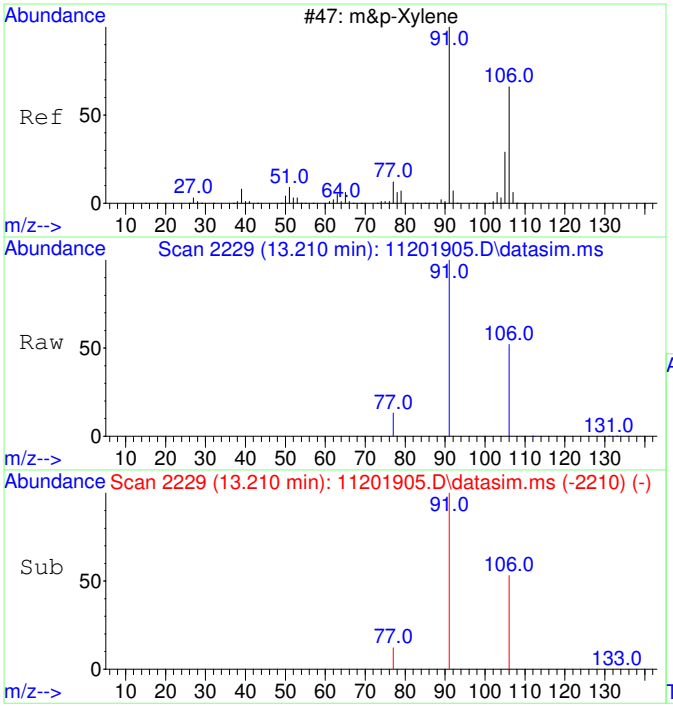


#18
Ethylbenzene
Concen: 5184.11 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.008 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 134961

Ion	Ratio	Lower	Upper
91	100		
106	32.5	2.6	62.6
77	8.2	0.0	38.2

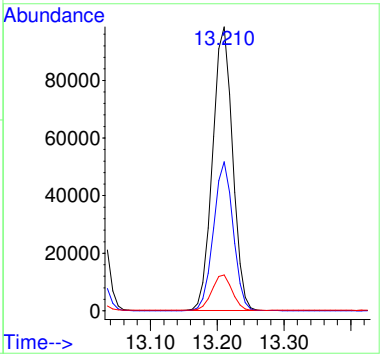


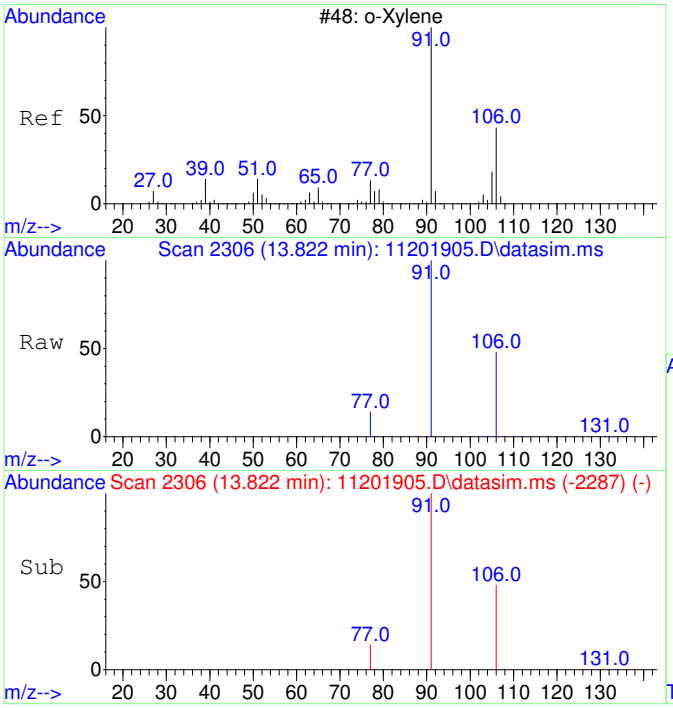


#19
m&p-Xylene
Concen: 10298.67 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 204296

Ion	Ratio	Lower	Upper
91	100		
106	51.6	21.4	81.4
77	12.6	0.0	42.6

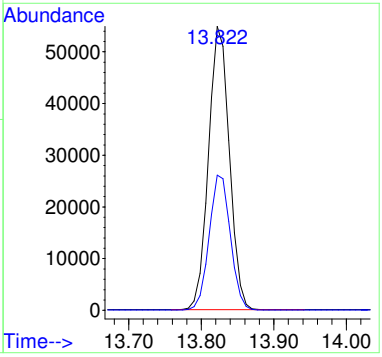


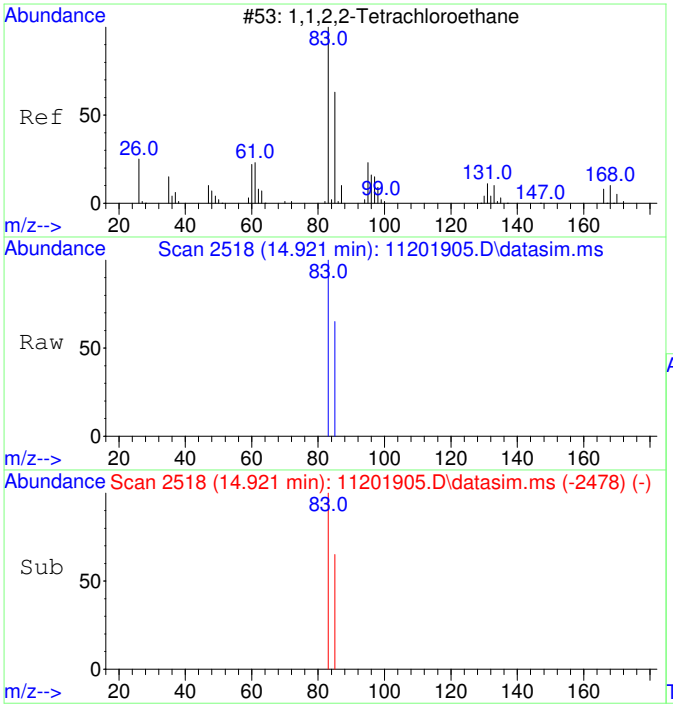


#20
o-Xylene
Concen: 5215.17 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 109707

Ion	Ratio	Lower	Upper
91	100		
106	48.5	18.5	78.5

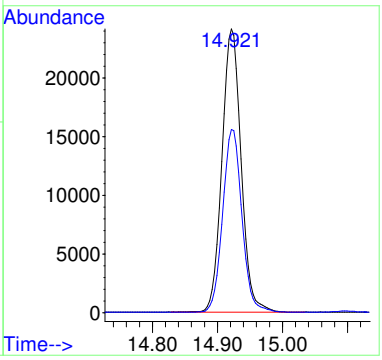


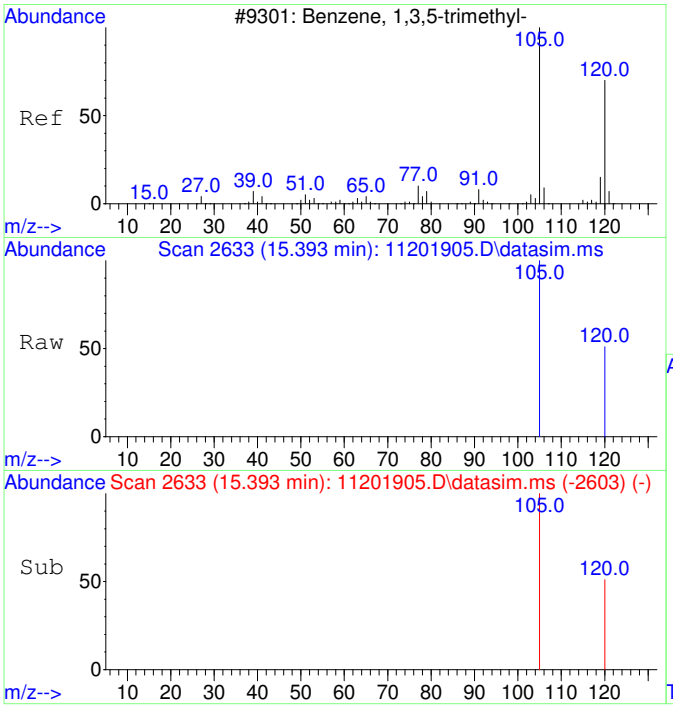


#21
1,1,2,2-Tetrachloroethane
Concen: 5226.99 ug/L
RT: 14.921 min Scan# 2518
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 83 Resp: 49373

Ion	Ratio	Lower	Upper
83	100		
85	64.7	34.6	94.6

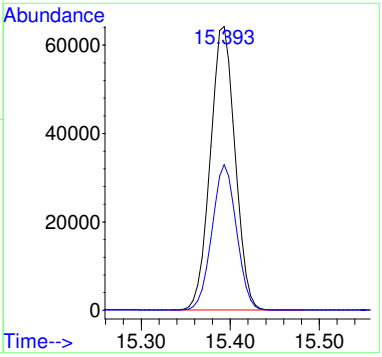


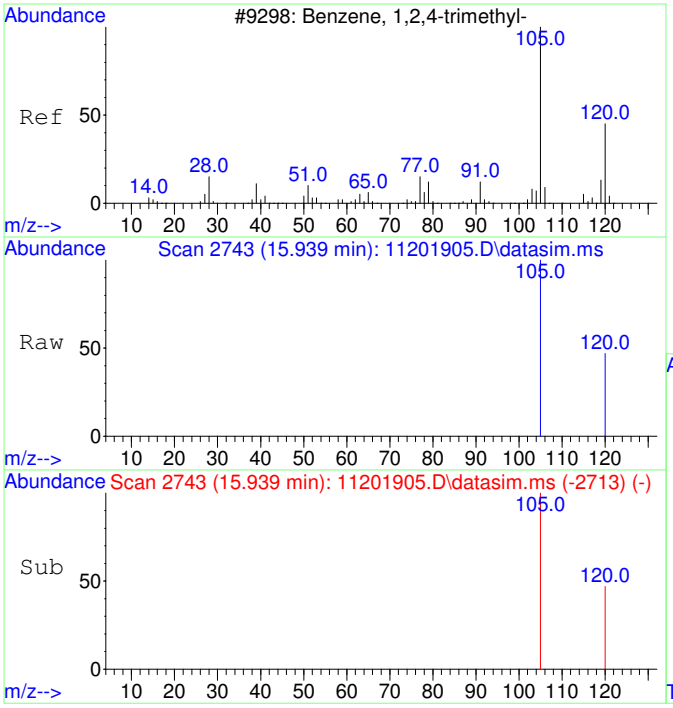


#22
1,3,5-Trimethylbenzene
Concen: 5284.93 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:105 Resp: 123880

Ion	Ratio	Lower	Upper
105	100		
120	50.7	20.9	80.9

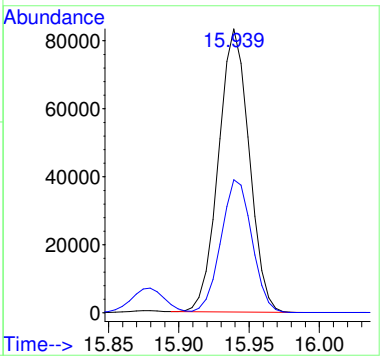


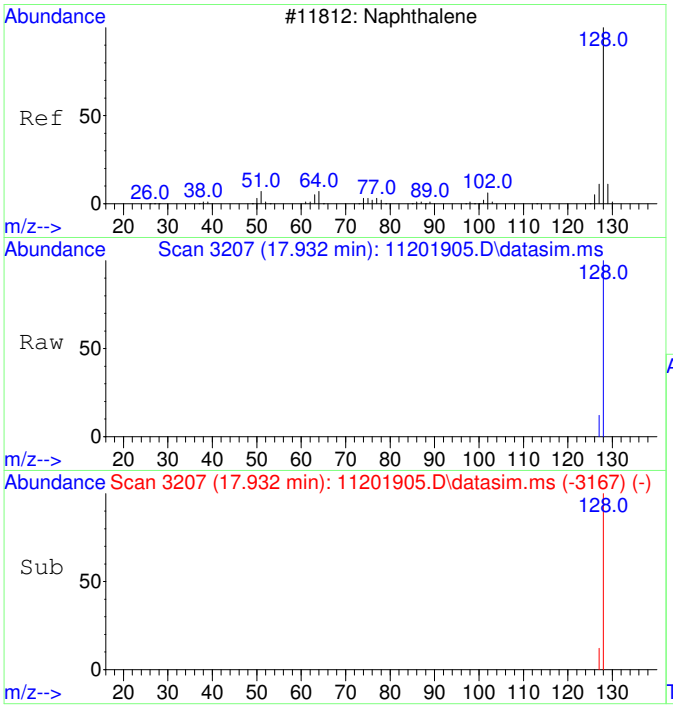


#23
1,2,4-Trimethylbenzene
Concen: 5266.36 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:105 Resp: 126161

Ion	Ratio	Lower	Upper
105	100		
120	46.6	16.6	76.6

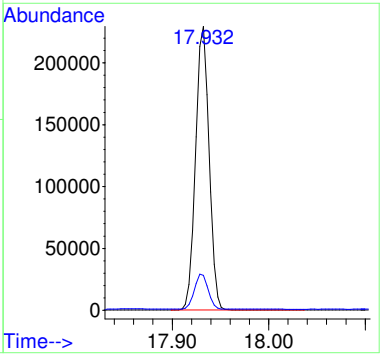


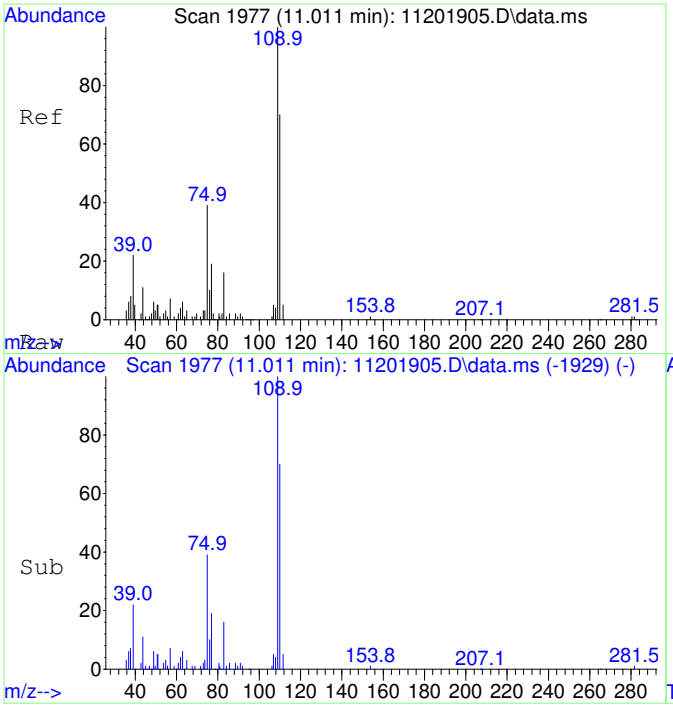


#24
Naphthalene
Concen: 5115.74 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:128 Resp: 221399

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	42.5

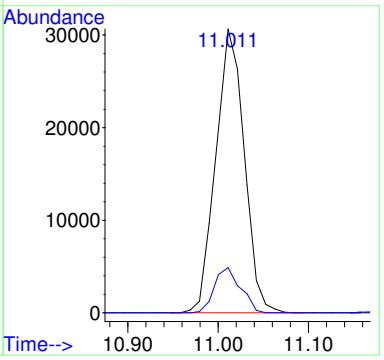


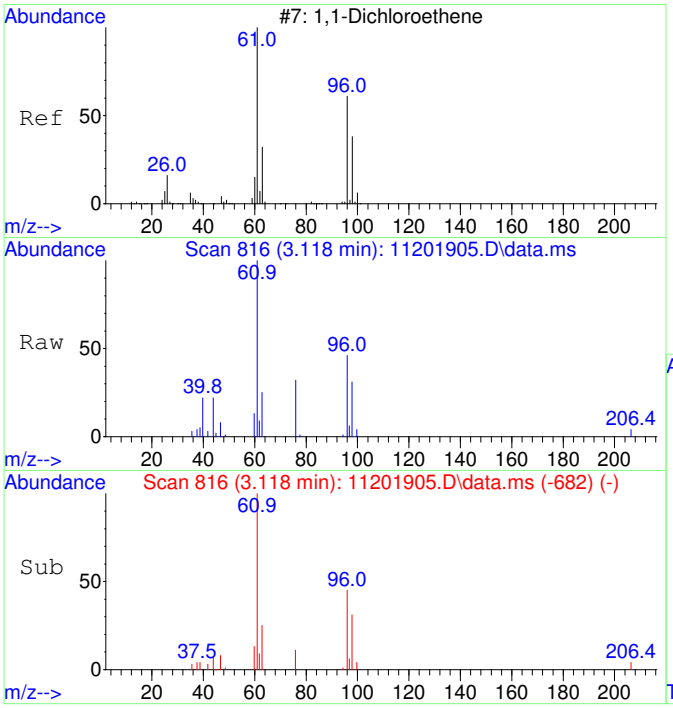


#25
2-Fluorotoluene SCAN
Concen: 5000.00 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:109 Resp: 67177

Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	44.5

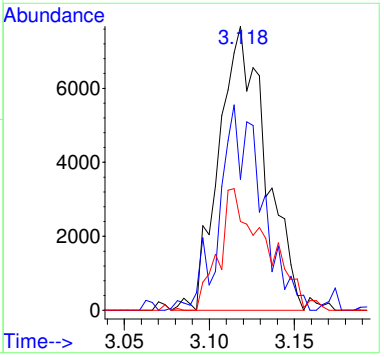


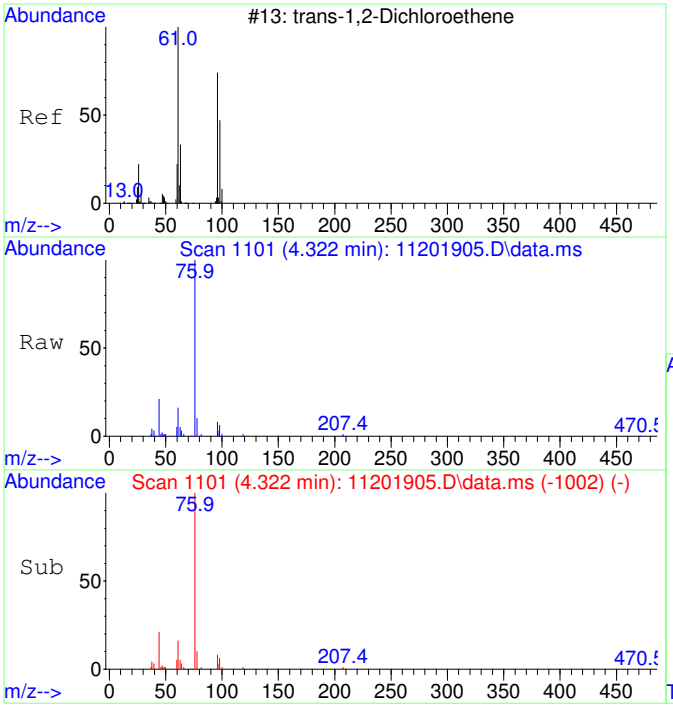


#26
1,1-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 3.118 min Scan# 816
Delta R.T. -0.004 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 61 Resp: 14721

Ion	Ratio	Lower	Upper
61	100		
96	64.8	160.0	220.0#
98	42.9	114.2	174.2#

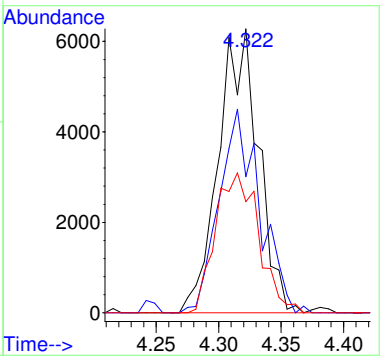


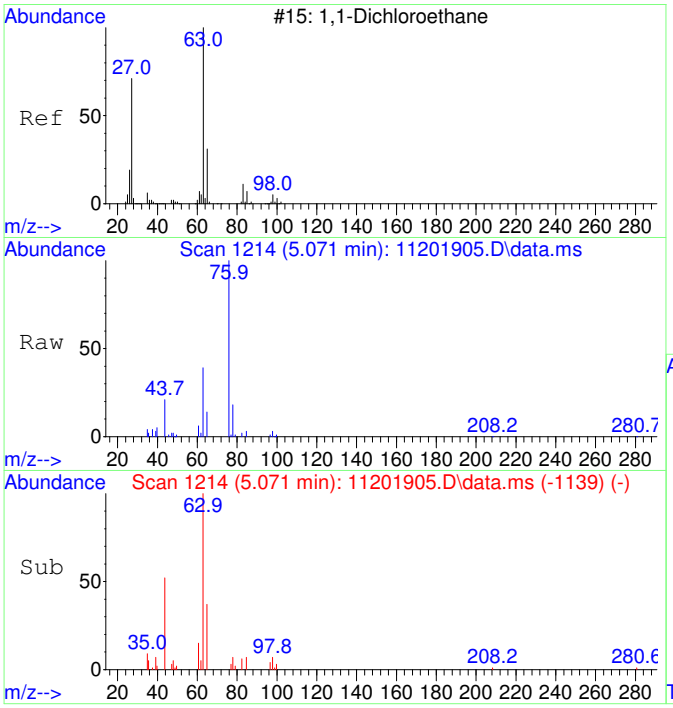


#27
trans-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 4.322 min Scan# 1101
Delta R.T. 0.013 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 61 Resp: 13947

Ion	Ratio	Lower	Upper
61	100		
96	72.7	44.3	104.3
98	53.4	5.2	65.2

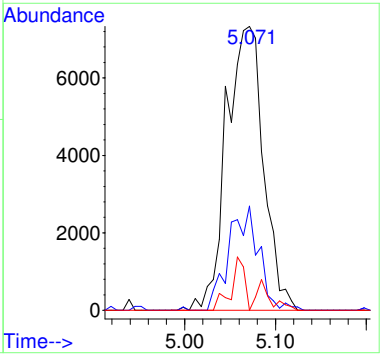


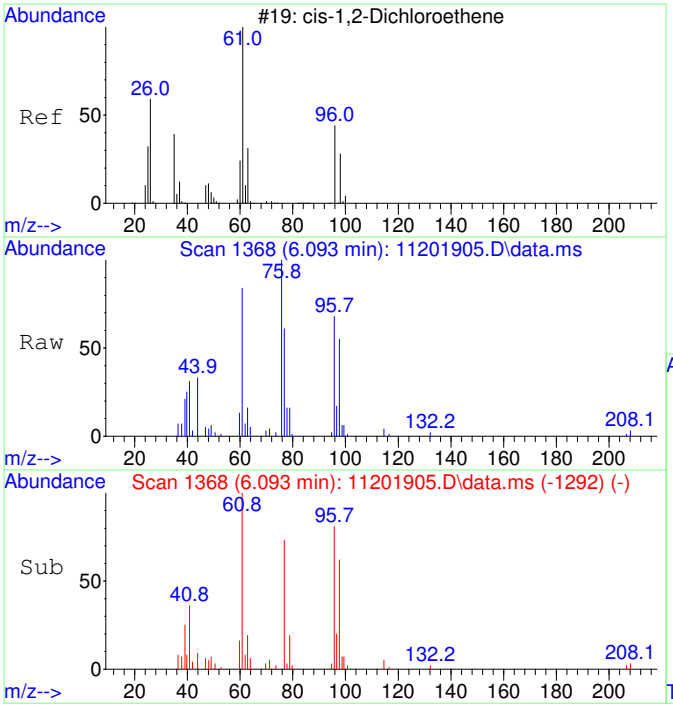


#28
1,1-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 5.071 min Scan# 1214
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 63 Resp: 20871

Ion	Ratio	Lower	Upper
63	100		
65	29.7	0.0	39.8
83	1.2	0.0	33.0

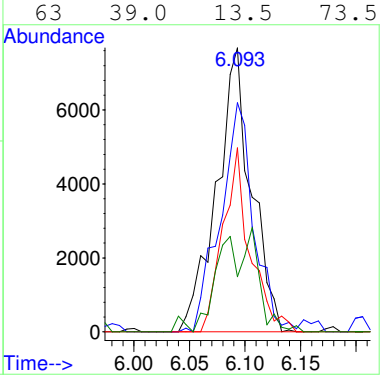


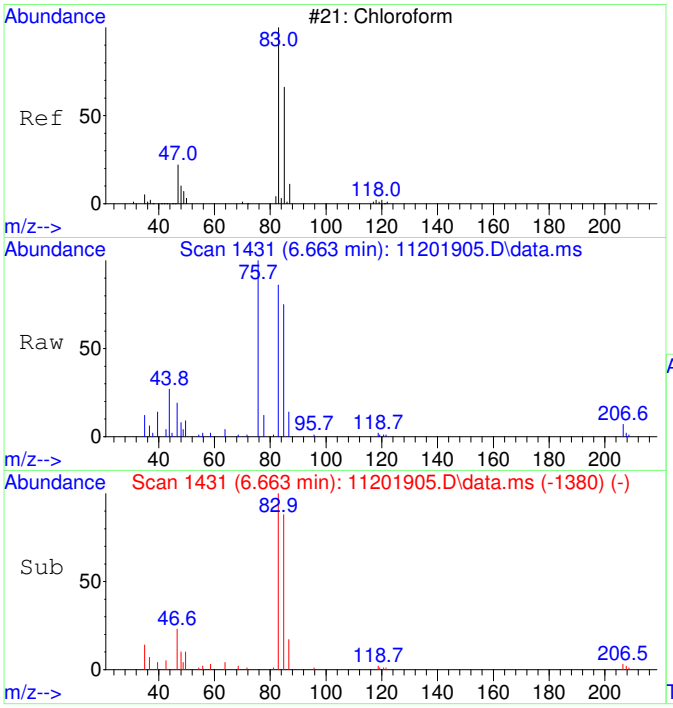


#29
cis-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.007 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 61 Resp: 16717

Ion	Ratio	Lower	Upper
61	100		
96	76.1	42.4	102.4
98	50.8	13.5	73.5
63	39.0	13.5	73.5

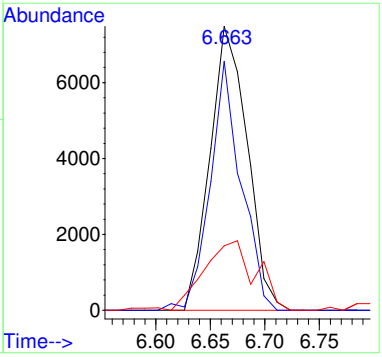


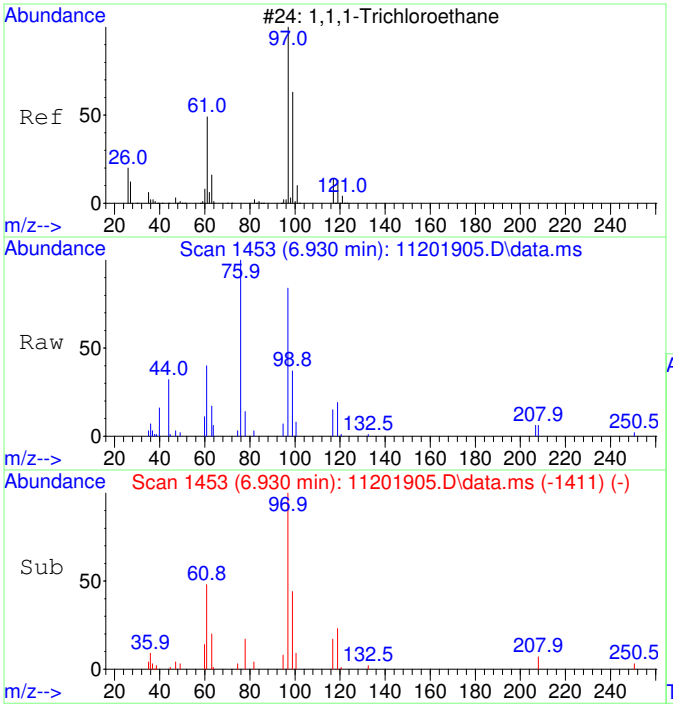


#30
Chloroform SCAN
Concen: 5000.00 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. -0.012 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 83 Resp: 17850

Ion	Ratio	Lower	Upper
83	100		
85	72.9	51.6	111.6
47	34.5	0.0	59.5

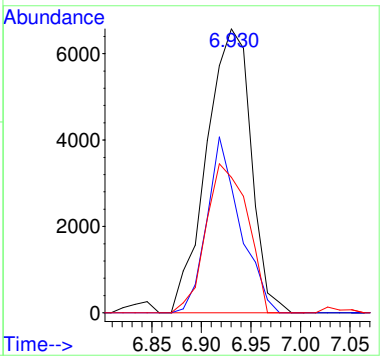


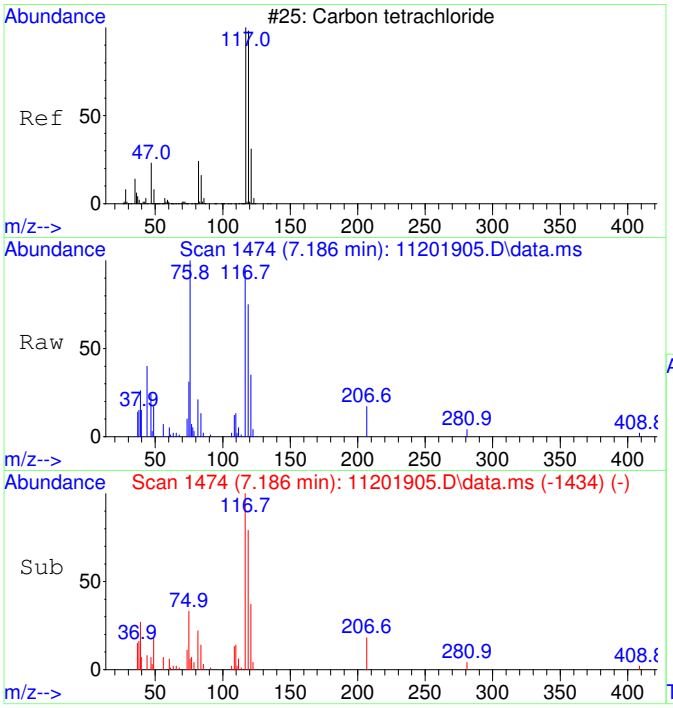


#31
1,1,1-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 97 Resp: 20520

Ion	Ratio	Lower	Upper
97	100		
99	46.3	39.0	99.0
61	48.9	12.8	72.8

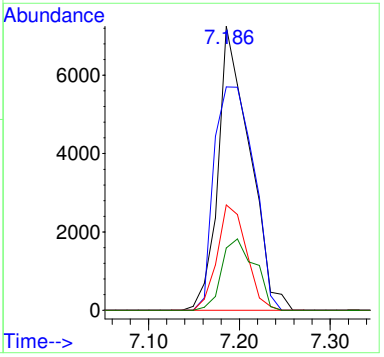


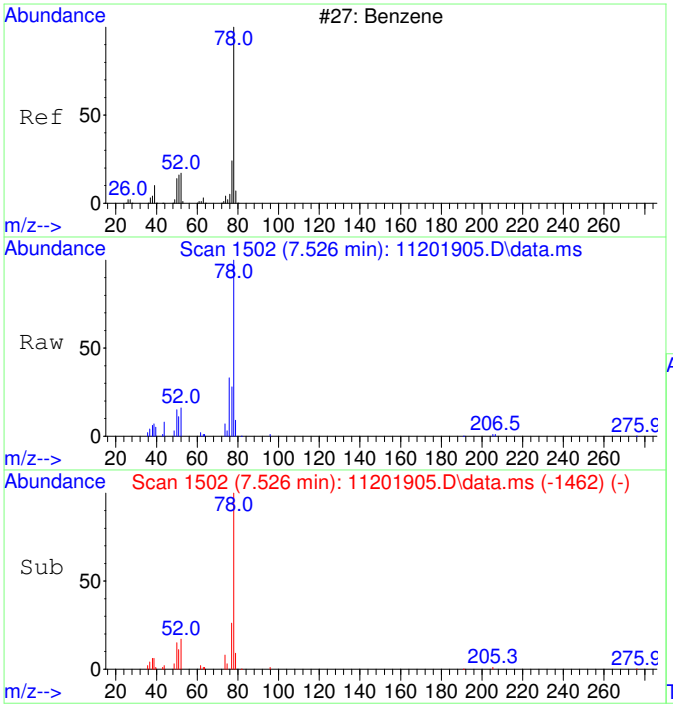


#32
Carbon tetrachloride SCAN
Concen: 5000.00 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. -0.012 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:117 Resp: 17573

Ion	Ratio	Lower	Upper
117	100		
119	98.9	59.7	119.7
121	34.5	0.0	59.9
82	26.3	6.4	66.4

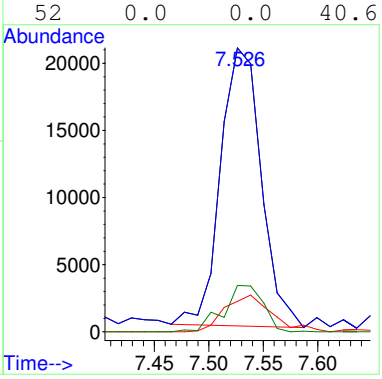


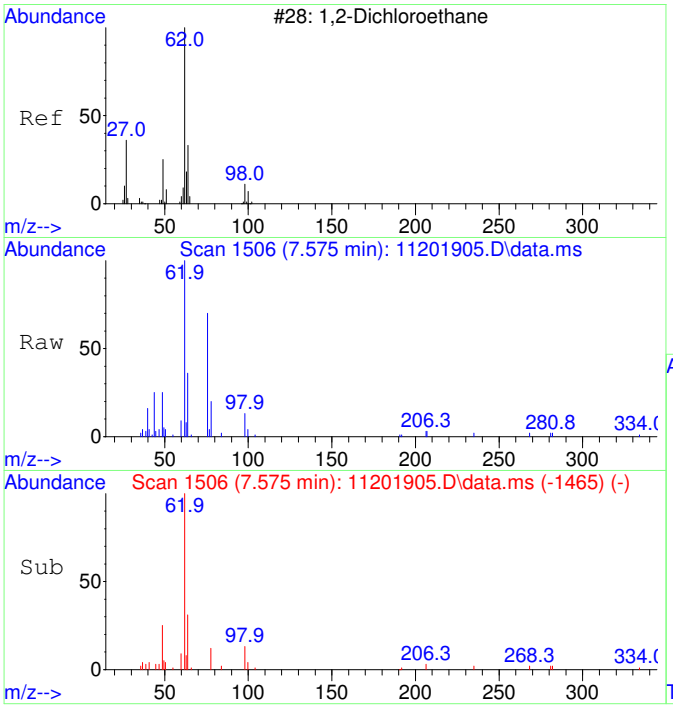


#33
Benzene SCAN
Concen: 5000.00 ug/L
RT: 7.526 min Scan# 1502
Delta R.T. -0.012 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 78 Resp: 53818

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	15.4	0.0	47.1
52	0.0	0.0	40.6

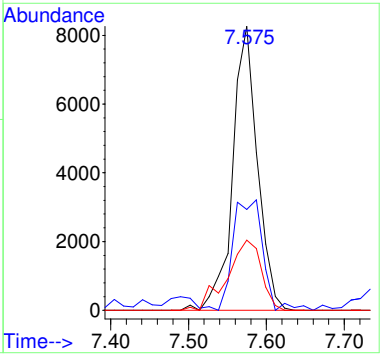


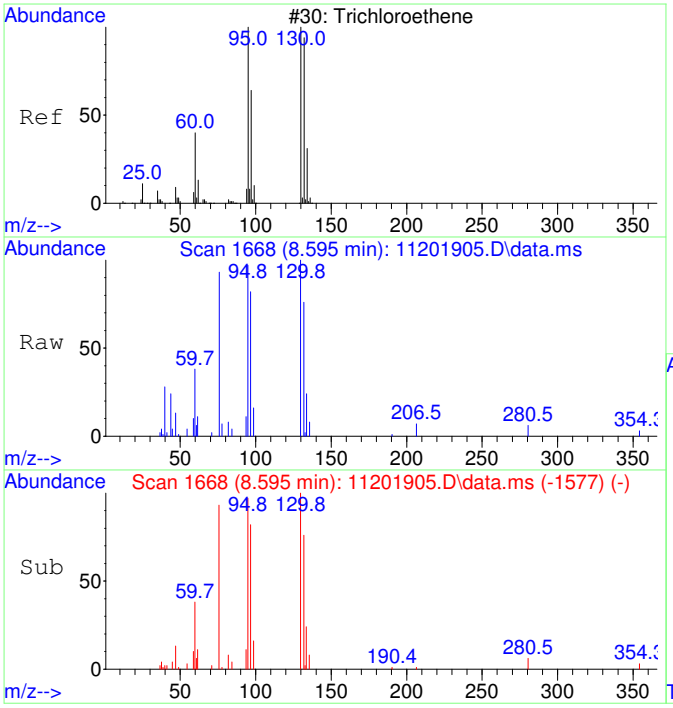


#34
1,2-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 62 Resp: 18355

Ion	Ratio	Lower	Upper
62	100		
64	44.5	22.9	82.9
49	34.0	0.0	59.6

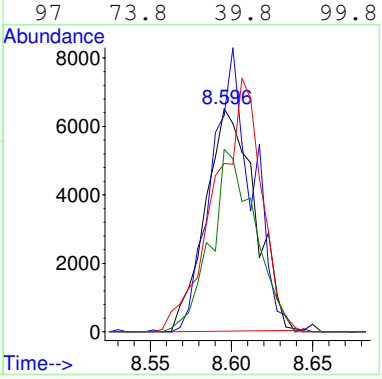


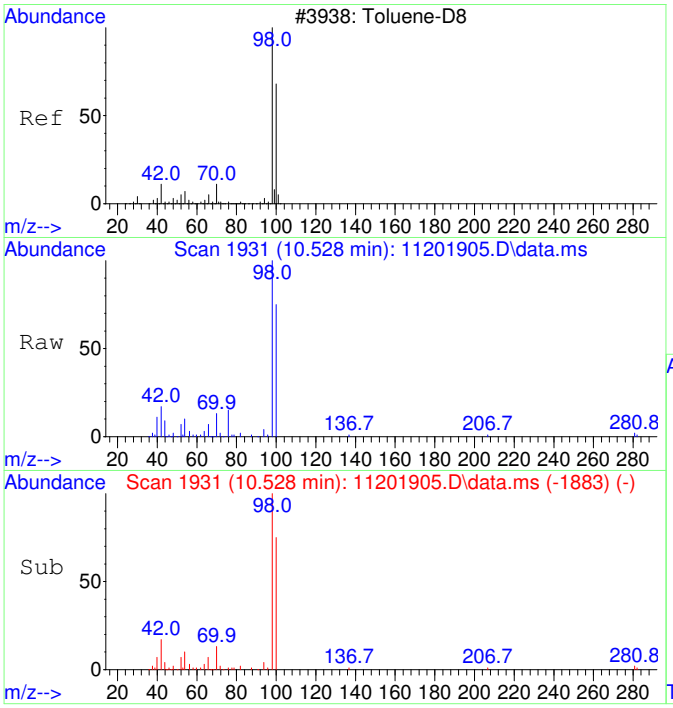


#35
Trichloroethene SCAN
Concen: 5000.00 ug/L
RT: 8.595 min Scan# 1668
Delta R.T. -0.006 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:130 Resp: 13744

Ion	Ratio	Lower	Upper
130	100		
95	105.7	65.8	125.8
132	107.1	84.8	144.8
97	73.8	39.8	99.8

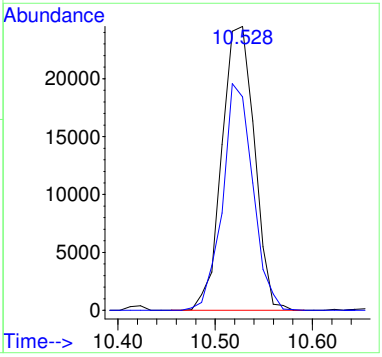


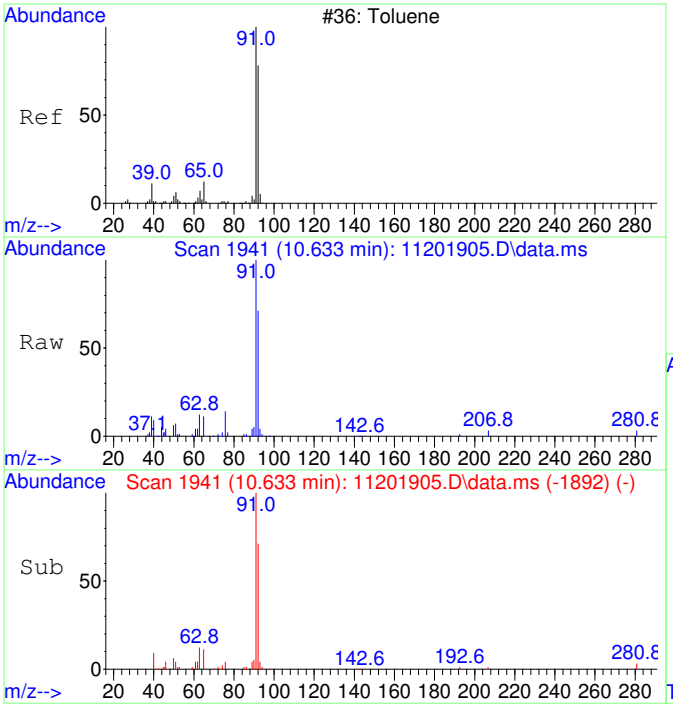


#36
Toluene-d8 SCAN
Concen: 5000.00 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 98 Resp: 56958

Ion	Ratio	Lower	Upper
98	100		
100	74.4	38.5	98.5

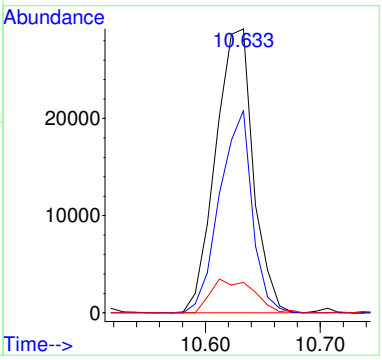


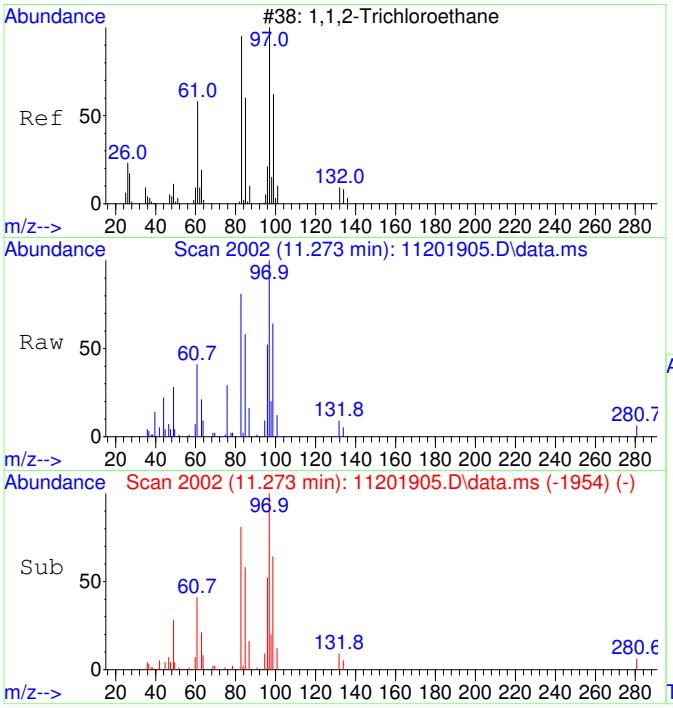


#37
Toluene SCAN
Concen: 5000.00 ug/L
RT: 10.633 min Scan# 1941
Delta R.T. 0.010 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 66526

Ion	Ratio	Lower	Upper
91	100		
92	61.5	26.2	86.2
65	0.0	0.0	43.1

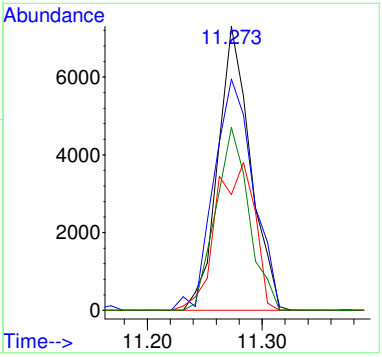


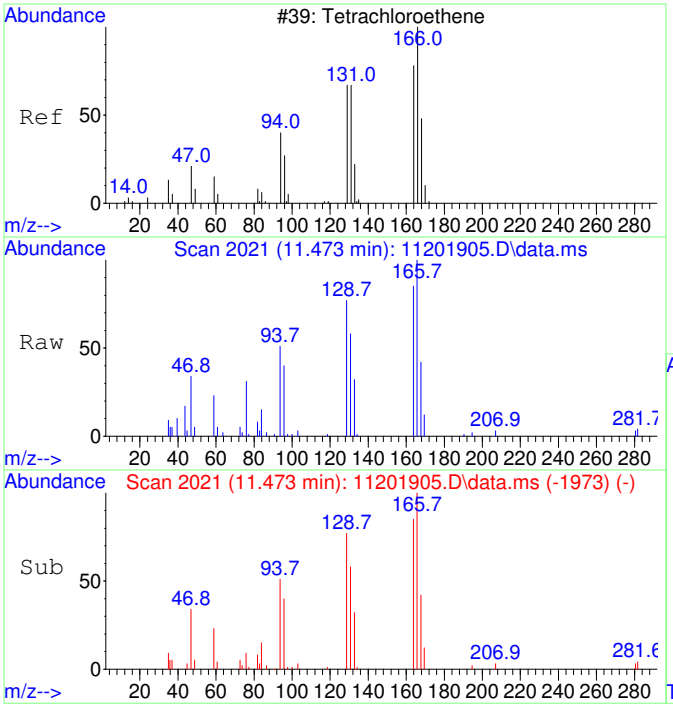


#38
1,1,2-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 97 Resp: 14472

Ion	Ratio	Lower	Upper
97	100		
83	97.7	65.0	125.0
61	61.9	47.6	107.6
99	65.5	58.1	118.1

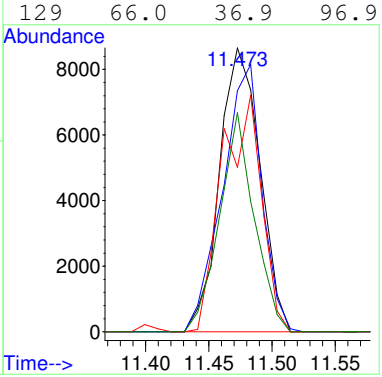


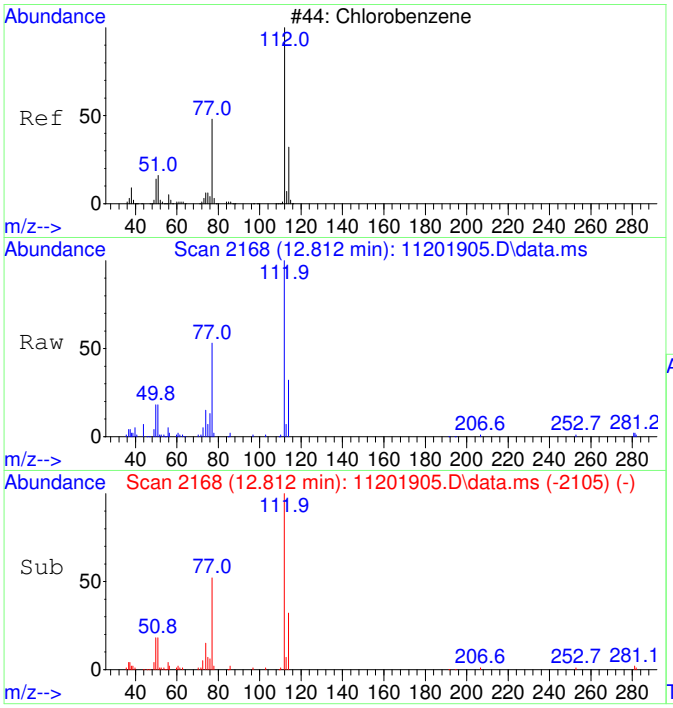


#39
Tetrachloroethene SCAN
Concen: 5000.00 ug/L
RT: 11.473 min Scan# 2021
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:166 Resp: 19283

Ion	Ratio	Lower	Upper
166	100		
164	91.8	56.8	116.8
131	81.8	19.5	79.5#
129	66.0	36.9	96.9

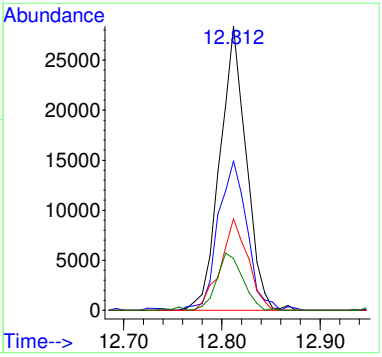


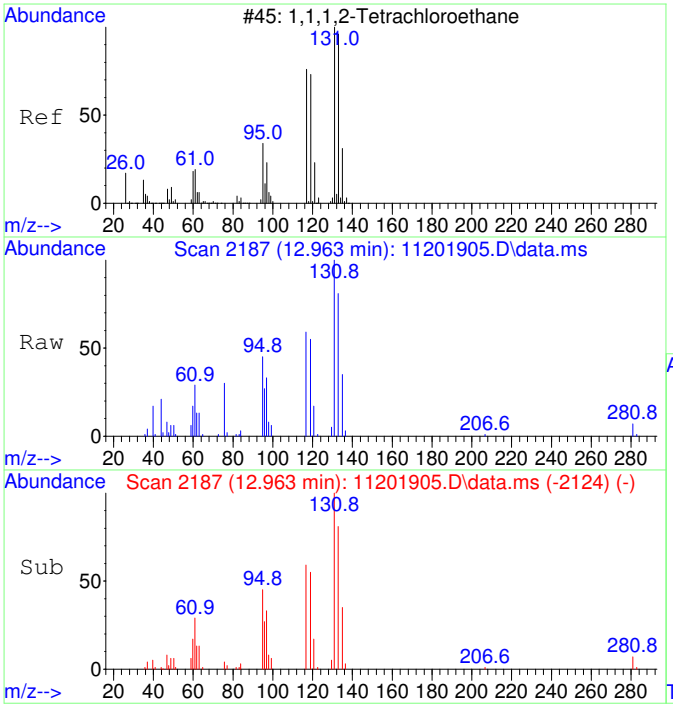


#40
Chlorobenzene SCAN
Concen: 5000.00 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:112 Resp: 53006

Ion	Ratio	Lower	Upper
112	100		
77	57.8	32.8	92.8
114	33.1	0.9	60.9
51	19.9	0.0	53.2

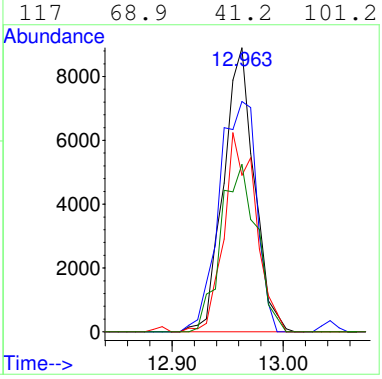


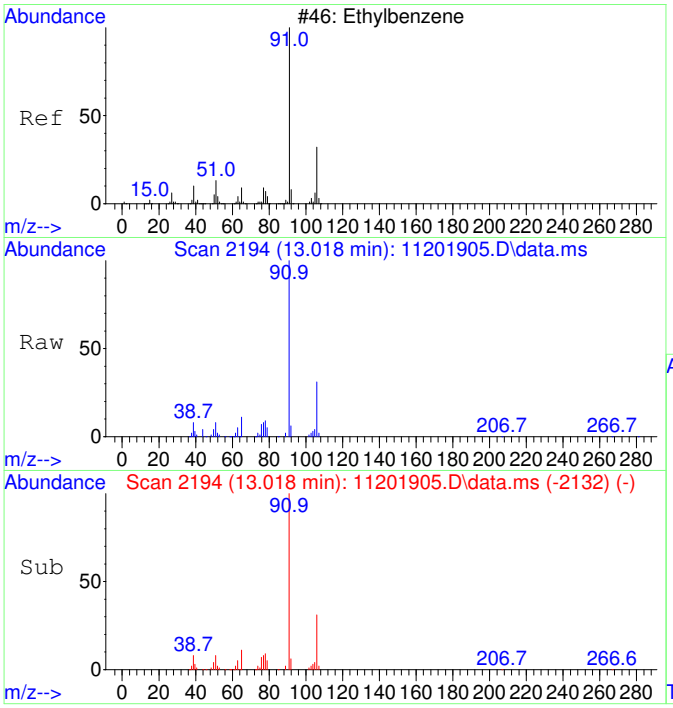


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:131 Resp: 17099

Ion	Ratio	Lower	Upper
131	100		
133	99.6	63.9	123.9
119	72.4	32.6	92.6
117	68.9	41.2	101.2

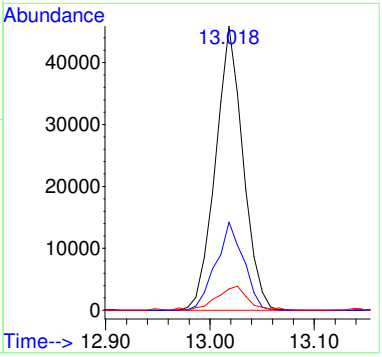


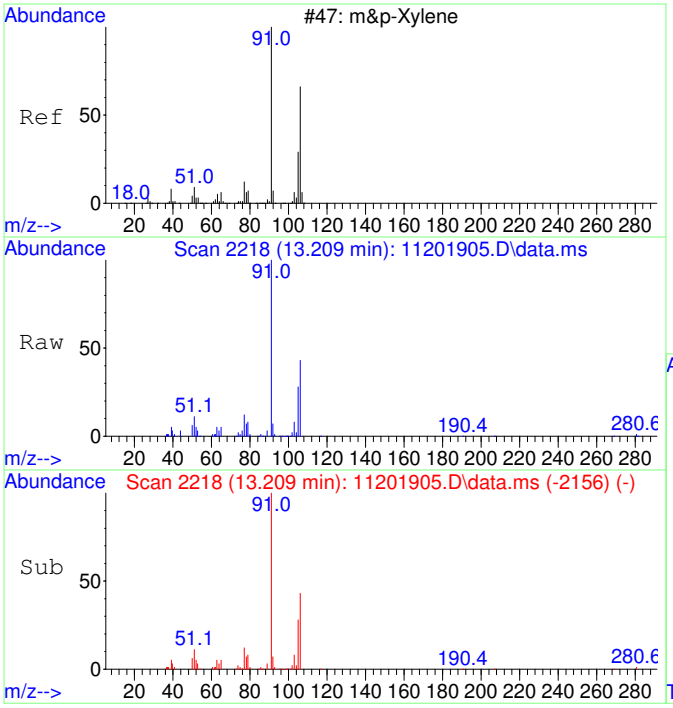


#42
Ethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.008 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 84055

Ion	Ratio	Lower	Upper
91	100		
106	31.3	1.2	61.2
51	9.4	0.0	38.0

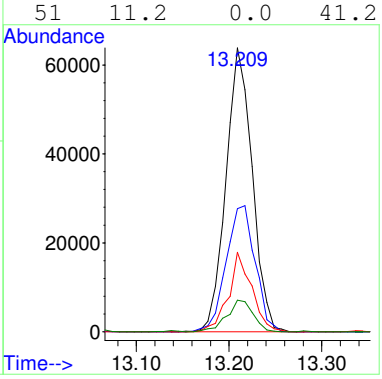


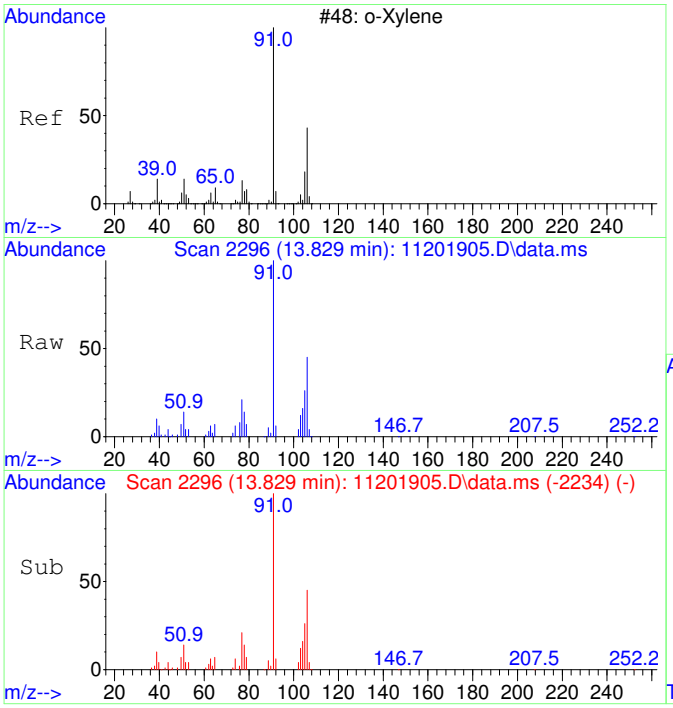


#43
m&p-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.008 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 126049

Ion	Ratio	Lower	Upper
91	100		
106	49.0	18.8	78.8
105	24.9	0.0	52.3
51	11.2	0.0	41.2

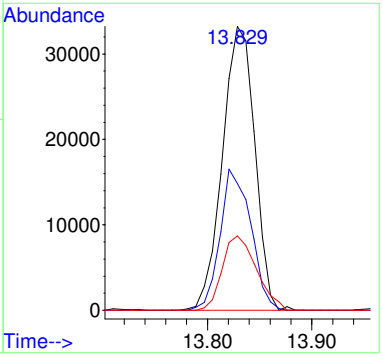


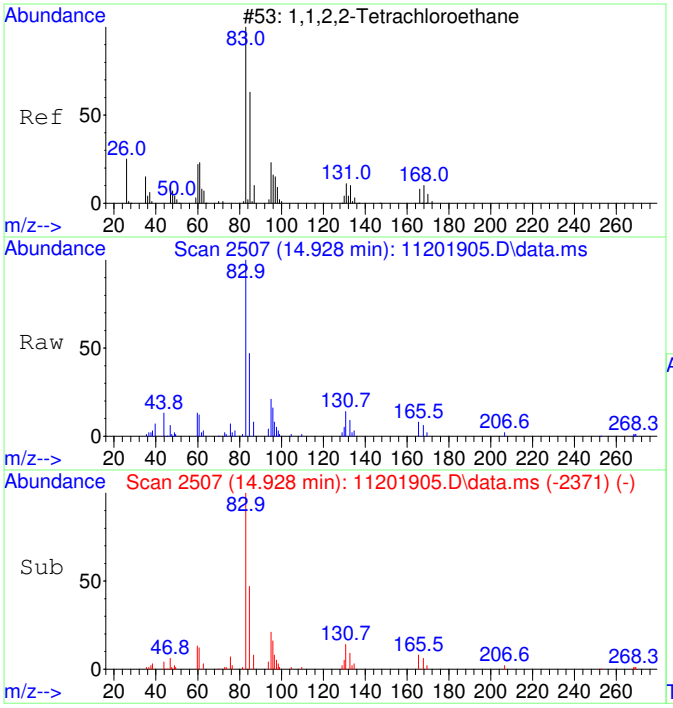


#44
o-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.008 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 91 Resp: 71459

Ion	Ratio	Lower	Upper
91	100		
106	47.2	16.9	76.9
105	27.7	0.2	60.2

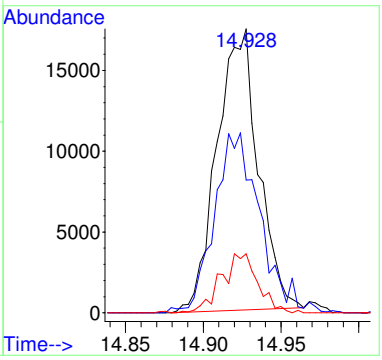


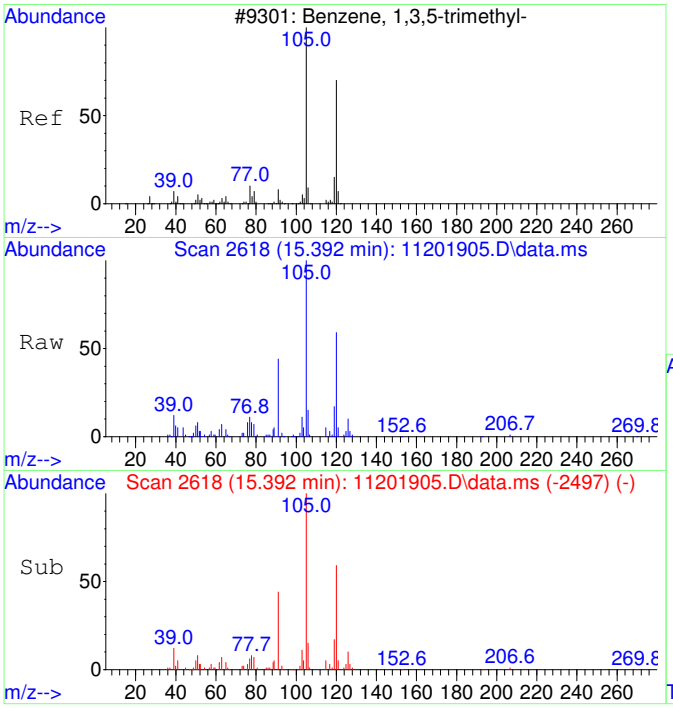


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 14.928 min Scan# 2507
Delta R.T. 0.004 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion: 83 Resp: 32215

Ion	Ratio	Lower	Upper
83	100		
85	67.2	34.8	94.8
95	18.7	0.0	48.0

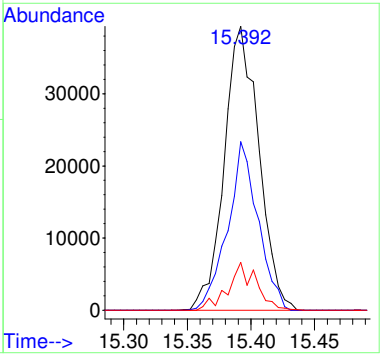


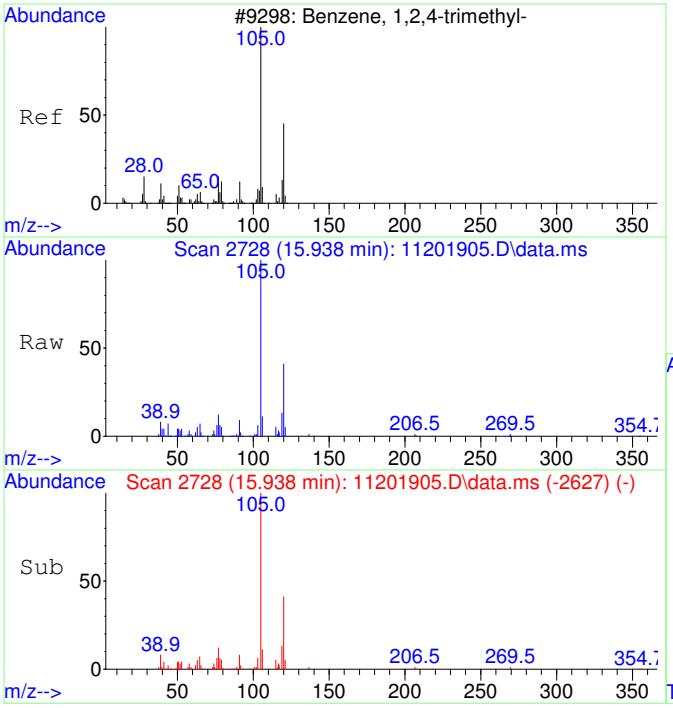


#46
1,3,5-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:105 Resp: 74675

Ion	Ratio	Lower	Upper
105	100		
120	52.3	15.2	75.2
119	13.8	0.0	45.5

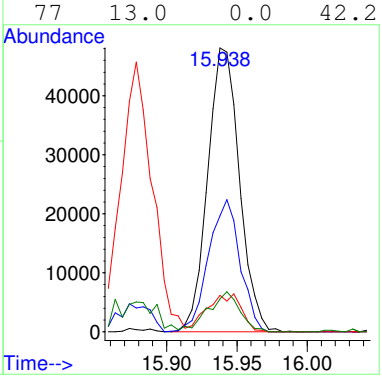


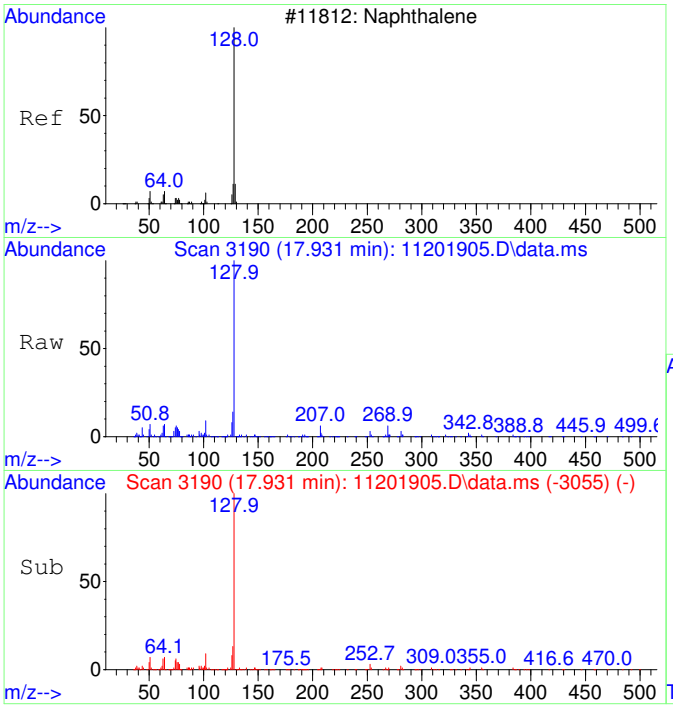


#47
1,2,4-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:105 Resp: 75801

Ion	Ratio	Lower	Upper
105	100		
120	45.8	19.0	79.0
119	12.9	0.0	40.2
77	13.0	0.0	42.2

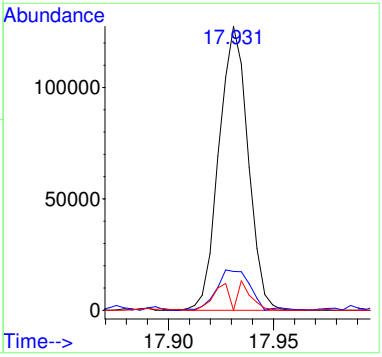




#48
Naphthalene SCAN
Concen: 5000.00 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 11201905.D
Acq: 20 Nov 2019 14:47

Tgt Ion:128 Resp: 122469

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	45.2
129	4.5	0.0	41.5



S19K083-CAL4

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201906.D
Acq On : 20 Nov 2019 15:10
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL4
Misc : 1930058 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 06:21:48 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

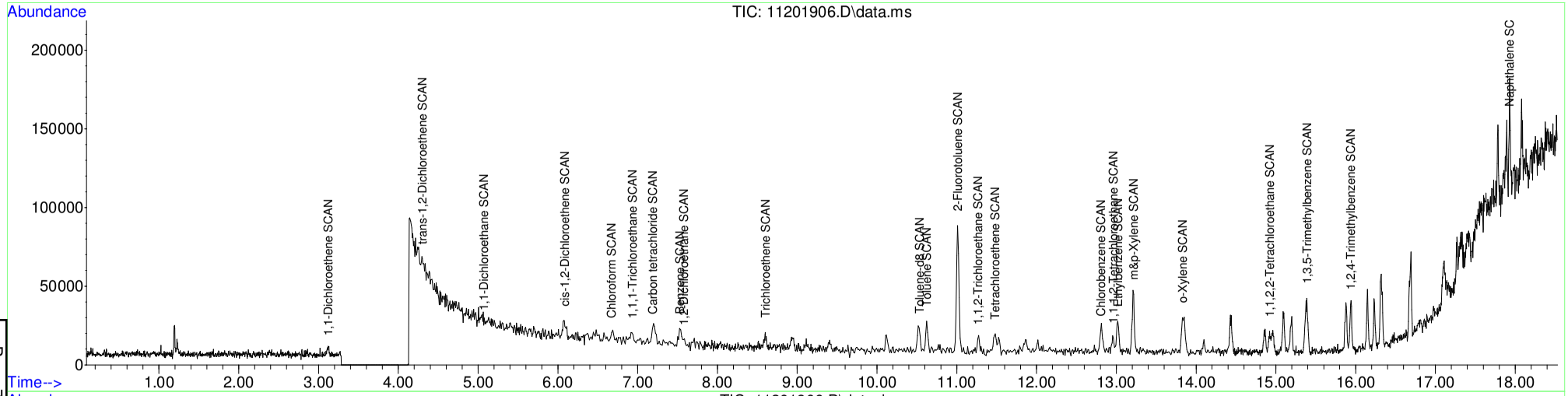
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	100280	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	16179	1004.62	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 20.09%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	4483	1040.62	ug/L	96
3] trans-1,2-Dichloroethene	4.310	61	4173	948.20	ug/L	99
4] 1,1-Dichloroethane	5.066	63	5237	936.06	ug/L	99
5] cis-1,2-Dichloroethene	6.088	61	4888	950.09	ug/L	100
6] Chloroform	6.664	83	5725	963.50	ug/L	99
7] 1,1,1-Trichloroethane	6.919	97	5716	959.78	ug/L	99
8] Carbon tetrachloride	7.199	117	5454	965.11	ug/L	100
9] Benzene	7.528	78	14573	973.07	ug/L	95
10] 1,2-Dichloroethane	7.564	62	4879	992.54	ug/L	96
11] Trichloroethene	8.597	130	4506	980.70	ug/L	99
13] Toluene	10.613	91	19773	1012.05	ug/L	99
14] 1,1,2-Trichloroethane	11.275	97	4361	985.11	ug/L	99
15] Tetrachloroethene	11.474	166	5981	1014.41	ug/L	99
16] Chlorobenzene	12.805	112	15420	1033.68	ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.956	131	5309	1019.79	ug/L	98
18] Ethylbenzene	13.012	91	25661	1064.44	ug/L	99
19] m&p-Xylene	13.210	91	39321	2140.56	ug/L	99
20] o-Xylene	13.822	91	20759	1065.67	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.921	83	9251	1057.63	ug/L	99
22] 1,3,5-Trimethylbenzene	15.393	105	23485	1081.96	ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	24180	1089.99	ug/L	100
24] Naphthalene	17.932	128	45582	1137.39	ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	69153	5558.31	ug/L	99
26) 1,1-Dichloroethene SCAN	3.118	61	2297	842.51	ug/L #	22
27) trans-1,2-Dichloroethe...	4.302	61	2753	1065.80	ug/L #	77
28) 1,1-Dichloroethane SCAN	5.071	63	4721	1221.36	ug/L #	90
29) cis-1,2-Dichloroethene...	6.080	61	2864	925.05	ug/L #	47
30) Chloroform SCAN	6.675	83	3535	1069.31	ug/L	82
31) 1,1,1-Trichloroethane ...	6.930	97	3758	988.85	ug/L	95
32) Carbon tetrachloride SCAN	7.186	117	5240	1610.04	ug/L	91
33) Benzene SCAN	7.526	78	12809	1285.11	ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	3832	1127.26	ug/L	85
35) Trichloroethene SCAN	8.601	130	3090	1213.94	ug/L	94
36) Toluene-d8 SCAN	10.528	98	10721	1016.33	ug/L	92
37) Toluene SCAN	10.623	91	13471	1093.35	ug/L	99
38) 1,1,2-Trichloroethane ...	11.263	97	2746	1024.53	ug/L #	6
39) Tetrachloroethene SCAN	11.483	166	4620	1293.66	ug/L #	41
40) Chlorobenzene SCAN	12.804	112	13035	1327.82	ug/L	79
41) 1,1,1,2-Tetrachloroeth...	12.963	131	3445	1087.85	ug/L #	67
42) Ethylbenzene SCAN	13.018	91	16892	1085.10	ug/L	95
43) m&p-Xylene SCAN	13.217	91	24285	1040.28	ug/L	85
44) o-Xylene SCAN	13.829	91	13992	1057.24	ug/L	91
45) 1,1,2,2-Tetrachloroeth...	14.920	83	7790	1305.66	ug/L	89
46) 1,3,5-Trimethylbenzene...	15.387	105	14451	1044.90	ug/L	93
47) 1,2,4-Trimethylbenzene...	15.938	105	15438	1099.68	ug/L	96
48) Naphthalene SCAN	17.931	128	27601	1216.89	ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201906.D
Acq On : 20 Nov 2019 15:10
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL4
Misc : 1930058 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 06:21:48 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



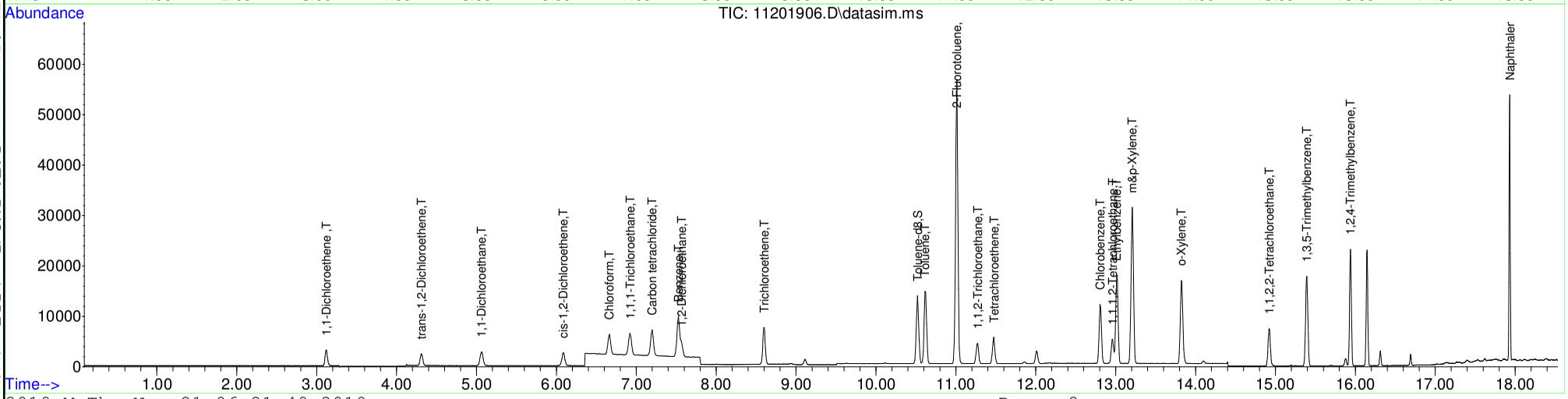


Table of Contents

S19K083-CAL5

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201907.D
Acq On : 20 Nov 2019 15:34
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 06:21:56 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

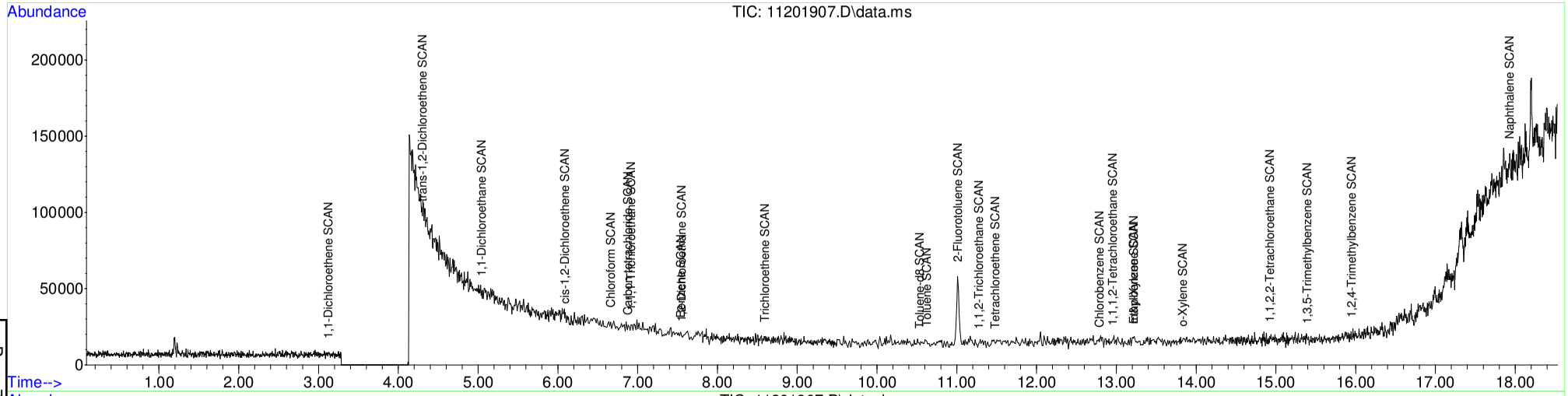
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	59287	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	1464	153.76 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	3.08%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.120	61	819	321.56 ug/L	90
3] trans-1,2-Dichloroethene	4.303	61	445	171.03 ug/L	86
4] 1,1-Dichloroethane	5.059	63	577	174.44 ug/L	94
5] cis-1,2-Dichloroethene	6.088	61	525	172.60 ug/L	99
6] Chloroform	6.664	83	583	165.96 ug/L	92
7] 1,1,1-Trichloroethane	6.919	97	596	169.27 ug/L	91
8] Carbon tetrachloride	7.199	117	569	170.31 ug/L	97
9] Benzene	7.527	78	1659	187.37 ug/L	81
10] 1,2-Dichloroethane	7.564	62	510	175.49 ug/L	56
11] Trichloroethene	8.602	130	439	161.61 ug/L	90
13] Toluene	10.624	91	1803	156.09 ug/L	98
14] 1,1,2-Trichloroethane	11.274	97	399	152.45 ug/L	85
15] Tetrachloroethene	11.474	166	530	152.04 ug/L	95
16] Chlorobenzene	12.805	112	1294	146.72 ug/L	88
17] 1,1,1,2-Tetrachloroethane	12.956	131	453	147.18 ug/L	88
18] Ethylbenzene	13.020	91	2202	154.50 ug/L	98
19] m&p-Xylene	13.210	91	3316	305.33 ug/L	98
20] o-Xylene	13.822	91	1705	148.05 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.921	83	775	149.87 ug/L	97
22] 1,3,5-Trimethylbenzene	15.393	105	1895	147.67 ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	1969	150.13 ug/L	98
24] Naphthalene	17.932	128	3646	153.88 ug/L	98
25) 2-Fluorotoluene SCAN	11.011	109	37281	5068.43 ug/L	95
26) 1,1-Dichloroethene SCAN	3.118	61	171	106.09 ug/L #	1
27) trans-1,2-Dichloroethe...	4.302	61	353	231.15 ug/L #	41
28) 1,1-Dichloroethane SCAN	5.045	63	321	140.47 ug/L #	78
29) cis-1,2-Dichloroethene...	6.086	61	412	225.08 ug/L #	46
30) Chloroform SCAN	6.663	83	579	296.24 ug/L #	24
31) 1,1,1-Trichloroethane ...	6.918	97	573	255.03 ug/L #	22
32) Carbon tetrachloride SCAN	6.869	117	161	83.67 ug/L #	1
33) Benzene SCAN	7.538	78	2813	477.36 ug/L #	92
34) 1,2-Dichloroethane SCAN	7.551	62	380	189.08 ug/L #	1
35) Trichloroethene SCAN	8.590	130	281	186.72 ug/L #	75
36) Toluene-d8 SCAN	10.528	98	2084	334.16 ug/L #	53
37) Toluene SCAN	10.623	91	1333	183.00 ug/L #	83
38) 1,1,2-Trichloroethane ...	11.273	97	566	357.19 ug/L #	23
39) Tetrachloroethene SCAN	11.483	166	275	130.25 ug/L #	63
40) Chlorobenzene SCAN	12.788	112	339	58.41 ug/L #	40
41) 1,1,1,2-Tetrachloroeth...	12.955	131	243	129.79 ug/L #	54
42) Ethylbenzene SCAN	13.217	91	2323	252.40 ug/L	84
43) m&p-Xylene SCAN	13.217	91	2323	168.31 ug/L	67
44) o-Xylene SCAN	13.829	91	1168	149.28 ug/L #	74
45) 1,1,2,2-Tetrachloroeth...	14.924	83	384	108.86 ug/L	69
46) 1,3,5-Trimethylbenzene...	15.392	105	1476	180.52 ug/L #	63
47) 1,2,4-Trimethylbenzene...	15.943	105	1087	130.97 ug/L #	67
48) Naphthalene SCAN	17.931	128	2321	173.08 ug/L	55

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201907.D
Acq On : 20 Nov 2019 15:34
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 06:21:56 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



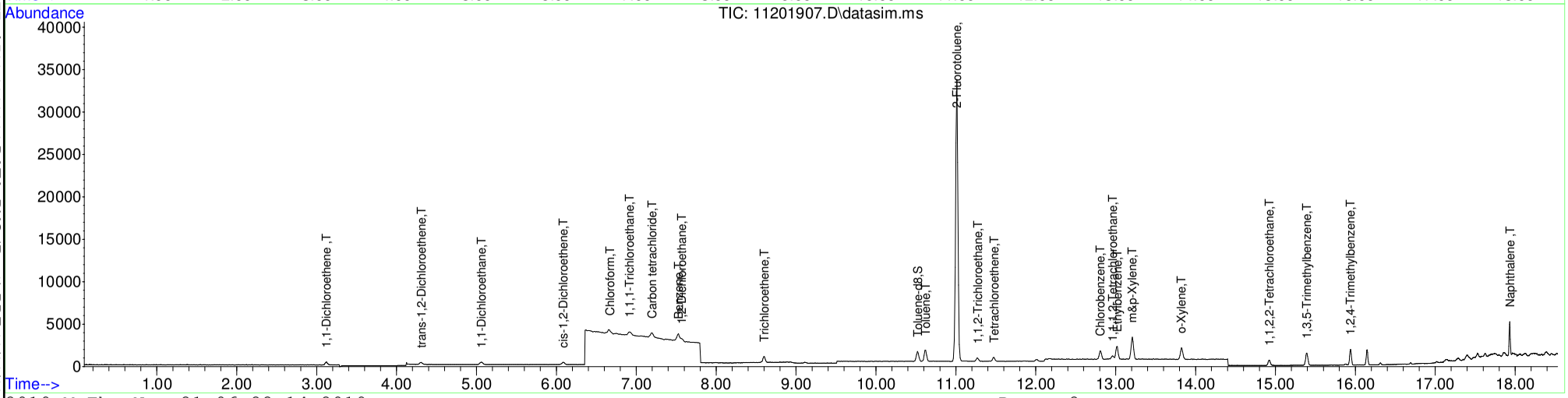
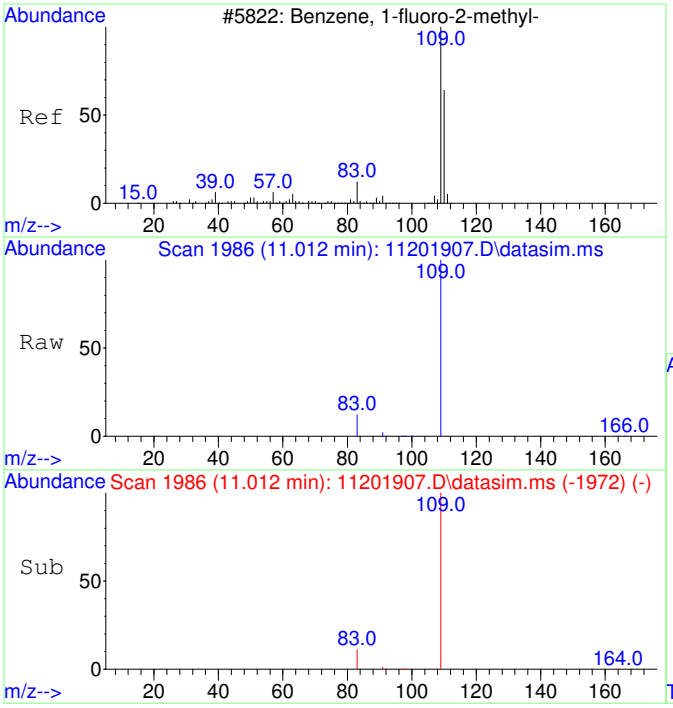


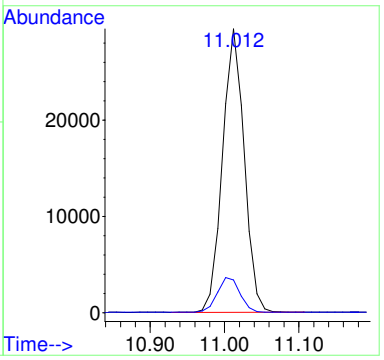
Table of Contents

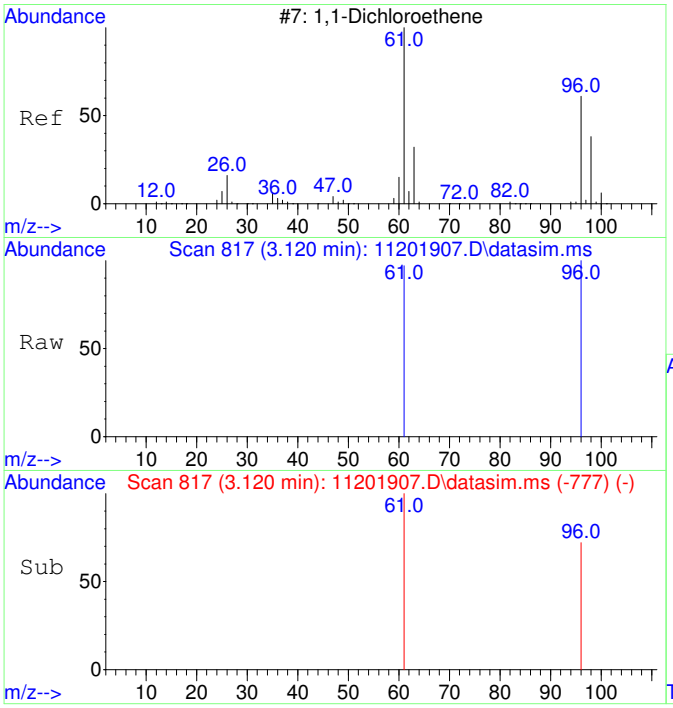


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:109 Resp: 59287

Ion	Ratio	Lower	Upper
109	100		
83	12.8	0.0	43.3

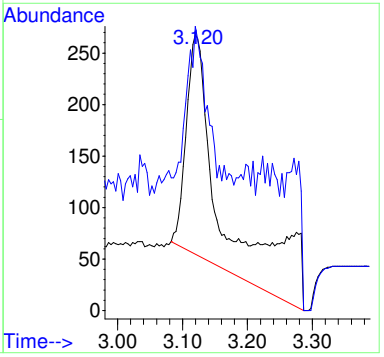




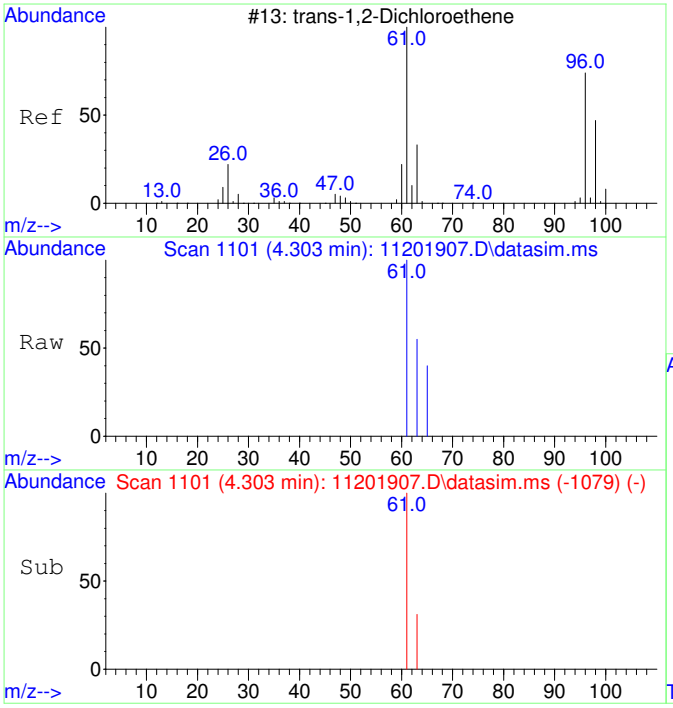
#2
1,1-Dichloroethene
Concen: 321.56 ug/L
RT: 3.120 min Scan# 817
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 819

Ion	Ratio	Lower	Upper
61	100		
96	70.5	32.4	92.4



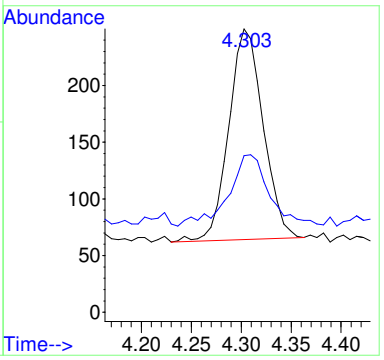
Before MI:
IMPROPER
BASELINE

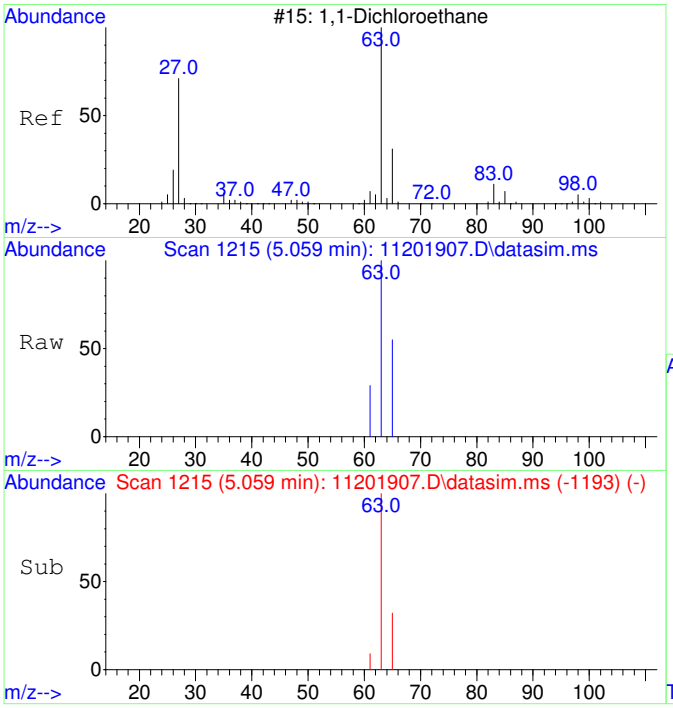


#3
trans-1,2-Dichloroethene
Concen: 171.03 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 445

Ion	Ratio	Lower	Upper
61	100		
63	40.2	2.6	62.6

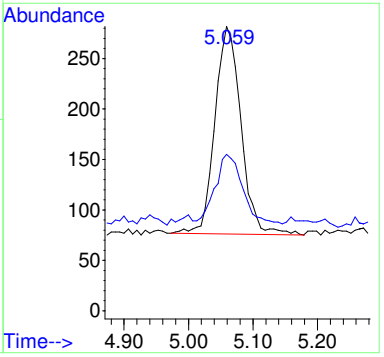


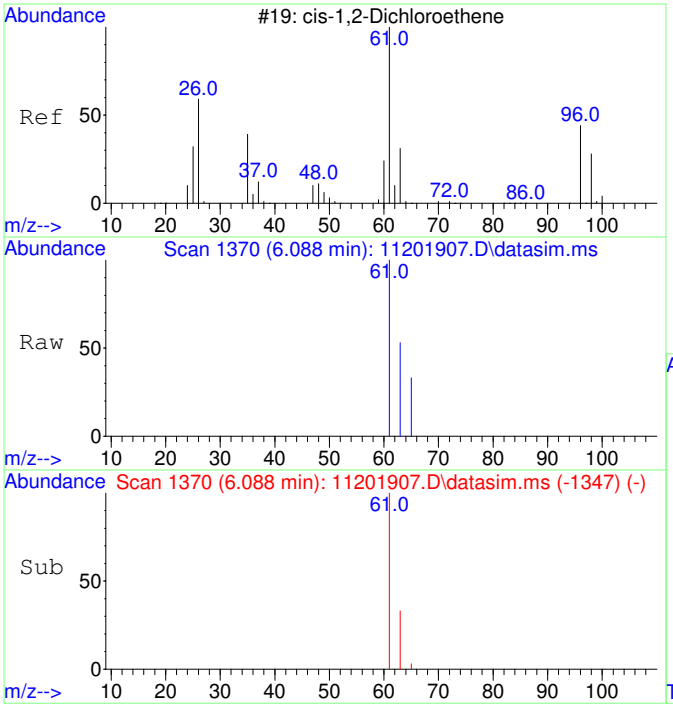


#4
1,1-Dichloroethane
Concen: 174.44 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 63 Resp: 577

Ion	Ratio	Lower	Upper
63	100		
65	35.0	1.6	61.6

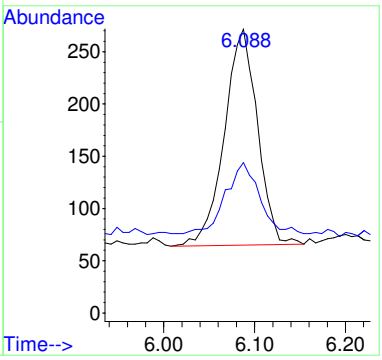


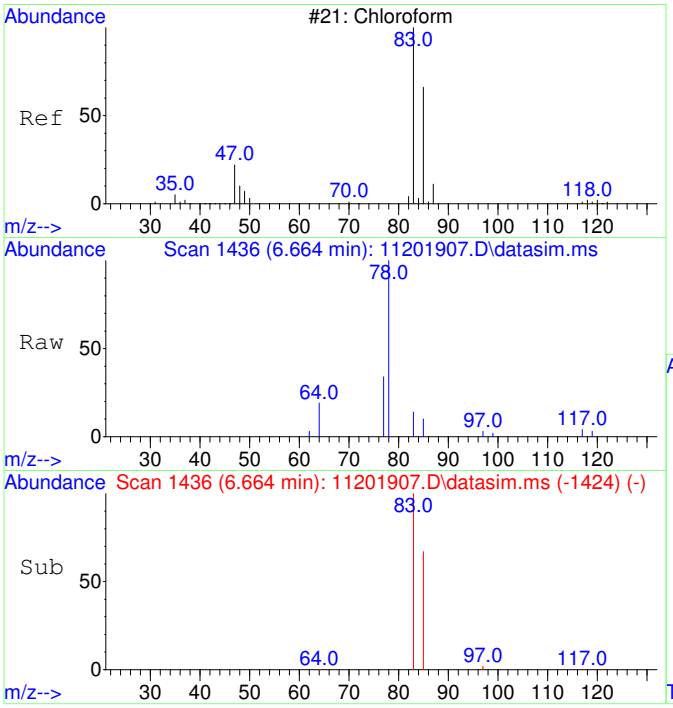


#5
cis-1,2-Dichloroethene
Concen: 172.60 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 525

Ion	Ratio	Lower	Upper
61	100		
63	33.3	2.6	62.6

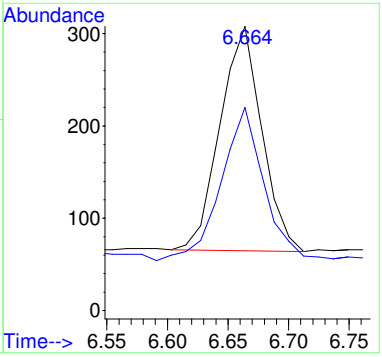


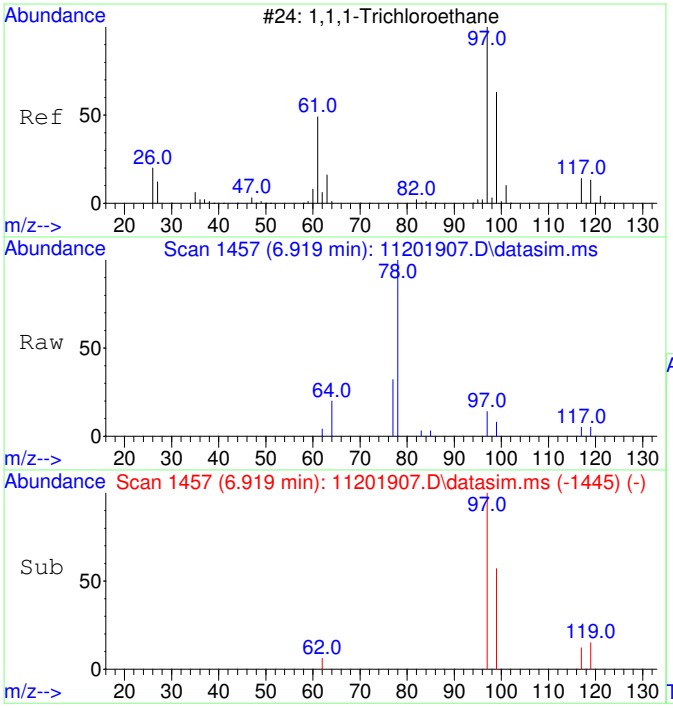


#6
Chloroform
Concen: 165.96 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 583

Ion	Ratio	Lower	Upper
83	100		
85	70.7	34.4	94.4

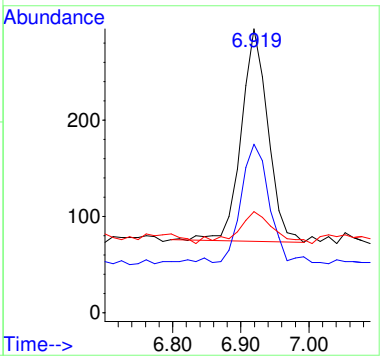


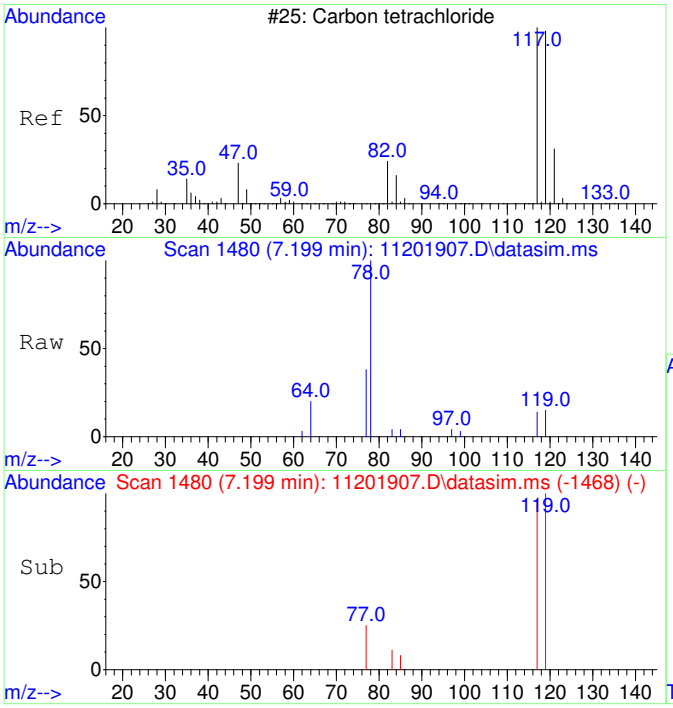


#7
1,1,1-Trichloroethane
Concen: 169.27 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 596

Ion	Ratio	Lower	Upper
97	100		
99	58.7	34.3	94.3
117	19.6	0.0	43.2

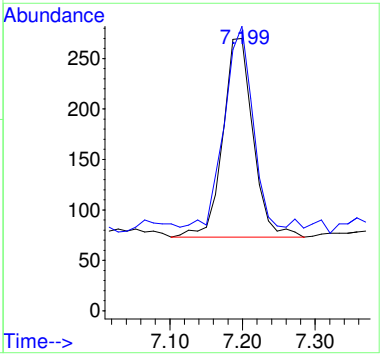


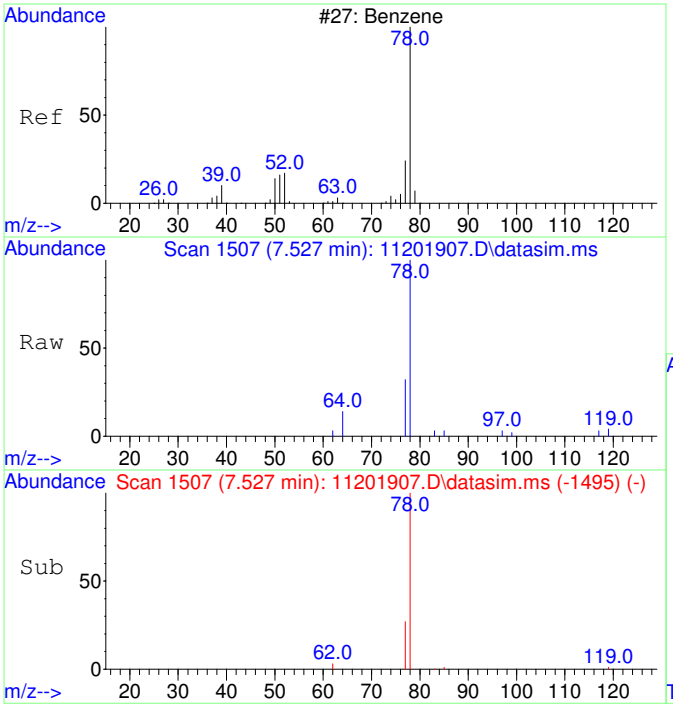


#8
Carbon tetrachloride
Concen: 170.31 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:117 Resp: 569

Ion	Ratio	Lower	Upper
117	100		
119	93.0	66.0	126.0

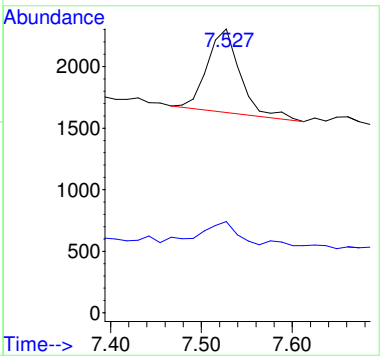


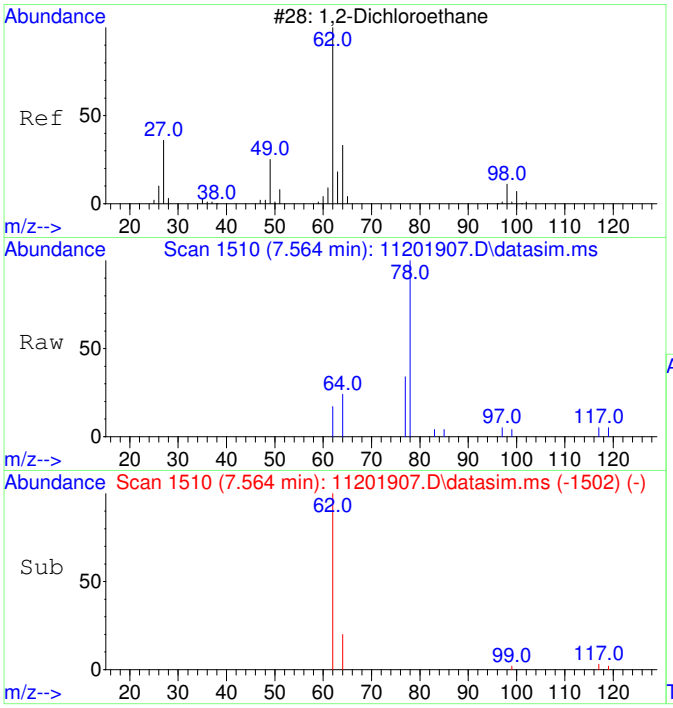


#9
Benzene
Concen: 187.37 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 78 Resp: 1659

Ion	Ratio	Lower	Upper
78	100		
77	32.5	0.0	53.2

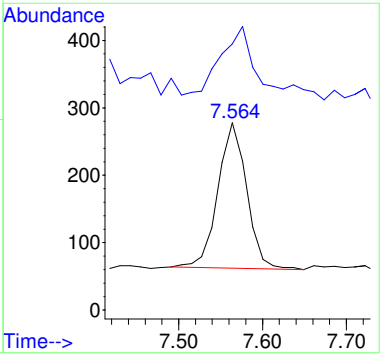


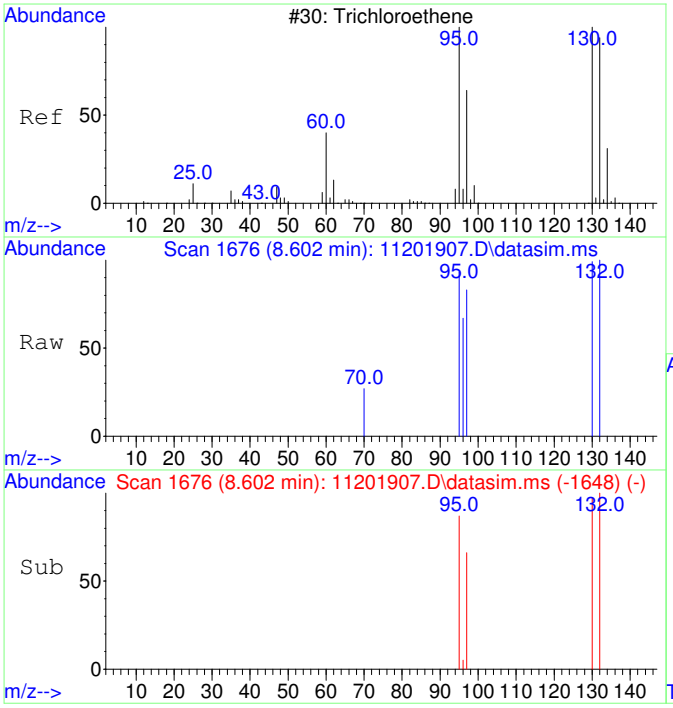


#10
1,2-Dichloroethane
Concen: 175.49 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 62 Resp: 510

Ion	Ratio	Lower	Upper
62	100		
64	56.5	1.9	61.9

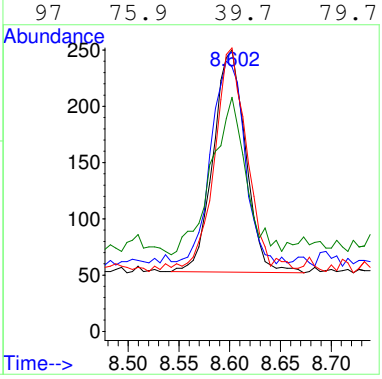


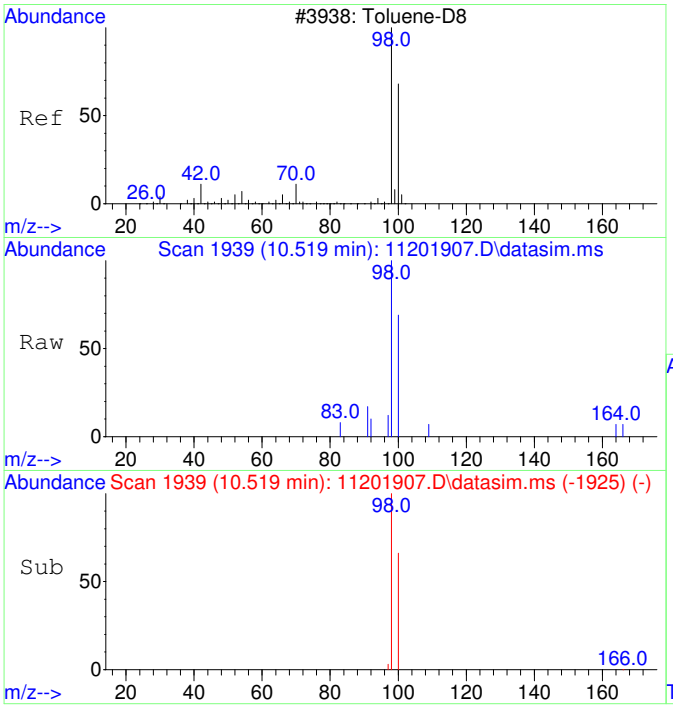


#11
Trichloroethene
Concen: 161.61 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:130 Resp: 439

Ion	Ratio	Lower	Upper
130	100		
95	94.8	61.1	121.1
132	103.6	75.7	115.7
97	75.9	39.7	79.7

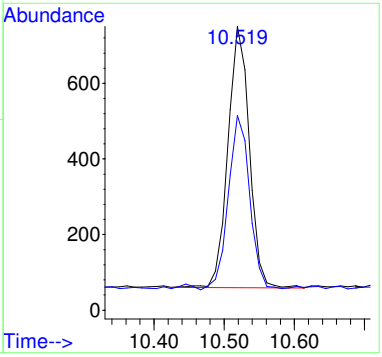


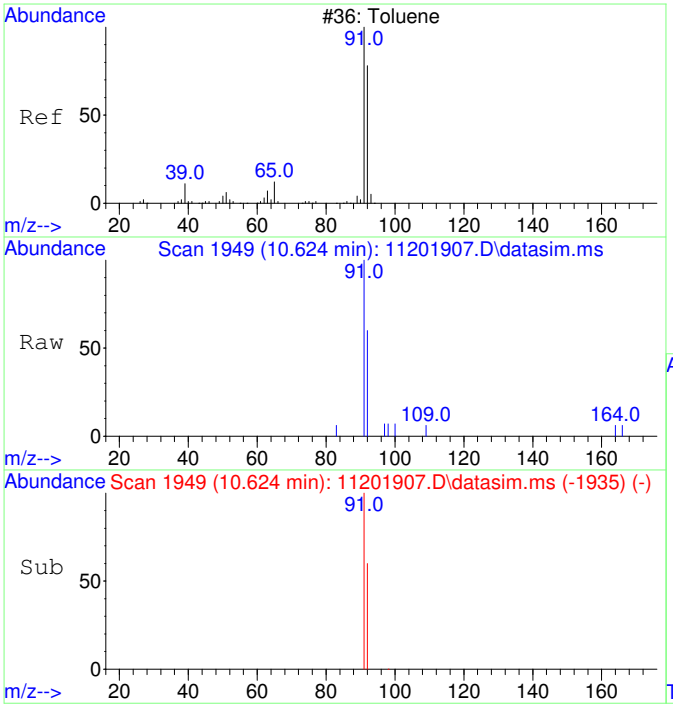


#12
Toluene-d8
Concen: 153.76 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 98 Resp: 1464

Ion	Ratio	Lower	Upper
98	100		
100	66.1	37.1	97.1

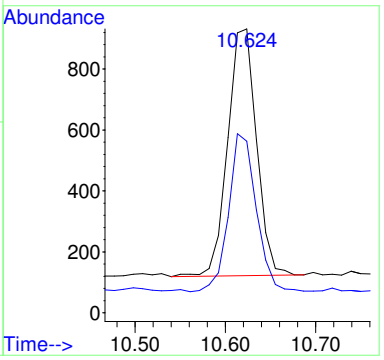


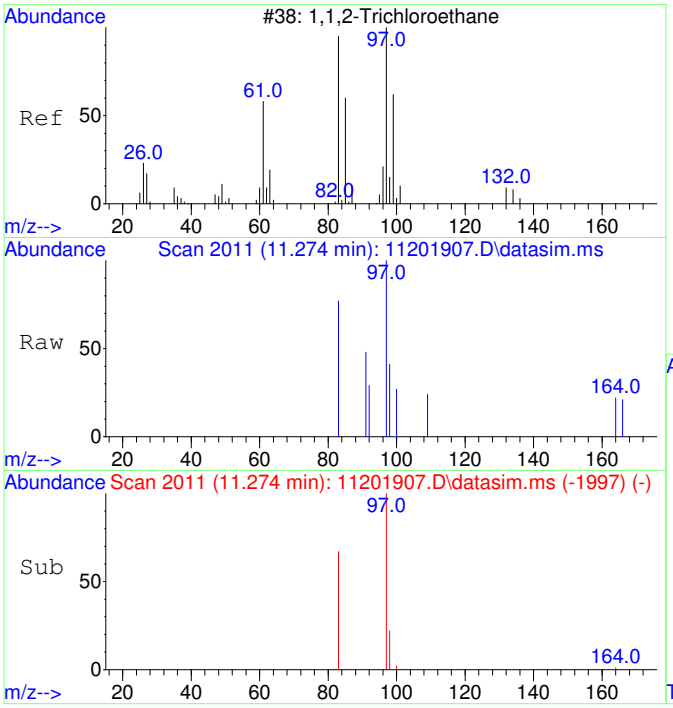


#13
Toluene
Concen: 156.09 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1803

Ion	Ratio	Lower	Upper
91	100		
92	60.6	29.0	89.0

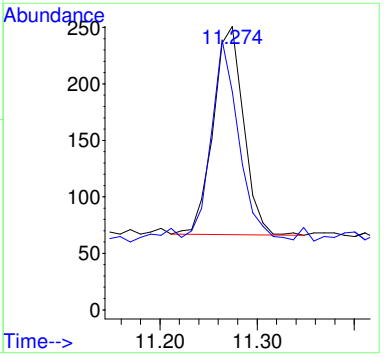


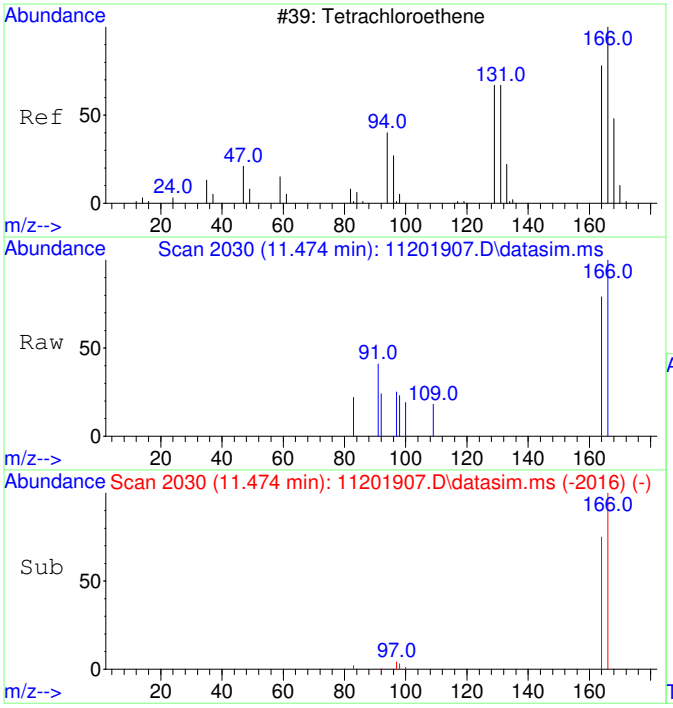


#14
1,1,2-Trichloroethane
Concen: 152.45 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 399

Ion	Ratio	Lower	Upper
97	100		
83	95.2	51.8	111.8

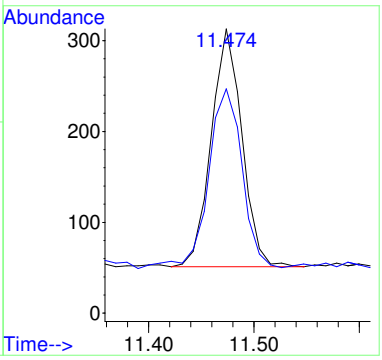


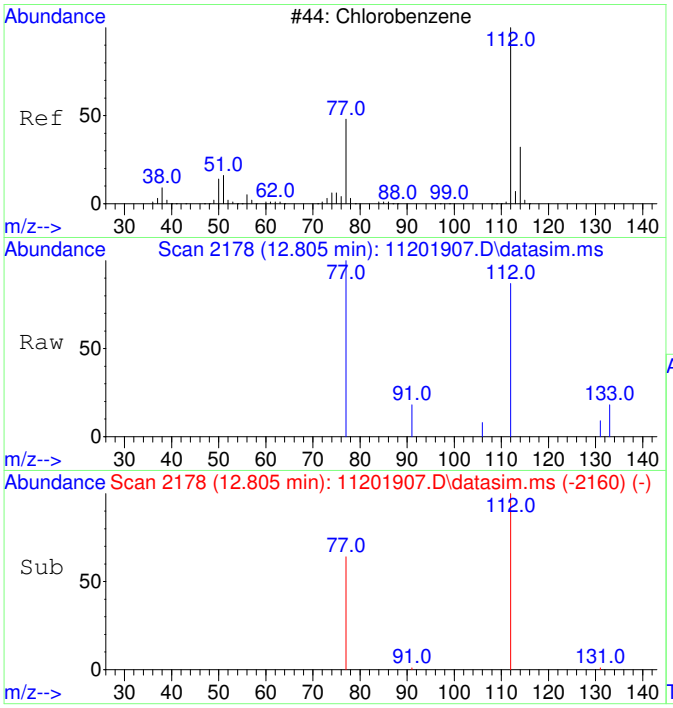


#15
Tetrachloroethene
Concen: 152.04 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:166 Resp: 530

Ion	Ratio	Lower	Upper
166	100		
164	82.8	48.6	108.6

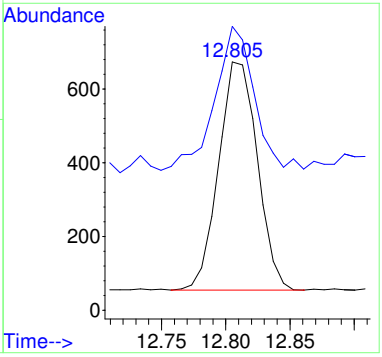


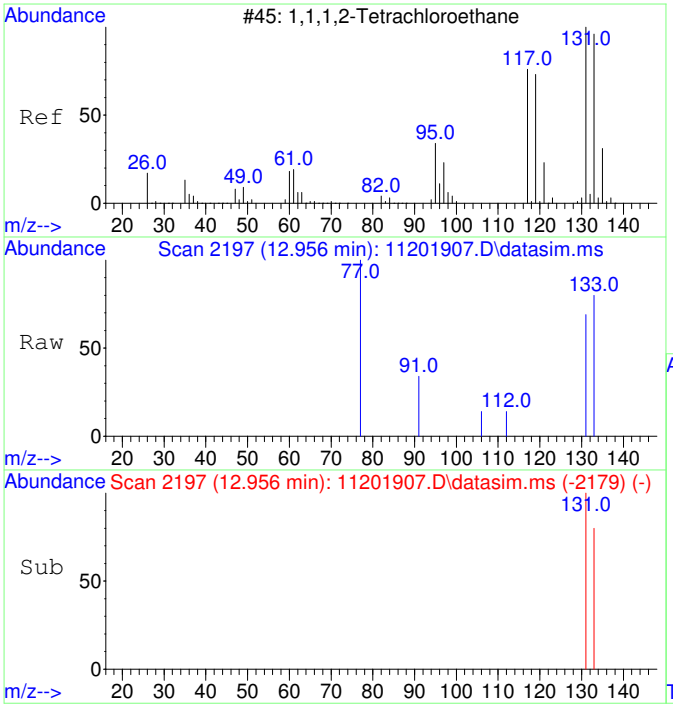


#16
Chlorobenzene
Concen: 146.72 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:112 Resp: 1294

Ion	Ratio	Lower	Upper
112	100		
77	63.2	24.7	84.7

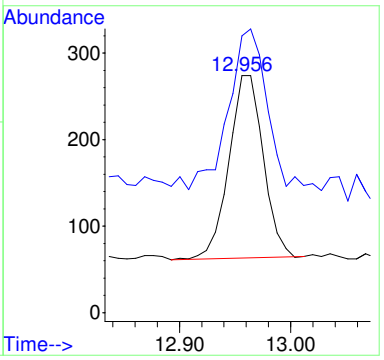


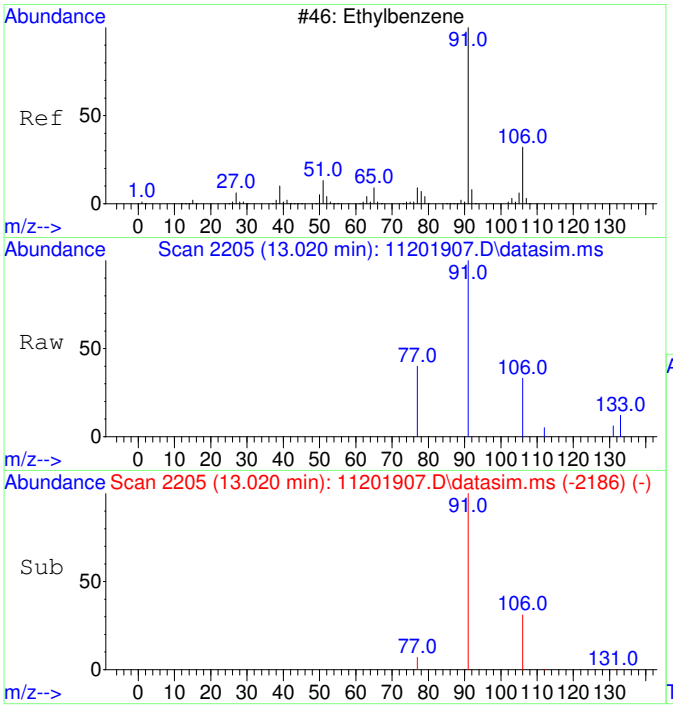


#17
1,1,1,2-Tetrachloroethane
Concen: 147.18 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:131 Resp: 453

Ion	Ratio	Lower	Upper
131	100		
133	107.9	66.6	126.6

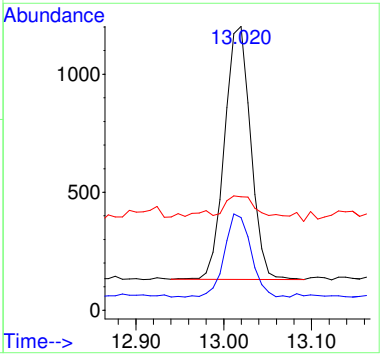


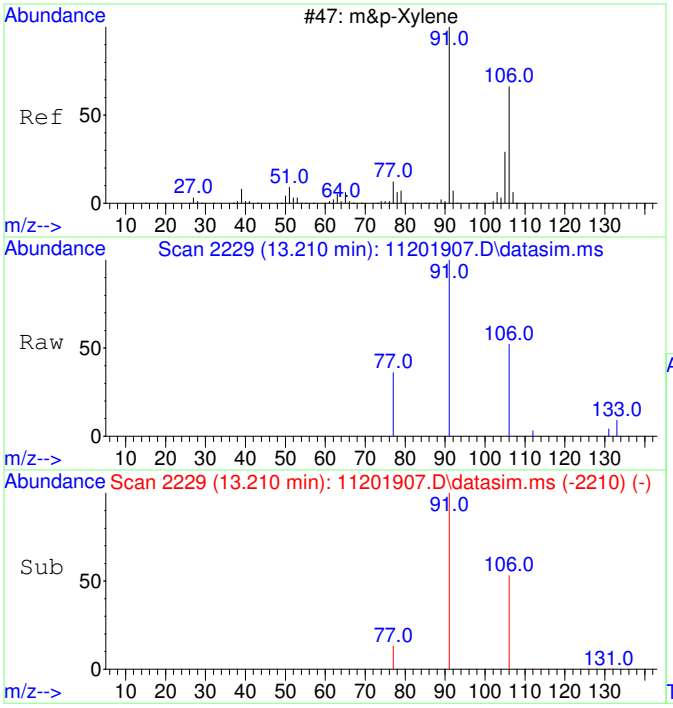


#18
Ethylbenzene
Concen: 154.50 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 2202

Ion	Ratio	Lower	Upper
91	100		
106	33.3	2.6	62.6
77	10.7	0.0	38.2

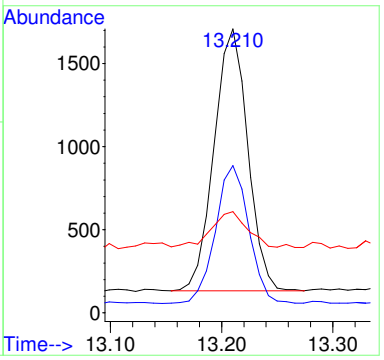


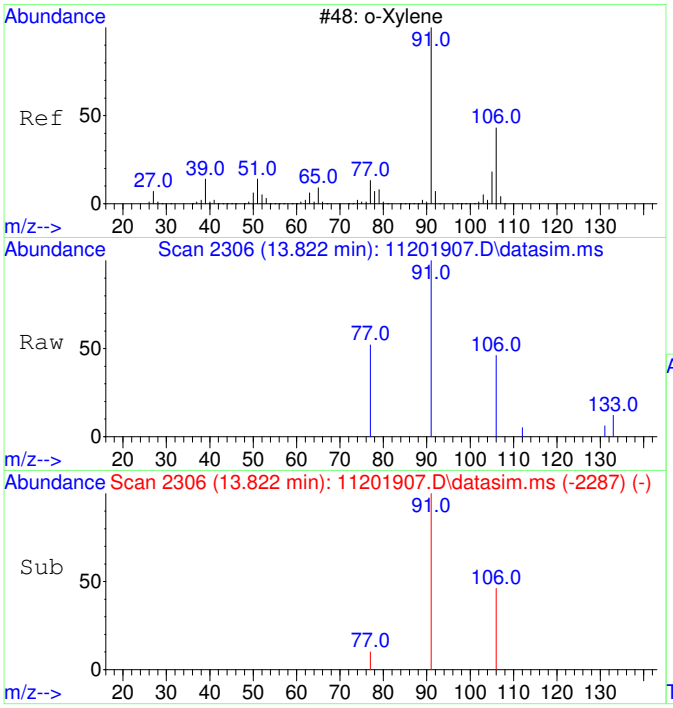


#19
m&p-Xylene
Concen: 305.33 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 3316

Ion	Ratio	Lower	Upper
91	100		
106	52.0	21.4	81.4
77	15.3	0.0	42.6

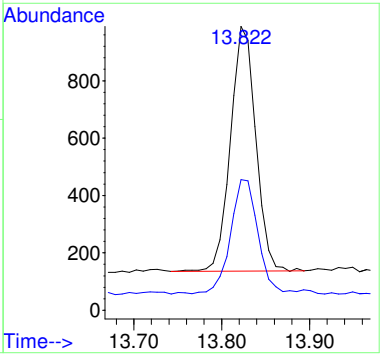


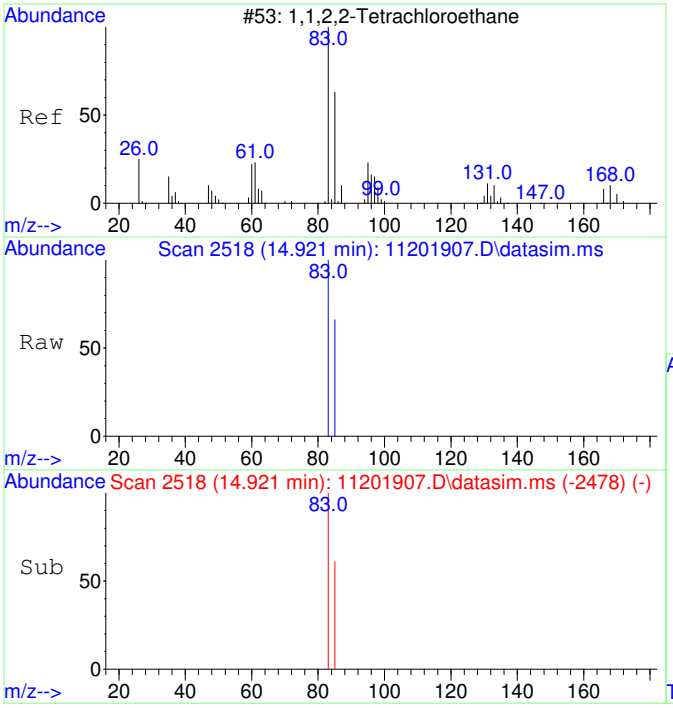


#20
o-Xylene
Concen: 148.05 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1705

Ion	Ratio	Lower	Upper
91	100		
106	50.8	18.5	78.5

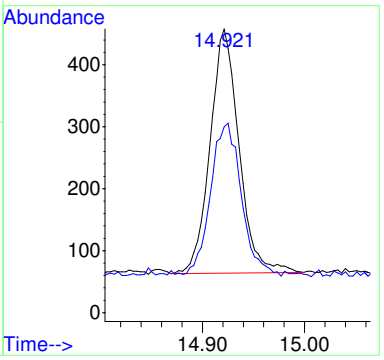


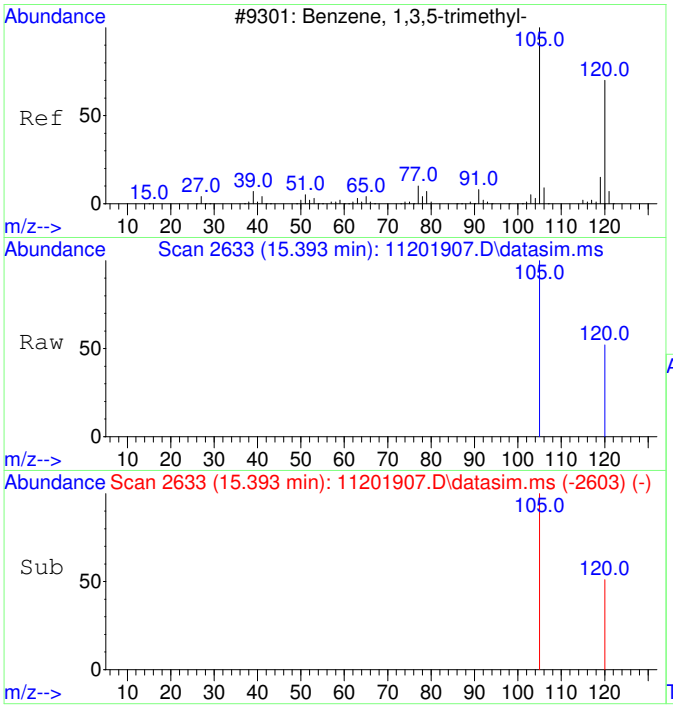


#21
1,1,2,2-Tetrachloroethane
Concen: 149.87 ug/L
RT: 14.921 min Scan# 2518
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 775

Ion	Ratio	Lower	Upper
83	100		
85	66.8	34.6	94.6

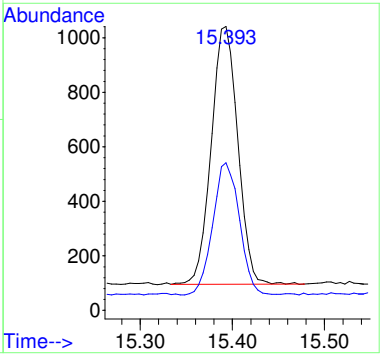


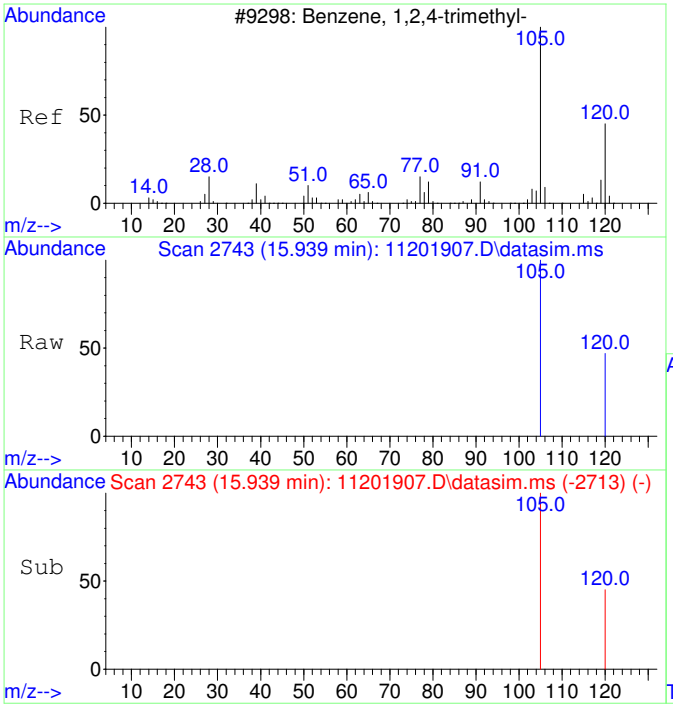


#22
1,3,5-Trimethylbenzene
Concen: 147.67 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1895

Ion	Ratio	Lower	Upper
105	100		
120	51.0	20.9	80.9

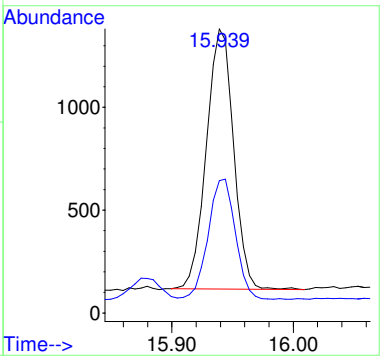


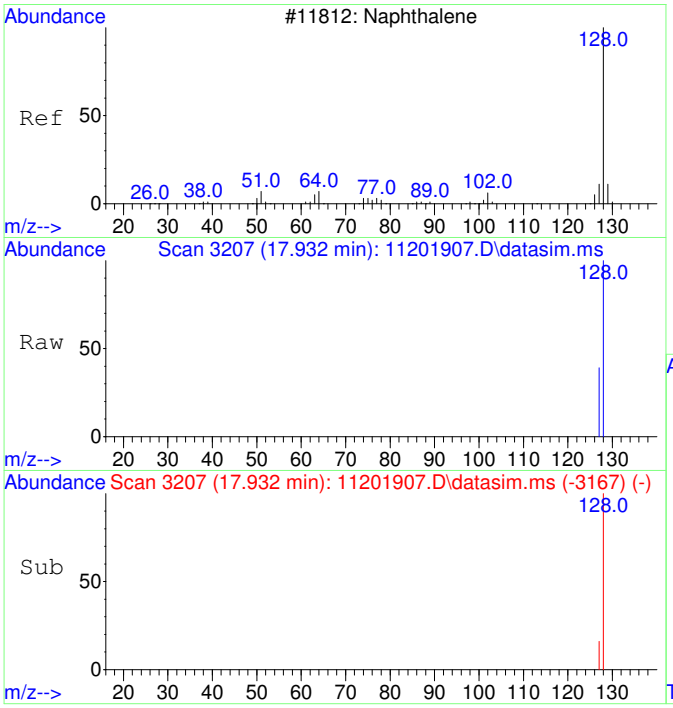


#23
1,2,4-Trimethylbenzene
Concen: 150.13 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1969

Ion	Ratio	Lower	Upper
105	100		
120	45.5	16.6	76.6

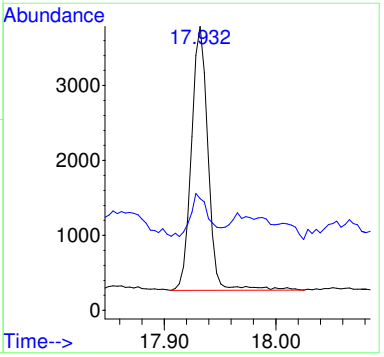


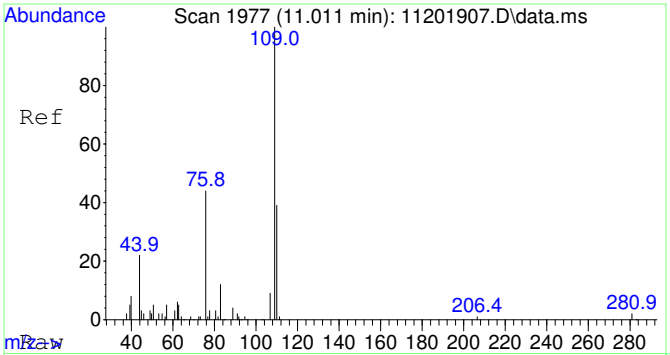


#24
Naphthalene
Concen: 153.88 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:128 Resp: 3646

Ion	Ratio	Lower	Upper
128	100		
127	13.4	0.0	42.5

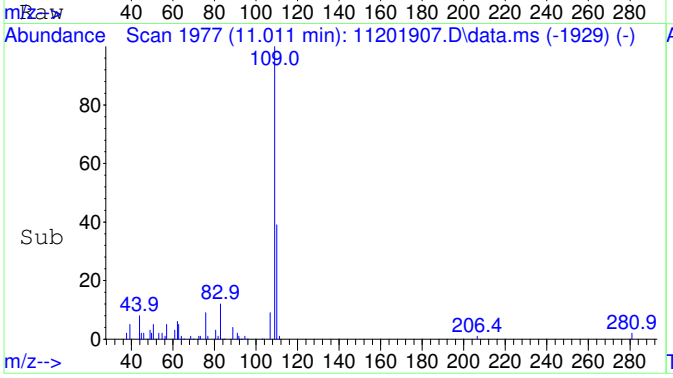


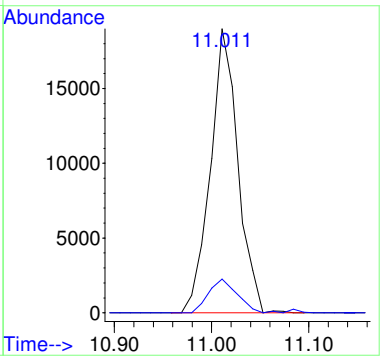


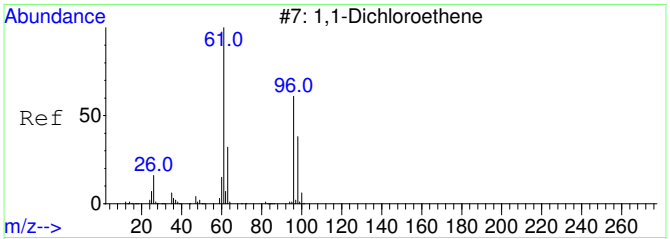
#25
2-Fluorotoluene SCAN
Concen: 5068.43 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:109 Resp: 37281

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	44.5



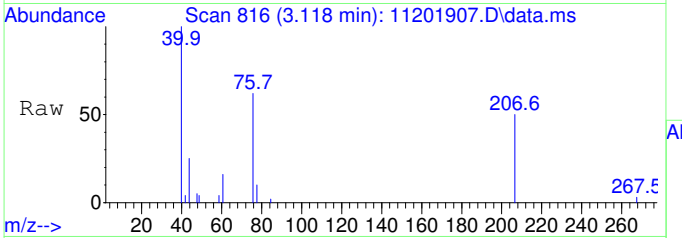


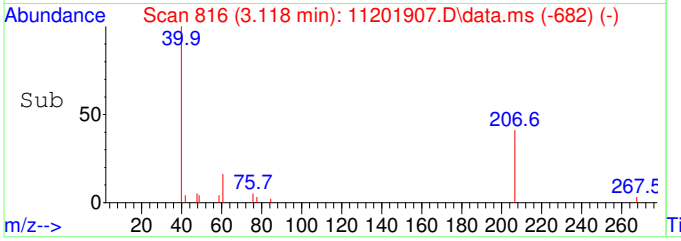


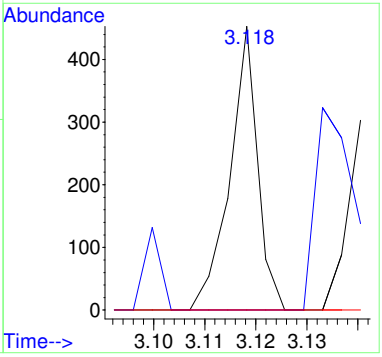
#26
1,1-Dichloroethene SCAN
Concen: 106.09 ug/L
RT: 3.118 min Scan# 816
Delta R.T. -0.004 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

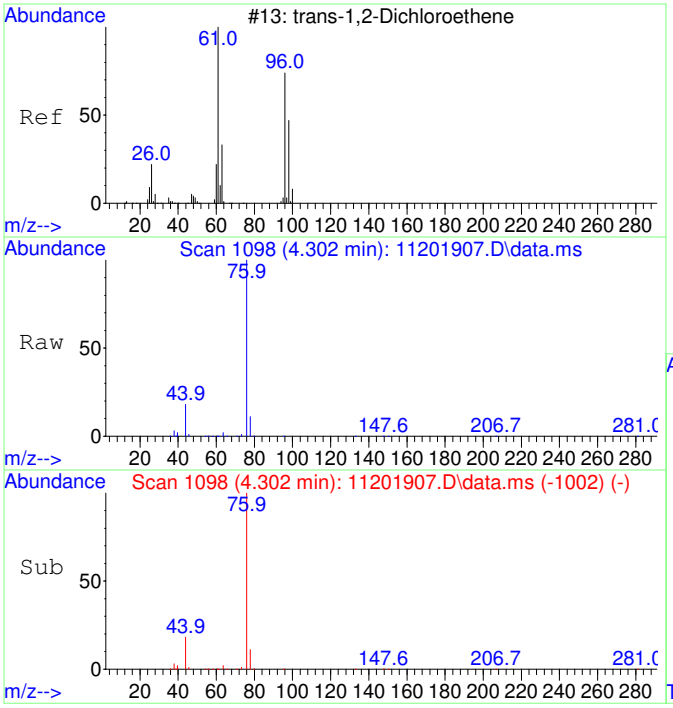
Tgt Ion: 61 Resp: 171

Ion	Ratio	Lower	Upper
61	100		
96	0.0	160.0	220.0#
98	0.0	114.2	174.2#





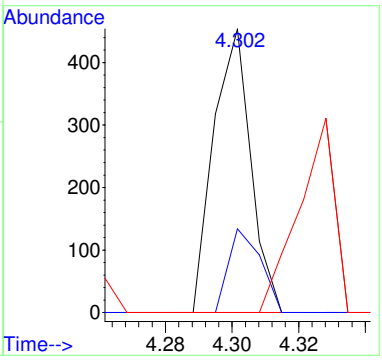


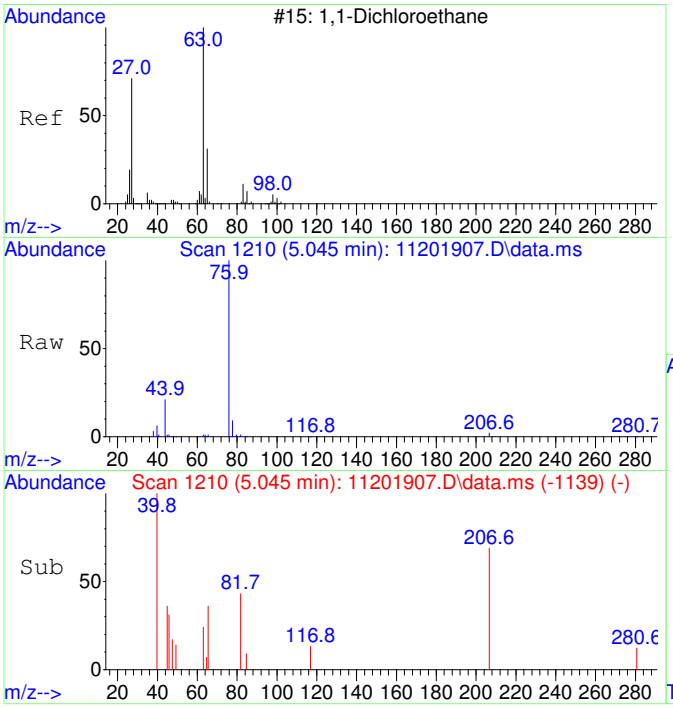


#27
trans-1,2-Dichloroethene SCAN
Concen: 231.15 ug/L
RT: 4.302 min Scan# 1098
Delta R.T. -0.007 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 353

Ion	Ratio	Lower	Upper
61	100		
96	25.5	44.3	104.3#
98	0.0	5.2	65.2#

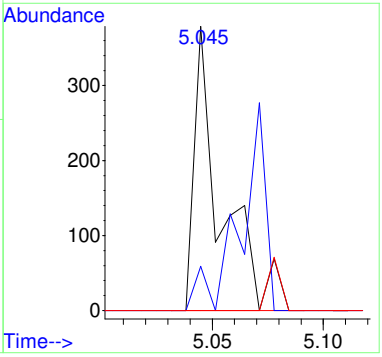


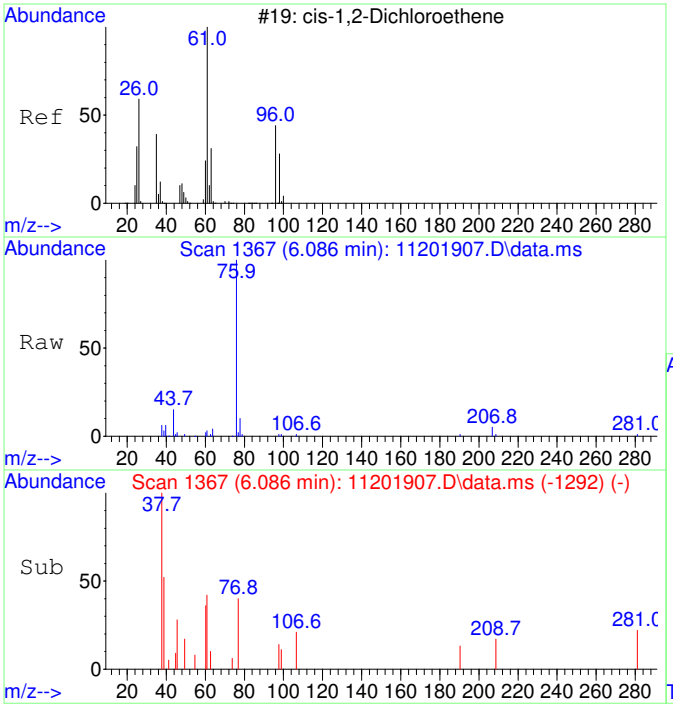


#28
1,1-Dichloroethane SCAN
Concen: 140.47 ug/L
RT: 5.045 min Scan# 1210
Delta R.T. -0.027 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 63 Resp: 321

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	39.8
83	0.0	0.0	33.0

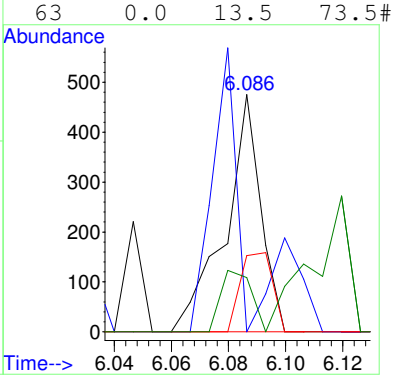


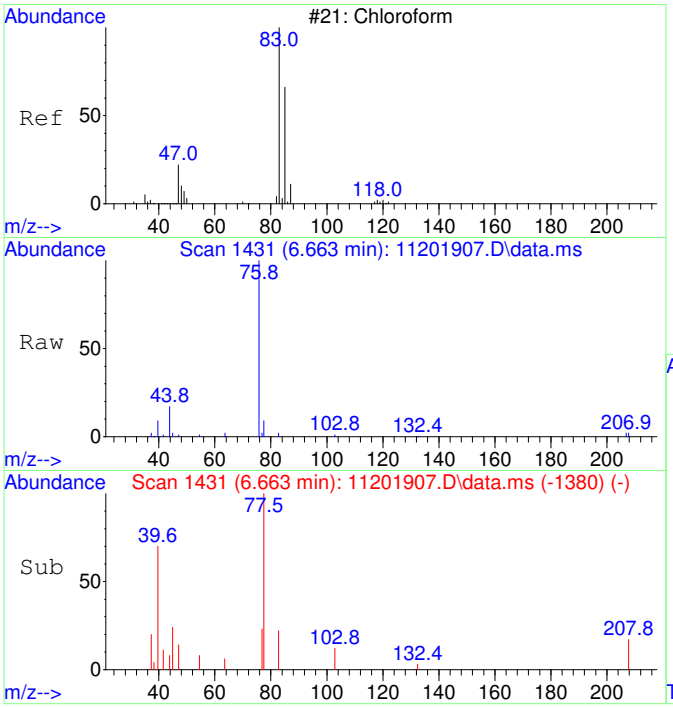


#29
cis-1,2-Dichloroethene SCAN
Concen: 225.08 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 412

Ion	Ratio	Lower	Upper
61	100		
96	17.5	42.4	102.4#
98	30.1	13.5	73.5
63	0.0	13.5	73.5#

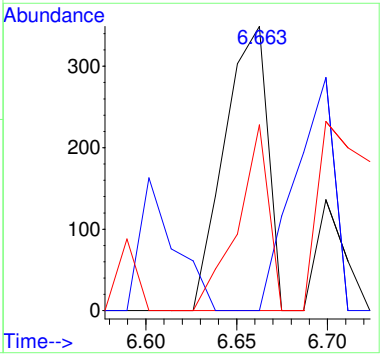


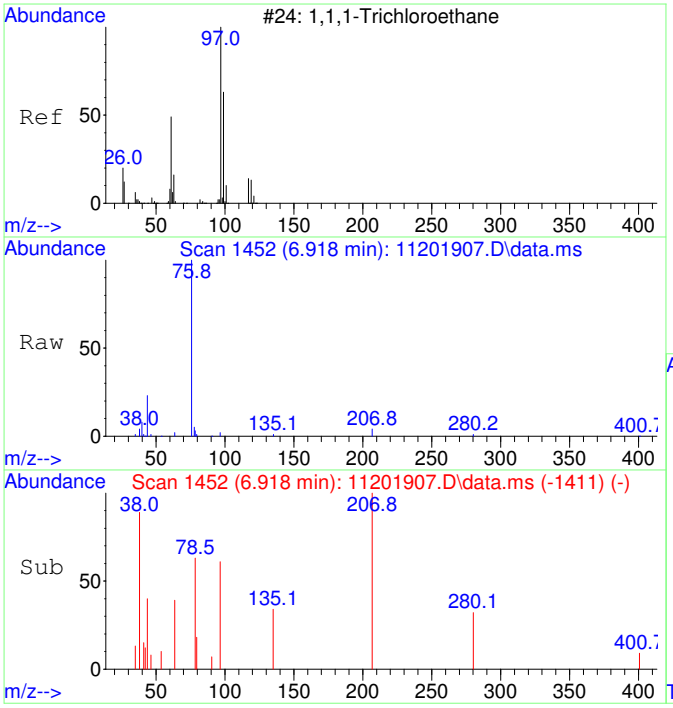


#30
Chloroform SCAN
Concen: 296.24 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. -0.012 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 579

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.6	111.6#
47	47.0	0.0	59.5

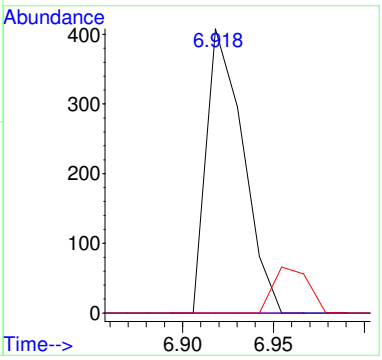


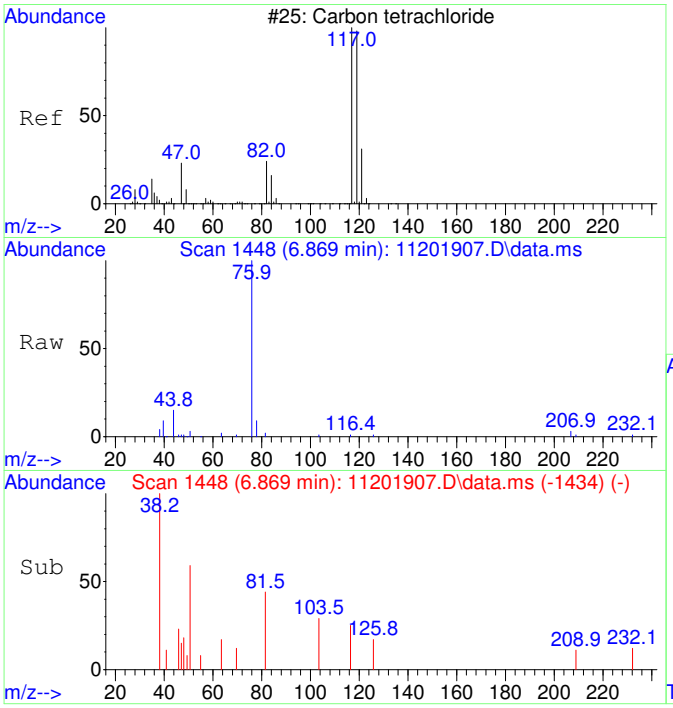


#31
1,1,1-Trichloroethane SCAN
Concen: 255.03 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 573

Ion	Ratio	Lower	Upper
97	100		
99	0.0	39.0	99.0#
61	0.0	12.8	72.8#

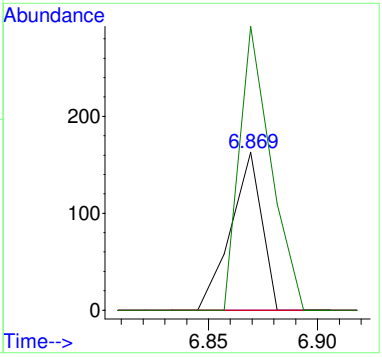


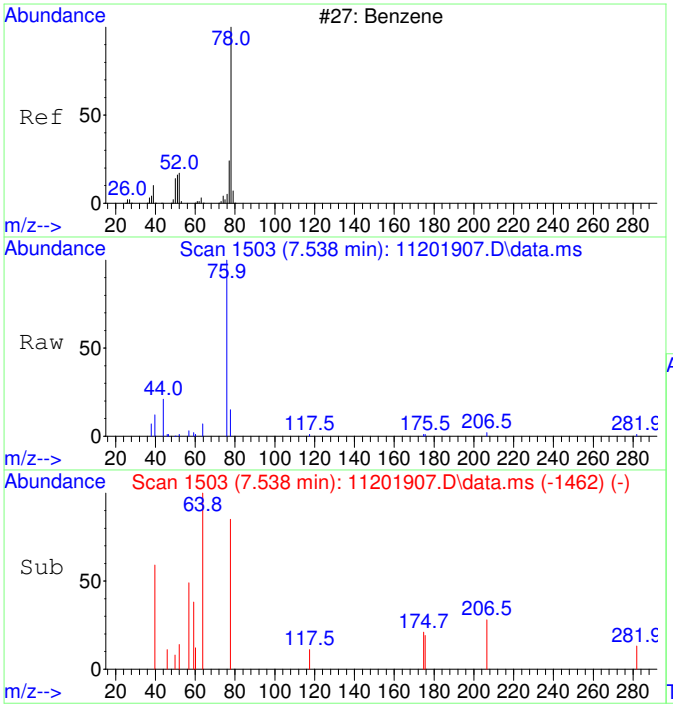


#32
Carbon tetrachloride SCAN
Concen: 83.67 ug/L
RT: 6.869 min Scan# 1448
Delta R.T. -0.329 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:117 Resp: 161

Ion	Ratio	Lower	Upper
117	100		
119	0.0	59.7	119.7#
121	0.0	0.0	59.9
82	182.6	6.4	66.4#

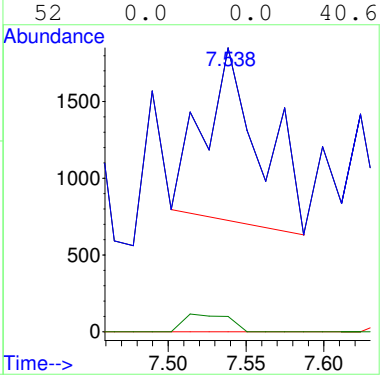


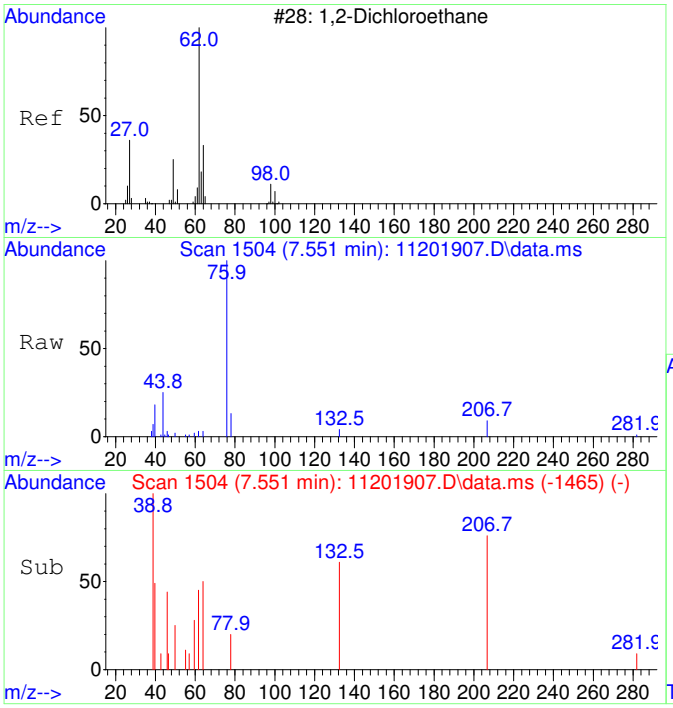


#33
Benzene SCAN
Concen: 477.36 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 78 Resp: 2813

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.1
52	0.0	0.0	40.6

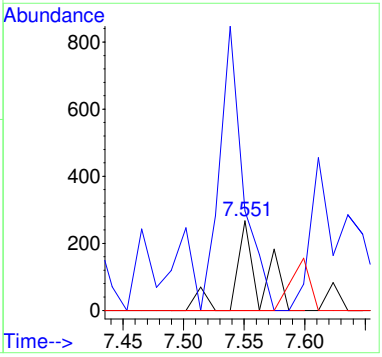


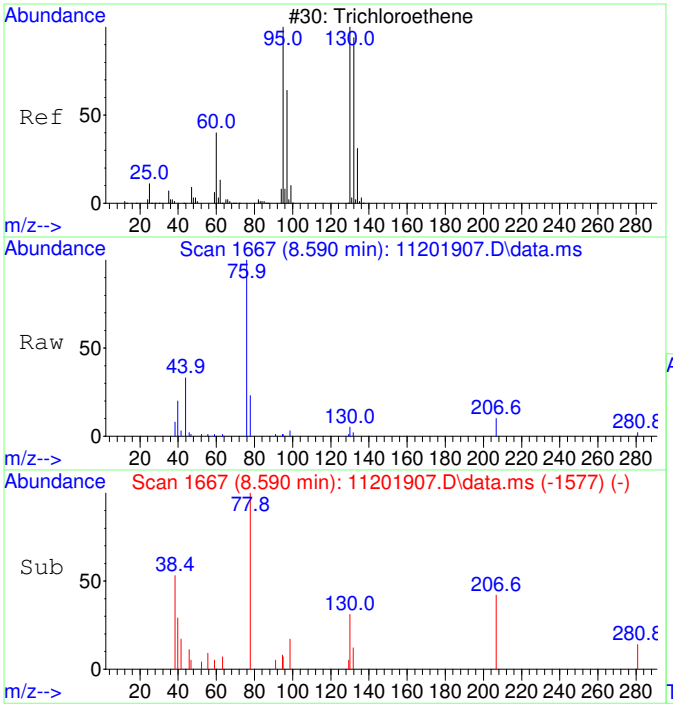


#34
1,2-Dichloroethane SCAN
Concen: 189.08 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. -0.025 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 62 Resp: 380

Ion	Ratio	Lower	Upper
62	100		
64	273.2	22.9	82.9#
49	0.0	0.0	59.6

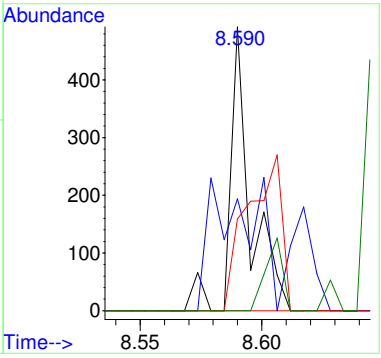


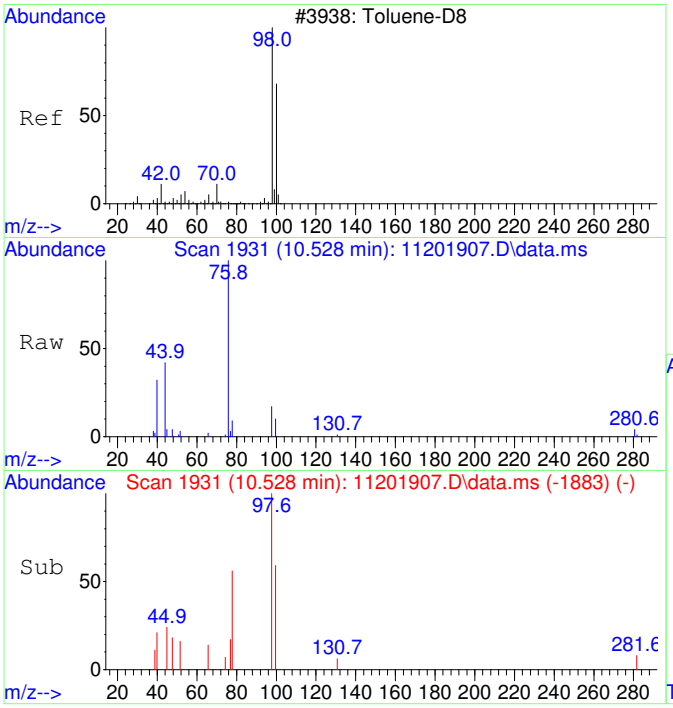


#35
Trichloroethene SCAN
Concen: 186.72 ug/L
RT: 8.590 min Scan# 1667
Delta R.T. -0.011 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:130 Resp: 281

Ion	Ratio	Lower	Upper
130	100		
95	102.8	65.8	125.8
132	94.3	84.8	144.8
97	22.1	39.8	99.8#

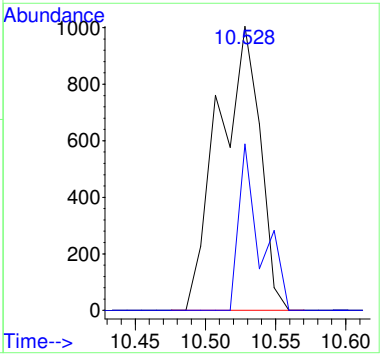


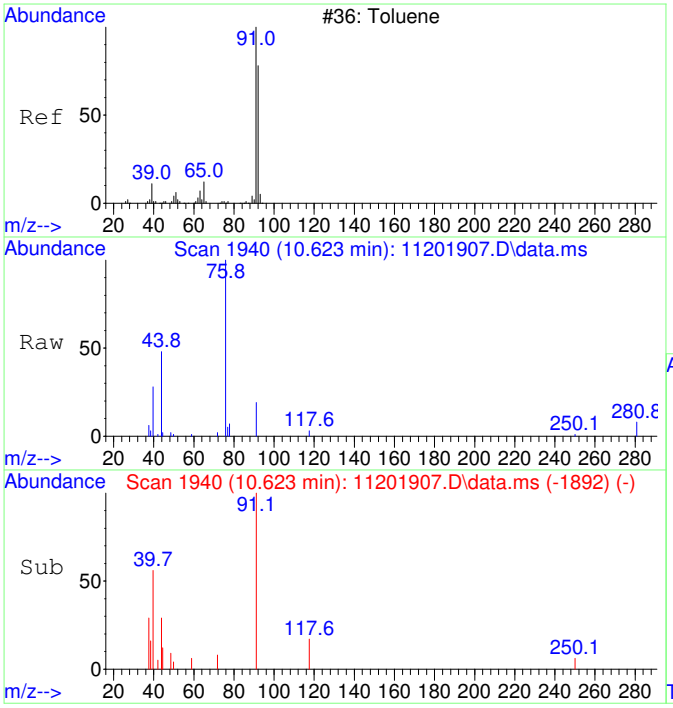


#36
Toluene-d8 SCAN
Concen: 334.16 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 98 Resp: 2084

Ion	Ratio	Lower	Upper
98	100		
100	30.8	38.5	98.5#

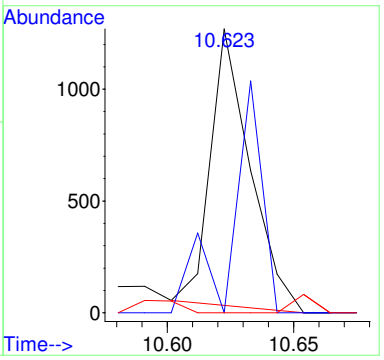


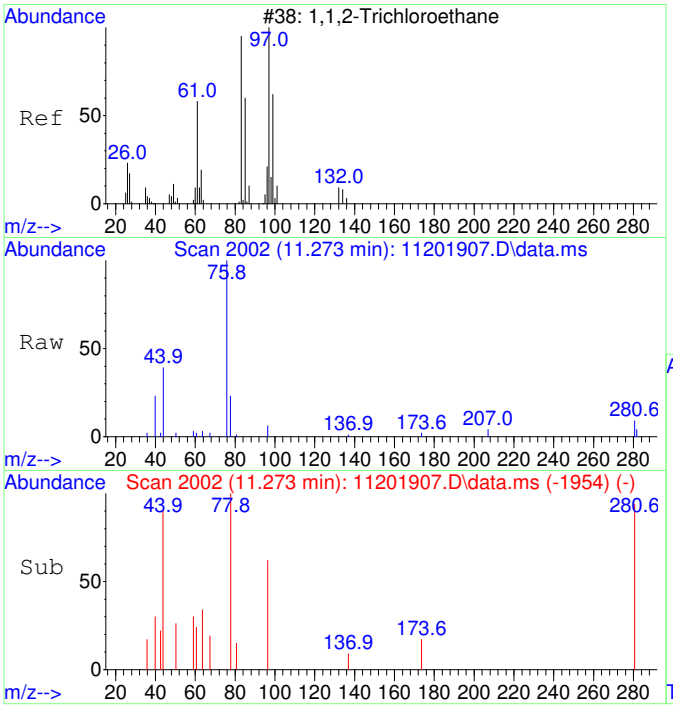


#37
Toluene SCAN
Concen: 183.00 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1333

Ion	Ratio	Lower	Upper
91	100		
92	65.9	26.2	86.2
65	0.0	0.0	43.1

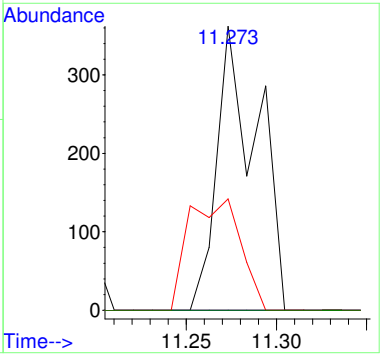


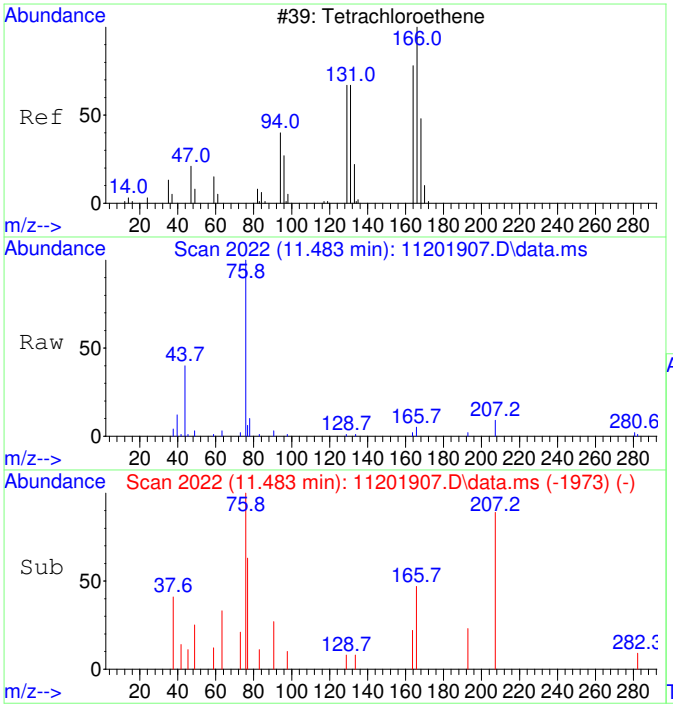


#38
1,1,2-Trichloroethane SCAN
Concen: 357.19 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 566

Ion	Ratio	Lower	Upper
97	100		
83	0.0	65.0	125.0#
61	50.5	47.6	107.6
99	0.0	58.1	118.1#

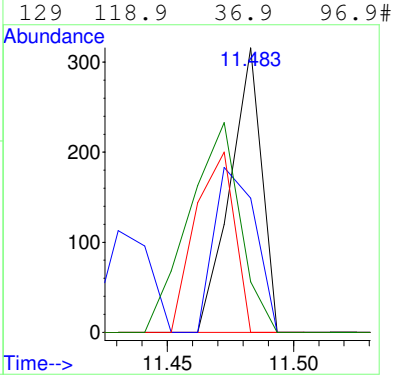


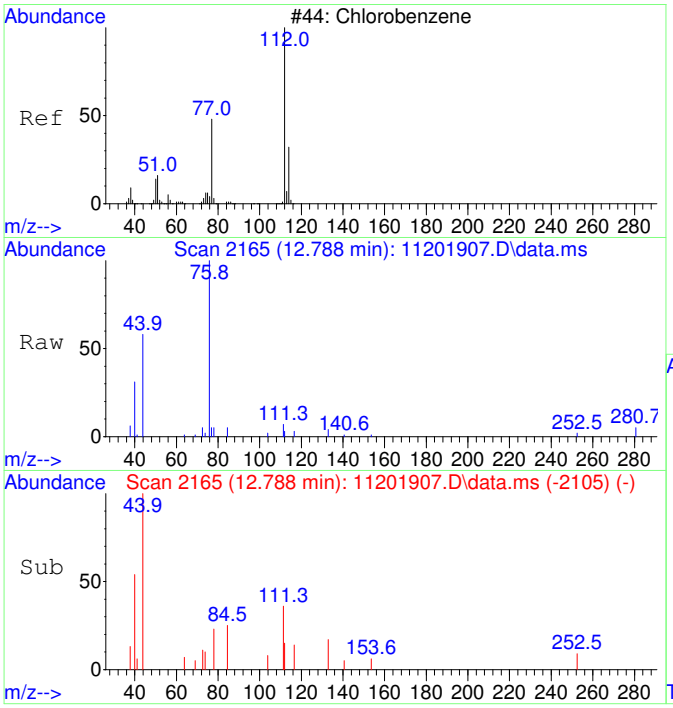


#39
Tetrachloroethene SCAN
Concen: 130.25 ug/L
RT: 11.483 min Scan# 2022
Delta R.T. 0.010 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:166 Resp: 275

Ion	Ratio	Lower	Upper
166	100		
164	76.0	56.8	116.8
131	78.9	19.5	79.5
129	118.9	36.9	96.9#

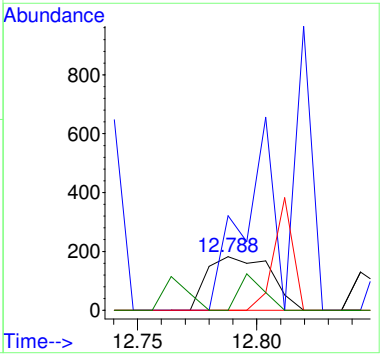


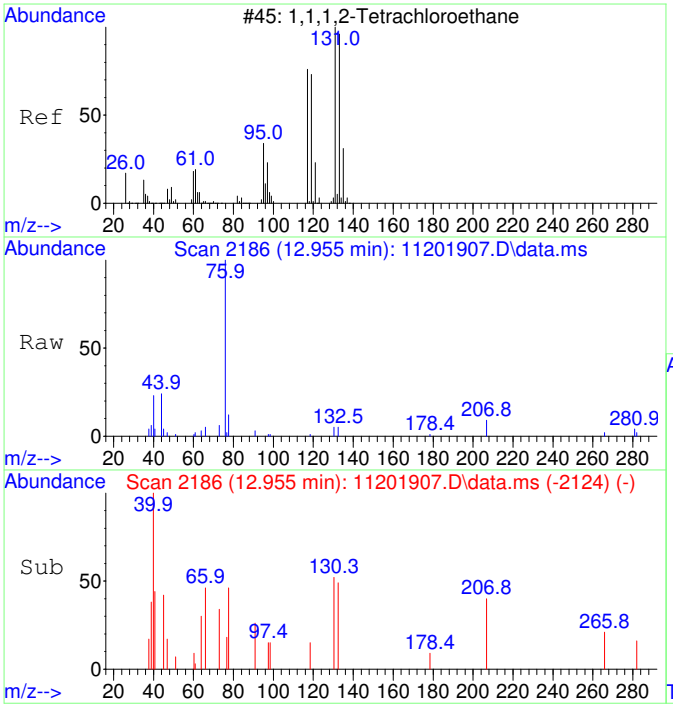


#40
Chlorobenzene SCAN
Concen: 58.41 ug/L
RT: 12.788 min Scan# 2165
Delta R.T. -0.024 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:112 Resp: 339

Ion	Ratio	Lower	Upper
112	100		
77	0.0	32.8	92.8#
114	0.0	0.9	60.9#
51	26.0	0.0	53.2

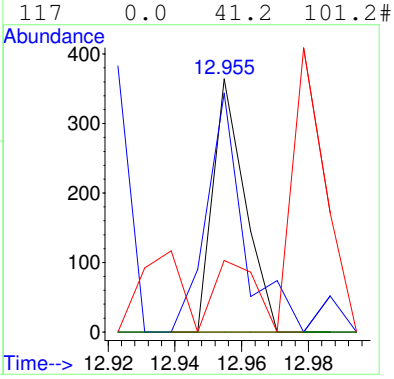


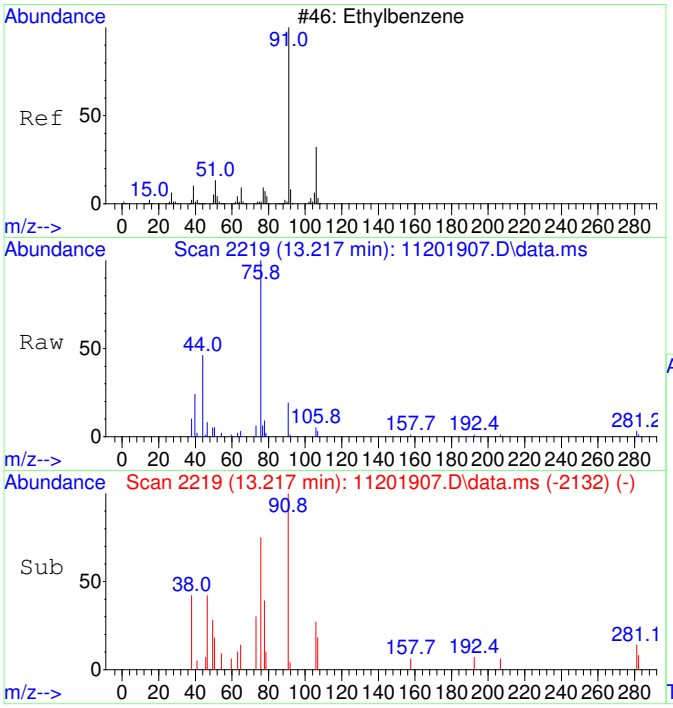


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 129.79 ug/L
RT: 12.955 min Scan# 2186
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:131 Resp: 243

Ion	Ratio	Lower	Upper
131	100		
133	119.8	63.9	123.9
119	41.2	32.6	92.6
117	0.0	41.2	101.2#

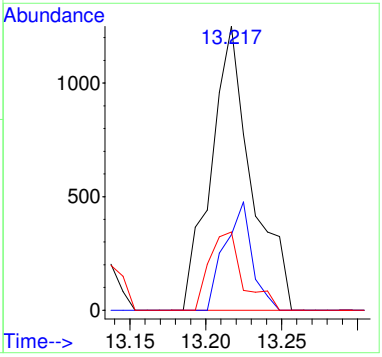


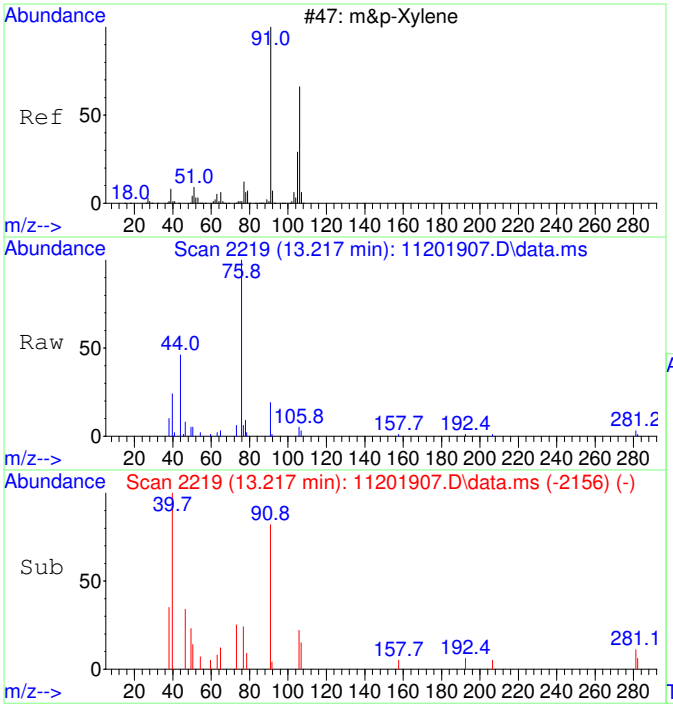


#42
Ethylbenzene SCAN
Concen: 252.40 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.190 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 2323

Ion	Ratio	Lower	Upper
91	100		
106	25.8	1.2	61.2
51	22.9	0.0	38.0

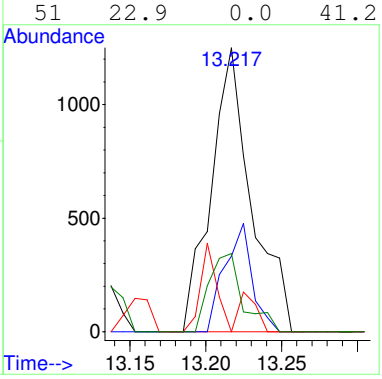


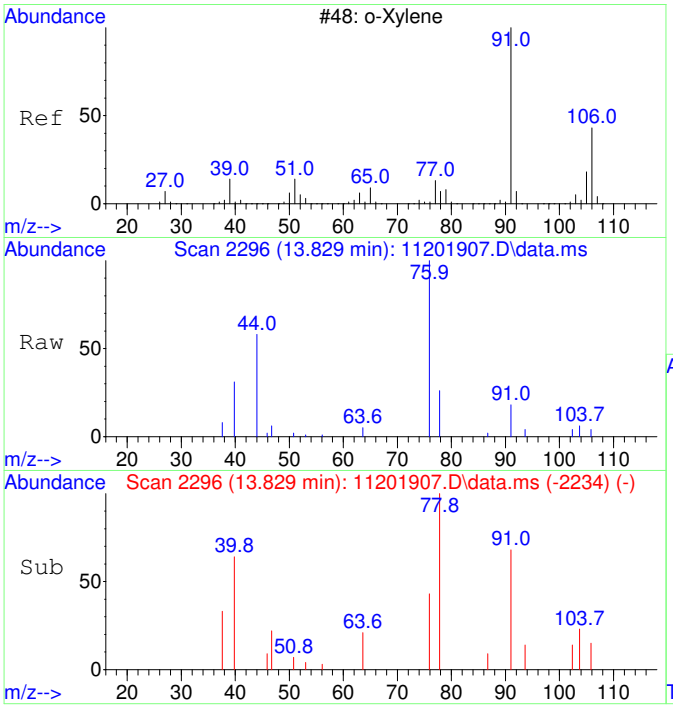


#43
m&p-Xylene SCAN
Concen: 168.31 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 2323

Ion	Ratio	Lower	Upper
91	100		
106	25.8	18.8	78.8
105	6.1	0.0	52.3
51	22.9	0.0	41.2

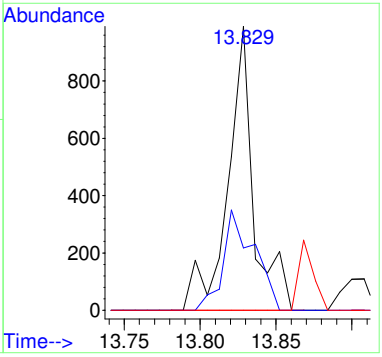


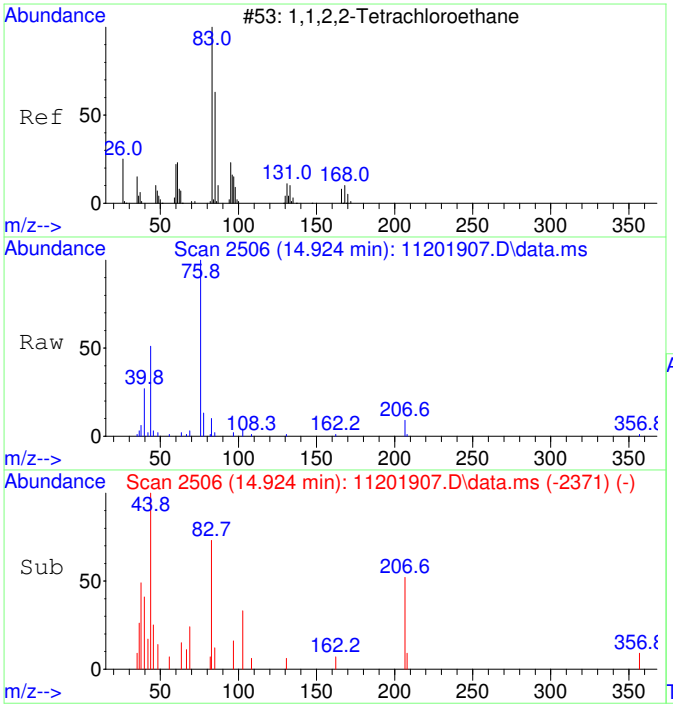


#44
o-Xylene SCAN
Concen: 149.28 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1168

Ion	Ratio	Lower	Upper
91	100		
106	42.6	16.9	76.9
105	0.0	0.2	60.2#

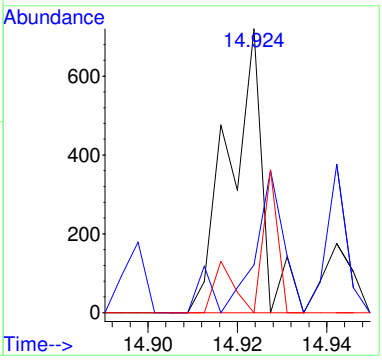


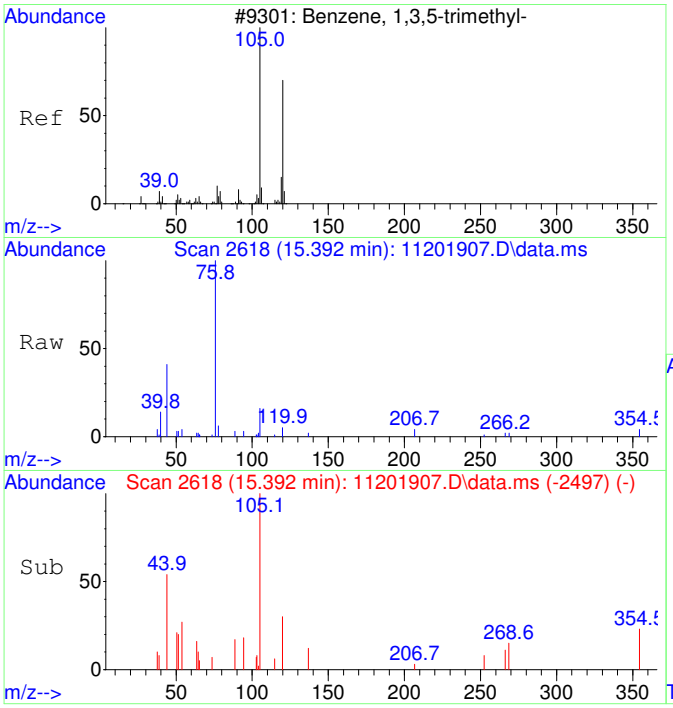


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 108.86 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 384

Ion	Ratio	Lower	Upper
83	100		
85	40.1	34.8	94.8
95	31.5	0.0	48.0

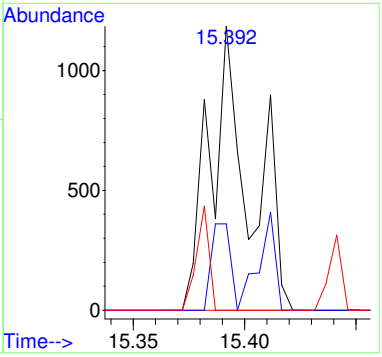


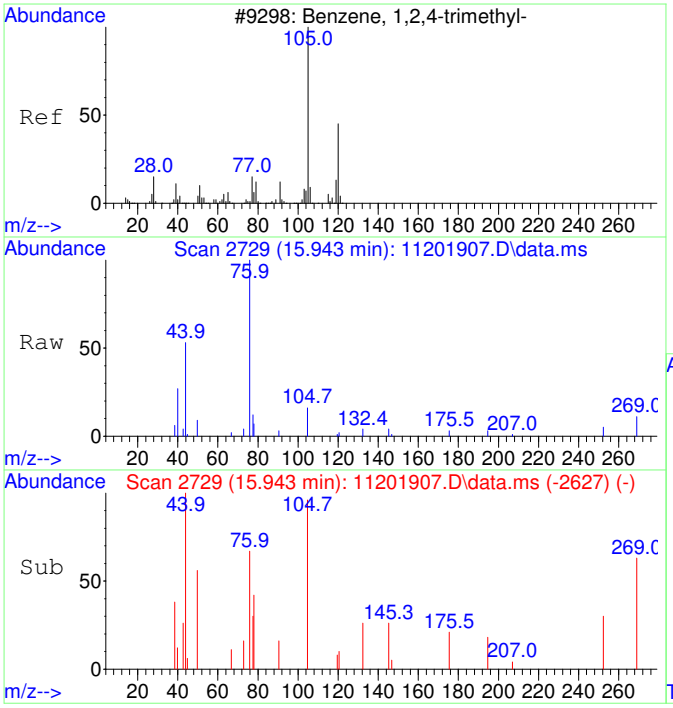


#46
1,3,5-Trimethylbenzene SCAN
Concen: 180.52 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1476

Ion	Ratio	Lower	Upper
105	100		
120	14.5	15.2	75.2#
119	11.7	0.0	45.5

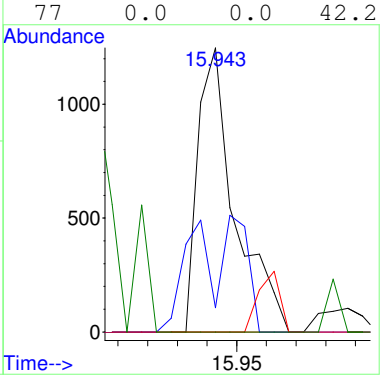


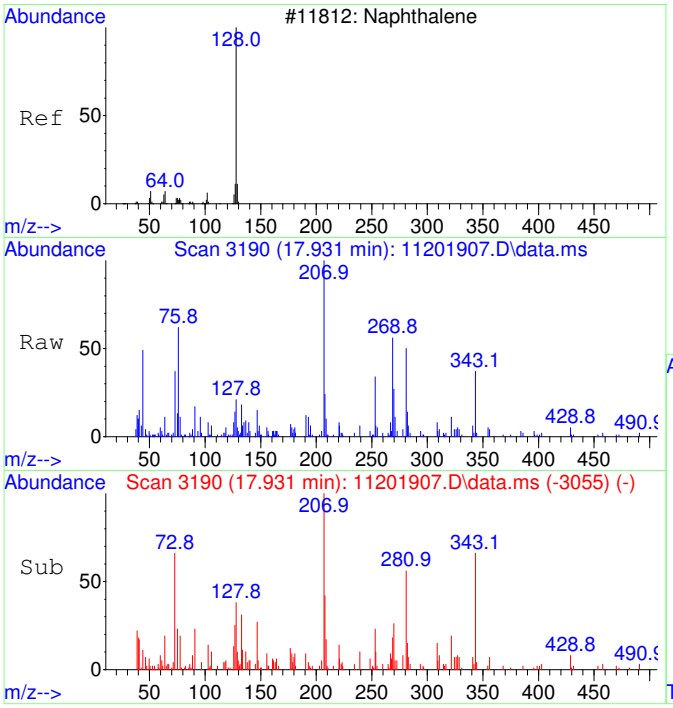


#47
1,2,4-Trimethylbenzene SCAN
Concen: 130.97 ug/L
RT: 15.943 min Scan# 2729
Delta R.T. 0.005 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1087

Ion	Ratio	Lower	Upper
105	100		
120	22.4	19.0	79.0
119	12.3	0.0	40.2
77	0.0	0.0	42.2

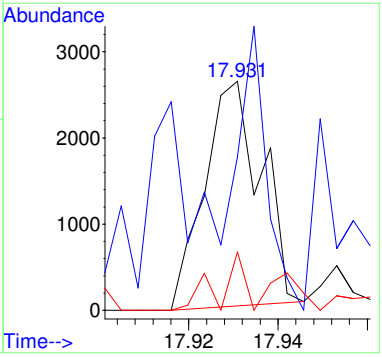




#48
Naphthalene SCAN
Concen: 173.08 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:128 Resp: 2321

Ion	Ratio	Lower	Upper
128	100		
127	44.3	0.0	45.2
129	6.5	0.0	41.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201907.D
Acq On : 20 Nov 2019 15:34
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
TD at 6:26 am, Nov 21, 2019

M.I. Approved By:
ZR at 11:52 am, Nov 27, 2019

Quant Time: Nov 21 06:21:56 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

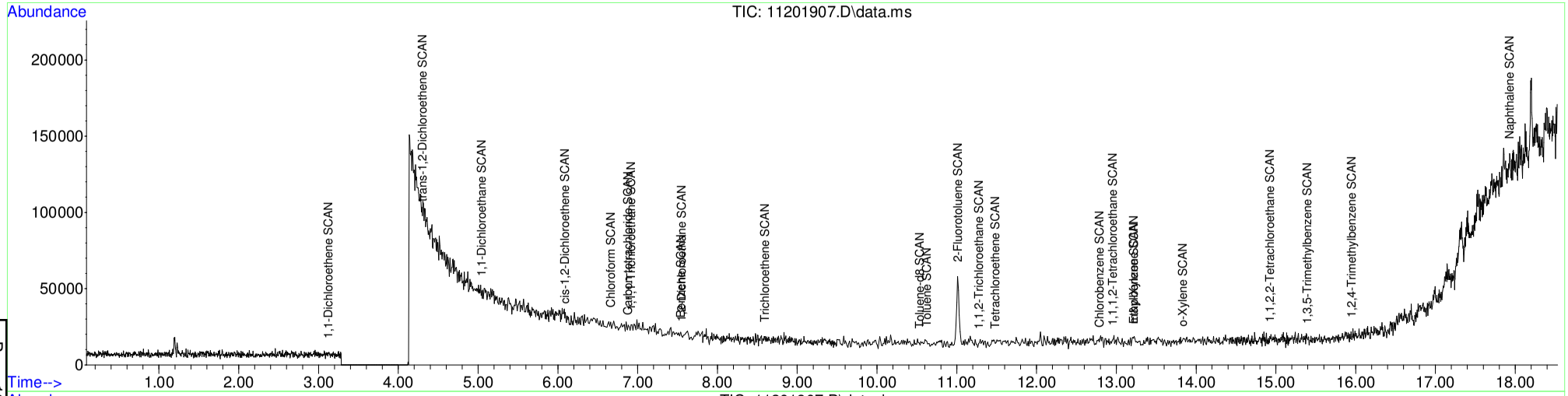
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	59287	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	1464	153.76	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	3.08%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	430m	168.83	ug/L	
3] trans-1,2-Dichloroethene	4.303	61	445	171.03	ug/L	86
4] 1,1-Dichloroethane	5.059	63	577	174.44	ug/L	94
5] cis-1,2-Dichloroethene	6.088	61	525	172.60	ug/L	99
6] Chloroform	6.664	83	583	165.96	ug/L	92
7] 1,1,1-Trichloroethane	6.919	97	596	169.27	ug/L	91
8] Carbon tetrachloride	7.199	117	569	170.31	ug/L	97
9] Benzene	7.527	78	1659	187.37	ug/L	81
10] 1,2-Dichloroethane	7.564	62	510	175.49	ug/L	56
11] Trichloroethene	8.602	130	439	161.61	ug/L	90
13] Toluene	10.624	91	1803	156.09	ug/L	98
14] 1,1,2-Trichloroethane	11.274	97	399	152.45	ug/L	85
15] Tetrachloroethene	11.474	166	530	152.04	ug/L	95
16] Chlorobenzene	12.805	112	1294	146.72	ug/L	88
17] 1,1,1,2-Tetrachloroethane	12.956	131	453	147.18	ug/L	88
18] Ethylbenzene	13.020	91	2202	154.50	ug/L	98
19] m&p-Xylene	13.210	91	3316	305.33	ug/L	98
20] o-Xylene	13.822	91	1705	148.05	ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.921	83	775	149.87	ug/L	97
22] 1,3,5-Trimethylbenzene	15.393	105	1895	147.67	ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	1969	150.13	ug/L	98
24] Naphthalene	17.932	128	3646	153.88	ug/L	98
25) 2-Fluorotoluene SCAN	11.011	109	37281	5068.43	ug/L	95
26) 1,1-Dichloroethene SCAN	3.118	61	171	106.09	ug/L #	1
27) trans-1,2-Dichloroethe...	4.302	61	353	231.15	ug/L #	41
28) 1,1-Dichloroethane SCAN	5.045	63	321	140.47	ug/L #	78
29) cis-1,2-Dichloroethene...	6.086	61	412	225.08	ug/L #	46
30) Chloroform SCAN	6.663	83	579	296.24	ug/L #	24
31) 1,1,1-Trichloroethane ...	6.918	97	573	255.03	ug/L #	22
32) Carbon tetrachloride SCAN	6.869	117	161	83.67	ug/L #	1
33) Benzene SCAN	7.538	78	2813	477.36	ug/L #	92
34) 1,2-Dichloroethane SCAN	7.551	62	380	189.08	ug/L #	1
35) Trichloroethene SCAN	8.590	130	281	186.72	ug/L #	75
36) Toluene-d8 SCAN	10.528	98	2084	334.16	ug/L #	53
37) Toluene SCAN	10.623	91	1333	183.00	ug/L #	83
38) 1,1,2-Trichloroethane ...	11.273	97	566	357.19	ug/L #	23
39) Tetrachloroethene SCAN	11.483	166	275	130.25	ug/L #	63
40) Chlorobenzene SCAN	12.788	112	339	58.41	ug/L #	40
41) 1,1,1,2-Tetrachloroeth...	12.955	131	243	129.79	ug/L #	54
42) Ethylbenzene SCAN	13.217	91	2323	252.40	ug/L	84
43) m&p-Xylene SCAN	13.217	91	2323	168.31	ug/L	67
44) o-Xylene SCAN	13.829	91	1168	149.28	ug/L #	74
45) 1,1,2,2-Tetrachloroeth...	14.924	83	384	108.86	ug/L	69
46) 1,3,5-Trimethylbenzene...	15.392	105	1476	180.52	ug/L #	63
47) 1,2,4-Trimethylbenzene...	15.943	105	1087	130.97	ug/L #	67
48) Naphthalene SCAN	17.931	128	2321	173.08	ug/L	55

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201907.D
Acq On : 20 Nov 2019 15:34
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL5
Misc : 1930059 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 06:21:56 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



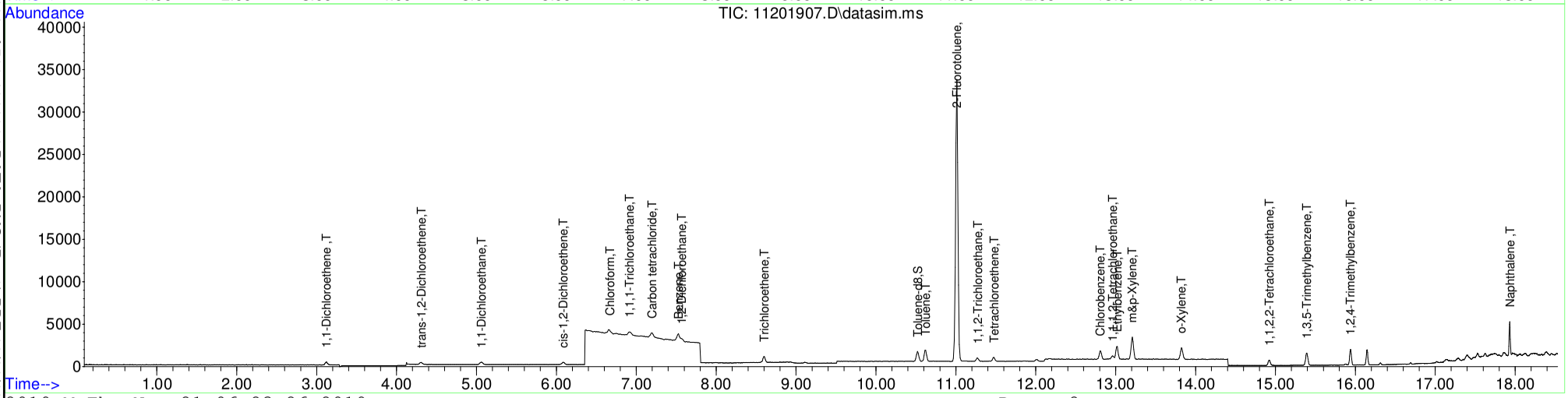
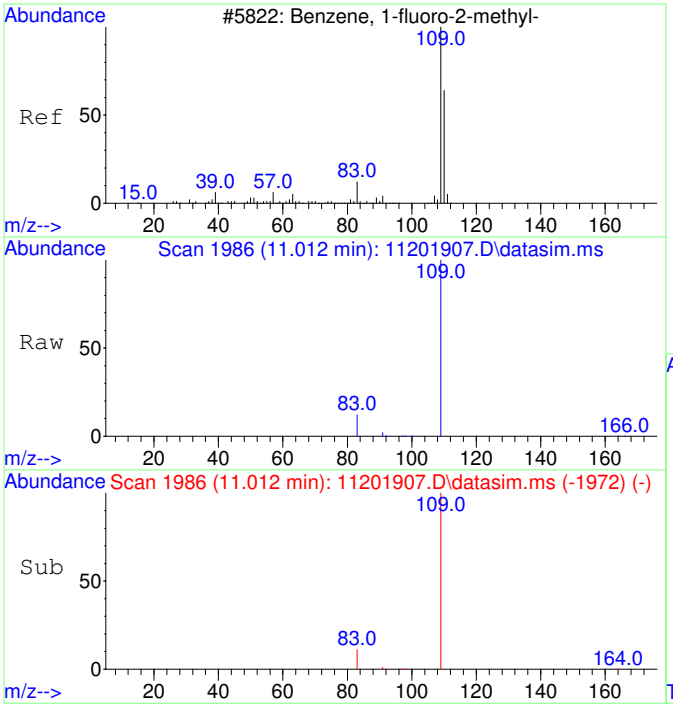


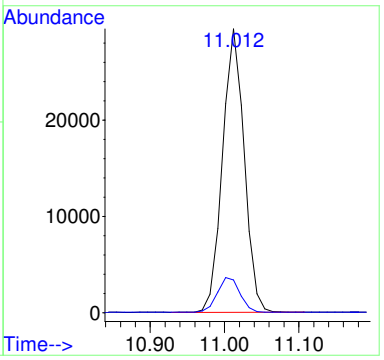
Table of Contents

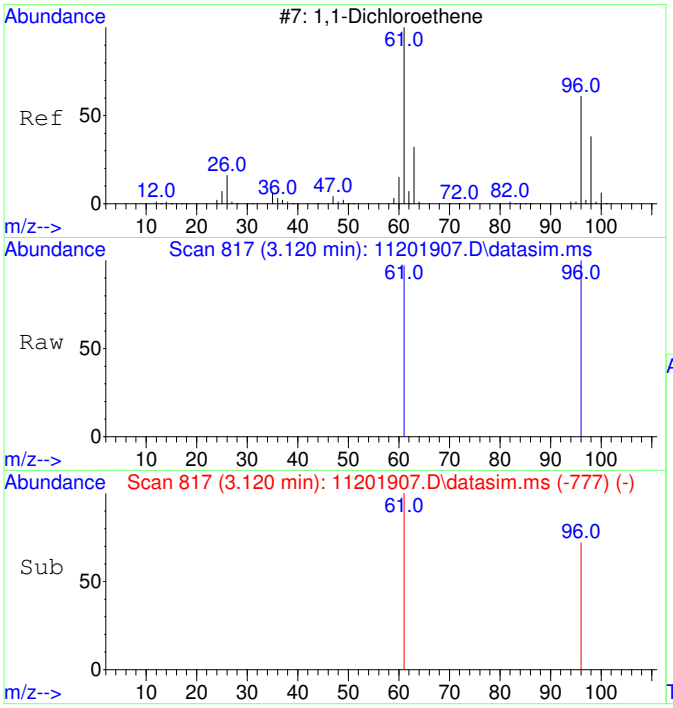


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:109 Resp: 59287

Ion	Ratio	Lower	Upper
109	100		
83	12.8	0.0	43.3

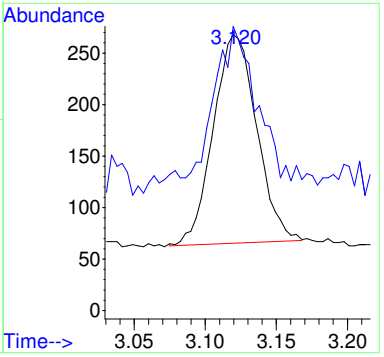


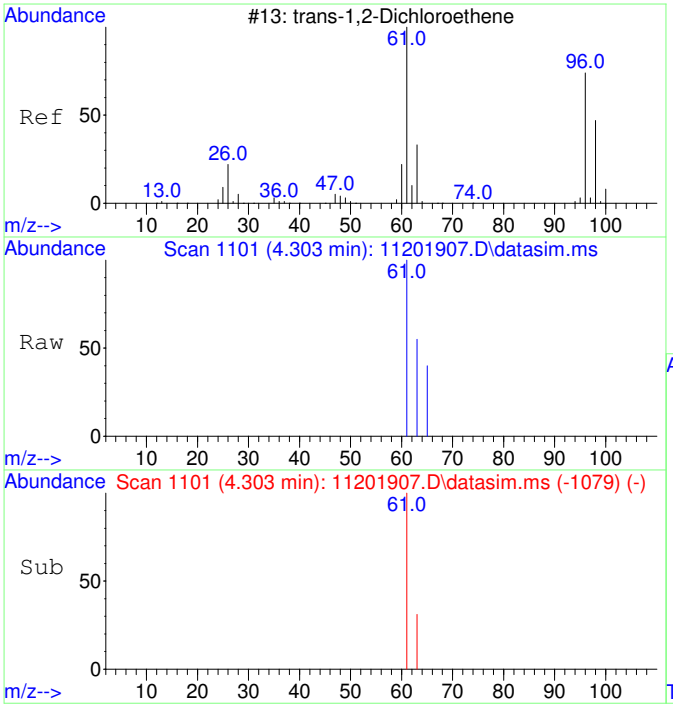


#2
1,1-Dichloroethene
Concen: 168.83 ug/L m
RT: 3.120 min Scan# 817
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 430

Ion	Ratio	Lower	Upper
61	100		
96	134.2	32.4	92.4#

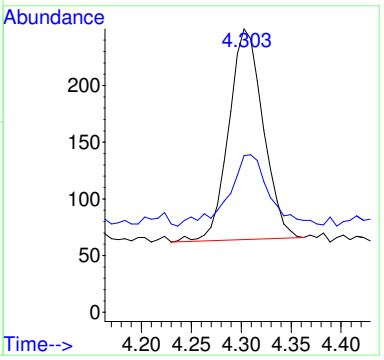


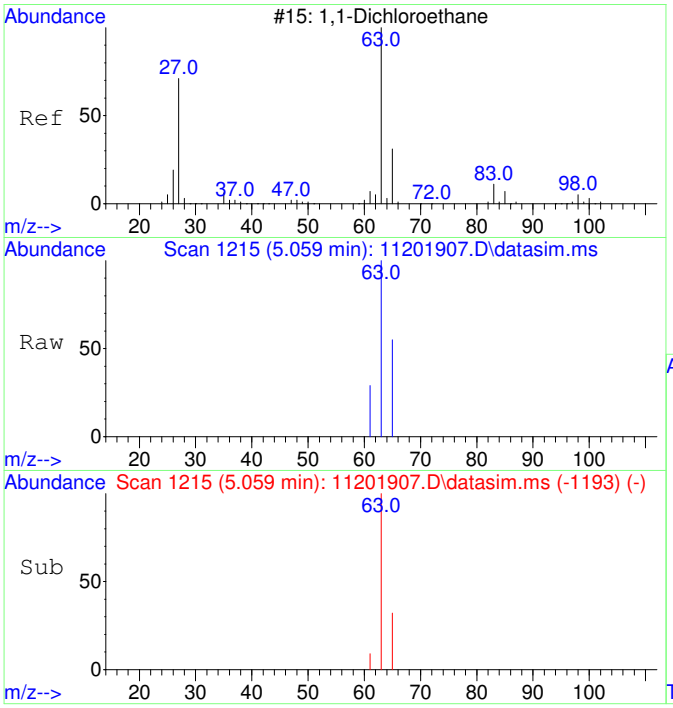


#3
trans-1,2-Dichloroethene
Concen: 171.03 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 445

Ion	Ratio	Lower	Upper
61	100		
63	40.2	2.6	62.6

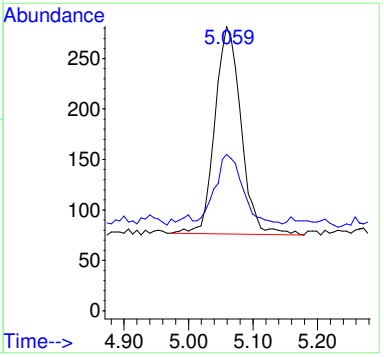


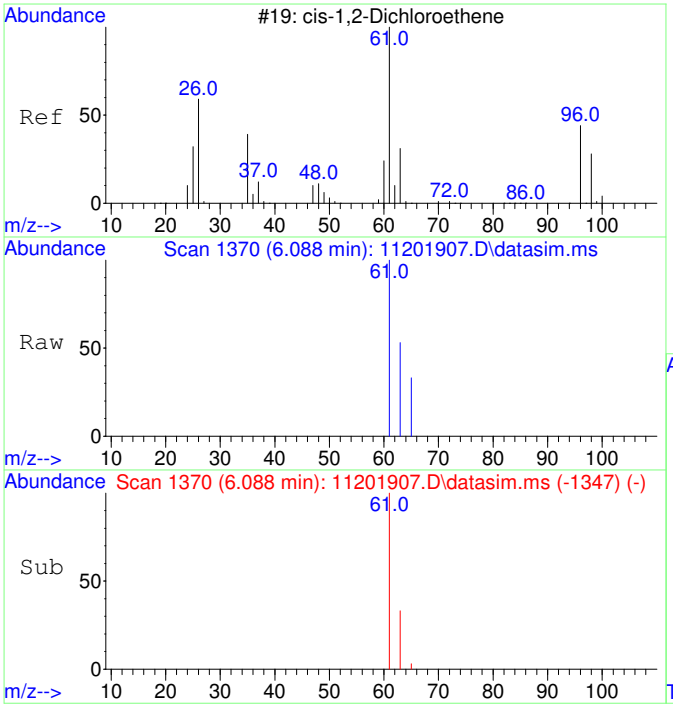


#4
1,1-Dichloroethane
Concen: 174.44 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 63 Resp: 577

Ion	Ratio	Lower	Upper
63	100		
65	35.0	1.6	61.6

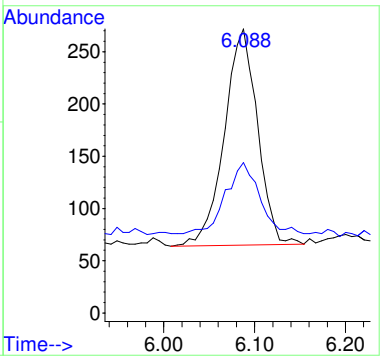


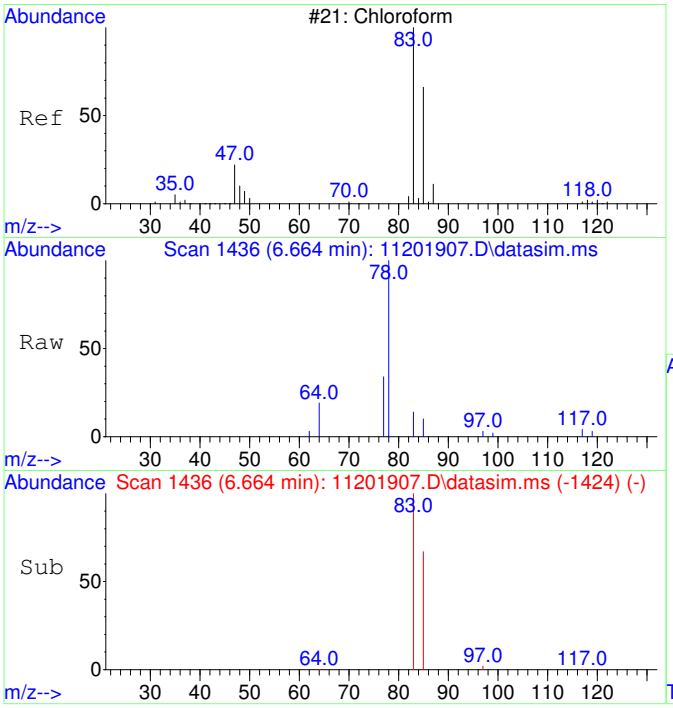


#5
cis-1,2-Dichloroethene
Concen: 172.60 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 525

Ion	Ratio	Lower	Upper
61	100		
63	33.3	2.6	62.6

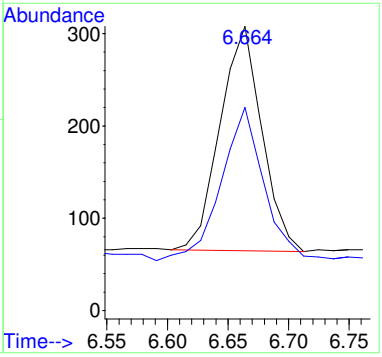


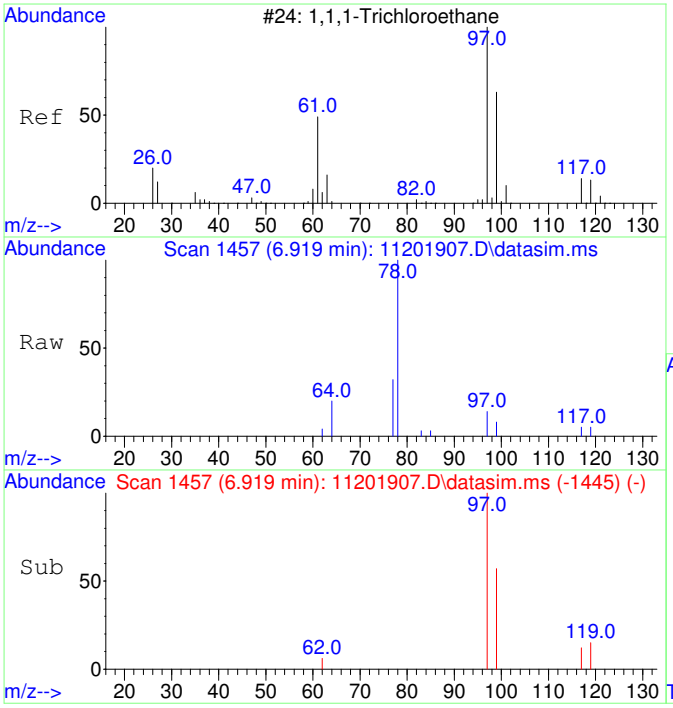


#6
Chloroform
Concen: 165.96 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 583

Ion	Ratio	Lower	Upper
83	100		
85	70.7	34.4	94.4

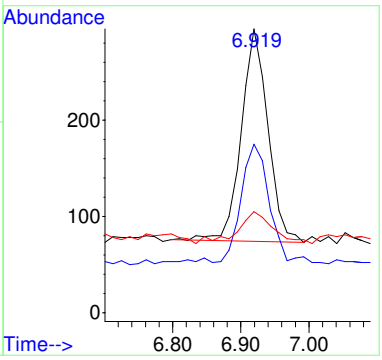


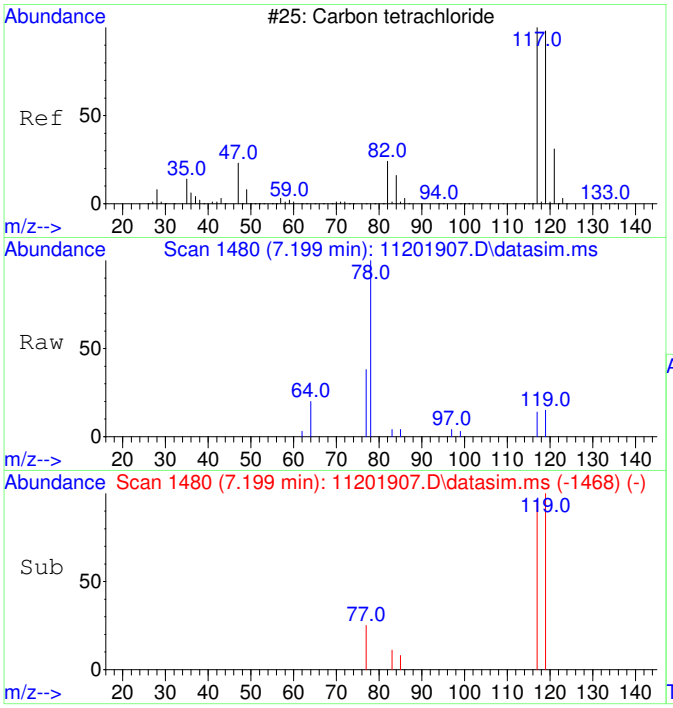


#7
1,1,1-Trichloroethane
Concen: 169.27 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 596

Ion	Ratio	Lower	Upper
97	100		
99	58.7	34.3	94.3
117	19.6	0.0	43.2

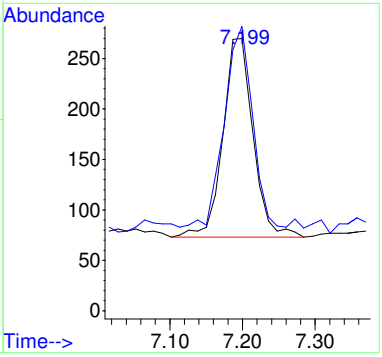


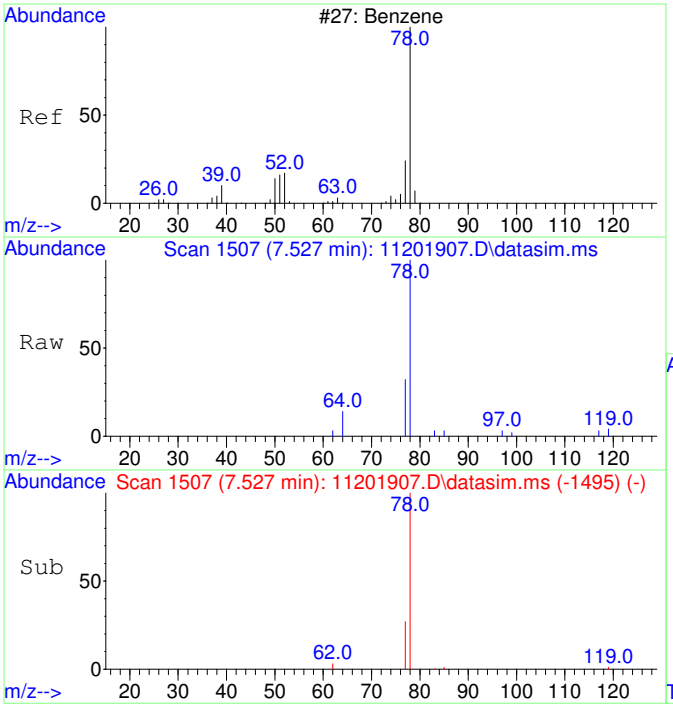


#8
Carbon tetrachloride
Concen: 170.31 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:117 Resp: 569

Ion	Ratio	Lower	Upper
117	100		
119	93.0	66.0	126.0

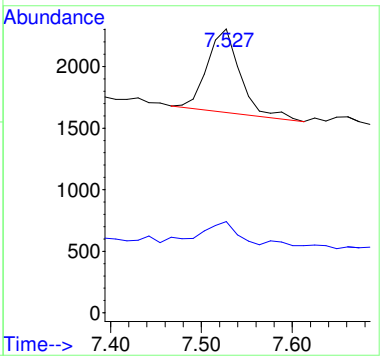


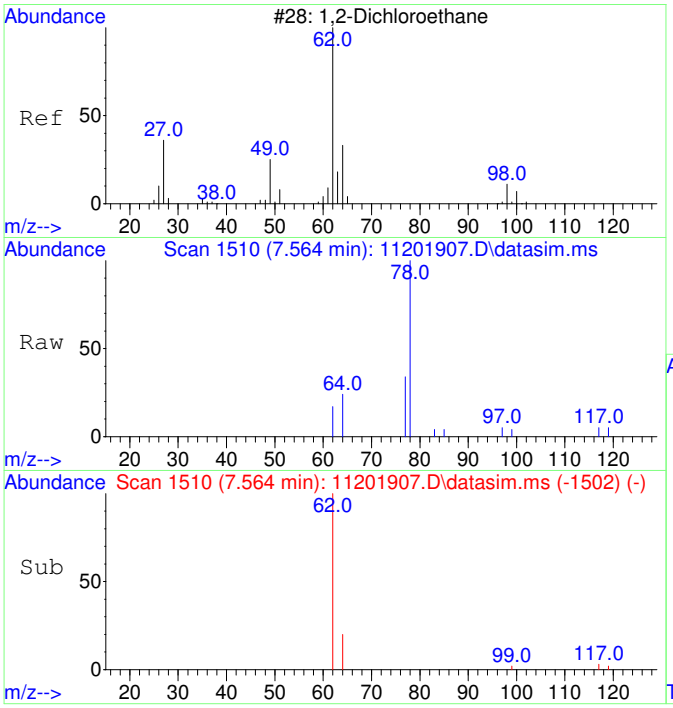


#9
Benzene
Concen: 187.37 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 78 Resp: 1659

Ion	Ratio	Lower	Upper
78	100		
77	32.5	0.0	53.2

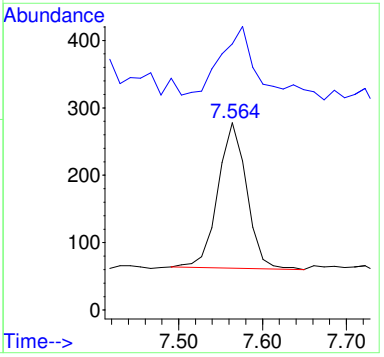


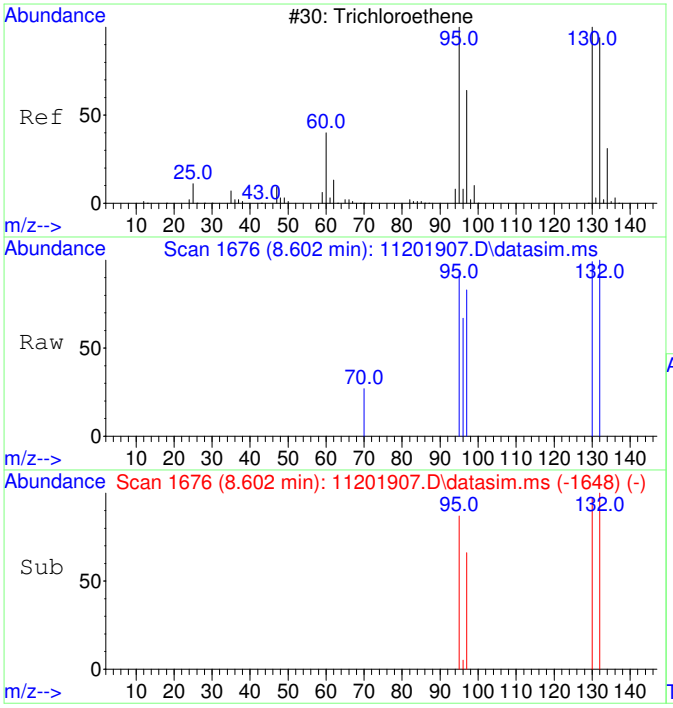


#10
1,2-Dichloroethane
Concen: 175.49 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 62 Resp: 510

Ion	Ratio	Lower	Upper
62	100		
64	56.5	1.9	61.9

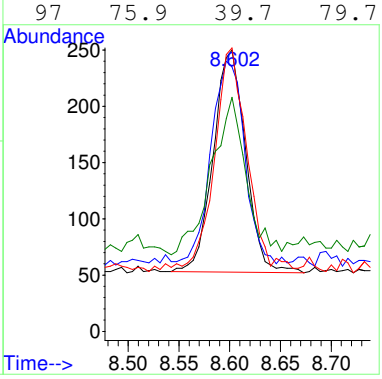


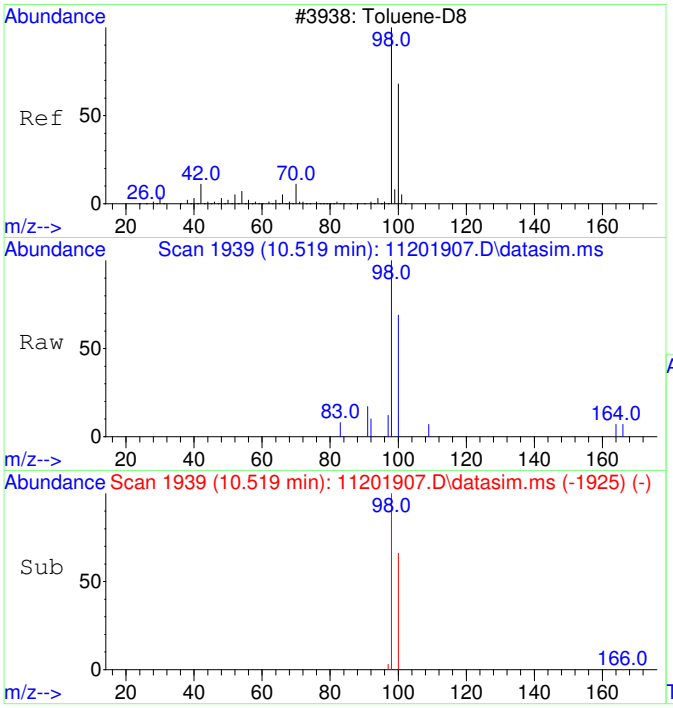


#11
Trichloroethene
Concen: 161.61 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:130 Resp: 439

Ion	Ratio	Lower	Upper
130	100		
95	94.8	61.1	121.1
132	103.6	75.7	115.7
97	75.9	39.7	79.7

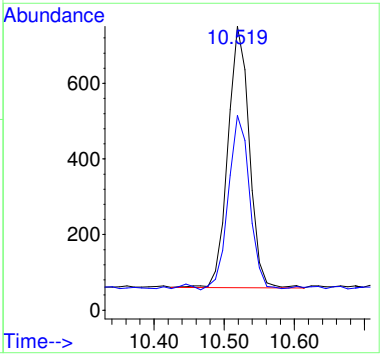


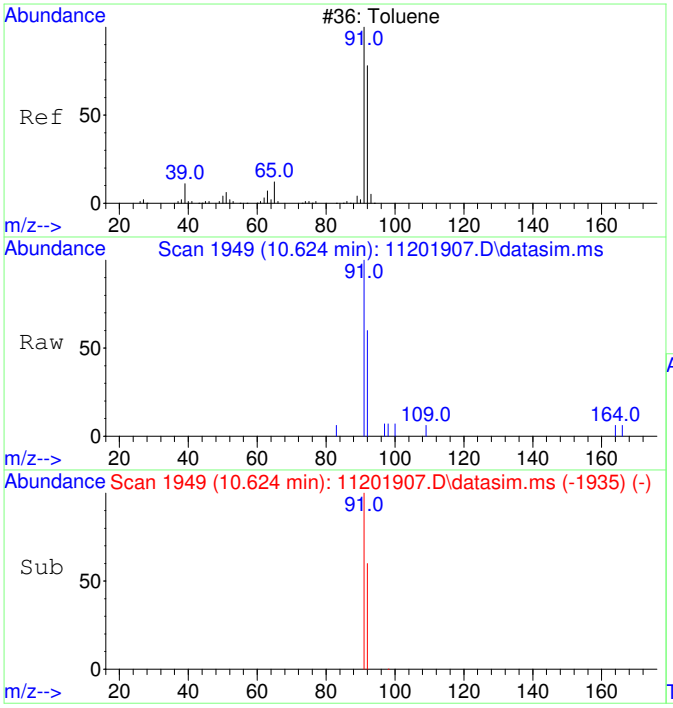


#12
Toluene-d8
Concen: 153.76 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 98 Resp: 1464

Ion	Ratio	Lower	Upper
98	100		
100	66.1	37.1	97.1

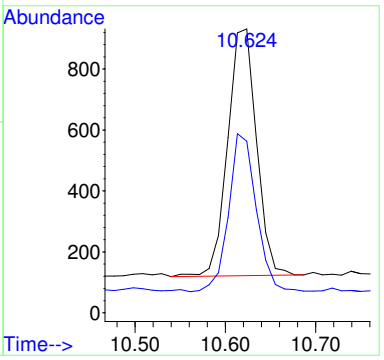


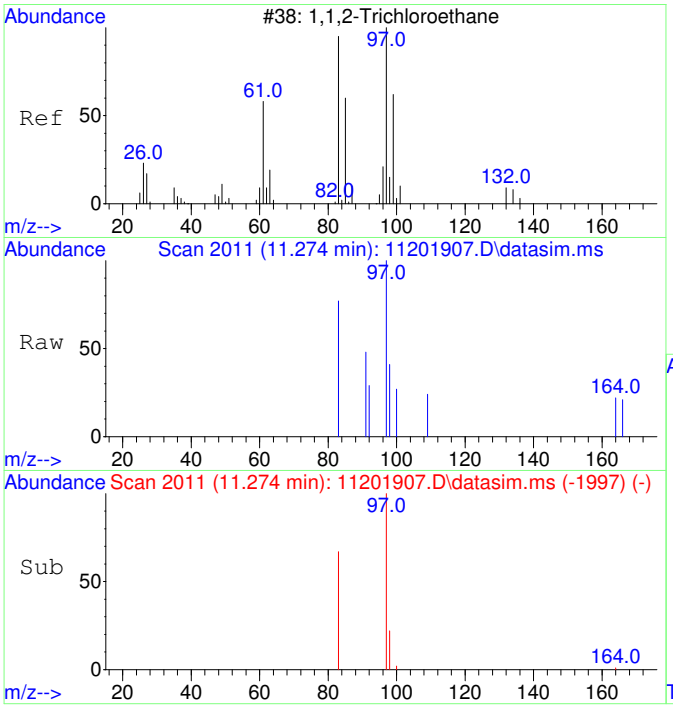


#13
Toluene
Concen: 156.09 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1803

Ion	Ratio	Lower	Upper
91	100		
92	60.6	29.0	89.0

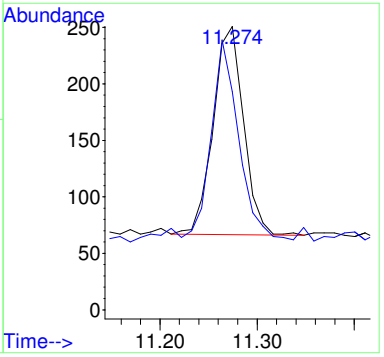


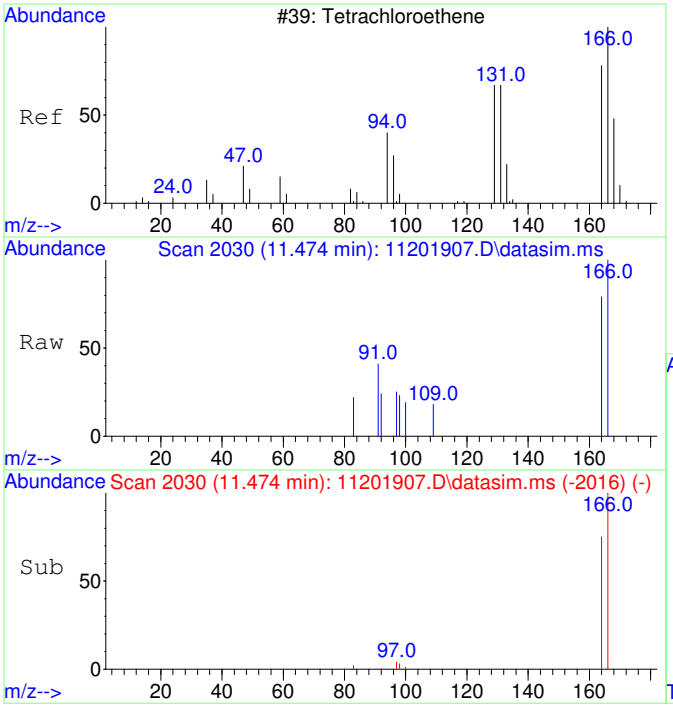


#14
1,1,2-Trichloroethane
Concen: 152.45 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 399

Ion	Ratio	Lower	Upper
97	100		
83	95.2	51.8	111.8

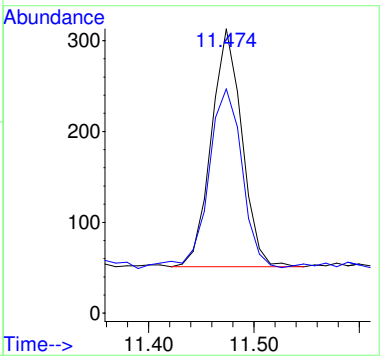


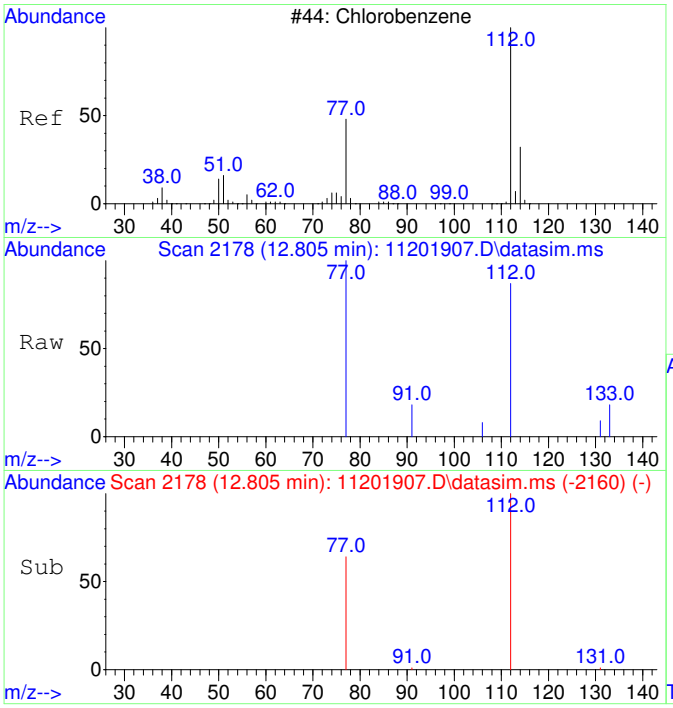


#15
Tetrachloroethene
Concen: 152.04 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:166 Resp: 530

Ion	Ratio	Lower	Upper
166	100		
164	82.8	48.6	108.6

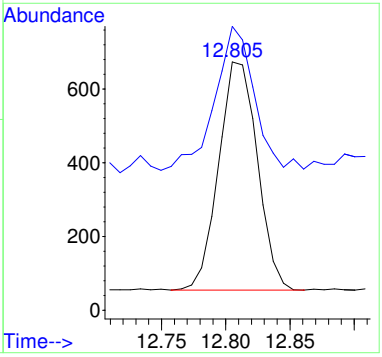


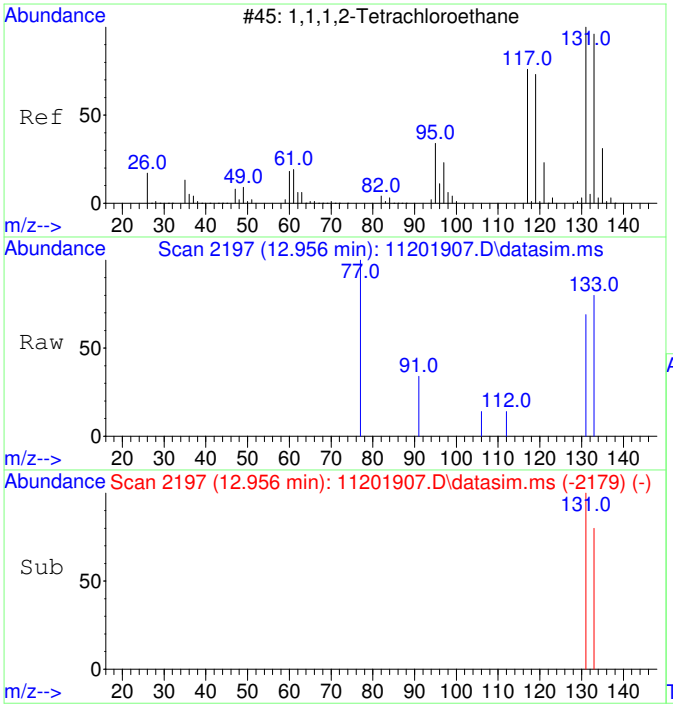


#16
Chlorobenzene
Concen: 146.72 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:112 Resp: 1294

Ion	Ratio	Lower	Upper
112	100		
77	63.2	24.7	84.7

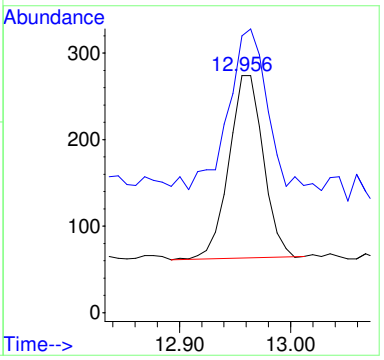


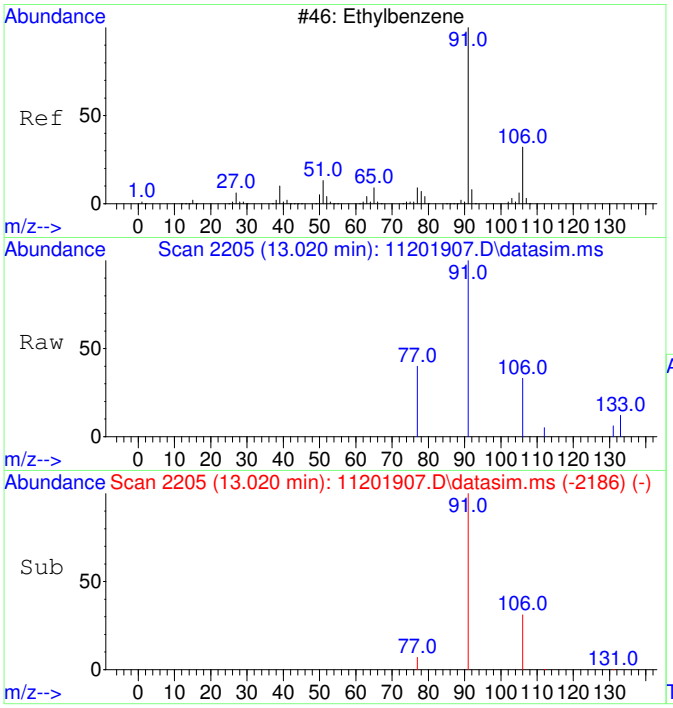


#17
1,1,1,2-Tetrachloroethane
Concen: 147.18 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:131 Resp: 453

Ion	Ratio	Lower	Upper
131	100		
133	107.9	66.6	126.6

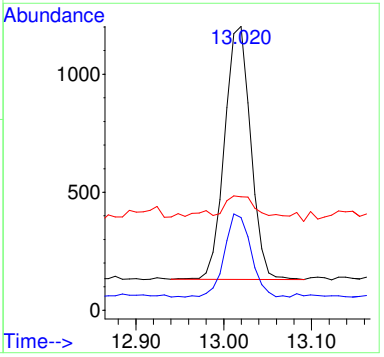


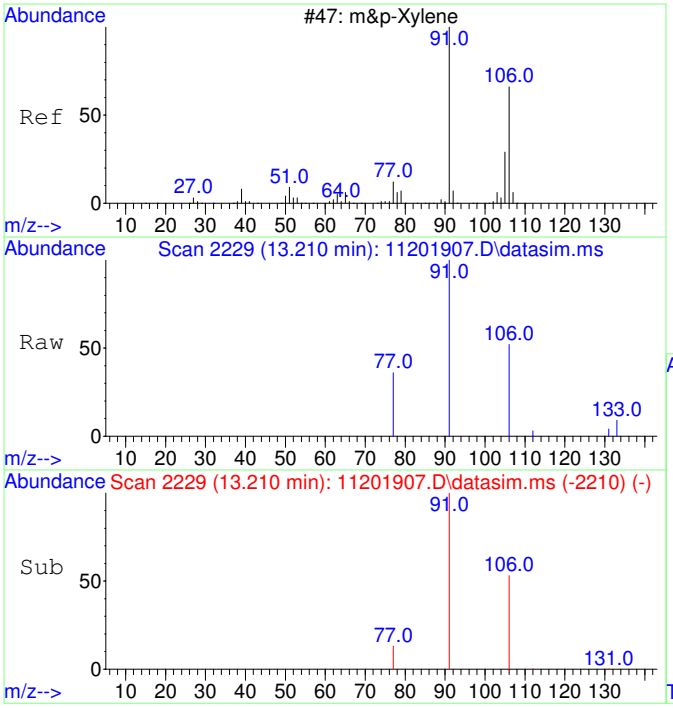


#18
Ethylbenzene
Concen: 154.50 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 2202

Ion	Ratio	Lower	Upper
91	100		
106	33.3	2.6	62.6
77	10.7	0.0	38.2

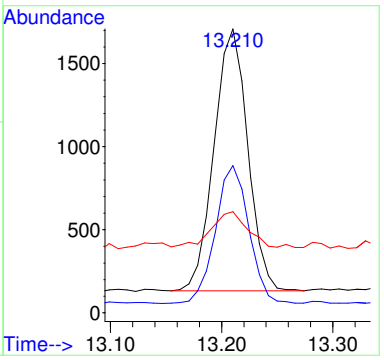


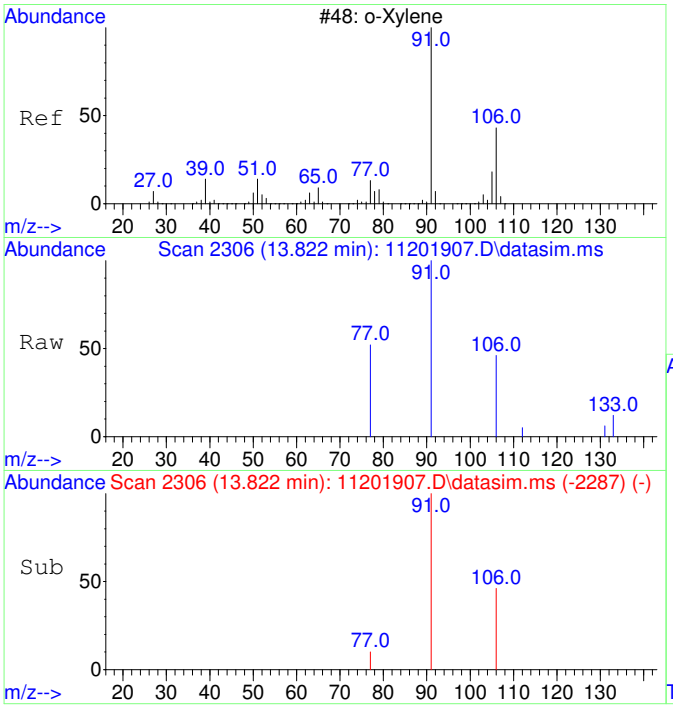


#19
m&p-Xylene
Concen: 305.33 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 3316

Ion	Ratio	Lower	Upper
91	100		
106	52.0	21.4	81.4
77	15.3	0.0	42.6

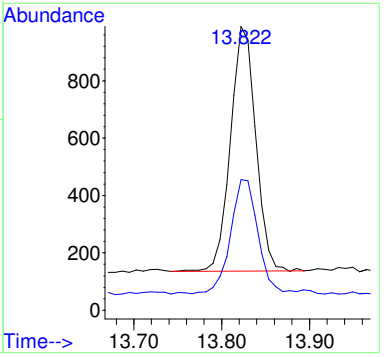


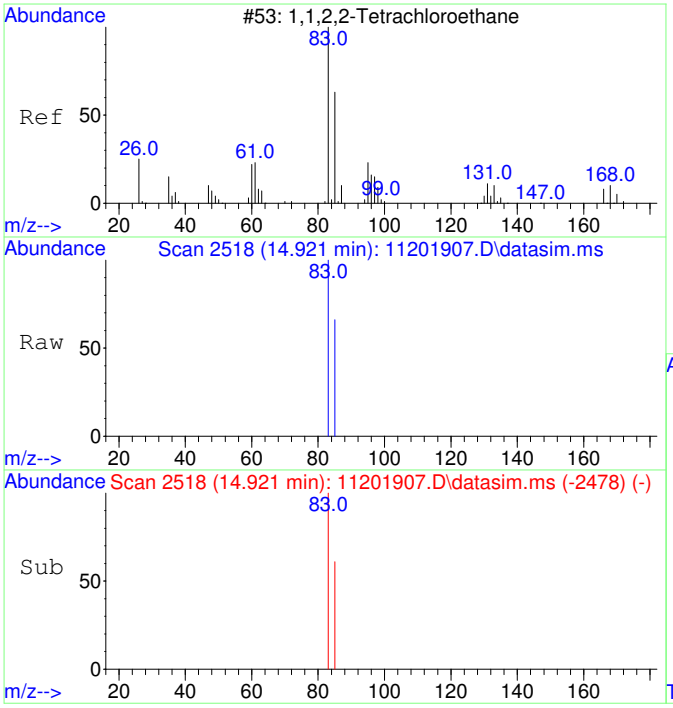


#20
o-Xylene
Concen: 148.05 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1705

Ion	Ratio	Lower	Upper
91	100		
106	50.8	18.5	78.5

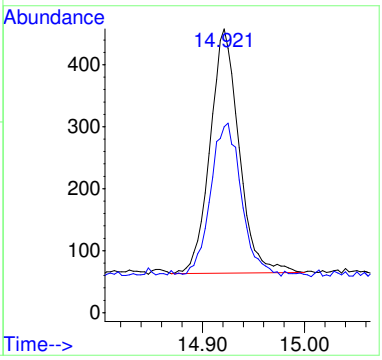


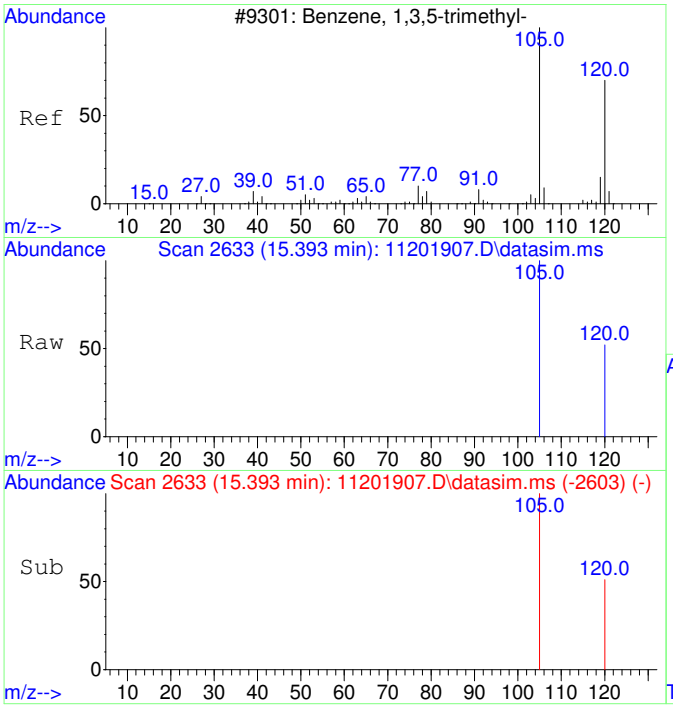


#21
1,1,2,2-Tetrachloroethane
Concen: 149.87 ug/L
RT: 14.921 min Scan# 2518
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 775

Ion	Ratio	Lower	Upper
83	100		
85	66.8	34.6	94.6

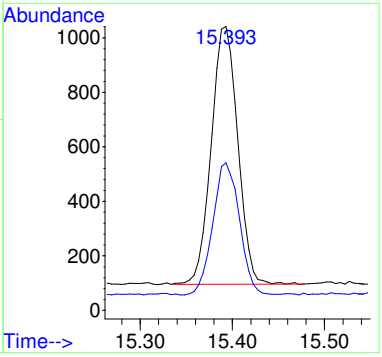


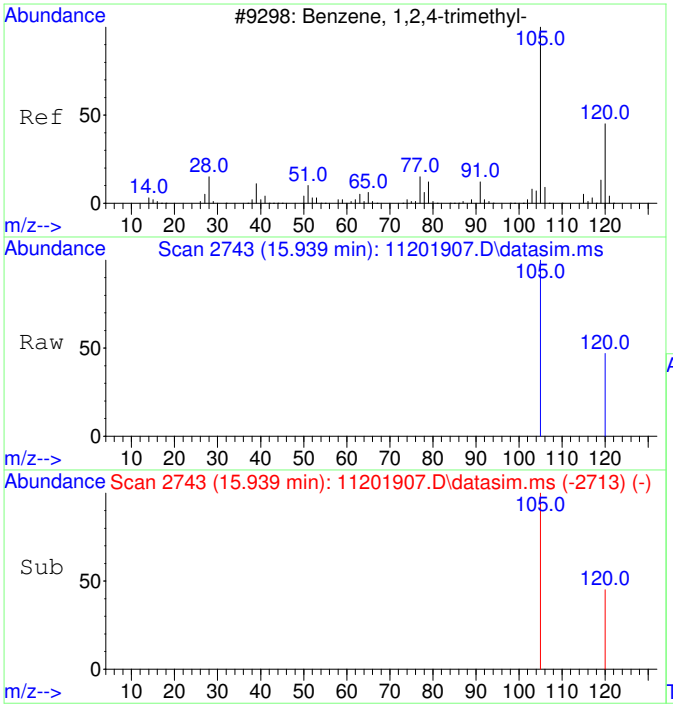


#22
1,3,5-Trimethylbenzene
Concen: 147.67 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1895

Ion	Ratio	Lower	Upper
105	100		
120	51.0	20.9	80.9

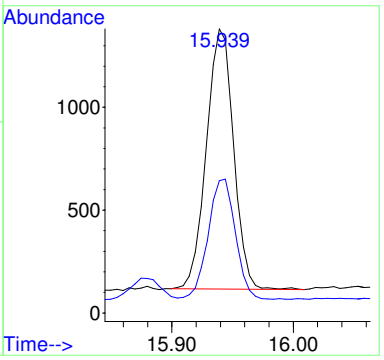


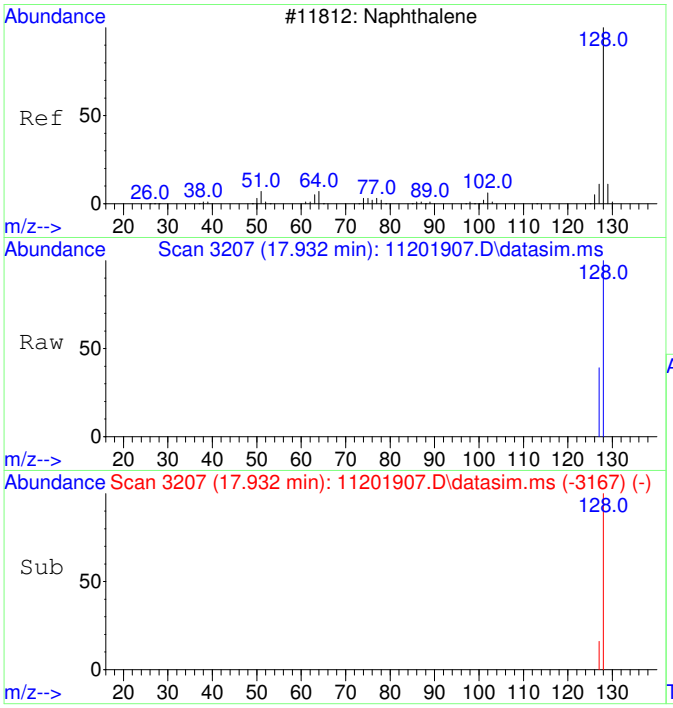


#23
1,2,4-Trimethylbenzene
Concen: 150.13 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1969

Ion	Ratio	Lower	Upper
105	100		
120	45.5	16.6	76.6

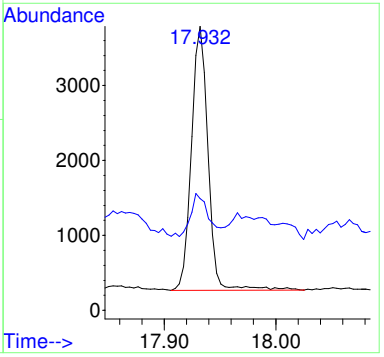


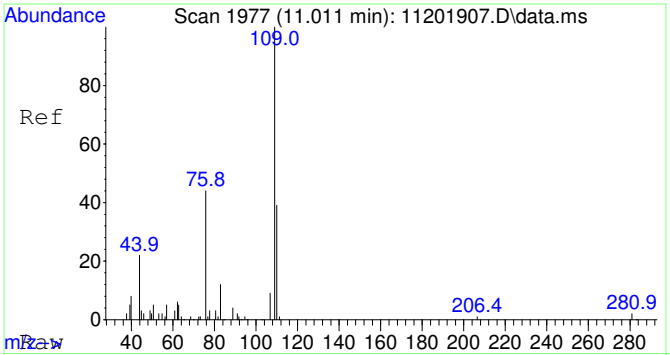


#24
Naphthalene
Concen: 153.88 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:128 Resp: 3646

Ion	Ratio	Lower	Upper
128	100		
127	13.4	0.0	42.5

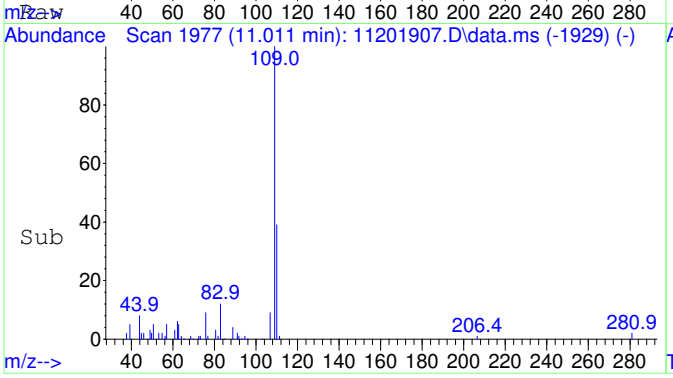


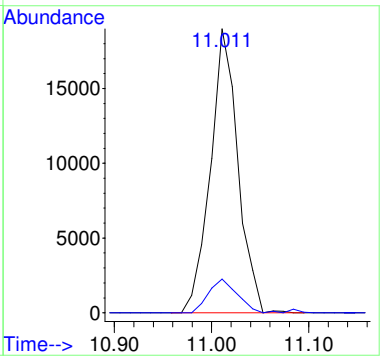


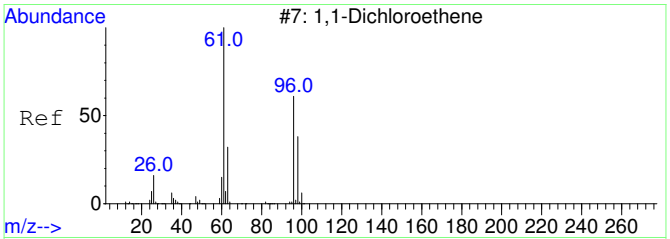
#25
2-Fluorotoluene SCAN
Concen: 5068.43 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

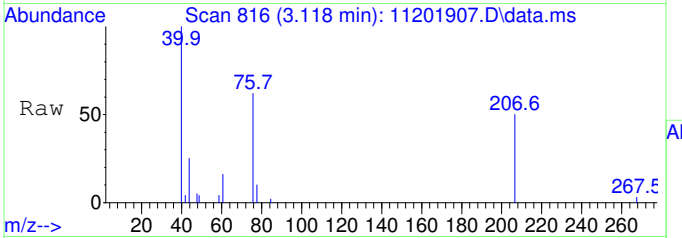
Tgt Ion:109 Resp: 37281

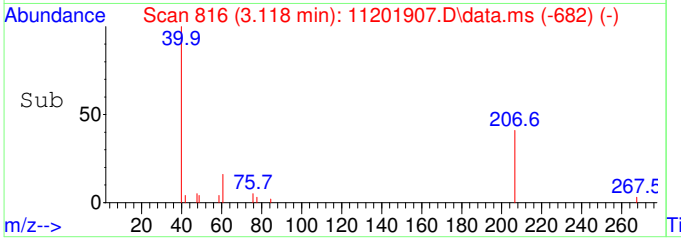
Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	44.5







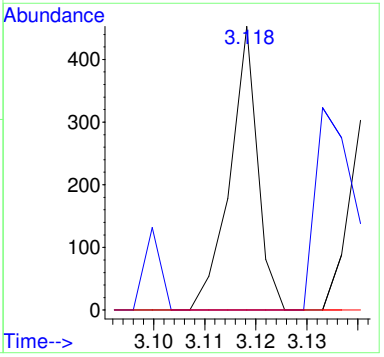


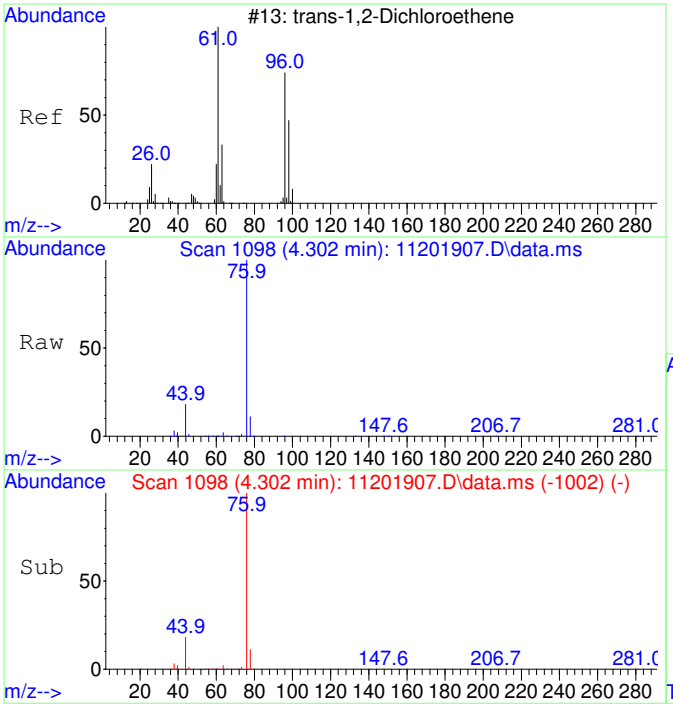


#26
1,1-Dichloroethene SCAN
Concen: 106.09 ug/L
RT: 3.118 min Scan# 816
Delta R.T. -0.004 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 171

Ion	Ratio	Lower	Upper
61	100		
96	0.0	160.0	220.0#
98	0.0	114.2	174.2#

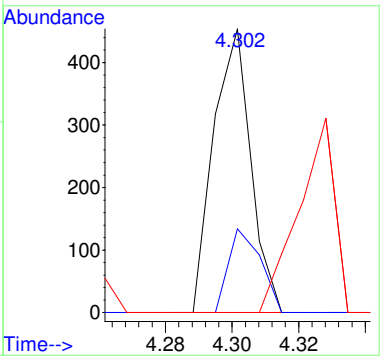


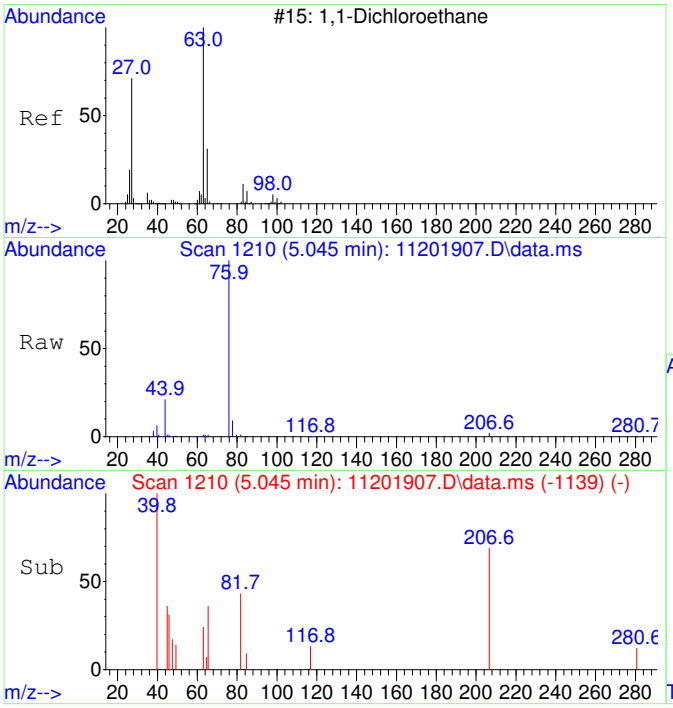


#27
trans-1,2-Dichloroethene SCAN
Concen: 231.15 ug/L
RT: 4.302 min Scan# 1098
Delta R.T. -0.007 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 353

Ion	Ratio	Lower	Upper
61	100		
96	25.5	44.3	104.3#
98	0.0	5.2	65.2#

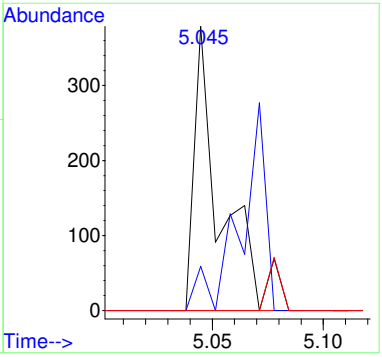


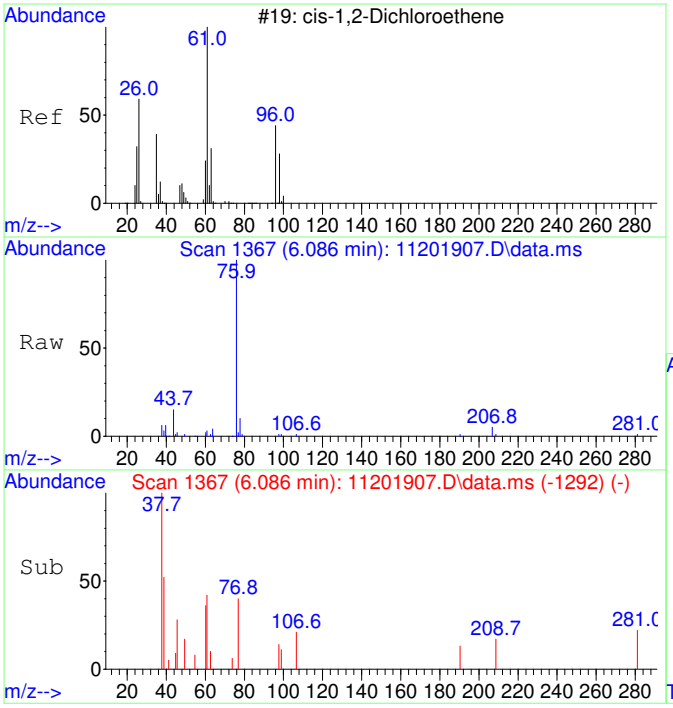


#28
1,1-Dichloroethane SCAN
Concen: 140.47 ug/L
RT: 5.045 min Scan# 1210
Delta R.T. -0.027 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 63 Resp: 321

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	39.8
83	0.0	0.0	33.0

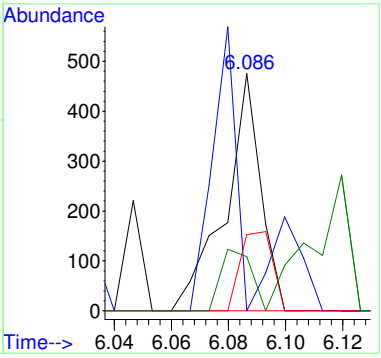


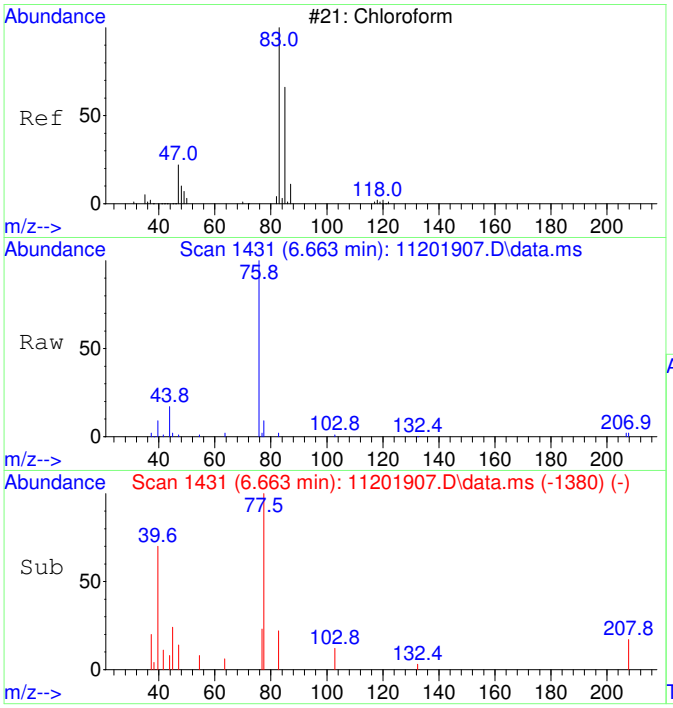


#29
cis-1,2-Dichloroethene SCAN
Concen: 225.08 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 61 Resp: 412

Ion	Ratio	Lower	Upper
61	100		
96	17.5	42.4	102.4#
98	30.1	13.5	73.5
63	0.0	13.5	73.5#

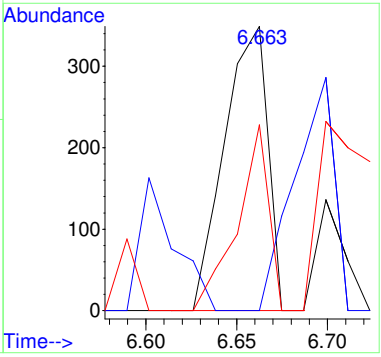


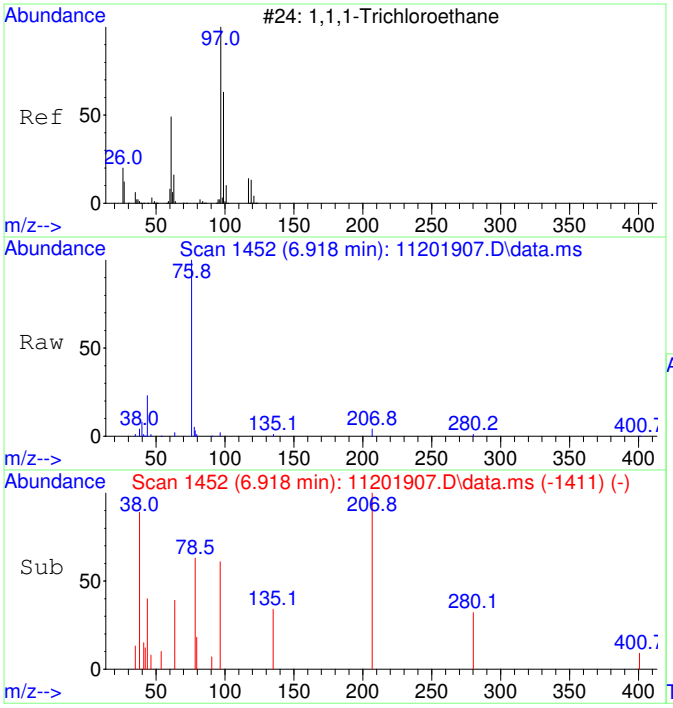


#30
Chloroform SCAN
Concen: 296.24 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. -0.012 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 579

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.6	111.6#
47	47.0	0.0	59.5

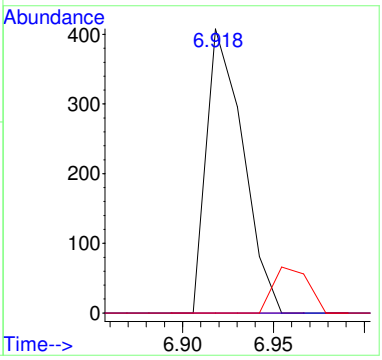


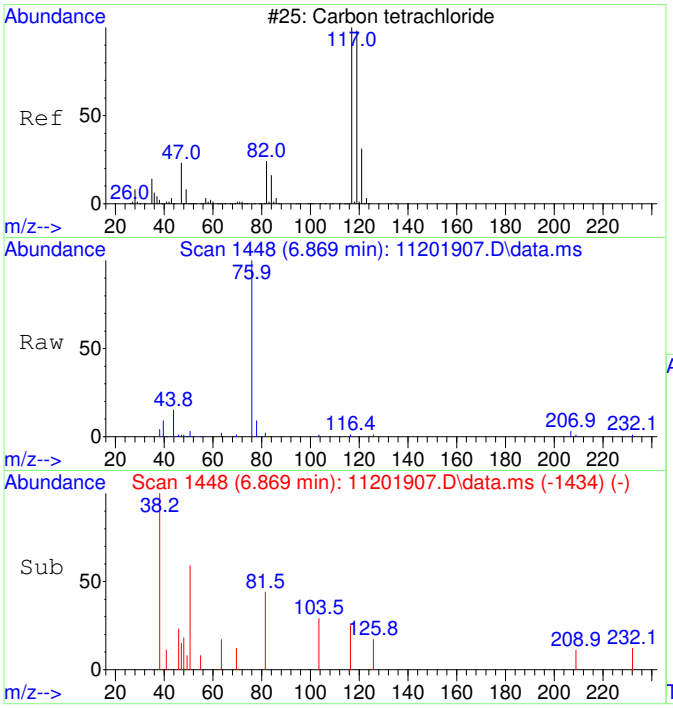


#31
1,1,1-Trichloroethane SCAN
Concen: 255.03 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 573

Ion	Ratio	Lower	Upper
97	100		
99	0.0	39.0	99.0#
61	0.0	12.8	72.8#

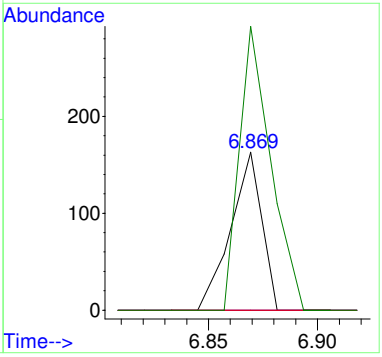


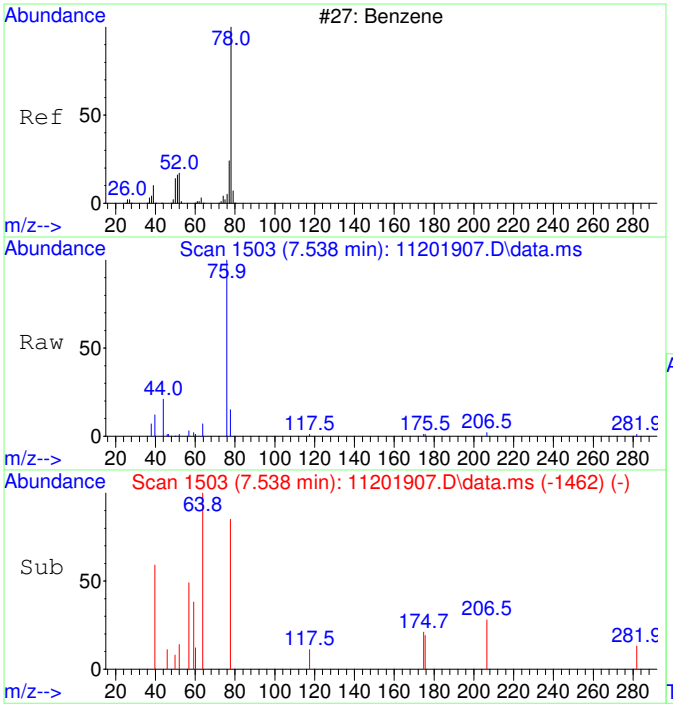


#32
Carbon tetrachloride SCAN
Concen: 83.67 ug/L
RT: 6.869 min Scan# 1448
Delta R.T. -0.329 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:117 Resp: 161

Ion	Ratio	Lower	Upper
117	100		
119	0.0	59.7	119.7#
121	0.0	0.0	59.9
82	182.6	6.4	66.4#

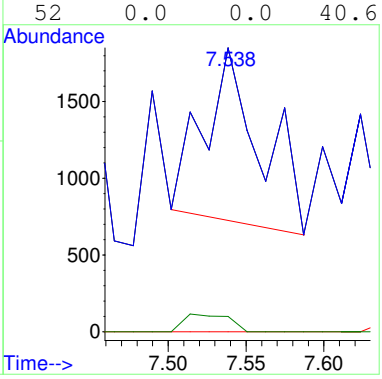


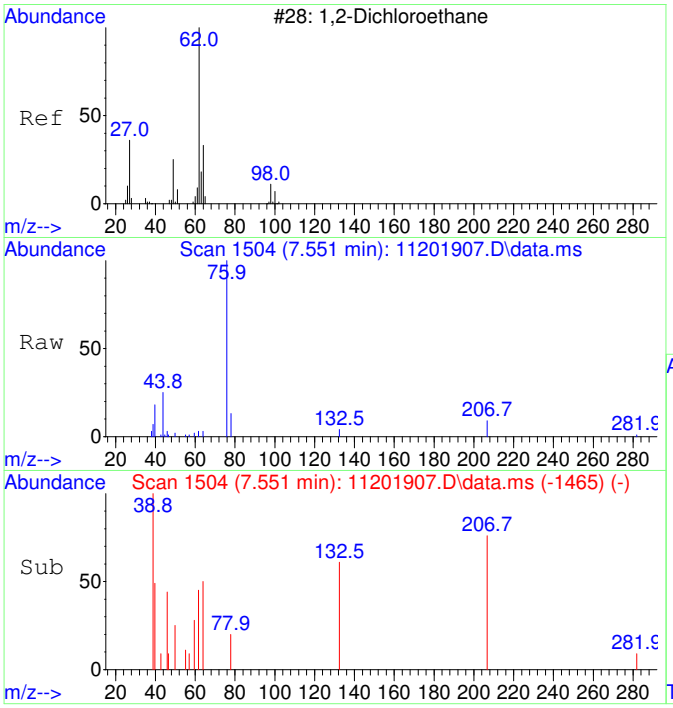


#33
Benzene SCAN
Concen: 477.36 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 78 Resp: 2813

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.1
52	0.0	0.0	40.6

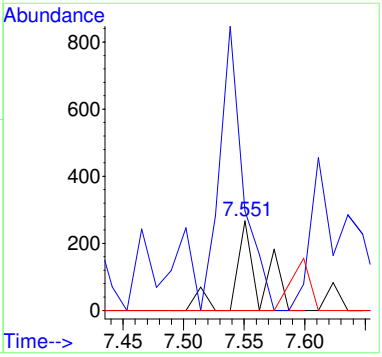


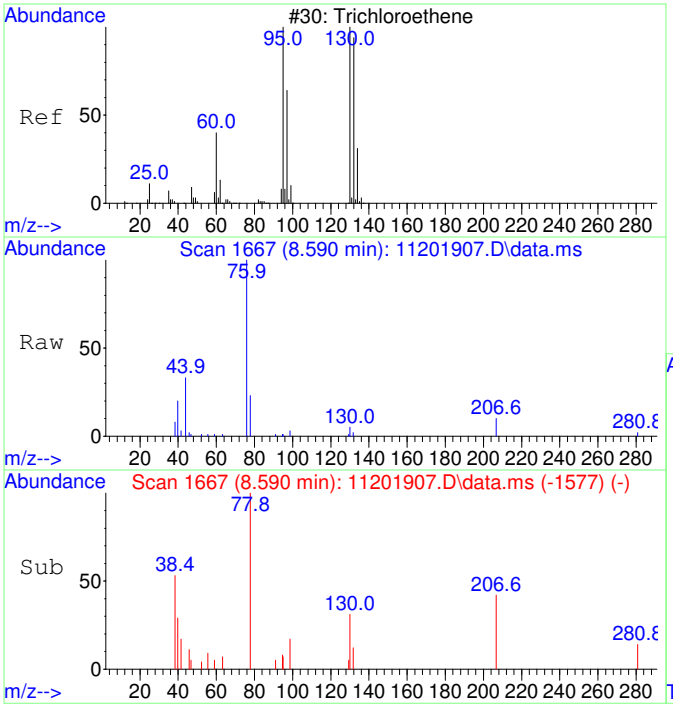


#34
1,2-Dichloroethane SCAN
Concen: 189.08 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. -0.025 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 62 Resp: 380

Ion	Ratio	Lower	Upper
62	100		
64	273.2	22.9	82.9#
49	0.0	0.0	59.6

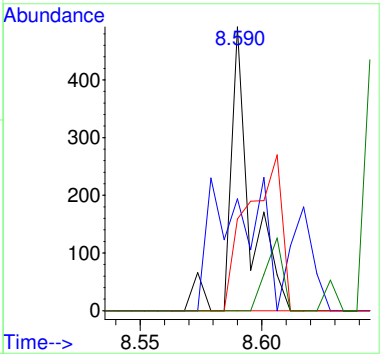


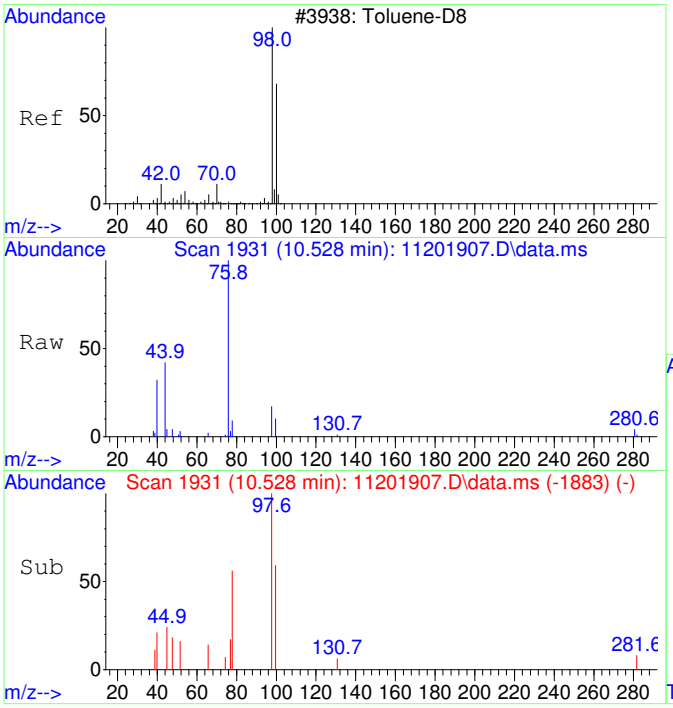


#35
Trichloroethene SCAN
Concen: 186.72 ug/L
RT: 8.590 min Scan# 1667
Delta R.T. -0.011 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:130 Resp: 281

Ion	Ratio	Lower	Upper
130	100		
95	102.8	65.8	125.8
132	94.3	84.8	144.8
97	22.1	39.8	99.8#

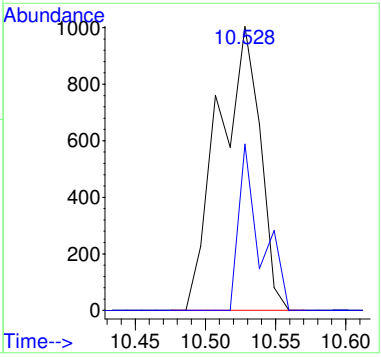


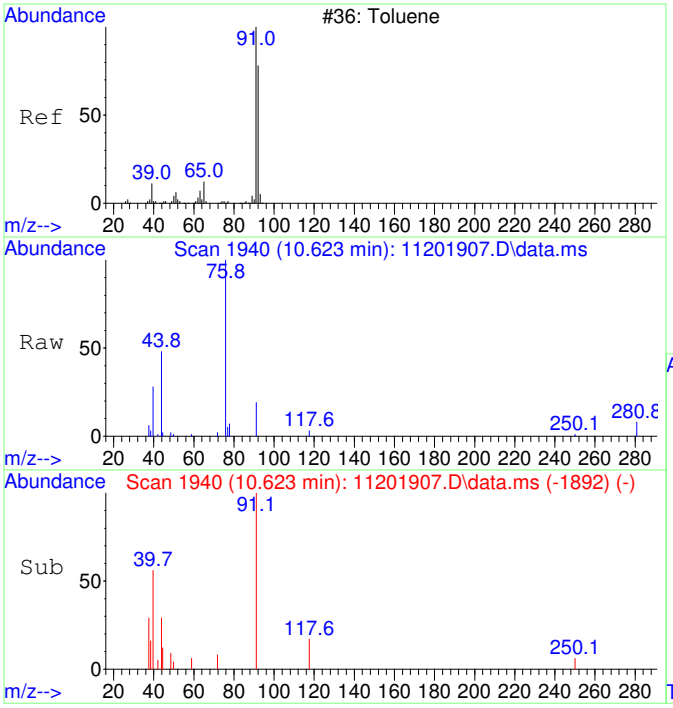


#36
Toluene-d8 SCAN
Concen: 334.16 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 98 Resp: 2084

Ion	Ratio	Lower	Upper
98	100		
100	30.8	38.5	98.5#

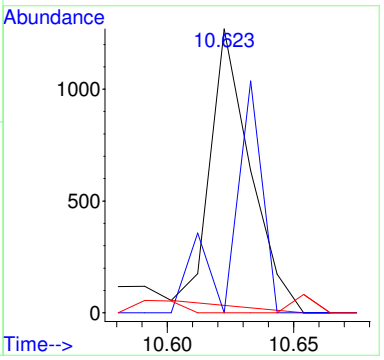


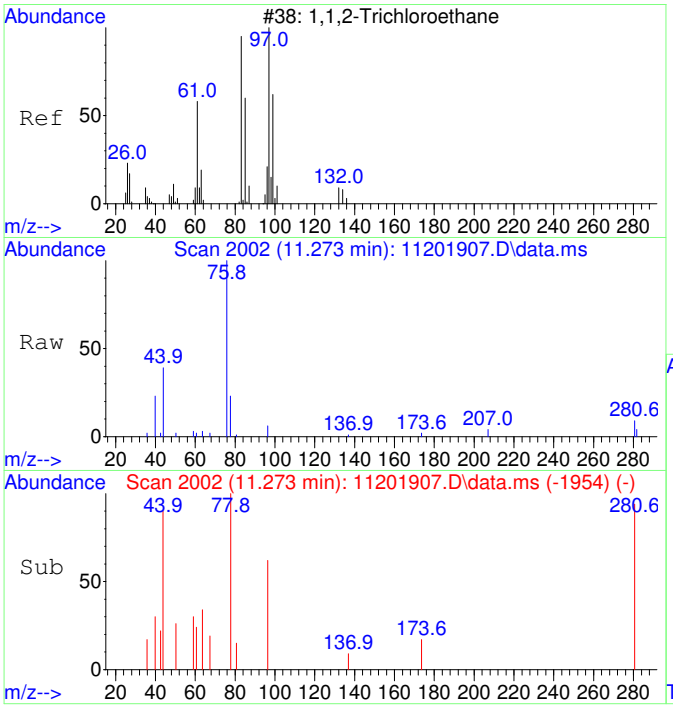


#37
Toluene SCAN
Concen: 183.00 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1333

Ion	Ratio	Lower	Upper
91	100		
92	65.9	26.2	86.2
65	0.0	0.0	43.1

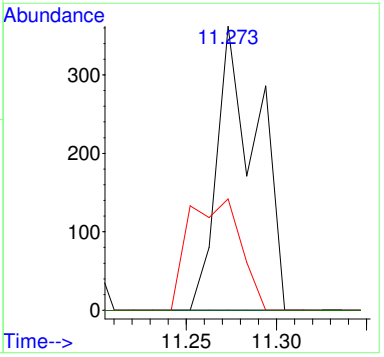


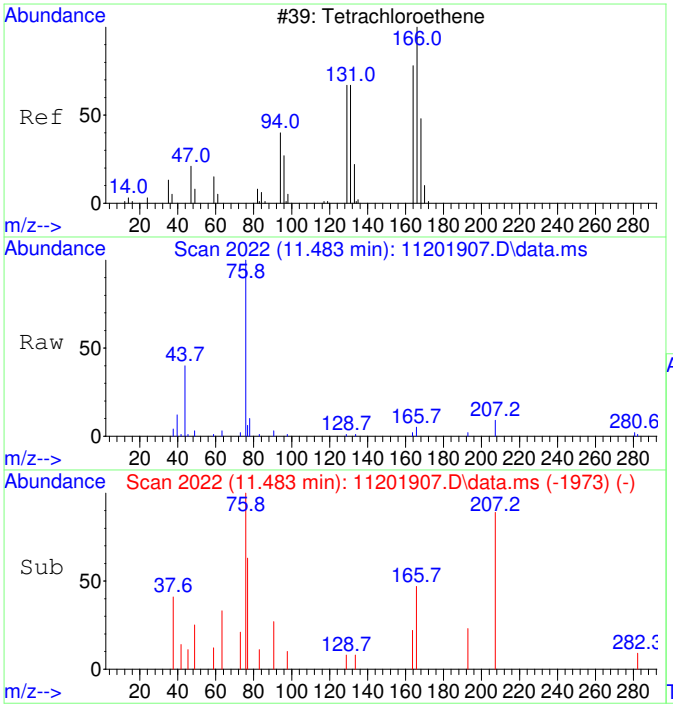


#38
1,1,2-Trichloroethane SCAN
Concen: 357.19 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 97 Resp: 566

Ion	Ratio	Lower	Upper
97	100		
83	0.0	65.0	125.0#
61	50.5	47.6	107.6
99	0.0	58.1	118.1#

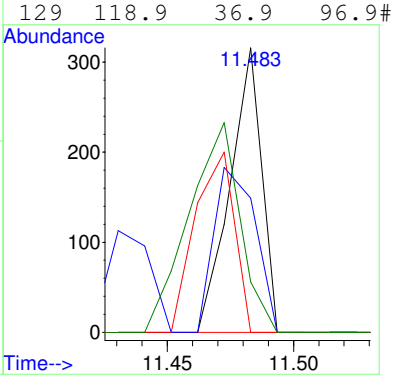


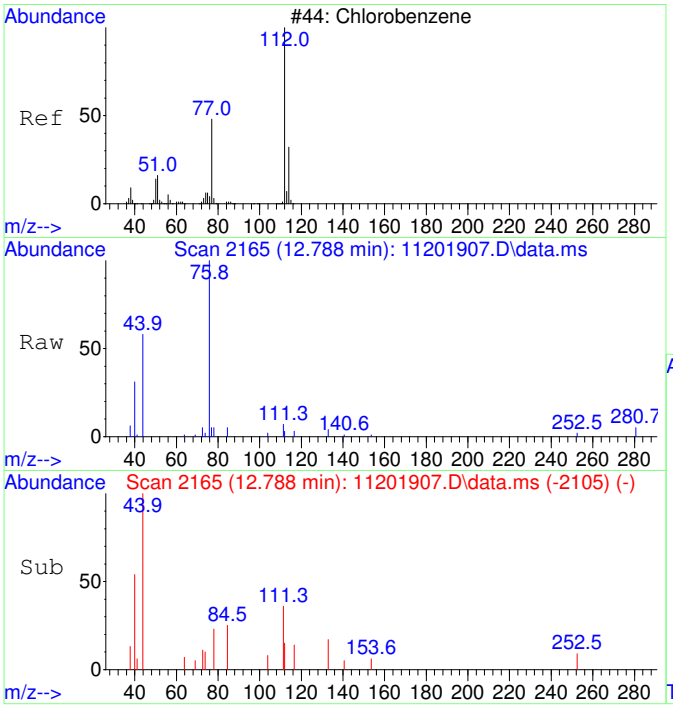


#39
Tetrachloroethene SCAN
Concen: 130.25 ug/L
RT: 11.483 min Scan# 2022
Delta R.T. 0.010 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:166 Resp: 275

Ion	Ratio	Lower	Upper
166	100		
164	76.0	56.8	116.8
131	78.9	19.5	79.5
129	118.9	36.9	96.9#

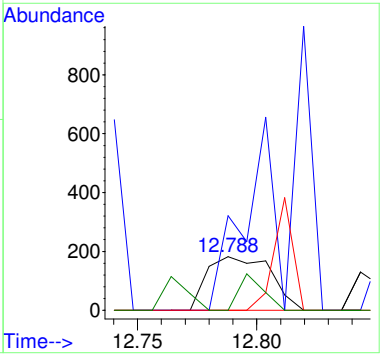


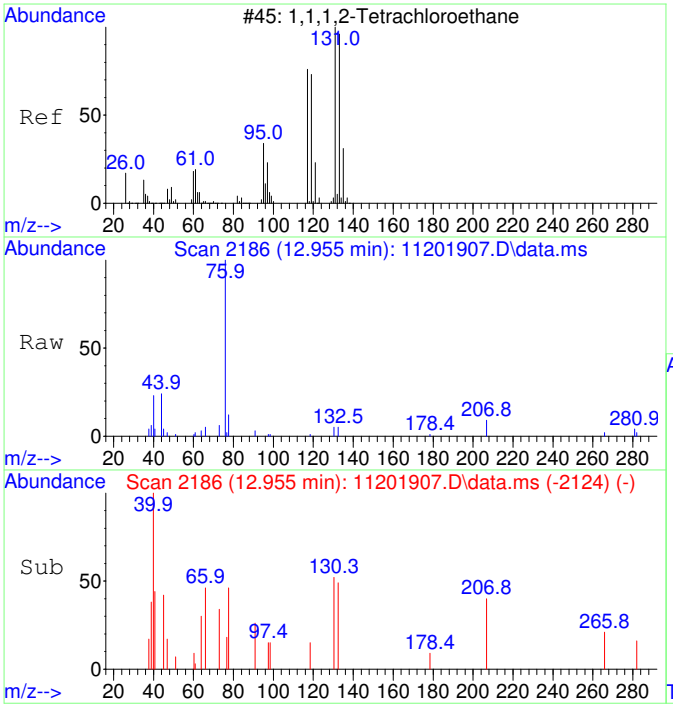


#40
Chlorobenzene SCAN
Concen: 58.41 ug/L
RT: 12.788 min Scan# 2165
Delta R.T. -0.024 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:112 Resp: 339

Ion	Ratio	Lower	Upper
112	100		
77	0.0	32.8	92.8#
114	0.0	0.9	60.9#
51	26.0	0.0	53.2

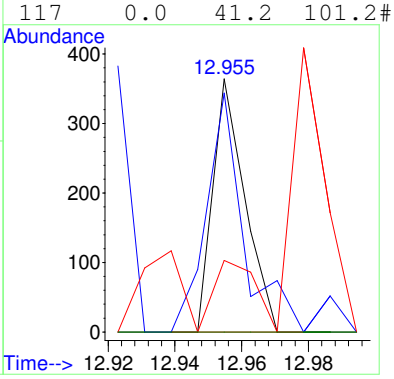


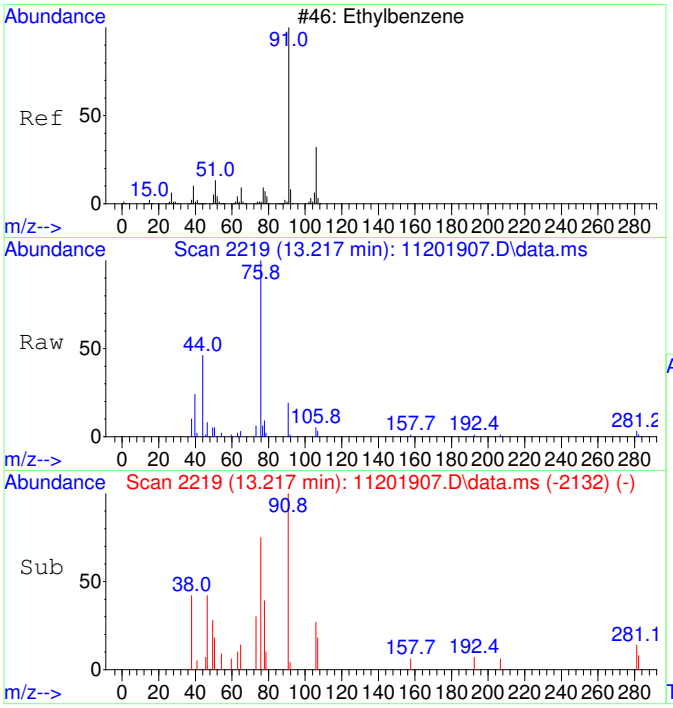


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 129.79 ug/L
RT: 12.955 min Scan# 2186
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:131 Resp: 243

Ion	Ratio	Lower	Upper
131	100		
133	119.8	63.9	123.9
119	41.2	32.6	92.6
117	0.0	41.2	101.2#

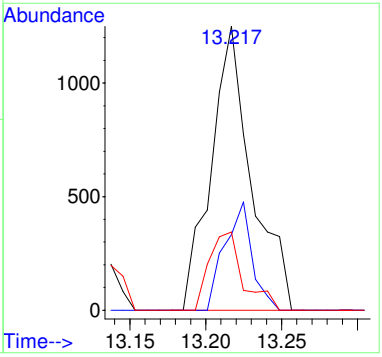


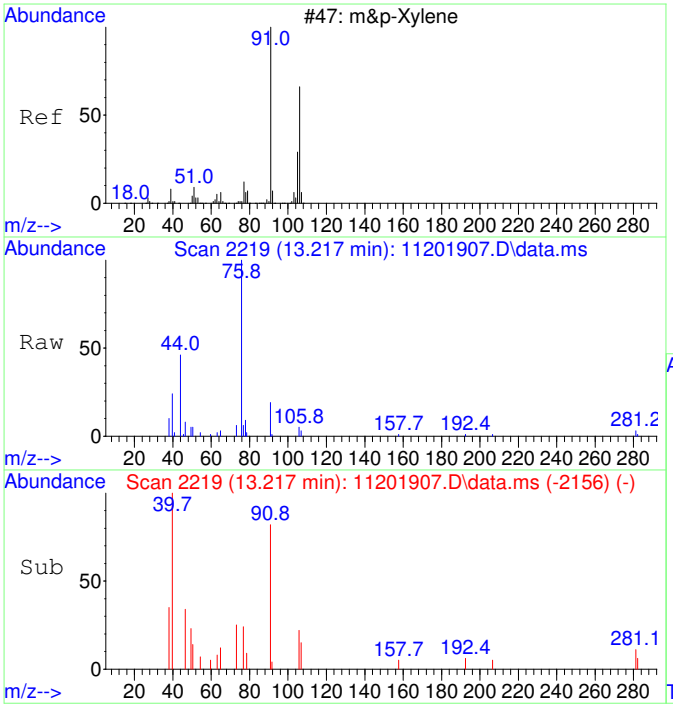


#42
Ethylbenzene SCAN
Concen: 252.40 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.190 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 2323

Ion	Ratio	Lower	Upper
91	100		
106	25.8	1.2	61.2
51	22.9	0.0	38.0

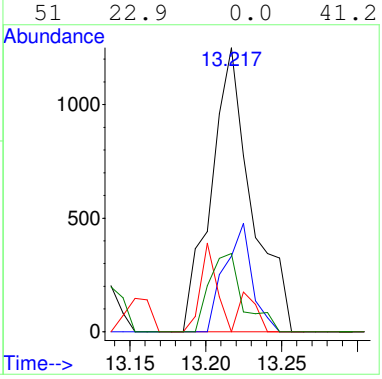


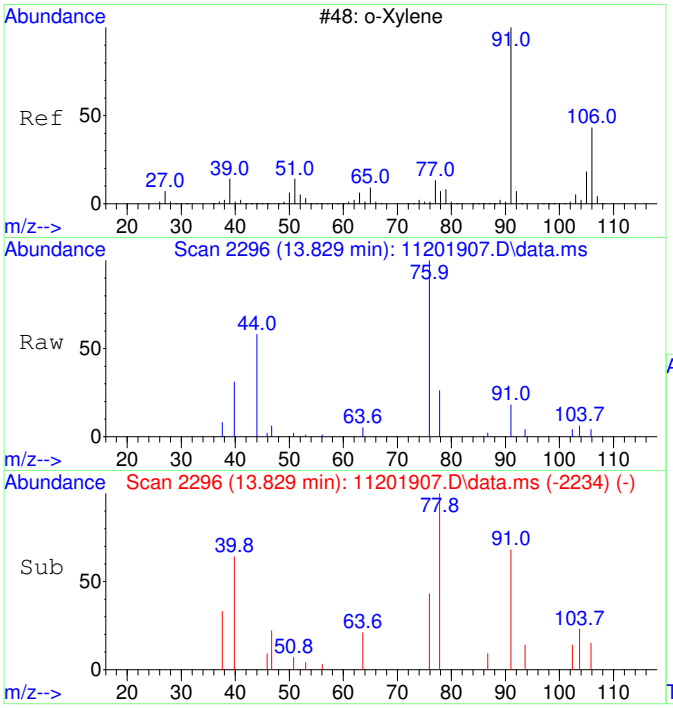


#43
m&p-Xylene SCAN
Concen: 168.31 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 2323

Ion	Ratio	Lower	Upper
91	100		
106	25.8	18.8	78.8
105	6.1	0.0	52.3
51	22.9	0.0	41.2

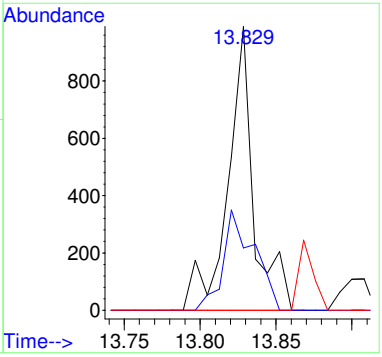


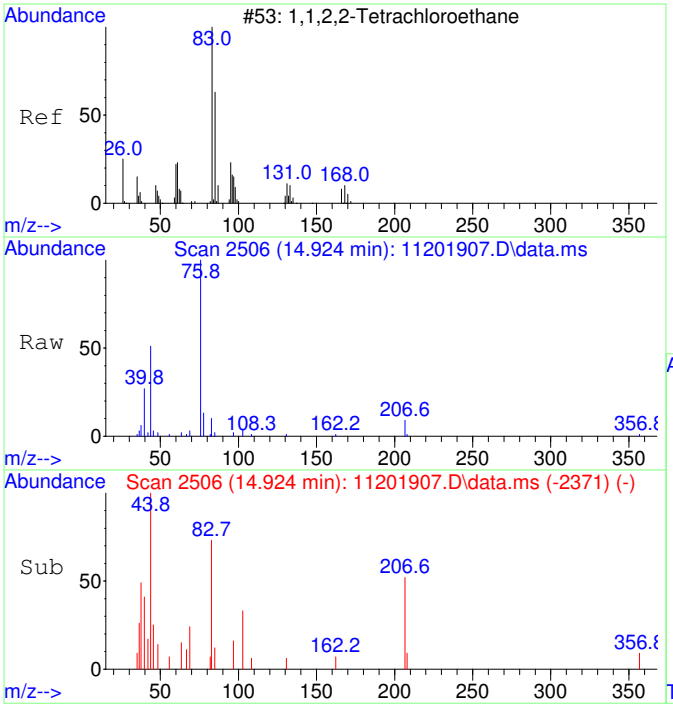


#44
o-Xylene SCAN
Concen: 149.28 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.008 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 91 Resp: 1168

Ion	Ratio	Lower	Upper
91	100		
106	42.6	16.9	76.9
105	0.0	0.2	60.2#

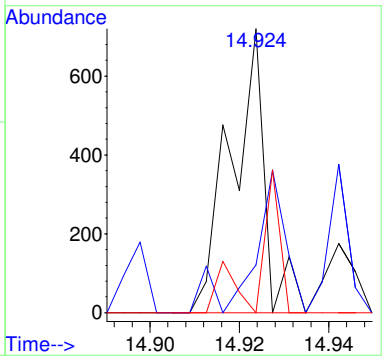


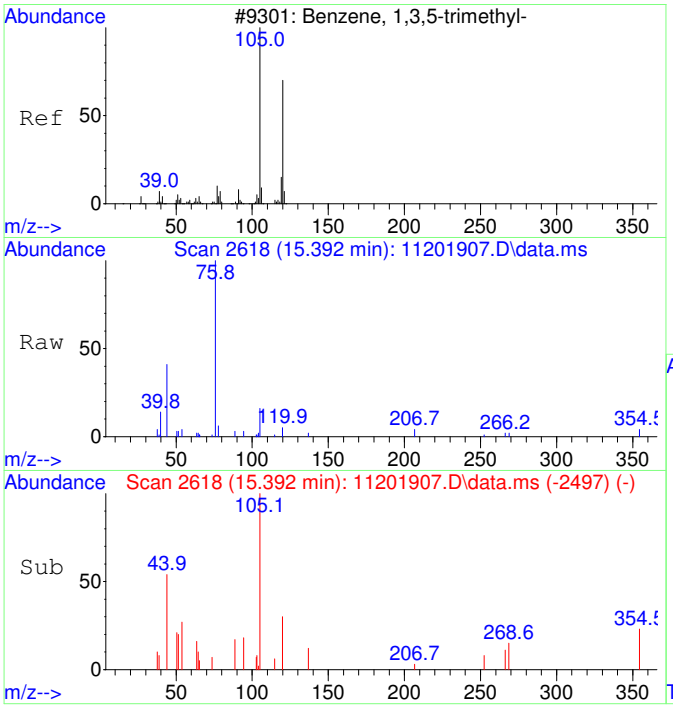


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 108.86 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion: 83 Resp: 384

Ion	Ratio	Lower	Upper
83	100		
85	40.1	34.8	94.8
95	31.5	0.0	48.0

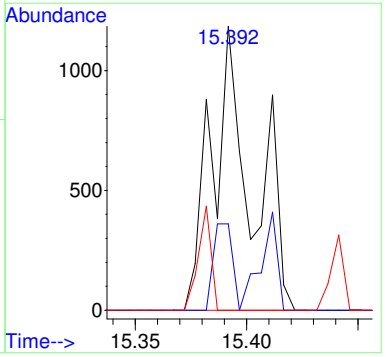


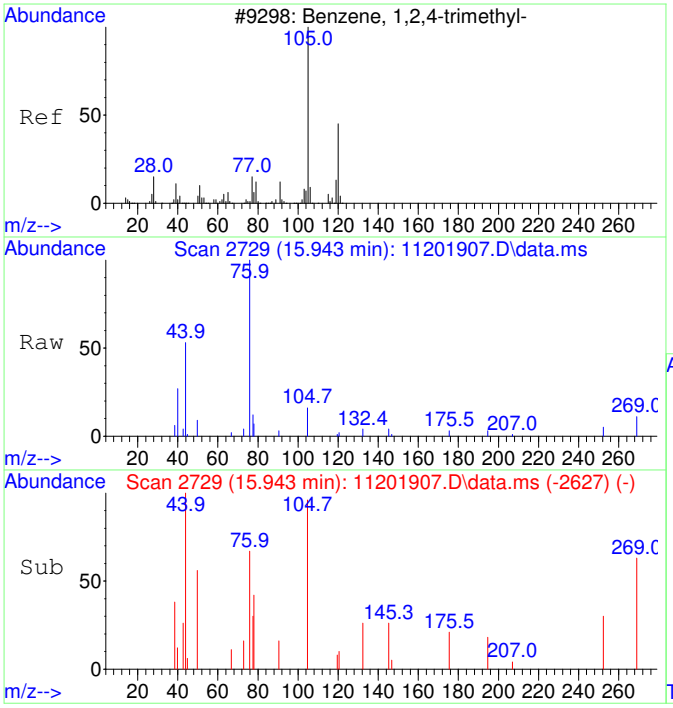


#46
1,3,5-Trimethylbenzene SCAN
Concen: 180.52 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1476

Ion	Ratio	Lower	Upper
105	100		
120	14.5	15.2	75.2#
119	11.7	0.0	45.5

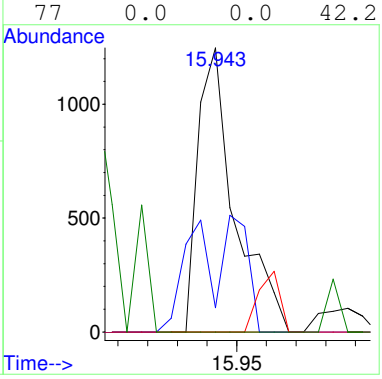


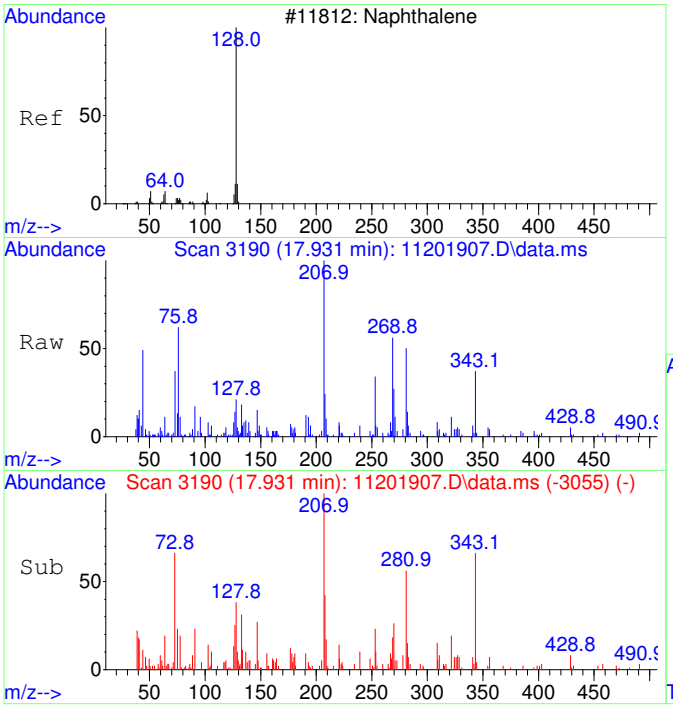


#47
1,2,4-Trimethylbenzene SCAN
Concen: 130.97 ug/L
RT: 15.943 min Scan# 2729
Delta R.T. 0.005 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:105 Resp: 1087

Ion	Ratio	Lower	Upper
105	100		
120	22.4	19.0	79.0
119	12.3	0.0	40.2
77	0.0	0.0	42.2

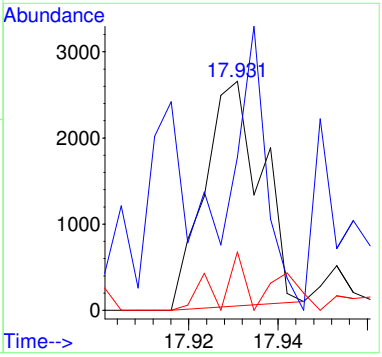




#48
Naphthalene SCAN
Concen: 173.08 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 11201907.D
Acq: 20 Nov 2019 15:34

Tgt Ion:128 Resp: 2321

Ion	Ratio	Lower	Upper
128	100		
127	44.3	0.0	45.2
129	6.5	0.0	41.5



S19K083-CAL6

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201908.D
Acq On : 20 Nov 2019 15:58
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL6
Misc : 1930060 0.5 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 06:22:26 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

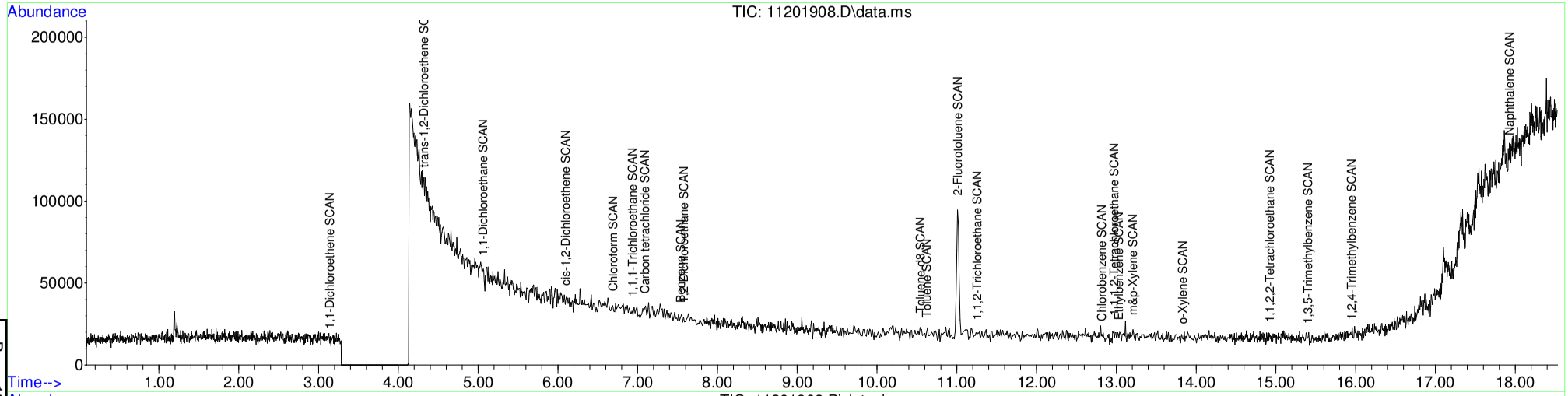
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	107392	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	901	52.24 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.04%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.120	61	619	134.17 ug/L	67
3] trans-1,2-Dichloroethene	4.310	61	294	62.38 ug/L	95
4] 1,1-Dichloroethane	5.066	63	388	64.76 ug/L	93
5] cis-1,2-Dichloroethene	6.094	61	332	60.26 ug/L	95
6] Chloroform	6.664	83	381	59.87 ug/L	85
7] 1,1,1-Trichloroethane	6.919	97	363	56.92 ug/L	86
8] Carbon tetrachloride	7.199	117	338	55.85 ug/L	88
9] Benzene	7.528	78	1048	65.34 ug/L	48
10] 1,2-Dichloroethane	7.564	62	296	56.23 ug/L #	43
11] Trichloroethene	8.602	130	270	54.87 ug/L #	83
13] Toluene	10.613	91	1128	53.91 ug/L	99
14] 1,1,2-Trichloroethane	11.275	97	266	56.11 ug/L	98
15] Tetrachloroethene	11.474	166	319	50.52 ug/L	100
16] Chlorobenzene	12.805	112	789	49.39 ug/L	80
17] 1,1,1,2-Tetrachloroethane	12.956	131	299	53.63 ug/L	97
18] Ethylbenzene	13.012	91	1251	48.46 ug/L	87
19] m&p-Xylene	13.210	91	1985	100.90 ug/L	96
20] o-Xylene	13.822	91	1011	48.46 ug/L	90
21] 1,1,2,2-Tetrachloroethane	14.921	83	440	46.97 ug/L	93
22] 1,3,5-Trimethylbenzene	15.393	105	1093	47.02 ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	1115	46.93 ug/L	100
24] Naphthalene	17.932	128	2114	49.26 ug/L	93
25) 2-Fluorotoluene SCAN	11.011	109	68137	5113.95 ug/L	99
26) 1,1-Dichloroethene SCAN	3.141	61	177	60.62 ug/L #	1
27) trans-1,2-Dichloroethe...	4.315	61	276	99.78 ug/L	92
28) 1,1-Dichloroethane SCAN	5.058	63	289	69.82 ug/L #	70
29) cis-1,2-Dichloroethene...	6.100	61	275	82.94 ug/L #	41
30) Chloroform SCAN	6.687	83	231	65.25 ug/L #	2
31) 1,1,1-Trichloroethane ...	6.930	97	220	54.06 ug/L #	22
32) Carbon tetrachloride SCAN	7.088	117	344	98.70 ug/L #	20
33) Benzene SCAN	7.538	78	1844	172.75 ug/L #	92
34) 1,2-Dichloroethane SCAN	7.575	62	669	183.77 ug/L #	1
36) Toluene-d8 SCAN	10.539	98	1207	106.84 ug/L #	16
37) Toluene SCAN	10.623	91	1567	118.76 ug/L #	65
38) 1,1,2-Trichloroethane ...	11.252	97	91	31.70 ug/L #	1
40) Chlorobenzene SCAN	12.812	112	619	58.88 ug/L #	66
41) 1,1,1,2-Tetrachloroeth...	12.971	131	204	60.15 ug/L #	31
42) Ethylbenzene SCAN	13.026	91	1133	67.96 ug/L #	53
43) m&p-Xylene SCAN	13.209	91	1204	48.16 ug/L #	79
44) o-Xylene SCAN	13.829	91	769	54.26 ug/L #	63
45) 1,1,2,2-Tetrachloroeth...	14.920	83	294	46.01 ug/L	73
46) 1,3,5-Trimethylbenzene...	15.397	105	422	28.49 ug/L #	32
47) 1,2,4-Trimethylbenzene...	15.948	105	690	45.90 ug/L #	45
48) Naphthalene SCAN	17.931	128	1765	72.66 ug/L	83

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201908.D
Acq On : 20 Nov 2019 15:58
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL6
Misc : 1930060 0.5 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 06:22:26 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



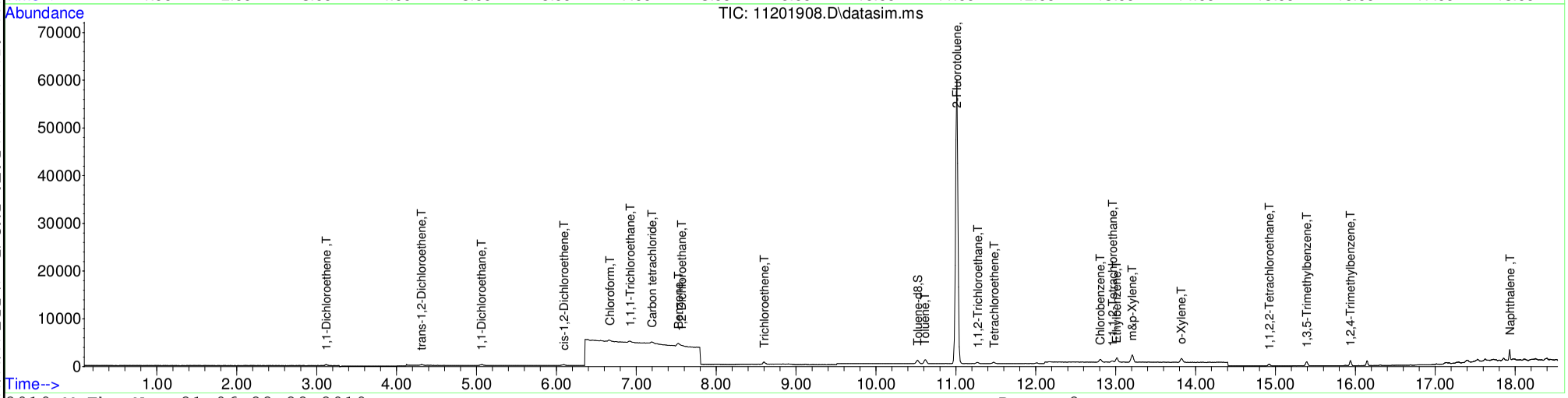
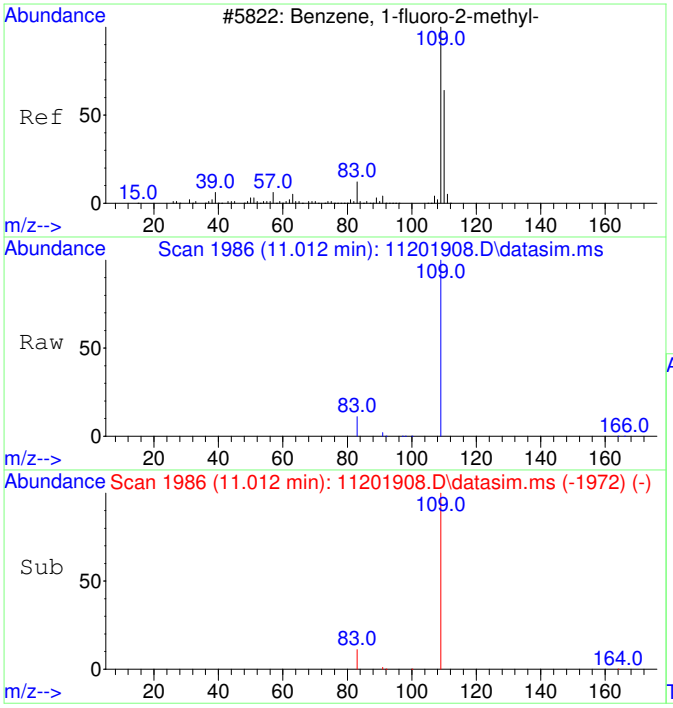


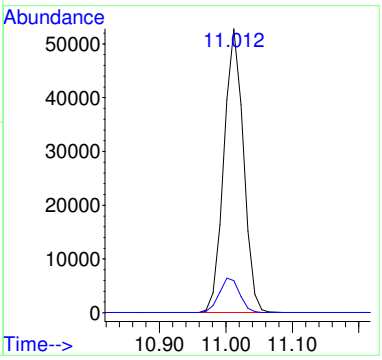
Table of Contents

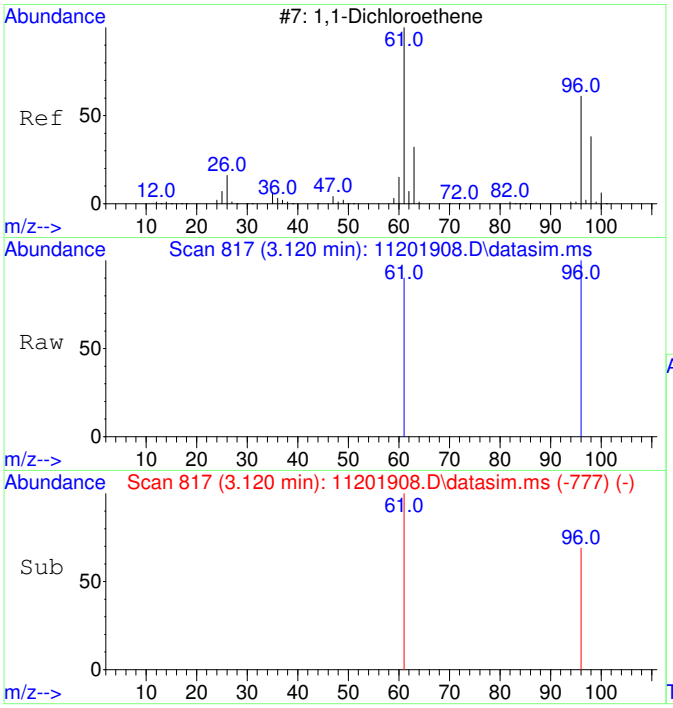


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:109 Resp: 107392

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

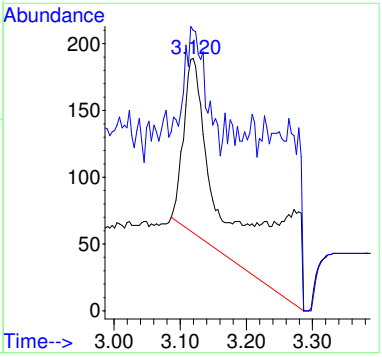




#2
1,1-Dichloroethene
Concen: 134.17 ug/L
RT: 3.120 min Scan# 817
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 619

Ion	Ratio	Lower	Upper
61	100		
96	36.7	32.4	92.4



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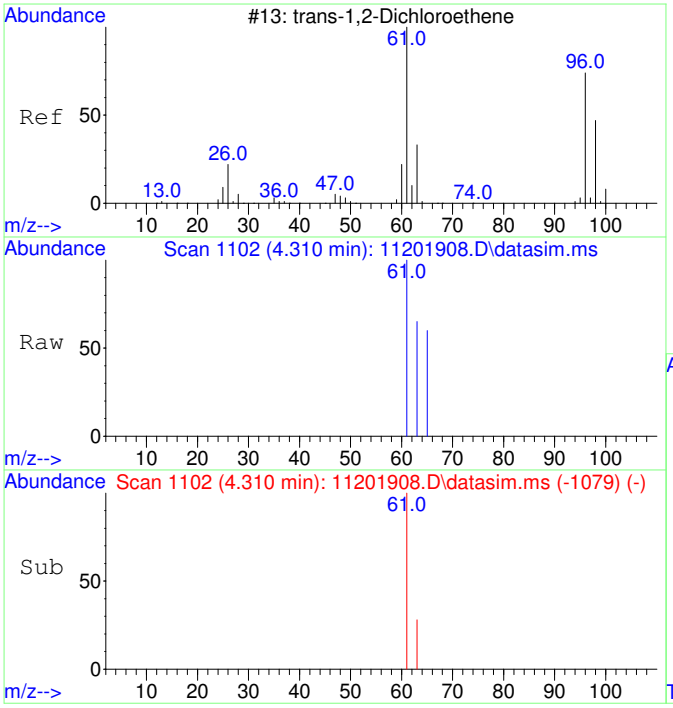
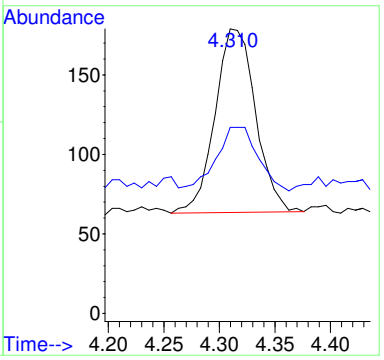
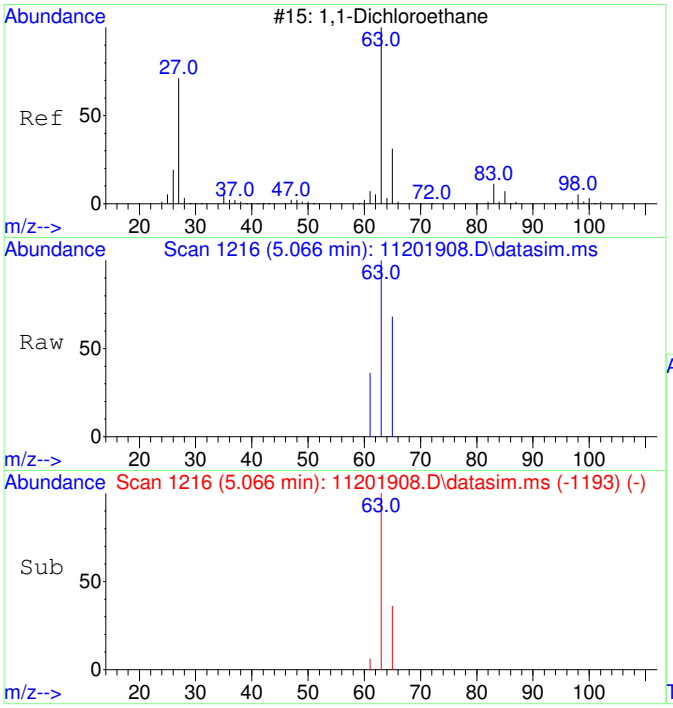


#3
trans-1,2-Dichloroethene
Concen: 62.38 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 294

Ion	Ratio	Lower	Upper
61	100		
63	35.4	2.6	62.6

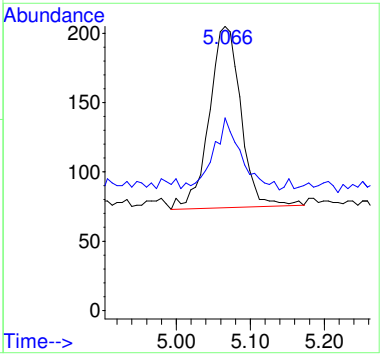


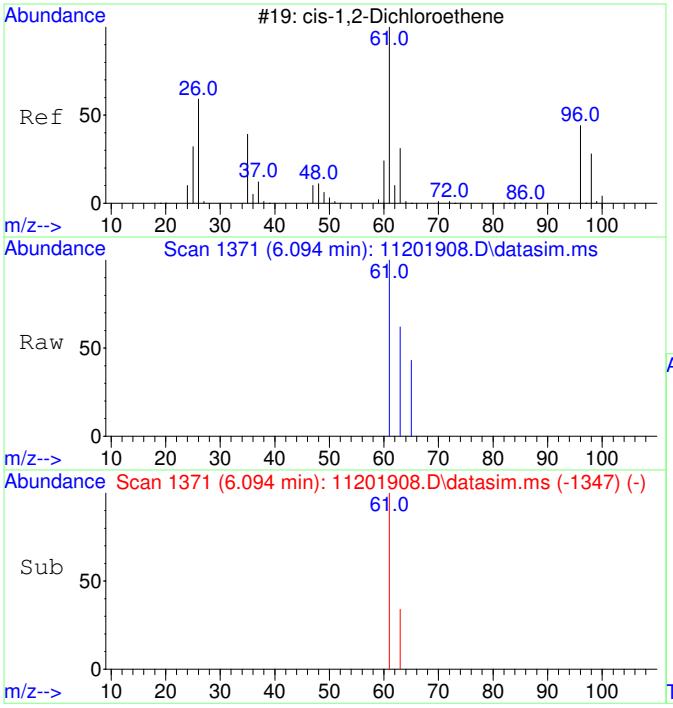


#4
1,1-Dichloroethane
Concen: 64.76 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 63 Resp: 388

Ion	Ratio	Lower	Upper
63	100		
65	35.3	1.6	61.6

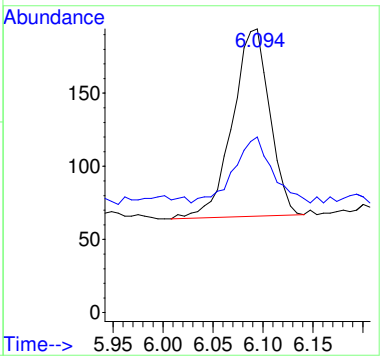


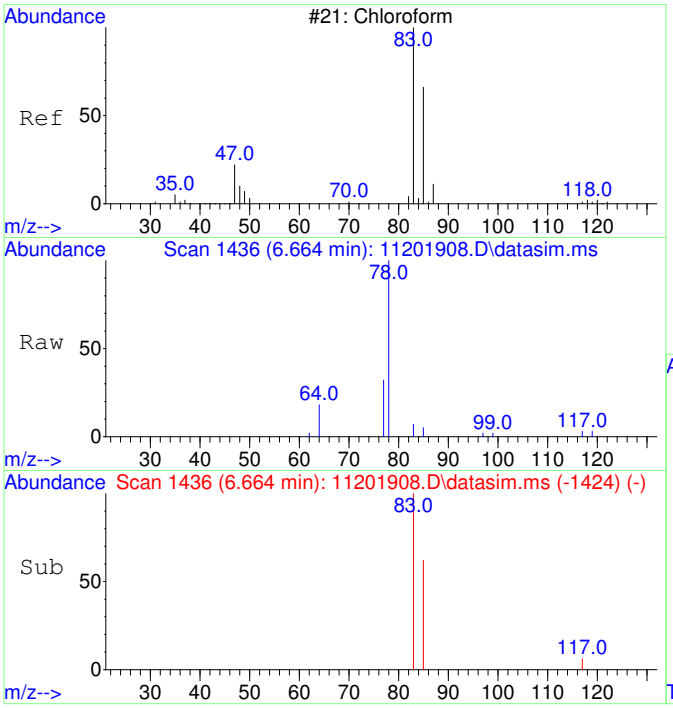


#5
cis-1,2-Dichloroethene
Concen: 60.26 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 332

Ion	Ratio	Lower	Upper
61	100		
63	35.5	2.6	62.6

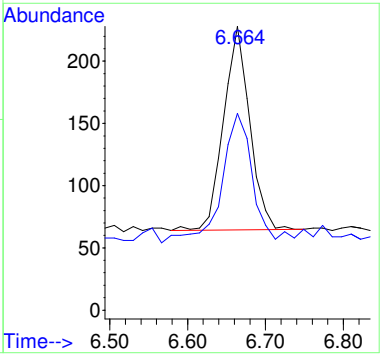


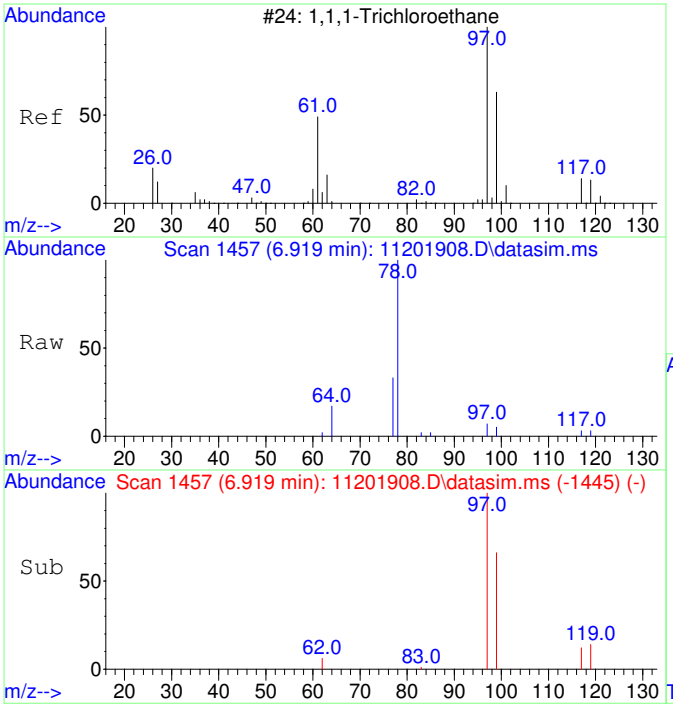


#6
Chloroform
Concen: 59.87 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 381

Ion	Ratio	Lower	Upper
83	100		
85	76.4	34.4	94.4

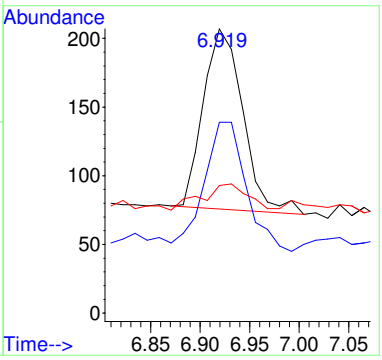


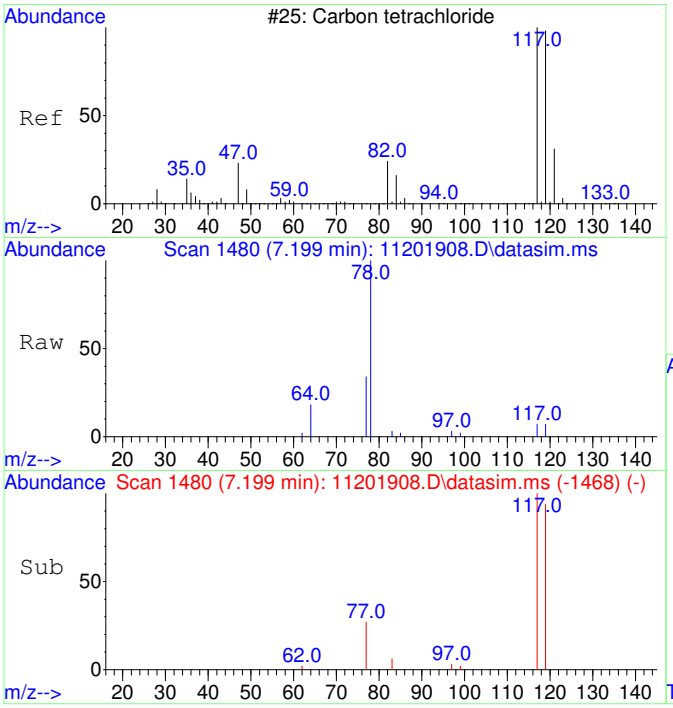


#7
1,1,1-Trichloroethane
Concen: 56.92 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 363

Ion	Ratio	Lower	Upper
97	100		
99	76.6	34.3	94.3
117	14.9	0.0	43.2

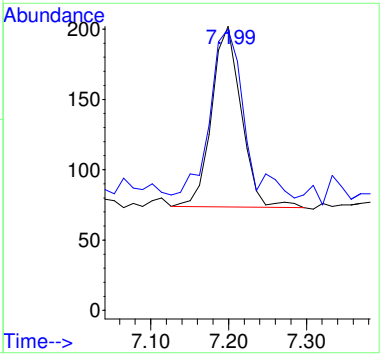


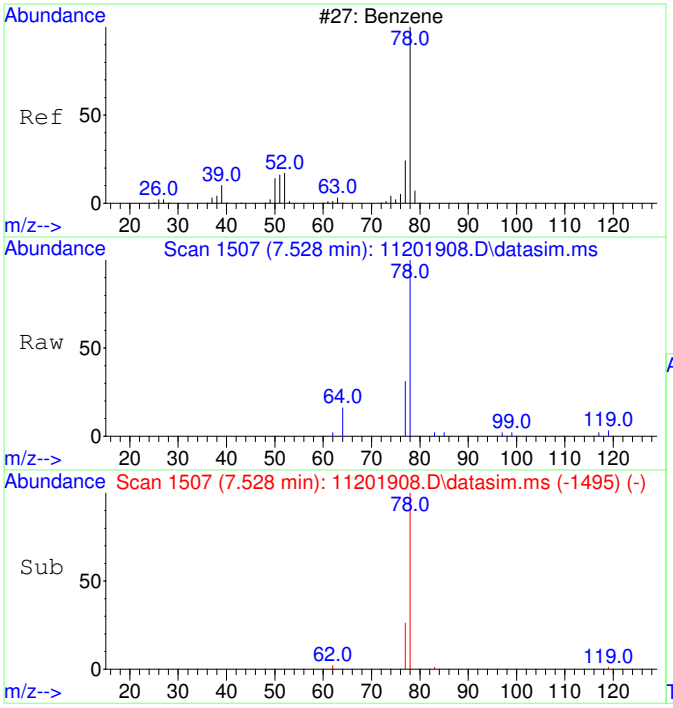


#8
Carbon tetrachloride
Concen: 55.85 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:117 Resp: 338

Ion	Ratio	Lower	Upper
117	100		
119	107.4	66.0	126.0

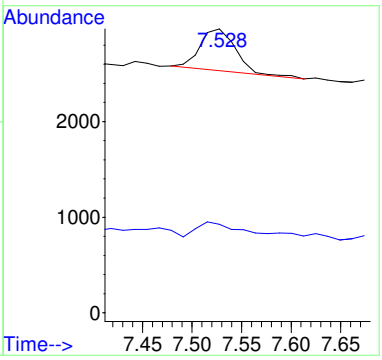


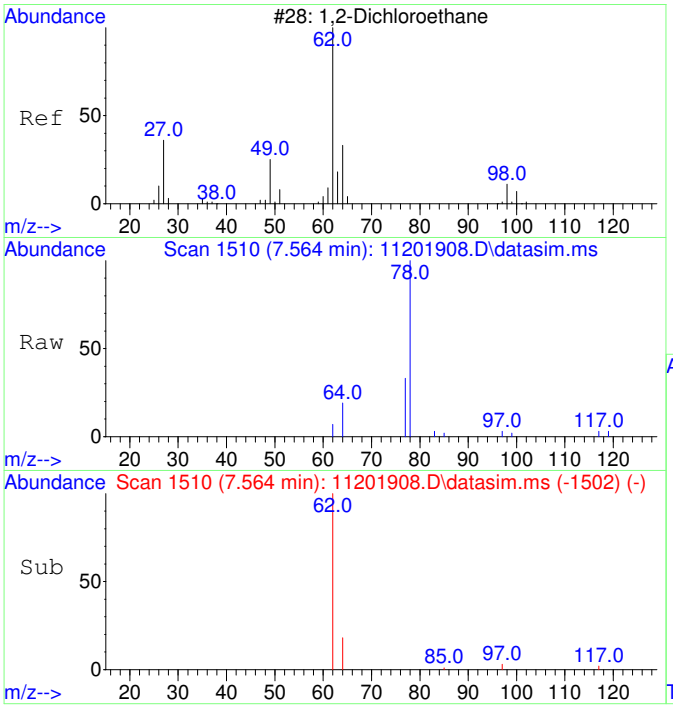


#9
Benzene
Concen: 65.34 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 78 Resp: 1048

Ion	Ratio	Lower	Upper
78	100		
77	48.6	0.0	53.2

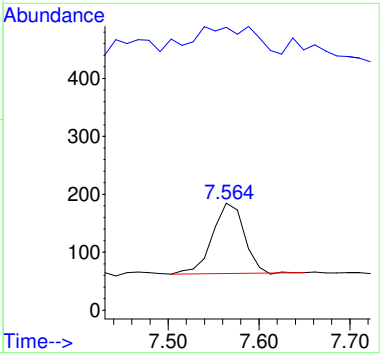


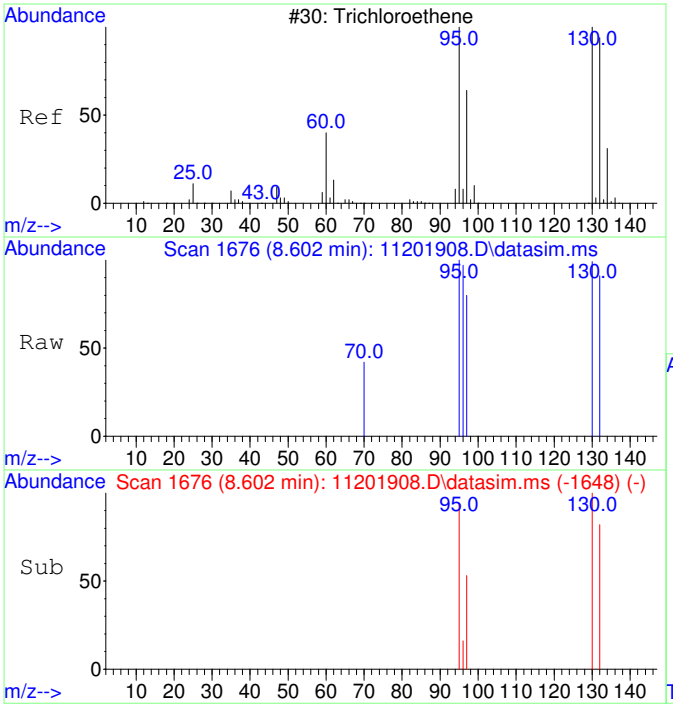


#10
1,2-Dichloroethane
Concen: 56.23 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 62 Resp: 296

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#

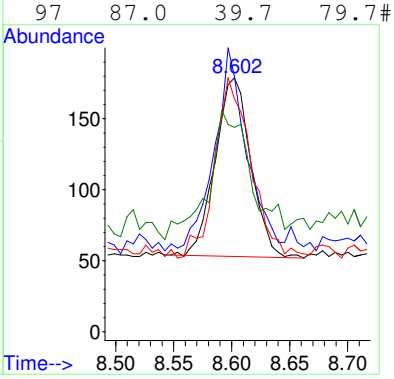


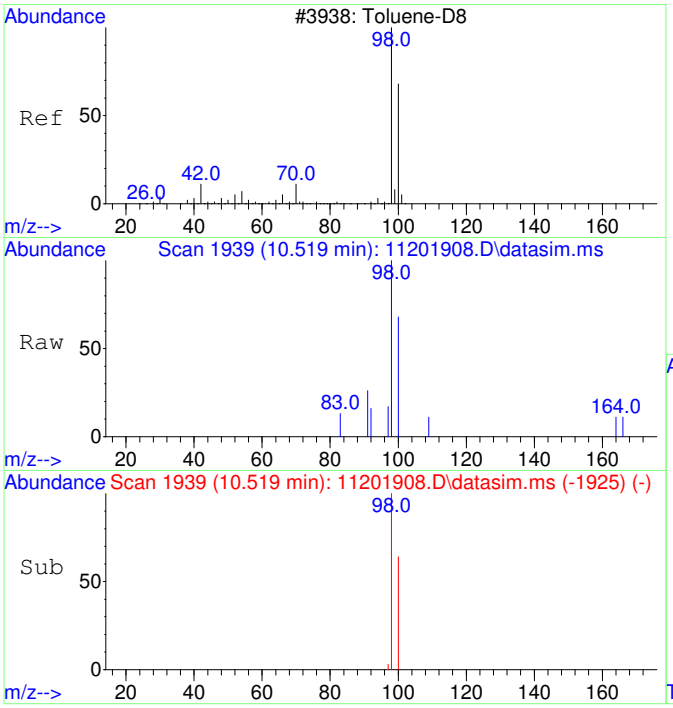


#11
Trichloroethene
Concen: 54.87 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:130 Resp: 270

Ion	Ratio	Lower	Upper
130	100		
95	104.8	61.1	121.1
132	103.7	75.7	115.7
97	87.0	39.7	79.7#

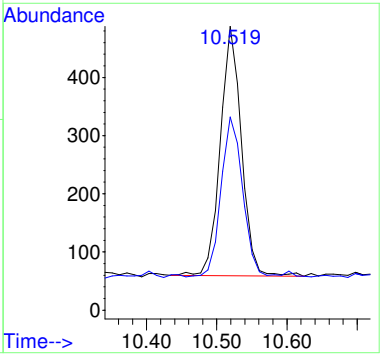


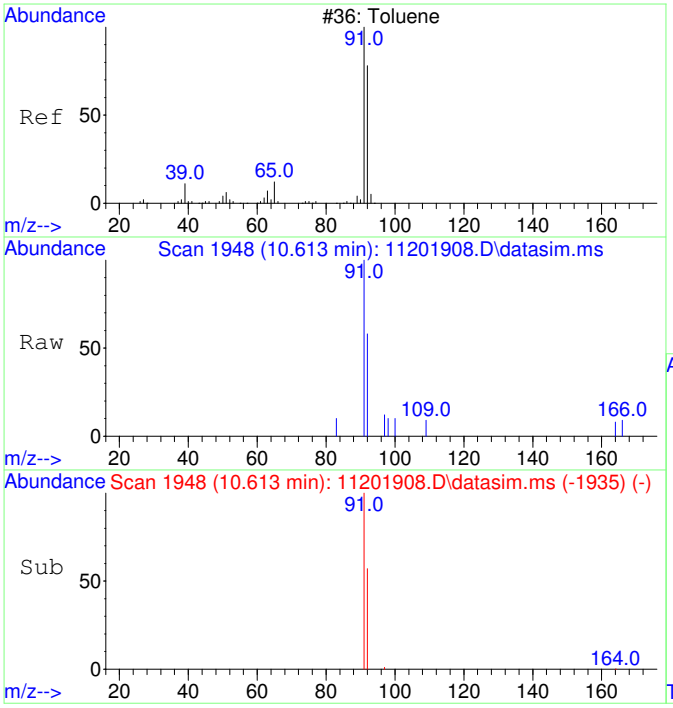


#12
Toluene-d8
Concen: 52.24 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 98 Resp: 901

Ion	Ratio	Lower	Upper
98	100		
100	65.9	37.1	97.1

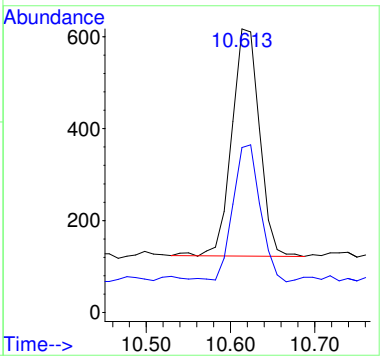


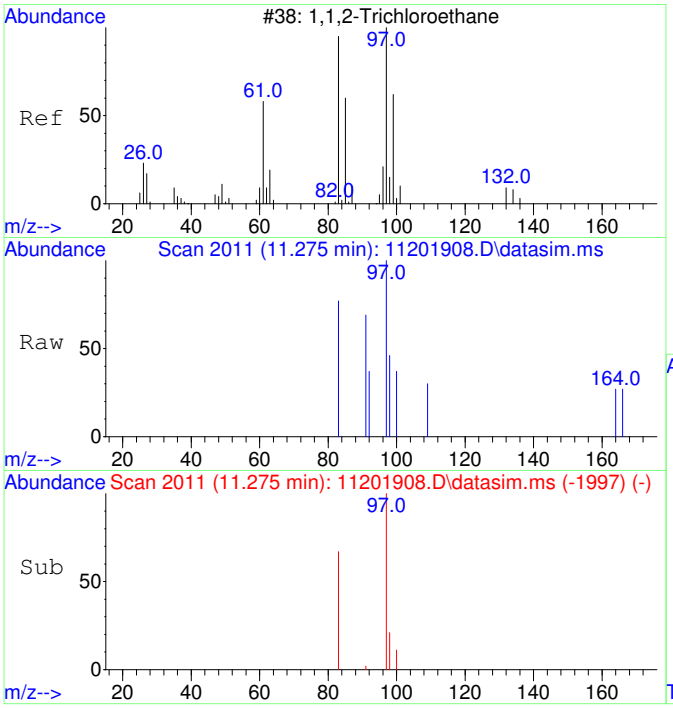


#13
Toluene
Concen: 53.91 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.011 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1128

Ion	Ratio	Lower	Upper
91	100		
92	59.7	29.0	89.0

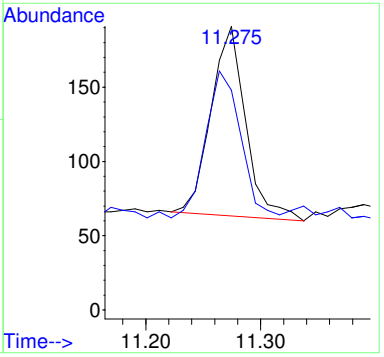


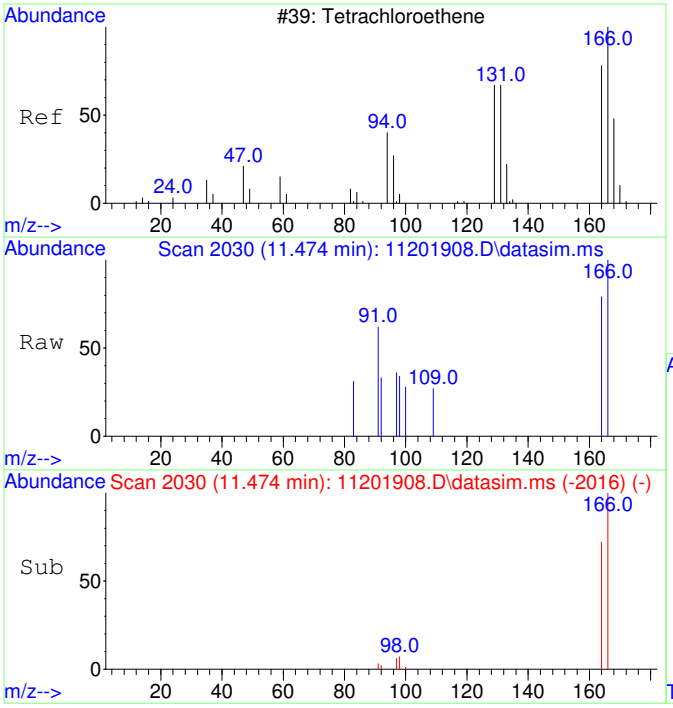


#14
1,1,2-Trichloroethane
Concen: 56.11 ug/L
RT: 11.275 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 266

Ion	Ratio	Lower	Upper
97	100		
83	83.8	51.8	111.8

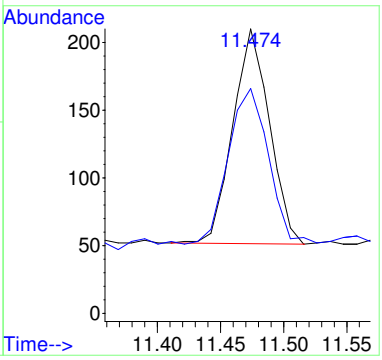


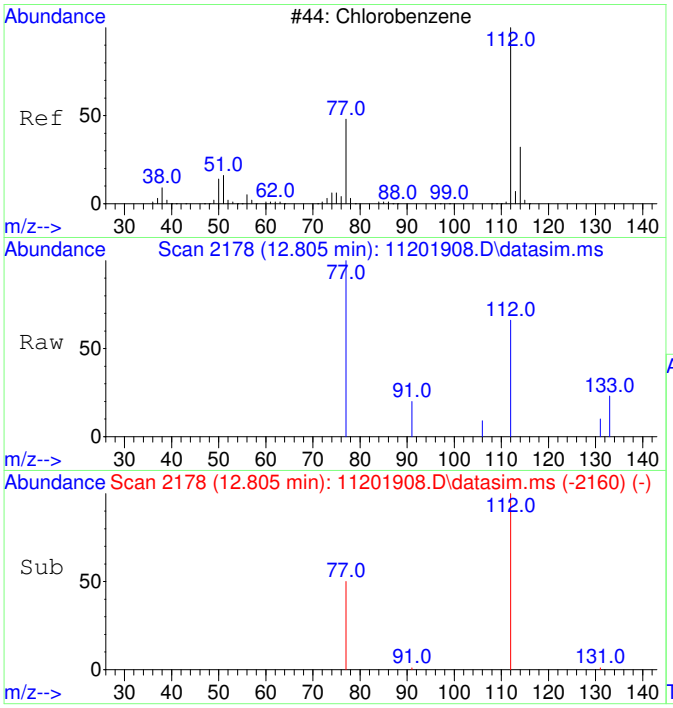


#15
Tetrachloroethene
Concen: 50.52 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:166 Resp: 319

Ion	Ratio	Lower	Upper
166	100		
164	79.0	48.6	108.6

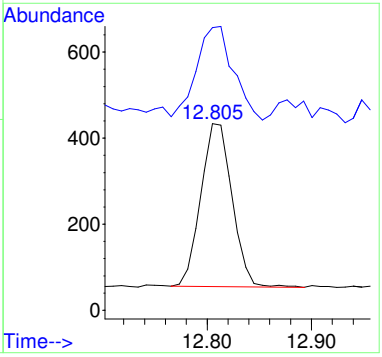


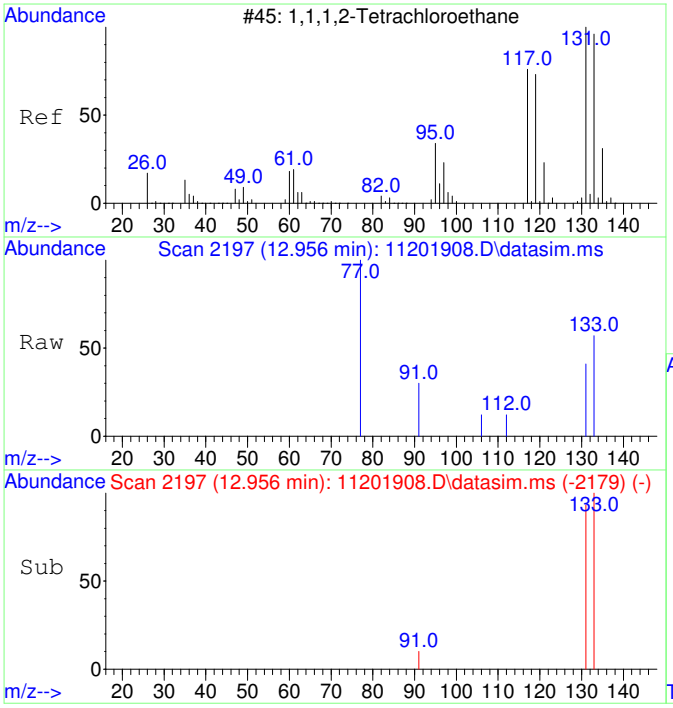


#16
Chlorobenzene
Concen: 49.39 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:112 Resp: 789

Ion	Ratio	Lower	Upper
112	100		
77	68.8	24.7	84.7

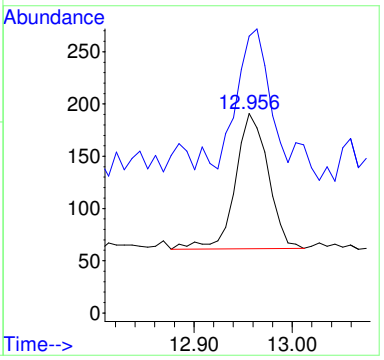


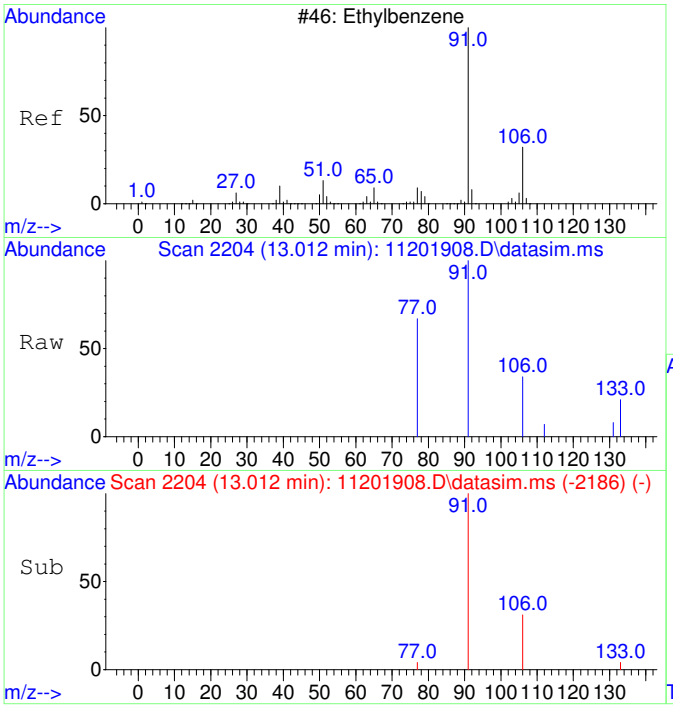


#17
1,1,1,2-Tetrachloroethane
Concen: 53.63 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:131 Resp: 299

Ion	Ratio	Lower	Upper
131	100		
133	99.7	66.6	126.6

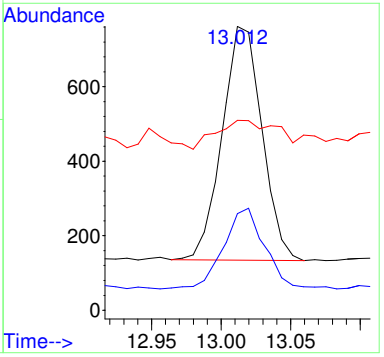


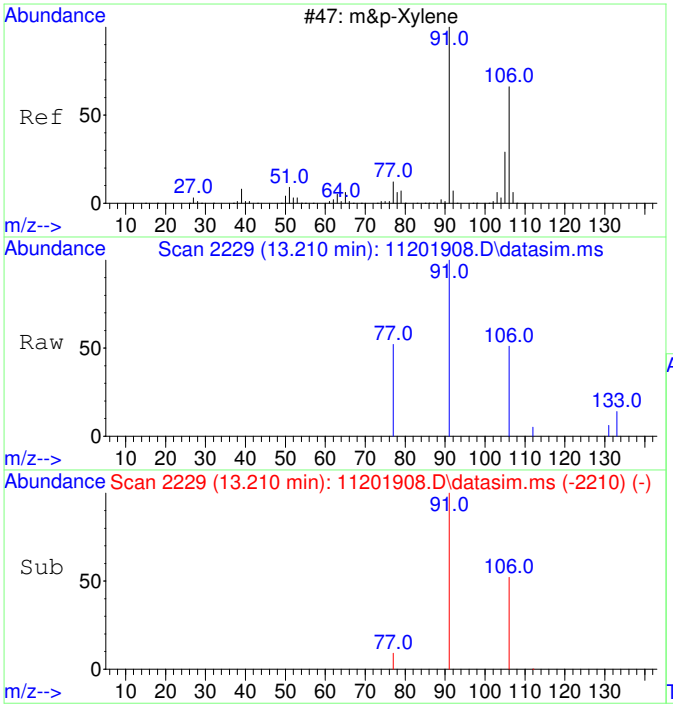


#18
Ethylbenzene
Concen: 48.46 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1251

Ion	Ratio	Lower	Upper
91	100		
106	35.9	2.6	62.6
77	22.2	0.0	38.2

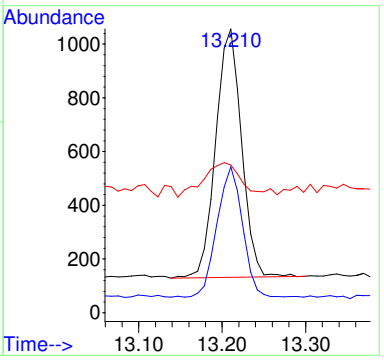


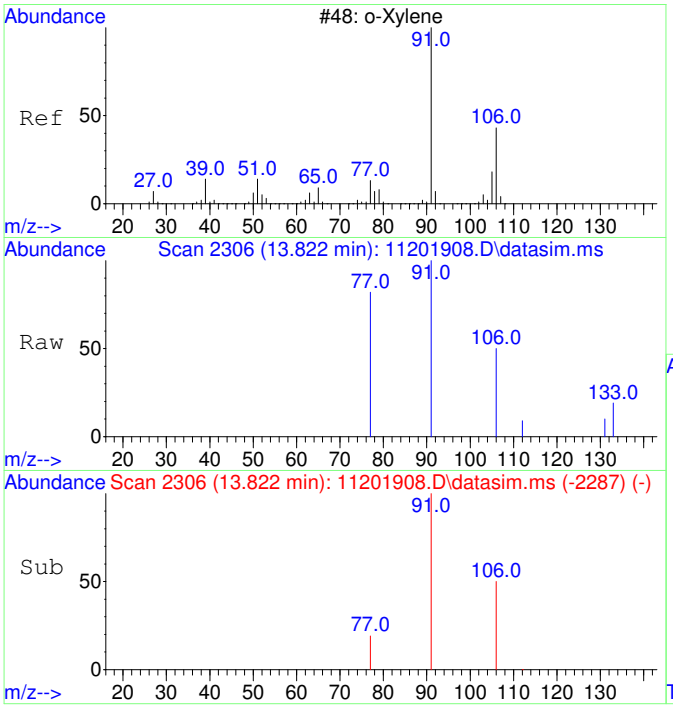


#19
m&p-Xylene
Concen: 100.90 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1985

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.4	81.4
77	20.3	0.0	42.6

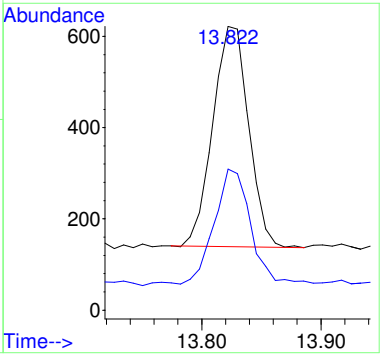


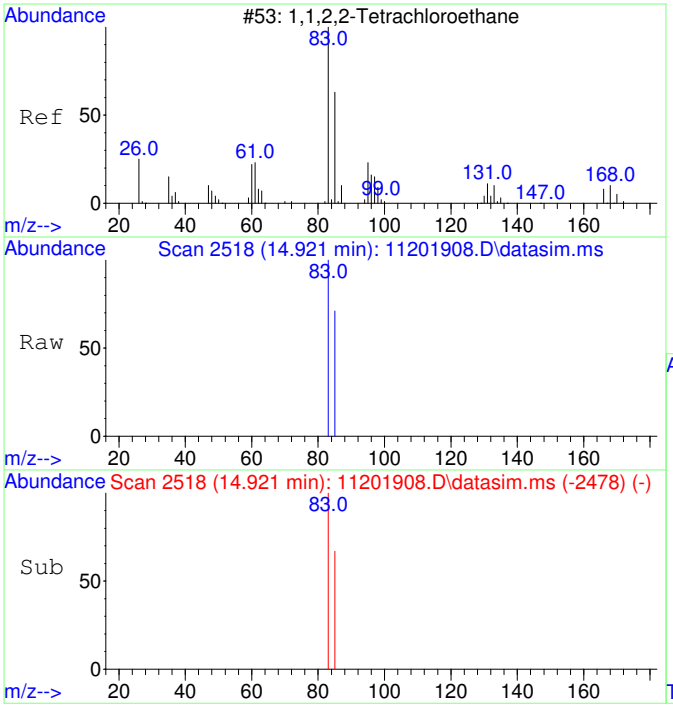


#20
o-Xylene
Concen: 48.46 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1011

Ion	Ratio	Lower	Upper
91	100		
106	55.6	18.5	78.5

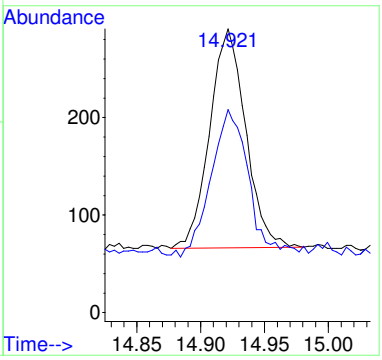


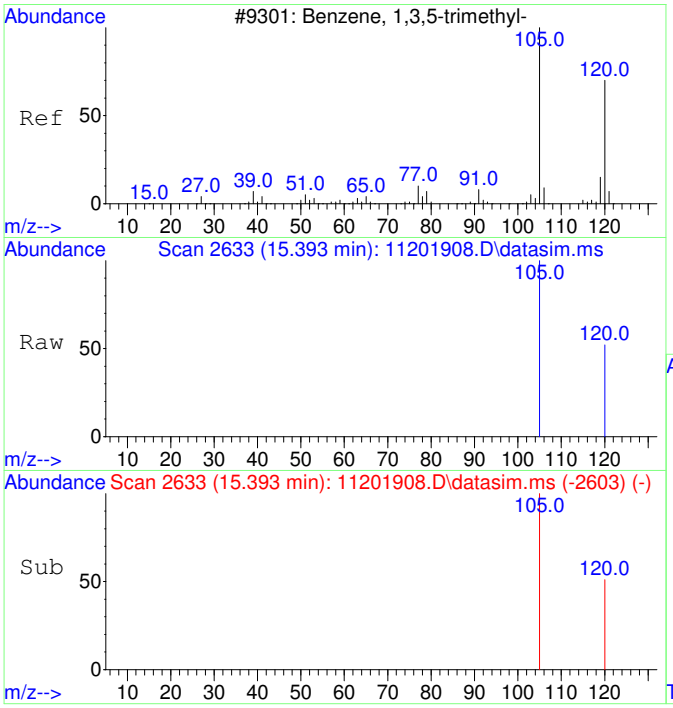


#21
1,1,2,2-Tetrachloroethane
Concen: 46.97 ug/L
RT: 14.921 min Scan# 2518
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 440

Ion	Ratio	Lower	Upper
83	100		
85	70.5	34.6	94.6

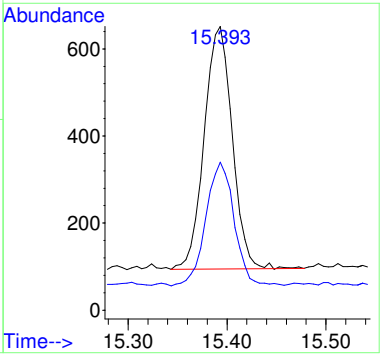


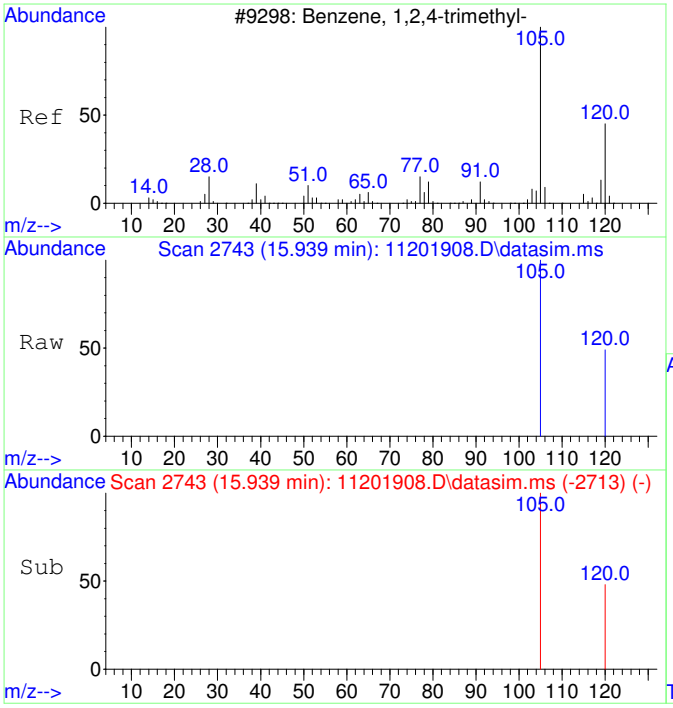


#22
1,3,5-Trimethylbenzene
Concen: 47.02 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 1093

Ion	Ratio	Lower	Upper
105	100		
120	51.1	20.9	80.9

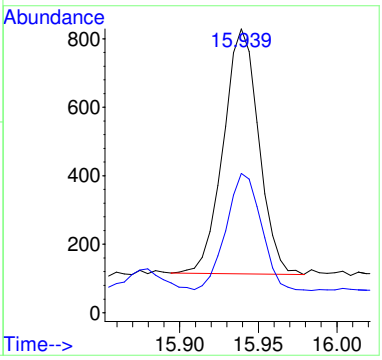


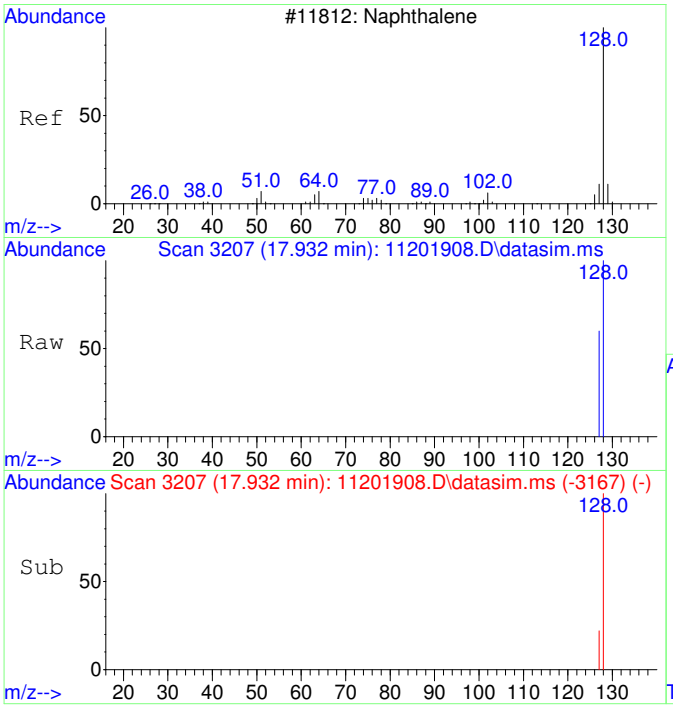


#23
1,2,4-Trimethylbenzene
Concen: 46.93 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 1115

Ion	Ratio	Lower	Upper
105	100		
120	46.8	16.6	76.6

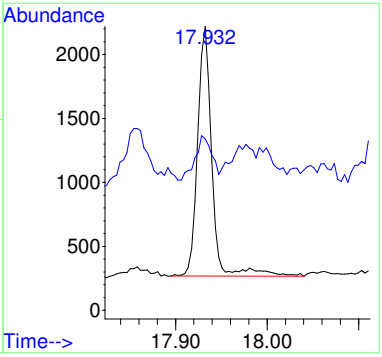


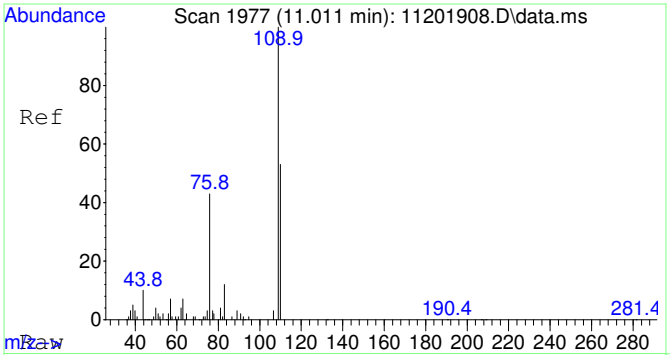


#24
Naphthalene
Concen: 49.26 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:128 Resp: 2114

Ion	Ratio	Lower	Upper
128	100		
127	15.4	0.0	42.5

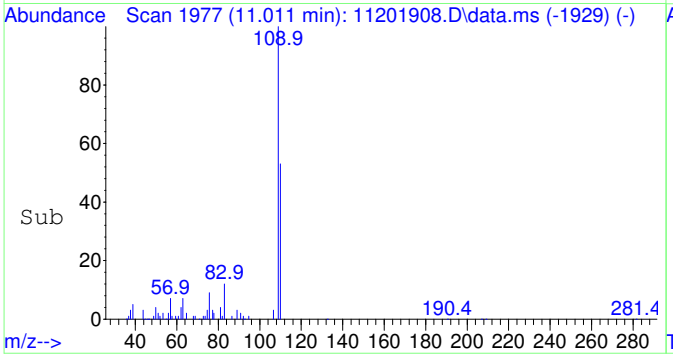


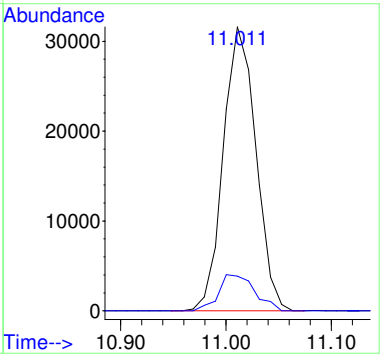


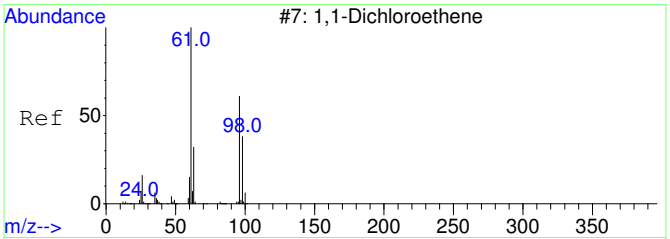
#25
2-Fluorotoluene SCAN
Concen: 5113.95 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:109 Resp: 68137

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.5



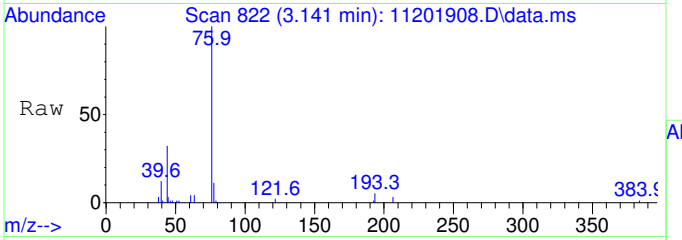


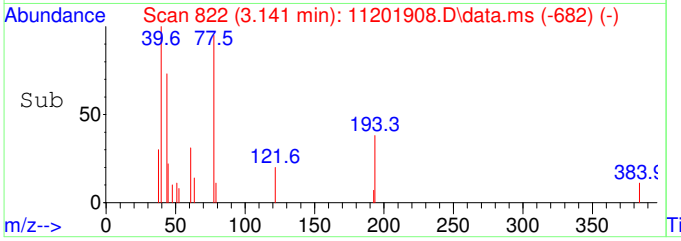


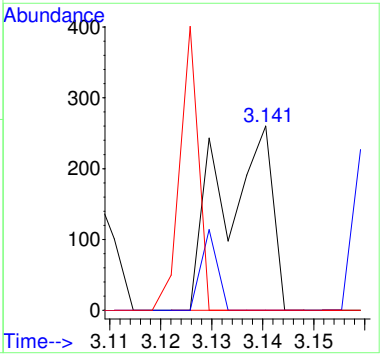
#26
1,1-Dichloroethene SCAN
Concen: 60.62 ug/L
RT: 3.141 min Scan# 822
Delta R.T. 0.018 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

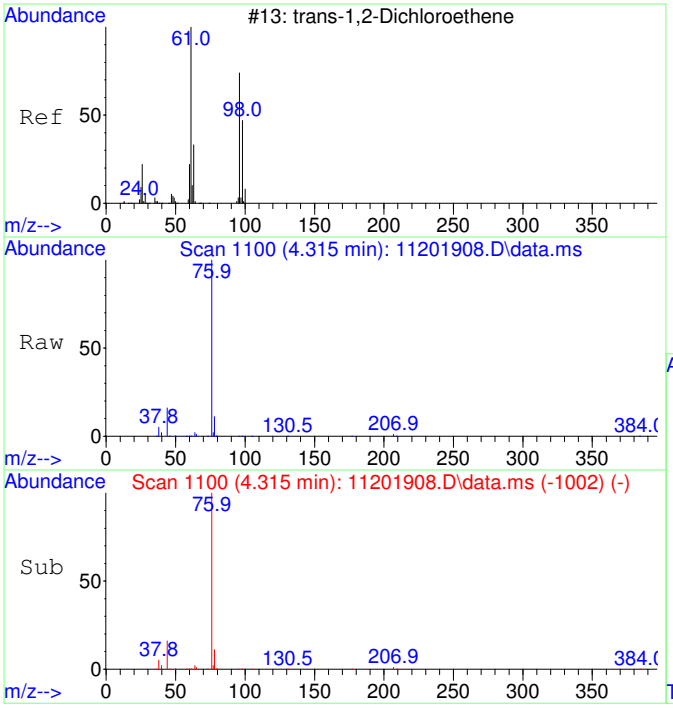
Tgt Ion: 61 Resp: 177

Ion	Ratio	Lower	Upper
61	100		
96	0.0	160.0	220.0#
98	56.5	114.2	174.2#





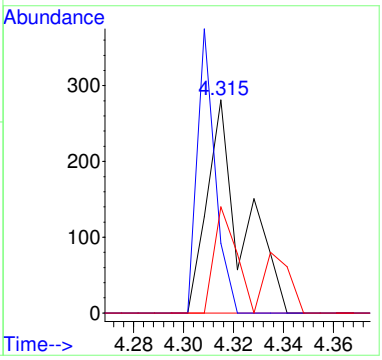


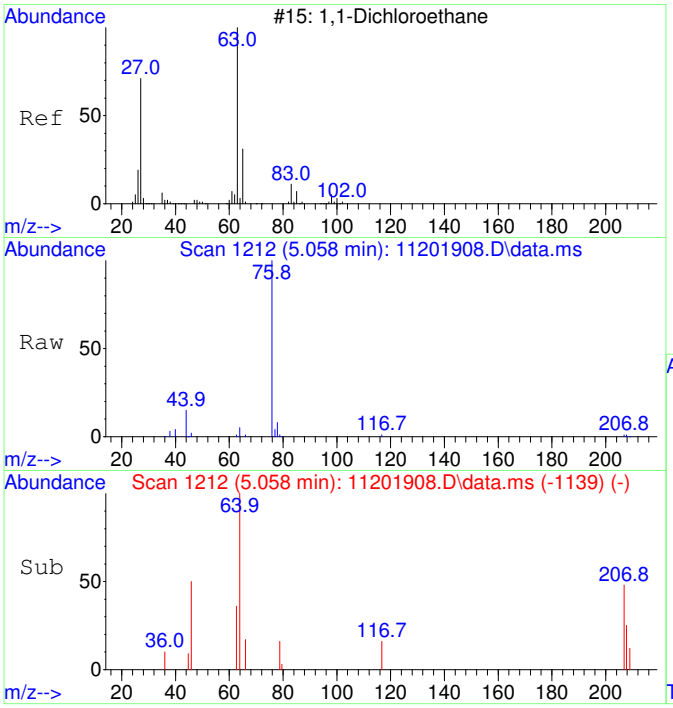


#27
trans-1,2-Dichloroethene SCAN
Concen: 99.78 ug/L
RT: 4.315 min Scan# 1100
Delta R.T. 0.007 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 276

Ion	Ratio	Lower	Upper
61	100		
96	67.4	44.3	104.3
98	31.5	5.2	65.2

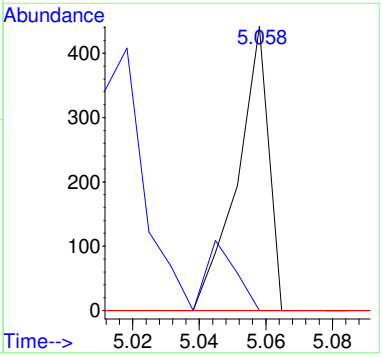


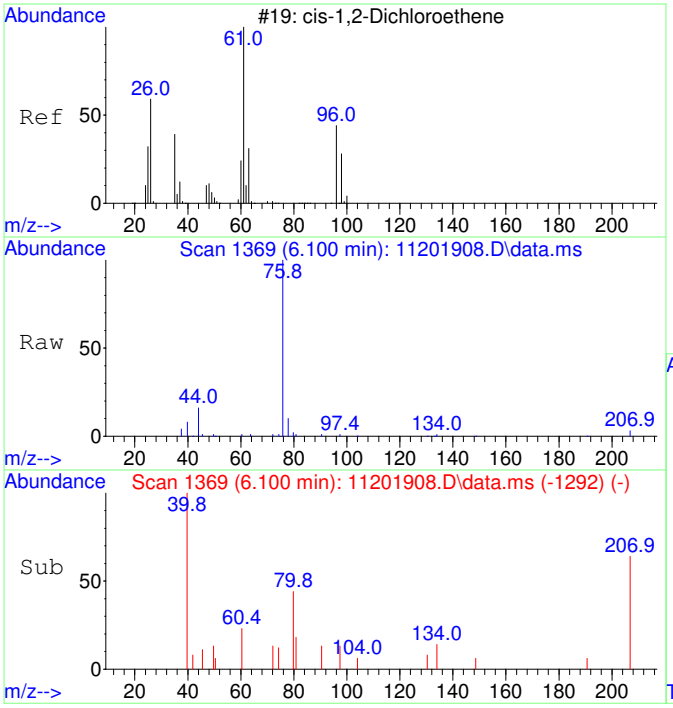


#28
1,1-Dichloroethane SCAN
Concen: 69.82 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 63 Resp: 289

Ion	Ratio	Lower	Upper
63	100		
65	23.2	0.0	39.8
83	0.0	0.0	33.0

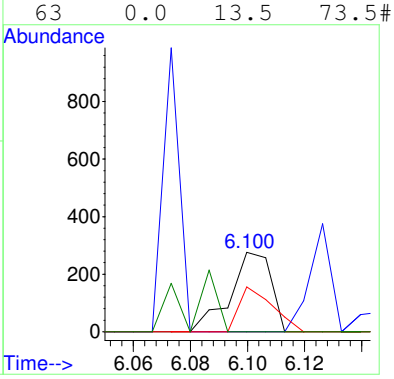


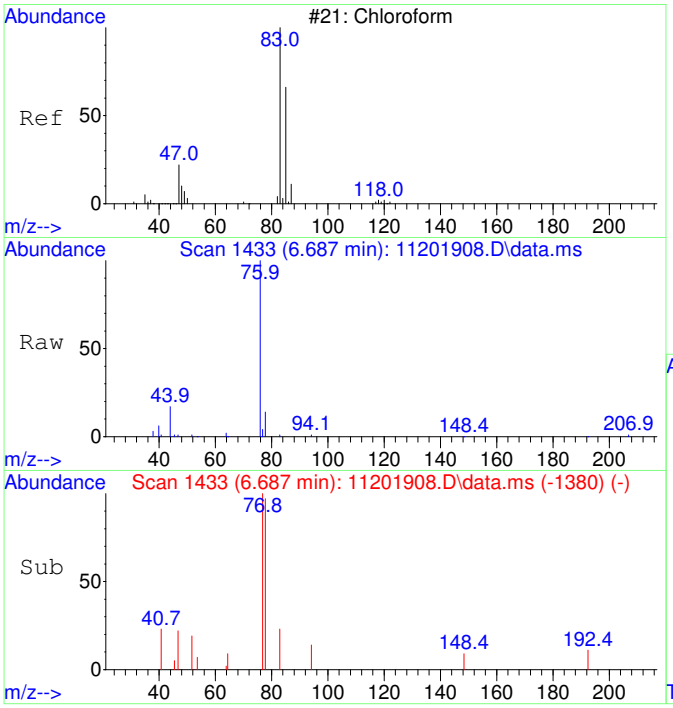


#29
cis-1,2-Dichloroethene SCAN
Concen: 82.94 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.013 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 275

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.4	102.4#
98	46.2	13.5	73.5
63	0.0	13.5	73.5#

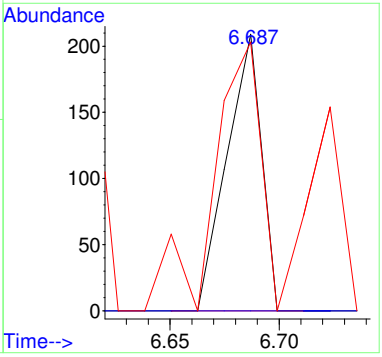


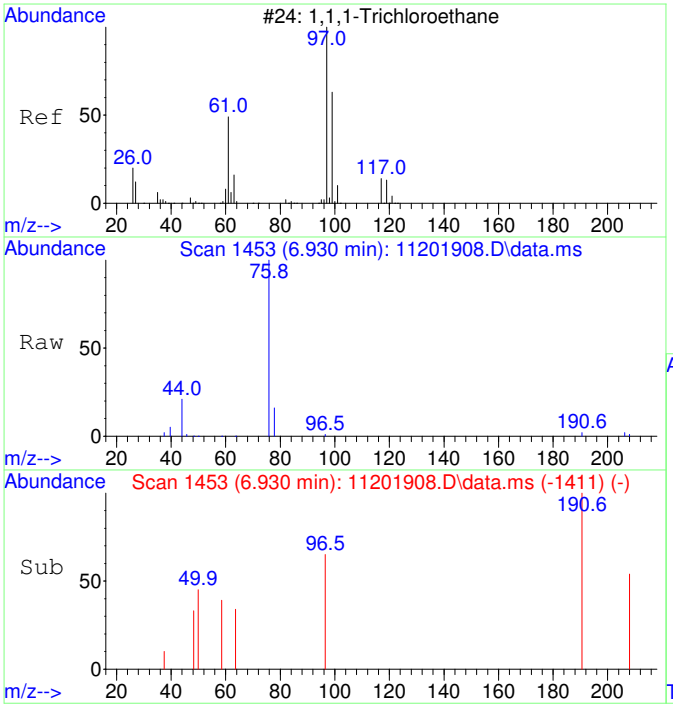


#30
Chloroform SCAN
Concen: 65.25 ug/L
RT: 6.687 min Scan# 1433
Delta R.T. 0.012 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 231

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.6	111.6#
47	91.8	0.0	59.5#

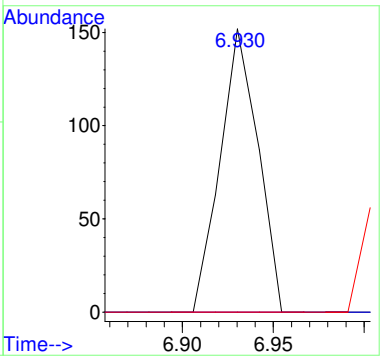


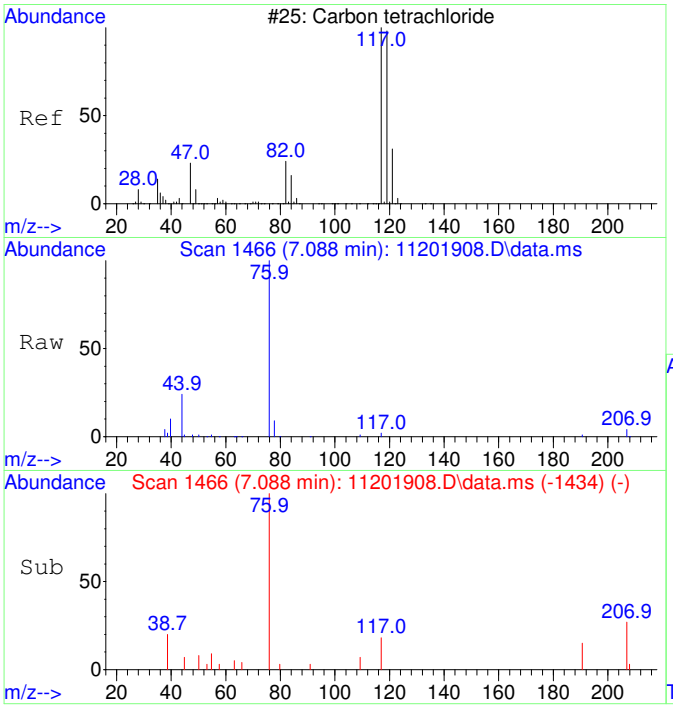


#31
1,1,1-Trichloroethane SCAN
Concen: 54.06 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 220

Ion	Ratio	Lower	Upper
97	100		
99	0.0	39.0	99.0#
61	0.0	12.8	72.8#

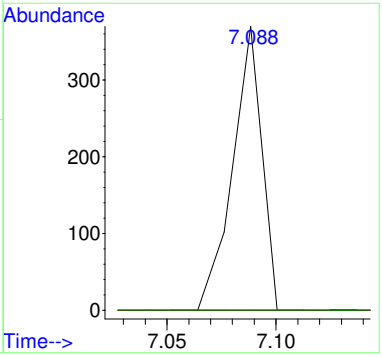


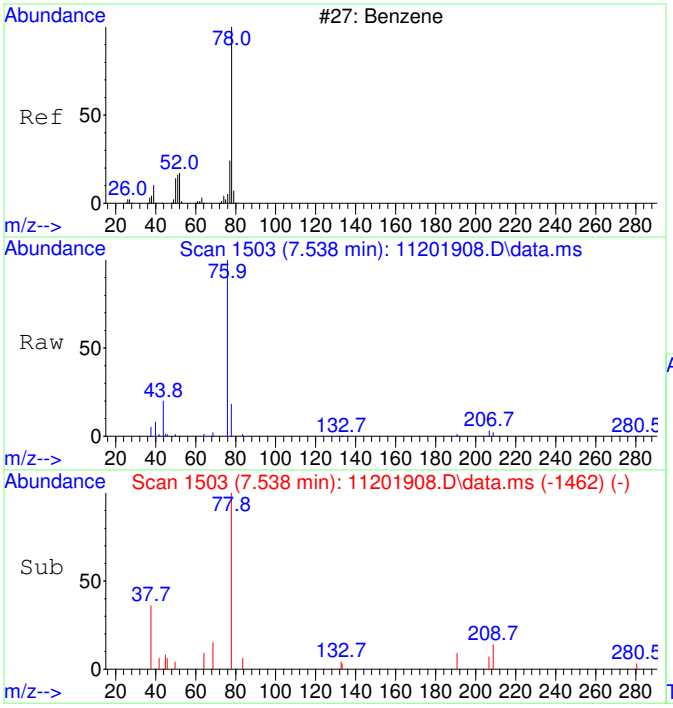


#32
Carbon tetrachloride SCAN
Concen: 98.70 ug/L
RT: 7.088 min Scan# 1466
Delta R.T. -0.110 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:117 Resp: 344

Ion	Ratio	Lower	Upper
117	100		
119	0.0	59.7	119.7#
121	0.0	0.0	59.9
82	0.0	6.4	66.4#

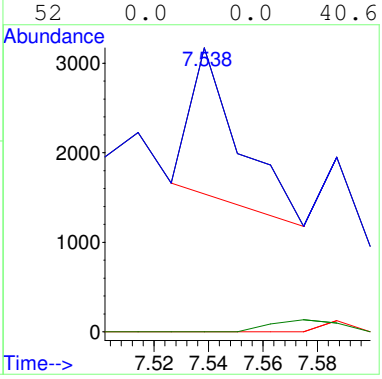


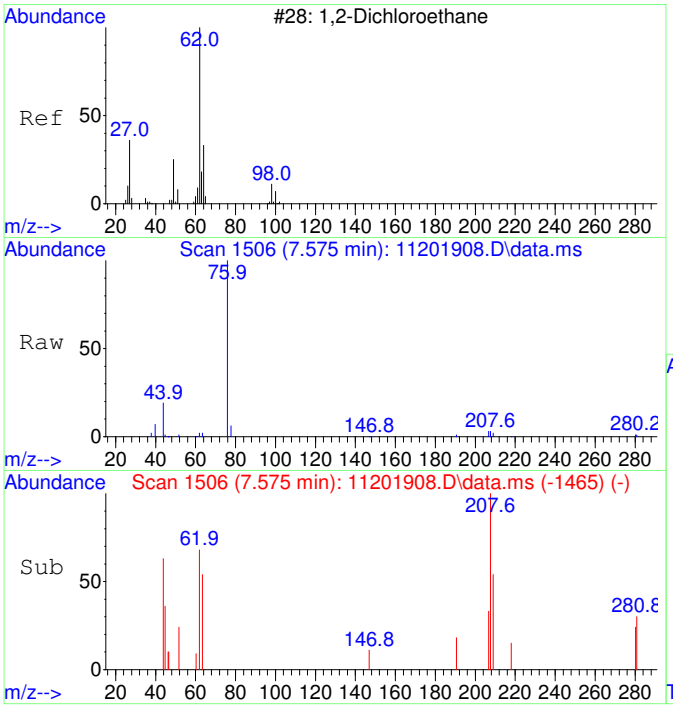


#33
Benzene SCAN
Concen: 172.75 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 78 Resp: 1844

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.1
52	0.0	0.0	40.6

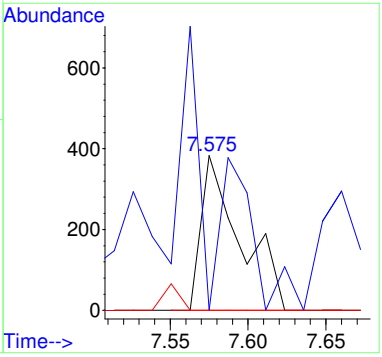


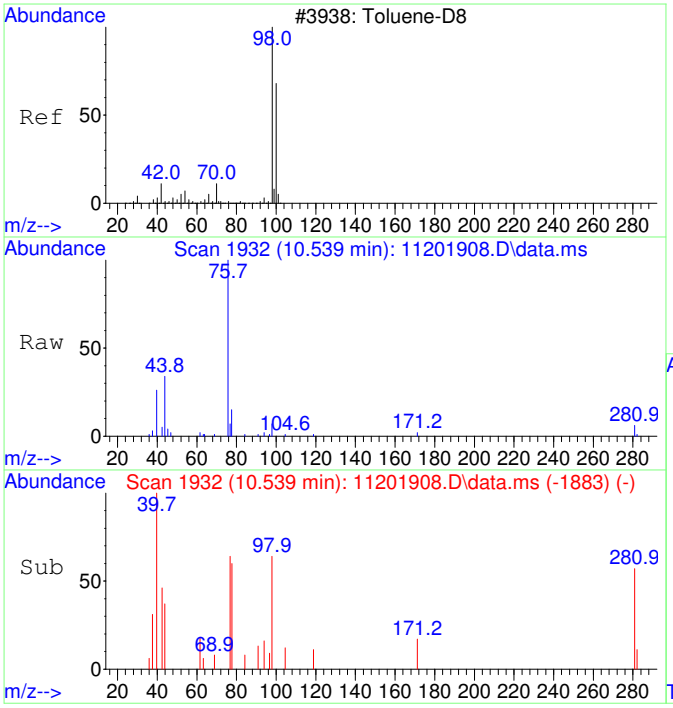


#34
1,2-Dichloroethane SCAN
Concen: 183.77 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 62 Resp: 669

Ion	Ratio	Lower	Upper
62	100		
64	254.7	22.9	82.9#
49	0.0	0.0	59.6

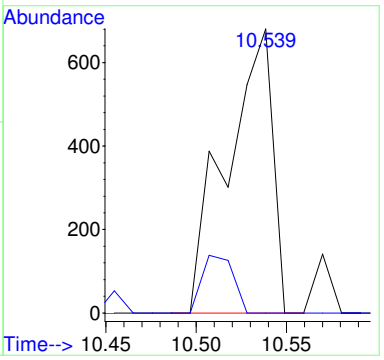


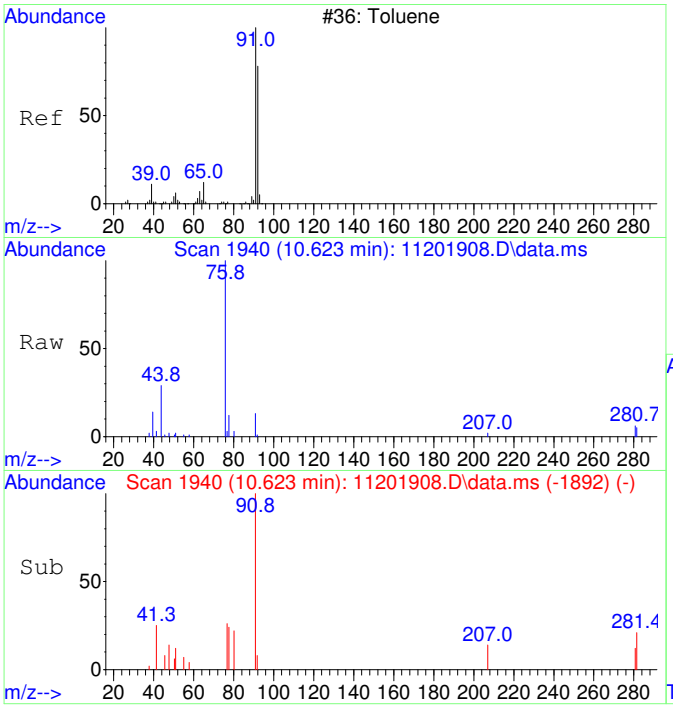


#36
Toluene-d8 SCAN
Concen: 106.84 ug/L
RT: 10.539 min Scan# 1932
Delta R.T. 0.010 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 98 Resp: 1207

Ion	Ratio	Lower	Upper
98	100		
100	0.0	38.5	98.5#

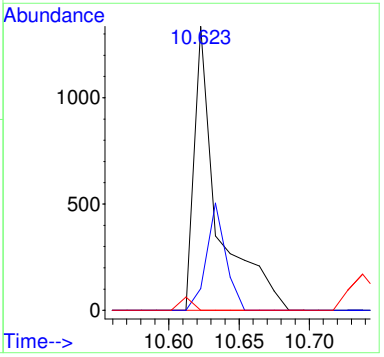


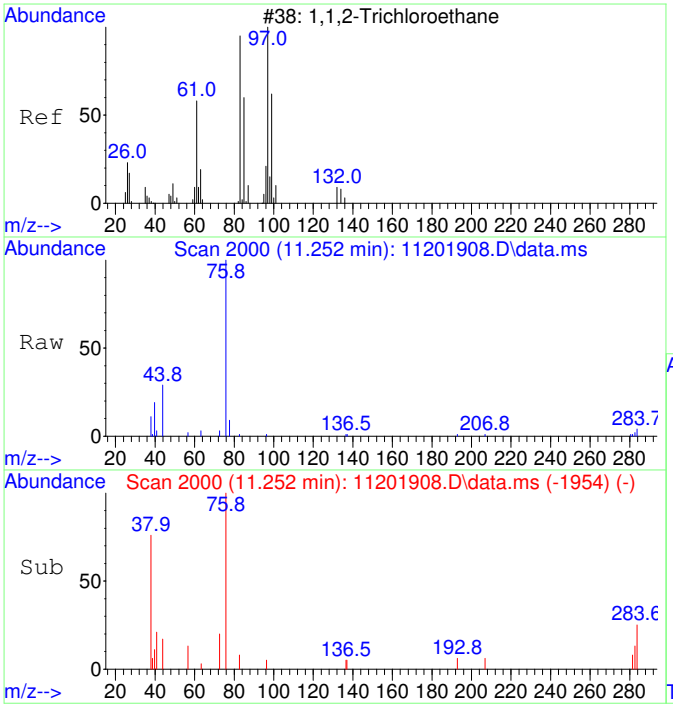


#37
Toluene SCAN
Concen: 118.76 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1567

Ion	Ratio	Lower	Upper
91	100		
92	30.6	26.2	86.2
65	0.0	0.0	43.1

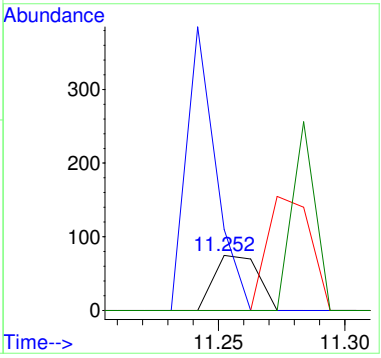


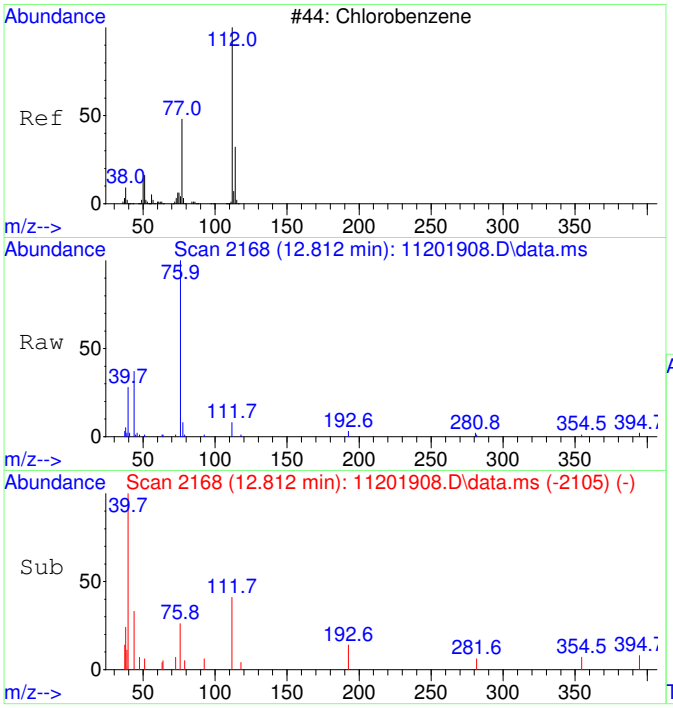


#38
1,1,2-Trichloroethane SCAN
Concen: 31.70 ug/L
RT: 11.252 min Scan# 2000
Delta R.T. -0.021 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 91

Ion	Ratio	Lower	Upper
97	100		
83	342.9	65.0	125.0#
61	0.0	47.6	107.6#
99	0.0	58.1	118.1#

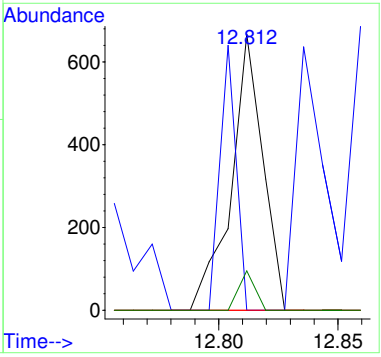


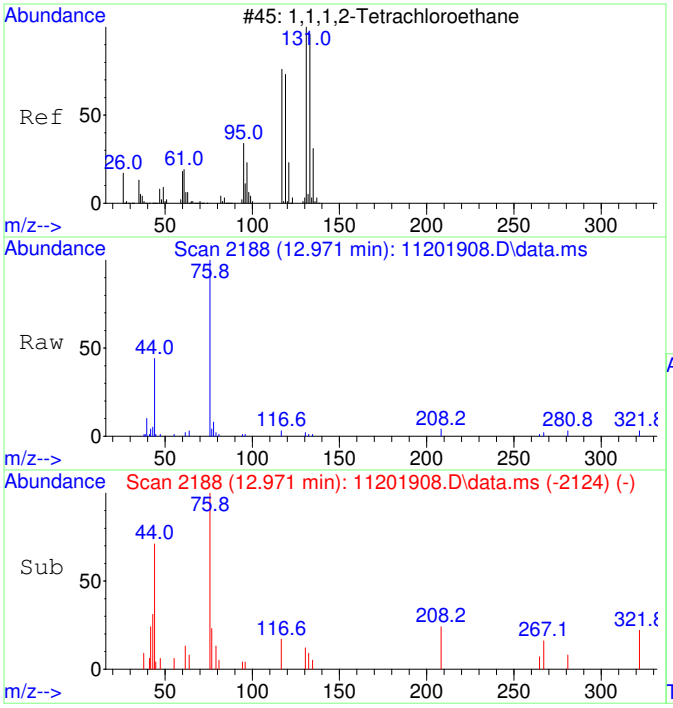


#40
Chlorobenzene SCAN
Concen: 58.88 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:112 Resp: 619

Ion	Ratio	Lower	Upper
112	100		
77	49.3	32.8	92.8
114	0.0	0.9	60.9#
51	0.0	0.0	53.2

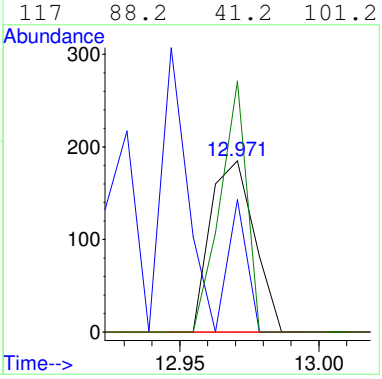


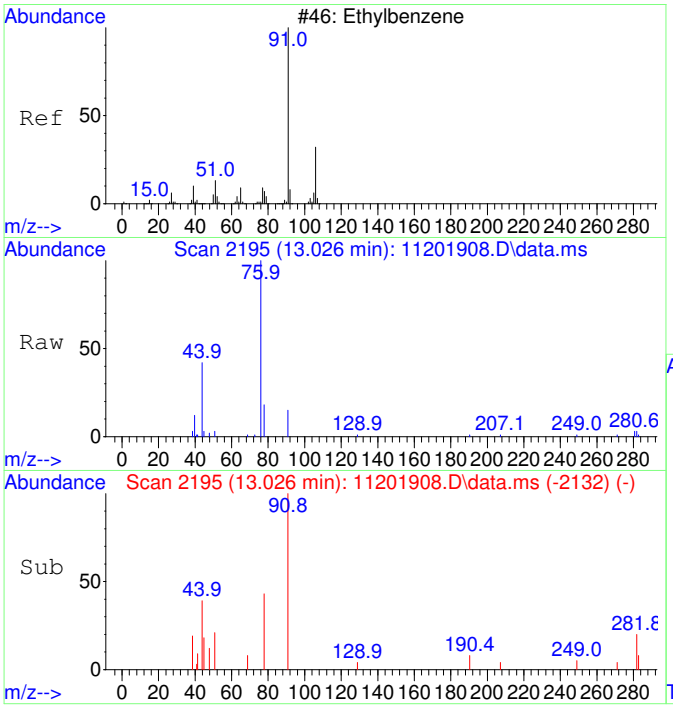


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 60.15 ug/L
RT: 12.971 min Scan# 2188
Delta R.T. 0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:131 Resp: 204

Ion	Ratio	Lower	Upper
131	100		
133	0.0	63.9	123.9#
119	0.0	32.6	92.6#
117	88.2	41.2	101.2

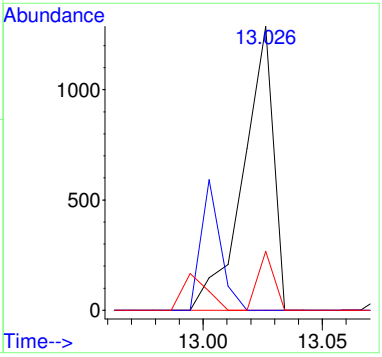


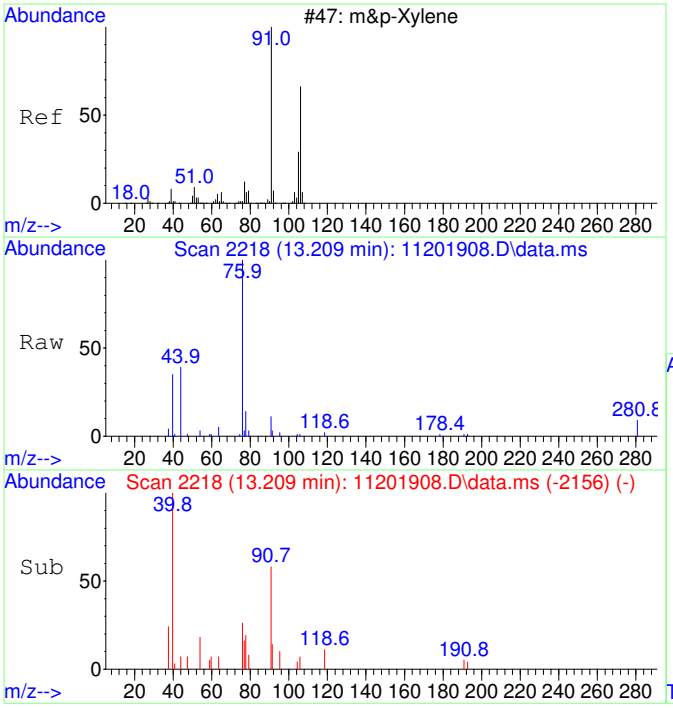


#42
Ethylbenzene SCAN
Concen: 67.96 ug/L
RT: 13.026 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1133

Ion	Ratio	Lower	Upper
91	100		
106	0.0	1.2	61.2#
51	11.3	0.0	38.0

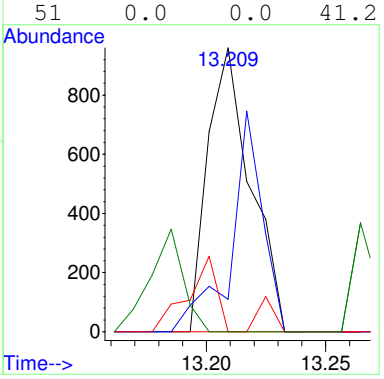


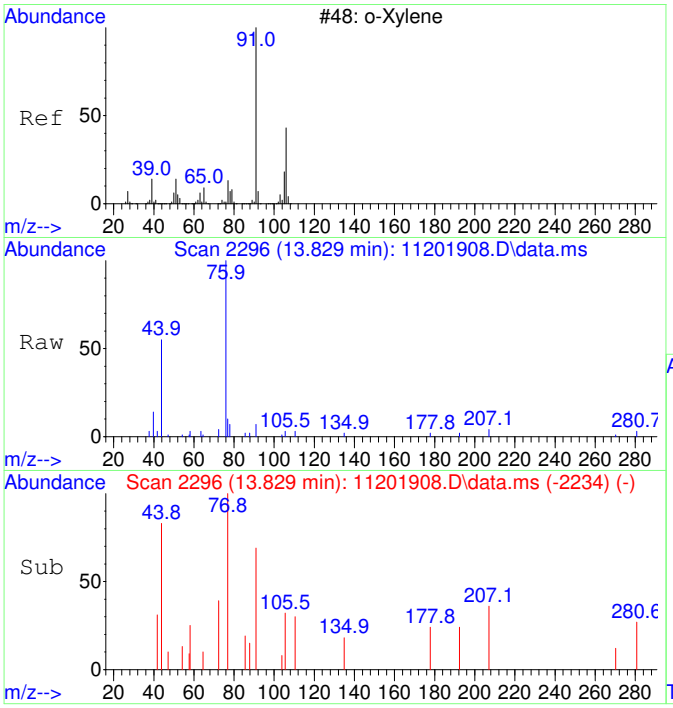


#43
m&p-Xylene SCAN
Concen: 48.16 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1204

Ion	Ratio	Lower	Upper
91	100		
106	56.6	18.8	78.8
105	4.7	0.0	52.3
51	0.0	0.0	41.2

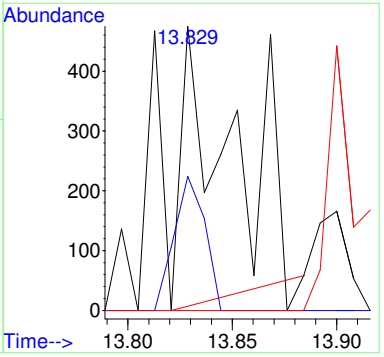


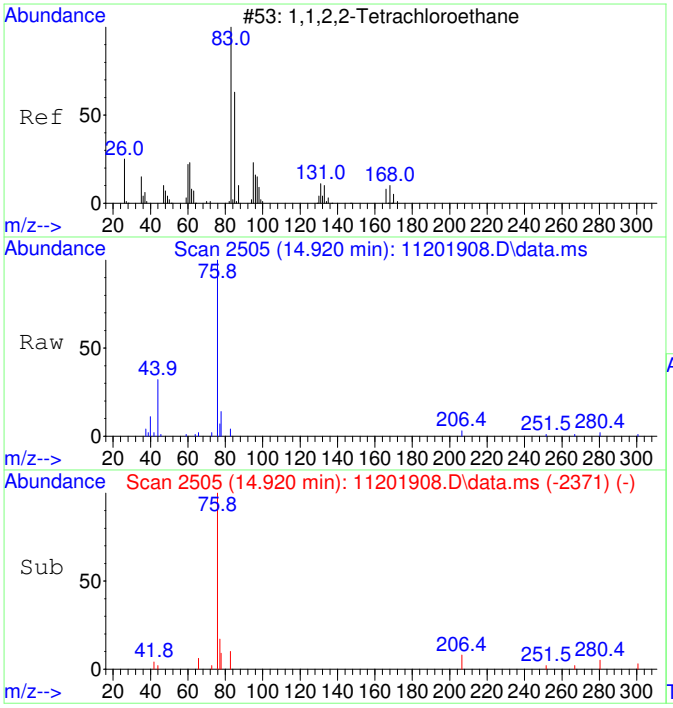


#44
o-Xylene SCAN
Concen: 54.26 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 769

Ion	Ratio	Lower	Upper
91	100		
106	30.0	16.9	76.9
105	0.0	0.2	60.2#

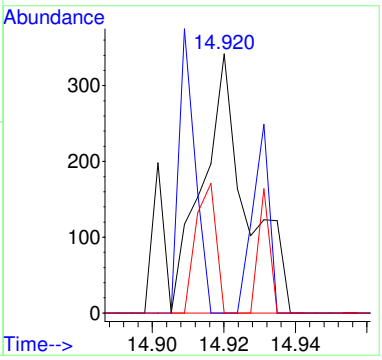


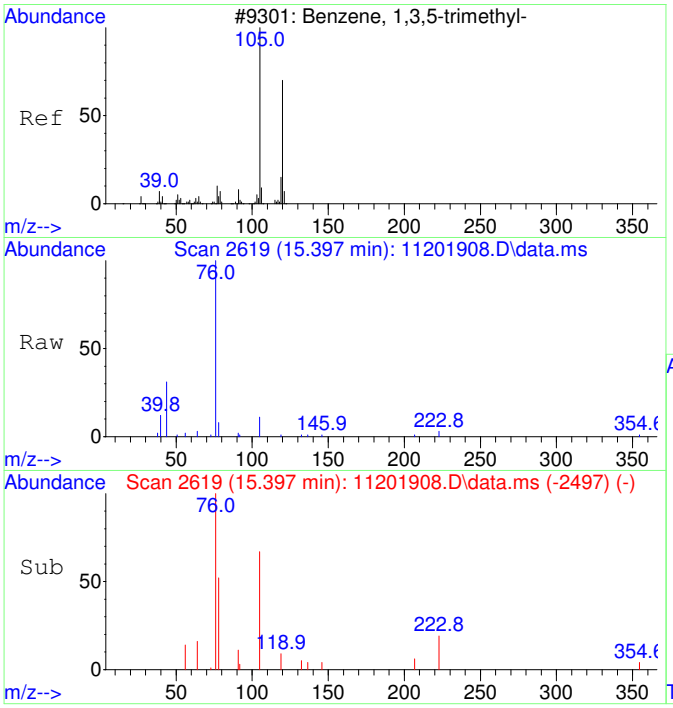


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 46.01 ug/L
RT: 14.920 min Scan# 2505
Delta R.T. -0.004 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 294

Ion	Ratio	Lower	Upper
83	100		
85	40.5	34.8	94.8
95	22.8	0.0	48.0

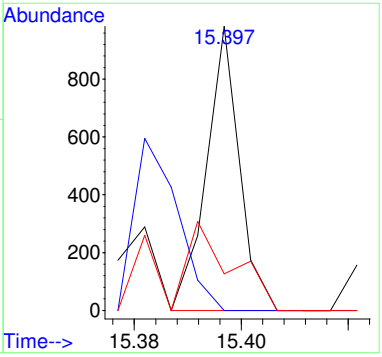


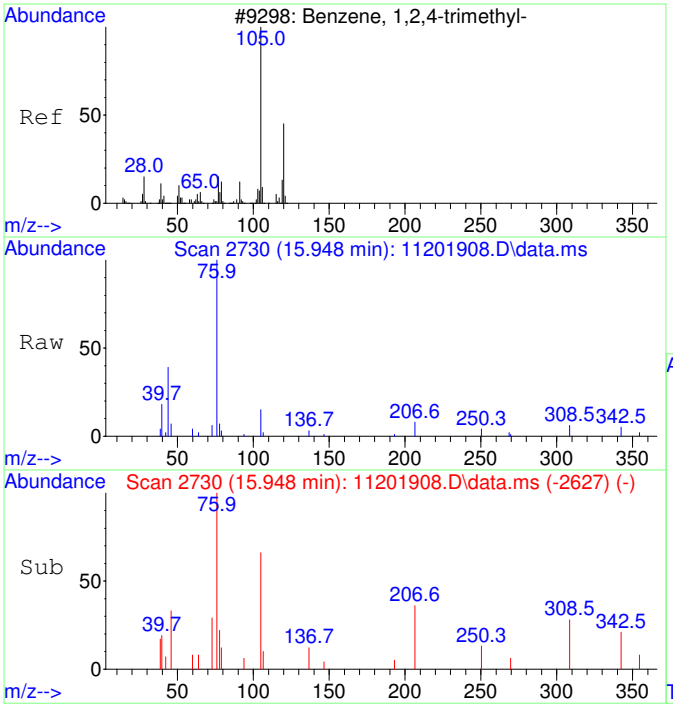


#46
1,3,5-Trimethylbenzene SCAN
Concen: 28.49 ug/L
RT: 15.397 min Scan# 2619
Delta R.T. 0.005 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 422

Ion	Ratio	Lower	Upper
105	100		
120	0.0	15.2	75.2#
119	42.7	0.0	45.5

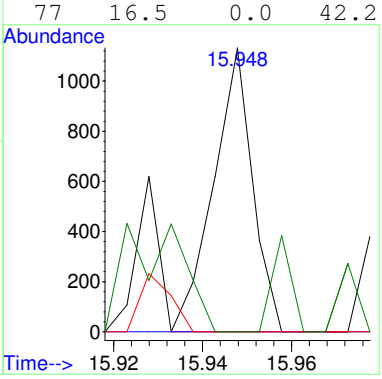


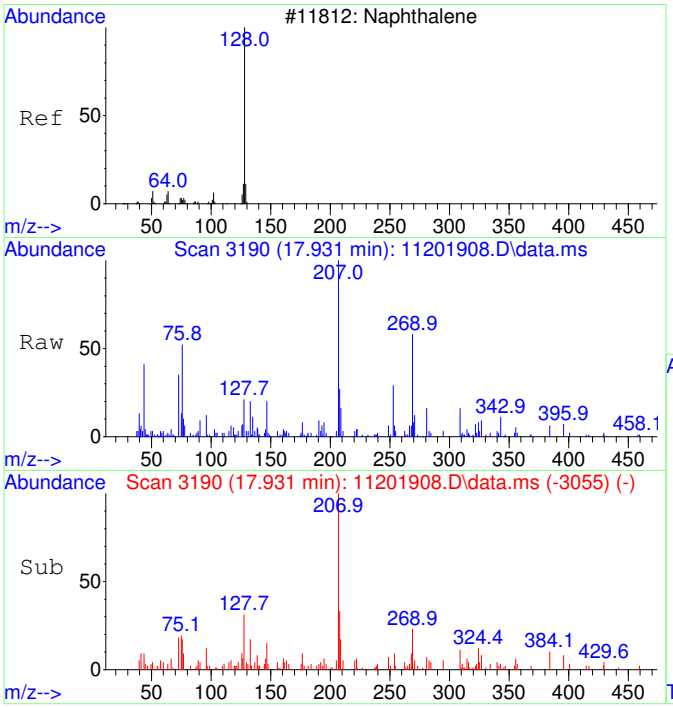


#47
1,2,4-Trimethylbenzene SCAN
Concen: 45.90 ug/L
RT: 15.948 min Scan# 2730
Delta R.T. 0.010 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 690

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	79.0#
119	0.0	0.0	40.2
77	16.5	0.0	42.2

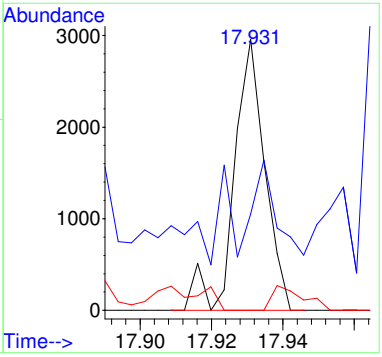




#48
Naphthalene SCAN
Concen: 72.66 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:128 Resp: 1765

Ion	Ratio	Lower	Upper
128	100		
127	25.7	0.0	45.2
129	9.2	0.0	41.5



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Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201908.D
Acq On : 20 Nov 2019 15:58
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL6
Misc : 1930060 0.5 mg/L
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
TD at 6:27 am, Nov 21, 2019

M.I. Approved By:
ZR at 11:53 am, Nov 27, 2019

Quant Time: Nov 21 06:22:26 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration

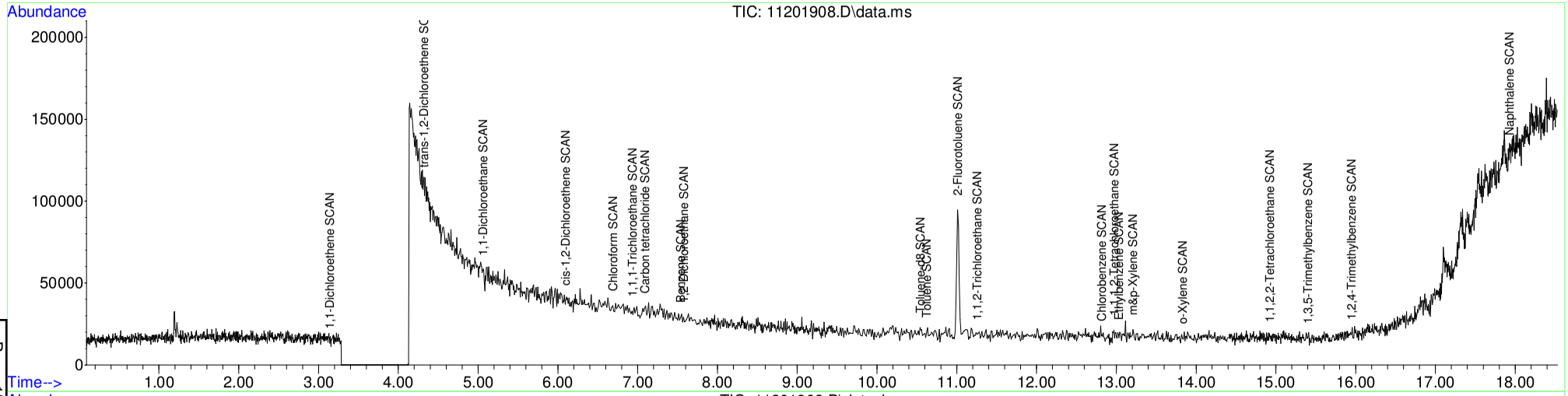
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	107392	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	901	52.24	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.04%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	264m	57.22	ug/L	
3] trans-1,2-Dichloroethene	4.310	61	294	62.38	ug/L	95
4] 1,1-Dichloroethane	5.066	63	388	64.76	ug/L	93
5] cis-1,2-Dichloroethene	6.094	61	332	60.26	ug/L	95
6] Chloroform	6.664	83	381	59.87	ug/L	85
7] 1,1,1-Trichloroethane	6.919	97	363	56.92	ug/L	86
8] Carbon tetrachloride	7.199	117	338	55.85	ug/L	88
9] Benzene	7.528	78	1048	65.34	ug/L	48
10] 1,2-Dichloroethane	7.564	62	296	56.23	ug/L #	43
11] Trichloroethene	8.602	130	270	54.87	ug/L #	83
13] Toluene	10.613	91	1128	53.91	ug/L	99
14] 1,1,2-Trichloroethane	11.275	97	266	56.11	ug/L	98
15] Tetrachloroethene	11.474	166	319	50.52	ug/L	100
16] Chlorobenzene	12.805	112	789	49.39	ug/L	80
17] 1,1,1,2-Tetrachloroethane	12.956	131	299	53.63	ug/L	97
18] Ethylbenzene	13.012	91	1251	48.46	ug/L	87
19] m&p-Xylene	13.210	91	1985	100.90	ug/L	96
20] o-Xylene	13.822	91	1011	48.46	ug/L	90
21] 1,1,2,2-Tetrachloroethane	14.921	83	440	46.97	ug/L	93
22] 1,3,5-Trimethylbenzene	15.393	105	1093	47.02	ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	1115	46.93	ug/L	100
24] Naphthalene	17.932	128	2114	49.26	ug/L	93
25) 2-Fluorotoluene SCAN	11.011	109	68137	5113.95	ug/L	99
26) 1,1-Dichloroethene SCAN	3.141	61	177	60.62	ug/L #	1
27) trans-1,2-Dichloroethe...	4.315	61	276	99.78	ug/L	92
28) 1,1-Dichloroethane SCAN	5.058	63	289	69.82	ug/L #	70
29) cis-1,2-Dichloroethene...	6.100	61	275	82.94	ug/L #	41
30) Chloroform SCAN	6.687	83	231	65.25	ug/L #	2
31) 1,1,1-Trichloroethane ...	6.930	97	220	54.06	ug/L #	22
32) Carbon tetrachloride SCAN	7.088	117	344	98.70	ug/L #	20
33) Benzene SCAN	7.538	78	1844	172.75	ug/L #	92
34) 1,2-Dichloroethane SCAN	7.575	62	669	183.77	ug/L #	1
36) Toluene-d8 SCAN	10.539	98	1207	106.84	ug/L #	16
37) Toluene SCAN	10.623	91	1567	118.76	ug/L #	65
38) 1,1,2-Trichloroethane ...	11.252	97	91	31.70	ug/L #	1
40) Chlorobenzene SCAN	12.812	112	619	58.88	ug/L #	66
41) 1,1,1,2-Tetrachloroeth...	12.971	131	204	60.15	ug/L #	31
42) Ethylbenzene SCAN	13.026	91	1133	67.96	ug/L #	53
43) m&p-Xylene SCAN	13.209	91	1204	48.16	ug/L #	79
44) o-Xylene SCAN	13.829	91	769	54.26	ug/L #	63
45) 1,1,2,2-Tetrachloroeth...	14.920	83	294	46.01	ug/L	73
46) 1,3,5-Trimethylbenzene...	15.397	105	422	28.49	ug/L #	32
47) 1,2,4-Trimethylbenzene...	15.948	105	690	45.90	ug/L #	45
48) Naphthalene SCAN	17.931	128	1765	72.66	ug/L	83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201908.D
Acq On : 20 Nov 2019 15:58
InstName : AG5975C
Operator : TD
Sample : S19K083-CAL6
Misc : 1930060 0.5 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 06:22:26 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:15:37 2019
Response via : Initial Calibration



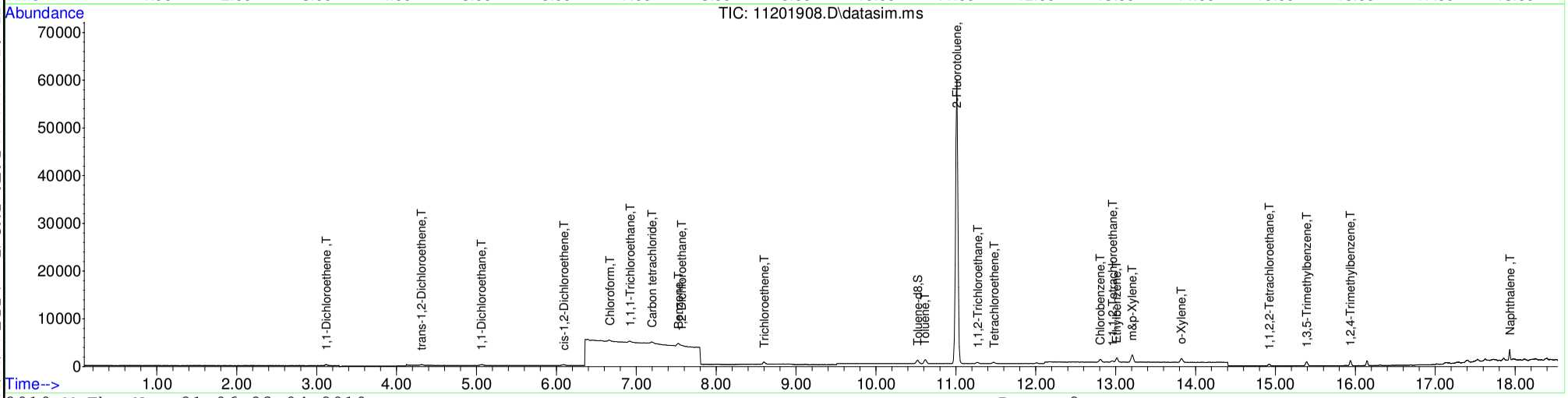
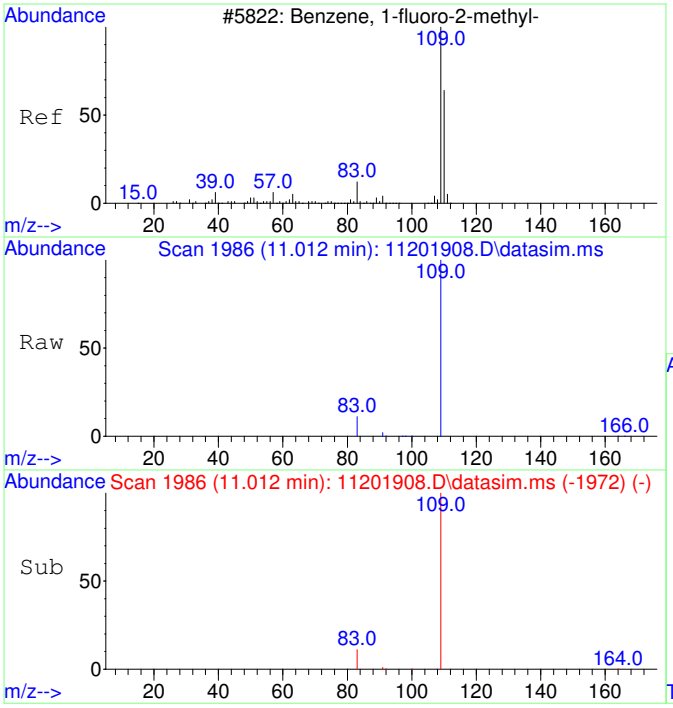


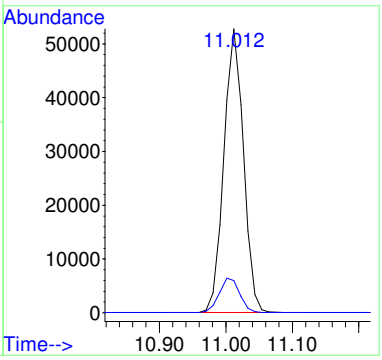
Table of Contents

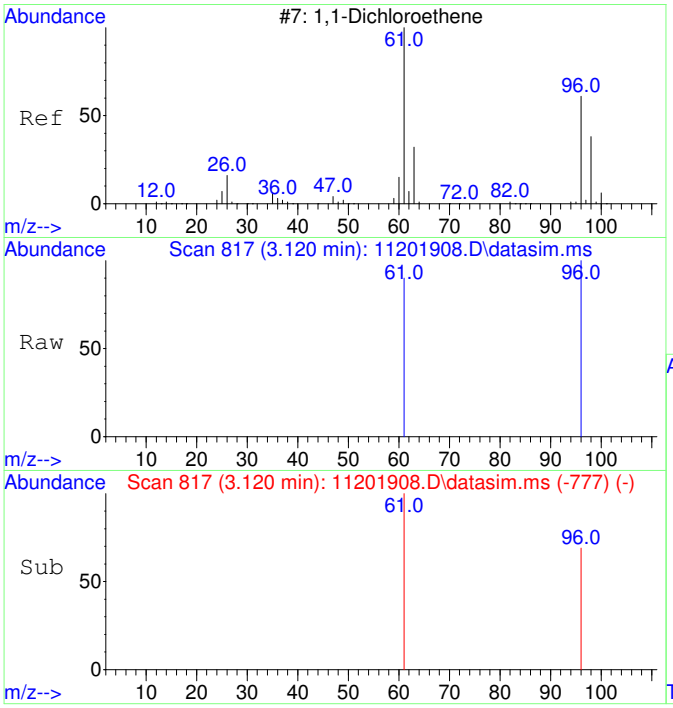


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:109 Resp: 107392

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.3

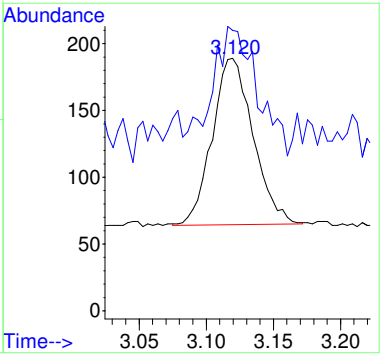


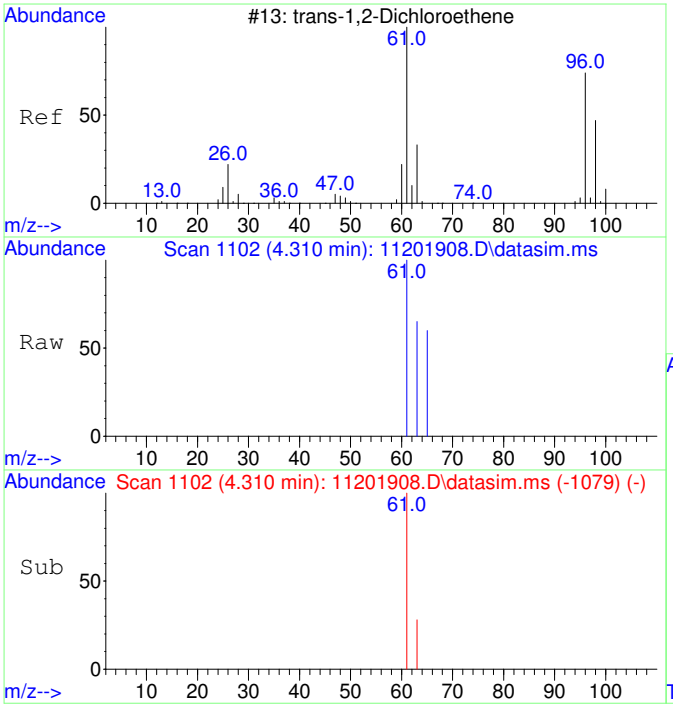


#2
1,1-Dichloroethene
Concen: 57.22 ug/L m
RT: 3.120 min Scan# 817
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 264

Ion	Ratio	Lower	Upper
61	100		
96	86.0	32.4	92.4

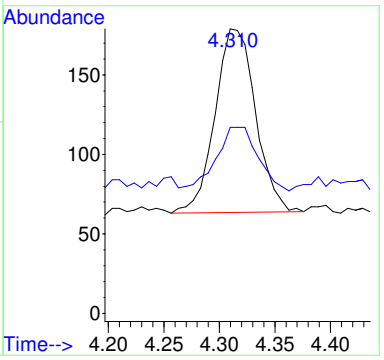


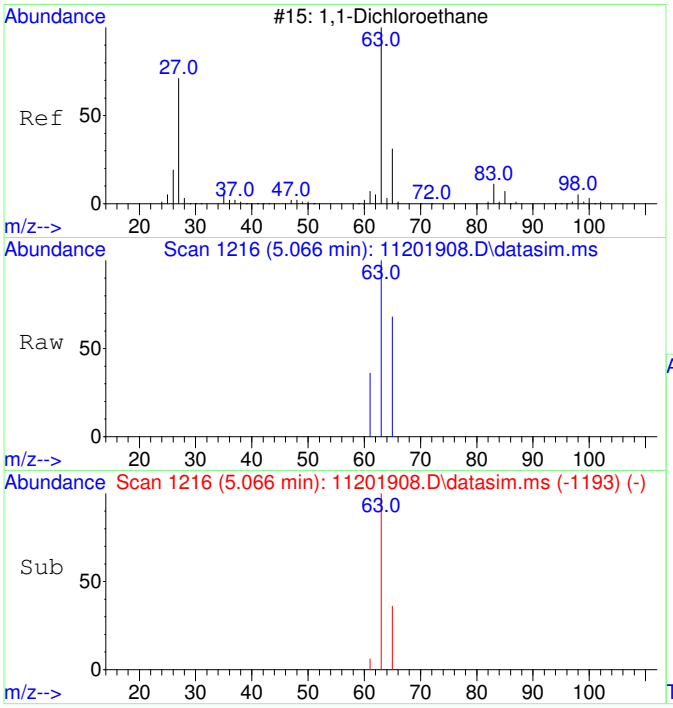


#3
trans-1,2-Dichloroethene
Concen: 62.38 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 294

Ion	Ratio	Lower	Upper
61	100		
63	35.4	2.6	62.6

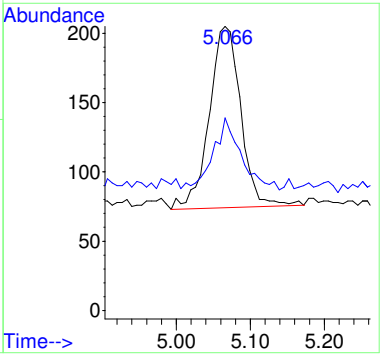


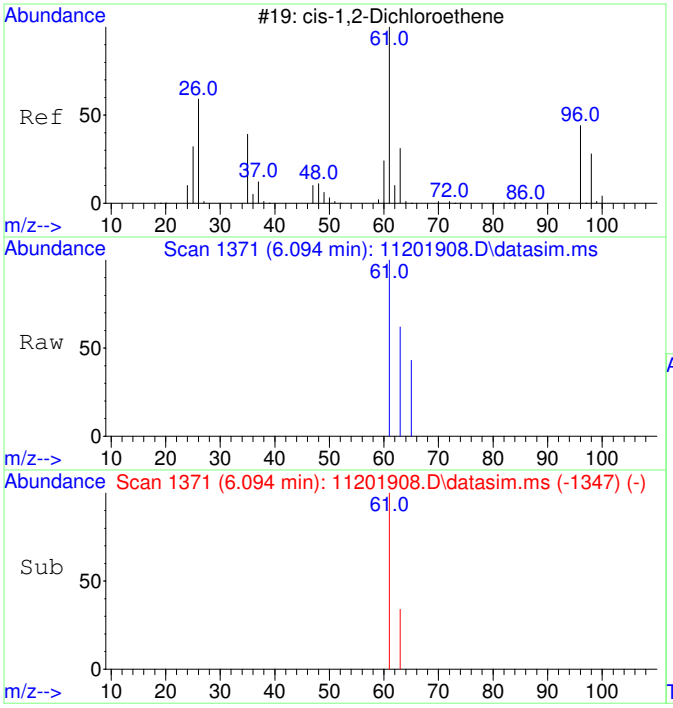


#4
1,1-Dichloroethane
Concen: 64.76 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 63 Resp: 388

Ion	Ratio	Lower	Upper
63	100		
65	35.3	1.6	61.6

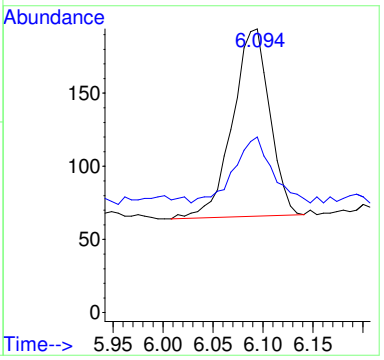


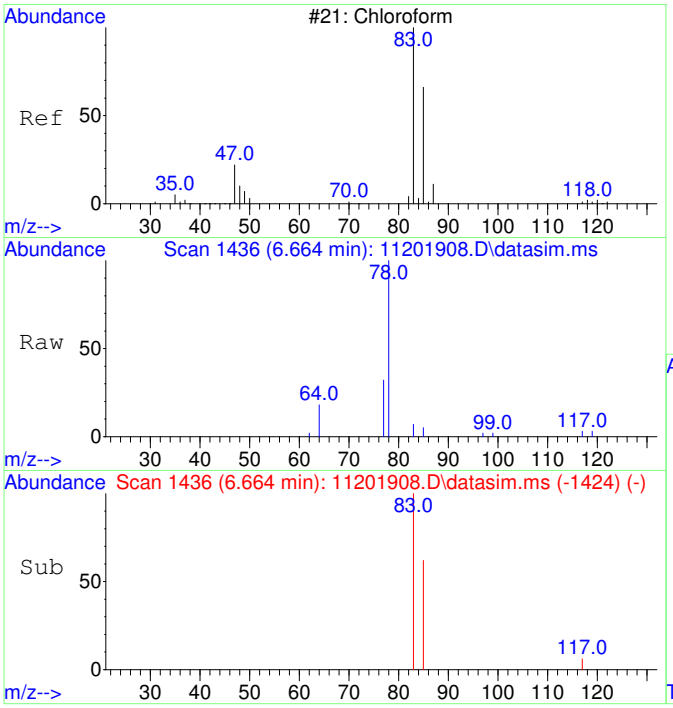


#5
cis-1,2-Dichloroethene
Concen: 60.26 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 332

Ion	Ratio	Lower	Upper
61	100		
63	35.5	2.6	62.6

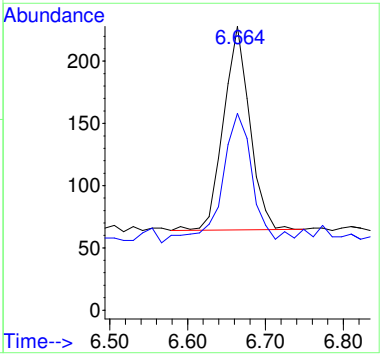


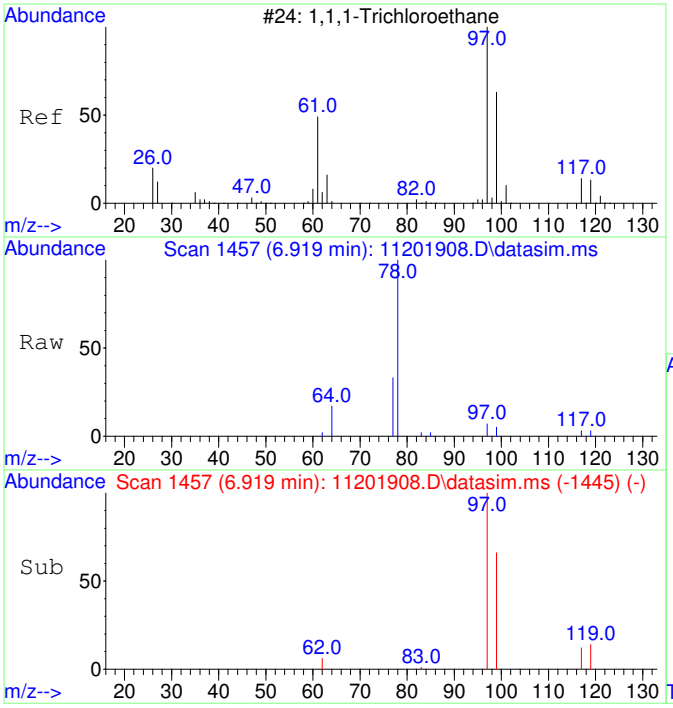


#6
Chloroform
Concen: 59.87 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 381

Ion	Ratio	Lower	Upper
83	100		
85	76.4	34.4	94.4

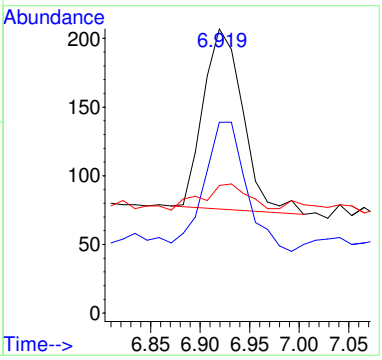


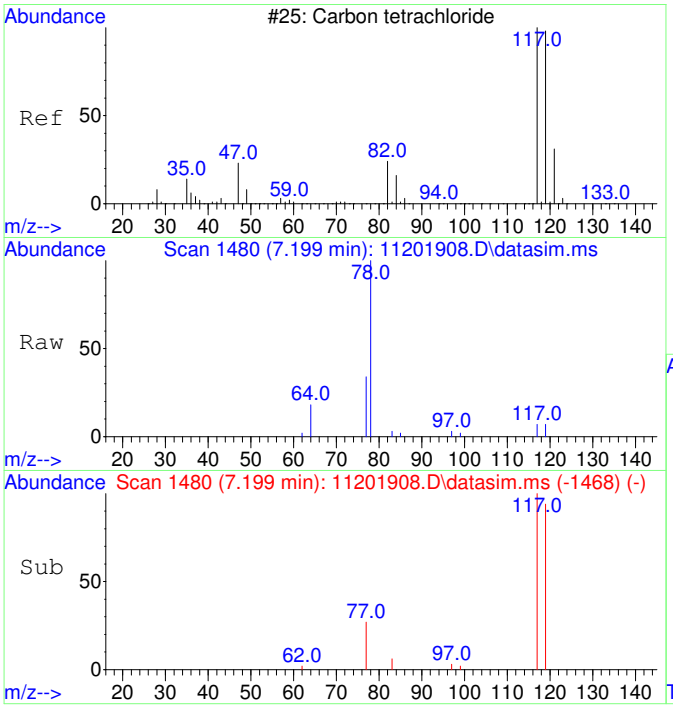


#7
1,1,1-Trichloroethane
Concen: 56.92 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 363

Ion	Ratio	Lower	Upper
97	100		
99	76.6	34.3	94.3
117	14.9	0.0	43.2

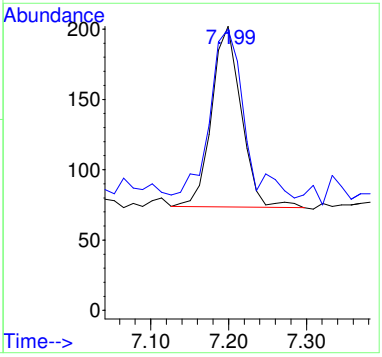


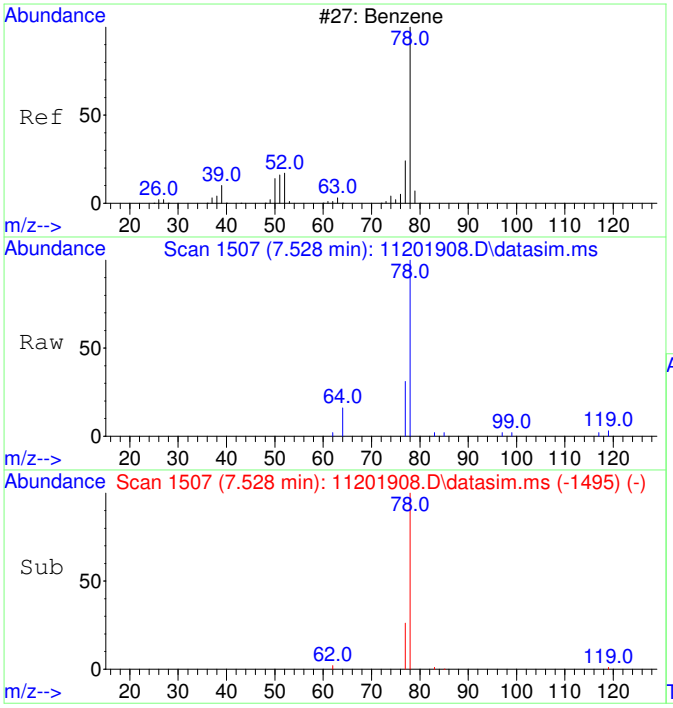


#8
Carbon tetrachloride
Concen: 55.85 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:117 Resp: 338

Ion	Ratio	Lower	Upper
117	100		
119	107.4	66.0	126.0

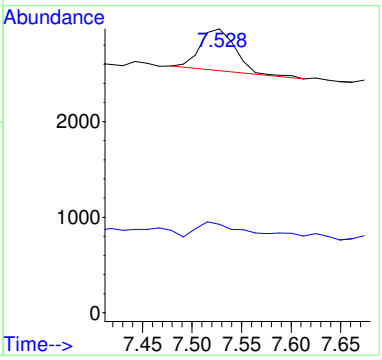


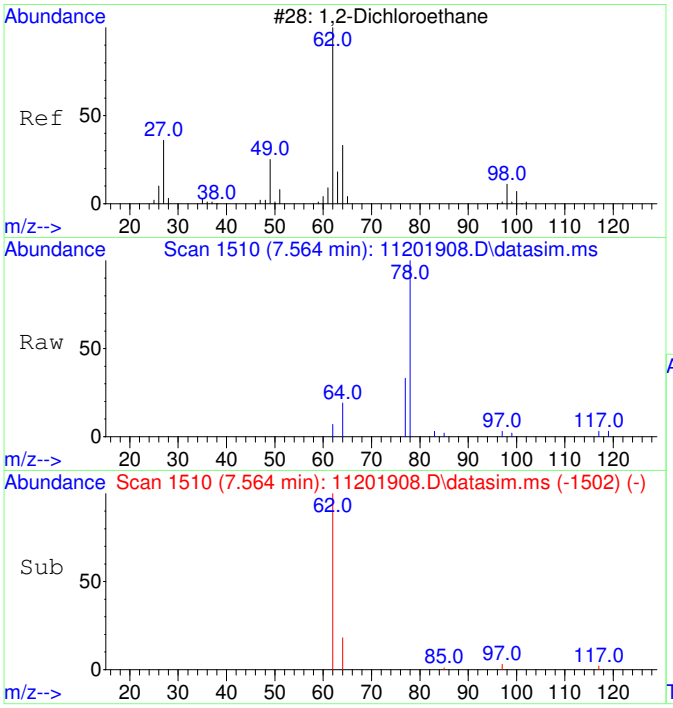


#9
Benzene
Concen: 65.34 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 78 Resp: 1048

Ion	Ratio	Lower	Upper
78	100		
77	48.6	0.0	53.2

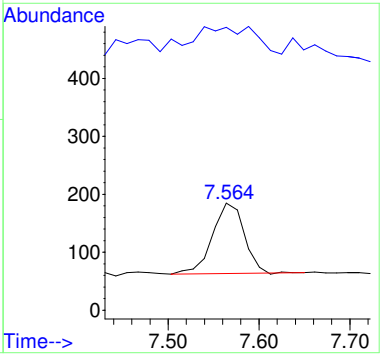


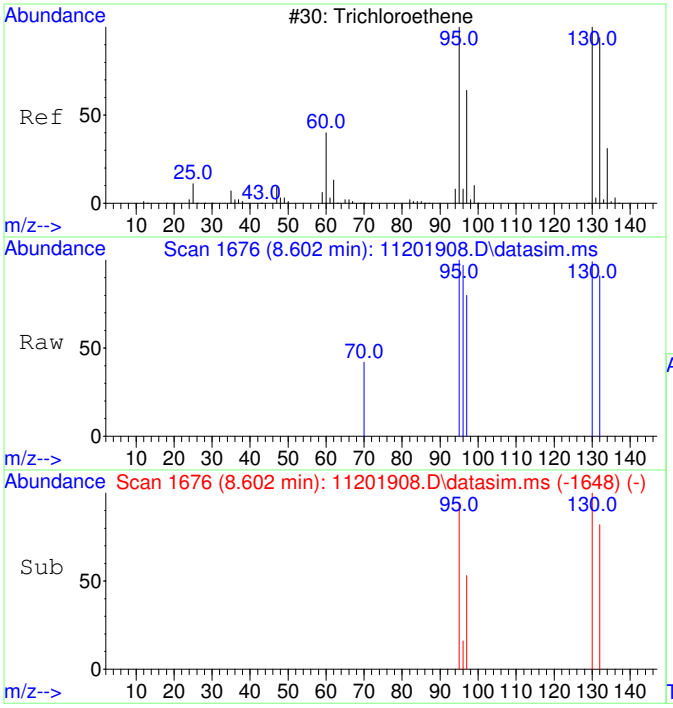


#10
1,2-Dichloroethane
Concen: 56.23 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 62 Resp: 296

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#

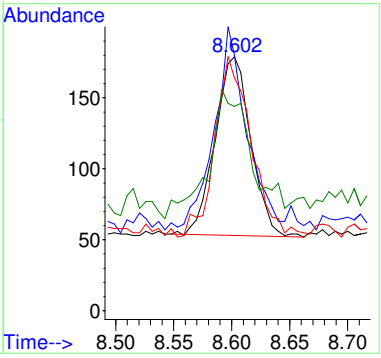


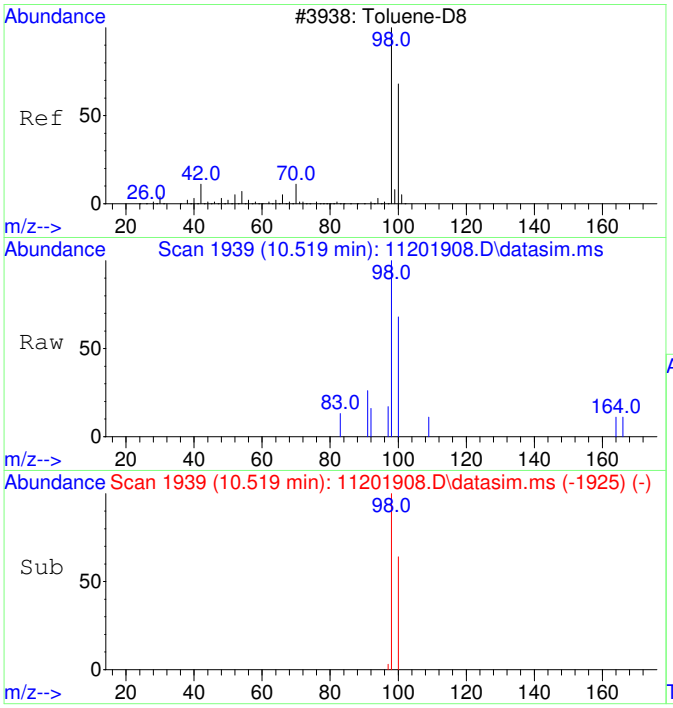


#11
Trichloroethene
Concen: 54.87 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:130 Resp: 270

Ion	Ratio	Lower	Upper
130	100		
95	104.8	61.1	121.1
132	103.7	75.7	115.7
97	87.0	39.7	79.7#

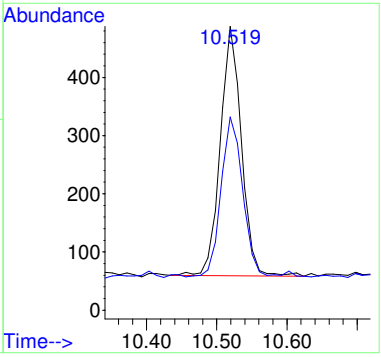


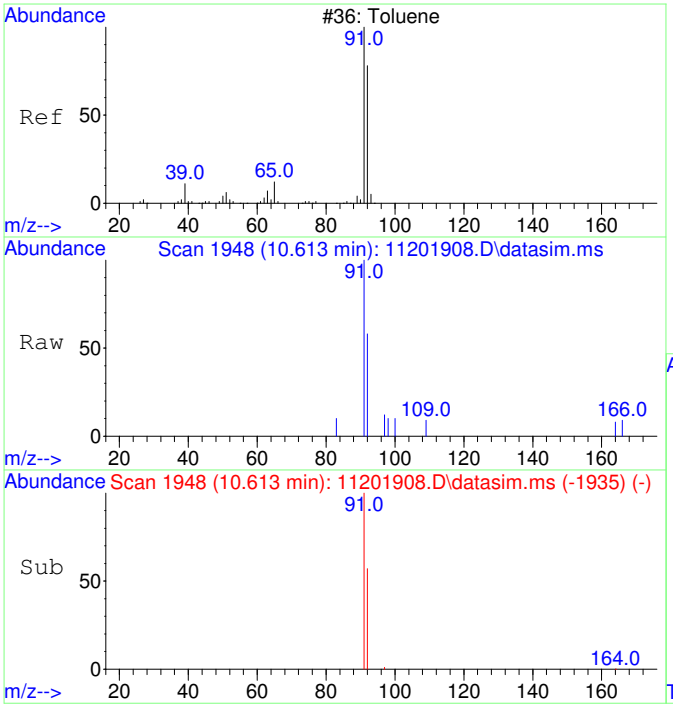


#12
Toluene-d8
Concen: 52.24 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 98 Resp: 901

Ion	Ratio	Lower	Upper
98	100		
100	65.9	37.1	97.1

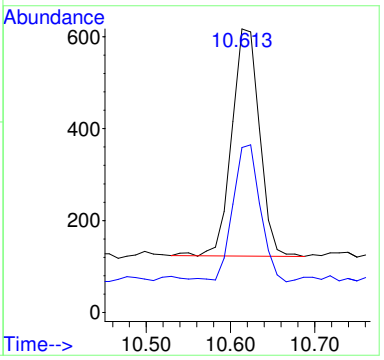


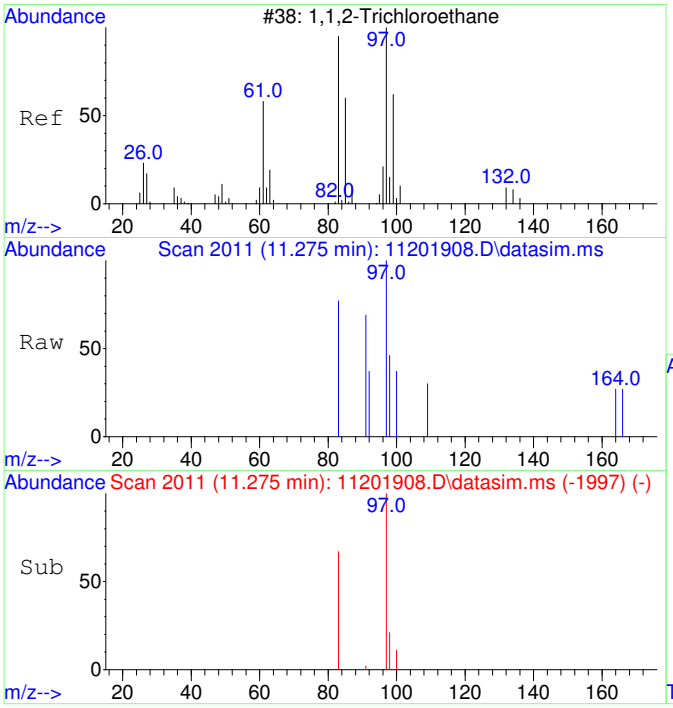


#13
Toluene
Concen: 53.91 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.011 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1128

Ion	Ratio	Lower	Upper
91	100		
92	59.7	29.0	89.0

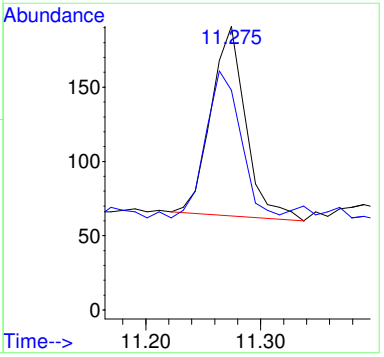


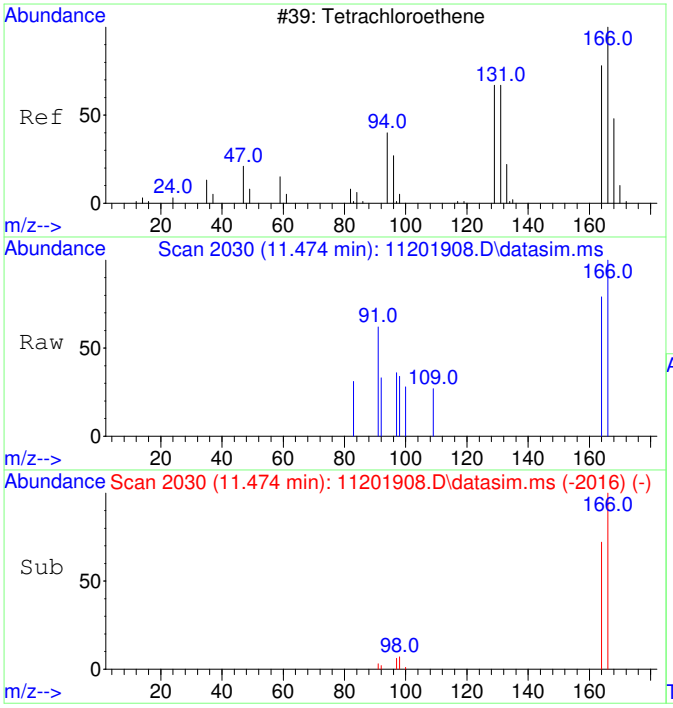


#14
1,1,2-Trichloroethane
Concen: 56.11 ug/L
RT: 11.275 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 266

Ion	Ratio	Lower	Upper
97	100		
83	83.8	51.8	111.8

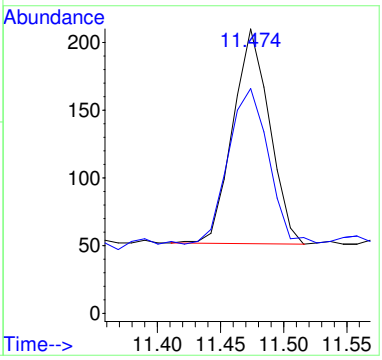


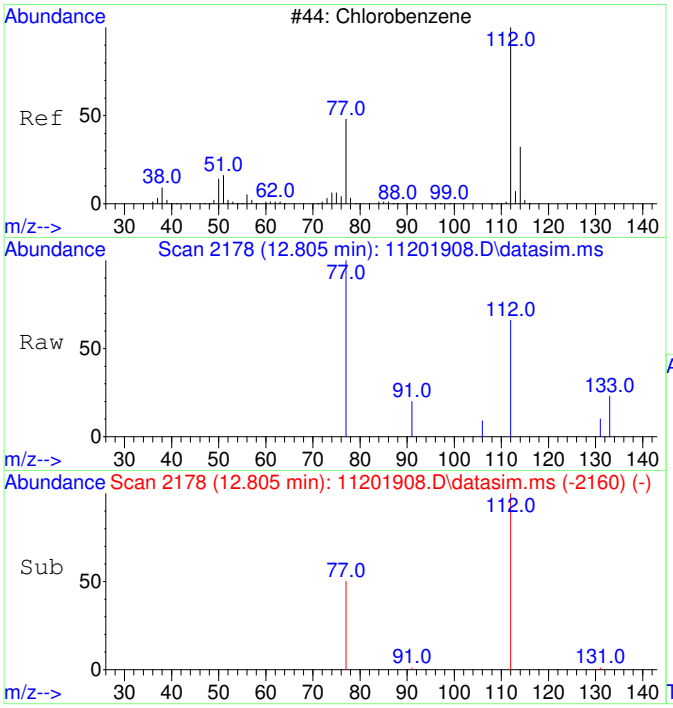


#15
Tetrachloroethene
Concen: 50.52 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:166 Resp: 319

Ion	Ratio	Lower	Upper
166	100		
164	79.0	48.6	108.6

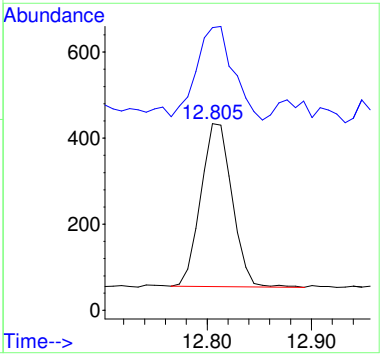


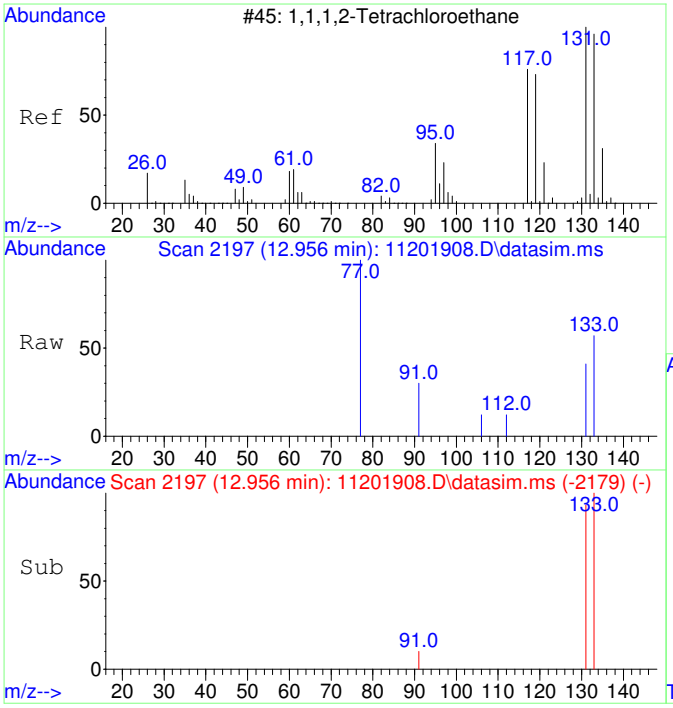


#16
Chlorobenzene
Concen: 49.39 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:112 Resp: 789

Ion	Ratio	Lower	Upper
112	100		
77	68.8	24.7	84.7

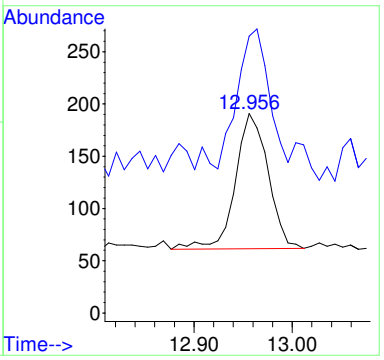


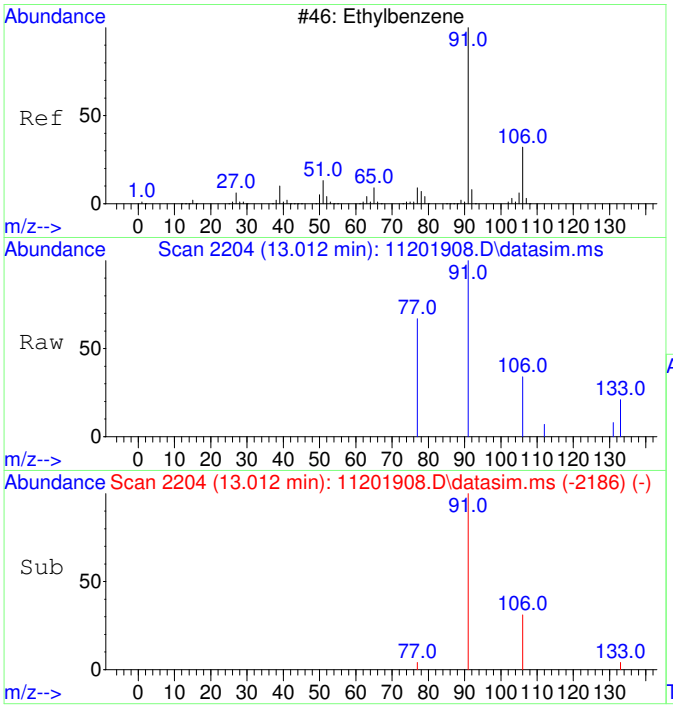


#17
1,1,1,2-Tetrachloroethane
Concen: 53.63 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:131 Resp: 299

Ion	Ratio	Lower	Upper
131	100		
133	99.7	66.6	126.6

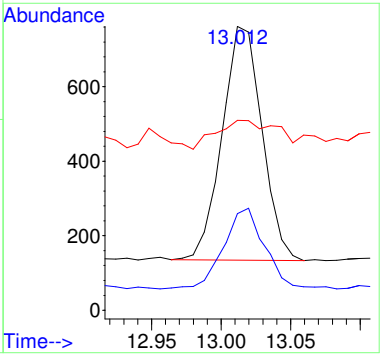


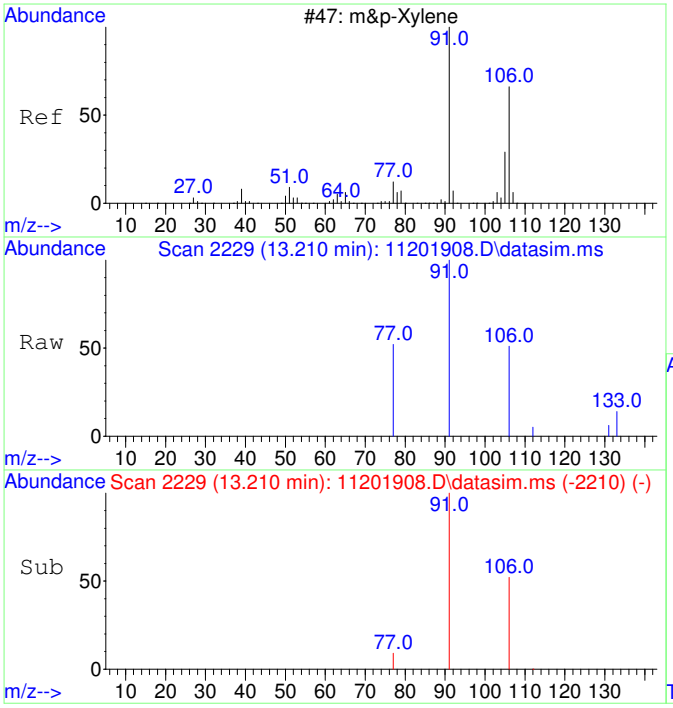


#18
Ethylbenzene
Concen: 48.46 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1251

Ion	Ratio	Lower	Upper
91	100		
106	35.9	2.6	62.6
77	22.2	0.0	38.2

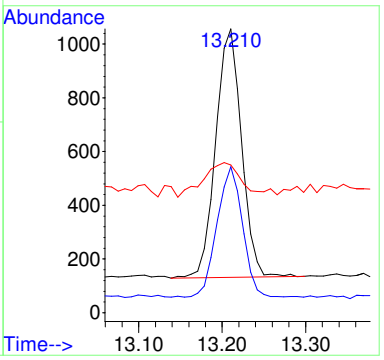


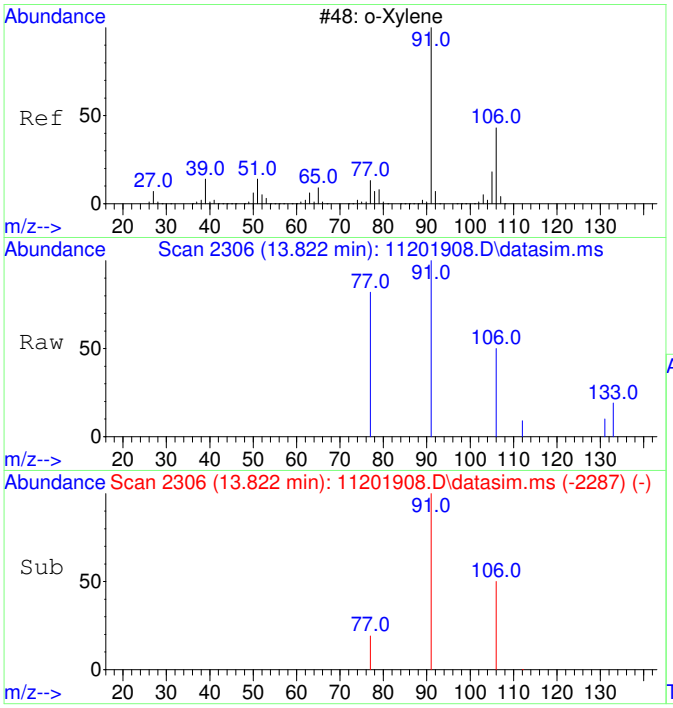


#19
m&p-Xylene
Concen: 100.90 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1985

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.4	81.4
77	20.3	0.0	42.6

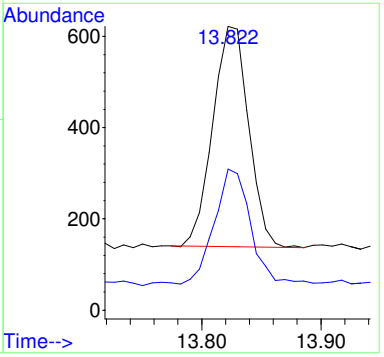


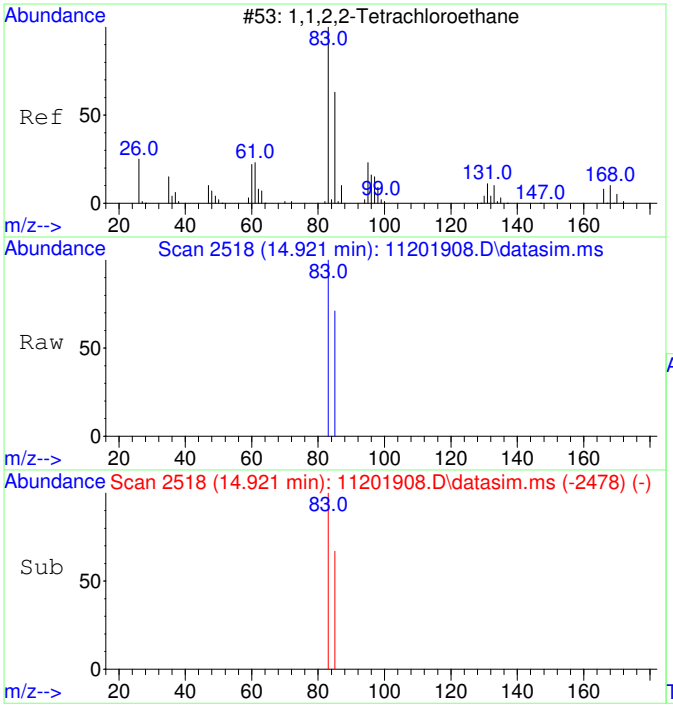


#20
o-Xylene
Concen: 48.46 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1011

Ion	Ratio	Lower	Upper
91	100		
106	55.6	18.5	78.5

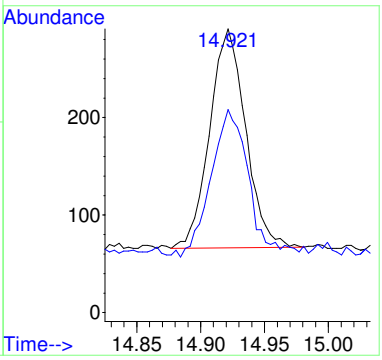


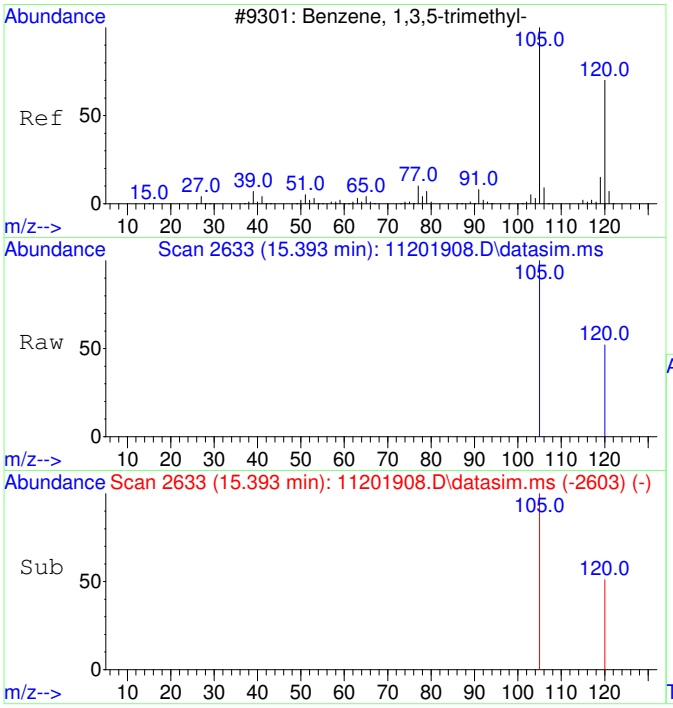


#21
1,1,2,2-Tetrachloroethane
Concen: 46.97 ug/L
RT: 14.921 min Scan# 2518
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 440

Ion	Ratio	Lower	Upper
83	100		
85	70.5	34.6	94.6

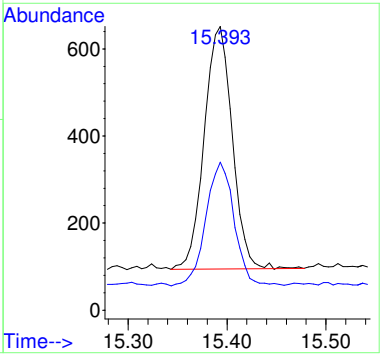


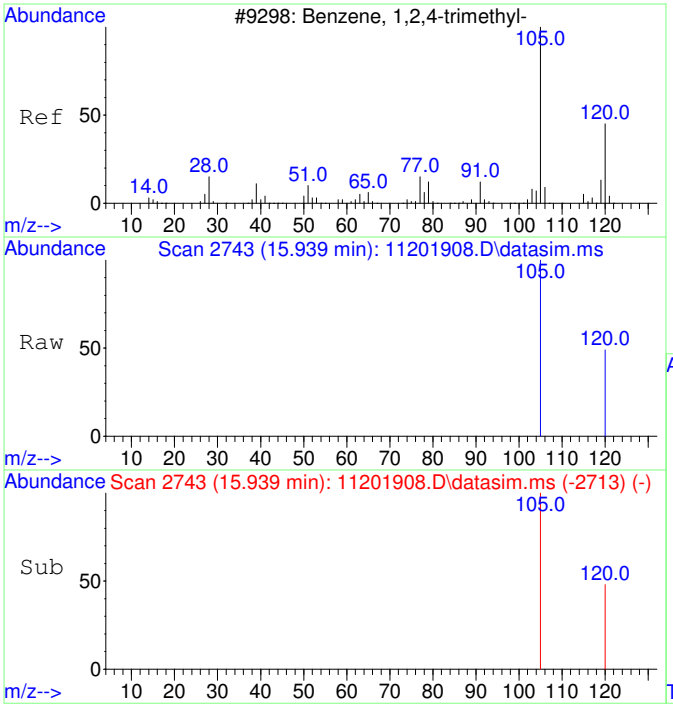


#22
1,3,5-Trimethylbenzene
Concen: 47.02 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 1093

Ion	Ratio	Lower	Upper
105	100		
120	51.1	20.9	80.9

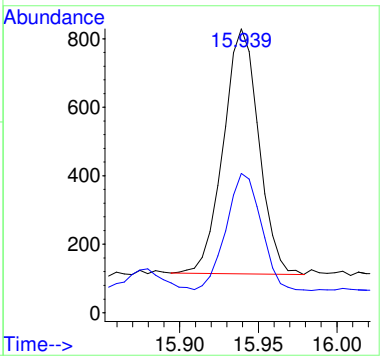


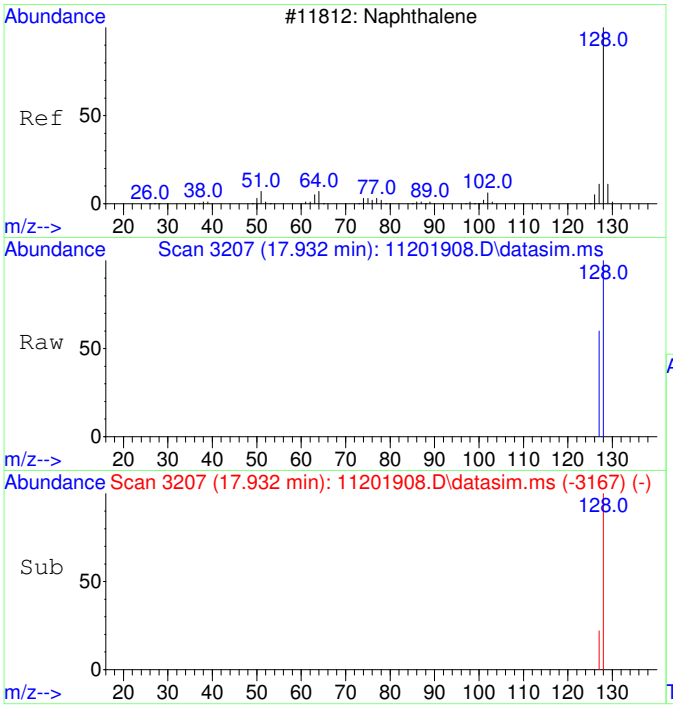


#23
1,2,4-Trimethylbenzene
Concen: 46.93 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 1115

Ion	Ratio	Lower	Upper
105	100		
120	46.8	16.6	76.6

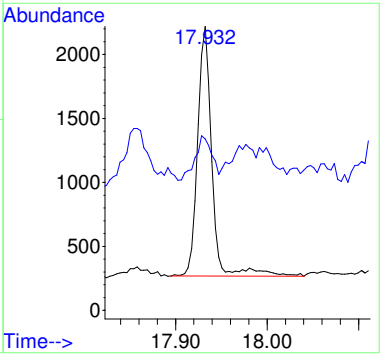


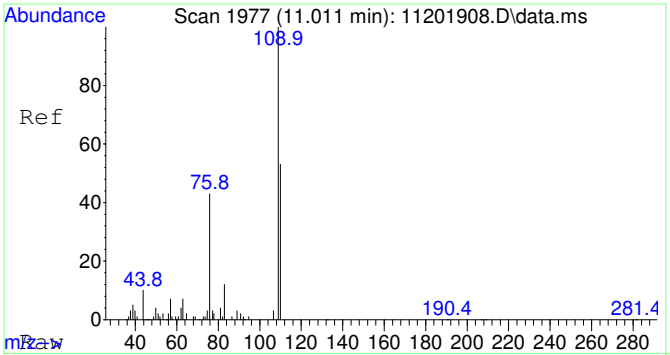


#24
Naphthalene
Concen: 49.26 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:128 Resp: 2114

Ion	Ratio	Lower	Upper
128	100		
127	15.4	0.0	42.5

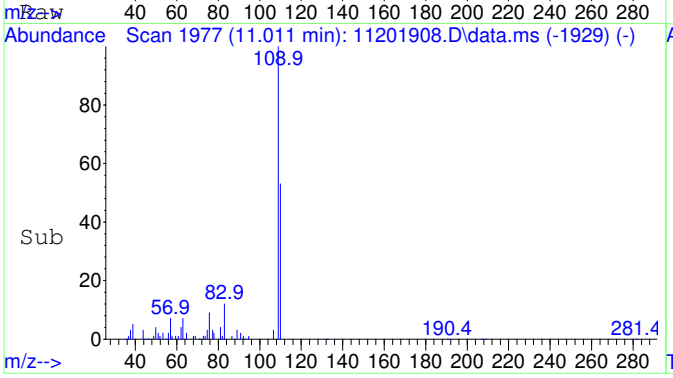


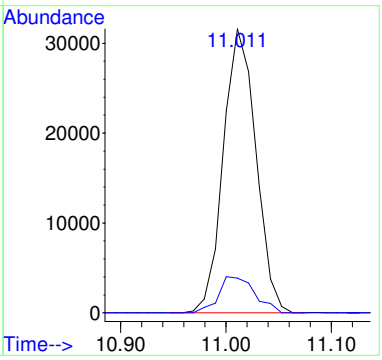


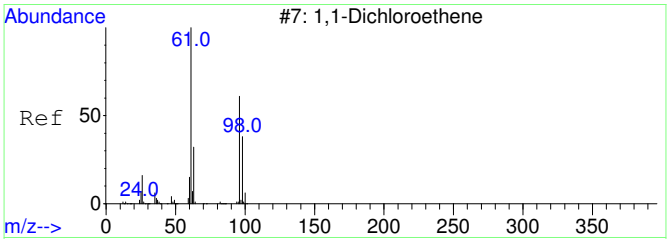
#25
2-Fluorotoluene SCAN
Concen: 5113.95 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

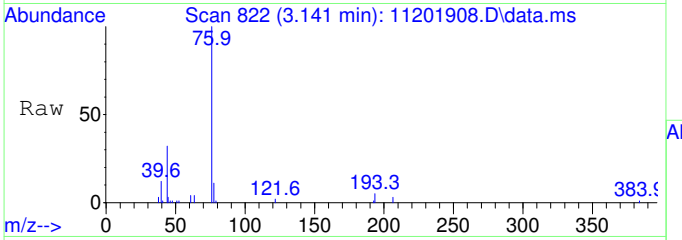
Tgt Ion:109 Resp: 68137

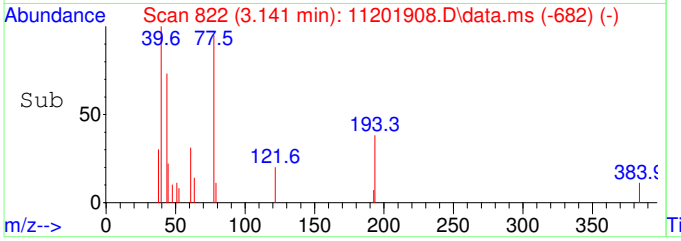
Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.5







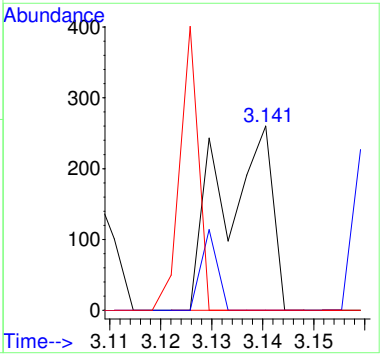


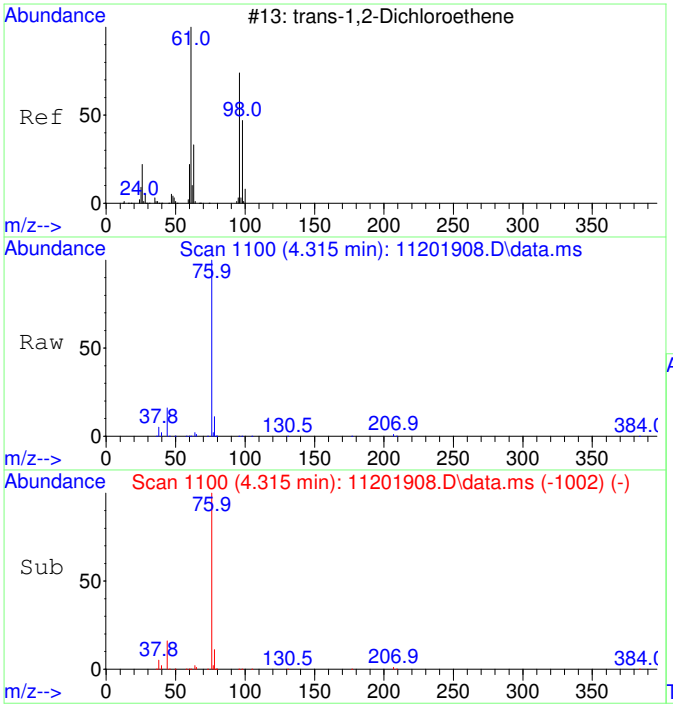


#26
1,1-Dichloroethene SCAN
Concen: 60.62 ug/L
RT: 3.141 min Scan# 822
Delta R.T. 0.018 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 177

Ion	Ratio	Lower	Upper
61	100		
96	0.0	160.0	220.0#
98	56.5	114.2	174.2#

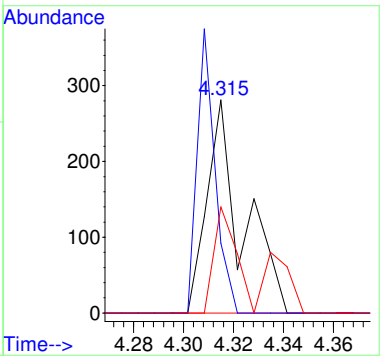


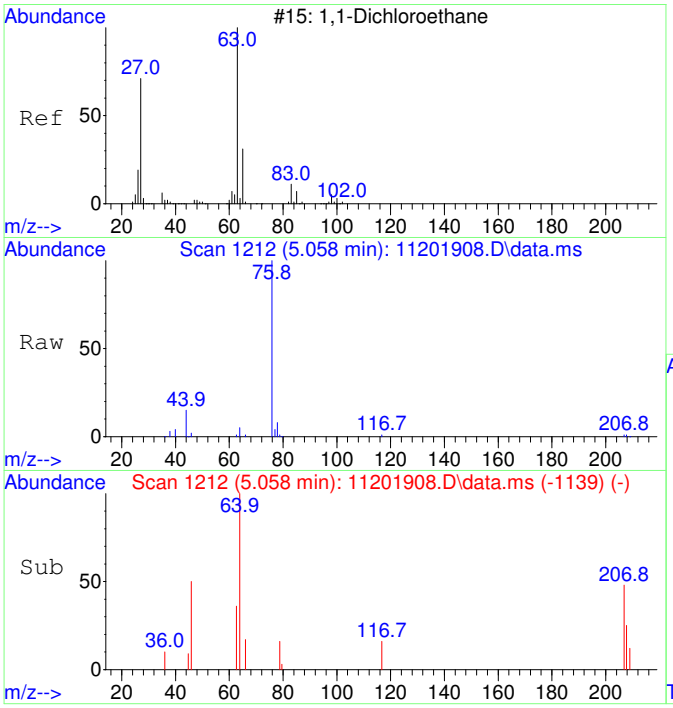


#27
trans-1,2-Dichloroethene SCAN
Concen: 99.78 ug/L
RT: 4.315 min Scan# 1100
Delta R.T. 0.007 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 276

Ion	Ratio	Lower	Upper
61	100		
96	67.4	44.3	104.3
98	31.5	5.2	65.2

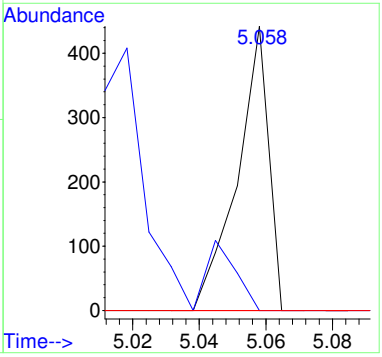


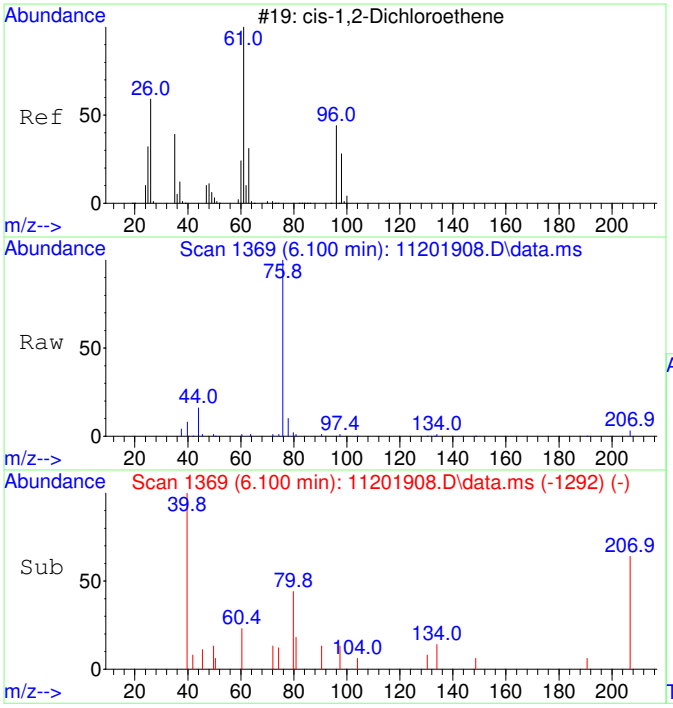


#28
1,1-Dichloroethane SCAN
Concen: 69.82 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 63 Resp: 289

Ion	Ratio	Lower	Upper
63	100		
65	23.2	0.0	39.8
83	0.0	0.0	33.0

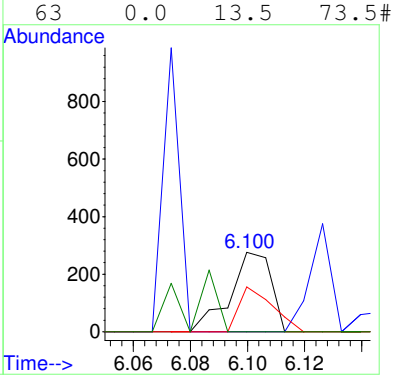


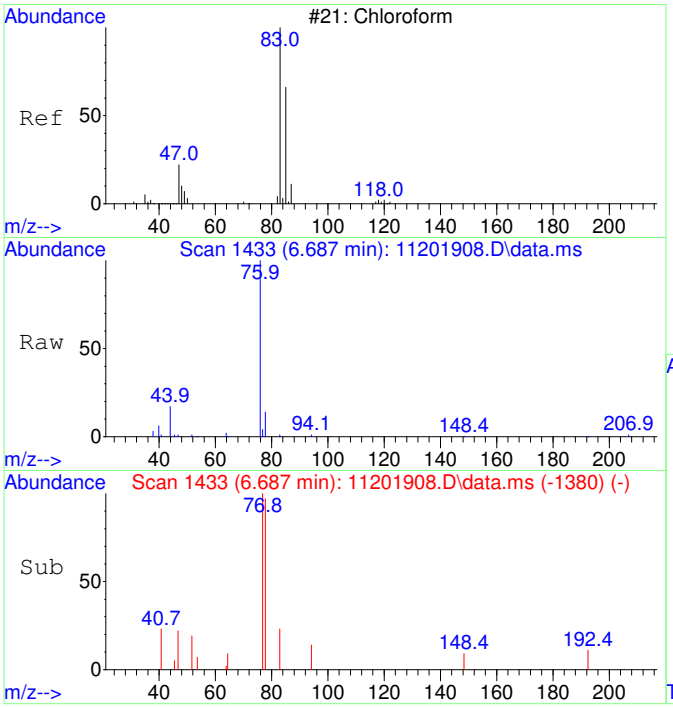


#29
cis-1,2-Dichloroethene SCAN
Concen: 82.94 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.013 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 61 Resp: 275

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.4	102.4#
98	46.2	13.5	73.5
63	0.0	13.5	73.5#

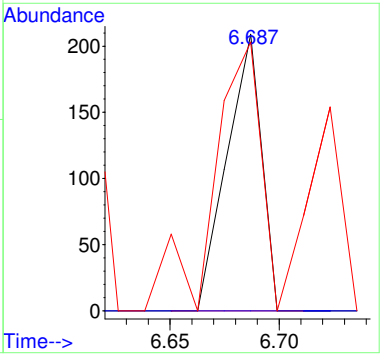


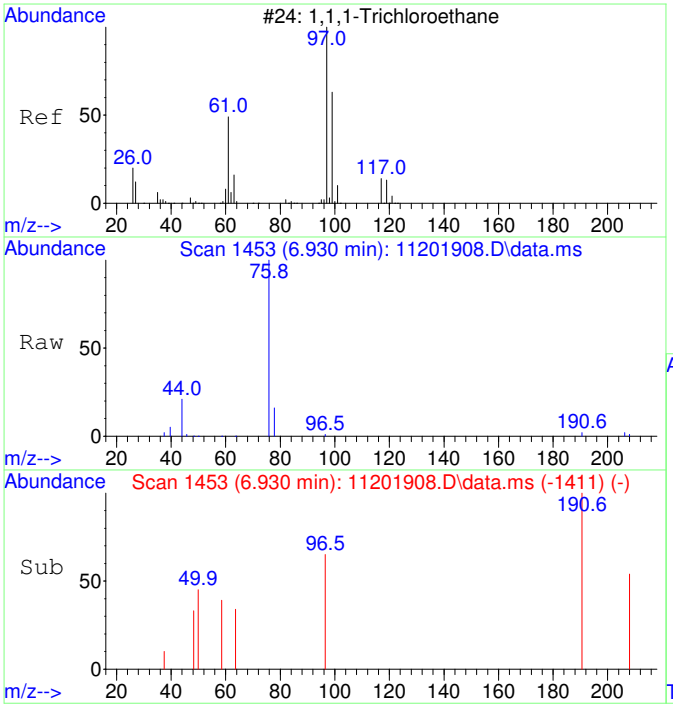


#30
Chloroform SCAN
Concen: 65.25 ug/L
RT: 6.687 min Scan# 1433
Delta R.T. 0.012 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 231

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.6	111.6#
47	91.8	0.0	59.5#

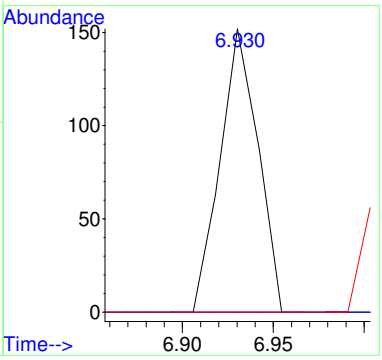


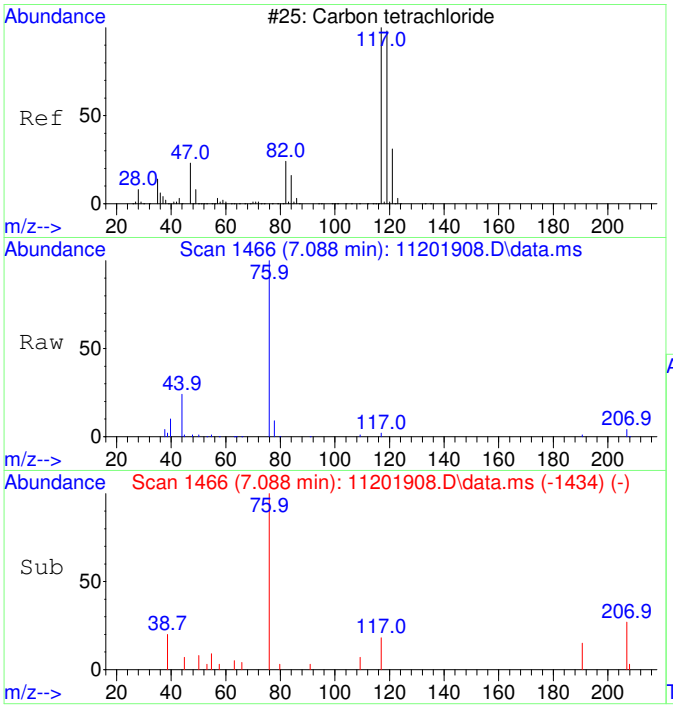


#31
1,1,1-Trichloroethane SCAN
Concen: 54.06 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 220

Ion	Ratio	Lower	Upper
97	100		
99	0.0	39.0	99.0#
61	0.0	12.8	72.8#

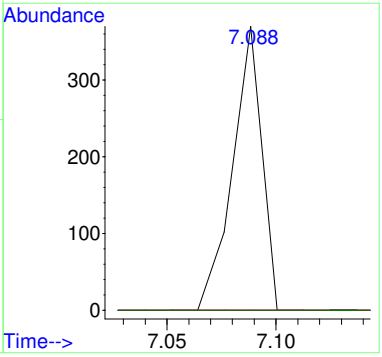


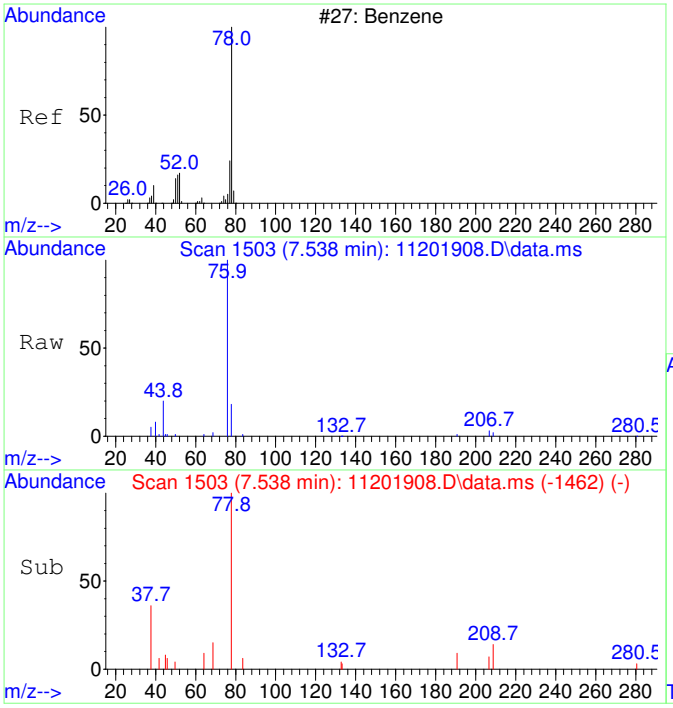


#32
Carbon tetrachloride SCAN
Concen: 98.70 ug/L
RT: 7.088 min Scan# 1466
Delta R.T. -0.110 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:117 Resp: 344

Ion	Ratio	Lower	Upper
117	100		
119	0.0	59.7	119.7#
121	0.0	0.0	59.9
82	0.0	6.4	66.4#

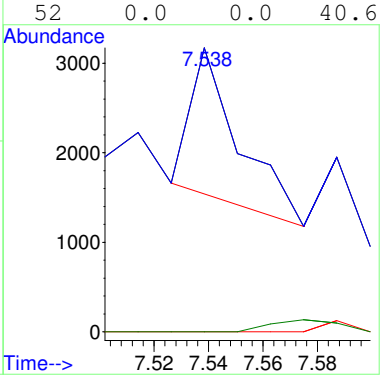


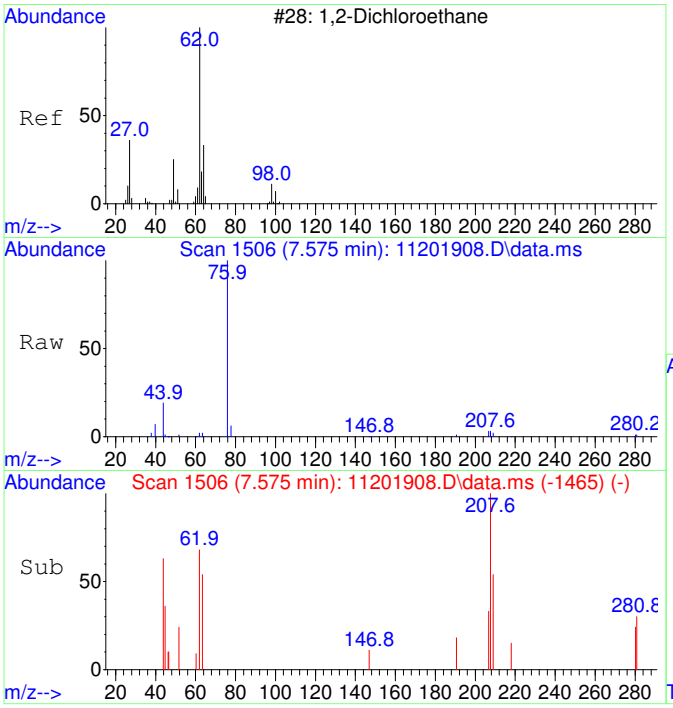


#33
Benzene SCAN
Concen: 172.75 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 78 Resp: 1844

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.1
52	0.0	0.0	40.6

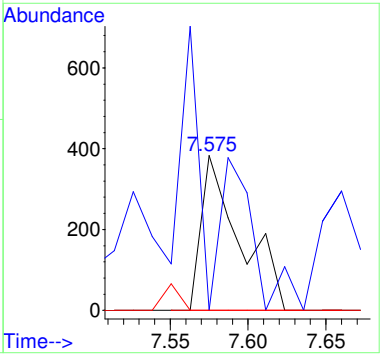


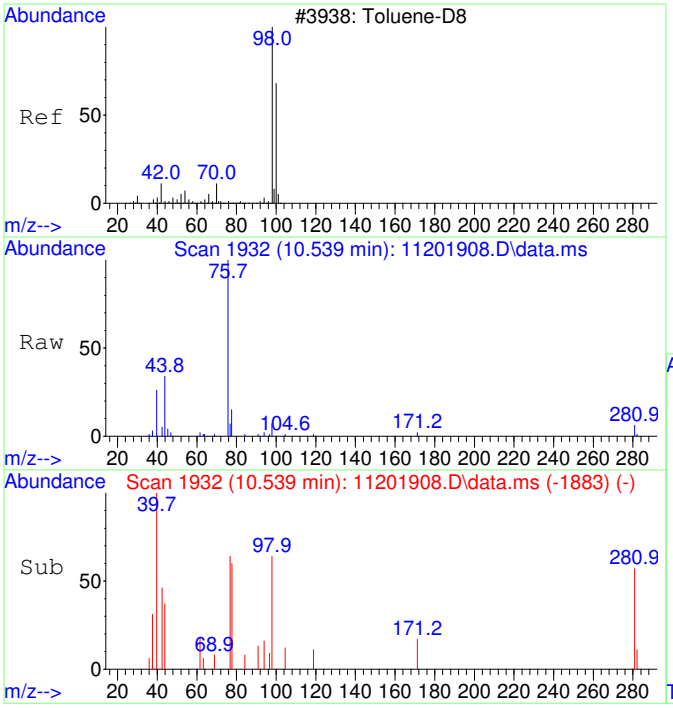


#34
1,2-Dichloroethane SCAN
Concen: 183.77 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 62 Resp: 669

Ion	Ratio	Lower	Upper
62	100		
64	254.7	22.9	82.9#
49	0.0	0.0	59.6

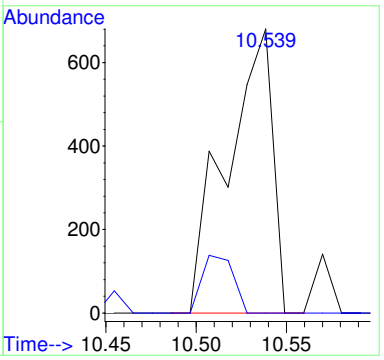


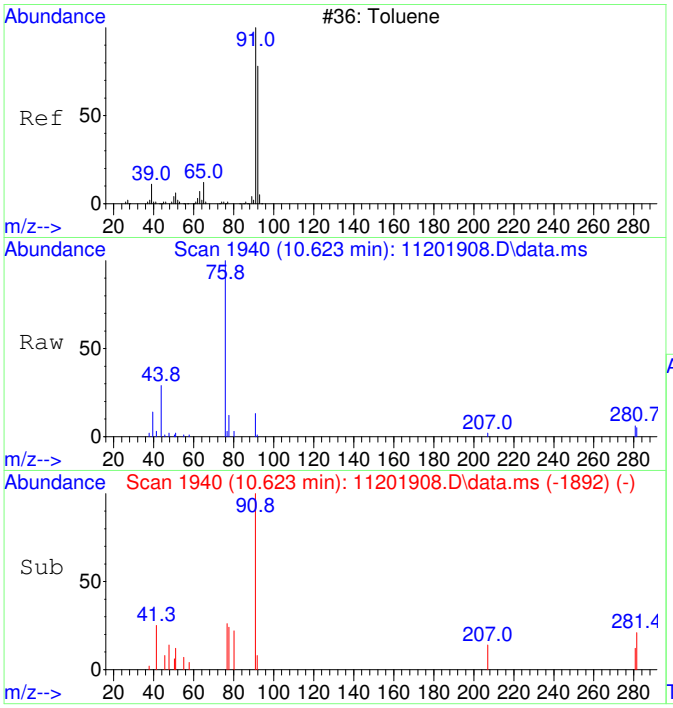


#36
Toluene-d8 SCAN
Concen: 106.84 ug/L
RT: 10.539 min Scan# 1932
Delta R.T. 0.010 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 98 Resp: 1207

Ion	Ratio	Lower	Upper
98	100		
100	0.0	38.5	98.5#

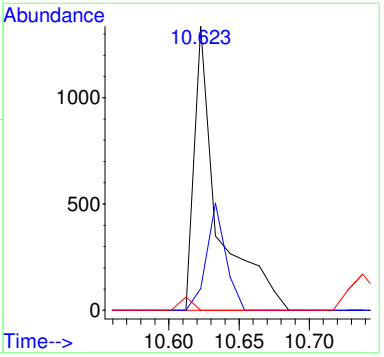


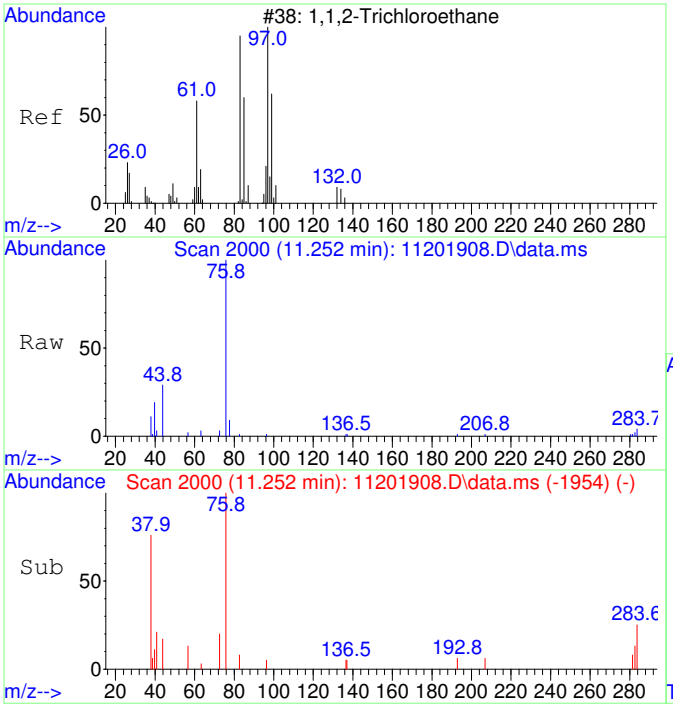


#37
Toluene SCAN
Concen: 118.76 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1567

Ion	Ratio	Lower	Upper
91	100		
92	30.6	26.2	86.2
65	0.0	0.0	43.1

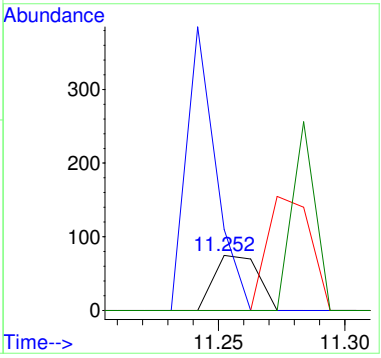


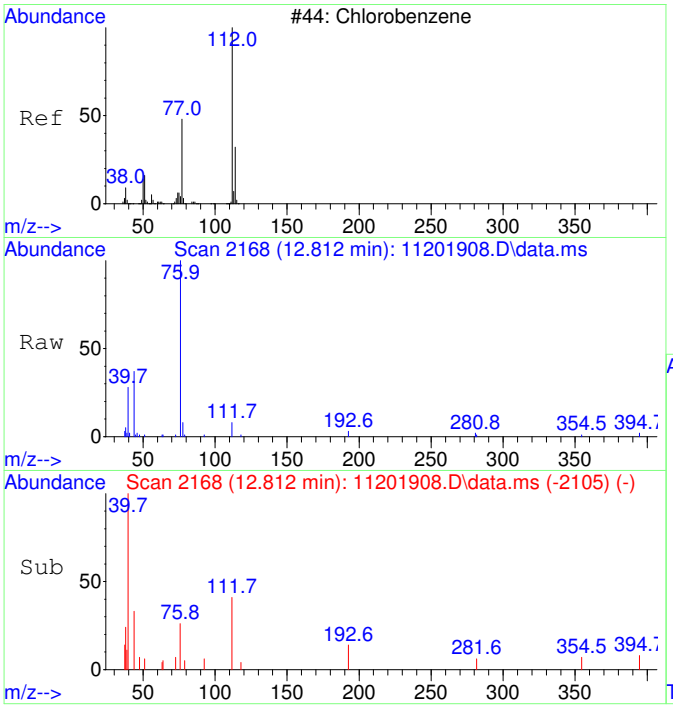


#38
1,1,2-Trichloroethane SCAN
Concen: 31.70 ug/L
RT: 11.252 min Scan# 2000
Delta R.T. -0.021 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 97 Resp: 91

Ion	Ratio	Lower	Upper
97	100		
83	342.9	65.0	125.0#
61	0.0	47.6	107.6#
99	0.0	58.1	118.1#

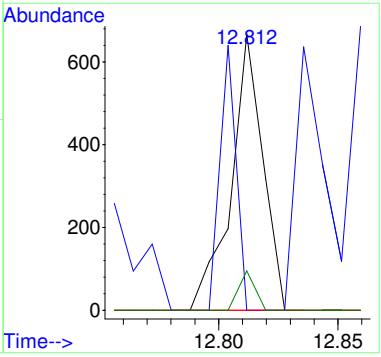


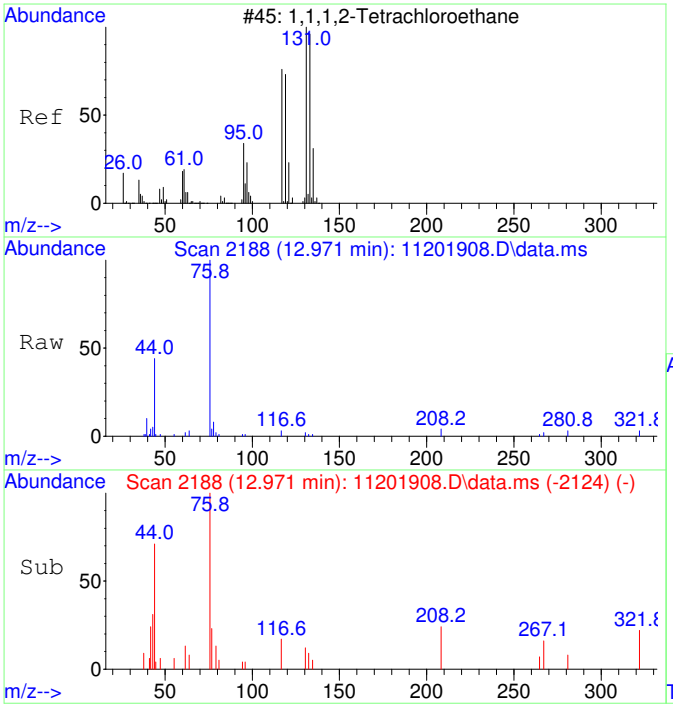


#40
Chlorobenzene SCAN
Concen: 58.88 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:112 Resp: 619

Ion	Ratio	Lower	Upper
112	100		
77	49.3	32.8	92.8
114	0.0	0.9	60.9#
51	0.0	0.0	53.2

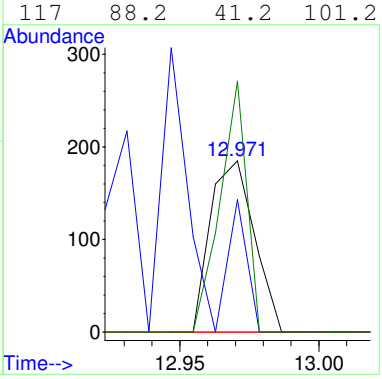


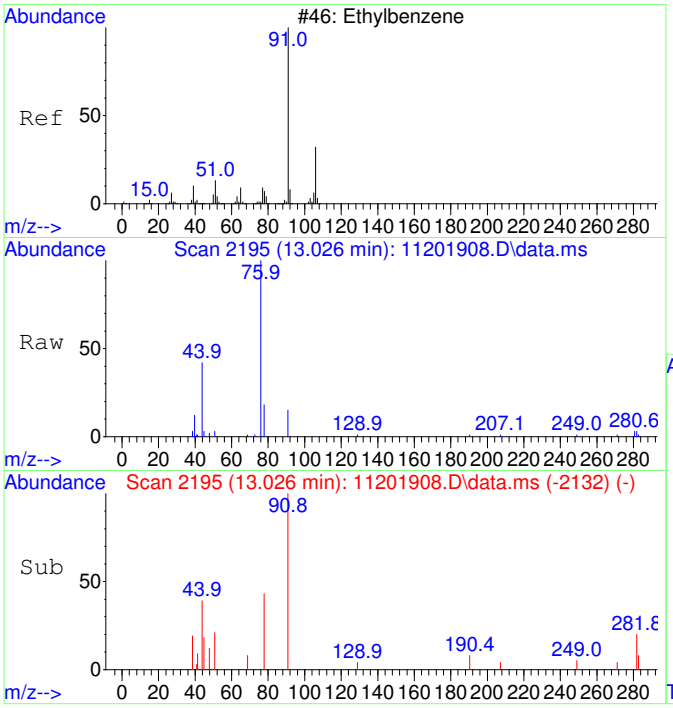


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 60.15 ug/L
RT: 12.971 min Scan# 2188
Delta R.T. 0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:131 Resp: 204

Ion	Ratio	Lower	Upper
131	100		
133	0.0	63.9	123.9#
119	0.0	32.6	92.6#
117	88.2	41.2	101.2

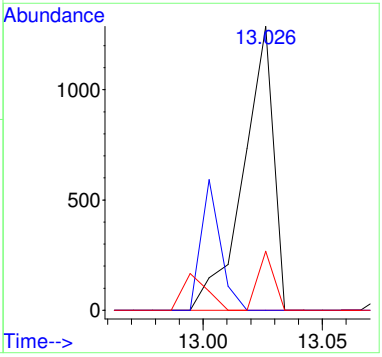


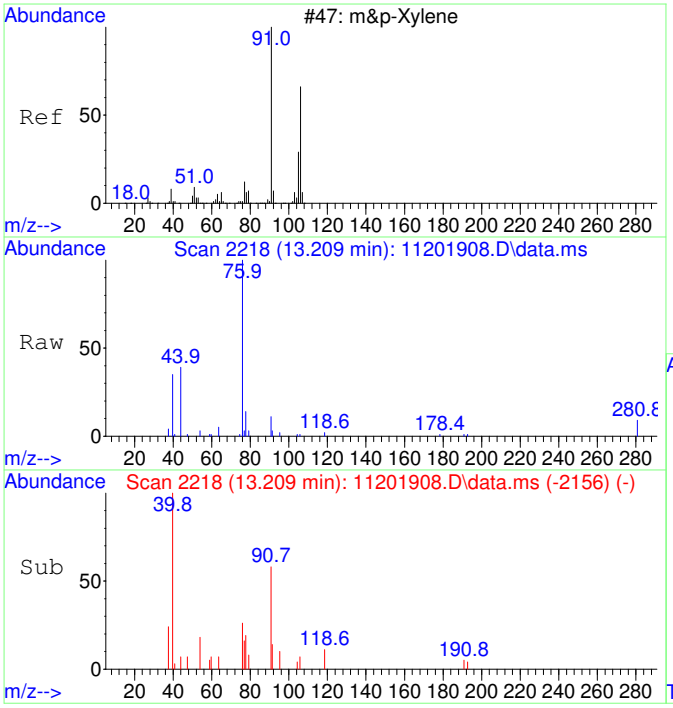


#42
Ethylbenzene SCAN
Concen: 67.96 ug/L
RT: 13.026 min Scan# 2195
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1133

Ion	Ratio	Lower	Upper
91	100		
106	0.0	1.2	61.2#
51	11.3	0.0	38.0

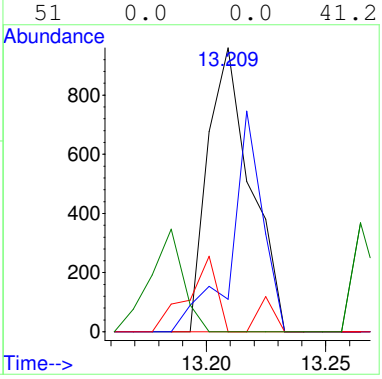


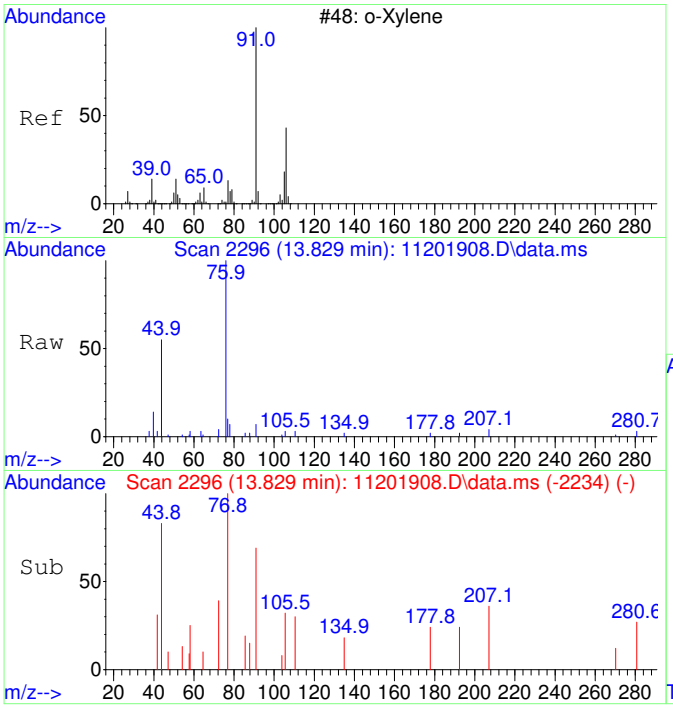


#43
m&p-Xylene SCAN
Concen: 48.16 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 1204

Ion	Ratio	Lower	Upper
91	100		
106	56.6	18.8	78.8
105	4.7	0.0	52.3
51	0.0	0.0	41.2

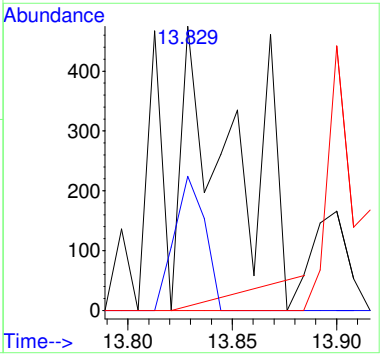


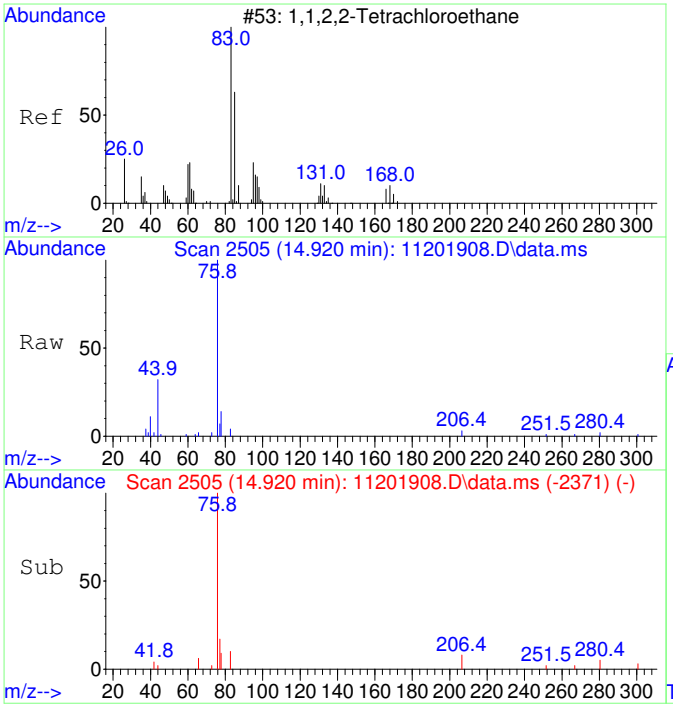


#44
o-Xylene SCAN
Concen: 54.26 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.008 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 91 Resp: 769

Ion	Ratio	Lower	Upper
91	100		
106	30.0	16.9	76.9
105	0.0	0.2	60.2#

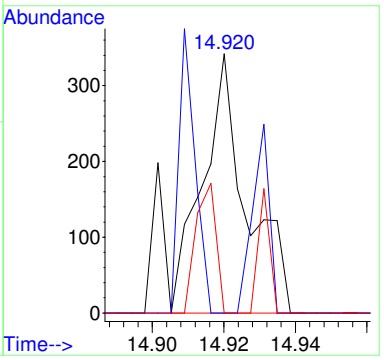


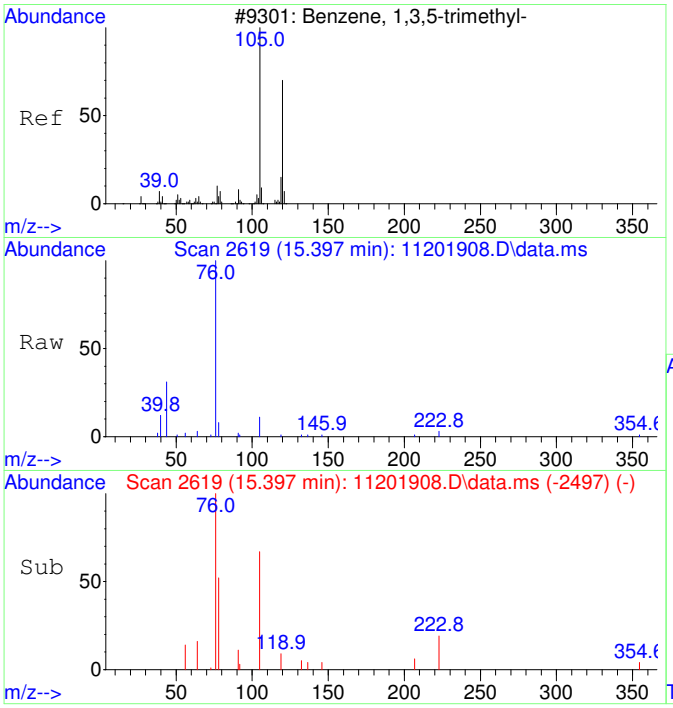


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 46.01 ug/L
RT: 14.920 min Scan# 2505
Delta R.T. -0.004 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion: 83 Resp: 294

Ion	Ratio	Lower	Upper
83	100		
85	40.5	34.8	94.8
95	22.8	0.0	48.0

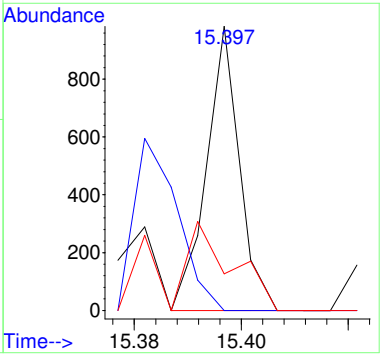


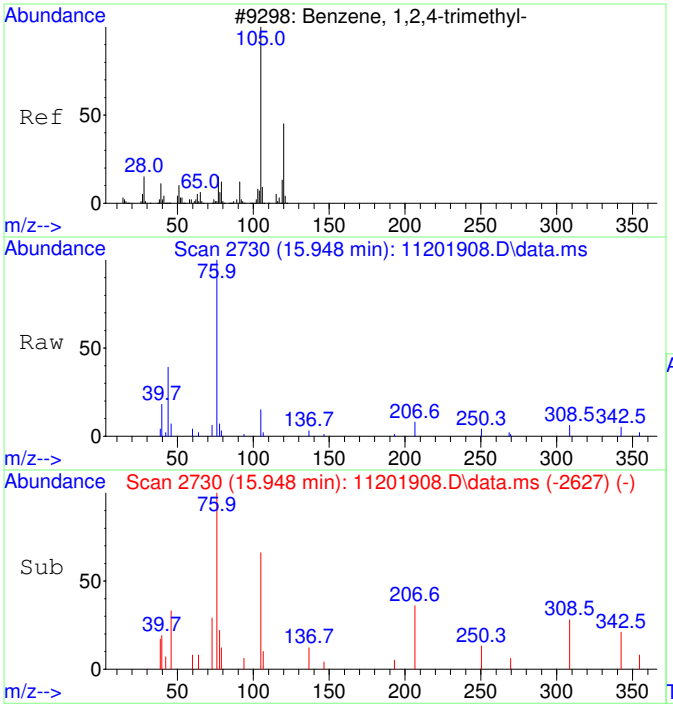


#46
1,3,5-Trimethylbenzene SCAN
Concen: 28.49 ug/L
RT: 15.397 min Scan# 2619
Delta R.T. 0.005 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 422

Ion	Ratio	Lower	Upper
105	100		
120	0.0	15.2	75.2#
119	42.7	0.0	45.5

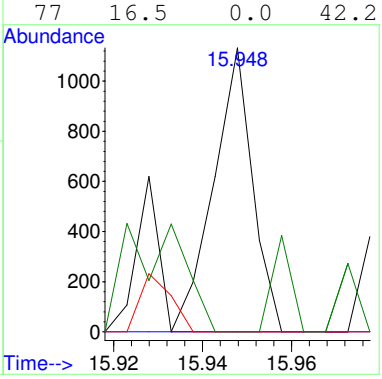


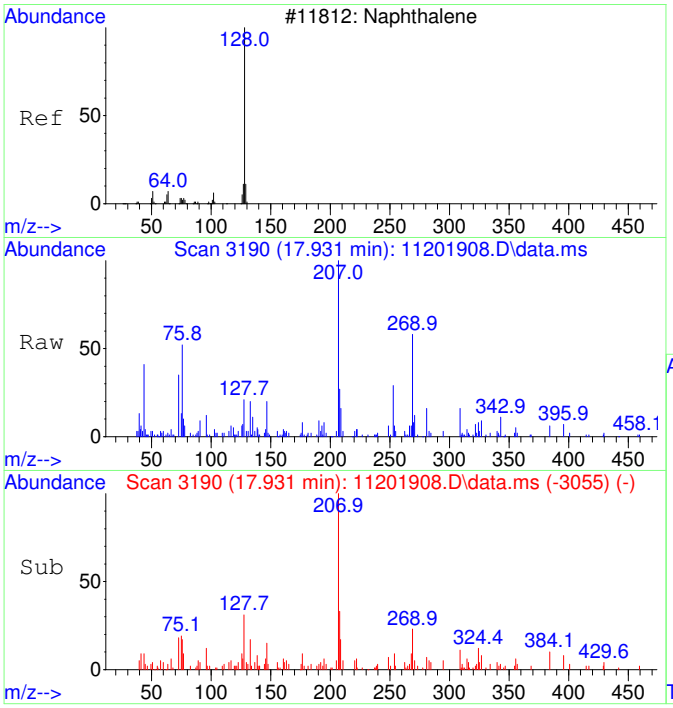


#47
1,2,4-Trimethylbenzene SCAN
Concen: 45.90 ug/L
RT: 15.948 min Scan# 2730
Delta R.T. 0.010 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:105 Resp: 690

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	79.0#
119	0.0	0.0	40.2
77	16.5	0.0	42.2

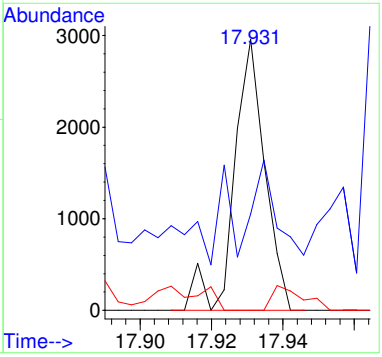




#48
Naphthalene SCAN
Concen: 72.66 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 11201908.D
Acq: 20 Nov 2019 15:58

Tgt Ion:128 Resp: 1765

Ion	Ratio	Lower	Upper
128	100		
127	25.7	0.0	45.2
129	9.2	0.0	41.5



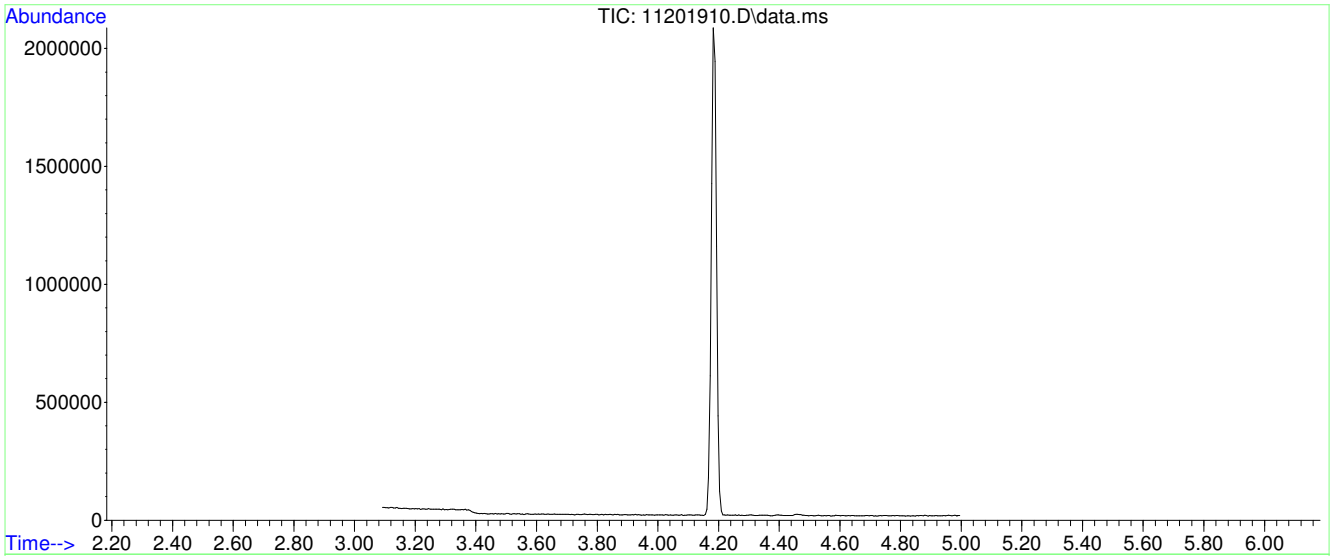
S19K083-TUN2

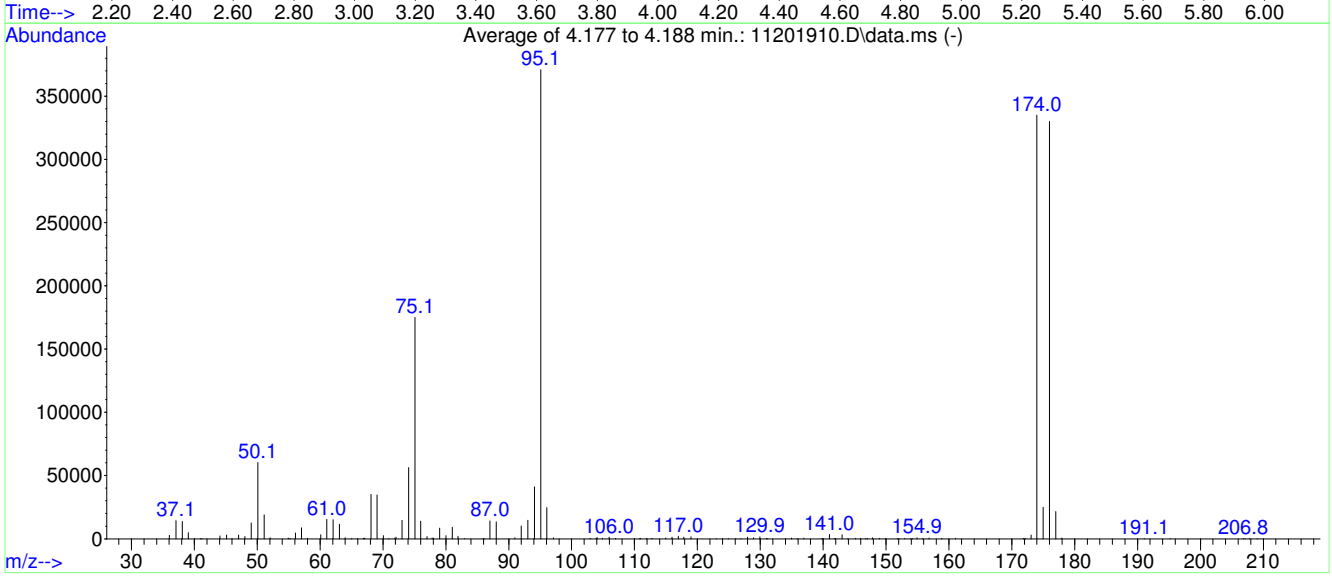
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201910.D
Acq On : 21 Nov 2019 6:44
Operator : TD
Sample : S19K083-TUN2
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Nov 21 06:24:24 2019





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.3	60459	PASS
75	95	30	60	47.2	175167	PASS
95	95	100	100	100.0	370816	PASS
96	95	5	9	6.6	24645	PASS
173	174	0.00	2	0.9	3064	PASS
174	95	50	120	90.4	335061	PASS
175	174	5	9	7.4	24843	PASS
176	174	95	101	98.5	329963	PASS
177	176	5	9	6.6	21637	PASS

Average of 4.177 to 4.188 min.: 11201910.D\data.ms
S19K083-TUN2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	2693	48.05	1848	61.05	15356	70.90	63
37.10	14388	49.05	12590	62.05	15016	71.90	599
38.10	13608	50.10	60459	63.05	11512	72.05	1369
39.05	4786	51.10	19029	64.00	869	73.05	14593
40.00	53	52.05	827	65.05	279	74.10	56381
41.00	247	54.95	552	65.95	117	75.10	175167
41.20	91	55.20	362	66.90	261	76.00	14036
44.05	2229	56.10	4608	67.10	726	77.00	1894
45.10	2923	57.05	8799	68.10	35077	77.80	624
46.00	111	58.00	450	69.05	34563	78.00	613
47.05	3051	60.10	3318	70.05	2539	79.00	8564

Average of 4.177 to 4.188 min.: 11201910.D\data.ms
S19K083-TUN2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.00	2602	94.10	41043	110.80	82	124.90	68
81.00	9176	95.10	370816	110.95	280	126.10	117
81.95	2157	96.05	24645	111.95	321	126.95	249
82.95	184	97.10	852	112.75	329	128.00	1224
85.90	139	102.95	299	114.95	497	128.95	754
86.20	188	103.90	344	115.95	1270	129.95	1450
87.00	14238	104.05	1049	116.95	2033	131.00	377
88.00	13488	104.90	441	117.85	1203	131.20	141
91.00	920	105.95	1380	119.00	1579	134.00	52
92.00	10225	106.95	320	123.00	60	134.95	631
93.05	14745	110.00	116	123.95	159	135.90	74

Average of 4.177 to 4.188 min.: 11201910.D\data.ms
S19K083-TUN2
Modified:subtracted

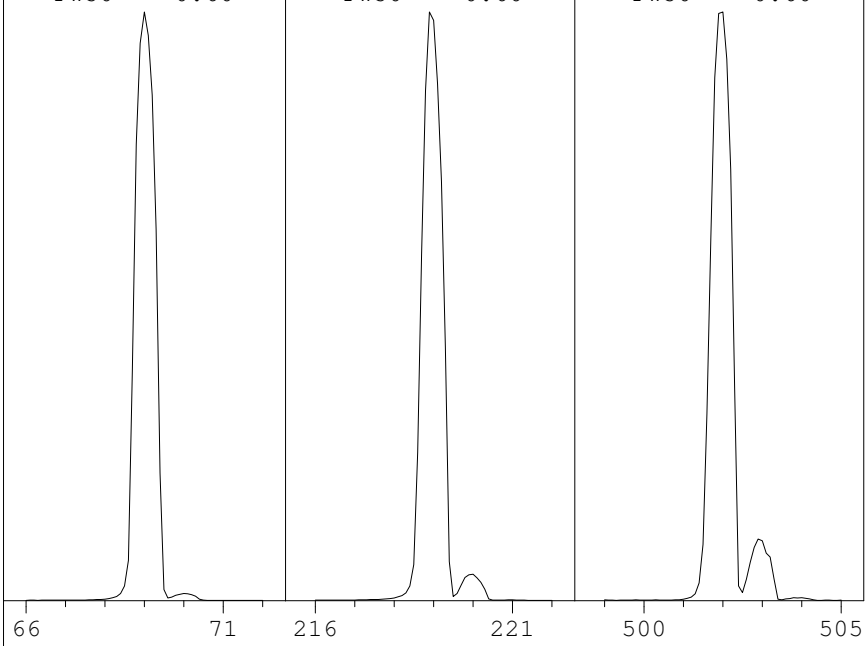
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
136.95	553	147.05	391	156.85	563	191.05	203
139.80	53	147.85	748	158.85	454	195.20	56
139.95	317	148.95	292	161.05	410	206.80	134
141.00	3400	149.95	392	171.85	303	207.10	69
141.80	82	151.80	86	172.15	320	207.80	61
141.95	367	152.05	157	173.05	3064	209.00	57
143.00	3139	152.95	293	174.00	335061		
143.90	230	153.90	192	175.00	24843		
145.15	395	154.20	61	176.00	329963		
145.95	491	154.95	883	177.00	21637		
146.80	71	155.80	61	177.95	709		

BFB Autotune

Wed Nov 20 09:37:18 2019 Instrument:

C:\MSDCHEM\1\5975\BFB_Atune.u

Mass	69.00	Mass	218.90	Mass	502.00
Ab	487307	Ab	365149	Ab	29178
Pw50	0.60	Pw50	0.60	Pw50	0.60

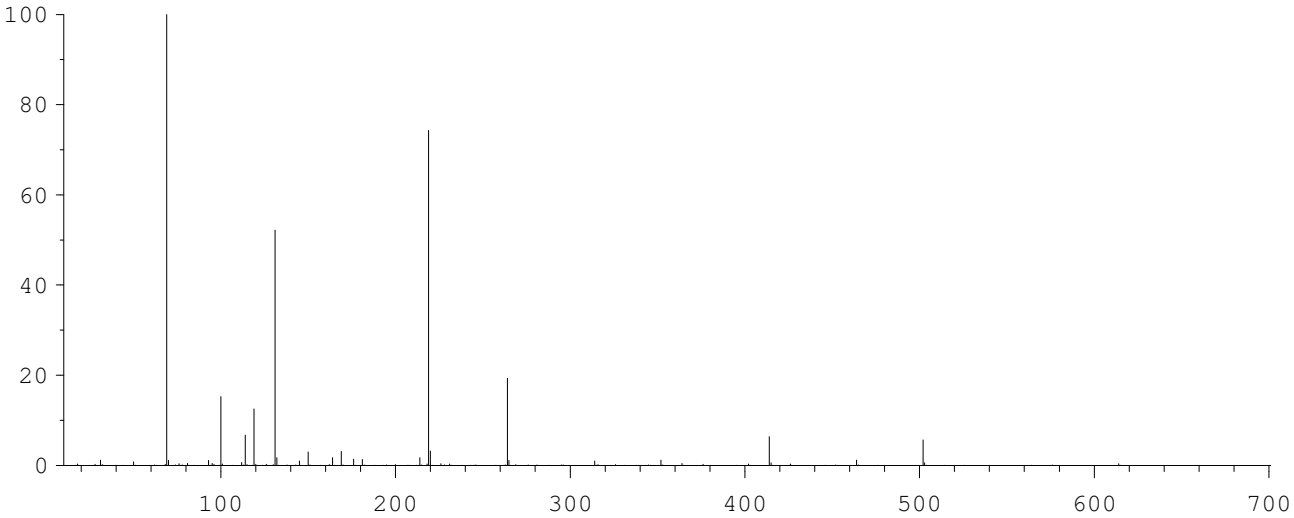


Ion Pol	Pos	MassGain	-1186
		MassOffs	-34
Emission	34.6	AmuGain	976
EIEnrgy	69.9	AmuOffs	122.06
Filament	1	Wid219	-0.008
		DC Pol	Pos
Repeller	29.12		
IonFcus	90.2	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

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
130 peaks Base: 69.00 Abundance: 476992



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	476992	100.00	70.00	5157	1.08
219.00	354368	74.29	220.00	15079	4.26
502.00	26952	5.65	503.00	2823	10.47

Air/Water Check: H20~0.34% N2~0.27% O2~0.15% CO2~0.04% N2/H2O~78.32%

Column(1) Flow: 0.9 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 31673
Repeller Maximum 35 volts using ion 219; Gain Factor 0.32

MassGain Values(Samples): -1173(3) -1165(2) -1148(1) -1128(0) -1042(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.1	122.1	122.1	122.1	122.1	122.1	122.1
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S19K083-SCV2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201911.D
Acq On : 21 Nov 2019 6:54
InstName : AG5975C
Operator : TD
Sample : S19K083-SCV2
Misc : 1930062 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 07:13:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

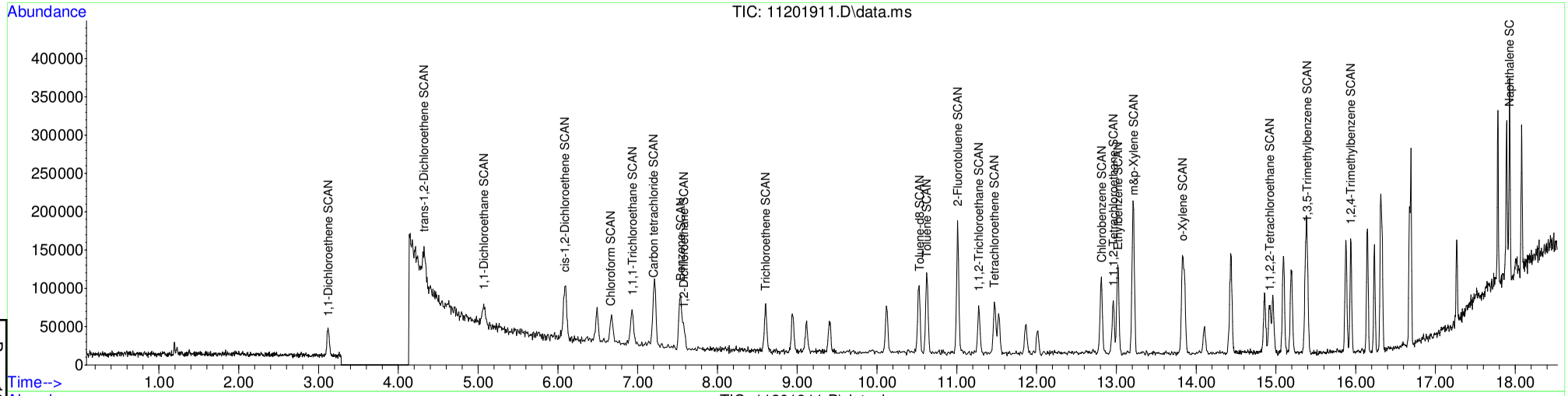
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	145454	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	111406	4769.21	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 95.38%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	37317	5995.53	ug/L	99
3] trans-1,2-Dichloroethene	4.323	61	39003	6109.98	ug/L	100
4] 1,1-Dichloroethane	5.073	63	47452	5847.41	ug/L	100
5] cis-1,2-Dichloroethene	6.094	61	46005	6164.93	ug/L	100
6] Chloroform	6.664	83	52624	6105.89	ug/L	100
7] 1,1,1-Trichloroethane	6.932	97	51792	5995.60	ug/L	99
8] Carbon tetrachloride	7.199	117	47069	5742.29	ug/L	100
9] Benzene	7.528	78	122930	5659.01	ug/L	100
10] 1,2-Dichloroethane	7.564	62	42407	5947.60	ug/L	100
11] Trichloroethene	8.602	130	37759	5665.70	ug/L	100
13] Toluene	10.624	91	141974	5009.87	ug/L	100
14] 1,1,2-Trichloroethane	11.275	97	33239	5176.47	ug/L	99
15] Tetrachloroethene	11.474	166	41239	4822.11	ug/L	100
16] Chlorobenzene	12.813	112	100528	4646.00	ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.964	131	35260	4669.48	ug/L	100
18] Ethylbenzene	13.020	91	155993	4461.10	ug/L	100
19] m&p-Xylene	13.210	91	233627	8768.29	ug/L	100
20] o-Xylene	13.822	91	123066	4355.55	ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.921	83	55535	4377.23	ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	129325	4107.63	ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	127494	3962.29	ug/L	100
24] Naphthalene	17.932	128	206209	3547.41	ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	93421	5176.84	ug/L	97
26) 1,1-Dichloroethene SCAN	3.115	61	26242	6635.91	ug/L #	74
27) trans-1,2-Dichloroethe...	4.322	61	26781	7148.04	ug/L	96
28) 1,1-Dichloroethane SCAN	5.071	63	32451	5787.96	ug/L	87
29) cis-1,2-Dichloroethene...	6.087	61	32335	7200.38	ug/L	93
30) Chloroform SCAN	6.663	83	39250	8185.44	ug/L	85
31) 1,1,1-Trichloroethane ...	6.930	97	37192	6747.03	ug/L	82
32) Carbon tetrachloride SCAN	7.198	117	27339	5791.32	ug/L	94
33) Benzene SCAN	7.538	78	81847	5661.30	ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	29382	5958.92	ug/L	87
35) Trichloroethene SCAN	8.601	130	23580	6386.62	ug/L	90
36) Toluene-d8 SCAN	10.528	98	67416	4406.05	ug/L	97
37) Toluene SCAN	10.623	91	89079	4984.53	ug/L	97
38) 1,1,2-Trichloroethane ...	11.273	97	20049	5157.09	ug/L	90
39) Tetrachloroethene SCAN	11.473	166	23624	4560.57	ug/L	95
40) Chlorobenzene SCAN	12.812	112	66832	4693.54	ug/L	99
41) 1,1,1,2-Tetrachloroeth...	12.963	131	24487	5330.96	ug/L	88
42) Ethylbenzene SCAN	13.018	91	96964	4294.25	ug/L	95
43) m&p-Xylene SCAN	13.217	91	142104	4196.70	ug/L	97
44) o-Xylene SCAN	13.829	91	79699	4151.80	ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.916	83	36214	4184.65	ug/L	94
46) 1,3,5-Trimethylbenzene...	15.392	105	78171	3896.83	ug/L	97
47) 1,2,4-Trimethylbenzene...	15.938	105	81782	4016.28	ug/L	99
48) Naphthalene SCAN	17.931	128	122221	3715.01	ug/L	81

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201911.D
Acq On : 21 Nov 2019 6:54
InstName : AG5975C
Operator : TD
Sample : S19K083-SCV2
Misc : 1930062 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 07:13:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



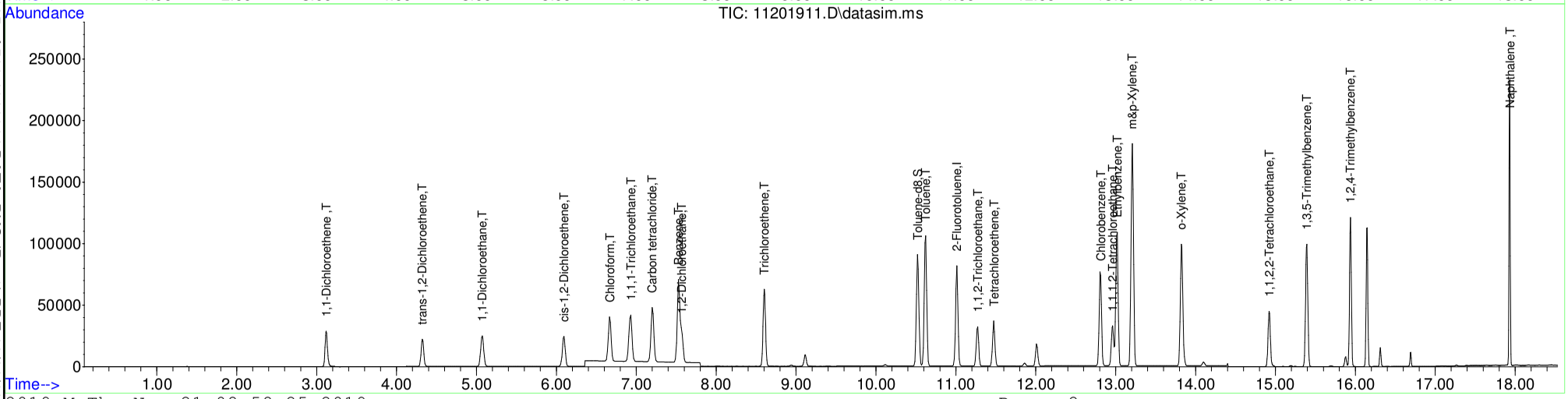


Table of Contents

SEQUENCE

S19L083

Sequence Date: 12/20/2019

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B19L093	SEQUENCE #:	S19L083 12/20/19
BATCH #:		ANALYSIS:	VOA Passive Air.

	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.	Thu Nov 21 06:24:24 2019			
	Initial Calibration ID (LIMS number):	1911014			
	ICAL within QC criteria?	✔			
	SCV within QC criteria?	✔			*SEE COMMENTS
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?	☐	Y	Y	
	LCS(s) or SRM(s) within QC criteria?	☐	Y	Y	
	MSs/MSDs and/or DUPs within QC criteria?	✔			
	Other method-specific QCs within QC criteria? Specify if applicable.	✔			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B19L093	SEQUENCE #:	S19L083 12/20/19
BATCH #:		ANALYSIS:	VOA Passive Air.

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	Y	Y	
	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?	☐	N	N	
	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 12/23/19
	REVIEWED BY:	Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2019.12.26 11:53:53 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

* Data for SCV1 was not collected due to injection error. SCV2 was analyzed on 11/21/19.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2019\122019\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	12201901.D	1	S19L083-IBL1		20 Dec 2019 10:42
2	12201902.D	1	S19L083-TUN1	BFB 1940006	20 Dec 2019 11:04
3	12201903.D	1	S19L083-CCV1	1930057 5 mg/L	20 Dec 2019 11:13
4	12201904.D	1	S19L083-CRL1	1930060 0.5 mg/L	20 Dec 2019 11:37
5	12201905.D	1	B19L093-BLK1		20 Dec 2019 12:01
6	12201906.D	1	B19L093-BS1		20 Dec 2019 12:24
7	12201907.D	1	B19L093-BSD1		20 Dec 2019 12:48
8	12201908.D	1	B19L093-MRL1 not used		20 Dec 2019 13:11
9	12201909.D	1	1912013-01		20 Dec 2019 13:35
10	12201910.D	1	1912013-02		20 Dec 2019 13:59
11	12201911.D	1	1912014-06		20 Dec 2019 14:22
12	12201912.D	1	1912015-01		20 Dec 2019 14:46
13	12201913.D	1	1912015-02		20 Dec 2019 15:09
14	12201914.D	1	B19L093-MRL2		20 Dec 2019 15:36

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2019\122019\12201902.D
Tune Time : 20 Dec 2019 11:04

Daily Calibration File : C:\msdchem\1\Ravioli Data\2019\122019\12201903.D

File	Sample	Surrogate Recovery %	Internal Standard Responses	
			152275	
12201903.D	S19L083-CC	102	152275	
12201904.D	S19L083-CR	1*	153340	
12201905.D	B19L093-BL	104	142677	
12201906.D	B19L093-BS	105	131717	
12201907.D	B19L093-BS	106	106606	
12201908.D	B19L093-MRL1	104	75872*	
12201909.D	1912013-01	105	169804	
12201910.D	1912013-02	103	123025	
12201911.D	1912014-06	104	103415	
12201912.D	1912015-01	108	112875	
12201913.D	1912015-02	103	108783	
12201914.D	B19L093-MRL2	105	109429	RA

(fails) - fails 12hr time check * - fails criteria

Created: Mon Dec 23 06:40:44 2019 AG5975C

Analysis Sequence

S19L083

Project: R20S18
R20S19
R20S14
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1911014 Printed: 12/23/2019 1:45 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S19L083-IBL1	Instrument Blank	1	12/20/19 10:42		1930061	TD	12201901.D	
S19L083-TUN1	BFB	2	12/20/19 11:04	1940006		TD	12201902.D	
S19L083-CCV1	Calibration Check	3	12/20/19 11:13	1930057		TD	12201903.D	
S19L083-CRL1	Instrument RL Check	4	12/20/19 11:37	1930060		TD	12201904.D	
B19L093-BLK1	Blank	5	12/20/19 12:01			TD	12201905.D	
B19L093-BS1	LCS	6	12/20/19 12:24			TD	12201906.D	
B19L093-BSD1	LCS Dup	7	12/20/19 12:48			TD	12201907.D	
B19L093-MRL1	MRL Check	8	12/20/19 13:11			TD	12201908.D	
1912013-01 A	NASA-B3-Rm120-Locker-BZ-7d	9	12/20/19 13:35			TD	12201909.D	
1912013-02 A	NASA-B3-RR120-BZ-7d	10	12/20/19 13:59			TD	12201910.D	
1912014-06 A	F5-062-2ft-3hr-dry	11	12/20/19 14:22			TD	12201911.D	
1912015-01 A	RES161-FR1-BZ-7d	12	12/20/19 14:46			TD	12201912.D	
1912015-02 A	RES161-OUT-7d	13	12/20/19 15:09			TD	12201913.D	
B19L093-MRL2	MRL Check	14	12/20/19 15:36			RH	12201914.D	

Sequence Comments

Reagents

Reagent #	Description

Analysis Sequence

S19L083

(Continued)

Project: R20S18
R20S19
R20S14

Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1911014

Printed: 12/23/2019 1:45 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments

SEQUENCE DATA

S19L083

S19L083-IBL1

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201901.D
Acq On : 20 Dec 2019 10:42
InstName : AG5975C
Operator : TD
Sample : S19L083-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 20 11:44:53 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

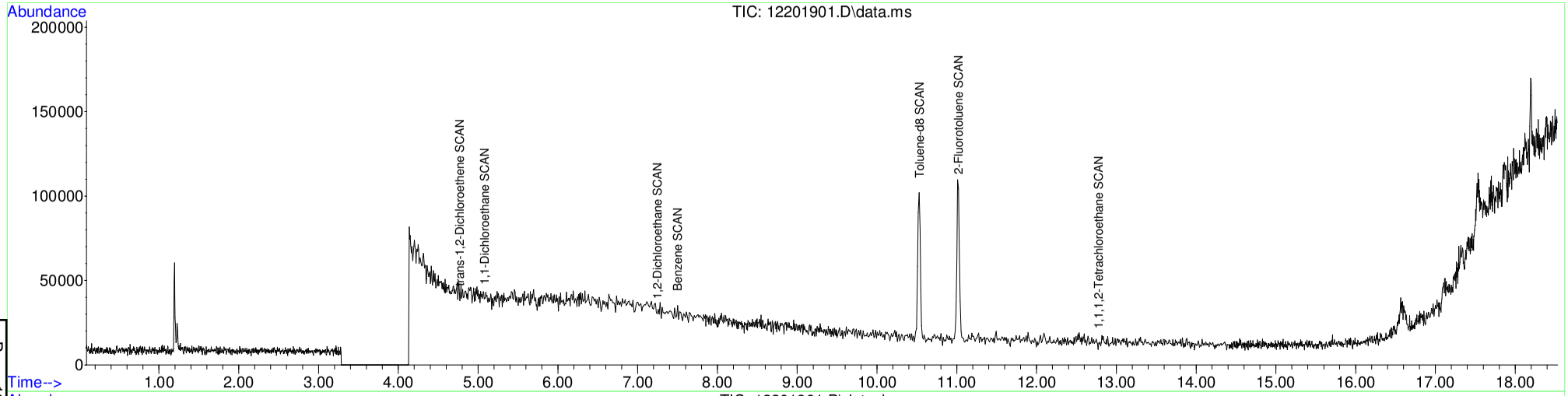
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	134049	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.529	98	111882	5197.09	ug/L	0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 103.94%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	11.021	109	84714	5093.75	ug/L	95
27) trans-1,2-Dichloroethe...	4.773	61	81	23.46	ug/L #	1
28) 1,1-Dichloroethane SCAN	5.078	63	384	74.32	ug/L #	47
33) Benzene SCAN	7.502	78	1834	137.65	ug/L #	95
34) 1,2-Dichloroethane SCAN	7.246	62	145	31.91	ug/L #	36
36) Toluene-d8 SCAN	10.528	98	70664	5011.25	ug/L	97
41) 1,1,1,2-Tetrachloroeth...	12.780	131	106	25.04	ug/L #	48

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201901.D
Acq On : 20 Dec 2019 10:42
InstName : AG5975C
Operator : TD
Sample : S19L083-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 20 11:44:53 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



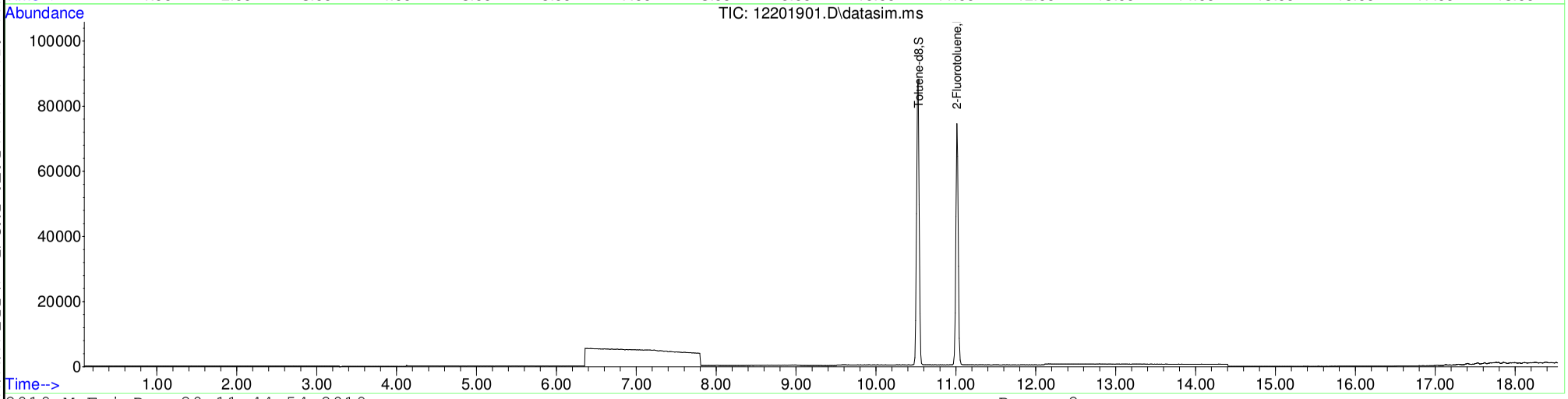


Table of Contents

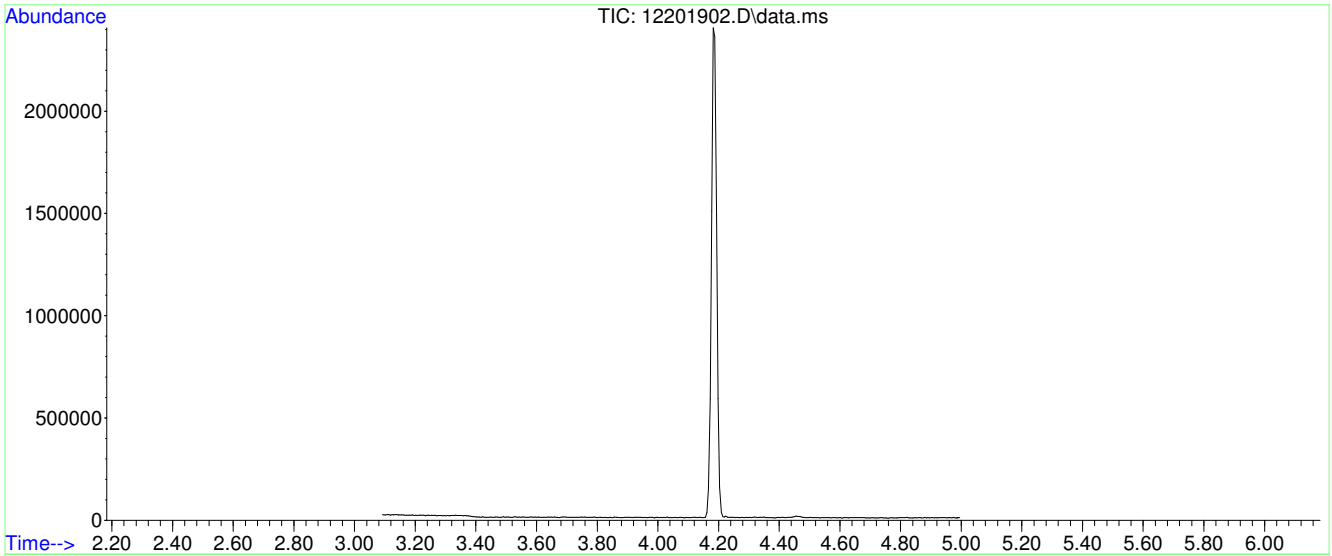
S19L083-TUN1

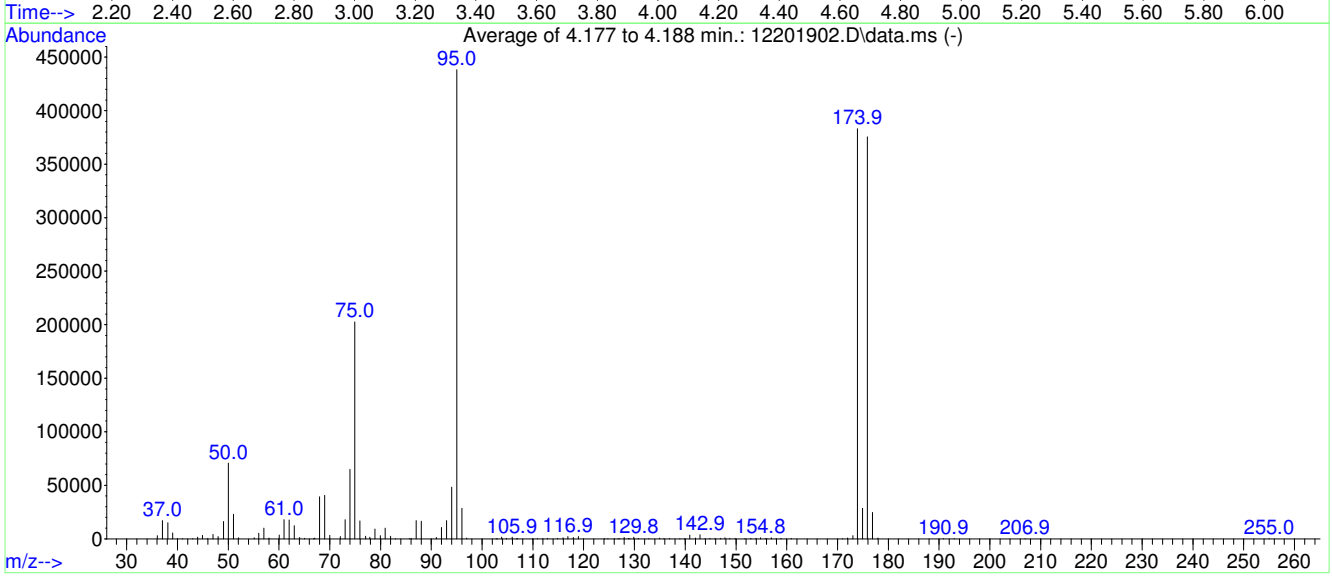
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201902.D
Acq On : 20 Dec 2019 11:04
Operator : TD
Sample : S19L083-TUN1
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\121819.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Nov 21 06:24:24 2019





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	70683	PASS
75	95	30	60	46.3	202697	PASS
95	95	100	100	100.0	438144	PASS
96	95	5	9	6.5	28640	PASS
173	174	0.00	2	0.8	3034	PASS
174	95	50	120	87.5	383189	PASS
175	174	5	9	7.4	28475	PASS
176	174	95	101	98.0	375637	PASS
177	176	5	9	6.6	24739	PASS

Average of 4.177 to 4.188 min.: 12201902.D\data.ms
S19L083-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	3017	48.00	2061	62.00	17611	74.00	64696
37.05	16976	49.05	16068	63.00	12345	74.95	202697
38.10	14965	50.00	70683	64.05	1389	75.95	16717
39.05	5631	51.05	22960	65.05	305	77.05	2433
40.00	287	52.05	1036	66.80	282	77.90	1497
41.00	87	55.10	891	67.05	739	78.90	9203
43.00	257	56.00	5350	68.00	39155	79.95	2942
44.00	1617	57.05	9876	69.00	40613	80.90	9920
44.95	3208	58.00	633	70.00	3311	81.95	2296
45.95	286	60.05	3395	72.05	2114	82.95	233
47.00	4064	61.00	17880	73.00	17959	85.75	342

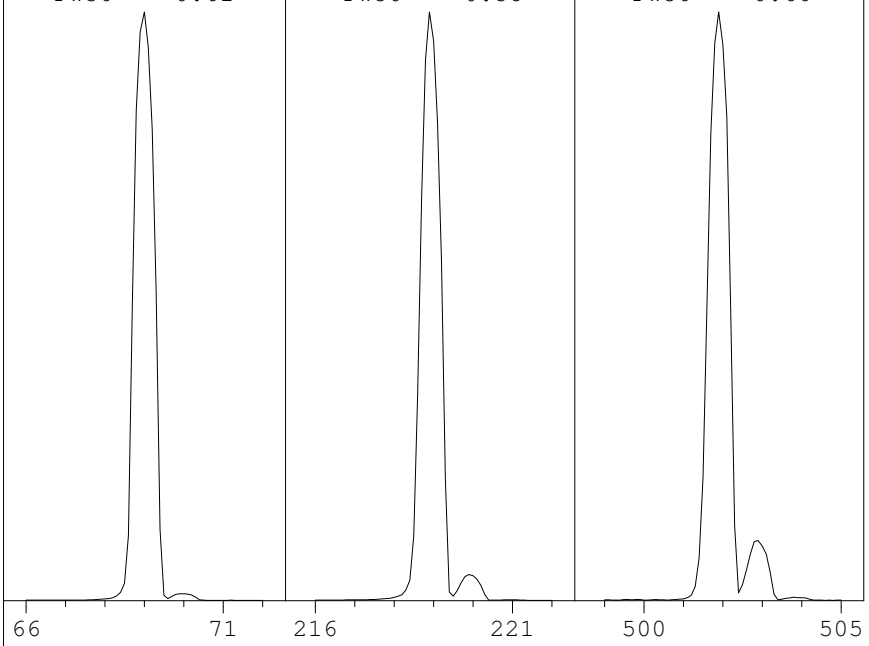
Average of 4.177 to 4.188 min.: 12201902.D\data.ms
S19L083-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.05	191	102.95	211	115.95	1135	129.10	147
87.00	17116	103.85	1433	116.90	2190	129.85	1645
88.00	16484	104.80	535	117.95	1395	130.75	575
91.00	1282	105.90	1560	118.95	2151	132.85	94
92.00	10556	106.80	263	124.10	219	135.00	641
93.00	16902	107.00	117	124.75	110	135.80	69
94.00	48269	109.95	195	126.00	73	136.90	513
95.00	438144	110.90	288	126.80	83	138.95	162
96.00	28640	111.95	207	127.00	62	139.85	232
97.00	838	112.85	307	127.95	1287	140.90	3599
102.80	92	114.90	531	128.80	526	142.05	648

Average of 4.177 to 4.188 min.: 12201902.D\data.ms
S19L083-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.90	3759	154.85	1093	174.90	28475		
143.90	230	155.75	152	175.90	375637		
144.90	339	156.05	175	176.90	24739		
145.85	523	156.95	947	177.95	749		
146.95	565	157.90	125	190.90	77		
147.85	991	158.85	472	193.00	66		
148.80	372	160.90	429	206.95	112		
149.85	418	171.00	53	255.00	59		
151.75	147	171.95	751				
152.95	461	173.05	3034				
153.95	405	173.90	383189				

Mass	69.00	Mass	218.90	Mass	501.90
Ab	690025	Ab	485764	Ab	36833
Pw50	0.61	Pw50	0.58	Pw50	0.60

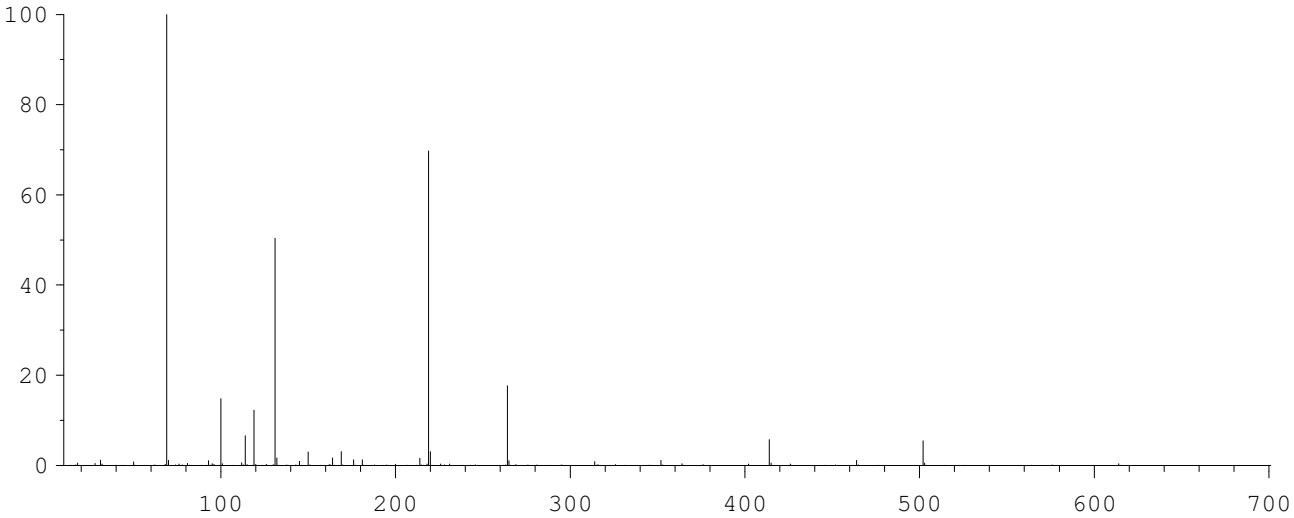


Ion Pol	Pos	MassGain	-1190
		MassOffs	-36
Emission	34.6	AmuGain	976
EIEnrgy	69.9	AmuOffs	122.06
Filament	1	Wid219	-0.008
		DC Pol	Pos
Repeller	29.12		
IonFcus	90.2	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

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
144 peaks Base: 69.00 Abundance: 671424



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	671424	100.00	70.00	7439	1.11
219.00	468288	69.75	220.00	20288	4.33
502.00	36536	5.44	503.00	3360	9.20

Air/Water Check: H20~0.51% N2~0.47% O2~0.34% CO2~0.04% N2/H2O~90.96%

Column(1) Flow: 0.9 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 36801
Repeller Maximum 35 volts using ion 219; Gain Factor 0.37

MassGain Values(Samples): -1177(3) -1169(2) -1152(1) -1132(0) -1046(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.1	122.1	122.1	122.1	122.1	122.1	122.1
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S19L083-CCV1

Evaluate Continuing Calibration Report

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201903.D
Acq On : 20 Dec 2019 11:13
InstName : AG5975C
Operator : TD
Sample : S19L083-CCV1
Misc : 1930057 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 20 11:43:57 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 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	141	0.00
2	T	1,1-Dichloroethene	0.214	0.264	-23.4	194	0.00
3	T	trans-1,2-Dichloroethene	0.219	0.256	-16.9	187	0.02
4	T	1,1-Dichloroethane	0.279	0.324	-16.1	189	0.00
5	T	cis-1,2-Dichloroethene	0.257	0.294	-14.4	180	0.00
6	T	Chloroform	0.296	0.328	-10.8	173	0.01
7	T	1,1,1-Trichloroethane	0.297	0.314	-5.7	162	0.01
8	T	Carbon tetrachloride	0.282	0.284	-0.7	153	0.00
9	T	Benzene	0.747	0.788	-5.5	160	0.00
10	T	1,2-Dichloroethane	0.245	0.262	-6.9	164	0.01
11	T	Trichloroethene	0.229	0.230	-0.4	148	0.00
12	S	Toluene-d8	0.803	0.816	-1.6	143	0.01
13	T	Toluene	0.974	0.953	2.2	139	0.01
14	T	1,1,2-Trichloroethane	0.221	0.214	3.2	141	0.00
15	T	Tetrachloroethene	0.294	0.272	7.5	128	0.00
16	T	Chlorobenzene	0.744	0.709	4.7	129	0.00
17	T	1,1,1,2-Tetrachloroethane	0.260	0.236	9.2	127	0.00
18	T	Ethylbenzene	1.202	1.130	6.0	127	0.00
19	T	m&p-Xylene	0.916	0.847	7.5	126	0.00
20	T	o-Xylene	0.971	0.904	6.9	125	0.00
21	T	1,1,2,2-Tetrachloroethane	0.436	0.398	8.7	123	0.00
22	T	1,3,5-Trimethylbenzene	1.082	0.986	8.9	121	0.00
23	T	1,2,4-Trimethylbenzene	1.106	0.996	9.9	120	0.00
24	T	Naphthalene	1.998	1.668	16.5	115	0.00
25		2-Fluorotoluene SCAN	0.620	0.634	-2.3	144	0.01
26		1,1-Dichloroethene SCAN	0.136	0.184	-35.3#	190	0.00
27		trans-1,2-Dichloroethene SC	0.129	0.205	-58.9#	223#	0.01
28		1,1-Dichloroethane SCAN	0.193	0.246	-27.5	179	0.00
29		cis-1,2-Dichloroethene SCAN	0.154	0.204	-32.5#	186	0.00
30		Chloroform SCAN	0.165	0.208	-26.1	177	0.01
31		1,1,1-Trichloroethane SCAN	0.189	0.218	-15.3	162	0.00
32		Carbon tetrachloride SCAN	0.162	0.196	-21.0	170	0.02
33		Benzene SCAN	0.497	0.537	-8.0	152	0.01
34		1,2-Dichloroethane SCAN	0.169	0.198	-17.2	164	0.01
35		Trichloroethene SCAN	0.127	0.154	-21.3	170	0.02
36		Toluene-d8 SCAN	0.526	0.560	-6.5	150	0.00
37		Toluene SCAN	0.614	0.625	-1.8	143	0.00
38		1,1,2-Trichloroethane SCAN	0.134	0.145	-8.2	152	0.00
39		Tetrachloroethene SCAN	0.178	0.164	7.9	130	0.01
40		Chlorobenzene SCAN	0.489	0.439	10.2	126	0.00
41		1,1,1,2-Tetrachloroethane S	0.158	0.167	-5.7	148	0.00
42		Ethylbenzene SCAN	0.776	0.729	6.1	132	0.00
43		m&p-Xylene SCAN	1.164	1.101	5.4	133	0.00
44		o-Xylene SCAN	0.660	0.601	8.9	128	0.00
45		1,1,2,2-Tetrachloroethane S	0.297	0.291	2.0	138	0.00
46		1,3,5-Trimethylbenzene SCAN	0.690	0.616	10.7	126	0.00
47		1,2,4-Trimethylbenzene SCAN	0.700	0.640	8.6	129	0.00
48		Naphthalene SCAN	1.131	1.018	10.0	127	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201903.D
Acq On : 20 Dec 2019 11:13
InstName : AG5975C
Operator : TD
Sample : S19L083-CCV1
Misc : 1930057 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 20 11:43:57 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

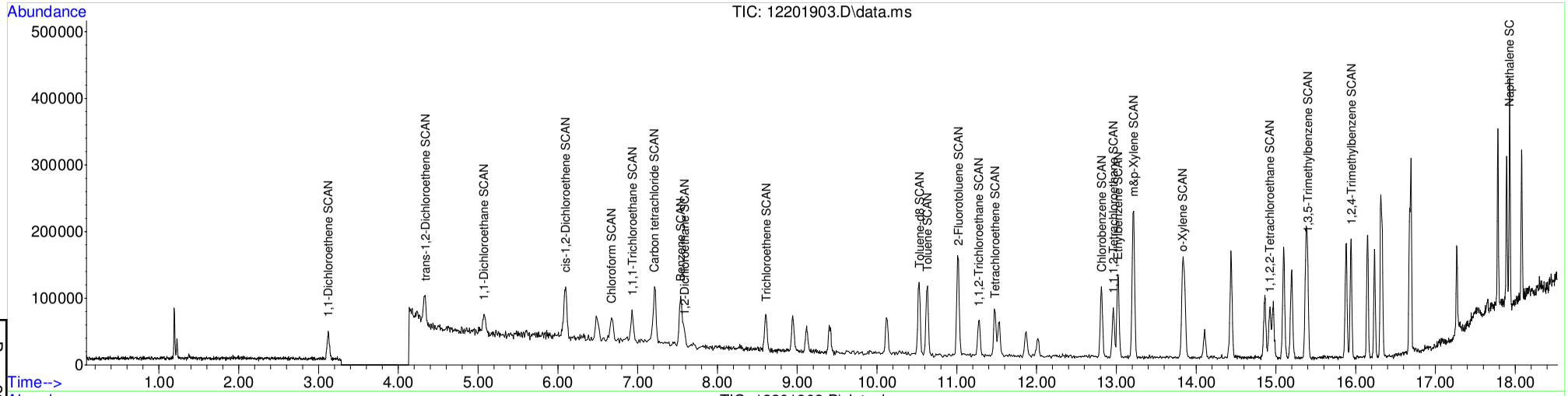
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	152275	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.530	98	124268	5081.53 ug/L	0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.63%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.120	61	40263	6179.09 ug/L	100
3] trans-1,2-Dichloroethene	4.330	61	38980	5832.85 ug/L	99
4] 1,1-Dichloroethane	5.073	63	49285	5801.24 ug/L	100
5] cis-1,2-Dichloroethene	6.095	61	44713	5723.40 ug/L	100
6] Chloroform	6.676	83	49951	5536.13 ug/L	100
7] 1,1,1-Trichloroethane	6.932	97	47875	5293.90 ug/L	100
8] Carbon tetrachloride	7.199	117	43303	5046.21 ug/L	100
9] Benzene	7.528	78	120044	5278.61 ug/L	100
10] 1,2-Dichloroethane	7.576	62	39856	5339.43 ug/L	100
11] Trichloroethene	8.608	130	35047	5023.21 ug/L	100
13] Toluene	10.624	91	145067	4889.71 ug/L	100
14] 1,1,2-Trichloroethane	11.275	97	32585	4847.31 ug/L	99
15] Tetrachloroethene	11.474	166	41412	4625.43 ug/L	100
16] Chlorobenzene	12.813	112	107993	4767.43 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.964	131	35998	4553.67 ug/L	100
18] Ethylbenzene	13.020	91	171998	4698.48 ug/L	100
19] m&p-Xylene	13.210	91	257907	9245.97 ug/L	100
20] o-Xylene	13.830	91	137615	4652.30 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.925	83	60631	4564.83 ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	150175	4556.21 ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	151699	4503.35 ug/L	99
24] Naphthalene	17.932	128	254006	4173.93 ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	96533	5109.67 ug/L	90
26) 1,1-Dichloroethene SCAN	3.122	61	28023	6768.85 ug/L	84
27) trans-1,2-Dichloroethe...	4.335	61	31156	7943.26 ug/L	90
28) 1,1-Dichloroethane SCAN	5.071	63	37394	6370.84 ug/L	96
29) cis-1,2-Dichloroethene...	6.100	61	31127	6620.89 ug/L	92
30) Chloroform SCAN	6.675	83	31681	6311.00 ug/L	89
31) 1,1,1-Trichloroethane ...	6.930	97	33175	5748.72 ug/L	82
32) Carbon tetrachloride SCAN	7.210	117	29803	6030.48 ug/L #	25
33) Benzene SCAN	7.539	78	81765	5402.29 ug/L	98
34) 1,2-Dichloroethane SCAN	7.587	62	30127	5836.32 ug/L	93
35) Trichloroethene SCAN	8.612	130	23383	6049.57 ug/L	91
36) Toluene-d8 SCAN	10.528	98	85280	5323.90 ug/L	94
37) Toluene SCAN	10.633	91	95185	5087.62 ug/L	94
38) 1,1,2-Trichloroethane ...	11.273	97	22057	5419.46 ug/L	90
39) Tetrachloroethene SCAN	11.483	166	25044	4618.14 ug/L	90
40) Chlorobenzene SCAN	12.812	112	66898	4487.72 ug/L	93
41) 1,1,1,2-Tetrachloroeth...	12.963	131	25372	5276.21 ug/L	95
42) Ethylbenzene SCAN	13.018	91	110979	4694.78 ug/L	97
43) m&p-Xylene SCAN	13.217	91	167603	4728.03 ug/L	98
44) o-Xylene SCAN	13.829	91	91486	4552.35 ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.928	83	44302	4889.93 ug/L	92
46) 1,3,5-Trimethylbenzene...	15.397	105	93839	4468.34 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.943	105	97413	4569.62 ug/L	96
48) Naphthalene SCAN	17.931	128	154947	4498.78 ug/L	90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201903.D
Acq On : 20 Dec 2019 11:13
InstName : AG5975C
Operator : TD
Sample : S19L083-CCV1
Misc : 1930057 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 20 11:43:57 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



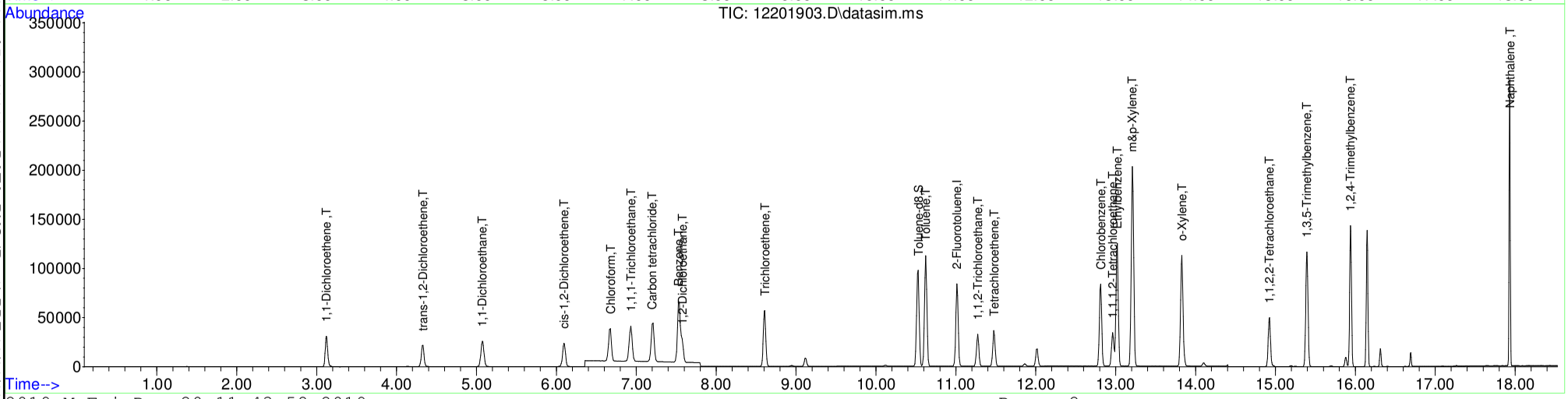
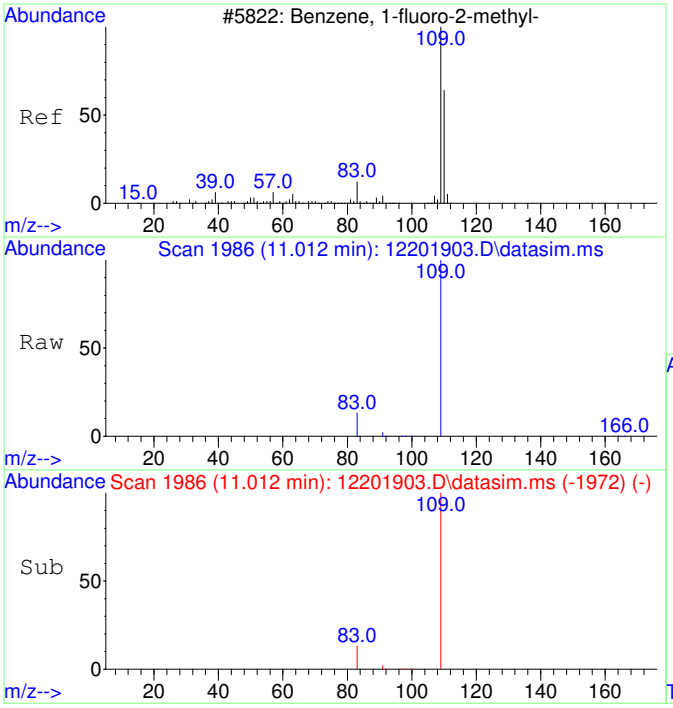


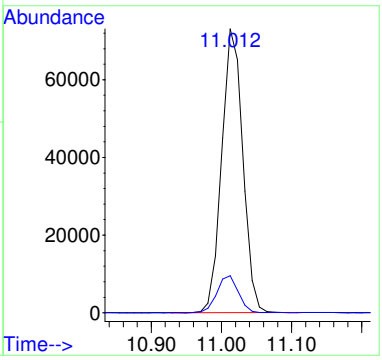
Table of Contents

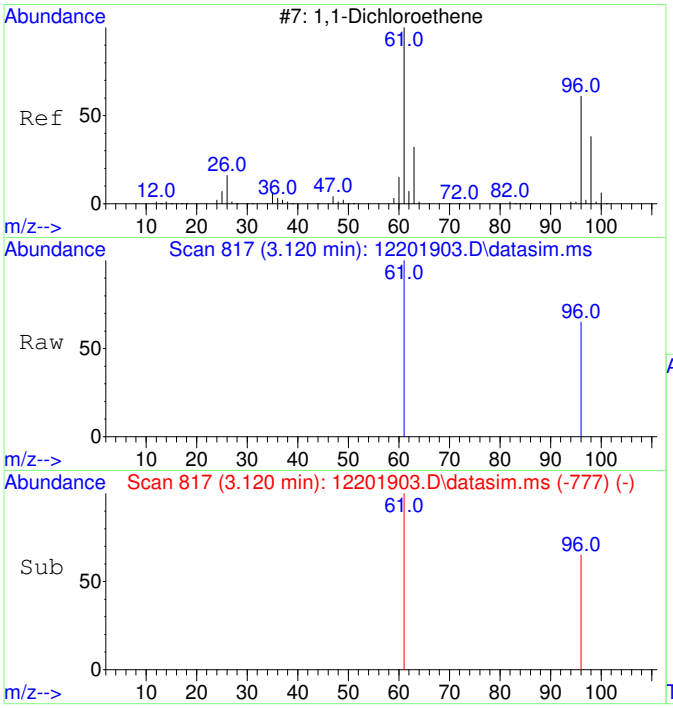


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:109 Resp: 152275

Ion	Ratio	Lower	Upper
109	100		
83	13.1	0.0	43.3

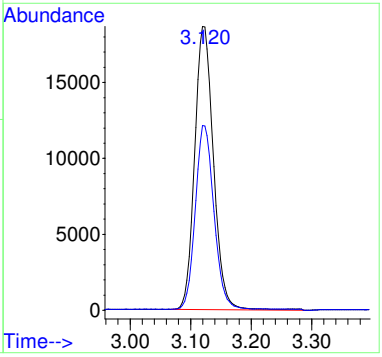


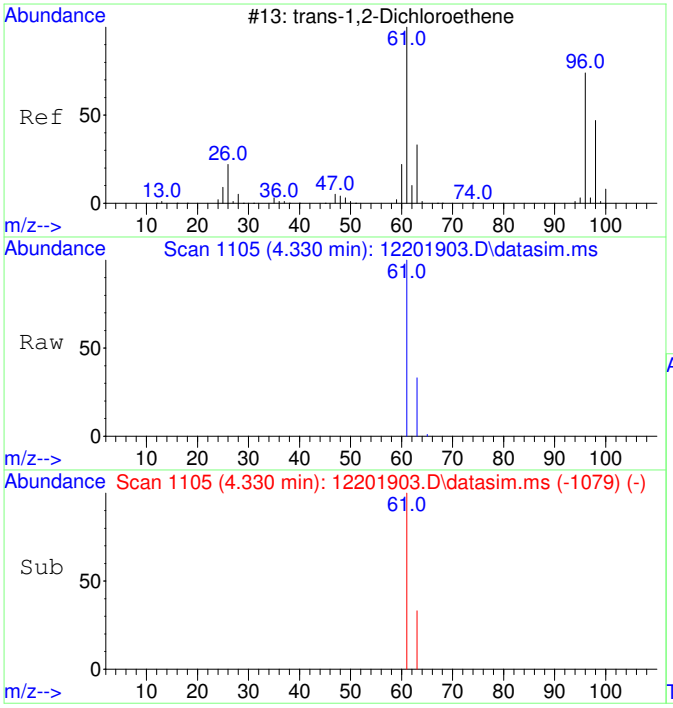


#2
1,1-Dichloroethene
Concen: 6179.09 ug/L
RT: 3.120 min Scan# 817
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 61 Resp: 40263

Ion	Ratio	Lower	Upper
61	100		
96	63.7	33.5	93.5

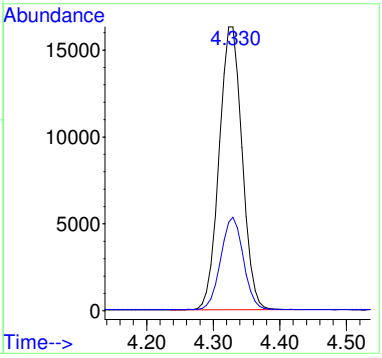


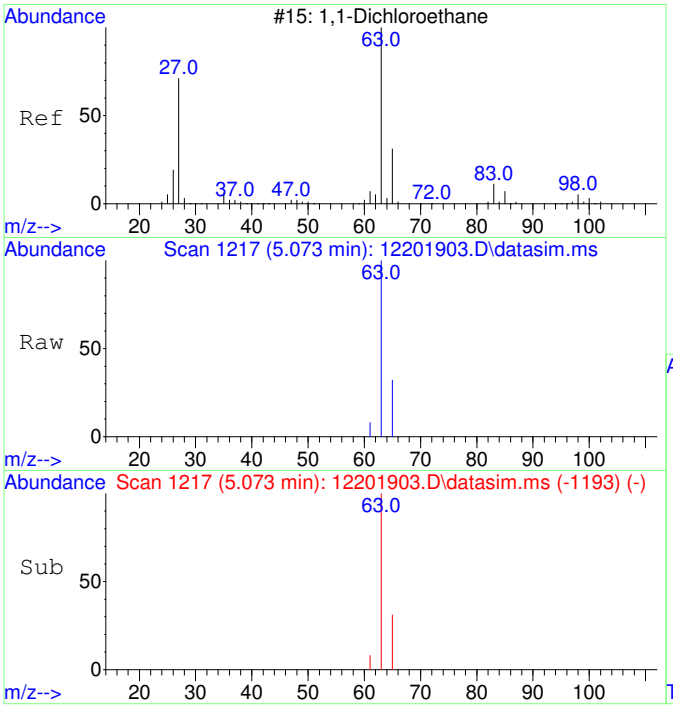


#3
trans-1,2-Dichloroethene
Concen: 5832.85 ug/L
RT: 4.330 min Scan# 1105
Delta R.T. 0.020 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 61 Resp: 38980

Ion	Ratio	Lower	Upper
61	100		
63	32.0	2.3	62.3

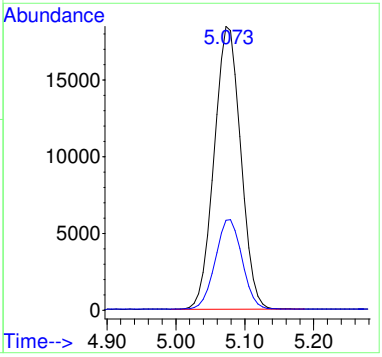


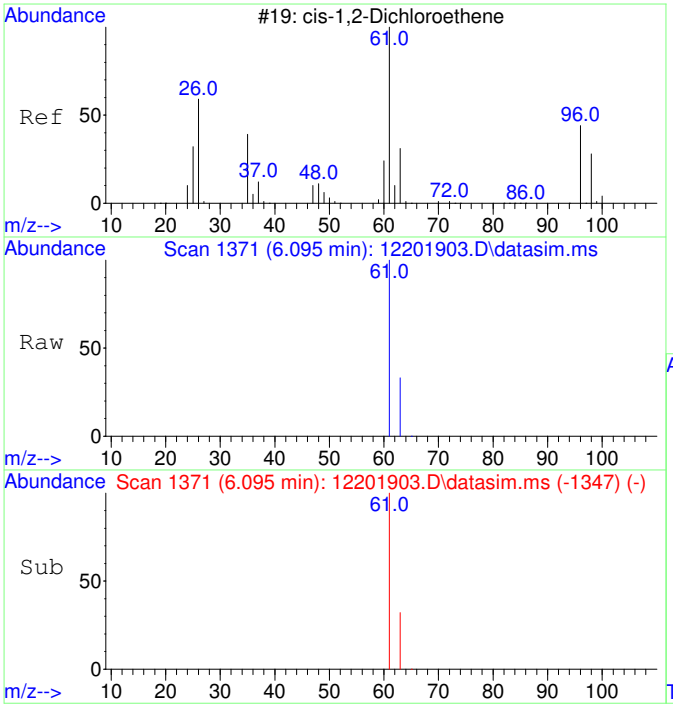


#4
1,1-Dichloroethane
Concen: 5801.24 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. 0.007 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 63 Resp: 49285

Ion	Ratio	Lower	Upper
63	100		
65	31.8	1.9	61.9

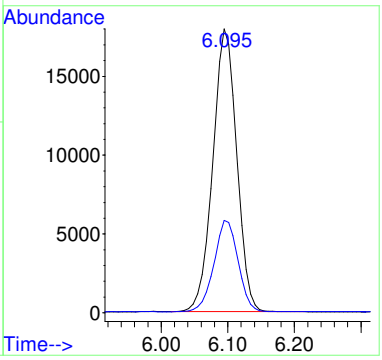


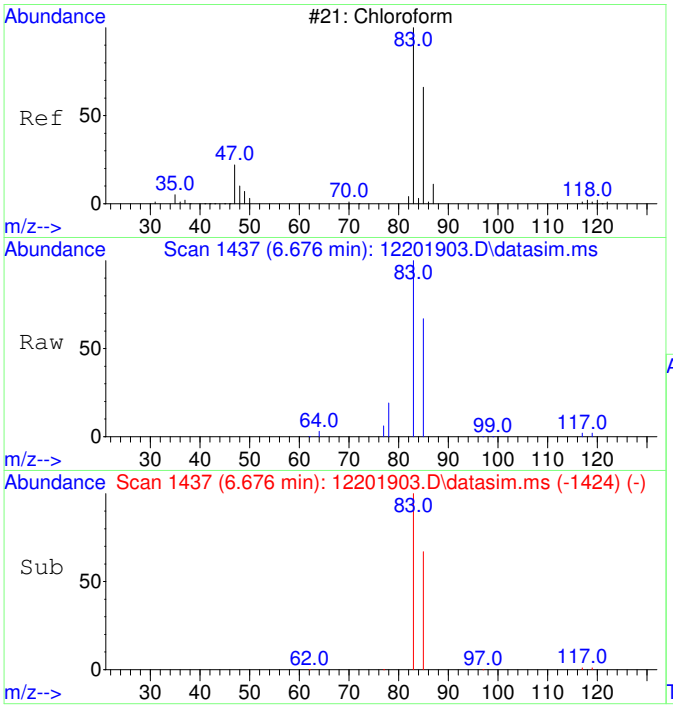


#5
cis-1,2-Dichloroethene
Concen: 5723.40 ug/L
RT: 6.095 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 61 Resp: 44713

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.5	62.5

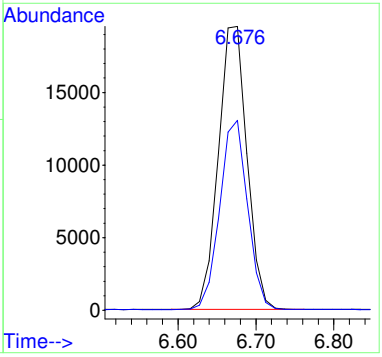


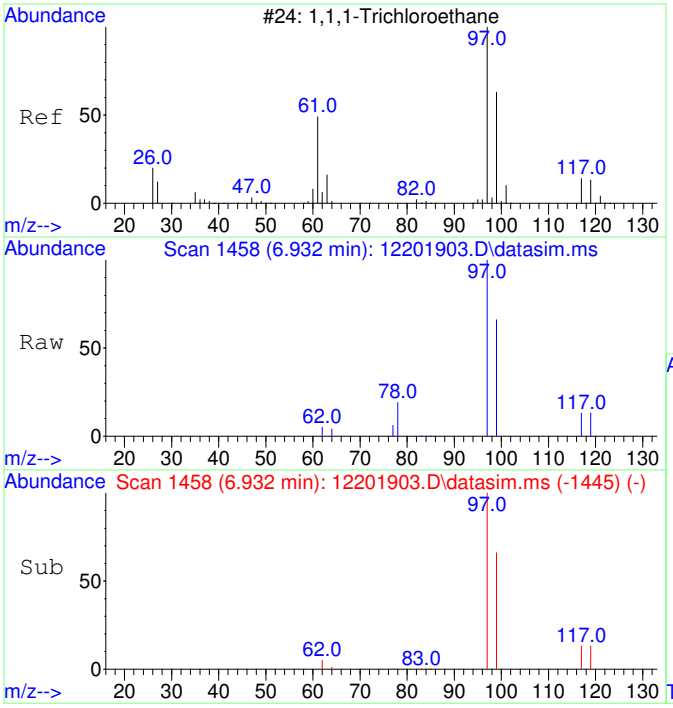


#6
Chloroform
Concen: 5536.13 ug/L
RT: 6.676 min Scan# 1437
Delta R.T. 0.012 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 83 Resp: 49951

Ion	Ratio	Lower	Upper
83	100		
85	64.9	35.0	95.0

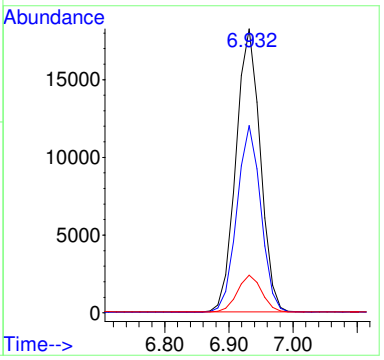


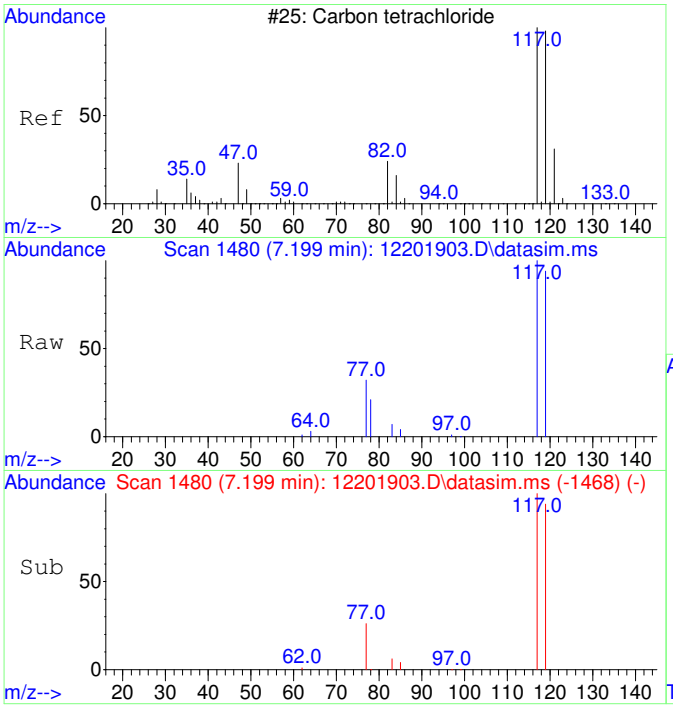


#7
1,1,1-Trichloroethane
Concen: 5293.90 ug/L
RT: 6.932 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 97 Resp: 47875

Ion	Ratio	Lower	Upper
97	100		
99	64.8	34.4	94.4
117	12.9	0.0	43.0

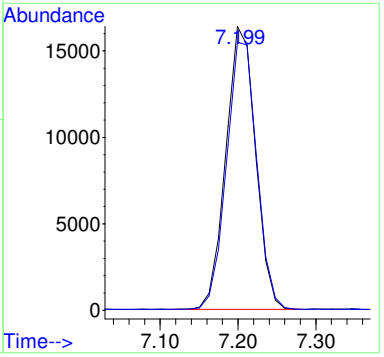


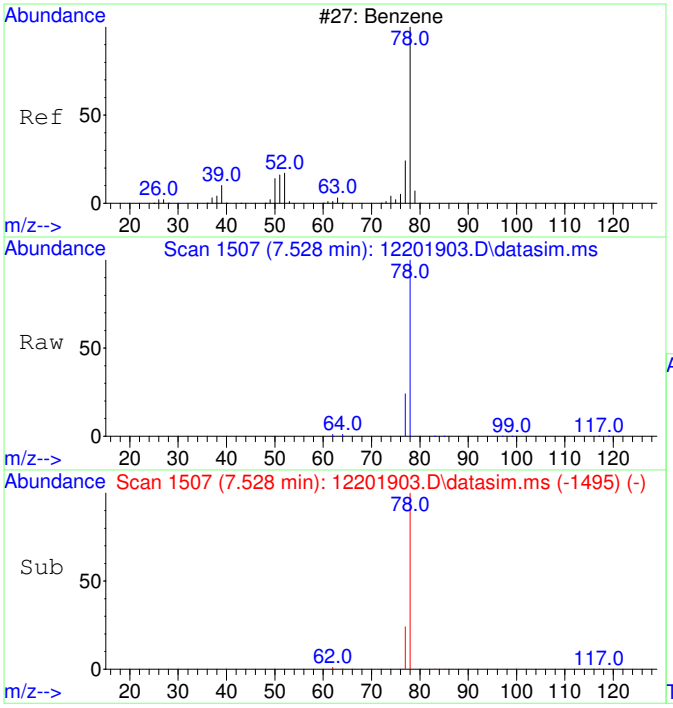


#8
Carbon tetrachloride
Concen: 5046.21 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:117 Resp: 43303

Ion	Ratio	Lower	Upper
117	100		
119	96.5	66.5	126.5

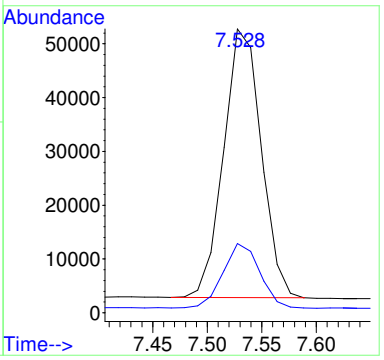


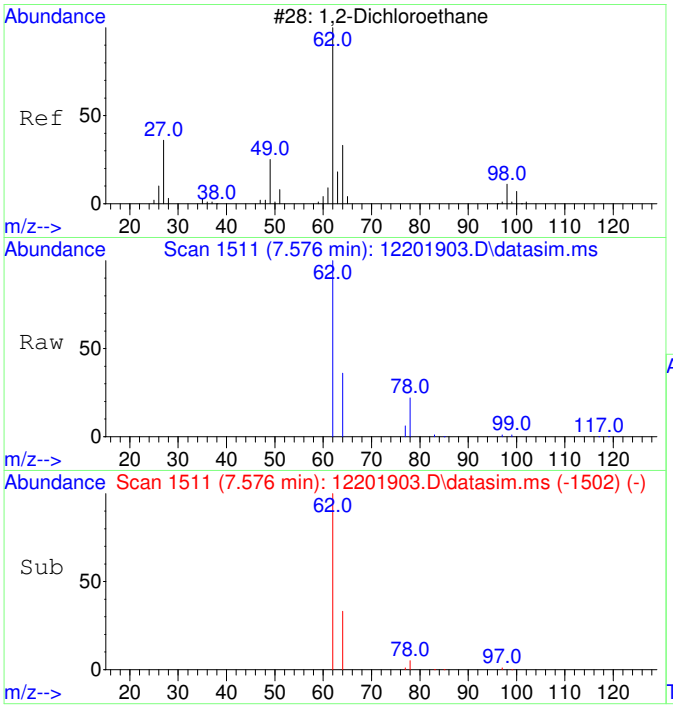


#9
Benzene
Concen: 5278.61 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 78 Resp: 120044

Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	53.5

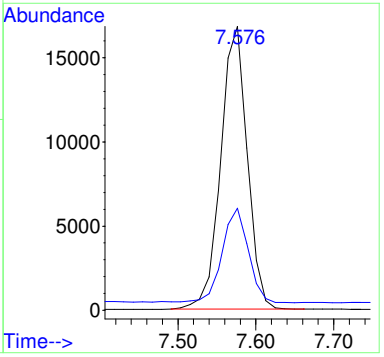


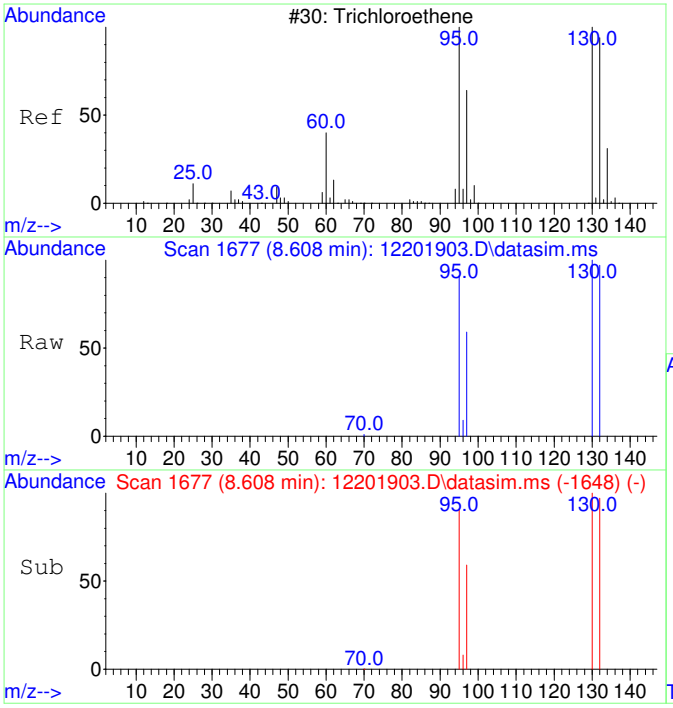


#10
1,2-Dichloroethane
Concen: 5339.43 ug/L
RT: 7.576 min Scan# 1511
Delta R.T. 0.012 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 62 Resp: 39856

Ion	Ratio	Lower	Upper
62	100		
64	32.4	2.4	62.4

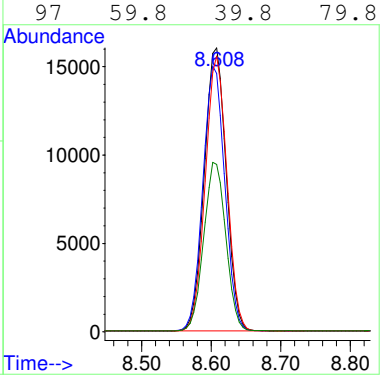


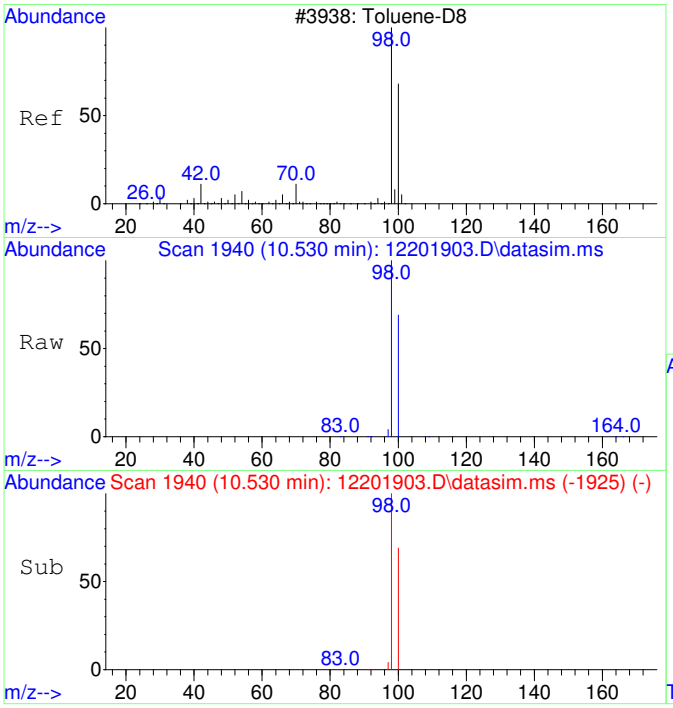


#11
Trichloroethene
Concen: 5023.21 ug/L
RT: 8.608 min Scan# 1677
Delta R.T. 0.006 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:130 Resp: 35047

Ion	Ratio	Lower	Upper
130	100		
95	93.4	62.3	122.3
132	95.8	75.8	115.8
97	59.8	39.8	79.8

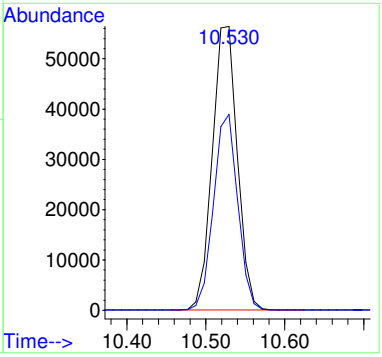


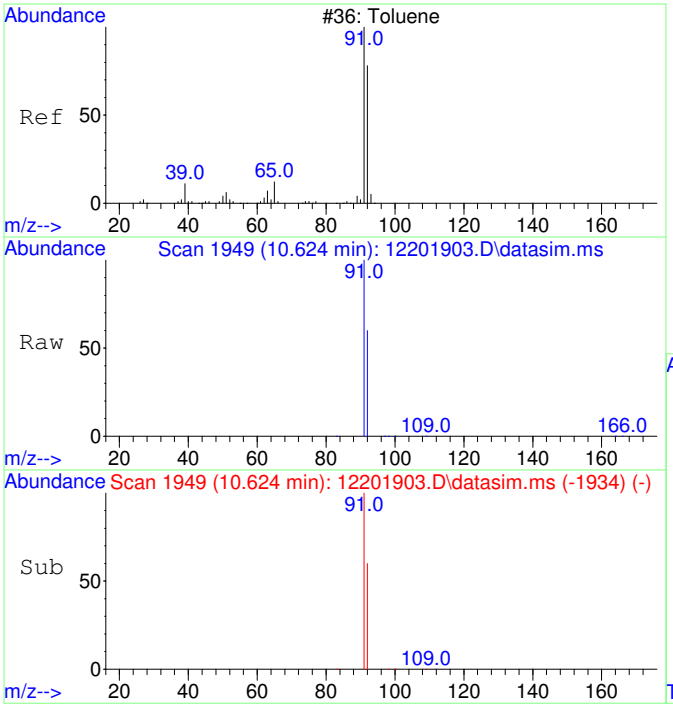


#12
Toluene-d8
Concen: 5081.53 ug/L
RT: 10.530 min Scan# 1940
Delta R.T. 0.011 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 98 Resp: 124268

Ion	Ratio	Lower	Upper
98	100		
100	66.6	36.2	96.2

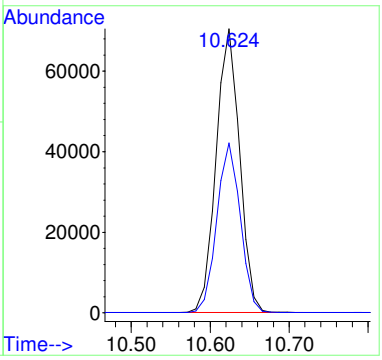


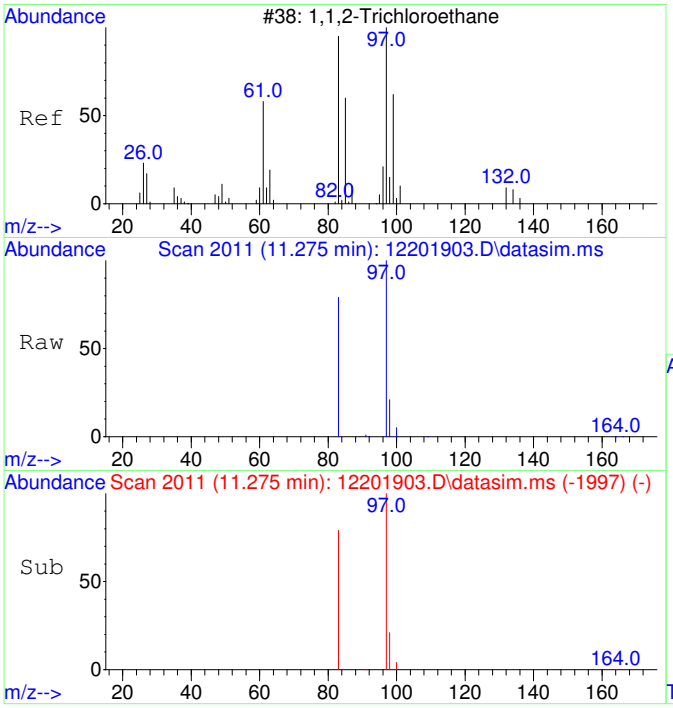


#13
Toluene
Concen: 4889.71 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.011 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 145067

Ion	Ratio	Lower	Upper
91	100		
92	59.7	29.4	89.4

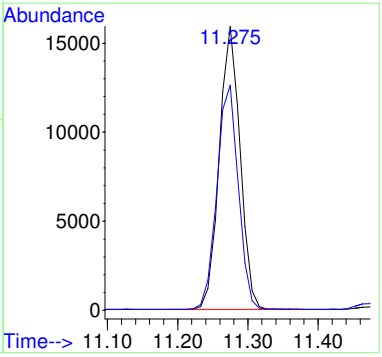


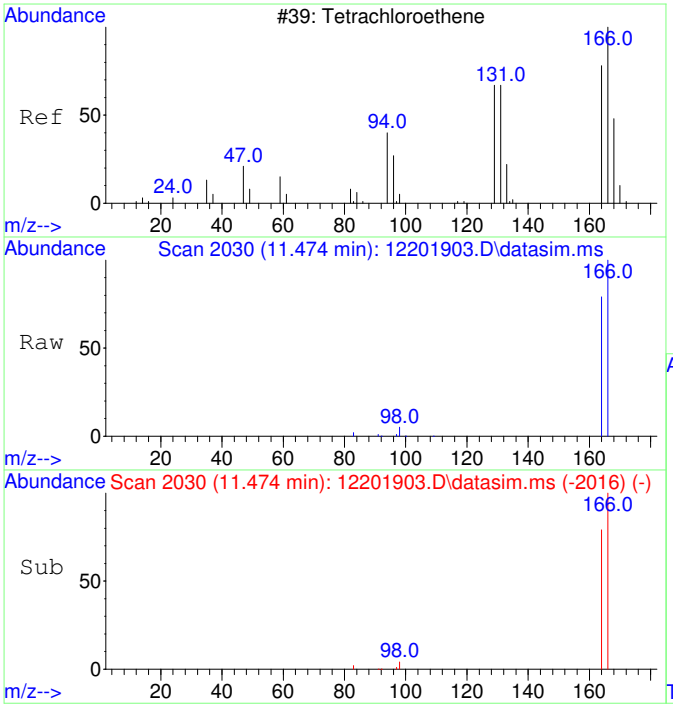


#14
1,1,2-Trichloroethane
Concen: 4847.31 ug/L
RT: 11.275 min Scan# 2011
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 97 Resp: 32585

Ion	Ratio	Lower	Upper
97	100		
83	81.5	52.5	112.5

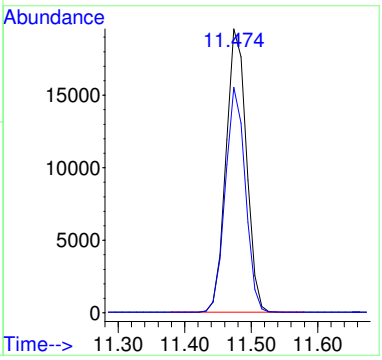


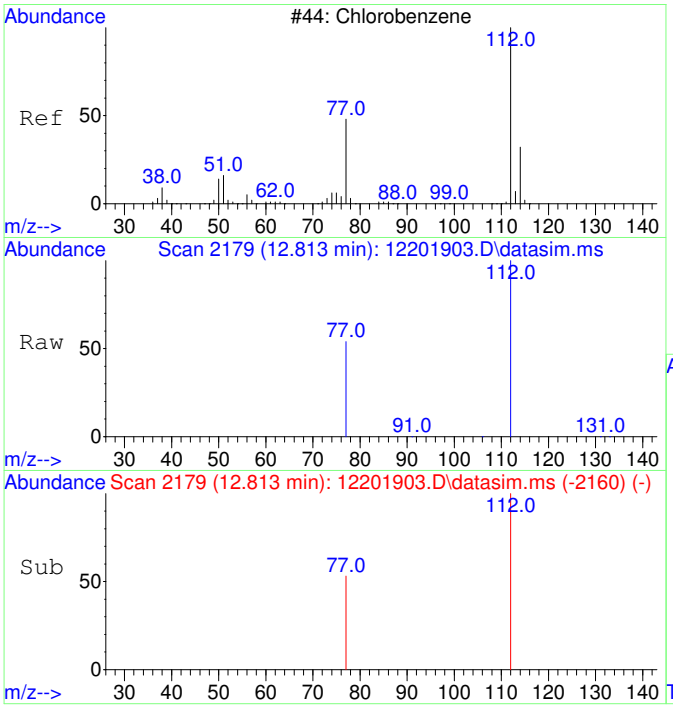


#15
Tetrachloroethene
Concen: 4625.43 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:166 Resp: 41412

Ion	Ratio	Lower	Upper
166	100		
164	77.8	47.6	107.6

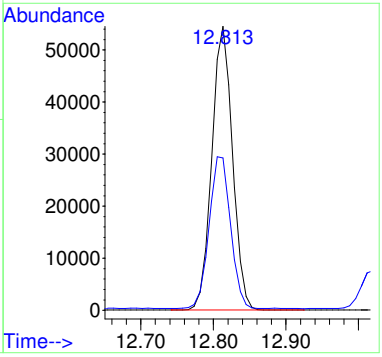


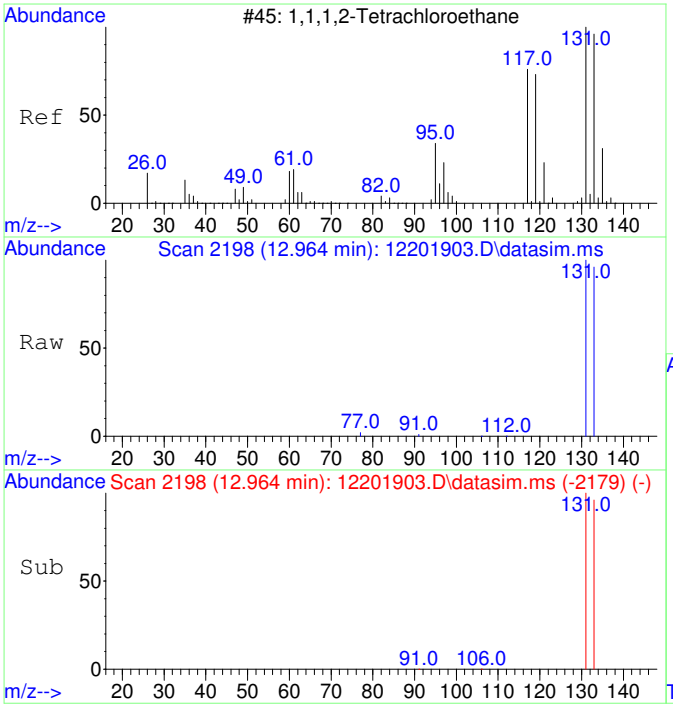


#16
Chlorobenzene
Concen: 4767.43 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:112 Resp: 107993

Ion	Ratio	Lower	Upper
112	100		
77	55.4	24.2	84.2

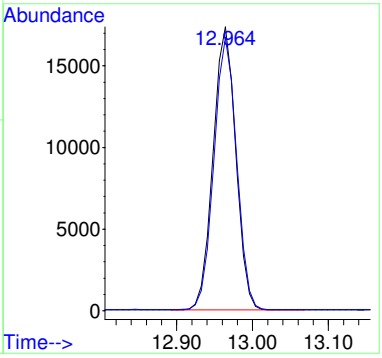


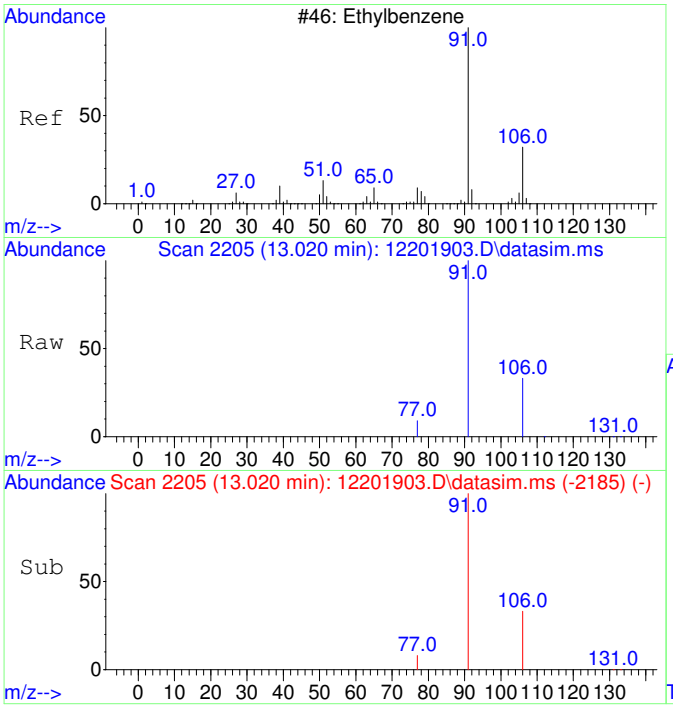


#17
1,1,1,2-Tetrachloroethane
Concen: 4553.67 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:131 Resp: 35998

Ion	Ratio	Lower	Upper
131	100		
133	96.2	66.0	126.0

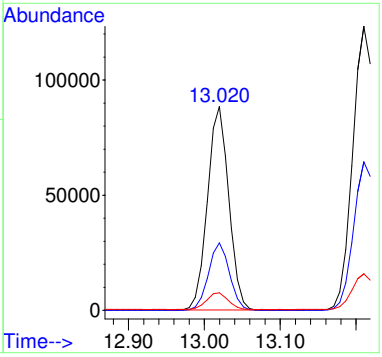


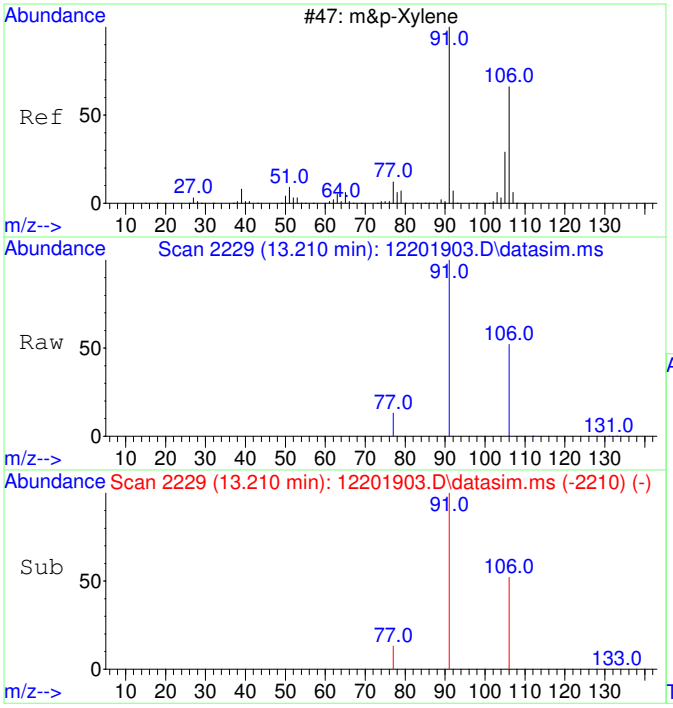


#18
Ethylbenzene
Concen: 4698.48 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 171998

Ion	Ratio	Lower	Upper
91	100		
106	32.7	2.5	62.5
77	8.3	0.0	38.2

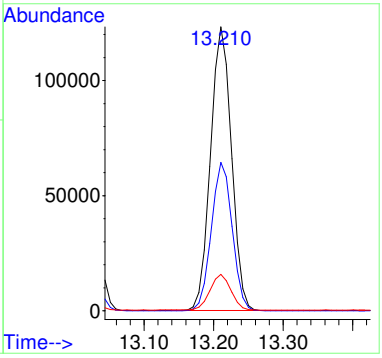


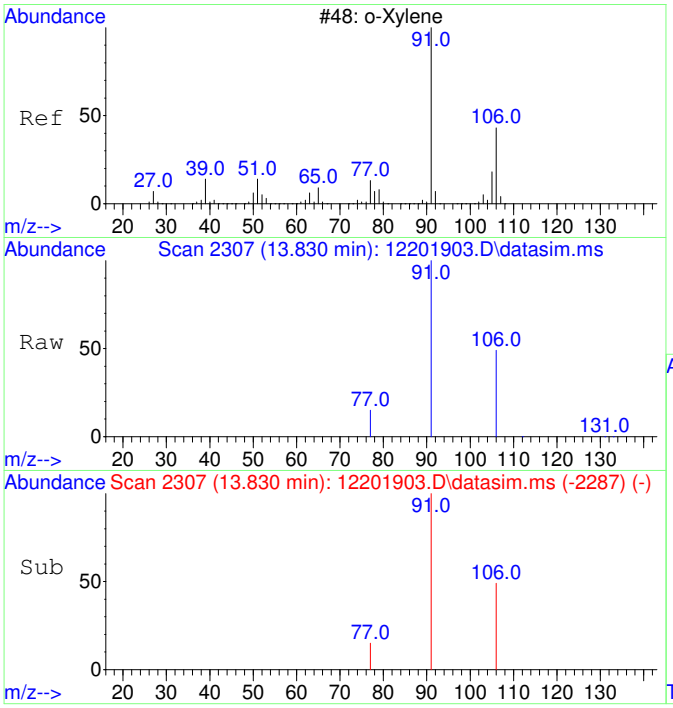


#19
m&p-Xylene
Concen: 9245.97 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 257907

Ion	Ratio	Lower	Upper
91	100		
106	51.9	21.6	81.6
77	12.5	0.0	42.6

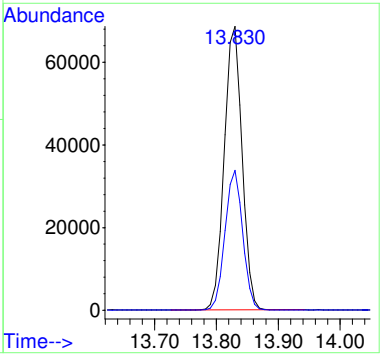


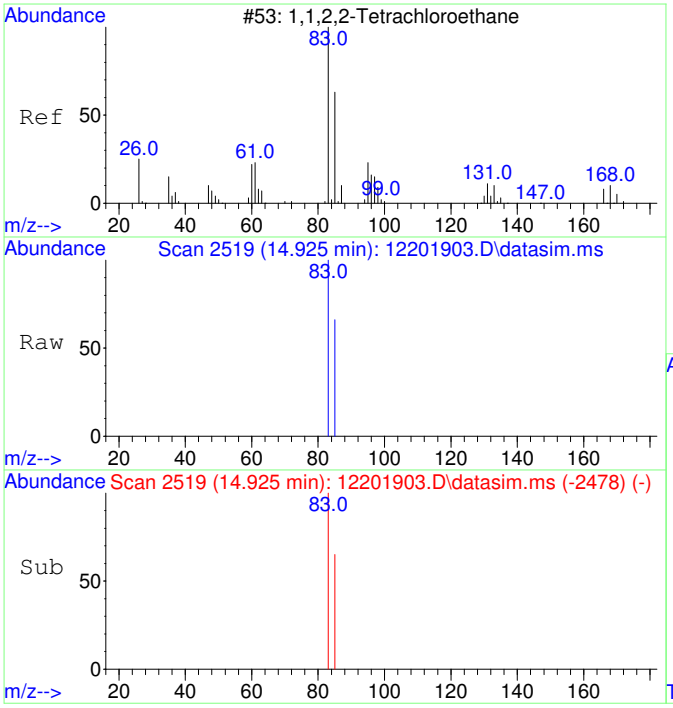


#20
o-Xylene
Concen: 4652.30 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 137615

Ion	Ratio	Lower	Upper
91	100		
106	49.0	18.5	78.5

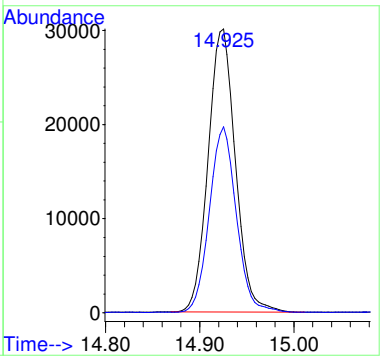


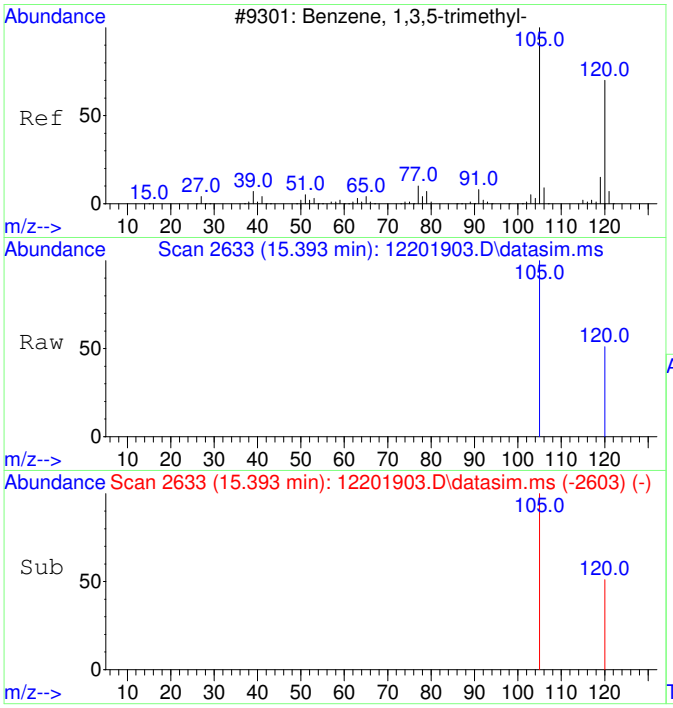


#21
1,1,2,2-Tetrachloroethane
Concen: 4564.83 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.004 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 83 Resp: 60631

Ion	Ratio	Lower	Upper
83	100		
85	64.6	34.7	94.7

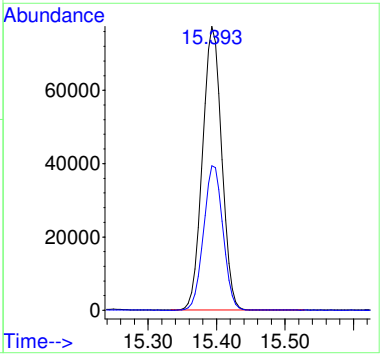


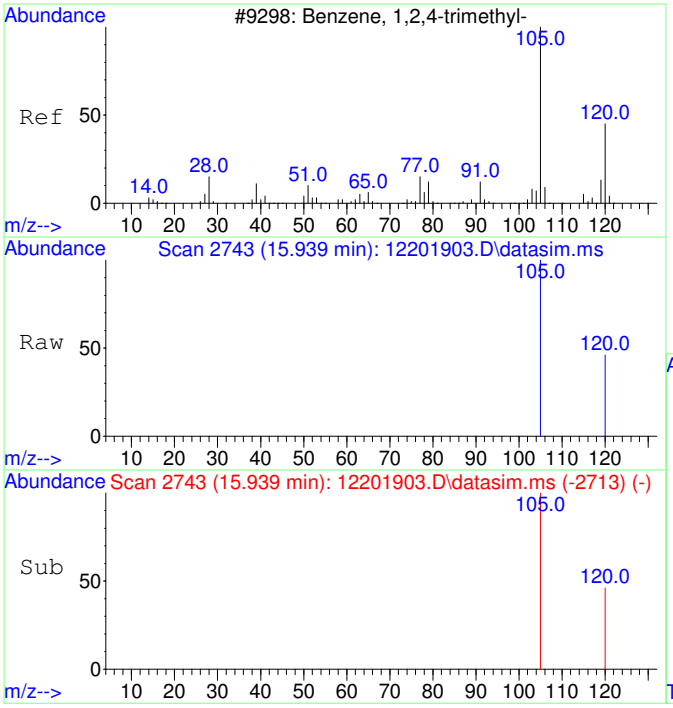


#22
1,3,5-Trimethylbenzene
Concen: 4556.21 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:105 Resp: 150175

Ion	Ratio	Lower	Upper
105	100		
120	51.3	20.7	80.7

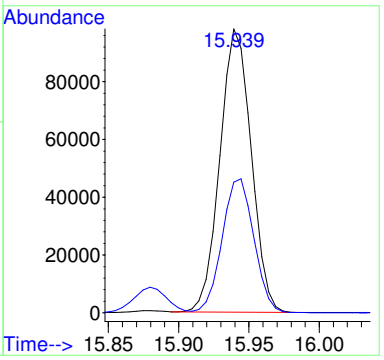


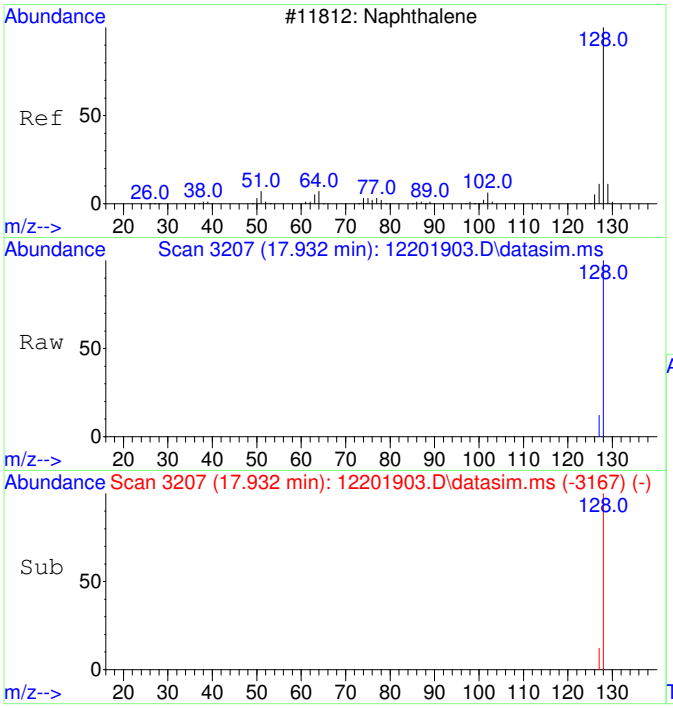


#23
1,2,4-Trimethylbenzene
Concen: 4503.35 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:105 Resp: 151699

Ion	Ratio	Lower	Upper
105	100		
120	47.1	16.6	76.6

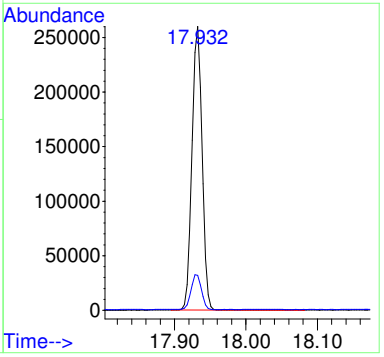


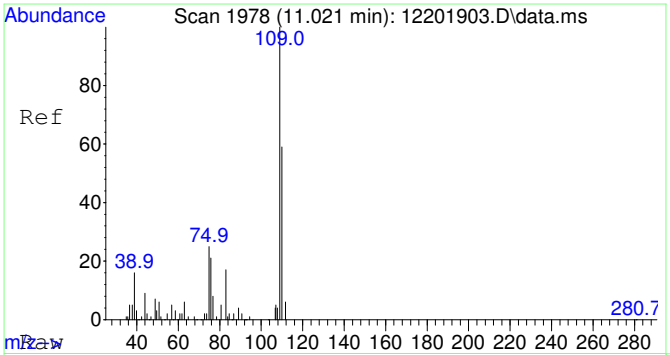


#24
Naphthalene
Concen: 4173.93 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:128 Resp: 254006

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	42.5

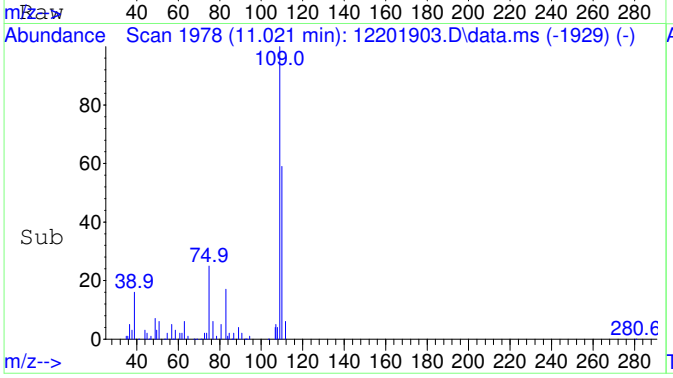


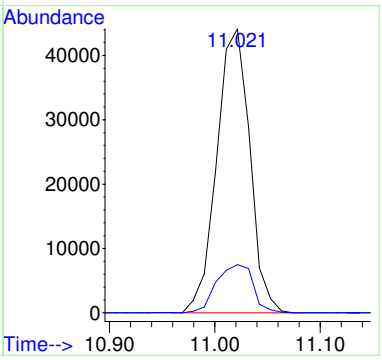


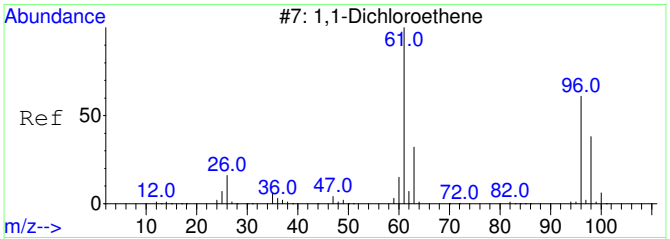
#25
2-Fluorotoluene SCAN
Concen: 5109.67 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.011 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

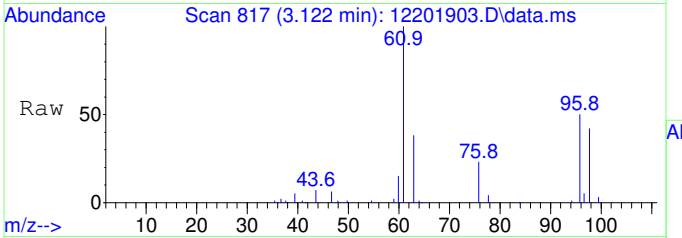
Tgt Ion:109 Resp: 96533

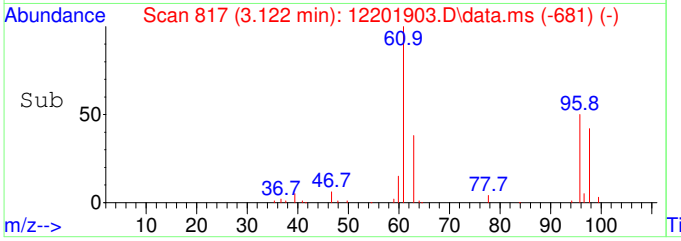
Ion	Ratio	Lower	Upper
109	100		
83	18.9	0.0	44.7







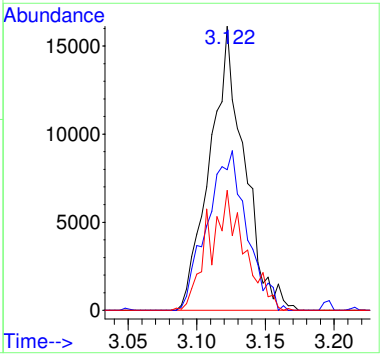


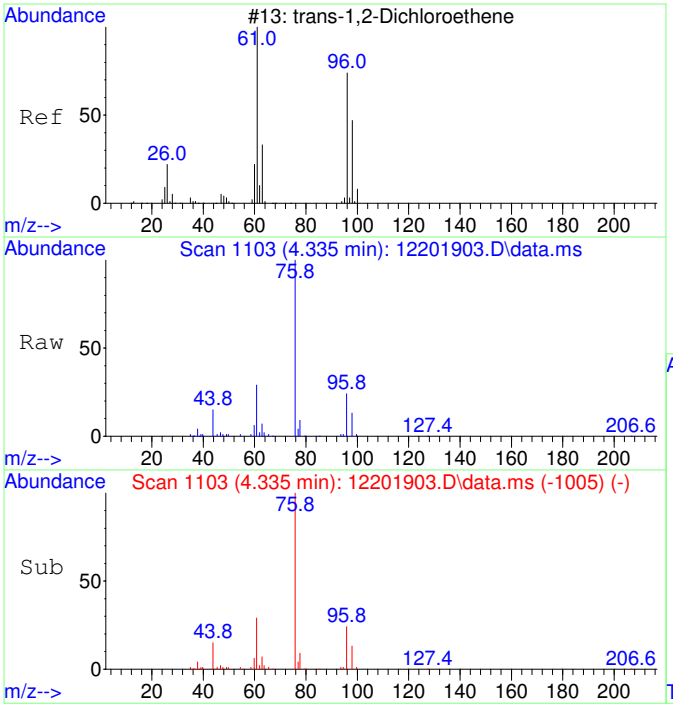


#26
1,1-Dichloroethene SCAN
Concen: 6768.85 ug/L
RT: 3.122 min Scan# 817
Delta R.T. 0.004 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 61 Resp: 28023

Ion	Ratio	Lower	Upper
61	100		
96	64.4	34.8	94.8
98	17.9	12.9	72.9

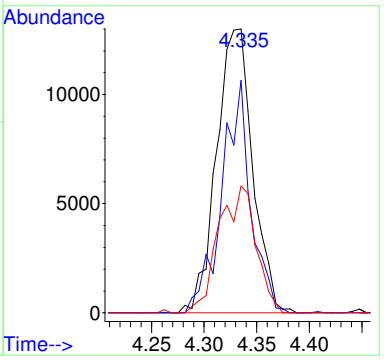


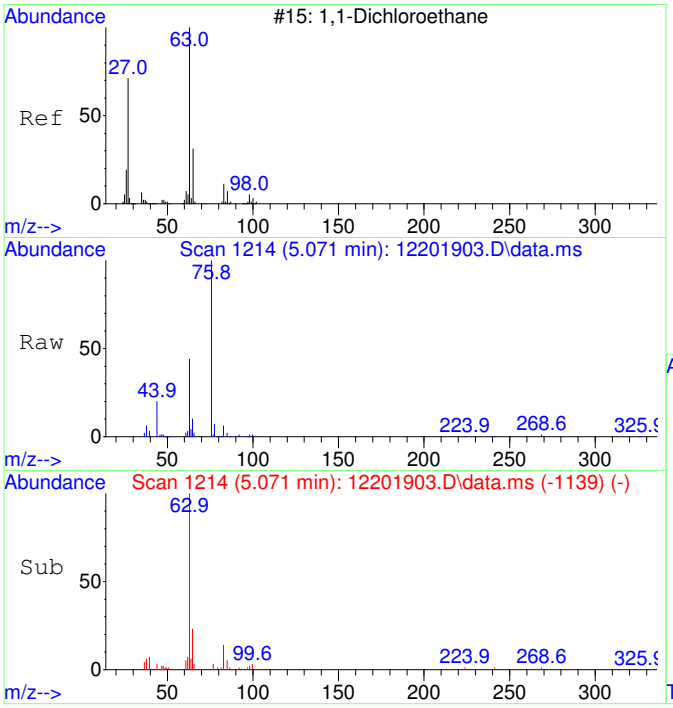


#27
trans-1,2-Dichloroethene SCAN
Concen: 7943.26 ug/L
RT: 4.335 min Scan# 1103
Delta R.T. 0.013 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 61 Resp: 31156

Ion	Ratio	Lower	Upper
61	100		
96	65.2	42.7	102.7
98	45.8	23.4	83.4

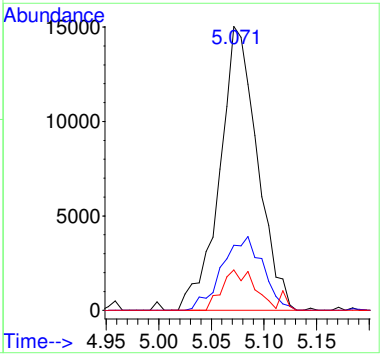


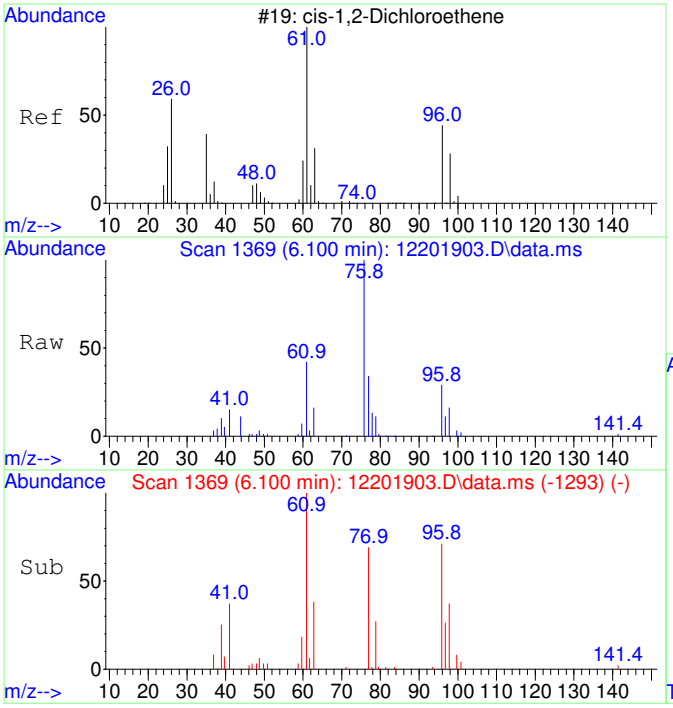


#28
1,1-Dichloroethane SCAN
Concen: 6370.84 ug/L
RT: 5.071 min Scan# 1214
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 63 Resp: 37394

Ion	Ratio	Lower	Upper
63	100		
65	28.3	0.0	59.7
83	11.9	0.0	31.2

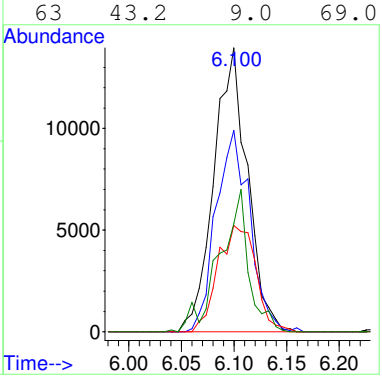


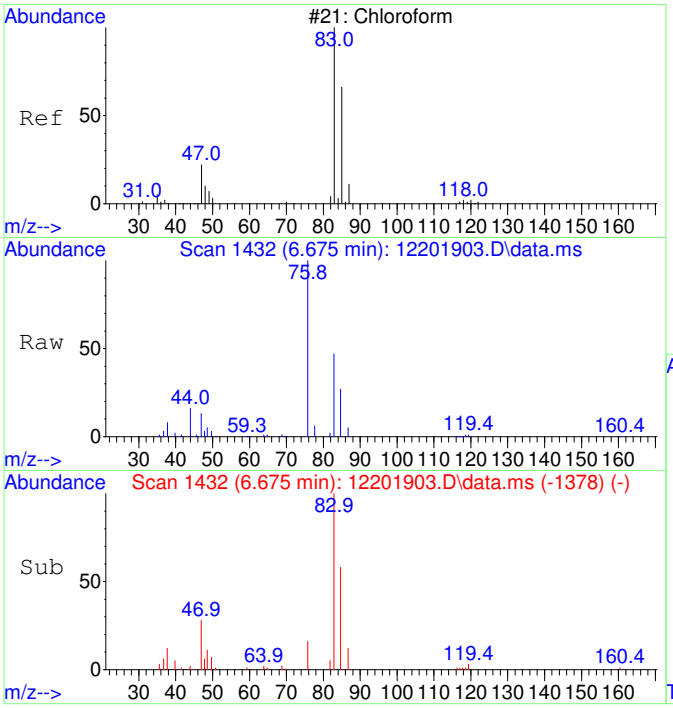


#29
cis-1,2-Dichloroethene SCAN
Concen: 6620.89 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 61 Resp: 31127

Ion	Ratio	Lower	Upper
61	100		
96	71.3	46.1	106.1
98	42.0	20.8	80.8
63	43.2	9.0	69.0

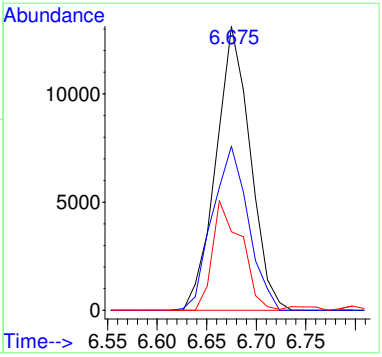


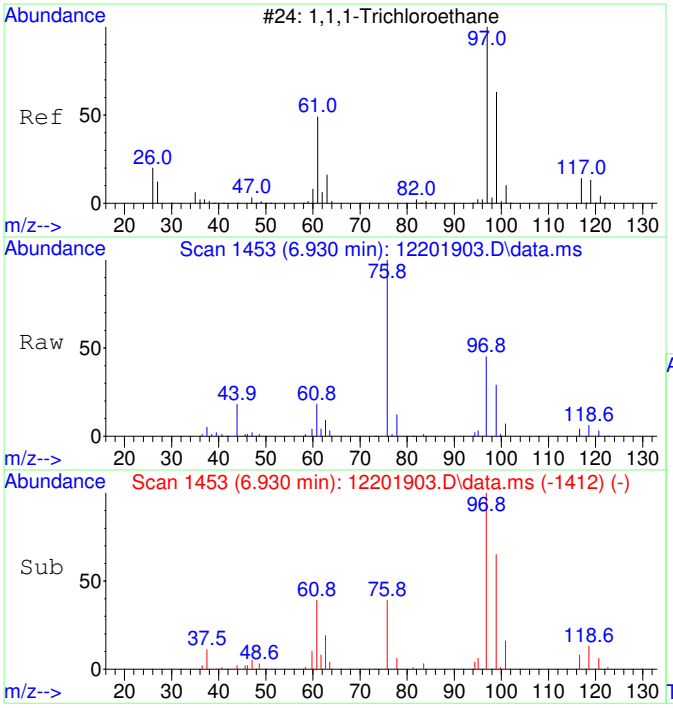


#30
Chloroform SCAN
Concen: 6311.00 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 83 Resp: 31681

Ion	Ratio	Lower	Upper
83	100		
85	60.5	42.9	102.9
47	32.1	4.5	64.5

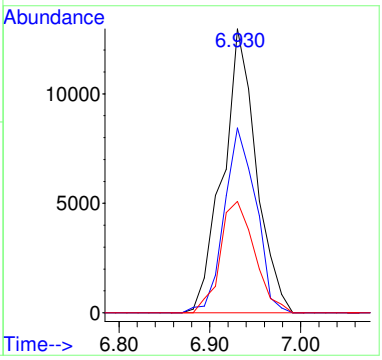


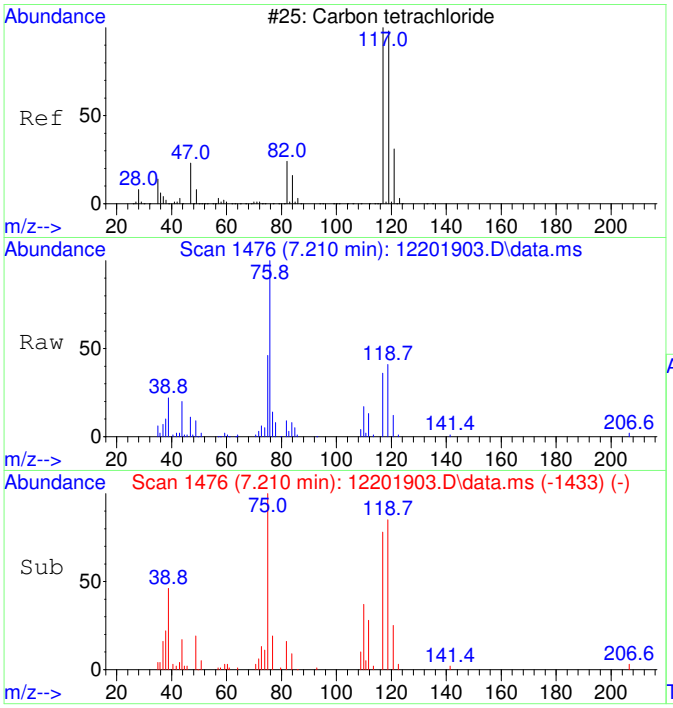


#31
1,1,1-Trichloroethane SCAN
Concen: 5748.72 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 97 Resp: 33175

Ion	Ratio	Lower	Upper
97	100		
99	61.7	16.3	76.3
61	40.4	18.9	78.9

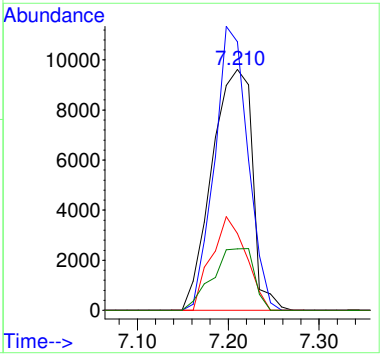


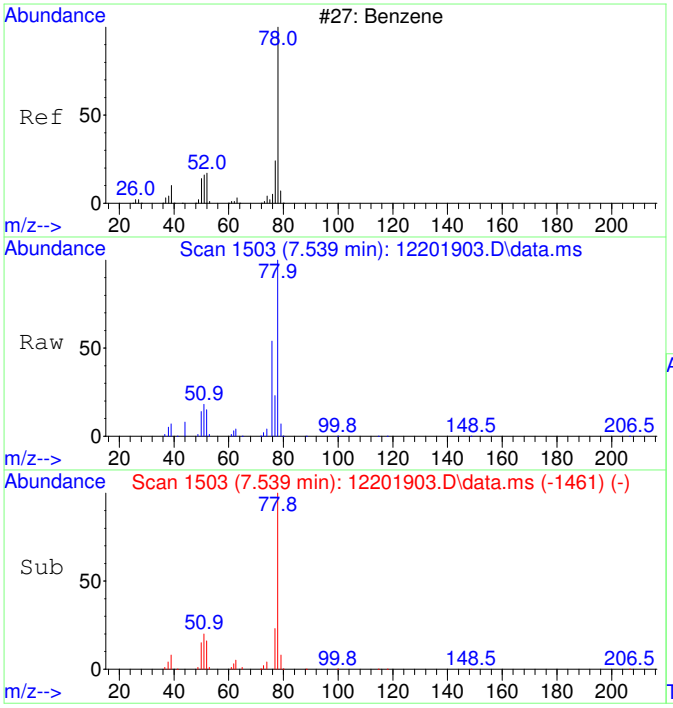


#32
Carbon tetrachloride SCAN
Concen: 6030.48 ug/L
RT: 7.210 min Scan# 1476
Delta R.T. 0.024 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:117 Resp: 29803

Ion	Ratio	Lower	Upper
117	100		
119	0.0	68.9	128.9#
121	0.0	4.5	64.5#
82	26.3	0.0	56.3

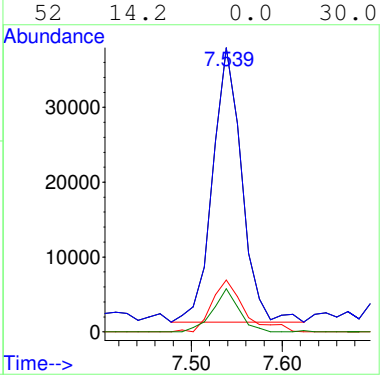


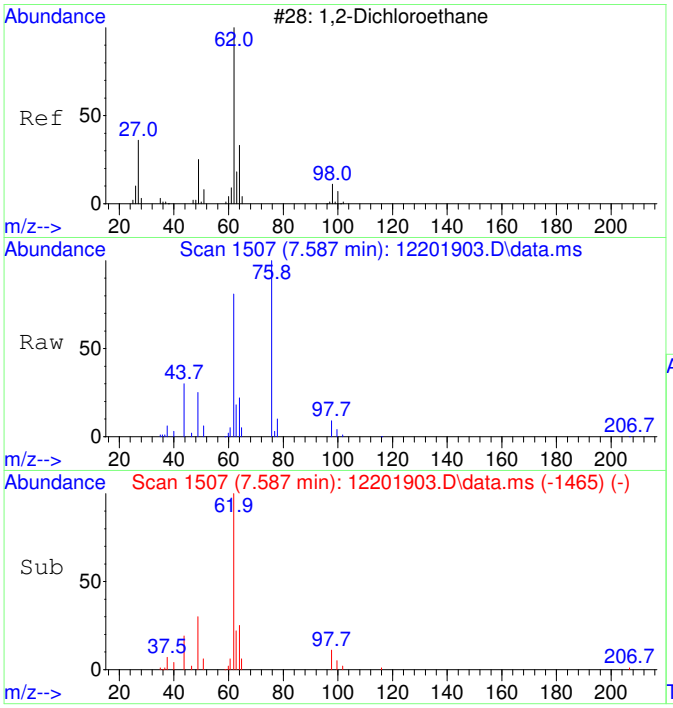


#33
Benzene SCAN
Concen: 5402.29 ug/L
RT: 7.539 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 78 Resp: 81765

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	20.9	0.0	45.4
52	14.2	0.0	30.0

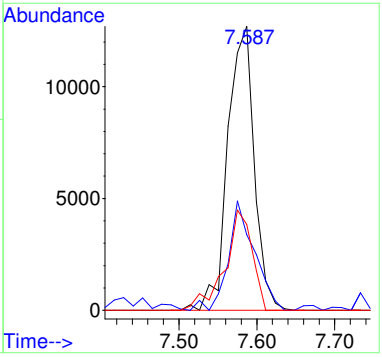


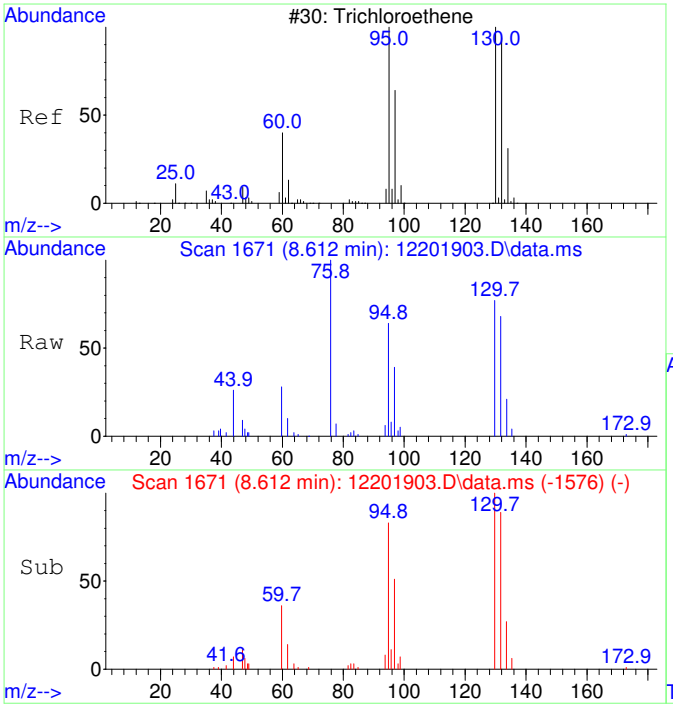


#34
1,2-Dichloroethane SCAN
Concen: 5836.32 ug/L
RT: 7.587 min Scan# 1507
Delta R.T. 0.012 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 62 Resp: 30127

Ion	Ratio	Lower	Upper
62	100		
64	38.2	14.5	74.5
49	36.1	4.0	64.0

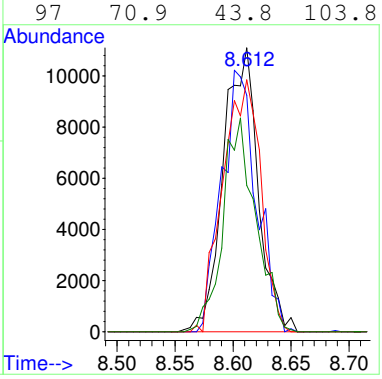


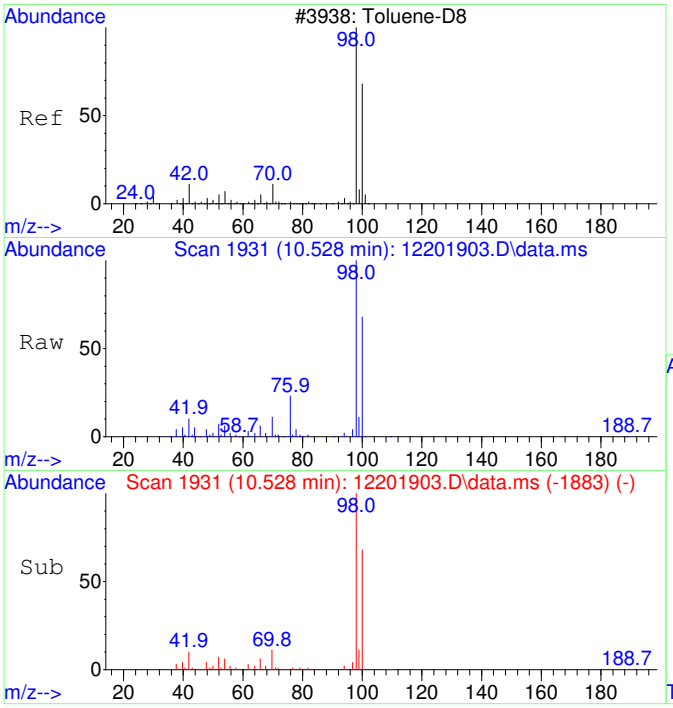


#35
Trichloroethene SCAN
Concen: 6049.57 ug/L
RT: 8.612 min Scan# 1671
Delta R.T. 0.016 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:130 Resp: 23383

Ion	Ratio	Lower	Upper
130	100		
95	92.6	75.7	135.7
132	96.4	77.1	137.1
97	70.9	43.8	103.8

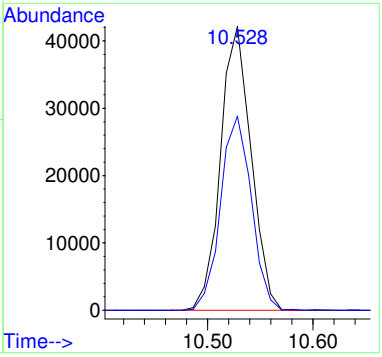


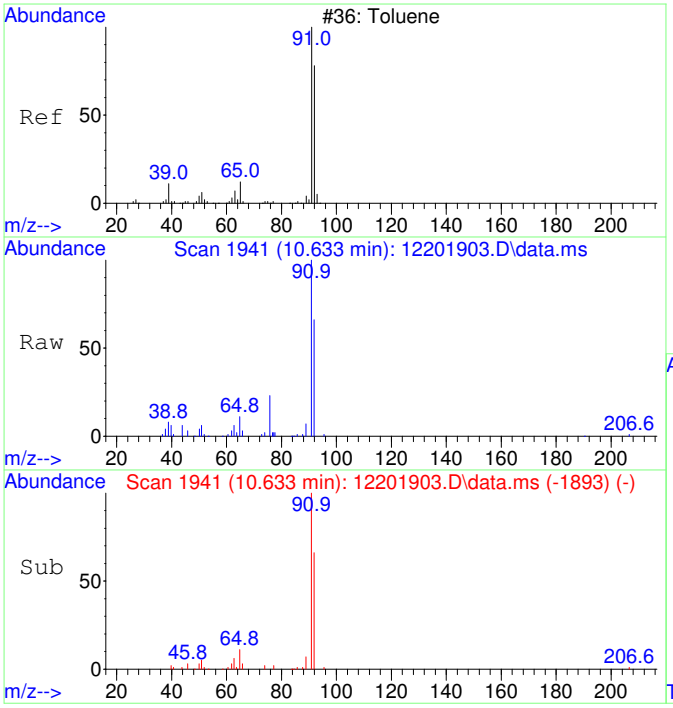


#36
Toluene-d8 SCAN
Concen: 5323.90 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 98 Resp: 85280

Ion	Ratio	Lower	Upper
98	100		
100	68.9	44.4	104.4

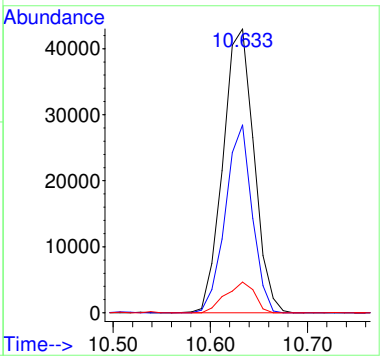


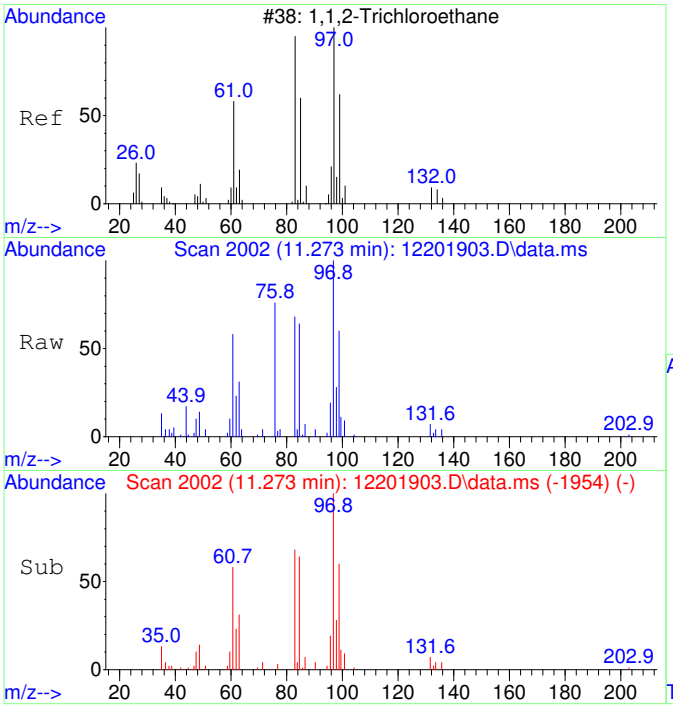


#37
Toluene SCAN
Concen: 5087.62 ug/L
RT: 10.633 min Scan# 1941
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 95185

Ion	Ratio	Lower	Upper
91	100		
92	57.3	31.5	91.5
65	10.1	0.0	30.0

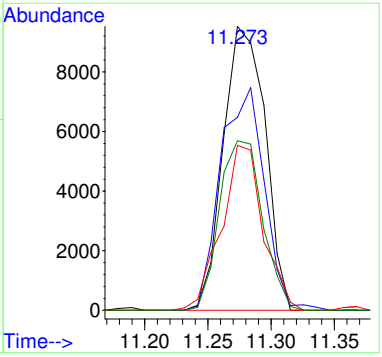


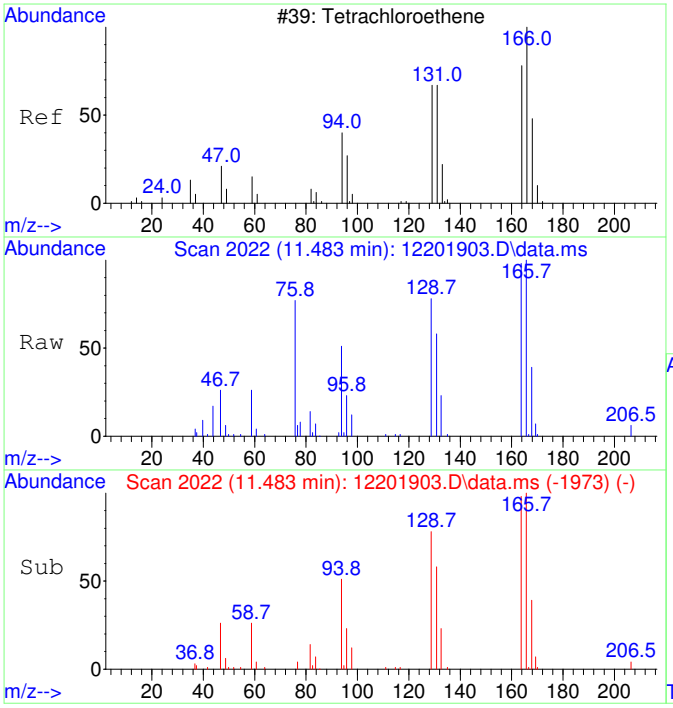


#38
1,1,2-Trichloroethane SCAN
Concen: 5419.46 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 97 Resp: 22057

Ion	Ratio	Lower	Upper
97	100		
83	81.9	67.7	127.7
61	57.6	31.9	91.9
99	61.4	35.5	95.5

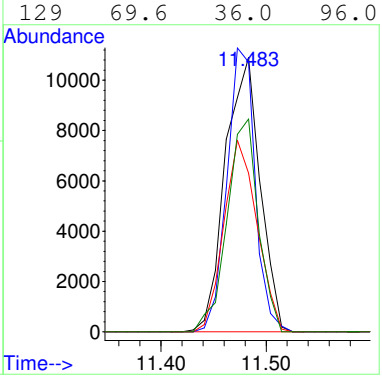


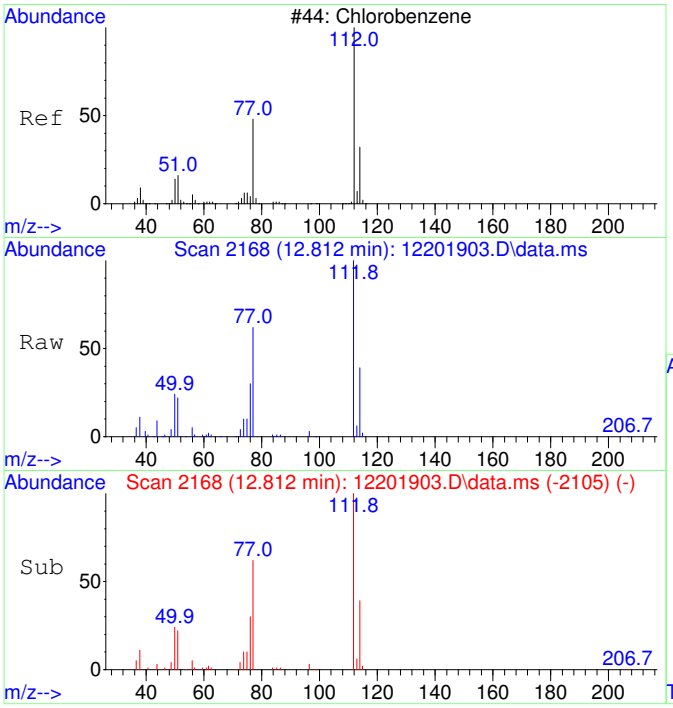


#39
Tetrachloroethene SCAN
Concen: 4618.14 ug/L
RT: 11.483 min Scan# 2022
Delta R.T. 0.011 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:166 Resp: 25044

Ion	Ratio	Lower	Upper
166	100		
164	83.7	61.8	121.8
131	66.6	51.8	111.8
129	69.6	36.0	96.0

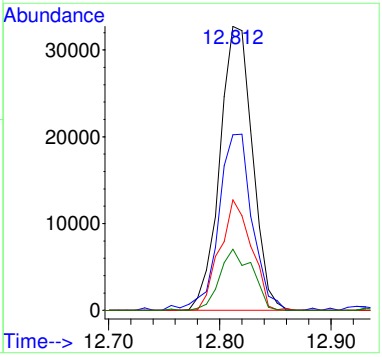


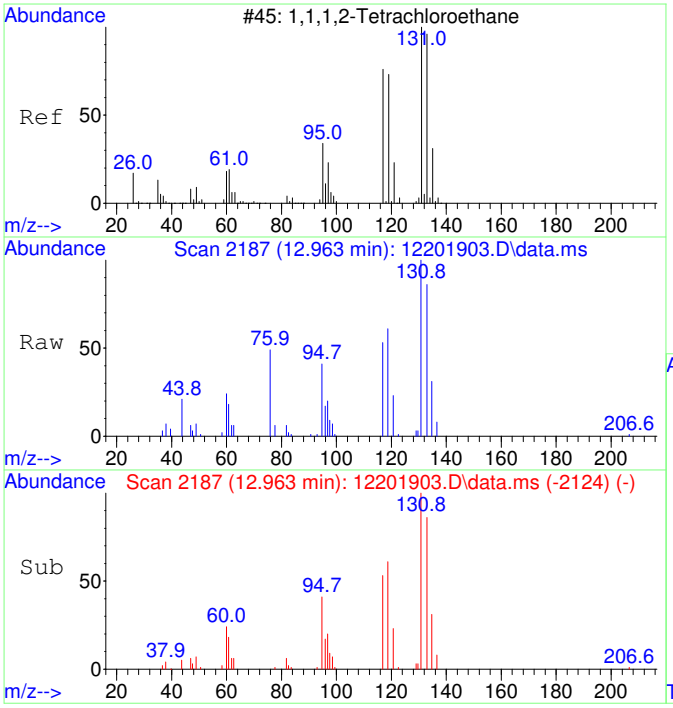


#40
Chlorobenzene SCAN
Concen: 4487.72 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:112 Resp: 66898

Ion	Ratio	Lower	Upper
112	100		
77	63.7	27.8	87.8
114	37.7	3.1	63.1
51	21.4	0.0	49.9

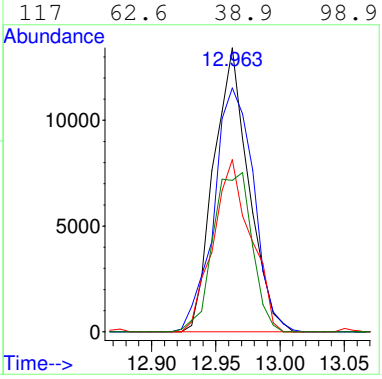


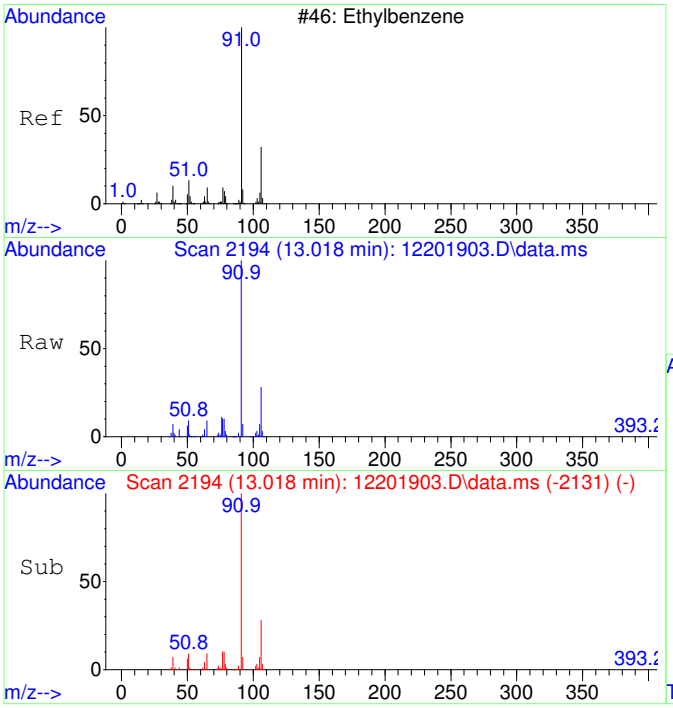


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 5276.21 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:131 Resp: 25372

Ion	Ratio	Lower	Upper
131	100		
133	97.7	69.6	129.6
119	65.7	42.4	102.4
117	62.6	38.9	98.9

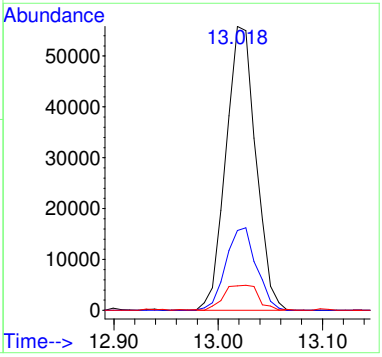


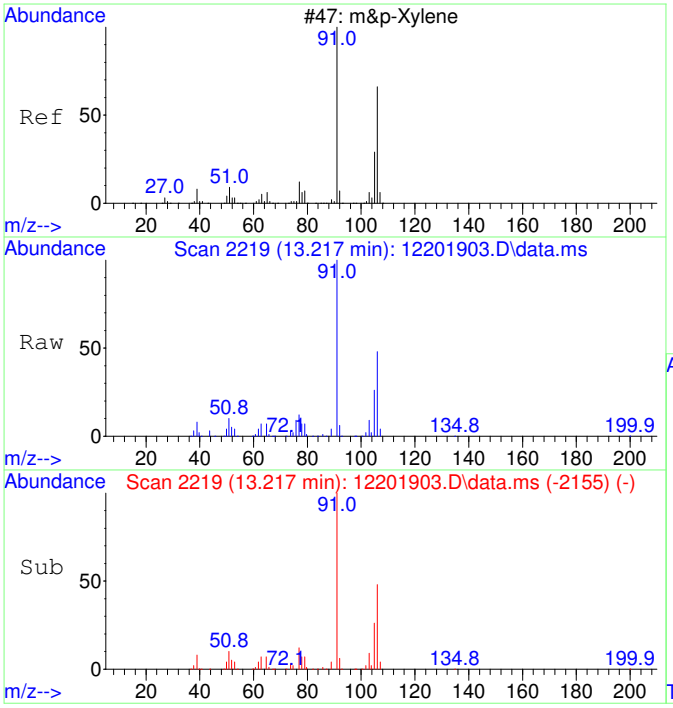


#42
Ethylbenzene SCAN
Concen: 4694.78 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 110979

Ion	Ratio	Lower	Upper
91	100		
106	29.7	1.3	61.3
51	10.5	0.0	39.4

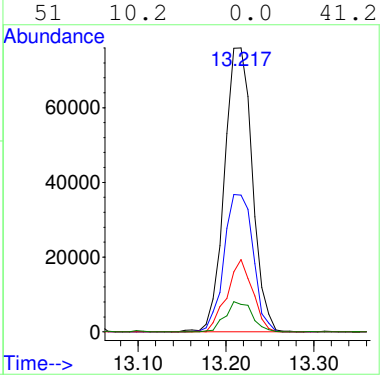


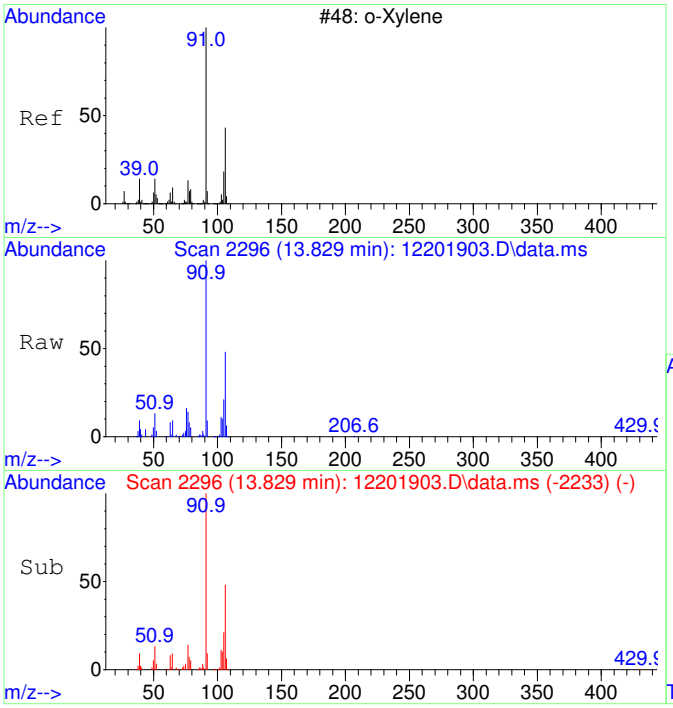


#43
m&p-Xylene SCAN
Concen: 4728.03 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 167603

Ion	Ratio	Lower	Upper
91	100		
106	50.3	19.0	79.0
105	23.4	0.0	54.9
51	10.2	0.0	41.2

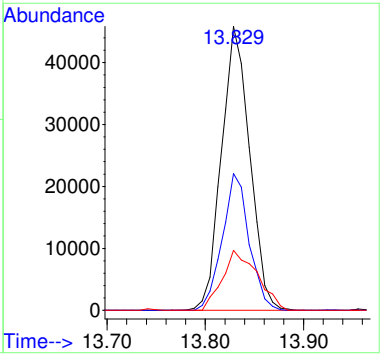


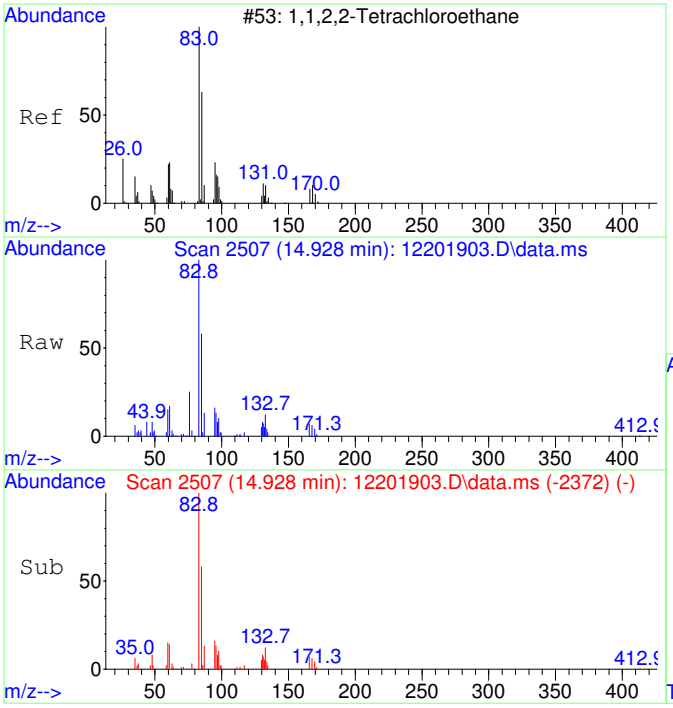


#44
o-Xylene SCAN
Concen: 4552.35 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 91 Resp: 91486

Ion	Ratio	Lower	Upper
91	100		
106	45.7	17.2	77.2
105	26.1	0.0	57.7

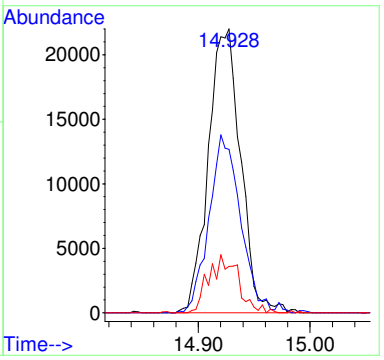


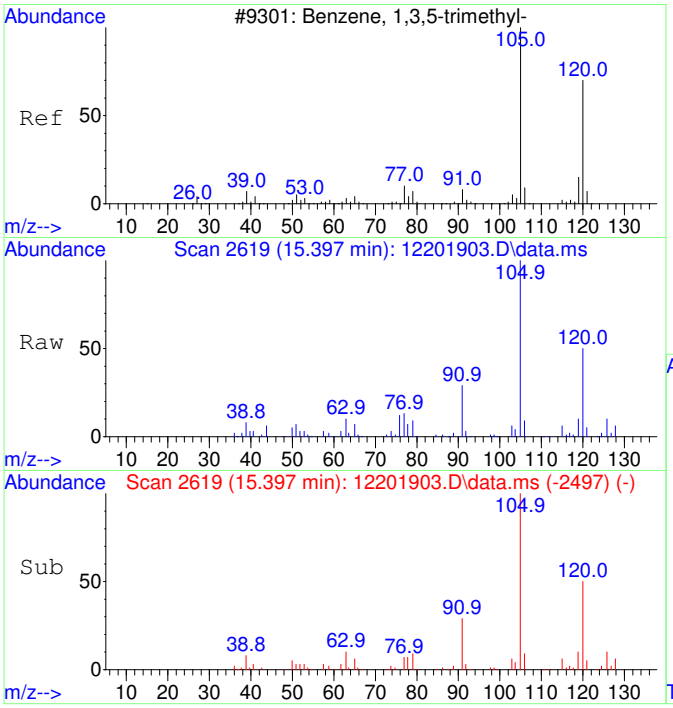


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 4889.93 ug/L
RT: 14.928 min Scan# 2507
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion: 83 Resp: 44302

Ion	Ratio	Lower	Upper
83	100		
85	59.1	37.2	97.2
95	18.4	0.0	48.7

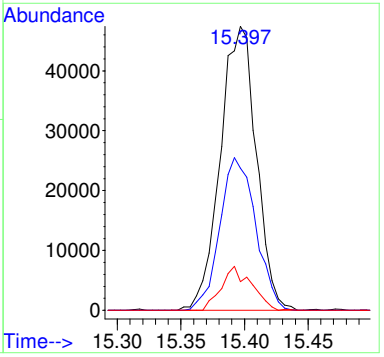


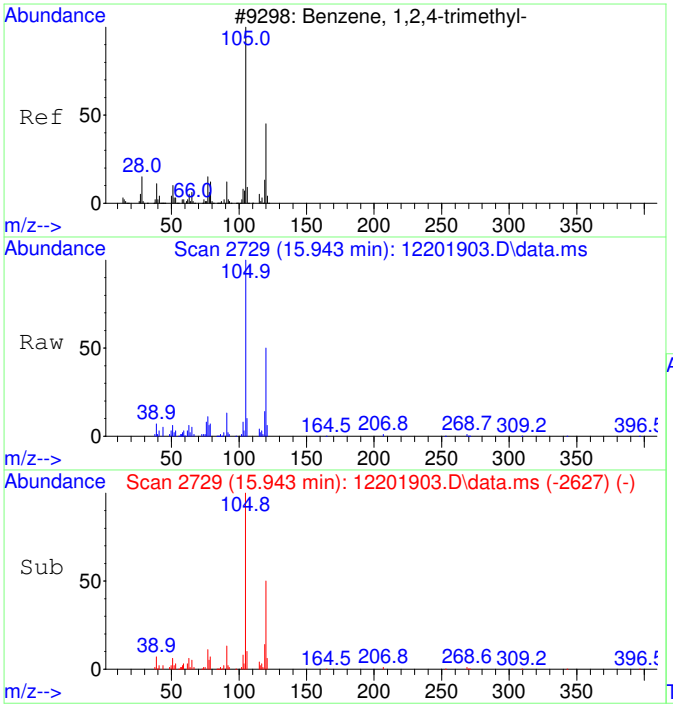


#46
1,3,5-Trimethylbenzene SCAN
Concen: 4468.34 ug/L
RT: 15.397 min Scan# 2619
Delta R.T. 0.005 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:105 Resp: 93839

Ion	Ratio	Lower	Upper
105	100		
120	53.6	22.3	82.3
119	13.0	0.0	43.8

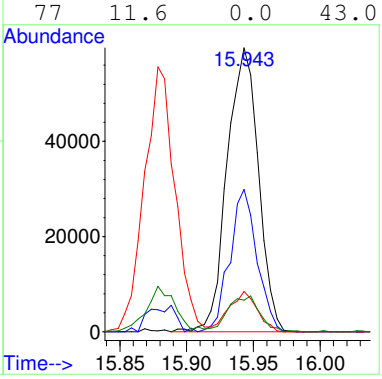


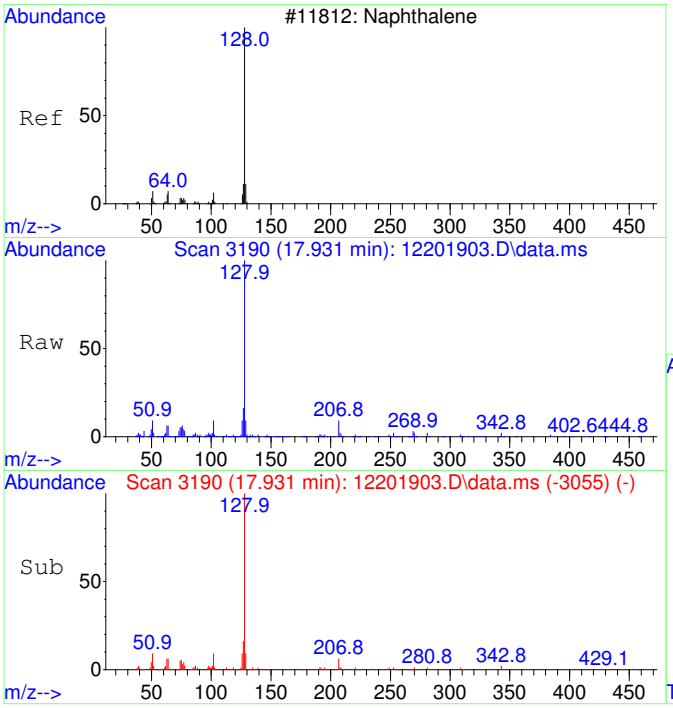


#47
1,2,4-Trimethylbenzene SCAN
Concen: 4569.62 ug/L
RT: 15.943 min Scan# 2729
Delta R.T. 0.005 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:105 Resp: 97413

Ion	Ratio	Lower	Upper
105	100		
120	43.6	15.8	75.8
119	11.1	0.0	42.9
77	11.6	0.0	43.0

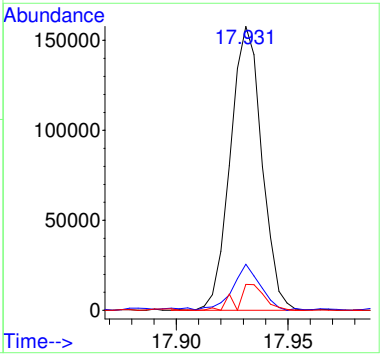




#48
Naphthalene SCAN
Concen: 4498.78 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. 0.000 min
Lab File: 12201903.D
Acq: 20 Dec 2019 11:13

Tgt Ion:128 Resp: 154947

Ion	Ratio	Lower	Upper
128	100		
127	13.8	0.0	30.0
129	7.8	0.0	34.5



S19L083-CRL1

QLS REPORT

Instrument Name: AG5975C
Sample Name: S19L083-CRL1
Misc Info: 1930060 0.5 mg/L
Date Acquired: 12/20/19 11:37
QLast Update: Thu Nov 21 06:24:24 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	11.012	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	3.120	50.0	55.47	111%	60	140	pass
3)	trans-1,2-Dichloroethene	4.310	50.0	57.95	116%	60	140	pass
4)	1,1-Dichloroethane	5.066	50.0	57.16	114%	60	140	pass
5)	cis-1,2-Dichloroethene	6.088	50.0	56.44	113%	60	140	pass
6)	Chloroform	6.664	50.0	57.23	114%	60	140	pass
7)	1,1,1-Trichloroethane	6.919	50.0	57.65	115%	60	140	pass
8)	Carbon tetrachloride	7.199	50.0	53.35	107%	60	140	pass
10)	1,2-Dichloroethane	7.564	50.0	58.40	117%	60	140	pass
11)	Trichloroethene	8.602	50.0	54.66	109%	60	140	pass
12)	Toluene-d8	10.519	50.0	52.38	105%	60	140	pass
13)	Toluene	10.613	50.0	53.52	107%	60	140	pass
14)	1,1,2-Trichloroethane	11.275	50.0	54.36	109%	60	140	pass
15)	Tetrachloroethene	11.474	50.0	48.58	97%	60	140	pass
16)	Chlorobenzene	12.813	50.0	50.81	102%	60	140	pass
17)	1,1,1,2-Tetrachloroethane	12.964	50.0	50.00	100%	60	140	pass
18)	Ethylbenzene	13.012	50.0	51.95	104%	60	140	pass
19)	m&p-Xylene	13.210	100.0	103.35	103%	60	140	pass
20)	o-Xylene	13.822	50.0	50.89	102%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.921	50.0	49.57	99%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.393	50.0	49.50	99%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.939	50.0	50.17	100%	60	140	pass
24)	Naphthalene	17.932	50.0	51.04	102%	60	140	pass

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

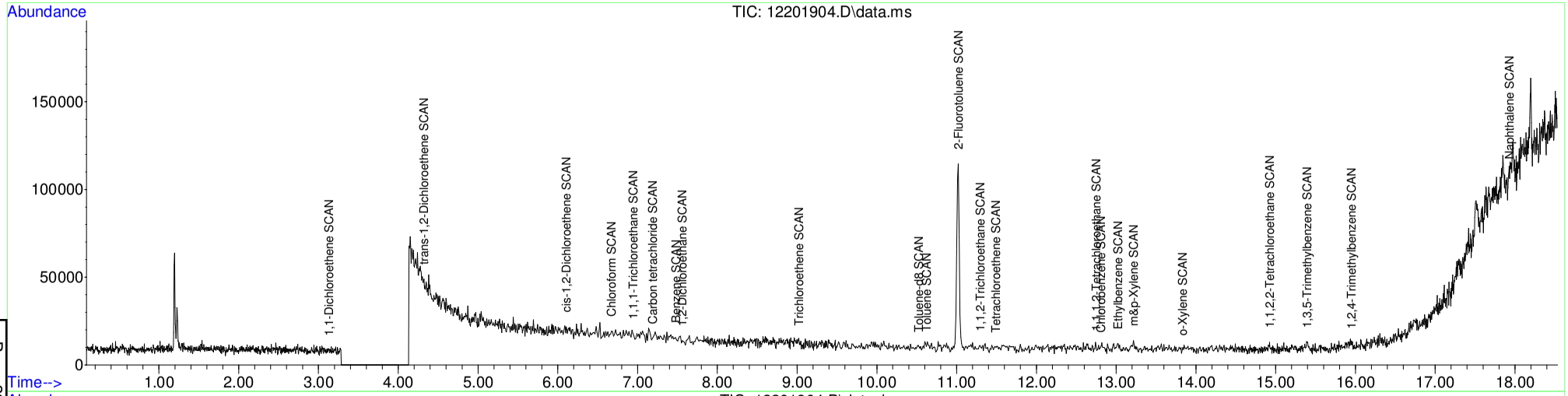
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	153340	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	1290	52.38 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.05%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.123	61	718	109.42 ug/L	85
3] trans-1,2-Dichloroethene	4.329	61	390	57.95 ug/L	99
4] 1,1-Dichloroethane	5.073	63	489	57.16 ug/L	94
5] cis-1,2-Dichloroethene	6.094	61	444	56.44 ug/L	91
6] Chloroform	6.676	83	520	57.23 ug/L	96
7] 1,1,1-Trichloroethane	6.931	97	525	57.65 ug/L	95
8] Carbon tetrachloride	7.199	117	461	53.35 ug/L	93
9] Benzene	7.527	78	1552	67.77 ug/L	93
10] 1,2-Dichloroethane	7.576	62	439	58.40 ug/L #	18
11] Trichloroethene	8.608	130	384	54.66 ug/L	92
13] Toluene	10.624	91	1599	53.52 ug/L	97
14] 1,1,2-Trichloroethane	11.274	97	368	54.36 ug/L	97
15] Tetrachloroethene	11.474	166	438	48.58 ug/L	96
16] Chlorobenzene	12.813	112	1159	50.81 ug/L	80
17] 1,1,1,2-Tetrachloroethane	12.964	131	398	50.00 ug/L	89
18] Ethylbenzene	13.020	91	1915	51.95 ug/L	98
19] m&p-Xylene	13.210	91	2903	103.35 ug/L	98
20] o-Xylene	13.830	91	1516	50.89 ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.925	83	663	49.57 ug/L	99
22] 1,3,5-Trimethylbenzene	15.393	105	1643	49.50 ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	1702	50.17 ug/L	100
24] Naphthalene	17.932	128	3128	51.04 ug/L #	9
25) 2-Fluorotoluene SCAN	11.021	109	95152	5001.59 ug/L	95
26) 1,1-Dichloroethene SCAN	3.133	61	302	72.44 ug/L #	40
27) trans-1,2-Dichloroethe...	4.321	61	142	35.95 ug/L #	18
29) cis-1,2-Dichloroethene...	6.106	61	257	54.29 ug/L #	38
30) Chloroform SCAN	6.675	83	258	51.04 ug/L #	50
31) 1,1,1-Trichloroethane ...	6.942	97	373	64.19 ug/L #	29
32) Carbon tetrachloride SCAN	7.186	117	179	35.97 ug/L #	9
33) Benzene SCAN	7.478	78	1484	97.37 ug/L	98
34) 1,2-Dichloroethane SCAN	7.563	62	307	59.06 ug/L #	36
35) Trichloroethene SCAN	9.025	130	80	20.55 ug/L #	1
36) Toluene-d8 SCAN	10.528	98	435	26.97 ug/L	67
37) Toluene SCAN	10.622	91	1288	68.37 ug/L #	41
38) 1,1,2-Trichloroethane ...	11.294	97	470	114.68 ug/L #	11
39) Tetrachloroethene SCAN	11.493	166	172	31.50 ug/L #	29
40) Chlorobenzene SCAN	12.804	112	319	21.25 ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.748	131	317	65.46 ug/L #	31
42) Ethylbenzene SCAN	13.018	91	1932	81.16 ug/L	75
43) m&p-Xylene SCAN	13.217	91	2795	78.30 ug/L #	76
44) o-Xylene SCAN	13.829	91	581	28.71 ug/L #	30
45) 1,1,2,2-Tetrachloroeth...	14.924	83	306	33.54 ug/L #	80
46) 1,3,5-Trimethylbenzene...	15.392	105	744	35.18 ug/L #	47
47) 1,2,4-Trimethylbenzene...	15.948	105	1632	76.02 ug/L	81
48) Naphthalene SCAN	17.931	128	2007	57.87 ug/L #	62

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



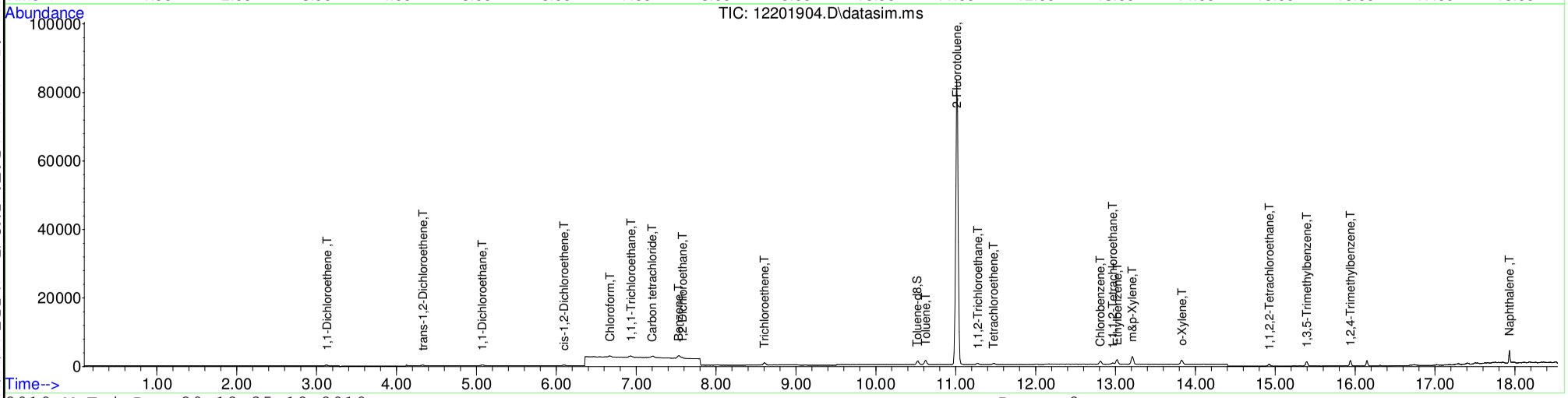
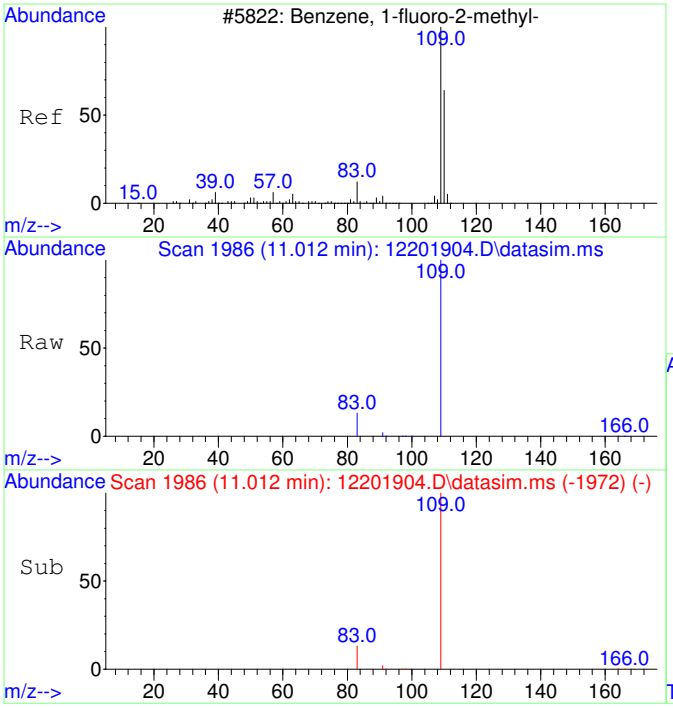


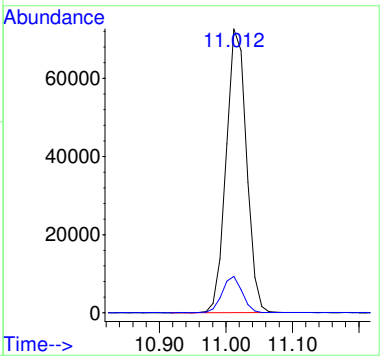
Table of Contents

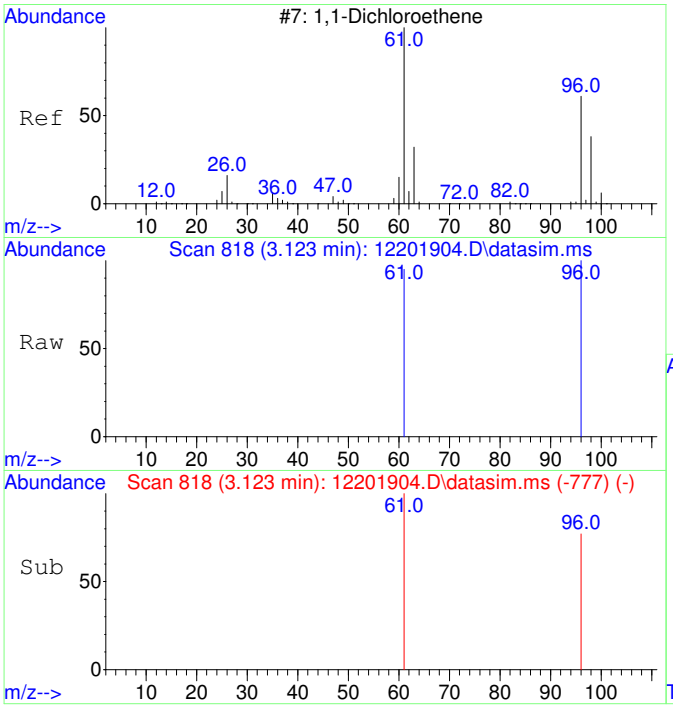


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 153340

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

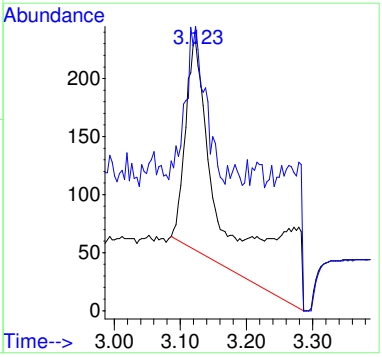




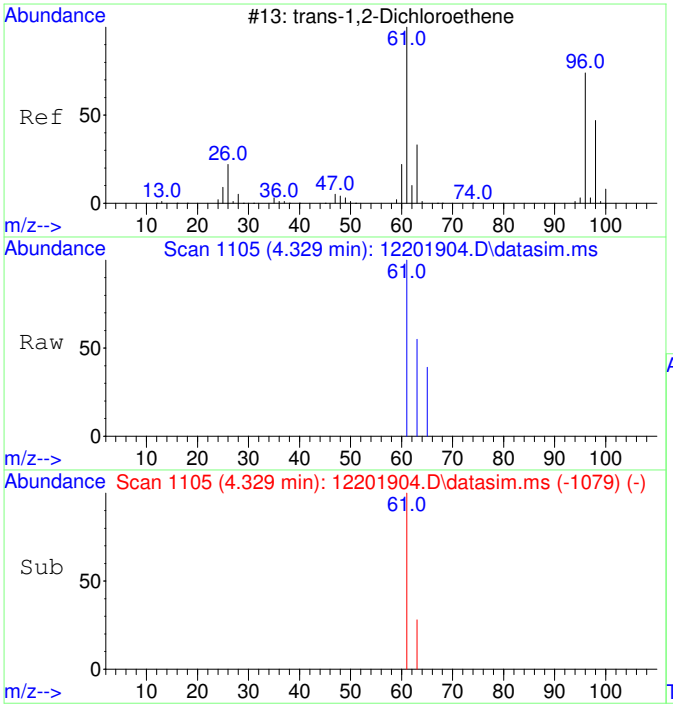
#2
1,1-Dichloroethene
Concen: 109.42 ug/L
RT: 3.123 min Scan# 818
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 718

Ion	Ratio	Lower	Upper
61	100		
96	75.3	33.5	93.5



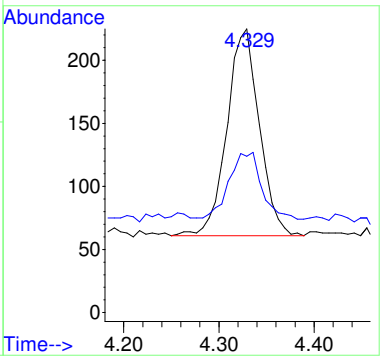
Before MI:
IMPROPER
BASELINE

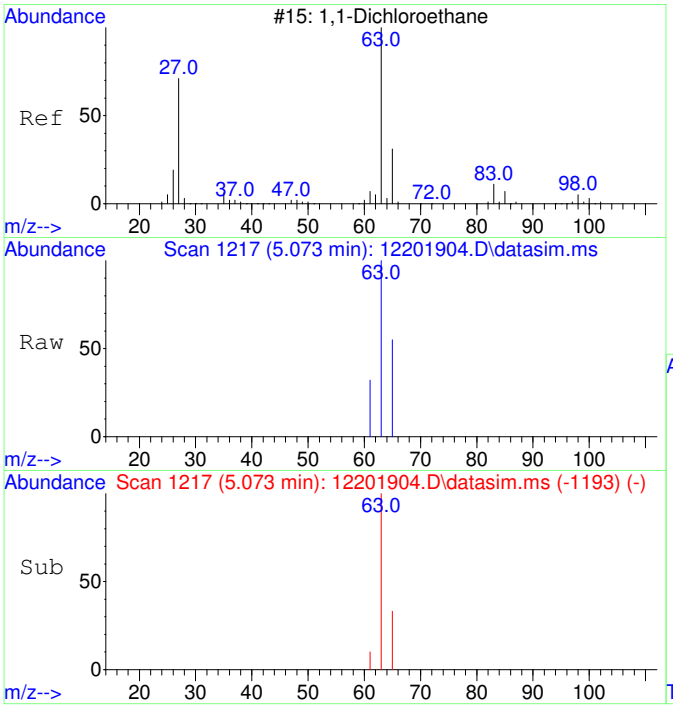


#3
trans-1,2-Dichloroethene
Concen: 57.95 ug/L
RT: 4.329 min Scan# 1105
Delta R.T. 0.020 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 390

Ion	Ratio	Lower	Upper
61	100		
63	33.1	2.3	62.3

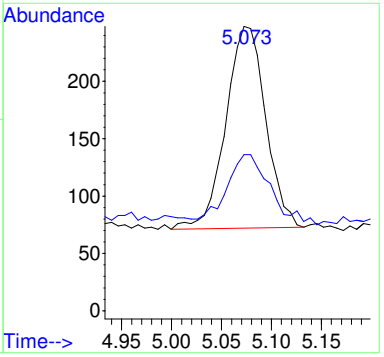


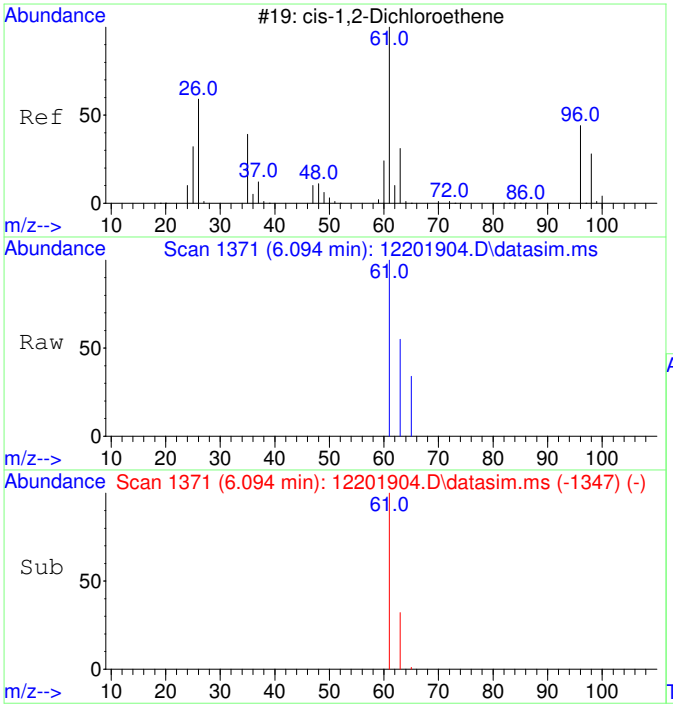


#4
1,1-Dichloroethane
Concen: 57.16 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 63 Resp: 489

Ion	Ratio	Lower	Upper
63	100		
65	35.2	1.9	61.9

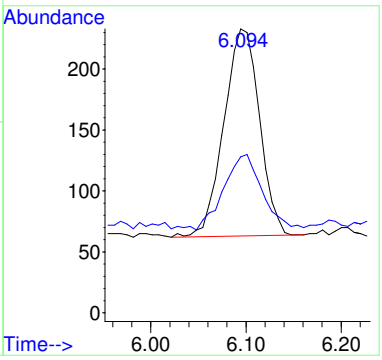


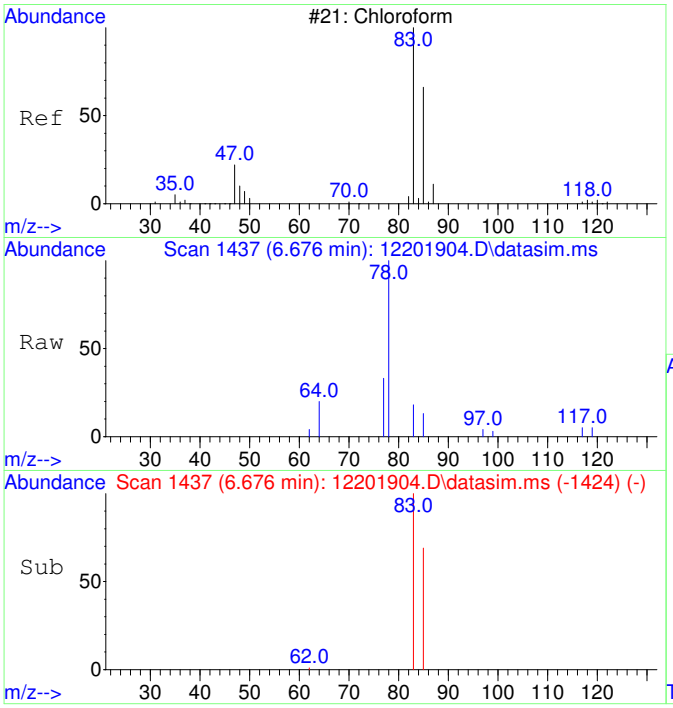


#5
cis-1,2-Dichloroethene
Concen: 56.44 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 444

Ion	Ratio	Lower	Upper
61	100		
63	37.6	2.5	62.5

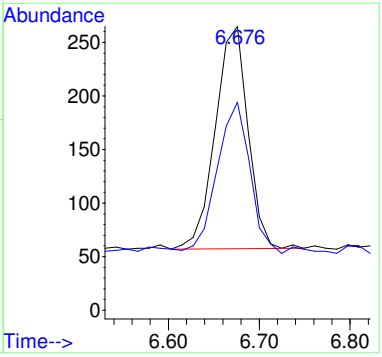


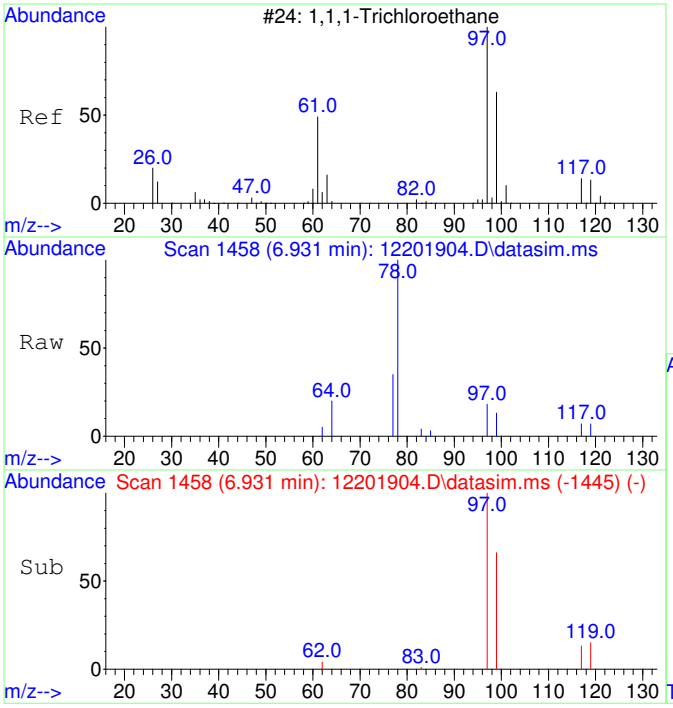


#6
Chloroform
Concen: 57.23 ug/L
RT: 6.676 min Scan# 1437
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 520

Ion	Ratio	Lower	Upper
83	100		
85	67.9	35.0	95.0

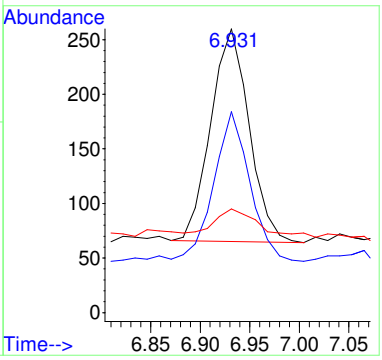


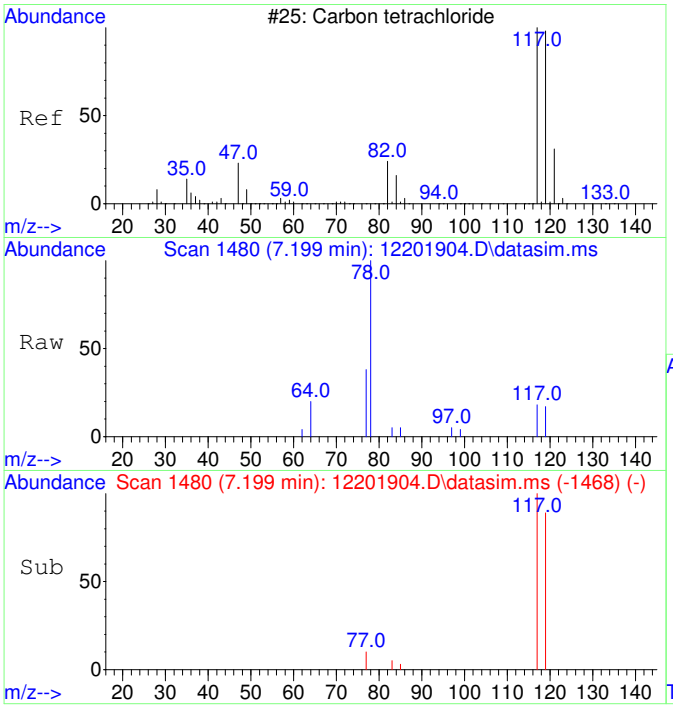


#7
1,1,1-Trichloroethane
Concen: 57.65 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 525

Ion	Ratio	Lower	Upper
97	100		
99	67.8	34.4	94.4
117	15.4	0.0	43.0

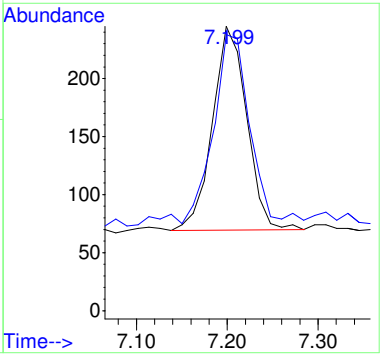


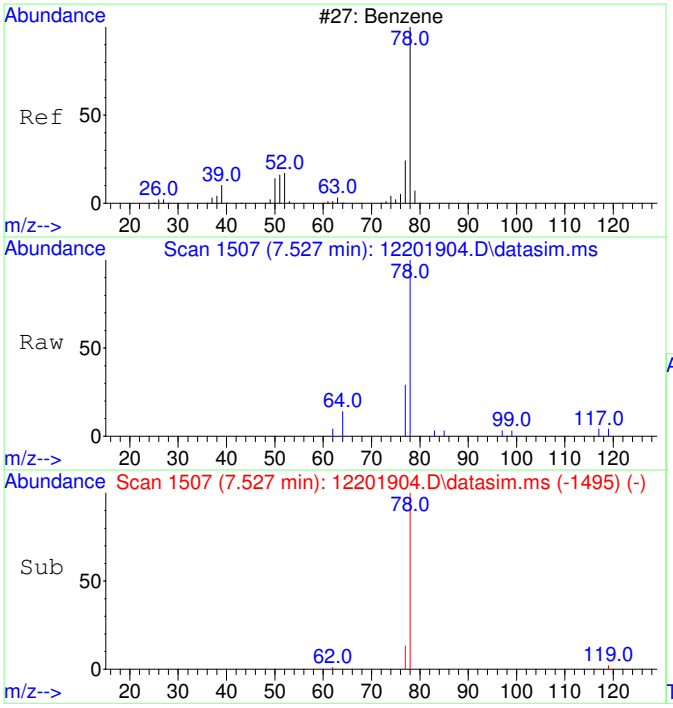


#8
Carbon tetrachloride
Concen: 53.35 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 461

Ion	Ratio	Lower	Upper
117	100		
119	103.5	66.5	126.5

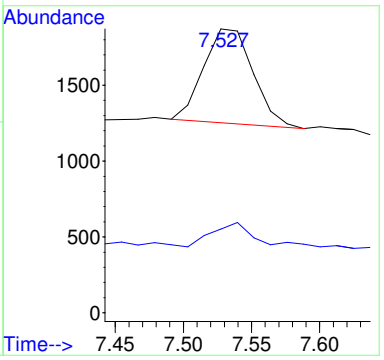


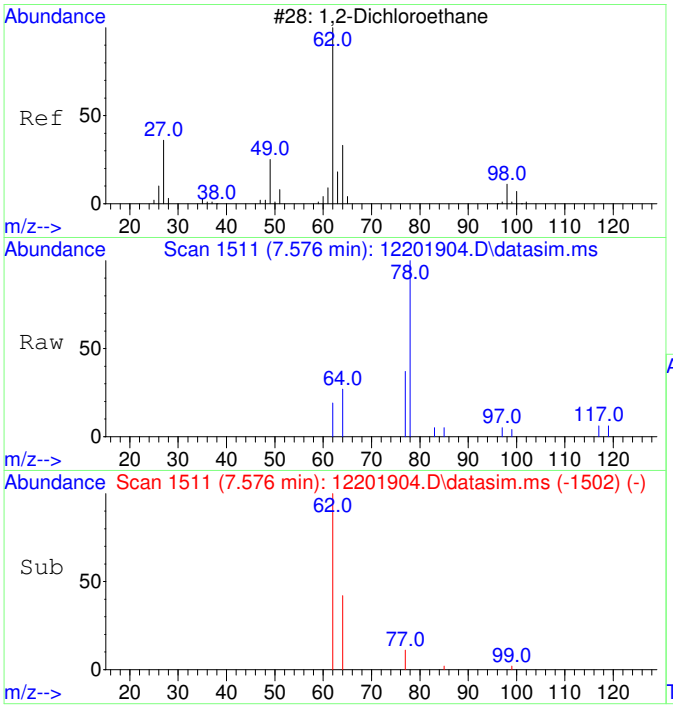


#9
Benzene
Concen: 67.77 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1552

Ion	Ratio	Lower	Upper
78	100		
77	26.8	0.0	53.5

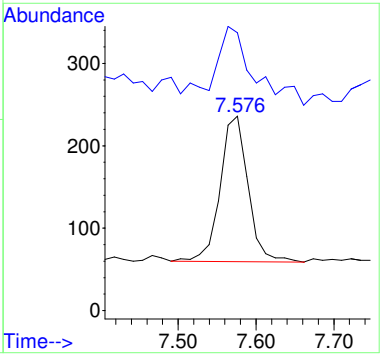


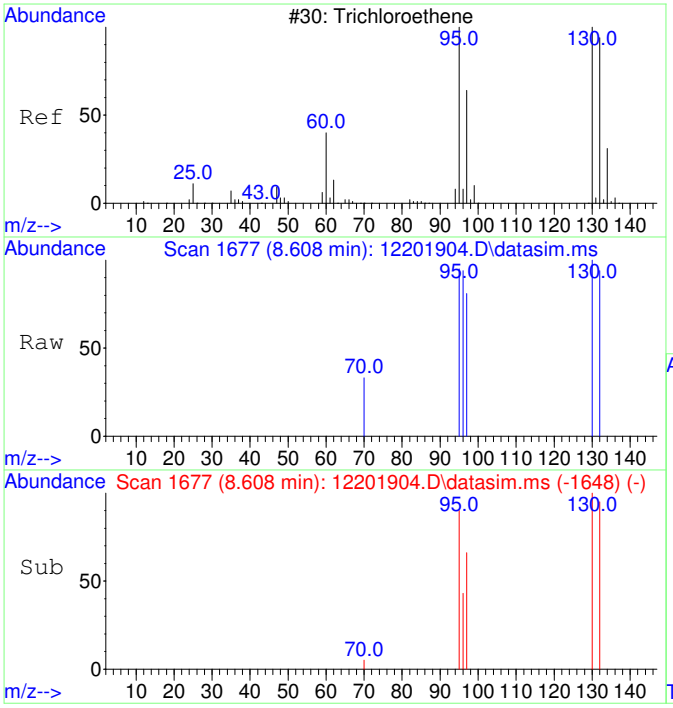


#10
1,2-Dichloroethane
Concen: 58.40 ug/L
RT: 7.576 min Scan# 1511
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 439

Ion	Ratio	Lower	Upper
62	100		
64	78.4	2.4	62.4#

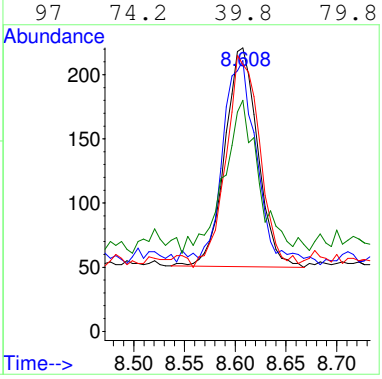


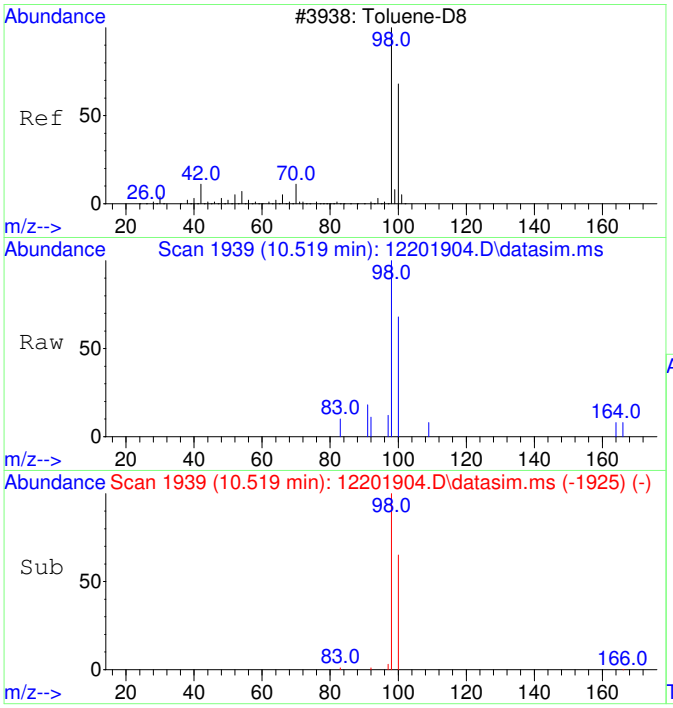


#11
Trichloroethene
Concen: 54.66 ug/L
RT: 8.608 min Scan# 1677
Delta R.T. 0.005 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 384

Ion	Ratio	Lower	Upper
130	100		
95	97.7	62.3	122.3
132	100.0	75.8	115.8
97	74.2	39.8	79.8

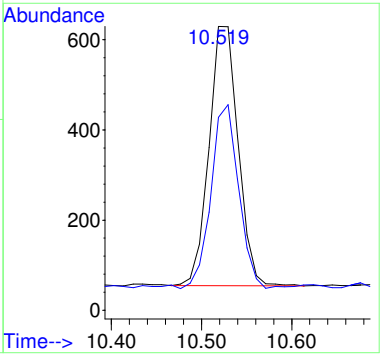


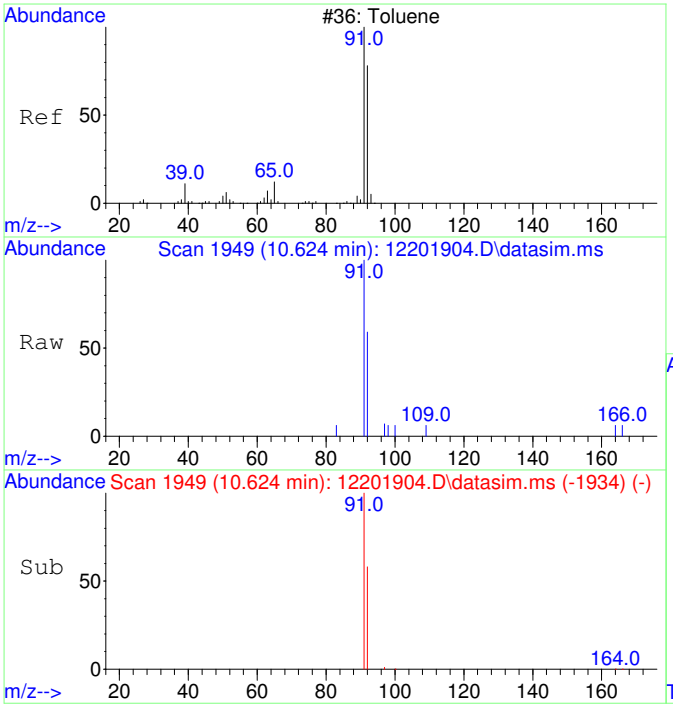


#12
Toluene-d8
Concen: 52.38 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 1290

Ion	Ratio	Lower	Upper
98	100		
100	66.1	36.2	96.2

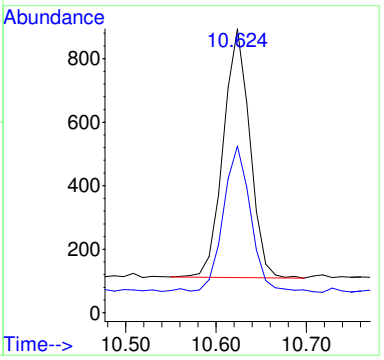


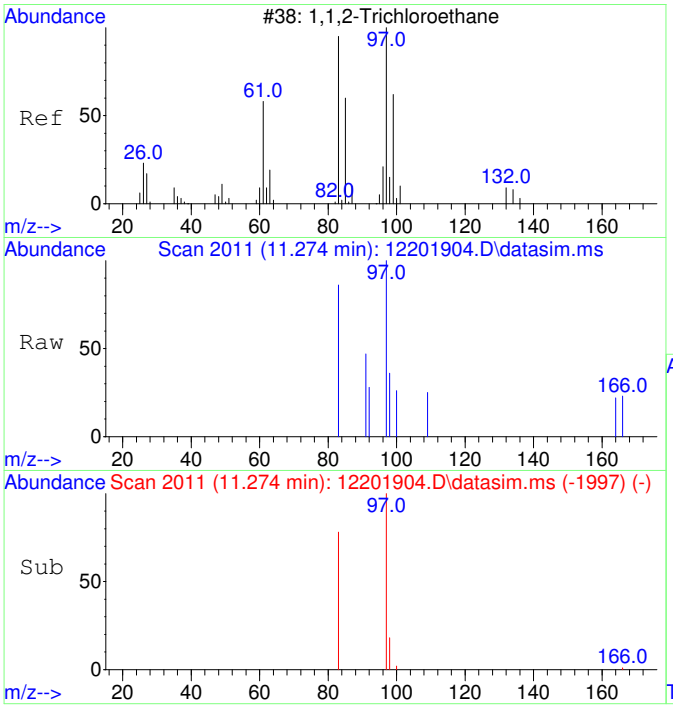


#13
Toluene
Concen: 53.52 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1599

Ion	Ratio	Lower	Upper
91	100		
92	61.4	29.4	89.4

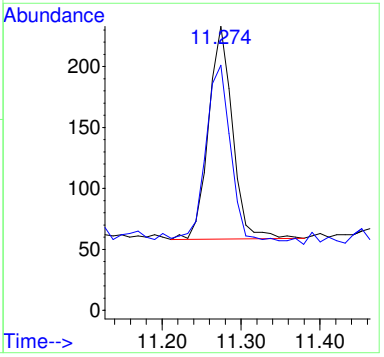


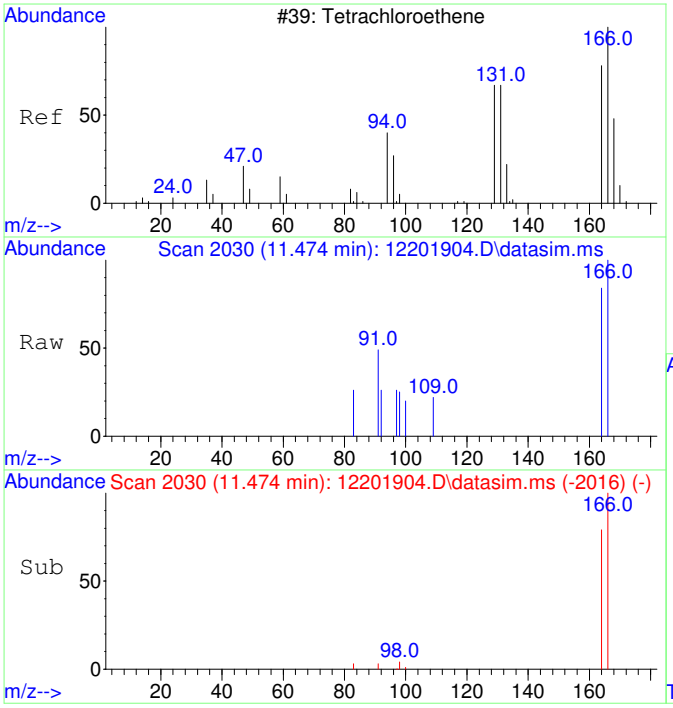


#14
1,1,2-Trichloroethane
Concen: 54.36 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 368

Ion	Ratio	Lower	Upper
97	100		
83	84.8	52.5	112.5

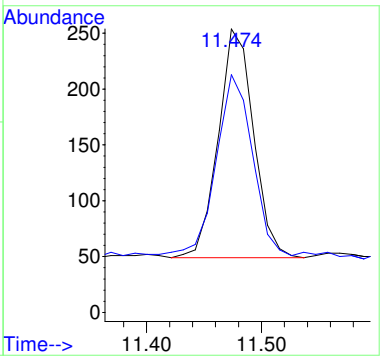


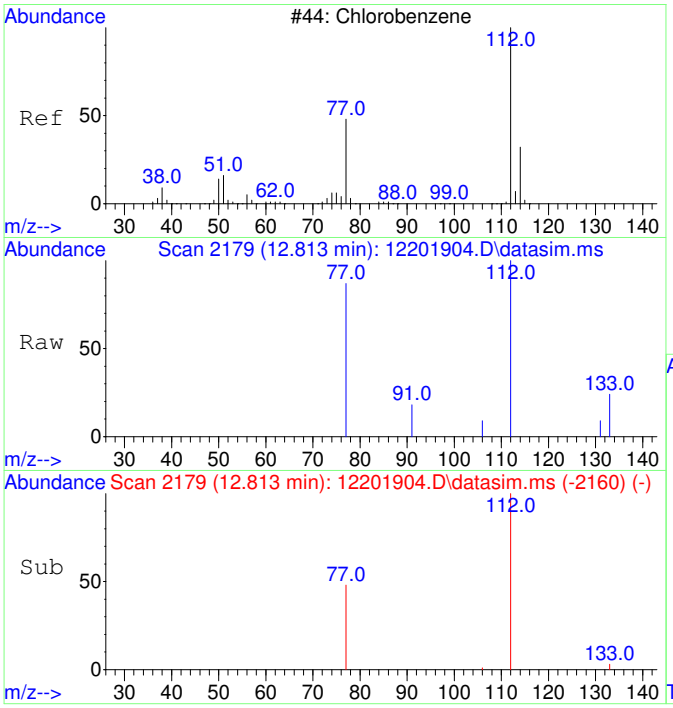


#15
Tetrachloroethene
Concen: 48.58 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 438

Ion	Ratio	Lower	Upper
166	100		
164	81.1	47.6	107.6

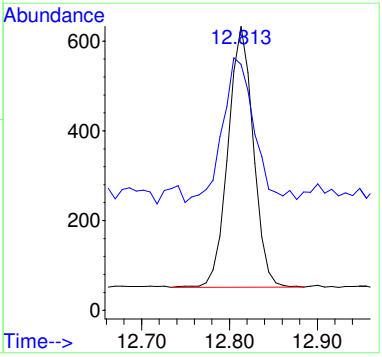


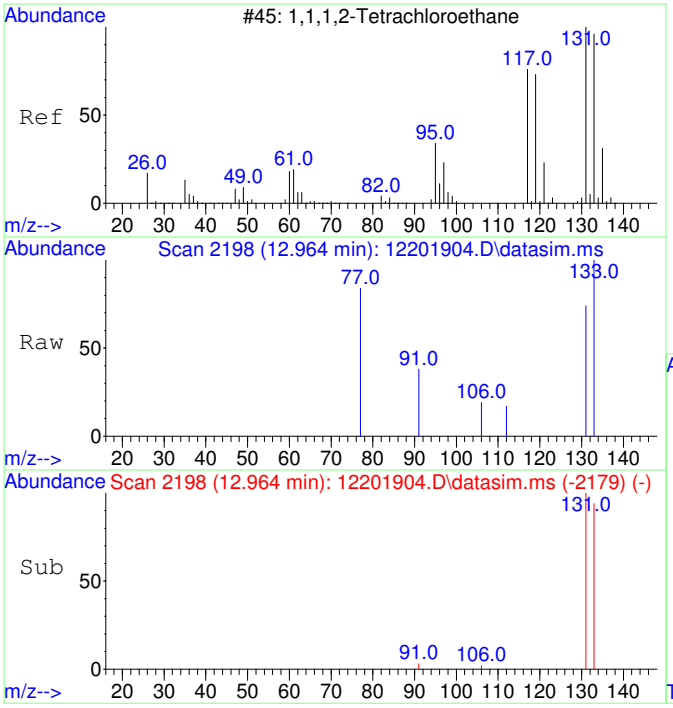


#16
Chlorobenzene
Concen: 50.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 1159

Ion	Ratio	Lower	Upper
112	100		
77	68.9	24.2	84.2

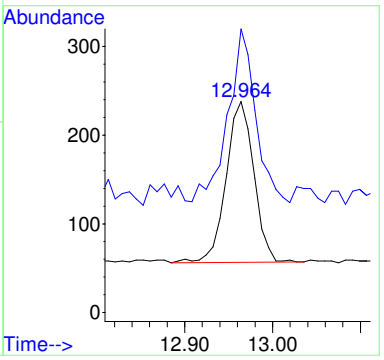


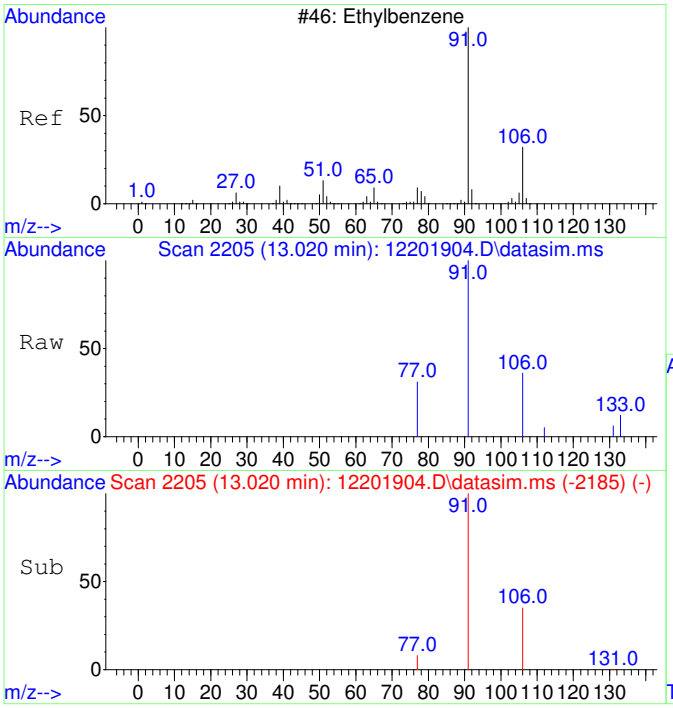


#17
1,1,1,2-Tetrachloroethane
Concen: 50.00 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 398

Ion	Ratio	Lower	Upper
131	100		
133	106.5	66.0	126.0

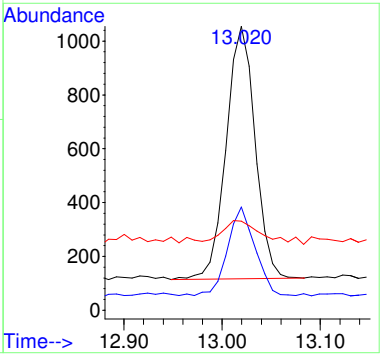


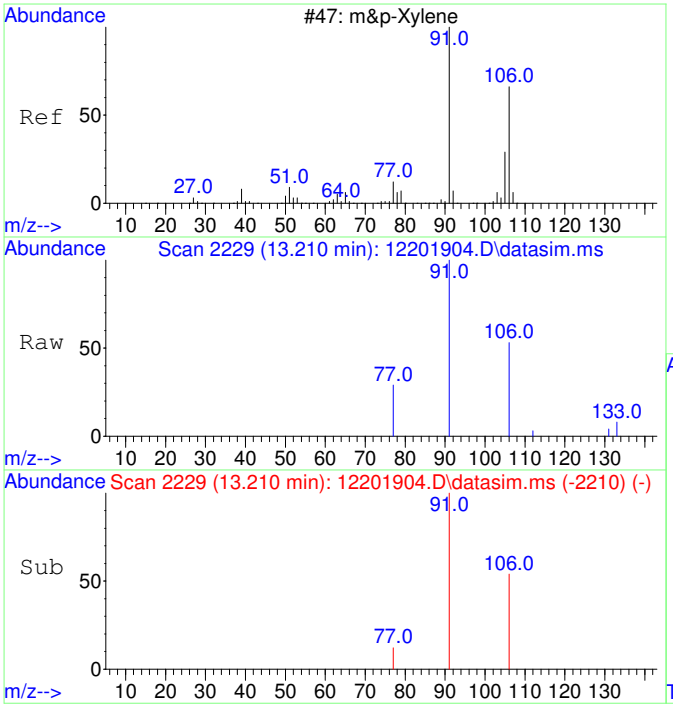


#18
Ethylbenzene
Concen: 51.95 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1915

Ion	Ratio	Lower	Upper
91	100		
106	33.1	2.5	62.5
77	10.3	0.0	38.2

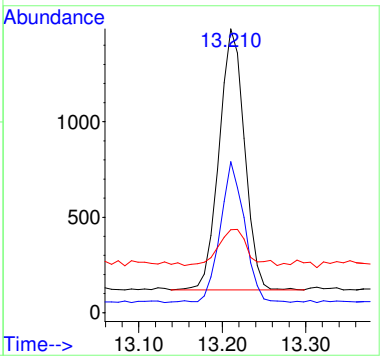


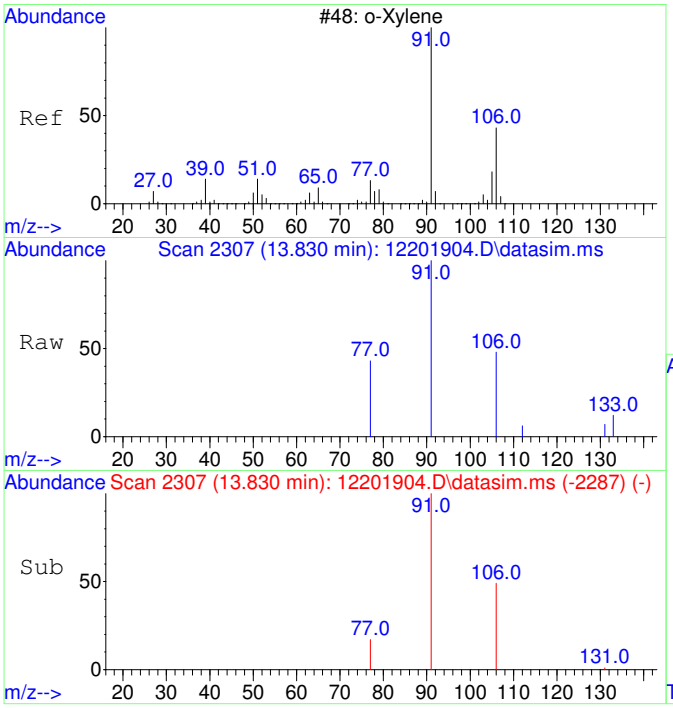


#19
m&p-Xylene
Concen: 103.35 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2903

Ion	Ratio	Lower	Upper
91	100		
106	51.3	21.6	81.6
77	15.5	0.0	42.6

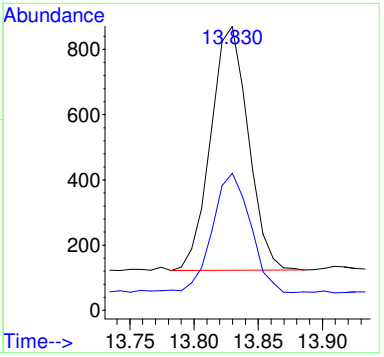


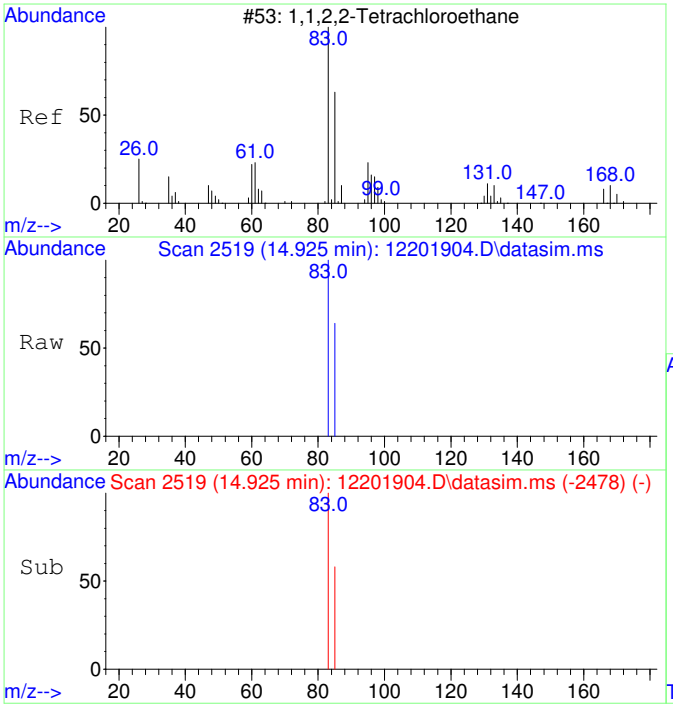


#20
o-Xylene
Concen: 50.89 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1516

Ion	Ratio	Lower	Upper
91	100		
106	49.7	18.5	78.5

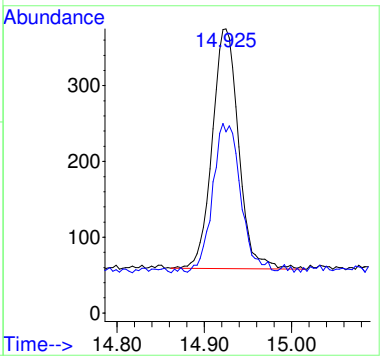


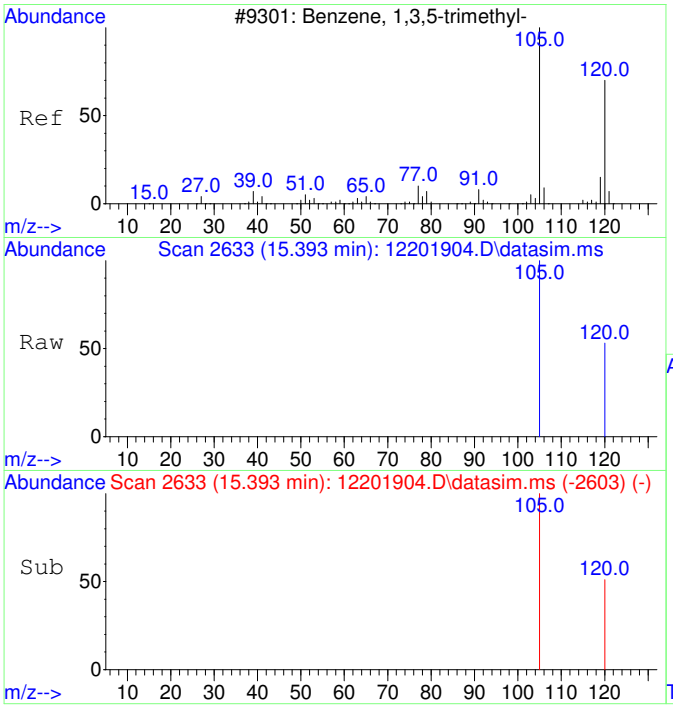


#21
1,1,2,2-Tetrachloroethane
Concen: 49.57 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 663

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.7	94.7

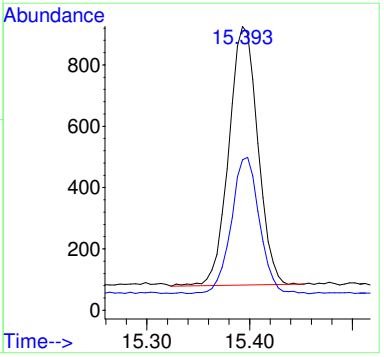


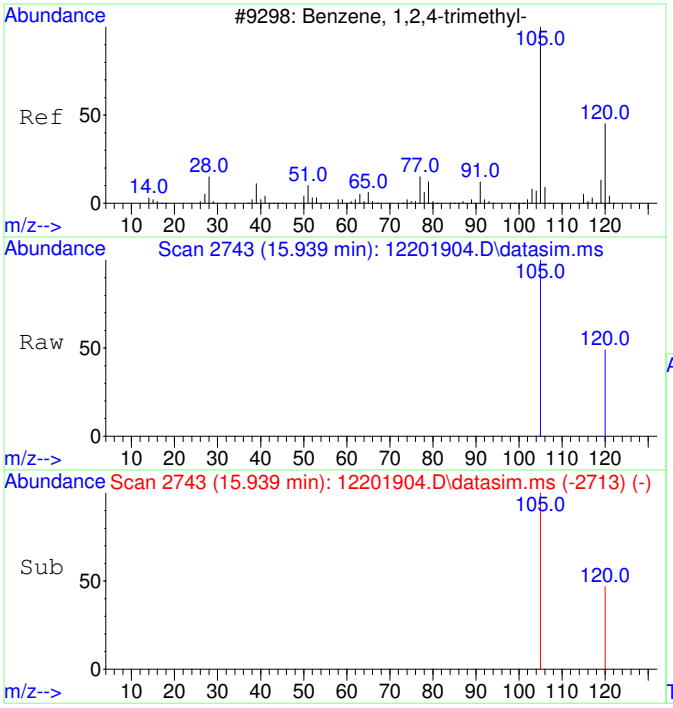


#22
1,3,5-Trimethylbenzene
Concen: 49.50 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1643

Ion	Ratio	Lower	Upper
105	100		
120	51.3	20.7	80.7

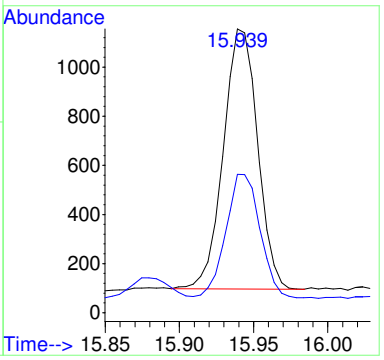


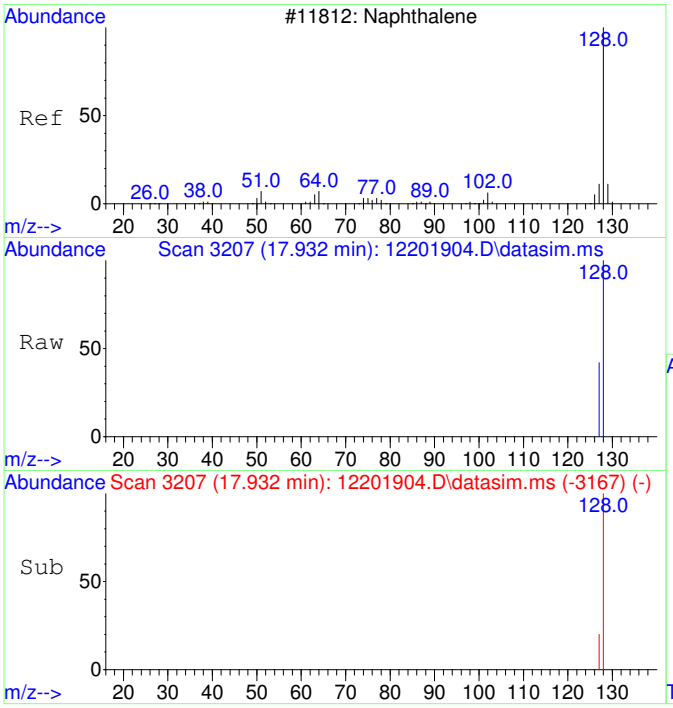


#23
1,2,4-Trimethylbenzene
Concen: 50.17 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1702

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.6	76.6

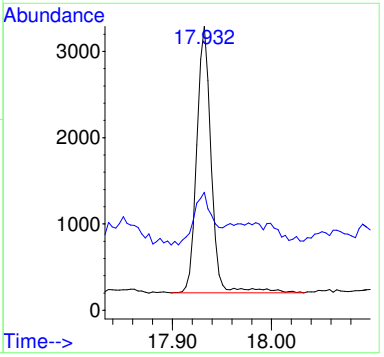


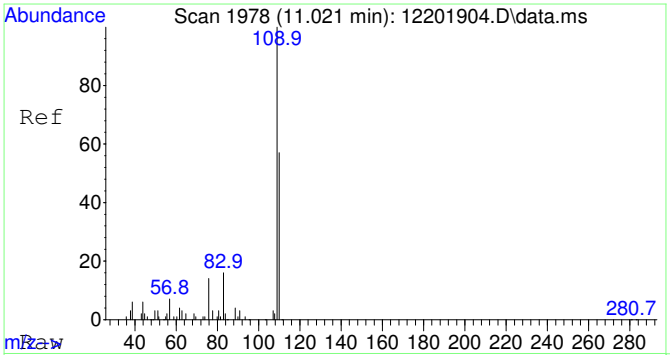


#24
Naphthalene
Concen: 51.04 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 3128

Ion	Ratio	Lower	Upper
128	100		
127	48.3	0.0	42.5#

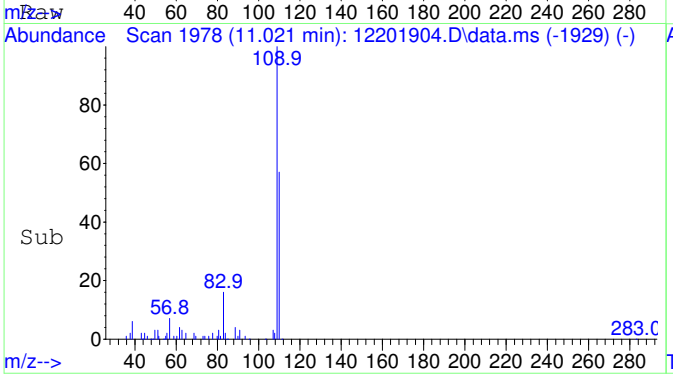


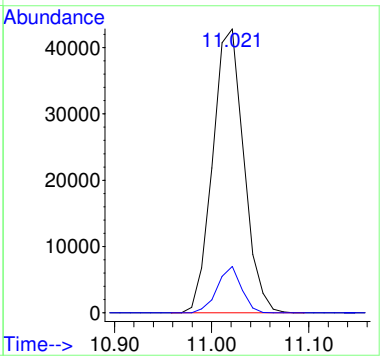


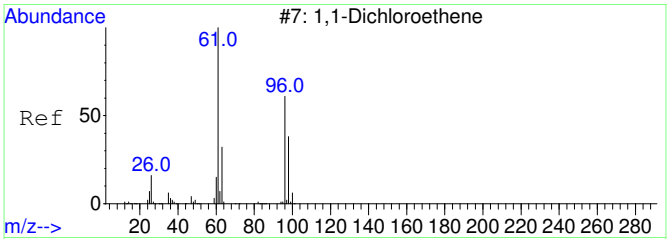
#25
2-Fluorotoluene SCAN
Concen: 5001.59 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 95152

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	44.7



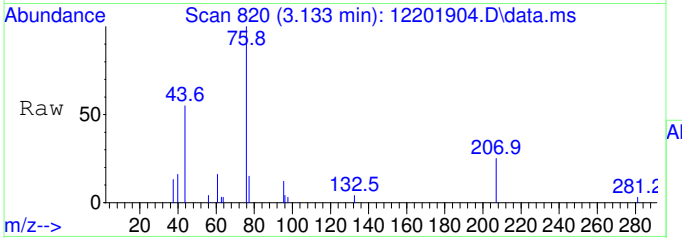


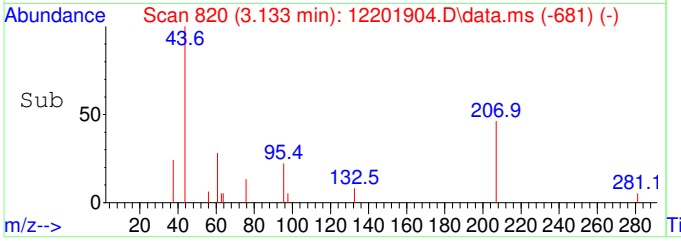


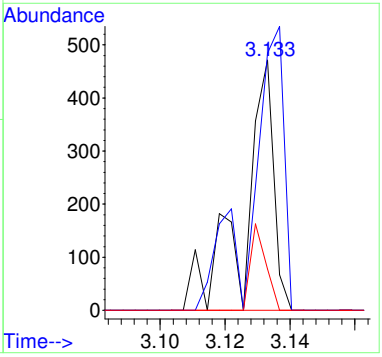
#26
1,1-Dichloroethene SCAN
Concen: 72.44 ug/L
RT: 3.133 min Scan# 820
Delta R.T. 0.015 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

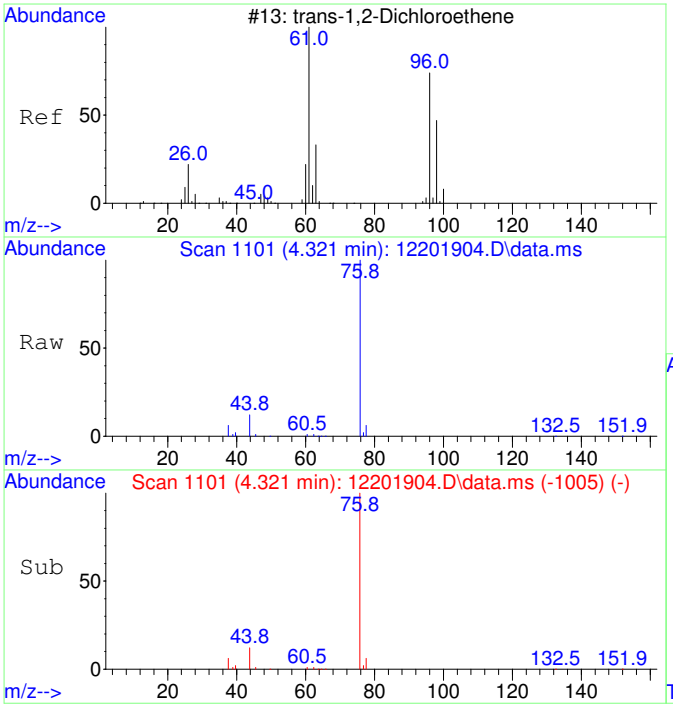
Tgt Ion: 61 Resp: 302

Ion	Ratio	Lower	Upper
61	100		
96	122.5	34.8	94.8#
98	17.9	12.9	72.9





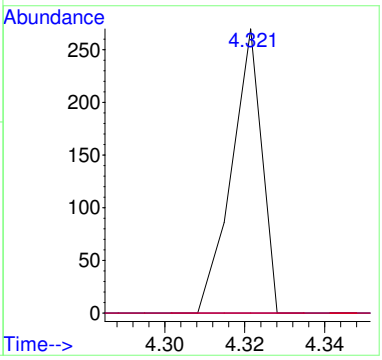


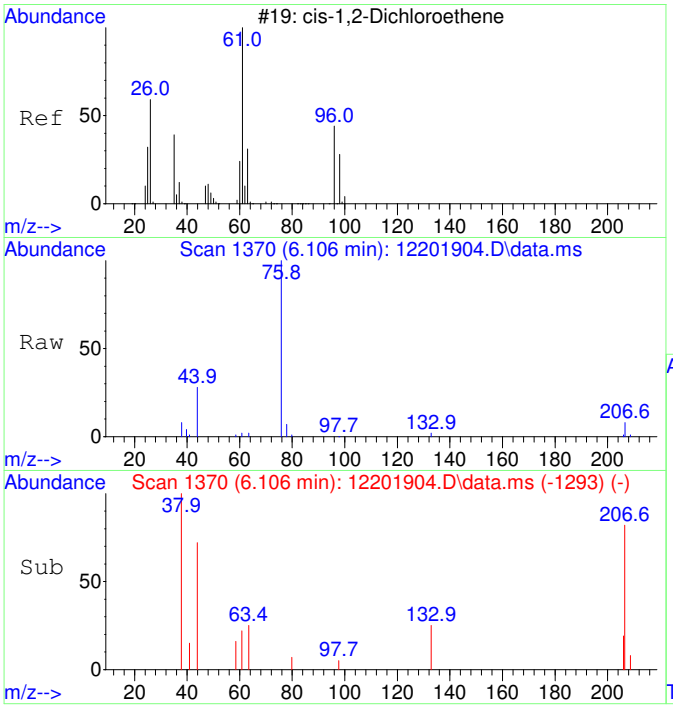


#27
trans-1,2-Dichloroethene SCAN
Concen: 35.95 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 142

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.7	102.7#
98	0.0	23.4	83.4#

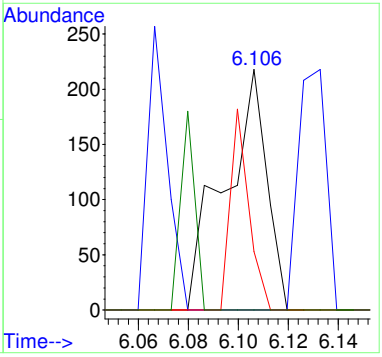


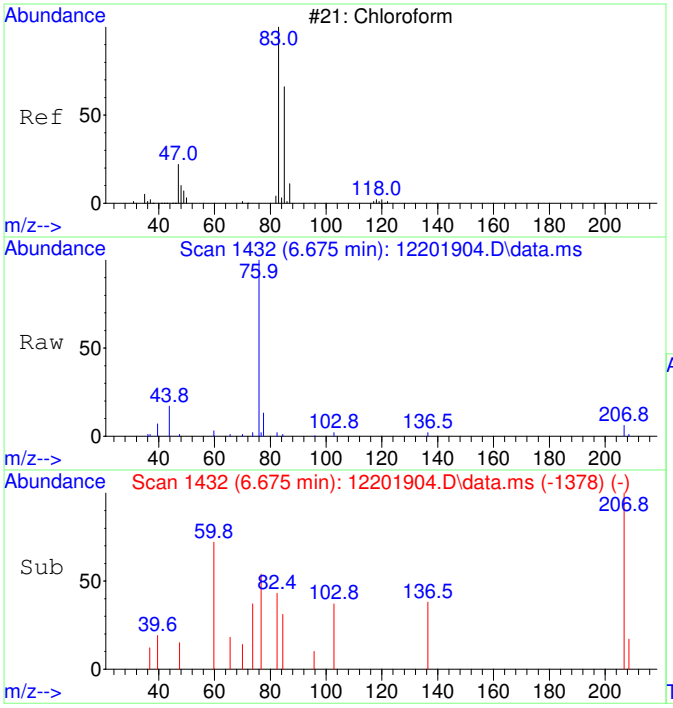


#29
cis-1,2-Dichloroethene SCAN
Concen: 54.29 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 257

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.1	106.1#
98	36.6	20.8	80.8
63	0.0	9.0	69.0#

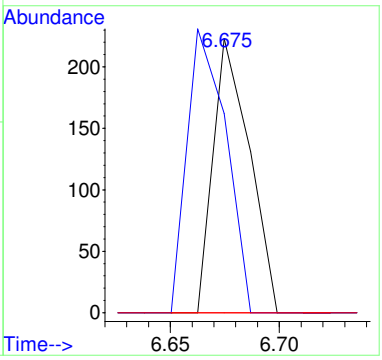


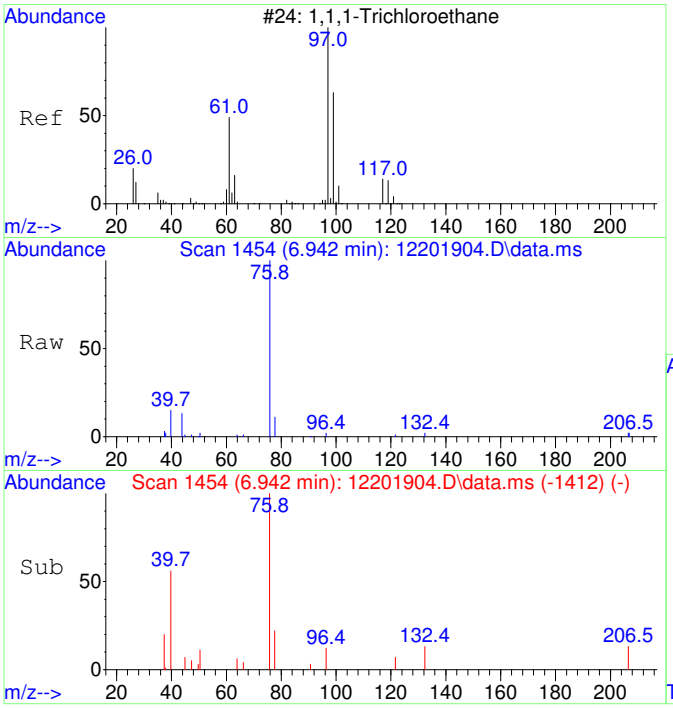


#30
Chloroform SCAN
Concen: 51.04 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 258

Ion	Ratio	Lower	Upper
83	100		
85	111.2	42.9	102.9#
47	0.0	4.5	64.5#

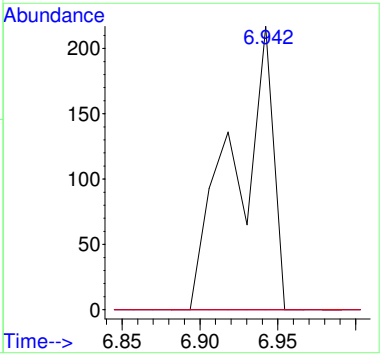


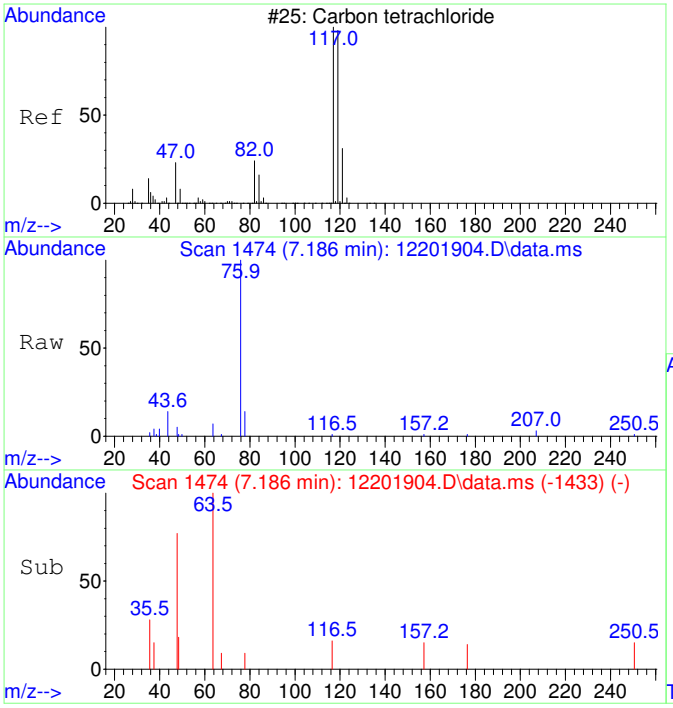


#31
1,1,1-Trichloroethane SCAN
Concen: 64.19 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 373

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

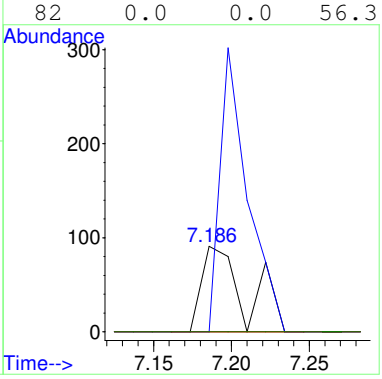


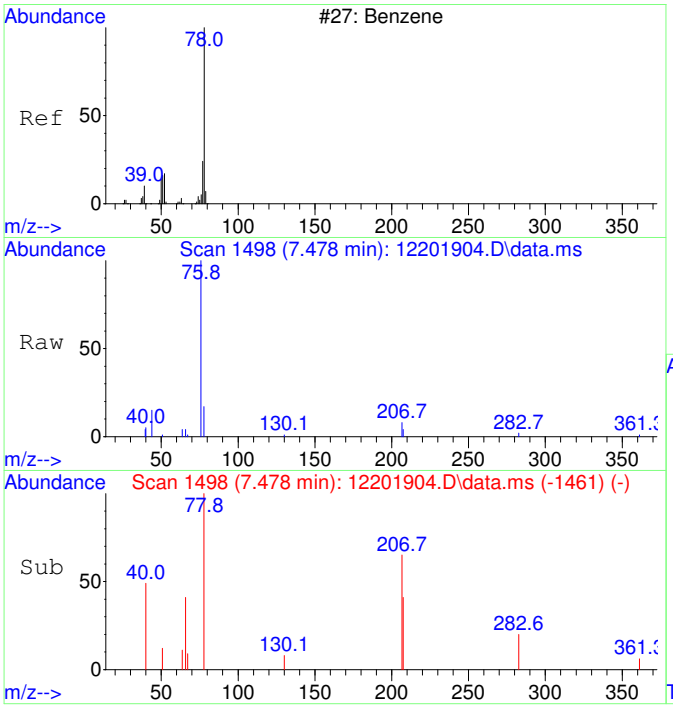


#32
Carbon tetrachloride SCAN
Concen: 35.97 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 179

Ion	Ratio	Lower	Upper
117	100		
119	210.6	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

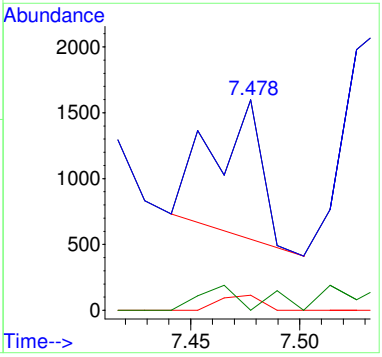


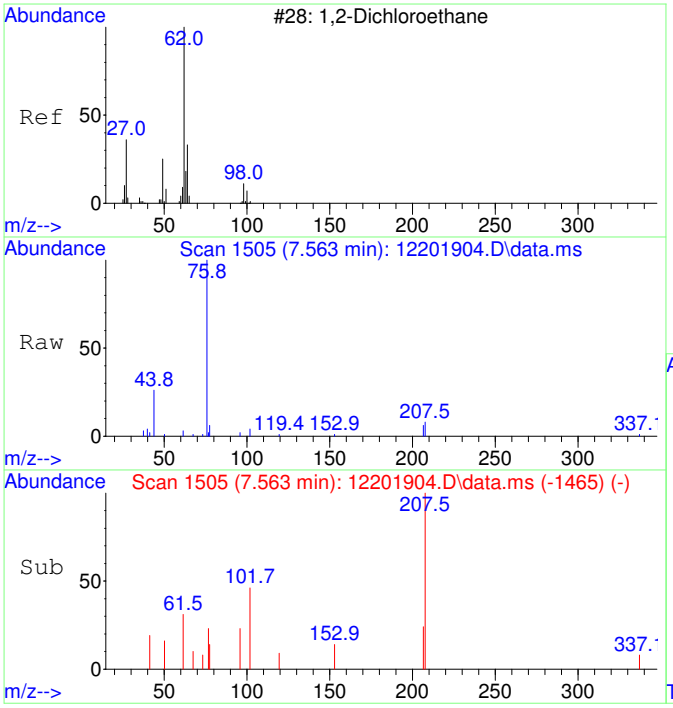


#33
Benzene SCAN
Concen: 97.37 ug/L
RT: 7.478 min Scan# 1498
Delta R.T. -0.049 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1484

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	10.2	0.0	45.4
52	14.8	0.0	30.0

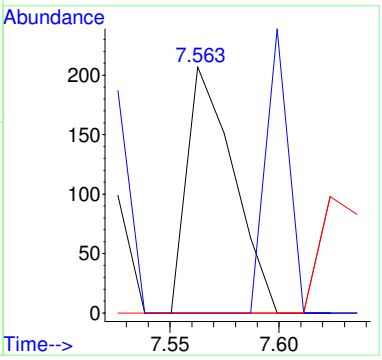


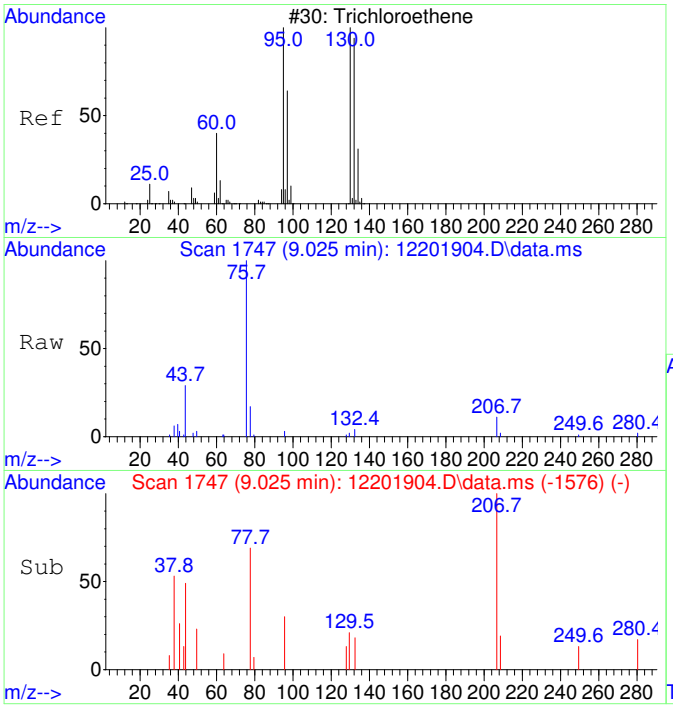


#34
1,2-Dichloroethane SCAN
Concen: 59.06 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 307

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

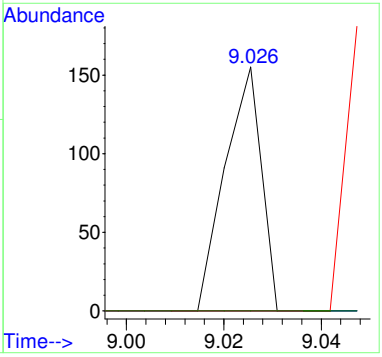


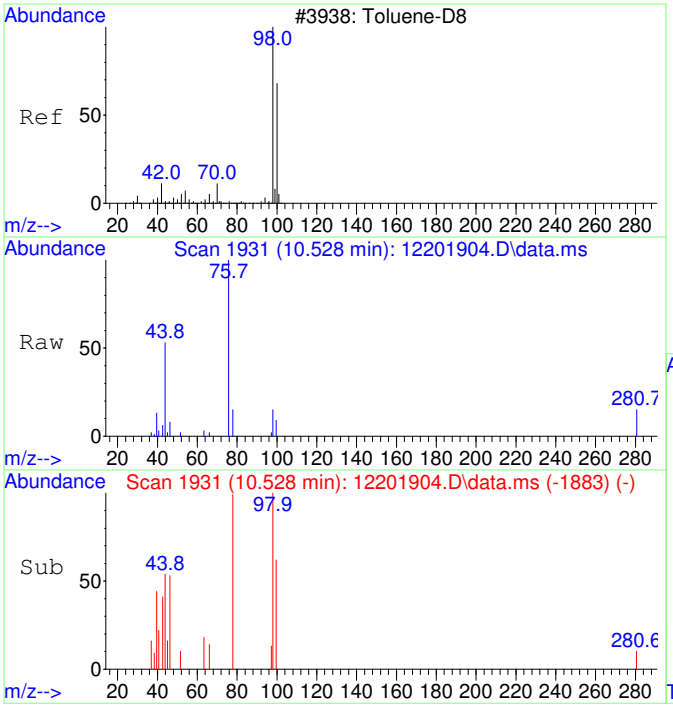


#35
Trichloroethene SCAN
Concen: 20.55 ug/L
RT: 9.025 min Scan# 1747
Delta R.T. 0.430 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 80

Ion	Ratio	Lower	Upper
130	100		
95	0.0	75.7	135.7#
132	0.0	77.1	137.1#
97	0.0	43.8	103.8#

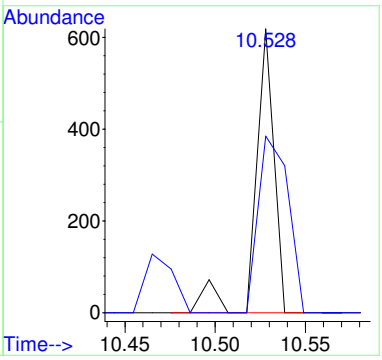


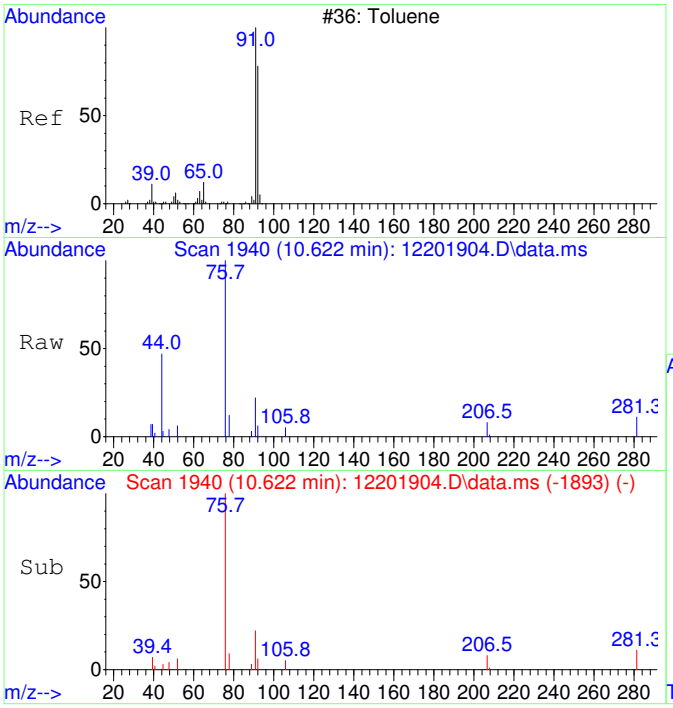


#36
Toluene-d8 SCAN
Concen: 26.97 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 435

Ion	Ratio	Lower	Upper
98	100		
100	102.1	44.4	104.4

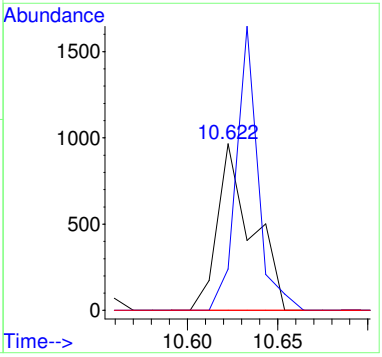


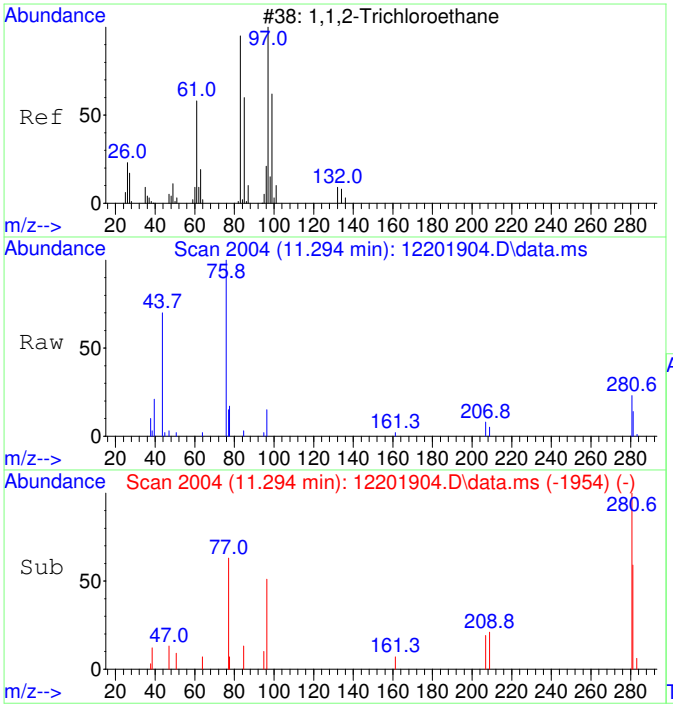


#37
Toluene SCAN
Concen: 68.37 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1288

Ion	Ratio	Lower	Upper
91	100		
92	107.1	31.5	91.5#
65	0.0	0.0	30.0

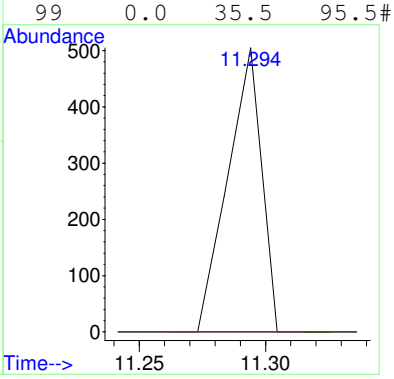


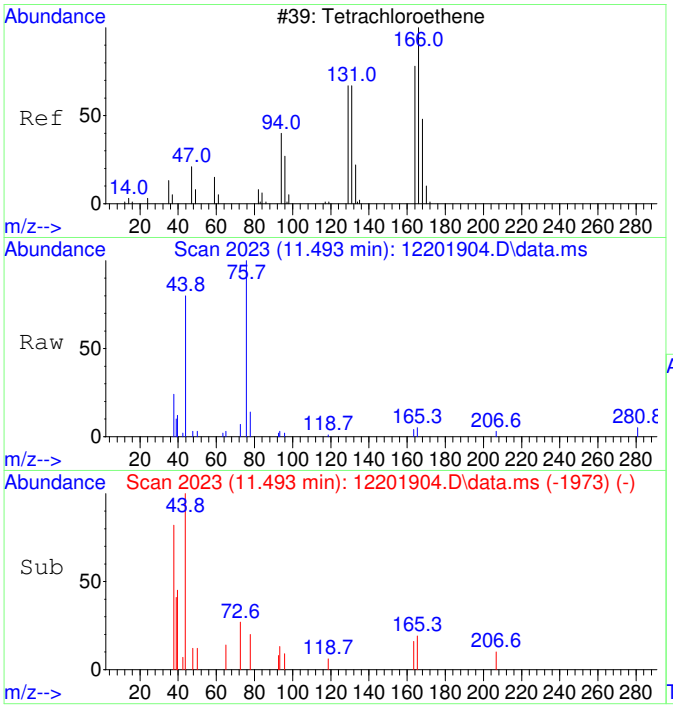


#38
1,1,2-Trichloroethane SCAN
Concen: 114.68 ug/L
RT: 11.294 min Scan# 2004
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 470

Ion	Ratio	Lower	Upper
97	100		
83	0.0	67.7	127.7#
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

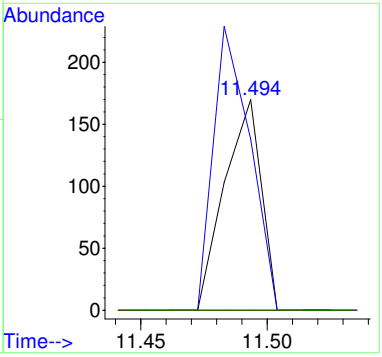


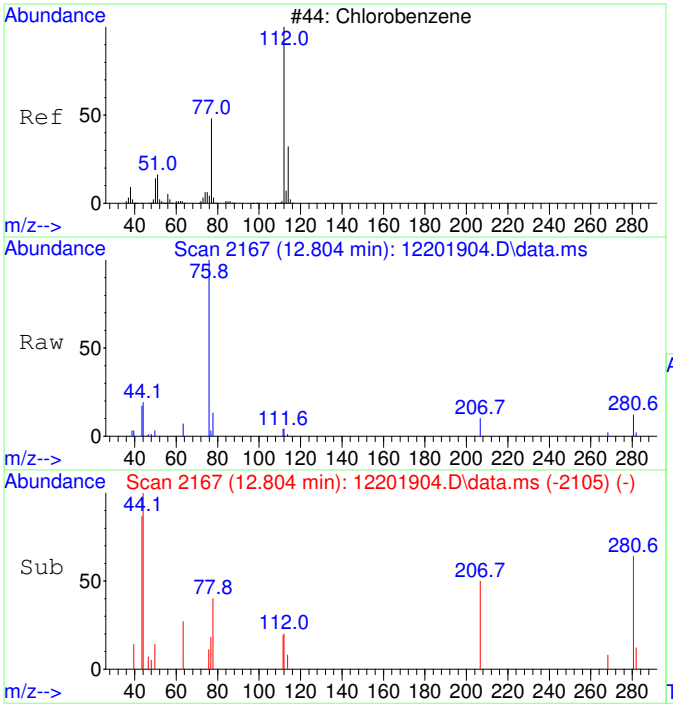


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.493 min Scan# 2023
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 172

Ion	Ratio	Lower	Upper
166	100		
164	134.3	61.8	121.8#
131	0.0	51.8	111.8#
129	0.0	36.0	96.0#

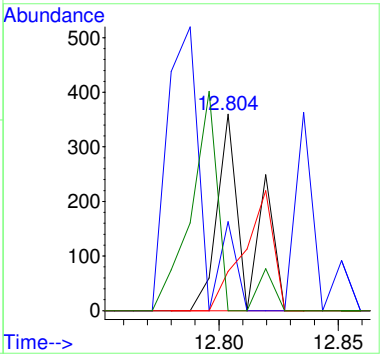


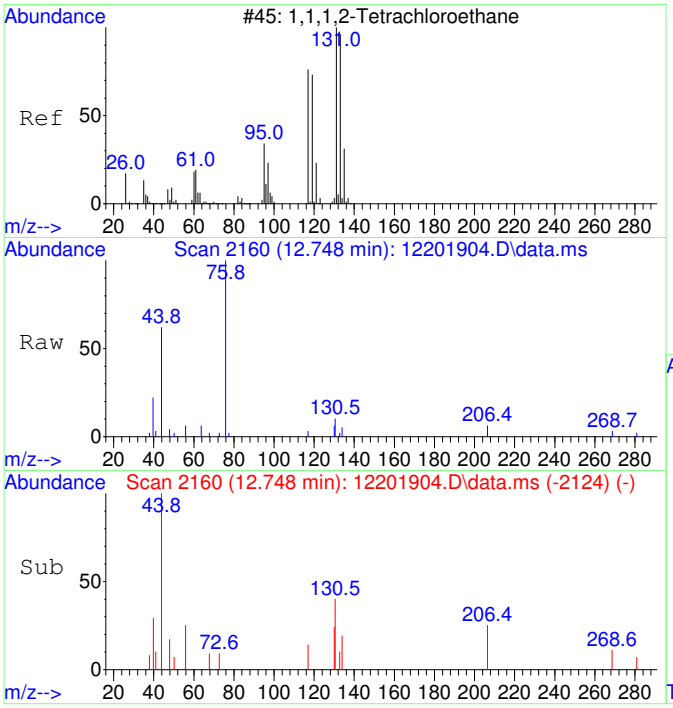


#40
Chlorobenzene SCAN
Concen: 21.25 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 319

Ion	Ratio	Lower	Upper
112	100		
77	167.4	27.8	87.8#
114	0.0	3.1	63.1#
51	95.3	0.0	49.9#

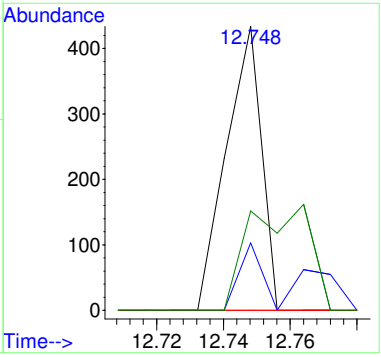


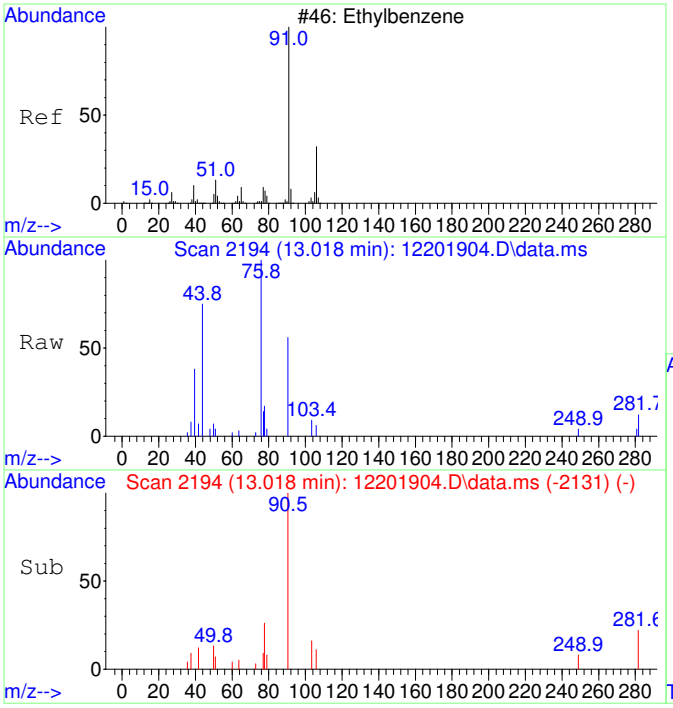


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 65.46 ug/L
RT: 12.748 min Scan# 2160
Delta R.T. -0.215 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 317

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	65.0	38.9	98.9

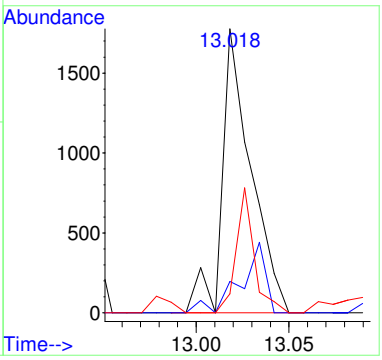


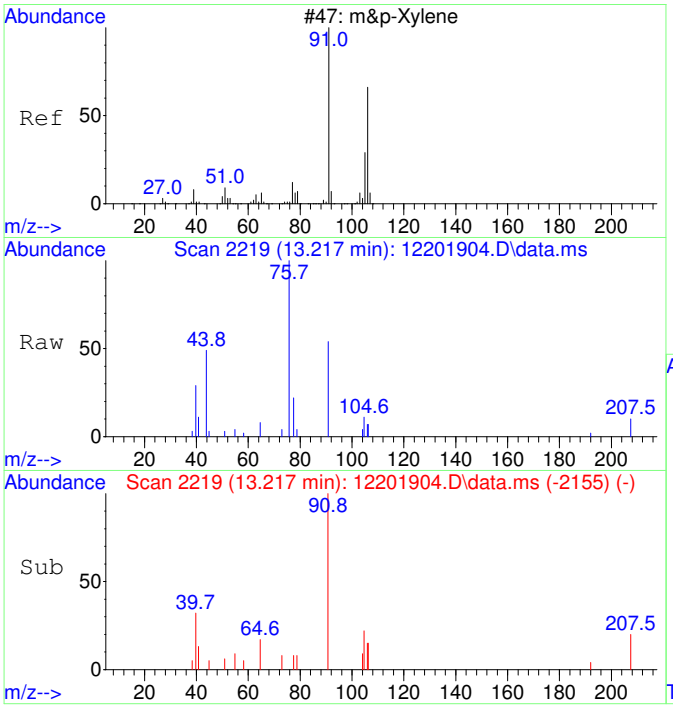


#42
Ethylbenzene SCAN
Concen: 81.16 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1932

Ion	Ratio	Lower	Upper
91	100		
106	21.4	1.3	61.3
51	27.1	0.0	39.4

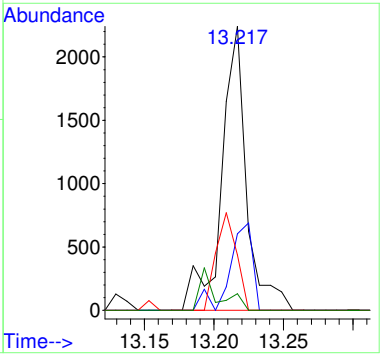


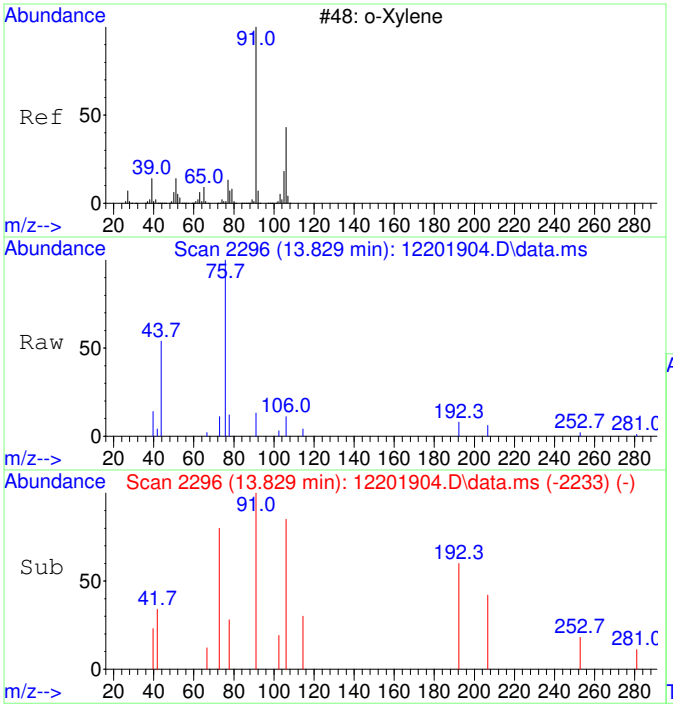


#43
m&p-Xylene SCAN
Concen: 78.30 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2795

Ion	Ratio	Lower	Upper
91	100		
106	28.1	19.0	79.0
105	28.4	0.0	54.9
51	0.0	0.0	41.2

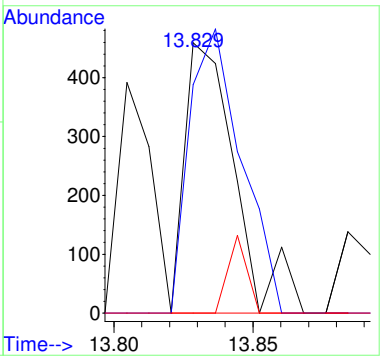


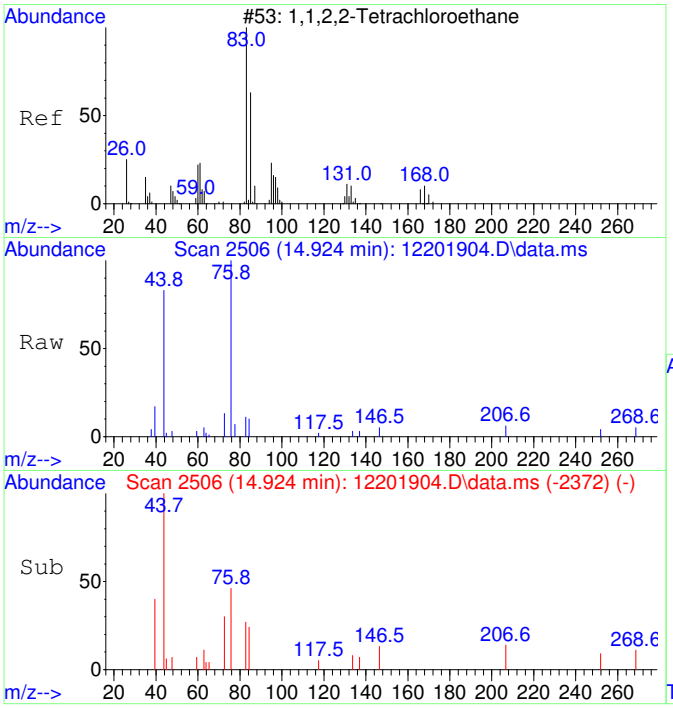


#44
o-Xylene SCAN
Concen: 28.71 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 581

Ion	Ratio	Lower	Upper
91	100		
106	108.4	17.2	77.2#
105	10.8	0.0	57.7

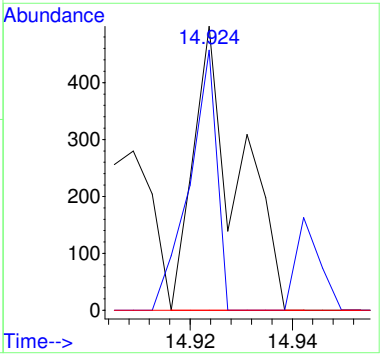


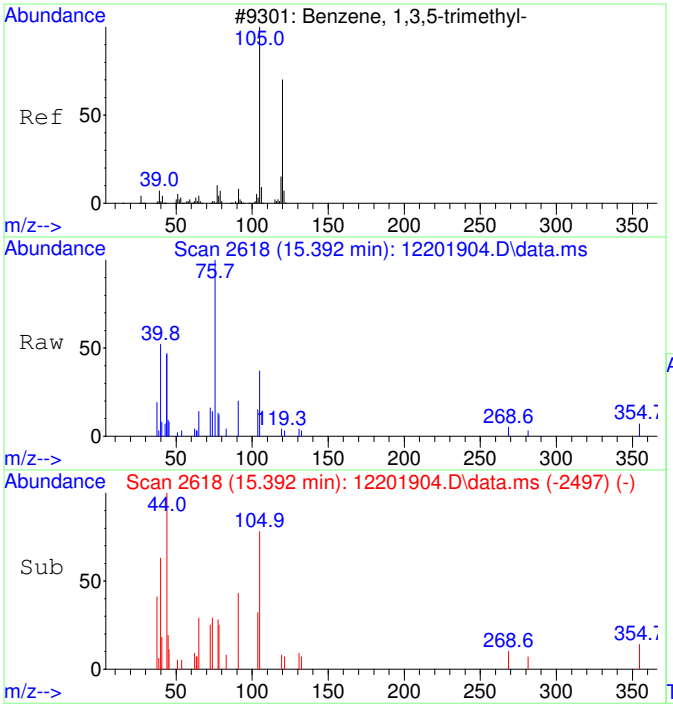


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 33.54 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 306

Ion	Ratio	Lower	Upper
83	100		
85	56.2	37.2	97.2
95	0.0	0.0	48.7

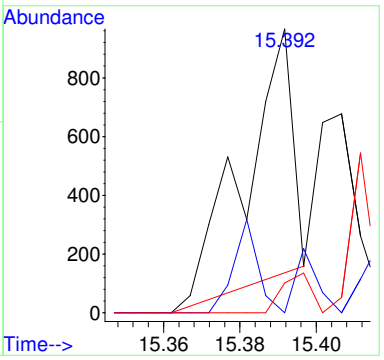


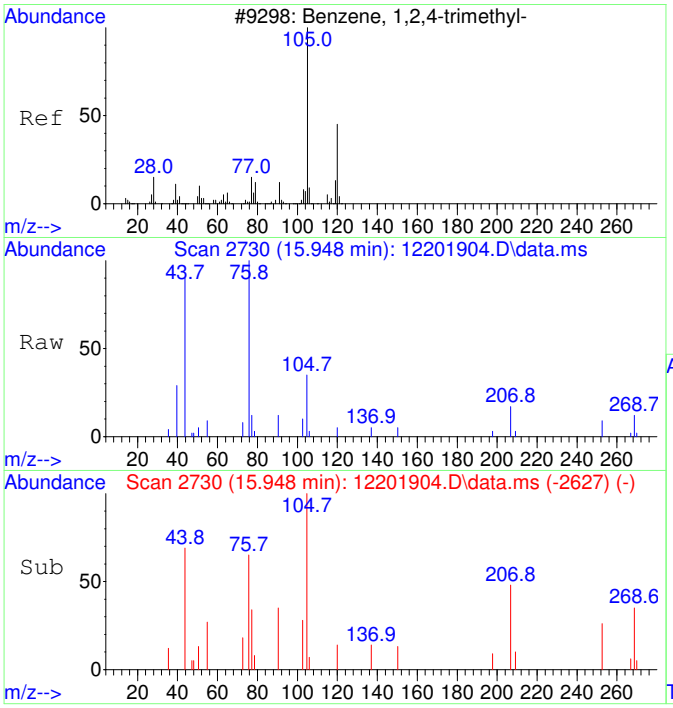


#46
1,3,5-Trimethylbenzene SCAN
Concen: 35.18 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 744

Ion	Ratio	Lower	Upper
105	100		
120	11.6	22.3	82.3#
119	0.0	0.0	43.8

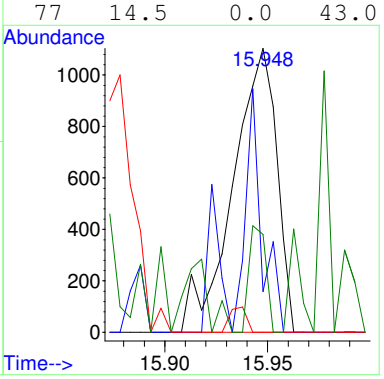


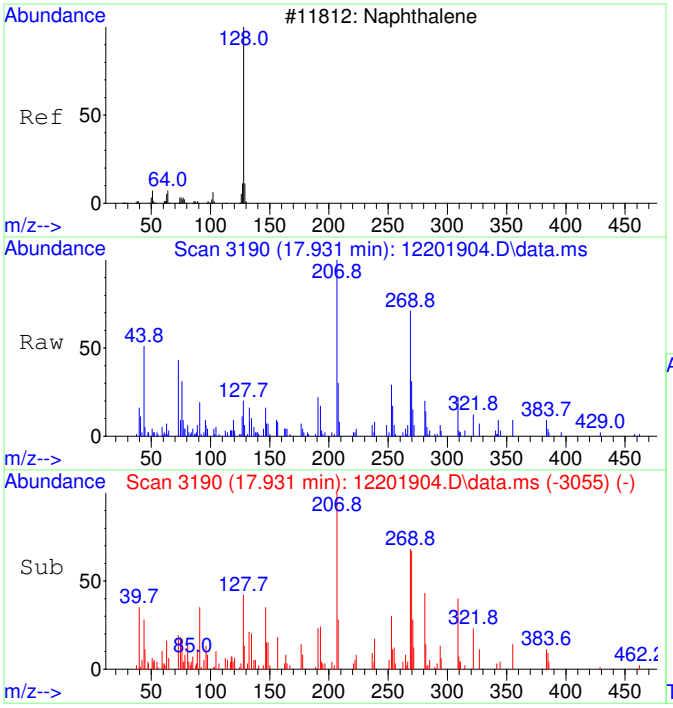


#47
1,2,4-Trimethylbenzene SCAN
Concen: 76.02 ug/L
RT: 15.948 min Scan# 2730
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1632

Ion	Ratio	Lower	Upper
105	100		
120	31.7	15.8	75.8
119	3.4	0.0	42.9
77	14.5	0.0	43.0

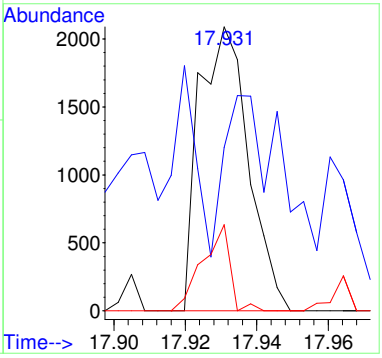




#48
Naphthalene SCAN
Concen: 57.87 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 2007

Ion	Ratio	Lower	Upper
128	100		
127	59.0	0.0	30.0#
129	17.0	0.0	34.5



Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 12:37 pm, Dec 20, 2019

M.I. Approved By:
ZR at 11:45 am, Dec 26, 2019

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

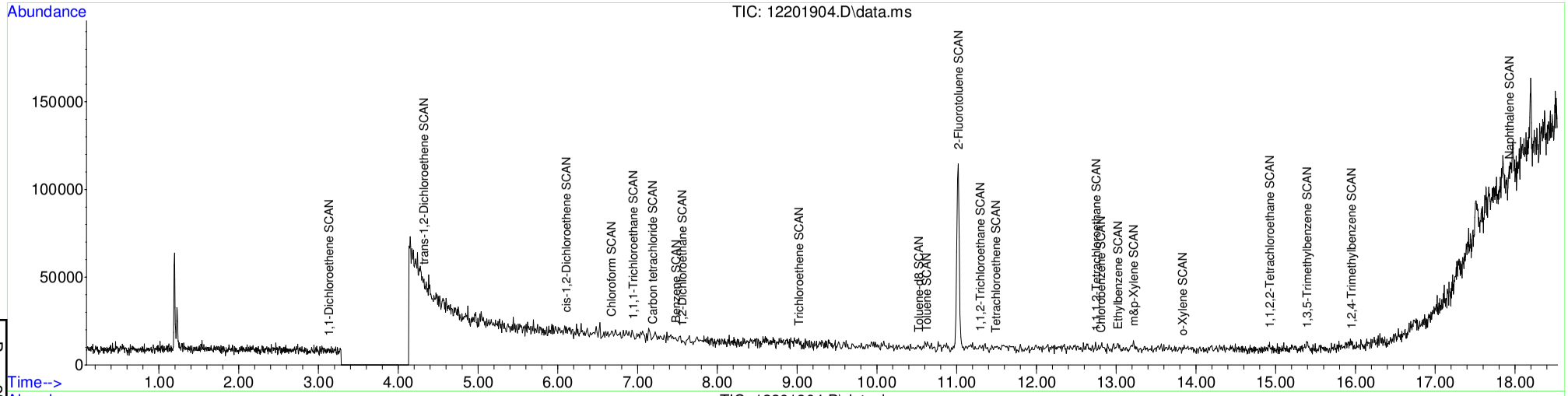
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	153340	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	1290	52.38	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.05%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.123	61	364m	55.47	ug/L	
3] trans-1,2-Dichloroethene	4.329	61	390	57.95	ug/L	99
4] 1,1-Dichloroethane	5.073	63	489	57.16	ug/L	94
5] cis-1,2-Dichloroethene	6.094	61	444	56.44	ug/L	91
6] Chloroform	6.676	83	520	57.23	ug/L	96
7] 1,1,1-Trichloroethane	6.931	97	525	57.65	ug/L	95
8] Carbon tetrachloride	7.199	117	461	53.35	ug/L	93
9] Benzene	7.527	78	1552	67.77	ug/L	93
10] 1,2-Dichloroethane	7.576	62	439	58.40	ug/L #	18
11] Trichloroethene	8.608	130	384	54.66	ug/L	92
13] Toluene	10.624	91	1599	53.52	ug/L	97
14] 1,1,2-Trichloroethane	11.274	97	368	54.36	ug/L	97
15] Tetrachloroethene	11.474	166	438	48.58	ug/L	96
16] Chlorobenzene	12.813	112	1159	50.81	ug/L	80
17] 1,1,1,2-Tetrachloroethane	12.964	131	398	50.00	ug/L	89
18] Ethylbenzene	13.020	91	1915	51.95	ug/L	98
19] m&p-Xylene	13.210	91	2903	103.35	ug/L	98
20] o-Xylene	13.830	91	1516	50.89	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.925	83	663	49.57	ug/L	99
22] 1,3,5-Trimethylbenzene	15.393	105	1643	49.50	ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	1702	50.17	ug/L	100
24] Naphthalene	17.932	128	3128	51.04	ug/L #	9
25) 2-Fluorotoluene SCAN	11.021	109	95152	5001.59	ug/L	95
26) 1,1-Dichloroethene SCAN	3.133	61	302	72.44	ug/L #	40
27) trans-1,2-Dichloroethe...	4.321	61	142	35.95	ug/L #	18
29) cis-1,2-Dichloroethene...	6.106	61	257	54.29	ug/L #	38
30) Chloroform SCAN	6.675	83	258	51.04	ug/L #	50
31) 1,1,1-Trichloroethane ...	6.942	97	373	64.19	ug/L #	29
32) Carbon tetrachloride SCAN	7.186	117	179	35.97	ug/L #	9
33) Benzene SCAN	7.478	78	1484	97.37	ug/L	98
34) 1,2-Dichloroethane SCAN	7.563	62	307	59.06	ug/L #	36
35) Trichloroethene SCAN	9.025	130	80	20.55	ug/L #	1
36) Toluene-d8 SCAN	10.528	98	435	26.97	ug/L	67
37) Toluene SCAN	10.622	91	1288	68.37	ug/L #	41
38) 1,1,2-Trichloroethane ...	11.294	97	470	114.68	ug/L #	11
39) Tetrachloroethene SCAN	11.493	166	172	31.50	ug/L #	29
40) Chlorobenzene SCAN	12.804	112	319	21.25	ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.748	131	317	65.46	ug/L #	31
42) Ethylbenzene SCAN	13.018	91	1932	81.16	ug/L	75
43) m&p-Xylene SCAN	13.217	91	2795	78.30	ug/L #	76
44) o-Xylene SCAN	13.829	91	581	28.71	ug/L #	30
45) 1,1,2,2-Tetrachloroeth...	14.924	83	306	33.54	ug/L #	80
46) 1,3,5-Trimethylbenzene...	15.392	105	744	35.18	ug/L #	47
47) 1,2,4-Trimethylbenzene...	15.948	105	1632	76.02	ug/L	81
48) Naphthalene SCAN	17.931	128	2007	57.87	ug/L #	62

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



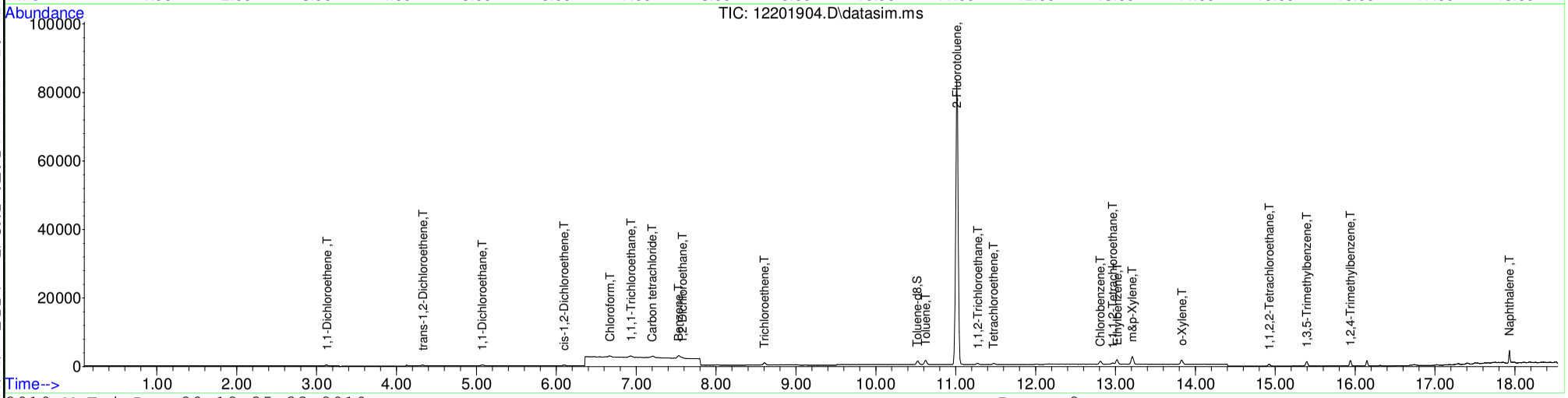
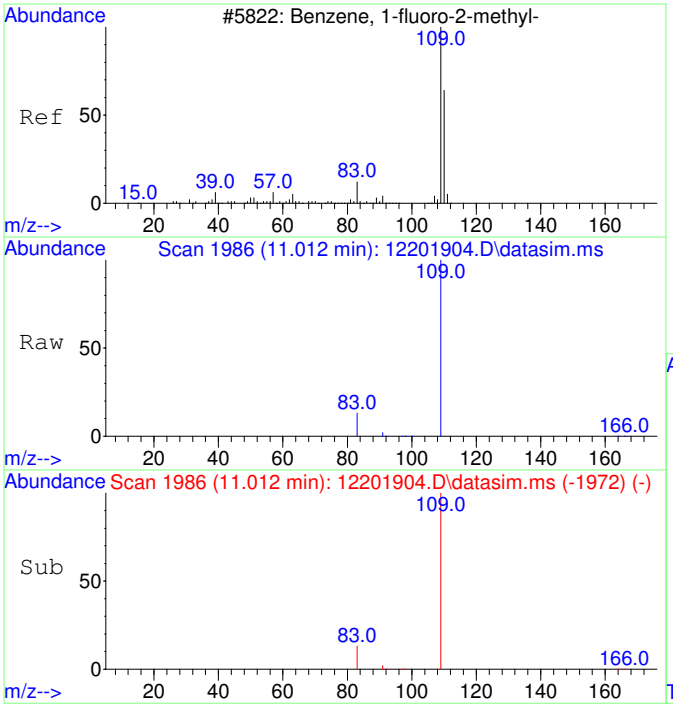


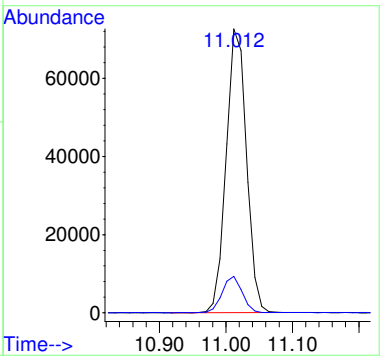
Table of Contents

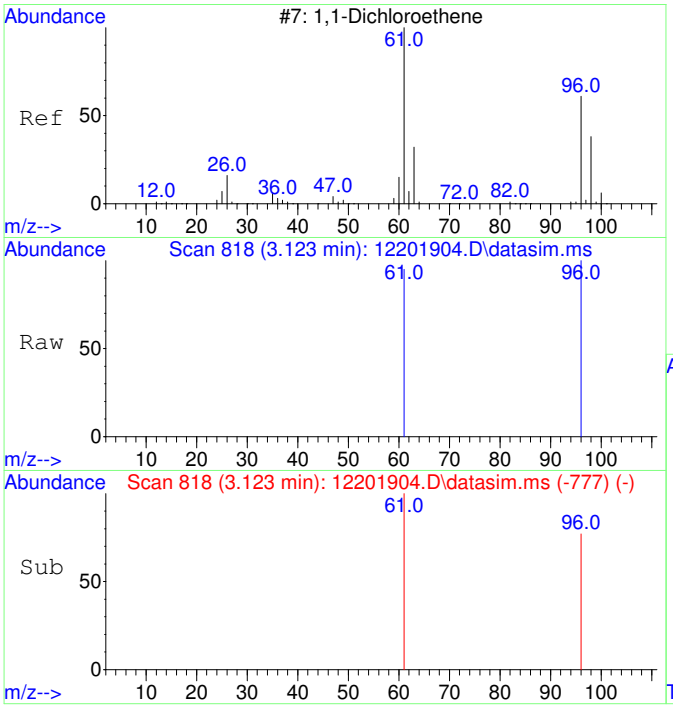


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 153340

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

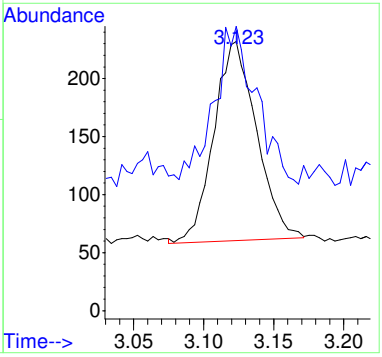


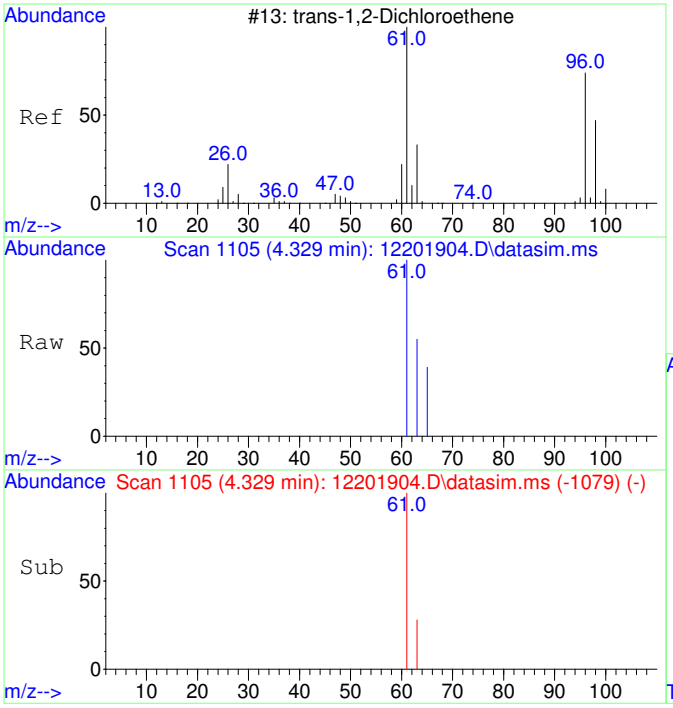


#2
1,1-Dichloroethene
Concen: 55.47 ug/L m
RT: 3.123 min Scan# 818
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 364

Ion	Ratio	Lower	Upper
61	100		
96	148.6	33.5	93.5#

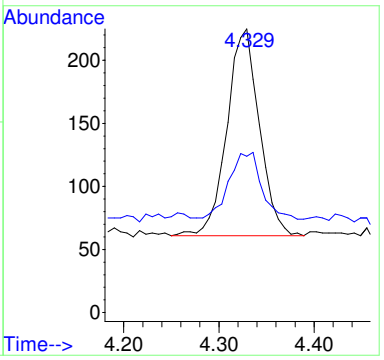


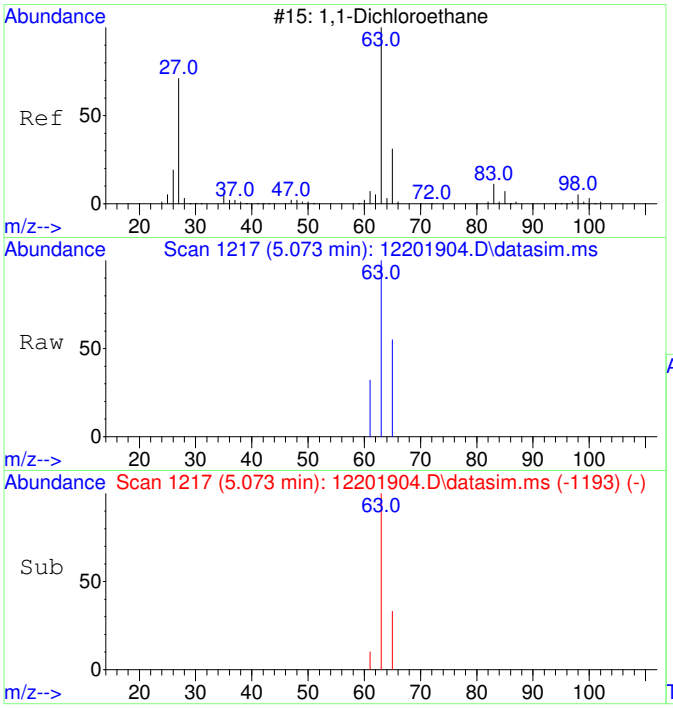


#3
trans-1,2-Dichloroethene
Concen: 57.95 ug/L
RT: 4.329 min Scan# 1105
Delta R.T. 0.020 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 390

Ion	Ratio	Lower	Upper
61	100		
63	33.1	2.3	62.3

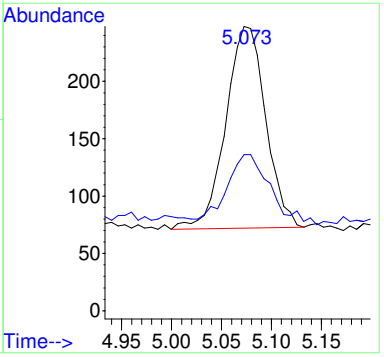


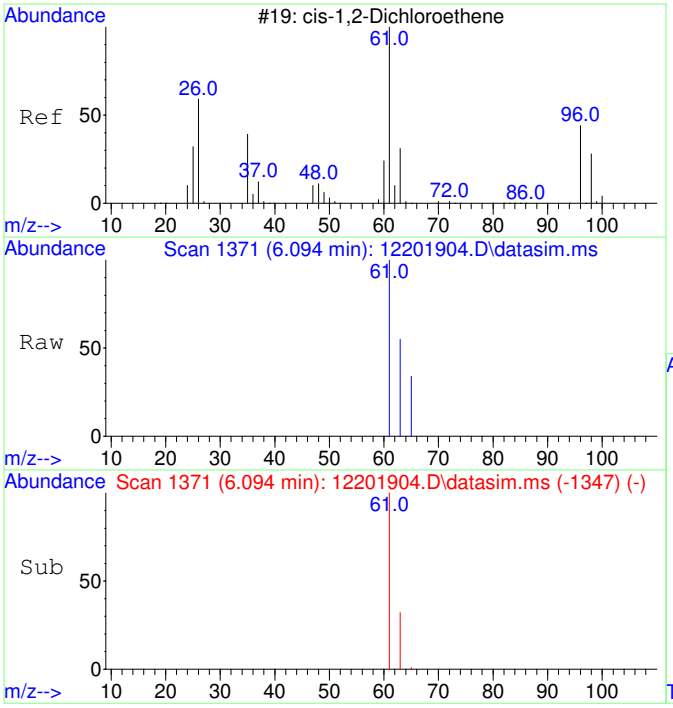


#4
1,1-Dichloroethane
Concen: 57.16 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 63 Resp: 489

Ion	Ratio	Lower	Upper
63	100		
65	35.2	1.9	61.9

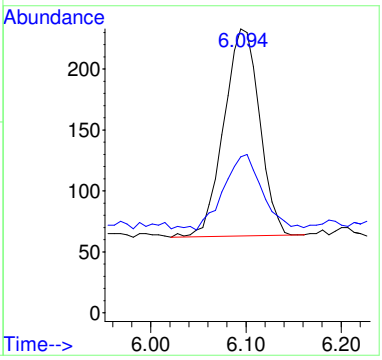


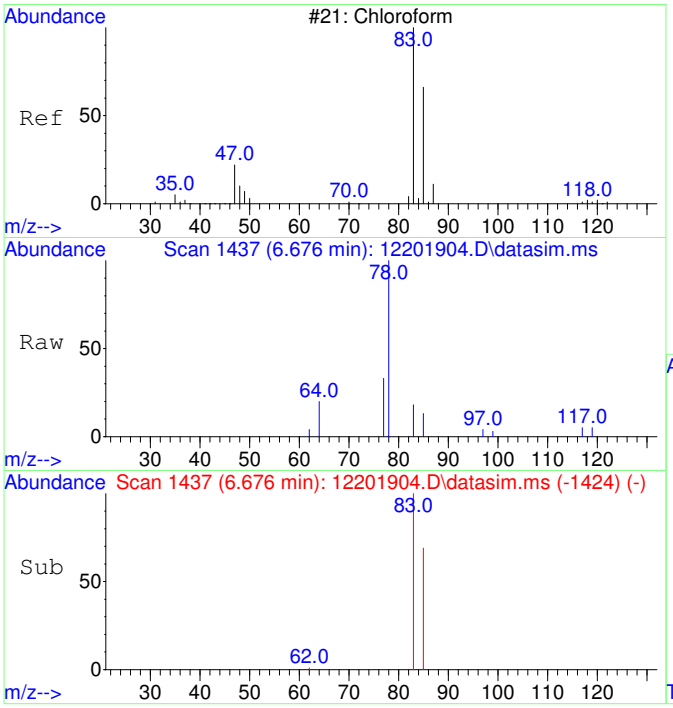


#5
cis-1,2-Dichloroethene
Concen: 56.44 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 444

Ion	Ratio	Lower	Upper
61	100		
63	37.6	2.5	62.5

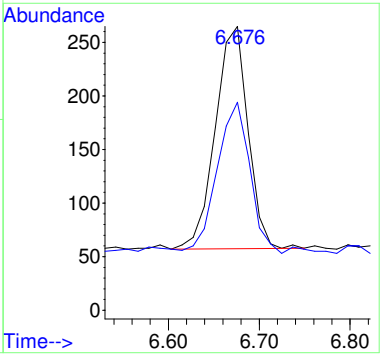


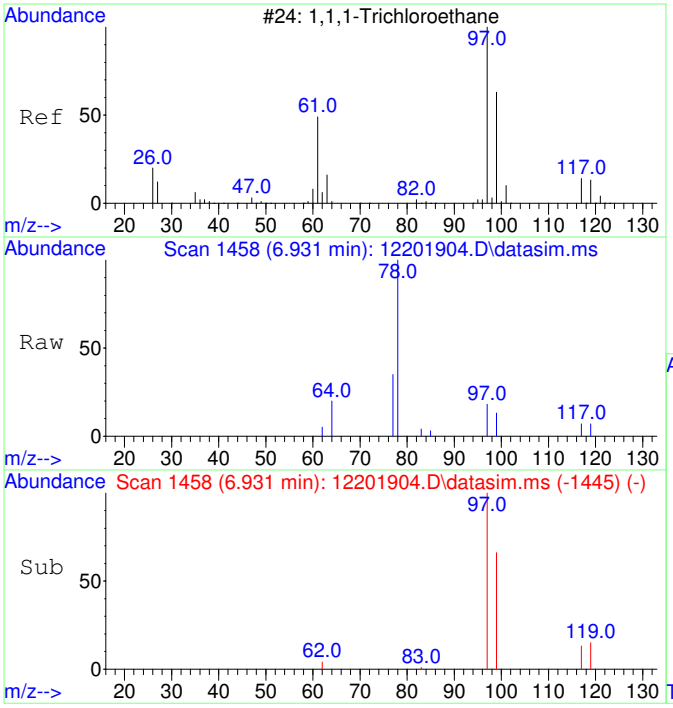


#6
Chloroform
Concen: 57.23 ug/L
RT: 6.676 min Scan# 1437
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 520

Ion	Ratio	Lower	Upper
83	100		
85	67.9	35.0	95.0

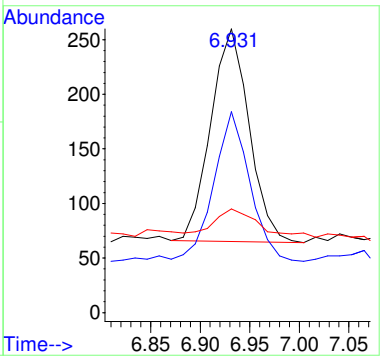


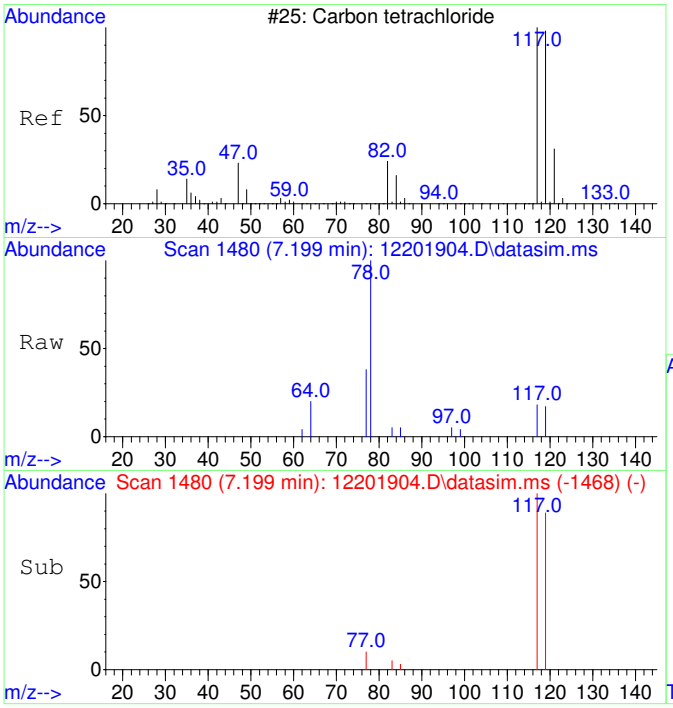


#7
1,1,1-Trichloroethane
Concen: 57.65 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 525

Ion	Ratio	Lower	Upper
97	100		
99	67.8	34.4	94.4
117	15.4	0.0	43.0

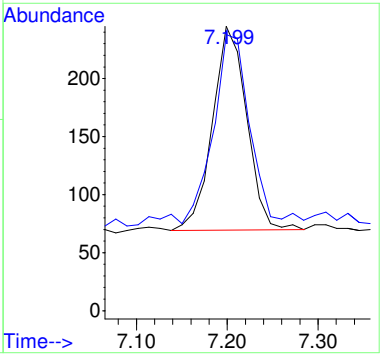


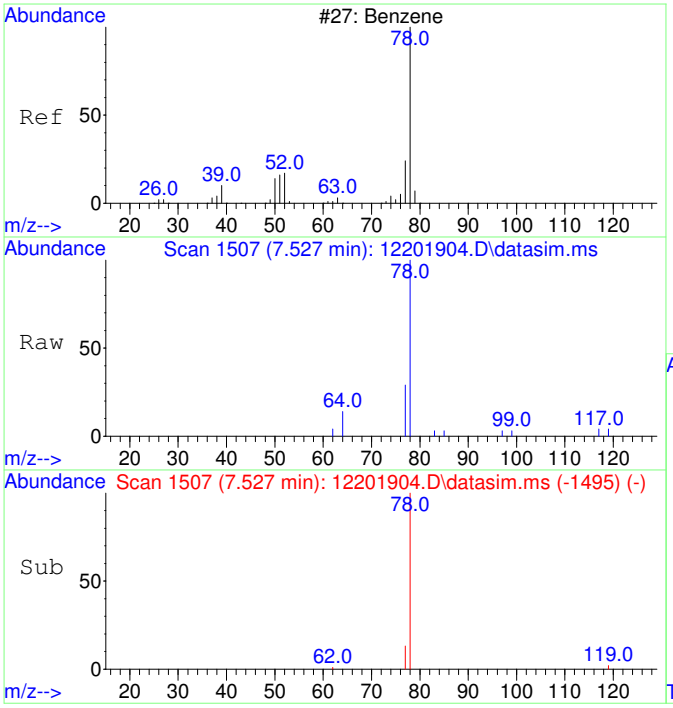


#8
Carbon tetrachloride
Concen: 53.35 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 461

Ion	Ratio	Lower	Upper
117	100		
119	103.5	66.5	126.5

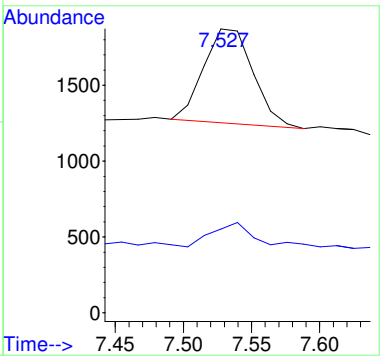


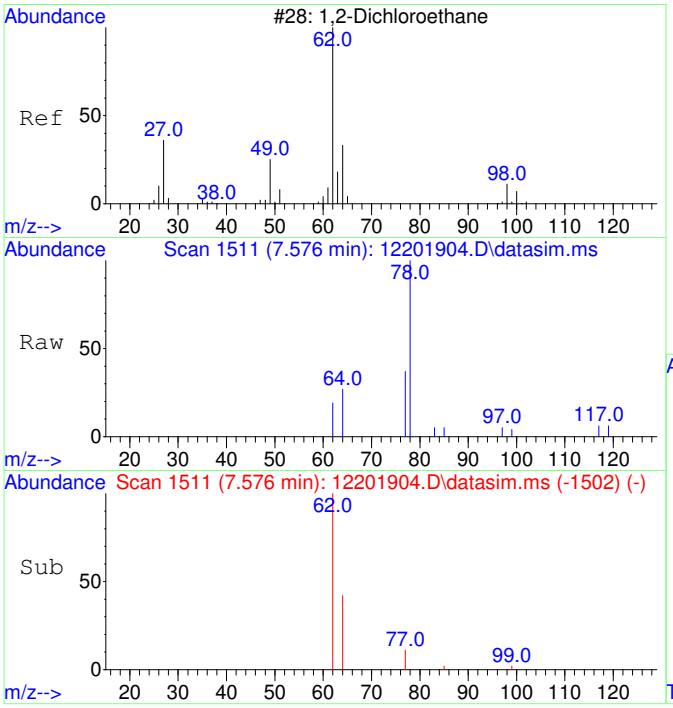


#9
Benzene
Concen: 67.77 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1552

Ion	Ratio	Lower	Upper
78	100		
77	26.8	0.0	53.5

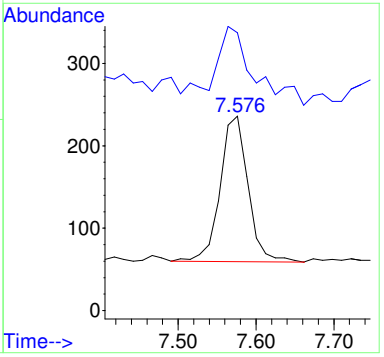


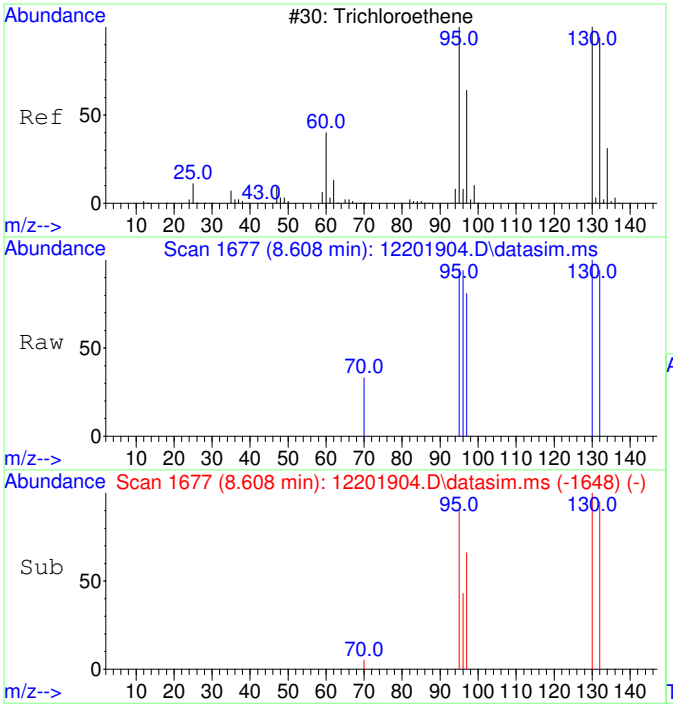


#10
1,2-Dichloroethane
Concen: 58.40 ug/L
RT: 7.576 min Scan# 1511
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 439

Ion	Ratio	Lower	Upper
62	100		
64	78.4	2.4	62.4#

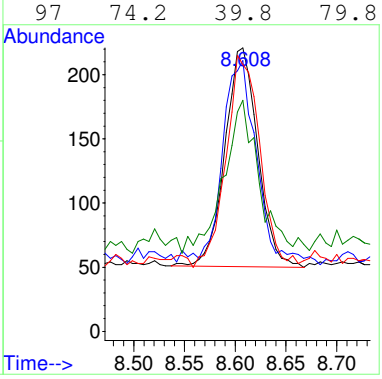


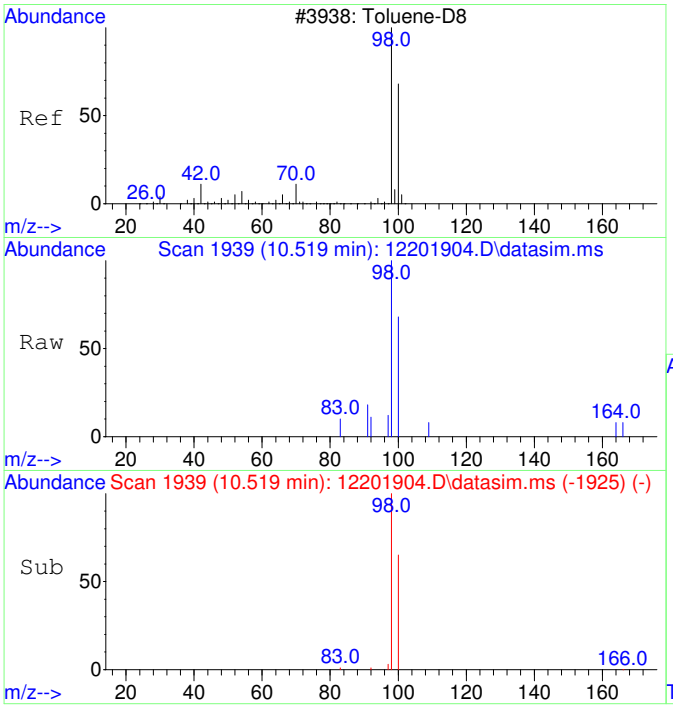


#11
Trichloroethene
Concen: 54.66 ug/L
RT: 8.608 min Scan# 1677
Delta R.T. 0.005 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 384

Ion	Ratio	Lower	Upper
130	100		
95	97.7	62.3	122.3
132	100.0	75.8	115.8
97	74.2	39.8	79.8

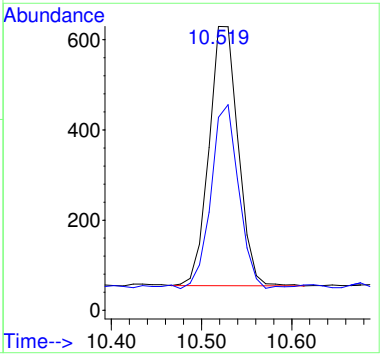


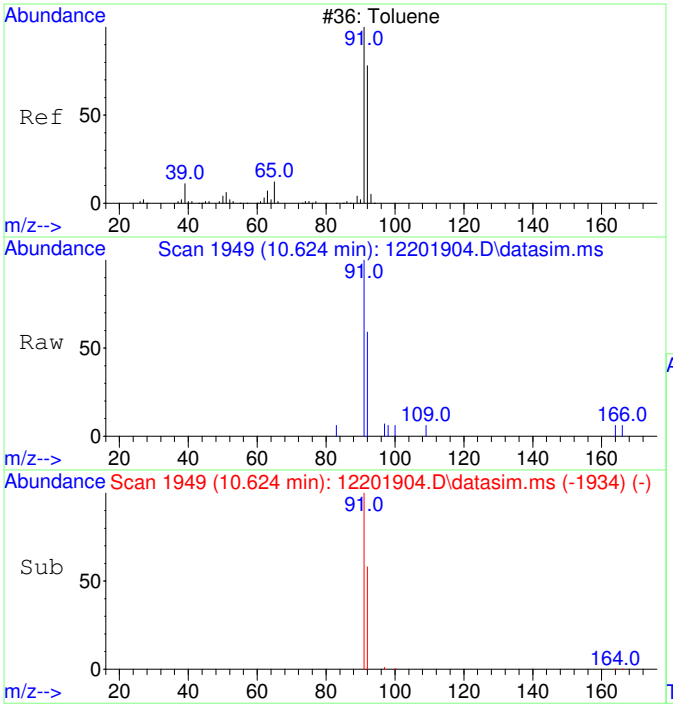


#12
Toluene-d8
Concen: 52.38 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 1290

Ion	Ratio	Lower	Upper
98	100		
100	66.1	36.2	96.2

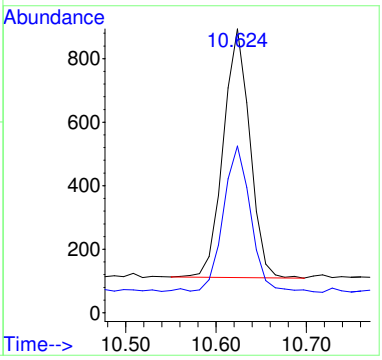


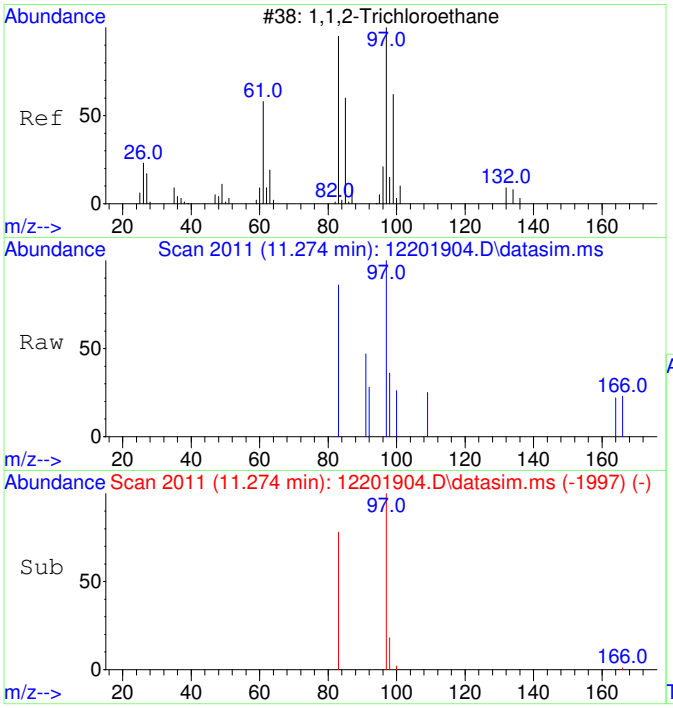


#13
Toluene
Concen: 53.52 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1599

Ion	Ratio	Lower	Upper
91	100		
92	61.4	29.4	89.4

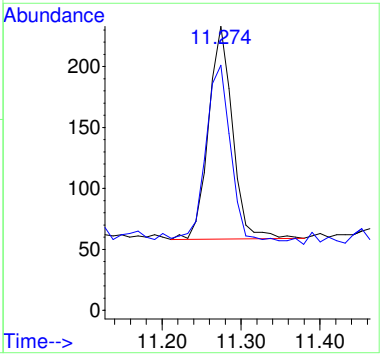


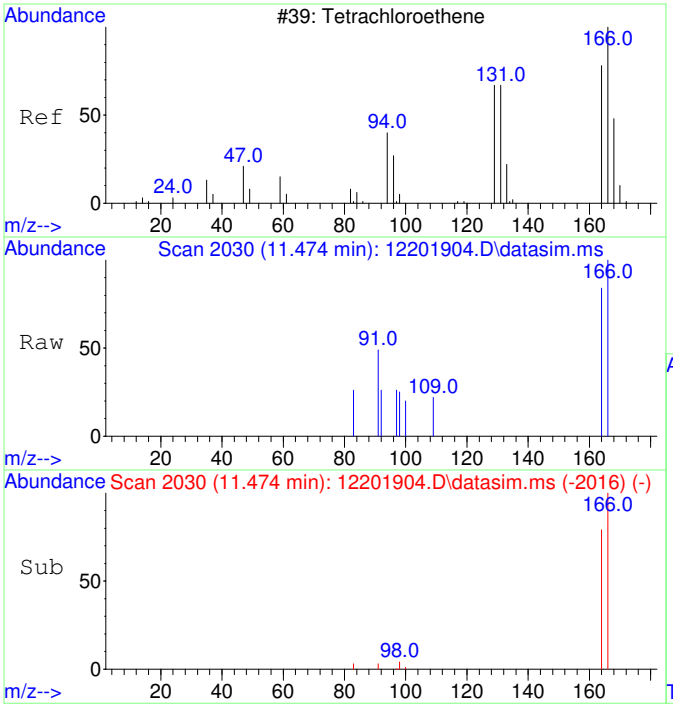


#14
1,1,2-Trichloroethane
Concen: 54.36 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 368

Ion	Ratio	Lower	Upper
97	100		
83	84.8	52.5	112.5

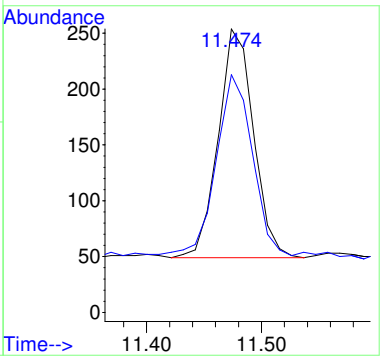


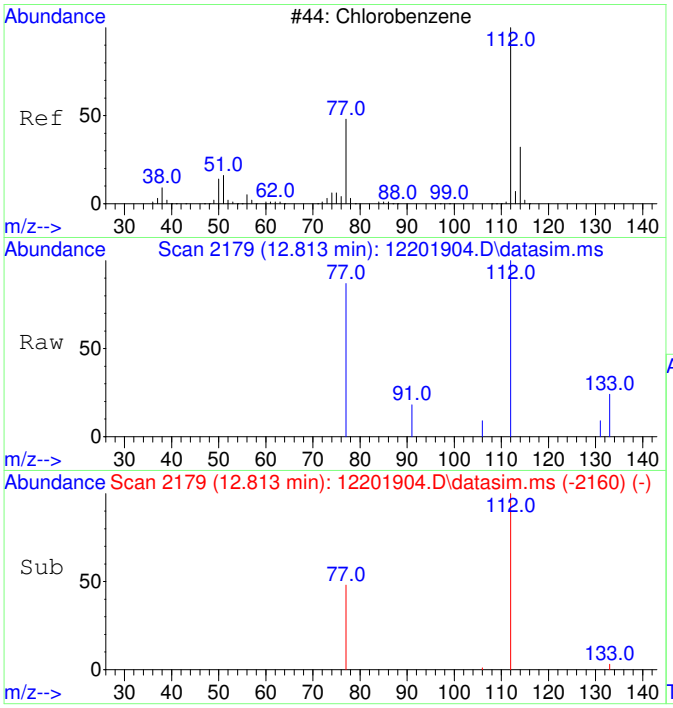


#15
Tetrachloroethene
Concen: 48.58 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 438

Ion	Ratio	Lower	Upper
166	100		
164	81.1	47.6	107.6

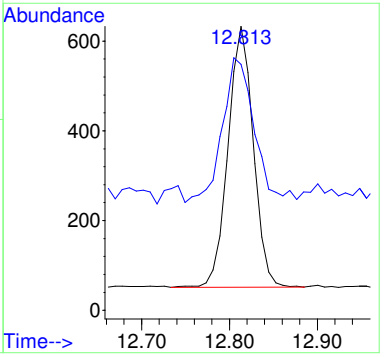


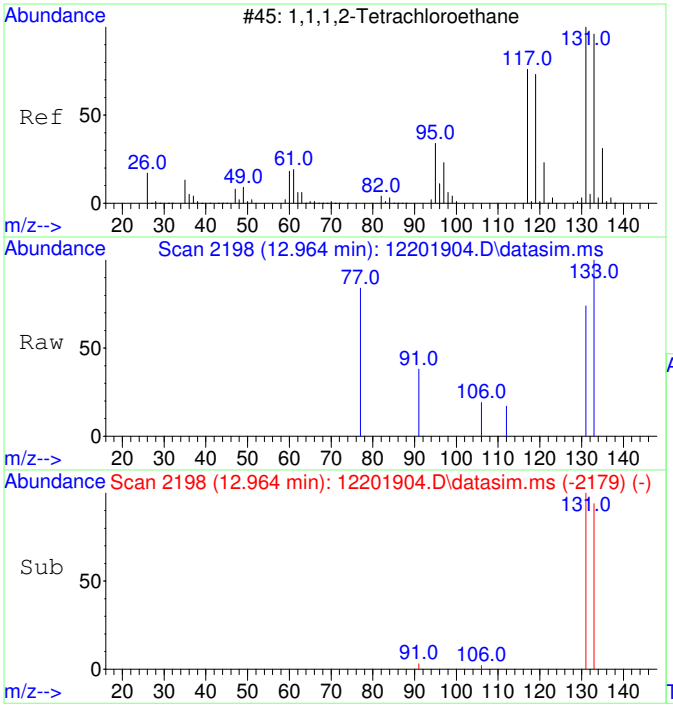


#16
Chlorobenzene
Concen: 50.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 1159

Ion	Ratio	Lower	Upper
112	100		
77	68.9	24.2	84.2

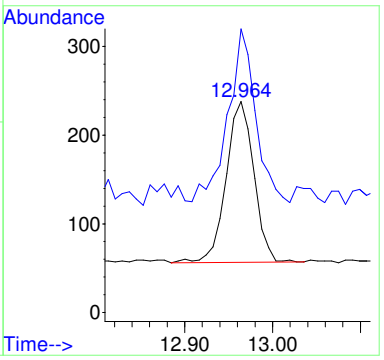


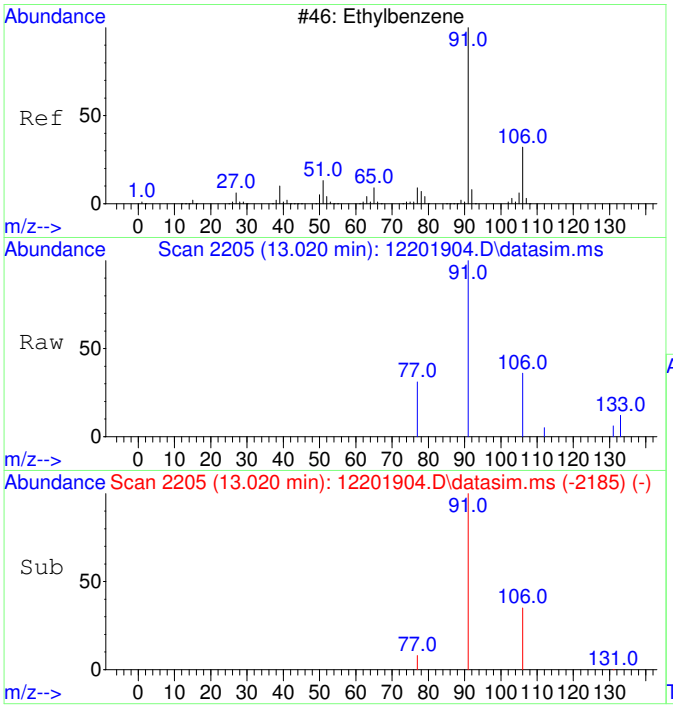


#17
1,1,1,2-Tetrachloroethane
Concen: 50.00 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 398

Ion	Ratio	Lower	Upper
131	100		
133	106.5	66.0	126.0

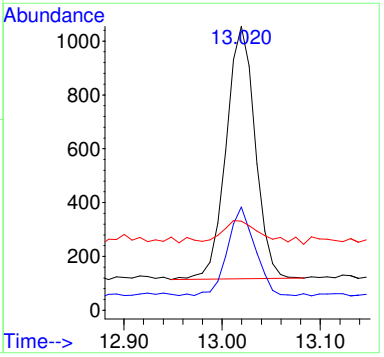


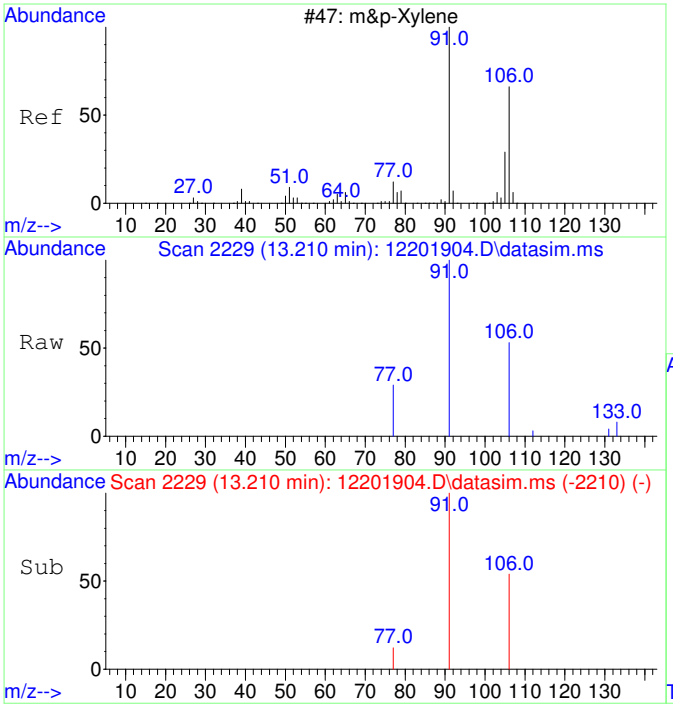


#18
Ethylbenzene
Concen: 51.95 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1915

Ion	Ratio	Lower	Upper
91	100		
106	33.1	2.5	62.5
77	10.3	0.0	38.2

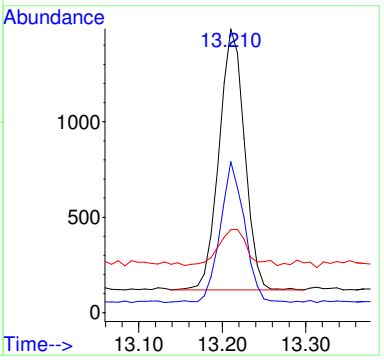


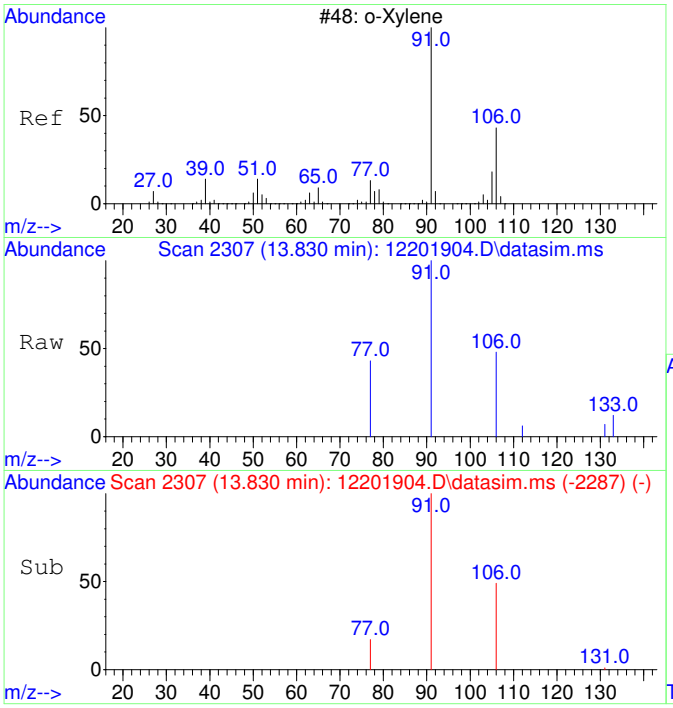


#19
m&p-Xylene
Concen: 103.35 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2903

Ion	Ratio	Lower	Upper
91	100		
106	51.3	21.6	81.6
77	15.5	0.0	42.6

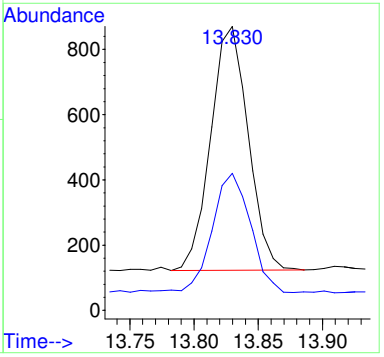


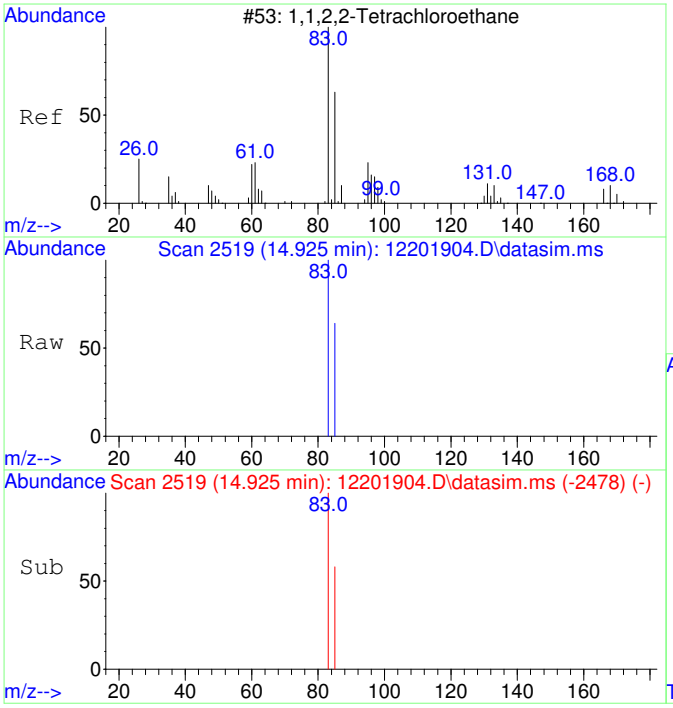


#20
o-Xylene
Concen: 50.89 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1516

Ion	Ratio	Lower	Upper
91	100		
106	49.7	18.5	78.5

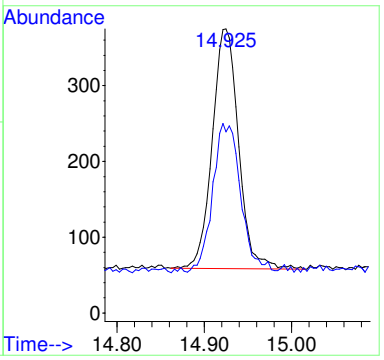


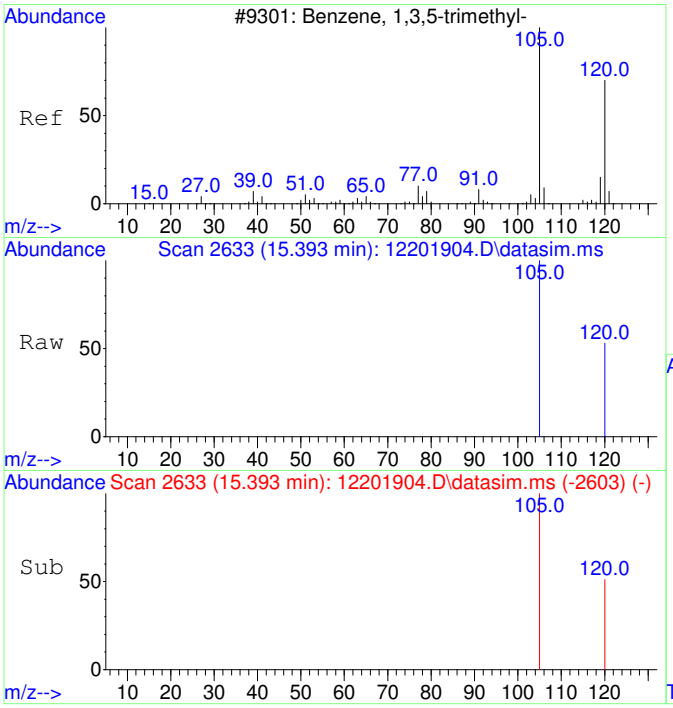


#21
1,1,2,2-Tetrachloroethane
Concen: 49.57 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 663

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.7	94.7

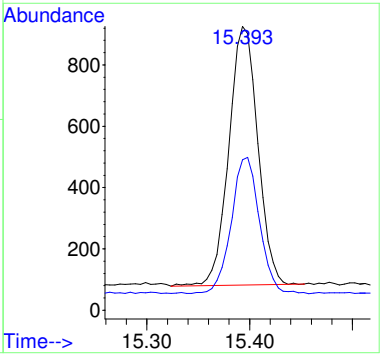


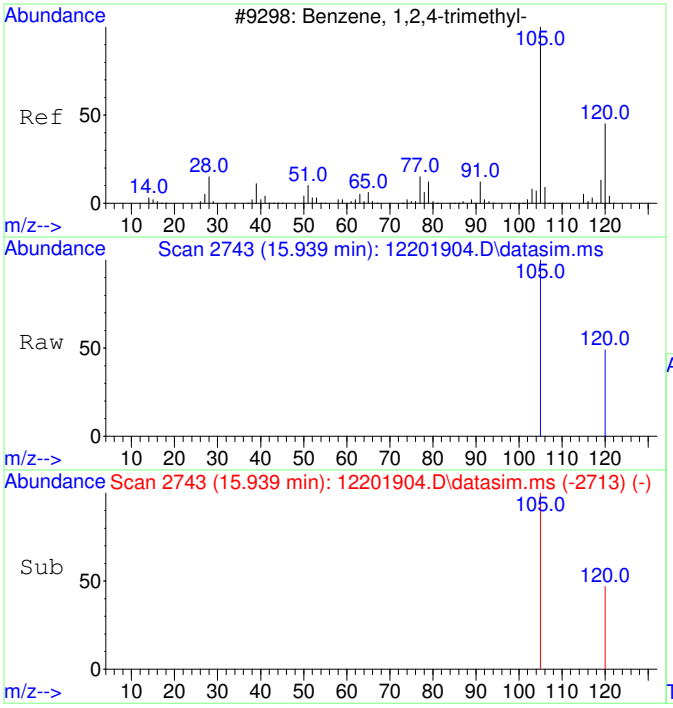


#22
1,3,5-Trimethylbenzene
Concen: 49.50 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1643

Ion	Ratio	Lower	Upper
105	100		
120	51.3	20.7	80.7

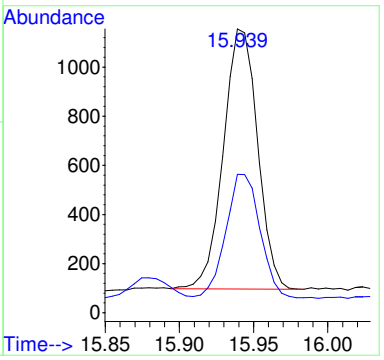


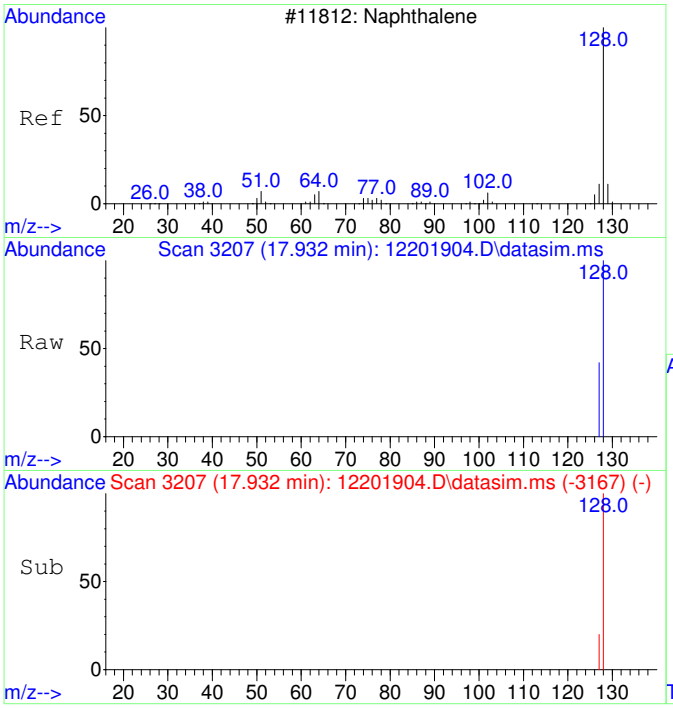


#23
1,2,4-Trimethylbenzene
Concen: 50.17 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1702

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.6	76.6

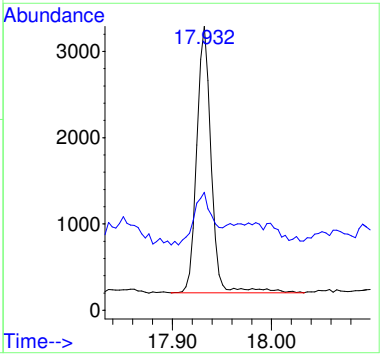


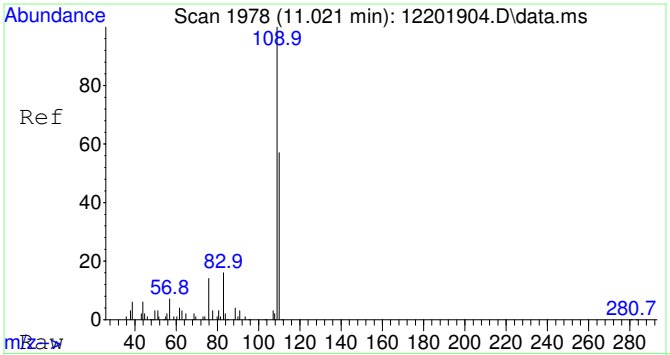


#24
Naphthalene
Concen: 51.04 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 3128

Ion	Ratio	Lower	Upper
128	100		
127	48.3	0.0	42.5#

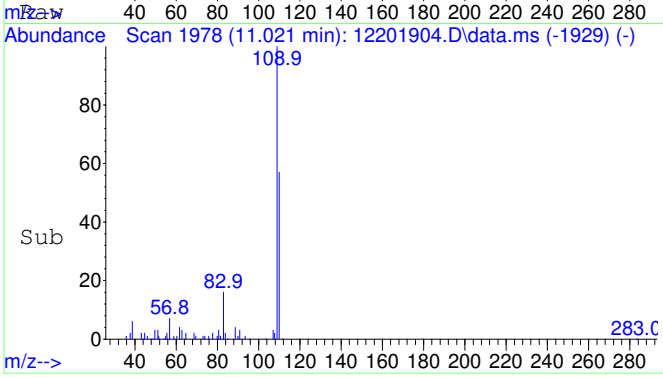


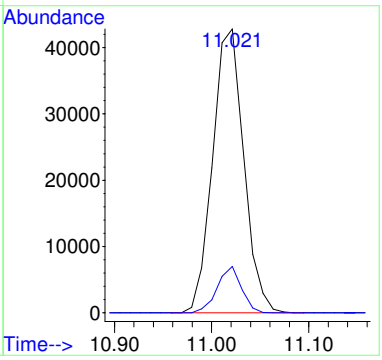


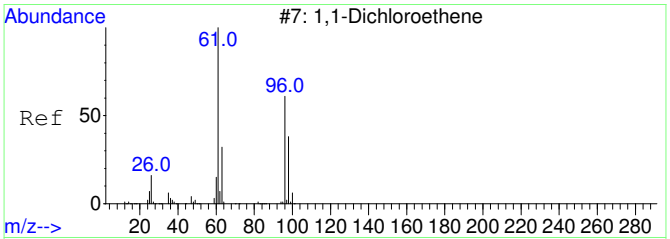
#25
2-Fluorotoluene SCAN
Concen: 5001.59 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 95152

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	44.7



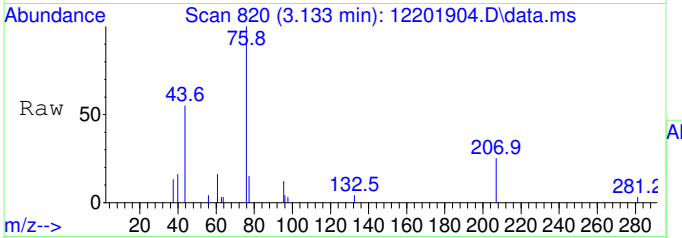


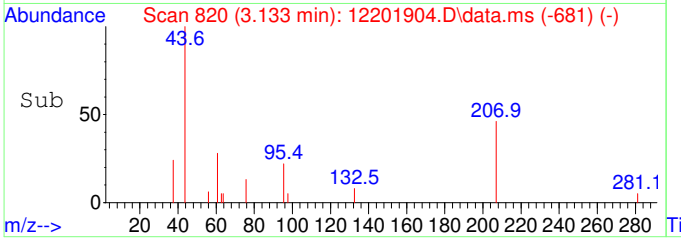


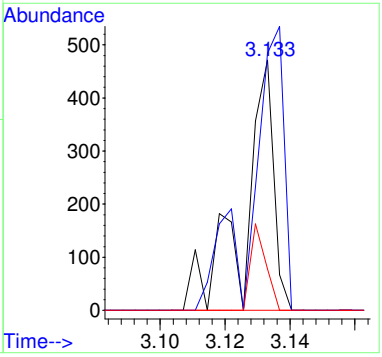
#26
1,1-Dichloroethene SCAN
Concen: 72.44 ug/L
RT: 3.133 min Scan# 820
Delta R.T. 0.015 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

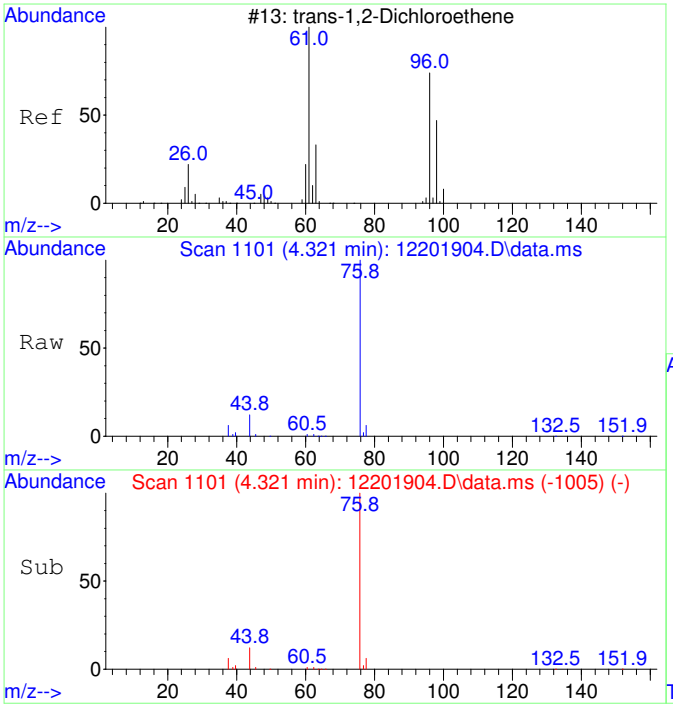
Tgt Ion: 61 Resp: 302

Ion	Ratio	Lower	Upper
61	100		
96	122.5	34.8	94.8#
98	17.9	12.9	72.9





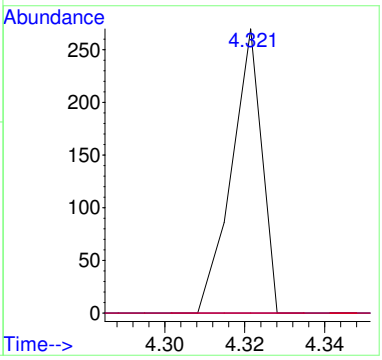


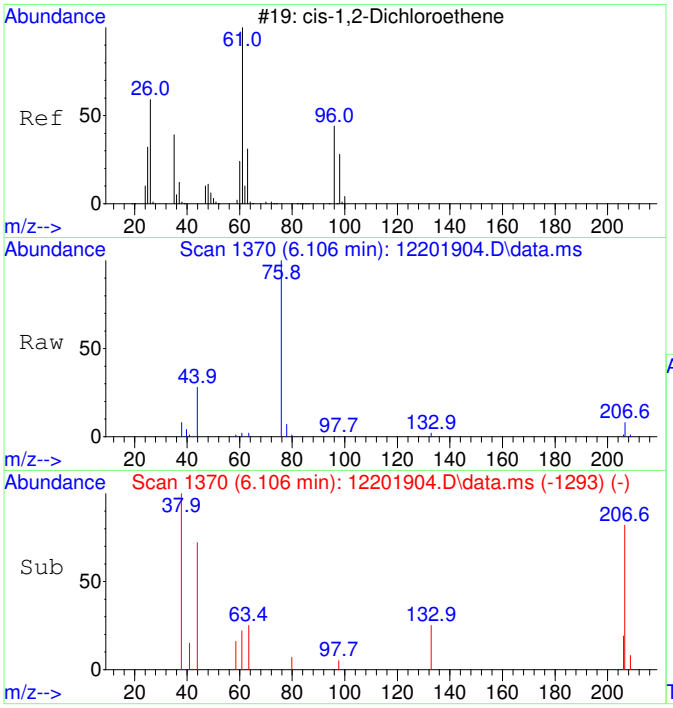


#27
trans-1,2-Dichloroethene SCAN
Concen: 35.95 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 142

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.7	102.7#
98	0.0	23.4	83.4#

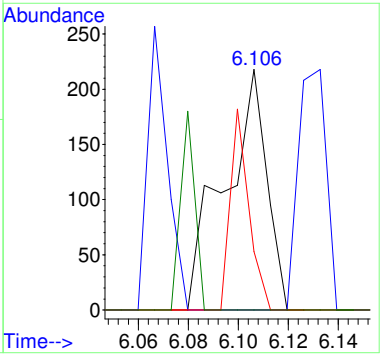


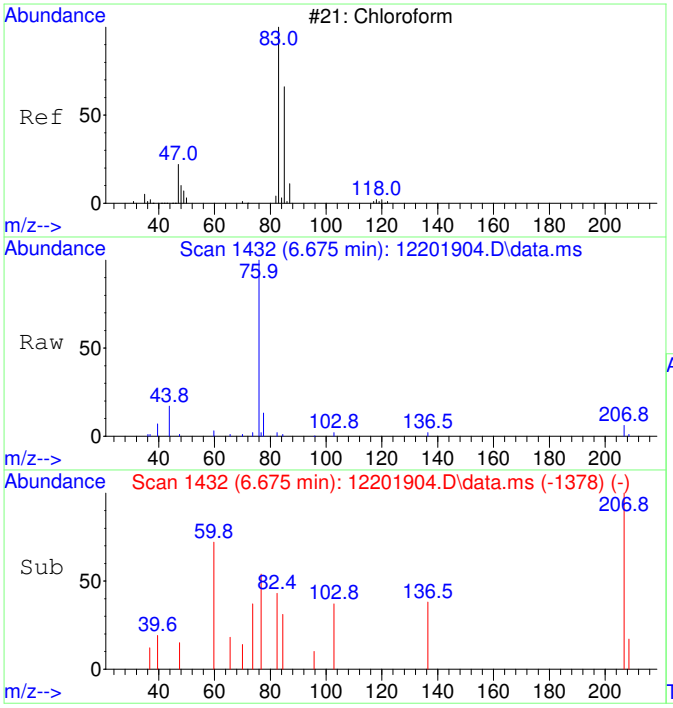


#29
cis-1,2-Dichloroethene SCAN
Concen: 54.29 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 257

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.1	106.1#
98	36.6	20.8	80.8
63	0.0	9.0	69.0#

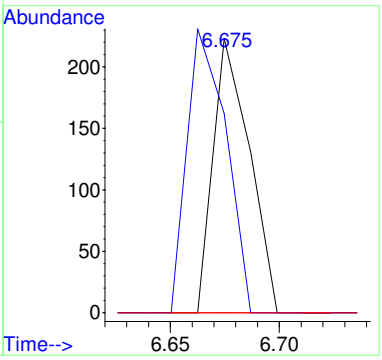


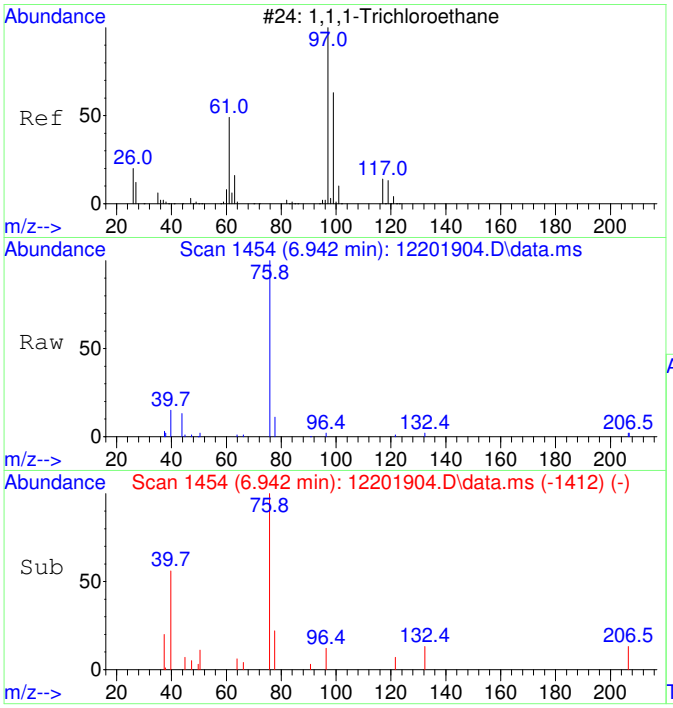


#30
Chloroform SCAN
Concen: 51.04 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 258

Ion	Ratio	Lower	Upper
83	100		
85	111.2	42.9	102.9#
47	0.0	4.5	64.5#

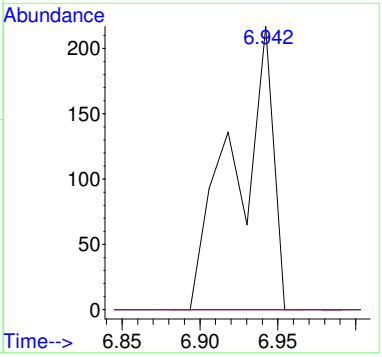


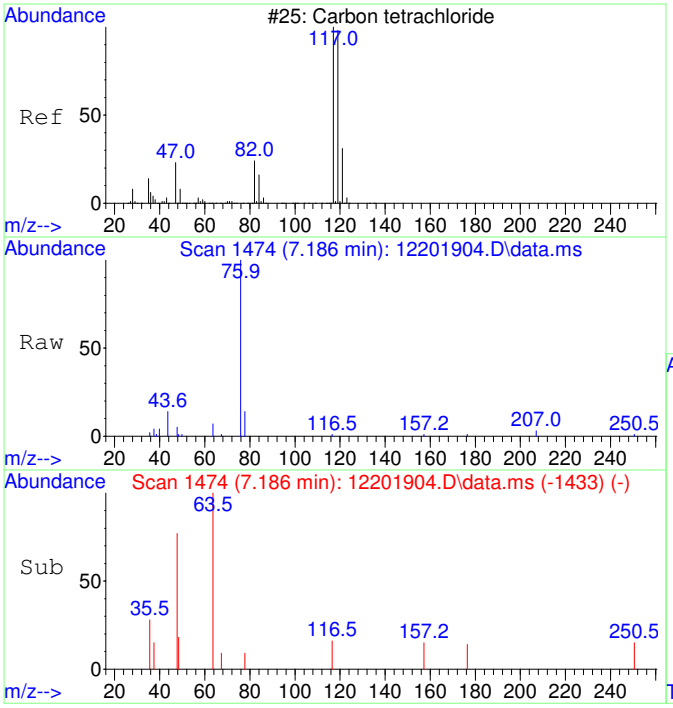


#31
1,1,1-Trichloroethane SCAN
Concen: 64.19 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 373

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

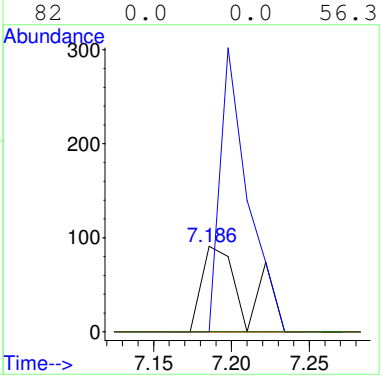


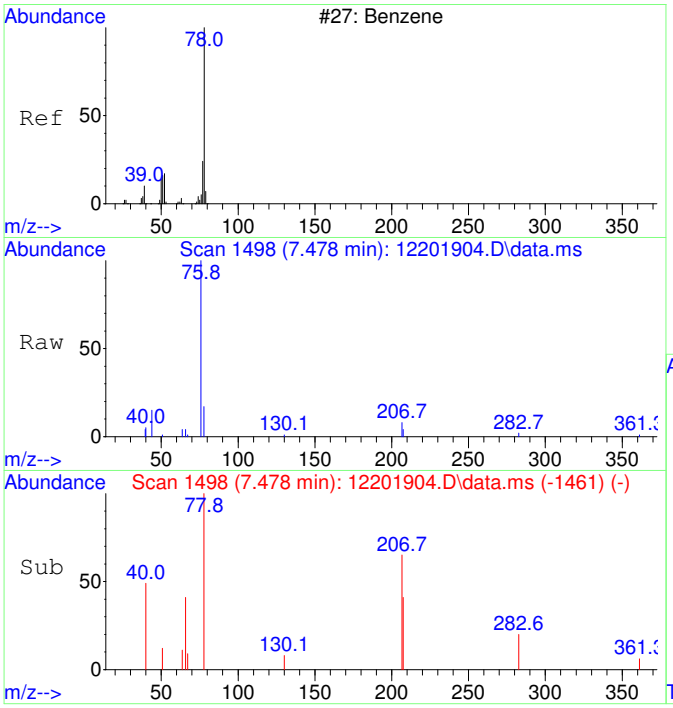


#32
Carbon tetrachloride SCAN
Concen: 35.97 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 179

Ion	Ratio	Lower	Upper
117	100		
119	210.6	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

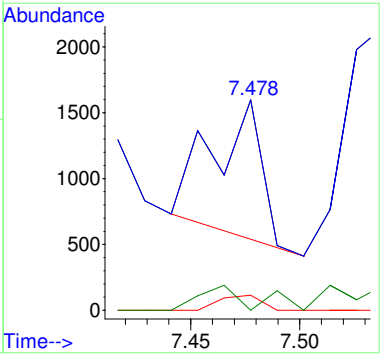


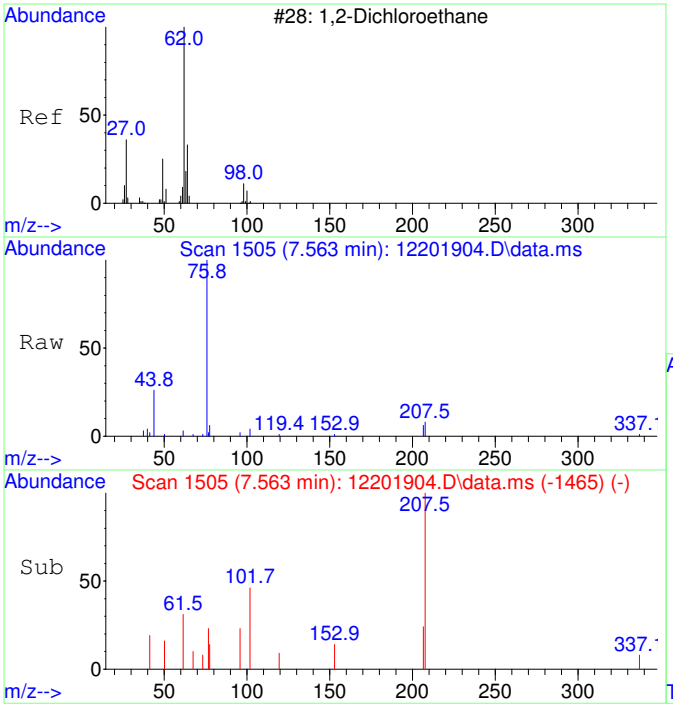


#33
Benzene SCAN
Concen: 97.37 ug/L
RT: 7.478 min Scan# 1498
Delta R.T. -0.049 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1484

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	10.2	0.0	45.4
52	14.8	0.0	30.0

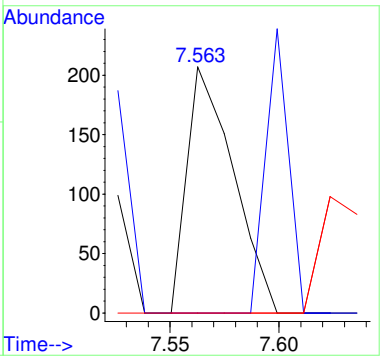


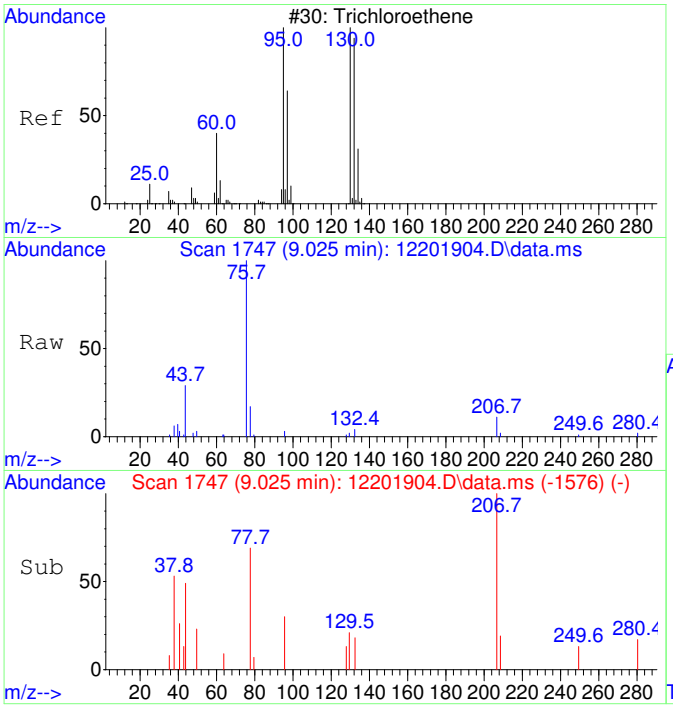


#34
1,2-Dichloroethane SCAN
Concen: 59.06 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 307

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

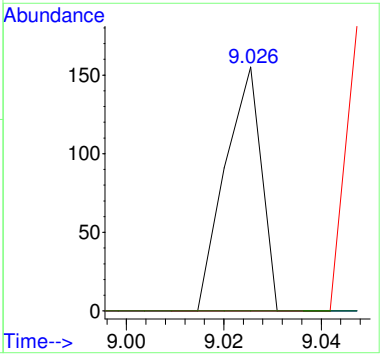


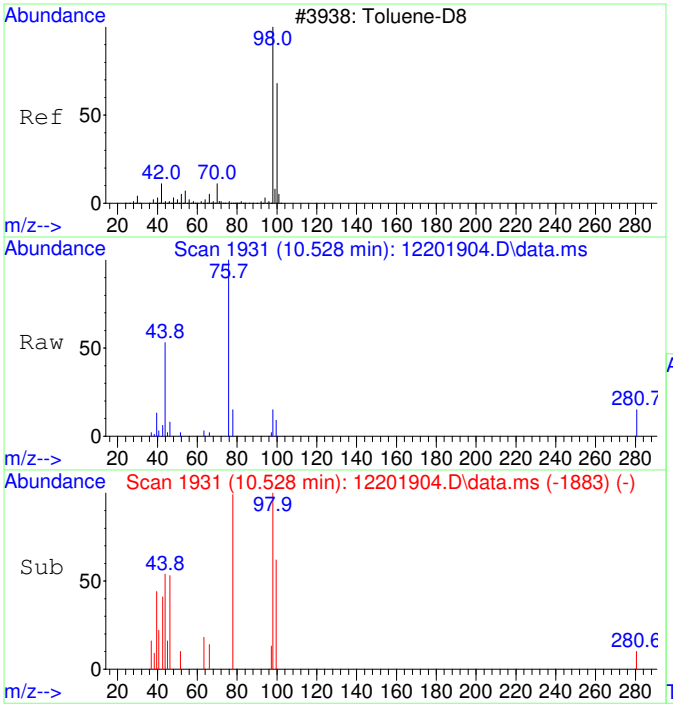


#35
Trichloroethene SCAN
Concen: 20.55 ug/L
RT: 9.025 min Scan# 1747
Delta R.T. 0.430 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 80

Ion	Ratio	Lower	Upper
130	100		
95	0.0	75.7	135.7#
132	0.0	77.1	137.1#
97	0.0	43.8	103.8#

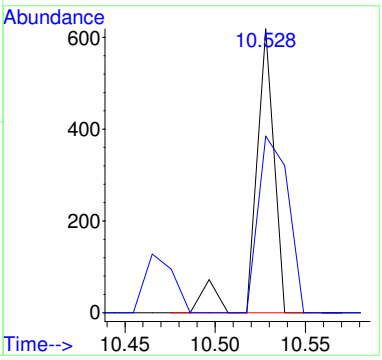


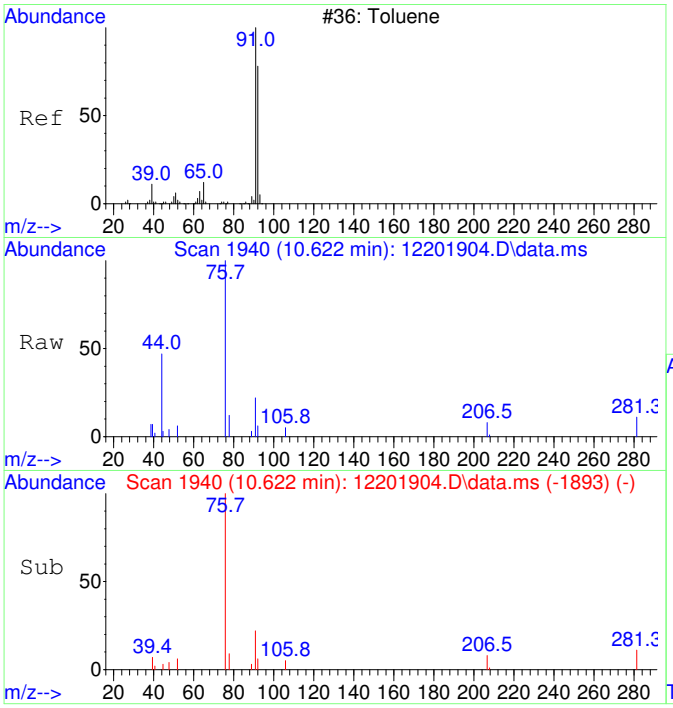


#36
Toluene-d8 SCAN
Concen: 26.97 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 435

Ion	Ratio	Lower	Upper
98	100		
100	102.1	44.4	104.4

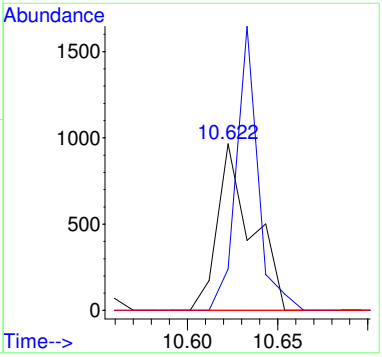


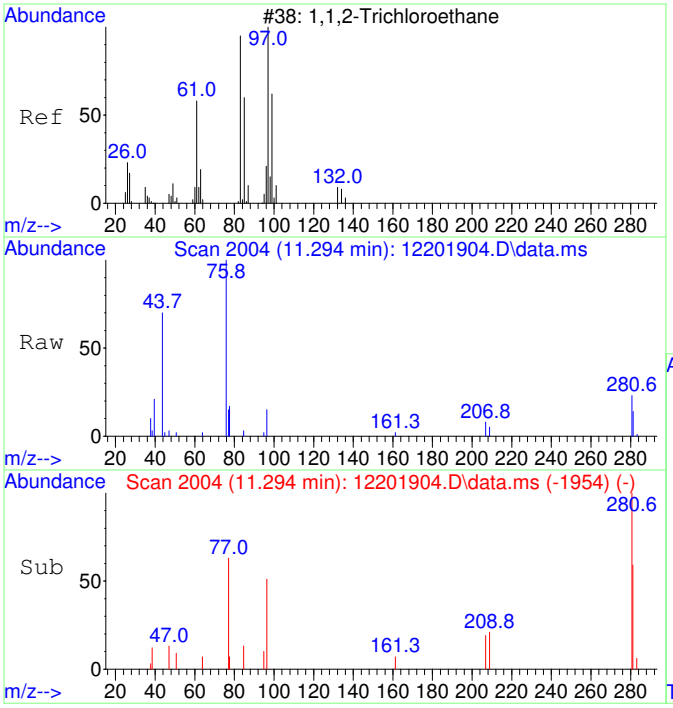


#37
Toluene SCAN
Concen: 68.37 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1288

Ion	Ratio	Lower	Upper
91	100		
92	107.1	31.5	91.5#
65	0.0	0.0	30.0

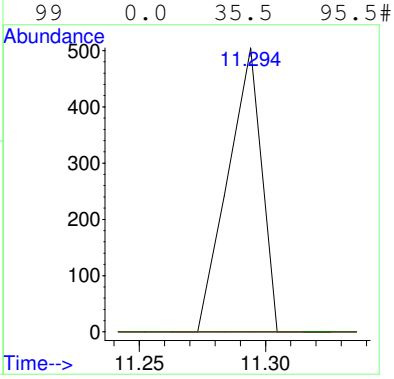


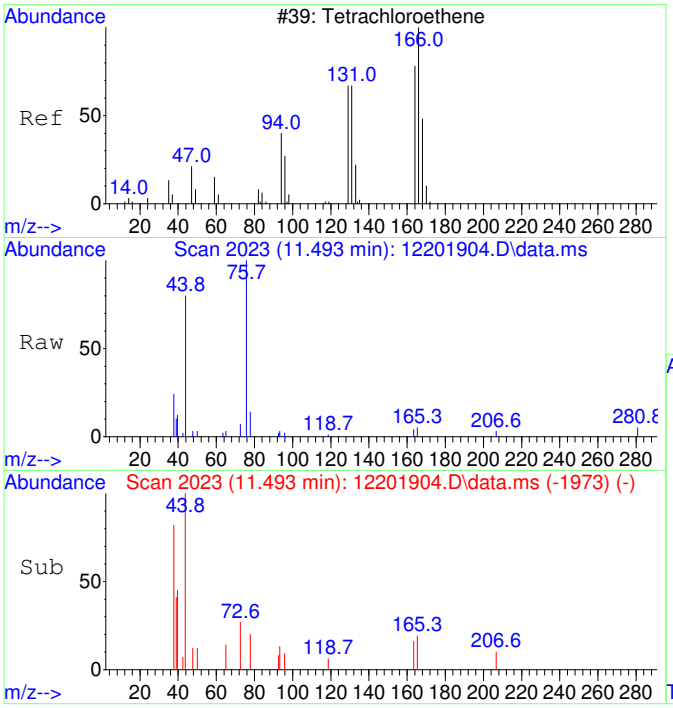


#38
1,1,2-Trichloroethane SCAN
Concen: 114.68 ug/L
RT: 11.294 min Scan# 2004
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 470

Ion	Ratio	Lower	Upper
97	100		
83	0.0	67.7	127.7#
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

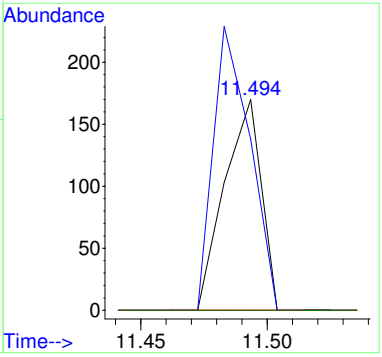


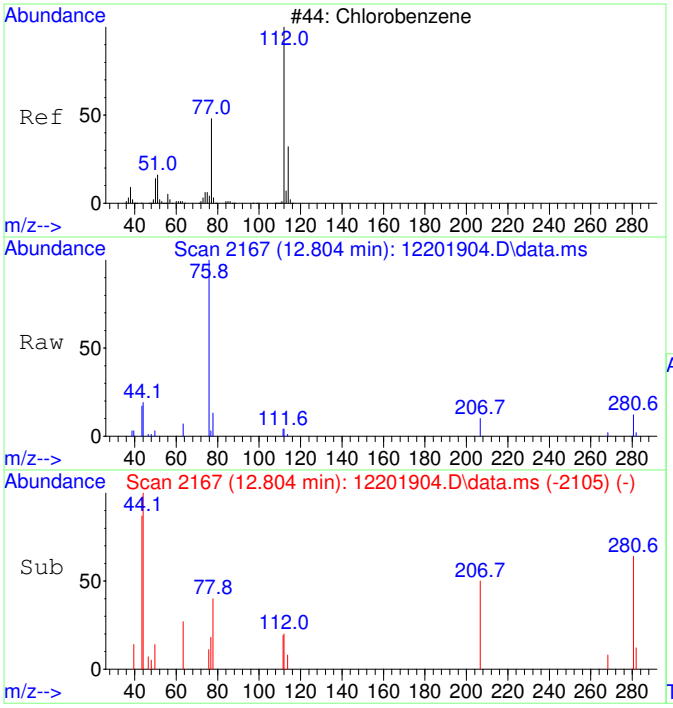


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.493 min Scan# 2023
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 172

Ion	Ratio	Lower	Upper
166	100		
164	134.3	61.8	121.8#
131	0.0	51.8	111.8#
129	0.0	36.0	96.0#

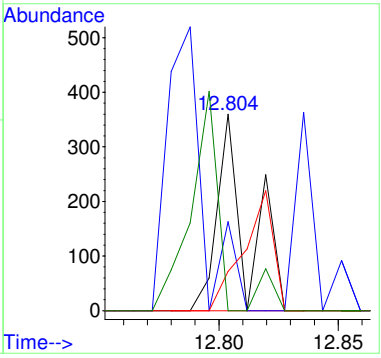


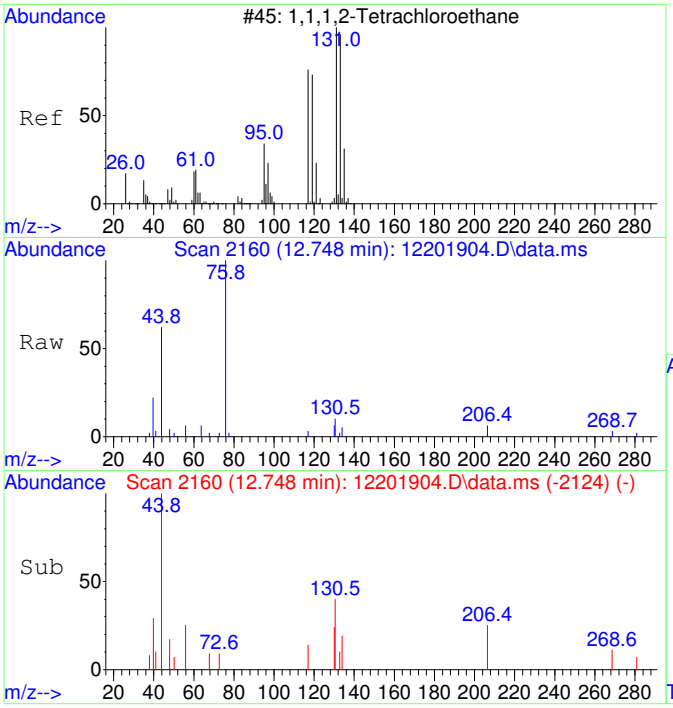


#40
Chlorobenzene SCAN
Concen: 21.25 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 319

Ion	Ratio	Lower	Upper
112	100		
77	167.4	27.8	87.8#
114	0.0	3.1	63.1#
51	95.3	0.0	49.9#

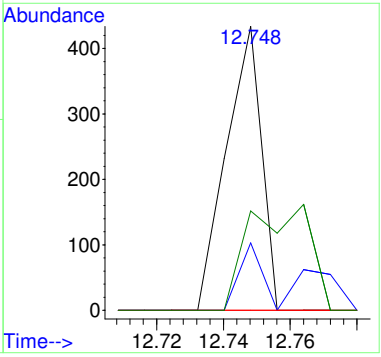


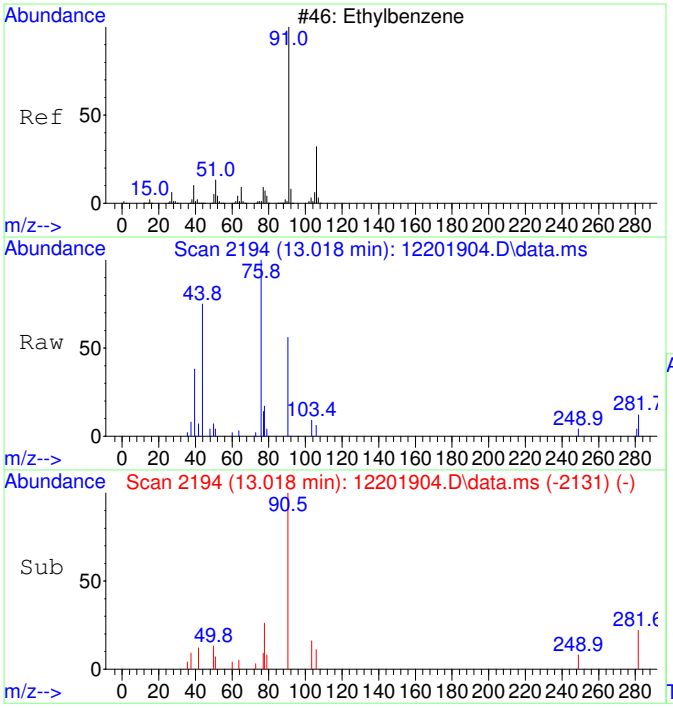


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 65.46 ug/L
RT: 12.748 min Scan# 2160
Delta R.T. -0.215 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 317

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	65.0	38.9	98.9

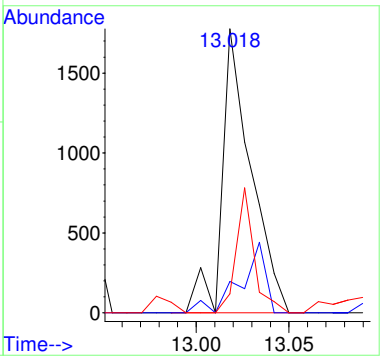


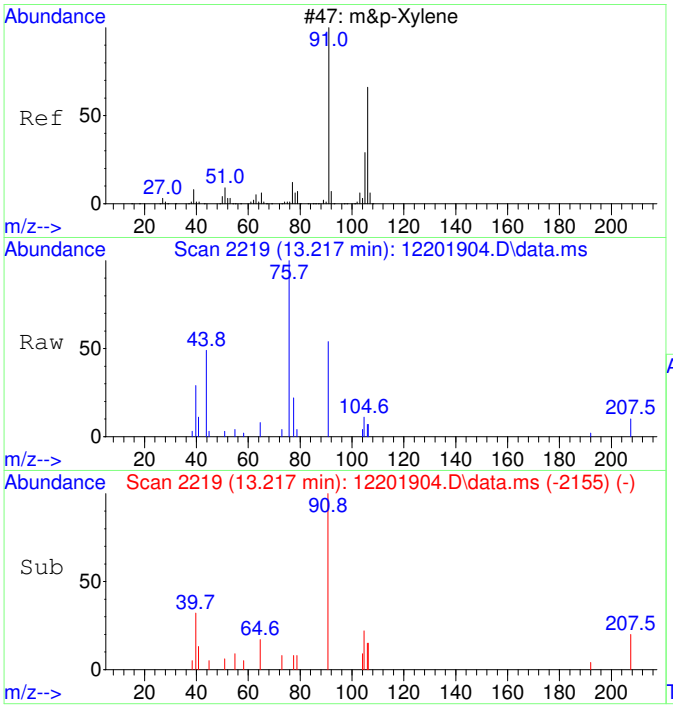


#42
Ethylbenzene SCAN
Concen: 81.16 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1932

Ion	Ratio	Lower	Upper
91	100		
106	21.4	1.3	61.3
51	27.1	0.0	39.4

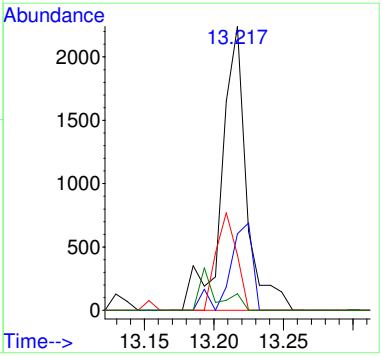


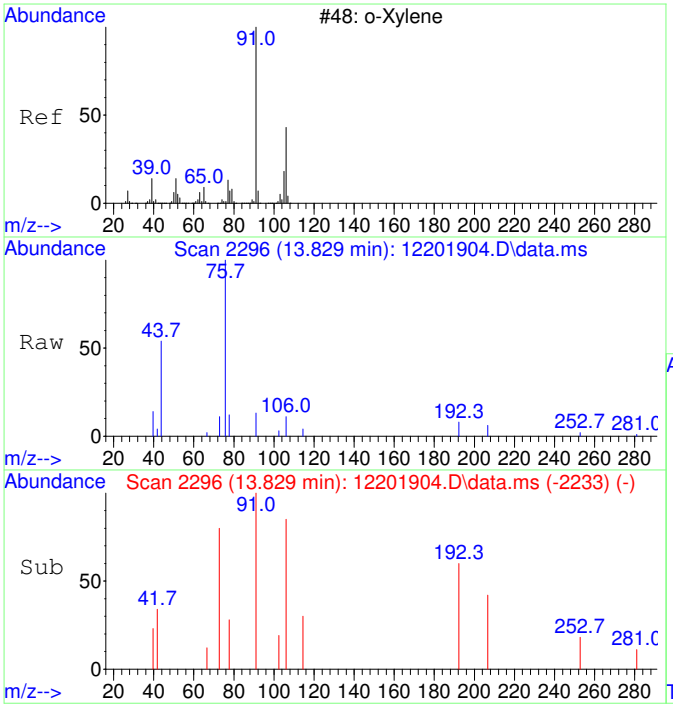


#43
m&p-Xylene SCAN
Concen: 78.30 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2795

Ion	Ratio	Lower	Upper
91	100		
106	28.1	19.0	79.0
105	28.4	0.0	54.9
51	0.0	0.0	41.2

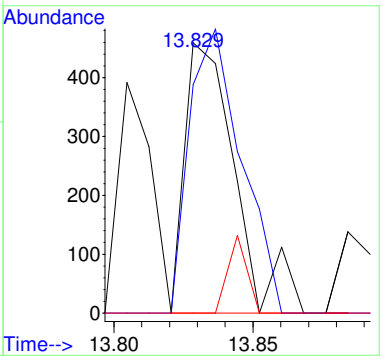


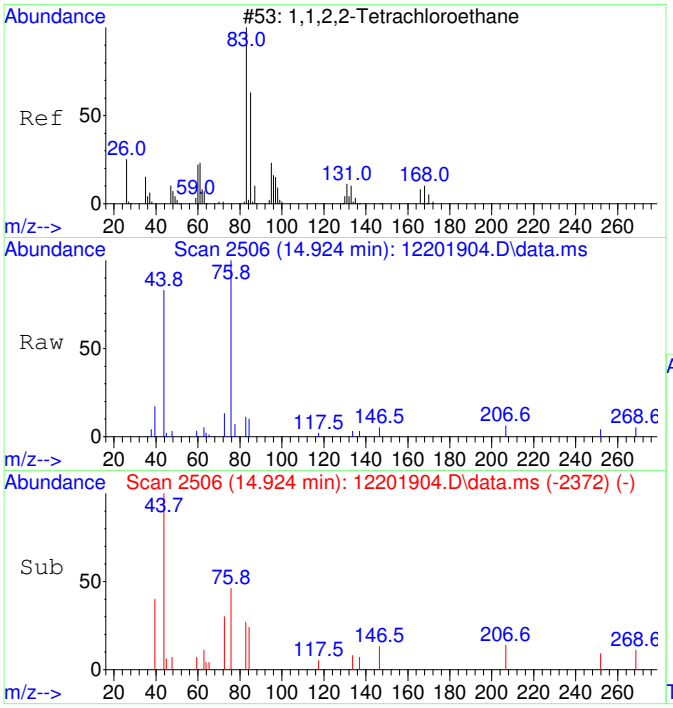


#44
o-Xylene SCAN
Concen: 28.71 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 581

Ion	Ratio	Lower	Upper
91	100		
106	108.4	17.2	77.2#
105	10.8	0.0	57.7

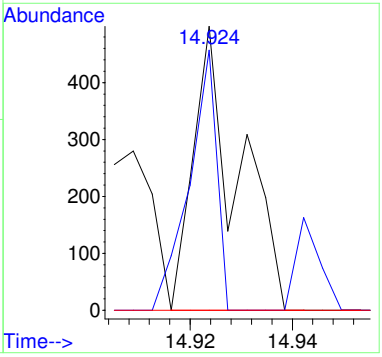


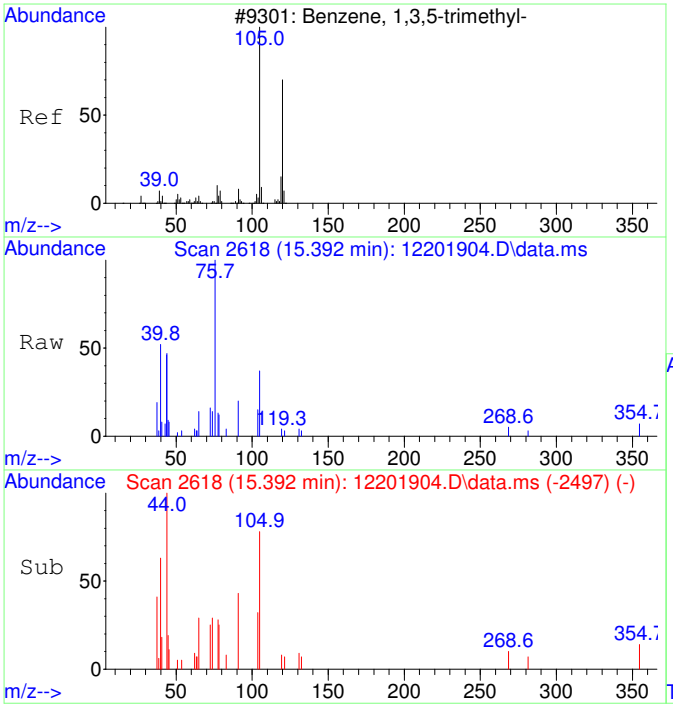


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 33.54 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 306

Ion	Ratio	Lower	Upper
83	100		
85	56.2	37.2	97.2
95	0.0	0.0	48.7

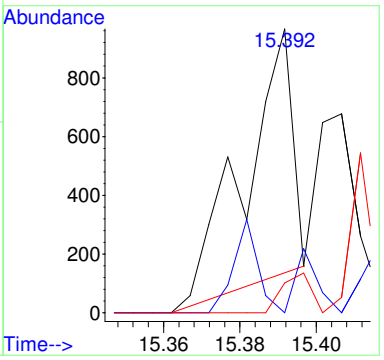


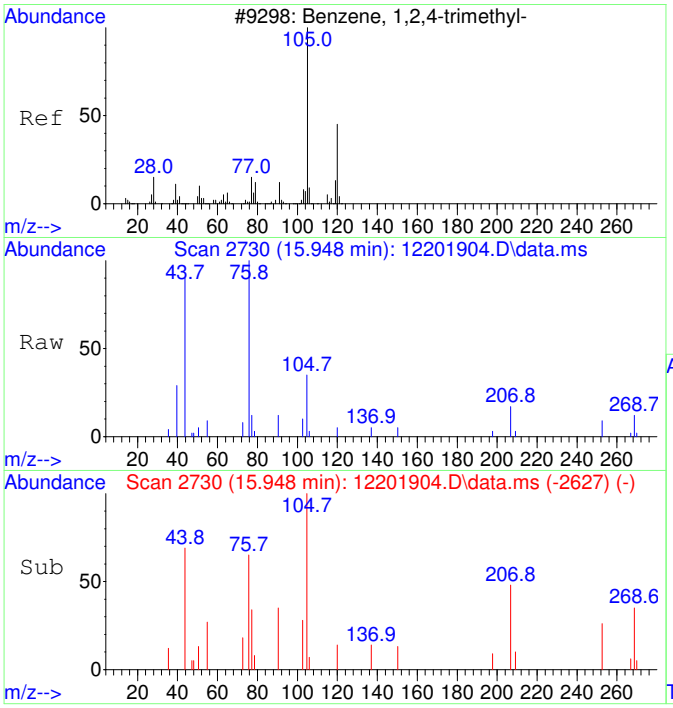


#46
1,3,5-Trimethylbenzene SCAN
Concen: 35.18 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 744

Ion	Ratio	Lower	Upper
105	100		
120	11.6	22.3	82.3#
119	0.0	0.0	43.8

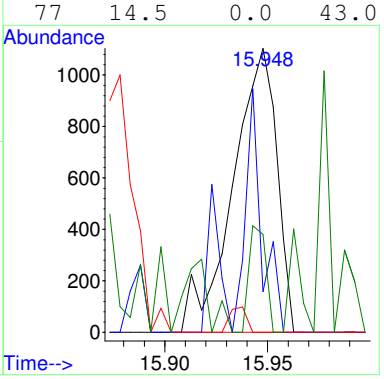


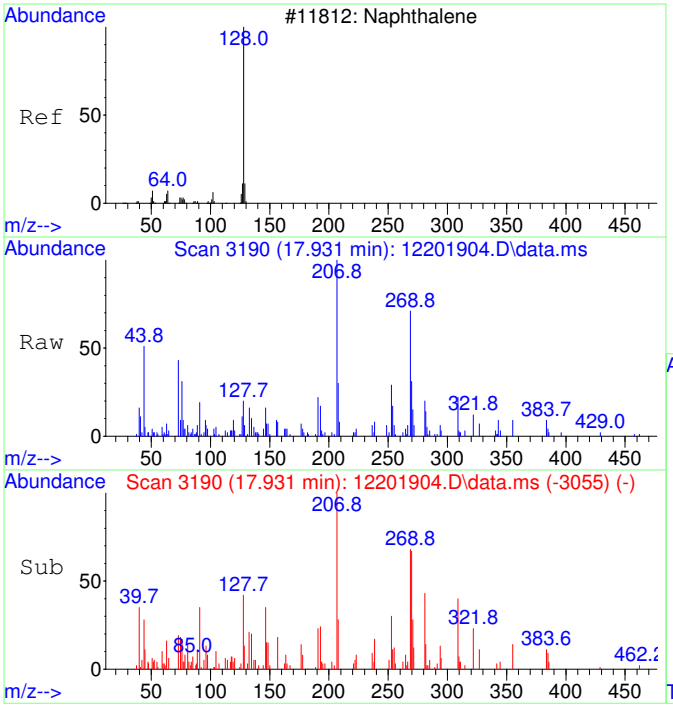


#47
1,2,4-Trimethylbenzene SCAN
Concen: 76.02 ug/L
RT: 15.948 min Scan# 2730
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1632

Ion	Ratio	Lower	Upper
105	100		
120	31.7	15.8	75.8
119	3.4	0.0	42.9
77	14.5	0.0	43.0

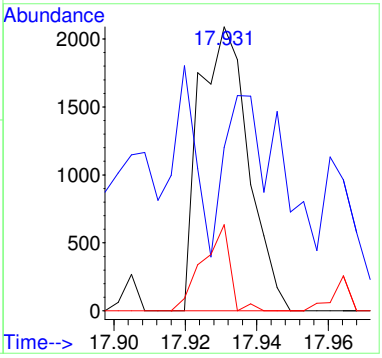




#48
Naphthalene SCAN
Concen: 57.87 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 2007

Ion	Ratio	Lower	Upper
128	100		
127	59.0	0.0	30.0#
129	17.0	0.0	34.5



B19L093-BLK1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201905.D
Acq On : 20 Dec 2019 12:01
InstName : AG5975C
Operator : TD
Sample : B19L093-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 20 12:19:50 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

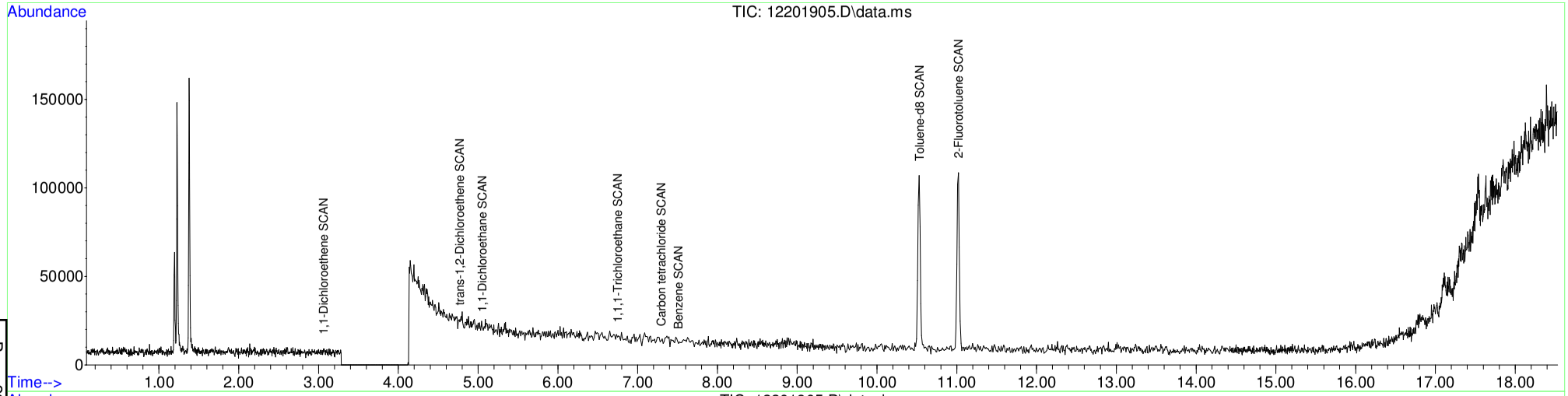
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	142677	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	119584	5218.95	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 104.38%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	11.021	109	84591	4778.77	ug/L	98
26) 1,1-Dichloroethene SCAN	3.062	61	94	24.23	ug/L #	24
27) trans-1,2-Dichloroethe...	4.766	61	182	49.52	ug/L #	18
28) 1,1-Dichloroethane SCAN	5.051	63	164	29.82	ug/L #	47
31) 1,1,1-Trichloroethane ...	6.748	97	164	30.33	ug/L #	29
32) Carbon tetrachloride SCAN	7.295	117	201	43.41	ug/L #	17
33) Benzene SCAN	7.514	78	1892	133.42	ug/L #	95
36) Toluene-d8 SCAN	10.528	98	80784	5382.49	ug/L	82

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201905.D
Acq On : 20 Dec 2019 12:01
InstName : AG5975C
Operator : TD
Sample : B19L093-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 20 12:19:50 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



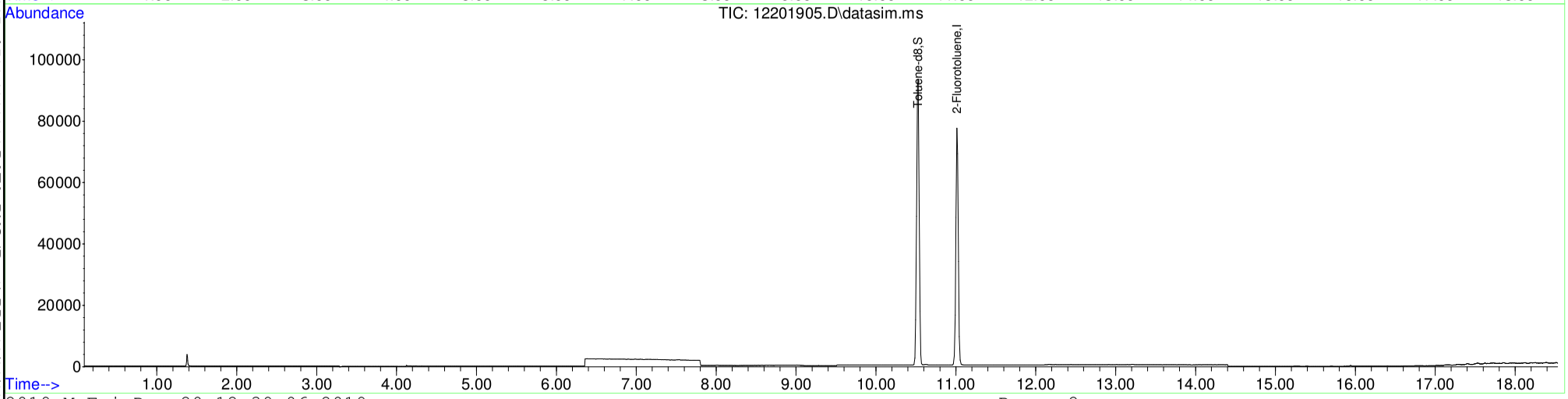
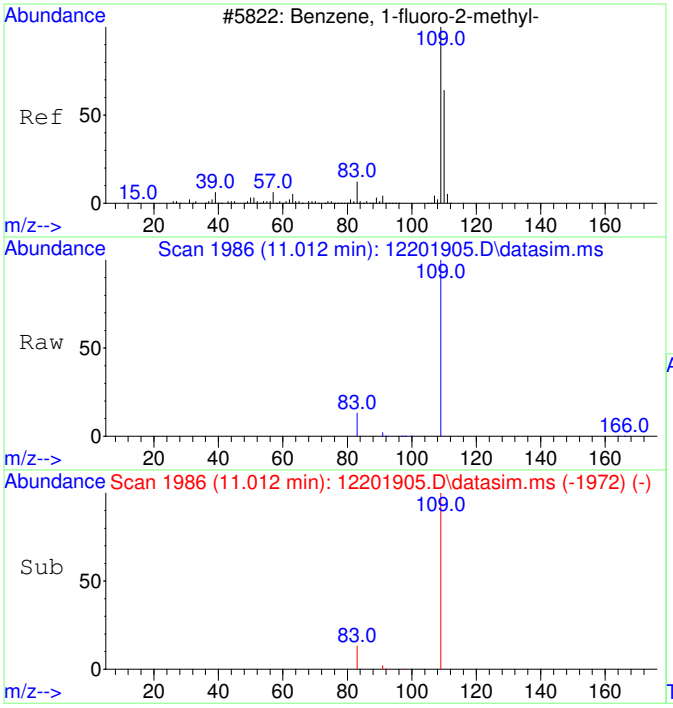


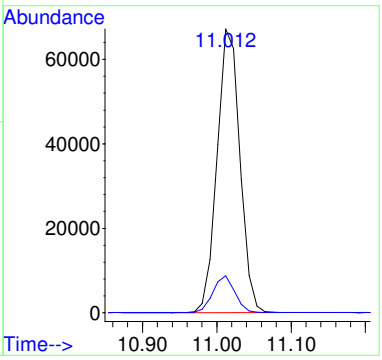
Table of Contents

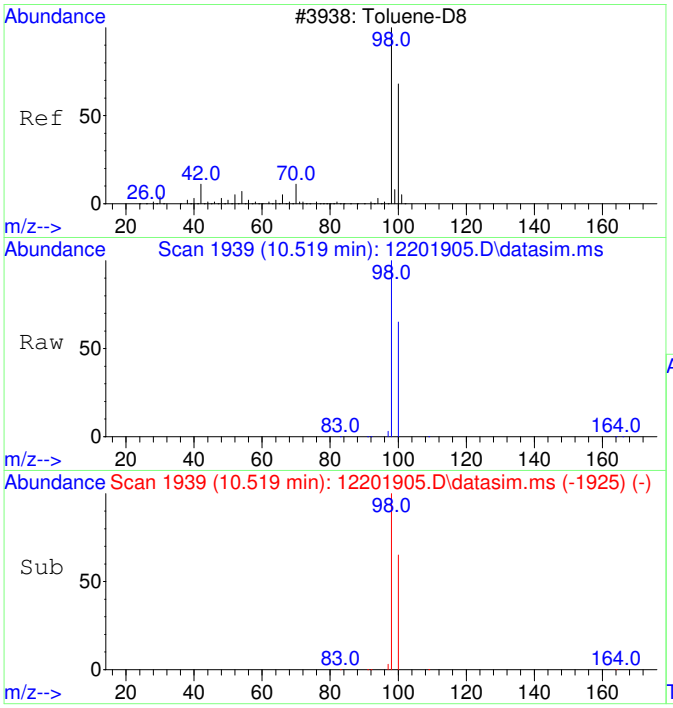


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. -0.000 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion:109 Resp: 142677

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

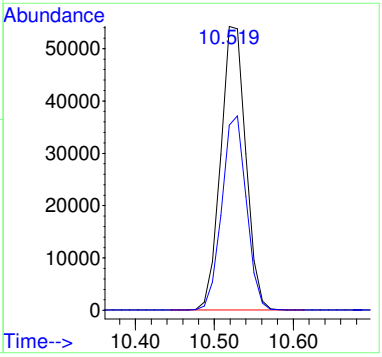


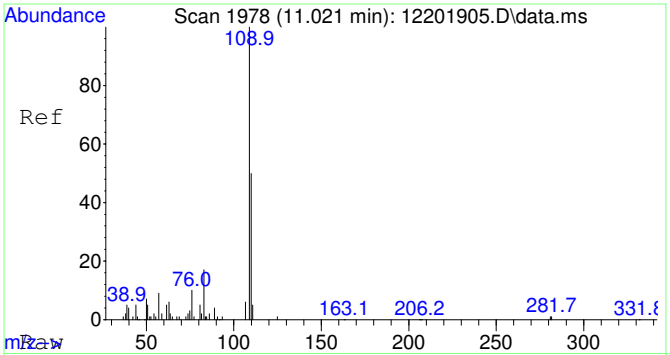


#12
Toluene-d8
Concen: 5218.95 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion: 98 Resp: 119584

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.2	96.2

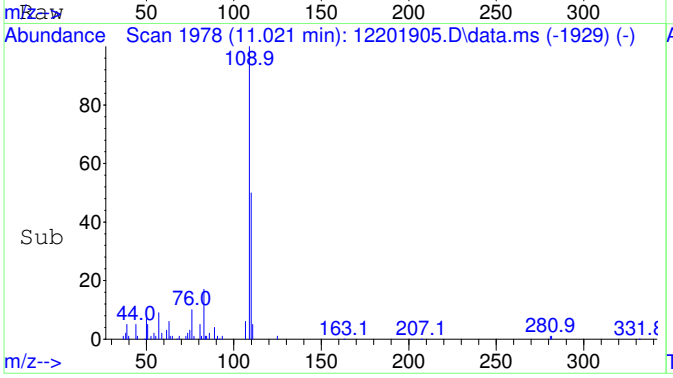


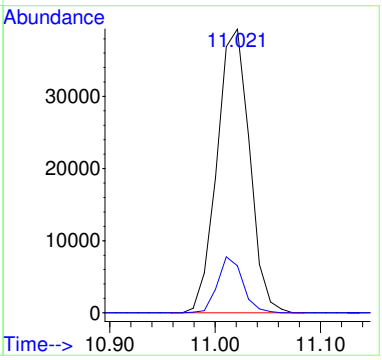


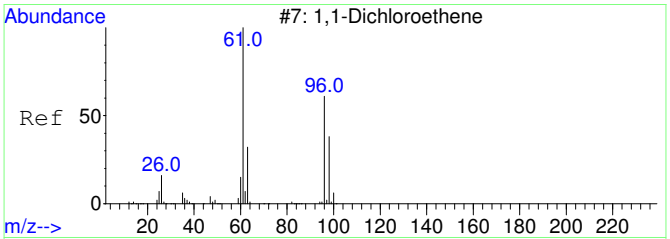
#25
2-Fluorotoluene SCAN
Concen: 4778.77 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion:109 Resp: 84591

Ion	Ratio	Lower	Upper
109	100		
83	15.3	0.0	44.7



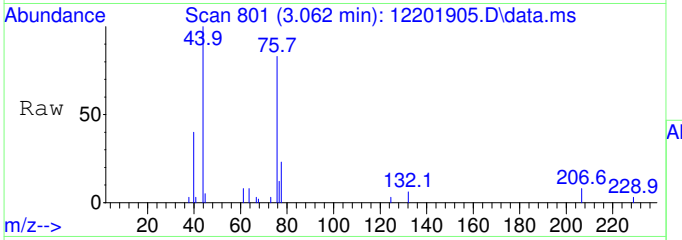


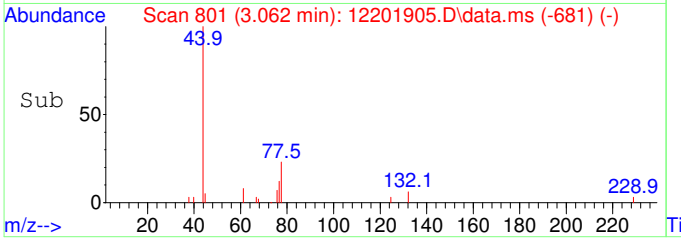


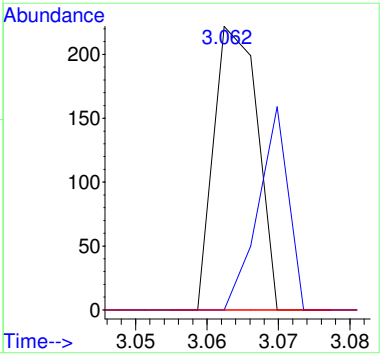
#26
1,1-Dichloroethene SCAN
Concen: 24.23 ug/L
RT: 3.062 min Scan# 801
Delta R.T. -0.056 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

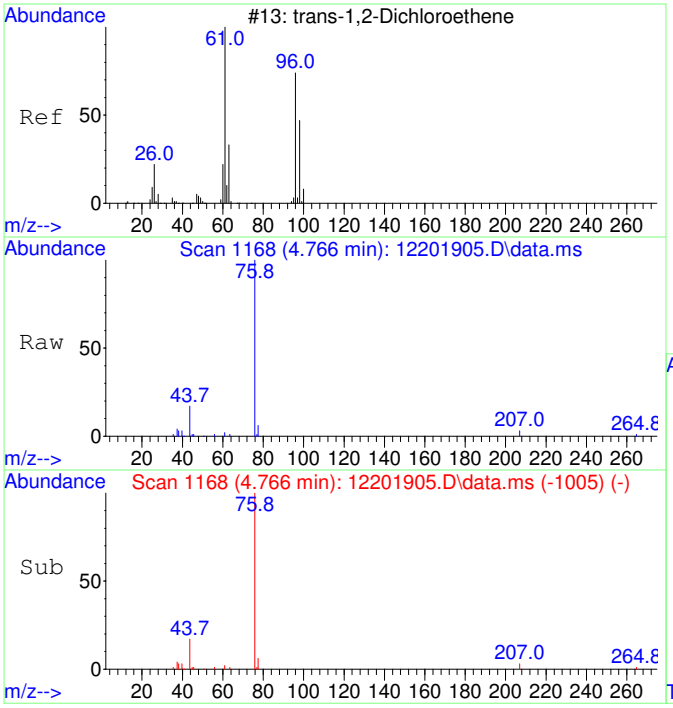
Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	0.0	34.8	94.8#
98	0.0	12.9	72.9#





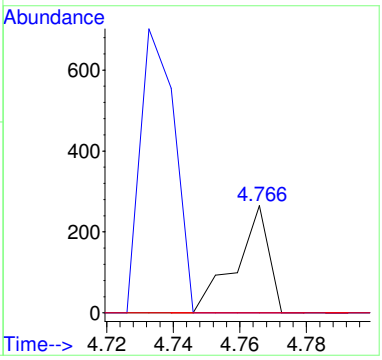


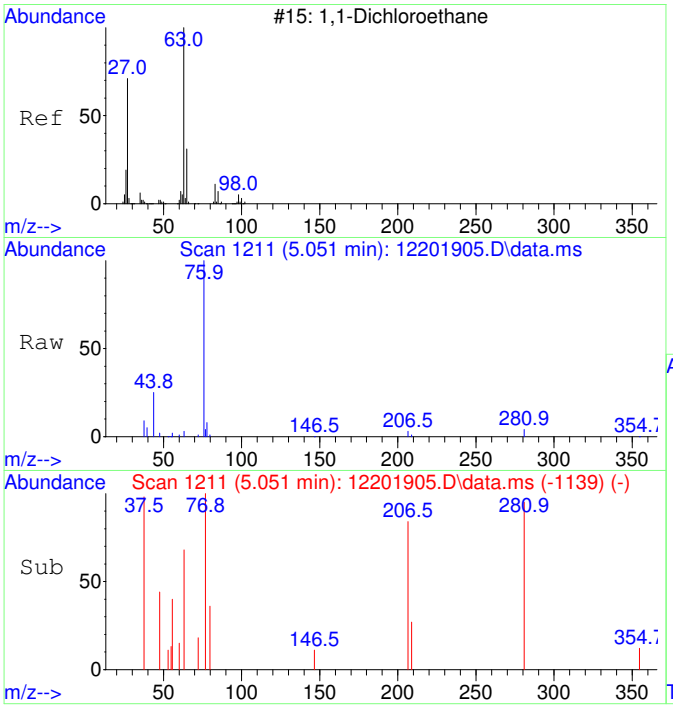


#27
trans-1,2-Dichloroethene SCAN
Concen: 49.52 ug/L
RT: 4.766 min Scan# 1168
Delta R.T. 0.444 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion: 61 Resp: 182

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.7	102.7#
98	0.0	23.4	83.4#

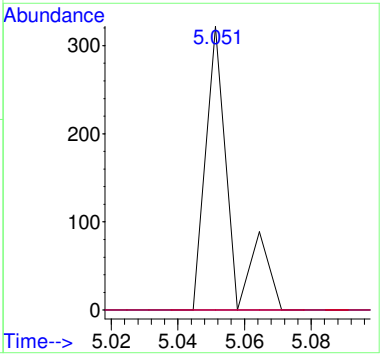


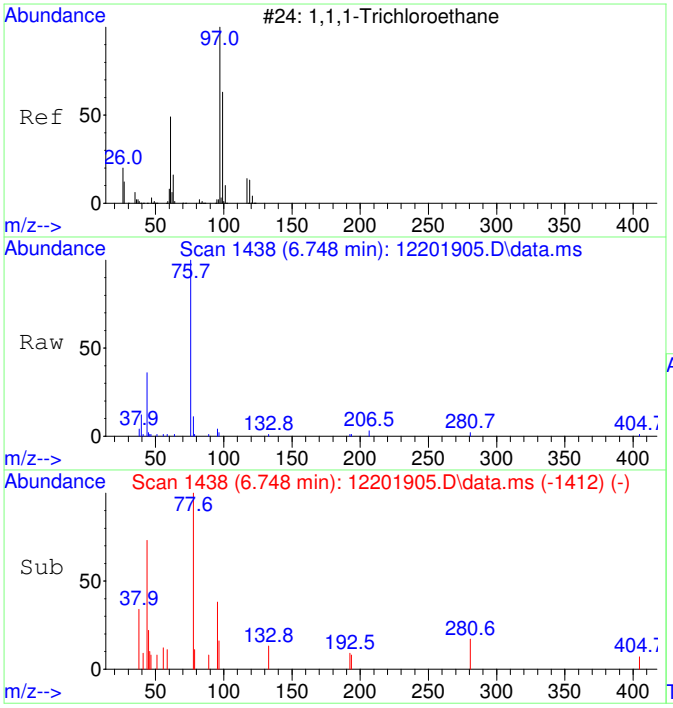


#28
1,1-Dichloroethane SCAN
Concen: 29.82 ug/L
RT: 5.051 min Scan# 1211
Delta R.T. -0.020 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion: 63 Resp: 164

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

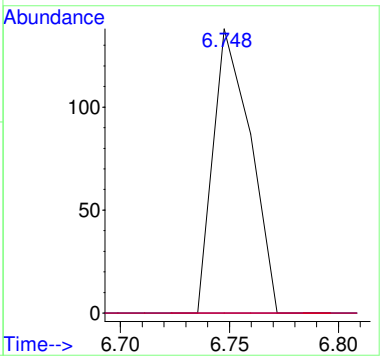


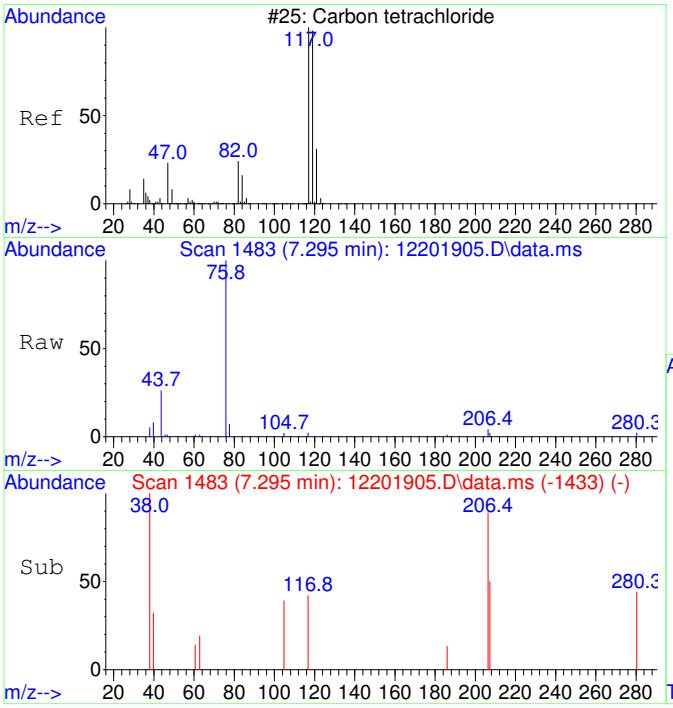


#31
1,1,1-Trichloroethane SCAN
Concen: 30.33 ug/L
RT: 6.748 min Scan# 1438
Delta R.T. -0.183 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion: 97 Resp: 164

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

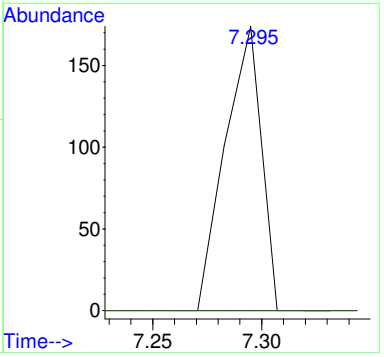


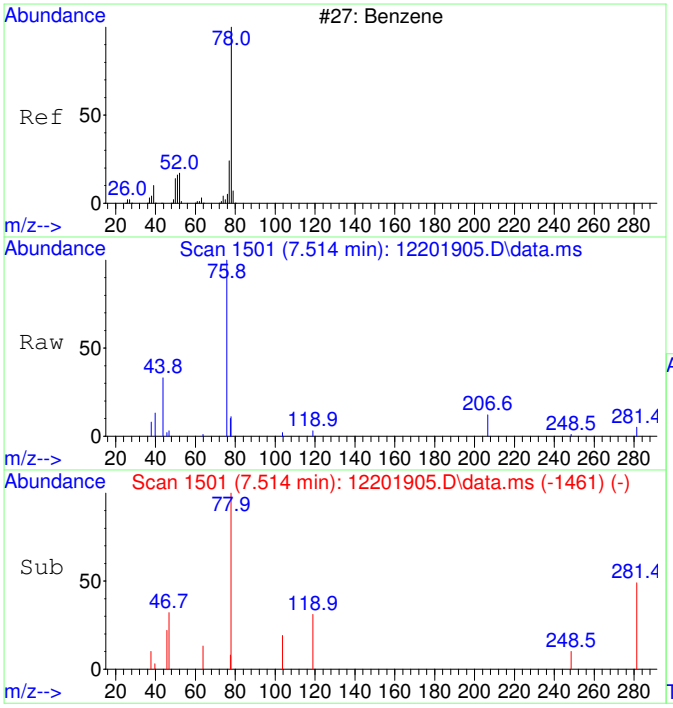


#32
Carbon tetrachloride SCAN
Concen: 43.41 ug/L
RT: 7.295 min Scan# 1483
Delta R.T. 0.109 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion:117 Resp: 201

Ion	Ratio	Lower	Upper
117	100		
119	0.0	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

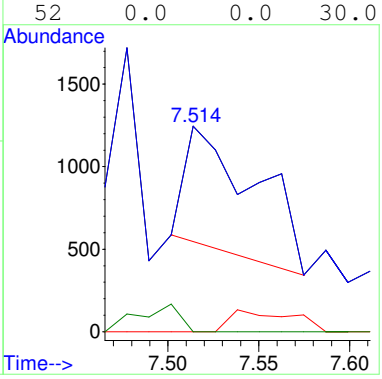


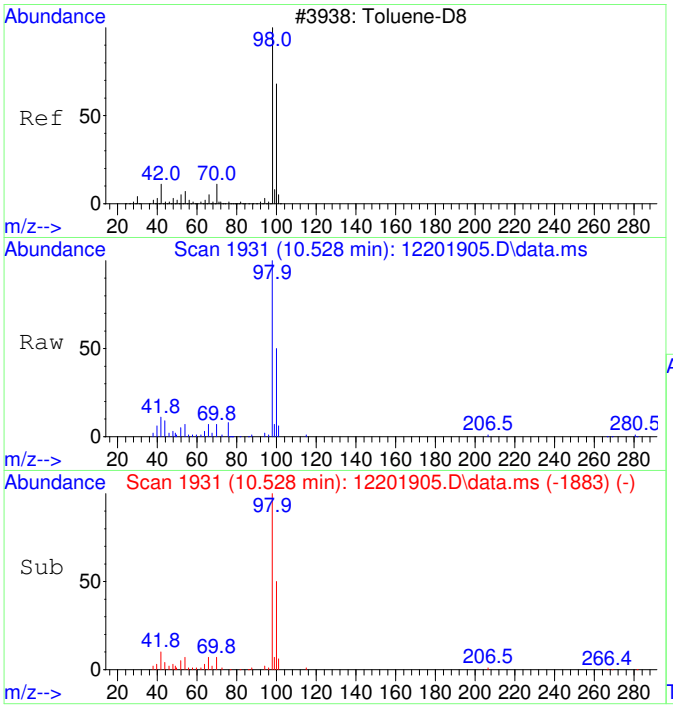


#33
Benzene SCAN
Concen: 133.42 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion: 78 Resp: 1892

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	0.0	0.0	30.0

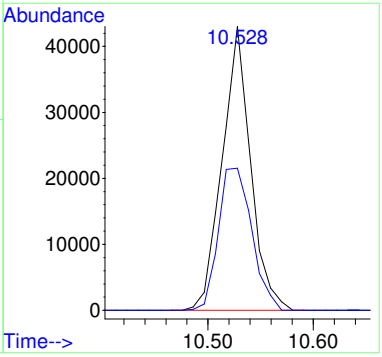




#36
Toluene-d8 SCAN
Concen: 5382.49 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201905.D
Acq: 20 Dec 2019 12:01

Tgt Ion: 98 Resp: 80784

Ion	Ratio	Lower	Upper
98	100		
100	59.0	44.4	104.4



B19L093-BS1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201906.D
Acq On : 20 Dec 2019 12:24
InstName : AG5975C
Operator : TD
Sample : B19L093-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 20 15:03:46 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

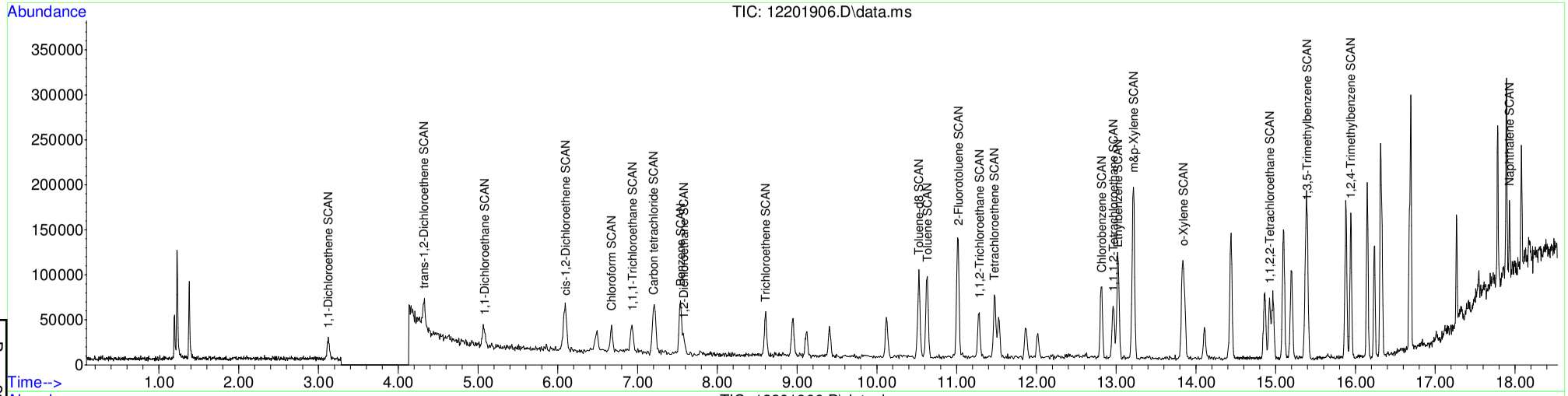
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	131717	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.529	98	111172	5255.54 ug/L	0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 105.11%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.123	61	23181	4112.79 ug/L	100
3] trans-1,2-Dichloroethene	4.316	61	24400	4221.00 ug/L	100
4] 1,1-Dichloroethane	5.073	63	31967	4350.05 ug/L	100
5] cis-1,2-Dichloroethene	6.094	61	30311	4485.46 ug/L	100
6] Chloroform	6.664	83	35093	4496.44 ug/L	99
7] 1,1,1-Trichloroethane	6.932	97	35832	4580.63 ug/L	100
8] Carbon tetrachloride	7.199	117	32760	4413.45 ug/L	100
9] Benzene	7.528	78	89362	4542.75 ug/L	100
10] 1,2-Dichloroethane	7.564	62	29248	4529.86 ug/L	99
11] Trichloroethene	8.602	130	27495	4555.87 ug/L	99
13] Toluene	10.624	91	120719	4704.10 ug/L	100
14] 1,1,2-Trichloroethane	11.275	97	26382	4537.09 ug/L	99
15] Tetrachloroethene	11.474	166	35074	4528.96 ug/L	99
16] Chlorobenzene	12.813	112	87650	4473.30 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.964	131	31719	4638.63 ug/L	100
18] Ethylbenzene	13.020	91	155530	4911.73 ug/L	99
19] m&p-Xylene	13.210	91	229355	9505.70 ug/L	100
20] o-Xylene	13.830	91	116714	4561.54 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.925	83	50719	4414.56 ug/L	99
22] 1,3,5-Trimethylbenzene	15.393	105	140082	4913.32 ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	134220	4606.35 ug/L	99
24] Naphthalene	17.932	128	61896	1175.85 ug/L	99
25) 2-Fluorotoluene SCAN	11.021	109	87652	5363.72 ug/L	100
26) 1,1-Dichloroethene SCAN	3.118	61	17145	4787.68 ug/L	92
27) trans-1,2-Dichloroethe...	4.322	61	18285	5389.38 ug/L	93
28) 1,1-Dichloroethane SCAN	5.078	63	22602	4451.72 ug/L	84
29) cis-1,2-Dichloroethene...	6.100	61	22122	5439.90 ug/L	92
30) Chloroform SCAN	6.675	83	24665	5680.25 ug/L	89
31) 1,1,1-Trichloroethane ...	6.930	97	25797	5167.93 ug/L	78
32) Carbon tetrachloride SCAN	7.198	117	20843	4875.72 ug/L	91
33) Benzene SCAN	7.538	78	63978	4886.83 ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	18171	4069.57 ug/L	97
35) Trichloroethene SCAN	8.601	130	19353	5788.42 ug/L	81
36) Toluene-d8 SCAN	10.528	98	73840	5329.19 ug/L	88
37) Toluene SCAN	10.633	91	87085	5381.17 ug/L	92
38) 1,1,2-Trichloroethane ...	11.284	97	16755	4759.27 ug/L	88
39) Tetrachloroethene SCAN	11.473	166	21906	4669.96 ug/L	93
40) Chlorobenzene SCAN	12.820	112	55420	4298.00 ug/L	95
41) 1,1,1,2-Tetrachloroeth...	12.963	131	21371	5137.82 ug/L	92
42) Ethylbenzene SCAN	13.026	91	100415	4910.88 ug/L	99
43) m&p-Xylene SCAN	13.217	91	142812	4657.47 ug/L	97
44) o-Xylene SCAN	13.837	91	70995	4084.09 ug/L	92
45) 1,1,2,2-Tetrachloroeth...	14.924	83	36356	4639.19 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.397	105	87914	4839.58 ug/L	97
47) 1,2,4-Trimethylbenzene...	15.943	105	84422	4578.31 ug/L	97
48) Naphthalene SCAN	17.931	128	36254	1216.90 ug/L	81

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201906.D
Acq On : 20 Dec 2019 12:24
InstName : AG5975C
Operator : TD
Sample : B19L093-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 20 15:03:46 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



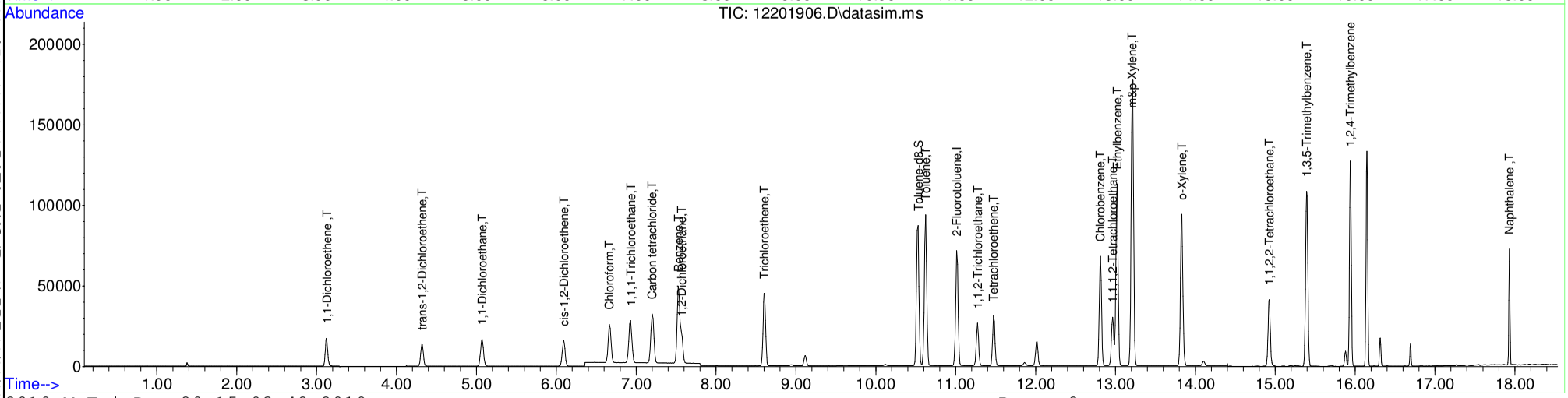
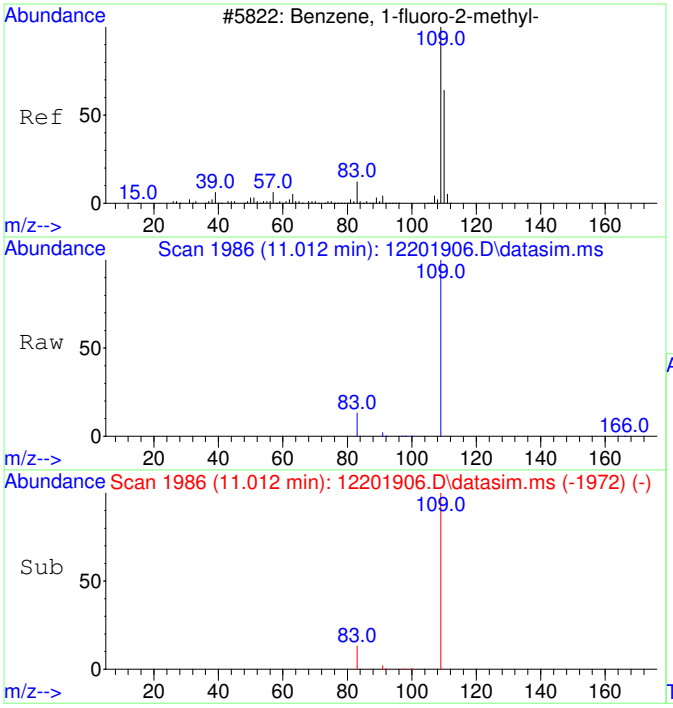


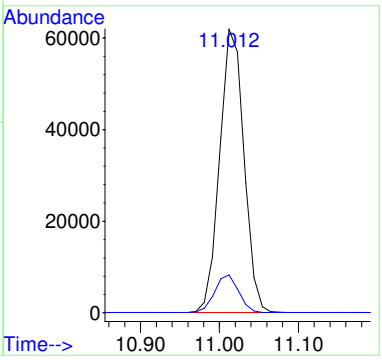
Table of Contents

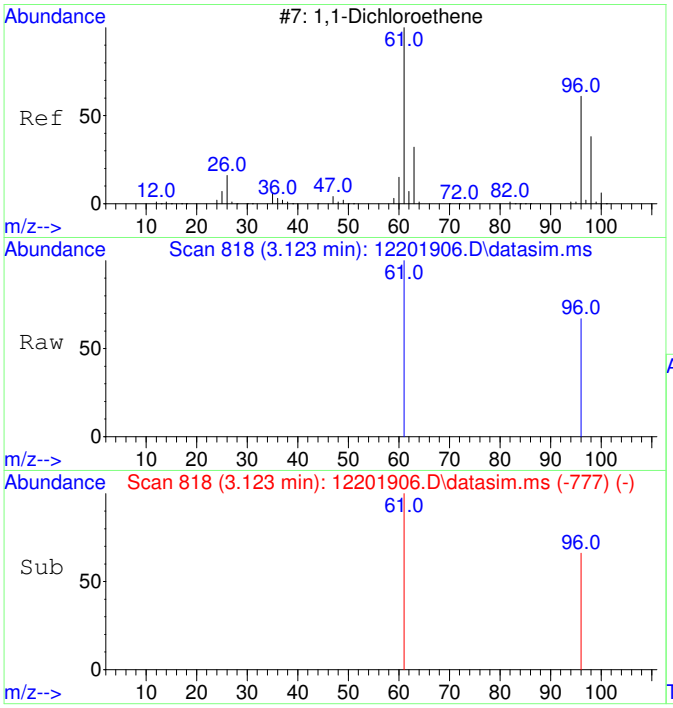


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:109 Resp: 131717

Ion	Ratio	Lower	Upper
109	100		
83	13.2	0.0	43.3

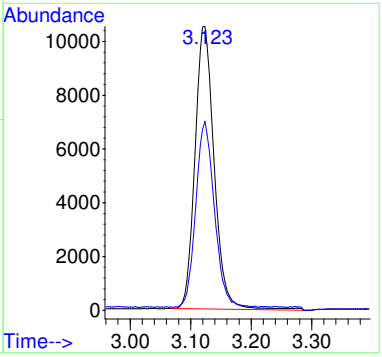


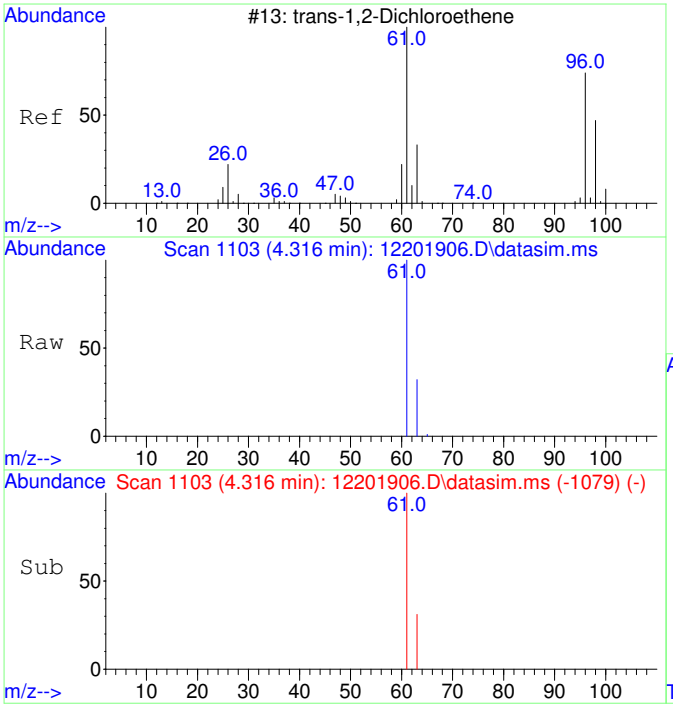


#2
1,1-Dichloroethene
Concen: 4112.79 ug/L
RT: 3.123 min Scan# 818
Delta R.T. 0.004 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 61 Resp: 23181

Ion	Ratio	Lower	Upper
61	100		
96	63.1	33.5	93.5

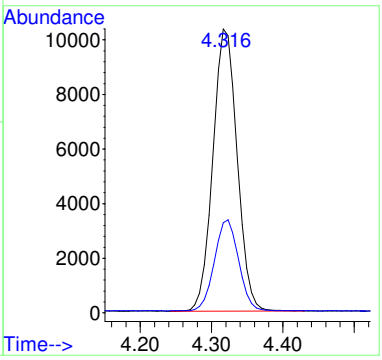


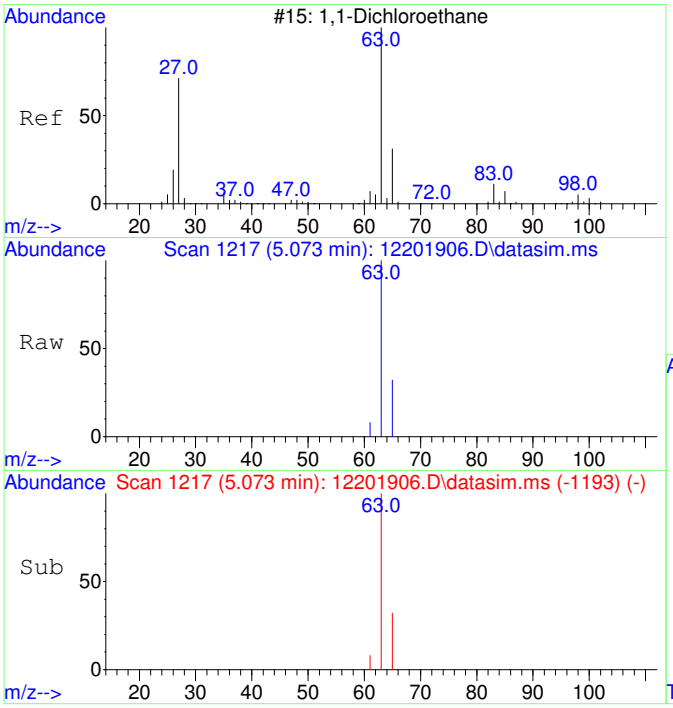


#3
trans-1,2-Dichloroethene
Concen: 4221.00 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.007 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 61 Resp: 24400

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.3	62.3

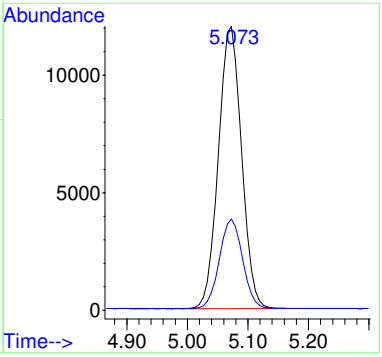


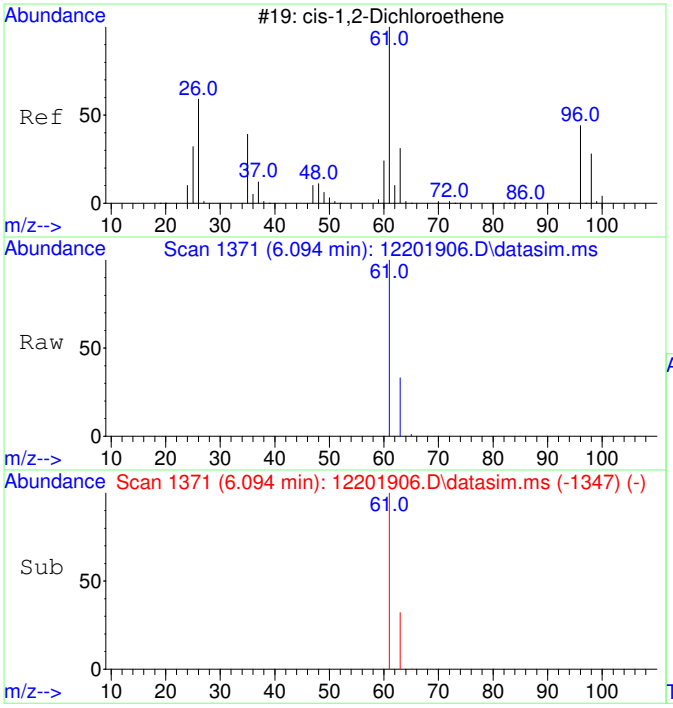


#4
1,1-Dichloroethane
Concen: 4350.05 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. 0.007 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 63 Resp: 31967

Ion	Ratio	Lower	Upper
63	100		
65	31.7	1.9	61.9

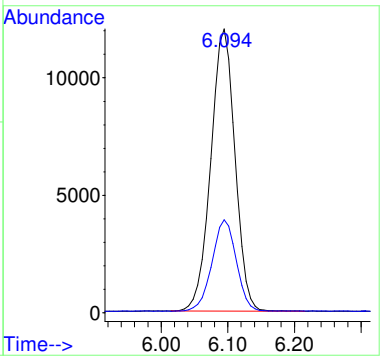


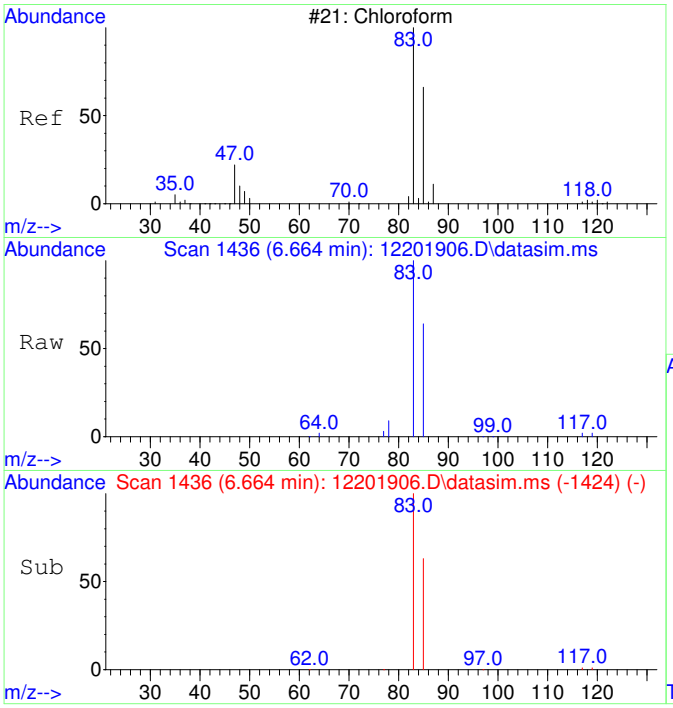


#5
cis-1,2-Dichloroethene
Concen: 4485.46 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 61 Resp: 30311

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.5	62.5

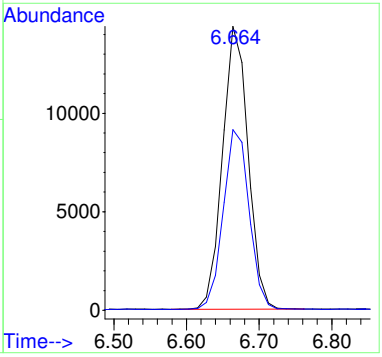


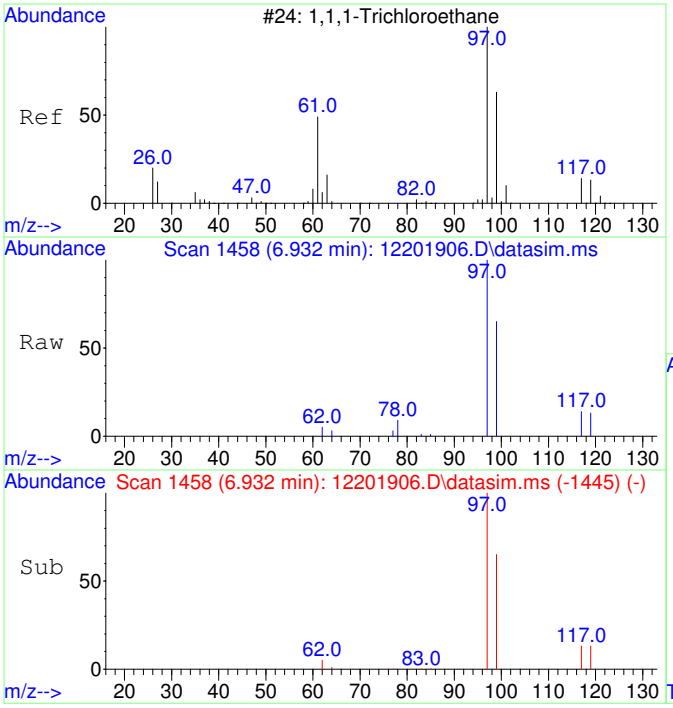


#6
Chloroform
Concen: 4496.44 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 83 Resp: 35093

Ion	Ratio	Lower	Upper
83	100		
85	64.4	35.0	95.0

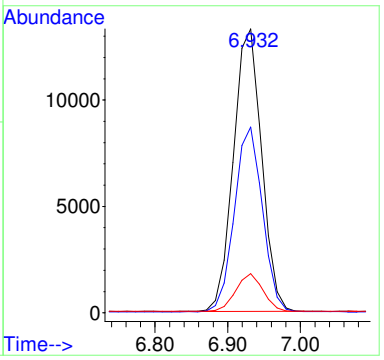


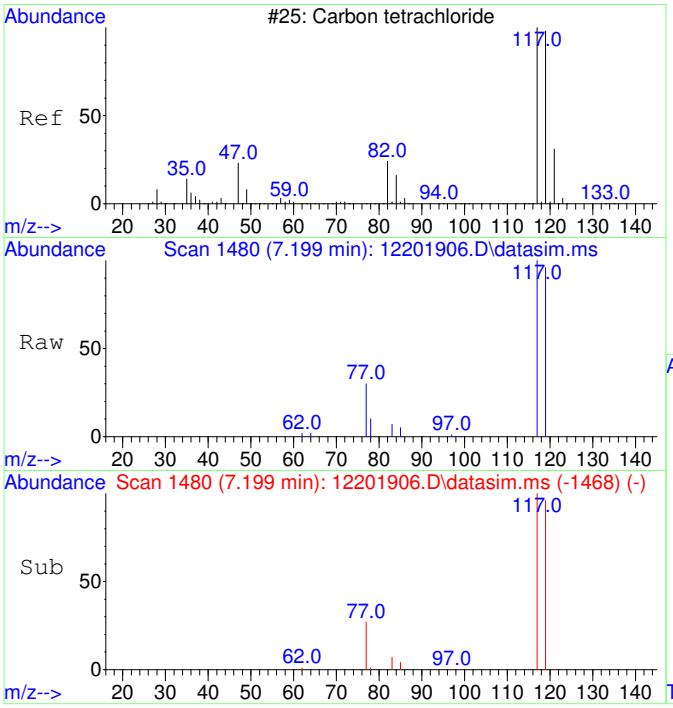


#7
1,1,1-Trichloroethane
Concen: 4580.63 ug/L
RT: 6.932 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 97 Resp: 35832

Ion	Ratio	Lower	Upper
97	100		
99	64.8	34.4	94.4
117	12.9	0.0	43.0

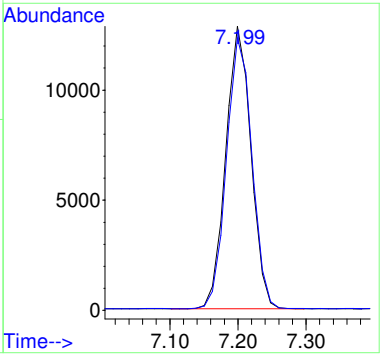


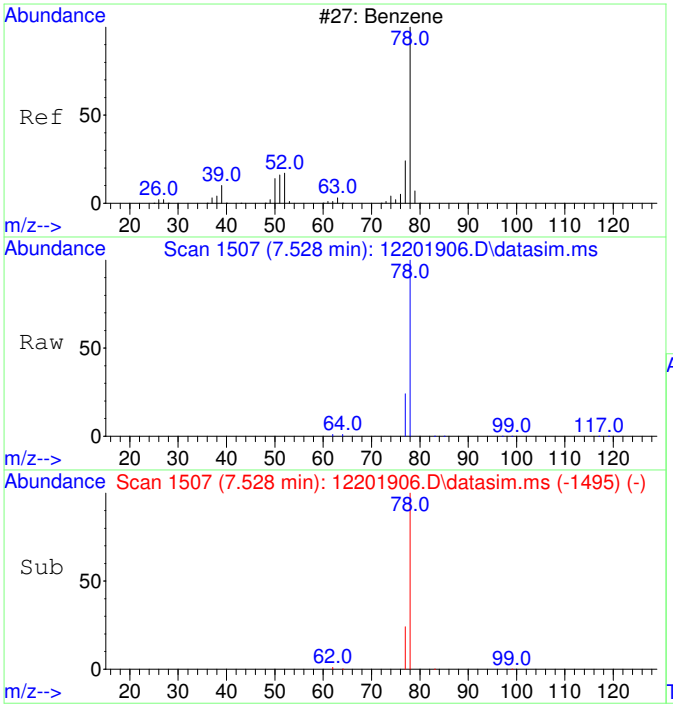


#8
Carbon tetrachloride
Concen: 4413.45 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:117 Resp: 32760

Ion	Ratio	Lower	Upper
117	100		
119	96.9	66.5	126.5

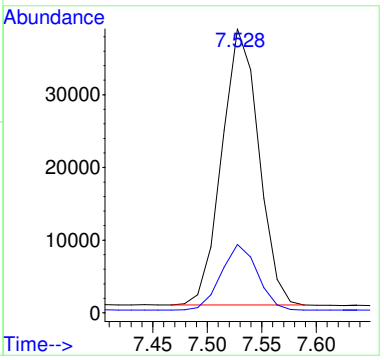


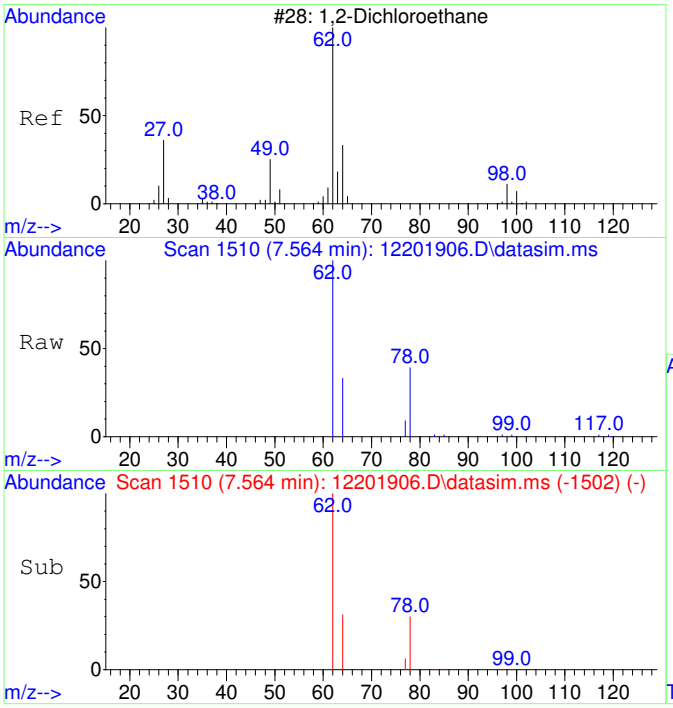


#9
Benzene
Concen: 4542.75 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 78 Resp: 89362

Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	53.5

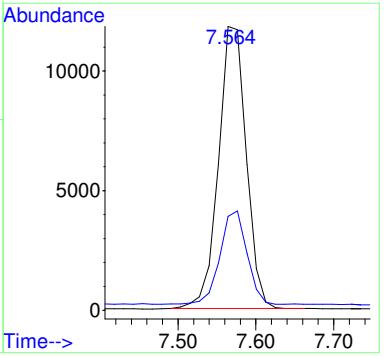


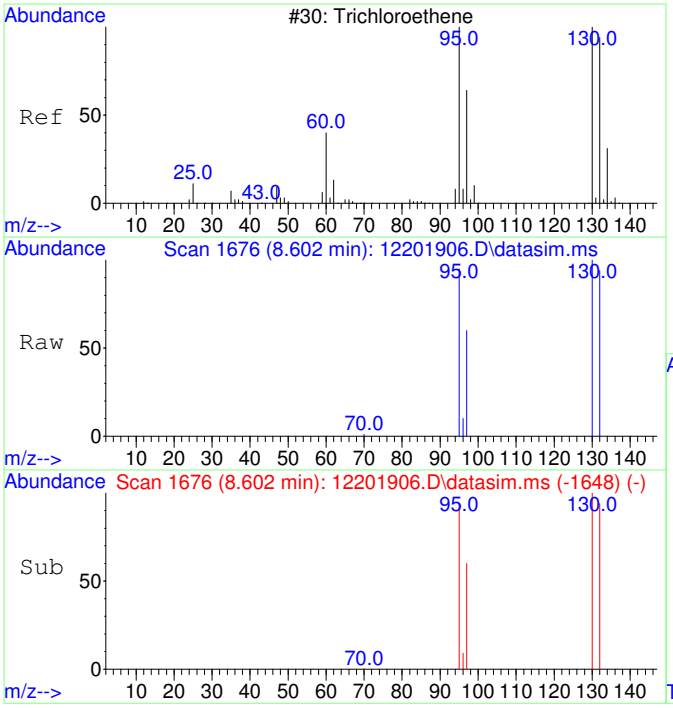


#10
1,2-Dichloroethane
Concen: 4529.86 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 62 Resp: 29248

Ion	Ratio	Lower	Upper
62	100		
64	31.9	2.4	62.4

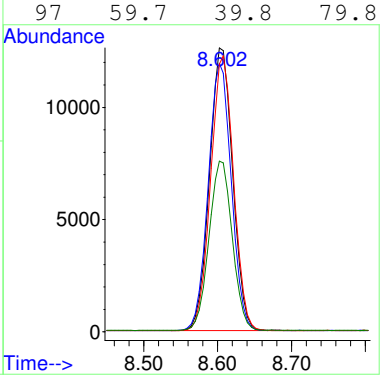


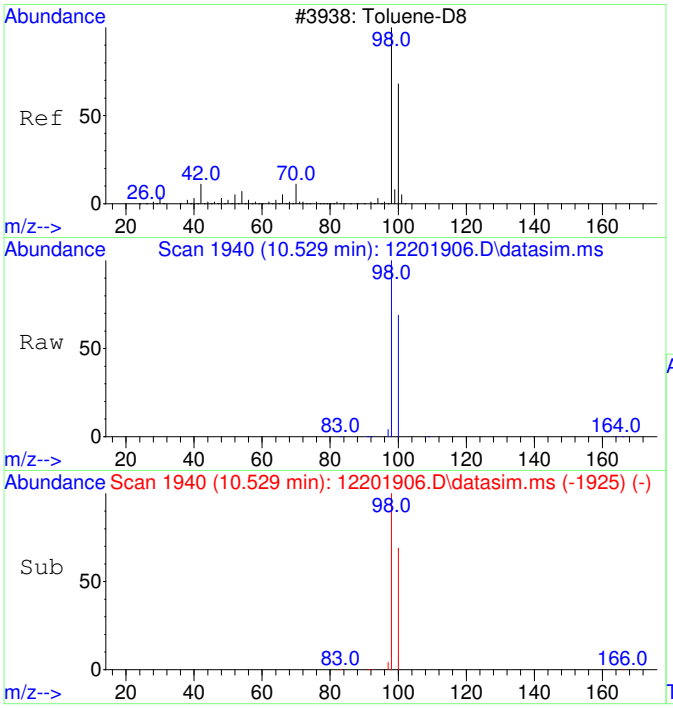


#11
Trichloroethene
Concen: 4555.87 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:130 Resp: 27495

Ion	Ratio	Lower	Upper
130	100		
95	93.8	62.3	122.3
132	96.1	75.8	115.8
97	59.7	39.8	79.8

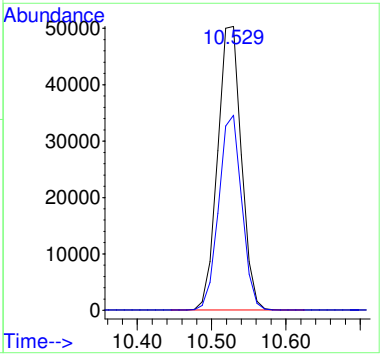


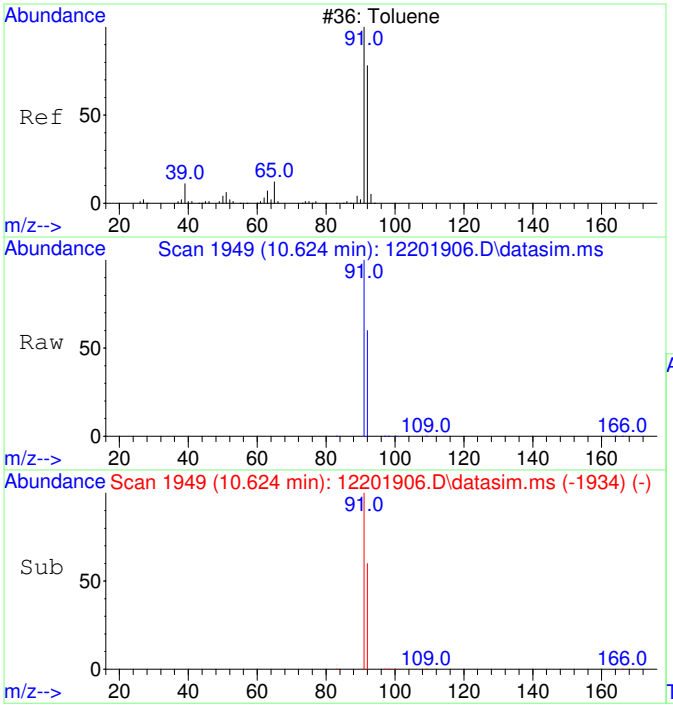


#12
Toluene-d8
Concen: 5255.54 ug/L
RT: 10.529 min Scan# 1940
Delta R.T. 0.011 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 98 Resp: 111172

Ion	Ratio	Lower	Upper
98	100		
100	66.8	36.2	96.2

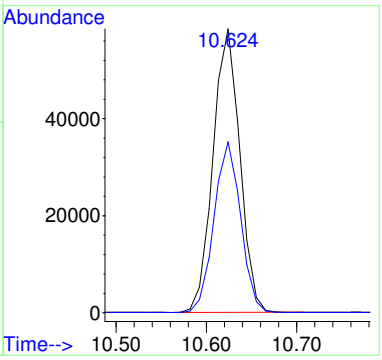


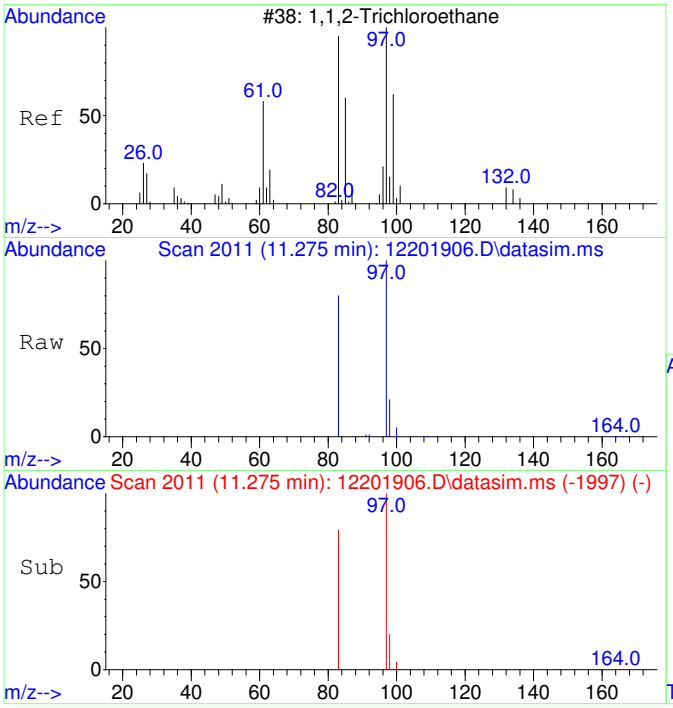


#13
Toluene
Concen: 4704.10 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.011 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 120719

Ion	Ratio	Lower	Upper
91	100		
92	59.7	29.4	89.4

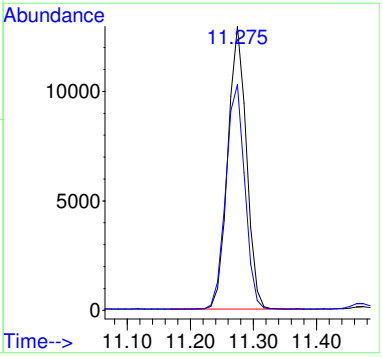


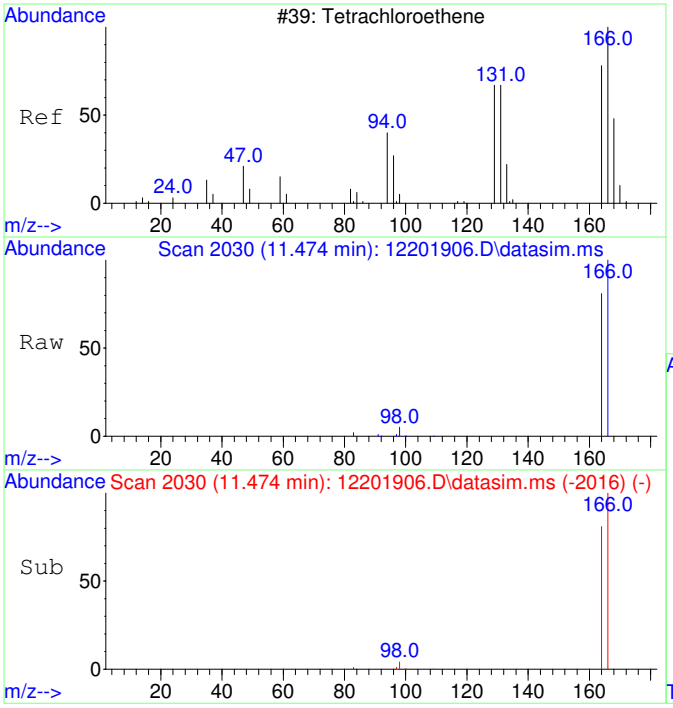


#14
1,1,2-Trichloroethane
Concen: 4537.09 ug/L
RT: 11.275 min Scan# 2011
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 97 Resp: 26382

Ion	Ratio	Lower	Upper
97	100		
83	81.2	52.5	112.5

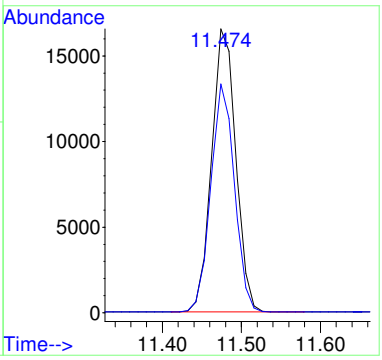


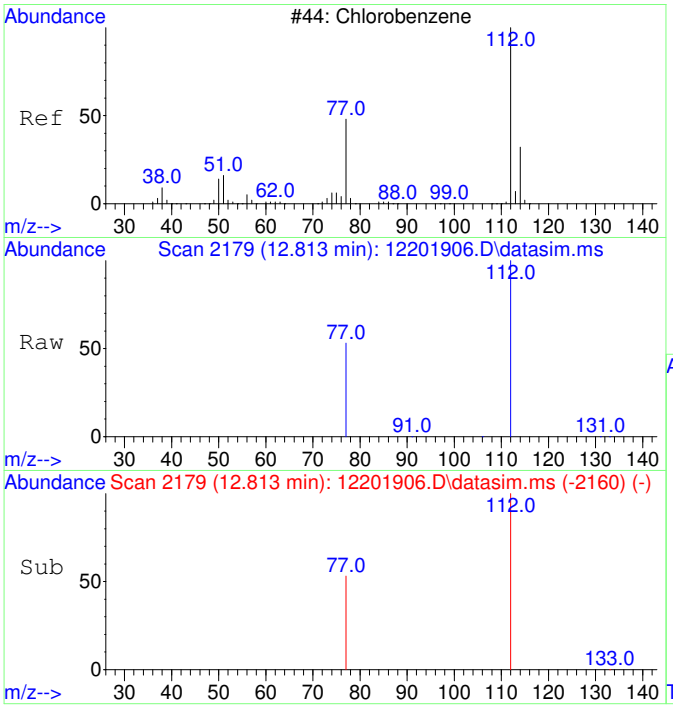


#15
Tetrachloroethene
Concen: 4528.96 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:166 Resp: 35074

Ion	Ratio	Lower	Upper
166	100		
164	78.8	47.6	107.6

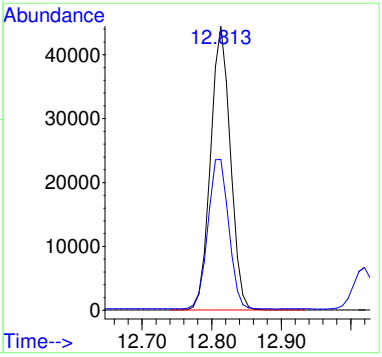


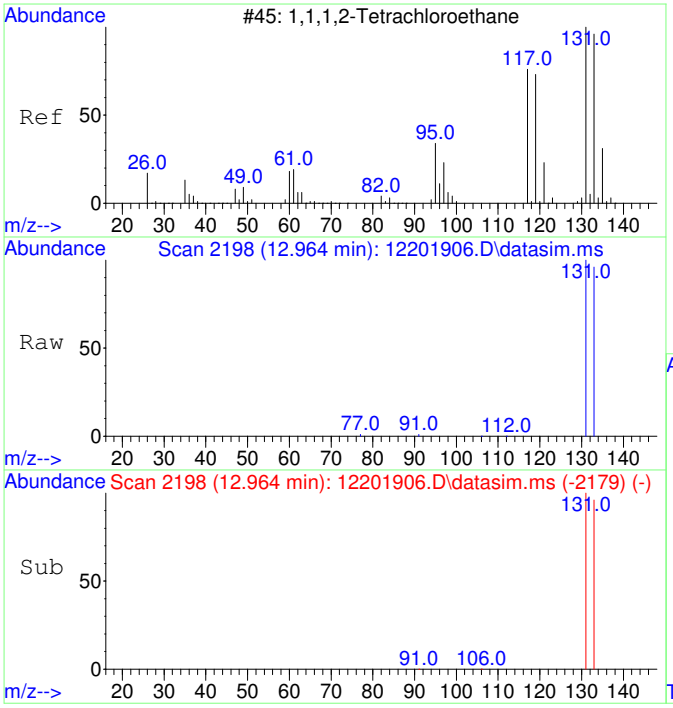


#16
Chlorobenzene
Concen: 4473.30 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:112 Resp: 87650

Ion	Ratio	Lower	Upper
112	100		
77	55.5	24.2	84.2

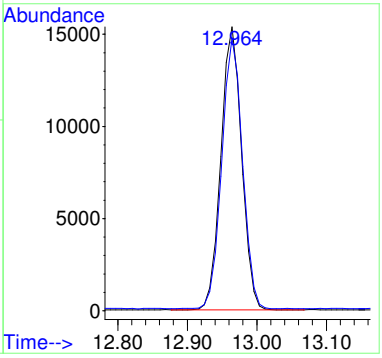


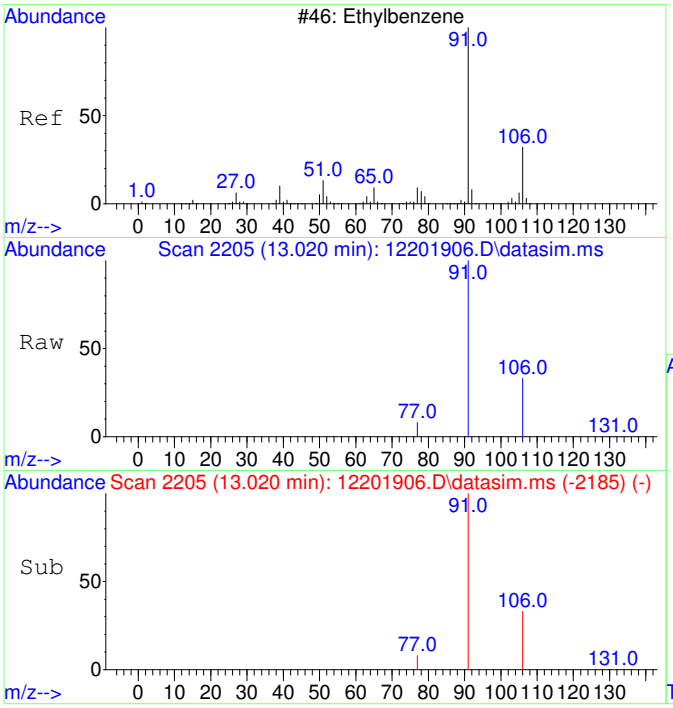


#17
1,1,1,2-Tetrachloroethane
Concen: 4638.63 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:131 Resp: 31719

Ion	Ratio	Lower	Upper
131	100		
133	95.6	66.0	126.0

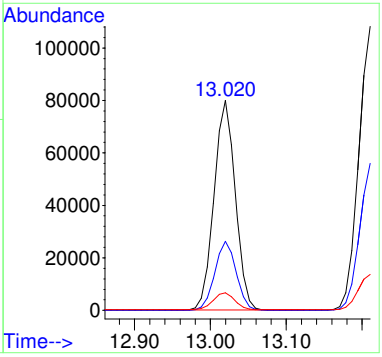


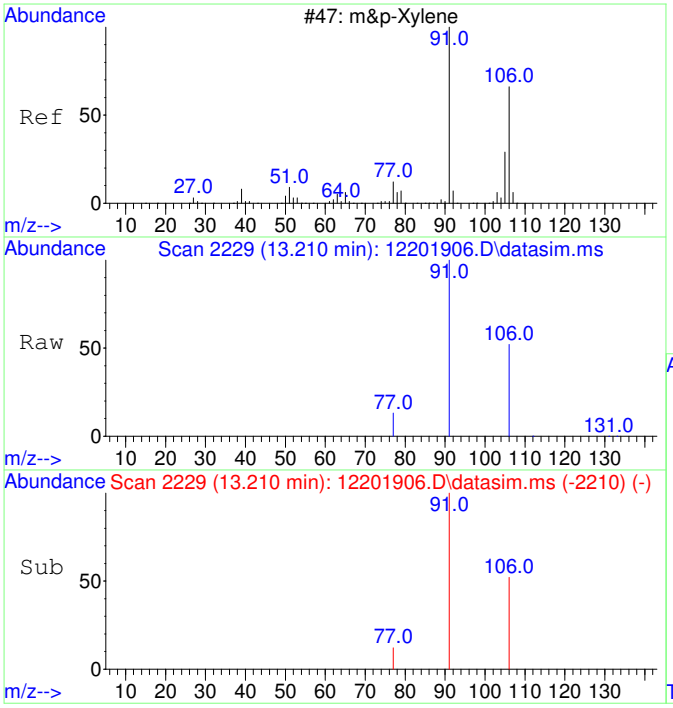


#18
Ethylbenzene
Concen: 4911.73 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 155530

Ion	Ratio	Lower	Upper
91	100		
106	32.9	2.5	62.5
77	8.3	0.0	38.2

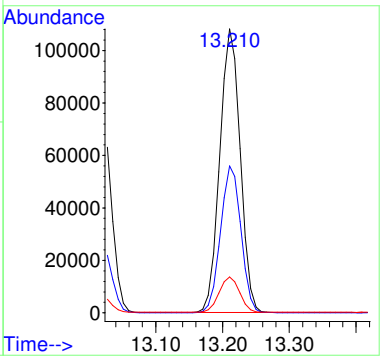


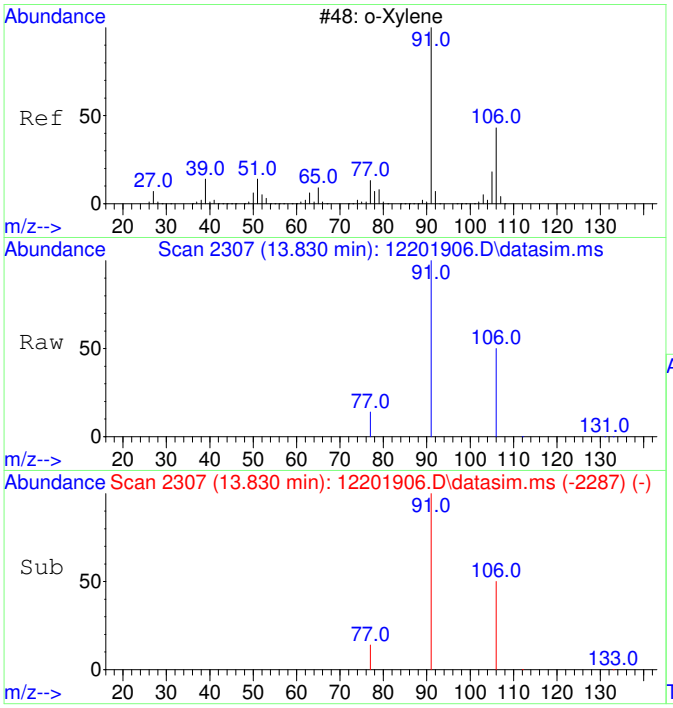


#19
m&p-Xylene
Concen: 9505.70 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 229355

Ion	Ratio	Lower	Upper
91	100		
106	51.7	21.6	81.6
77	12.5	0.0	42.6

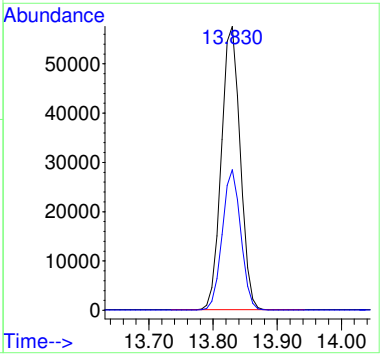


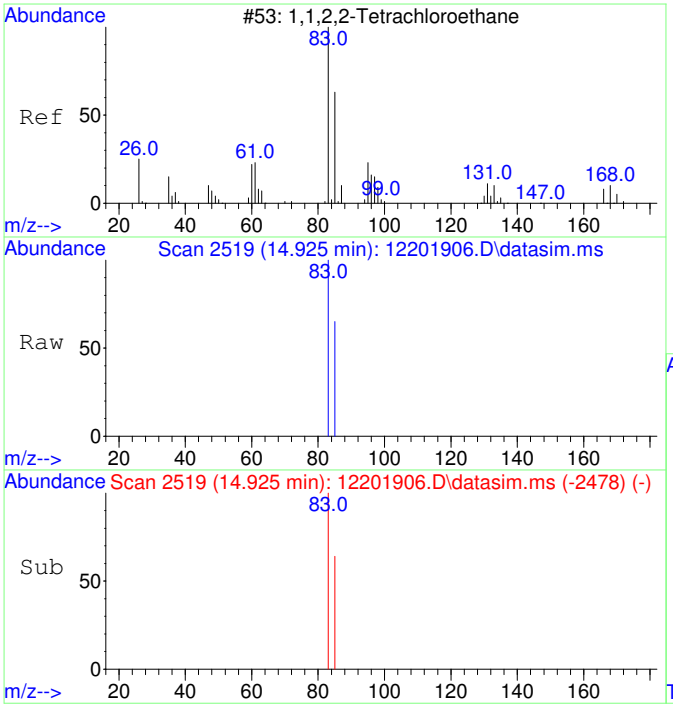


#20
o-Xylene
Concen: 4561.54 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 116714

Ion	Ratio	Lower	Upper
91	100		
106	48.7	18.5	78.5

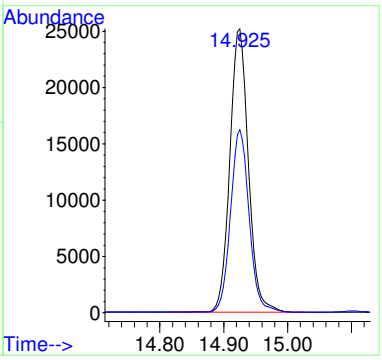


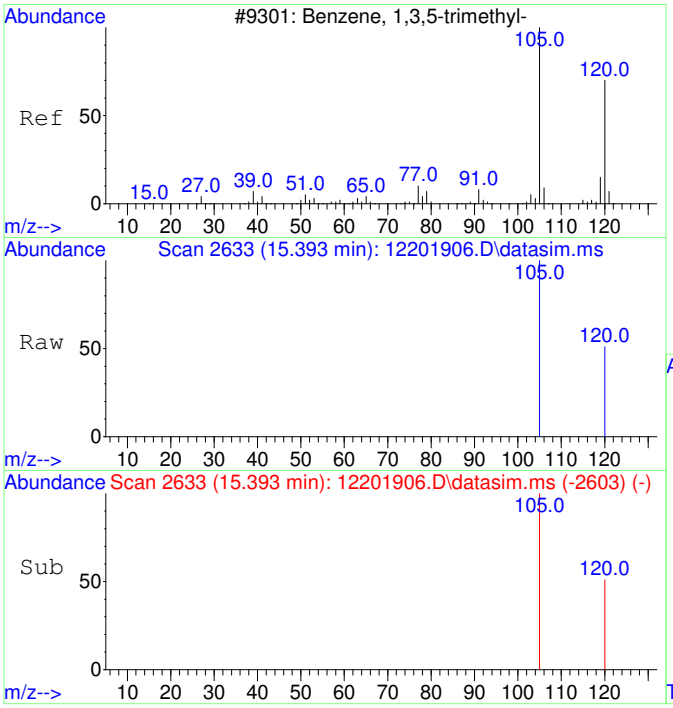


#21
1,1,2,2-Tetrachloroethane
Concen: 4414.56 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.004 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 83 Resp: 50719

Ion	Ratio	Lower	Upper
83	100		
85	64.3	34.7	94.7

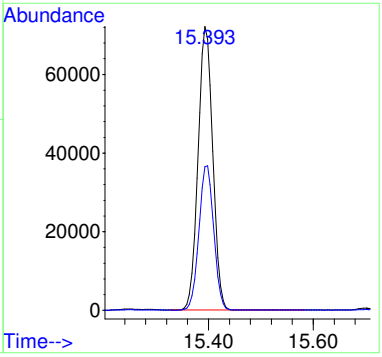


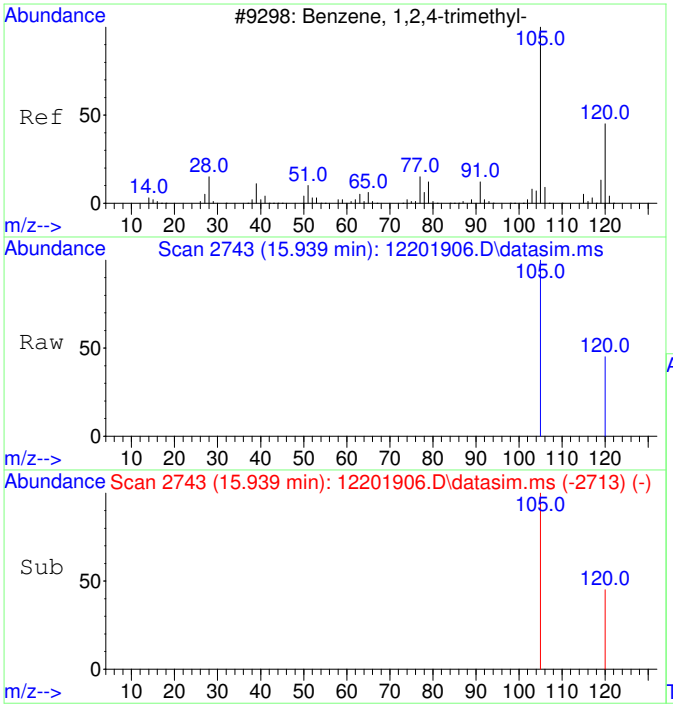


#22
1,3,5-Trimethylbenzene
Concen: 4913.32 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:105 Resp: 140082

Ion	Ratio	Lower	Upper
105	100		
120	51.3	20.7	80.7

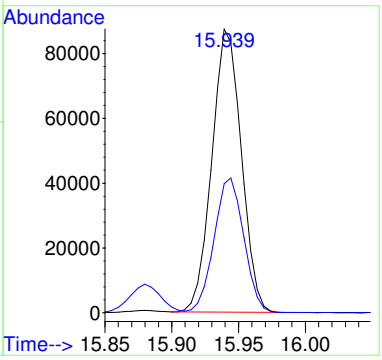


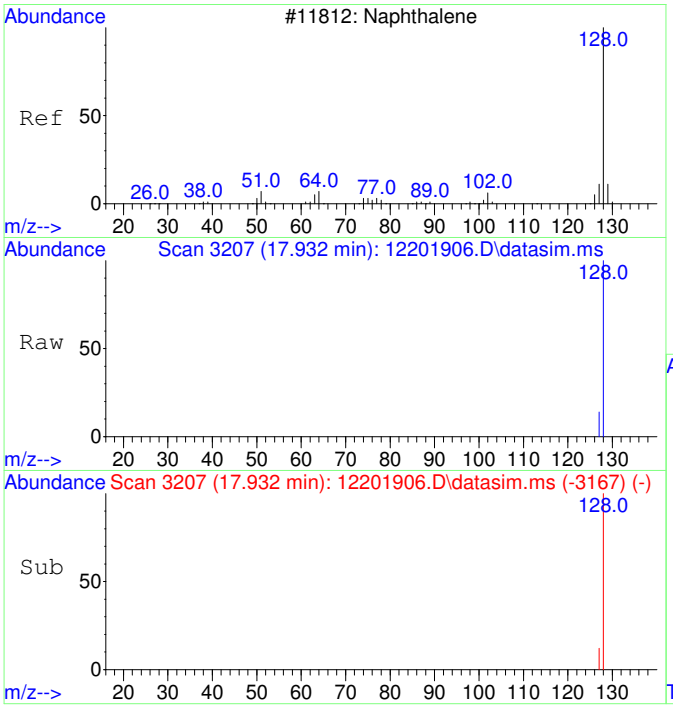


#23
1,2,4-Trimethylbenzene
Concen: 4606.35 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:105 Resp: 134220

Ion	Ratio	Lower	Upper
105	100		
120	47.1	16.6	76.6

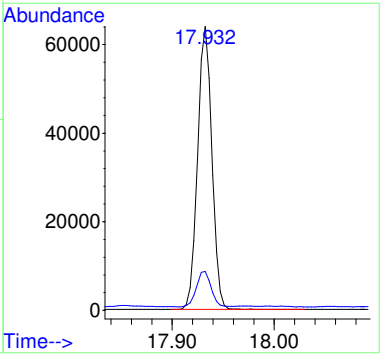


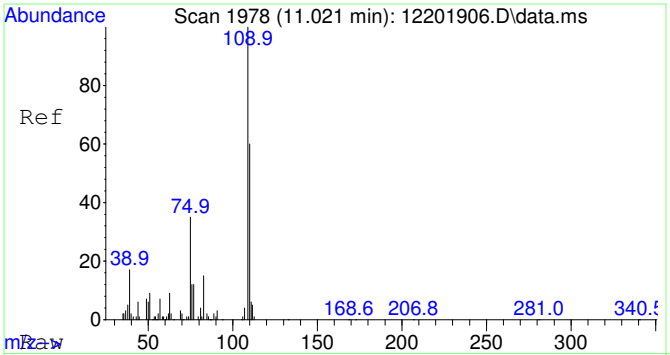


#24
Naphthalene
Concen: 1175.85 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:128 Resp: 61896

Ion	Ratio	Lower	Upper
128	100		
127	12.8	0.0	42.5

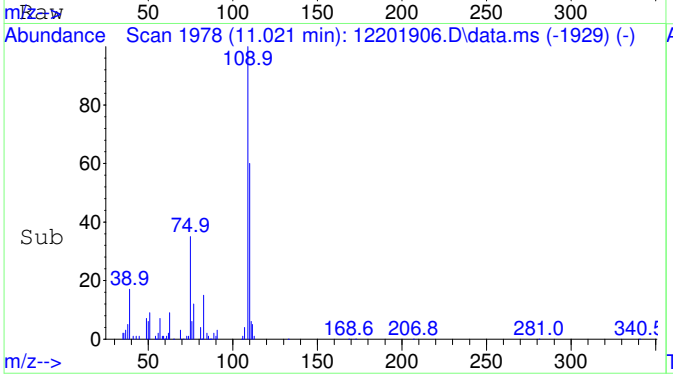


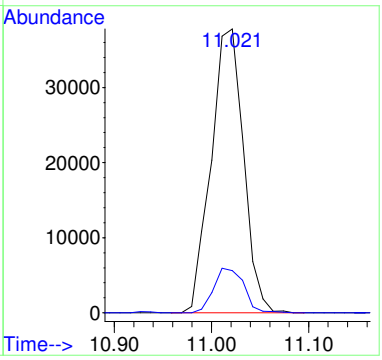


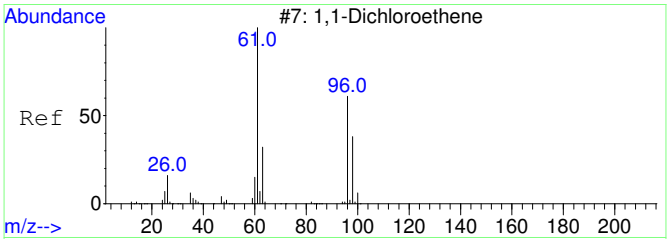
#25
2-Fluorotoluene SCAN
Concen: 5363.72 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.011 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:109 Resp: 87652

Ion	Ratio	Lower	Upper
109	100		
83	14.6	0.0	44.7



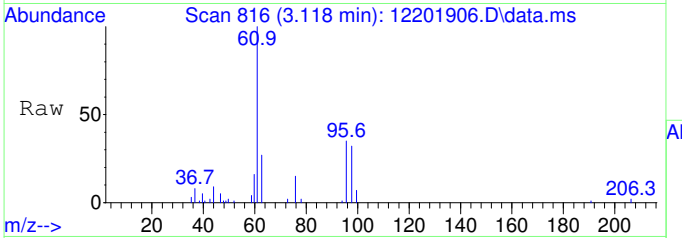


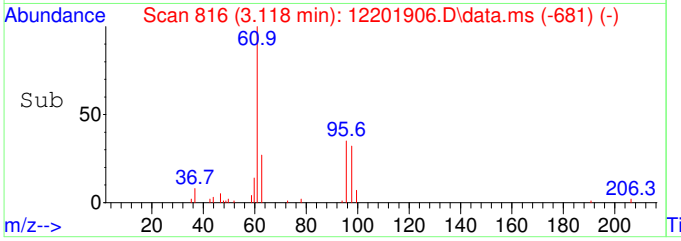


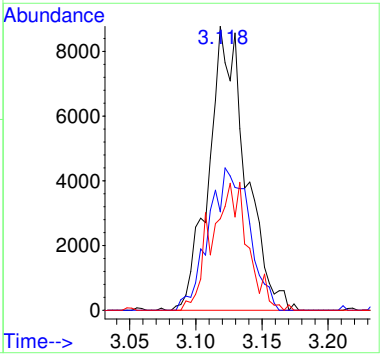
#26
1,1-Dichloroethene SCAN
Concen: 4787.68 ug/L
RT: 3.118 min Scan# 816
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

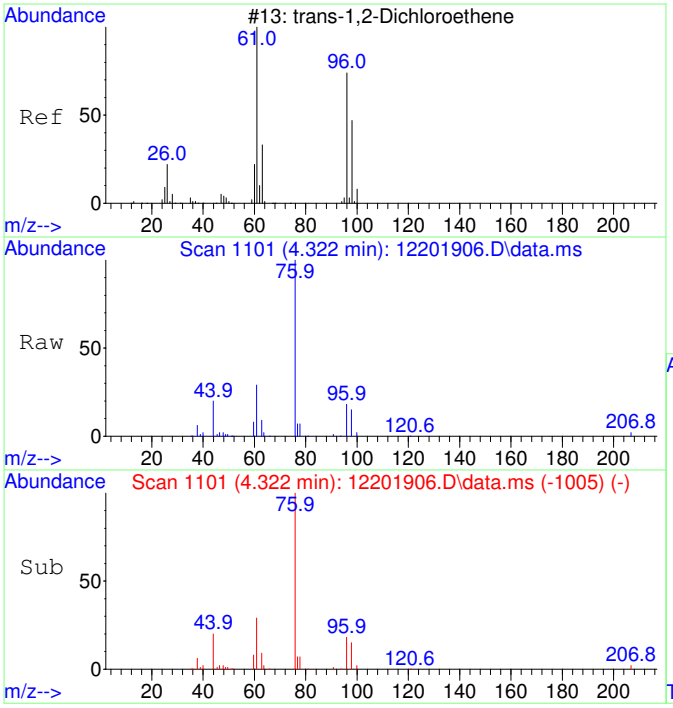
Tgt Ion: 61 Resp: 17145

Ion	Ratio	Lower	Upper
61	100		
96	55.1	34.8	94.8
98	43.9	12.9	72.9





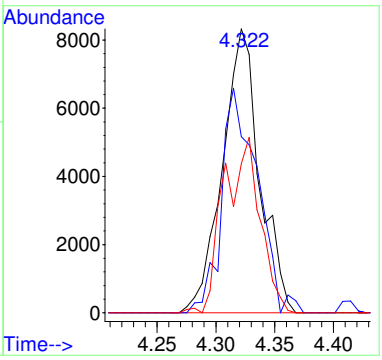


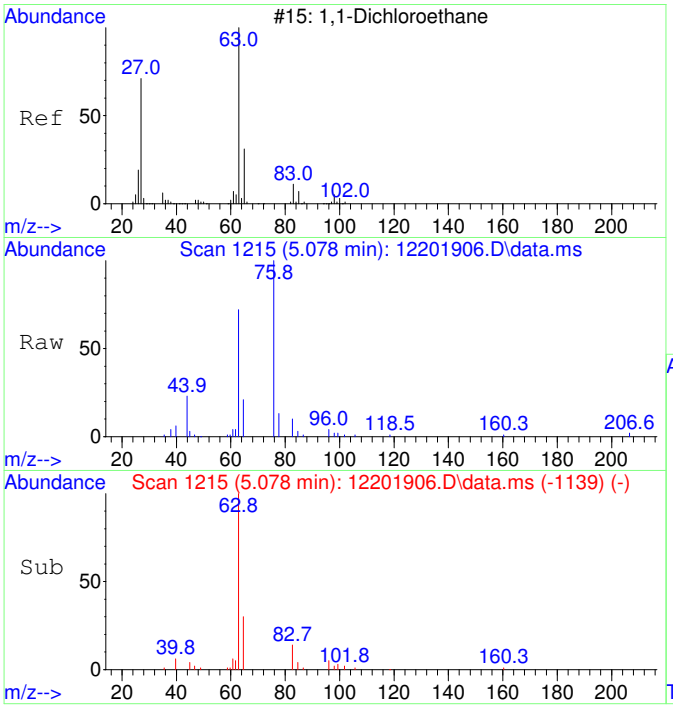


#27
trans-1,2-Dichloroethene SCAN
Concen: 5389.38 ug/L
RT: 4.322 min Scan# 1101
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 61 Resp: 18285

Ion	Ratio	Lower	Upper
61	100		
96	76.3	42.7	102.7
98	60.5	23.4	83.4

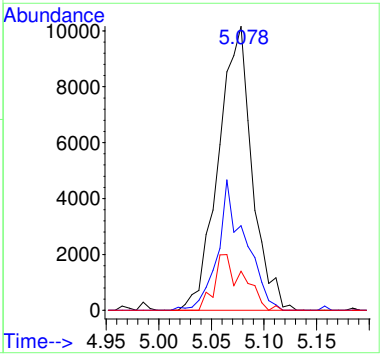


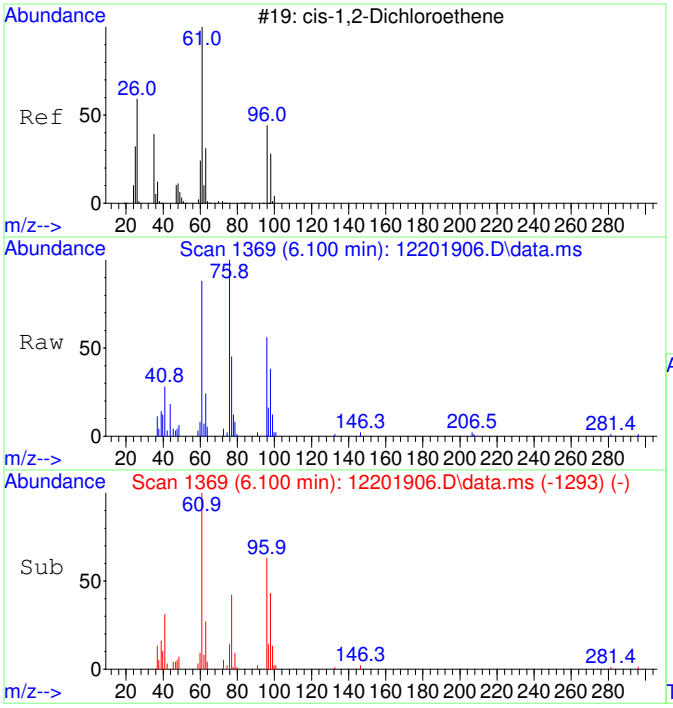


#28
1,1-Dichloroethane SCAN
Concen: 4451.72 ug/L
RT: 5.078 min Scan# 1215
Delta R.T. 0.007 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 63 Resp: 22602

Ion	Ratio	Lower	Upper
63	100		
65	37.6	0.0	59.7
83	17.0	0.0	31.2

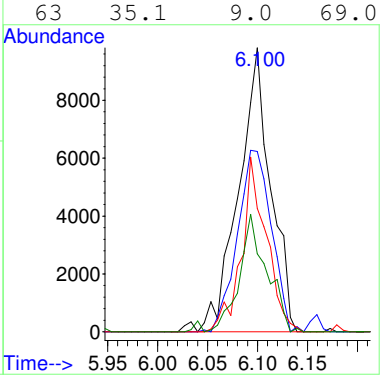


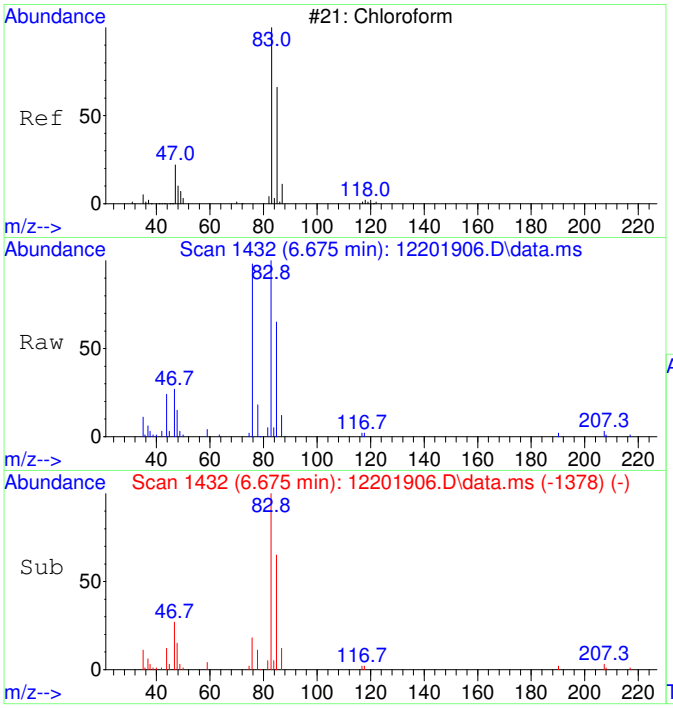


#29
cis-1,2-Dichloroethene SCAN
Concen: 5439.90 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 61 Resp: 22122

Ion	Ratio	Lower	Upper
61	100		
96	67.1	46.1	106.1
98	47.2	20.8	80.8
63	35.1	9.0	69.0

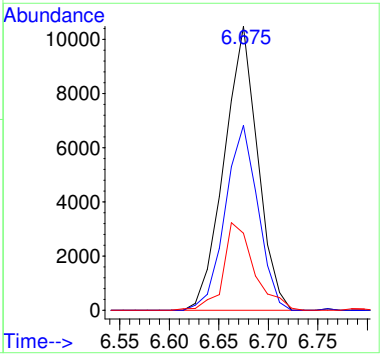


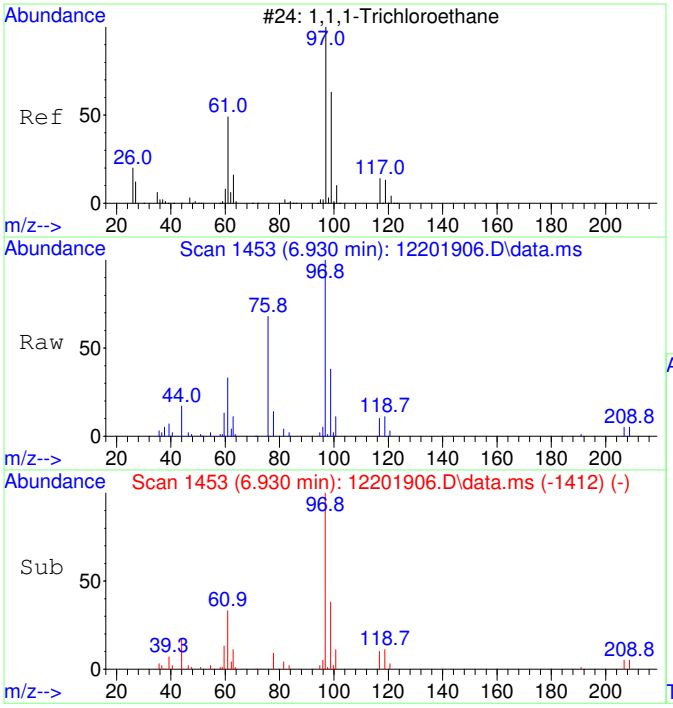


#30
Chloroform SCAN
Concen: 5680.25 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 83 Resp: 24665

Ion	Ratio	Lower	Upper
83	100		
85	63.8	42.9	102.9
47	28.4	4.5	64.5

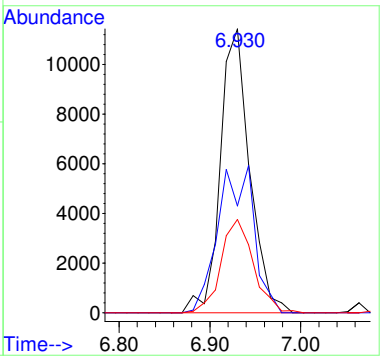


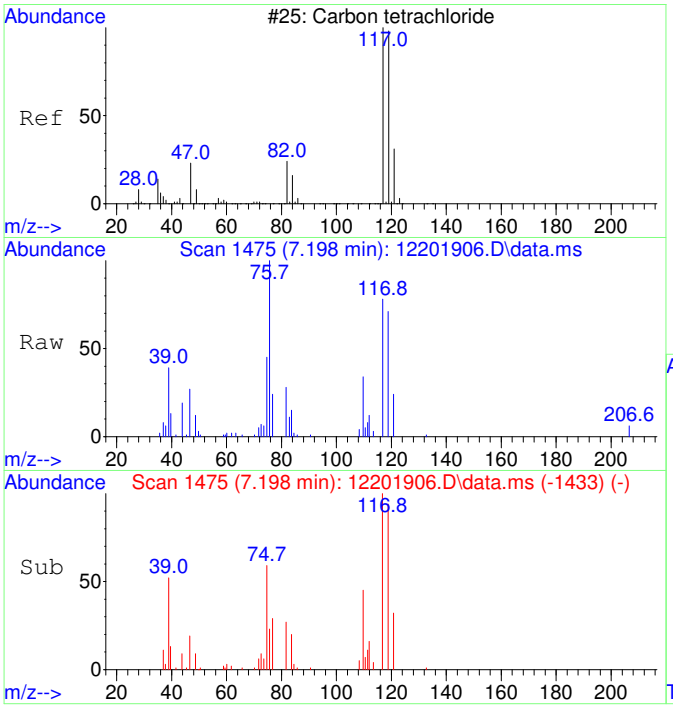


#31
1,1,1-Trichloroethane SCAN
Concen: 5167.93 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 97 Resp: 25797

Ion	Ratio	Lower	Upper
97	100		
99	62.9	16.3	76.3
61	36.2	18.9	78.9

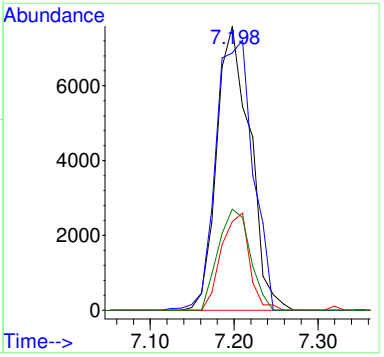


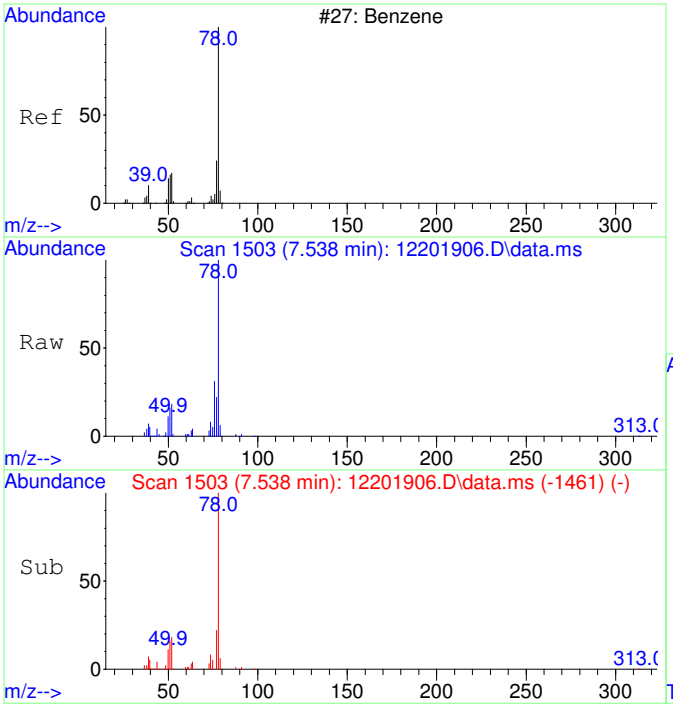


#32
Carbon tetrachloride SCAN
Concen: 4875.72 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:117 Resp: 20843

Ion	Ratio	Lower	Upper
117	100		
119	105.8	68.9	128.9
121	28.9	4.5	64.5
82	34.3	0.0	56.3

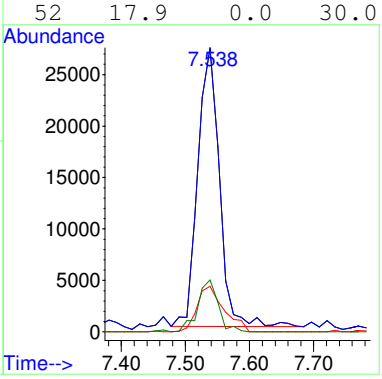


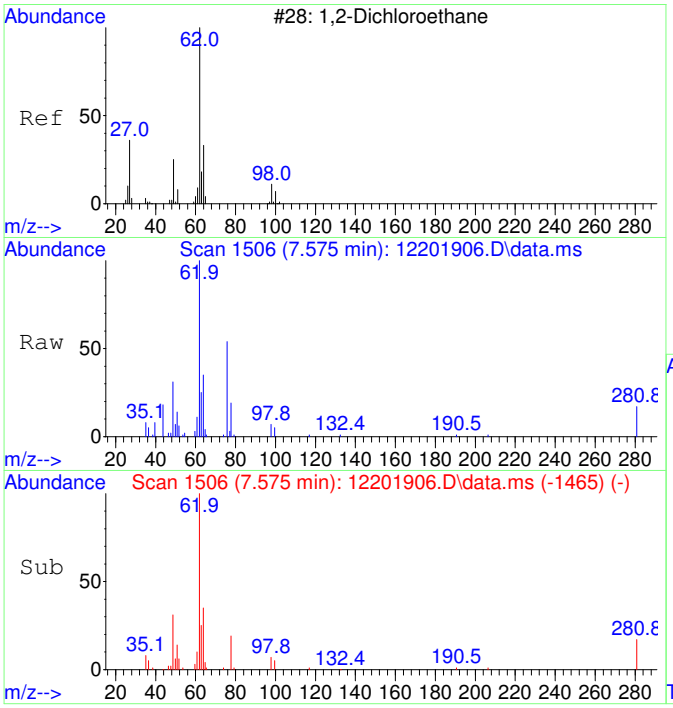


#33
Benzene SCAN
Concen: 4886.83 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 78 Resp: 63978

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	20.4	0.0	45.4
52	17.9	0.0	30.0

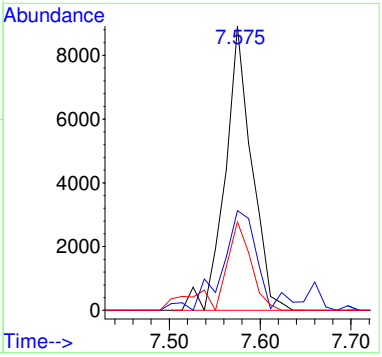


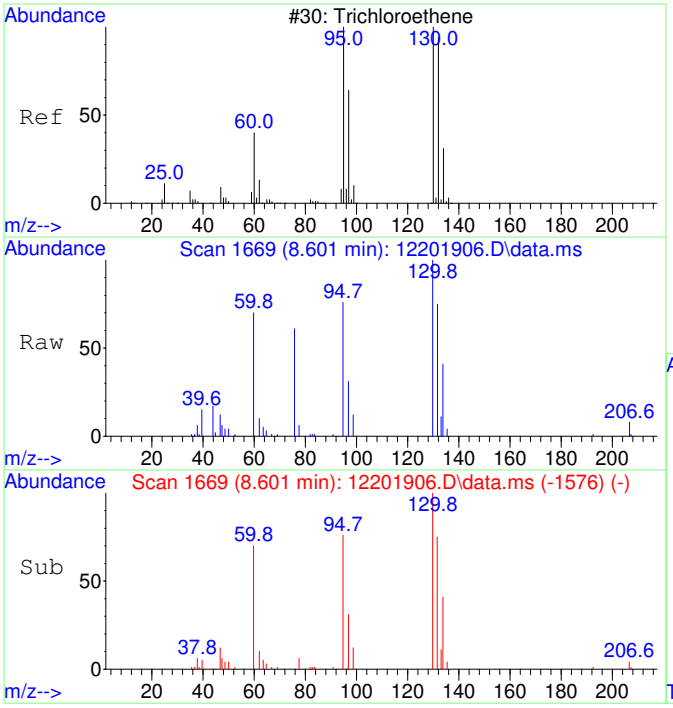


#34
1,2-Dichloroethane SCAN
Concen: 4069.57 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 62 Resp: 18171

Ion	Ratio	Lower	Upper
62	100		
64	41.4	14.5	74.5
49	34.3	4.0	64.0

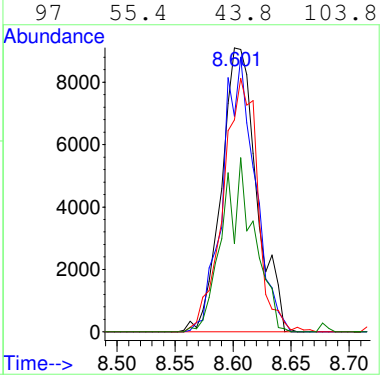


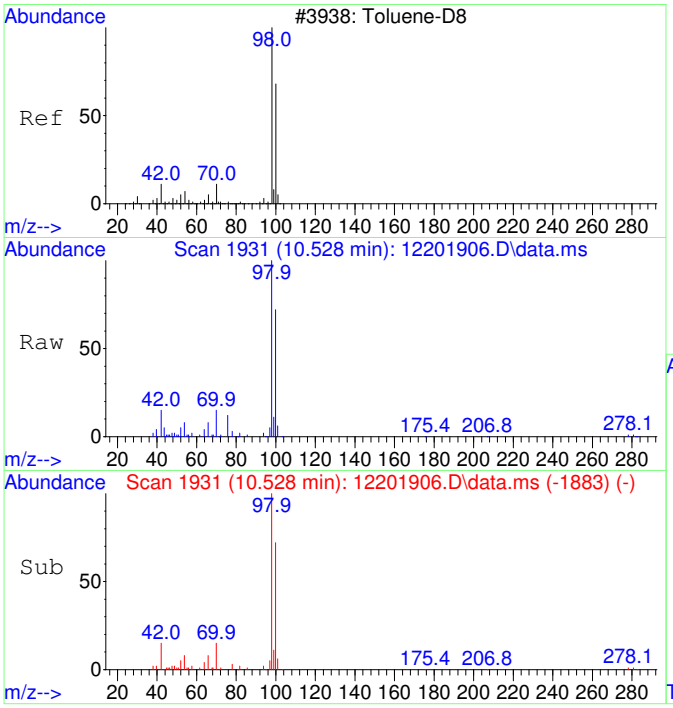


#35
Trichloroethene SCAN
Concen: 5788.42 ug/L
RT: 8.601 min Scan# 1669
Delta R.T. 0.005 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:130 Resp: 19353

Ion	Ratio	Lower	Upper
130	100		
95	89.1	75.7	135.7
132	87.2	77.1	137.1
97	55.4	43.8	103.8

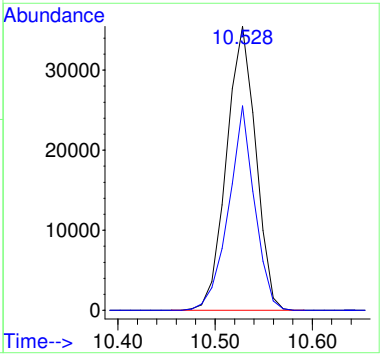


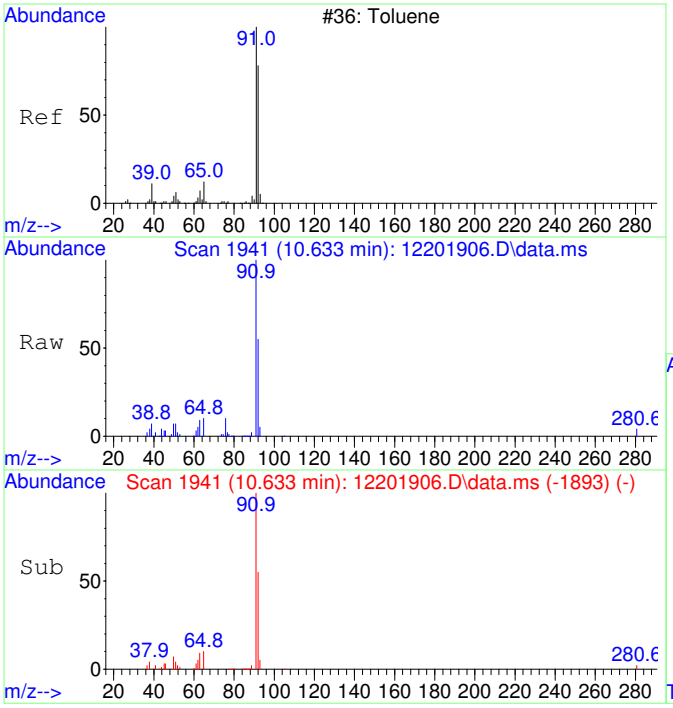


#36
Toluene-d8 SCAN
Concen: 5329.19 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 98 Resp: 73840

Ion	Ratio	Lower	Upper
98	100		
100	64.2	44.4	104.4

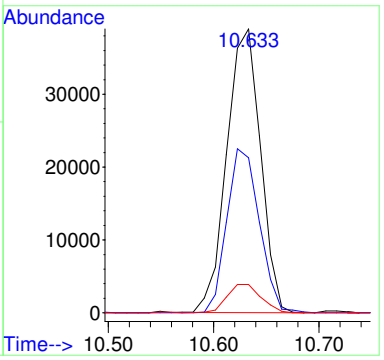


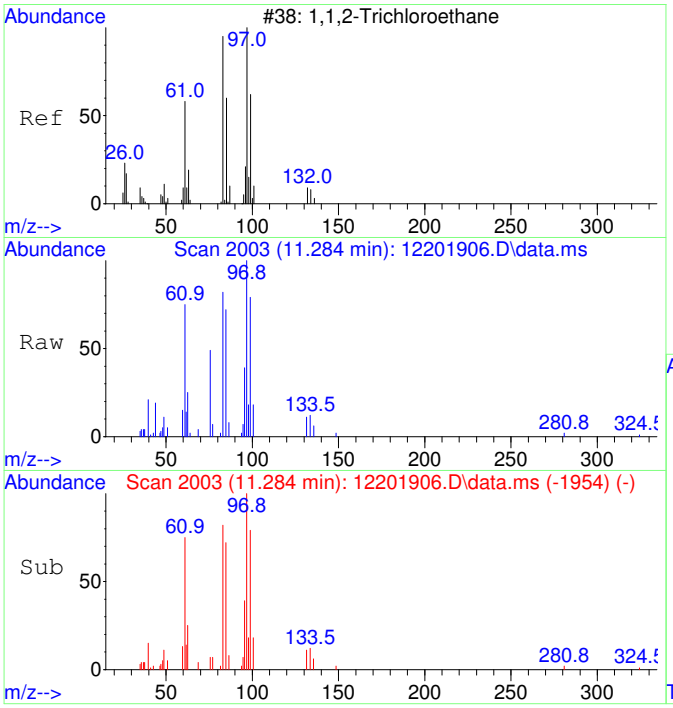


#37
Toluene SCAN
Concen: 5381.17 ug/L
RT: 10.633 min Scan# 1941
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 87085

Ion	Ratio	Lower	Upper
91	100		
92	55.6	31.5	91.5
65	10.2	0.0	30.0

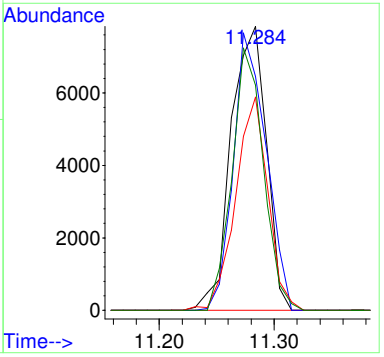


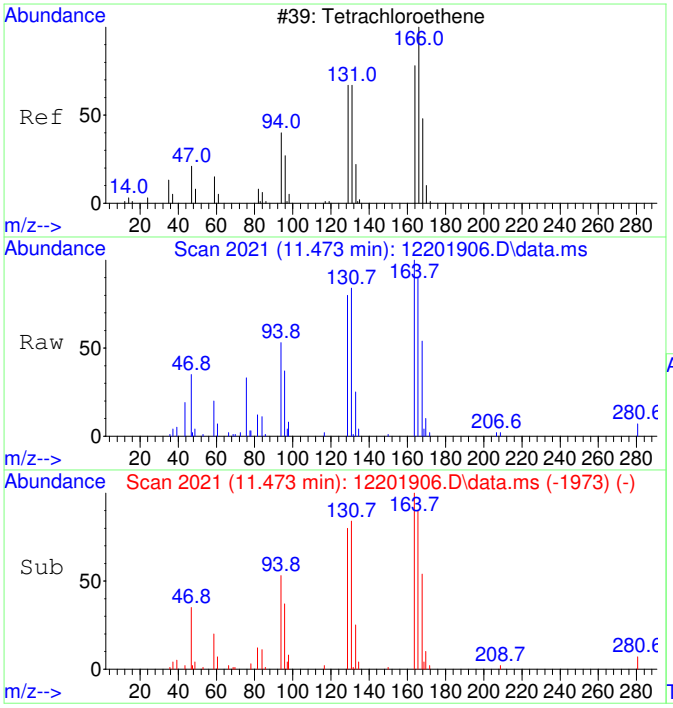


#38
1,1,2-Trichloroethane SCAN
Concen: 4759.27 ug/L
RT: 11.284 min Scan# 2003
Delta R.T. 0.011 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 97 Resp: 16755

Ion	Ratio	Lower	Upper
97	100		
83	90.7	67.7	127.7
61	68.9	31.9	91.9
99	82.3	35.5	95.5

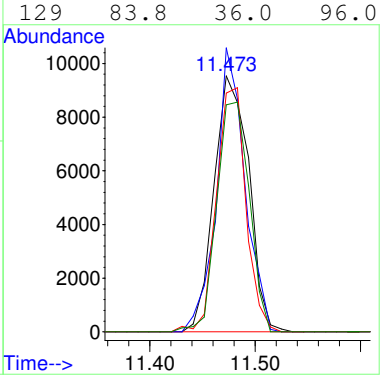


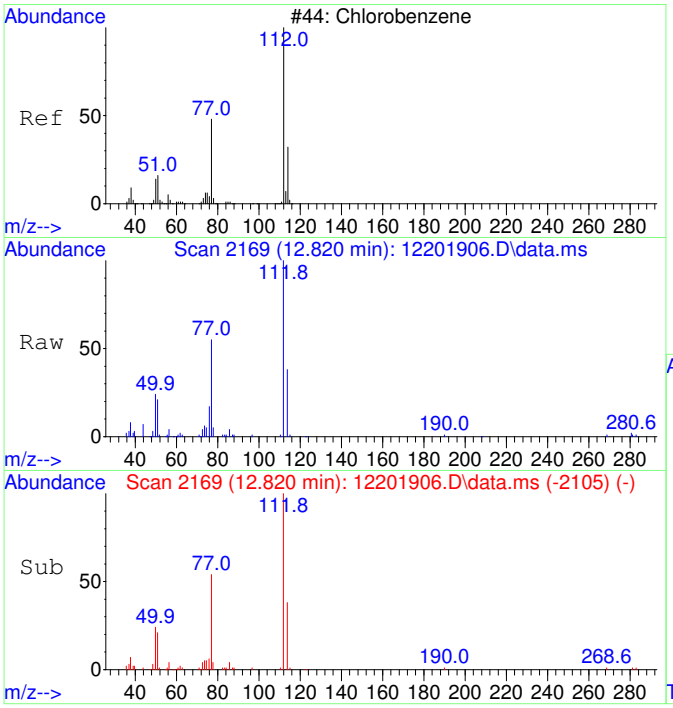


#39
Tetrachloroethene SCAN
Concen: 4669.96 ug/L
RT: 11.473 min Scan# 2021
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:166 Resp: 21906

Ion	Ratio	Lower	Upper
166	100		
164	91.5	61.8	121.8
131	81.1	51.8	111.8
129	83.8	36.0	96.0

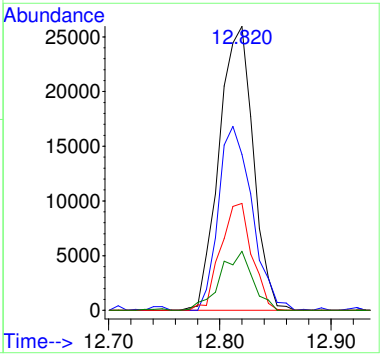


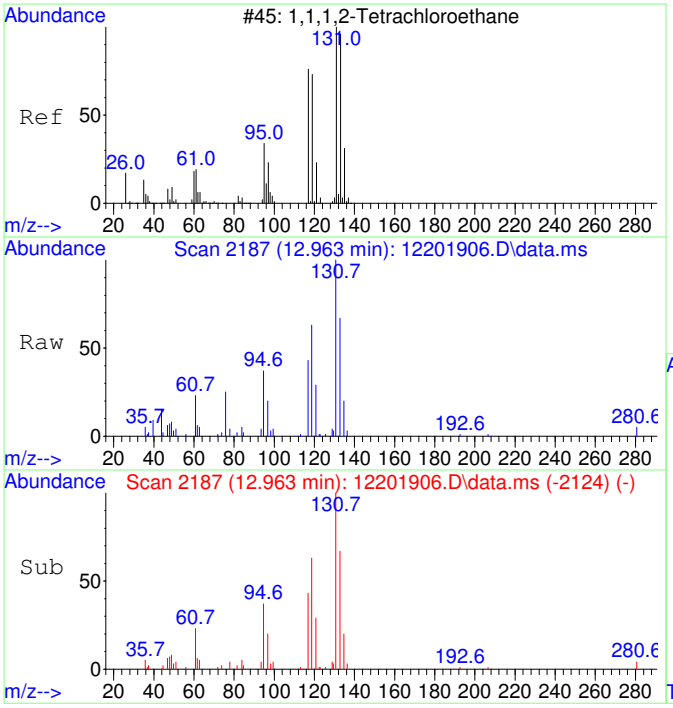


#40
Chlorobenzene SCAN
Concen: 4298.00 ug/L
RT: 12.820 min Scan# 2169
Delta R.T. 0.008 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:112 Resp: 55420

Ion	Ratio	Lower	Upper
112	100		
77	64.0	27.8	87.8
114	34.7	3.1	63.1
51	19.8	0.0	49.9

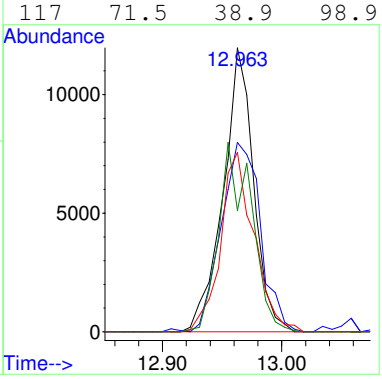


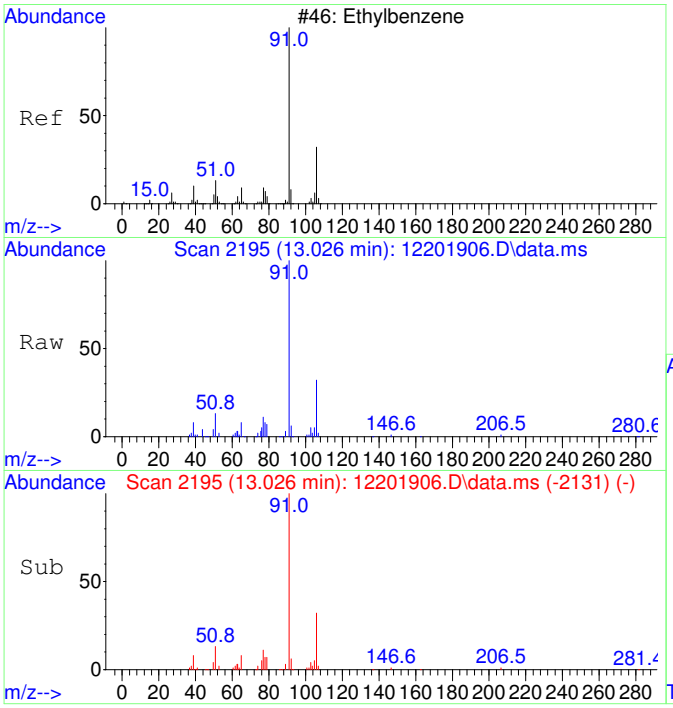


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 5137.82 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:131 Resp: 21371

Ion	Ratio	Lower	Upper
131	100		
133	85.6	69.6	129.6
119	69.1	42.4	102.4
117	71.5	38.9	98.9

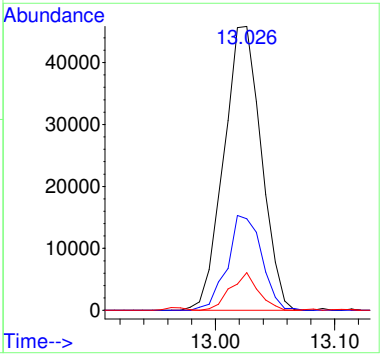


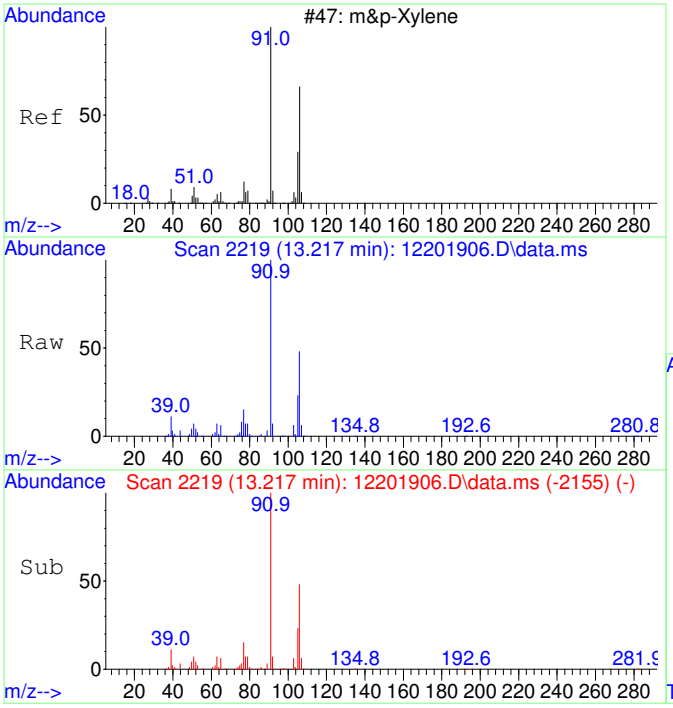


#42
Ethylbenzene SCAN
Concen: 4910.88 ug/L
RT: 13.026 min Scan# 2195
Delta R.T. 0.008 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 100415

Ion	Ratio	Lower	Upper
91	100		
106	30.6	1.3	61.3
51	10.0	0.0	39.4

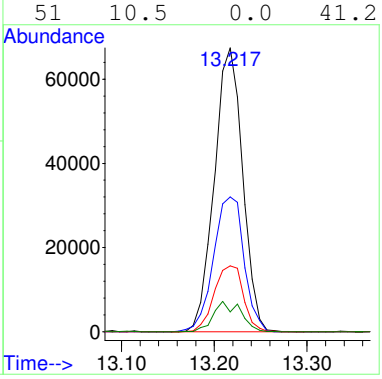


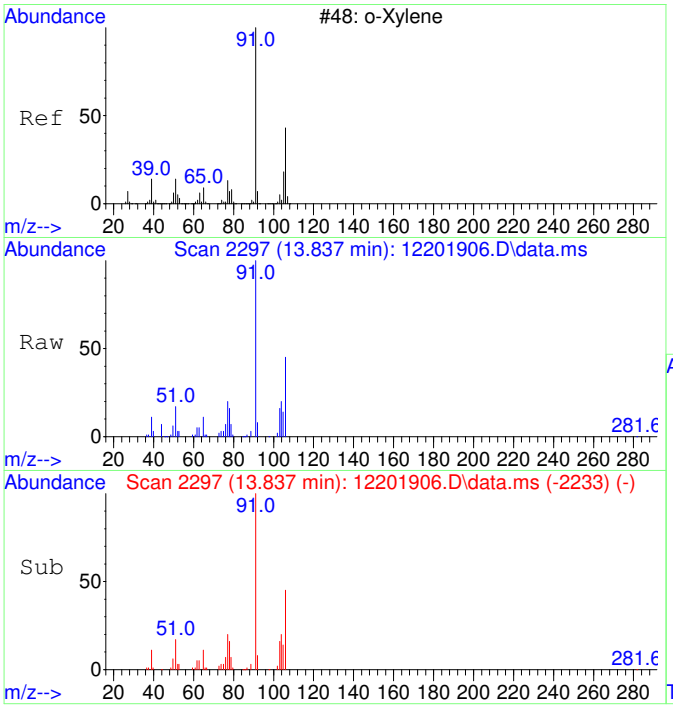


#43
m&p-Xylene SCAN
Concen: 4657.47 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 142812

Ion	Ratio	Lower	Upper
91	100		
106	51.4	19.0	79.0
105	24.1	0.0	54.9
51	10.5	0.0	41.2

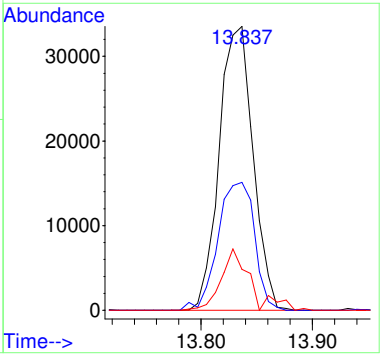


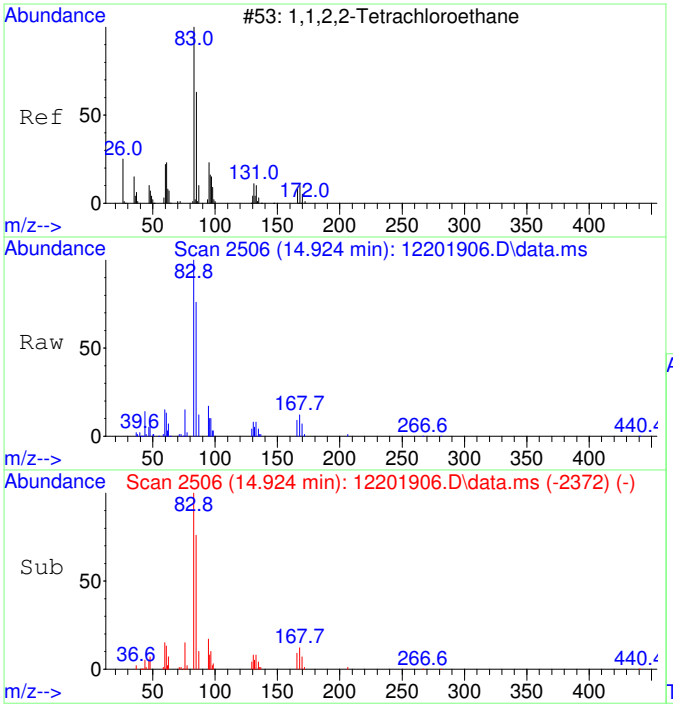


#44
o-Xylene SCAN
Concen: 4084.09 ug/L
RT: 13.837 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 91 Resp: 70995

Ion	Ratio	Lower	Upper
91	100		
106	48.7	17.2	77.2
105	19.0	0.0	57.7

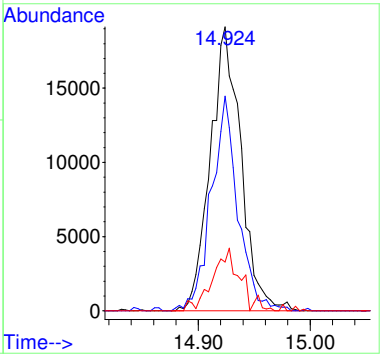


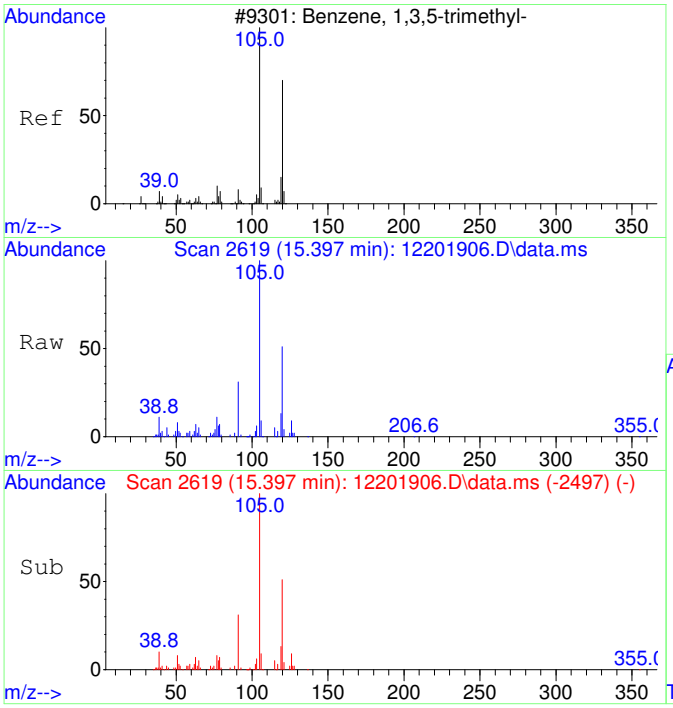


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 4639.19 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion: 83 Resp: 36356

Ion	Ratio	Lower	Upper
83	100		
85	66.0	37.2	97.2
95	16.0	0.0	48.7

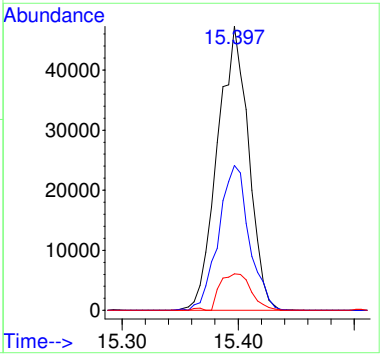


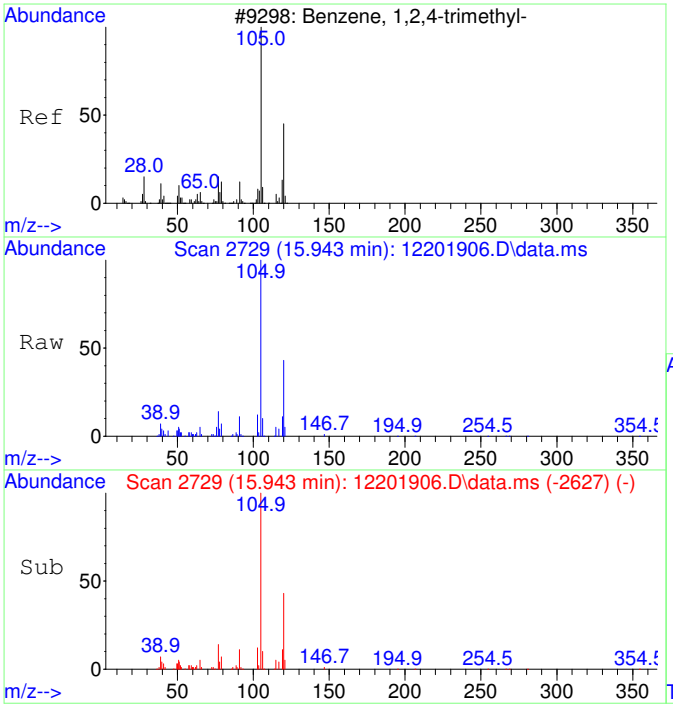


#46
1,3,5-Trimethylbenzene SCAN
Concen: 4839.58 ug/L
RT: 15.397 min Scan# 2619
Delta R.T. 0.005 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:105 Resp: 87914

Ion	Ratio	Lower	Upper
105	100		
120	50.4	22.3	82.3
119	12.8	0.0	43.8

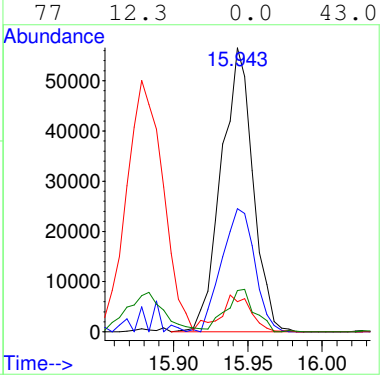


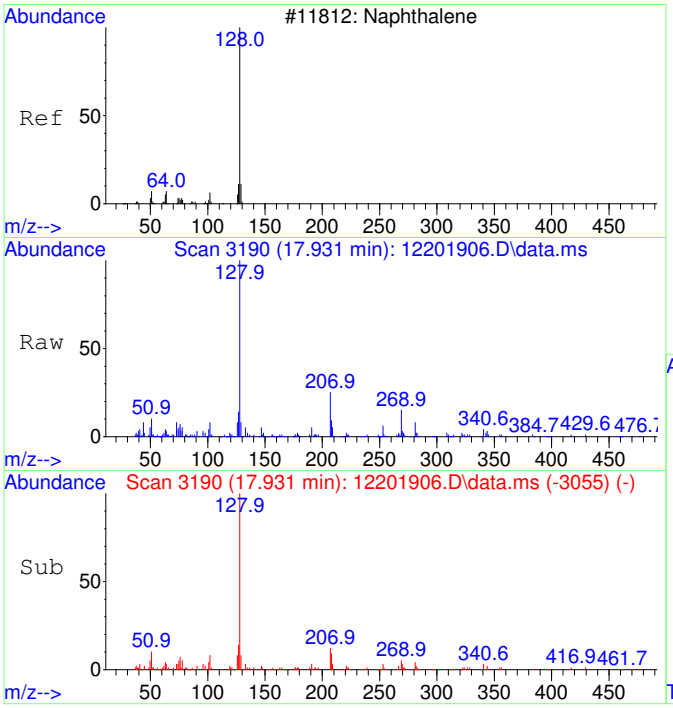


#47
1,2,4-Trimethylbenzene SCAN
Concen: 4578.31 ug/L
RT: 15.943 min Scan# 2729
Delta R.T. 0.005 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:105 Resp: 84422

Ion	Ratio	Lower	Upper
105	100		
120	45.0	15.8	75.8
119	7.9	0.0	42.9
77	12.3	0.0	43.0

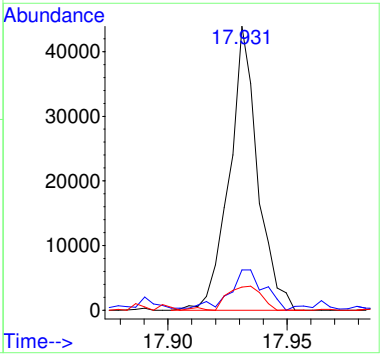




#48
Naphthalene SCAN
Concen: 1216.90 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. 0.000 min
Lab File: 12201906.D
Acq: 20 Dec 2019 12:24

Tgt Ion:128 Resp: 36254

Ion	Ratio	Lower	Upper
128	100		
127	14.6	0.0	30.0
129	10.6	0.0	34.5



B19L093-BSD1

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201907.D
Acq On : 20 Dec 2019 12:48
InstName : AG5975C
Operator : TD
Sample : B19L093-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 20 15:03:54 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

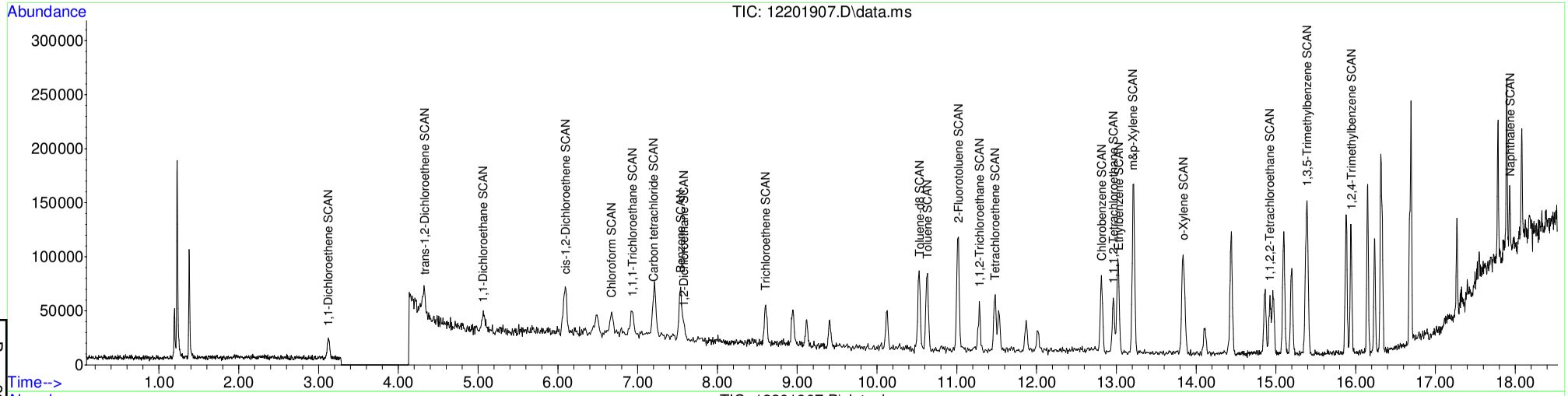
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	106606	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	90384	5279.27 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 105.59%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.123	61	19875	4356.85 ug/L	100
3] trans-1,2-Dichloroethene	4.316	61	20563	4395.14 ug/L	100
4] 1,1-Dichloroethane	5.066	63	26779	4502.43 ug/L	100
5] cis-1,2-Dichloroethene	6.094	61	25250	4616.67 ug/L	100
6] Chloroform	6.664	83	28841	4565.82 ug/L	100
7] 1,1,1-Trichloroethane	6.931	97	28890	4563.12 ug/L	99
8] Carbon tetrachloride	7.199	117	26118	4347.45 ug/L	100
9] Benzene	7.527	78	71989	4521.60 ug/L	99
10] 1,2-Dichloroethane	7.564	62	23821	4558.36 ug/L	99
11] Trichloroethene	8.602	130	22149	4534.52 ug/L	99
13] Toluene	10.624	91	96462	4644.27 ug/L	100
14] 1,1,2-Trichloroethane	11.274	97	21181	4500.66 ug/L	99
15] Tetrachloroethene	11.474	166	27679	4415.94 ug/L	99
16] Chlorobenzene	12.813	112	69088	4356.51 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.964	131	25198	4552.99 ug/L	99
18] Ethylbenzene	13.019	91	122240	4769.73 ug/L	100
19] m&p-Xylene	13.210	91	180047	9219.81 ug/L	100
20] o-Xylene	13.830	91	91614	4423.95 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.925	83	40116	4314.14 ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	108871	4718.08 ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	104520	4432.00 ug/L	99
24] Naphthalene	17.932	128	50563	1186.81 ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	65572	4957.73 ug/L	95
26) 1,1-Dichloroethene SCAN	3.118	61	13074	4510.82 ug/L	93
27) trans-1,2-Dichloroethe...	4.328	61	14804	5391.17 ug/L	94
28) 1,1-Dichloroethane SCAN	5.058	63	19882	4838.40 ug/L	96
29) cis-1,2-Dichloroethene...	6.100	61	17507	5319.10 ug/L	93
30) Chloroform SCAN	6.675	83	23003	6545.32 ug/L	81
31) 1,1,1-Trichloroethane ...	6.930	97	22508	5571.14 ug/L #	49
32) Carbon tetrachloride SCAN	7.198	117	15098	4363.73 ug/L	83
33) Benzene SCAN	7.538	78	57186	5396.93 ug/L	99
34) 1,2-Dichloroethane SCAN	7.575	62	15367	4252.26 ug/L #	48
35) Trichloroethene SCAN	8.606	130	14608	5398.37 ug/L	96
36) Toluene-d8 SCAN	10.528	98	54722	4879.69 ug/L	92
37) Toluene SCAN	10.633	91	66784	5098.77 ug/L	100
38) 1,1,2-Trichloroethane ...	11.284	97	15890	5576.74 ug/L	87
39) Tetrachloroethene SCAN	11.483	166	17930	4722.70 ug/L	86
40) Chlorobenzene SCAN	12.812	112	43988	4214.96 ug/L	94
41) 1,1,1,2-Tetrachloroeth...	12.963	131	16106	4784.12 ug/L	93
42) Ethylbenzene SCAN	13.026	91	77556	4686.37 ug/L	98
43) m&p-Xylene SCAN	13.209	91	112294	4524.83 ug/L	96
44) o-Xylene SCAN	13.836	91	60625	4309.03 ug/L	95
45) 1,1,2,2-Tetrachloroeth...	14.927	83	27505	4336.49 ug/L	98
46) 1,3,5-Trimethylbenzene...	15.392	105	65287	4440.54 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.943	105	64842	4344.76 ug/L	96
48) Naphthalene SCAN	17.934	128	29247	1212.94 ug/L	95

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201907.D
Acq On : 20 Dec 2019 12:48
InstName : AG5975C
Operator : TD
Sample : B19L093-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 20 15:03:54 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



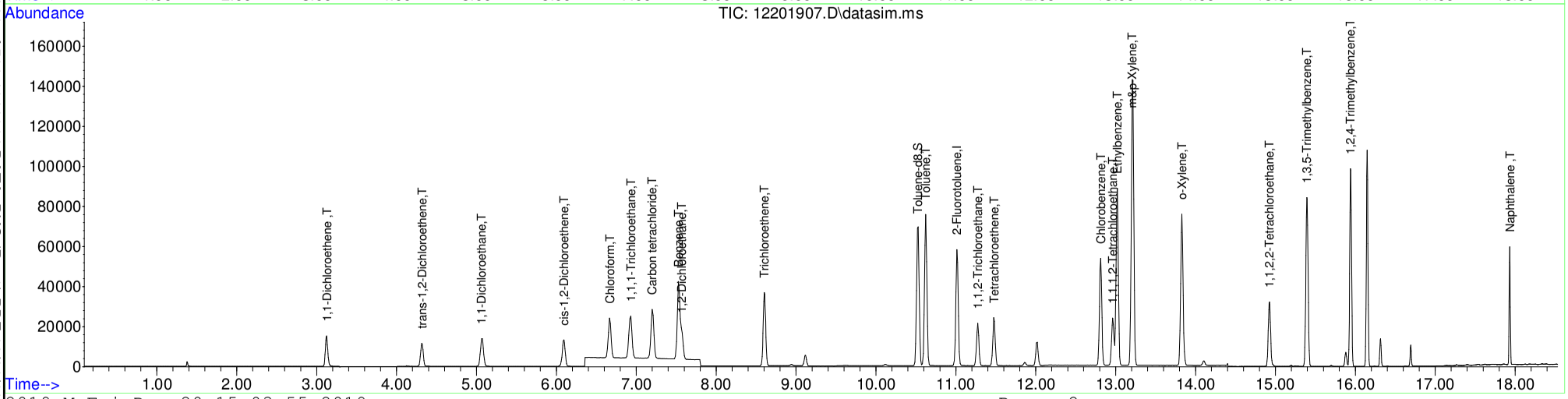
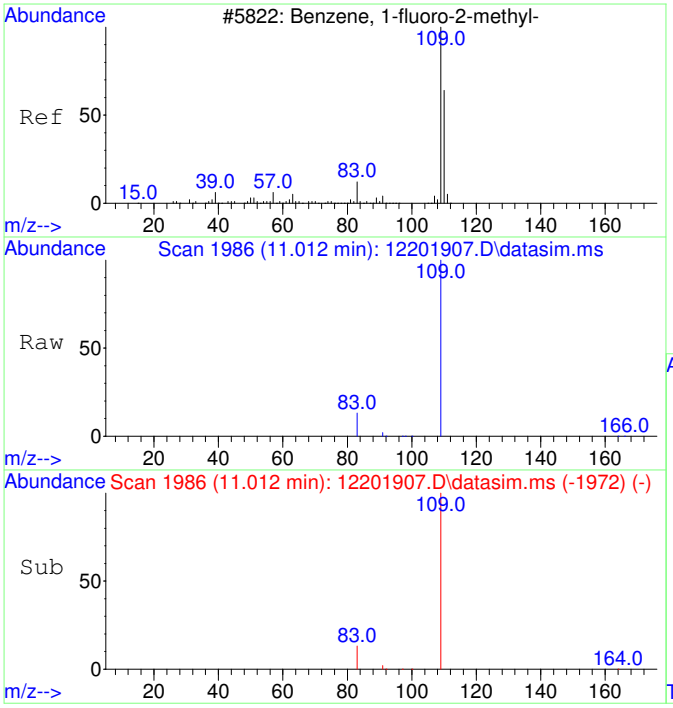


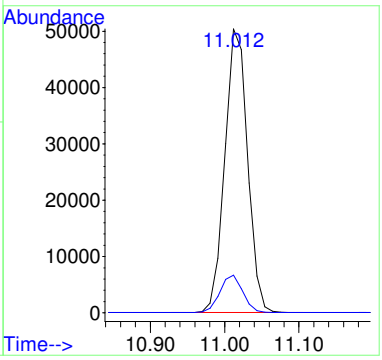
Table of Contents

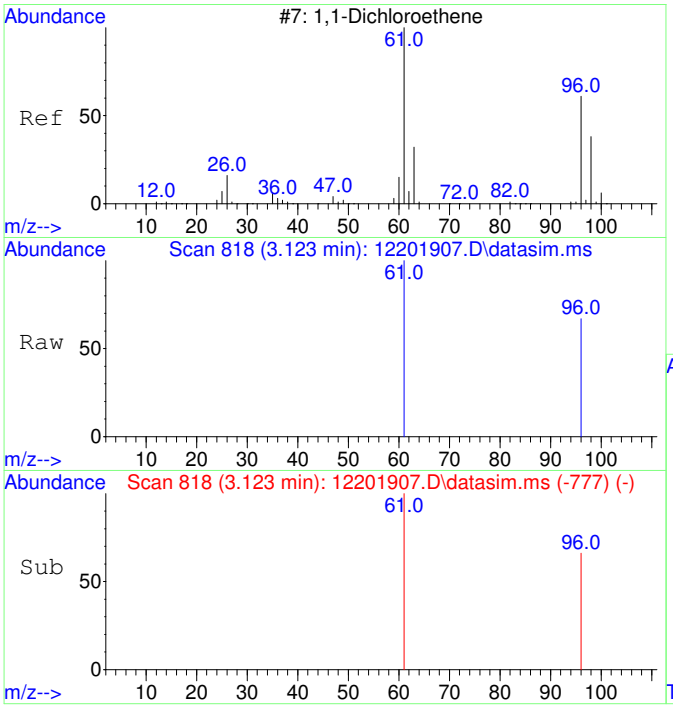


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:109 Resp: 106606

Ion	Ratio	Lower	Upper
109	100		
83	13.2	0.0	43.3

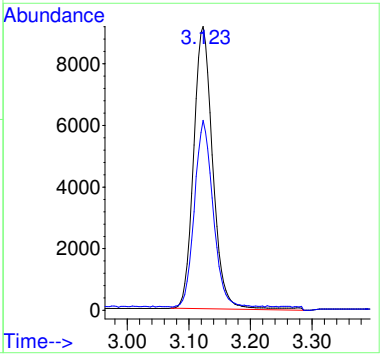


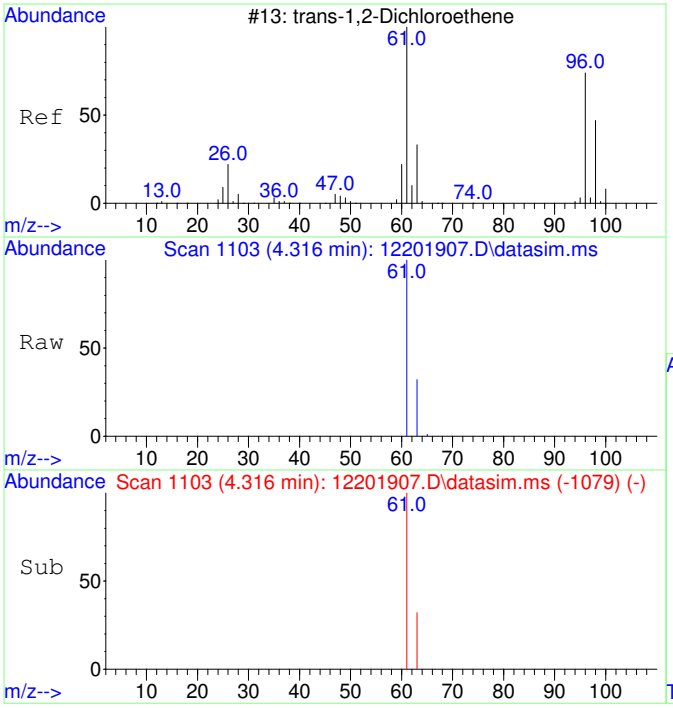


#2
1,1-Dichloroethene
Concen: 4356.85 ug/L
RT: 3.123 min Scan# 818
Delta R.T. 0.004 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 61 Resp: 19875

Ion	Ratio	Lower	Upper
61	100		
96	63.4	33.5	93.5

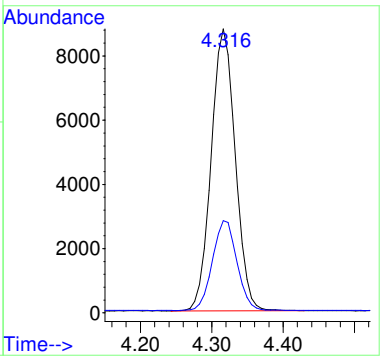


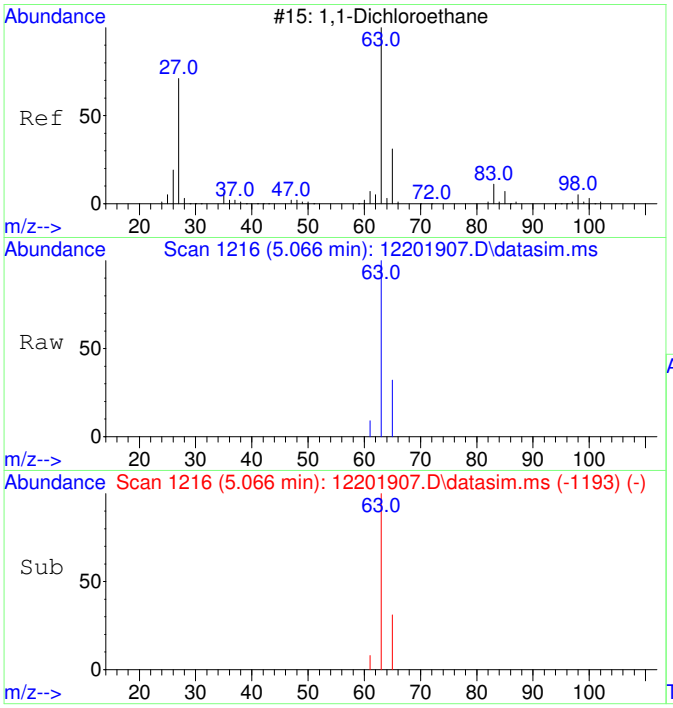


#3
trans-1,2-Dichloroethene
Concen: 4395.14 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.006 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 61 Resp: 20563

Ion	Ratio	Lower	Upper
61	100		
63	32.3	2.3	62.3

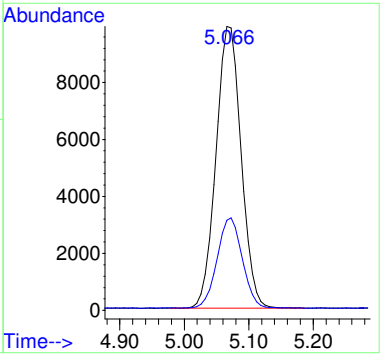


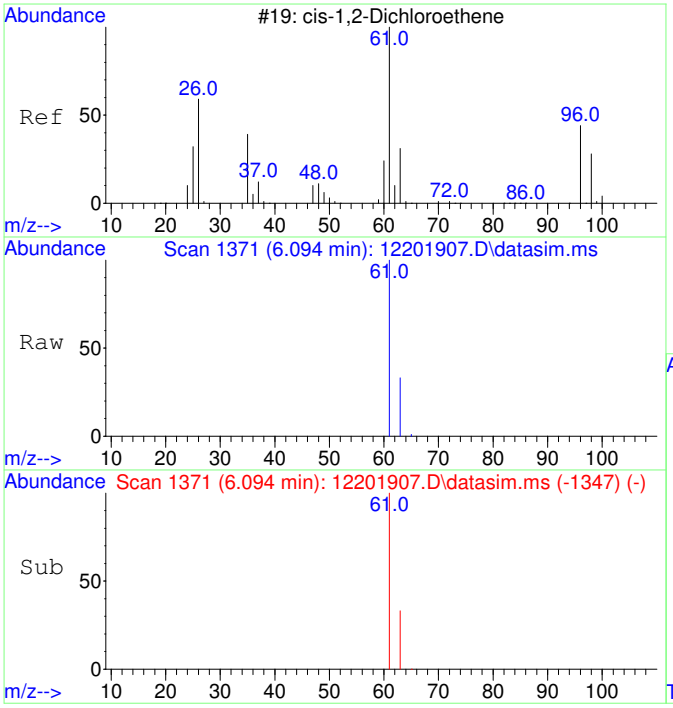


#4
1,1-Dichloroethane
Concen: 4502.43 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 63 Resp: 26779

Ion	Ratio	Lower	Upper
63	100		
65	31.9	1.9	61.9

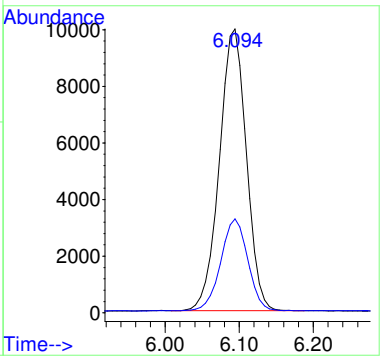


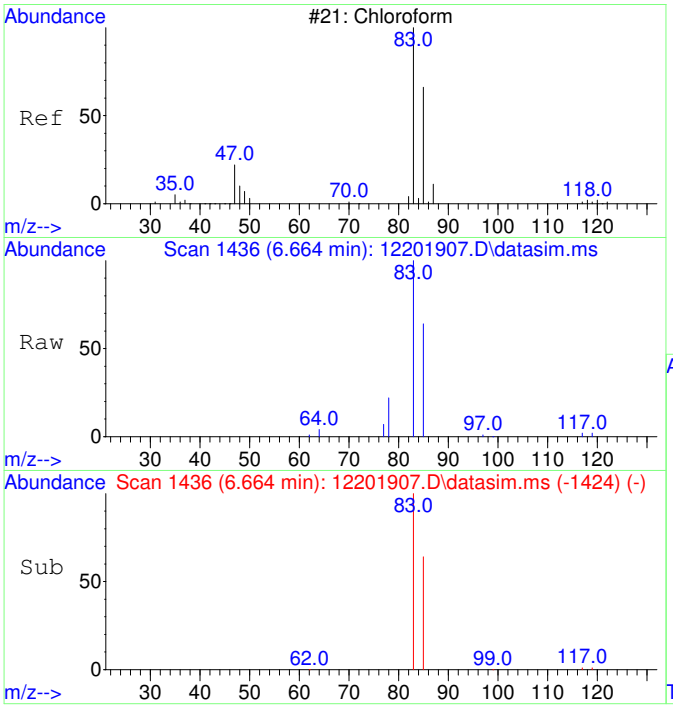


#5
cis-1,2-Dichloroethene
Concen: 4616.67 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.006 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 61 Resp: 25250

Ion	Ratio	Lower	Upper
61	100		
63	32.7	2.5	62.5

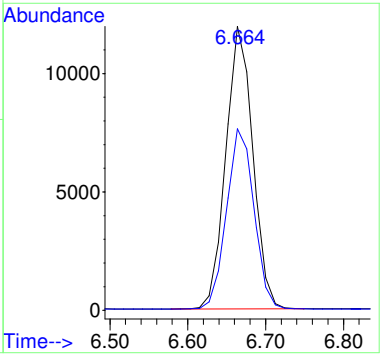


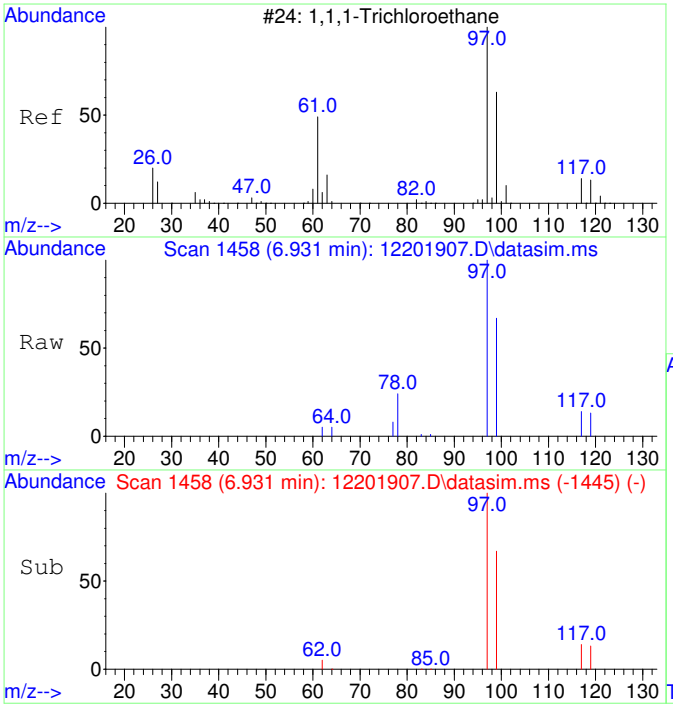


#6
Chloroform
Concen: 4565.82 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 83 Resp: 28841

Ion	Ratio	Lower	Upper
83	100		
85	64.9	35.0	95.0

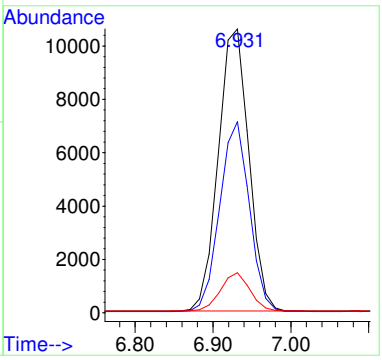


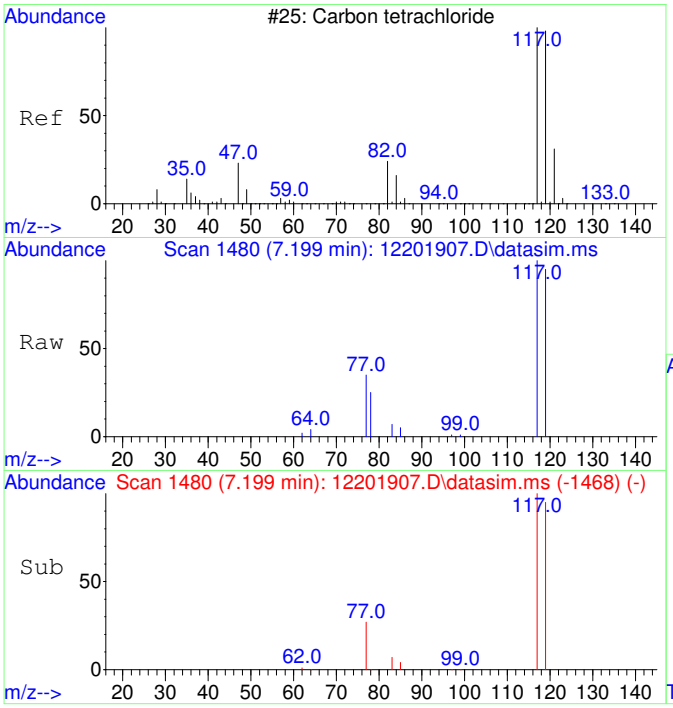


#7
1,1,1-Trichloroethane
Concen: 4563.12 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 97 Resp: 28890

Ion	Ratio	Lower	Upper
97	100		
99	65.0	34.4	94.4
117	13.0	0.0	43.0

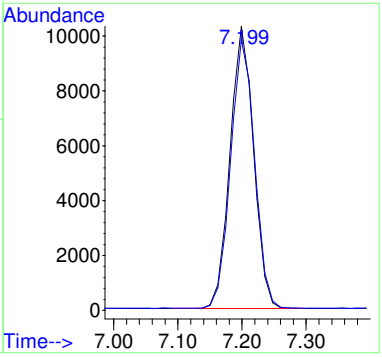


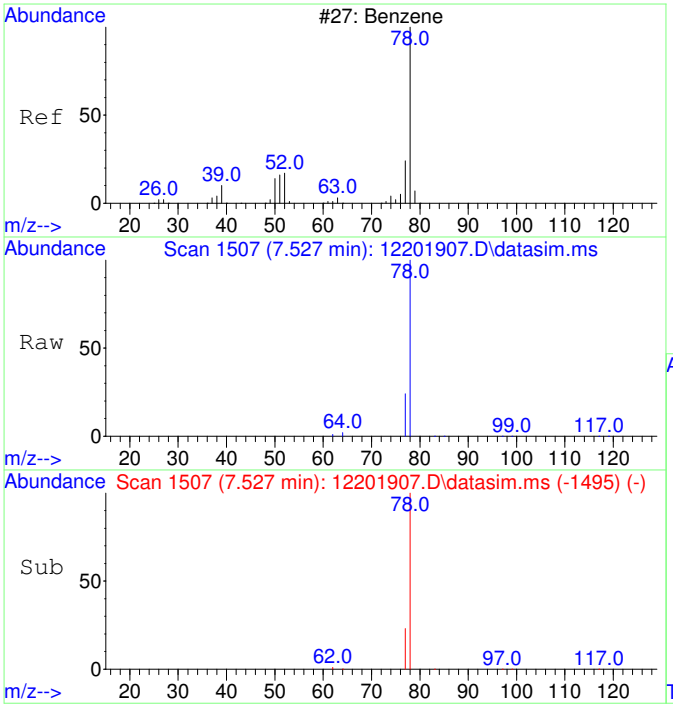


#8
Carbon tetrachloride
Concen: 4347.45 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:117 Resp: 26118

Ion	Ratio	Lower	Upper
117	100		
119	96.8	66.5	126.5

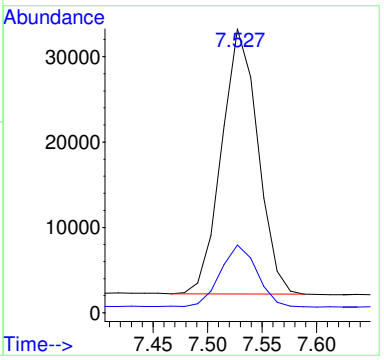


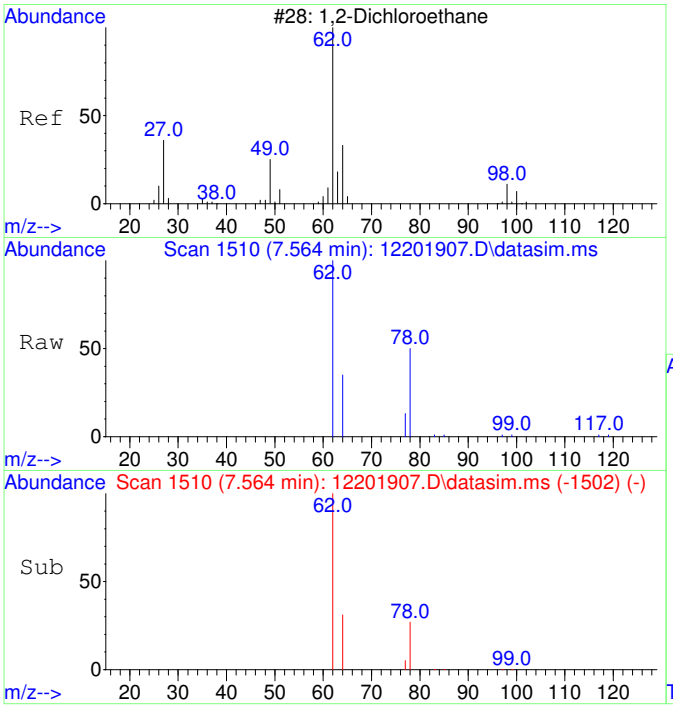


#9
Benzene
Concen: 4521.60 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 78 Resp: 71989

Ion	Ratio	Lower	Upper
78	100		
77	24.1	0.0	53.5

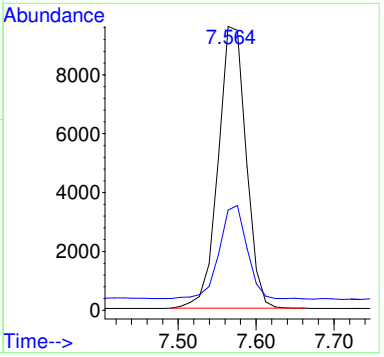


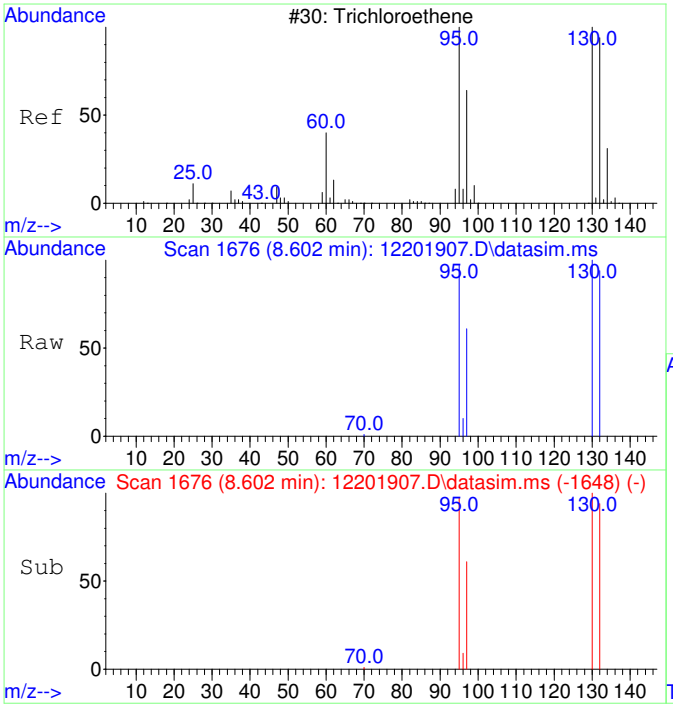


#10
1,2-Dichloroethane
Concen: 4558.36 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 62 Resp: 23821

Ion	Ratio	Lower	Upper
62	100		
64	32.9	2.4	62.4

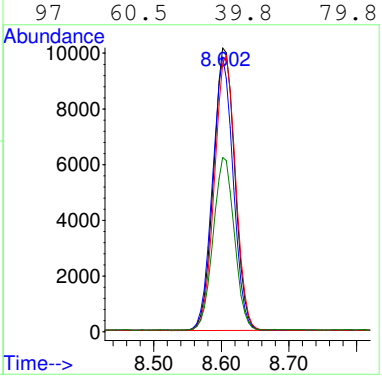


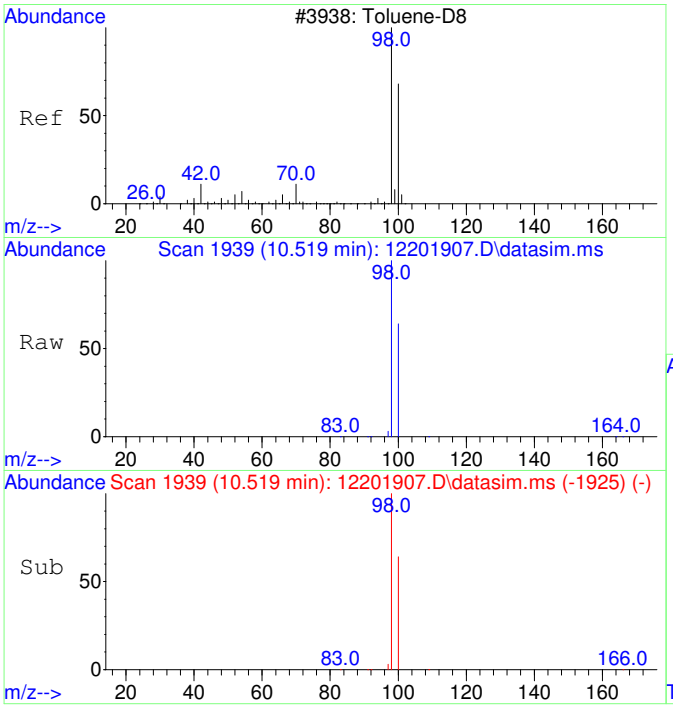


#11
Trichloroethene
Concen: 4534.52 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:130 Resp: 22149

Ion	Ratio	Lower	Upper
130	100		
95	93.8	62.3	122.3
132	96.1	75.8	115.8
97	60.5	39.8	79.8

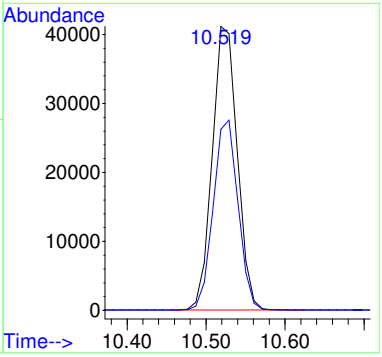


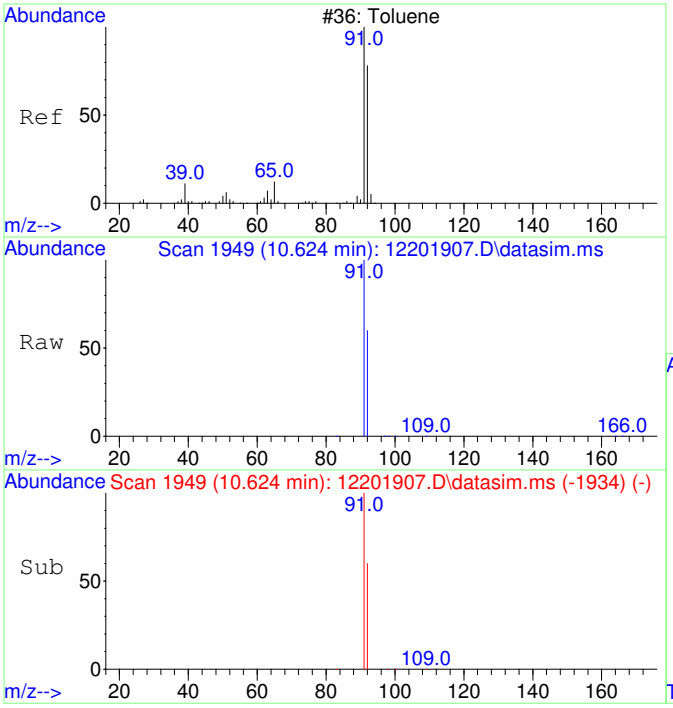


#12
Toluene-d8
Concen: 5279.27 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 98 Resp: 90384

Ion	Ratio	Lower	Upper
98	100		
100	66.3	36.2	96.2

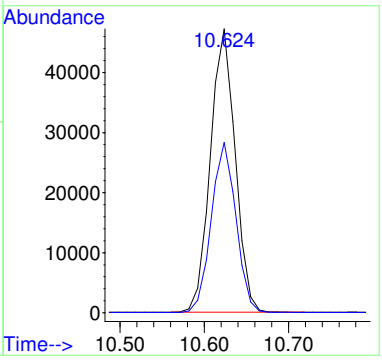


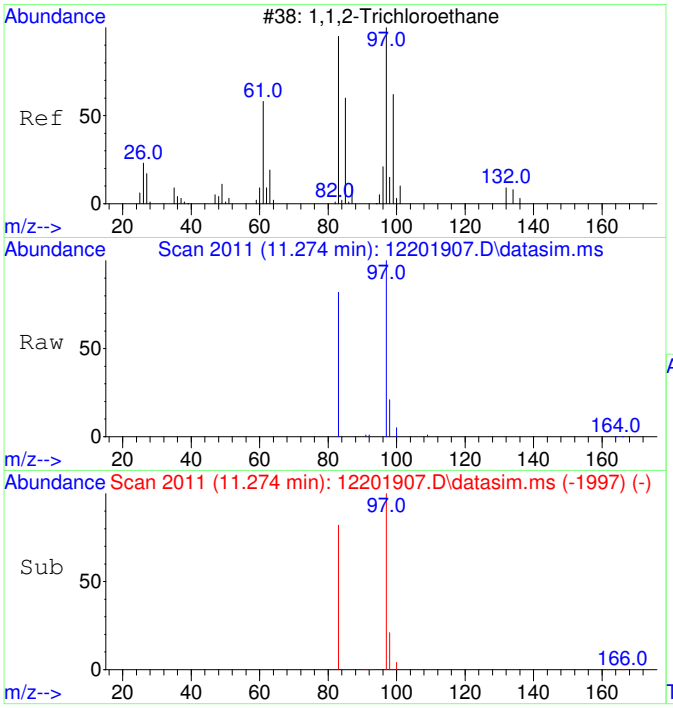


#13
Toluene
Concen: 4644.27 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 96462

Ion	Ratio	Lower	Upper
91	100		
92	59.4	29.4	89.4

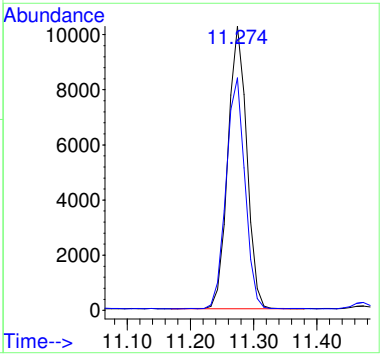


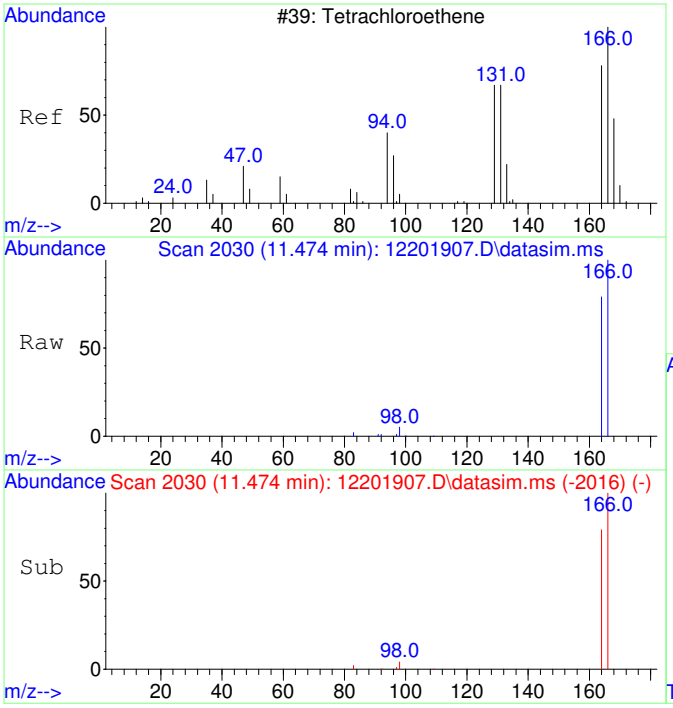


#14
1,1,2-Trichloroethane
Concen: 4500.66 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 97 Resp: 21181

Ion	Ratio	Lower	Upper
97	100		
83	82.0	52.5	112.5

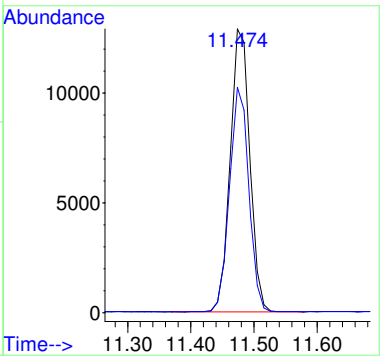


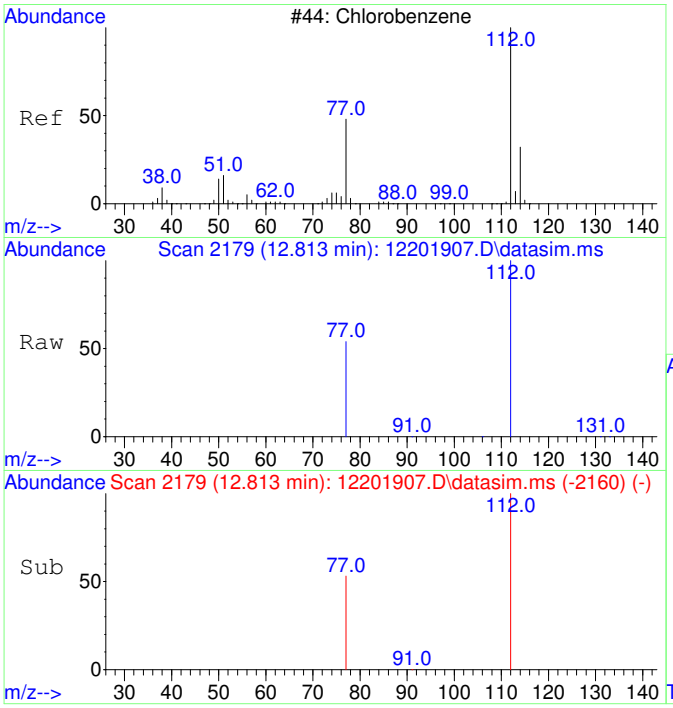


#15
Tetrachloroethene
Concen: 4415.94 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:166 Resp: 27679

Ion	Ratio	Lower	Upper
166	100		
164	78.2	47.6	107.6

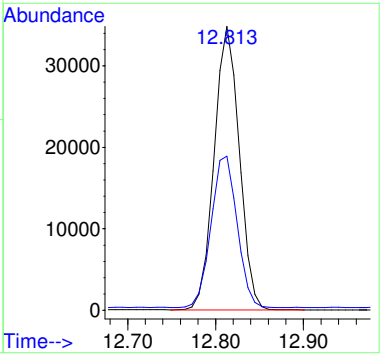


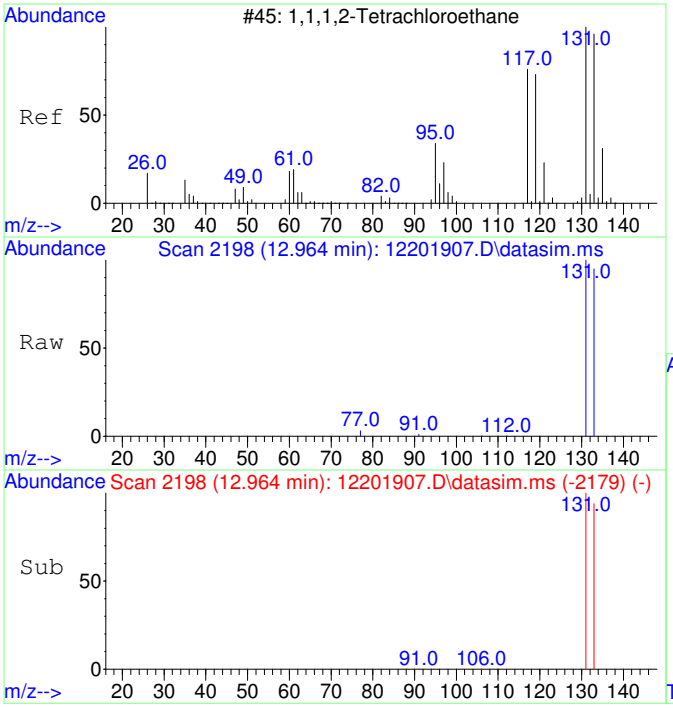


#16
Chlorobenzene
Concen: 4356.51 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:112 Resp: 69088

Ion	Ratio	Lower	Upper
112	100		
77	55.4	24.2	84.2

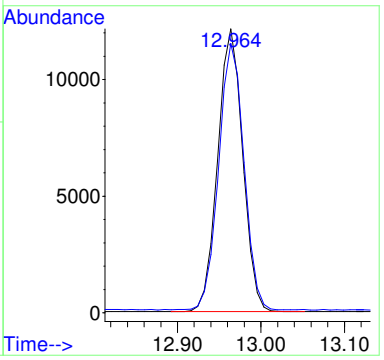


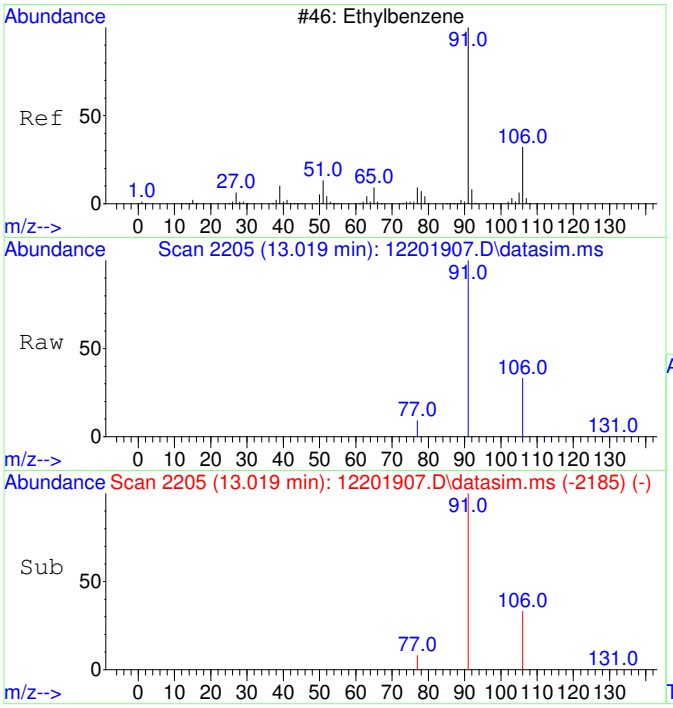


#17
1,1,1,2-Tetrachloroethane
Concen: 4552.99 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:131 Resp: 25198

Ion	Ratio	Lower	Upper
131	100		
133	95.1	66.0	126.0

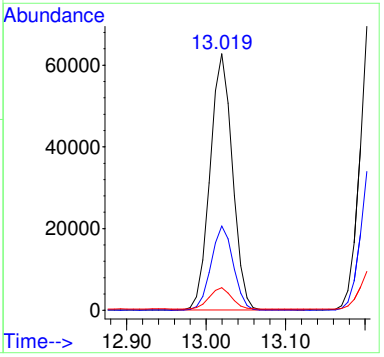


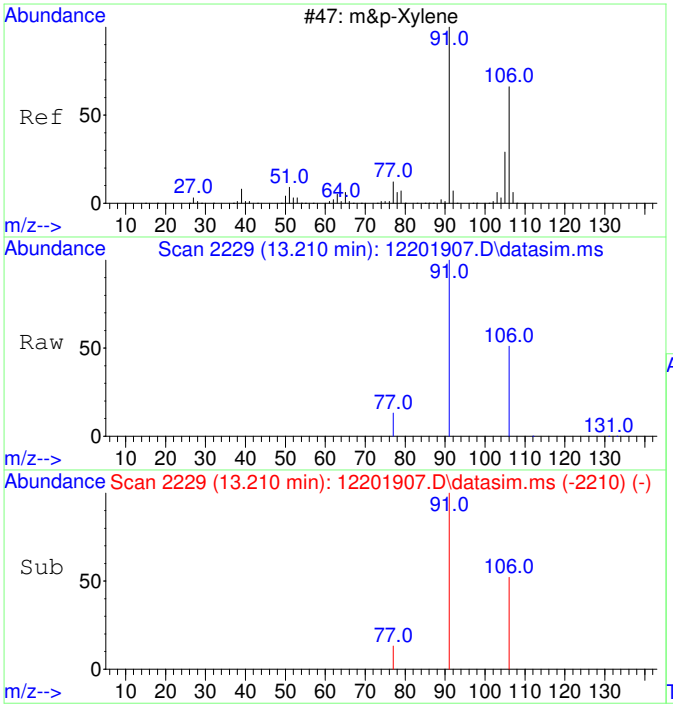


#18
Ethylbenzene
Concen: 4769.73 ug/L
RT: 13.019 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 122240

Ion	Ratio	Lower	Upper
91	100		
106	32.6	2.5	62.5
77	8.3	0.0	38.2

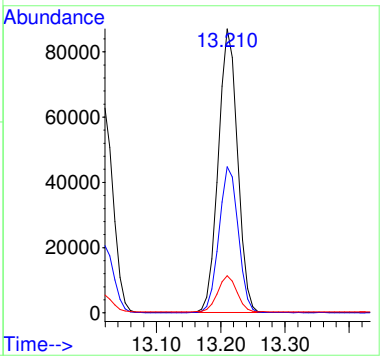


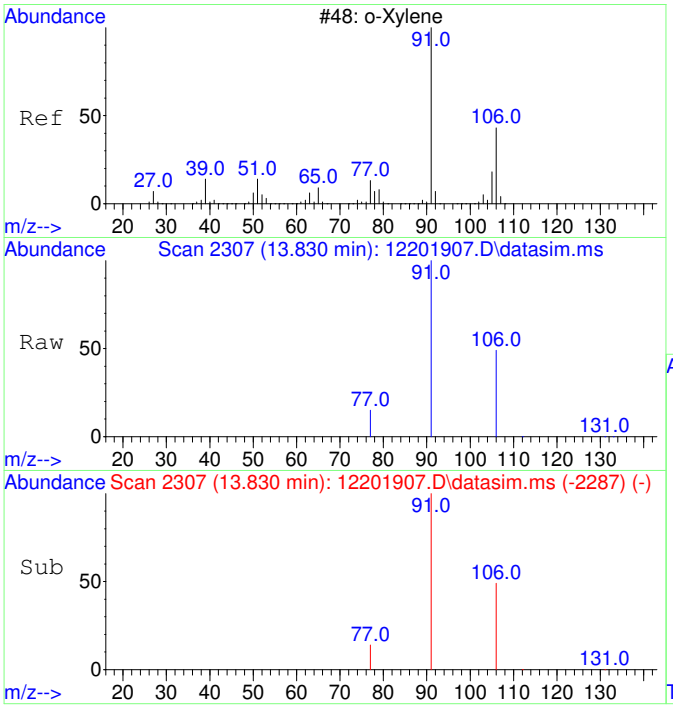


#19
m&p-Xylene
Concen: 9219.81 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 180047

Ion	Ratio	Lower	Upper
91	100		
106	51.6	21.6	81.6
77	12.7	0.0	42.6

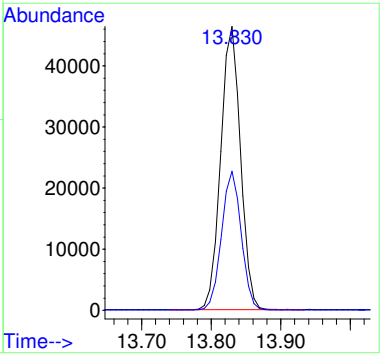


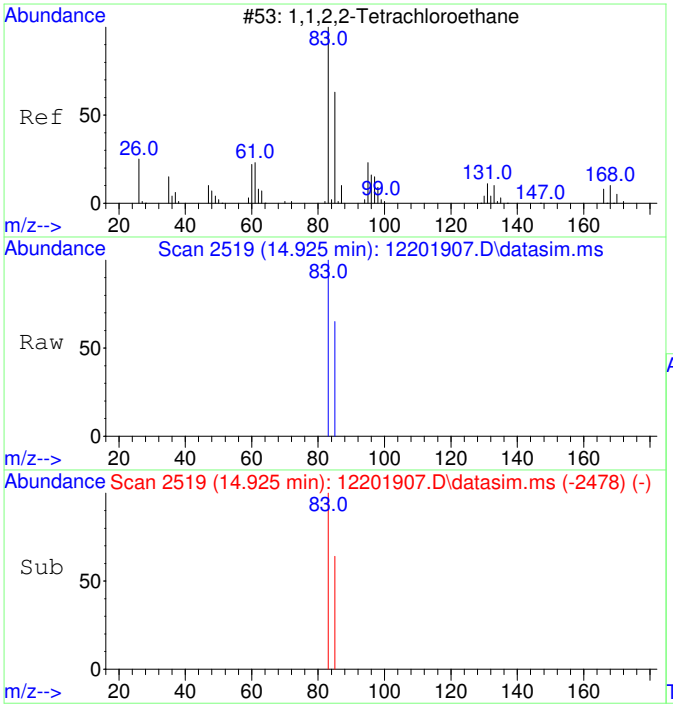


#20
o-Xylene
Concen: 4423.95 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 91614

Ion	Ratio	Lower	Upper
91	100		
106	48.6	18.5	78.5

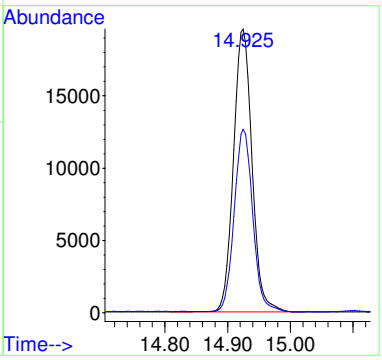


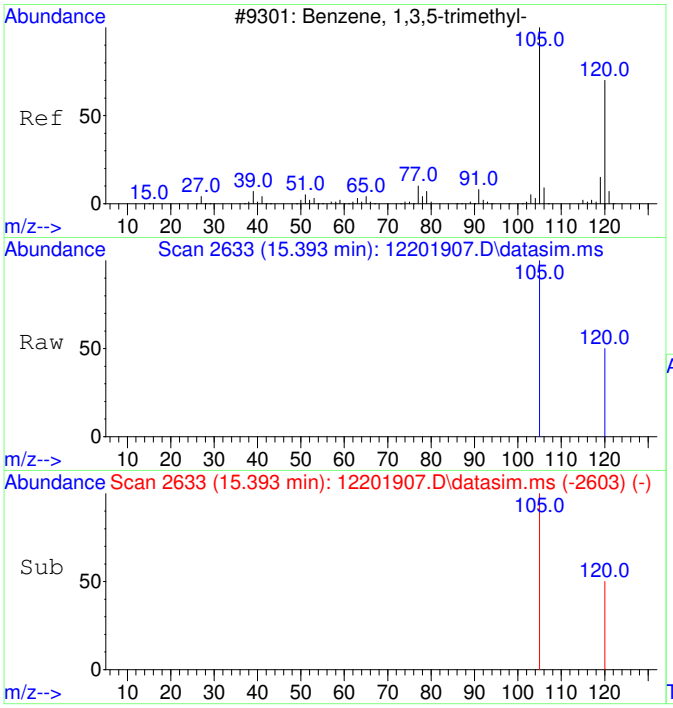


#21
1,1,2,2-Tetrachloroethane
Concen: 4314.14 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.003 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 83 Resp: 40116

Ion	Ratio	Lower	Upper
83	100		
85	64.4	34.7	94.7

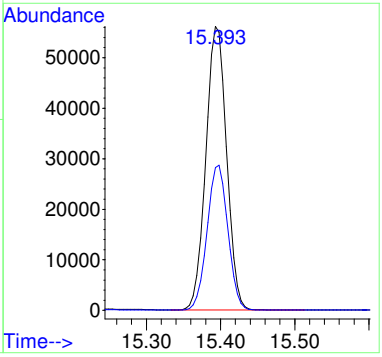


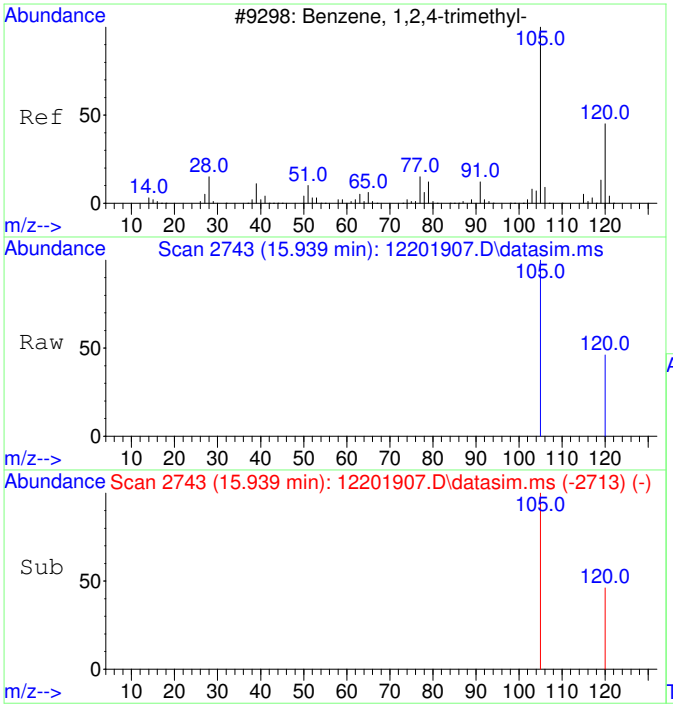


#22
1,3,5-Trimethylbenzene
Concen: 4718.08 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:105 Resp: 108871

Ion	Ratio	Lower	Upper
105	100		
120	51.1	20.7	80.7

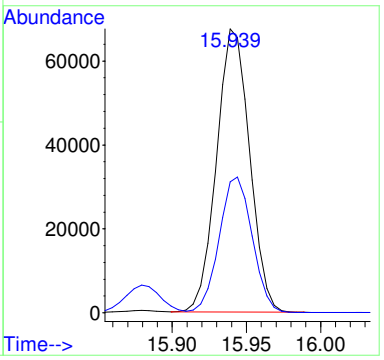


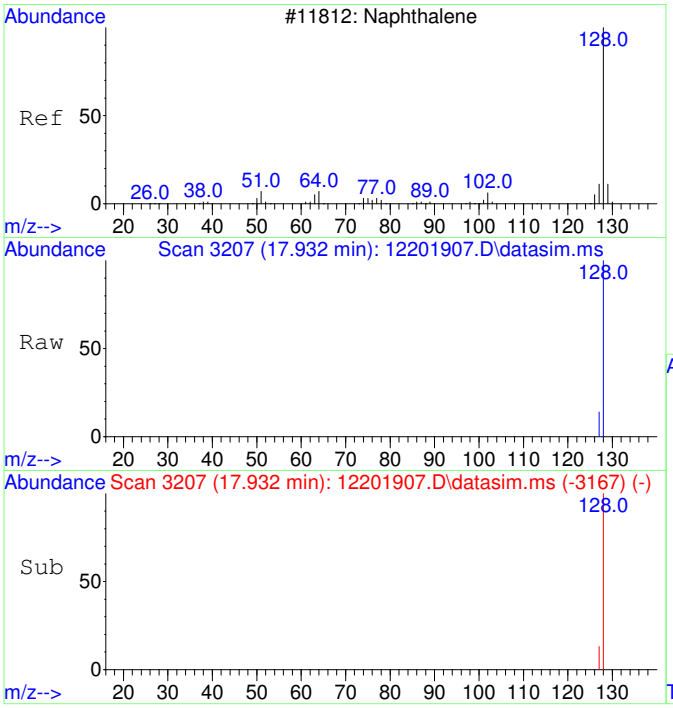


#23
1,2,4-Trimethylbenzene
Concen: 4432.00 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:105 Resp: 104520

Ion	Ratio	Lower	Upper
105	100		
120	47.1	16.6	76.6

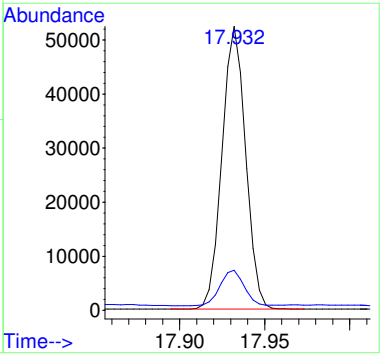


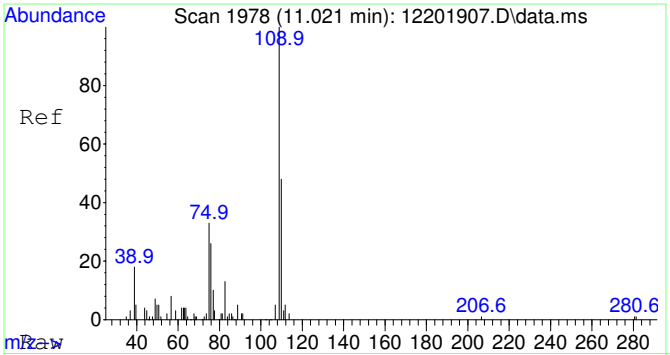


#24
Naphthalene
Concen: 1186.81 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:128 Resp: 50563

Ion	Ratio	Lower	Upper
128	100		
127	12.7	0.0	42.5

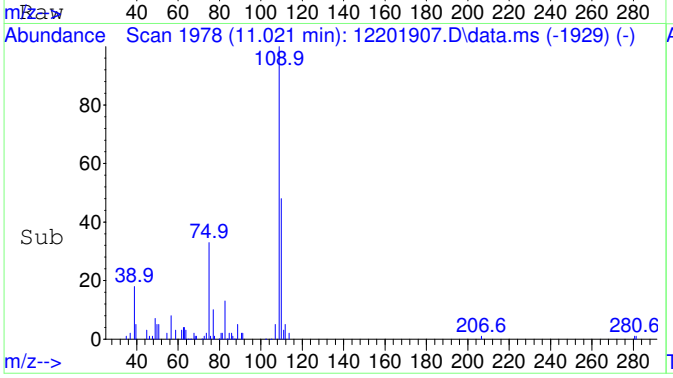


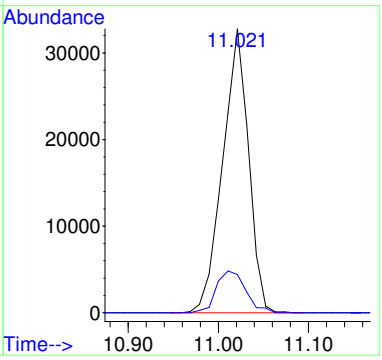


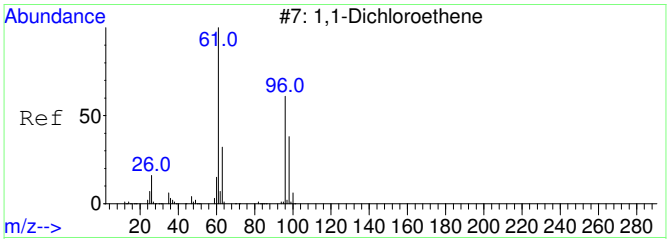
#25
2-Fluorotoluene SCAN
Concen: 4957.73 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:109 Resp: 65572

Ion	Ratio	Lower	Upper
109	100		
83	16.7	0.0	44.7



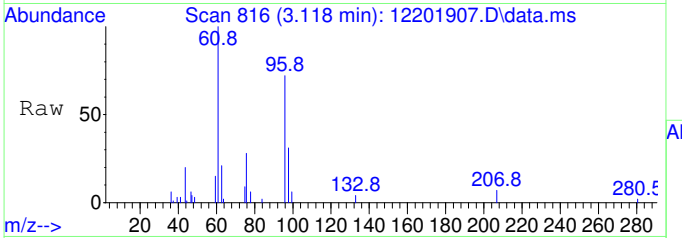


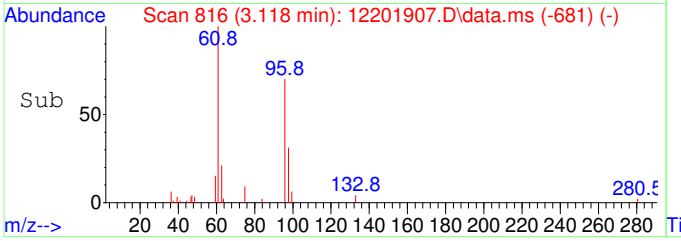


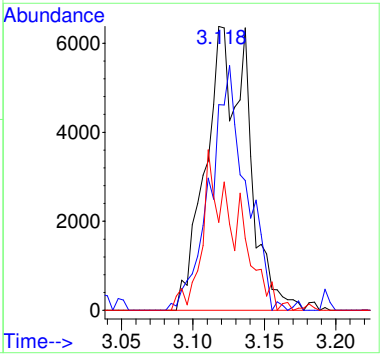
#26
1,1-Dichloroethene SCAN
Concen: 4510.82 ug/L
RT: 3.118 min Scan# 816
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

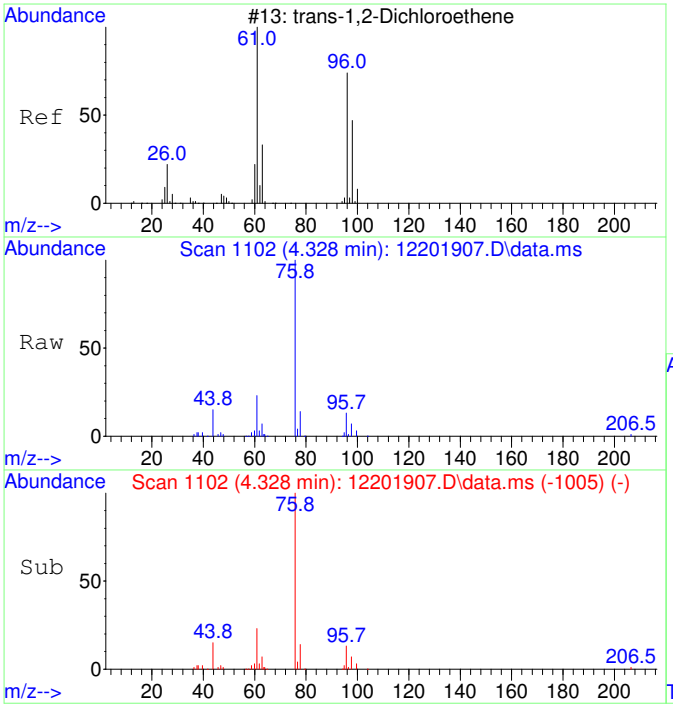
Tgt Ion: 61 Resp: 13074

Ion	Ratio	Lower	Upper
61	100		
96	73.4	34.8	94.8
98	44.4	12.9	72.9





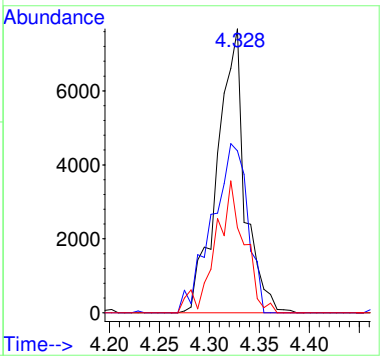


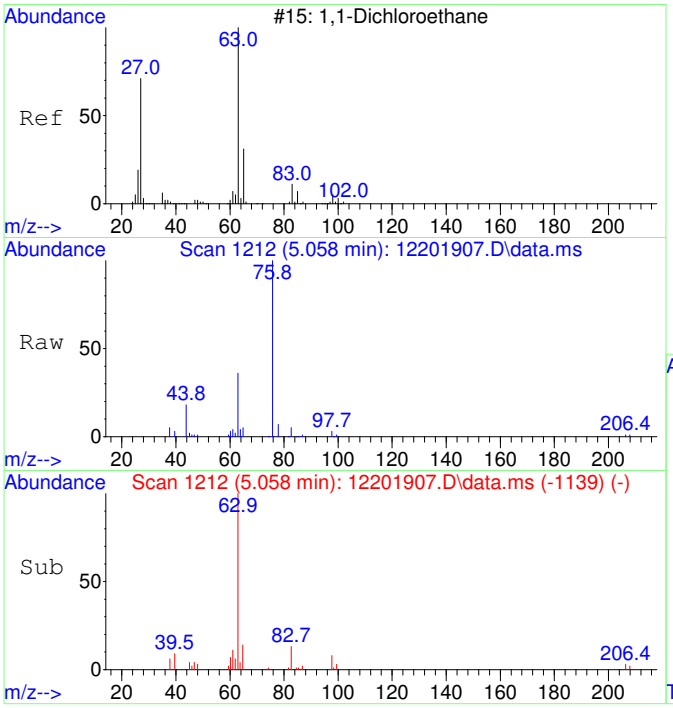


#27
trans-1,2-Dichloroethene SCAN
Concen: 5391.17 ug/L
RT: 4.328 min Scan# 1102
Delta R.T. 0.006 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 61 Resp: 14804

Ion	Ratio	Lower	Upper
61	100		
96	76.7	42.7	102.7
98	48.7	23.4	83.4

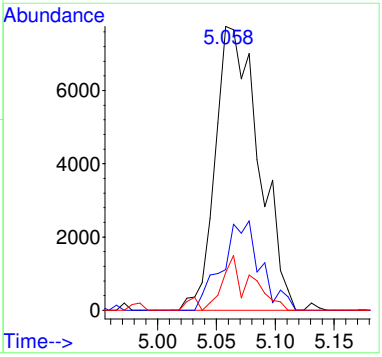


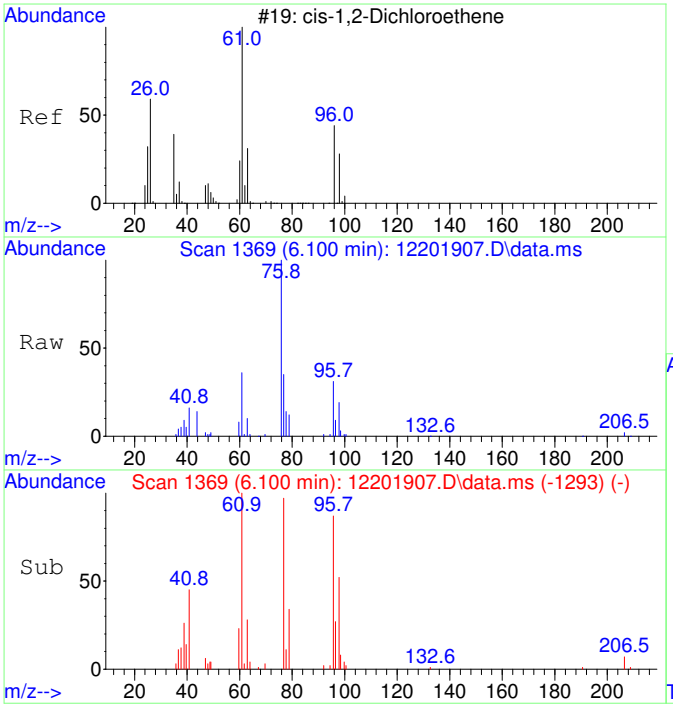


#28
1,1-Dichloroethane SCAN
Concen: 4838.40 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 63 Resp: 19882

Ion	Ratio	Lower	Upper
63	100		
65	27.8	0.0	59.7
83	12.4	0.0	31.2

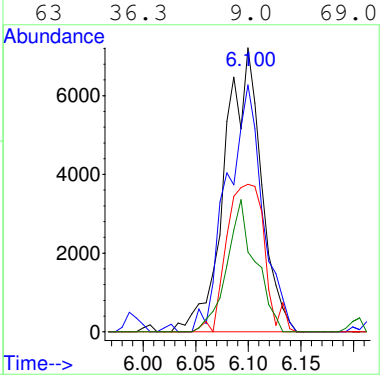


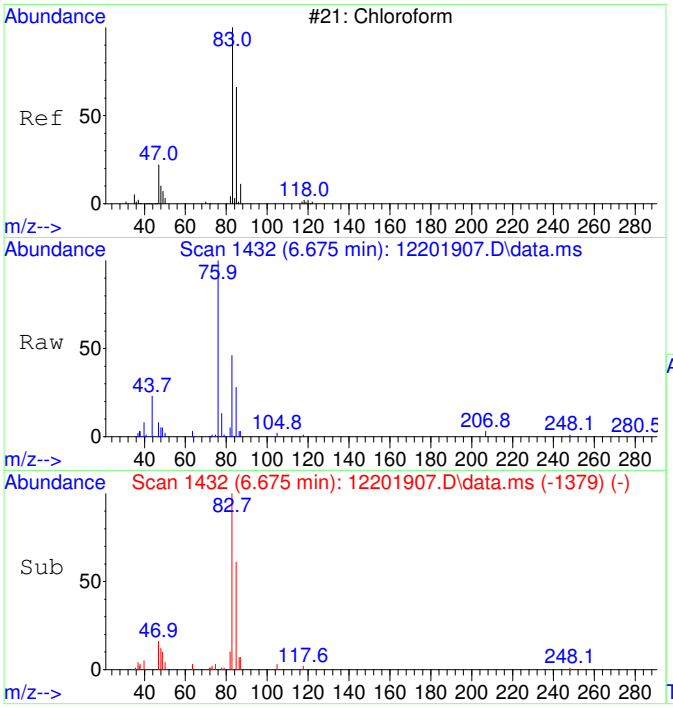


#29
cis-1,2-Dichloroethene SCAN
Concen: 5319.10 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.006 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 61 Resp: 17507

Ion	Ratio	Lower	Upper
61	100		
96	84.6	46.1	106.1
98	53.7	20.8	80.8
63	36.3	9.0	69.0

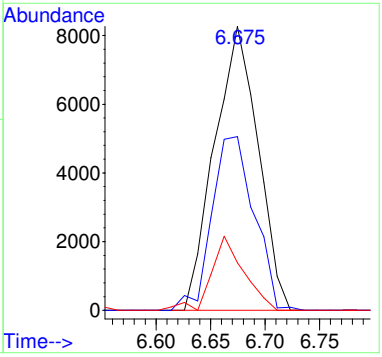


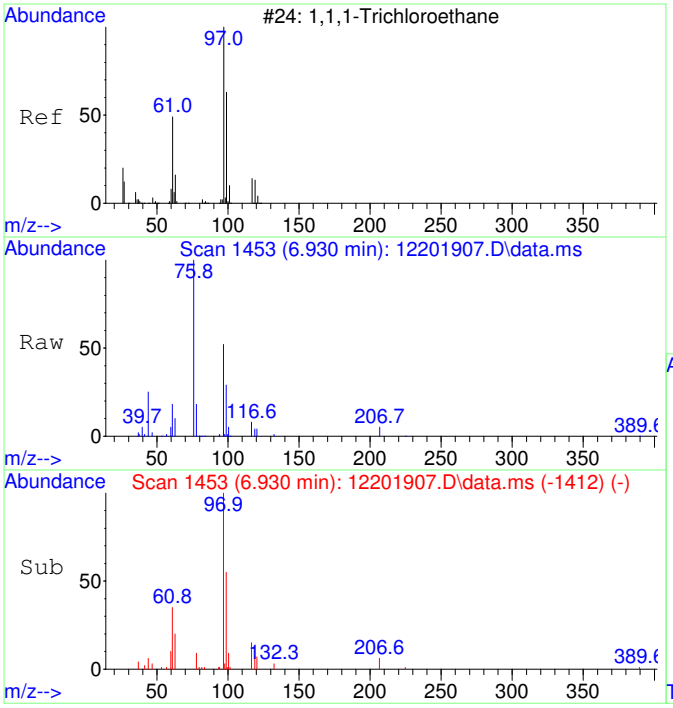


#30
Chloroform SCAN
Concen: 6545.32 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 83 Resp: 23003

Ion	Ratio	Lower	Upper
83	100		
85	59.6	42.9	102.9
47	19.4	4.5	64.5

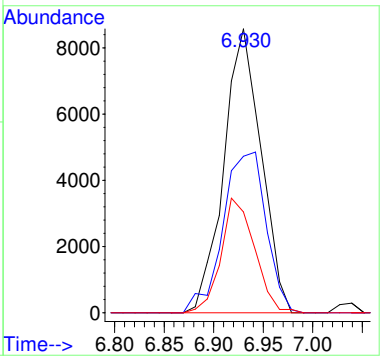


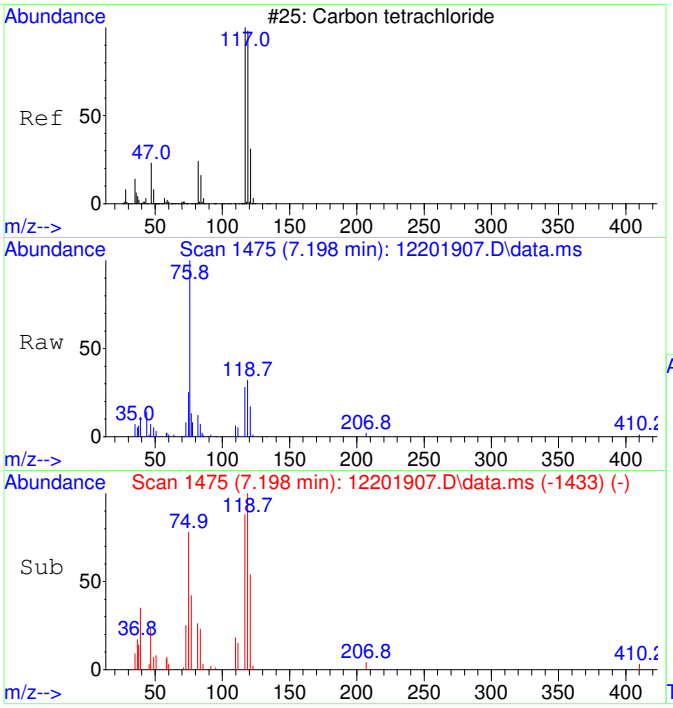


#31
1,1,1-Trichloroethane SCAN
Concen: 5571.14 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 97 Resp: 22508

Ion	Ratio	Lower	Upper
97	100		
99	65.5	16.3	76.3
61	0.0	18.9	78.9#

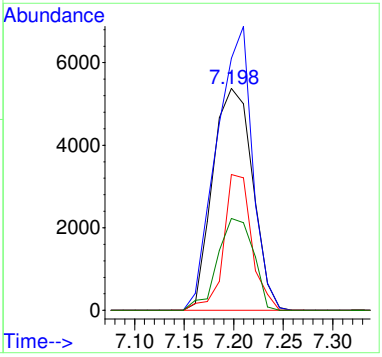


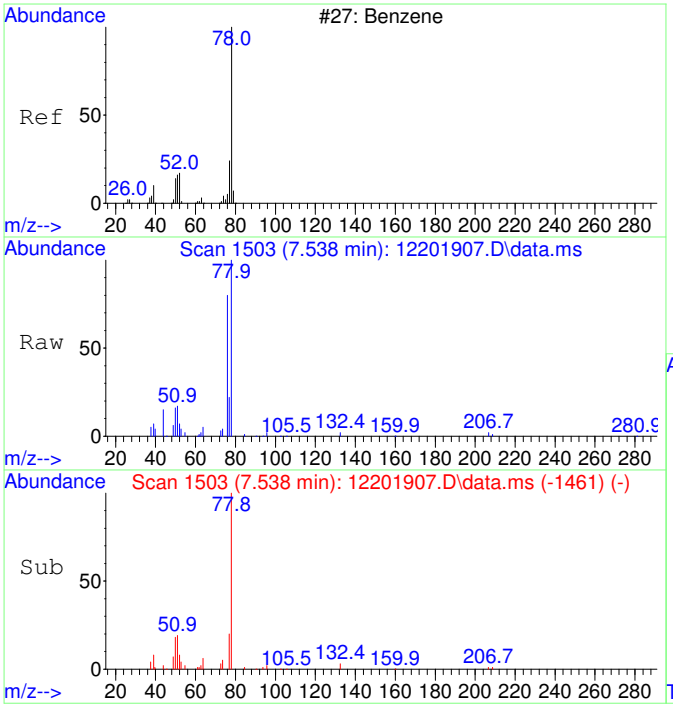


#32
Carbon tetrachloride SCAN
Concen: 4363.73 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:117 Resp: 15098

Ion	Ratio	Lower	Upper
117	100		
119	114.6	68.9	128.9
121	43.1	4.5	64.5
82	37.2	0.0	56.3

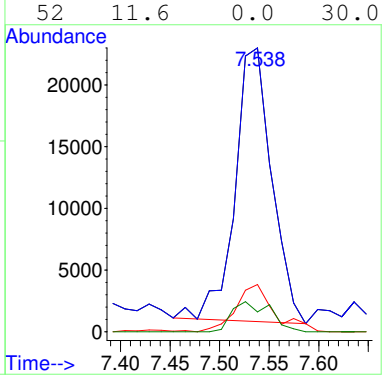


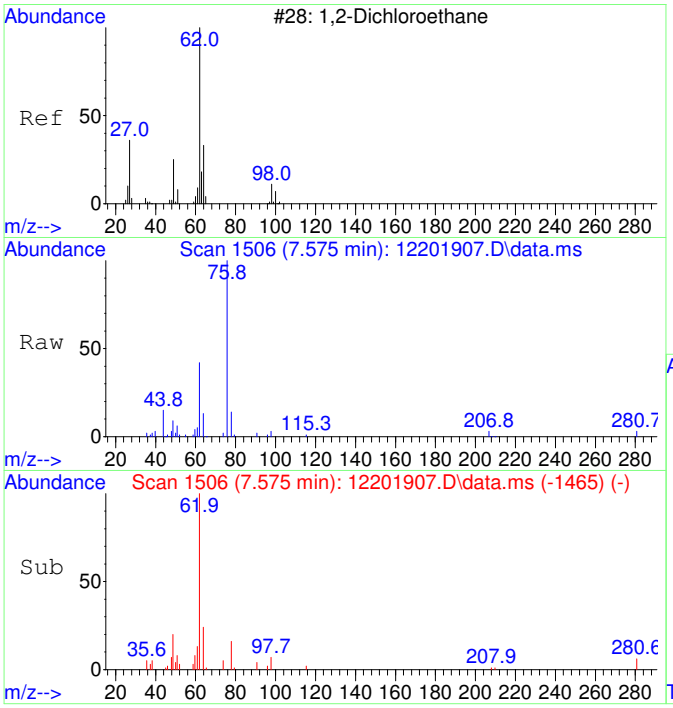


#33
Benzene SCAN
Concen: 5396.93 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 78 Resp: 57186

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	18.1	0.0	45.4
52	11.6	0.0	30.0

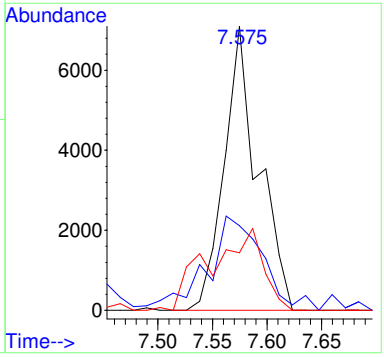


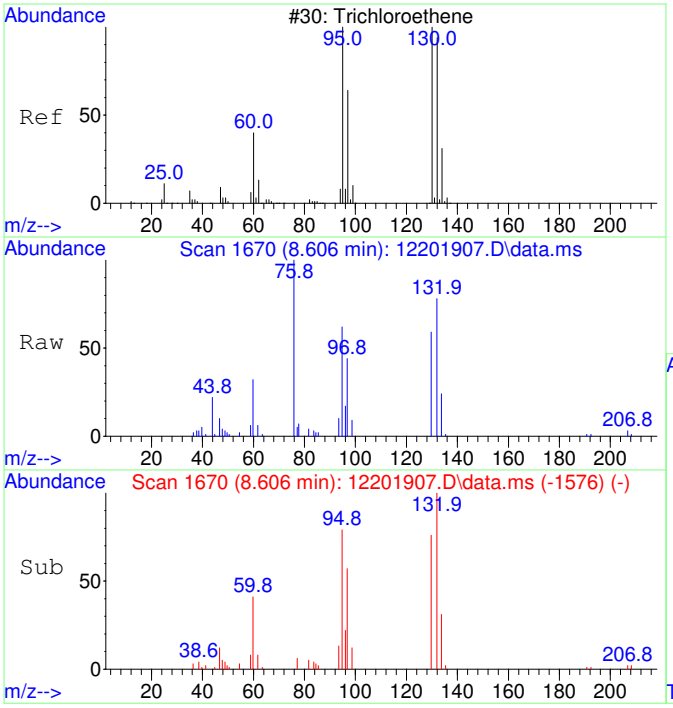


#34
1,2-Dichloroethane SCAN
Concen: 4252.26 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 62 Resp: 15367

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	17.1	4.0	64.0

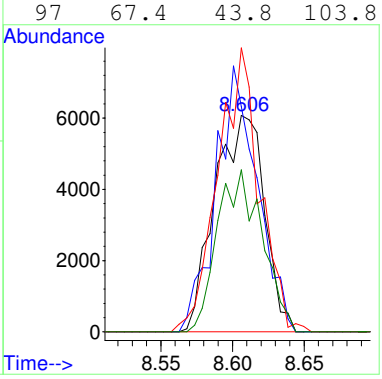


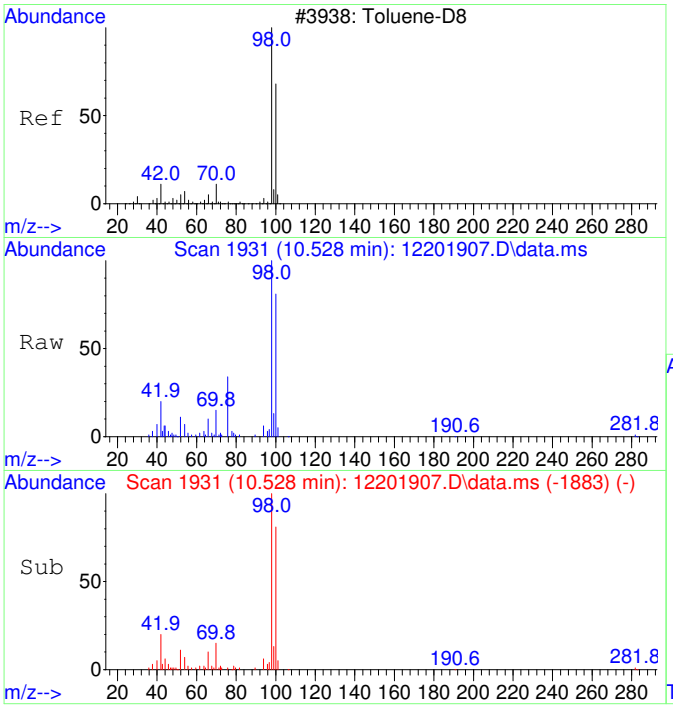


#35
Trichloroethene SCAN
Concen: 5398.37 ug/L
RT: 8.606 min Scan# 1670
Delta R.T. 0.011 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:130 Resp: 14608

Ion	Ratio	Lower	Upper
130	100		
95	102.2	75.7	135.7
132	109.7	77.1	137.1
97	67.4	43.8	103.8

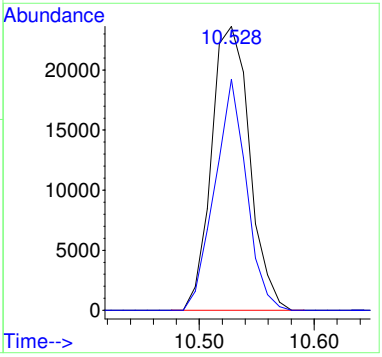


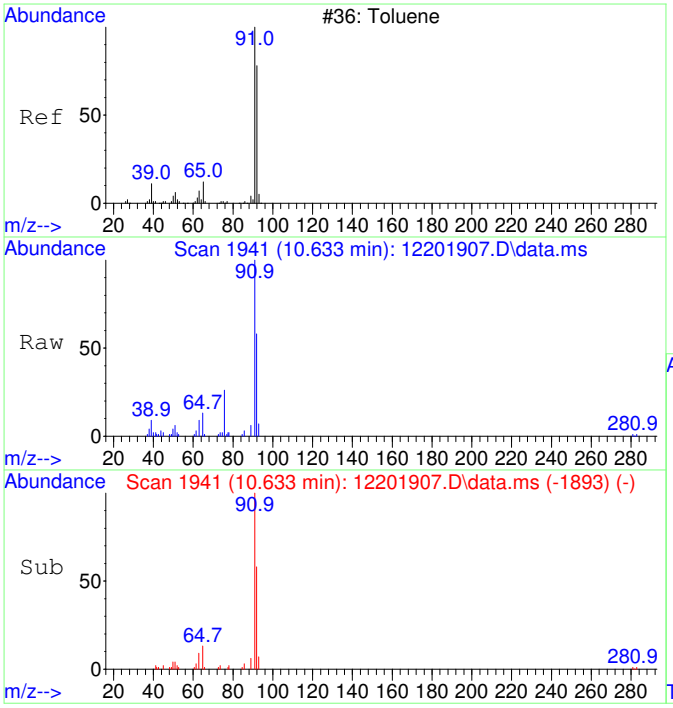


#36
Toluene-d8 SCAN
Concen: 4879.69 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 98 Resp: 54722

Ion	Ratio	Lower	Upper
98	100		
100	67.7	44.4	104.4

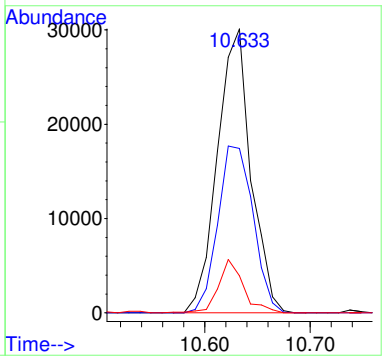


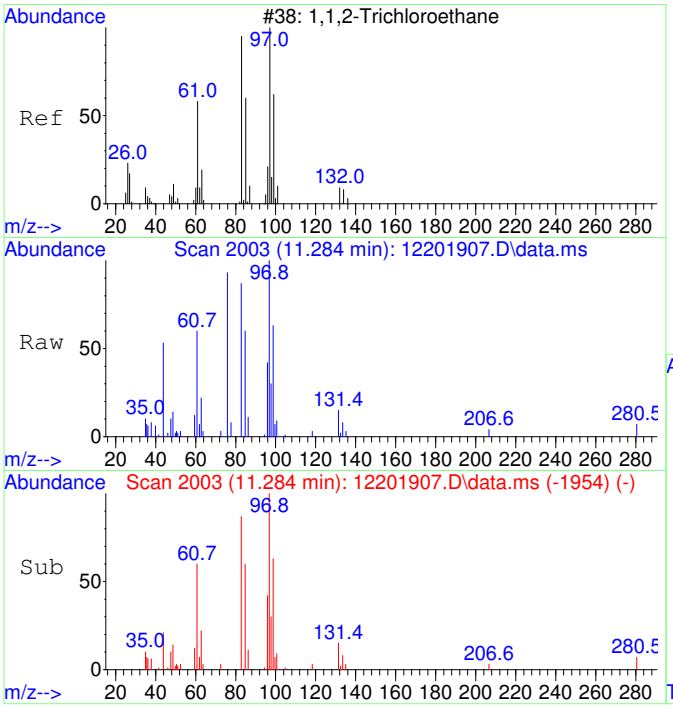


#37
Toluene SCAN
Concen: 5098.77 ug/L
RT: 10.633 min Scan# 1941
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 66784

Ion	Ratio	Lower	Upper
91	100		
92	61.9	31.5	91.5
65	14.0	0.0	30.0

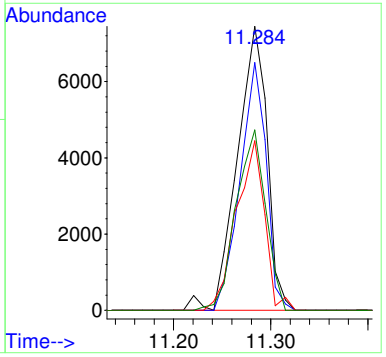


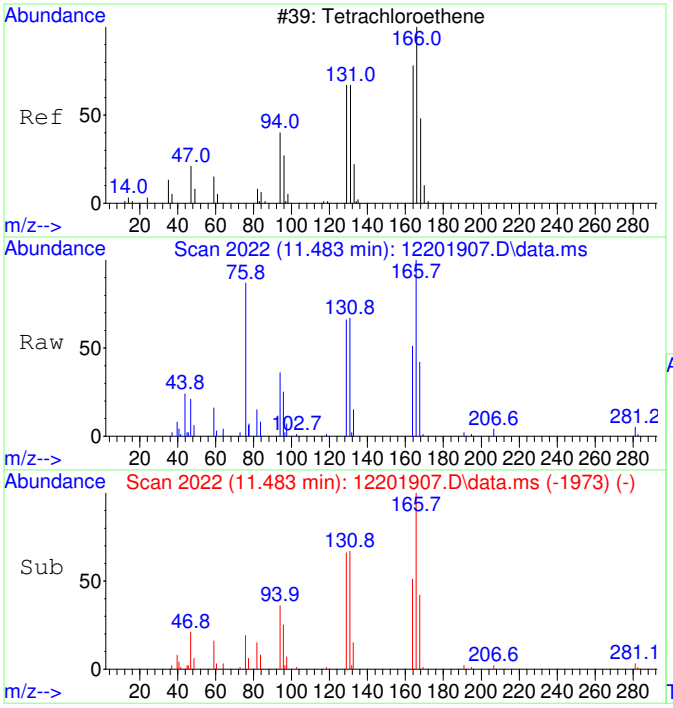


#38
1,1,2-Trichloroethane SCAN
Concen: 5576.74 ug/L
RT: 11.284 min Scan# 2003
Delta R.T. 0.010 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 97 Resp: 15890

Ion	Ratio	Lower	Upper
97	100		
83	75.9	67.7	127.7
61	56.3	31.9	91.9
99	62.7	35.5	95.5

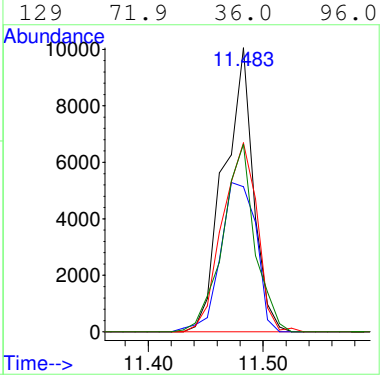


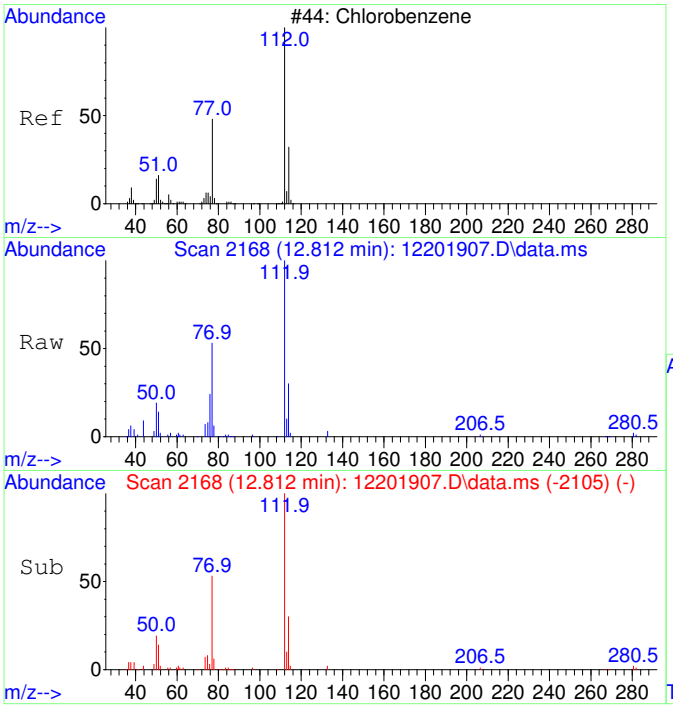


#39
Tetrachloroethene SCAN
Concen: 4722.70 ug/L
RT: 11.483 min Scan# 2022
Delta R.T. 0.010 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:166 Resp: 17930

Ion	Ratio	Lower	Upper
166	100		
164	63.7	61.8	121.8
131	78.8	51.8	111.8
129	71.9	36.0	96.0

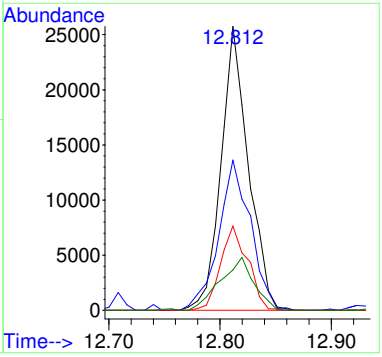


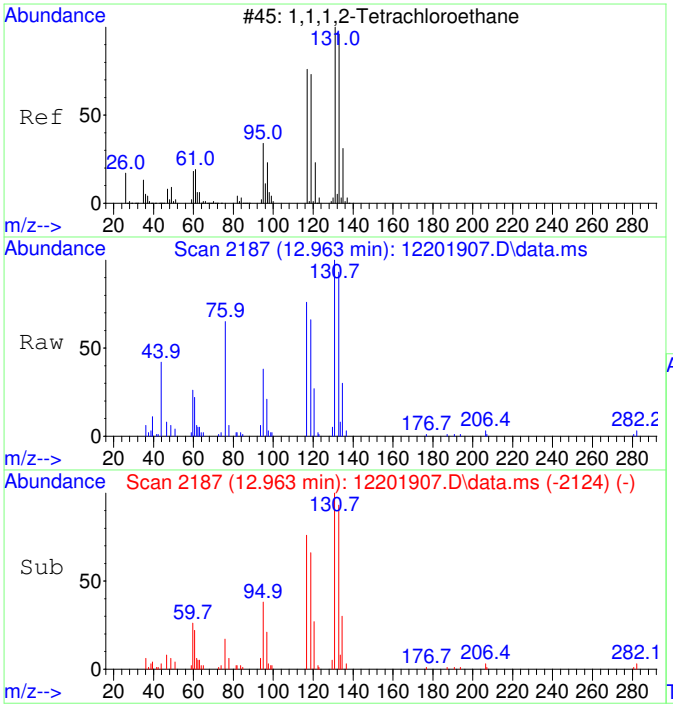


#40
Chlorobenzene SCAN
Concen: 4214.96 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:112 Resp: 43988

Ion	Ratio	Lower	Upper
112	100		
77	61.7	27.8	87.8
114	29.6	3.1	63.1
51	22.7	0.0	49.9

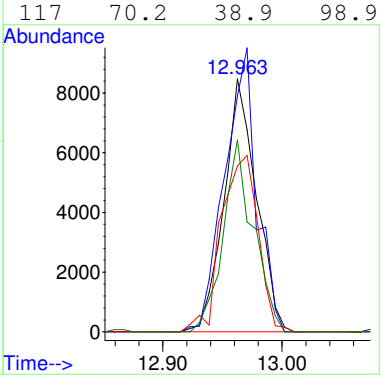


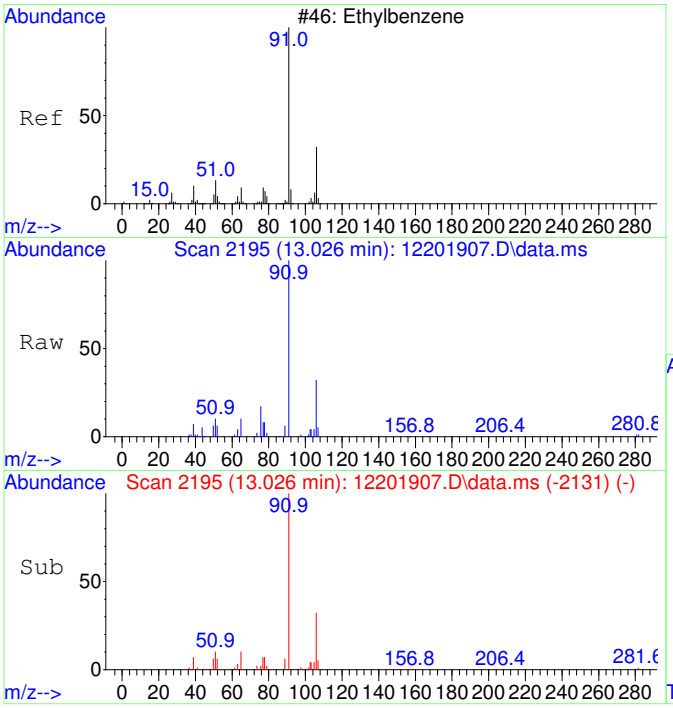


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 4784.12 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:131 Resp: 16106

Ion	Ratio	Lower	Upper
131	100		
133	110.1	69.6	129.6
119	78.8	42.4	102.4
117	70.2	38.9	98.9

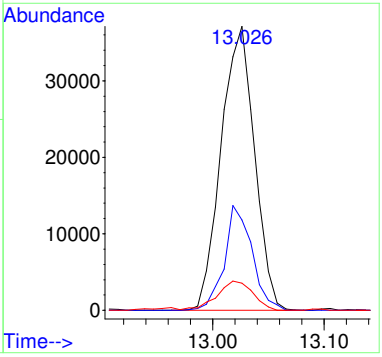


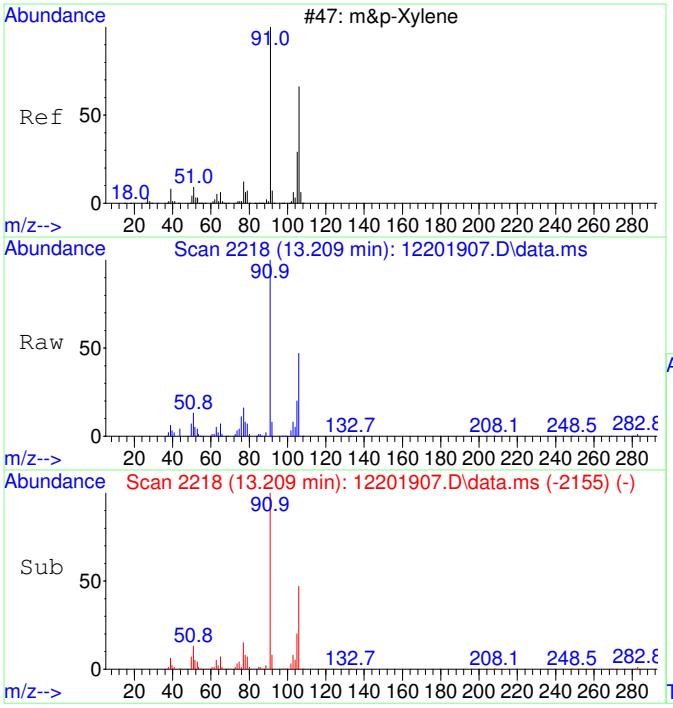


#42
Ethylbenzene SCAN
Concen: 4686.37 ug/L
RT: 13.026 min Scan# 2195
Delta R.T. 0.008 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 77556

Ion	Ratio	Lower	Upper
91	100		
106	30.4	1.3	61.3
51	10.8	0.0	39.4

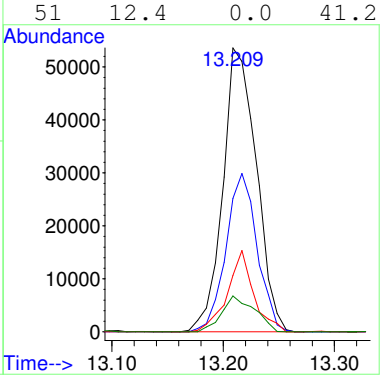


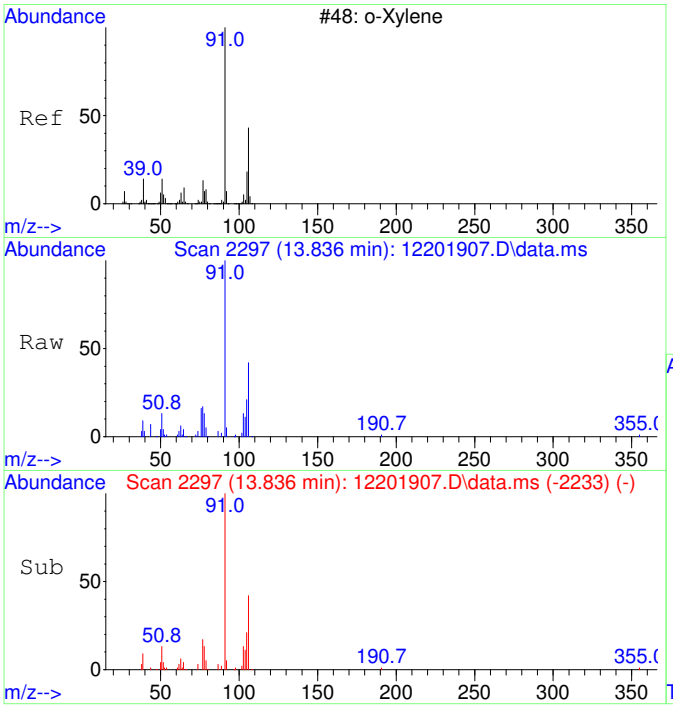


#43
m&p-Xylene SCAN
Concen: 4524.83 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 112294

Ion	Ratio	Lower	Upper
91	100		
106	51.9	19.0	79.0
105	22.4	0.0	54.9
51	12.4	0.0	41.2

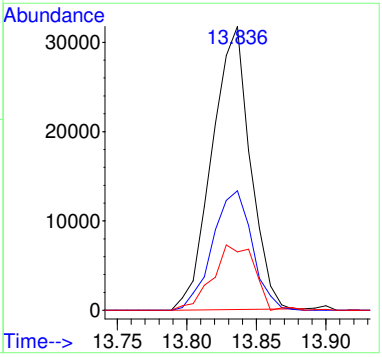


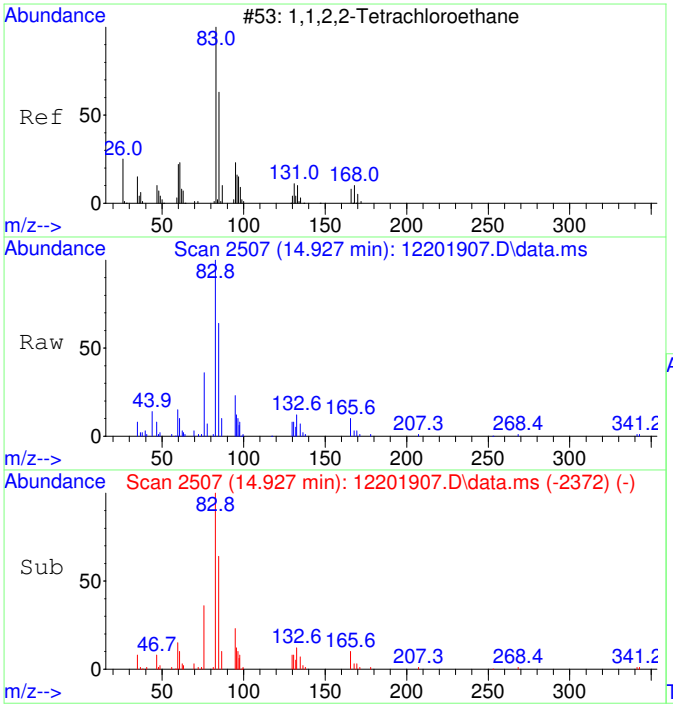


#44
o-Xylene SCAN
Concen: 4309.03 ug/L
RT: 13.836 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 91 Resp: 60625

Ion	Ratio	Lower	Upper
91	100		
106	43.9	17.2	77.2
105	25.6	0.0	57.7

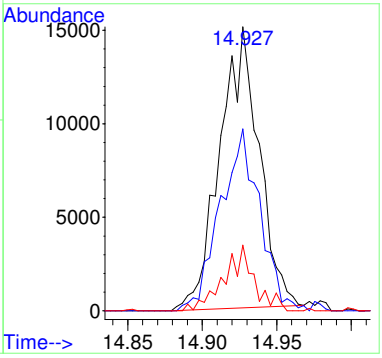


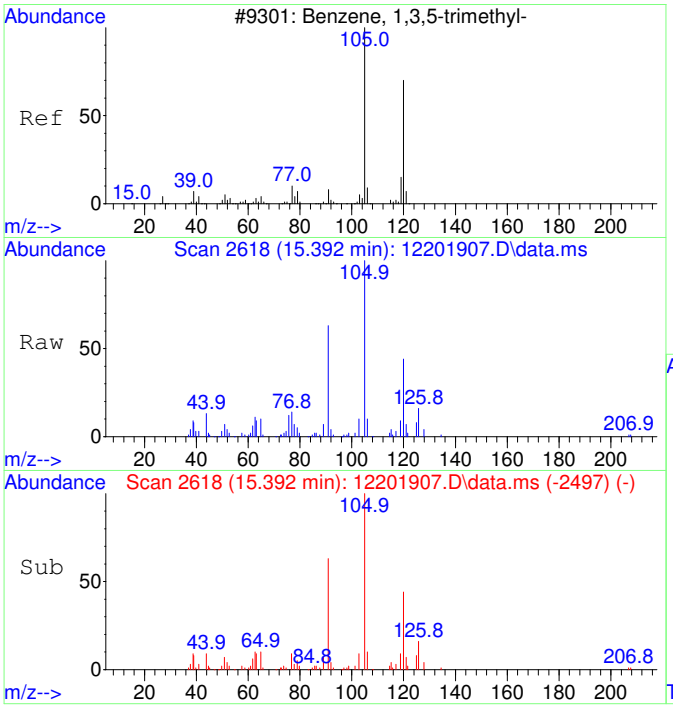


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 4336.49 ug/L
RT: 14.927 min Scan# 2507
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion: 83 Resp: 27505

Ion	Ratio	Lower	Upper
83	100		
85	65.1	37.2	97.2
95	17.9	0.0	48.7

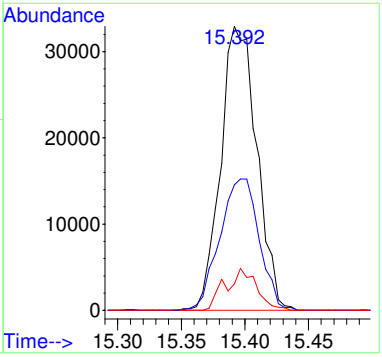


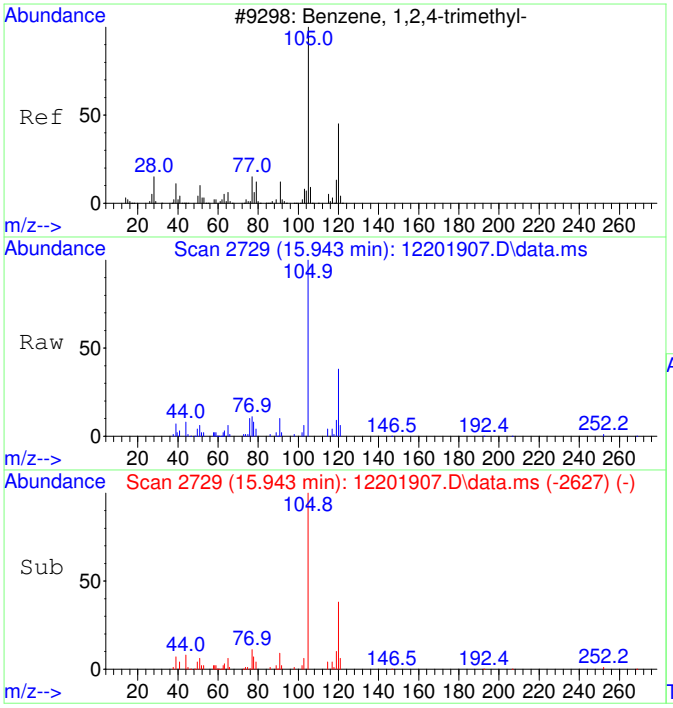


#46
1,3,5-Trimethylbenzene SCAN
Concen: 4440.54 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:105 Resp: 65287

Ion	Ratio	Lower	Upper
105	100		
120	50.6	22.3	82.3
119	12.8	0.0	43.8

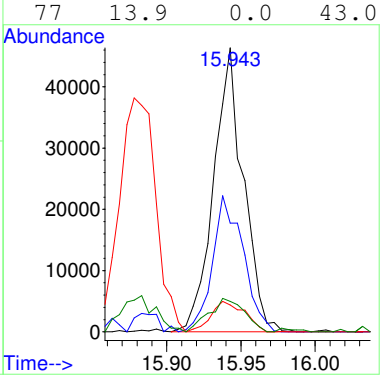


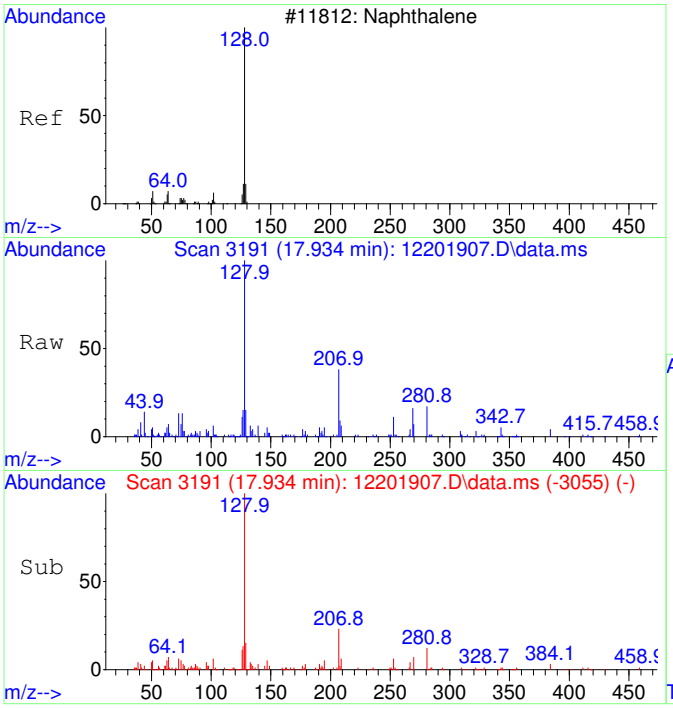


#47
1,2,4-Trimethylbenzene SCAN
Concen: 4344.76 ug/L
RT: 15.943 min Scan# 2729
Delta R.T. 0.005 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:105 Resp: 64842

Ion	Ratio	Lower	Upper
105	100		
120	49.2	15.8	75.8
119	12.0	0.0	42.9
77	13.9	0.0	43.0

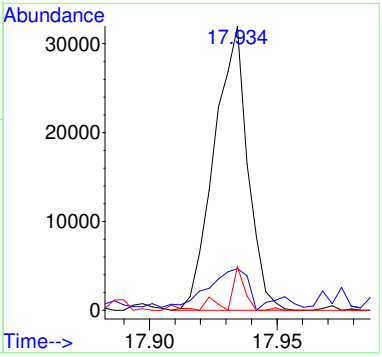




#48
Naphthalene SCAN
Concen: 1212.94 ug/L
RT: 17.934 min Scan# 3191
Delta R.T. 0.003 min
Lab File: 12201907.D
Acq: 20 Dec 2019 12:48

Tgt Ion:128 Resp: 29247

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	30.0
129	6.1	0.0	34.5



1912014-06

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201911.D
Acq On : 20 Dec 2019 14:22
InstName : AG5975C
Operator : TD
Sample : 1912014-06
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 20 15:04:24 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

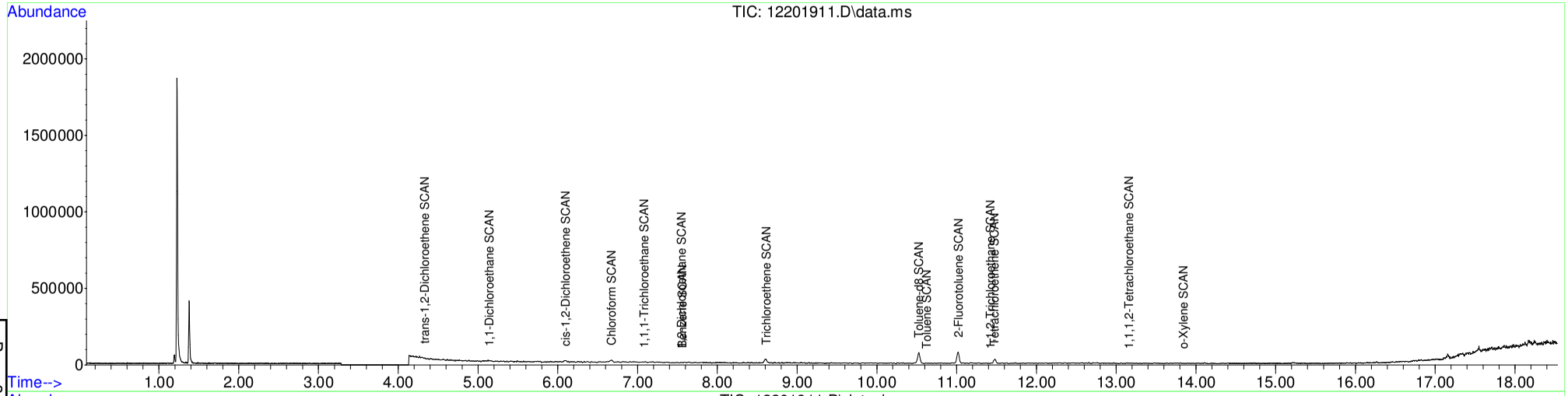
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	103415	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	86313	5197.04 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 103.94%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.127	61	369	83.39 ug/L #	48
3] trans-1,2-Dichloroethene	4.316	61	835	183.98 ug/L	92
5] cis-1,2-Dichloroethene	6.094	61	7070	1332.55 ug/L	100
6] Chloroform	6.664	83	12093	1973.52 ug/L	99
9] Benzene	7.528	78	412	26.68 ug/L	78
11] Trichloroethene	8.602	130	14994	3164.41 ug/L	99
13] Toluene	10.624	91	797	39.56 ug/L	91
14] 1,1,2-Trichloroethane	11.212	97	95	20.81 ug/L #	35
15] Tetrachloroethene	11.474	166	13070	2149.55 ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	64483	5025.83 ug/L	99
27) trans-1,2-Dichloroethe...	4.328	61	393	147.53 ug/L #	51
28) 1,1-Dichloroethane SCAN	5.138	63	176	44.15 ug/L #	47
29) cis-1,2-Dichloroethene...	6.093	61	5640	1766.46 ug/L #	76
30) Chloroform SCAN	6.675	83	9746	2858.72 ug/L	82
31) 1,1,1-Trichloroethane ...	7.076	97	401	102.32 ug/L #	29
33) Benzene SCAN	7.563	78	2920	284.08 ug/L #	95
34) 1,2-Dichloroethane SCAN	7.551	62	153	43.64 ug/L #	36
35) Trichloroethene SCAN	8.612	130	10682	4069.32 ug/L	87
36) Toluene-d8 SCAN	10.528	98	58417	5369.91 ug/L	80
37) Toluene SCAN	10.623	91	708	55.72 ug/L #	73
38) 1,1,2-Trichloroethane ...	11.420	97	127	45.95 ug/L #	11
39) Tetrachloroethene SCAN	11.473	166	8058	2187.94 ug/L #	75
41) 1,1,1,2-Tetrachloroeth...	13.161	131	79	24.19 ug/L #	8
44) o-Xylene SCAN	13.837	91	657	48.14 ug/L #	36

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201911.D
Acq On : 20 Dec 2019 14:22
InstName : AG5975C
Operator : TD
Sample : 1912014-06
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 20 15:04:24 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



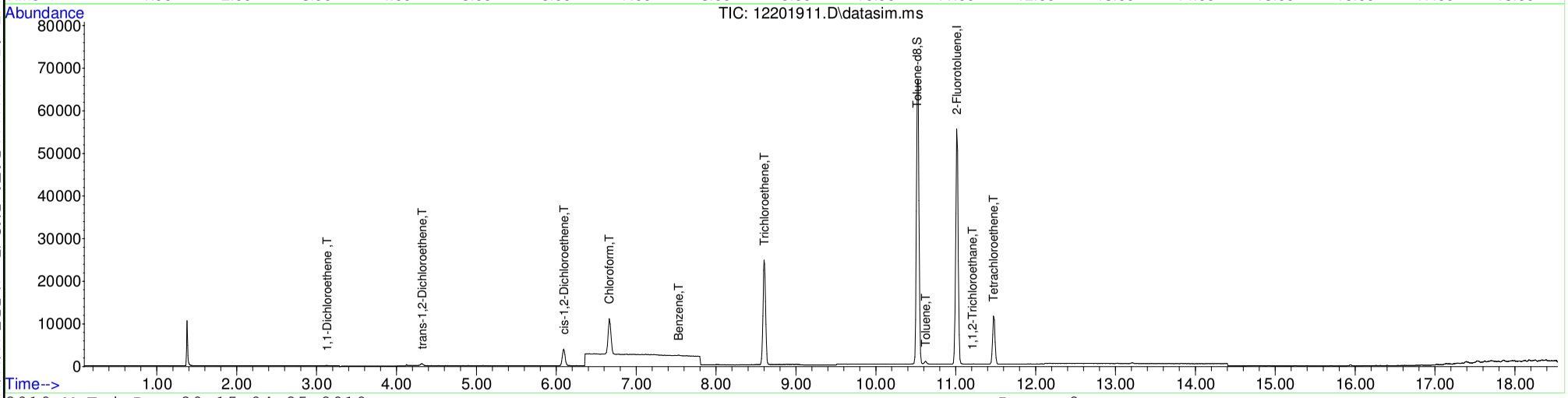
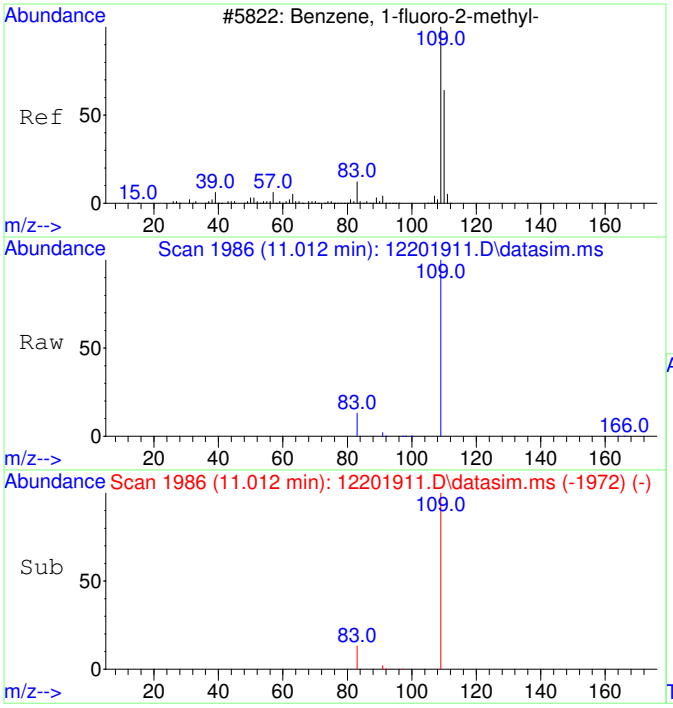


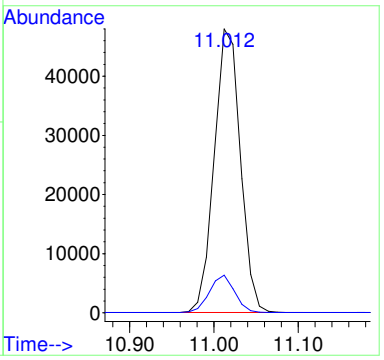
Table of Contents

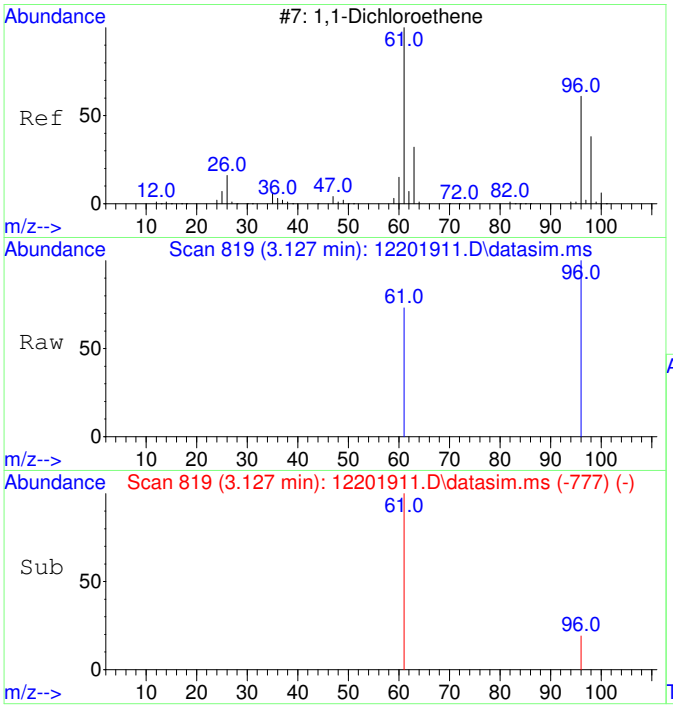


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:109 Resp: 103415

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

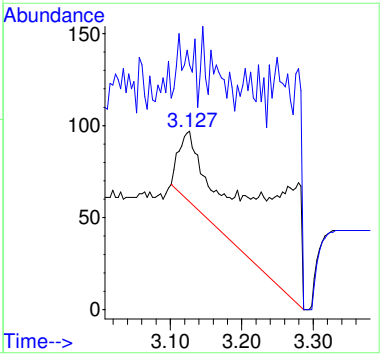




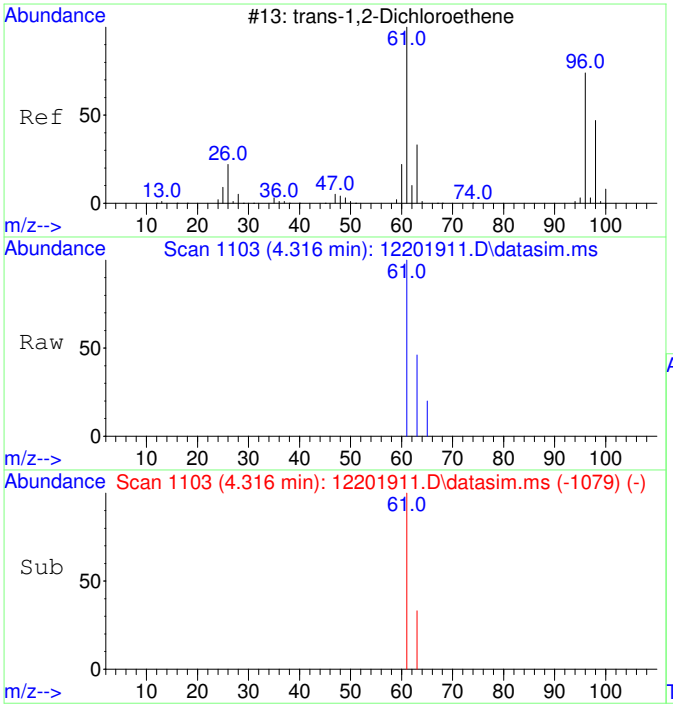
#2
1,1-Dichloroethene
Concen: 83.39 ug/L
RT: 3.127 min Scan# 819
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 369

Ion	Ratio	Lower	Upper
61	100		
96	22.8	33.5	93.5#



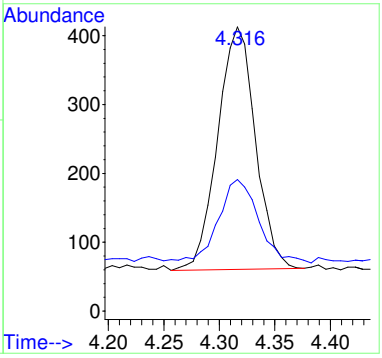
Before MI:
IMPROPER
BASELINE

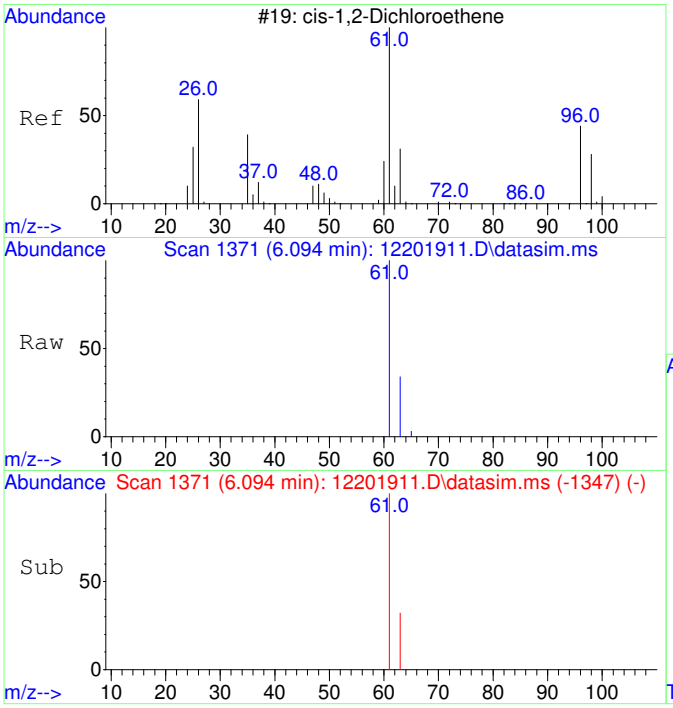


#3
trans-1,2-Dichloroethene
Concen: 183.98 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 835

Ion	Ratio	Lower	Upper
61	100		
63	36.8	2.3	62.3

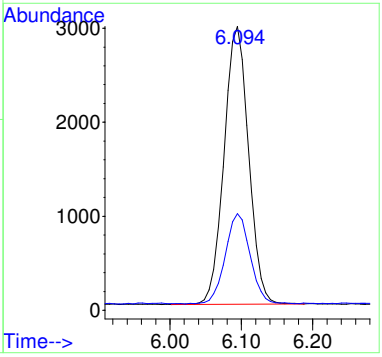


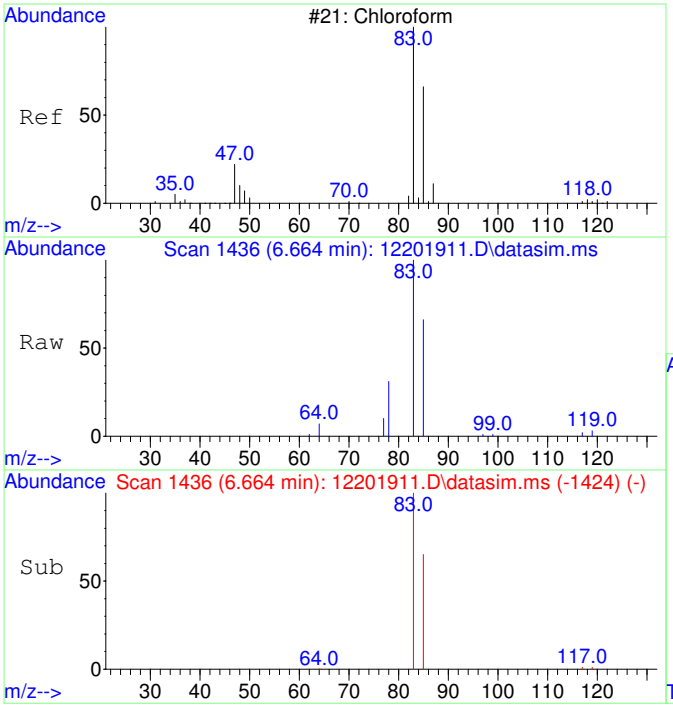


#5
cis-1,2-Dichloroethene
Concen: 1332.55 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 7070

Ion	Ratio	Lower	Upper
61	100		
63	32.7	2.5	62.5

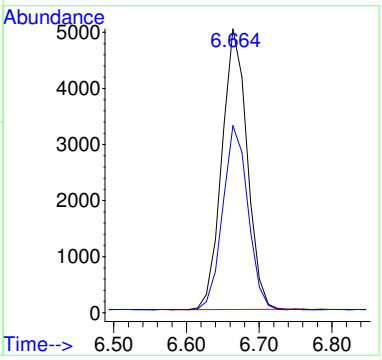


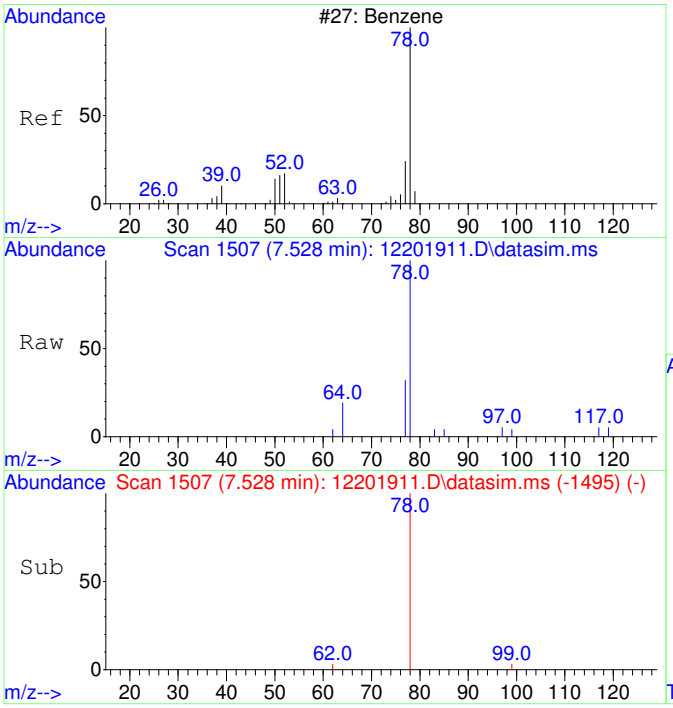


#6
Chloroform
Concen: 1973.52 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 83 Resp: 12093

Ion	Ratio	Lower	Upper
83	100		
85	65.6	35.0	95.0

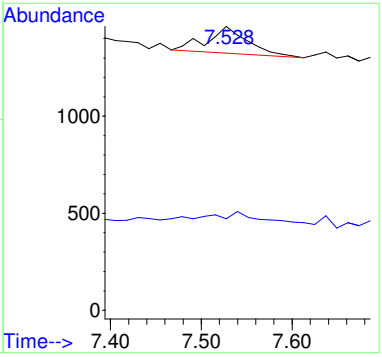


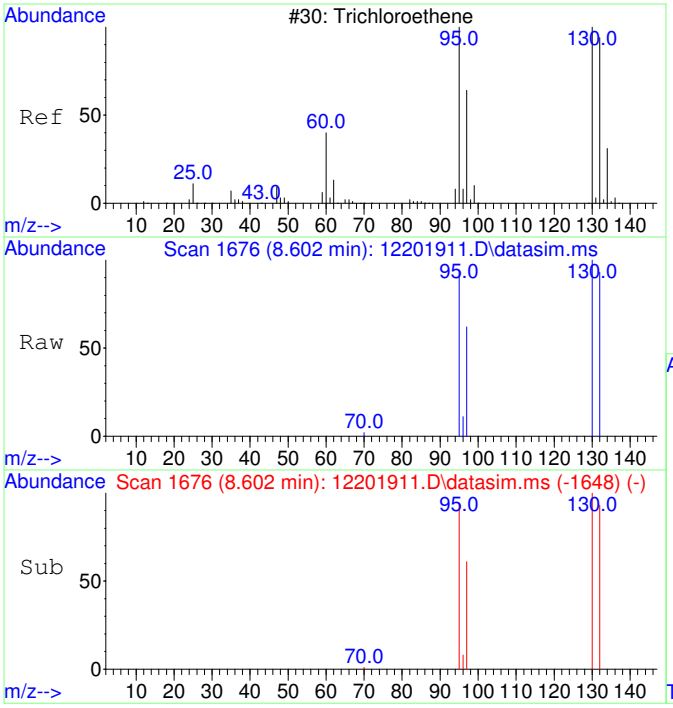


#9
Benzene
Concen: 26.68 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 78 Resp: 412

Ion	Ratio	Lower	Upper
78	100		
77	34.5	0.0	53.5

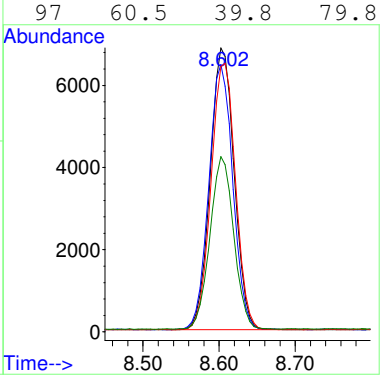


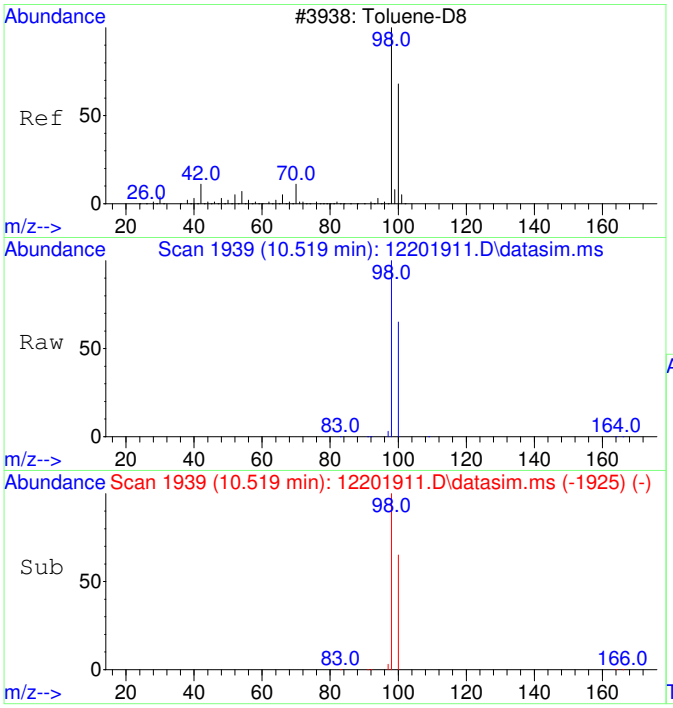


#11
Trichloroethene
Concen: 3164.41 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:130 Resp: 14994

Ion	Ratio	Lower	Upper
130	100		
95	94.1	62.3	122.3
132	96.4	75.8	115.8
97	60.5	39.8	79.8

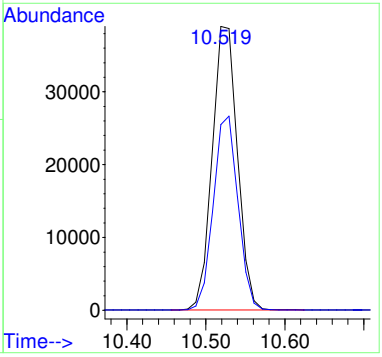


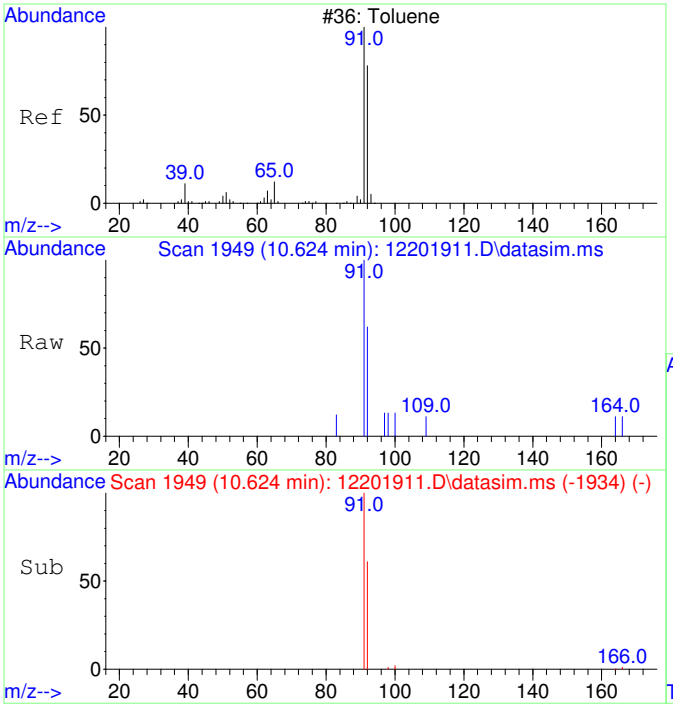


#12
Toluene-d8
Concen: 5197.04 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 98 Resp: 86313

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.2	96.2

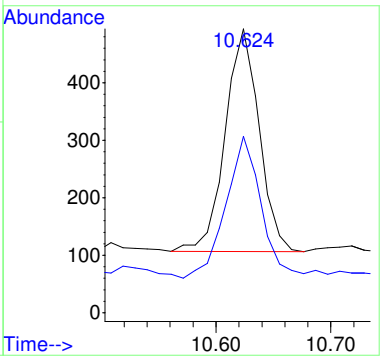


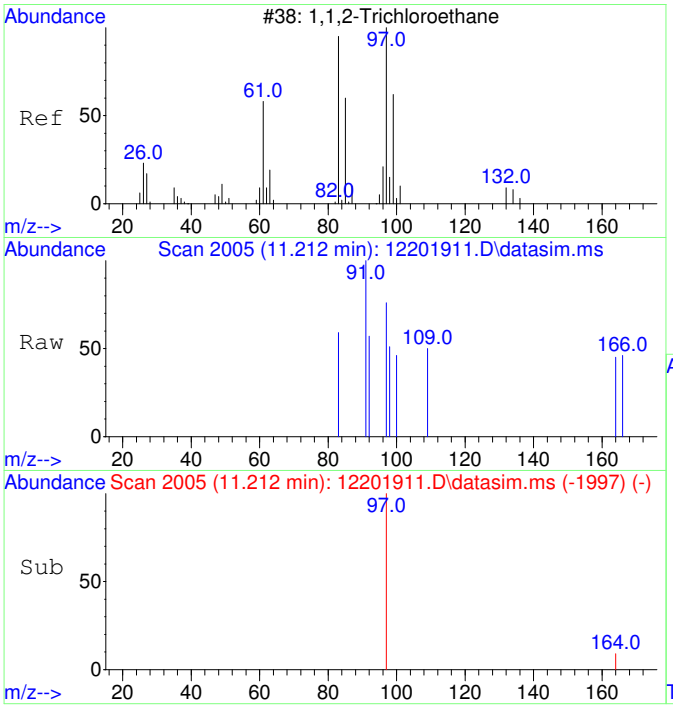


#13
Toluene
Concen: 39.56 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.011 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 91 Resp: 797

Ion	Ratio	Lower	Upper
91	100		
92	66.2	29.4	89.4

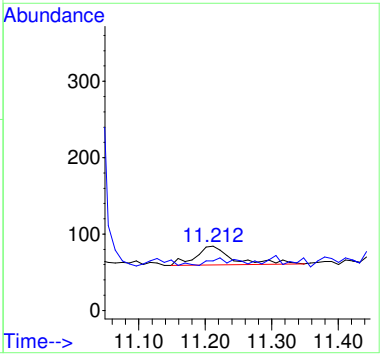


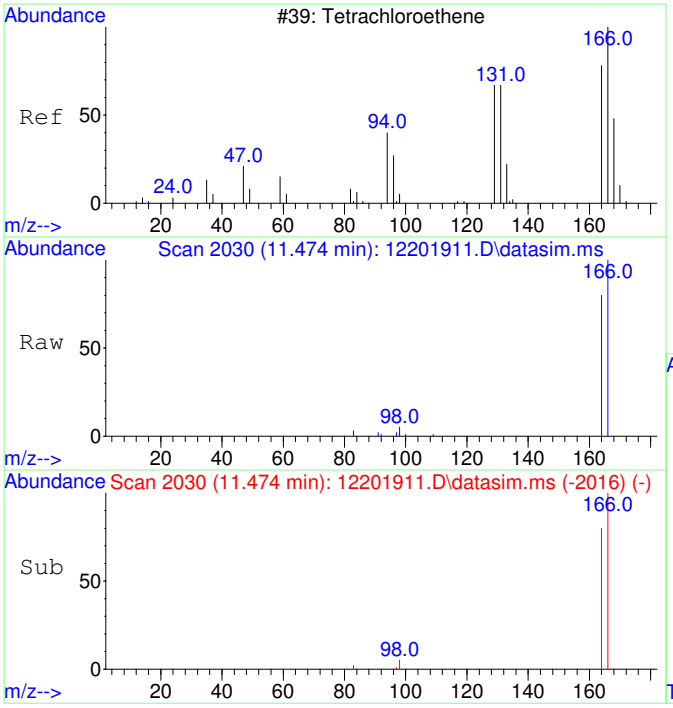


#14
1,1,2-Trichloroethane
Concen: 20.81 ug/L
RT: 11.212 min Scan# 2005
Delta R.T. -0.063 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 97 Resp: 95

Ion	Ratio	Lower	Upper
97	100		
83	24.2	52.5	112.5#

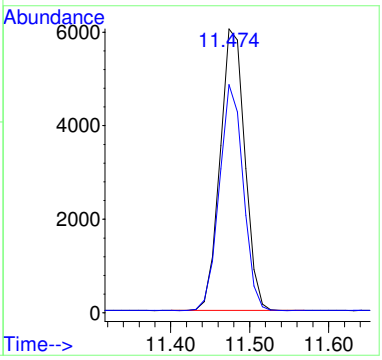


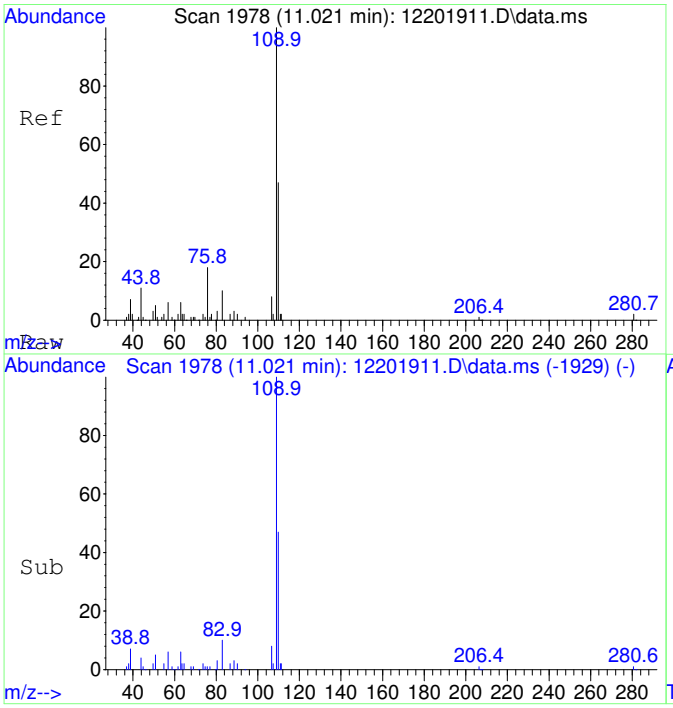


#15
Tetrachloroethene
Concen: 2149.55 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:166 Resp: 13070

Ion	Ratio	Lower	Upper
166	100		
164	77.4	47.6	107.6

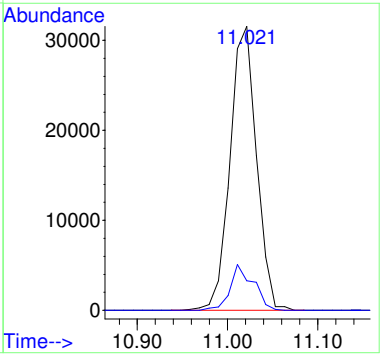


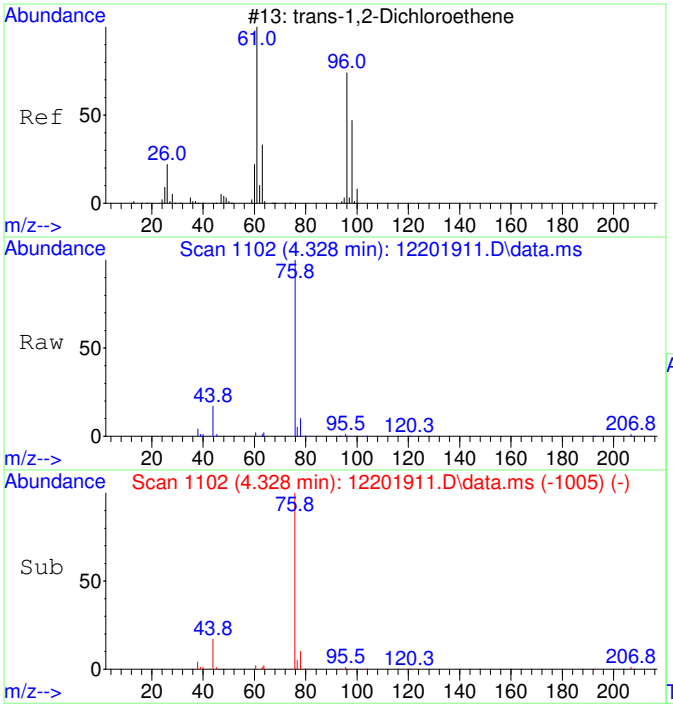


#25
2-Fluorotoluene SCAN
Concen: 5025.83 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.011 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:109 Resp: 64483

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.7

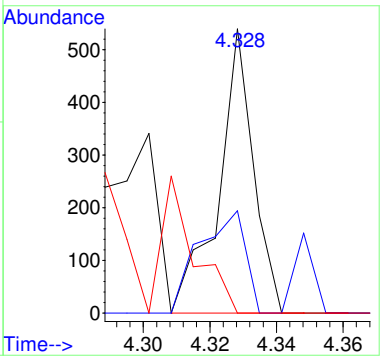


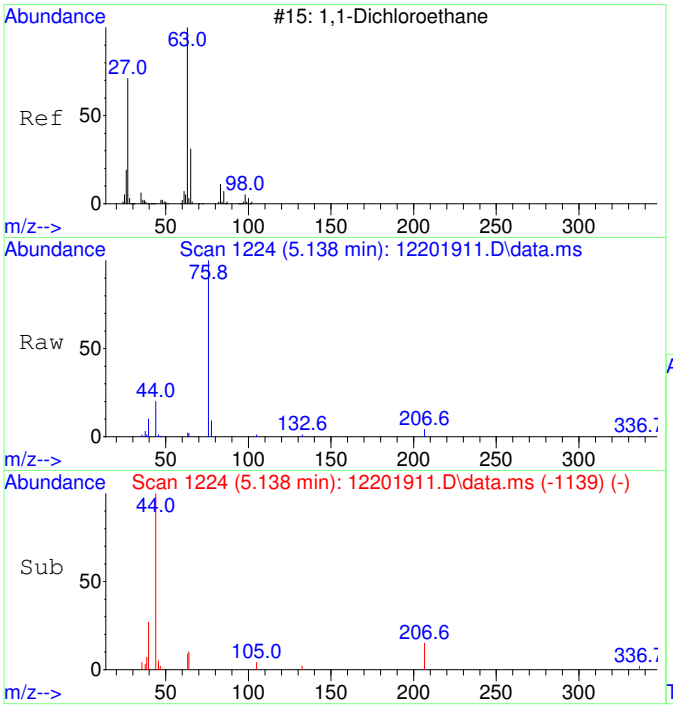


#27
trans-1,2-Dichloroethene SCAN
Concen: 147.53 ug/L
RT: 4.328 min Scan# 1102
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 393

Ion	Ratio	Lower	Upper
61	100		
96	47.6	42.7	102.7
98	0.0	23.4	83.4#

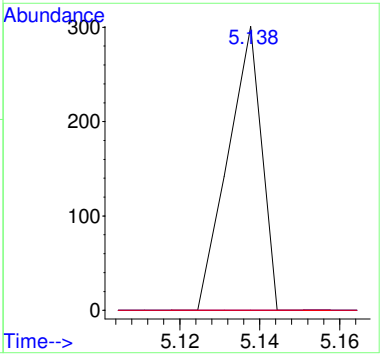


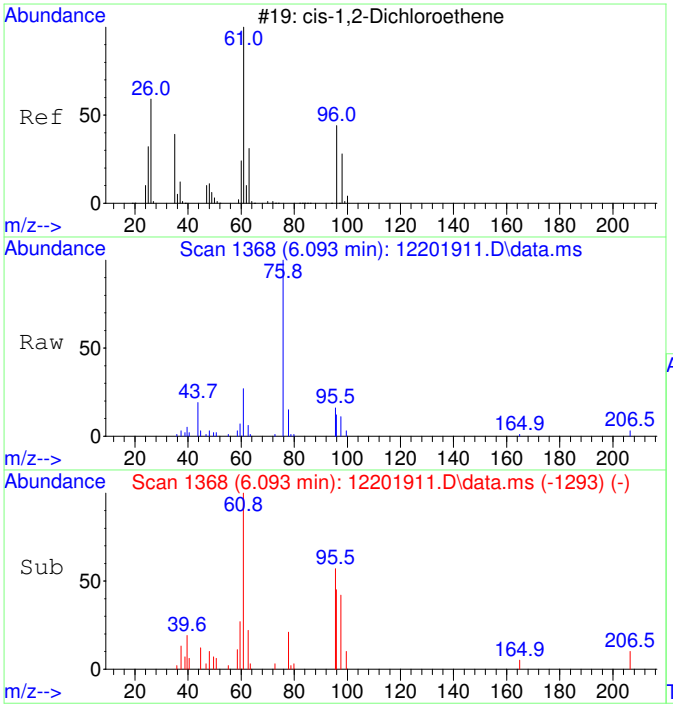


#28
1,1-Dichloroethane SCAN
Concen: 44.15 ug/L
RT: 5.138 min Scan# 1224
Delta R.T. 0.066 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 63 Resp: 176

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

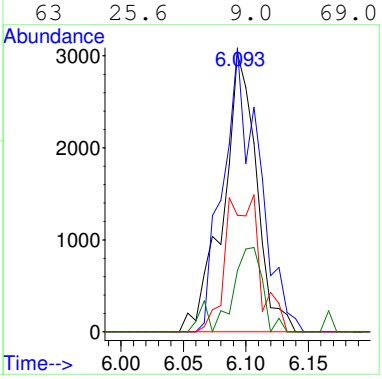


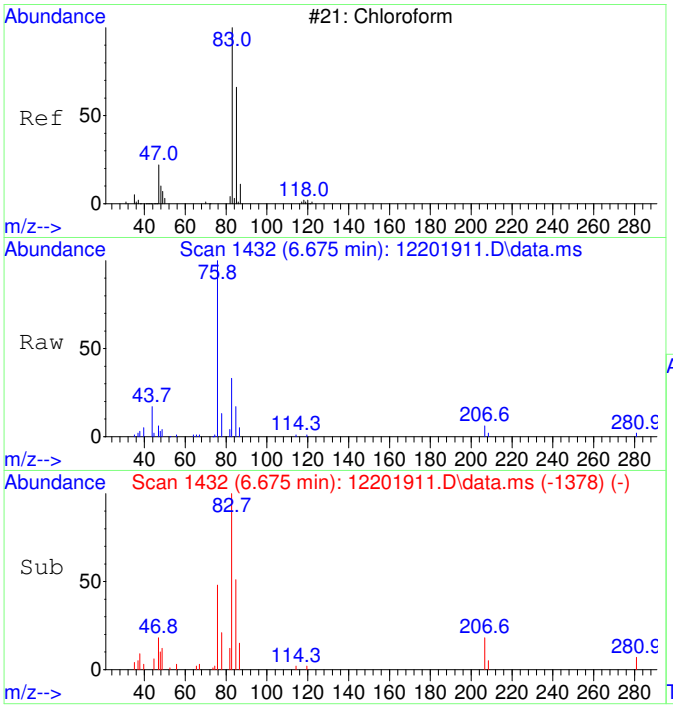


#29
cis-1,2-Dichloroethene SCAN
Concen: 1766.46 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 5640

Ion	Ratio	Lower	Upper
61	100		
96	109.6	46.1	106.1#
98	49.5	20.8	80.8
63	25.6	9.0	69.0

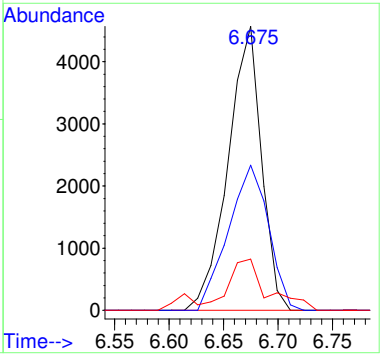


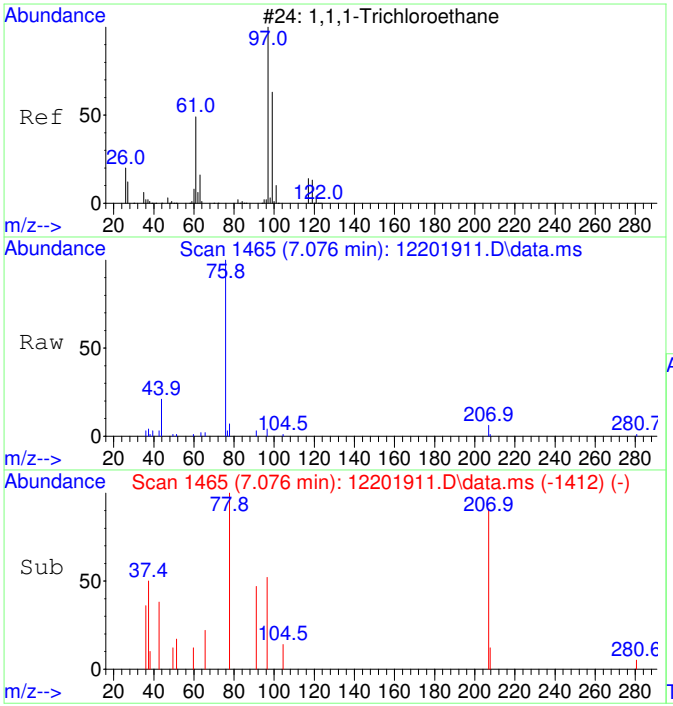


#30
Chloroform SCAN
Concen: 2858.72 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 83 Resp: 9746

Ion	Ratio	Lower	Upper
83	100		
85	61.6	42.9	102.9
47	18.0	4.5	64.5

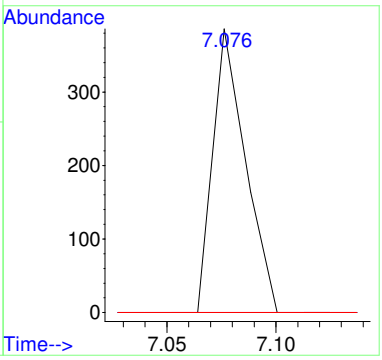


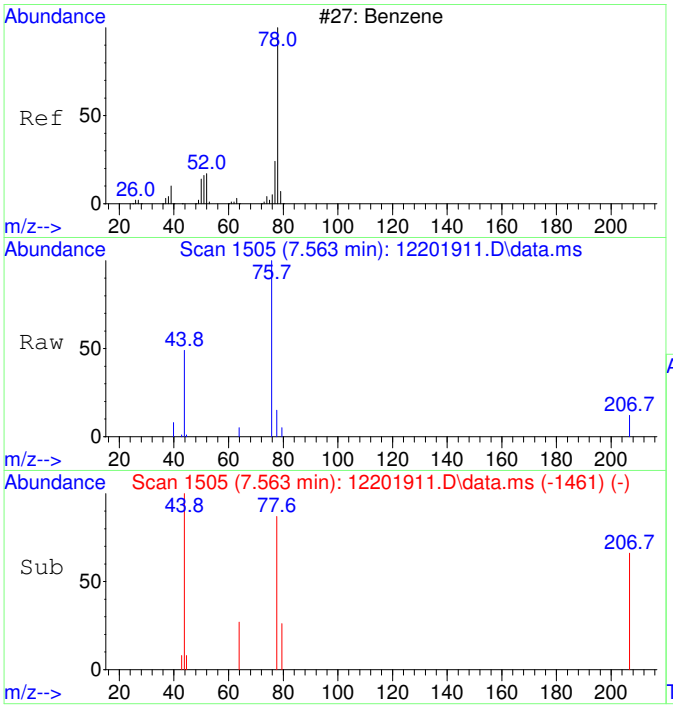


#31
1,1,1-Trichloroethane SCAN
Concen: 102.32 ug/L
RT: 7.076 min Scan# 1465
Delta R.T. 0.146 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 97 Resp: 401

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

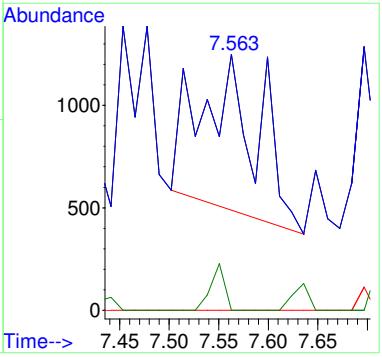


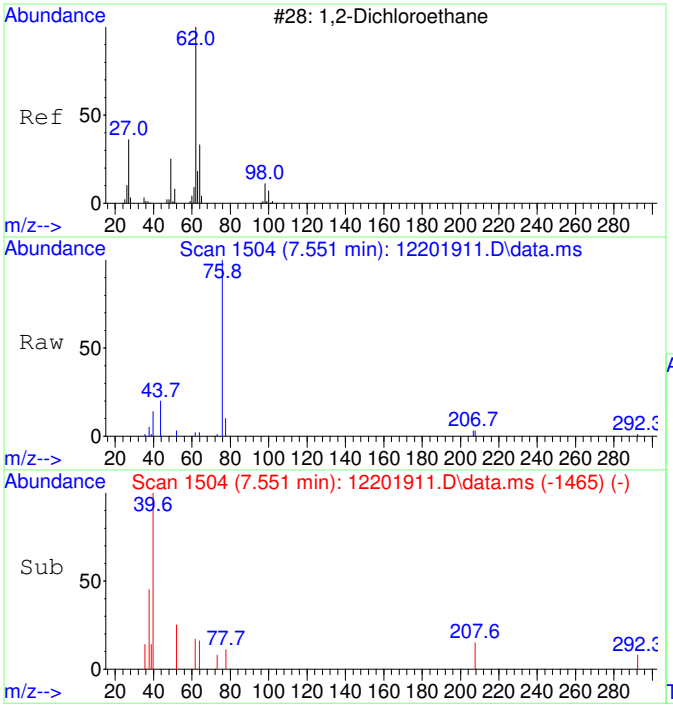


#33
Benzene SCAN
Concen: 284.08 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.037 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 78 Resp: 2920

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	7.6	0.0	30.0

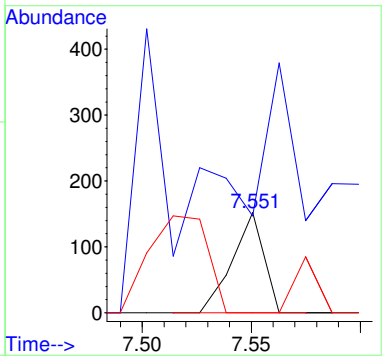


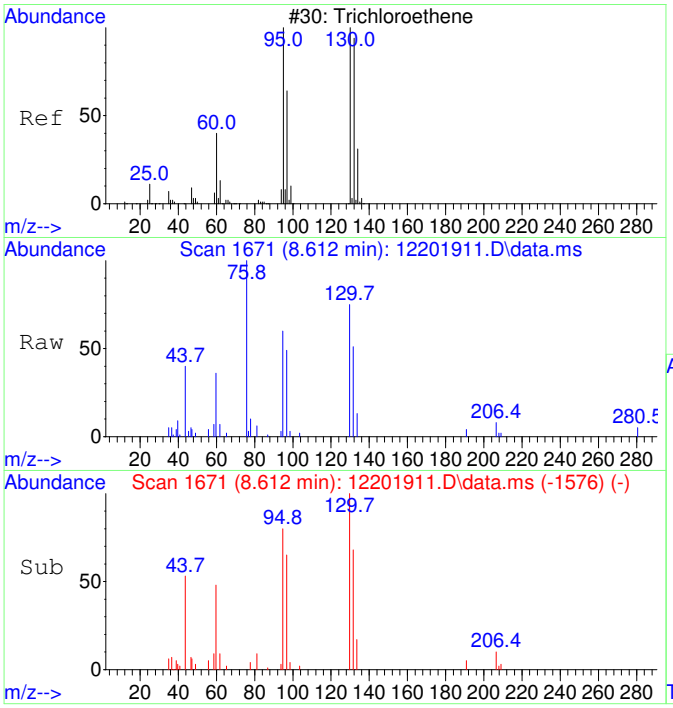


#34
1,2-Dichloroethane SCAN
Concen: 43.64 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. -0.024 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 62 Resp: 153

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

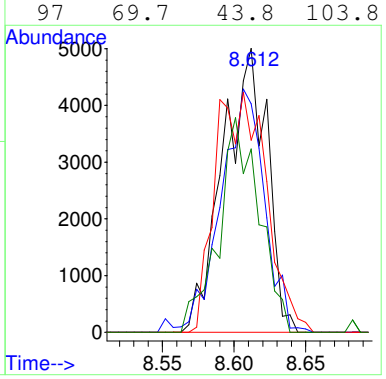


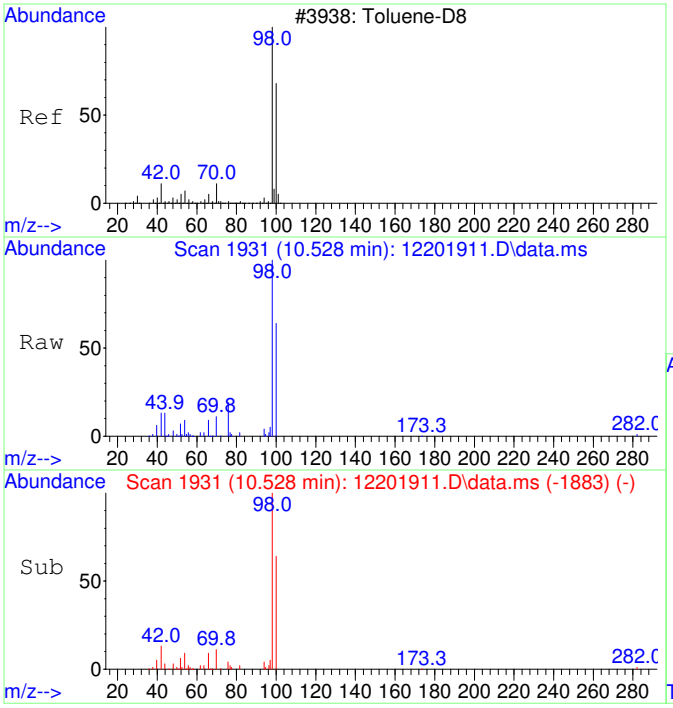


#35
Trichloroethene SCAN
Concen: 4069.32 ug/L
RT: 8.612 min Scan# 1671
Delta R.T. 0.016 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:130 Resp: 10682

Ion	Ratio	Lower	Upper
130	100		
95	81.5	75.7	135.7
132	98.0	77.1	137.1
97	69.7	43.8	103.8

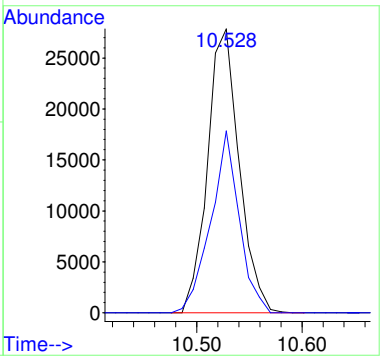


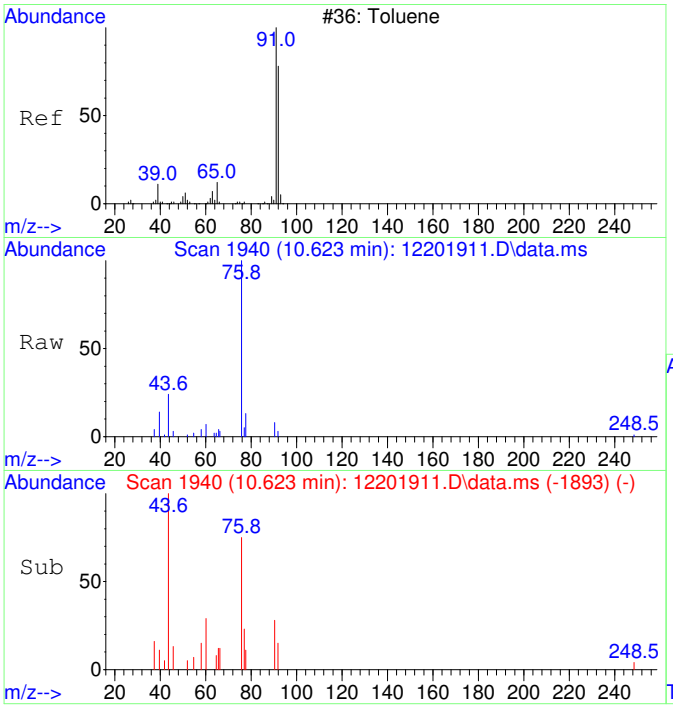


#36
Toluene-d8 SCAN
Concen: 5369.91 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 98 Resp: 58417

Ion	Ratio	Lower	Upper
98	100		
100	57.4	44.4	104.4

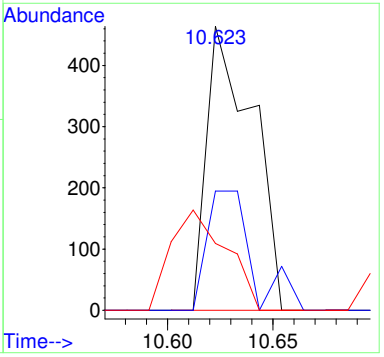


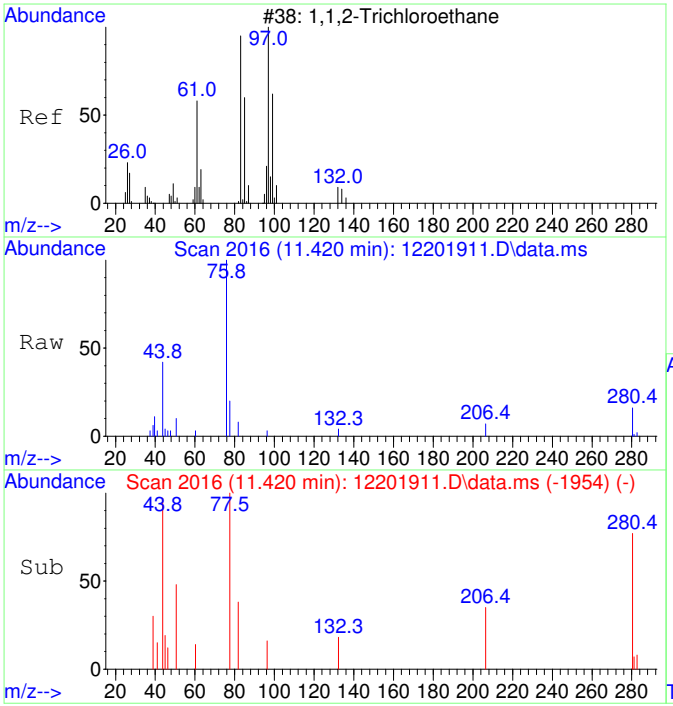


#37
Toluene SCAN
Concen: 55.72 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.010 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 91 Resp: 708

Ion	Ratio	Lower	Upper
91	100		
92	41.1	31.5	91.5
65	42.4	0.0	30.0#

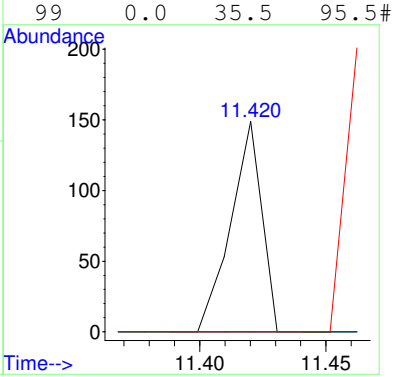


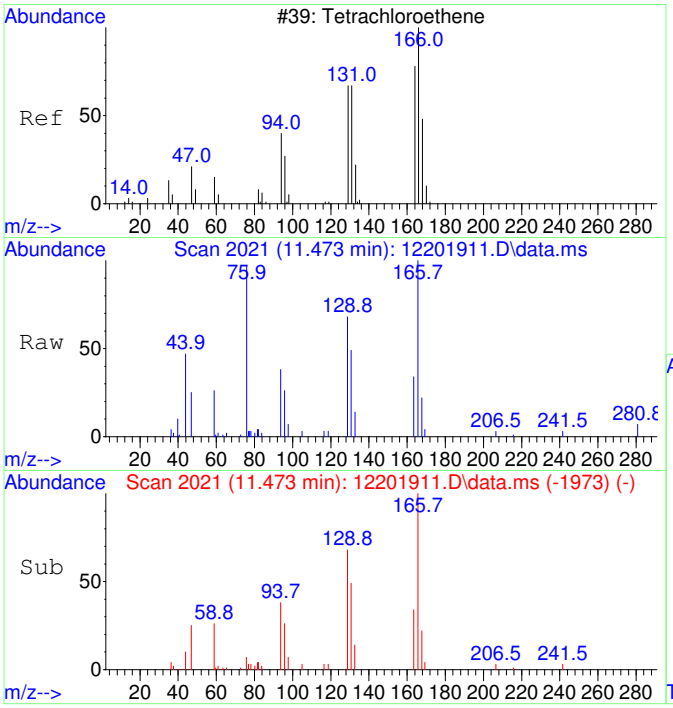


#38
1,1,2-Trichloroethane SCAN
Concen: 45.95 ug/L
RT: 11.420 min Scan# 2016
Delta R.T. 0.147 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 97 Resp: 127

Ion	Ratio	Lower	Upper
97	100		
83	0.0	67.7	127.7#
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

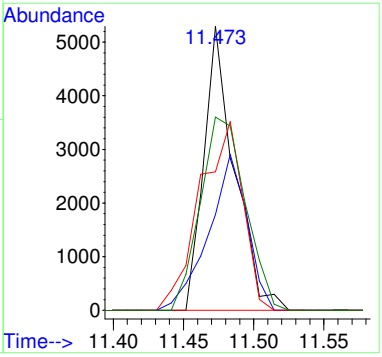


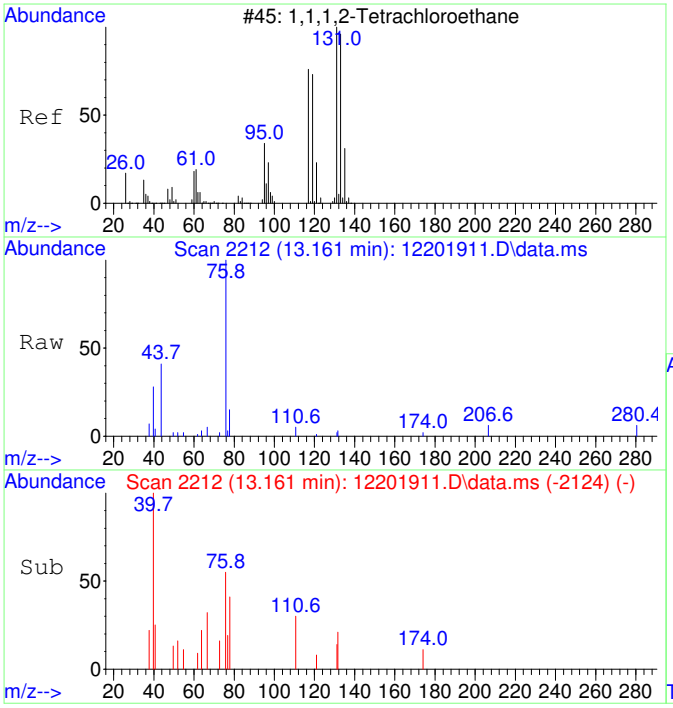


#39
Tetrachloroethene SCAN
Concen: 2187.94 ug/L
RT: 11.473 min Scan# 2021
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:166 Resp: 8058

Ion	Ratio	Lower	Upper
166	100		
164	68.8	61.8	121.8
131	93.0	51.8	111.8
129	100.0	36.0	96.0#

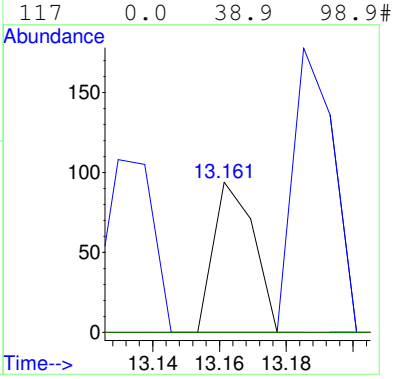


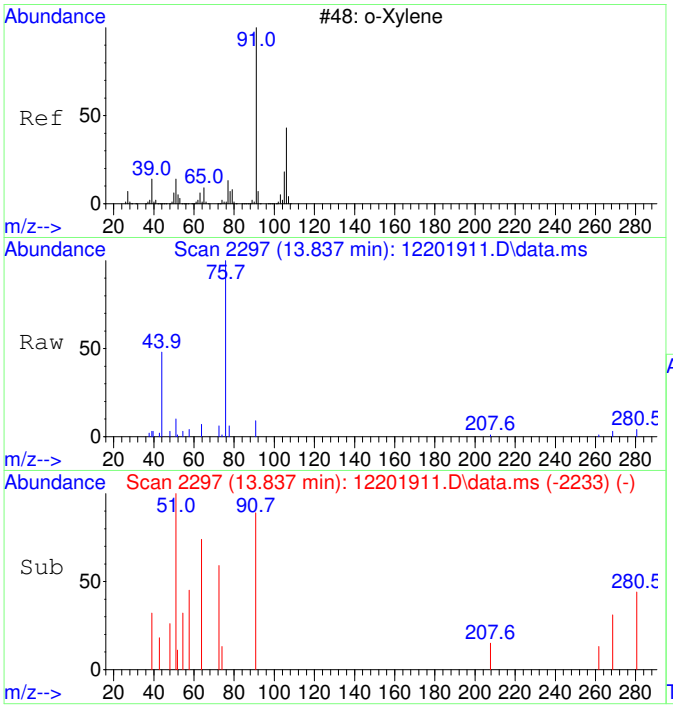


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 24.19 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. 0.199 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:131 Resp: 79

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	0.0	38.9	98.9#

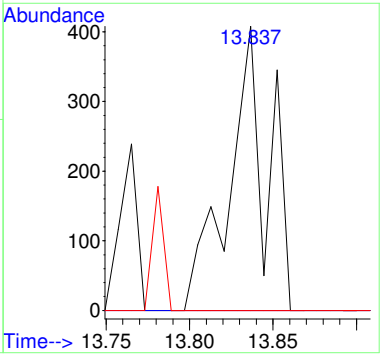




#44
o-Xylene SCAN
Concen: 48.14 ug/L
RT: 13.837 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 91 Resp: 657

Ion	Ratio	Lower	Upper
91	100		
106	0.0	17.2	77.2#
105	0.0	0.0	57.7



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201911.D
Acq On : 20 Dec 2019 14:22
InstName : AG5975C
Operator : TD
Sample : 1912014-06
Misc :
ALS Vial : 11 Sample Multiplier: 1

M.I. Performed By:
TD at 11:57 am, Dec 23, 2019

M.I. Approved By:
ZR at 11:51 am, Dec 26, 2019

Quant Time: Dec 20 15:04:24 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

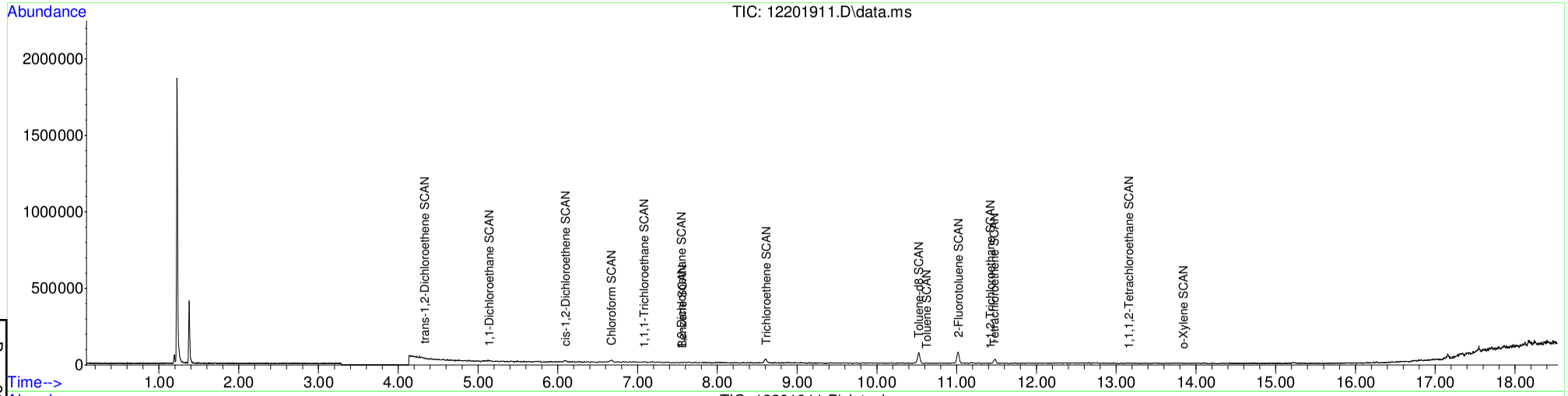
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	103415	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	86313	5197.04 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 103.94%		
Target Compounds					Qvalue
3] trans-1,2-Dichloroethene	4.316	61	835	183.98 ug/L	92
5] cis-1,2-Dichloroethene	6.094	61	7070	1332.55 ug/L	100
6] Chloroform	6.664	83	12093	1973.52 ug/L	99
9] Benzene	7.528	78	412	26.68 ug/L	78
11] Trichloroethene	8.602	130	14994	3164.41 ug/L	99
13] Toluene	10.624	91	797	39.56 ug/L	91
14] 1,1,2-Trichloroethane	11.212	97	95	20.81 ug/L #	35
15] Tetrachloroethene	11.474	166	13070	2149.55 ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	64483	5025.83 ug/L	99
27) trans-1,2-Dichloroethe...	4.328	61	393	147.53 ug/L #	51
28) 1,1-Dichloroethane SCAN	5.138	63	176	44.15 ug/L #	47
29) cis-1,2-Dichloroethene...	6.093	61	5640	1766.46 ug/L #	76
30) Chloroform SCAN	6.675	83	9746	2858.72 ug/L	82
31) 1,1,1-Trichloroethane ...	7.076	97	401	102.32 ug/L #	29
33) Benzene SCAN	7.563	78	2920	284.08 ug/L #	95
34) 1,2-Dichloroethane SCAN	7.551	62	153	43.64 ug/L #	36
35) Trichloroethene SCAN	8.612	130	10682	4069.32 ug/L	87
36) Toluene-d8 SCAN	10.528	98	58417	5369.91 ug/L	80
37) Toluene SCAN	10.623	91	708	55.72 ug/L #	73
38) 1,1,2-Trichloroethane ...	11.420	97	127	45.95 ug/L #	11
39) Tetrachloroethene SCAN	11.473	166	8058	2187.94 ug/L #	75
41) 1,1,1,2-Tetrachloroeth...	13.161	131	79	24.19 ug/L #	8
44) o-Xylene SCAN	13.837	91	657	48.14 ug/L #	36

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201911.D
Acq On : 20 Dec 2019 14:22
InstName : AG5975C
Operator : TD
Sample : 1912014-06
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 20 15:04:24 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



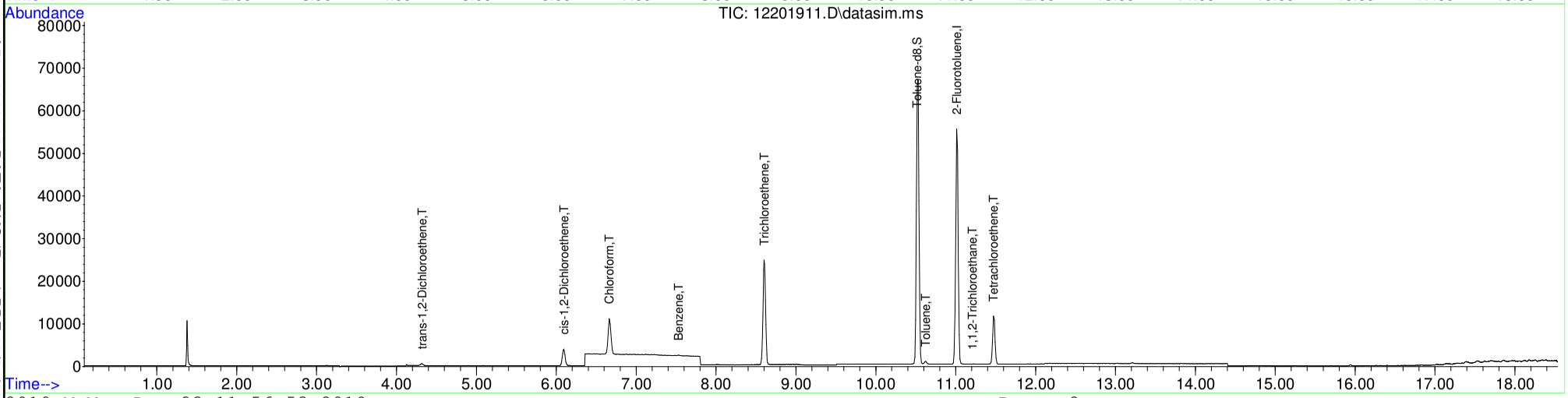
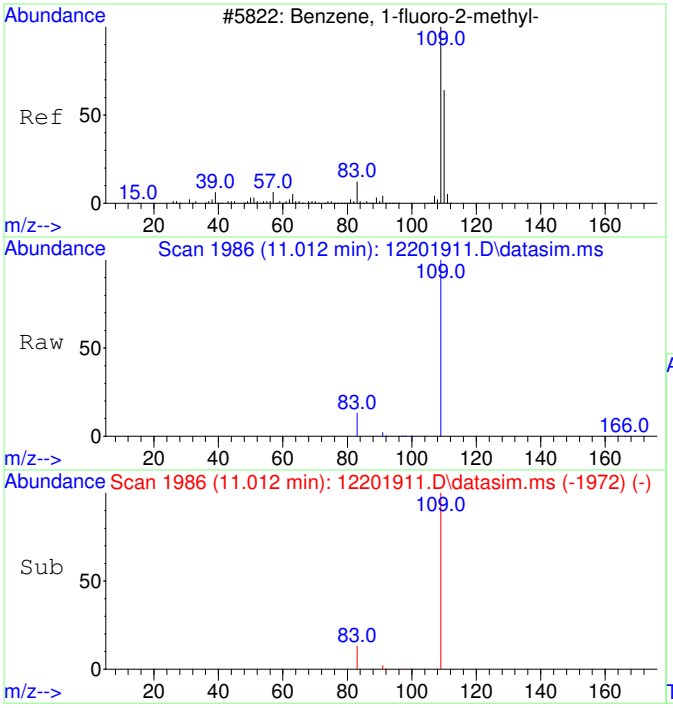


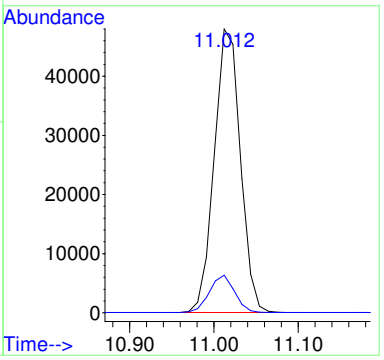
Table of Contents

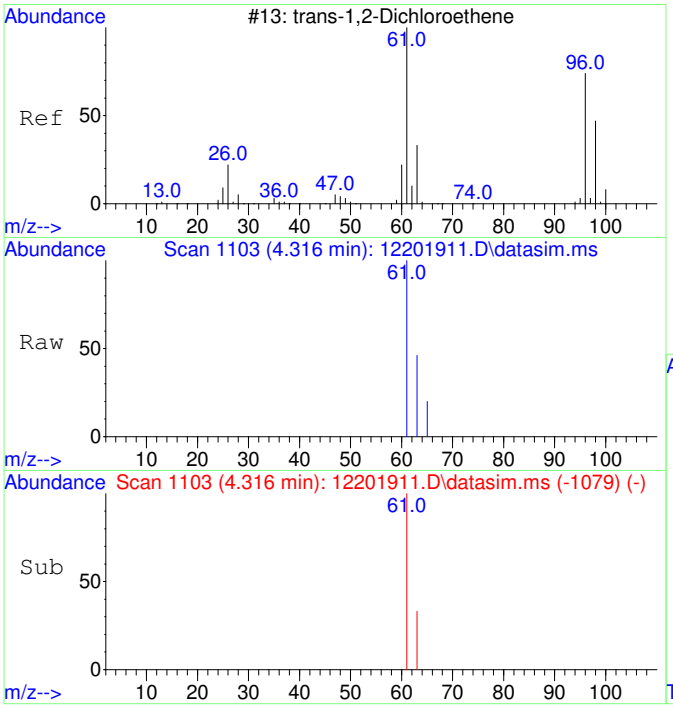


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:109 Resp: 103415

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

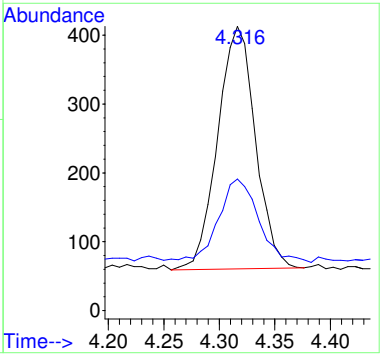


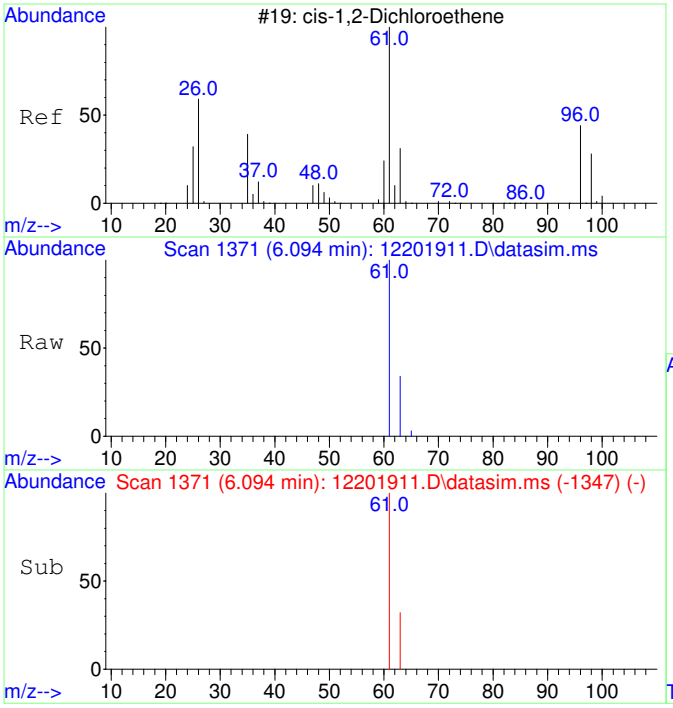


#3
trans-1,2-Dichloroethene
Concen: 183.98 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 835

Ion	Ratio	Lower	Upper
61	100		
63	36.8	2.3	62.3

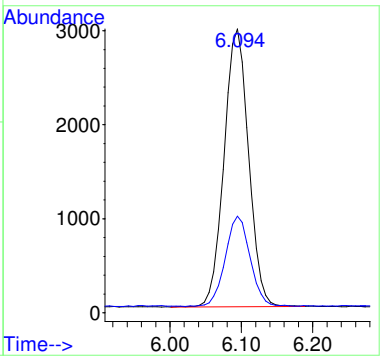


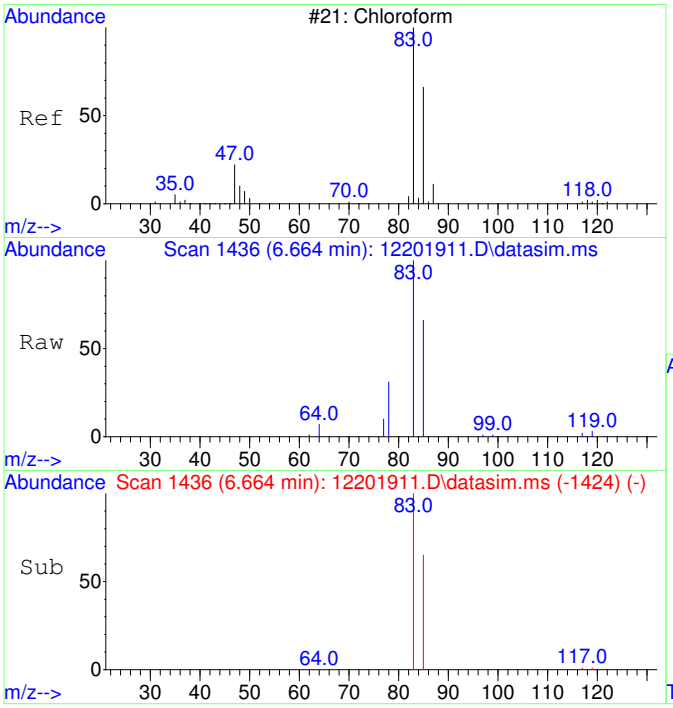


#5
cis-1,2-Dichloroethene
Concen: 1332.55 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 7070

Ion	Ratio	Lower	Upper
61	100		
63	32.7	2.5	62.5

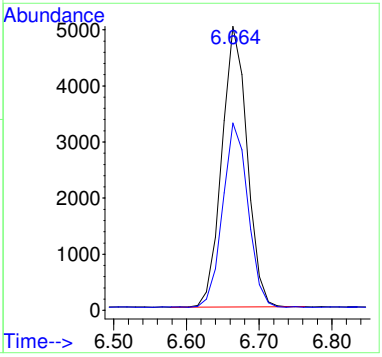


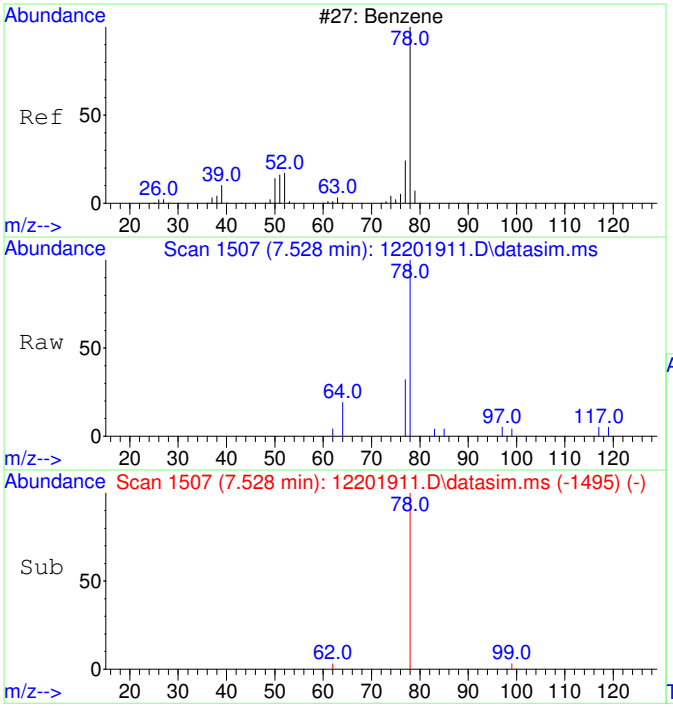


#6
Chloroform
Concen: 1973.52 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 83 Resp: 12093

Ion	Ratio	Lower	Upper
83	100		
85	65.6	35.0	95.0

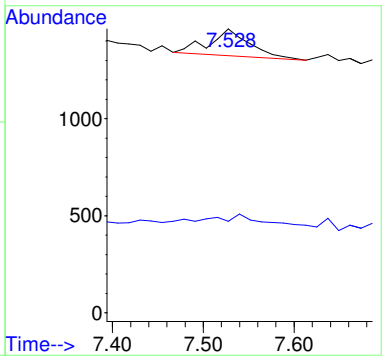


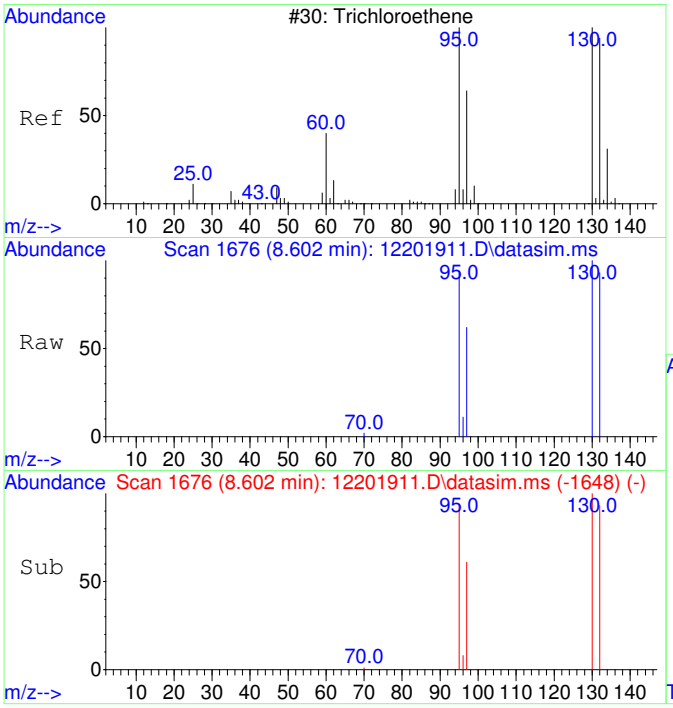


#9
Benzene
Concen: 26.68 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 78 Resp: 412

Ion	Ratio	Lower	Upper
78	100		
77	34.5	0.0	53.5

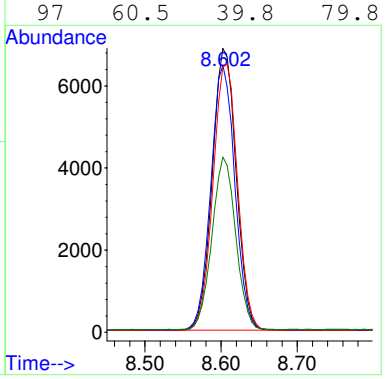


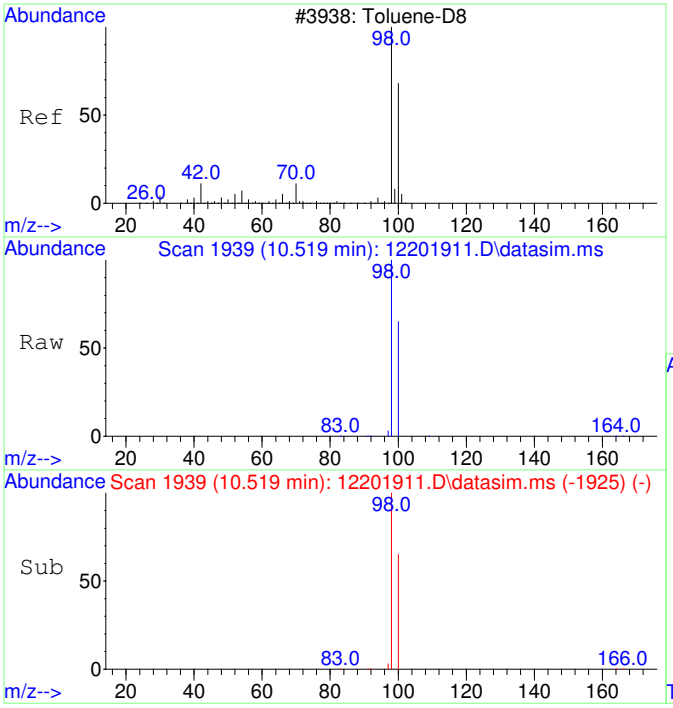


#11
Trichloroethene
Concen: 3164.41 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:130 Resp: 14994

Ion	Ratio	Lower	Upper
130	100		
95	94.1	62.3	122.3
132	96.4	75.8	115.8
97	60.5	39.8	79.8

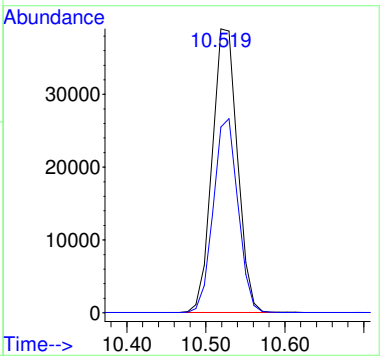


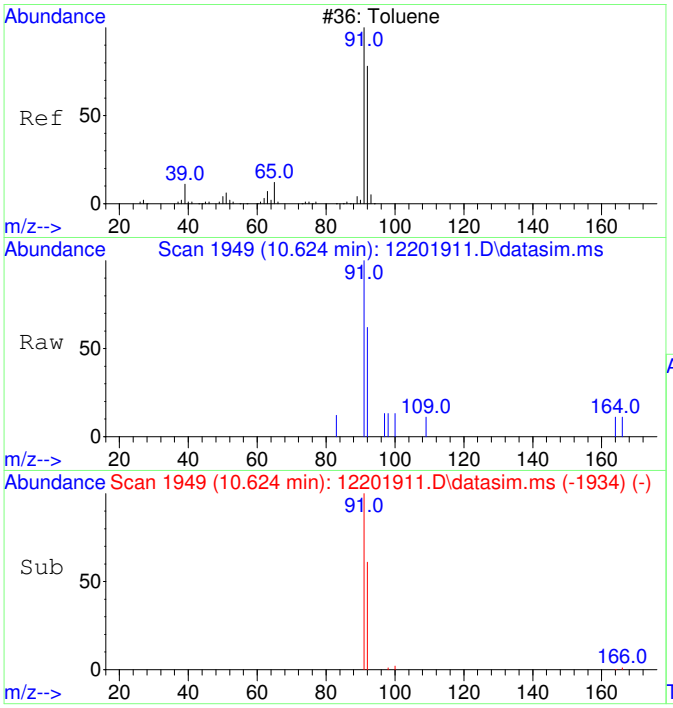


#12
Toluene-d8
Concen: 5197.04 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 98 Resp: 86313

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.2	96.2

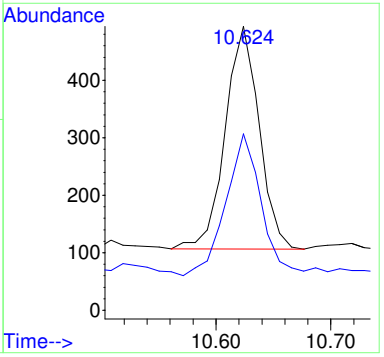


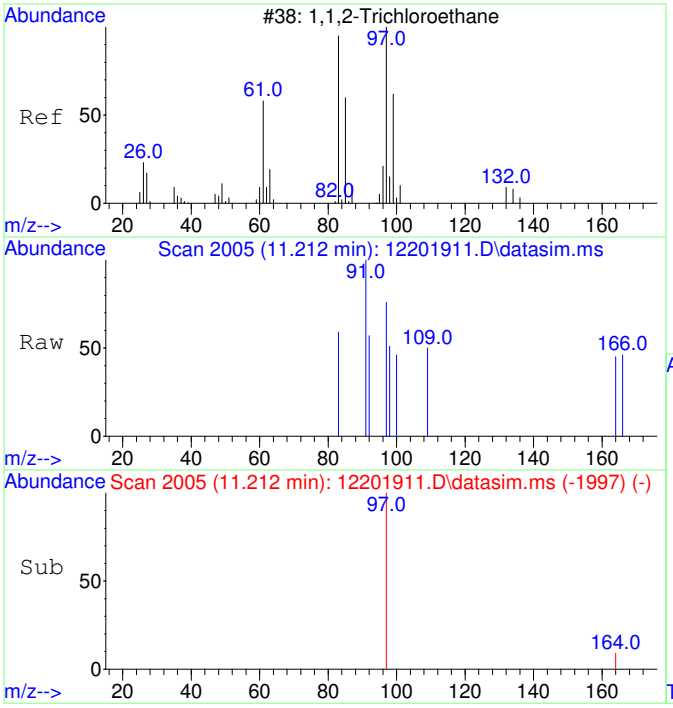


#13
Toluene
Concen: 39.56 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.011 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 91 Resp: 797

Ion	Ratio	Lower	Upper
91	100		
92	66.2	29.4	89.4

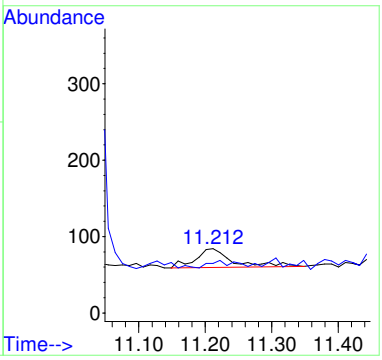


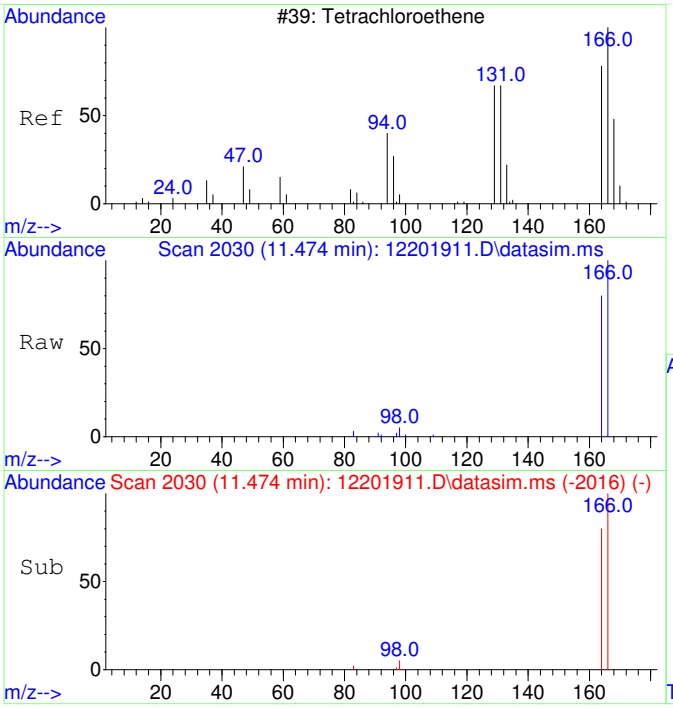


#14
1,1,2-Trichloroethane
Concen: 20.81 ug/L
RT: 11.212 min Scan# 2005
Delta R.T. -0.063 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 97 Resp: 95

Ion	Ratio	Lower	Upper
97	100		
83	24.2	52.5	112.5#

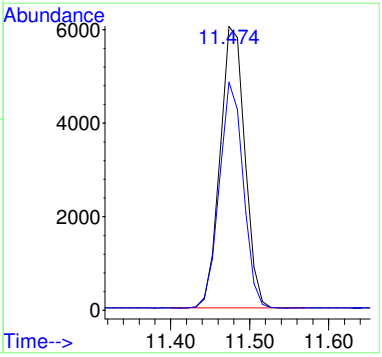


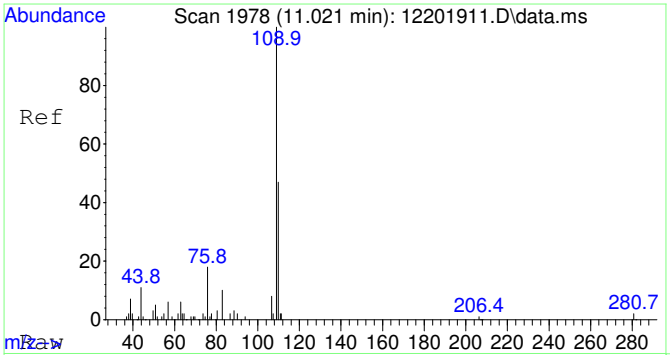


#15
Tetrachloroethene
Concen: 2149.55 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:166 Resp: 13070

Ion	Ratio	Lower	Upper
166	100		
164	77.4	47.6	107.6

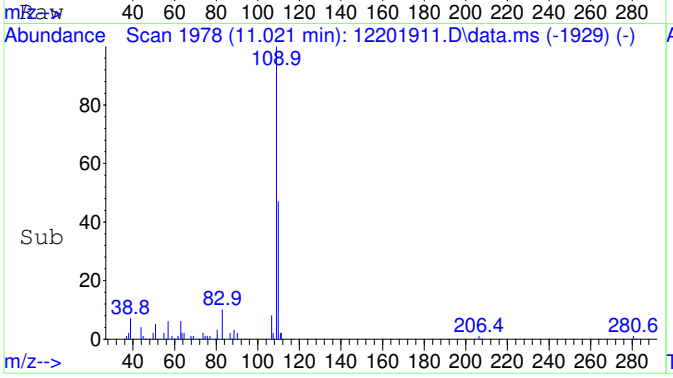


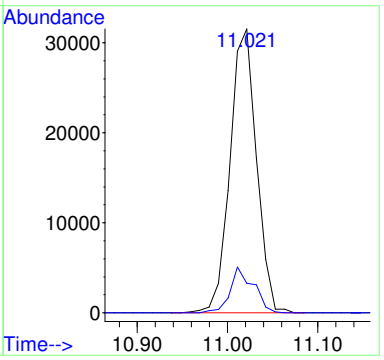


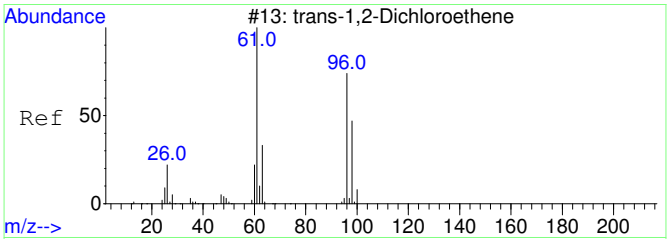
#25
2-Fluorotoluene SCAN
Concen: 5025.83 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.011 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:109 Resp: 64483

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.7



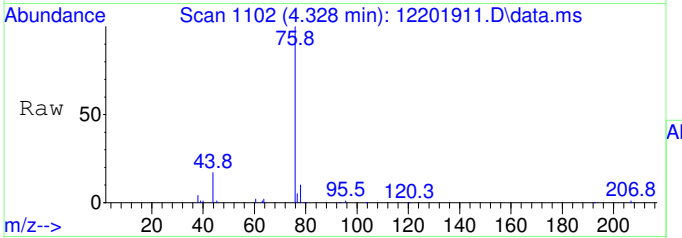


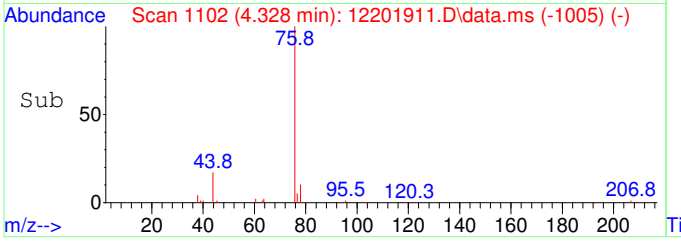


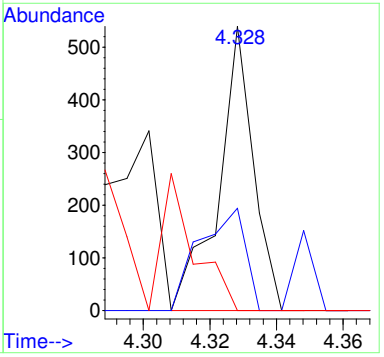
#27
trans-1,2-Dichloroethene SCAN
Concen: 147.53 ug/L
RT: 4.328 min Scan# 1102
Delta R.T. 0.007 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

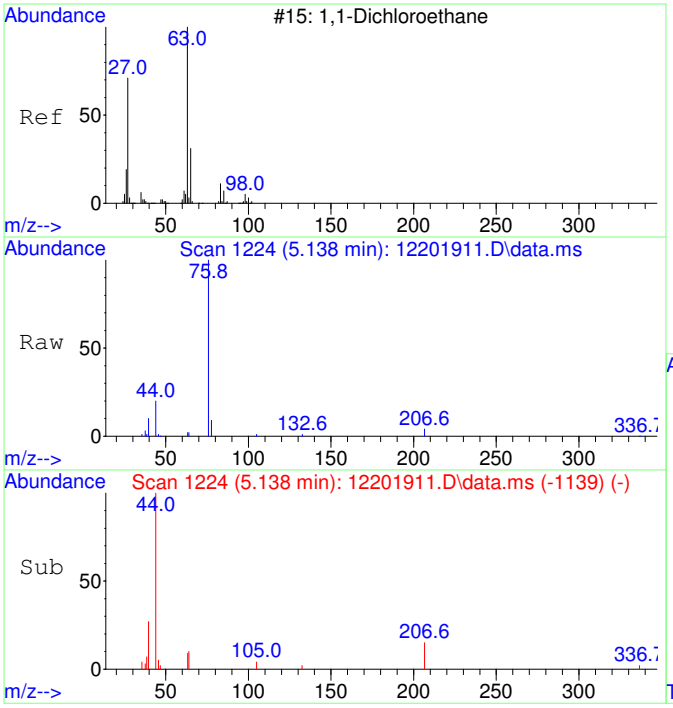
Tgt Ion: 61 Resp: 393

Ion	Ratio	Lower	Upper
61	100		
96	47.6	42.7	102.7
98	0.0	23.4	83.4#





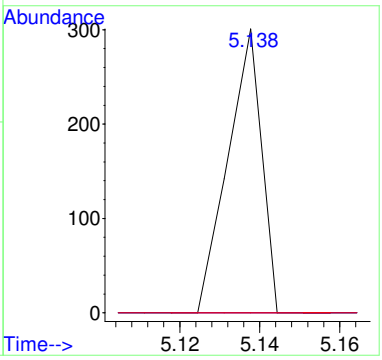


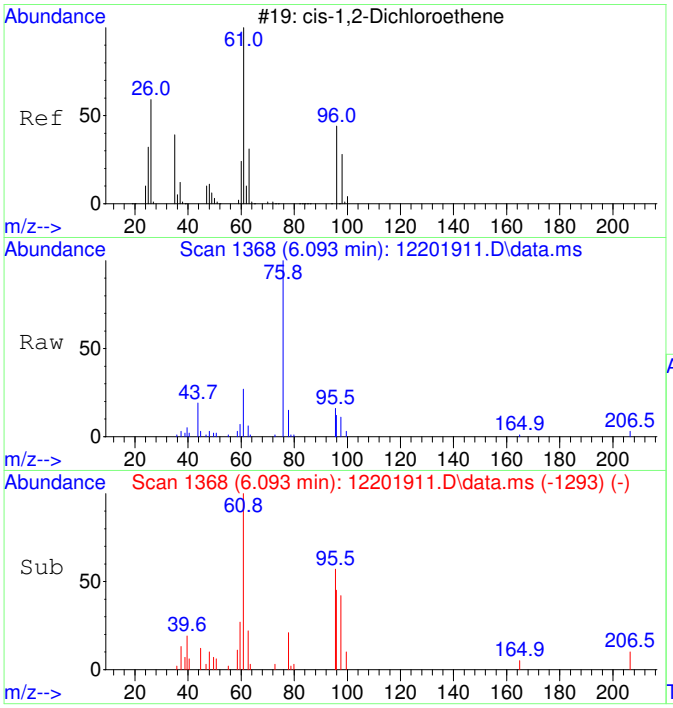


#28
1,1-Dichloroethane SCAN
Concen: 44.15 ug/L
RT: 5.138 min Scan# 1224
Delta R.T. 0.066 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 63 Resp: 176

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

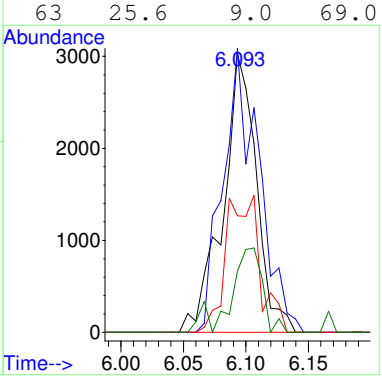


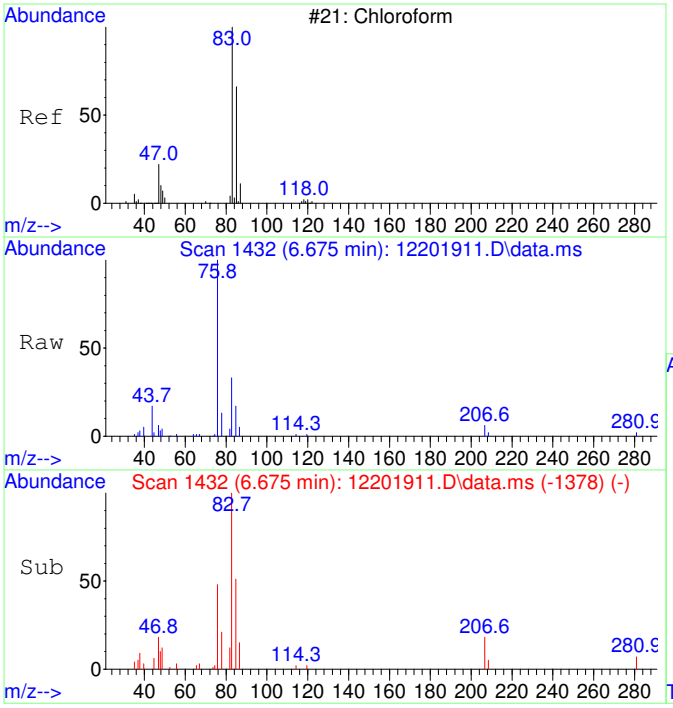


#29
cis-1,2-Dichloroethene SCAN
Concen: 1766.46 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 61 Resp: 5640

Ion	Ratio	Lower	Upper
61	100		
96	109.6	46.1	106.1#
98	49.5	20.8	80.8
63	25.6	9.0	69.0

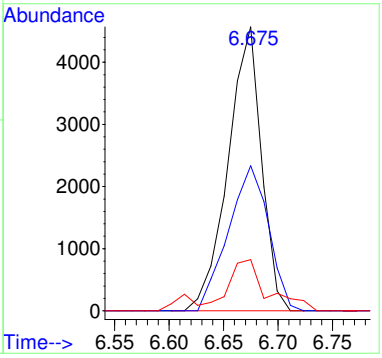


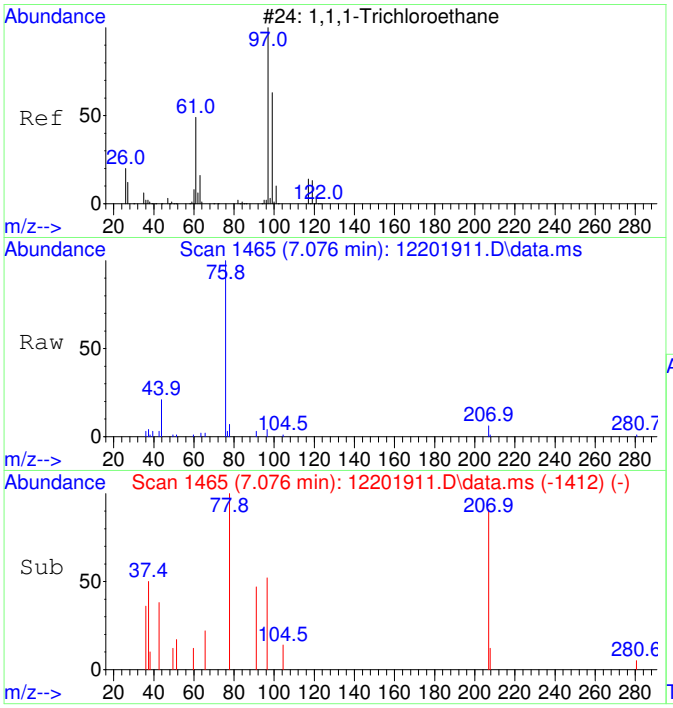


#30
Chloroform SCAN
Concen: 2858.72 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 83 Resp: 9746

Ion	Ratio	Lower	Upper
83	100		
85	61.6	42.9	102.9
47	18.0	4.5	64.5

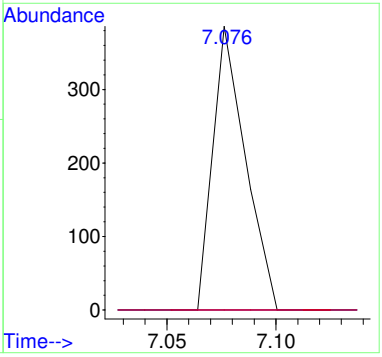


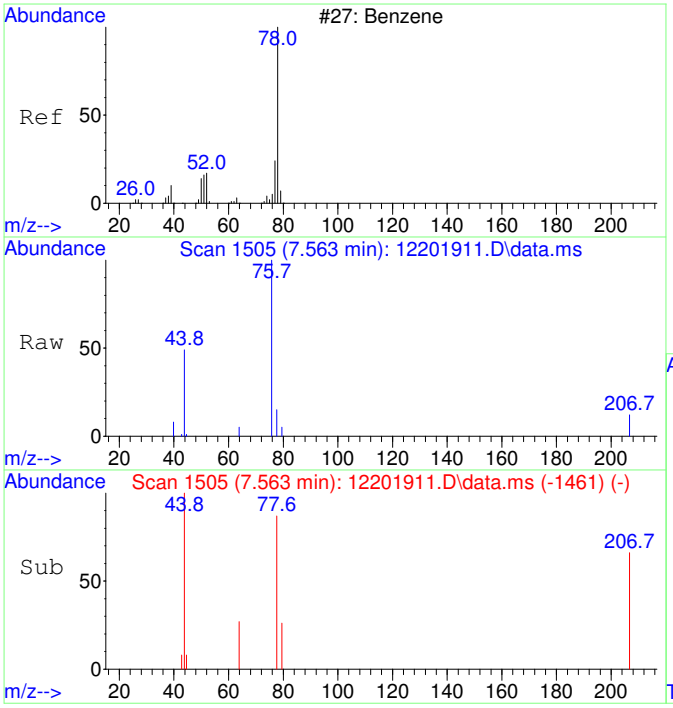


#31
1,1,1-Trichloroethane SCAN
Concen: 102.32 ug/L
RT: 7.076 min Scan# 1465
Delta R.T. 0.146 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 97 Resp: 401

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

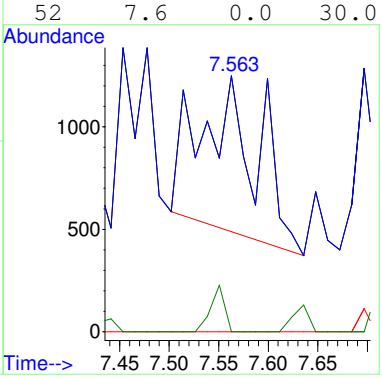


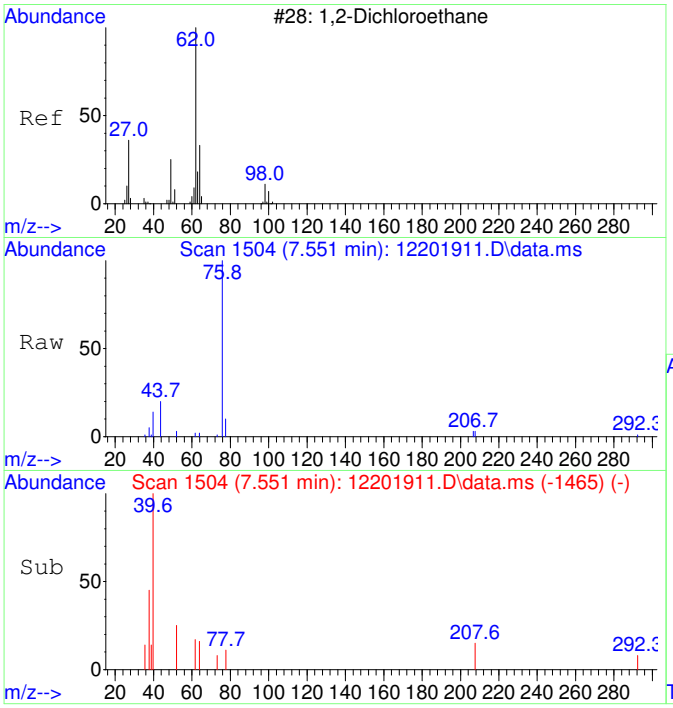


#33
Benzene SCAN
Concen: 284.08 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.037 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 78 Resp: 2920

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	7.6	0.0	30.0

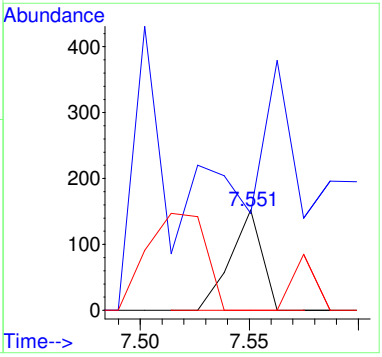


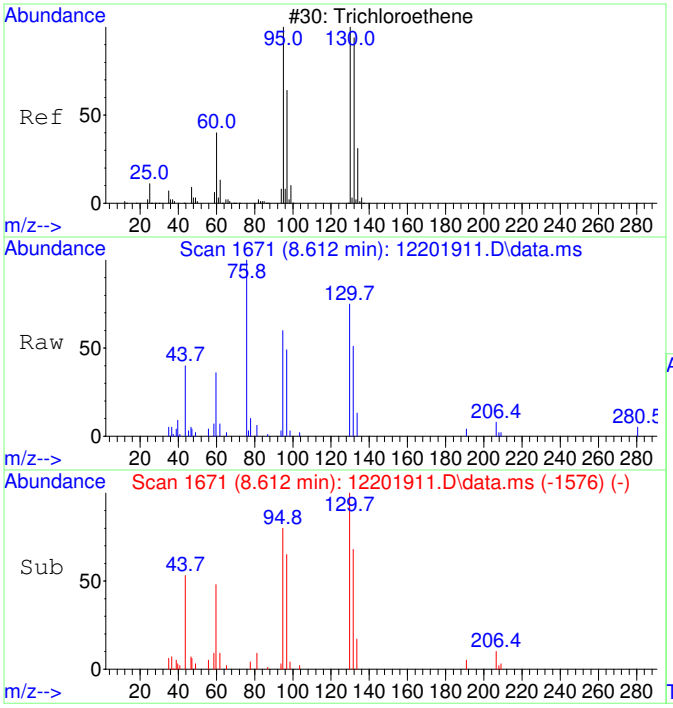


#34
1,2-Dichloroethane SCAN
Concen: 43.64 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. -0.024 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 62 Resp: 153

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

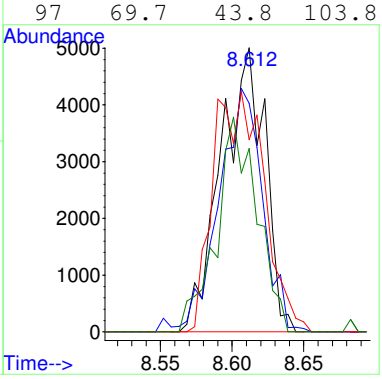


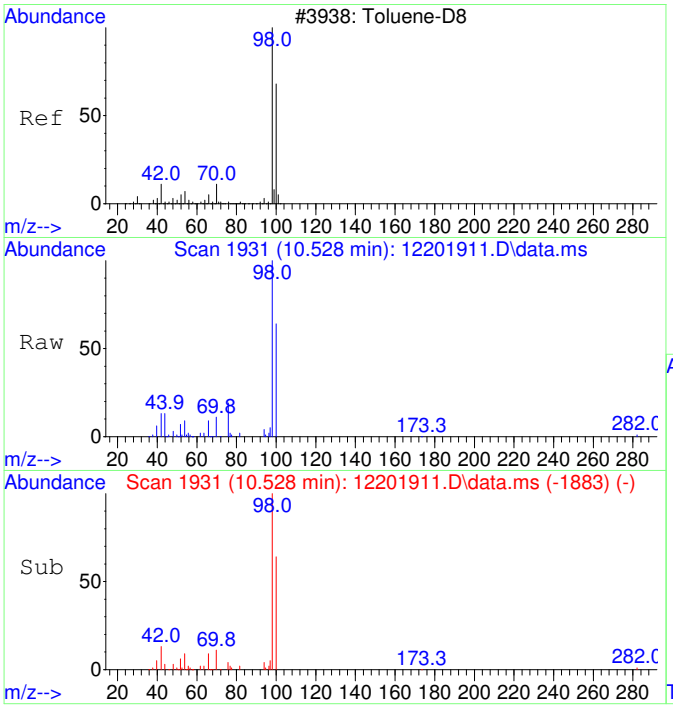


#35
Trichloroethene SCAN
Concen: 4069.32 ug/L
RT: 8.612 min Scan# 1671
Delta R.T. 0.016 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:130 Resp: 10682

Ion	Ratio	Lower	Upper
130	100		
95	81.5	75.7	135.7
132	98.0	77.1	137.1
97	69.7	43.8	103.8

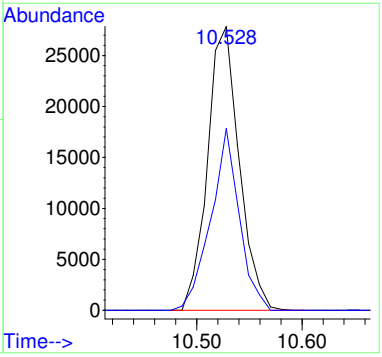


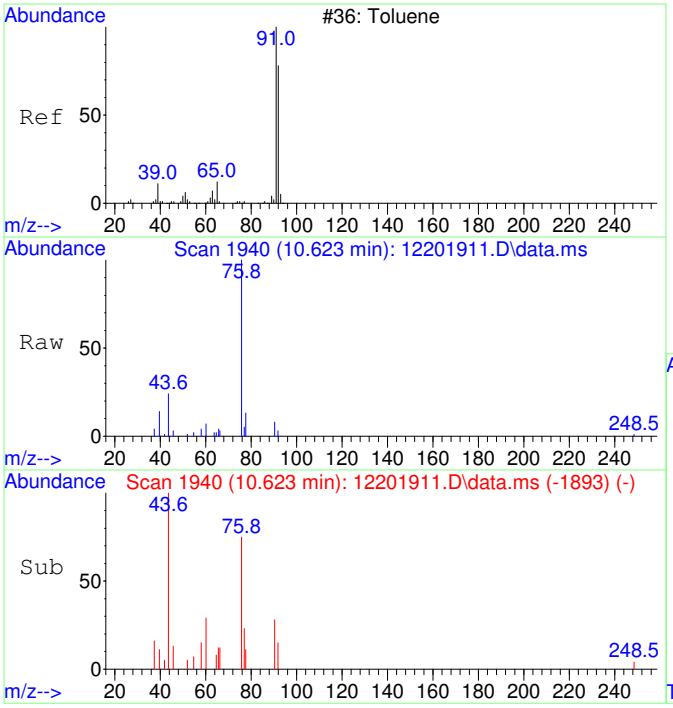


#36
Toluene-d8 SCAN
Concen: 5369.91 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 98 Resp: 58417

Ion	Ratio	Lower	Upper
98	100		
100	57.4	44.4	104.4

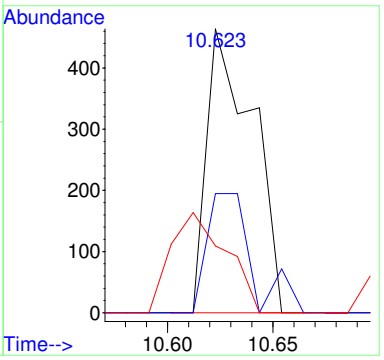


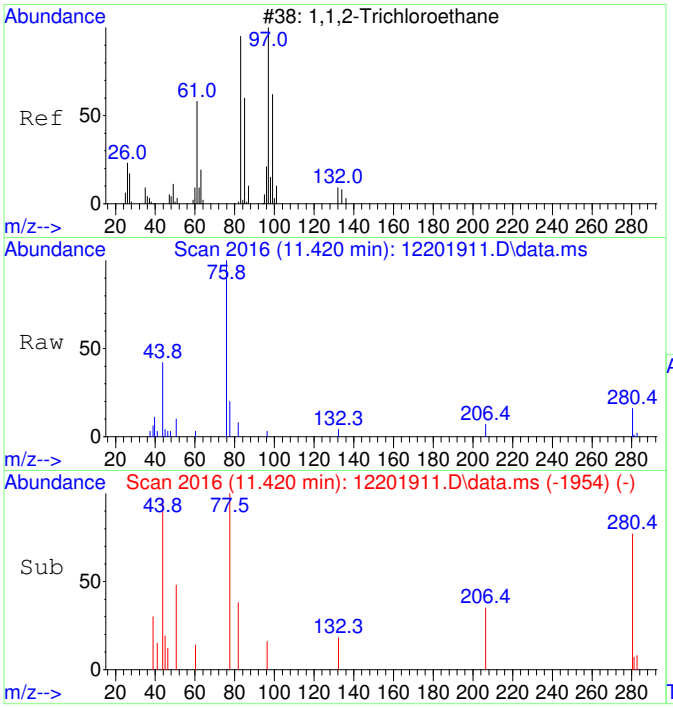


#37
Toluene SCAN
Concen: 55.72 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.010 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 91 Resp: 708

Ion	Ratio	Lower	Upper
91	100		
92	41.1	31.5	91.5
65	42.4	0.0	30.0#

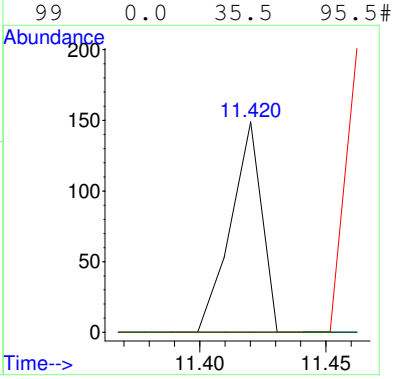


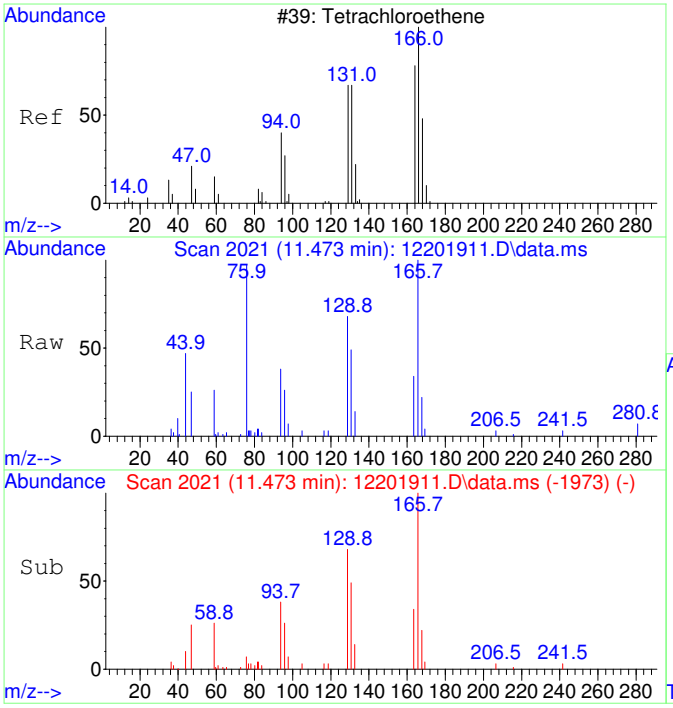


#38
1,1,2-Trichloroethane SCAN
Concen: 45.95 ug/L
RT: 11.420 min Scan# 2016
Delta R.T. 0.147 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 97 Resp: 127

Ion	Ratio	Lower	Upper
97	100		
83	0.0	67.7	127.7#
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

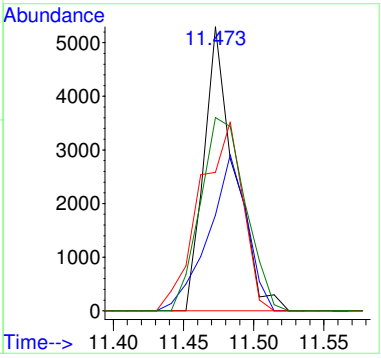


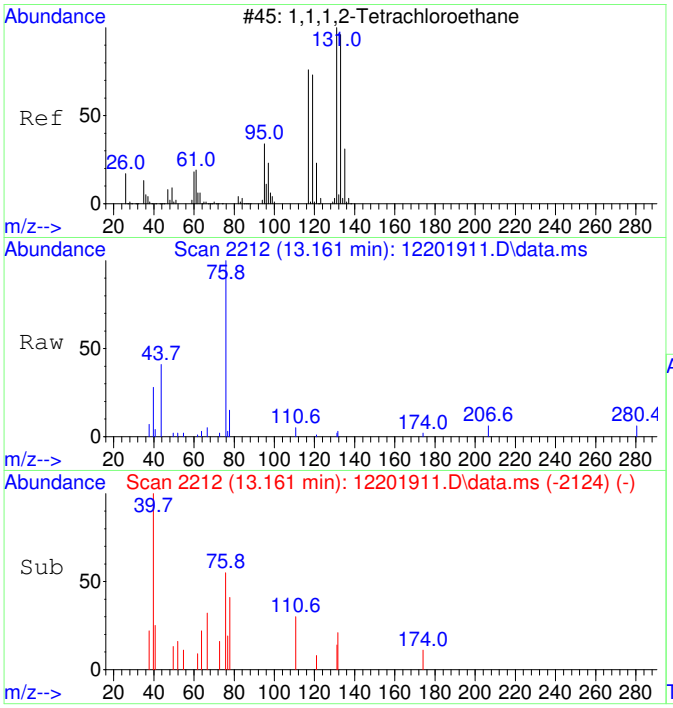


#39
Tetrachloroethene SCAN
Concen: 2187.94 ug/L
RT: 11.473 min Scan# 2021
Delta R.T. 0.000 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:166 Resp: 8058

Ion	Ratio	Lower	Upper
166	100		
164	68.8	61.8	121.8
131	93.0	51.8	111.8
129	100.0	36.0	96.0#

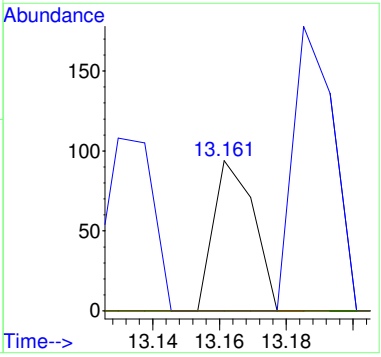


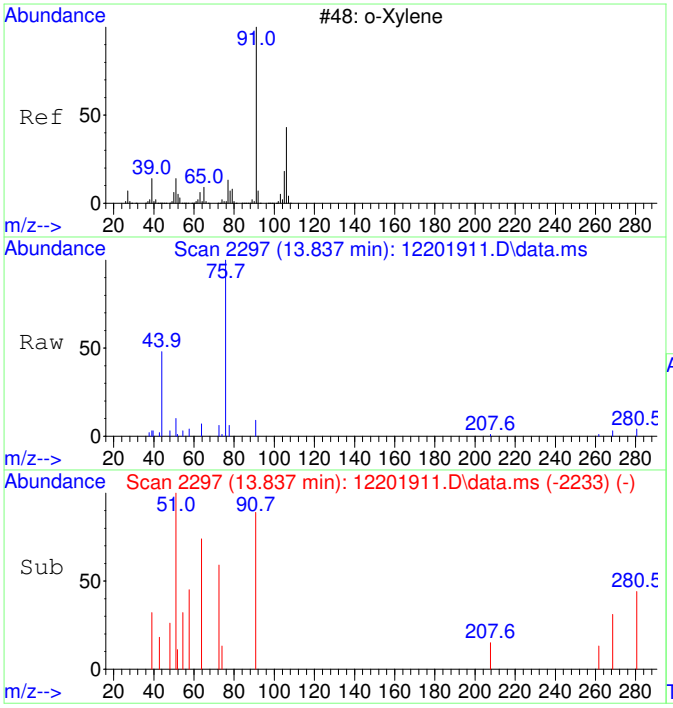


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 24.19 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. 0.199 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion:131 Resp: 79

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	0.0	38.9	98.9#

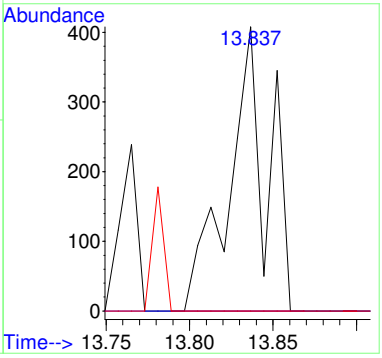




#44
o-Xylene SCAN
Concen: 48.14 ug/L
RT: 13.837 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201911.D
Acq: 20 Dec 2019 14:22

Tgt Ion: 91 Resp: 657

Ion	Ratio	Lower	Upper
91	100		
106	0.0	17.2	77.2#
105	0.0	0.0	57.7



B19L093-MRL2

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

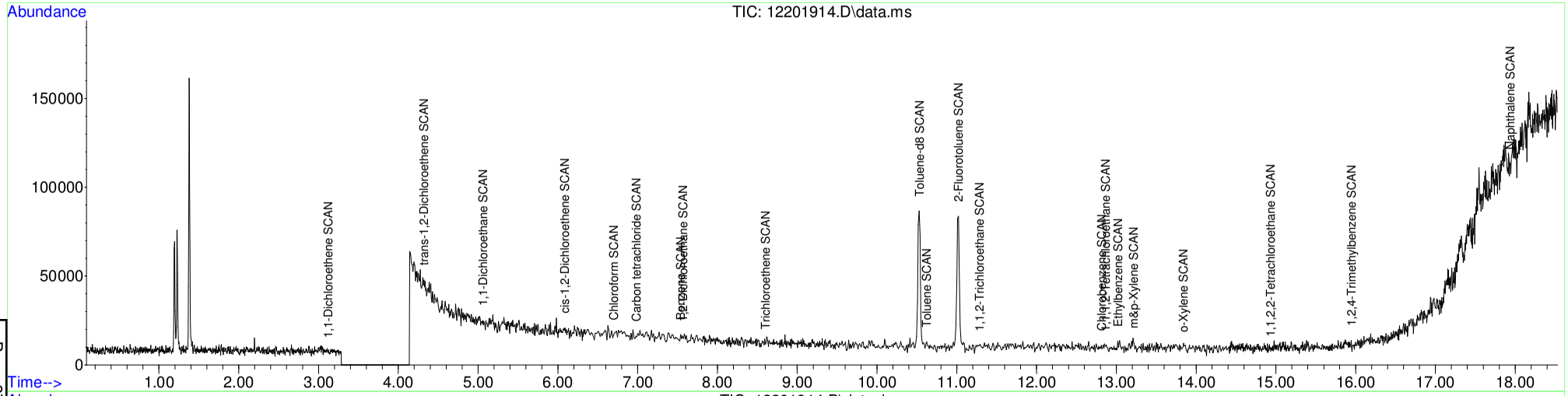
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	109429	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	92003	5235.20 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 104.70%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.123	61	514	109.77 ug/L	71
3] trans-1,2-Dichloroethene	4.316	61	230	47.89 ug/L	100
4] 1,1-Dichloroethane	5.066	63	311	50.94 ug/L	88
5] cis-1,2-Dichloroethene	6.088	61	280	49.87 ug/L	94
6] Chloroform	6.664	83	335	51.67 ug/L	91
7] 1,1,1-Trichloroethane	6.931	97	348	53.55 ug/L	96
8] Carbon tetrachloride	7.199	117	311	50.43 ug/L	99
9] Benzene	7.527	78	1109	67.86 ug/L	81
10] 1,2-Dichloroethane	7.564	62	262	48.84 ug/L	84
11] Trichloroethene	8.602	130	265	52.85 ug/L	91
13] Toluene	10.624	91	1329	62.34 ug/L	98
14] 1,1,2-Trichloroethane	11.274	97	264	54.65 ug/L	100
15] Tetrachloroethene	11.474	166	339	52.69 ug/L	75
16] Chlorobenzene	12.813	112	876	53.81 ug/L	89
17] 1,1,1,2-Tetrachloroethane	12.964	131	330	58.09 ug/L	83
18] Ethylbenzene	13.019	91	1708	64.93 ug/L	96
19] m&p-Xylene	13.210	91	2547	127.06 ug/L	96
20] o-Xylene	13.830	91	1267	59.60 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.925	83	507	53.12 ug/L	99
22] 1,3,5-Trimethylbenzene	15.394	105	1571	66.33 ug/L	99
23] 1,2,4-Trimethylbenzene	15.940	105	1690	69.81 ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	73597	5420.93 ug/L	98
26) 1,1-Dichloroethene SCAN	3.114	61	129	43.36 ug/L #	24
27) trans-1,2-Dichloroethe...	4.321	61	228	80.89 ug/L #	40
28) 1,1-Dichloroethane SCAN	5.058	63	355	84.16 ug/L #	47
29) cis-1,2-Dichloroethene...	6.086	61	211	62.45 ug/L #	58
30) Chloroform SCAN	6.699	83	278	77.06 ug/L #	22
32) Carbon tetrachloride SCAN	6.979	117	166	46.74 ug/L #	17
33) Benzene SCAN	7.538	78	1905	175.15 ug/L #	95
34) 1,2-Dichloroethane SCAN	7.563	62	247	66.59 ug/L #	36
35) Trichloroethene SCAN	8.601	130	102	36.72 ug/L #	46
36) Toluene-d8 SCAN	10.528	98	64030	5562.41 ug/L	86
37) Toluene SCAN	10.622	91	1070	79.58 ug/L #	86
38) 1,1,2-Trichloroethane ...	11.284	97	212	72.48 ug/L #	46
40) Chlorobenzene SCAN	12.812	112	946	88.31 ug/L #	64
41) 1,1,1,2-Tetrachloroeth...	12.867	131	165	47.75 ug/L #	8
42) Ethylbenzene SCAN	13.018	91	1378	81.12 ug/L #	50
43) m&p-Xylene SCAN	13.217	91	1930	75.76 ug/L #	85
44) o-Xylene SCAN	13.836	91	1702	117.85 ug/L #	58
45) 1,1,2,2-Tetrachloroeth...	14.935	83	214	32.87 ug/L #	64
47) 1,2,4-Trimethylbenzene...	15.944	105	1008	65.80 ug/L #	68
48) Naphthalene SCAN	17.935	128	725	29.29 ug/L #	75

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



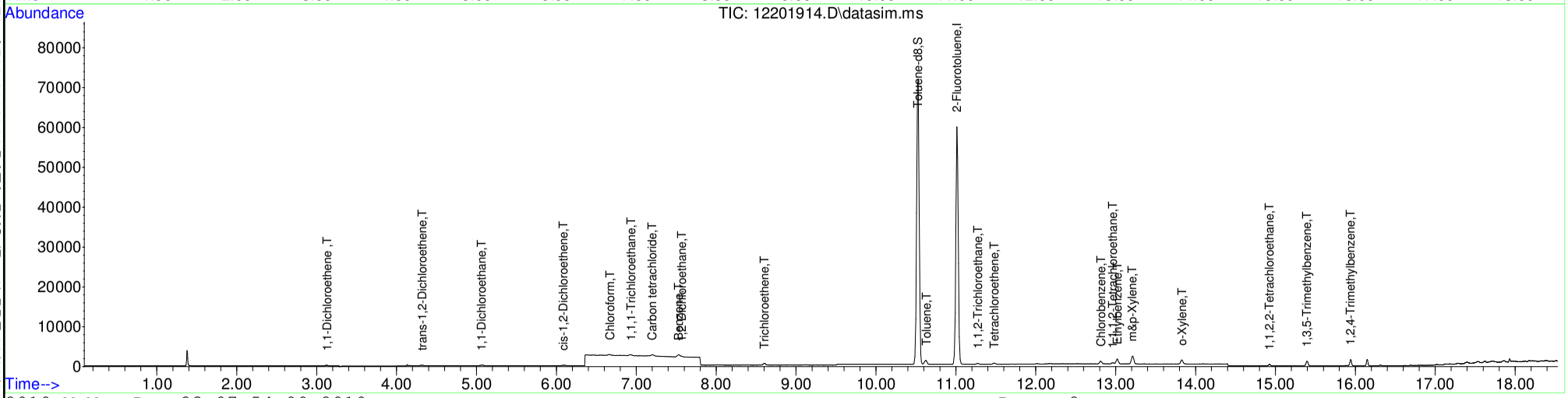
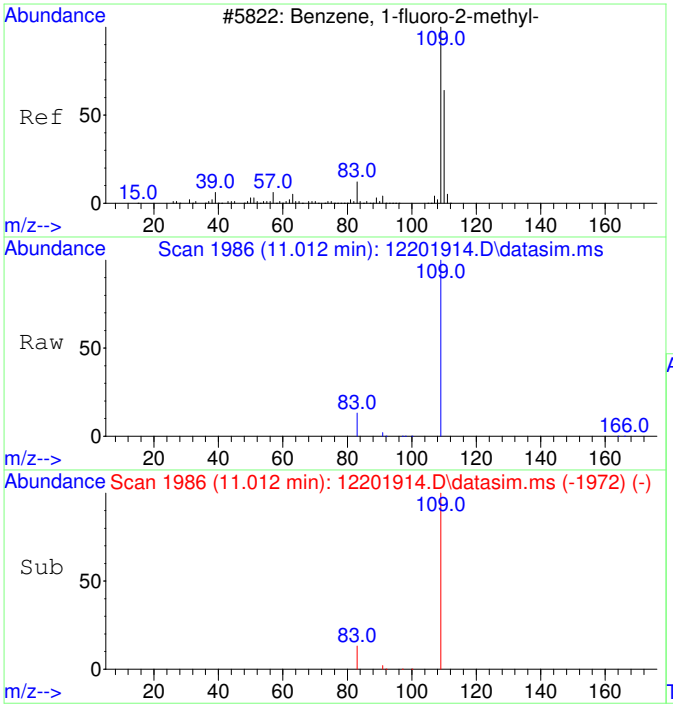


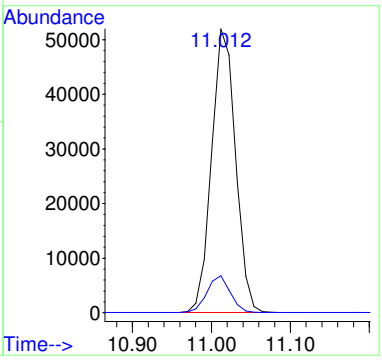
Table of Contents

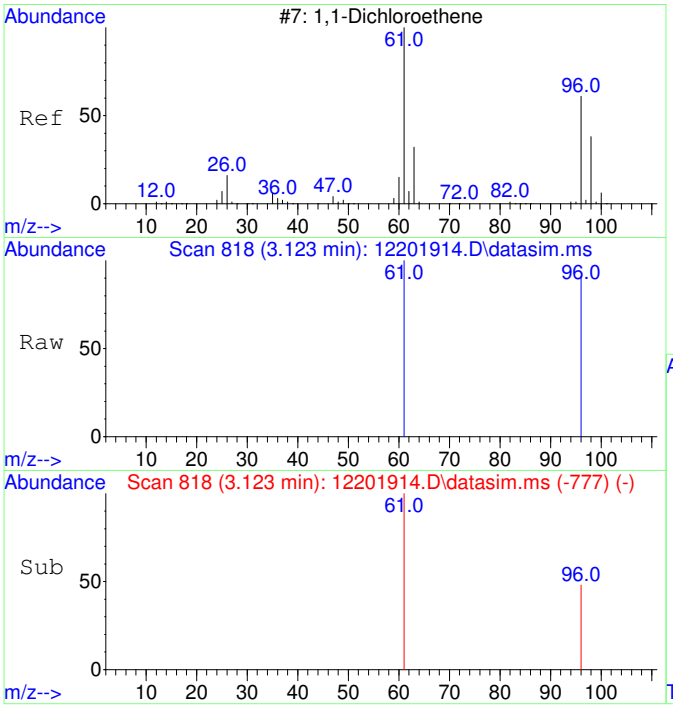


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 109429

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

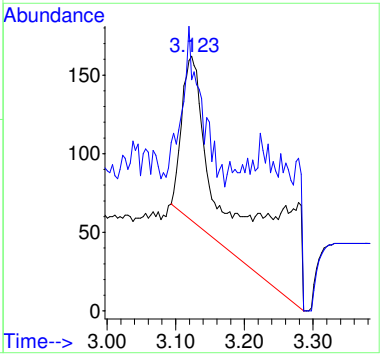




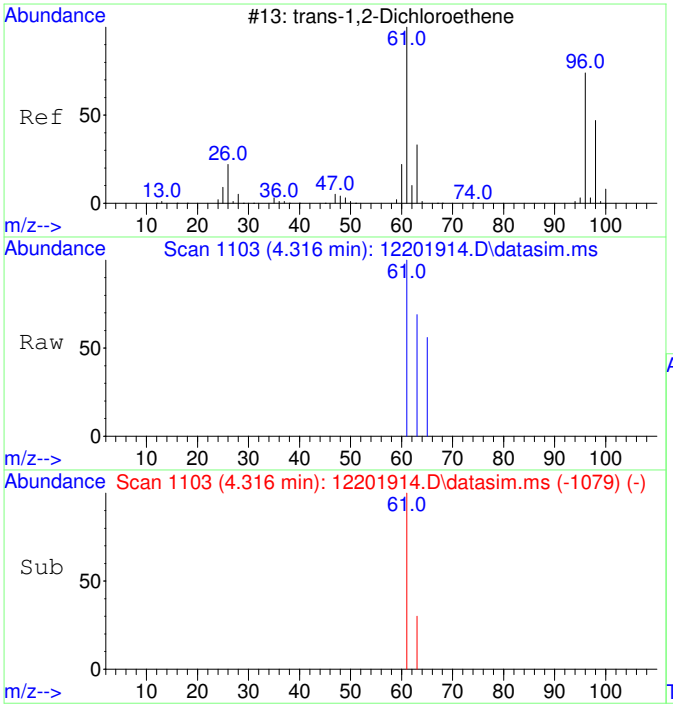
#2
1,1-Dichloroethene
Concen: 109.77 ug/L
RT: 3.123 min Scan# 818
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 514

Ion	Ratio	Lower	Upper
61	100		
96	40.7	33.5	93.5



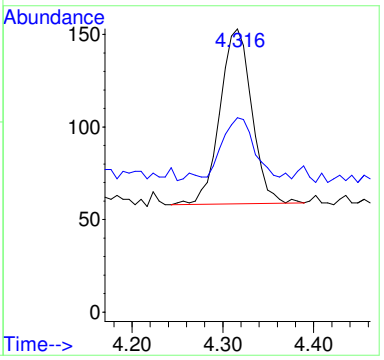
Before MI:
IMPROPER
BASELINE

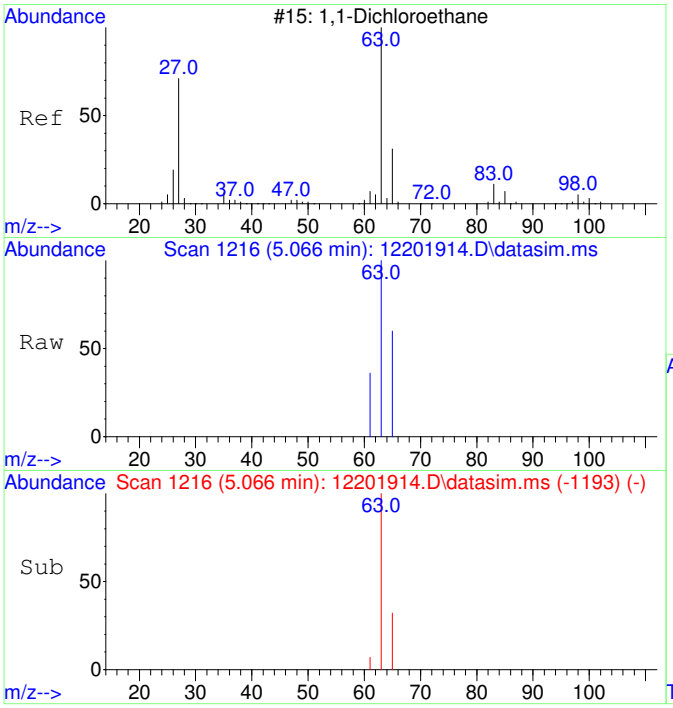


#3
trans-1,2-Dichloroethene
Concen: 47.89 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 230

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.3	62.3

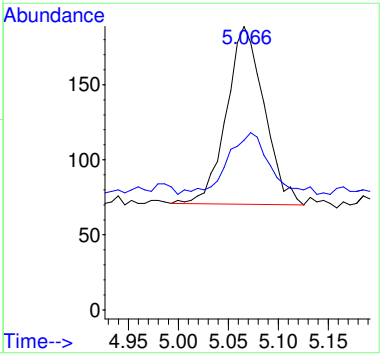


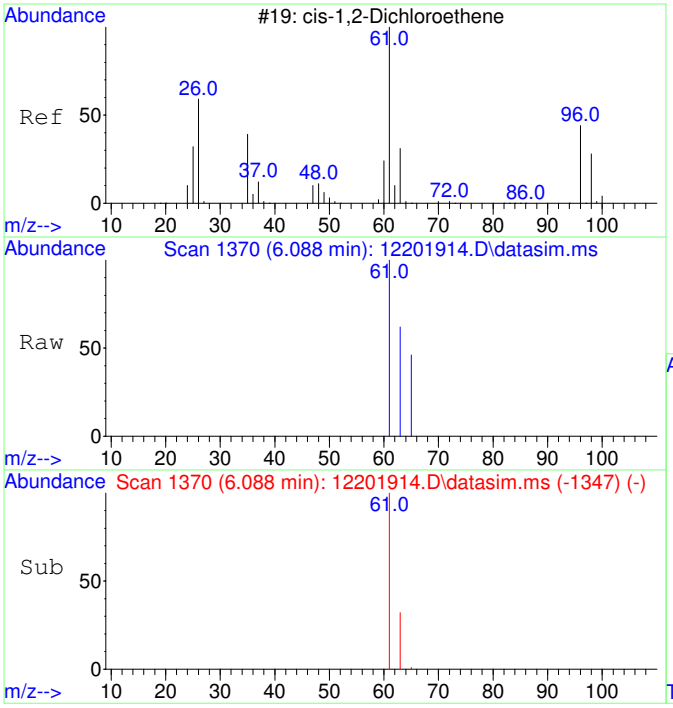


#4
1,1-Dichloroethane
Concen: 50.94 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 311

Ion	Ratio	Lower	Upper
63	100		
65	38.6	1.9	61.9

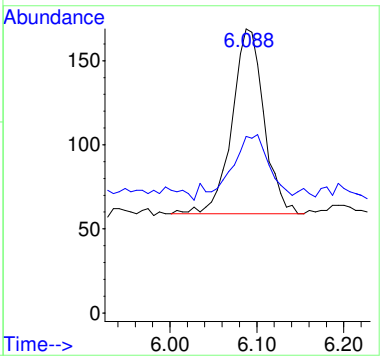


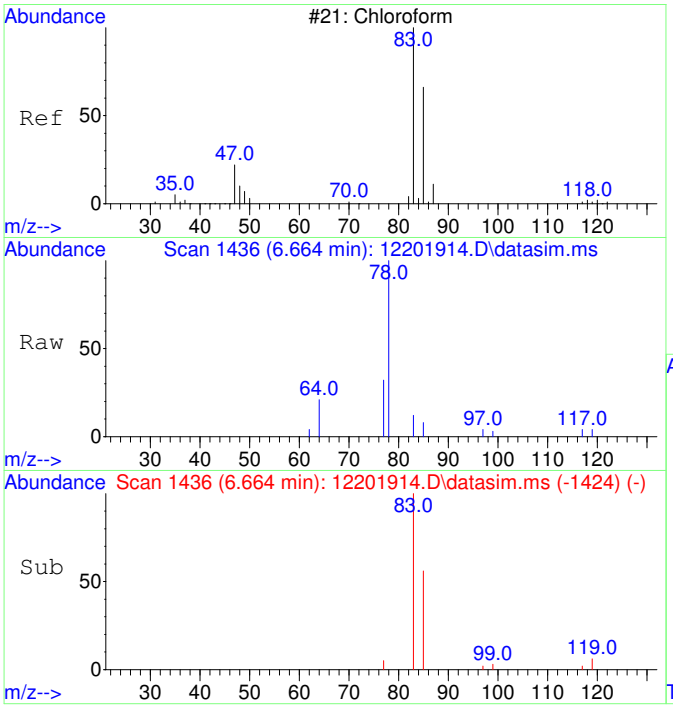


#5
cis-1,2-Dichloroethene
Concen: 49.87 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 280

Ion	Ratio	Lower	Upper
61	100		
63	36.1	2.5	62.5

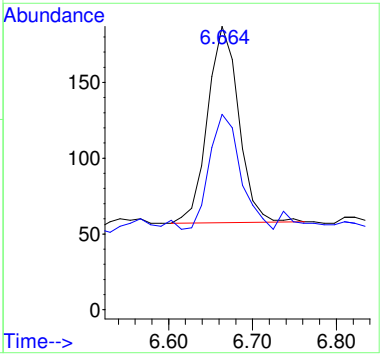


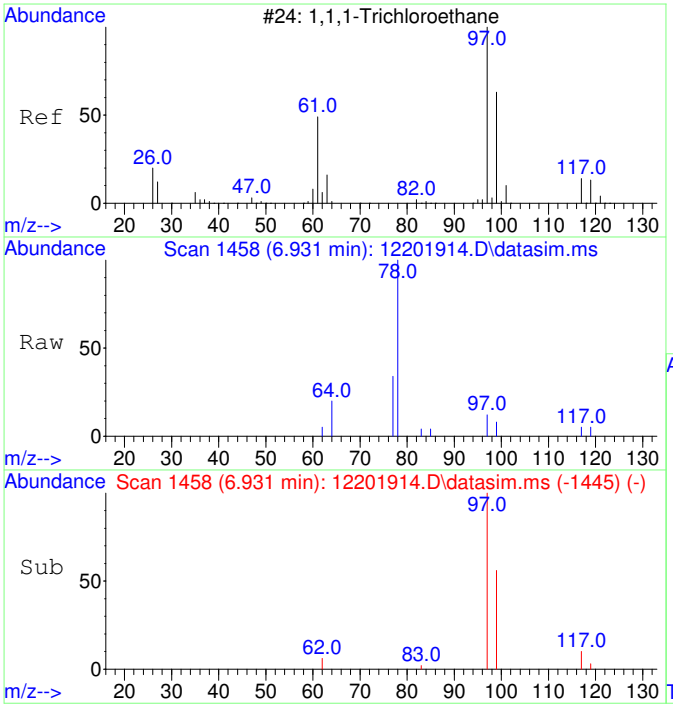


#6
Chloroform
Concen: 51.67 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 335

Ion	Ratio	Lower	Upper
83	100		
85	57.9	35.0	95.0

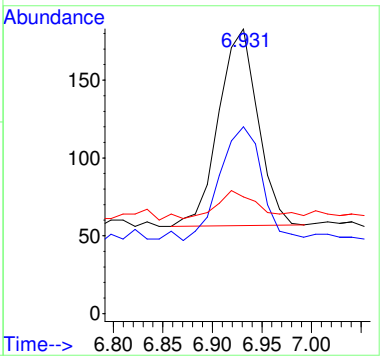


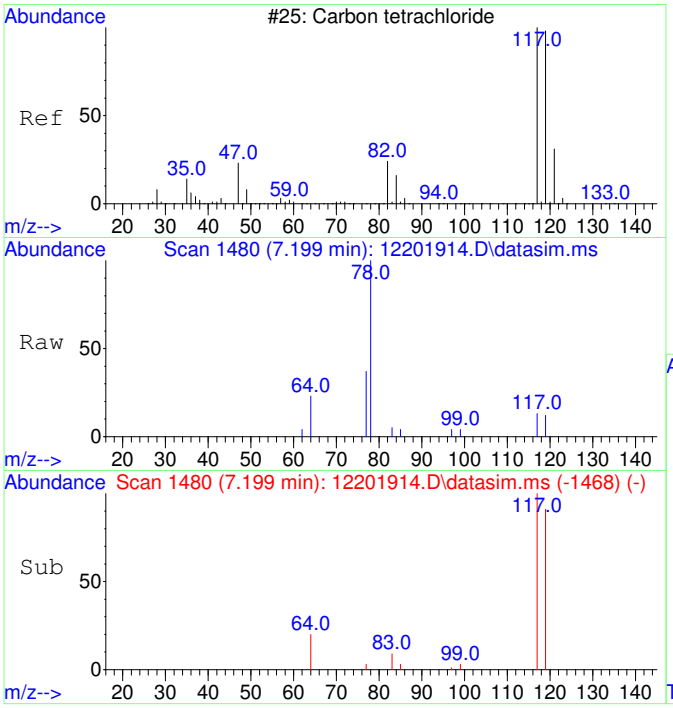


#7
1,1,1-Trichloroethane
Concen: 53.55 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 348

Ion	Ratio	Lower	Upper
97	100		
99	60.9	34.4	94.4
117	13.8	0.0	43.0

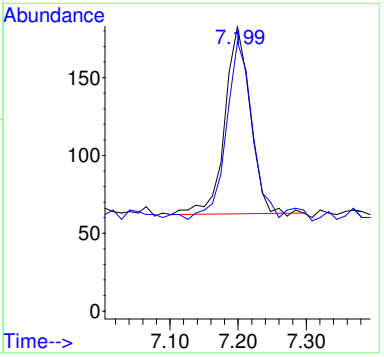


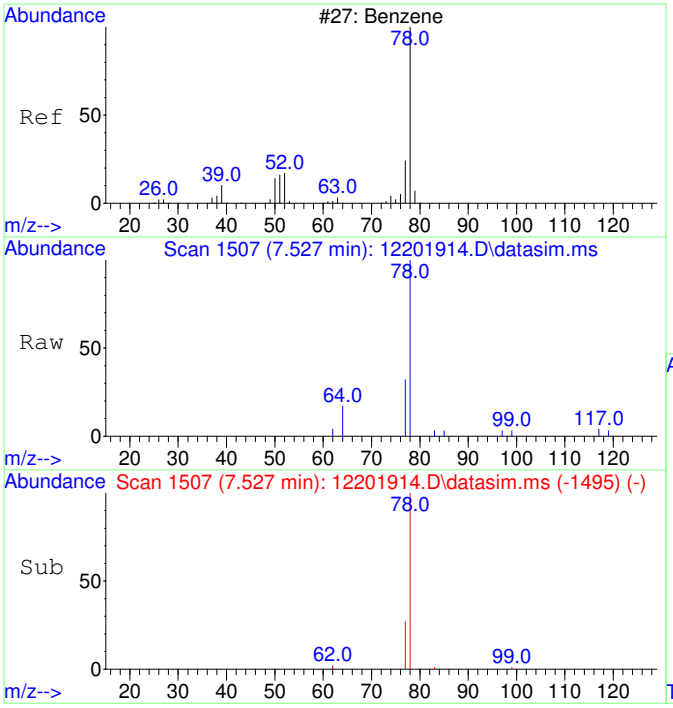


#8
Carbon tetrachloride
Concen: 50.43 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 311

Ion	Ratio	Lower	Upper
117	100		
119	95.5	66.5	126.5

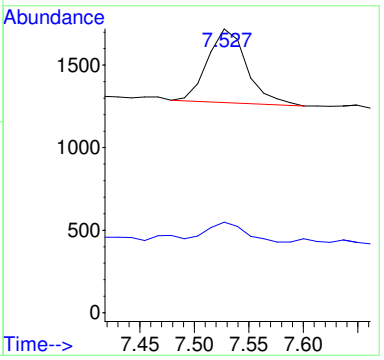


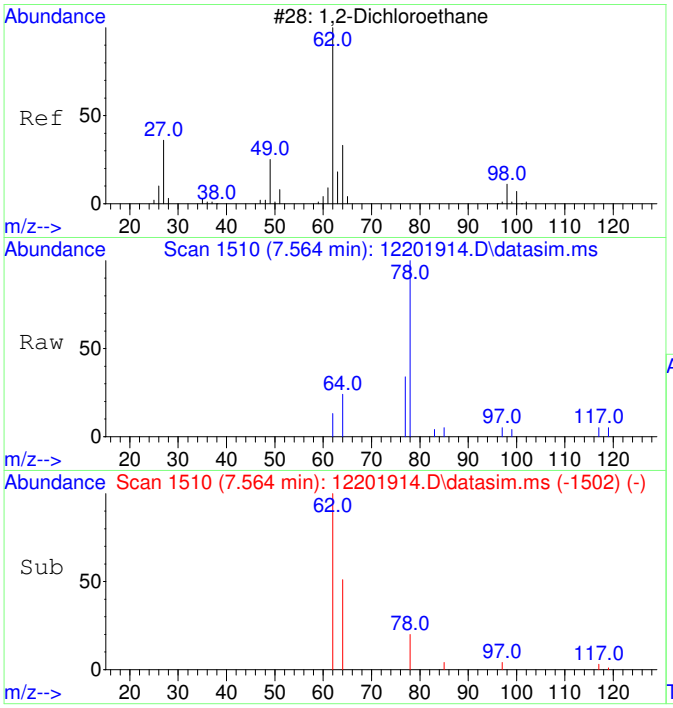


#9
Benzene
Concen: 67.86 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1109

Ion	Ratio	Lower	Upper
78	100		
77	32.6	0.0	53.5

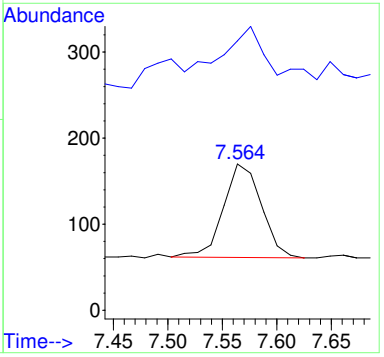


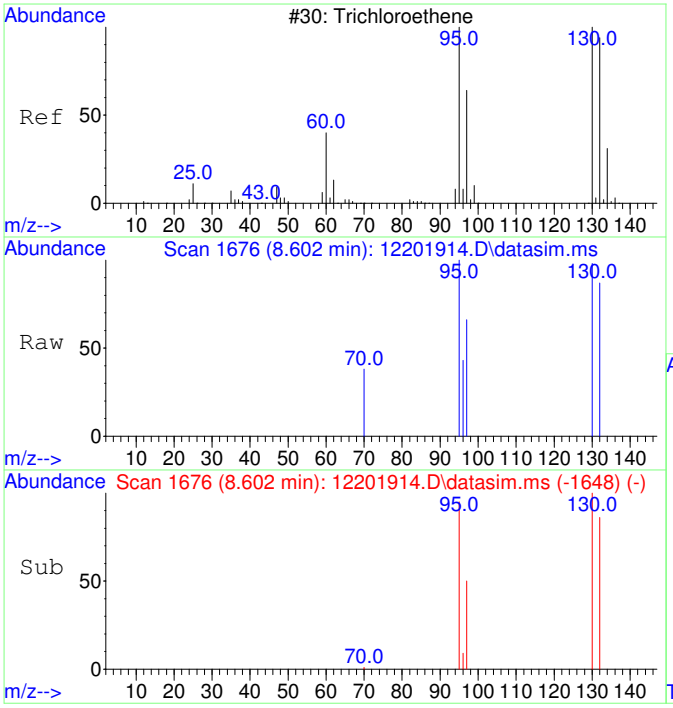


#10
1,2-Dichloroethane
Concen: 48.84 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 262

Ion	Ratio	Lower	Upper
62	100		
64	41.6	2.4	62.4

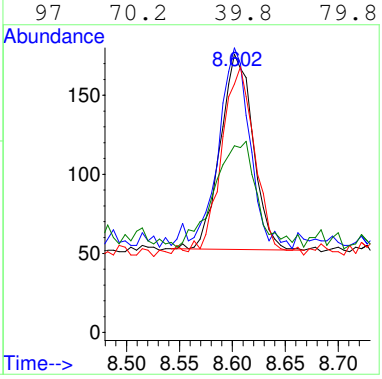


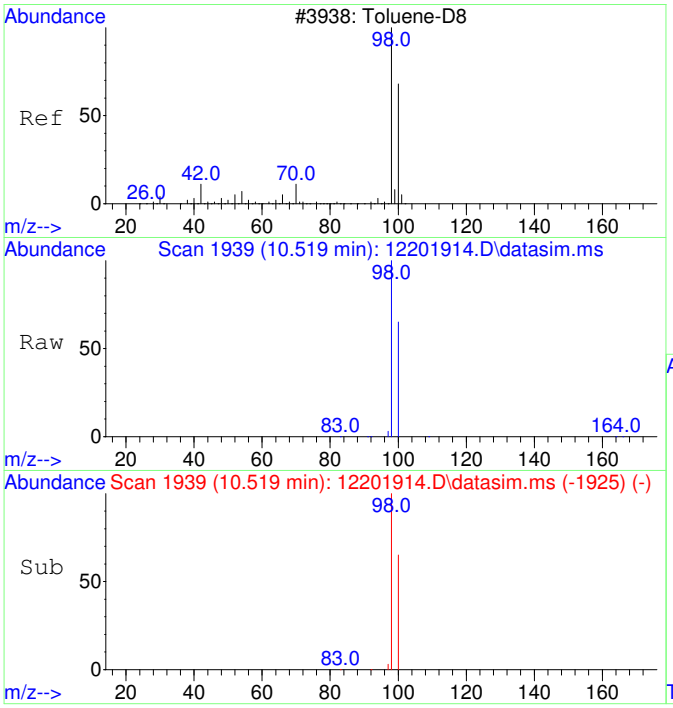


#11
Trichloroethene
Concen: 52.85 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 265

Ion	Ratio	Lower	Upper
130	100		
95	98.1	62.3	122.3
132	103.4	75.8	115.8
97	70.2	39.8	79.8

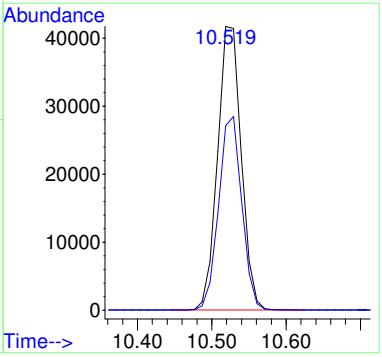


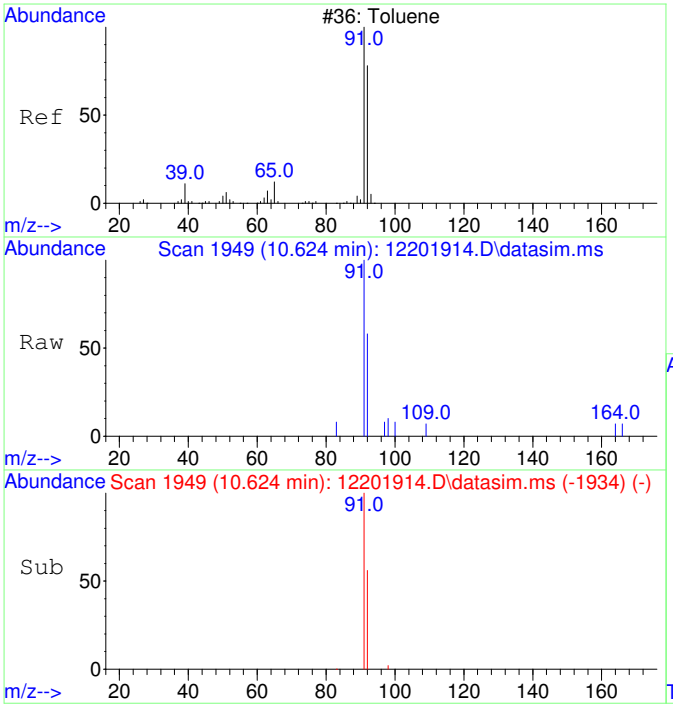


#12
Toluene-d8
Concen: 5235.20 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 92003

Ion	Ratio	Lower	Upper
98	100		
100	66.7	36.2	96.2

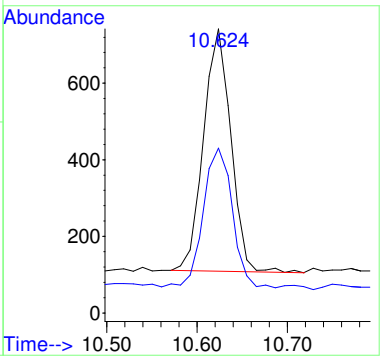


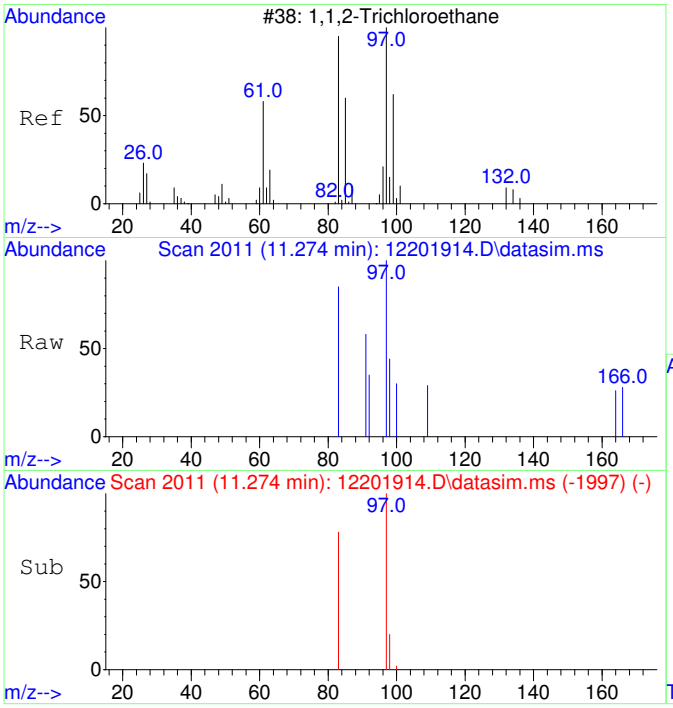


#13
Toluene
Concen: 62.34 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1329

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.4	89.4

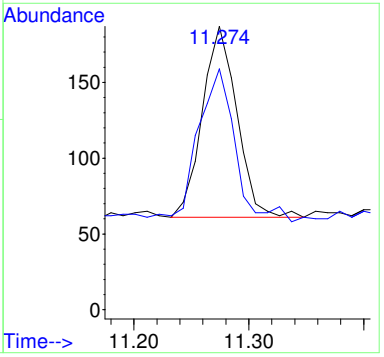


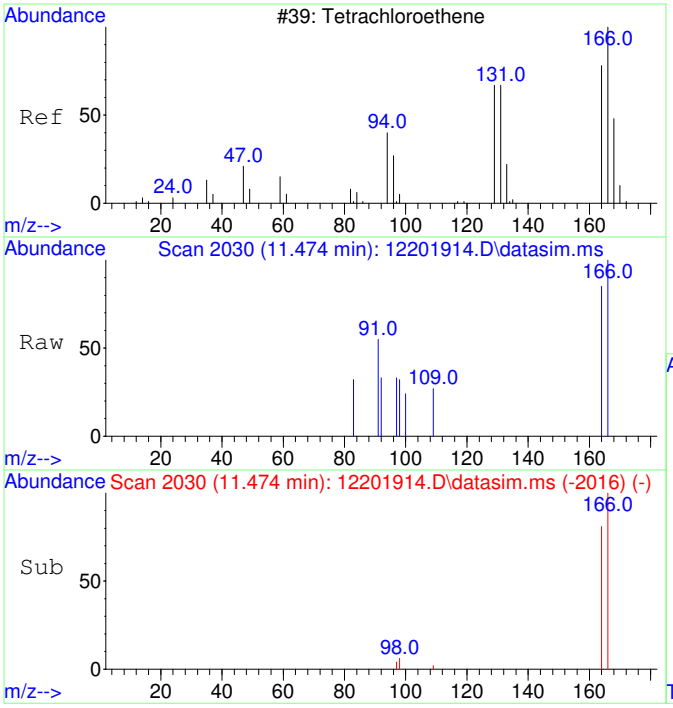


#14
1,1,2-Trichloroethane
Concen: 54.65 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 264

Ion	Ratio	Lower	Upper
97	100		
83	82.2	52.5	112.5

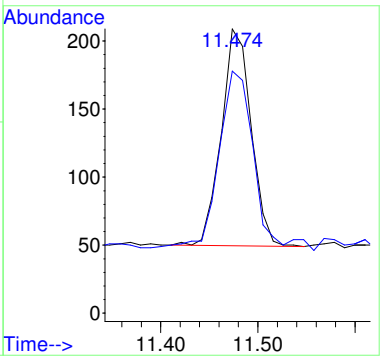


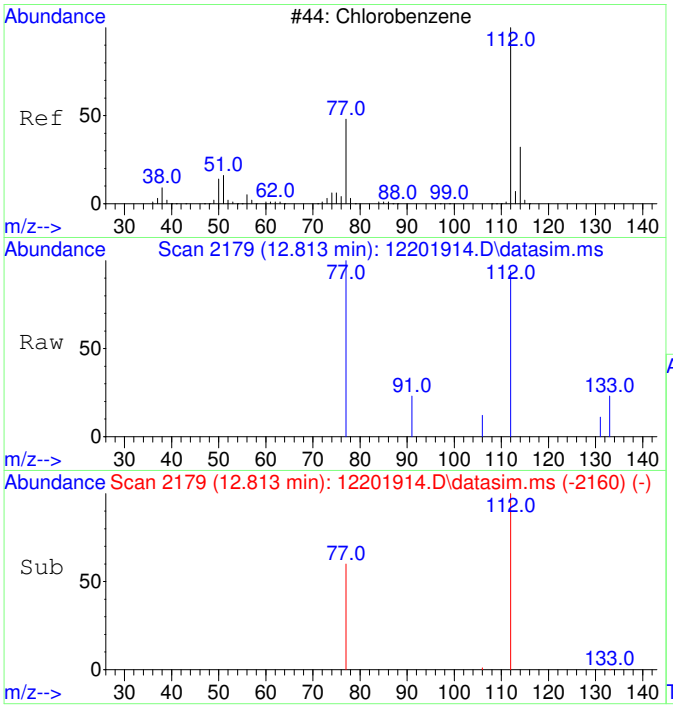


#15
Tetrachloroethene
Concen: 52.69 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:166 Resp: 339

Ion	Ratio	Lower	Upper
166	100		
164	99.1	47.6	107.6

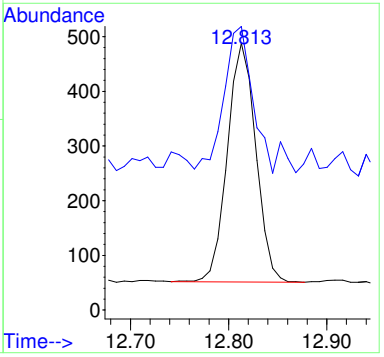


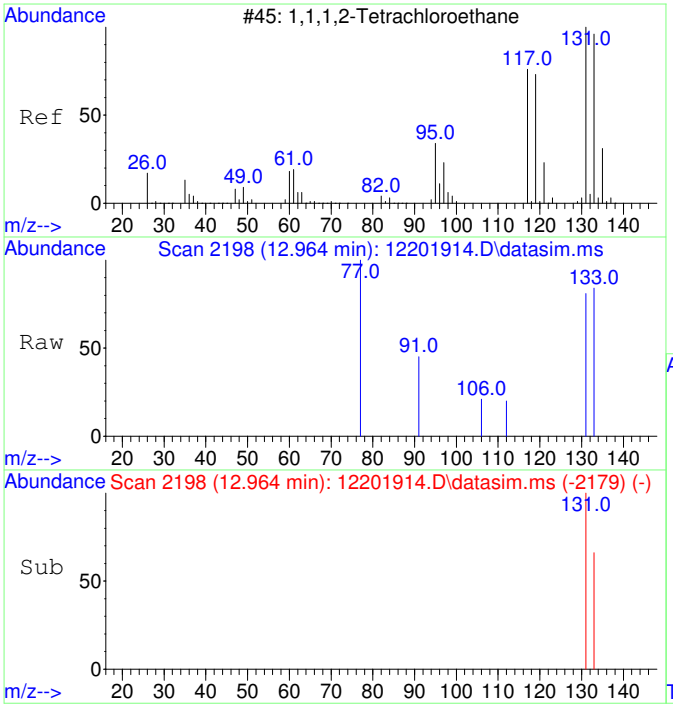


#16
Chlorobenzene
Concen: 53.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 876

Ion	Ratio	Lower	Upper
112	100		
77	62.2	24.2	84.2

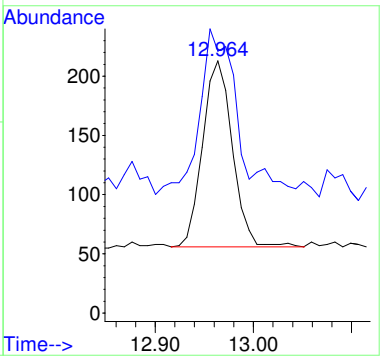


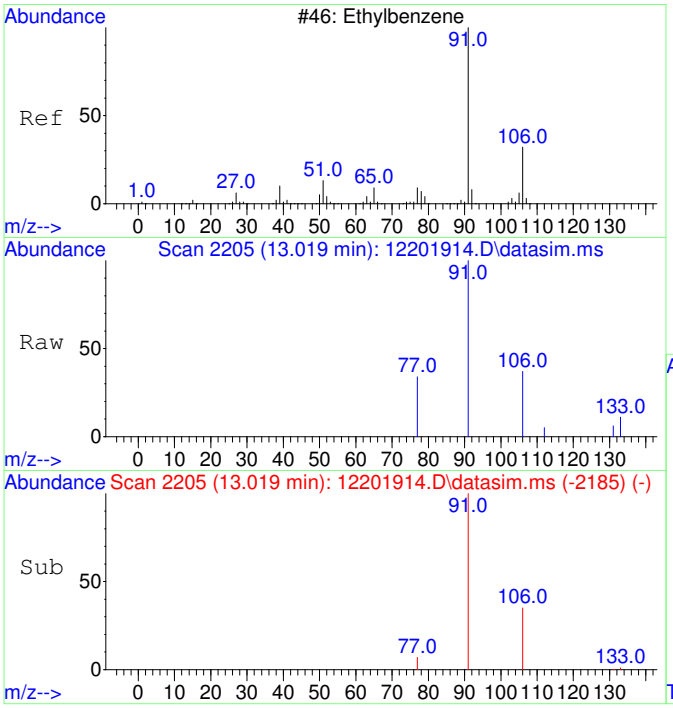


#17
1,1,1,2-Tetrachloroethane
Concen: 58.09 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 330

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.0	126.0

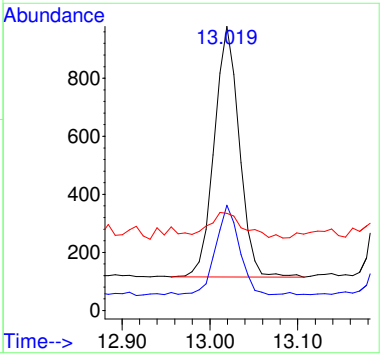


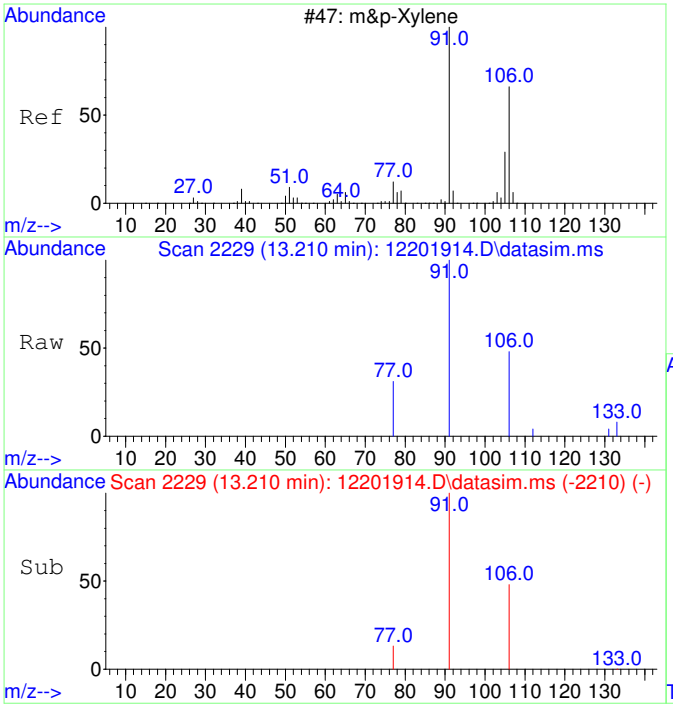


#18
Ethylbenzene
Concen: 64.93 ug/L
RT: 13.019 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1708

Ion	Ratio	Lower	Upper
91	100		
106	32.9	2.5	62.5
77	13.8	0.0	38.2

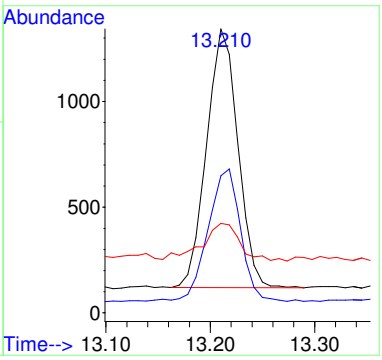


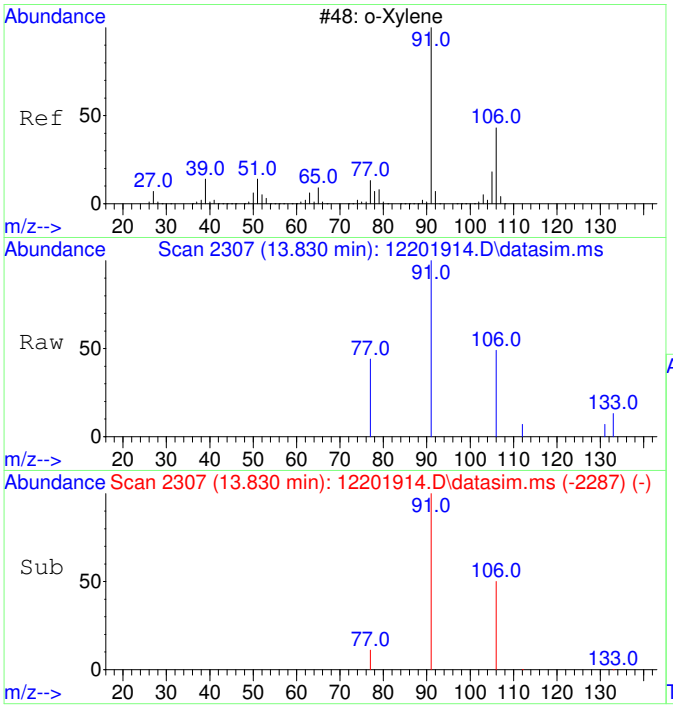


#19
m&p-Xylene
Concen: 127.06 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 2547

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.6	81.6
77	17.6	0.0	42.6

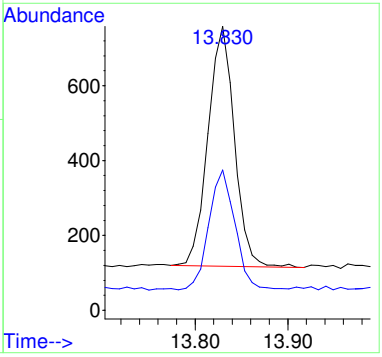


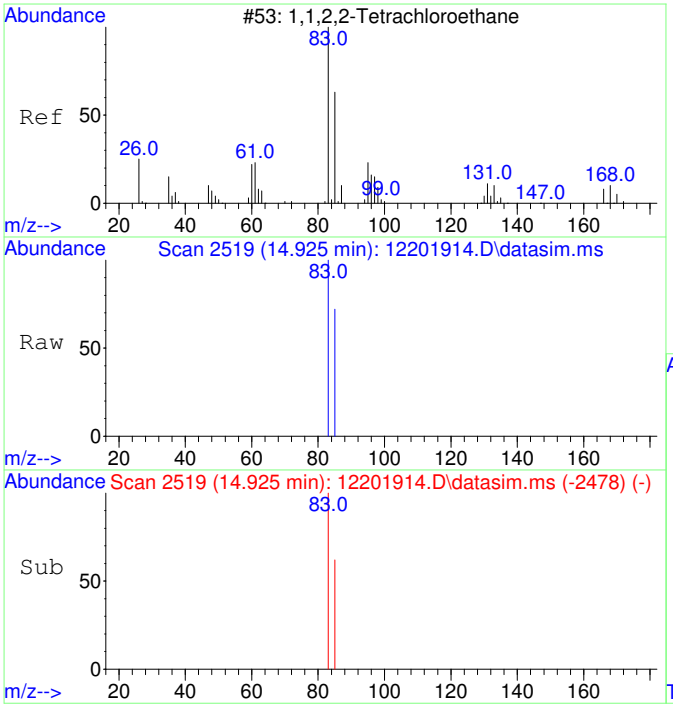


#20
o-Xylene
Concen: 59.60 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1267

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.5	78.5

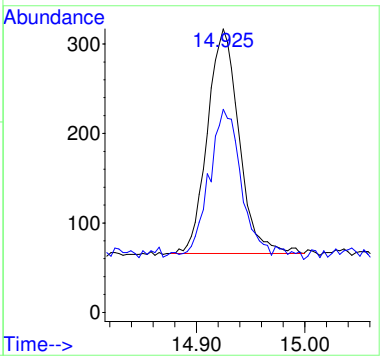


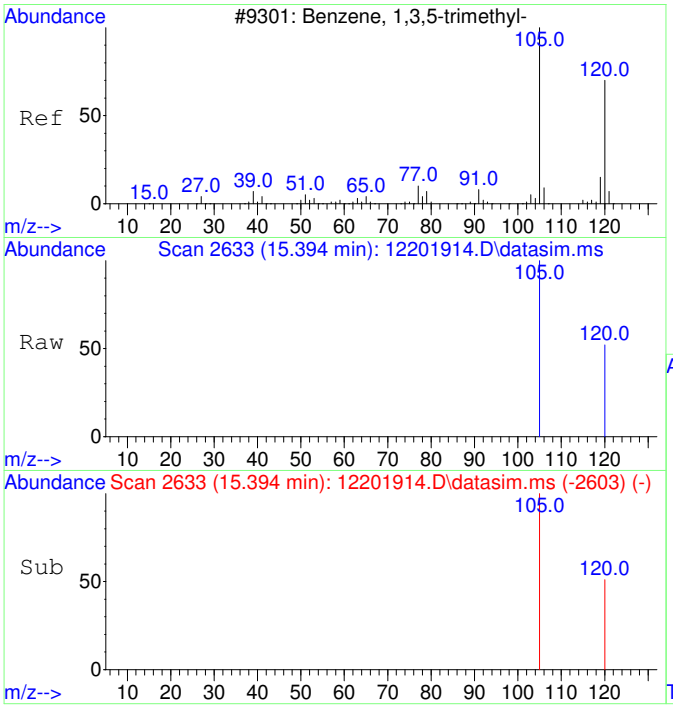


#21
1,1,2,2-Tetrachloroethane
Concen: 53.12 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 507

Ion	Ratio	Lower	Upper
83	100		
85	63.9	34.7	94.7

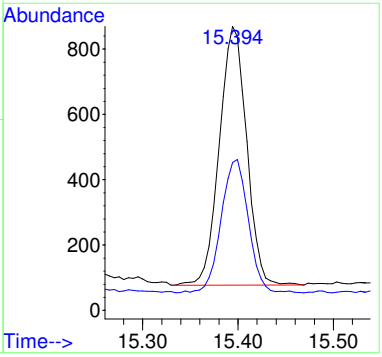


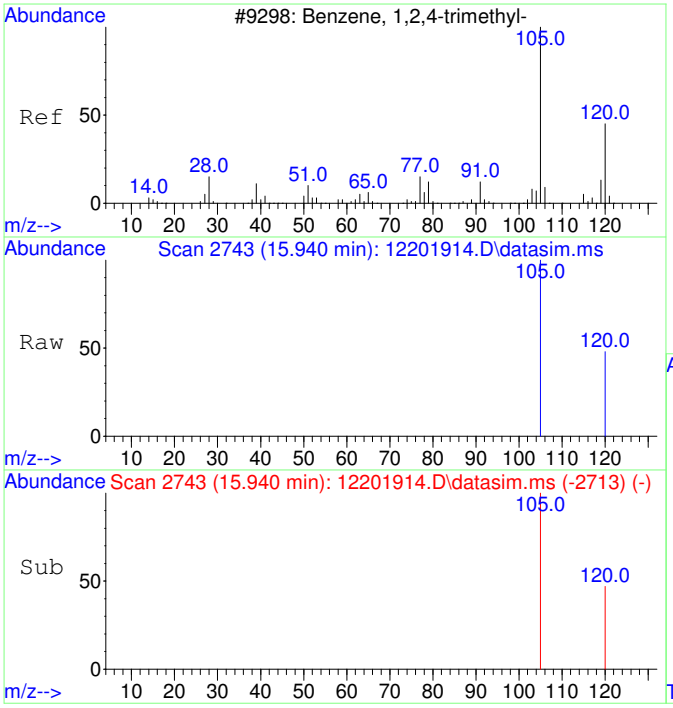


#22
1,3,5-Trimethylbenzene
Concen: 66.33 ug/L
RT: 15.394 min Scan# 2633
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1571

Ion	Ratio	Lower	Upper
105	100		
120	51.4	20.7	80.7

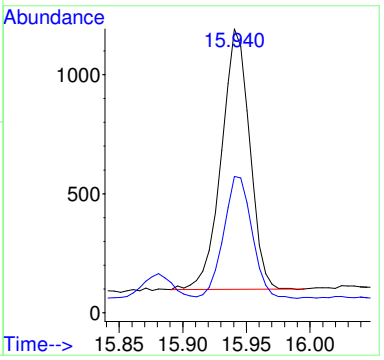


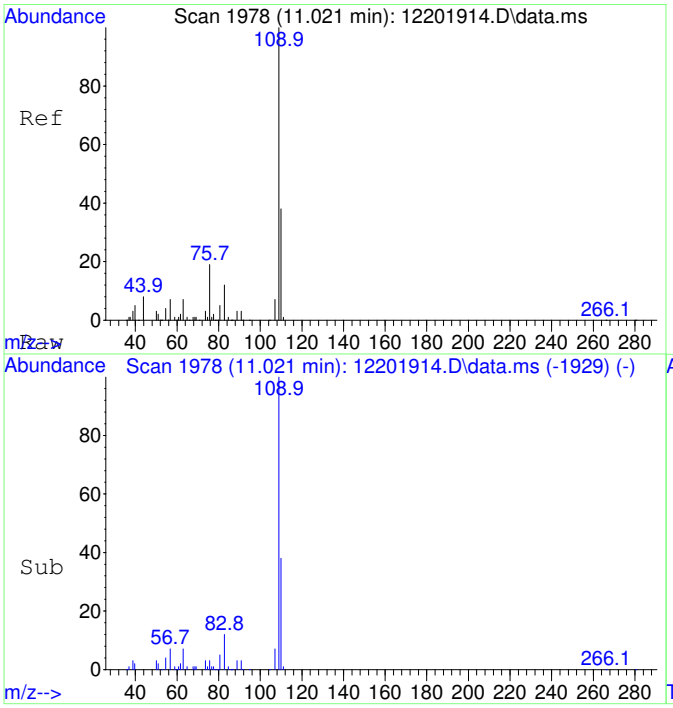


#23
1,2,4-Trimethylbenzene
Concen: 69.81 ug/L
RT: 15.940 min Scan# 2743
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1690

Ion	Ratio	Lower	Upper
105	100		
120	46.4	16.6	76.6

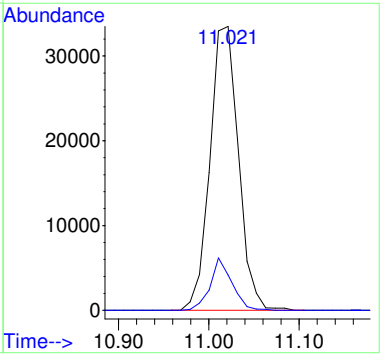


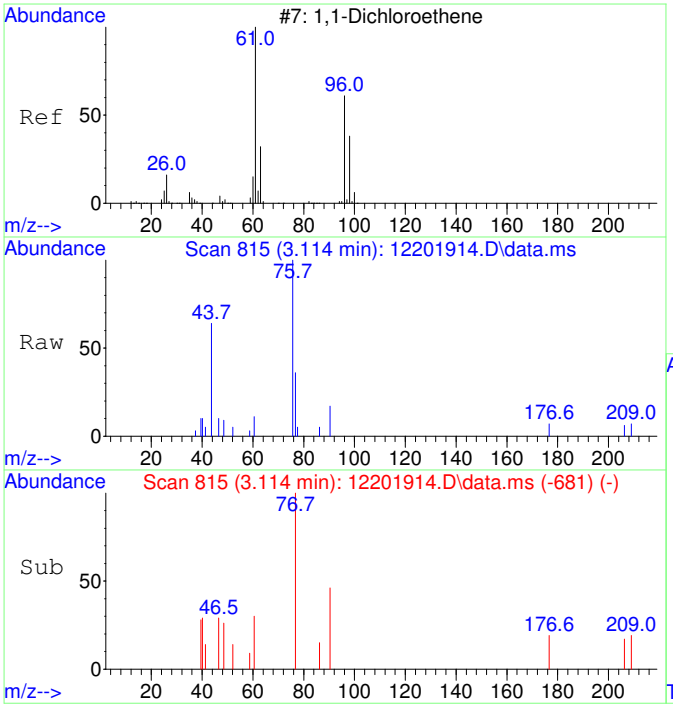


#25
2-Fluorotoluene SCAN
Concen: 5420.93 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 73597

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.7

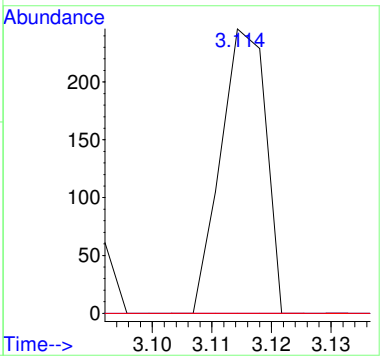


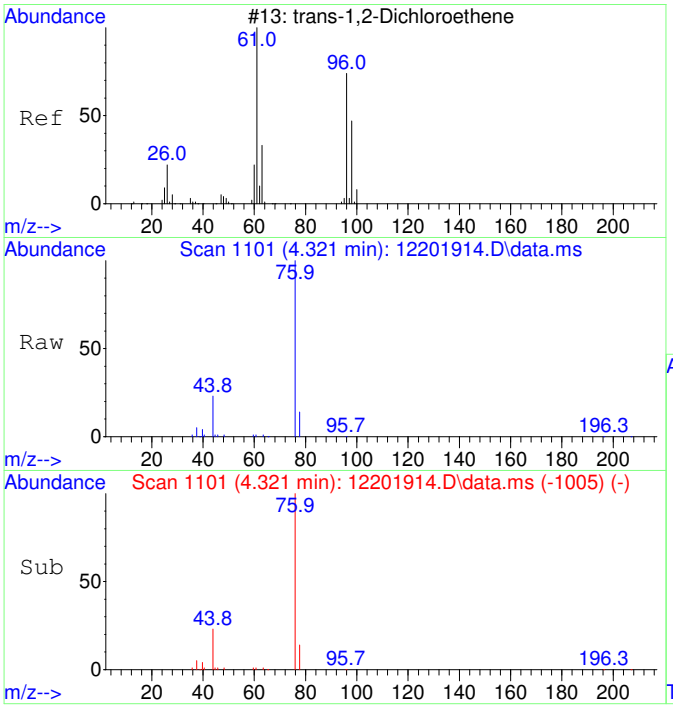


#26
1,1-Dichloroethene SCAN
Concen: 43.36 ug/L
RT: 3.114 min Scan# 815
Delta R.T. -0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 129

Ion	Ratio	Lower	Upper
61	100		
96	0.0	34.8	94.8#
98	0.0	12.9	72.9#

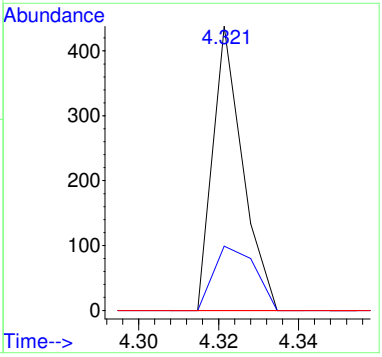


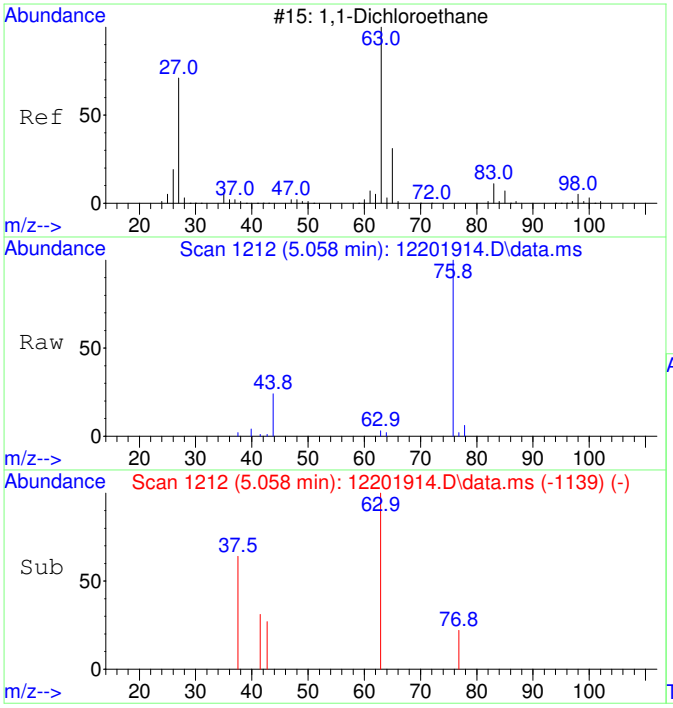


#27
trans-1,2-Dichloroethene SCAN
Concen: 80.89 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 228

Ion	Ratio	Lower	Upper
61	100		
96	31.1	42.7	102.7#
98	0.0	23.4	83.4#

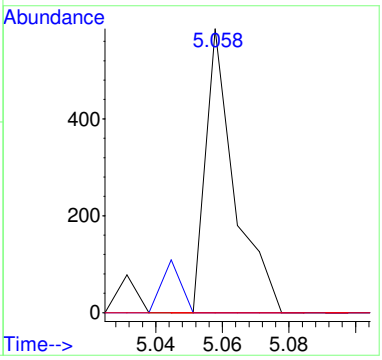


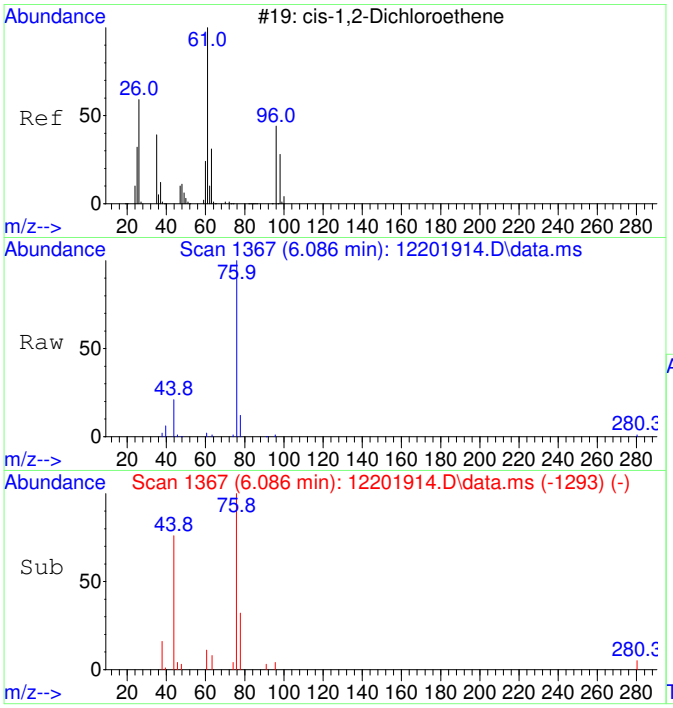


#28
1,1-Dichloroethane SCAN
Concen: 84.16 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 355

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

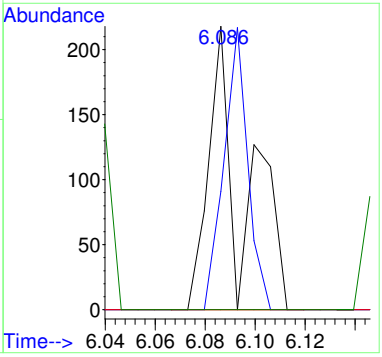


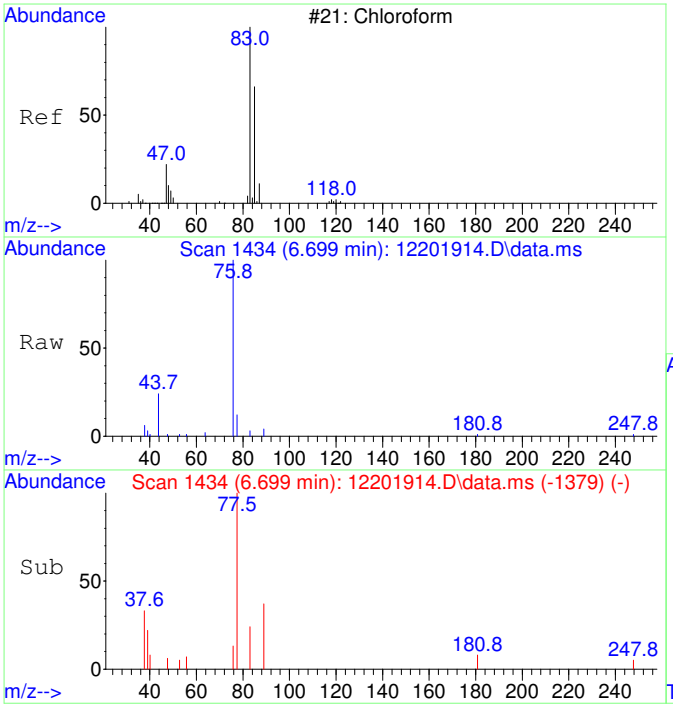


#29
cis-1,2-Dichloroethene SCAN
Concen: 62.45 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 211

Ion	Ratio	Lower	Upper
61	100		
96	68.2	46.1	106.1
98	0.0	20.8	80.8#
63	0.0	9.0	69.0#

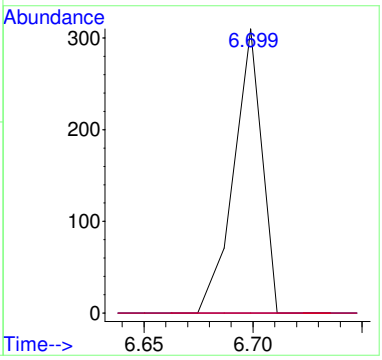


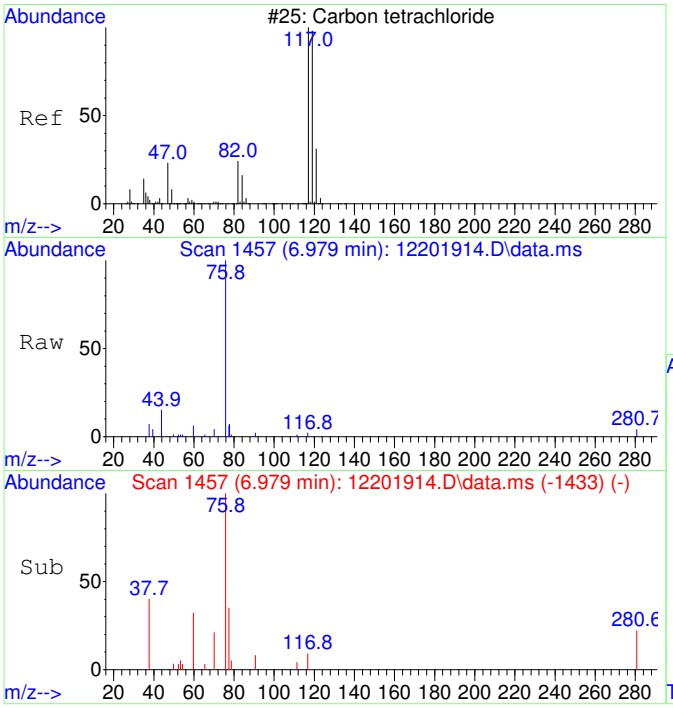


#30
Chloroform SCAN
Concen: 77.06 ug/L
RT: 6.699 min Scan# 1434
Delta R.T. 0.036 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 278

Ion	Ratio	Lower	Upper
83	100		
85	0.0	42.9	102.9#
47	0.0	4.5	64.5#

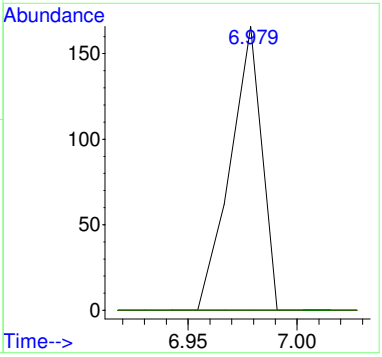


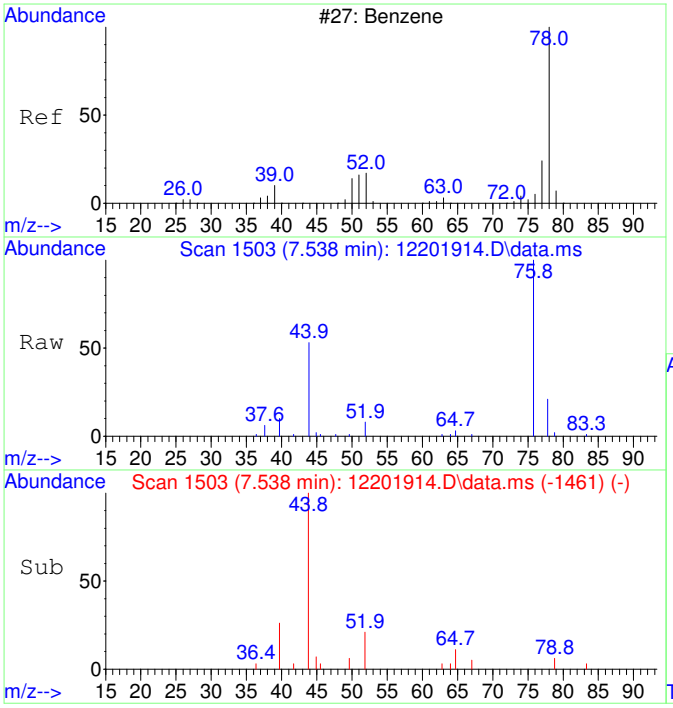


#32
Carbon tetrachloride SCAN
Concen: 46.74 ug/L
RT: 6.979 min Scan# 1457
Delta R.T. -0.207 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 166

Ion	Ratio	Lower	Upper
117	100		
119	0.0	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

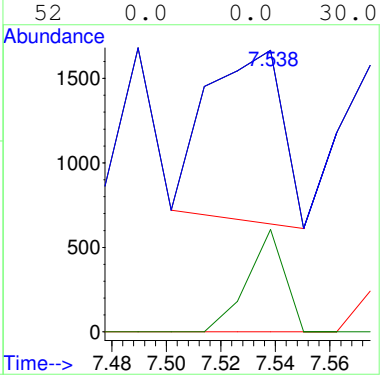


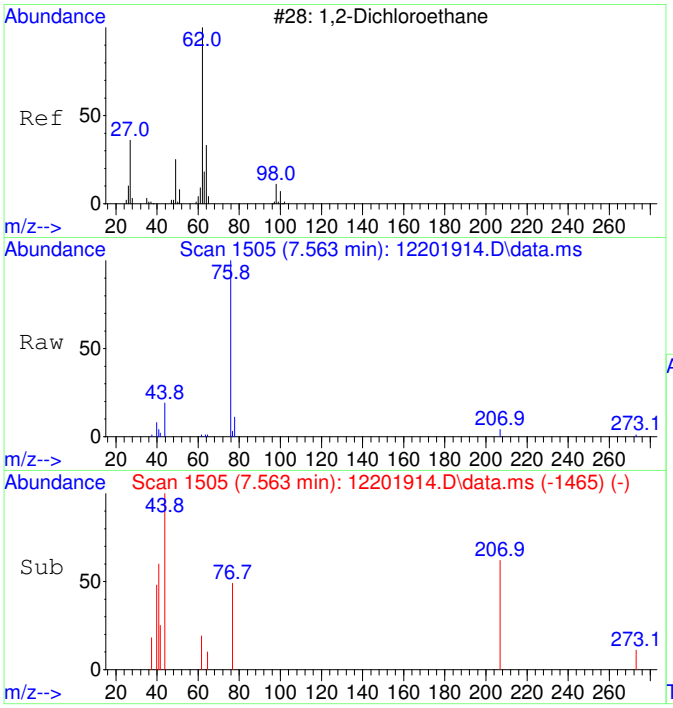


#33
Benzene SCAN
Concen: 175.15 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1905

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	0.0	0.0	30.0

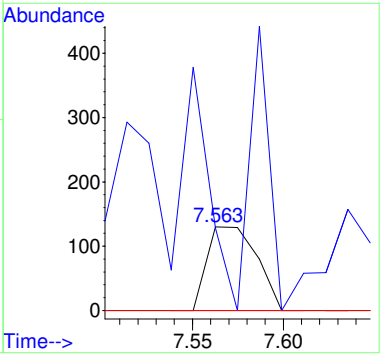


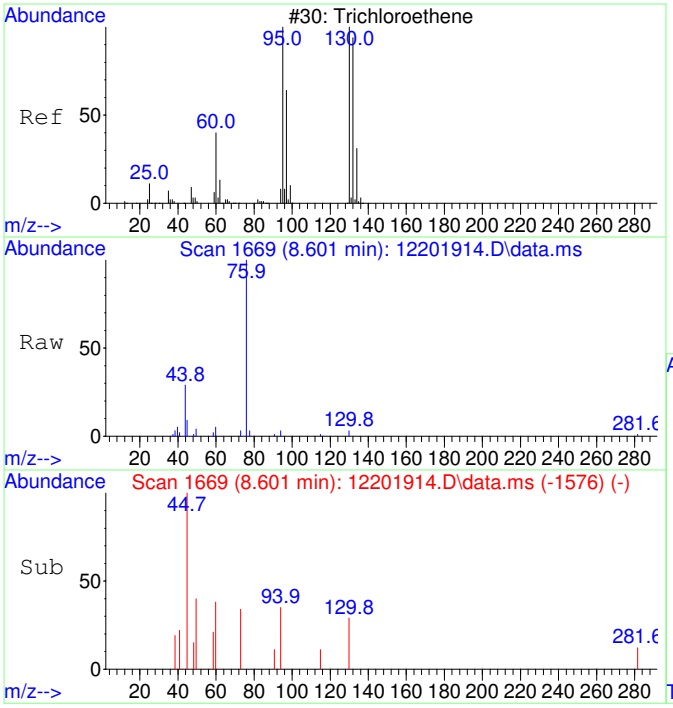


#34
1,2-Dichloroethane SCAN
Concen: 66.59 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 247

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

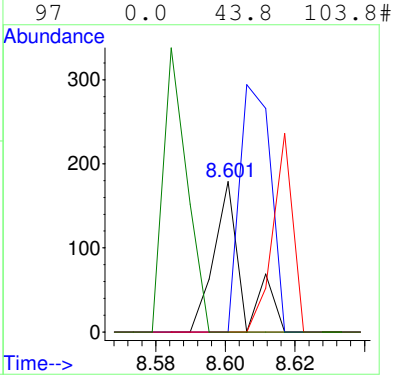


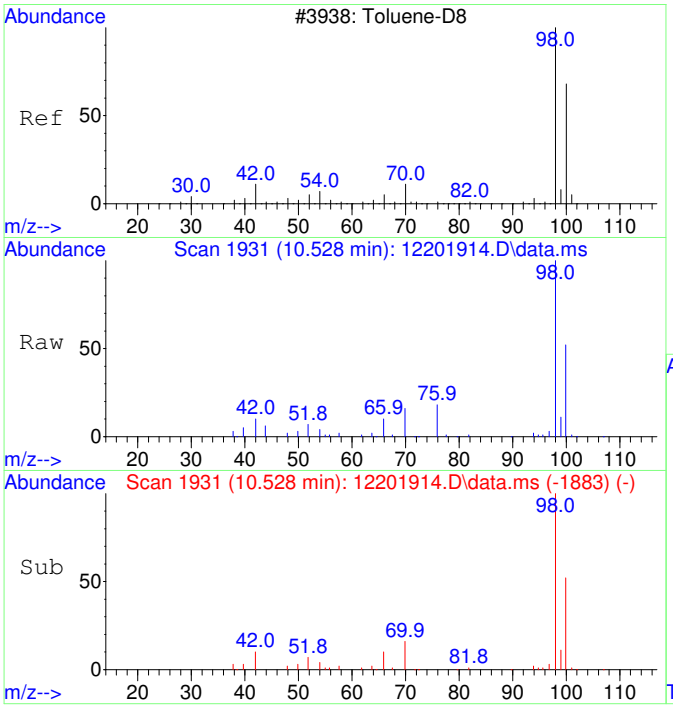


#35
Trichloroethene SCAN
Concen: 36.72 ug/L
RT: 8.601 min Scan# 1669
Delta R.T. 0.005 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 102

Ion	Ratio	Lower	Upper
130	100		
95	179.4	75.7	135.7#
132	92.2	77.1	137.1
97	0.0	43.8	103.8#

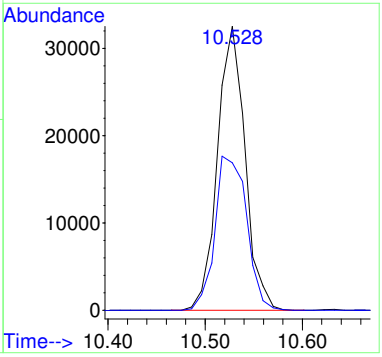


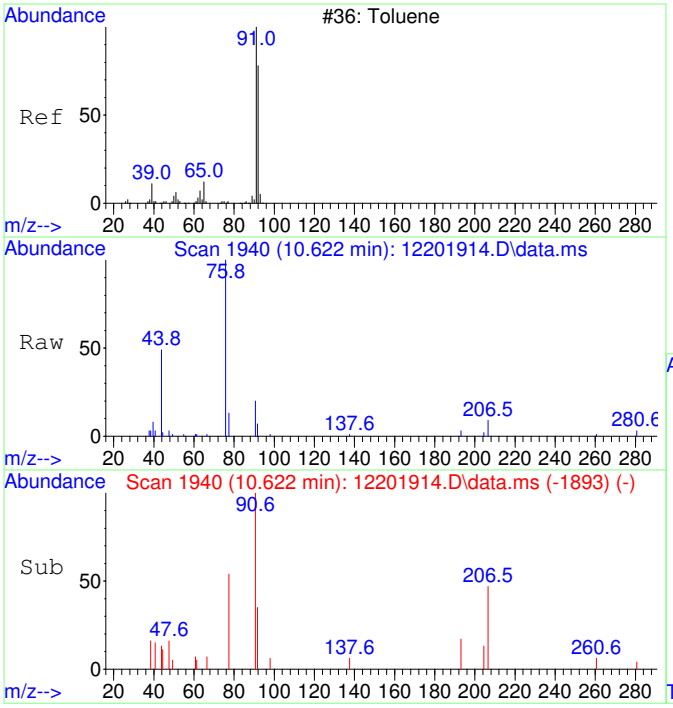


#36
Toluene-d8 SCAN
Concen: 5562.41 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 64030

Ion	Ratio	Lower	Upper
98	100		
100	62.3	44.4	104.4

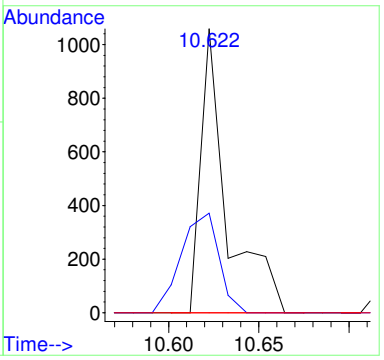


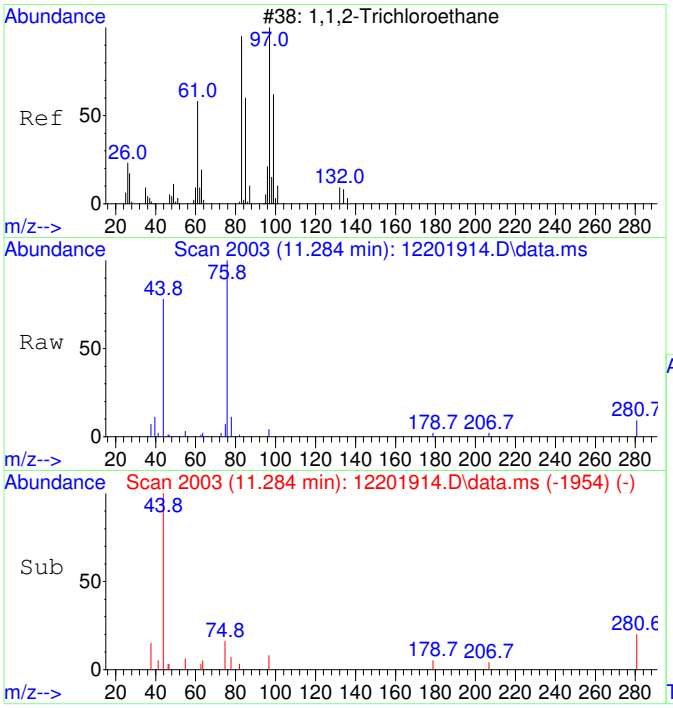


#37
Toluene SCAN
Concen: 79.58 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1070

Ion	Ratio	Lower	Upper
91	100		
92	50.7	31.5	91.5
65	0.0	0.0	30.0

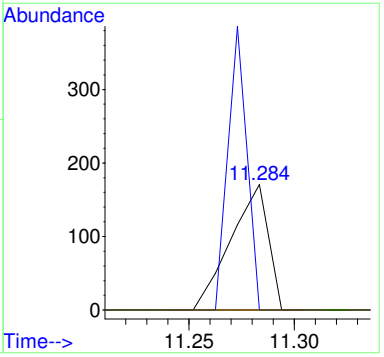


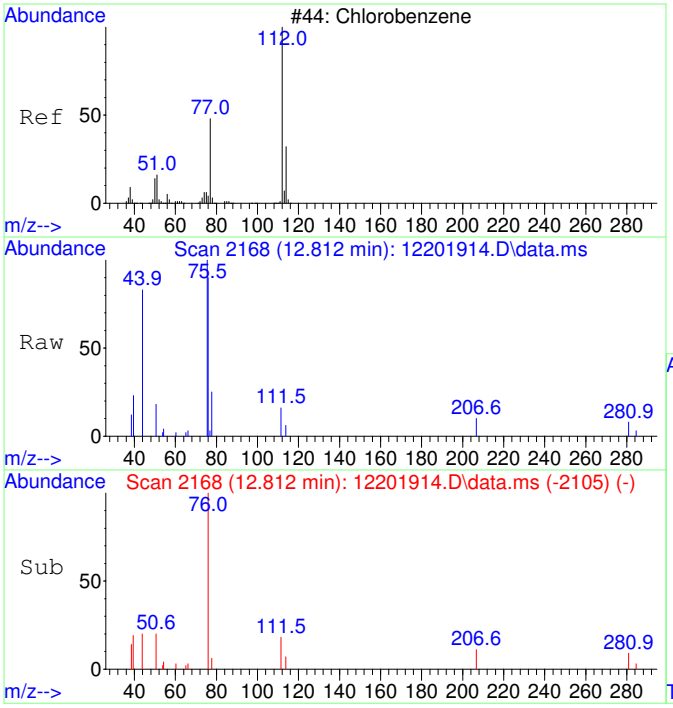


#38
1,1,2-Trichloroethane SCAN
Concen: 72.48 ug/L
RT: 11.284 min Scan# 2003
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 212

Ion	Ratio	Lower	Upper
97	100		
83	114.6	67.7	127.7
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

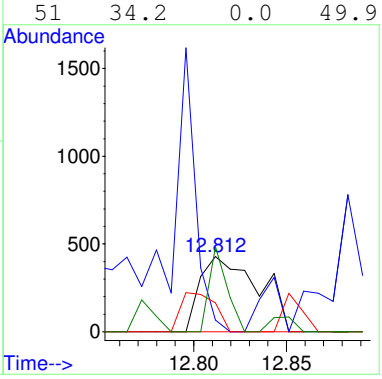


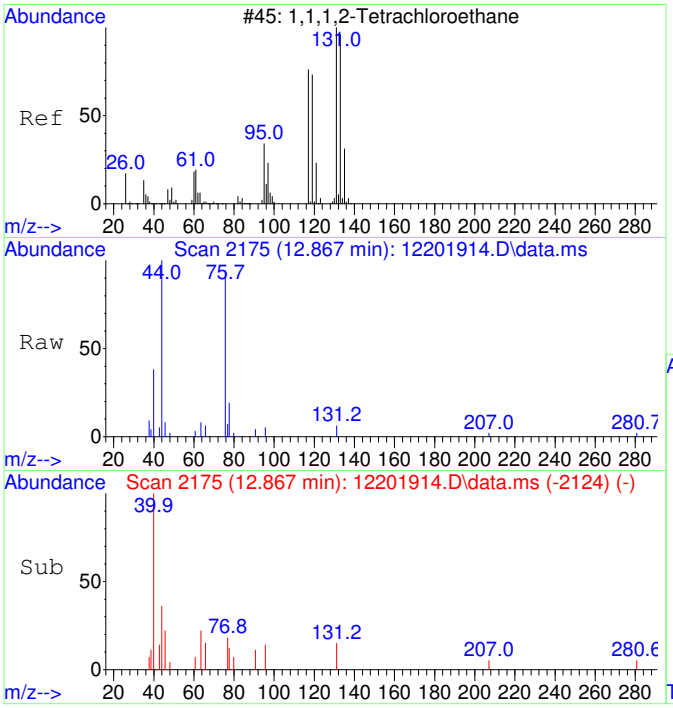


#40
Chlorobenzene SCAN
Concen: 88.31 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 946

Ion	Ratio	Lower	Upper
112	100		
77	99.0	27.8	87.8#
114	30.2	3.1	63.1
51	34.2	0.0	49.9

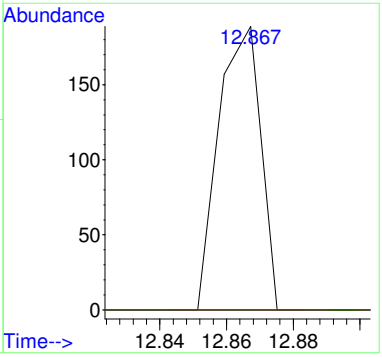


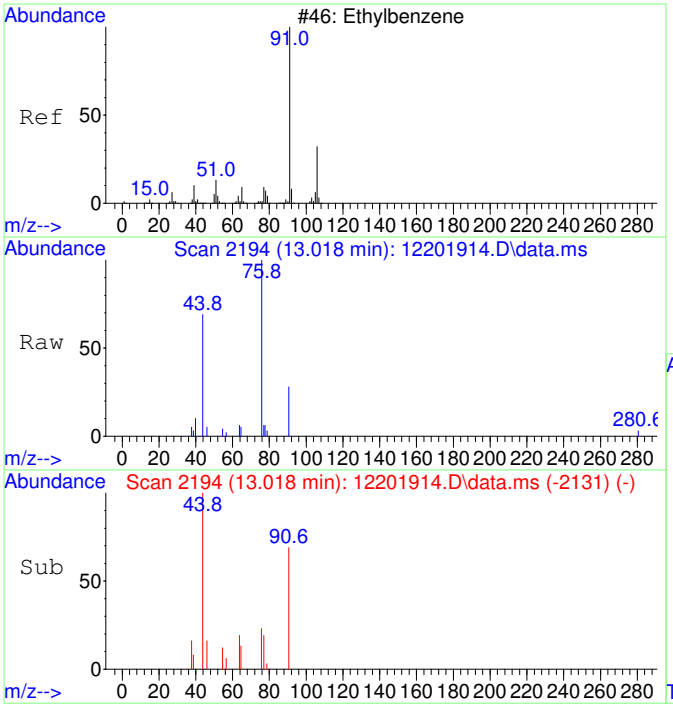


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 47.75 ug/L
RT: 12.867 min Scan# 2175
Delta R.T. -0.096 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 165

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	0.0	38.9	98.9#

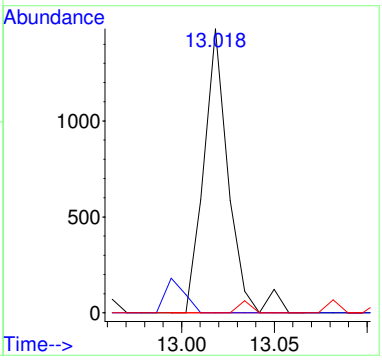


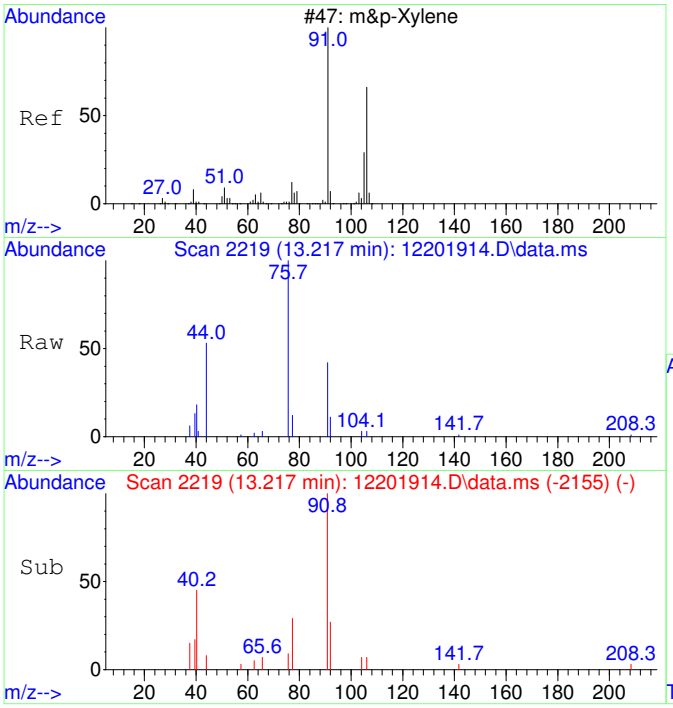


#42
Ethylbenzene SCAN
Concen: 81.12 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1378

Ion	Ratio	Lower	Upper
91	100		
106	0.0	1.3	61.3#
51	0.0	0.0	39.4

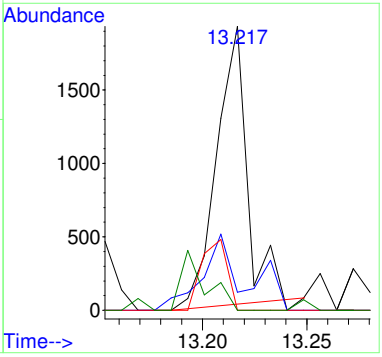


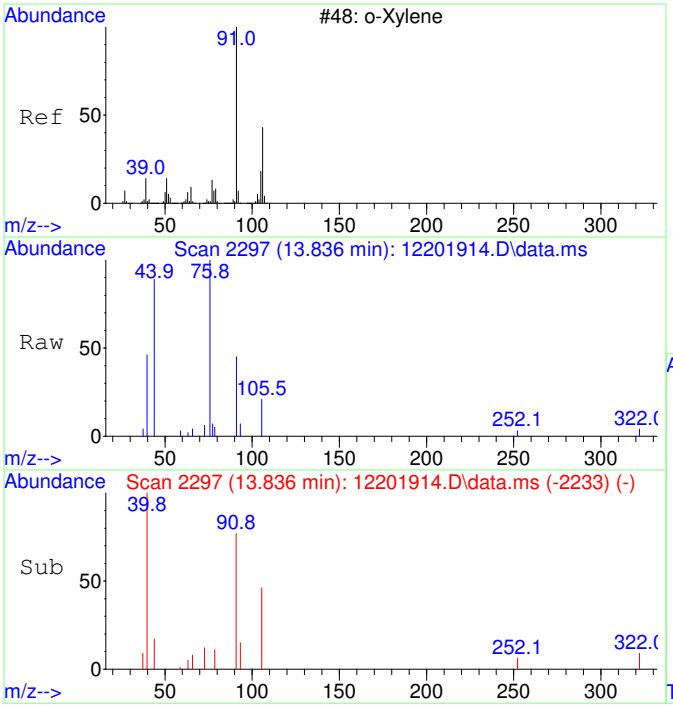


#43
m&p-Xylene SCAN
Concen: 75.76 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1930

Ion	Ratio	Lower	Upper
91	100		
106	38.4	19.0	79.0
105	21.5	0.0	54.9
51	0.0	0.0	41.2

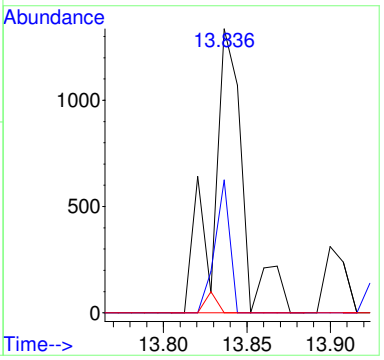


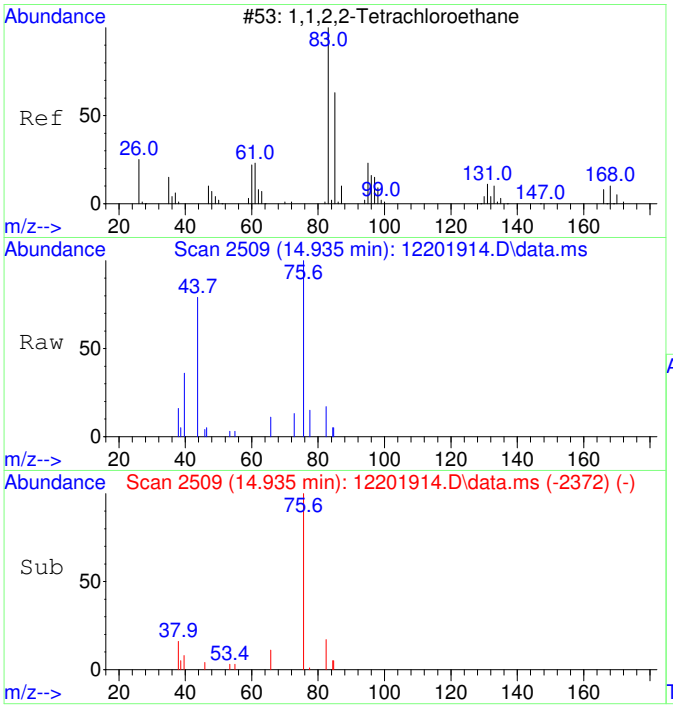


#44
o-Xylene SCAN
Concen: 117.85 ug/L
RT: 13.836 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1702

Ion	Ratio	Lower	Upper
91	100		
106	22.9	17.2	77.2
105	0.0	0.0	57.7

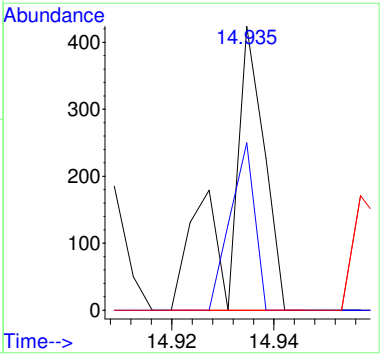


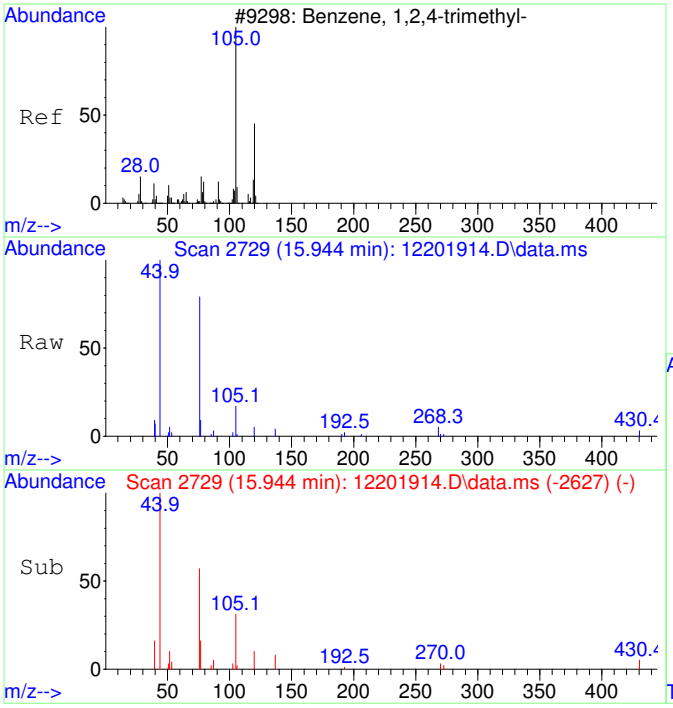


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 32.87 ug/L
RT: 14.935 min Scan# 2509
Delta R.T. 0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 214

Ion	Ratio	Lower	Upper
83	100		
85	39.3	37.2	97.2
95	0.0	0.0	48.7

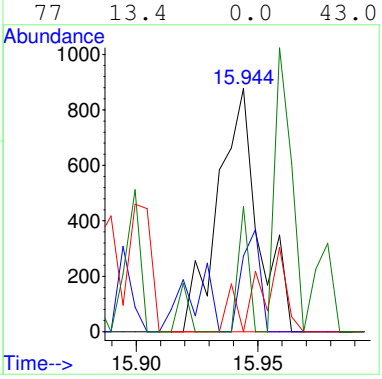


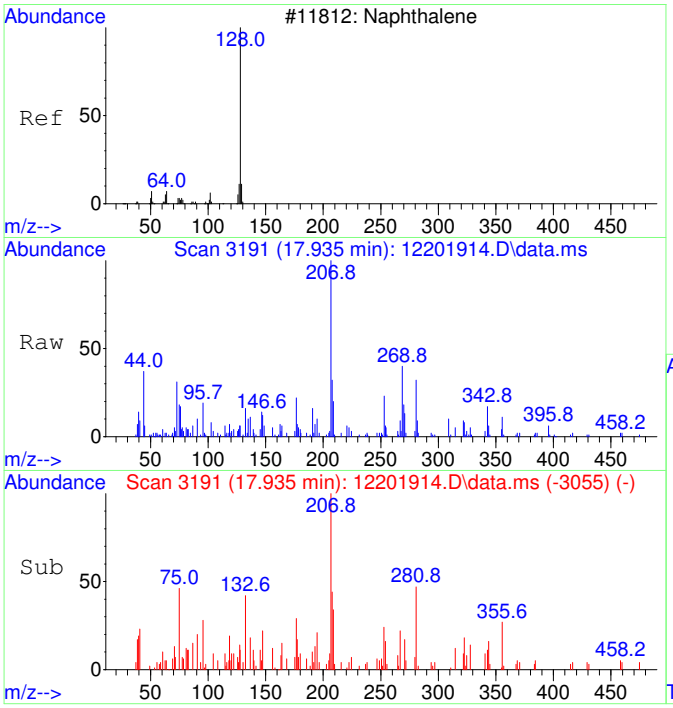


#47
1,2,4-Trimethylbenzene SCAN
Concen: 65.80 ug/L
RT: 15.944 min Scan# 2729
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1008

Ion	Ratio	Lower	Upper
105	100		
120	19.0	15.8	75.8
119	0.0	0.0	42.9
77	13.4	0.0	43.0

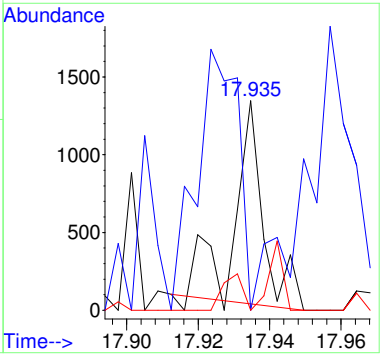




#48
Naphthalene SCAN
Concen: 29.29 ug/L
RT: 17.935 min Scan# 3191
Delta R.T. 0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:128 Resp: 725

Ion	Ratio	Lower	Upper
128	100		
127	155.2	0.0	30.0#
129	12.7	0.0	34.5



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

M.I. Performed By:
TD at 7:57 am, Dec 23, 2019

M.I. Approved By:
ZR at 11:52 am, Dec 26, 2019

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

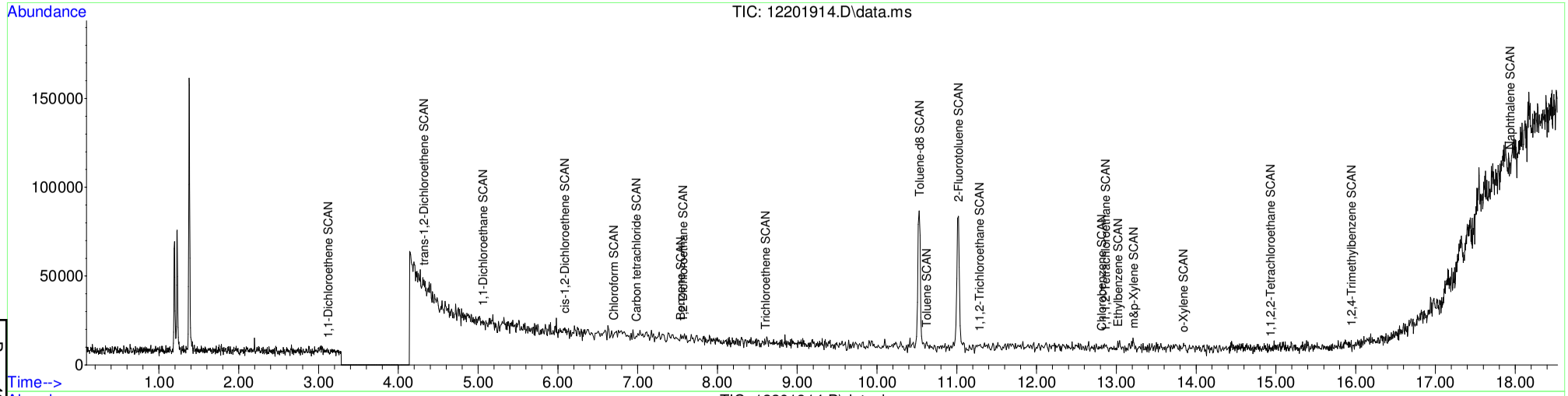
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 2-Fluorotoluene	11.012	109	109429	5000.00	ug/L		0.00
System Monitoring Compounds							
12) Toluene-d8	10.519	98	92003	5235.20	ug/L		0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 104.70%				
Target Compounds							Qvalue
2] 1,1-Dichloroethene	3.123	61	224m	47.84	ug/L		
3] trans-1,2-Dichloroethene	4.316	61	230	47.89	ug/L		100
4] 1,1-Dichloroethane	5.066	63	311	50.94	ug/L		88
5] cis-1,2-Dichloroethene	6.088	61	280	49.87	ug/L		94
6] Chloroform	6.664	83	335	51.67	ug/L		91
7] 1,1,1-Trichloroethane	6.931	97	348	53.55	ug/L		96
8] Carbon tetrachloride	7.199	117	311	50.43	ug/L		99
9] Benzene	7.527	78	1109	67.86	ug/L		81
10] 1,2-Dichloroethane	7.564	62	262	48.84	ug/L		84
11] Trichloroethene	8.602	130	265	52.85	ug/L		91
13] Toluene	10.624	91	1329	62.34	ug/L		98
14] 1,1,2-Trichloroethane	11.274	97	264	54.65	ug/L		100
15] Tetrachloroethene	11.474	166	339	52.69	ug/L		75
16] Chlorobenzene	12.813	112	876	53.81	ug/L		89
17] 1,1,1,2-Tetrachloroethane	12.964	131	330	58.09	ug/L		83
18] Ethylbenzene	13.019	91	1708	64.93	ug/L		96
19] m&p-Xylene	13.210	91	2547	127.06	ug/L		96
20] o-Xylene	13.830	91	1267	59.60	ug/L		99
21] 1,1,2,2-Tetrachloroethane	14.925	83	507	53.12	ug/L		99
22] 1,3,5-Trimethylbenzene	15.394	105	1571	66.33	ug/L		99
23] 1,2,4-Trimethylbenzene	15.940	105	1690	69.81	ug/L		100
25) 2-Fluorotoluene SCAN	11.021	109	73597	5420.93	ug/L		98
26) 1,1-Dichloroethene SCAN	3.114	61	129	43.36	ug/L	#	24
27) trans-1,2-Dichloroethe...	4.321	61	228	80.89	ug/L	#	40
28) 1,1-Dichloroethane SCAN	5.058	63	355	84.16	ug/L	#	47
29) cis-1,2-Dichloroethene...	6.086	61	211	62.45	ug/L	#	58
30) Chloroform SCAN	6.699	83	278	77.06	ug/L	#	22
32) Carbon tetrachloride SCAN	6.979	117	166	46.74	ug/L	#	17
33) Benzene SCAN	7.538	78	1905	175.15	ug/L	#	95
34) 1,2-Dichloroethane SCAN	7.563	62	247	66.59	ug/L	#	36
35) Trichloroethene SCAN	8.601	130	102	36.72	ug/L	#	46
36) Toluene-d8 SCAN	10.528	98	64030	5562.41	ug/L		86
37) Toluene SCAN	10.622	91	1070	79.58	ug/L	#	86
38) 1,1,2-Trichloroethane ...	11.284	97	212	72.48	ug/L	#	46
40) Chlorobenzene SCAN	12.812	112	946	88.31	ug/L	#	64
41) 1,1,1,2-Tetrachloroeth...	12.867	131	165	47.75	ug/L	#	8
42) Ethylbenzene SCAN	13.018	91	1378	81.12	ug/L	#	50
43) m&p-Xylene SCAN	13.217	91	1930	75.76	ug/L	#	85
44) o-Xylene SCAN	13.836	91	1702	117.85	ug/L	#	58
45) 1,1,2,2-Tetrachloroeth...	14.935	83	214	32.87	ug/L	#	64
47) 1,2,4-Trimethylbenzene...	15.944	105	1008	65.80	ug/L	#	68
48) Naphthalene SCAN	17.935	128	725	29.29	ug/L	#	75

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



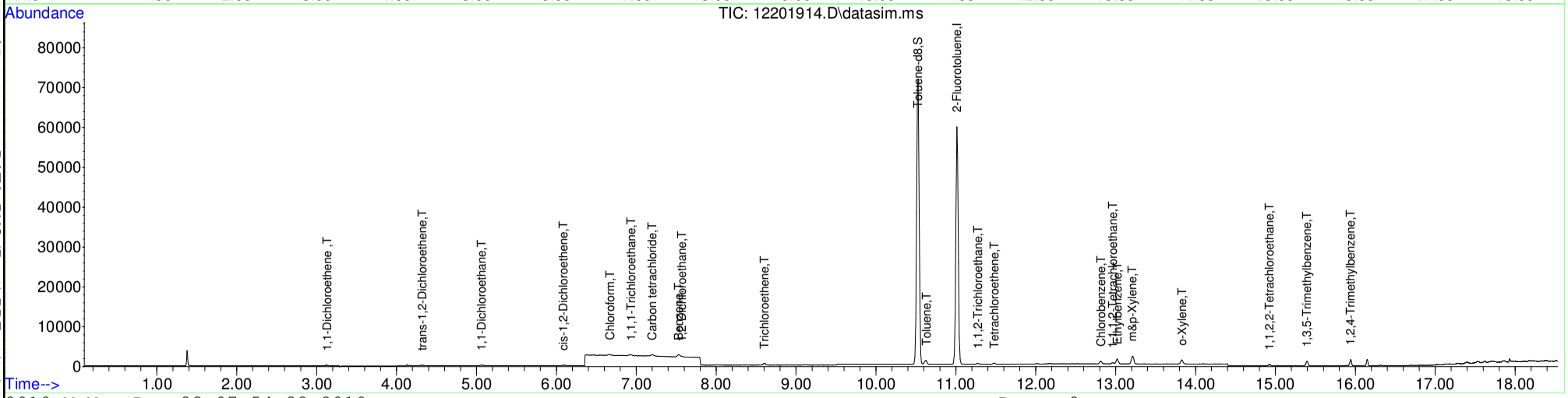
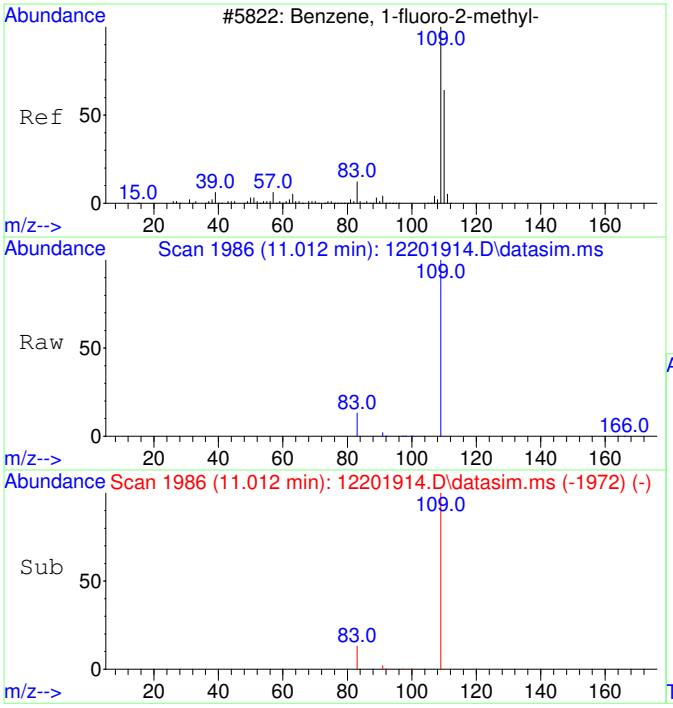


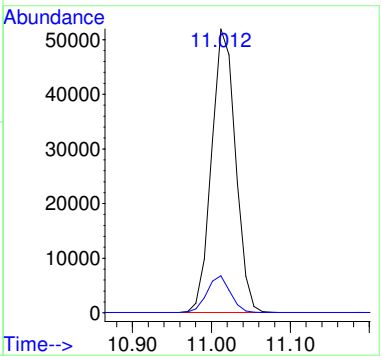
Table of Contents

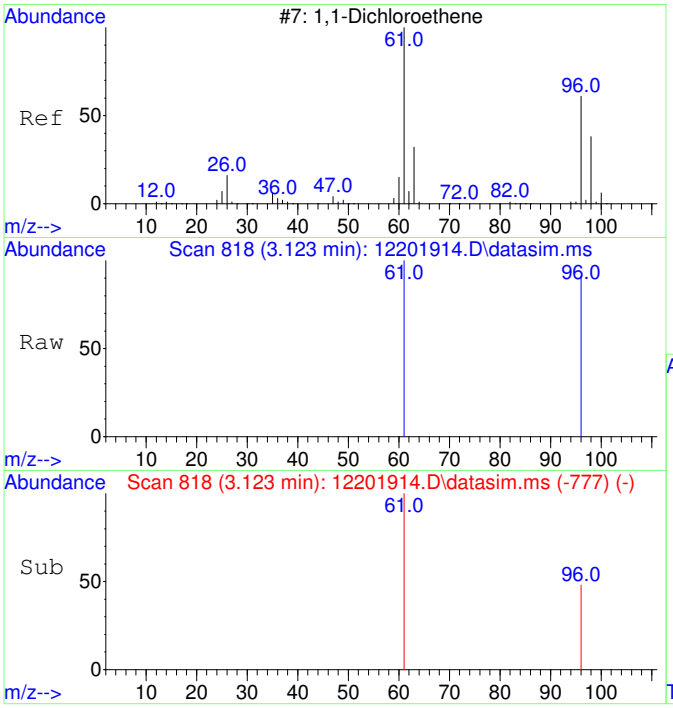


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 109429

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

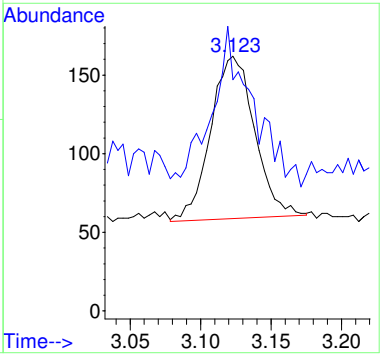


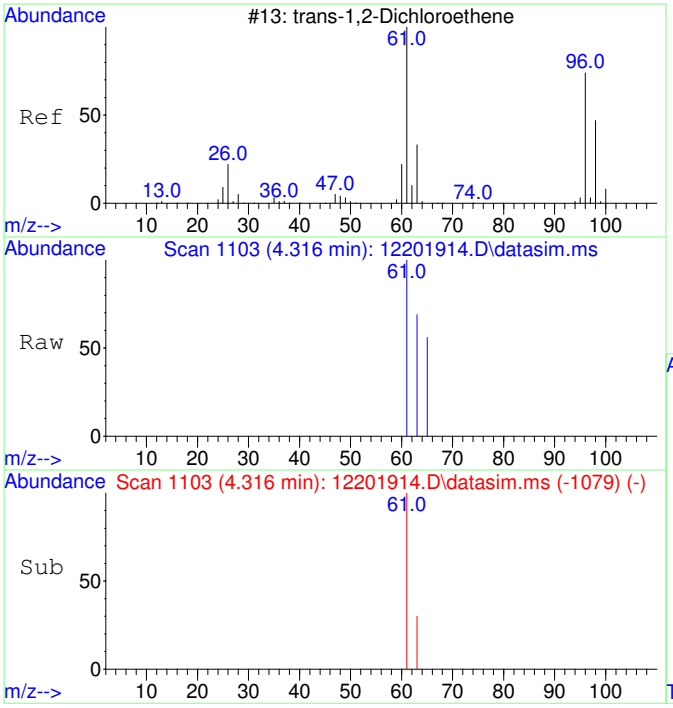


#2
1,1-Dichloroethene
Concen: 47.84 ug/L m
RT: 3.123 min Scan# 818
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 224

Ion	Ratio	Lower	Upper
61	100		
96	93.3	33.5	93.5

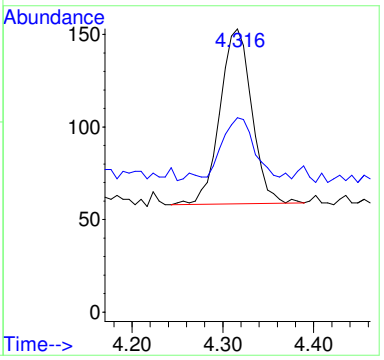


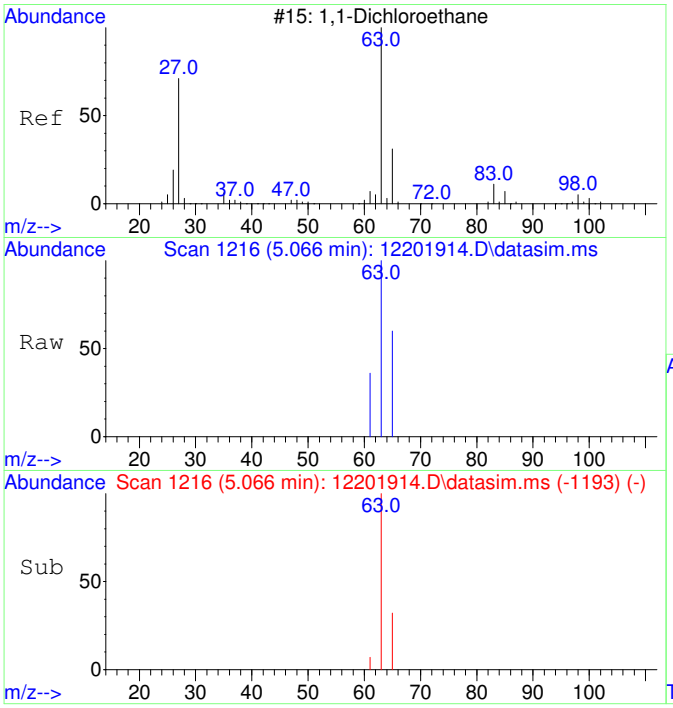


#3
trans-1,2-Dichloroethene
Concen: 47.89 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 230

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.3	62.3

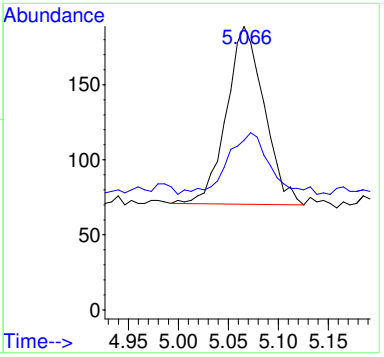


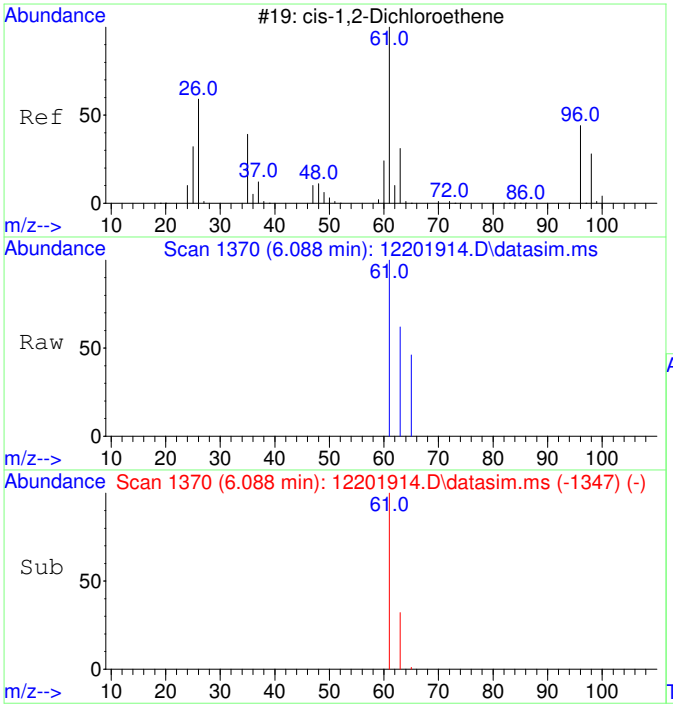


#4
1,1-Dichloroethane
Concen: 50.94 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 311

Ion	Ratio	Lower	Upper
63	100		
65	38.6	1.9	61.9

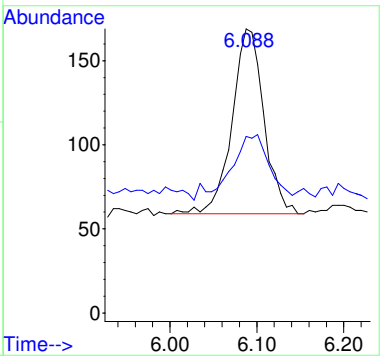


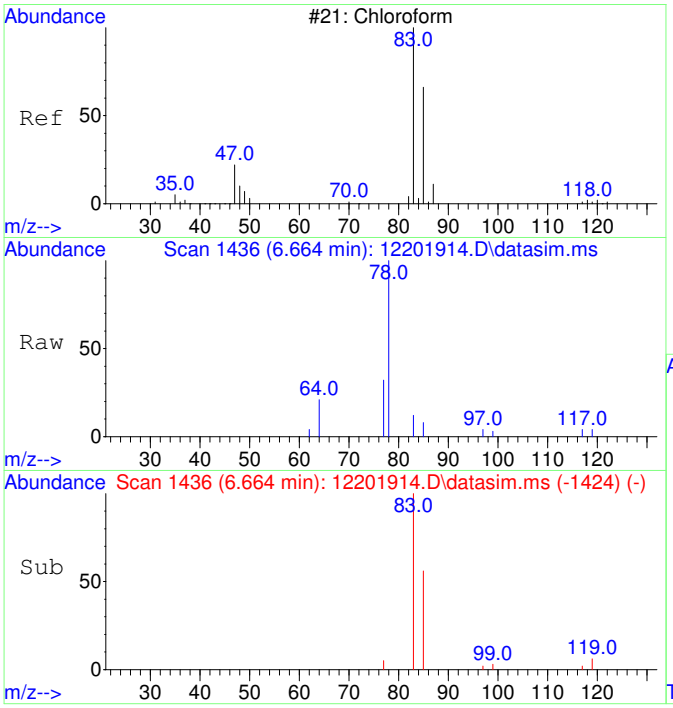


#5
cis-1,2-Dichloroethene
Concen: 49.87 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 280

Ion	Ratio	Lower	Upper
61	100		
63	36.1	2.5	62.5

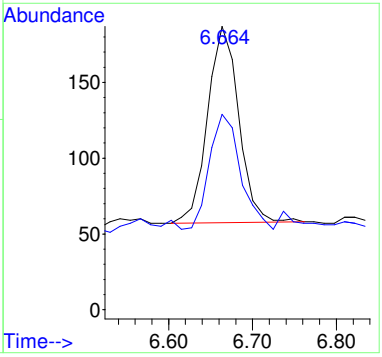


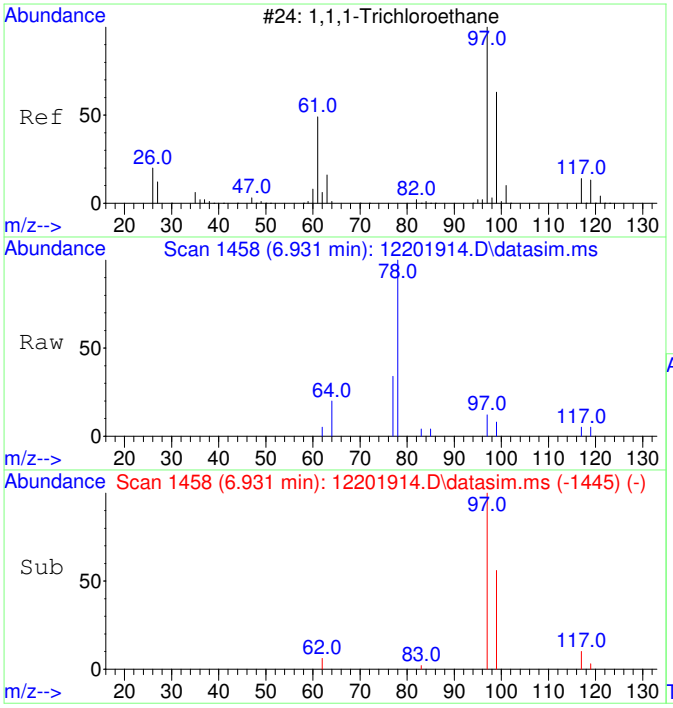


#6
Chloroform
Concen: 51.67 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 335

Ion	Ratio	Lower	Upper
83	100		
85	57.9	35.0	95.0

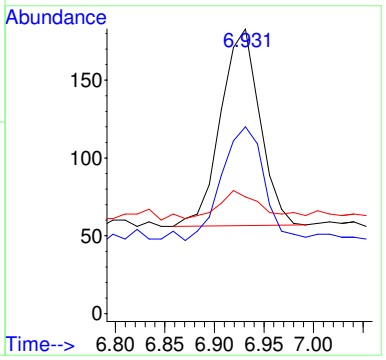


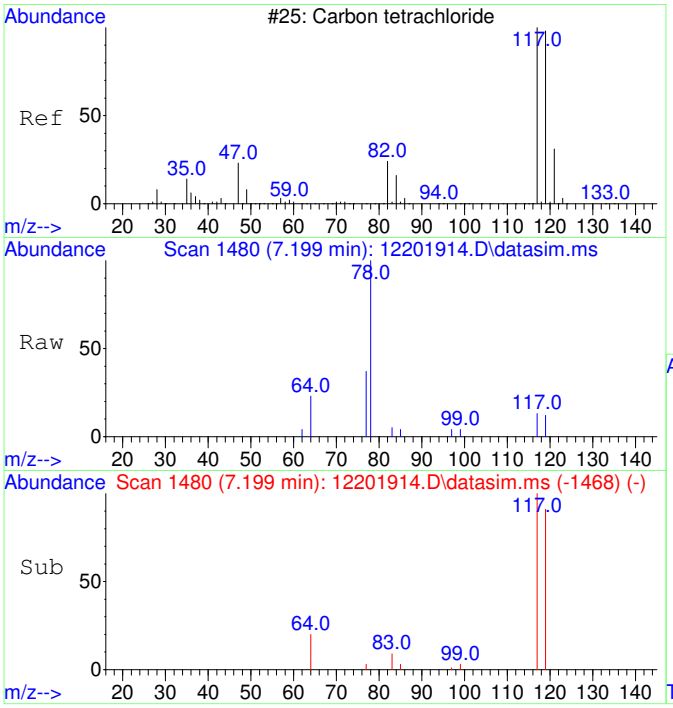


#7
1,1,1-Trichloroethane
Concen: 53.55 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 348

Ion	Ratio	Lower	Upper
97	100		
99	60.9	34.4	94.4
117	13.8	0.0	43.0

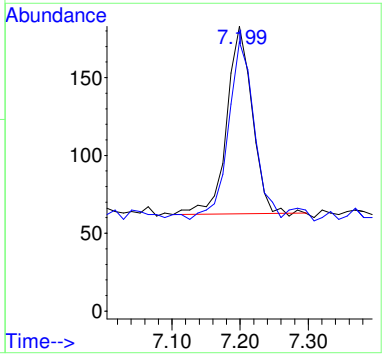


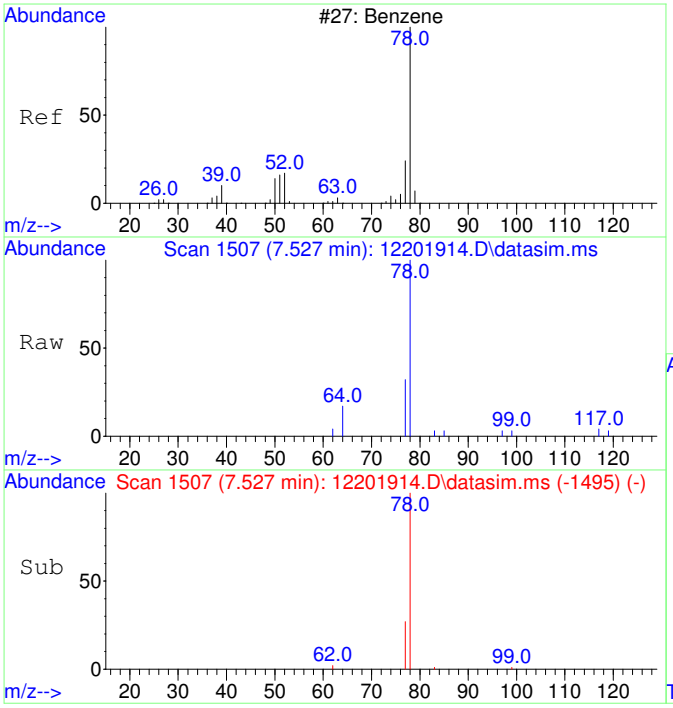


#8
Carbon tetrachloride
Concen: 50.43 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 311

Ion	Ratio	Lower	Upper
117	100		
119	95.5	66.5	126.5

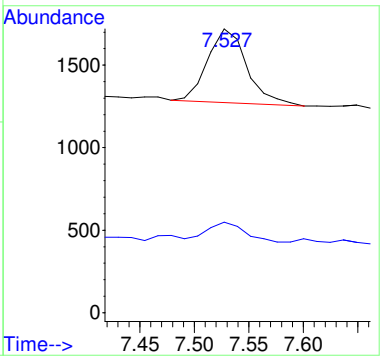


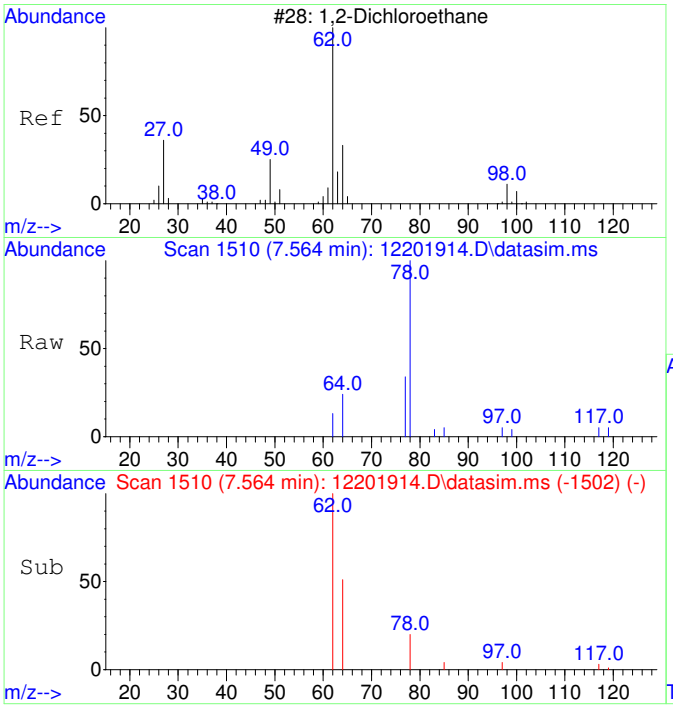


#9
Benzene
Concen: 67.86 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1109

Ion	Ratio	Lower	Upper
78	100		
77	32.6	0.0	53.5

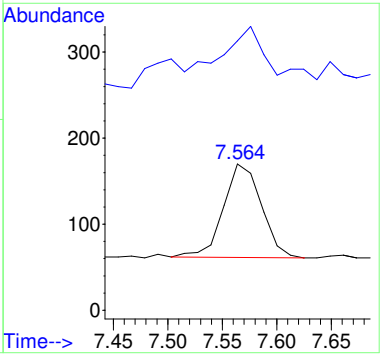


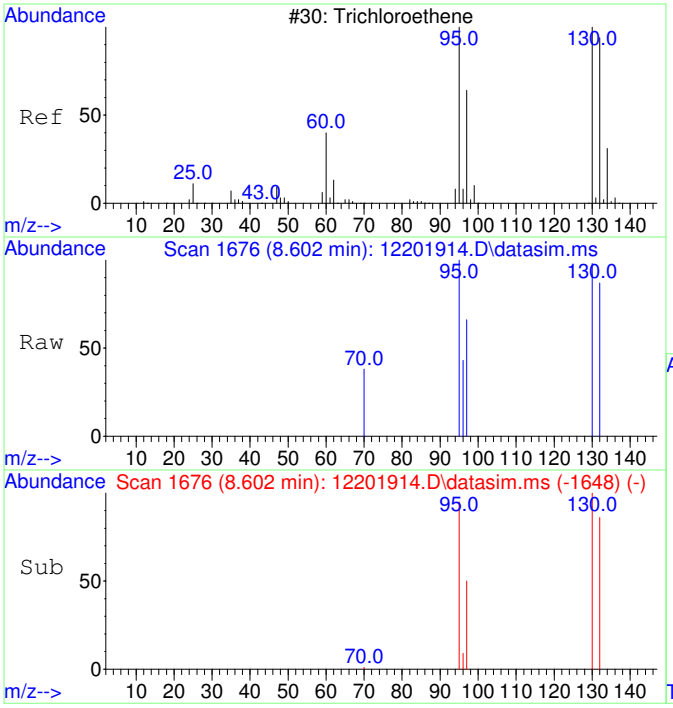


#10
1,2-Dichloroethane
Concen: 48.84 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 262

Ion	Ratio	Lower	Upper
62	100		
64	41.6	2.4	62.4

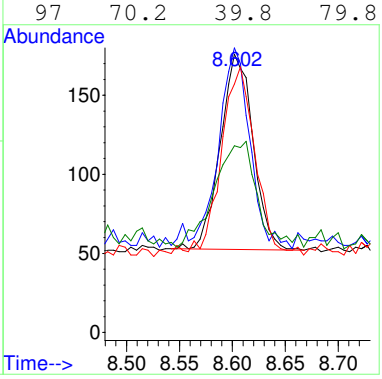


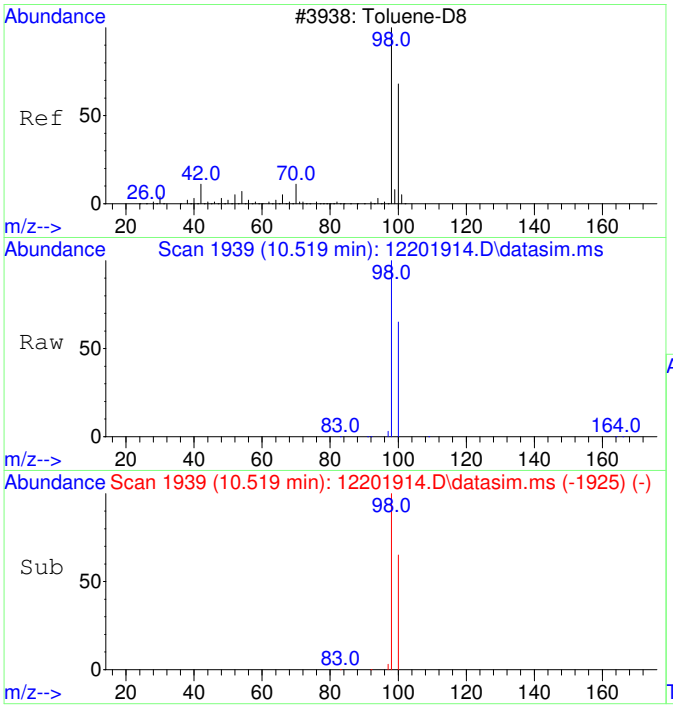


#11
Trichloroethene
Concen: 52.85 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 265

Ion	Ratio	Lower	Upper
130	100		
95	98.1	62.3	122.3
132	103.4	75.8	115.8
97	70.2	39.8	79.8

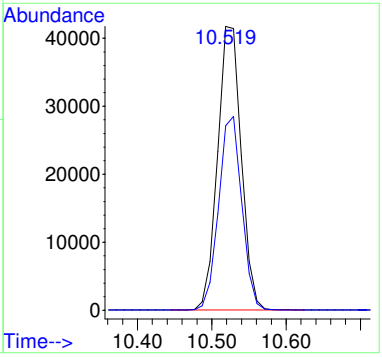


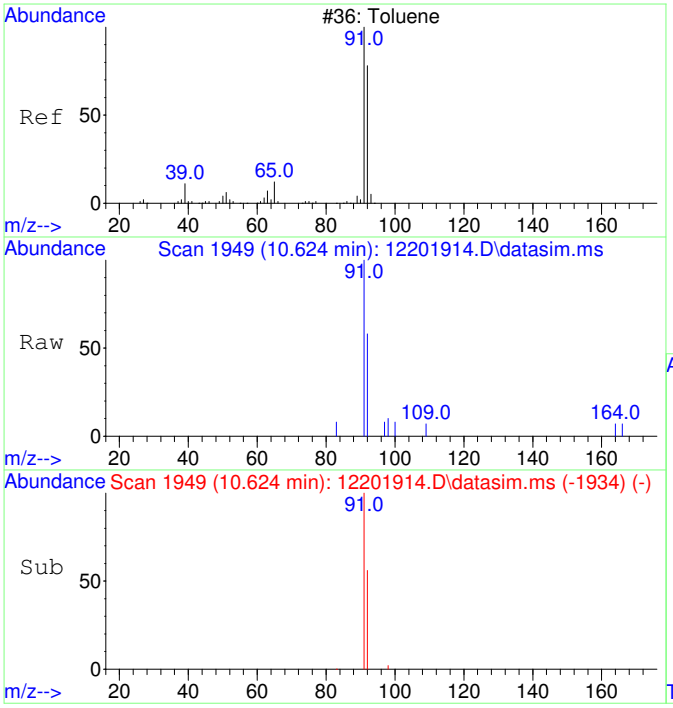


#12
Toluene-d8
Concen: 5235.20 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 92003

Ion	Ratio	Lower	Upper
98	100		
100	66.7	36.2	96.2

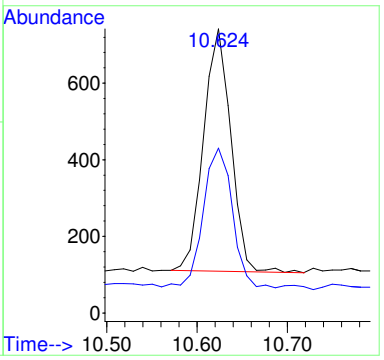


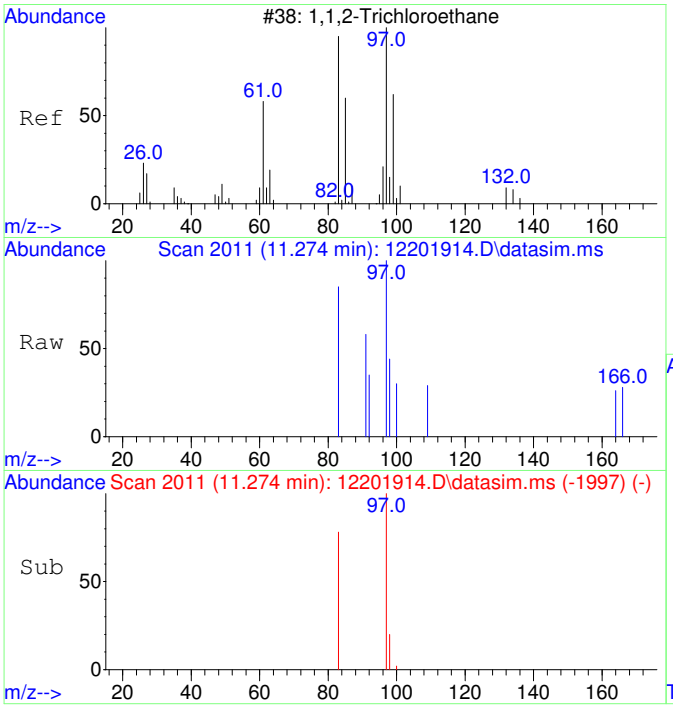


#13
Toluene
Concen: 62.34 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1329

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.4	89.4

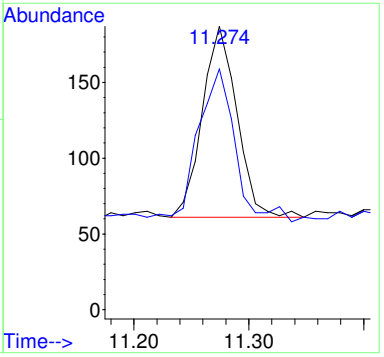


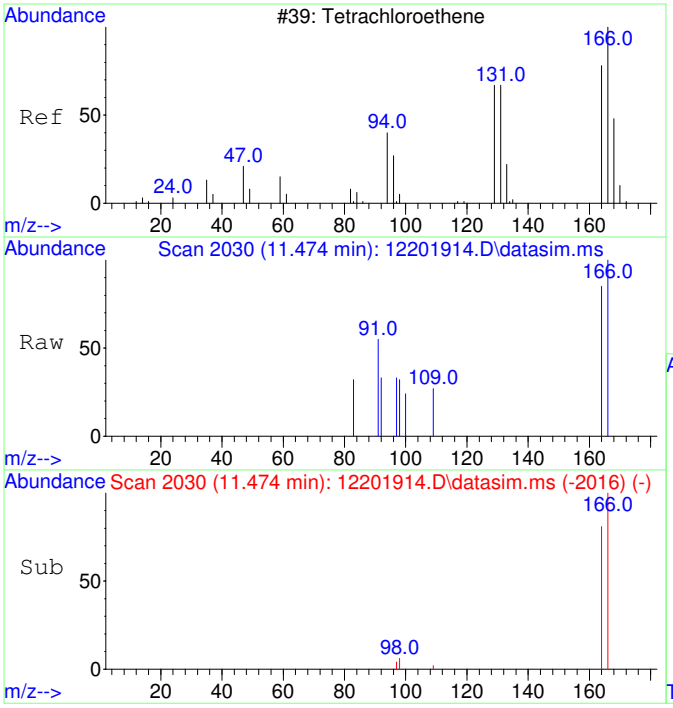


#14
1,1,2-Trichloroethane
Concen: 54.65 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 264

Ion	Ratio	Lower	Upper
97	100		
83	82.2	52.5	112.5

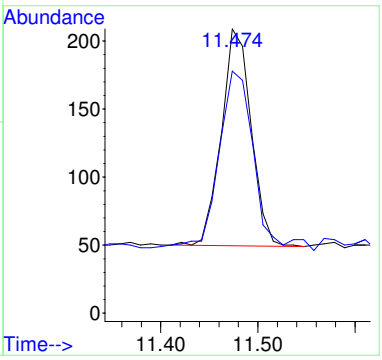


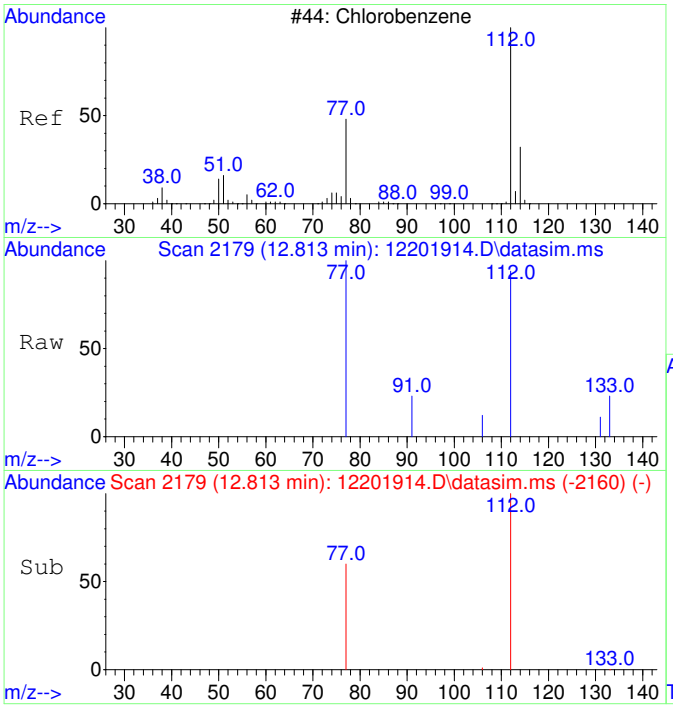


#15
Tetrachloroethene
Concen: 52.69 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:166 Resp: 339

Ion	Ratio	Lower	Upper
166	100		
164	99.1	47.6	107.6

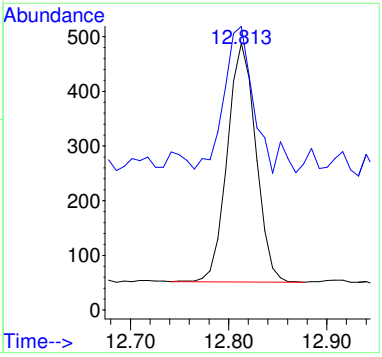


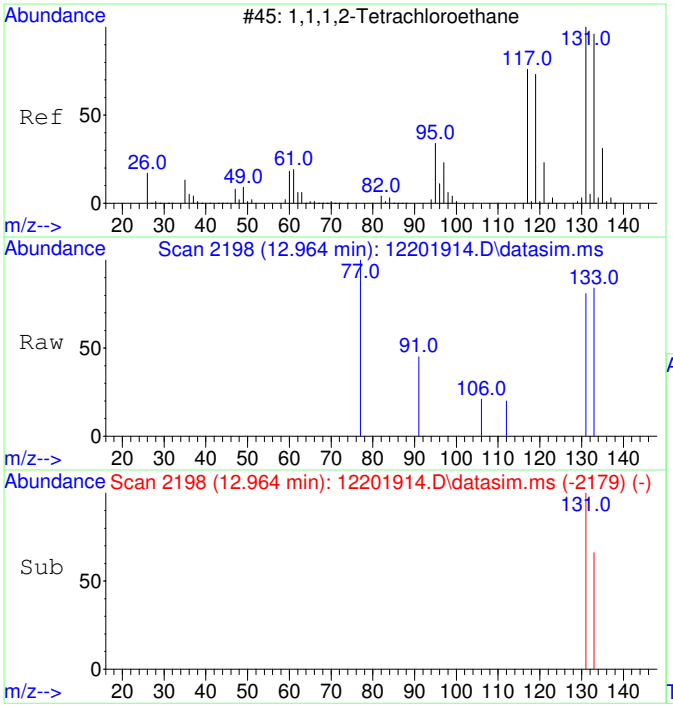


#16
Chlorobenzene
Concen: 53.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 876

Ion	Ratio	Lower	Upper
112	100		
77	62.2	24.2	84.2

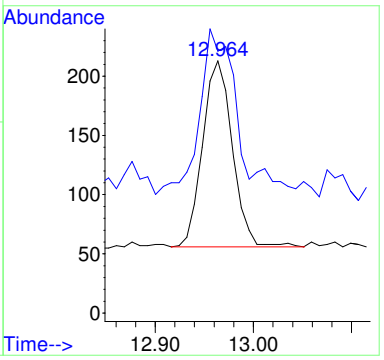


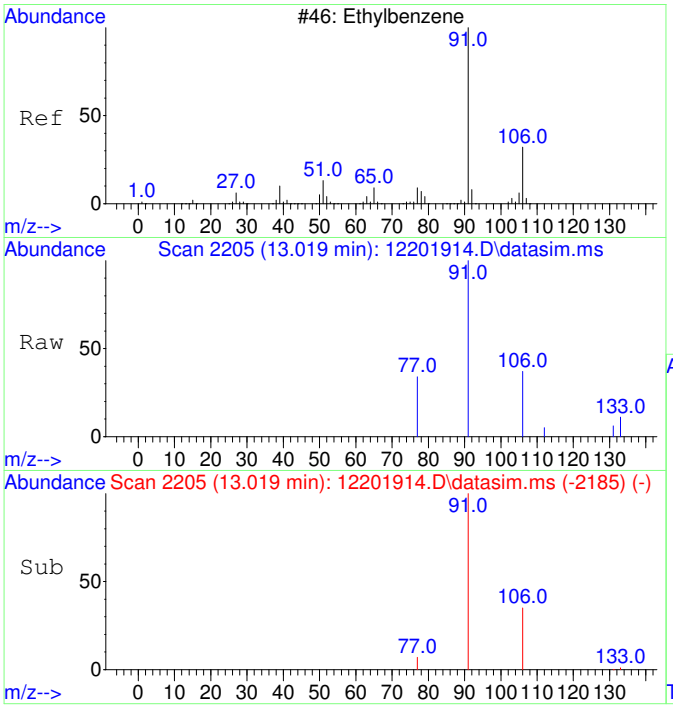


#17
1,1,1,2-Tetrachloroethane
Concen: 58.09 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 330

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.0	126.0

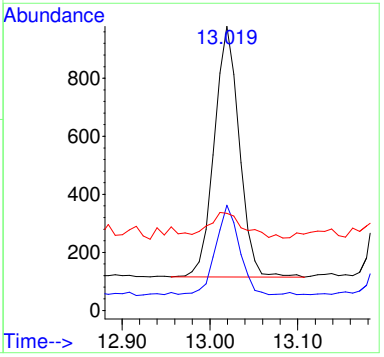


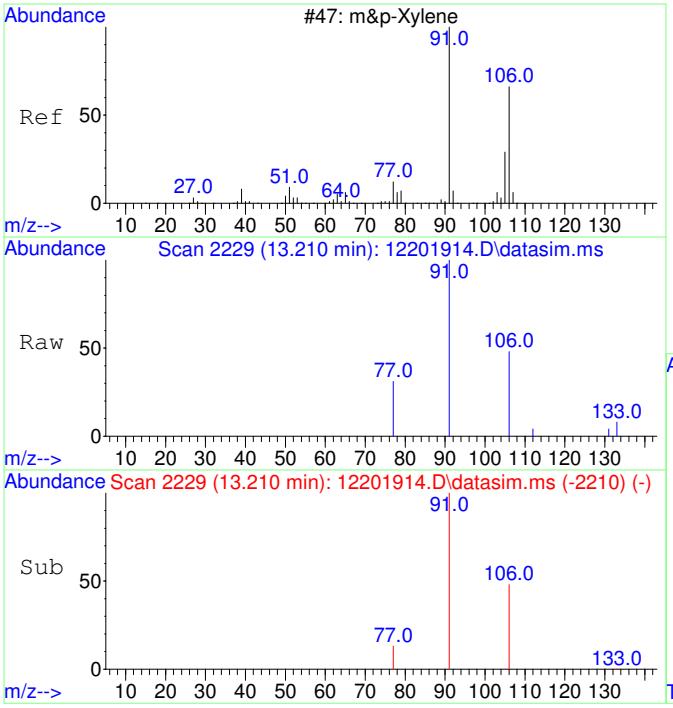


#18
Ethylbenzene
Concen: 64.93 ug/L
RT: 13.019 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1708

Ion	Ratio	Lower	Upper
91	100		
106	32.9	2.5	62.5
77	13.8	0.0	38.2

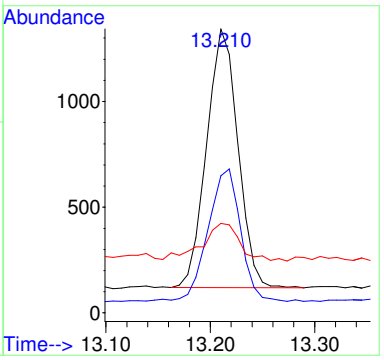


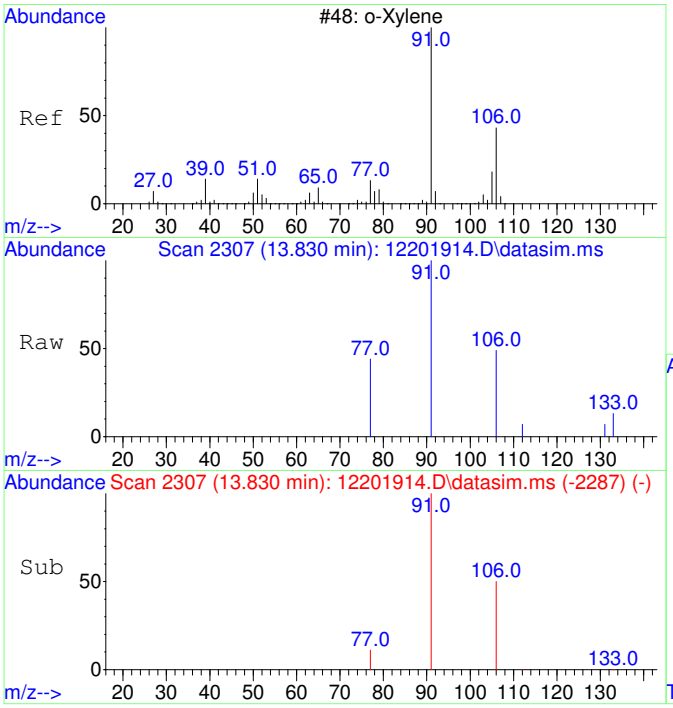


#19
m&p-Xylene
Concen: 127.06 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 2547

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.6	81.6
77	17.6	0.0	42.6

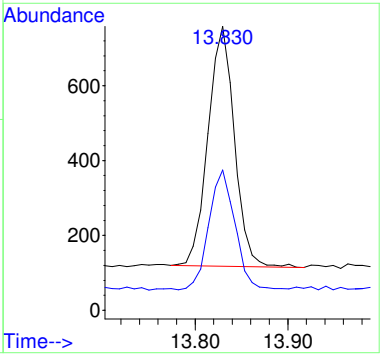


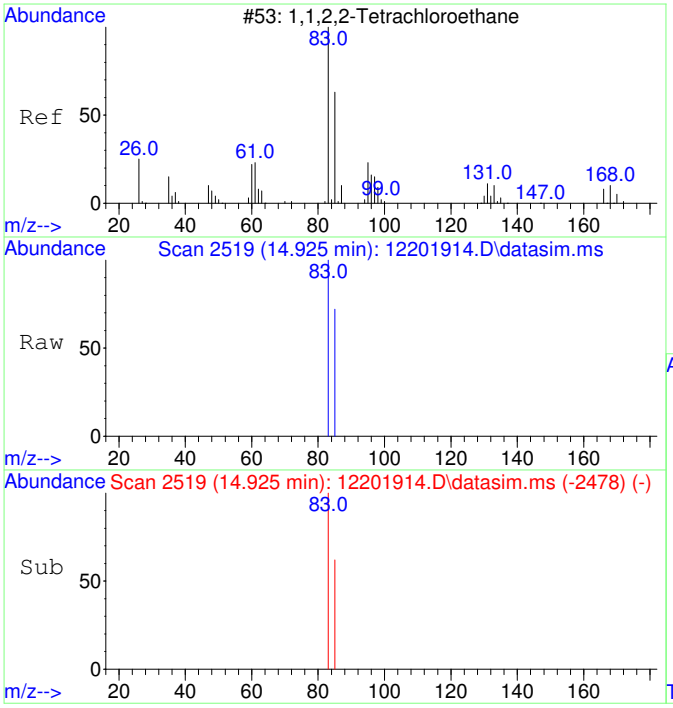


#20
o-Xylene
Concen: 59.60 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1267

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.5	78.5

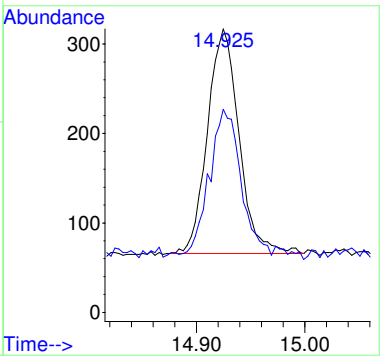


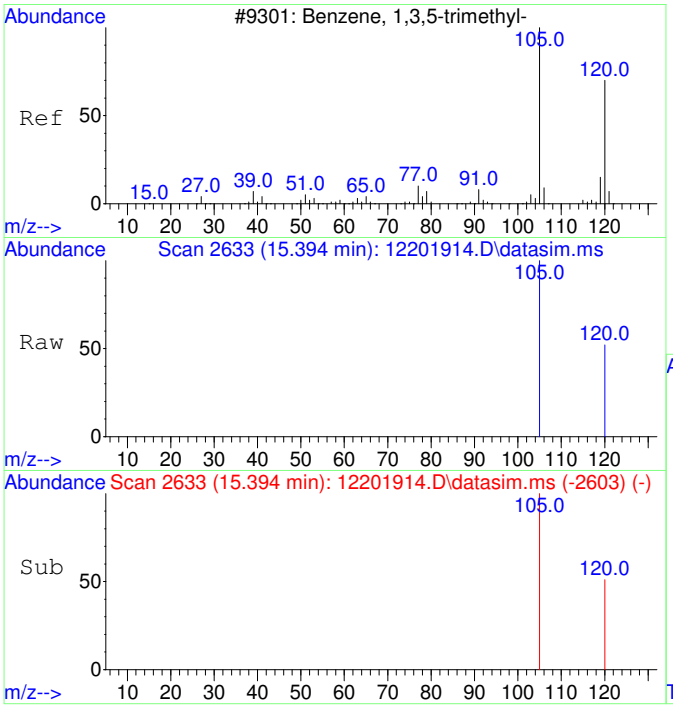


#21
1,1,2,2-Tetrachloroethane
Concen: 53.12 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 507

Ion	Ratio	Lower	Upper
83	100		
85	63.9	34.7	94.7

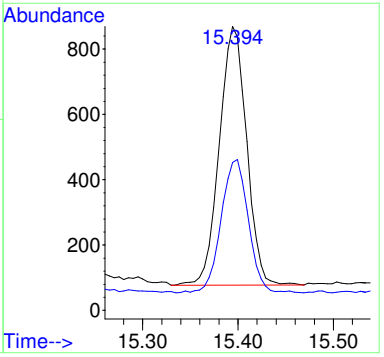


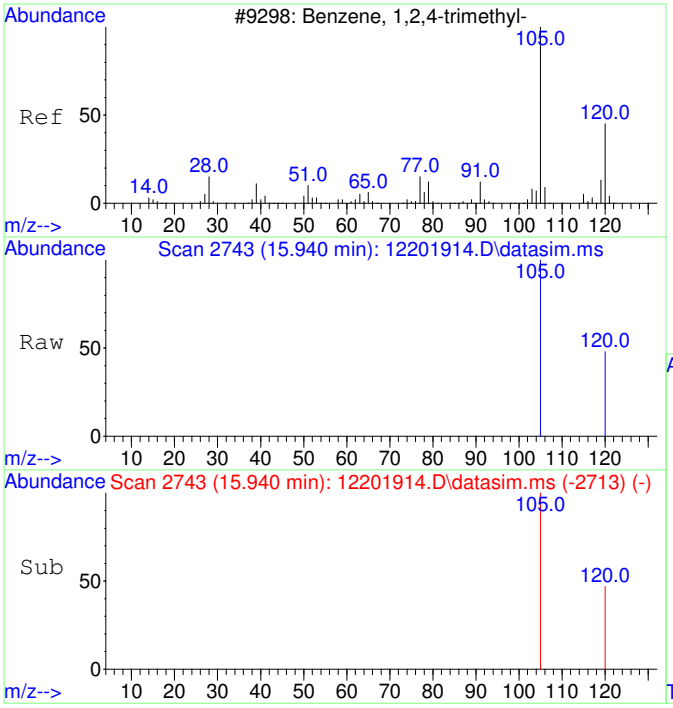


#22
1,3,5-Trimethylbenzene
Concen: 66.33 ug/L
RT: 15.394 min Scan# 2633
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1571

Ion	Ratio	Lower	Upper
105	100		
120	51.4	20.7	80.7

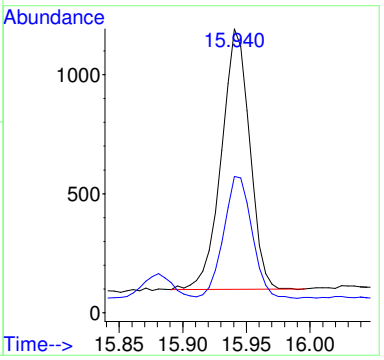


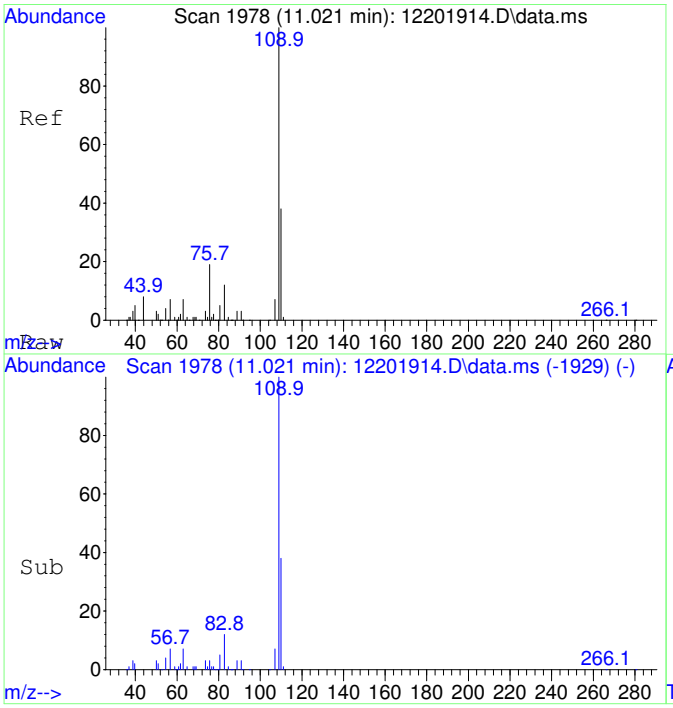


#23
1,2,4-Trimethylbenzene
Concen: 69.81 ug/L
RT: 15.940 min Scan# 2743
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1690

Ion	Ratio	Lower	Upper
105	100		
120	46.4	16.6	76.6

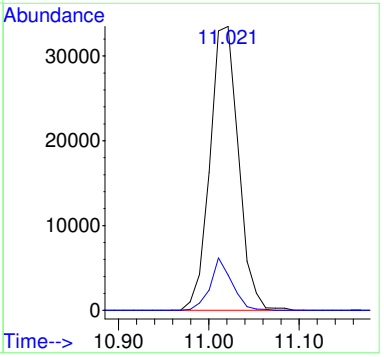


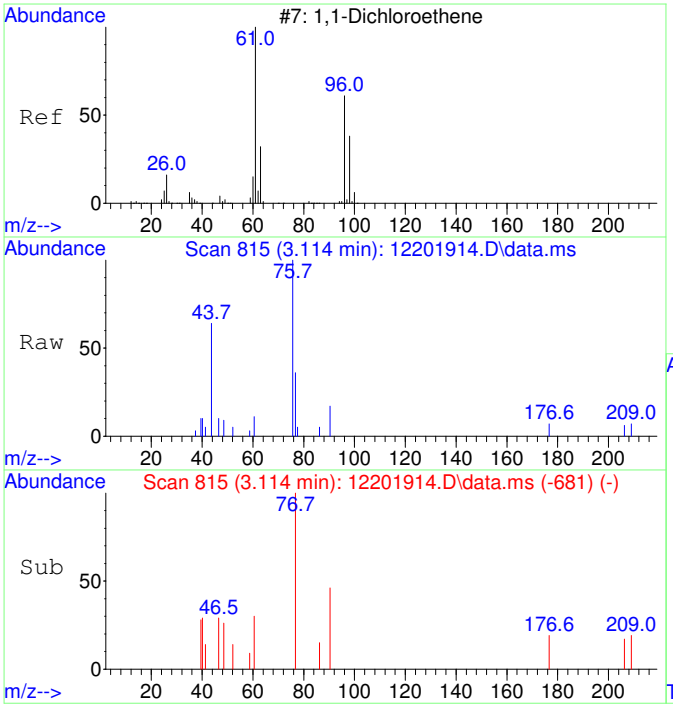


#25
2-Fluorotoluene SCAN
Concen: 5420.93 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 73597

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.7

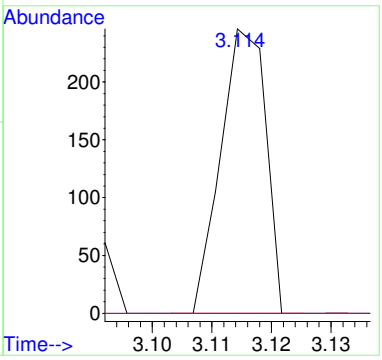


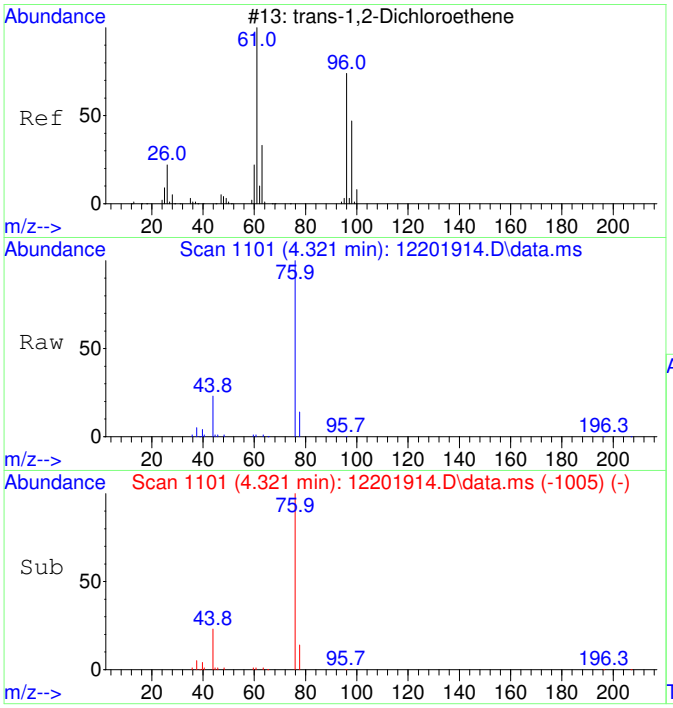


#26
1,1-Dichloroethene SCAN
Concen: 43.36 ug/L
RT: 3.114 min Scan# 815
Delta R.T. -0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 129

Ion	Ratio	Lower	Upper
61	100		
96	0.0	34.8	94.8#
98	0.0	12.9	72.9#

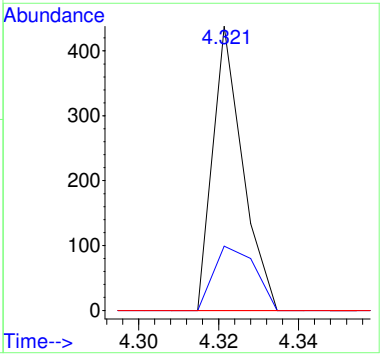


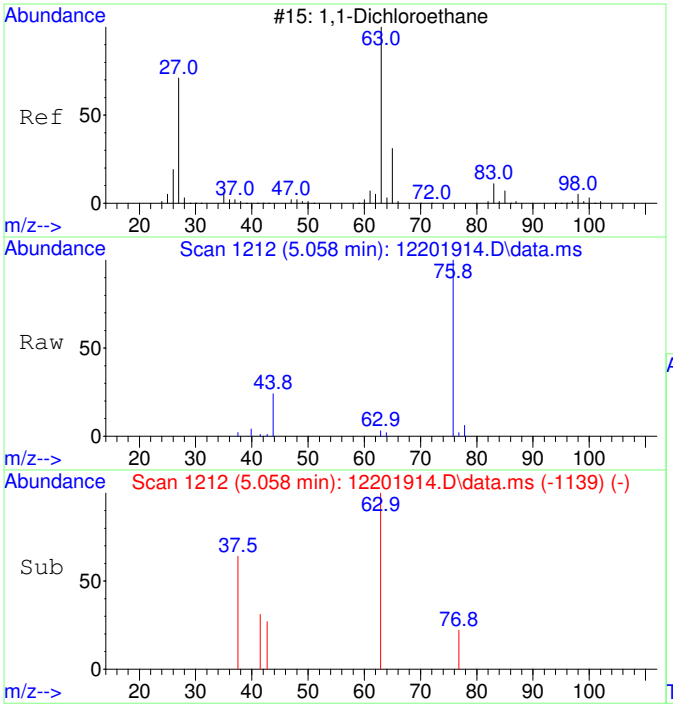


#27
trans-1,2-Dichloroethene SCAN
Concen: 80.89 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 228

Ion	Ratio	Lower	Upper
61	100		
96	31.1	42.7	102.7#
98	0.0	23.4	83.4#

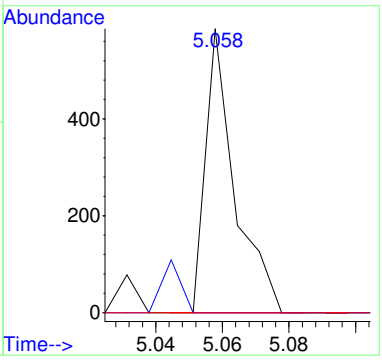


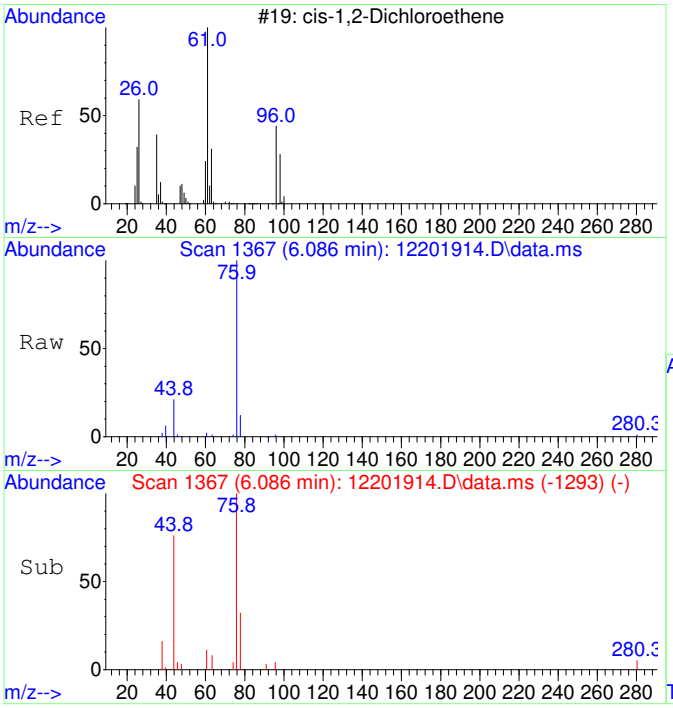


#28
1,1-Dichloroethane SCAN
Concen: 84.16 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 355

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

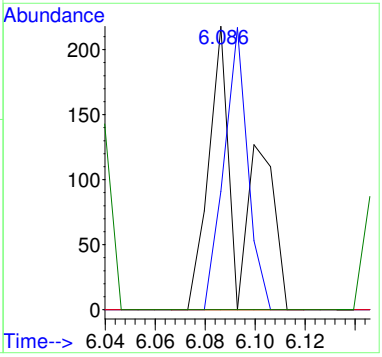


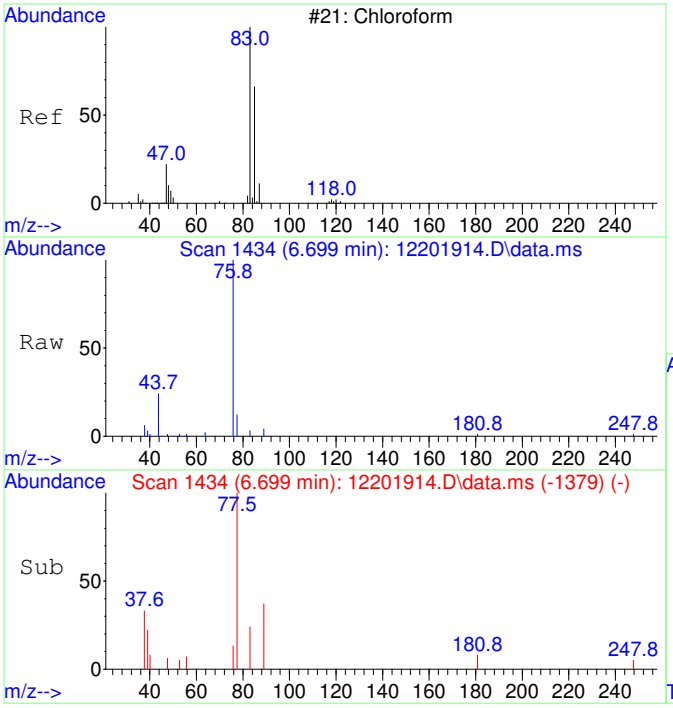


#29
cis-1,2-Dichloroethene SCAN
Concen: 62.45 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 211

Ion	Ratio	Lower	Upper
61	100		
96	68.2	46.1	106.1
98	0.0	20.8	80.8#
63	0.0	9.0	69.0#

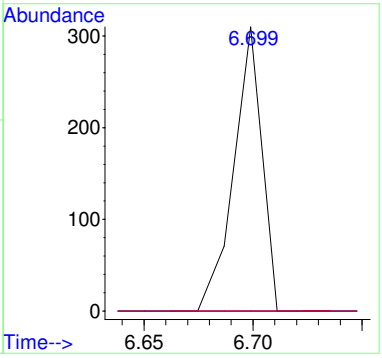


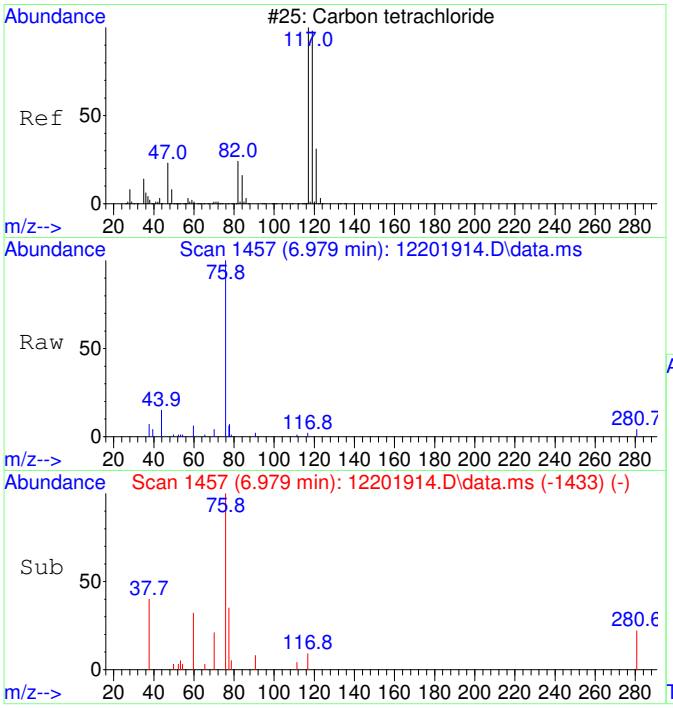


#30
Chloroform SCAN
Concen: 77.06 ug/L
RT: 6.699 min Scan# 1434
Delta R.T. 0.036 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 278

Ion	Ratio	Lower	Upper
83	100		
85	0.0	42.9	102.9#
47	0.0	4.5	64.5#

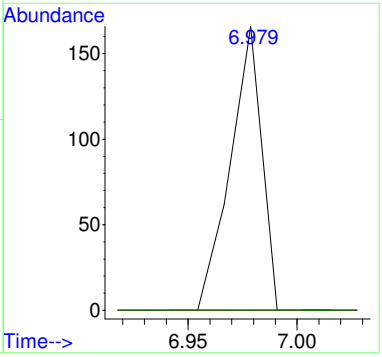


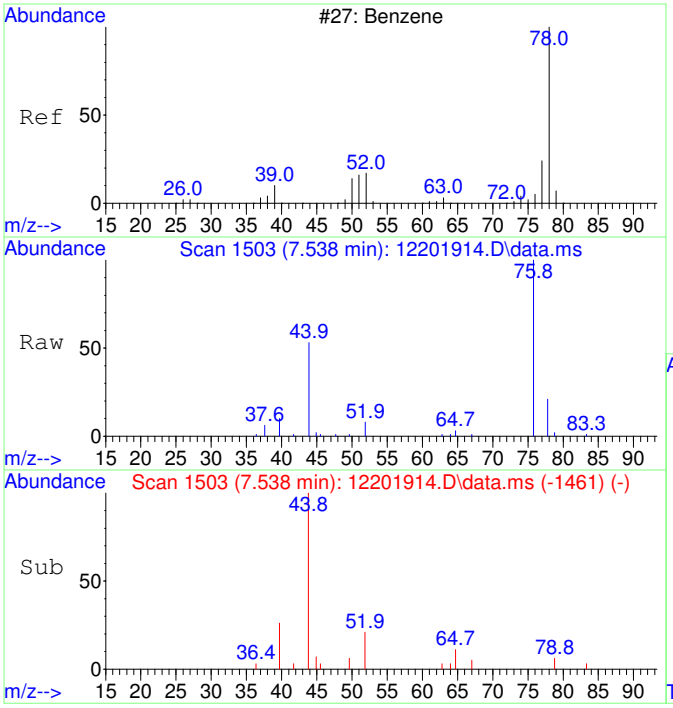


#32
Carbon tetrachloride SCAN
Concen: 46.74 ug/L
RT: 6.979 min Scan# 1457
Delta R.T. -0.207 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 166

Ion	Ratio	Lower	Upper
117	100		
119	0.0	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

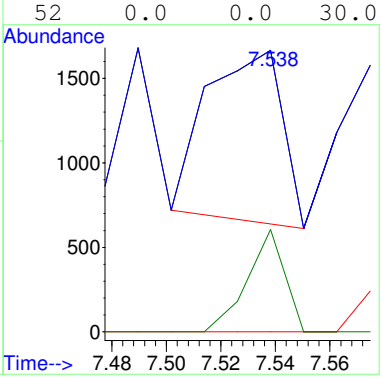


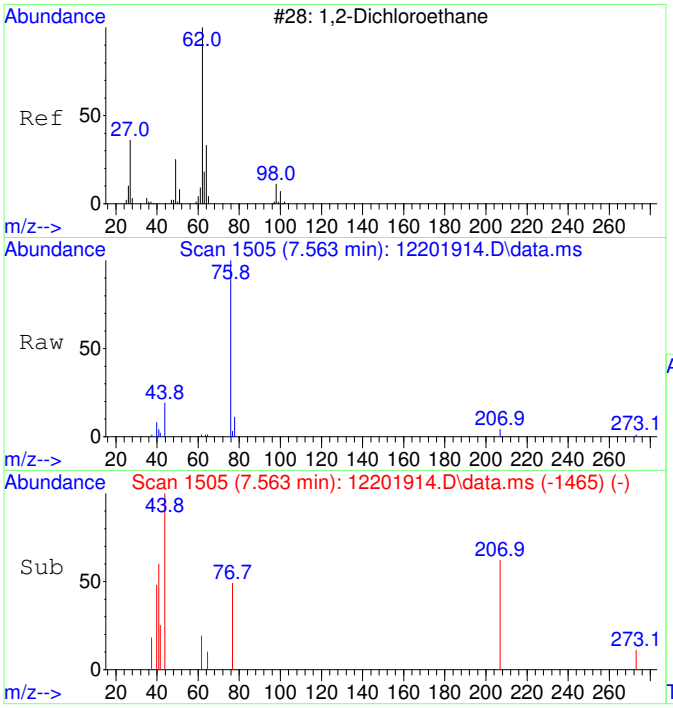


#33
Benzene SCAN
Concen: 175.15 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1905

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	0.0	0.0	30.0

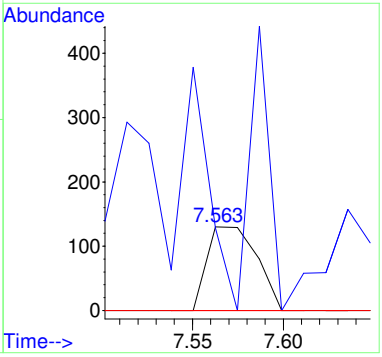


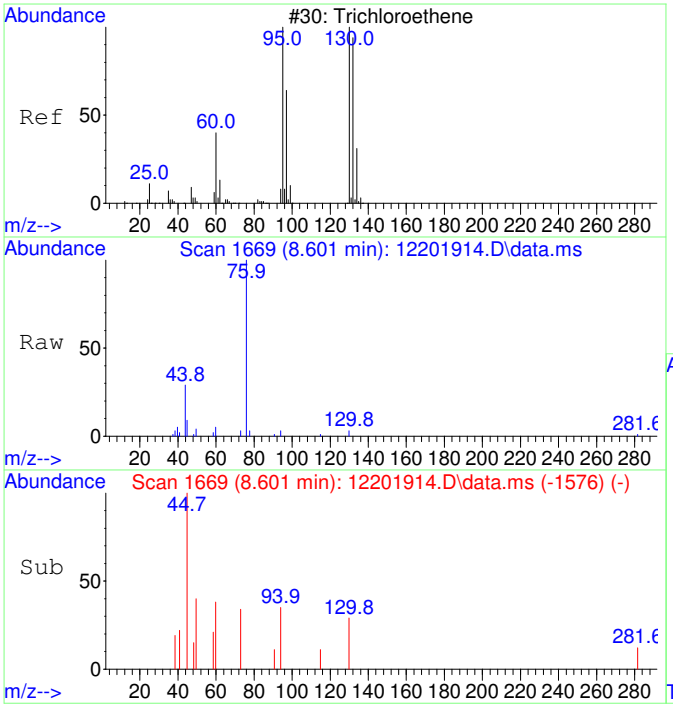


#34
1,2-Dichloroethane SCAN
Concen: 66.59 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 247

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

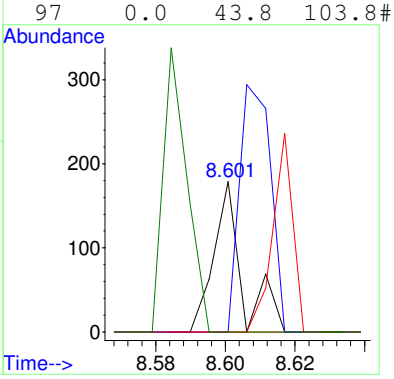


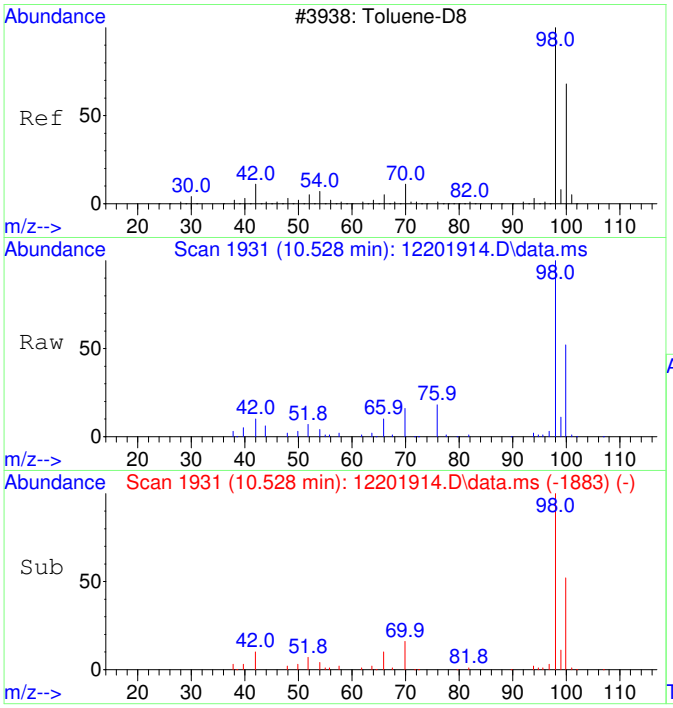


#35
Trichloroethene SCAN
Concen: 36.72 ug/L
RT: 8.601 min Scan# 1669
Delta R.T. 0.005 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 102

Ion	Ratio	Lower	Upper
130	100		
95	179.4	75.7	135.7#
132	92.2	77.1	137.1
97	0.0	43.8	103.8#

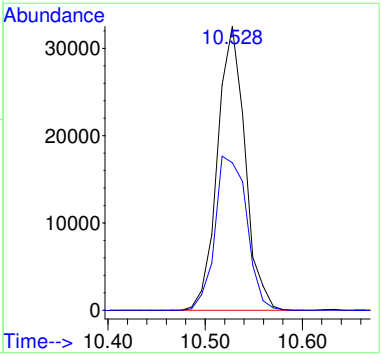


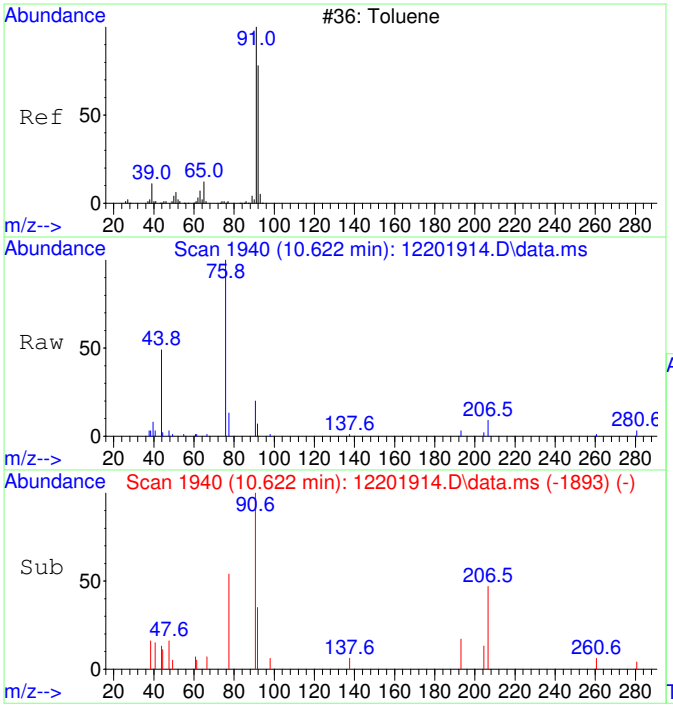


#36
Toluene-d8 SCAN
Concen: 5562.41 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 64030

Ion	Ratio	Lower	Upper
98	100		
100	62.3	44.4	104.4

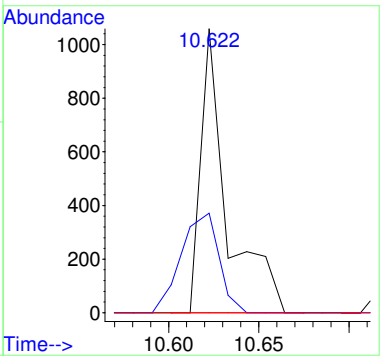


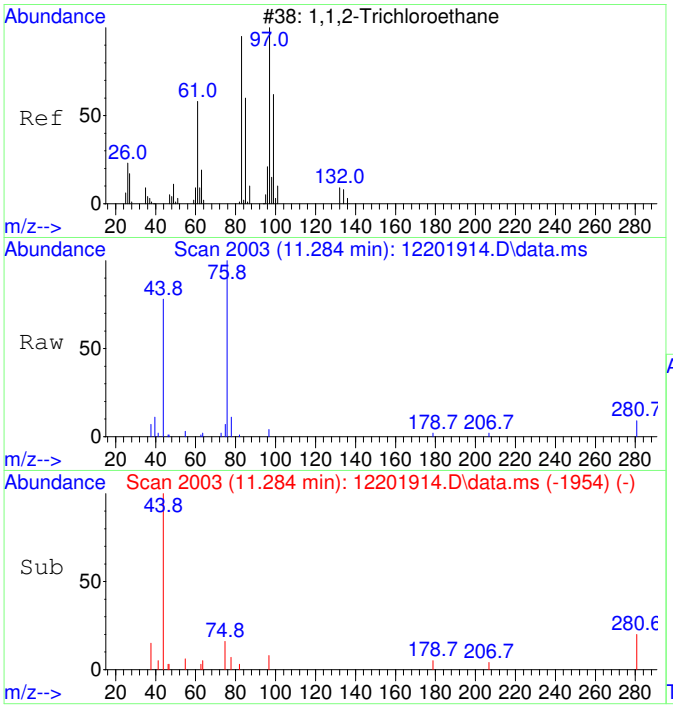


#37
Toluene SCAN
Concen: 79.58 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1070

Ion	Ratio	Lower	Upper
91	100		
92	50.7	31.5	91.5
65	0.0	0.0	30.0

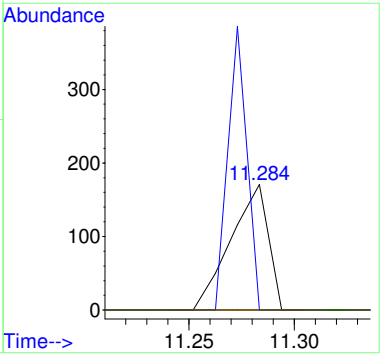


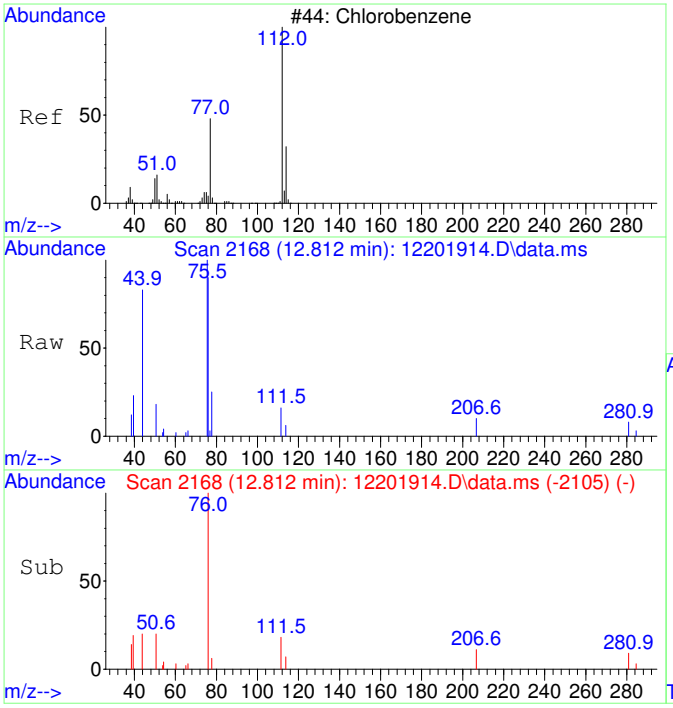


#38
1,1,2-Trichloroethane SCAN
Concen: 72.48 ug/L
RT: 11.284 min Scan# 2003
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 212

Ion	Ratio	Lower	Upper
97	100		
83	114.6	67.7	127.7
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

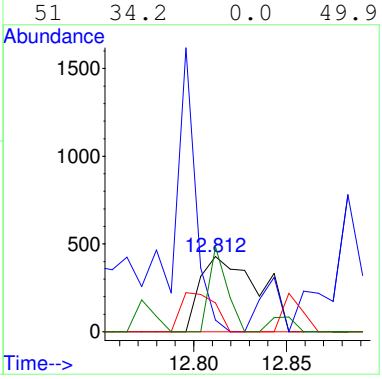


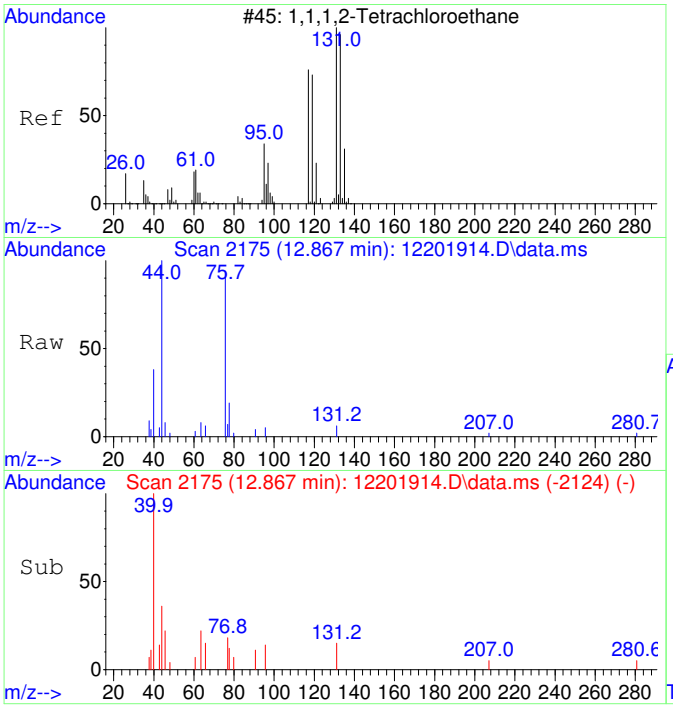


#40
Chlorobenzene SCAN
Concen: 88.31 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 946

Ion	Ratio	Lower	Upper
112	100		
77	99.0	27.8	87.8#
114	30.2	3.1	63.1
51	34.2	0.0	49.9

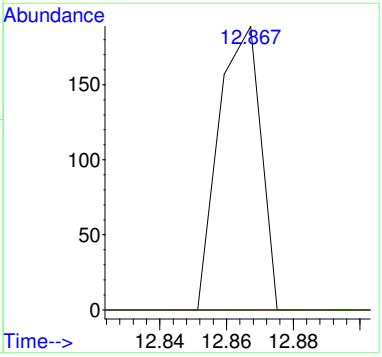


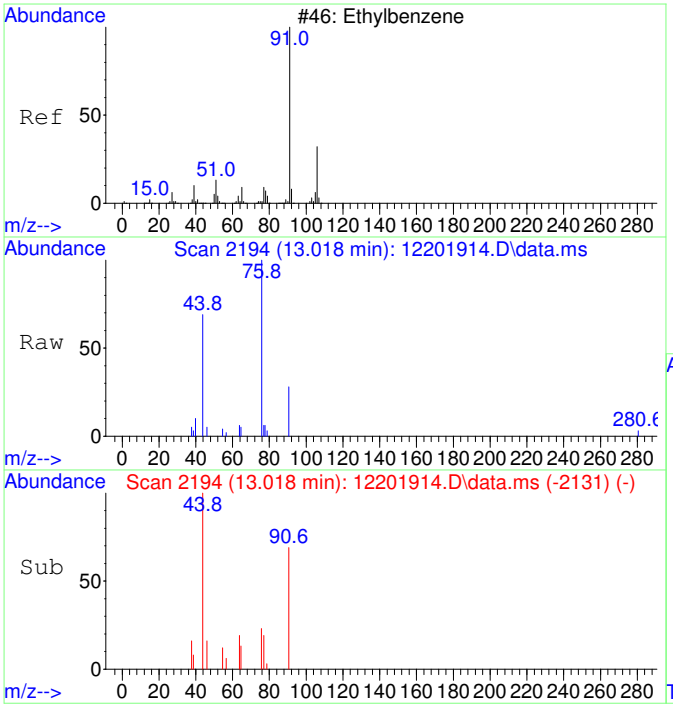


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 47.75 ug/L
RT: 12.867 min Scan# 2175
Delta R.T. -0.096 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 165

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	0.0	38.9	98.9#

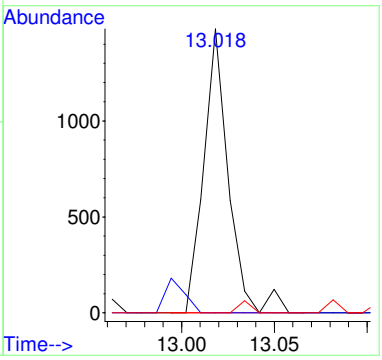


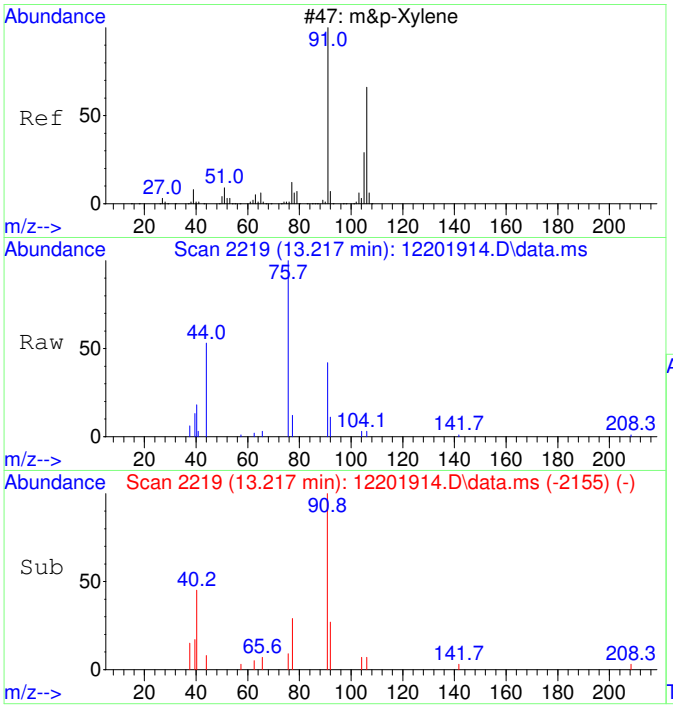


#42
Ethylbenzene SCAN
Concen: 81.12 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1378

Ion	Ratio	Lower	Upper
91	100		
106	0.0	1.3	61.3#
51	0.0	0.0	39.4

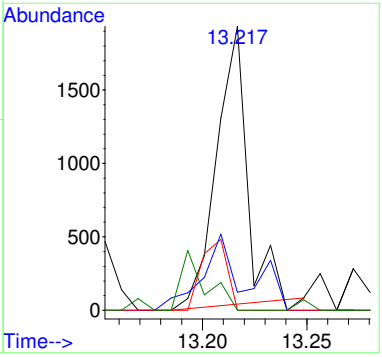


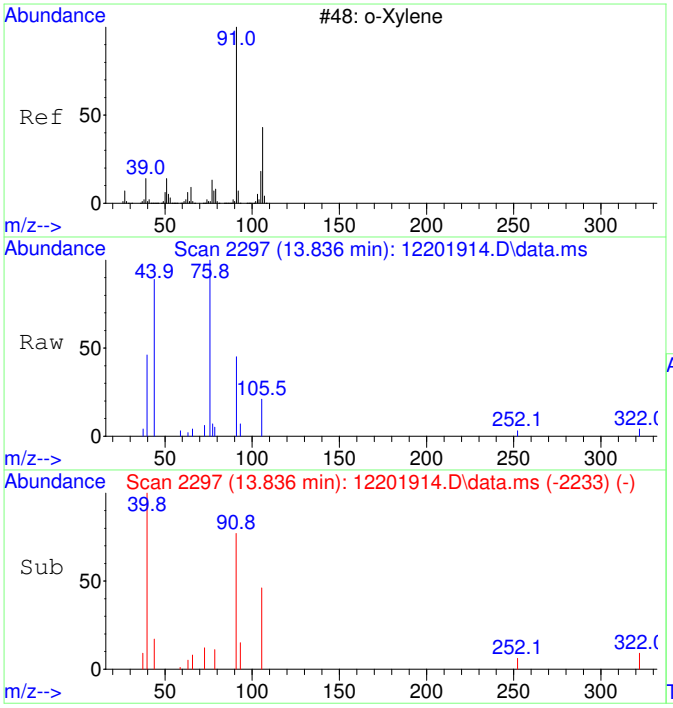


#43
m&p-Xylene SCAN
Concen: 75.76 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1930

Ion	Ratio	Lower	Upper
91	100		
106	38.4	19.0	79.0
105	21.5	0.0	54.9
51	0.0	0.0	41.2

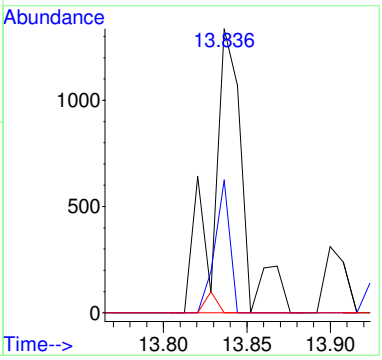


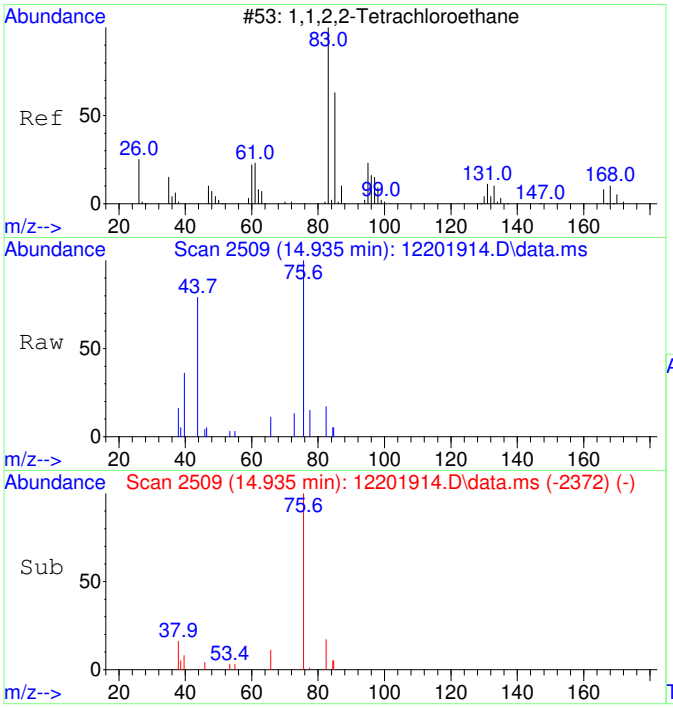


#44
o-Xylene SCAN
Concen: 117.85 ug/L
RT: 13.836 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1702

Ion	Ratio	Lower	Upper
91	100		
106	22.9	17.2	77.2
105	0.0	0.0	57.7

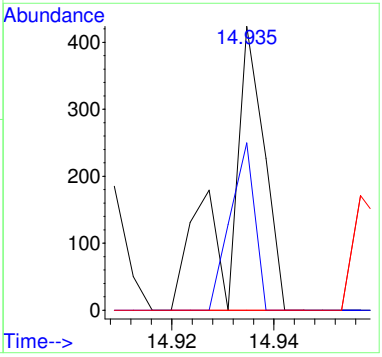


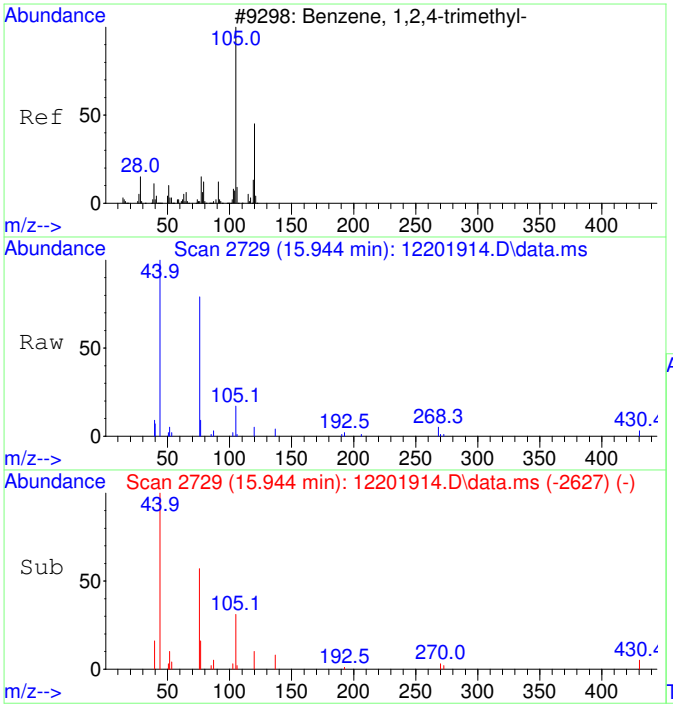


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 32.87 ug/L
RT: 14.935 min Scan# 2509
Delta R.T. 0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 214

Ion	Ratio	Lower	Upper
83	100		
85	39.3	37.2	97.2
95	0.0	0.0	48.7

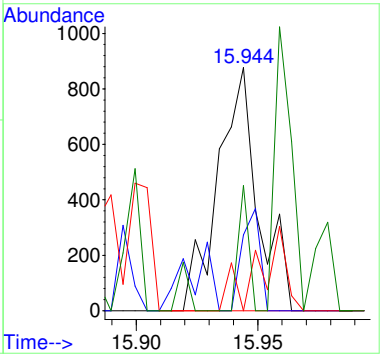


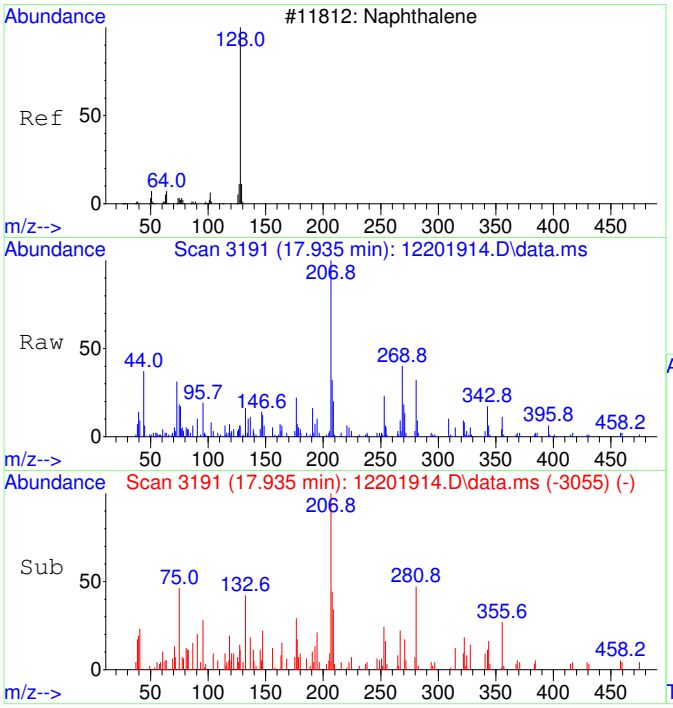


#47
1,2,4-Trimethylbenzene SCAN
Concen: 65.80 ug/L
RT: 15.944 min Scan# 2729
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1008

Ion	Ratio	Lower	Upper
105	100		
120	19.0	15.8	75.8
119	0.0	0.0	42.9
77	13.4	0.0	43.0

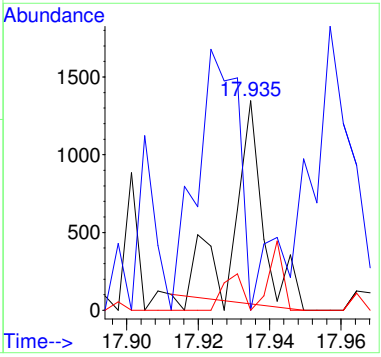




#48
Naphthalene SCAN
Concen: 29.29 ug/L
RT: 17.935 min Scan# 3191
Delta R.T. 0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:128 Resp: 725

Ion	Ratio	Lower	Upper
128	100		
127	155.2	0.0	30.0#
129	12.7	0.0	34.5



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory

SDG: 19347C

Client: California Site Cleanup Section 3

Project: MEW OU3 FY2020 Vapor Intrusion Investigation

Instrument ID: AG5975CV

Calibration: 1911014

Sequence: S19L083

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B19L093-MRL2	1,1-Dichloroethene	0.131	0.125	96	ug/m³ Air	50 - 150
	trans-1,2-Dichloroethene	0.160	0.153	96	ug/m³ Air	50 - 150
	1,1-Dichloroethane	0.157	0.160	102	ug/m³ Air	50 - 150
	cis-1,2-Dichloroethene	0.160	0.160	100	ug/m³ Air	50 - 150
	Chloroform	0.132	0.137	103	ug/m³ Air	50 - 150
	Trichloroethene	0.144	0.152	106	ug/m³ Air	50 - 150
	Tetrachloroethene	0.168	0.177	105	ug/m³ Air	50 - 150
	Toluene-d8	992	1040	105	ug/m³ Air	90 - 110

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

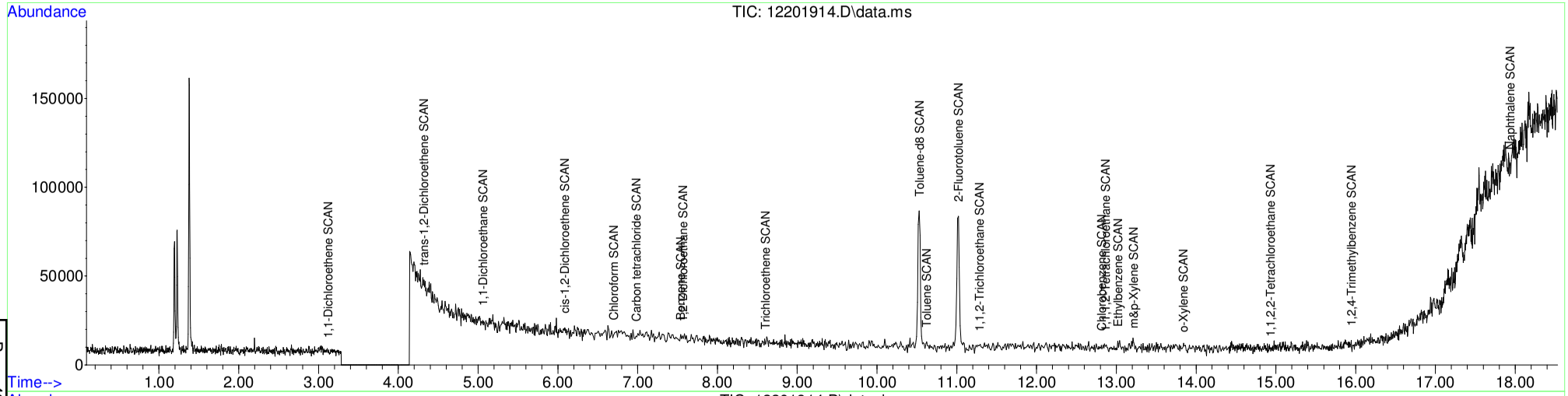
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	109429	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	92003	5235.20 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 104.70%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.123	61	514	109.77 ug/L	71
3] trans-1,2-Dichloroethene	4.316	61	230	47.89 ug/L	100
4] 1,1-Dichloroethane	5.066	63	311	50.94 ug/L	88
5] cis-1,2-Dichloroethene	6.088	61	280	49.87 ug/L	94
6] Chloroform	6.664	83	335	51.67 ug/L	91
7] 1,1,1-Trichloroethane	6.931	97	348	53.55 ug/L	96
8] Carbon tetrachloride	7.199	117	311	50.43 ug/L	99
9] Benzene	7.527	78	1109	67.86 ug/L	81
10] 1,2-Dichloroethane	7.564	62	262	48.84 ug/L	84
11] Trichloroethene	8.602	130	265	52.85 ug/L	91
13] Toluene	10.624	91	1329	62.34 ug/L	98
14] 1,1,2-Trichloroethane	11.274	97	264	54.65 ug/L	100
15] Tetrachloroethene	11.474	166	339	52.69 ug/L	75
16] Chlorobenzene	12.813	112	876	53.81 ug/L	89
17] 1,1,1,2-Tetrachloroethane	12.964	131	330	58.09 ug/L	83
18] Ethylbenzene	13.019	91	1708	64.93 ug/L	96
19] m&p-Xylene	13.210	91	2547	127.06 ug/L	96
20] o-Xylene	13.830	91	1267	59.60 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.925	83	507	53.12 ug/L	99
22] 1,3,5-Trimethylbenzene	15.394	105	1571	66.33 ug/L	99
23] 1,2,4-Trimethylbenzene	15.940	105	1690	69.81 ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	73597	5420.93 ug/L	98
26) 1,1-Dichloroethene SCAN	3.114	61	129	43.36 ug/L #	24
27) trans-1,2-Dichloroethe...	4.321	61	228	80.89 ug/L #	40
28) 1,1-Dichloroethane SCAN	5.058	63	355	84.16 ug/L #	47
29) cis-1,2-Dichloroethene...	6.086	61	211	62.45 ug/L #	58
30) Chloroform SCAN	6.699	83	278	77.06 ug/L #	22
32) Carbon tetrachloride SCAN	6.979	117	166	46.74 ug/L #	17
33) Benzene SCAN	7.538	78	1905	175.15 ug/L #	95
34) 1,2-Dichloroethane SCAN	7.563	62	247	66.59 ug/L #	36
35) Trichloroethene SCAN	8.601	130	102	36.72 ug/L #	46
36) Toluene-d8 SCAN	10.528	98	64030	5562.41 ug/L	86
37) Toluene SCAN	10.622	91	1070	79.58 ug/L #	86
38) 1,1,2-Trichloroethane ...	11.284	97	212	72.48 ug/L #	46
40) Chlorobenzene SCAN	12.812	112	946	88.31 ug/L #	64
41) 1,1,1,2-Tetrachloroeth...	12.867	131	165	47.75 ug/L #	8
42) Ethylbenzene SCAN	13.018	91	1378	81.12 ug/L #	50
43) m&p-Xylene SCAN	13.217	91	1930	75.76 ug/L #	85
44) o-Xylene SCAN	13.836	91	1702	117.85 ug/L #	58
45) 1,1,2,2-Tetrachloroeth...	14.935	83	214	32.87 ug/L #	64
47) 1,2,4-Trimethylbenzene...	15.944	105	1008	65.80 ug/L #	68
48) Naphthalene SCAN	17.935	128	725	29.29 ug/L #	75

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



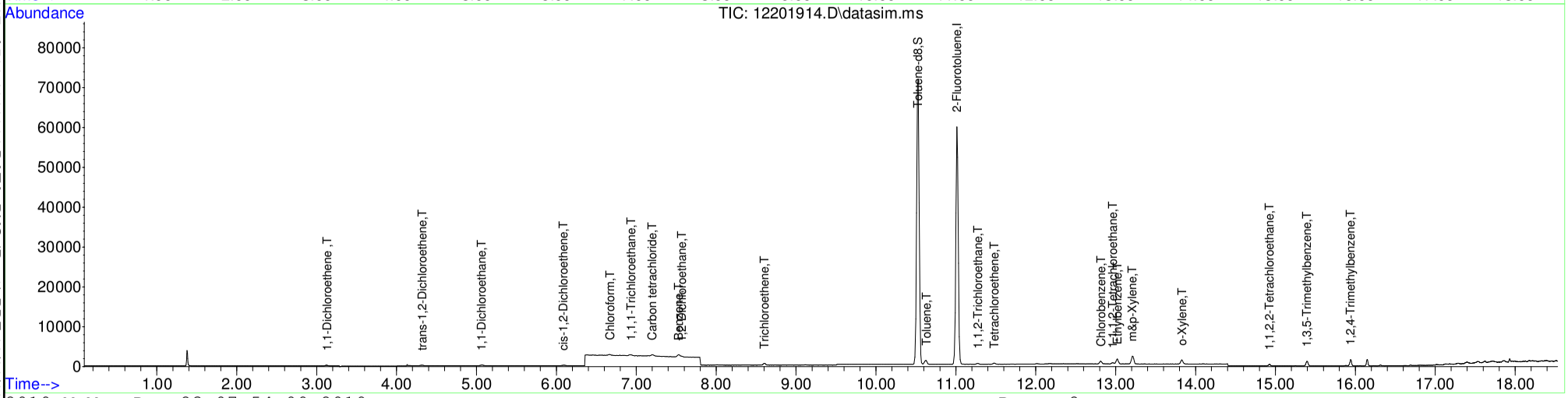
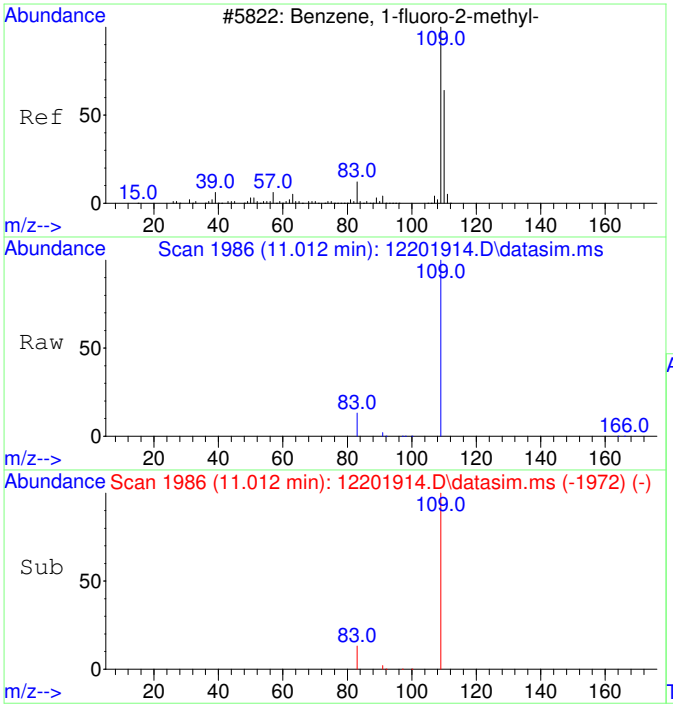


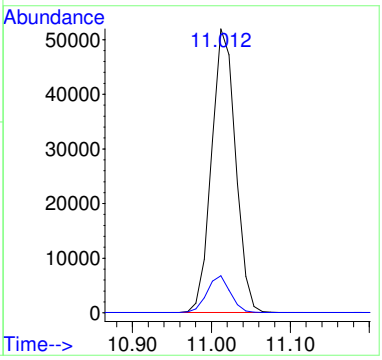
Table of Contents

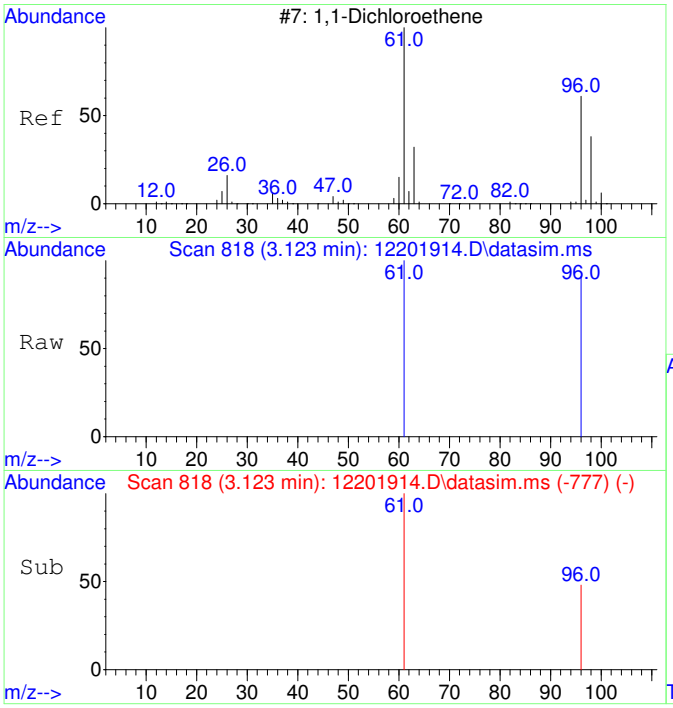


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 109429

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

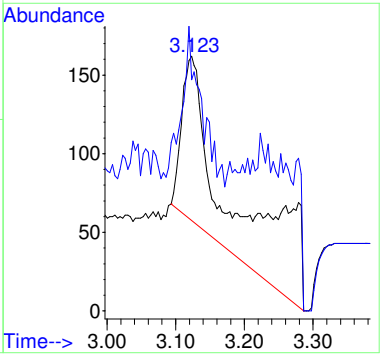




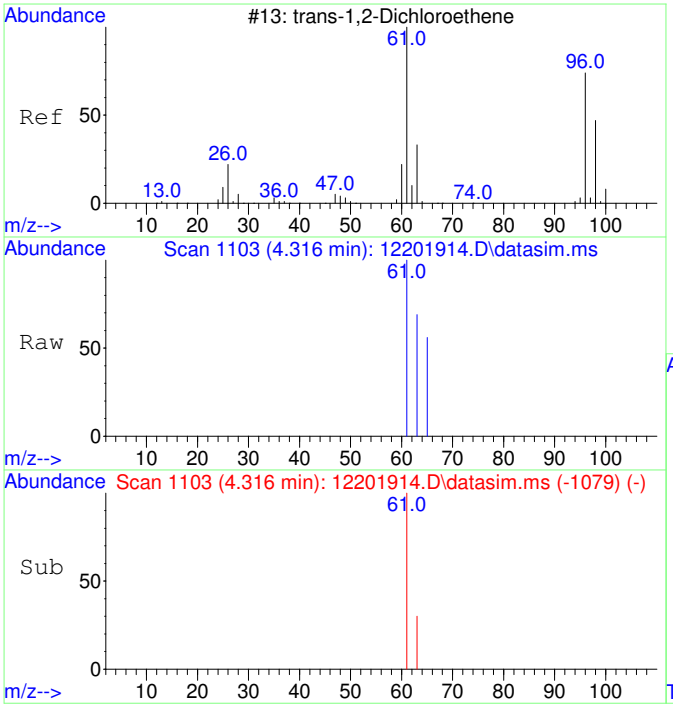
#2
1,1-Dichloroethene
Concen: 109.77 ug/L
RT: 3.123 min Scan# 818
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 514

Ion	Ratio	Lower	Upper
61	100		
96	40.7	33.5	93.5



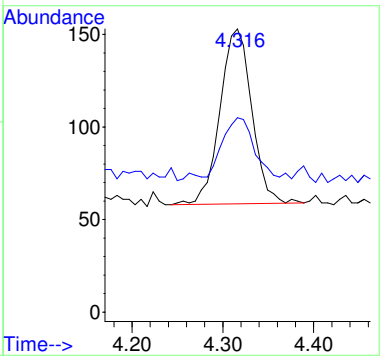
Before MI:
IMPROPER
BASELINE

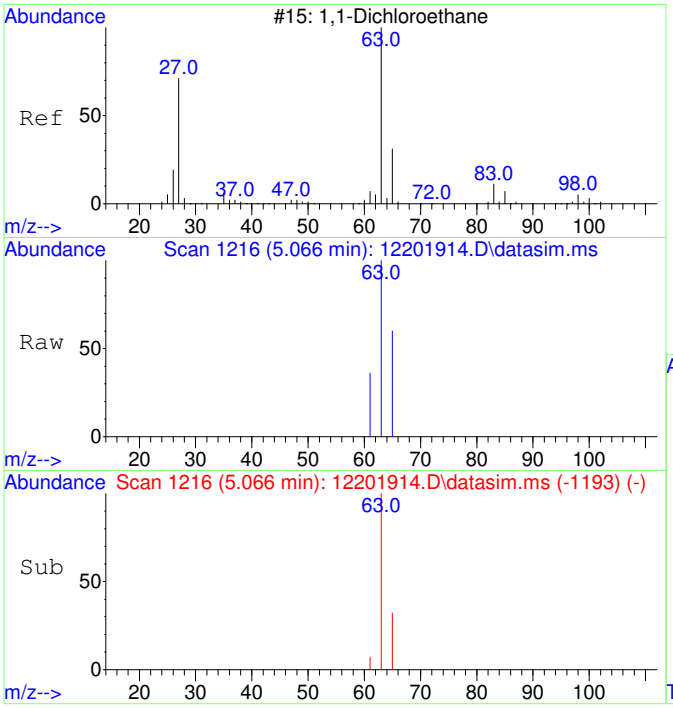


#3
trans-1,2-Dichloroethene
Concen: 47.89 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 230

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.3	62.3

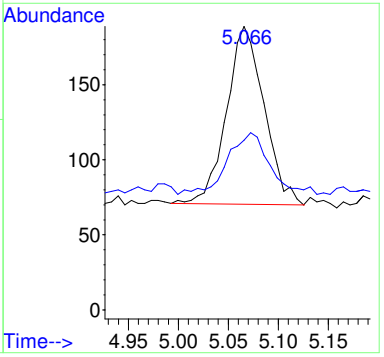


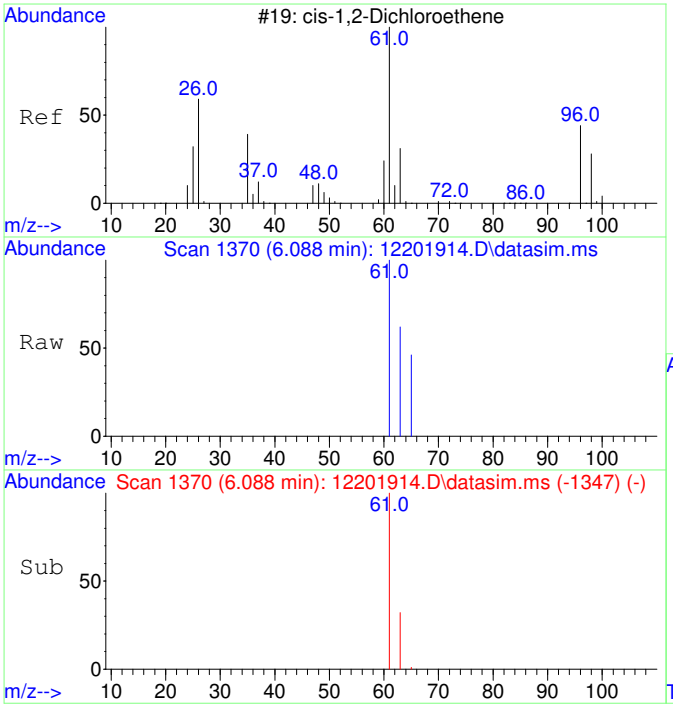


#4
1,1-Dichloroethane
Concen: 50.94 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 311

Ion	Ratio	Lower	Upper
63	100		
65	38.6	1.9	61.9

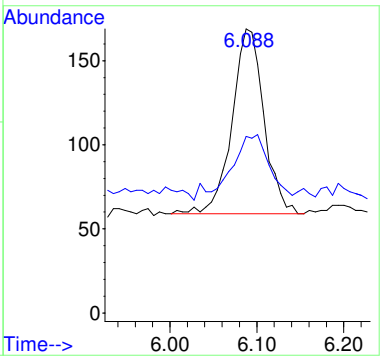


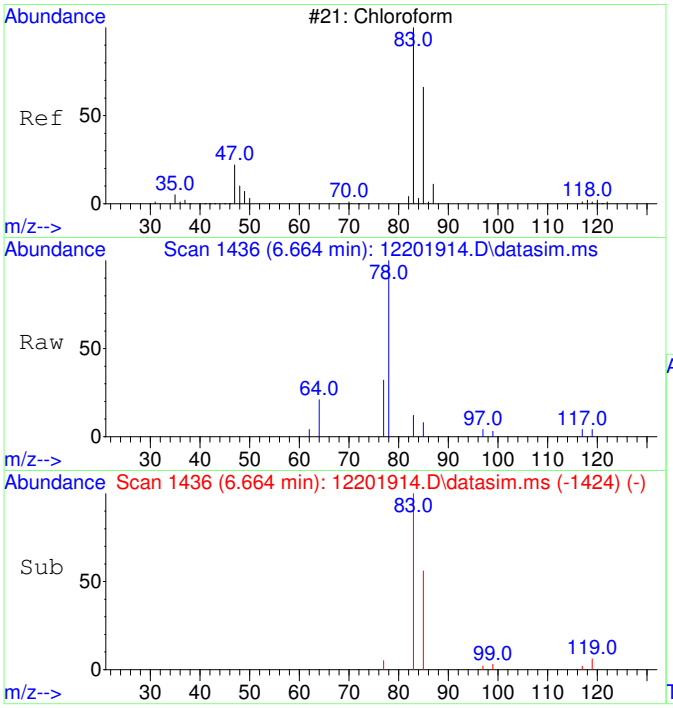


#5
cis-1,2-Dichloroethene
Concen: 49.87 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 280

Ion	Ratio	Lower	Upper
61	100		
63	36.1	2.5	62.5

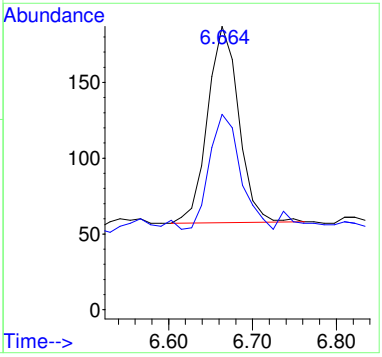


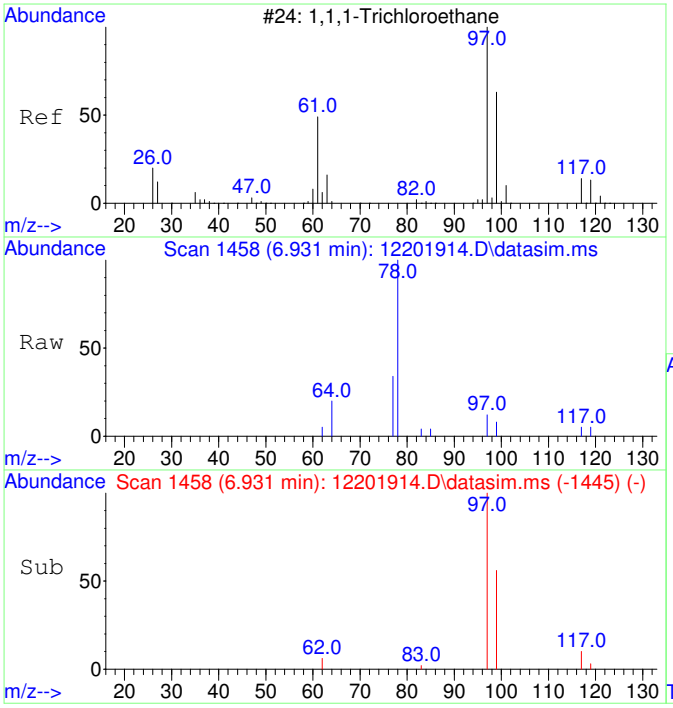


#6
Chloroform
Concen: 51.67 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 335

Ion	Ratio	Lower	Upper
83	100		
85	57.9	35.0	95.0

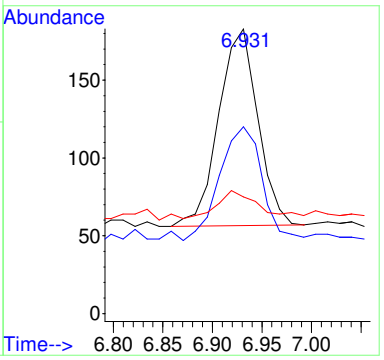


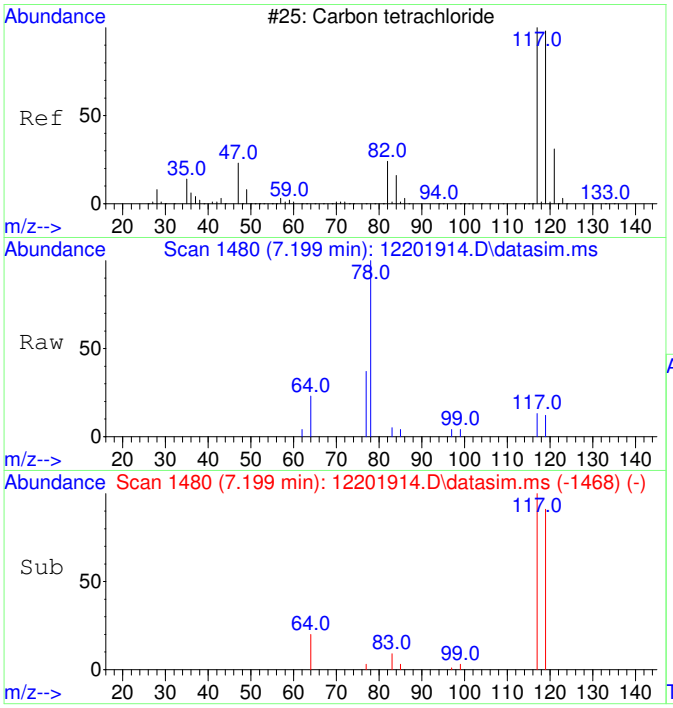


#7
1,1,1-Trichloroethane
Concen: 53.55 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 348

Ion	Ratio	Lower	Upper
97	100		
99	60.9	34.4	94.4
117	13.8	0.0	43.0

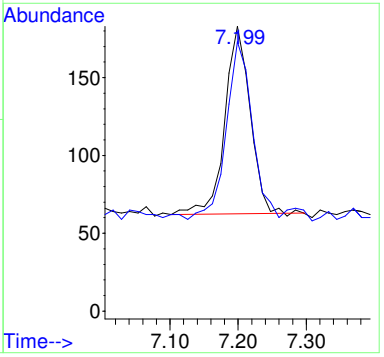


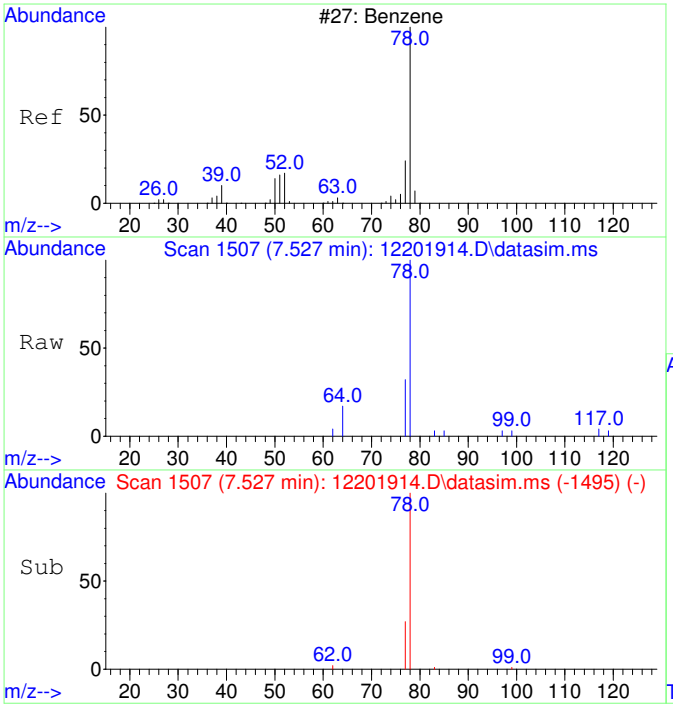


#8
Carbon tetrachloride
Concen: 50.43 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 311

Ion	Ratio	Lower	Upper
117	100		
119	95.5	66.5	126.5

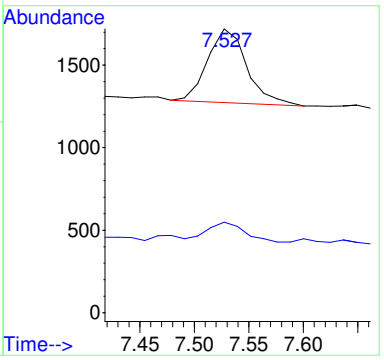


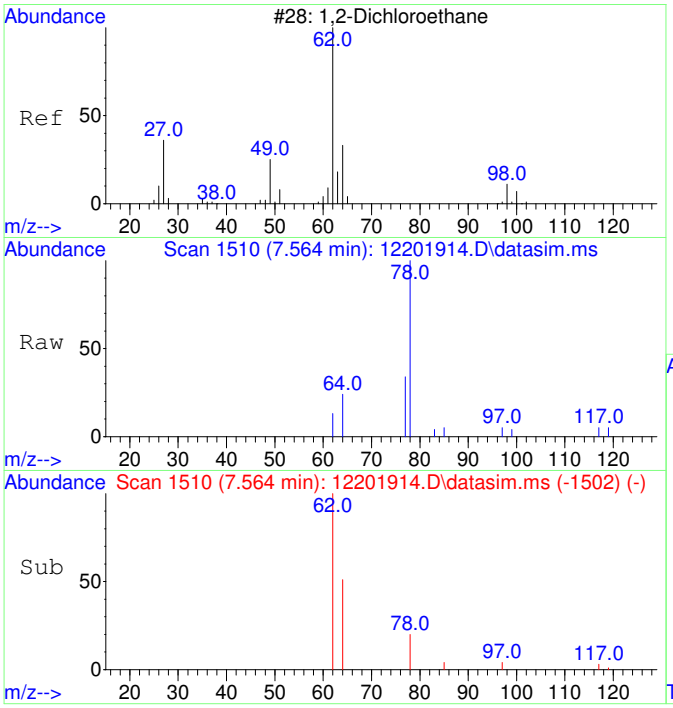


#9
Benzene
Concen: 67.86 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1109

Ion	Ratio	Lower	Upper
78	100		
77	32.6	0.0	53.5

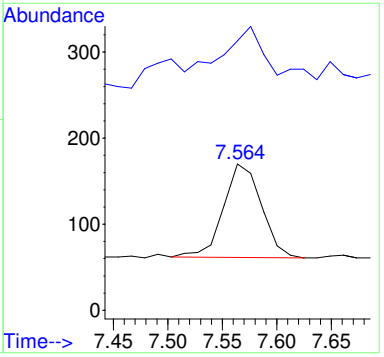


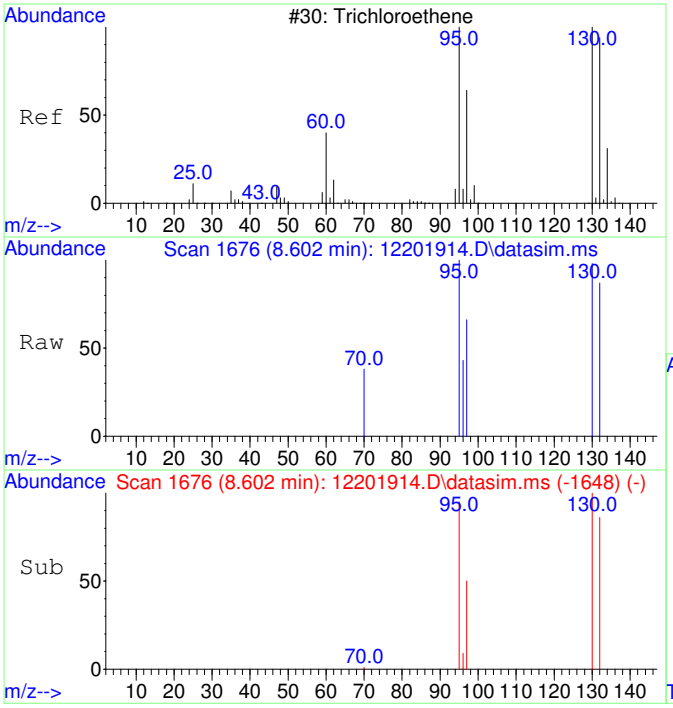


#10
1,2-Dichloroethane
Concen: 48.84 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 262

Ion	Ratio	Lower	Upper
62	100		
64	41.6	2.4	62.4

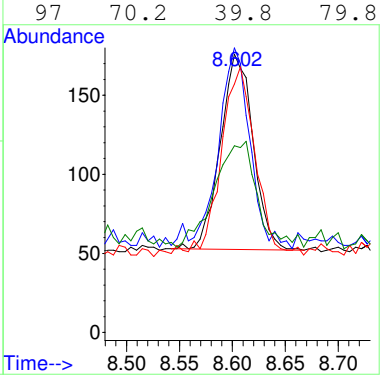


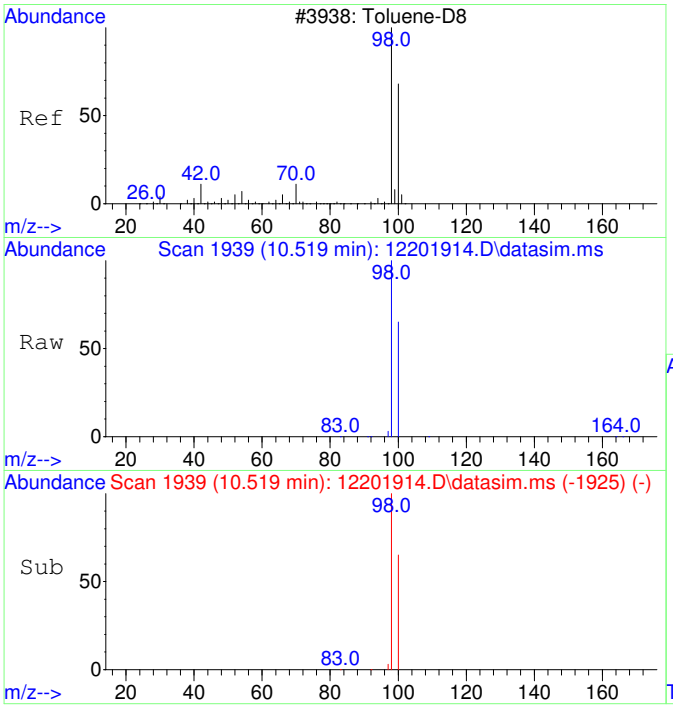


#11
Trichloroethene
Concen: 52.85 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 265

Ion	Ratio	Lower	Upper
130	100		
95	98.1	62.3	122.3
132	103.4	75.8	115.8
97	70.2	39.8	79.8

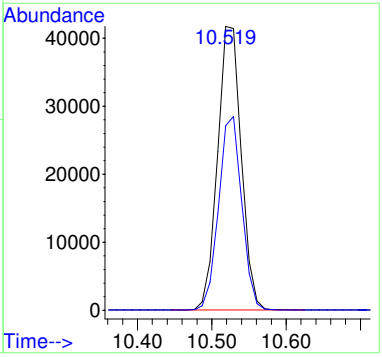


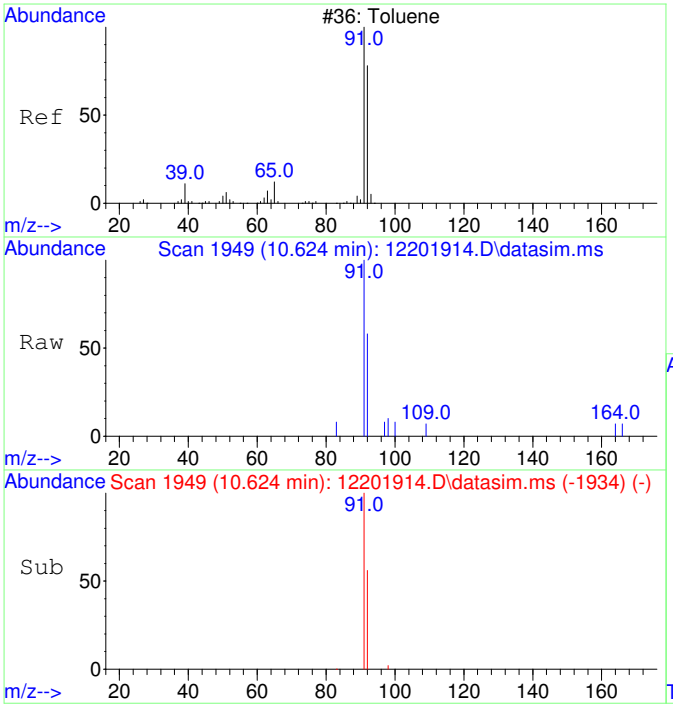


#12
Toluene-d8
Concen: 5235.20 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 92003

Ion	Ratio	Lower	Upper
98	100		
100	66.7	36.2	96.2

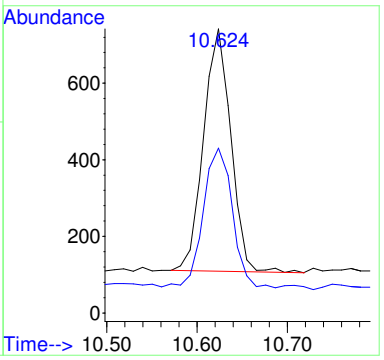


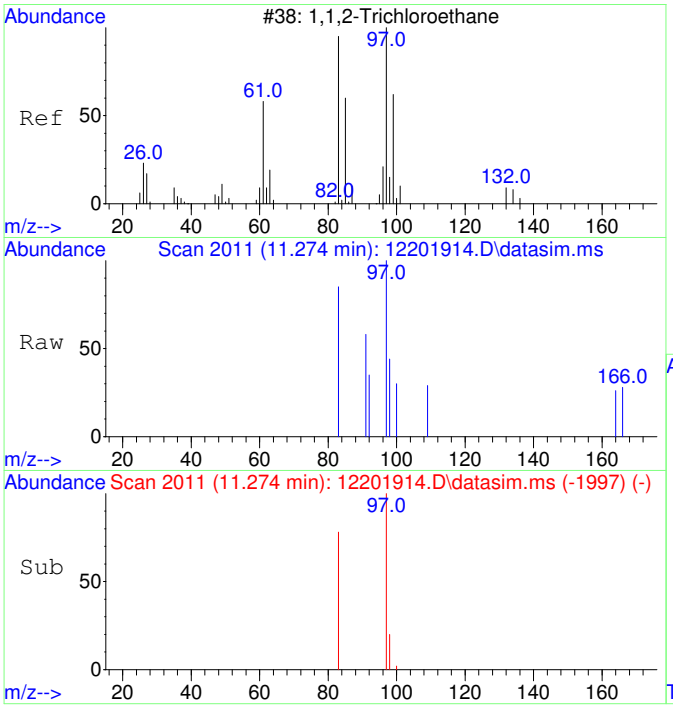


#13
Toluene
Concen: 62.34 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1329

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.4	89.4

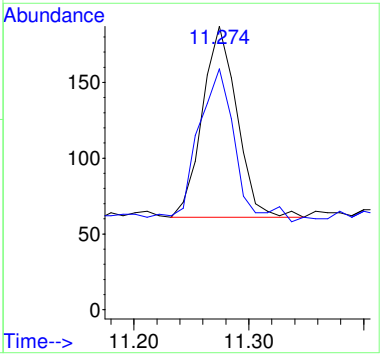


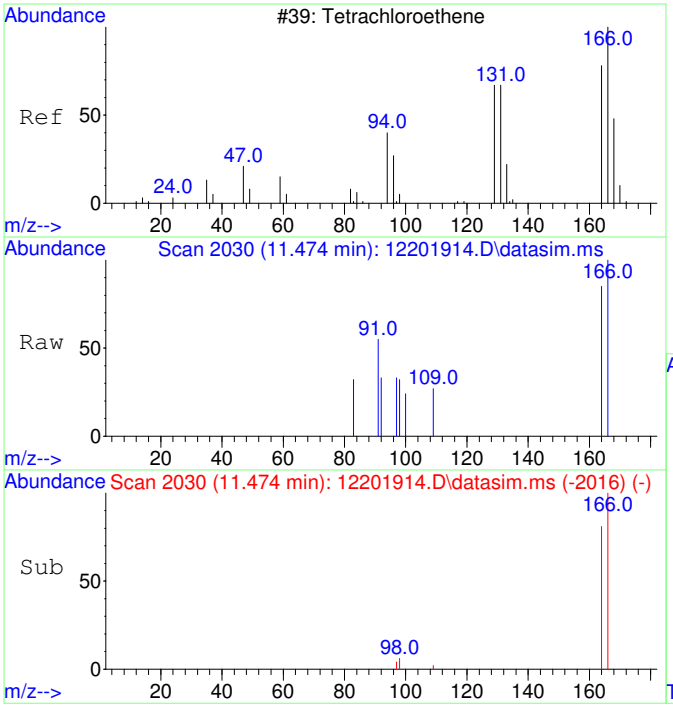


#14
1,1,2-Trichloroethane
Concen: 54.65 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 264

Ion	Ratio	Lower	Upper
97	100		
83	82.2	52.5	112.5

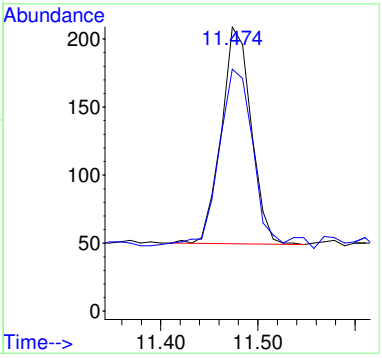


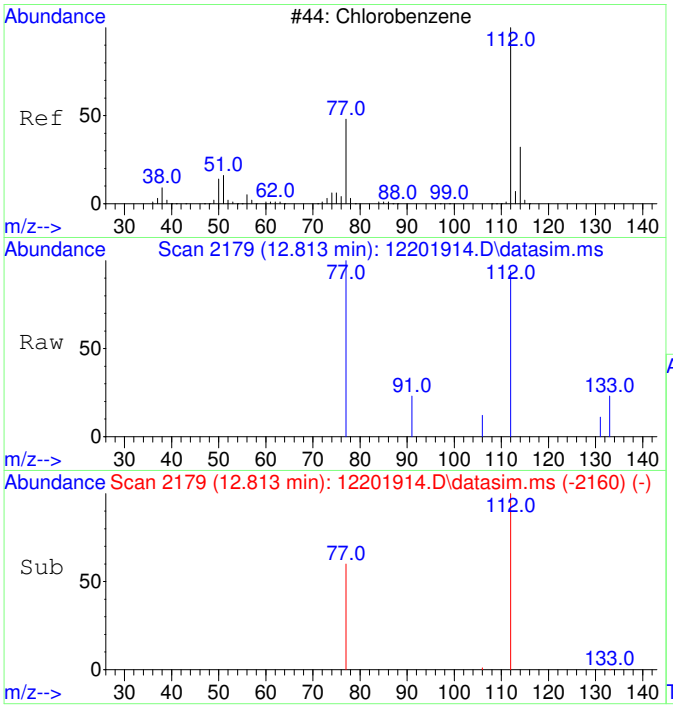


#15
Tetrachloroethene
Concen: 52.69 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:166 Resp: 339

Ion	Ratio	Lower	Upper
166	100		
164	99.1	47.6	107.6

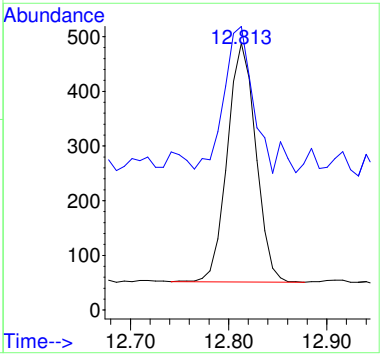


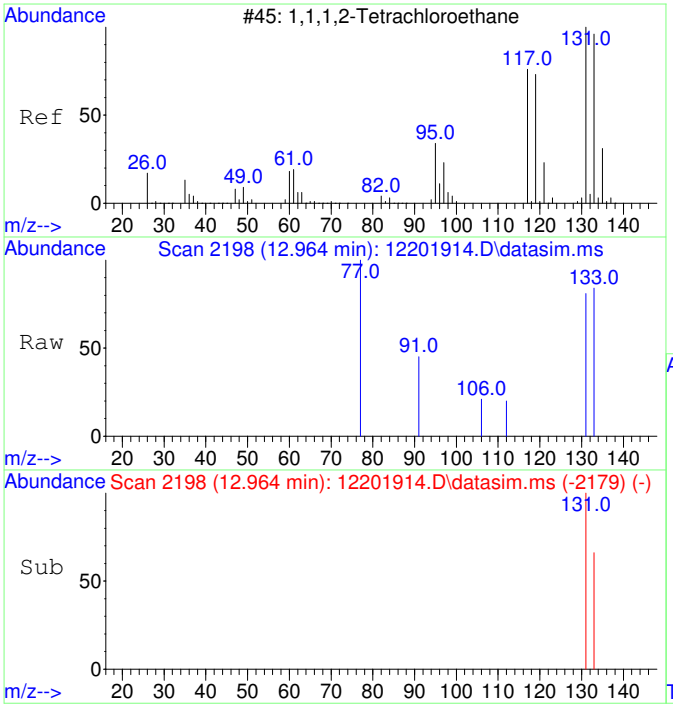


#16
Chlorobenzene
Concen: 53.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 876

Ion	Ratio	Lower	Upper
112	100		
77	62.2	24.2	84.2

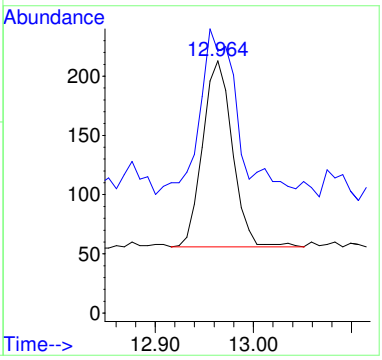


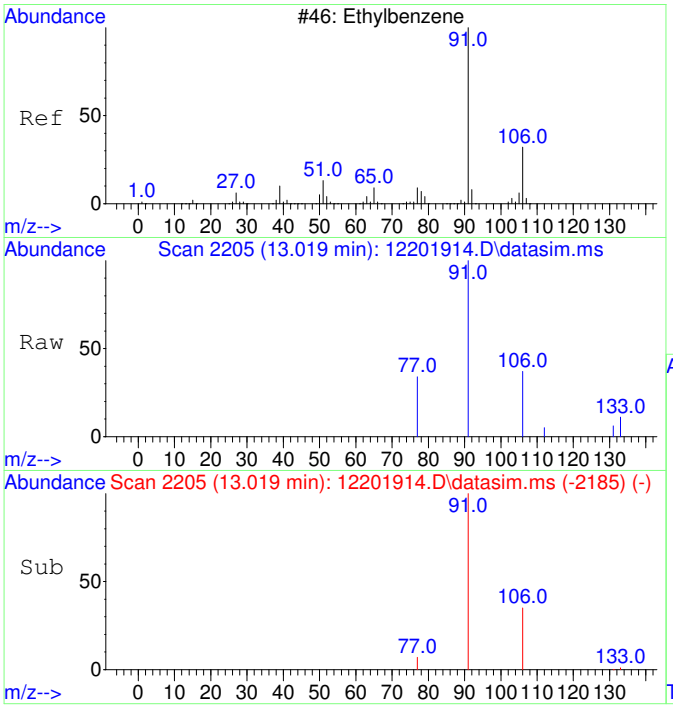


#17
1,1,1,2-Tetrachloroethane
Concen: 58.09 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 330

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.0	126.0

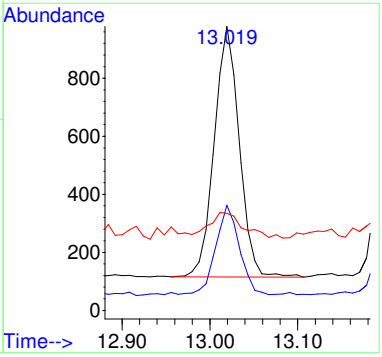


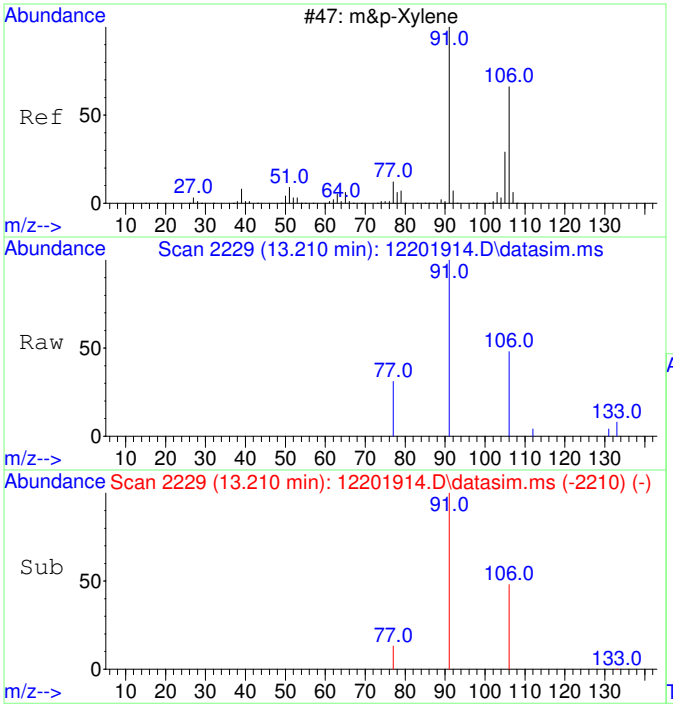


#18
Ethylbenzene
Concen: 64.93 ug/L
RT: 13.019 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1708

Ion	Ratio	Lower	Upper
91	100		
106	32.9	2.5	62.5
77	13.8	0.0	38.2

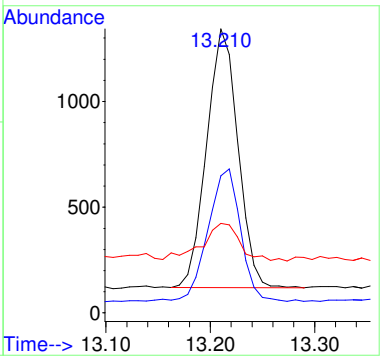


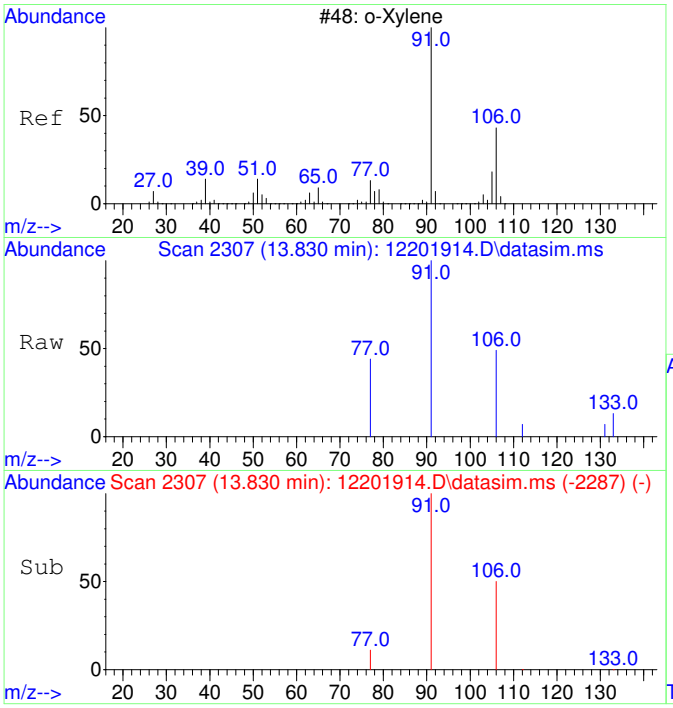


#19
m&p-Xylene
Concen: 127.06 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 2547

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.6	81.6
77	17.6	0.0	42.6

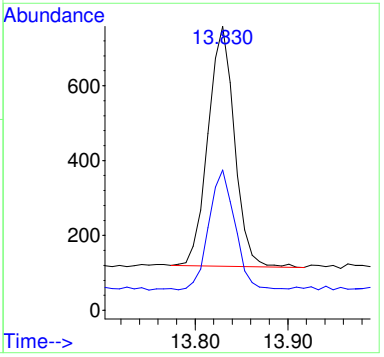


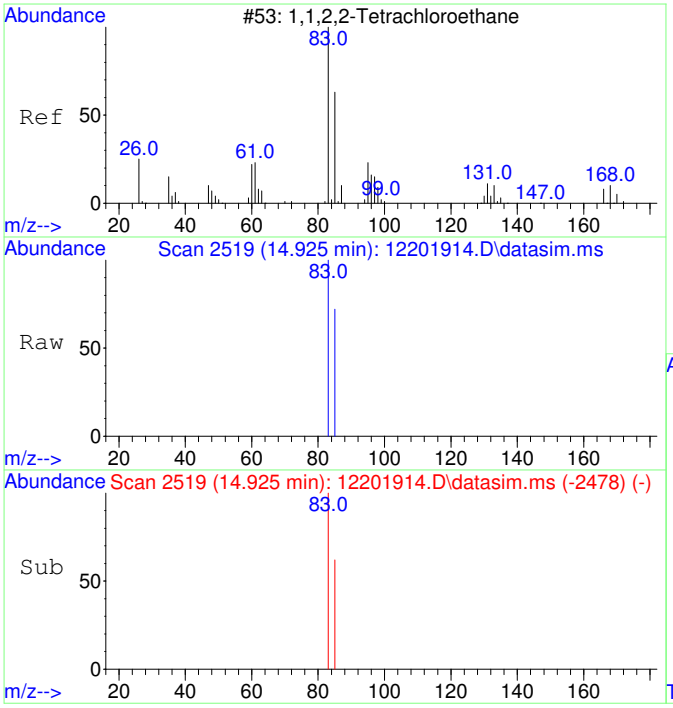


#20
o-Xylene
Concen: 59.60 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1267

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.5	78.5

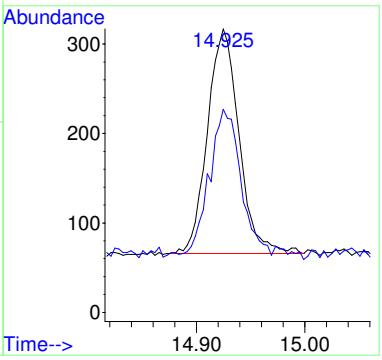


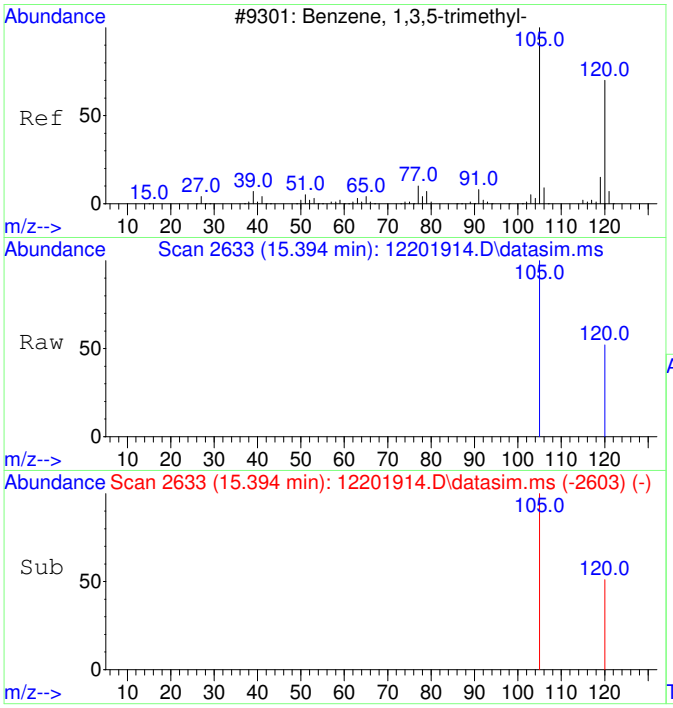


#21
1,1,2,2-Tetrachloroethane
Concen: 53.12 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 507

Ion	Ratio	Lower	Upper
83	100		
85	63.9	34.7	94.7

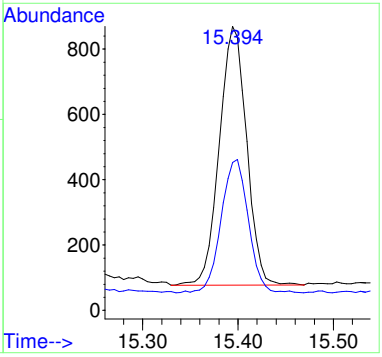


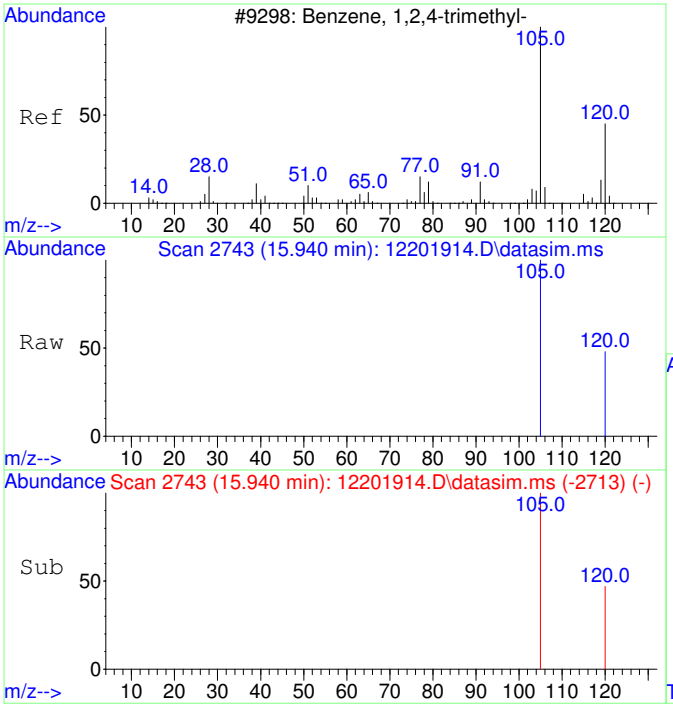


#22
1,3,5-Trimethylbenzene
Concen: 66.33 ug/L
RT: 15.394 min Scan# 2633
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1571

Ion	Ratio	Lower	Upper
105	100		
120	51.4	20.7	80.7

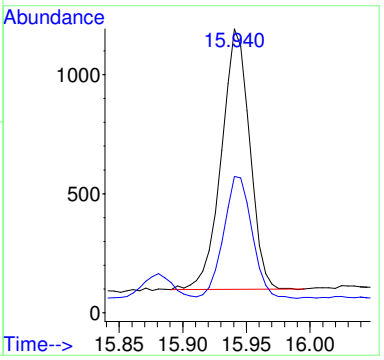


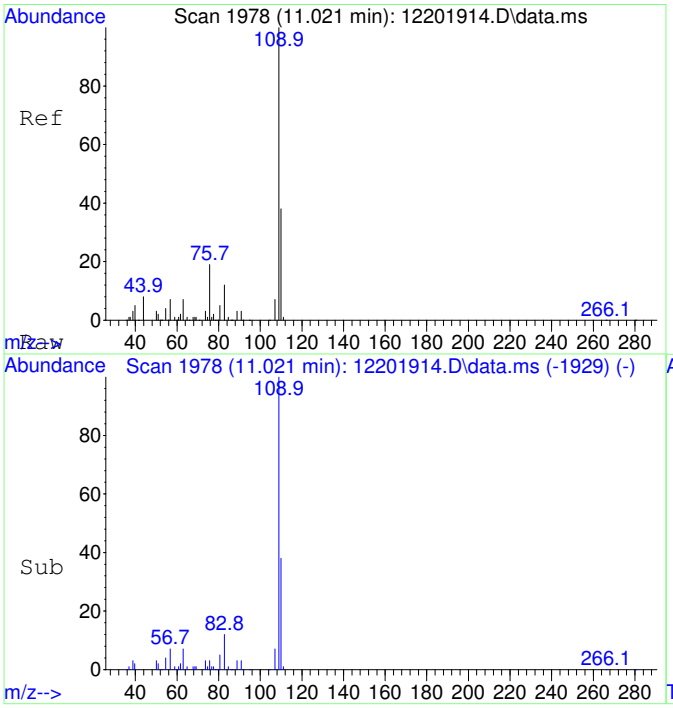


#23
1,2,4-Trimethylbenzene
Concen: 69.81 ug/L
RT: 15.940 min Scan# 2743
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1690

Ion	Ratio	Lower	Upper
105	100		
120	46.4	16.6	76.6

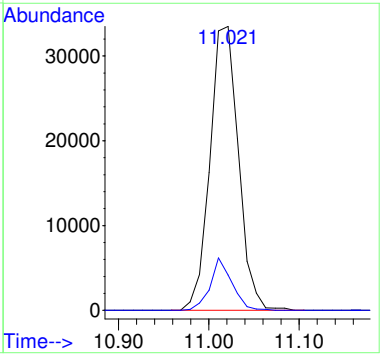


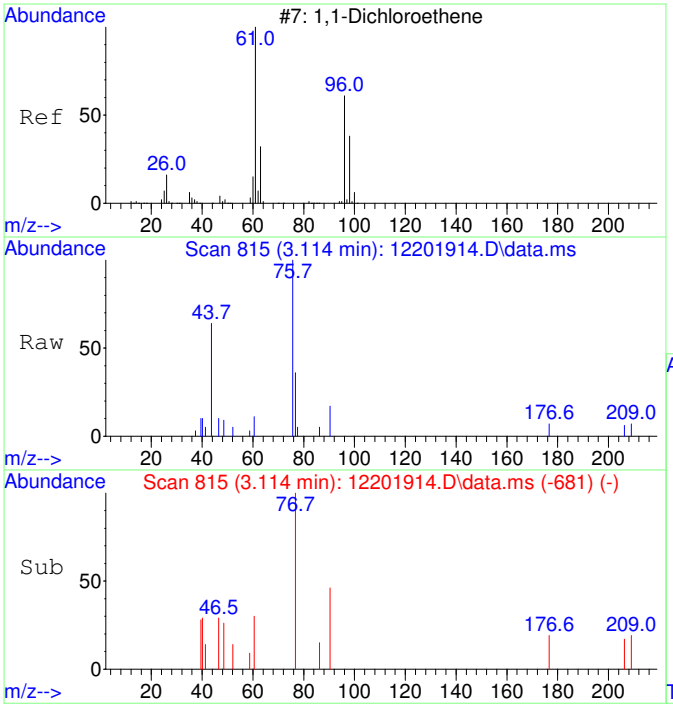


#25
2-Fluorotoluene SCAN
Concen: 5420.93 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 73597

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.7

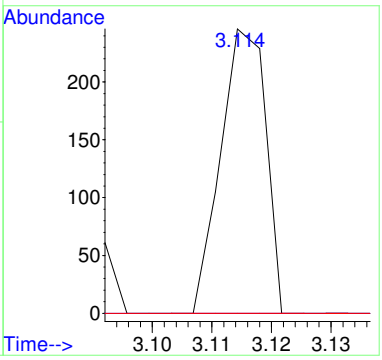


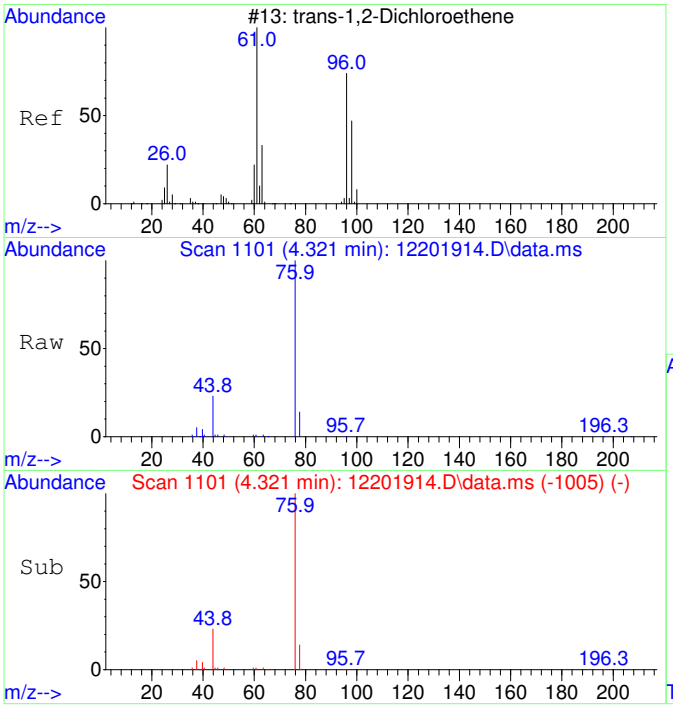


#26
1,1-Dichloroethene SCAN
Concen: 43.36 ug/L
RT: 3.114 min Scan# 815
Delta R.T. -0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 129

Ion	Ratio	Lower	Upper
61	100		
96	0.0	34.8	94.8#
98	0.0	12.9	72.9#

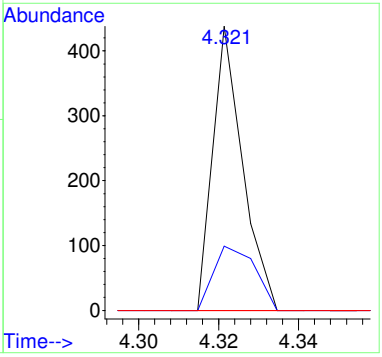


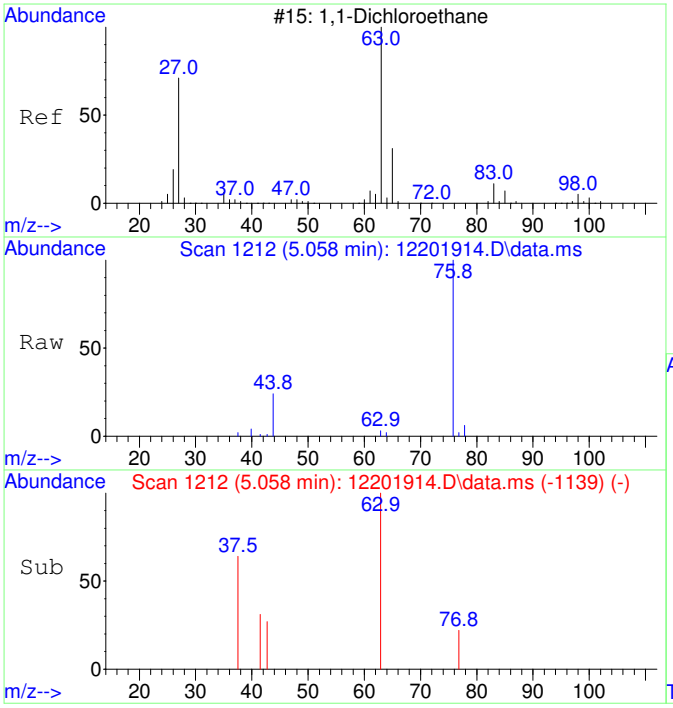


#27
trans-1,2-Dichloroethene SCAN
Concen: 80.89 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 228

Ion	Ratio	Lower	Upper
61	100		
96	31.1	42.7	102.7#
98	0.0	23.4	83.4#

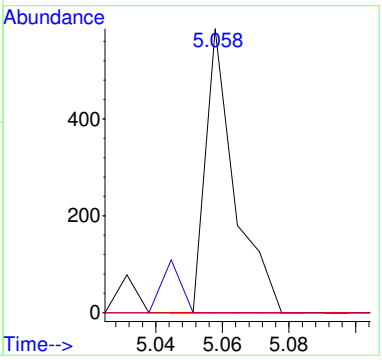


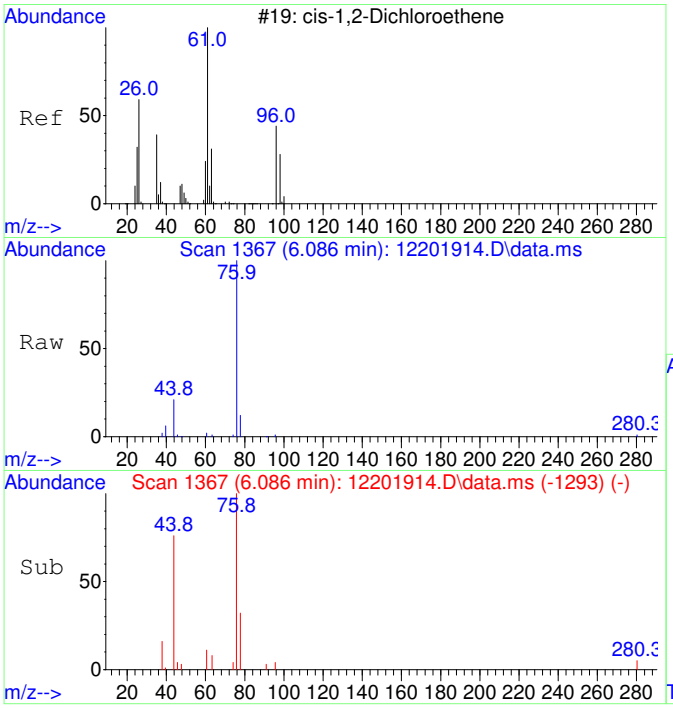


#28
1,1-Dichloroethane SCAN
Concen: 84.16 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 355

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

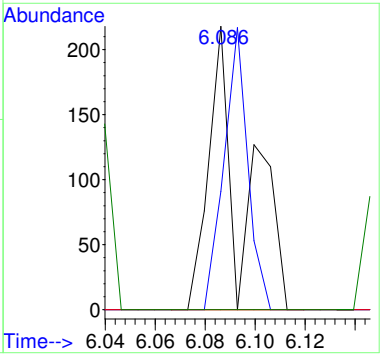


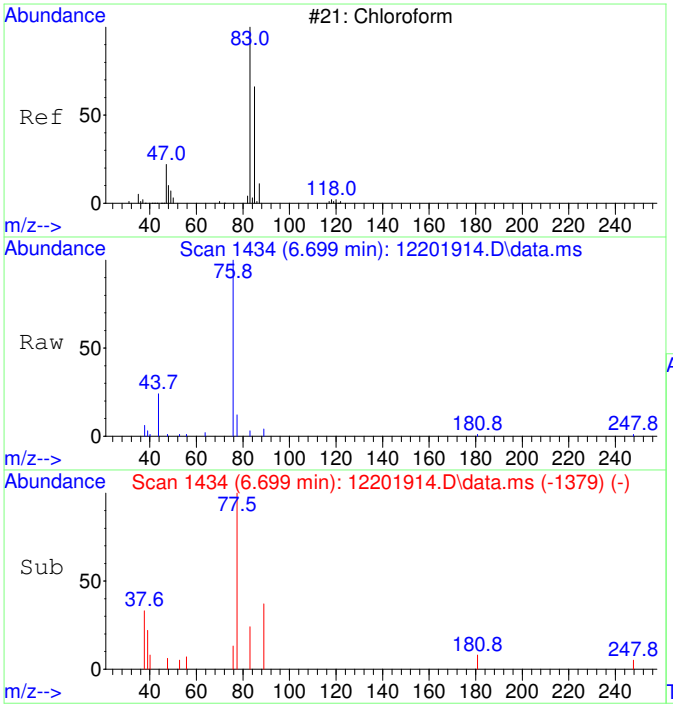


#29
cis-1,2-Dichloroethene SCAN
Concen: 62.45 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 211

Ion	Ratio	Lower	Upper
61	100		
96	68.2	46.1	106.1
98	0.0	20.8	80.8#
63	0.0	9.0	69.0#

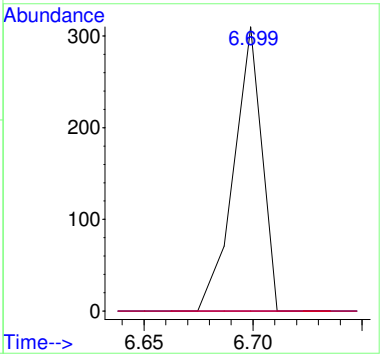


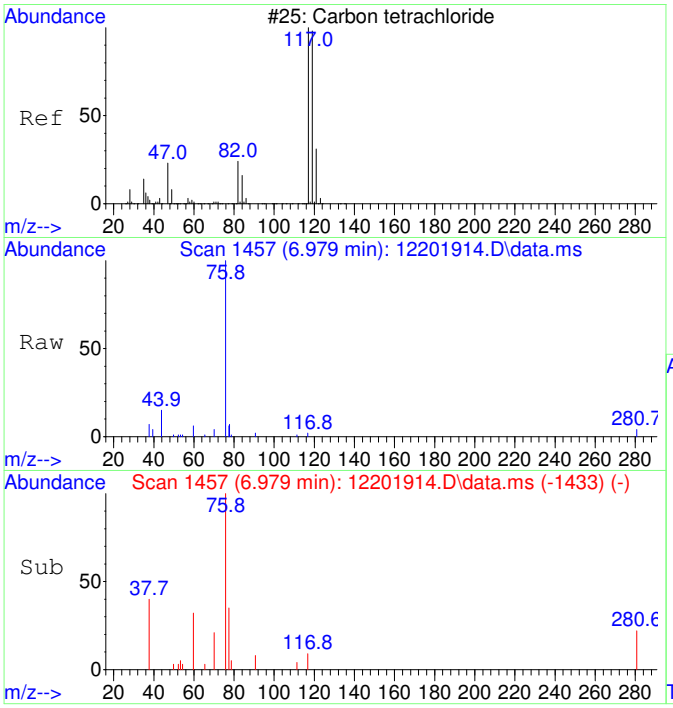


#30
Chloroform SCAN
Concen: 77.06 ug/L
RT: 6.699 min Scan# 1434
Delta R.T. 0.036 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 278

Ion	Ratio	Lower	Upper
83	100		
85	0.0	42.9	102.9#
47	0.0	4.5	64.5#

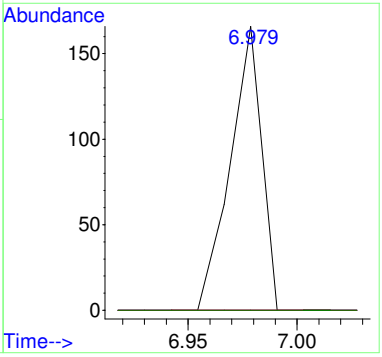


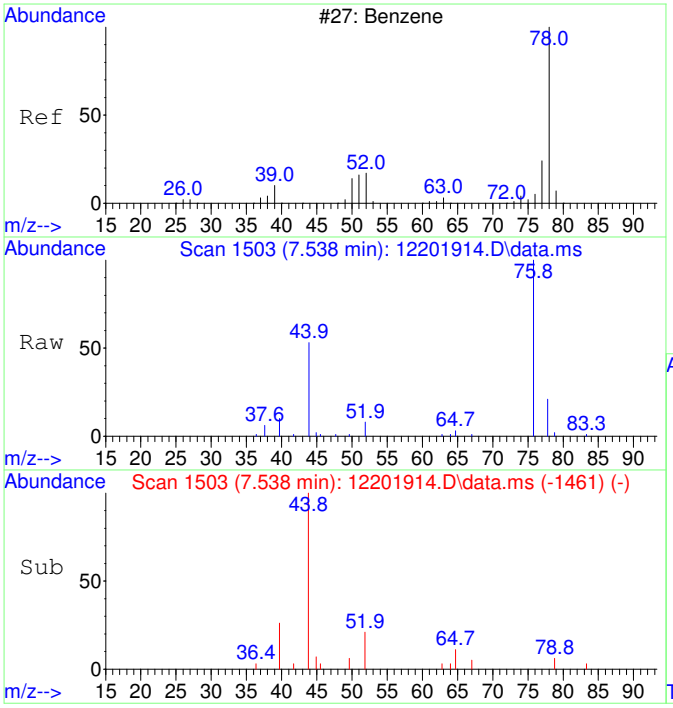


#32
Carbon tetrachloride SCAN
Concen: 46.74 ug/L
RT: 6.979 min Scan# 1457
Delta R.T. -0.207 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 166

Ion	Ratio	Lower	Upper
117	100		
119	0.0	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

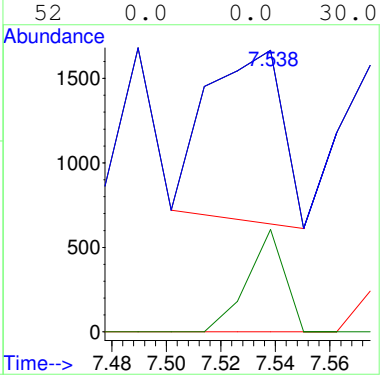


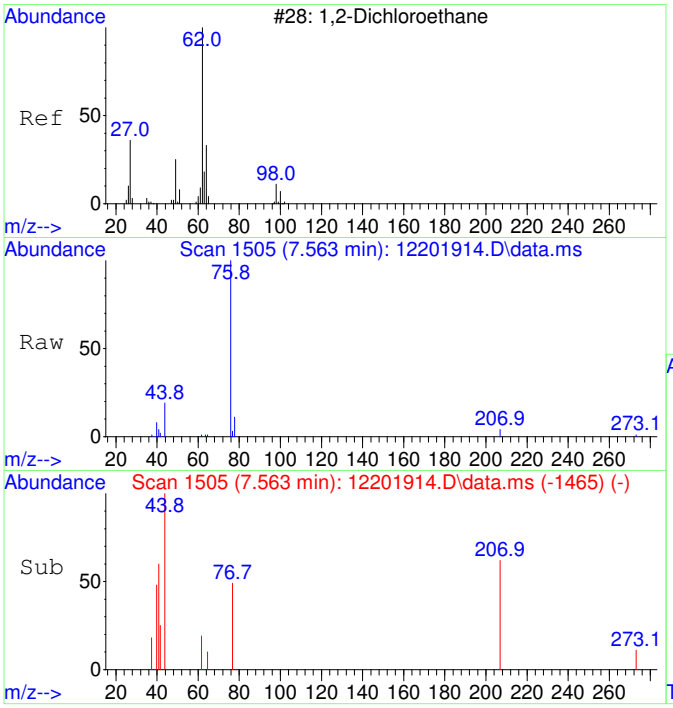


#33
Benzene SCAN
Concen: 175.15 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1905

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	0.0	0.0	30.0

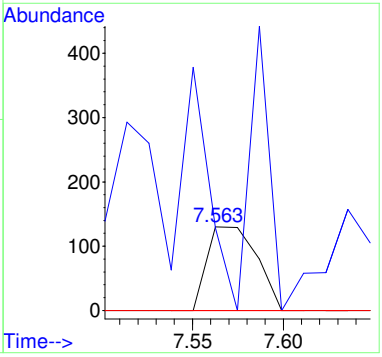


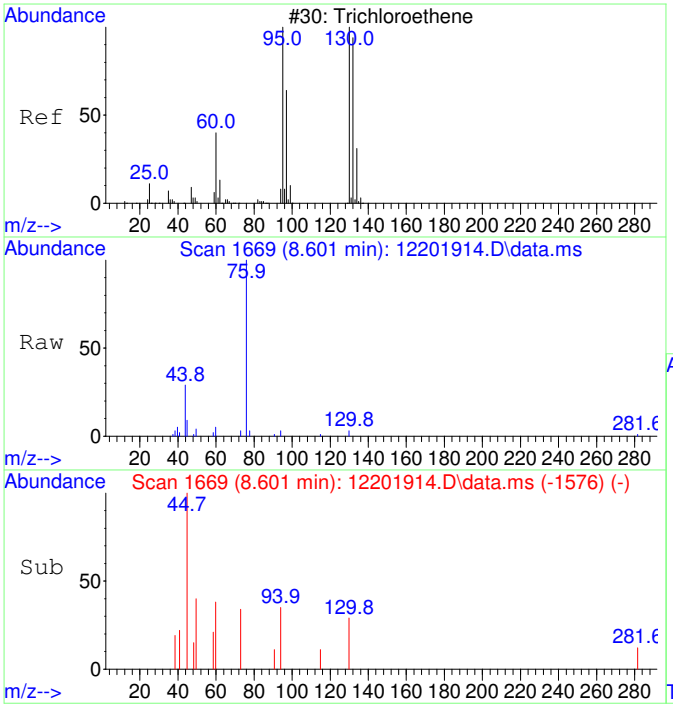


#34
1,2-Dichloroethane SCAN
Concen: 66.59 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 247

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

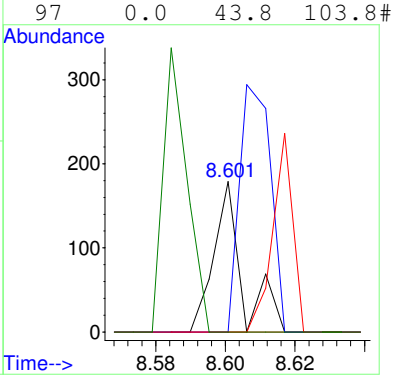


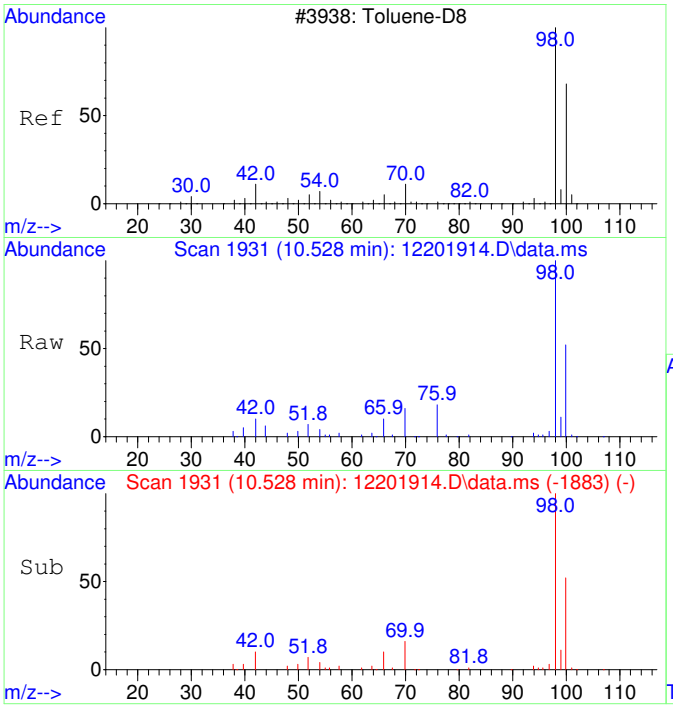


#35
Trichloroethene SCAN
Concen: 36.72 ug/L
RT: 8.601 min Scan# 1669
Delta R.T. 0.005 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 102

Ion	Ratio	Lower	Upper
130	100		
95	179.4	75.7	135.7#
132	92.2	77.1	137.1
97	0.0	43.8	103.8#

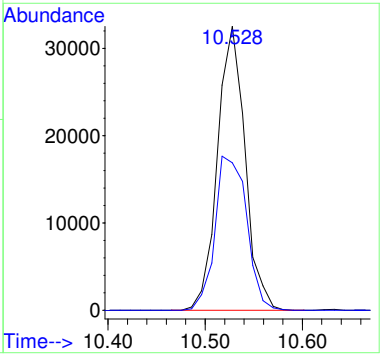


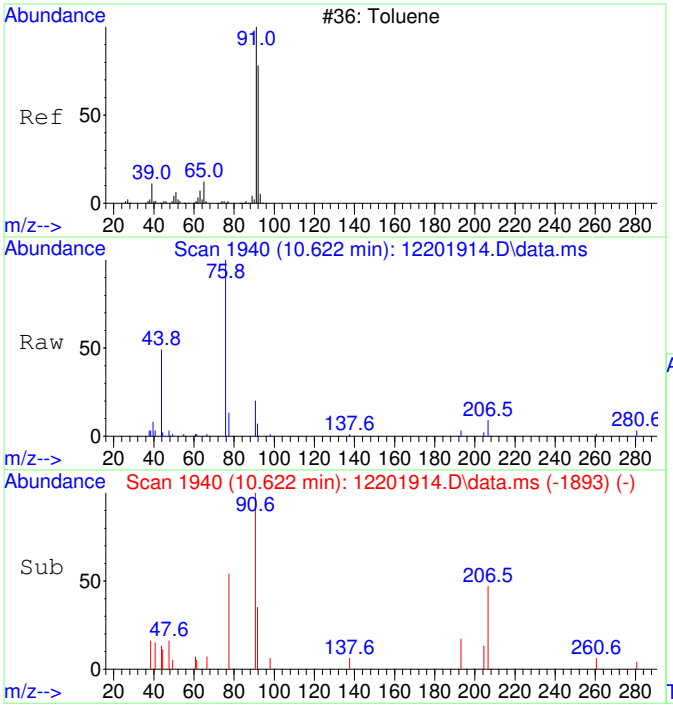


#36
Toluene-d8 SCAN
Concen: 5562.41 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 64030

Ion	Ratio	Lower	Upper
98	100		
100	62.3	44.4	104.4

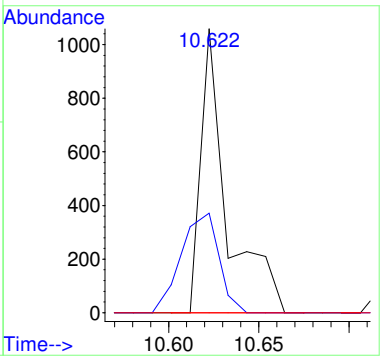


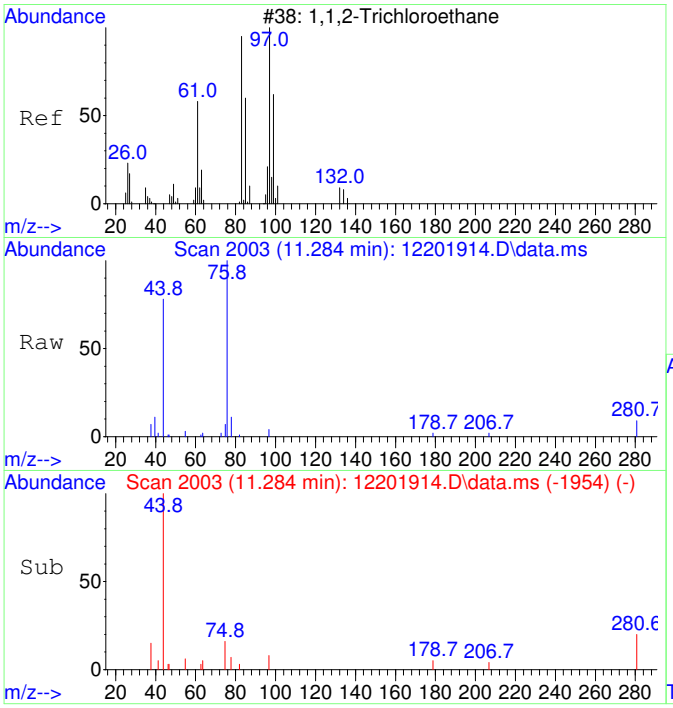


#37
Toluene SCAN
Concen: 79.58 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1070

Ion	Ratio	Lower	Upper
91	100		
92	50.7	31.5	91.5
65	0.0	0.0	30.0

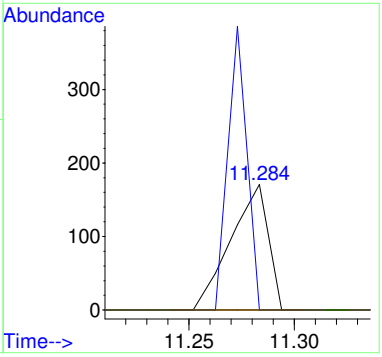


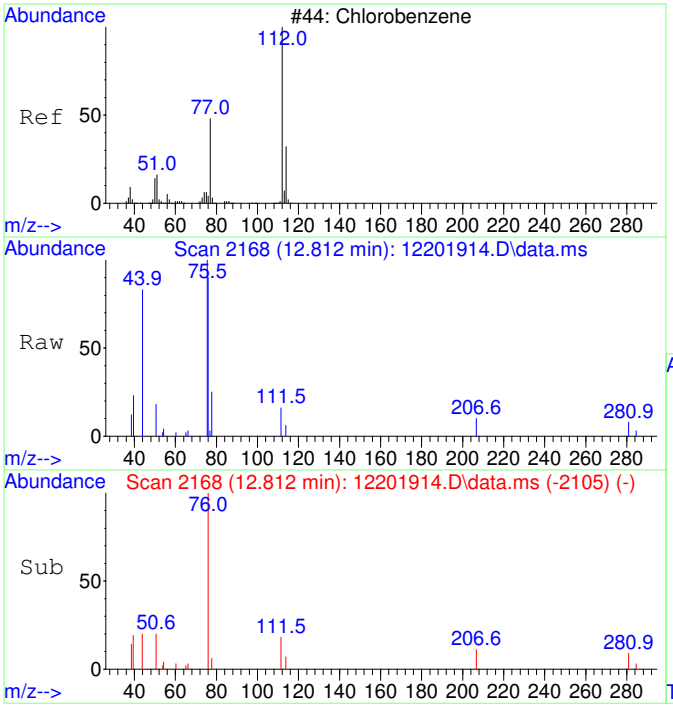


#38
1,1,2-Trichloroethane SCAN
Concen: 72.48 ug/L
RT: 11.284 min Scan# 2003
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 212

Ion	Ratio	Lower	Upper
97	100		
83	114.6	67.7	127.7
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

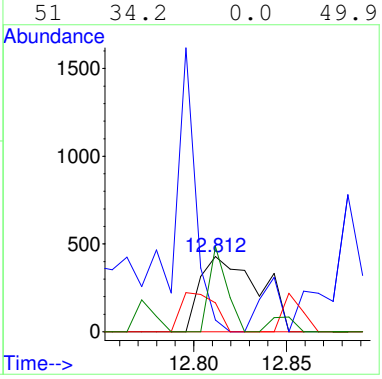


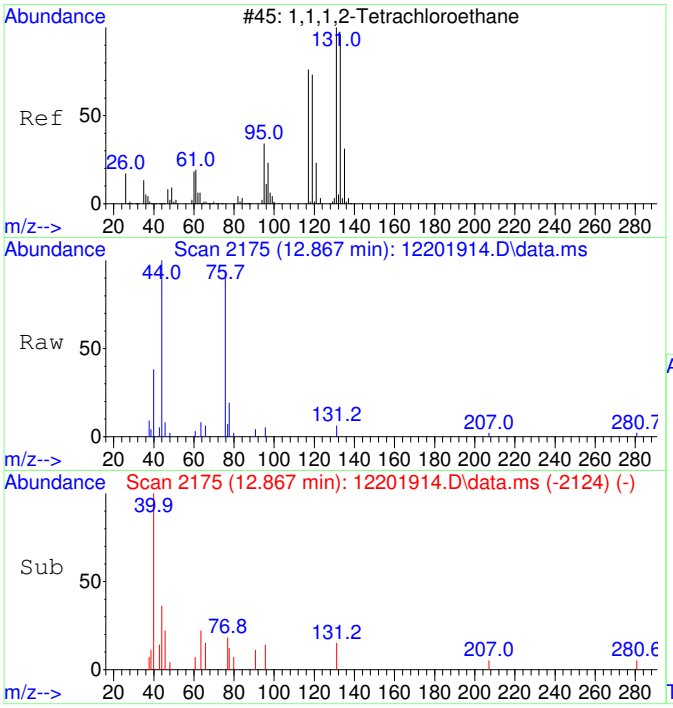


#40
Chlorobenzene SCAN
Concen: 88.31 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 946

Ion	Ratio	Lower	Upper
112	100		
77	99.0	27.8	87.8#
114	30.2	3.1	63.1
51	34.2	0.0	49.9

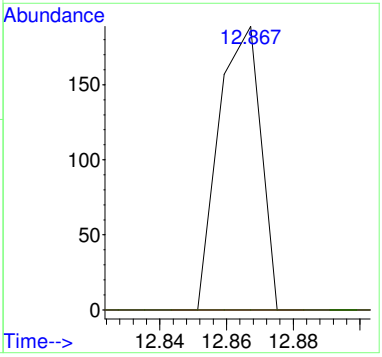


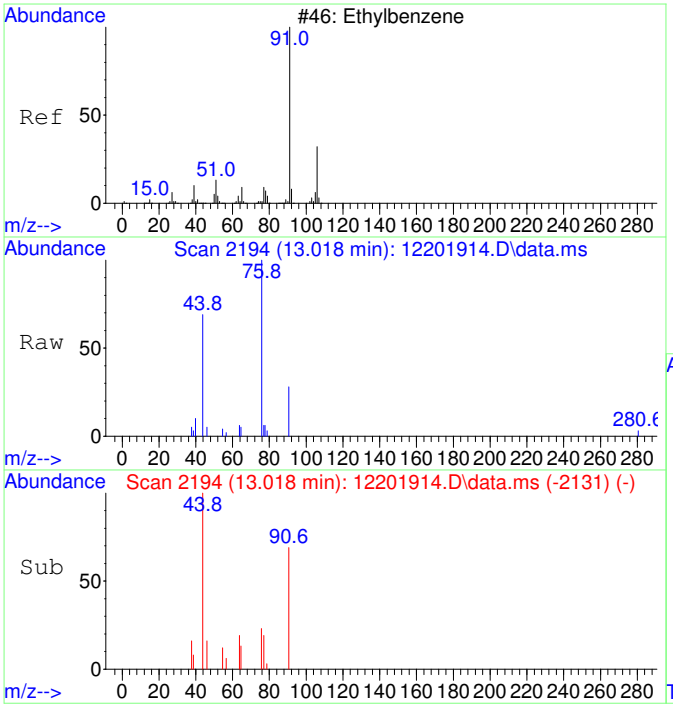


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 47.75 ug/L
RT: 12.867 min Scan# 2175
Delta R.T. -0.096 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 165

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	0.0	38.9	98.9#

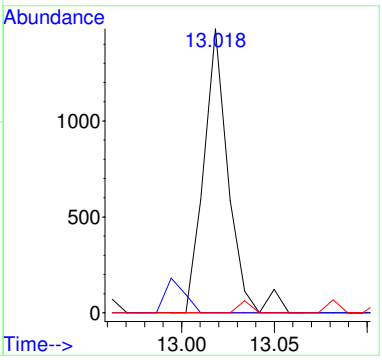


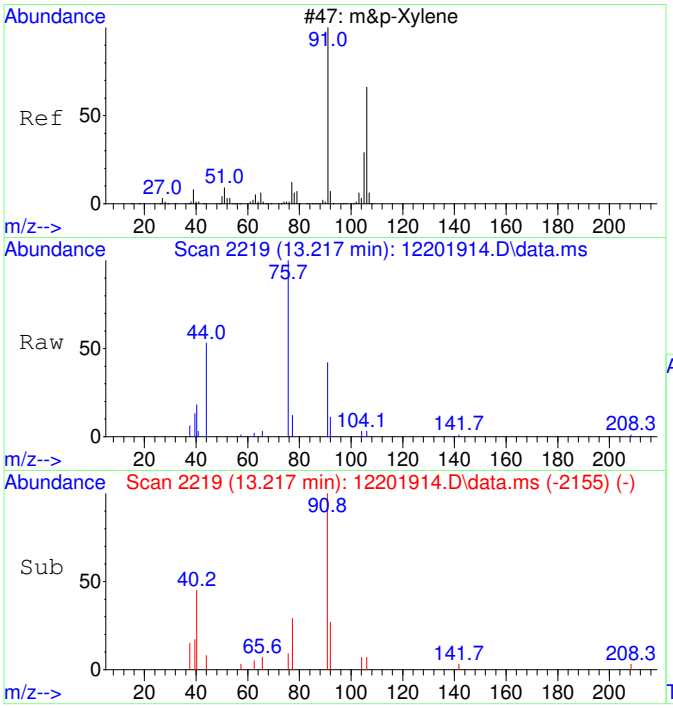


#42
Ethylbenzene SCAN
Concen: 81.12 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1378

Ion	Ratio	Lower	Upper
91	100		
106	0.0	1.3	61.3#
51	0.0	0.0	39.4

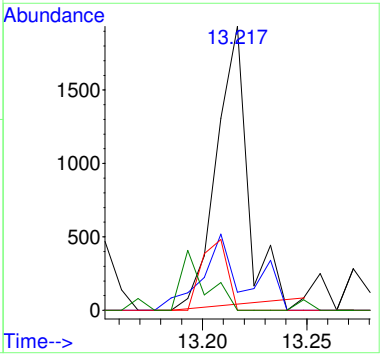


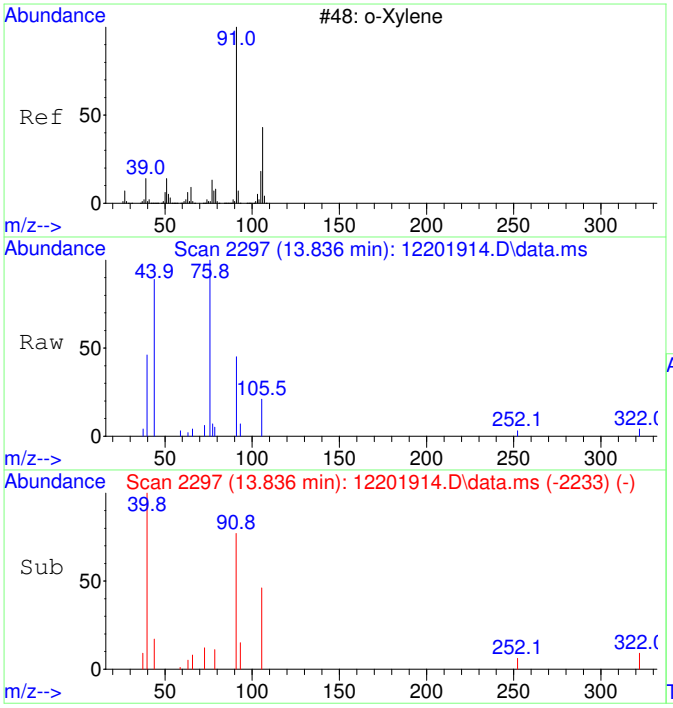


#43
m&p-Xylene SCAN
Concen: 75.76 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1930

Ion	Ratio	Lower	Upper
91	100		
106	38.4	19.0	79.0
105	21.5	0.0	54.9
51	0.0	0.0	41.2

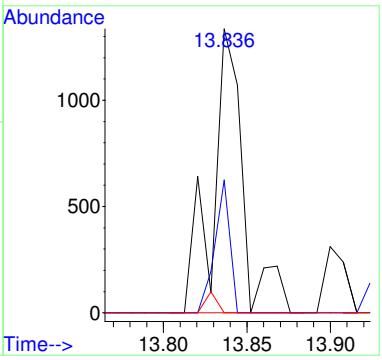


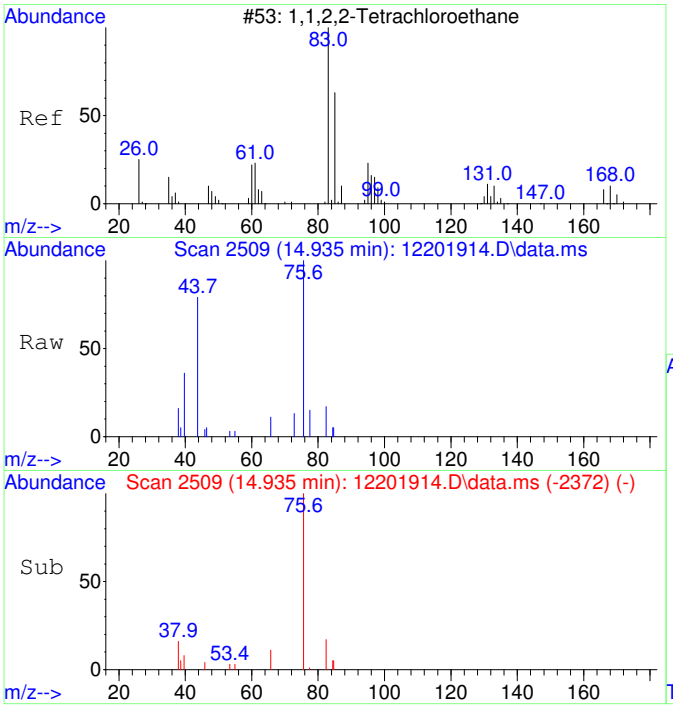


#44
o-Xylene SCAN
Concen: 117.85 ug/L
RT: 13.836 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1702

Ion	Ratio	Lower	Upper
91	100		
106	22.9	17.2	77.2
105	0.0	0.0	57.7

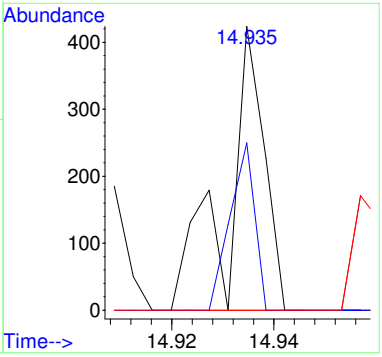


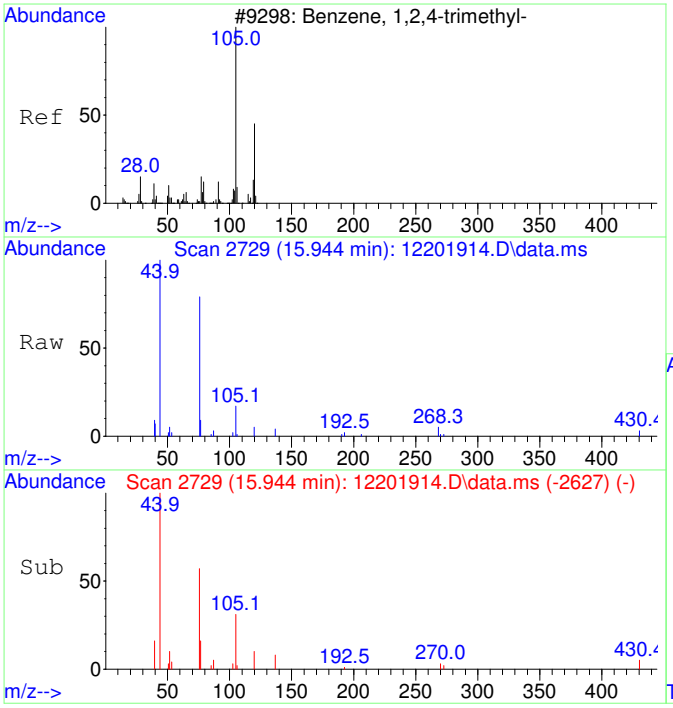


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 32.87 ug/L
RT: 14.935 min Scan# 2509
Delta R.T. 0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 214

Ion	Ratio	Lower	Upper
83	100		
85	39.3	37.2	97.2
95	0.0	0.0	48.7

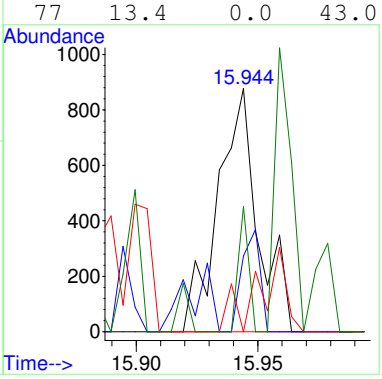


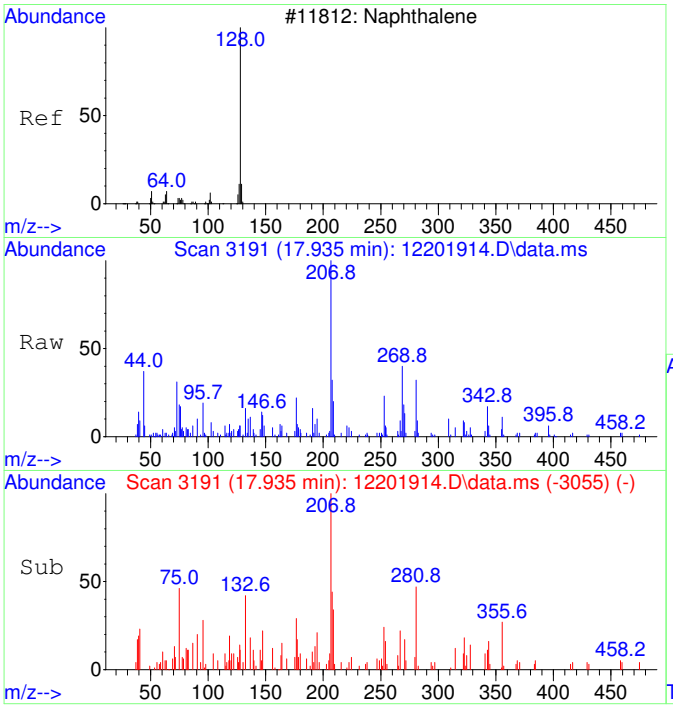


#47
1,2,4-Trimethylbenzene SCAN
Concen: 65.80 ug/L
RT: 15.944 min Scan# 2729
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1008

Ion	Ratio	Lower	Upper
105	100		
120	19.0	15.8	75.8
119	0.0	0.0	42.9
77	13.4	0.0	43.0

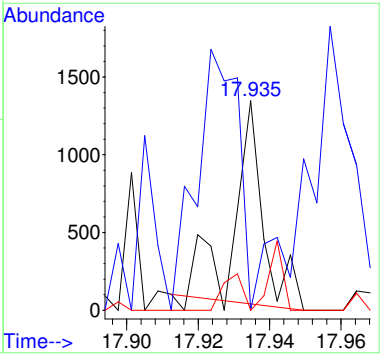




#48
Naphthalene SCAN
Concen: 29.29 ug/L
RT: 17.935 min Scan# 3191
Delta R.T. 0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:128 Resp: 725

Ion	Ratio	Lower	Upper
128	100		
127	155.2	0.0	30.0#
129	12.7	0.0	34.5



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

M.I. Performed By:
TD at 7:57 am, Dec 23, 2019

M.I. Approved By:
ZR at 11:52 am, Dec 26, 2019

Quant Time: Dec 20 15:55:08 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	109429	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	92003	5235.20	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 104.70%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.123	61	224m	47.84	ug/L	
3] trans-1,2-Dichloroethene	4.316	61	230	47.89	ug/L	100
4] 1,1-Dichloroethane	5.066	63	311	50.94	ug/L	88
5] cis-1,2-Dichloroethene	6.088	61	280	49.87	ug/L	94
6] Chloroform	6.664	83	335	51.67	ug/L	91
7] 1,1,1-Trichloroethane	6.931	97	348	53.55	ug/L	96
8] Carbon tetrachloride	7.199	117	311	50.43	ug/L	99
9] Benzene	7.527	78	1109	67.86	ug/L	81
10] 1,2-Dichloroethane	7.564	62	262	48.84	ug/L	84
11] Trichloroethene	8.602	130	265	52.85	ug/L	91
13] Toluene	10.624	91	1329	62.34	ug/L	98
14] 1,1,2-Trichloroethane	11.274	97	264	54.65	ug/L	100
15] Tetrachloroethene	11.474	166	339	52.69	ug/L	75
16] Chlorobenzene	12.813	112	876	53.81	ug/L	89
17] 1,1,1,2-Tetrachloroethane	12.964	131	330	58.09	ug/L	83
18] Ethylbenzene	13.019	91	1708	64.93	ug/L	96
19] m&p-Xylene	13.210	91	2547	127.06	ug/L	96
20] o-Xylene	13.830	91	1267	59.60	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.925	83	507	53.12	ug/L	99
22] 1,3,5-Trimethylbenzene	15.394	105	1571	66.33	ug/L	99
23] 1,2,4-Trimethylbenzene	15.940	105	1690	69.81	ug/L	100
25) 2-Fluorotoluene SCAN	11.021	109	73597	5420.93	ug/L	98
26) 1,1-Dichloroethene SCAN	3.114	61	129	43.36	ug/L #	24
27) trans-1,2-Dichloroethe...	4.321	61	228	80.89	ug/L #	40
28) 1,1-Dichloroethane SCAN	5.058	63	355	84.16	ug/L #	47
29) cis-1,2-Dichloroethene...	6.086	61	211	62.45	ug/L #	58
30) Chloroform SCAN	6.699	83	278	77.06	ug/L #	22
32) Carbon tetrachloride SCAN	6.979	117	166	46.74	ug/L #	17
33) Benzene SCAN	7.538	78	1905	175.15	ug/L #	95
34) 1,2-Dichloroethane SCAN	7.563	62	247	66.59	ug/L #	36
35) Trichloroethene SCAN	8.601	130	102	36.72	ug/L #	46
36) Toluene-d8 SCAN	10.528	98	64030	5562.41	ug/L	86
37) Toluene SCAN	10.622	91	1070	79.58	ug/L #	86
38) 1,1,2-Trichloroethane ...	11.284	97	212	72.48	ug/L #	46
40) Chlorobenzene SCAN	12.812	112	946	88.31	ug/L #	64
41) 1,1,1,2-Tetrachloroeth...	12.867	131	165	47.75	ug/L #	8
42) Ethylbenzene SCAN	13.018	91	1378	81.12	ug/L #	50
43) m&p-Xylene SCAN	13.217	91	1930	75.76	ug/L #	85
44) o-Xylene SCAN	13.836	91	1702	117.85	ug/L #	58
45) 1,1,2,2-Tetrachloroeth...	14.935	83	214	32.87	ug/L #	64
47) 1,2,4-Trimethylbenzene...	15.944	105	1008	65.80	ug/L #	68
48) Naphthalene SCAN	17.935	128	725	29.29	ug/L #	75

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201914.D
Acq On : 20 Dec 2019 15:36
InstName : AG5975C
Operator : RH
Sample : B19L093-MRL2
Misc :
ALS Vial : 14 Sample Multiplier: 1

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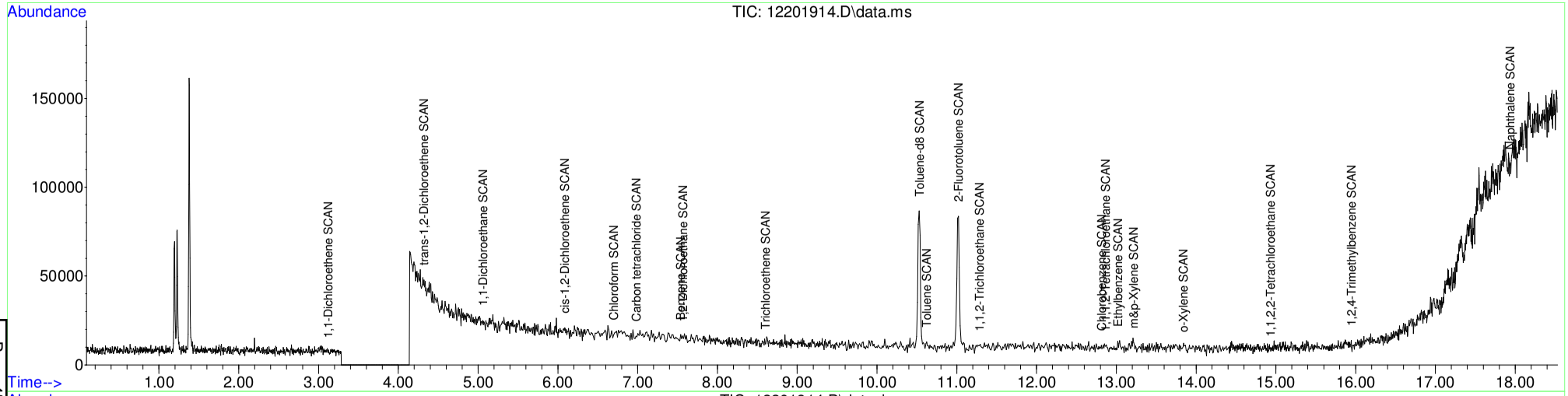
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



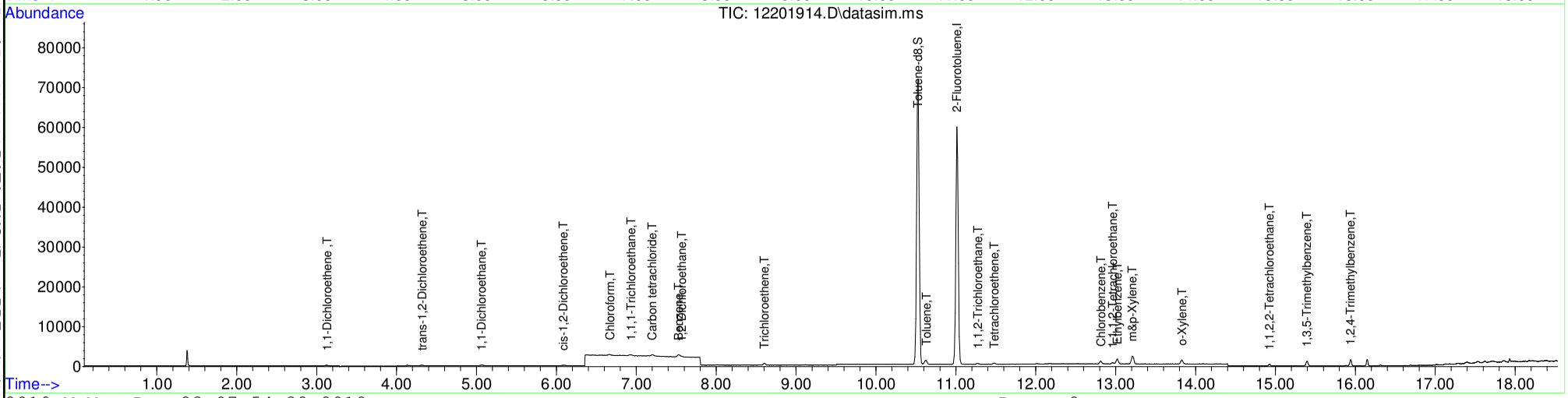
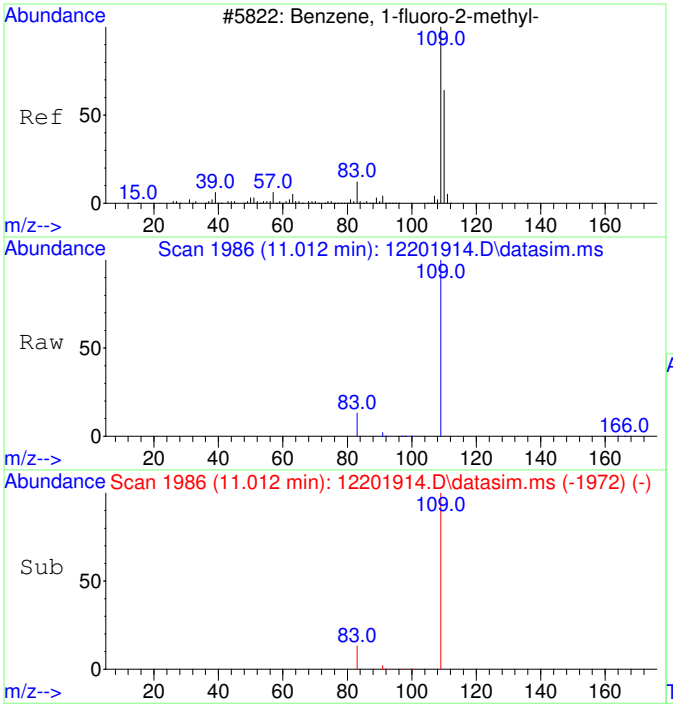


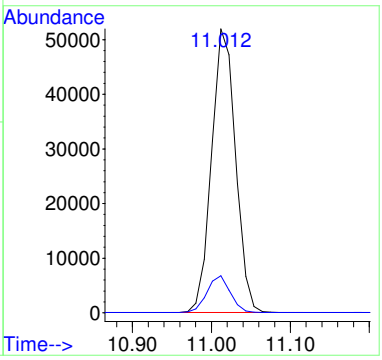
Table of Contents

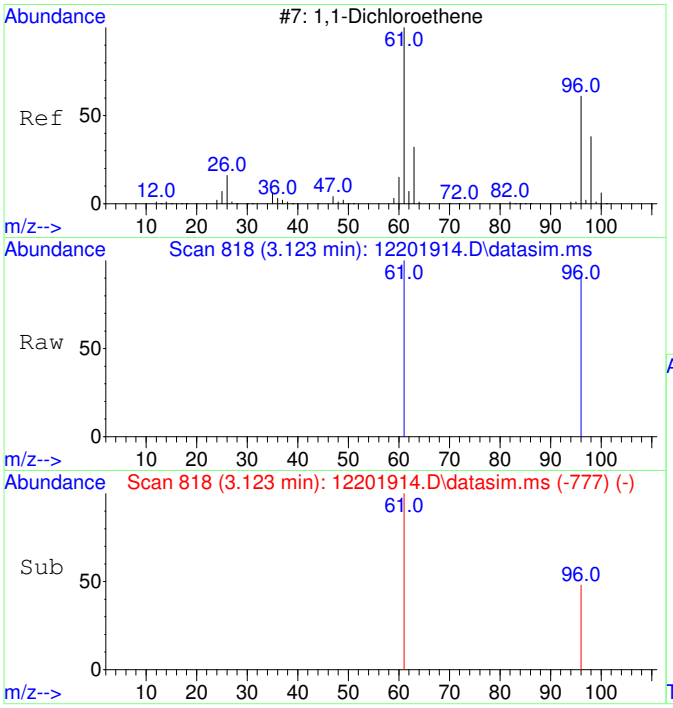


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 109429

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

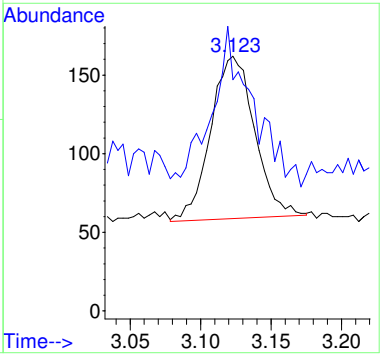


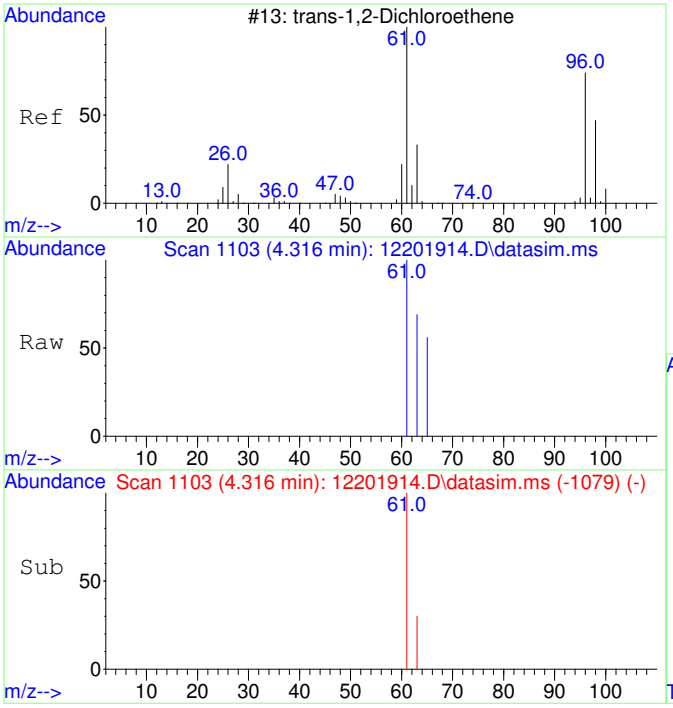


#2
1,1-Dichloroethene
Concen: 47.84 ug/L m
RT: 3.123 min Scan# 818
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 224

Ion	Ratio	Lower	Upper
61	100		
96	93.3	33.5	93.5

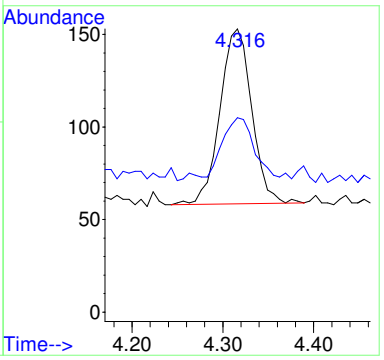


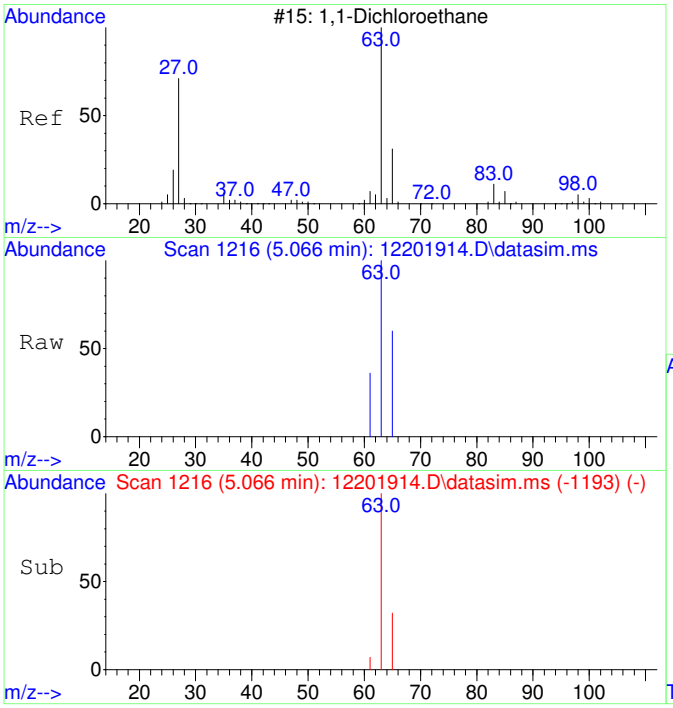


#3
trans-1,2-Dichloroethene
Concen: 47.89 ug/L
RT: 4.316 min Scan# 1103
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 230

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.3	62.3

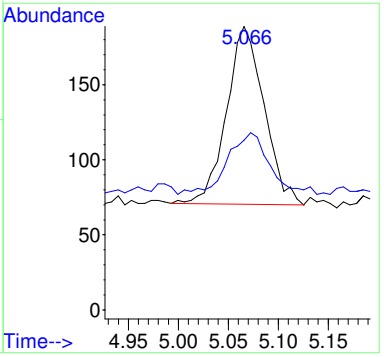


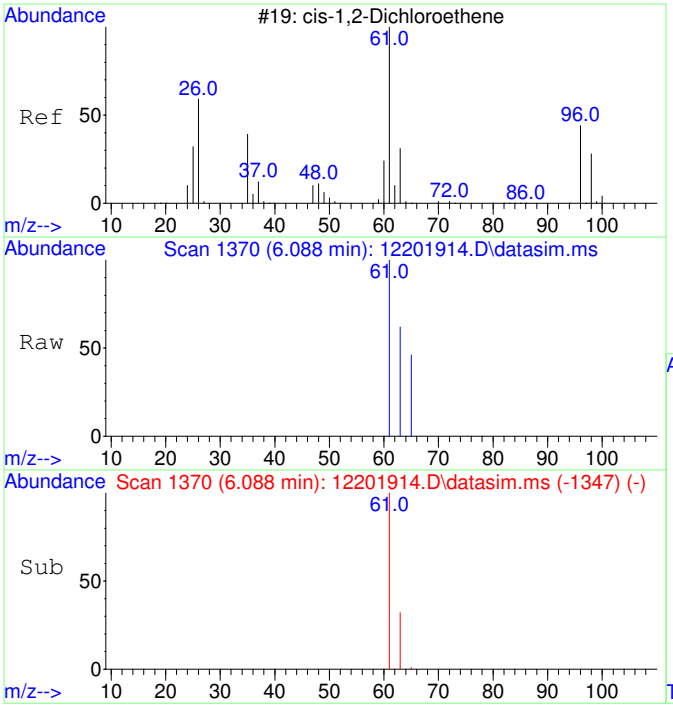


#4
1,1-Dichloroethane
Concen: 50.94 ug/L
RT: 5.066 min Scan# 1216
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 311

Ion	Ratio	Lower	Upper
63	100		
65	38.6	1.9	61.9

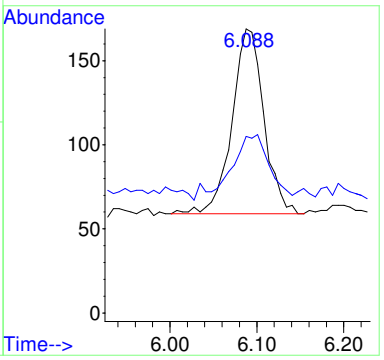


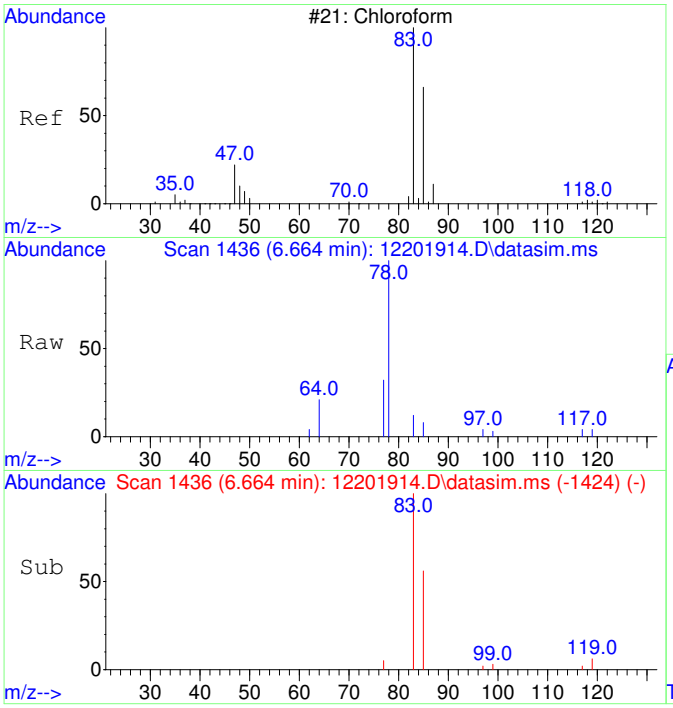


#5
cis-1,2-Dichloroethene
Concen: 49.87 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 280

Ion	Ratio	Lower	Upper
61	100		
63	36.1	2.5	62.5

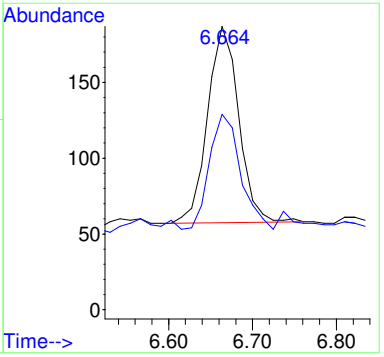


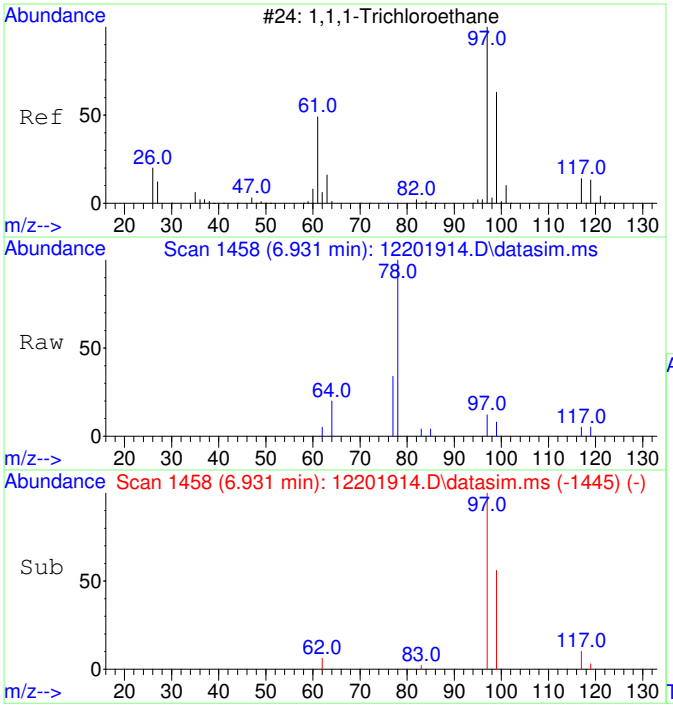


#6
Chloroform
Concen: 51.67 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 335

Ion	Ratio	Lower	Upper
83	100		
85	57.9	35.0	95.0

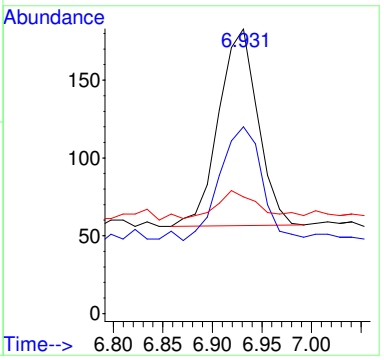


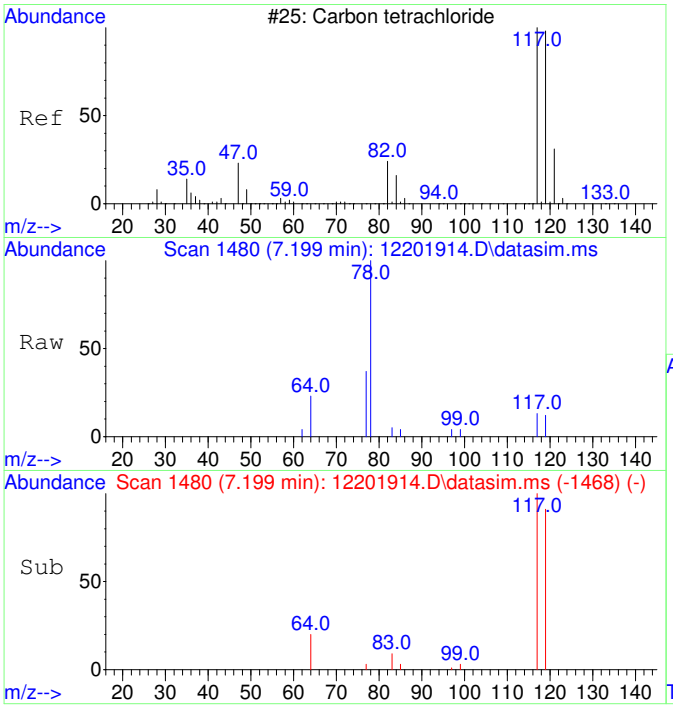


#7
1,1,1-Trichloroethane
Concen: 53.55 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 348

Ion	Ratio	Lower	Upper
97	100		
99	60.9	34.4	94.4
117	13.8	0.0	43.0

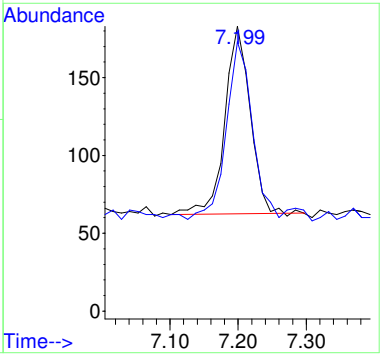


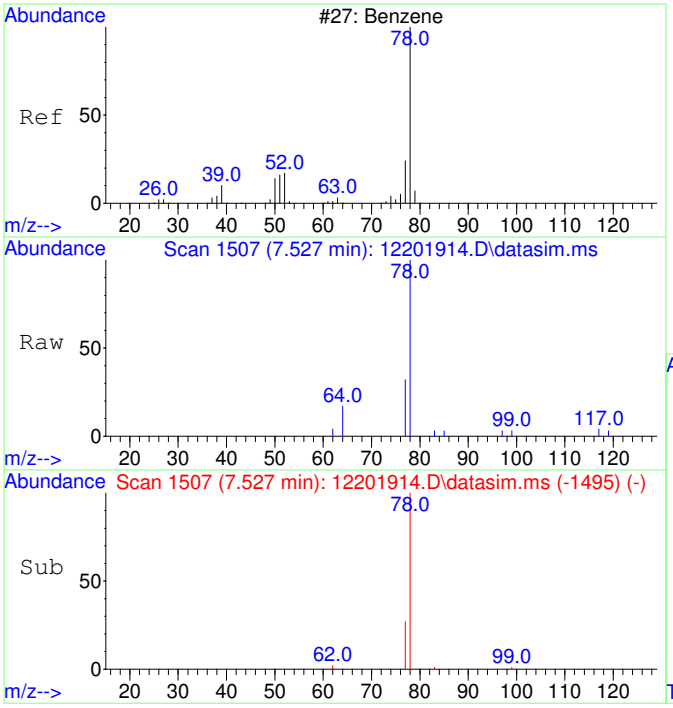


#8
Carbon tetrachloride
Concen: 50.43 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 311

Ion	Ratio	Lower	Upper
117	100		
119	95.5	66.5	126.5

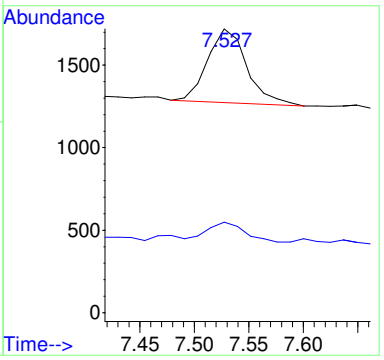


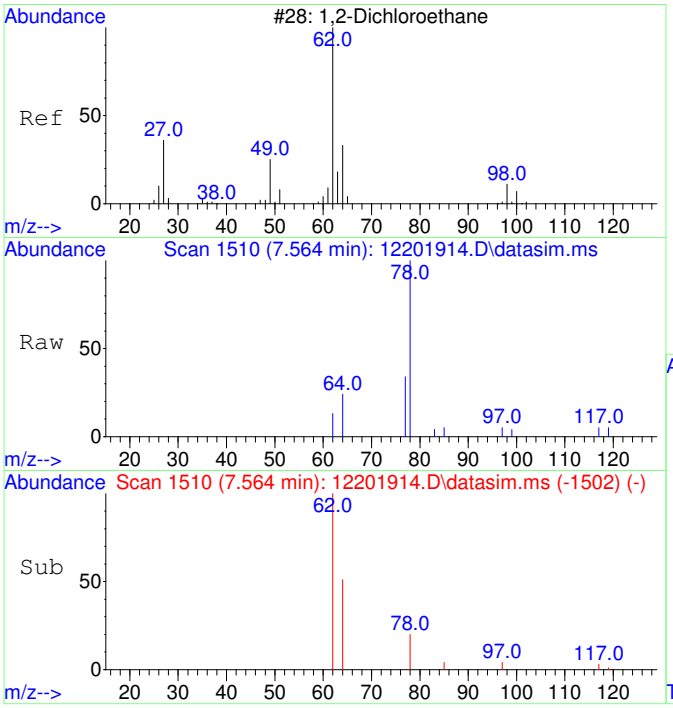


#9
Benzene
Concen: 67.86 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1109

Ion	Ratio	Lower	Upper
78	100		
77	32.6	0.0	53.5

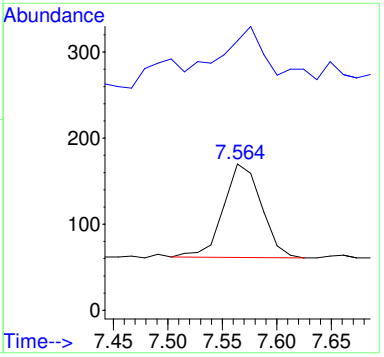


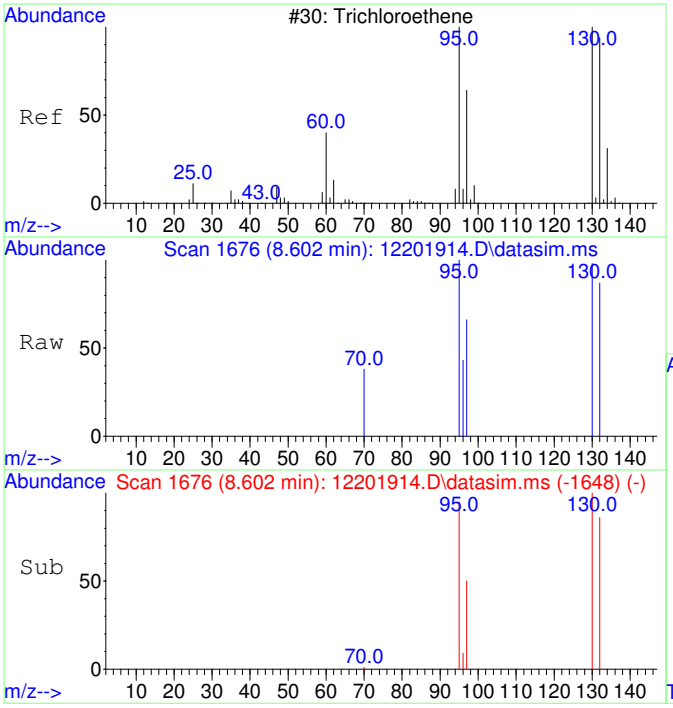


#10
1,2-Dichloroethane
Concen: 48.84 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 262

Ion	Ratio	Lower	Upper
62	100		
64	41.6	2.4	62.4

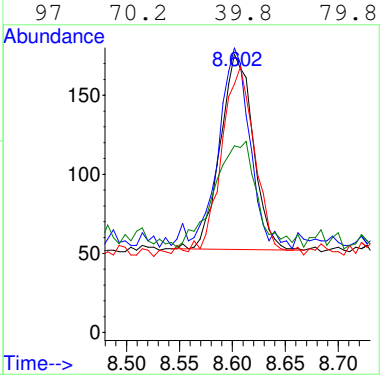


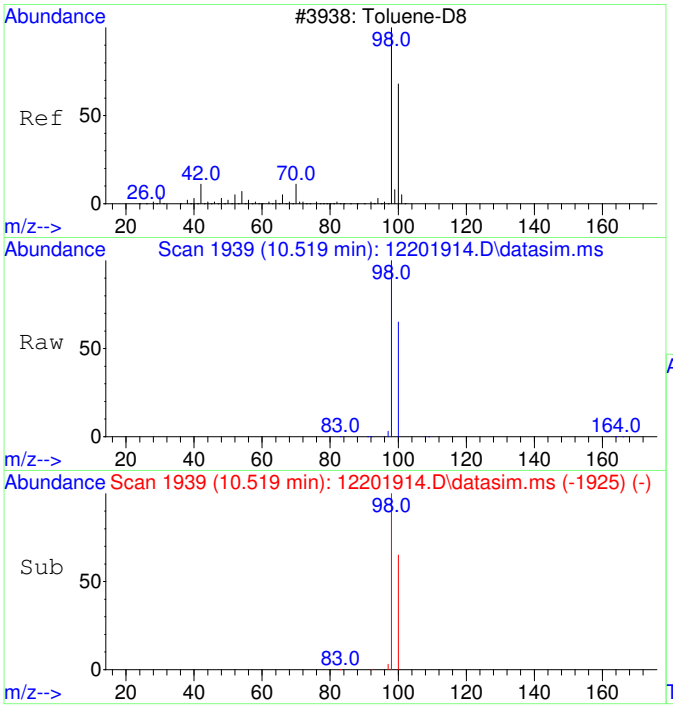


#11
Trichloroethene
Concen: 52.85 ug/L
RT: 8.602 min Scan# 1676
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 265

Ion	Ratio	Lower	Upper
130	100		
95	98.1	62.3	122.3
132	103.4	75.8	115.8
97	70.2	39.8	79.8

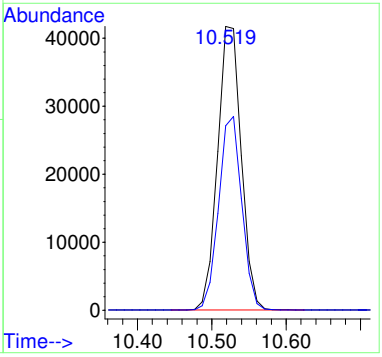


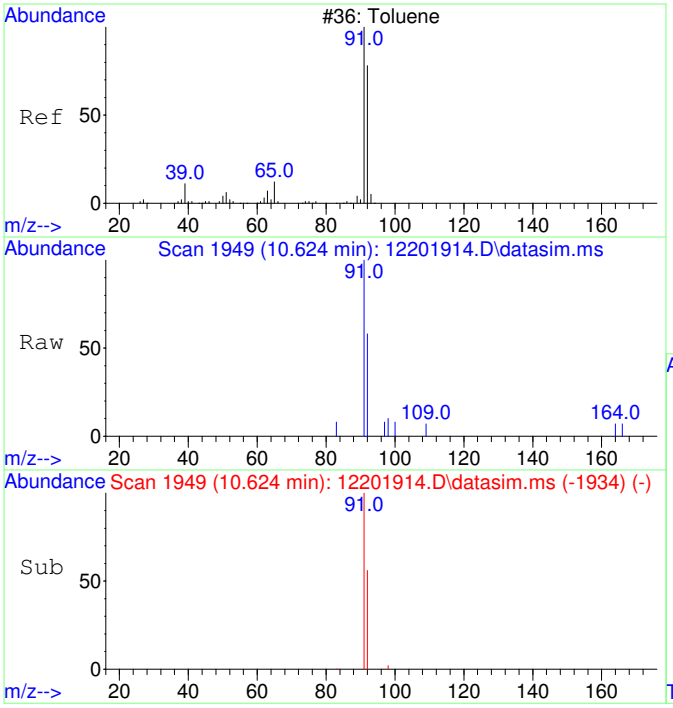


#12
Toluene-d8
Concen: 5235.20 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 92003

Ion	Ratio	Lower	Upper
98	100		
100	66.7	36.2	96.2

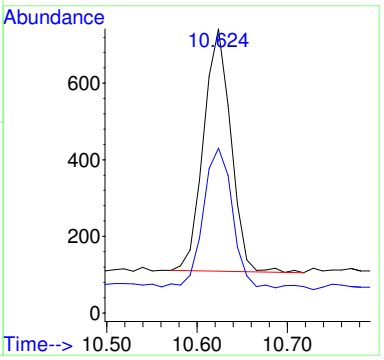


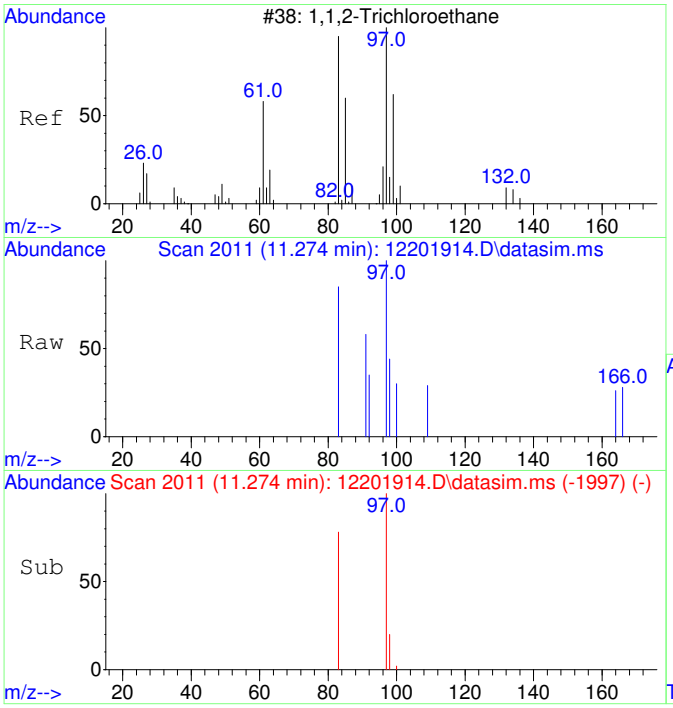


#13
Toluene
Concen: 62.34 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1329

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.4	89.4

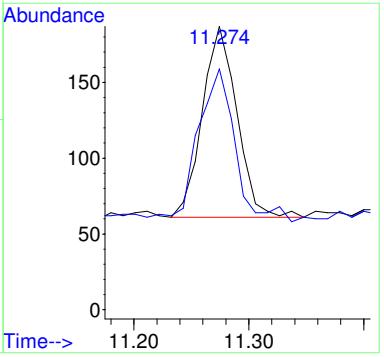


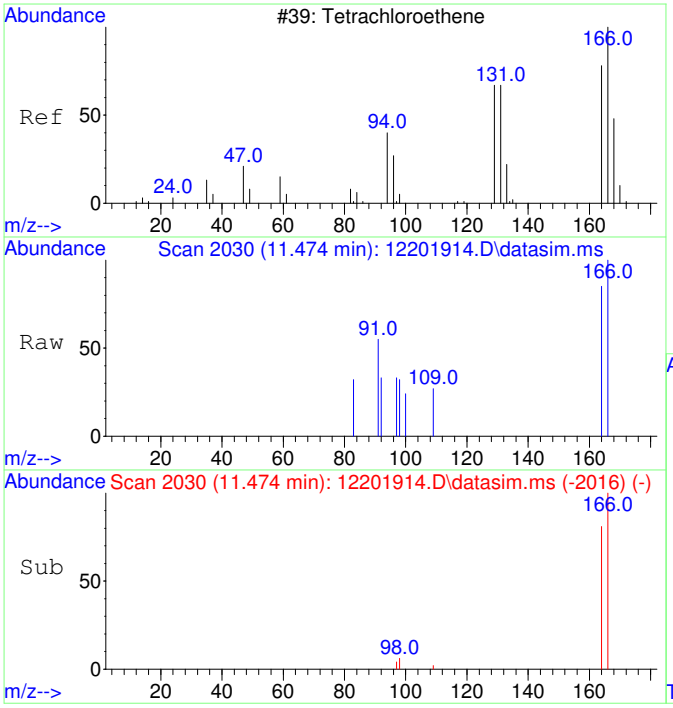


#14
1,1,2-Trichloroethane
Concen: 54.65 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 264

Ion	Ratio	Lower	Upper
97	100		
83	82.2	52.5	112.5

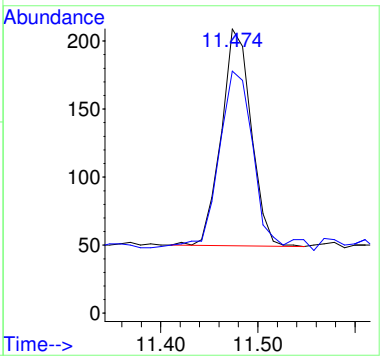


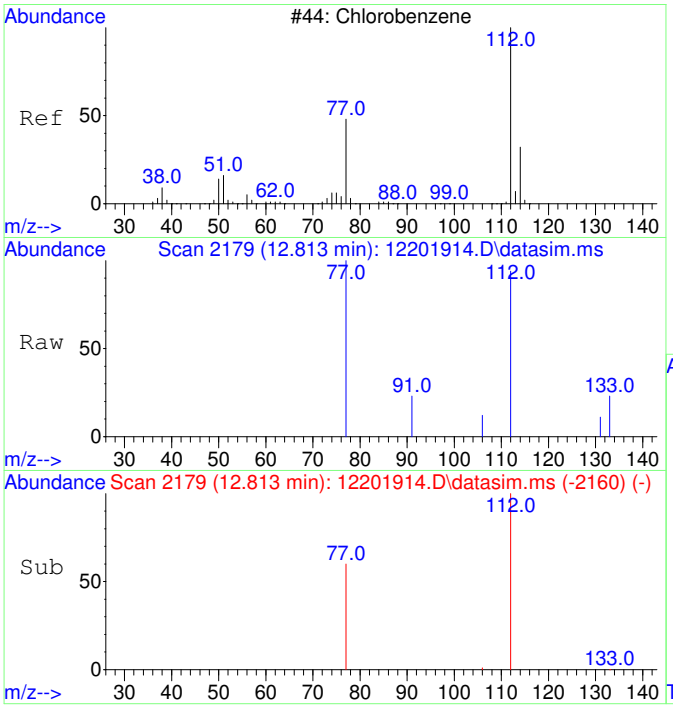


#15
Tetrachloroethene
Concen: 52.69 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:166 Resp: 339

Ion	Ratio	Lower	Upper
166	100		
164	99.1	47.6	107.6

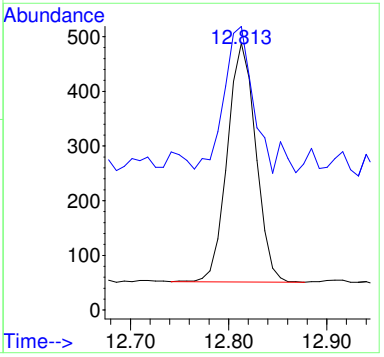


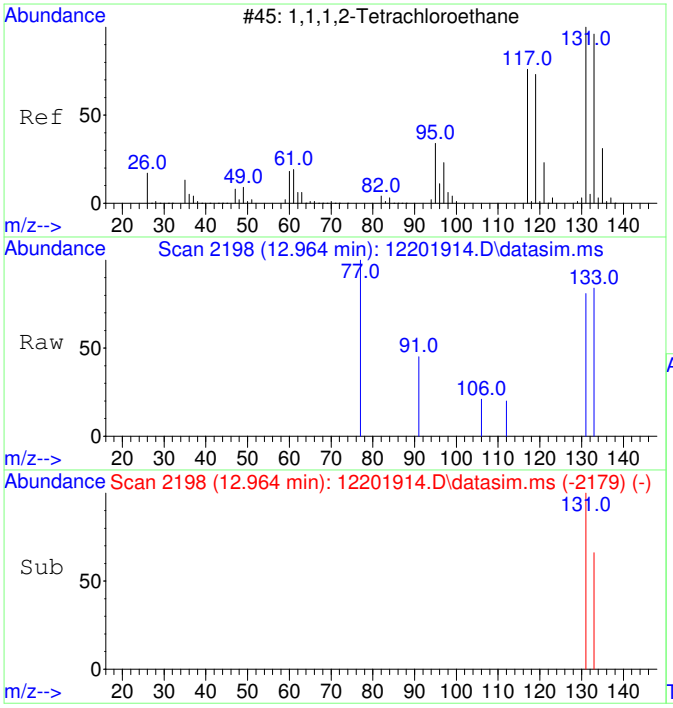


#16
Chlorobenzene
Concen: 53.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 876

Ion	Ratio	Lower	Upper
112	100		
77	62.2	24.2	84.2

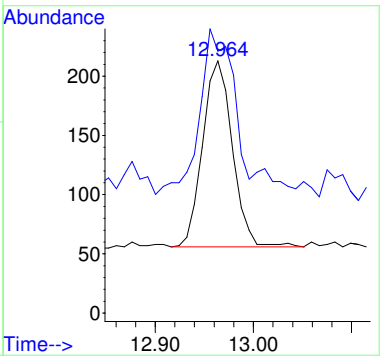


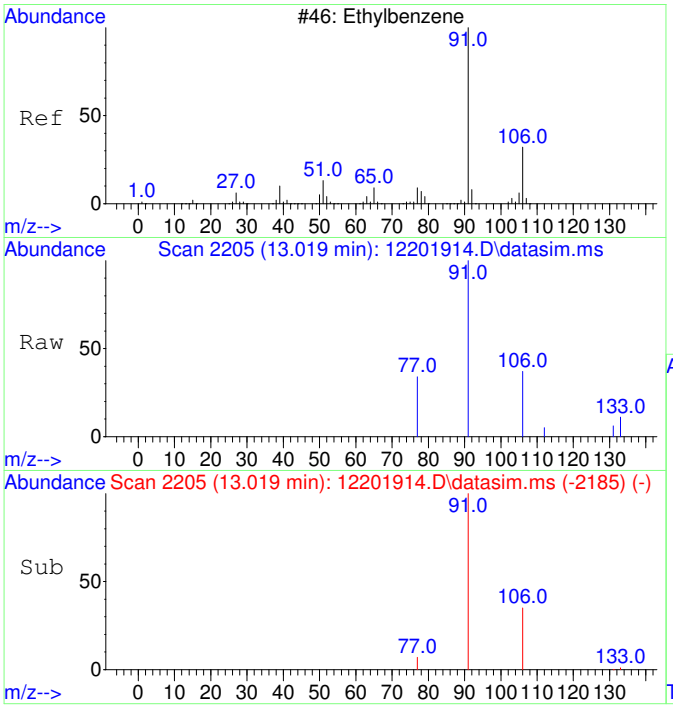


#17
1,1,1,2-Tetrachloroethane
Concen: 58.09 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 330

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.0	126.0

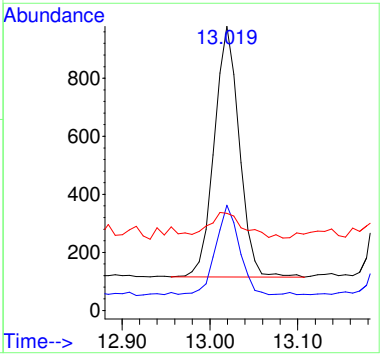


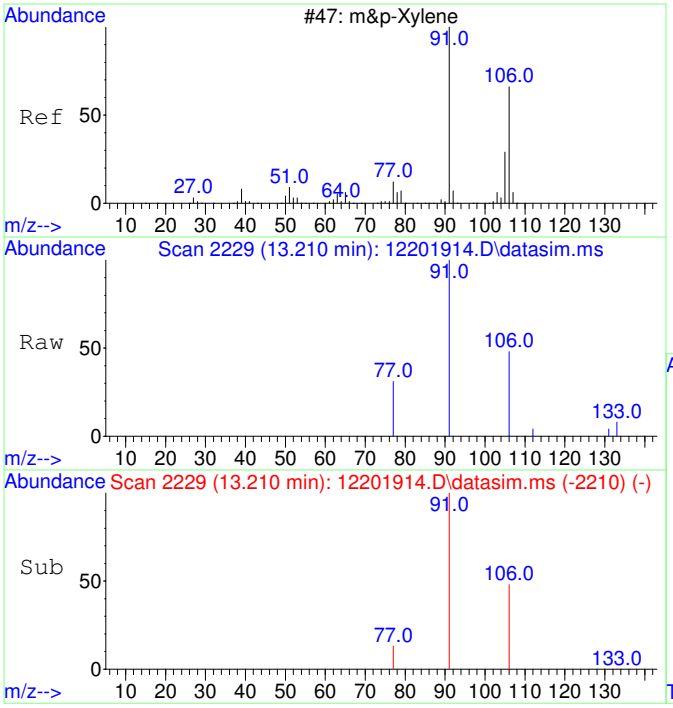


#18
Ethylbenzene
Concen: 64.93 ug/L
RT: 13.019 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1708

Ion	Ratio	Lower	Upper
91	100		
106	32.9	2.5	62.5
77	13.8	0.0	38.2

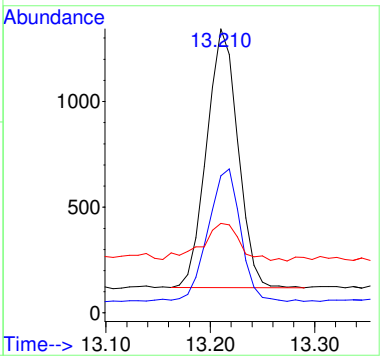


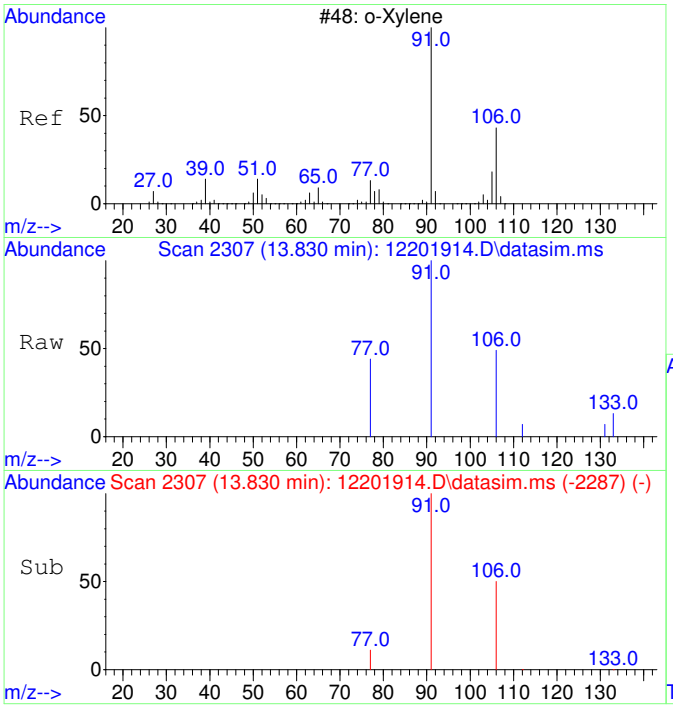


#19
m&p-Xylene
Concen: 127.06 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 2547

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.6	81.6
77	17.6	0.0	42.6

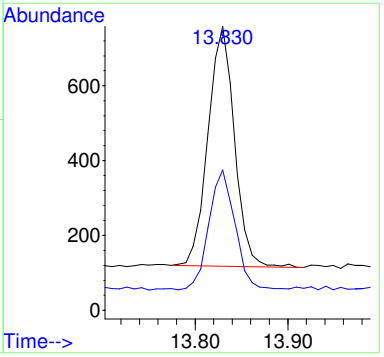


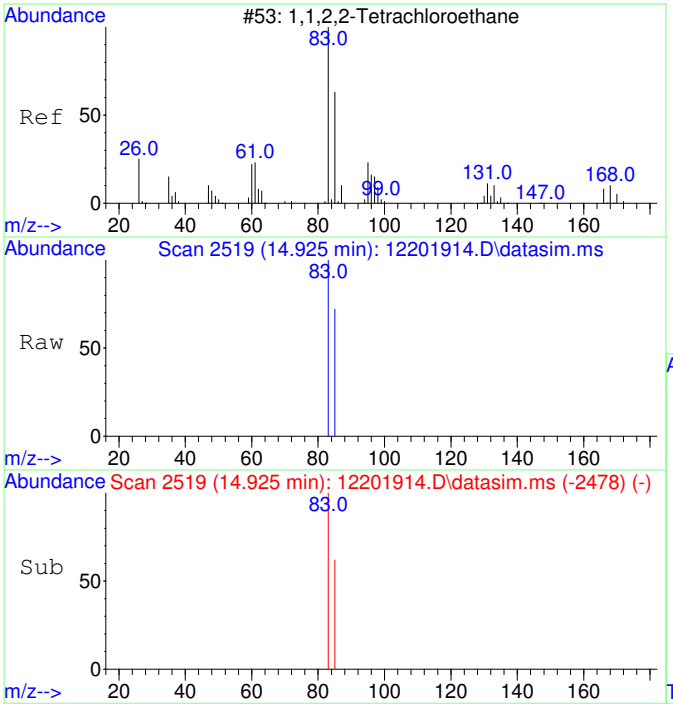


#20
o-Xylene
Concen: 59.60 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1267

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.5	78.5

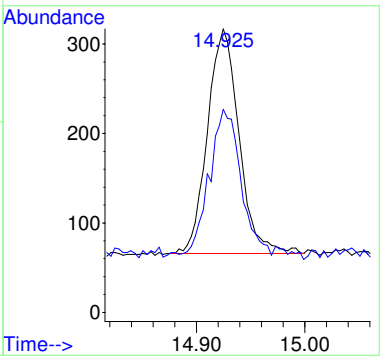


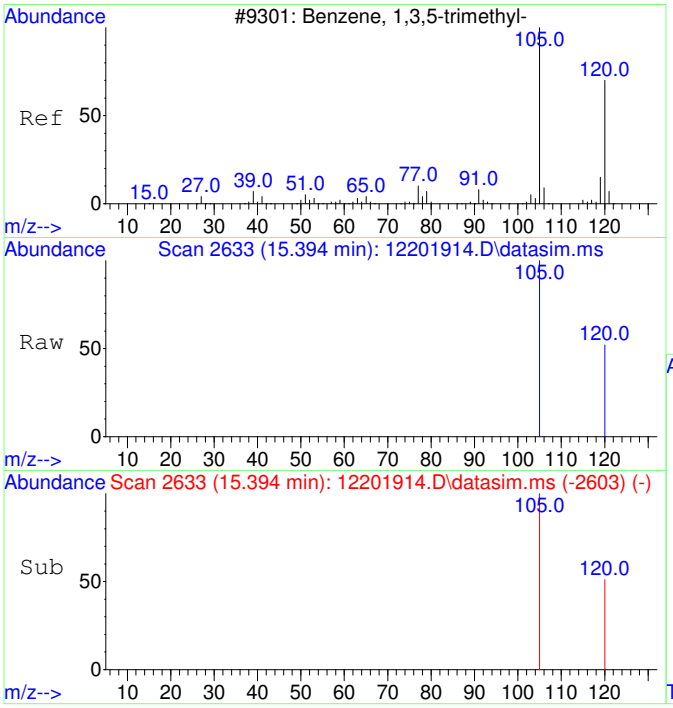


#21
1,1,2,2-Tetrachloroethane
Concen: 53.12 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.003 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 507

Ion	Ratio	Lower	Upper
83	100		
85	63.9	34.7	94.7

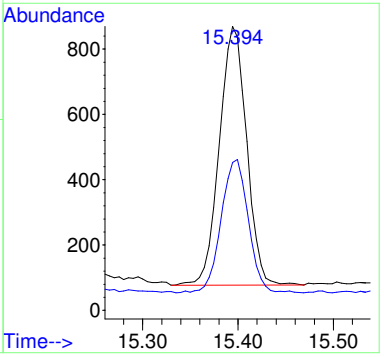


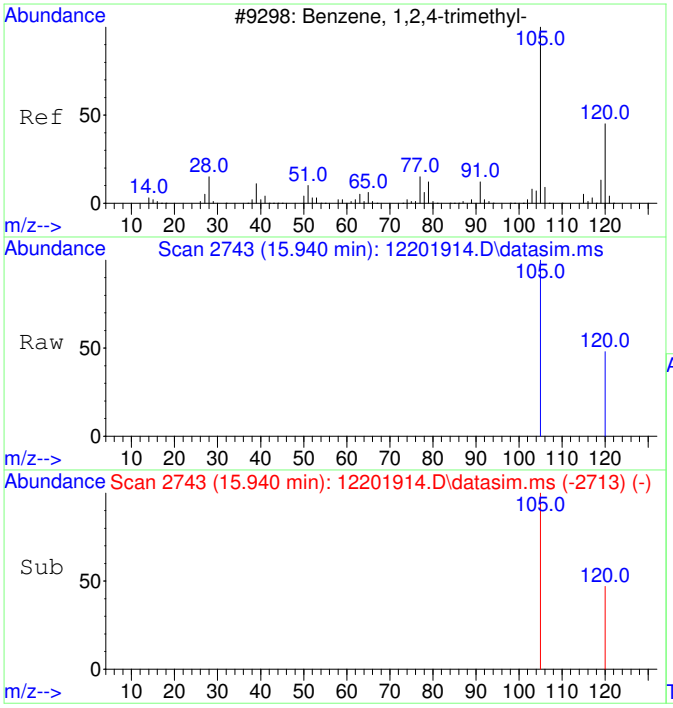


#22
1,3,5-Trimethylbenzene
Concen: 66.33 ug/L
RT: 15.394 min Scan# 2633
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1571

Ion	Ratio	Lower	Upper
105	100		
120	51.4	20.7	80.7

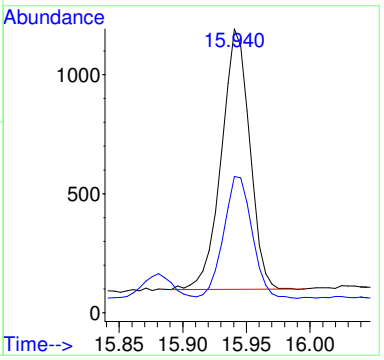


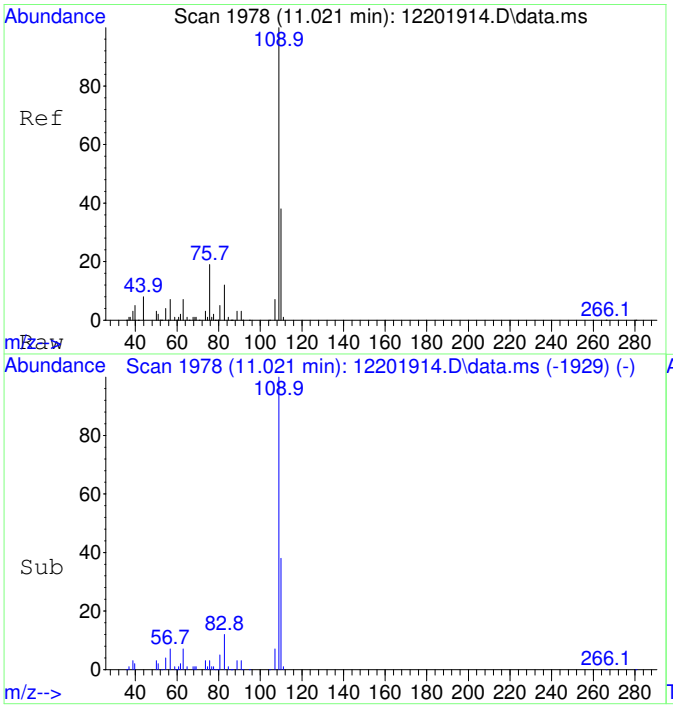


#23
1,2,4-Trimethylbenzene
Concen: 69.81 ug/L
RT: 15.940 min Scan# 2743
Delta R.T. 0.001 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1690

Ion	Ratio	Lower	Upper
105	100		
120	46.4	16.6	76.6

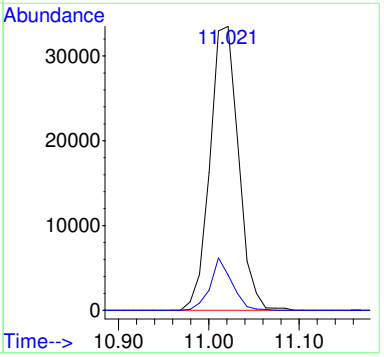


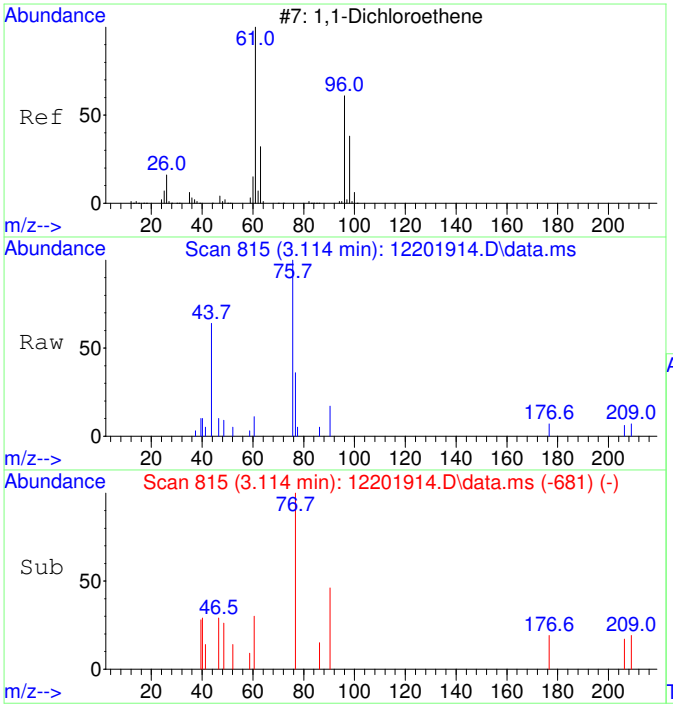


#25
2-Fluorotoluene SCAN
Concen: 5420.93 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:109 Resp: 73597

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	44.7

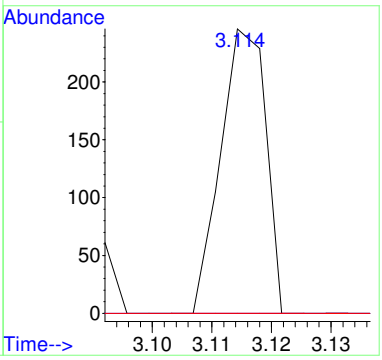


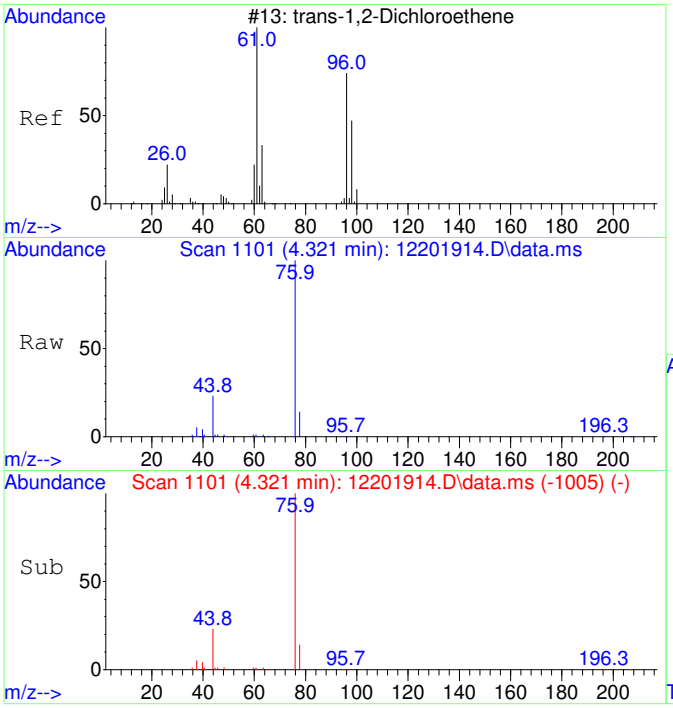


#26
1,1-Dichloroethene SCAN
Concen: 43.36 ug/L
RT: 3.114 min Scan# 815
Delta R.T. -0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 129

Ion	Ratio	Lower	Upper
61	100		
96	0.0	34.8	94.8#
98	0.0	12.9	72.9#

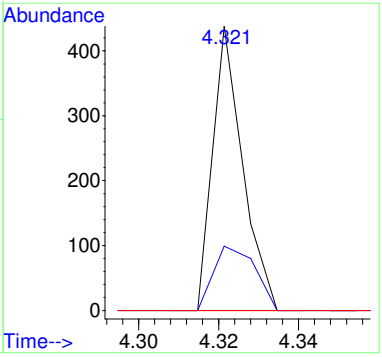


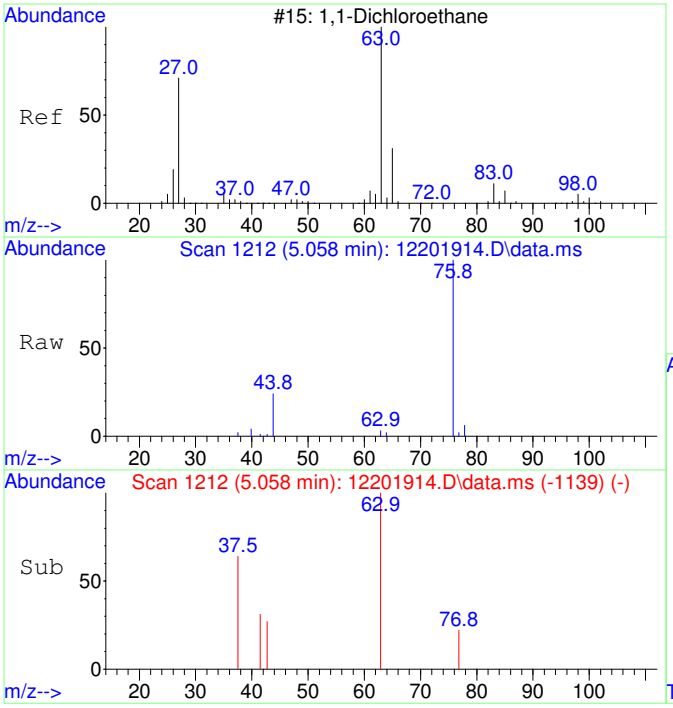


#27
trans-1,2-Dichloroethene SCAN
Concen: 80.89 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 228

Ion	Ratio	Lower	Upper
61	100		
96	31.1	42.7	102.7#
98	0.0	23.4	83.4#

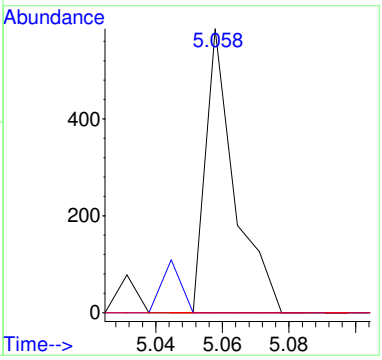


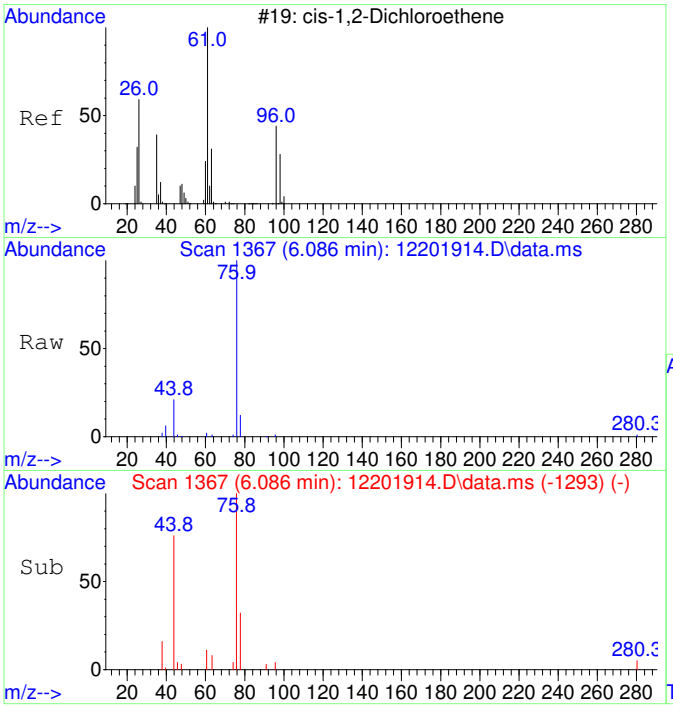


#28
1,1-Dichloroethane SCAN
Concen: 84.16 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.013 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 63 Resp: 355

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.7
83	0.0	0.0	31.2

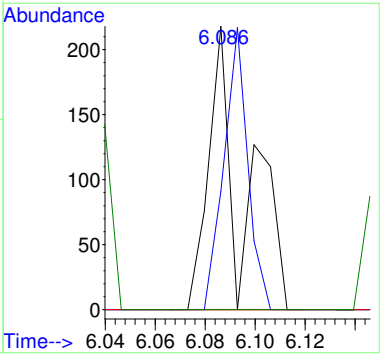


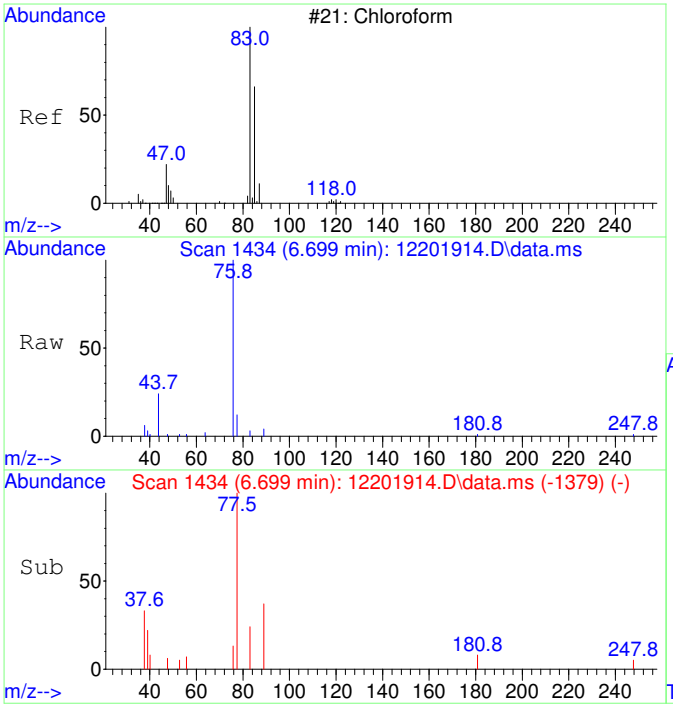


#29
cis-1,2-Dichloroethene SCAN
Concen: 62.45 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 61 Resp: 211

Ion	Ratio	Lower	Upper
61	100		
96	68.2	46.1	106.1
98	0.0	20.8	80.8#
63	0.0	9.0	69.0#

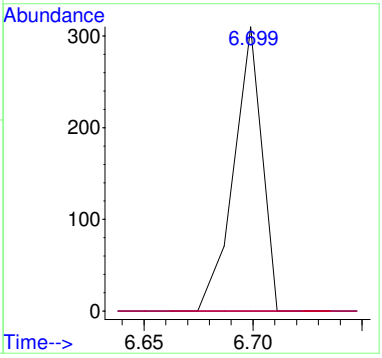


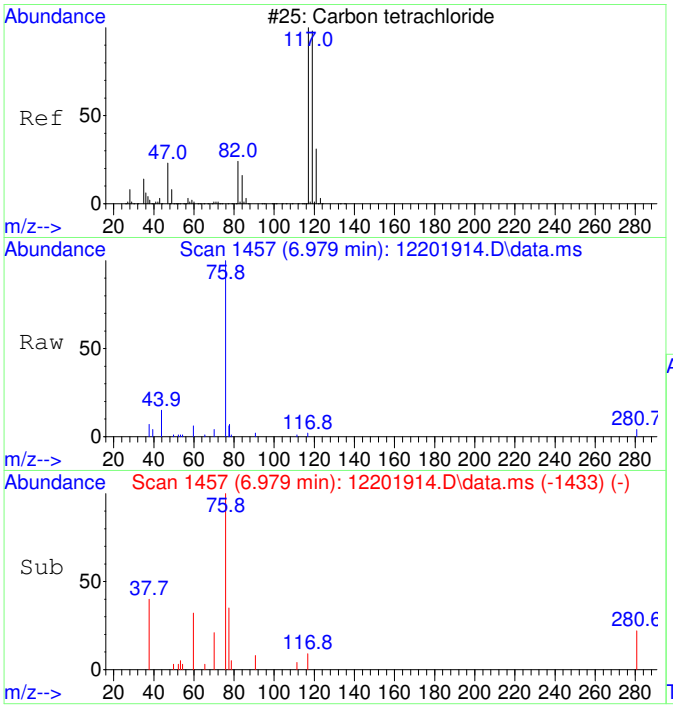


#30
Chloroform SCAN
Concen: 77.06 ug/L
RT: 6.699 min Scan# 1434
Delta R.T. 0.036 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 278

Ion	Ratio	Lower	Upper
83	100		
85	0.0	42.9	102.9#
47	0.0	4.5	64.5#

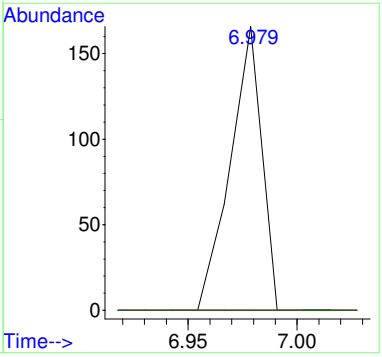


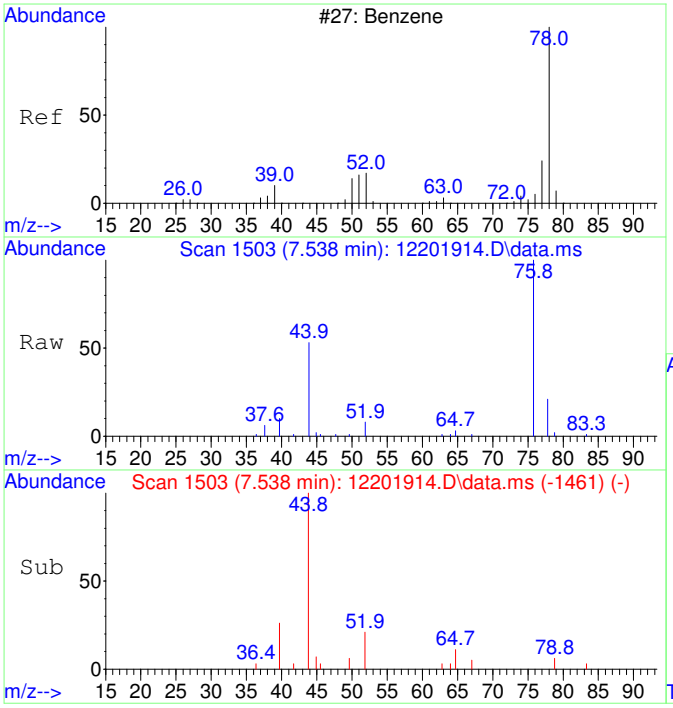


#32
Carbon tetrachloride SCAN
Concen: 46.74 ug/L
RT: 6.979 min Scan# 1457
Delta R.T. -0.207 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:117 Resp: 166

Ion	Ratio	Lower	Upper
117	100		
119	0.0	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

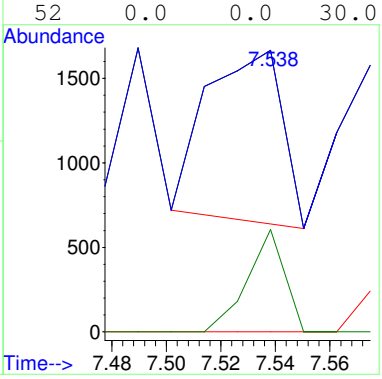


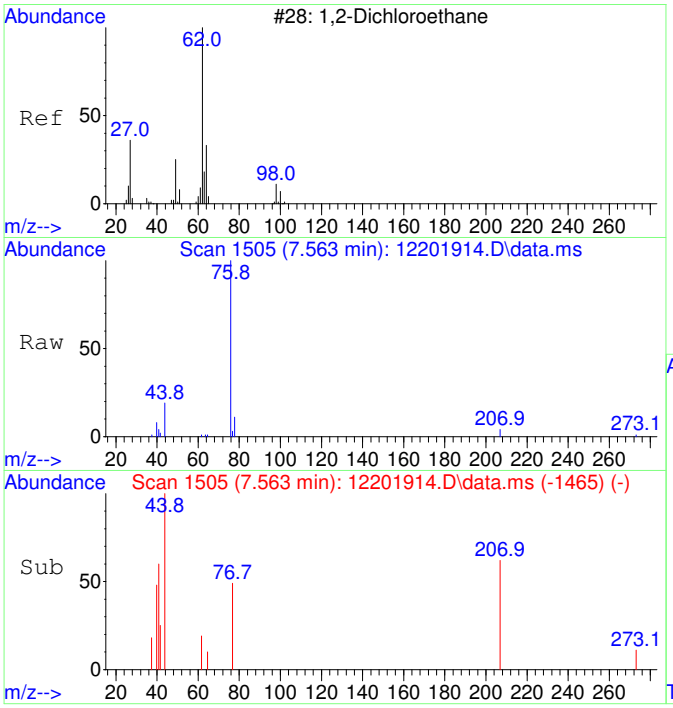


#33
Benzene SCAN
Concen: 175.15 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 78 Resp: 1905

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	45.4
52	0.0	0.0	30.0

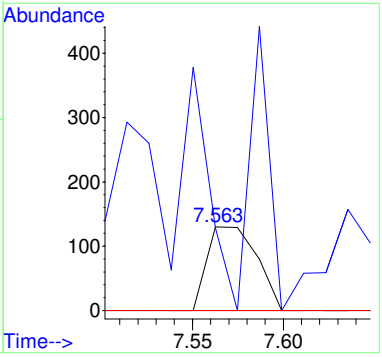


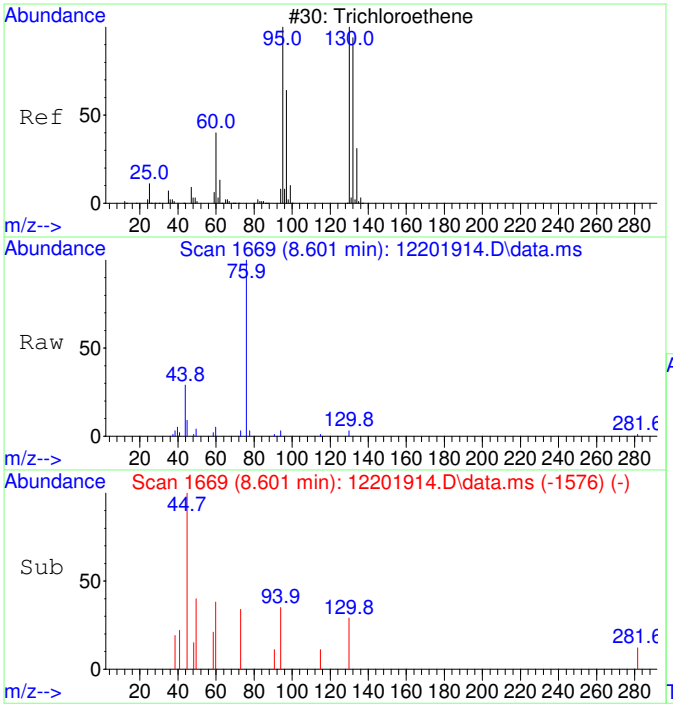


#34
1,2-Dichloroethane SCAN
Concen: 66.59 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 62 Resp: 247

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

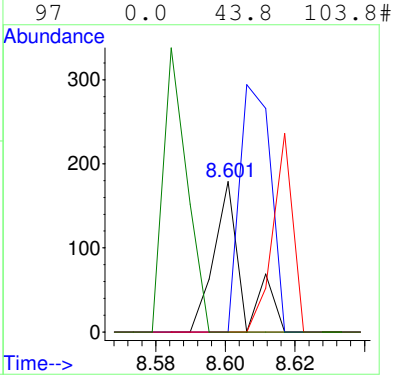


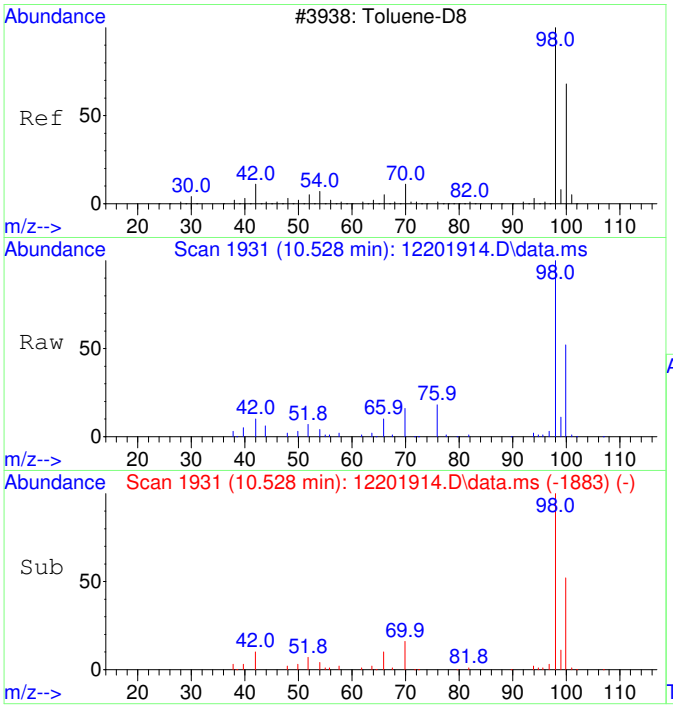


#35
Trichloroethene SCAN
Concen: 36.72 ug/L
RT: 8.601 min Scan# 1669
Delta R.T. 0.005 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:130 Resp: 102

Ion	Ratio	Lower	Upper
130	100		
95	179.4	75.7	135.7#
132	92.2	77.1	137.1
97	0.0	43.8	103.8#

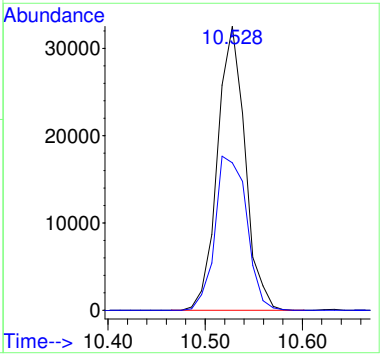


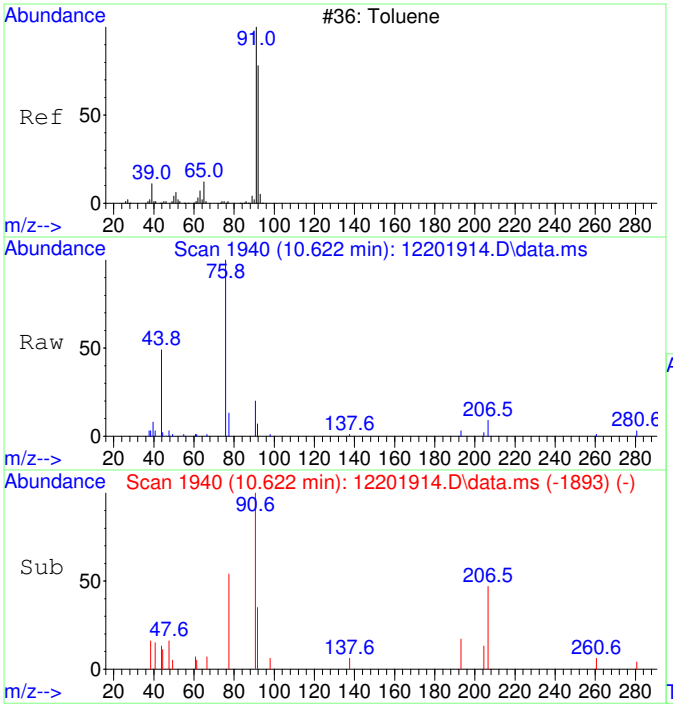


#36
Toluene-d8 SCAN
Concen: 5562.41 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 98 Resp: 64030

Ion	Ratio	Lower	Upper
98	100		
100	62.3	44.4	104.4

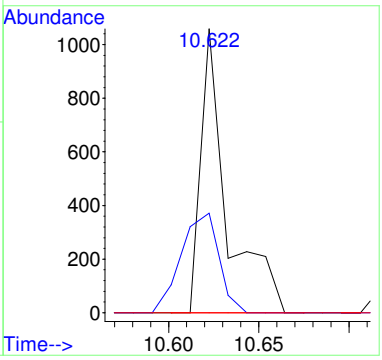


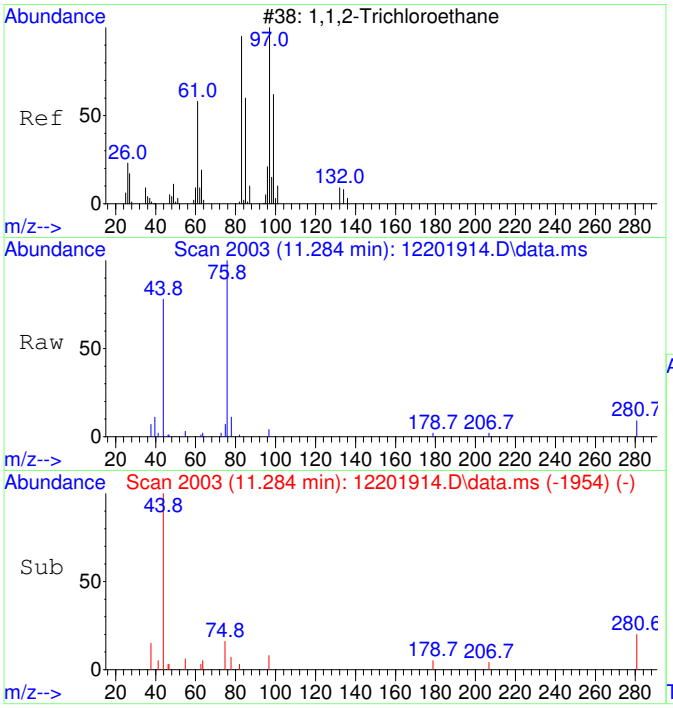


#37
Toluene SCAN
Concen: 79.58 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1070

Ion	Ratio	Lower	Upper
91	100		
92	50.7	31.5	91.5
65	0.0	0.0	30.0

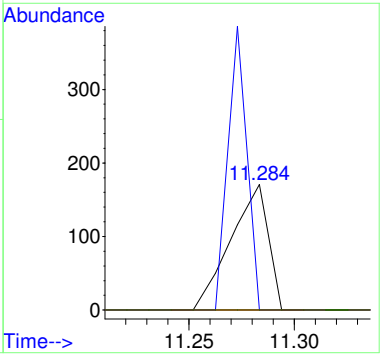


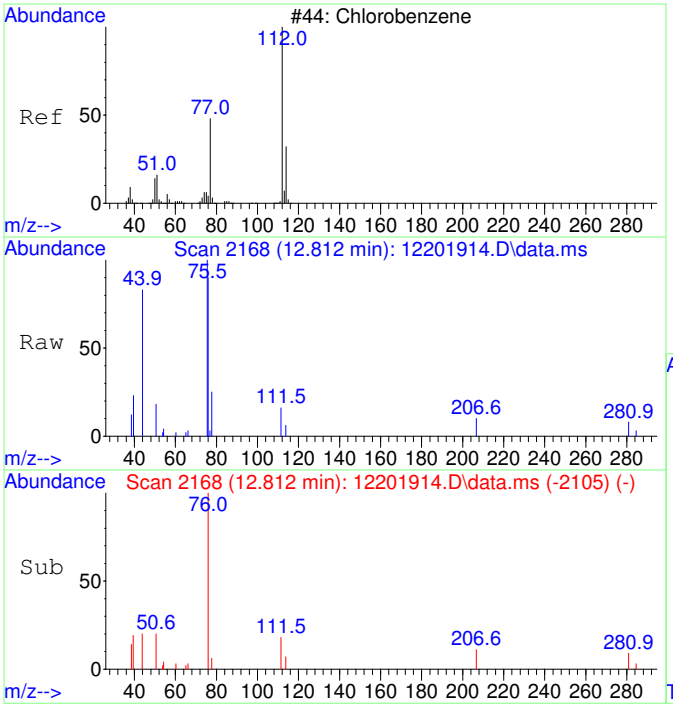


#38
1,1,2-Trichloroethane SCAN
Concen: 72.48 ug/L
RT: 11.284 min Scan# 2003
Delta R.T. 0.010 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 97 Resp: 212

Ion	Ratio	Lower	Upper
97	100		
83	114.6	67.7	127.7
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

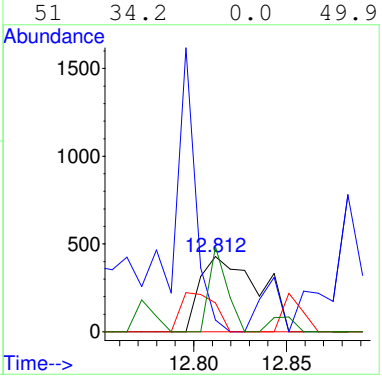


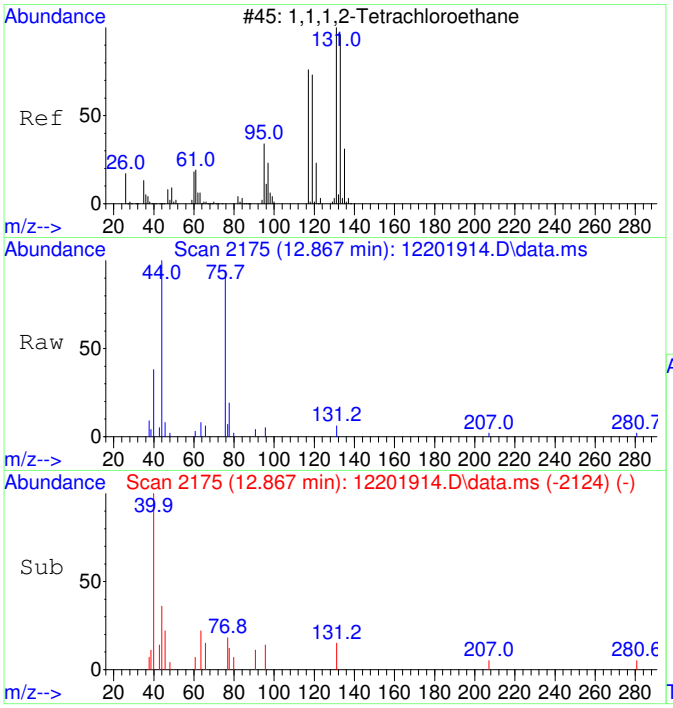


#40
Chlorobenzene SCAN
Concen: 88.31 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:112 Resp: 946

Ion	Ratio	Lower	Upper
112	100		
77	99.0	27.8	87.8#
114	30.2	3.1	63.1
51	34.2	0.0	49.9

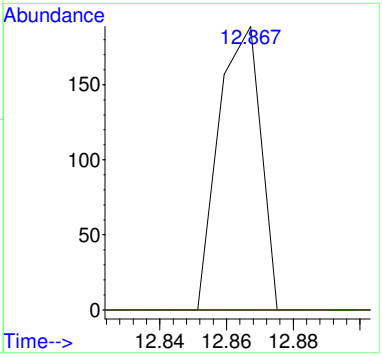


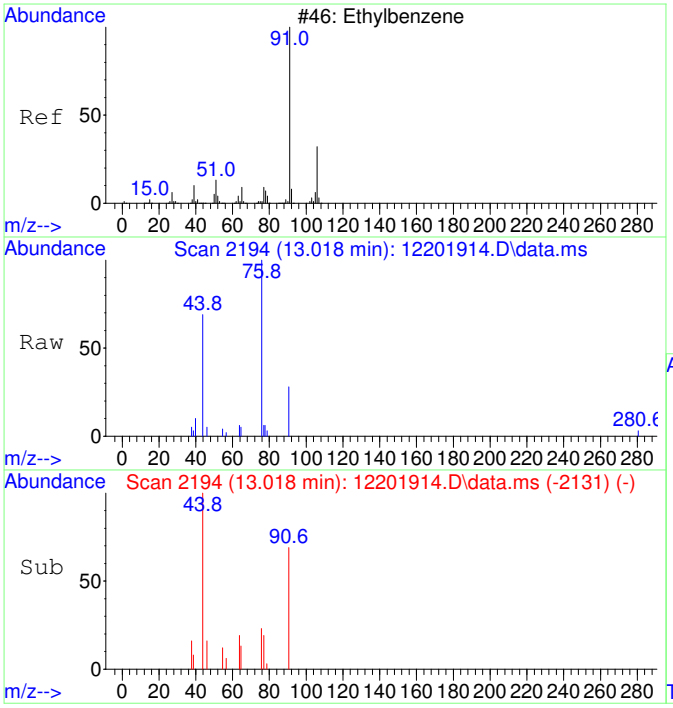


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 47.75 ug/L
RT: 12.867 min Scan# 2175
Delta R.T. -0.096 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:131 Resp: 165

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	0.0	38.9	98.9#

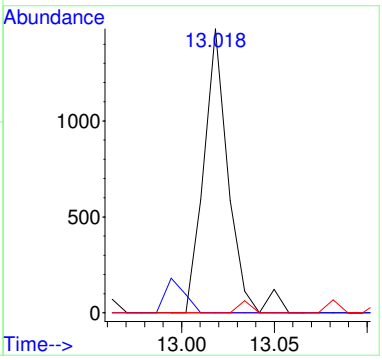


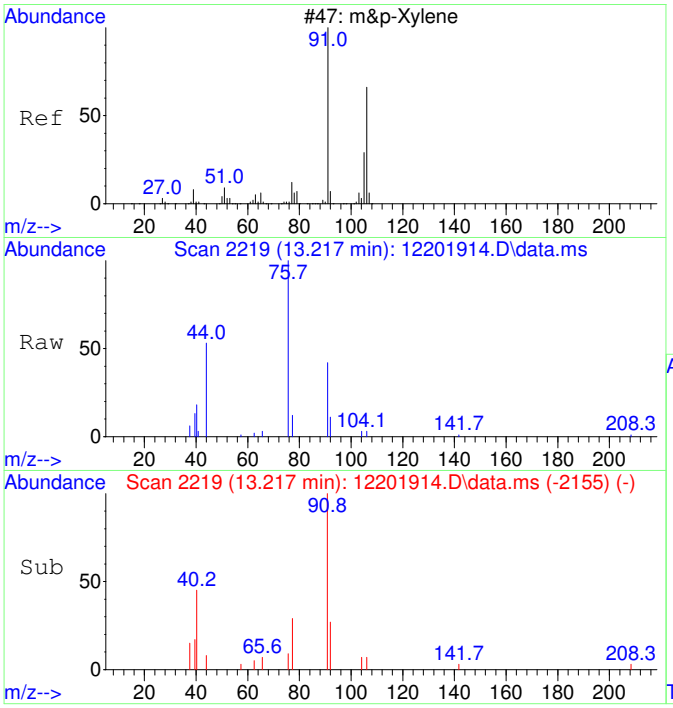


#42
Ethylbenzene SCAN
Concen: 81.12 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1378

Ion	Ratio	Lower	Upper
91	100		
106	0.0	1.3	61.3#
51	0.0	0.0	39.4

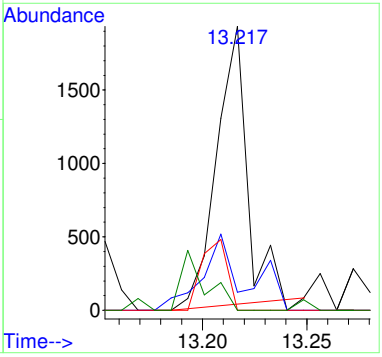


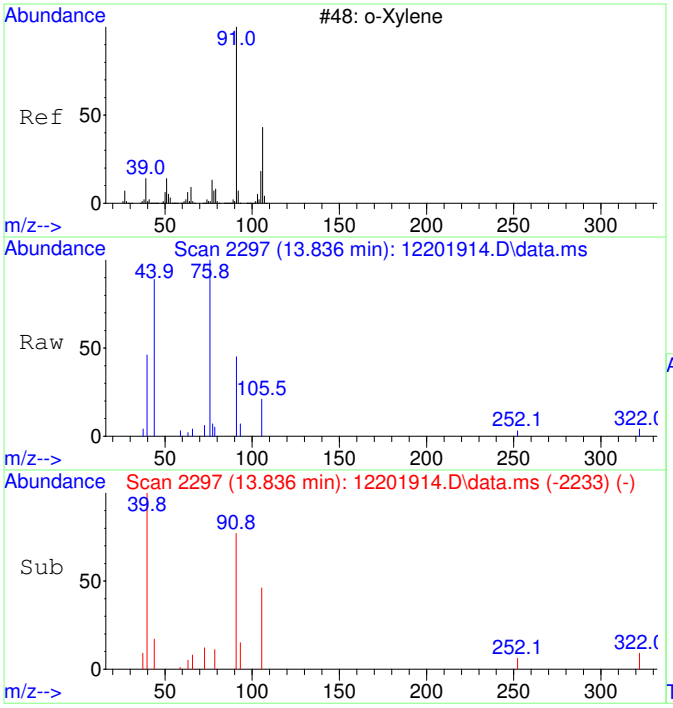


#43
m&p-Xylene SCAN
Concen: 75.76 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1930

Ion	Ratio	Lower	Upper
91	100		
106	38.4	19.0	79.0
105	21.5	0.0	54.9
51	0.0	0.0	41.2

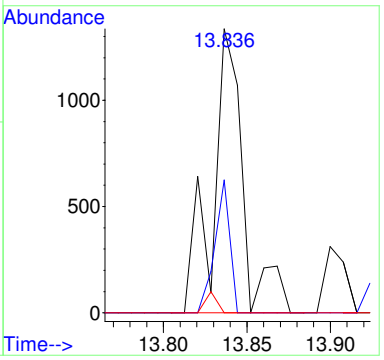


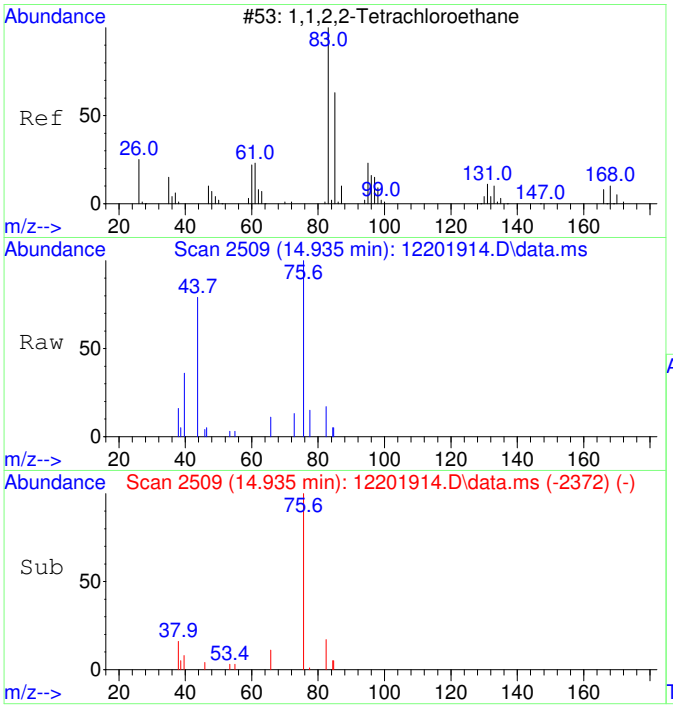


#44
o-Xylene SCAN
Concen: 117.85 ug/L
RT: 13.836 min Scan# 2297
Delta R.T. 0.008 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 91 Resp: 1702

Ion	Ratio	Lower	Upper
91	100		
106	22.9	17.2	77.2
105	0.0	0.0	57.7

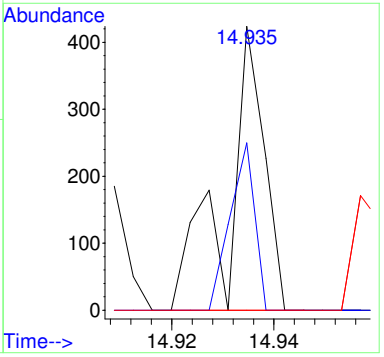


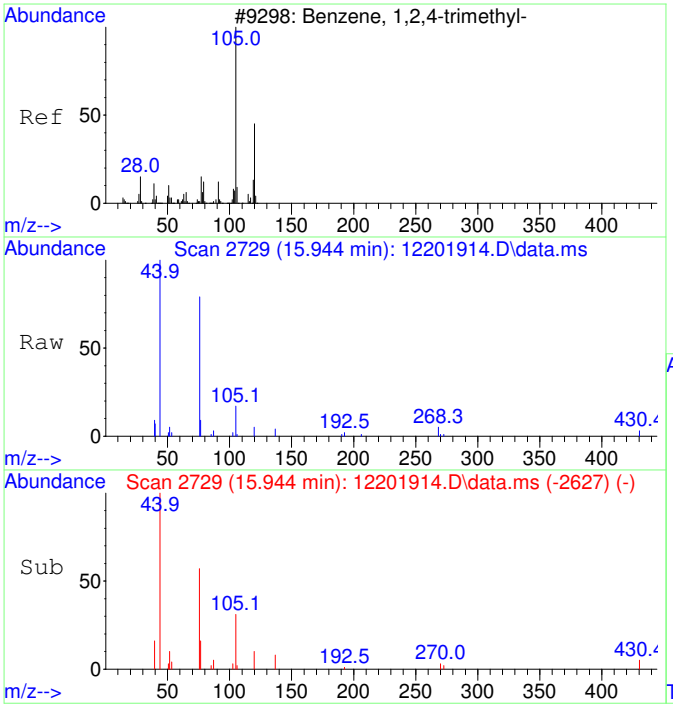


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 32.87 ug/L
RT: 14.935 min Scan# 2509
Delta R.T. 0.007 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion: 83 Resp: 214

Ion	Ratio	Lower	Upper
83	100		
85	39.3	37.2	97.2
95	0.0	0.0	48.7

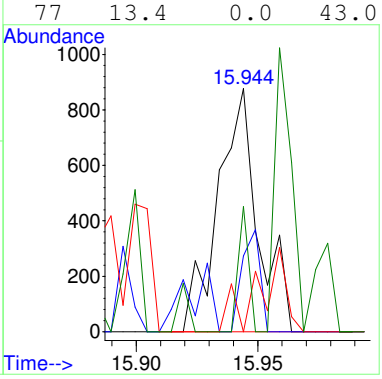


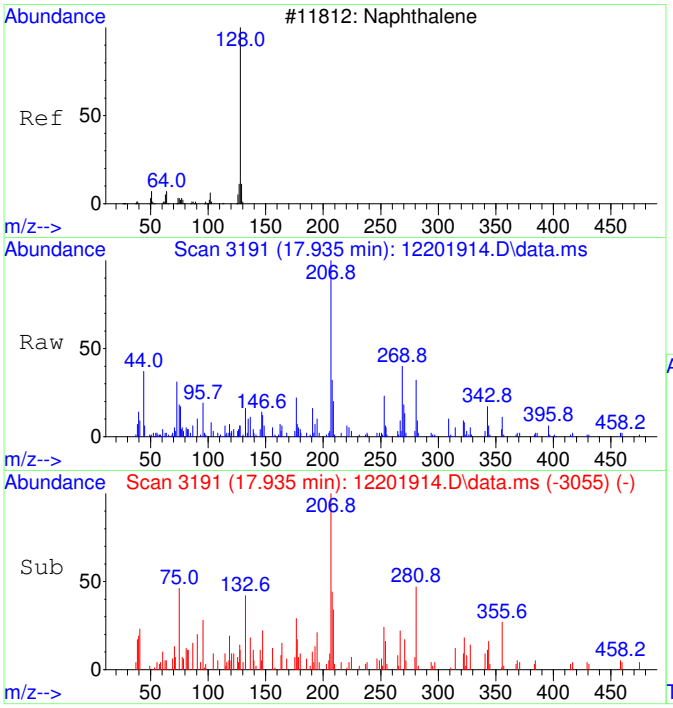


#47
1,2,4-Trimethylbenzene SCAN
Concen: 65.80 ug/L
RT: 15.944 min Scan# 2729
Delta R.T. 0.006 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:105 Resp: 1008

Ion	Ratio	Lower	Upper
105	100		
120	19.0	15.8	75.8
119	0.0	0.0	42.9
77	13.4	0.0	43.0

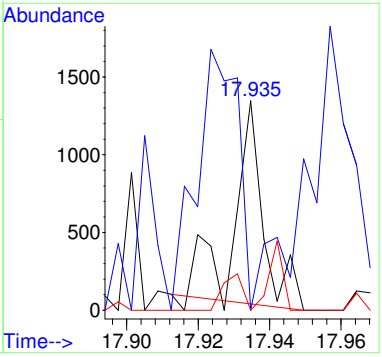




#48
Naphthalene SCAN
Concen: 29.29 ug/L
RT: 17.935 min Scan# 3191
Delta R.T. 0.004 min
Lab File: 12201914.D
Acq: 20 Dec 2019 15:36

Tgt Ion:128 Resp: 725

Ion	Ratio	Lower	Upper
128	100		
127	155.2	0.0	30.0#
129	12.7	0.0	34.5



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory
SDG: 19347C
Client: California Site Cleanup Section 3
Project: MEW OU3 FY2020 Vapor Intrusion Investigation
Instrument ID: AG5975CV
Calibration: 1911014
Sequence: S19L083

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S19L083-CRL1	1,1-Dichloroethene	50.0	55.5	111	ug/L	60 - 140
	trans-1,2-Dichloroethene	50.0	58.0	116	ug/L	60 - 140
	1,1-Dichloroethane	50.0	57.2	114	ug/L	60 - 140
	cis-1,2-Dichloroethene	50.0	56.4	113	ug/L	60 - 140
	Chloroform	50.0	57.2	114	ug/L	60 - 140
	Trichloroethene	50.0	54.7	109	ug/L	60 - 140
	Tetrachloroethene	50.0	48.6	97	ug/L	60 - 140
	Toluene-d8	50.0	52.4	105	ug/L	60 - 140

QLS REPORT

Instrument Name: AG5975C
Sample Name: S19L083-CRL1
Misc Info: 1930060 0.5 mg/L
Date Acquired: 12/20/19 11:37
QLast Update: Thu Nov 21 06:24:24 2019
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	11.012	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	3.120	50.0	55.47	111%	60	140	pass
3)	trans-1,2-Dichloroethene	4.310	50.0	57.95	116%	60	140	pass
4)	1,1-Dichloroethane	5.066	50.0	57.16	114%	60	140	pass
5)	cis-1,2-Dichloroethene	6.088	50.0	56.44	113%	60	140	pass
6)	Chloroform	6.664	50.0	57.23	114%	60	140	pass
7)	1,1,1-Trichloroethane	6.919	50.0	57.65	115%	60	140	pass
8)	Carbon tetrachloride	7.199	50.0	53.35	107%	60	140	pass
10)	1,2-Dichloroethane	7.564	50.0	58.40	117%	60	140	pass
11)	Trichloroethene	8.602	50.0	54.66	109%	60	140	pass
12)	Toluene-d8	10.519	50.0	52.38	105%	60	140	pass
13)	Toluene	10.613	50.0	53.52	107%	60	140	pass
14)	1,1,2-Trichloroethane	11.275	50.0	54.36	109%	60	140	pass
15)	Tetrachloroethene	11.474	50.0	48.58	97%	60	140	pass
16)	Chlorobenzene	12.813	50.0	50.81	102%	60	140	pass
17)	1,1,1,2-Tetrachloroethane	12.964	50.0	50.00	100%	60	140	pass
18)	Ethylbenzene	13.012	50.0	51.95	104%	60	140	pass
19)	m&p-Xylene	13.210	100.0	103.35	103%	60	140	pass
20)	o-Xylene	13.822	50.0	50.89	102%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.921	50.0	49.57	99%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.393	50.0	49.50	99%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.939	50.0	50.17	100%	60	140	pass
24)	Naphthalene	17.932	50.0	51.04	102%	60	140	pass

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

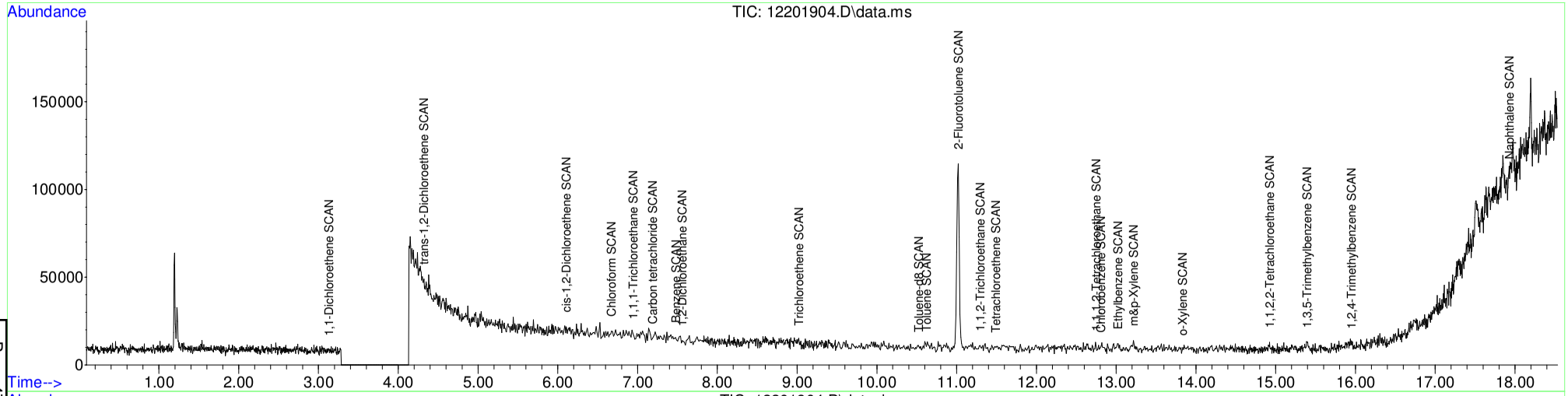
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	153340	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	1290	52.38	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.05%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.123	61	718	109.42	ug/L	85
3] trans-1,2-Dichloroethene	4.329	61	390	57.95	ug/L	99
4] 1,1-Dichloroethane	5.073	63	489	57.16	ug/L	94
5] cis-1,2-Dichloroethene	6.094	61	444	56.44	ug/L	91
6] Chloroform	6.676	83	520	57.23	ug/L	96
7] 1,1,1-Trichloroethane	6.931	97	525	57.65	ug/L	95
8] Carbon tetrachloride	7.199	117	461	53.35	ug/L	93
9] Benzene	7.527	78	1552	67.77	ug/L	93
10] 1,2-Dichloroethane	7.576	62	439	58.40	ug/L #	18
11] Trichloroethene	8.608	130	384	54.66	ug/L	92
13] Toluene	10.624	91	1599	53.52	ug/L	97
14] 1,1,2-Trichloroethane	11.274	97	368	54.36	ug/L	97
15] Tetrachloroethene	11.474	166	438	48.58	ug/L	96
16] Chlorobenzene	12.813	112	1159	50.81	ug/L	80
17] 1,1,1,2-Tetrachloroethane	12.964	131	398	50.00	ug/L	89
18] Ethylbenzene	13.020	91	1915	51.95	ug/L	98
19] m&p-Xylene	13.210	91	2903	103.35	ug/L	98
20] o-Xylene	13.830	91	1516	50.89	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.925	83	663	49.57	ug/L	99
22] 1,3,5-Trimethylbenzene	15.393	105	1643	49.50	ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	1702	50.17	ug/L	100
24] Naphthalene	17.932	128	3128	51.04	ug/L #	9
25) 2-Fluorotoluene SCAN	11.021	109	95152	5001.59	ug/L	95
26) 1,1-Dichloroethene SCAN	3.133	61	302	72.44	ug/L #	40
27) trans-1,2-Dichloroethe...	4.321	61	142	35.95	ug/L #	18
29) cis-1,2-Dichloroethene...	6.106	61	257	54.29	ug/L #	38
30) Chloroform SCAN	6.675	83	258	51.04	ug/L #	50
31) 1,1,1-Trichloroethane ...	6.942	97	373	64.19	ug/L #	29
32) Carbon tetrachloride SCAN	7.186	117	179	35.97	ug/L #	9
33) Benzene SCAN	7.478	78	1484	97.37	ug/L	98
34) 1,2-Dichloroethane SCAN	7.563	62	307	59.06	ug/L #	36
35) Trichloroethene SCAN	9.025	130	80	20.55	ug/L #	1
36) Toluene-d8 SCAN	10.528	98	435	26.97	ug/L	67
37) Toluene SCAN	10.622	91	1288	68.37	ug/L #	41
38) 1,1,2-Trichloroethane ...	11.294	97	470	114.68	ug/L #	11
39) Tetrachloroethene SCAN	11.493	166	172	31.50	ug/L #	29
40) Chlorobenzene SCAN	12.804	112	319	21.25	ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.748	131	317	65.46	ug/L #	31
42) Ethylbenzene SCAN	13.018	91	1932	81.16	ug/L	75
43) m&p-Xylene SCAN	13.217	91	2795	78.30	ug/L #	76
44) o-Xylene SCAN	13.829	91	581	28.71	ug/L #	30
45) 1,1,2,2-Tetrachloroeth...	14.924	83	306	33.54	ug/L #	80
46) 1,3,5-Trimethylbenzene...	15.392	105	744	35.18	ug/L #	47
47) 1,2,4-Trimethylbenzene...	15.948	105	1632	76.02	ug/L	81
48) Naphthalene SCAN	17.931	128	2007	57.87	ug/L #	62

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



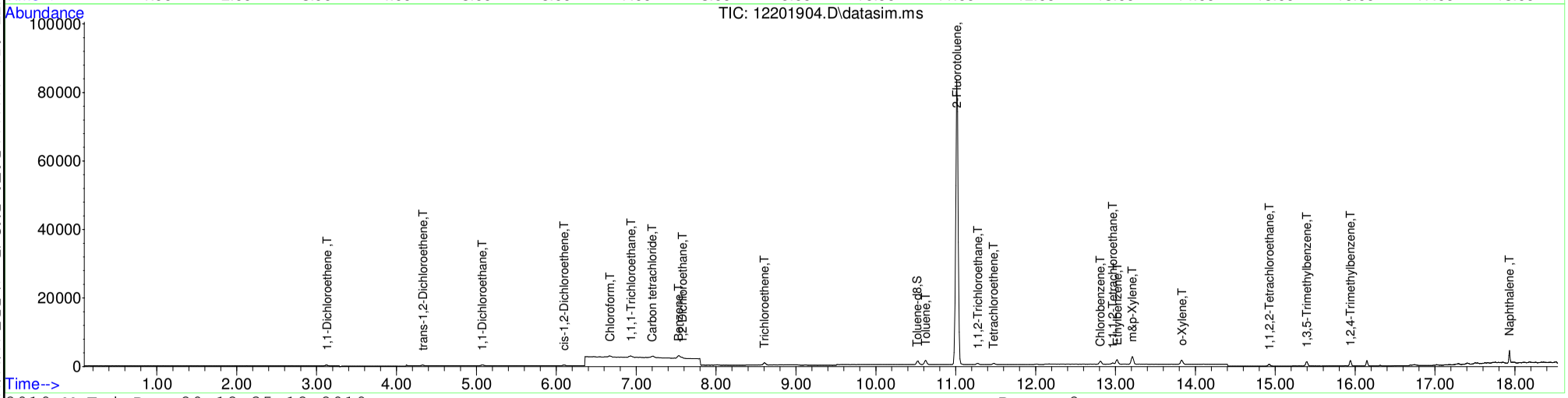
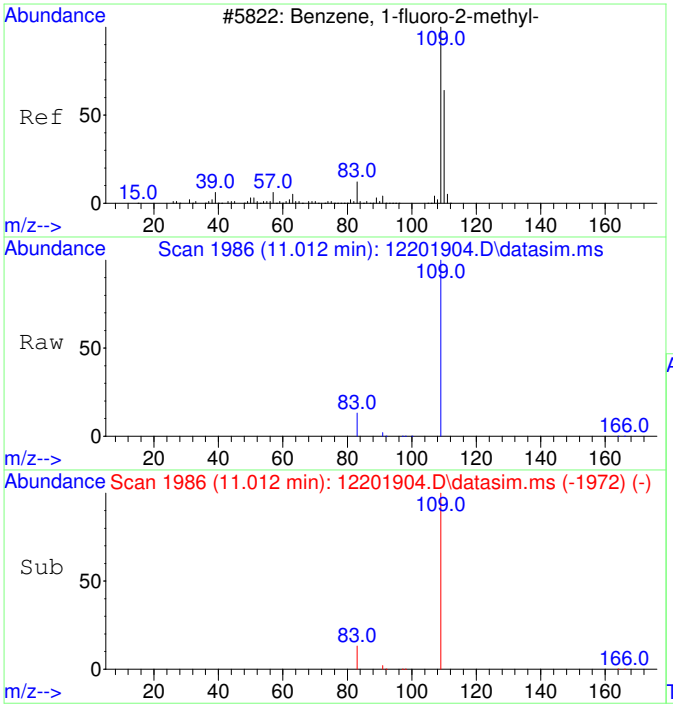


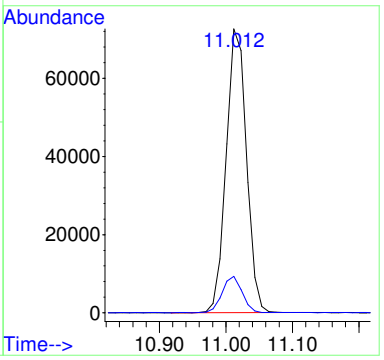
Table of Contents

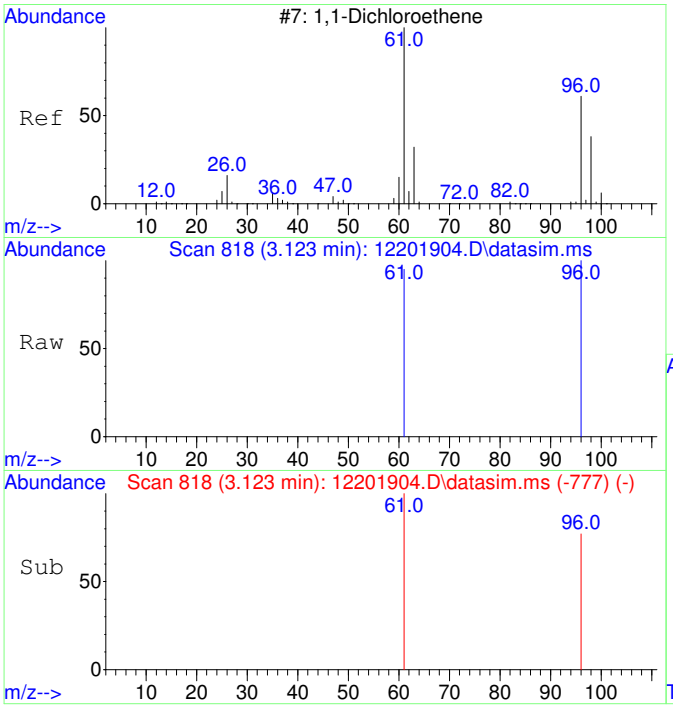


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 153340

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

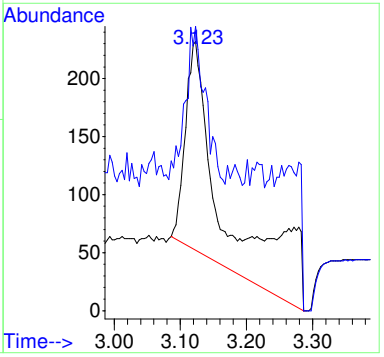




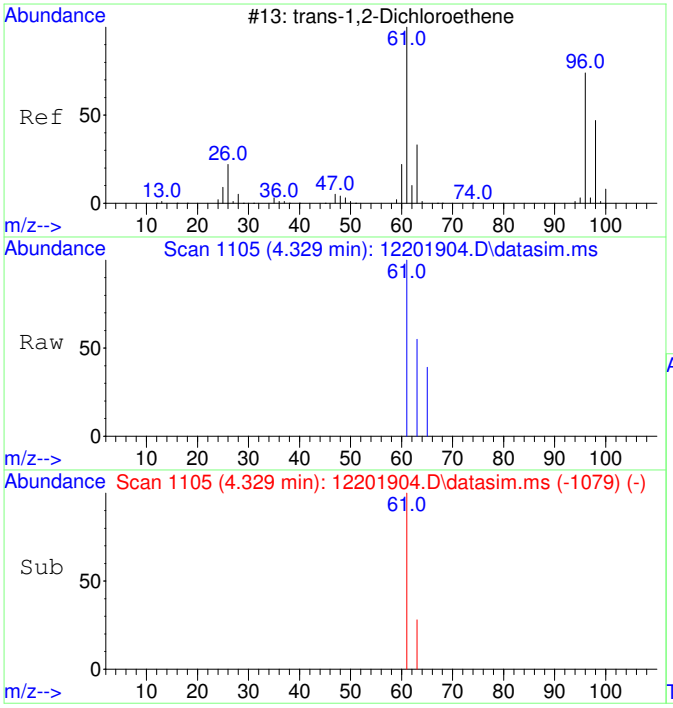
#2
1,1-Dichloroethene
Concen: 109.42 ug/L
RT: 3.123 min Scan# 818
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 718

Ion	Ratio	Lower	Upper
61	100		
96	75.3	33.5	93.5



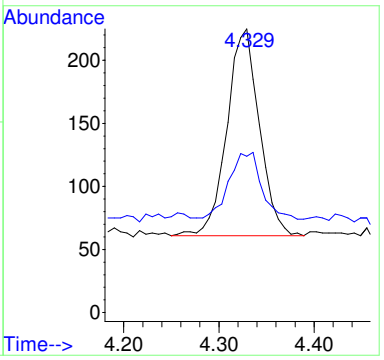
Before MI:
IMPROPER
BASELINE

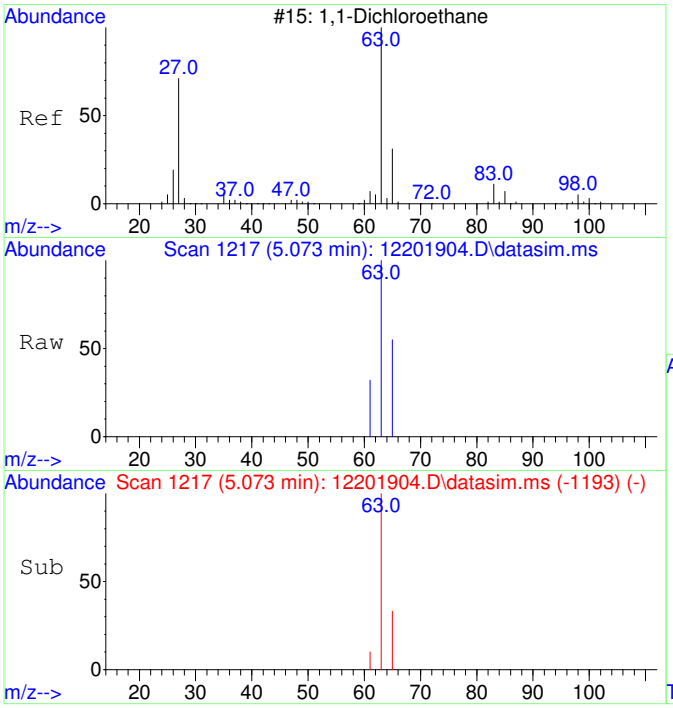


#3
trans-1,2-Dichloroethene
Concen: 57.95 ug/L
RT: 4.329 min Scan# 1105
Delta R.T. 0.020 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 390

Ion	Ratio	Lower	Upper
61	100		
63	33.1	2.3	62.3

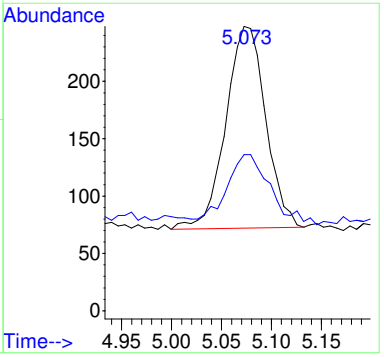


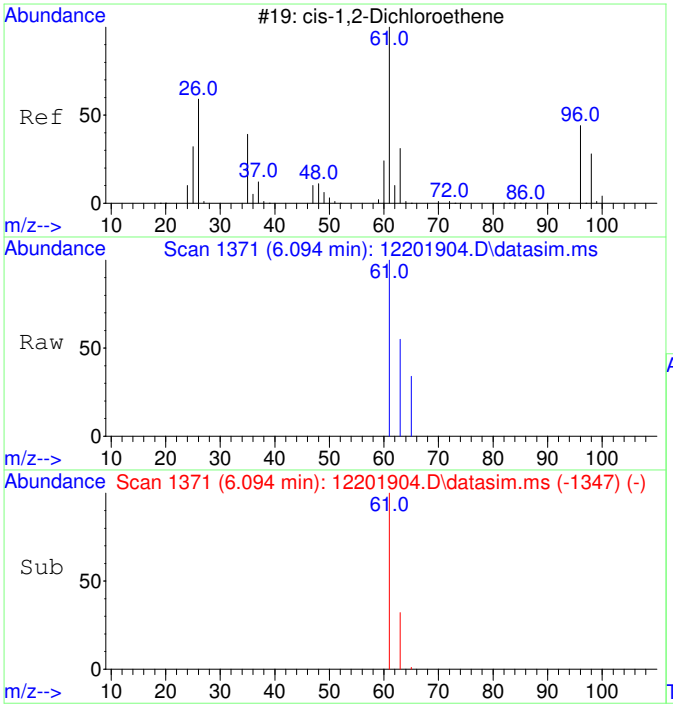


#4
1,1-Dichloroethane
Concen: 57.16 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 63 Resp: 489

Ion	Ratio	Lower	Upper
63	100		
65	35.2	1.9	61.9

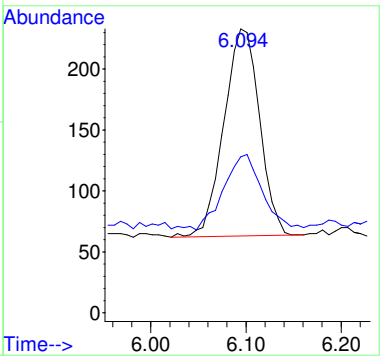


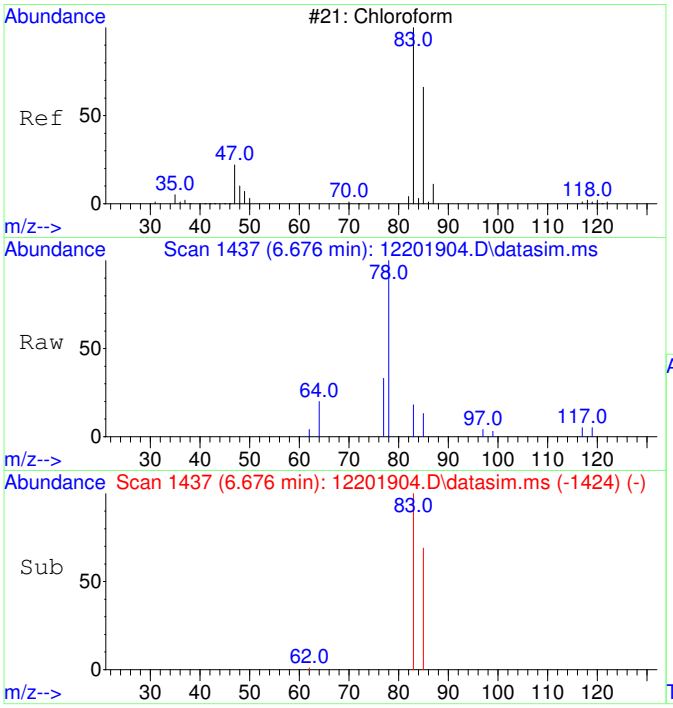


#5
cis-1,2-Dichloroethene
Concen: 56.44 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 444

Ion	Ratio	Lower	Upper
61	100		
63	37.6	2.5	62.5

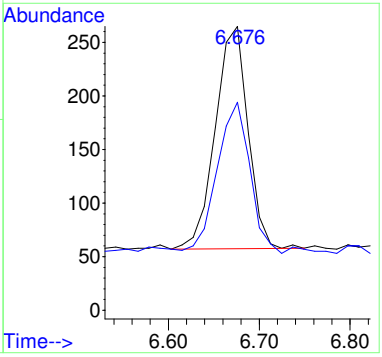


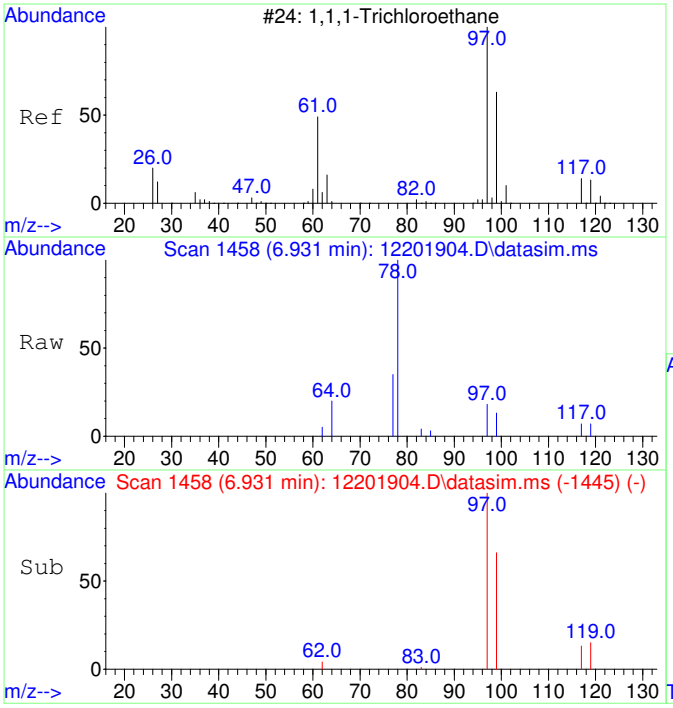


#6
Chloroform
Concen: 57.23 ug/L
RT: 6.676 min Scan# 1437
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 520

Ion	Ratio	Lower	Upper
83	100		
85	67.9	35.0	95.0

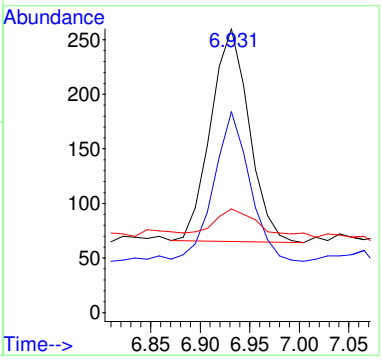


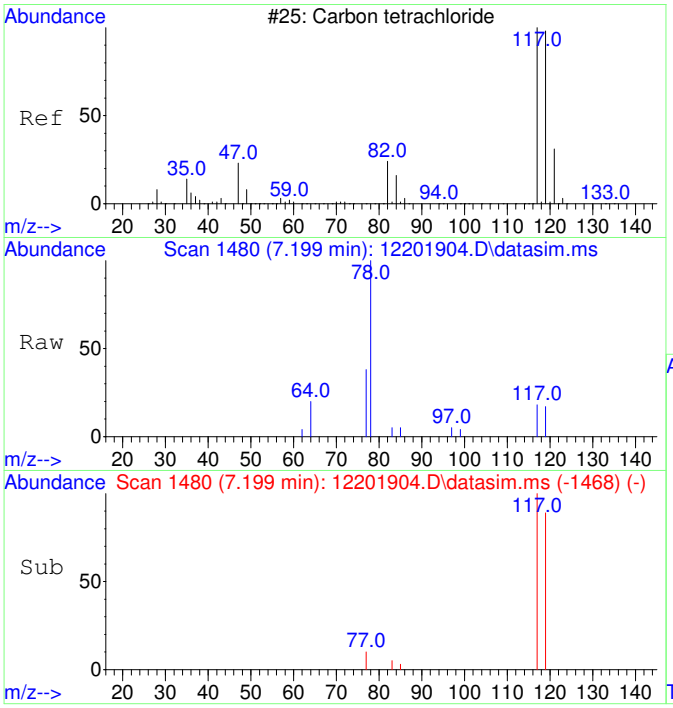


#7
1,1,1-Trichloroethane
Concen: 57.65 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 525

Ion	Ratio	Lower	Upper
97	100		
99	67.8	34.4	94.4
117	15.4	0.0	43.0

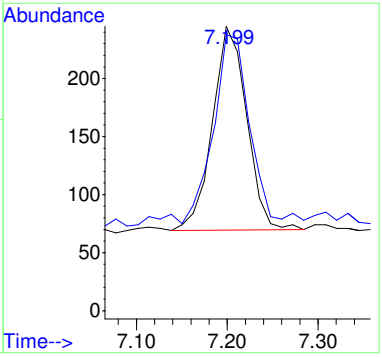


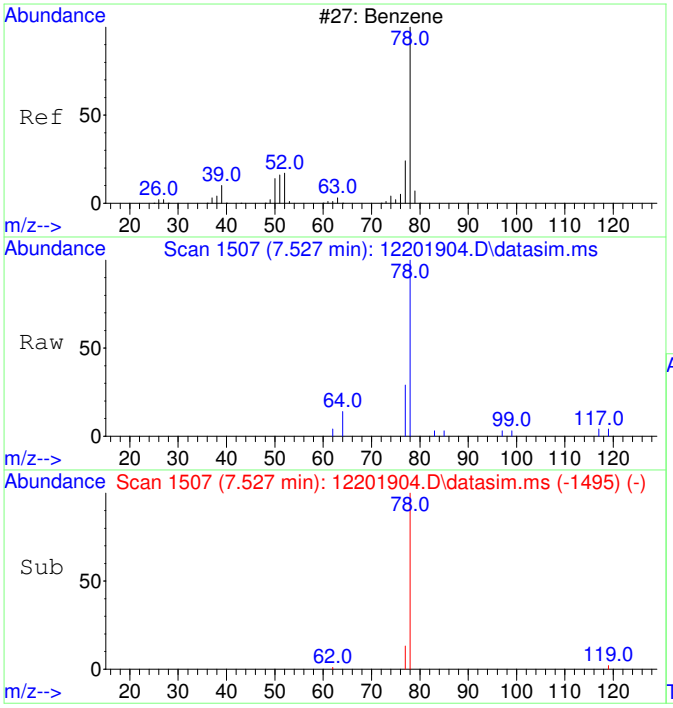


#8
Carbon tetrachloride
Concen: 53.35 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 461

Ion	Ratio	Lower	Upper
117	100		
119	103.5	66.5	126.5

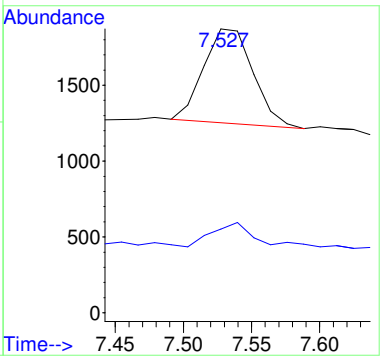


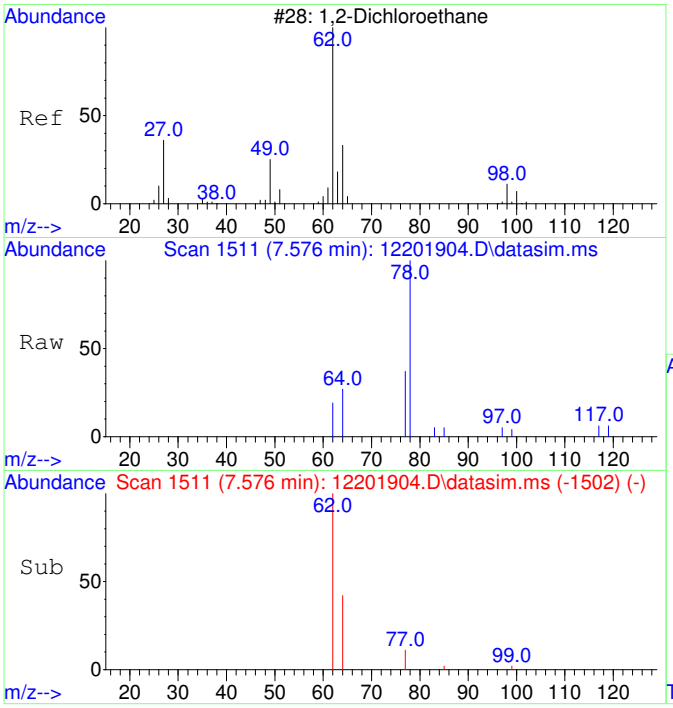


#9
Benzene
Concen: 67.77 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1552

Ion	Ratio	Lower	Upper
78	100		
77	26.8	0.0	53.5

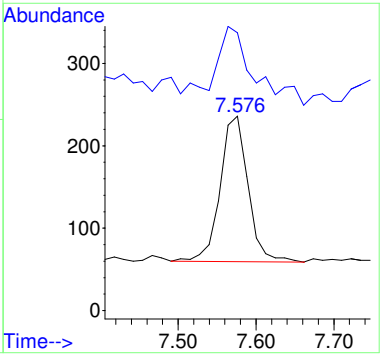


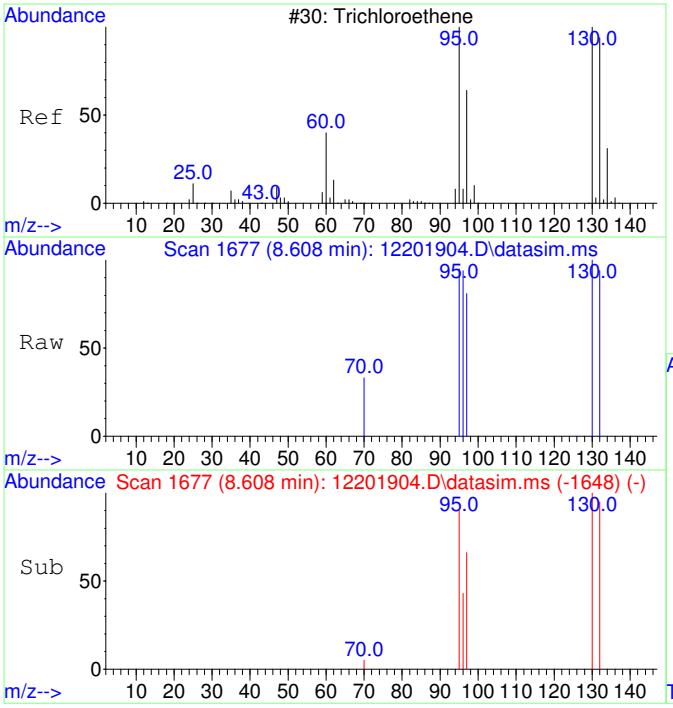


#10
1,2-Dichloroethane
Concen: 58.40 ug/L
RT: 7.576 min Scan# 1511
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 439

Ion	Ratio	Lower	Upper
62	100		
64	78.4	2.4	62.4#

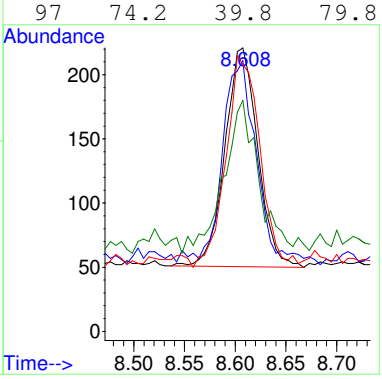


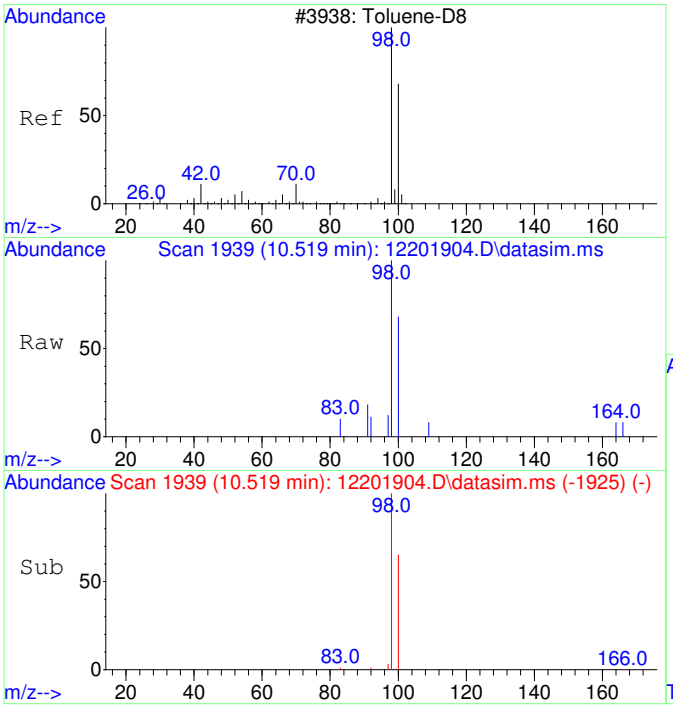


#11
Trichloroethene
Concen: 54.66 ug/L
RT: 8.608 min Scan# 1677
Delta R.T. 0.005 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 384

Ion	Ratio	Lower	Upper
130	100		
95	97.7	62.3	122.3
132	100.0	75.8	115.8
97	74.2	39.8	79.8

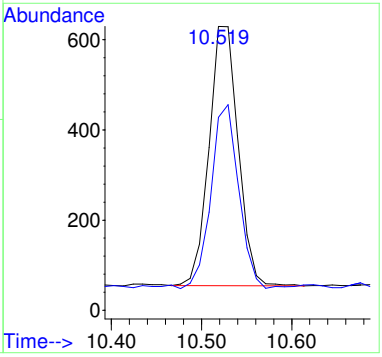


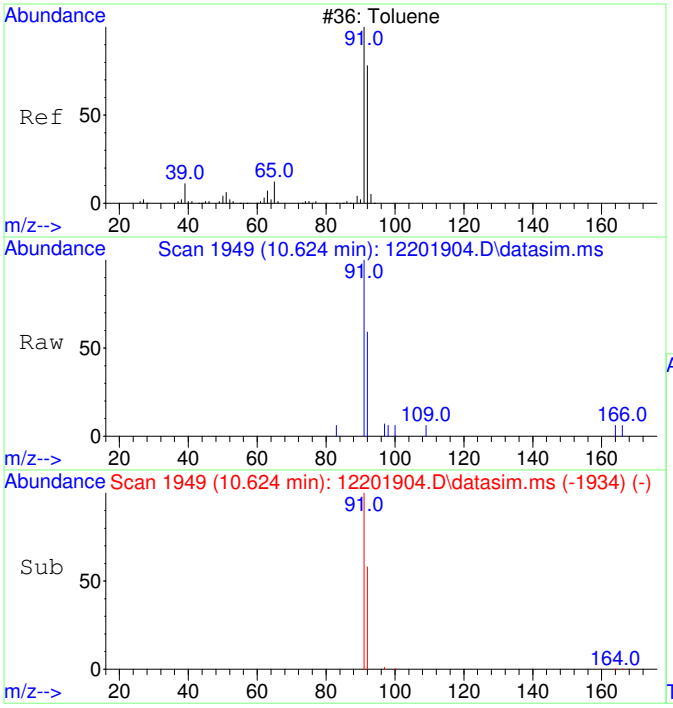


#12
Toluene-d8
Concen: 52.38 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 1290

Ion	Ratio	Lower	Upper
98	100		
100	66.1	36.2	96.2

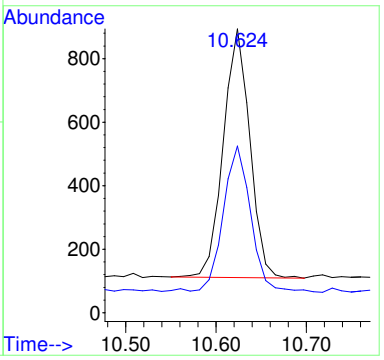


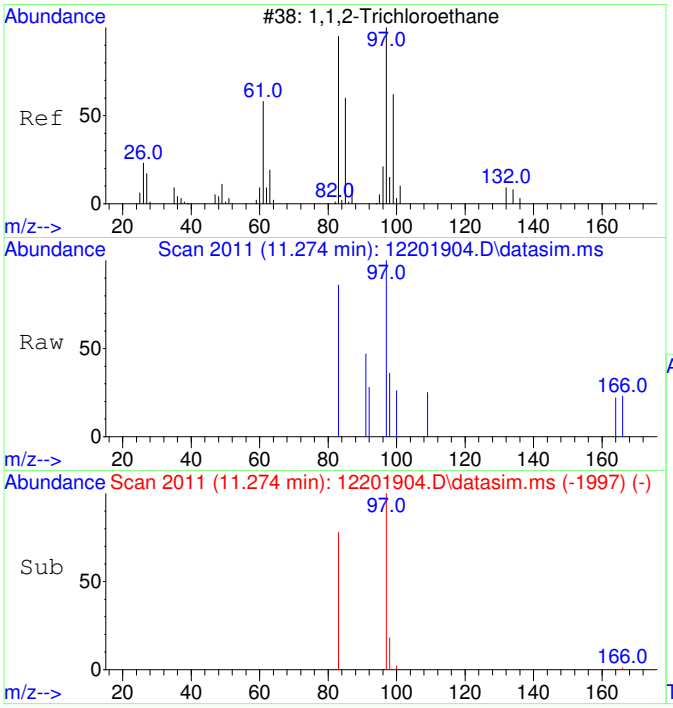


#13
Toluene
Concen: 53.52 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1599

Ion	Ratio	Lower	Upper
91	100		
92	61.4	29.4	89.4

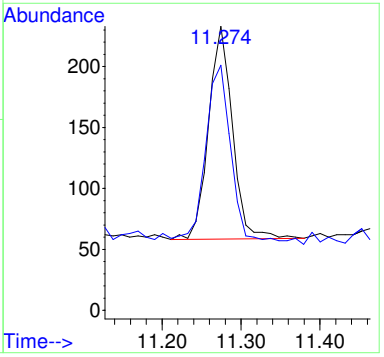


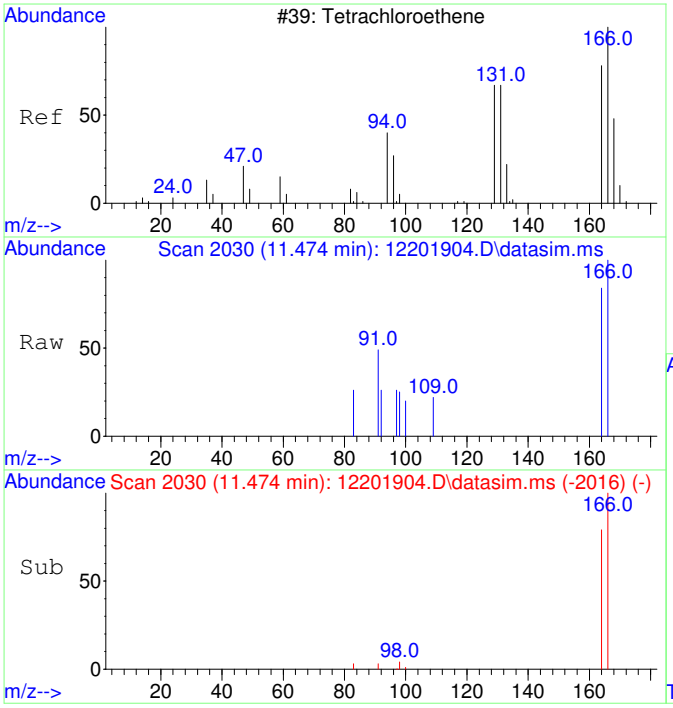


#14
1,1,2-Trichloroethane
Concen: 54.36 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 368

Ion	Ratio	Lower	Upper
97	100		
83	84.8	52.5	112.5

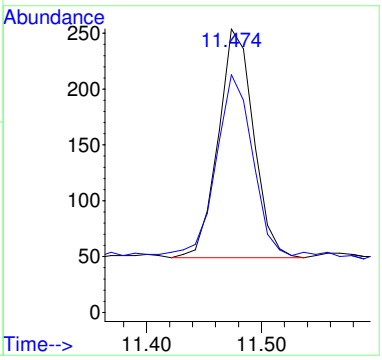


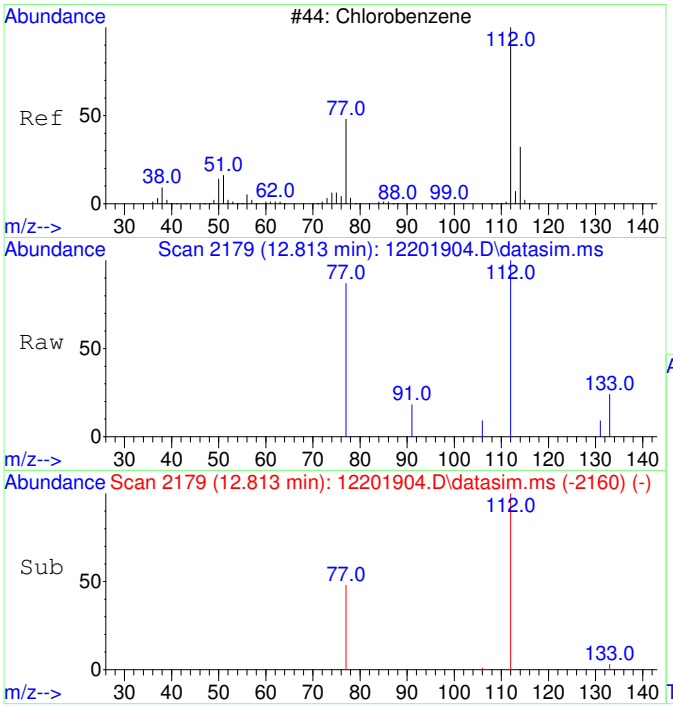


#15
Tetrachloroethene
Concen: 48.58 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 438

Ion	Ratio	Lower	Upper
166	100		
164	81.1	47.6	107.6

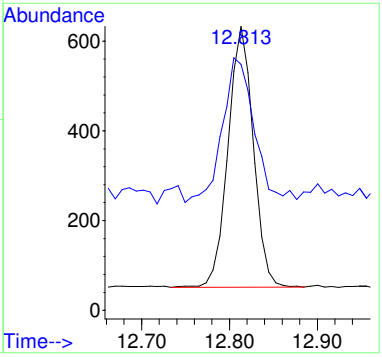


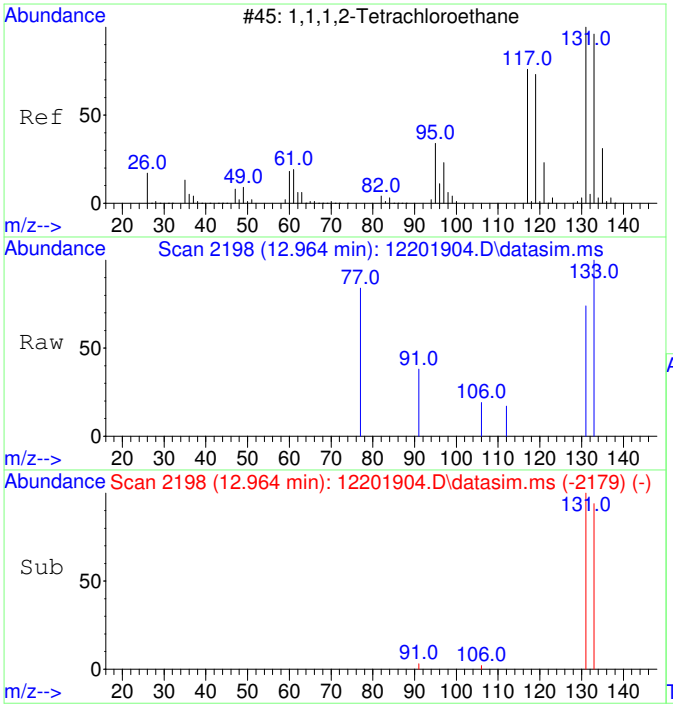


#16
Chlorobenzene
Concen: 50.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 1159

Ion	Ratio	Lower	Upper
112	100		
77	68.9	24.2	84.2

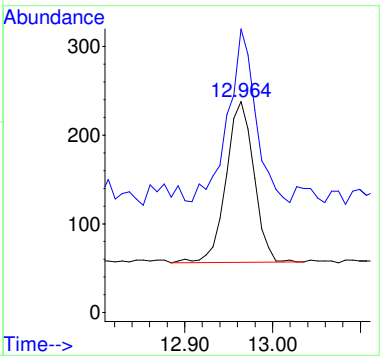


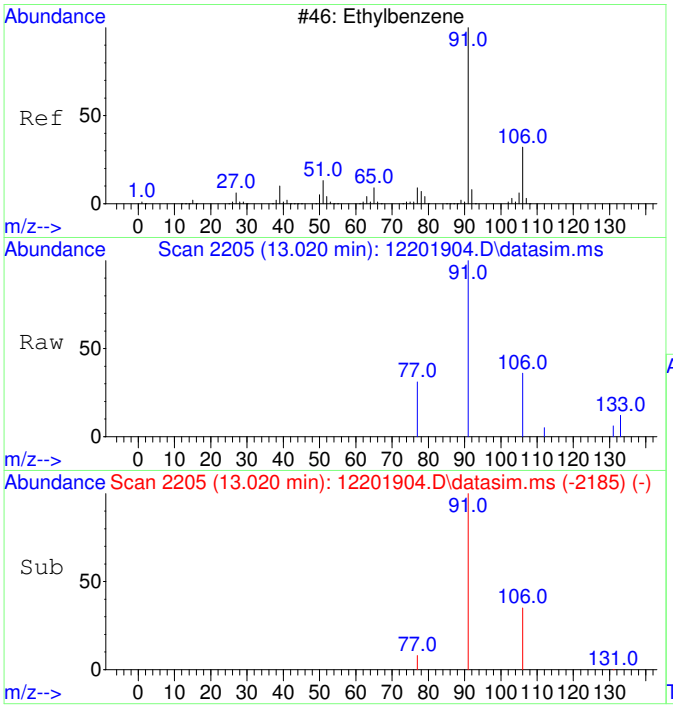


#17
1,1,1,2-Tetrachloroethane
Concen: 50.00 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 398

Ion	Ratio	Lower	Upper
131	100		
133	106.5	66.0	126.0

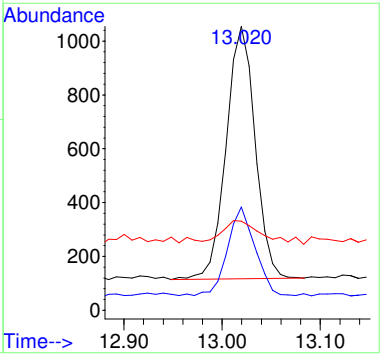


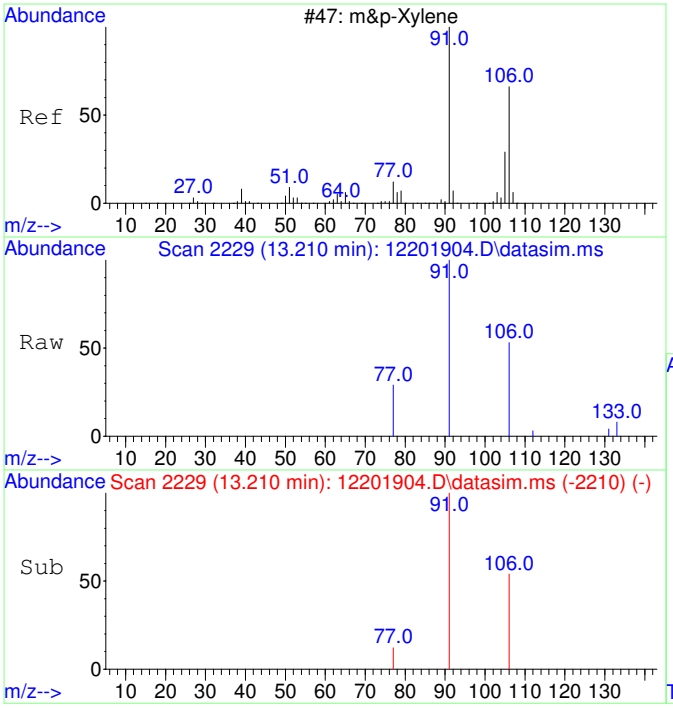


#18
Ethylbenzene
Concen: 51.95 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1915

Ion	Ratio	Lower	Upper
91	100		
106	33.1	2.5	62.5
77	10.3	0.0	38.2

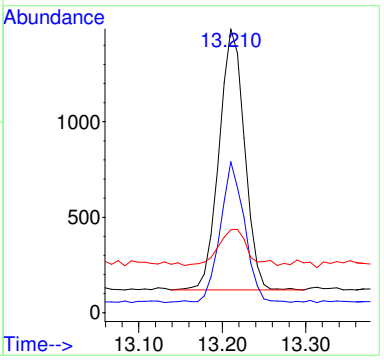


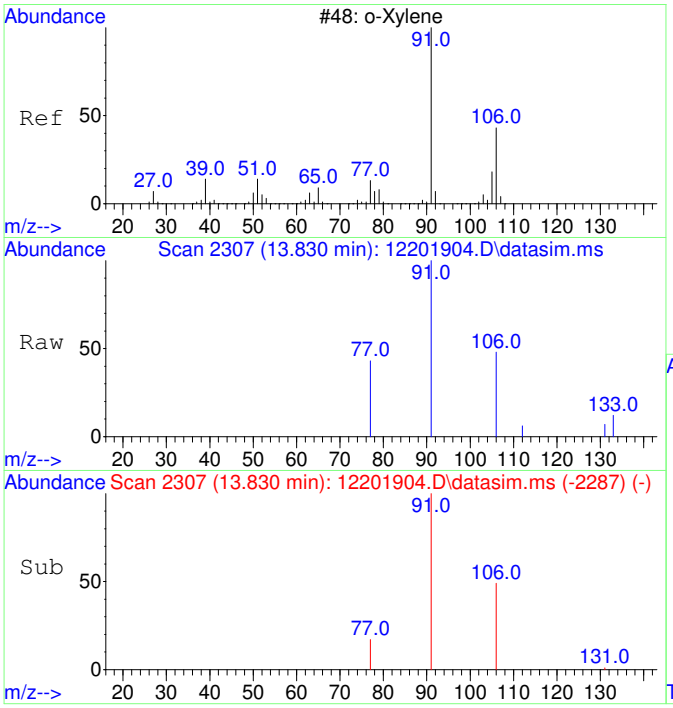


#19
m&p-Xylene
Concen: 103.35 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2903

Ion	Ratio	Lower	Upper
91	100		
106	51.3	21.6	81.6
77	15.5	0.0	42.6

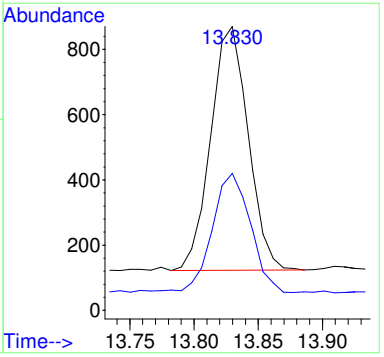


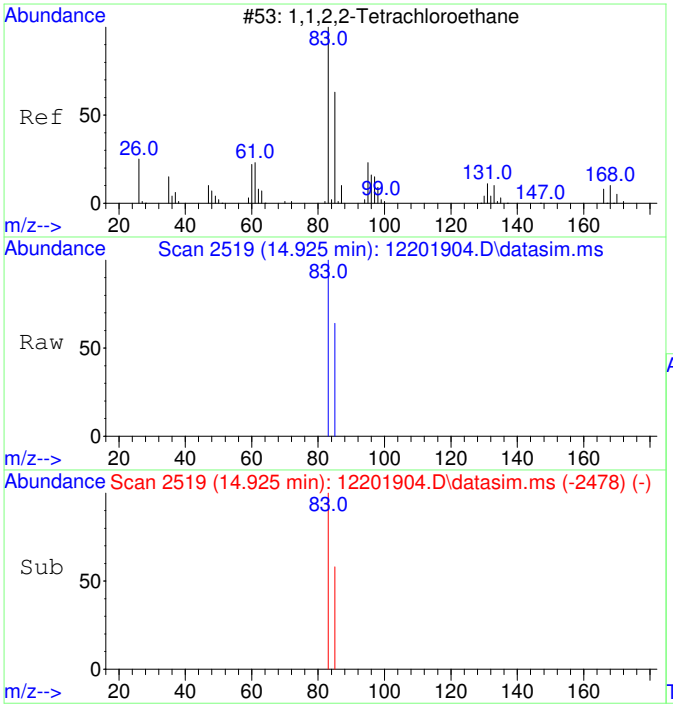


#20
o-Xylene
Concen: 50.89 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1516

Ion	Ratio	Lower	Upper
91	100		
106	49.7	18.5	78.5

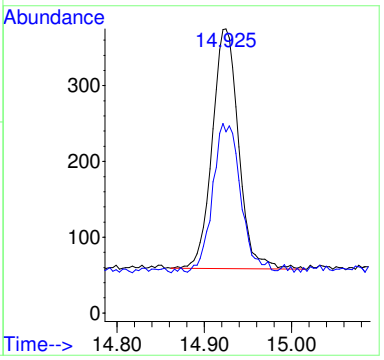


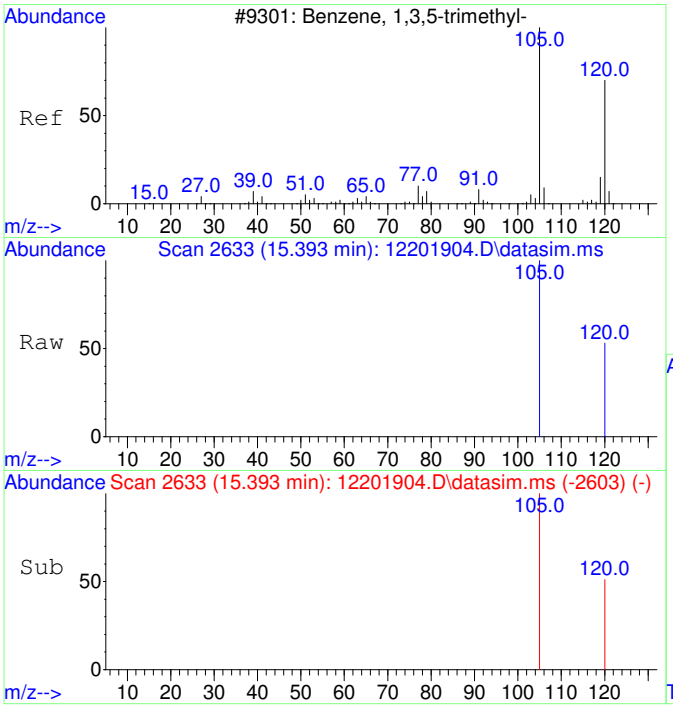


#21
1,1,2,2-Tetrachloroethane
Concen: 49.57 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 663

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.7	94.7

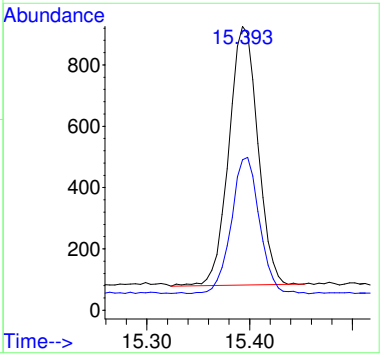


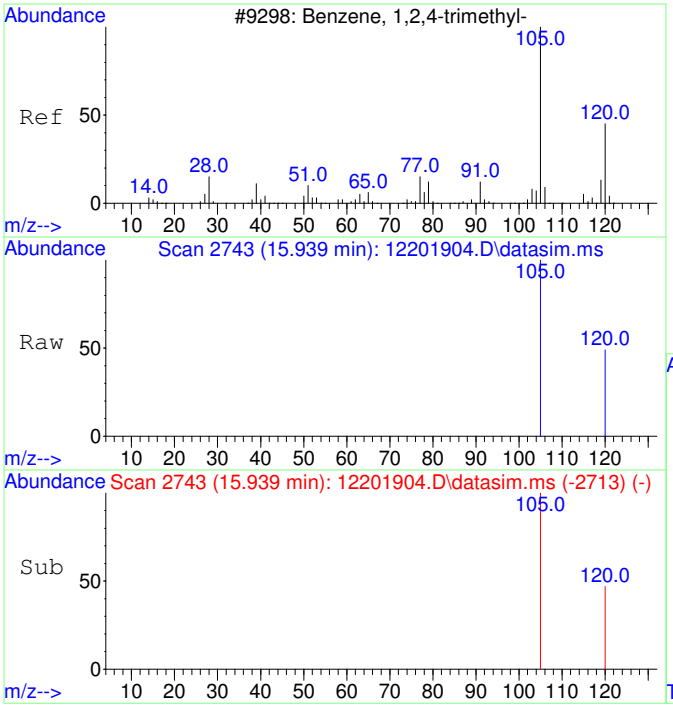


#22
1,3,5-Trimethylbenzene
Concen: 49.50 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1643

Ion	Ratio	Lower	Upper
105	100		
120	51.3	20.7	80.7

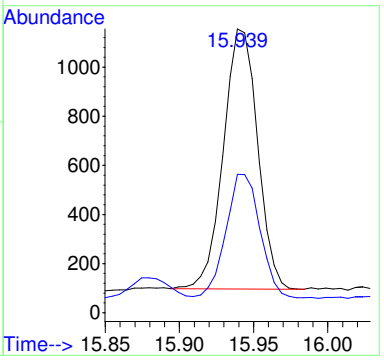


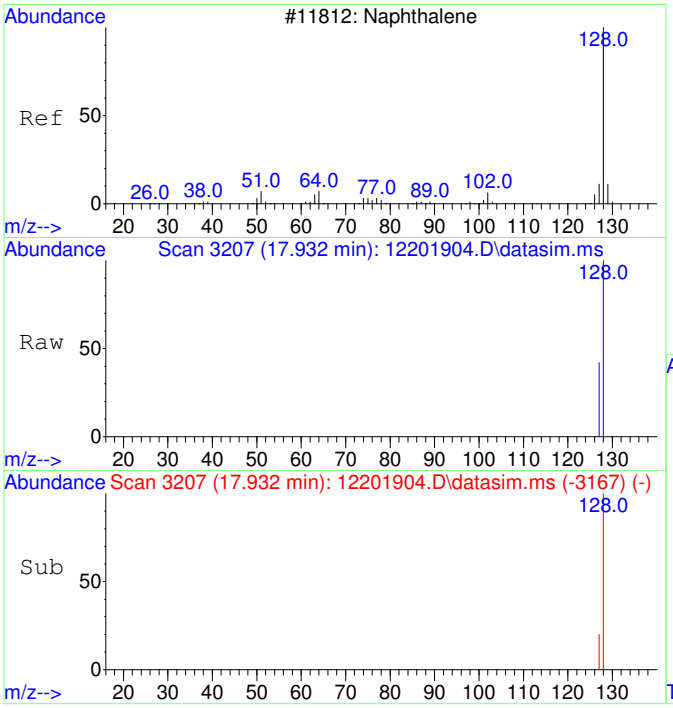


#23
1,2,4-Trimethylbenzene
Concen: 50.17 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1702

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.6	76.6

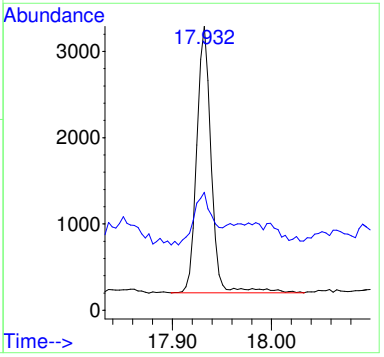


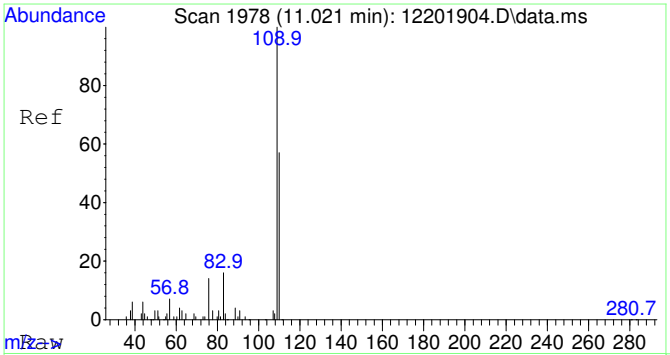


#24
Naphthalene
Concen: 51.04 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 3128

Ion	Ratio	Lower	Upper
128	100		
127	48.3	0.0	42.5#

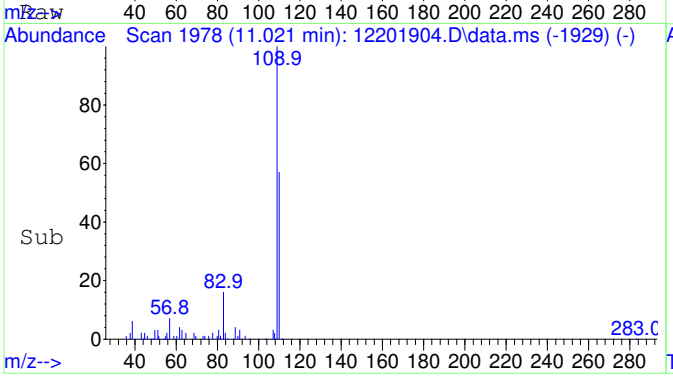


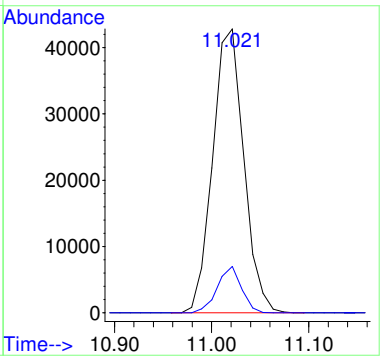


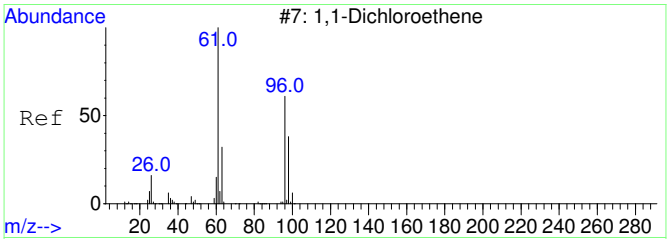
#25
2-Fluorotoluene SCAN
Concen: 5001.59 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 95152

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	44.7



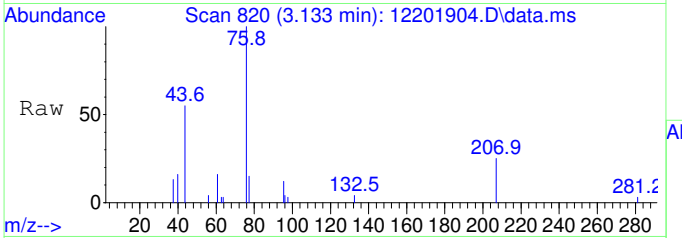


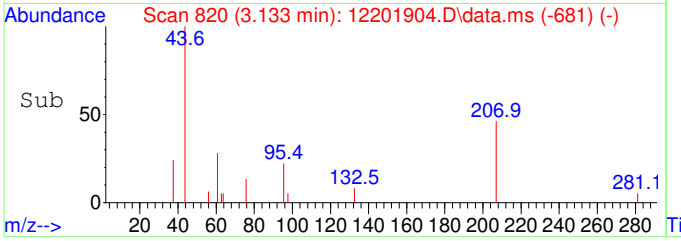


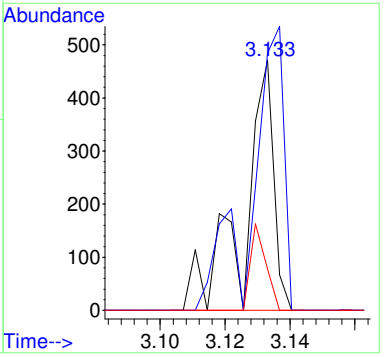
#26
1,1-Dichloroethene SCAN
Concen: 72.44 ug/L
RT: 3.133 min Scan# 820
Delta R.T. 0.015 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

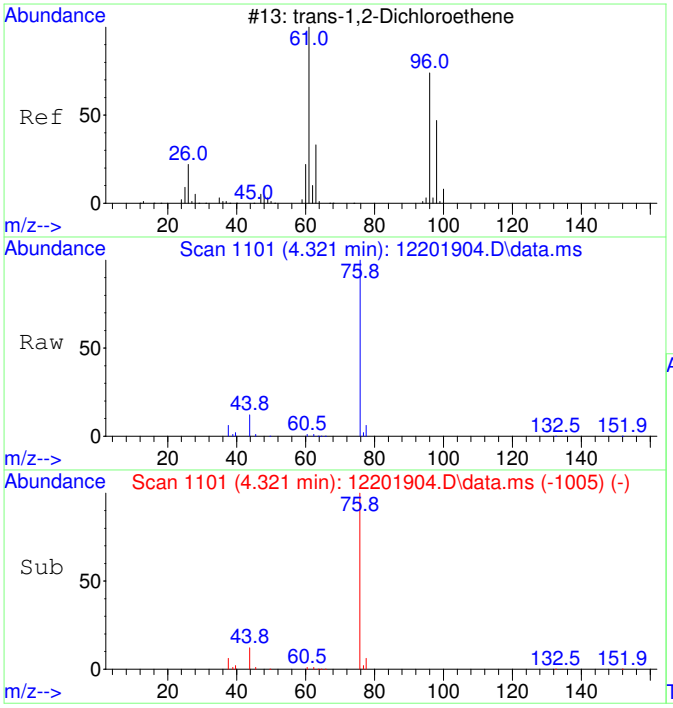
Tgt Ion: 61 Resp: 302

Ion	Ratio	Lower	Upper
61	100		
96	122.5	34.8	94.8#
98	17.9	12.9	72.9





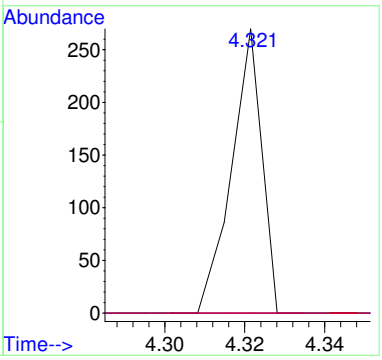


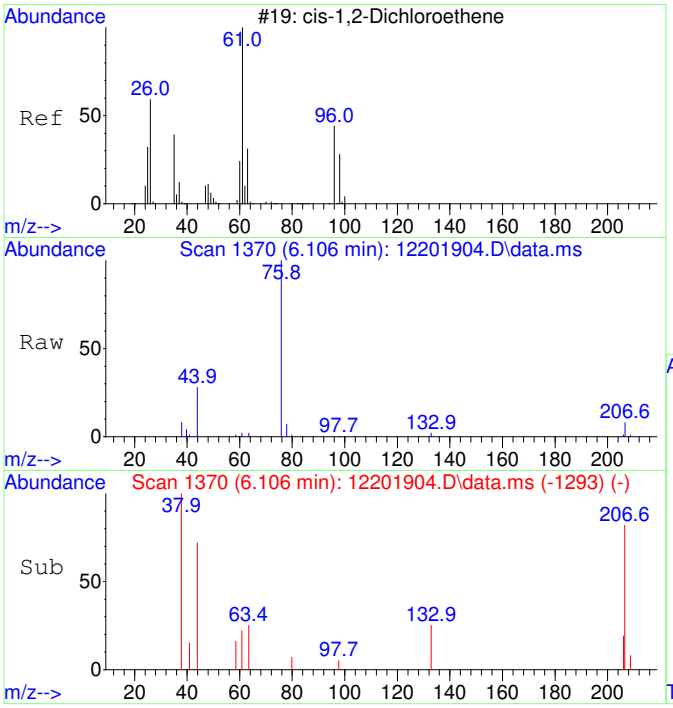


#27
trans-1,2-Dichloroethene SCAN
Concen: 35.95 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 142

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.7	102.7#
98	0.0	23.4	83.4#

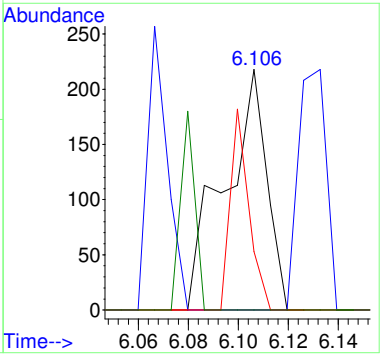


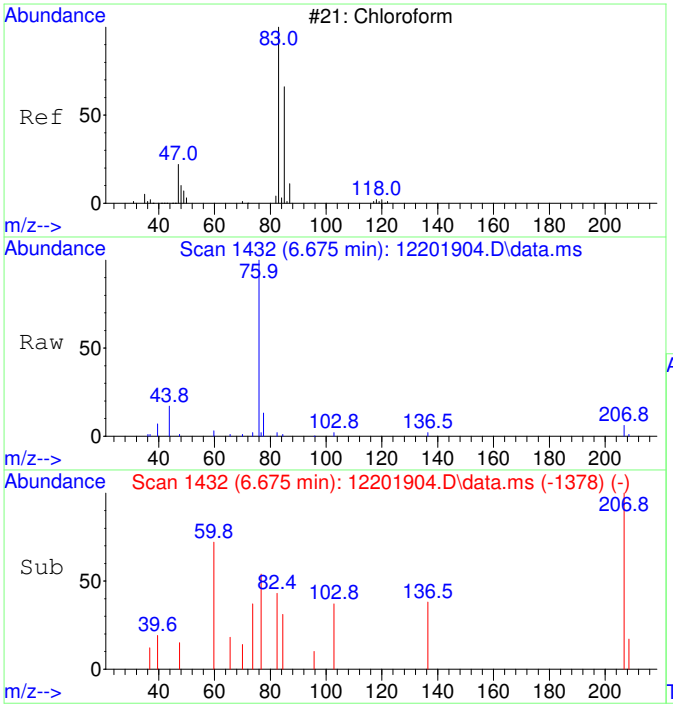


#29
cis-1,2-Dichloroethene SCAN
Concen: 54.29 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 257

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.1	106.1#
98	36.6	20.8	80.8
63	0.0	9.0	69.0#

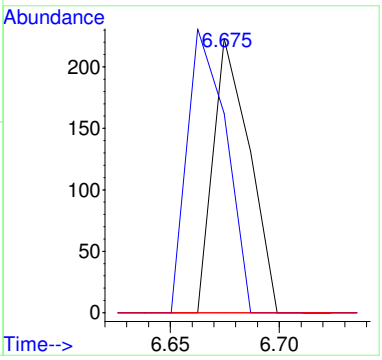


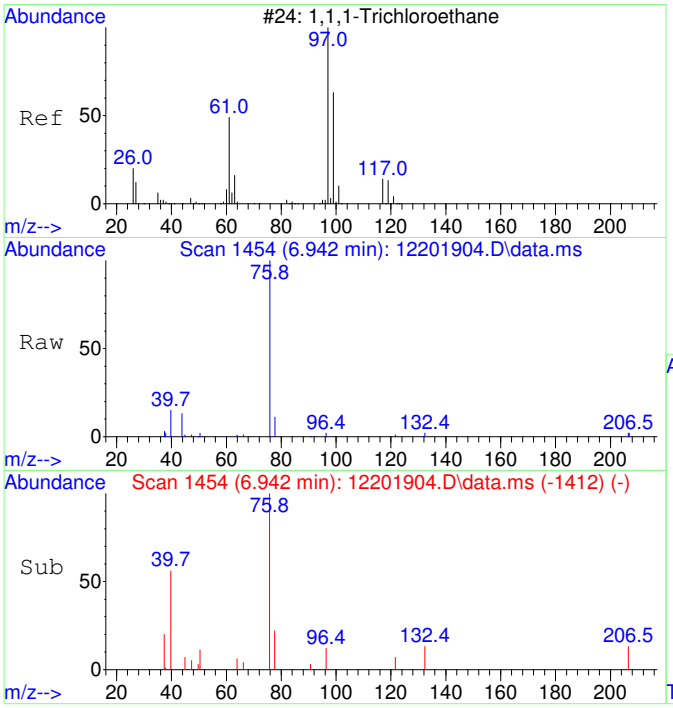


#30
Chloroform SCAN
Concen: 51.04 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 258

Ion	Ratio	Lower	Upper
83	100		
85	111.2	42.9	102.9#
47	0.0	4.5	64.5#

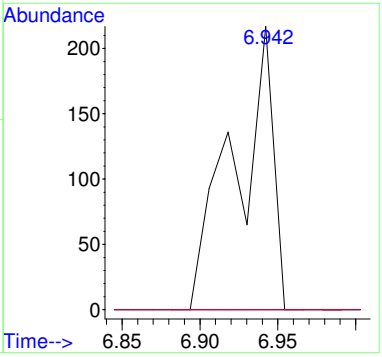


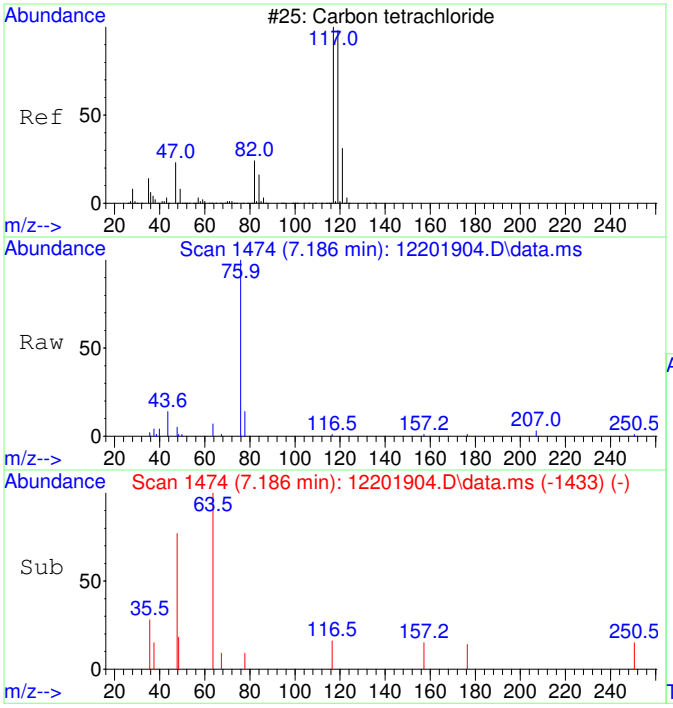


#31
1,1,1-Trichloroethane SCAN
Concen: 64.19 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 373

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

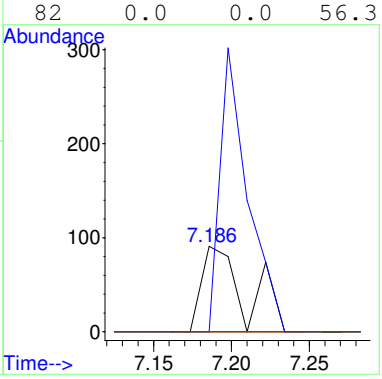


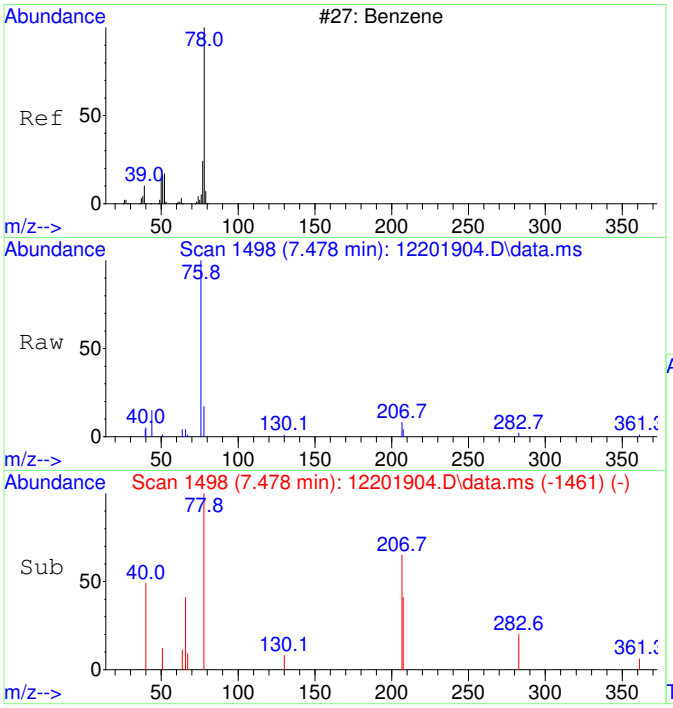


#32
Carbon tetrachloride SCAN
Concen: 35.97 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 179

Ion	Ratio	Lower	Upper
117	100		
119	210.6	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

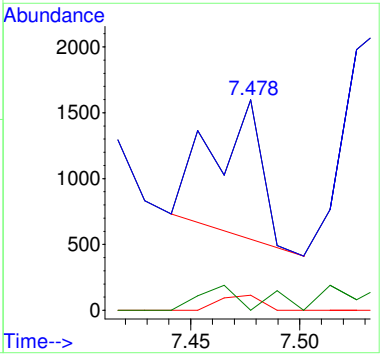


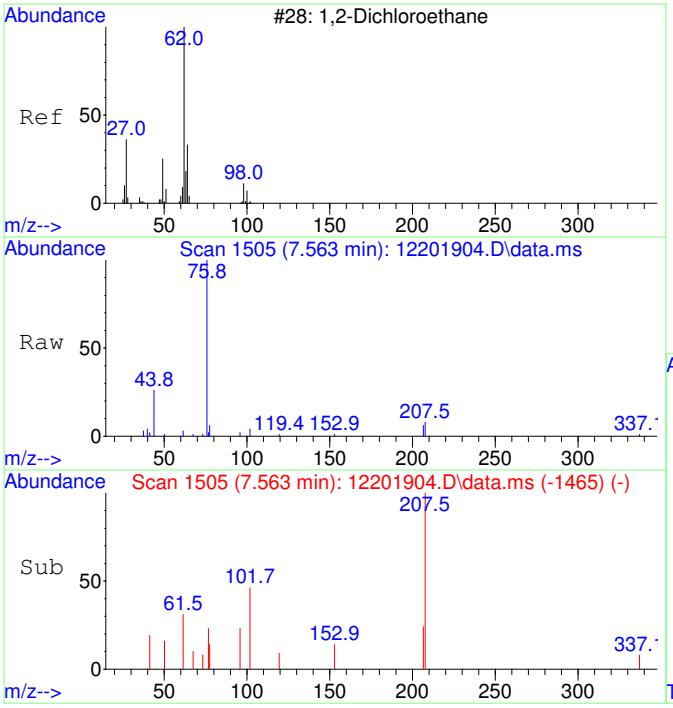


#33
Benzene SCAN
Concen: 97.37 ug/L
RT: 7.478 min Scan# 1498
Delta R.T. -0.049 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1484

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	10.2	0.0	45.4
52	14.8	0.0	30.0

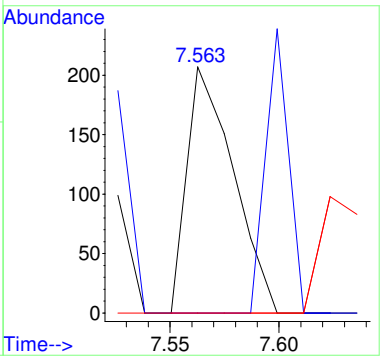


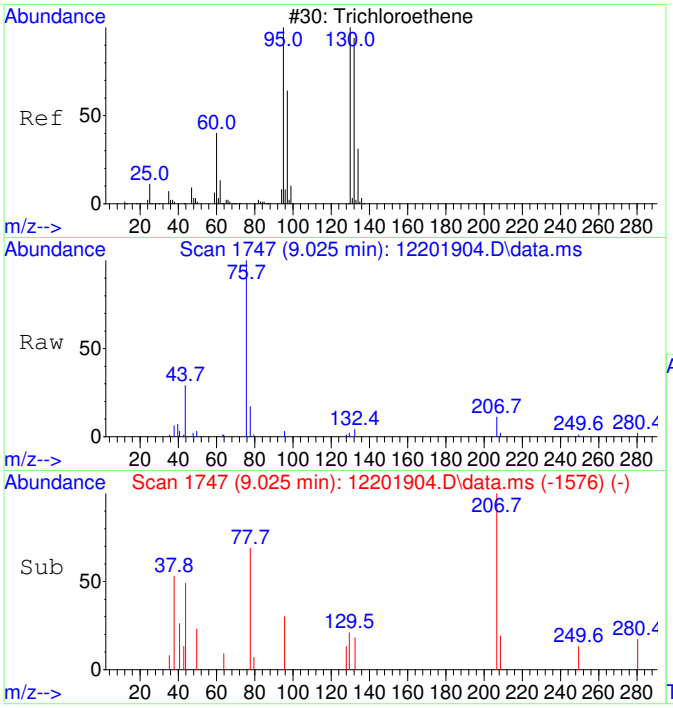


#34
1,2-Dichloroethane SCAN
Concen: 59.06 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 307

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

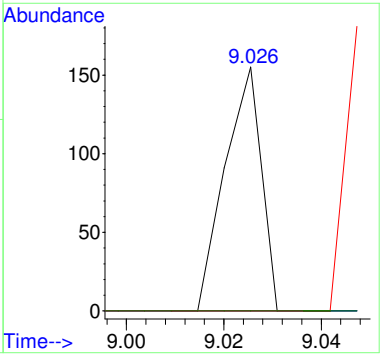


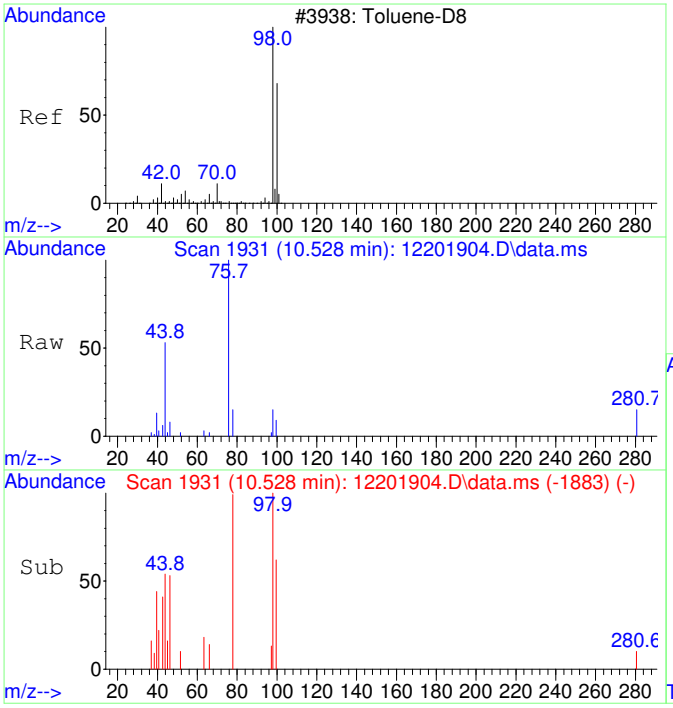


#35
Trichloroethene SCAN
Concen: 20.55 ug/L
RT: 9.025 min Scan# 1747
Delta R.T. 0.430 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 80

Ion	Ratio	Lower	Upper
130	100		
95	0.0	75.7	135.7#
132	0.0	77.1	137.1#
97	0.0	43.8	103.8#

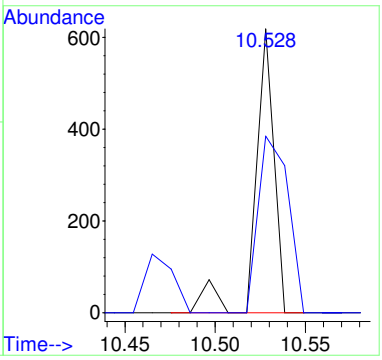


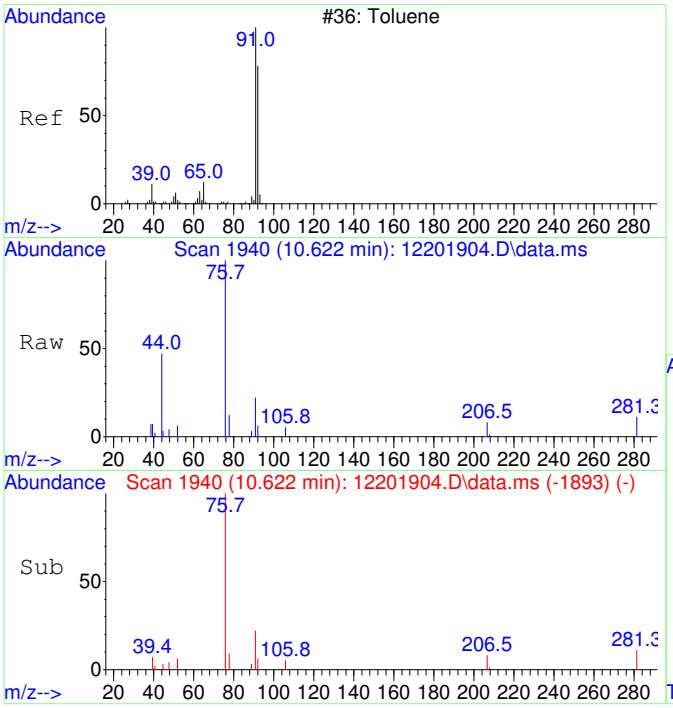


#36
Toluene-d8 SCAN
Concen: 26.97 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 435

Ion	Ratio	Lower	Upper
98	100		
100	102.1	44.4	104.4

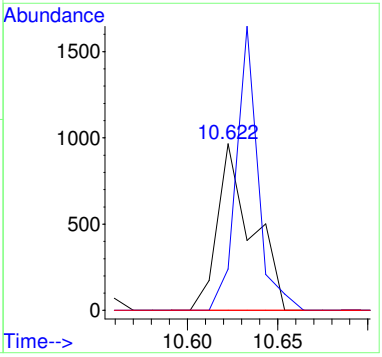


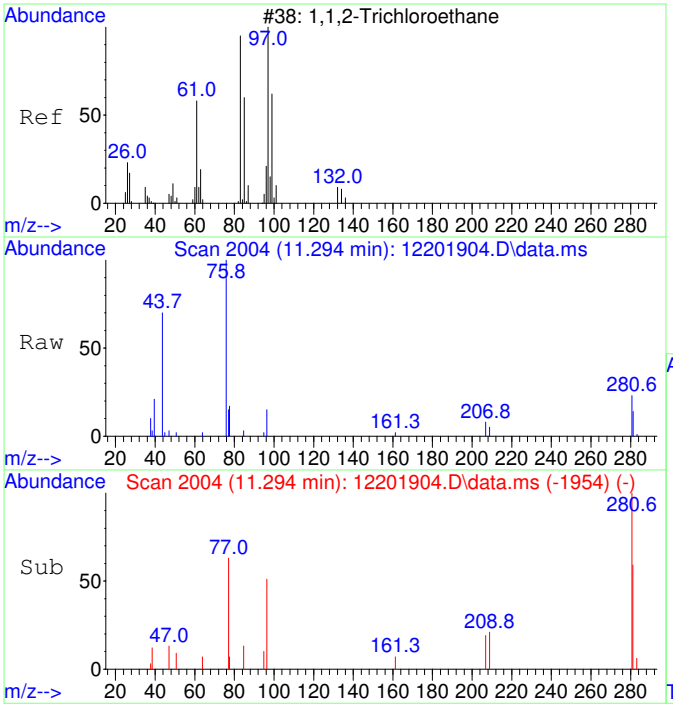


#37
Toluene SCAN
Concen: 68.37 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1288

Ion	Ratio	Lower	Upper
91	100		
92	107.1	31.5	91.5#
65	0.0	0.0	30.0

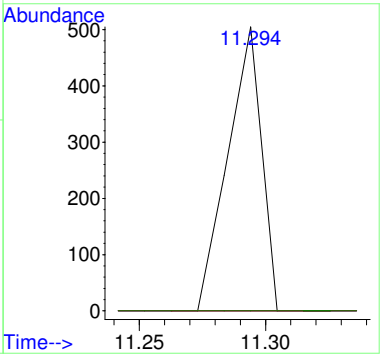


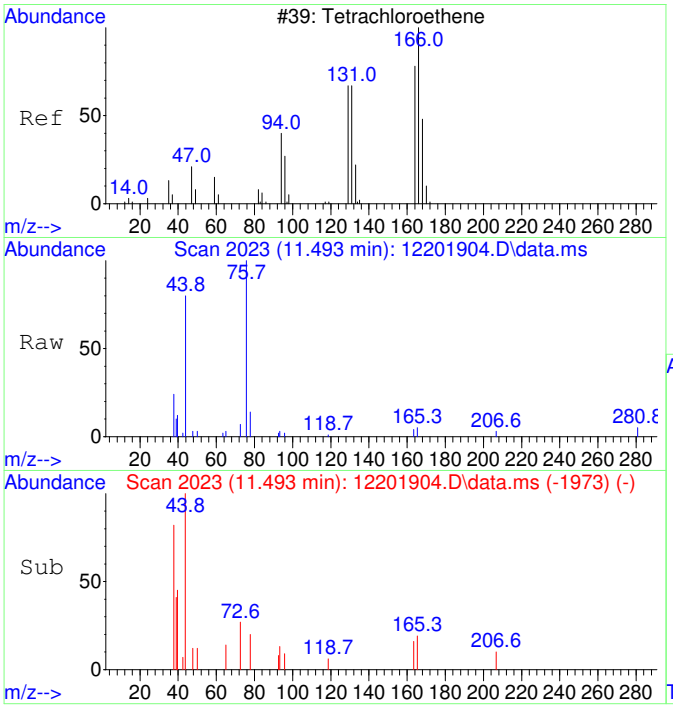


#38
1,1,2-Trichloroethane SCAN
Concen: 114.68 ug/L
RT: 11.294 min Scan# 2004
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 470

Ion	Ratio	Lower	Upper
97	100		
83	0.0	67.7	127.7#
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

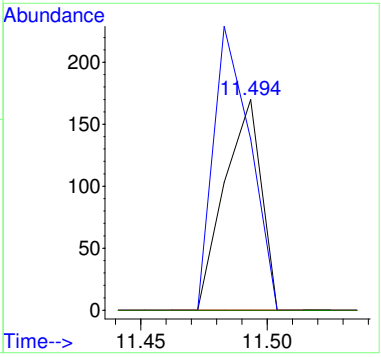


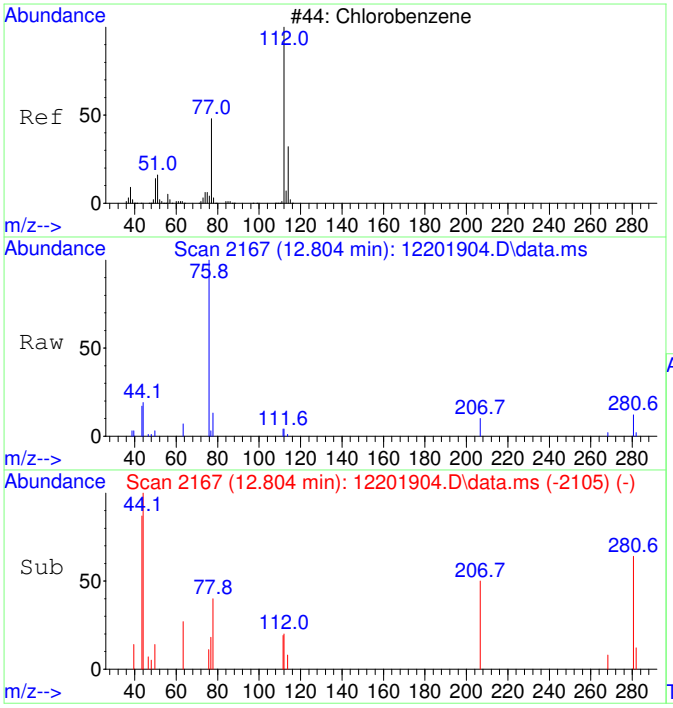


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.493 min Scan# 2023
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 172

Ion	Ratio	Lower	Upper
166	100		
164	134.3	61.8	121.8#
131	0.0	51.8	111.8#
129	0.0	36.0	96.0#

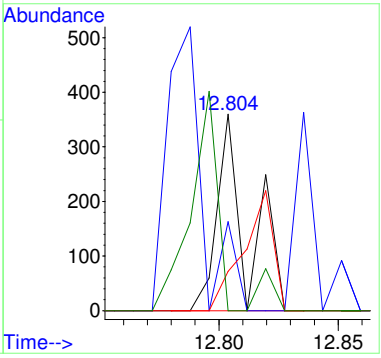


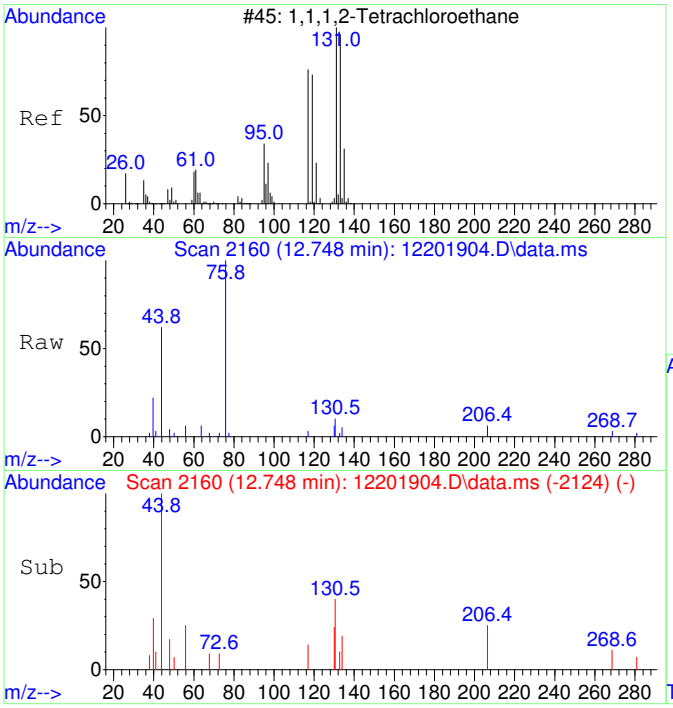


#40
Chlorobenzene SCAN
Concen: 21.25 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 319

Ion	Ratio	Lower	Upper
112	100		
77	167.4	27.8	87.8#
114	0.0	3.1	63.1#
51	95.3	0.0	49.9#

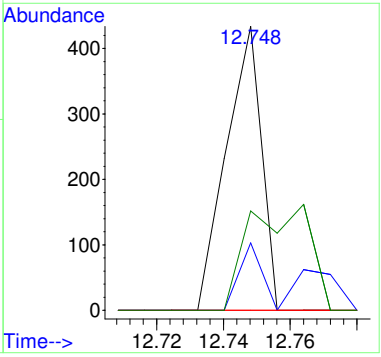


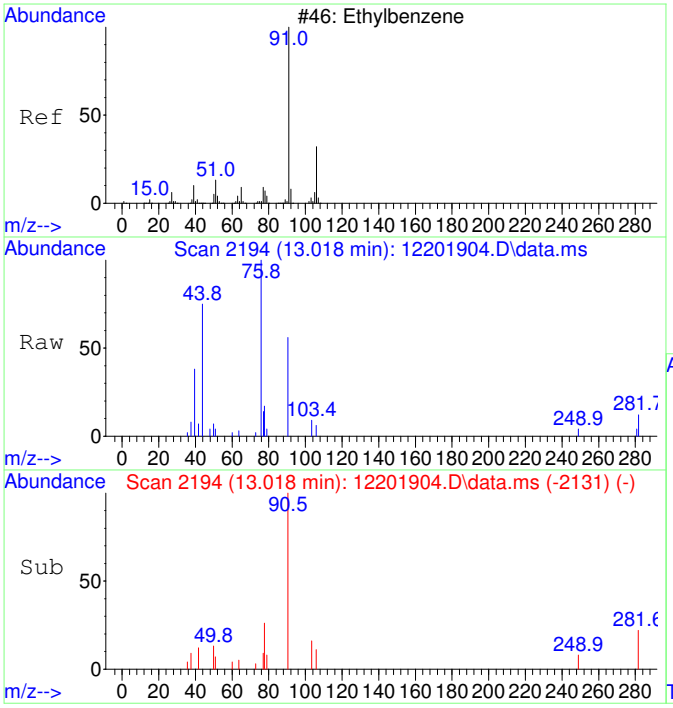


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 65.46 ug/L
RT: 12.748 min Scan# 2160
Delta R.T. -0.215 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 317

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	65.0	38.9	98.9

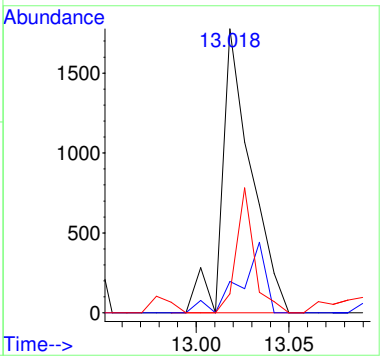


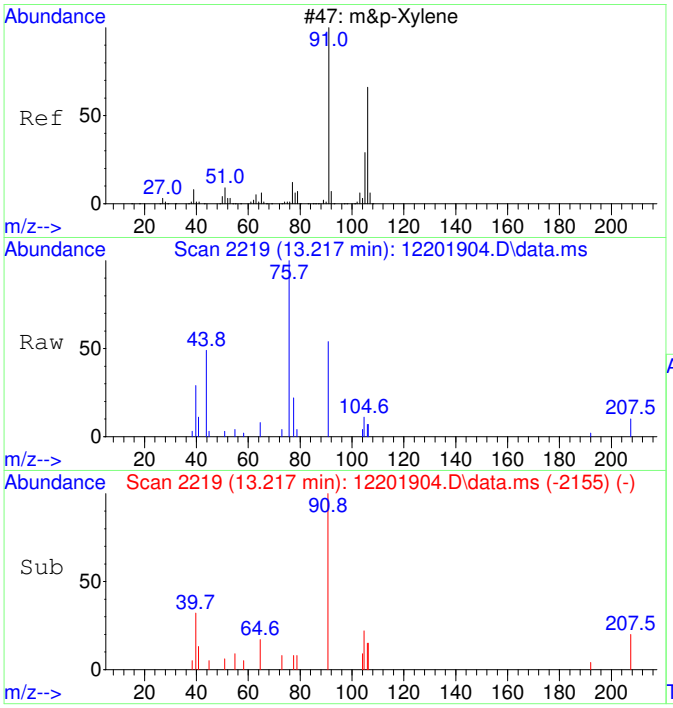


#42
Ethylbenzene SCAN
Concen: 81.16 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1932

Ion	Ratio	Lower	Upper
91	100		
106	21.4	1.3	61.3
51	27.1	0.0	39.4

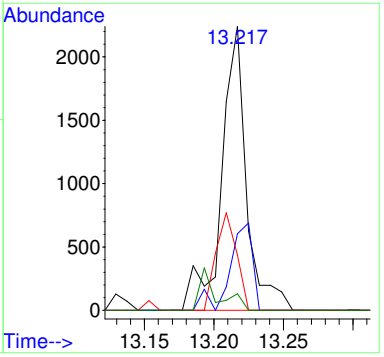


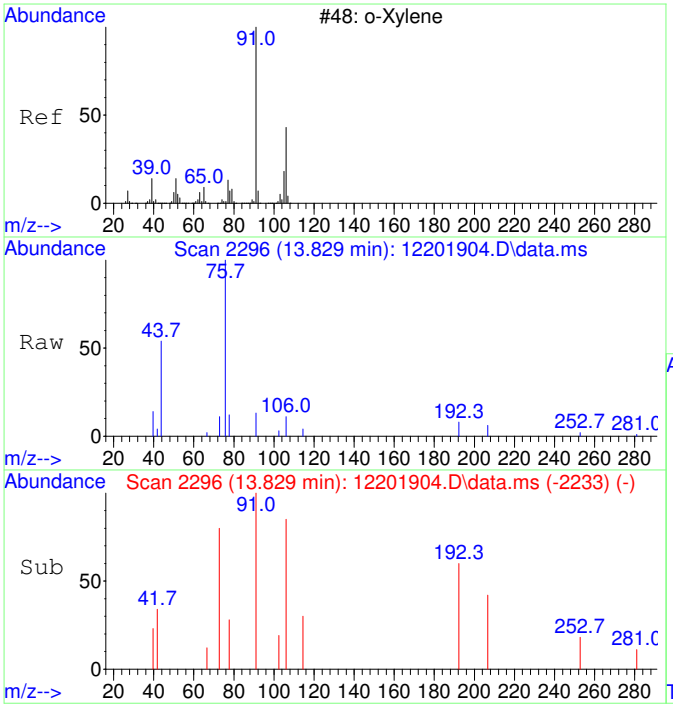


#43
m&p-Xylene SCAN
Concen: 78.30 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2795

Ion	Ratio	Lower	Upper
91	100		
106	28.1	19.0	79.0
105	28.4	0.0	54.9
51	0.0	0.0	41.2

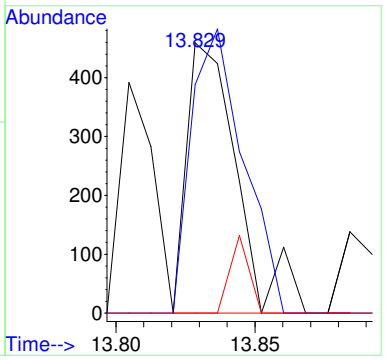


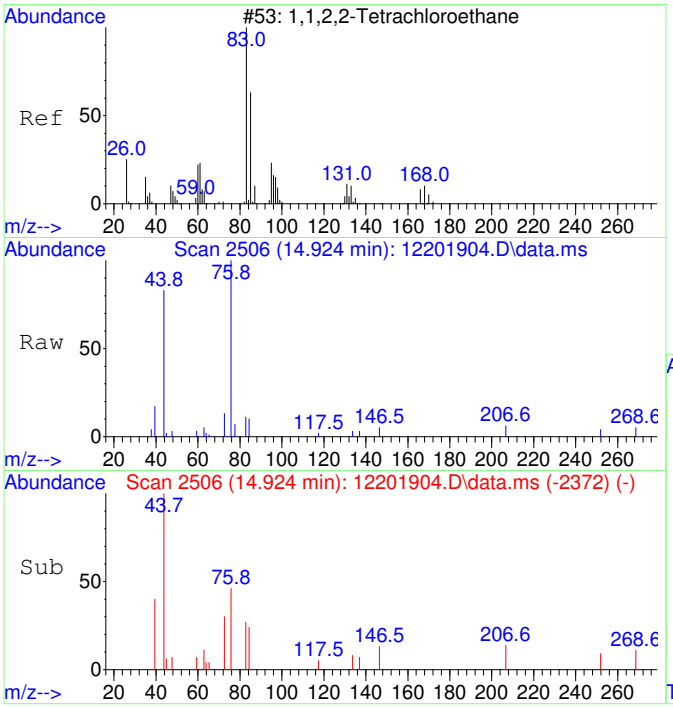


#44
o-Xylene SCAN
Concen: 28.71 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 581

Ion	Ratio	Lower	Upper
91	100		
106	108.4	17.2	77.2#
105	10.8	0.0	57.7

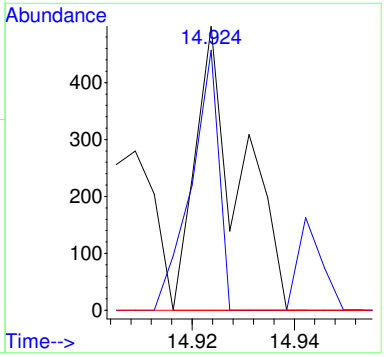


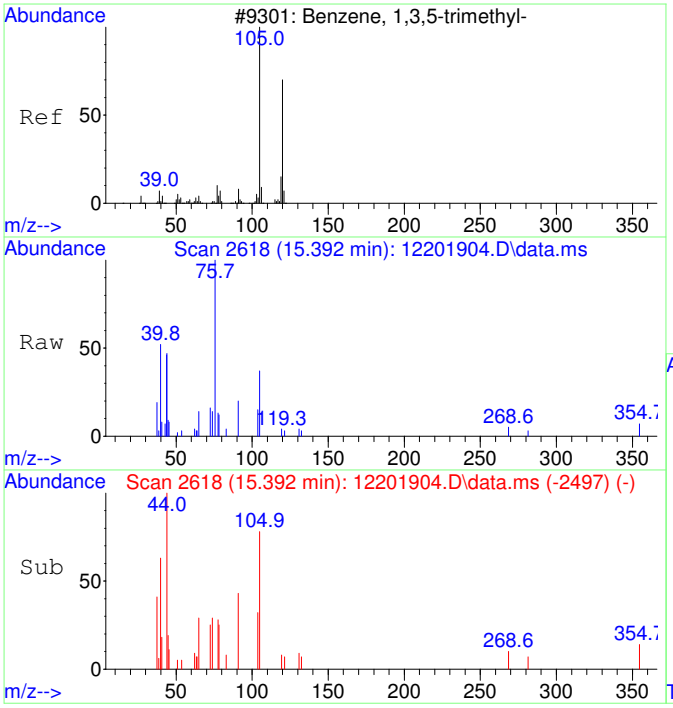


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 33.54 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 306

Ion	Ratio	Lower	Upper
83	100		
85	56.2	37.2	97.2
95	0.0	0.0	48.7

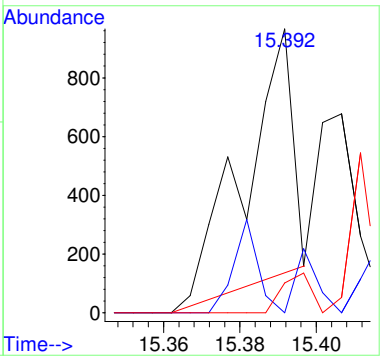


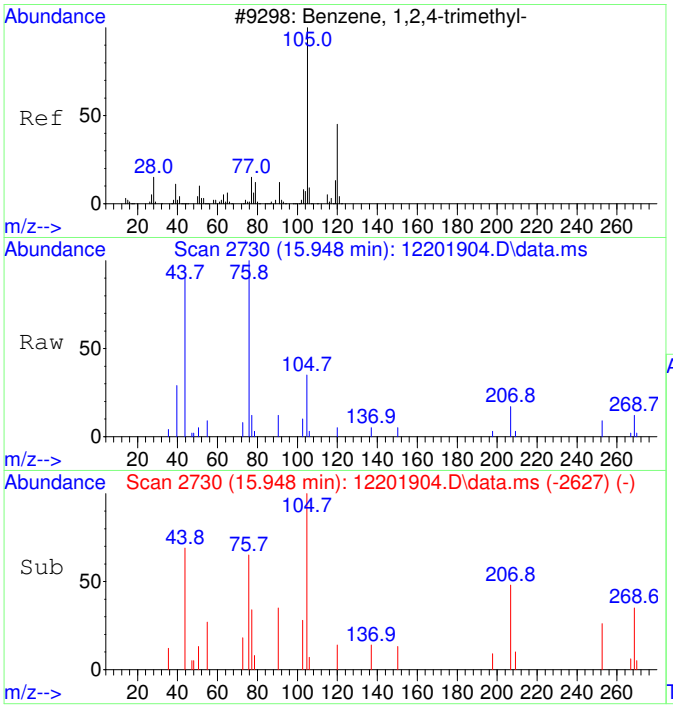


#46
1,3,5-Trimethylbenzene SCAN
Concen: 35.18 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 744

Ion	Ratio	Lower	Upper
105	100		
120	11.6	22.3	82.3#
119	0.0	0.0	43.8

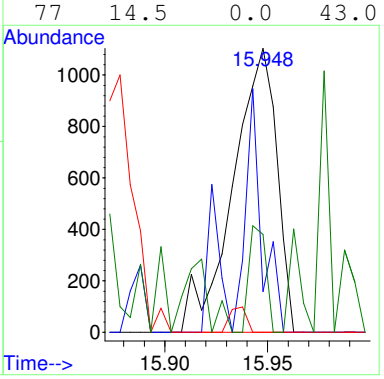


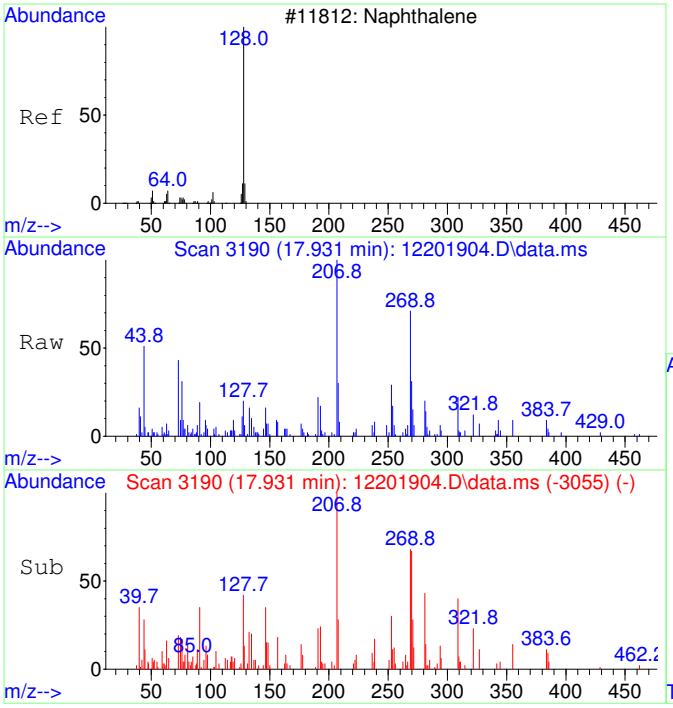


#47
1,2,4-Trimethylbenzene SCAN
Concen: 76.02 ug/L
RT: 15.948 min Scan# 2730
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1632

Ion	Ratio	Lower	Upper
105	100		
120	31.7	15.8	75.8
119	3.4	0.0	42.9
77	14.5	0.0	43.0

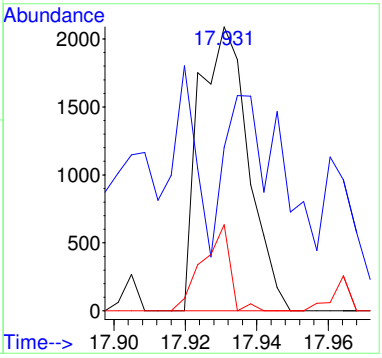




#48
Naphthalene SCAN
Concen: 57.87 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 2007

Ion	Ratio	Lower	Upper
128	100		
127	59.0	0.0	30.0#
129	17.0	0.0	34.5



Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 12:37 pm, Dec 20, 2019

M.I. Approved By:
ZR at 11:45 am, Dec 26, 2019

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

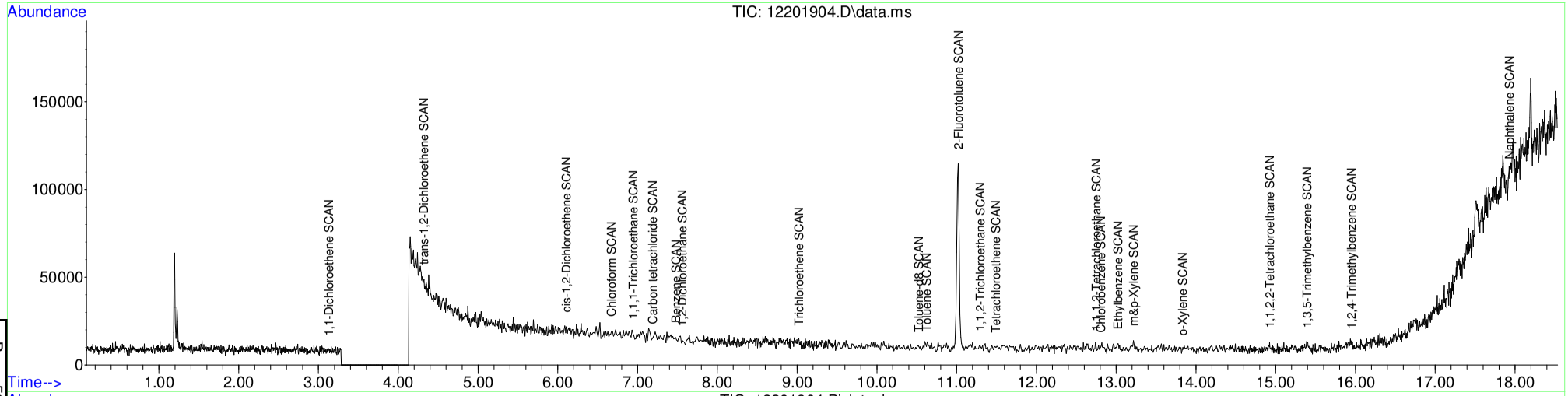
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	153340	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	1290	52.38	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.05%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.123	61	364m	55.47	ug/L	
3] trans-1,2-Dichloroethene	4.329	61	390	57.95	ug/L	99
4] 1,1-Dichloroethane	5.073	63	489	57.16	ug/L	94
5] cis-1,2-Dichloroethene	6.094	61	444	56.44	ug/L	91
6] Chloroform	6.676	83	520	57.23	ug/L	96
7] 1,1,1-Trichloroethane	6.931	97	525	57.65	ug/L	95
8] Carbon tetrachloride	7.199	117	461	53.35	ug/L	93
9] Benzene	7.527	78	1552	67.77	ug/L	93
10] 1,2-Dichloroethane	7.576	62	439	58.40	ug/L #	18
11] Trichloroethene	8.608	130	384	54.66	ug/L	92
13] Toluene	10.624	91	1599	53.52	ug/L	97
14] 1,1,2-Trichloroethane	11.274	97	368	54.36	ug/L	97
15] Tetrachloroethene	11.474	166	438	48.58	ug/L	96
16] Chlorobenzene	12.813	112	1159	50.81	ug/L	80
17] 1,1,1,2-Tetrachloroethane	12.964	131	398	50.00	ug/L	89
18] Ethylbenzene	13.020	91	1915	51.95	ug/L	98
19] m&p-Xylene	13.210	91	2903	103.35	ug/L	98
20] o-Xylene	13.830	91	1516	50.89	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.925	83	663	49.57	ug/L	99
22] 1,3,5-Trimethylbenzene	15.393	105	1643	49.50	ug/L	99
23] 1,2,4-Trimethylbenzene	15.939	105	1702	50.17	ug/L	100
24] Naphthalene	17.932	128	3128	51.04	ug/L #	9
25) 2-Fluorotoluene SCAN	11.021	109	95152	5001.59	ug/L	95
26) 1,1-Dichloroethene SCAN	3.133	61	302	72.44	ug/L #	40
27) trans-1,2-Dichloroethe...	4.321	61	142	35.95	ug/L #	18
29) cis-1,2-Dichloroethene...	6.106	61	257	54.29	ug/L #	38
30) Chloroform SCAN	6.675	83	258	51.04	ug/L #	50
31) 1,1,1-Trichloroethane ...	6.942	97	373	64.19	ug/L #	29
32) Carbon tetrachloride SCAN	7.186	117	179	35.97	ug/L #	9
33) Benzene SCAN	7.478	78	1484	97.37	ug/L	98
34) 1,2-Dichloroethane SCAN	7.563	62	307	59.06	ug/L #	36
35) Trichloroethene SCAN	9.025	130	80	20.55	ug/L #	1
36) Toluene-d8 SCAN	10.528	98	435	26.97	ug/L	67
37) Toluene SCAN	10.622	91	1288	68.37	ug/L #	41
38) 1,1,2-Trichloroethane ...	11.294	97	470	114.68	ug/L #	11
39) Tetrachloroethene SCAN	11.493	166	172	31.50	ug/L #	29
40) Chlorobenzene SCAN	12.804	112	319	21.25	ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.748	131	317	65.46	ug/L #	31
42) Ethylbenzene SCAN	13.018	91	1932	81.16	ug/L	75
43) m&p-Xylene SCAN	13.217	91	2795	78.30	ug/L #	76
44) o-Xylene SCAN	13.829	91	581	28.71	ug/L #	30
45) 1,1,2,2-Tetrachloroeth...	14.924	83	306	33.54	ug/L #	80
46) 1,3,5-Trimethylbenzene...	15.392	105	744	35.18	ug/L #	47
47) 1,2,4-Trimethylbenzene...	15.948	105	1632	76.02	ug/L	81
48) Naphthalene SCAN	17.931	128	2007	57.87	ug/L #	62

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\122019\
Data File : 12201904.D
Acq On : 20 Dec 2019 11:37
InstName : AG5975C
Operator : TD
Sample : S19L083-CRL1
Misc : 1930060 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 11:56:13 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\122019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



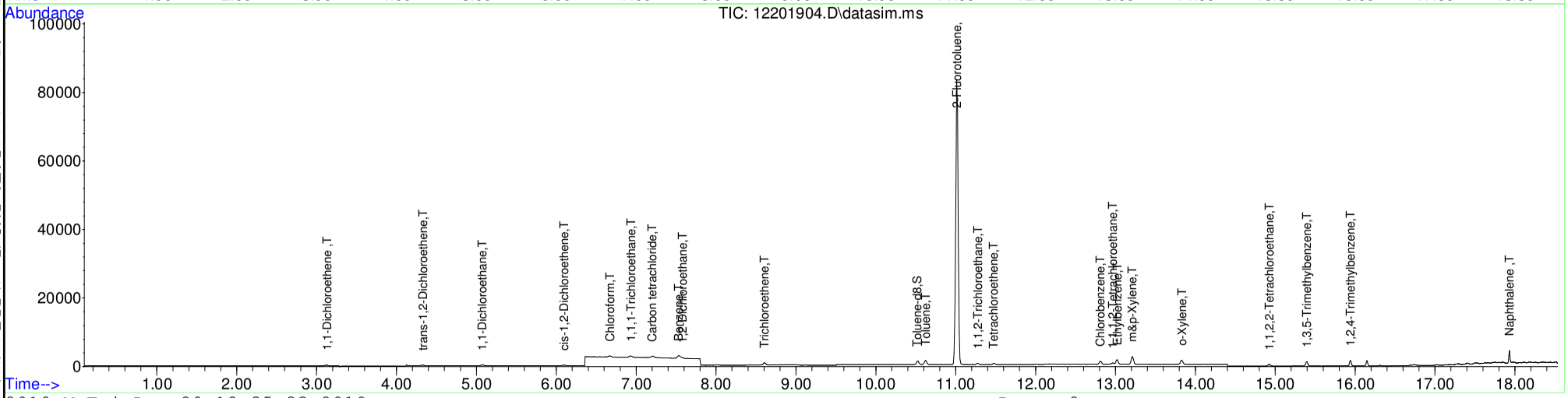
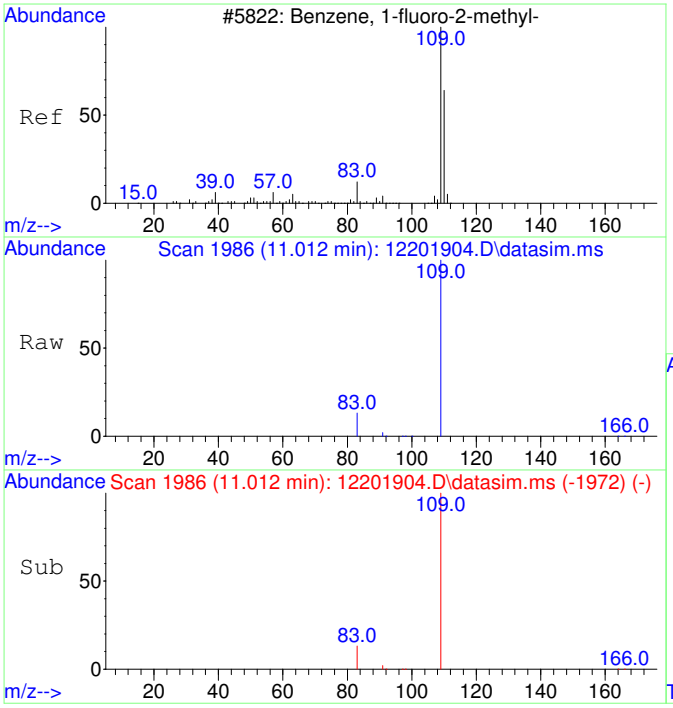


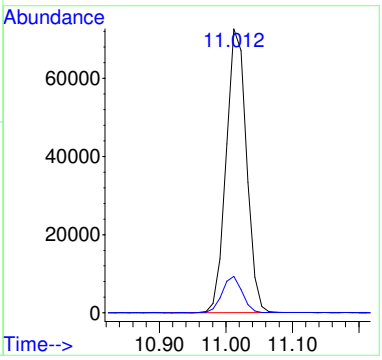
Table of Contents

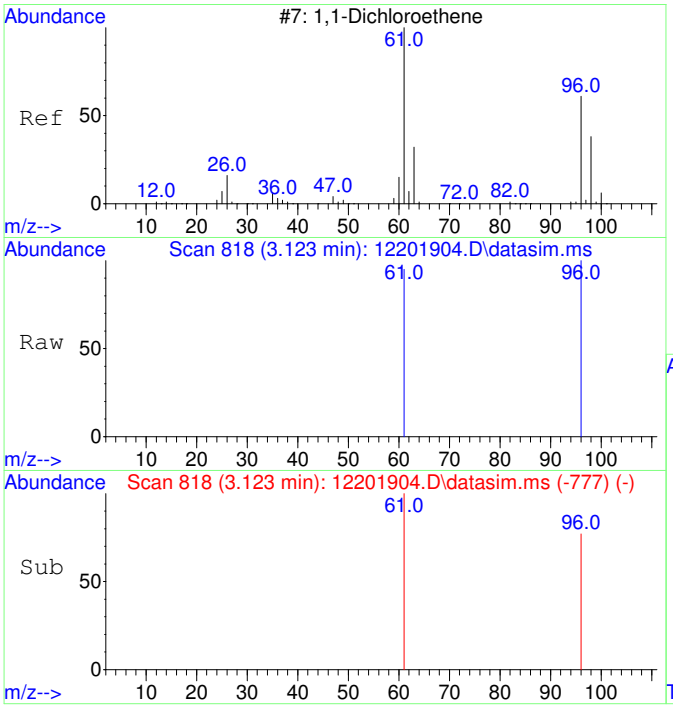


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 153340

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

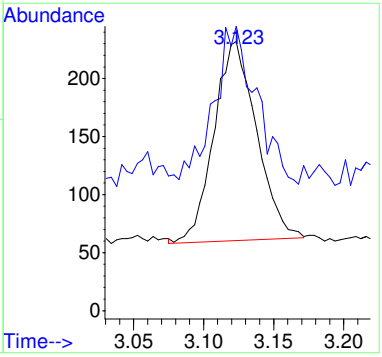


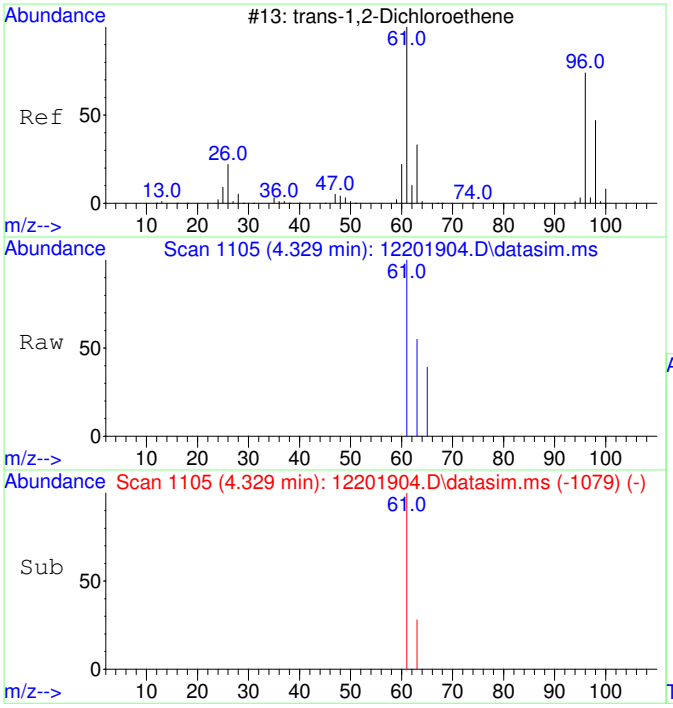


#2
1,1-Dichloroethene
Concen: 55.47 ug/L m
RT: 3.123 min Scan# 818
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 364

Ion	Ratio	Lower	Upper
61	100		
96	148.6	33.5	93.5#

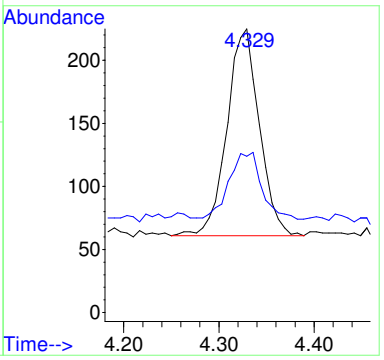


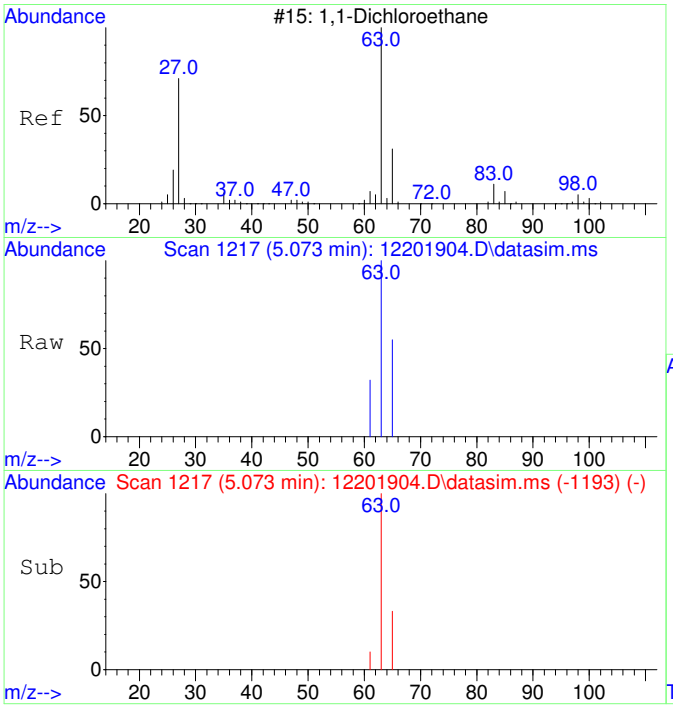


#3
trans-1,2-Dichloroethene
Concen: 57.95 ug/L
RT: 4.329 min Scan# 1105
Delta R.T. 0.020 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 390

Ion	Ratio	Lower	Upper
61	100		
63	33.1	2.3	62.3

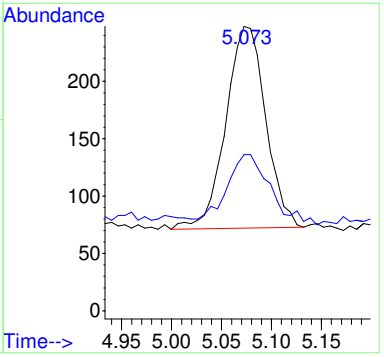


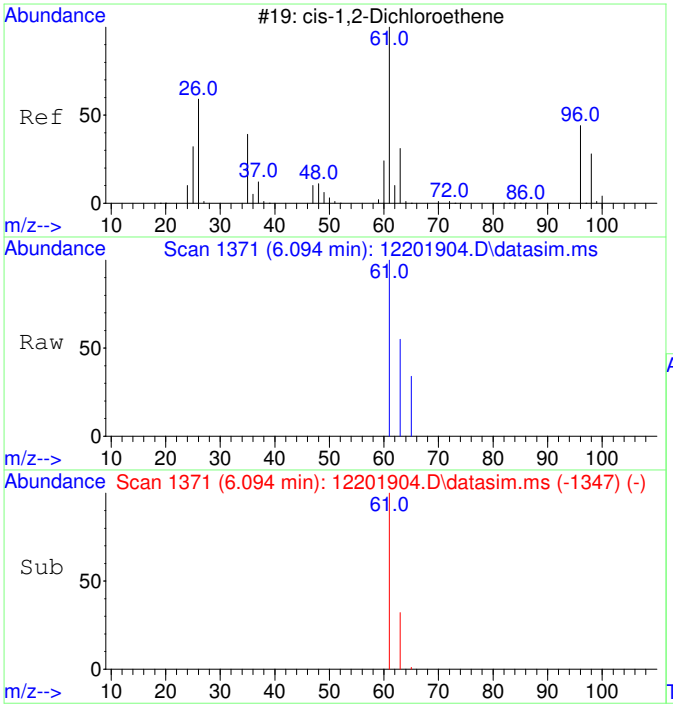


#4
1,1-Dichloroethane
Concen: 57.16 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 63 Resp: 489

Ion	Ratio	Lower	Upper
63	100		
65	35.2	1.9	61.9

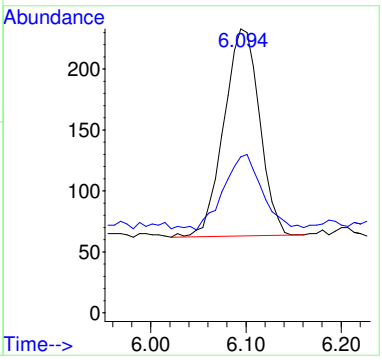


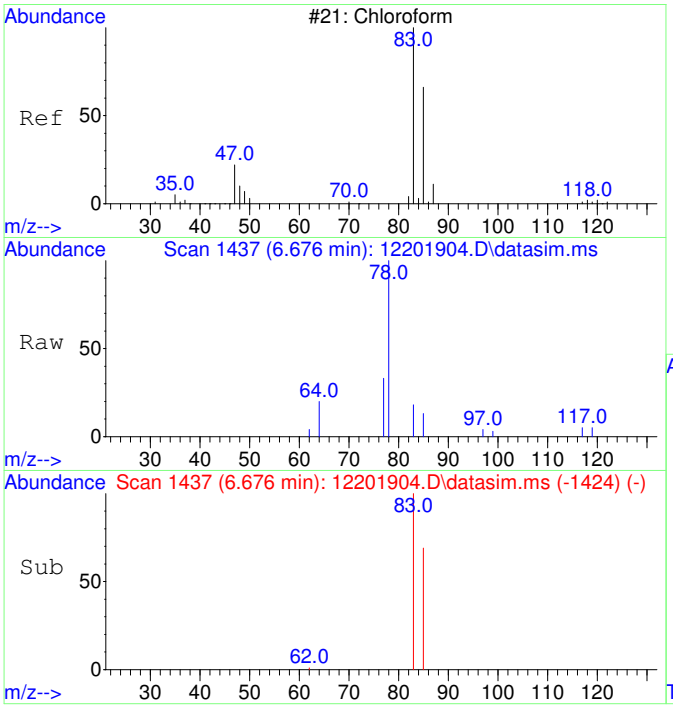


#5
cis-1,2-Dichloroethene
Concen: 56.44 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 444

Ion	Ratio	Lower	Upper
61	100		
63	37.6	2.5	62.5

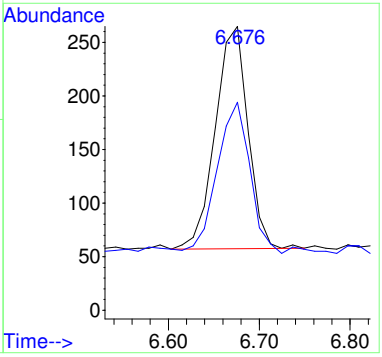


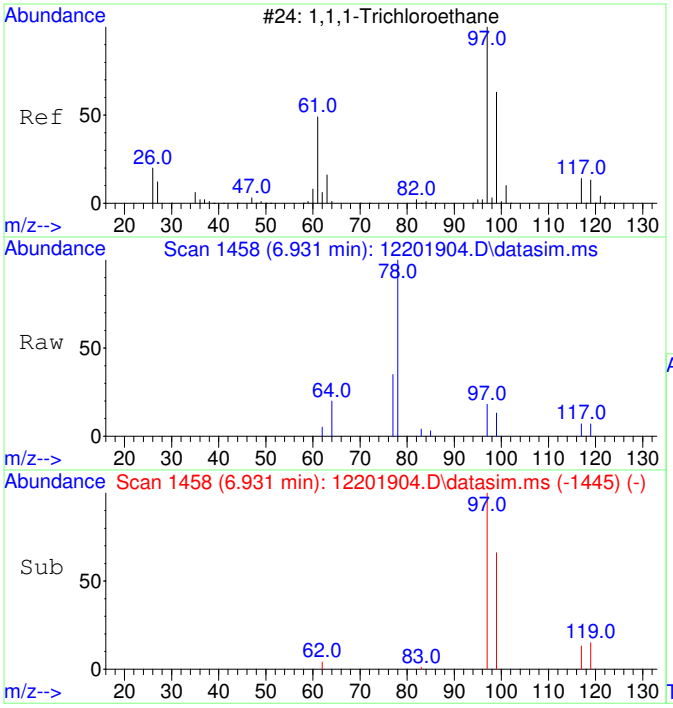


#6
Chloroform
Concen: 57.23 ug/L
RT: 6.676 min Scan# 1437
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 520

Ion	Ratio	Lower	Upper
83	100		
85	67.9	35.0	95.0

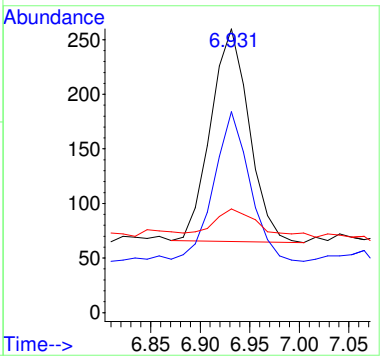


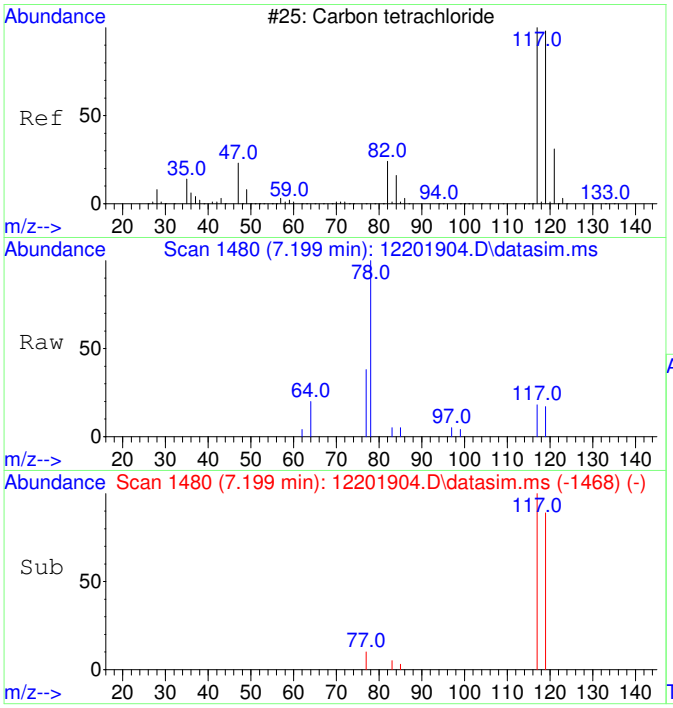


#7
1,1,1-Trichloroethane
Concen: 57.65 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 525

Ion	Ratio	Lower	Upper
97	100		
99	67.8	34.4	94.4
117	15.4	0.0	43.0

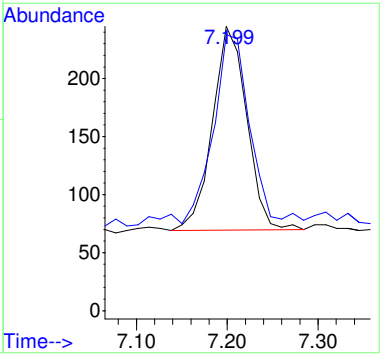


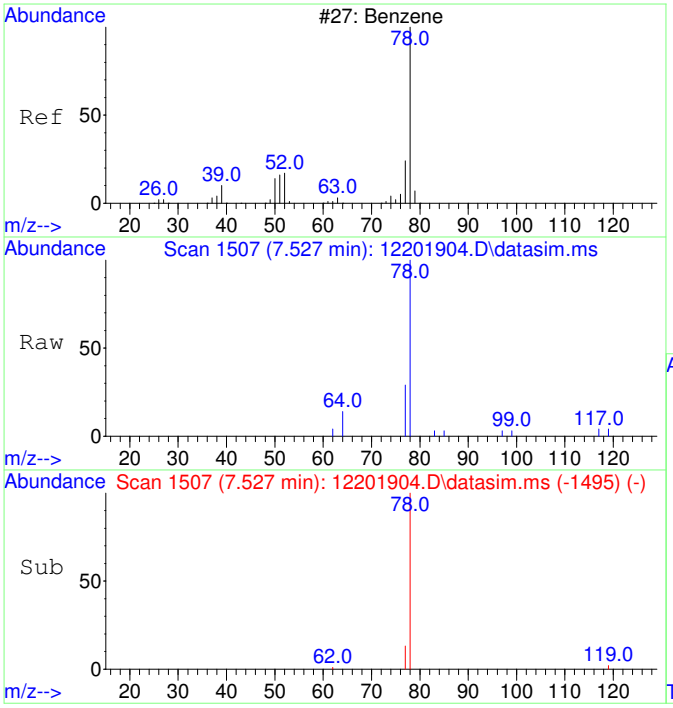


#8
Carbon tetrachloride
Concen: 53.35 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 461

Ion	Ratio	Lower	Upper
117	100		
119	103.5	66.5	126.5

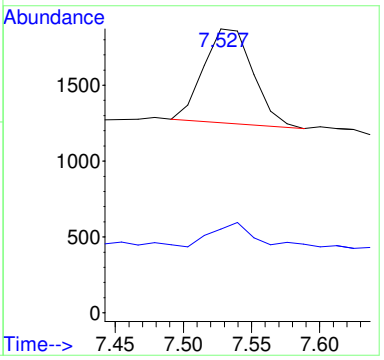


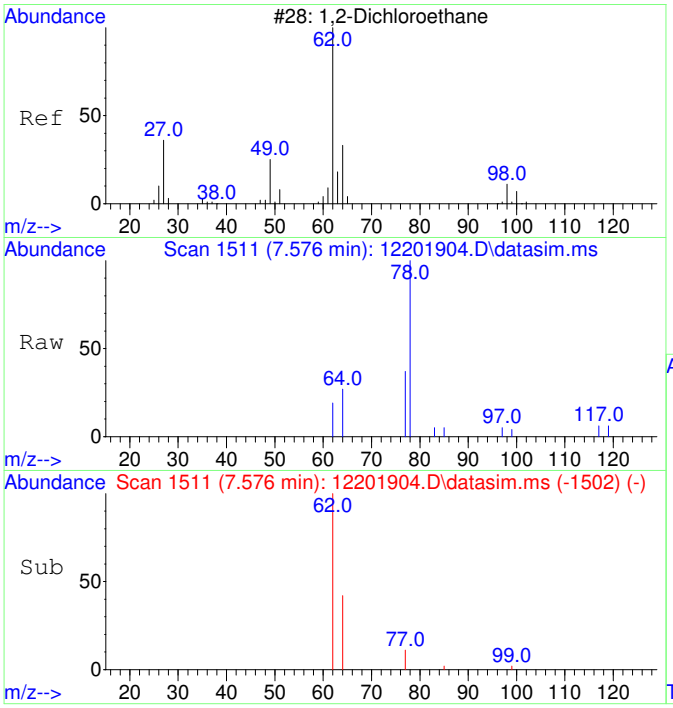


#9
Benzene
Concen: 67.77 ug/L
RT: 7.527 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1552

Ion	Ratio	Lower	Upper
78	100		
77	26.8	0.0	53.5

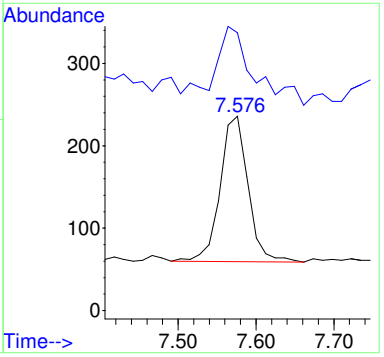


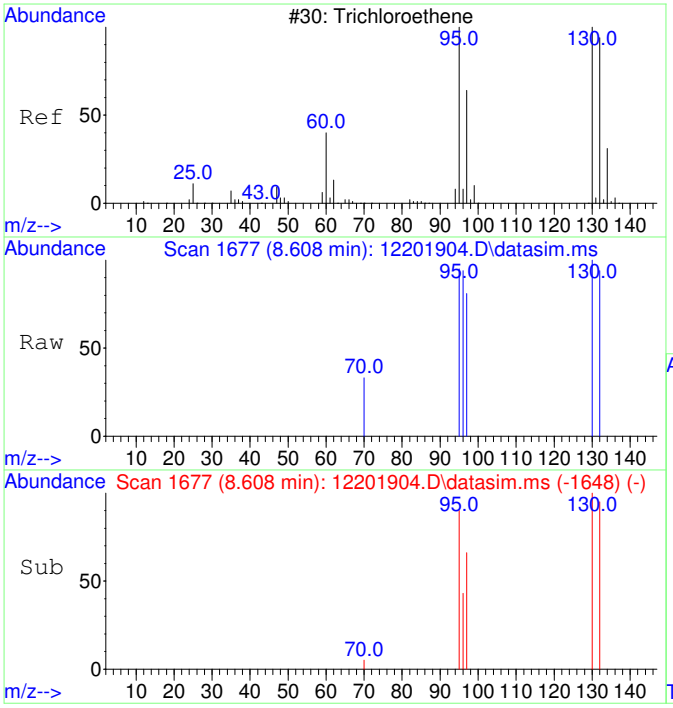


#10
1,2-Dichloroethane
Concen: 58.40 ug/L
RT: 7.576 min Scan# 1511
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 439

Ion	Ratio	Lower	Upper
62	100		
64	78.4	2.4	62.4#

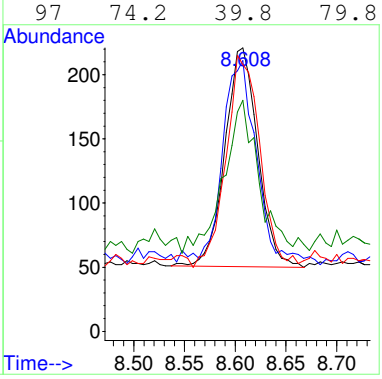


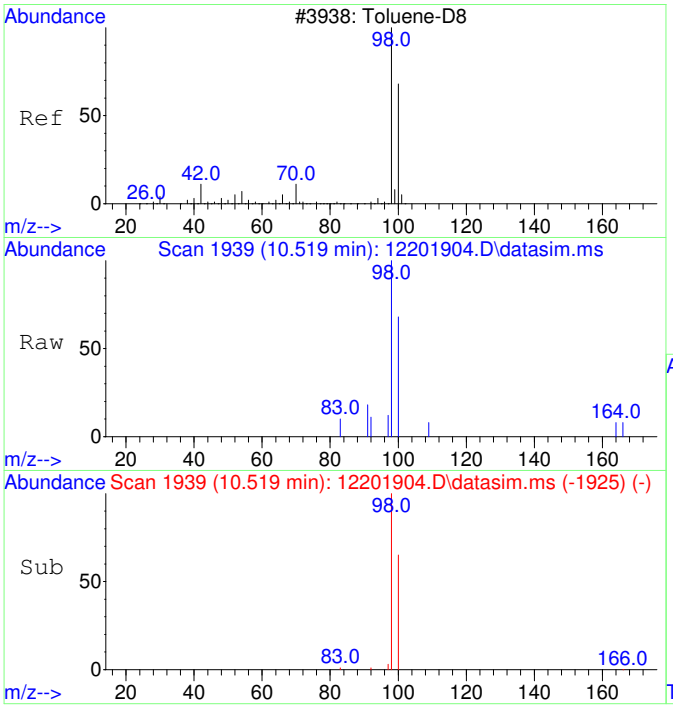


#11
Trichloroethene
Concen: 54.66 ug/L
RT: 8.608 min Scan# 1677
Delta R.T. 0.005 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 384

Ion	Ratio	Lower	Upper
130	100		
95	97.7	62.3	122.3
132	100.0	75.8	115.8
97	74.2	39.8	79.8

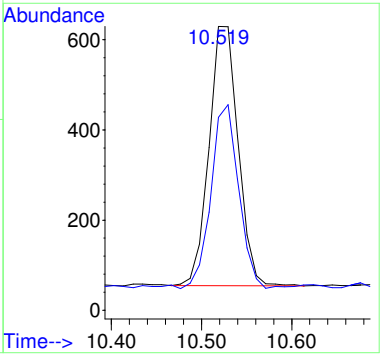


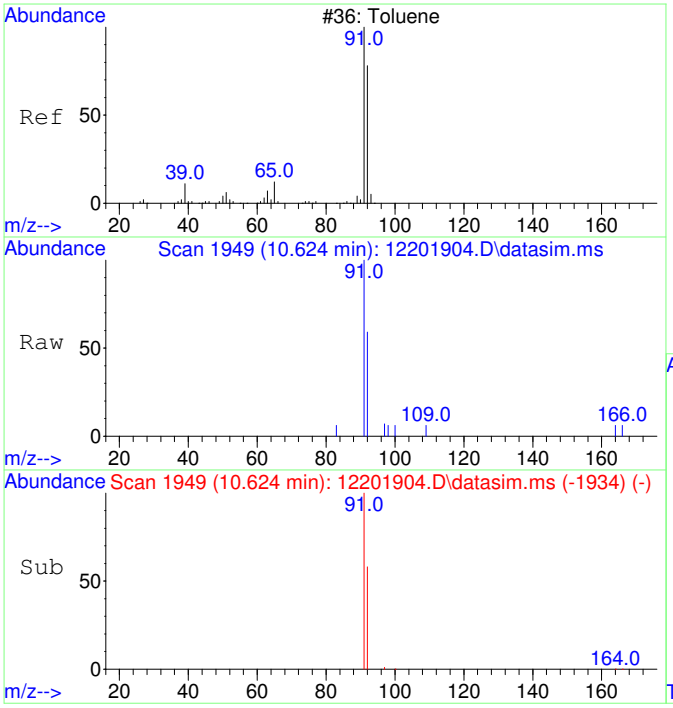


#12
Toluene-d8
Concen: 52.38 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 1290

Ion	Ratio	Lower	Upper
98	100		
100	66.1	36.2	96.2

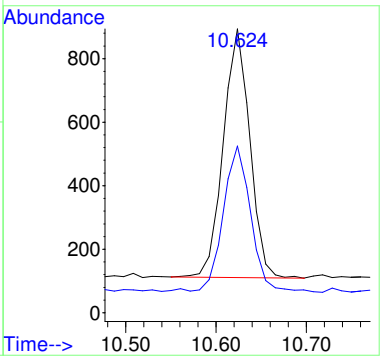


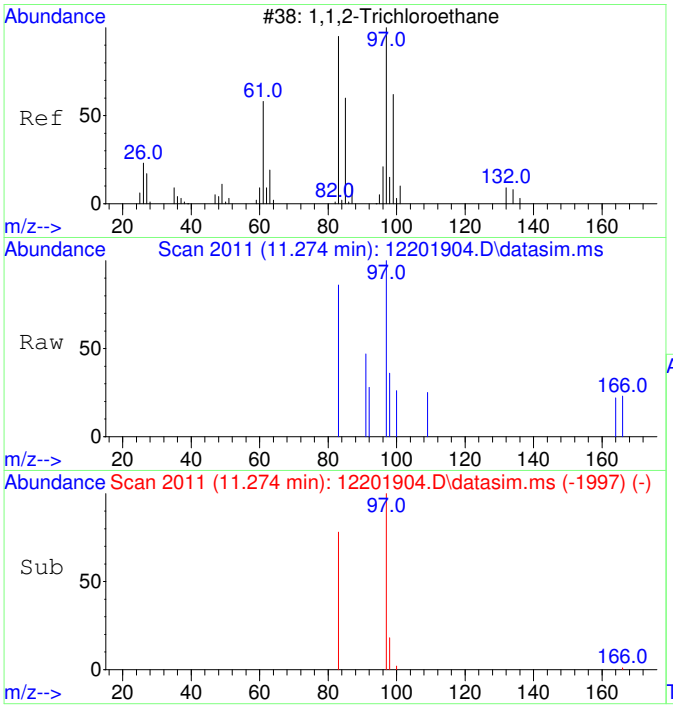


#13
Toluene
Concen: 53.52 ug/L
RT: 10.624 min Scan# 1949
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1599

Ion	Ratio	Lower	Upper
91	100		
92	61.4	29.4	89.4

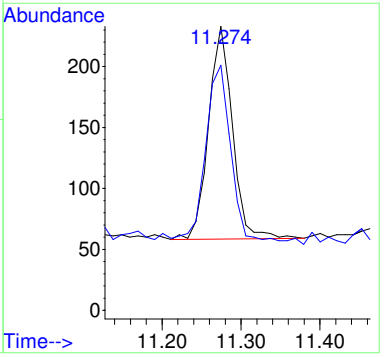


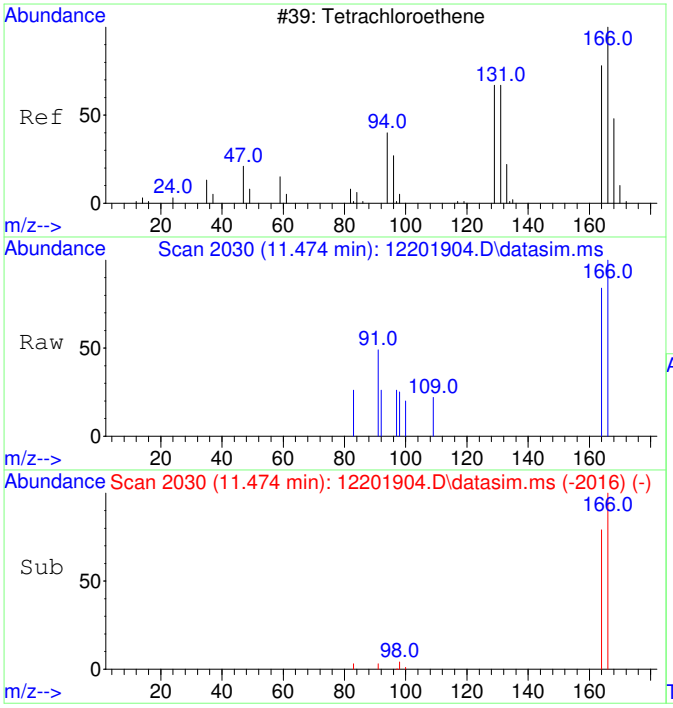


#14
1,1,2-Trichloroethane
Concen: 54.36 ug/L
RT: 11.274 min Scan# 2011
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 368

Ion	Ratio	Lower	Upper
97	100		
83	84.8	52.5	112.5

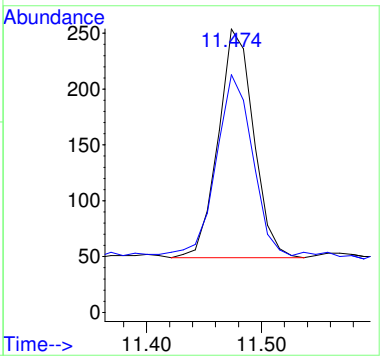


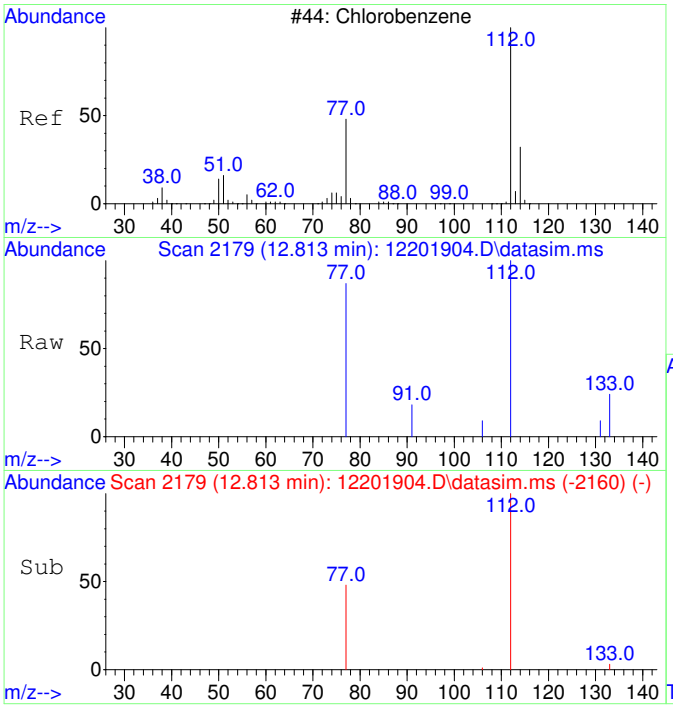


#15
Tetrachloroethene
Concen: 48.58 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 438

Ion	Ratio	Lower	Upper
166	100		
164	81.1	47.6	107.6

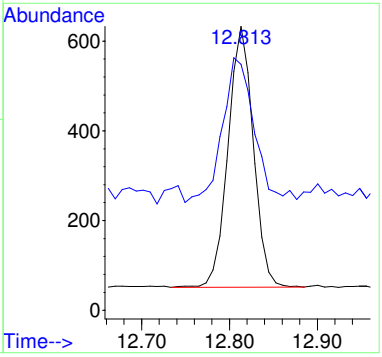


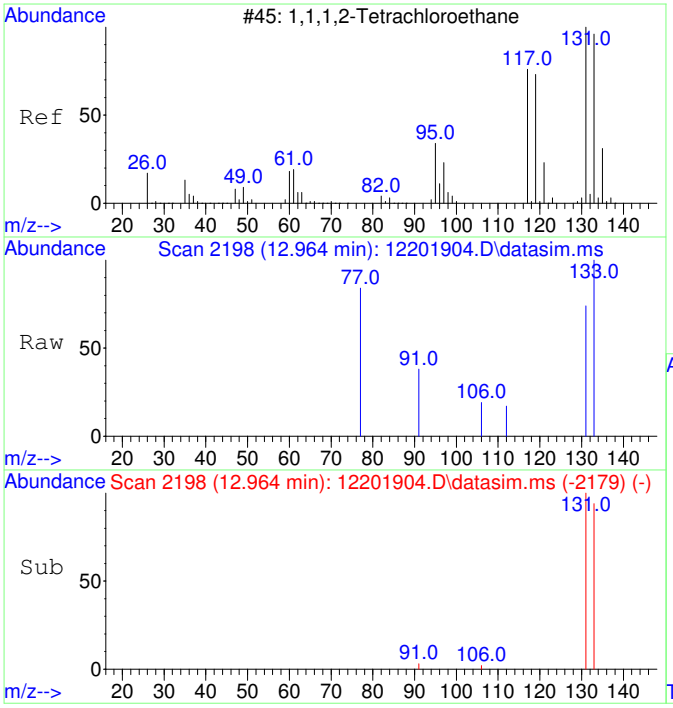


#16
Chlorobenzene
Concen: 50.81 ug/L
RT: 12.813 min Scan# 2179
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 1159

Ion	Ratio	Lower	Upper
112	100		
77	68.9	24.2	84.2

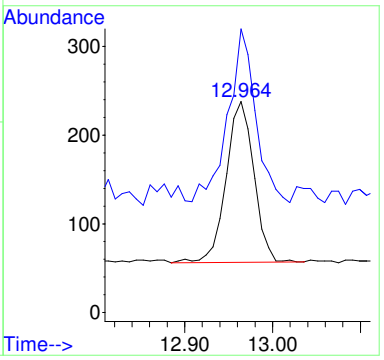


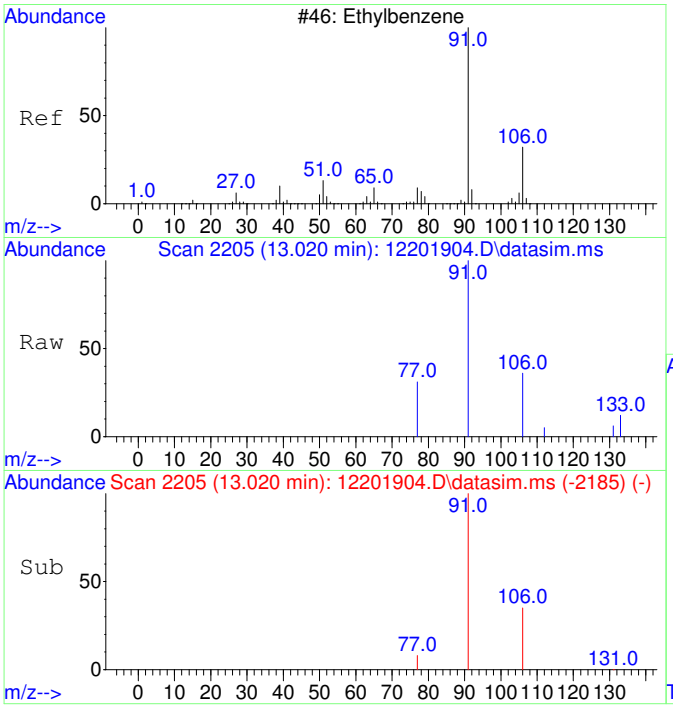


#17
1,1,1,2-Tetrachloroethane
Concen: 50.00 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 398

Ion	Ratio	Lower	Upper
131	100		
133	106.5	66.0	126.0

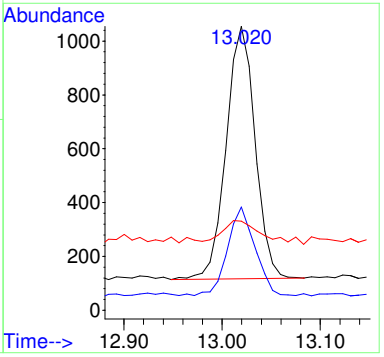


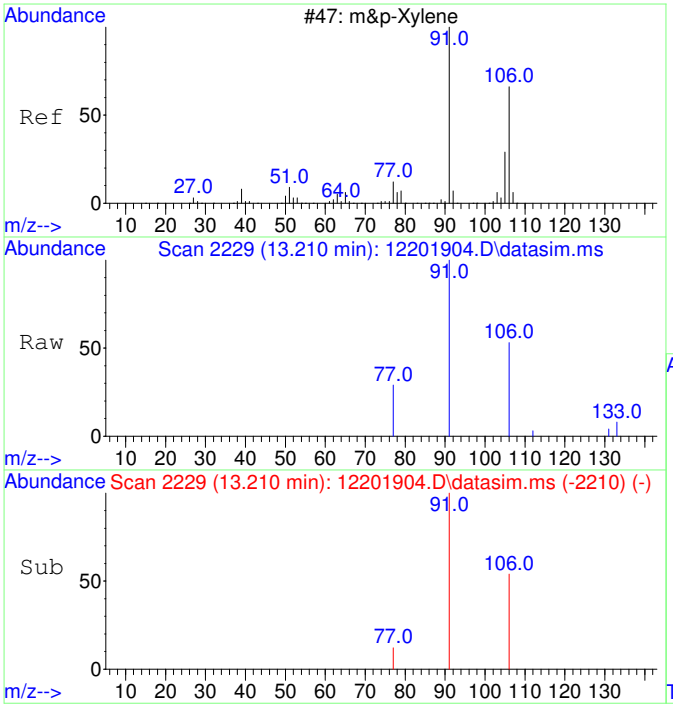


#18
Ethylbenzene
Concen: 51.95 ug/L
RT: 13.020 min Scan# 2205
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1915

Ion	Ratio	Lower	Upper
91	100		
106	33.1	2.5	62.5
77	10.3	0.0	38.2

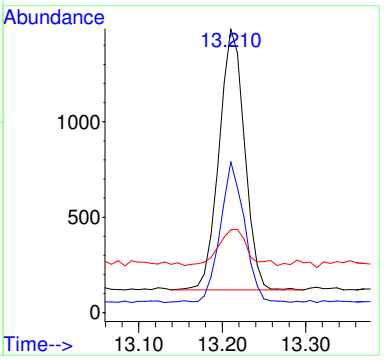


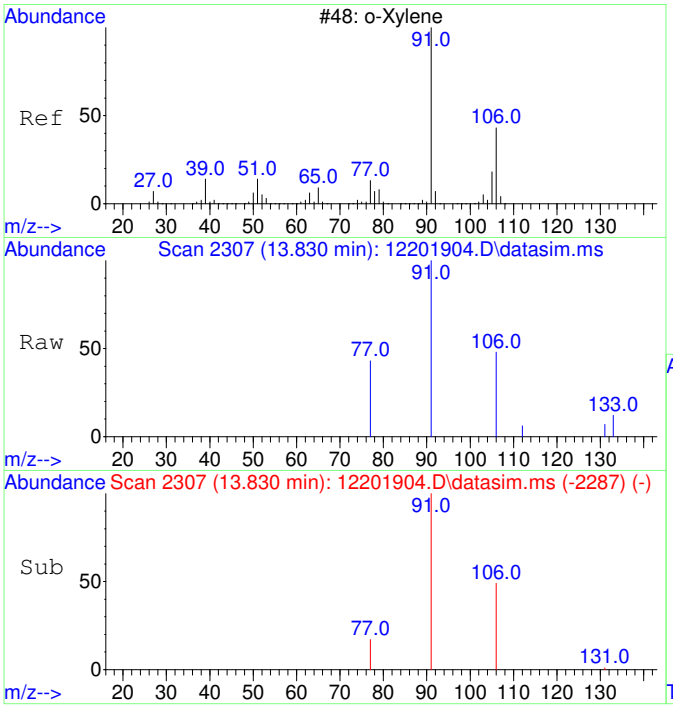


#19
m&p-Xylene
Concen: 103.35 ug/L
RT: 13.210 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2903

Ion	Ratio	Lower	Upper
91	100		
106	51.3	21.6	81.6
77	15.5	0.0	42.6

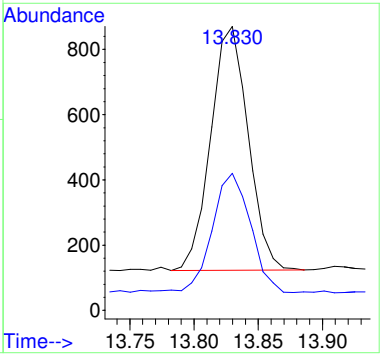


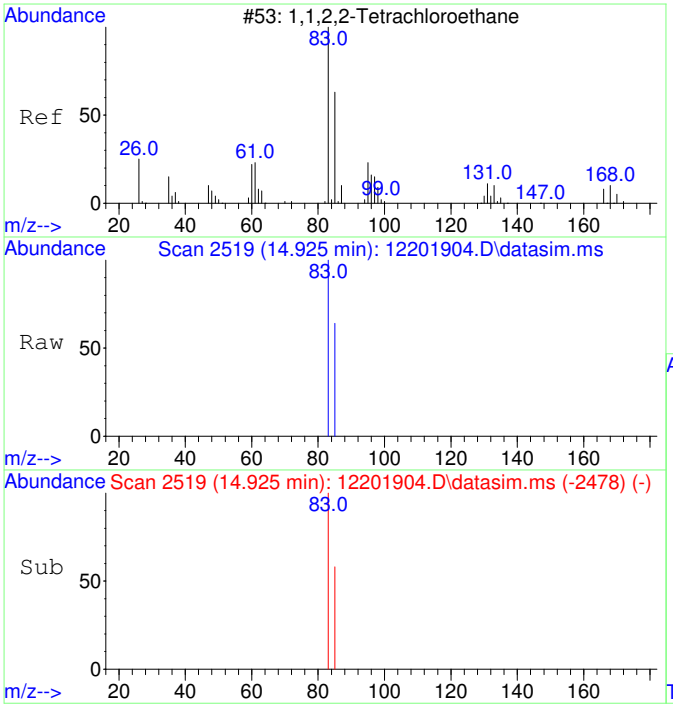


#20
o-Xylene
Concen: 50.89 ug/L
RT: 13.830 min Scan# 2307
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1516

Ion	Ratio	Lower	Upper
91	100		
106	49.7	18.5	78.5

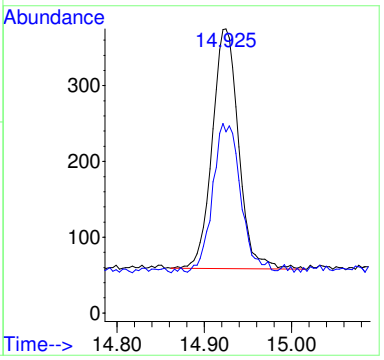


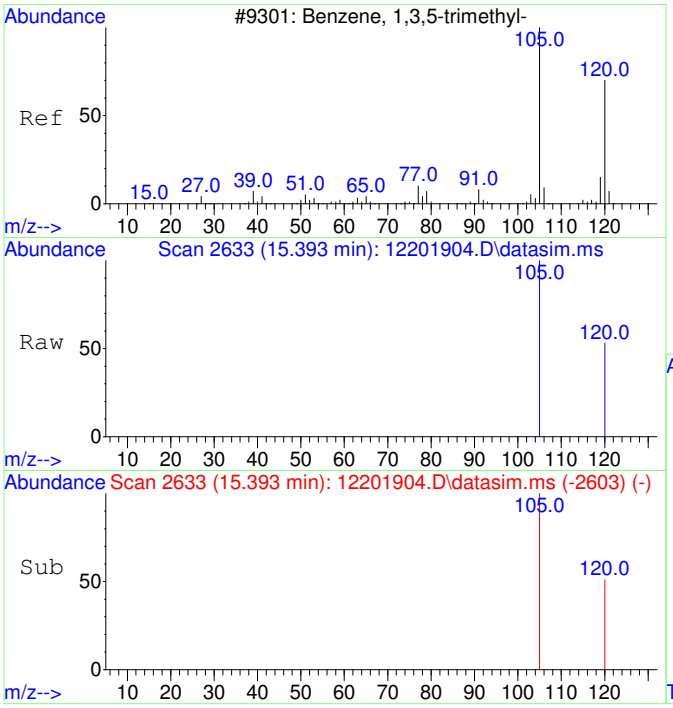


#21
1,1,2,2-Tetrachloroethane
Concen: 49.57 ug/L
RT: 14.925 min Scan# 2519
Delta R.T. 0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 663

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.7	94.7

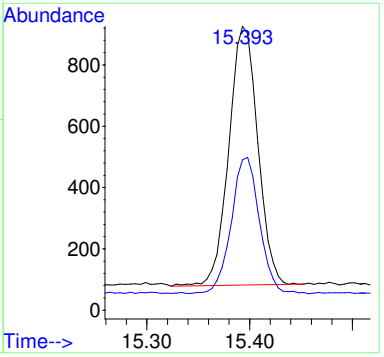


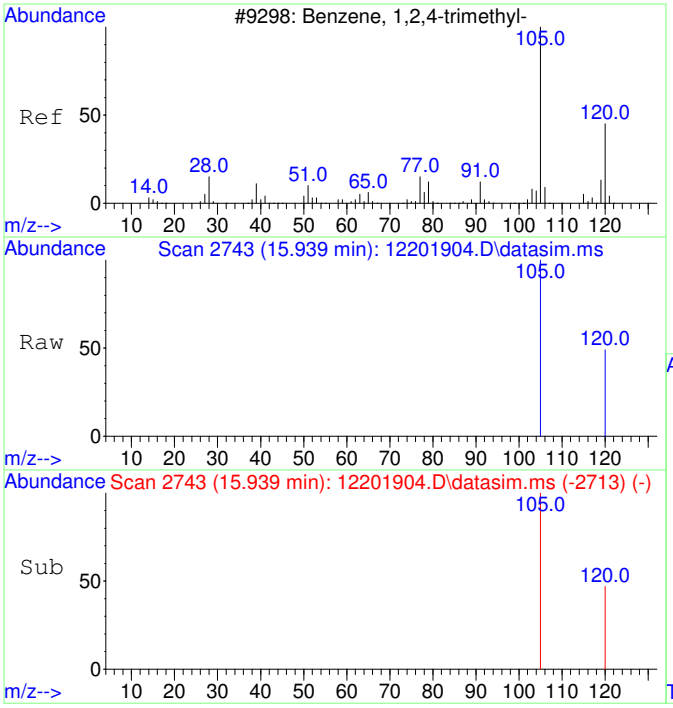


#22
1,3,5-Trimethylbenzene
Concen: 49.50 ug/L
RT: 15.393 min Scan# 2633
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1643

Ion	Ratio	Lower	Upper
105	100		
120	51.3	20.7	80.7

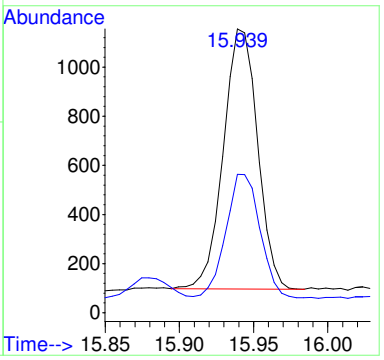


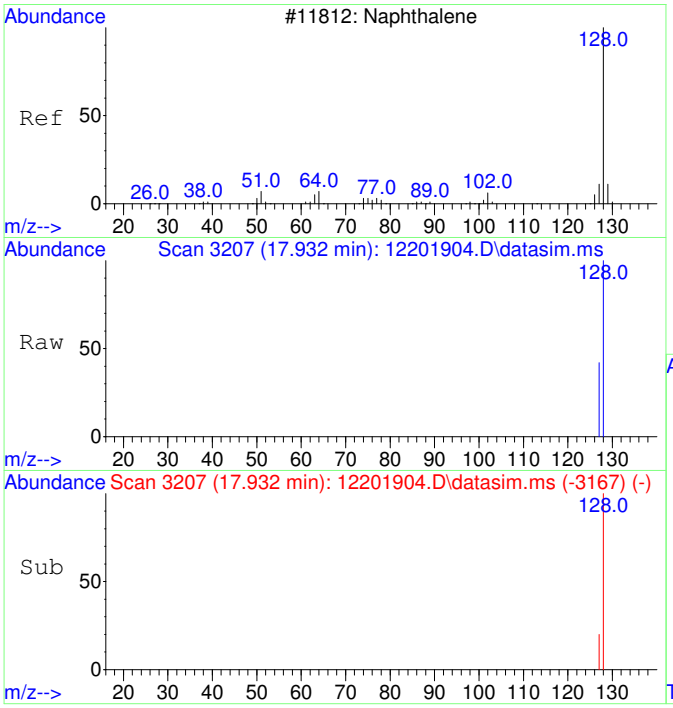


#23
1,2,4-Trimethylbenzene
Concen: 50.17 ug/L
RT: 15.939 min Scan# 2743
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1702

Ion	Ratio	Lower	Upper
105	100		
120	46.7	16.6	76.6

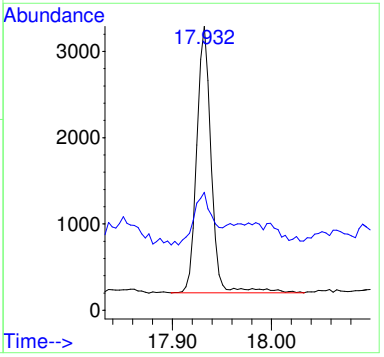


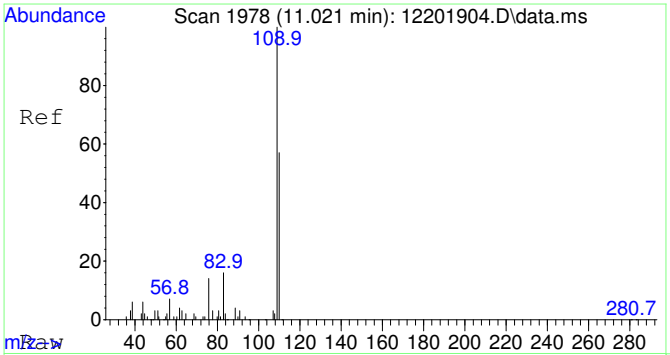


#24
Naphthalene
Concen: 51.04 ug/L
RT: 17.932 min Scan# 3207
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 3128

Ion	Ratio	Lower	Upper
128	100		
127	48.3	0.0	42.5#

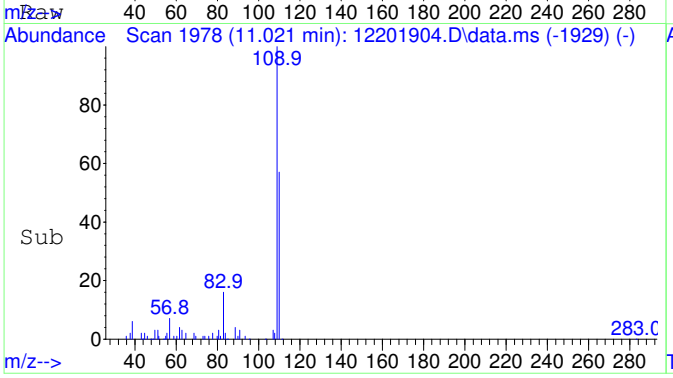


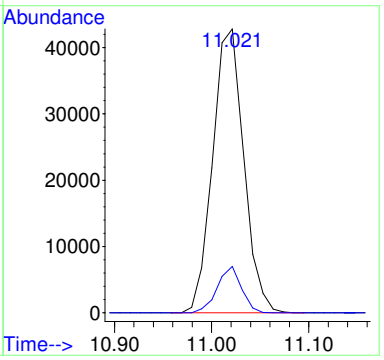


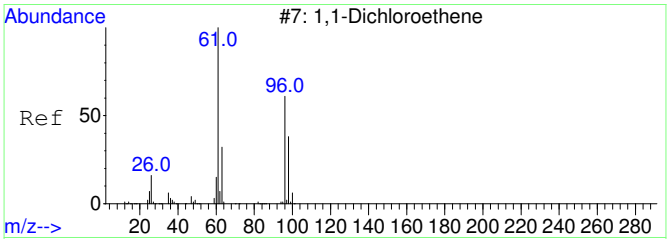
#25
2-Fluorotoluene SCAN
Concen: 5001.59 ug/L
RT: 11.021 min Scan# 1978
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:109 Resp: 95152

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	44.7



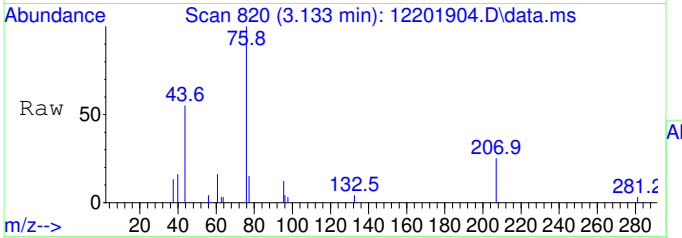


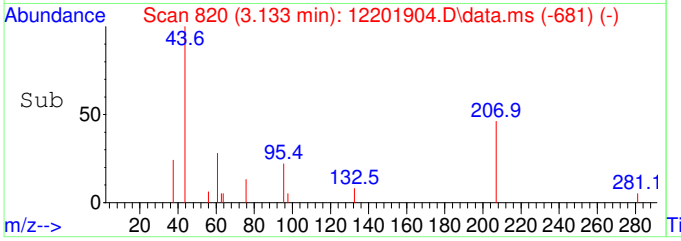


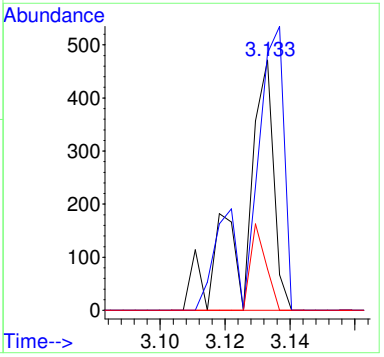
#26
1,1-Dichloroethene SCAN
Concen: 72.44 ug/L
RT: 3.133 min Scan# 820
Delta R.T. 0.015 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

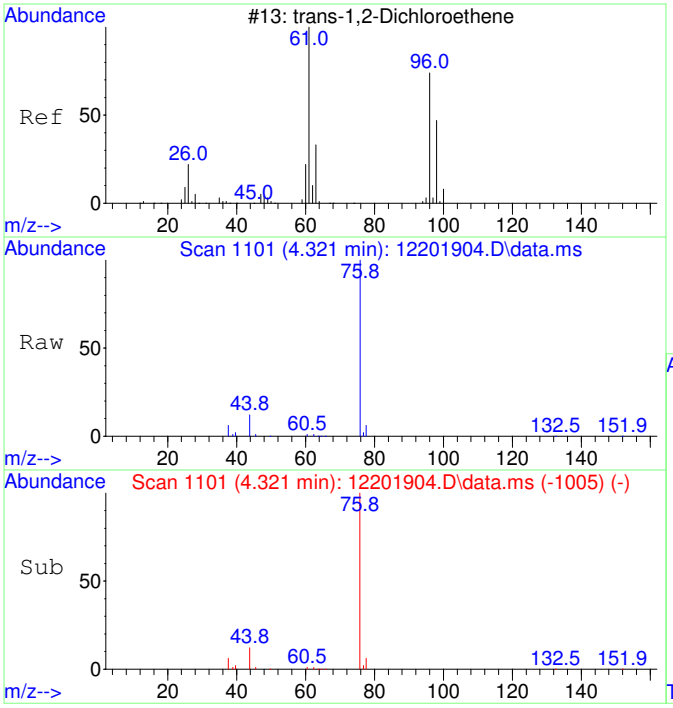
Tgt Ion: 61 Resp: 302

Ion	Ratio	Lower	Upper
61	100		
96	122.5	34.8	94.8#
98	17.9	12.9	72.9





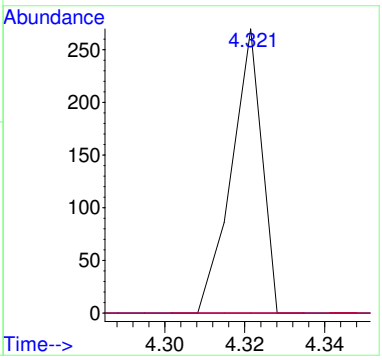


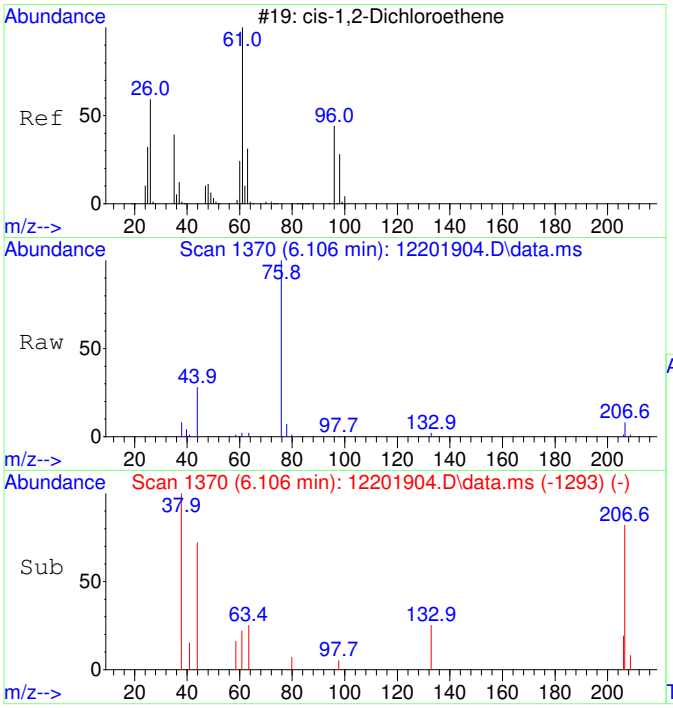


#27
trans-1,2-Dichloroethene SCAN
Concen: 35.95 ug/L
RT: 4.321 min Scan# 1101
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 142

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.7	102.7#
98	0.0	23.4	83.4#

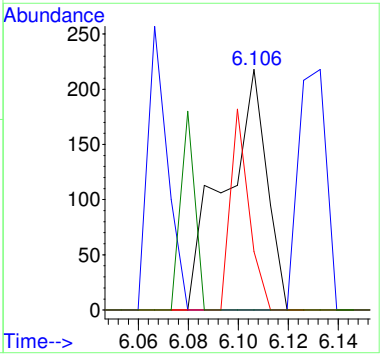


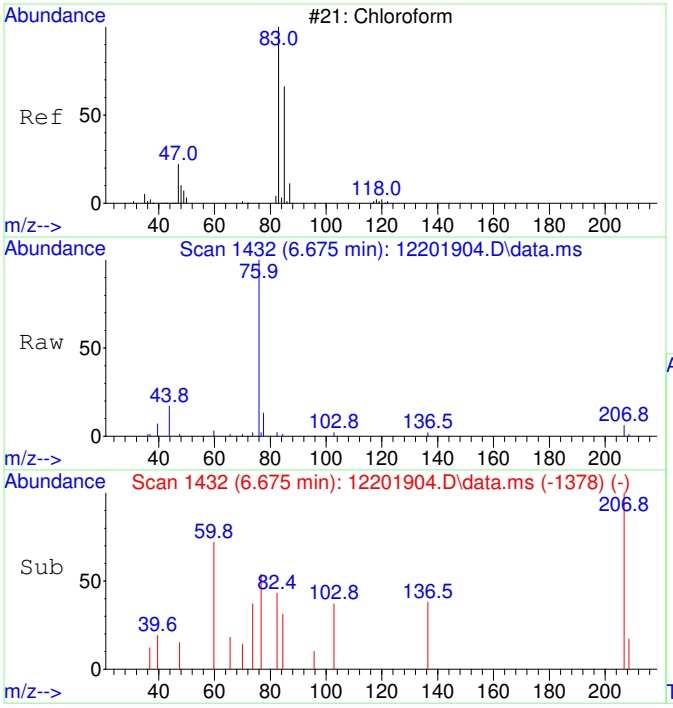


#29
cis-1,2-Dichloroethene SCAN
Concen: 54.29 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 61 Resp: 257

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.1	106.1#
98	36.6	20.8	80.8
63	0.0	9.0	69.0#

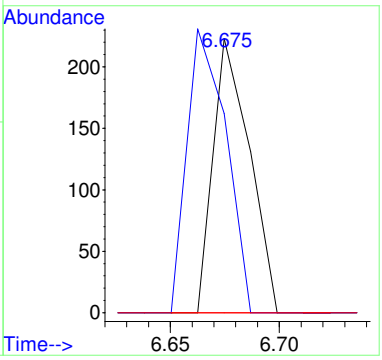


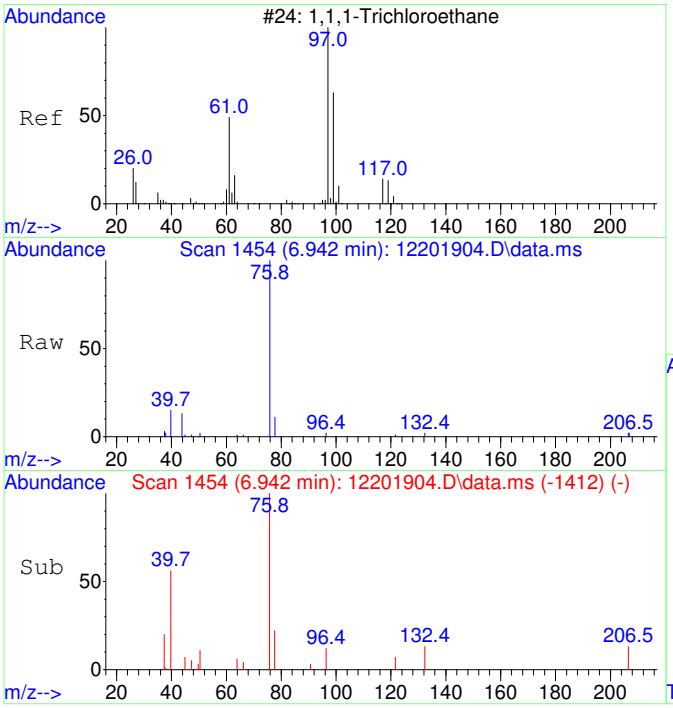


#30
Chloroform SCAN
Concen: 51.04 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 258

Ion	Ratio	Lower	Upper
83	100		
85	111.2	42.9	102.9#
47	0.0	4.5	64.5#

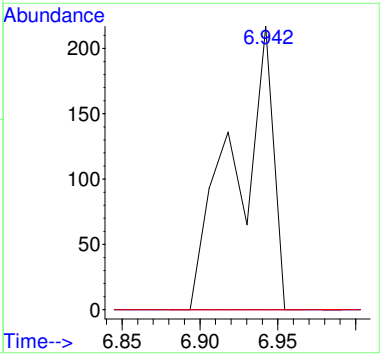


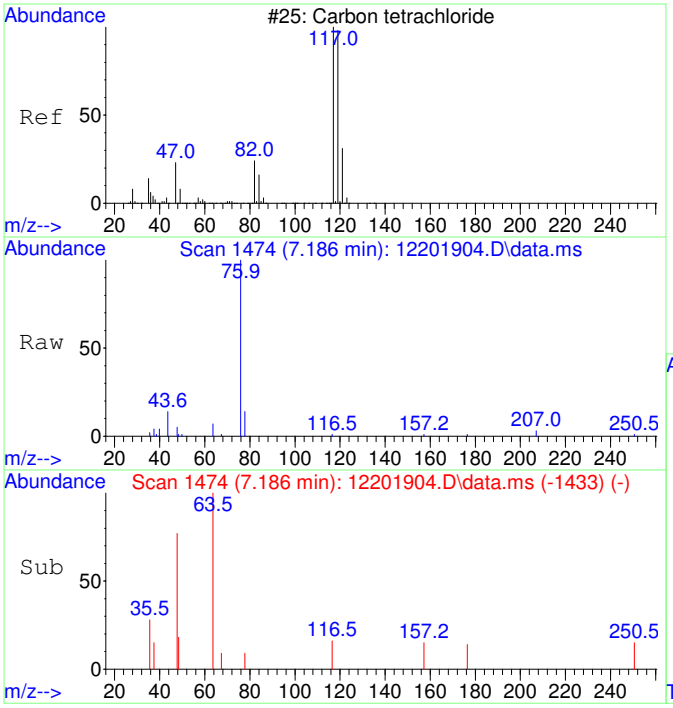


#31
1,1,1-Trichloroethane SCAN
Concen: 64.19 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 373

Ion	Ratio	Lower	Upper
97	100		
99	0.0	16.3	76.3#
61	0.0	18.9	78.9#

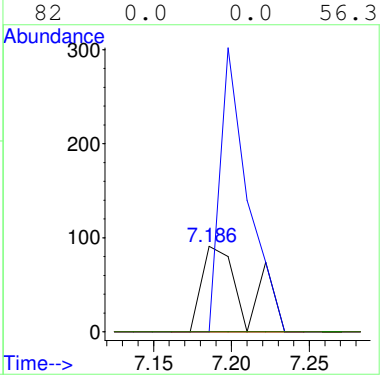


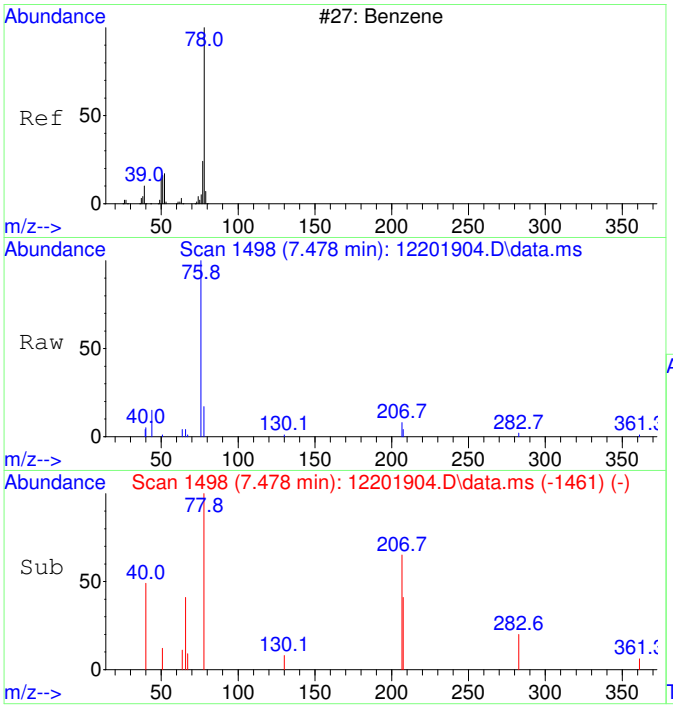


#32
Carbon tetrachloride SCAN
Concen: 35.97 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:117 Resp: 179

Ion	Ratio	Lower	Upper
117	100		
119	210.6	68.9	128.9#
121	0.0	4.5	64.5#
82	0.0	0.0	56.3

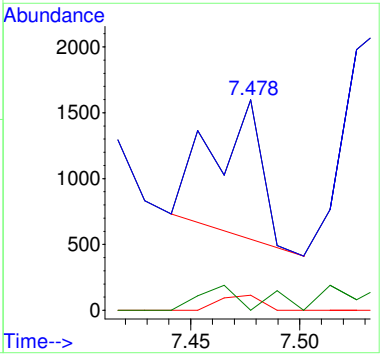


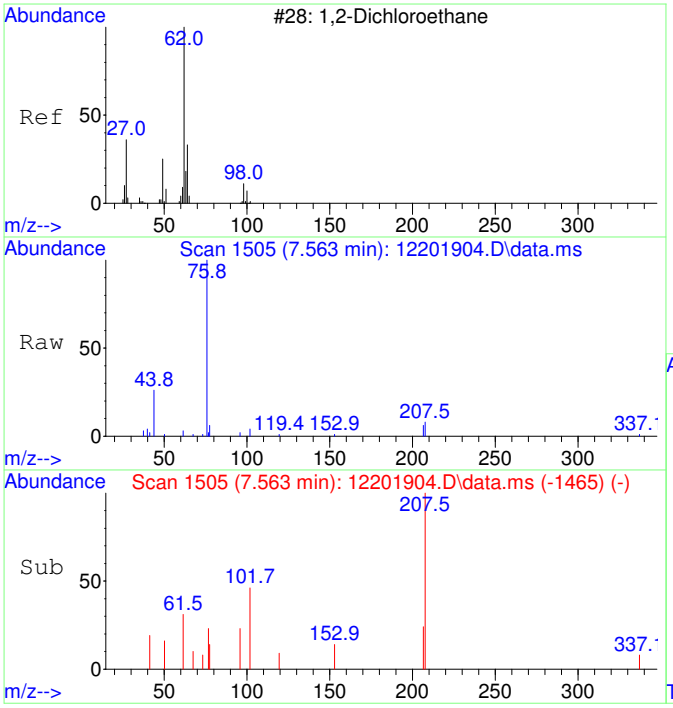


#33
Benzene SCAN
Concen: 97.37 ug/L
RT: 7.478 min Scan# 1498
Delta R.T. -0.049 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 78 Resp: 1484

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	10.2	0.0	45.4
52	14.8	0.0	30.0

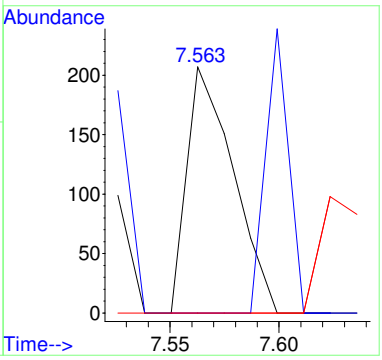


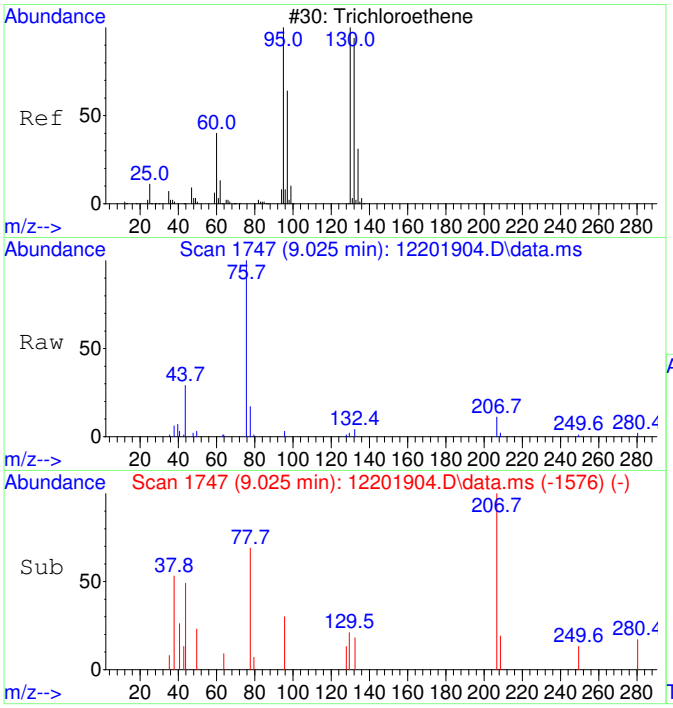


#34
1,2-Dichloroethane SCAN
Concen: 59.06 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 62 Resp: 307

Ion	Ratio	Lower	Upper
62	100		
64	0.0	14.5	74.5#
49	0.0	4.0	64.0#

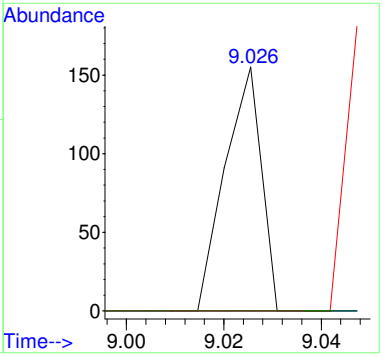


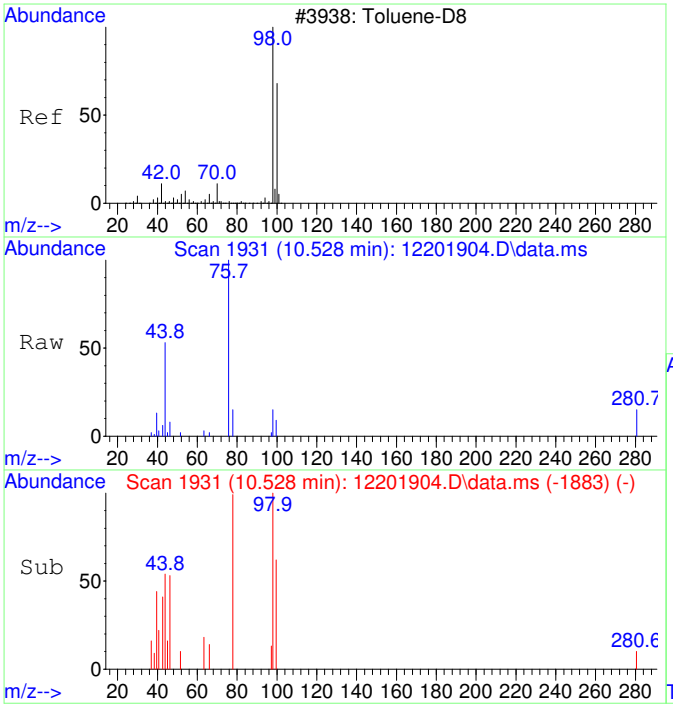


#35
Trichloroethene SCAN
Concen: 20.55 ug/L
RT: 9.025 min Scan# 1747
Delta R.T. 0.430 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:130 Resp: 80

Ion	Ratio	Lower	Upper
130	100		
95	0.0	75.7	135.7#
132	0.0	77.1	137.1#
97	0.0	43.8	103.8#

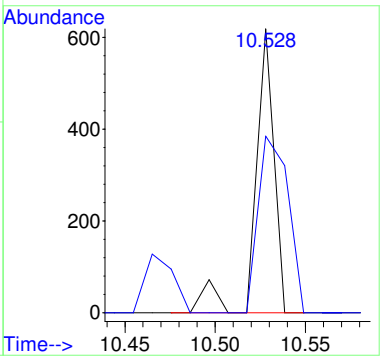


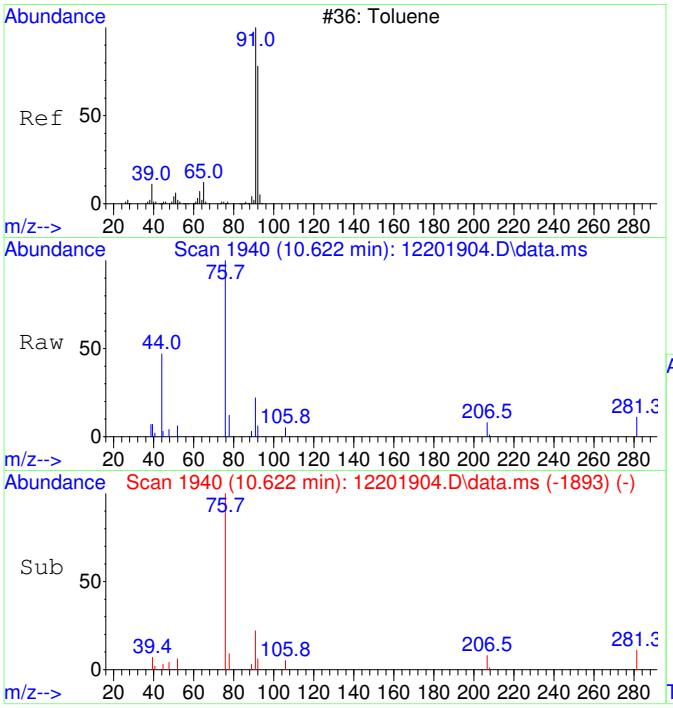


#36
Toluene-d8 SCAN
Concen: 26.97 ug/L
RT: 10.528 min Scan# 1931
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 98 Resp: 435

Ion	Ratio	Lower	Upper
98	100		
100	102.1	44.4	104.4

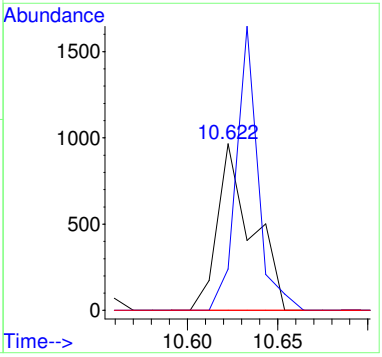


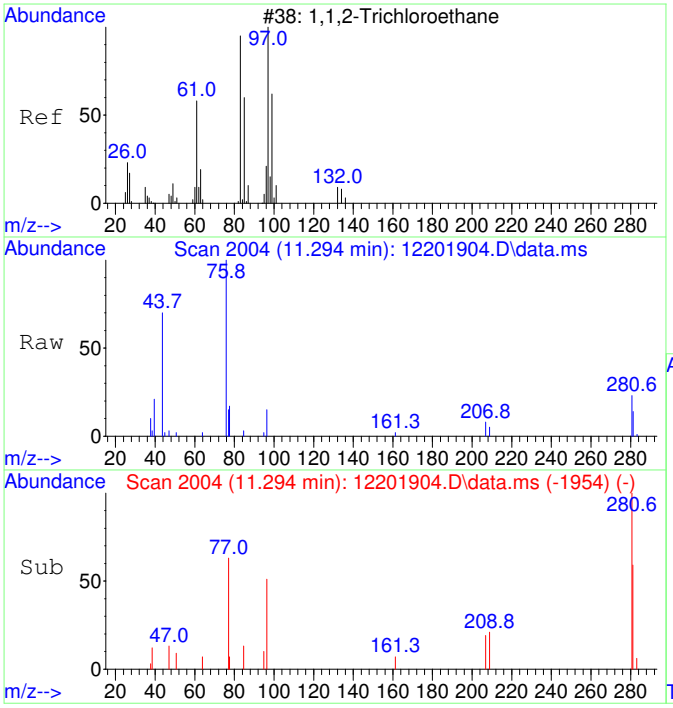


#37
Toluene SCAN
Concen: 68.37 ug/L
RT: 10.622 min Scan# 1940
Delta R.T. -0.011 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1288

Ion	Ratio	Lower	Upper
91	100		
92	107.1	31.5	91.5#
65	0.0	0.0	30.0

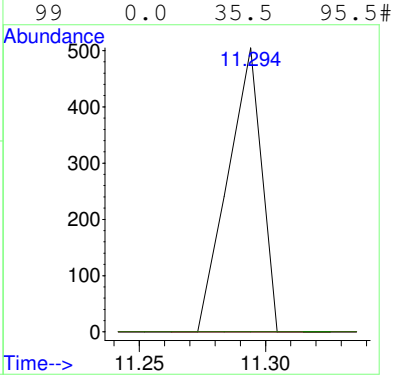


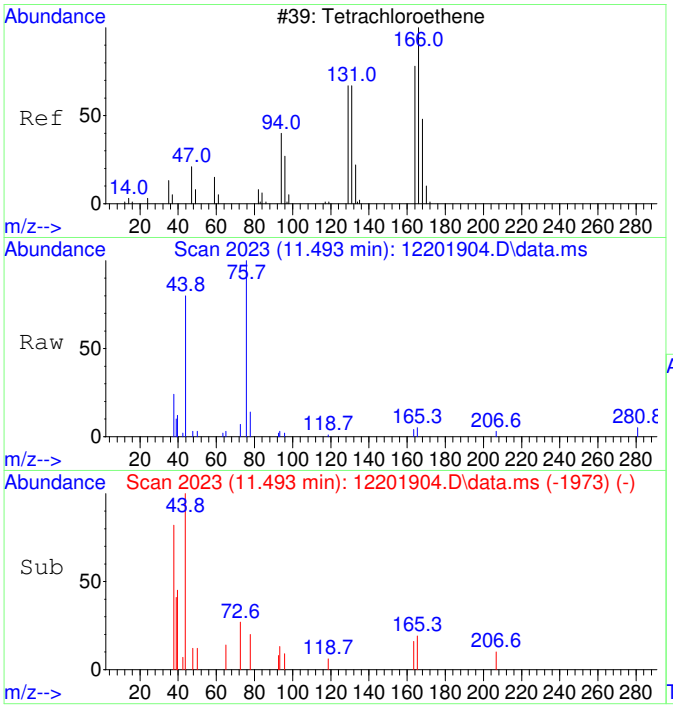


#38
1,1,2-Trichloroethane SCAN
Concen: 114.68 ug/L
RT: 11.294 min Scan# 2004
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 97 Resp: 470

Ion	Ratio	Lower	Upper
97	100		
83	0.0	67.7	127.7#
61	0.0	31.9	91.9#
99	0.0	35.5	95.5#

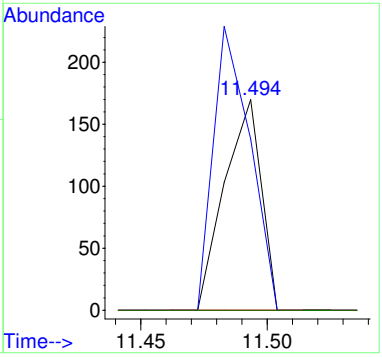


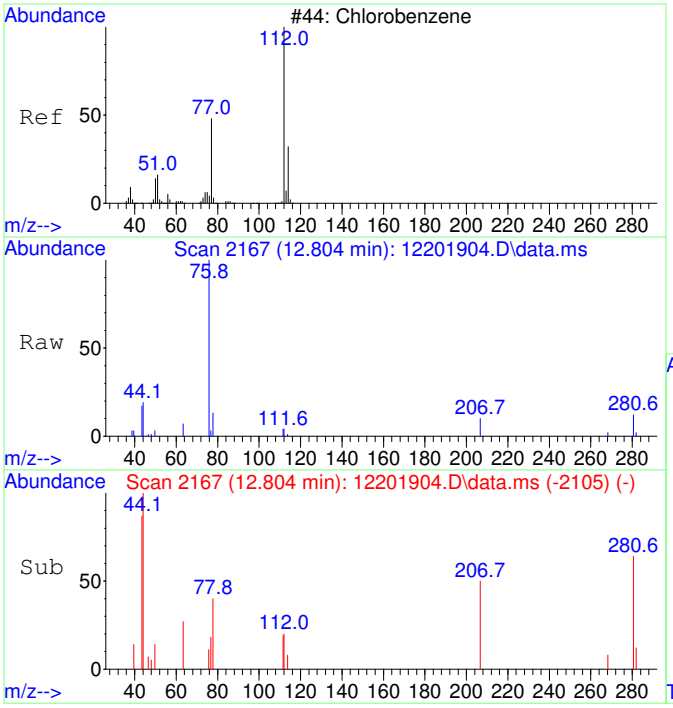


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.493 min Scan# 2023
Delta R.T. 0.021 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:166 Resp: 172

Ion	Ratio	Lower	Upper
166	100		
164	134.3	61.8	121.8#
131	0.0	51.8	111.8#
129	0.0	36.0	96.0#

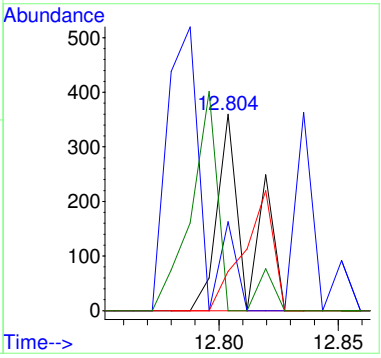


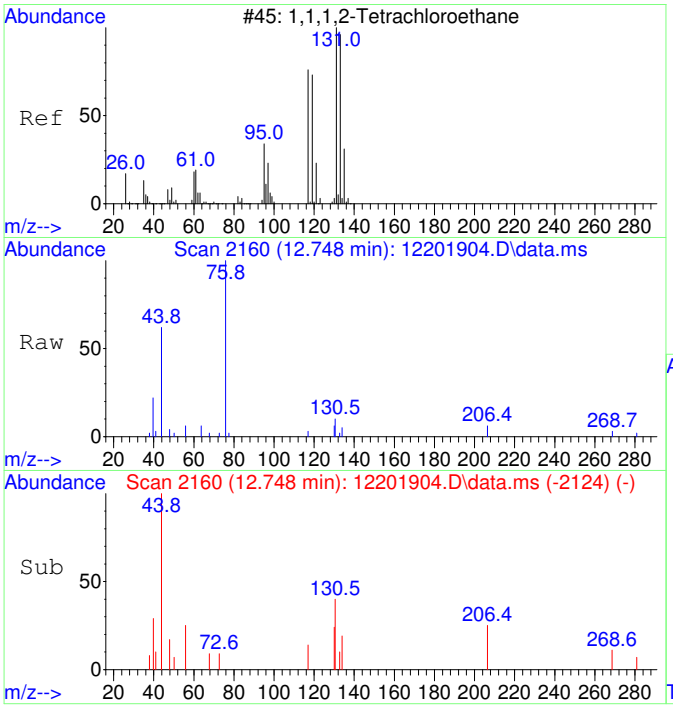


#40
Chlorobenzene SCAN
Concen: 21.25 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:112 Resp: 319

Ion	Ratio	Lower	Upper
112	100		
77	167.4	27.8	87.8#
114	0.0	3.1	63.1#
51	95.3	0.0	49.9#

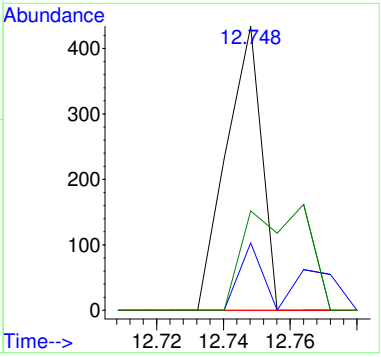


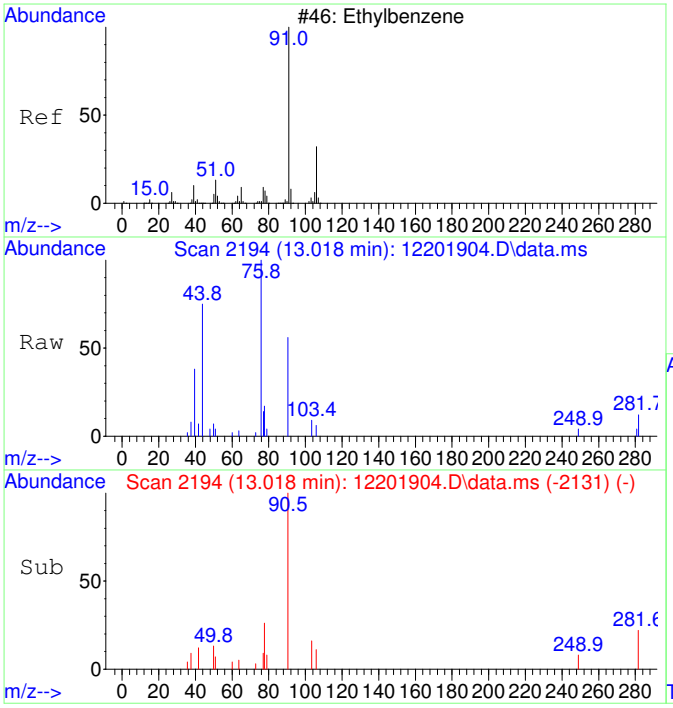


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 65.46 ug/L
RT: 12.748 min Scan# 2160
Delta R.T. -0.215 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:131 Resp: 317

Ion	Ratio	Lower	Upper
131	100		
133	0.0	69.6	129.6#
119	0.0	42.4	102.4#
117	65.0	38.9	98.9

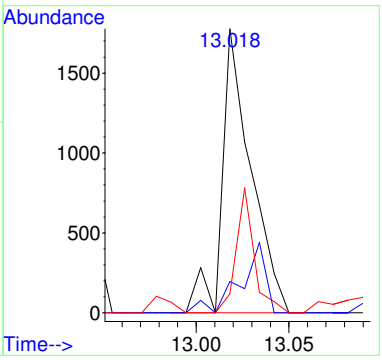


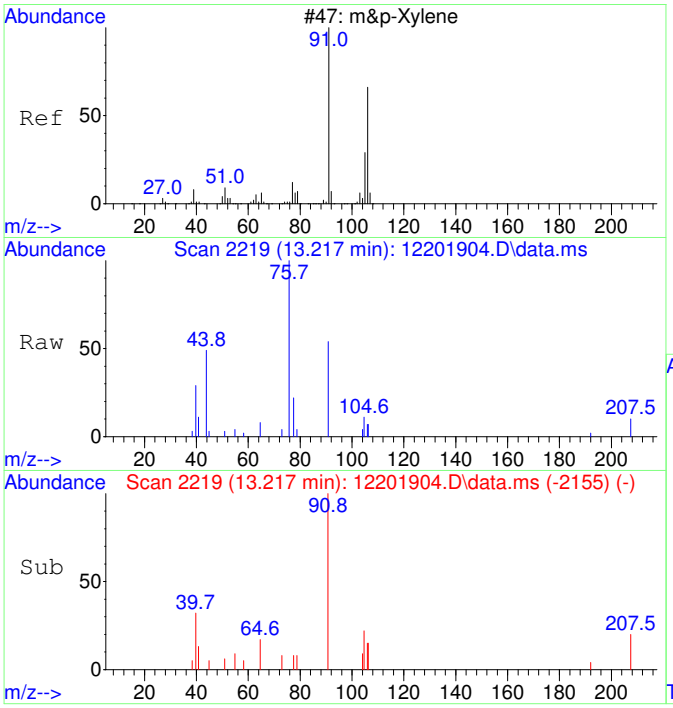


#42
Ethylbenzene SCAN
Concen: 81.16 ug/L
RT: 13.018 min Scan# 2194
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 1932

Ion	Ratio	Lower	Upper
91	100		
106	21.4	1.3	61.3
51	27.1	0.0	39.4

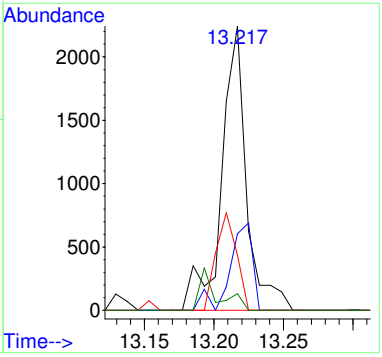


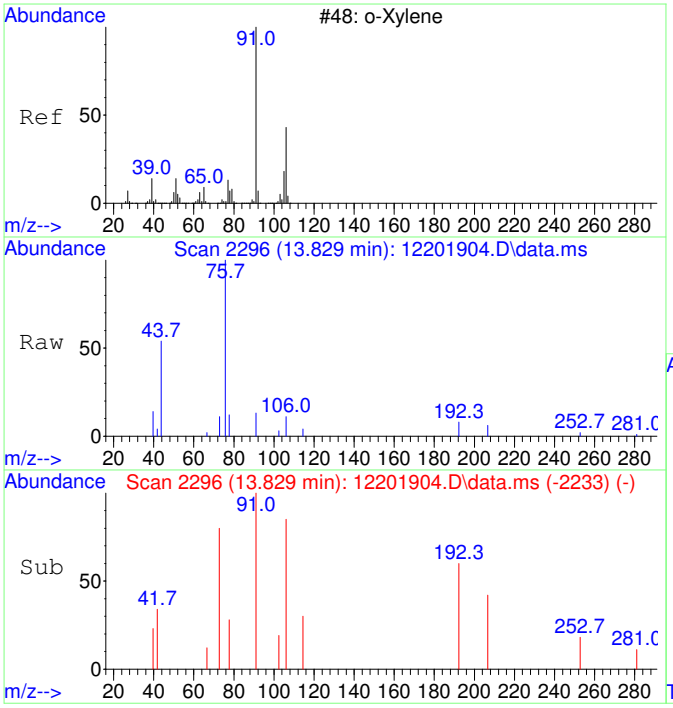


#43
m&p-Xylene SCAN
Concen: 78.30 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.008 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 2795

Ion	Ratio	Lower	Upper
91	100		
106	28.1	19.0	79.0
105	28.4	0.0	54.9
51	0.0	0.0	41.2

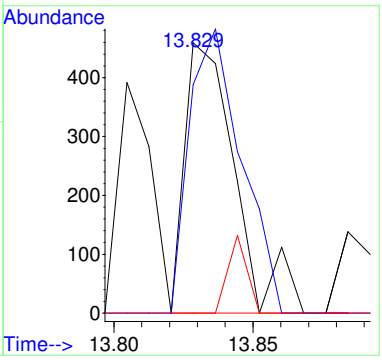


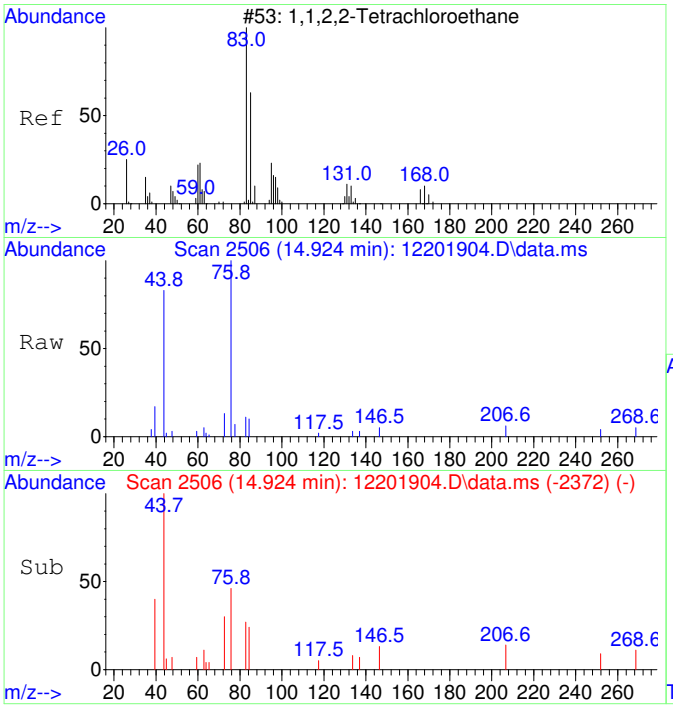


#44
o-Xylene SCAN
Concen: 28.71 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 91 Resp: 581

Ion	Ratio	Lower	Upper
91	100		
106	108.4	17.2	77.2#
105	10.8	0.0	57.7

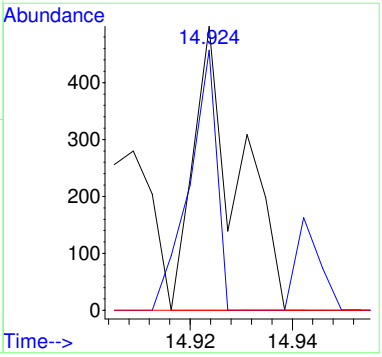


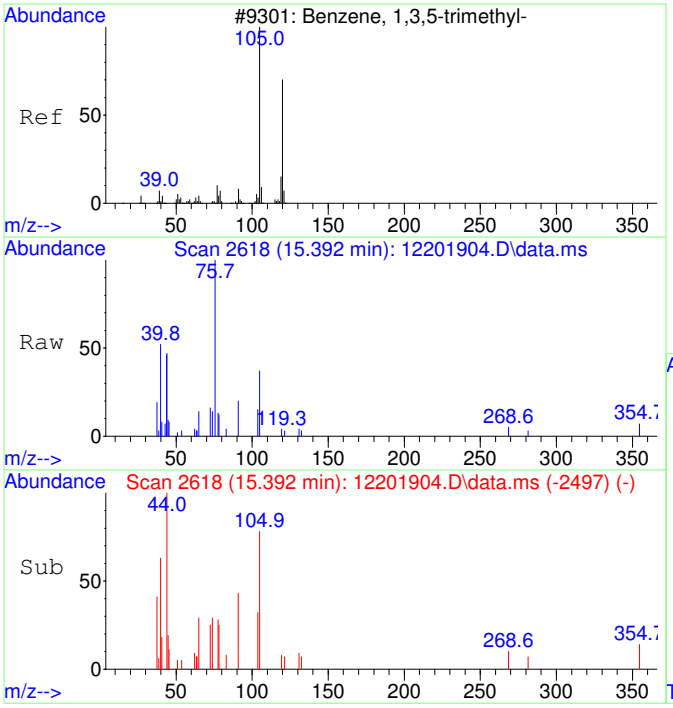


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 33.54 ug/L
RT: 14.924 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion: 83 Resp: 306

Ion	Ratio	Lower	Upper
83	100		
85	56.2	37.2	97.2
95	0.0	0.0	48.7

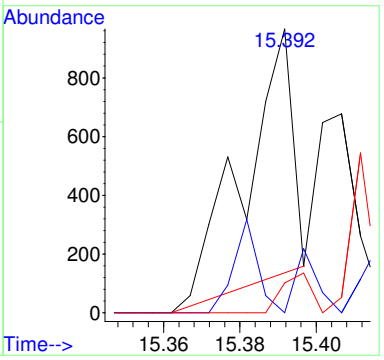


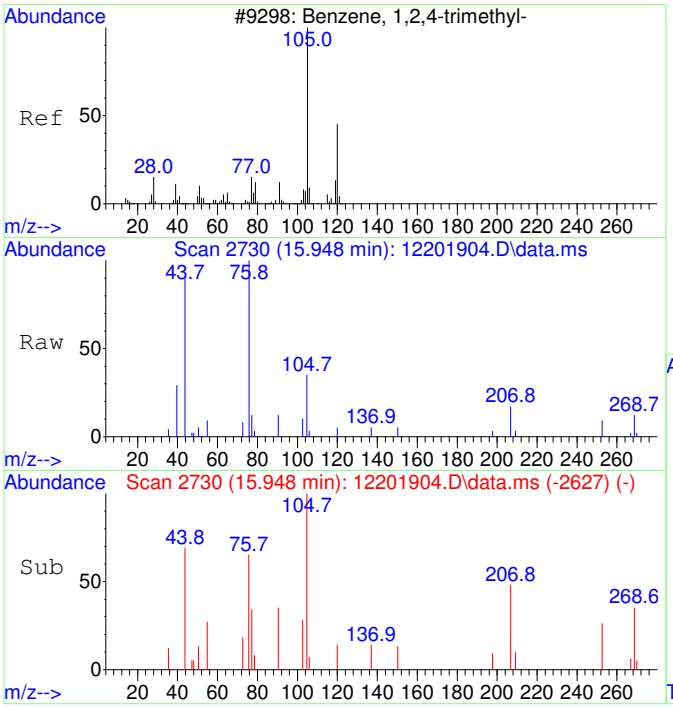


#46
1,3,5-Trimethylbenzene SCAN
Concen: 35.18 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 744

Ion	Ratio	Lower	Upper
105	100		
120	11.6	22.3	82.3#
119	0.0	0.0	43.8

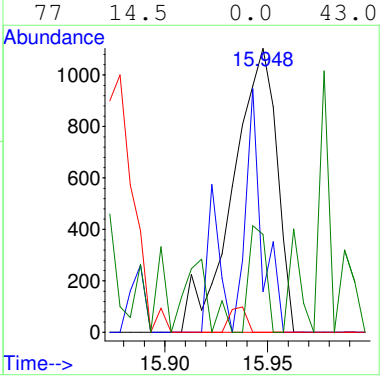


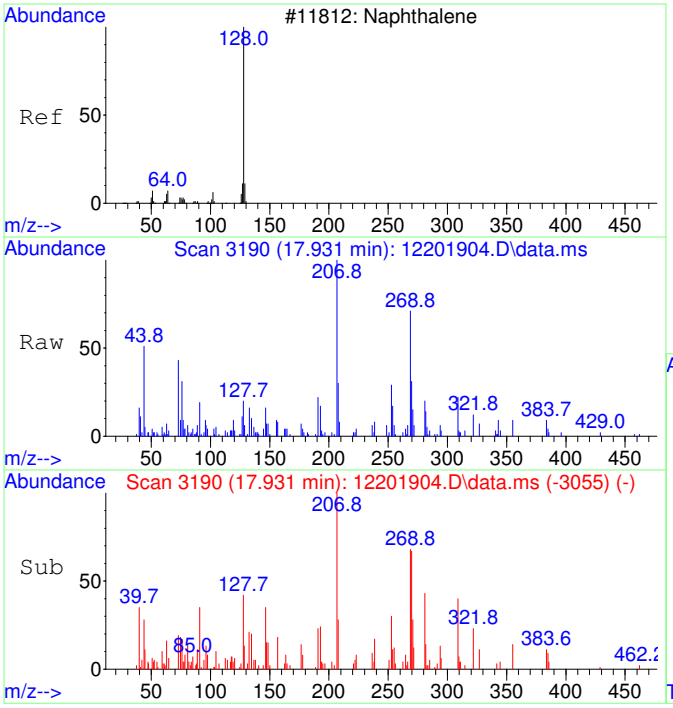


#47
1,2,4-Trimethylbenzene SCAN
Concen: 76.02 ug/L
RT: 15.948 min Scan# 2730
Delta R.T. 0.010 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:105 Resp: 1632

Ion	Ratio	Lower	Upper
105	100		
120	31.7	15.8	75.8
119	3.4	0.0	42.9
77	14.5	0.0	43.0

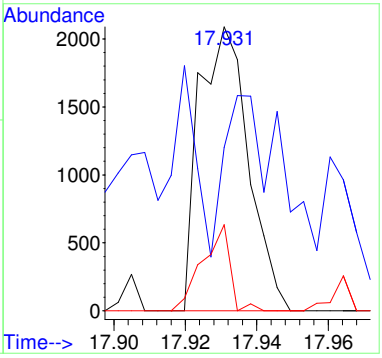




#48
Naphthalene SCAN
Concen: 57.87 ug/L
RT: 17.931 min Scan# 3190
Delta R.T. -0.000 min
Lab File: 12201904.D
Acq: 20 Dec 2019 11:37

Tgt Ion:128 Resp: 2007

Ion	Ratio	Lower	Upper
128	100		
127	59.0	0.0	30.0#
129	17.0	0.0	34.5



SECOND SOURCE CALIBRATION CHECK

Radiello D1

Laboratory:	EPA Region 9 Laboratory	SDG:	19347C
Client:	California Site Cleanup Section 3	Project:	MEW OU3 FY2020 Vapor Intrusion Investigation
Instrument ID:	AG5975CV	Calibration:	1911014
Lab File ID:	11201911.D	Calibration Date:	11/02/19 07:47
Sequence:	S19K083	Injection Date:	11/21/19
Lab Sample ID:	S19K083-SCV2	Injection Time:	06:54

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	SCV	ICAL	SCV	MIN (#)	SCV	LIMIT (#)
1,1-Dichloroethene	L	5000	6000	0.2139554	0.2565553		19.9	30
trans-1,2-Dichloroethene	L	5000	6110	0.2194332	0.2681466		22.2	30
1,1-Dichloroethane	L	5000	5850	0.278956	0.3262337		16.9	30
cis-1,2-Dichloroethene	L	5000	6160	0.2565199	0.3162856		23.3	30
Chloroform	L	5000	6110	0.2962644	0.3617914		22.1	30
1,1,1-Trichloroethane	L	5000	6000	0.2969439	0.3560713		19.9	30
Carbon tetrachloride	L	5000	5740	0.2817695	0.3236006		14.8	30
1,2-Dichloroethane	L	5000	5950	0.245098	0.2915492		19.0	30
Trichloroethene	L	5000	5670	0.2290926	0.2595941		13.3	30
Toluene	L	5000	5010	0.9741529	0.9760749		0.2	30
1,1,2-Trichloroethane	L	5000	5180	0.2207285	0.228519		3.5	30
Tetrachloroethene	L	5000	4820	0.2939783	0.2835192		-3.6	30
Chlorobenzene	L	5000	4650	0.7437933	0.6911326		-7.1	30
1,1,1,2-Tetrachloroethane	L	5000	4670	0.259572	0.2424134		-6.6	30
Ethylbenzene	L	5000	4460	1.202008	1.072456		-10.8	30
m&p-Xylene	L	10000	8770	0.9159088	0.8030958		-12.3	30
o-Xylene	L	5000	4360	0.9712696	0.8460819		-12.9	30
1,1,2,2-Tetrachloroethane	L	5000	4380	0.4361256	0.3818046		-12.5	30
1,3,5-Trimethylbenzene	L	5000	4110	1.082269	0.8891127		-17.8	30
1,2,4-Trimethylbenzene	L	5000	3960	1.106084	0.8765245		-20.8	30
Toluene-d8	L	5000	4770	0.8029827	0.7659191		-4.6	30

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201911.D
Acq On : 21 Nov 2019 6:54
InstName : AG5975C
Operator : TD
Sample : S19K083-SCV2
Misc : 1930062 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 07:13:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration

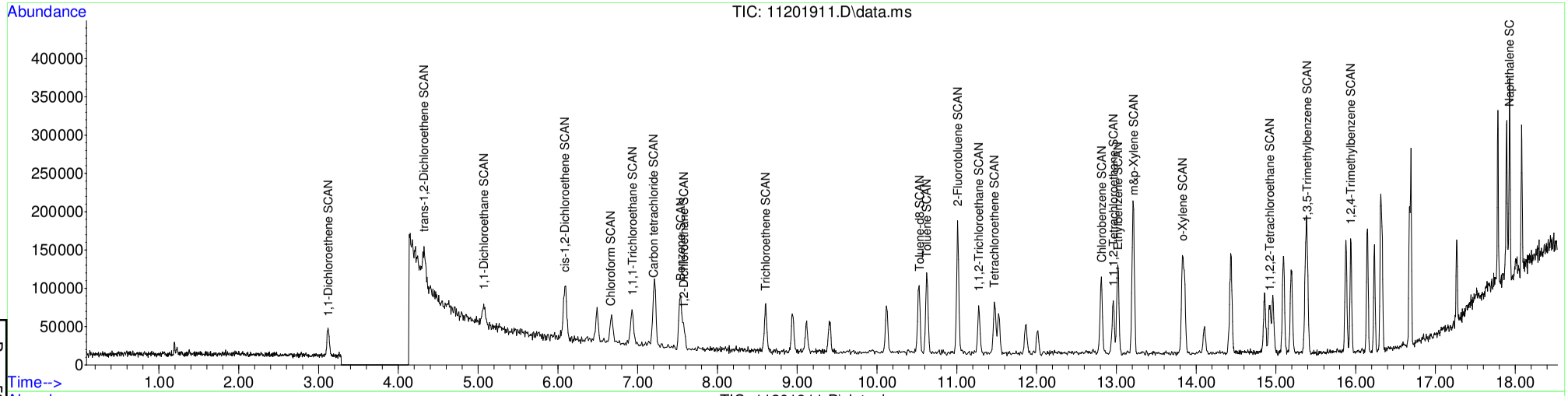
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	145454	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	111406	4769.21	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 95.38%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	37317	5995.53	ug/L	99
3] trans-1,2-Dichloroethene	4.323	61	39003	6109.98	ug/L	100
4] 1,1-Dichloroethane	5.073	63	47452	5847.41	ug/L	100
5] cis-1,2-Dichloroethene	6.094	61	46005	6164.93	ug/L	100
6] Chloroform	6.664	83	52624	6105.89	ug/L	100
7] 1,1,1-Trichloroethane	6.932	97	51792	5995.60	ug/L	99
8] Carbon tetrachloride	7.199	117	47069	5742.29	ug/L	100
9] Benzene	7.528	78	122930	5659.01	ug/L	100
10] 1,2-Dichloroethane	7.564	62	42407	5947.60	ug/L	100
11] Trichloroethene	8.602	130	37759	5665.70	ug/L	100
13] Toluene	10.624	91	141974	5009.87	ug/L	100
14] 1,1,2-Trichloroethane	11.275	97	33239	5176.47	ug/L	99
15] Tetrachloroethene	11.474	166	41239	4822.11	ug/L	100
16] Chlorobenzene	12.813	112	100528	4646.00	ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.964	131	35260	4669.48	ug/L	100
18] Ethylbenzene	13.020	91	155993	4461.10	ug/L	100
19] m&p-Xylene	13.210	91	233627	8768.29	ug/L	100
20] o-Xylene	13.822	91	123066	4355.55	ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.921	83	55535	4377.23	ug/L	100
22] 1,3,5-Trimethylbenzene	15.393	105	129325	4107.63	ug/L	100
23] 1,2,4-Trimethylbenzene	15.939	105	127494	3962.29	ug/L	100
24] Naphthalene	17.932	128	206209	3547.41	ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	93421	5176.84	ug/L	97
26) 1,1-Dichloroethene SCAN	3.115	61	26242	6635.91	ug/L #	74
27) trans-1,2-Dichloroethe...	4.322	61	26781	7148.04	ug/L	96
28) 1,1-Dichloroethane SCAN	5.071	63	32451	5787.96	ug/L	87
29) cis-1,2-Dichloroethene...	6.087	61	32335	7200.38	ug/L	93
30) Chloroform SCAN	6.663	83	39250	8185.44	ug/L	85
31) 1,1,1-Trichloroethane ...	6.930	97	37192	6747.03	ug/L	82
32) Carbon tetrachloride SCAN	7.198	117	27339	5791.32	ug/L	94
33) Benzene SCAN	7.538	78	81847	5661.30	ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	29382	5958.92	ug/L	87
35) Trichloroethene SCAN	8.601	130	23580	6386.62	ug/L	90
36) Toluene-d8 SCAN	10.528	98	67416	4406.05	ug/L	97
37) Toluene SCAN	10.623	91	89079	4984.53	ug/L	97
38) 1,1,2-Trichloroethane ...	11.273	97	20049	5157.09	ug/L	90
39) Tetrachloroethene SCAN	11.473	166	23624	4560.57	ug/L	95
40) Chlorobenzene SCAN	12.812	112	66832	4693.54	ug/L	99
41) 1,1,1,2-Tetrachloroeth...	12.963	131	24487	5330.96	ug/L	88
42) Ethylbenzene SCAN	13.018	91	96964	4294.25	ug/L	95
43) m&p-Xylene SCAN	13.217	91	142104	4196.70	ug/L	97
44) o-Xylene SCAN	13.829	91	79699	4151.80	ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.916	83	36214	4184.65	ug/L	94
46) 1,3,5-Trimethylbenzene...	15.392	105	78171	3896.83	ug/L	97
47) 1,2,4-Trimethylbenzene...	15.938	105	81782	4016.28	ug/L	99
48) Naphthalene SCAN	17.931	128	122221	3715.01	ug/L	81

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2019\112019\
Data File : 11201911.D
Acq On : 21 Nov 2019 6:54
InstName : AG5975C
Operator : TD
Sample : S19K083-SCV2
Misc : 1930062 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 07:13:19 2019
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2019\112019.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Nov 21 06:24:24 2019
Response via : Initial Calibration



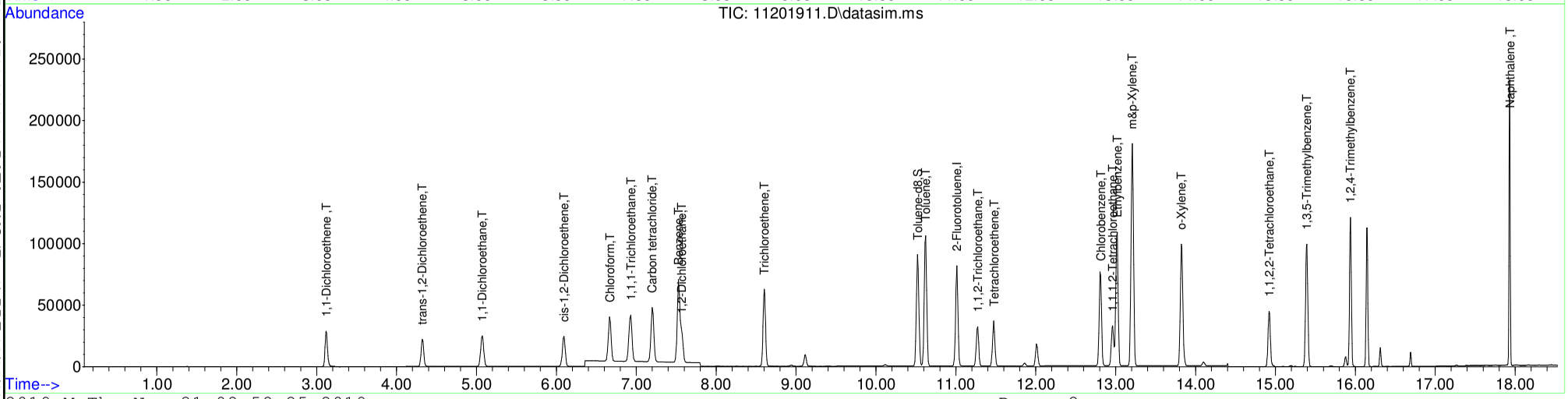


Table of Contents

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

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Certificate #3222.01

ilac-MRA

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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. : 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 #3222.02

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)

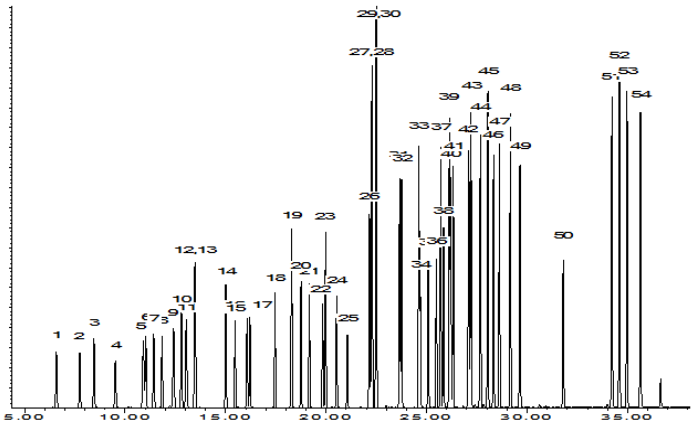
Carrier Gas:
helium-constant pressure 30 psi

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

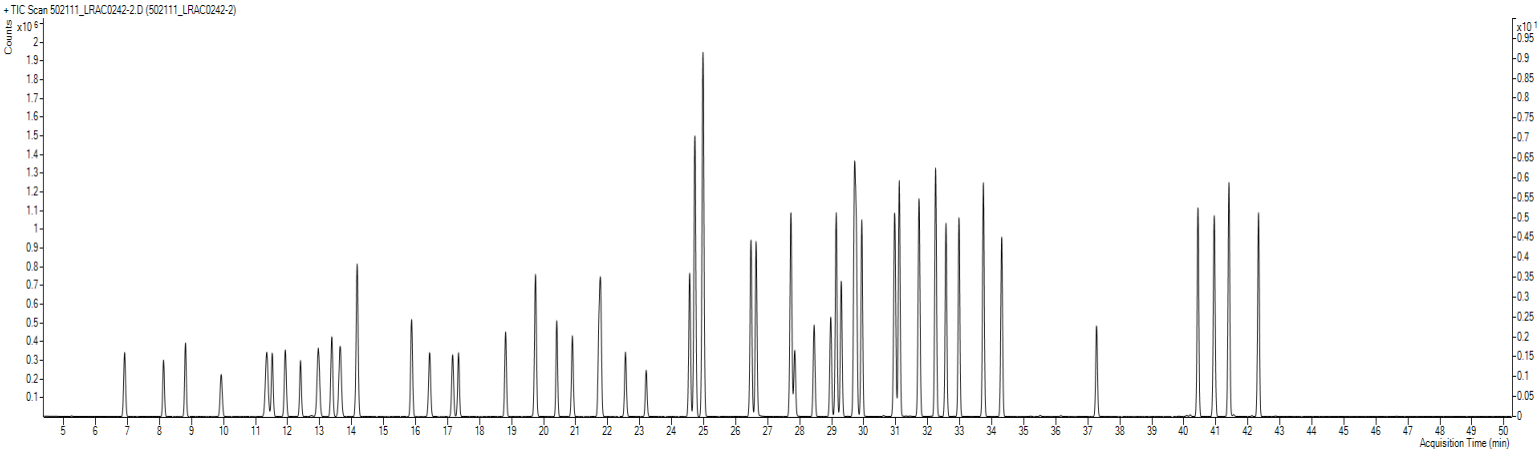
Certificate of Analysis

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

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1930053

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

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

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

Reviewed By Date

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

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

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

C E R T I F I E D V A L U E S

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)

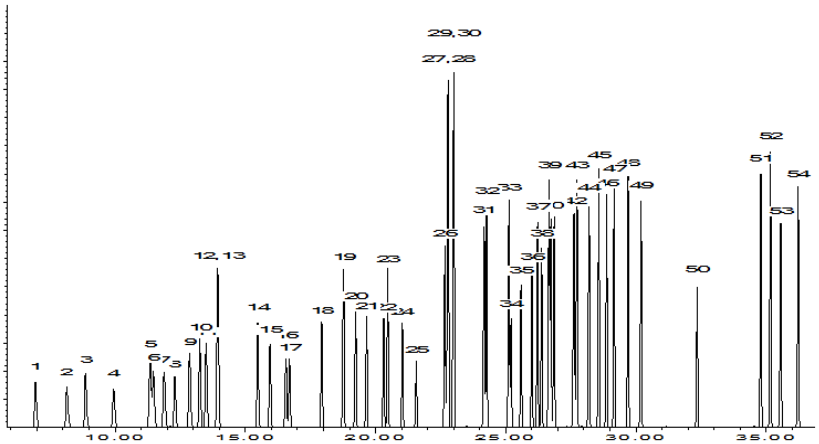
Carrier Gas:
helium-constant pressure 30 psi

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