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United States Environmental Protection Agency
Region 9 Laboratory

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

Date: **2/22/2021**

Subject: **Analytical Testing Results - Project R21S04**
WorkOrder **2102007**

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 OU1 FY2021 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 Bob Hopeman, 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: 2102007**
Project Number: R21S04	**75 Hawthorne Street**	**Reported:** 02/22/21 13:03
Project: MEW OU1 FY2021 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
645 Ellis-MenRR-BZ-2d	2102007-01	Radiello 130	02/05/21 13:57	02/08/21 12:56
645 Ellis-WomenRR-BZ-2d	2102007-02	Radiello 130	02/05/21 13:59	02/08/21 12:56
645 Ellis-Coffee Bar-BZ-2d	2102007-03	Radiello 130	02/05/21 14:02	02/08/21 12:56
645 Ellis-Kitchen new trench-BZ-2d	2102007-04	Radiello 130	02/05/21 14:26	02/08/21 12:56
645 Ellis-Kitchen stove-BZ-2d	2102007-05	Radiello 130	02/05/21 14:30	02/08/21 12:56
645 Ellis-OUT-2d	2102007-06	Radiello 130	02/05/21 15:30	02/08/21 12:56
645 Ellis-SC-PP-2d	2102007-07	Radiello 130	02/05/21 14:05	02/08/21 12:56

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
Project Number: R21S04
Project: MEW OU1 FY2021 Vapor Intrusion Investigation

California Site Cleanup Section 3
75 Hawthorne Street
San Francisco CA, 94105

WorkOrder: 2102007
Reported: 02/22/21 13:03

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 2102007-01									**Radiello 130 - Sampled: 02/05/21 13:57**
Sample ID: 645 Ellis-MenRR-BZ-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.45	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.55	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
Chloroform		0.34	C1, J	0.46	"	"	"	"	Radiello D1
Trichloroethene		ND	J, Q12, U	0.50	"	"	"	"	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.58	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			86 %	*86-118%*		"	"	"	
Lab ID: 2102007-02									**Radiello 130 - Sampled: 02/05/21 13:59**
Sample ID: 645 Ellis-WomenRR-BZ-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.45	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.55	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
Chloroform		ND	U	0.46	"	"	"	"	Radiello D1
Trichloroethene		ND	J, Q12, U	0.50	"	"	"	"	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.58	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			87 %	*86-118%*		"	"	"	
Lab ID: 2102007-03									**Radiello 130 - Sampled: 02/05/21 14:02**
Sample ID: 645 Ellis-Coffee Bar-BZ-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.45	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.55	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
Chloroform		ND	U	0.46	"	"	"	"	Radiello D1
Trichloroethene		ND	J, Q12, U	0.50	"	"	"	"	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.59	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			86 %	*86-118%*		"	"	"	
Lab ID: 2102007-04									**Radiello 130 - Sampled: 02/05/21 14:26**
Sample ID: 645 Ellis-Kitchen new trench-BZ-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.45	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.55	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
Chloroform		ND	U	0.46	"	"	"	"	Radiello D1

United States Environmental Protection Agency
Region 9 Laboratory
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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 2102007**
Project Number: R21S04	**75 Hawthorne Street**	**Reported:** 02/22/21 13:03
Project: MEW OU1 FY2021 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 2102007-04									**Radiello 130 - Sampled: 02/05/21 14:26**
Sample ID: 645 Ellis-Kitchen new trench-BZ-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
Trichloroethene		ND	J, Q12, U	0.50	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.58	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			87 %	*86-118%*		"	"	"	
Lab ID: 2102007-05									**Radiello 130 - Sampled: 02/05/21 14:30**
Sample ID: 645 Ellis-Kitchen stove-BZ-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.45	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.55	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
Chloroform		ND	U	0.46	"	"	"	"	Radiello D1
Trichloroethene		ND	J, Q12, U	0.50	"	"	"	"	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.58	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			86 %	*86-118%*		"	"	"	
Lab ID: 2102007-06									**Radiello 130 - Sampled: 02/05/21 15:30**
Sample ID: 645 Ellis-OUT-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.46	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.57	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.56	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.57	"	"	"	"	Radiello D1
Chloroform		ND	U	0.47	"	"	"	"	Radiello D1
Trichloroethene		ND	J, Q12, U	0.51	"	"	"	"	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.59	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			86 %	*86-118%*		"	"	"	
Lab ID: 2102007-07									**Radiello 130 - Sampled: 02/05/21 14:05**
Sample ID: 645 Ellis-SC-PP-2d					**Volatile Organic Compounds Collected on Passive Air Sampling Devices**				
1,1-Dichloroethene		ND	U	0.46	ug/m³ Air	B21B038	02/09/21	02/09/21	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.56	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.55	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		0.33	C1, J	0.56	"	"	"	"	Radiello D1
Chloroform		0.59		0.47	"	"	"	"	Radiello D1
Trichloroethene		2.3	J, Q12	0.51	"	"	"	"	Radiello D1
Tetrachloroethene		ND	J, Q12, U	0.59	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			86 %	*86-118%*		"	"	"	

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 2102007**
Project Number: R21S04	**75 Hawthorne Street**	**Reported:** 02/22/21 13:03
Project: MEW OU1 FY2021 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 B21B038 - Passive Air Sampler										
Blank (B21B038-BLK1)				Prepared & Analyzed: 02/09/21						
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	*860*		ug/m³ Air	*992*		*87*	*86-118*			
LCS (B21B038-BS1)				Prepared & Analyzed: 02/09/21						
1,1-Dichloroethene	8.51	0.13	ug/m³ Air	13.1		65	22-143			
trans-1,2-Dichloroethene	10.3	0.16	ug/m³ Air	16.0		64	35-133			
1,1-Dichloroethane	10.5	0.16	ug/m³ Air	15.7		67	43-140			
cis-1,2-Dichloroethene	11.0	0.16	ug/m³ Air	16.0		68	49-134			
Chloroform	9.35	0.13	ug/m³ Air	13.2		71	56-132			
Trichloroethene	10.2	0.14	ug/m³ Air	14.4		71	69-124			
Tetrachloroethene	12.1	0.17	ug/m³ Air	16.8		72	69-124			
Surrogate: Toluene-d8	*863*		ug/m³ Air	*992*		*87*	*86-118*			
LCS Dup (B21B038-BSD1)				Prepared & Analyzed: 02/09/21						
1,1-Dichloroethene	10.8	0.13	ug/m³ Air	13.1		83	22-143	24	62	
trans-1,2-Dichloroethene	12.9	0.16	ug/m³ Air	16.0		81	35-133	23	53	
1,1-Dichloroethane	13.3	0.16	ug/m³ Air	15.7		84	43-140	23	44	
cis-1,2-Dichloroethene	13.6	0.16	ug/m³ Air	16.0		85	49-134	22	39	
Chloroform	11.8	0.13	ug/m³ Air	13.2		89	56-132	23	41	
Trichloroethene	12.7	0.14	ug/m³ Air	14.4		88	69-124	22	20	
Tetrachloroethene	15.5	0.17	ug/m³ Air	16.8		92	69-124	25	20	
Surrogate: Toluene-d8	*862*		ug/m³ Air	*992*		*87*	*86-118*			

United States Environmental Protection Agency
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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 2102007**
Project Number: R21S04	**75 Hawthorne Street**	**Reported:** 02/22/21 13:03
Project: MEW OU1 FY2021 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 S21B025 - B21B038										
Instrument Blank (S21B025-IBL1)				Prepared & Analyzed: 02/09/21						
1,1-Dichloroethene	ND	0.0	ug/L							U
trans-1,2-Dichloroethene	ND	0.0	ug/L							U
1,1-Dichloroethane	ND	0.0	ug/L							U
cis-1,2-Dichloroethene	ND	0.0	ug/L							U
Chloroform	ND	0.0	ug/L							U
Trichloroethene	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*0.00*		ug/L				*86-118*			*U*

United States Environmental Protection Agency
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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 2102007**
Project Number: R21S04	**75 Hawthorne Street**	**Reported:** 02/22/21 13:03
Project: MEW OU1 FY2021 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Qualifiers and Comments

Q12 Blank spike/blank spike duplicate precision criteria were not met for this analyte (see BS/BSD results for this batch in QC summary).

J The reported result for this analyte should be considered an estimated value.

C1 The reported concentration for this analyte is below the quantitation limit.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 2102007**
Project Number: R21S04	**75 Hawthorne Street**	**Reported:** 02/22/21 13:03
Project: MEW OU1 FY2021 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

WORK ORDER

Printed: 2/9/2021 10:51:31AM

2102007

EPA Region 9 Laboratory

Client: **California Site Cleanup Section 3**
Project: **MEW OU1 FY2021 Vapor Intrusion Investigation**
Project Number: **R21S04**

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
Cooler 1	Cooler	22	Yes	Yes	Yes	No	No	

Date Due:	02/22/21 17:00 (14 day TAT)	SDG:	21039B
Received By:	Junn Masongsong	Date Received:	02/08/21 12:56
Logged In By:	Junn Masongsong	Date Logged In:	02/08/21 14:21

Analysis	Hold Time Expires	Comments	
2102007-01 645 Ellis-MenRR-BZ-2d [Radiello 130] Sampled 02/05/21 13:57 (GMT-08:00) Pacific Time (US &			**F754C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested	
2102007-02 645 Ellis-WomenRR-BZ-2d [Radiello 130] Sampled 02/05/21 13:59 (GMT-08:00) Pacific Time (US &			**F755C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested	
2102007-03 645 Ellis-Coffee Bar-BZ-2d [Radiello 130] Sampled 02/05/21 14:02 (GMT-08:00) Pacific Time (US &			**F756C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested	
2102007-04 645 Ellis-Kitchen new trench-BZ-2d [Radiello 130] Sampled 02/05/21 14:26 (GMT-08:00) Pacific Time (US &			**F757C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested	
2102007-05 645 Ellis-Kitchen stove-BZ-2d [Radiello 130] Sampled 02/05/21 14:30 (GMT-08:00) Pacific Time (US &			**F758C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested	
2102007-06 645 Ellis-OUT-2d [Radiello 130] Sampled 02/05/21 15:30 (GMT-08:00) Pacific Time (US &			**F759C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested	

WORK ORDER

Printed: 2/9/2021 10:51:31AM

2102007

EPA Region 9 Laboratory

Client: **California Site Cleanup Section 3** **Project Number:** **R21S04**
Project: **MEW OU1 FY2021 Vapor Intrusion Investigation**

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
2102007-07 645 Ellis-SC-PP-2d [Radiello 130] Sampled 02/05/21 14:05 (GMT-08:00) Pacific Time (US &		**F753C**
VOCs, Passive Samplers	08/04/21	4 day prelim requested

Reviewed By

Date

U.S. Environmental Protection Agency

CHAIN OF CUSTODY RECORD

EPA REGION 9
75 Hawthorne Street
San Francisco, California 94105

Project / Case Number: R21S04
MEW (M6) OU1

MEW OU1 Vapor Intrusion Pathway - 645 Ellis - February 2021

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

Laboratory:
EPA R9 Richmond

Samplers: *Alana Lee*

Analysis: TCE, cis & trans 1,2-DCE, PCE, 1,1 DCE, 1,1-DCA, chloroform
(Preliminary TCE 4 d TAT requested)

Start Date End Date	Start Time/ End/Time	Matrix	Comp	Grab	EPA ID Number	Unique ID	RAD130 - # Containers	AVG (beg / end) Temp - F	AVG (beg / end) Temp - F	TCE Screen -µg/m^3 if available	
02/03/2021 02/05/2021	12:15 13:57	AIR	X		645 Ellis-MenRR-BZ-2d	F754C	1	67	67	<5	
02/03/2021 02/05/2021	12:16 13:59	AIR	X		645 Ellis-WomenRR-BZ-2d	F755C	1	67	67	<5	
02/03/2021 02/05/2021	12:27 14:02	AIR	X		645 Ellis-Coffee Bar-BZ-2d	F756C	1	67	67	<5	
02/03/2021 02/05/2021	12:41 14:26	AIR	X		645 Ellis-Kitchen new trench-BZ-2d	F757C	1	67	67	<5	on wall near new trench slab repair-dusty
02/03/2021 02/05/2021	12:49 14:30	AIR	X		645 Ellis-Kitchen stove-BZ-2d	F758C	1	67	67	<5	
02/03/2021 02/05/2021	13:37 15:30	AIR	X		645 Ellis-OUT-2d	F759C	1	60	60	<1	
02/03/2021 02/05/2021	12:33 14:05	Sewer Gas	X		645 Ellis-SC-PP-2d	F753C	1	64	64		

Relinquished by: *(Signature)* */s/ Alana Lee* Date/Time 02/08/2021 12:56

Received by: *(Signature)* Date/Time

Relinquished by: *(Signature)* Date/Time

Received for Laboratory by: *(Signature)* Date/Time

2/9/21 1055

Temp

Seals Intact? (Y/N)

Conditions / Remarks

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: R21S04 **Work Order No(s):** 2102007 **Date:** 2/8/21 **by** JDM

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):

4-day prelim results requested

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

Exposure Time in Minutes

	Sample ID Number	Start Date (XX/XX/XXXX)	Start Time	End Date	End Time	Minutes	Start temp C	End temp C	Avg temp K	Plate #
1	645 Ellis-MenRR-BZ-2d	02/03/21	12:15	02/05/21	13:57	2982	19.44	19.44	292.59	F754C
2	645 Ellis-WomenRR-BZ-2d	02/03/21	12:16	02/05/21	13:59	2983	19.44	19.44	292.59	F755C
3	645 Ellis-Coffee Bar-BZ-2d	02/03/21	12:27	02/05/21	14:02	2975	19.44	19.44	292.59	F756C
4	645 Ellis-Kitchen new trench-BZ-2d	02/03/21	12:41	02/05/21	14:26	2985	19.44	19.44	292.59	F757C
5	645 Ellis-Kitchen stove-BZ-2d	02/03/21	12:49	02/05/21	14:30	2981	19.44	19.44	292.59	F758C
6	645 Ellis-OUT-2d	02/03/21	13:37	02/05/21	15:30	2993	15.56	15.56	288.71	F759C
7	645 Ellis-SC-PP-2d	02/03/21	12:33	02/05/21	14:05	2972	17.78	17.78	290.93	F753C

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BATCH

B21B038

Batch Date: 02/09/2021

Batch Matrix: Radiello 130

Batch Analyses:

VOCs, Passive Samplers

PREPARATION BENCH SHEET

B21B038

EPA Region 9 Laboratory

Project: R21S04

Printed: 2/9/2021 7:41:33AM

Matrix: Radiello 13 **Analysis: VOCs, Passive Sampler** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 2106036**

Lab Number	SampleName	Prepared	Initial (Tube)	Final (mL)	Source ID	Spike ID 1	ul Spike 1	ul Surrogate	Prepared by	Extraction Comments
2102007-01 A	465 Ellis-MenRR-BZ-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
2102007-02 A	465 Ellis-WomenRR-BZ-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
2102007-03 A	465 Ellis-Coffee Bar-BZ-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
2102007-04 A	465 Ellis-Kitchen new trench-BZ-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
2102007-05 A	465-Kitchen stove-BZ-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
2102007-06 A	465 Ellis-OUT-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
2102007-07 A	465 Ellis-SC-PP-2d	02/09/21 07:01	1	2				50	TD	4 day prelim requested
B21B038-BLK1	Blank	02/09/21 07:01	1	2				50	TD	
B21B038-BS1	LCS	02/09/21 07:01	1	2		2106034	5	50	TD	
B21B038-BSD1	LCS Dup	02/09/21 07:01	1	2		2106034	5	50	TD	
B21B038-MRL1	MRL Check	02/09/21 07:01	1	2		2047001	5	50	TD	

Batch Comments

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PREPARATION BENCH SHEET

B21B038

EPA Region 9 Laboratory

Project: R21S04

Printed: 2/9/2021 7:41:33AM

Matrix: Radiello 13 **Analysis: QC** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 2106036**

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

Reagents

Reagent #	Description
2045009	passive air Radiello tubes
2046038	Carbon disulfide

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Calibration

2012007

Calibration Date: 12/07/2020

Instrument: AG5975CV

Calibration Analyses:

VOCs, Passive Samplers

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 120720.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Tue Dec 08 06:26:34 2020
Response Via : Initial Calibration

Calibration Files
25 =12072003.D 10 =12072004.D 5 =12072005.D 1 =12072006.D .15 =12072007.D .05 =12072008.D

		Compound	25	10	5	1	.15	.05	Avg	%RSD
1)	I	2-Fluorotoluene	----------ISTD----------							
2)	T	1,1-Dichloroet...	0.174	0.246	0.204	0.167	0.171	0.227	0.198	16.57
3)	T	trans-1,2-Dich...	0.211	0.313	0.252	0.232	0.226	0.266	0.250	14.68
4)	T	1,1-Dichloroet...	0.247	0.374	0.298	0.280	0.267	0.324	0.299	15.23
5)	T	cis-1,2-Dichlo...	0.259	0.389	0.300	0.300	0.280	0.328	0.309	14.61
6)	T	Chloroform	0.243	0.372	0.288	0.290	0.261	0.328	0.297	15.82
7)	T	1,1,1-Trichlor...	0.262	0.402	0.307	0.324	0.288	0.331	0.319	14.98
8)	T	Carbon tetrach...	0.253	0.386	0.294	0.317	0.272	0.308	0.305	15.19
9)	T	Benzene	0.685	1.056	0.809	0.872	0.785		0.841	16.34
10)	T	1,2-Dichloroet...	0.229	0.357	0.281	0.294	0.262	0.299	0.287	14.89
11)	T	Trichloroethene	0.220	0.334	0.257	0.283	0.241	0.260	0.266	14.84
12)	S	Toluene-d8	0.801	1.227	0.912	1.050	0.874	0.946	0.968	15.62
13)	T	Toluene	0.946	1.473	1.114	1.330	1.112	1.259	1.206	15.50
14)	T	1,1,2-Trichlor...	0.234	0.355	0.267	0.300	0.249	0.270	0.279	15.44
15)	T	Tetrachloroethene	0.308	0.471	0.361	0.414	0.343	0.357	0.376	15.40
16)	T	Chlorobenzene	0.760	1.156	0.896	1.026	0.842	0.923	0.934	15.02
17)	T	1,1,1,2-Tetrac...	0.267	0.404	0.313	0.361	0.296	0.321	0.327	14.91
18)	T	Ethylbenzene	1.202	1.838	1.469	1.741	1.437	1.553	1.540	14.78
19)	T	m&p-Xylene	0.896	1.383	1.106	1.349	1.128	1.253	1.186	15.27
)	T	o-Xylene	0.998	1.528	1.211	1.414	1.189	1.303	1.274	14.55
)	T	1,1,2,2-Tetrac...	0.475	0.722	0.569	0.658	0.541	0.596	0.594	14.67
)	T	1,3,5-Trimethy...	1.044	1.632	1.337	1.605	1.324	1.463	1.401	15.51
)	T	1,2,4-Trimethy...	1.047	1.635	1.350	1.658	1.375	1.531	1.433	15.93
)	T	Naphthalene	1.677	2.640	2.275	2.668	2.073	2.595	2.321	16.96
)		2-Fluorotoluen...			0.568				0.568	0.00
)		1,1-Dichloroet...			0.132				0.132	0.00
)		trans-1,2-Dich...			0.169				0.169	0.00
)		1,1-Dichloroet...			0.199				0.199	0.00
)		cis-1,2-Dichlo...			0.196				0.196	0.00
)		Chloroform SCAN			0.183				0.183	0.00
)		1,1,1-Trichlor...			0.188				0.188	0.00
)		Carbon tetrach...			0.161				0.161	0.00
)		Benzene SCAN			0.570				0.570	0.00
)		1,2-Dichloroet...			0.178				0.178	0.00
)		Trichloroethen...			0.124				0.124	0.00
)		Toluene-d8 SCAN			0.532				0.532	0.00
)		Toluene SCAN			0.655				0.655	0.00
)		1,1,2-Trichlor...			0.164				0.164	0.00
)		Tetrachloroeth...			0.147				0.147	0.00
)		Chlorobenzene ...			0.471				0.471	0.00
)		1,1,1,2-Tetrac...			0.162				0.162	0.00
)		Ethylbenzene SCAN			1.249				1.249	0.00

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Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 120720.M

43)	m&p-Xylene SCAN	1.249	1.249	0.00
44)	o-Xylene SCAN	0.682	0.682	0.00
45)	1,1,2,2-Tetrac...	0.355	0.355	0.00
46)	1,3,5-Trimethy...	0.719	0.719	0.00
47)	1,2,4-Trimethy...	0.735	0.735	0.00
48)	Naphthalene SCAN	1.103	1.103	0.00

(#) = Out of Range

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Compound List Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 120720.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Tue Dec 08 06:14:00 2020
Response Via : Initial Calibration

Total Cpnds : 48

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	2-Fluorotoluene	-109	10.980	1.000	A	1	A	B
2	T	1,1-Dichloroethene	-61	3.090	0.281	A	1	A	B
3	T	trans-1,2-Dichloroethene	-61	4.376	0.399	A	1	A	B
4	T	1,1-Dichloroethane	-63	5.086	0.463	A	1	A	B
5	T	cis-1,2-Dichloroethene	-61	6.088	0.554	A	1	A	B
6	T	Chloroform	-83	6.652	0.606	A	1	A	B
7	T	1,1,1-Trichloroethane	-97	6.919	0.630	A	2	A	B
8	T	Carbon tetrachloride	-117	7.187	0.655	A	1	A	B
9	T	Benzene	-78	7.515	0.684	A	1	A	B
10	T	1,2-Dichloroethane	-62	7.552	0.688	A	1	A	B
11	T	Trichloroethene	-130	8.575	0.781	A	3	A	B
12	S	Toluene-d8	-98	10.487	0.955	A	1	A	B
13	T	Toluene	-91	10.582	0.964	A	1	A	B
14	T	1,1,2-Trichloroethane	-97	11.232	1.023	A	1	A	B
15	T	Tetrachloroethene	-166	11.432	1.041	A	1	A	B
16	T	Chlorobenzene	-112	12.773	1.163	A	1	A	B
17	T	1,1,1,2-Tetrachloroethane	-131	12.916	1.176	A	1	A	B
18	T	Ethylbenzene	-91	12.972	1.181	A	2	A	B
19	T	m&p-Xylene	-91	13.170	1.199	A	2	A	B
20	T	o-Xylene	-91	13.782	1.255	A	1	A	B
21	T	1,1,2,2-Tetrachloroethane	-83	14.880	1.355	A	1	A	B
22	T	1,3,5-Trimethylbenzene	-105	15.350	1.398	A	1	A	B
23	T	1,2,4-Trimethylbenzene	-105	15.906	1.449	A	1	A	B
24	T	Naphthalene	-128	17.904	1.631	A	1	A	B
25		2-Fluorotoluene SCAN	109	10.979	1.000	A	1	A	B
26		1,1-Dichloroethene SCAN	61	3.096	0.282	A	2	A	B
27		trans-1,2-Dichloroethene SCAN	61	4.381	0.399	A	2	A	B
28		1,1-Dichloroethane SCAN	63	5.084	0.463	A	2	A	B
29		cis-1,2-Dichloroethene SCAN	61	6.093	0.555	A	3	A	B
30		Chloroform SCAN	83	6.662	0.607	A	2	A	B
31		1,1,1-Trichloroethane SCAN	97	6.918	0.630	A	2	A	B
32		Carbon tetrachloride SCAN	117	7.185	0.654	A	3	A	B
33		Benzene SCAN	78	7.514	0.684	A	3	A	B
34		1,2-Dichloroethane SCAN	62	7.563	0.689	A	2	A	B
35		Trichloroethene SCAN	130	8.573	0.781	A	3	A	B
36		Toluene-d8 SCAN	98	10.486	0.955	A	1	A	B
37		Toluene SCAN	91	10.591	0.965	A	2	A	B
38		1,1,2-Trichloroethane SCAN	97	11.242	1.024	A	3	A	B
39		Tetrachloroethene SCAN	166	11.441	1.042	A	3	A	B
40		Chlorobenzene SCAN	112	12.772	1.163	A	3	A	B
41		1,1,1,2-Tetrachloroethane SCAN	131	12.915	1.176	A	3	A	B
42		Ethylbenzene SCAN	91	13.169	1.199	A	2	A	B
43		m&p-Xylene SCAN	91	13.169	1.199	A	3	A	B
44		o-Xylene SCAN	91	13.789	1.256	A	2	A	B
45		1,1,2,2-Tetrachloroethane SCAN	83	14.883	1.355	A	2	A	B
46		1,3,5-Trimethylbenzene SCAN	105	15.353	1.398	A	2	A	B
47		1,2,4-Trimethylbenzene SCAN	105	15.904	1.448	A	3	A	B
48		Naphthalene SCAN	128	17.902	1.630	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

120720.M Tue Dec 08 06:15:00 2020

CHEMSTATION AREA COUNT REPORT

AG5975C
S20L021-SCV1
2050006 5 mg/L
12/7/2020
Tue Dec 08 06:26:34 2020
TD

#	Name	L1	L2	L3	L4	L5	L6
1)	2-Fluorotoluene	195592	176421	204852	192171	252253	187138
2)	1,1-Dichloroethene	170346	86947	41693	6436	1297	424
3)	trans-1,2-Dichloroethene	205918	110501	51683	8899	1710	498
4)	1,1-Dichloroethane	241671	132043	60968	10775	2024	607
5)	cis-1,2-Dichloroethene	253462	137108	61359	11528	2117	614
6)	Chloroform	237224	131342	58933	11165	1973	614
7)	1,1,1-Trichloroethane	255903	141724	62918	12471	2178	620
8)	Carbon tetrachloride	247265	136366	60233	12168	2056	577
9)	Benzene	670255	372633	165647	33507	5940	1867
10)	1,2-Dichloroethane	224138	125989	57511	11309	1980	560
11)	Trichloroethene	214893	117776	52638	10868	1823	486
12)	Toluene-d8	783017	433076	186913	40349	6615	1770
13)	Toluene	925356	519895	228131	51129	8413	2356
14)	1,1,2-Trichloroethane	229135	125208	54754	11523	1884	506
15)	Tetrachloroethene	300972	166120	73978	15897	2596	668
16)	Chlorobenzene	743020	408040	183636	39448	6372	1728
17)	1,1,1,2-Tetrachloroethane	260820	142468	64105	13873	2240	601
18)	Ethylbenzene	1175852	648617	300900	66895	10872	2907
19)	m&p-Xylene	1752375	976041	453072	103724	17074	4690
20)	o-Xylene	976193	538998	248059	54333	9001	2438
21)	1,1,2,2-Tetrachloroethane	464694	254605	116584	25279	4095	1116
22)	1,3,5-Trimethylbenzene	1021322	575841	273812	61678	10017	2738
23)	1,2,4-Trimethylbenzene	1023644	576868	276580	63729	10405	2866
24)	Naphthalene	1640326	931520	465960	102525	15689	4856

CHEMSTATION CONCENTRATION REPORT

AG5975C
S20L021-SCV1
2050006 5 mg/L
12/7/2020
Tue Dec 08 06:26:34 2020
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: S20L021-SCV1
Misc Info: 2050006 5 mg/L
Date Acquired: 12/7/2020
QLast Update: Tue Dec 08 06:26:34 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.980	5000	5000.00	100%	70	130	pass
2)	1,1-Dichloroethene	3.090	5000	4697.57	94%	70	130	pass
3)	trans-1,2-Dichloroethene	4.376	5000	4318.17	86%	70	130	pass
4)	1,1-Dichloroethane	5.086	5000	4222.35	84%	70	130	pass
5)	cis-1,2-Dichloroethene	6.088	5000	4269.62	85%	70	130	pass
6)	Chloroform	6.652	5000	4262.13	85%	70	130	pass
7)	1,1,1-Trichloroethane	6.919	5000	4308.50	86%	70	130	pass
8)	Carbon tetrachloride	7.187	5000	4351.53	87%	70	130	pass
9)	Benzene	7.515	5000	4202.26	84%	70	130	pass
10)	1,2-Dichloroethane	7.552	5000	4298.38	86%	70	130	pass
11)	Trichloroethene	8.575	5000	4340.71	87%	70	130	pass
12)	Toluene-d8	10.487	5000	4348.70	87%	70	130	pass
13)	Toluene	10.582	5000	4260.28	85%	70	130	pass
14)	1,1,2-Trichloroethane	11.232	5000	4329.97	87%	70	130	pass
15)	Tetrachloroethene	11.432	5000	4347.15	87%	70	130	pass
16)	Chlorobenzene	12.773	5000	4281.56	86%	70	130	pass
17)	1,1,1,2-Tetrachloroethane	12.916	5000	4337.37	87%	70	130	pass
18)	Ethylbenzene	12.972	5000	4256.29	85%	70	130	pass
19)	m&p-Xylene	13.170	10000	8404.52	84%	70	130	pass
20)	o-Xylene	13.782	5000	4221.29	84%	70	130	pass
21)	1,1,2,2-Tetrachloroethane	14.880	5000	4187.17	84%	70	130	pass
22)	1,3,5-Trimethylbenzene	15.350	5000	4202.52	84%	70	130	pass
23)	1,2,4-Trimethylbenzene	15.906	5000	4083.40	82%	70	130	pass
24)	Naphthalene	17.904	5000	3980.40	80%	70	130	pass

SEQUENCE

S20L021

Sequence Date: 12/07/2020

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	ICAL	SEQUENCE #:	S20L021 12/07/20
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.	Tue Dec 08 06:26:34 2020			
	Initial Calibration ID (LIMS number):	2012007			
	ICAL within QC criteria?		Y	Y	
	SCV within QC criteria?		Y	Y	
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?		Y	Y	
	CCV(s) within QC criteria?	✔			
	QLS(s) within QC criteria?	✔			
	CB(s) or storage blank(s) within QC criteria?	✔			
	Other instrument checks within QC criteria? Specify if applicable.	✔			
BATCH QCs	Method blanks < 1/2 QL?	✔			
	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 #:	S20L021 12/07/20
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 12/08/20
	REVIEWED BY:	ZIYAD RAJABI (Affiliate) Digitally signed by ZIYAD RAJABI (Affiliate) Date: 2020.12.16 12:37:09 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2020\120720\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	12072001.D	1	S20L021-IBL1		7 Dec 2020 12:15
2	12072002.D	1	S20L021-TUN1	BFB 2016028	7 Dec 2020 12:36
3	12072003.D	1	S20L021-CAL1	2030068 25 mg/L	7 Dec 2020 12:46
4	12072004.D	1	S20L021-CAL2	2030069 10 mg/L	7 Dec 2020 13:09
5	12072005.D	1	S20L021-CAL3	2030070 5 mg/L	7 Dec 2020 13:33
6	12072006.D	1	S20L021-CAL4	2030071 1 mg/L	7 Dec 2020 13:56
7	12072007.D	1	S20L021-CAL5	2030072 0.15 mg/L	7 Dec 2020 14:20
8	12072008.D	1	S20L021-CAL6	2030073 0.05 mg/L	7 Dec 2020 14:43
9	12072009.D	1	S20L021-SCV1	2050006 5 mg/L	7 Dec 2020 15:07

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2020\120720\12072002.D
Tune Time : 7 Dec 2020 12:36

Daily Calibration File : C:\msdchem\1\Ravioli Data\2020\120720\12072005.D

204852

File	Sample	Surrogate Recovery %	Internal Standard Responses
12072003.D	S20L021-CAL1	413*	195592
12072004.D	S20L021-CAL2	253*	176421
12072005.D	S20L021-CAL3	94	204852
12072006.D	S20L021-CAL4	22*	192171
12072007.D	S20L021-CAL5	3*	252253
12072008.D	S20L021-CAL6	1*	187138
12072009.D	S20L021-SCV1	87	207424

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

Created: Tue Dec 08 06:17:21 2020 AG5975C

Analysis Sequence

S20L021

Project:
Analysis:

Instrument: AG5975CV **Calibration ID:** 2012007 Printed: 12/08/2020 8:30 am

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S20L021-IBL1	Instrument Blank	1	12/7/20 12:15			TD	12072001.D	
S20L021-TUN1	BFB	2	12/7/20 12:36	2040028		TD	12072002.D	
S20L021-CAL1	Cal Standard	3	12/7/20 12:46	2030068		TD	12072003.D	
S20L021-CAL2	Cal Standard	4	12/7/20 13:09	2030069		TD	12072004.D	
S20L021-CAL3	Cal Standard	5	12/7/20 13:33	2030070		TD	12072005.D	
S20L021-CAL4	Cal Standard	6	12/7/20 13:56	2030071		TD	12072006.D	
S20L021-CAL5	Cal Standard	7	12/7/20 14:20	2030072		TD	12072007.D	
S20L021-CAL6	Cal Standard	8	12/7/20 14:43	2030073		TD	12072008.D	
S20L021-SCV1	Secondary Cal Check	9	12/7/20 15:07	2050006		TD	12072009.D	

Sequence Comments

Reagents

Reagent #	Description

Table of Contents

SEQUENCE DATA

S20L021

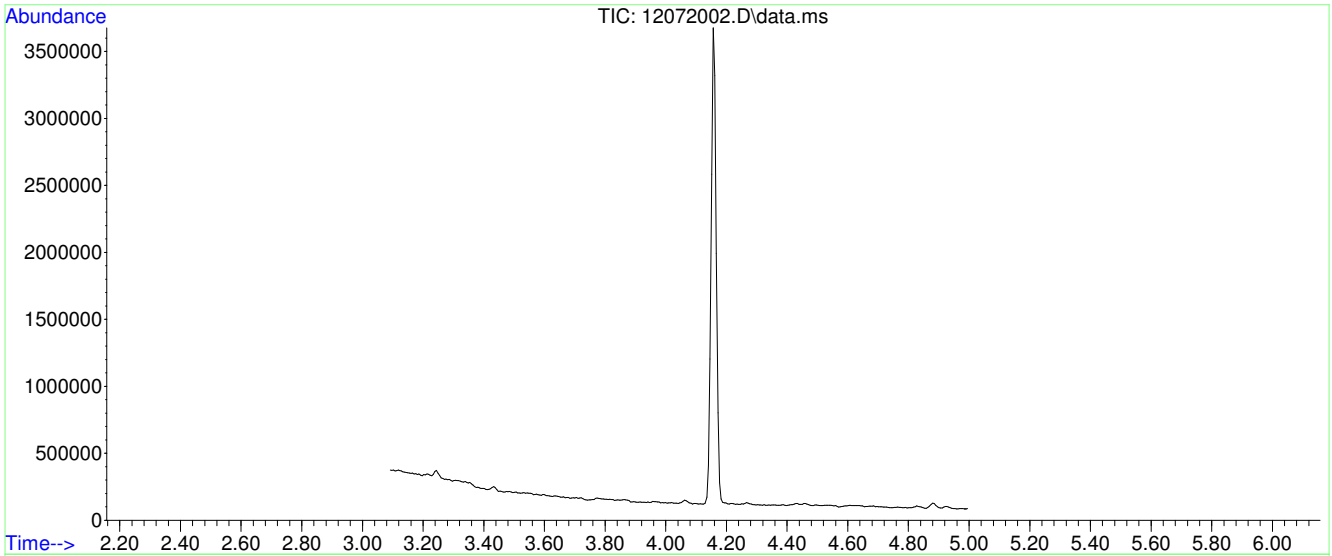
S20L021-TUN1

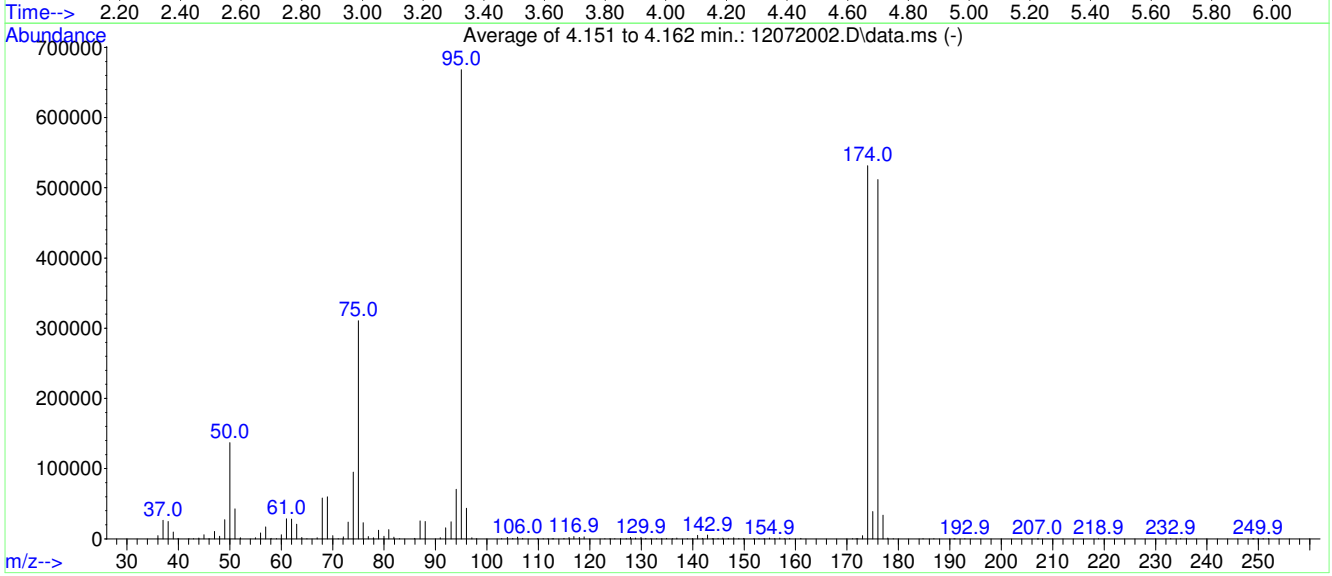
Table of Contents

```
Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072002.D
Acq On    :  7 Dec 2020  12:36
Operator  : TD
Sample    : S20L021-TUN1
Misc      : BFB   2016028
ALS Vial  : 2   Sample Multiplier: 1
InstName  : AG5975C

Integration File: Ravioli.P

Method    : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Title     : Volatile Organic Analysis  -  Passive samplers
Last Update  : Mon Nov 16 10:20:51 2020
```





AutoFind: Scans 203, 204, 205; Background Corrected with Scan 196

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	137040	PASS
75	95	30	60	46.5	310597	PASS
95	95	100	100	100.0	668117	PASS
96	95	5	9	6.5	43341	PASS
173	174	0.00	2	0.8	4347	PASS
174	95	50	120	79.5	531392	PASS
175	174	5	9	7.3	38789	PASS
176	174	95	101	96.3	511595	PASS
177	176	5	9	6.6	33584	PASS

Average of 4.151 to 4.162 min.: 12072002.D\data.ms
S20L021-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	4552	48.00	3650	61.00	28379	73.00	23998
37.00	26357	49.00	27133	62.00	27973	74.00	95080
38.00	24764	50.00	137040	63.00	20853	75.00	310597
39.00	9488	51.00	42584	64.00	1796	75.95	22851
39.95	557	52.05	1745	65.00	126	76.95	3235
42.05	138	55.00	1576	67.00	1442	77.95	1686
42.95	65	56.00	8339	68.00	58325	78.95	12291
44.00	1307	57.00	17115	69.00	60005	79.95	3553
45.00	5742	58.05	734	70.00	4405	80.90	13001
45.95	206	59.10	57	71.10	114	81.90	2522
47.00	10608	60.00	5611	72.05	2925	83.00	410

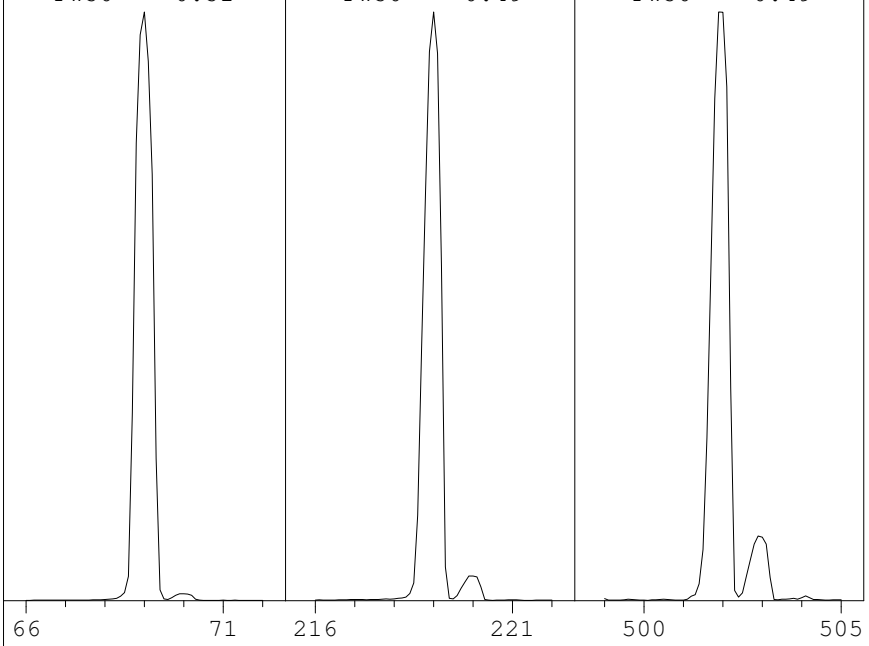
Average of 4.151 to 4.162 min.: 12072002.D\data.ms
S20L021-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	609	102.85	321	115.95	1924	129.95	2095
87.00	25592	103.95	2104	116.90	3084	130.90	886
88.00	24848	105.00	819	117.95	2001	131.90	58
90.90	1648	105.95	2177	118.90	2859	133.00	279
92.00	15659	106.95	527	122.95	273	134.00	129
93.00	24101	109.85	321	123.95	299	134.90	856
94.00	70760	110.95	442	124.85	259	136.10	114
95.00	668117	111.85	292	125.95	127	136.90	1086
96.00	43341	112.70	50	127.10	66	138.95	130
97.05	1335	112.90	294	127.90	1958	139.95	418
98.00	67	114.95	554	128.90	966	140.95	5022

Average of 4.151 to 4.162 min.: 12072002.D\data.ms
S20L021-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.90	600	152.90	359	173.05	4347	192.95	169
142.90	5556	153.90	363	174.00	531392	207.00	1
143.80	97	154.95	1273	175.00	38789	218.90	180
144.00	260	155.95	207	176.00	511595	232.95	256
144.95	539	156.95	1033	177.00	33584	234.90	78
145.90	937	157.80	61	177.95	945	236.00	57
146.95	566	158.85	705	179.00	59	248.90	117
147.95	1326	161.00	667	184.80	65	249.10	59
148.95	466	171.10	183	186.90	51	249.90	201
149.90	587	171.80	112	190.80	93	250.90	72
151.90	273	172.10	220	191.00	100	251.95	53

Mass	69.00	Mass	219.00	Mass	501.90
Ab	484578	Ab	285879	Ab	8394
Pw50	0.51	Pw50	0.49	Pw50	0.49

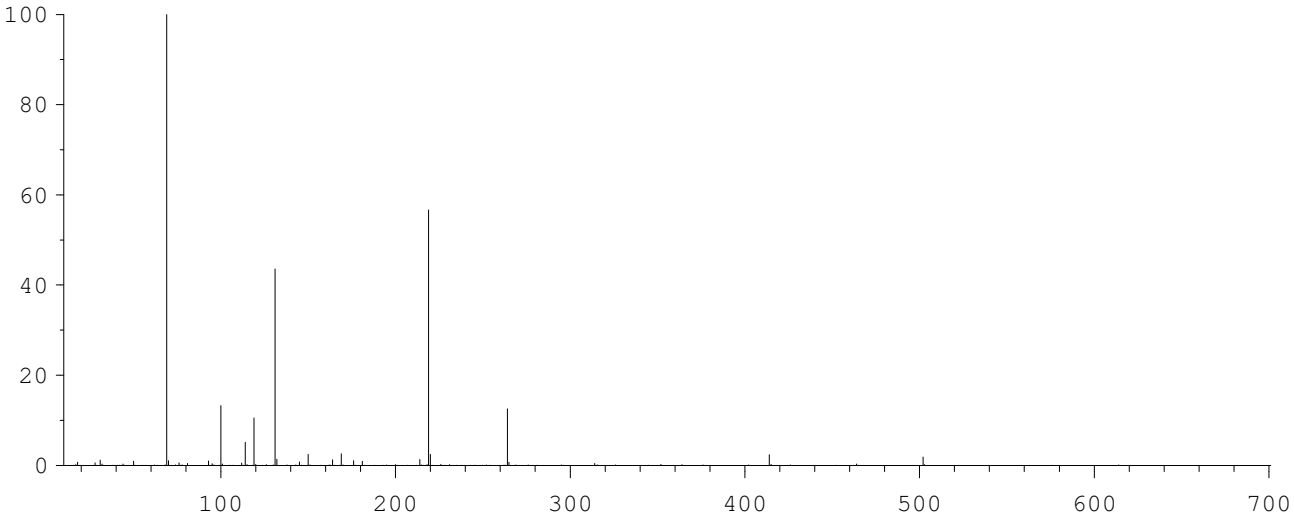


Ion Pol	Pos	MassGain	-1186
		MassOffs	-39
Emission	34.6	AmuGain	984
EIEnrgy	69.9	AmuOffs	128.50
Filament	1	Wid219	-0.003
		DC Pol	Pos
Repeller	22.25		
IonFcus	68.3	HEDEnab	On
EntLens	0.0	EMVolts	1424
EntOffs	Var		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Turbo Speed	100
MS Quad	150	HiVac	0.00e+00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
123 peaks Base: 69.00 Abundance: 459008



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	459008	100.00	70.00	4731	1.03
219.00	260032	56.65	220.00	11346	4.36
502.00	8435	1.84	503.00	770	9.13

Air/Water Check: H20~0.73% N2~0.58% O2~0.30% CO2~0.34% N2/H2O~79.92%

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

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 75158
Repeller Maximum 30 volts using ion 219; Gain Factor 0.75

MassGain Values(Samples): -1176(3) -1170(2) -1147(1) -1106(0) -1019(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	128.5	128.5	128.5	128.5	128.5	128.5	128.5
Entrance Lens Offset:	14.8	11.3	11.3	13.1	14.8	16.1	16.1
Target Abund(%):	1.0	100.0	45.0	55.0	2.5	2.0	
Actual Tune Abund(%):	0.9	100.0	43.6	56.7	2.4	1.8	

S20L021-CAL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072003.D
Acq On : 7 Dec 2020 12:46
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL1
Misc : 2030068 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 06:07:30 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

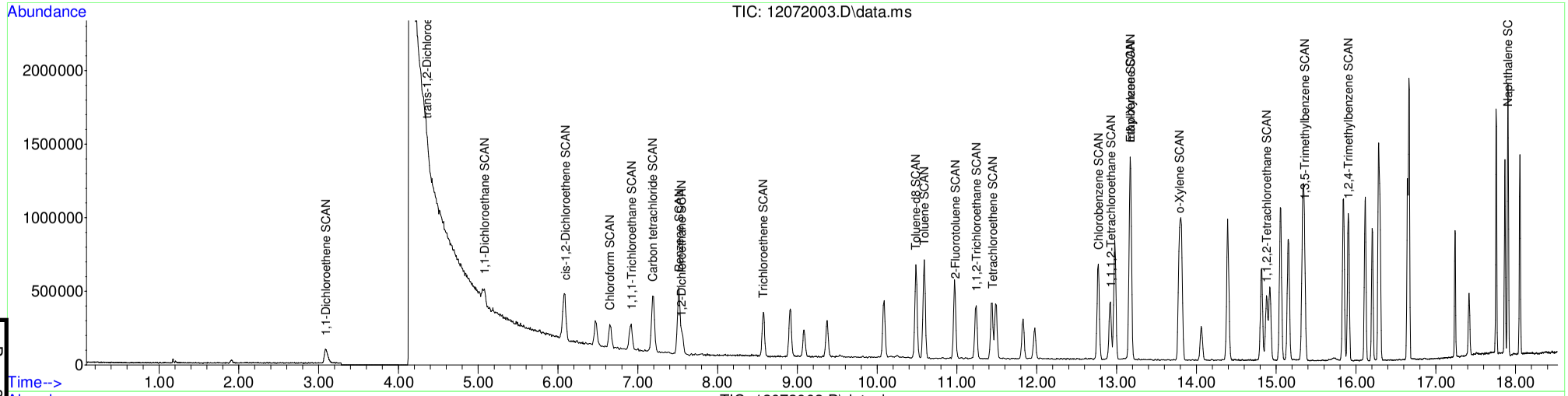
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	195592	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	783017	20670.27 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 413.41%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	170346	22037.91 ug/L	84
3] trans-1,2-Dichloroethene	4.356	61	205918	21060.88 ug/L	98
4] 1,1-Dichloroethane	5.073	63	241671	20695.11 ug/L	95
5] cis-1,2-Dichloroethene	6.081	61	253462	20956.68 ug/L	98
6] Chloroform	6.652	83	237224	20420.55 ug/L	99
7] 1,1,1-Trichloroethane	6.907	97	255903	20506.40 ug/L	100
8] Carbon tetrachloride	7.187	117	247265	20724.90 ug/L	99
9] Benzene	7.503	78	670255	20364.68 ug/L	99
10] 1,2-Dichloroethane	7.540	62	224138	19962.69 ug/L	97
11] Trichloroethene	8.575	130	214893	20679.73 ug/L	97
13] Toluene	10.582	91	925356	19619.32 ug/L	98
14] 1,1,2-Trichloroethane	11.232	97	229135	20974.53 ug/L	98
15] Tetrachloroethene	11.432	166	300972	20486.92 ug/L	100
16] Chlorobenzene	12.765	112	743020	20334.85 ug/L	96
17] 1,1,1,2-Tetrachloroethane	12.916	131	260820	20394.84 ug/L	100
18] Ethylbenzene	12.972	91	1175852	19518.61 ug/L	100
19] m&p-Xylene	13.170	91	1752375	37774.13 ug/L	99
20] o-Xylene	13.782	91	976193	19591.47 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.880	83	464694	20015.11 ug/L	100
22] 1,3,5-Trimethylbenzene	15.350	105	1021322	18638.90 ug/L	97
23] 1,2,4-Trimethylbenzene	15.906	105	1023644	18264.40 ug/L	97
24] Naphthalene	17.906	128	1640326	18716.50 ug/L	99
25) 2-Fluorotoluene SCAN	10.979	109	107568	4845.04 ug/L	90
26) 1,1-Dichloroethene SCAN	3.092	61	114339	22060.31 ug/L	78
27) trans-1,2-Dichloroethe...	4.355	61	142038	21515.51 ug/L	73
28) 1,1-Dichloroethane SCAN	5.078	63	159065	20413.14 ug/L	96
29) cis-1,2-Dichloroethene...	6.086	61	165784	21641.88 ug/L #	71
30) Chloroform SCAN	6.650	83	148403	20770.38 ug/L	94
31) 1,1,1-Trichloroethane ...	6.918	97	149993	20343.72 ug/L	91
32) Carbon tetrachloride SCAN	7.186	117	132317	21000.99 ug/L	92
33) Benzene SCAN	7.514	78	444213	19914.88 ug/L	95
34) 1,2-Dichloroethane SCAN	7.551	62	142194	20380.16 ug/L	90
35) Trichloroethene SCAN	8.574	130	104899	21567.59 ug/L	82
36) Toluene-d8 SCAN	10.486	98	453304	21769.62 ug/L	96
37) Toluene SCAN	10.591	91	549975	21451.87 ug/L	99
38) 1,1,2-Trichloroethane ...	11.242	97	130461	20301.54 ug/L	90
39) Tetrachloroethene SCAN	11.441	166	123296	21377.55 ug/L	93
40) Chlorobenzene SCAN	12.772	112	385691	20945.08 ug/L	91
41) 1,1,1,2-Tetrachloroeth...	12.923	131	124333	19570.67 ug/L	94
42) Ethylbenzene SCAN	13.169	91	985008	20161.14 ug/L	90
43) m&p-Xylene SCAN	13.169	91	985008	20161.14 ug/L	91
44) o-Xylene SCAN	13.789	91	551443	20669.90 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.883	83	287763	20744.94 ug/L	96
46) 1,3,5-Trimethylbenzene...	15.353	105	548275	19480.16 ug/L	96
47) 1,2,4-Trimethylbenzene...	15.904	105	547845	19051.38 ug/L	95
48) Naphthalene SCAN	17.905	128	775245	17960.74 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072003.D
Acq On : 7 Dec 2020 12:46
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL1
Misc : 2030068 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 06:07:30 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration



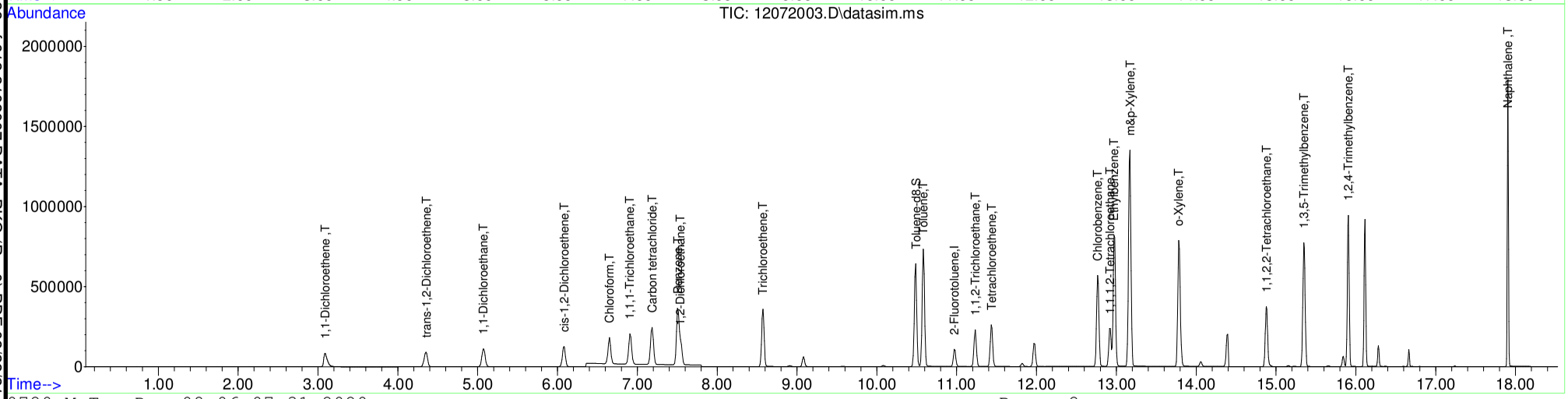


Table of Contents

S20L021-CAL2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072004.D
Acq On : 7 Dec 2020 13:09
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL2
Misc : 2030069 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 06:07:37 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

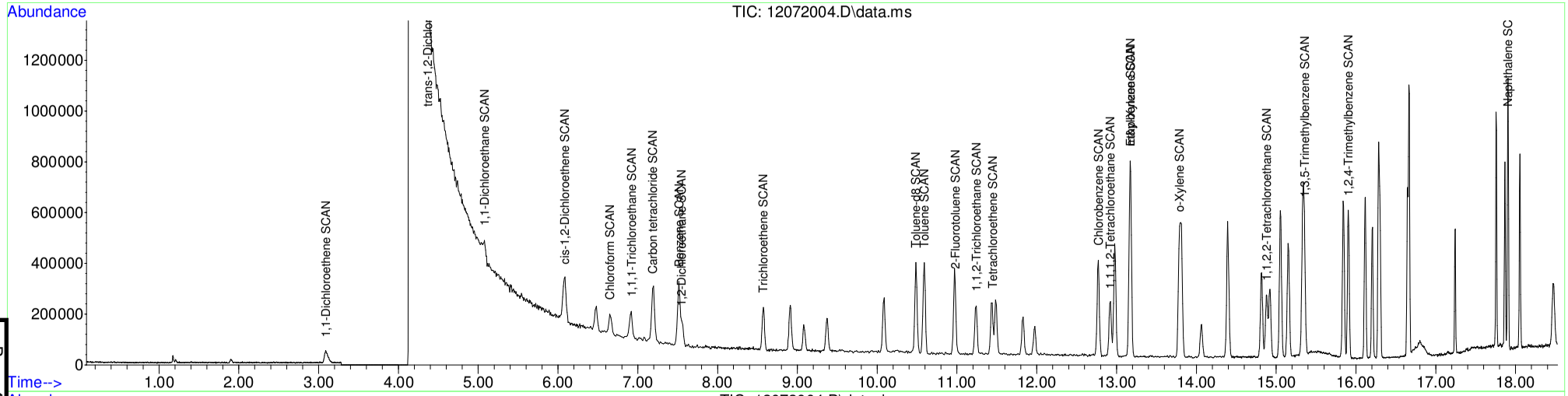
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	176421	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	433076	12674.76 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 253.50%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	86947	12470.79 ug/L	83
3] trans-1,2-Dichloroethene	4.363	61	110501	12529.95 ug/L	98
4] 1,1-Dichloroethane	5.079	63	132043	12536.01 ug/L	95
5] cis-1,2-Dichloroethene	6.081	61	137108	12568.20 ug/L	98
6] Chloroform	6.652	83	131342	12534.68 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	141724	12590.94 ug/L	100
8] Carbon tetrachloride	7.187	117	136366	12671.75 ug/L	100
9] Benzene	7.503	78	372633	12552.19 ug/L	99
10] 1,2-Dichloroethane	7.552	62	125989	12440.48 ug/L	96
11] Trichloroethene	8.575	130	117776	12565.51 ug/L	97
13] Toluene	10.582	91	519895	12220.57 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	125208	12706.72 ug/L	98
15] Tetrachloroethene	11.432	166	166120	12536.41 ug/L	100
16] Chlorobenzene	12.765	112	408040	12380.66 ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.916	131	142468	12350.87 ug/L	100
18] Ethylbenzene	12.972	91	648617	11936.73 ug/L	99
19] m&p-Xylene	13.170	91	976041	23325.78 ug/L	99
20] o-Xylene	13.782	91	538998	11992.76 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.880	83	254605	12157.90 ug/L	100
22] 1,3,5-Trimethylbenzene	15.350	105	575841	11650.94 ug/L	97
23] 1,2,4-Trimethylbenzene	15.906	105	576868	11411.26 ug/L	98
24] Naphthalene	17.906	128	931520	11783.86 ug/L	99
25) 2-Fluorotoluene SCAN	10.979	109	96635	4825.58 ug/L	89
26) 1,1-Dichloroethene SCAN	3.092	61	56502	12085.98 ug/L	84
27) trans-1,2-Dichloroethe...	4.361	61	75186	12626.56 ug/L	73
28) 1,1-Dichloroethane SCAN	5.078	63	88864	12643.34 ug/L	88
29) cis-1,2-Dichloroethene...	6.080	61	91005	13170.99 ug/L #	72
30) Chloroform SCAN	6.650	83	84697	13142.28 ug/L	93
31) 1,1,1-Trichloroethane ...	6.918	97	86330	12981.41 ug/L	87
32) Carbon tetrachloride SCAN	7.186	117	75421	13271.42 ug/L	98
33) Benzene SCAN	7.514	78	236468	11753.30 ug/L	94
34) 1,2-Dichloroethane SCAN	7.551	62	86803	13793.10 ug/L	89
35) Trichloroethene SCAN	8.574	130	57024	12998.36 ug/L	84
36) Toluene-d8 SCAN	10.486	98	254870	13570.03 ug/L	96
37) Toluene SCAN	10.591	91	298139	12892.64 ug/L	97
38) 1,1,2-Trichloroethane ...	11.242	97	75107	12957.75 ug/L	92
39) Tetrachloroethene SCAN	11.441	166	70990	13646.05 ug/L	94
40) Chlorobenzene SCAN	12.772	112	212671	12804.17 ug/L	88
41) 1,1,1,2-Tetrachloroeth...	12.915	131	69780	12177.30 ug/L	96
42) Ethylbenzene SCAN	13.169	91	550521	12492.52 ug/L	92
43) m&p-Xylene SCAN	13.169	91	550521	12492.52 ug/L	93
44) o-Xylene SCAN	13.789	91	311880	12960.63 ug/L	94
45) 1,1,2,2-Tetrachloroeth...	14.879	83	162435	12982.48 ug/L	95
46) 1,3,5-Trimethylbenzene...	15.353	105	310755	12240.89 ug/L	97
47) 1,2,4-Trimethylbenzene...	15.904	105	310112	11956.06 ug/L	96
48) Naphthalene SCAN	17.905	128	451948	11608.46 ug/L	98

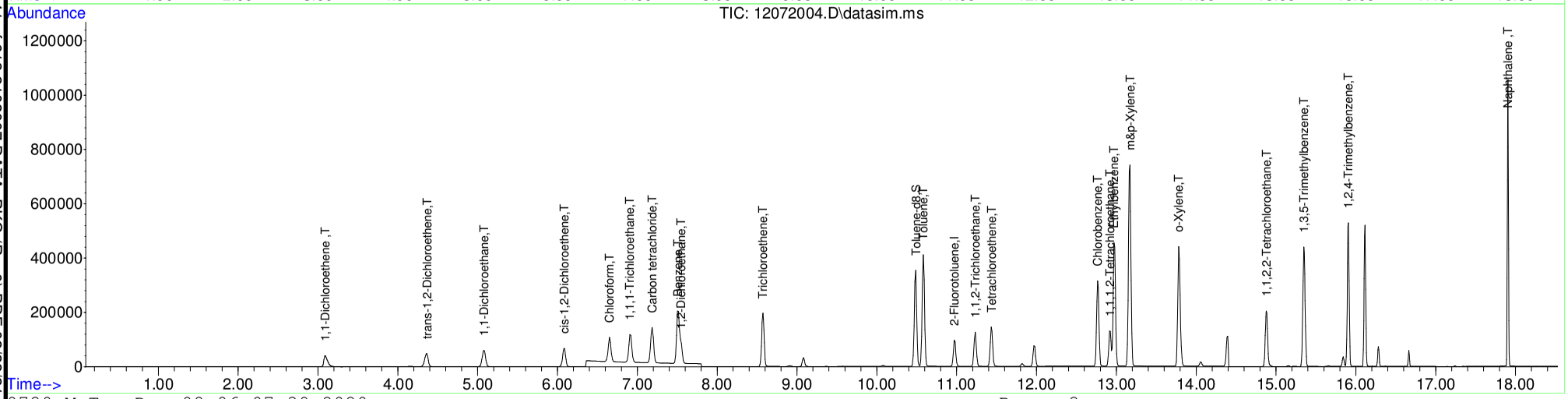
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072004.D
Acq On : 7 Dec 2020 13:09
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL2
Misc : 2030069 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 06:07:37 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration





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S20L021-CAL3

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072005.D
Acq On : 7 Dec 2020 13:33
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL3
Misc : 2030070 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 06:06:47 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

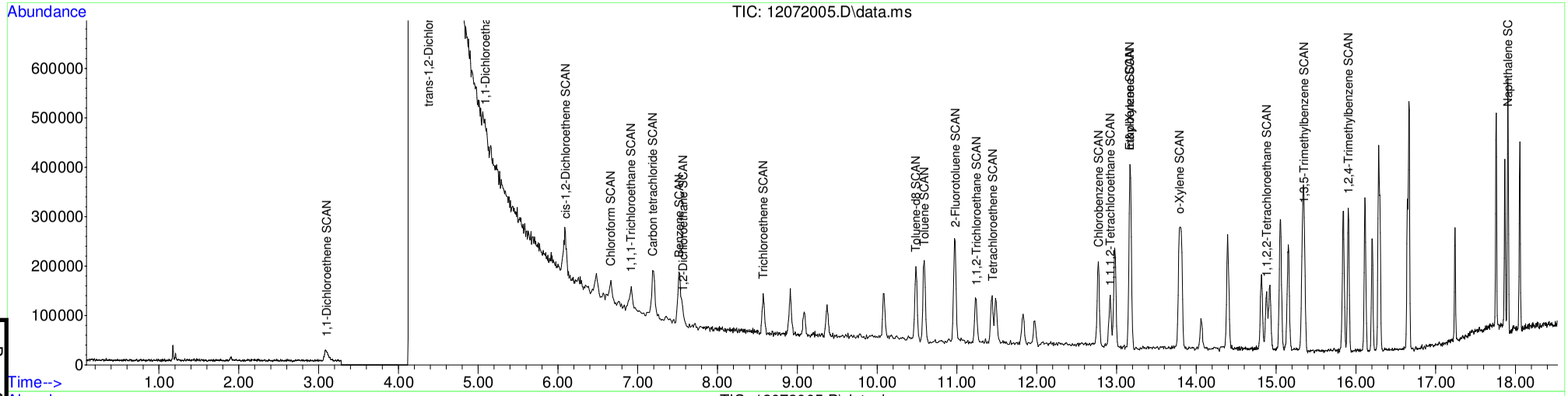
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.980	109	204852	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	186913	4711.13 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 94.22%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	41693	5150.06 ug/L	82
3] trans-1,2-Dichloroethene	4.376	61	51683	5047.09 ug/L	97
4] 1,1-Dichloroethane	5.086	63	60968	4984.90 ug/L	95
5] cis-1,2-Dichloroethene	6.088	61	61359	4843.94 ug/L	98
6] Chloroform	6.652	83	58933	4843.71 ug/L	100
7] 1,1,1-Trichloroethane	6.919	97	62918	4813.93 ug/L	100
8] Carbon tetrachloride	7.187	117	60233	4820.31 ug/L	100
9] Benzene	7.515	78	165647	4805.43 ug/L	100
10] 1,2-Dichloroethane	7.552	62	57511	4890.64 ug/L	98
11] Trichloroethene	8.575	130	52638	4836.52 ug/L	98
13] Toluene	10.582	91	228131	4618.17 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	54754	4785.50 ug/L	99
15] Tetrachloroethene	11.432	166	73978	4807.99 ug/L	99
16] Chlorobenzene	12.773	112	183636	4798.54 ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.916	131	64105	4786.10 ug/L	99
18] Ethylbenzene	12.972	91	300900	4769.02 ug/L	99
19] m&p-Xylene	13.170	91	453072	9324.93 ug/L	98
20] o-Xylene	13.782	91	248059	4753.32 ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.880	83	116584	4794.47 ug/L	100
22] 1,3,5-Trimethylbenzene	15.350	105	273812	4771.13 ug/L	98
23] 1,2,4-Trimethylbenzene	15.906	105	276580	4711.81 ug/L	97
24] Naphthalene	17.904	128	465960	5076.38 ug/L	99
25) 2-Fluorotoluene SCAN	10.979	109	116264	5000.00 ug/L	96
26) 1,1-Dichloroethene SCAN	3.096	61	27142	5000.00 ug/L #	31
27) trans-1,2-Dichloroethe...	4.381	61	34571	5000.00 ug/L	82
28) 1,1-Dichloroethane SCAN	5.084	63	40806	5000.00 ug/L	94
29) cis-1,2-Dichloroethene...	6.093	61	40115	5000.00 ug/L	80
30) Chloroform SCAN	6.662	83	37416	5000.00 ug/L	98
31) 1,1,1-Trichloroethane ...	6.918	97	38610	5000.00 ug/L	90
32) Carbon tetrachloride SCAN	7.185	117	32994	5000.00 ug/L	96
33) Benzene SCAN	7.514	78	116808	5000.00 ug/L	95
34) 1,2-Dichloroethane SCAN	7.563	62	36537	5000.00 ug/L	84
35) Trichloroethene SCAN	8.573	130	25470	5000.00 ug/L	83
36) Toluene-d8 SCAN	10.486	98	109043	5000.00 ug/L	97
37) Toluene SCAN	10.591	91	134257	5000.00 ug/L	96
38) 1,1,2-Trichloroethane ...	11.242	97	33652	5000.00 ug/L	92
39) Tetrachloroethene SCAN	11.441	166	30203	5000.00 ug/L	89
40) Chlorobenzene SCAN	12.772	112	96431	5000.00 ug/L	84
41) 1,1,1,2-Tetrachloroeth...	12.915	131	33269	5000.00 ug/L	93
42) Ethylbenzene SCAN	13.169	91	255849	5000.00 ug/L	93
43) m&p-Xylene SCAN	13.169	91	255849	5000.00 ug/L	94
44) o-Xylene SCAN	13.789	91	139708	5000.00 ug/L	99
45) 1,1,2,2-Tetrachloroeth...	14.883	83	72641	5000.00 ug/L	94
46) 1,3,5-Trimethylbenzene...	15.353	105	147389	5000.00 ug/L	99
47) 1,2,4-Trimethylbenzene...	15.904	105	150588	5000.00 ug/L	97
48) Naphthalene SCAN	17.902	128	226034	5000.00 ug/L	98

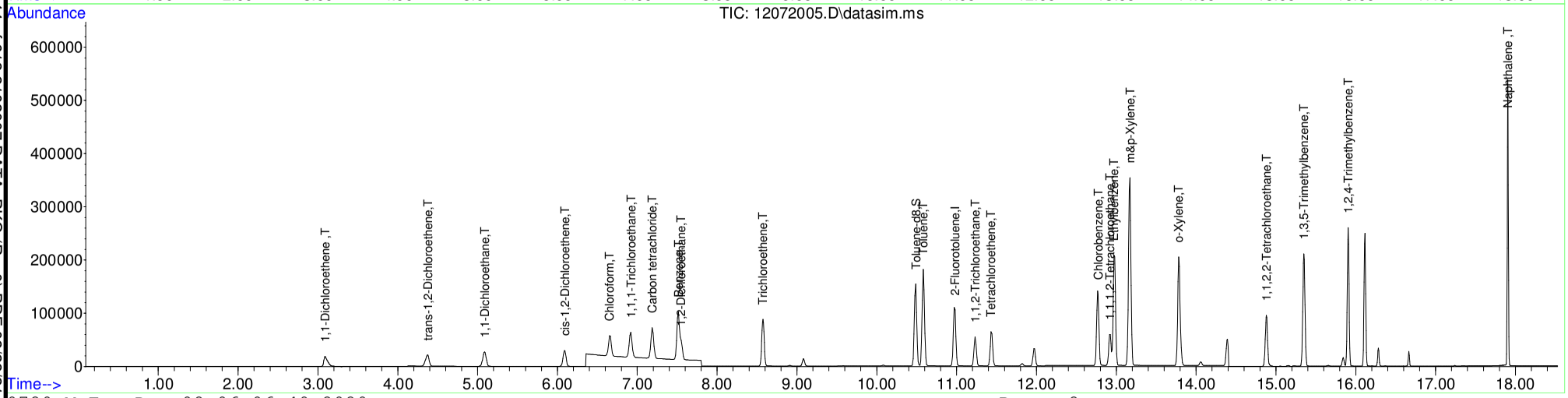
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072005.D
Acq On : 7 Dec 2020 13:33
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL3
Misc : 2030070 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 06:06:47 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration





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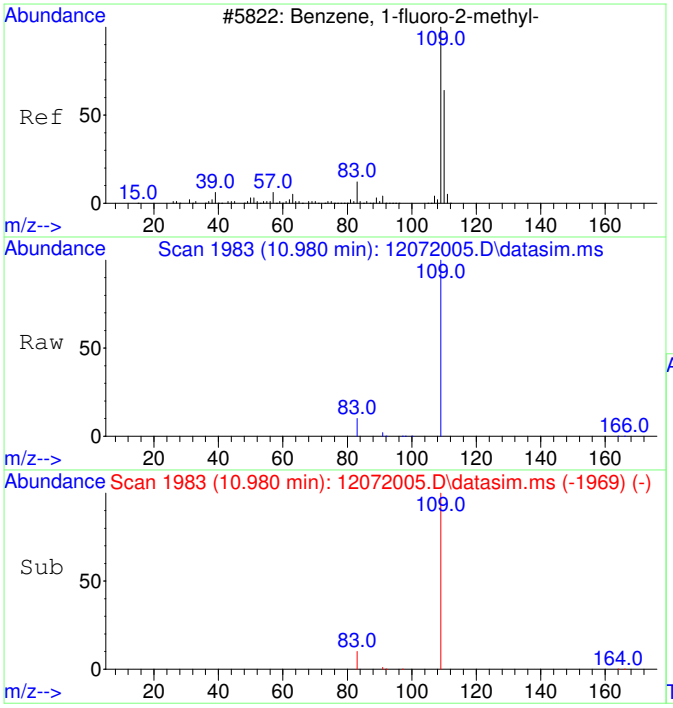
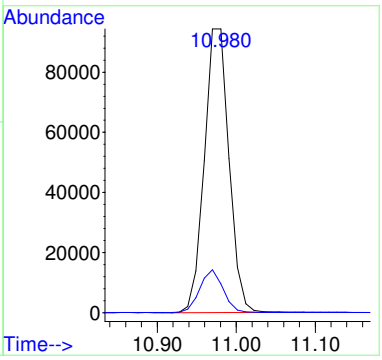
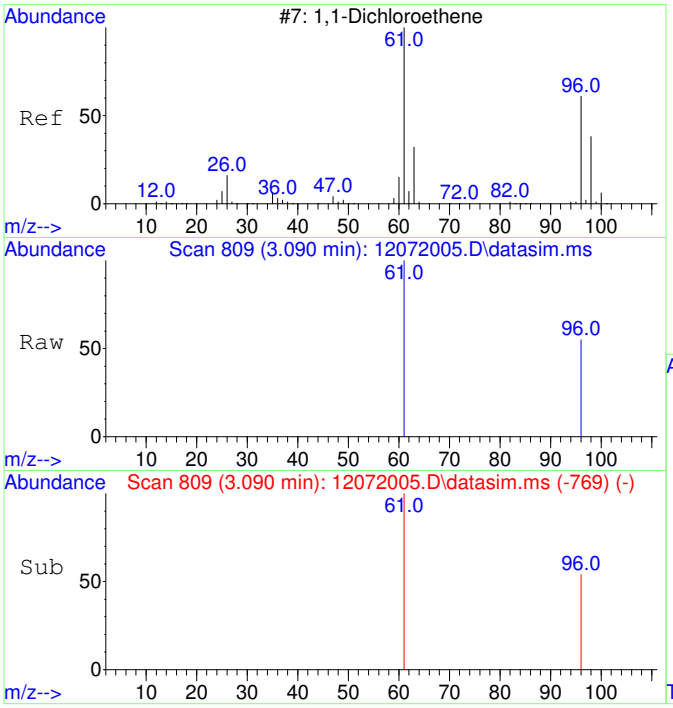


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:109 Resp: 204852

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	42.3

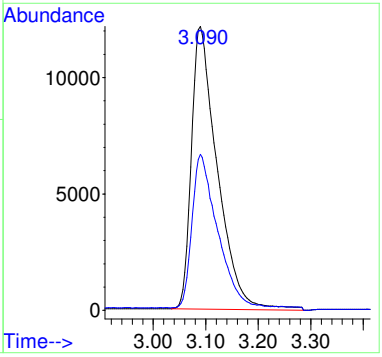


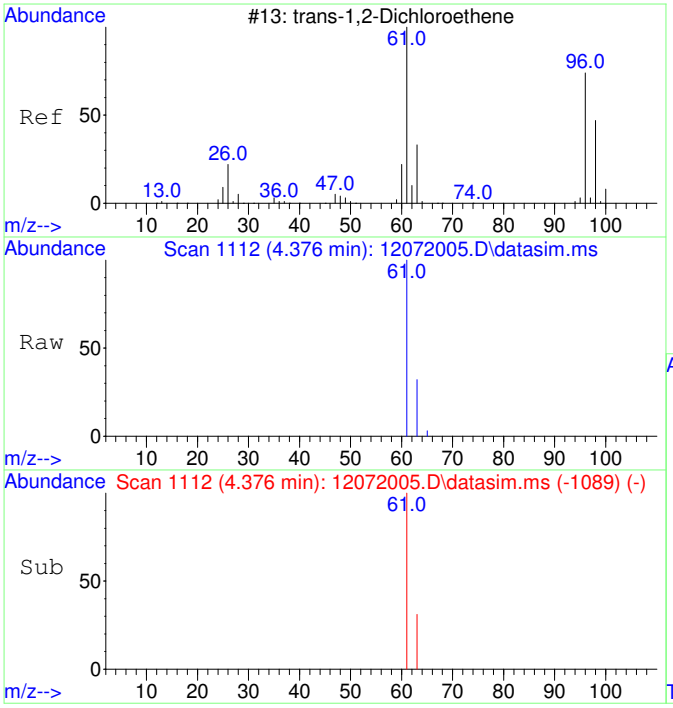


#2
1,1-Dichloroethene
Concen: 5150.06 ug/L
RT: 3.090 min Scan# 809
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 61 Resp: 41693

Ion	Ratio	Lower	Upper
61	100		
96	52.8	37.2	97.2

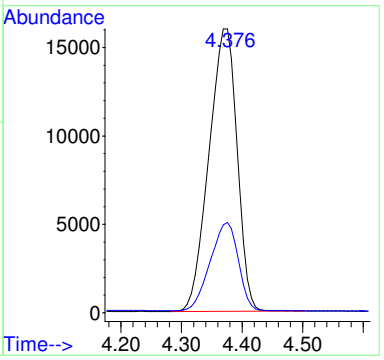


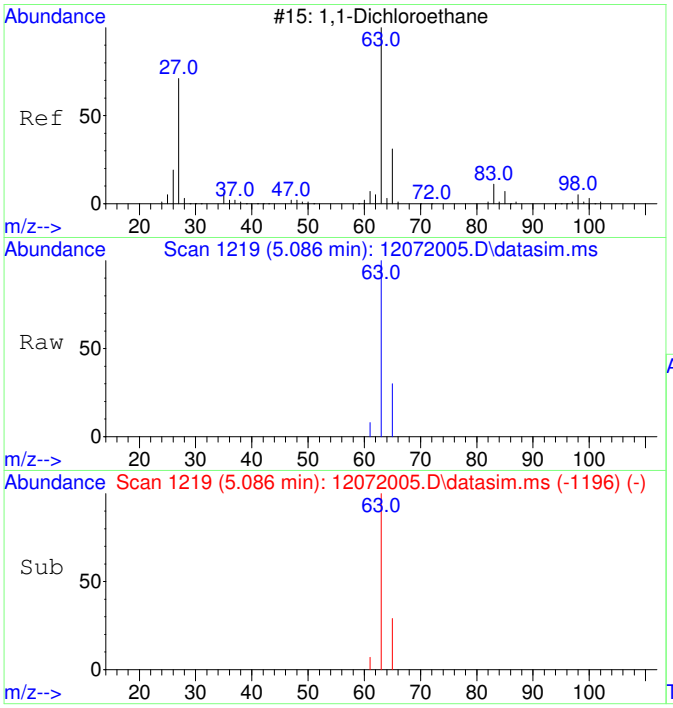


#3
trans-1,2-Dichloroethene
Concen: 5047.09 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 61 Resp: 51683

Ion	Ratio	Lower	Upper
61	100		
63	30.9	2.4	62.4

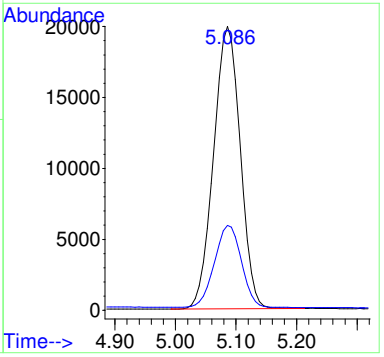


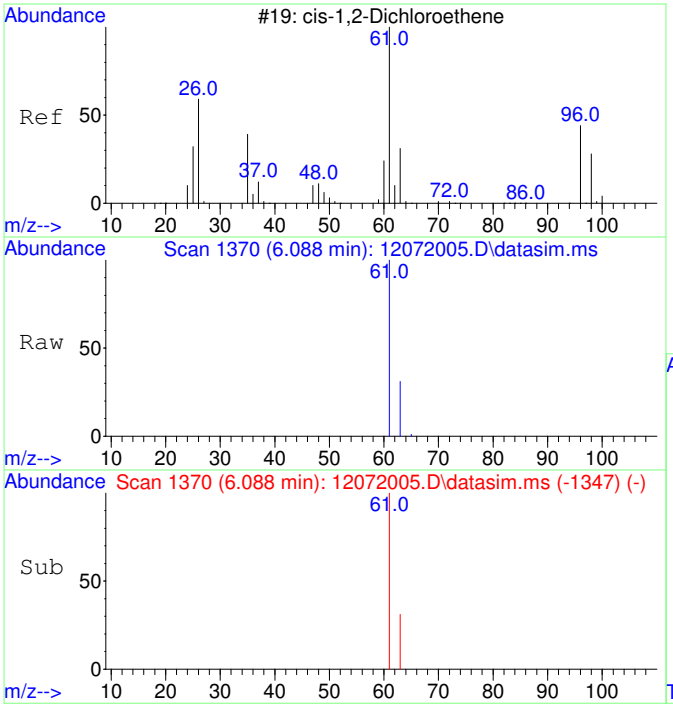


#4
1,1-Dichloroethane
Concen: 4984.90 ug/L
RT: 5.086 min Scan# 1219
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 63 Resp: 60968

Ion	Ratio	Lower	Upper
63	100		
65	29.2	1.8	61.8

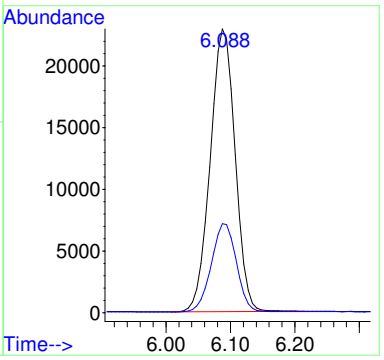


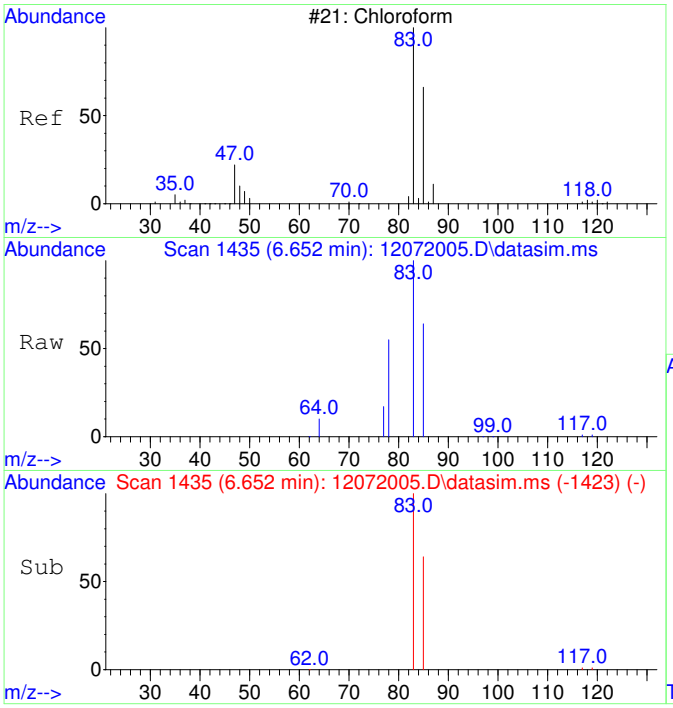


#5
cis-1,2-Dichloroethene
Concen: 4843.94 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 61 Resp: 61359

Ion	Ratio	Lower	Upper
61	100		
63	31.3	2.5	62.5

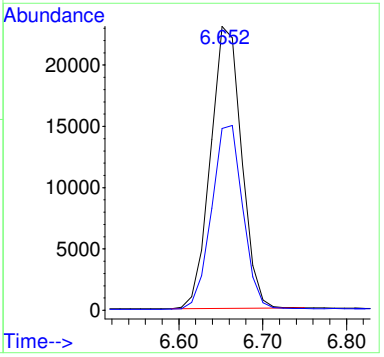


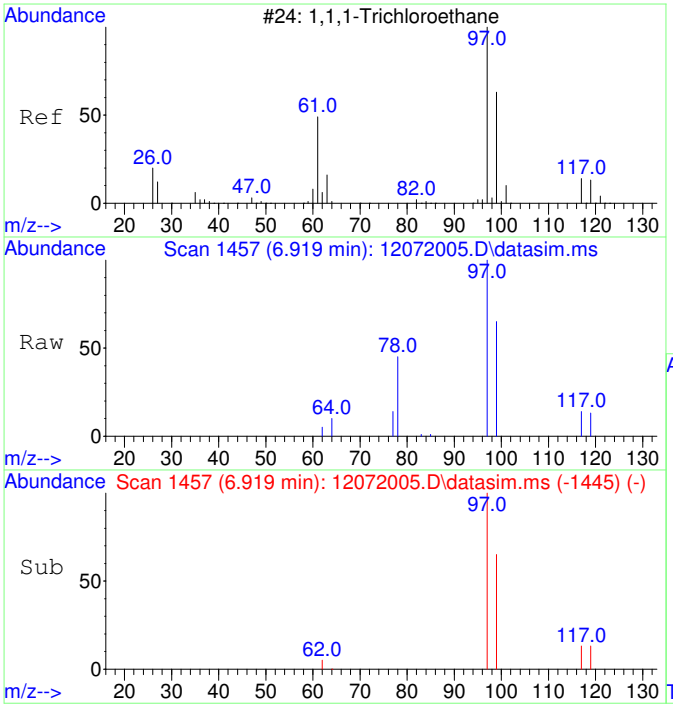


#6
Chloroform
Concen: 4843.71 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 83 Resp: 58933

Ion	Ratio	Lower	Upper
83	100		
85	65.4	35.1	95.1

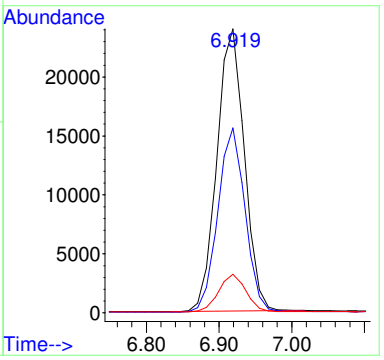


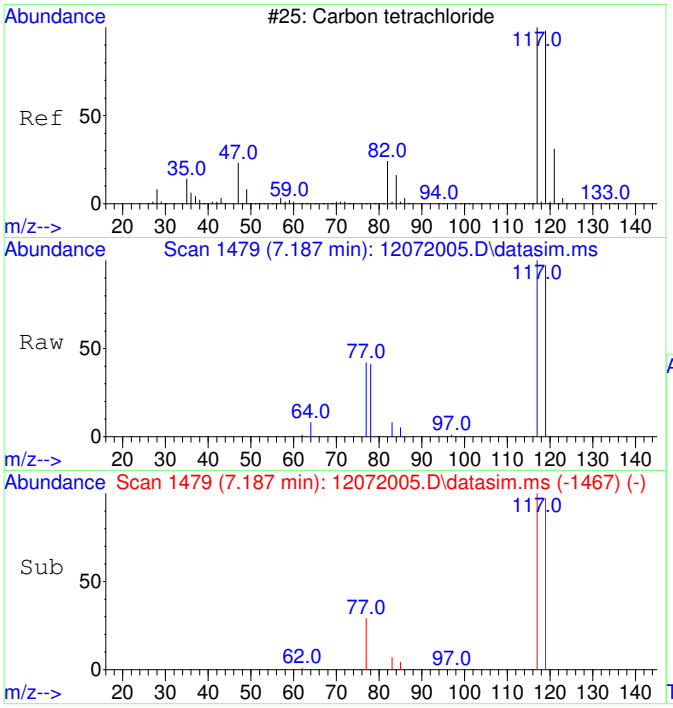


#7
1,1,1-Trichloroethane
Concen: 4813.93 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 97 Resp: 62918

Ion	Ratio	Lower	Upper
97	100		
99	64.3	34.6	94.6
117	13.1	0.0	43.2

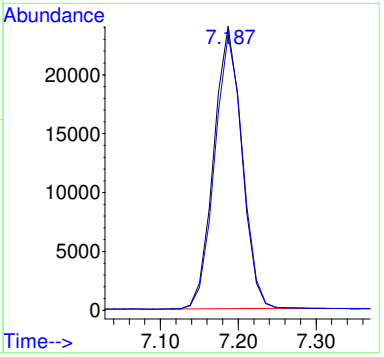


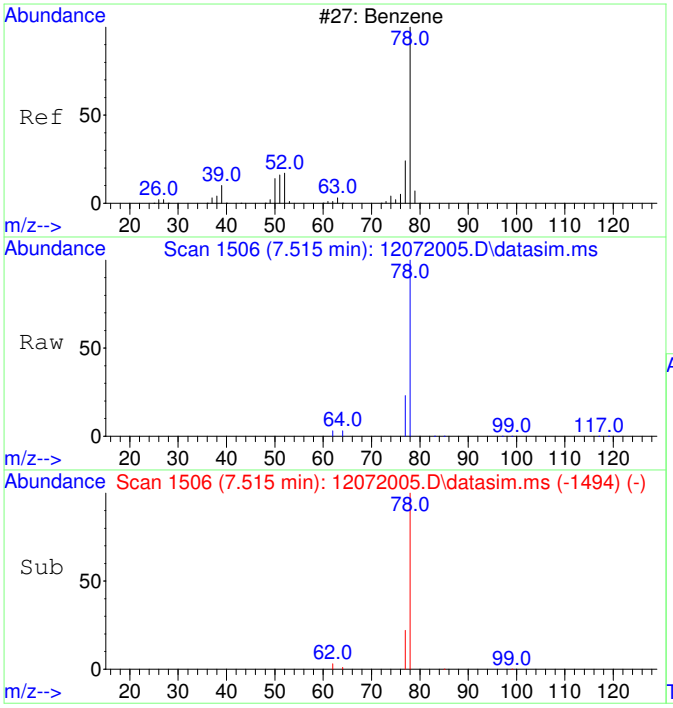


#8
Carbon tetrachloride
Concen: 4820.31 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:117 Resp: 60233

Ion	Ratio	Lower	Upper
117	100		
119	96.5	66.4	126.4

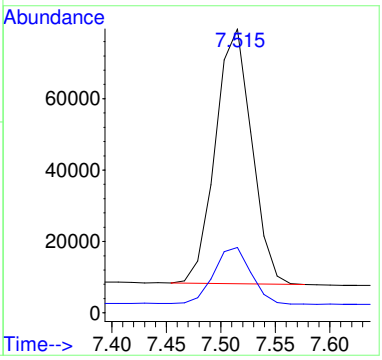


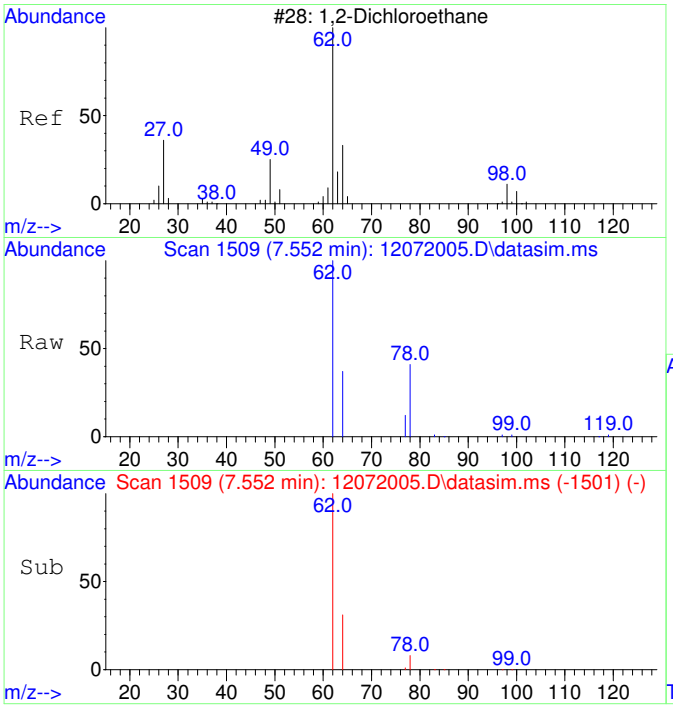


#9
Benzene
Concen: 4805.43 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 78 Resp: 165647

Ion	Ratio	Lower	Upper
78	100		
77	23.4	0.0	53.2

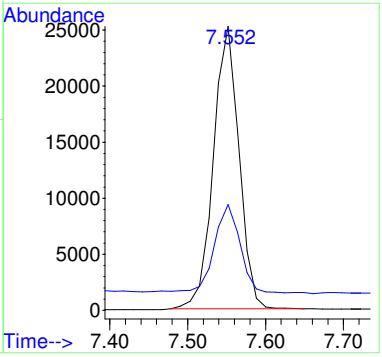


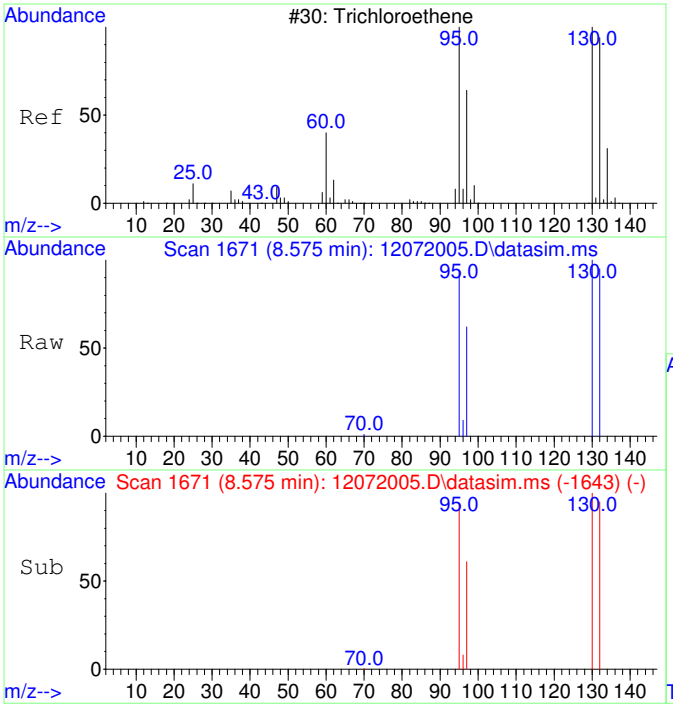


#10
1,2-Dichloroethane
Concen: 4890.64 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 62 Resp: 57511

Ion	Ratio	Lower	Upper
62	100		
64	31.0	2.3	62.3

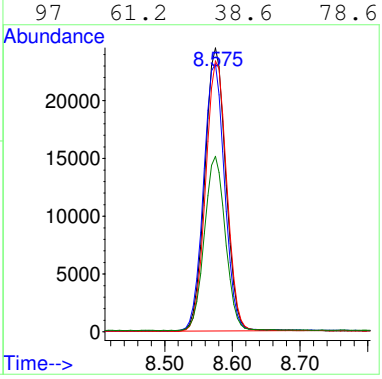


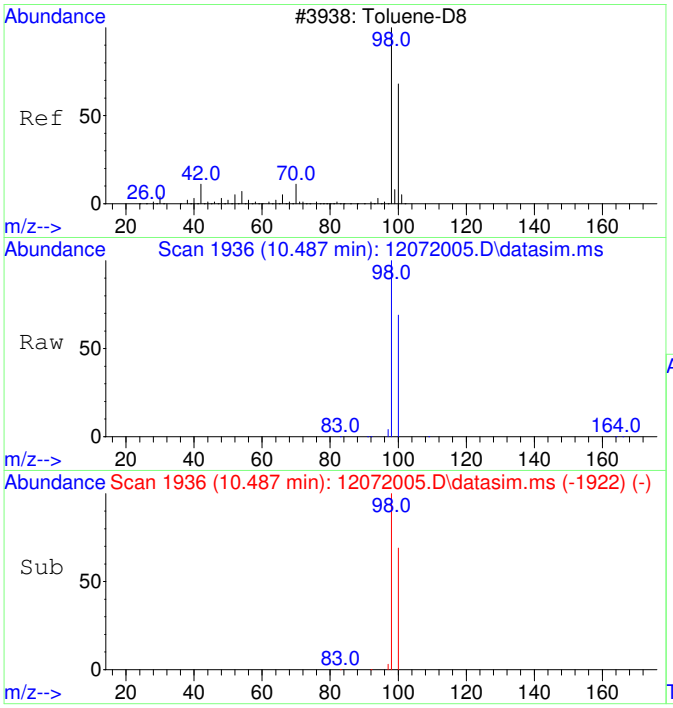


#11
Trichloroethene
Concen: 4836.52 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:130 Resp: 52638

Ion	Ratio	Lower	Upper
130	100		
95	94.8	60.7	120.7
132	95.9	76.0	116.0
97	61.2	38.6	78.6

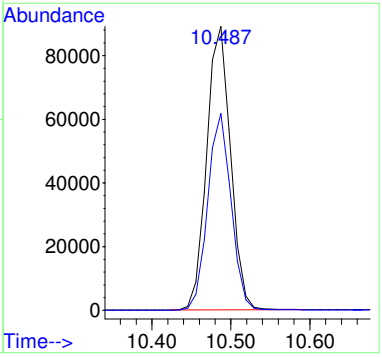


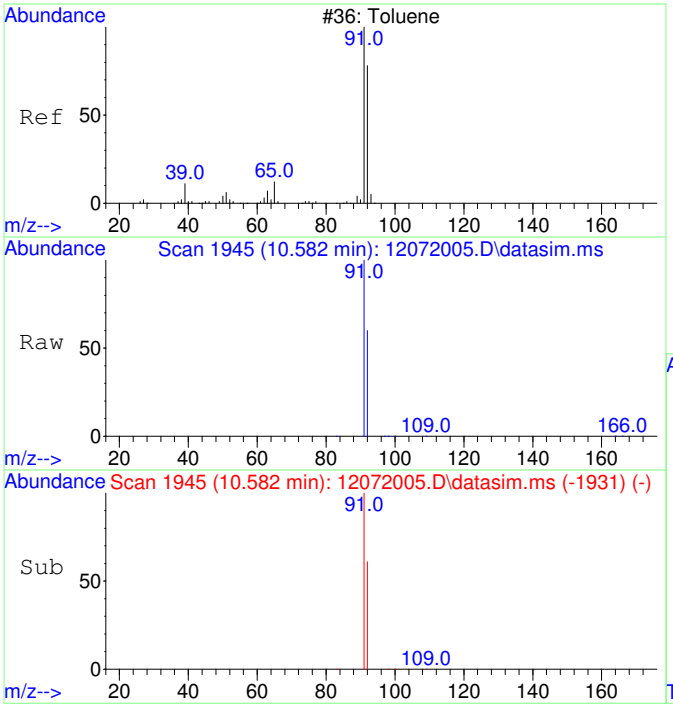


#12
Toluene-d8
Concen: 4711.13 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 98 Resp: 186913

Ion	Ratio	Lower	Upper
98	100		
100	67.7	37.1	97.1

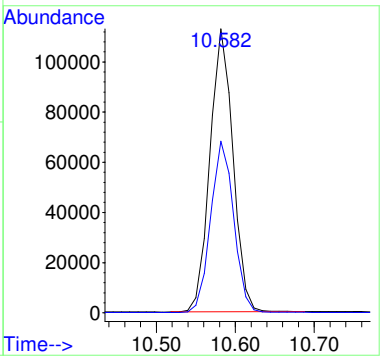


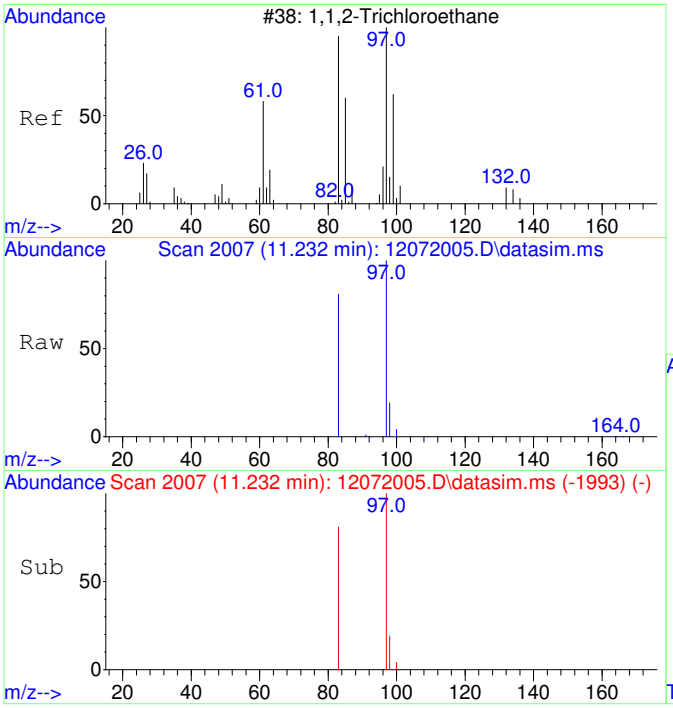


#13
Toluene
Concen: 4618.17 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 228131

Ion	Ratio	Lower	Upper
91	100		
92	60.6	29.9	89.9

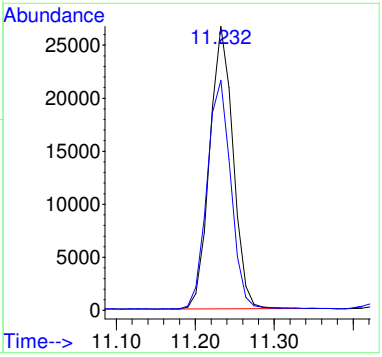


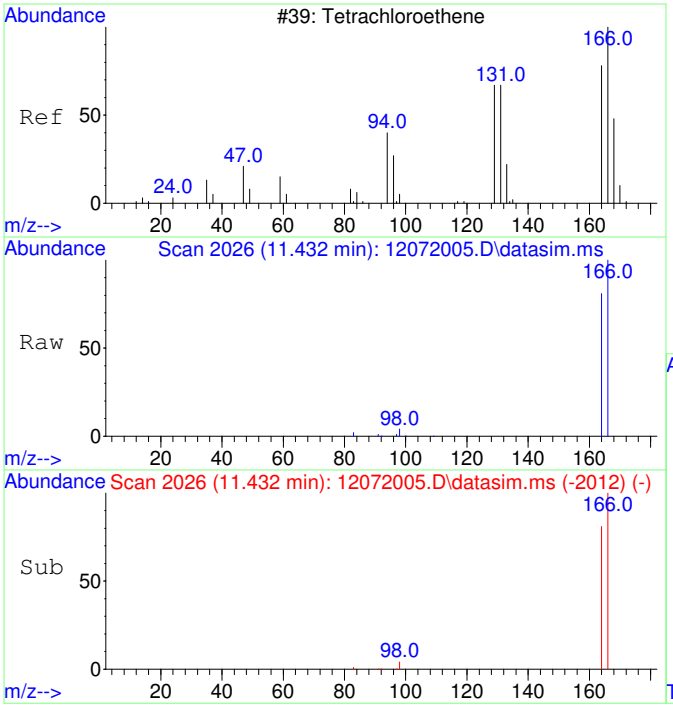


#14
1,1,2-Trichloroethane
Concen: 4785.50 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 97 Resp: 54754

Ion	Ratio	Lower	Upper
97	100		
83	82.2	51.2	111.2

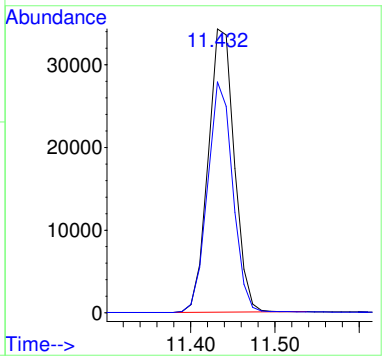


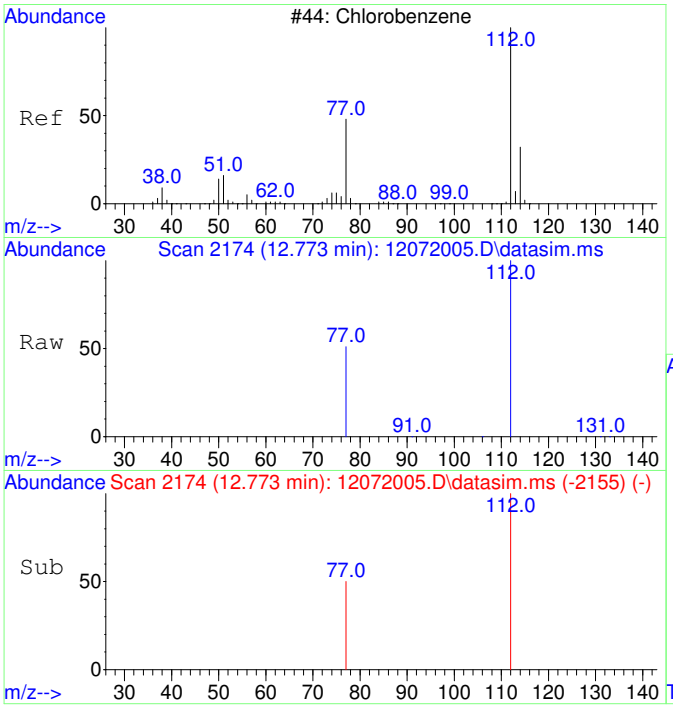


#15
Tetrachloroethene
Concen: 4807.99 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:166 Resp: 73978

Ion	Ratio	Lower	Upper
166	100		
164	78.3	47.8	107.8

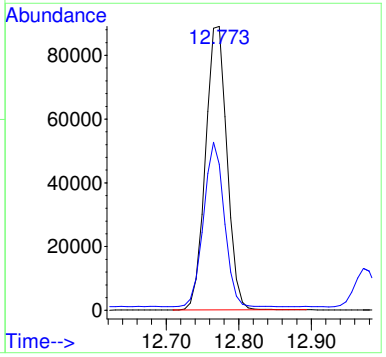


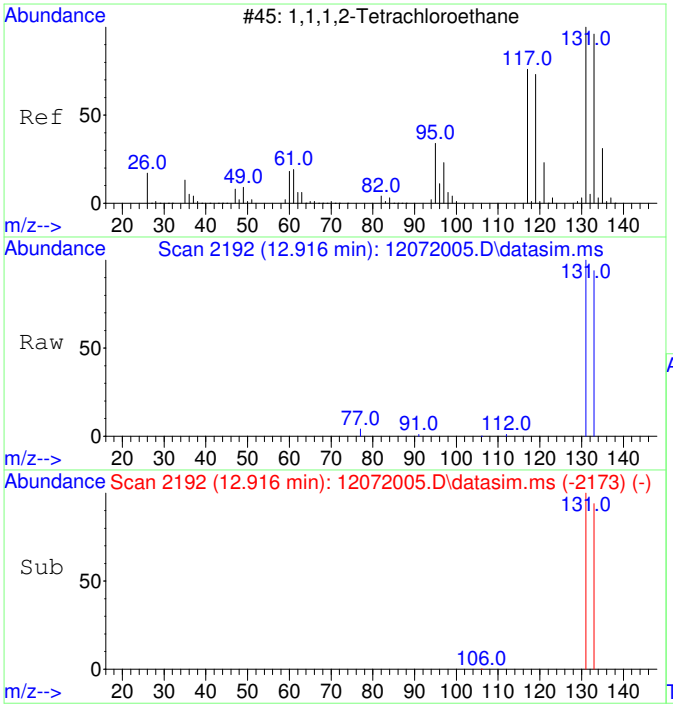


#16
Chlorobenzene
Concen: 4798.54 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:112 Resp: 183636

Ion	Ratio	Lower	Upper
112	100		
77	55.5	23.6	83.6

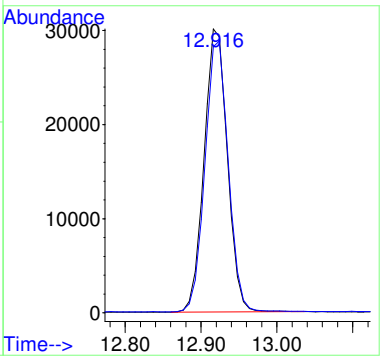


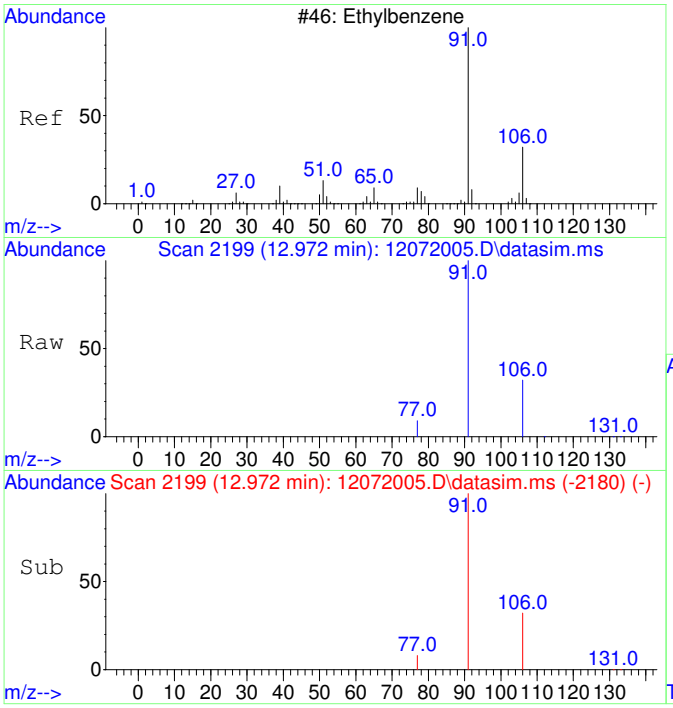


#17
1,1,1,2-Tetrachloroethane
Concen: 4786.10 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:131 Resp: 64105

Ion	Ratio	Lower	Upper
131	100		
133	95.6	66.3	126.3

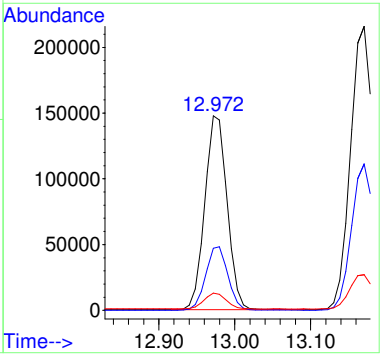


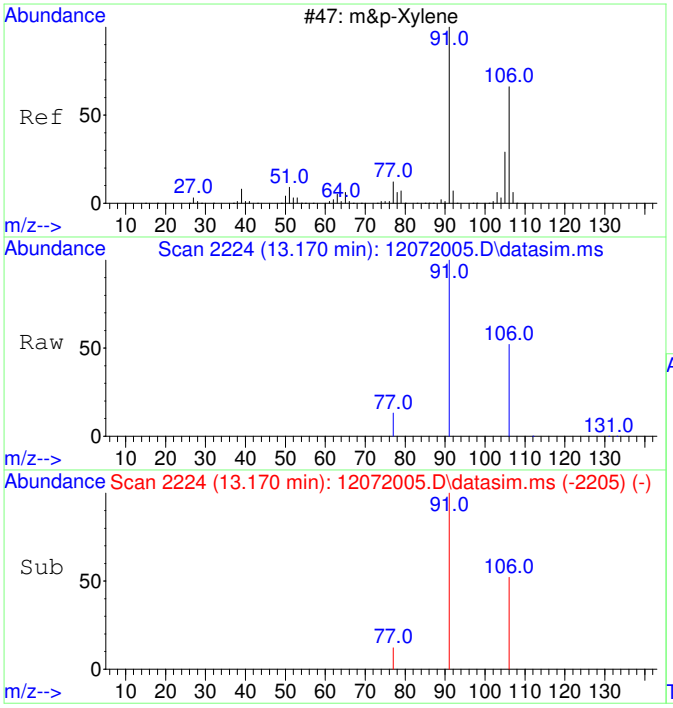


#18
Ethylbenzene
Concen: 4769.02 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 300900

Ion	Ratio	Lower	Upper
91	100		
106	32.4	3.0	63.0
77	8.0	0.0	38.2

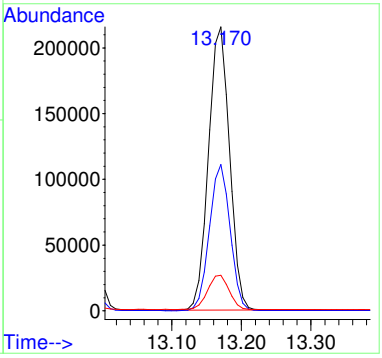


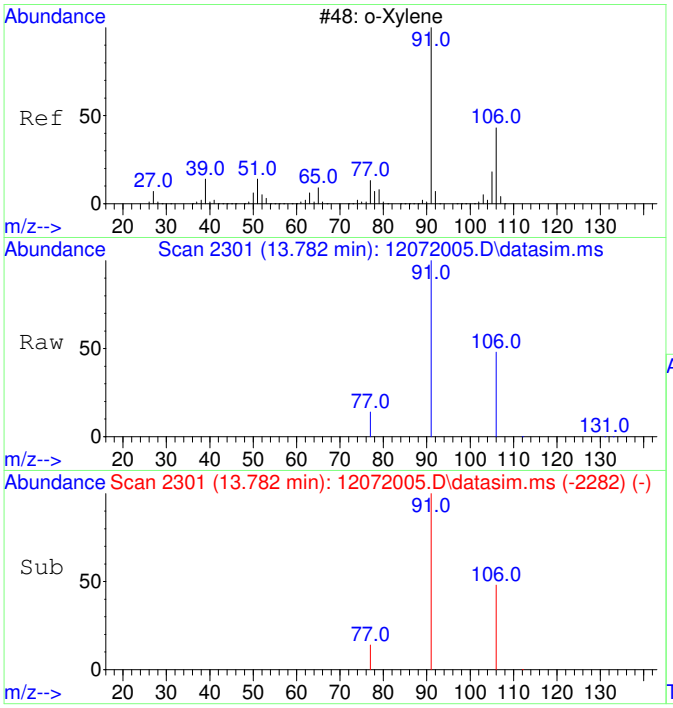


#19
m&p-Xylene
Concen: 9324.93 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 453072

Ion	Ratio	Lower	Upper
91	100		
106	50.9	22.2	82.2
77	12.3	0.0	42.4

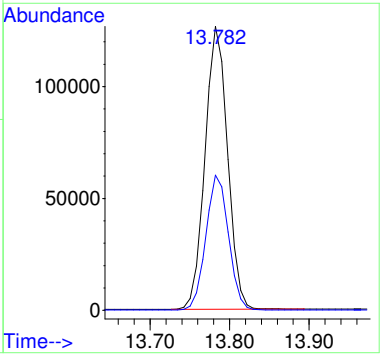


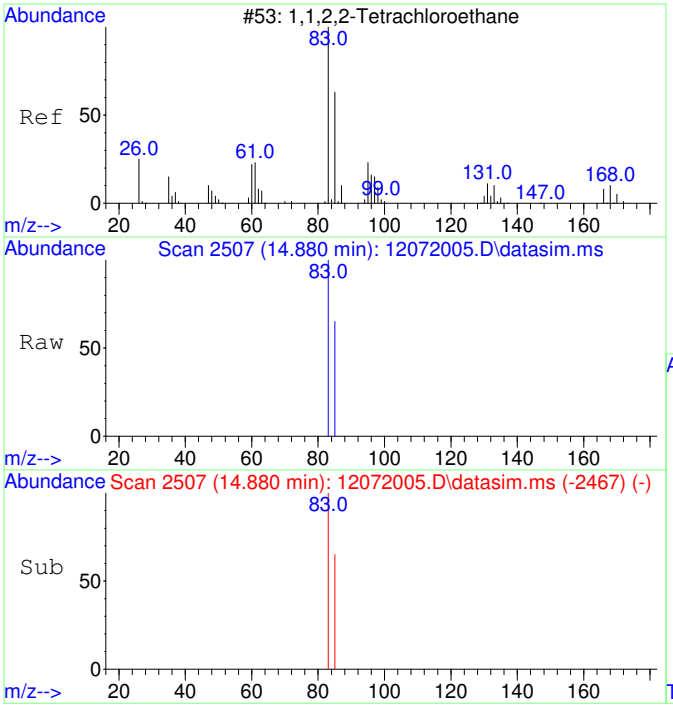


#20
o-Xylene
Concen: 4753.32 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 248059

Ion	Ratio	Lower	Upper
91	100		
106	48.0	19.2	79.2

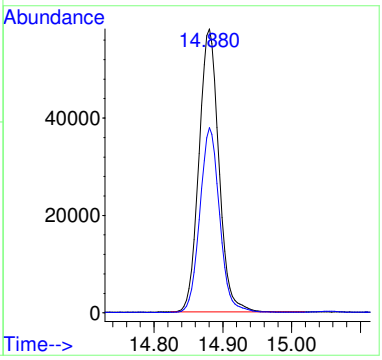


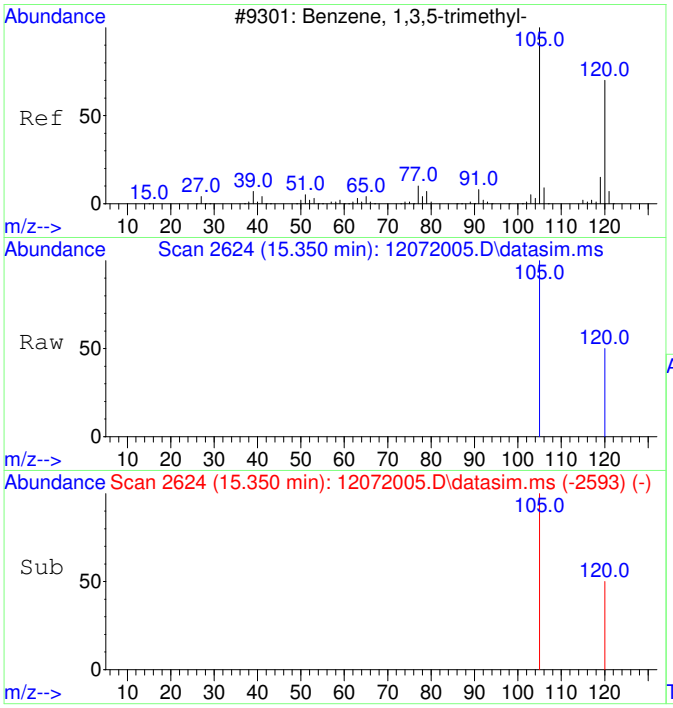


#21
1,1,2,2-Tetrachloroethane
Concen: 4794.47 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 83 Resp: 116584

Ion	Ratio	Lower	Upper
83	100		
85	64.5	34.8	94.8

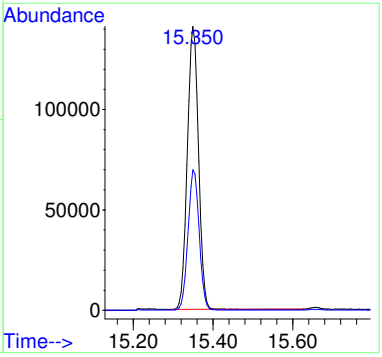


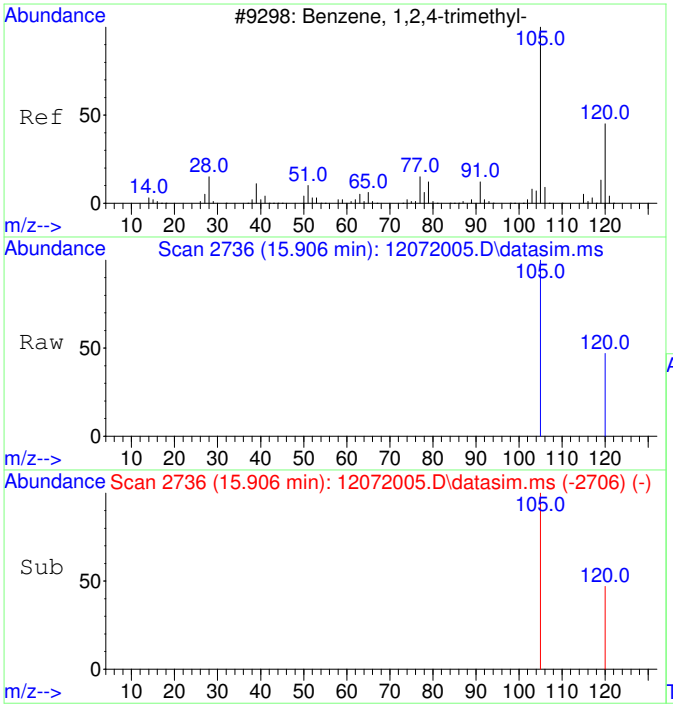


#22
1,3,5-Trimethylbenzene
Concen: 4771.13 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:105 Resp: 273812

Ion	Ratio	Lower	Upper
105	100		
120	49.4	21.1	81.1

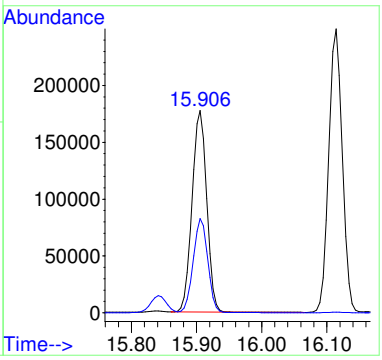


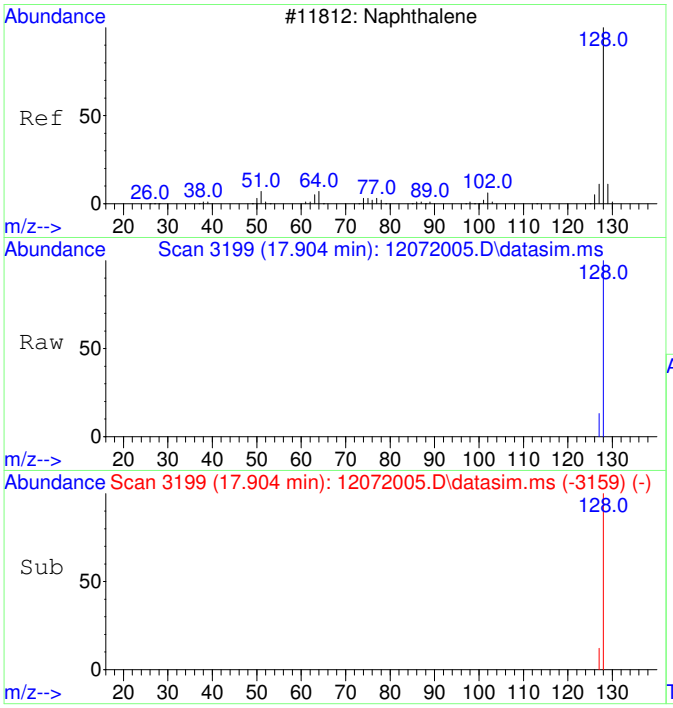


#23
1,2,4-Trimethylbenzene
Concen: 4711.81 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:105 Resp: 276580

Ion	Ratio	Lower	Upper
105	100		
120	45.5	17.2	77.2

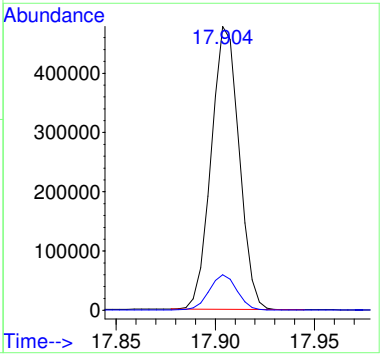


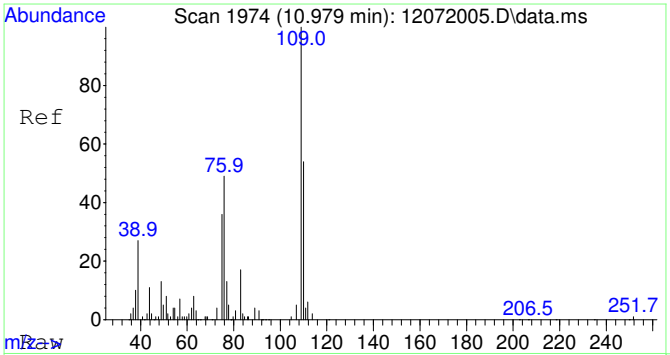


#24
Naphthalene
Concen: 5076.38 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:128 Resp: 465960

Ion	Ratio	Lower	Upper
128	100		
127	12.2	0.0	42.5

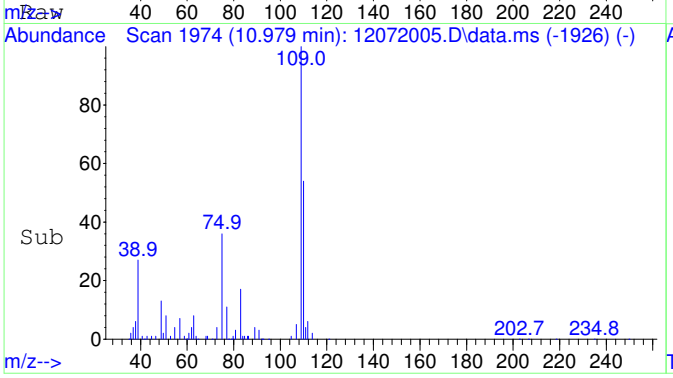


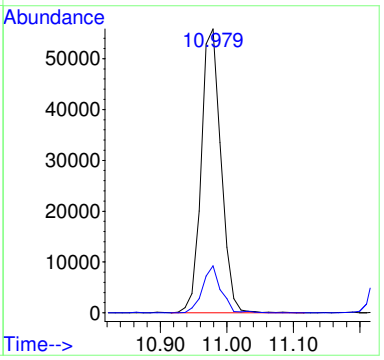


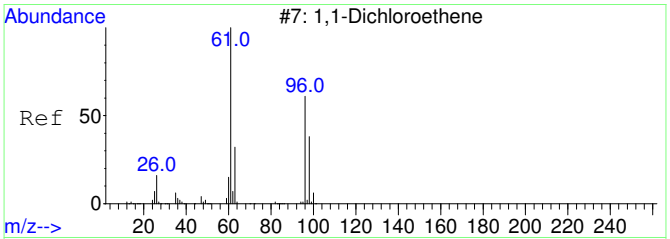
#25
2-Fluorotoluene SCAN
Concen: 5000.00 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:109 Resp: 116264

Ion	Ratio	Lower	Upper
109	100		
83	15.5	0.0	43.8



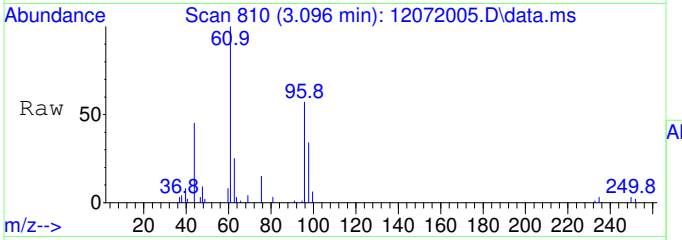


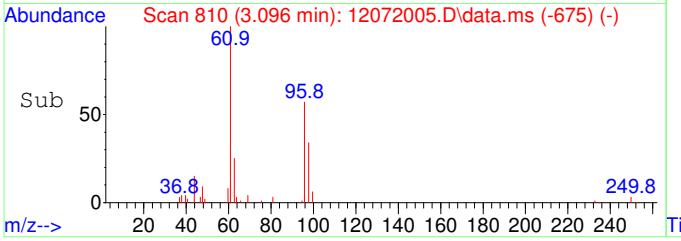


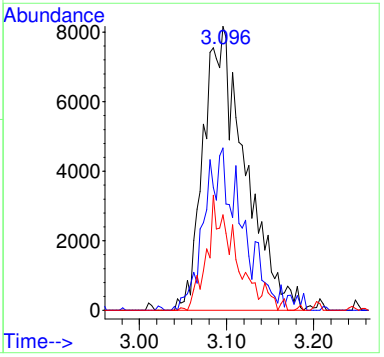
#26
1,1-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 3.096 min Scan# 810
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

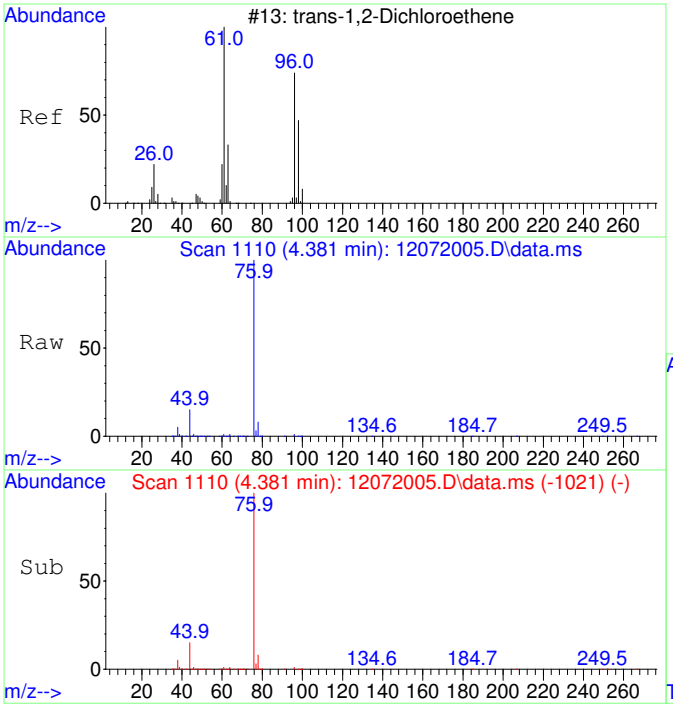
Tgt Ion: 61 Resp: 27142

Ion	Ratio	Lower	Upper
61	100		
96	7.9	33.1	93.1#
98	0.0	11.2	71.2#





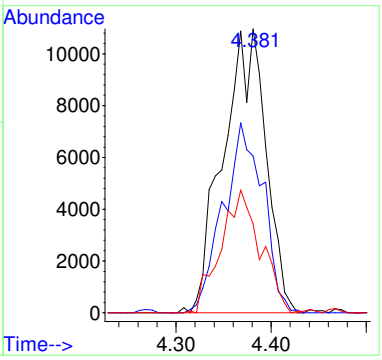


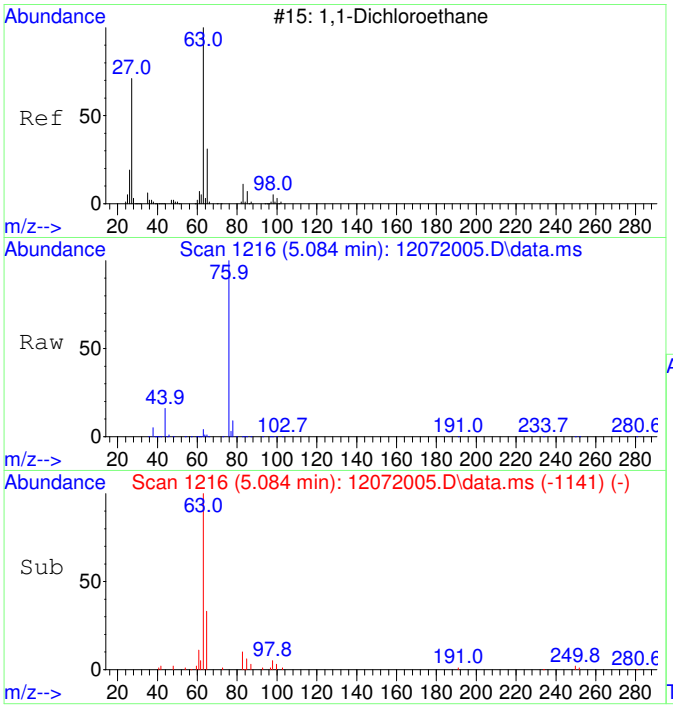


#27
trans-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 4.381 min Scan# 1110
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 61 Resp: 34571

Ion	Ratio	Lower	Upper
61	100		
96	62.1	49.0	109.0
98	39.6	20.5	80.5

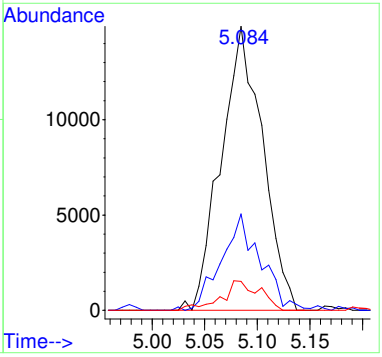


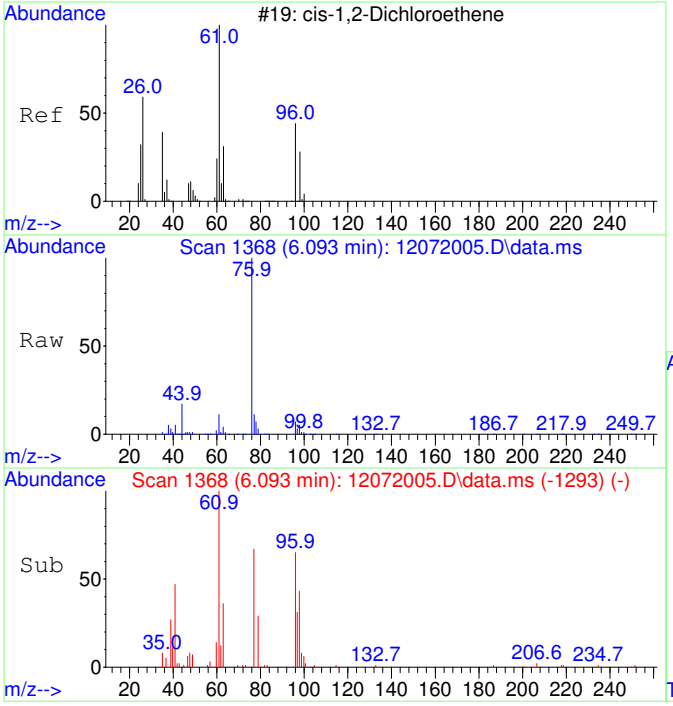


#28
1,1-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 5.084 min Scan# 1216
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 63 Resp: 40806

Ion	Ratio	Lower	Upper
63	100		
65	32.2	1.3	61.3
83	9.5	0.0	45.9

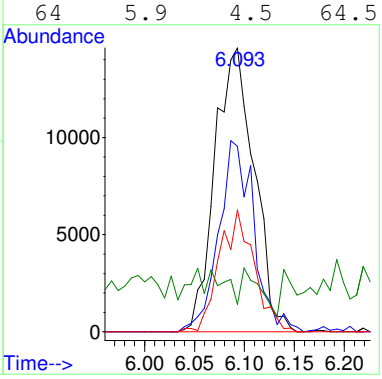


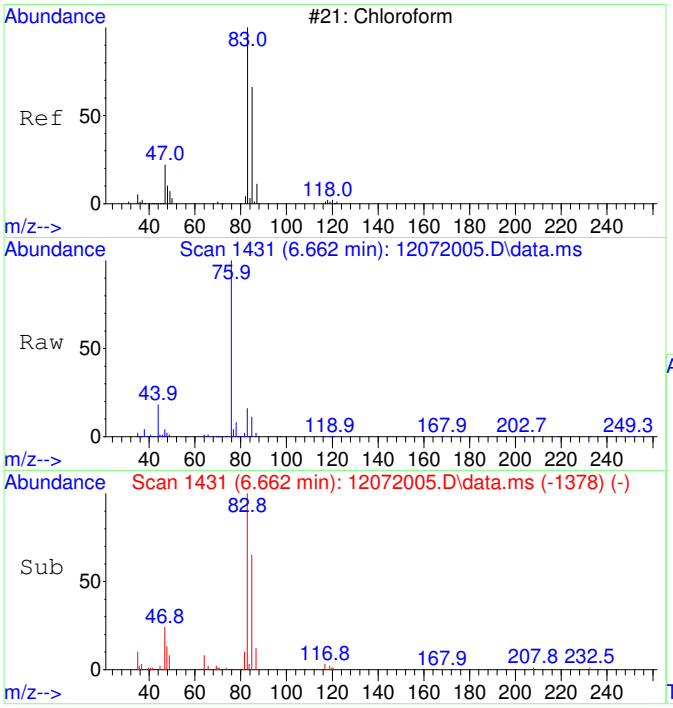


#29
cis-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 61 Resp: 40115

Ion	Ratio	Lower	Upper
61	100		
96	59.9	39.9	99.9
98	37.6	13.5	73.5
64	5.9	4.5	64.5

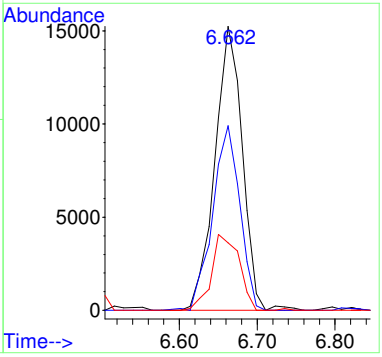


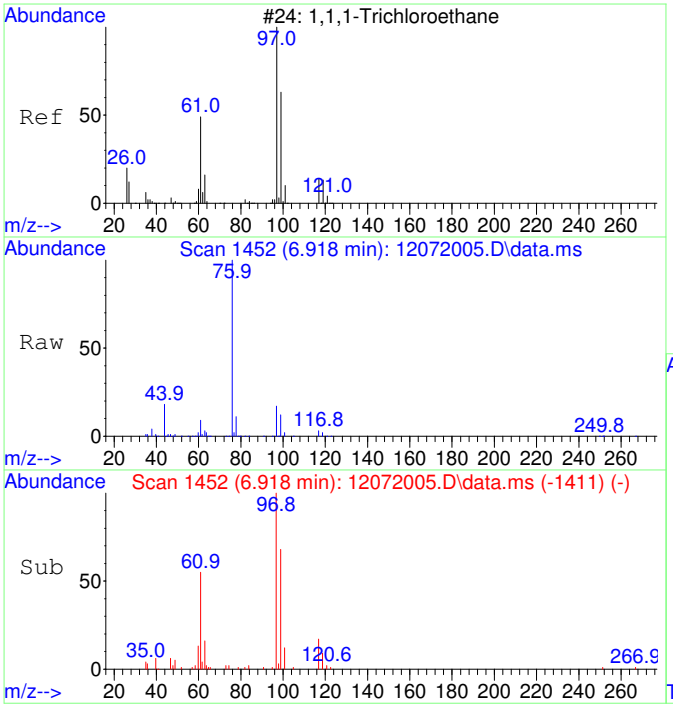


#30
Chloroform SCAN
Concen: 5000.00 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 83 Resp: 37416

Ion	Ratio	Lower	Upper
83	100		
85	64.3	34.6	94.6
47	26.7	0.0	53.4

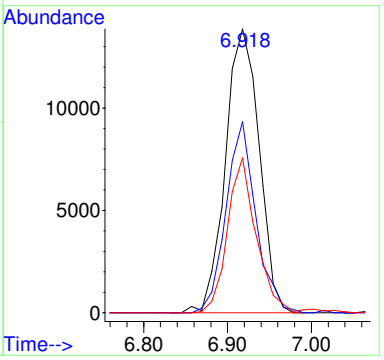


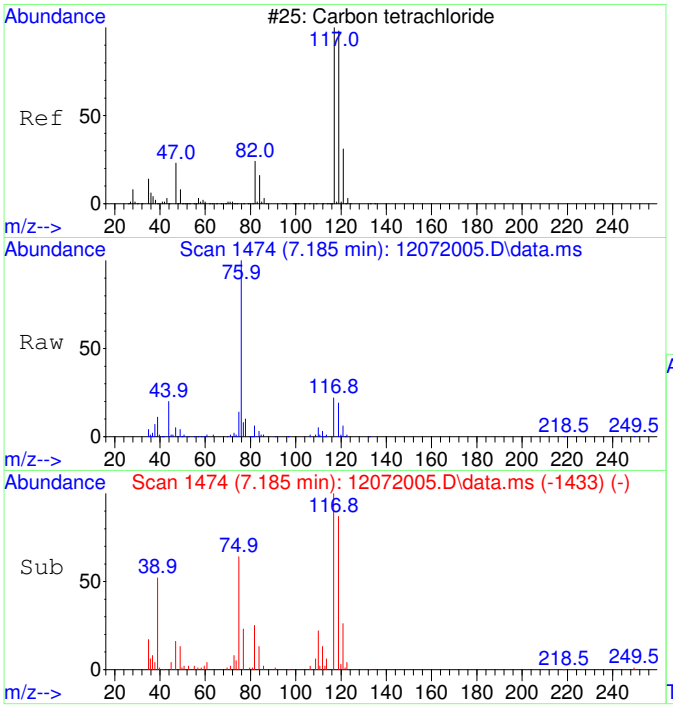


#31
1,1,1-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 97 Resp: 38610

Ion	Ratio	Lower	Upper
97	100		
99	59.6	43.6	103.6
61	47.4	18.0	78.0

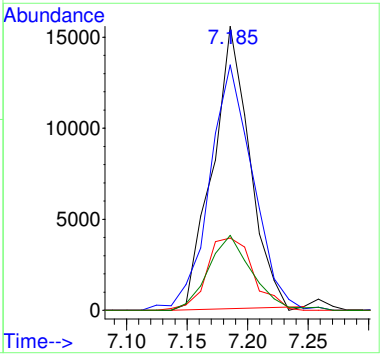


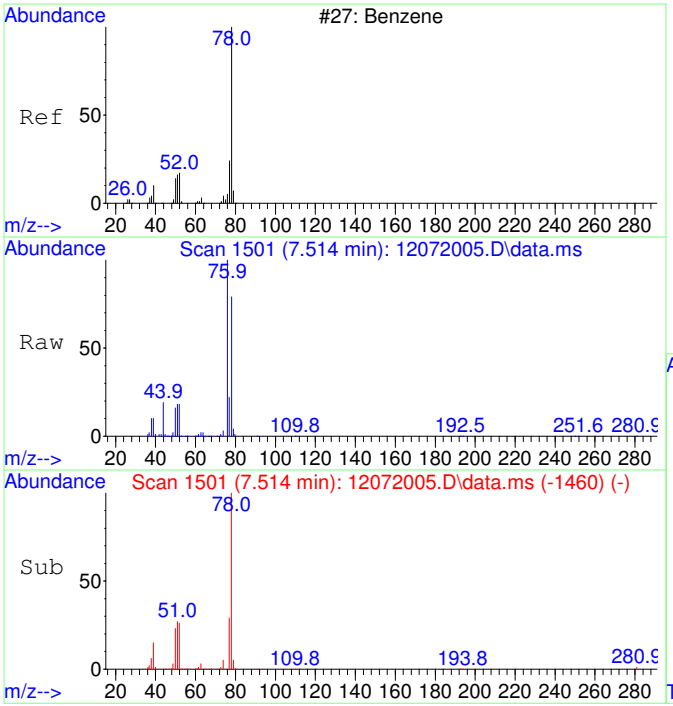


#32
Carbon tetrachloride SCAN
Concen: 5000.00 ug/L
RT: 7.185 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:117 Resp: 32994

Ion	Ratio	Lower	Upper
117	100		
119	102.7	75.5	135.5
121	32.4	0.0	58.8
82	31.6	0.0	59.2

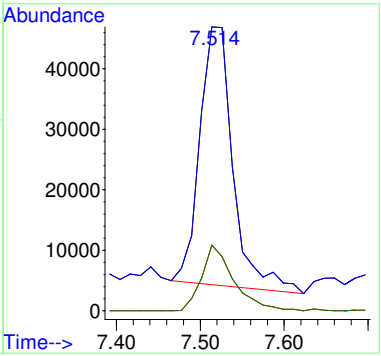


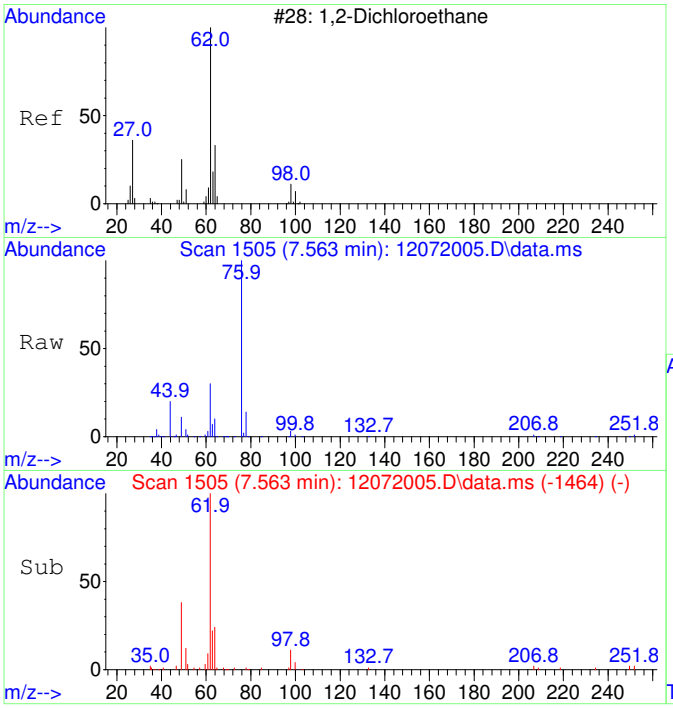


#33
Benzene SCAN
Concen: 5000.00 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 78 Resp: 116808

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	24.8	0.0	47.9
51	24.8	0.0	44.1

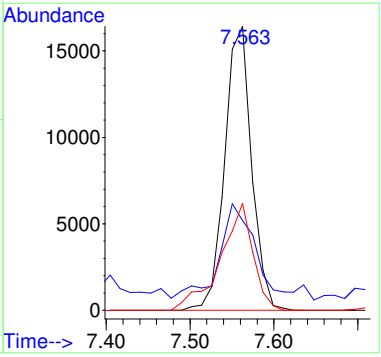


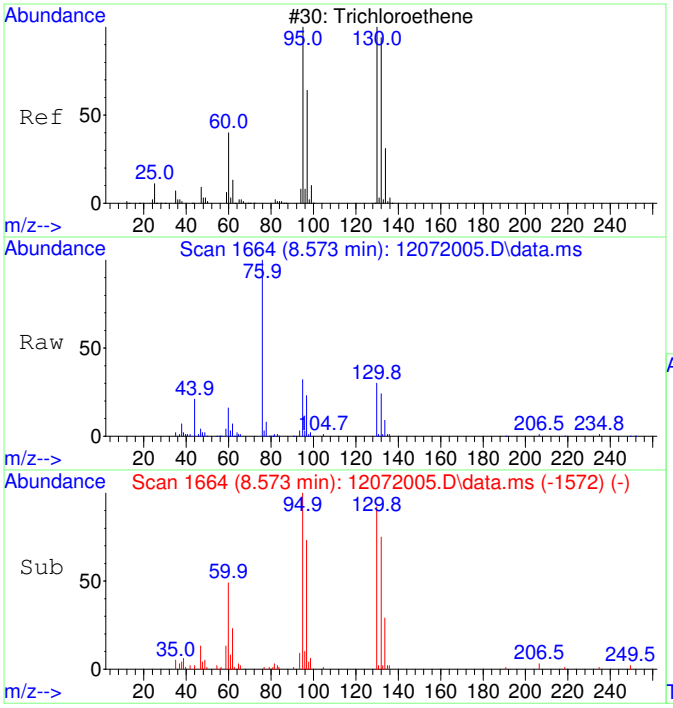


#34
1,2-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 62 Resp: 36537

Ion	Ratio	Lower	Upper
62	100		
64	42.1	5.2	65.2
49	45.6	3.9	63.9

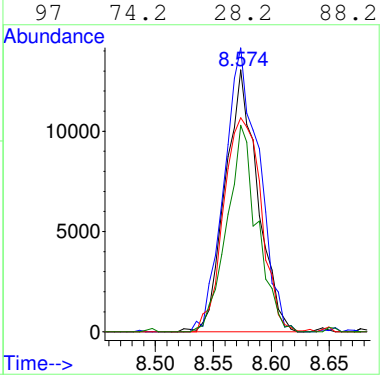


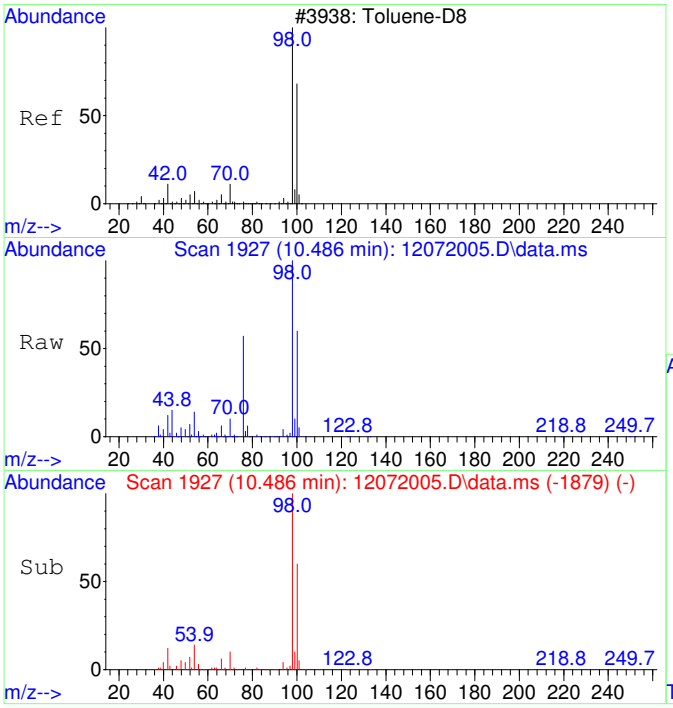


#35
Trichloroethene SCAN
Concen: 5000.00 ug/L
RT: 8.573 min Scan# 1664
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:130 Resp: 25470

Ion	Ratio	Lower	Upper
130	100		
95	116.2	60.5	120.5
132	94.3	59.6	119.6
97	74.2	28.2	88.2

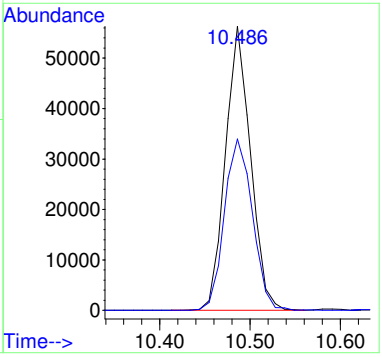


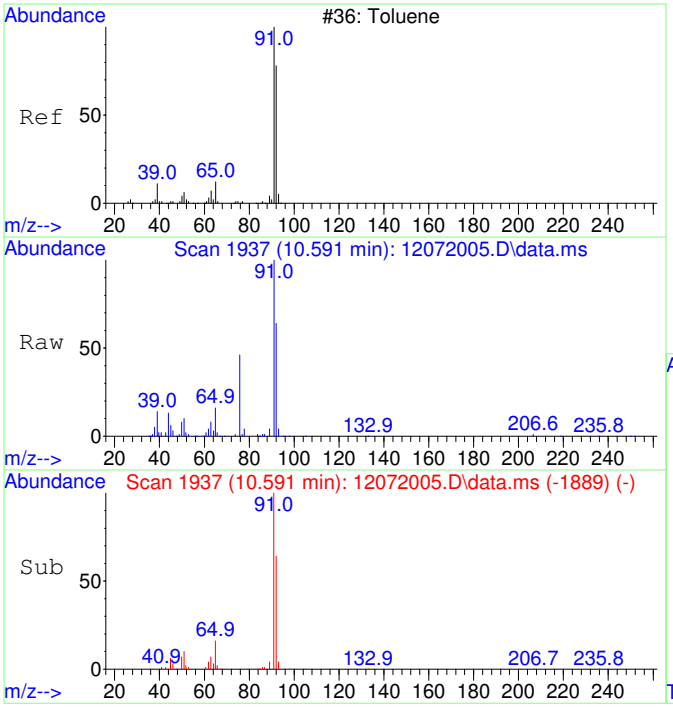


#36
Toluene-d8 SCAN
Concen: 5000.00 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 98 Resp: 109043

Ion	Ratio	Lower	Upper
98	100		
100	67.2	40.0	100.0

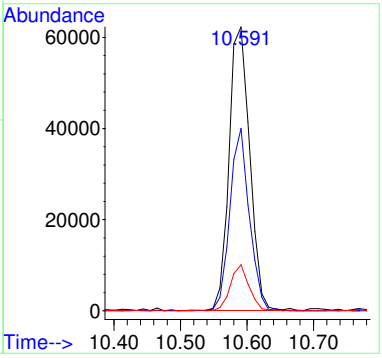


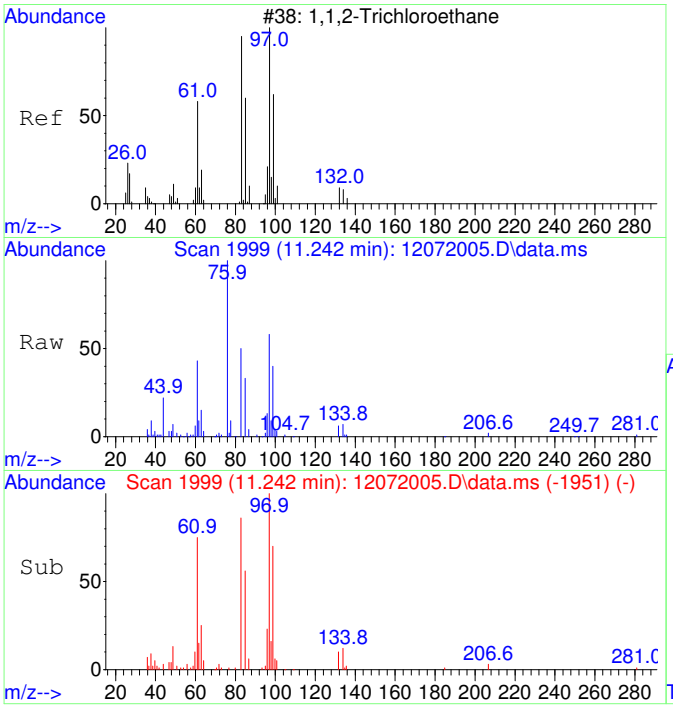


#37
Toluene SCAN
Concen: 5000.00 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 134257

Ion	Ratio	Lower	Upper
91	100		
92	60.4	28.3	88.3
65	14.8	0.0	41.0

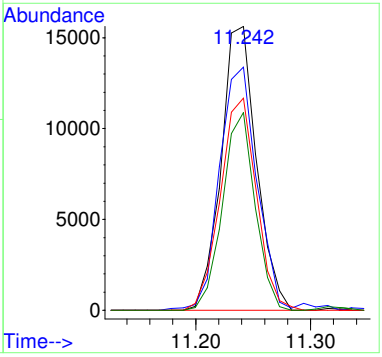


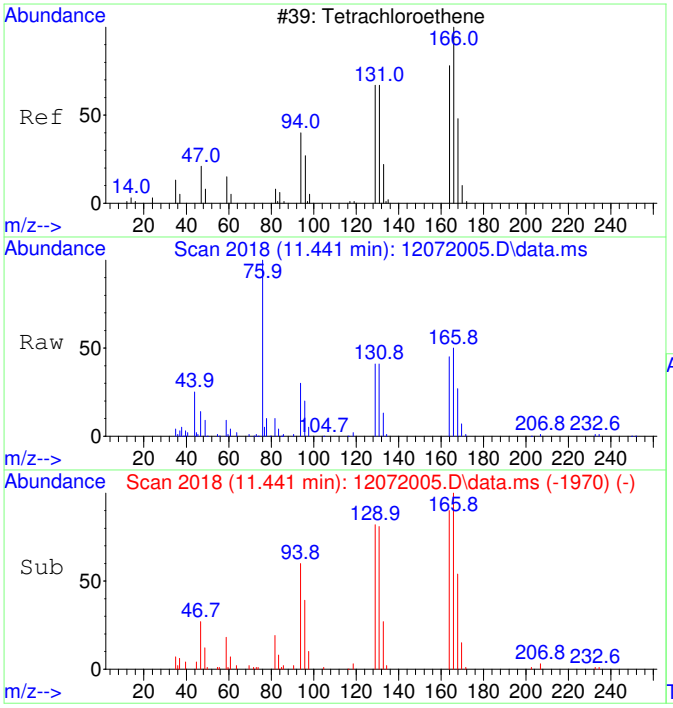


#38
1,1,2-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 11.242 min Scan# 1999
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 97 Resp: 33652

Ion	Ratio	Lower	Upper
97	100		
83	91.4	57.7	117.7
61	76.2	32.1	92.1
99	63.8	36.7	96.7

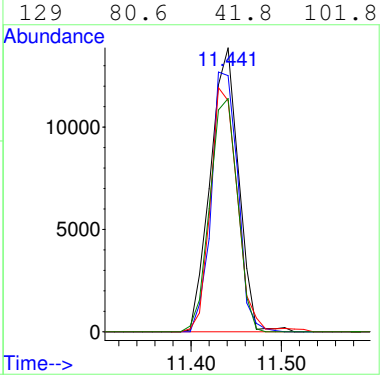


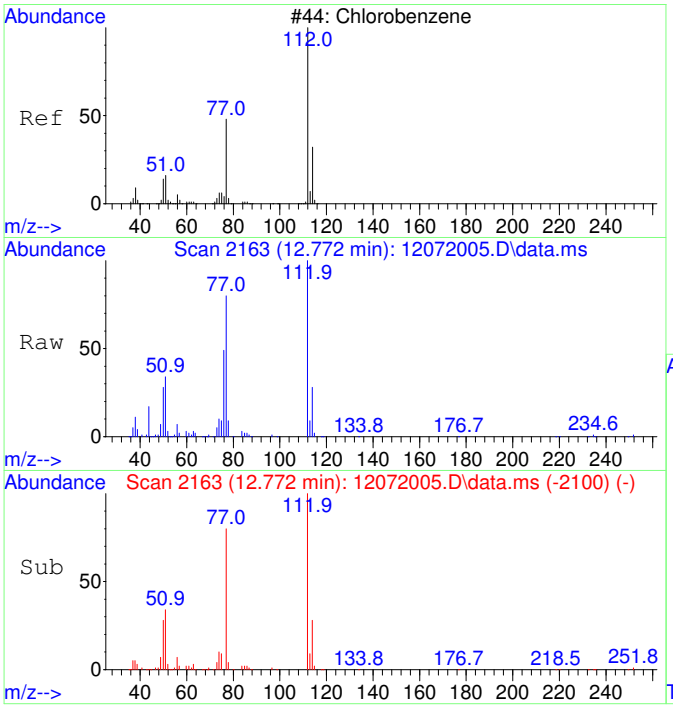


#39
Tetrachloroethene SCAN
Concen: 5000.00 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:166 Resp: 30203

Ion	Ratio	Lower	Upper
166	100		
164	85.5	50.9	110.9
131	82.9	38.7	98.7
129	80.6	41.8	101.8

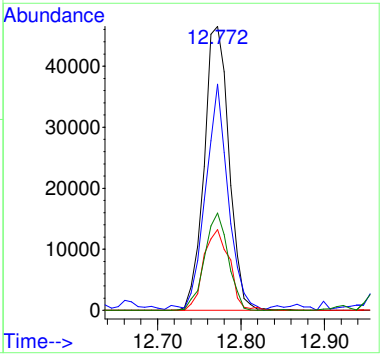


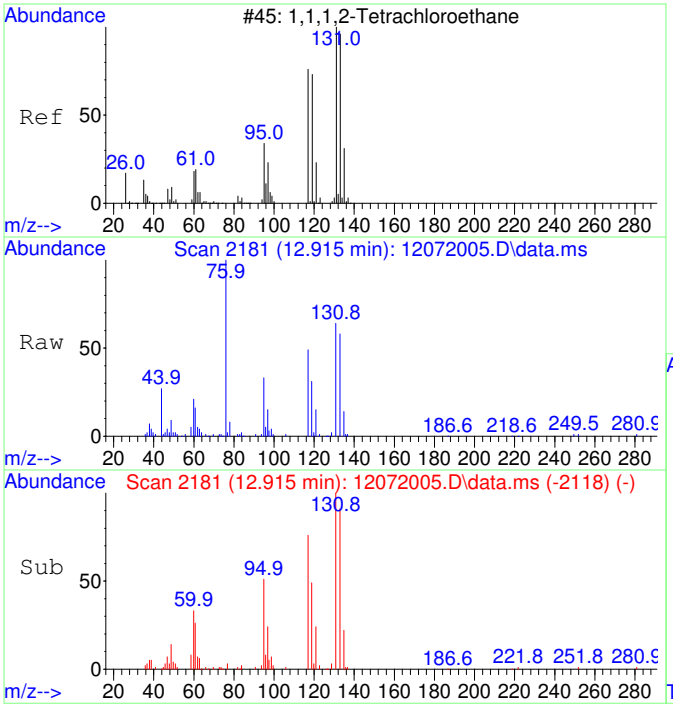


#40
Chlorobenzene SCAN
Concen: 5000.00 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:112 Resp: 96431

Ion	Ratio	Lower	Upper
112	100		
77	72.1	28.2	88.2
114	29.5	2.3	62.3
51	32.6	0.0	50.1

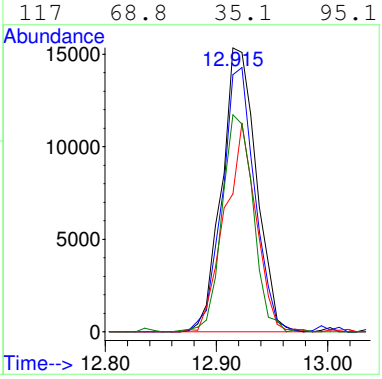


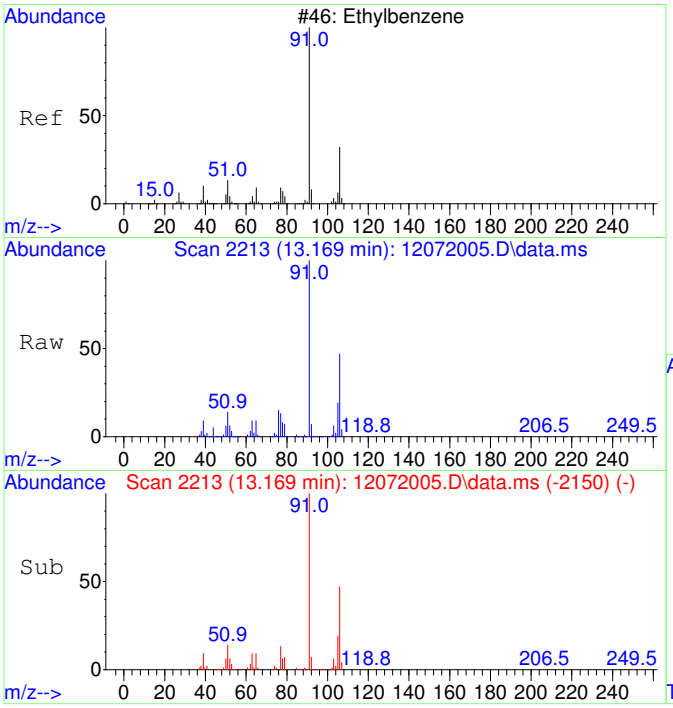


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:131 Resp: 33269

Ion	Ratio	Lower	Upper
131	100		
133	87.3	66.9	126.9
119	66.4	40.4	100.4
117	68.8	35.1	95.1

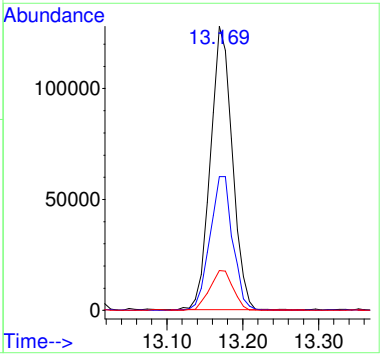


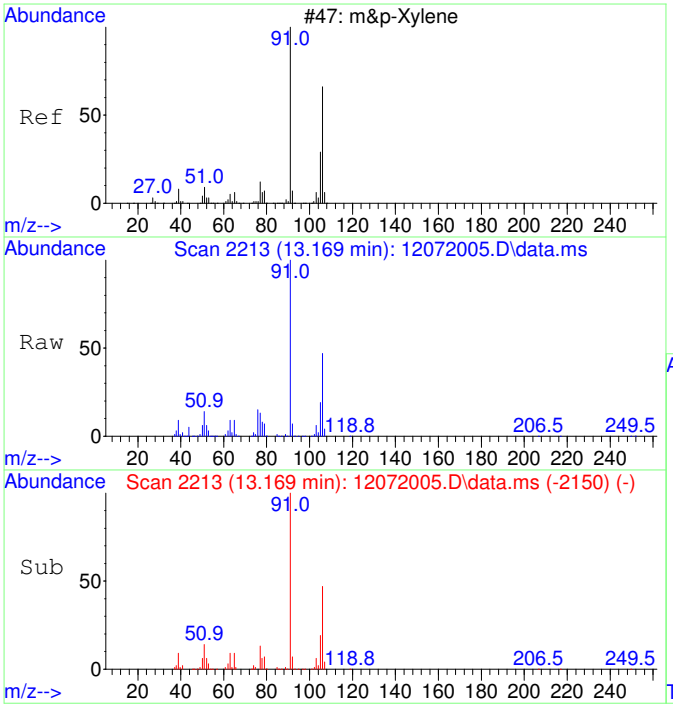


#42
Ethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 255849

Ion	Ratio	Lower	Upper
91	100		
106	49.4	23.1	83.1
51	15.1	0.0	40.1

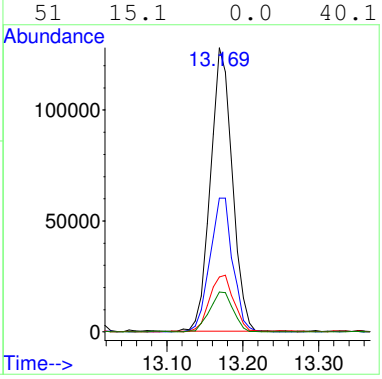


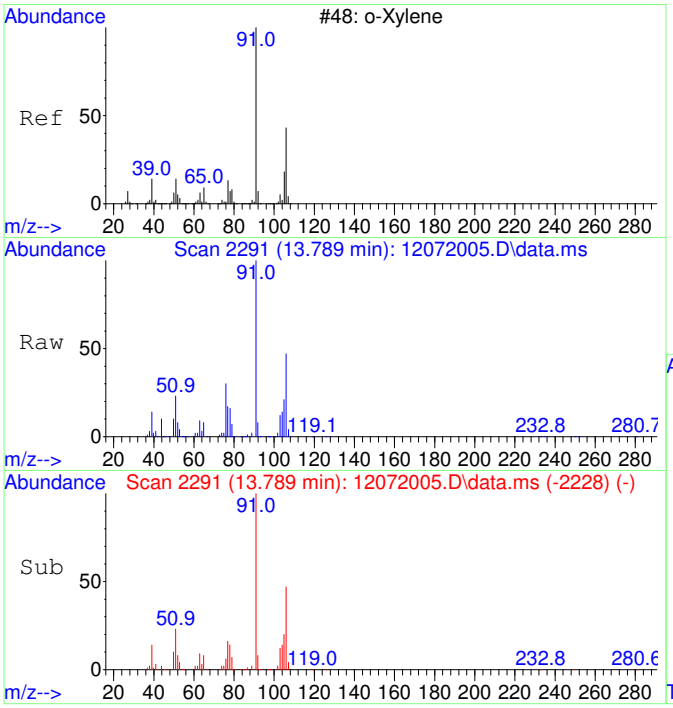


#43
m&p-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 255849

Ion	Ratio	Lower	Upper
91	100		
106	49.4	23.1	83.1
105	22.0	0.0	54.7
51	15.1	0.0	40.1

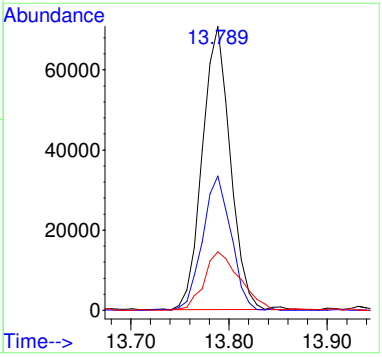


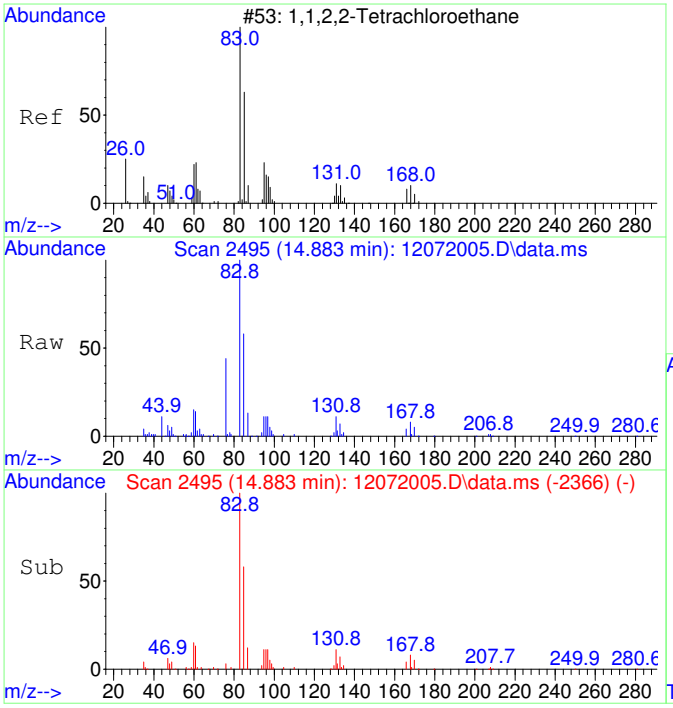


#44
o-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 91 Resp: 139708

Ion	Ratio	Lower	Upper
91	100		
106	48.0	18.0	78.0
105	25.8	0.0	56.6

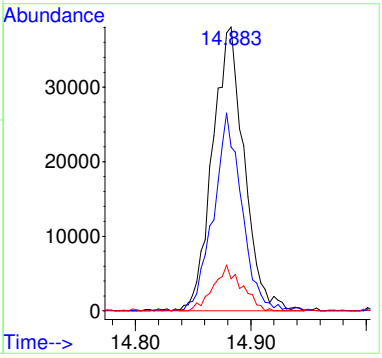


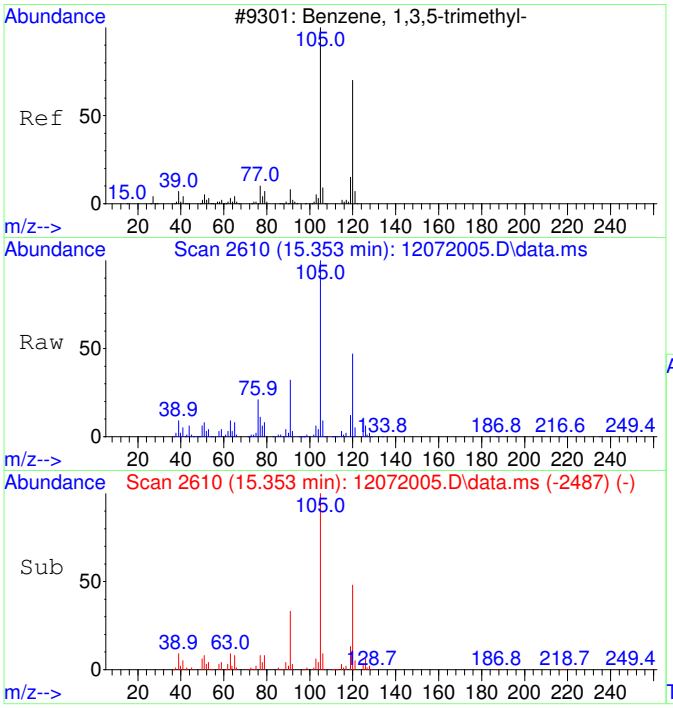


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 14.883 min Scan# 2495
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion: 83 Resp: 72641

Ion	Ratio	Lower	Upper
83	100		
85	61.3	35.9	95.9
95	14.3	0.0	47.4

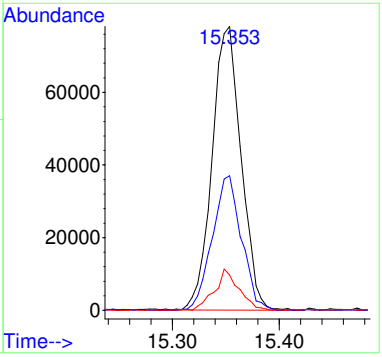


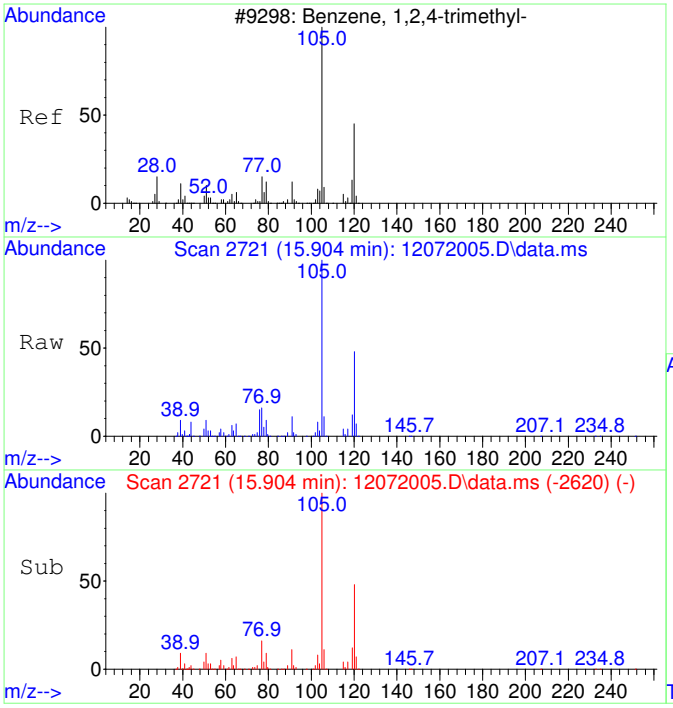


#46
1,3,5-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:105 Resp: 147389

Ion	Ratio	Lower	Upper
105	100		
120	47.6	18.3	78.3
119	12.4	0.0	43.1

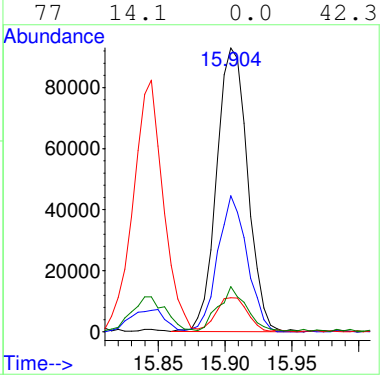


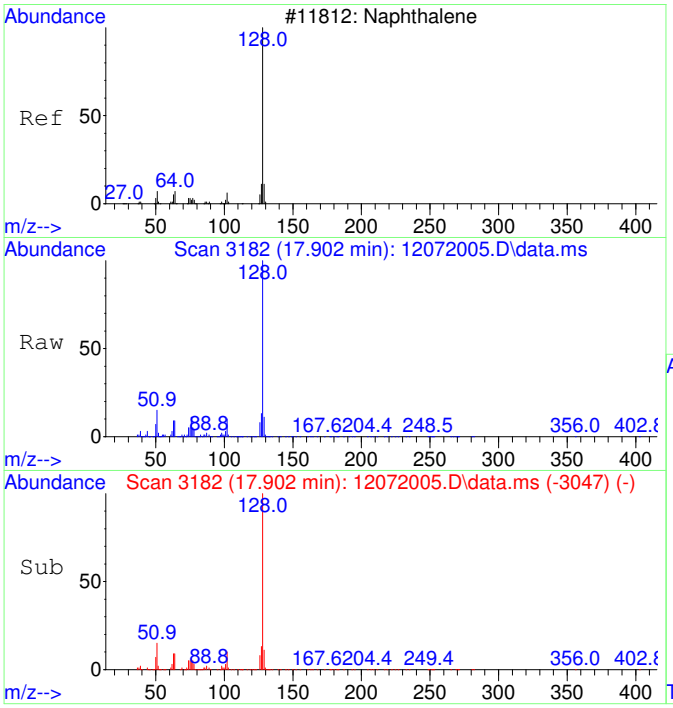


#47
1,2,4-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:105 Resp: 150588

Ion	Ratio	Lower	Upper
105	100		
120	44.8	16.9	76.9
119	11.0	0.0	41.9
77	14.1	0.0	42.3

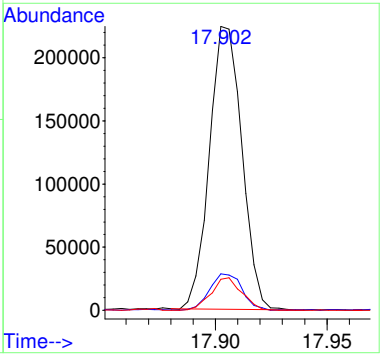




#48
Naphthalene SCAN
Concen: 5000.00 ug/L
RT: 17.902 min Scan# 3182
Delta R.T. 0.000 min
Lab File: 12072005.D
Acq: 7 Dec 2020 13:33

Tgt Ion:128 Resp: 226034

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	44.0
129	10.9	0.0	40.8



S20L021-CAL4

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072006.D
Acq On : 7 Dec 2020 13:56
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL4
Misc : 2030071 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Before Manual Integration

Quant Time: Dec 08 06:06:55 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

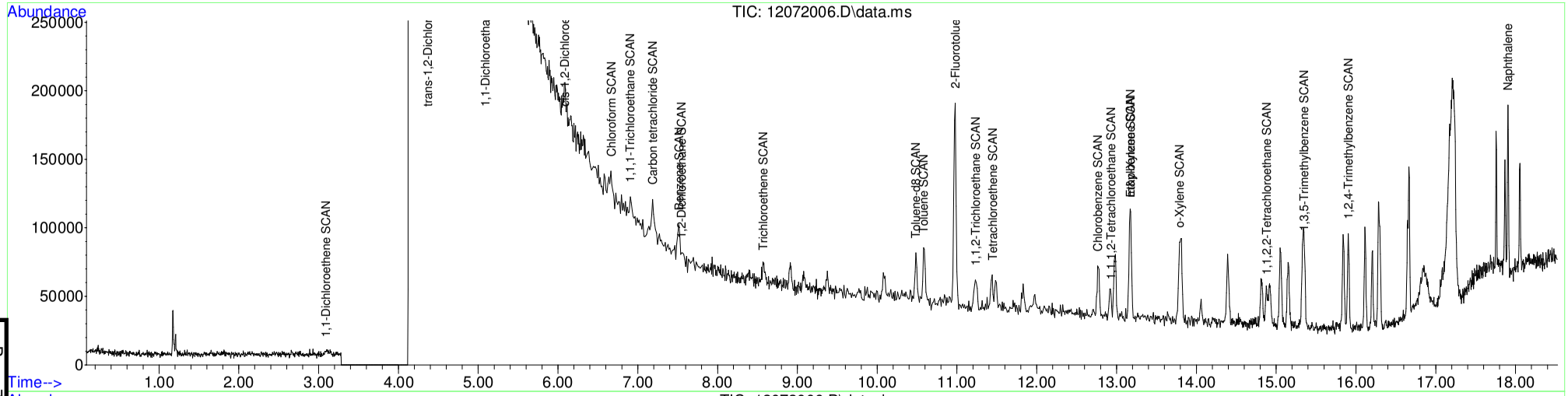
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	192171	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	40349	1084.10 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 21.68%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.086	61	6977	918.69 ug/L	89
3] trans-1,2-Dichloroethene	4.363	61	8899	926.37 ug/L	100
4] 1,1-Dichloroethane	5.079	63	10775	939.13 ug/L	98
5] cis-1,2-Dichloroethene	6.088	61	11528	970.12 ug/L	98
6] Chloroform	6.652	83	11165	978.21 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	12471	1017.13 ug/L	100
8] Carbon tetrachloride	7.187	117	12168	1038.04 ug/L	99
9] Benzene	7.503	78	33507	1036.18 ug/L	92
10] 1,2-Dichloroethane	7.552	62	11309	1025.16 ug/L	92
11] Trichloroethene	8.575	130	10868	1064.47 ug/L	98
13] Toluene	10.582	91	51129	1103.33 ug/L	100
14] 1,1,2-Trichloroethane	11.232	97	11523	1073.57 ug/L	100
15] Tetrachloroethene	11.432	166	15897	1101.36 ug/L	100
16] Chlorobenzene	12.765	112	39448	1098.83 ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.916	131	13873	1104.11 ug/L	100
18] Ethylbenzene	12.972	91	66895	1130.19 ug/L	98
19] m&p-Xylene	13.171	91	103724	2275.67 ug/L	98
20] o-Xylene	13.782	91	54333	1109.83 ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.881	83	25279	1108.19 ug/L	100
22] 1,3,5-Trimethylbenzene	15.350	105	61678	1145.65 ug/L	97
23] 1,2,4-Trimethylbenzene	15.906	105	63729	1157.33 ug/L	96
24] Naphthalene	17.906	128	102525	1190.66 ug/L	99
25) 2-Fluorotoluene SCAN	10.979	109	105526	4837.67 ug/L	98
26) 1,1-Dichloroethene SCAN	3.085	61	1144	224.65 ug/L #	62
27) trans-1,2-Dichloroethe...	4.368	61	6412	988.56 ug/L #	42
28) 1,1-Dichloroethane SCAN	5.085	63	6350	829.42 ug/L	77
29) cis-1,2-Dichloroethene...	6.080	61	9880	1312.72 ug/L #	64
30) Chloroform SCAN	6.663	83	8176	1164.68 ug/L	94
31) 1,1,1-Trichloroethane ...	6.906	97	8197	1131.56 ug/L	87
32) Carbon tetrachloride SCAN	7.186	117	6968	1125.63 ug/L	95
33) Benzene SCAN	7.514	78	24495	1117.71 ug/L	96
34) 1,2-Dichloroethane SCAN	7.551	62	7265	1059.80 ug/L #	37
35) Trichloroethene SCAN	8.574	130	4582	958.85 ug/L #	47
36) Toluene-d8 SCAN	10.486	98	23597	1153.40 ug/L	96
37) Toluene SCAN	10.581	91	32509	1290.59 ug/L	96
38) 1,1,2-Trichloroethane ...	11.231	97	7321	1159.53 ug/L	93
39) Tetrachloroethene SCAN	11.441	166	6895	1216.76 ug/L #	28
40) Chlorobenzene SCAN	12.764	112	21721	1200.56 ug/L	74
41) 1,1,1,2-Tetrachloroeth...	12.931	131	7376	1181.69 ug/L	92
42) Ethylbenzene SCAN	13.177	91	59613	1241.88 ug/L	94
43) m&p-Xylene SCAN	13.177	91	59613	1241.88 ug/L	95
44) o-Xylene SCAN	13.789	91	34205	1304.94 ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.883	83	16288	1195.11 ug/L	92
46) 1,3,5-Trimethylbenzene...	15.353	105	34045	1231.15 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.904	105	36077	1276.92 ug/L	93
48) Naphthalene SCAN	17.905	128	51467	1213.61 ug/L	96

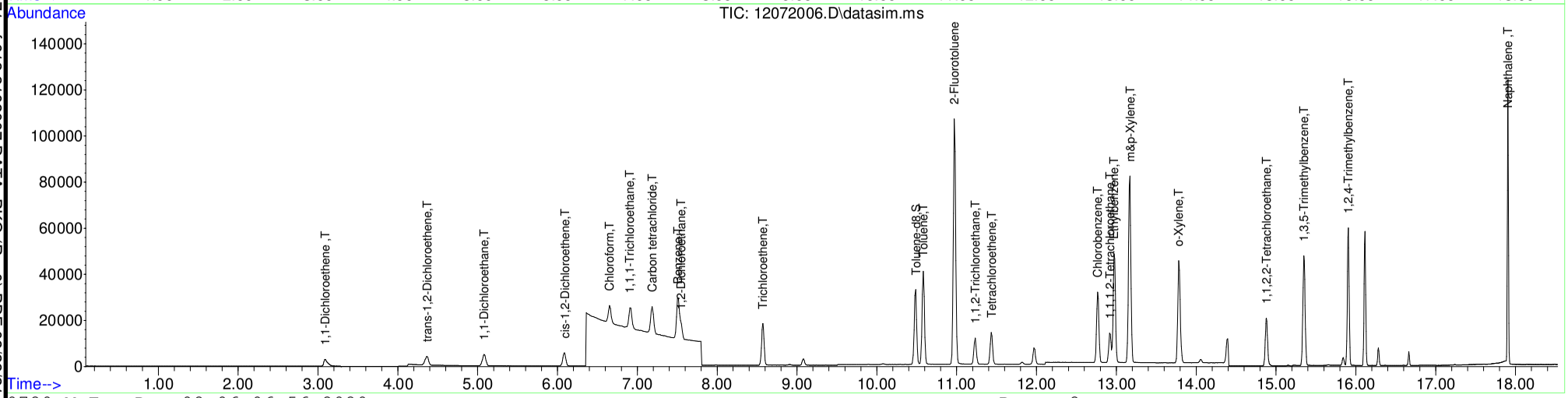
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072006.D
Acq On : 7 Dec 2020 13:56
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL4
Misc : 2030071 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 06:06:55 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration





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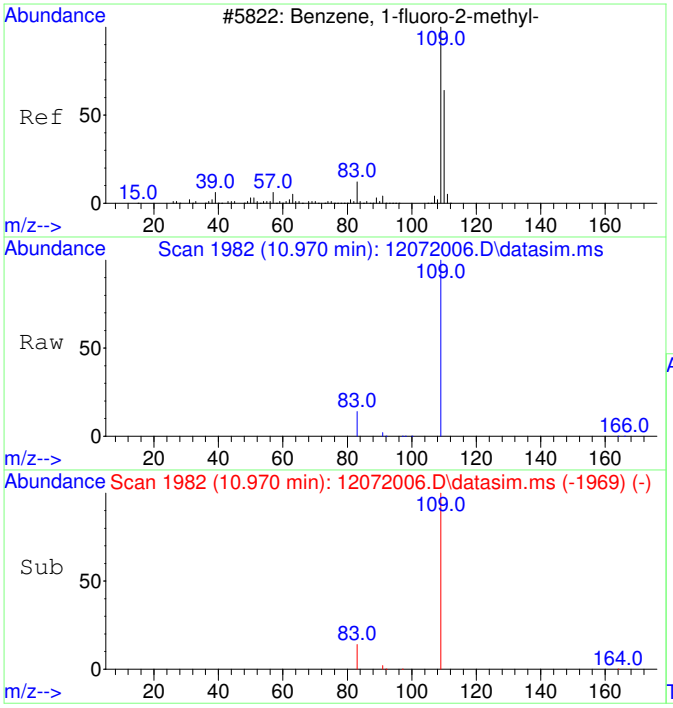
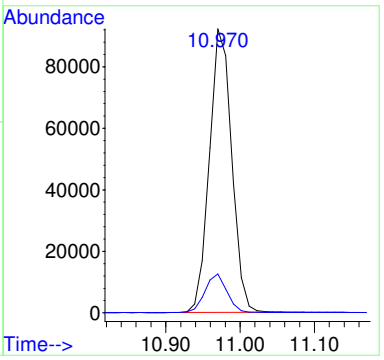
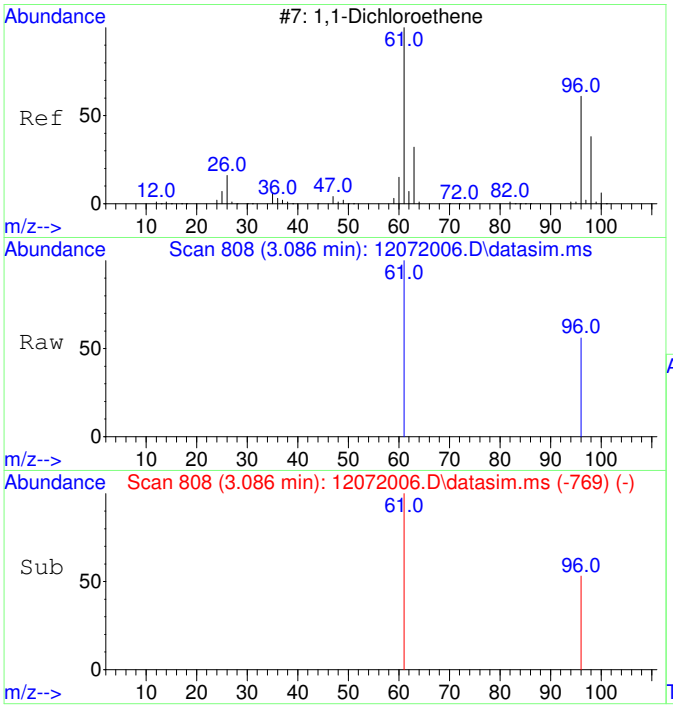


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:109 Resp: 192171

Ion	Ratio	Lower	Upper
109	100		
83	13.3	0.0	42.3

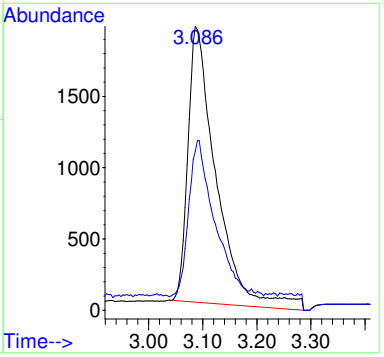




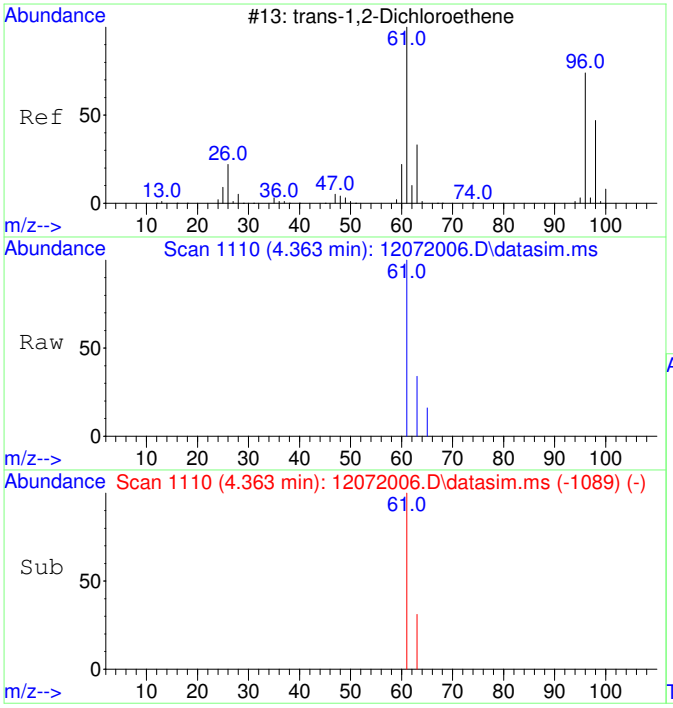
#2
1,1-Dichloroethene
Concen: 918.69 ug/L
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 6977

Ion	Ratio	Lower	Upper
61	100		
96	58.6	37.2	97.2



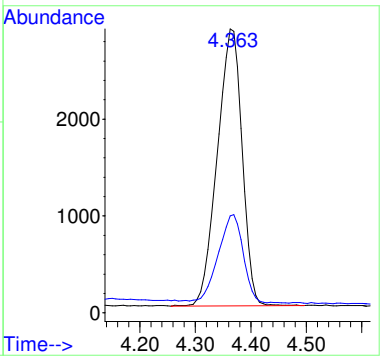
Before MI:
IMPROPER
BASELINE

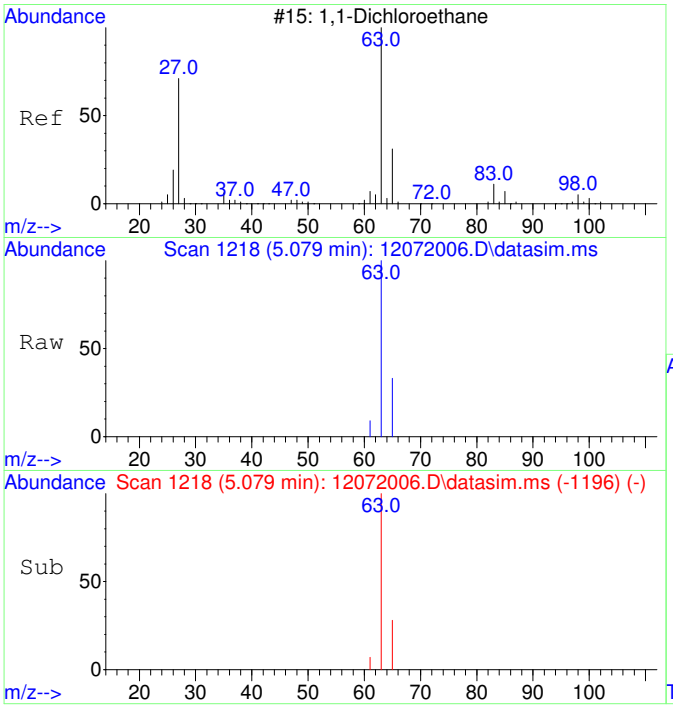


#3
trans-1,2-Dichloroethene
Concen: 926.37 ug/L
RT: 4.363 min Scan# 1110
Delta R.T. -0.013 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 8899

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.4	62.4

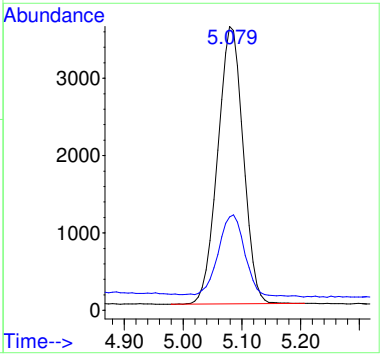


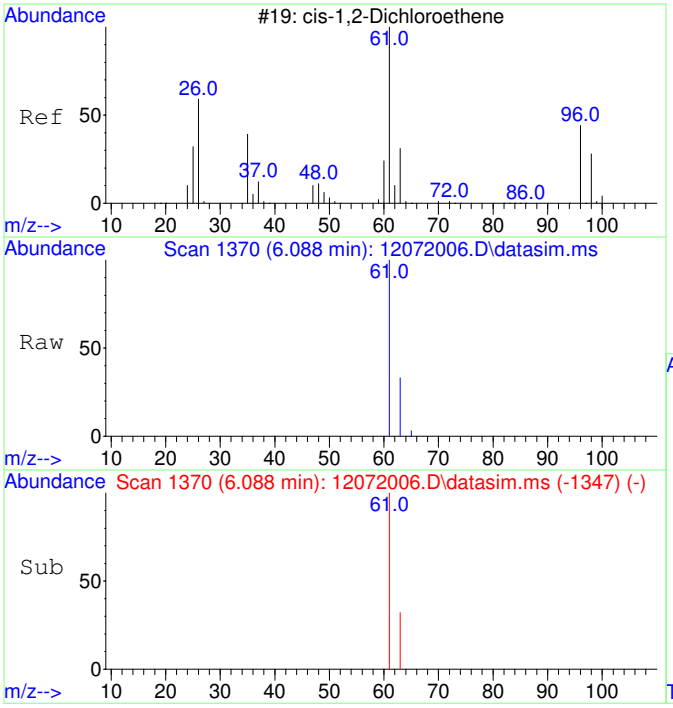


#4
1,1-Dichloroethane
Concen: 939.13 ug/L
RT: 5.079 min Scan# 1218
Delta R.T. -0.006 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 63 Resp: 10775

Ion	Ratio	Lower	Upper
63	100		
65	30.8	1.8	61.8

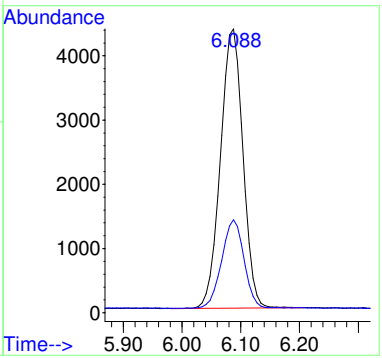


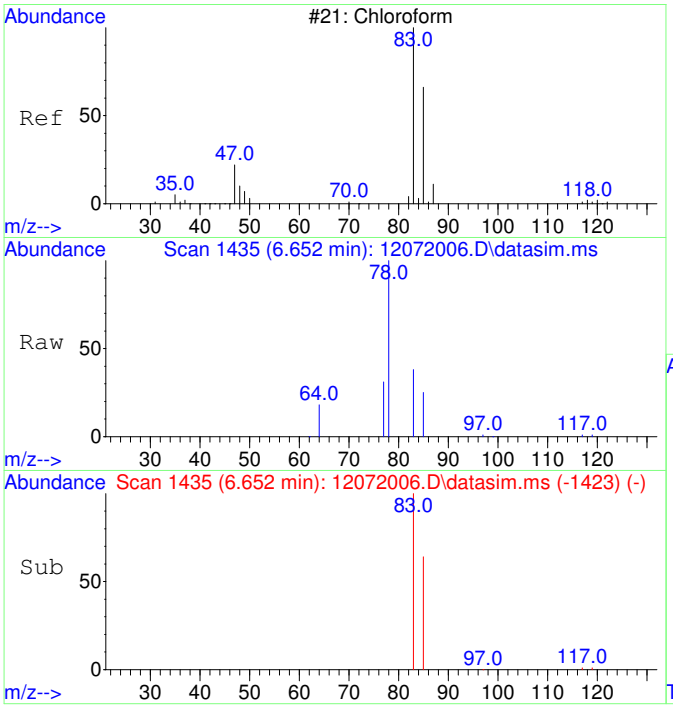


#5
cis-1,2-Dichloroethene
Concen: 970.12 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 11528

Ion	Ratio	Lower	Upper
61	100		
63	31.2	2.5	62.5

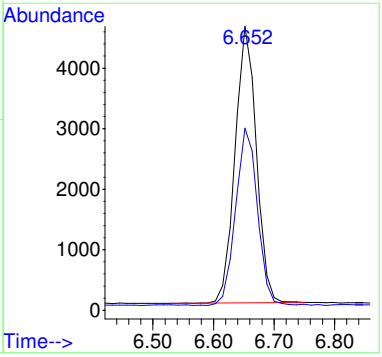


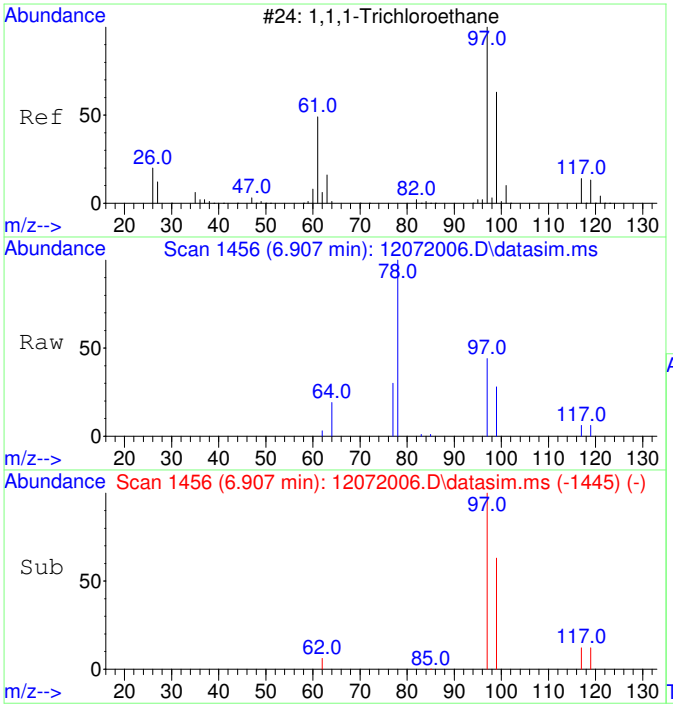


#6
Chloroform
Concen: 978.21 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 11165

Ion	Ratio	Lower	Upper
83	100		
85	65.4	35.1	95.1

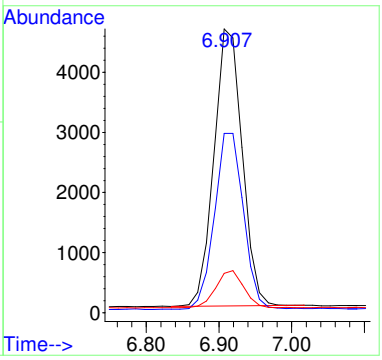


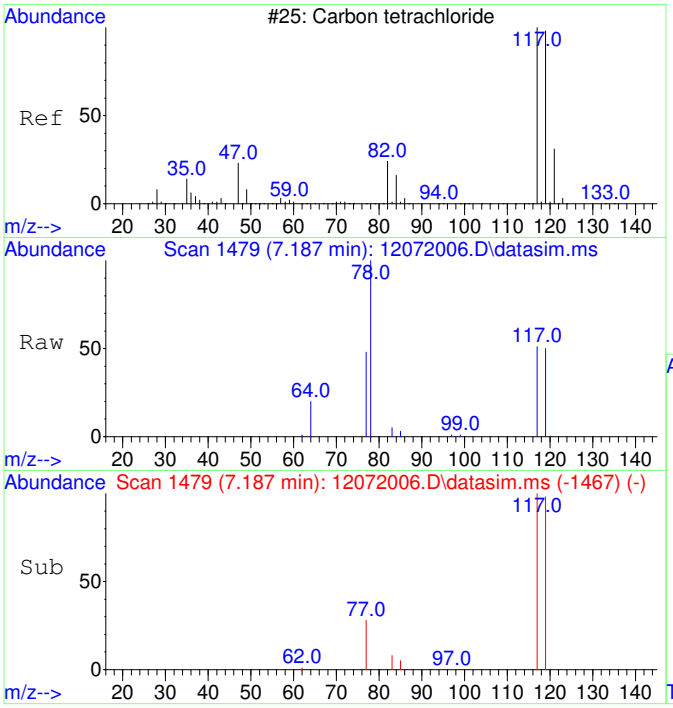


#7
1,1,1-Trichloroethane
Concen: 1017.13 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 12471

Ion	Ratio	Lower	Upper
97	100		
99	64.8	34.6	94.6
117	13.2	0.0	43.2

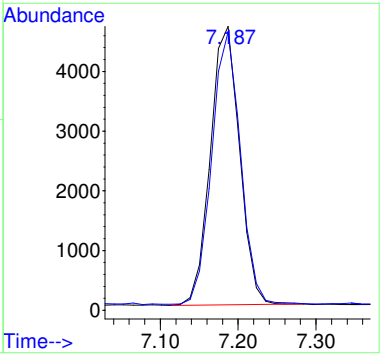


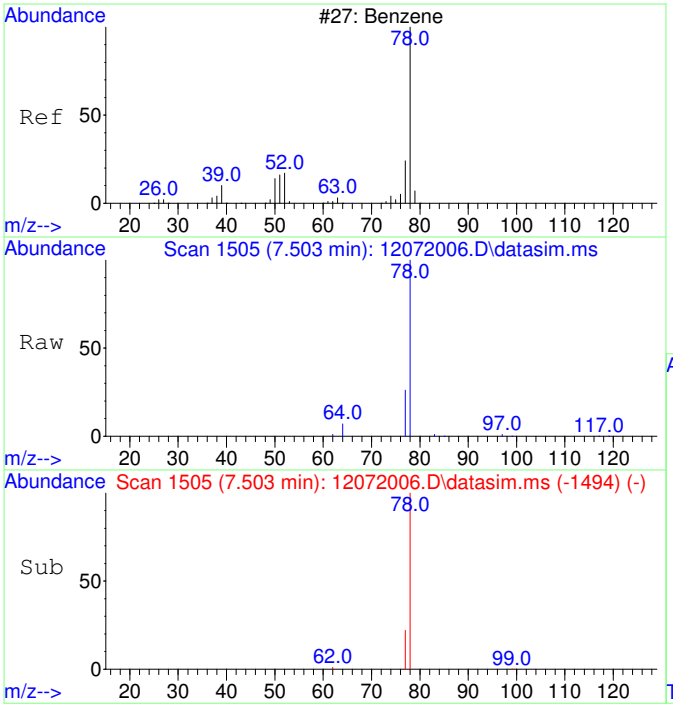


#8
Carbon tetrachloride
Concen: 1038.04 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:117 Resp: 12168

Ion	Ratio	Lower	Upper
117	100		
119	95.6	66.4	126.4

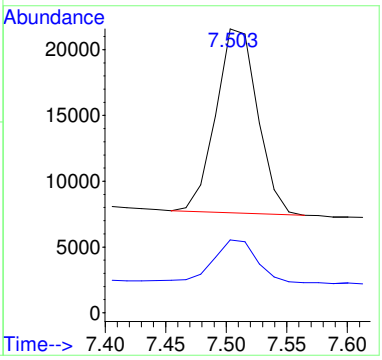


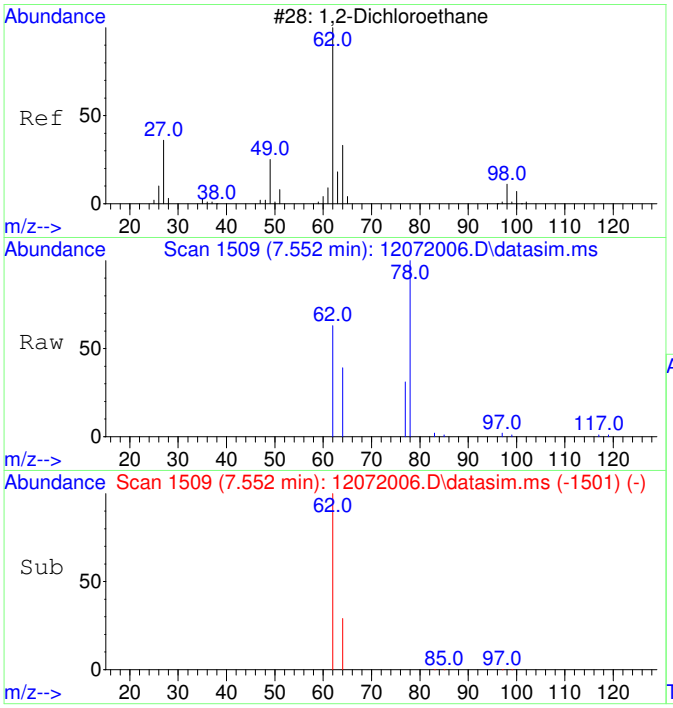


#9
Benzene
Concen: 1036.18 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 78 Resp: 33507

Ion	Ratio	Lower	Upper
78	100		
77	27.2	0.0	53.2

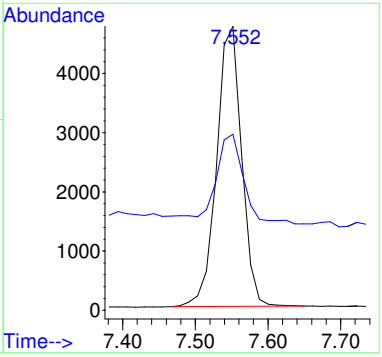


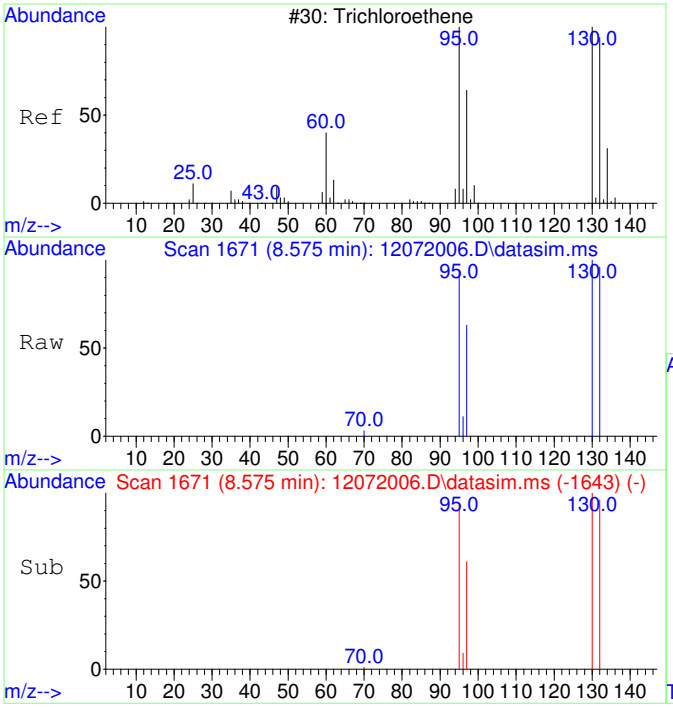


#10
1,2-Dichloroethane
Concen: 1025.16 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 62 Resp: 11309

Ion	Ratio	Lower	Upper
62	100		
64	36.9	2.3	62.3

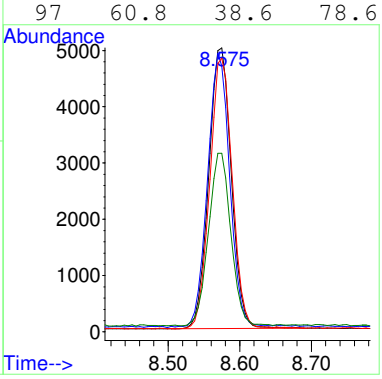


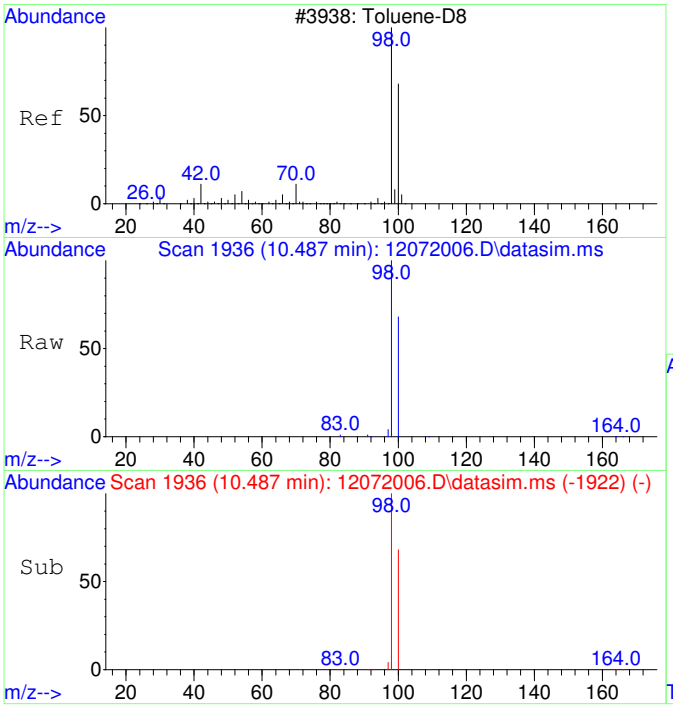


#11
Trichloroethene
Concen: 1064.47 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:130 Resp: 10868

Ion	Ratio	Lower	Upper
130	100		
95	94.8	60.7	120.7
132	95.6	76.0	116.0
97	60.8	38.6	78.6

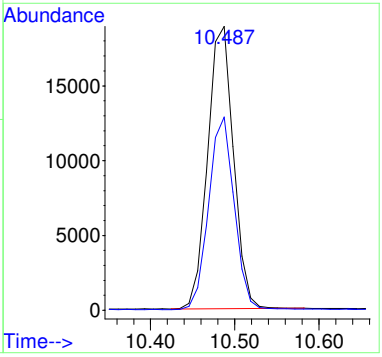


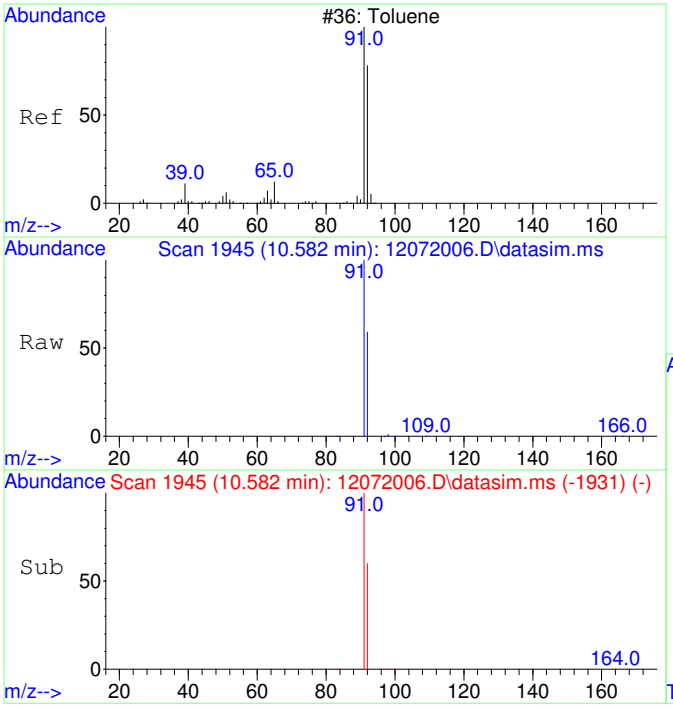


#12
Toluene-d8
Concen: 1084.10 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 98 Resp: 40349

Ion	Ratio	Lower	Upper
98	100		
100	66.9	37.1	97.1

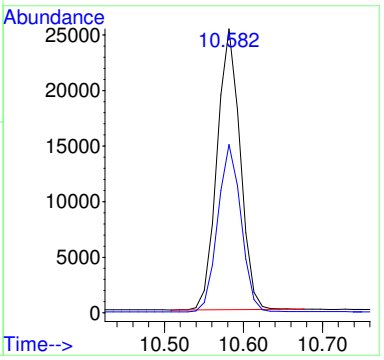


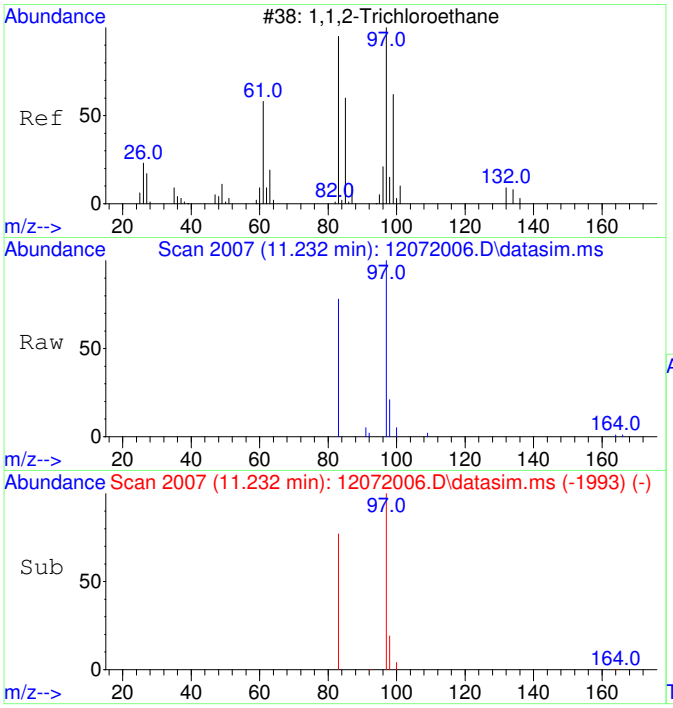


#13
Toluene
Concen: 1103.33 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 51129

Ion	Ratio	Lower	Upper
91	100		
92	59.8	29.9	89.9

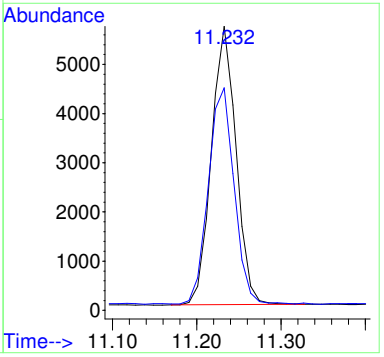


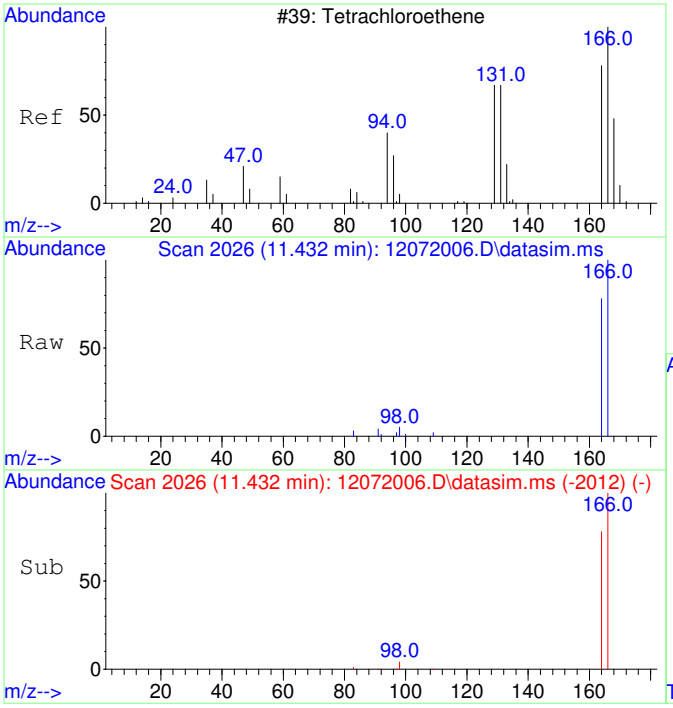


#14
1,1,2-Trichloroethane
Concen: 1073.57 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 11523

Ion	Ratio	Lower	Upper
97	100		
83	81.4	51.2	111.2

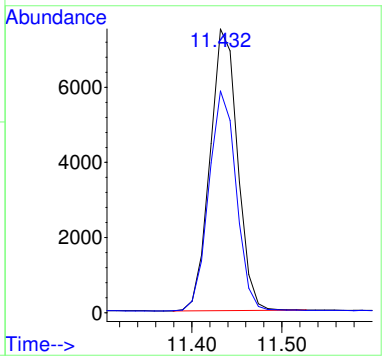


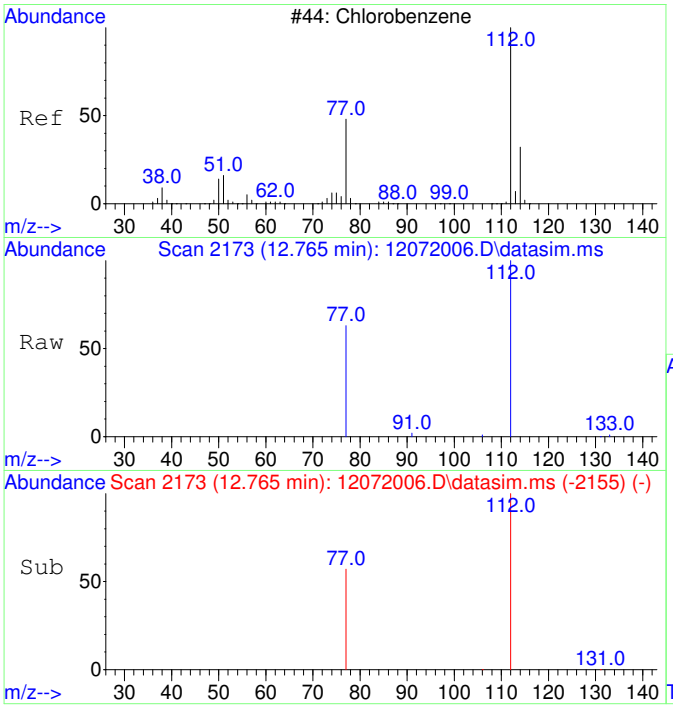


#15
Tetrachloroethene
Concen: 1101.36 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:166 Resp: 15897

Ion	Ratio	Lower	Upper
166	100		
164	77.5	47.8	107.8

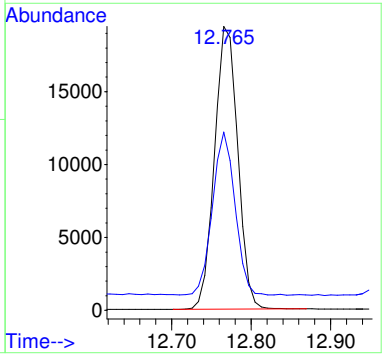


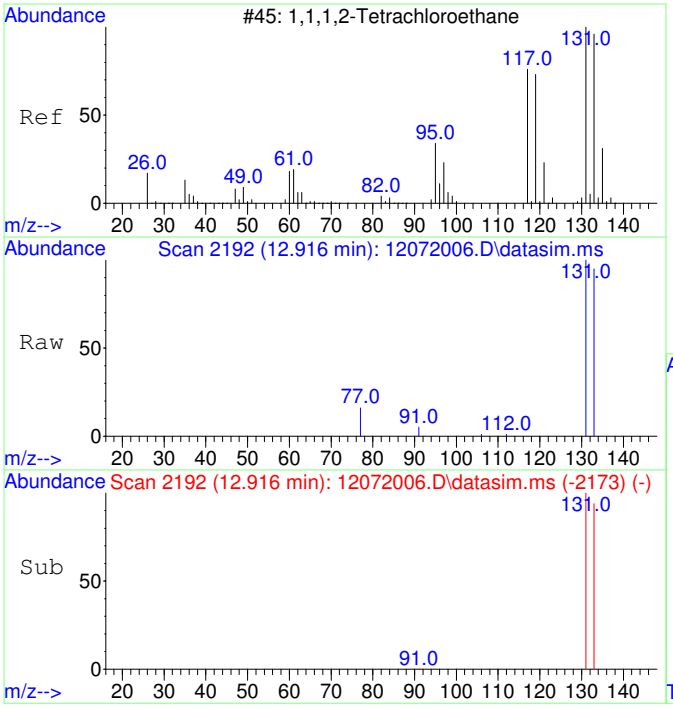


#16
Chlorobenzene
Concen: 1098.83 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:112 Resp: 39448

Ion	Ratio	Lower	Upper
112	100		
77	55.4	23.6	83.6

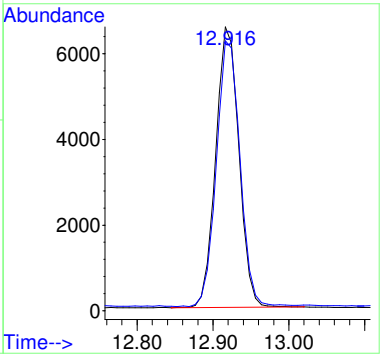


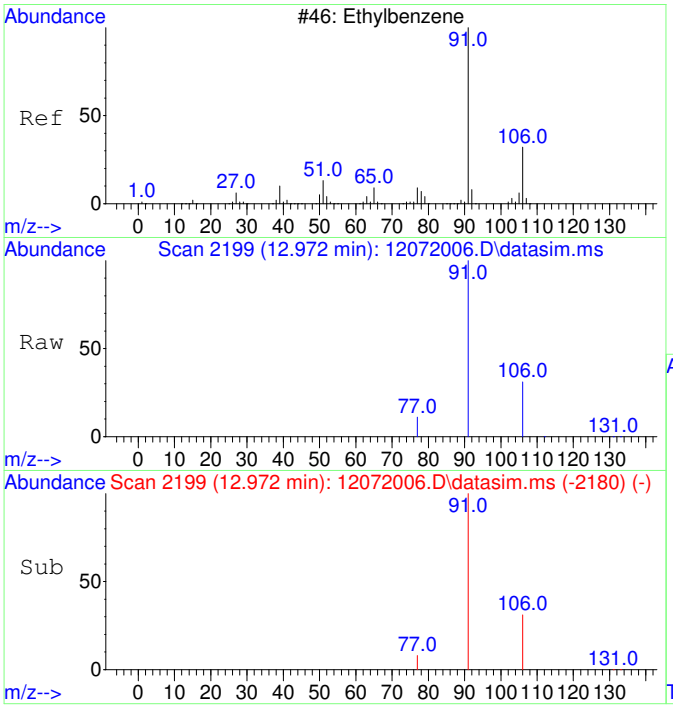


#17
1,1,1,2-Tetrachloroethane
Concen: 1104.11 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:131 Resp: 13873

Ion	Ratio	Lower	Upper
131	100		
133	95.9	66.3	126.3

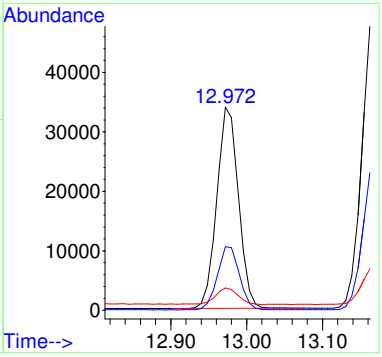


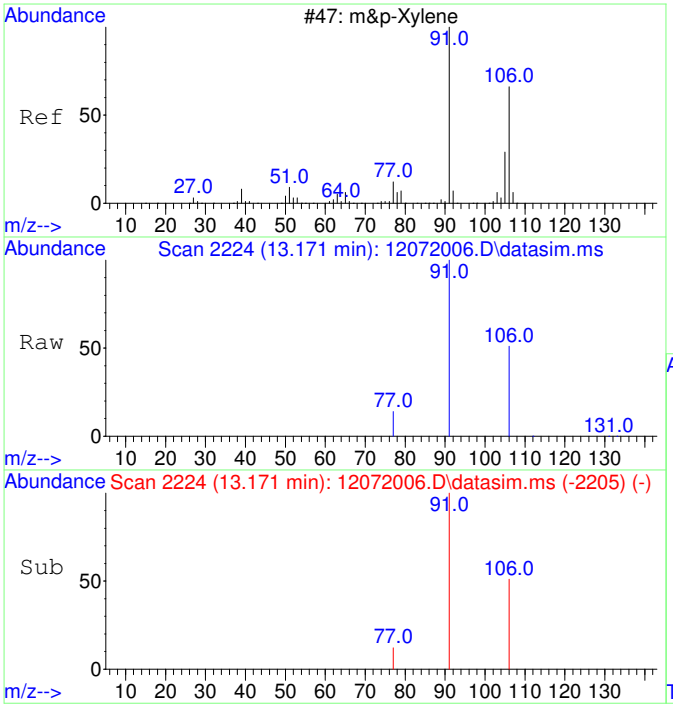


#18
Ethylbenzene
Concen: 1130.19 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 66895

Ion	Ratio	Lower	Upper
91	100		
106	32.0	3.0	63.0
77	8.4	0.0	38.2

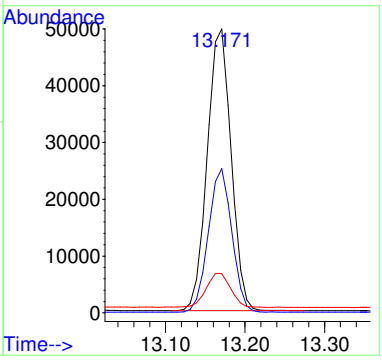


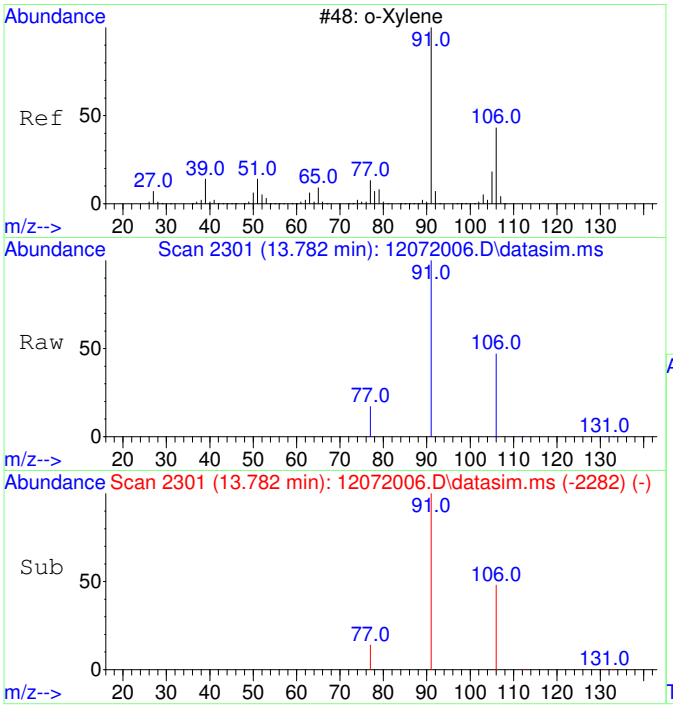


#19
m&p-Xylene
Concen: 2275.67 ug/L
RT: 13.171 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 103724

Ion	Ratio	Lower	Upper
91	100		
106	50.1	22.2	82.2
77	12.4	0.0	42.4

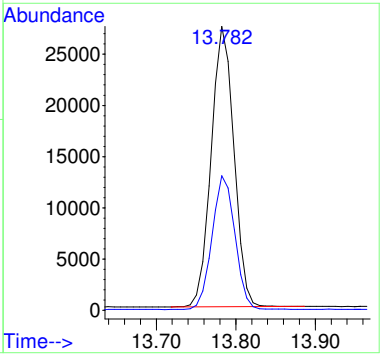


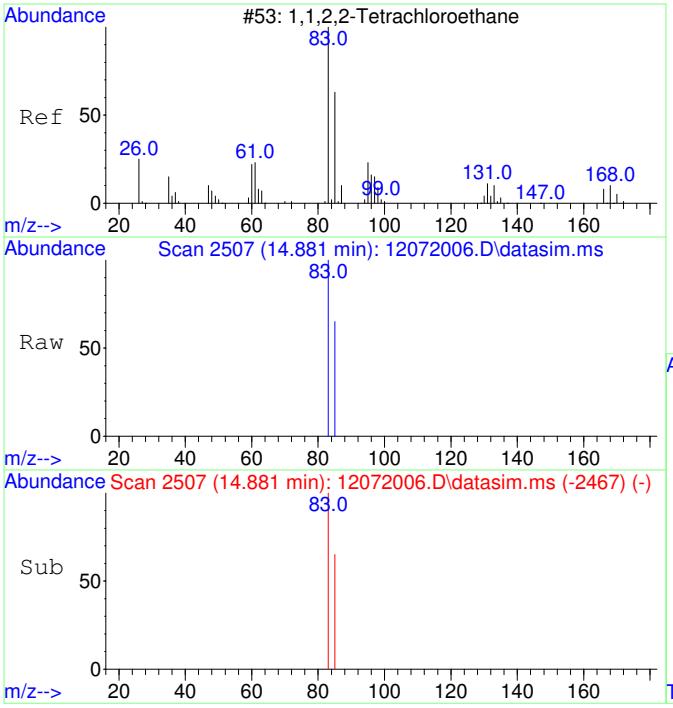


#20
o-Xylene
Concen: 1109.83 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 54333

Ion	Ratio	Lower	Upper
91	100		
106	48.1	19.2	79.2

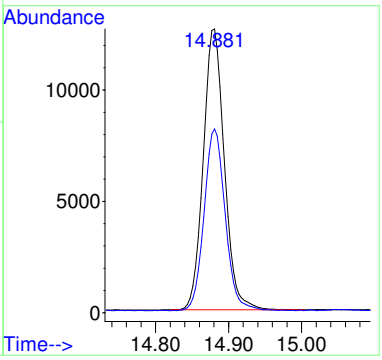


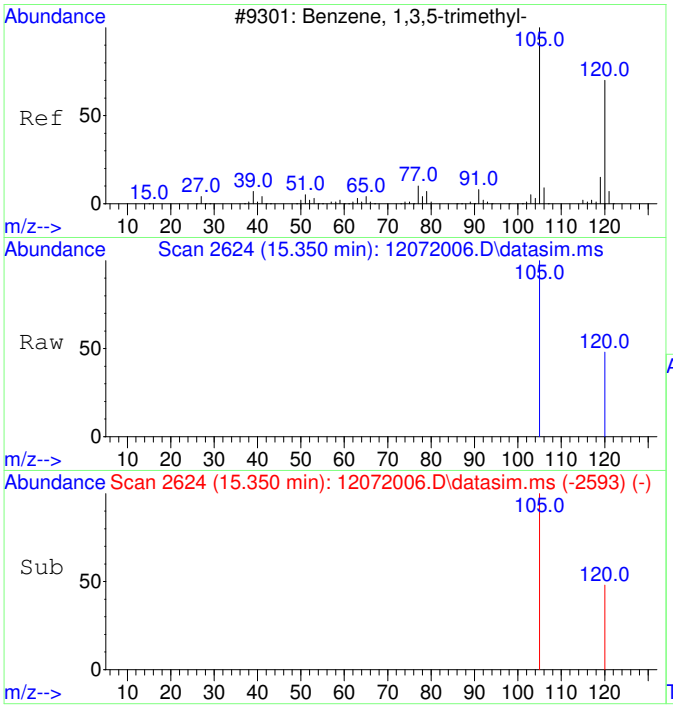


#21
1,1,2,2-Tetrachloroethane
Concen: 1108.19 ug/L
RT: 14.881 min Scan# 2507
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 25279

Ion	Ratio	Lower	Upper
83	100		
85	64.7	34.8	94.8

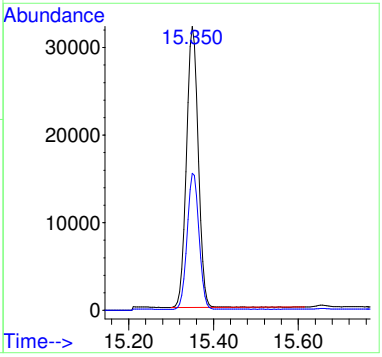


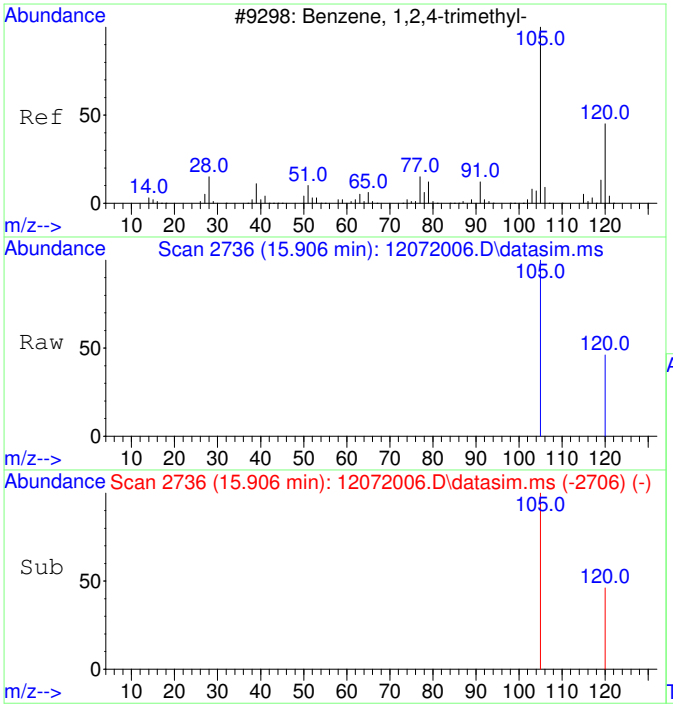


#22
1,3,5-Trimethylbenzene
Concen: 1145.65 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 61678

Ion	Ratio	Lower	Upper
105	100		
120	48.9	21.1	81.1

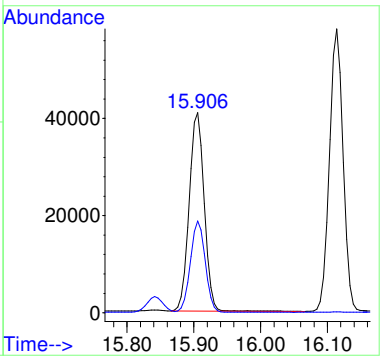


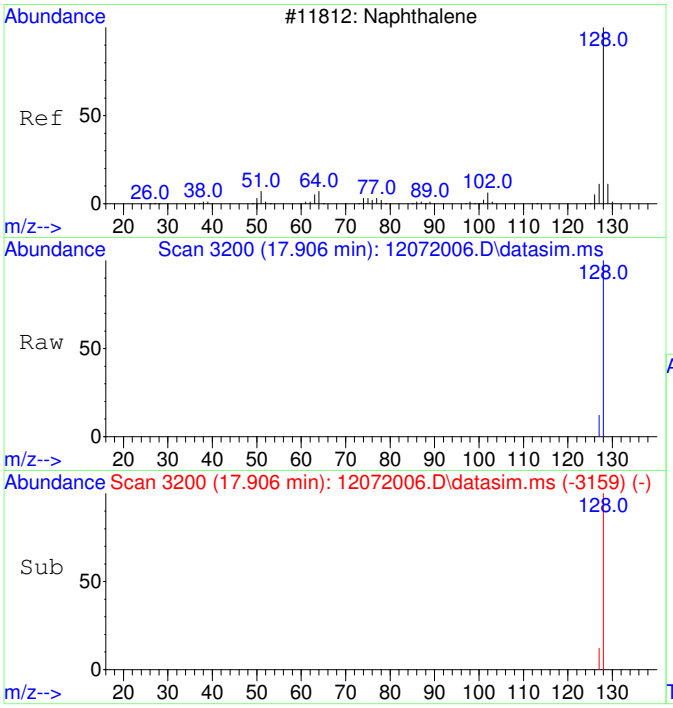


#23
1,2,4-Trimethylbenzene
Concen: 1157.33 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 63729

Ion	Ratio	Lower	Upper
105	100		
120	44.7	17.2	77.2

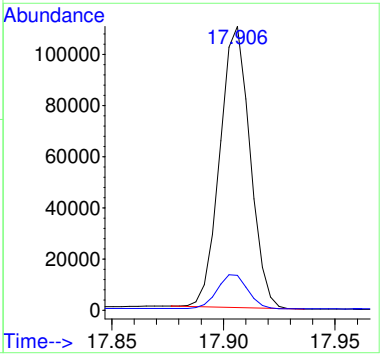


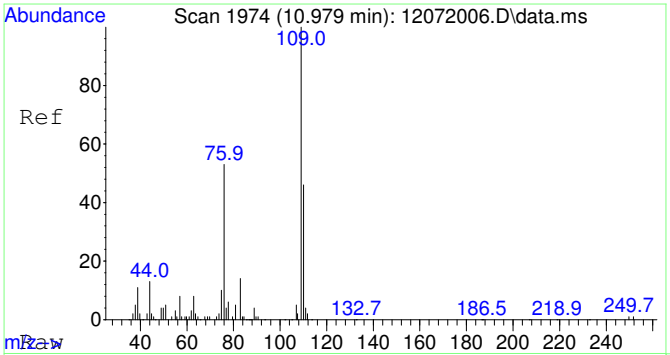


#24
Naphthalene
Concen: 1190.66 ug/L
RT: 17.906 min Scan# 3200
Delta R.T. 0.003 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:128 Resp: 102525

Ion	Ratio	Lower	Upper
128	100		
127	12.3	0.0	42.5

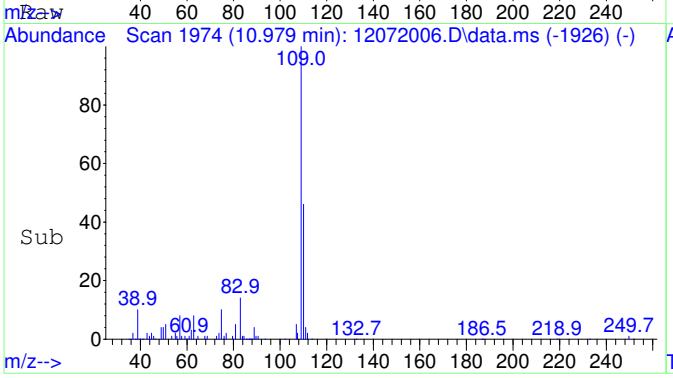


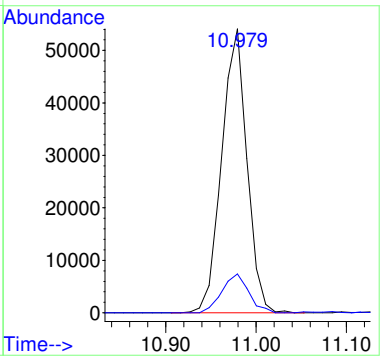


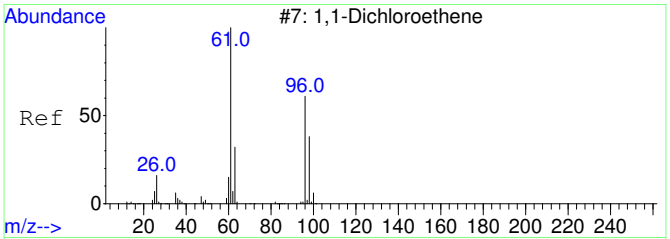
#25
2-Fluorotoluene SCAN
Concen: 4837.67 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

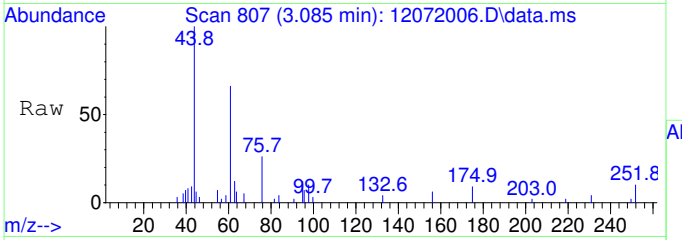
Tgt Ion:109 Resp: 105526

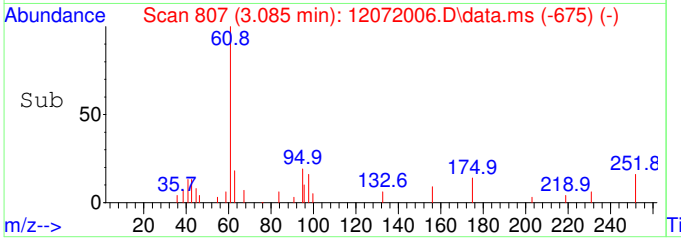
Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.8







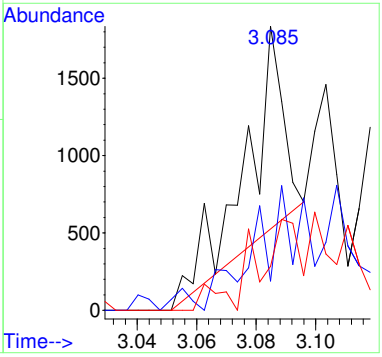


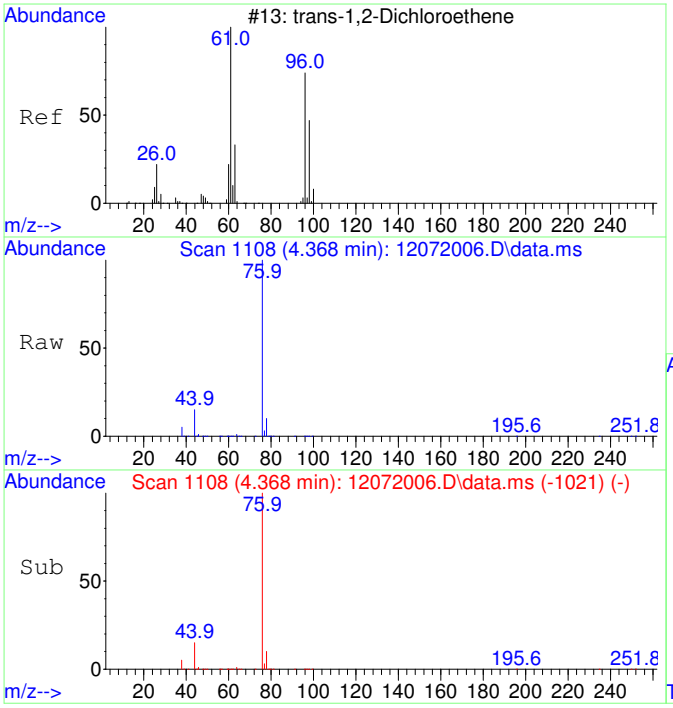


#26
1,1-Dichloroethene SCAN
Concen: 224.65 ug/L
RT: 3.085 min Scan# 807
Delta R.T. -0.011 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 1144

Ion	Ratio	Lower	Upper
61	100		
96	22.7	33.1	93.1#
98	30.9	11.2	71.2

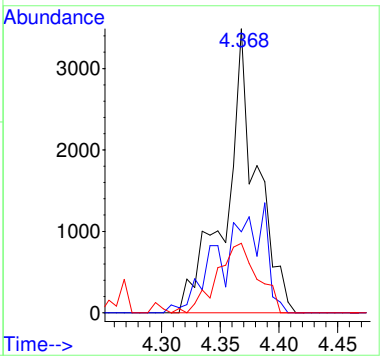


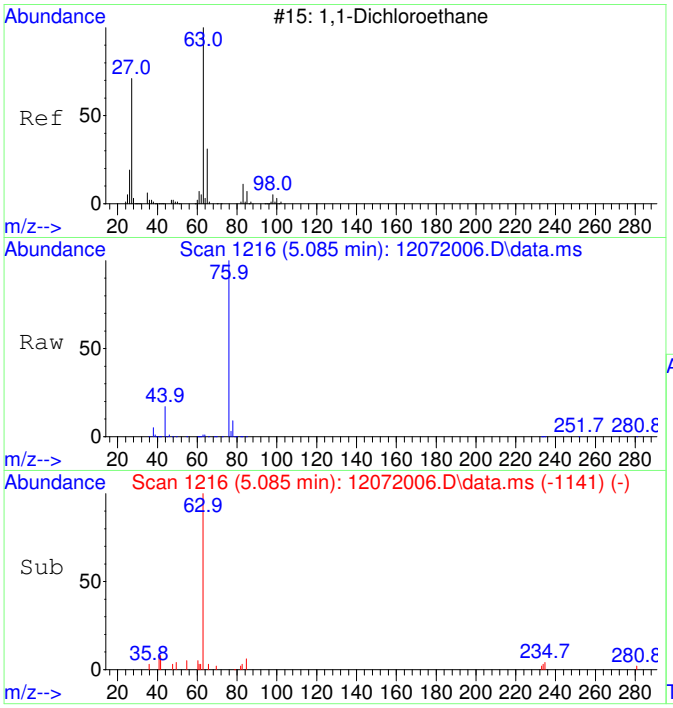


#27
trans-1,2-Dichloroethene SCAN
Concen: 988.56 ug/L
RT: 4.368 min Scan# 1108
Delta R.T. -0.013 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 6412

Ion	Ratio	Lower	Upper
61	100		
96	10.7	49.0	109.0#
98	31.9	20.5	80.5

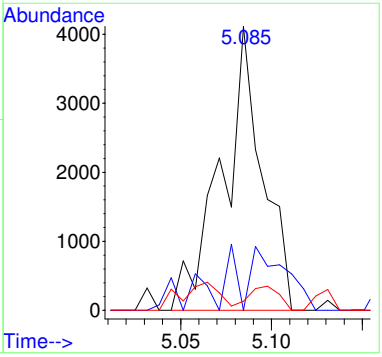


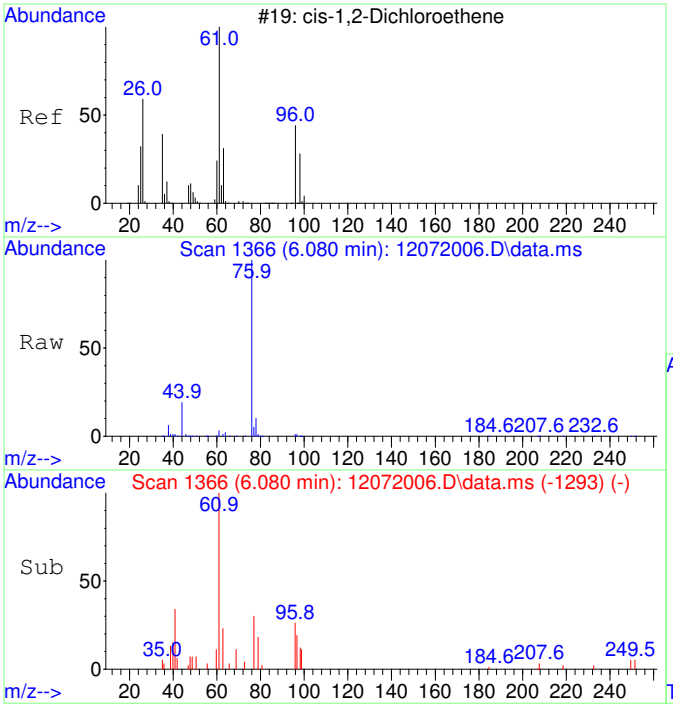


#28
1,1-Dichloroethane SCAN
Concen: 829.42 ug/L
RT: 5.085 min Scan# 1216
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 63 Resp: 6350

Ion	Ratio	Lower	Upper
63	100		
65	19.2	1.3	61.3
83	5.5	0.0	45.9

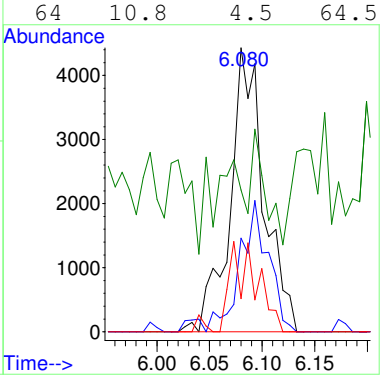


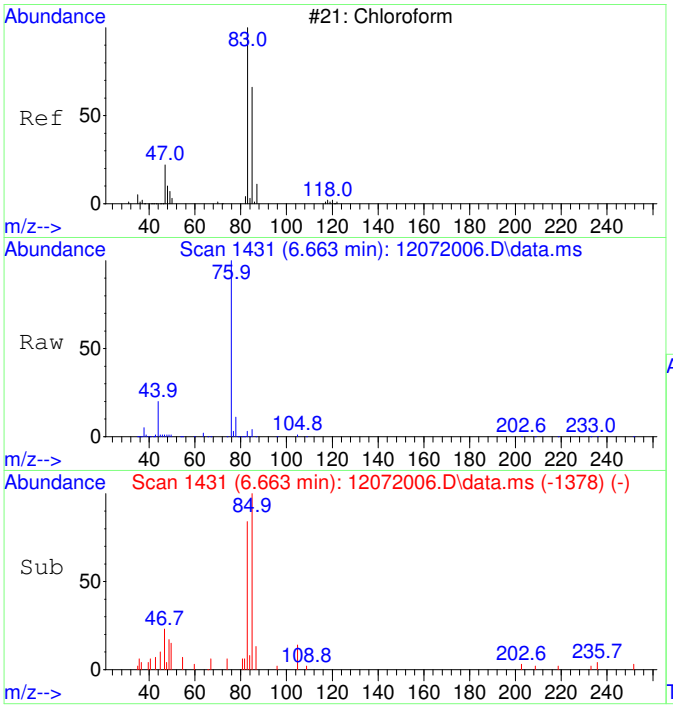


#29
cis-1,2-Dichloroethene SCAN
Concen: 1312.72 ug/L
RT: 6.080 min Scan# 1366
Delta R.T. -0.013 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 9880

Ion	Ratio	Lower	Upper
61	100		
96	38.7	39.9	99.9#
98	24.7	13.5	73.5
64	10.8	4.5	64.5

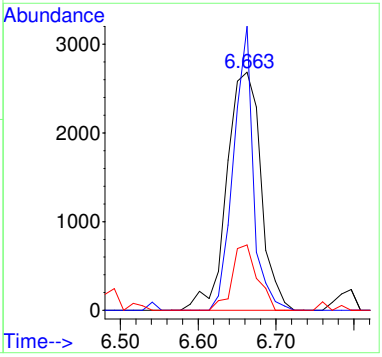


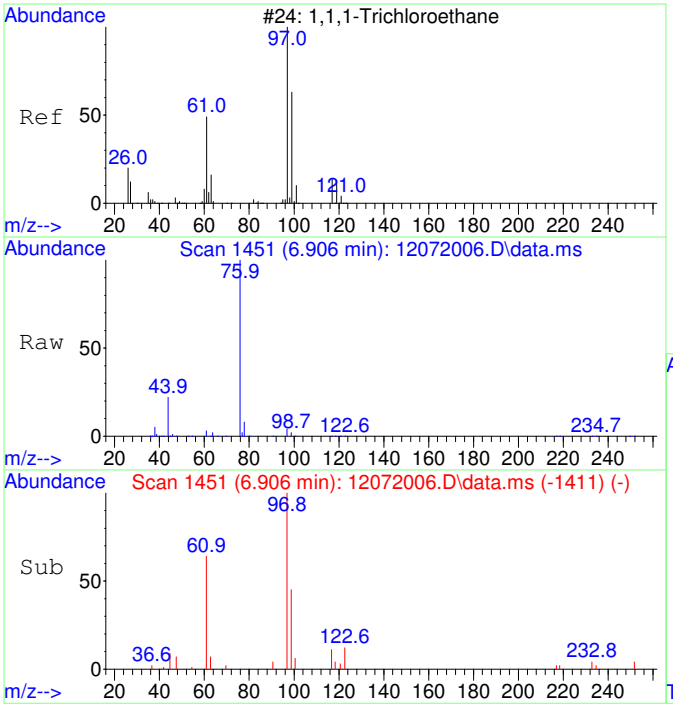


#30
Chloroform SCAN
Concen: 1164.68 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 8176

Ion	Ratio	Lower	Upper
83	100		
85	69.0	34.6	94.6
47	20.4	0.0	53.4

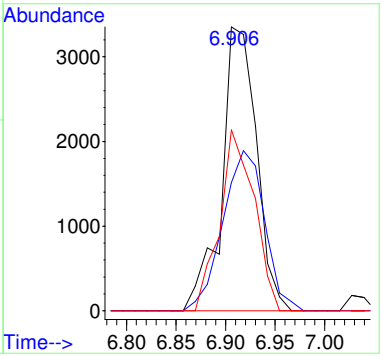


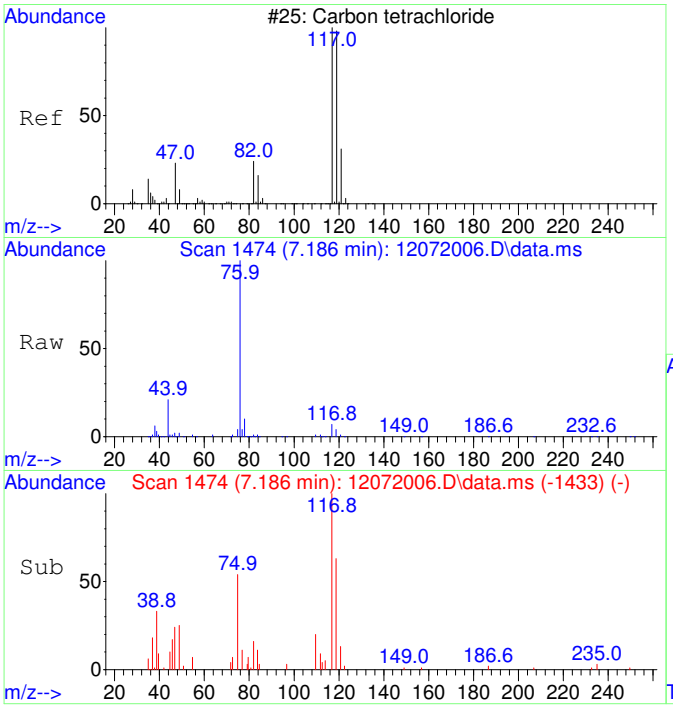


#31
1,1,1-Trichloroethane SCAN
Concen: 1131.56 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 8197

Ion	Ratio	Lower	Upper
97	100		
99	67.6	43.6	103.6
61	62.6	18.0	78.0

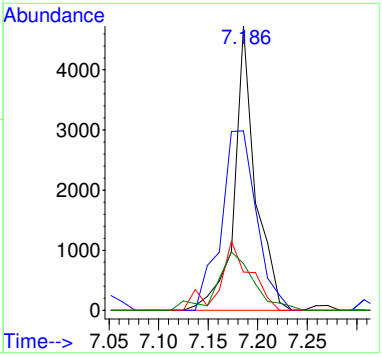


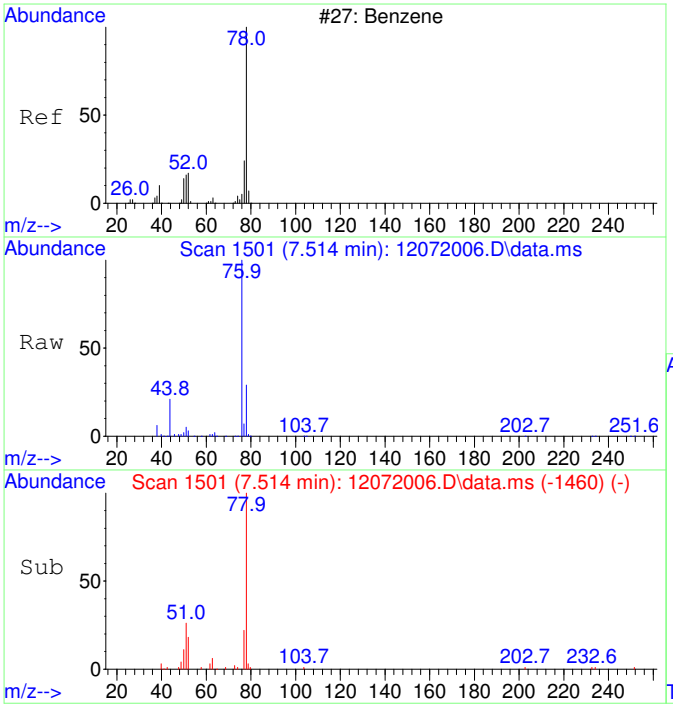


#32
Carbon tetrachloride SCAN
Concen: 1125.63 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:117 Resp: 6968

Ion	Ratio	Lower	Upper
117	100		
119	106.5	75.5	135.5
121	35.5	0.0	58.8
82	35.6	0.0	59.2

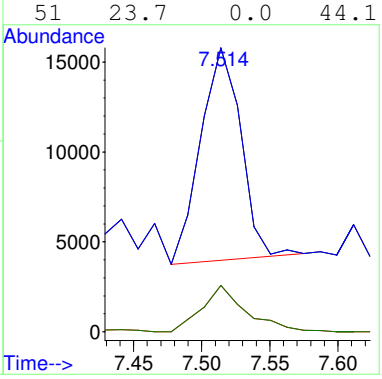


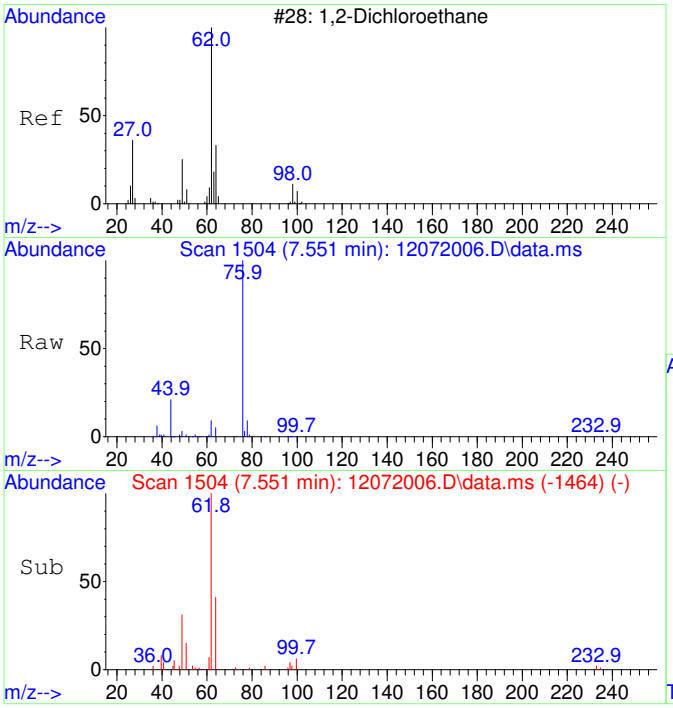


#33
Benzene SCAN
Concen: 1117.71 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 78 Resp: 24495

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	23.7	0.0	47.9
51	23.7	0.0	44.1

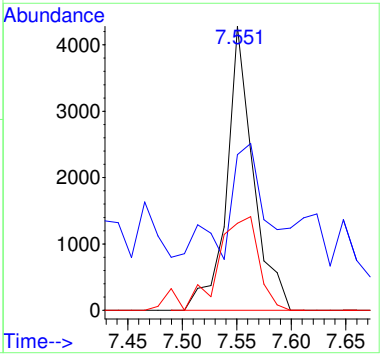


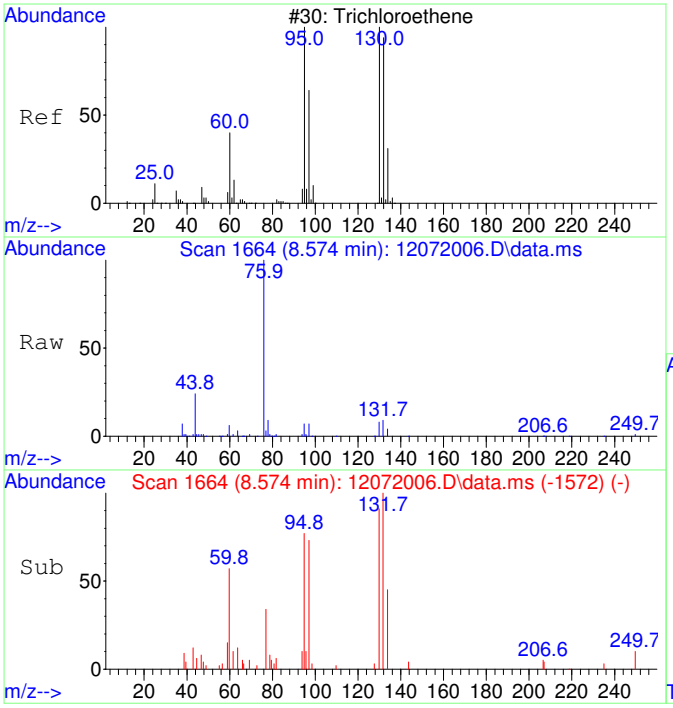


#34
1,2-Dichloroethane SCAN
Concen: 1059.80 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 62 Resp: 7265

Ion	Ratio	Lower	Upper
62	100		
64	91.7	5.2	65.2#
49	49.6	3.9	63.9

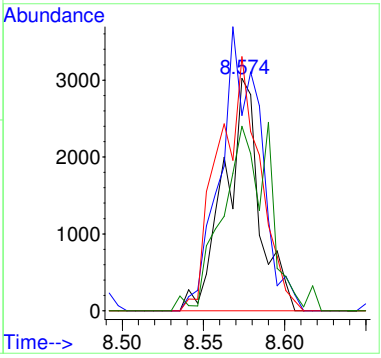


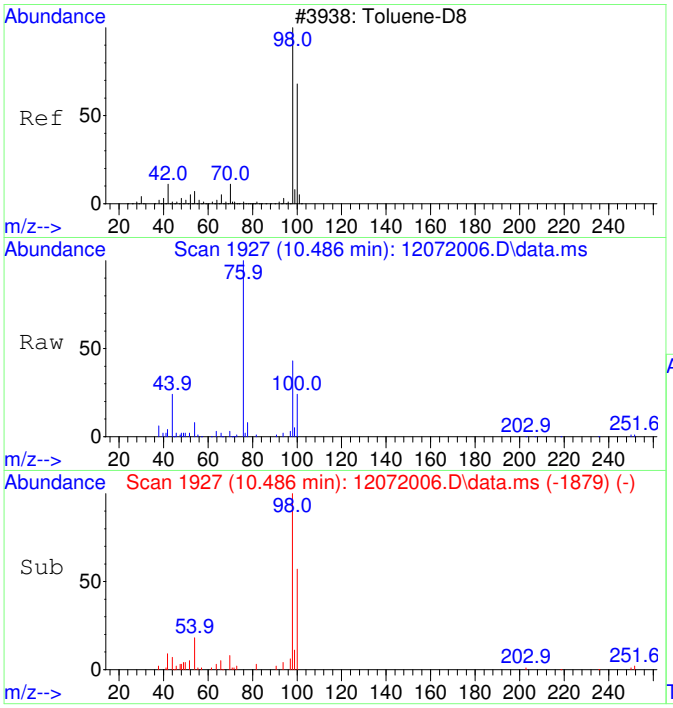


#35
Trichloroethene SCAN
Concen: 958.85 ug/L
RT: 8.574 min Scan# 1664
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:130 Resp: 4582

Ion	Ratio	Lower	Upper
130	100		
95	136.4	60.5	120.5#
132	129.1	59.6	119.6#
97	0.0	28.2	88.2#

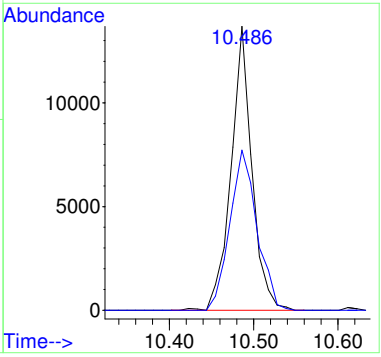


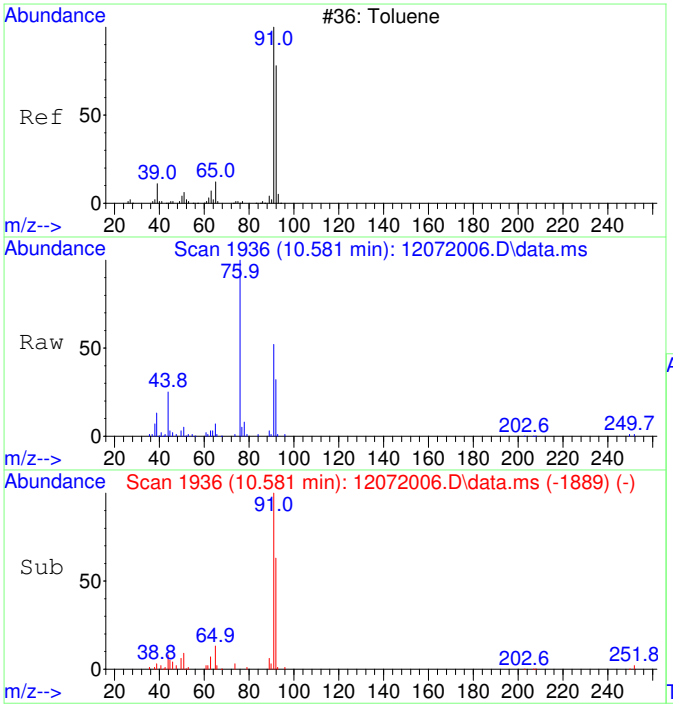


#36
Toluene-d8 SCAN
Concen: 1153.40 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 98 Resp: 23597

Ion	Ratio	Lower	Upper
98	100		
100	73.3	40.0	100.0

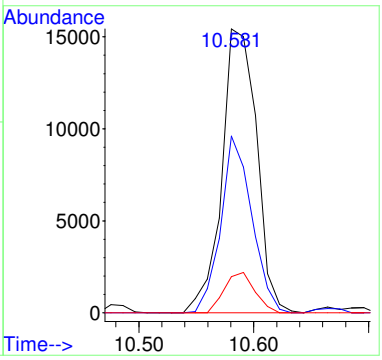


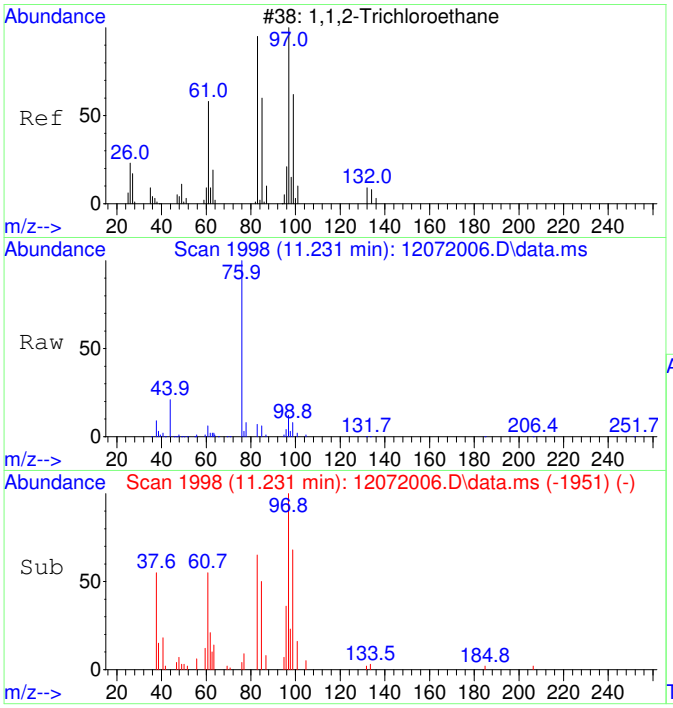


#37
Toluene SCAN
Concen: 1290.59 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 32509

Ion	Ratio	Lower	Upper
91	100		
92	55.5	28.3	88.3
65	12.5	0.0	41.0

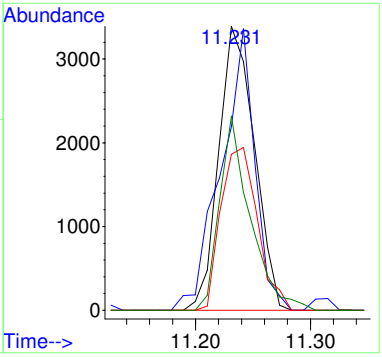


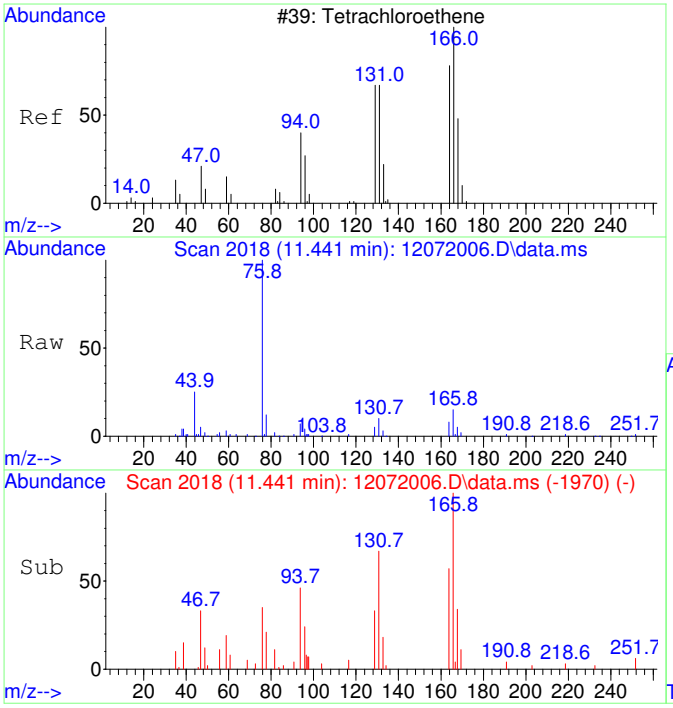


#38
1,1,2-Trichloroethane SCAN
Concen: 1159.53 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. -0.010 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 7321

Ion	Ratio	Lower	Upper
97	100		
83	93.8	57.7	117.7
61	59.0	32.1	92.1
99	59.0	36.7	96.7

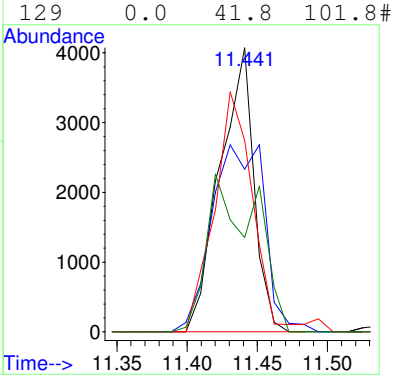


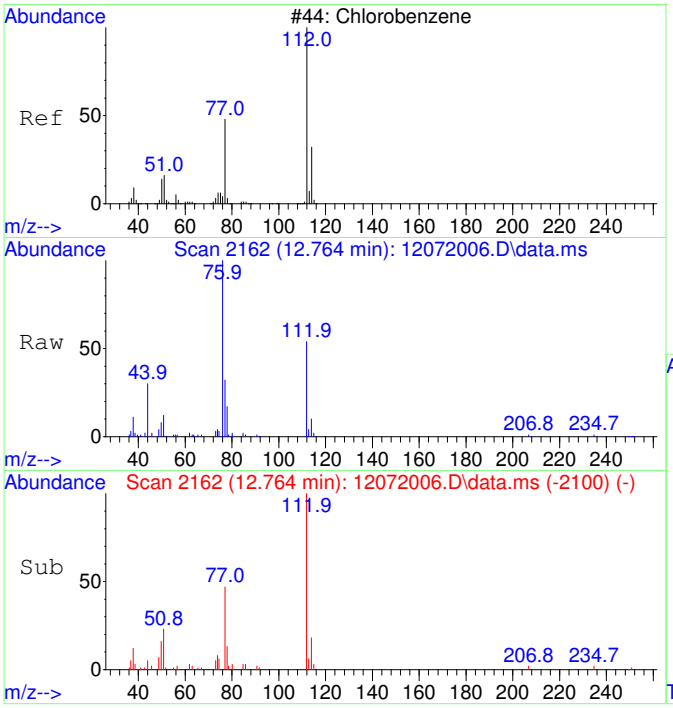


#39
Tetrachloroethene SCAN
Concen: 1216.76 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:166 Resp: 6895

Ion	Ratio	Lower	Upper
166	100		
164	0.0	50.9	110.9#
131	96.5	38.7	98.7
129	0.0	41.8	101.8#

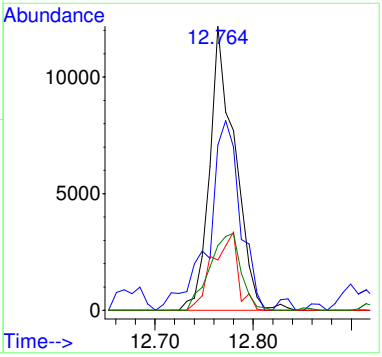


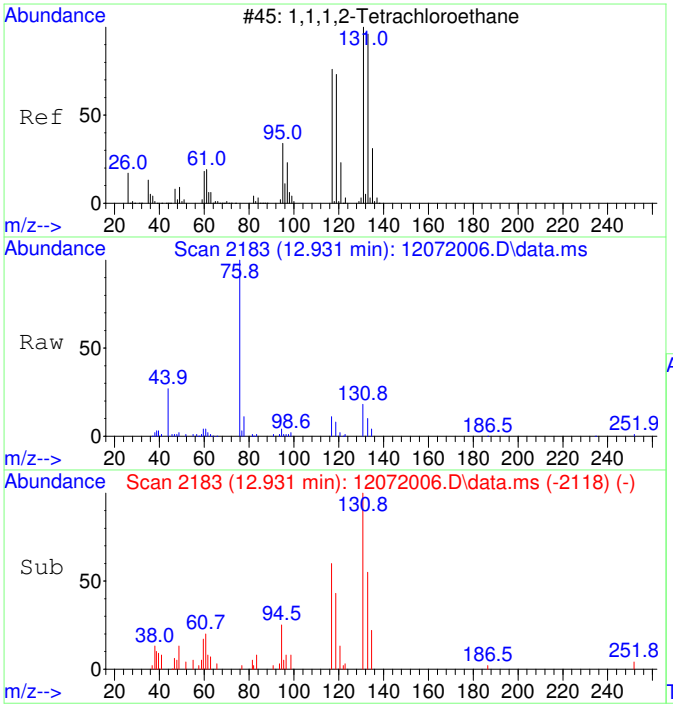


#40
Chlorobenzene SCAN
Concen: 1200.56 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. -0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:112 Resp: 21721

Ion	Ratio	Lower	Upper
112	100		
77	83.6	28.2	88.2
114	27.8	2.3	62.3
51	33.6	0.0	50.1

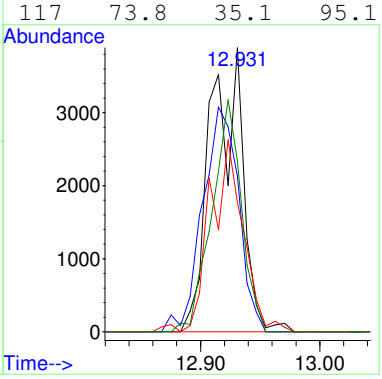


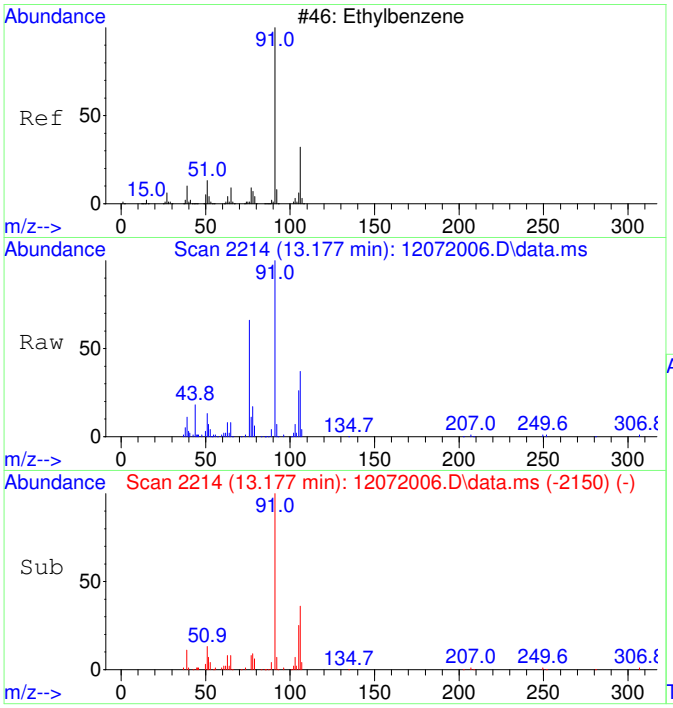


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 1181.69 ug/L
RT: 12.931 min Scan# 2183
Delta R.T. 0.016 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:131 Resp: 7376

Ion	Ratio	Lower	Upper
131	100		
133	87.2	66.9	126.9
119	68.4	40.4	100.4
117	73.8	35.1	95.1

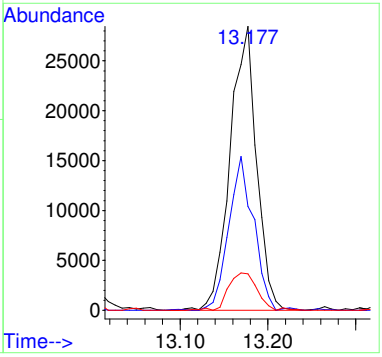


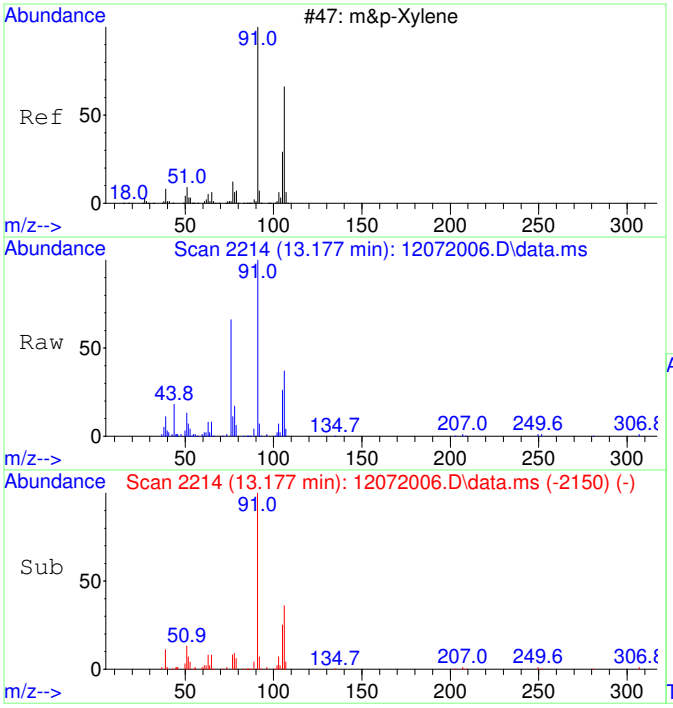


#42
Ethylbenzene SCAN
Concen: 1241.88 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 59613

Ion	Ratio	Lower	Upper
91	100		
106	49.7	23.1	83.1
51	14.4	0.0	40.1

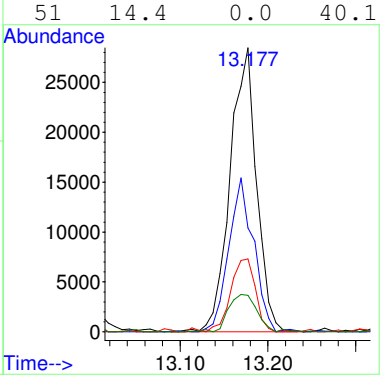


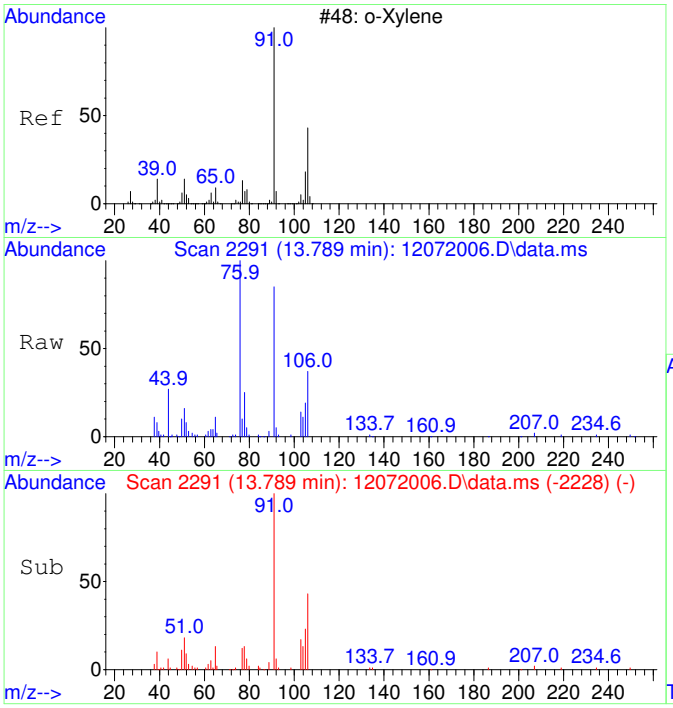


#43
m&p-Xylene SCAN
Concen: 1241.88 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 59613

Ion	Ratio	Lower	Upper
91	100		
106	49.7	23.1	83.1
105	23.9	0.0	54.7
51	14.4	0.0	40.1

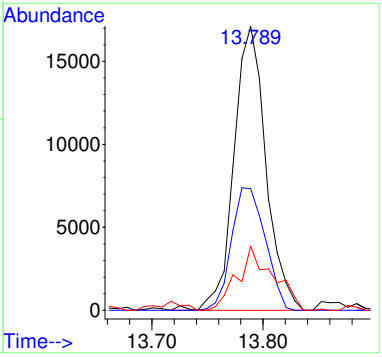


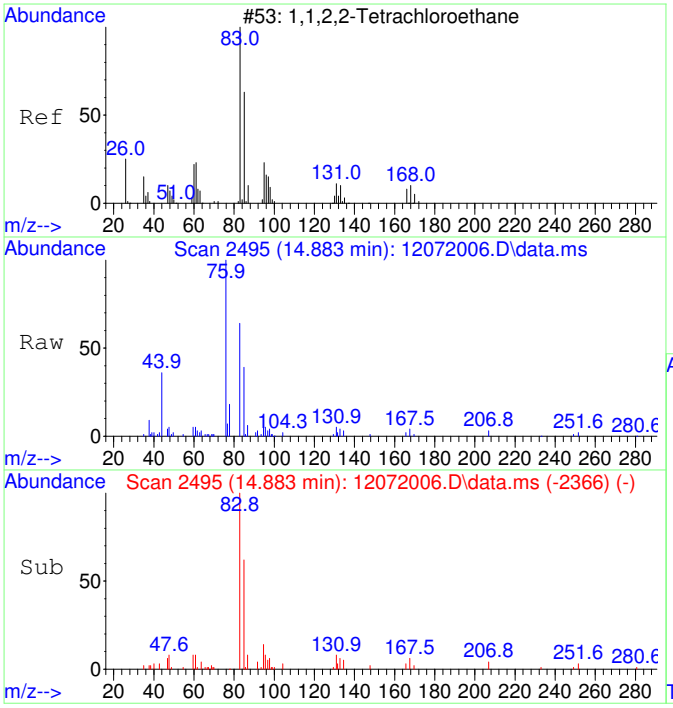


#44
o-Xylene SCAN
Concen: 1304.94 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 34205

Ion	Ratio	Lower	Upper
91	100		
106	45.6	18.0	78.0
105	25.2	0.0	56.6

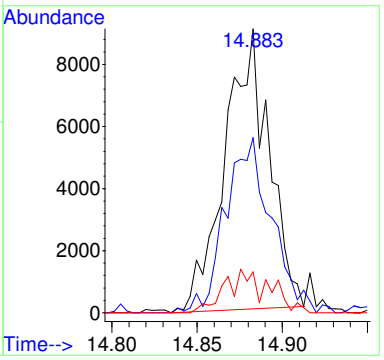


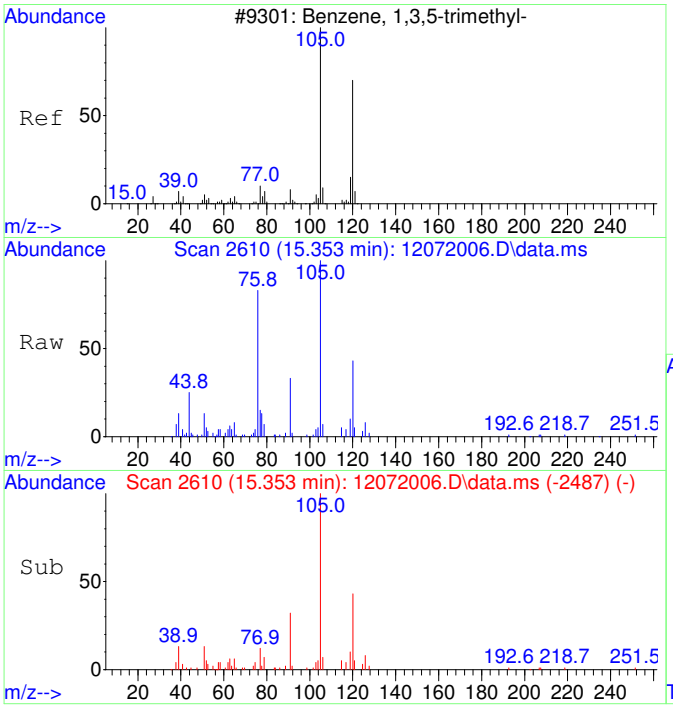


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 1195.11 ug/L
RT: 14.883 min Scan# 2495
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 16288

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.9	95.9
95	3.3	0.0	47.4

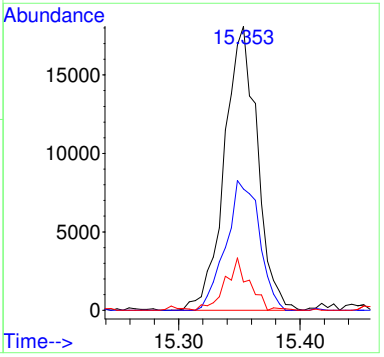


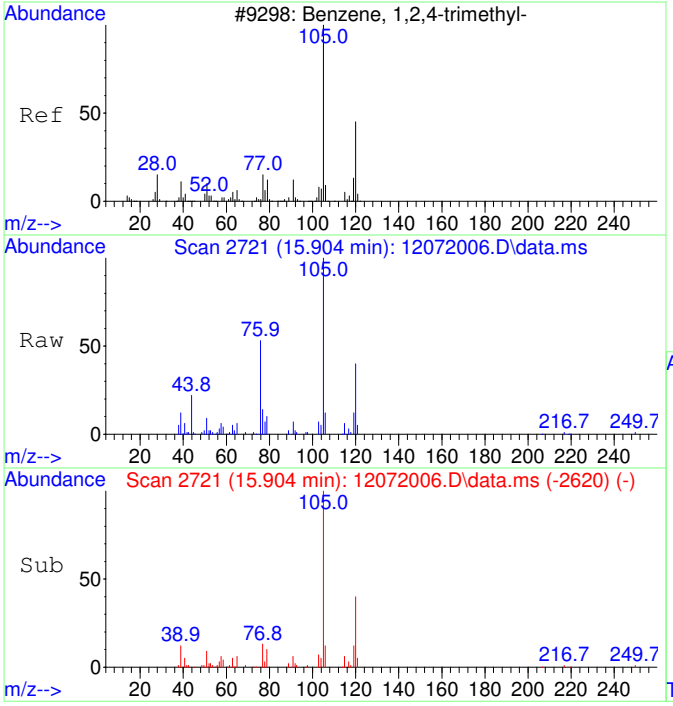


#46
1,3,5-Trimethylbenzene SCAN
Concen: 1231.15 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 34045

Ion	Ratio	Lower	Upper
105	100		
120	46.5	18.3	78.3
119	13.6	0.0	43.1

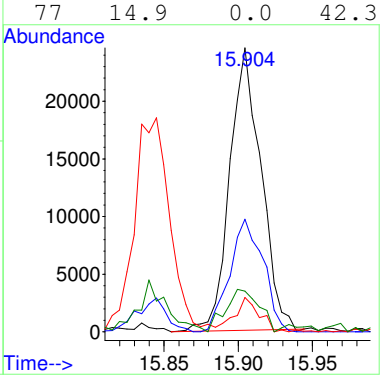


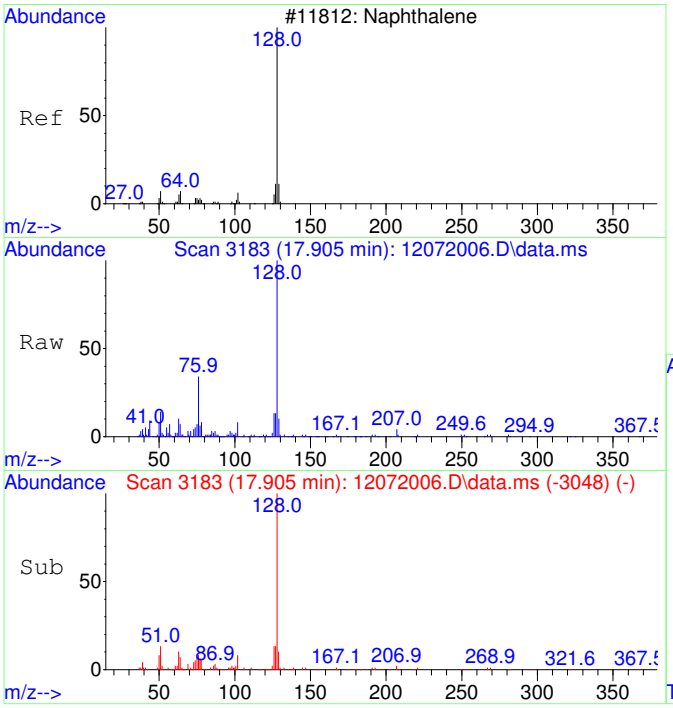


#47
1,2,4-Trimethylbenzene SCAN
Concen: 1276.92 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 36077

Ion	Ratio	Lower	Upper
105	100		
120	42.6	16.9	76.9
119	8.0	0.0	41.9
77	14.9	0.0	42.3

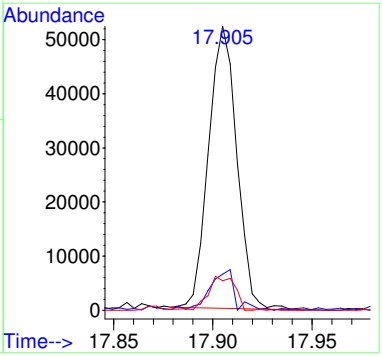




#48
Naphthalene SCAN
Concen: 1213.61 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:128 Resp: 51467

Ion	Ratio	Lower	Upper
128	100		
127	11.1	0.0	44.0
129	10.8	0.0	40.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072006.D
Acq On : 7 Dec 2020 13:56
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL4
Misc : 2030071 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

M.I. Performed By:
TD at 6:22 am, Dec 08, 2020

M.I. Approved By:
ZAR at 2:53 pm, Dec 14, 2020

Quant Time: Dec 08 06:06:55 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

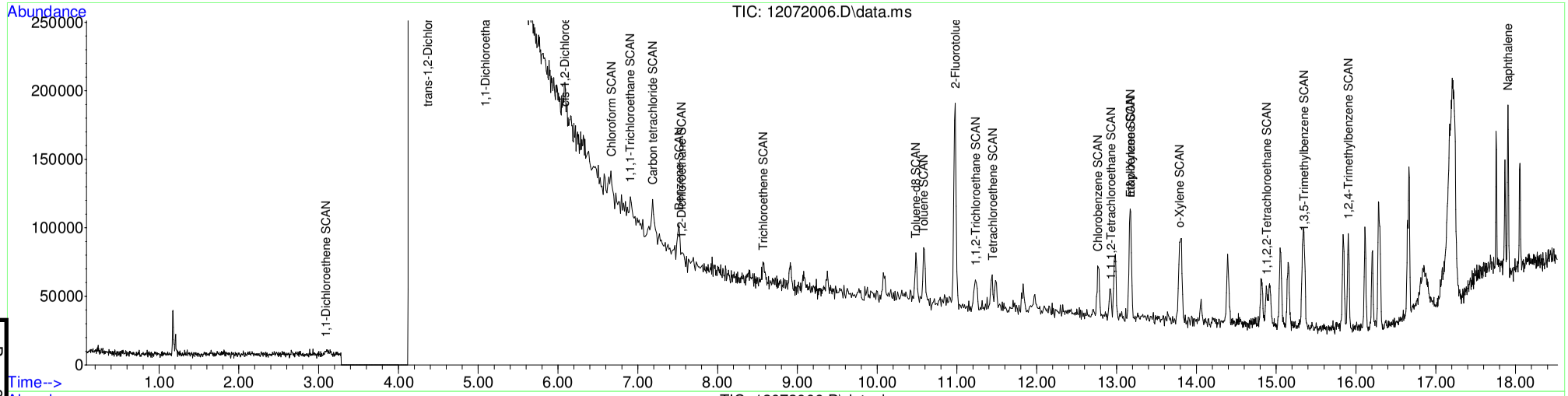
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 2-Fluorotoluene	10.970	109	192171	5000.00	ug/L		0.00
System Monitoring Compounds							
12) Toluene-d8	10.487	98	40349	1084.10	ug/L		0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 21.68%#				
Target Compounds							Qvalue
2] 1,1-Dichloroethene	3.086	61	6436m	847.46	ug/L		
3] trans-1,2-Dichloroethene	4.363	61	8899	926.37	ug/L		100
4] 1,1-Dichloroethane	5.079	63	10775	939.13	ug/L		98
5] cis-1,2-Dichloroethene	6.088	61	11528	970.12	ug/L		98
6] Chloroform	6.652	83	11165	978.21	ug/L		100
7] 1,1,1-Trichloroethane	6.907	97	12471	1017.13	ug/L		100
8] Carbon tetrachloride	7.187	117	12168	1038.04	ug/L		99
9] Benzene	7.503	78	33507	1036.18	ug/L		92
10] 1,2-Dichloroethane	7.552	62	11309	1025.16	ug/L		92
11] Trichloroethene	8.575	130	10868	1064.47	ug/L		98
13] Toluene	10.582	91	51129	1103.33	ug/L		100
14] 1,1,2-Trichloroethane	11.232	97	11523	1073.57	ug/L		100
15] Tetrachloroethene	11.432	166	15897	1101.36	ug/L		100
16] Chlorobenzene	12.765	112	39448	1098.83	ug/L		97
17] 1,1,1,2-Tetrachloroethane	12.916	131	13873	1104.11	ug/L		100
18] Ethylbenzene	12.972	91	66895	1130.19	ug/L		98
19] m&p-Xylene	13.171	91	103724	2275.67	ug/L		98
20] o-Xylene	13.782	91	54333	1109.83	ug/L		98
21] 1,1,2,2-Tetrachloroethane	14.881	83	25279	1108.19	ug/L		100
22] 1,3,5-Trimethylbenzene	15.350	105	61678	1145.65	ug/L		97
23] 1,2,4-Trimethylbenzene	15.906	105	63729	1157.33	ug/L		96
24] Naphthalene	17.906	128	102525	1190.66	ug/L		99
25) 2-Fluorotoluene SCAN	10.979	109	105526	4837.67	ug/L		98
26) 1,1-Dichloroethene SCAN	3.085	61	1144	224.65	ug/L	#	62
27) trans-1,2-Dichloroethe...	4.368	61	6412	988.56	ug/L	#	42
28) 1,1-Dichloroethane SCAN	5.085	63	6350	829.42	ug/L		77
29) cis-1,2-Dichloroethene...	6.080	61	9880	1312.72	ug/L	#	64
30) Chloroform SCAN	6.663	83	8176	1164.68	ug/L		94
31) 1,1,1-Trichloroethane ...	6.906	97	8197	1131.56	ug/L		87
32) Carbon tetrachloride SCAN	7.186	117	6968	1125.63	ug/L		95
33) Benzene SCAN	7.514	78	24495	1117.71	ug/L		96
34) 1,2-Dichloroethane SCAN	7.551	62	7265	1059.80	ug/L	#	37
35) Trichloroethene SCAN	8.574	130	4582	958.85	ug/L	#	47
36) Toluene-d8 SCAN	10.486	98	23597	1153.40	ug/L		96
37) Toluene SCAN	10.581	91	32509	1290.59	ug/L		96
38) 1,1,2-Trichloroethane ...	11.231	97	7321	1159.53	ug/L		93
39) Tetrachloroethene SCAN	11.441	166	6895	1216.76	ug/L	#	28
40) Chlorobenzene SCAN	12.764	112	21721	1200.56	ug/L		74
41) 1,1,1,2-Tetrachloroeth...	12.931	131	7376	1181.69	ug/L		92
42) Ethylbenzene SCAN	13.177	91	59613	1241.88	ug/L		94
43) m&p-Xylene SCAN	13.177	91	59613	1241.88	ug/L		95
44) o-Xylene SCAN	13.789	91	34205	1304.94	ug/L		97
45) 1,1,2,2-Tetrachloroeth...	14.883	83	16288	1195.11	ug/L		92
46) 1,3,5-Trimethylbenzene...	15.353	105	34045	1231.15	ug/L		98
47) 1,2,4-Trimethylbenzene...	15.904	105	36077	1276.92	ug/L		93
48) Naphthalene SCAN	17.905	128	51467	1213.61	ug/L		96

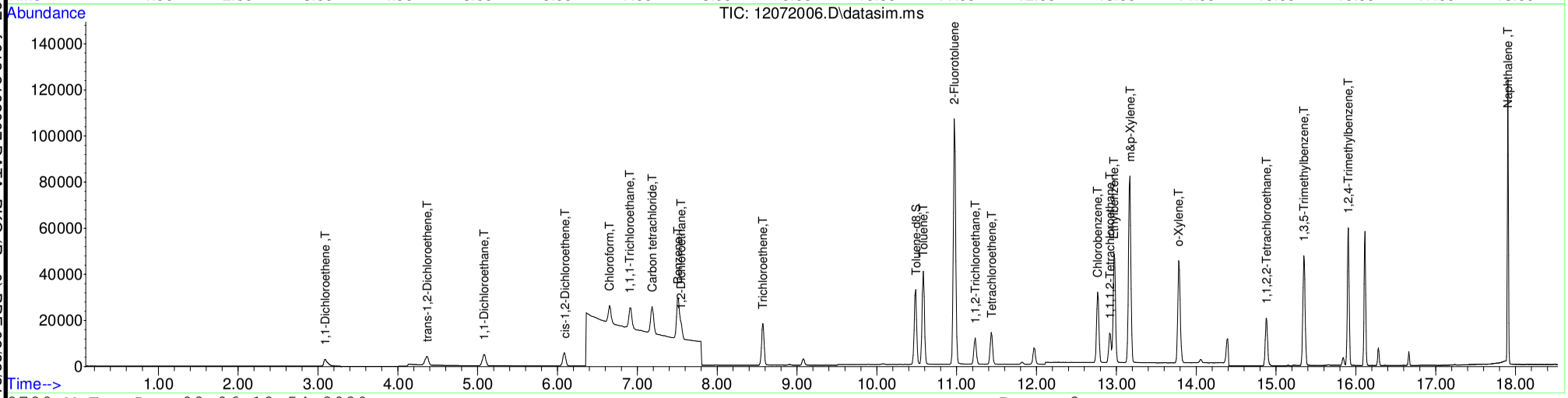
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072006.D
Acq On : 7 Dec 2020 13:56
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL4
Misc : 2030071 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 06:06:55 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration





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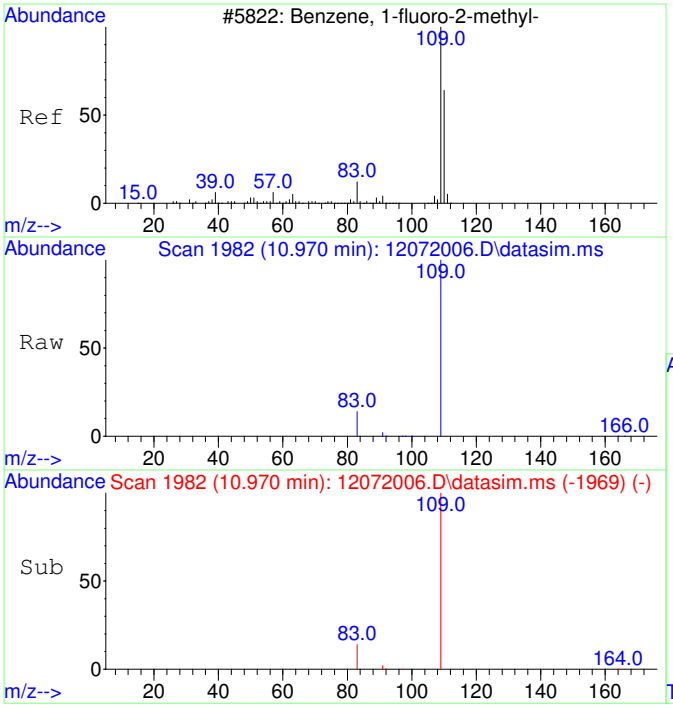
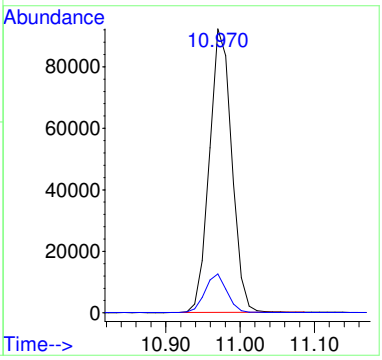
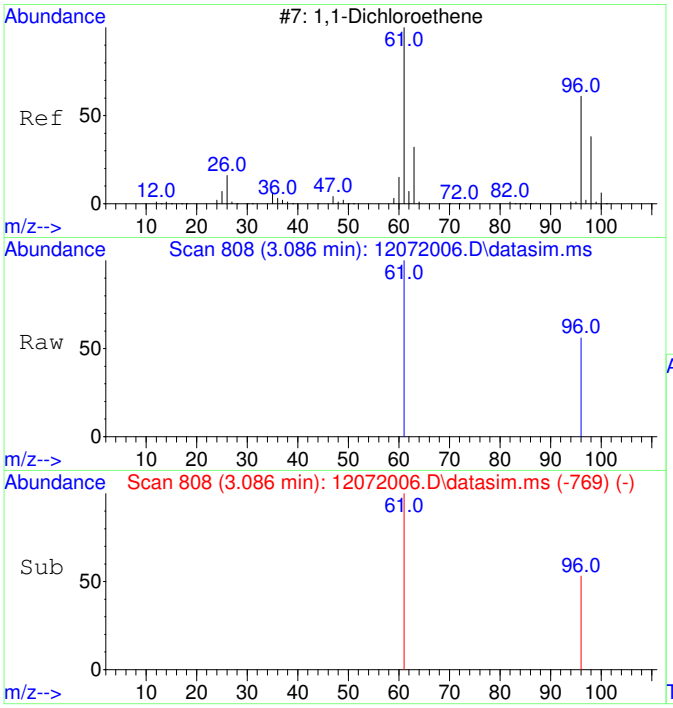


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:109 Resp: 192171

Ion	Ratio	Lower	Upper
109	100		
83	13.3	0.0	42.3

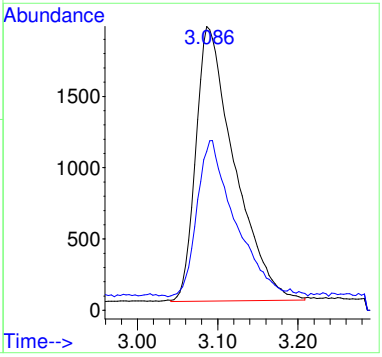


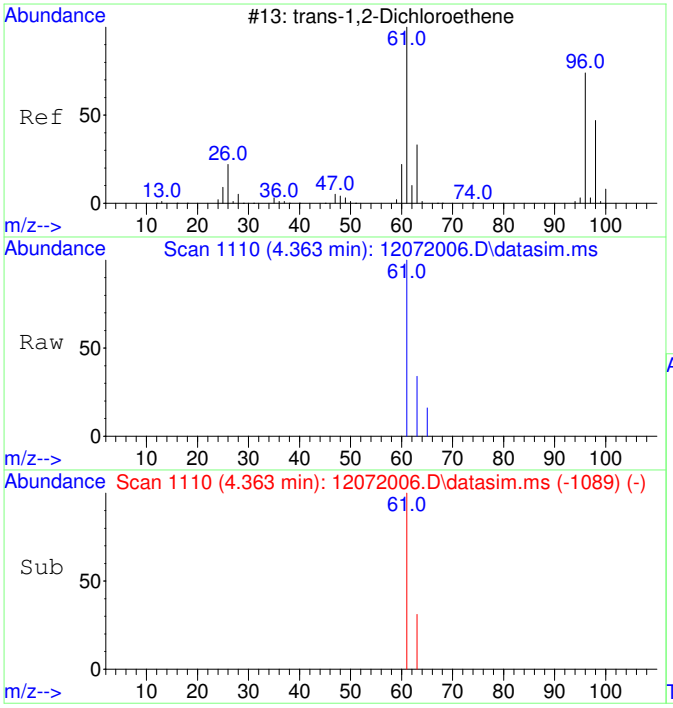


#2
1,1-Dichloroethene
Concen: 847.46 ug/L m
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 6436

Ion	Ratio	Lower	Upper
61	100		
96	63.5	37.2	97.2

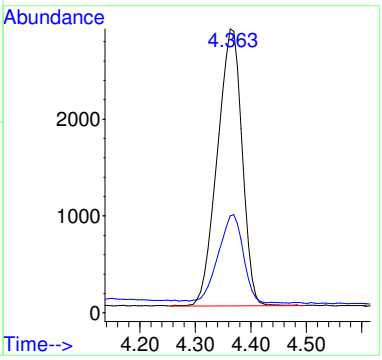


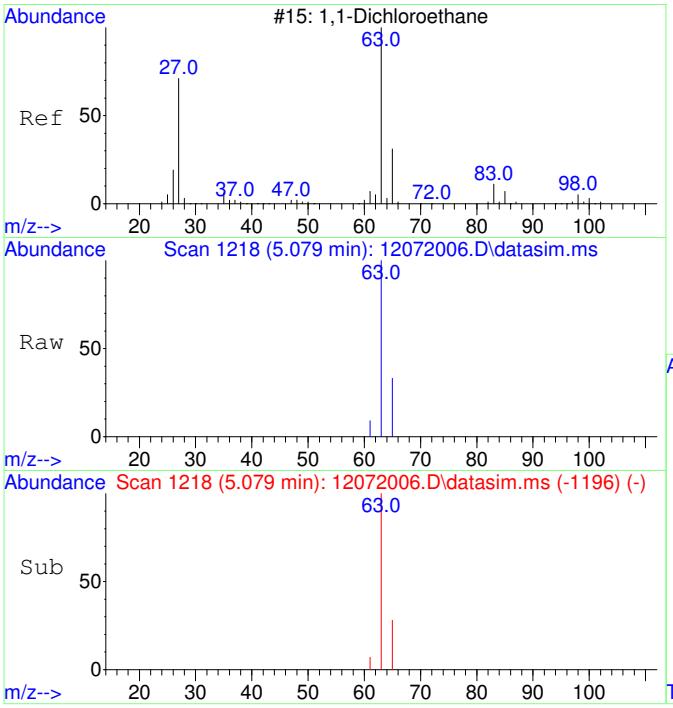


#3
trans-1,2-Dichloroethene
Concen: 926.37 ug/L
RT: 4.363 min Scan# 1110
Delta R.T. -0.013 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 8899

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.4	62.4

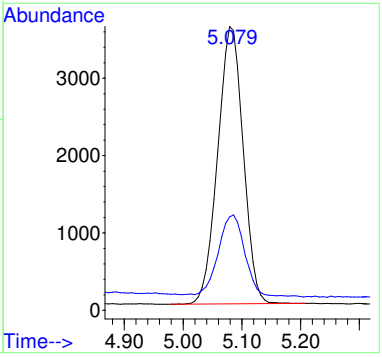


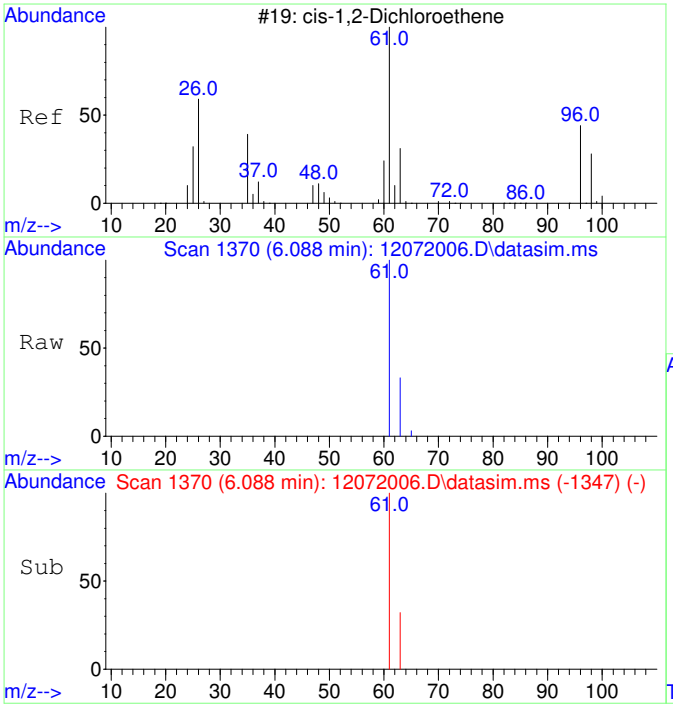


#4
1,1-Dichloroethane
Concen: 939.13 ug/L
RT: 5.079 min Scan# 1218
Delta R.T. -0.006 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 63 Resp: 10775

Ion	Ratio	Lower	Upper
63	100		
65	30.8	1.8	61.8

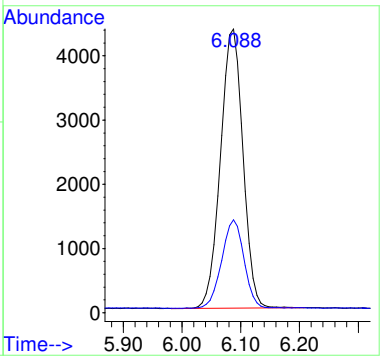


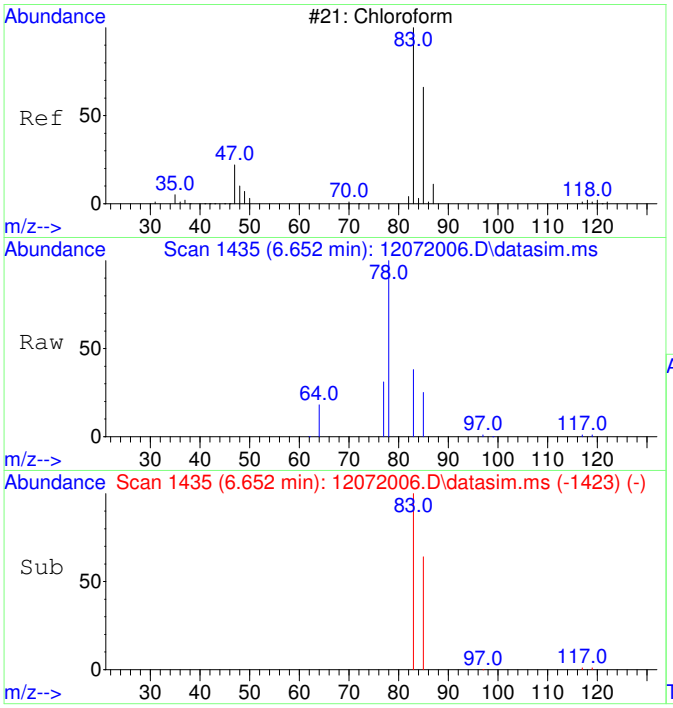


#5
cis-1,2-Dichloroethene
Concen: 970.12 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 11528

Ion	Ratio	Lower	Upper
61	100		
63	31.2	2.5	62.5

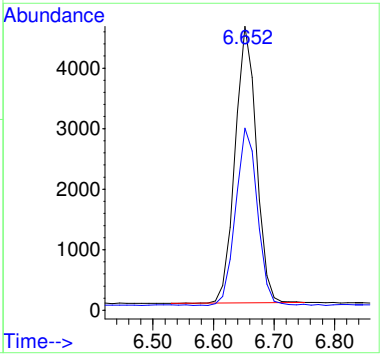


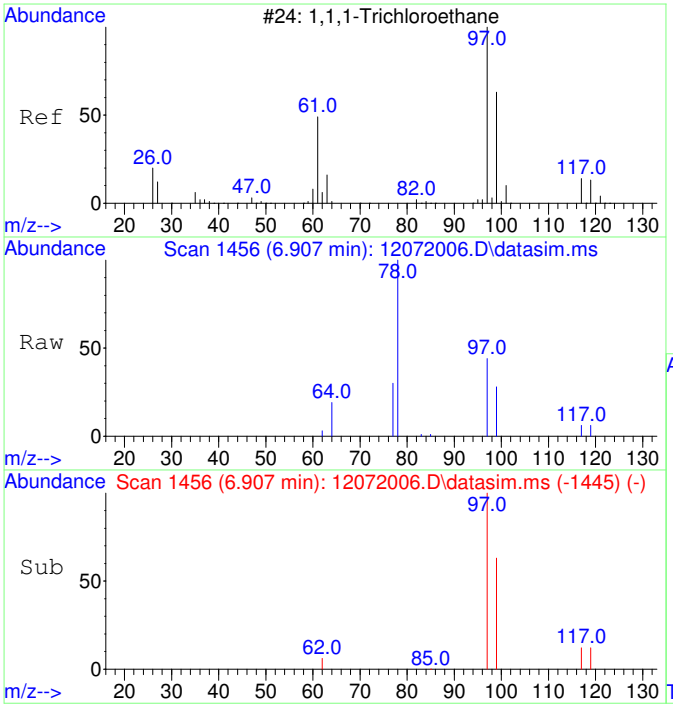


#6
Chloroform
Concen: 978.21 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 11165

Ion	Ratio	Lower	Upper
83	100		
85	65.4	35.1	95.1

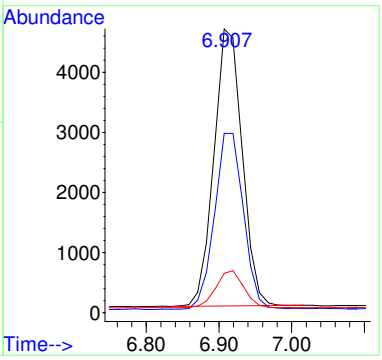


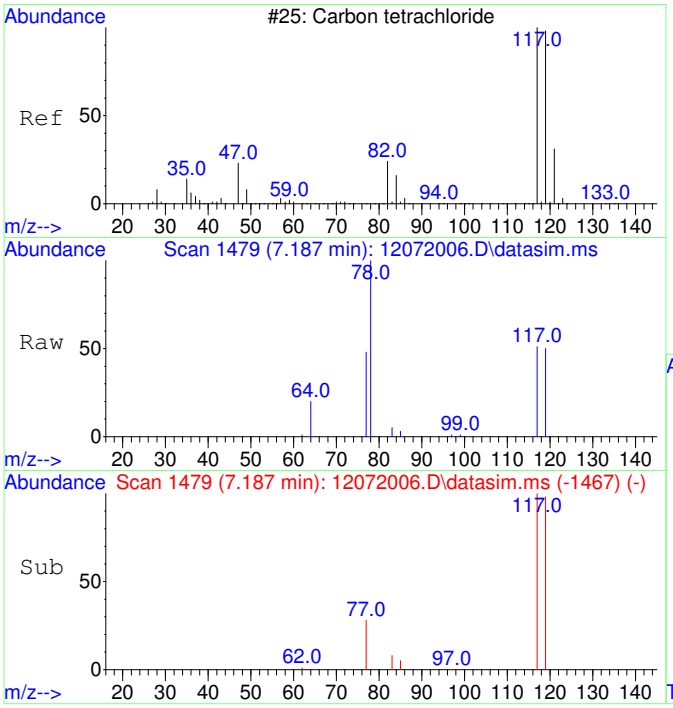


#7
1,1,1-Trichloroethane
Concen: 1017.13 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 12471

Ion	Ratio	Lower	Upper
97	100		
99	64.8	34.6	94.6
117	13.2	0.0	43.2

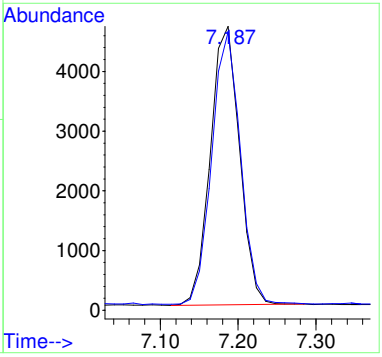


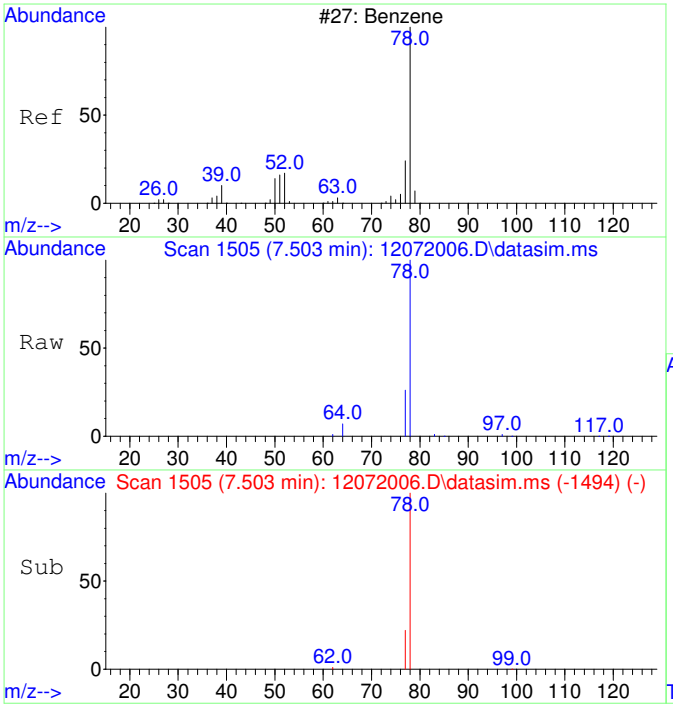


#8
Carbon tetrachloride
Concen: 1038.04 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:117 Resp: 12168

Ion	Ratio	Lower	Upper
117	100		
119	95.6	66.4	126.4

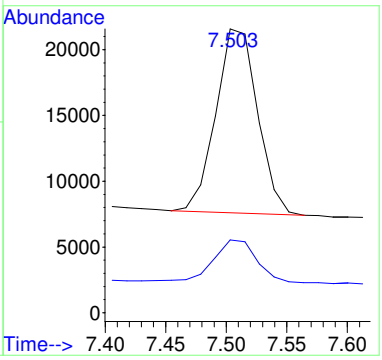


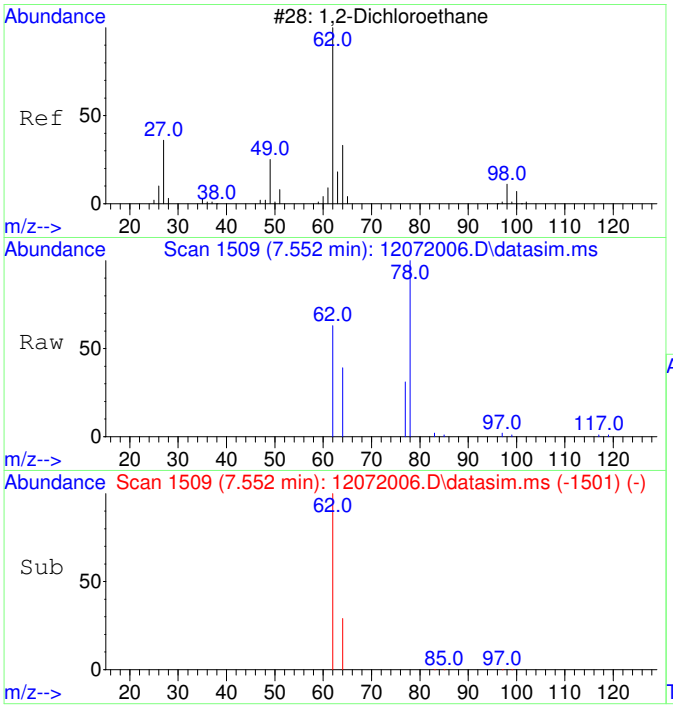


#9
Benzene
Concen: 1036.18 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 78 Resp: 33507

Ion	Ratio	Lower	Upper
78	100		
77	27.2	0.0	53.2

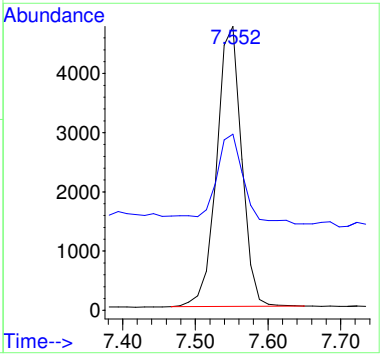


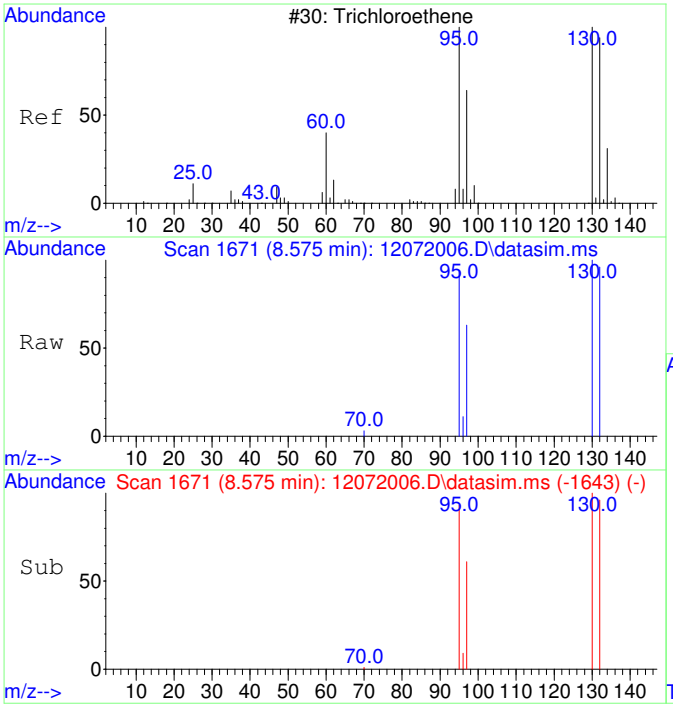


#10
1,2-Dichloroethane
Concen: 1025.16 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 62 Resp: 11309

Ion	Ratio	Lower	Upper
62	100		
64	36.9	2.3	62.3

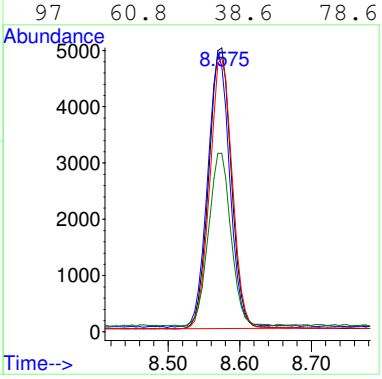


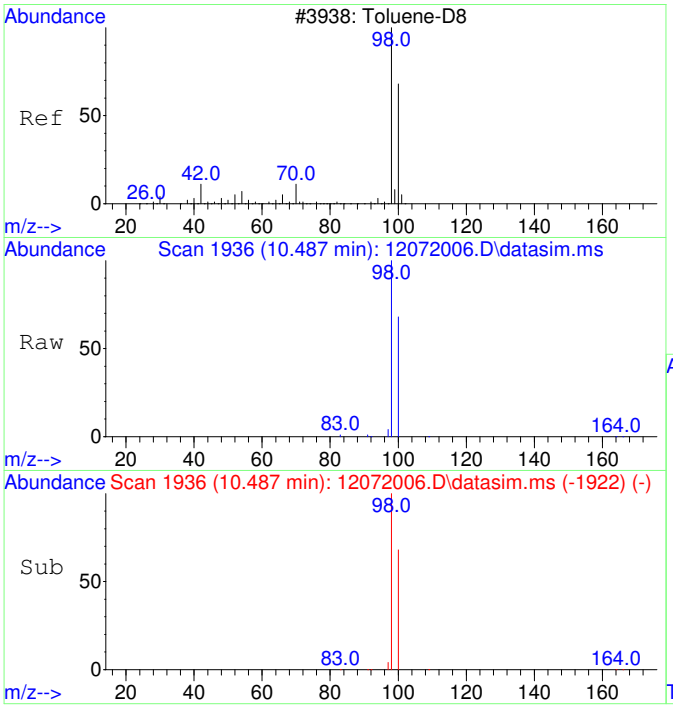


#11
Trichloroethene
Concen: 1064.47 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:130 Resp: 10868

Ion	Ratio	Lower	Upper
130	100		
95	94.8	60.7	120.7
132	95.6	76.0	116.0
97	60.8	38.6	78.6

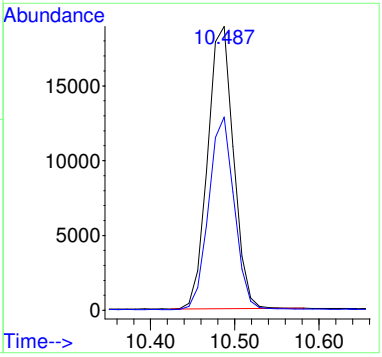


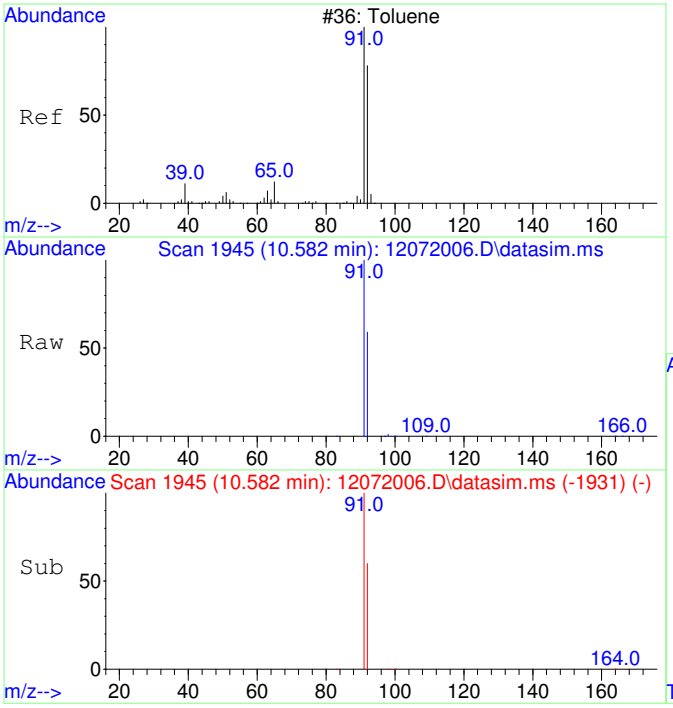


#12
Toluene-d8
Concen: 1084.10 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 98 Resp: 40349

Ion	Ratio	Lower	Upper
98	100		
100	66.9	37.1	97.1

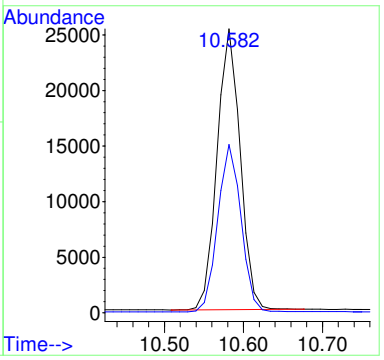


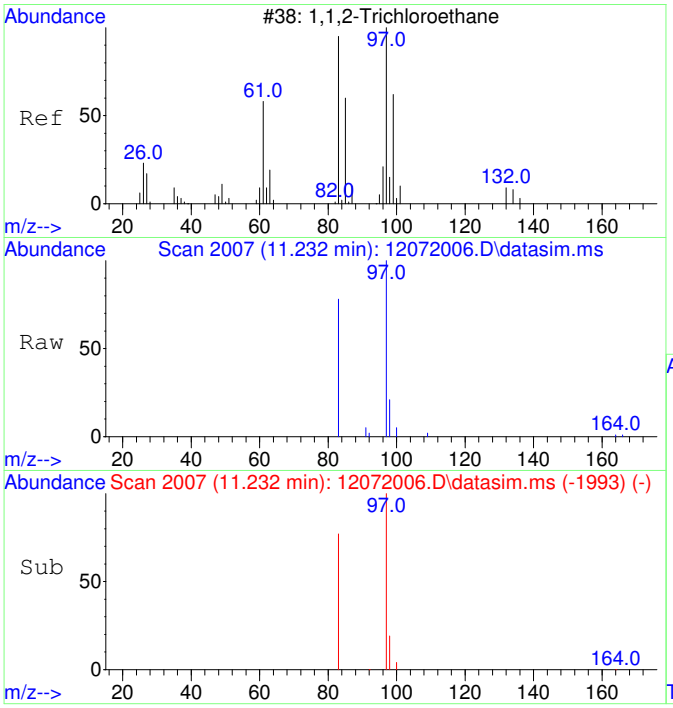


#13
Toluene
Concen: 1103.33 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 51129

Ion	Ratio	Lower	Upper
91	100		
92	59.8	29.9	89.9

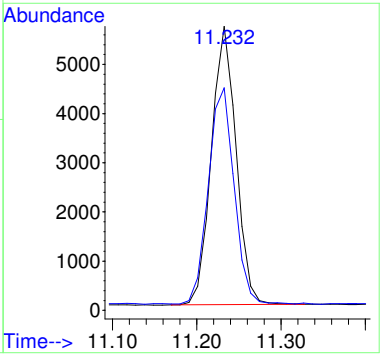


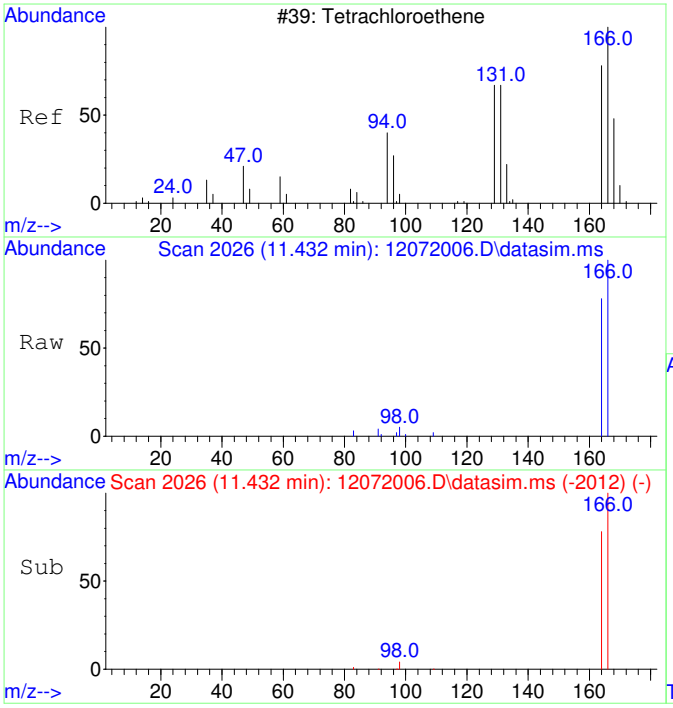


#14
1,1,2-Trichloroethane
Concen: 1073.57 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 11523

Ion	Ratio	Lower	Upper
97	100		
83	81.4	51.2	111.2

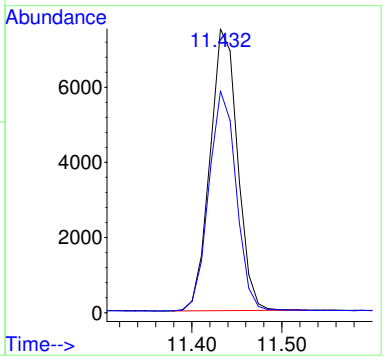


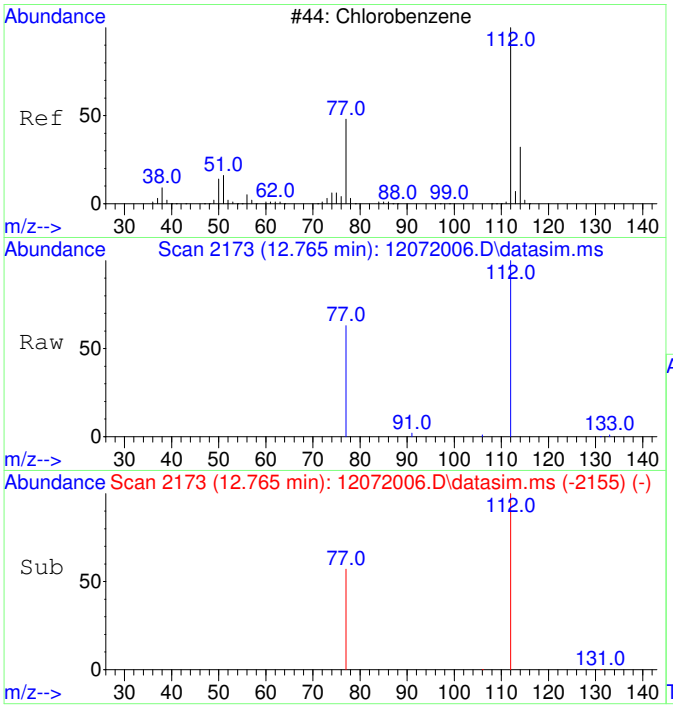


#15
Tetrachloroethene
Concen: 1101.36 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:166 Resp: 15897

Ion	Ratio	Lower	Upper
166	100		
164	77.5	47.8	107.8

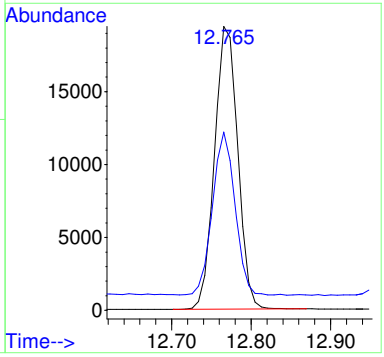


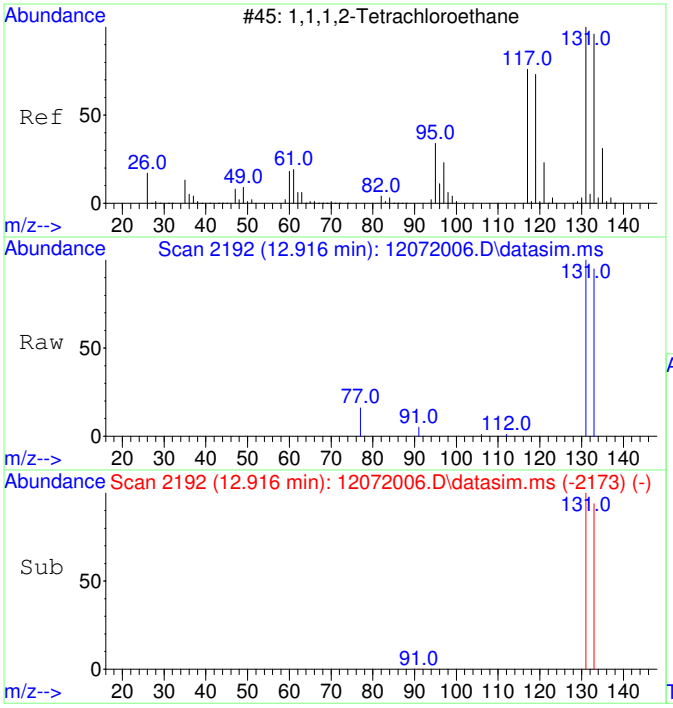


#16
Chlorobenzene
Concen: 1098.83 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:112 Resp: 39448

Ion	Ratio	Lower	Upper
112	100		
77	55.4	23.6	83.6

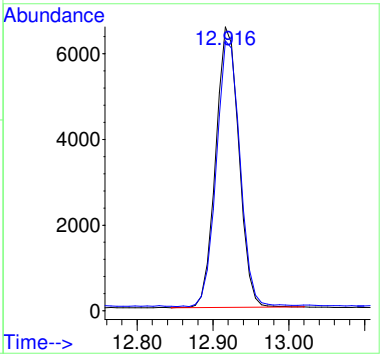


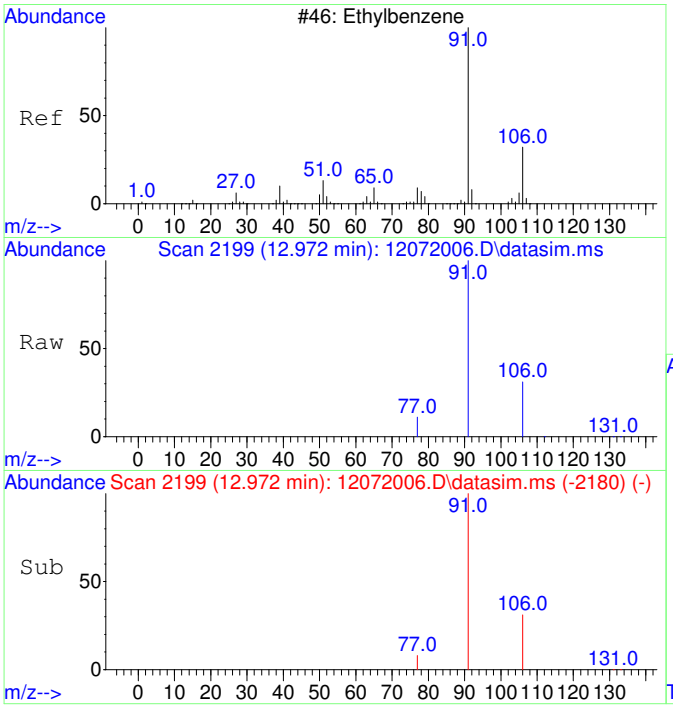


#17
1,1,1,2-Tetrachloroethane
Concen: 1104.11 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:131 Resp: 13873

Ion	Ratio	Lower	Upper
131	100		
133	95.9	66.3	126.3

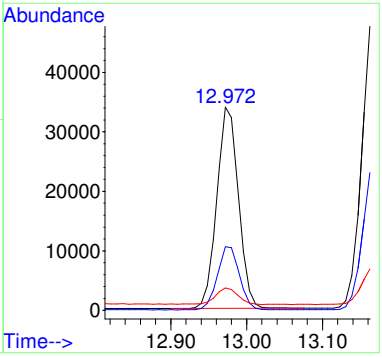


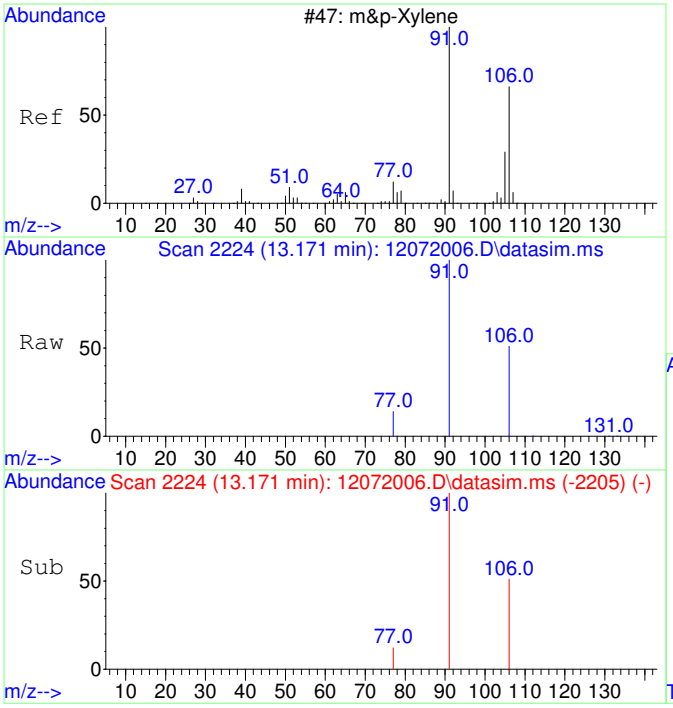


#18
Ethylbenzene
Concen: 1130.19 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 66895

Ion	Ratio	Lower	Upper
91	100		
106	32.0	3.0	63.0
77	8.4	0.0	38.2

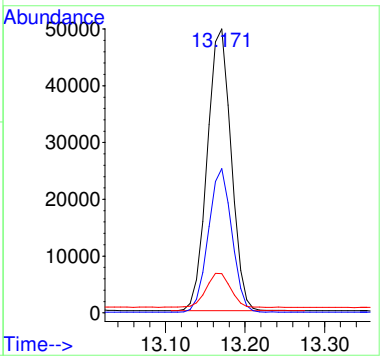


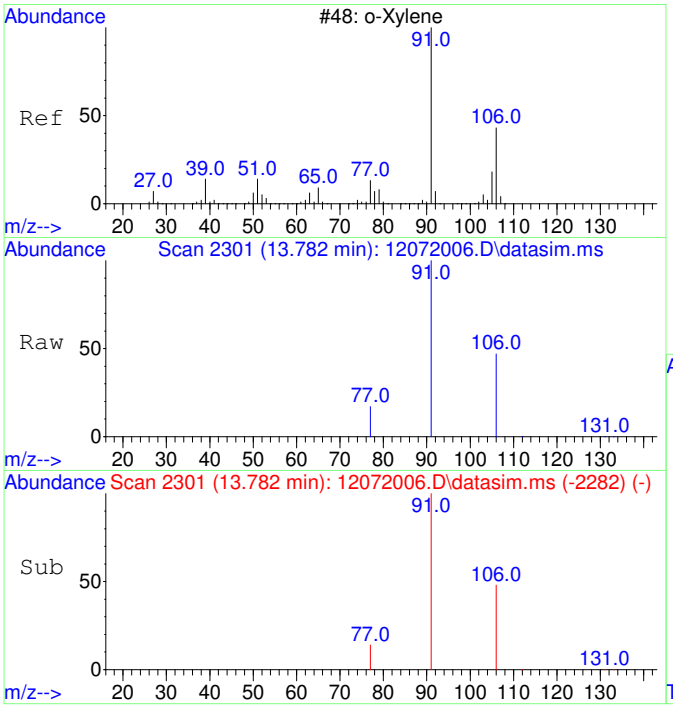


#19
m&p-Xylene
Concen: 2275.67 ug/L
RT: 13.171 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 103724

Ion	Ratio	Lower	Upper
91	100		
106	50.1	22.2	82.2
77	12.4	0.0	42.4

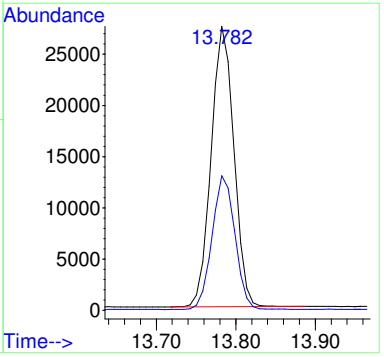


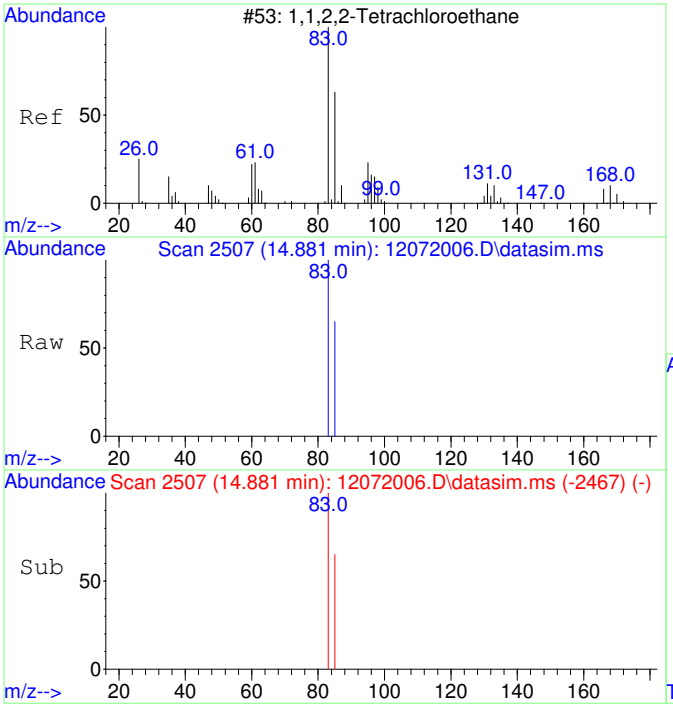


#20
o-Xylene
Concen: 1109.83 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 54333

Ion	Ratio	Lower	Upper
91	100		
106	48.1	19.2	79.2

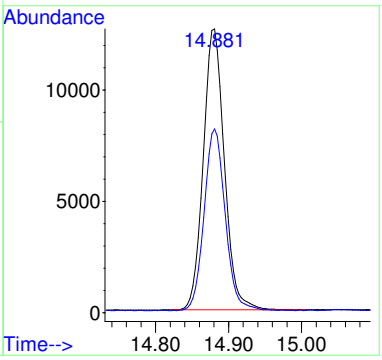


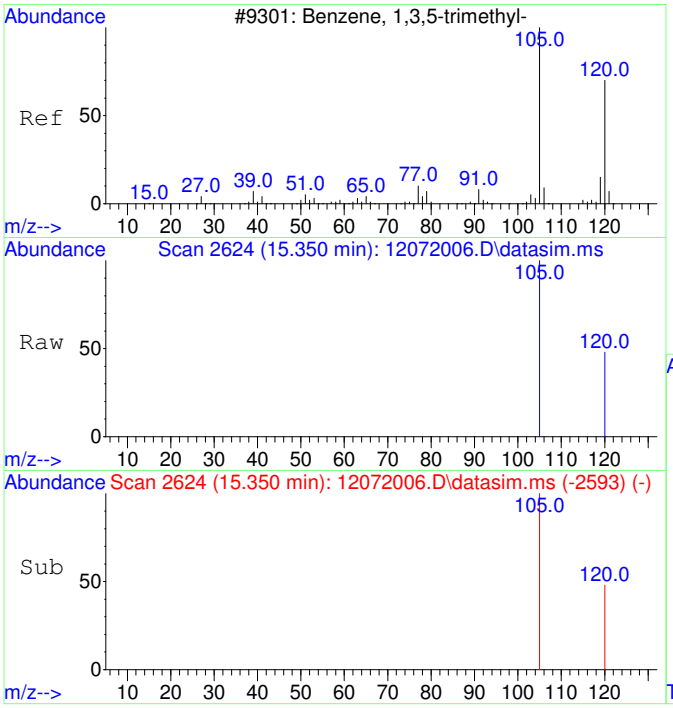


#21
1,1,2,2-Tetrachloroethane
Concen: 1108.19 ug/L
RT: 14.881 min Scan# 2507
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 25279

Ion	Ratio	Lower	Upper
83	100		
85	64.7	34.8	94.8

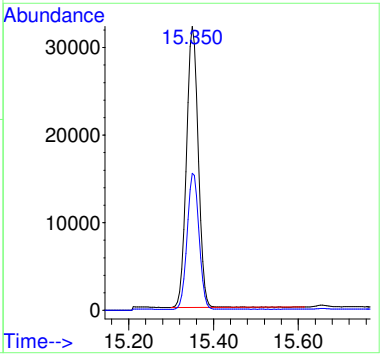


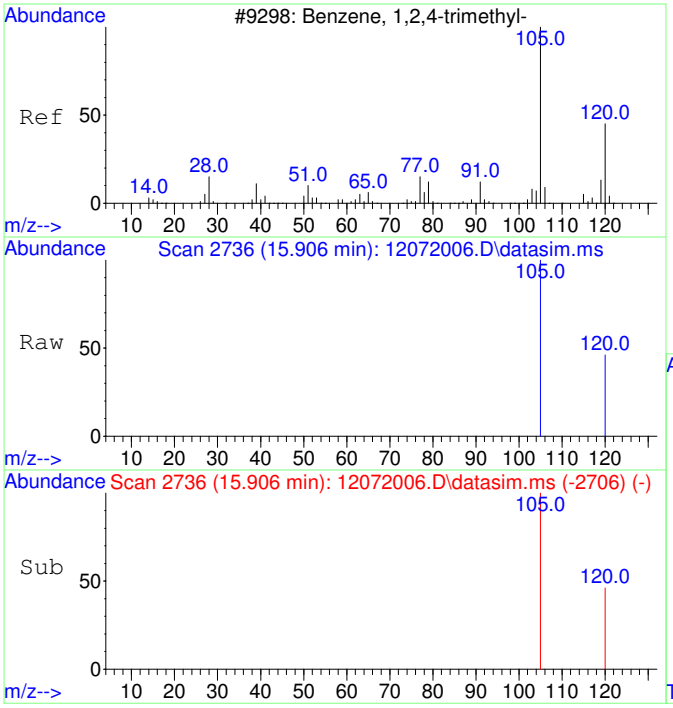


#22
1,3,5-Trimethylbenzene
Concen: 1145.65 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 61678

Ion	Ratio	Lower	Upper
105	100		
120	48.9	21.1	81.1

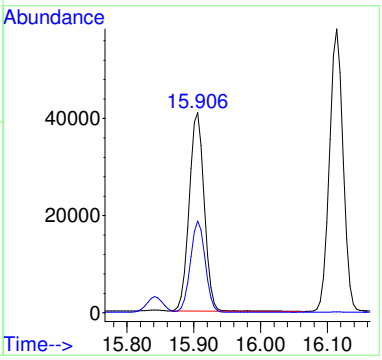


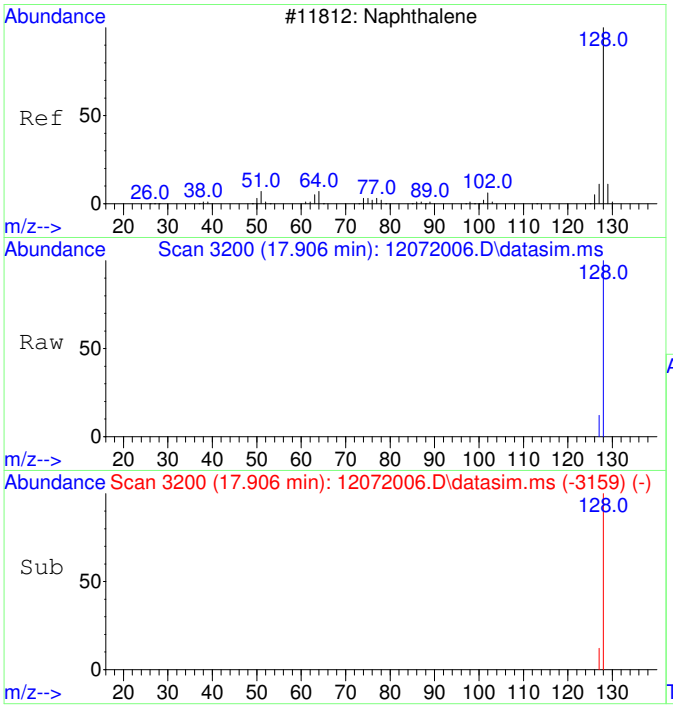


#23
1,2,4-Trimethylbenzene
Concen: 1157.33 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 63729

Ion	Ratio	Lower	Upper
105	100		
120	44.7	17.2	77.2

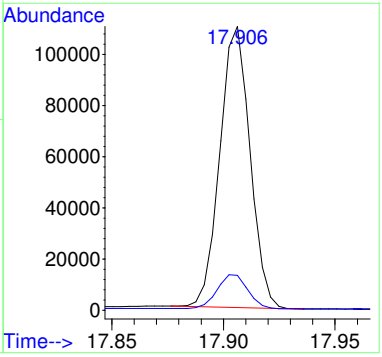


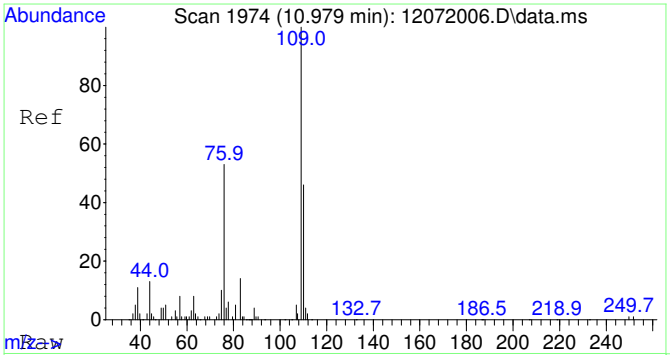


#24
Naphthalene
Concen: 1190.66 ug/L
RT: 17.906 min Scan# 3200
Delta R.T. 0.003 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:128 Resp: 102525

Ion	Ratio	Lower	Upper
128	100		
127	12.3	0.0	42.5

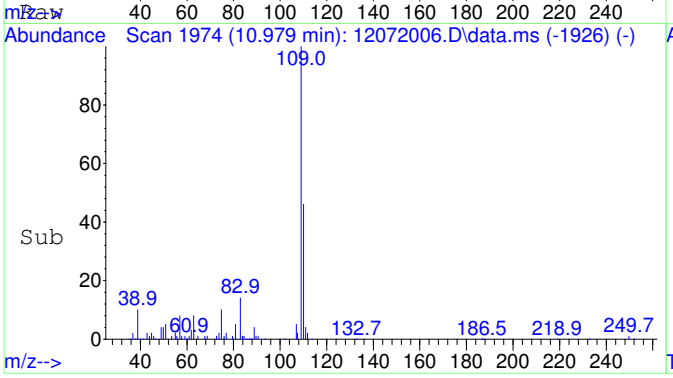


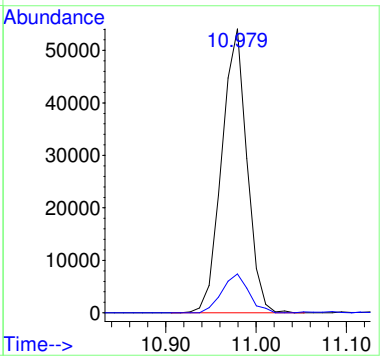


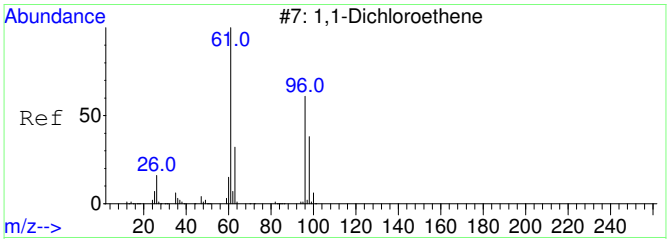
#25
2-Fluorotoluene SCAN
Concen: 4837.67 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

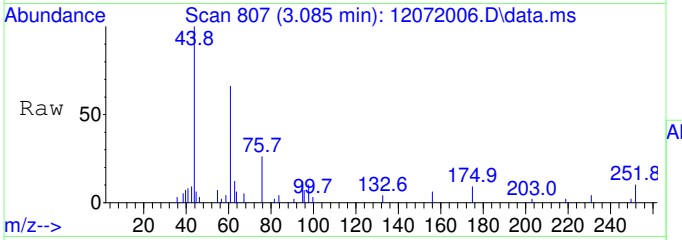
Tgt Ion:109 Resp: 105526

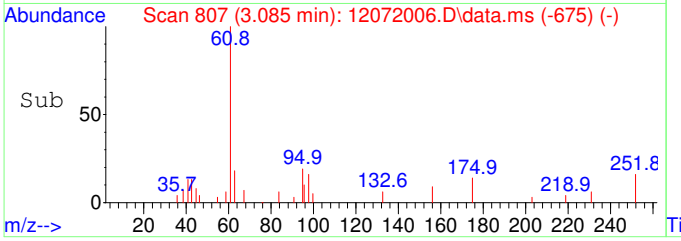
Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.8







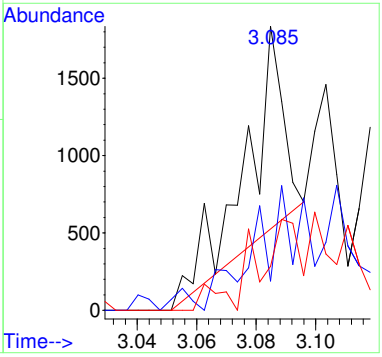


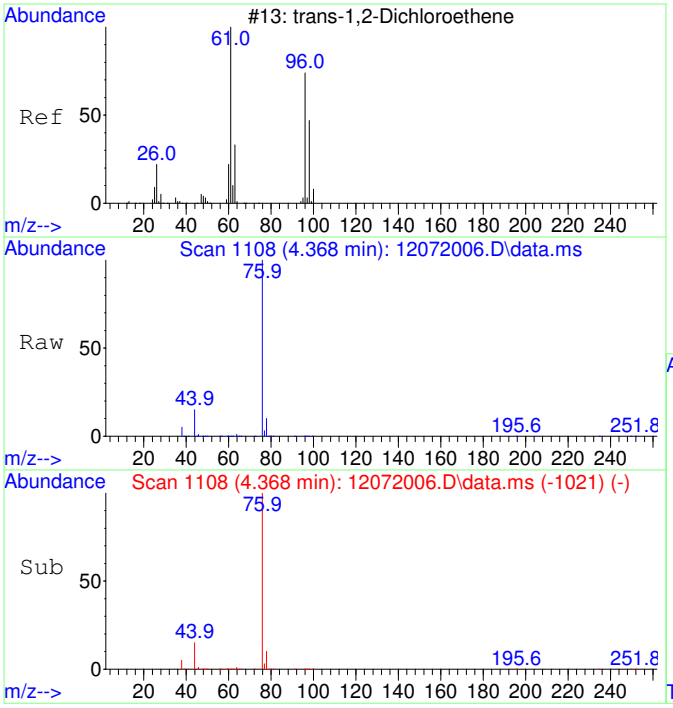


#26
1,1-Dichloroethene SCAN
Concen: 224.65 ug/L
RT: 3.085 min Scan# 807
Delta R.T. -0.011 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 1144

Ion	Ratio	Lower	Upper
61	100		
96	22.7	33.1	93.1#
98	30.9	11.2	71.2

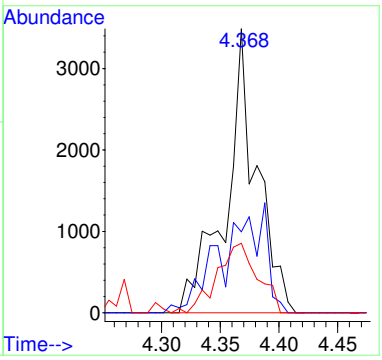


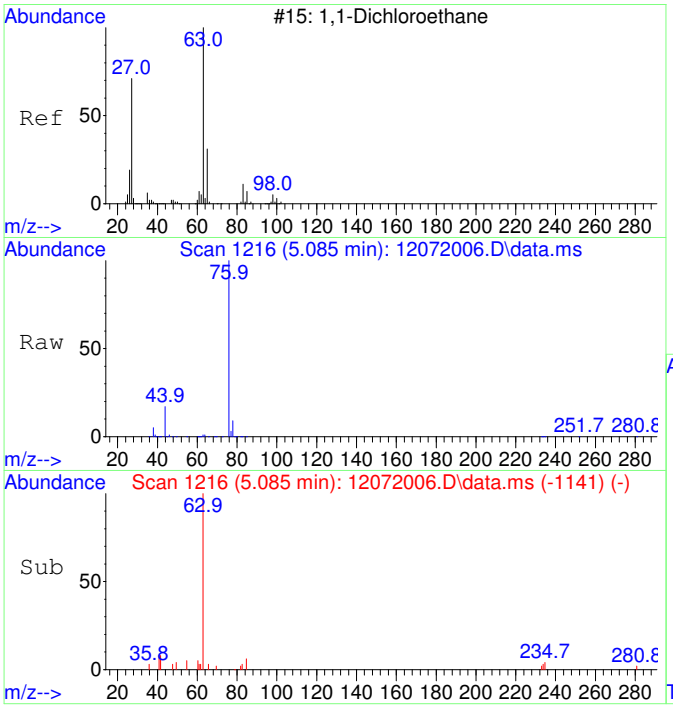


#27
trans-1,2-Dichloroethene SCAN
Concen: 988.56 ug/L
RT: 4.368 min Scan# 1108
Delta R.T. -0.013 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 6412

Ion	Ratio	Lower	Upper
61	100		
96	10.7	49.0	109.0#
98	31.9	20.5	80.5

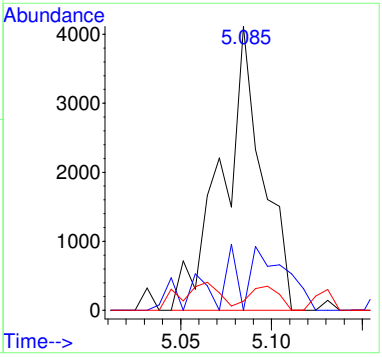


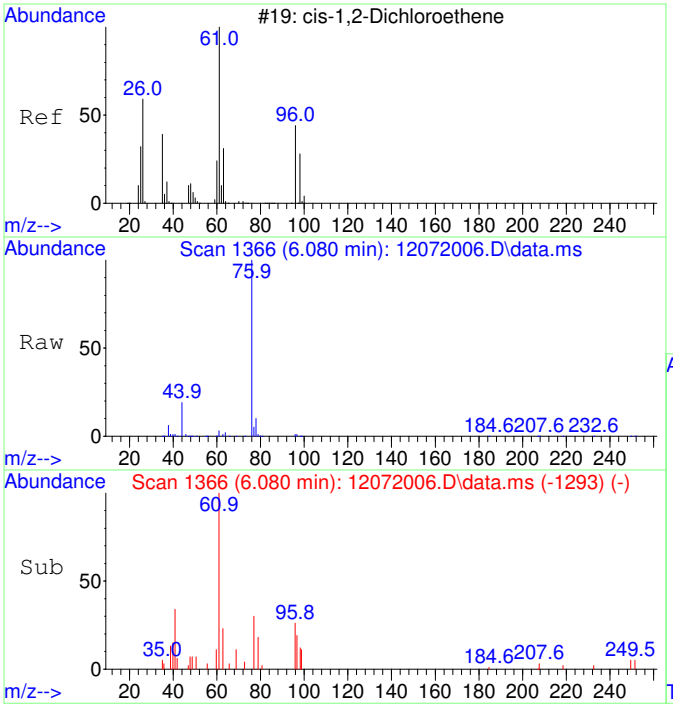


#28
1,1-Dichloroethane SCAN
Concen: 829.42 ug/L
RT: 5.085 min Scan# 1216
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 63 Resp: 6350

Ion	Ratio	Lower	Upper
63	100		
65	19.2	1.3	61.3
83	5.5	0.0	45.9

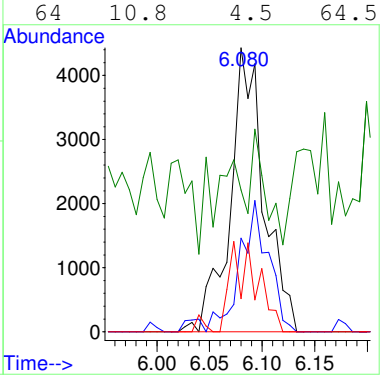


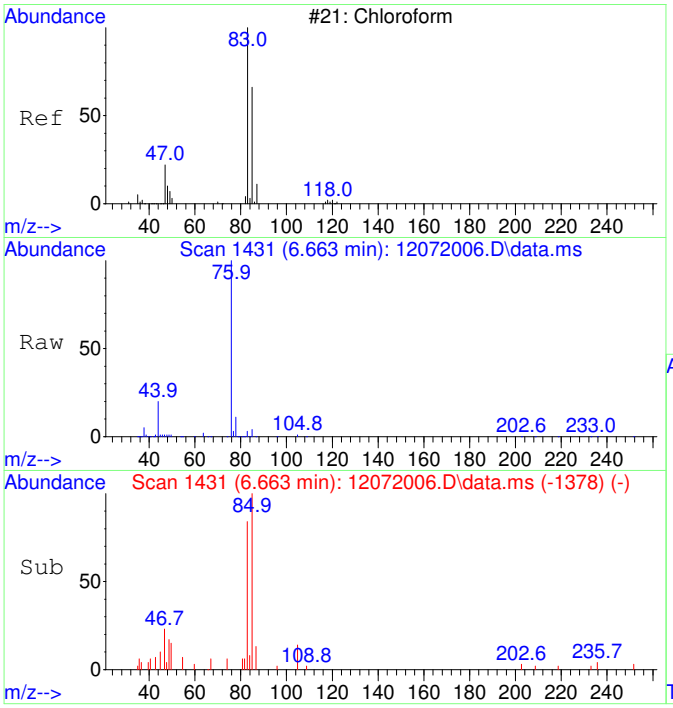


#29
cis-1,2-Dichloroethene SCAN
Concen: 1312.72 ug/L
RT: 6.080 min Scan# 1366
Delta R.T. -0.013 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 61 Resp: 9880

Ion	Ratio	Lower	Upper
61	100		
96	38.7	39.9	99.9#
98	24.7	13.5	73.5
64	10.8	4.5	64.5

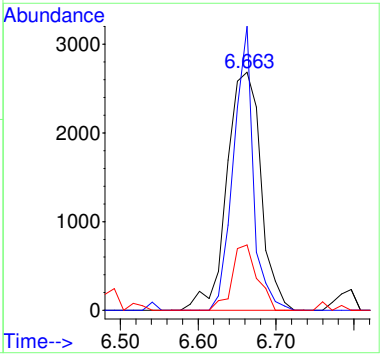


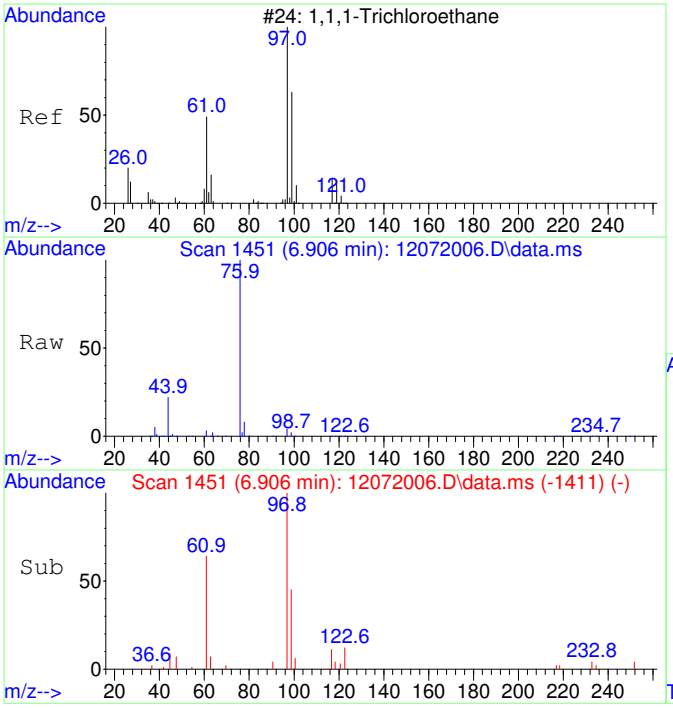


#30
Chloroform SCAN
Concen: 1164.68 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 8176

Ion	Ratio	Lower	Upper
83	100		
85	69.0	34.6	94.6
47	20.4	0.0	53.4

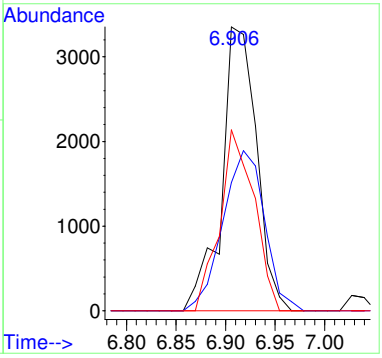


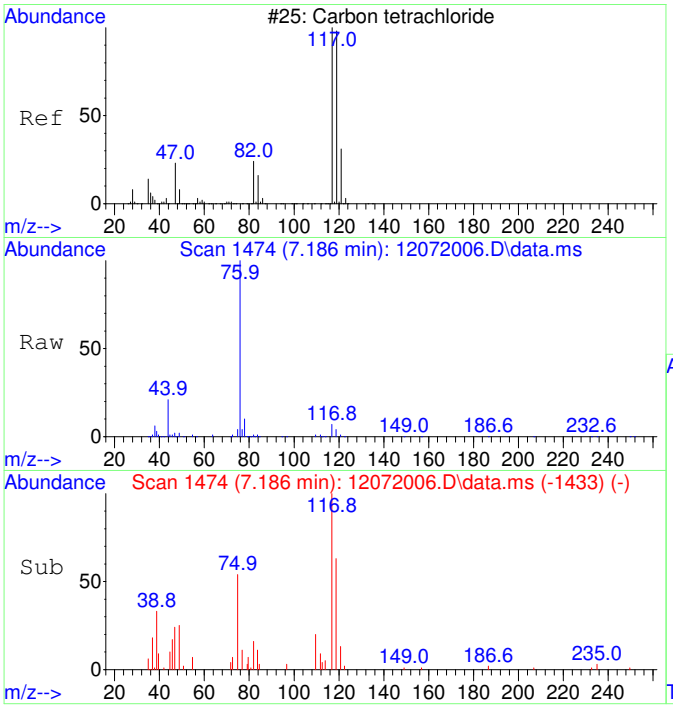


#31
1,1,1-Trichloroethane SCAN
Concen: 1131.56 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 8197

Ion	Ratio	Lower	Upper
97	100		
99	67.6	43.6	103.6
61	62.6	18.0	78.0

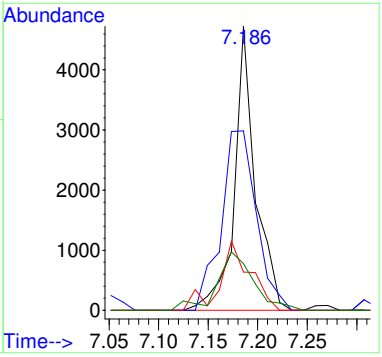


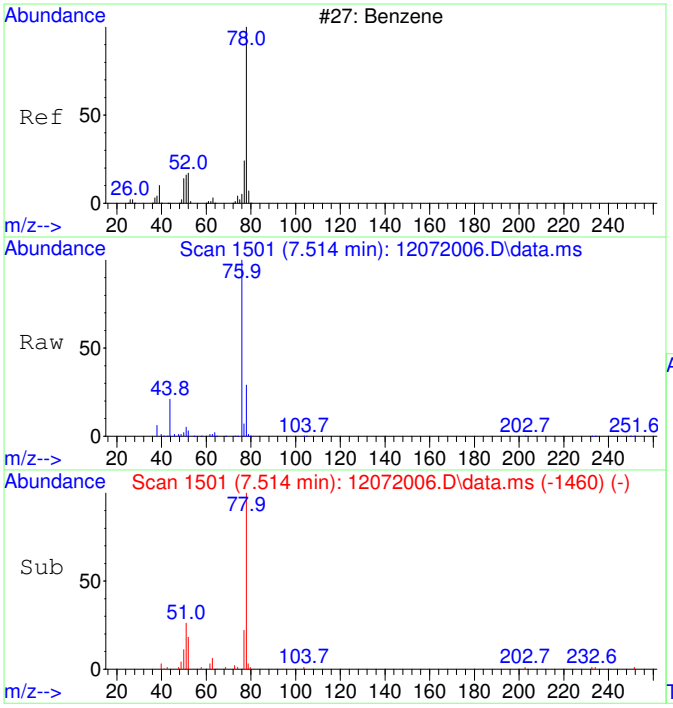


#32
Carbon tetrachloride SCAN
Concen: 1125.63 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:117 Resp: 6968

Ion	Ratio	Lower	Upper
117	100		
119	106.5	75.5	135.5
121	35.5	0.0	58.8
82	35.6	0.0	59.2

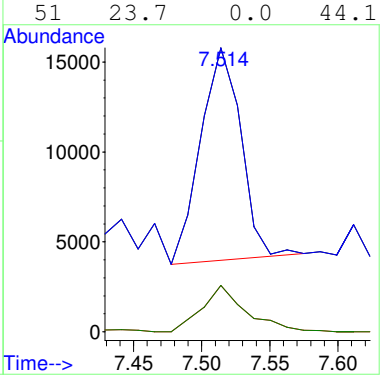


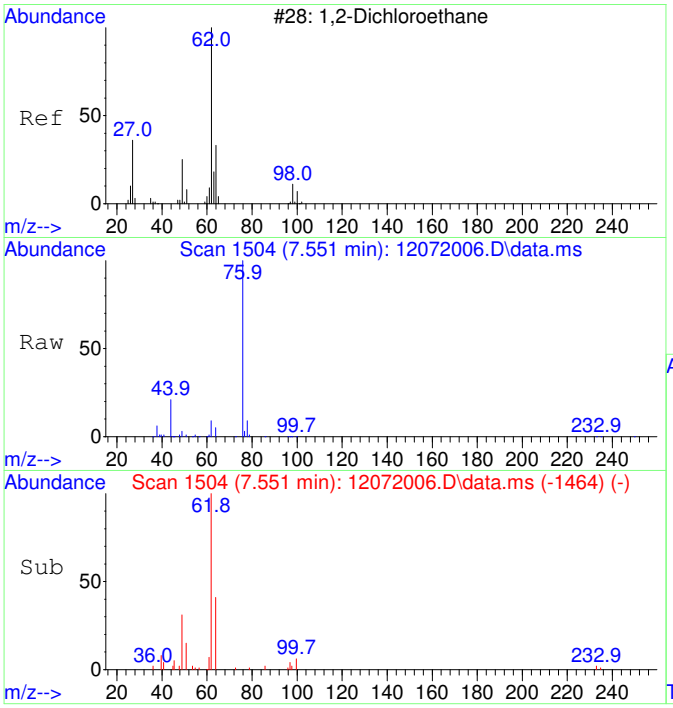


#33
Benzene SCAN
Concen: 1117.71 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 78 Resp: 24495

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	23.7	0.0	47.9
51	23.7	0.0	44.1

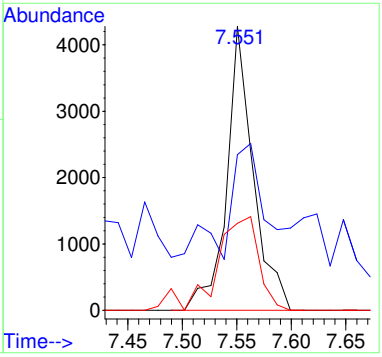


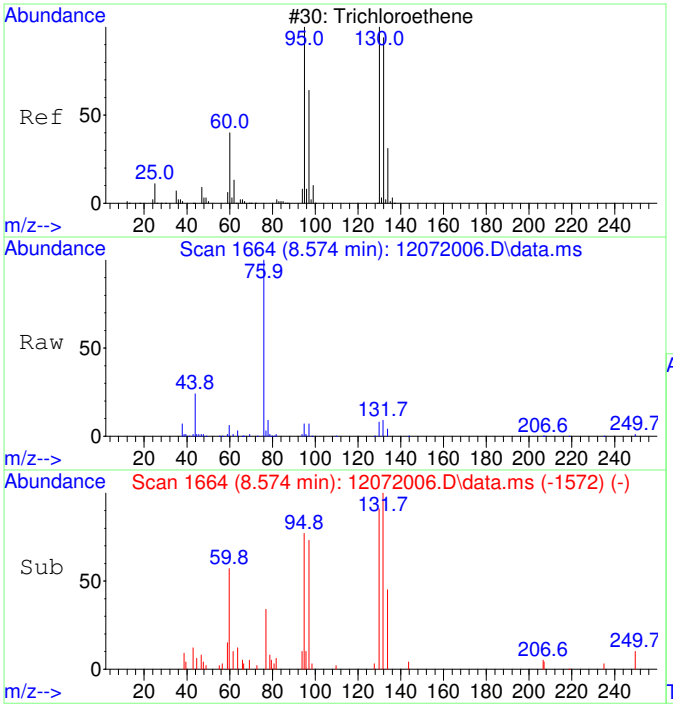


#34
1,2-Dichloroethane SCAN
Concen: 1059.80 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. -0.012 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 62 Resp: 7265

Ion	Ratio	Lower	Upper
62	100		
64	91.7	5.2	65.2#
49	49.6	3.9	63.9

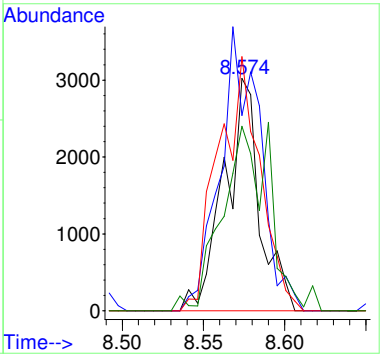


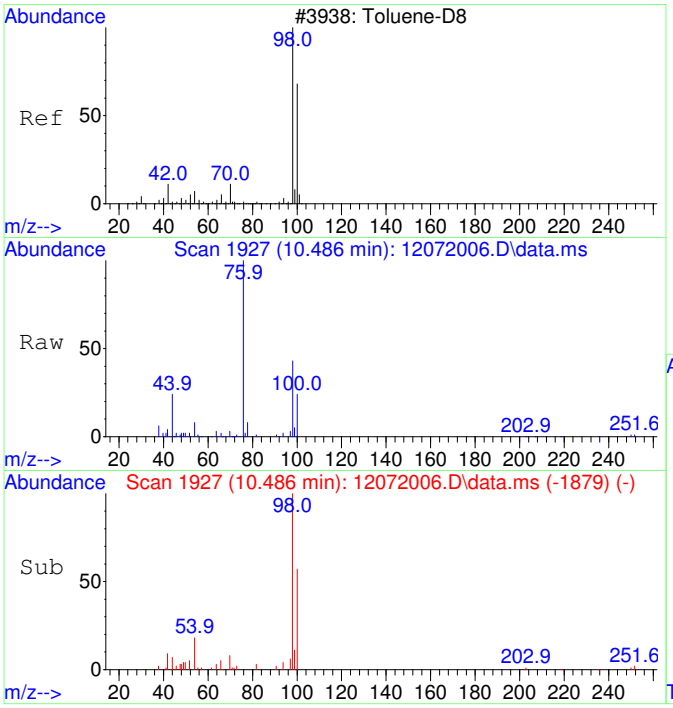


#35
Trichloroethene SCAN
Concen: 958.85 ug/L
RT: 8.574 min Scan# 1664
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:130 Resp: 4582

Ion	Ratio	Lower	Upper
130	100		
95	136.4	60.5	120.5#
132	129.1	59.6	119.6#
97	0.0	28.2	88.2#

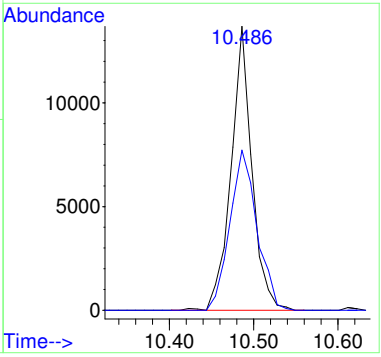


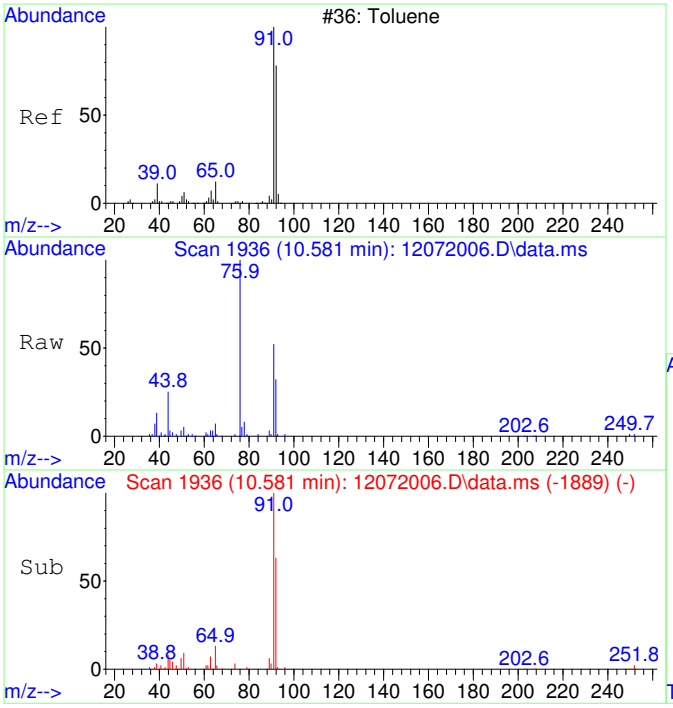


#36
Toluene-d8 SCAN
Concen: 1153.40 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 98 Resp: 23597

Ion	Ratio	Lower	Upper
98	100		
100	73.3	40.0	100.0

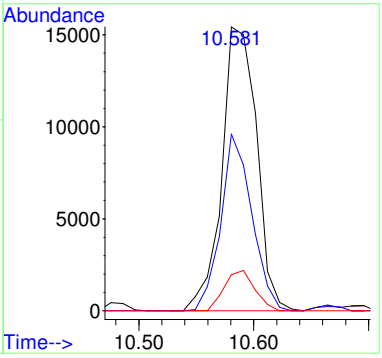


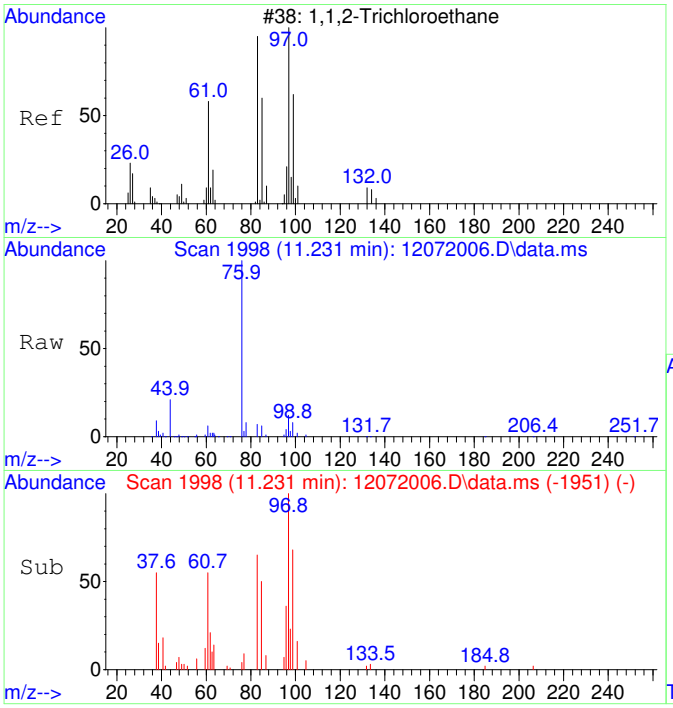


#37
Toluene SCAN
Concen: 1290.59 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 32509

Ion	Ratio	Lower	Upper
91	100		
92	55.5	28.3	88.3
65	12.5	0.0	41.0

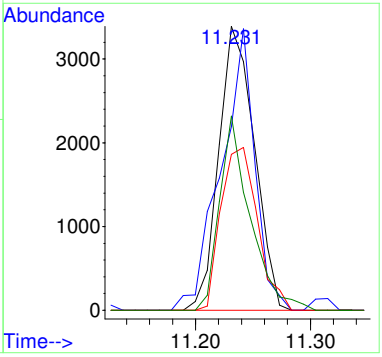


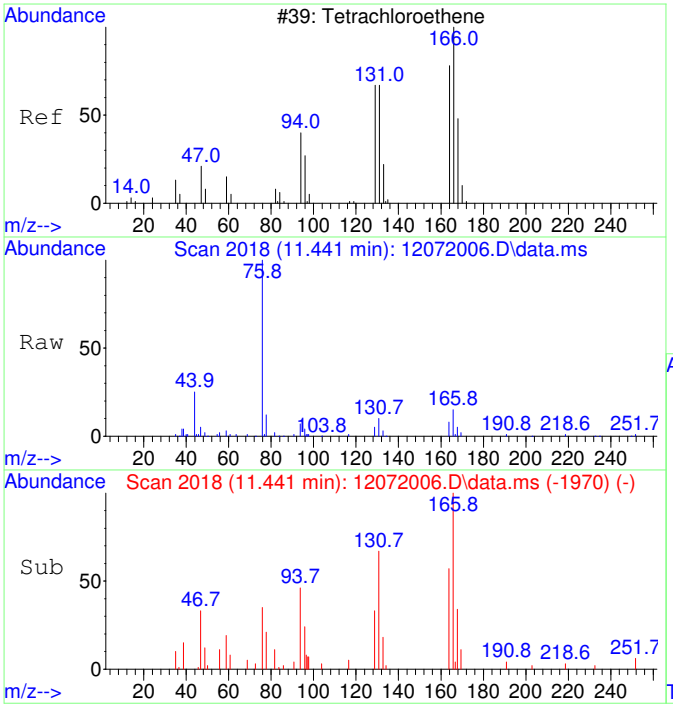


#38
1,1,2-Trichloroethane SCAN
Concen: 1159.53 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. -0.010 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 97 Resp: 7321

Ion	Ratio	Lower	Upper
97	100		
83	93.8	57.7	117.7
61	59.0	32.1	92.1
99	59.0	36.7	96.7

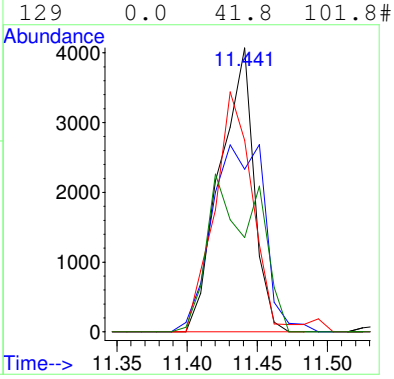


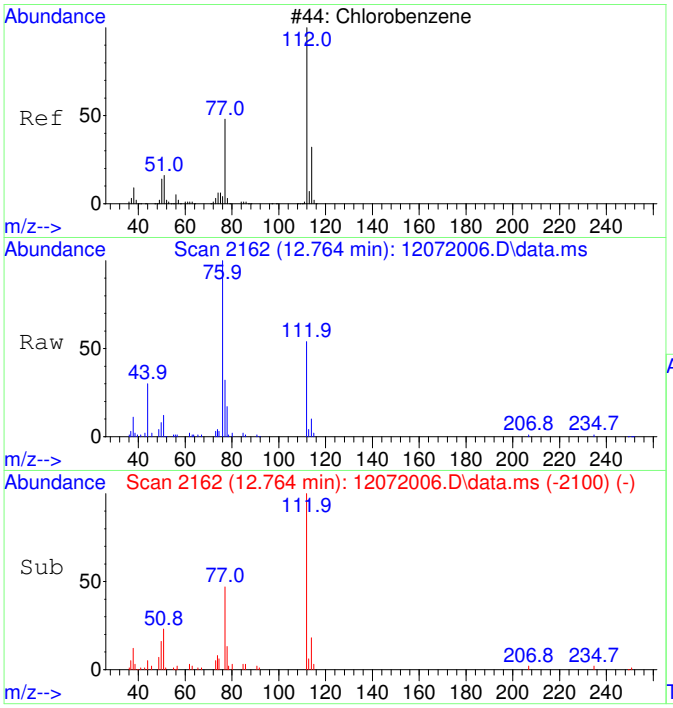


#39
Tetrachloroethene SCAN
Concen: 1216.76 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:166 Resp: 6895

Ion	Ratio	Lower	Upper
166	100		
164	0.0	50.9	110.9#
131	96.5	38.7	98.7
129	0.0	41.8	101.8#

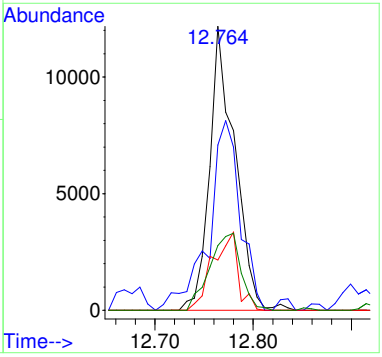


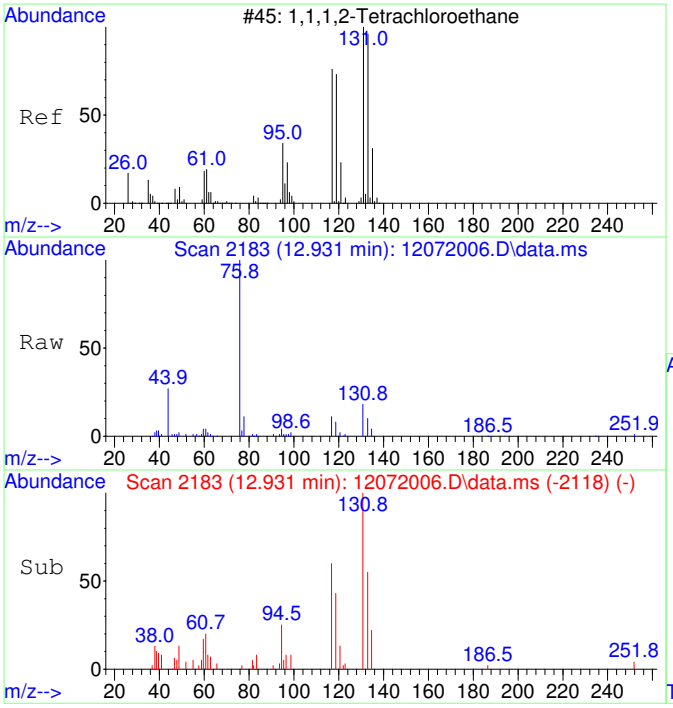


#40
Chlorobenzene SCAN
Concen: 1200.56 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. -0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:112 Resp: 21721

Ion	Ratio	Lower	Upper
112	100		
77	83.6	28.2	88.2
114	27.8	2.3	62.3
51	33.6	0.0	50.1

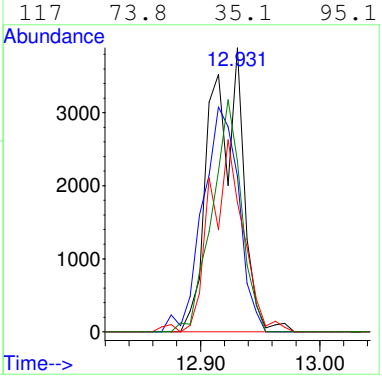


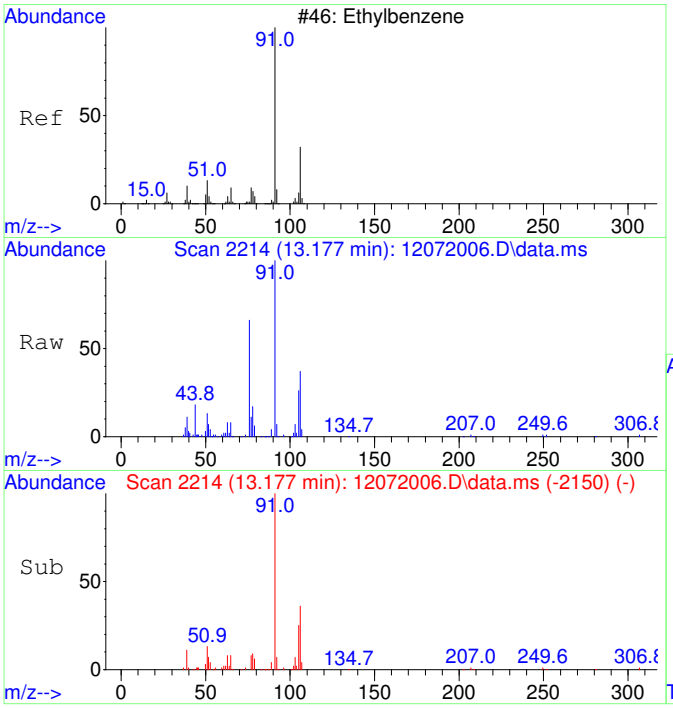


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 1181.69 ug/L
RT: 12.931 min Scan# 2183
Delta R.T. 0.016 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:131 Resp: 7376

Ion	Ratio	Lower	Upper
131	100		
133	87.2	66.9	126.9
119	68.4	40.4	100.4
117	73.8	35.1	95.1

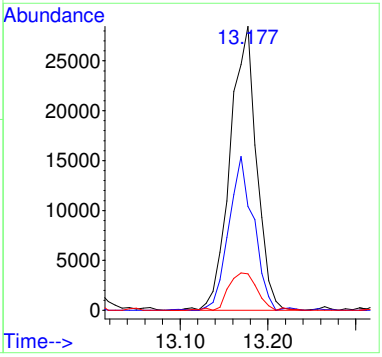


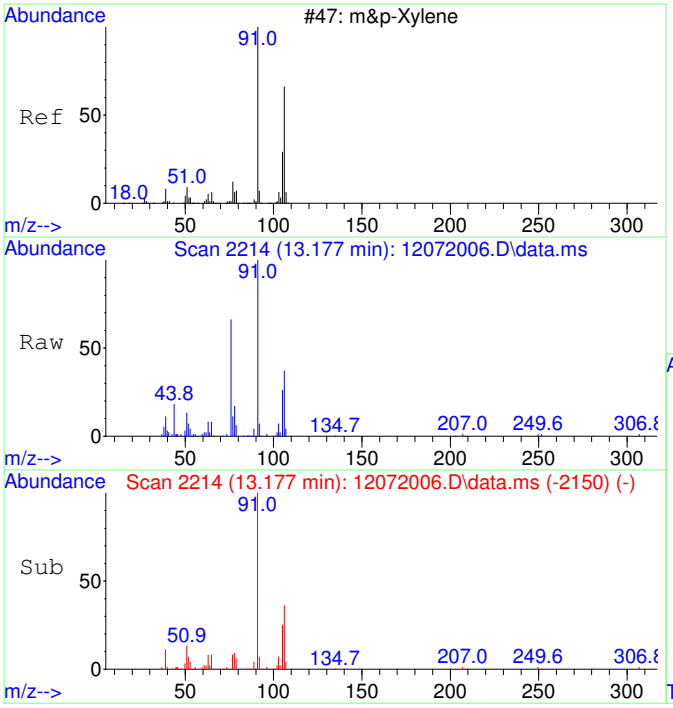


#42
Ethylbenzene SCAN
Concen: 1241.88 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 59613

Ion	Ratio	Lower	Upper
91	100		
106	49.7	23.1	83.1
51	14.4	0.0	40.1

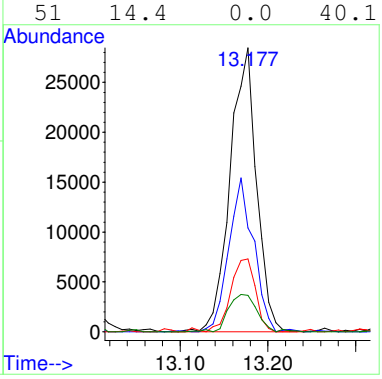


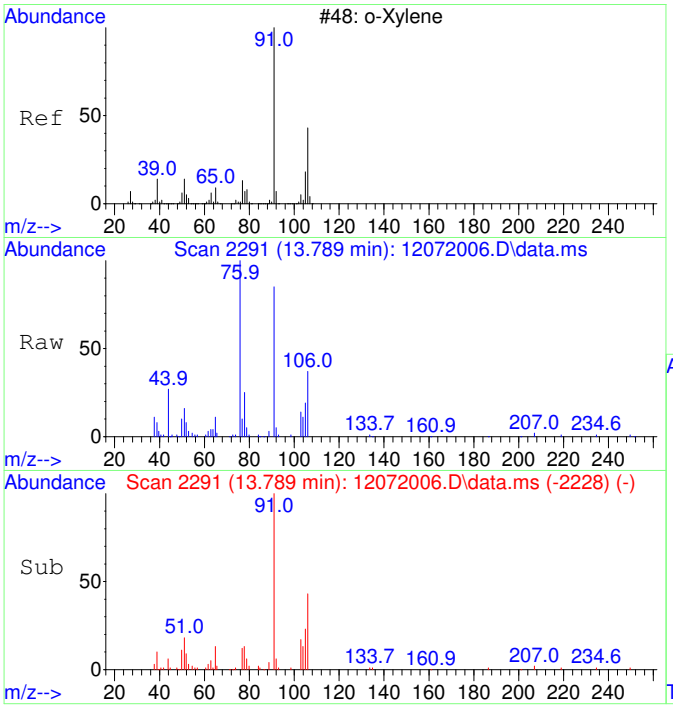


#43
m&p-Xylene SCAN
Concen: 1241.88 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 59613

Ion	Ratio	Lower	Upper
91	100		
106	49.7	23.1	83.1
105	23.9	0.0	54.7
51	14.4	0.0	40.1

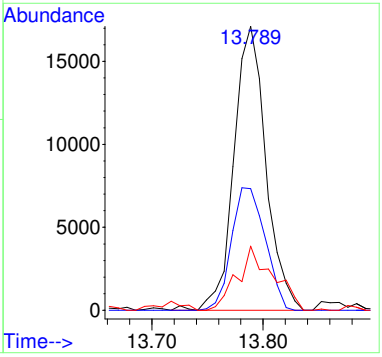


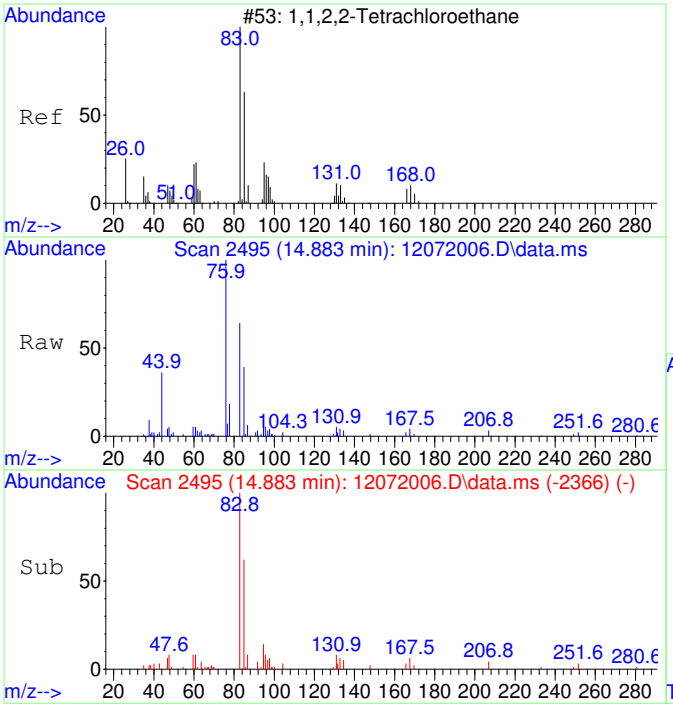


#44
o-Xylene SCAN
Concen: 1304.94 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 91 Resp: 34205

Ion	Ratio	Lower	Upper
91	100		
106	45.6	18.0	78.0
105	25.2	0.0	56.6

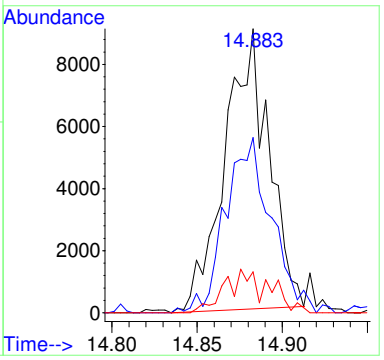


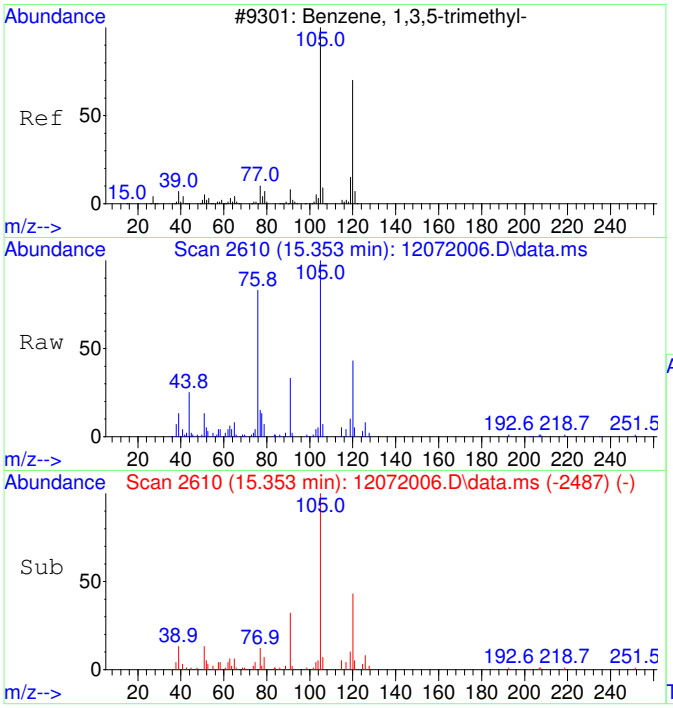


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 1195.11 ug/L
RT: 14.883 min Scan# 2495
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion: 83 Resp: 16288

Ion	Ratio	Lower	Upper
83	100		
85	64.8	35.9	95.9
95	3.3	0.0	47.4

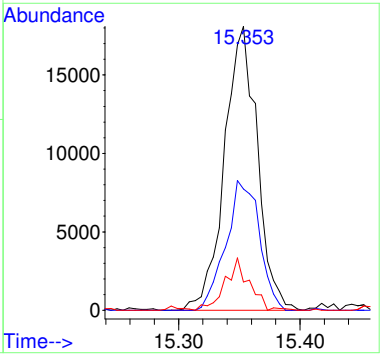


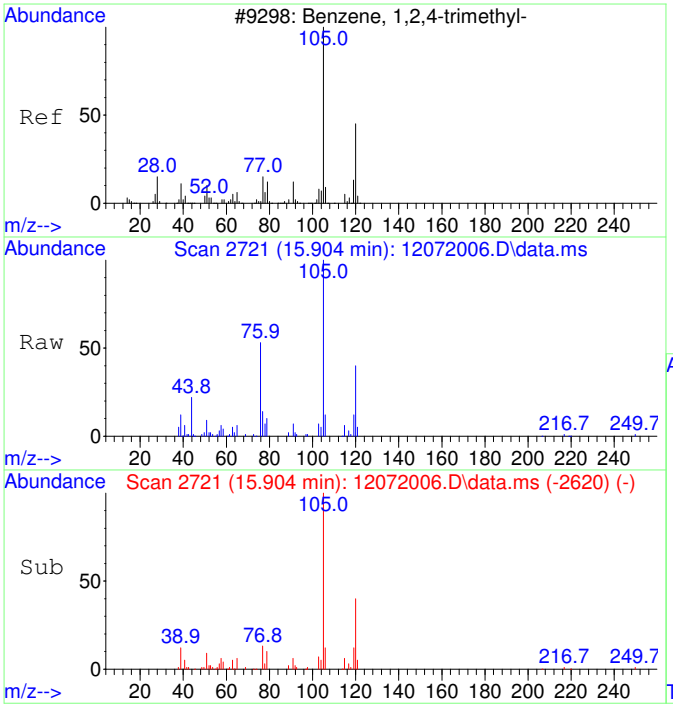


#46
1,3,5-Trimethylbenzene SCAN
Concen: 1231.15 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 34045

Ion	Ratio	Lower	Upper
105	100		
120	46.5	18.3	78.3
119	13.6	0.0	43.1

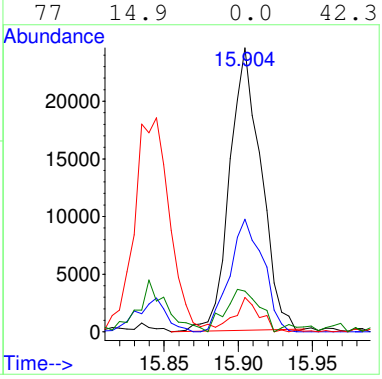


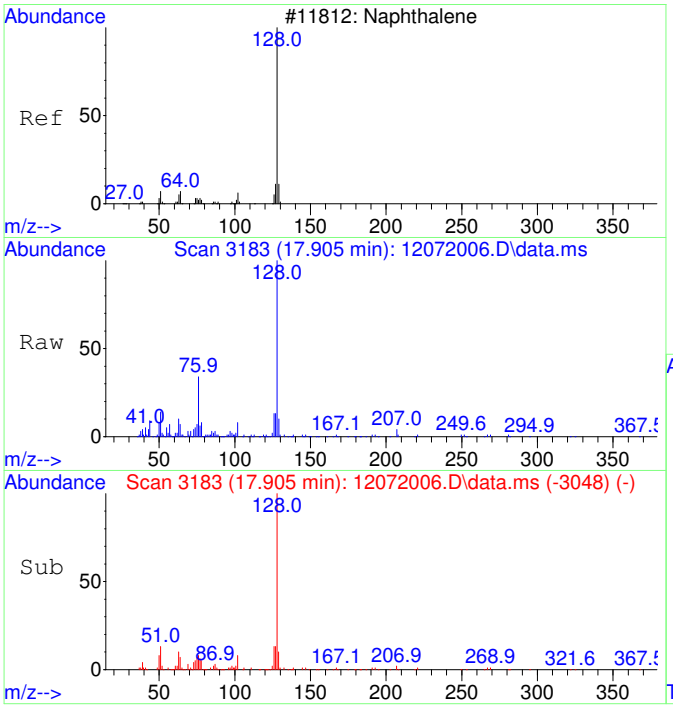


#47
1,2,4-Trimethylbenzene SCAN
Concen: 1276.92 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.000 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:105 Resp: 36077

Ion	Ratio	Lower	Upper
105	100		
120	42.6	16.9	76.9
119	8.0	0.0	41.9
77	14.9	0.0	42.3

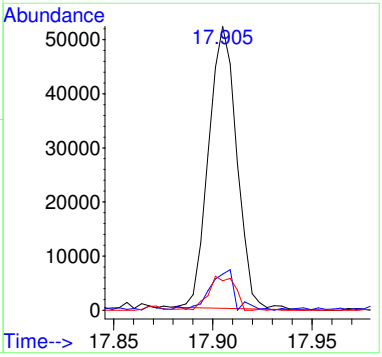




#48
Naphthalene SCAN
Concen: 1213.61 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 12072006.D
Acq: 7 Dec 2020 13:56

Tgt Ion:128 Resp: 51467

Ion	Ratio	Lower	Upper
128	100		
127	11.1	0.0	44.0
129	10.8	0.0	40.8



S20L021-CAL5

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072007.D
Acq On : 7 Dec 2020 14:20
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 06:25:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:14:00 2020
Response via : Initial Calibration

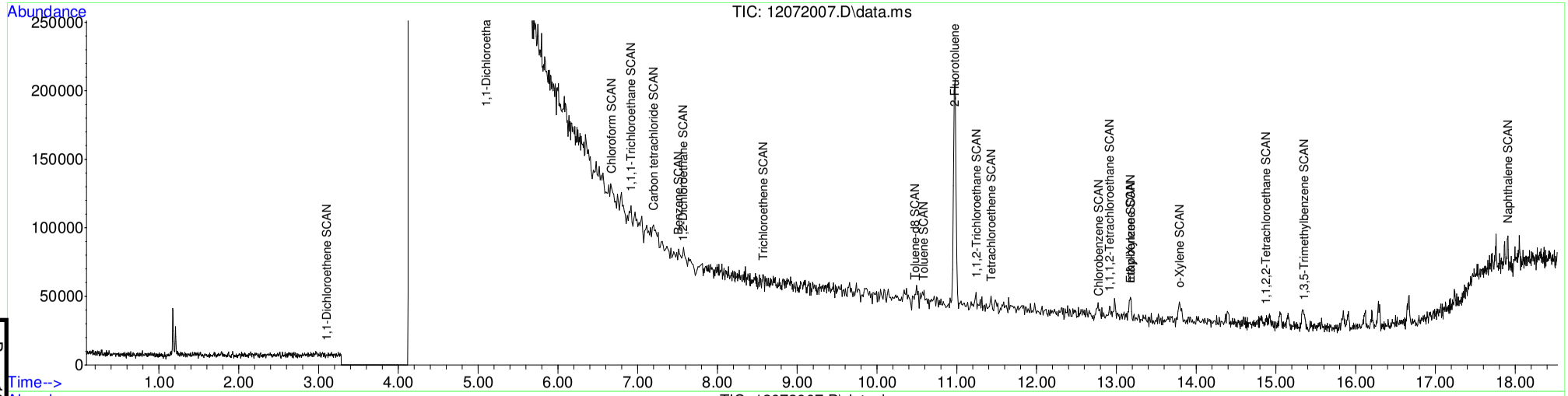
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	252253	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	6615	135.40 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery =	2.71%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.094	61	1752	175.49 ug/L	68
3] trans-1,2-Dichloroethene	4.383	61	1710	135.61 ug/L	95
4] 1,1-Dichloroethane	5.099	63	2024	134.39 ug/L	92
5] cis-1,2-Dichloroethene	6.094	61	2117	135.72 ug/L	99
6] Chloroform	6.664	83	1973	131.69 ug/L	97
7] 1,1,1-Trichloroethane	6.919	97	2178	135.33 ug/L	99
8] Carbon tetrachloride	7.187	117	2056	133.62 ug/L	100
9] Benzene	7.515	78	5940	139.94 ug/L	60
10] 1,2-Dichloroethane	7.552	62	1980	136.74 ug/L	83
11] Trichloroethene	8.575	130	1823	136.03 ug/L	95
13] Toluene	10.582	91	8413	138.31 ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	1884	133.72 ug/L	94
15] Tetrachloroethene	11.432	166	2596	137.02 ug/L	98
16] Chlorobenzene	12.765	112	6372	135.22 ug/L	92
17] 1,1,1,2-Tetrachloroethane	12.916	131	2240	135.81 ug/L	98
18] Ethylbenzene	12.972	91	10872	139.93 ug/L	97
19] m&p-Xylene	13.171	91	17074	285.38 ug/L	97
20] o-Xylene	13.782	91	9001	140.07 ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.877	83	4095	136.76 ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	10017	141.75 ug/L	97
23] 1,2,4-Trimethylbenzene	15.906	105	10405	143.95 ug/L	96
24] Naphthalene	17.906	128	15689	132.61 ug/L	99
25) 2-Fluorotoluene SCAN	10.969	109	138220	4827.25 ug/L	98
26) 1,1-Dichloroethene SCAN	3.100	61	229	34.26 ug/L #	25
28) 1,1-Dichloroethane SCAN	5.098	63	1695	168.66 ug/L #	84
30) Chloroform SCAN	6.675	83	1484	161.05 ug/L	67
31) 1,1,1-Trichloroethane ...	6.918	97	1425	149.86 ug/L #	72
32) Carbon tetrachloride SCAN	7.198	117	1629	200.47 ug/L #	56
33) Benzene SCAN	7.514	78	3800	132.09 ug/L	95
34) 1,2-Dichloroethane SCAN	7.563	62	1740	193.37 ug/L #	1
35) Trichloroethene SCAN	8.568	130	926	147.62 ug/L #	26
36) Toluene-d8 SCAN	10.476	98	4177	155.54 ug/L #	15
37) Toluene SCAN	10.581	91	5663	171.27 ug/L	87
38) 1,1,2-Trichloroethane ...	11.242	97	1595	192.45 ug/L #	67
39) Tetrachloroethene SCAN	11.431	166	600	80.66 ug/L #	53
40) Chlorobenzene SCAN	12.780	112	4260	179.38 ug/L #	59
41) 1,1,1,2-Tetrachloroeth...	12.915	131	1066	130.10 ug/L	77
42) Ethylbenzene SCAN	13.177	91	10693	169.70 ug/L	92
43) m&p-Xylene SCAN	13.177	91	10693	169.70 ug/L #	80
44) o-Xylene SCAN	13.789	91	6073	176.50 ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.872	83	2552	142.65 ug/L #	45
46) 1,3,5-Trimethylbenzene...	15.353	105	6061	166.98 ug/L	98
48) Naphthalene SCAN	17.905	128	9093	163.35 ug/L	75

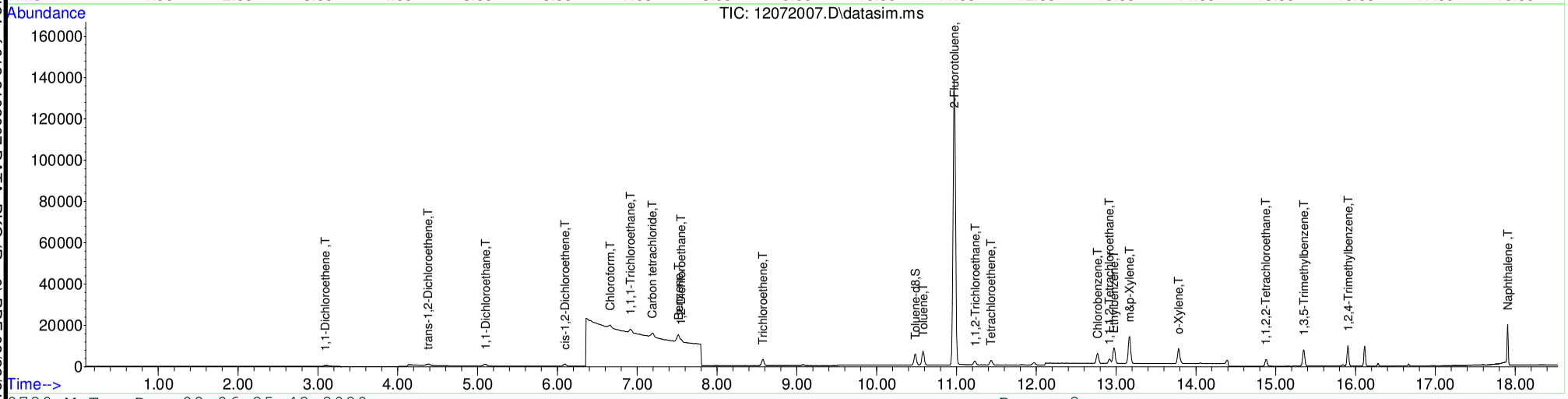
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072007.D
Acq On : 7 Dec 2020 14:20
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 06:25:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:14:00 2020
Response via : Initial Calibration





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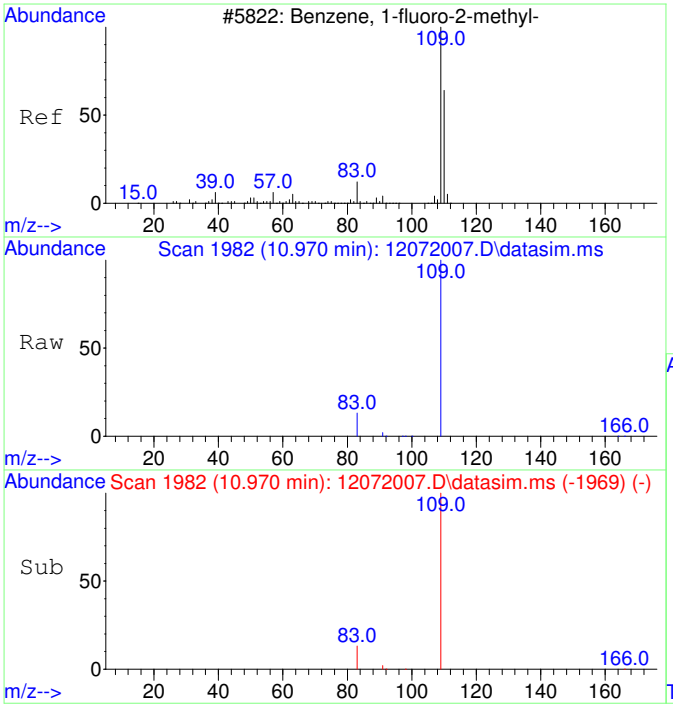
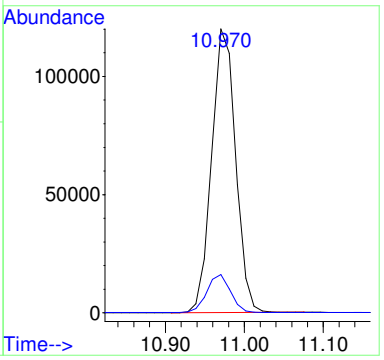
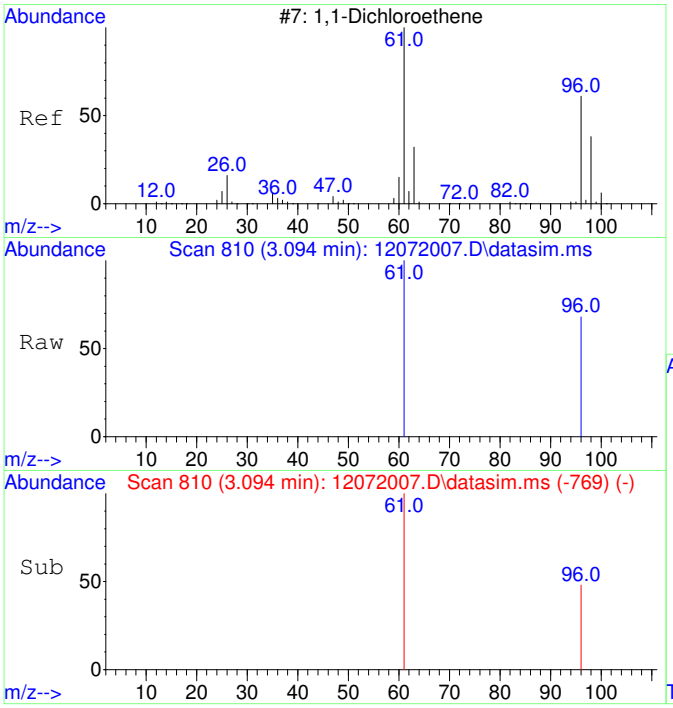


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:109 Resp: 252253

Ion	Ratio	Lower	Upper
109	100		
83	13.2	0.0	42.3

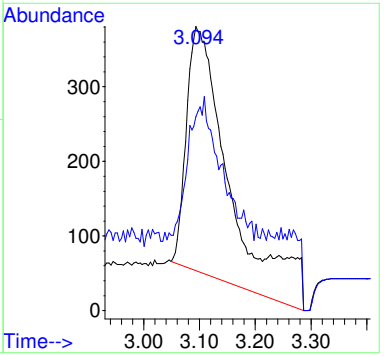




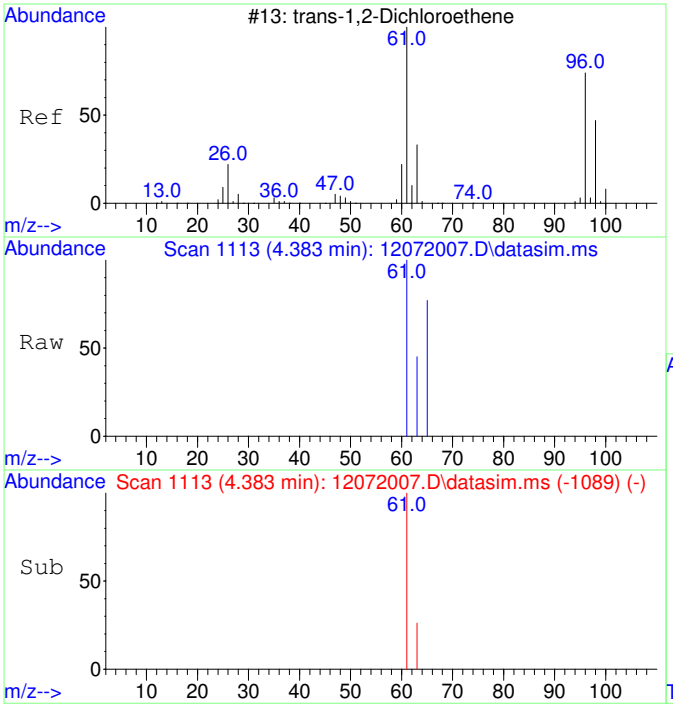
#2
1,1-Dichloroethene
Concen: 175.49 ug/L
RT: 3.094 min Scan# 810
Delta R.T. 0.004 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 1752

Ion	Ratio	Lower	Upper
61	100		
96	41.5	37.2	97.2



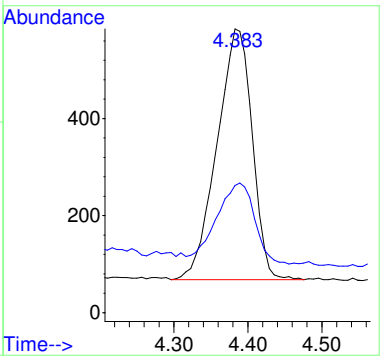
Before MI:
IMPROPER
BASELINE

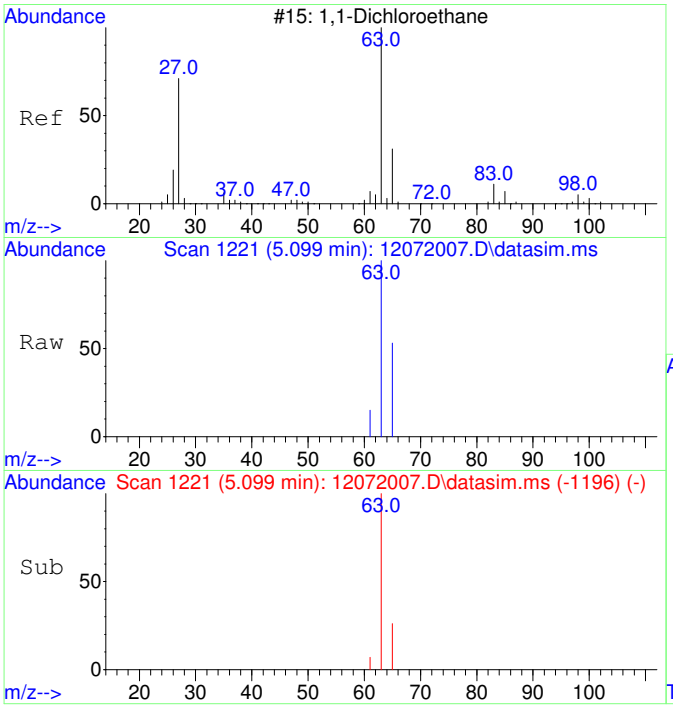


#3
trans-1,2-Dichloroethene
Concen: 135.61 ug/L
RT: 4.383 min Scan# 1113
Delta R.T. 0.007 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 1710

Ion	Ratio	Lower	Upper
61	100		
63	35.1	2.4	62.4

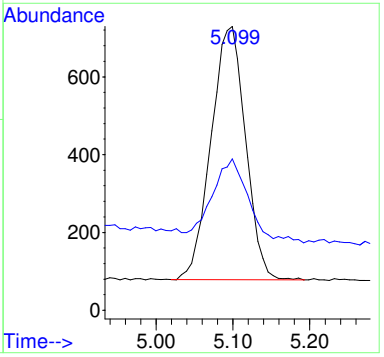


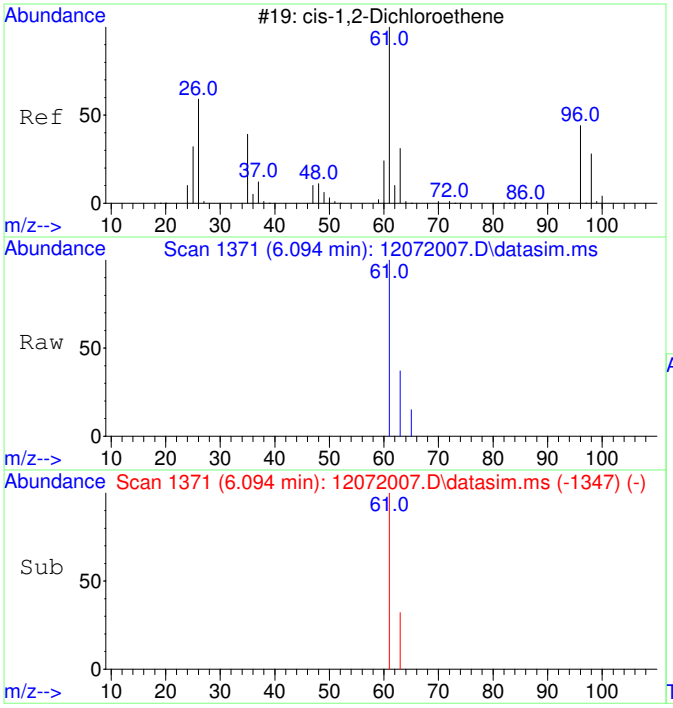


#4
1,1-Dichloroethane
Concen: 134.39 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. 0.014 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 63 Resp: 2024

Ion	Ratio	Lower	Upper
63	100		
65	36.1	1.8	61.8

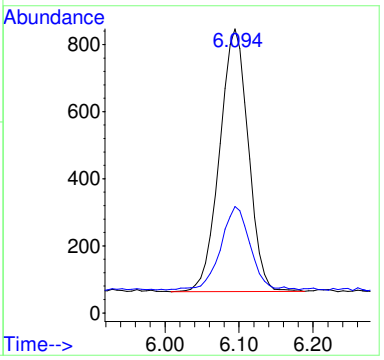


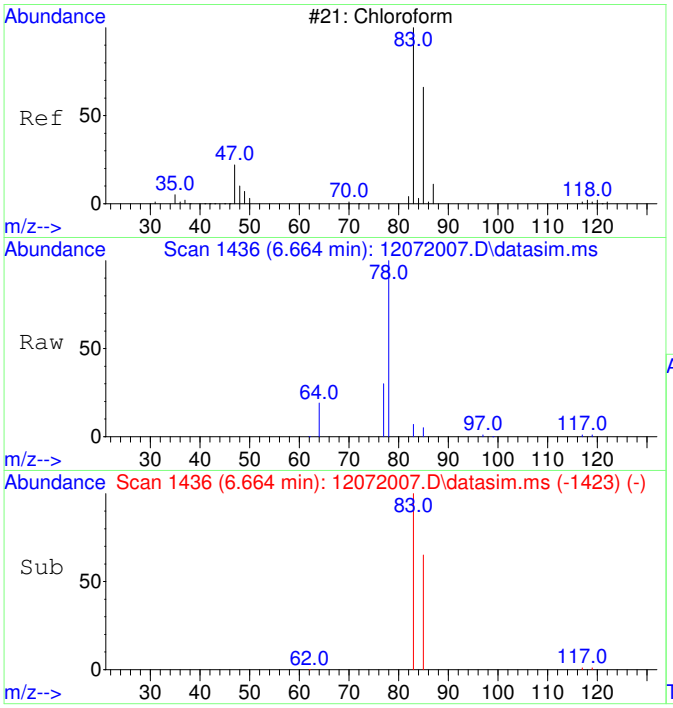


#5
cis-1,2-Dichloroethene
Concen: 135.72 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 2117

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.5	62.5

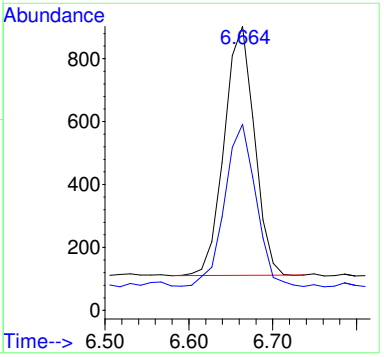


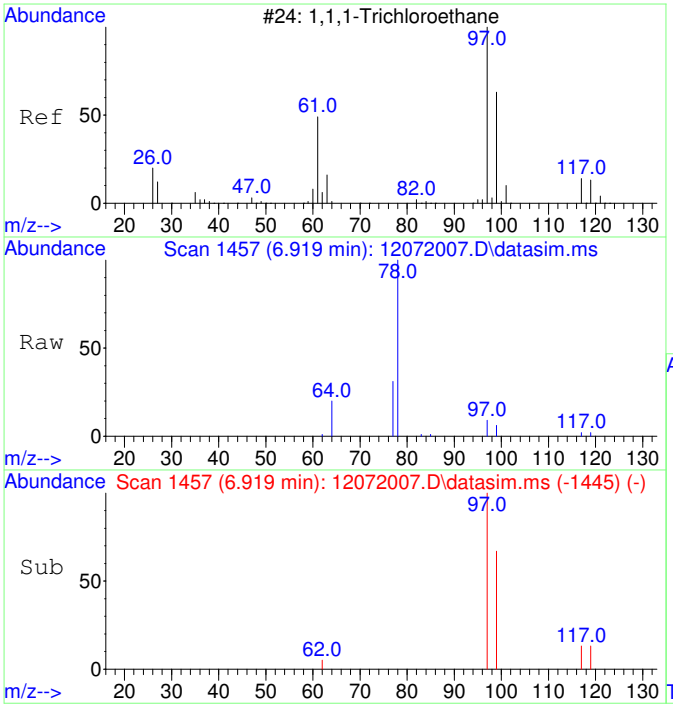


#6
Chloroform
Concen: 131.69 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.012 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 1973

Ion	Ratio	Lower	Upper
83	100		
85	67.3	35.1	95.1

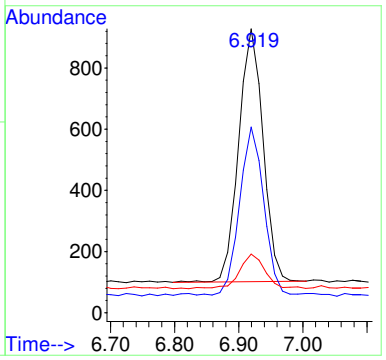


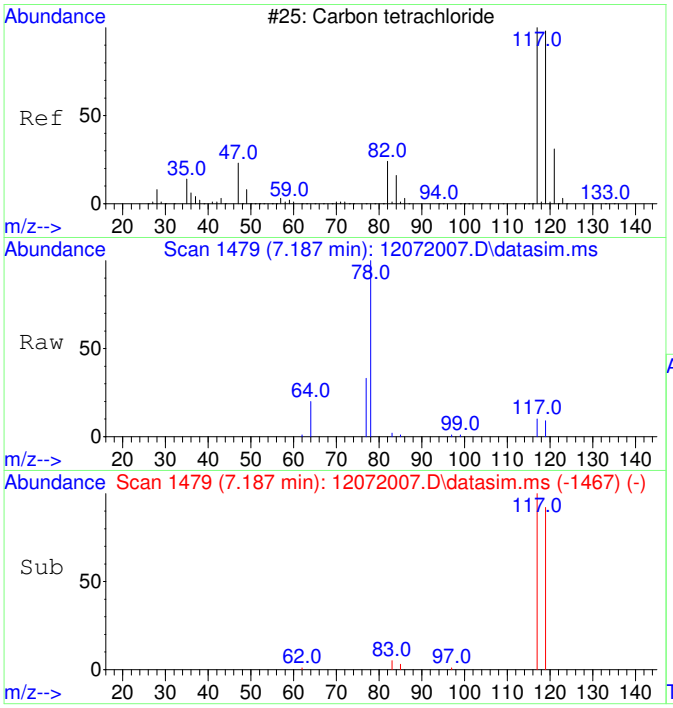


#7
1,1,1-Trichloroethane
Concen: 135.33 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 2178

Ion	Ratio	Lower	Upper
97	100		
99	65.1	34.6	94.6
117	14.1	0.0	43.2

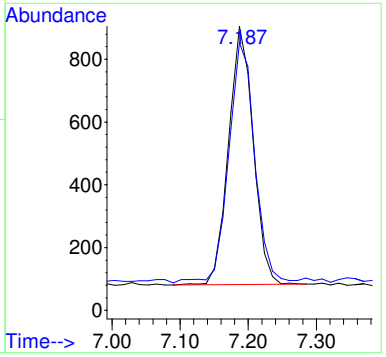


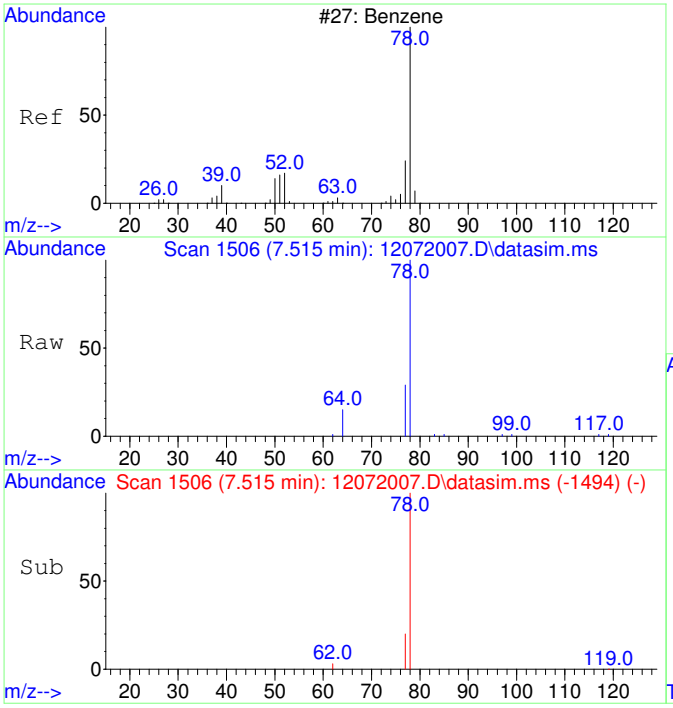


#8
Carbon tetrachloride
Concen: 133.62 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:117 Resp: 2056

Ion	Ratio	Lower	Upper
117	100		
119	96.6	66.4	126.4

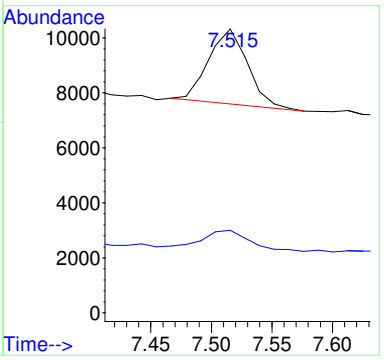


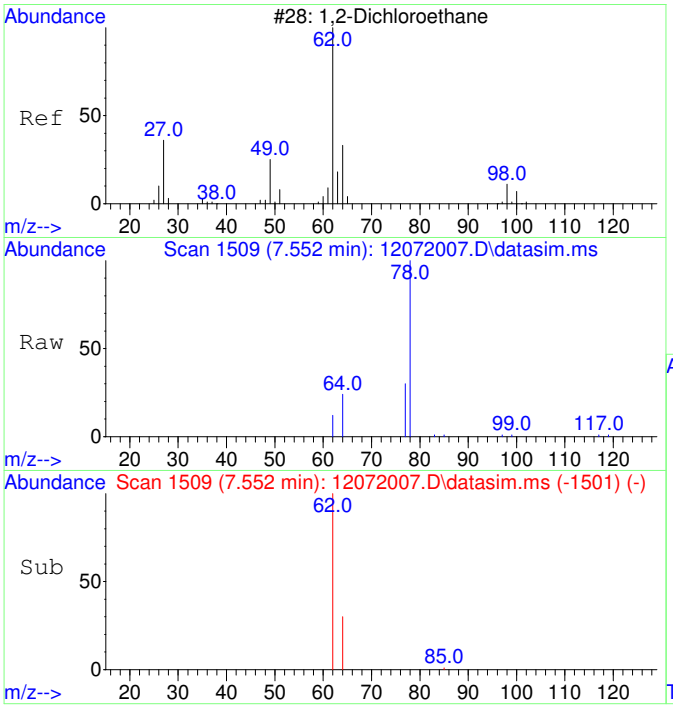


#9
Benzene
Concen: 139.94 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 78 Resp: 5940

Ion	Ratio	Lower	Upper
78	100		
77	42.5	0.0	53.2

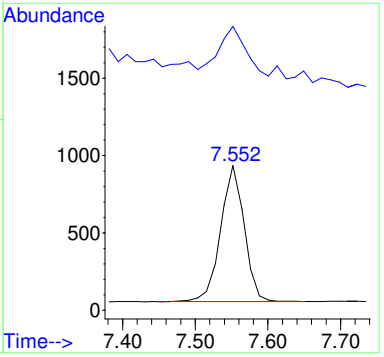


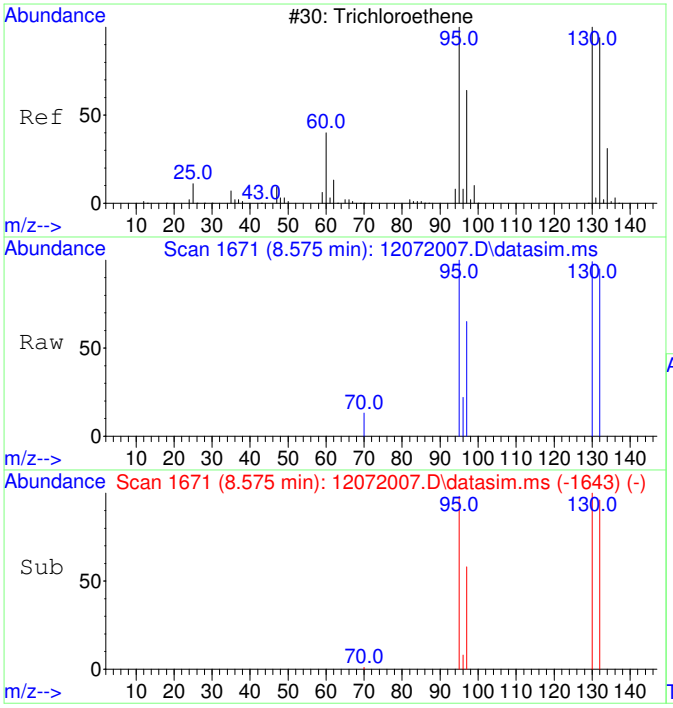


#10
1,2-Dichloroethane
Concen: 136.74 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 62 Resp: 1980

Ion	Ratio	Lower	Upper
62	100		
64	41.8	2.3	62.3

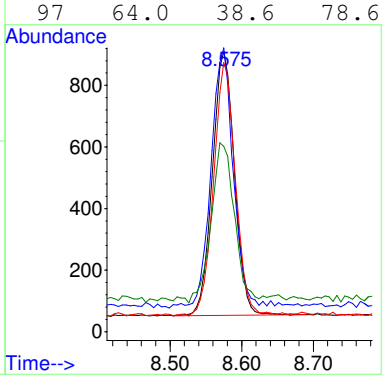


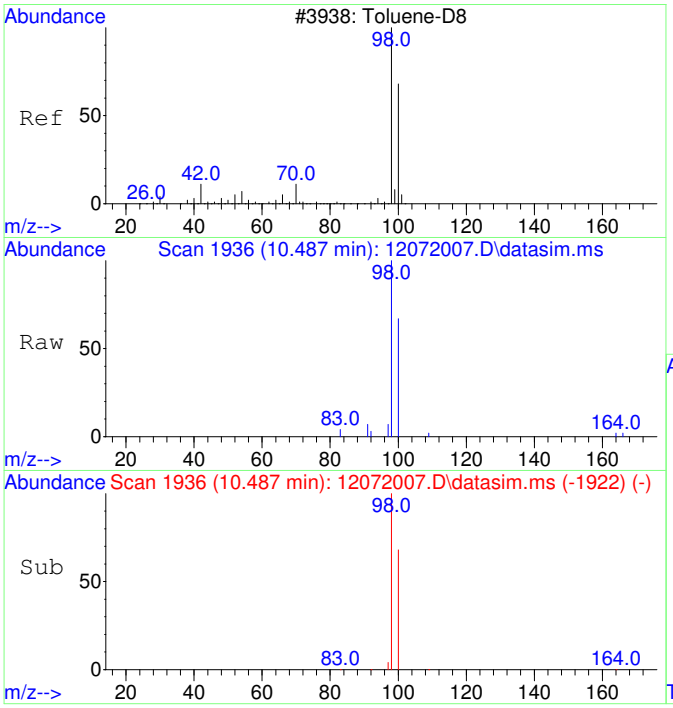


#11
Trichloroethene
Concen: 136.03 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:130 Resp: 1823

Ion	Ratio	Lower	Upper
130	100		
95	95.9	60.7	120.7
132	94.1	76.0	116.0
97	64.0	38.6	78.6

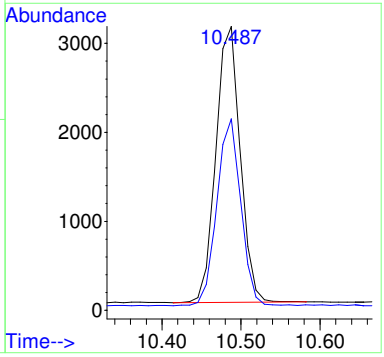


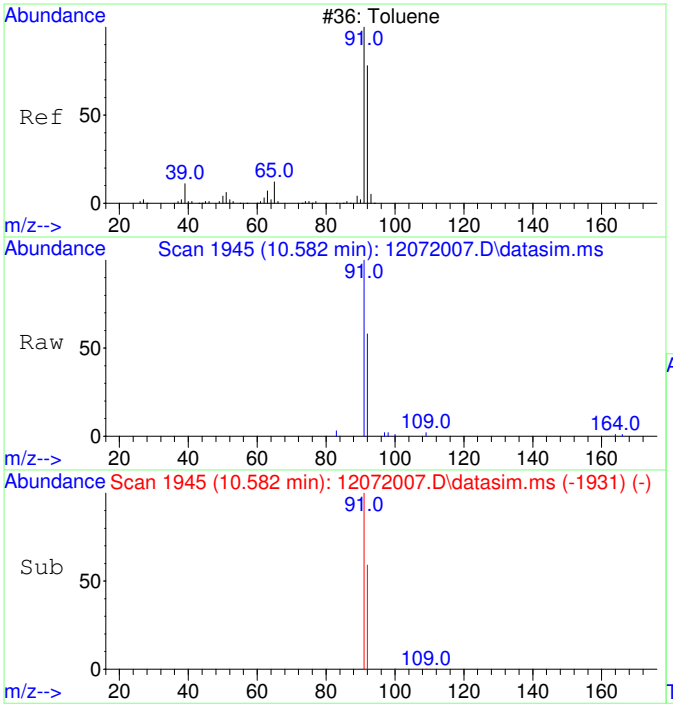


#12
Toluene-d8
Concen: 135.40 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 98 Resp: 6615

Ion	Ratio	Lower	Upper
98	100		
100	66.2	37.1	97.1

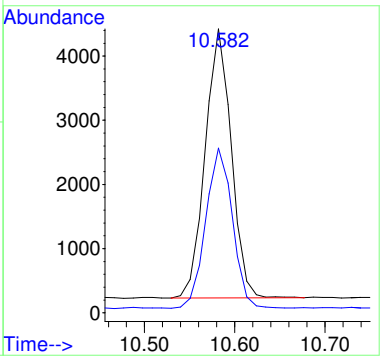


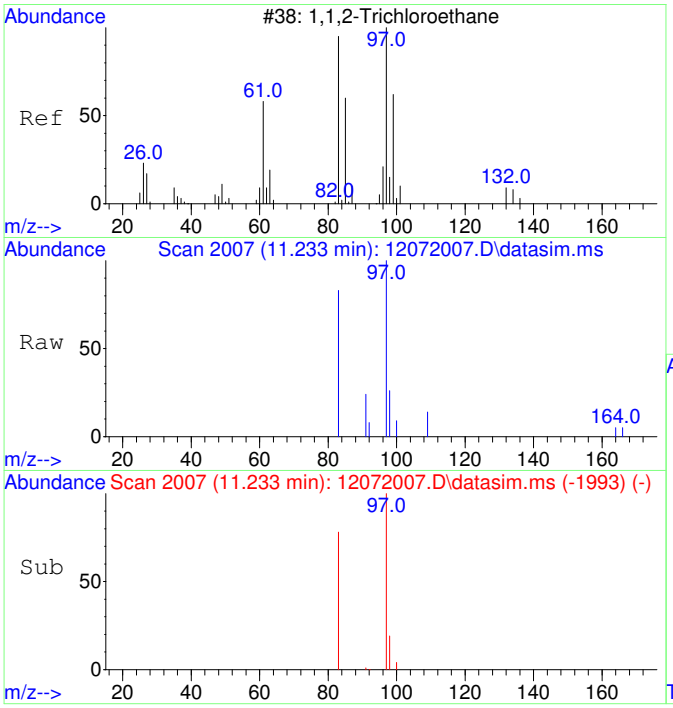


#13
Toluene
Concen: 138.31 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 8413

Ion	Ratio	Lower	Upper
91	100		
92	60.6	29.9	89.9

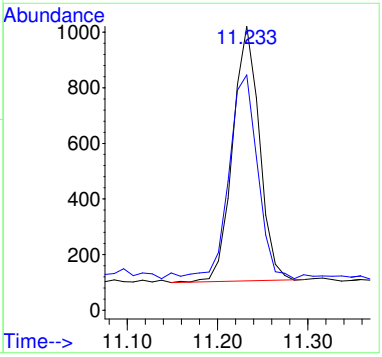


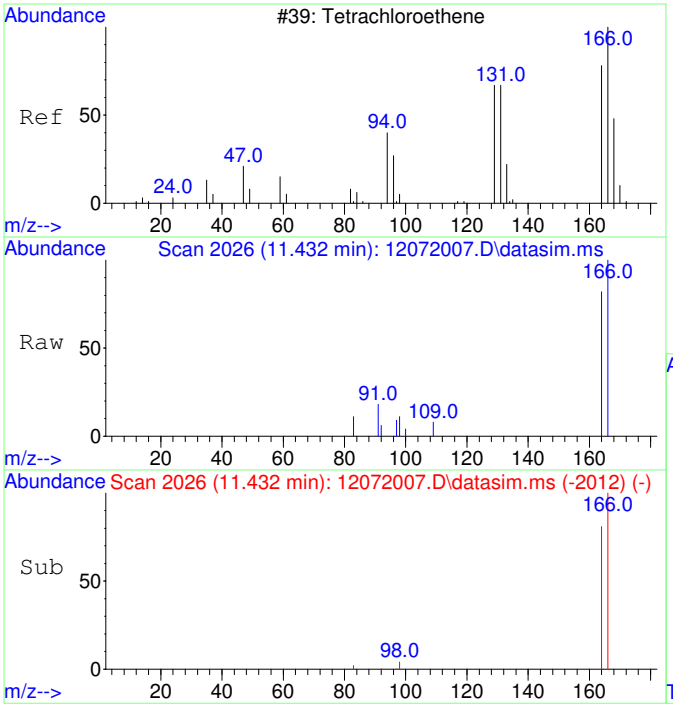


#14
1,1,2-Trichloroethane
Concen: 133.72 ug/L
RT: 11.233 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 1884

Ion	Ratio	Lower	Upper
97	100		
83	86.1	51.2	111.2

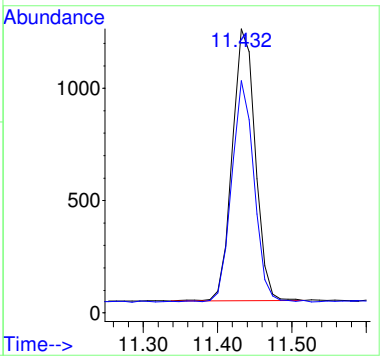


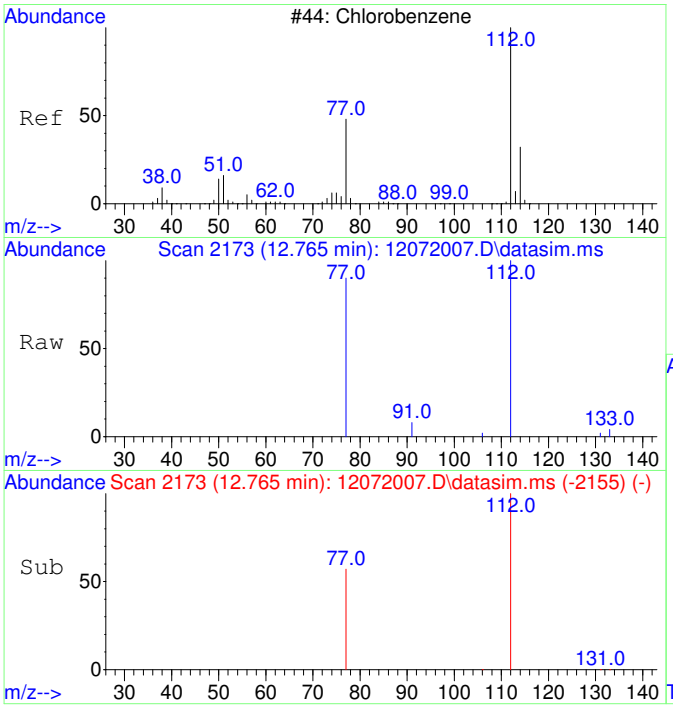


#15
Tetrachloroethene
Concen: 137.02 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:166 Resp: 2596

Ion	Ratio	Lower	Upper
166	100		
164	79.8	47.8	107.8

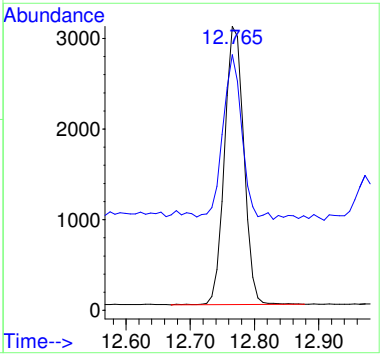


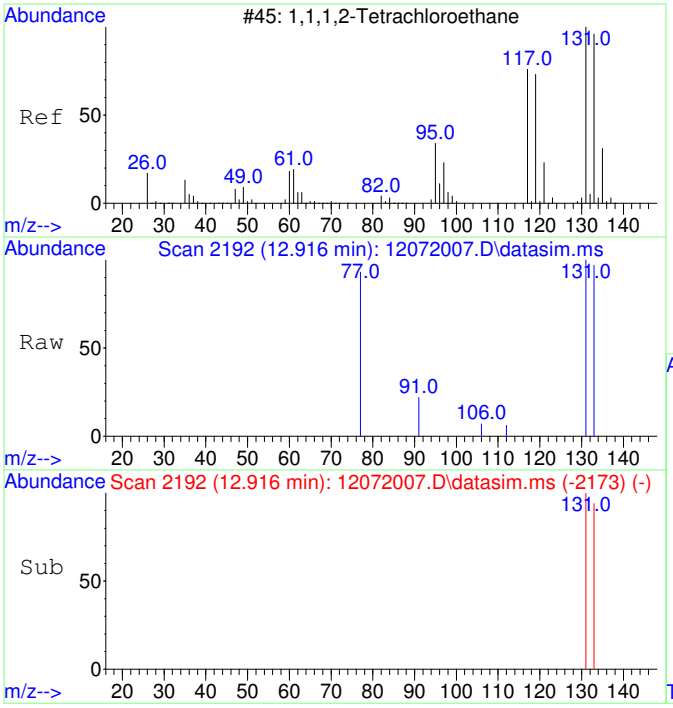


#16
Chlorobenzene
Concen: 135.22 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:112 Resp: 6372

Ion	Ratio	Lower	Upper
112	100		
77	59.1	23.6	83.6

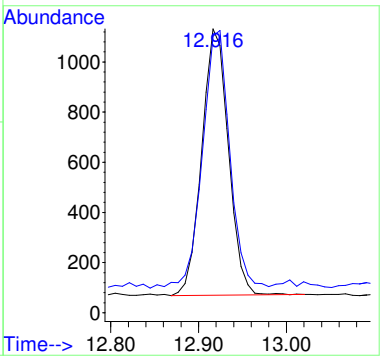


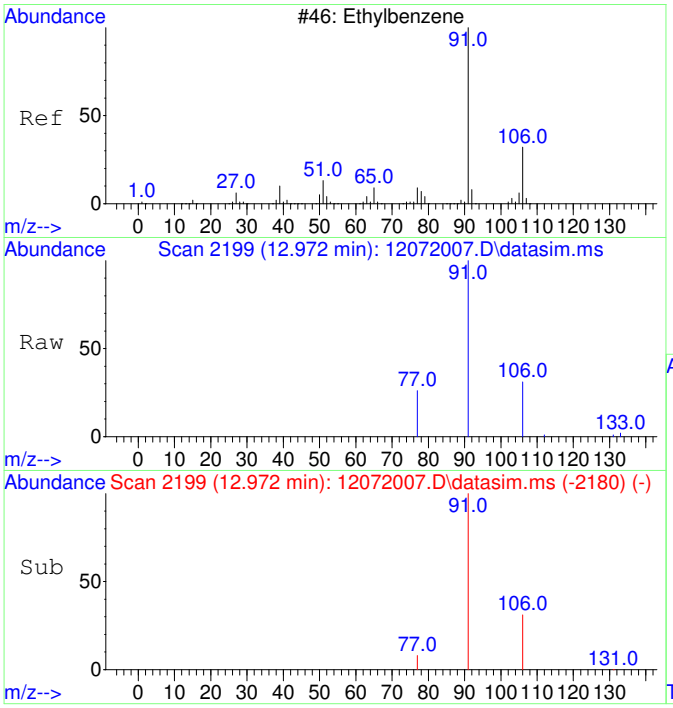


#17
1,1,1,2-Tetrachloroethane
Concen: 135.81 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:131 Resp: 2240

Ion	Ratio	Lower	Upper
131	100		
133	98.2	66.3	126.3

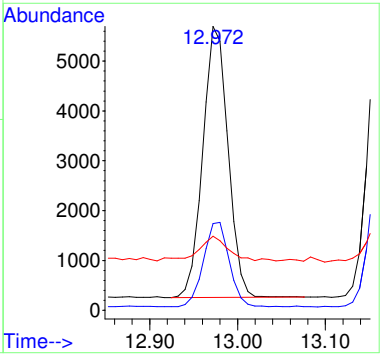


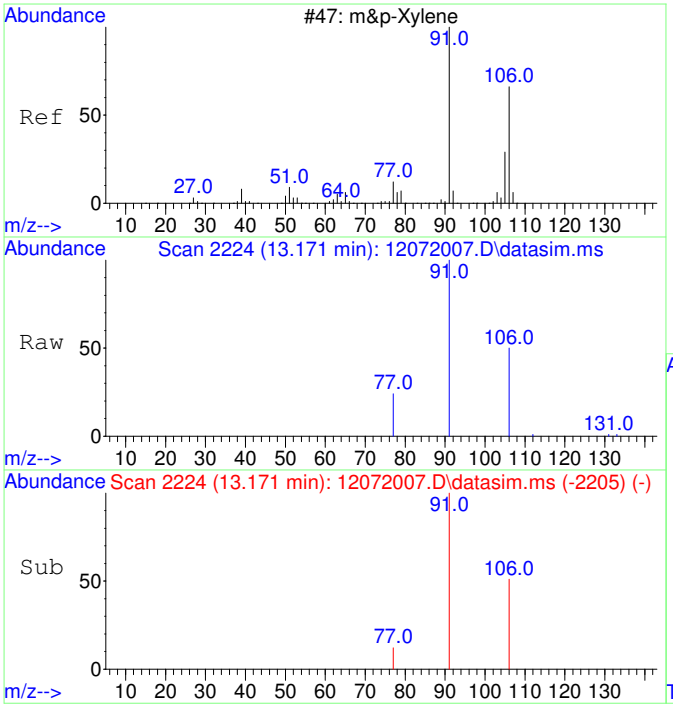


#18
Ethylbenzene
Concen: 139.93 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 10872

Ion	Ratio	Lower	Upper
91	100		
106	31.7	3.0	63.0
77	10.6	0.0	38.2

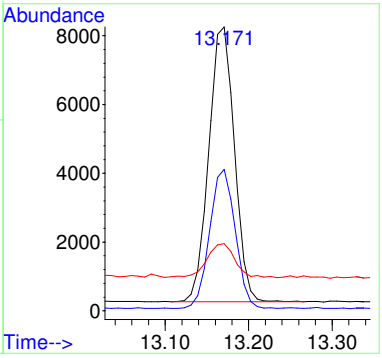


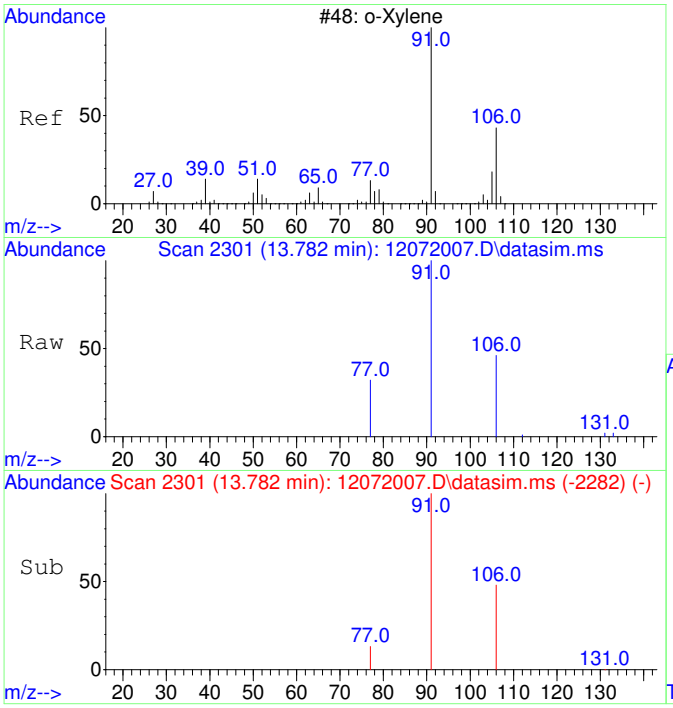


#19
m&p-Xylene
Concen: 285.38 ug/L
RT: 13.171 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 17074

Ion	Ratio	Lower	Upper
91	100		
106	50.4	22.2	82.2
77	13.6	0.0	42.4

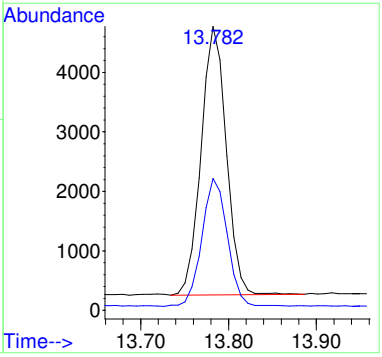


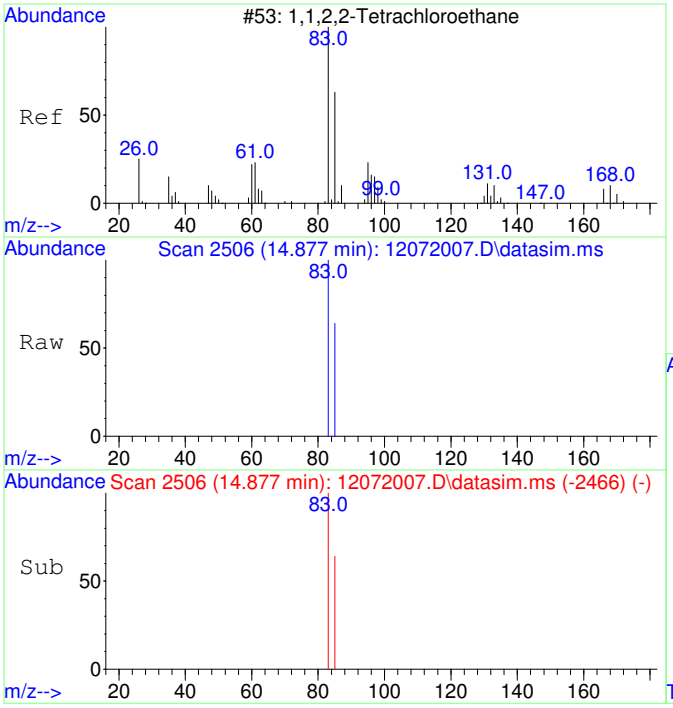


#20
o-Xylene
Concen: 140.07 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 9001

Ion	Ratio	Lower	Upper
91	100		
106	48.2	19.2	79.2

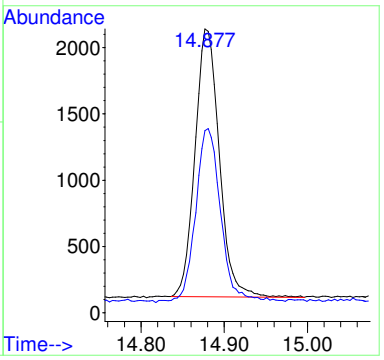


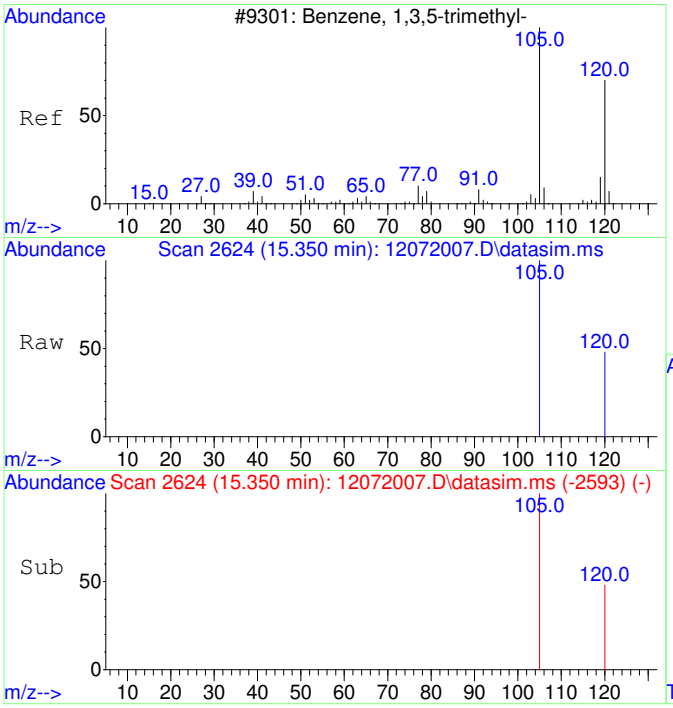


#21
1,1,2,2-Tetrachloroethane
Concen: 136.76 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.003 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 4095

Ion	Ratio	Lower	Upper
83	100		
85	63.8	34.8	94.8

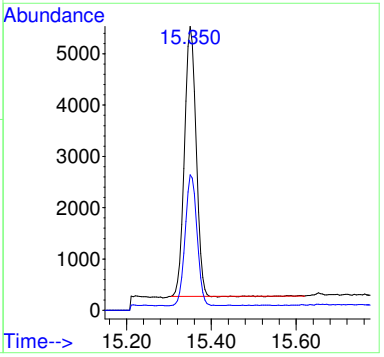


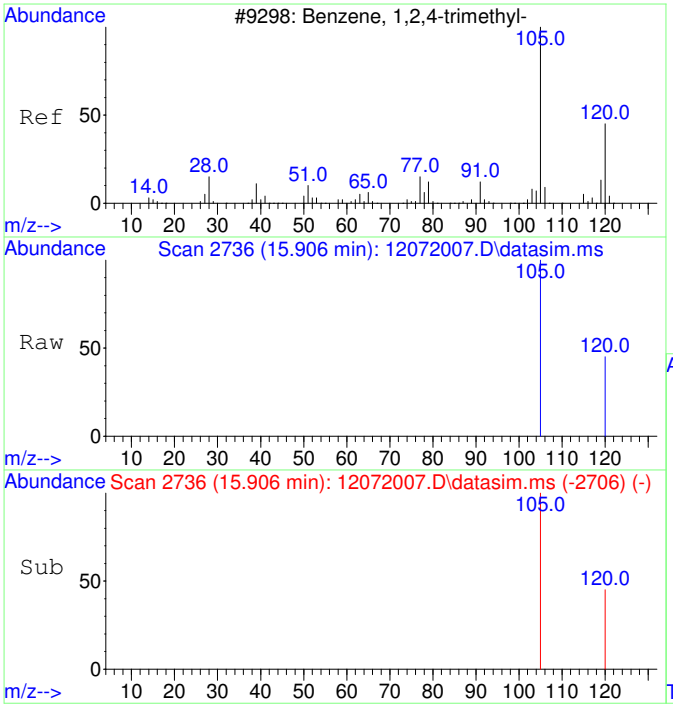


#22
1,3,5-Trimethylbenzene
Concen: 141.75 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:105 Resp: 10017

Ion	Ratio	Lower	Upper
105	100		
120	48.7	21.1	81.1

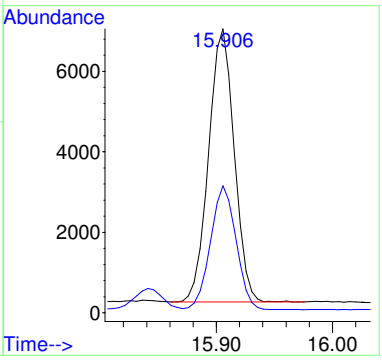


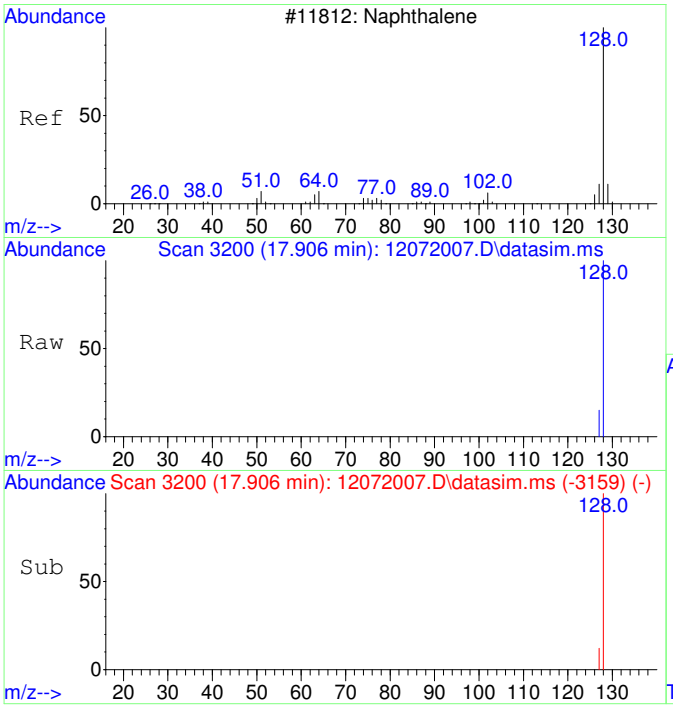


#23
1,2,4-Trimethylbenzene
Concen: 143.95 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:105 Resp: 10405

Ion	Ratio	Lower	Upper
105	100		
120	44.6	17.2	77.2

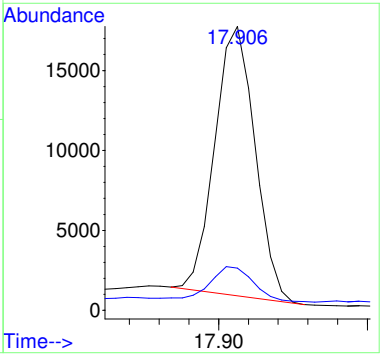


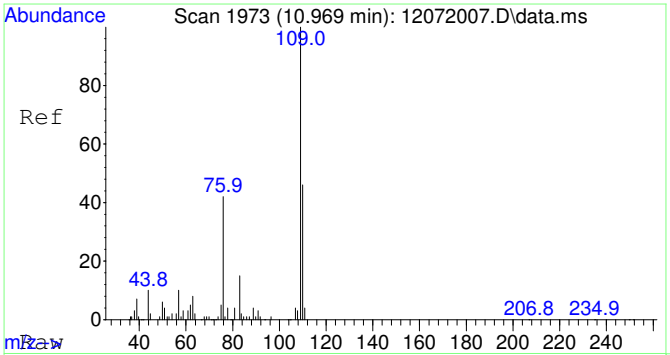


#24
Naphthalene
Concen: 132.61 ug/L
RT: 17.906 min Scan# 3200
Delta R.T. 0.003 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:128 Resp: 15689

Ion	Ratio	Lower	Upper
128	100		
127	12.2	0.0	42.5

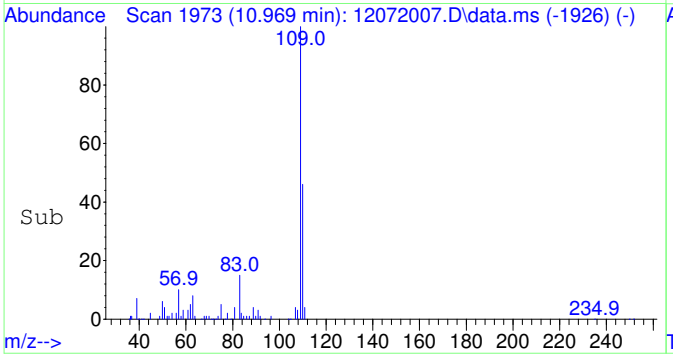


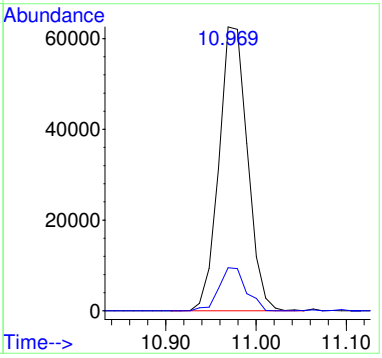


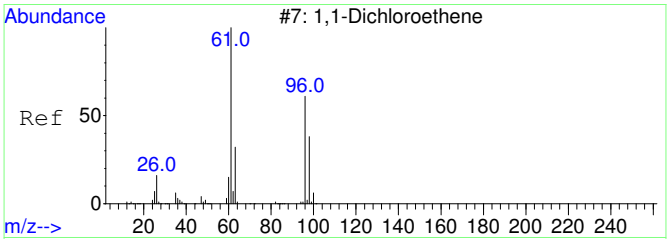
#25
2-Fluorotoluene SCAN
Concen: 4827.25 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

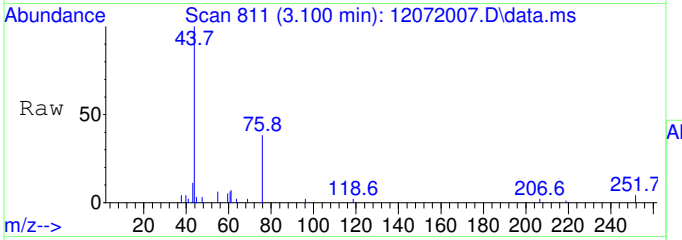
Tgt Ion:109 Resp: 138220

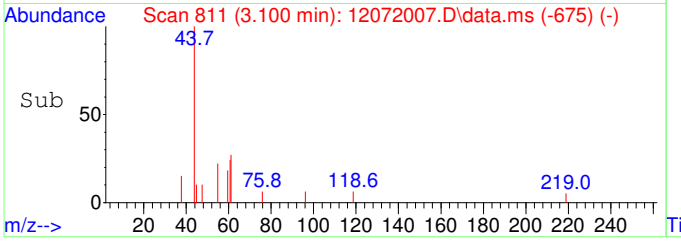
Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.8







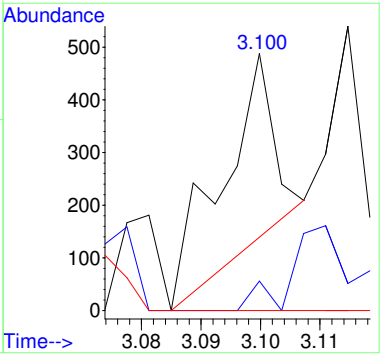


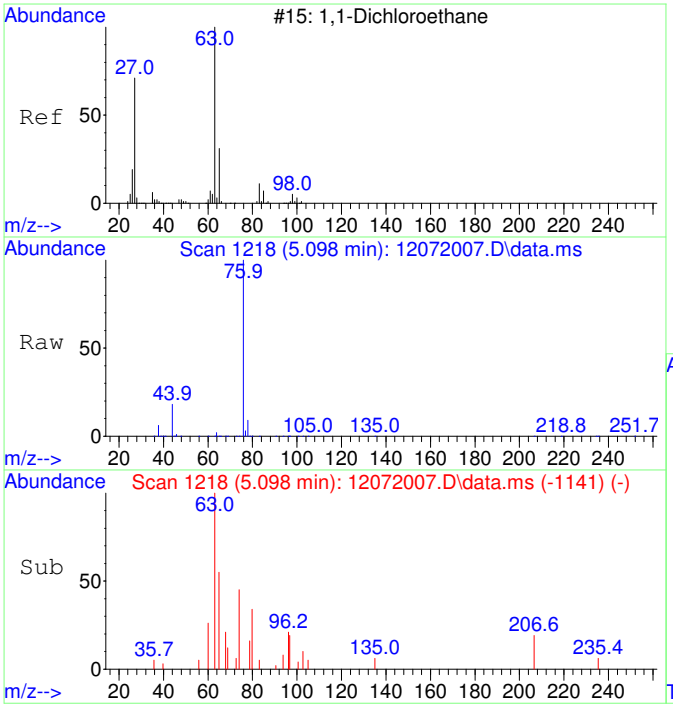


#26
1,1-Dichloroethene SCAN
Concen: 34.26 ug/L
RT: 3.100 min Scan# 811
Delta R.T. 0.004 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 229

Ion	Ratio	Lower	Upper
61	100		
96	0.0	33.1	93.1#
98	0.0	11.2	71.2#

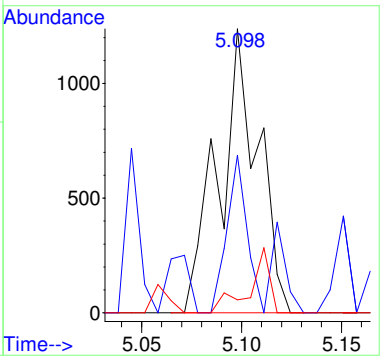


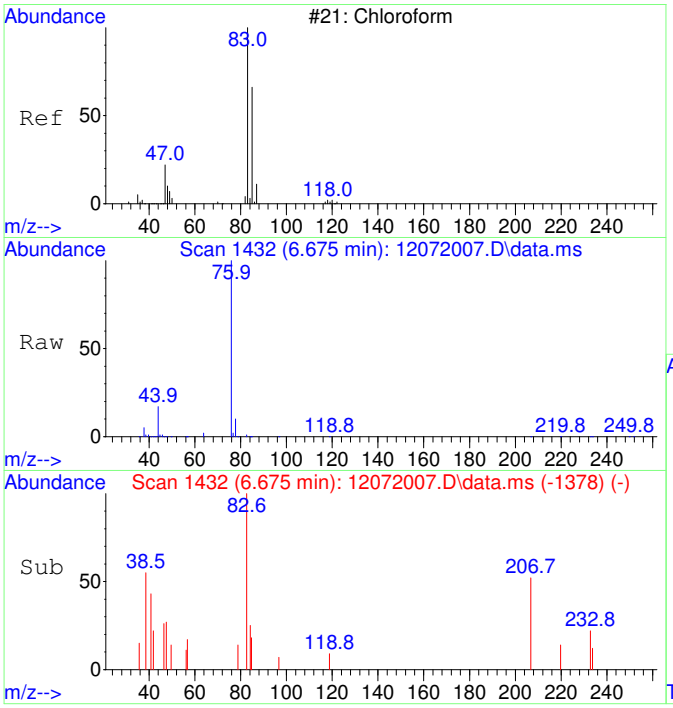


#28
1,1-Dichloroethane SCAN
Concen: 168.66 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.014 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 63 Resp: 1695

Ion	Ratio	Lower	Upper
63	100		
65	28.4	1.3	61.3
83	0.0	0.0	45.9

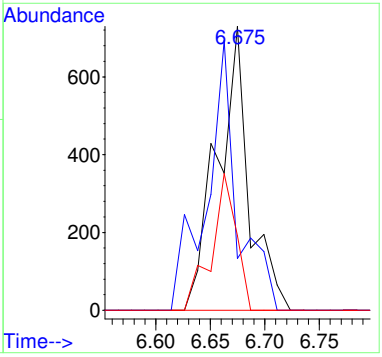


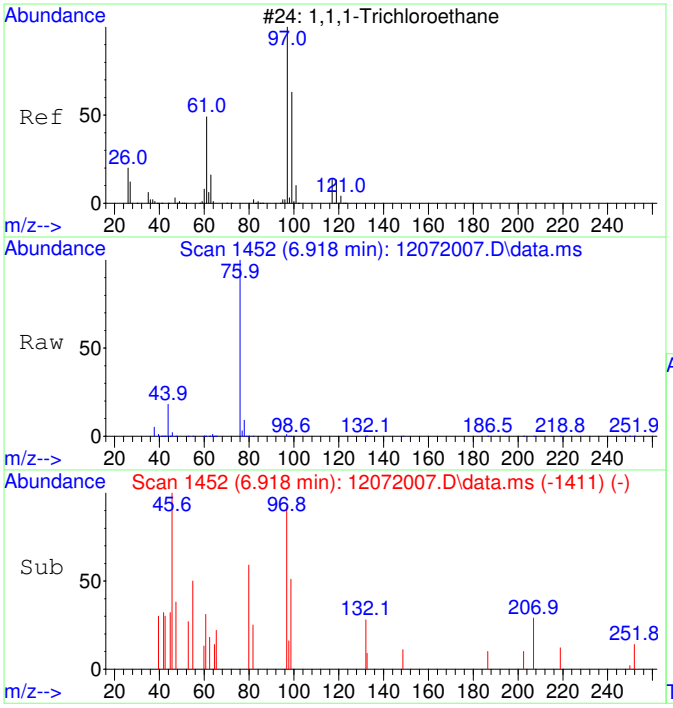


#30
Chloroform SCAN
Concen: 161.05 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 1484

Ion	Ratio	Lower	Upper
83	100		
85	91.5	34.6	94.6
47	37.3	0.0	53.4

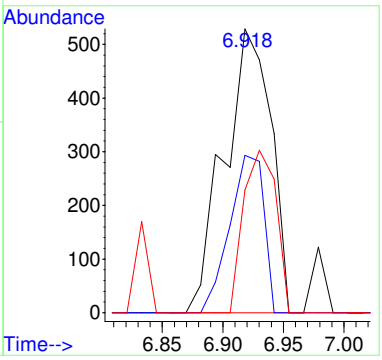


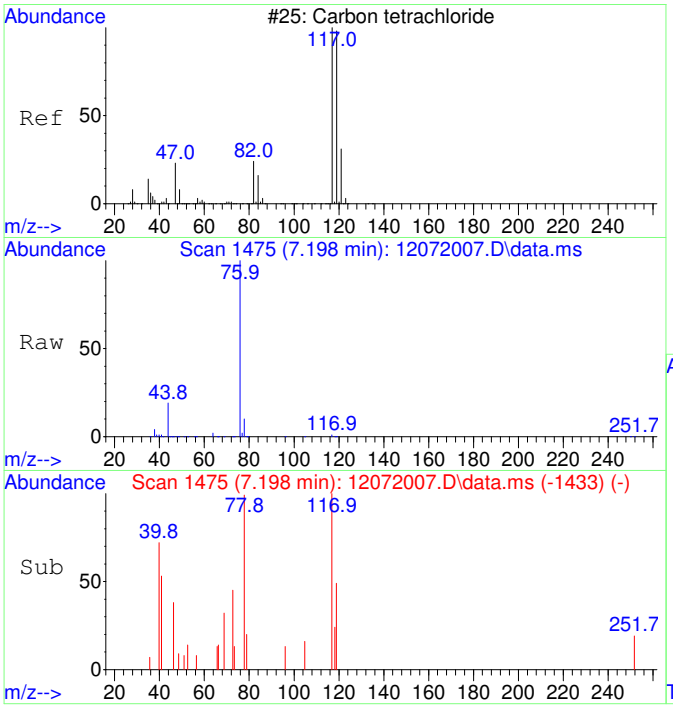


#31
1,1,1-Trichloroethane SCAN
Concen: 149.86 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 1425

Ion	Ratio	Lower	Upper
97	100		
99	40.8	43.6	103.6#
61	40.0	18.0	78.0

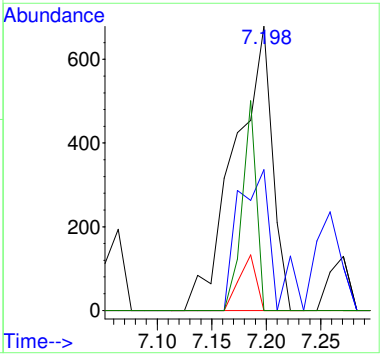


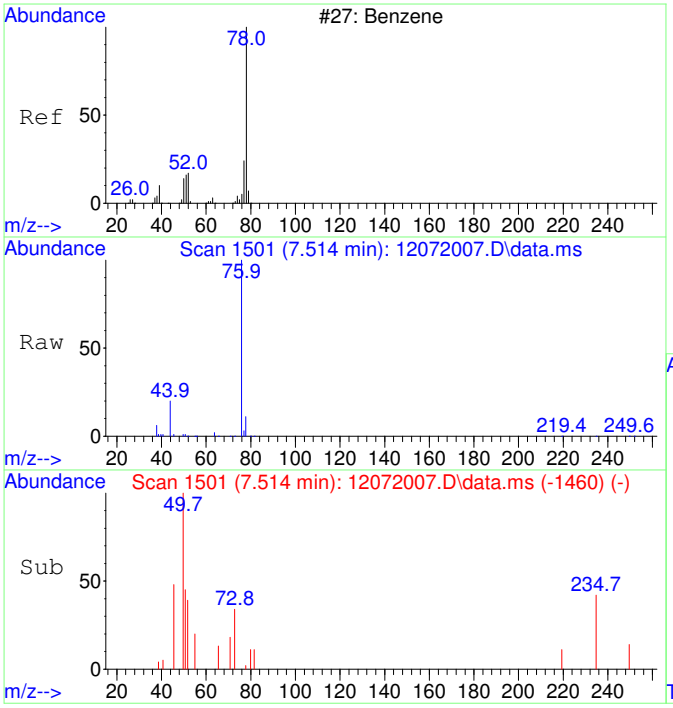


#32
Carbon tetrachloride SCAN
Concen: 200.47 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:117 Resp: 1629

Ion	Ratio	Lower	Upper
117	100		
119	45.5	75.5	135.5#
121	9.0	0.0	58.8
82	28.0	0.0	59.2

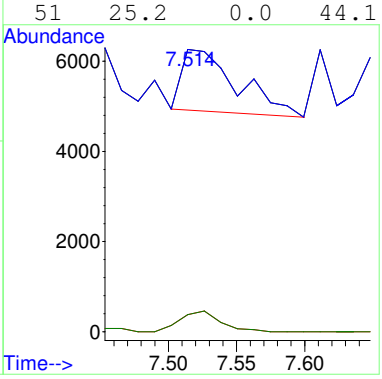


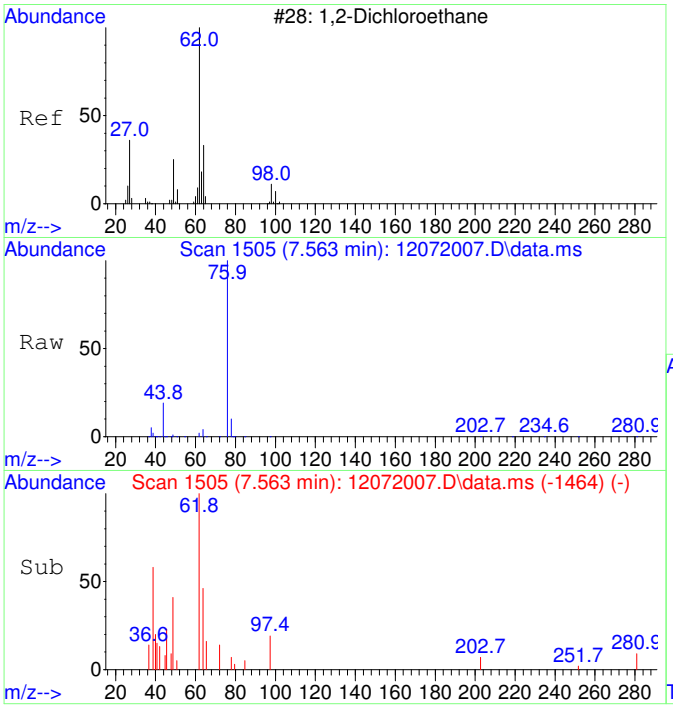


#33
Benzene SCAN
Concen: 132.09 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 78 Resp: 3800

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	25.2	0.0	47.9
51	25.2	0.0	44.1

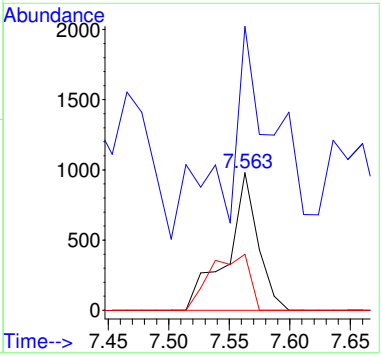


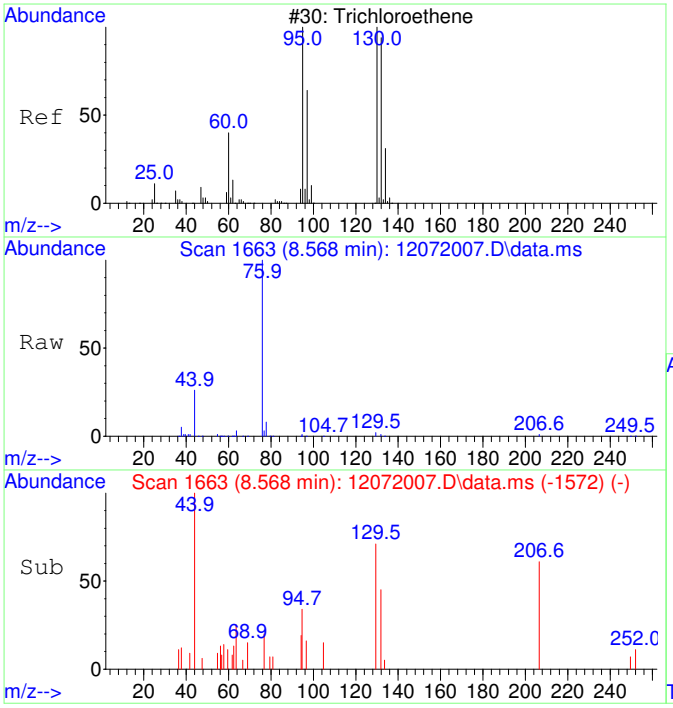


#34
1,2-Dichloroethane SCAN
Concen: 193.37 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 62 Resp: 1740

Ion	Ratio	Lower	Upper
62	100		
64	207.2	5.2	65.2#
49	52.0	3.9	63.9

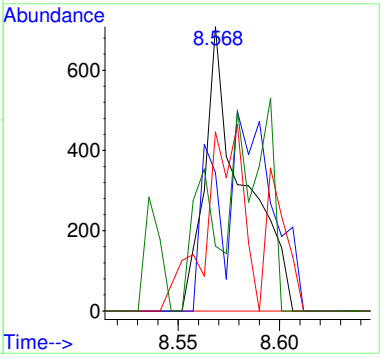


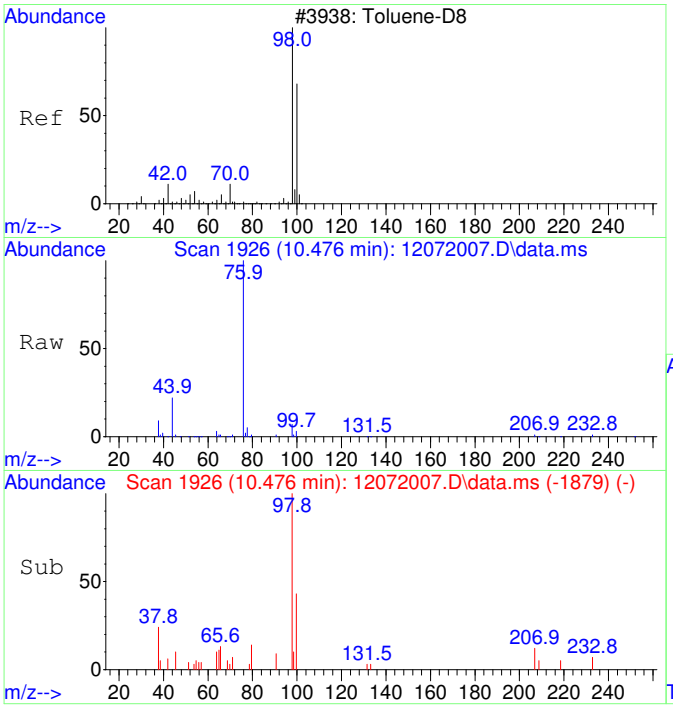


#35
Trichloroethene SCAN
Concen: 147.62 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. -0.005 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:130 Resp: 926

Ion	Ratio	Lower	Upper
130	100		
95	25.4	60.5	120.5#
132	0.0	59.6	119.6#
97	22.9	28.2	88.2#

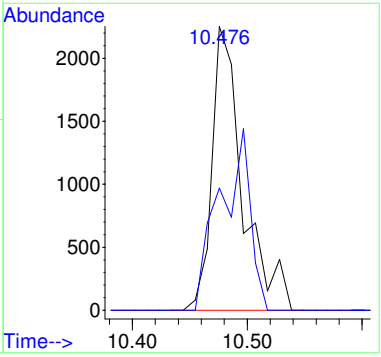


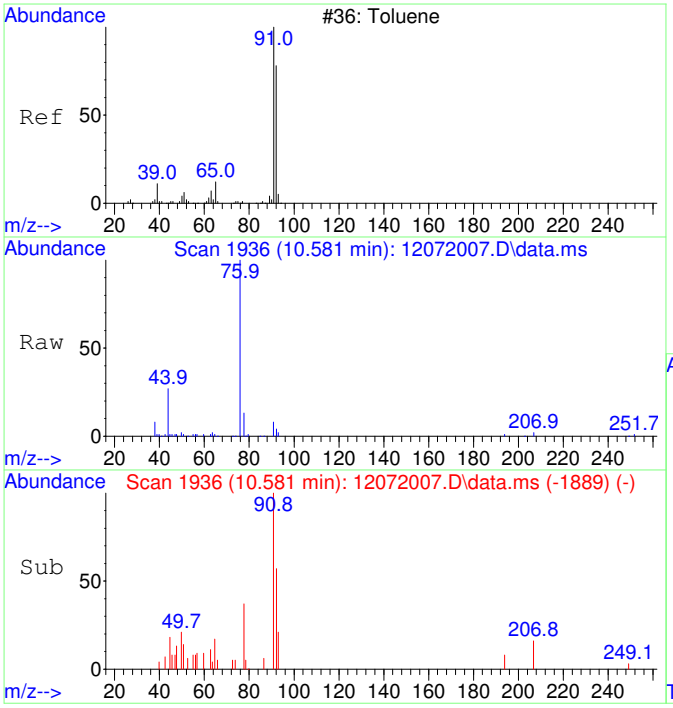


#36
Toluene-d8 SCAN
Concen: 155.54 ug/L
RT: 10.476 min Scan# 1926
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 98 Resp: 4177

Ion	Ratio	Lower	Upper
98	100		
100	0.0	40.0	100.0#

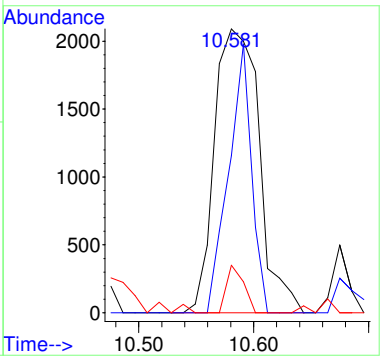


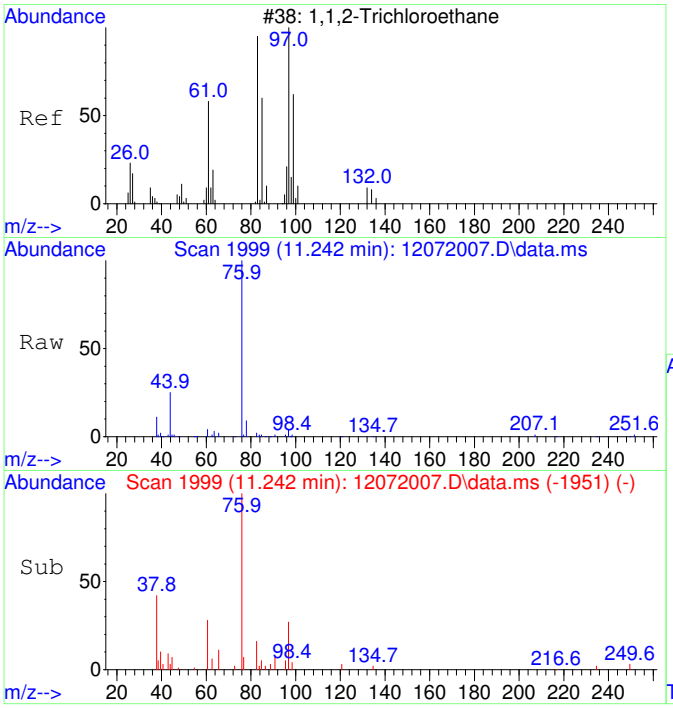


#37
Toluene SCAN
Concen: 171.27 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 5663

Ion	Ratio	Lower	Upper
91	100		
92	48.6	28.3	88.3
65	6.4	0.0	41.0

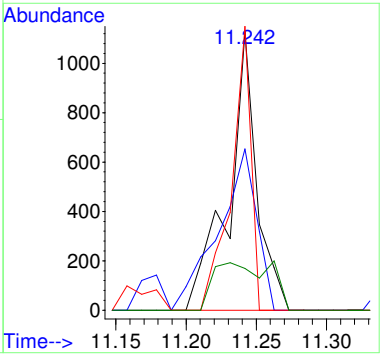


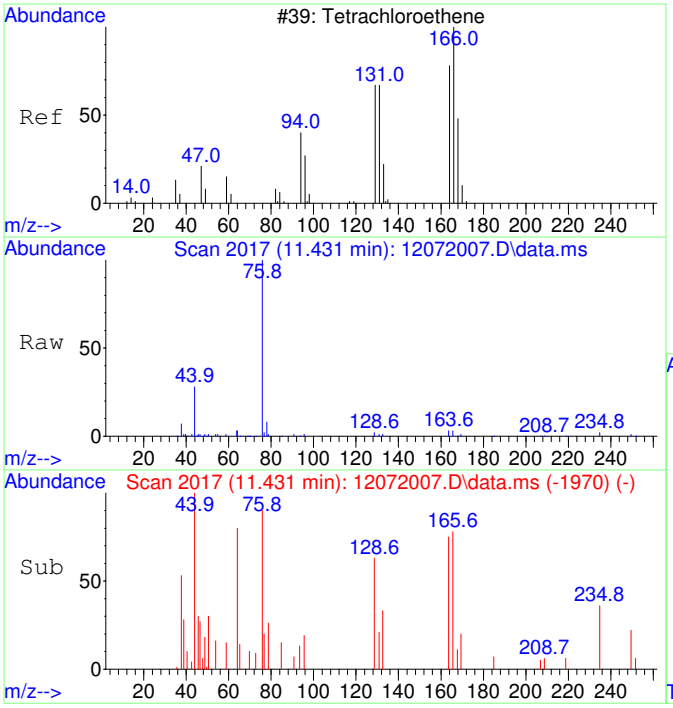


#38
1,1,2-Trichloroethane SCAN
Concen: 192.45 ug/L
RT: 11.242 min Scan# 1999
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 1595

Ion	Ratio	Lower	Upper
97	100		
83	78.3	57.7	117.7
61	70.2	32.1	92.1
99	0.0	36.7	96.7#

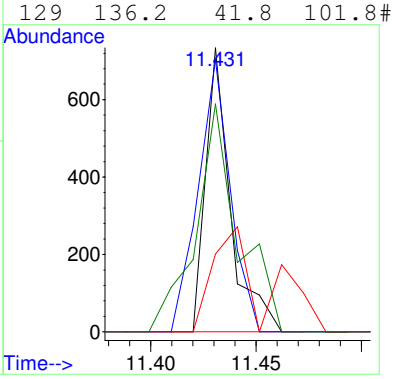


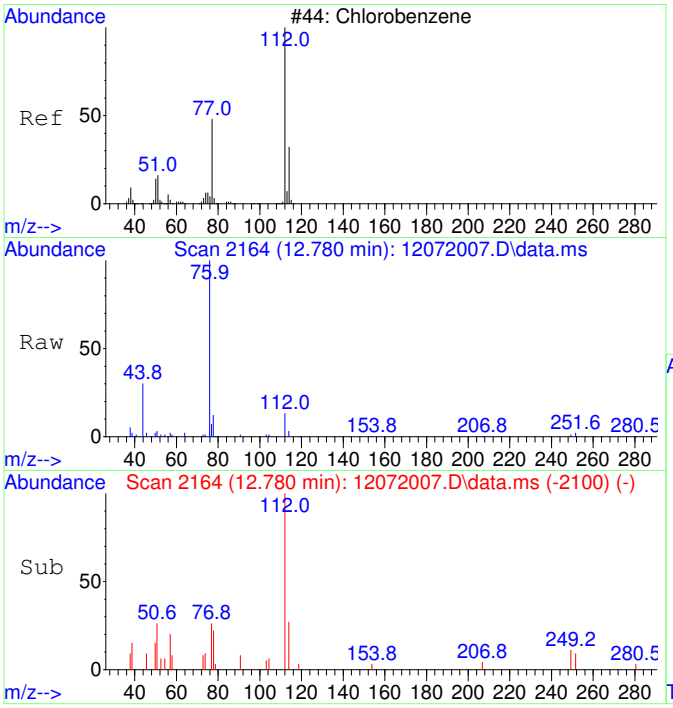


#39
Tetrachloroethene SCAN
Concen: 80.66 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:166 Resp: 600

Ion	Ratio	Lower	Upper
166	100		
164	124.3	50.9	110.9#
131	78.3	38.7	98.7
129	136.2	41.8	101.8#

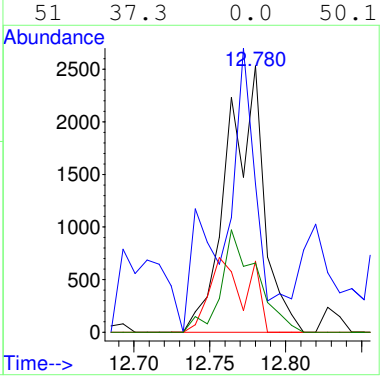


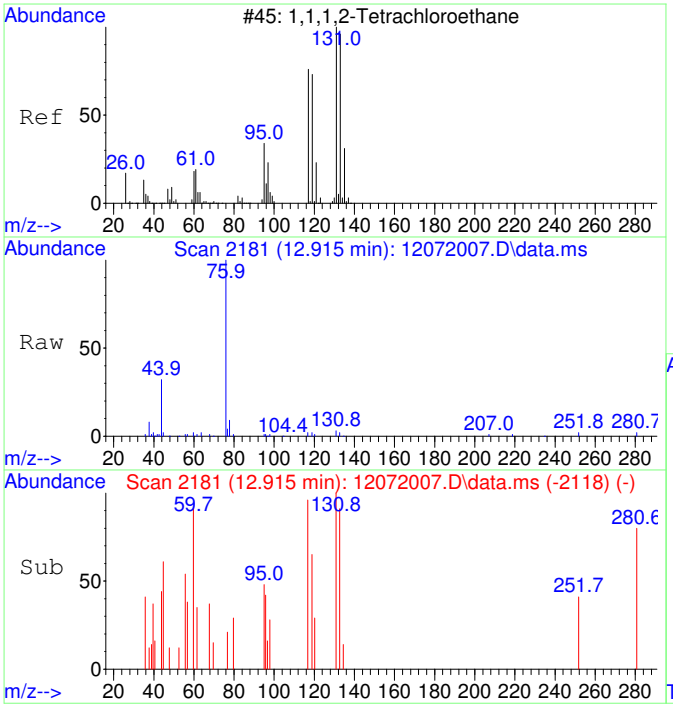


#40
Chlorobenzene SCAN
Concen: 179.38 ug/L
RT: 12.780 min Scan# 2164
Delta R.T. 0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:112 Resp: 4260

Ion	Ratio	Lower	Upper
112	100		
77	83.0	28.2	88.2
114	0.0	2.3	62.3#
51	37.3	0.0	50.1

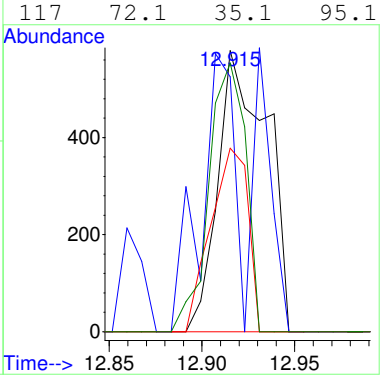


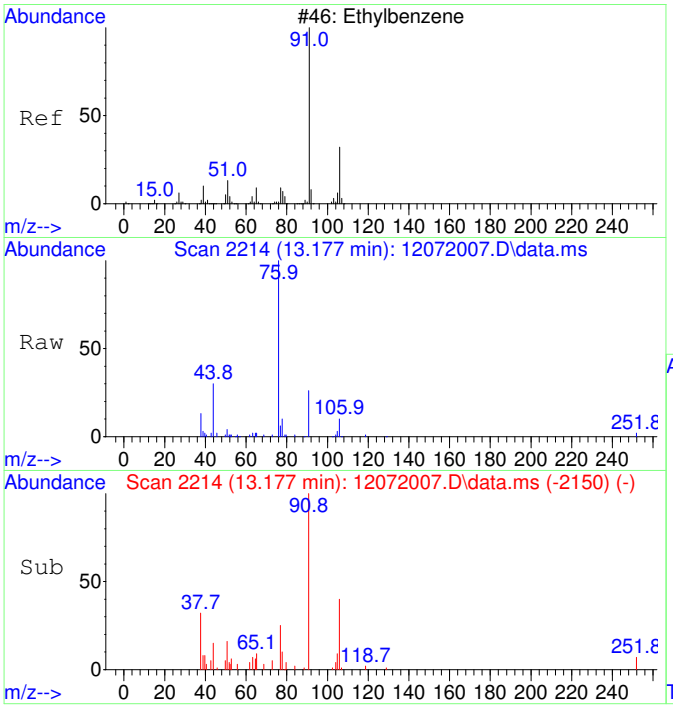


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 130.10 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:131 Resp: 1066

Ion	Ratio	Lower	Upper
131	100		
133	67.2	66.9	126.9
119	50.0	40.4	100.4
117	72.1	35.1	95.1

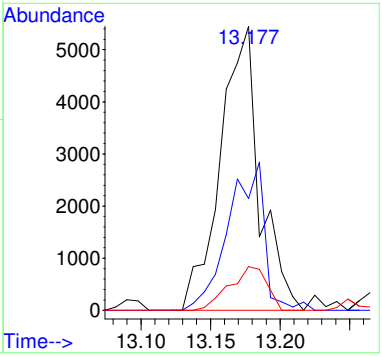


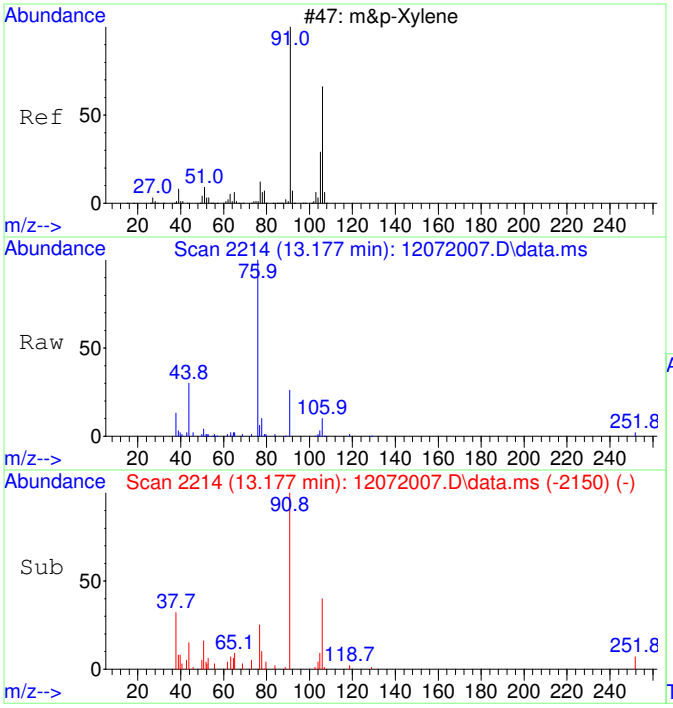


#42
Ethylbenzene SCAN
Concen: 169.70 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 10693

Ion	Ratio	Lower	Upper
91	100		
106	48.0	23.1	83.1
51	14.6	0.0	40.1

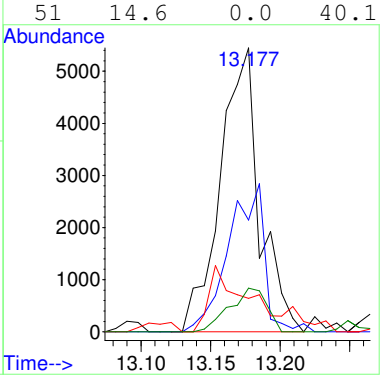


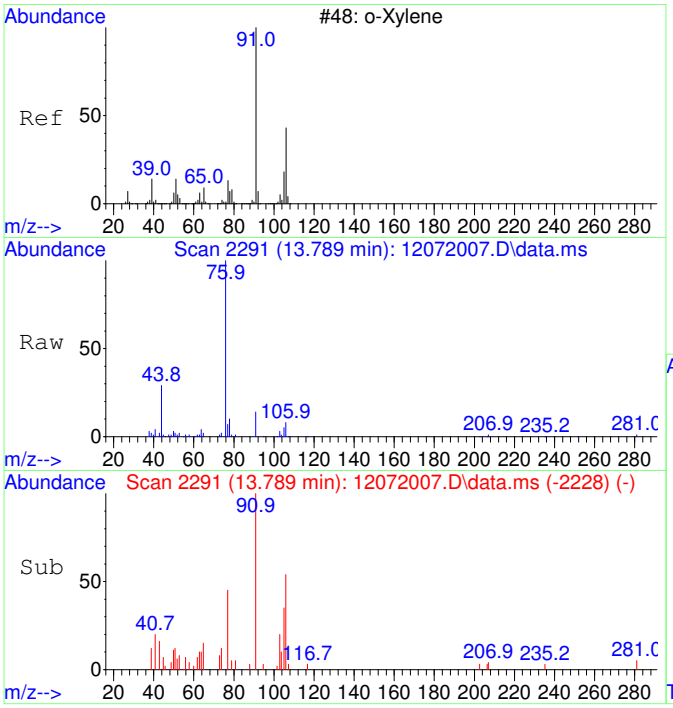


#43
m&p-Xylene SCAN
Concen: 169.70 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 10693

Ion	Ratio	Lower	Upper
91	100		
106	48.0	23.1	83.1
105	0.0	0.0	54.7
51	14.6	0.0	40.1

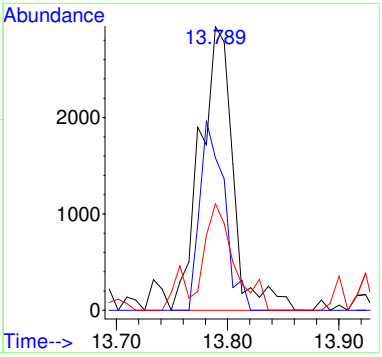


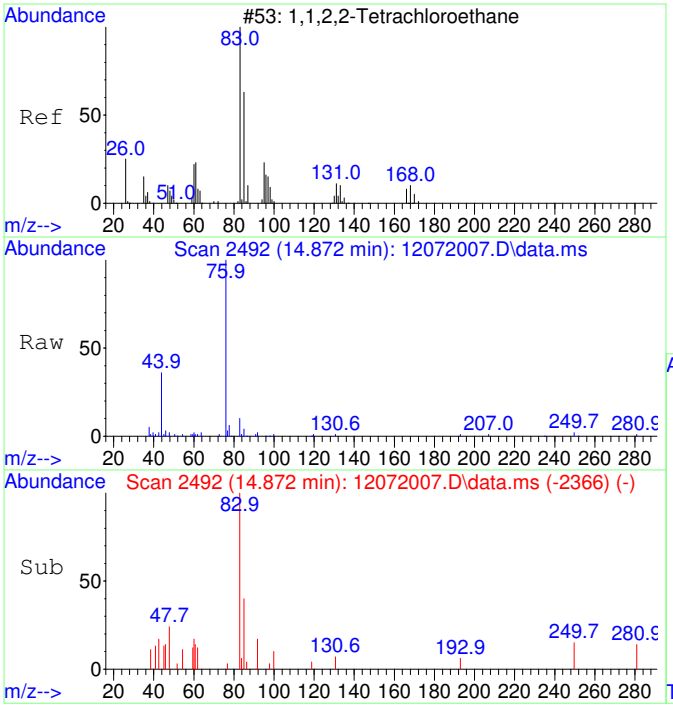


#44
o-Xylene SCAN
Concen: 176.50 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 6073

Ion	Ratio	Lower	Upper
91	100		
106	49.8	18.0	78.0
105	28.8	0.0	56.6

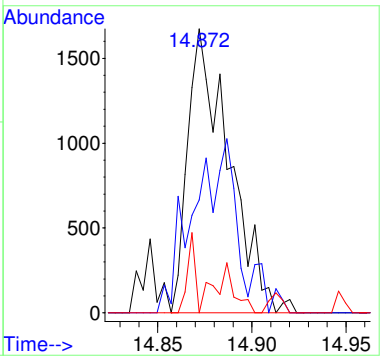


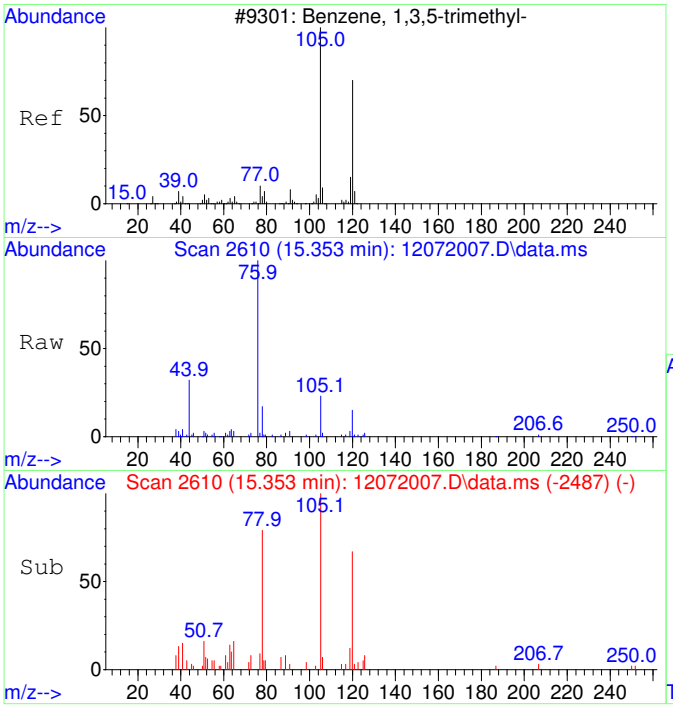


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 142.65 ug/L
RT: 14.872 min Scan# 2492
Delta R.T. -0.011 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 2552

Ion	Ratio	Lower	Upper
83	100		
85	16.8	35.9	95.9#
95	4.7	0.0	47.4

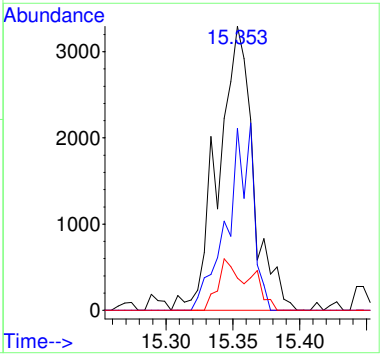


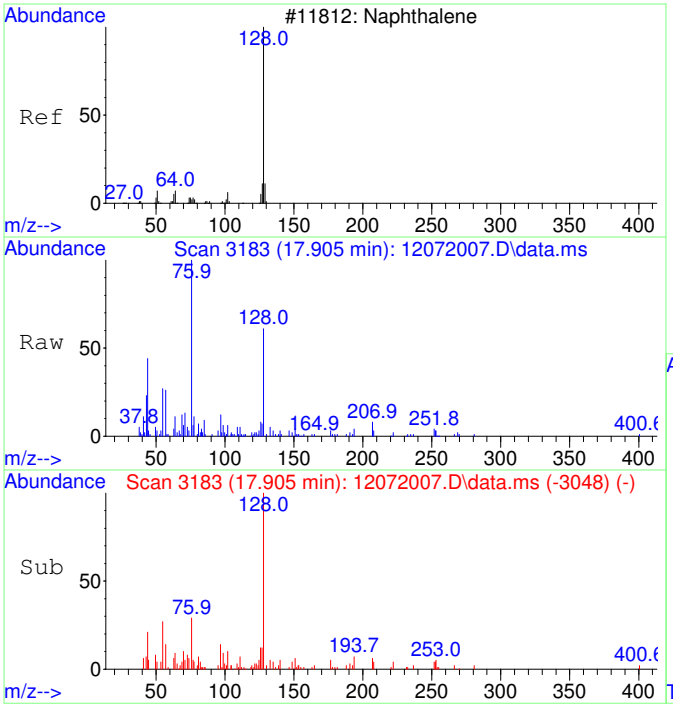


#46
1,3,5-Trimethylbenzene SCAN
Concen: 166.98 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:105 Resp: 6061

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.3	78.3
119	16.2	0.0	43.1

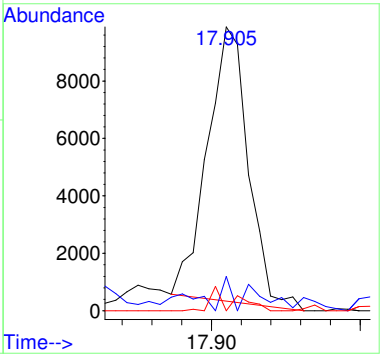




#48
Naphthalene SCAN
Concen: 163.35 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:128 Resp: 9093

Ion	Ratio	Lower	Upper
128	100		
127	2.9	0.0	44.0
129	2.2	0.0	40.8



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072007.D
Acq On : 7 Dec 2020 14:20
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
TD at 6:29 am, Dec 08, 2020

M.I. Approved By:
ZAR at 2:54 pm, Dec 14, 2020

Quant Time: Dec 08 06:25:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:14:00 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	252253	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.487	98	6615	135.40	ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 2.71%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.094	61	1297m	129.92	ug/L	
3] trans-1,2-Dichloroethene	4.383	61	1710	135.61	ug/L	95
4] 1,1-Dichloroethane	5.099	63	2024	134.39	ug/L	92
5] cis-1,2-Dichloroethene	6.094	61	2117	135.72	ug/L	99
6] Chloroform	6.664	83	1973	131.69	ug/L	97
7] 1,1,1-Trichloroethane	6.919	97	2178	135.33	ug/L	99
8] Carbon tetrachloride	7.187	117	2056	133.62	ug/L	100
9] Benzene	7.515	78	5940	139.94	ug/L	60
10] 1,2-Dichloroethane	7.552	62	1980	136.74	ug/L	83
11] Trichloroethene	8.575	130	1823	136.03	ug/L	95
13] Toluene	10.582	91	8413	138.31	ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	1884	133.72	ug/L	94
15] Tetrachloroethene	11.432	166	2596	137.02	ug/L	98
16] Chlorobenzene	12.765	112	6372	135.22	ug/L	92
17] 1,1,1,2-Tetrachloroethane	12.916	131	2240	135.81	ug/L	98
18] Ethylbenzene	12.972	91	10872	139.93	ug/L	97
19] m&p-Xylene	13.171	91	17074	285.38	ug/L	97
20] o-Xylene	13.782	91	9001	140.07	ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.877	83	4095	136.76	ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	10017	141.75	ug/L	97
23] 1,2,4-Trimethylbenzene	15.906	105	10405	143.95	ug/L	96
24] Naphthalene	17.906	128	15689	132.61	ug/L	99
25) 2-Fluorotoluene SCAN	10.969	109	138220	4827.25	ug/L	98
26) 1,1-Dichloroethene SCAN	3.100	61	229	34.26	ug/L #	25
28) 1,1-Dichloroethane SCAN	5.098	63	1695	168.66	ug/L #	84
30) Chloroform SCAN	6.675	83	1484	161.05	ug/L	67
31) 1,1,1-Trichloroethane ...	6.918	97	1425	149.86	ug/L #	72
32) Carbon tetrachloride SCAN	7.198	117	1629	200.47	ug/L #	56
33) Benzene SCAN	7.514	78	3800	132.09	ug/L	95
34) 1,2-Dichloroethane SCAN	7.563	62	1740	193.37	ug/L #	1
35) Trichloroethene SCAN	8.568	130	926	147.62	ug/L #	26
36) Toluene-d8 SCAN	10.476	98	4177	155.54	ug/L #	15
37) Toluene SCAN	10.581	91	5663	171.27	ug/L	87
38) 1,1,2-Trichloroethane ...	11.242	97	1595	192.45	ug/L #	67
39) Tetrachloroethene SCAN	11.431	166	600	80.66	ug/L #	53
40) Chlorobenzene SCAN	12.780	112	4260	179.38	ug/L #	59
41) 1,1,1,2-Tetrachloroeth...	12.915	131	1066	130.10	ug/L	77
42) Ethylbenzene SCAN	13.177	91	10693	169.70	ug/L	92
43) m&p-Xylene SCAN	13.177	91	10693	169.70	ug/L #	80
44) o-Xylene SCAN	13.789	91	6073	176.50	ug/L	97
45) 1,1,2,2-Tetrachloroeth...	14.872	83	2552	142.65	ug/L #	45
46) 1,3,5-Trimethylbenzene...	15.353	105	6061	166.98	ug/L	98
48) Naphthalene SCAN	17.905	128	9093	163.35	ug/L	75

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072007.D
Acq On : 7 Dec 2020 14:20
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL5
Misc : 2030072 0.15 mg/L
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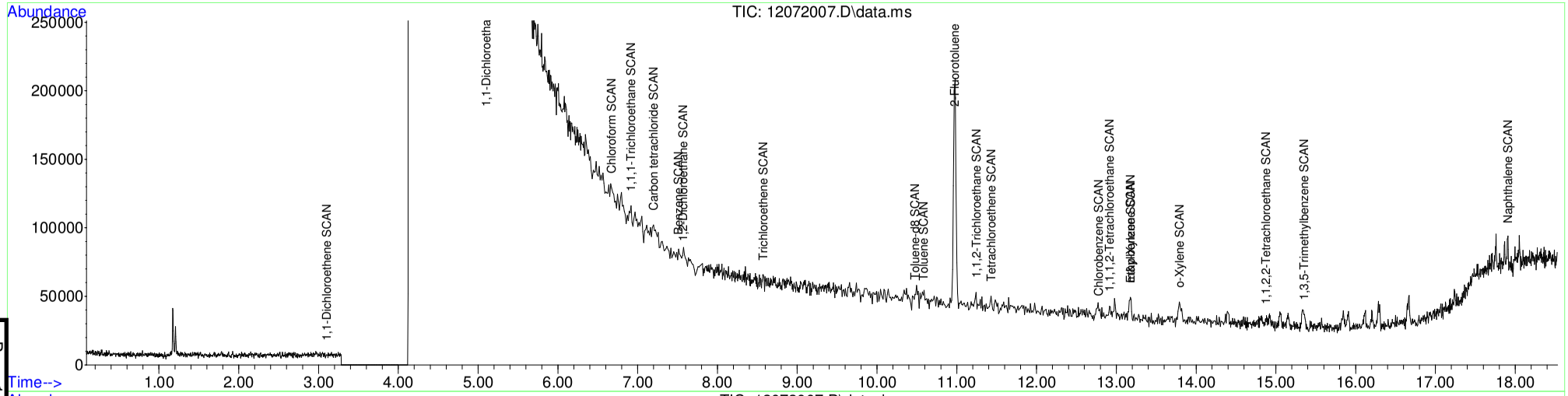
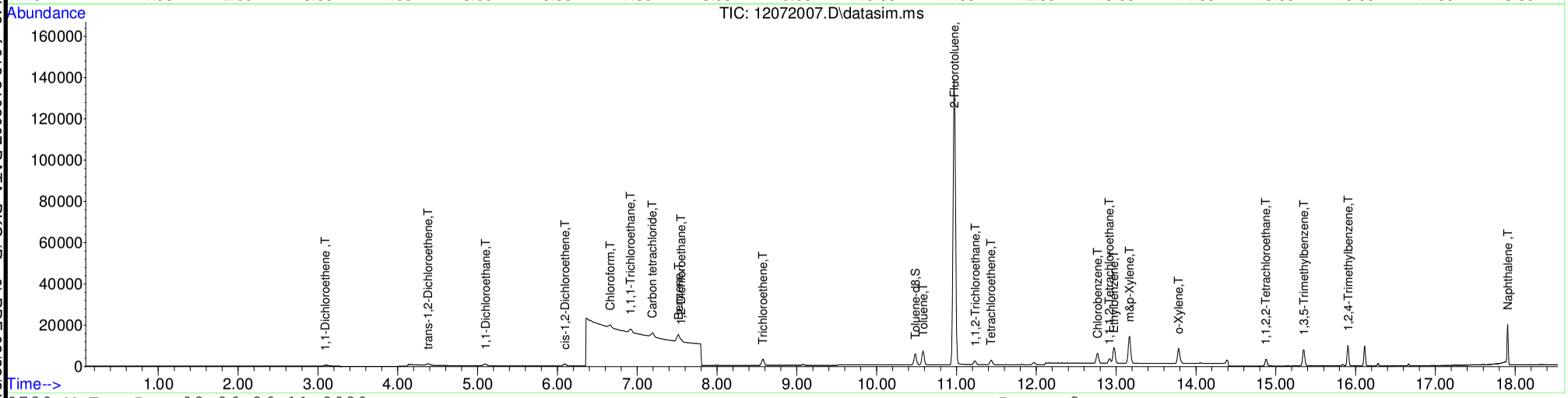
Quant Time: Dec 08 06:25:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:14:00 2020
Response via : Initial Calibration





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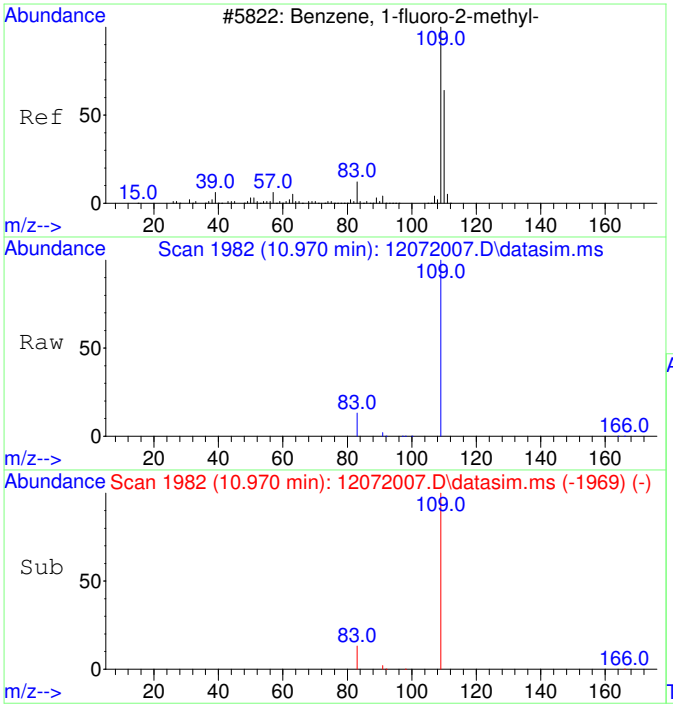
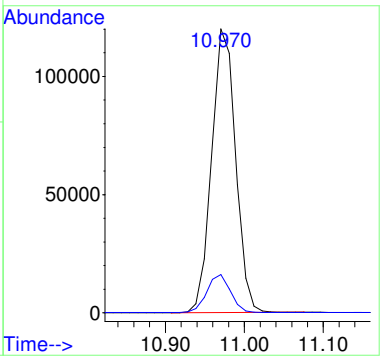
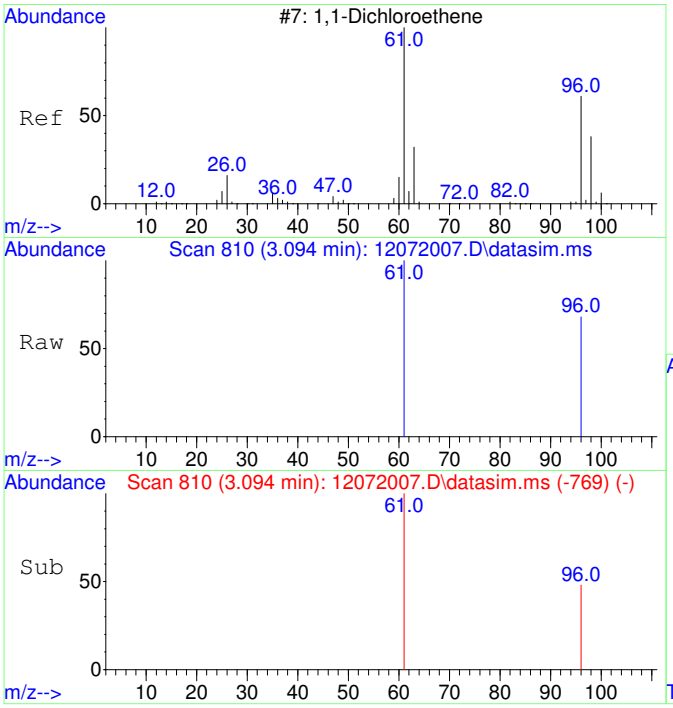


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:109 Resp: 252253

Ion	Ratio	Lower	Upper
109	100		
83	13.2	0.0	42.3

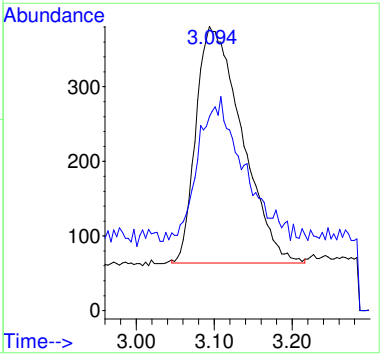


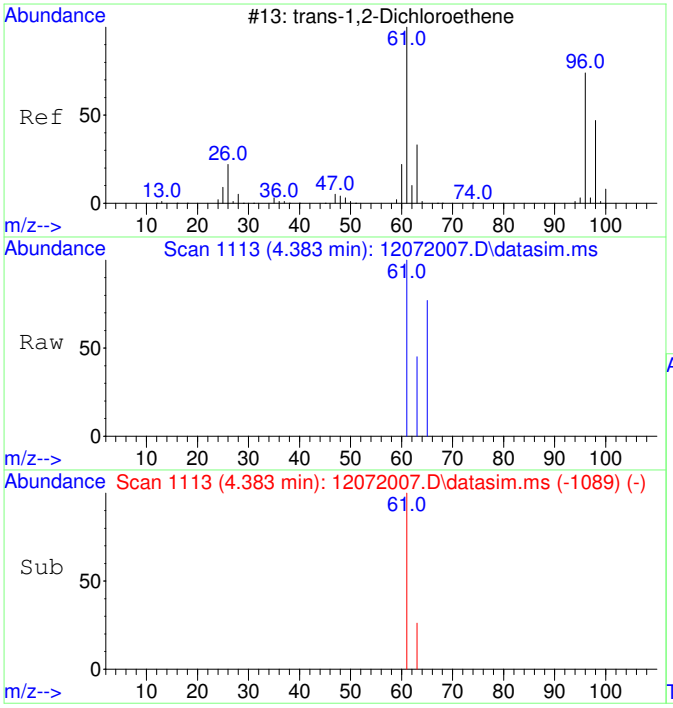


#2
1,1-Dichloroethene
Concen: 129.92 ug/L m
RT: 3.094 min Scan# 810
Delta R.T. 0.004 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 1297

Ion	Ratio	Lower	Upper
61	100		
96	56.1	37.2	97.2

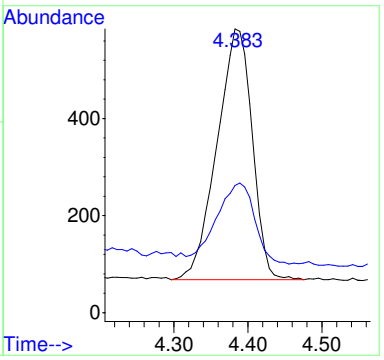


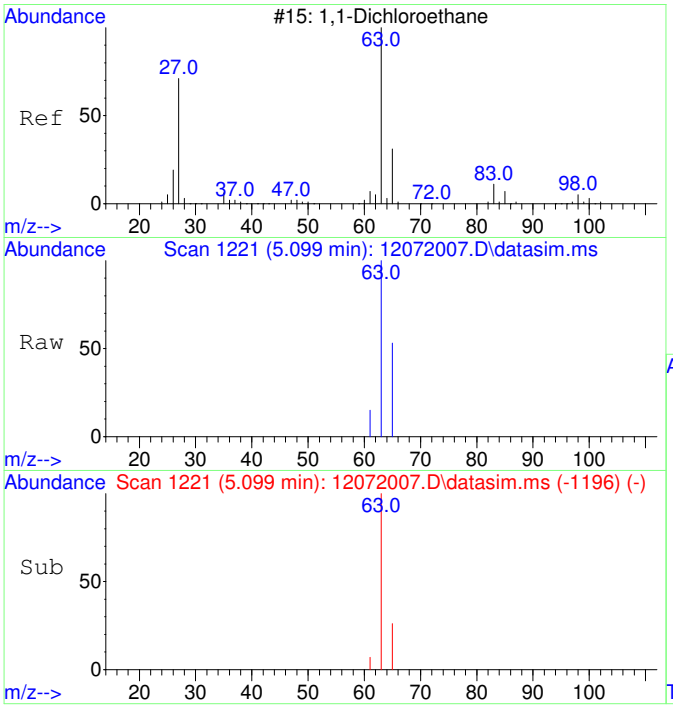


#3
trans-1,2-Dichloroethene
Concen: 135.61 ug/L
RT: 4.383 min Scan# 1113
Delta R.T. 0.007 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 1710

Ion	Ratio	Lower	Upper
61	100		
63	35.1	2.4	62.4

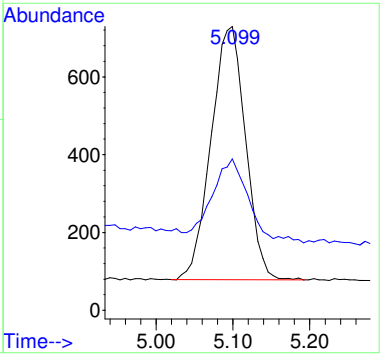


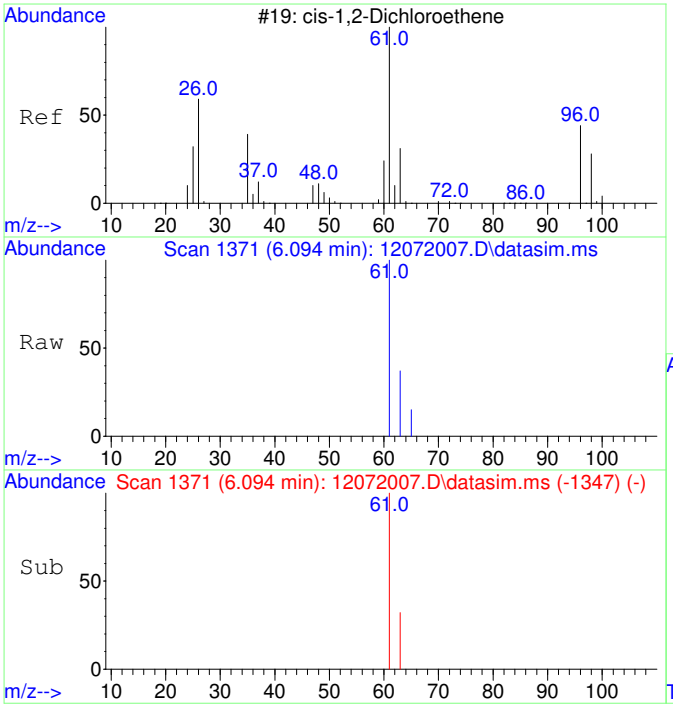


#4
1,1-Dichloroethane
Concen: 134.39 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. 0.014 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 63 Resp: 2024

Ion	Ratio	Lower	Upper
63	100		
65	36.1	1.8	61.8

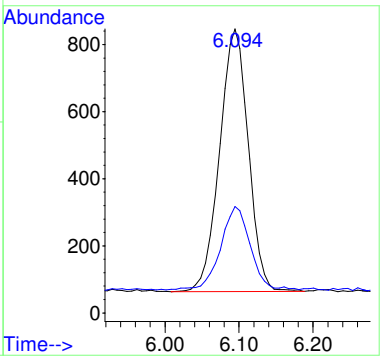


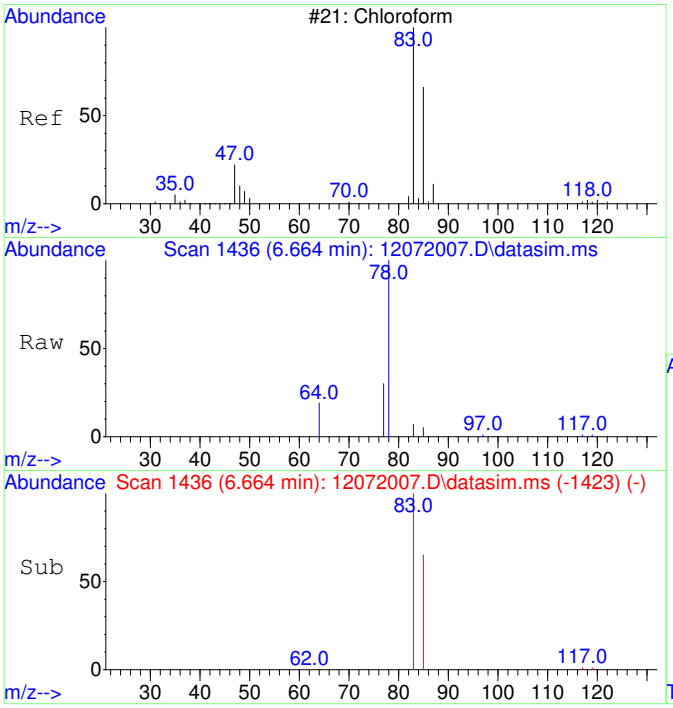


#5
cis-1,2-Dichloroethene
Concen: 135.72 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.007 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 2117

Ion	Ratio	Lower	Upper
61	100		
63	32.2	2.5	62.5

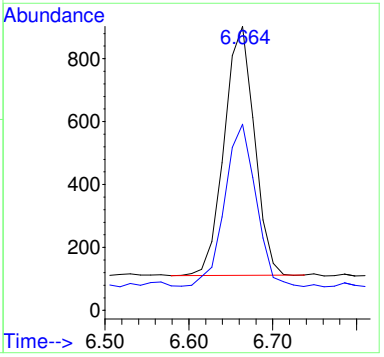


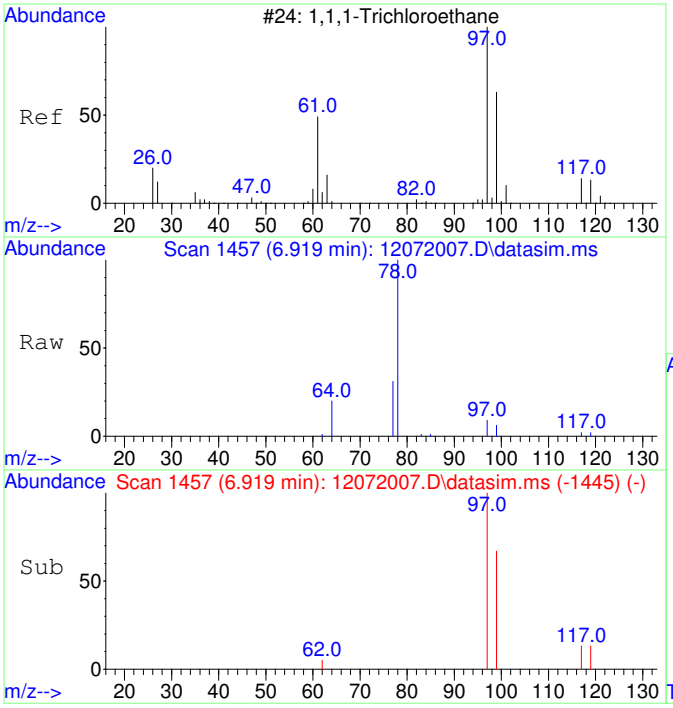


#6
Chloroform
Concen: 131.69 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.012 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 1973

Ion	Ratio	Lower	Upper
83	100		
85	67.3	35.1	95.1

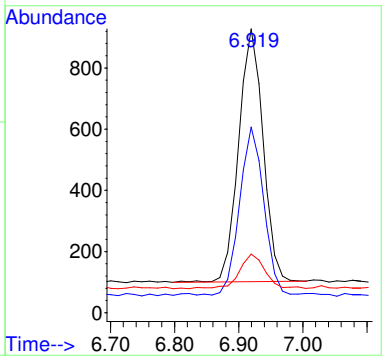


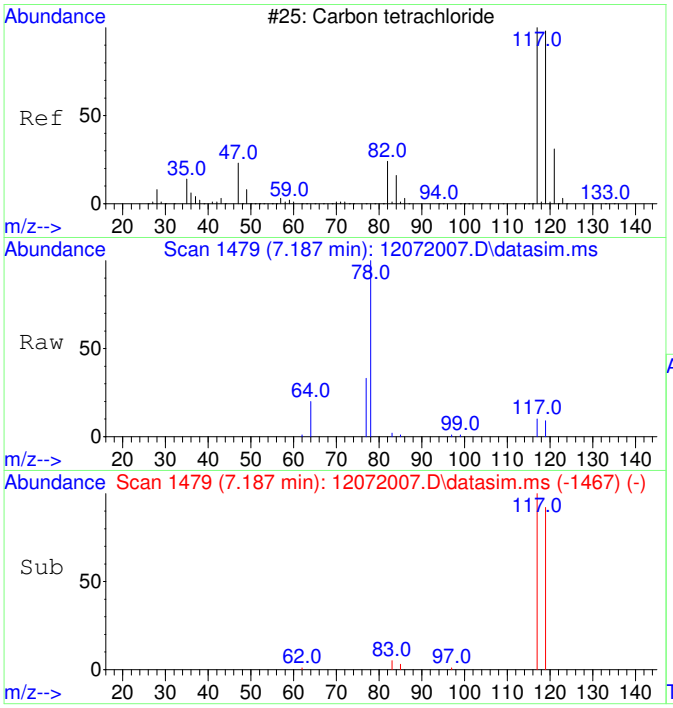


#7
1,1,1-Trichloroethane
Concen: 135.33 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 2178

Ion	Ratio	Lower	Upper
97	100		
99	65.1	34.6	94.6
117	14.1	0.0	43.2

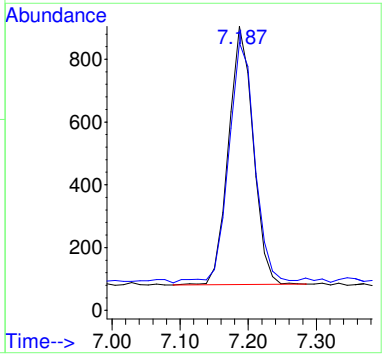


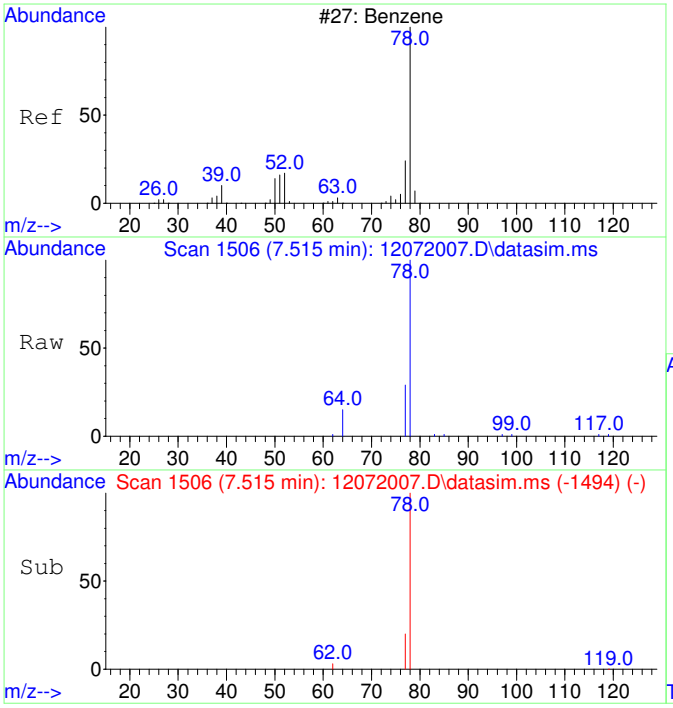


#8
Carbon tetrachloride
Concen: 133.62 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:117 Resp: 2056

Ion	Ratio	Lower	Upper
117	100		
119	96.6	66.4	126.4

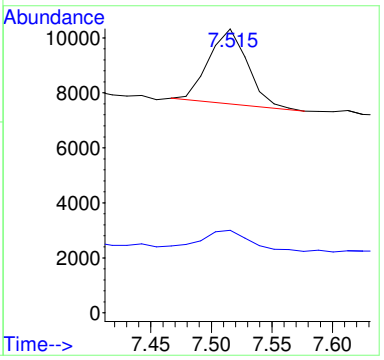


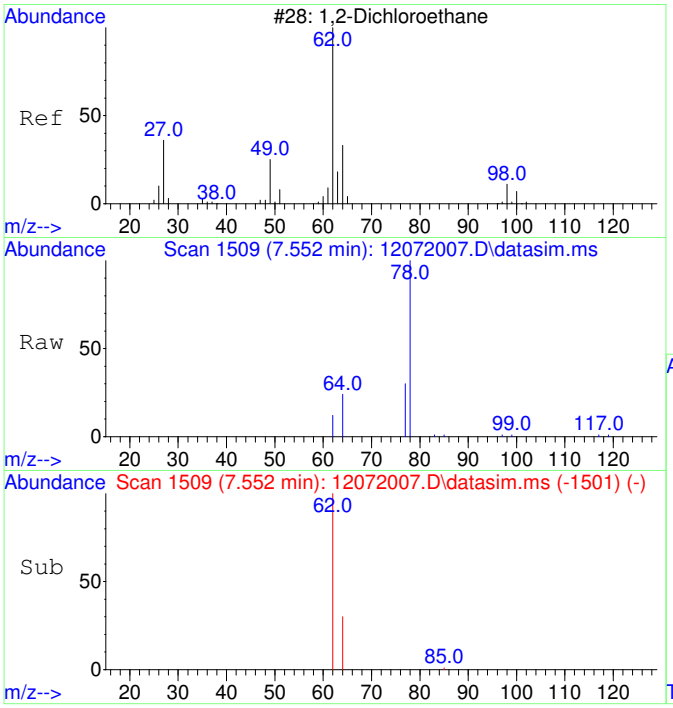


#9
Benzene
Concen: 139.94 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 78 Resp: 5940

Ion	Ratio	Lower	Upper
78	100		
77	42.5	0.0	53.2

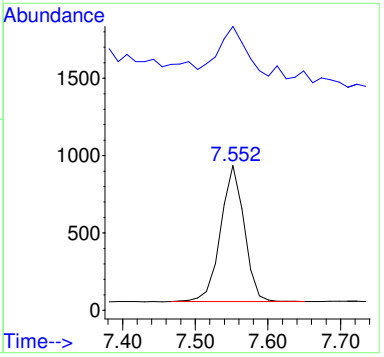


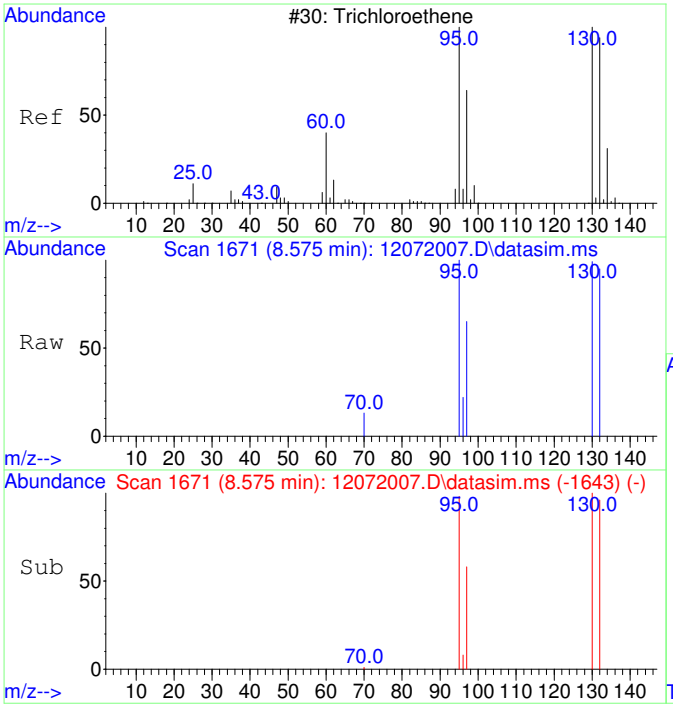


#10
1,2-Dichloroethane
Concen: 136.74 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 62 Resp: 1980

Ion	Ratio	Lower	Upper
62	100		
64	41.8	2.3	62.3

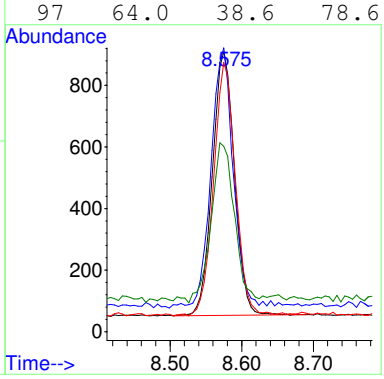


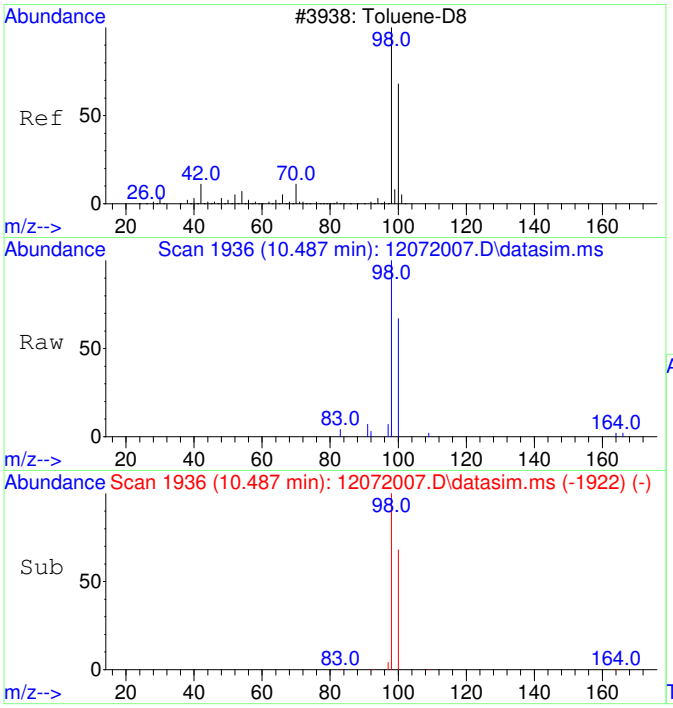


#11
Trichloroethene
Concen: 136.03 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:130 Resp: 1823

Ion	Ratio	Lower	Upper
130	100		
95	95.9	60.7	120.7
132	94.1	76.0	116.0
97	64.0	38.6	78.6

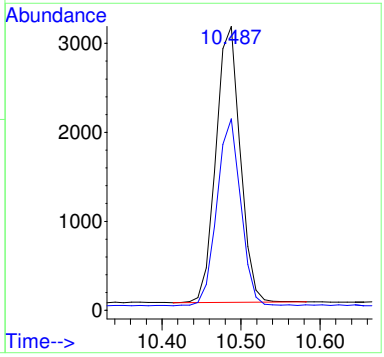


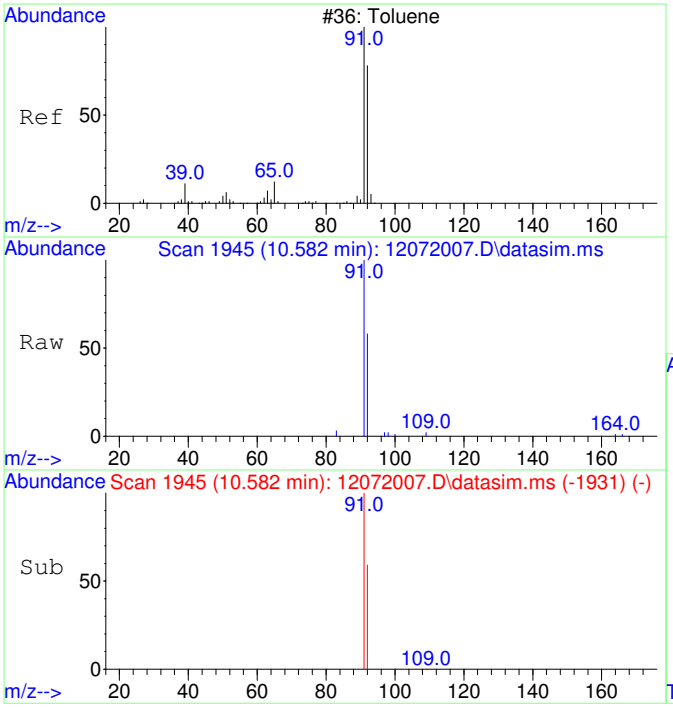


#12
Toluene-d8
Concen: 135.40 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 98 Resp: 6615

Ion	Ratio	Lower	Upper
98	100		
100	66.2	37.1	97.1

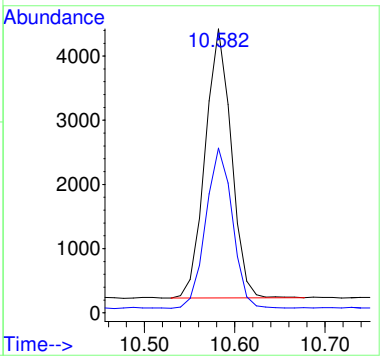


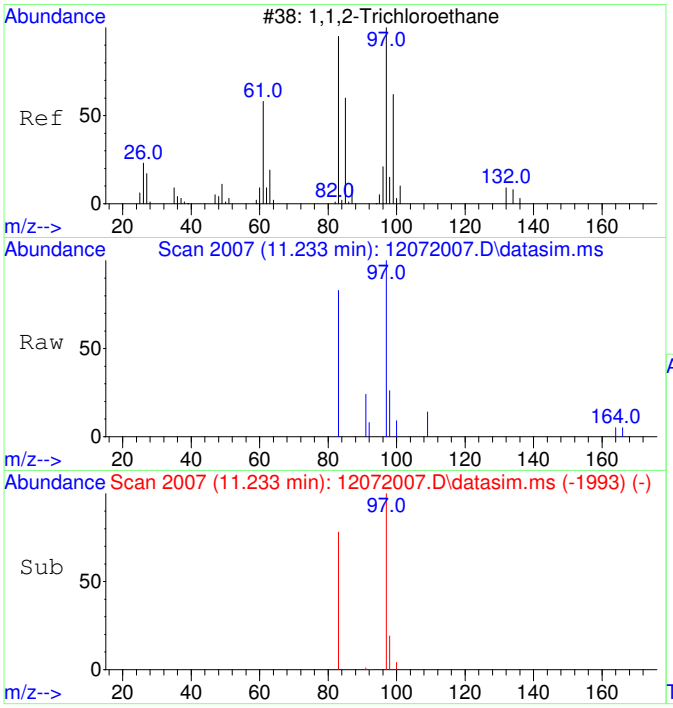


#13
Toluene
Concen: 138.31 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 8413

Ion	Ratio	Lower	Upper
91	100		
92	60.6	29.9	89.9

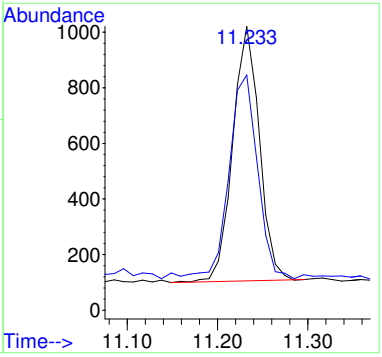


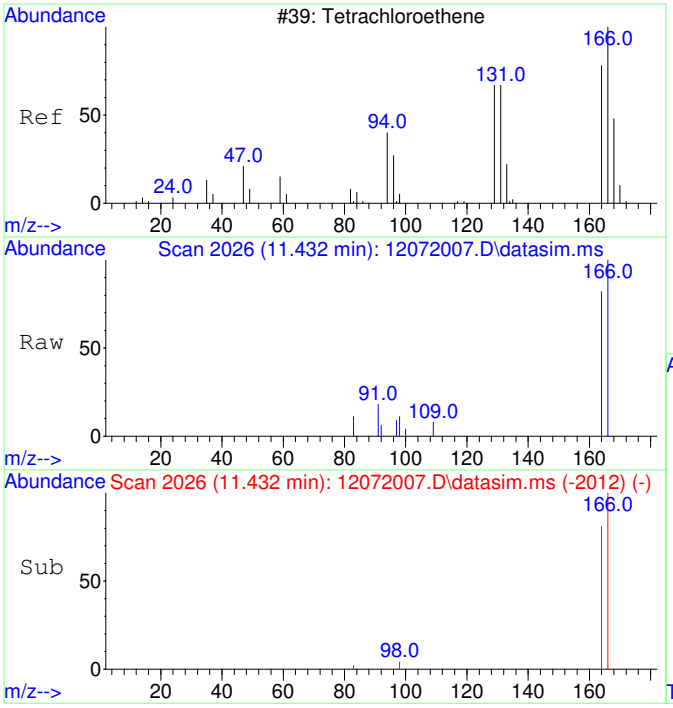


#14
1,1,2-Trichloroethane
Concen: 133.72 ug/L
RT: 11.233 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 1884

Ion	Ratio	Lower	Upper
97	100		
83	86.1	51.2	111.2

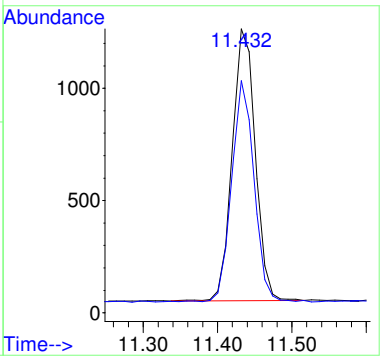


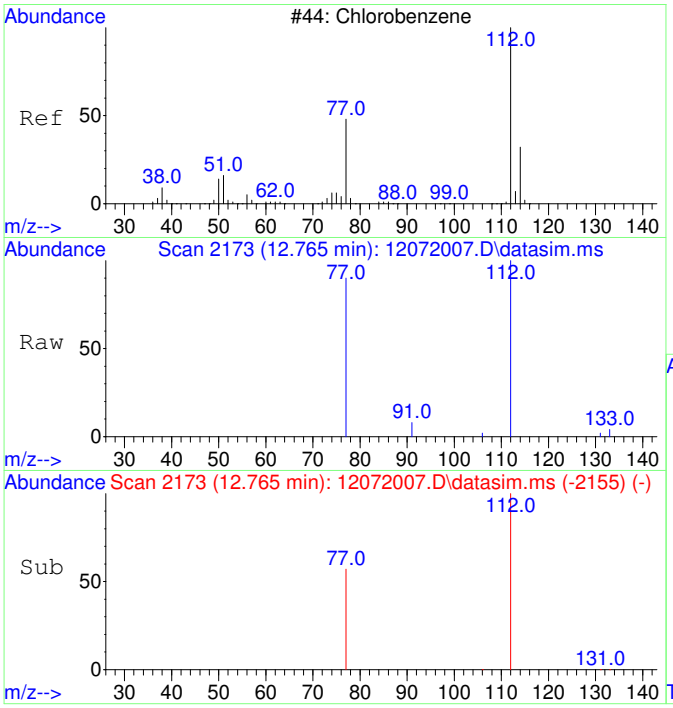


#15
Tetrachloroethene
Concen: 137.02 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:166 Resp: 2596

Ion	Ratio	Lower	Upper
166	100		
164	79.8	47.8	107.8

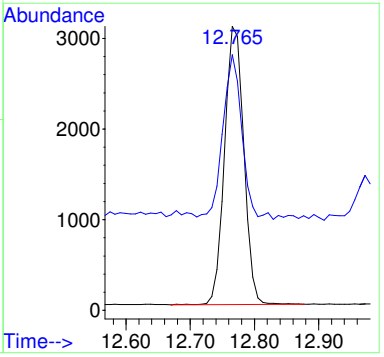


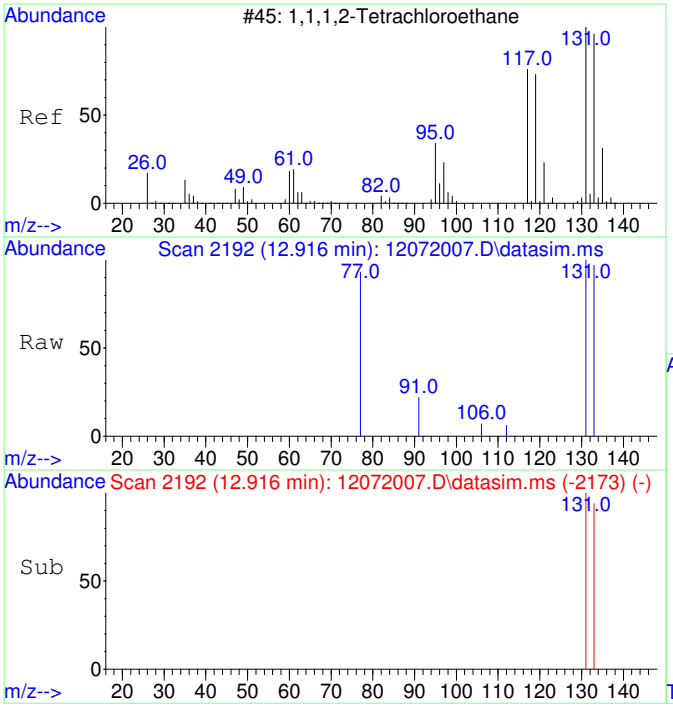


#16
Chlorobenzene
Concen: 135.22 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:112 Resp: 6372

Ion	Ratio	Lower	Upper
112	100		
77	59.1	23.6	83.6

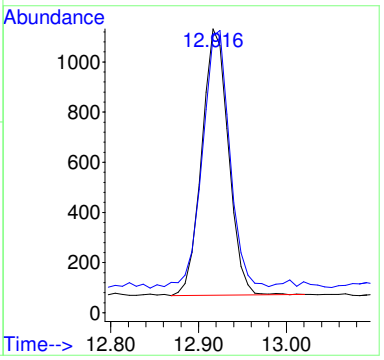


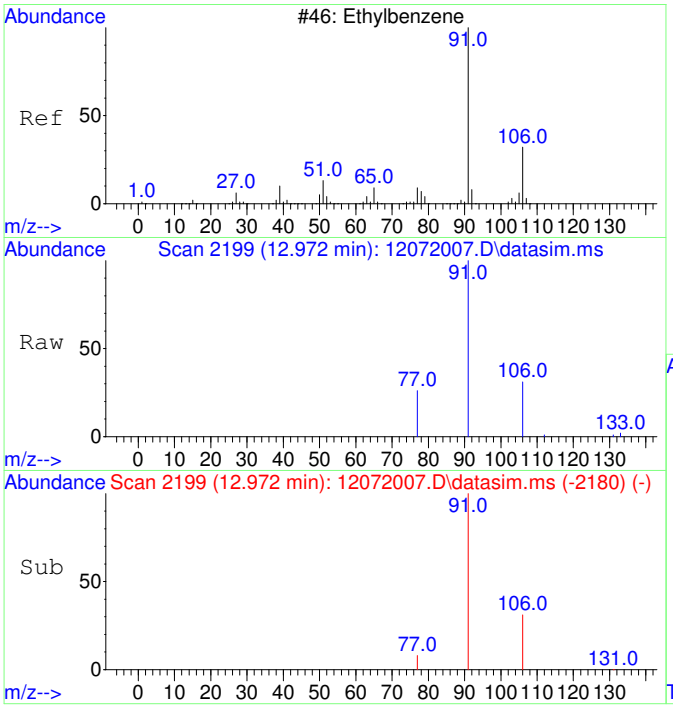


#17
1,1,1,2-Tetrachloroethane
Concen: 135.81 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:131 Resp: 2240

Ion	Ratio	Lower	Upper
131	100		
133	98.2	66.3	126.3

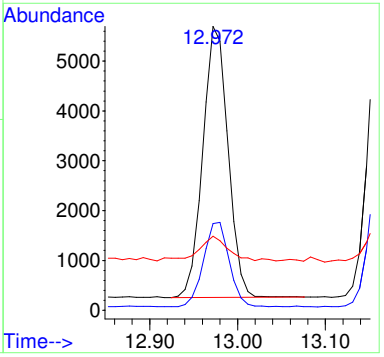


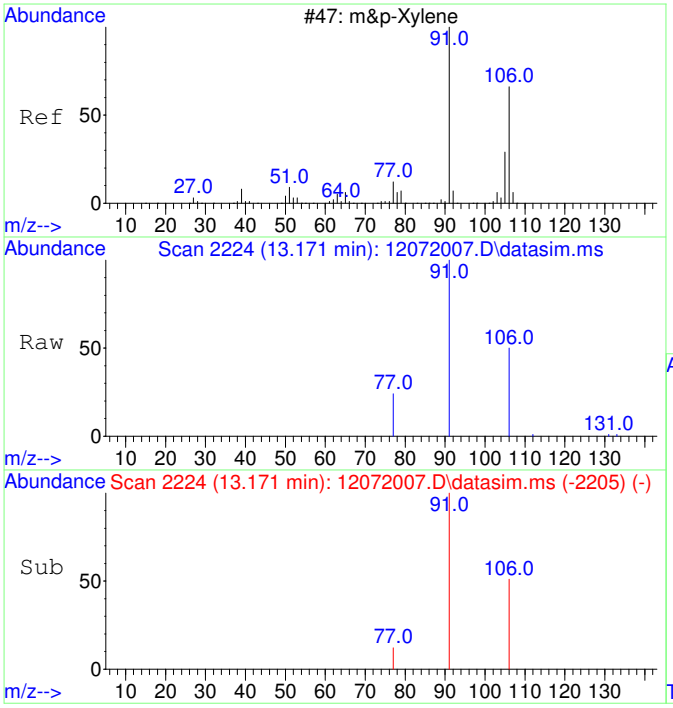


#18
Ethylbenzene
Concen: 139.93 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 10872

Ion	Ratio	Lower	Upper
91	100		
106	31.7	3.0	63.0
77	10.6	0.0	38.2

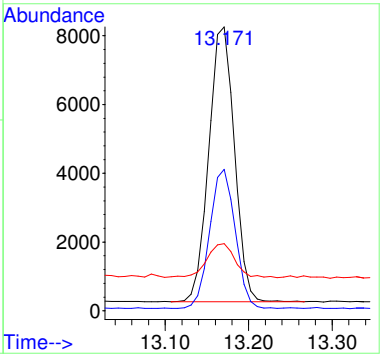


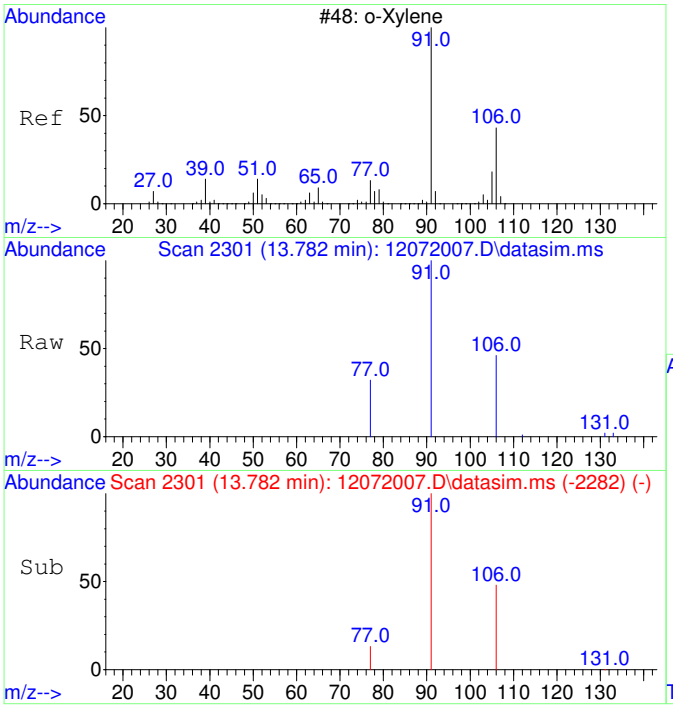


#19
m&p-Xylene
Concen: 285.38 ug/L
RT: 13.171 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 17074

Ion	Ratio	Lower	Upper
91	100		
106	50.4	22.2	82.2
77	13.6	0.0	42.4

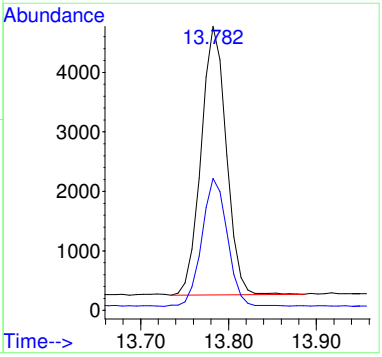


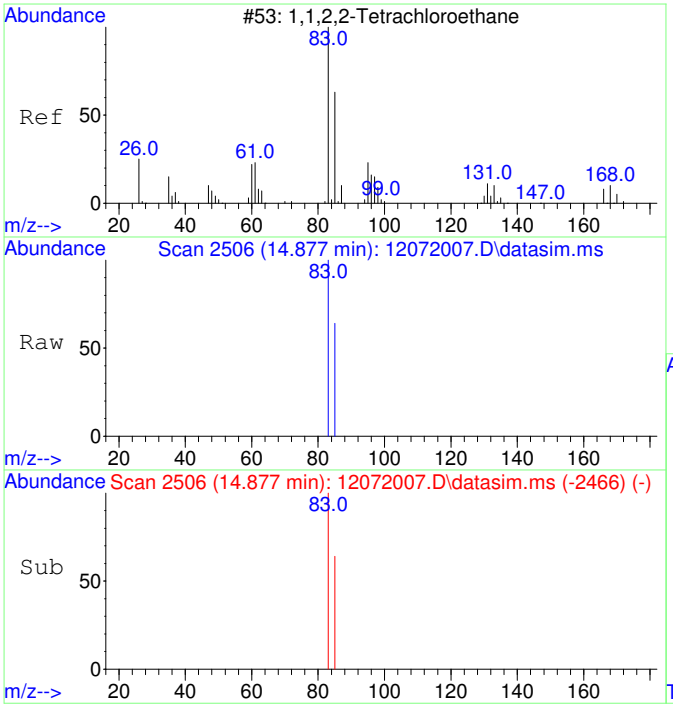


#20
o-Xylene
Concen: 140.07 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 9001

Ion	Ratio	Lower	Upper
91	100		
106	48.2	19.2	79.2

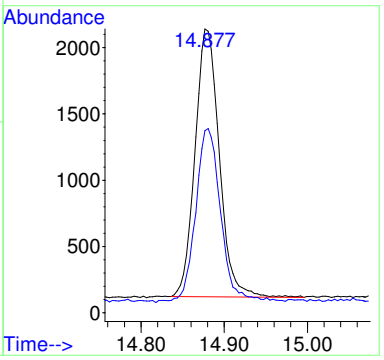


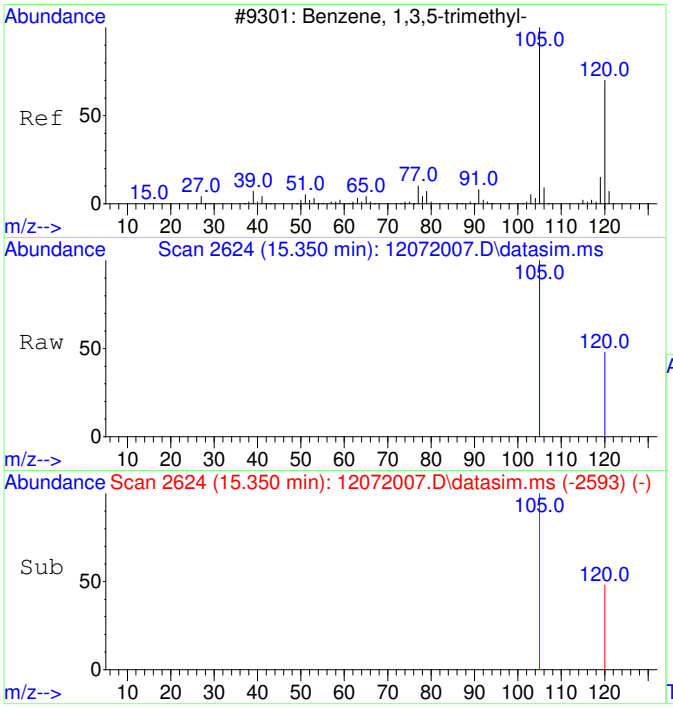


#21
1,1,2,2-Tetrachloroethane
Concen: 136.76 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.003 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 4095

Ion	Ratio	Lower	Upper
83	100		
85	63.8	34.8	94.8

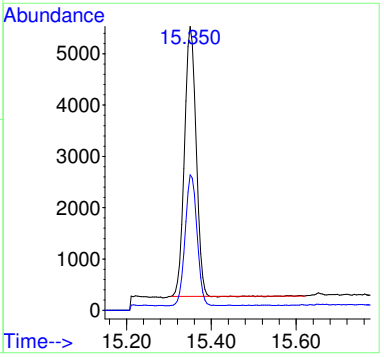


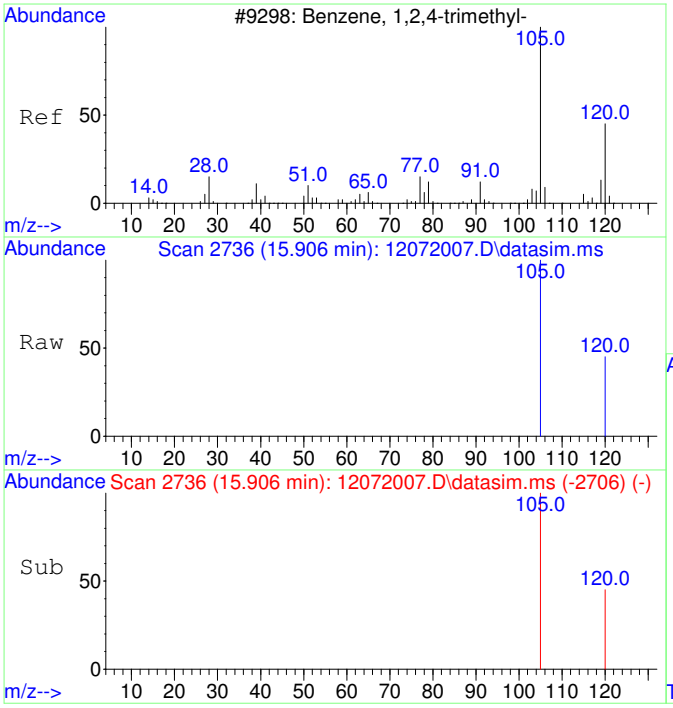


#22
1,3,5-Trimethylbenzene
Concen: 141.75 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:105 Resp: 10017

Ion	Ratio	Lower	Upper
105	100		
120	48.7	21.1	81.1

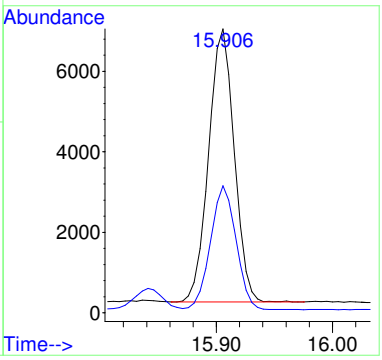


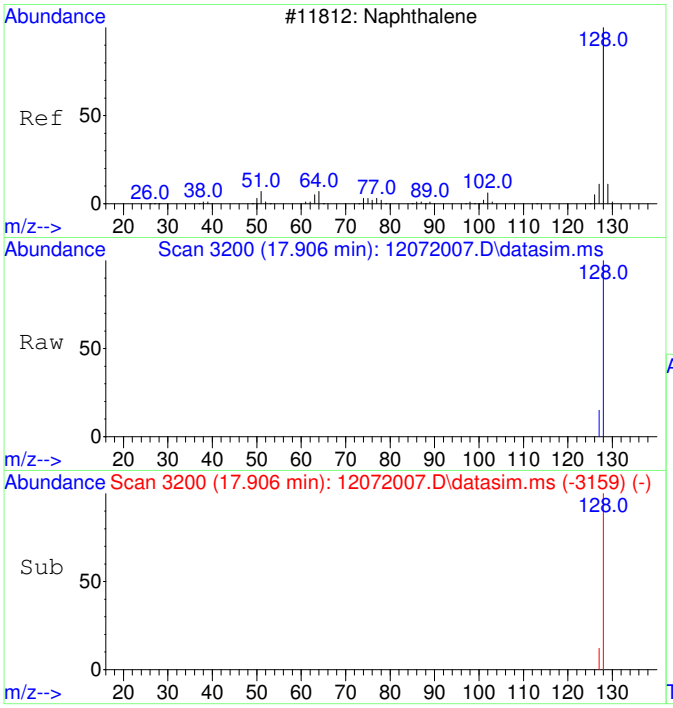


#23
1,2,4-Trimethylbenzene
Concen: 143.95 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:105 Resp: 10405

Ion	Ratio	Lower	Upper
105	100		
120	44.6	17.2	77.2

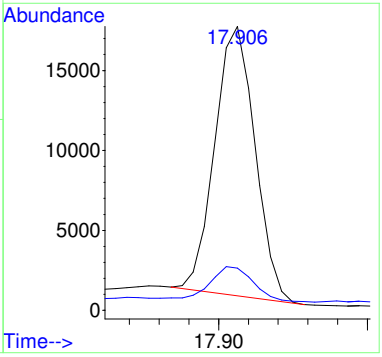


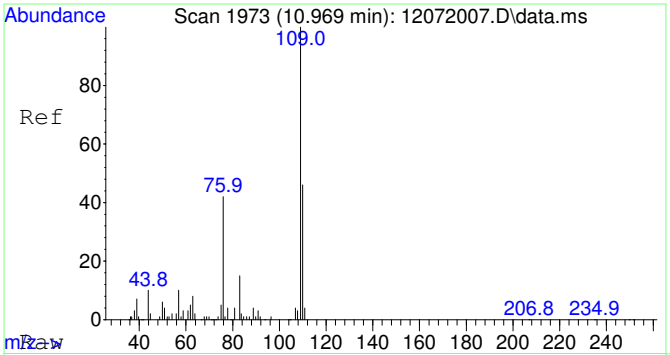


#24
Naphthalene
Concen: 132.61 ug/L
RT: 17.906 min Scan# 3200
Delta R.T. 0.003 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:128 Resp: 15689

Ion	Ratio	Lower	Upper
128	100		
127	12.2	0.0	42.5

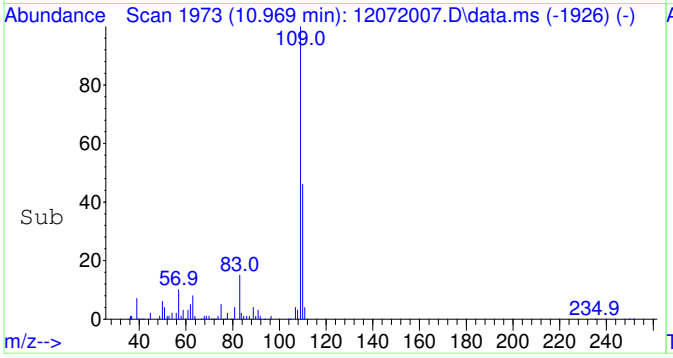


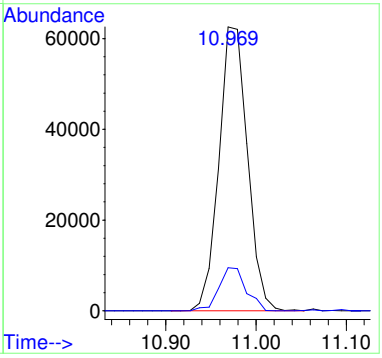


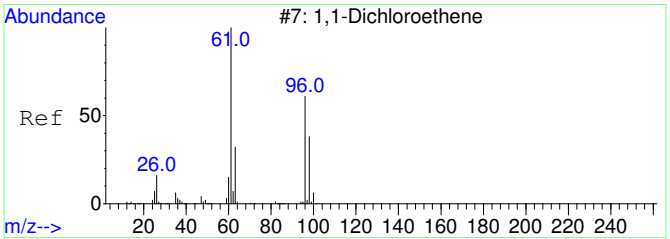
#25
2-Fluorotoluene SCAN
Concen: 4827.25 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

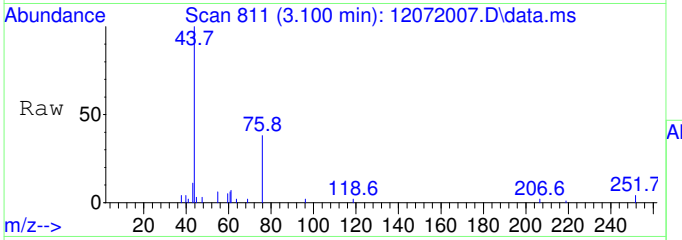
Tgt Ion:109 Resp: 138220

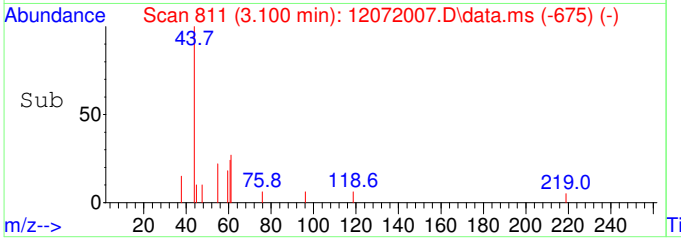
Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.8







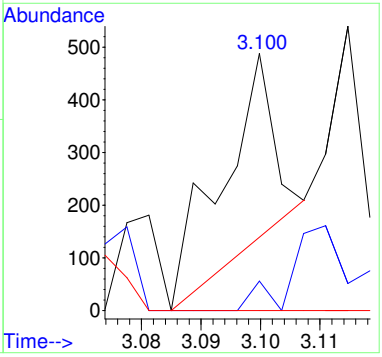


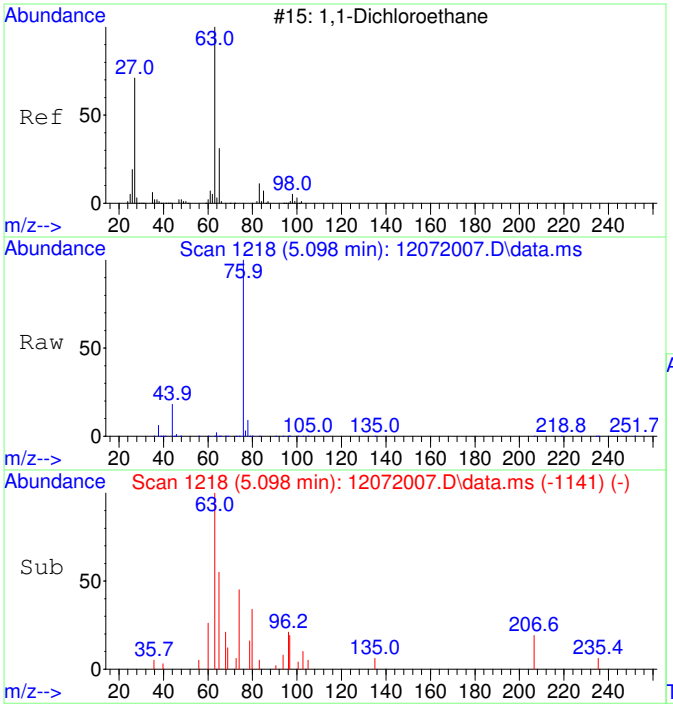


#26
1,1-Dichloroethene SCAN
Concen: 34.26 ug/L
RT: 3.100 min Scan# 811
Delta R.T. 0.004 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 61 Resp: 229

Ion	Ratio	Lower	Upper
61	100		
96	0.0	33.1	93.1#
98	0.0	11.2	71.2#

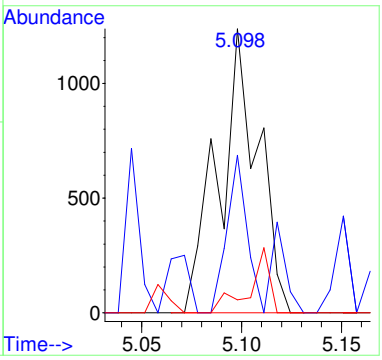


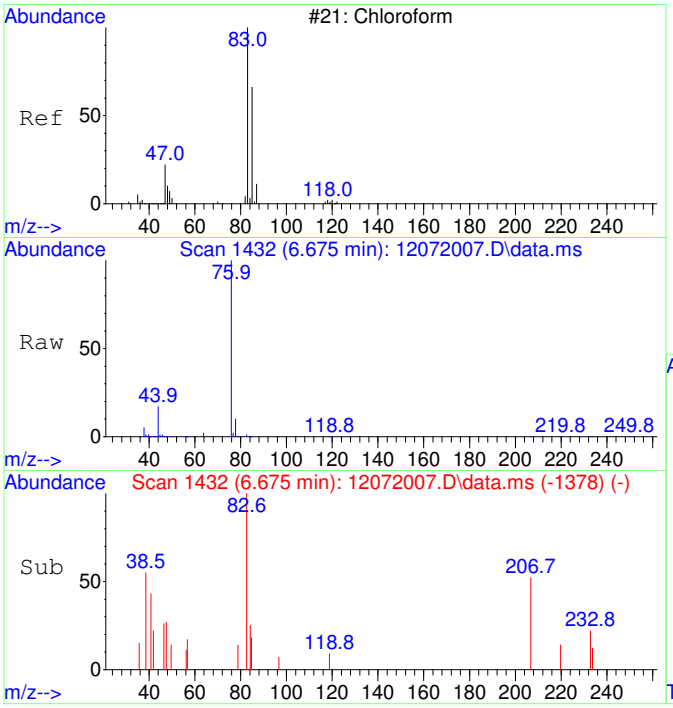


#28
1,1-Dichloroethane SCAN
Concen: 168.66 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.014 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 63 Resp: 1695

Ion	Ratio	Lower	Upper
63	100		
65	28.4	1.3	61.3
83	0.0	0.0	45.9

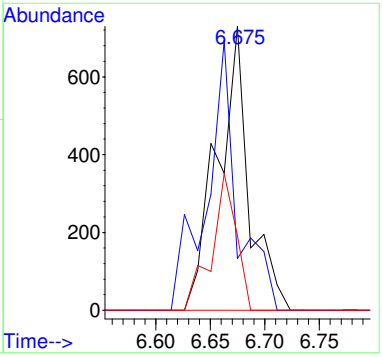


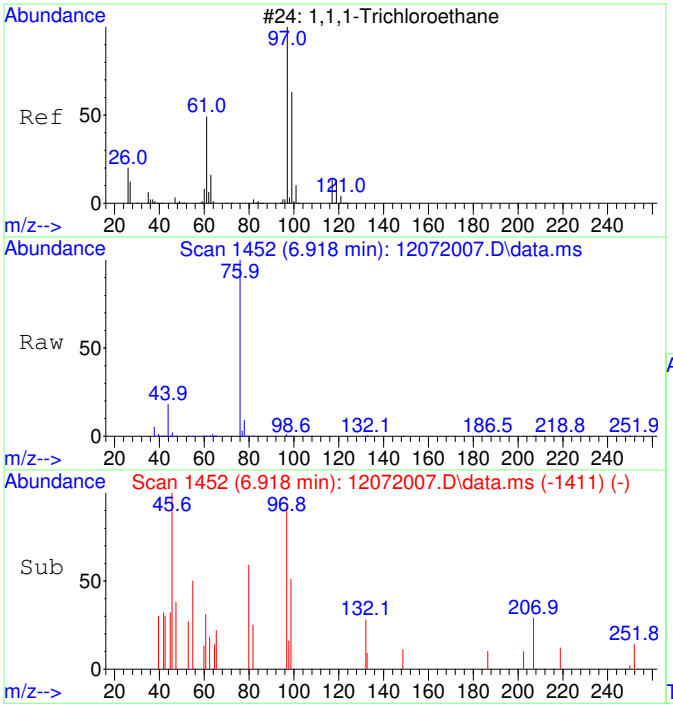


#30
Chloroform SCAN
Concen: 161.05 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 1484

Ion	Ratio	Lower	Upper
83	100		
85	91.5	34.6	94.6
47	37.3	0.0	53.4

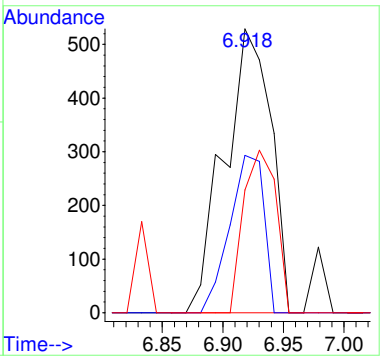


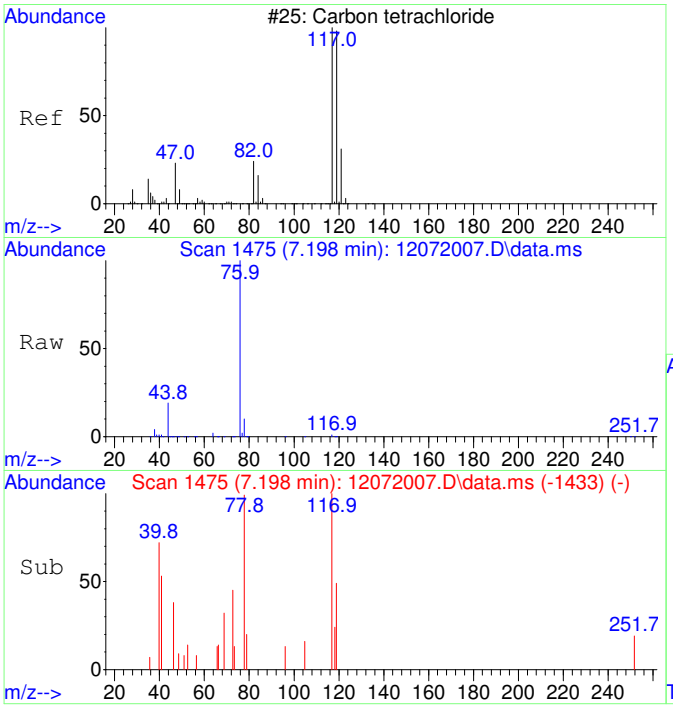


#31
1,1,1-Trichloroethane SCAN
Concen: 149.86 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 1425

Ion	Ratio	Lower	Upper
97	100		
99	40.8	43.6	103.6#
61	40.0	18.0	78.0

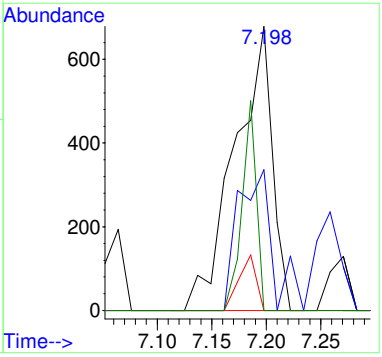


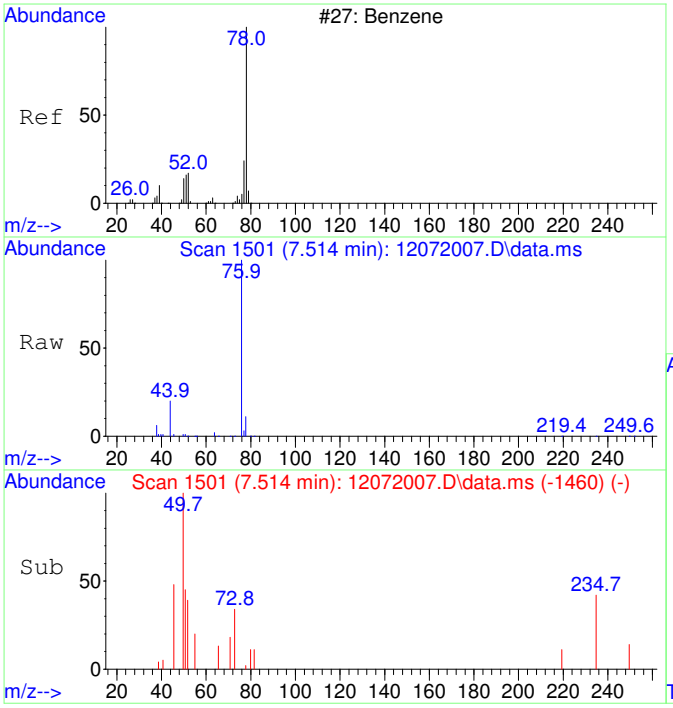


#32
Carbon tetrachloride SCAN
Concen: 200.47 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:117 Resp: 1629

Ion	Ratio	Lower	Upper
117	100		
119	45.5	75.5	135.5#
121	9.0	0.0	58.8
82	28.0	0.0	59.2

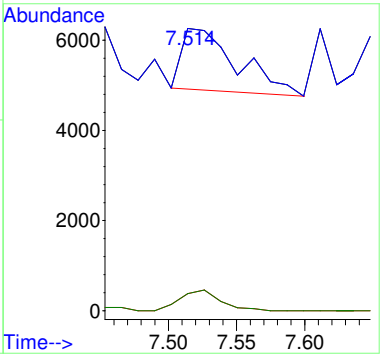


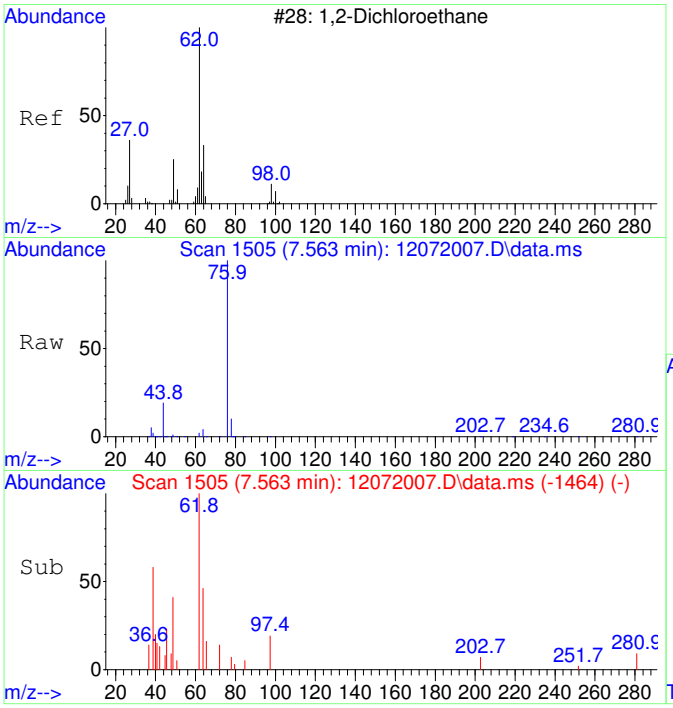


#33
Benzene SCAN
Concen: 132.09 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 78 Resp: 3800

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	25.2	0.0	47.9
51	25.2	0.0	44.1

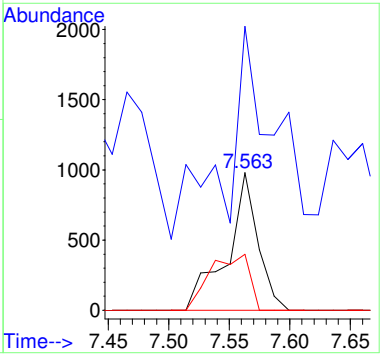


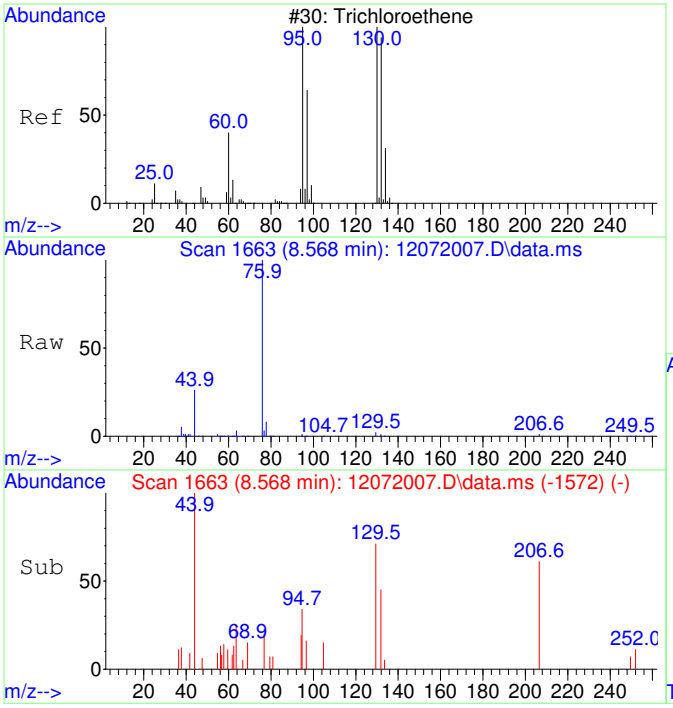


#34
1,2-Dichloroethane SCAN
Concen: 193.37 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 62 Resp: 1740

Ion	Ratio	Lower	Upper
62	100		
64	207.2	5.2	65.2#
49	52.0	3.9	63.9

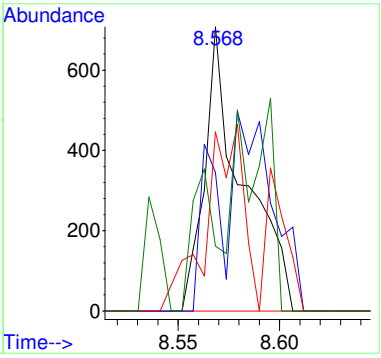


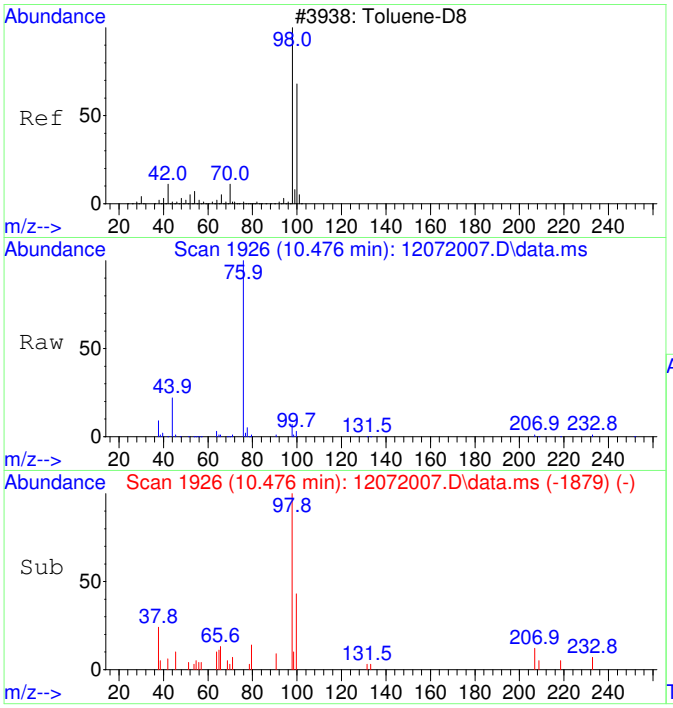


#35
Trichloroethene SCAN
Concen: 147.62 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. -0.005 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:130 Resp: 926

Ion	Ratio	Lower	Upper
130	100		
95	25.4	60.5	120.5#
132	0.0	59.6	119.6#
97	22.9	28.2	88.2#

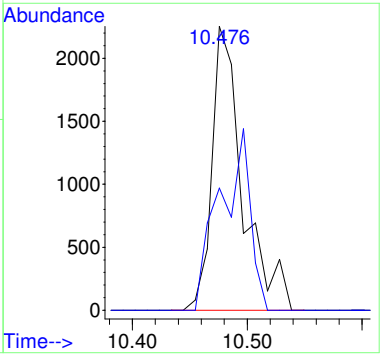


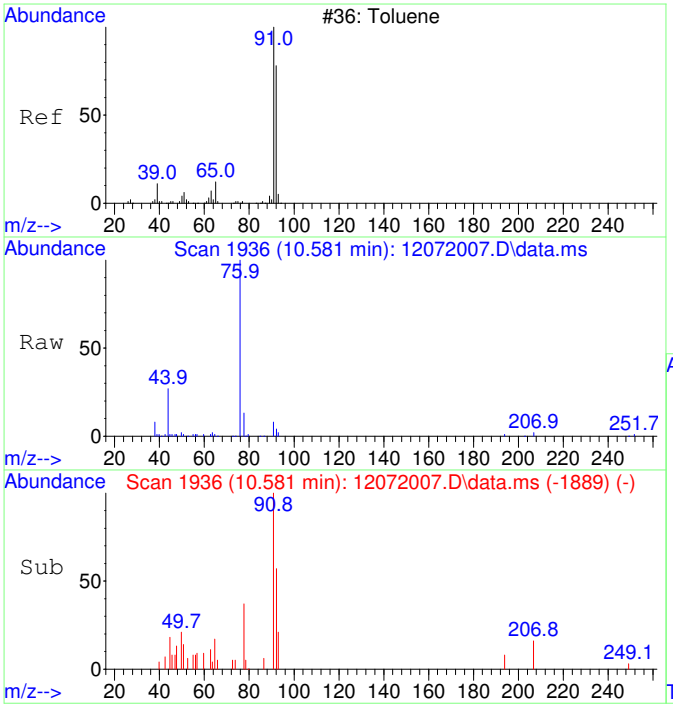


#36
Toluene-d8 SCAN
Concen: 155.54 ug/L
RT: 10.476 min Scan# 1926
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 98 Resp: 4177

Ion	Ratio	Lower	Upper
98	100		
100	0.0	40.0	100.0#

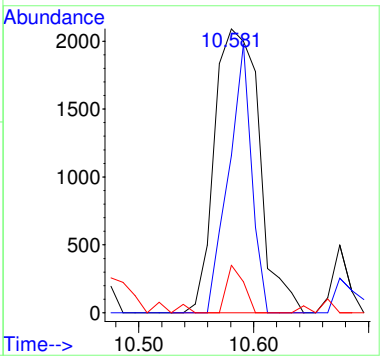


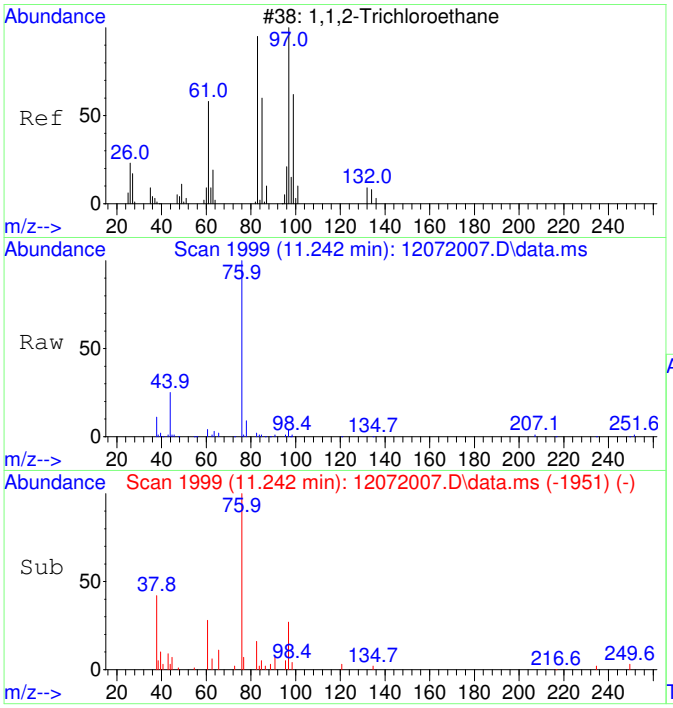


#37
Toluene SCAN
Concen: 171.27 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 5663

Ion	Ratio	Lower	Upper
91	100		
92	48.6	28.3	88.3
65	6.4	0.0	41.0

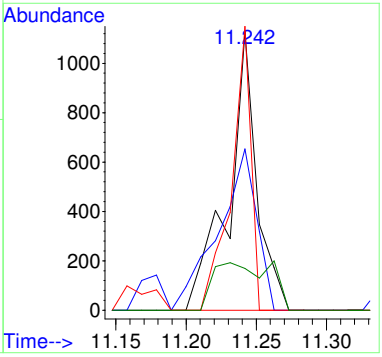


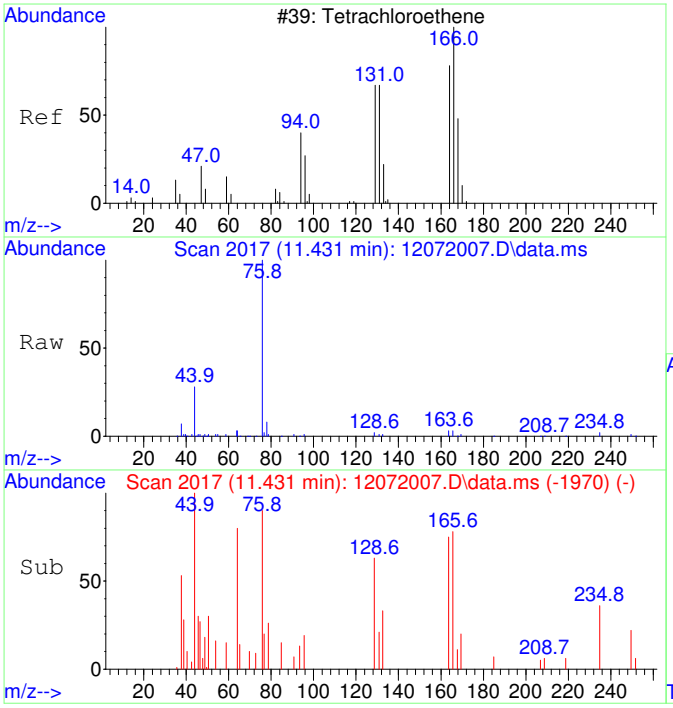


#38
1,1,2-Trichloroethane SCAN
Concen: 192.45 ug/L
RT: 11.242 min Scan# 1999
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 97 Resp: 1595

Ion	Ratio	Lower	Upper
97	100		
83	78.3	57.7	117.7
61	70.2	32.1	92.1
99	0.0	36.7	96.7#

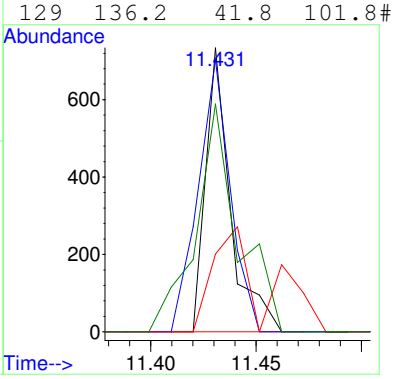


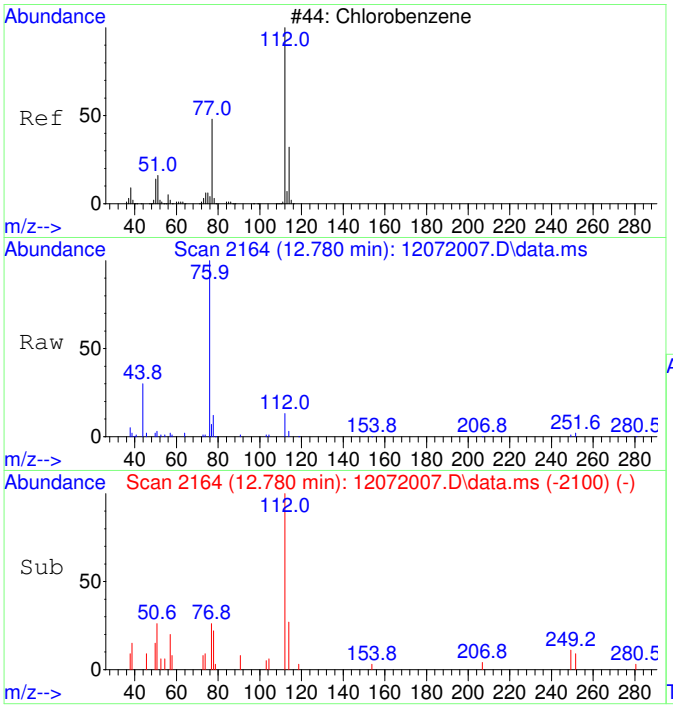


#39
Tetrachloroethene SCAN
Concen: 80.66 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. -0.010 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:166 Resp: 600

Ion	Ratio	Lower	Upper
166	100		
164	124.3	50.9	110.9#
131	78.3	38.7	98.7
129	136.2	41.8	101.8#

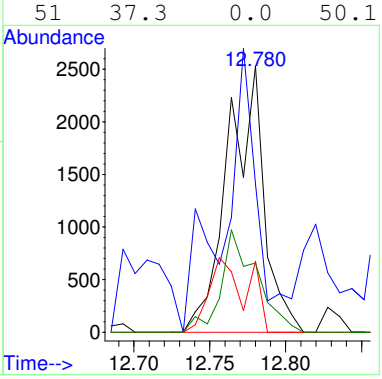


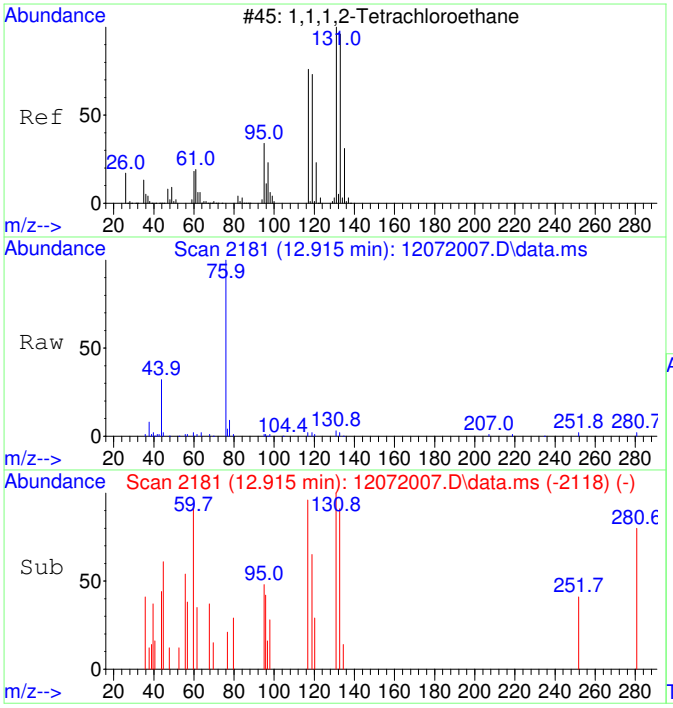


#40
Chlorobenzene SCAN
Concen: 179.38 ug/L
RT: 12.780 min Scan# 2164
Delta R.T. 0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:112 Resp: 4260

Ion	Ratio	Lower	Upper
112	100		
77	83.0	28.2	88.2
114	0.0	2.3	62.3#
51	37.3	0.0	50.1

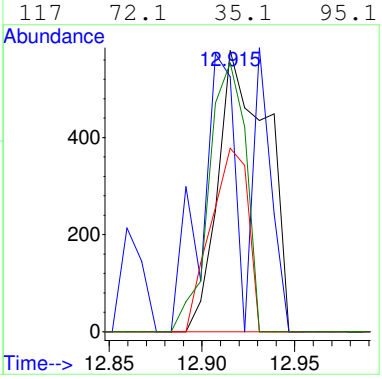


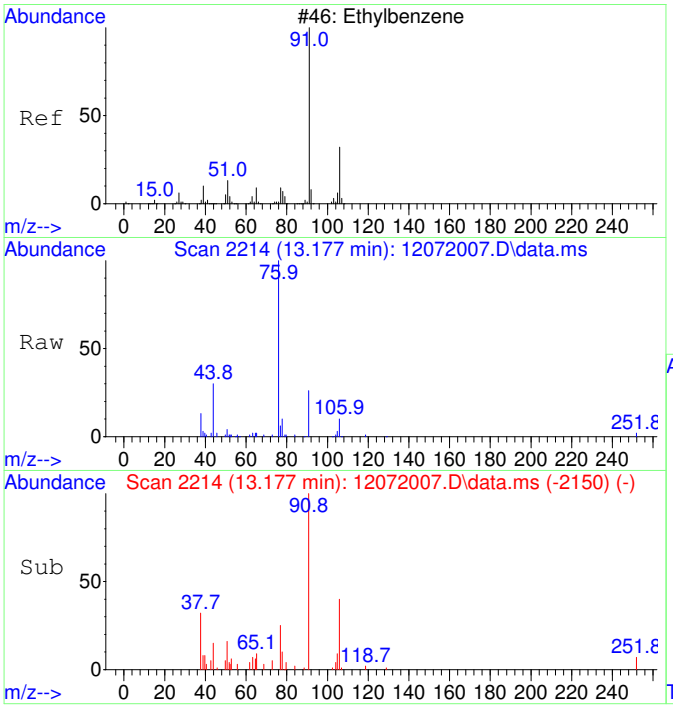


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 130.10 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:131 Resp: 1066

Ion	Ratio	Lower	Upper
131	100		
133	67.2	66.9	126.9
119	50.0	40.4	100.4
117	72.1	35.1	95.1

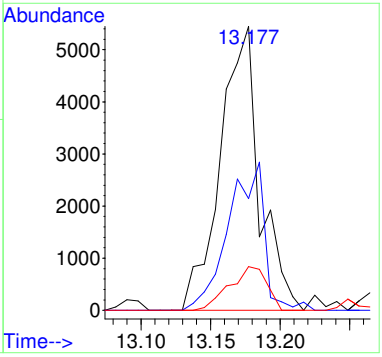


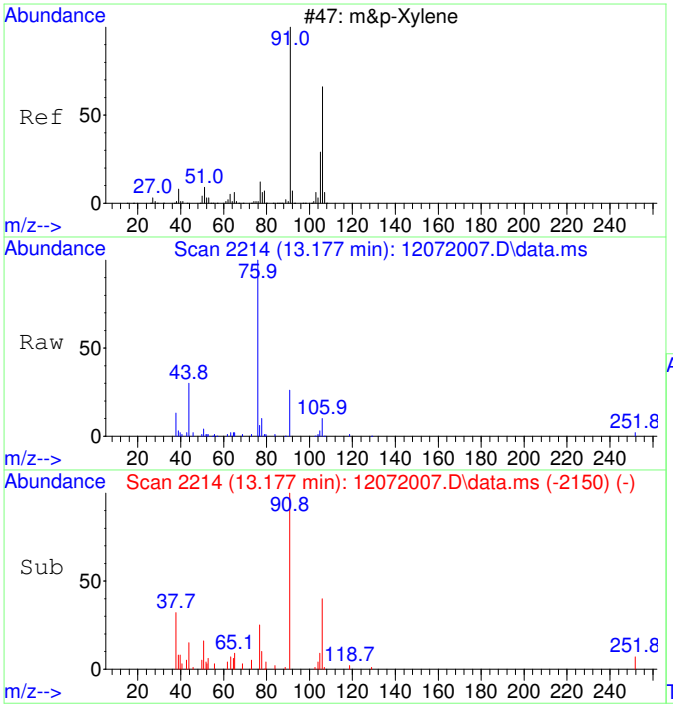


#42
Ethylbenzene SCAN
Concen: 169.70 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 10693

Ion	Ratio	Lower	Upper
91	100		
106	48.0	23.1	83.1
51	14.6	0.0	40.1

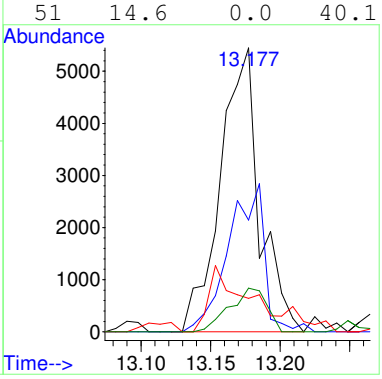


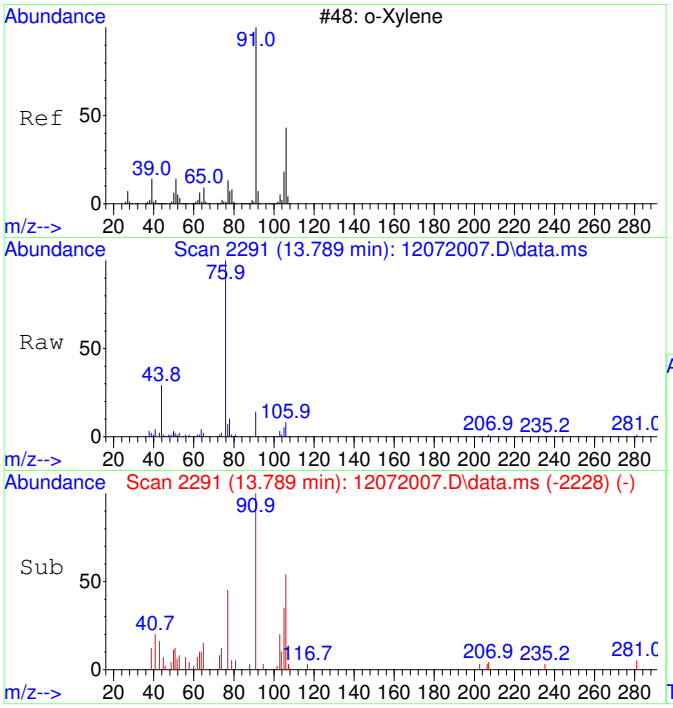


#43
m&p-Xylene SCAN
Concen: 169.70 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 10693

Ion	Ratio	Lower	Upper
91	100		
106	48.0	23.1	83.1
105	0.0	0.0	54.7
51	14.6	0.0	40.1

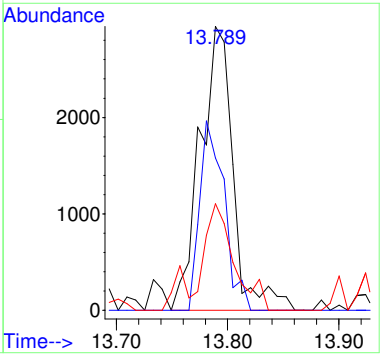


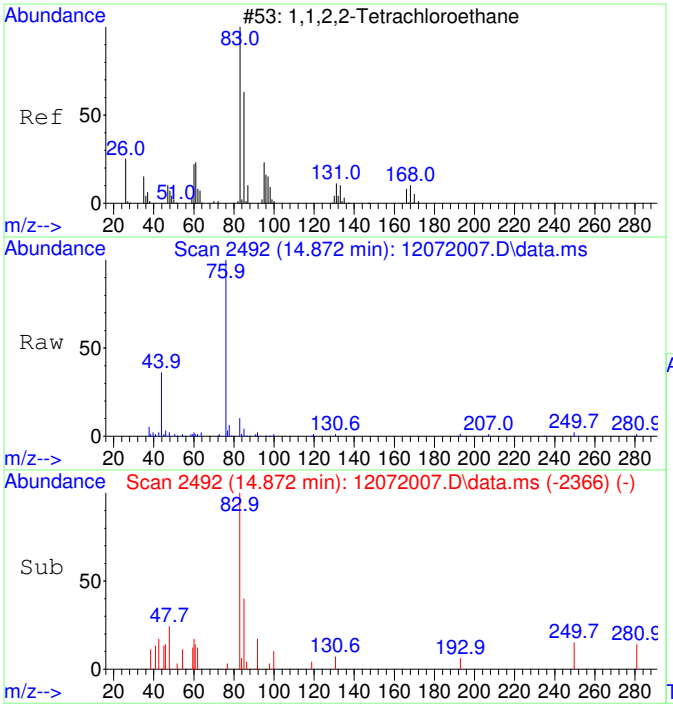


#44
o-Xylene SCAN
Concen: 176.50 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 91 Resp: 6073

Ion	Ratio	Lower	Upper
91	100		
106	49.8	18.0	78.0
105	28.8	0.0	56.6

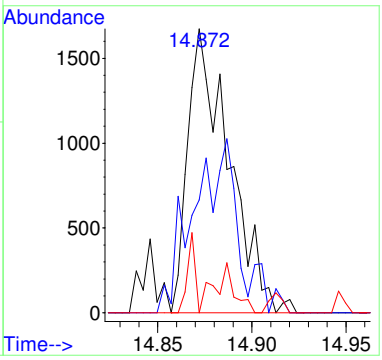


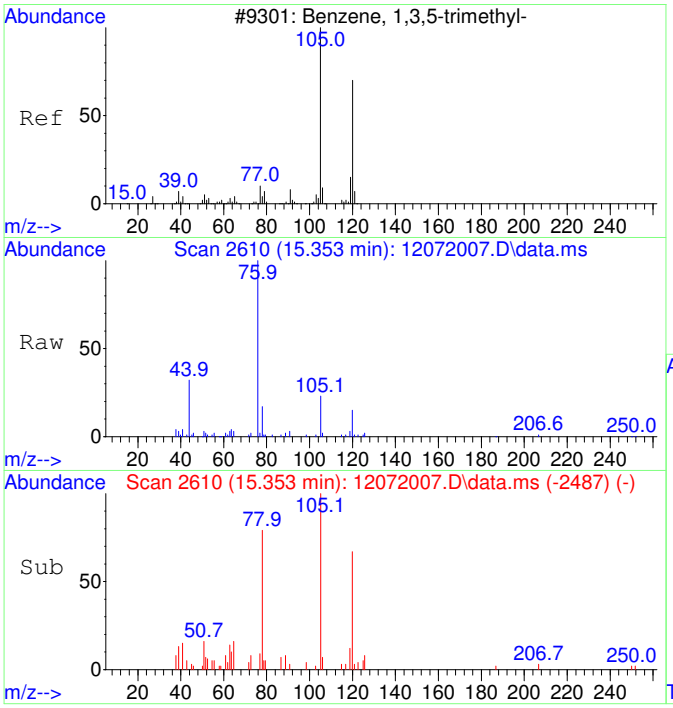


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 142.65 ug/L
RT: 14.872 min Scan# 2492
Delta R.T. -0.011 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion: 83 Resp: 2552

Ion	Ratio	Lower	Upper
83	100		
85	16.8	35.9	95.9#
95	4.7	0.0	47.4

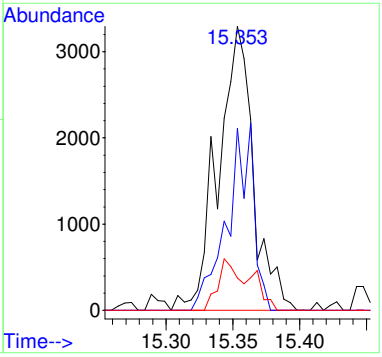


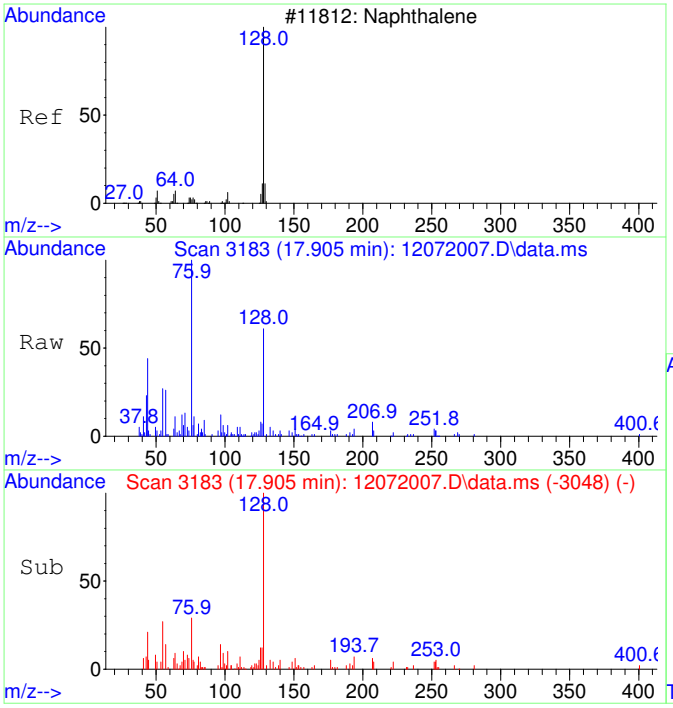


#46
1,3,5-Trimethylbenzene SCAN
Concen: 166.98 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:105 Resp: 6061

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.3	78.3
119	16.2	0.0	43.1

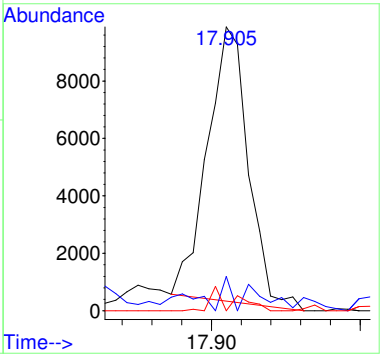




#48
Naphthalene SCAN
Concen: 163.35 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 12072007.D
Acq: 7 Dec 2020 14:20

Tgt Ion:128 Resp: 9093

Ion	Ratio	Lower	Upper
128	100		
127	2.9	0.0	44.0
129	2.2	0.0	40.8



S20L021-CAL6

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072008.D
Acq On : 7 Dec 2020 14:43
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 06:07:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

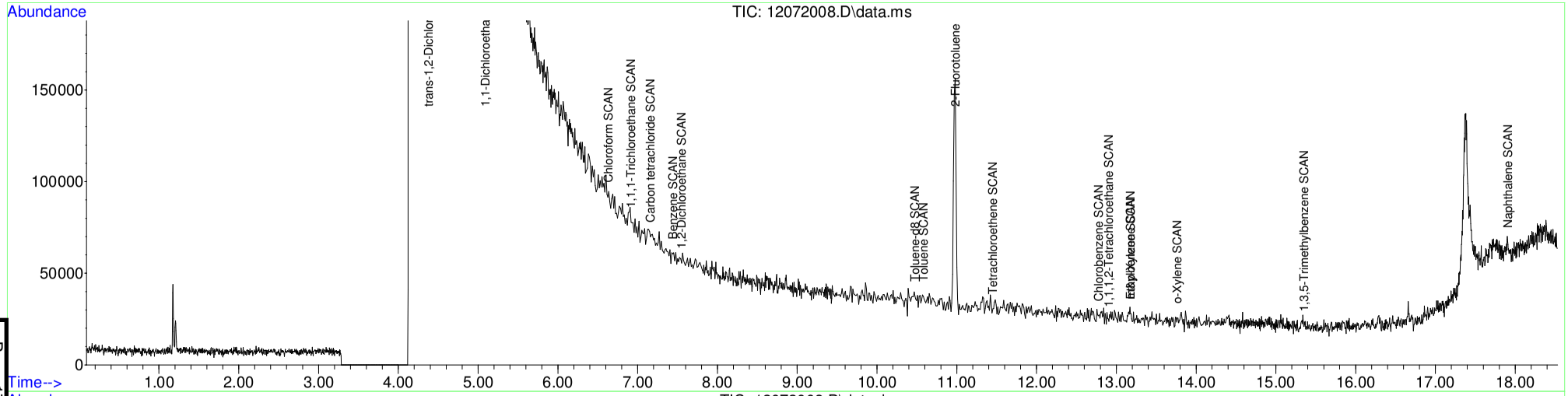
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	187138	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.487	98	1770	48.84 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 0.98%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	810	109.52 ug/L #	37
3] trans-1,2-Dichloroethene	4.369	61	498	53.24 ug/L	86
4] 1,1-Dichloroethane	5.079	63	607	54.33 ug/L	88
5] cis-1,2-Dichloroethene	6.088	61	614	53.06 ug/L	92
6] Chloroform	6.652	83	614	55.24 ug/L	97
7] 1,1,1-Trichloroethane	6.919	97	620	51.93 ug/L	91
8] Carbon tetrachloride	7.187	117	577	50.55 ug/L	92
9] Benzene	7.515	78	1867	59.29 ug/L	77
10] 1,2-Dichloroethane	7.552	62	560	52.13 ug/L #	1
11] Trichloroethene	8.575	130	486	48.88 ug/L	92
13] Toluene	10.582	91	2356	52.21 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	506	48.41 ug/L	81
15] Tetrachloroethene	11.432	166	668	47.52 ug/L	94
16] Chlorobenzene	12.765	112	1728	49.43 ug/L	91
17] 1,1,1,2-Tetrachloroethane	12.916	131	601	49.12 ug/L	98
18] Ethylbenzene	12.972	91	2907	50.43 ug/L	96
19] m&p-Xylene	13.170	91	4690	105.66 ug/L	95
20] o-Xylene	13.782	91	2438	51.14 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.880	83	1116	50.24 ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	2738	52.23 ug/L	93
23] 1,2,4-Trimethylbenzene	15.906	105	2866	53.45 ug/L	96
24] Naphthalene	17.906	128	3948	47.08 ug/L	98
25) 2-Fluorotoluene SCAN	10.979	109	96904	4561.89 ug/L	95
27) trans-1,2-Dichloroethe...	4.374	61	187	29.61 ug/L #	17
28) 1,1-Dichloroethane SCAN	5.084	63	244	32.73 ug/L #	41
30) Chloroform SCAN	6.626	83	556	81.33 ug/L #	27
31) 1,1,1-Trichloroethane ...	6.918	97	369	52.31 ug/L #	58
32) Carbon tetrachloride SCAN	7.161	117	602	99.86 ug/L #	25
33) Benzene SCAN	7.441	78	4687	219.62 ug/L	93
34) 1,2-Dichloroethane SCAN	7.550	62	414	62.02 ug/L #	57
36) Toluene-d8 SCAN	10.475	98	1073	53.86 ug/L	84
37) Toluene SCAN	10.580	91	1855	75.62 ug/L #	79
39) Tetrachloroethene SCAN	11.451	166	469	84.99 ug/L #	54
40) Chlorobenzene SCAN	12.772	112	416	23.61 ug/L #	55
41) 1,1,1,2-Tetrachloroeth...	12.907	131	516	84.89 ug/L #	18
42) Ethylbenzene SCAN	13.177	91	2897	61.97 ug/L	82
43) m&p-Xylene SCAN	13.177	91	2897	61.97 ug/L	81
44) o-Xylene SCAN	13.765	91	1791	70.17 ug/L #	51
46) 1,3,5-Trimethylbenzene...	15.353	105	930	34.54 ug/L	88
48) Naphthalene SCAN	17.905	128	2901	70.25 ug/L	74

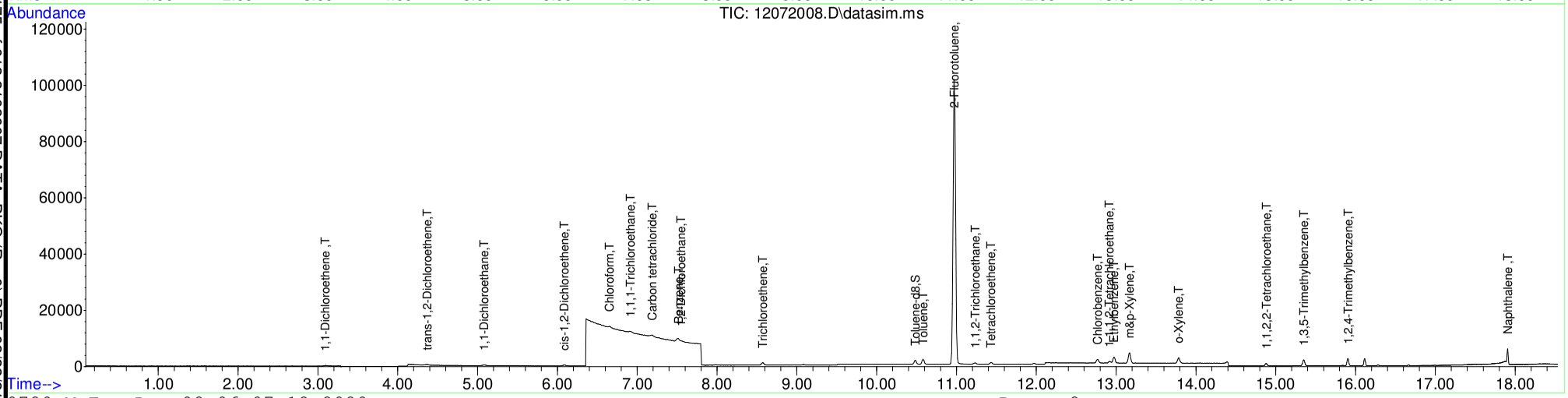
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072008.D
Acq On : 7 Dec 2020 14:43
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 06:07:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration





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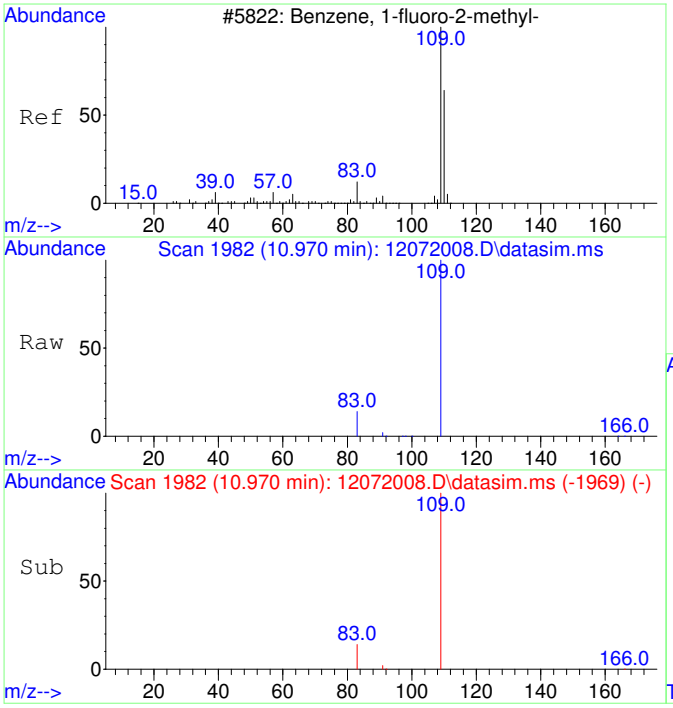
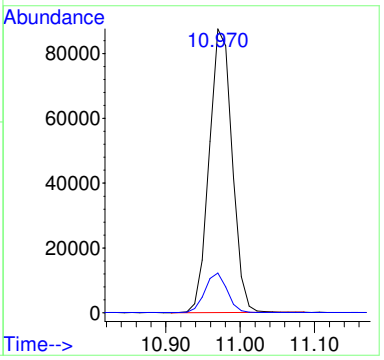
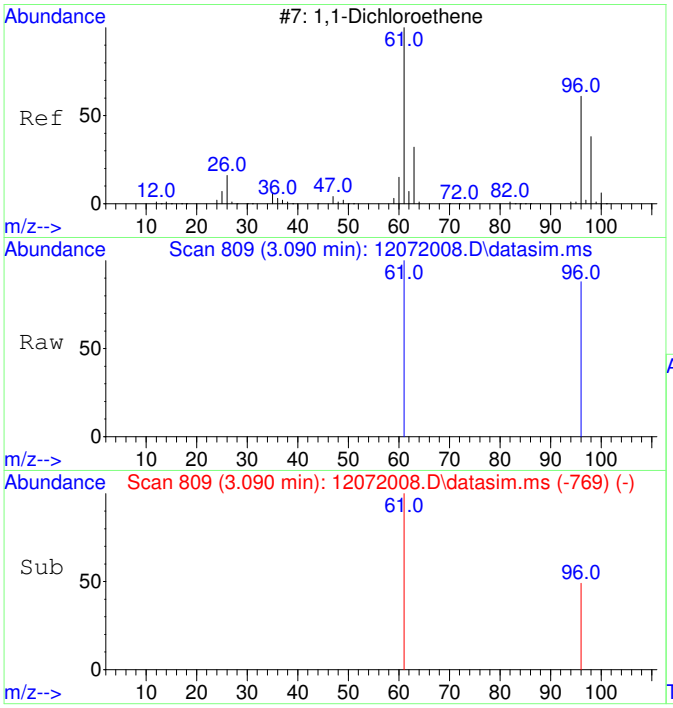


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:109 Resp: 187138

Ion	Ratio	Lower	Upper
109	100		
83	13.4	0.0	42.3

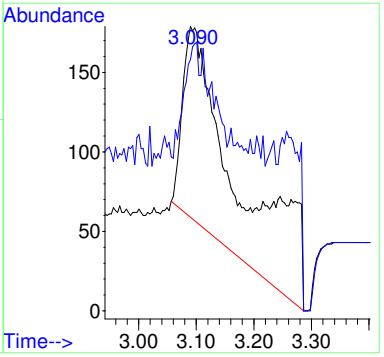




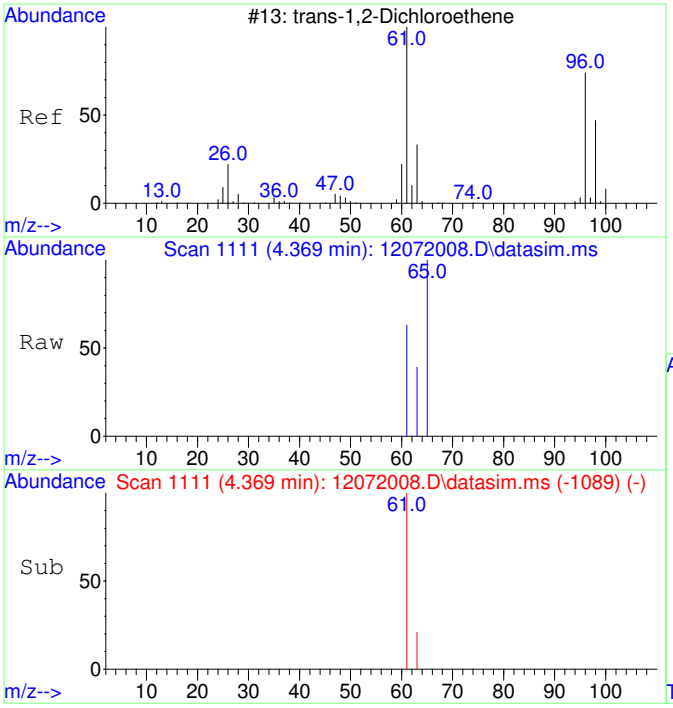
#2
1,1-Dichloroethene
Concen: 109.52 ug/L
RT: 3.090 min Scan# 809
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 810

Ion	Ratio	Lower	Upper
61	100		
96	16.8	37.2	97.2#



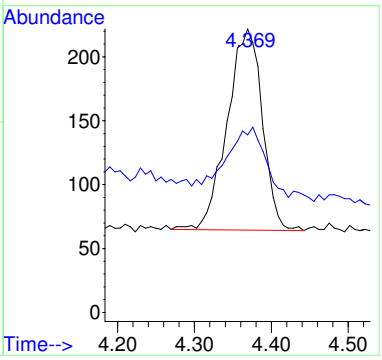
Before MI:
IMPROPER
BASELINE

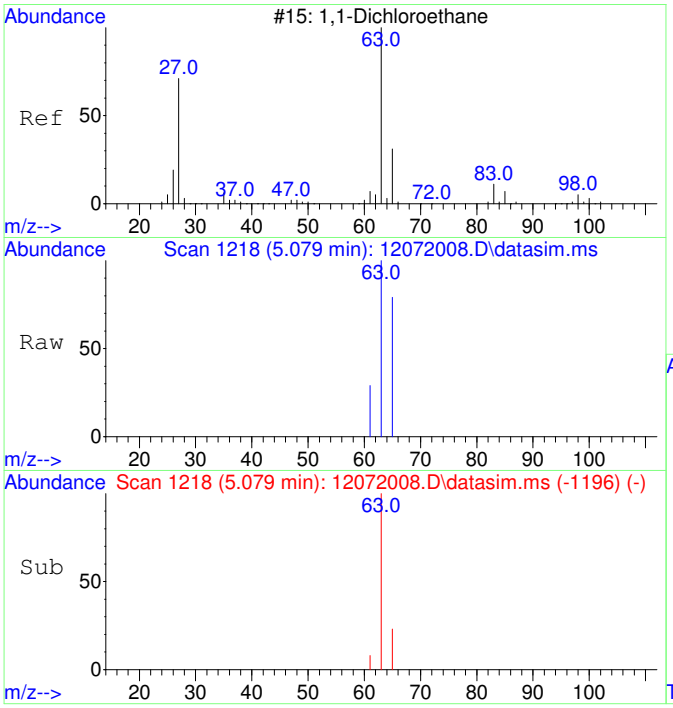


#3
trans-1,2-Dichloroethene
Concen: 53.24 ug/L
RT: 4.369 min Scan# 1111
Delta R.T. -0.007 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 498

Ion	Ratio	Lower	Upper
61	100		
63	40.2	2.4	62.4

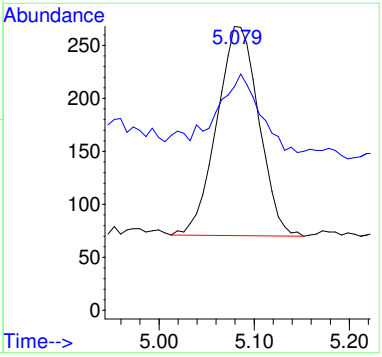


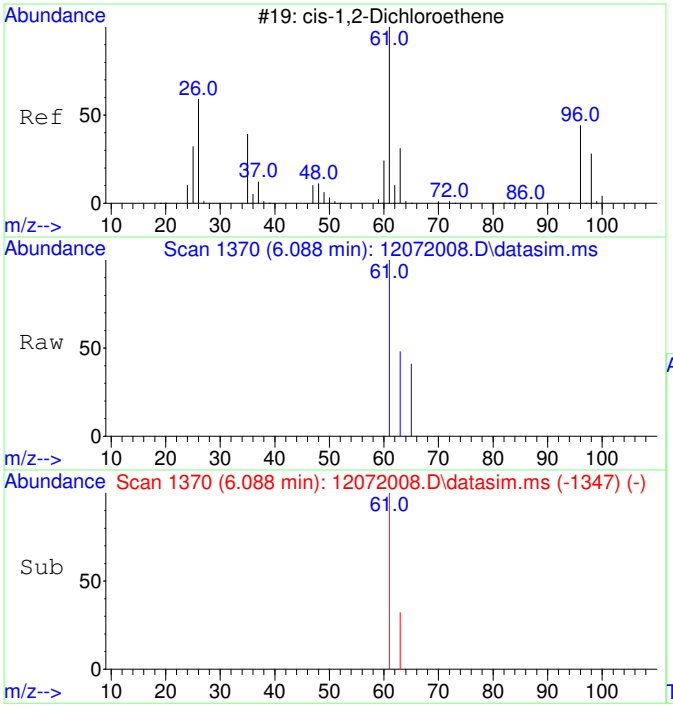


#4
1,1-Dichloroethane
Concen: 54.33 ug/L
RT: 5.079 min Scan# 1218
Delta R.T. -0.007 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 63 Resp: 607

Ion	Ratio	Lower	Upper
63	100		
65	38.6	1.8	61.8

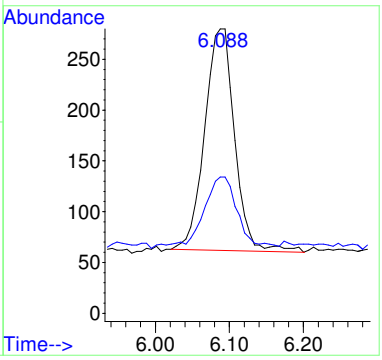


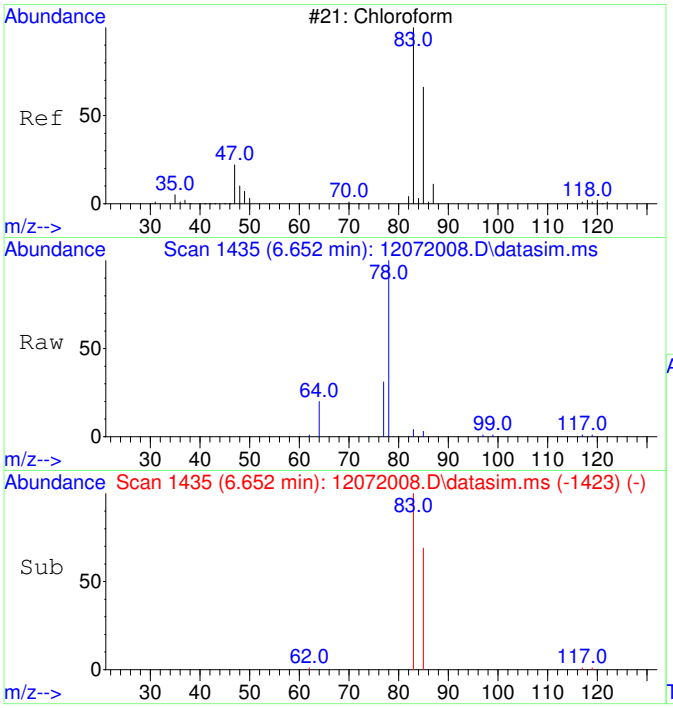


#5
cis-1,2-Dichloroethene
Concen: 53.06 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 614

Ion	Ratio	Lower	Upper
61	100		
63	36.8	2.5	62.5

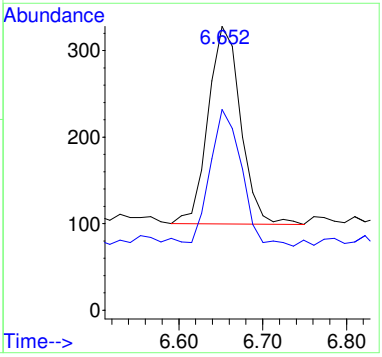


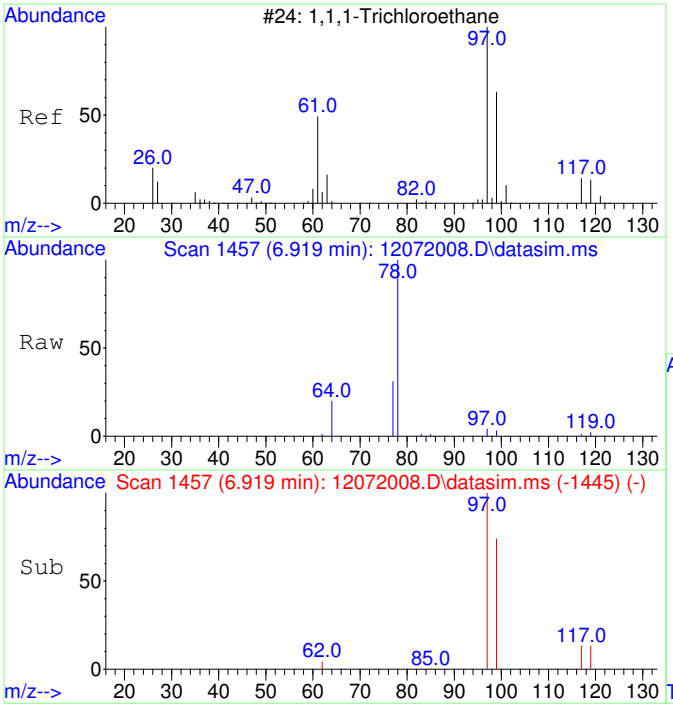


#6
Chloroform
Concen: 55.24 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 83 Resp: 614

Ion	Ratio	Lower	Upper
83	100		
85	67.1	35.1	95.1

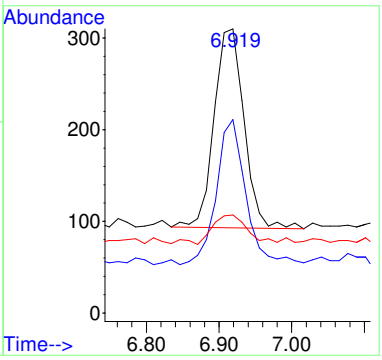


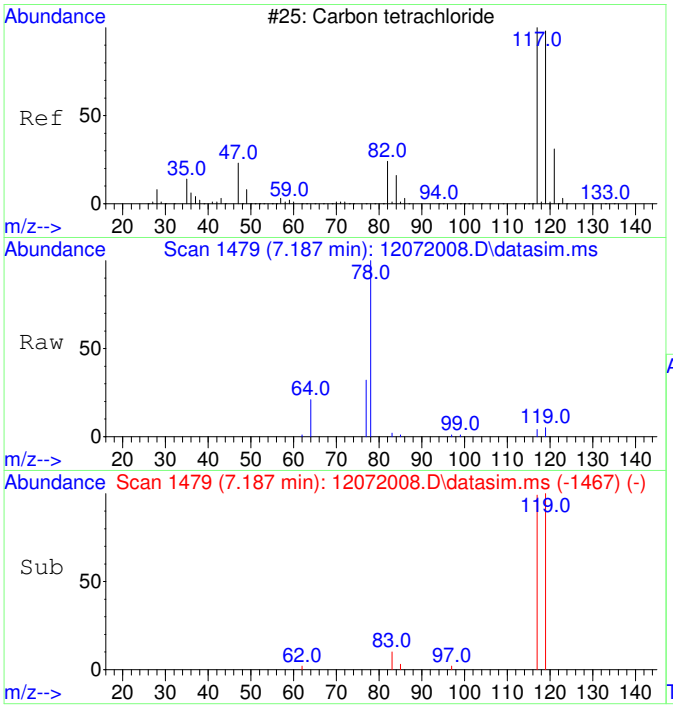


#7
1,1,1-Trichloroethane
Concen: 51.93 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 97 Resp: 620

Ion	Ratio	Lower	Upper
97	100		
99	71.5	34.6	94.6
117	16.8	0.0	43.2

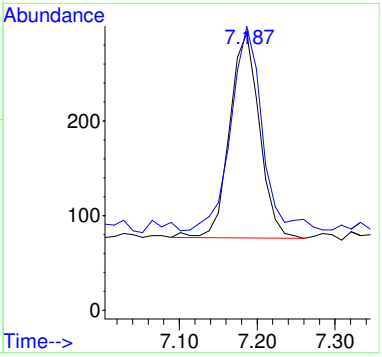


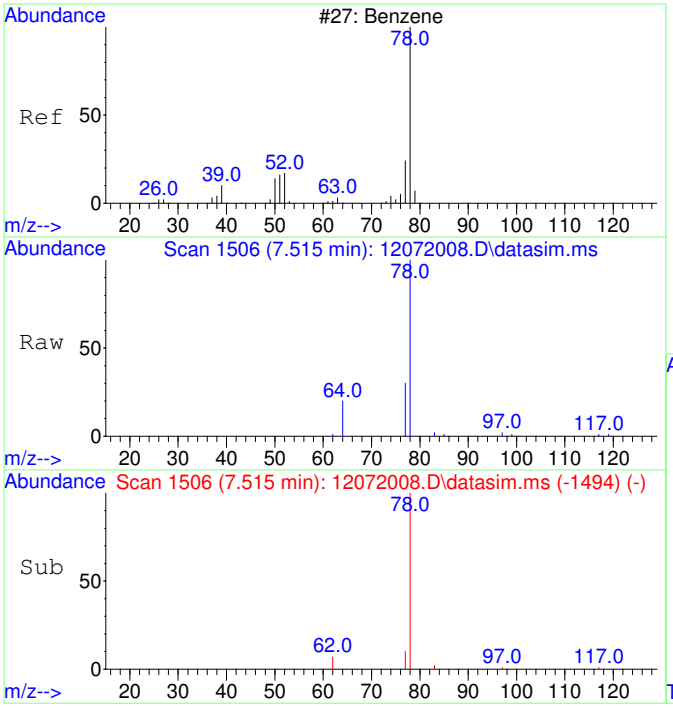


#8
Carbon tetrachloride
Concen: 50.55 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:117 Resp: 577

Ion	Ratio	Lower	Upper
117	100		
119	103.8	66.4	126.4

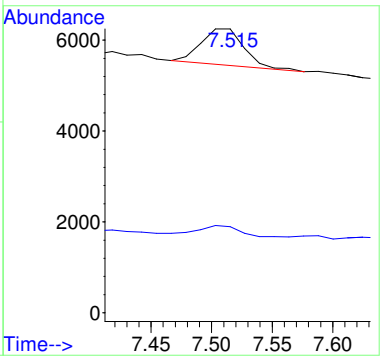


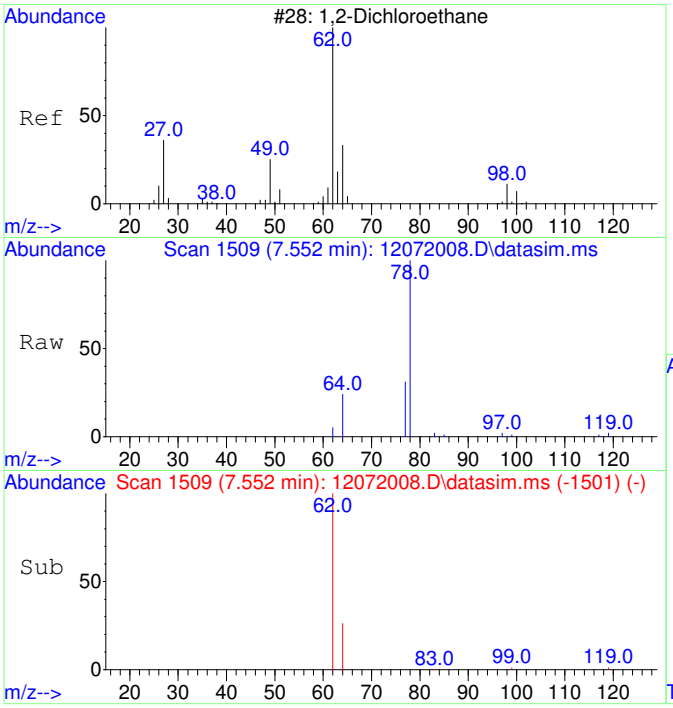


#9
Benzene
Concen: 59.29 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 78 Resp: 1867

Ion	Ratio	Lower	Upper
78	100		
77	34.5	0.0	53.2

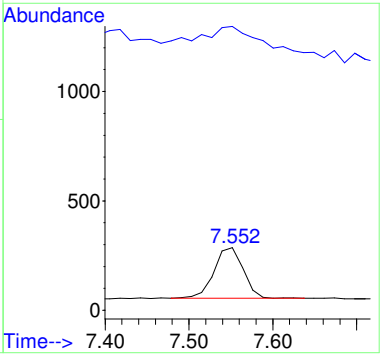


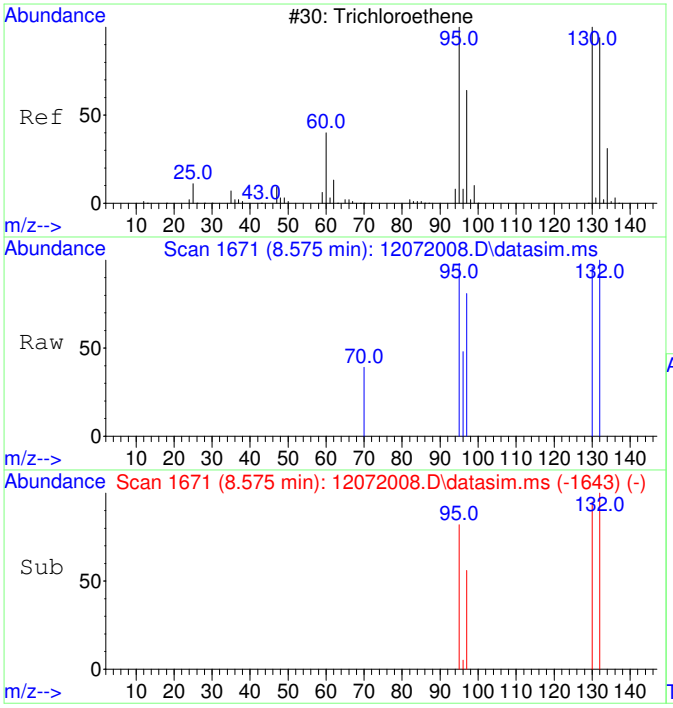


#10
1,2-Dichloroethane
Concen: 52.13 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 62 Resp: 560

Ion	Ratio	Lower	Upper
62	100		
64	107.5	2.3	62.3#

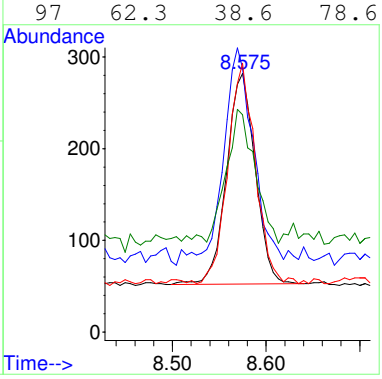


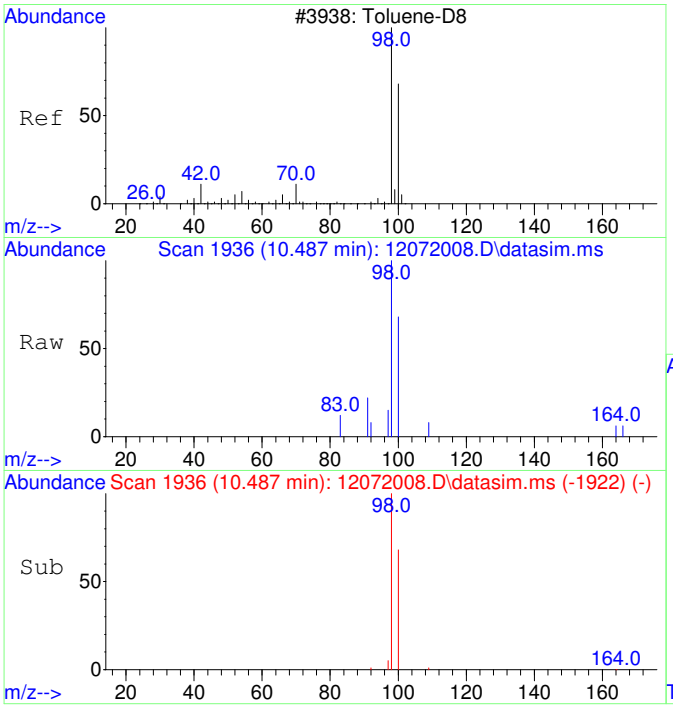


#11
Trichloroethene
Concen: 48.88 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:130 Resp: 486

Ion	Ratio	Lower	Upper
130	100		
95	104.3	60.7	120.7
132	100.6	76.0	116.0
97	62.3	38.6	78.6

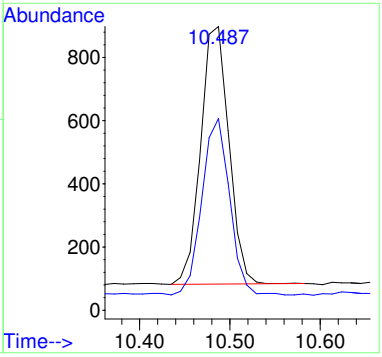


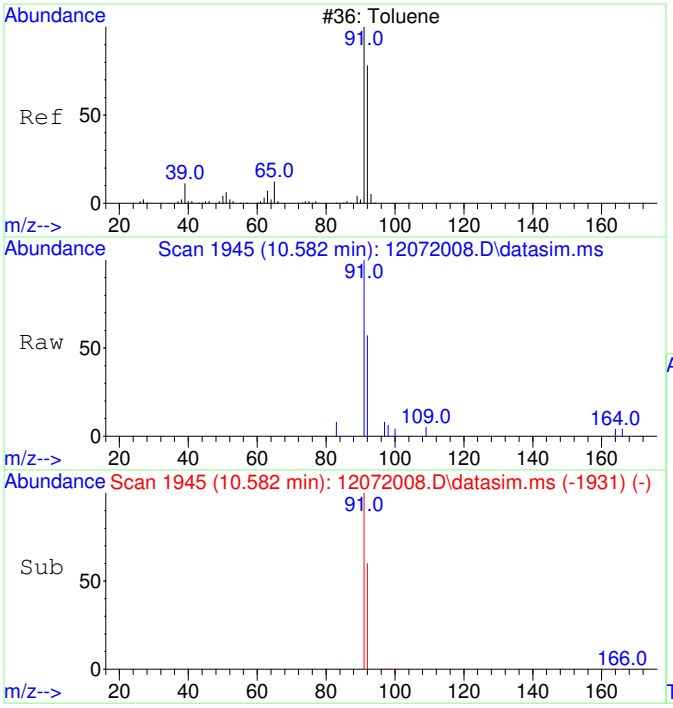


#12
Toluene-d8
Concen: 48.84 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 98 Resp: 1770

Ion	Ratio	Lower	Upper
98	100		
100	66.7	37.1	97.1

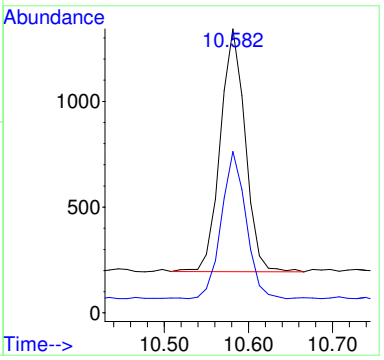


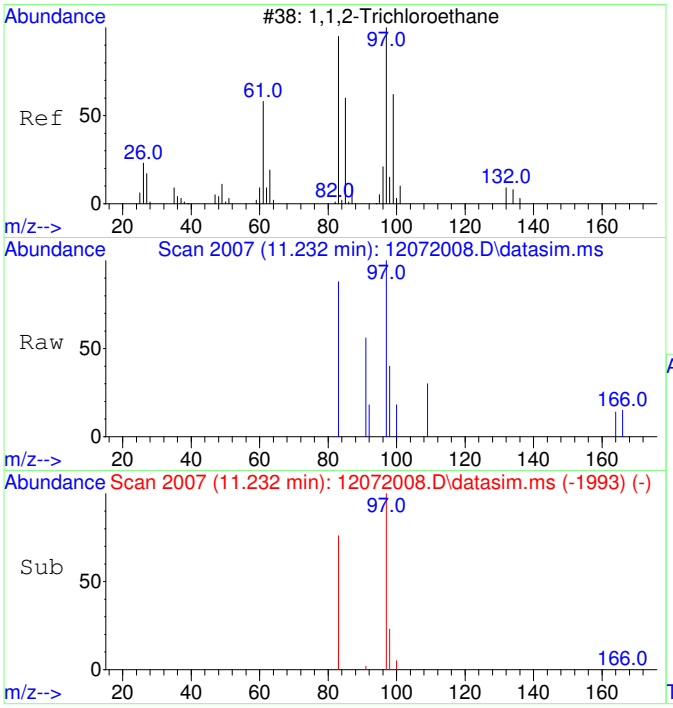


#13
Toluene
Concen: 52.21 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2356

Ion	Ratio	Lower	Upper
91	100		
92	59.3	29.9	89.9

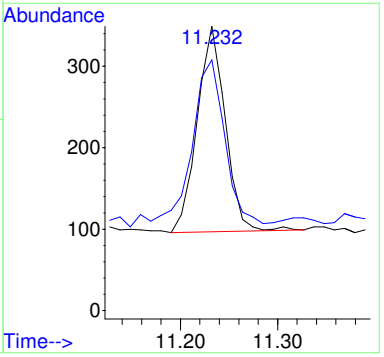


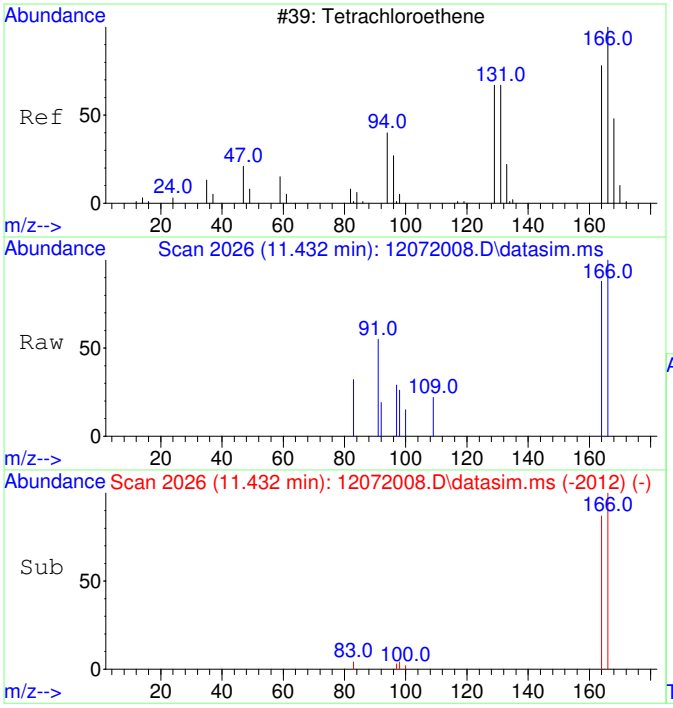


#14
1,1,2-Trichloroethane
Concen: 48.41 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 97 Resp: 506

Ion	Ratio	Lower	Upper
97	100		
83	98.4	51.2	111.2

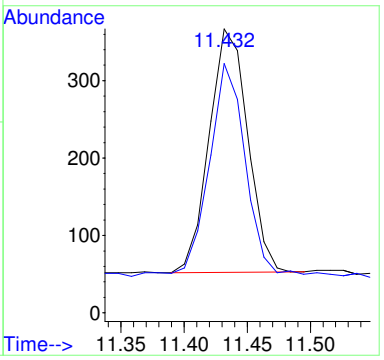


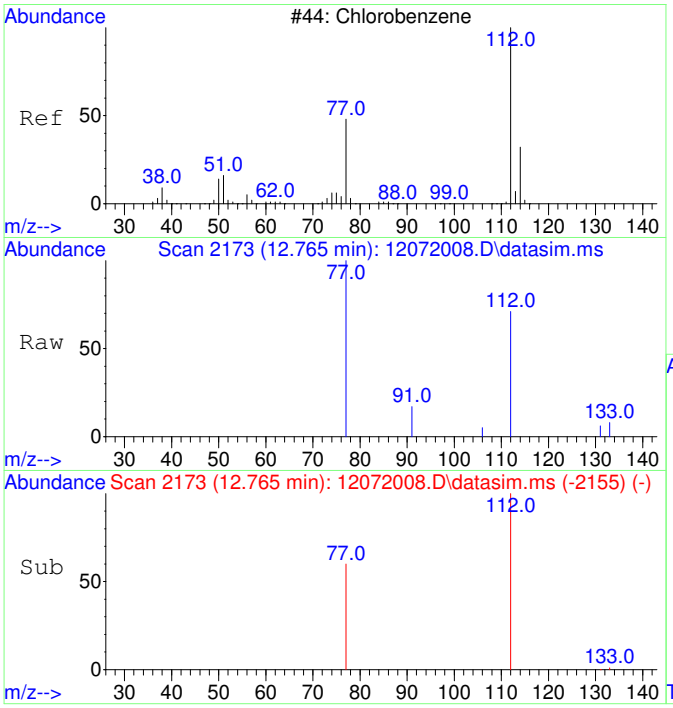


#15
Tetrachloroethene
Concen: 47.52 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:166 Resp: 668

Ion	Ratio	Lower	Upper
166	100		
164	83.4	47.8	107.8

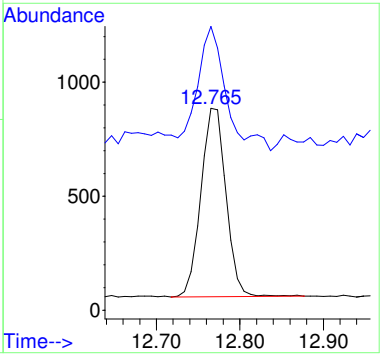


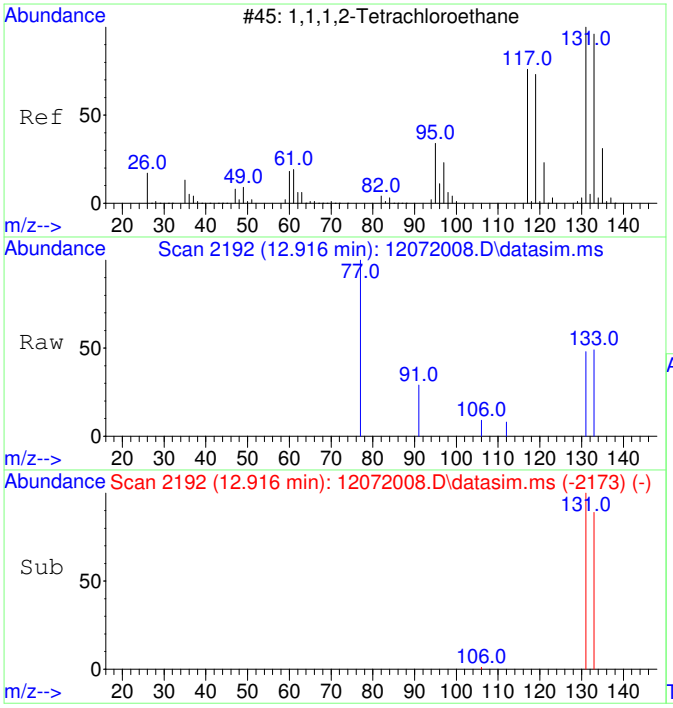


#16
Chlorobenzene
Concen: 49.43 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:112 Resp: 1728

Ion	Ratio	Lower	Upper
112	100		
77	60.0	23.6	83.6

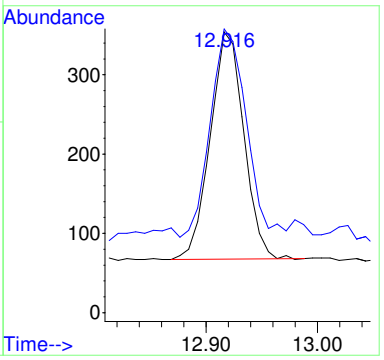


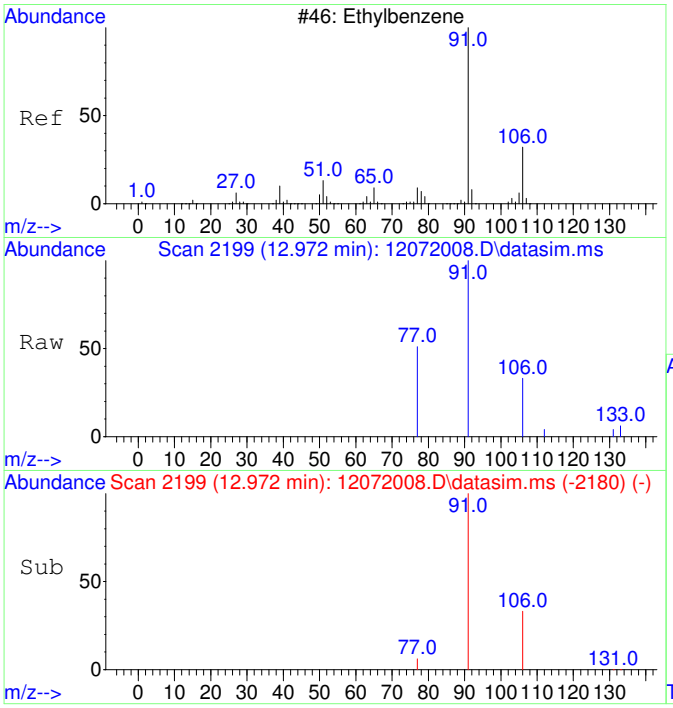


#17
1,1,1,2-Tetrachloroethane
Concen: 49.12 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:131 Resp: 601

Ion	Ratio	Lower	Upper
131	100		
133	98.5	66.3	126.3

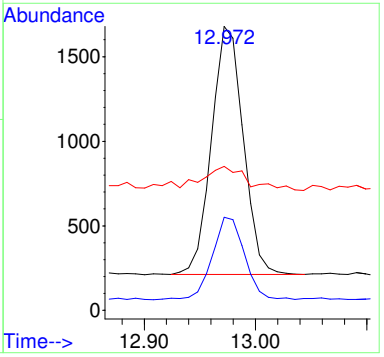


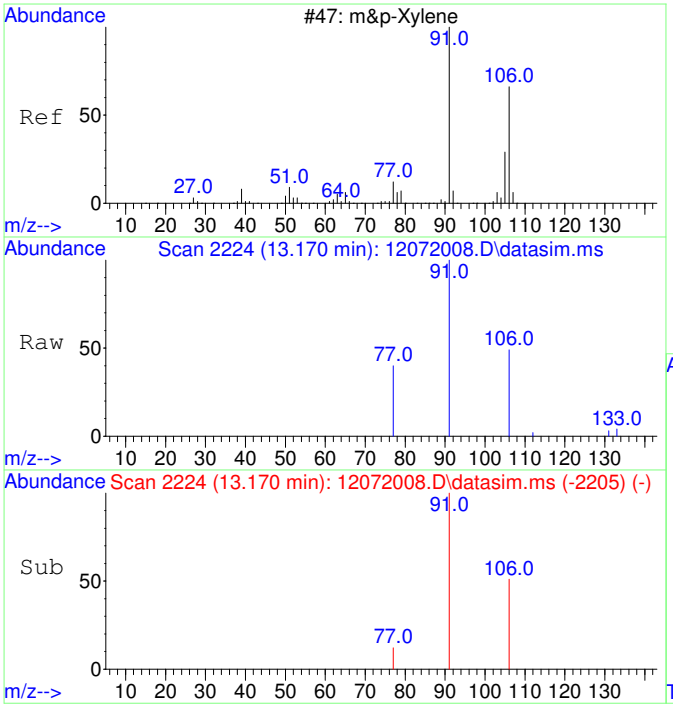


#18
Ethylbenzene
Concen: 50.43 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2907

Ion	Ratio	Lower	Upper
91	100		
106	33.7	3.0	63.0
77	13.9	0.0	38.2

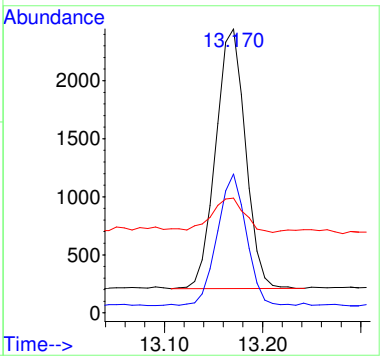


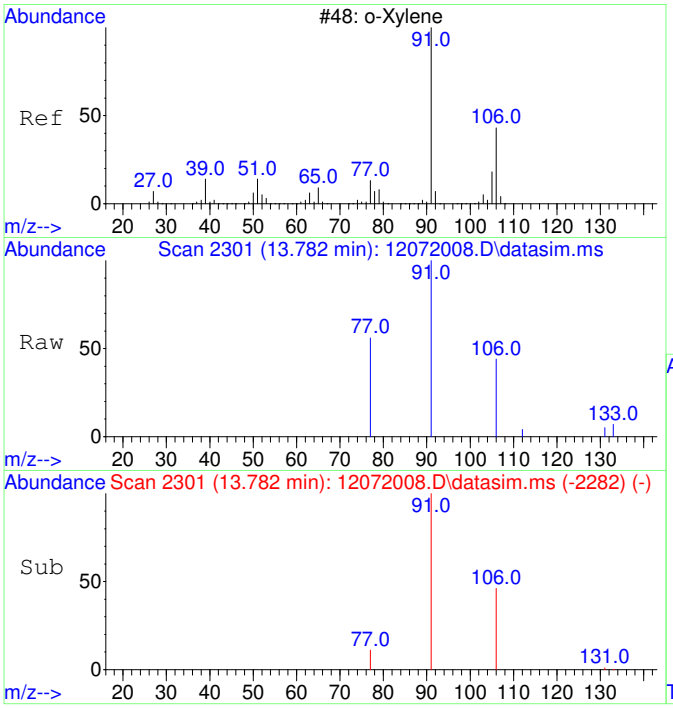


#19
m&p-Xylene
Concen: 105.66 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 4690

Ion	Ratio	Lower	Upper
91	100		
106	49.2	22.2	82.2
77	15.2	0.0	42.4

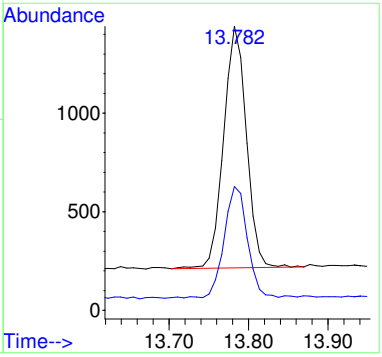


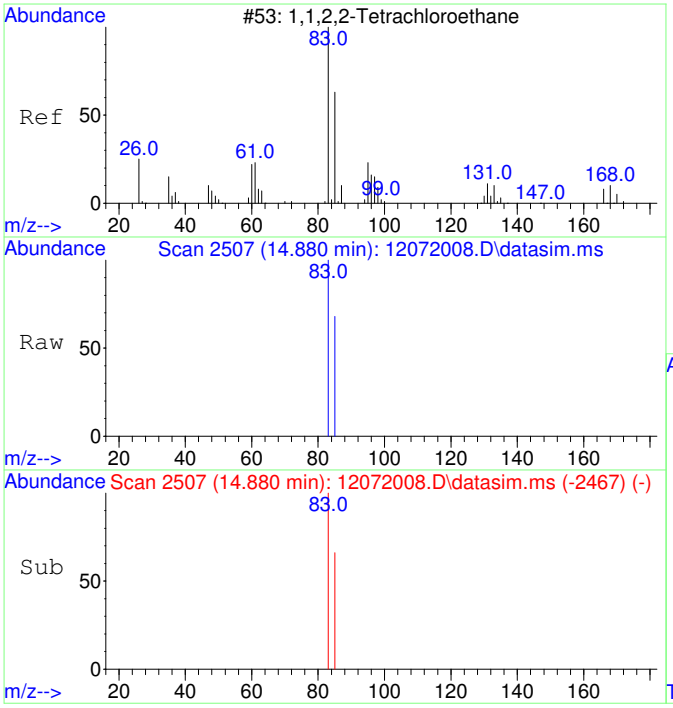


#20
o-Xylene
Concen: 51.14 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2438

Ion	Ratio	Lower	Upper
91	100		
106	46.8	19.2	79.2

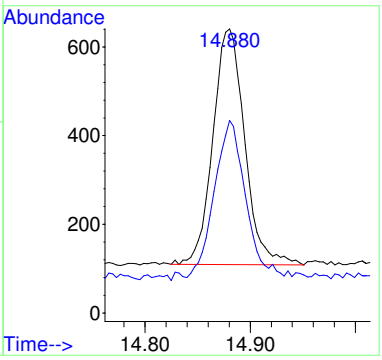


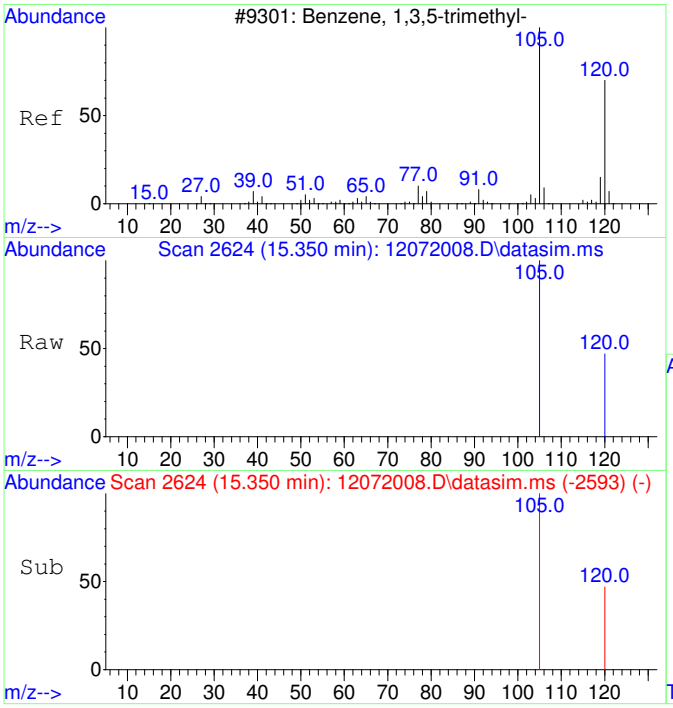


#21
1,1,2,2-Tetrachloroethane
Concen: 50.24 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 83 Resp: 1116

Ion	Ratio	Lower	Upper
83	100		
85	63.8	34.8	94.8

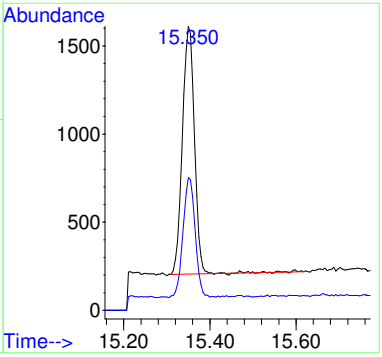


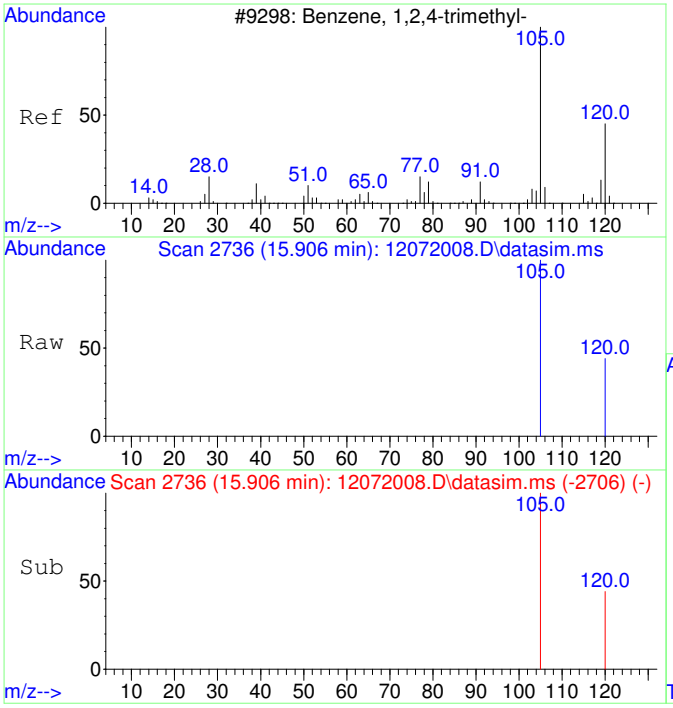


#22
1,3,5-Trimethylbenzene
Concen: 52.23 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:105 Resp: 2738

Ion	Ratio	Lower	Upper
105	100		
120	46.1	21.1	81.1

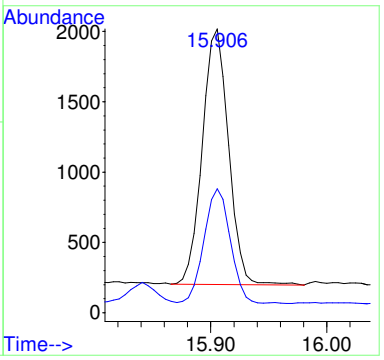


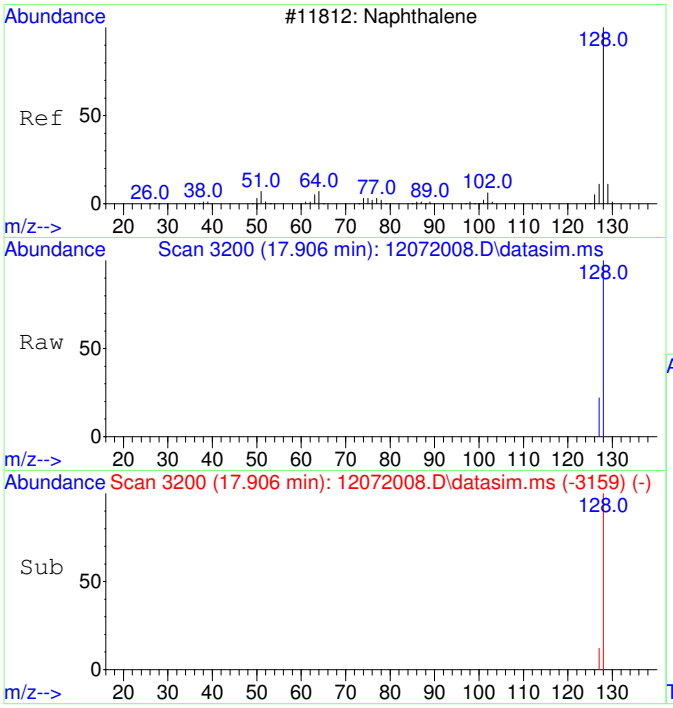


#23
1,2,4-Trimethylbenzene
Concen: 53.45 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:105 Resp: 2866

Ion	Ratio	Lower	Upper
105	100		
120	44.2	17.2	77.2

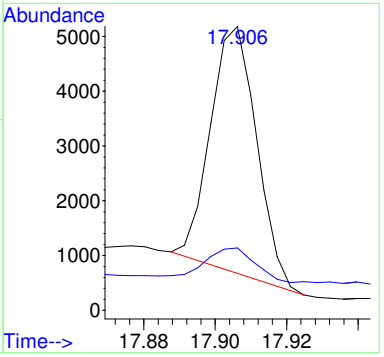




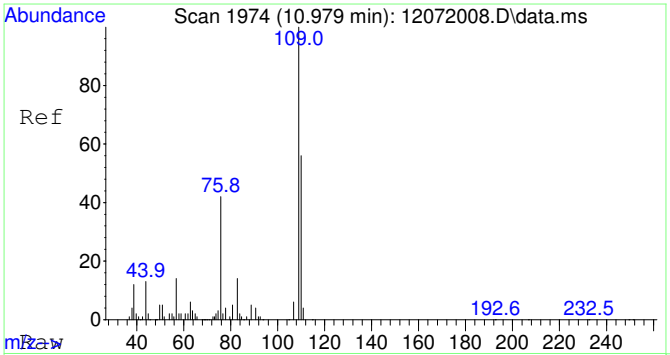
#24
Naphthalene
Concen: 47.08 ug/L
RT: 17.906 min Scan# 3200
Delta R.T. 0.002 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:128 Resp: 3948

Ion	Ratio	Lower	Upper
128	100		
127	13.4	0.0	42.5



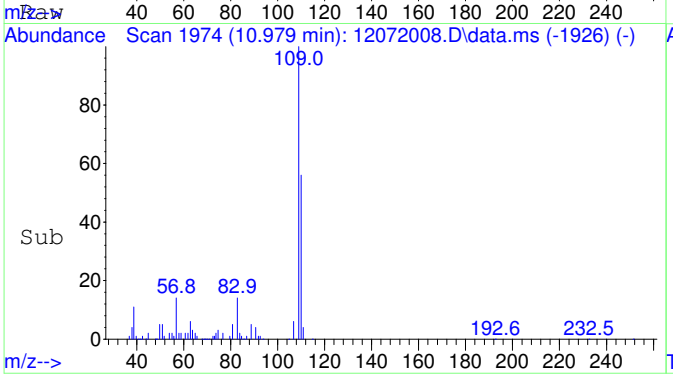
Before MI:
IMPROPER
BASELINE

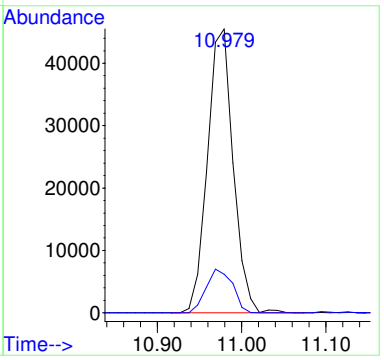


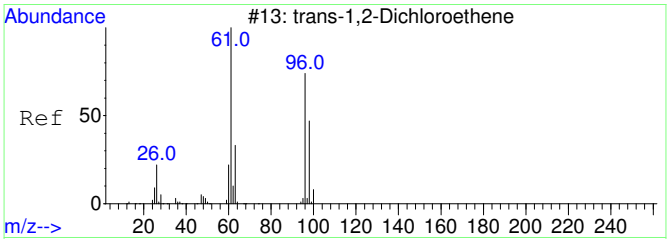
#25
2-Fluorotoluene SCAN
Concen: 4561.89 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

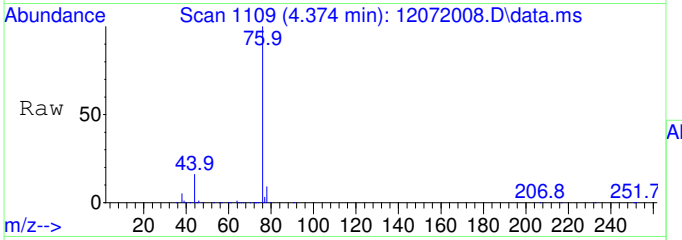
Tgt Ion:109 Resp: 96904

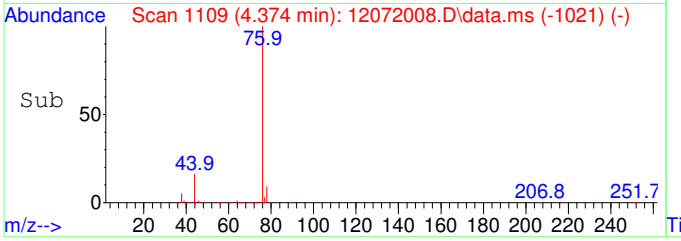
Ion	Ratio	Lower	Upper
109	100		
83	15.8	0.0	43.8







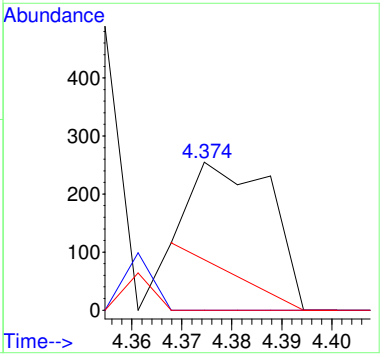


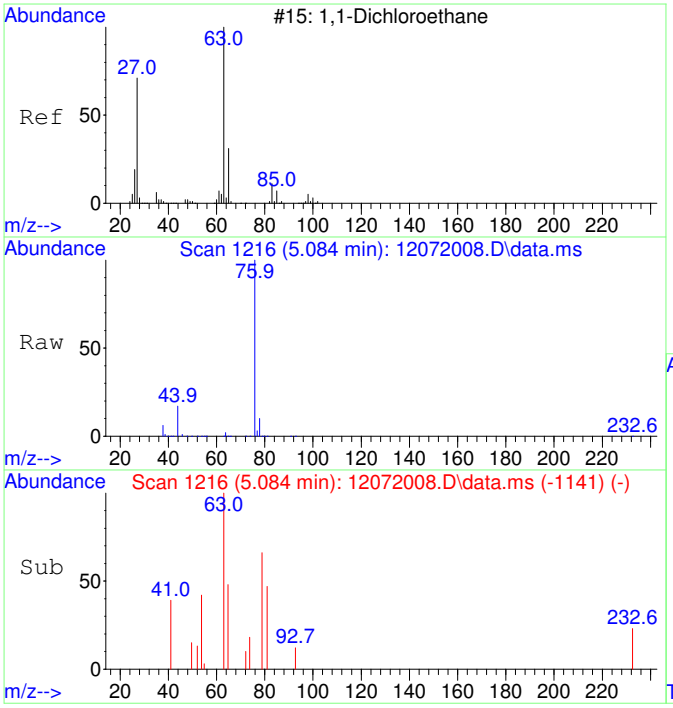


#27
trans-1,2-Dichloroethene SCAN
Concen: 29.61 ug/L
RT: 4.374 min Scan# 1109
Delta R.T. -0.007 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 187

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

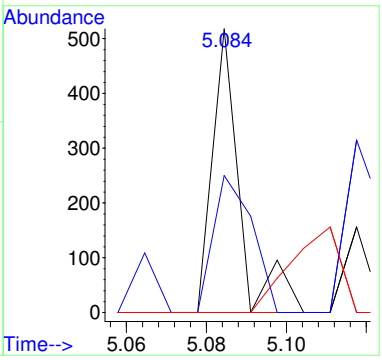


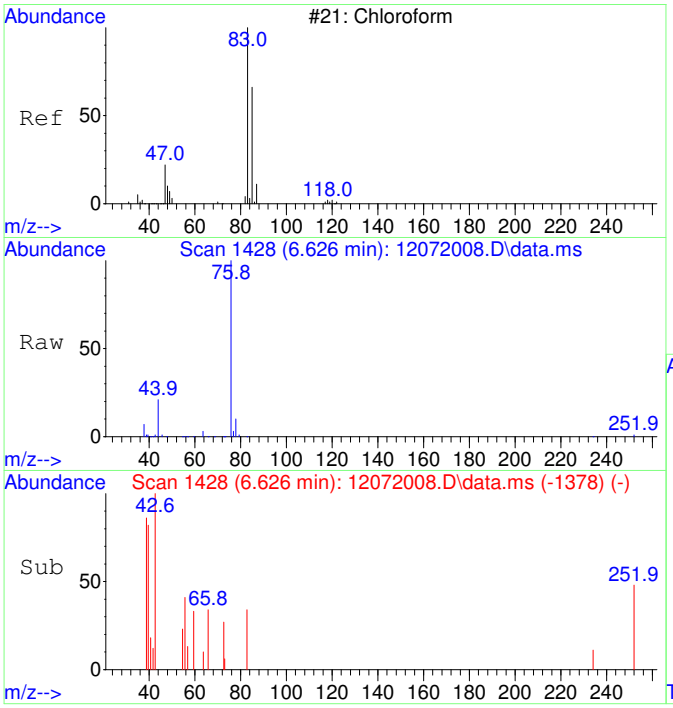


#28
1,1-Dichloroethane SCAN
Concen: 32.73 ug/L
RT: 5.084 min Scan# 1216
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 63 Resp: 244

Ion	Ratio	Lower	Upper
63	100		
65	69.7	1.3	61.3#
83	0.0	0.0	45.9

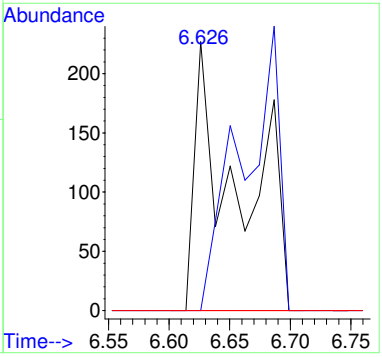


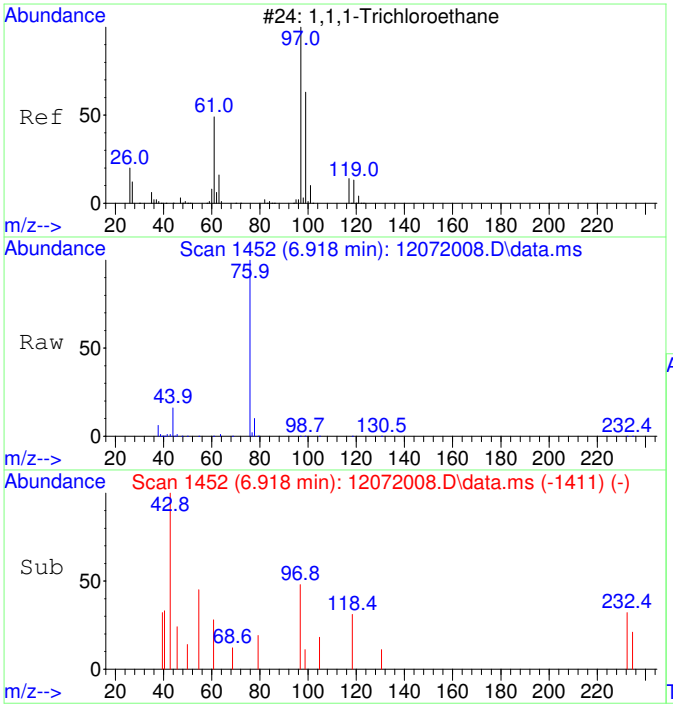


#30
Chloroform SCAN
Concen: 81.33 ug/L
RT: 6.626 min Scan# 1428
Delta R.T. -0.036 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 83 Resp: 556

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

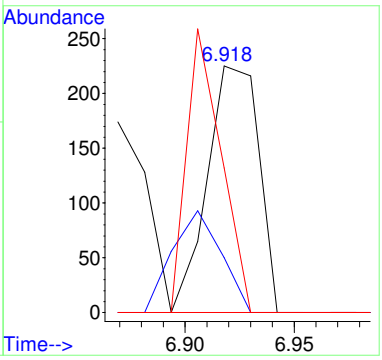


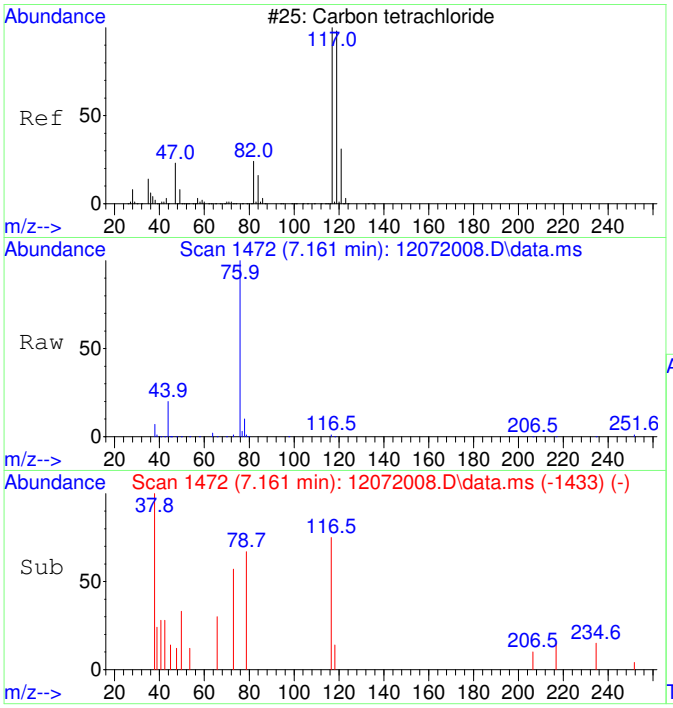


#31
1,1,1-Trichloroethane SCAN
Concen: 52.31 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 97 Resp: 369

Ion	Ratio	Lower	Upper
97	100		
99	39.3	43.6	103.6#
61	77.2	18.0	78.0

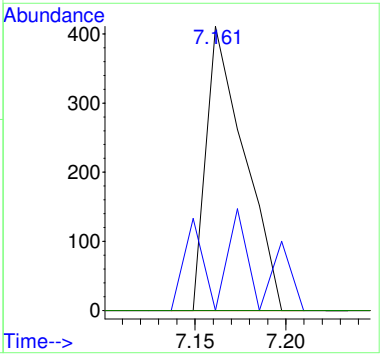


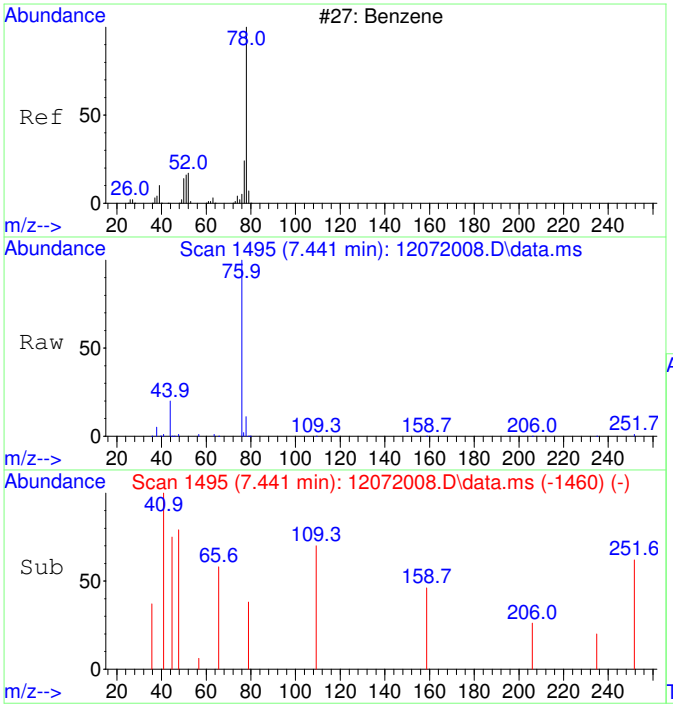


#32
Carbon tetrachloride SCAN
Concen: 99.86 ug/L
RT: 7.161 min Scan# 1472
Delta R.T. -0.024 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:117 Resp: 602

Ion	Ratio	Lower	Upper
117	100		
119	16.1	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

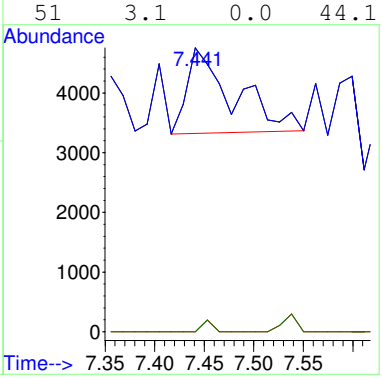


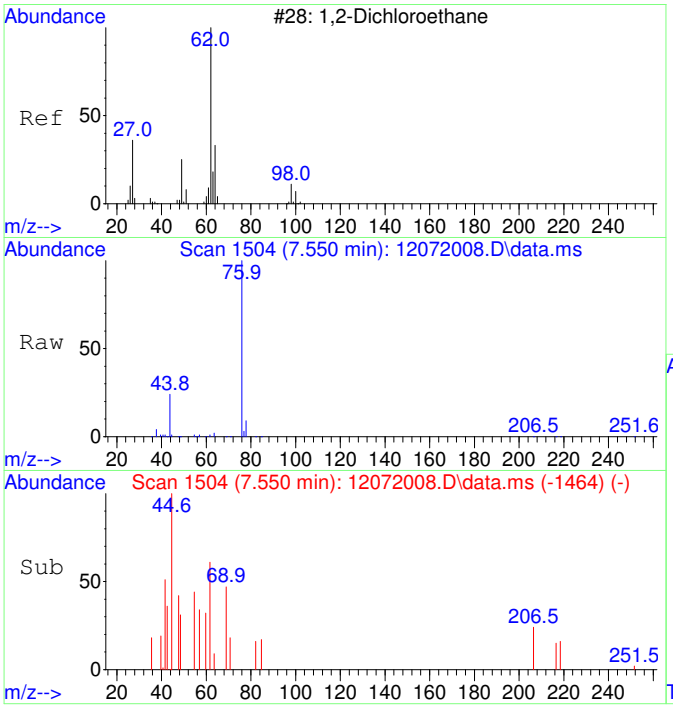


#33
Benzene SCAN
Concen: 219.62 ug/L
RT: 7.441 min Scan# 1495
Delta R.T. -0.073 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 78 Resp: 4687

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	3.1	0.0	47.9
51	3.1	0.0	44.1

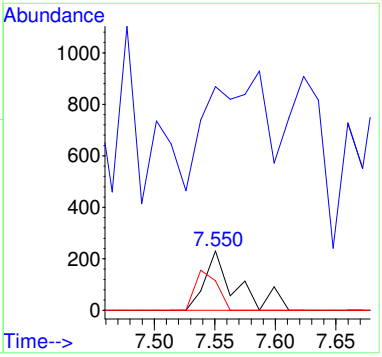


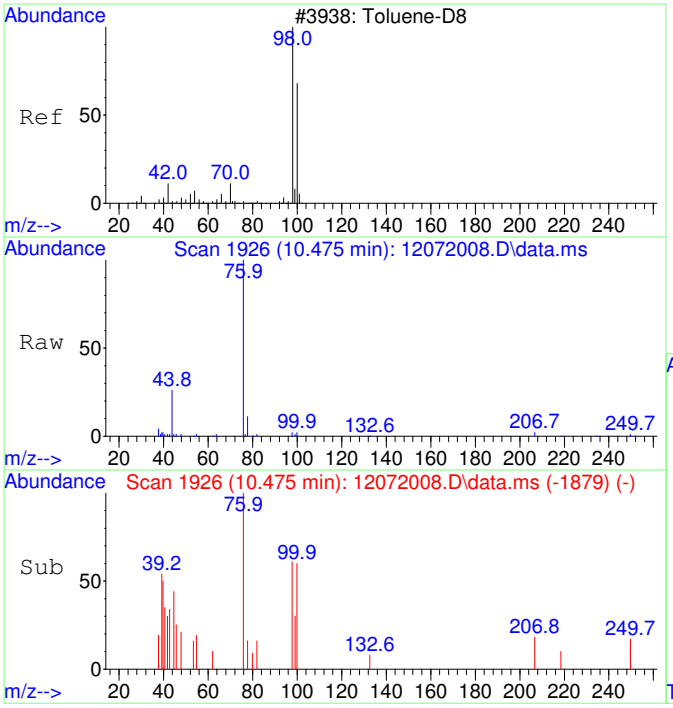


#34
1,2-Dichloroethane SCAN
Concen: 62.02 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. -0.012 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 62 Resp: 414

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	47.8	3.9	63.9

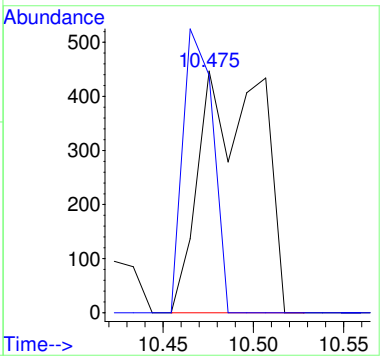


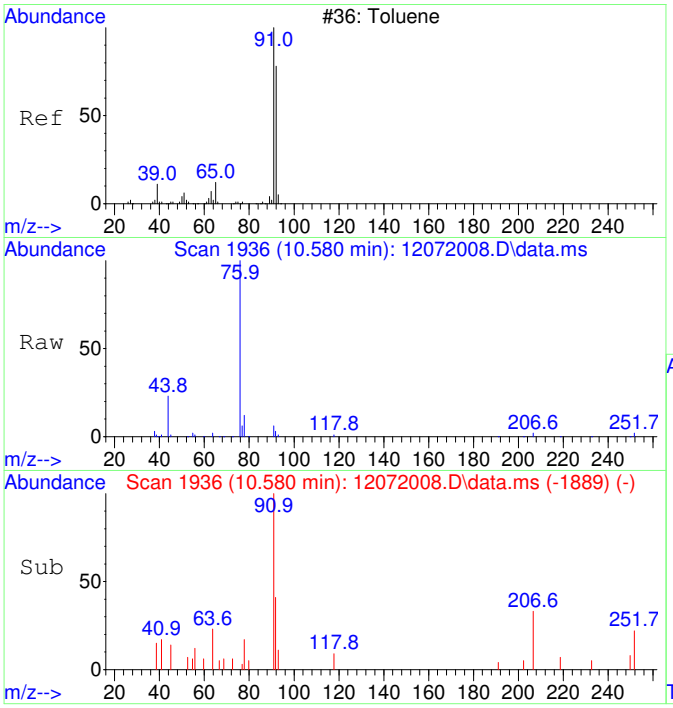


#36
Toluene-d8 SCAN
Concen: 53.86 ug/L
RT: 10.475 min Scan# 1926
Delta R.T. -0.010 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 98 Resp: 1073

Ion	Ratio	Lower	Upper
98	100		
100	56.6	40.0	100.0

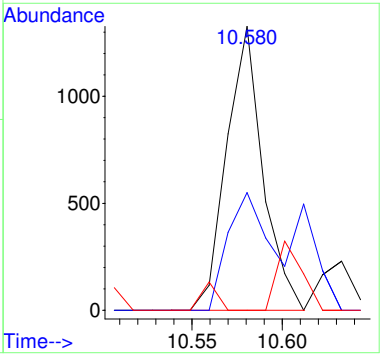


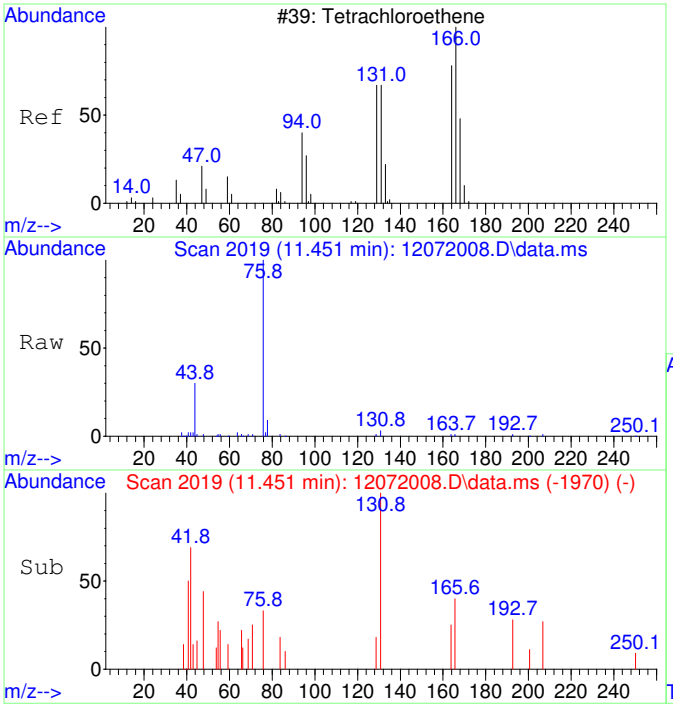


#37
Toluene SCAN
Concen: 75.62 ug/L
RT: 10.580 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 1855

Ion	Ratio	Lower	Upper
91	100		
92	72.7	28.3	88.3
65	0.0	0.0	41.0

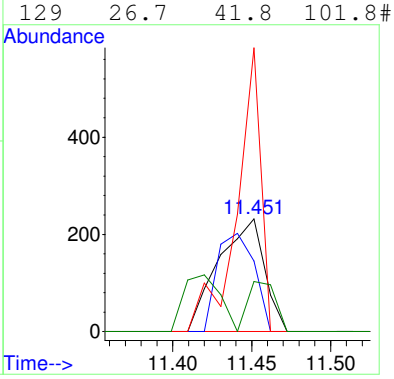


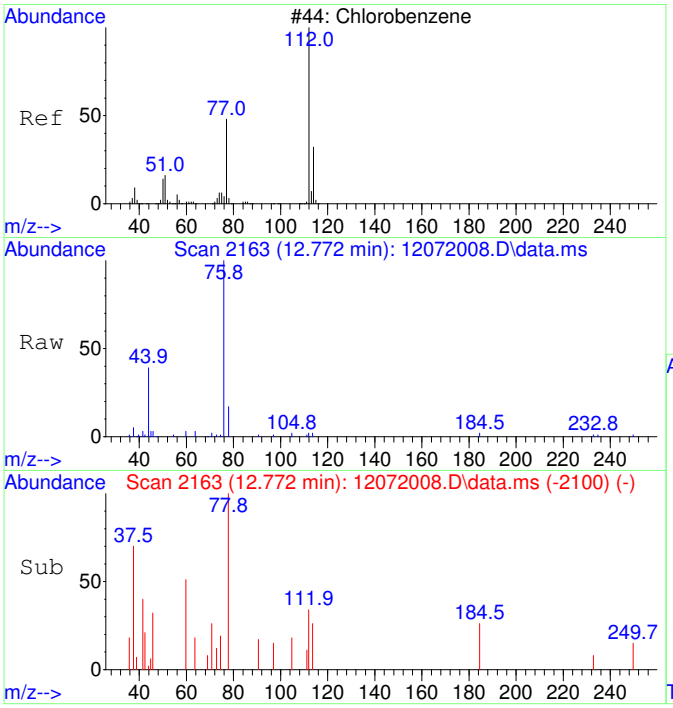


#39
Tetrachloroethene SCAN
Concen: 84.99 ug/L
RT: 11.451 min Scan# 2019
Delta R.T. 0.011 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:166 Resp: 469

Ion	Ratio	Lower	Upper
166	100		
164	70.8	50.9	110.9
131	131.1	38.7	98.7#
129	26.7	41.8	101.8#

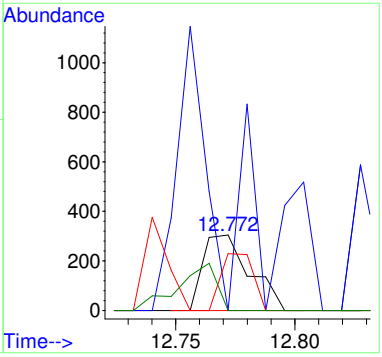


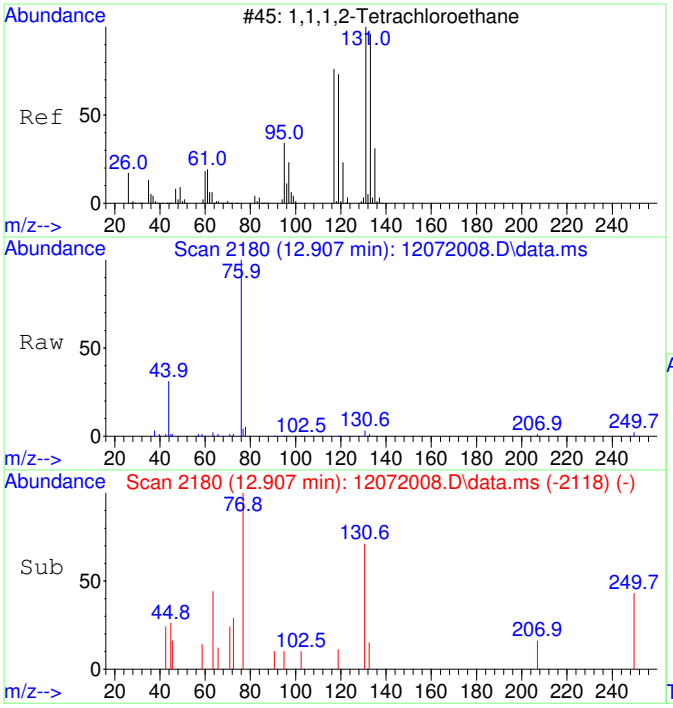


#40
Chlorobenzene SCAN
Concen: 23.61 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:112 Resp: 416

Ion	Ratio	Lower	Upper
112	100		
77	95.4	28.2	88.2#
114	52.2	2.3	62.3
51	0.0	0.0	50.1

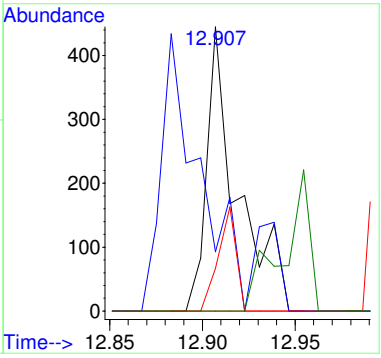


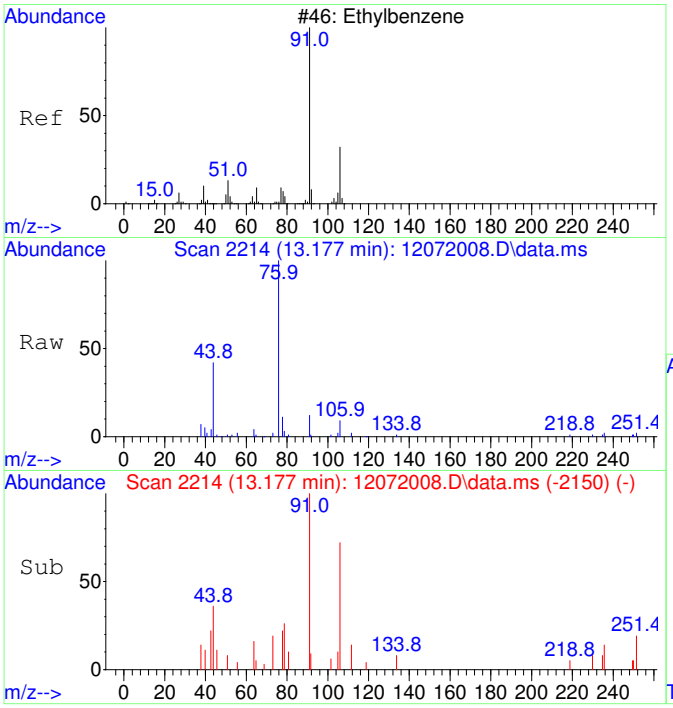


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 84.89 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. -0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:131 Resp: 516

Ion	Ratio	Lower	Upper
131	100		
133	0.0	66.9	126.9#
119	21.3	40.4	100.4#
117	0.0	35.1	95.1#

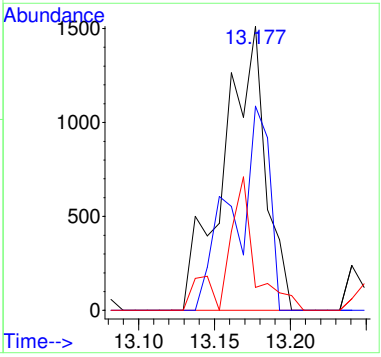


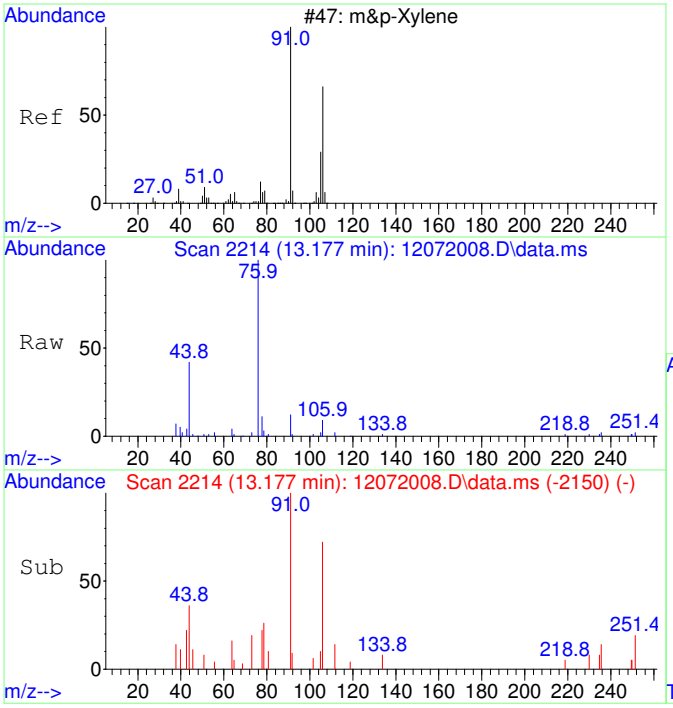


#42
Ethylbenzene SCAN
Concen: 61.97 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2897

Ion	Ratio	Lower	Upper
91	100		
106	60.7	23.1	83.1
51	31.6	0.0	40.1

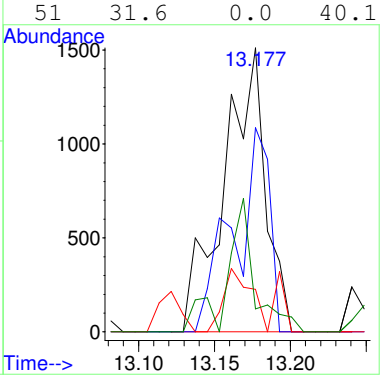


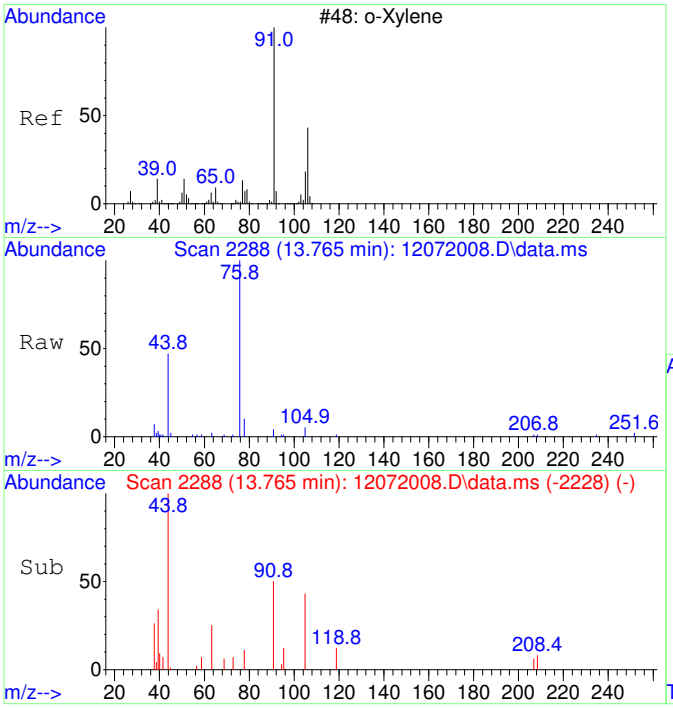


#43
m&p-Xylene SCAN
Concen: 61.97 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2897

Ion	Ratio	Lower	Upper
91	100		
106	60.7	23.1	83.1
105	14.9	0.0	54.7
51	31.6	0.0	40.1

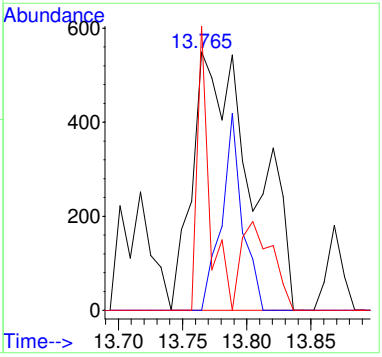


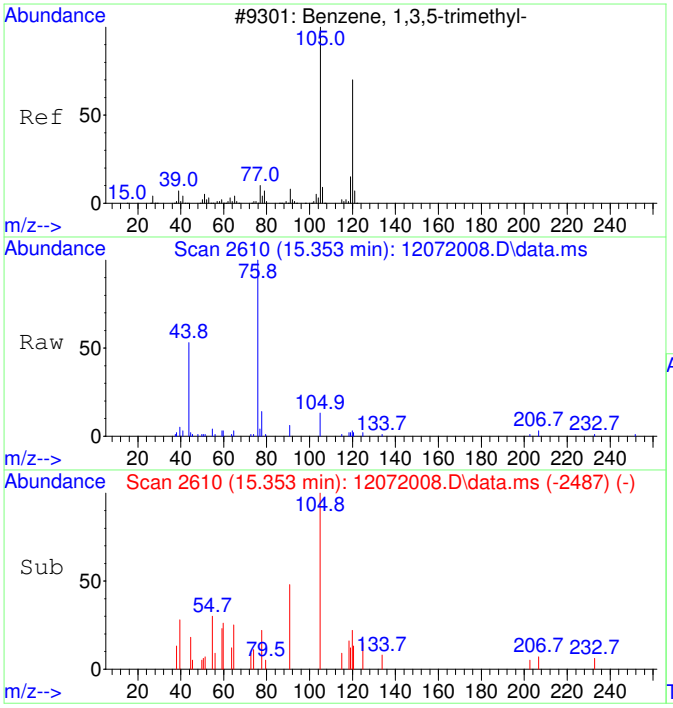


#44
o-Xylene SCAN
Concen: 70.17 ug/L
RT: 13.765 min Scan# 2288
Delta R.T. -0.024 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 1791

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.0	78.0#
105	22.3	0.0	56.6

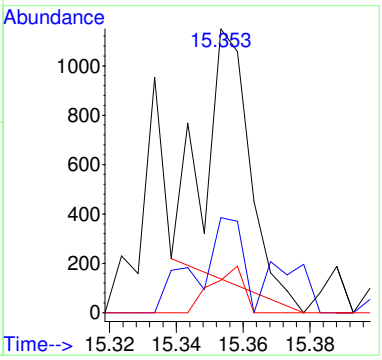


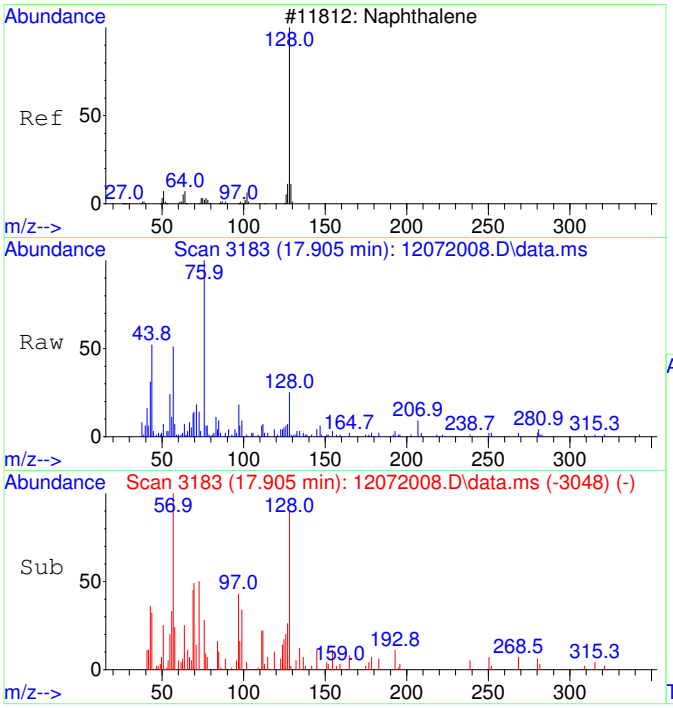


#46
1,3,5-Trimethylbenzene SCAN
Concen: 34.54 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:105 Resp: 930

Ion	Ratio	Lower	Upper
105	100		
120	38.6	18.3	78.3
119	13.5	0.0	43.1

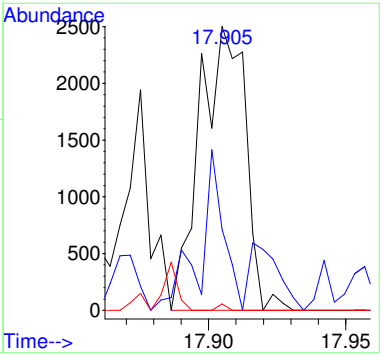




#48
Naphthalene SCAN
Concen: 70.25 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.002 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:128 Resp: 2901

Ion	Ratio	Lower	Upper
128	100		
127	29.2	0.0	44.0
129	6.7	0.0	40.8



Quantitation Report (QT Reviewed)

Table of Contents

M.I. Performed By:

TD at 6:30 am, Dec 08, 2020

M.I. Approved By:

ZAR at 2:54 pm, Dec 14, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072008.D
Acq On : 7 Dec 2020 14:43
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 06:07:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration

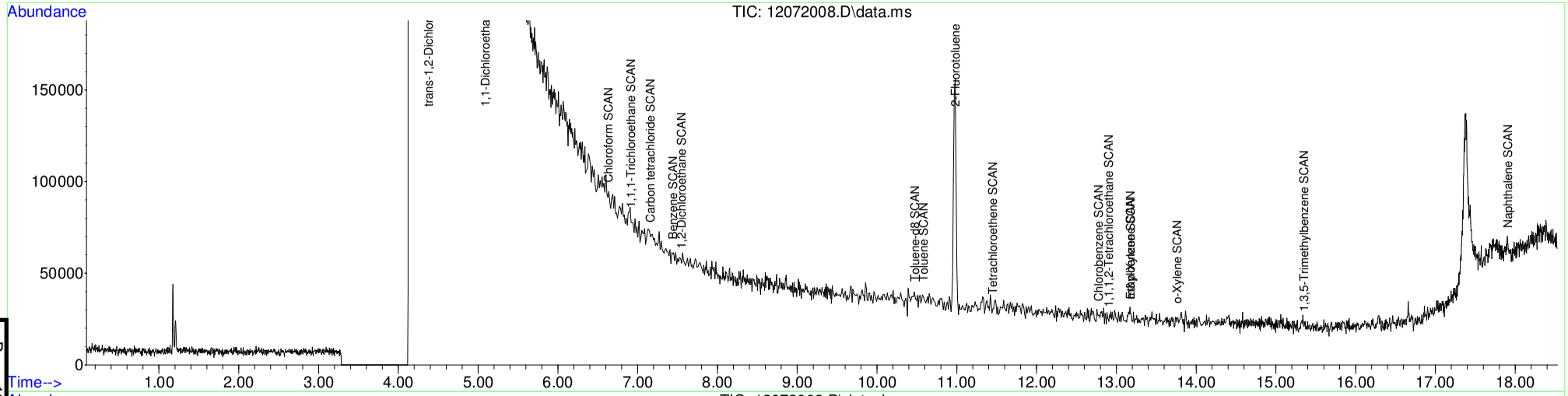
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	187138	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.487	98	1770	48.84	ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 0.98%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.090	61	424m	57.33	ug/L	
3] trans-1,2-Dichloroethene	4.369	61	498	53.24	ug/L	86
4] 1,1-Dichloroethane	5.079	63	607	54.33	ug/L	88
5] cis-1,2-Dichloroethene	6.088	61	614	53.06	ug/L	92
6] Chloroform	6.652	83	614	55.24	ug/L	97
7] 1,1,1-Trichloroethane	6.919	97	620	51.93	ug/L	91
8] Carbon tetrachloride	7.187	117	577	50.55	ug/L	92
9] Benzene	7.515	78	1867	59.29	ug/L	77
10] 1,2-Dichloroethane	7.552	62	560	52.13	ug/L #	1
11] Trichloroethene	8.575	130	486	48.88	ug/L	92
13] Toluene	10.582	91	2356	52.21	ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	506	48.41	ug/L	81
15] Tetrachloroethene	11.432	166	668	47.52	ug/L	94
16] Chlorobenzene	12.765	112	1728	49.43	ug/L	91
17] 1,1,1,2-Tetrachloroethane	12.916	131	601	49.12	ug/L	98
18] Ethylbenzene	12.972	91	2907	50.43	ug/L	96
19] m&p-Xylene	13.170	91	4690	105.66	ug/L	95
20] o-Xylene	13.782	91	2438	51.14	ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.880	83	1116	50.24	ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	2738	52.23	ug/L	93
23] 1,2,4-Trimethylbenzene	15.906	105	2866	53.45	ug/L	96
24] Naphthalene	17.906	128	4856m	57.91	ug/L	
25) 2-Fluorotoluene SCAN	10.979	109	96904	4561.89	ug/L	95
27) trans-1,2-Dichloroethe...	4.374	61	187	29.61	ug/L #	17
28) 1,1-Dichloroethane SCAN	5.084	63	244	32.73	ug/L #	41
30) Chloroform SCAN	6.626	83	556	81.33	ug/L #	27
31) 1,1,1-Trichloroethane ...	6.918	97	369	52.31	ug/L #	58
32) Carbon tetrachloride SCAN	7.161	117	602	99.86	ug/L #	25
33) Benzene SCAN	7.441	78	4687	219.62	ug/L	93
34) 1,2-Dichloroethane SCAN	7.550	62	414	62.02	ug/L #	57
36) Toluene-d8 SCAN	10.475	98	1073	53.86	ug/L	84
37) Toluene SCAN	10.580	91	1855	75.62	ug/L #	79
39) Tetrachloroethene SCAN	11.451	166	469	84.99	ug/L #	54
40) Chlorobenzene SCAN	12.772	112	416	23.61	ug/L #	55
41) 1,1,1,2-Tetrachloroeth...	12.907	131	516	84.89	ug/L #	18
42) Ethylbenzene SCAN	13.177	91	2897	61.97	ug/L	82
43) m&p-Xylene SCAN	13.177	91	2897	61.97	ug/L	81
44) o-Xylene SCAN	13.765	91	1791	70.17	ug/L #	51
46) 1,3,5-Trimethylbenzene...	15.353	105	930	34.54	ug/L	88
48) Naphthalene SCAN	17.905	128	2901	70.25	ug/L	74

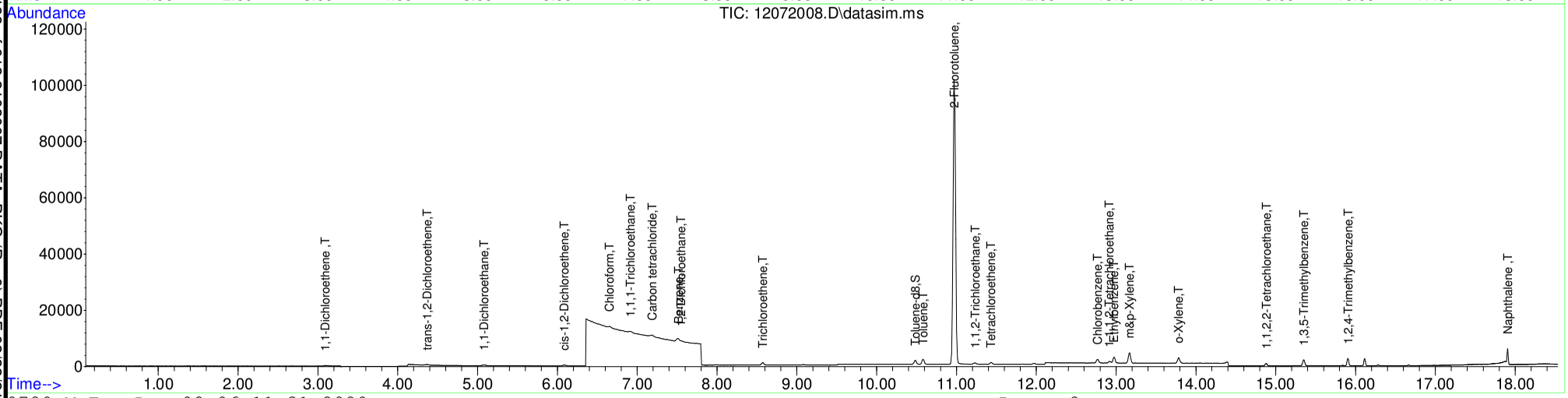
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072008.D
Acq On : 7 Dec 2020 14:43
InstName : AG5975C
Operator : TD
Sample : S20L021-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 06:07:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:05:27 2020
Response via : Initial Calibration





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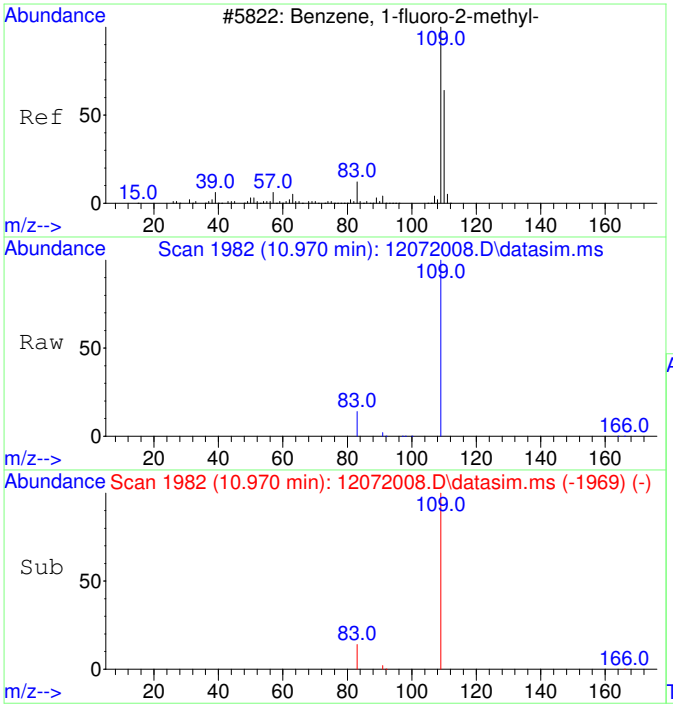
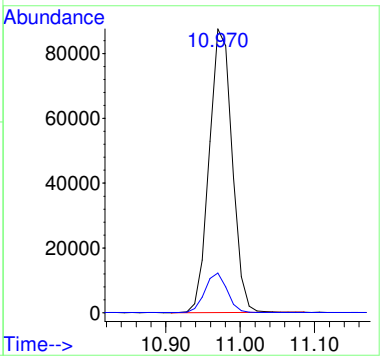
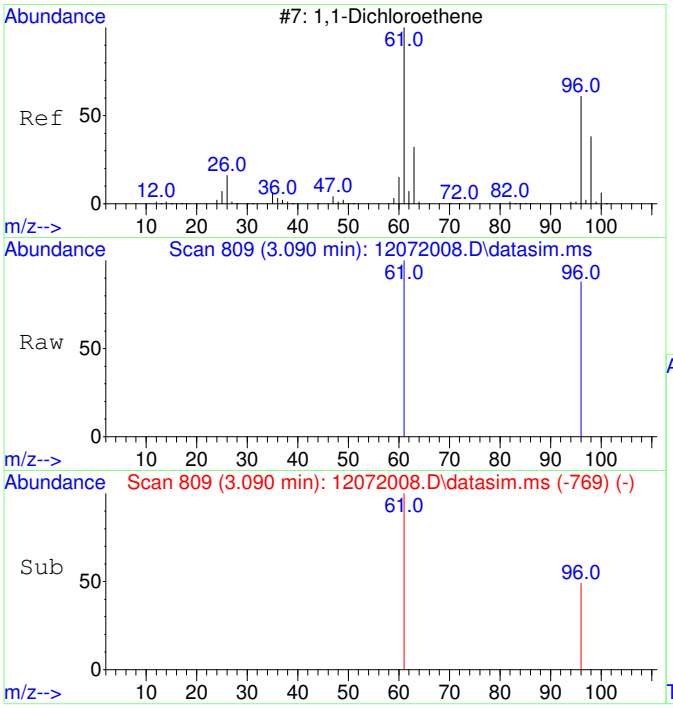


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:109 Resp: 187138

Ion	Ratio	Lower	Upper
109	100		
83	13.4	0.0	42.3

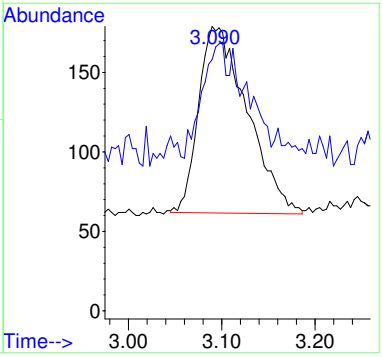


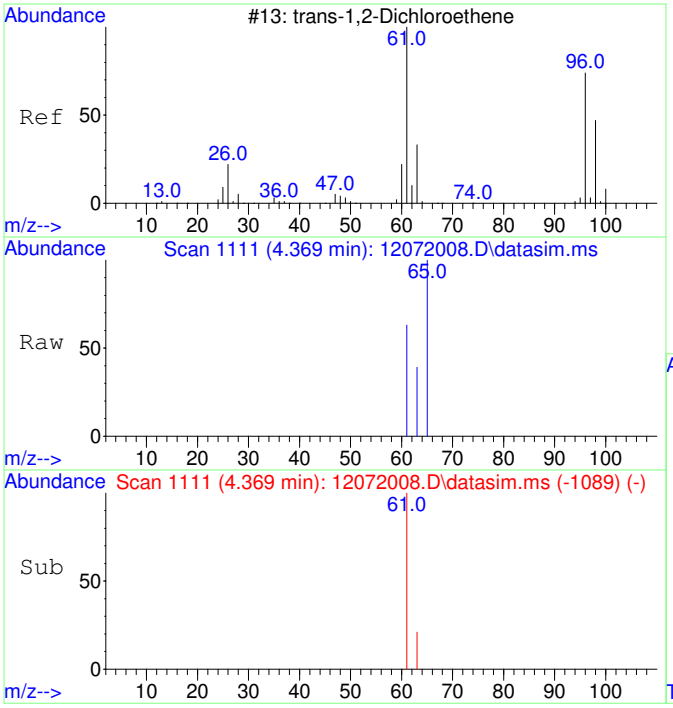


#2
1,1-Dichloroethene
Concen: 57.33 ug/L m
RT: 3.090 min Scan# 809
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 424

Ion	Ratio	Lower	Upper
61	100		
96	32.1	37.2	97.2#

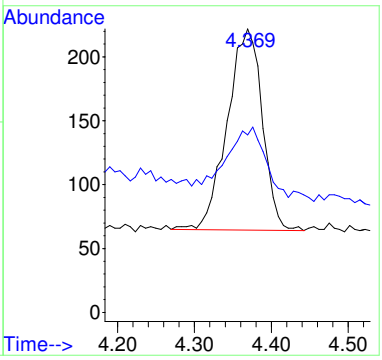


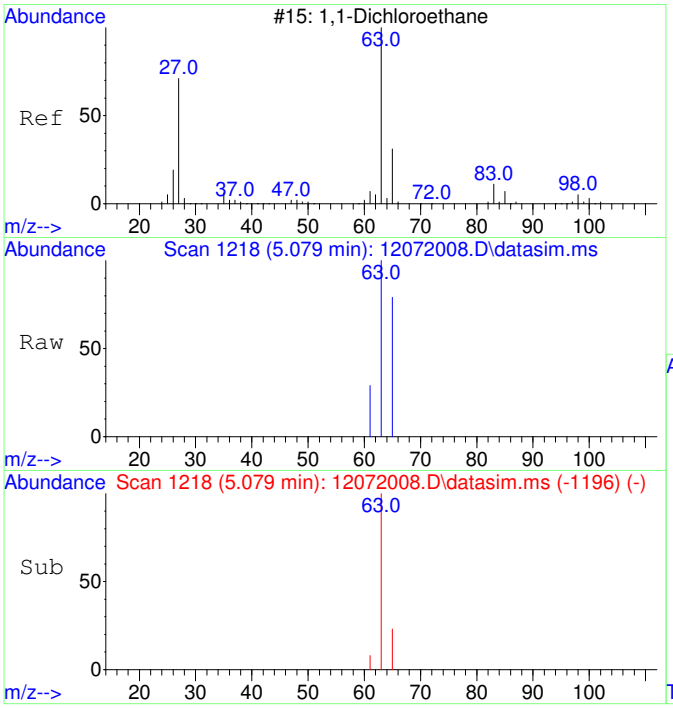


#3
trans-1,2-Dichloroethene
Concen: 53.24 ug/L
RT: 4.369 min Scan# 1111
Delta R.T. -0.007 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 498

Ion	Ratio	Lower	Upper
61	100		
63	40.2	2.4	62.4

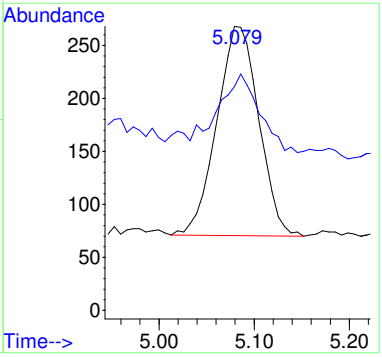


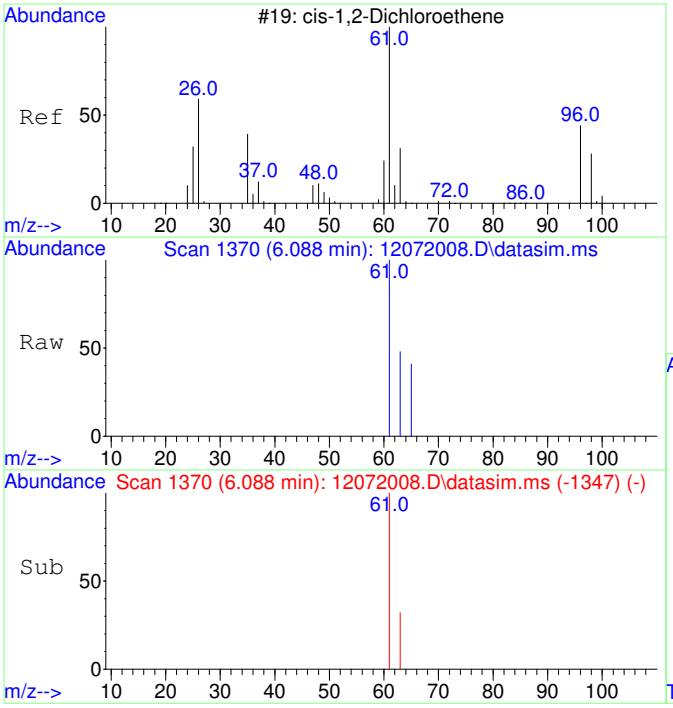


#4
1,1-Dichloroethane
Concen: 54.33 ug/L
RT: 5.079 min Scan# 1218
Delta R.T. -0.007 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 63 Resp: 607

Ion	Ratio	Lower	Upper
63	100		
65	38.6	1.8	61.8

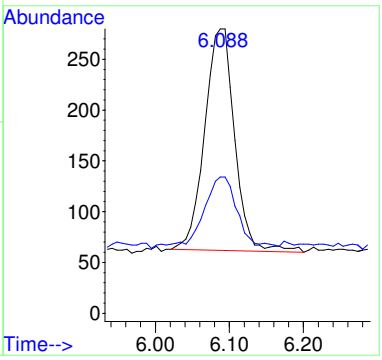


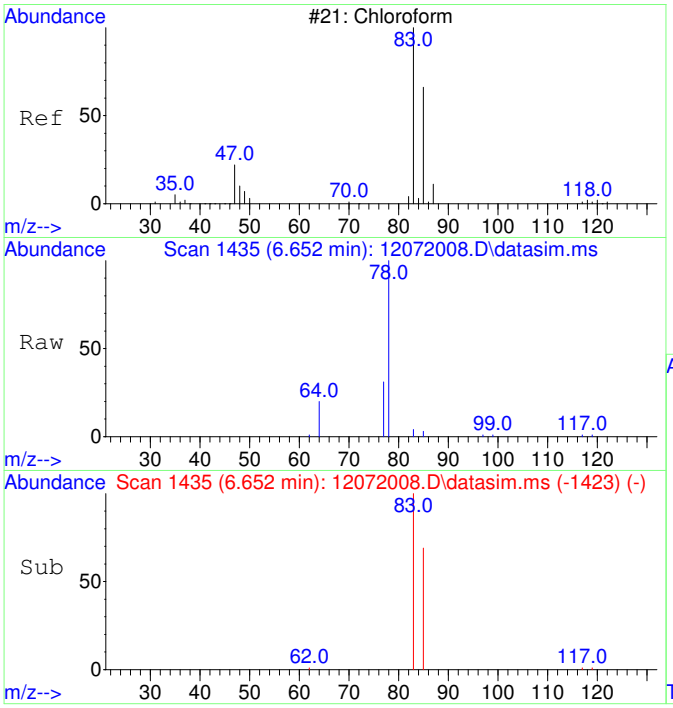


#5
cis-1,2-Dichloroethene
Concen: 53.06 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 614

Ion	Ratio	Lower	Upper
61	100		
63	36.8	2.5	62.5

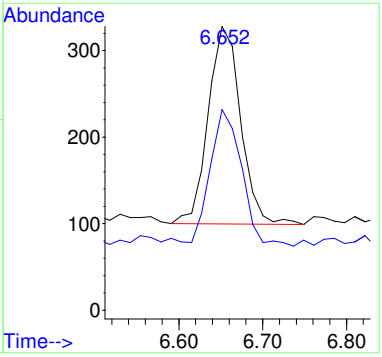


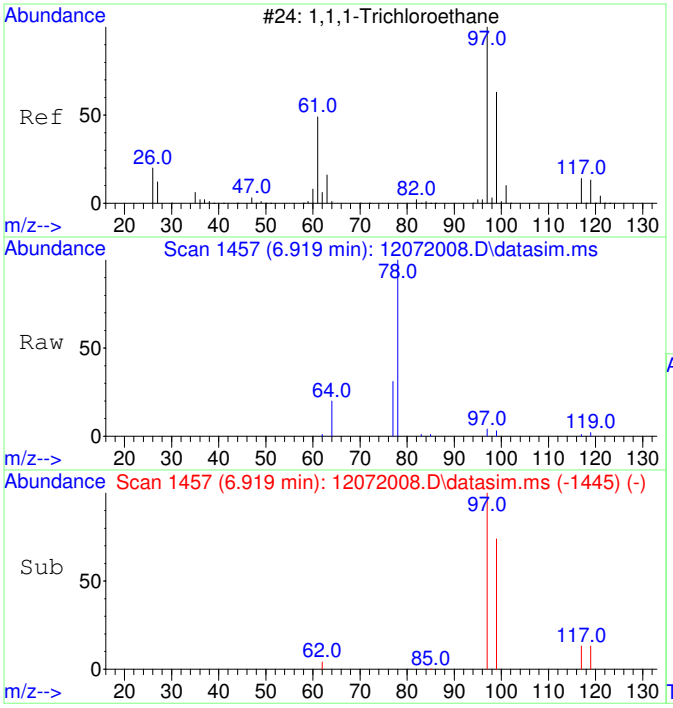


#6
Chloroform
Concen: 55.24 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 83 Resp: 614

Ion	Ratio	Lower	Upper
83	100		
85	67.1	35.1	95.1

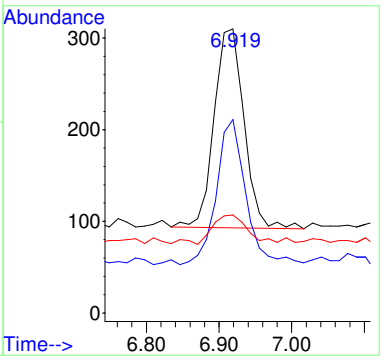


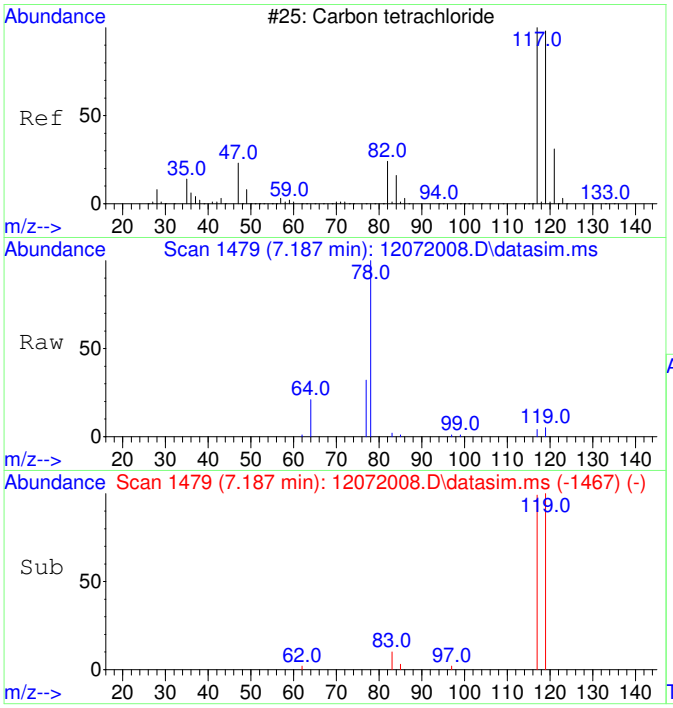


#7
1,1,1-Trichloroethane
Concen: 51.93 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 97 Resp: 620

Ion	Ratio	Lower	Upper
97	100		
99	71.5	34.6	94.6
117	16.8	0.0	43.2

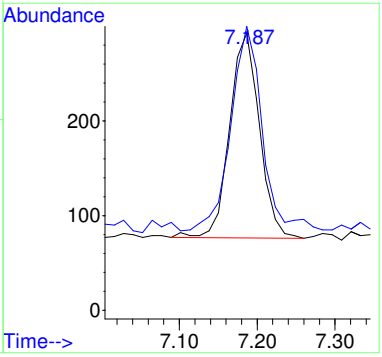


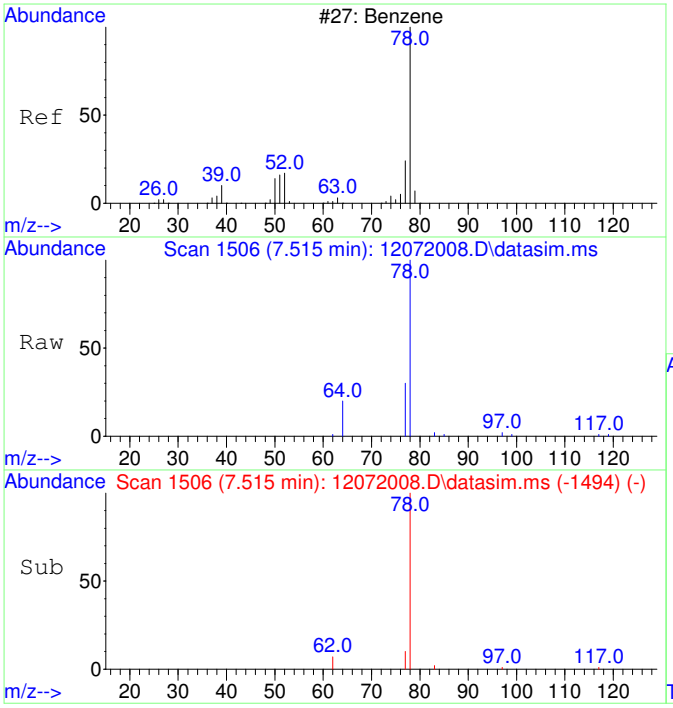


#8
Carbon tetrachloride
Concen: 50.55 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:117 Resp: 577

Ion	Ratio	Lower	Upper
117	100		
119	103.8	66.4	126.4

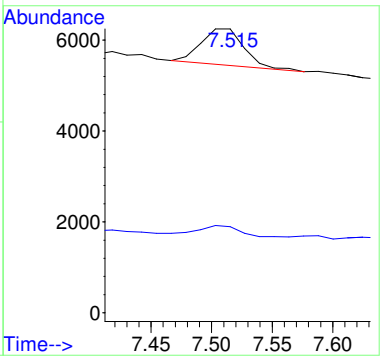


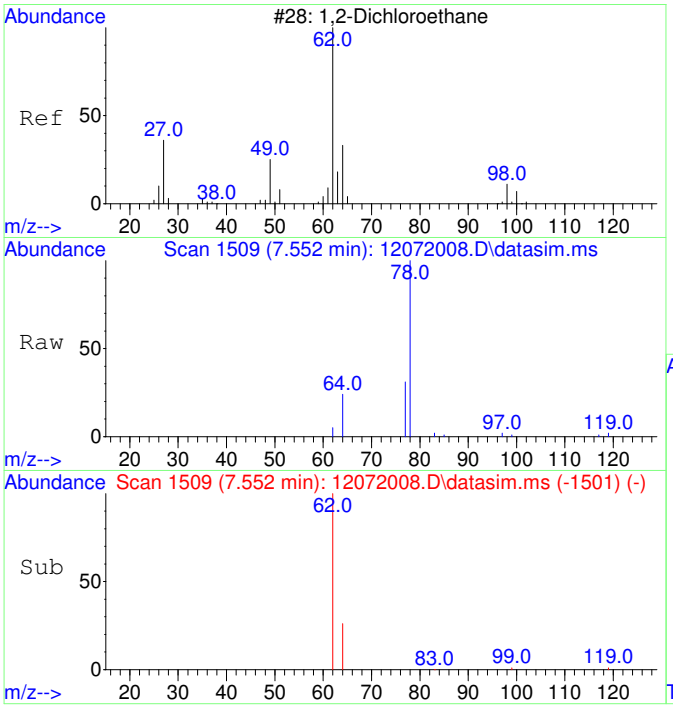


#9
Benzene
Concen: 59.29 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 78 Resp: 1867

Ion	Ratio	Lower	Upper
78	100		
77	34.5	0.0	53.2

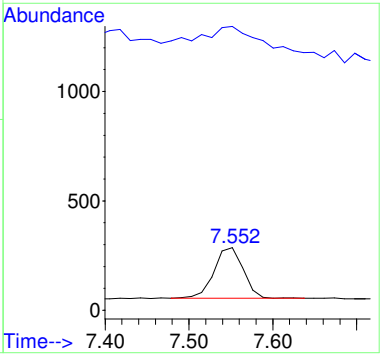


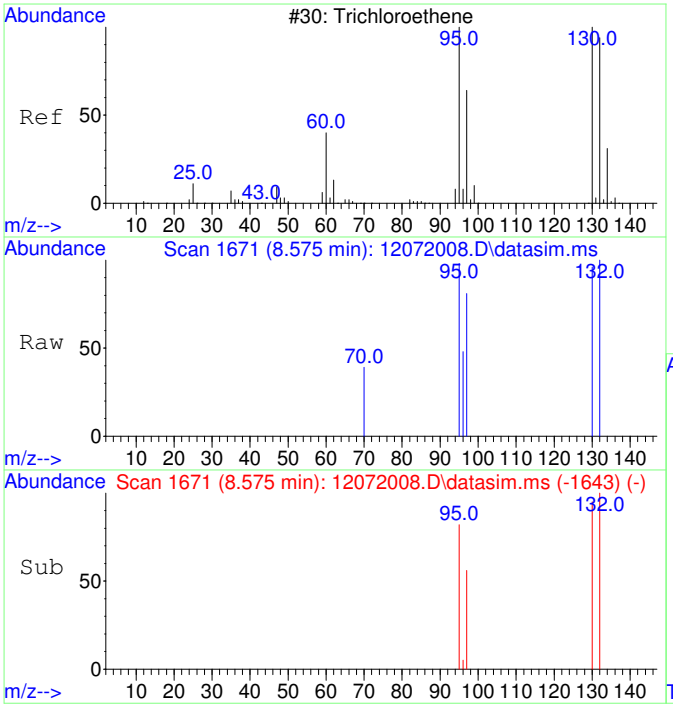


#10
1,2-Dichloroethane
Concen: 52.13 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 62 Resp: 560

Ion	Ratio	Lower	Upper
62	100		
64	107.5	2.3	62.3#

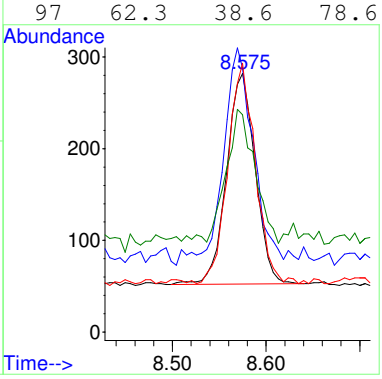


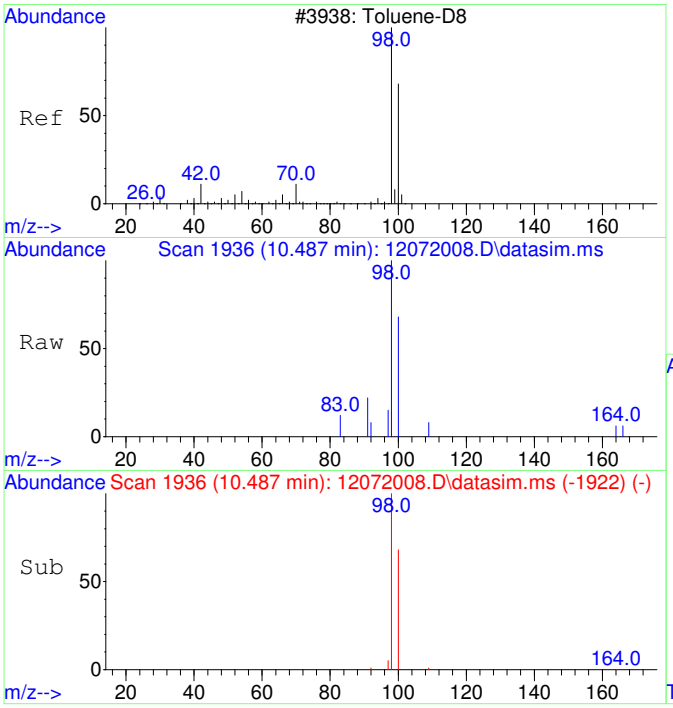


#11
Trichloroethene
Concen: 48.88 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:130 Resp: 486

Ion	Ratio	Lower	Upper
130	100		
95	104.3	60.7	120.7
132	100.6	76.0	116.0
97	62.3	38.6	78.6

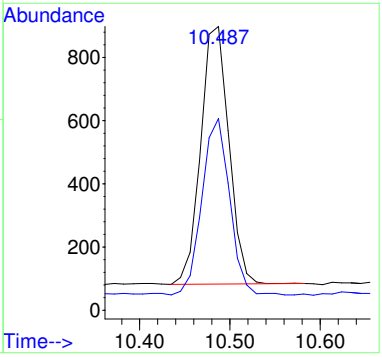


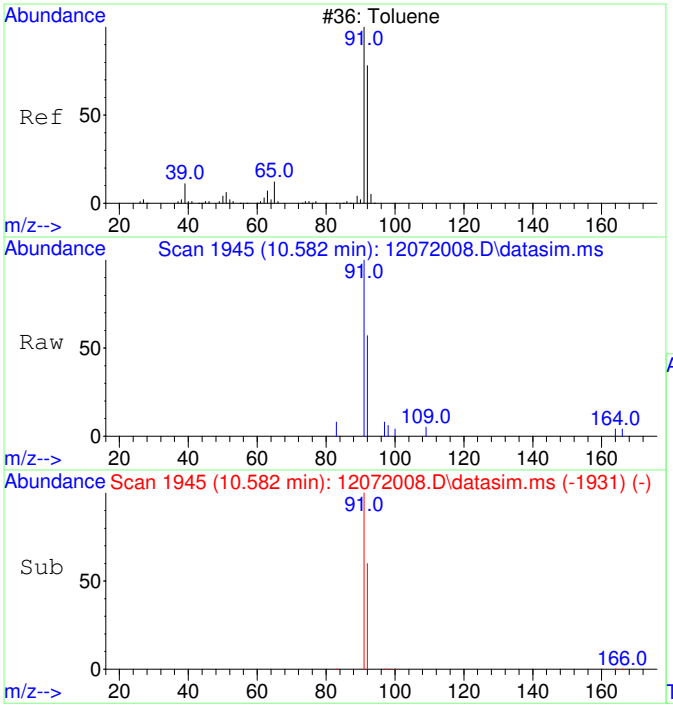


#12
Toluene-d8
Concen: 48.84 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 98 Resp: 1770

Ion	Ratio	Lower	Upper
98	100		
100	66.7	37.1	97.1

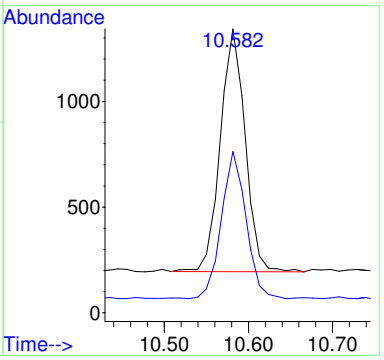


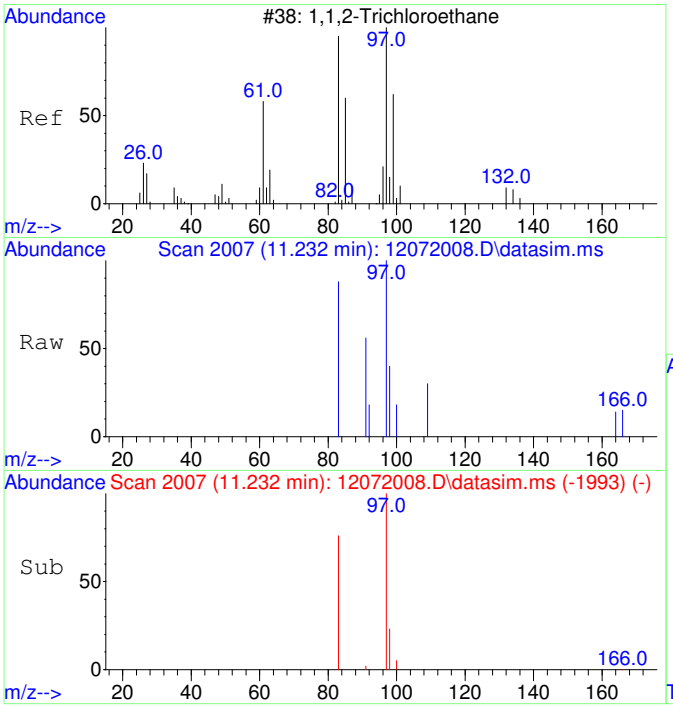


#13
Toluene
Concen: 52.21 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2356

Ion	Ratio	Lower	Upper
91	100		
92	59.3	29.9	89.9

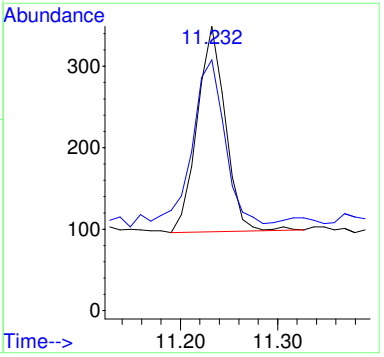


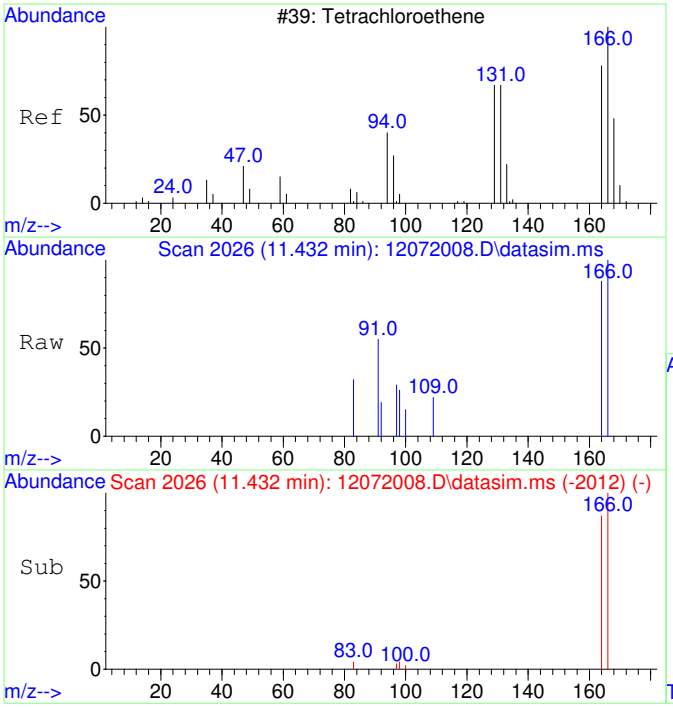


#14
1,1,2-Trichloroethane
Concen: 48.41 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 97 Resp: 506

Ion	Ratio	Lower	Upper
97	100		
83	98.4	51.2	111.2

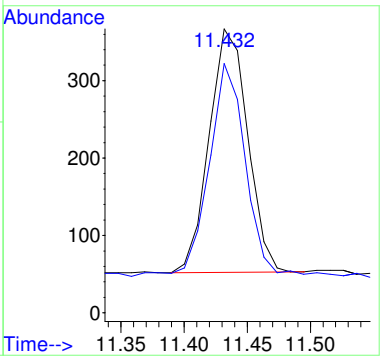


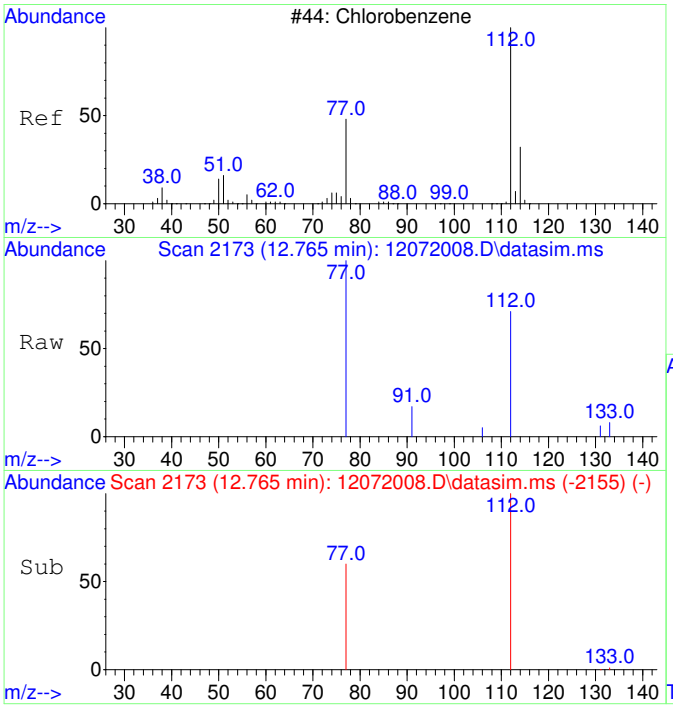


#15
Tetrachloroethene
Concen: 47.52 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:166 Resp: 668

Ion	Ratio	Lower	Upper
166	100		
164	83.4	47.8	107.8

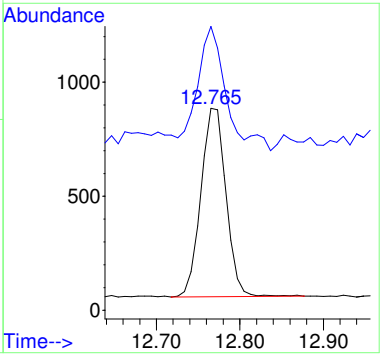


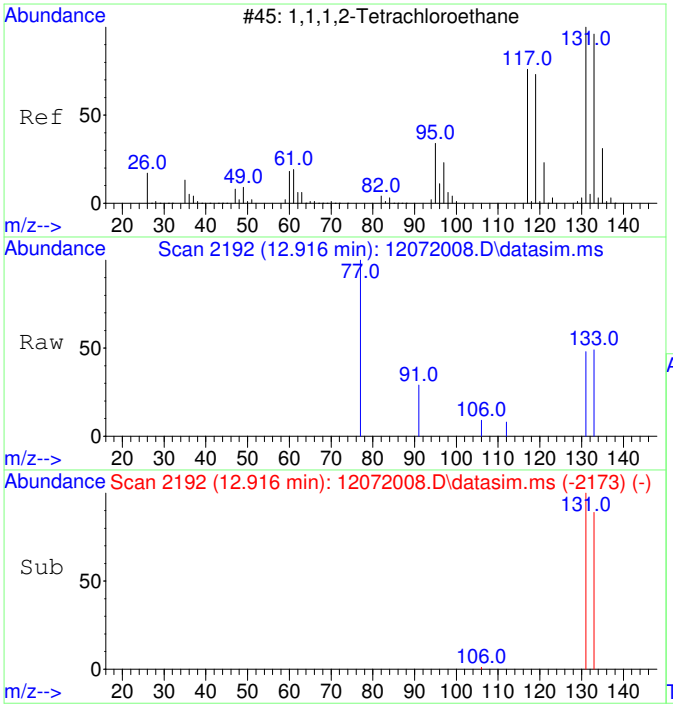


#16
Chlorobenzene
Concen: 49.43 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:112 Resp: 1728

Ion	Ratio	Lower	Upper
112	100		
77	60.0	23.6	83.6

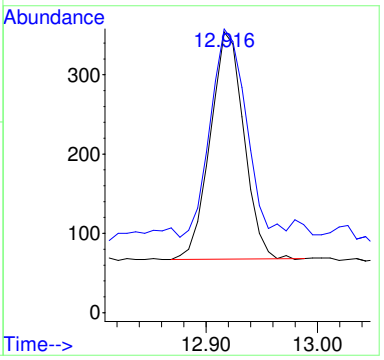


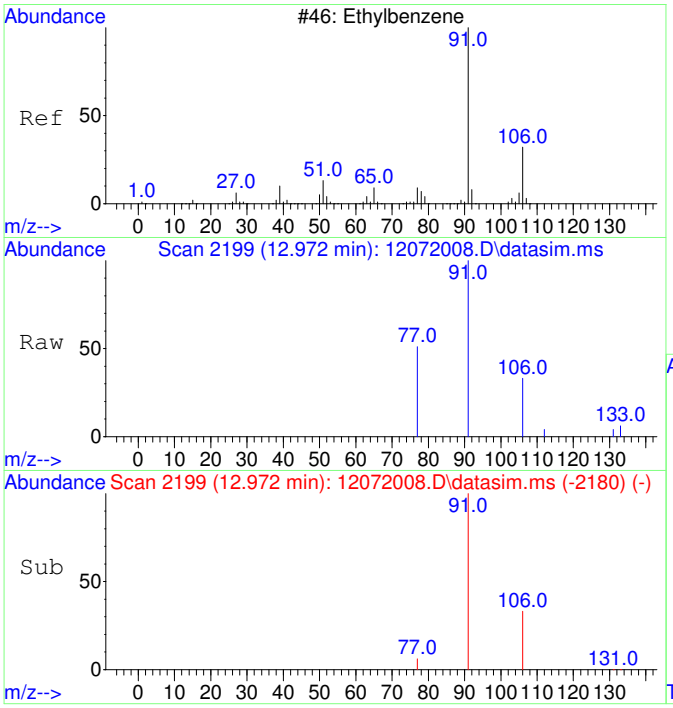


#17
1,1,1,2-Tetrachloroethane
Concen: 49.12 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:131 Resp: 601

Ion	Ratio	Lower	Upper
131	100		
133	98.5	66.3	126.3

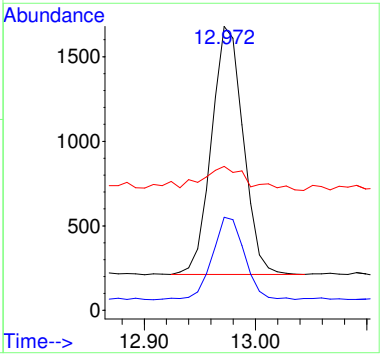


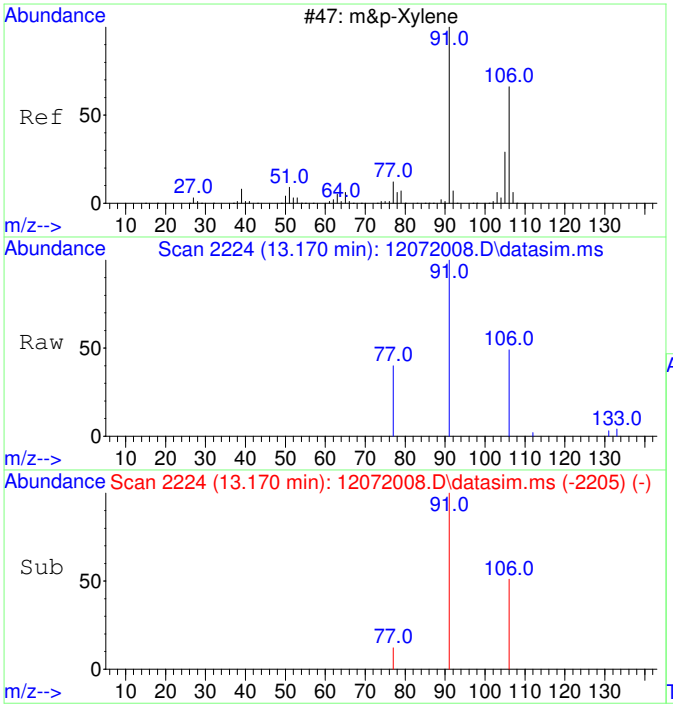


#18
Ethylbenzene
Concen: 50.43 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2907

Ion	Ratio	Lower	Upper
91	100		
106	33.7	3.0	63.0
77	13.9	0.0	38.2

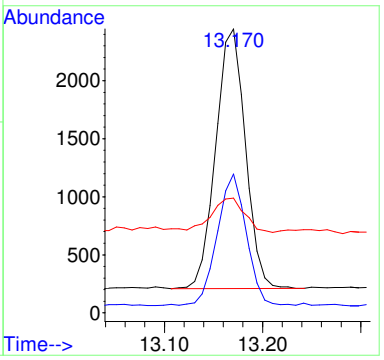


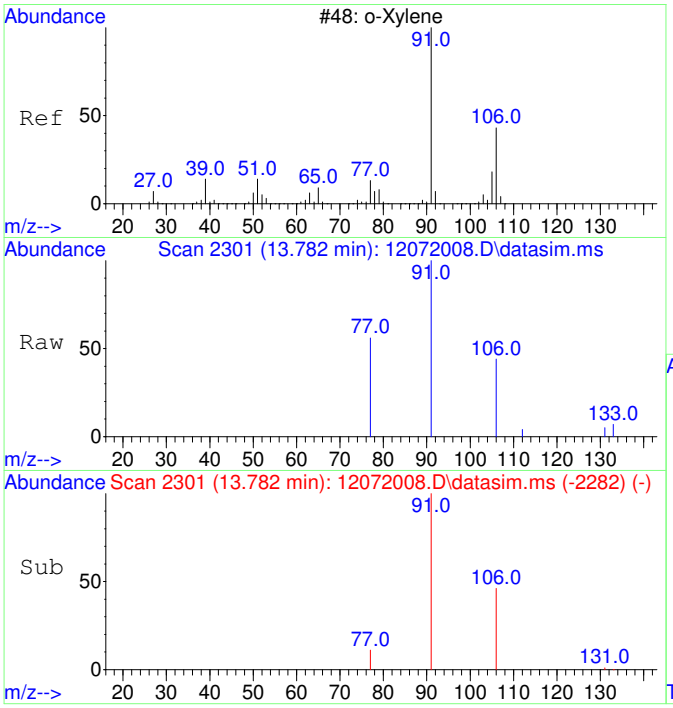


#19
m&p-Xylene
Concen: 105.66 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 4690

Ion	Ratio	Lower	Upper
91	100		
106	49.2	22.2	82.2
77	15.2	0.0	42.4

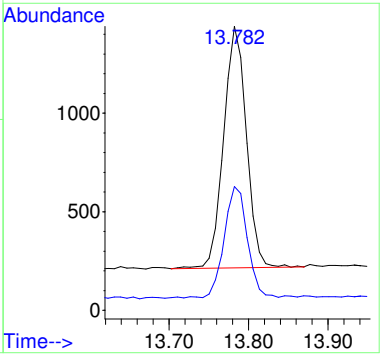


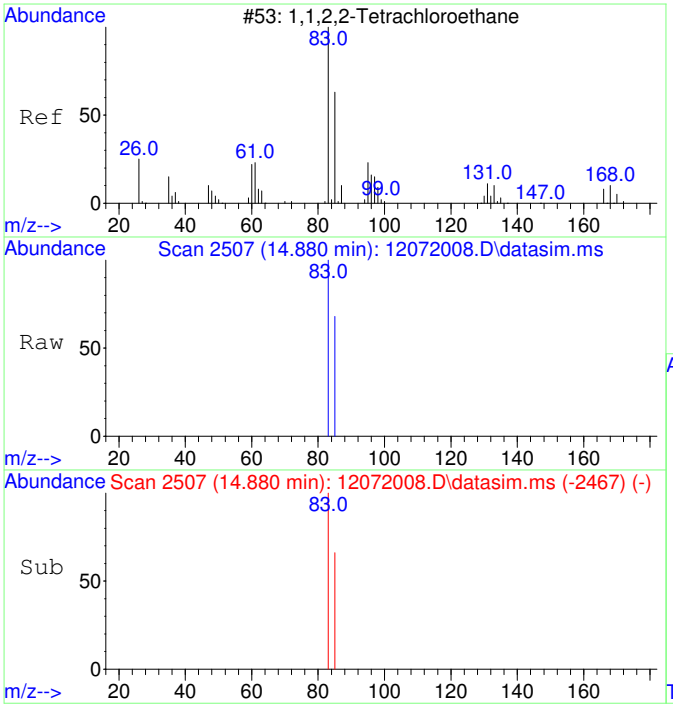


#20
o-Xylene
Concen: 51.14 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2438

Ion	Ratio	Lower	Upper
91	100		
106	46.8	19.2	79.2

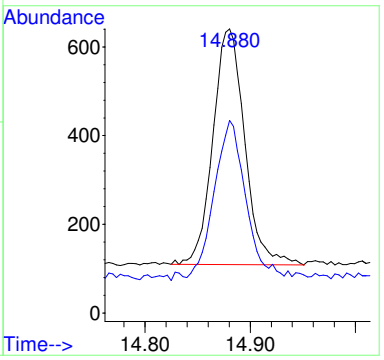


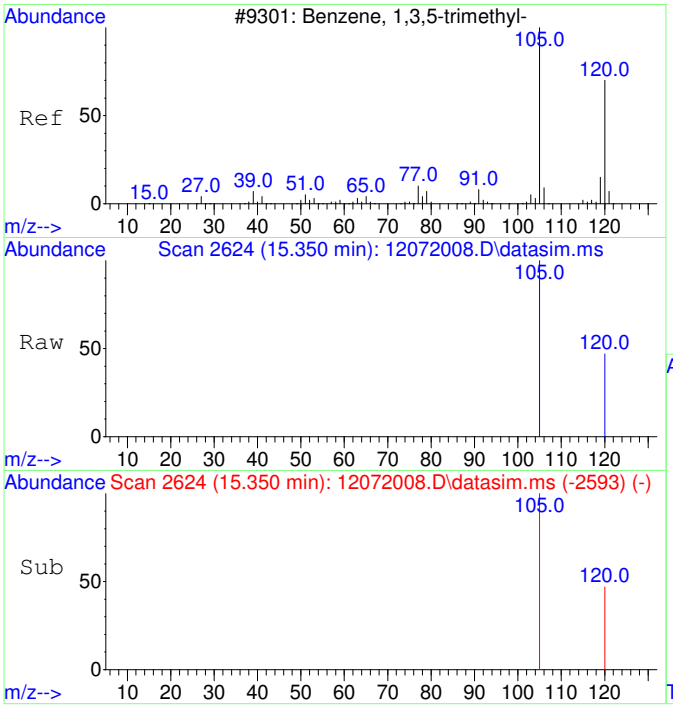


#21
1,1,2,2-Tetrachloroethane
Concen: 50.24 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 83 Resp: 1116

Ion	Ratio	Lower	Upper
83	100		
85	63.8	34.8	94.8

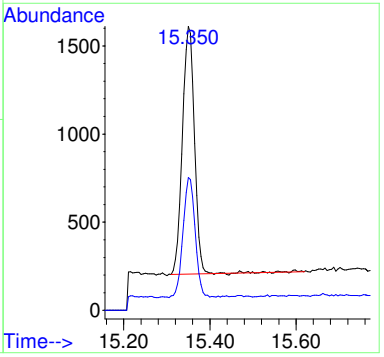


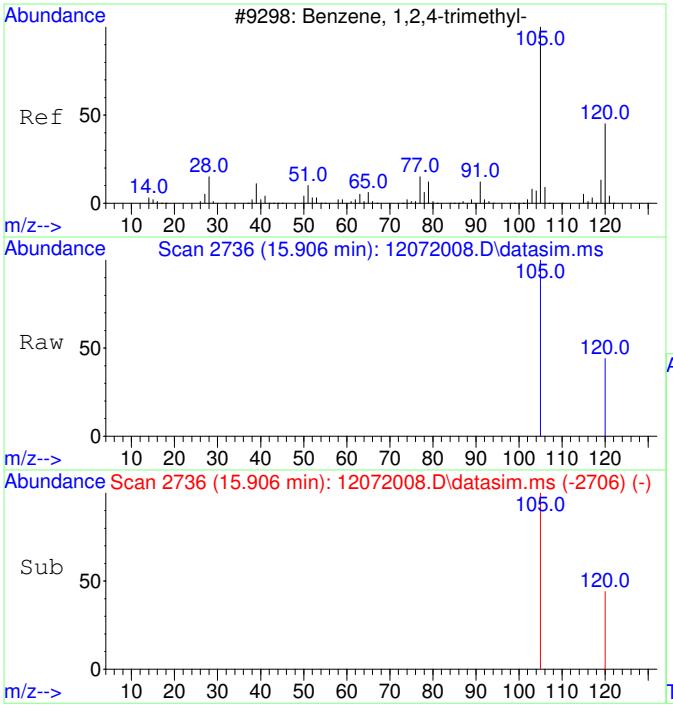


#22
1,3,5-Trimethylbenzene
Concen: 52.23 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:105 Resp: 2738

Ion	Ratio	Lower	Upper
105	100		
120	46.1	21.1	81.1

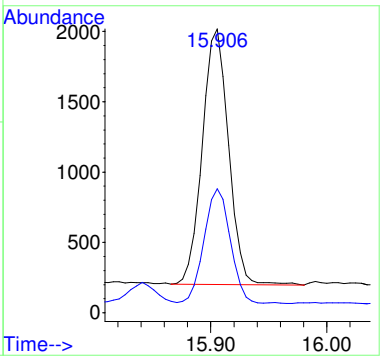


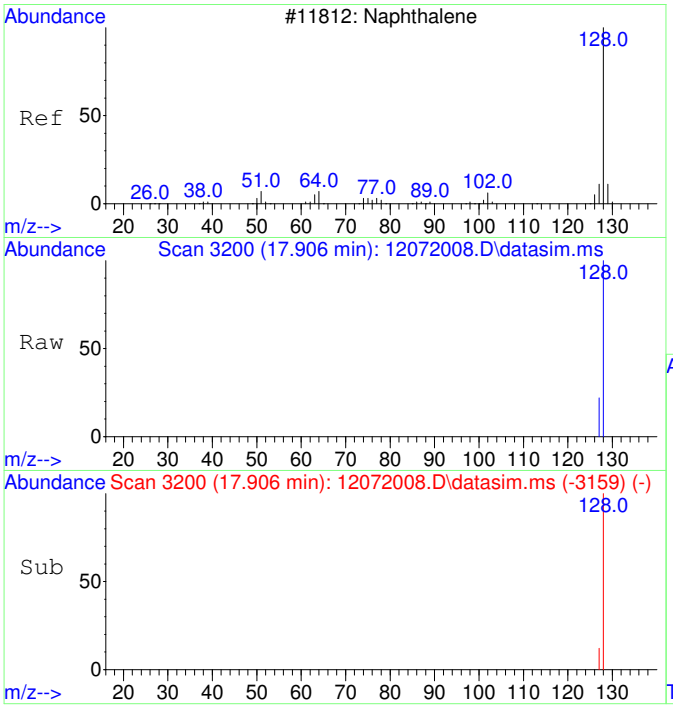


#23
1,2,4-Trimethylbenzene
Concen: 53.45 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:105 Resp: 2866

Ion	Ratio	Lower	Upper
105	100		
120	44.2	17.2	77.2

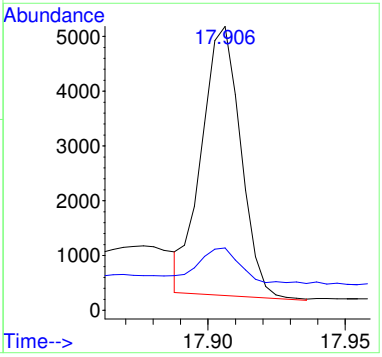


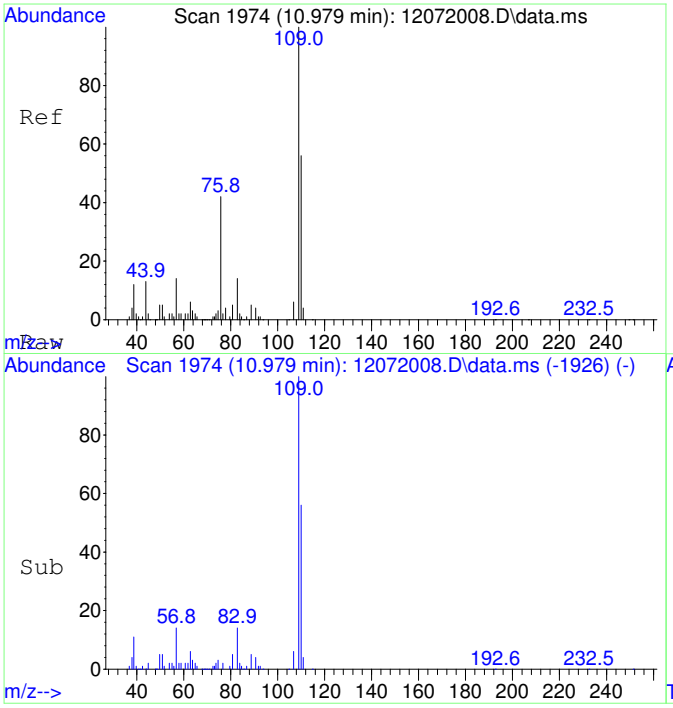


#24
Naphthalene
Concen: 57.91 ug/L m
RT: 17.906 min Scan# 3200
Delta R.T. 0.002 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:128 Resp: 4856

Ion	Ratio	Lower	Upper
128	100		
127	10.9	0.0	42.5

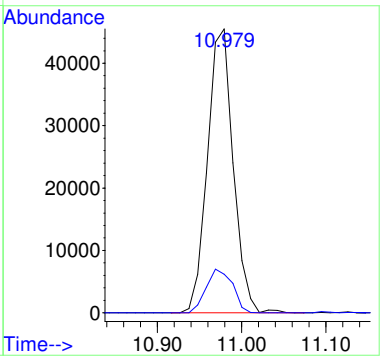


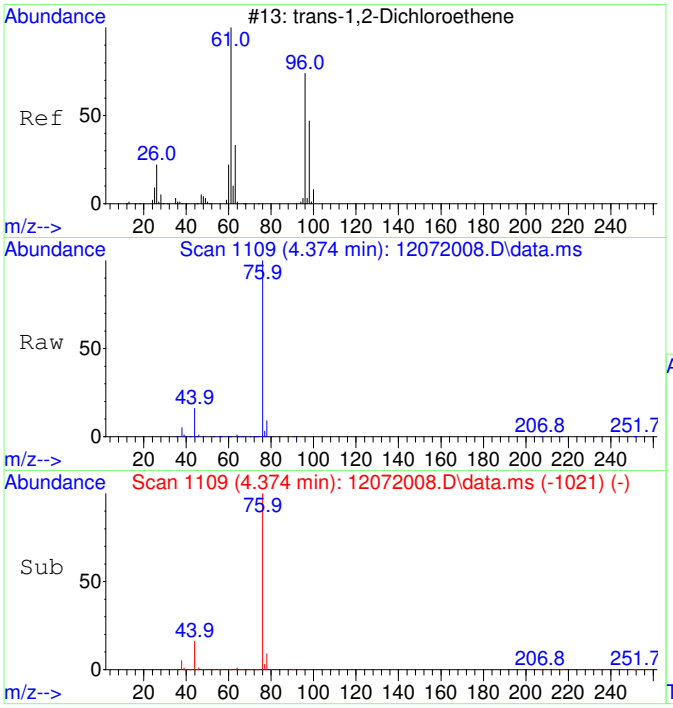


#25
2-Fluorotoluene SCAN
Concen: 4561.89 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:109 Resp: 96904

Ion	Ratio	Lower	Upper
109	100		
83	15.8	0.0	43.8

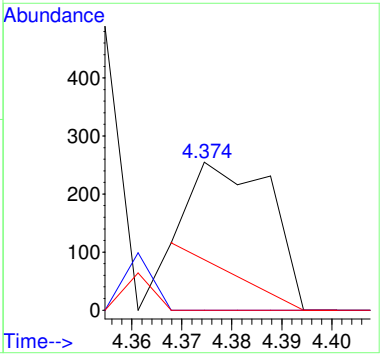


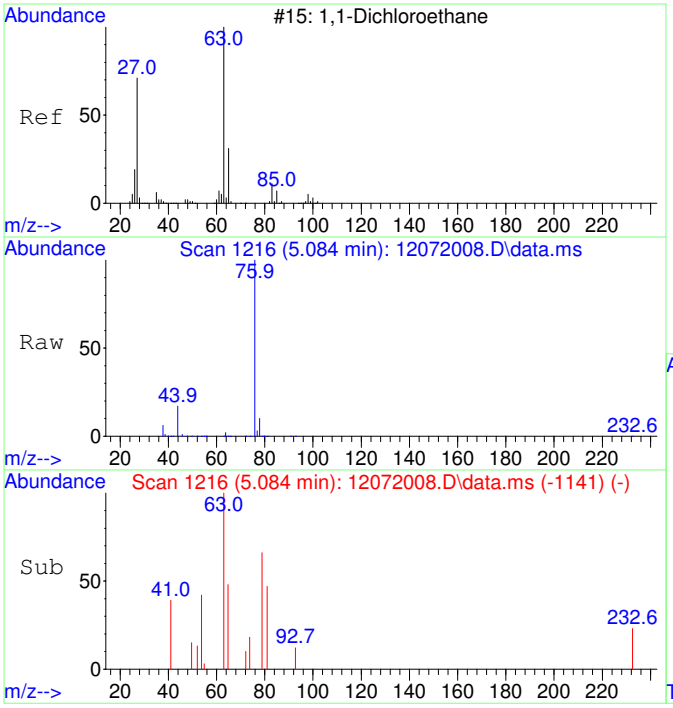


#27
trans-1,2-Dichloroethene SCAN
Concen: 29.61 ug/L
RT: 4.374 min Scan# 1109
Delta R.T. -0.007 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 61 Resp: 187

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

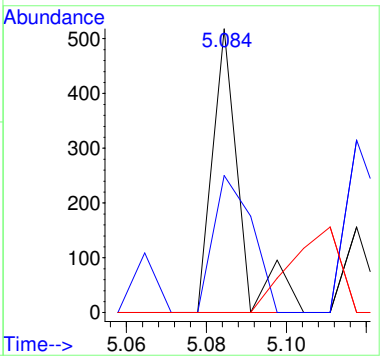


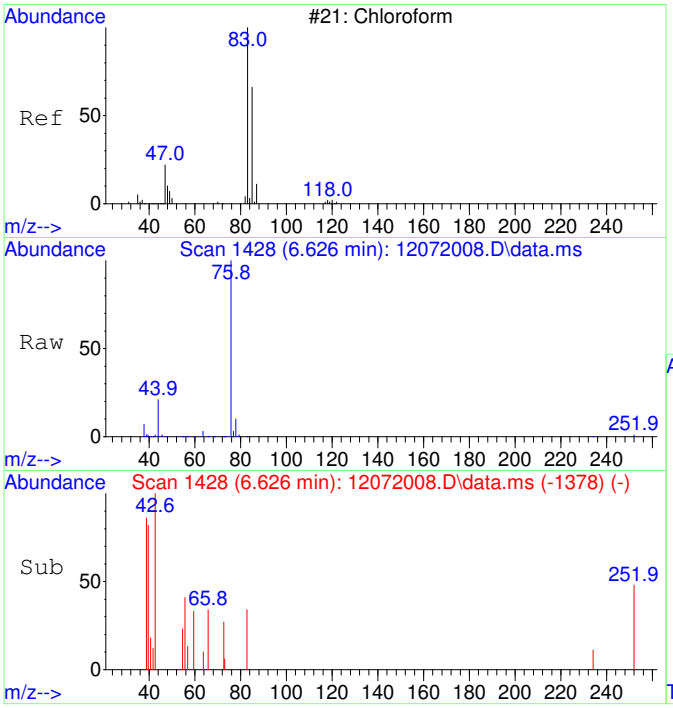


#28
1,1-Dichloroethane SCAN
Concen: 32.73 ug/L
RT: 5.084 min Scan# 1216
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 63 Resp: 244

Ion	Ratio	Lower	Upper
63	100		
65	69.7	1.3	61.3#
83	0.0	0.0	45.9

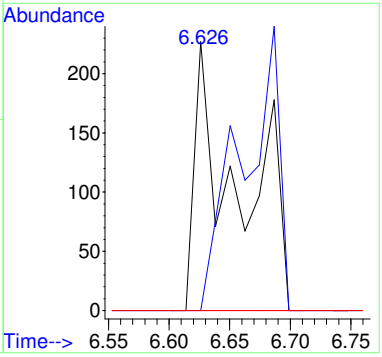


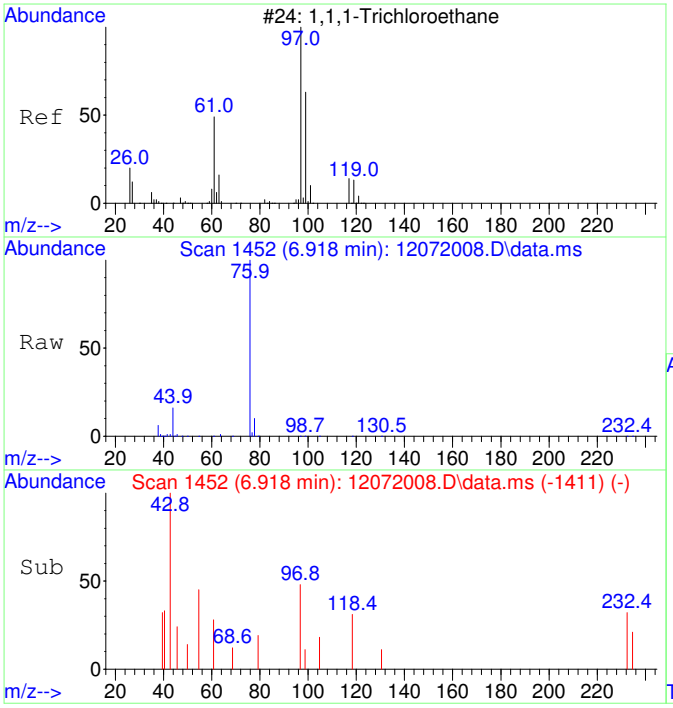


#30
Chloroform SCAN
Concen: 81.33 ug/L
RT: 6.626 min Scan# 1428
Delta R.T. -0.036 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 83 Resp: 556

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

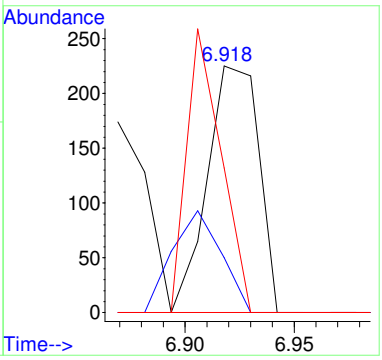


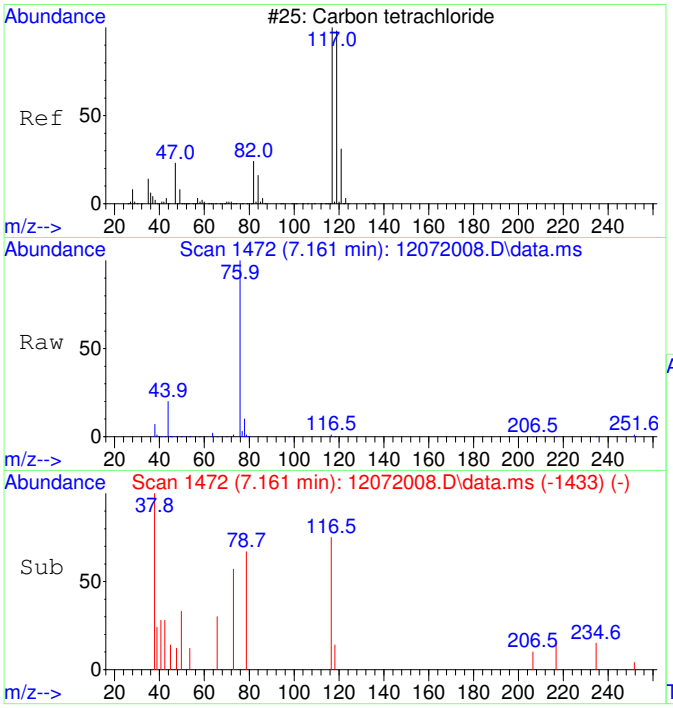


#31
1,1,1-Trichloroethane SCAN
Concen: 52.31 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 97 Resp: 369

Ion	Ratio	Lower	Upper
97	100		
99	39.3	43.6	103.6#
61	77.2	18.0	78.0

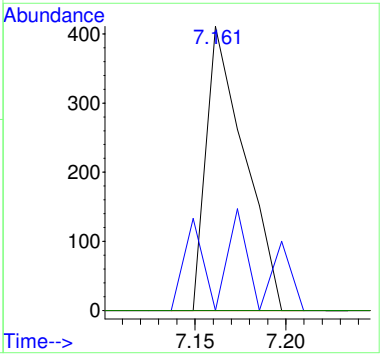


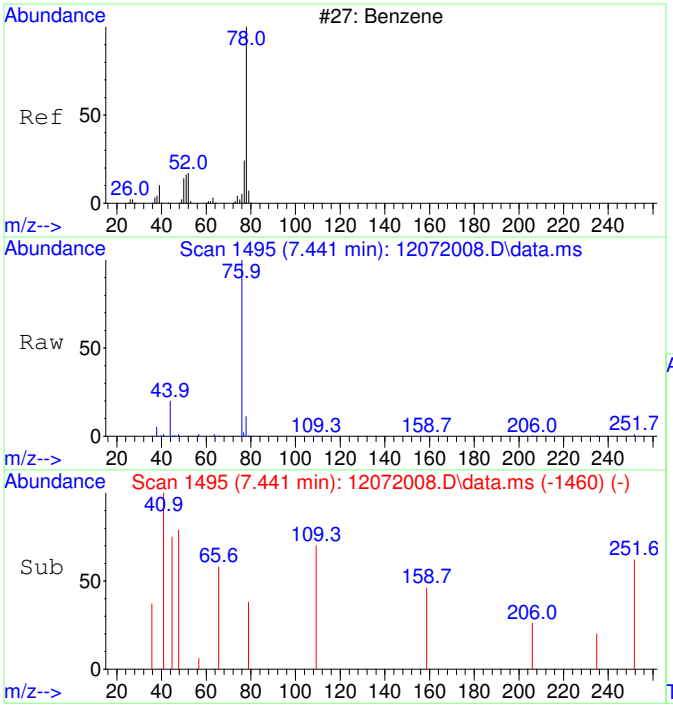


#32
Carbon tetrachloride SCAN
Concen: 99.86 ug/L
RT: 7.161 min Scan# 1472
Delta R.T. -0.024 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:117 Resp: 602

Ion	Ratio	Lower	Upper
117	100		
119	16.1	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

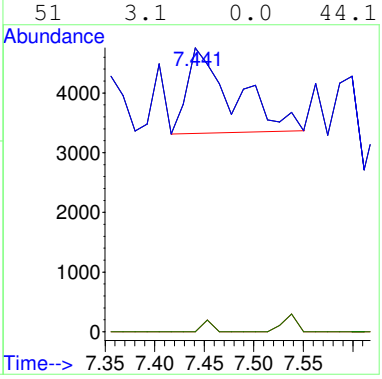


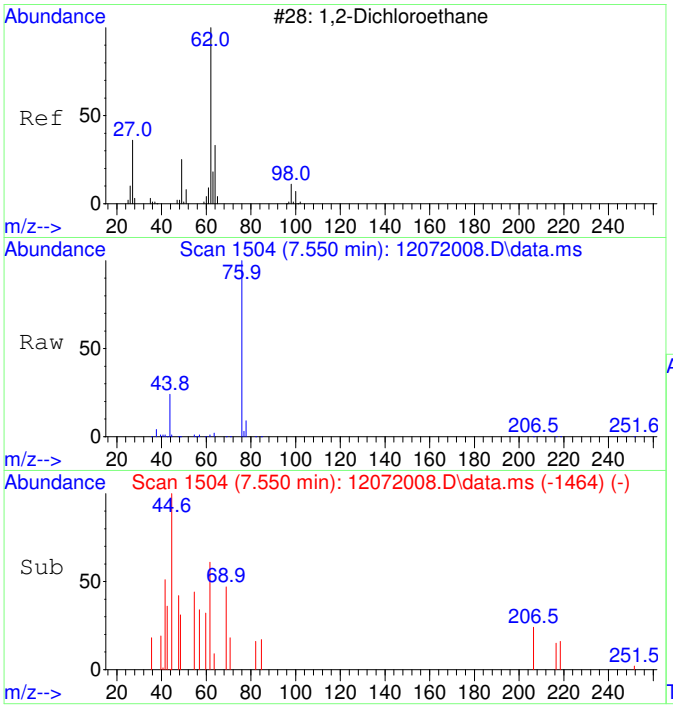


#33
Benzene SCAN
Concen: 219.62 ug/L
RT: 7.441 min Scan# 1495
Delta R.T. -0.073 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 78 Resp: 4687

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	3.1	0.0	47.9
51	3.1	0.0	44.1

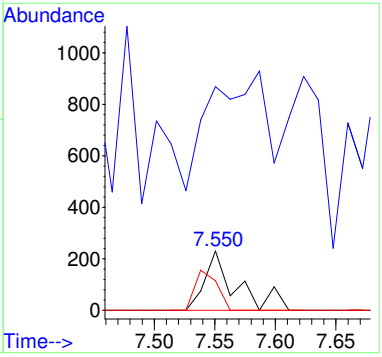


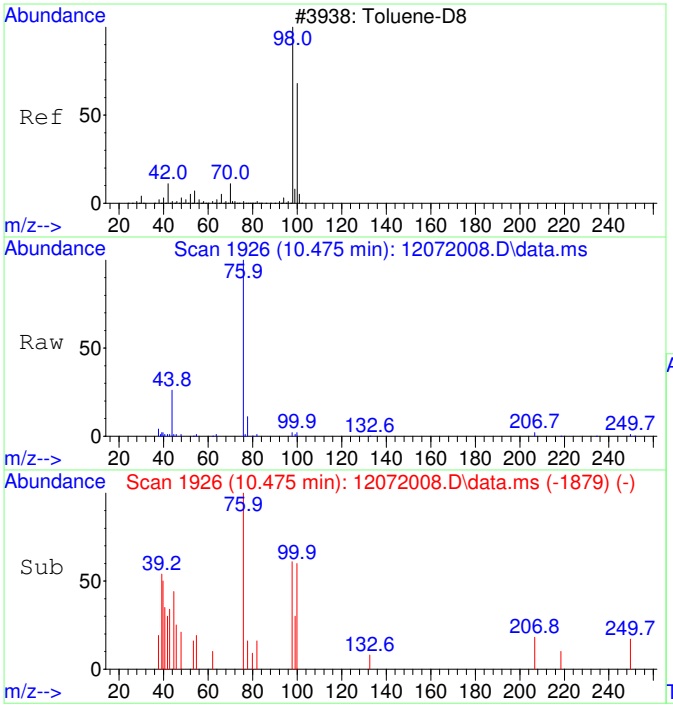


#34
1,2-Dichloroethane SCAN
Concen: 62.02 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. -0.012 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 62 Resp: 414

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	47.8	3.9	63.9

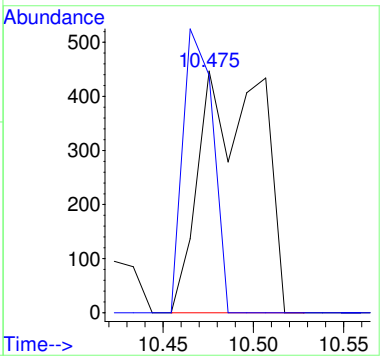


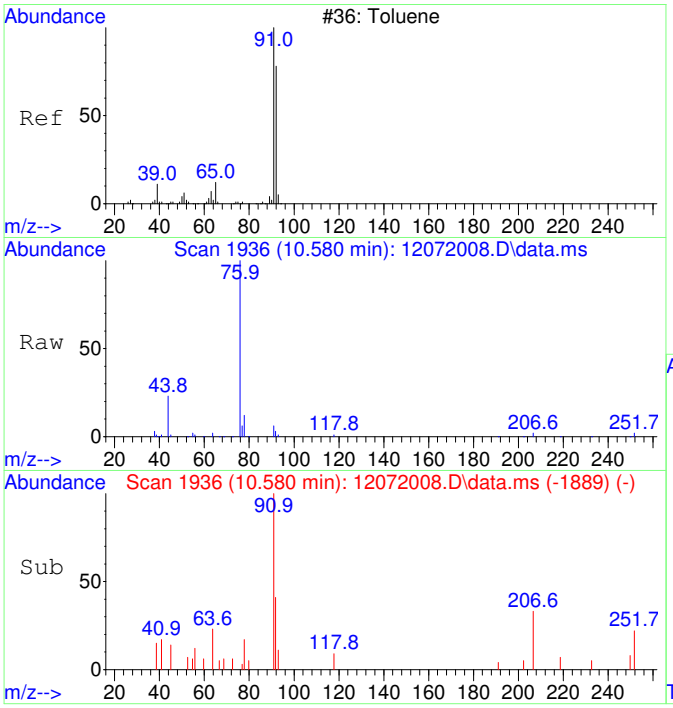


#36
Toluene-d8 SCAN
Concen: 53.86 ug/L
RT: 10.475 min Scan# 1926
Delta R.T. -0.010 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 98 Resp: 1073

Ion	Ratio	Lower	Upper
98	100		
100	56.6	40.0	100.0

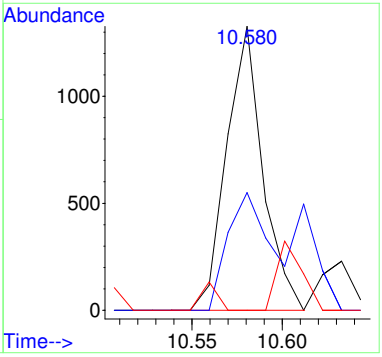


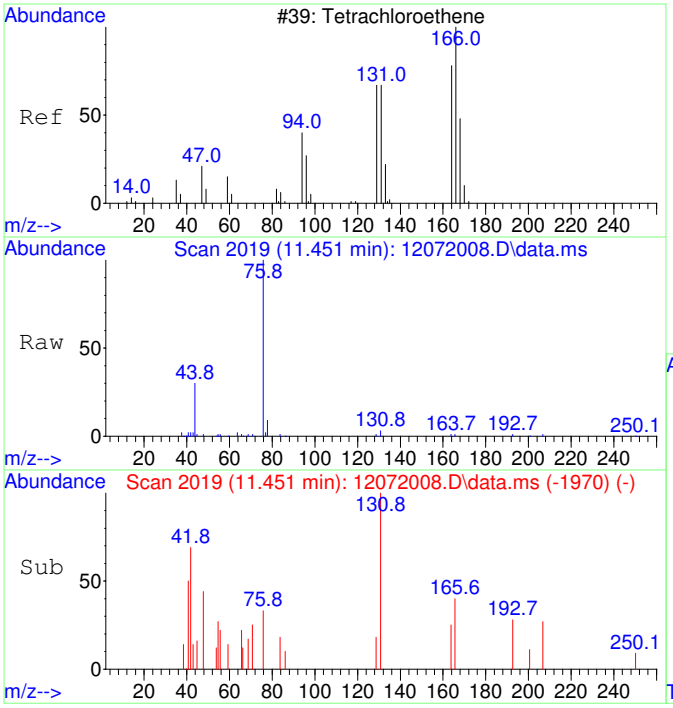


#37
Toluene SCAN
Concen: 75.62 ug/L
RT: 10.580 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 1855

Ion	Ratio	Lower	Upper
91	100		
92	72.7	28.3	88.3
65	0.0	0.0	41.0

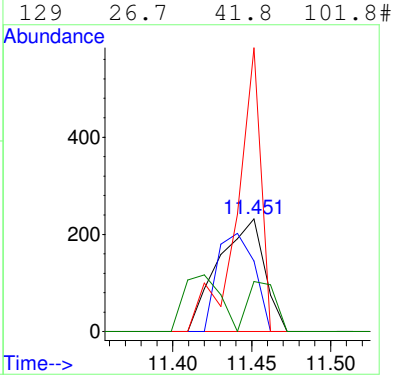


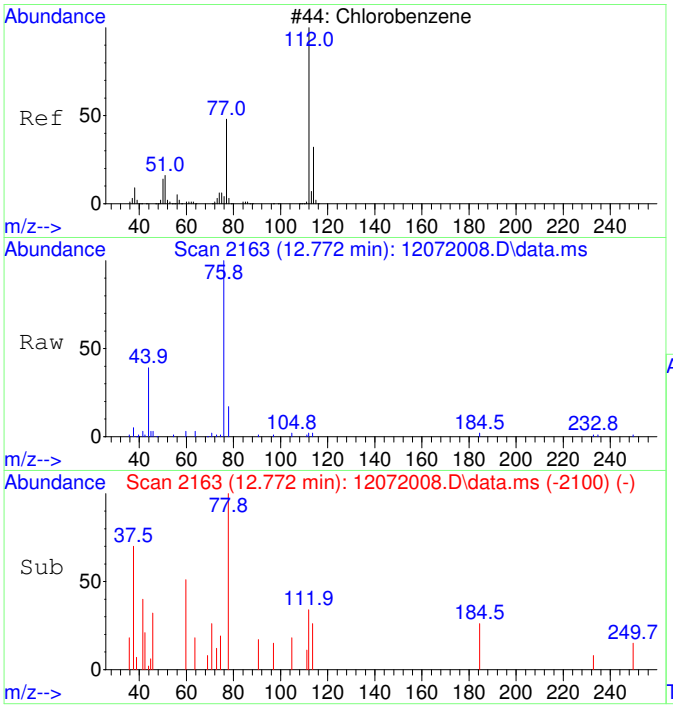


#39
Tetrachloroethene SCAN
Concen: 84.99 ug/L
RT: 11.451 min Scan# 2019
Delta R.T. 0.011 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:166 Resp: 469

Ion	Ratio	Lower	Upper
166	100		
164	70.8	50.9	110.9
131	131.1	38.7	98.7#
129	26.7	41.8	101.8#

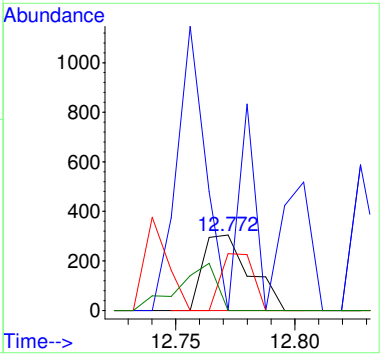


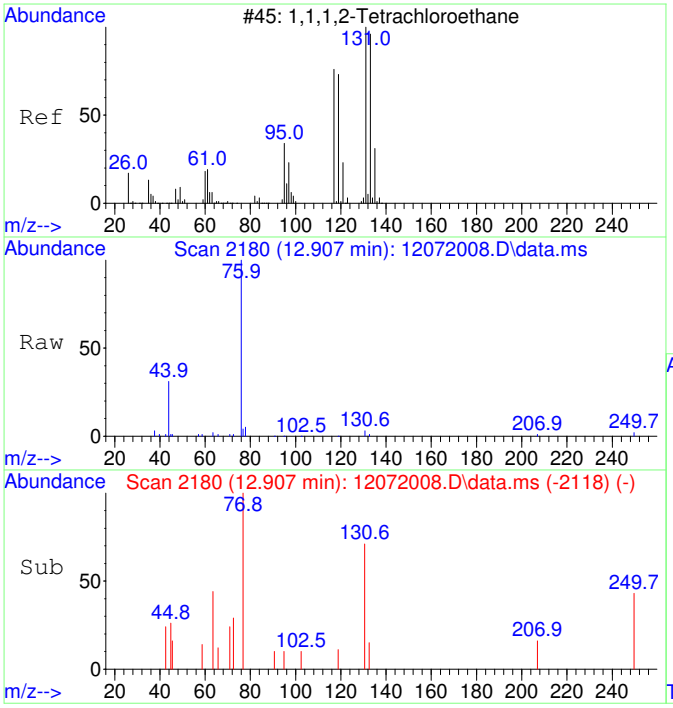


#40
Chlorobenzene SCAN
Concen: 23.61 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:112 Resp: 416

Ion	Ratio	Lower	Upper
112	100		
77	95.4	28.2	88.2#
114	52.2	2.3	62.3
51	0.0	0.0	50.1

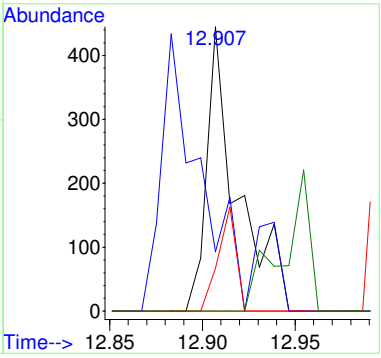


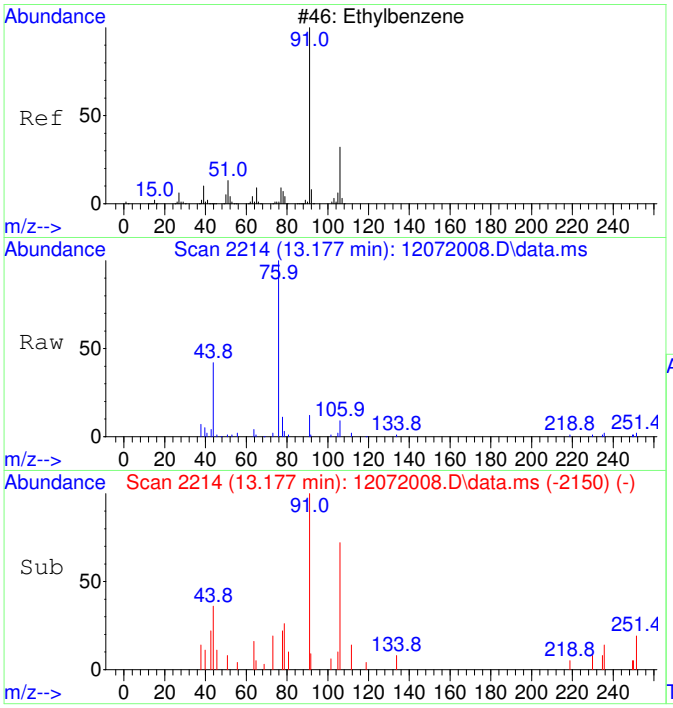


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 84.89 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. -0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:131 Resp: 516

Ion	Ratio	Lower	Upper
131	100		
133	0.0	66.9	126.9#
119	21.3	40.4	100.4#
117	0.0	35.1	95.1#

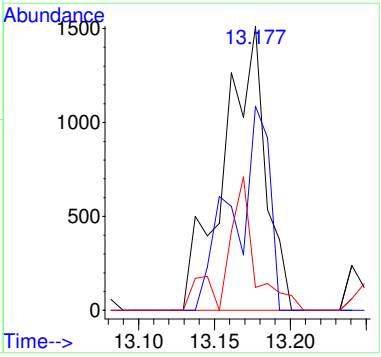


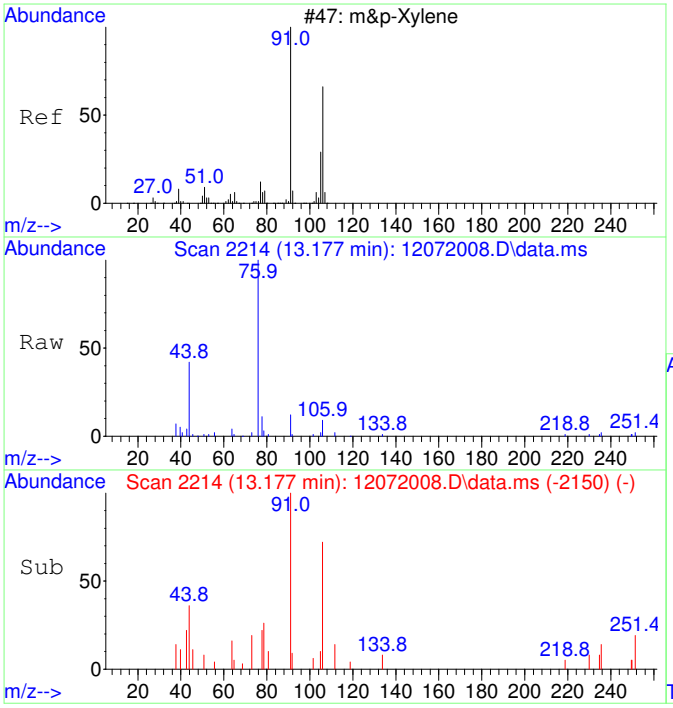


#42
Ethylbenzene SCAN
Concen: 61.97 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2897

Ion	Ratio	Lower	Upper
91	100		
106	60.7	23.1	83.1
51	31.6	0.0	40.1

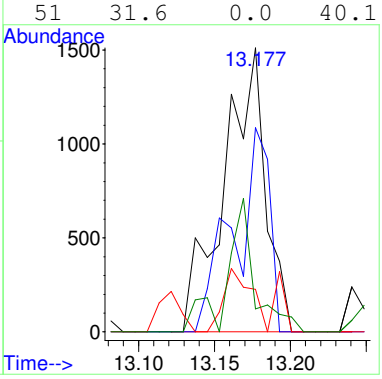


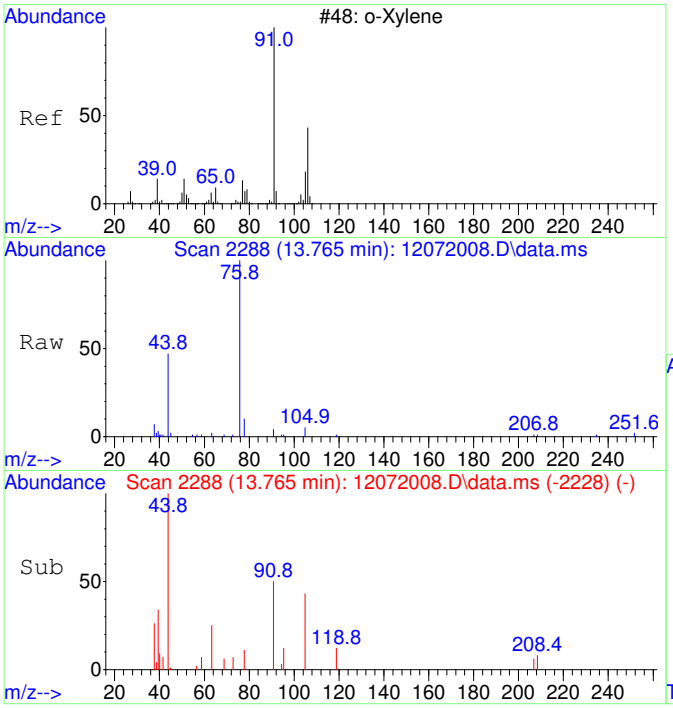


#43
m&p-Xylene SCAN
Concen: 61.97 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 2897

Ion	Ratio	Lower	Upper
91	100		
106	60.7	23.1	83.1
105	14.9	0.0	54.7
51	31.6	0.0	40.1

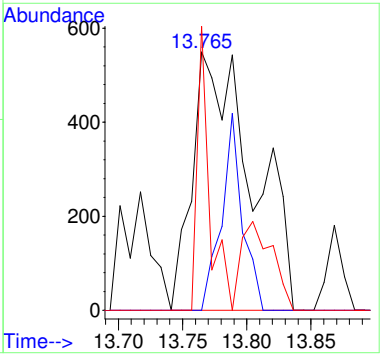


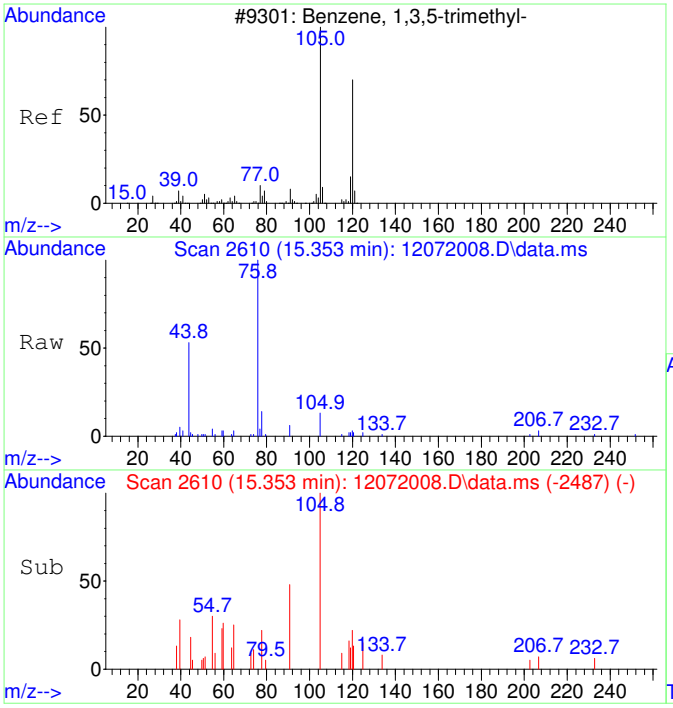


#44
o-Xylene SCAN
Concen: 70.17 ug/L
RT: 13.765 min Scan# 2288
Delta R.T. -0.024 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion: 91 Resp: 1791

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.0	78.0#
105	22.3	0.0	56.6

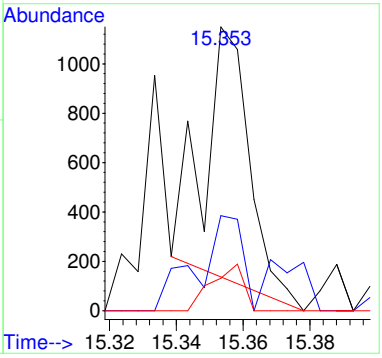


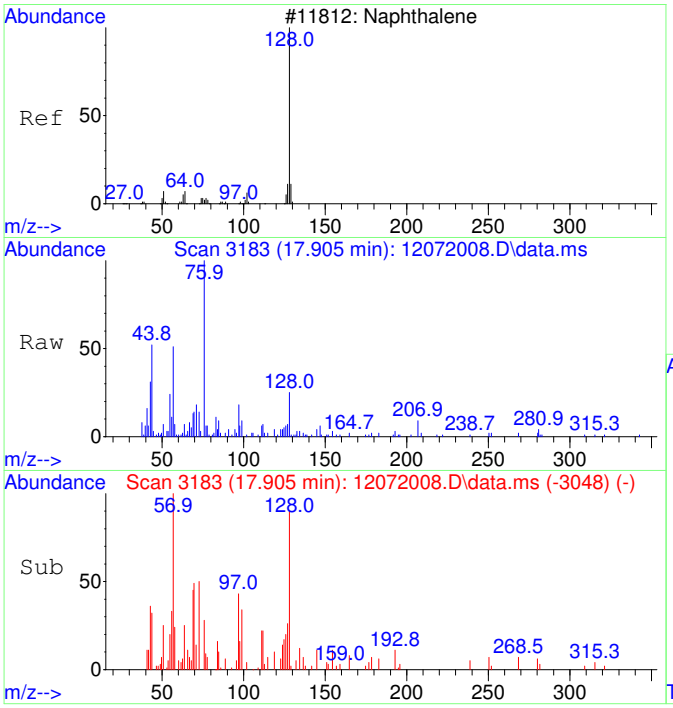


#46
1,3,5-Trimethylbenzene SCAN
Concen: 34.54 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:105 Resp: 930

Ion	Ratio	Lower	Upper
105	100		
120	38.6	18.3	78.3
119	13.5	0.0	43.1

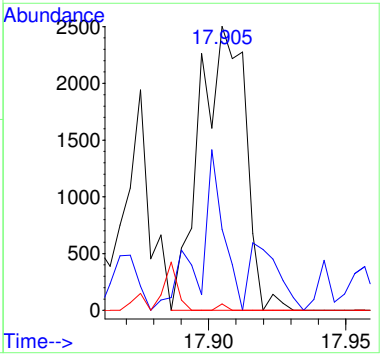




#48
Naphthalene SCAN
Concen: 70.25 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.002 min
Lab File: 12072008.D
Acq: 7 Dec 2020 14:43

Tgt Ion:128 Resp: 2901

Ion	Ratio	Lower	Upper
128	100		
127	29.2	0.0	44.0
129	6.7	0.0	40.8



S20L021-SCV1

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072009.D
Acq On : 7 Dec 2020 15:07
InstName : AG5975C
Operator : TD
Sample : S20L021-SCV1
Misc : 2050006 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 06:27:44 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

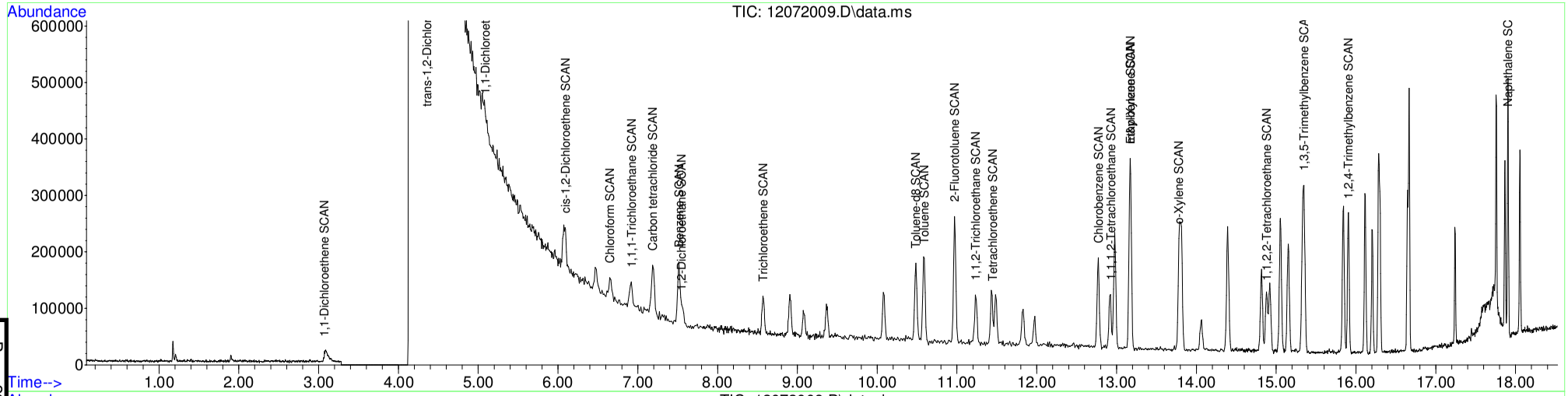
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	207424	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	174700	4348.70 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.97%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	38636	4697.57 ug/L	83
3] trans-1,2-Dichloroethene	4.363	61	44774	4318.17 ug/L	98
4] 1,1-Dichloroethane	5.079	63	52290	4222.35 ug/L	96
5] cis-1,2-Dichloroethene	6.081	61	54763	4269.62 ug/L	98
6] Chloroform	6.652	83	52508	4262.13 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	57019	4308.50 ug/L	100
8] Carbon tetrachloride	7.187	117	55058	4351.53 ug/L	100
9] Benzene	7.503	78	146674	4202.26 ug/L	99
10] 1,2-Dichloroethane	7.540	62	51181	4298.38 ug/L	99
11] Trichloroethene	8.569	130	47835	4340.71 ug/L	97
13] Toluene	10.582	91	213094	4260.28 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	50164	4329.97 ug/L	99
15] Tetrachloroethene	11.432	166	67727	4347.15 ug/L	100
16] Chlorobenzene	12.765	112	165909	4281.56 ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.916	131	58824	4337.37 ug/L	99
18] Ethylbenzene	12.972	91	271921	4256.29 ug/L	99
19] m&p-Xylene	13.170	91	413479	8404.52 ug/L	98
20] o-Xylene	13.782	91	223060	4221.29 ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.880	83	103095	4187.17 ug/L	100
22] 1,3,5-Trimethylbenzene	15.348	105	244208	4202.52 ug/L	97
23] 1,2,4-Trimethylbenzene	15.904	105	242702	4083.40 ug/L	97
24] Naphthalene	17.906	128	383301	3980.40 ug/L	99
25) 2-Fluorotoluene SCAN	10.969	109	113839	4835.01 ug/L	95
26) 1,1-Dichloroethene SCAN	3.074	61	23589	4291.60 ug/L #	25
27) trans-1,2-Dichloroethe...	4.355	61	31153	4449.79 ug/L	75
28) 1,1-Dichloroethane SCAN	5.085	63	34885	4221.49 ug/L	98
29) cis-1,2-Dichloroethene...	6.086	61	39559	4869.56 ug/L	73
30) Chloroform SCAN	6.650	83	31690	4182.31 ug/L	83
31) 1,1,1-Trichloroethane ...	6.918	97	35723	4568.77 ug/L	94
32) Carbon tetrachloride SCAN	7.186	117	30391	4548.43 ug/L	87
33) Benzene SCAN	7.514	78	90391	3821.24 ug/L	92
34) 1,2-Dichloroethane SCAN	7.550	62	33773	4564.44 ug/L	93
35) Trichloroethene SCAN	8.568	130	23933	4640.02 ug/L	80
36) Toluene-d8 SCAN	10.486	98	104677	4740.29 ug/L	97
37) Toluene SCAN	10.591	91	124623	4583.66 ug/L	91
38) 1,1,2-Trichloroethane ...	11.231	97	30637	4495.59 ug/L	90
39) Tetrachloroethene SCAN	11.441	166	28525	4663.66 ug/L	89
40) Chlorobenzene SCAN	12.772	112	86547	4431.87 ug/L	86
41) 1,1,1,2-Tetrachloroeth...	12.923	131	32613	4840.63 ug/L	93
42) Ethylbenzene SCAN	13.169	91	244014	4709.58 ug/L	91
43) m&p-Xylene SCAN	13.169	91	244014	4709.58 ug/L	92
44) o-Xylene SCAN	13.781	91	136107	4810.72 ug/L	94
45) 1,1,2,2-Tetrachloroeth...	14.876	83	66354	4510.62 ug/L	94
46) 1,3,5-Trimethylbenzene...	15.347	105	134206	4496.33 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.903	105	131912	4325.59 ug/L	97
48) Naphthalene SCAN	17.905	128	192878	4213.67 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072009.D
Acq On : 7 Dec 2020 15:07
InstName : AG5975C
Operator : TD
Sample : S20L021-SCV1
Misc : 2050006 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 06:27:44 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration



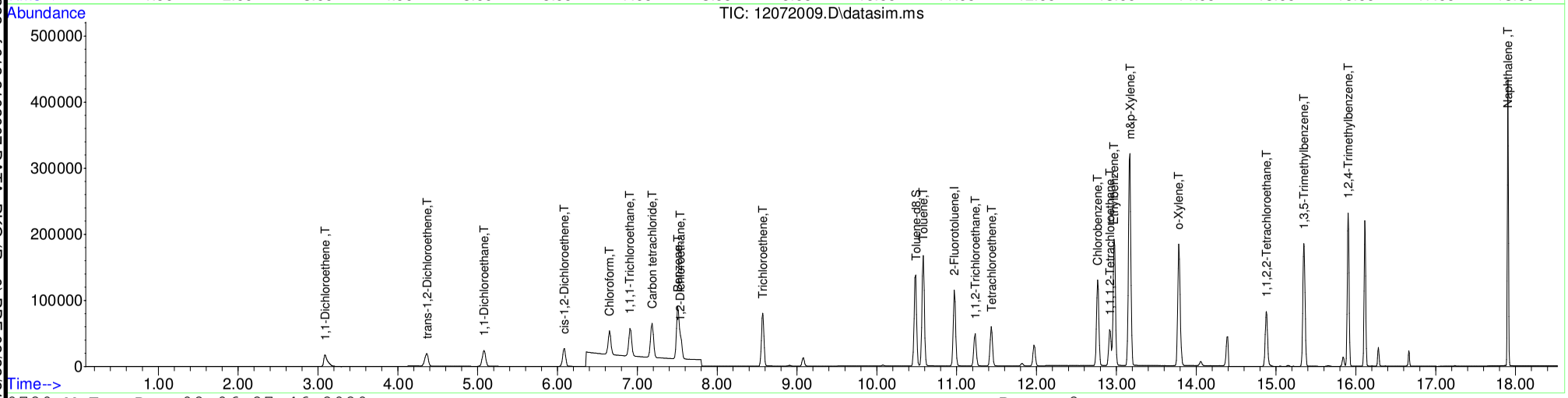


Table of Contents

SEQUENCE

S21B025

Sequence Date: 02/09/2021

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B21B038	SEQUENCE #:	S21B025 02/09/21
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.	Tue Dec 08 06:26:34 2020			
	Initial Calibration ID (LIMS number):	2012007			
	ICAL within QC criteria?	✔			
	SCV within QC criteria?	✔			
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?	☐	Y	Y	
	CCV(s) within QC criteria?	☐	Y	Y	
	QLS(s) within QC criteria?	☐	Y	Y	
	CB(s) or storage blank(s) within QC criteria?	✔			
	Other instrument checks within QC criteria? Specify if applicable.	✔			
BATCH QCs	Method blanks < 1/2 QL?	☐	Y	Y	
	LCS(s) or SRM(s) within QC criteria?	☐	Y	Y	RPD for TCE, and PCE failed high. Samples ND.
	MSs/MSDs and/or DUPs within QC criteria?	✔			
	Other method-specific QCs within QC criteria? Specify if applicable.	✔			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B21B038	SEQUENCE #:	S21B025 02/09/21
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?	✔			
	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 02/10/21
	REVIEWED BY:	ZIYAD RAJABI (Affiliate) Digitally signed by ZIYAD RAJABI (Affiliate) Date: 2021.02.10 15:46:12 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2021\020921\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	02092101.D	1	S21B025-IBL1		9 Feb 2021 9:13
2	02092102.D	1	S21B025-TUN1	BFB 2040028	9 Feb 2021 10:07
3	02092103.D	1	S21B025-CCV1	2106039 5 mg/L	9 Feb 2021 10:36
4	02092104.D	1	S21B025-CRL1	2106042 0.05 mg/L	9 Feb 2021 10:59
5	02092105.D	1	B21B038-BLK1		9 Feb 2021 11:23
6	02092106.D	1	B21B038-BS1		9 Feb 2021 11:47
7	02092107.D	1	B21B038-BSD1		9 Feb 2021 12:10
8	02092108.D	1	B21B038-MRL1		9 Feb 2021 12:34
9	02092109.D	1	2102007-01		9 Feb 2021 12:58
10	02092110.D	1	2102007-02		9 Feb 2021 13:21
11	02092111.D	1	2102007-03		9 Feb 2021 13:45
12	02092112.D	1	2102007-04		9 Feb 2021 14:08
13	02092113.D	1	2102007-05		9 Feb 2021 14:32
14	02092114.D	1	2102007-06		9 Feb 2021 14:56
15	02092115.D	1	2102007-07		9 Feb 2021 15:19
16	02092116.D	1	B21B038-BS2	RA not used	9 Feb 2021 15:43

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2021\020921\02092102.D
Tune Time : 9 Feb 2021 10:07

Daily Calibration File : C:\msdchem\1\Ravioli Data\2021\020921\02092103.D

File	Sample	Surrogate Recovery %	Internal Standard Responses	
			190322	
02092103.D	S21B025-CC	88	190322	
02092104.D	S21B025-CR	1*	187070	
02092105.D	B21B038-BL	87	203451	
02092106.D	B21B038-BS1	87	179797	
02092107.D	B21B038-BSD2	87	190628	
02092108.D	B21B038-MR	87	218554	
02092109.D	2102007-01	86	135663	
02092110.D	2102007-02	87	195147	
02092111.D	2102007-03	86	219540	
02092112.D	2102007-04	87	191262	
02092113.D	2102007-05	86	172611	
02092114.D	2102007-06	86	175061	
02092115.D	2102007-07	86	197236	
02092116.D	B21B038-BS2	87	184913	RA ← NOT USED

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

Created: Wed Feb 10 06:31:13 2021 AG5975C

Analysis Sequence

S21B025

Project: R21S04
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 2012007 Printed: 02/10/2021 1:00 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S21B025-IBL1	Instrument Blank	1	2/9/21 9:13			TD	02092101.D	
S21B025-TUN1	BFB	2	2/9/21 10:07	2040028		TD	02092102.D	
S21B025-CCV1	Calibration Check	3	2/9/21 10:36	2106039		TD	02092103.D	
S21B025-CRL1	Instrument RL Check	4	2/9/21 10:59	2106042		TD	02092104.D	
B21B038-BLK1	Blank	5	2/9/21 11:23			TD	02092105.D	
B21B038-BS1	LCS	6	2/9/21 11:47			TD	02092106.D	
B21B038-BSD1	LCS Dup	7	2/9/21 12:10			TD	02092107.D	
B21B038-MRL1	MRL Check	8	2/9/21 12:34			TD	02092108.D	
2102007-01 A	645 Ellis-MenRR-BZ-2d	9	2/9/21 12:58			TD	02092109.D	465 Ellis-MenRR-BZ-2d
2102007-02 A	645 Ellis-WomenRR-BZ-2d	10	2/9/21 13:21			TD	02092110.D	465 Ellis-WomenRR-BZ-2d
2102007-03 A	645 Ellis-Coffee Bar-BZ-2d	11	2/9/21 13:45			TD	02092111.D	465 Ellis-Coffee Bar-BZ-2d
2102007-04 A	645 Ellis-Kitchen new trench-BZ-2d	12	2/9/21 14:08			TD	02092112.D	465 Ellis-Kitchen new trench-BZ
2102007-05 A	645 Ellis-Kitchen stove-BZ-2d	13	2/9/21 14:32			TD	02092113.D	465-Kitchen stove-BZ-2d
2102007-06 A	645 Ellis-OUT-2d	14	2/9/21 14:56			TD	02092114.D	465 Ellis-OUT-2d
2102007-07 A	645 Ellis-SC-PP-2d	15	2/9/21 15:19			TD	02092115.D	465 Ellis-SC-PP-2d
B21B038-BS2	LCS	16	2/9/21 15:43			TD	02092116.D	

Sequence Comments

Reagents

Reagent #	Description

Analysis Sequence

S21B025

(Continued)

Project: R21S04
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 2012007 Printed: 02/10/2021 1:00 pm

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

Table of Contents

SEQUENCE DATA

S21B025

S21B025-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092101.D
Acq On : 9 Feb 2021 9:13
InstName : AG5975C
Operator : TD
Sample : S21B025-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 09 09:32:14 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

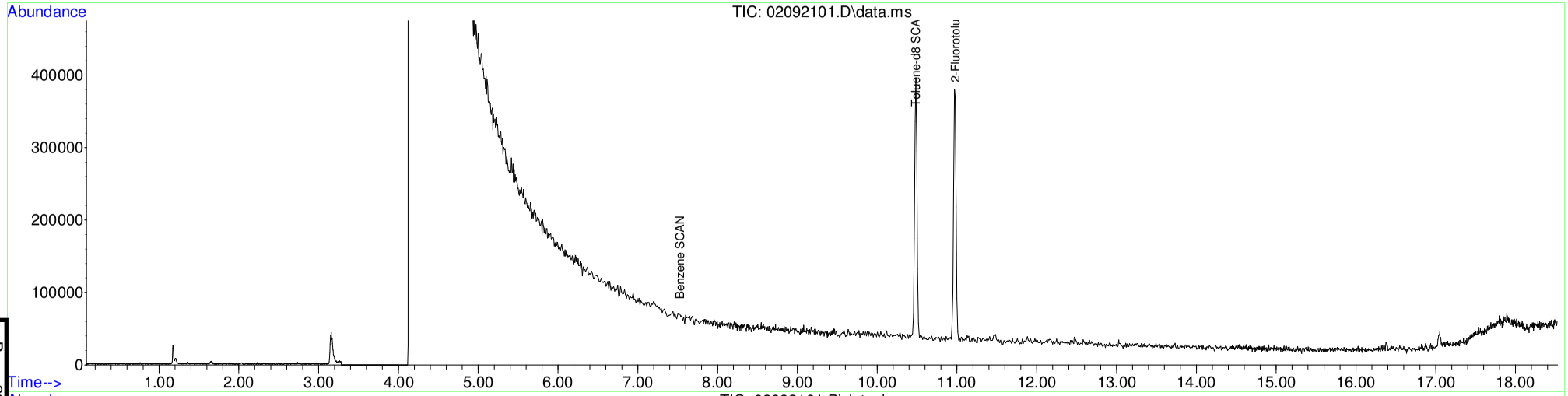
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	500366	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	421633	4350.84	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 87.02%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	10.979	109	300949	5298.71	ug/L	98
33) Benzene SCAN	7.526	78	2667	46.74	ug/L #	91
36) Toluene-d8 SCAN	10.486	98	261686	4912.53	ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092101.D
Acq On : 9 Feb 2021 9:13
InstName : AG5975C
Operator : TD
Sample : S21B025-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 09 09:32:14 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration



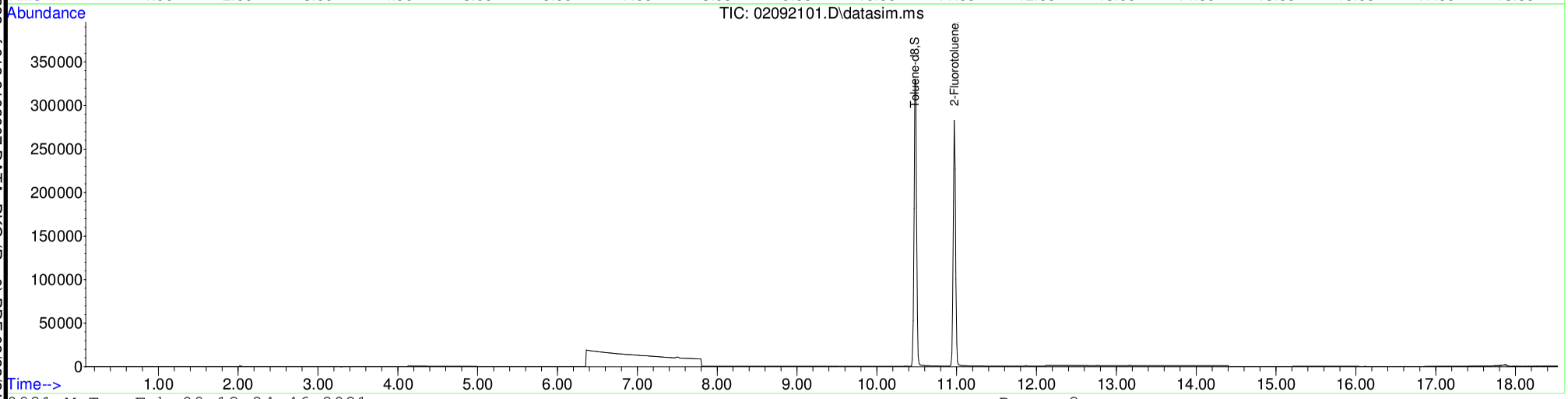


Table of Contents

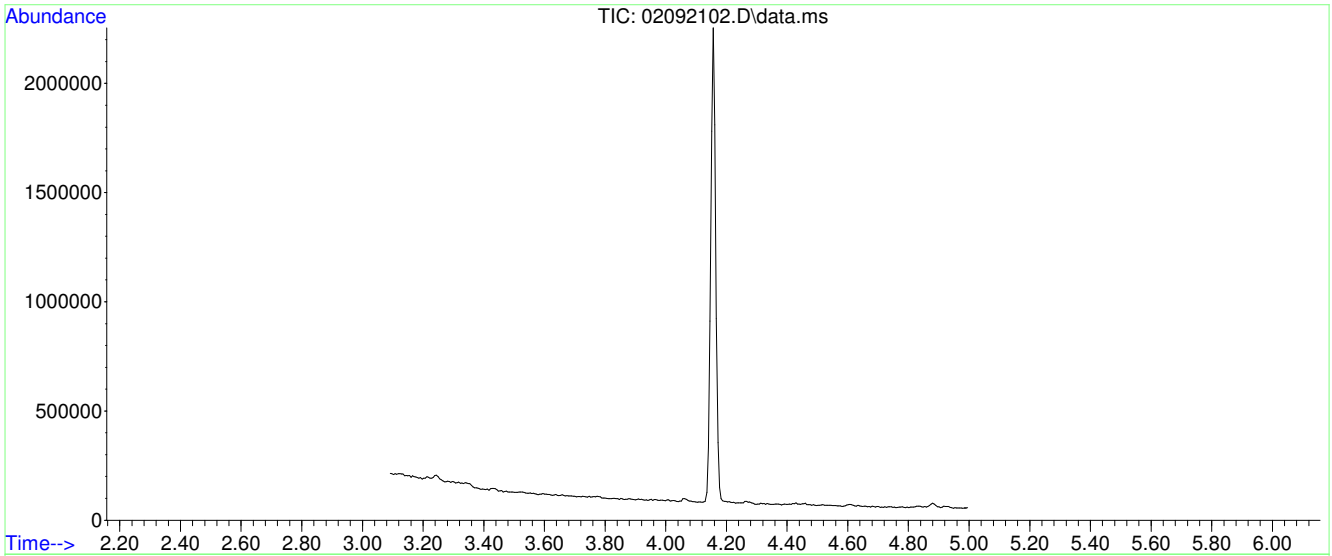
S21B025-TUN1

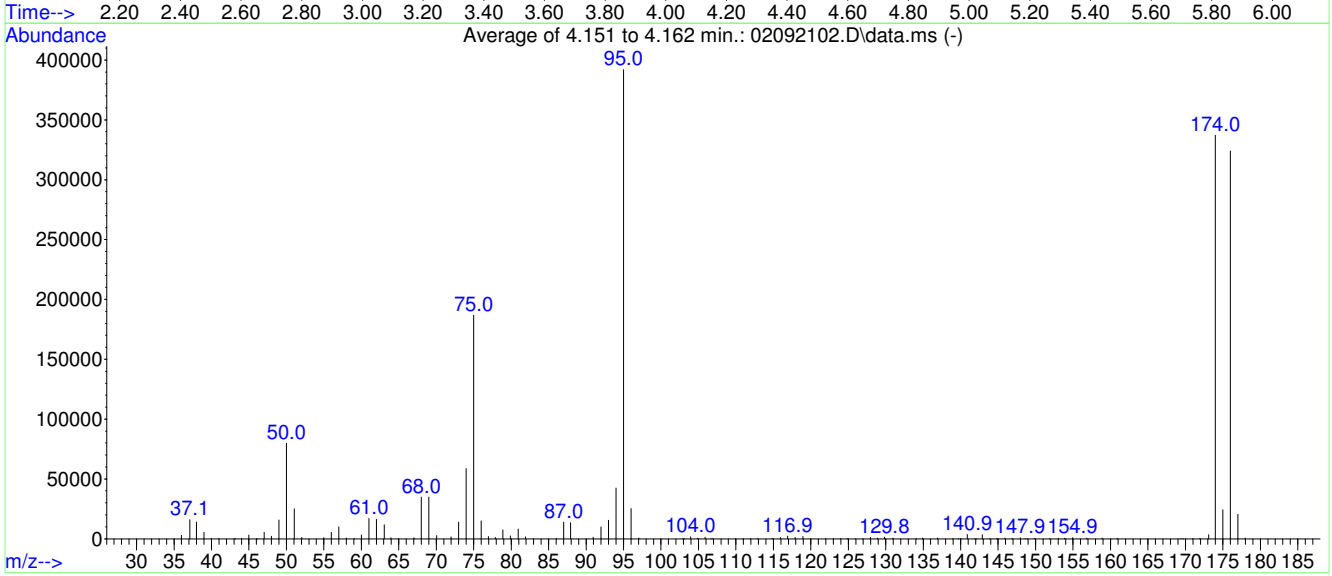
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092102.D
Acq On : 9 Feb 2021 10:07
Operator : TD
Sample : S21B025-TUN1
Misc : BFB 2040028
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Tue Dec 08 06:26:34 2020





AutoFind: Scans 203, 204, 205; Background Corrected with Scan 197

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	79949	PASS
75	95	30	60	47.6	186620	PASS
95	95	100	100	100.0	391808	PASS
96	95	5	9	6.5	25355	PASS
173	174	0.00	2	1.0	3333	PASS
174	95	50	120	86.0	336981	PASS
175	174	5	9	7.2	24280	PASS
176	174	95	101	96.1	323925	PASS
177	176	5	9	6.3	20547	PASS

Average of 4.151 to 4.162 min.: 02092102.D\data.ms
S21B025-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2789	47.05	5312	60.00	3261	73.00	13942
37.10	15993	48.00	2244	61.00	16947	74.00	58813
38.00	14056	49.00	15808	62.00	16284	75.00	186620
39.00	5531	50.00	79949	63.05	11839	76.00	15035
39.95	78	51.05	25072	63.95	869	76.95	1836
40.95	134	52.05	1113	64.90	53	77.90	1248
43.00	181	55.00	868	67.05	932	78.90	7502
43.20	100	56.00	5339	68.00	34805	79.90	2444
44.00	416	57.00	10010	69.00	34792	80.95	8077
45.00	3145	58.00	539	70.05	2666	81.90	1635
46.00	6	59.10	52	72.00	1741	82.95	116

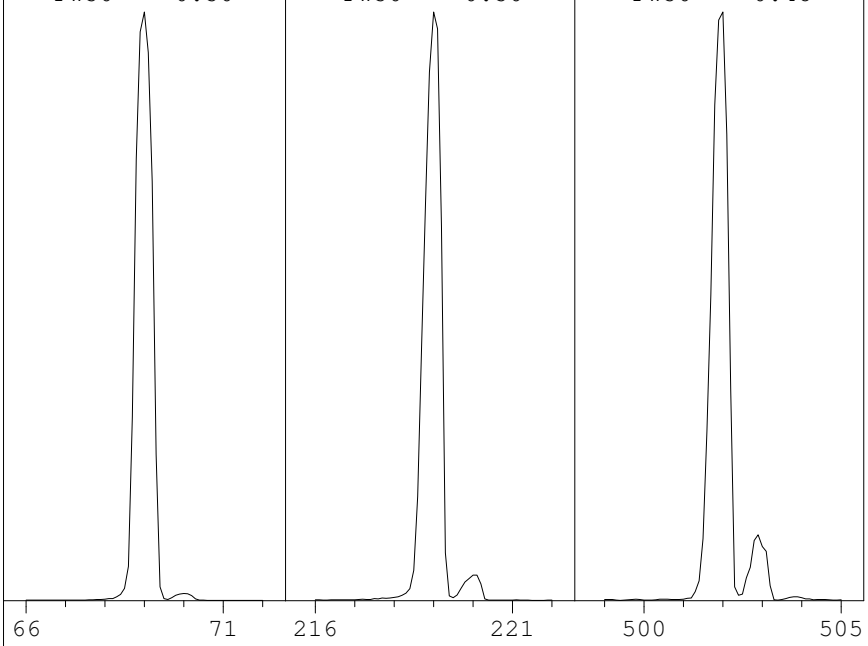
Average of 4.151 to 4.162 min.: 02092102.D\data.ms
S21B025-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.05	414	103.10	101	115.95	1174	127.95	1195
87.00	13916	103.95	1529	116.90	2206	128.85	648
87.95	13366	104.90	392	117.90	1234	129.85	1306
90.95	1394	105.90	1490	118.95	1836	130.95	624
92.00	9920	106.70	153	120.00	65	134.10	104
93.00	15364	106.90	225	121.95	108	134.90	591
94.00	42373	109.95	149	123.00	74	136.90	588
95.00	391808	110.95	265	123.95	226	138.90	53
96.00	25355	111.90	92	124.90	54	139.70	179
97.05	619	112.85	266	125.95	181	140.00	110
102.90	63	114.85	299	126.95	126	140.90	3598

Average of 4.151 to 4.162 min.: 02092102.D\data.ms
S21B025-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.90	236	149.85	410	171.95	290		
142.10	82	151.85	171	173.10	3333		
142.90	3508	153.00	391	174.00	336981		
143.90	225	153.85	328	175.00	24280		
144.80	263	154.95	926	176.00	323925		
145.00	90	156.85	706	177.00	20547		
145.90	681	158.90	601	177.95	544		
146.85	276	160.90	437				
147.95	916	169.40	73				
148.65	130	169.70	80				
148.90	137	170.95	129				

Mass	69.00	Mass	219.00	Mass	502.00
Ab	540258	Ab	389702	Ab	21570
Pw50	0.50	Pw50	0.50	Pw50	0.48

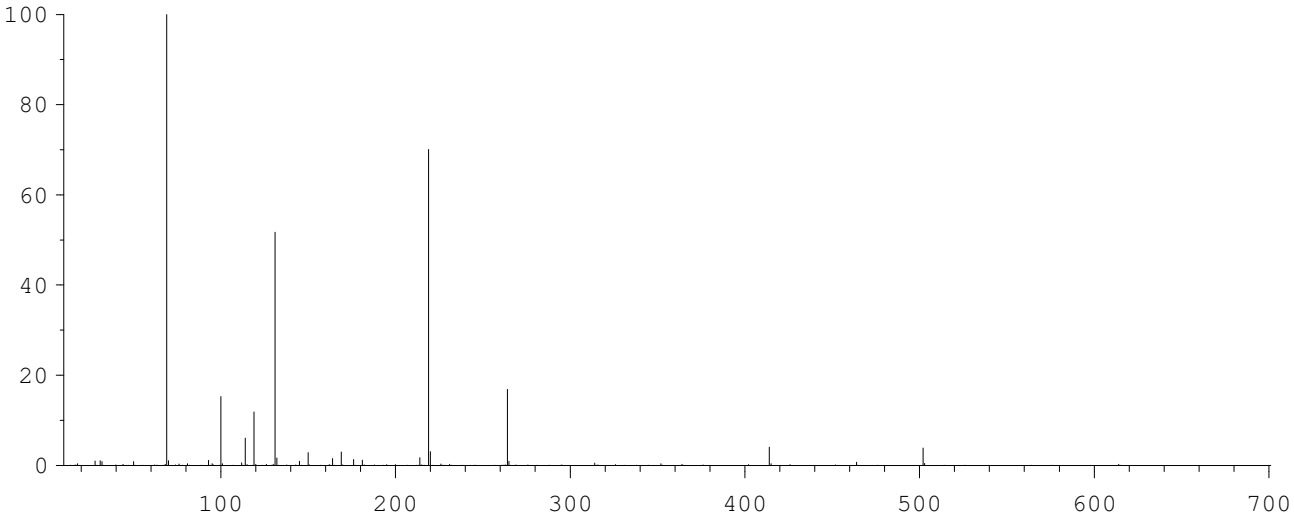


Ion Pol	Pos	MassGain	-1189
		MassOffs	-39
Emission	34.6	AmuGain	984
EIEnrgy	69.9	AmuOffs	128.50
Filament	1	Wid219	-0.003
		DC Pol	Pos
Repeller	22.25		
IonFcus	68.3	HEDEnab	On
EntLens	0.0	EMVolts	1424
EntOffs	Var		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

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

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
133 peaks Base: 69.00 Abundance: 512384



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	512384	100.00	70.00	5270	1.03
219.00	358848	70.03	220.00	15618	4.35
502.00	19656	3.84	503.00	2190	11.14

Air/Water Check: H20~0.39% N2~0.99% O2~0.84% CO2~0.21% N2/H2O~252.98%

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

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 115451
Repeller Maximum 30 volts using ion 219; Gain Factor 1.15

MassGain Values(Samples): -1179(3) -1173(2) -1150(1) -1109(0) -1022(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	128.5	128.5	128.5	128.5	128.5	128.5	128.5
Entrance Lens Offset:	14.8	11.3	11.3	13.1	14.8	16.1	16.1
Target Abund(%):	1.0	100.0	45.0	55.0	2.5	2.0	
Actual Tune Abund(%):	0.9	100.0	51.7	70.0	4.0	3.8	

S21B025-CCV1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092103.D
Acq On : 9 Feb 2021 10:36
InstName : AG5975C
Operator : TD
Sample : S21B025-CCV1
Misc : 2106039 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 10:54:51 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
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	93	0.00
2	T	1,1-Dichloroethene	0.198	0.207	-4.5	95	0.00
3	T	trans-1,2-Dichloroethene	0.250	0.243	2.8	90	0.00
4	T	1,1-Dichloroethane	0.299	0.289	3.3	90	0.00
5	T	cis-1,2-Dichloroethene	0.309	0.294	4.9	91	0.00
6	T	Chloroform	0.297	0.287	3.4	93	0.00
7	T	1,1,1-Trichloroethane	0.319	0.316	0.9	96	-0.01
8	T	Carbon tetrachloride	0.305	0.300	1.6	95	0.00
9	T	Benzene	0.841	0.760	9.6	87	-0.01
10	T	1,2-Dichloroethane	0.287	0.286	0.3	95	-0.01
11	T	Trichloroethene	0.266	0.242	9.0	87	0.00
12	S	Toluene-d8	0.968	0.851	12.1	87	-0.01
13	T	Toluene	1.206	1.051	12.9	88	0.00
14	T	1,1,2-Trichloroethane	0.279	0.241	13.6	84	0.00
15	T	Tetrachloroethene	0.376	0.347	7.7	89	0.00
16	T	Chlorobenzene	0.934	0.817	12.5	85	0.00
17	T	1,1,1,2-Tetrachloroethane	0.327	0.287	12.2	85	0.00
18	T	Ethylbenzene	1.540	1.337	13.2	85	0.00
19	T	m&p-Xylene	1.186	1.042	12.1	88	0.00
20	T	o-Xylene	1.274	1.097	13.9	84	0.00
21	T	1,1,2,2-Tetrachloroethane	0.594	0.488	17.8	80	0.00
22	T	1,3,5-Trimethylbenzene	1.401	1.216	13.2	85	0.00
23	T	1,2,4-Trimethylbenzene	1.433	1.226	14.4	84	0.00
24	T	Naphthalene	2.321	2.073	10.7	85	0.00
25		2-Fluorotoluene SCAN	0.568	0.607	-6.9	99	-0.01
26		1,1-Dichloroethene SCAN	0.132	0.148	-12.1	104	0.00
27		trans-1,2-Dichloroethene SC	0.169	0.178	-5.3	98	0.00
28		1,1-Dichloroethane SCAN	0.199	0.204	-2.5	95	0.00
29		cis-1,2-Dichloroethene SCAN	0.196	0.210	-7.1	99	0.00
30		Chloroform SCAN	0.183	0.224	-22.4	114	0.00
31		1,1,1-Trichloroethane SCAN	0.188	0.211	-12.2	104	-0.01
32		Carbon tetrachloride SCAN	0.161	0.191	-18.6	110	-0.01
33		Benzene SCAN	0.570	0.543	4.7	88	0.00
34		1,2-Dichloroethane SCAN	0.178	0.202	-13.5	105	-0.01
35		Trichloroethene SCAN	0.124	0.135	-8.9	101	0.00
36		Toluene-d8 SCAN	0.532	0.521	2.1	91	-0.01
37		Toluene SCAN	0.655	0.674	-2.9	96	-0.01
38		1,1,2-Trichloroethane SCAN	0.164	0.148	9.8	84	-0.01
39		Tetrachloroethene SCAN	0.147	0.166	-12.9	104	0.00
40		Chlorobenzene SCAN	0.471	0.473	-0.4	93	0.00
41		1,1,1,2-Tetrachloroethane S	0.162	0.171	-5.6	98	0.00
42		Ethylbenzene SCAN	1.249	1.290	-3.3	96	0.00
43		m&p-Xylene SCAN	1.249	1.290	-3.3	96	0.00
44		o-Xylene SCAN	0.682	0.653	4.3	89	0.00
45		1,1,2,2-Tetrachloroethane S	0.355	0.324	8.7	85	0.00
46		1,3,5-Trimethylbenzene SCAN	0.719	0.712	1.0	92	0.00
47		1,2,4-Trimethylbenzene SCAN	0.735	0.730	0.7	92	0.00
48		Naphthalene SCAN	1.103	1.092	1.0	92	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092103.D
Acq On : 9 Feb 2021 10:36
InstName : AG5975C
Operator : TD
Sample : S21B025-CCV1
Misc : 2106039 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 10:54:51 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

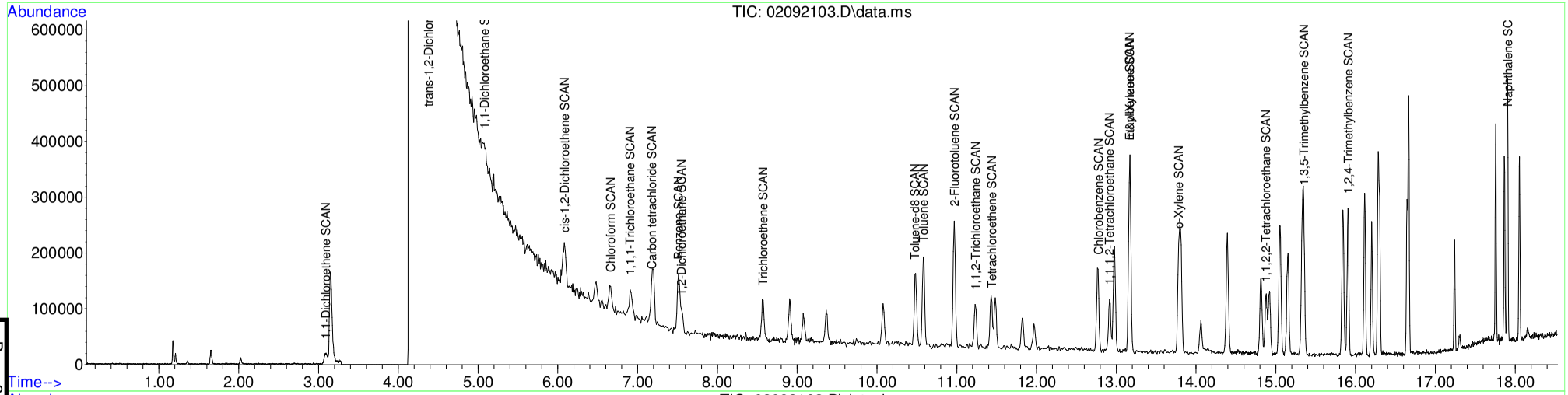
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	190322	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.477	98	162036	4395.91 ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 87.92%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	39449	5227.41 ug/L	80
3] trans-1,2-Dichloroethene	4.369	61	46319	4868.59 ug/L	97
4] 1,1-Dichloroethane	5.079	63	54954	4836.20 ug/L	95
5] cis-1,2-Dichloroethene	6.081	61	55983	4756.94 ug/L	98
6] Chloroform	6.652	83	54560	4826.64 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	60179	4955.88 ug/L	100
8] Carbon tetrachloride	7.187	117	57099	4918.36 ug/L	100
9] Benzene	7.503	78	144667	4517.20 ug/L	99
10] 1,2-Dichloroethane	7.540	62	54488	4987.31 ug/L	97
11] Trichloroethene	8.570	130	46002	4549.48 ug/L	97
13] Toluene	10.582	91	200079	4359.52 ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	45881	4316.14 ug/L	100
15] Tetrachloroethene	11.432	166	65980	4615.57 ug/L	100
16] Chlorobenzene	12.766	112	155553	4375.03 ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.917	131	54710	4396.51 ug/L	100
18] Ethylbenzene	12.972	91	254424	4340.27 ug/L	99
19] m&p-Xylene	13.163	91	396624	8786.35 ug/L	98
20] o-Xylene	13.782	91	208768	4305.83 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.877	83	92854	4110.11 ug/L	100
22] 1,3,5-Trimethylbenzene	15.350	105	231427	4340.44 ug/L	97
23] 1,2,4-Trimethylbenzene	15.901	105	233324	4278.37 ug/L	96
24] Naphthalene	17.903	128	394463	4464.40 ug/L	100
25) 2-Fluorotoluene SCAN	10.969	109	115476	5345.25 ug/L	94
26) 1,1-Dichloroethene SCAN	3.089	61	28206	5592.69 ug/L #	59
27) trans-1,2-Dichloroethe...	4.375	61	33812	5263.57 ug/L	79
28) 1,1-Dichloroethane SCAN	5.078	63	38735	5108.59 ug/L	95
29) cis-1,2-Dichloroethene...	6.087	61	39905	5353.55 ug/L #	70
30) Chloroform SCAN	6.663	83	42550	6120.17 ug/L	96
31) 1,1,1-Trichloroethane ...	6.906	97	40157	5597.35 ug/L	92
32) Carbon tetrachloride SCAN	7.174	117	36432	5942.50 ug/L	87
33) Benzene SCAN	7.514	78	103326	4760.56 ug/L	94
34) 1,2-Dichloroethane SCAN	7.551	62	38525	5674.54 ug/L	95
35) Trichloroethene SCAN	8.574	130	25732	5437.08 ug/L	90
36) Toluene-d8 SCAN	10.476	98	99079	4889.96 ug/L	96
37) Toluene SCAN	10.581	91	128360	5145.34 ug/L	98
38) 1,1,2-Trichloroethane ...	11.231	97	28150	4501.83 ug/L	95
39) Tetrachloroethene SCAN	11.441	166	31505	5613.72 ug/L #	58
40) Chlorobenzene SCAN	12.772	112	90096	5028.17 ug/L	91
41) 1,1,1,2-Tetrachloroeth...	12.915	131	32483	5254.58 ug/L	91
42) Ethylbenzene SCAN	13.169	91	245598	5166.09 ug/L	92
43) m&p-Xylene SCAN	13.169	91	245598	5166.09 ug/L	92
44) o-Xylene SCAN	13.781	91	124285	4787.61 ug/L	99
45) 1,1,2,2-Tetrachloroeth...	14.876	83	61630	4565.95 ug/L	99
46) 1,3,5-Trimethylbenzene...	15.349	105	135462	4946.22 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.905	105	138964	4966.30 ug/L	94
48) Naphthalene SCAN	17.905	128	207887	4949.65 ug/L	88

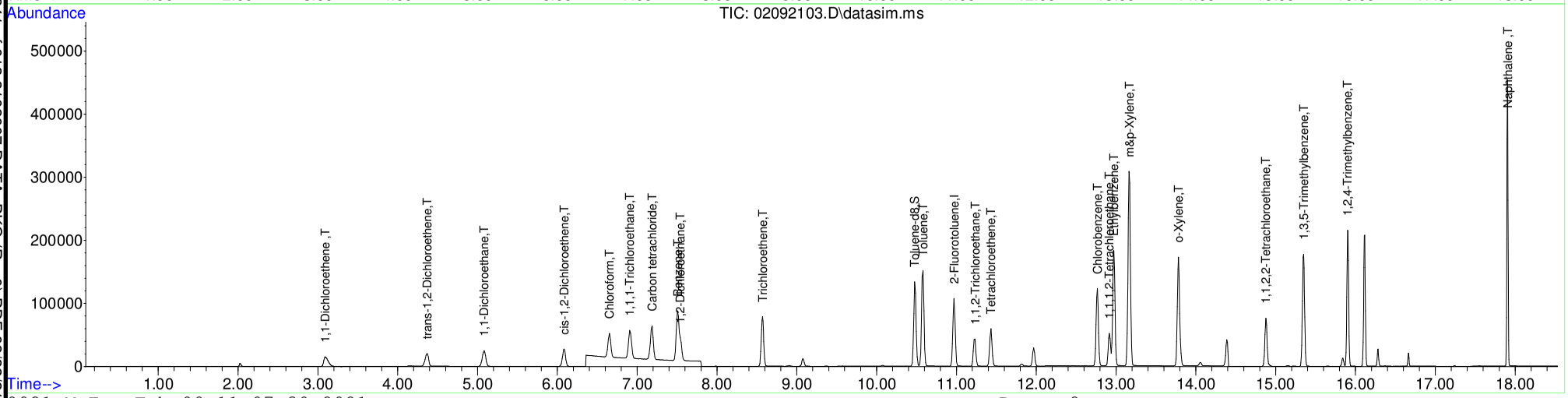
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092103.D
Acq On : 9 Feb 2021 10:36
InstName : AG5975C
Operator : TD
Sample : S21B025-CCV1
Misc : 2106039 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 10:54:51 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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S21B025-CRL1

QLS REPORT

Instrument Name: AG5975C
Sample Name: S21B025-CRL1
Misc Info: 2106042 0.05 mg/L
Date Acquired: 2/9/21 10:59
QLast Update: Tue Dec 08 06:26:34 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.980	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	3.090	50.0	43.68	87%	60	140	pass
3)	trans-1,2-Dichloroethene	4.376	50.0	39.25	78%	60	140	pass
4)	1,1-Dichloroethane	5.086	50.0	38.68	77%	60	140	pass
5)	cis-1,2-Dichloroethene	6.088	50.0	40.72	81%	60	140	pass
6)	Chloroform	6.652	50.0	47.52	95%	60	140	pass
7)	1,1,1-Trichloroethane	6.919	50.0	44.15	88%	60	140	pass
8)	Carbon tetrachloride	7.187	50.0	42.94	86%	60	140	pass
10)	1,2-Dichloroethane	7.552	50.0	45.91	92%	60	140	pass
11)	Trichloroethene	8.575	50.0	42.56	85%	60	140	pass
12)	Toluene-d8	10.487	50.0	42.75	86%	60	140	pass
13)	Toluene	10.582	50.0	50.17	100%	60	140	pass
14)	1,1,2-Trichloroethane	11.232	50.0	44.22	88%	60	140	pass
15)	Tetrachloroethene	11.432	50.0	45.26	91%	60	140	pass
16)	Chlorobenzene	12.773	50.0	77.23	154%	60	140	FAIL
17)	1,1,1,2-Tetrachloroethane	12.916	50.0	43.82	88%	60	140	pass
18)	Ethylbenzene	12.972	50.0	46.53	93%	60	140	pass
19)	m&p-Xylene	13.170	100.0	96.98	97%	60	140	pass
20)	o-Xylene	13.782	50.0	46.31	93%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.880	50.0	44.85	90%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.350	50.0	45.53	91%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.906	50.0	51.73	103%	60	140	pass
24)	Naphthalene	17.904	50.0	38.49	77%	60	140	pass

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 11:18:27 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

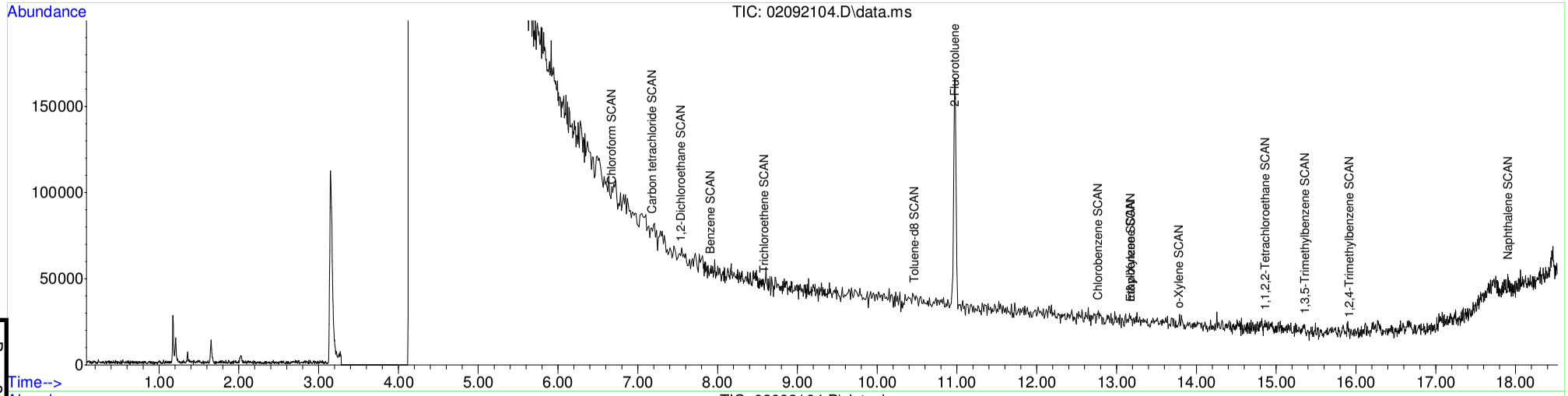
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	187070	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	1549	42.75	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 0.85%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.086	61	652	87.90	ug/L #	62
3] trans-1,2-Dichloroethene	4.349	61	367	39.25	ug/L	85
4] 1,1-Dichloroethane	5.073	63	432	38.68	ug/L	78
5] cis-1,2-Dichloroethene	6.074	61	471	40.72	ug/L	98
6] Chloroform	6.652	83	528	47.52	ug/L	96
7] 1,1,1-Trichloroethane	6.907	97	527	44.15	ug/L	98
8] Carbon tetrachloride	7.175	117	490	42.94	ug/L	91
9] Benzene	7.503	78	2993	95.08	ug/L	56
10] 1,2-Dichloroethane	7.540	62	493	45.91	ug/L #	1
11] Trichloroethene	8.569	130	423	42.56	ug/L	94
13] Toluene	10.582	91	2263	50.17	ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	462	44.22	ug/L	93
15] Tetrachloroethene	11.432	166	636	45.26	ug/L	100
16] Chlorobenzene	12.765	112	2699	77.23	ug/L	88
17] 1,1,1,2-Tetrachloroethane	12.916	131	536	43.82	ug/L	83
18] Ethylbenzene	12.972	91	2681	46.53	ug/L	93
19] m&p-Xylene	13.163	91	4303	96.98	ug/L	94
20] o-Xylene	13.782	91	2207	46.31	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	996	44.85	ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	2386	45.53	ug/L	97
23] 1,2,4-Trimethylbenzene	15.901	105	2773	51.73	ug/L	90
24] Naphthalene	17.903	128	3343	38.49	ug/L	100
25) 2-Fluorotoluene SCAN	10.969	109	111895	5269.53	ug/L	98
30) Chloroform SCAN	6.663	83	502	73.46	ug/L #	64
32) Carbon tetrachloride SCAN	7.173	117	226	37.50	ug/L #	53
33) Benzene SCAN	7.909	78	1654	77.53	ug/L	95
34) 1,2-Dichloroethane SCAN	7.538	62	473	70.88	ug/L #	40
35) Trichloroethene SCAN	8.579	130	217	46.65	ug/L #	54
36) Toluene-d8 SCAN	10.465	98	1002	50.31	ug/L #	15
40) Chlorobenzene SCAN	12.764	112	1254	71.20	ug/L #	1
42) Ethylbenzene SCAN	13.177	91	2813	60.20	ug/L	84
43) m&p-Xylene SCAN	13.177	91	2813	60.20	ug/L	85
44) o-Xylene SCAN	13.781	91	1223	47.93	ug/L	91
45) 1,1,2,2-Tetrachloroeth...	14.857	83	453	34.14	ug/L	74
46) 1,3,5-Trimethylbenzene...	15.353	105	1500	55.72	ug/L	88
47) 1,2,4-Trimethylbenzene...	15.909	105	1546	56.21	ug/L	67
48) Naphthalene SCAN	17.901	128	1956	47.38	ug/L	82

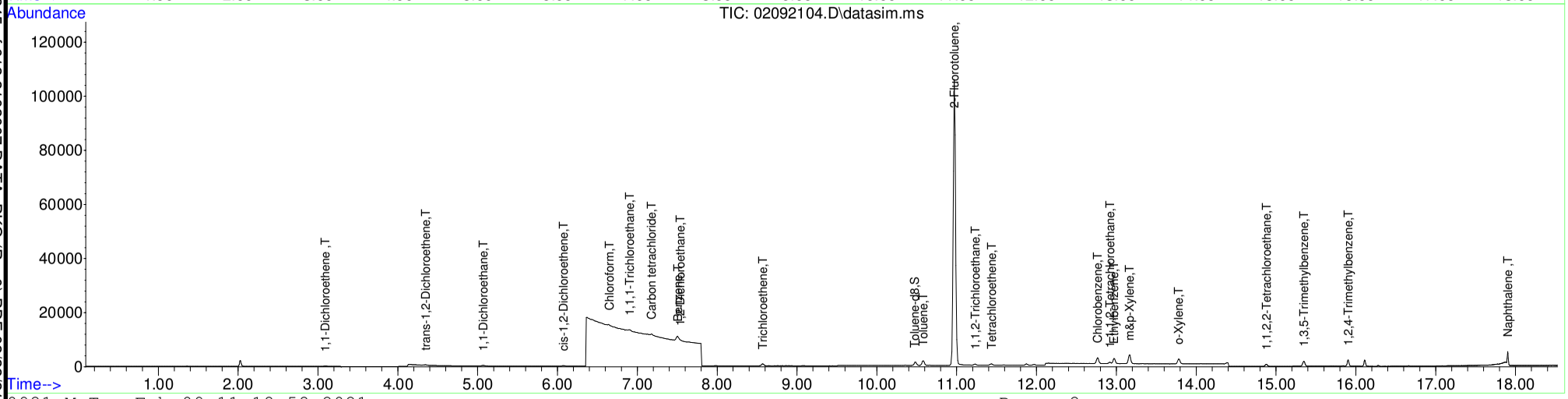
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 11:18:27 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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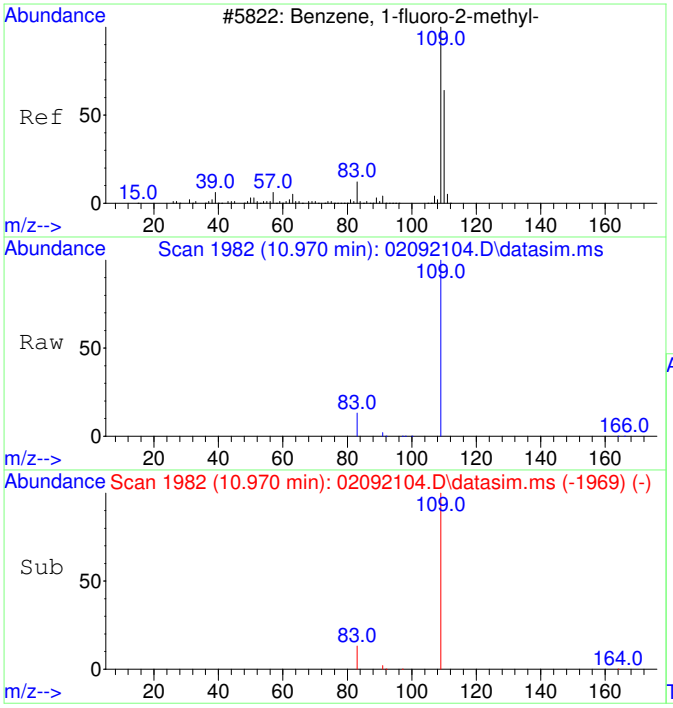
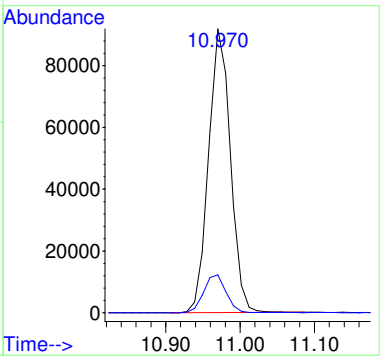
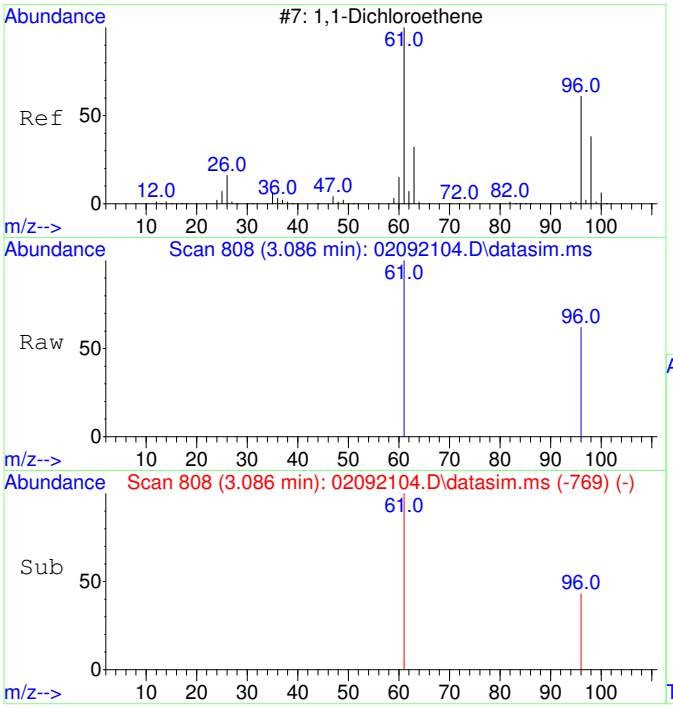


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:109 Resp: 187070

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

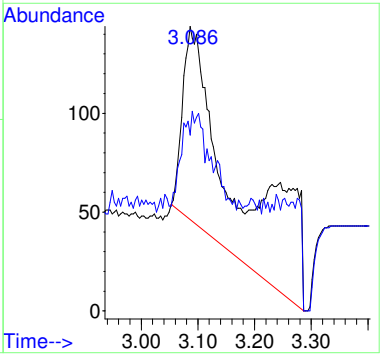




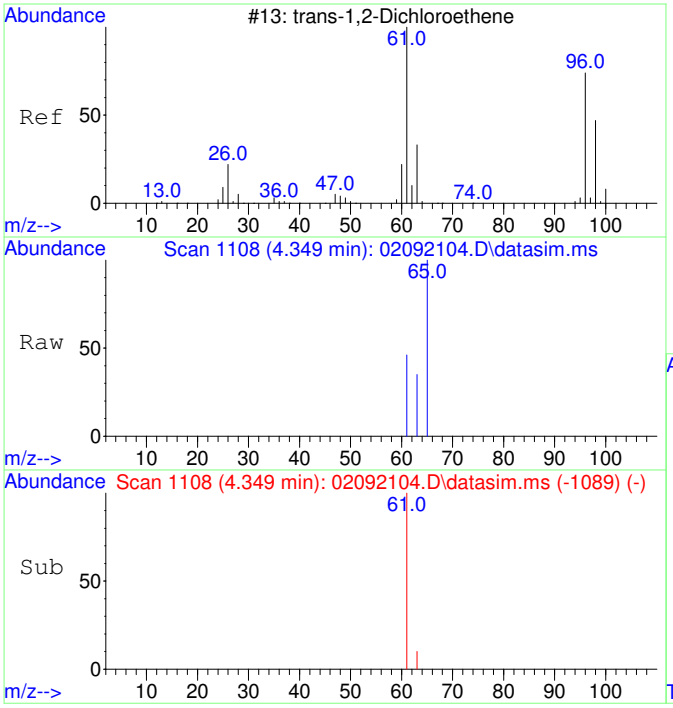
#2
1,1-Dichloroethene
Concen: 87.90 ug/L
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 652

Ion	Ratio	Lower	Upper
61	100		
96	36.5	37.2	97.2#



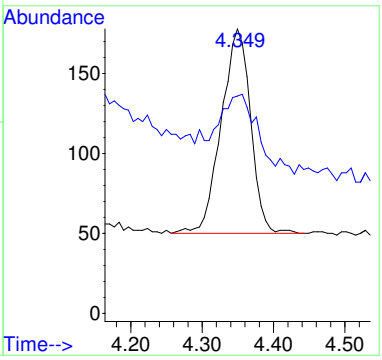
Before MI:
IMPROPER
BASELINE

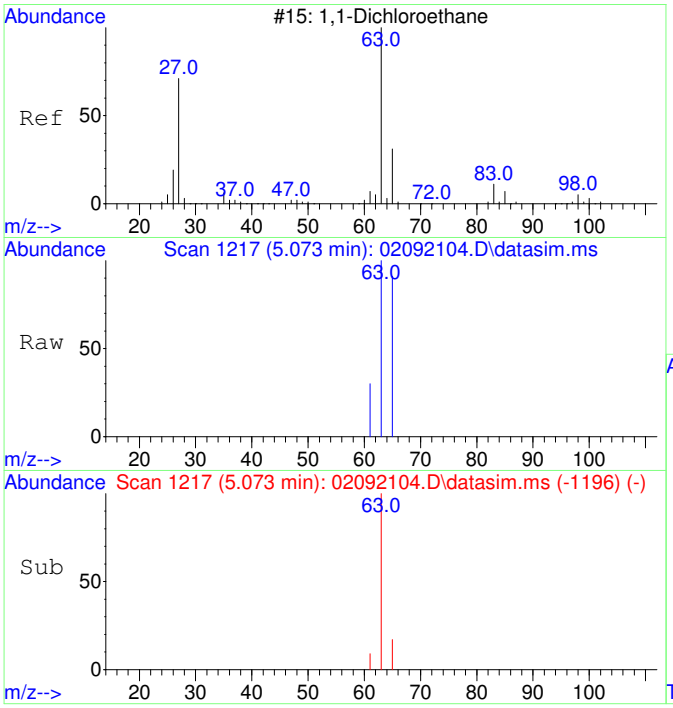


#3
trans-1,2-Dichloroethene
Concen: 39.25 ug/L
RT: 4.349 min Scan# 1108
Delta R.T. -0.026 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 367

Ion	Ratio	Lower	Upper
61	100		
63	40.6	2.4	62.4

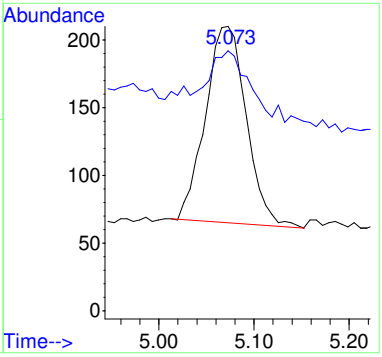


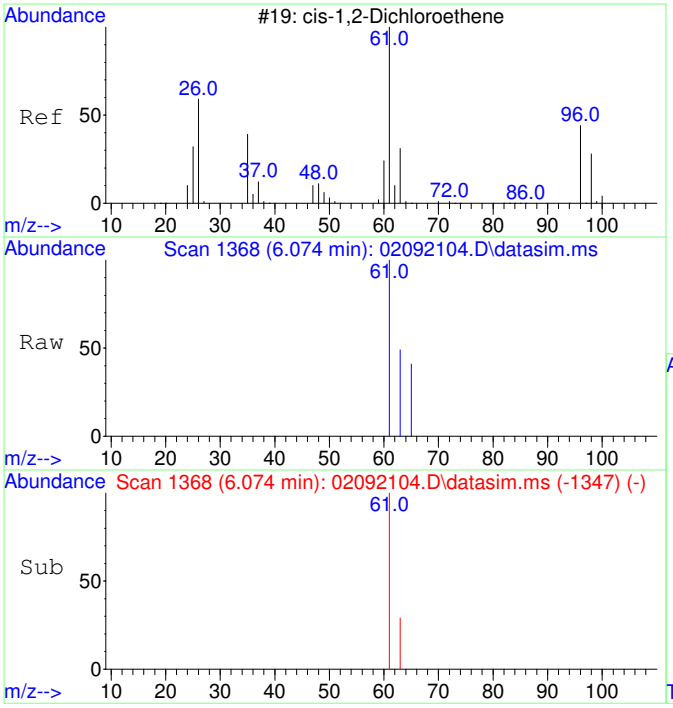


#4
1,1-Dichloroethane
Concen: 38.68 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. -0.013 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 63 Resp: 432

Ion	Ratio	Lower	Upper
63	100		
65	44.2	1.8	61.8

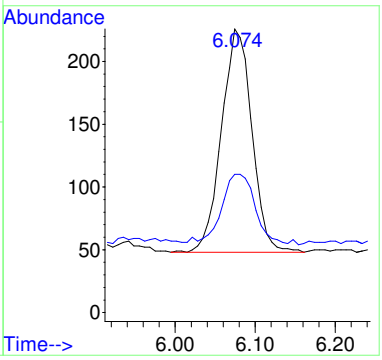


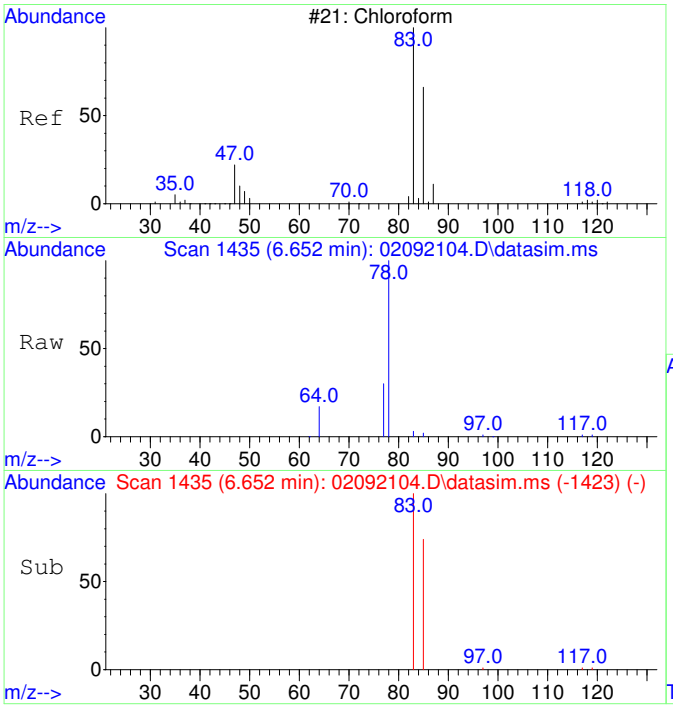


#5
cis-1,2-Dichloroethene
Concen: 40.72 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.013 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 471

Ion	Ratio	Lower	Upper
61	100		
63	33.5	2.5	62.5

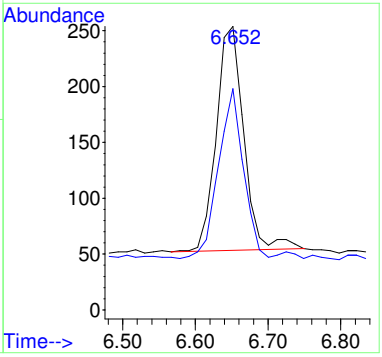


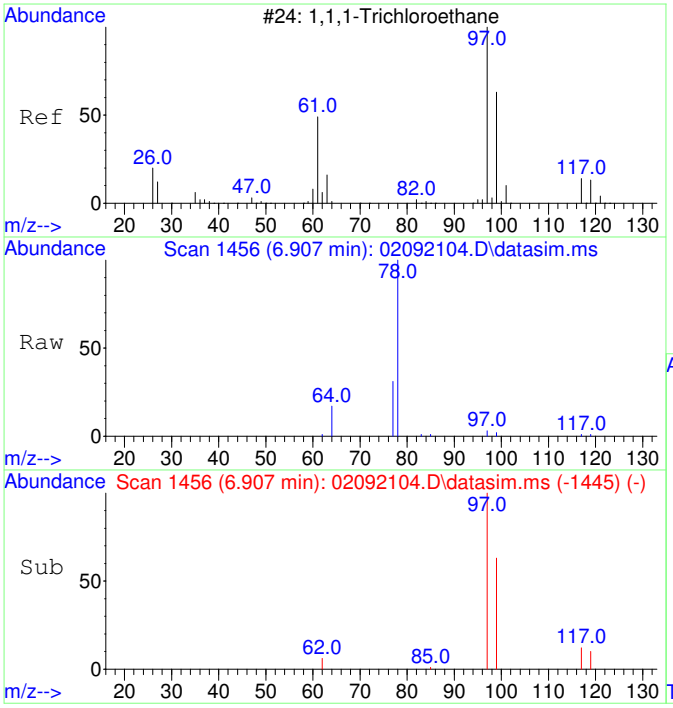


#6
Chloroform
Concen: 47.52 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 528

Ion	Ratio	Lower	Upper
83	100		
85	68.2	35.1	95.1

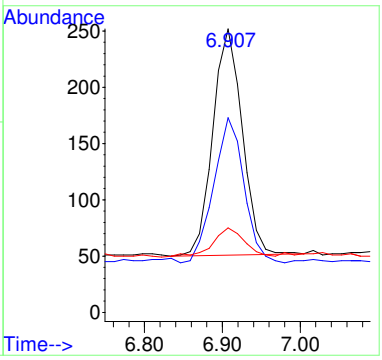


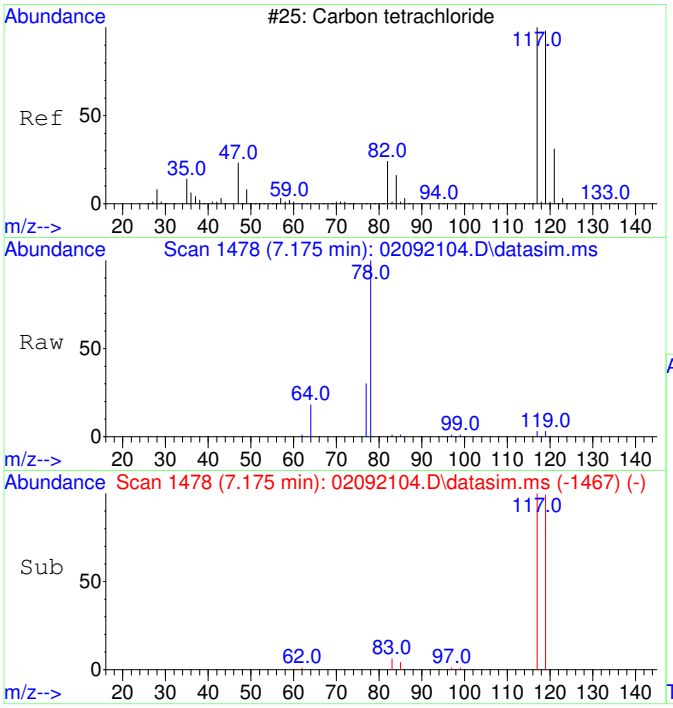


#7
1,1,1-Trichloroethane
Concen: 44.15 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 527

Ion	Ratio	Lower	Upper
97	100		
99	66.0	34.6	94.6
117	14.4	0.0	43.2

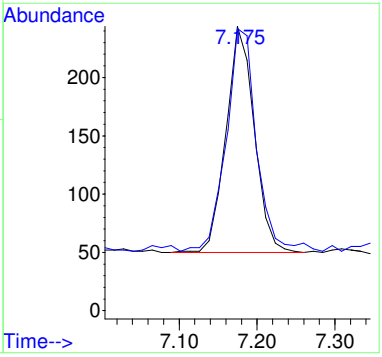


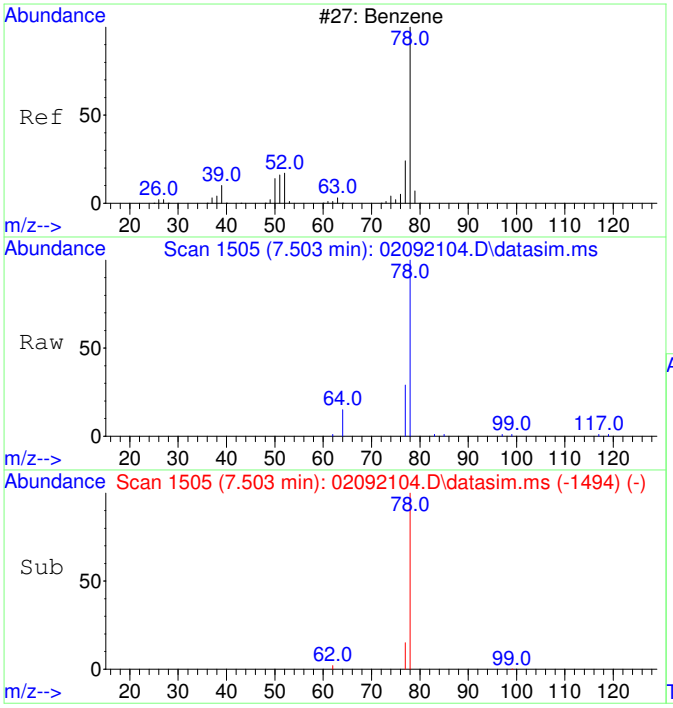


#8
Carbon tetrachloride
Concen: 42.94 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 490

Ion	Ratio	Lower	Upper
117	100		
119	105.3	66.4	126.4

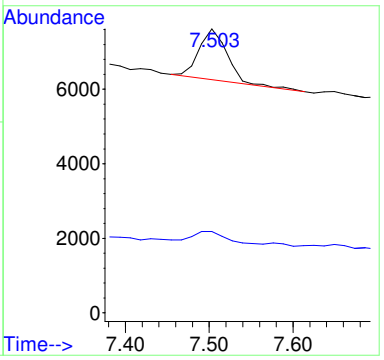


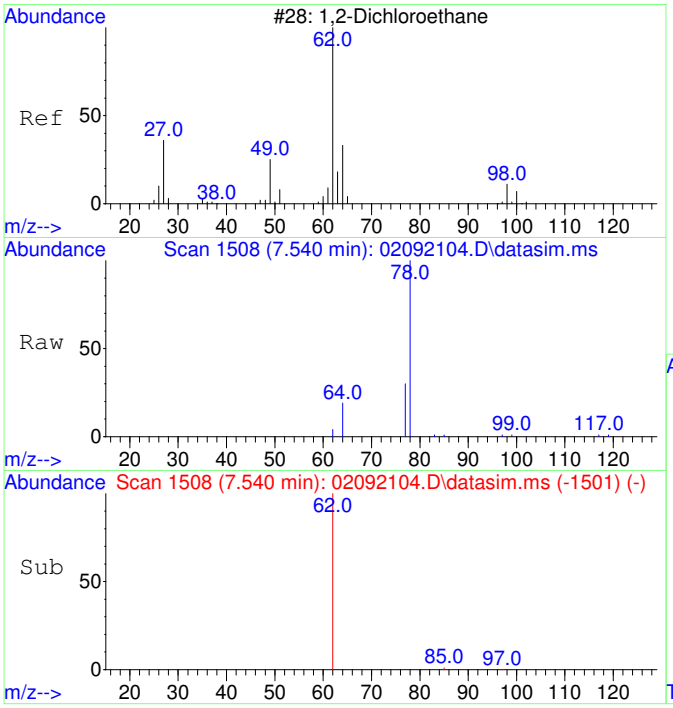


#9
Benzene
Concen: 95.08 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 2993

Ion	Ratio	Lower	Upper
78	100		
77	44.8	0.0	53.2

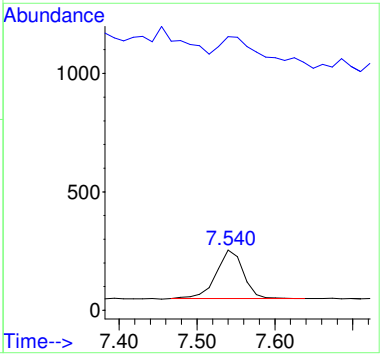


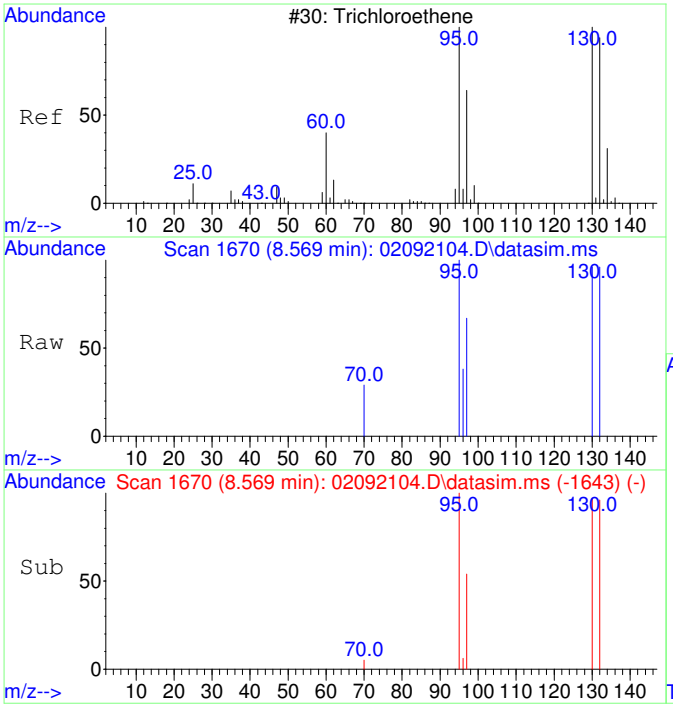


#10
1,2-Dichloroethane
Concen: 45.91 ug/L
RT: 7.540 min Scan# 1508
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 493

Ion	Ratio	Lower	Upper
62	100		
64	104.9	2.3	62.3#

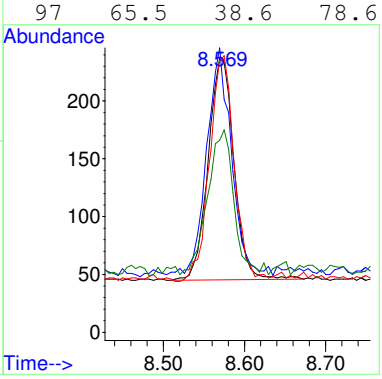


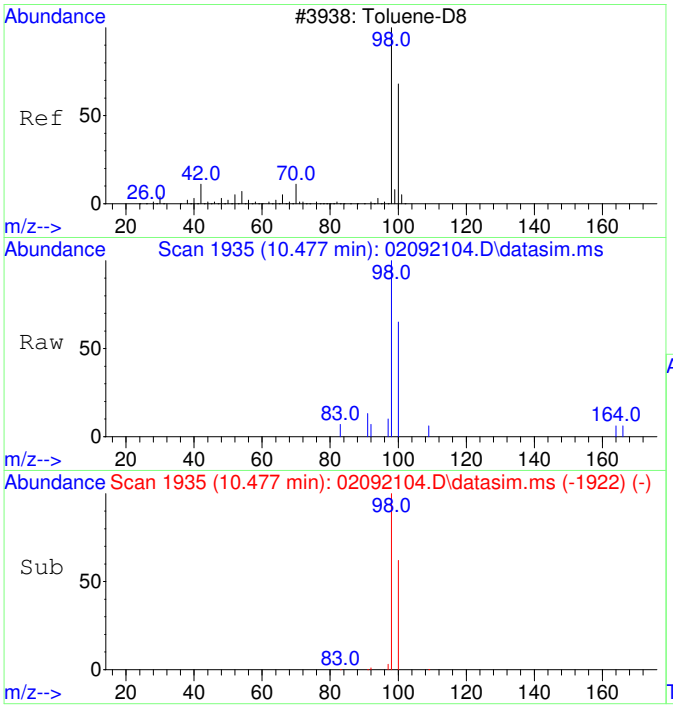


#11
Trichloroethene
Concen: 42.56 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 423

Ion	Ratio	Lower	Upper
130	100		
95	97.4	60.7	120.7
132	98.3	76.0	116.0
97	65.5	38.6	78.6

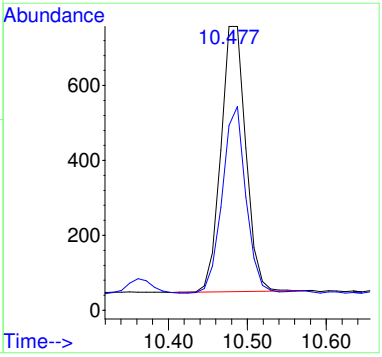


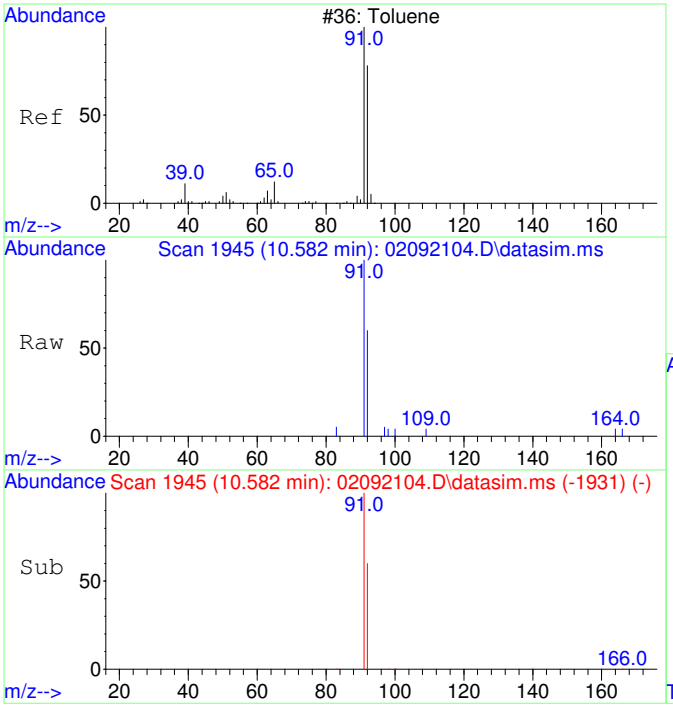


#12
Toluene-d8
Concen: 42.75 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1549

Ion	Ratio	Lower	Upper
98	100		
100	65.8	37.1	97.1

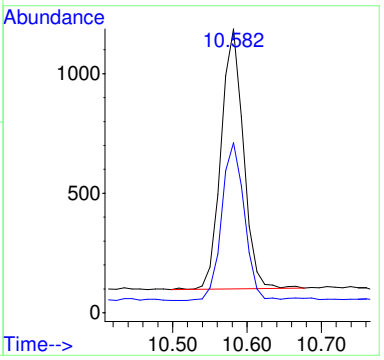


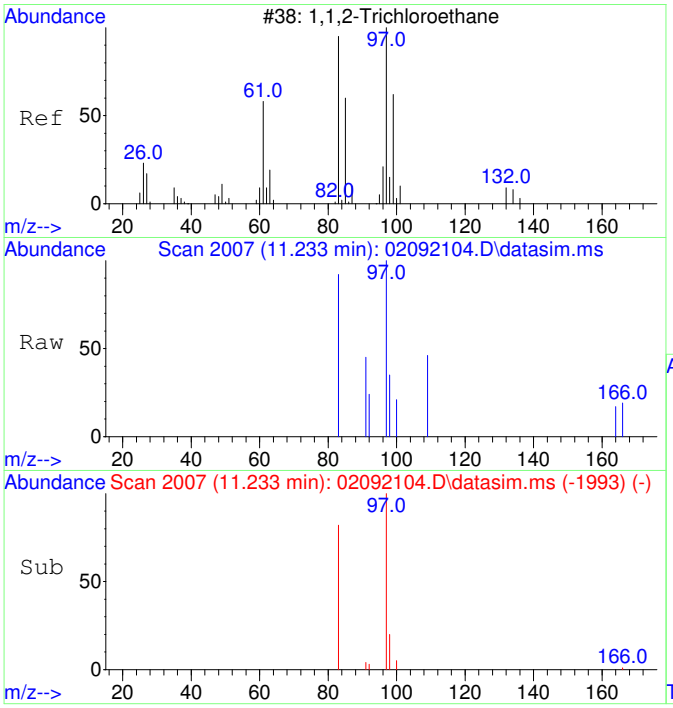


#13
Toluene
Concen: 50.17 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2263

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.9	89.9

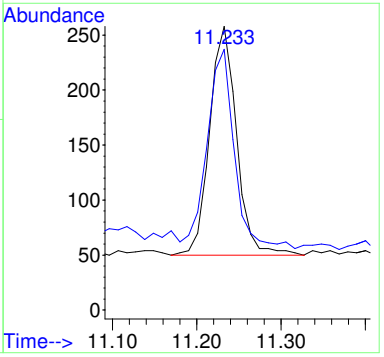


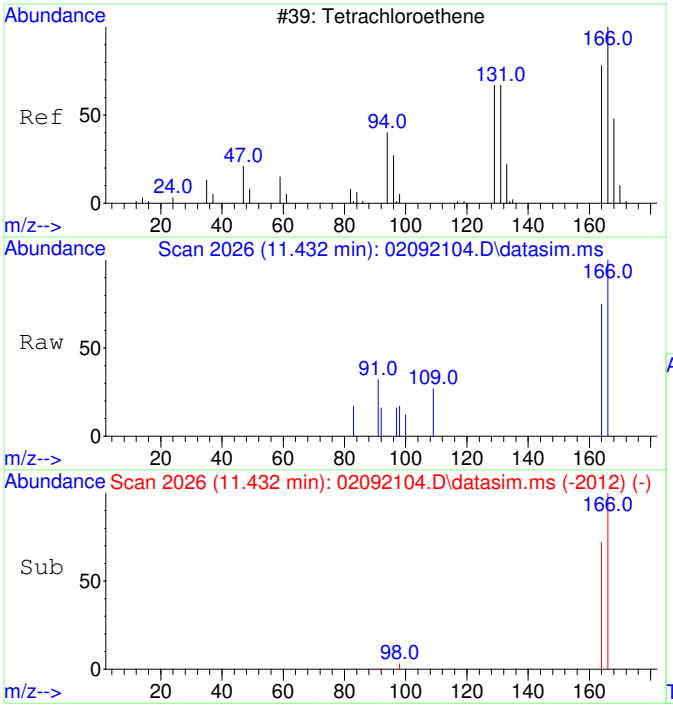


#14
1,1,2-Trichloroethane
Concen: 44.22 ug/L
RT: 11.233 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 462

Ion	Ratio	Lower	Upper
97	100		
83	87.7	51.2	111.2

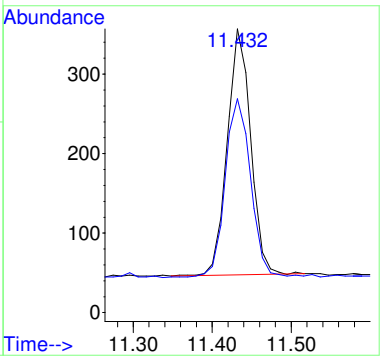


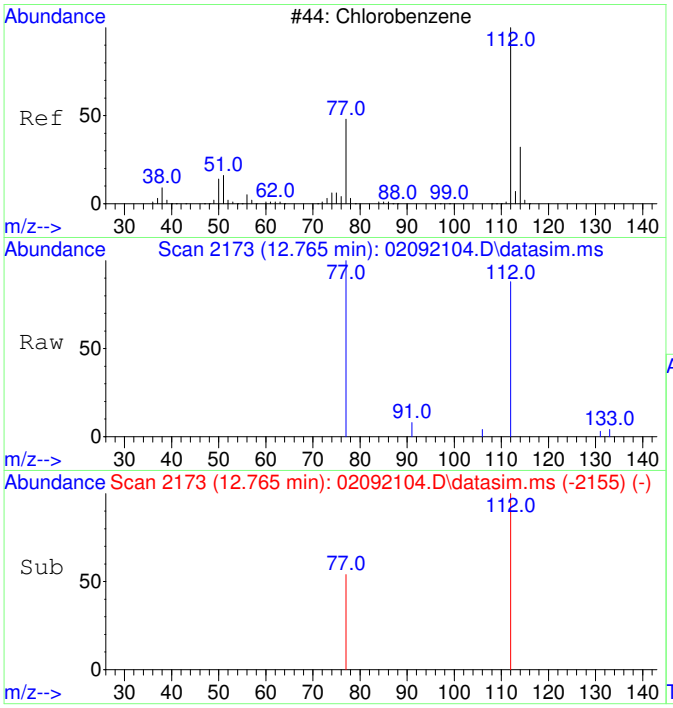


#15
Tetrachloroethene
Concen: 45.26 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:166 Resp: 636

Ion	Ratio	Lower	Upper
166	100		
164	78.0	47.8	107.8

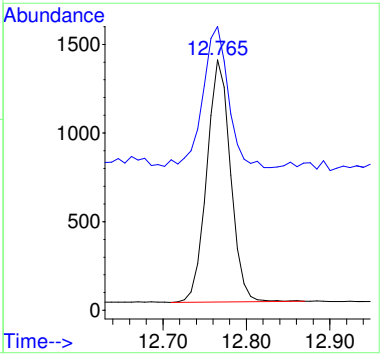


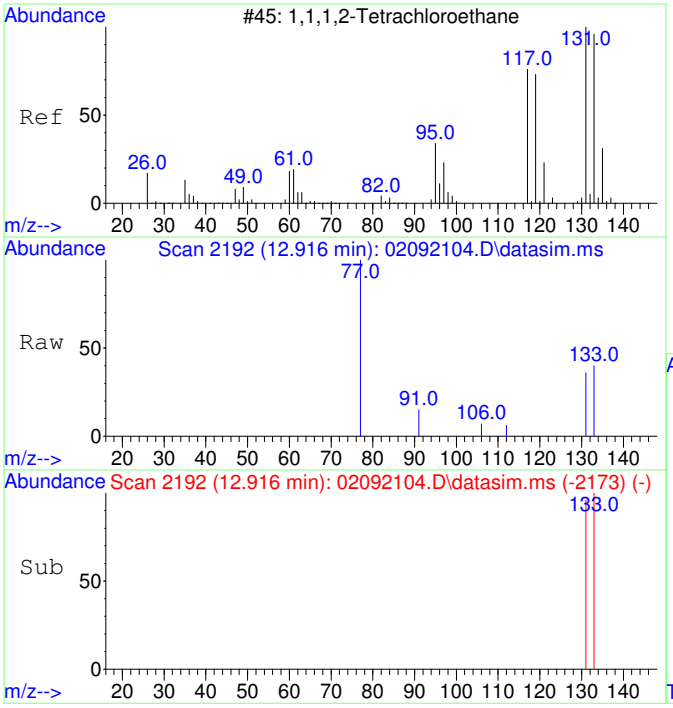


#16
Chlorobenzene
Concen: 77.23 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 2699

Ion	Ratio	Lower	Upper
112	100		
77	61.9	23.6	83.6

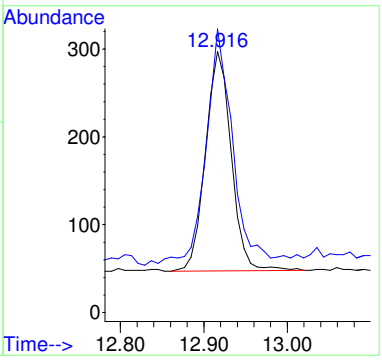


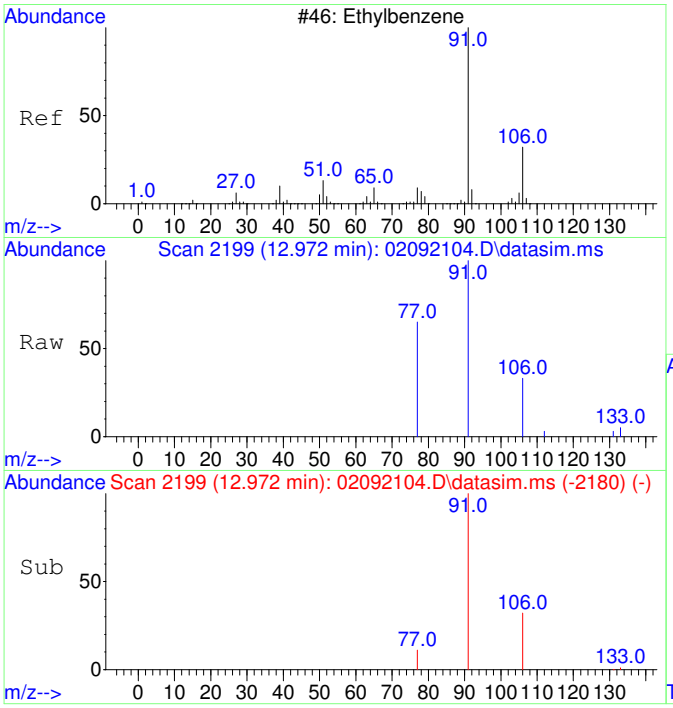


#17
1,1,1,2-Tetrachloroethane
Concen: 43.82 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:131 Resp: 536

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.3	126.3

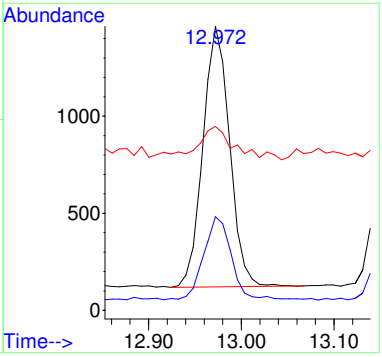


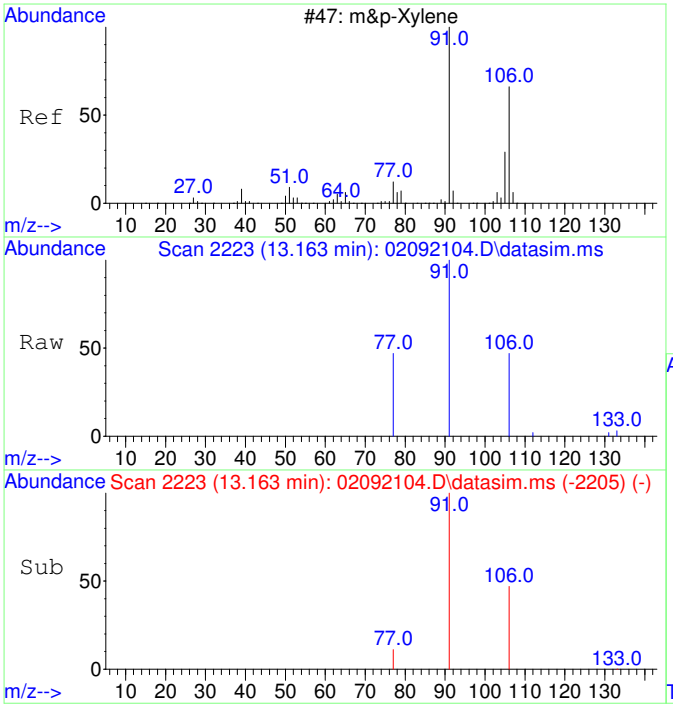


#18
Ethylbenzene
Concen: 46.53 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2681

Ion	Ratio	Lower	Upper
91	100		
106	32.2	3.0	63.0
77	18.4	0.0	38.2

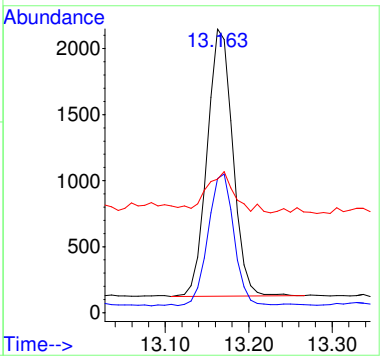


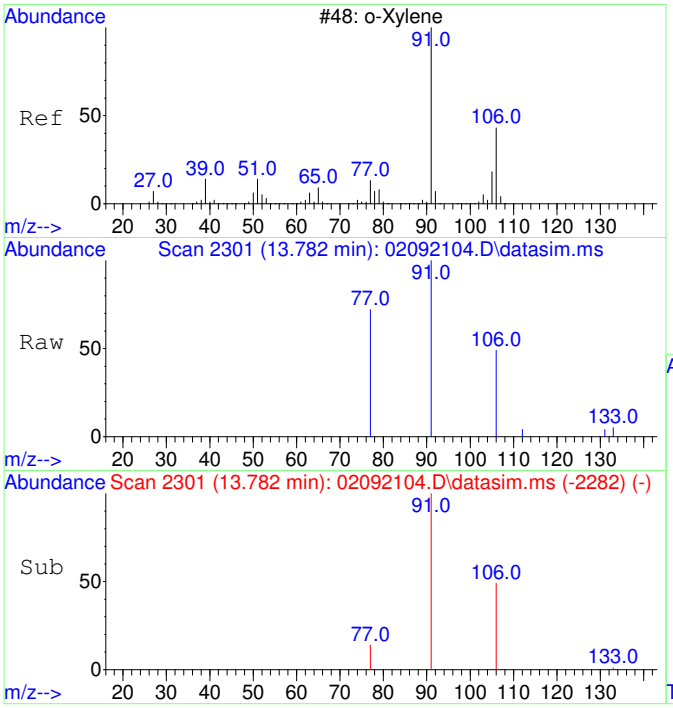


#19
m&p-Xylene
Concen: 96.98 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 4303

Ion	Ratio	Lower	Upper
91	100		
106	49.3	22.2	82.2
77	17.4	0.0	42.4

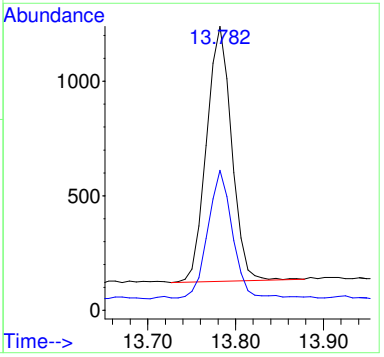


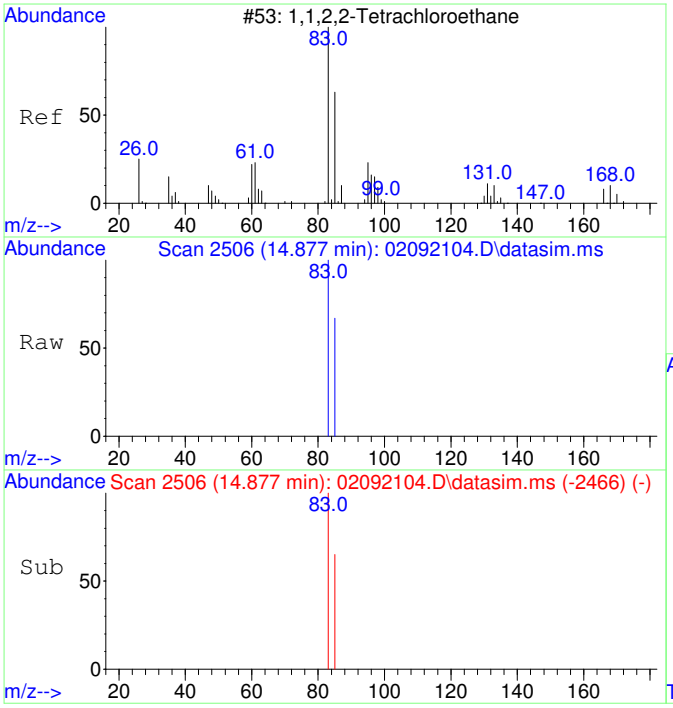


#20
o-Xylene
Concen: 46.31 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2207

Ion	Ratio	Lower	Upper
91	100		
106	48.8	19.2	79.2

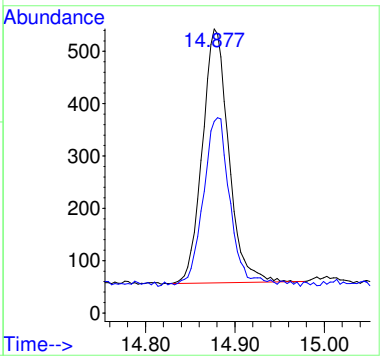


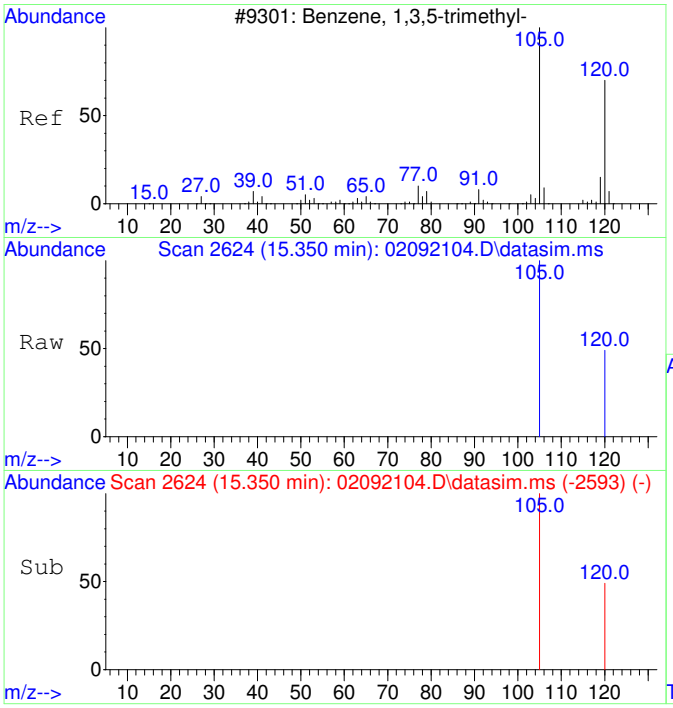


#21
1,1,2,2-Tetrachloroethane
Concen: 44.85 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 996

Ion	Ratio	Lower	Upper
83	100		
85	64.4	34.8	94.8

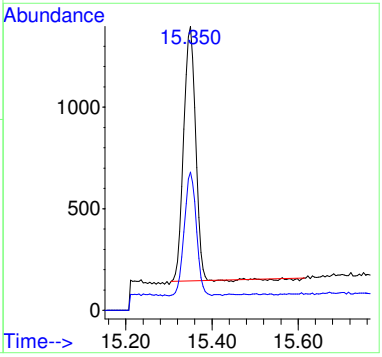


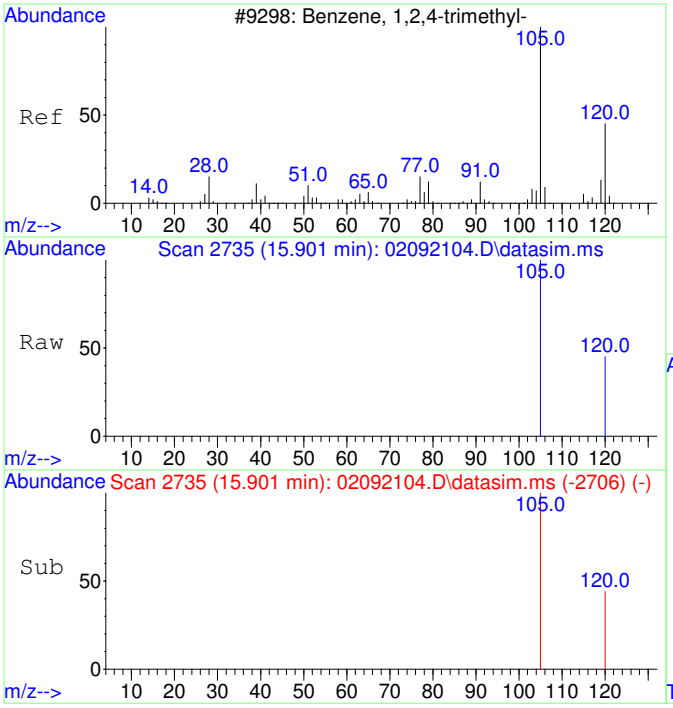


#22
1,3,5-Trimethylbenzene
Concen: 45.53 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2386

Ion	Ratio	Lower	Upper
105	100		
120	48.8	21.1	81.1

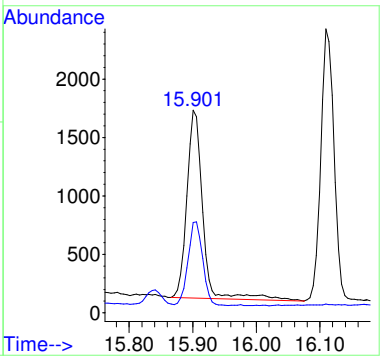


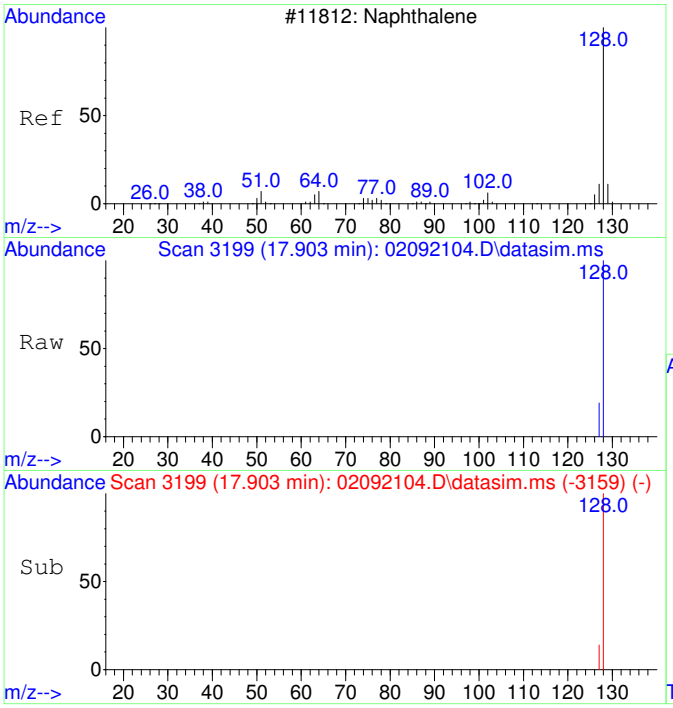


#23
1,2,4-Trimethylbenzene
Concen: 51.73 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2773

Ion	Ratio	Lower	Upper
105	100		
120	40.4	17.2	77.2

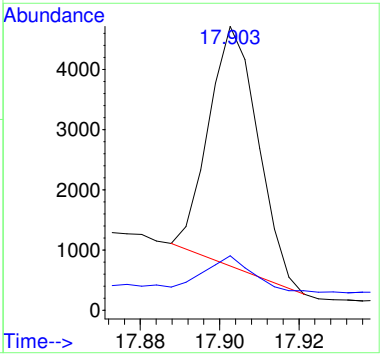


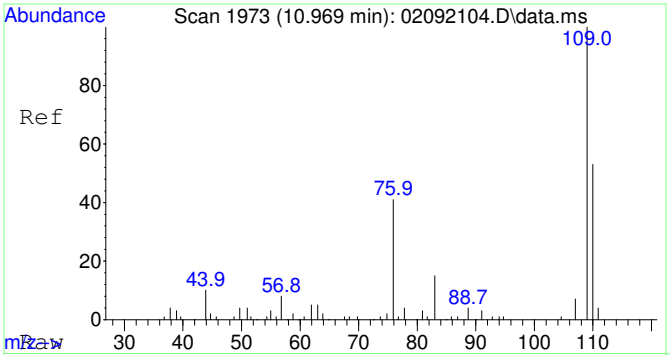


#24
Naphthalene
Concen: 38.49 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 3343

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.5

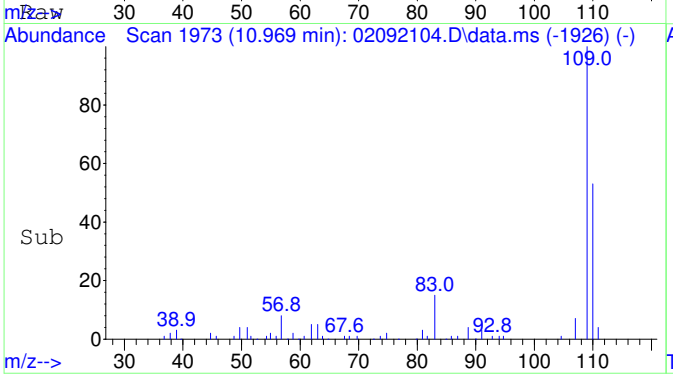


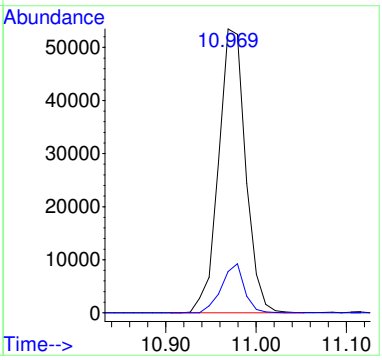


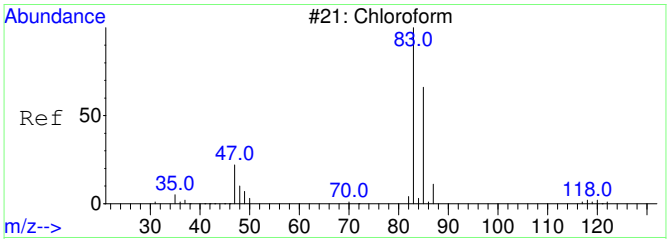
#25
2-Fluorotoluene SCAN
Concen: 5269.53 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

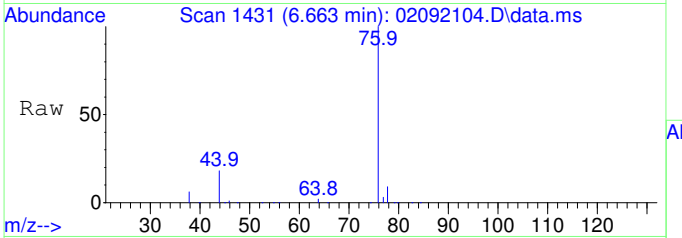
Tgt Ion:109 Resp: 111895

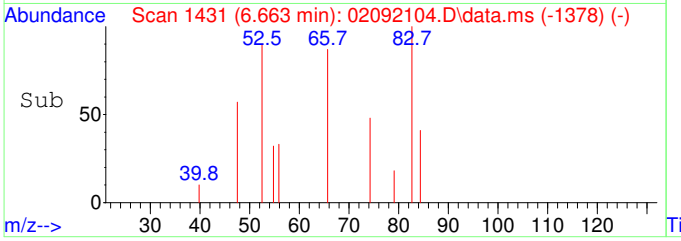
Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	43.8







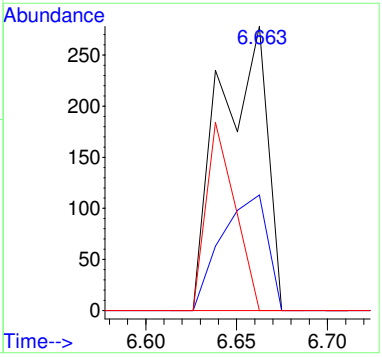


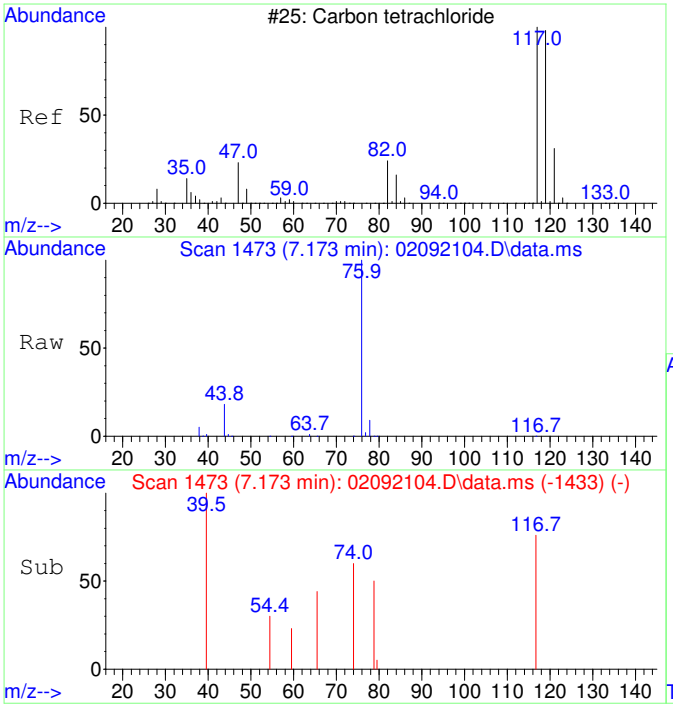


#30
Chloroform SCAN
Concen: 73.46 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 502

Ion	Ratio	Lower	Upper
83	100		
85	39.8	34.6	94.6
47	0.0	0.0	53.4

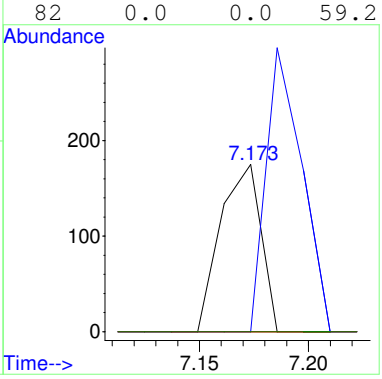


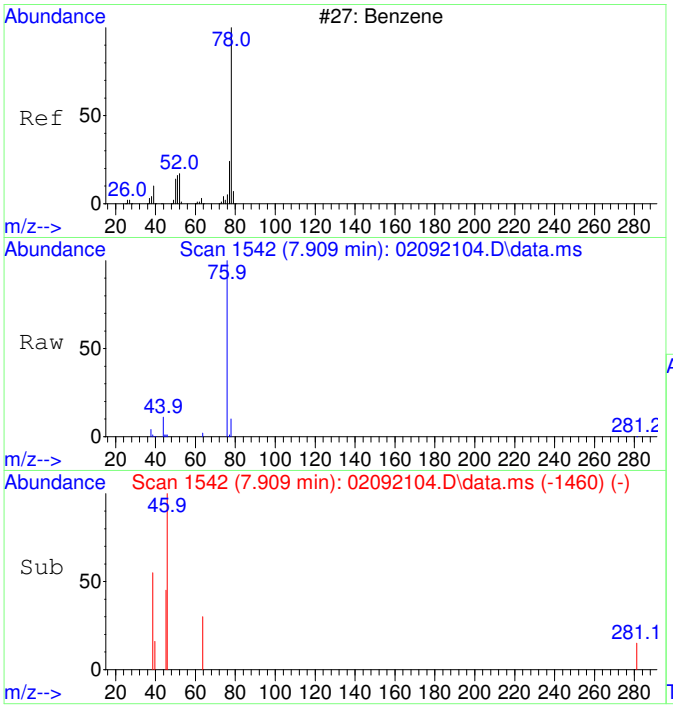


#32
Carbon tetrachloride SCAN
Concen: 37.50 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 226

Ion	Ratio	Lower	Upper
117	100		
119	150.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

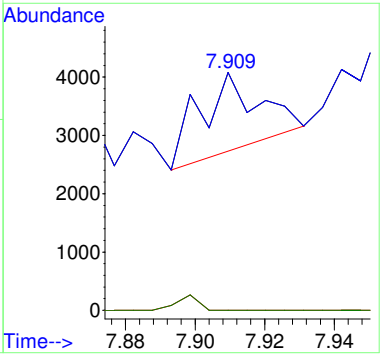


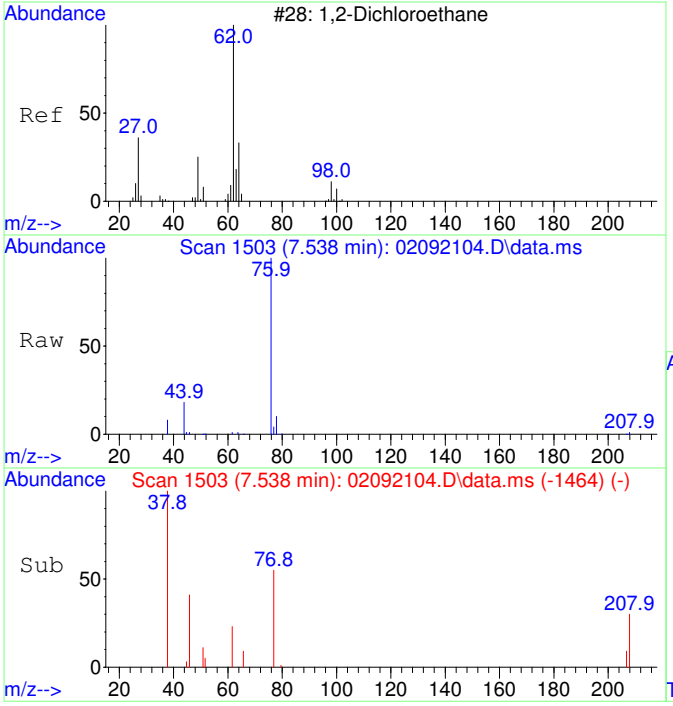


#33
Benzene SCAN
Concen: 77.53 ug/L
RT: 7.909 min Scan# 1542
Delta R.T. 0.396 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 1654

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	6.8	0.0	47.9
51	6.8	0.0	44.1

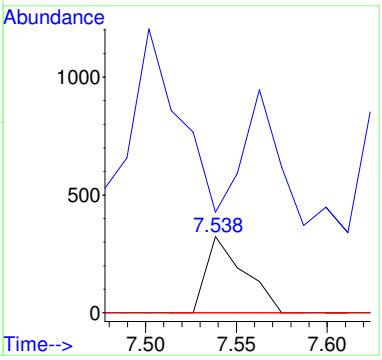


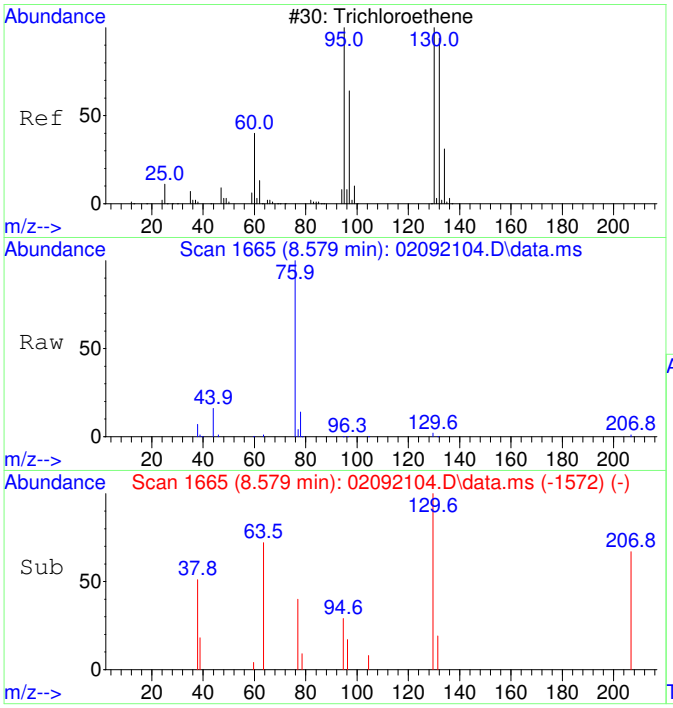


#34
1,2-Dichloroethane SCAN
Concen: 70.88 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.024 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 473

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

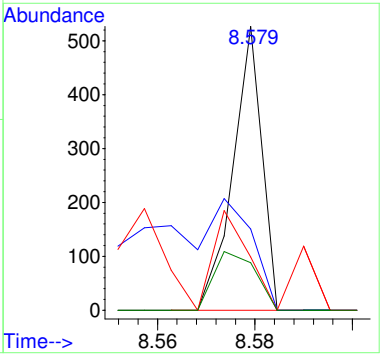


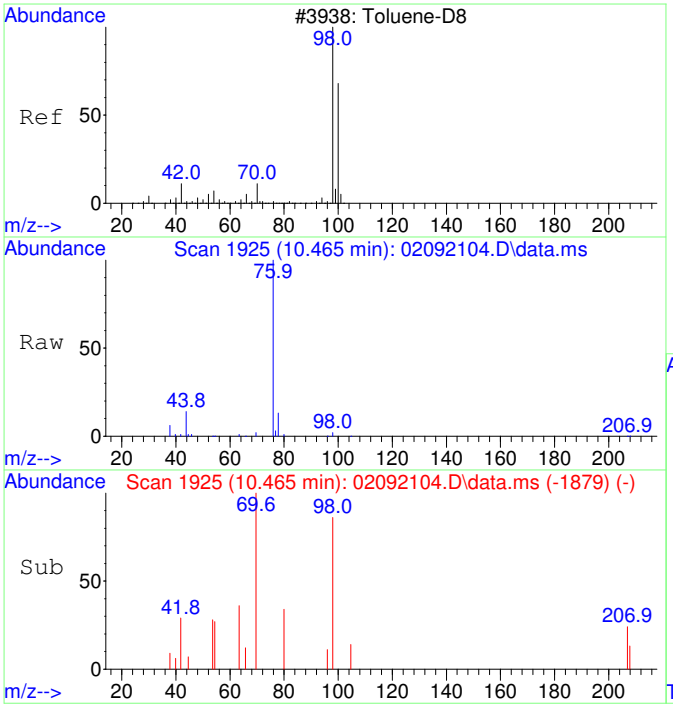


#35
Trichloroethene SCAN
Concen: 46.65 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.006 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 217

Ion	Ratio	Lower	Upper
130	100		
95	135.5	60.5	120.5#
132	42.9	59.6	119.6#
97	29.5	28.2	88.2

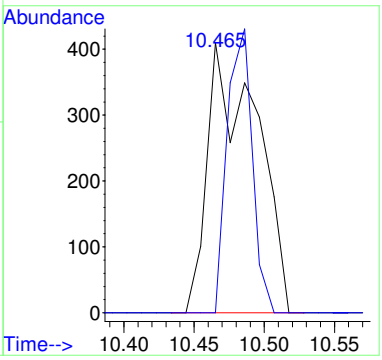


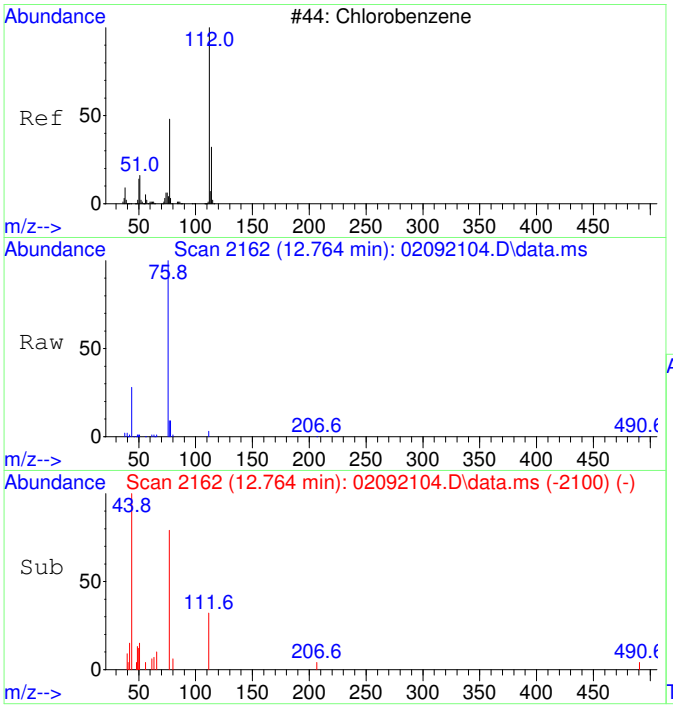


#36
Toluene-d8 SCAN
Concen: 50.31 ug/L
RT: 10.465 min Scan# 1925
Delta R.T. -0.021 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1002

Ion	Ratio	Lower	Upper
98	100		
100	0.0	40.0	100.0#

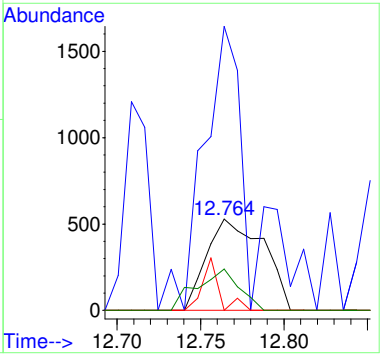


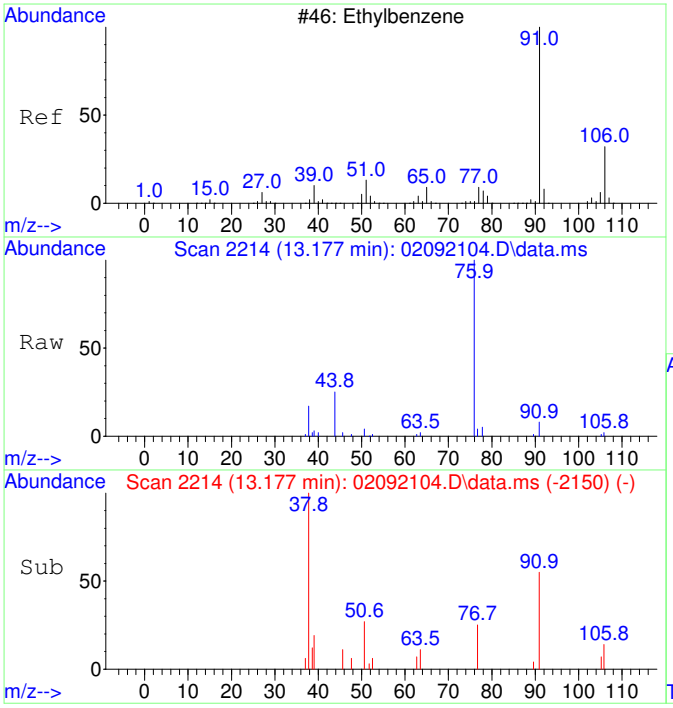


#40
Chlorobenzene SCAN
Concen: 71.20 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 1254

Ion	Ratio	Lower	Upper
112	100		
77	252.6	28.2	88.2#
114	16.9	2.3	62.3
51	33.8	0.0	50.1

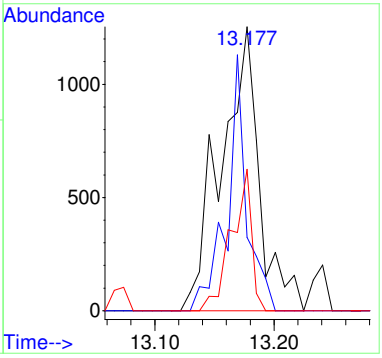


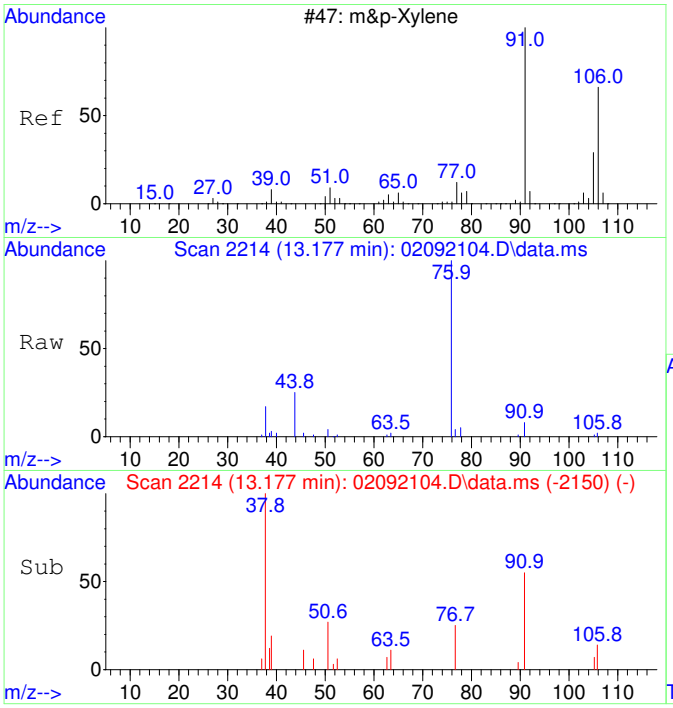


#42
Ethylbenzene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
51	26.0	0.0	40.1

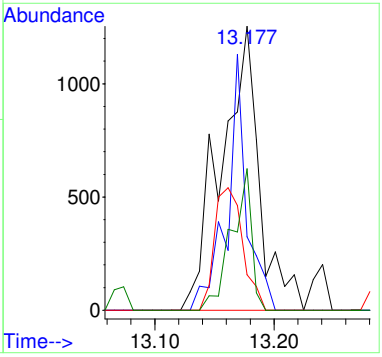


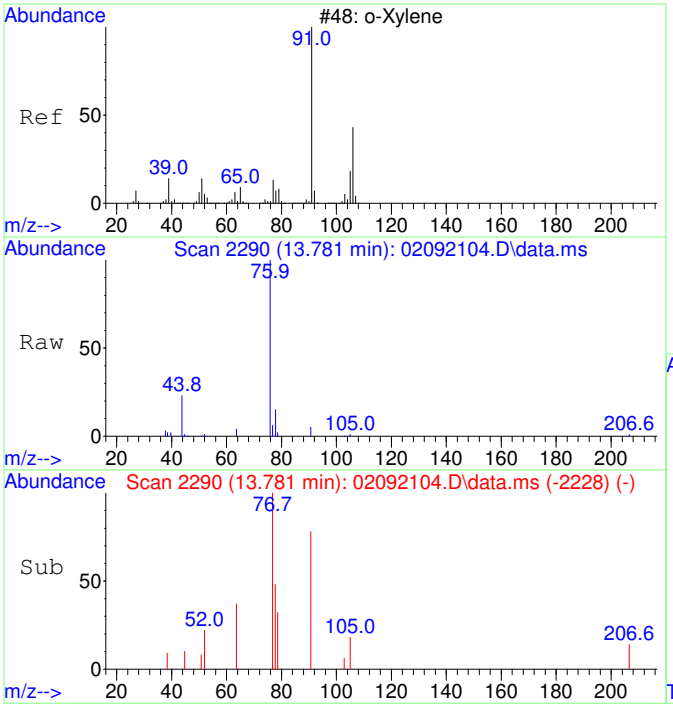


#43
m&p-Xylene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
105	31.8	0.0	54.7
51	26.0	0.0	40.1

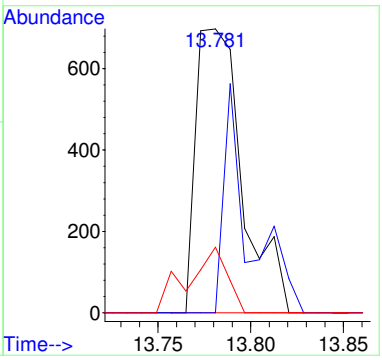


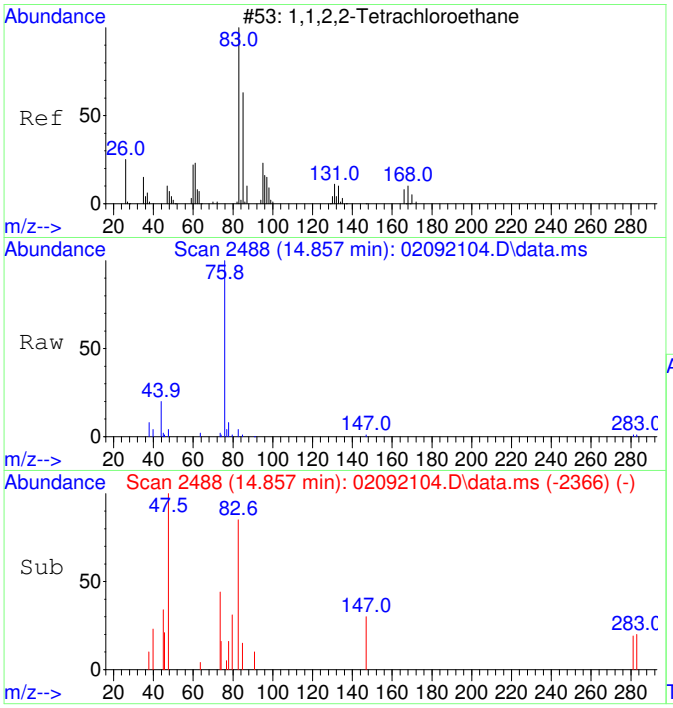


#44
o-Xylene SCAN
Concen: 47.93 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 1223

Ion	Ratio	Lower	Upper
91	100		
106	43.4	18.0	78.0
105	19.5	0.0	56.6

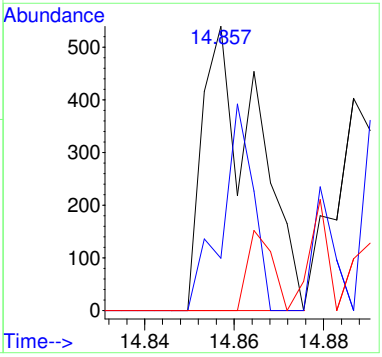


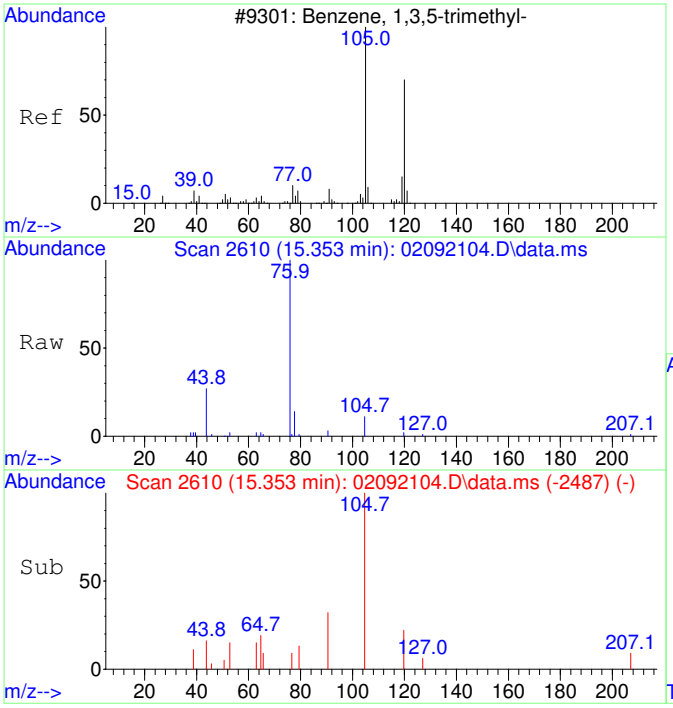


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 34.14 ug/L
RT: 14.857 min Scan# 2488
Delta R.T. -0.026 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 453

Ion	Ratio	Lower	Upper
83	100		
85	41.9	35.9	95.9
95	13.0	0.0	47.4

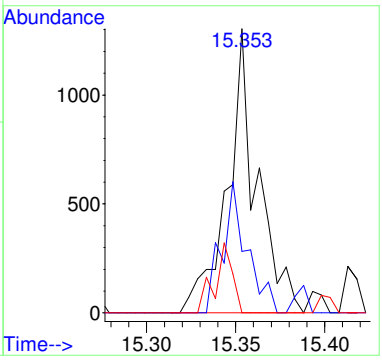


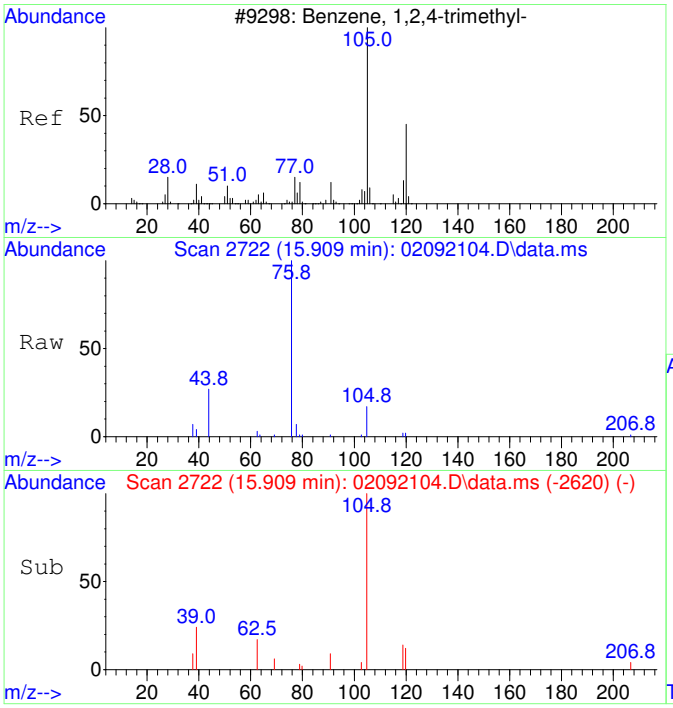


#46
1,3,5-Trimethylbenzene SCAN
Concen: 55.72 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1500

Ion	Ratio	Lower	Upper
105	100		
120	38.7	18.3	78.3
119	14.5	0.0	43.1

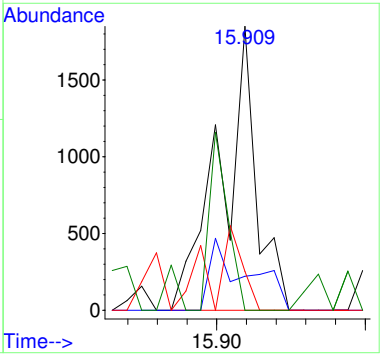


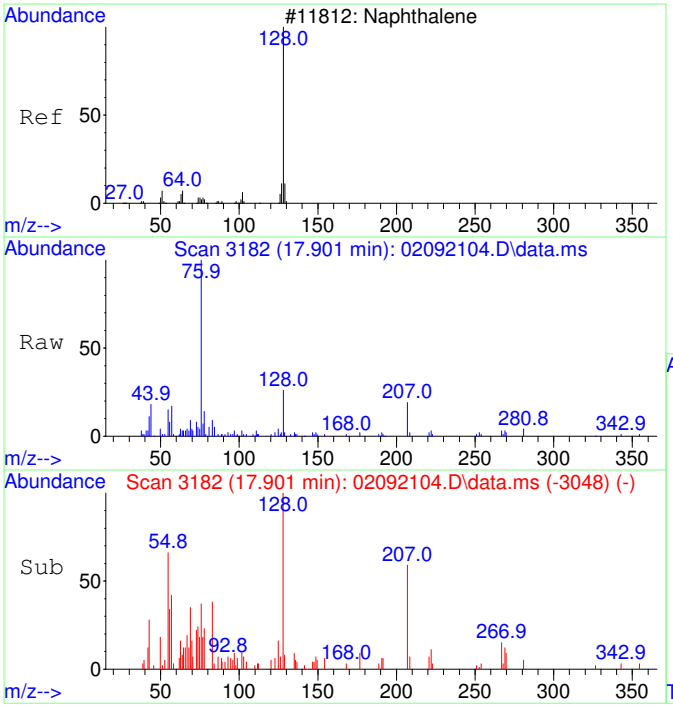


#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.21 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1546

Ion	Ratio	Lower	Upper
105	100		
120	26.4	16.9	76.9
119	15.5	0.0	41.9
77	37.9	0.0	42.3

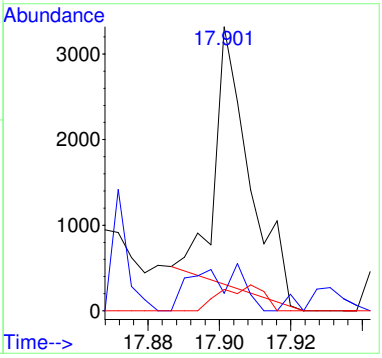




#48
Naphthalene SCAN
Concen: 47.38 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 1956

Ion	Ratio	Lower	Upper
128	100		
127	25.3	0.0	44.0
129	12.7	0.0	40.8



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 1:05 pm, Feb 09, 2021

M.I. Approved By:
ZAR at 3:06 pm, Feb 10, 2021

Quant Time: Feb 09 11:24:46 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

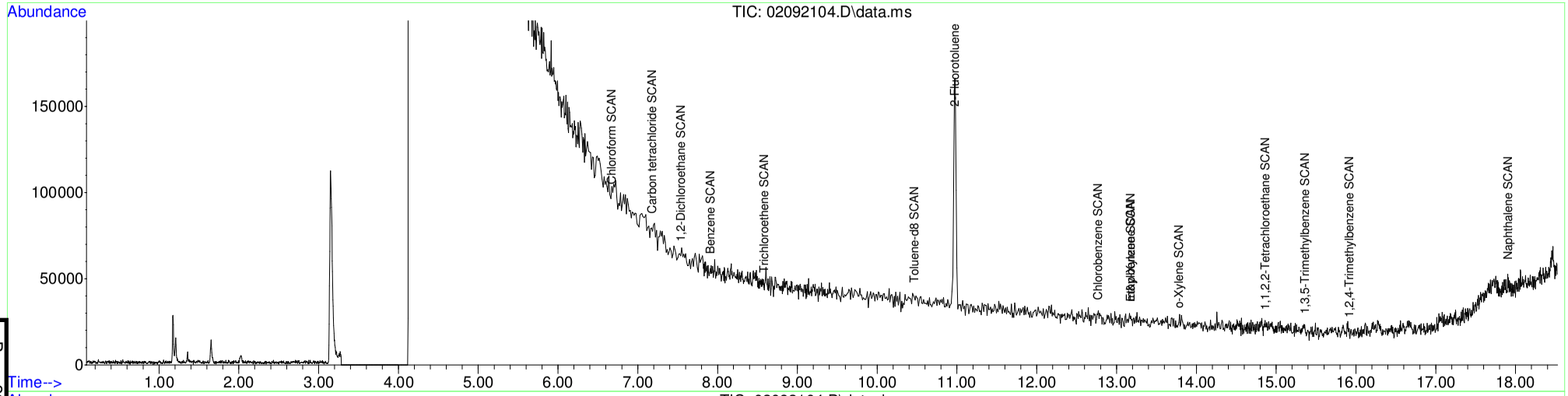
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	187070	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	1549	42.75	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 0.85%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.086	61	324m	43.68	ug/L	
3] trans-1,2-Dichloroethene	4.349	61	367	39.25	ug/L	85
4] 1,1-Dichloroethane	5.073	63	432	38.68	ug/L	78
5] cis-1,2-Dichloroethene	6.074	61	471	40.72	ug/L	98
6] Chloroform	6.652	83	528	47.52	ug/L	96
7] 1,1,1-Trichloroethane	6.907	97	527	44.15	ug/L	98
8] Carbon tetrachloride	7.175	117	490	42.94	ug/L	91
9] Benzene	7.503	78	2993	95.08	ug/L	56
10] 1,2-Dichloroethane	7.540	62	493	45.91	ug/L #	1
11] Trichloroethene	8.569	130	423	42.56	ug/L	94
13] Toluene	10.582	91	2263	50.17	ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	462	44.22	ug/L	93
15] Tetrachloroethene	11.432	166	636	45.26	ug/L	100
16] Chlorobenzene	12.765	112	2699	77.23	ug/L	88
17] 1,1,1,2-Tetrachloroethane	12.916	131	536	43.82	ug/L	83
18] Ethylbenzene	12.972	91	2681	46.53	ug/L	93
19] m&p-Xylene	13.163	91	4303	96.98	ug/L	94
20] o-Xylene	13.782	91	2207	46.31	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	996	44.85	ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	2386	45.53	ug/L	97
23] 1,2,4-Trimethylbenzene	15.901	105	2773	51.73	ug/L	90
24] Naphthalene	17.903	128	3343	38.49	ug/L	100
25) 2-Fluorotoluene SCAN	10.969	109	111895	5269.53	ug/L	98
30) Chloroform SCAN	6.663	83	502	73.46	ug/L #	64
32) Carbon tetrachloride SCAN	7.173	117	226	37.50	ug/L #	53
33) Benzene SCAN	7.909	78	1654	77.53	ug/L	95
34) 1,2-Dichloroethane SCAN	7.538	62	473	70.88	ug/L #	40
35) Trichloroethene SCAN	8.579	130	217	46.65	ug/L #	54
36) Toluene-d8 SCAN	10.465	98	1002	50.31	ug/L #	15
40) Chlorobenzene SCAN	12.764	112	1254	71.20	ug/L #	1
42) Ethylbenzene SCAN	13.177	91	2813	60.20	ug/L	84
43) m&p-Xylene SCAN	13.177	91	2813	60.20	ug/L	85
44) o-Xylene SCAN	13.781	91	1223	47.93	ug/L	91
45) 1,1,2,2-Tetrachloroeth...	14.857	83	453	34.14	ug/L	74
46) 1,3,5-Trimethylbenzene...	15.353	105	1500	55.72	ug/L	88
47) 1,2,4-Trimethylbenzene...	15.909	105	1546	56.21	ug/L	67
48) Naphthalene SCAN	17.901	128	1956	47.38	ug/L	82

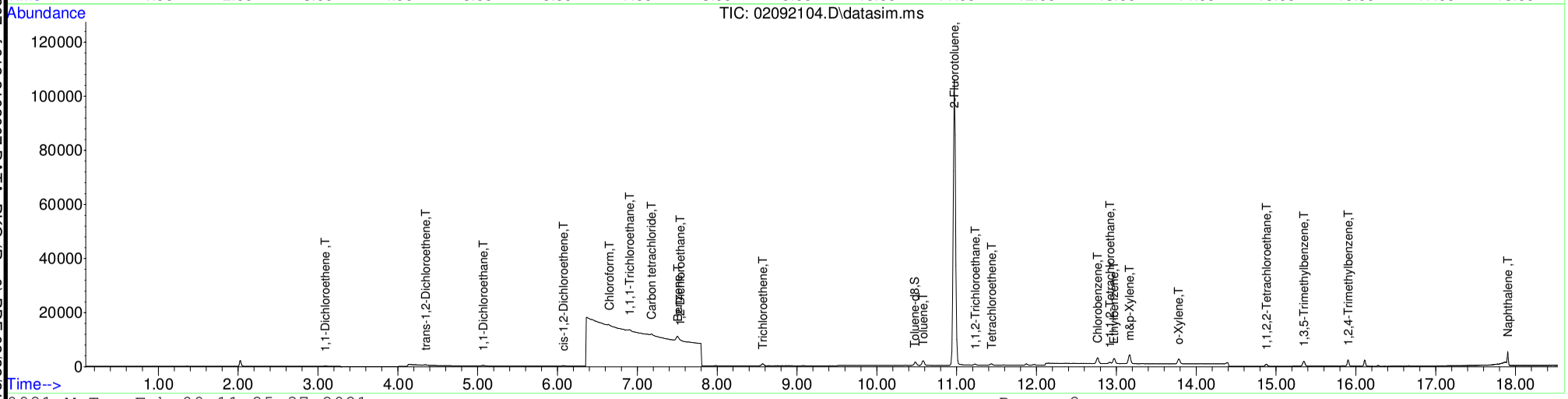
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 11:24:46 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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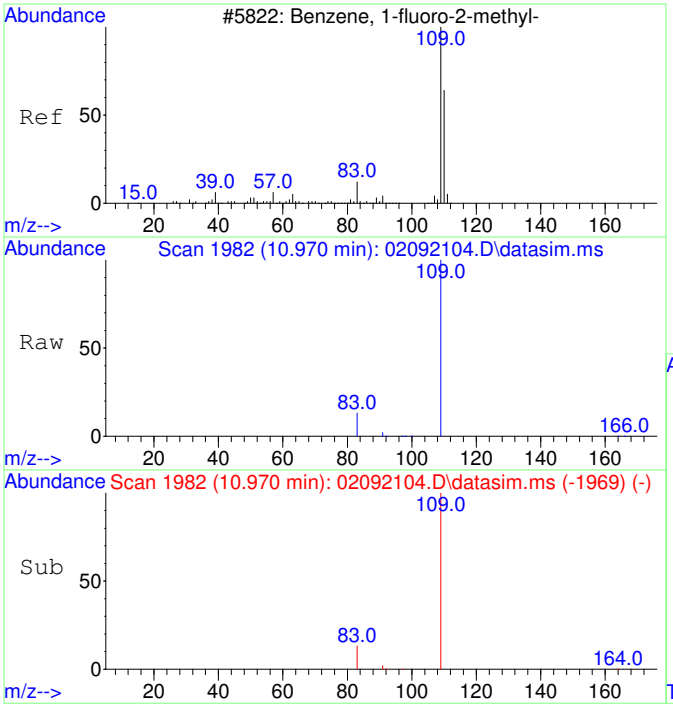
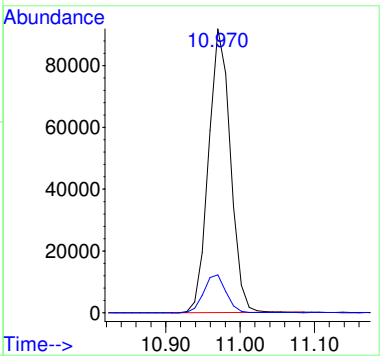
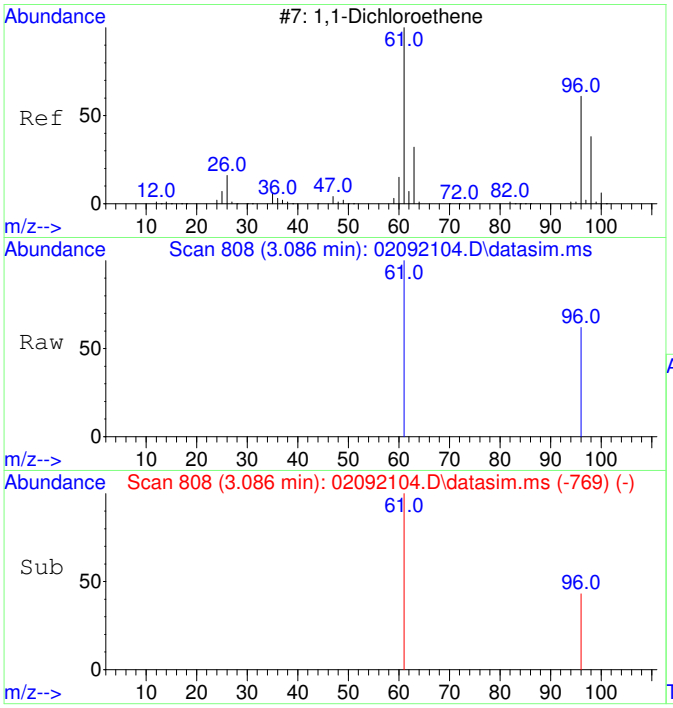


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:109 Resp: 187070

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

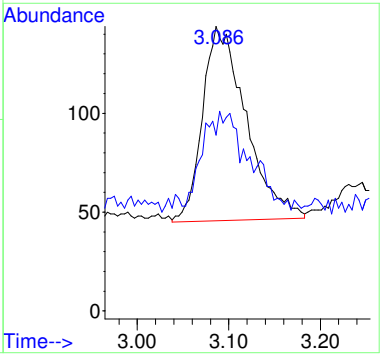


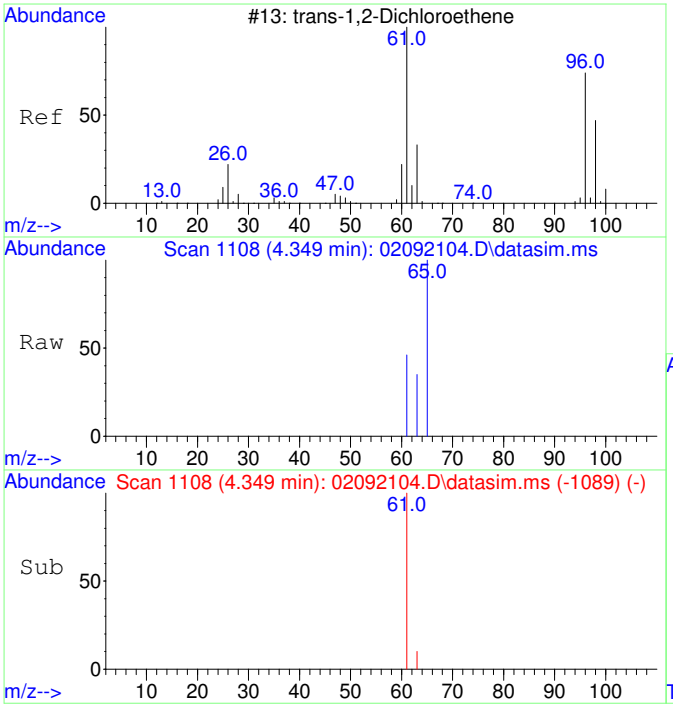


#2
1,1-Dichloroethene
Concen: 43.68 ug/L m
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 324

Ion	Ratio	Lower	Upper
61	100		
96	73.5	37.2	97.2

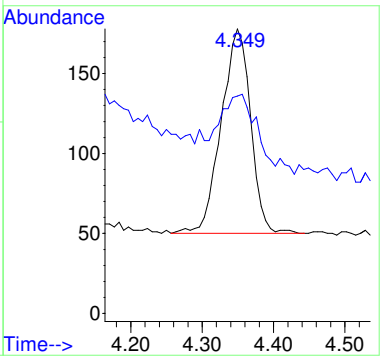


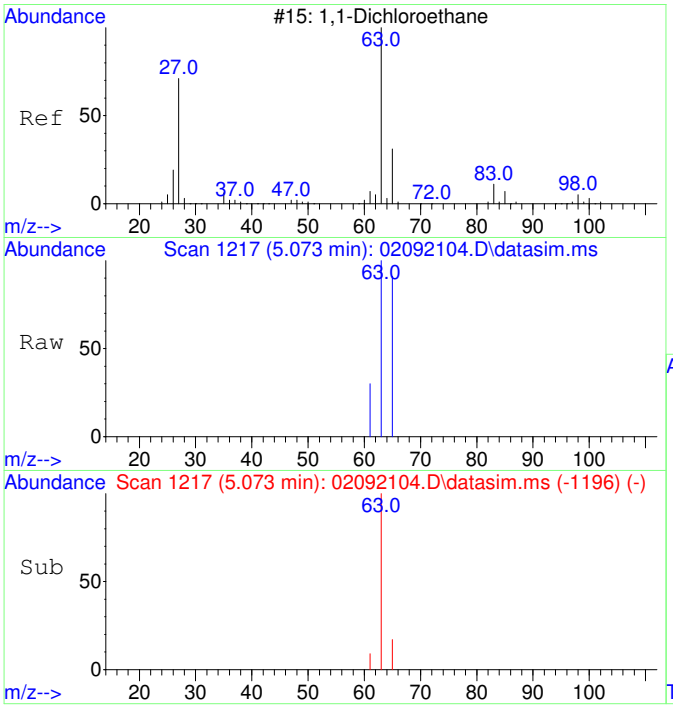


#3
trans-1,2-Dichloroethene
Concen: 39.25 ug/L
RT: 4.349 min Scan# 1108
Delta R.T. -0.027 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 367

Ion	Ratio	Lower	Upper
61	100		
63	40.6	2.4	62.4

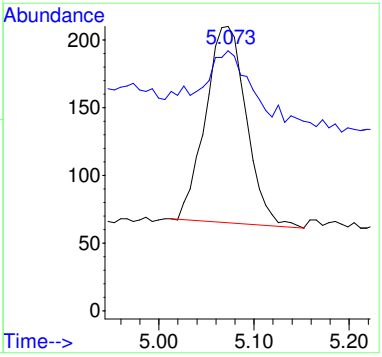


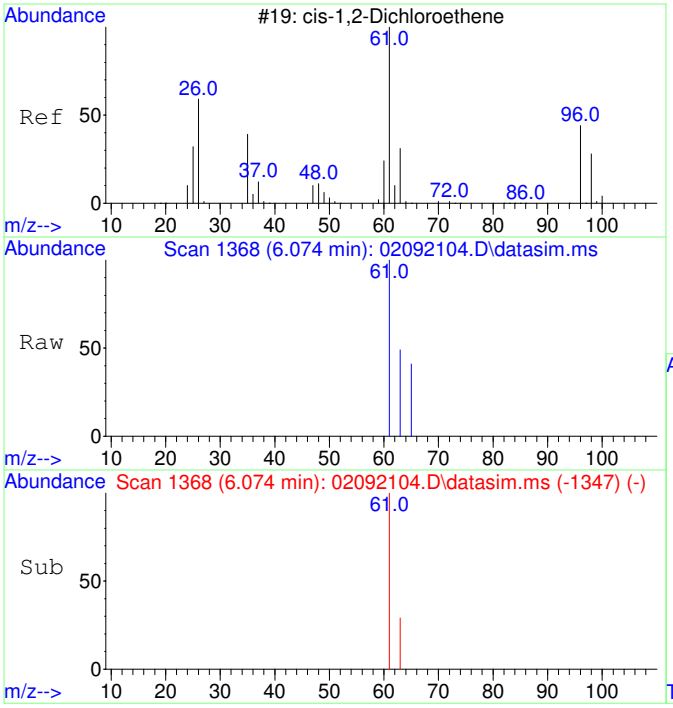


#4
1,1-Dichloroethane
Concen: 38.68 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. -0.013 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 63 Resp: 432

Ion	Ratio	Lower	Upper
63	100		
65	44.2	1.8	61.8

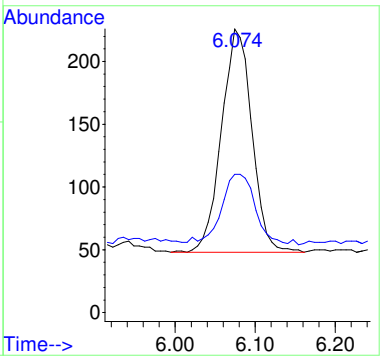


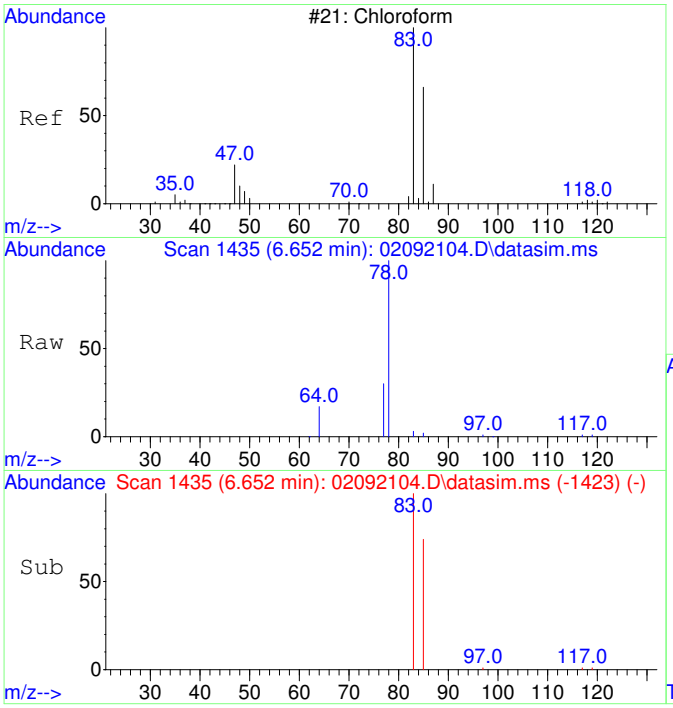


#5
cis-1,2-Dichloroethene
Concen: 40.72 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.014 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 471

Ion	Ratio	Lower	Upper
61	100		
63	33.5	2.5	62.5

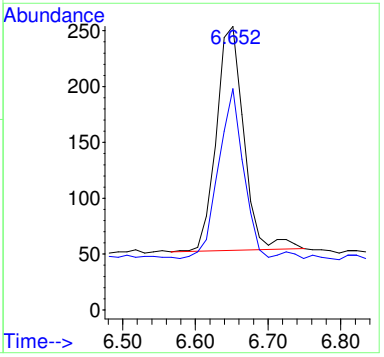


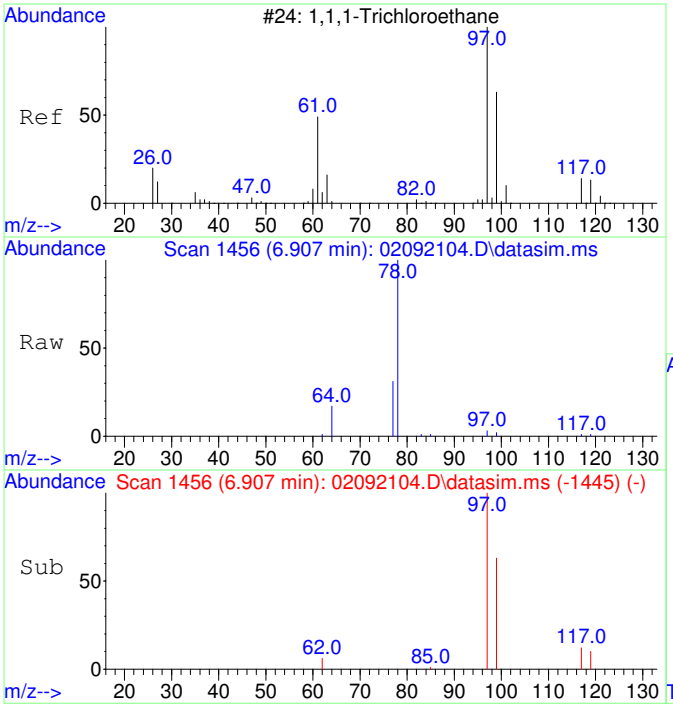


#6
Chloroform
Concen: 47.52 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 528

Ion	Ratio	Lower	Upper
83	100		
85	68.2	35.1	95.1

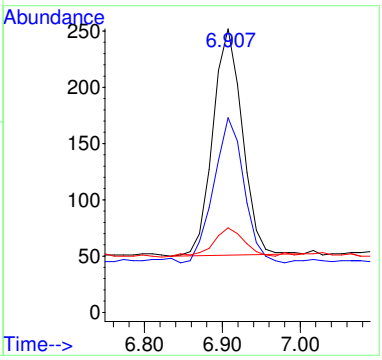


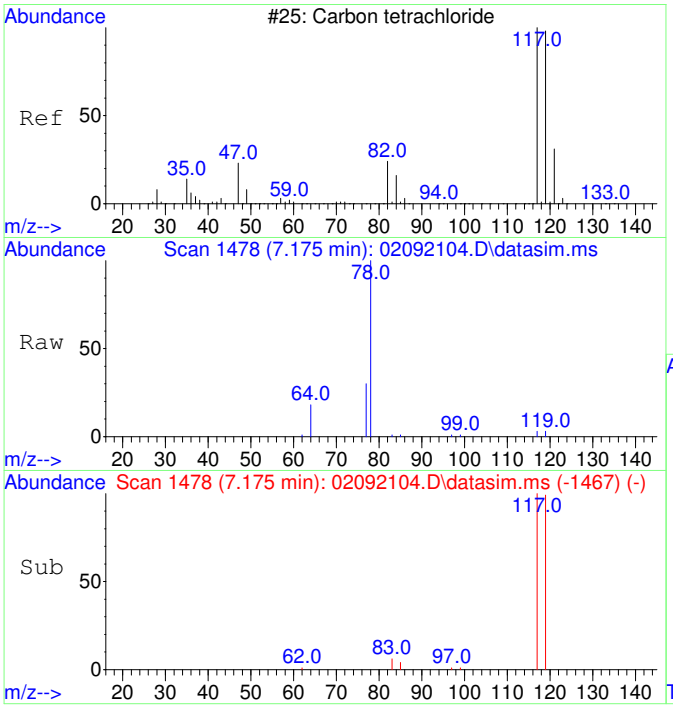


#7
1,1,1-Trichloroethane
Concen: 44.15 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 527

Ion	Ratio	Lower	Upper
97	100		
99	66.0	34.6	94.6
117	14.4	0.0	43.2

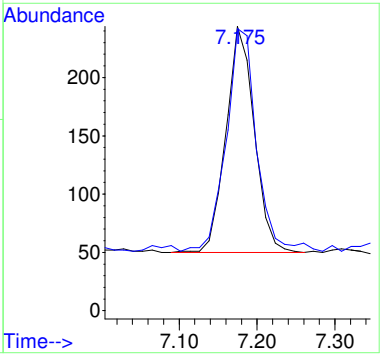


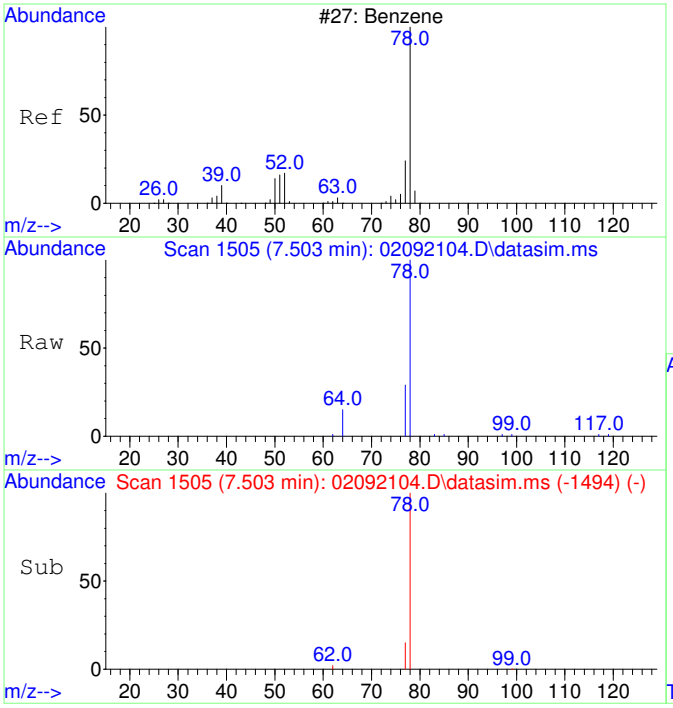


#8
Carbon tetrachloride
Concen: 42.94 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 490

Ion	Ratio	Lower	Upper
117	100		
119	105.3	66.4	126.4

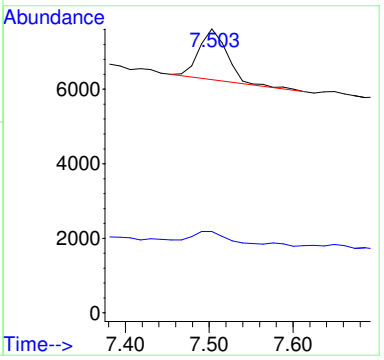


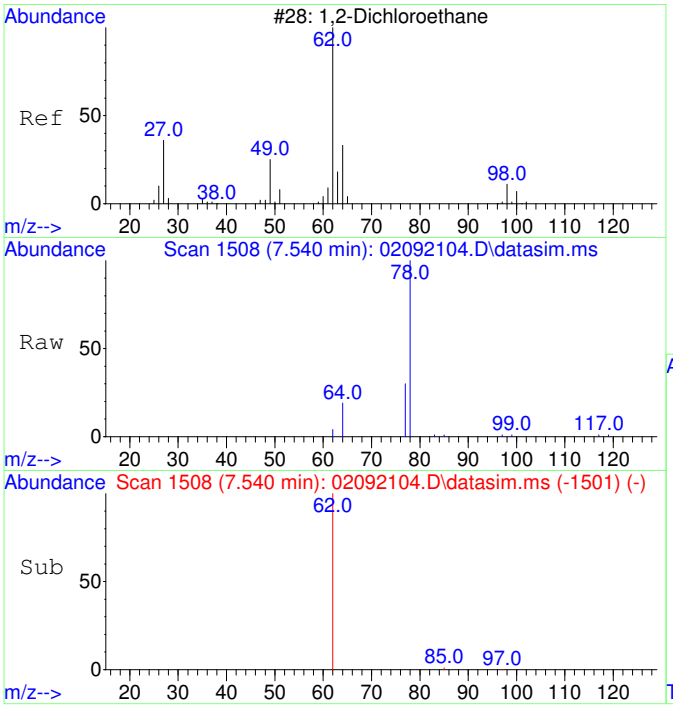


#9
Benzene
Concen: 95.08 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 2993

Ion	Ratio	Lower	Upper
78	100		
77	44.8	0.0	53.2

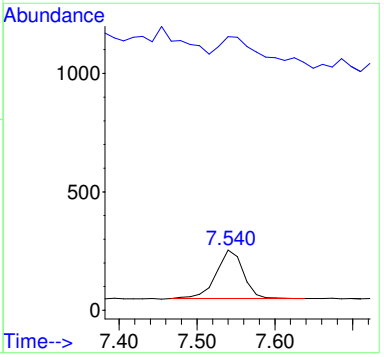


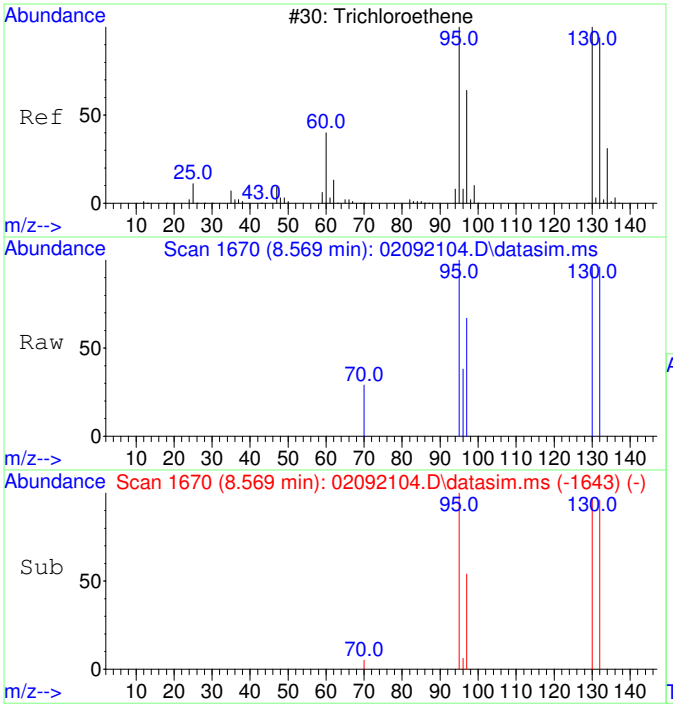


#10
1,2-Dichloroethane
Concen: 45.91 ug/L
RT: 7.540 min Scan# 1508
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 493

Ion	Ratio	Lower	Upper
62	100		
64	104.9	2.3	62.3#

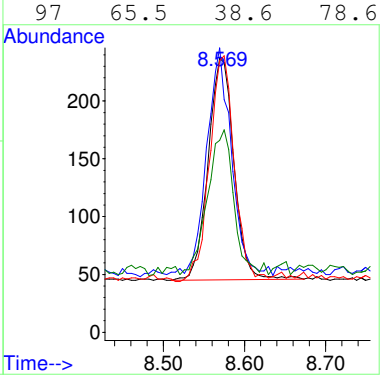


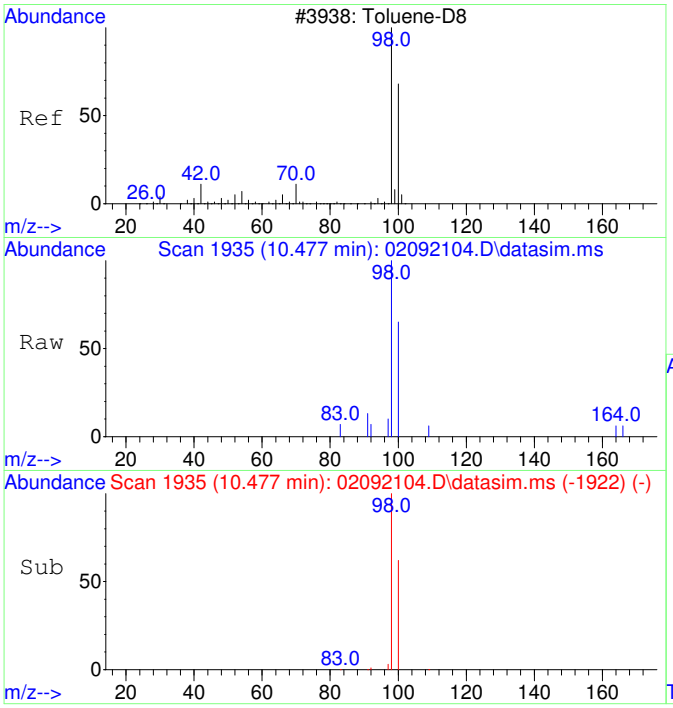


#11
Trichloroethene
Concen: 42.56 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 423

Ion	Ratio	Lower	Upper
130	100		
95	97.4	60.7	120.7
132	98.3	76.0	116.0
97	65.5	38.6	78.6

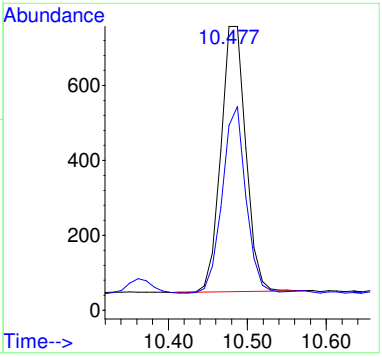


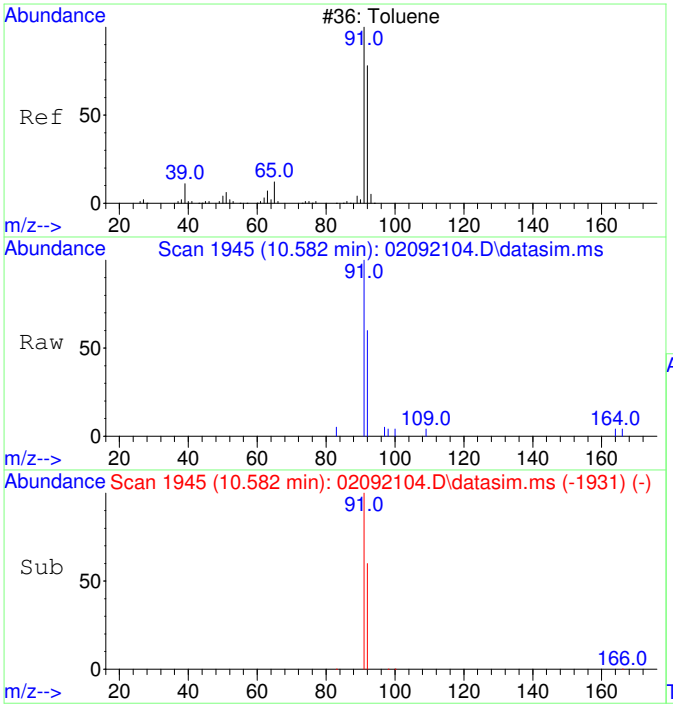


#12
Toluene-d8
Concen: 42.75 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1549

Ion	Ratio	Lower	Upper
98	100		
100	65.8	37.1	97.1

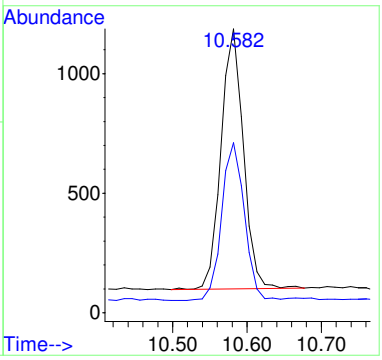


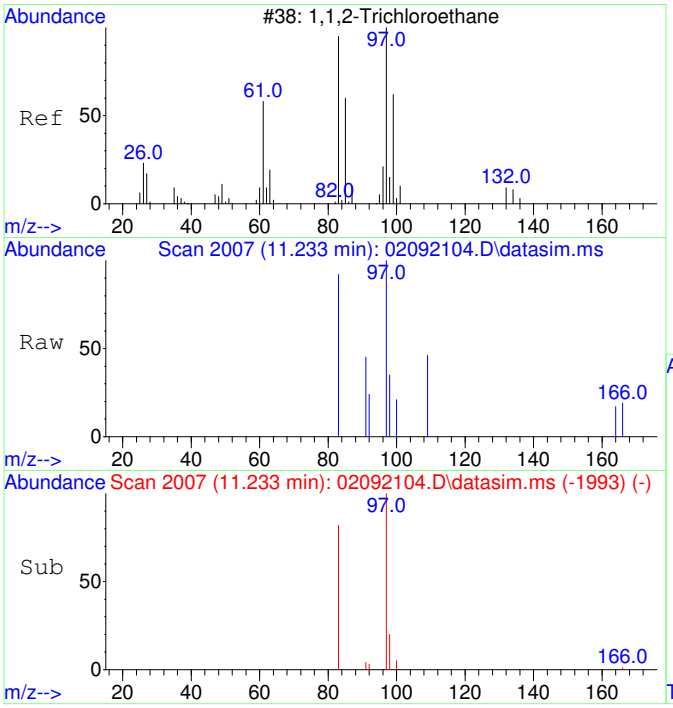


#13
Toluene
Concen: 50.17 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2263

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.9	89.9

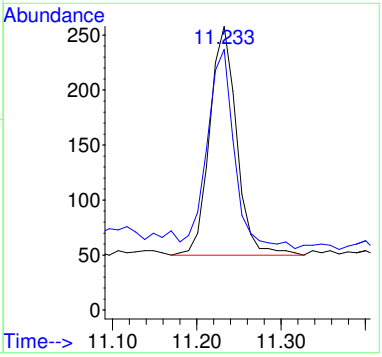


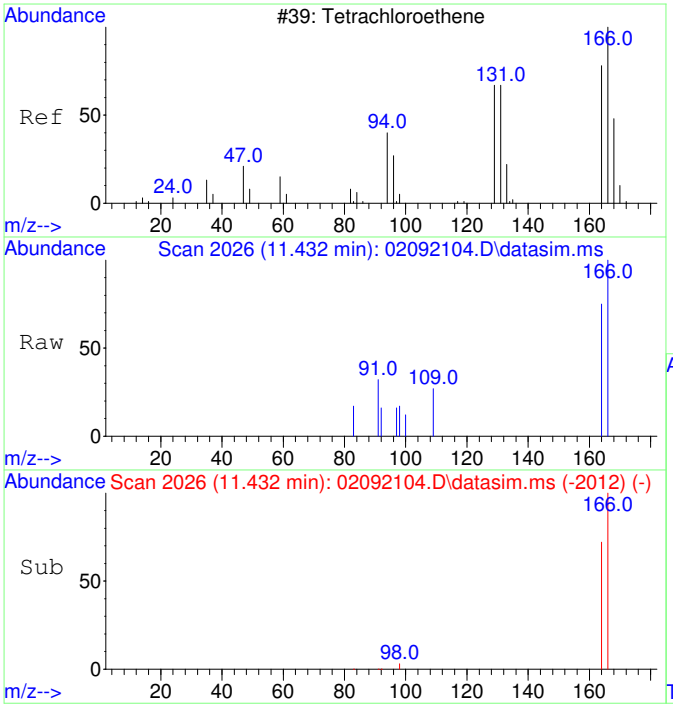


#14
1,1,2-Trichloroethane
Concen: 44.22 ug/L
RT: 11.233 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 462

Ion	Ratio	Lower	Upper
97	100		
83	87.7	51.2	111.2

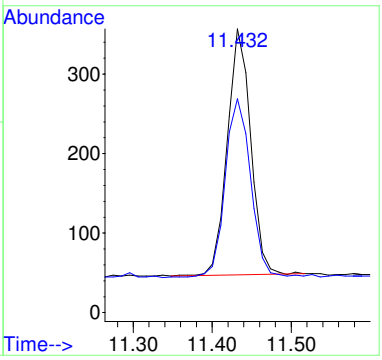


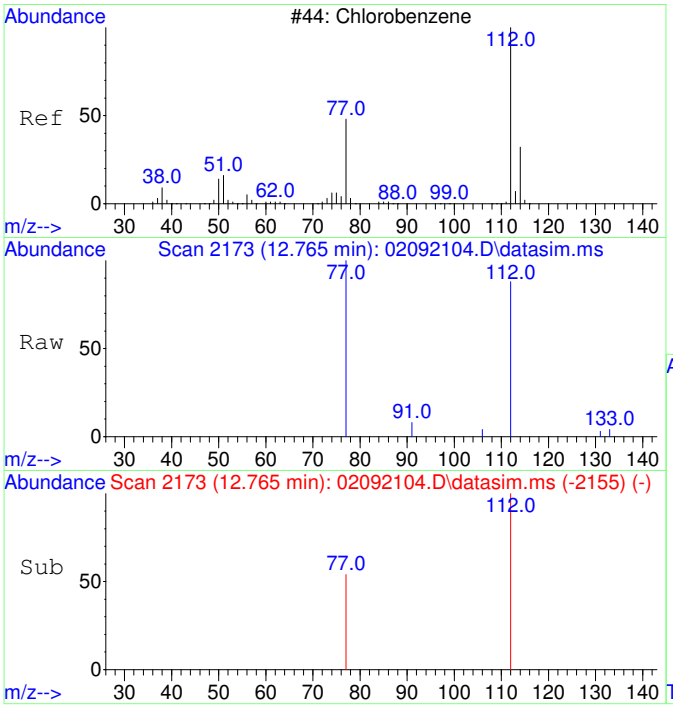


#15
Tetrachloroethene
Concen: 45.26 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:166 Resp: 636

Ion	Ratio	Lower	Upper
166	100		
164	78.0	47.8	107.8

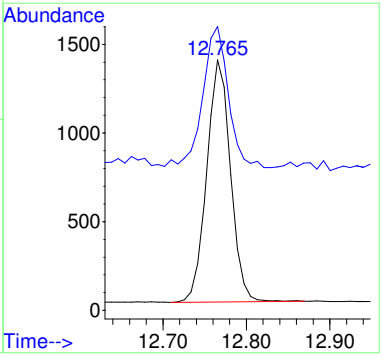


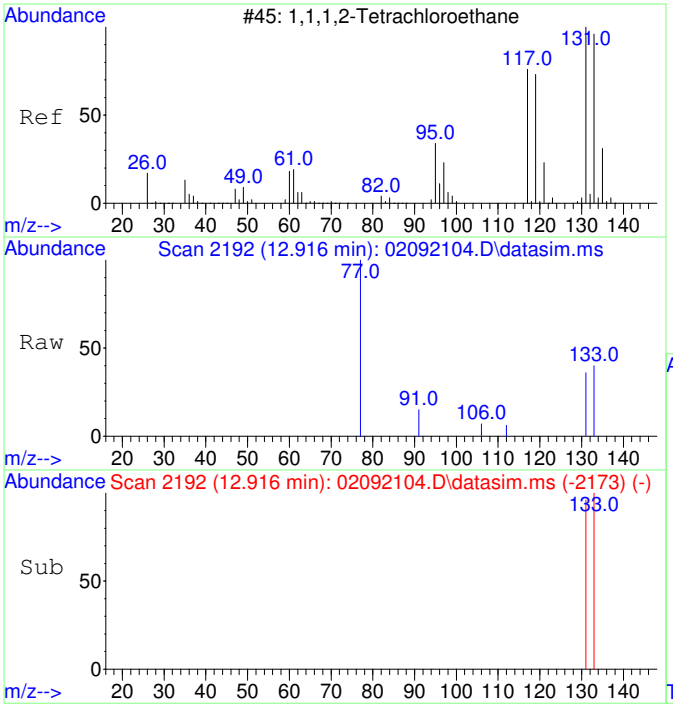


#16
Chlorobenzene
Concen: 77.23 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 2699

Ion	Ratio	Lower	Upper
112	100		
77	61.9	23.6	83.6

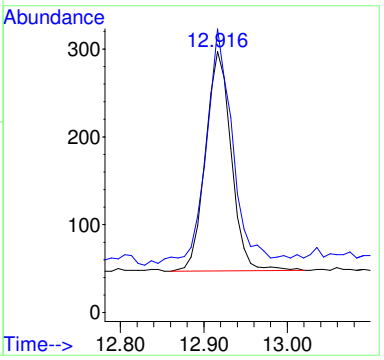


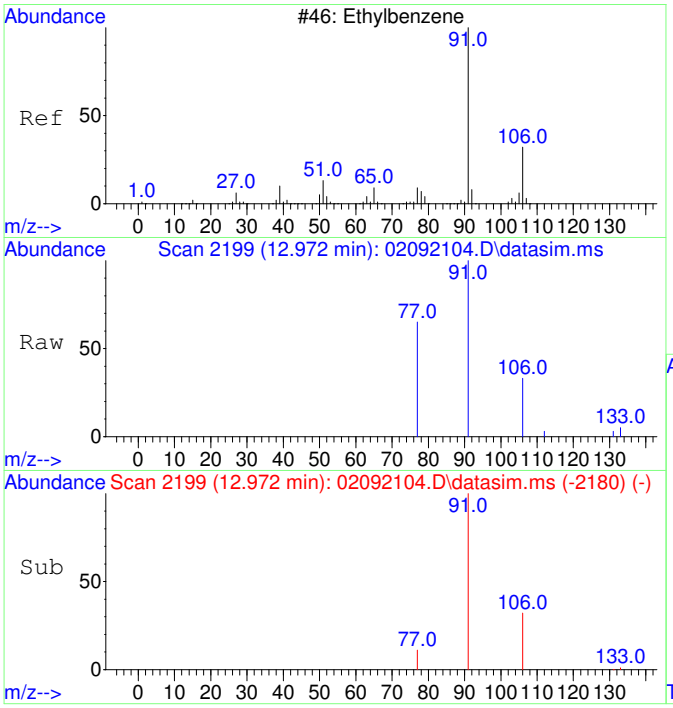


#17
1,1,1,2-Tetrachloroethane
Concen: 43.82 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:131 Resp: 536

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.3	126.3

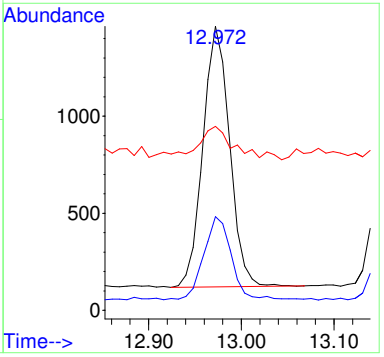


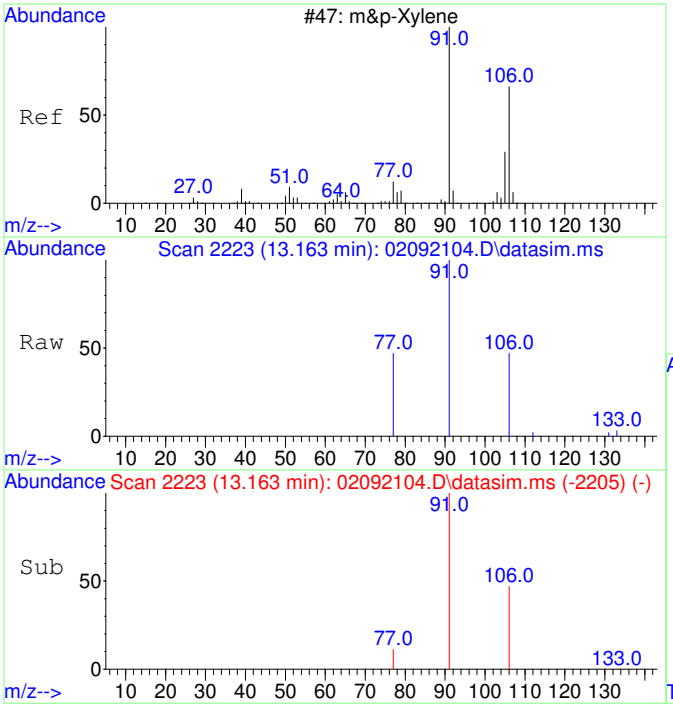


#18
Ethylbenzene
Concen: 46.53 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2681

Ion	Ratio	Lower	Upper
91	100		
106	32.2	3.0	63.0
77	18.4	0.0	38.2

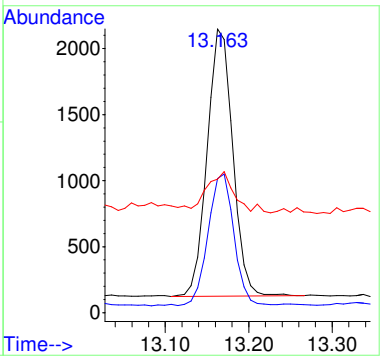


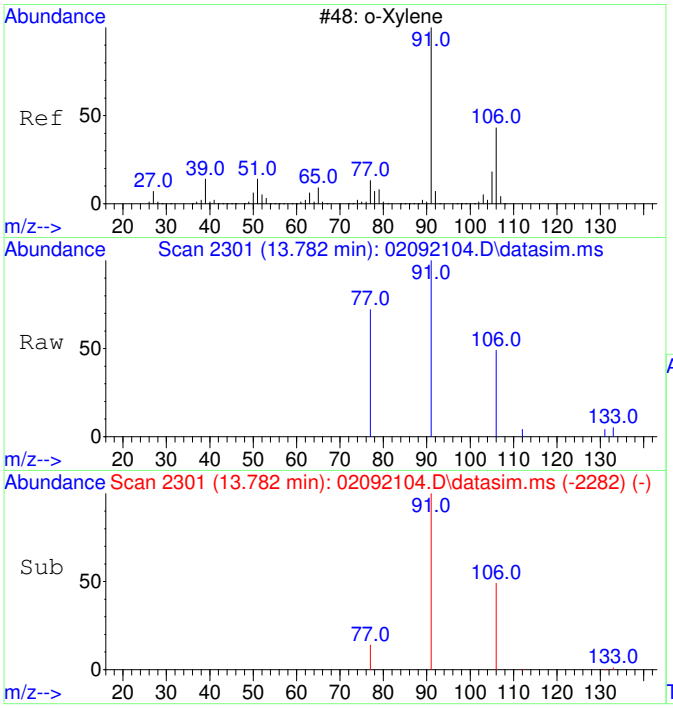


#19
m&p-Xylene
Concen: 96.98 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 4303

Ion	Ratio	Lower	Upper
91	100		
106	49.3	22.2	82.2
77	17.4	0.0	42.4

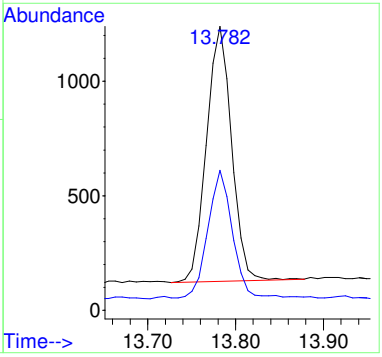


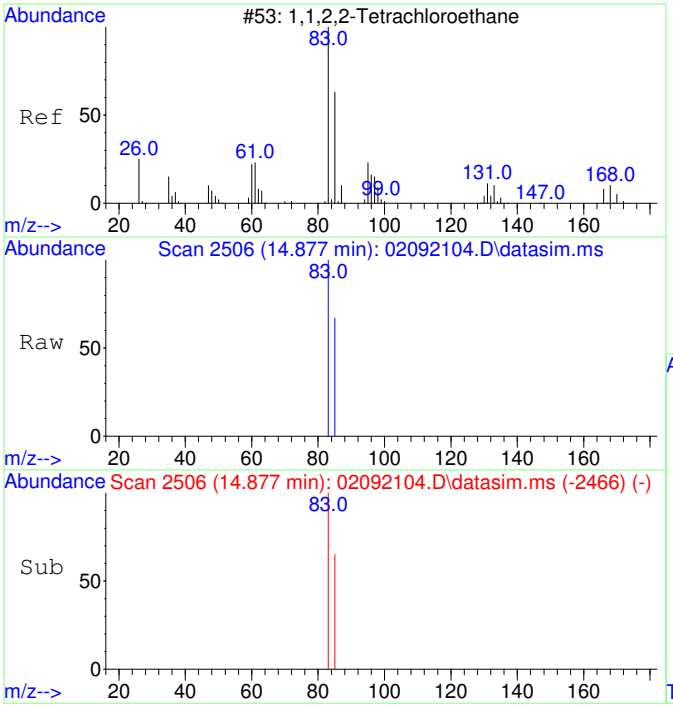


#20
o-Xylene
Concen: 46.31 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2207

Ion	Ratio	Lower	Upper
91	100		
106	48.8	19.2	79.2

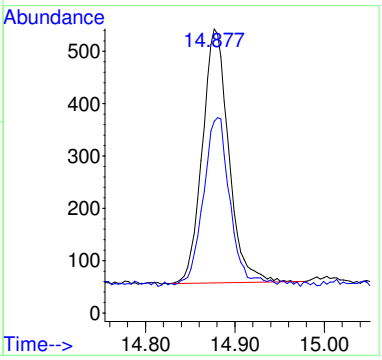


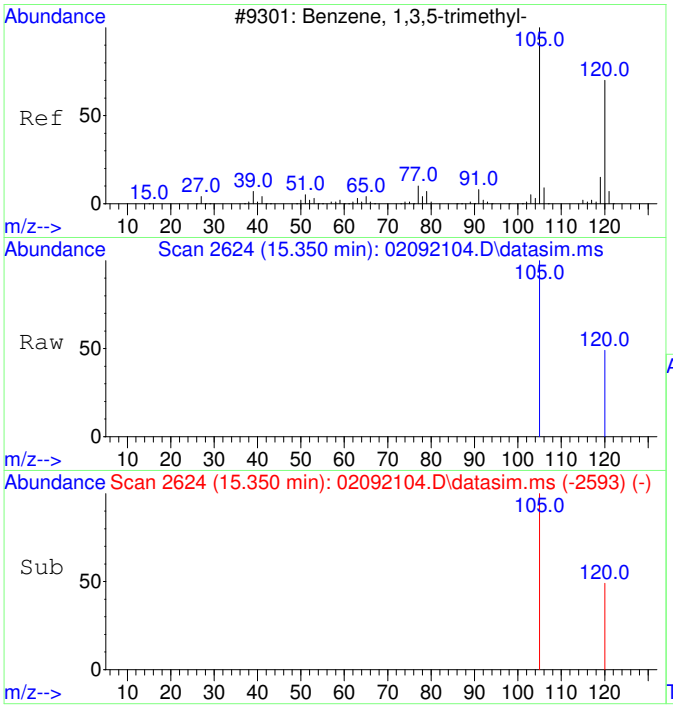


#21
1,1,2,2-Tetrachloroethane
Concen: 44.85 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 996

Ion	Ratio	Lower	Upper
83	100		
85	64.4	34.8	94.8

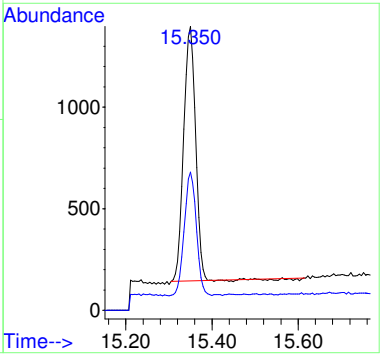


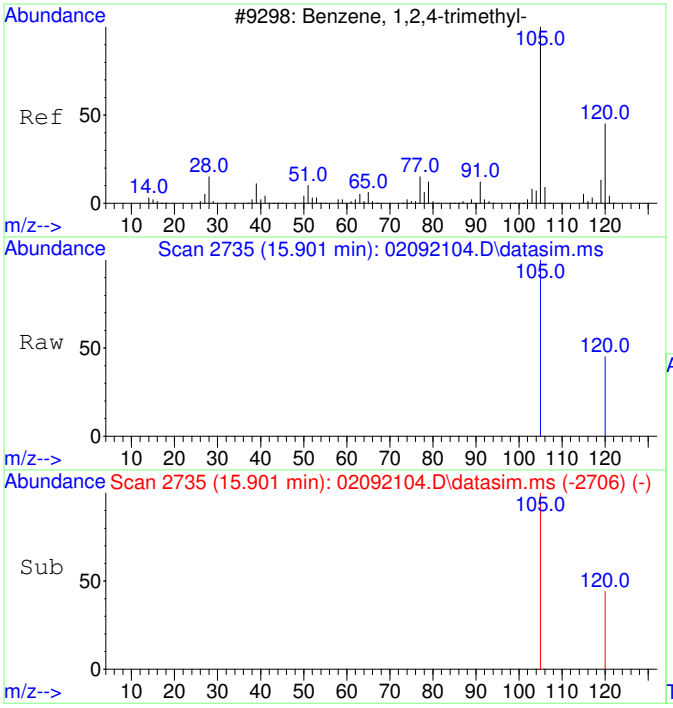


#22
1,3,5-Trimethylbenzene
Concen: 45.53 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2386

Ion	Ratio	Lower	Upper
105	100		
120	48.8	21.1	81.1

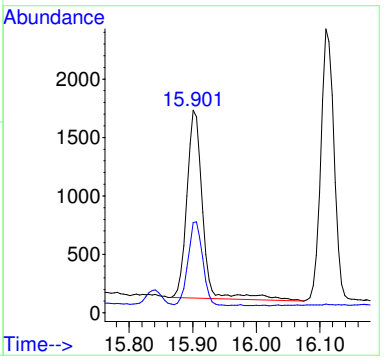


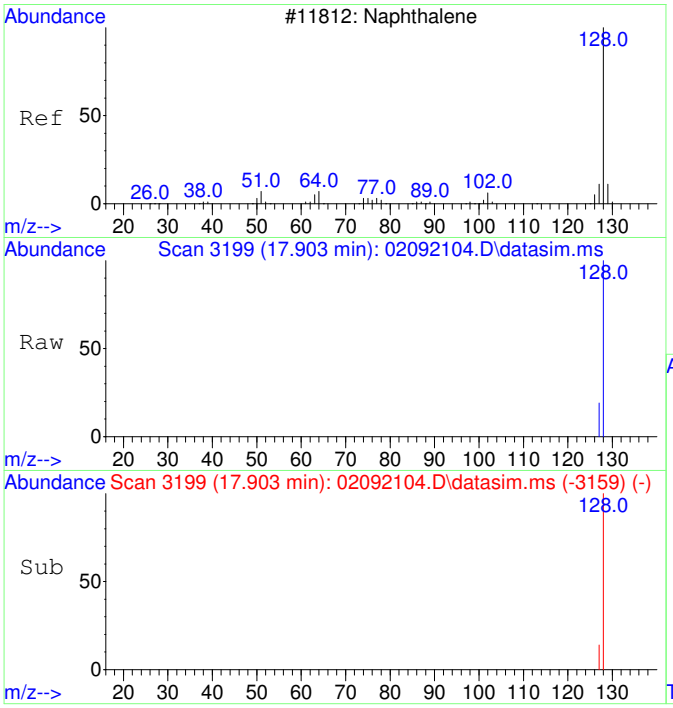


#23
1,2,4-Trimethylbenzene
Concen: 51.73 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2773

Ion	Ratio	Lower	Upper
105	100		
120	40.4	17.2	77.2

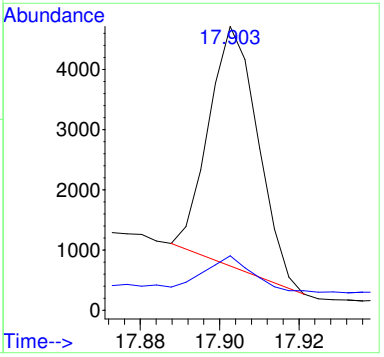


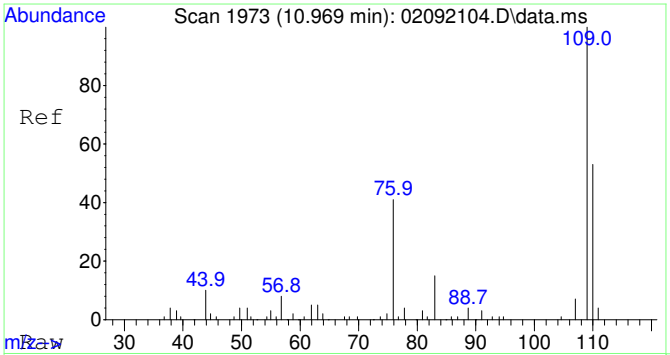


#24
Naphthalene
Concen: 38.49 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 3343

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.5

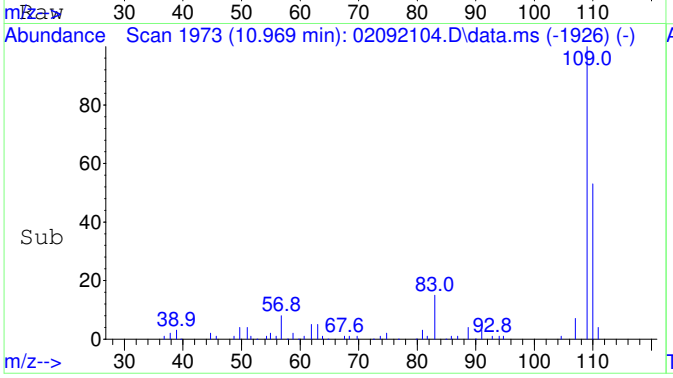


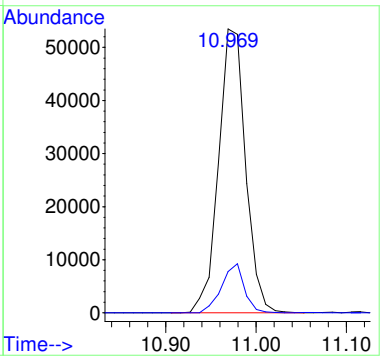


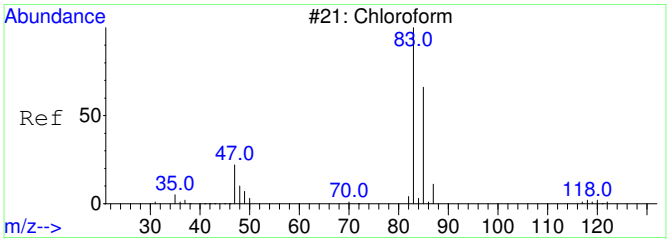
#25
2-Fluorotoluene SCAN
Concen: 5269.53 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

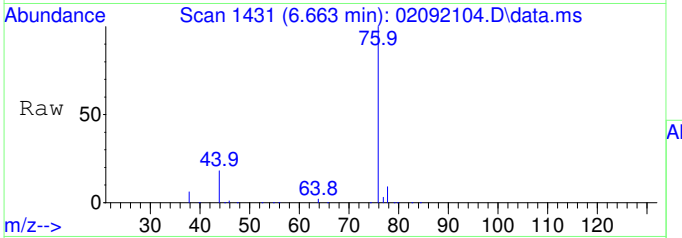
Tgt Ion:109 Resp: 111895

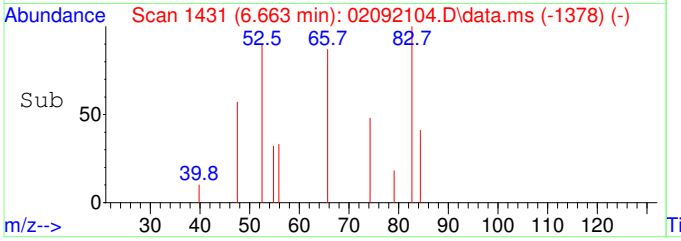
Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	43.8







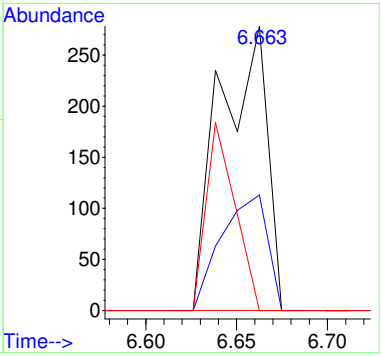


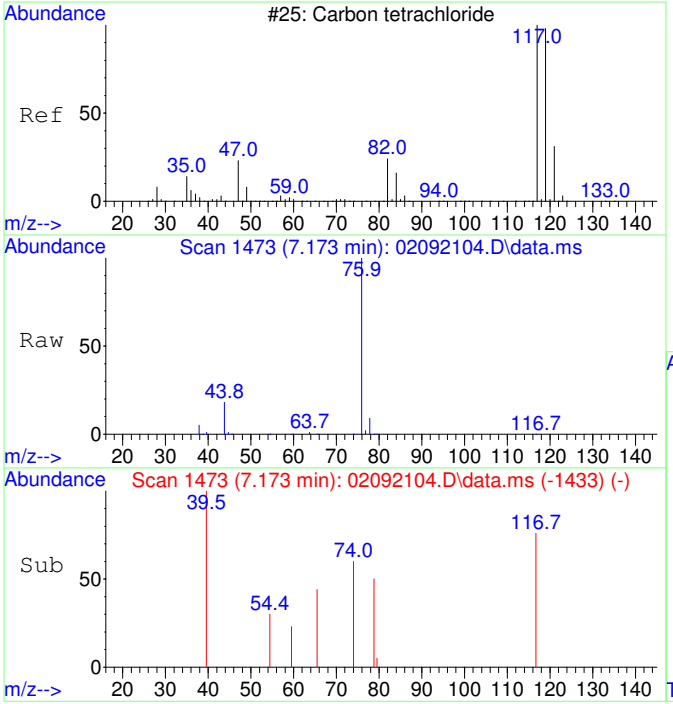


#30
Chloroform SCAN
Concen: 73.46 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 502

Ion	Ratio	Lower	Upper
83	100		
85	39.8	34.6	94.6
47	0.0	0.0	53.4

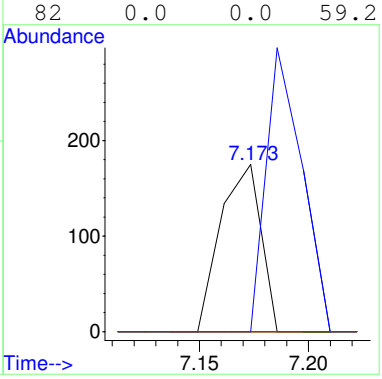


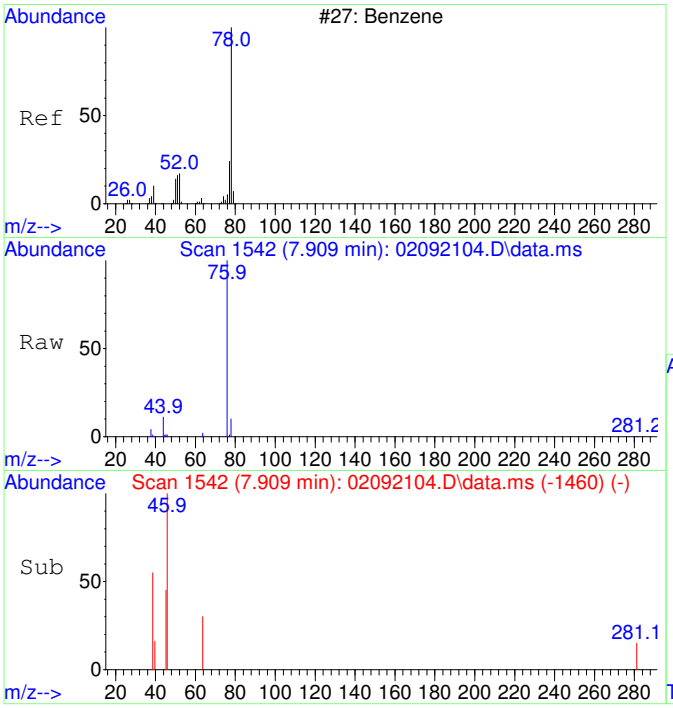


#32
Carbon tetrachloride SCAN
Concen: 37.50 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 226

Ion	Ratio	Lower	Upper
117	100		
119	150.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

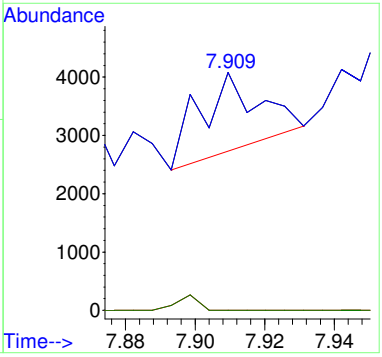


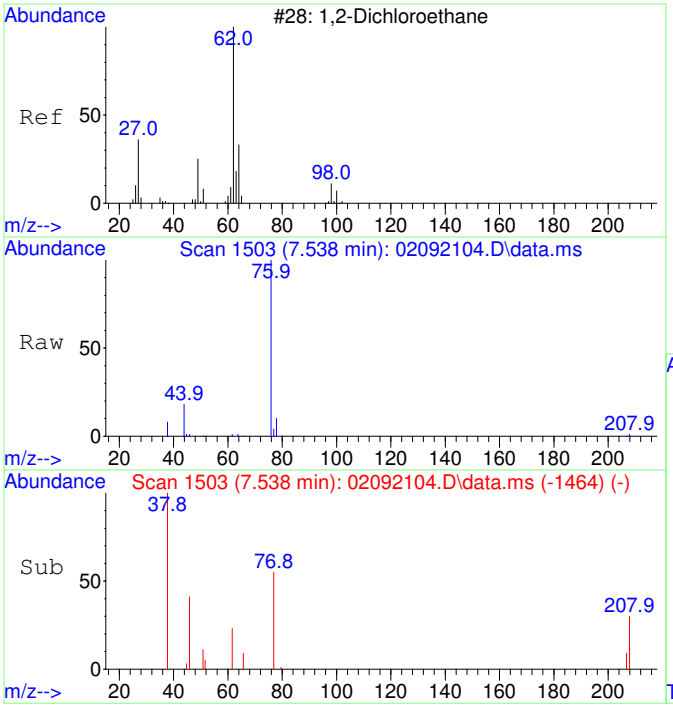


#33
Benzene SCAN
Concen: 77.53 ug/L
RT: 7.909 min Scan# 1542
Delta R.T. 0.396 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 1654

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	6.8	0.0	47.9
51	6.8	0.0	44.1

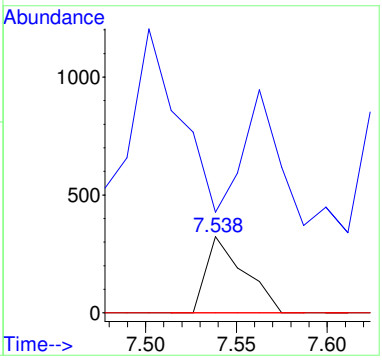


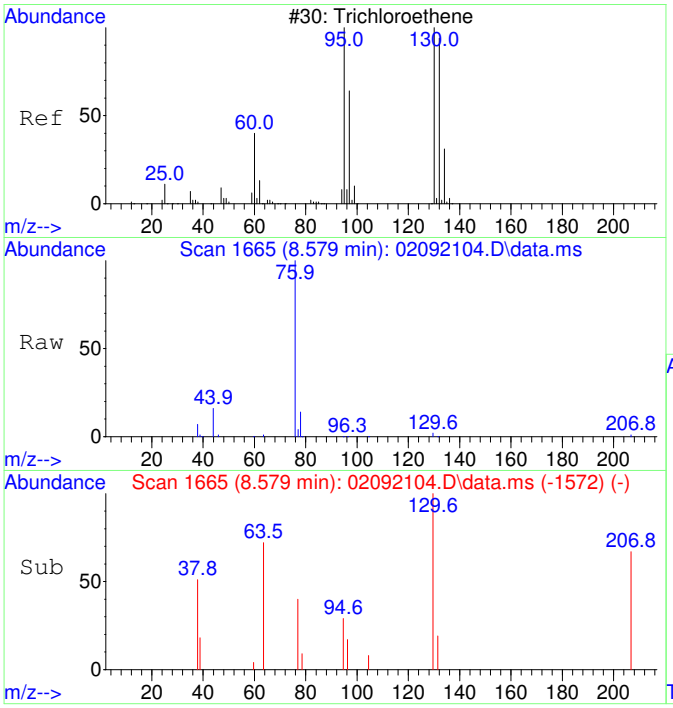


#34
1,2-Dichloroethane SCAN
Concen: 70.88 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.024 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 473

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

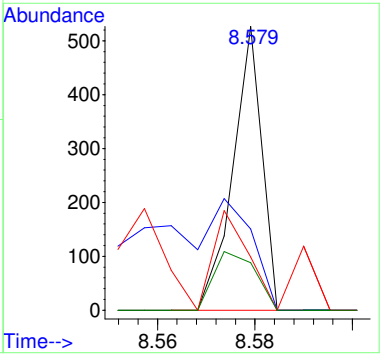


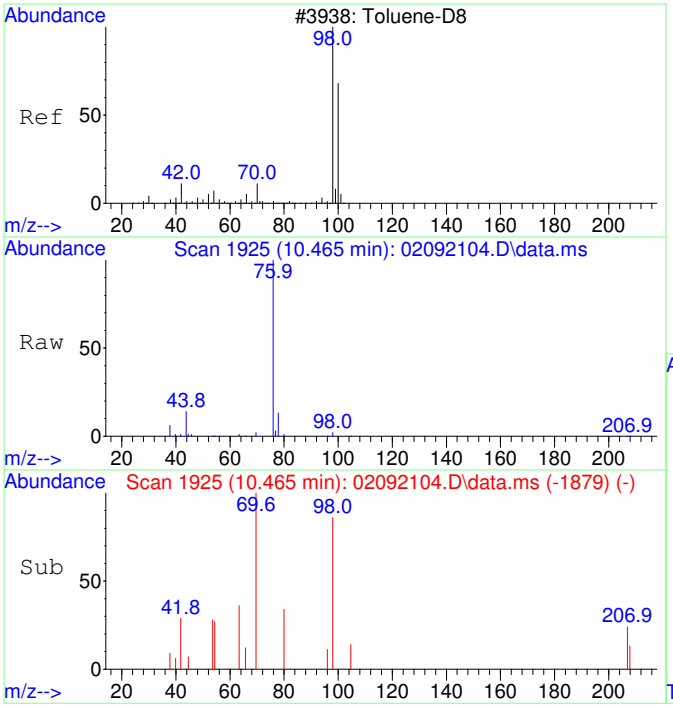


#35
Trichloroethene SCAN
Concen: 46.65 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.006 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 217

Ion	Ratio	Lower	Upper
130	100		
95	135.5	60.5	120.5#
132	42.9	59.6	119.6#
97	29.5	28.2	88.2

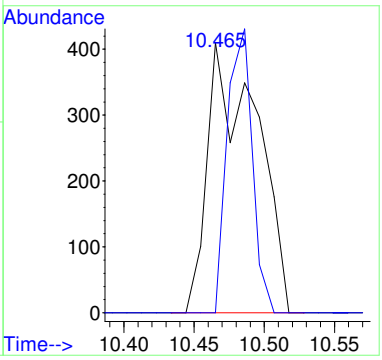


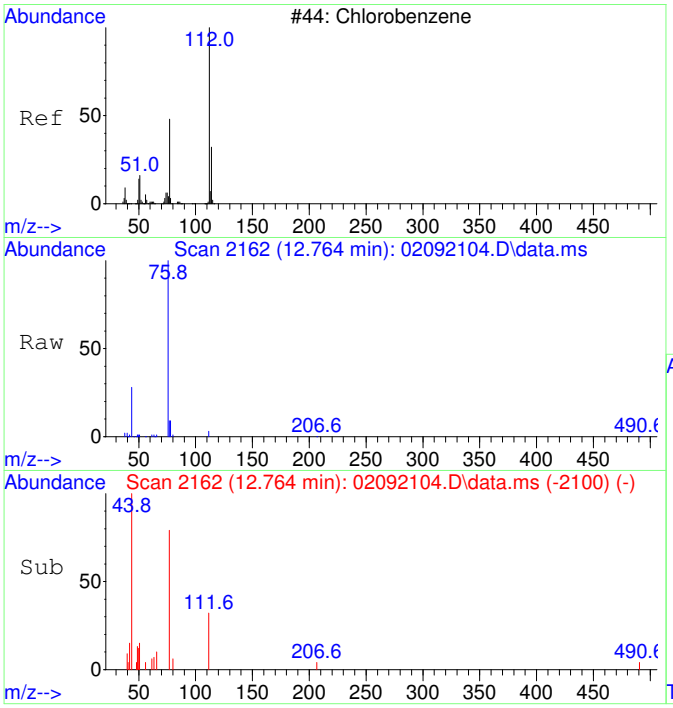


#36
Toluene-d8 SCAN
Concen: 50.31 ug/L
RT: 10.465 min Scan# 1925
Delta R.T. -0.021 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1002

Ion	Ratio	Lower	Upper
98	100		
100	0.0	40.0	100.0#

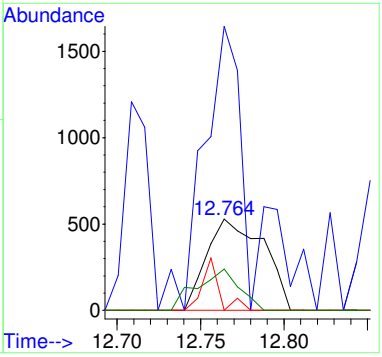


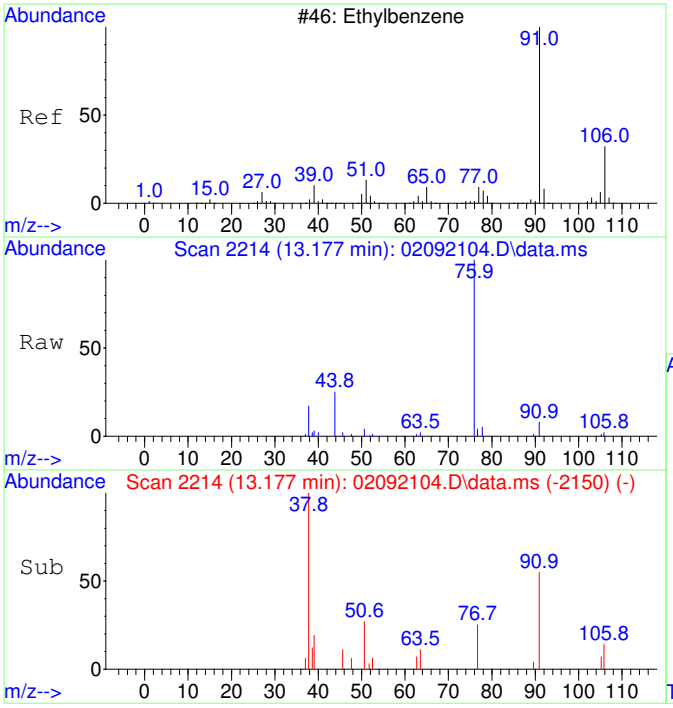


#40
Chlorobenzene SCAN
Concen: 71.20 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 1254

Ion	Ratio	Lower	Upper
112	100		
77	252.6	28.2	88.2#
114	16.9	2.3	62.3
51	33.8	0.0	50.1

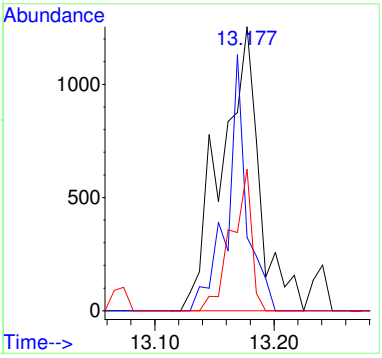


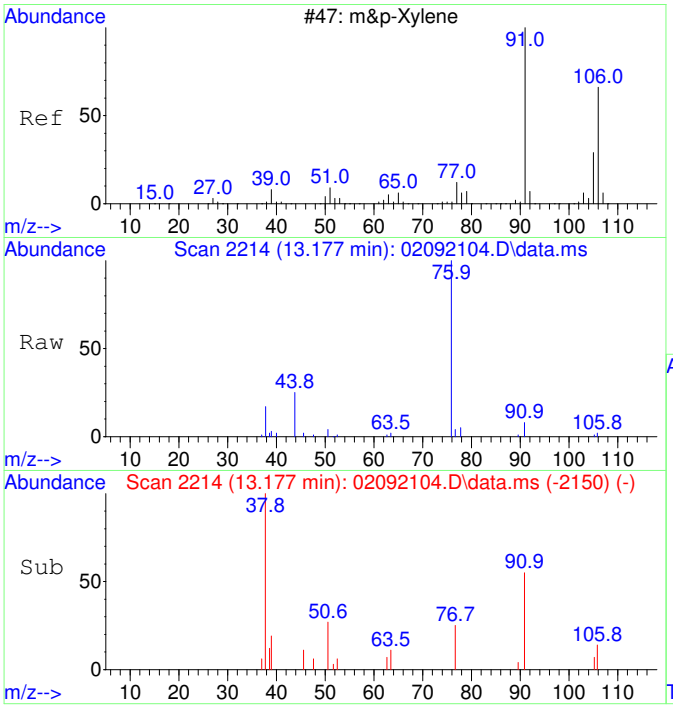


#42
Ethylbenzene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
51	26.0	0.0	40.1

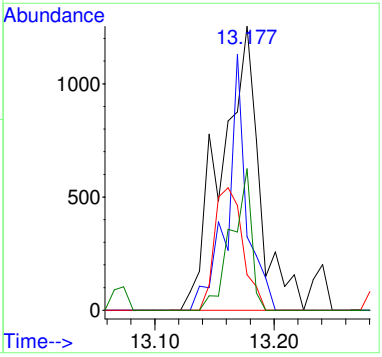


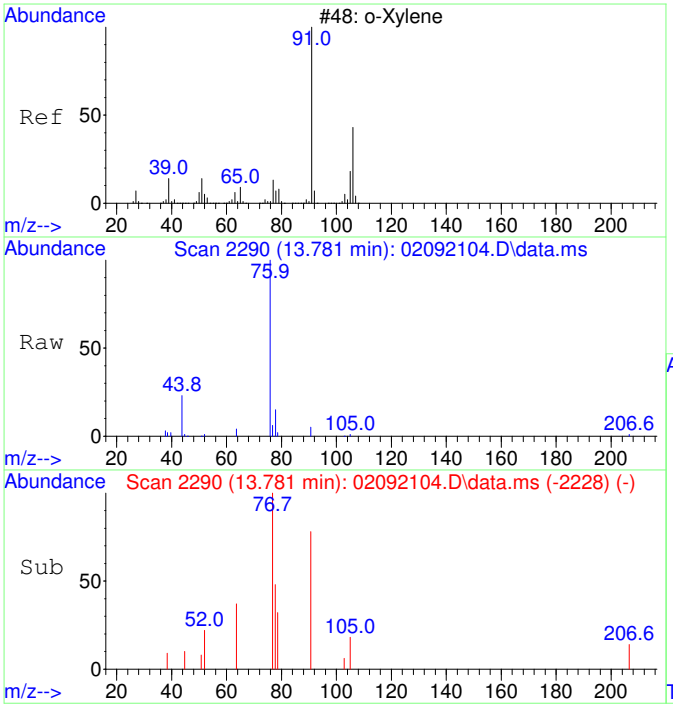


#43
m&p-Xylene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
105	31.8	0.0	54.7
51	26.0	0.0	40.1

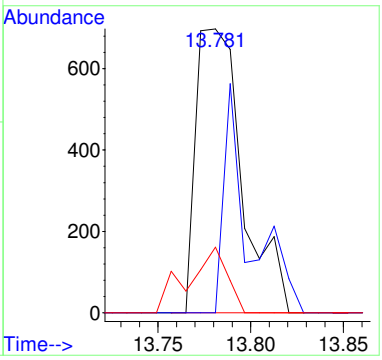


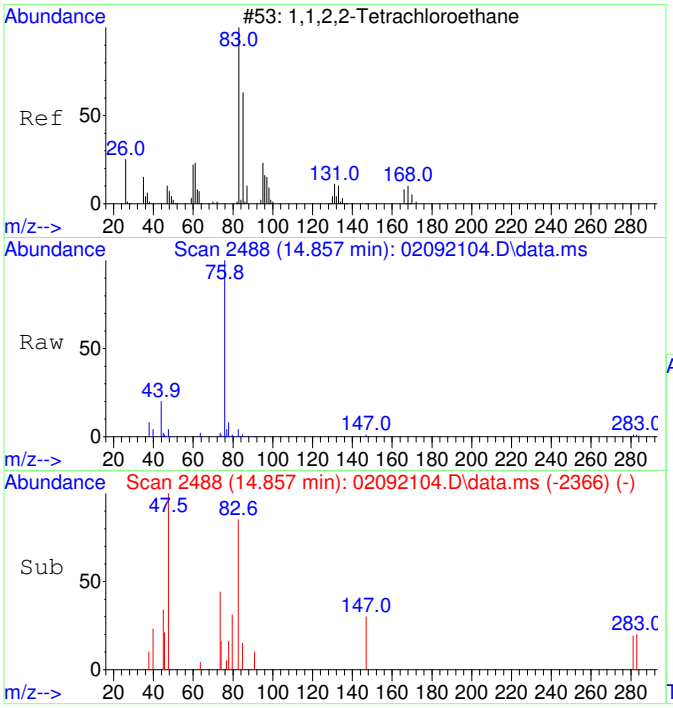


#44
o-Xylene SCAN
Concen: 47.93 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 1223

Ion	Ratio	Lower	Upper
91	100		
106	43.4	18.0	78.0
105	19.5	0.0	56.6

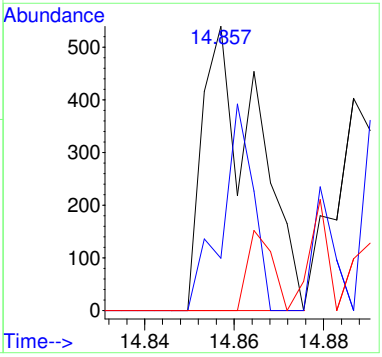


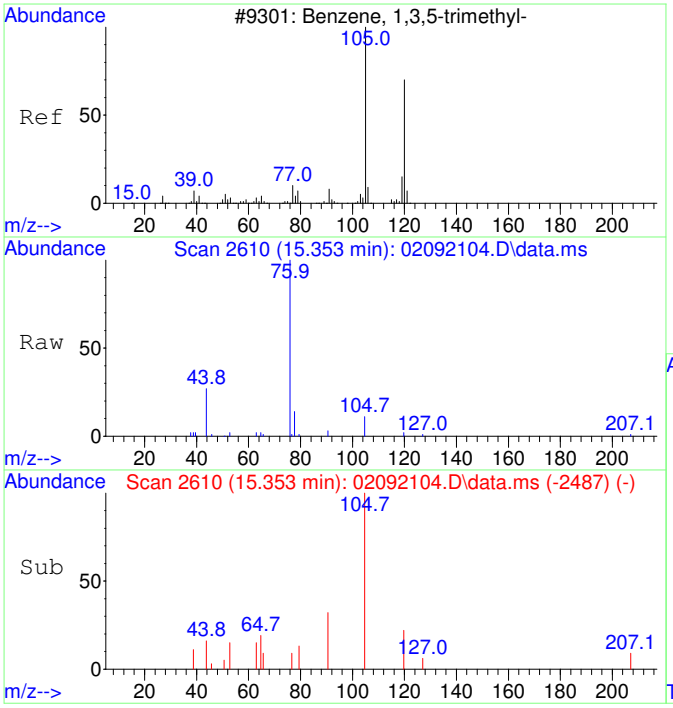


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 34.14 ug/L
RT: 14.857 min Scan# 2488
Delta R.T. -0.026 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 453

Ion	Ratio	Lower	Upper
83	100		
85	41.9	35.9	95.9
95	13.0	0.0	47.4

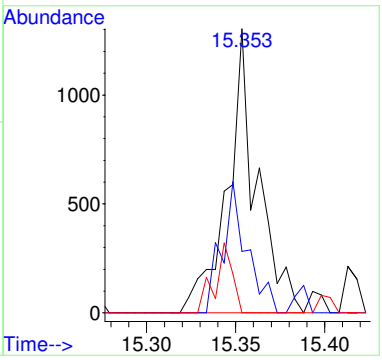


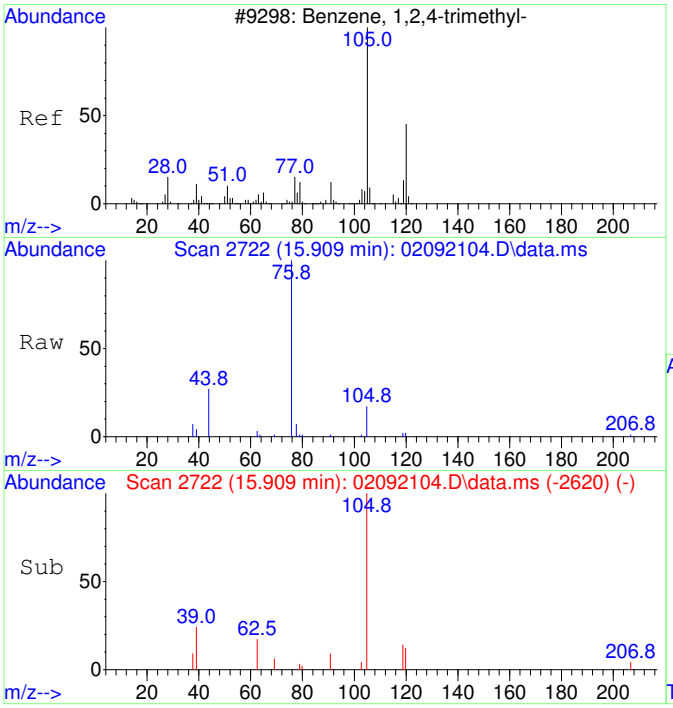


#46
1,3,5-Trimethylbenzene SCAN
Concen: 55.72 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1500

Ion	Ratio	Lower	Upper
105	100		
120	38.7	18.3	78.3
119	14.5	0.0	43.1

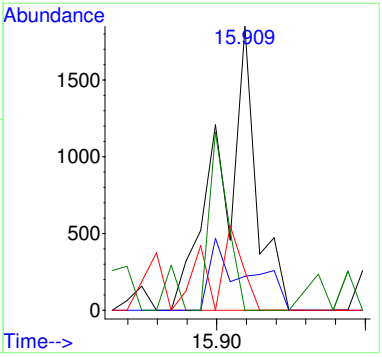


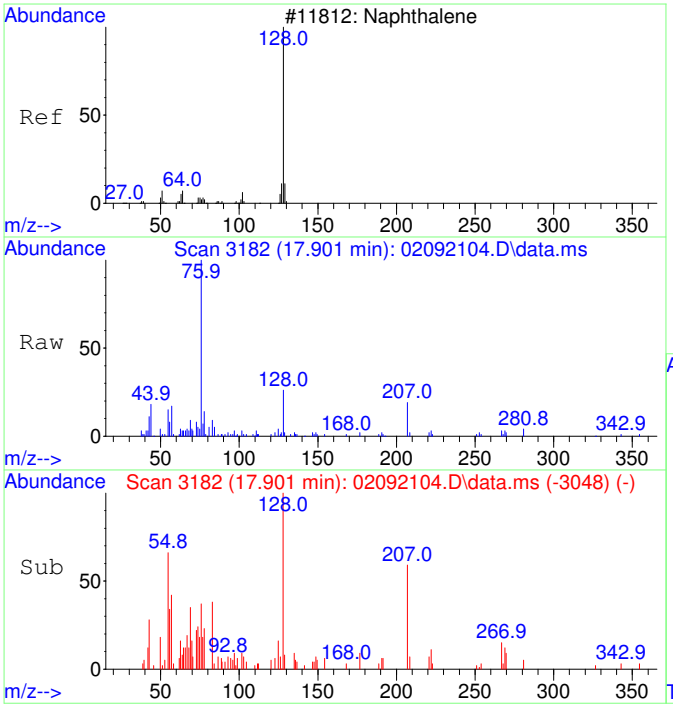


#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.21 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1546

Ion	Ratio	Lower	Upper
105	100		
120	26.4	16.9	76.9
119	15.5	0.0	41.9
77	37.9	0.0	42.3

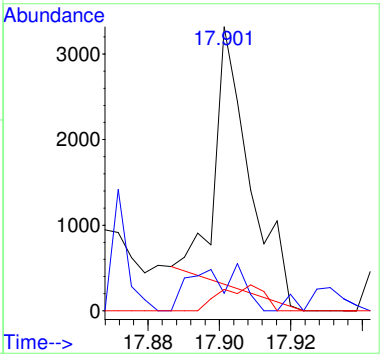




#48
Naphthalene SCAN
Concen: 47.38 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 1956

Ion	Ratio	Lower	Upper
128	100		
127	25.3	0.0	44.0
129	12.7	0.0	40.8



B21B038-BLK1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092105.D
Acq On : 9 Feb 2021 11:23
InstName : AG5975C
Operator : TD
Sample : B21B038-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 10 10:59:33 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

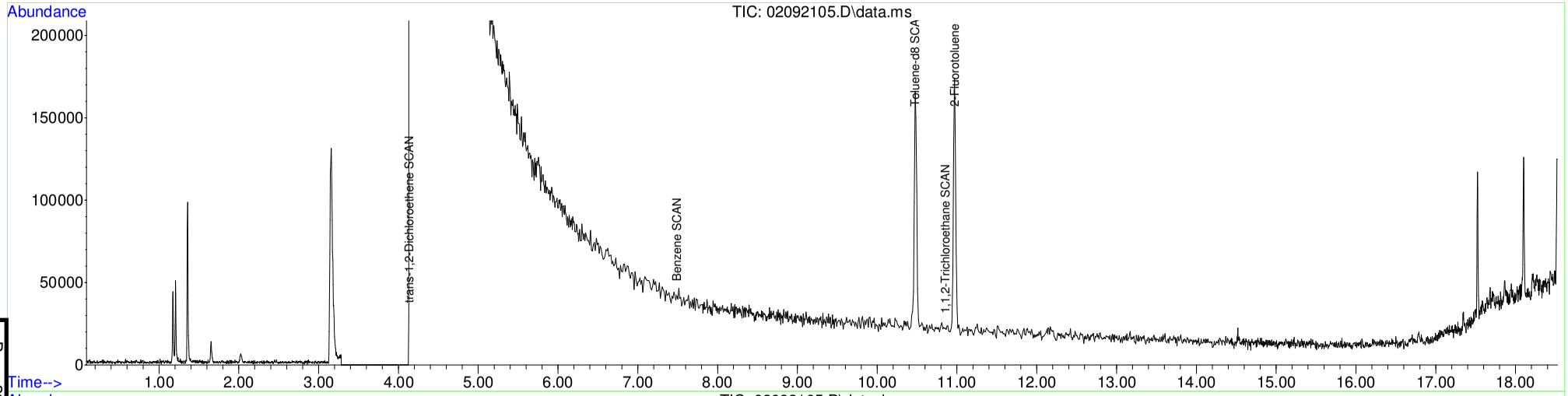
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	203451	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.477	98	170804	4334.75	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.69%			
Target Compounds						Qvalue
9] Benzene	7.503	78	2314	67.59	ug/L NT	76
25) 2-Fluorotoluene SCAN	10.969	109	126963	5497.72	ug/L	98
27) trans-1,2-Dichloroethe...	4.129	61	242	35.24	ug/L #	17
33) Benzene SCAN	7.490	78	1708	73.61	ug/L	98
36) Toluene-d8 SCAN	10.475	98	109547	5057.70	ug/L	92
38) 1,1,2-Trichloroethane ...	10.853	97	174	26.03	ug/L #	13

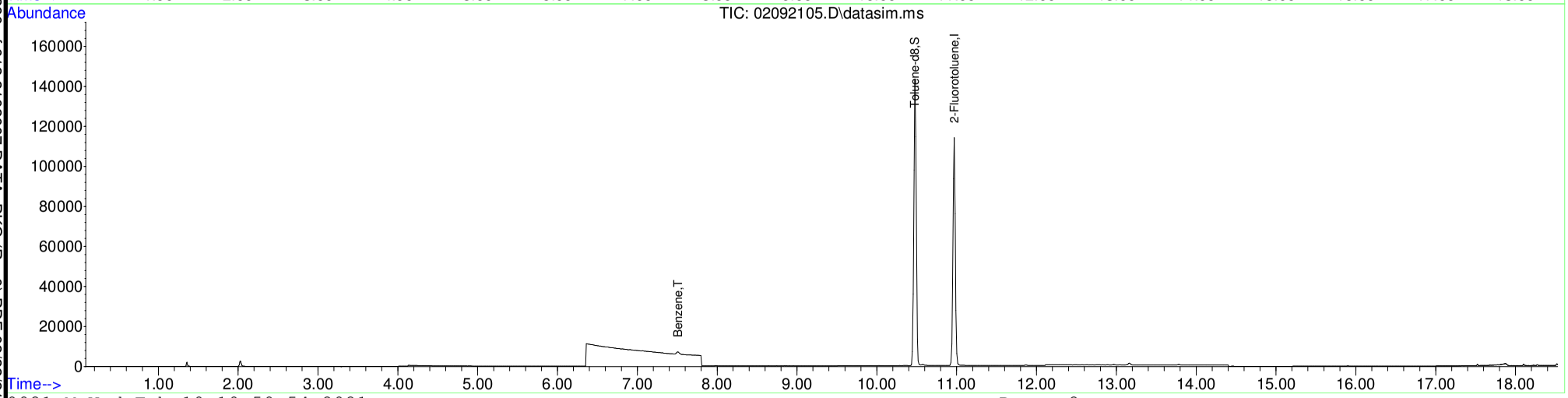
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092105.D
Acq On : 9 Feb 2021 11:23
InstName : AG5975C
Operator : TD
Sample : B21B038-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 10 10:59:33 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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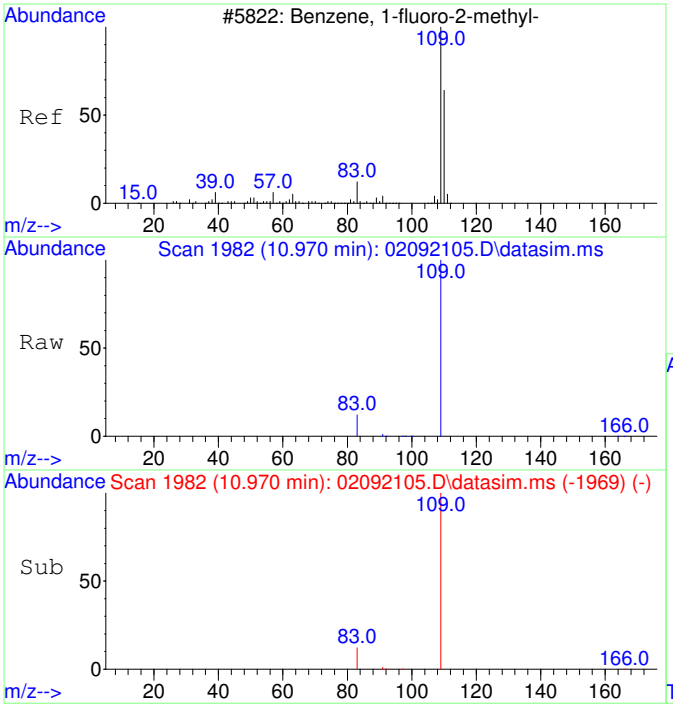
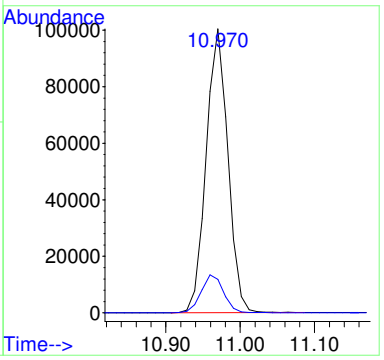
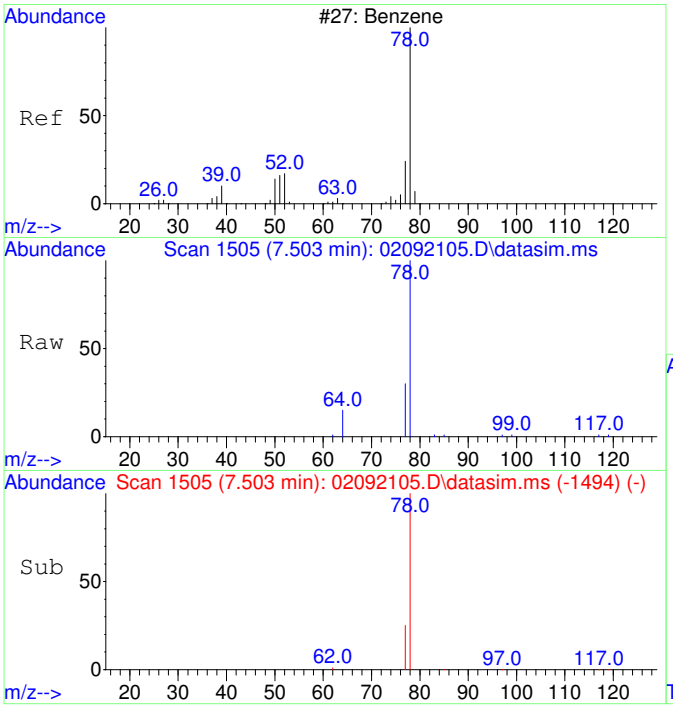


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion:109 Resp: 203451

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

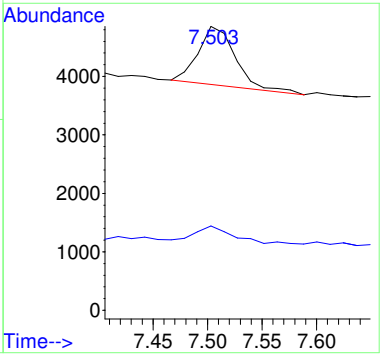


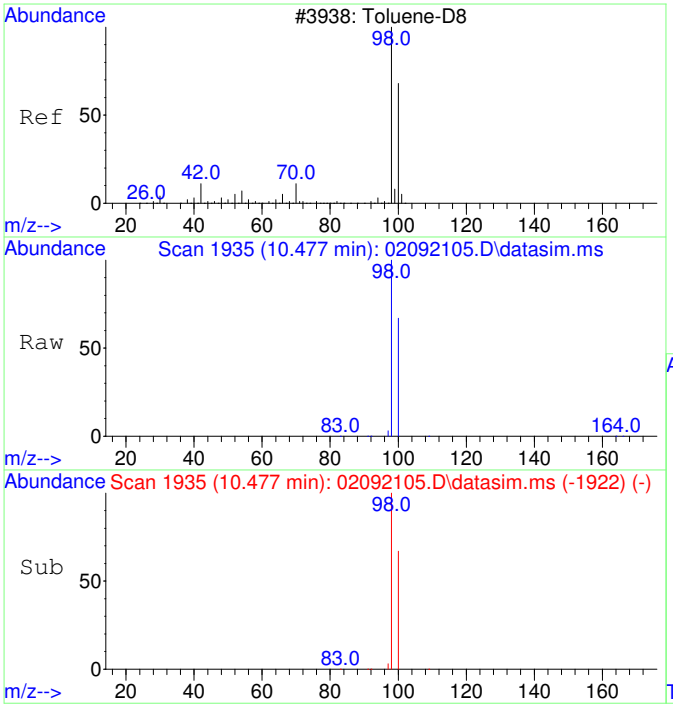


#9
Benzene
Concen: 67.59 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion: 78 Resp: 2314

Ion	Ratio	Lower	Upper
78	100		
77	34.7	0.0	53.2

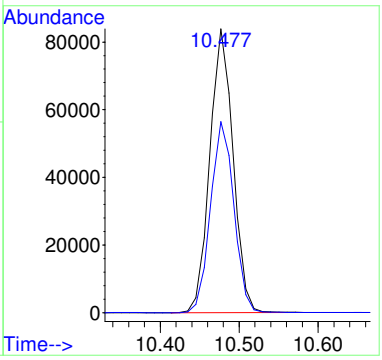


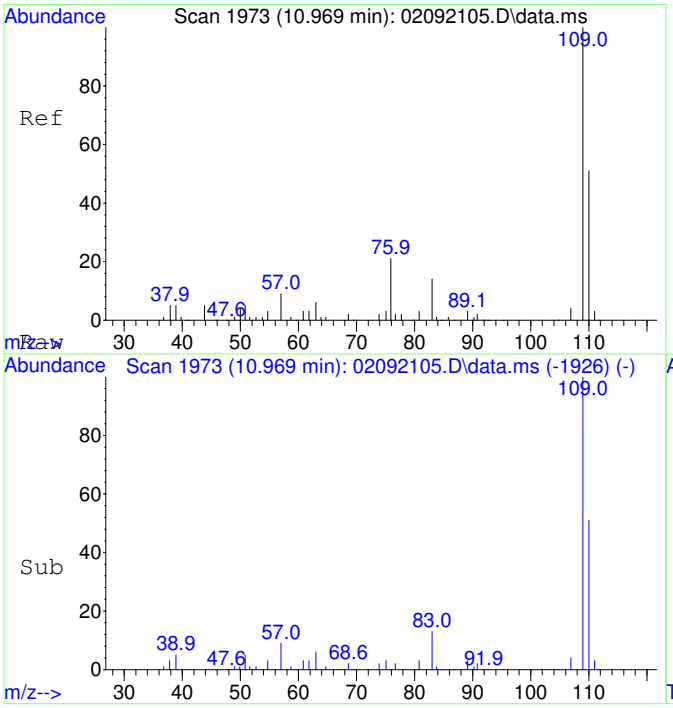


#12
Toluene-d8
Concen: 4334.75 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion: 98 Resp: 170804

Ion	Ratio	Lower	Upper
98	100		
100	67.7	37.1	97.1

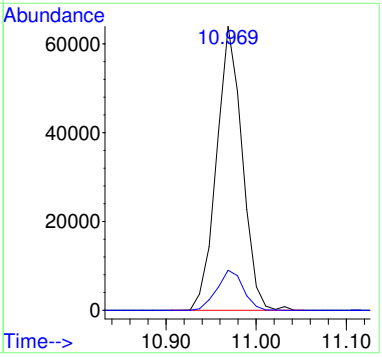


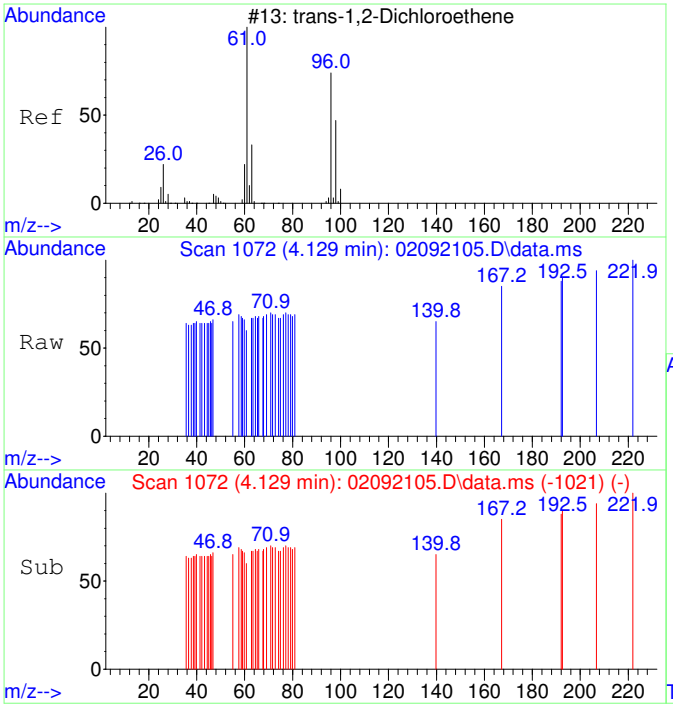


#25
2-Fluorotoluene SCAN
Concen: 5497.72 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion:109 Resp: 126963

Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.8

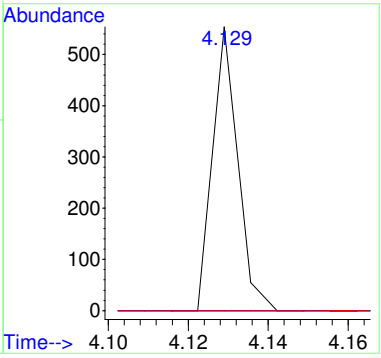


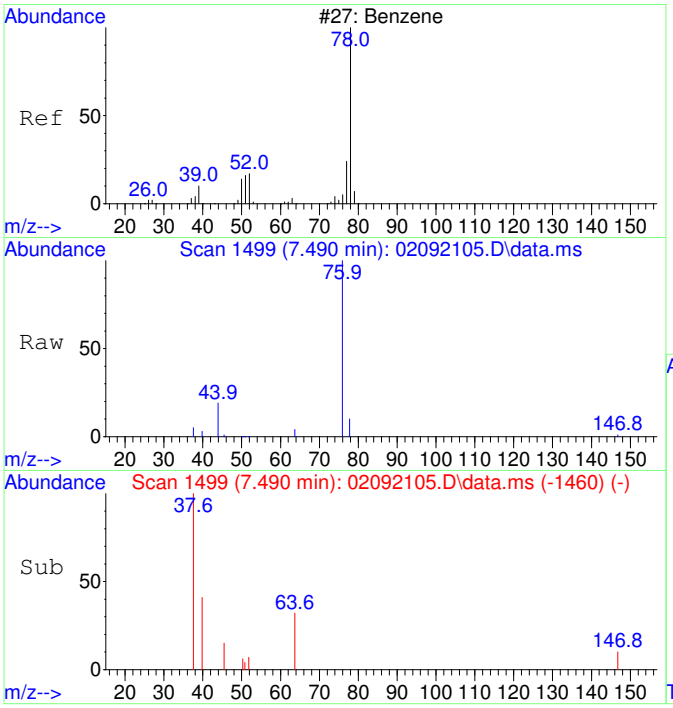


#27
trans-1,2-Dichloroethene SCAN
Concen: 35.24 ug/L
RT: 4.129 min Scan# 1072
Delta R.T. -0.252 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion: 61 Resp: 242

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

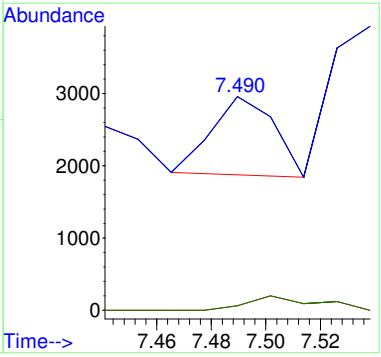


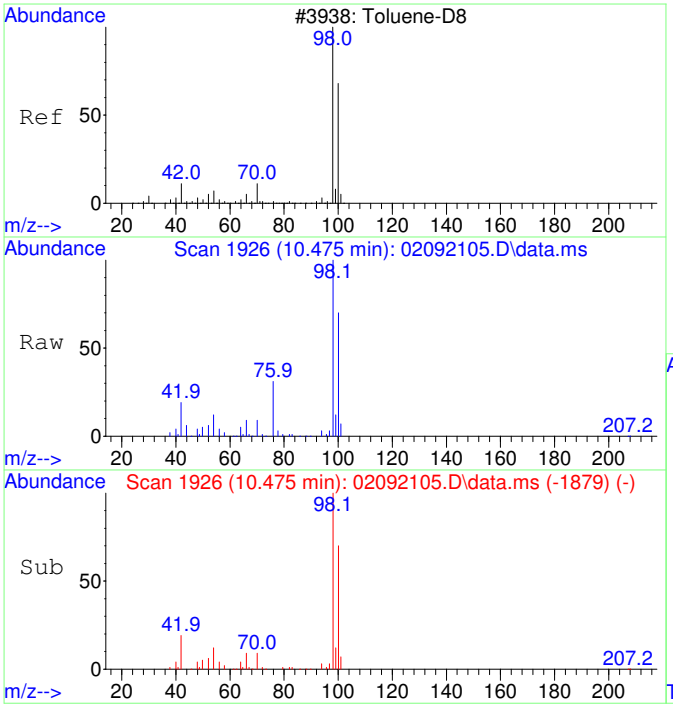


#33
Benzene SCAN
Concen: 73.61 ug/L
RT: 7.490 min Scan# 1499
Delta R.T. -0.024 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion: 78 Resp: 1708

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	20.5	0.0	47.9
51	20.5	0.0	44.1

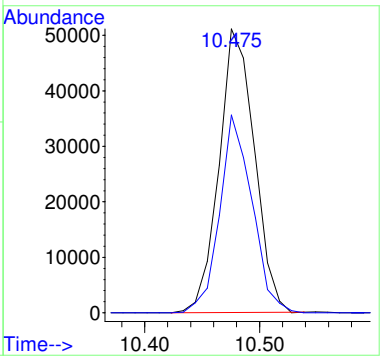


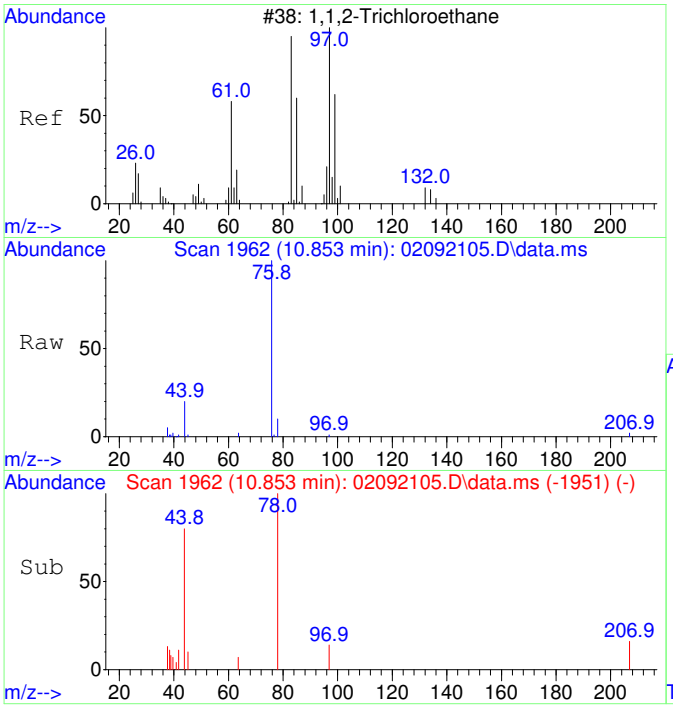


#36
Toluene-d8 SCAN
Concen: 5057.70 ug/L
RT: 10.475 min Scan# 1926
Delta R.T. -0.010 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion: 98 Resp: 109547

Ion	Ratio	Lower	Upper
98	100		
100	63.8	40.0	100.0

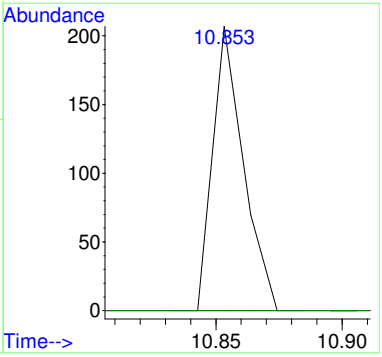




#38
1,1,2-Trichloroethane SCAN
Concen: 26.03 ug/L
RT: 10.853 min Scan# 1962
Delta R.T. -0.388 min
Lab File: 02092105.D
Acq: 9 Feb 2021 11:23

Tgt Ion: 97 Resp: 174

Ion	Ratio	Lower	Upper
97	100		
83	0.0	57.7	117.7#
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#



B21B038-BS1

Sample Name: B21B038-BS1
Misc Info: 0
Date Acquired: 2/9/2021
QLast Update: Tue Dec 08 06:26:34 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.980	5000	5000.00	100%	70	130	pass
2)	**1,1-Dichloroethene**	**3.090**	**5000**	**3258.56**	**65%**	**22**	**143**	**pass**
3)	**trans-1,2-Dichloroethene**	**4.376**	**5000**	**3212.39**	**64%**	**35**	**133**	**pass**
4)	**1,1-Dichloroethane**	**5.086**	**5000**	**3349.62**	**67%**	**43**	**140**	**pass**
5)	**cis-1,2-Dichloroethene**	**6.088**	**5000**	**3422.60**	**68%**	**49**	**134**	**pass**
6)	**Chloroform**	**6.652**	**5000**	**3535.13**	**71%**	**56**	**132**	**pass**
11)	**Trichloroethene**	**8.575**	**5000**	**3543.33**	**71%**	**69**	**124**	**pass**
12)	Toluene-d8	10.487	5000	4347.80	87%	70	130	pass
15)	**Tetrachloroethene**	**11.432**	**5000**	**3601.52**	**72%**	**69**	**124**	**pass**

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092106.D
Acq On : 9 Feb 2021 11:47
InstName : AG5975C
Operator : TD
Sample : B21B038-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:05:50 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

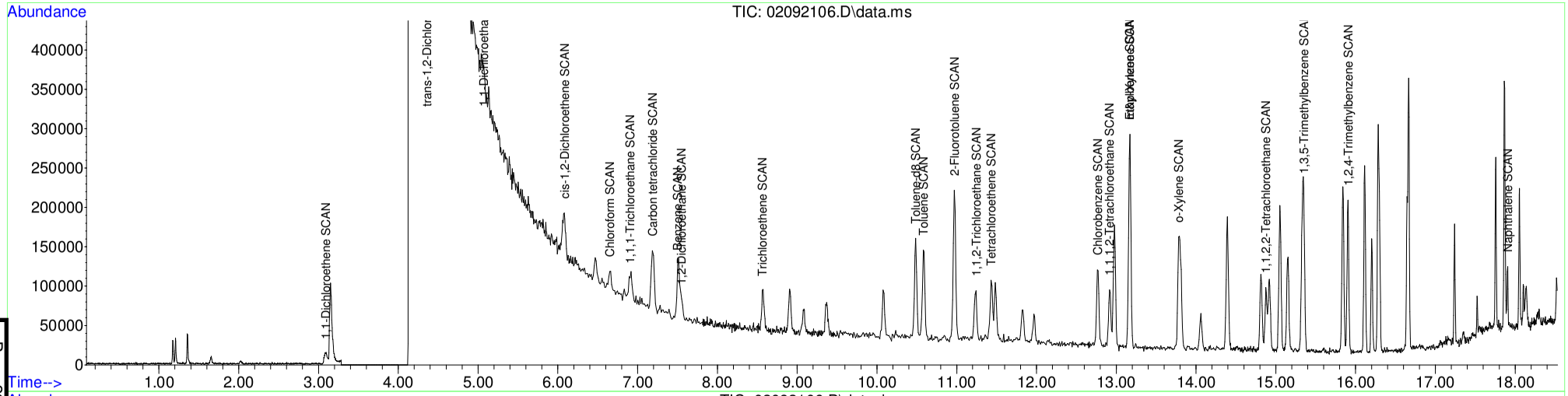
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	179797	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	151400	4347.80	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.96%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.086	61	23231	3258.56	ug/L	80
3] trans-1,2-Dichloroethene	4.350	61	28872	3212.39	ug/L	97
4] 1,1-Dichloroethane	5.073	63	35957	3349.62	ug/L	95
5] cis-1,2-Dichloroethene	6.081	61	38052	3422.60	ug/L	98
6] Chloroform	6.652	83	37751	3535.13	ug/L	99
7] 1,1,1-Trichloroethane	6.907	97	43619	3802.41	ug/L	99
8] Carbon tetrachloride	7.175	117	41459	3780.22	ug/L	100
9] Benzene	7.503	78	103667	3426.47	ug/L	98
10] 1,2-Dichloroethane	7.540	62	39738	3850.16	ug/L	99
11] Trichloroethene	8.570	130	33847	3543.33	ug/L	97
13] Toluene	10.582	91	148780	3431.53	ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	34810	3466.36	ug/L	99
15] Tetrachloroethene	11.432	166	48637	3601.52	ug/L	99
16] Chlorobenzene	12.766	112	106853	3181.24	ug/L	95
17] 1,1,1,2-Tetrachloroethane	12.916	131	42022	3574.58	ug/L	100
18] Ethylbenzene	12.972	91	199651	3605.26	ug/L	98
19] m&p-Xylene	13.163	91	302220	7086.95	ug/L	97
20] o-Xylene	13.782	91	147647	3223.48	ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.877	83	68556	3212.22	ug/L	100
22] 1,3,5-Trimethylbenzene	15.345	105	178201	3537.83	ug/L	96
23] 1,2,4-Trimethylbenzene	15.901	105	168962	3279.55	ug/L	96
24] Naphthalene	17.903	128	60570	725.64	ug/L	98
25) 2-Fluorotoluene SCAN	10.969	109	105722	5180.22	ug/L	98
26) 1,1-Dichloroethene SCAN	3.089	61	17273	3625.38	ug/L #	52
27) trans-1,2-Dichloroethe...	4.362	61	19580	3226.48	ug/L	82
28) 1,1-Dichloroethane SCAN	5.071	63	25569	3569.58	ug/L	92
29) cis-1,2-Dichloroethene...	6.080	61	26909	3821.37	ug/L #	72
30) Chloroform SCAN	6.651	83	24625	3749.27	ug/L	86
31) 1,1,1-Trichloroethane ...	6.906	97	28631	4224.39	ug/L	88
32) Carbon tetrachloride SCAN	7.186	117	28456	4913.23	ug/L	88
33) Benzene SCAN	7.502	78	75931	3703.18	ug/L	93
34) 1,2-Dichloroethane SCAN	7.551	62	25710	4008.64	ug/L	92
35) Trichloroethene SCAN	8.563	130	18333	4100.46	ug/L	85
36) Toluene-d8 SCAN	10.486	98	88940	4646.51	ug/L	94
37) Toluene SCAN	10.581	91	96699	4103.11	ug/L	96
38) 1,1,2-Trichloroethane ...	11.242	97	21432	3628.10	ug/L #	85
39) Tetrachloroethene SCAN	11.431	166	25156	4744.81	ug/L	92
40) Chlorobenzene SCAN	12.764	112	62073	3667.02	ug/L	88
41) 1,1,1,2-Tetrachloroeth...	12.915	131	22744	3894.53	ug/L	93
42) Ethylbenzene SCAN	13.169	91	186668	4156.37	ug/L	92
43) m&p-Xylene SCAN	13.169	91	186668	4156.37	ug/L	92
44) o-Xylene SCAN	13.781	91	88427	3605.71	ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.876	83	44624	3499.57	ug/L	98
46) 1,3,5-Trimethylbenzene...	15.349	105	105109	4062.59	ug/L	99
47) 1,2,4-Trimethylbenzene...	15.905	105	97807	3700.05	ug/L	94
48) Naphthalene SCAN	17.905	128	33851	853.15	ug/L	97

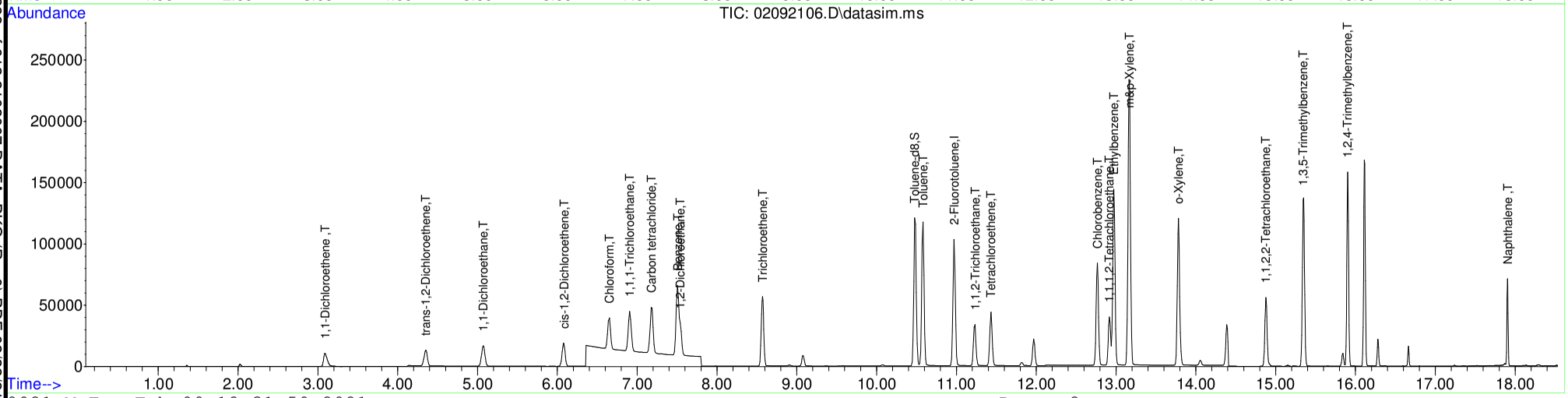
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092106.D
Acq On : 9 Feb 2021 11:47
InstName : AG5975C
Operator : TD
Sample : B21B038-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:05:50 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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B21B038-BSD1

Sample Name: B21B038-BSD1
Misc Info: 0
Date Acquired: 2/9/2021
QLast Update: Tue Dec 08 06:26:34 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.980	5000	5000.00	100%	70	130	pass
2)	**1,1-Dichloroethene**	**3.090**	**5000**	**4140.00**	**83%**	**22**	**143**	**pass**
3)	**trans-1,2-Dichloroethene**	**4.376**	**5000**	**4032.58**	**81%**	**35**	**133**	**pass**
4)	**1,1-Dichloroethane**	**5.086**	**5000**	**4222.01**	**84%**	**43**	**140**	**pass**
5)	**cis-1,2-Dichloroethene**	**6.088**	**5000**	**4255.65**	**85%**	**49**	**134**	**pass**
6)	**Chloroform**	**6.652**	**5000**	**4453.15**	**89%**	**56**	**132**	**pass**
11)	**Trichloroethene**	**8.575**	**5000**	**4416.87**	**88%**	**69**	**124**	**pass**
12)	Toluene-d8	10.487	5000	4346.16	87%	70	130	pass
15)	**Tetrachloroethene**	**11.432**	**5000**	**4623.87**	**92%**	**69**	**124**	**pass**

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092107.D
Acq On : 9 Feb 2021 12:10
InstName : AG5975C
Operator : TD
Sample : B21B038-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 12:29:26 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

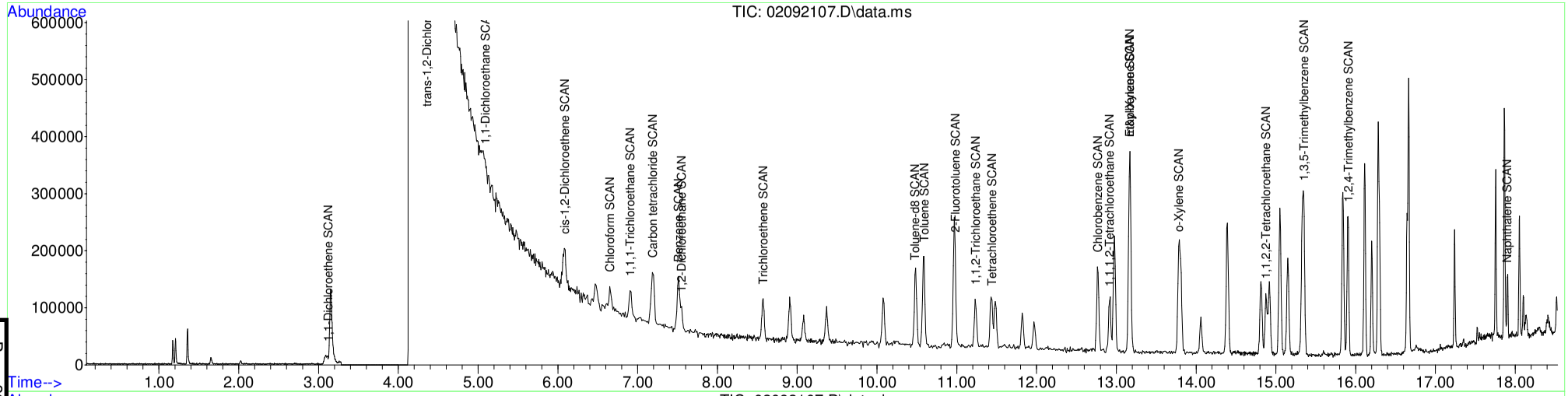
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	190628	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.477	98	160460	4346.16 ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.92%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.093	61	31293	4140.00 ug/L	80
3] trans-1,2-Dichloroethene	4.363	61	38427	4032.58 ug/L	97
4] 1,1-Dichloroethane	5.079	63	48052	4222.01 ug/L	95
5] cis-1,2-Dichloroethene	6.081	61	50164	4255.65 ug/L	98
6] Chloroform	6.652	83	50419	4453.15 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	57221	4704.72 ug/L	99
8] Carbon tetrachloride	7.175	117	54725	4706.30 ug/L	99
9] Benzene	7.503	78	134688	4198.85 ug/L	99
10] 1,2-Dichloroethane	7.540	62	51520	4708.08 ug/L	98
11] Trichloroethene	8.569	130	44733	4416.87 ug/L	97
13] Toluene	10.582	91	197038	4286.37 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	46005	4320.86 ug/L	99
15] Tetrachloroethene	11.432	166	66205	4623.87 ug/L	100
16] Chlorobenzene	12.765	112	144014	4043.98 ug/L	96
17] 1,1,1,2-Tetrachloroethane	12.916	131	56898	4565.00 ug/L	99
18] Ethylbenzene	12.972	91	267407	4554.42 ug/L	99
19] m&p-Xylene	13.163	91	402741	8907.54 ug/L	98
20] o-Xylene	13.782	91	198998	4097.74 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.877	83	92394	4083.19 ug/L	100
22] 1,3,5-Trimethylbenzene	15.350	105	243941	4567.80 ug/L	96
23] 1,2,4-Trimethylbenzene	15.901	105	230164	4213.65 ug/L	96
24] Naphthalene	17.903	128	83666	945.38 ug/L	98
25) 2-Fluorotoluene SCAN	10.979	109	116385	5378.67 ug/L	94
26) 1,1-Dichloroethene SCAN	3.114	61	22526	4459.29 ug/L #	27
27) trans-1,2-Dichloroethe...	4.361	61	27190	4225.92 ug/L	84
28) 1,1-Dichloroethane SCAN	5.084	63	33147	4364.59 ug/L	96
29) cis-1,2-Dichloroethene...	6.080	61	36297	4861.69 ug/L #	72
30) Chloroform SCAN	6.650	83	32170	4619.74 ug/L	91
31) 1,1,1-Trichloroethane ...	6.906	97	36880	5132.33 ug/L	93
32) Carbon tetrachloride SCAN	7.186	117	36640	5966.83 ug/L	86
33) Benzene SCAN	7.514	78	92164	4239.48 ug/L	93
34) 1,2-Dichloroethane SCAN	7.550	62	34781	5114.85 ug/L	91
35) Trichloroethene SCAN	8.574	130	23212	4896.74 ug/L	78
36) Toluene-d8 SCAN	10.476	98	94520	4657.46 ug/L	96
37) Toluene SCAN	10.591	91	124586	4986.04 ug/L	96
38) 1,1,2-Trichloroethane ...	11.231	97	31388	5011.60 ug/L	89
39) Tetrachloroethene SCAN	11.441	166	31293	5566.99 ug/L	93
40) Chlorobenzene SCAN	12.764	112	81498	4541.02 ug/L	88
41) 1,1,1,2-Tetrachloroeth...	12.915	131	30953	4999.04 ug/L	94
42) Ethylbenzene SCAN	13.169	91	247675	5201.42 ug/L	91
43) m&p-Xylene SCAN	13.169	91	247675	5201.42 ug/L	93
44) o-Xylene SCAN	13.781	91	123485	4749.16 ug/L	95
45) 1,1,2,2-Tetrachloroeth...	14.875	83	58583	4333.25 ug/L	97
46) 1,3,5-Trimethylbenzene...	15.348	105	144017	5250.16 ug/L	97
47) 1,2,4-Trimethylbenzene...	15.904	105	133981	4780.53 ug/L	97
48) Naphthalene SCAN	17.901	128	46302	1100.65 ug/L	99

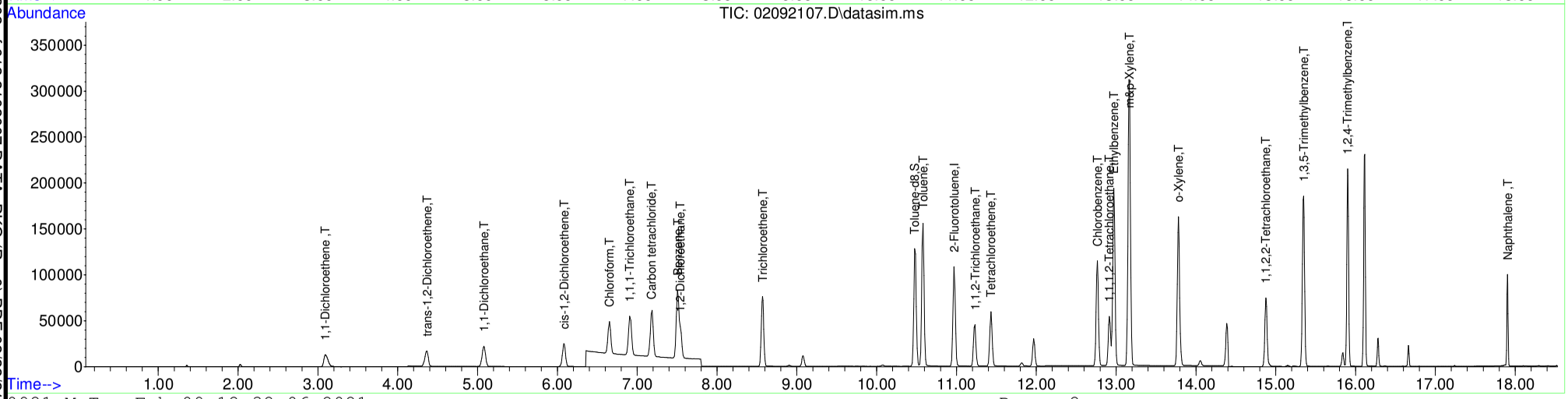
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092107.D
Acq On : 9 Feb 2021 12:10
InstName : AG5975C
Operator : TD
Sample : B21B038-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 12:29:26 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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B21B038-MRL1

Quantitation Report (Not Reviewed)

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Before Manual Integration

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Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

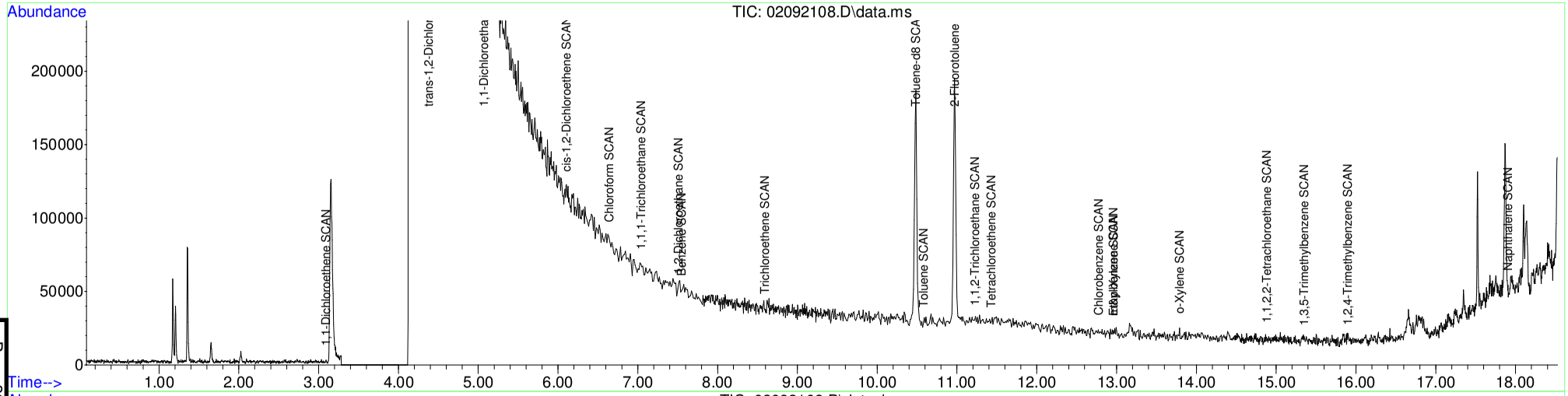
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	218554	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.477	98	183575	4336.91 ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.74%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.094	61	592	68.31 ug/L #	25
3] trans-1,2-Dichloroethene	4.376	61	381	34.87 ug/L	68
4] 1,1-Dichloroethane	5.086	63	448	34.33 ug/L	84
5] cis-1,2-Dichloroethene	6.088	61	483	35.74 ug/L	100
6] Chloroform	6.652	83	534	41.14 ug/L	99
7] 1,1,1-Trichloroethane	6.907	97	566	40.59 ug/L	97
8] Carbon tetrachloride	7.187	117	525	39.38 ug/L	94
9] Benzene	7.503	78	3551	96.56 ug/L	73
10] 1,2-Dichloroethane	7.552	62	529	42.16 ug/L #	31
11] Trichloroethene	8.569	130	461	39.70 ug/L	95
13] Toluene	10.582	91	2494	47.32 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	484	39.65 ug/L	70
15] Tetrachloroethene	11.432	166	701	42.70 ug/L	98
16] Chlorobenzene	12.765	112	1670	40.90 ug/L	65
17] 1,1,1,2-Tetrachloroethane	12.916	131	589	41.22 ug/L	99
18] Ethylbenzene	12.972	91	3187	47.34 ug/L	97
19] m&p-Xylene	13.163	91	5850	112.85 ug/L	96
20] o-Xylene	13.782	91	2542	45.66 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	1035	39.90 ug/L	98
22] 1,3,5-Trimethylbenzene	15.345	105	2847	46.50 ug/L	100
23] 1,2,4-Trimethylbenzene	15.901	105	3254	51.96 ug/L	89
24] Naphthalene	17.903	128	581	5.73 ug/L #	68
25) 2-Fluorotoluene SCAN	10.969	109	131343	5294.36 ug/L	99
26) 1,1-Dichloroethene SCAN	3.092	61	52	8.98 ug/L #	25
27) trans-1,2-Dichloroethe...	4.381	61	150	20.33 ug/L #	17
28) 1,1-Dichloroethane SCAN	5.071	63	107	12.29 ug/L #	33
29) cis-1,2-Dichloroethene...	6.100	61	318	37.15 ug/L #	1
30) Chloroform SCAN	6.638	83	338	42.34 ug/L #	27
31) 1,1,1-Trichloroethane ...	7.040	97	155	18.81 ug/L #	19
33) Benzene SCAN	7.551	78	3893	156.19 ug/L #	91
34) 1,2-Dichloroethane SCAN	7.502	62	237	30.40 ug/L #	40
35) Trichloroethene SCAN	8.585	130	237	43.61 ug/L #	9
36) Toluene-d8 SCAN	10.486	98	106622	4582.48 ug/L	99
37) Toluene SCAN	10.581	91	2679	93.52 ug/L #	58
38) 1,1,2-Trichloroethane ...	11.221	97	297	41.36 ug/L #	43
39) Tetrachloroethene SCAN	11.431	166	203	31.50 ug/L #	30
40) Chlorobenzene SCAN	12.772	112	804	39.07 ug/L #	32
42) Ethylbenzene SCAN	12.963	91	2047	37.50 ug/L	69
43) m&p-Xylene SCAN	12.963	91	2047	37.50 ug/L	66
44) o-Xylene SCAN	13.789	91	1809	60.68 ug/L	77
45) 1,1,2,2-Tetrachloroeth...	14.876	83	418	26.97 ug/L #	89
46) 1,3,5-Trimethylbenzene...	15.344	105	1041	33.10 ug/L	96
47) 1,2,4-Trimethylbenzene...	15.895	105	921	28.66 ug/L #	71
48) Naphthalene SCAN	17.905	128	741	15.36 ug/L	72

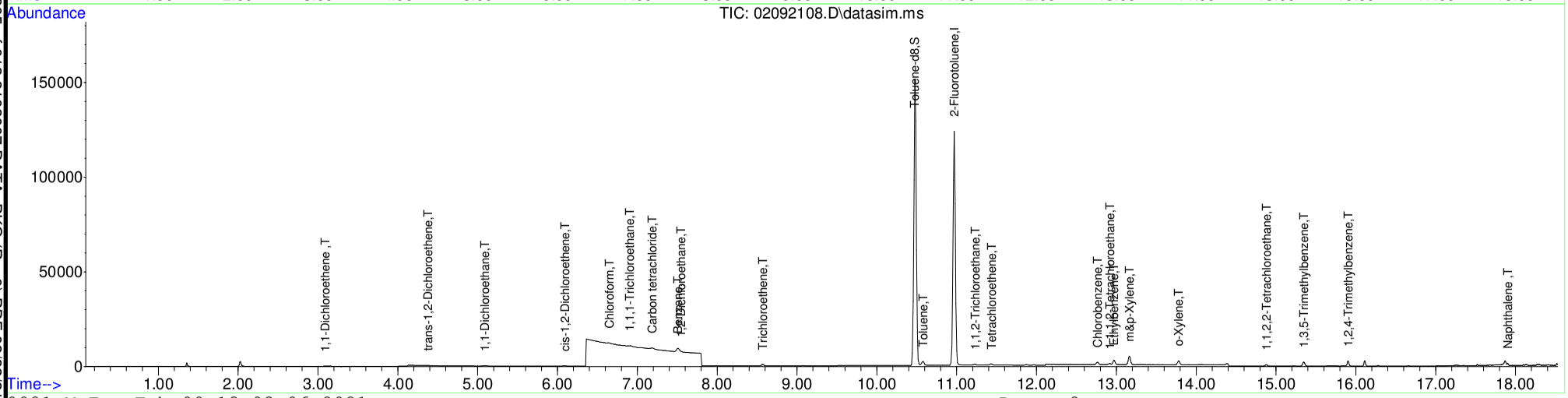
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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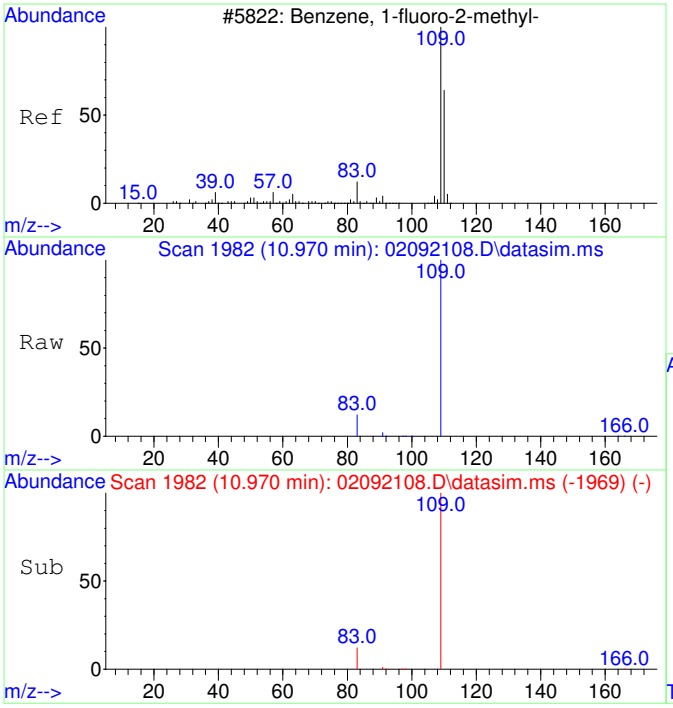
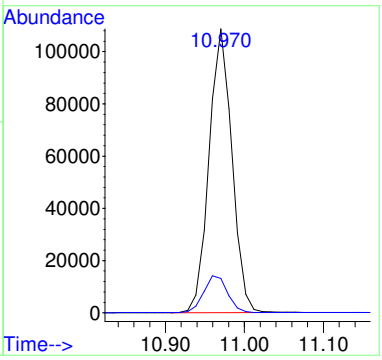
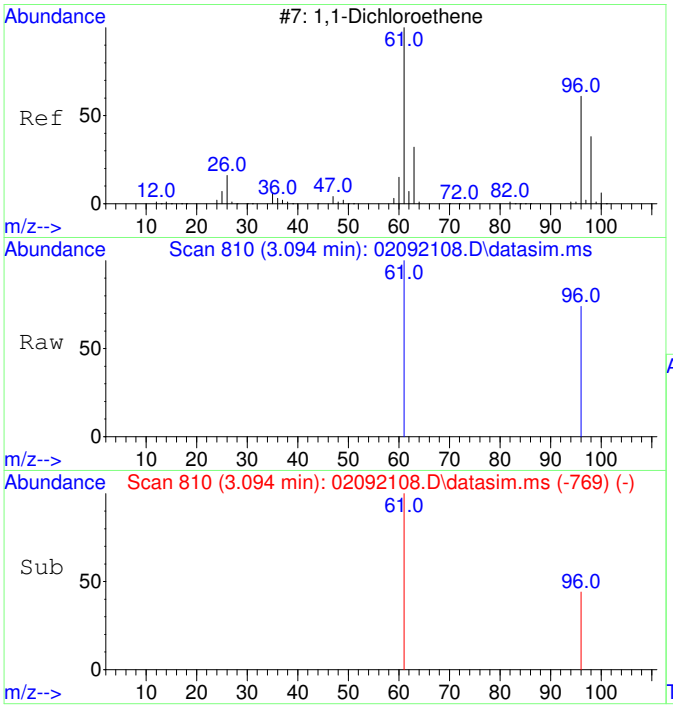


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 218554

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

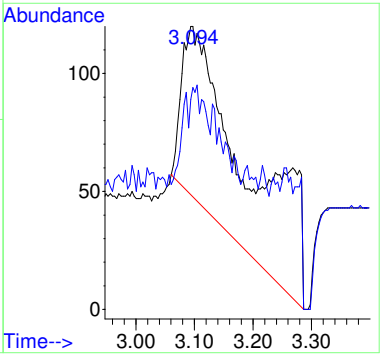




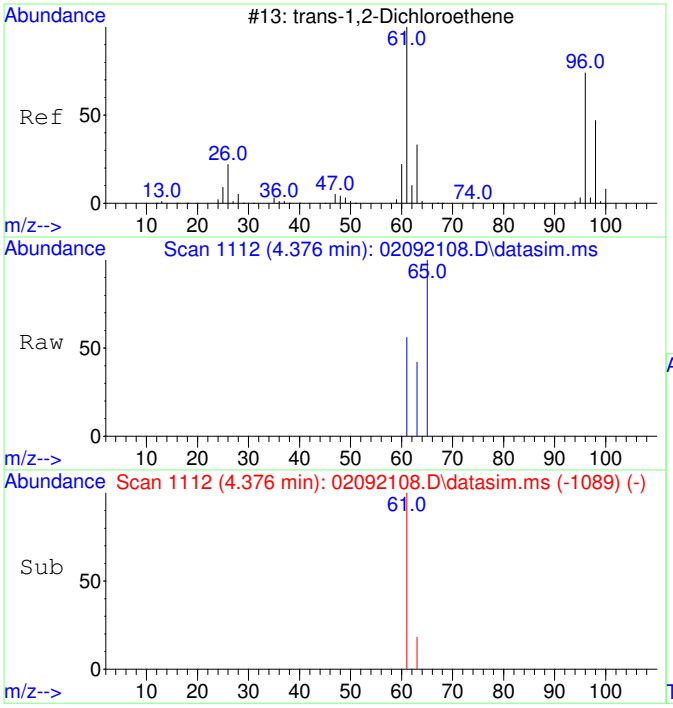
#2
1,1-Dichloroethene
Concen: 68.31 ug/L
RT: 3.094 min Scan# 810
Delta R.T. 0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 592

Ion	Ratio	Lower	Upper
61	100		
96	6.6	37.2	97.2#



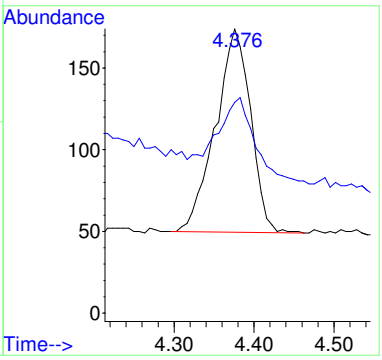
Before MI:
IMPROPER
BASELINE

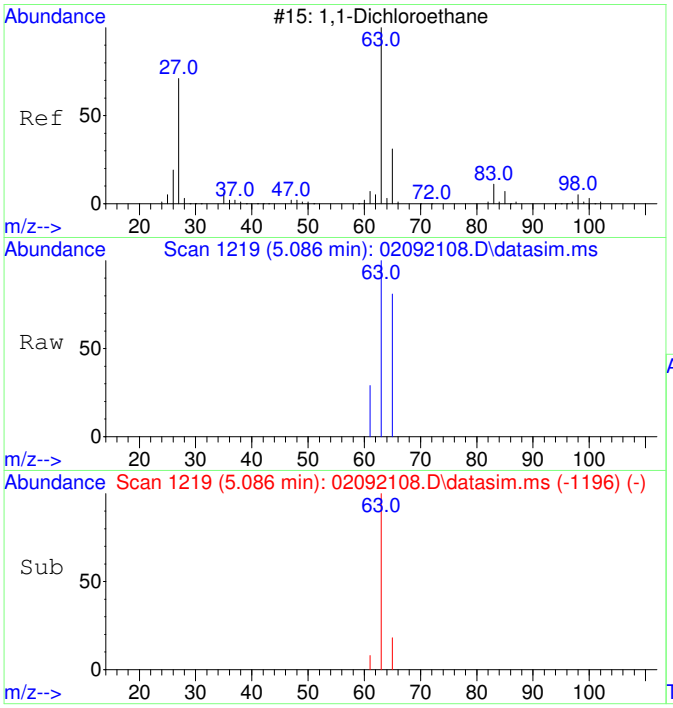


#3
trans-1,2-Dichloroethene
Concen: 34.87 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 381

Ion	Ratio	Lower	Upper
61	100		
63	50.1	2.4	62.4

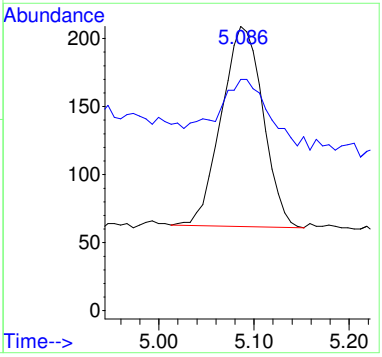


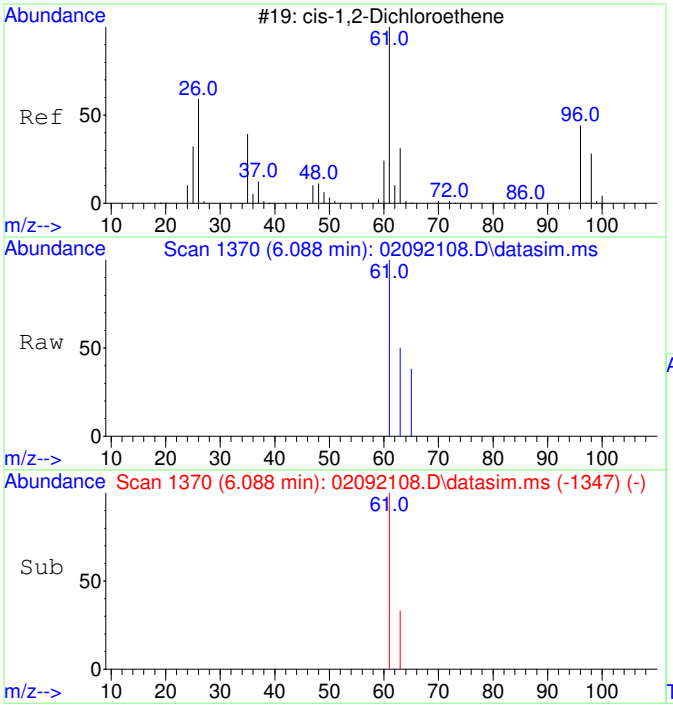


#4
1,1-Dichloroethane
Concen: 34.33 ug/L
RT: 5.086 min Scan# 1219
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 448

Ion	Ratio	Lower	Upper
63	100		
65	40.8	1.8	61.8

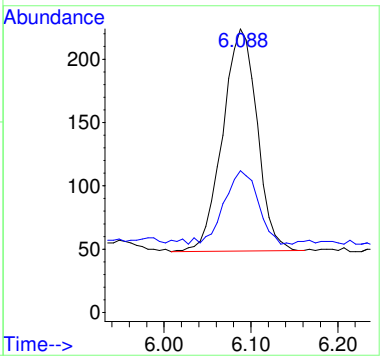


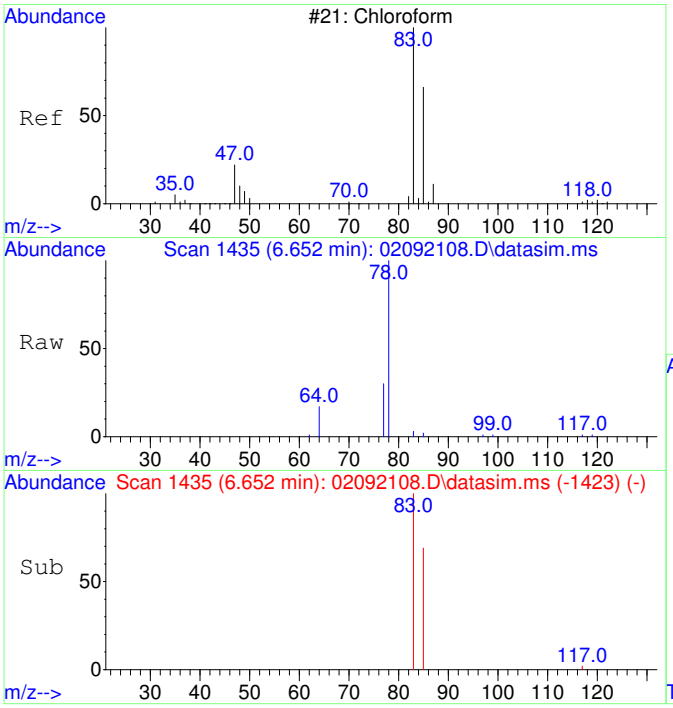


#5
cis-1,2-Dichloroethene
Concen: 35.74 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 483

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.5	62.5

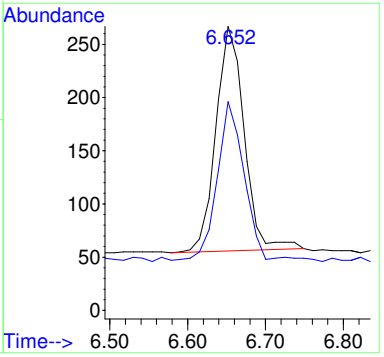


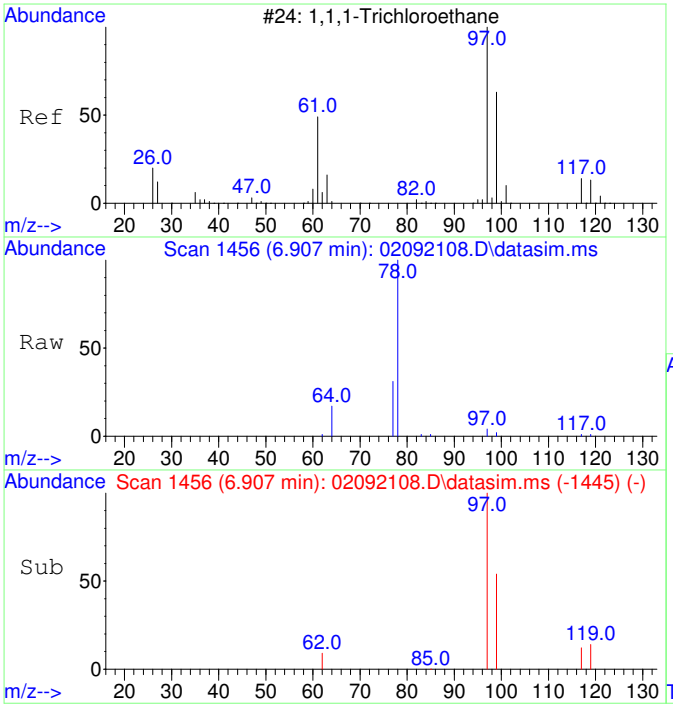


#6
Chloroform
Concen: 41.14 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 534

Ion	Ratio	Lower	Upper
83	100		
85	66.1	35.1	95.1

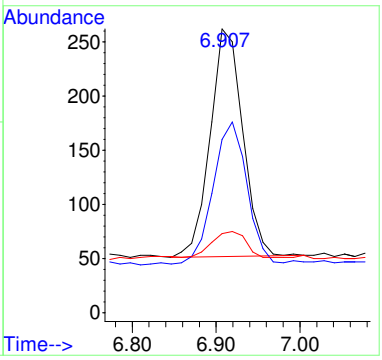


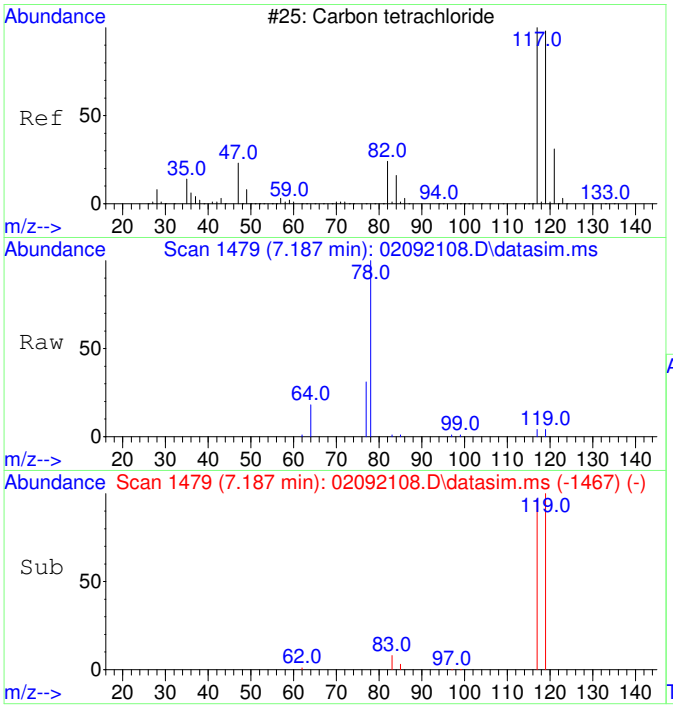


#7
1,1,1-Trichloroethane
Concen: 40.59 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 566

Ion	Ratio	Lower	Upper
97	100		
99	66.4	34.6	94.6
117	11.7	0.0	43.2

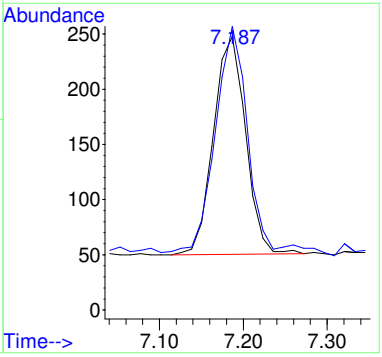


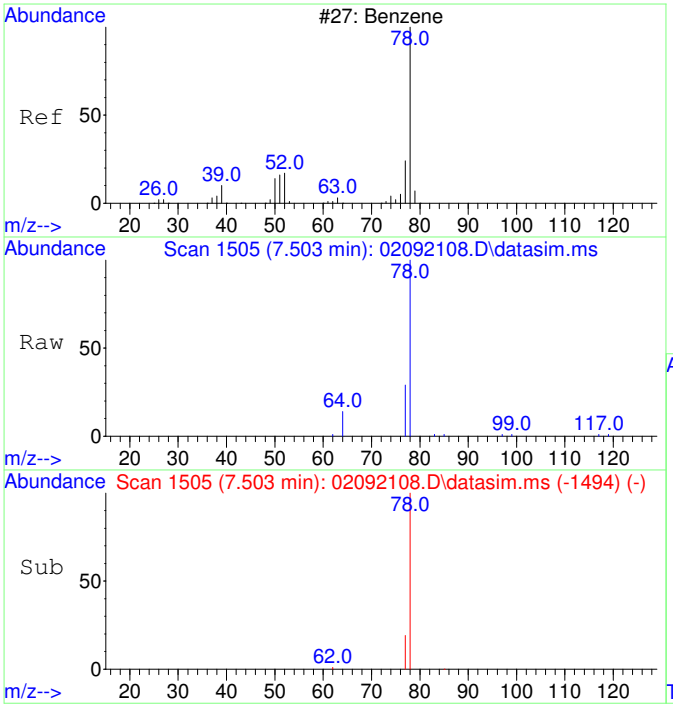


#8
Carbon tetrachloride
Concen: 39.38 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:117 Resp: 525

Ion	Ratio	Lower	Upper
117	100		
119	102.1	66.4	126.4

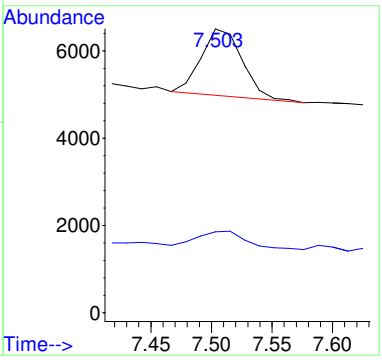


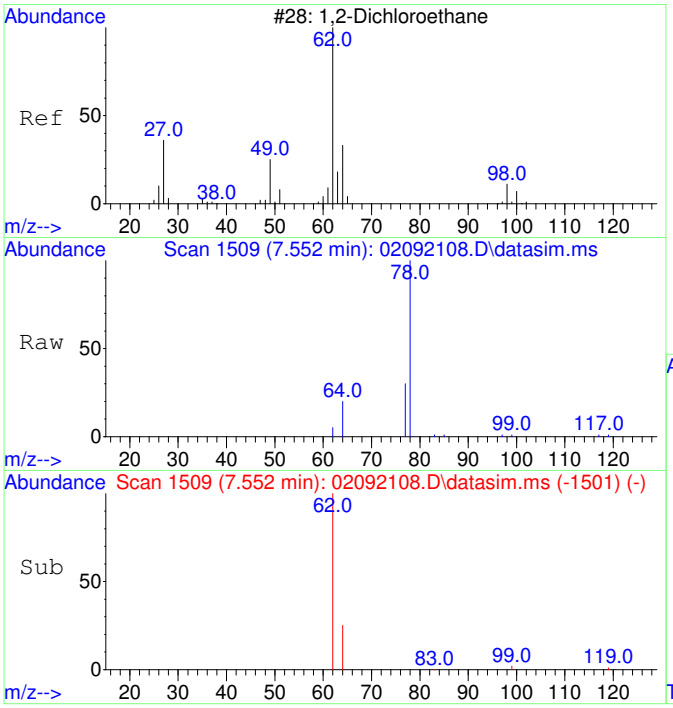


#9
Benzene
Concen: 96.56 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3551

Ion	Ratio	Lower	Upper
78	100		
77	36.1	0.0	53.2

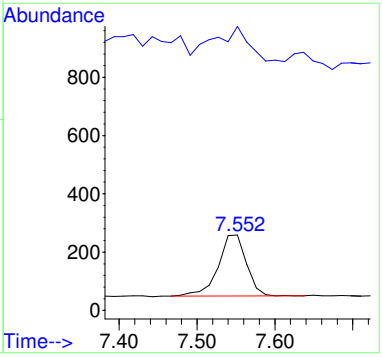


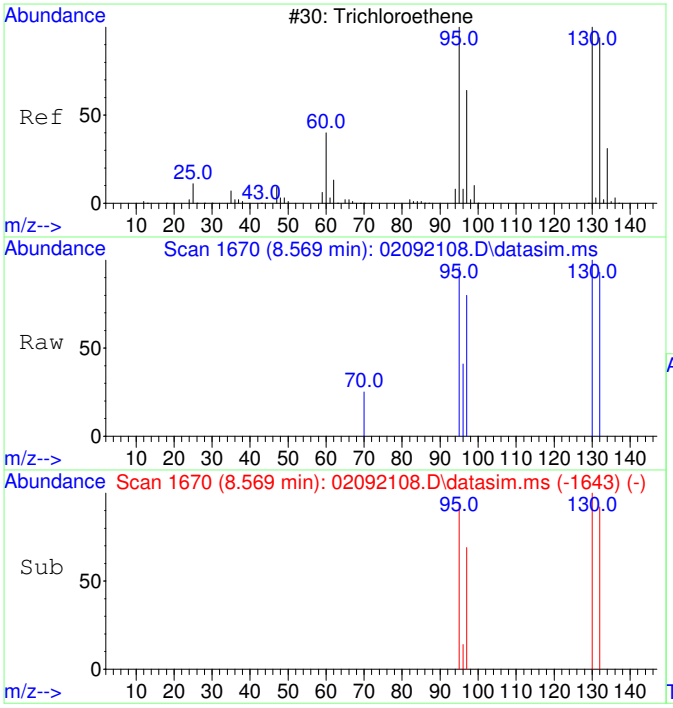


#10
1,2-Dichloroethane
Concen: 42.16 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 529

Ion	Ratio	Lower	Upper
62	100		
64	70.9	2.3	62.3#

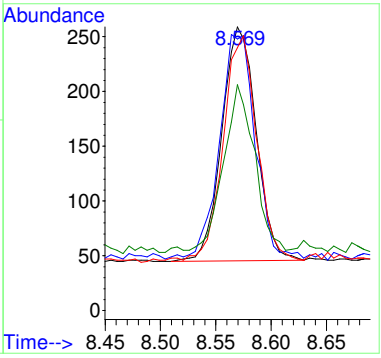


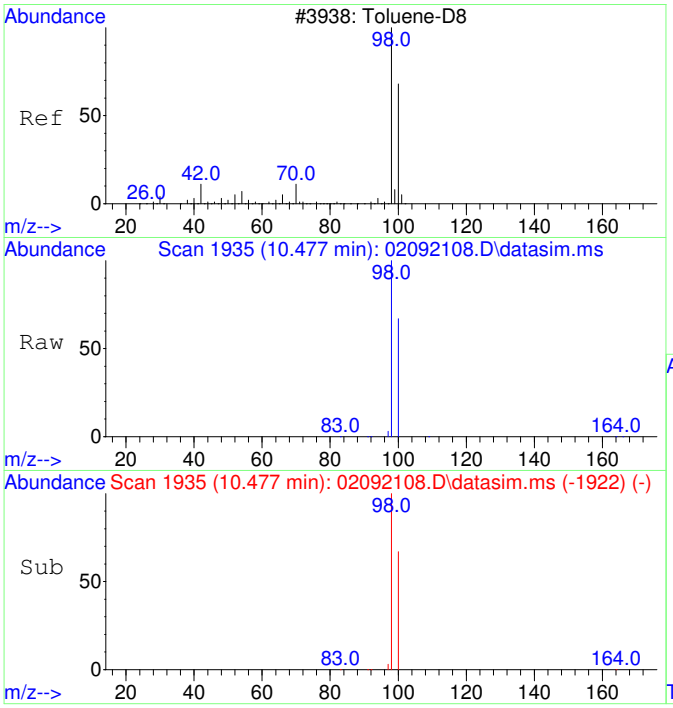


#11
Trichloroethene
Concen: 39.70 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 461

Ion	Ratio	Lower	Upper
130	100		
95	99.3	60.7	120.7
132	95.4	76.0	116.0
97	62.5	38.6	78.6

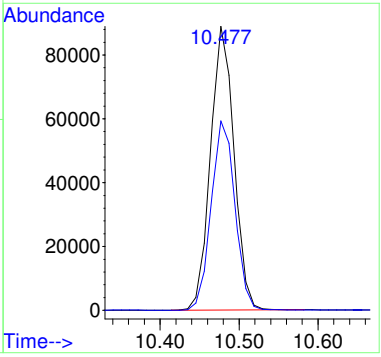


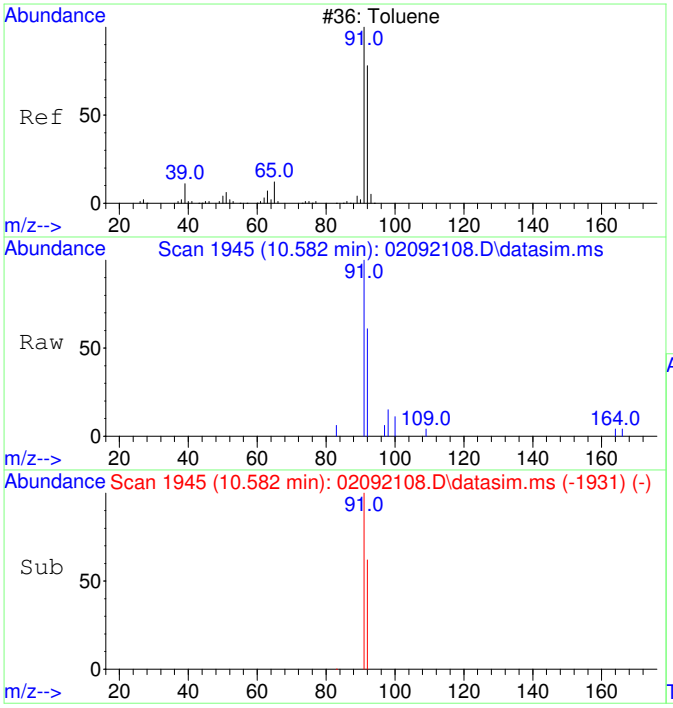


#12
Toluene-d8
Concen: 4336.91 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 183575

Ion	Ratio	Lower	Upper
98	100		
100	67.5	37.1	97.1

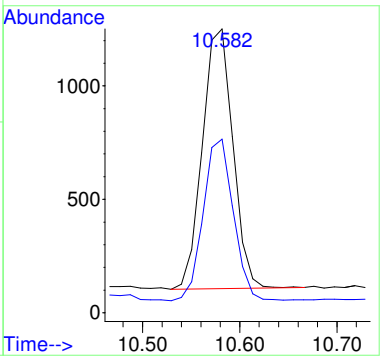


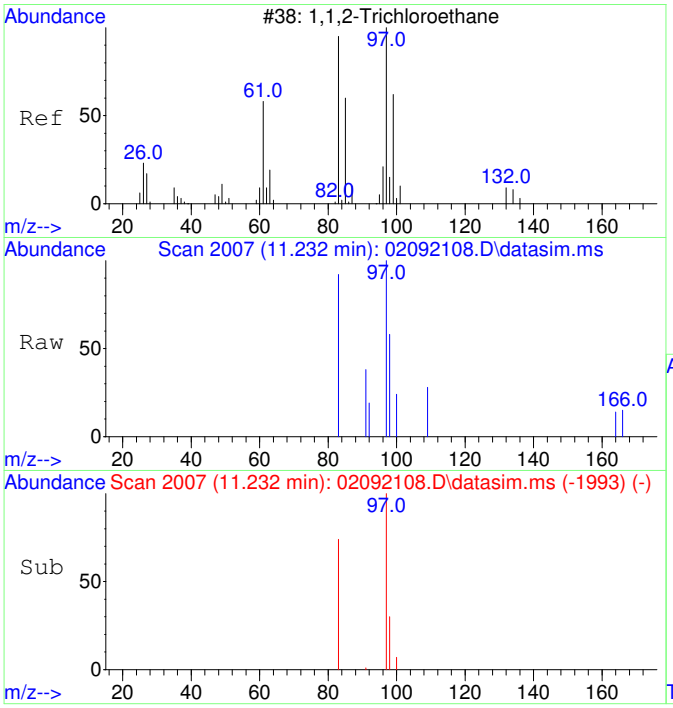


#13
Toluene
Concen: 47.32 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2494

Ion	Ratio	Lower	Upper
91	100		
92	60.4	29.9	89.9

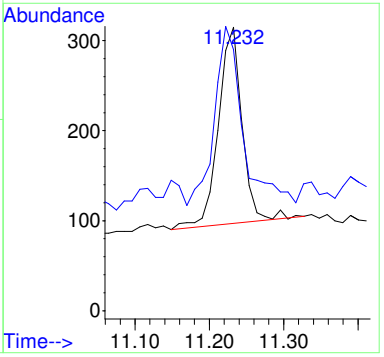


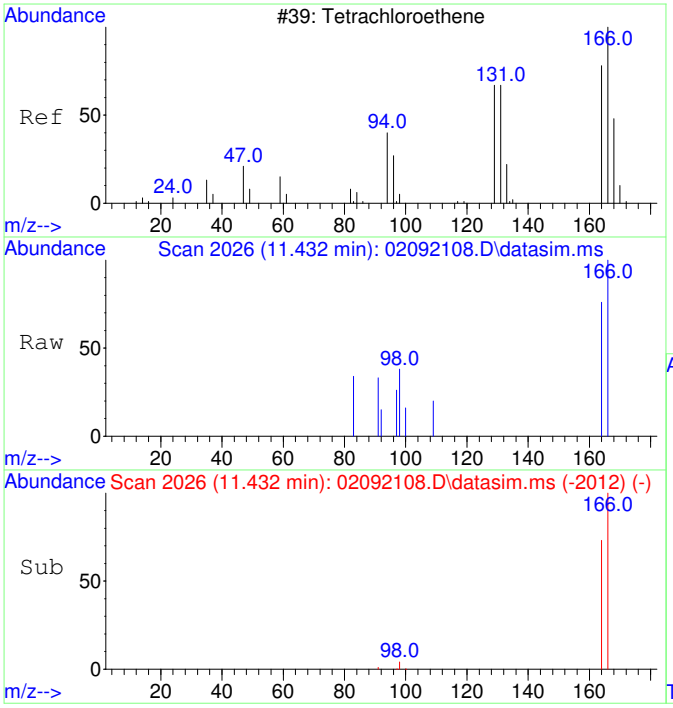


#14
1,1,2-Trichloroethane
Concen: 39.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 484

Ion	Ratio	Lower	Upper
97	100		
83	108.1	51.2	111.2

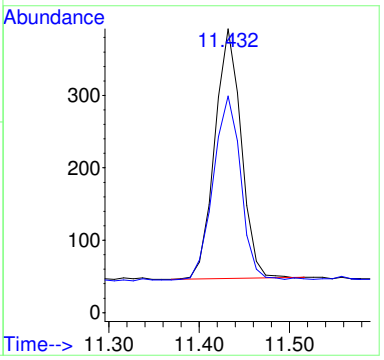


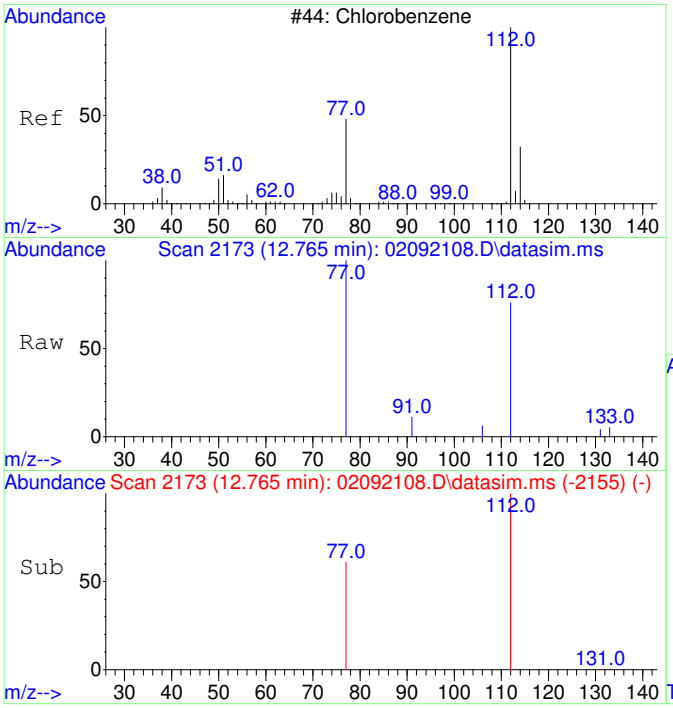


#15
Tetrachloroethene
Concen: 42.70 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 701

Ion	Ratio	Lower	Upper
166	100		
164	76.3	47.8	107.8

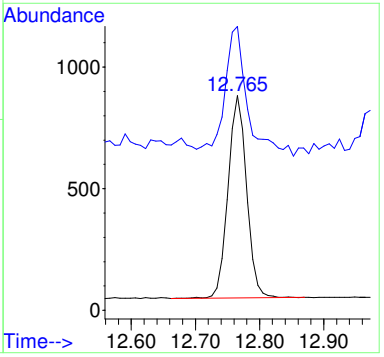


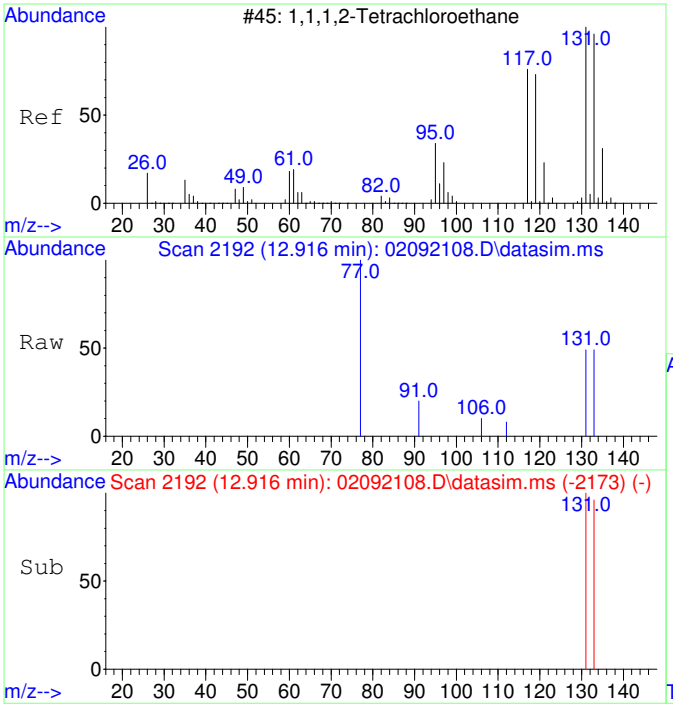


#16
Chlorobenzene
Concen: 40.90 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 1670

Ion	Ratio	Lower	Upper
112	100		
77	78.9	23.6	83.6

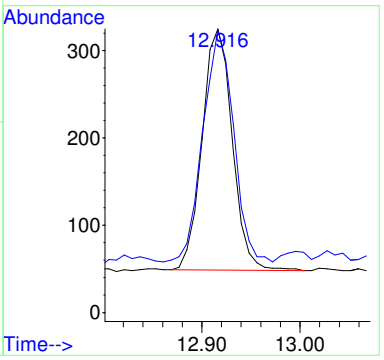


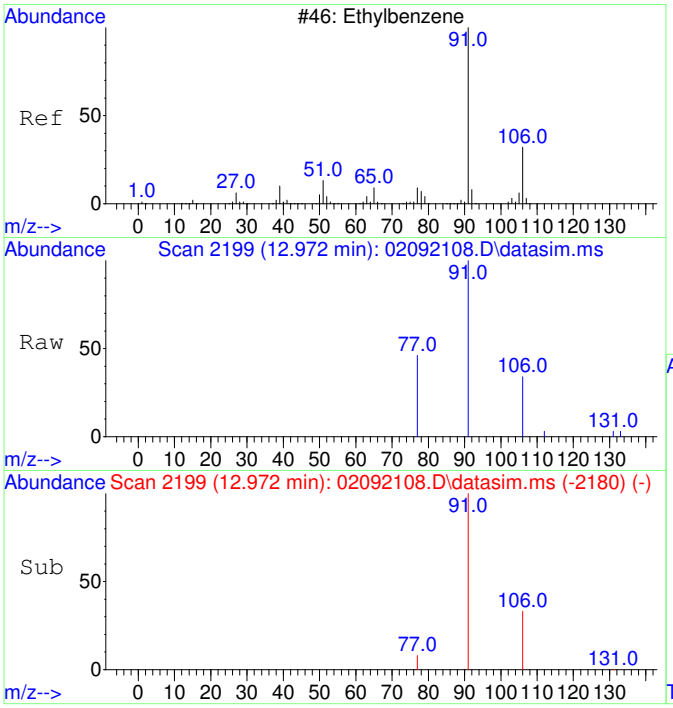


#17
1,1,1,2-Tetrachloroethane
Concen: 41.22 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:131 Resp: 589

Ion	Ratio	Lower	Upper
131	100		
133	97.6	66.3	126.3

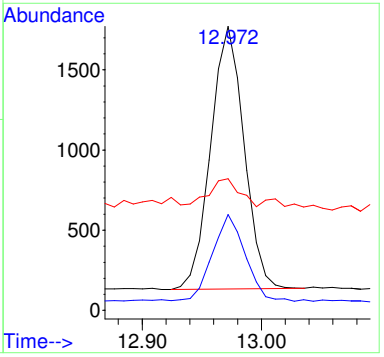


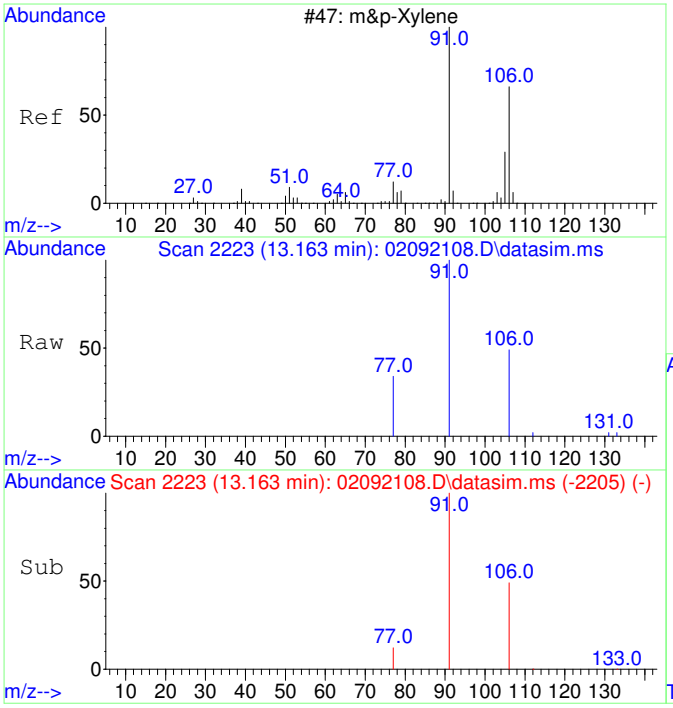


#18
Ethylbenzene
Concen: 47.34 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 3187

Ion	Ratio	Lower	Upper
91	100		
106	32.0	3.0	63.0
77	11.6	0.0	38.2

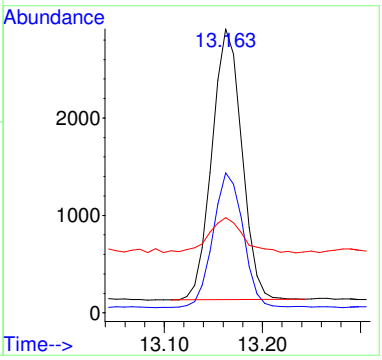


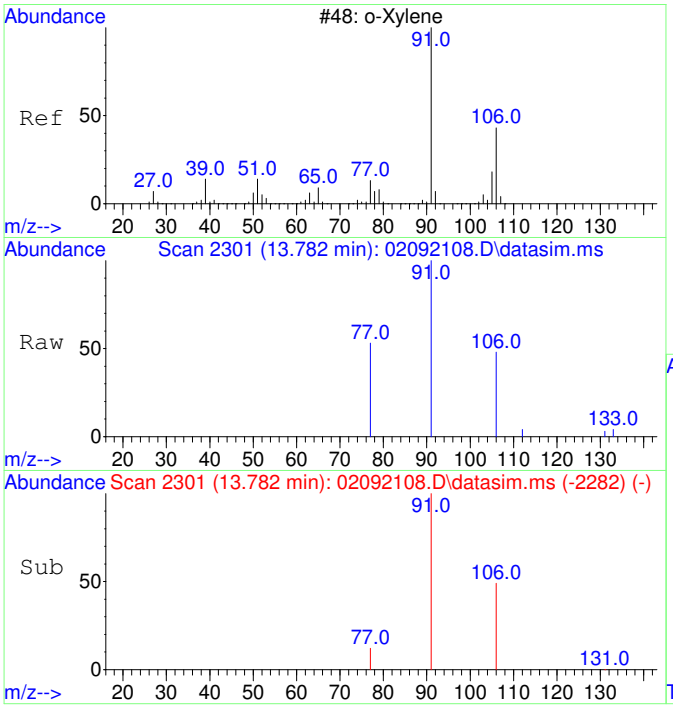


#19
m&p-Xylene
Concen: 112.85 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 5850

Ion	Ratio	Lower	Upper
91	100		
106	49.8	22.2	82.2
77	14.7	0.0	42.4

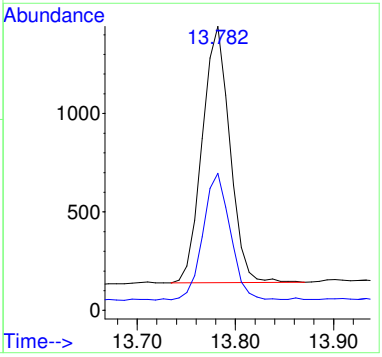


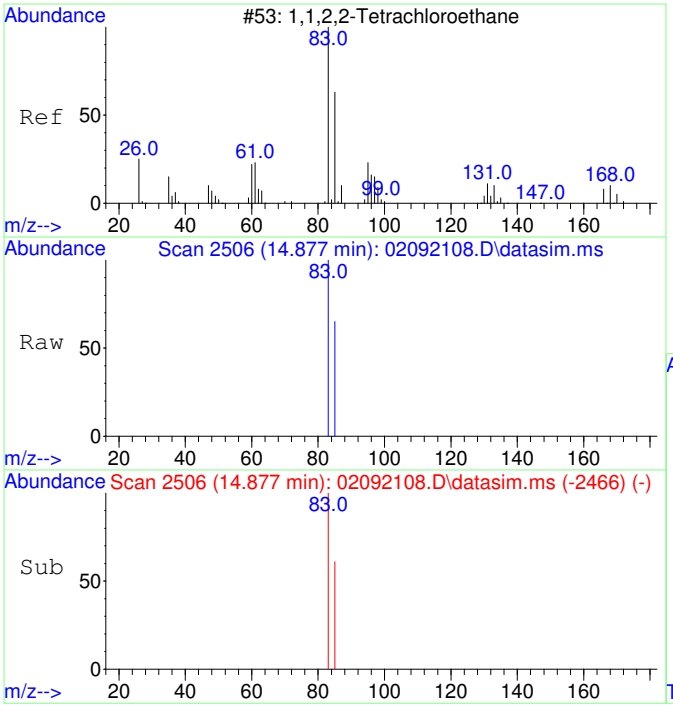


#20
o-Xylene
Concen: 45.66 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2542

Ion	Ratio	Lower	Upper
91	100		
106	48.7	19.2	79.2

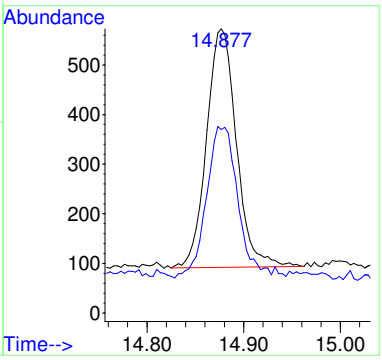


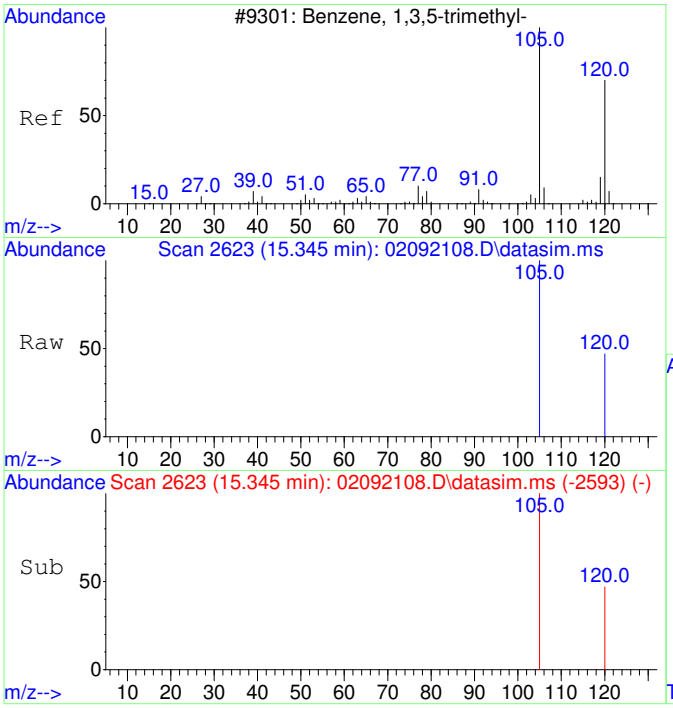


#21
1,1,2,2-Tetrachloroethane
Concen: 39.90 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 1035

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.8	94.8

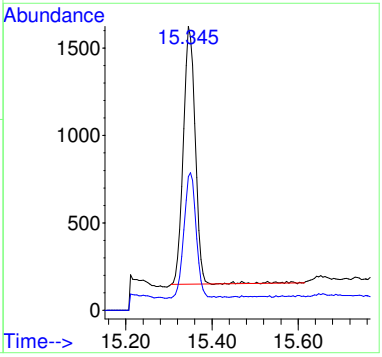


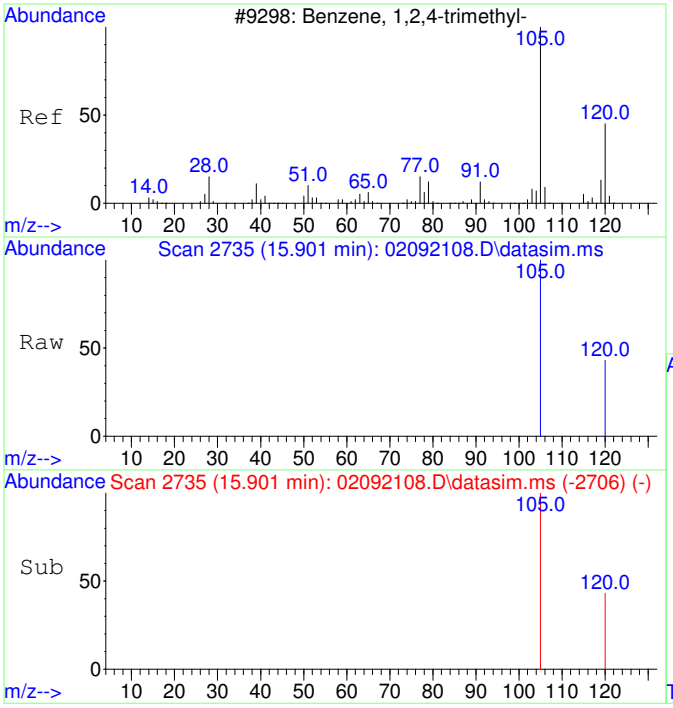


#22
1,3,5-Trimethylbenzene
Concen: 46.50 ug/L
RT: 15.345 min Scan# 2623
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 2847

Ion	Ratio	Lower	Upper
105	100		
120	50.9	21.1	81.1

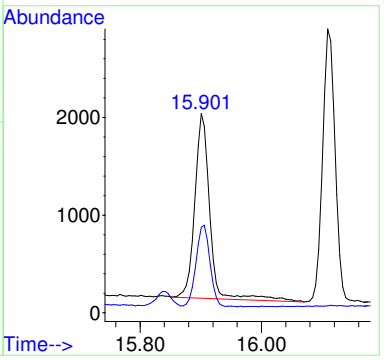


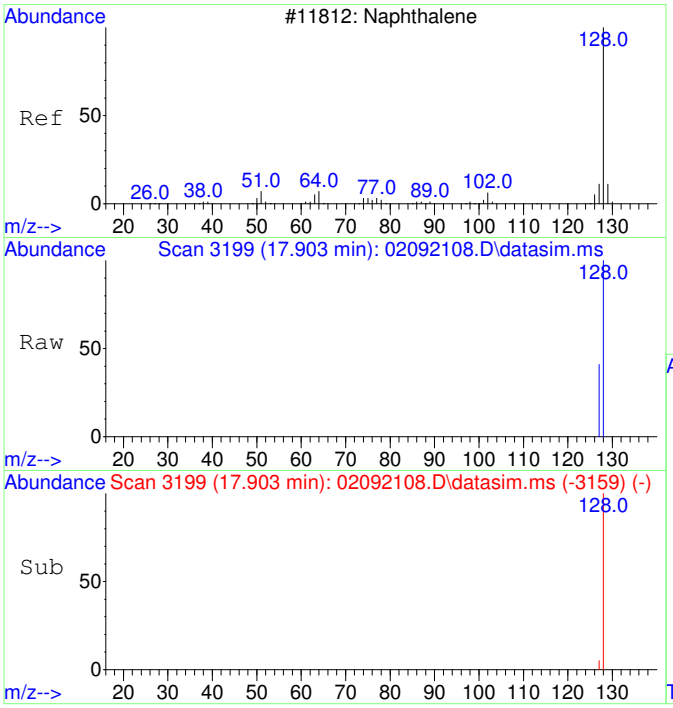


#23
1,2,4-Trimethylbenzene
Concen: 51.96 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 3254

Ion	Ratio	Lower	Upper
105	100		
120	40.2	17.2	77.2

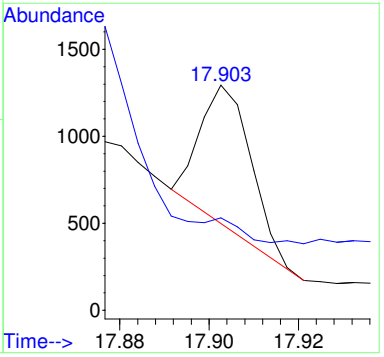


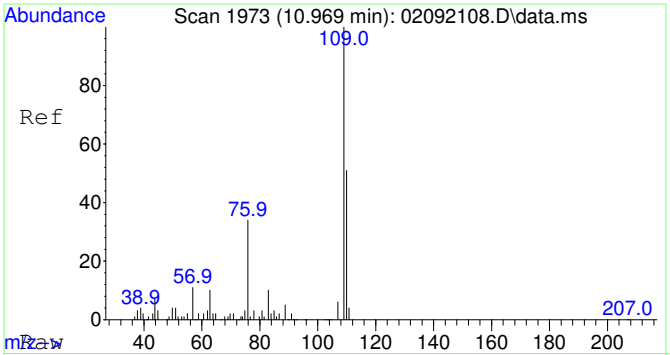


#24
Naphthalene
Concen: 5.73 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 581

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5

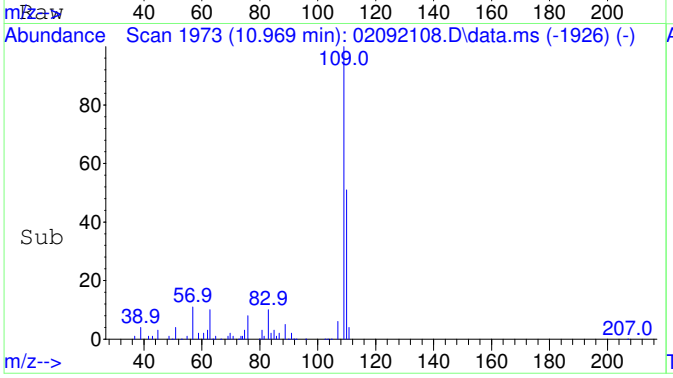


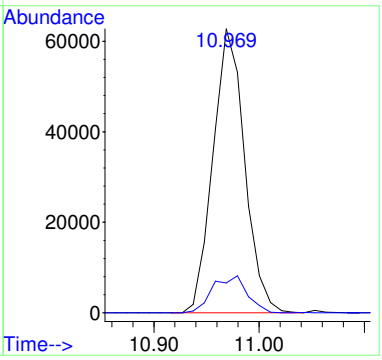


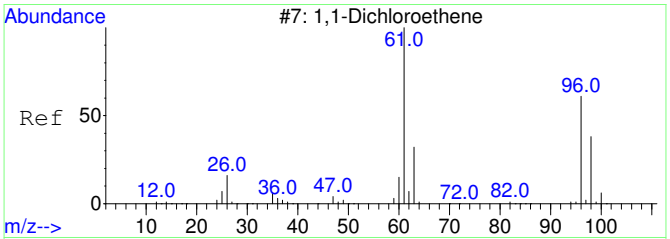
#25
2-Fluorotoluene SCAN
Concen: 5294.36 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 131343

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	43.8



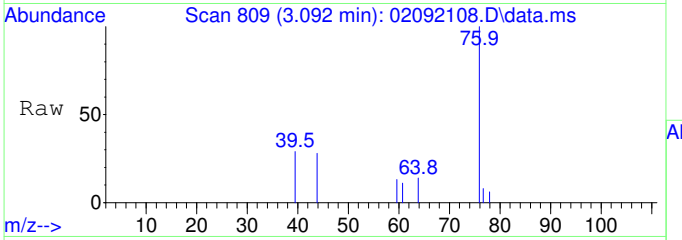


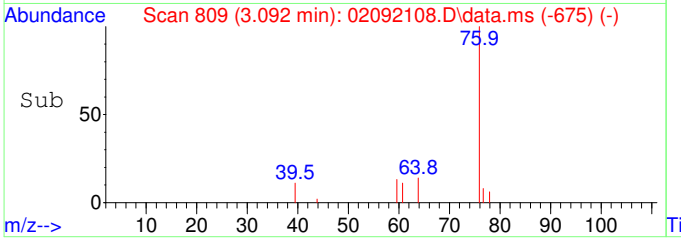


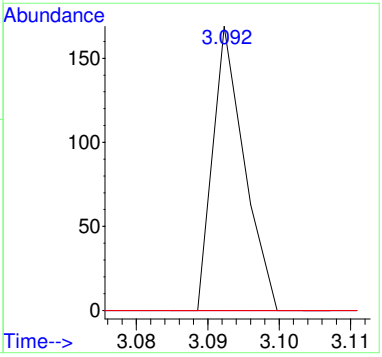
#26
1,1-Dichloroethene SCAN
Concen: 8.98 ug/L
RT: 3.092 min Scan# 809
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

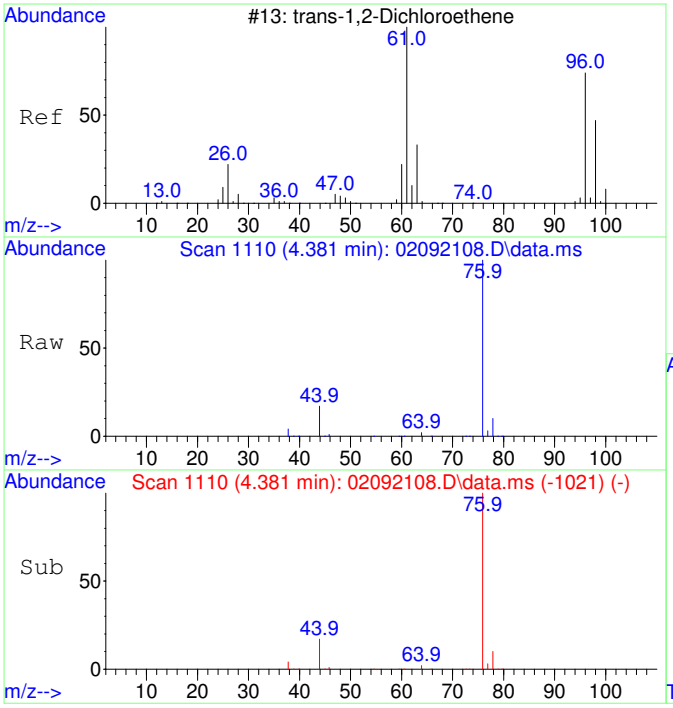
Tgt Ion: 61 Resp: 52

Ion	Ratio	Lower	Upper
61	100		
96	0.0	33.1	93.1#
98	0.0	11.2	71.2#





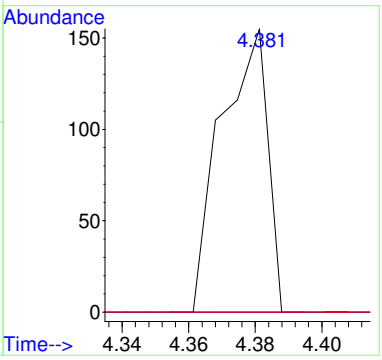


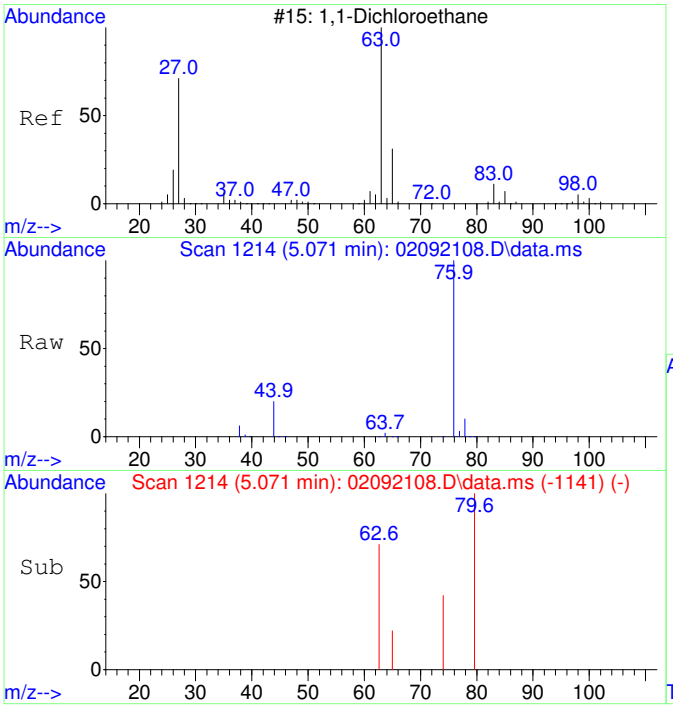


#27
trans-1,2-Dichloroethene SCAN
Concen: 20.33 ug/L
RT: 4.381 min Scan# 1110
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

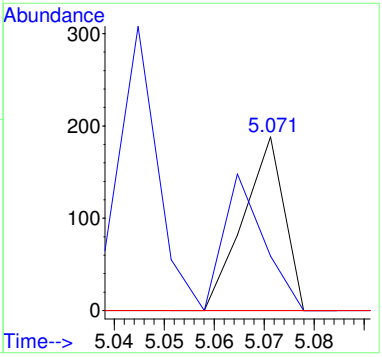


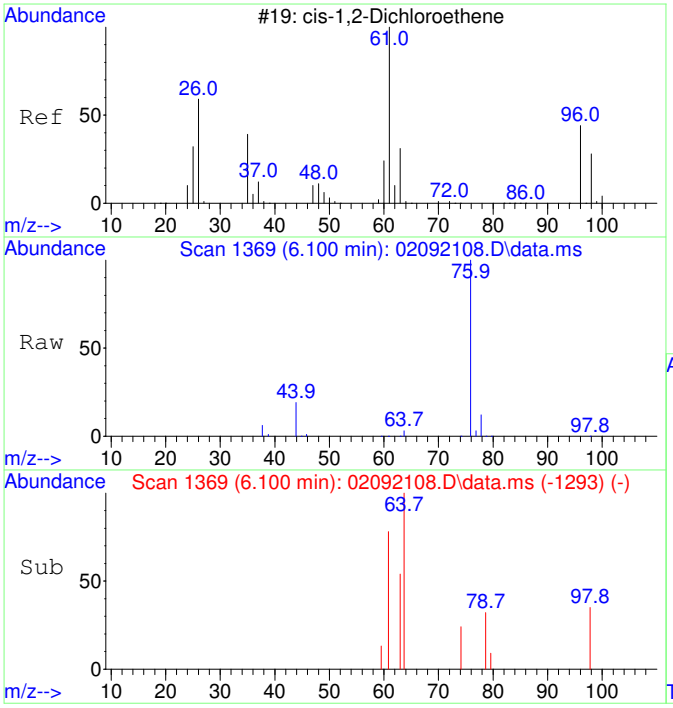


#28
1,1-Dichloroethane SCAN
Concen: 12.29 ug/L
RT: 5.071 min Scan# 1214
Delta R.T. -0.013 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 107

Ion	Ratio	Lower	Upper
63	100		
65	76.6	1.3	61.3#
83	0.0	0.0	45.9

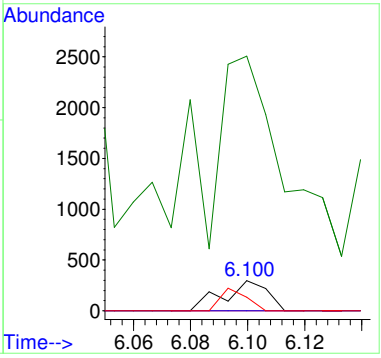


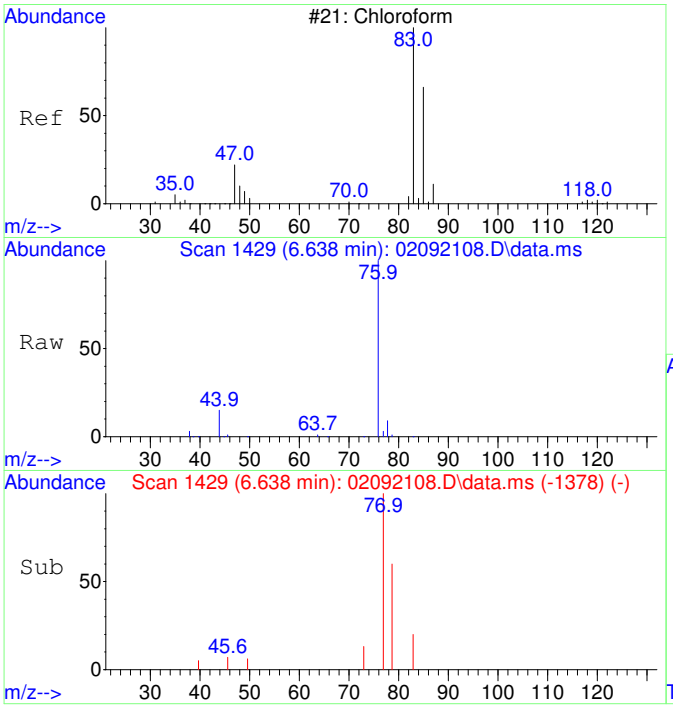


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.15 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 318

Ion	Ratio	Lower	Upper
61	100		
96	0.0	39.9	99.9#
98	44.7	13.5	73.5
64	854.1	4.5	64.5#

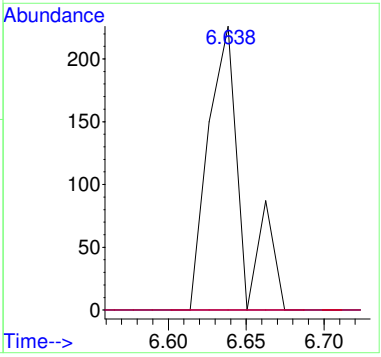


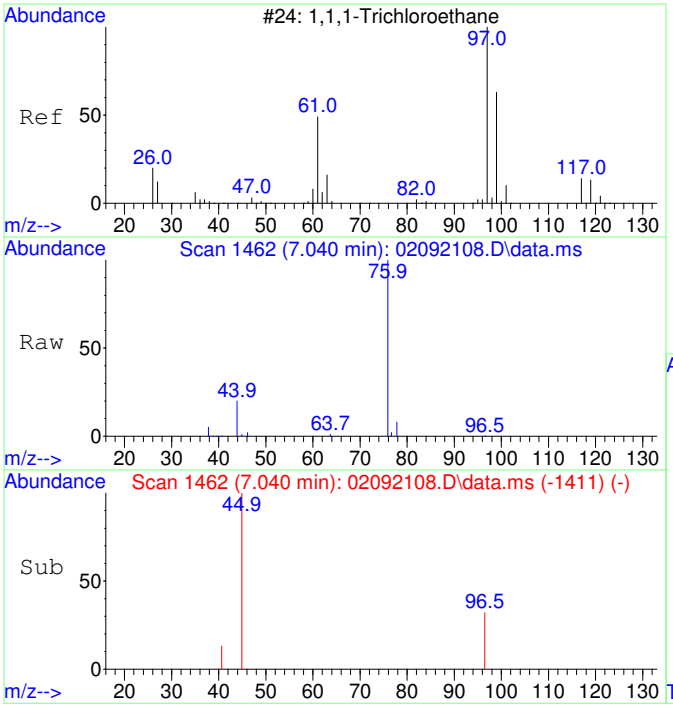


#30
Chloroform SCAN
Concen: 42.34 ug/L
RT: 6.638 min Scan# 1429
Delta R.T. -0.024 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 338

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

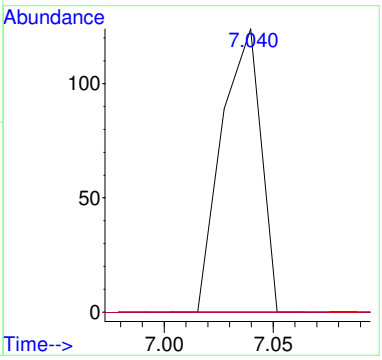


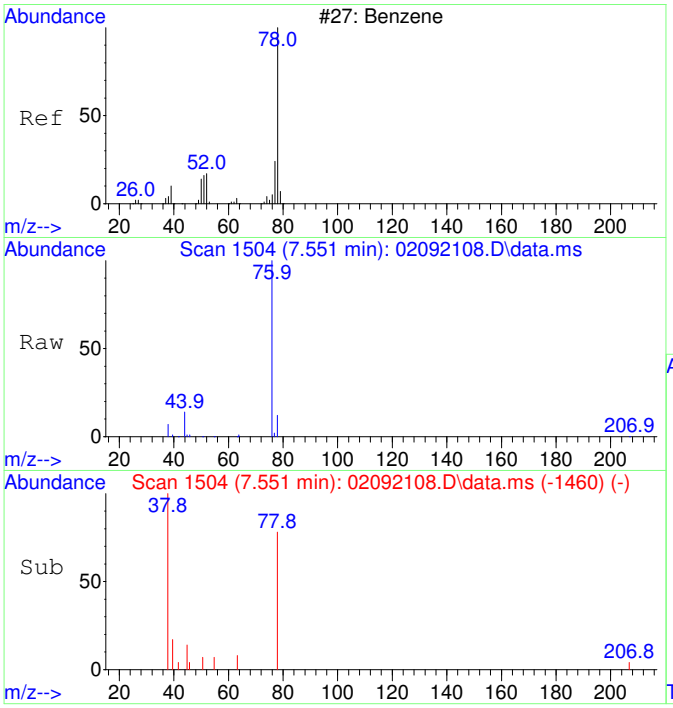


#31
1,1,1-Trichloroethane SCAN
Concen: 18.81 ug/L
RT: 7.040 min Scan# 1462
Delta R.T. 0.122 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 155

Ion	Ratio	Lower	Upper
97	100		
99	0.0	43.6	103.6#
61	0.0	18.0	78.0#

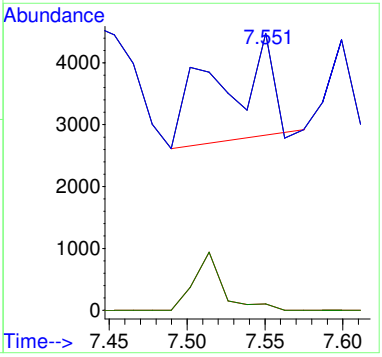


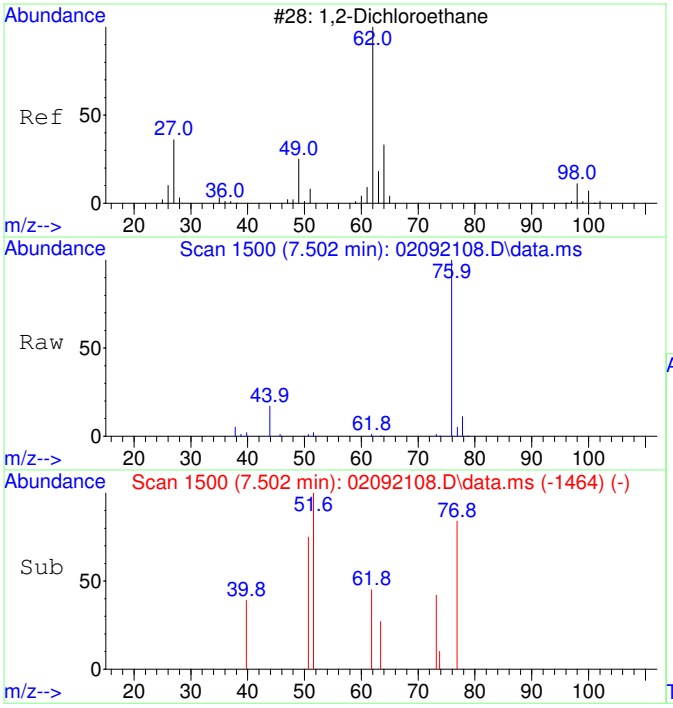


#33
Benzene SCAN
Concen: 156.19 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. 0.037 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3893

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

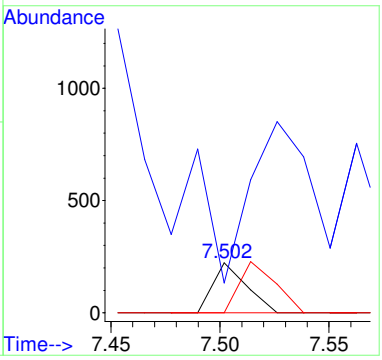


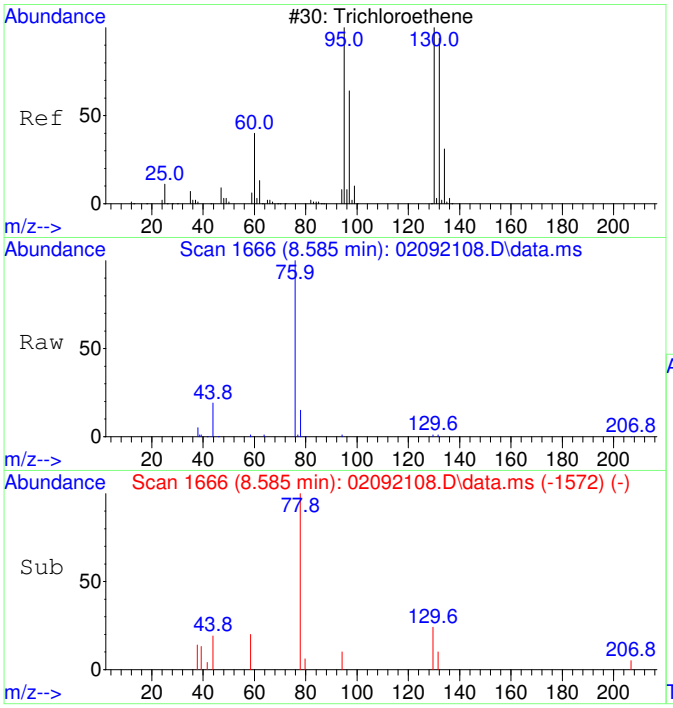


#34
1,2-Dichloroethane SCAN
Concen: 30.40 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. -0.061 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 237

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

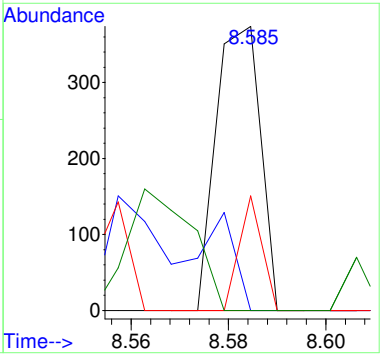


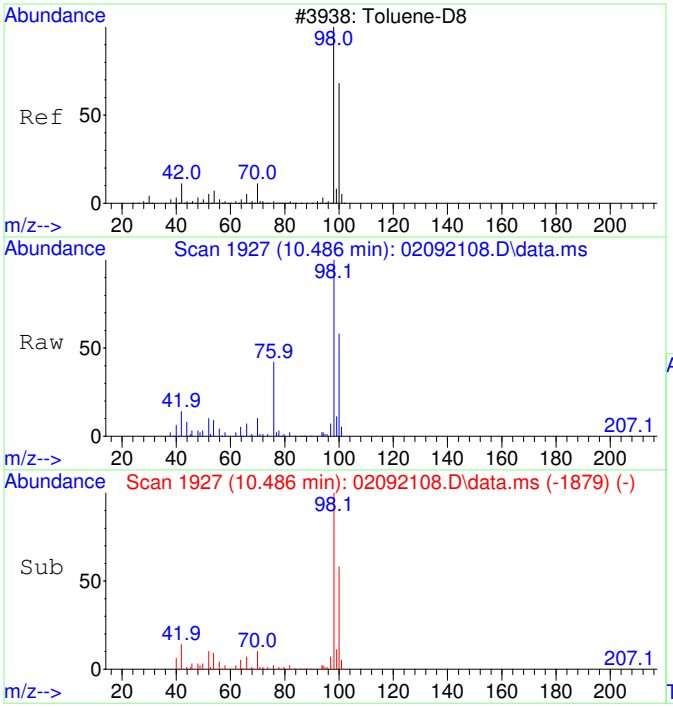


#35
Trichloroethene SCAN
Concen: 43.61 ug/L
RT: 8.585 min Scan# 1666
Delta R.T. 0.011 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 237

Ion	Ratio	Lower	Upper
130	100		
95	0.0	60.5	120.5#
132	0.0	59.6	119.6#
97	0.0	28.2	88.2#

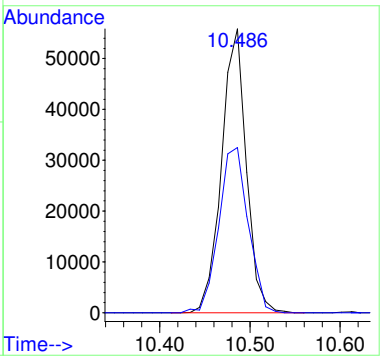


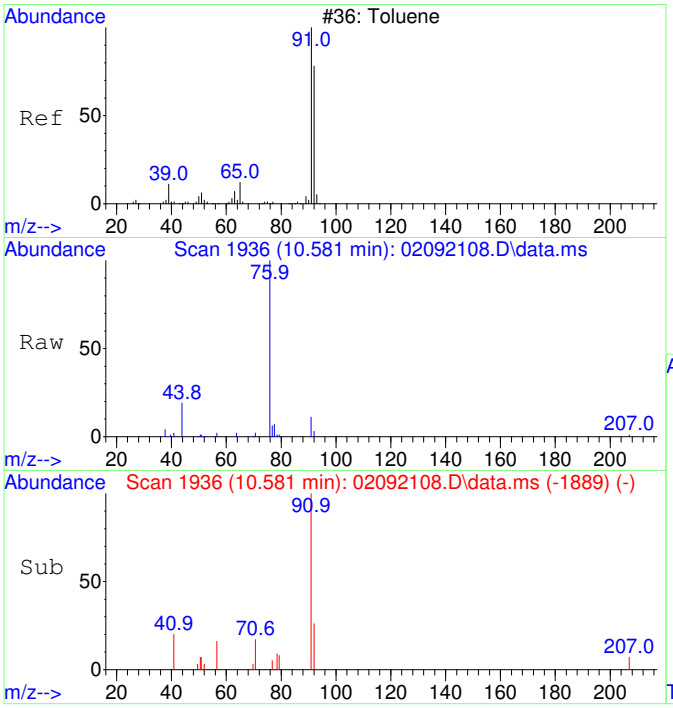


#36
Toluene-d8 SCAN
Concen: 4582.48 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 106622

Ion	Ratio	Lower	Upper
98	100		
100	69.3	40.0	100.0

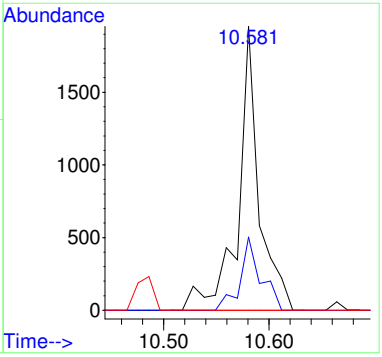


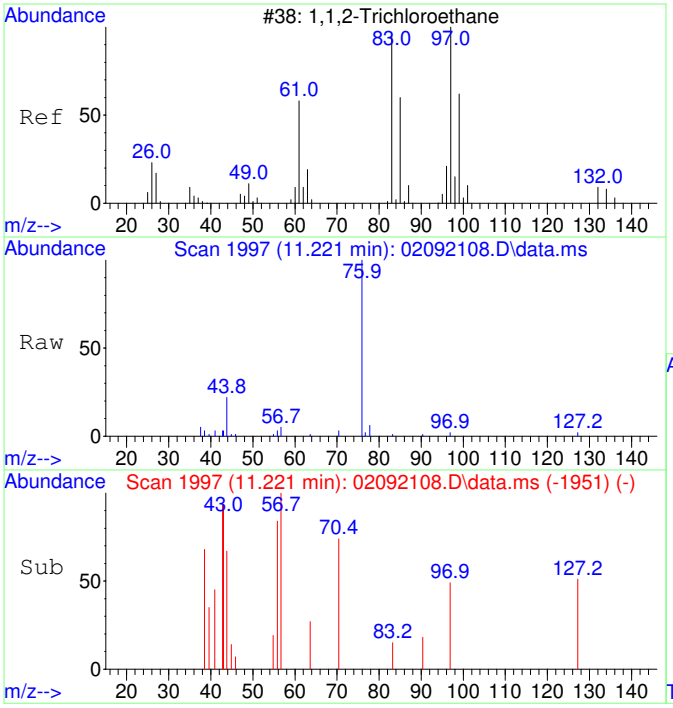


#37
Toluene SCAN
Concen: 93.52 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2679

Ion	Ratio	Lower	Upper
91	100		
92	25.4	28.3	88.3#
65	0.0	0.0	41.0

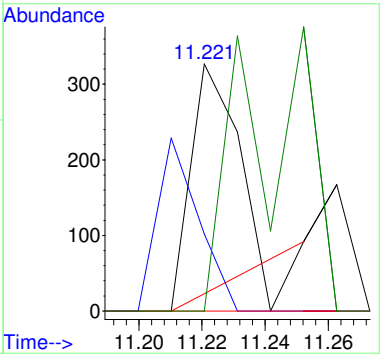


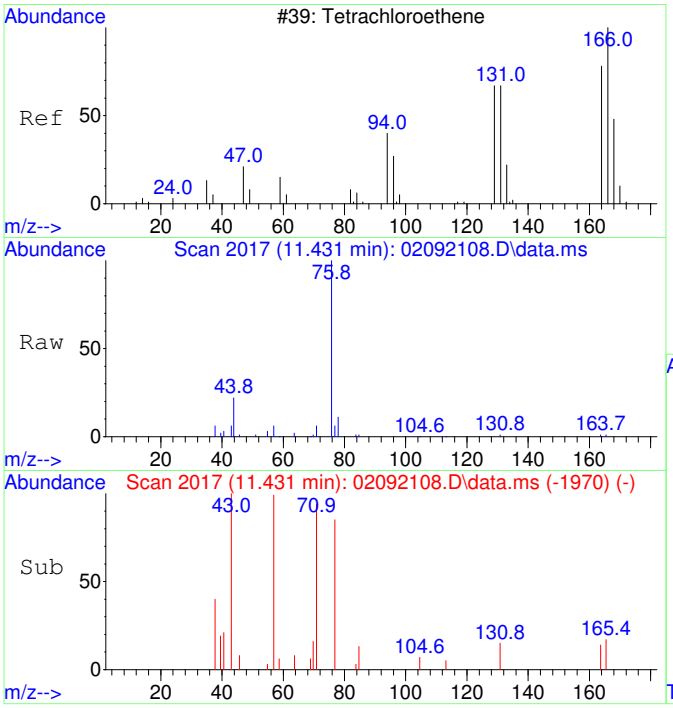


#38
1,1,2-Trichloroethane SCAN
Concen: 41.36 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. -0.021 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 297

Ion	Ratio	Lower	Upper
97	100		
83	70.0	57.7	117.7
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

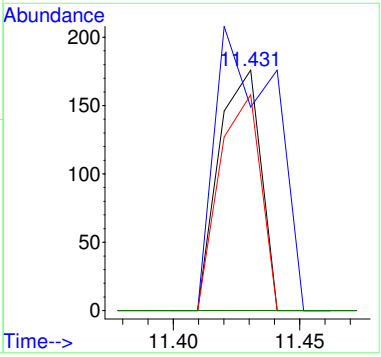


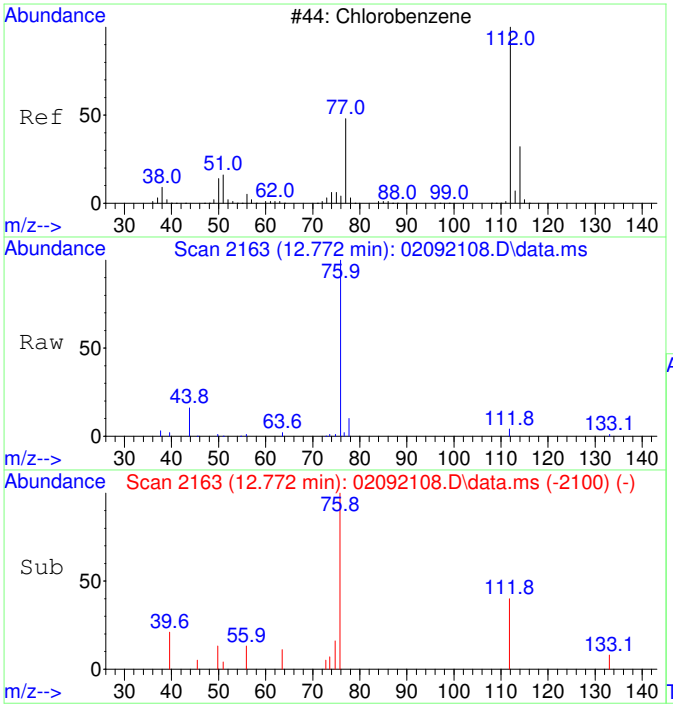


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 203

Ion	Ratio	Lower	Upper
166	100		
164	165.5	50.9	110.9#
131	88.2	38.7	98.7
129	0.0	41.8	101.8#

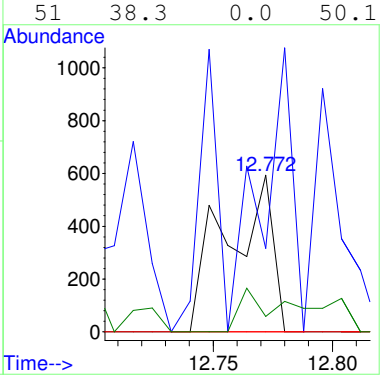


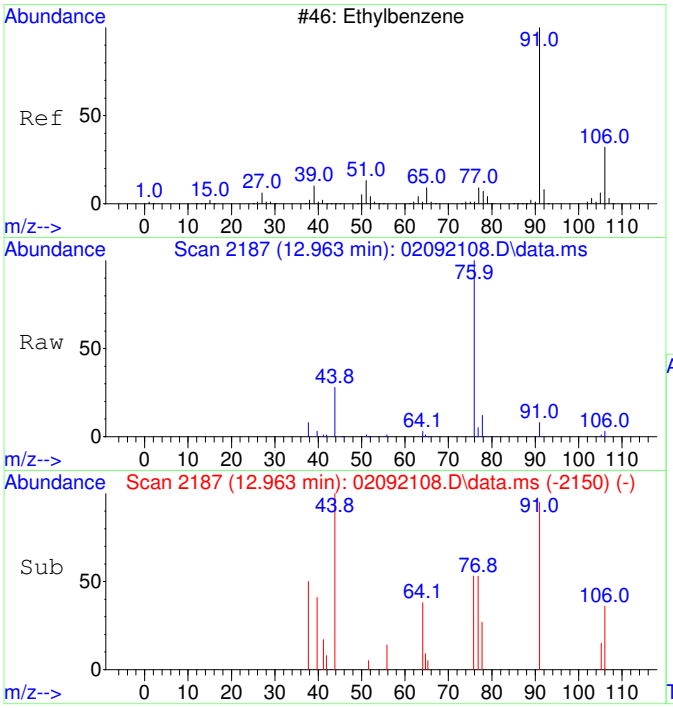


#40
Chlorobenzene SCAN
Concen: 39.07 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 804

Ion	Ratio	Lower	Upper
112	100		
77	119.8	28.2	88.2#
114	0.0	2.3	62.3#
51	38.3	0.0	50.1

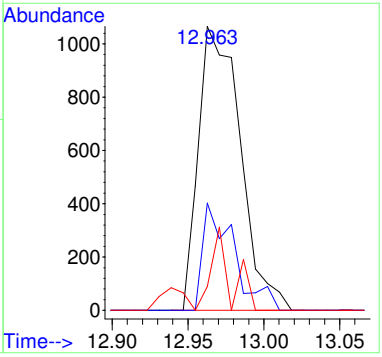


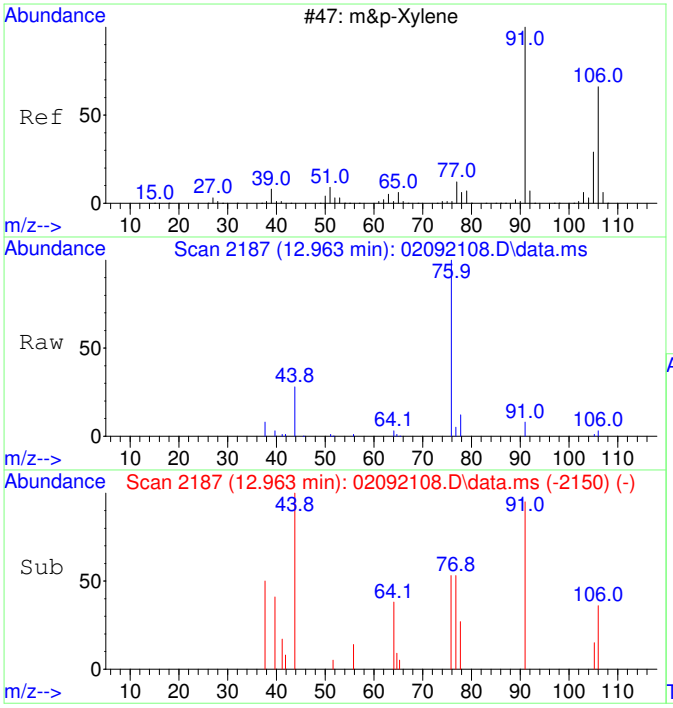


#42
Ethylbenzene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
51	13.8	0.0	40.1

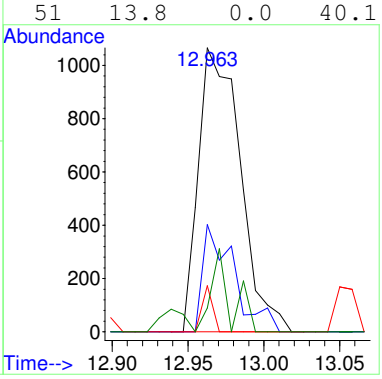


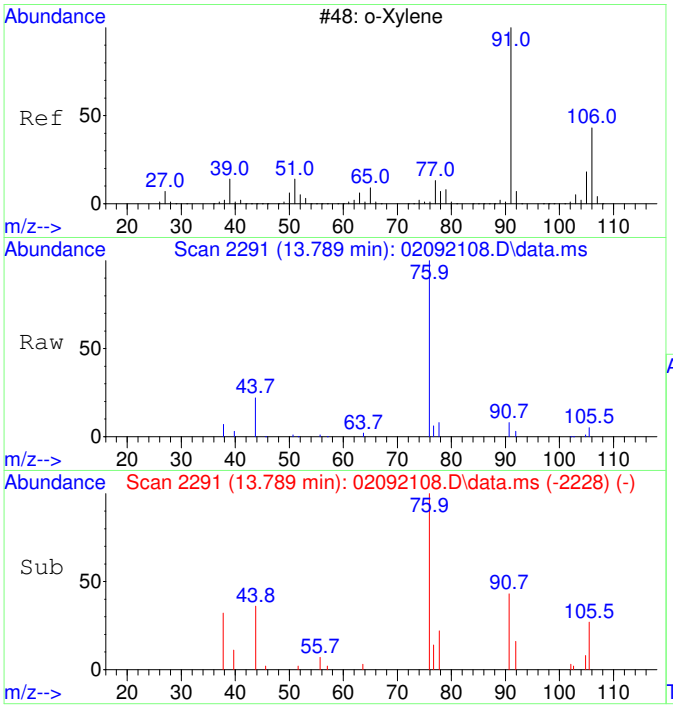


#43
m&p-Xylene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
105	4.0	0.0	54.7
51	13.8	0.0	40.1

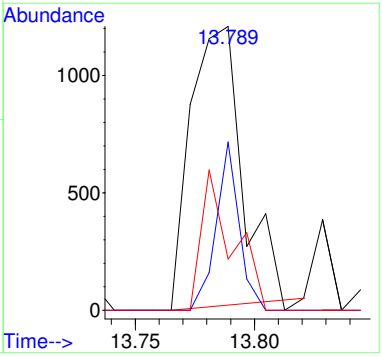


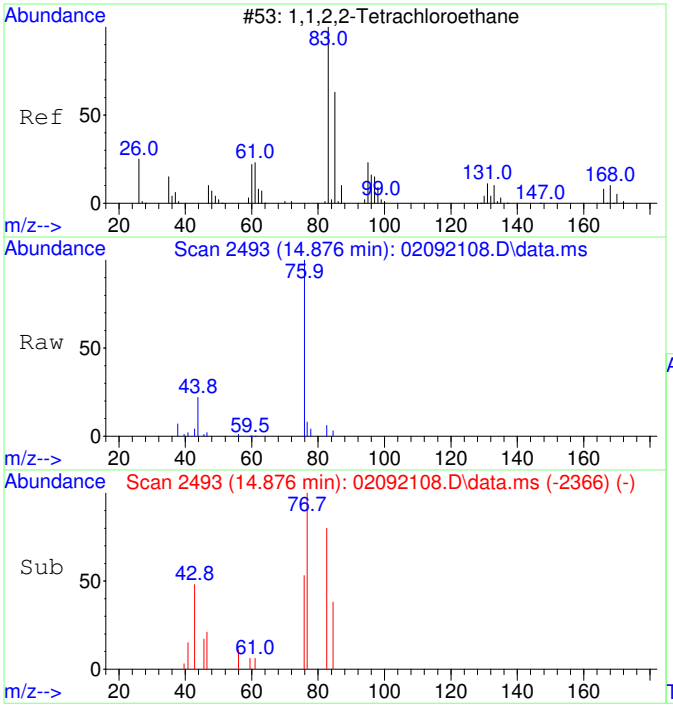


#44
o-Xylene SCAN
Concen: 60.68 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 1809

Ion	Ratio	Lower	Upper
91	100		
106	26.6	18.0	78.0
105	30.2	0.0	56.6

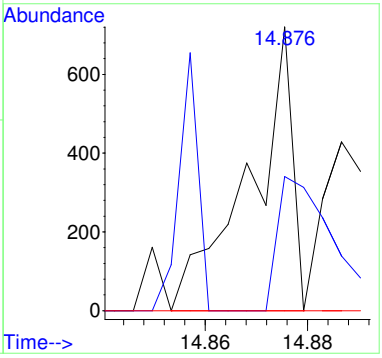


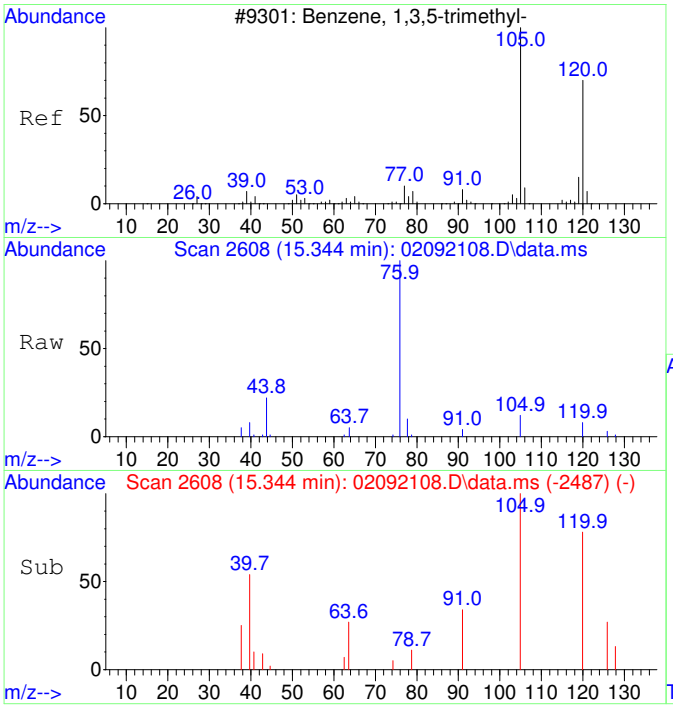


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 26.97 ug/L
RT: 14.876 min Scan# 2493
Delta R.T. -0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 418

Ion	Ratio	Lower	Upper
83	100		
85	62.9	35.9	95.9
95	0.0	0.0	47.4

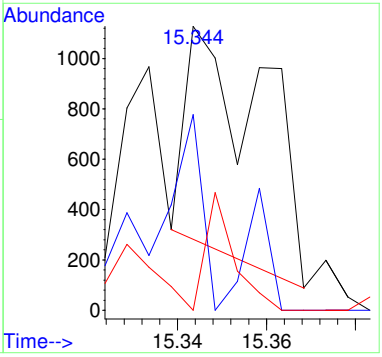


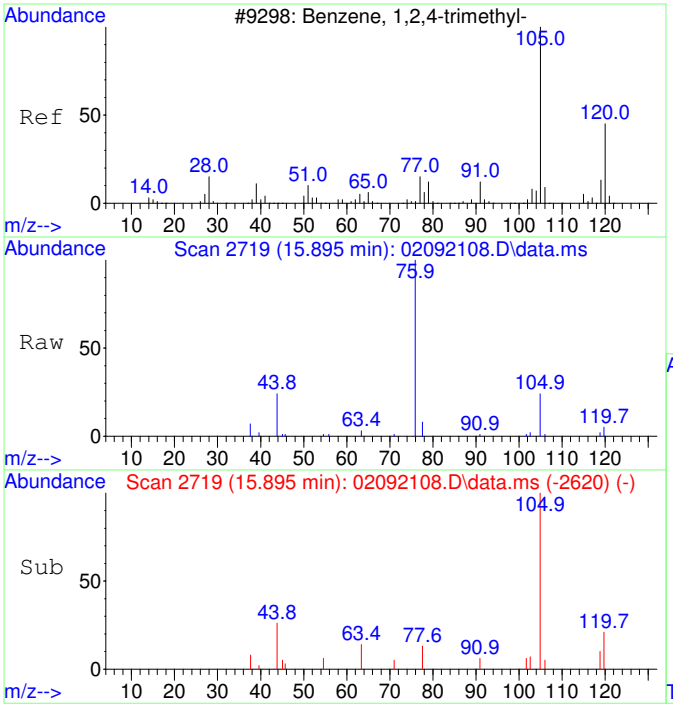


#46
1,3,5-Trimethylbenzene SCAN
Concen: 33.10 ug/L
RT: 15.344 min Scan# 2608
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 1041

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.3	78.3
119	19.9	0.0	43.1

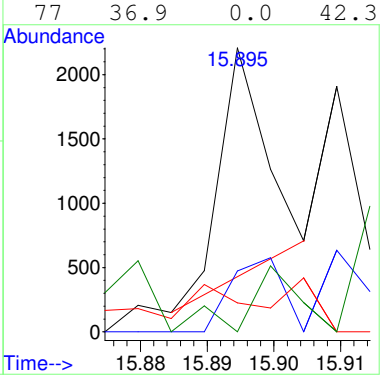


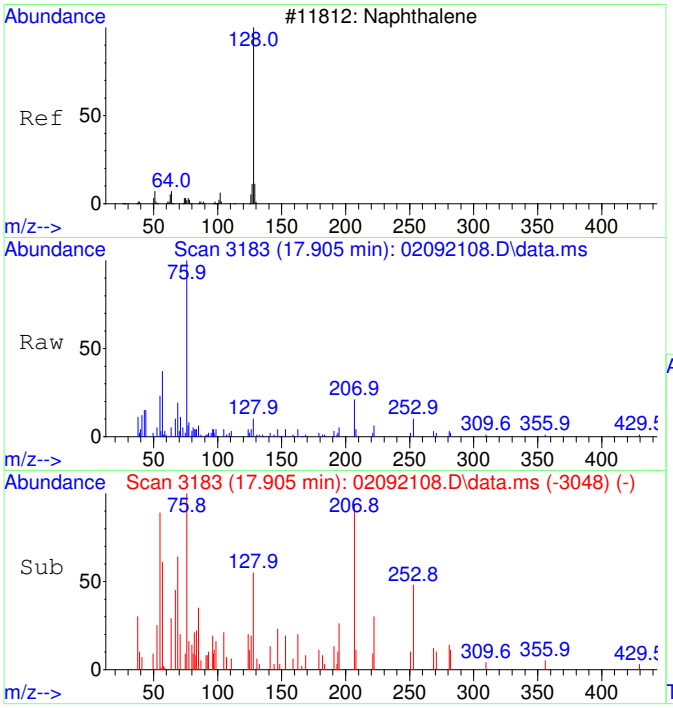


#47
1,2,4-Trimethylbenzene SCAN
Concen: 28.66 ug/L
RT: 15.895 min Scan# 2719
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 921

Ion	Ratio	Lower	Upper
105	100		
120	34.0	16.9	76.9
119	0.0	0.0	41.9
77	36.9	0.0	42.3

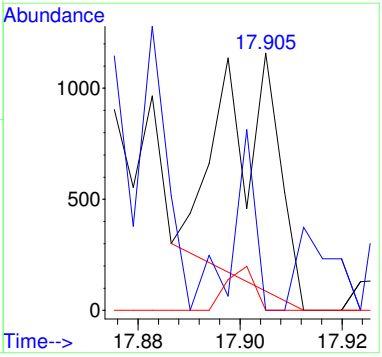




#48
Naphthalene SCAN
Concen: 15.36 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 741

Ion	Ratio	Lower	Upper
128	100		
127	33.9	0.0	44.0
129	10.1	0.0	40.8



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
TD at 1:04 pm, Feb 09, 2021

M.I. Approved By:
ZAR at 3:08 pm, Feb 10, 2021

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

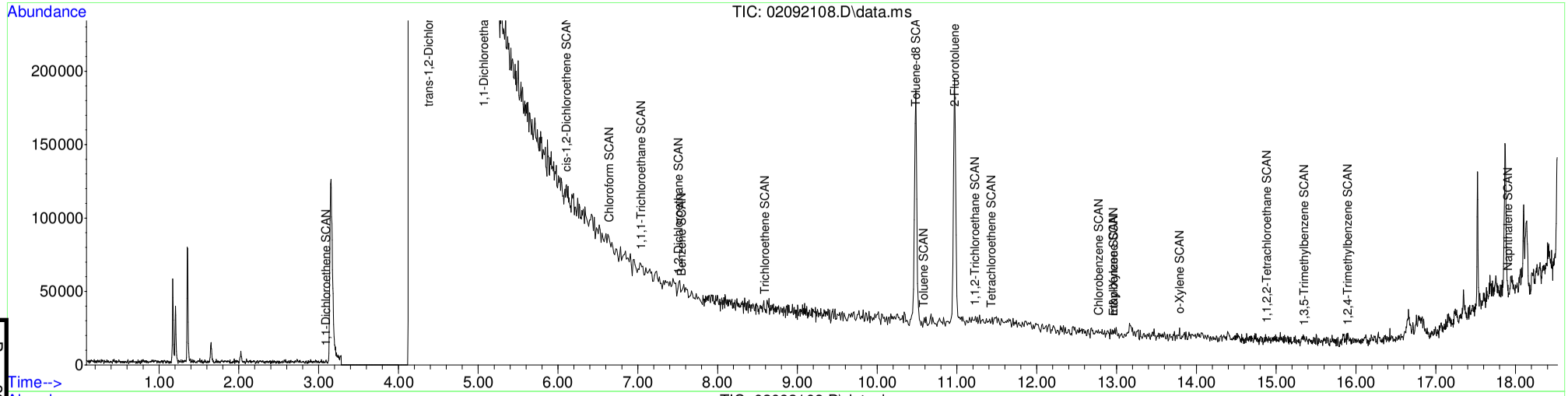
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	218554	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	183575	4336.91	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.74%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.094	61	309m	35.66	ug/L	
3] trans-1,2-Dichloroethene	4.376	61	381	34.87	ug/L	68
4] 1,1-Dichloroethane	5.086	63	448	34.33	ug/L	84
5] cis-1,2-Dichloroethene	6.088	61	483	35.74	ug/L	100
6] Chloroform	6.652	83	534	41.14	ug/L	99
7] 1,1,1-Trichloroethane	6.907	97	566	40.59	ug/L	97
8] Carbon tetrachloride	7.187	117	525	39.38	ug/L	94
9] Benzene	7.503	78	3551	96.56	ug/L	73
10] 1,2-Dichloroethane	7.552	62	529	42.16	ug/L #	31
11] Trichloroethene	8.569	130	461	39.70	ug/L	95
13] Toluene	10.582	91	2494	47.32	ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	484	39.65	ug/L	70
15] Tetrachloroethene	11.432	166	701	42.70	ug/L	98
16] Chlorobenzene	12.765	112	1670	40.90	ug/L	65
17] 1,1,1,2-Tetrachloroethane	12.916	131	589	41.22	ug/L	99
18] Ethylbenzene	12.972	91	3187	47.34	ug/L	97
19] m&p-Xylene	13.163	91	5850	112.85	ug/L	96
20] o-Xylene	13.782	91	2542	45.66	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	1035	39.90	ug/L	98
22] 1,3,5-Trimethylbenzene	15.345	105	2847	46.50	ug/L	100
23] 1,2,4-Trimethylbenzene	15.901	105	3254	51.96	ug/L	89
24] Naphthalene	17.903	128	581	5.73	ug/L #	68
25) 2-Fluorotoluene SCAN	10.969	109	131343	5294.36	ug/L	99
26) 1,1-Dichloroethene SCAN	3.092	61	52	8.98	ug/L #	25
27) trans-1,2-Dichloroethe...	4.381	61	150	20.33	ug/L #	17
28) 1,1-Dichloroethane SCAN	5.071	63	107	12.29	ug/L #	33
29) cis-1,2-Dichloroethene...	6.100	61	318	37.15	ug/L #	1
30) Chloroform SCAN	6.638	83	338	42.34	ug/L #	27
31) 1,1,1-Trichloroethane ...	7.040	97	155	18.81	ug/L #	19
33) Benzene SCAN	7.551	78	3893	156.19	ug/L #	91
34) 1,2-Dichloroethane SCAN	7.502	62	237	30.40	ug/L #	40
35) Trichloroethene SCAN	8.585	130	237	43.61	ug/L #	9
36) Toluene-d8 SCAN	10.486	98	106622	4582.48	ug/L	99
37) Toluene SCAN	10.581	91	2679	93.52	ug/L #	58
38) 1,1,2-Trichloroethane ...	11.221	97	297	41.36	ug/L #	43
39) Tetrachloroethene SCAN	11.431	166	203	31.50	ug/L #	30
40) Chlorobenzene SCAN	12.772	112	804	39.07	ug/L #	32
42) Ethylbenzene SCAN	12.963	91	2047	37.50	ug/L	69
43) m&p-Xylene SCAN	12.963	91	2047	37.50	ug/L	66
44) o-Xylene SCAN	13.789	91	1809	60.68	ug/L	77
45) 1,1,2,2-Tetrachloroeth...	14.876	83	418	26.97	ug/L #	89
46) 1,3,5-Trimethylbenzene...	15.344	105	1041	33.10	ug/L	96
47) 1,2,4-Trimethylbenzene...	15.895	105	921	28.66	ug/L #	71
48) Naphthalene SCAN	17.905	128	741	15.36	ug/L	72

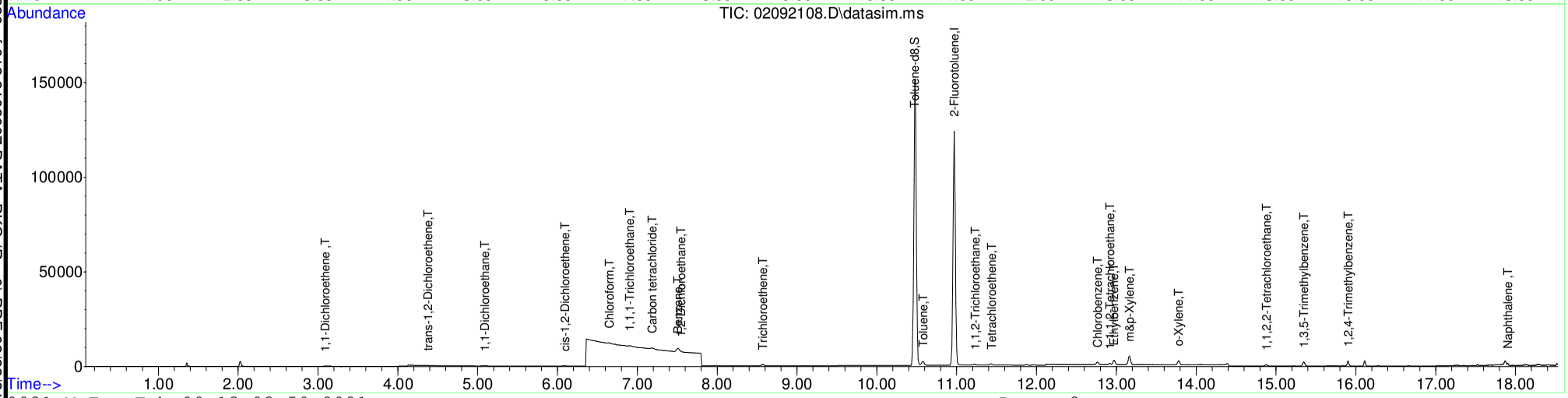
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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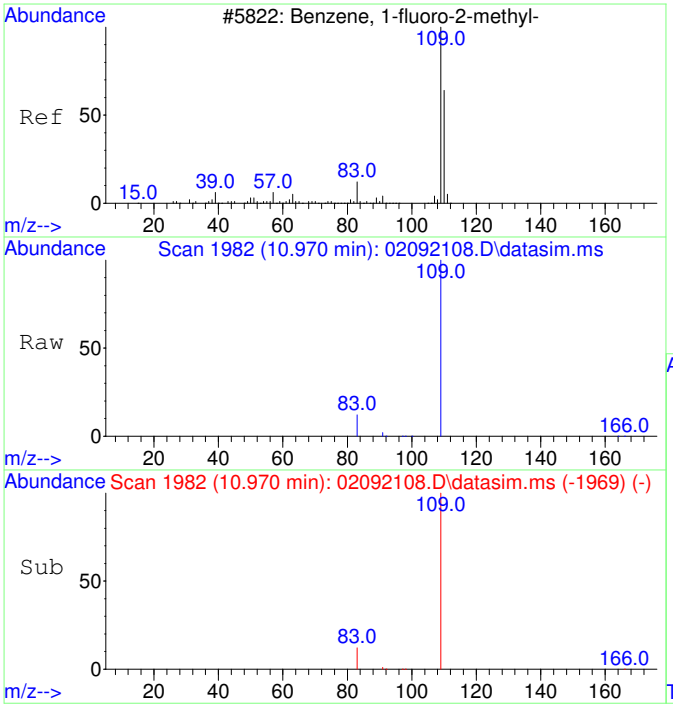
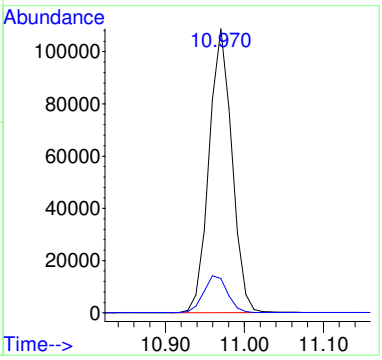
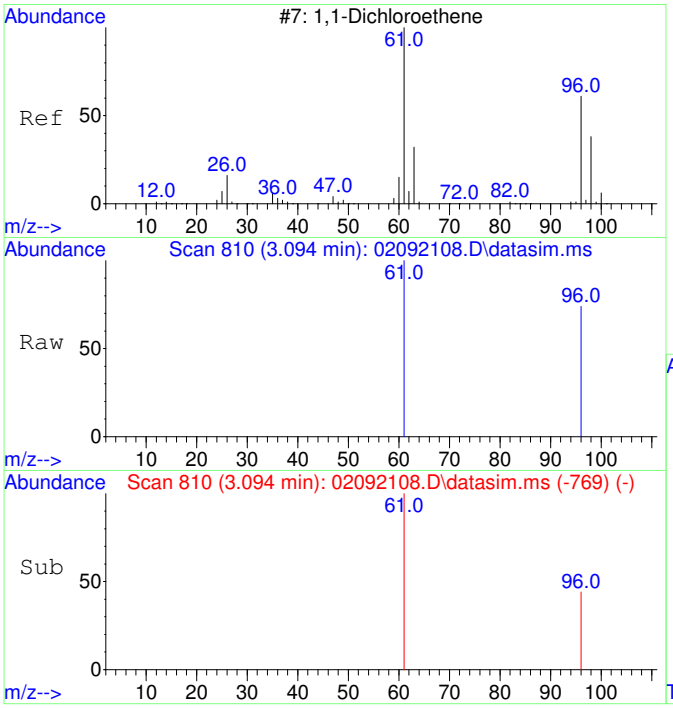


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 218554

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

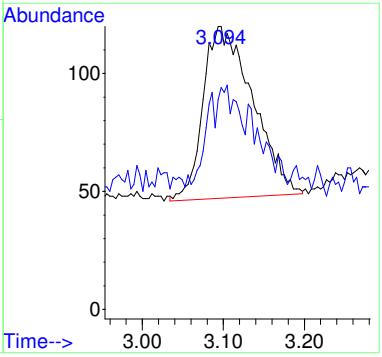


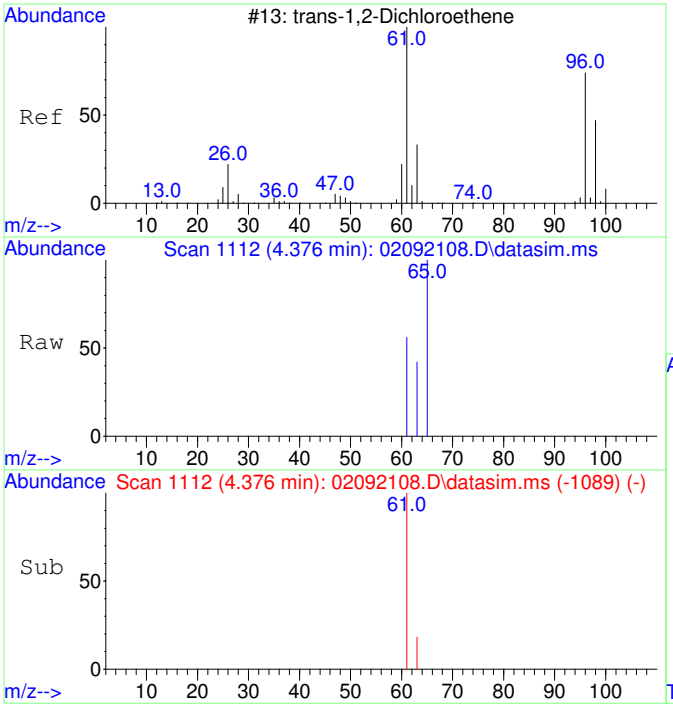


#2
1,1-Dichloroethene
Concen: 35.66 ug/L m
RT: 3.094 min Scan# 810
Delta R.T. 0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 309

Ion	Ratio	Lower	Upper
61	100		
96	12.6	37.2	97.2#

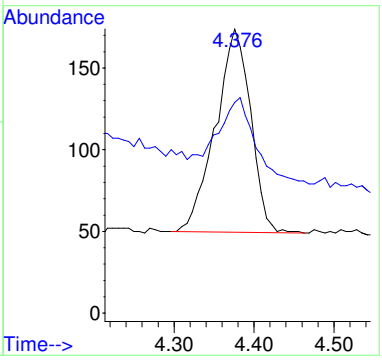


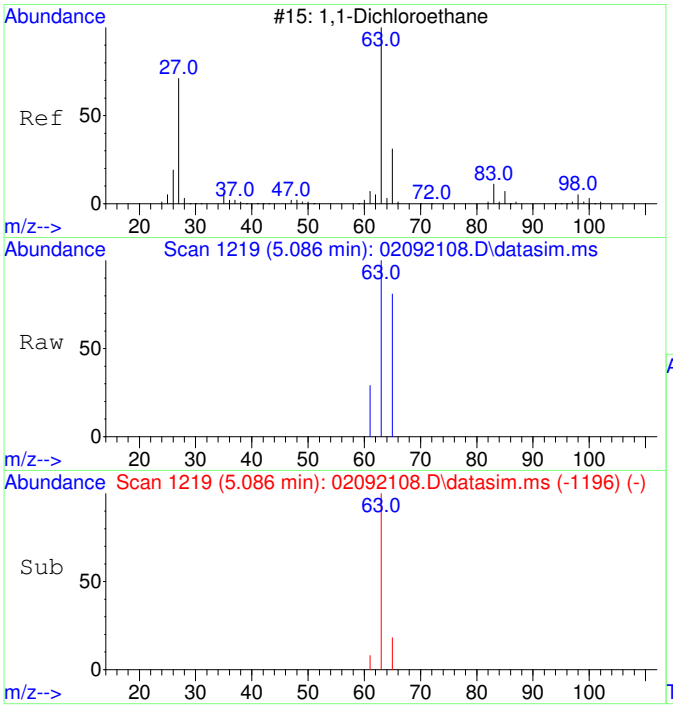


#3
trans-1,2-Dichloroethene
Concen: 34.87 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 381

Ion	Ratio	Lower	Upper
61	100		
63	50.1	2.4	62.4

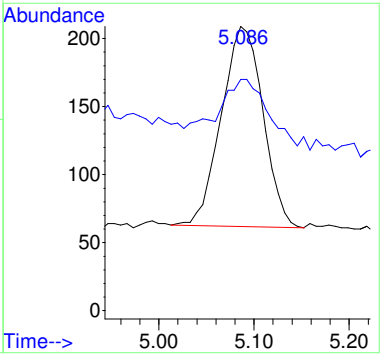


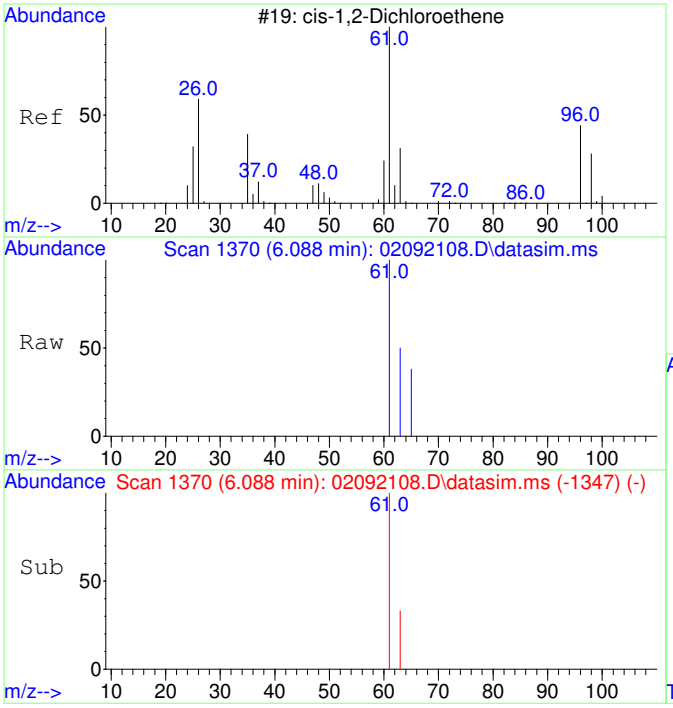


#4
1,1-Dichloroethane
Concen: 34.33 ug/L
RT: 5.086 min Scan# 1219
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 448

Ion	Ratio	Lower	Upper
63	100		
65	40.8	1.8	61.8

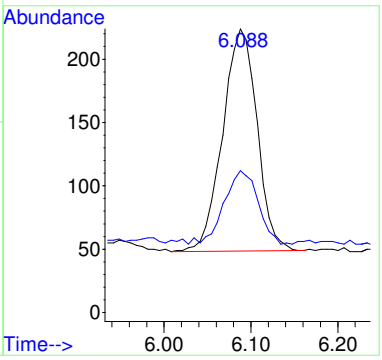


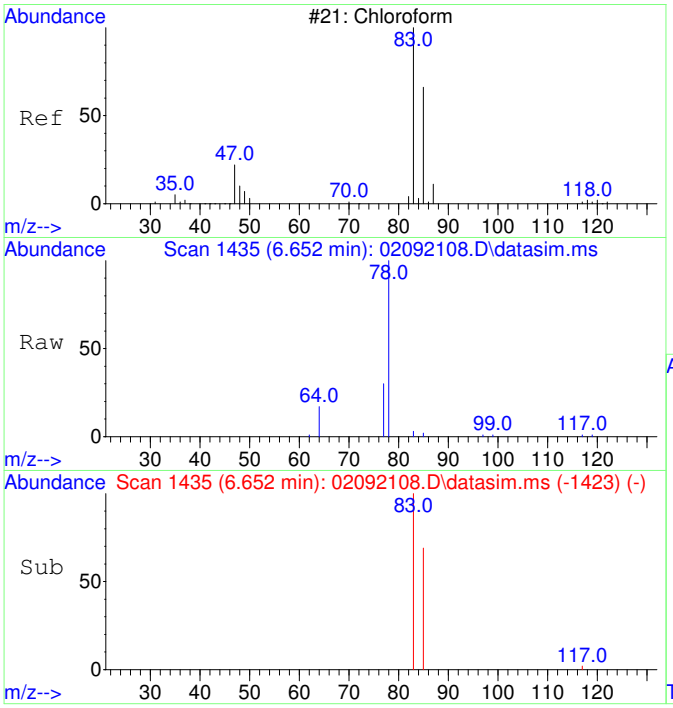


#5
cis-1,2-Dichloroethene
Concen: 35.74 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 483

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.5	62.5

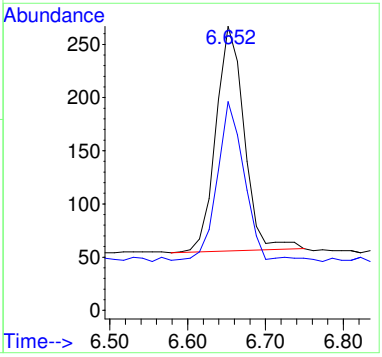


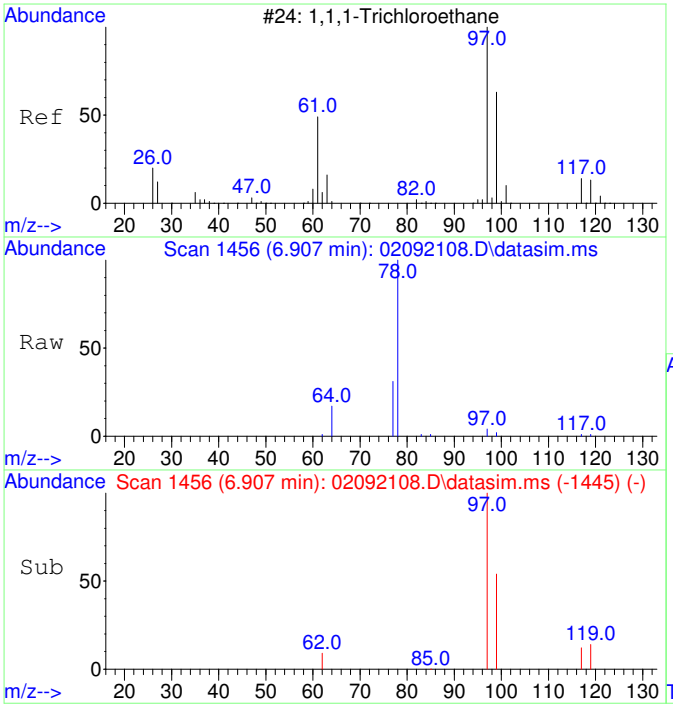


#6
Chloroform
Concen: 41.14 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 534

Ion	Ratio	Lower	Upper
83	100		
85	66.1	35.1	95.1

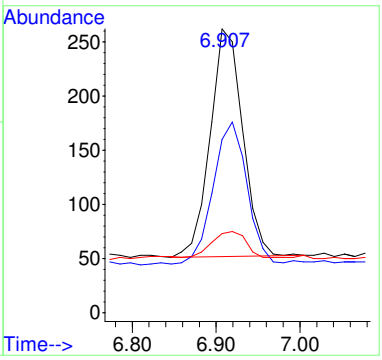


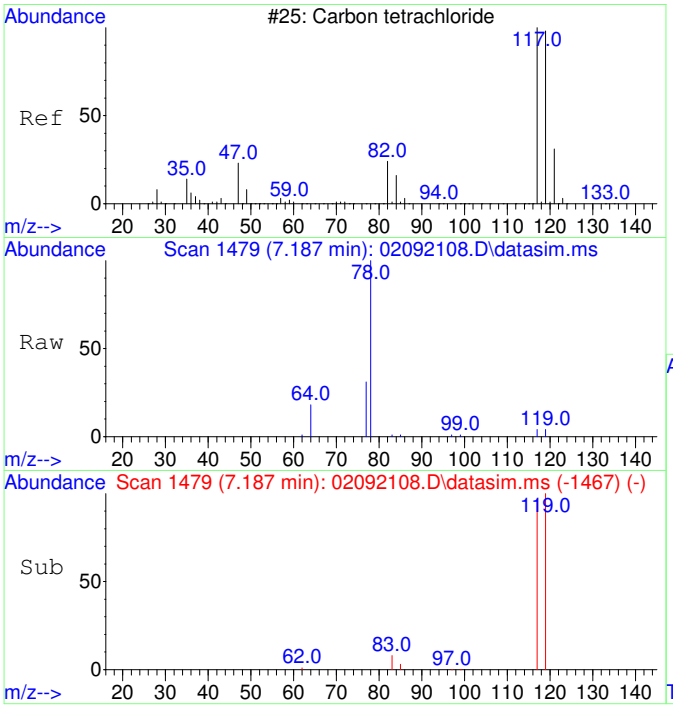


#7
1,1,1-Trichloroethane
Concen: 40.59 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 566

Ion	Ratio	Lower	Upper
97	100		
99	66.4	34.6	94.6
117	11.7	0.0	43.2

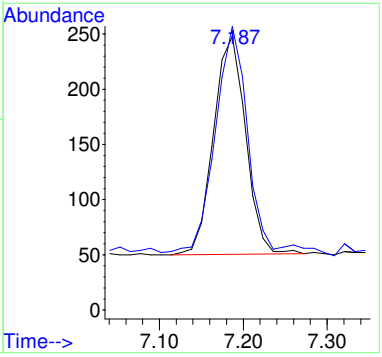


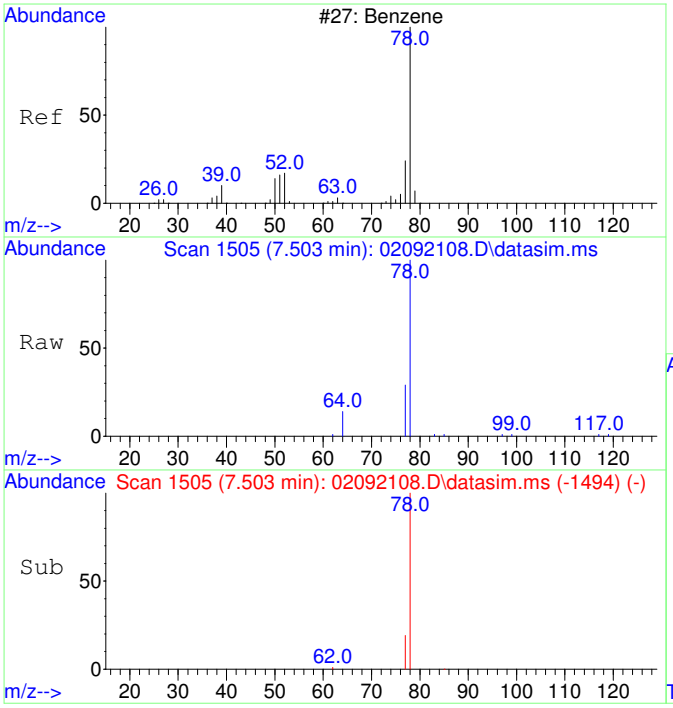


#8
Carbon tetrachloride
Concen: 39.38 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:117 Resp: 525

Ion	Ratio	Lower	Upper
117	100		
119	102.1	66.4	126.4

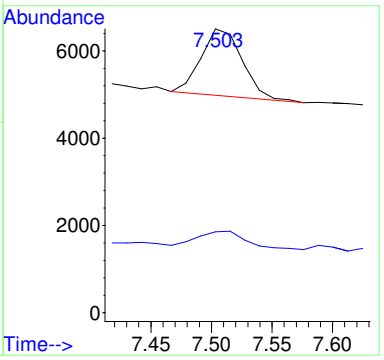


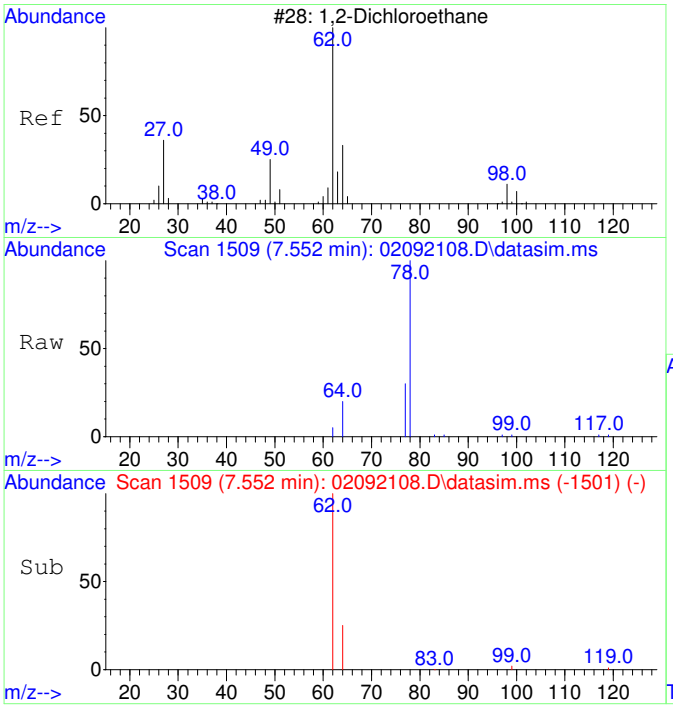


#9
Benzene
Concen: 96.56 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3551

Ion	Ratio	Lower	Upper
78	100		
77	36.1	0.0	53.2

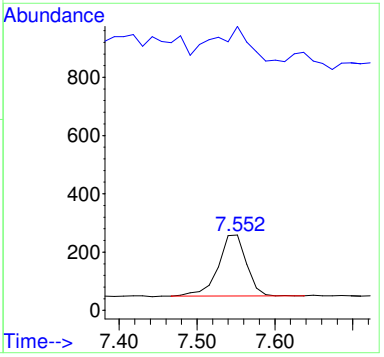


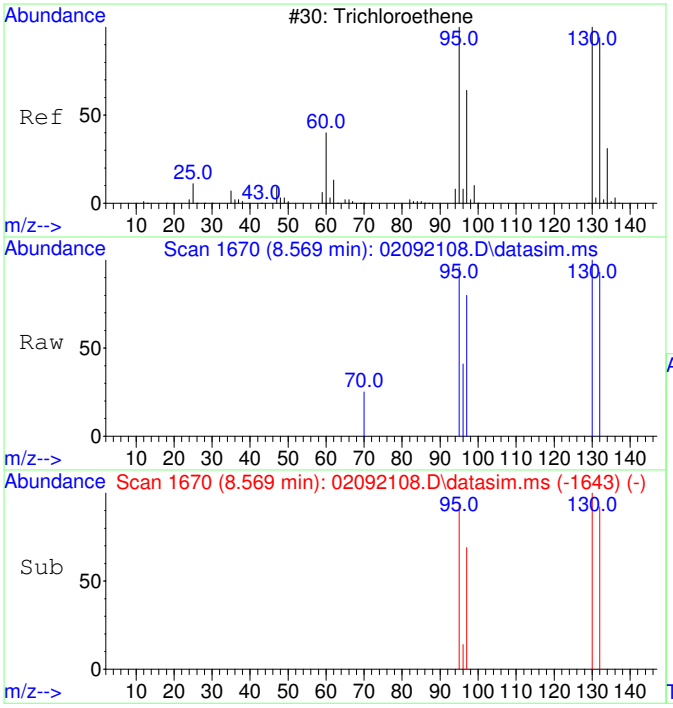


#10
1,2-Dichloroethane
Concen: 42.16 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 529

Ion	Ratio	Lower	Upper
62	100		
64	70.9	2.3	62.3#

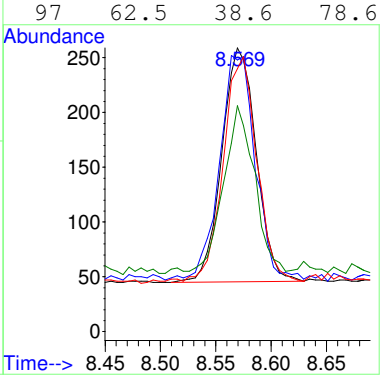


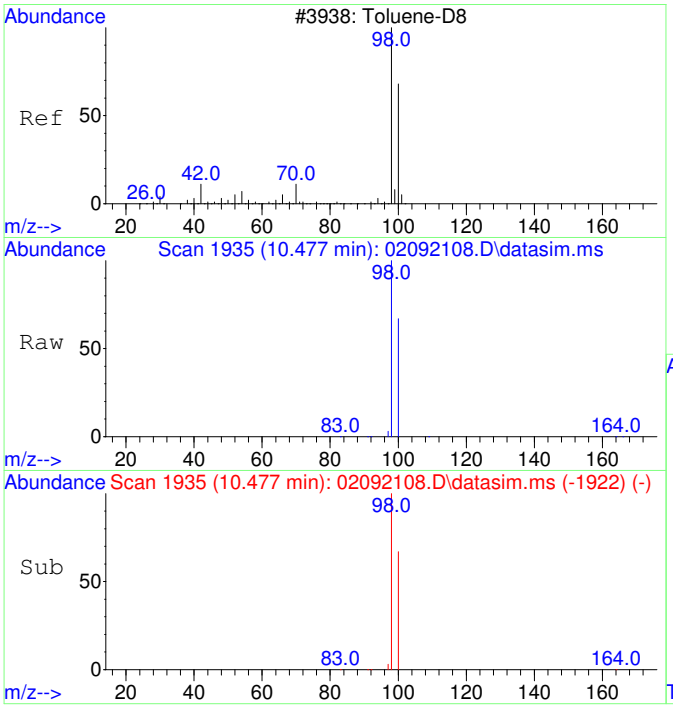


#11
Trichloroethene
Concen: 39.70 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 461

Ion	Ratio	Lower	Upper
130	100		
95	99.3	60.7	120.7
132	95.4	76.0	116.0
97	62.5	38.6	78.6

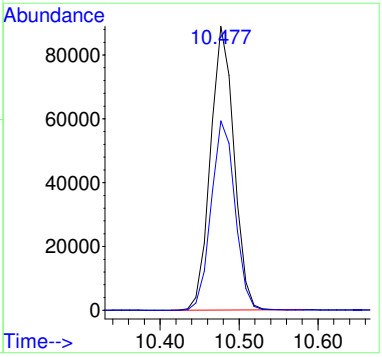


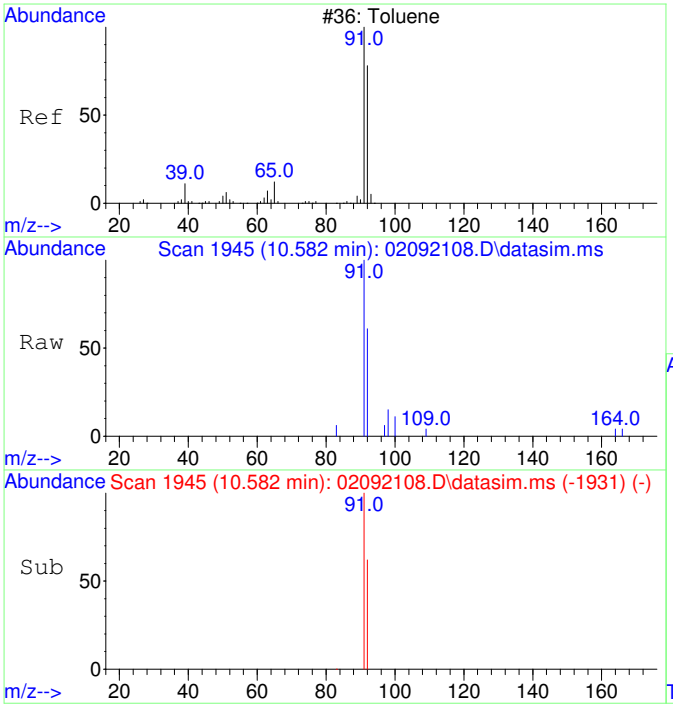


#12
Toluene-d8
Concen: 4336.91 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 183575

Ion	Ratio	Lower	Upper
98	100		
100	67.5	37.1	97.1

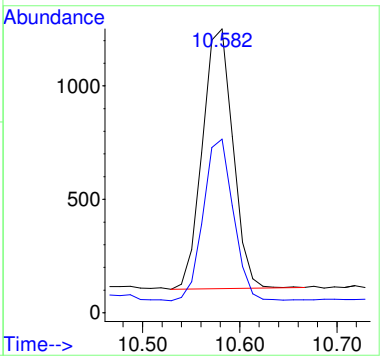


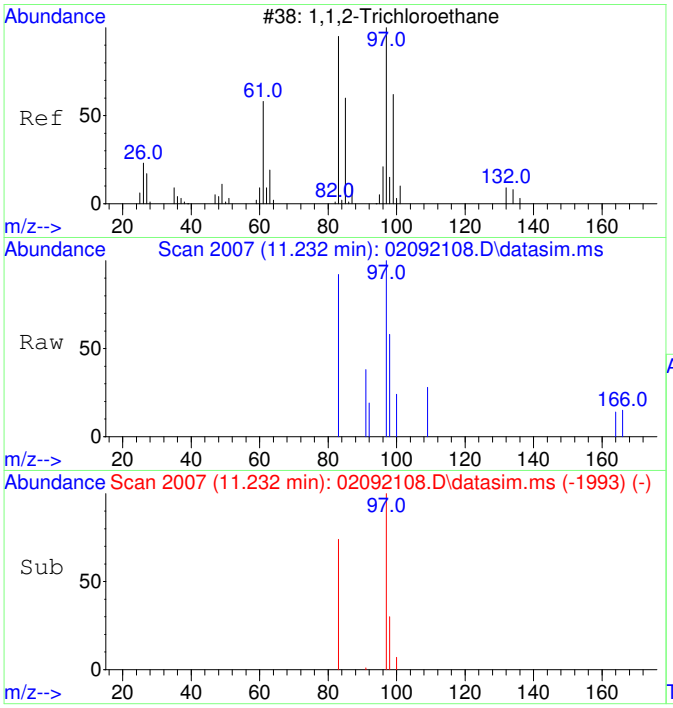


#13
Toluene
Concen: 47.32 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2494

Ion	Ratio	Lower	Upper
91	100		
92	60.4	29.9	89.9

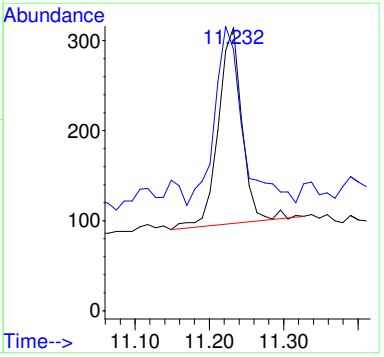


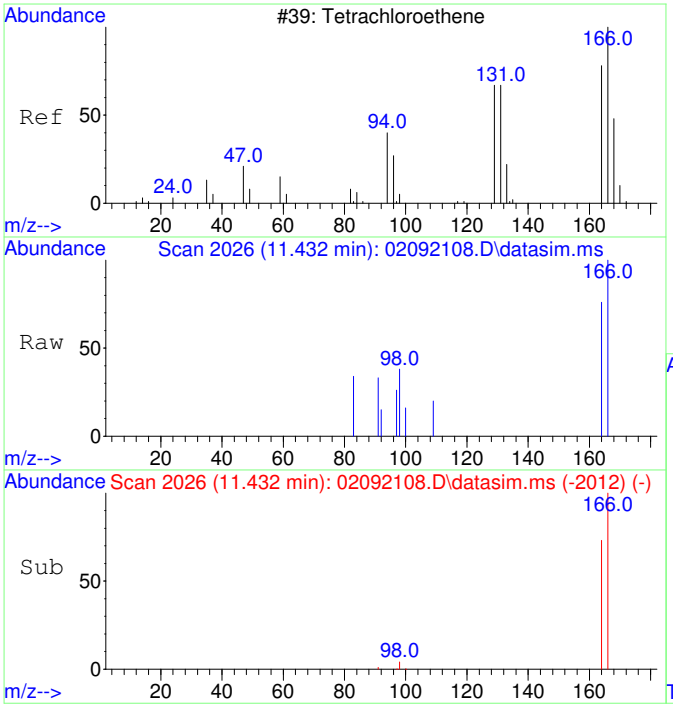


#14
1,1,2-Trichloroethane
Concen: 39.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 484

Ion	Ratio	Lower	Upper
97	100		
83	108.1	51.2	111.2

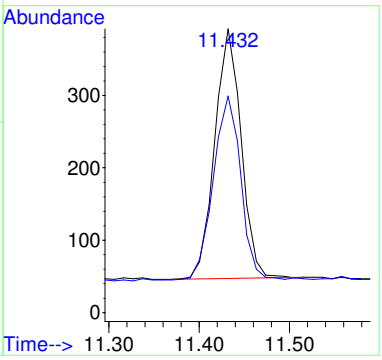


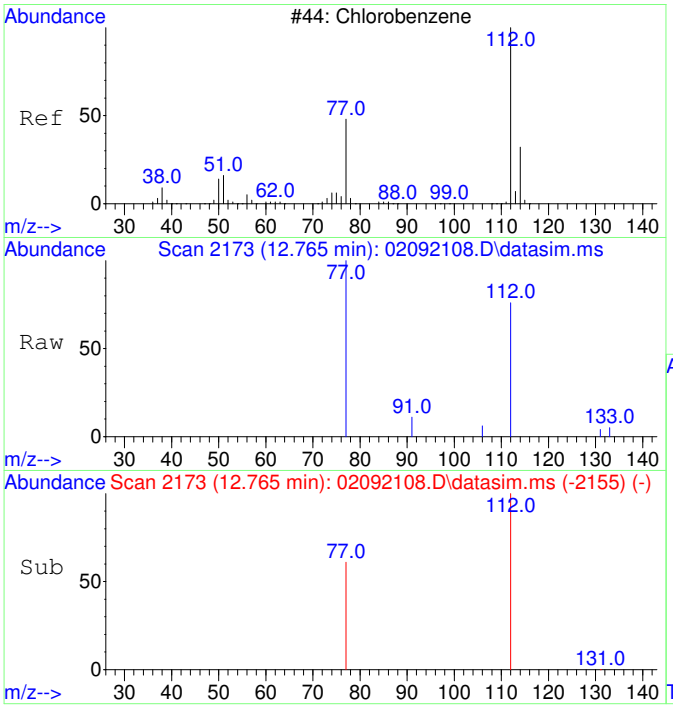


#15
Tetrachloroethene
Concen: 42.70 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 701

Ion	Ratio	Lower	Upper
166	100		
164	76.3	47.8	107.8

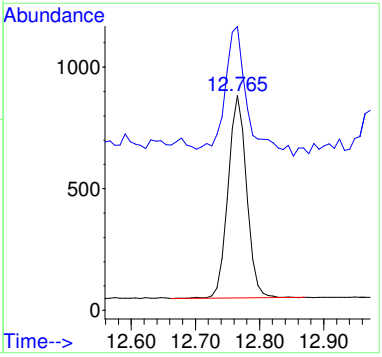


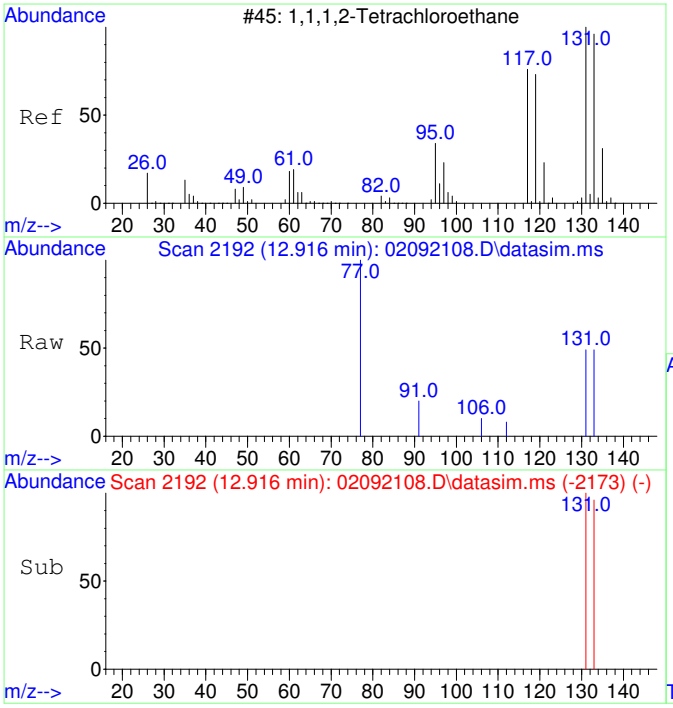


#16
Chlorobenzene
Concen: 40.90 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 1670

Ion	Ratio	Lower	Upper
112	100		
77	78.9	23.6	83.6

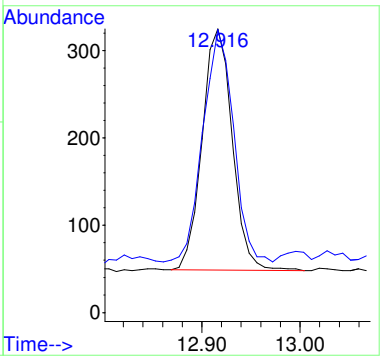


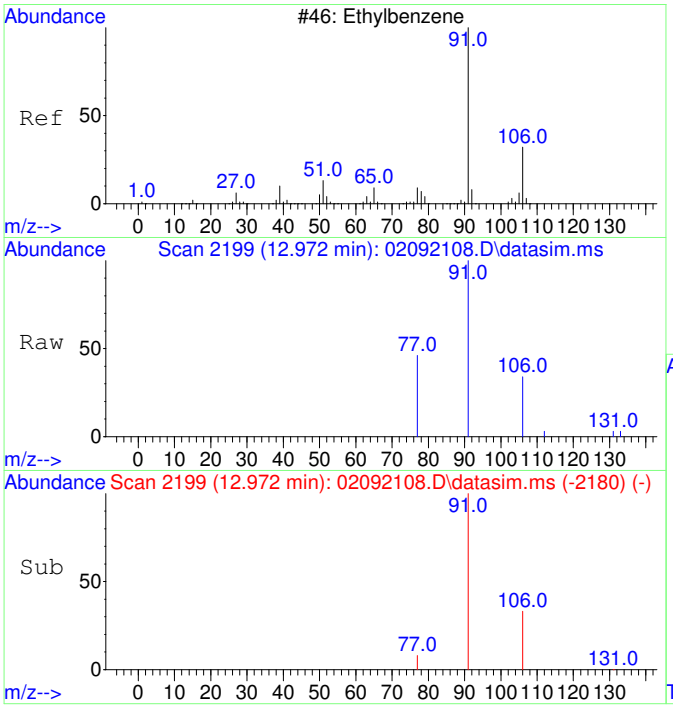


#17
1,1,1,2-Tetrachloroethane
Concen: 41.22 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:131 Resp: 589

Ion	Ratio	Lower	Upper
131	100		
133	97.6	66.3	126.3

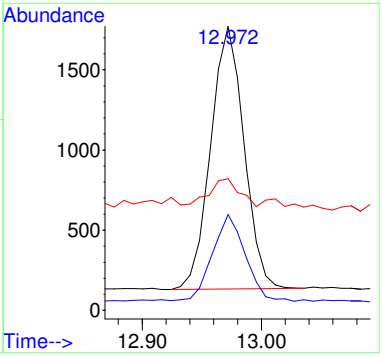


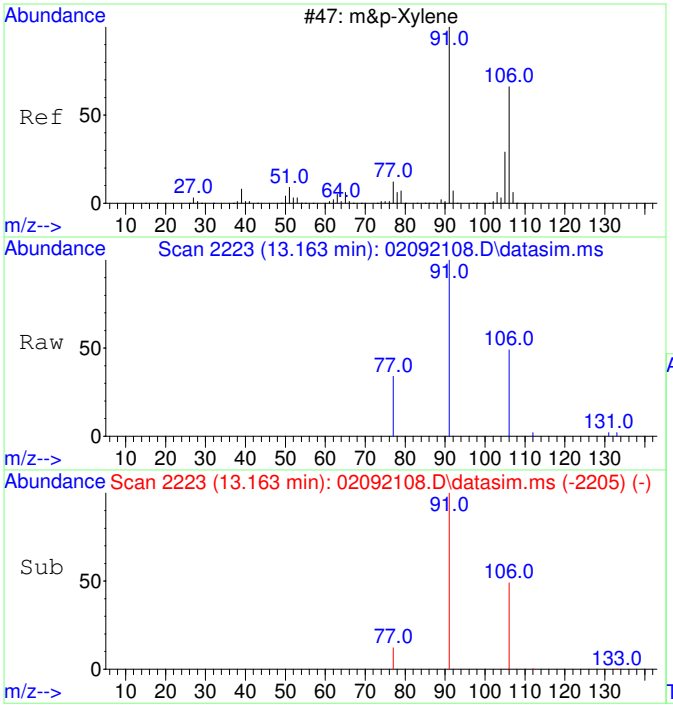


#18
Ethylbenzene
Concen: 47.34 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 3187

Ion	Ratio	Lower	Upper
91	100		
106	32.0	3.0	63.0
77	11.6	0.0	38.2

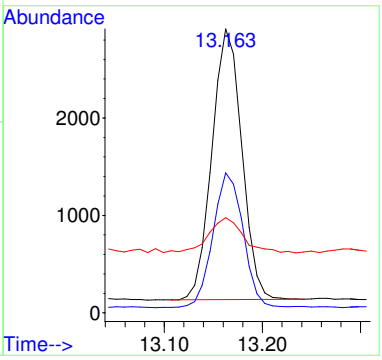


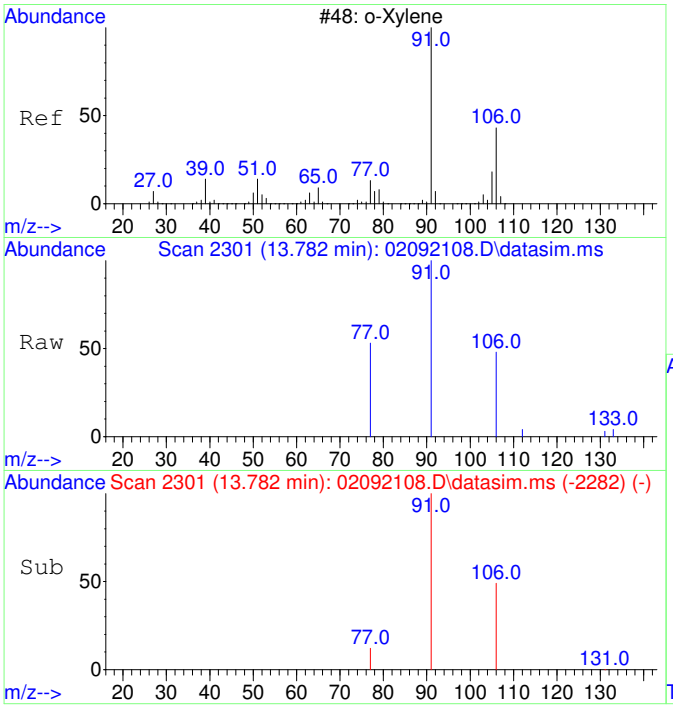


#19
m&p-Xylene
Concen: 112.85 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 5850

Ion	Ratio	Lower	Upper
91	100		
106	49.8	22.2	82.2
77	14.7	0.0	42.4

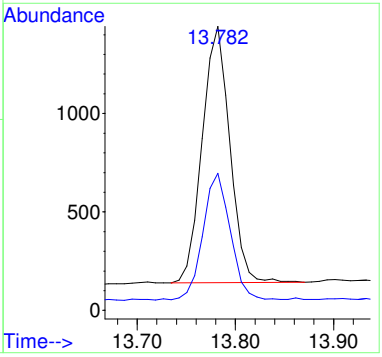


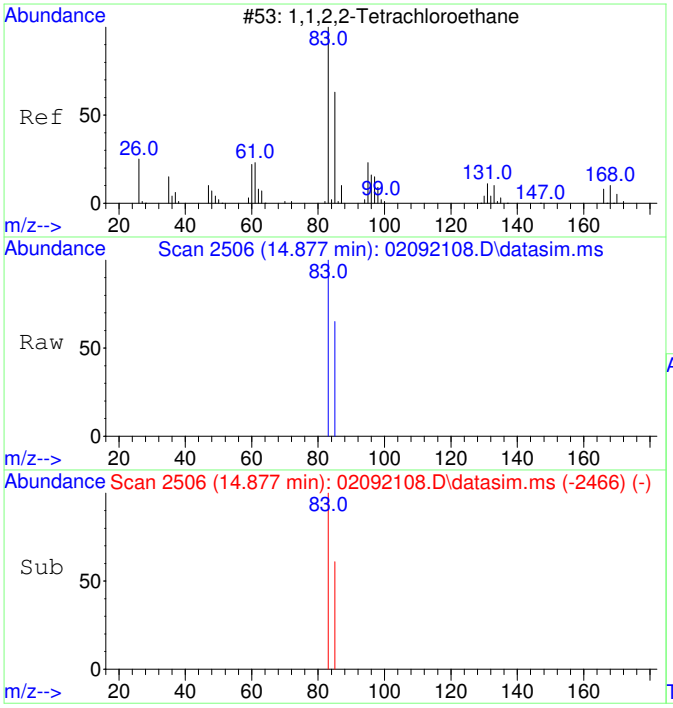


#20
o-Xylene
Concen: 45.66 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2542

Ion	Ratio	Lower	Upper
91	100		
106	48.7	19.2	79.2

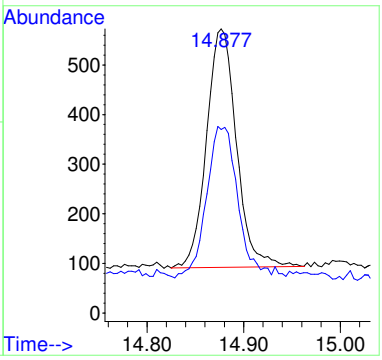


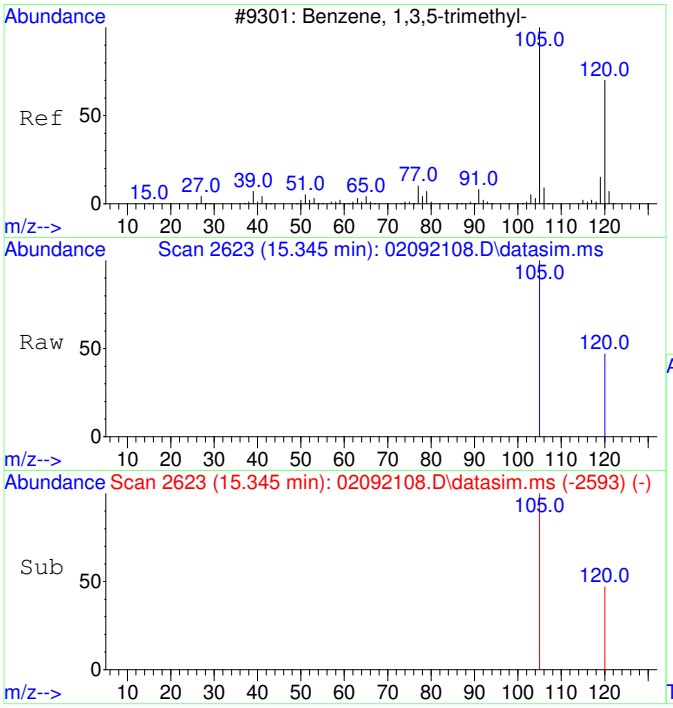


#21
1,1,2,2-Tetrachloroethane
Concen: 39.90 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 1035

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.8	94.8

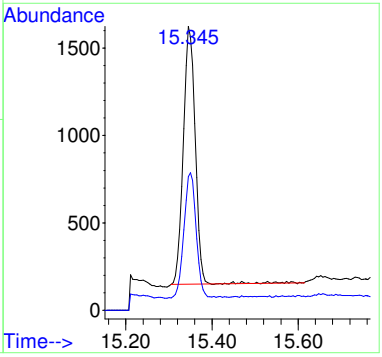


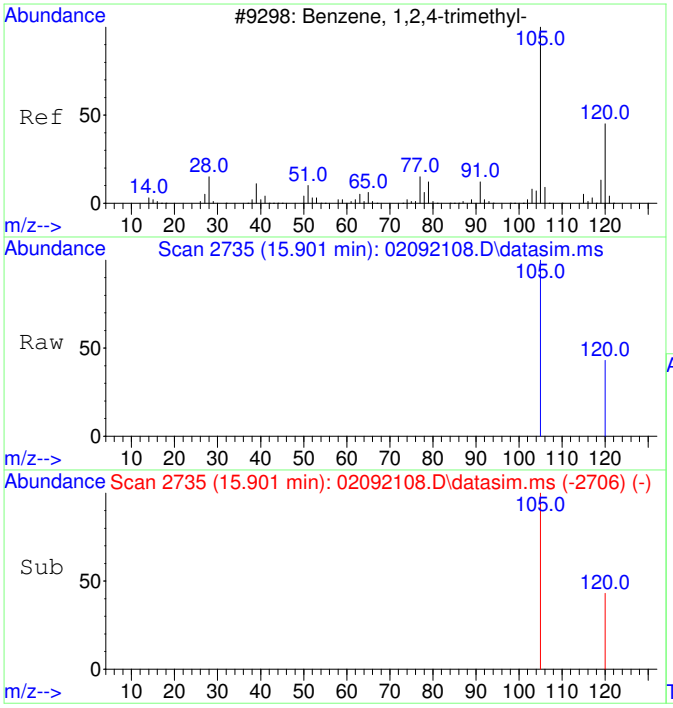


#22
1,3,5-Trimethylbenzene
Concen: 46.50 ug/L
RT: 15.345 min Scan# 2623
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 2847

Ion	Ratio	Lower	Upper
105	100		
120	50.9	21.1	81.1

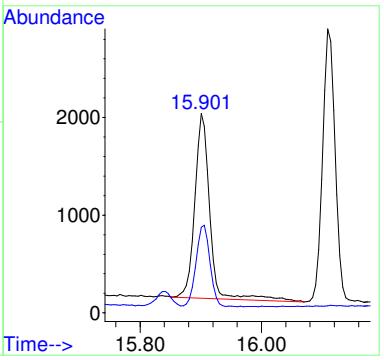


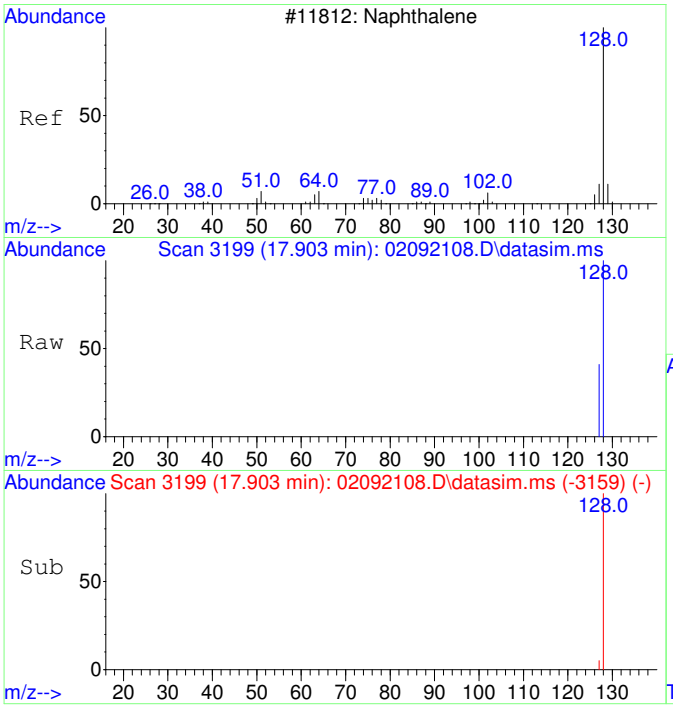


#23
1,2,4-Trimethylbenzene
Concen: 51.96 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 3254

Ion	Ratio	Lower	Upper
105	100		
120	40.2	17.2	77.2

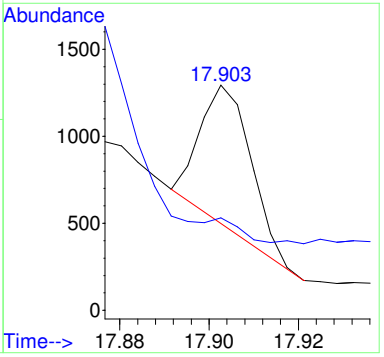


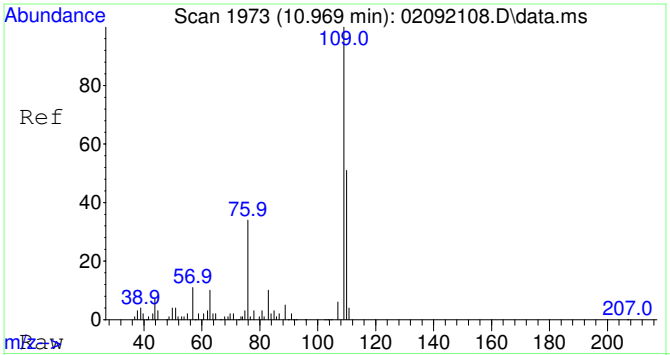


#24
Naphthalene
Concen: 5.73 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 581

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5

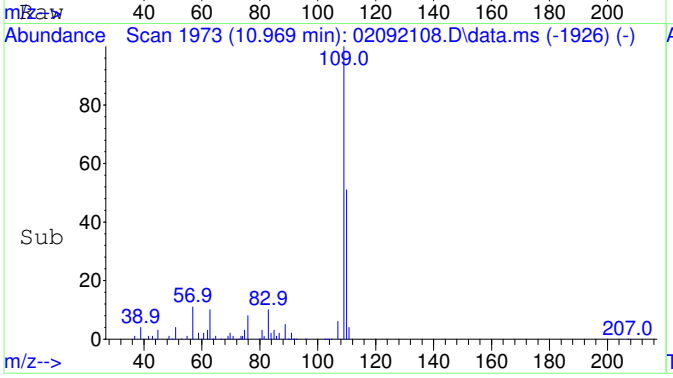


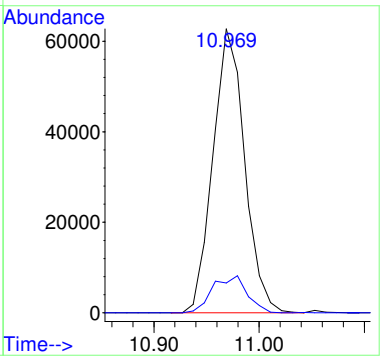


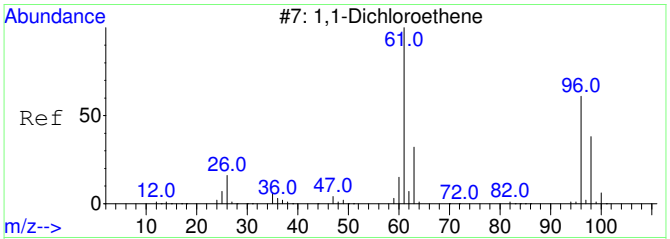
#25
2-Fluorotoluene SCAN
Concen: 5294.36 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 131343

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	43.8



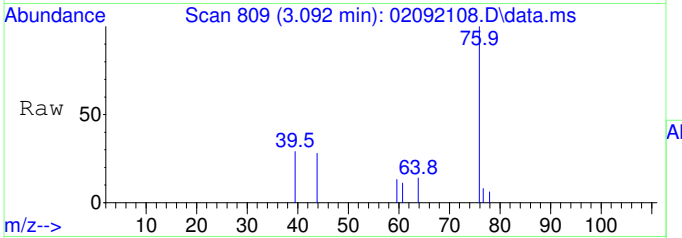


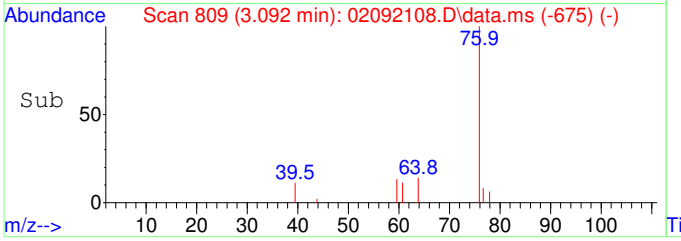


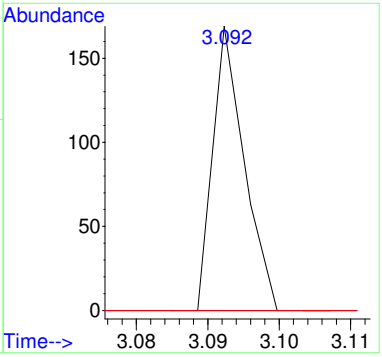
#26
1,1-Dichloroethene SCAN
Concen: 8.98 ug/L
RT: 3.092 min Scan# 809
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

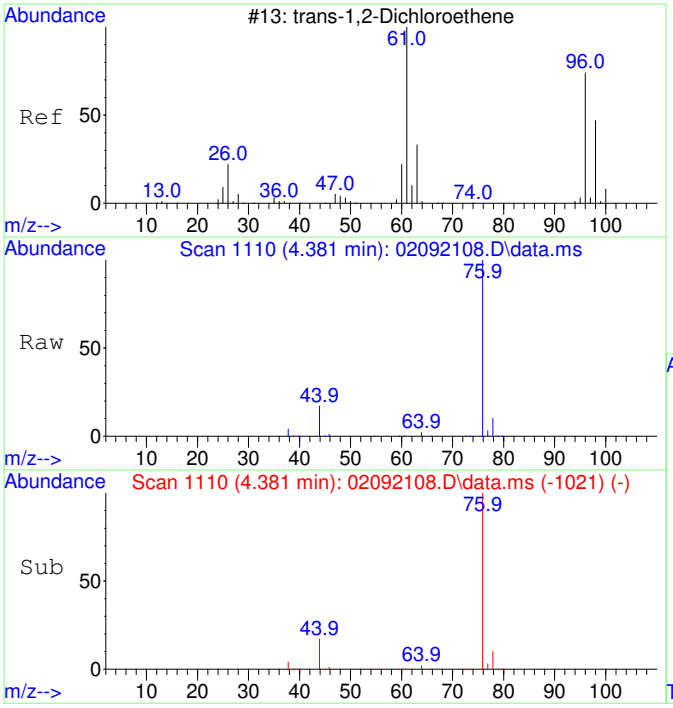
Tgt Ion: 61 Resp: 52

Ion	Ratio	Lower	Upper
61	100		
96	0.0	33.1	93.1#
98	0.0	11.2	71.2#





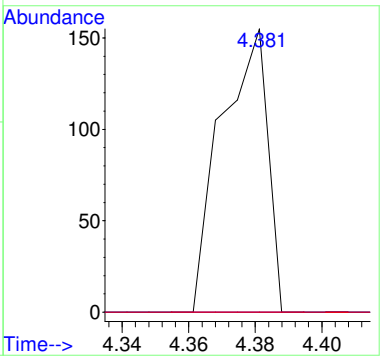


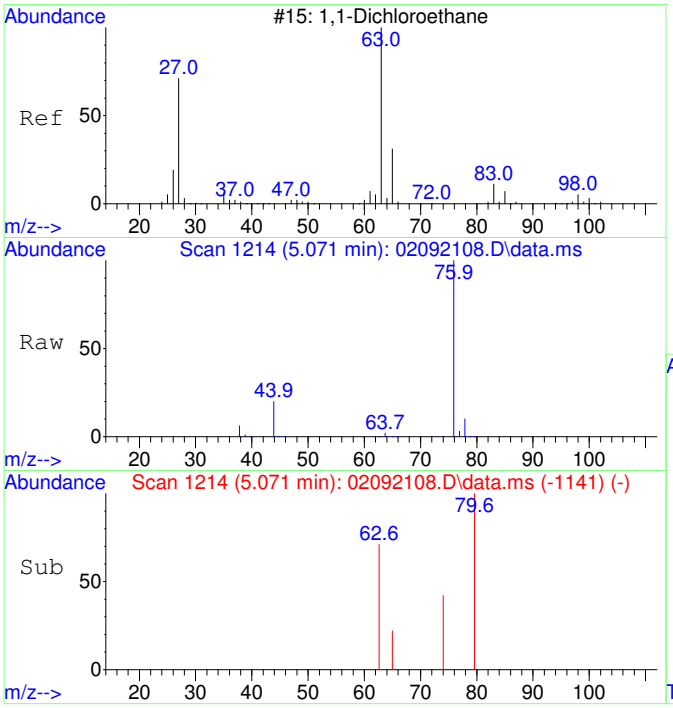


#27
trans-1,2-Dichloroethene SCAN
Concen: 20.33 ug/L
RT: 4.381 min Scan# 1110
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

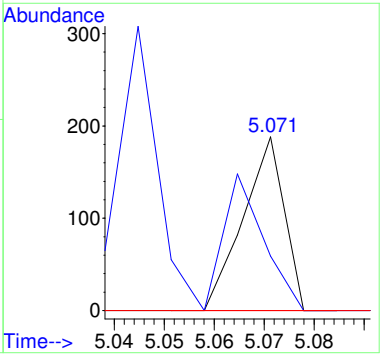


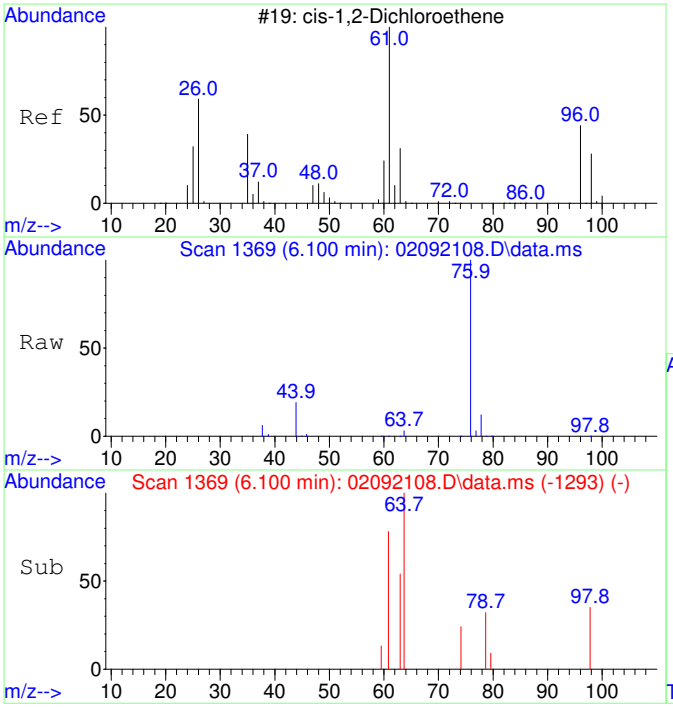


#28
1,1-Dichloroethane SCAN
Concen: 12.29 ug/L
RT: 5.071 min Scan# 1214
Delta R.T. -0.013 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 107

Ion	Ratio	Lower	Upper
63	100		
65	76.6	1.3	61.3#
83	0.0	0.0	45.9

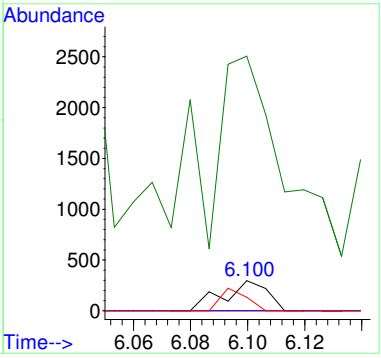


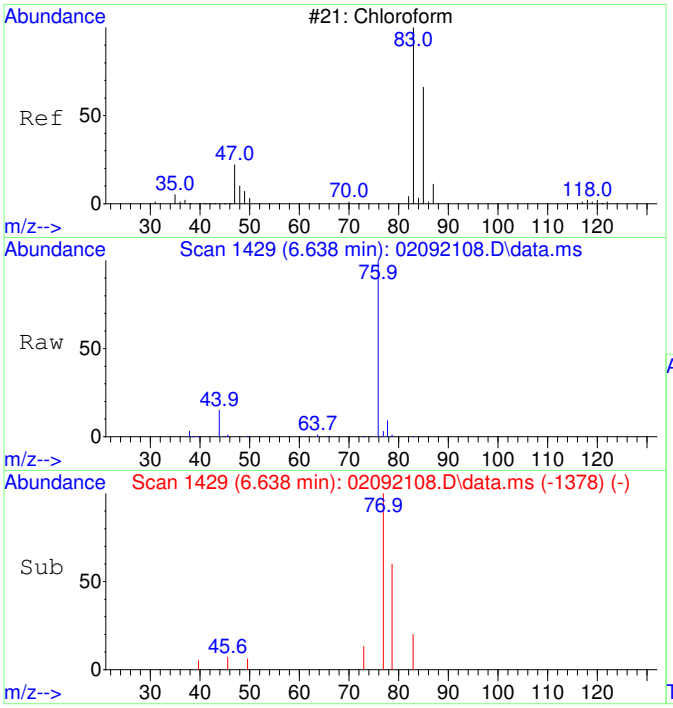


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.15 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 318

Ion	Ratio	Lower	Upper
61	100		
96	0.0	39.9	99.9#
98	44.7	13.5	73.5
64	854.1	4.5	64.5#

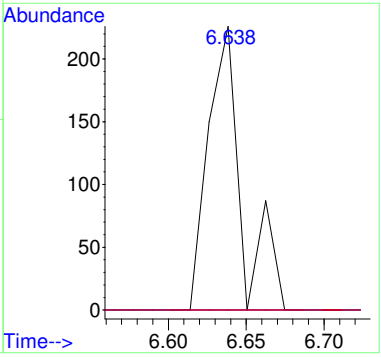


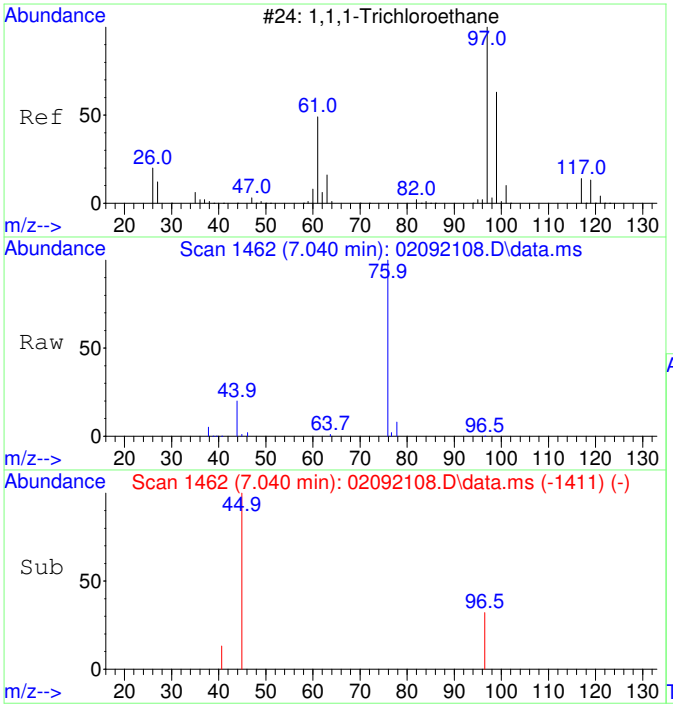


#30
Chloroform SCAN
Concen: 42.34 ug/L
RT: 6.638 min Scan# 1429
Delta R.T. -0.024 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 338

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

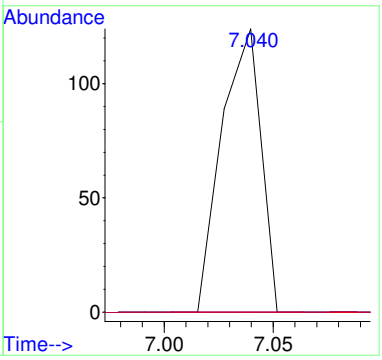


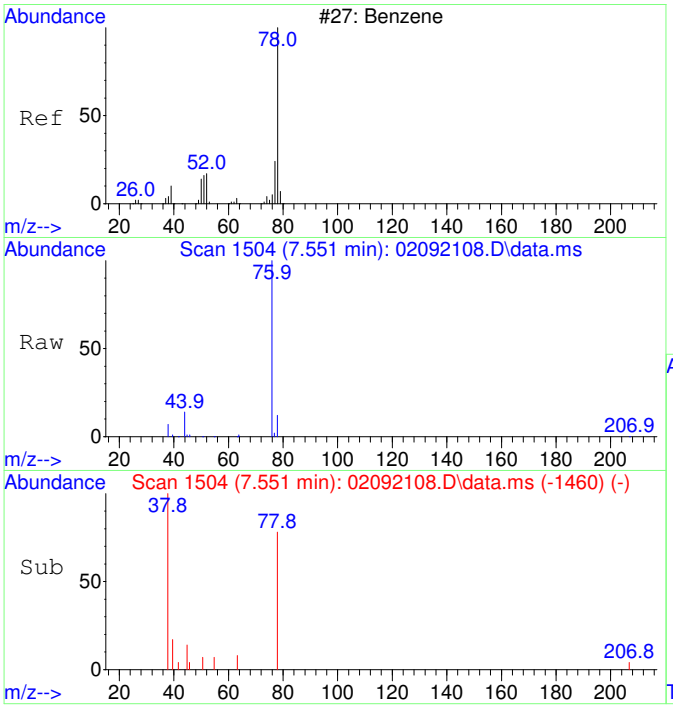


#31
1,1,1-Trichloroethane SCAN
Concen: 18.81 ug/L
RT: 7.040 min Scan# 1462
Delta R.T. 0.122 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 155

Ion	Ratio	Lower	Upper
97	100		
99	0.0	43.6	103.6#
61	0.0	18.0	78.0#

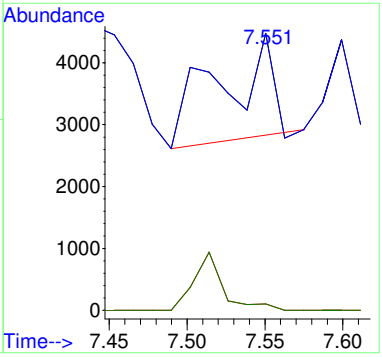


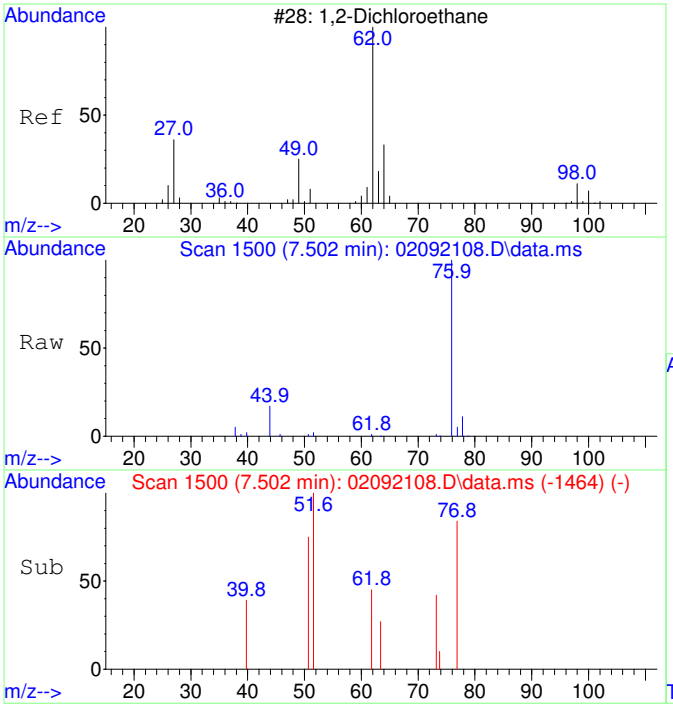


#33
Benzene SCAN
Concen: 156.19 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. 0.037 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3893

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

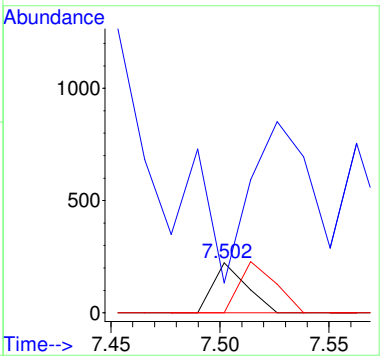


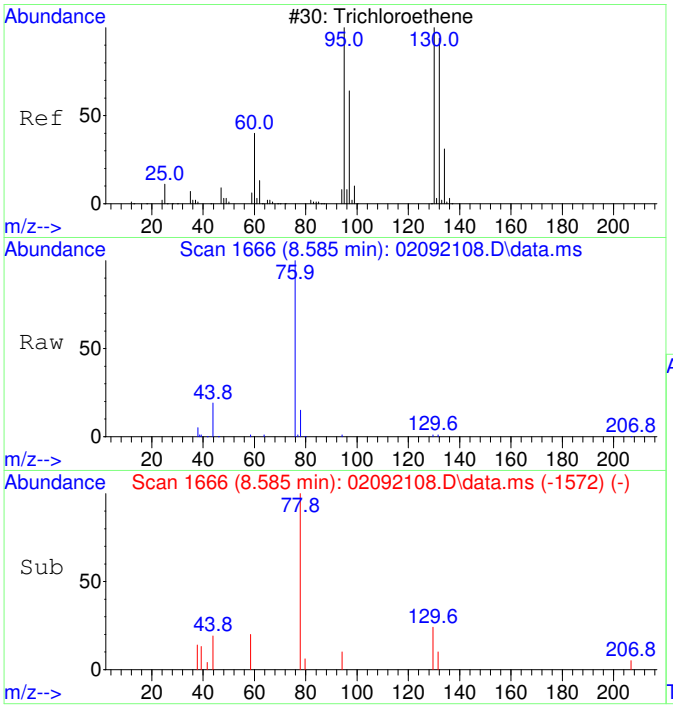


#34
1,2-Dichloroethane SCAN
Concen: 30.40 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. -0.061 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 237

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

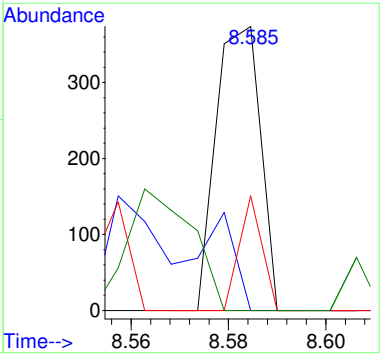


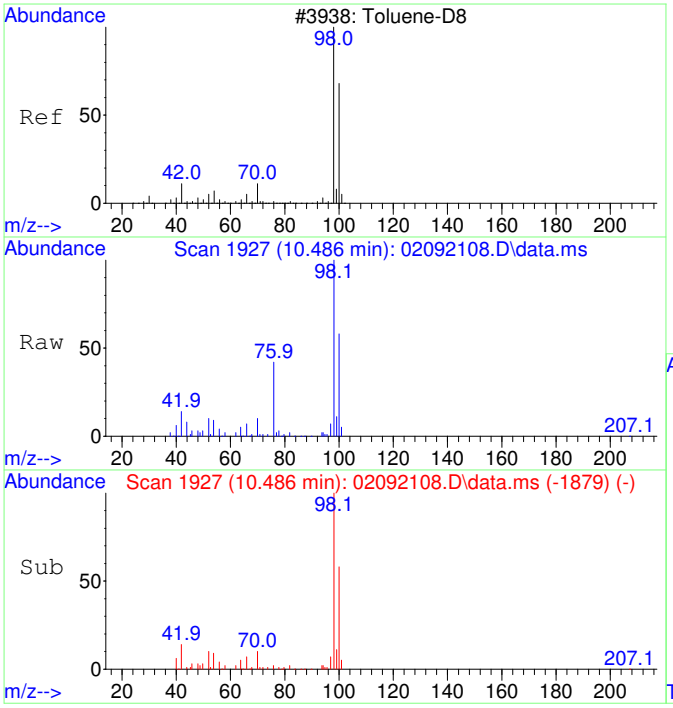


#35
Trichloroethene SCAN
Concen: 43.61 ug/L
RT: 8.585 min Scan# 1666
Delta R.T. 0.011 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 237

Ion	Ratio	Lower	Upper
130	100		
95	0.0	60.5	120.5#
132	0.0	59.6	119.6#
97	0.0	28.2	88.2#

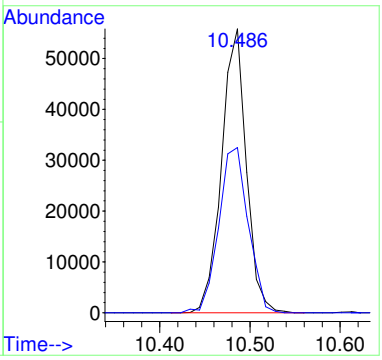


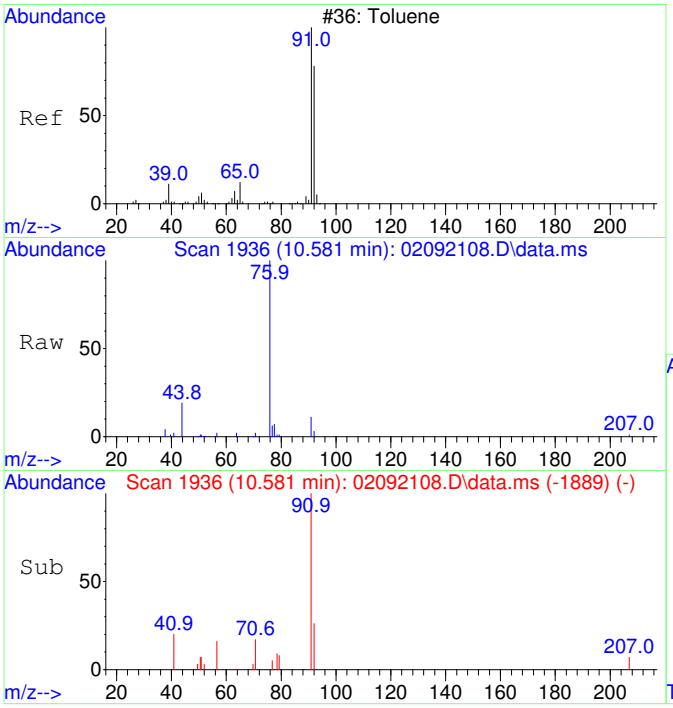


#36
Toluene-d8 SCAN
Concen: 4582.48 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 106622

Ion	Ratio	Lower	Upper
98	100		
100	69.3	40.0	100.0

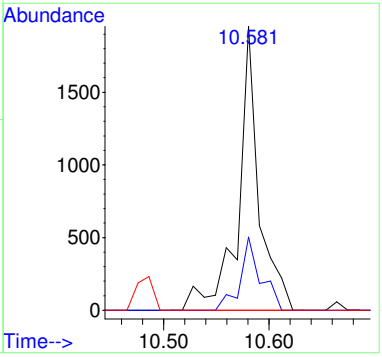


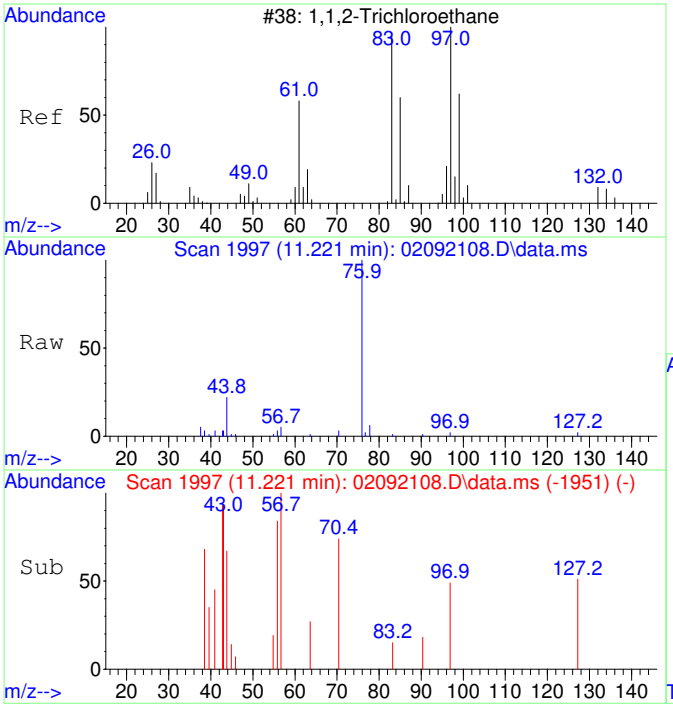


#37
Toluene SCAN
Concen: 93.52 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2679

Ion	Ratio	Lower	Upper
91	100		
92	25.4	28.3	88.3#
65	0.0	0.0	41.0

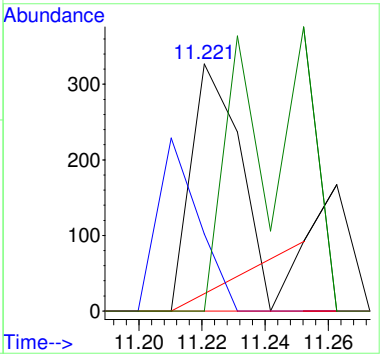


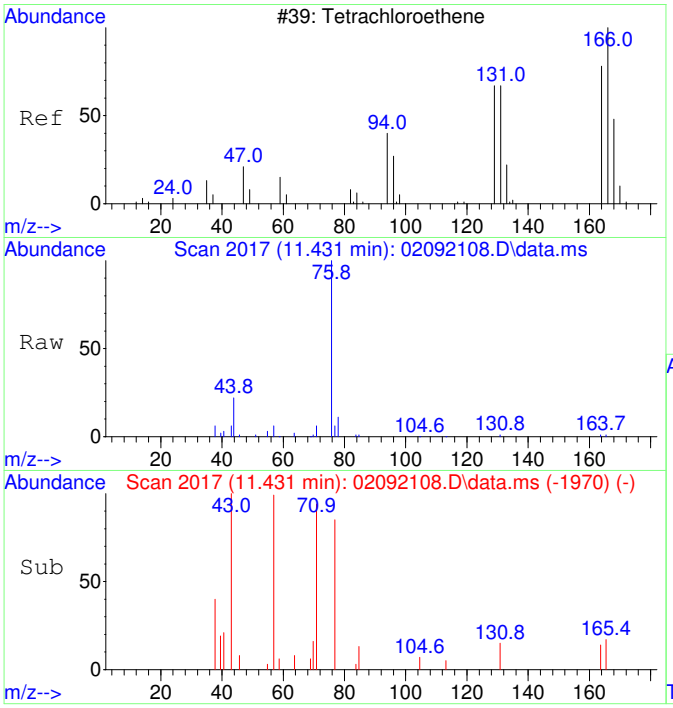


#38
1,1,2-Trichloroethane SCAN
Concen: 41.36 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. -0.021 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 297

Ion	Ratio	Lower	Upper
97	100		
83	70.0	57.7	117.7
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

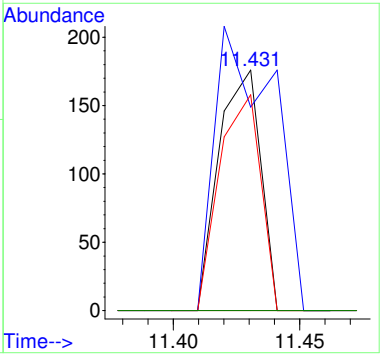


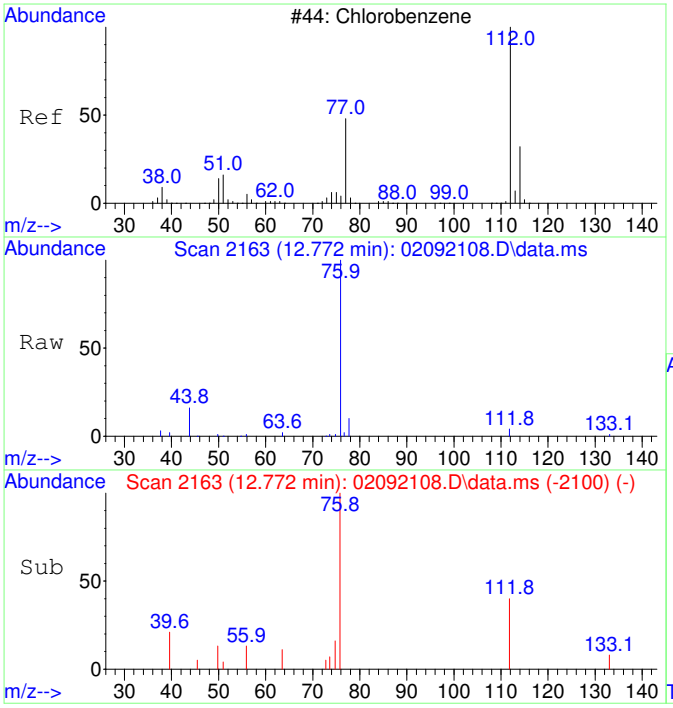


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 203

Ion	Ratio	Lower	Upper
166	100		
164	165.5	50.9	110.9#
131	88.2	38.7	98.7
129	0.0	41.8	101.8#

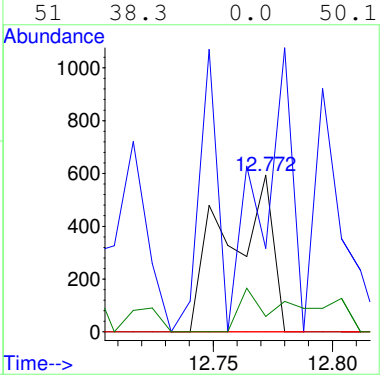


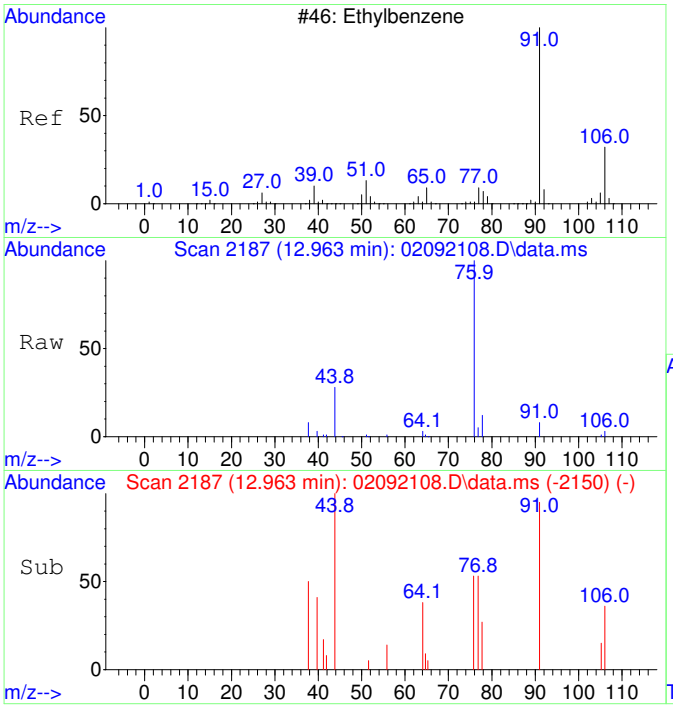


#40
Chlorobenzene SCAN
Concen: 39.07 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 804

Ion	Ratio	Lower	Upper
112	100		
77	119.8	28.2	88.2#
114	0.0	2.3	62.3#
51	38.3	0.0	50.1

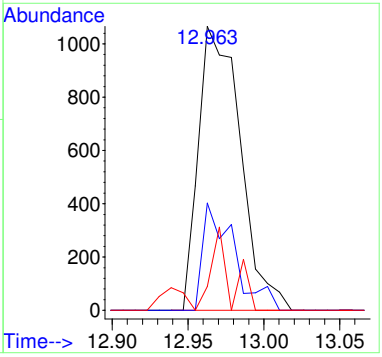


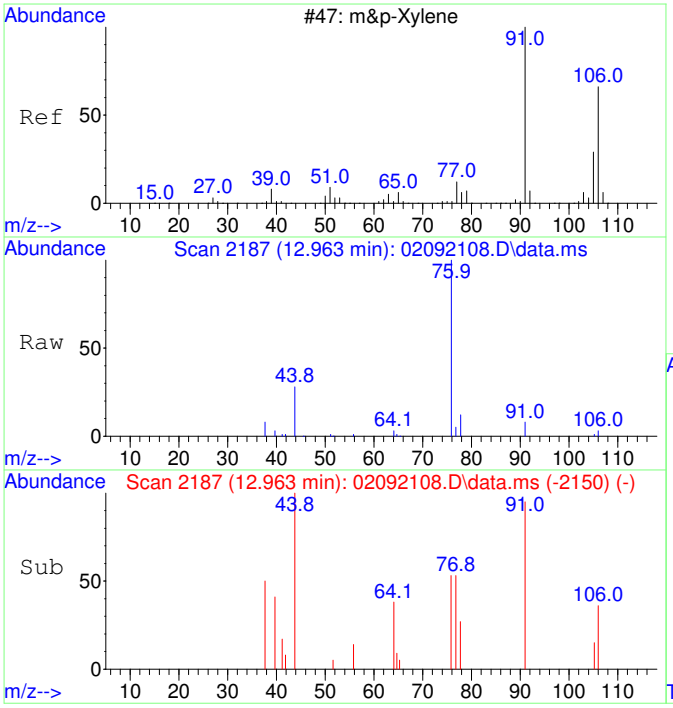


#42
Ethylbenzene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
51	13.8	0.0	40.1

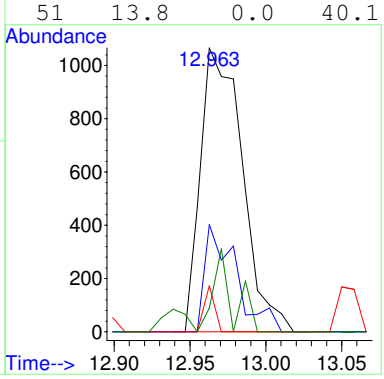


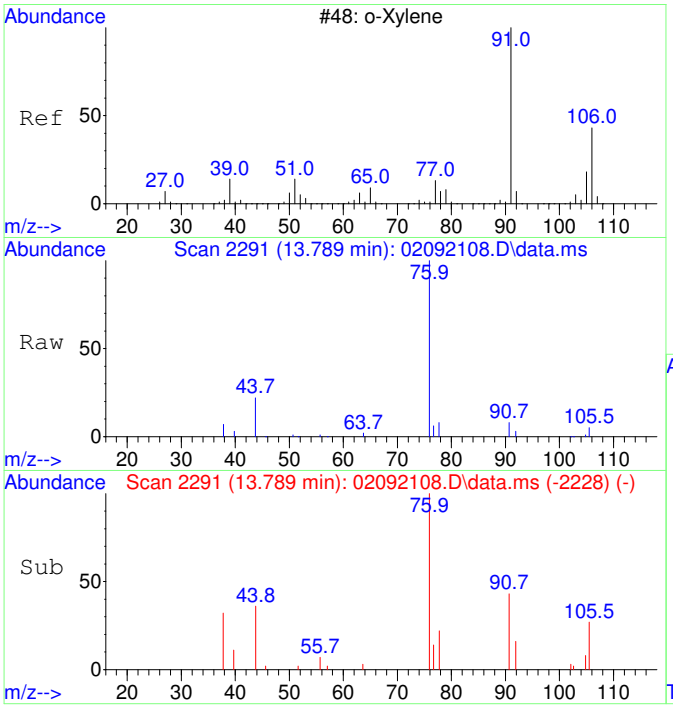


#43
m&p-Xylene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
105	4.0	0.0	54.7
51	13.8	0.0	40.1

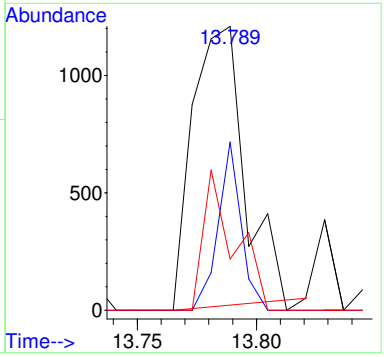


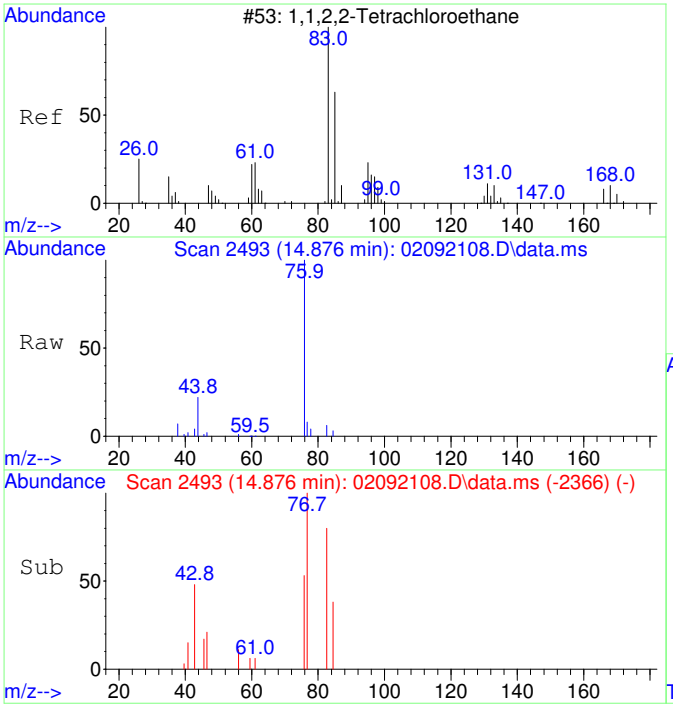


#44
o-Xylene SCAN
Concen: 60.68 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 1809

Ion	Ratio	Lower	Upper
91	100		
106	26.6	18.0	78.0
105	30.2	0.0	56.6

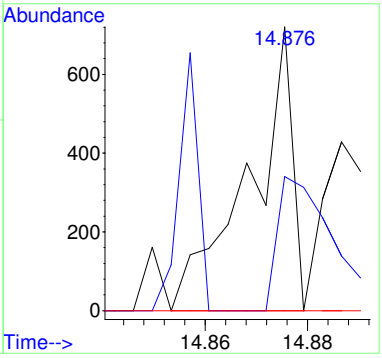


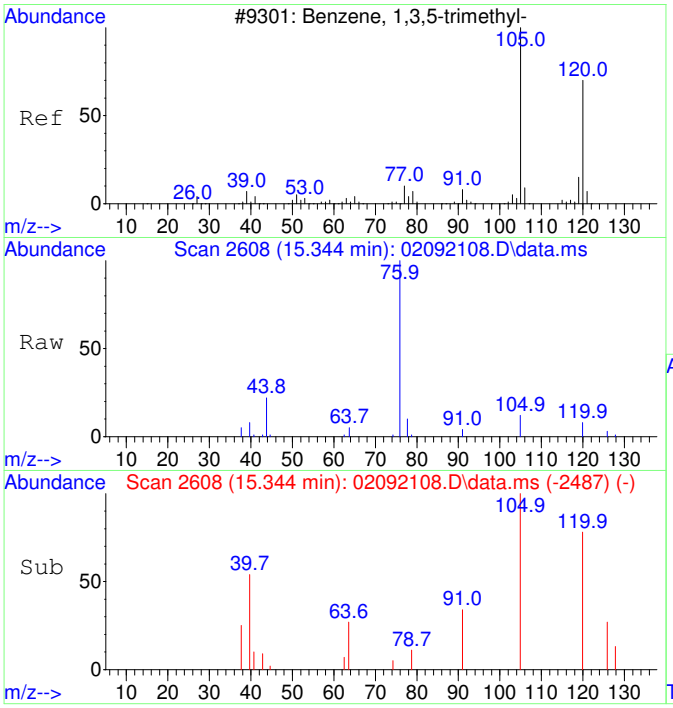


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 26.97 ug/L
RT: 14.876 min Scan# 2493
Delta R.T. -0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 418

Ion	Ratio	Lower	Upper
83	100		
85	62.9	35.9	95.9
95	0.0	0.0	47.4

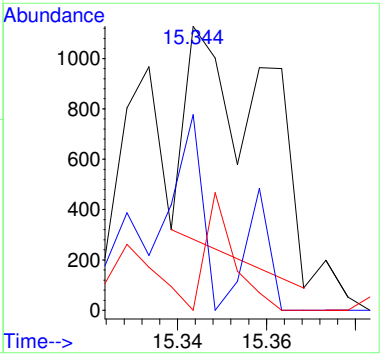


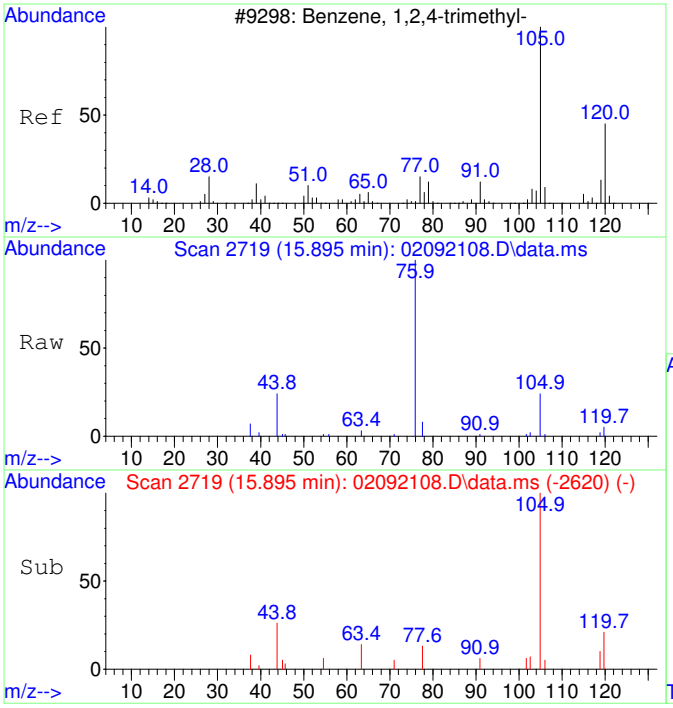


#46
1,3,5-Trimethylbenzene SCAN
Concen: 33.10 ug/L
RT: 15.344 min Scan# 2608
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 1041

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.3	78.3
119	19.9	0.0	43.1

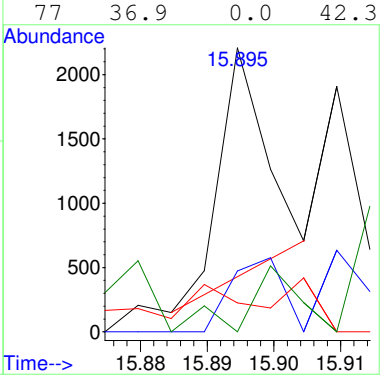


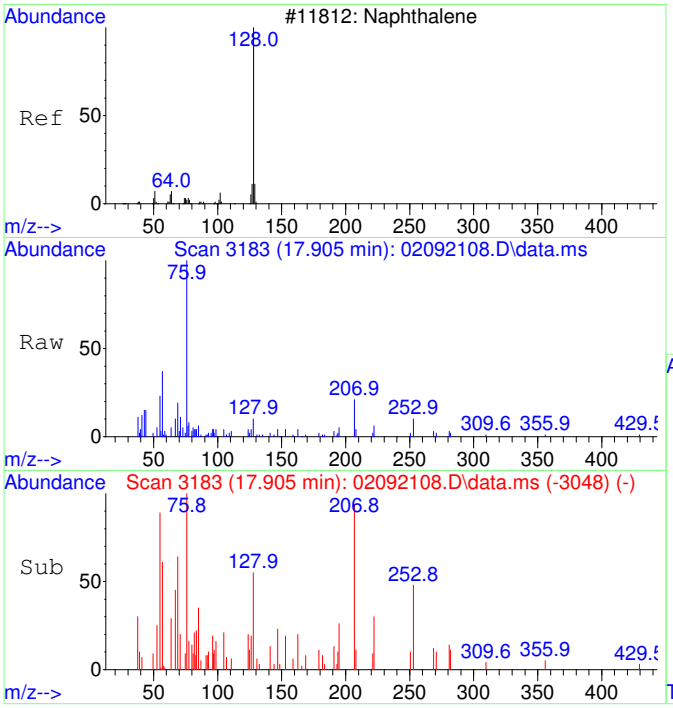


#47
1,2,4-Trimethylbenzene SCAN
Concen: 28.66 ug/L
RT: 15.895 min Scan# 2719
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 921

Ion	Ratio	Lower	Upper
105	100		
120	34.0	16.9	76.9
119	0.0	0.0	41.9
77	36.9	0.0	42.3

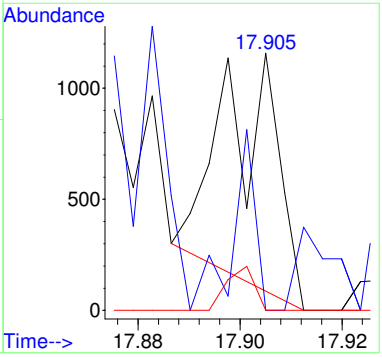




#48
Naphthalene SCAN
Concen: 15.36 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 741

Ion	Ratio	Lower	Upper
128	100		
127	33.9	0.0	44.0
129	10.1	0.0	40.8



2102007-01

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092109.D
Acq On : 9 Feb 2021 12:58
InstName : AG5975C
Operator : TD
Sample : 2102007-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 13:16:44 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

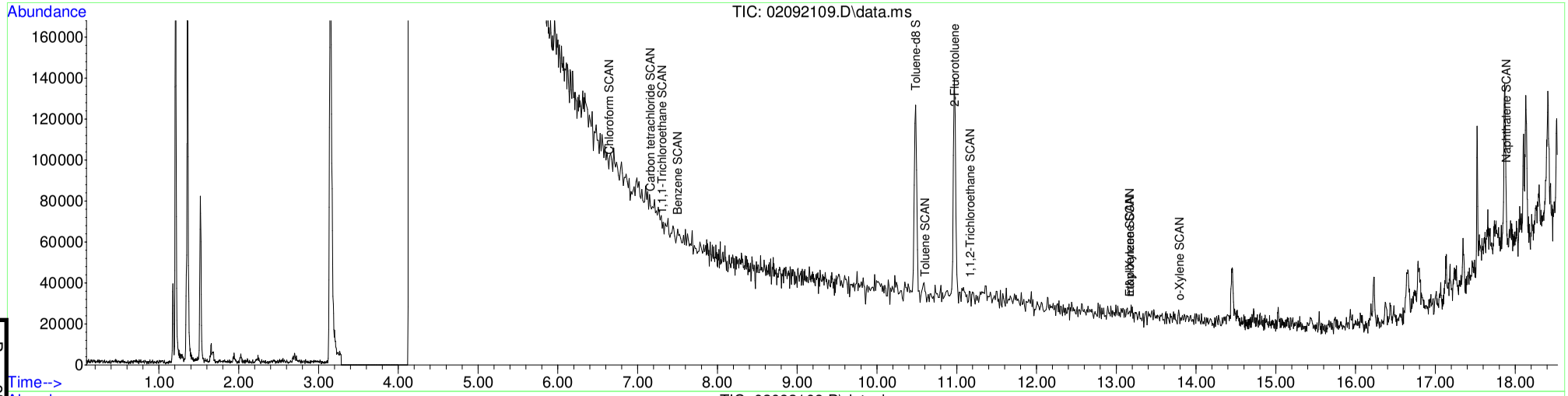
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	135663	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	113412	4316.42	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.33%			
Target Compounds						Qvalue
6] Chloroform	6.640	83	296	36.74	ug/L	99
8] Carbon tetrachloride	7.163	117	321	38.79	ug/L	89
9] Benzene	7.491	78	2190	95.93	ug/L #	28
13] Toluene	10.582	91	3301	100.90	ug/L	98
18] Ethylbenzene	12.972	91	1366	32.69	ug/L	94
19] m&p-Xylene	13.163	91	3023	93.95	ug/L	93
20] o-Xylene	13.782	91	948	27.43	ug/L	98
23] 1,2,4-Trimethylbenzene	15.901	105	1584	40.75	ug/L	76
25) 2-Fluorotoluene SCAN	10.969	109	84292	5473.81	ug/L	98
30) Chloroform SCAN	6.638	83	336	67.80	ug/L #	38
31) 1,1,1-Trichloroethane ...	7.307	97	261	51.04	ug/L #	19
32) Carbon tetrachloride SCAN	7.161	117	174	39.82	ug/L #	15
33) Benzene SCAN	7.502	78	5058	326.93	ug/L	94
36) Toluene-d8 SCAN	10.486	98	74421	5152.84	ug/L	94
37) Toluene SCAN	10.602	91	1819	102.29	ug/L	85
38) 1,1,2-Trichloroethane ...	11.168	97	162	36.35	ug/L #	13
42) Ethylbenzene SCAN	13.169	91	1317	38.86	ug/L	66
43) m&p-Xylene SCAN	13.169	91	1317	38.86	ug/L	70
44) o-Xylene SCAN	13.789	91	766	41.40	ug/L	71
48) Naphthalene SCAN	17.883	128	857	28.63	ug/L #	78

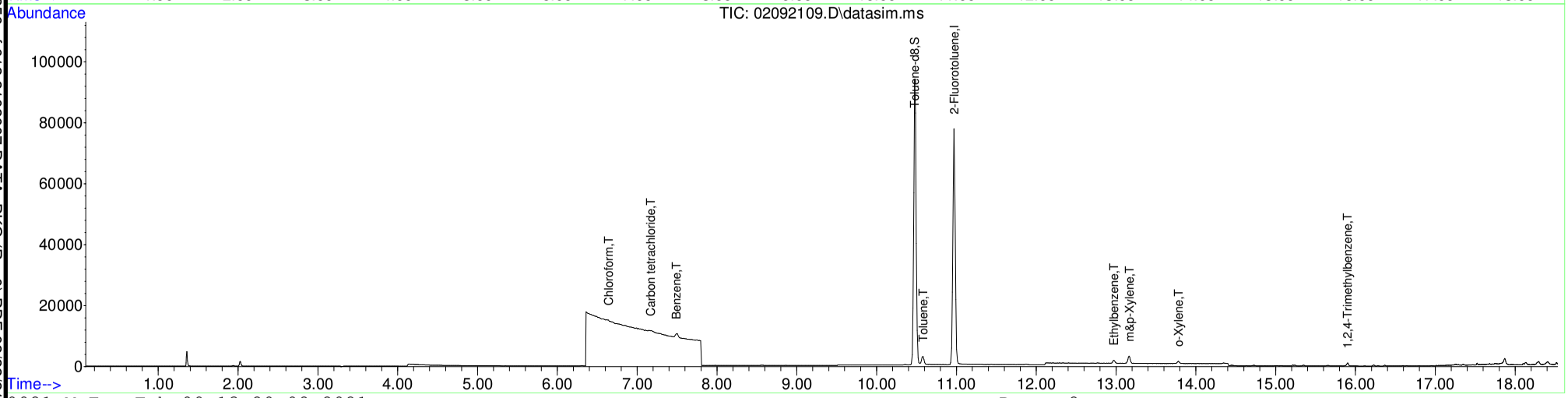
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092109.D
Acq On : 9 Feb 2021 12:58
InstName : AG5975C
Operator : TD
Sample : 2102007-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 13:16:44 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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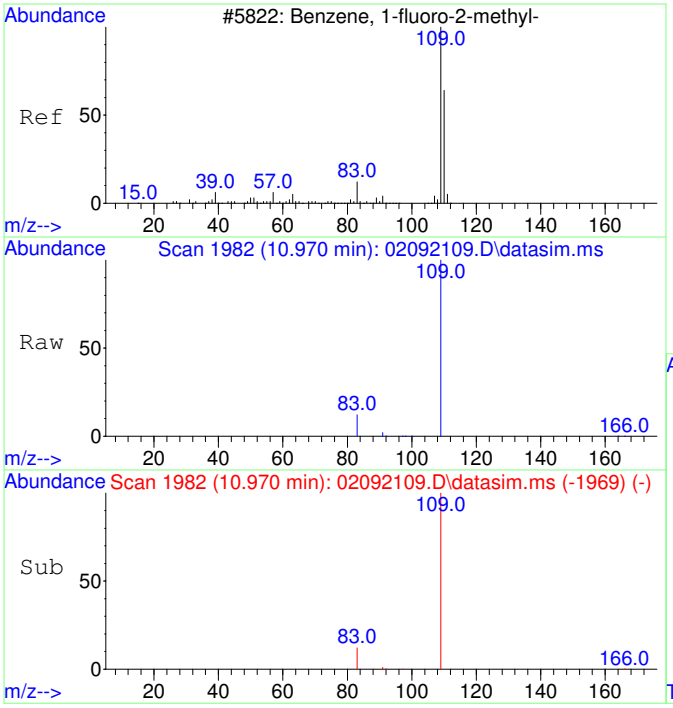
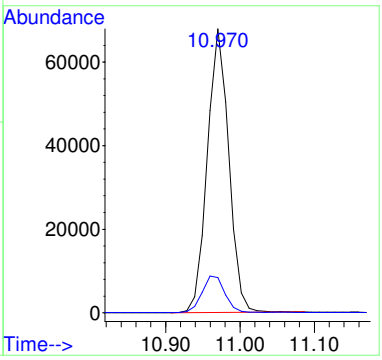
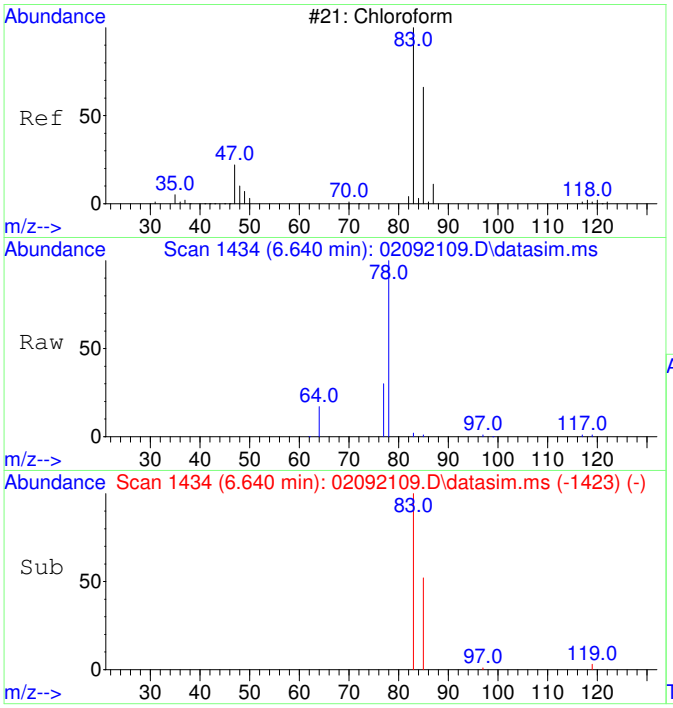


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion:109 Resp: 135663

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

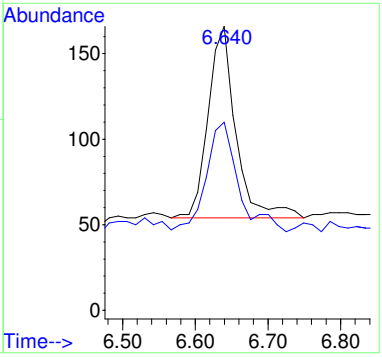


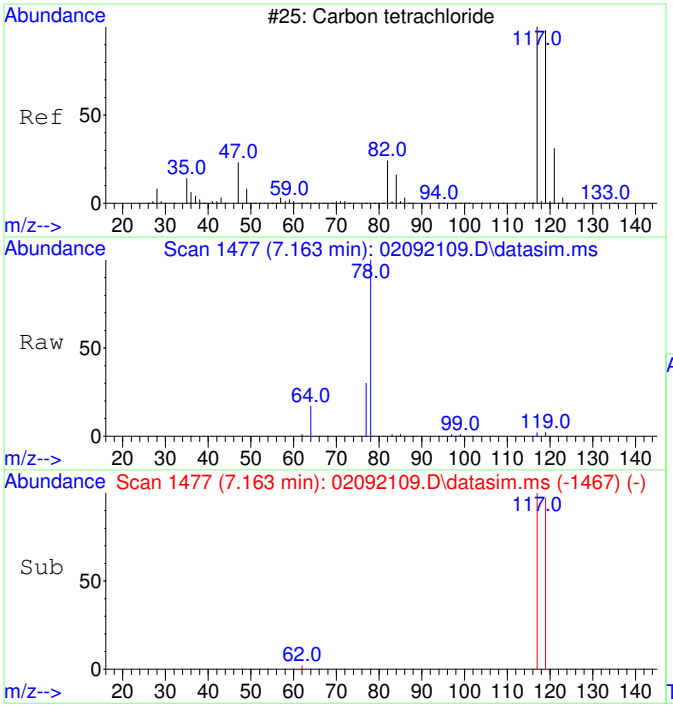


#6
Chloroform
Concen: 36.74 ug/L
RT: 6.640 min Scan# 1434
Delta R.T. -0.012 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 83 Resp: 296

Ion	Ratio	Lower	Upper
83	100		
85	66.2	35.1	95.1

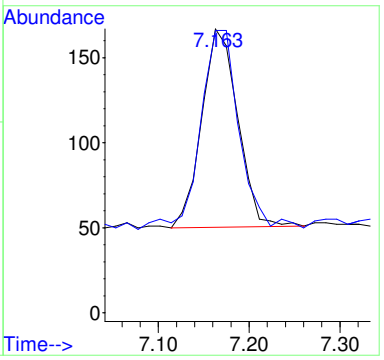


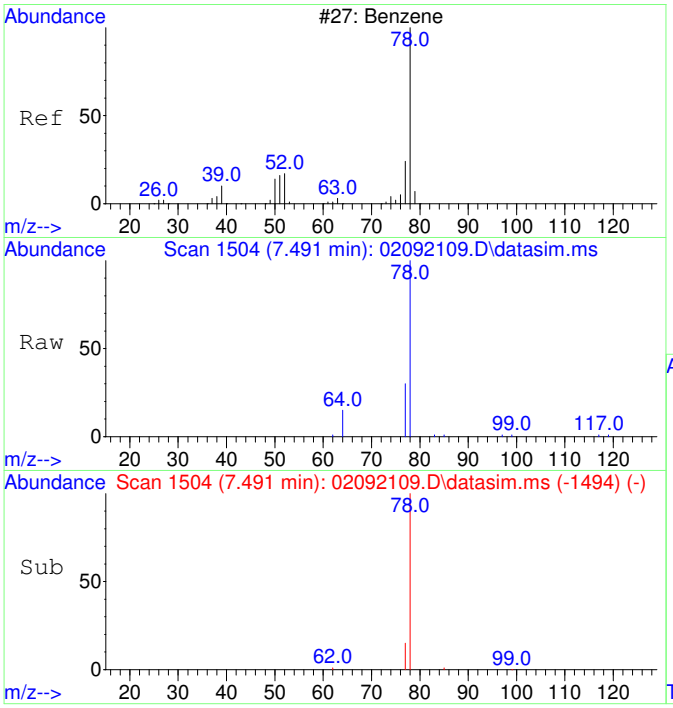


#8
Carbon tetrachloride
Concen: 38.79 ug/L
RT: 7.163 min Scan# 1477
Delta R.T. -0.024 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion:117 Resp: 321

Ion	Ratio	Lower	Upper
117	100		
119	107.2	66.4	126.4

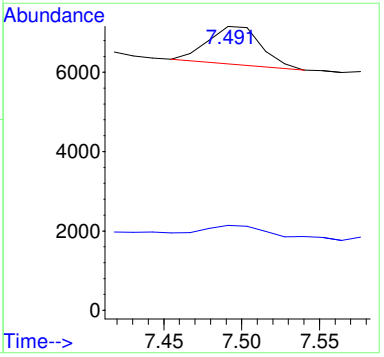


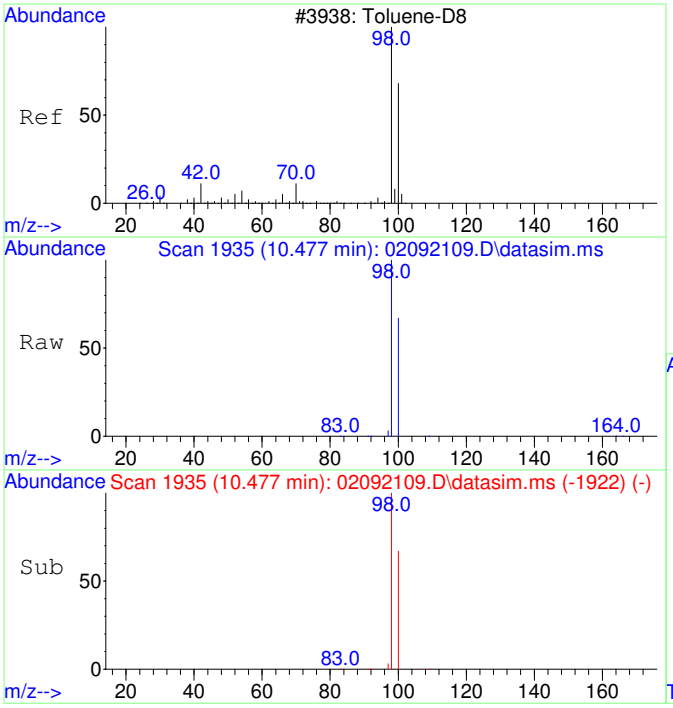


#9
Benzene
Concen: 95.93 ug/L
RT: 7.491 min Scan# 1504
Delta R.T. -0.024 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 78 Resp: 2190

Ion	Ratio	Lower	Upper
78	100		
77	58.0	0.0	53.2#

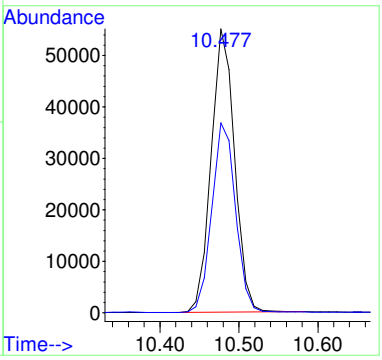


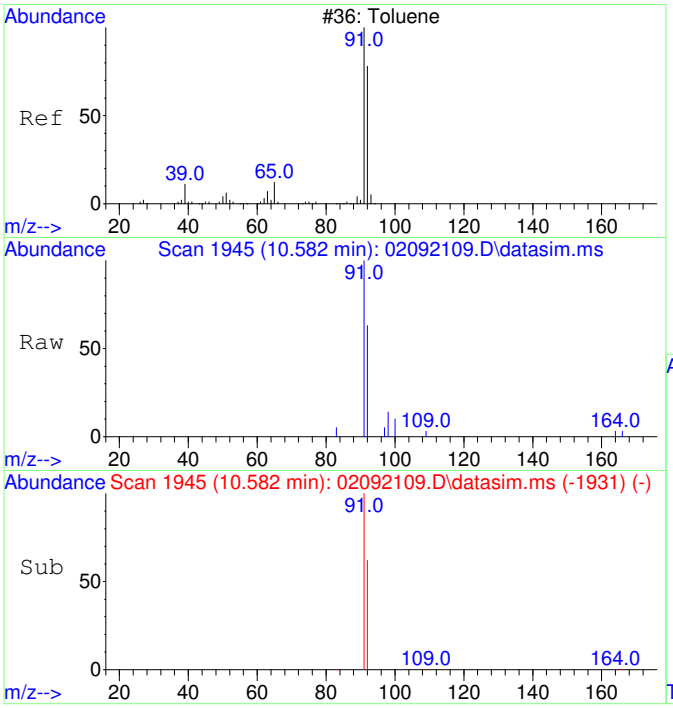


#12
Toluene-d8
Concen: 4316.42 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 98 Resp: 113412

Ion	Ratio	Lower	Upper
98	100		
100	67.5	37.1	97.1

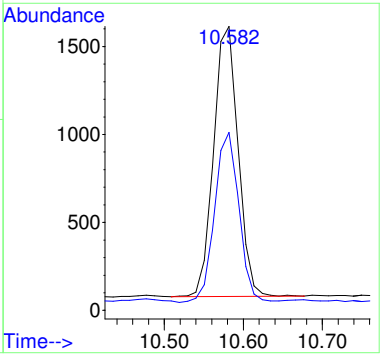


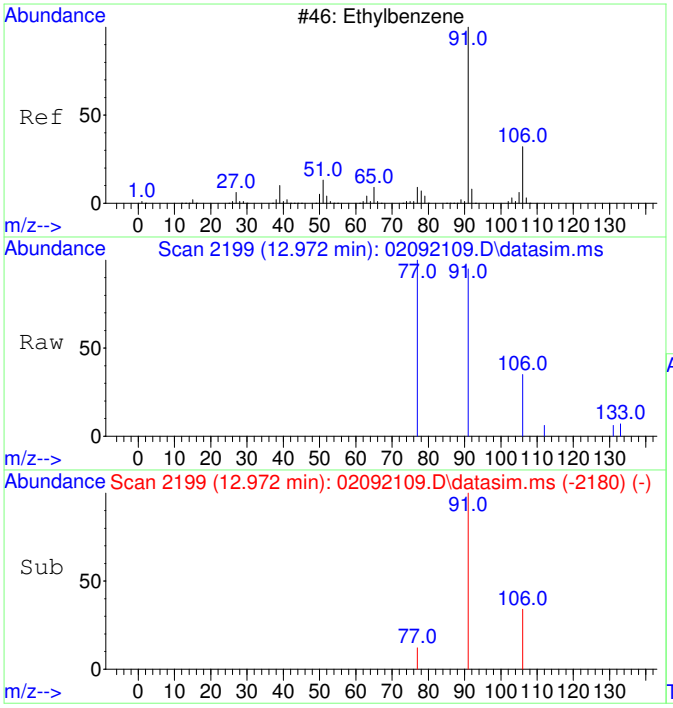


#13
Toluene
Concen: 100.90 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 3301

Ion	Ratio	Lower	Upper
91	100		
92	61.7	29.9	89.9

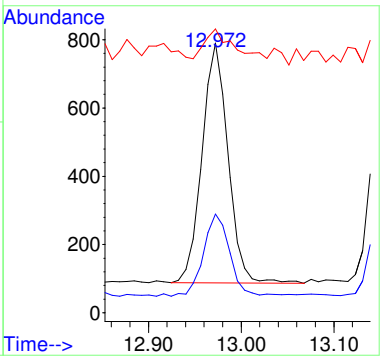


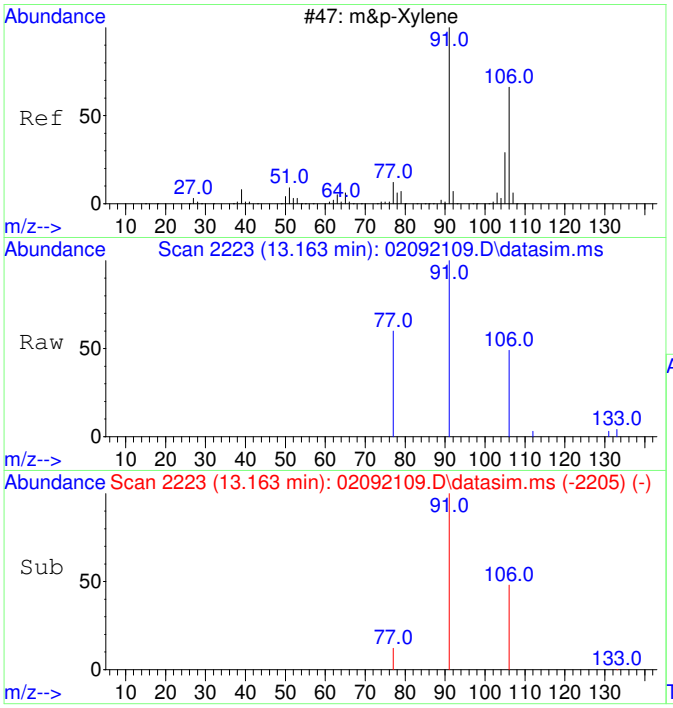


#18
Ethylbenzene
Concen: 32.69 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 1366

Ion	Ratio	Lower	Upper
91	100		
106	33.5	3.0	63.0
77	17.3	0.0	38.2

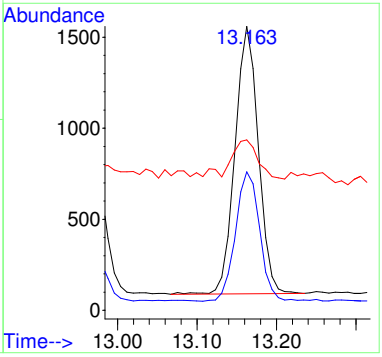


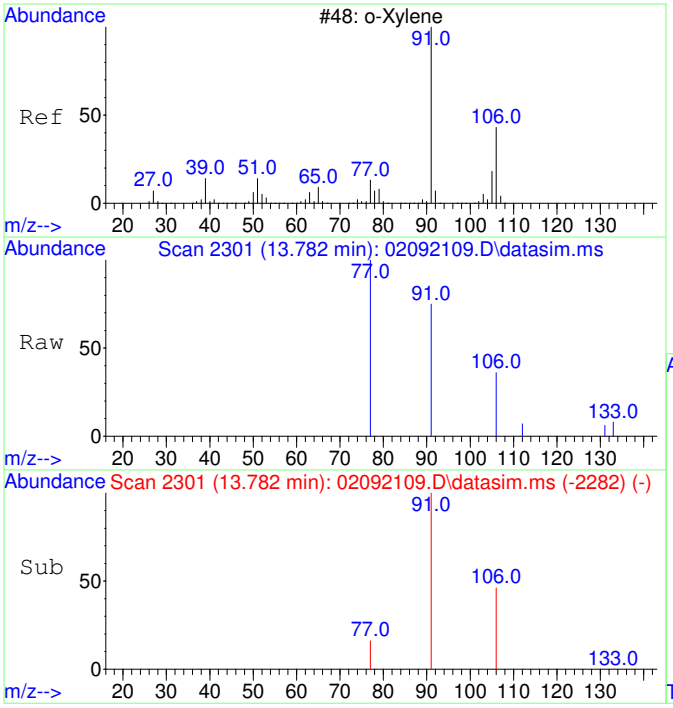


#19
m&p-Xylene
Concen: 93.95 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 3023

Ion	Ratio	Lower	Upper
91	100		
106	49.4	22.2	82.2
77	19.9	0.0	42.4

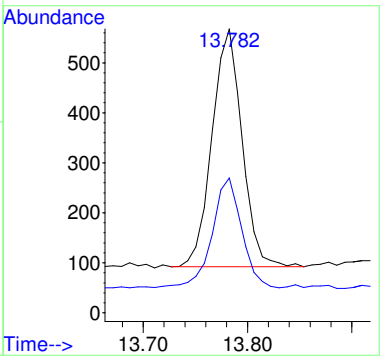


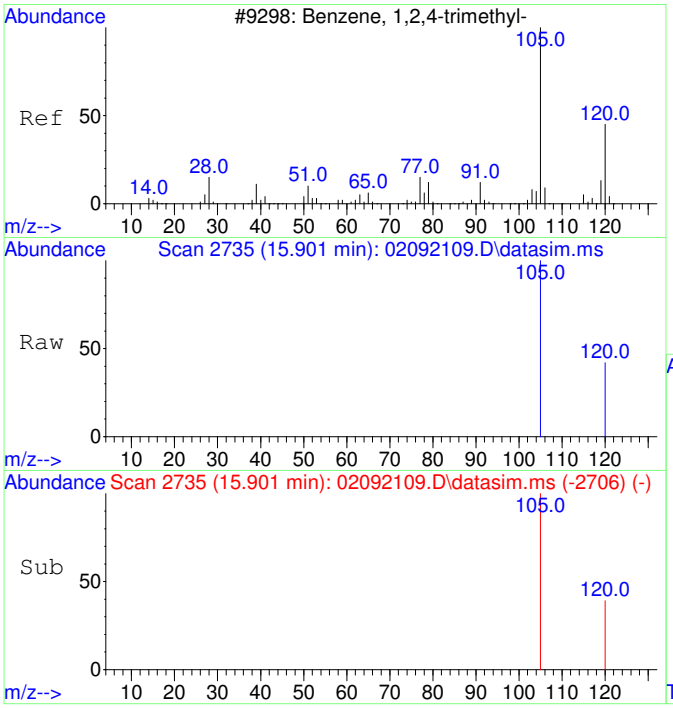


#20
o-Xylene
Concen: 27.43 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 948

Ion	Ratio	Lower	Upper
91	100		
106	50.6	19.2	79.2

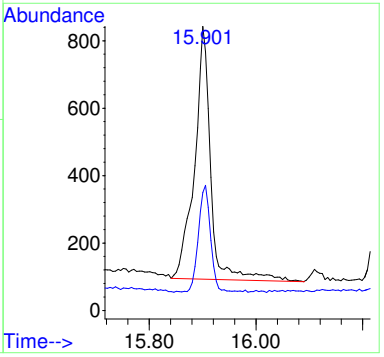


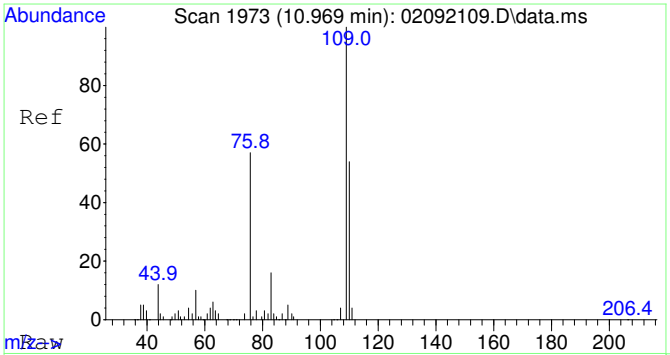


#23
1,2,4-Trimethylbenzene
Concen: 40.75 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion:105 Resp: 1584

Ion	Ratio	Lower	Upper
105	100		
120	31.1	17.2	77.2

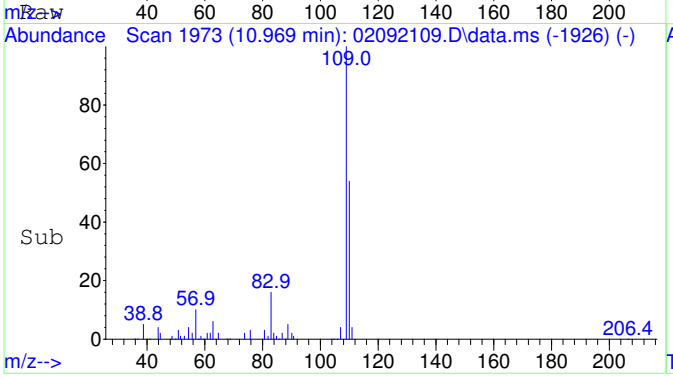


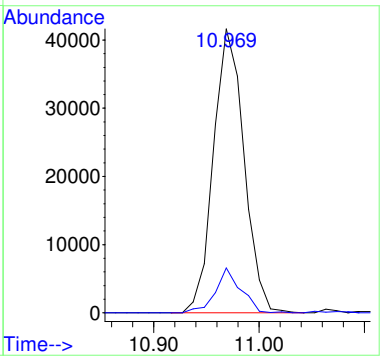


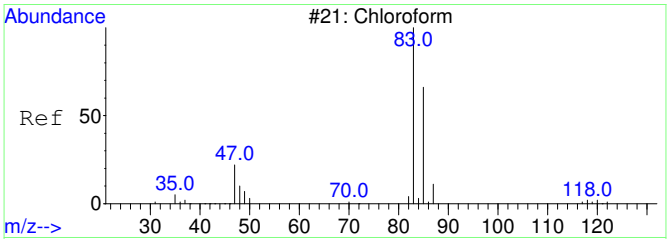
#25
2-Fluorotoluene SCAN
Concen: 5473.81 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion:109 Resp: 84292

Ion	Ratio	Lower	Upper
109	100		
83	13.2	0.0	43.8



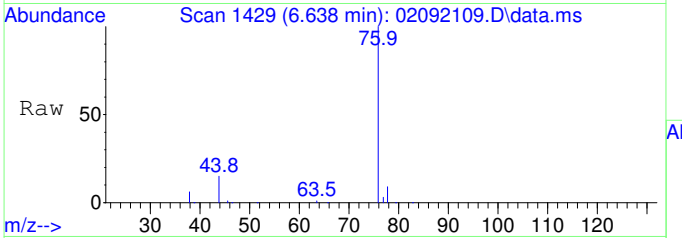


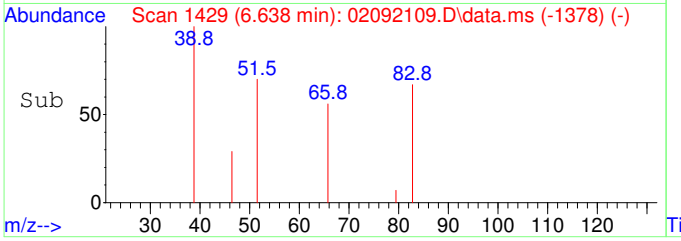


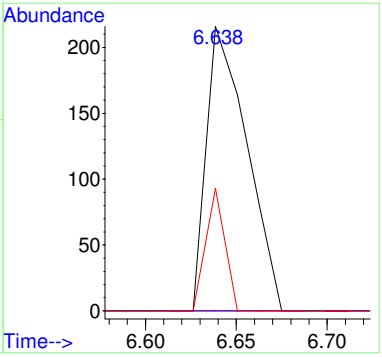
#30
Chloroform SCAN
Concen: 67.80 ug/L
RT: 6.638 min Scan# 1429
Delta R.T. -0.024 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

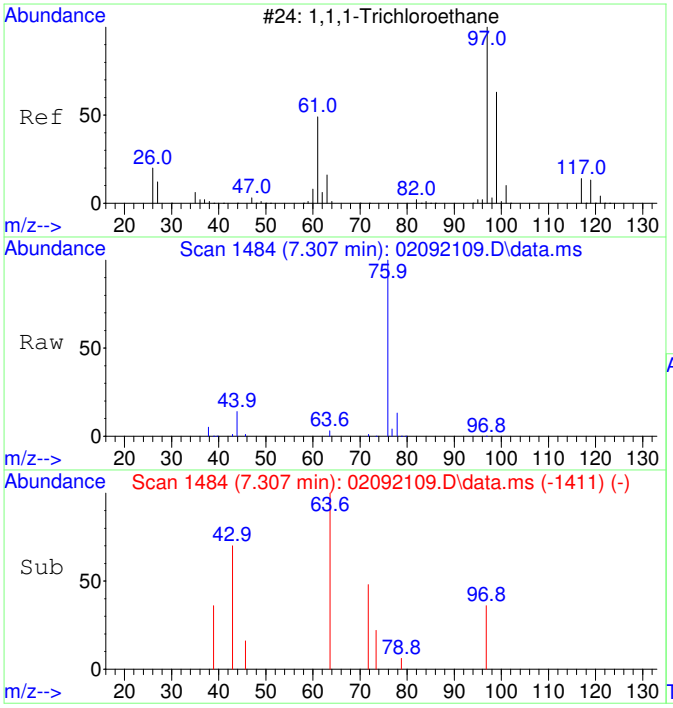
Tgt Ion: 83 Resp: 336

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	20.2	0.0	53.4





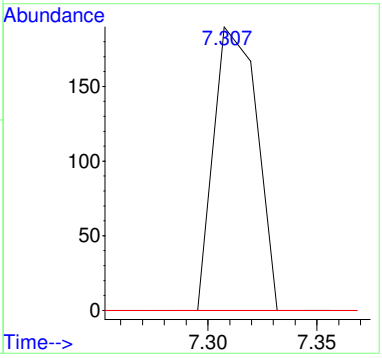


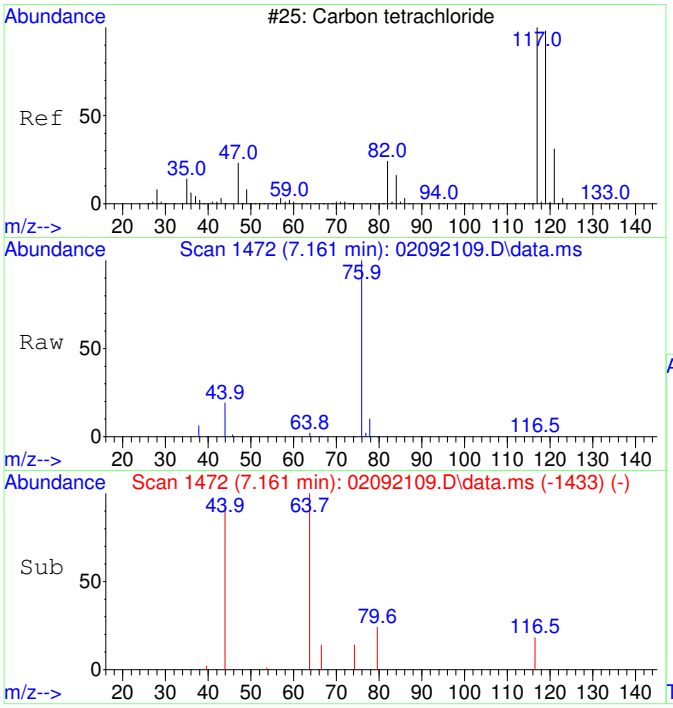


#31
1,1,1-Trichloroethane SCAN
Concen: 51.04 ug/L
RT: 7.307 min Scan# 1484
Delta R.T. 0.390 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 97 Resp: 261

Ion	Ratio	Lower	Upper
97	100		
99	0.0	43.6	103.6#
61	0.0	18.0	78.0#

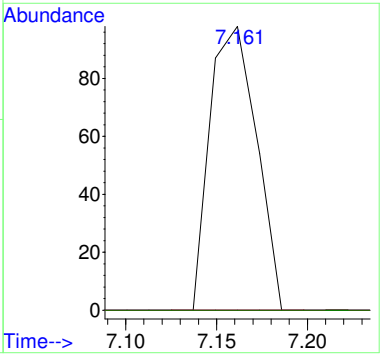


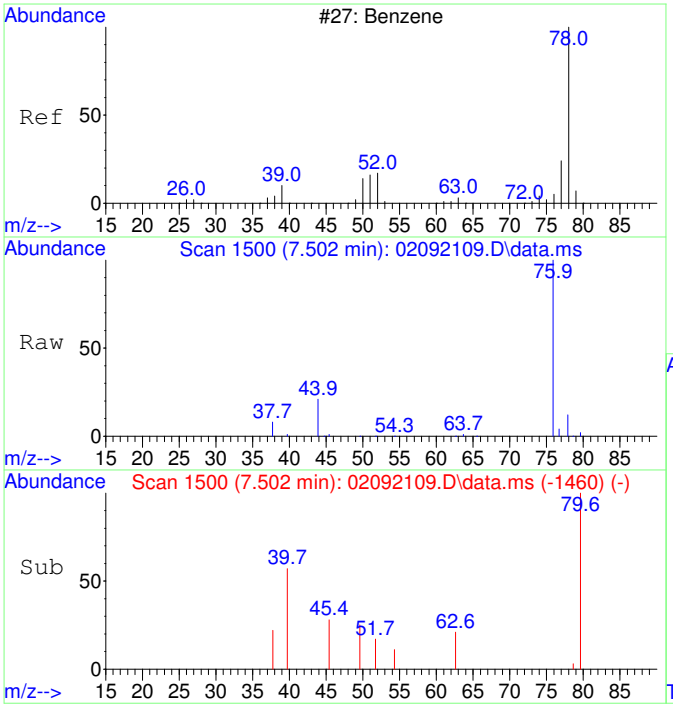


#32
Carbon tetrachloride SCAN
Concen: 39.82 ug/L
RT: 7.161 min Scan# 1472
Delta R.T. -0.024 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion:117 Resp: 174

Ion	Ratio	Lower	Upper
117	100		
119	0.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

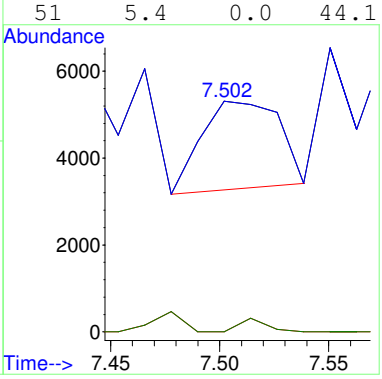


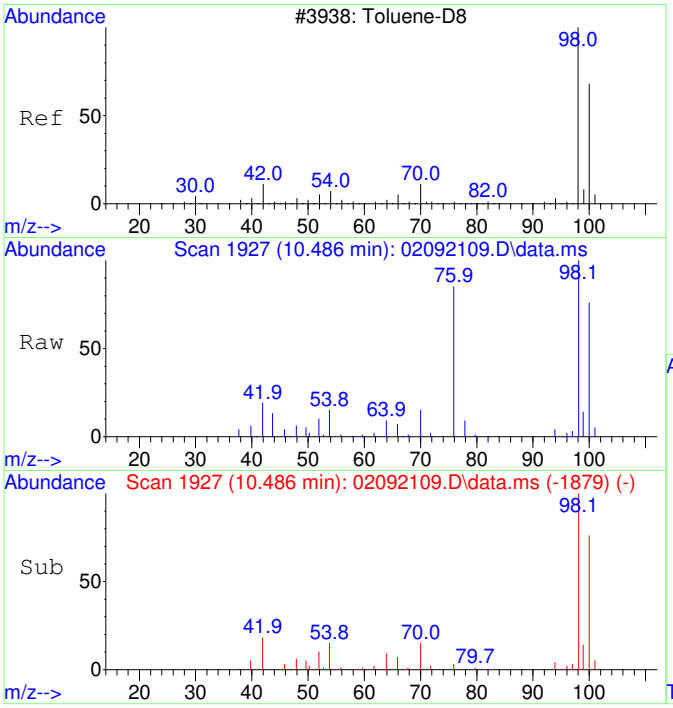


#33
Benzene SCAN
Concen: 326.93 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. -0.012 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 78 Resp: 5058

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	5.4	0.0	47.9
51	5.4	0.0	44.1

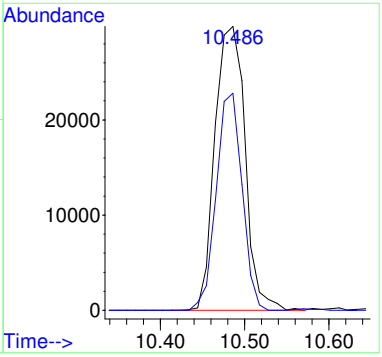


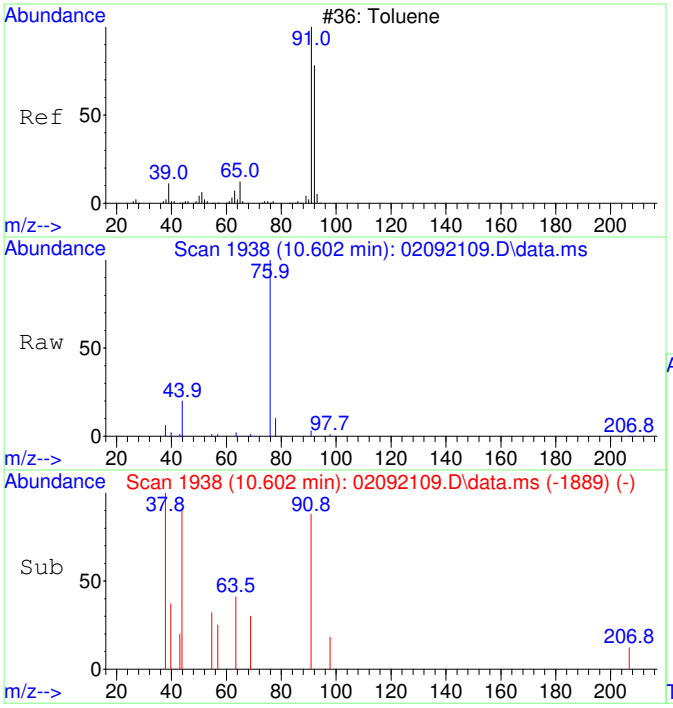


#36
Toluene-d8 SCAN
Concen: 5152.84 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 98 Resp: 74421

Ion	Ratio	Lower	Upper
98	100		
100	65.4	40.0	100.0

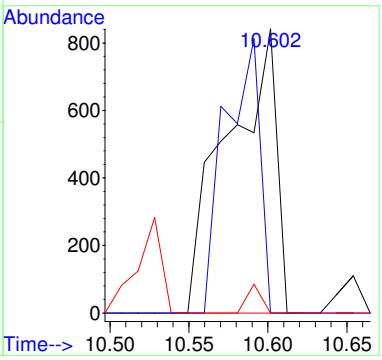


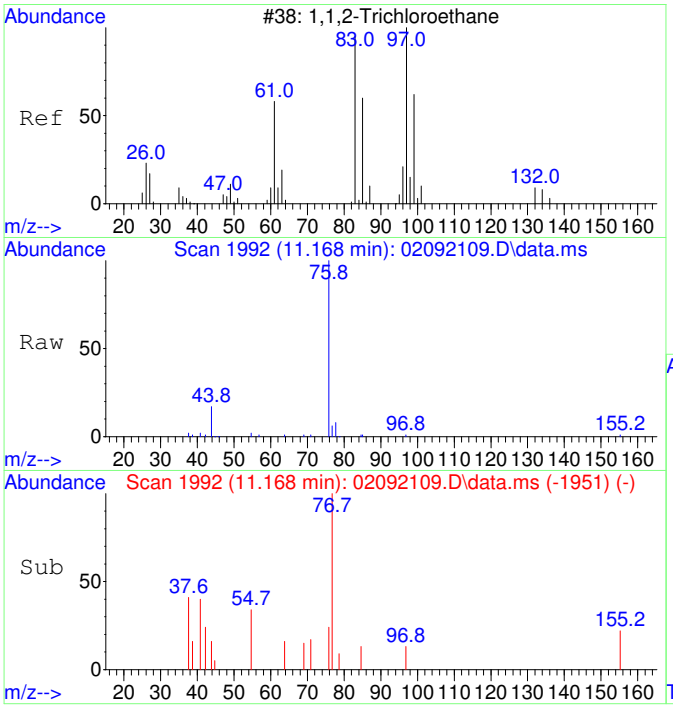


#37
Toluene SCAN
Concen: 102.29 ug/L
RT: 10.602 min Scan# 1938
Delta R.T. 0.011 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 1819

Ion	Ratio	Lower	Upper
91	100		
92	68.8	28.3	88.3
65	3.0	0.0	41.0

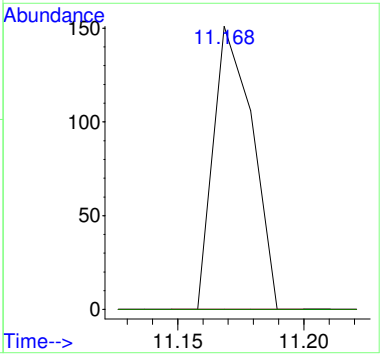


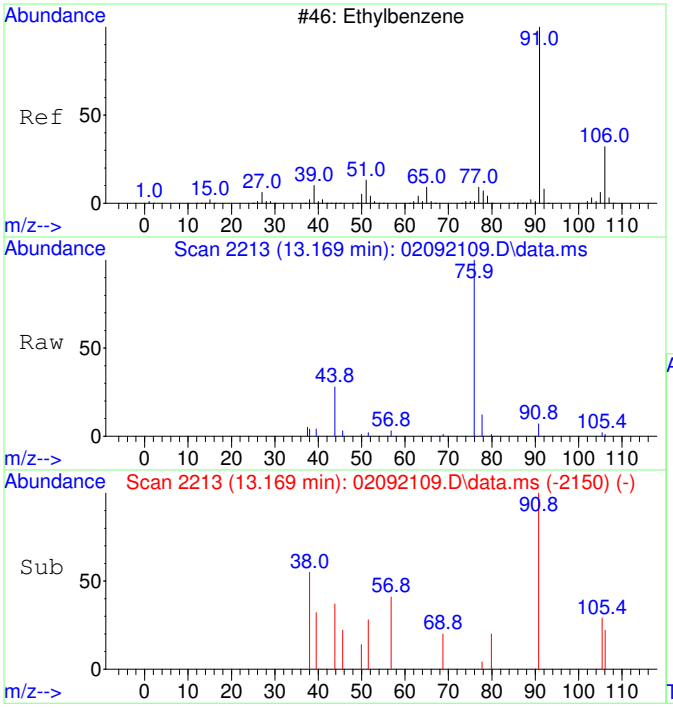


#38
1,1,2-Trichloroethane SCAN
Concen: 36.35 ug/L
RT: 11.168 min Scan# 1992
Delta R.T. -0.073 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 97 Resp: 162

Ion	Ratio	Lower	Upper
97	100		
83	0.0	57.7	117.7#
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

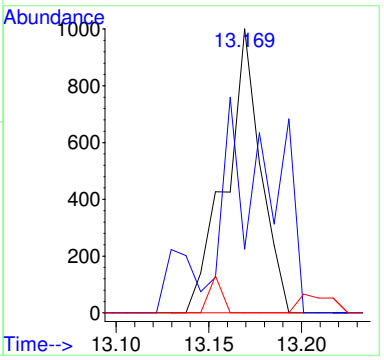


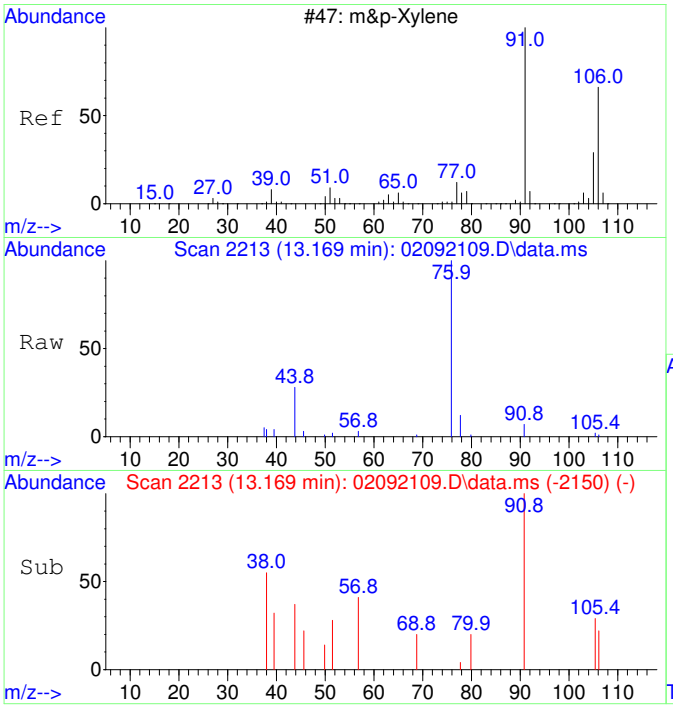


#42
Ethylbenzene SCAN
Concen: 38.86 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 1317

Ion	Ratio	Lower	Upper
91	100		
106	26.6	23.1	83.1
51	4.7	0.0	40.1

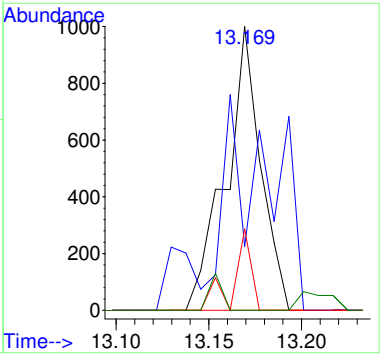


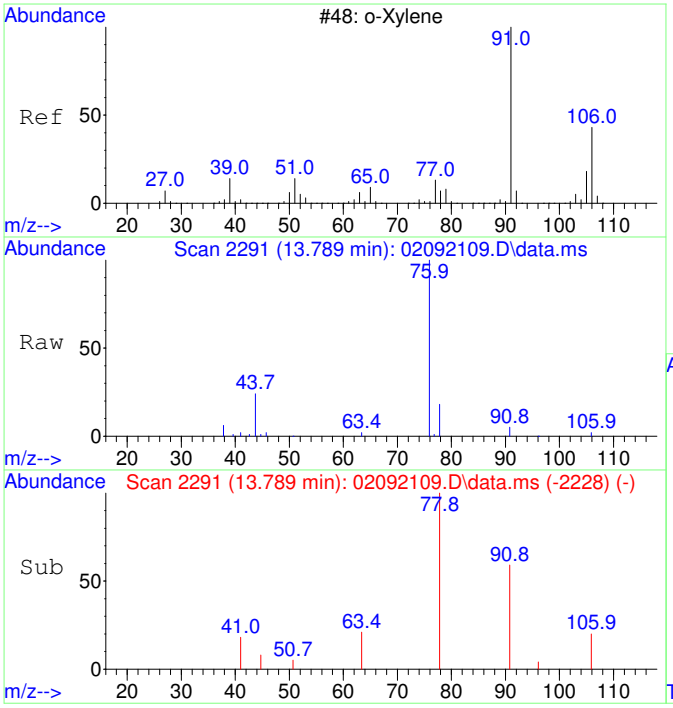


#43
m&p-Xylene SCAN
Concen: 38.86 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 1317

Ion	Ratio	Lower	Upper
91	100		
106	26.6	23.1	83.1
105	14.6	0.0	54.7
51	4.7	0.0	40.1

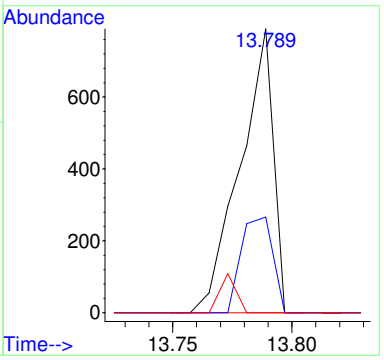


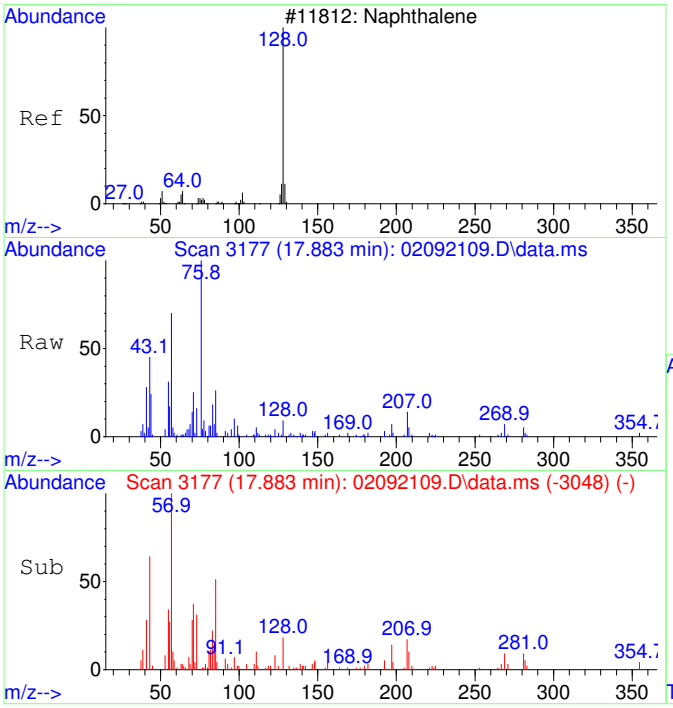


#44
o-Xylene SCAN
Concen: 41.40 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion: 91 Resp: 766

Ion	Ratio	Lower	Upper
91	100		
106	32.0	18.0	78.0
105	6.8	0.0	56.6

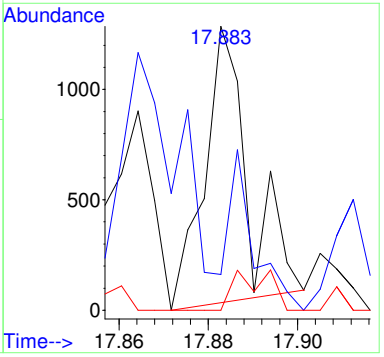




#48
Naphthalene SCAN
Concen: 28.63 ug/L
RT: 17.883 min Scan# 3177
Delta R.T. -0.020 min
Lab File: 02092109.D
Acq: 9 Feb 2021 12:58

Tgt Ion:128 Resp: 857

Ion	Ratio	Lower	Upper
128	100		
127	21.0	0.0	44.0
129	0.0	0.0	40.8



2102007-02

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092110.D
Acq On : 9 Feb 2021 13:21
InstName : AG5975C
Operator : TD
Sample : 2102007-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 09 13:40:21 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

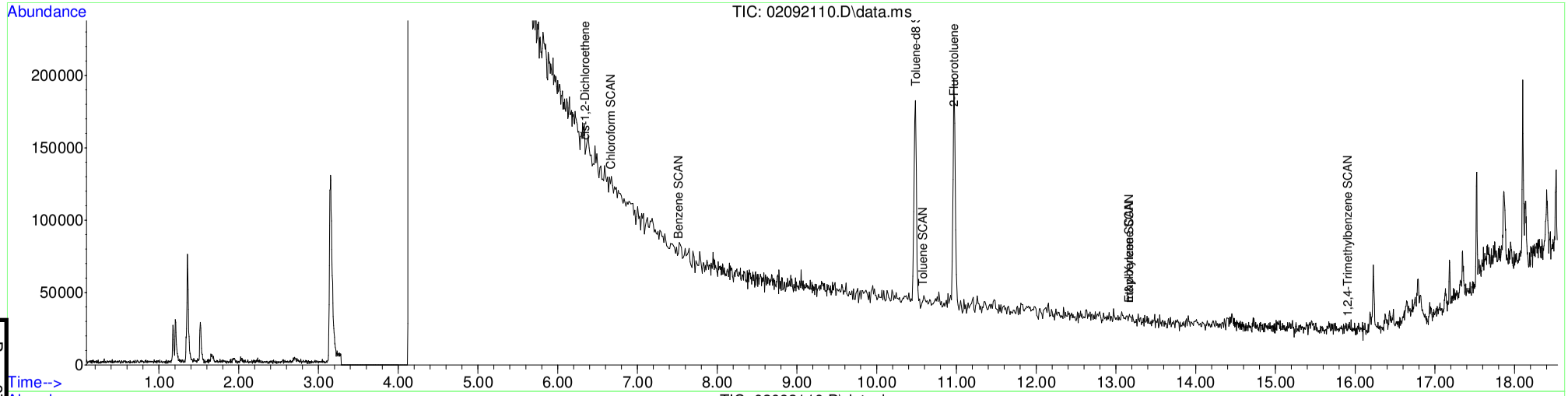
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	195147	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	163786	4333.52	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.67%			
Target Compounds						Qvalue
8] Carbon tetrachloride	7.175	117	396	33.27	ug/L	100
9] Benzene	7.503	78	3665	111.61	ug/L	41
13] Toluene	10.582	91	5247	111.50	ug/L	100
18] Ethylbenzene	12.972	91	2078	34.57	ug/L	88
19] m&p-Xylene	13.163	91	4417	95.43	ug/L	94
20] o-Xylene	13.782	91	1418	28.52	ug/L	100
23] 1,2,4-Trimethylbenzene	15.901	105	2045	36.57	ug/L	83
25) 2-Fluorotoluene SCAN	10.969	109	116192	5245.41	ug/L	100
29) cis-1,2-Dichloroethene...	6.345	61	192	25.12	ug/L #	1
30) Chloroform SCAN	6.663	83	241	33.81	ug/L #	27
33) Benzene SCAN	7.514	78	4801	215.73	ug/L #	91
36) Toluene-d8 SCAN	10.486	98	101469	4884.09	ug/L	98
37) Toluene SCAN	10.581	91	3048	119.16	ug/L	88
42) Ethylbenzene SCAN	13.161	91	2672	54.82	ug/L #	50
43) m&p-Xylene SCAN	13.161	91	2672	54.82	ug/L #	56
47) 1,2,4-Trimethylbenzene...	15.904	105	1398	48.73	ug/L #	50

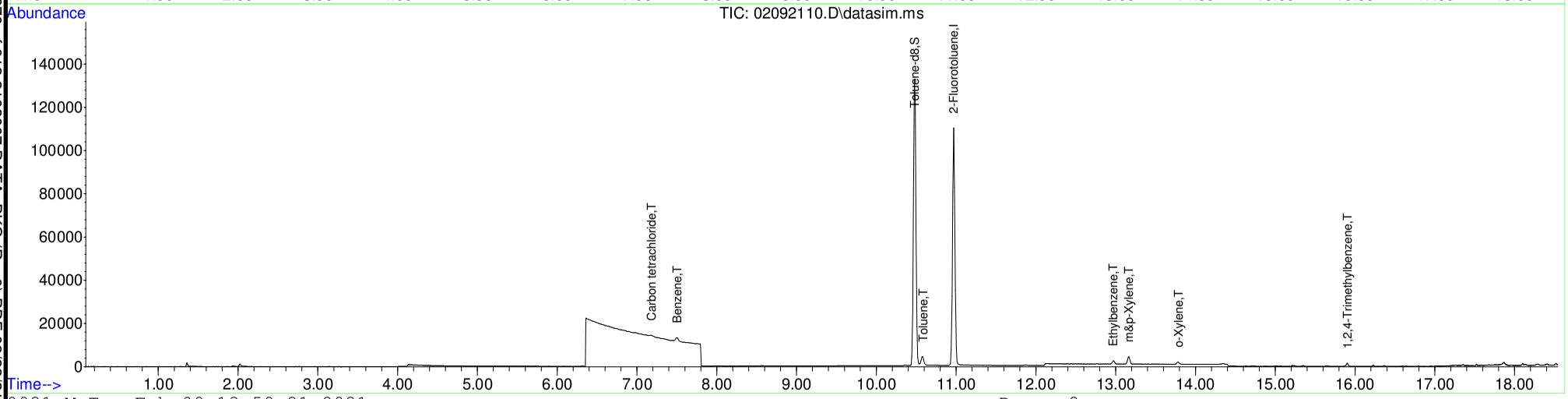
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092110.D
Acq On : 9 Feb 2021 13:21
InstName : AG5975C
Operator : TD
Sample : 2102007-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 09 13:40:21 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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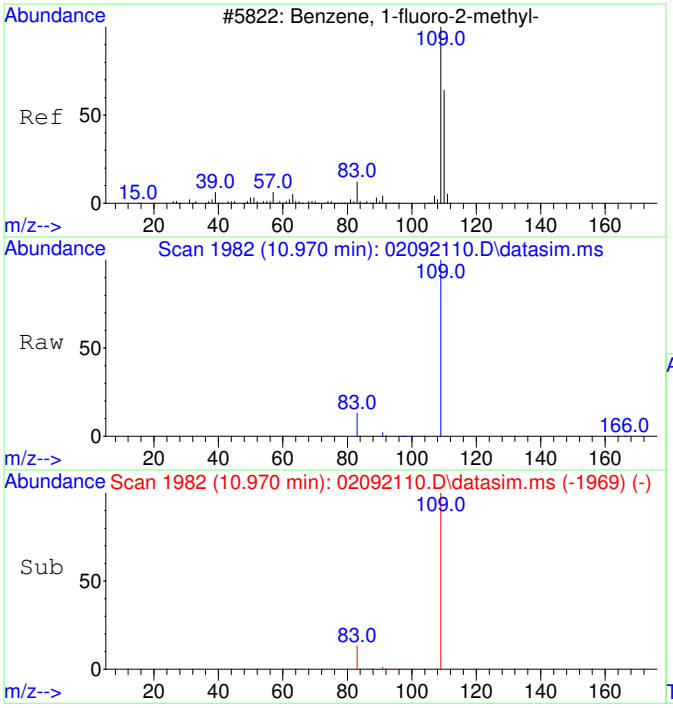
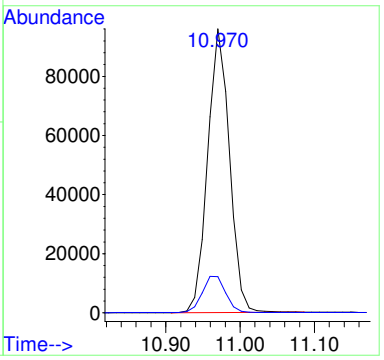
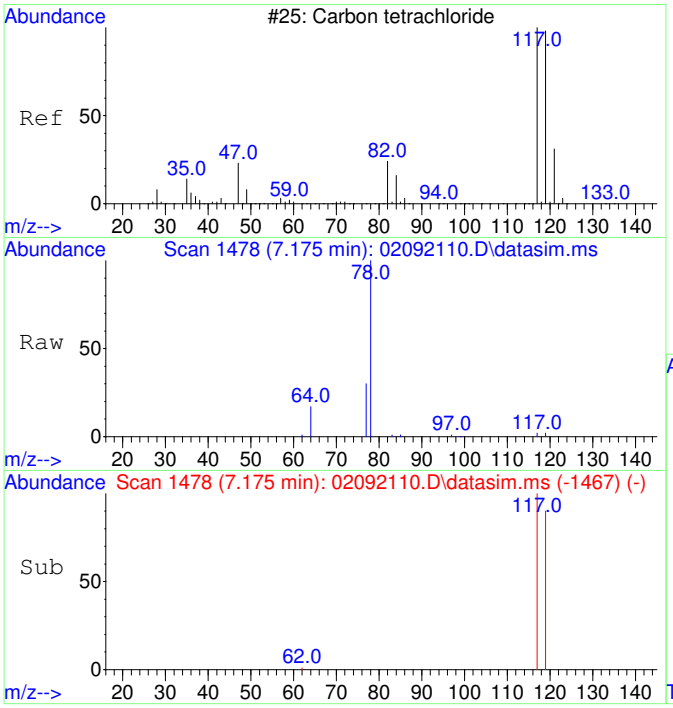


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion:109 Resp: 195147

Ion	Ratio	Lower	Upper
109	100		
83	13.8	0.0	42.3

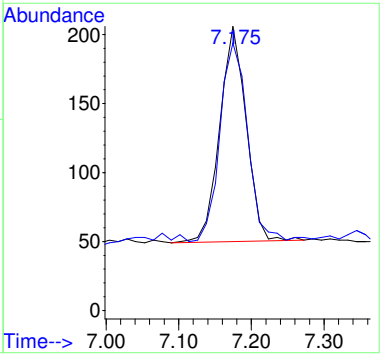


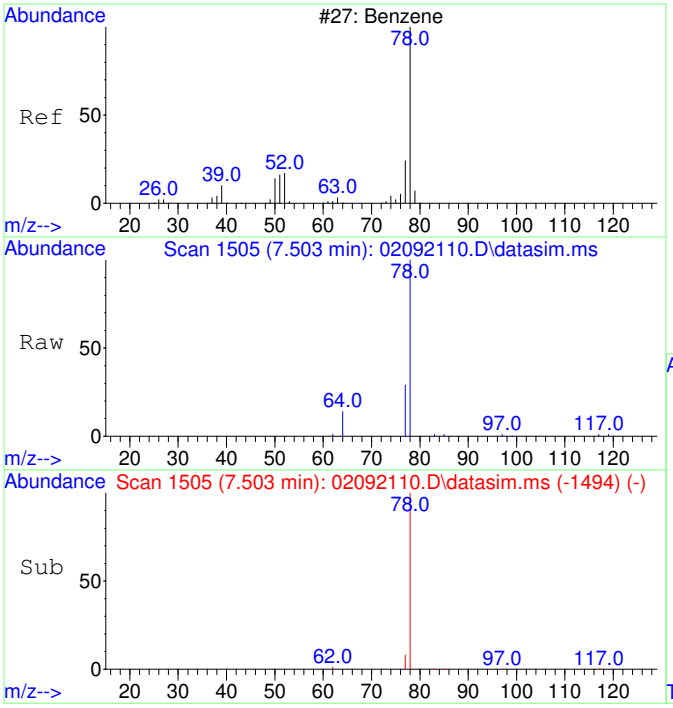


#8
Carbon tetrachloride
Concen: 33.27 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion:117 Resp: 396

Ion	Ratio	Lower	Upper
117	100		
119	96.7	66.4	126.4

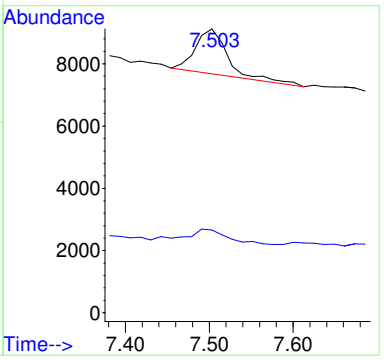


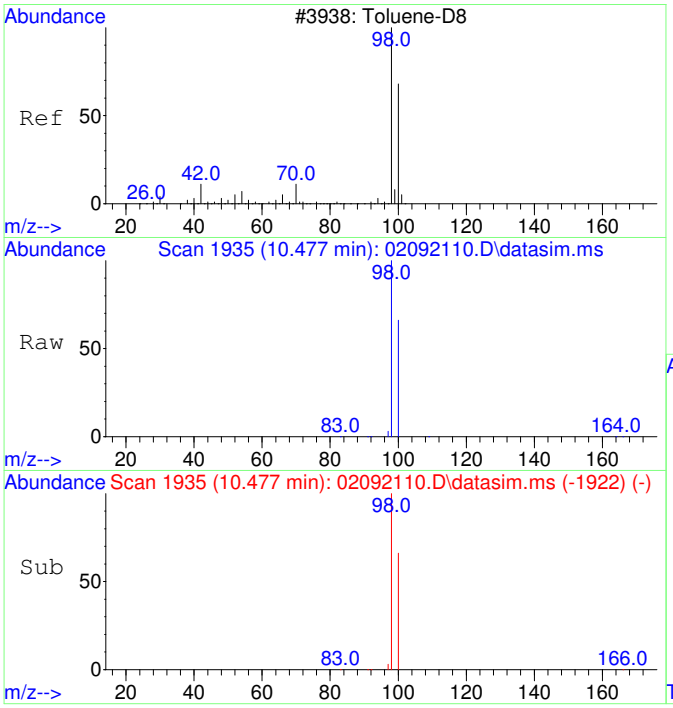


#9
Benzene
Concen: 111.61 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 78 Resp: 3665

Ion	Ratio	Lower	Upper
78	100		
77	52.0	0.0	53.2

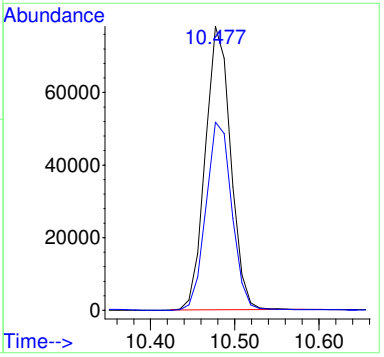


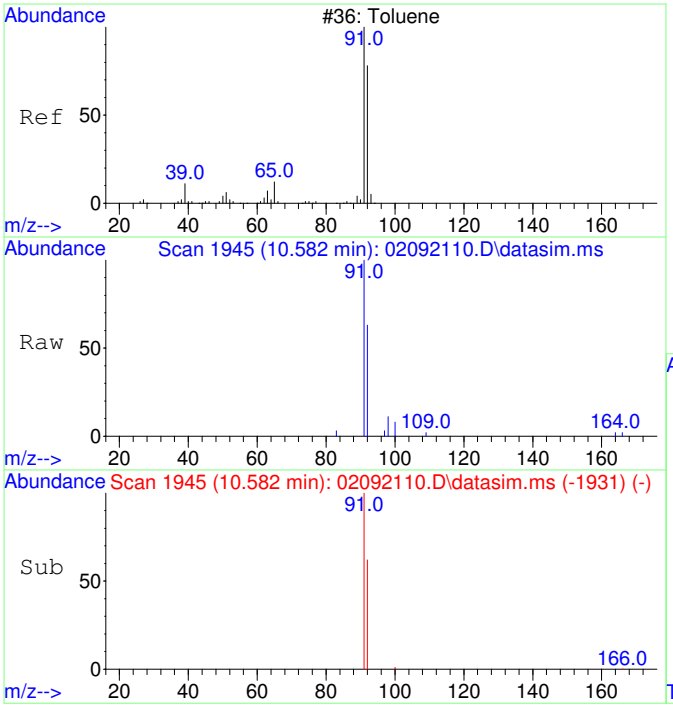


#12
Toluene-d8
Concen: 4333.52 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 98 Resp: 163786

Ion	Ratio	Lower	Upper
98	100		
100	67.4	37.1	97.1

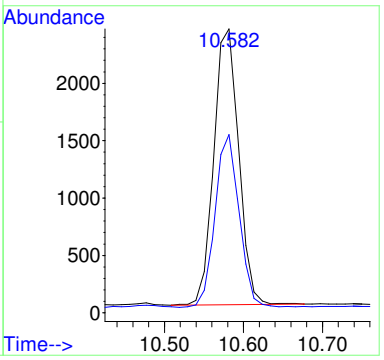


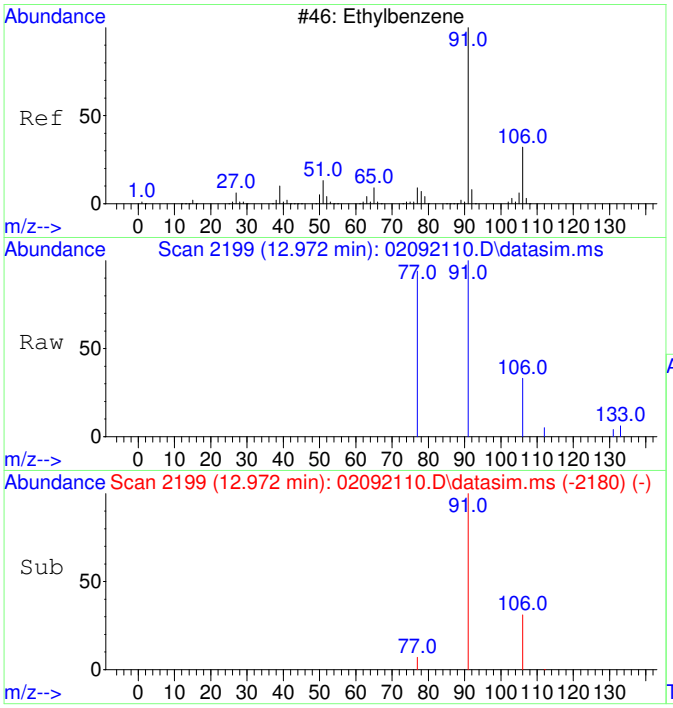


#13
Toluene
Concen: 111.50 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 5247

Ion	Ratio	Lower	Upper
91	100		
92	60.2	29.9	89.9

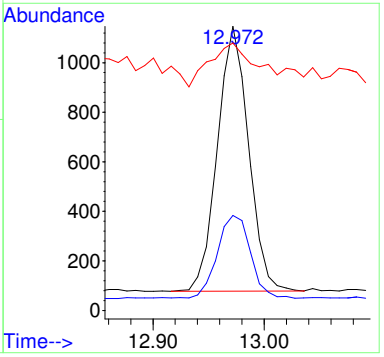


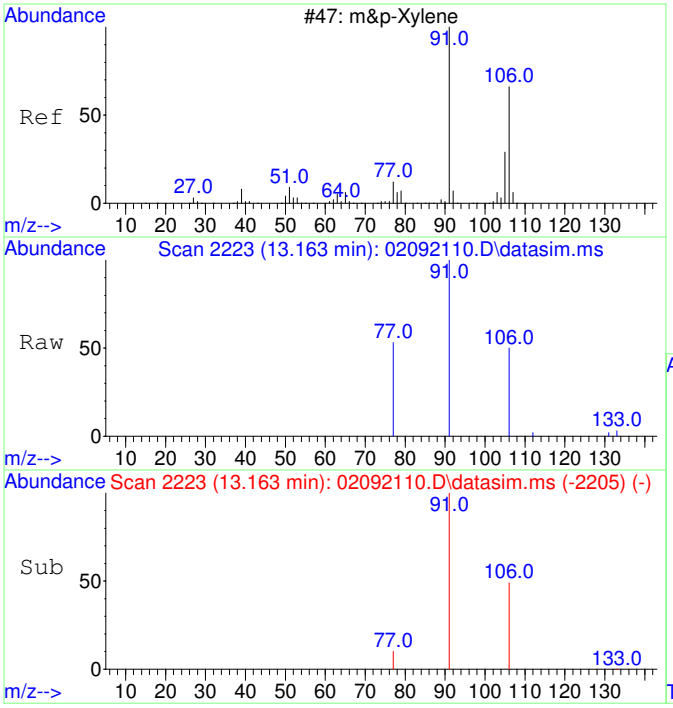


#18
Ethylbenzene
Concen: 34.57 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 2078

Ion	Ratio	Lower	Upper
91	100		
106	32.9	3.0	63.0
77	28.5	0.0	38.2

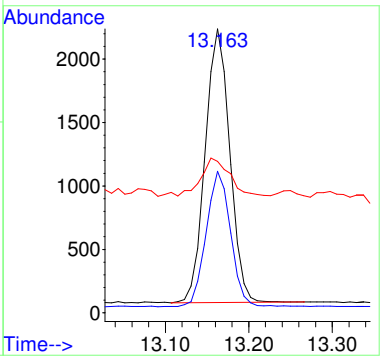


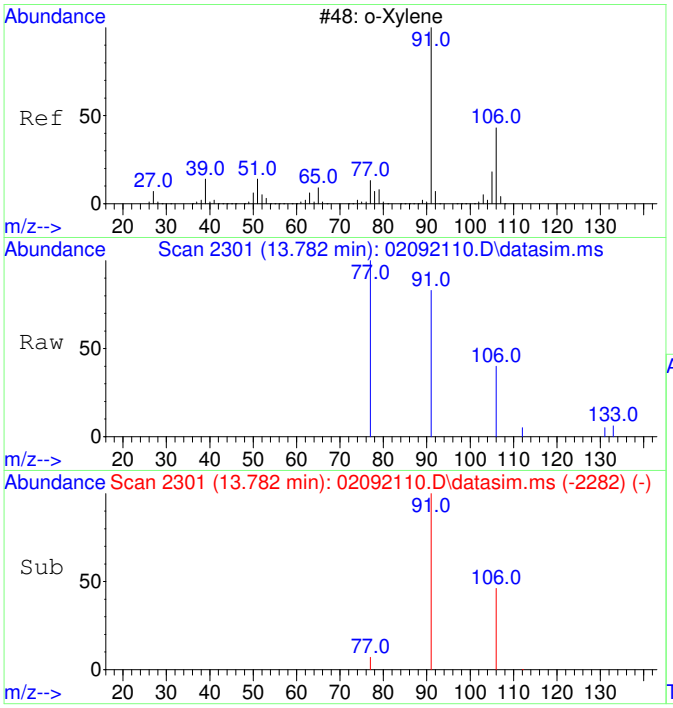


#19
m&p-Xylene
Concen: 95.43 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 4417

Ion	Ratio	Lower	Upper
91	100		
106	48.9	22.2	82.2
77	16.2	0.0	42.4

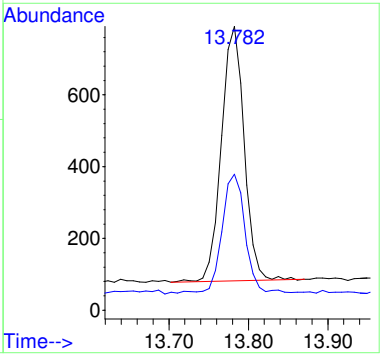


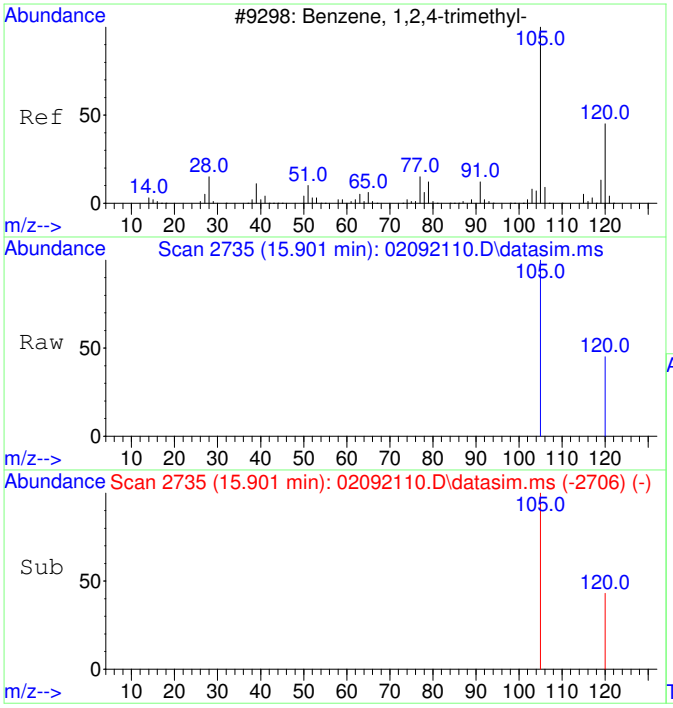


#20
o-Xylene
Concen: 28.52 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 1418

Ion	Ratio	Lower	Upper
91	100		
106	49.2	19.2	79.2

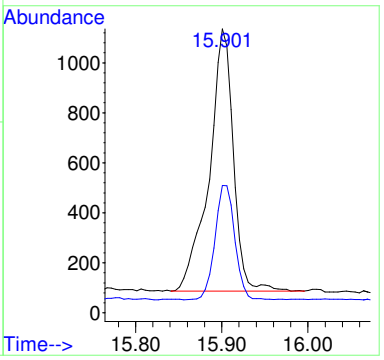


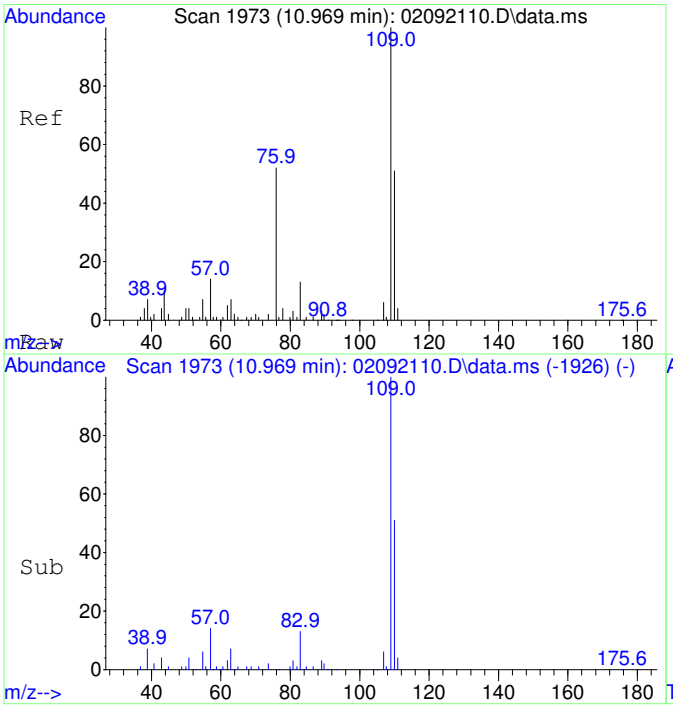


#23
1,2,4-Trimethylbenzene
Concen: 36.57 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion:105 Resp: 2045

Ion	Ratio	Lower	Upper
105	100		
120	35.6	17.2	77.2

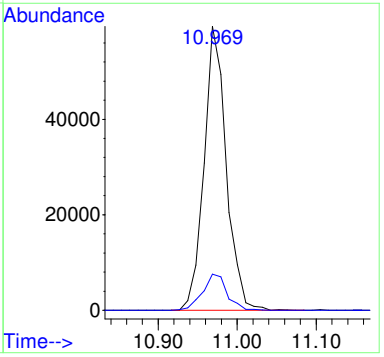


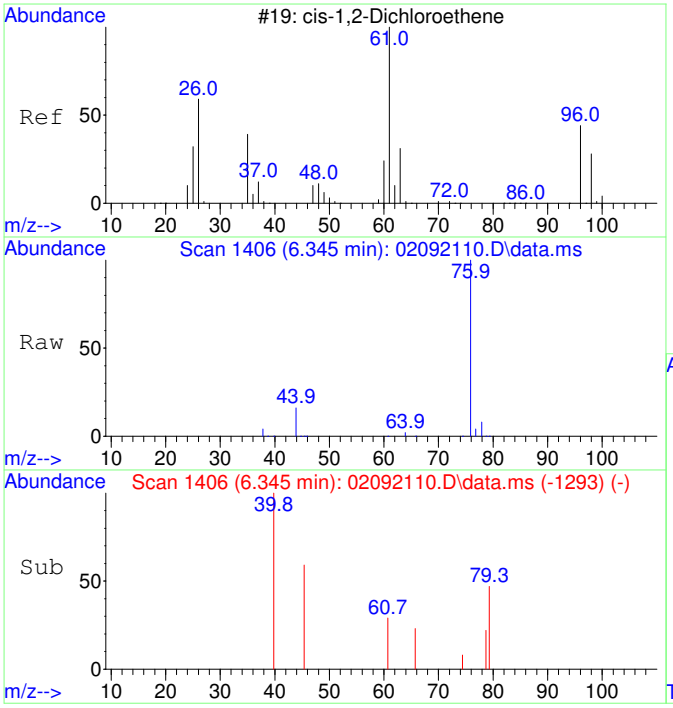


#25
2-Fluorotoluene SCAN
Concen: 5245.41 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion:109 Resp: 116192

Ion	Ratio	Lower	Upper
109	100		
83	14.0	0.0	43.8

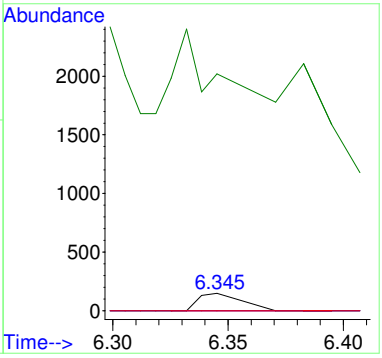


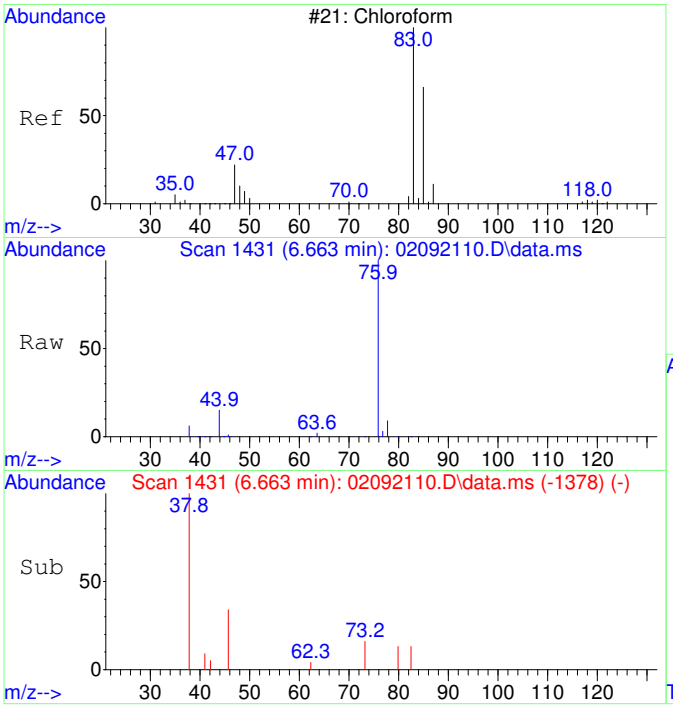


#29
cis-1,2-Dichloroethene SCAN
Concen: 25.12 ug/L
RT: 6.345 min Scan# 1406
Delta R.T. 0.252 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 61 Resp: 192

Ion	Ratio	Lower	Upper
61	100		
96	0.0	39.9	99.9#
98	0.0	13.5	73.5#
64	1207.3	4.5	64.5#

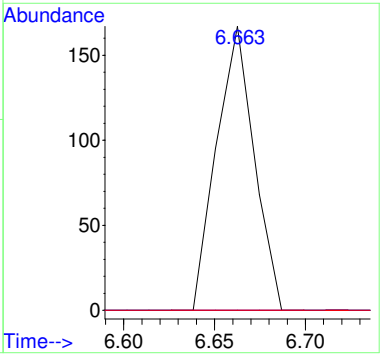


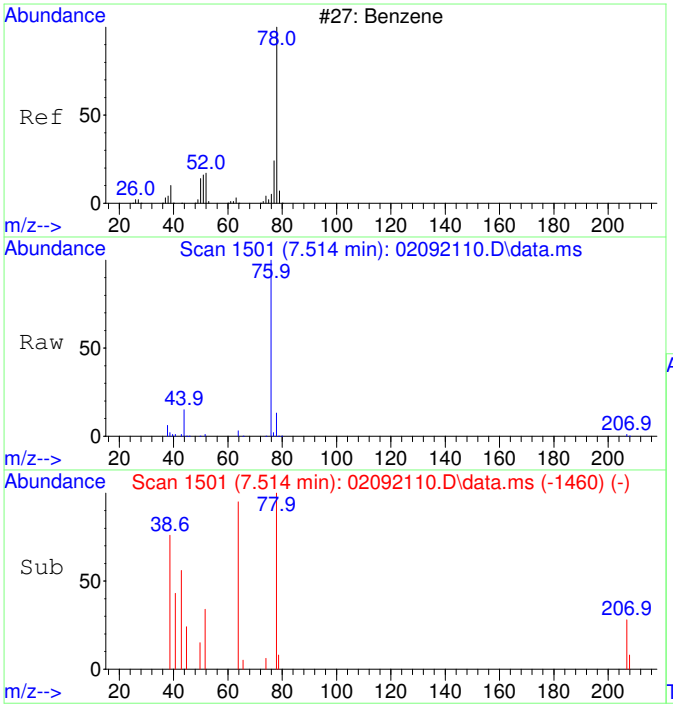


#30
Chloroform SCAN
Concen: 33.81 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 83 Resp: 241

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

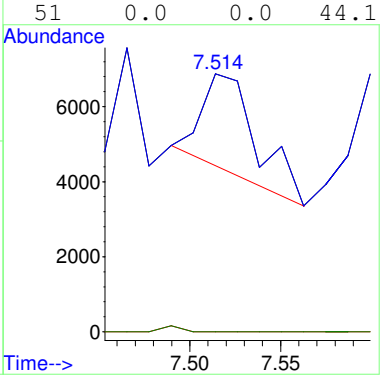


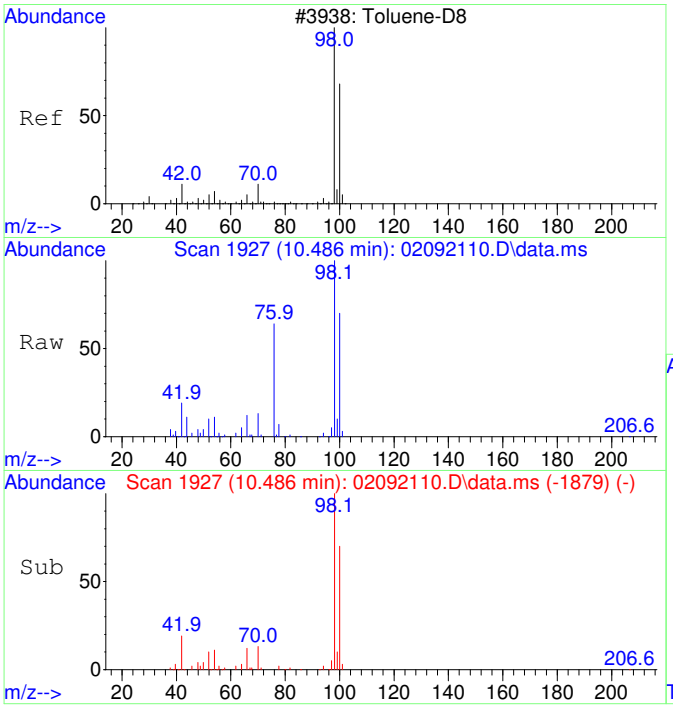


#33
Benzene SCAN
Concen: 215.73 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 78 Resp: 4801

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

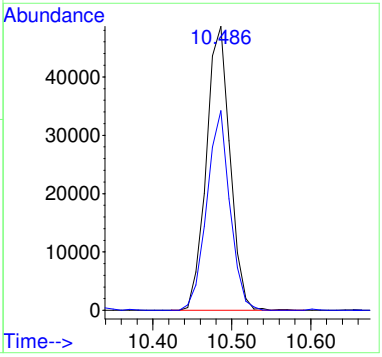


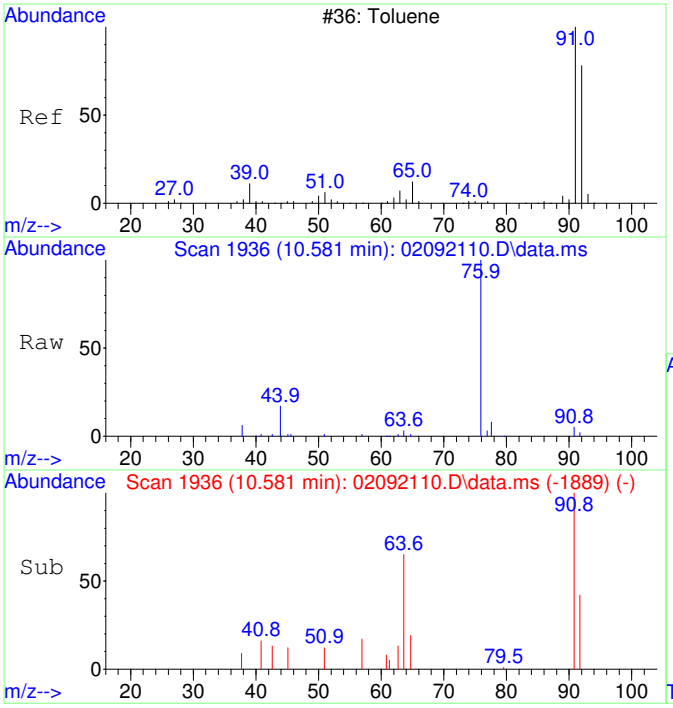


#36
Toluene-d8 SCAN
Concen: 4884.09 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 98 Resp: 101469

Ion	Ratio	Lower	Upper
98	100		
100	68.6	40.0	100.0

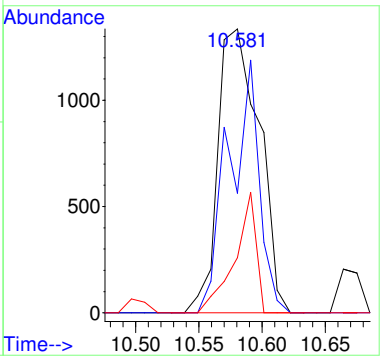


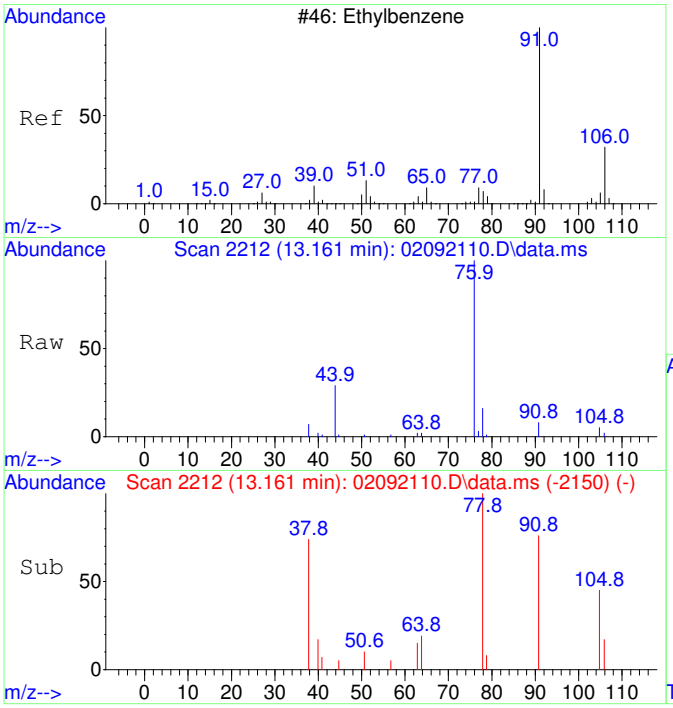


#37
Toluene SCAN
Concen: 119.16 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 3048

Ion	Ratio	Lower	Upper
91	100		
92	65.3	28.3	88.3
65	21.7	0.0	41.0

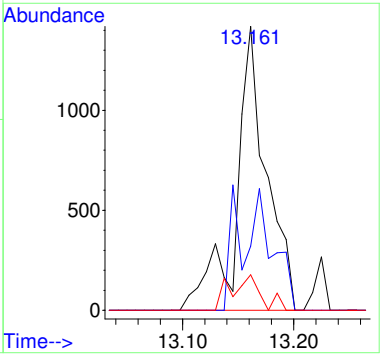


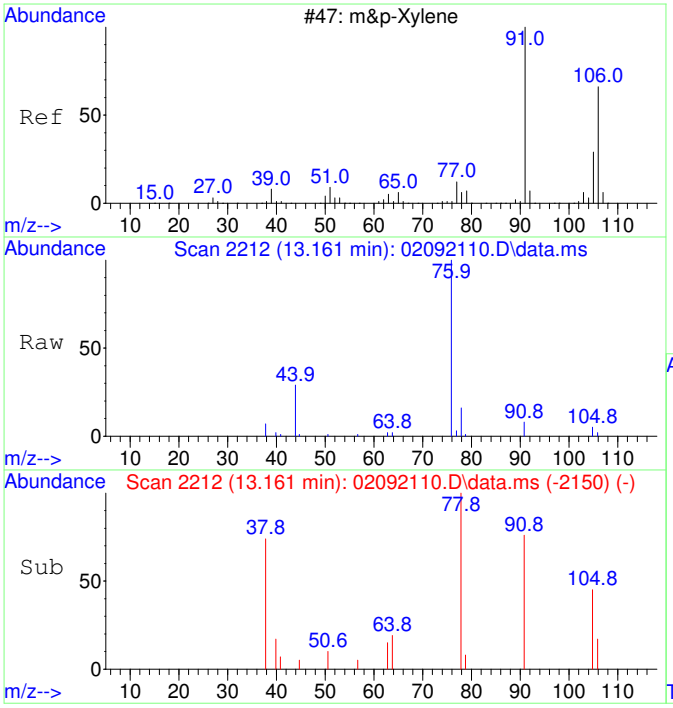


#42
Ethylbenzene SCAN
Concen: 54.82 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.008 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 2672

Ion	Ratio	Lower	Upper
91	100		
106	11.5	23.1	83.1#
51	12.5	0.0	40.1

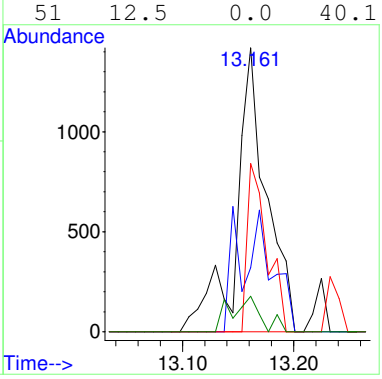


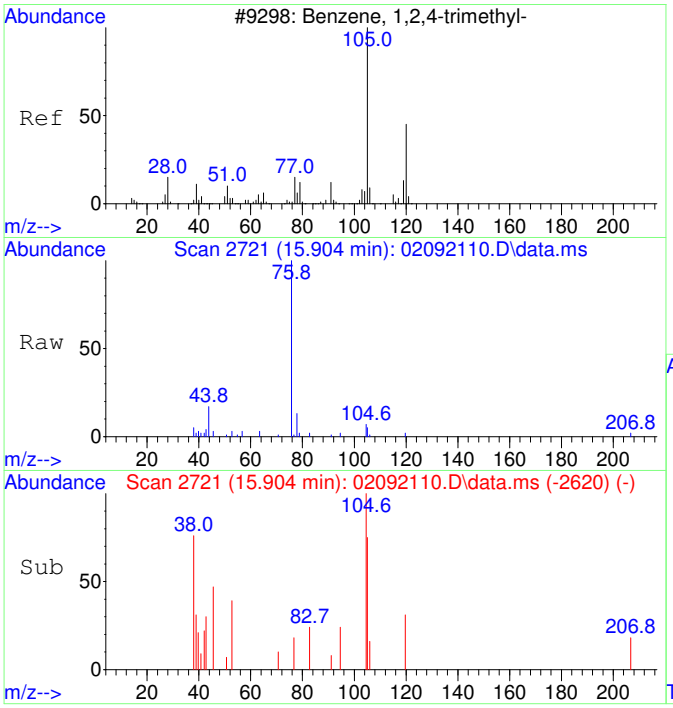


#43
m&p-Xylene SCAN
Concen: 54.82 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.008 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion: 91 Resp: 2672

Ion	Ratio	Lower	Upper
91	100		
106	11.5	23.1	83.1#
105	39.0	0.0	54.7
51	12.5	0.0	40.1

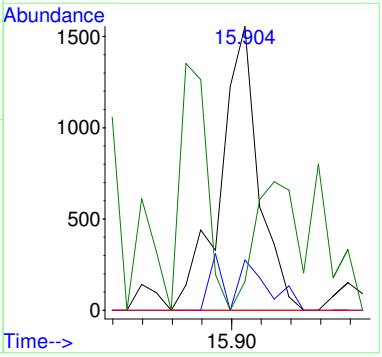




#47
1,2,4-Trimethylbenzene SCAN
Concen: 48.73 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.000 min
Lab File: 02092110.D
Acq: 9 Feb 2021 13:21

Tgt Ion:105 Resp: 1398

Ion	Ratio	Lower	Upper
105	100		
120	13.8	16.9	76.9#
119	0.0	0.0	41.9
77	38.8	0.0	42.3



2102007-03

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092111.D
Acq On : 9 Feb 2021 13:45
InstName : AG5975C
Operator : TD
Sample : 2102007-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 14:03:57 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

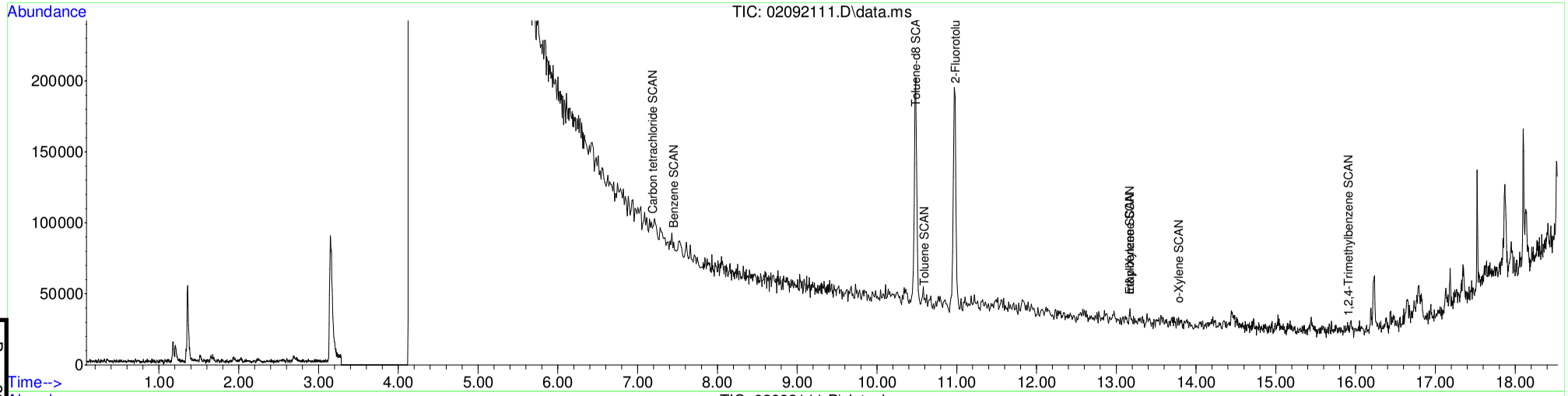
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	219540	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	183701	4320.40	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.41%			
Target Compounds						Qvalue
8] Carbon tetrachloride	7.175	117	576	43.01	ug/L	100
9] Benzene	7.503	78	3793	102.67	ug/L #	38
13] Toluene	10.582	91	7576	143.10	ug/L	99
18] Ethylbenzene	12.972	91	3072	45.43	ug/L	95
19] m&p-Xylene	13.163	91	5825	111.87	ug/L	95
20] o-Xylene	13.782	91	1840	32.90	ug/L	98
23] 1,2,4-Trimethylbenzene	15.901	105	2672	42.47	ug/L	85
25) 2-Fluorotoluene SCAN	10.980	109	129247	5186.47	ug/L	99
32) Carbon tetrachloride SCAN	7.186	117	323	45.67	ug/L #	20
33) Benzene SCAN	7.453	78	11407	455.61	ug/L #	91
36) Toluene-d8 SCAN	10.486	98	111309	4762.43	ug/L	99
37) Toluene SCAN	10.591	91	4382	152.28	ug/L	76
42) Ethylbenzene SCAN	13.169	91	3516	64.12	ug/L	75
43) m&p-Xylene SCAN	13.169	91	3516	64.12	ug/L	76
44) o-Xylene SCAN	13.781	91	1358	45.35	ug/L	78
47) 1,2,4-Trimethylbenzene...	15.905	105	1741	53.94	ug/L	72

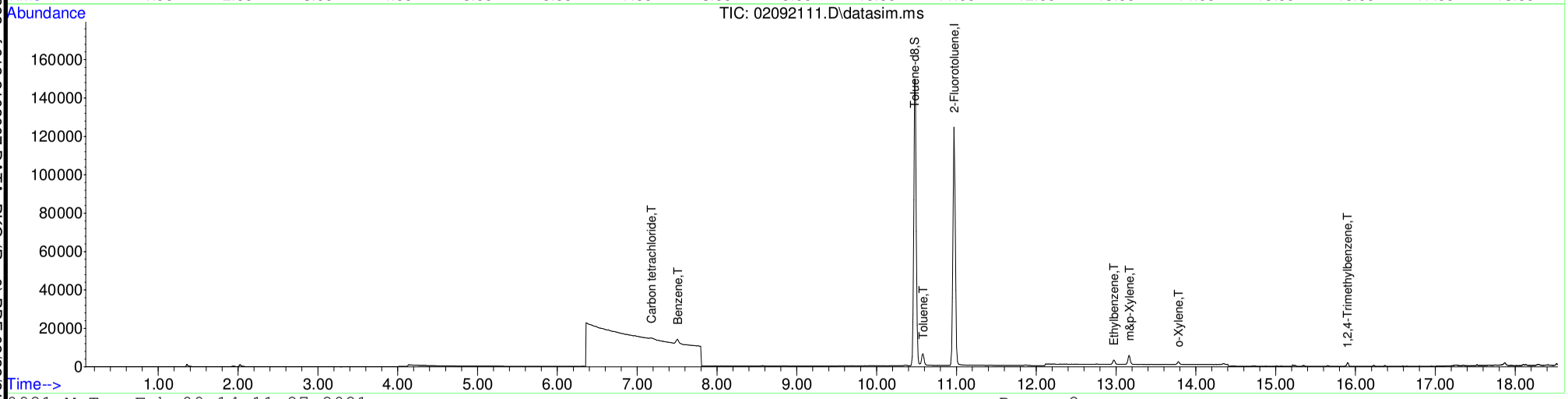
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092111.D
Acq On : 9 Feb 2021 13:45
InstName : AG5975C
Operator : TD
Sample : 2102007-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 14:03:57 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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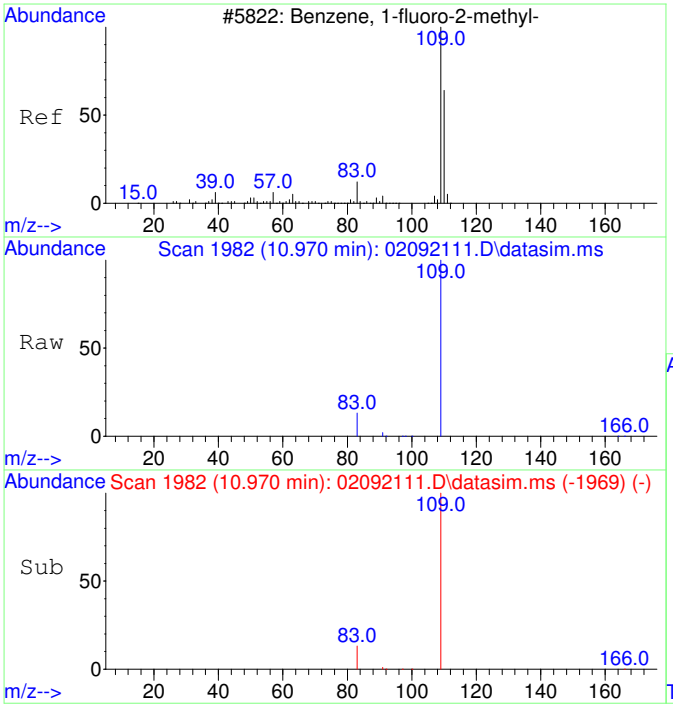
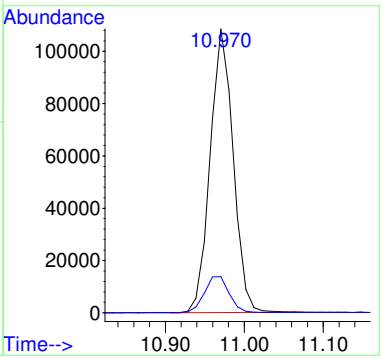
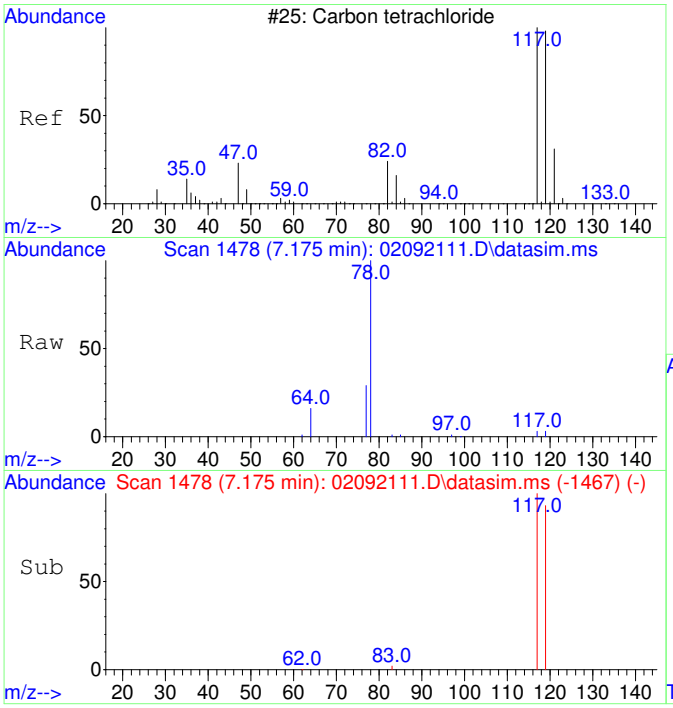


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion:109 Resp: 219540

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

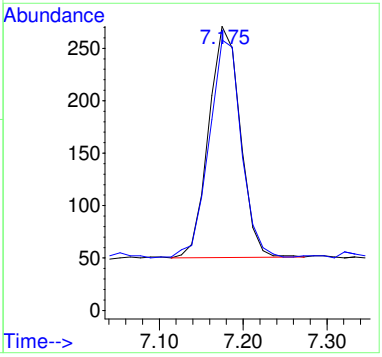


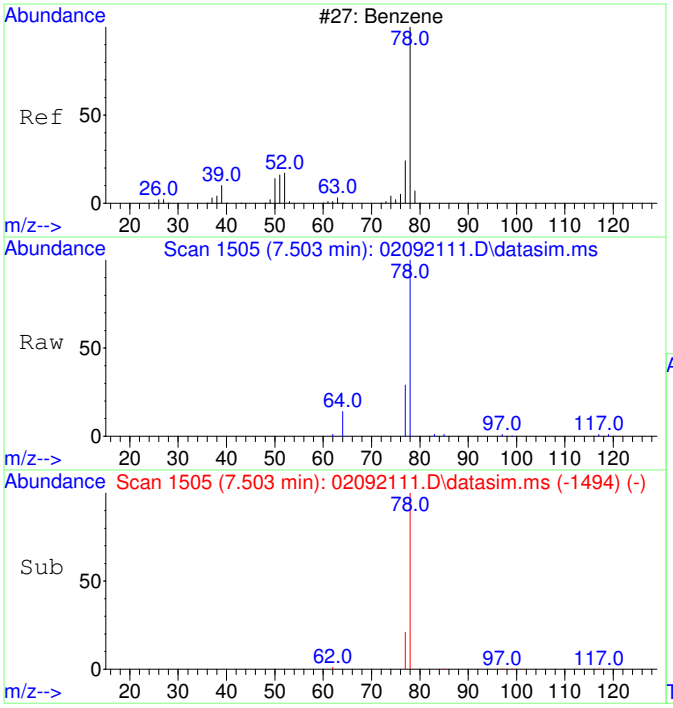


#8
Carbon tetrachloride
Concen: 43.01 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion:117 Resp: 576

Ion	Ratio	Lower	Upper
117	100		
119	96.0	66.4	126.4

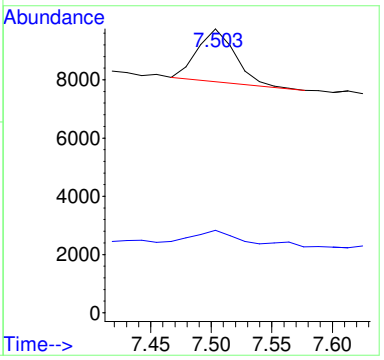


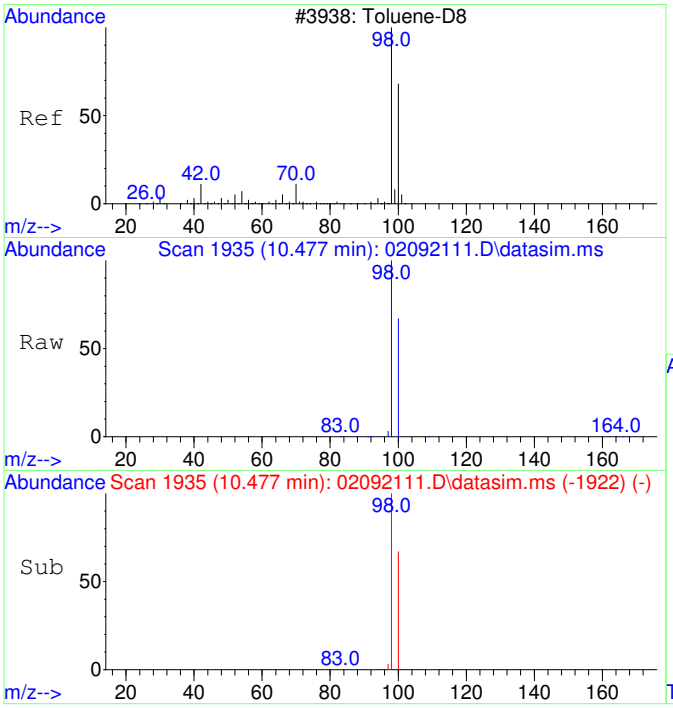


#9
Benzene
Concen: 102.67 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 78 Resp: 3793

Ion	Ratio	Lower	Upper
78	100		
77	53.5	0.0	53.2#

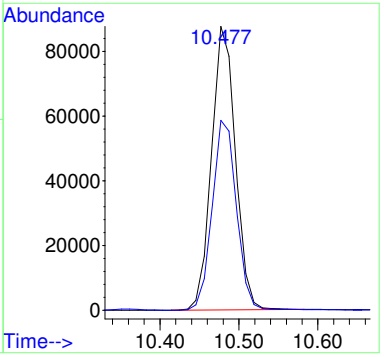


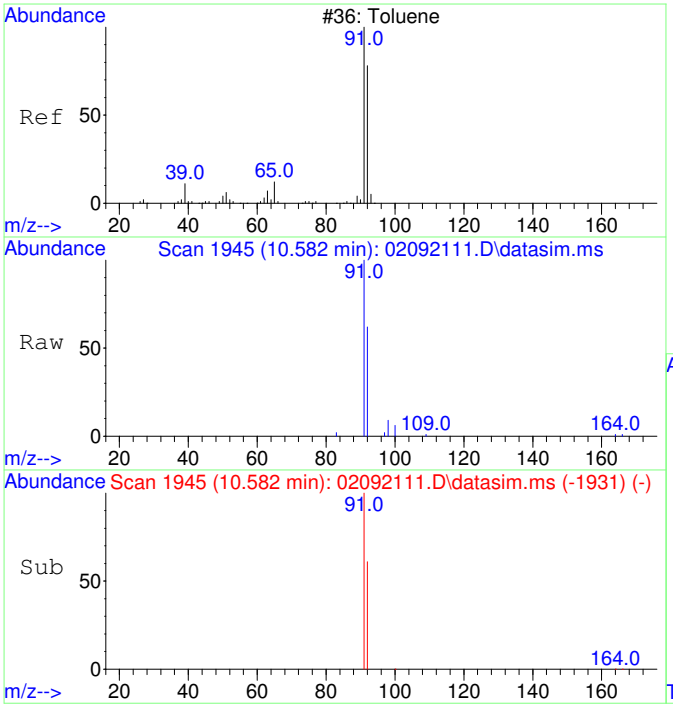


#12
Toluene-d8
Concen: 4320.40 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 98 Resp: 183701

Ion	Ratio	Lower	Upper
98	100		
100	67.7	37.1	97.1

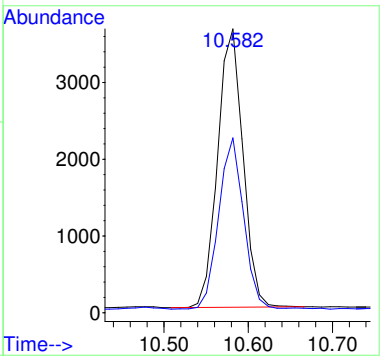


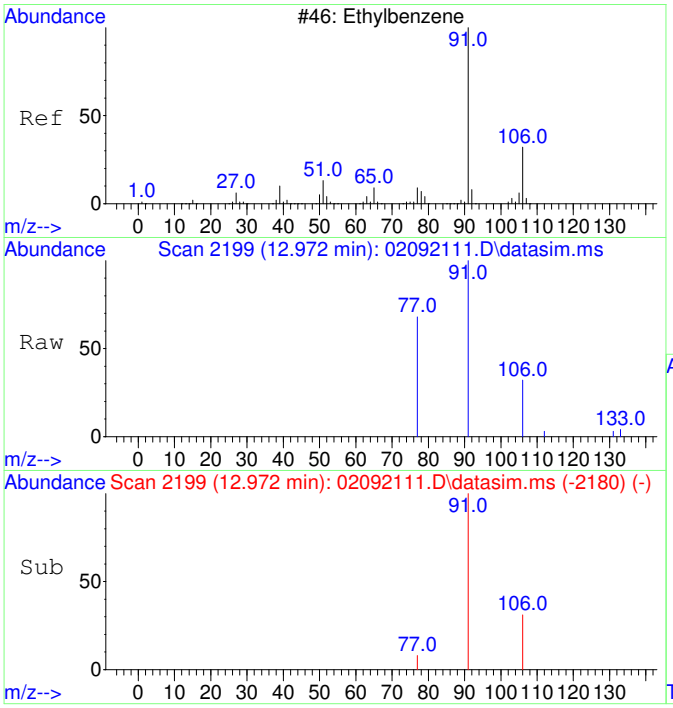


#13
Toluene
Concen: 143.10 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 7576

Ion	Ratio	Lower	Upper
91	100		
92	60.4	29.9	89.9

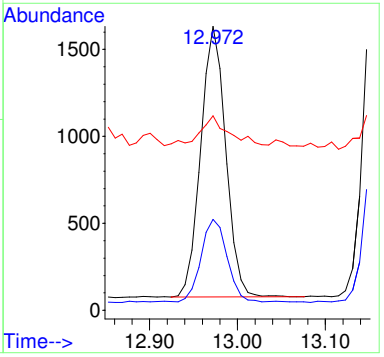


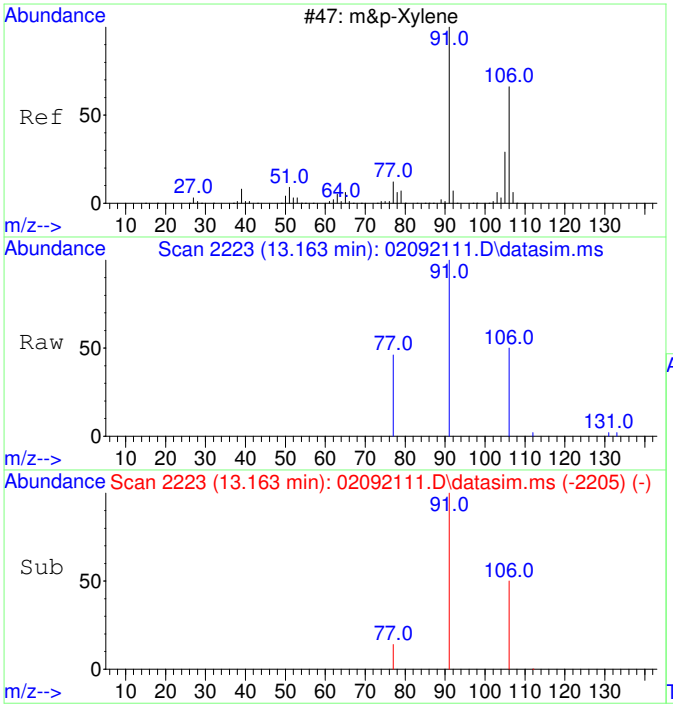


#18
Ethylbenzene
Concen: 45.43 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 3072

Ion	Ratio	Lower	Upper
91	100		
106	31.3	3.0	63.0
77	12.7	0.0	38.2

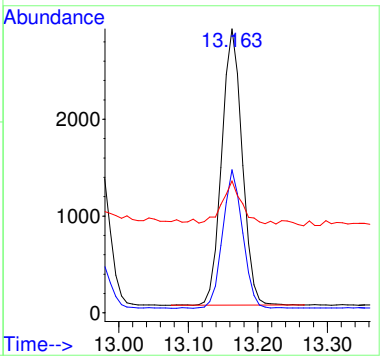


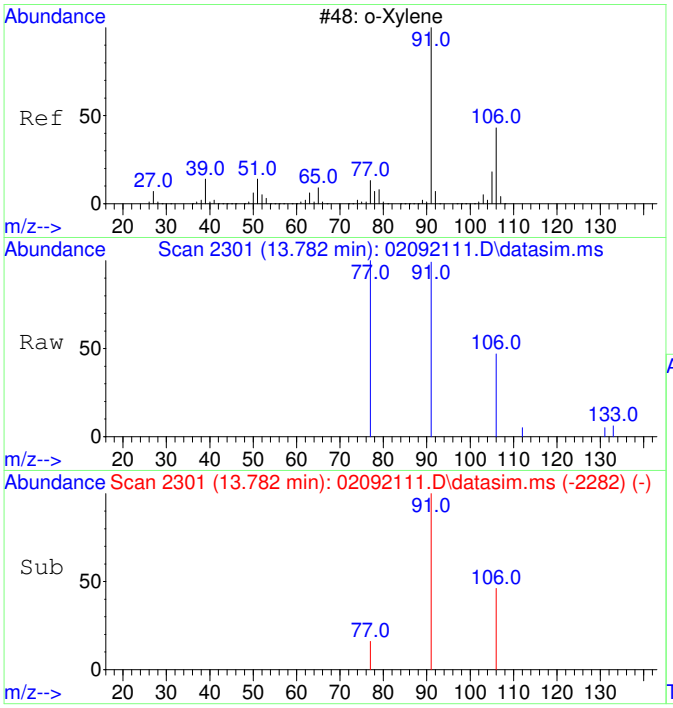


#19
m&p-Xylene
Concen: 111.87 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 5825

Ion	Ratio	Lower	Upper
91	100		
106	49.1	22.2	82.2
77	14.9	0.0	42.4

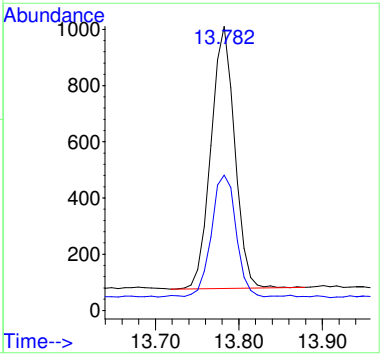


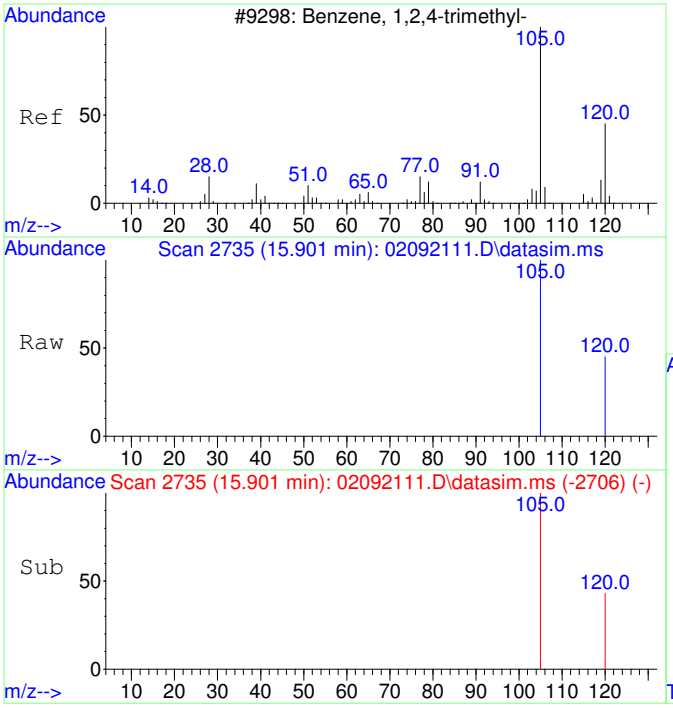


#20
o-Xylene
Concen: 32.90 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 1840

Ion	Ratio	Lower	Upper
91	100		
106	47.9	19.2	79.2

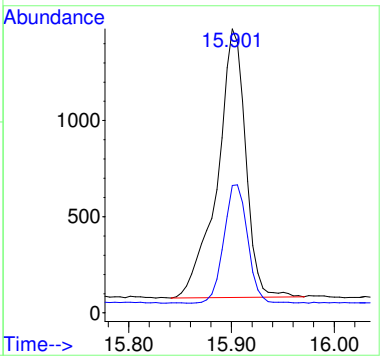


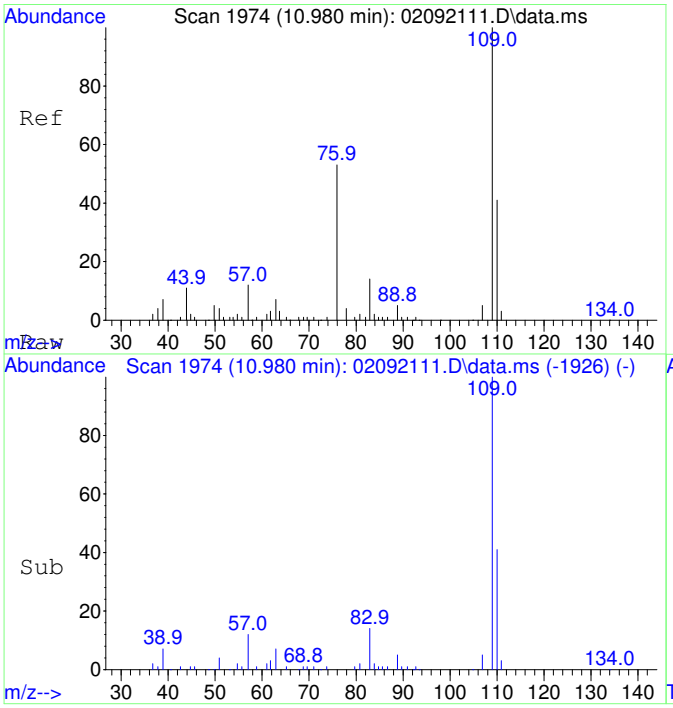


#23
1,2,4-Trimethylbenzene
Concen: 42.47 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion:105 Resp: 2672

Ion	Ratio	Lower	Upper
105	100		
120	36.9	17.2	77.2

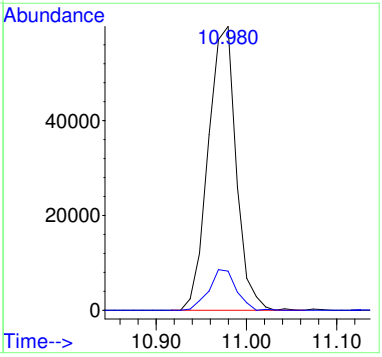


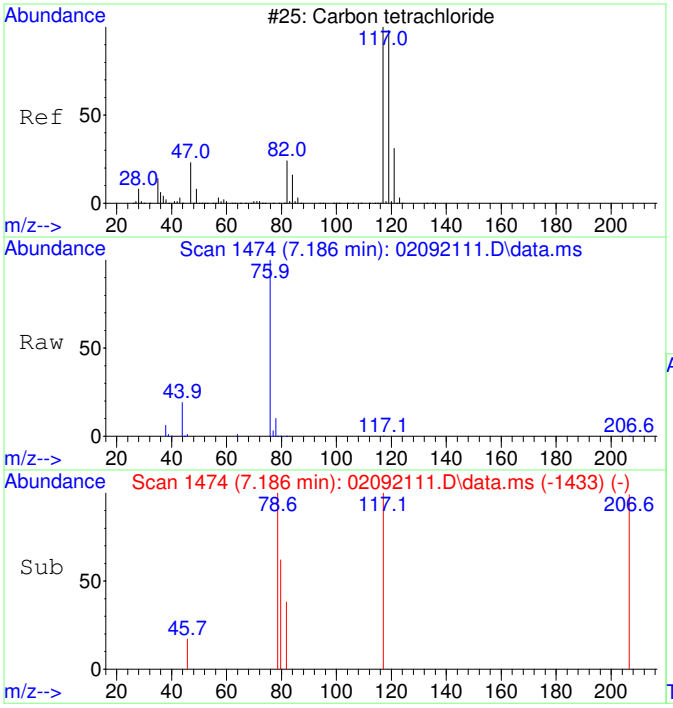


#25
2-Fluorotoluene SCAN
Concen: 5186.47 ug/L
RT: 10.980 min Scan# 1974
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion:109 Resp: 129247

Ion	Ratio	Lower	Upper
109	100		
83	14.1	0.0	43.8

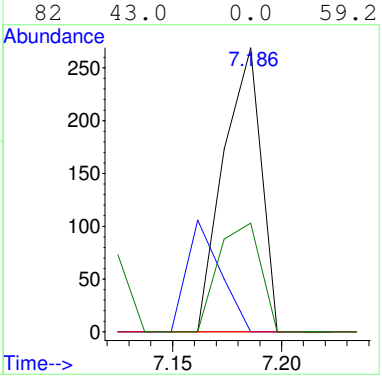


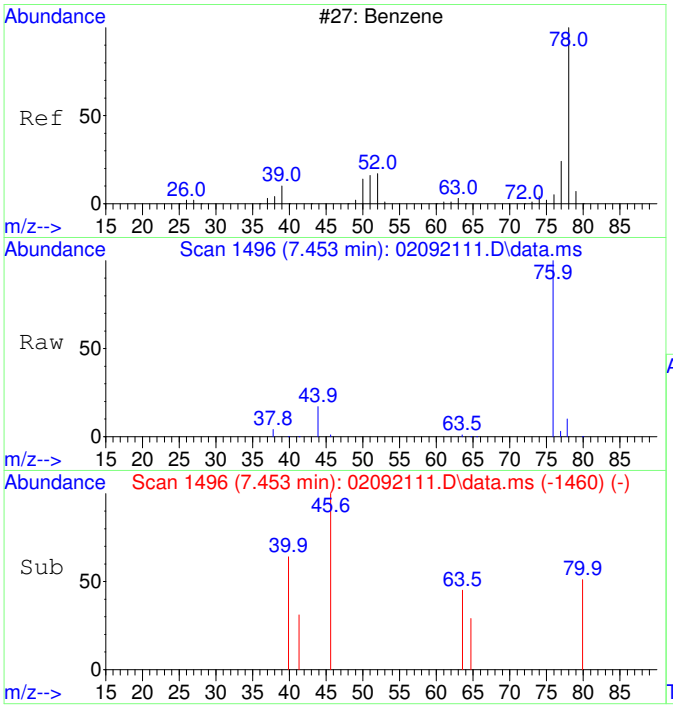


#32
Carbon tetrachloride SCAN
Concen: 45.67 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion:117 Resp: 323

Ion	Ratio	Lower	Upper
117	100		
119	0.0	75.5	135.5#
121	0.0	0.0	58.8
82	43.0	0.0	59.2

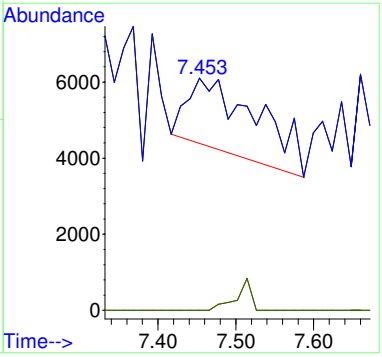


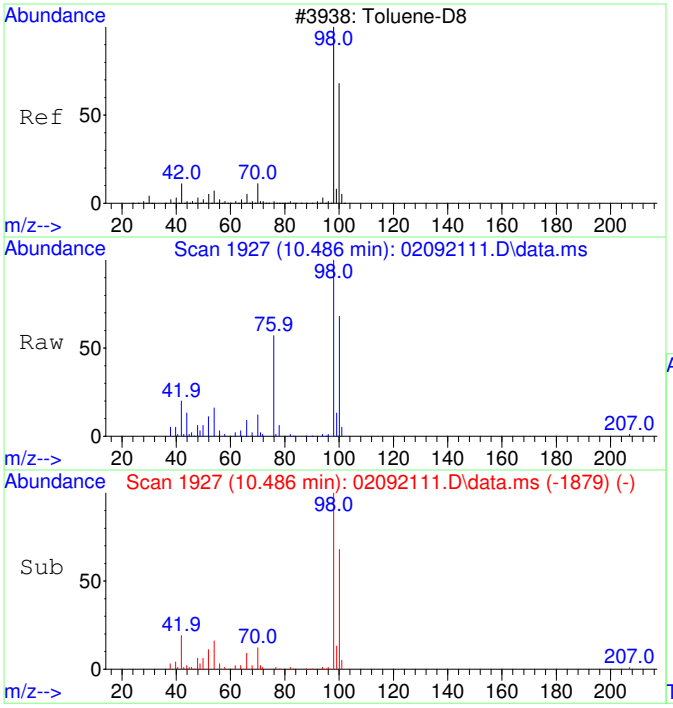


#33
Benzene SCAN
Concen: 455.61 ug/L
RT: 7.453 min Scan# 1496
Delta R.T. -0.061 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 78 Resp: 11407

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

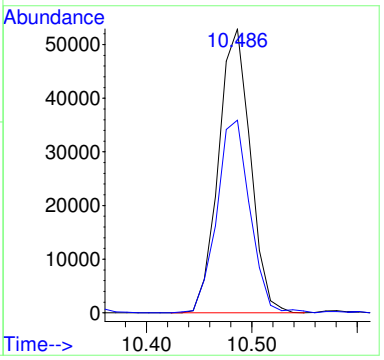


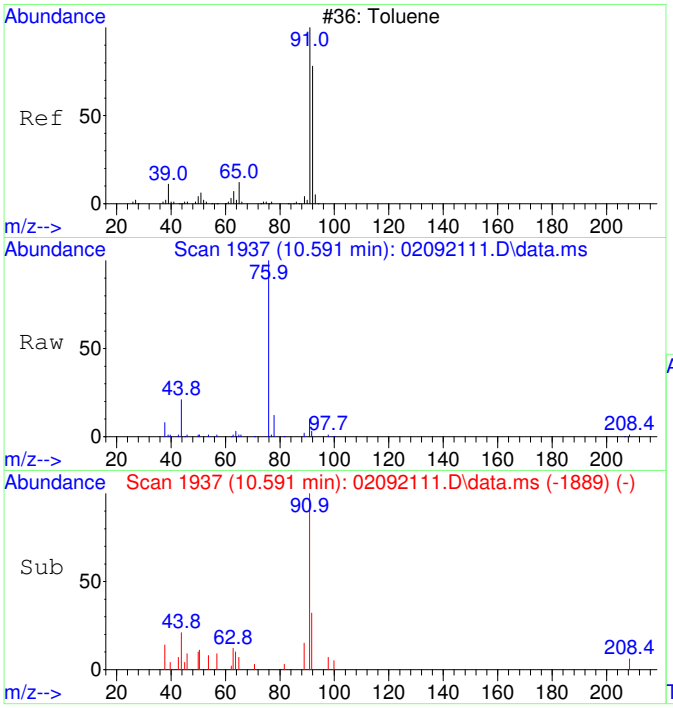


#36
Toluene-d8 SCAN
Concen: 4762.43 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 98 Resp: 111309

Ion	Ratio	Lower	Upper
98	100		
100	70.8	40.0	100.0

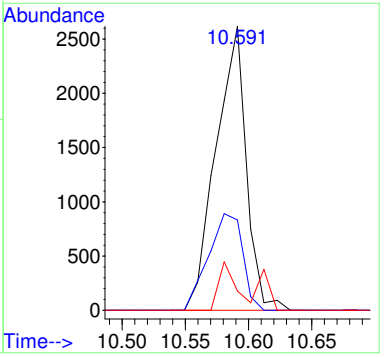


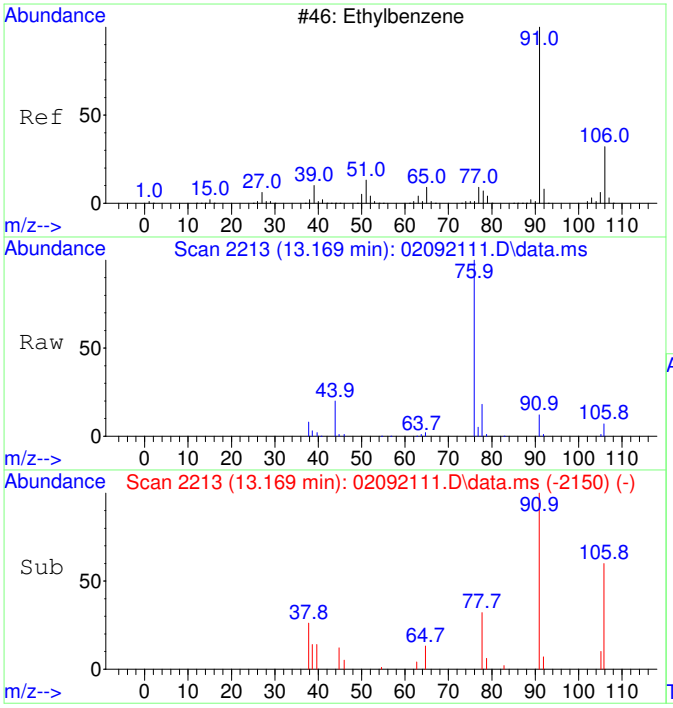


#37
Toluene SCAN
Concen: 152.28 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 4382

Ion	Ratio	Lower	Upper
91	100		
92	38.4	28.3	88.3
65	8.5	0.0	41.0

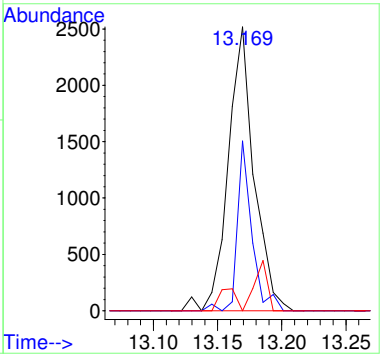


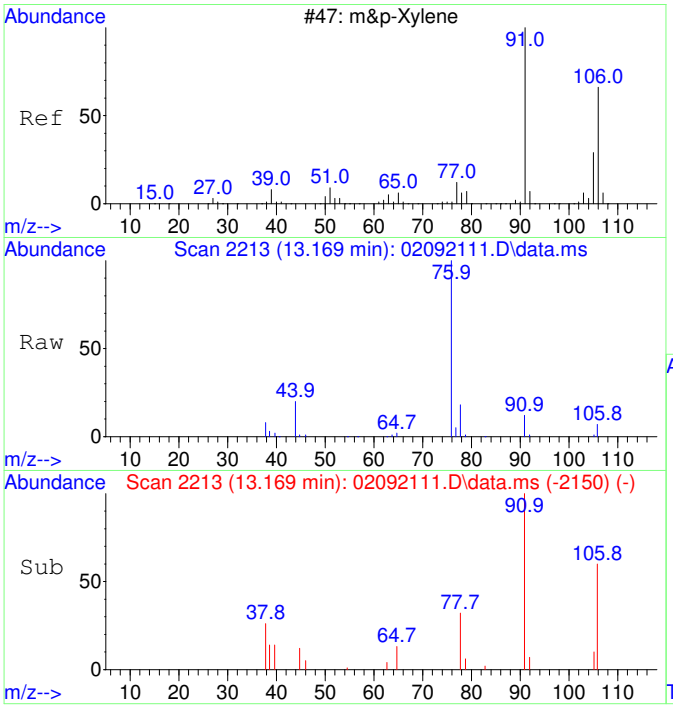


#42
Ethylbenzene SCAN
Concen: 64.12 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 3516

Ion	Ratio	Lower	Upper
91	100		
106	33.4	23.1	83.1
51	5.2	0.0	40.1

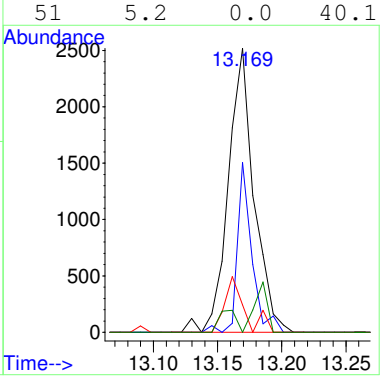


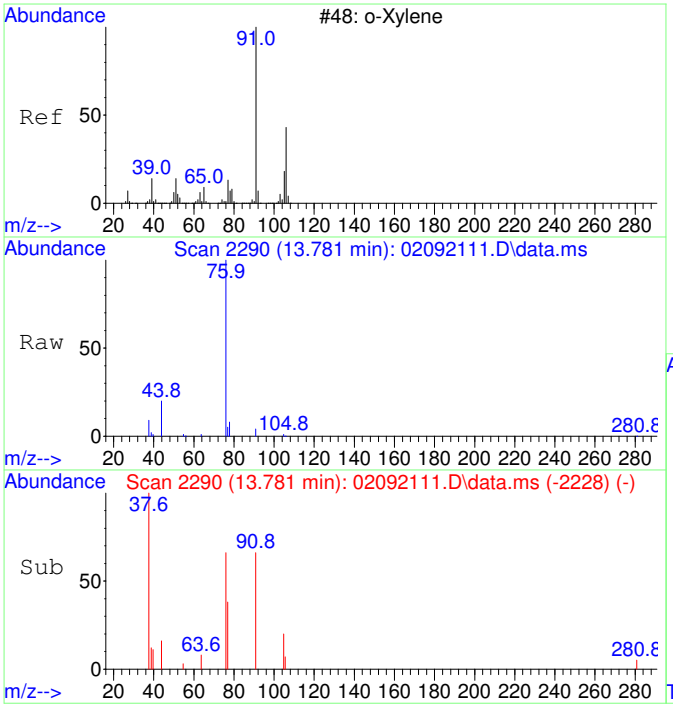


#43
m&p-Xylene SCAN
Concen: 64.12 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 3516

Ion	Ratio	Lower	Upper
91	100		
106	33.4	23.1	83.1
105	15.1	0.0	54.7
51	5.2	0.0	40.1

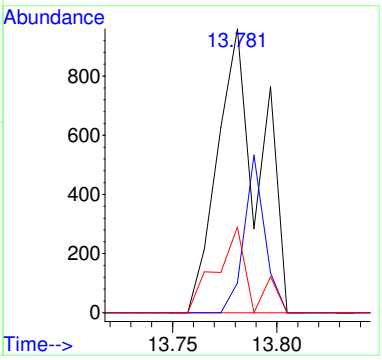


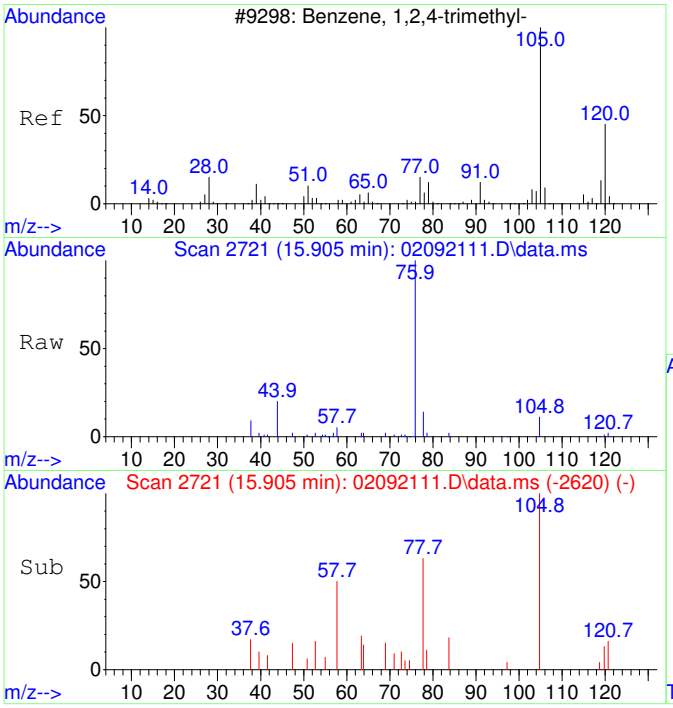


#44
o-Xylene SCAN
Concen: 45.35 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.008 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion: 91 Resp: 1358

Ion	Ratio	Lower	Upper
91	100		
106	27.0	18.0	78.0
105	24.1	0.0	56.6

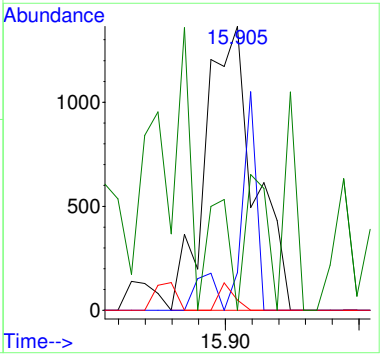




#47
1,2,4-Trimethylbenzene SCAN
Concen: 53.94 ug/L
RT: 15.905 min Scan# 2721
Delta R.T. 0.000 min
Lab File: 02092111.D
Acq: 9 Feb 2021 13:45

Tgt Ion:105 Resp: 1741

Ion	Ratio	Lower	Upper
105	100		
120	26.7	16.9	76.9
119	3.1	0.0	41.9
77	21.2	0.0	42.3



2102007-04

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092112.D
Acq On : 9 Feb 2021 14:08
InstName : AG5975C
Operator : TD
Sample : 2102007-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 10 06:29:50 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

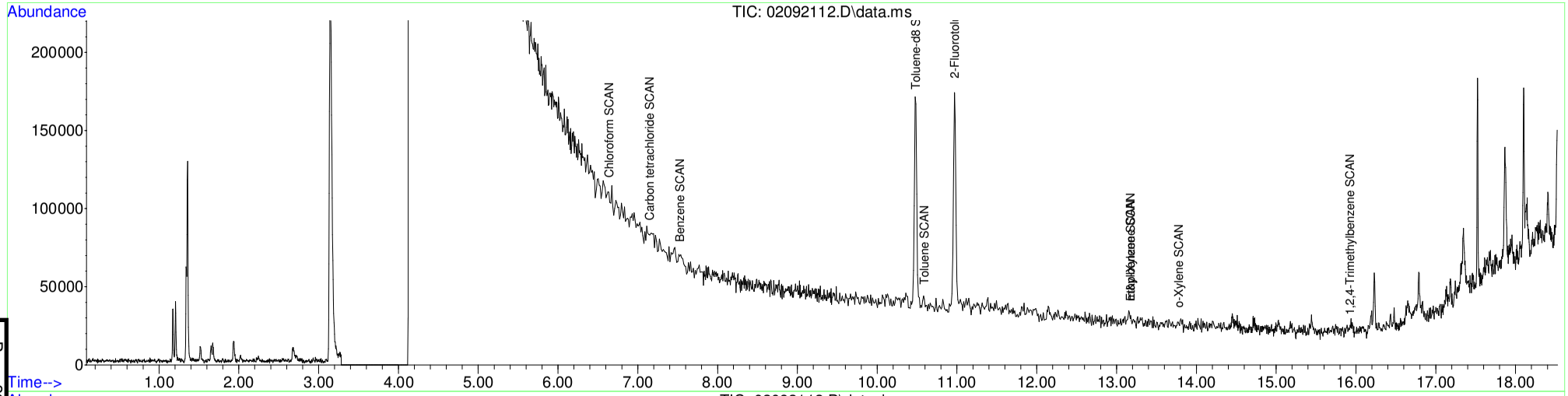
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	191262	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	160545	4334.05	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.68%			
Target Compounds						Qvalue
8] Carbon tetrachloride	7.175	117	503	43.11	ug/L	100
9] Benzene	7.503	78	3714	115.40	ug/L	72
13] Toluene	10.582	91	5961	129.25	ug/L	97
18] Ethylbenzene	12.972	91	2529	42.93	ug/L	97
19] m&p-Xylene	13.162	91	4441	97.90	ug/L	97
20] o-Xylene	13.782	91	1430	29.35	ug/L	99
23] 1,2,4-Trimethylbenzene	15.899	105	2622	47.84	ug/L	82
25) 2-Fluorotoluene SCAN	10.969	109	113125	5210.69	ug/L	92
30) Chloroform SCAN	6.638	83	474	67.84	ug/L #	27
32) Carbon tetrachloride SCAN	7.149	117	474	76.94	ug/L #	15
33) Benzene SCAN	7.526	78	6010	275.54	ug/L	95
36) Toluene-d8 SCAN	10.486	98	92011	4518.80	ug/L	99
37) Toluene SCAN	10.591	91	4440	177.10	ug/L #	71
42) Ethylbenzene SCAN	13.177	91	3279	68.63	ug/L	81
43) m&p-Xylene SCAN	13.177	91	3279	68.63	ug/L #	39
44) o-Xylene SCAN	13.773	91	868	33.27	ug/L	69
47) 1,2,4-Trimethylbenzene...	15.918	105	2041	72.58	ug/L #	76

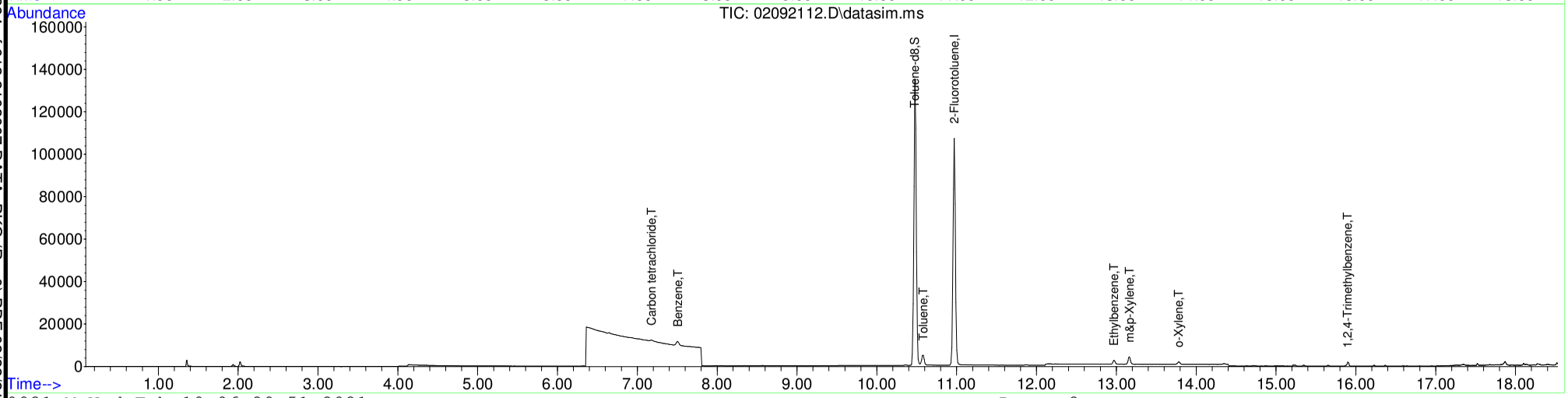
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092112.D
Acq On : 9 Feb 2021 14:08
InstName : AG5975C
Operator : TD
Sample : 2102007-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 10 06:29:50 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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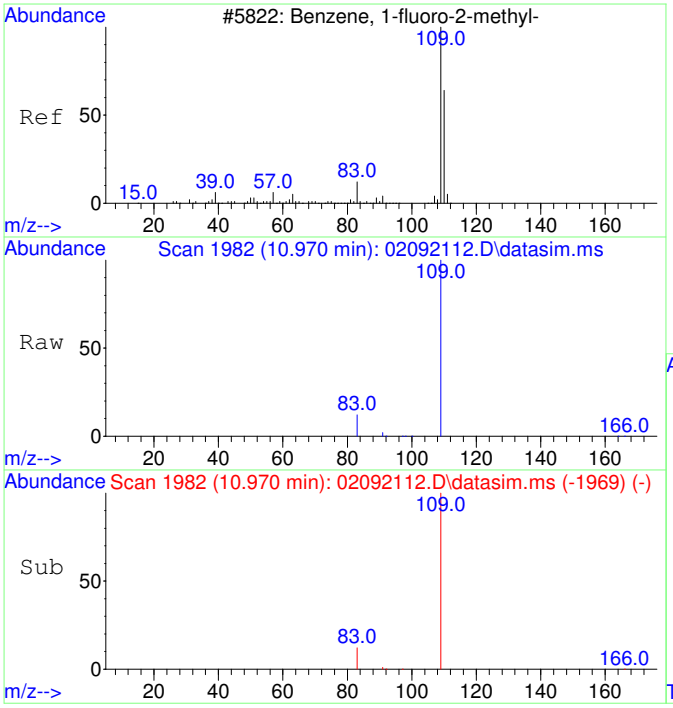
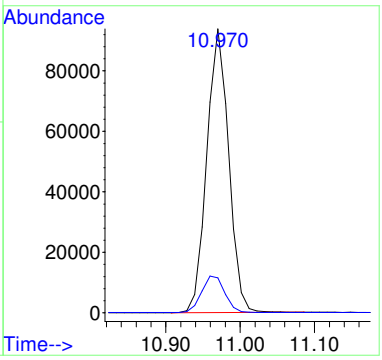
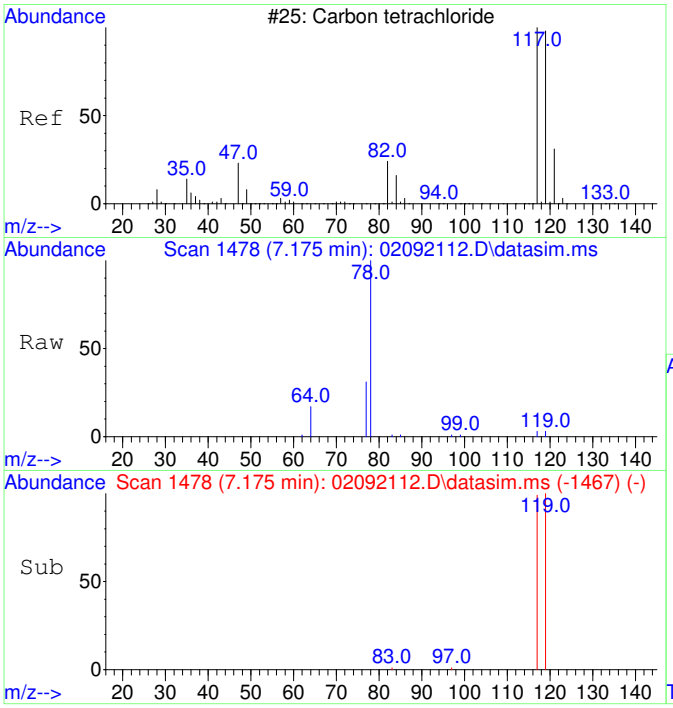


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion:109 Resp: 191262

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

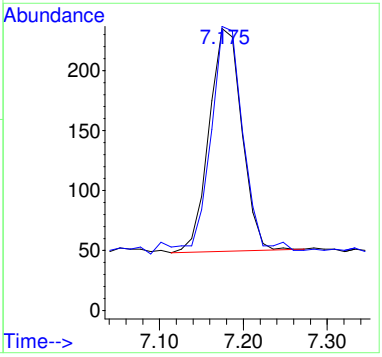


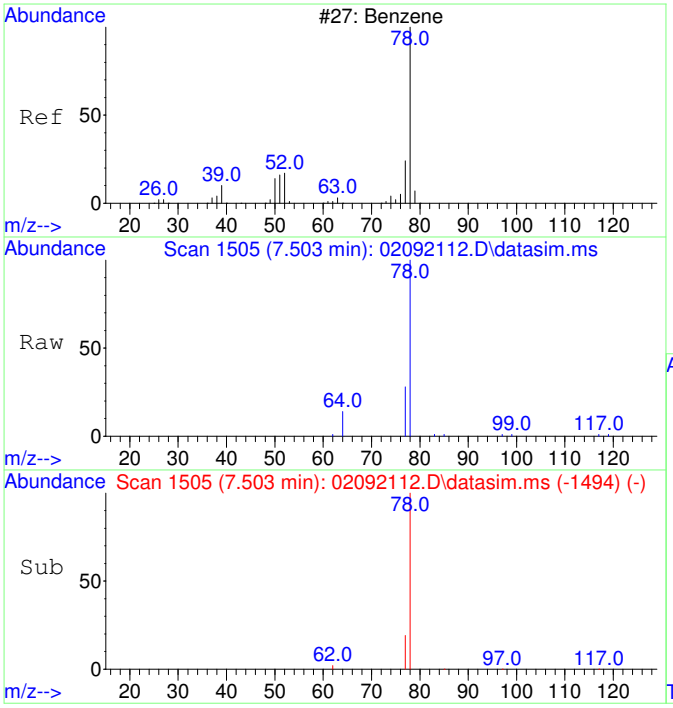


#8
Carbon tetrachloride
Concen: 43.11 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion:117 Resp: 503

Ion	Ratio	Lower	Upper
117	100		
119	96.6	66.4	126.4

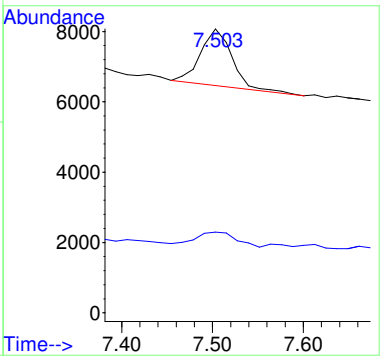


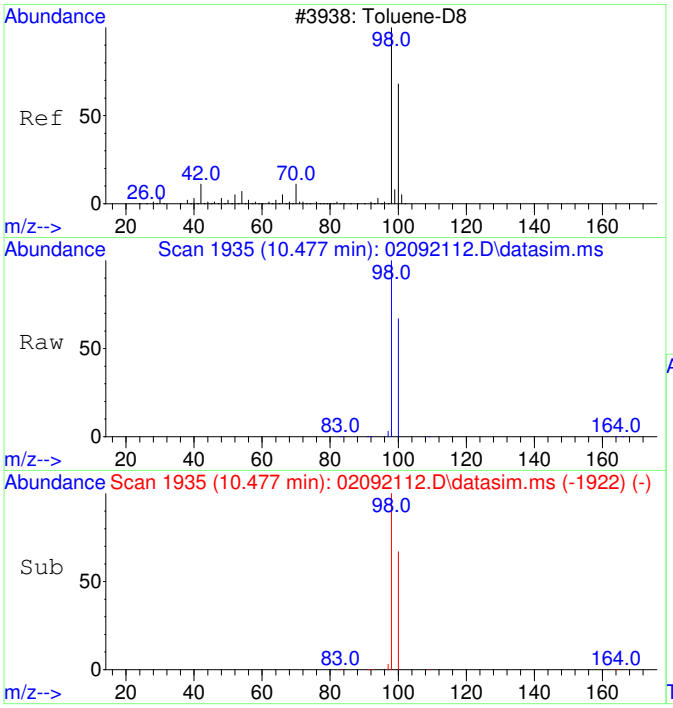


#9
Benzene
Concen: 115.40 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 78 Resp: 3714

Ion	Ratio	Lower	Upper
78	100		
77	36.8	0.0	53.2

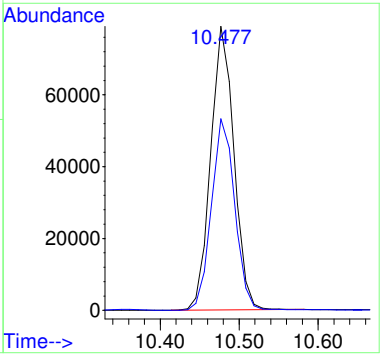


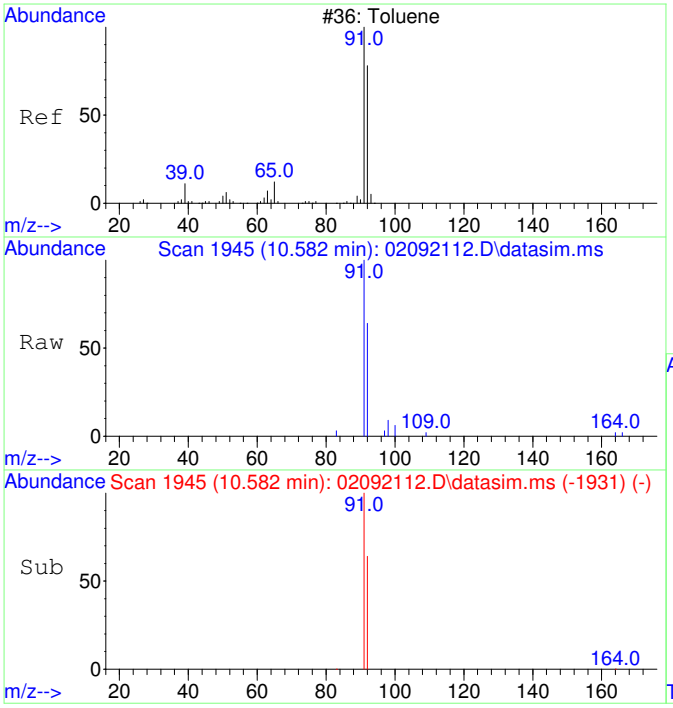


#12
Toluene-d8
Concen: 4334.05 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 98 Resp: 160545

Ion	Ratio	Lower	Upper
98	100		
100	67.7	37.1	97.1

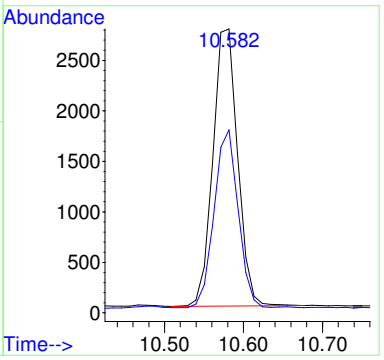


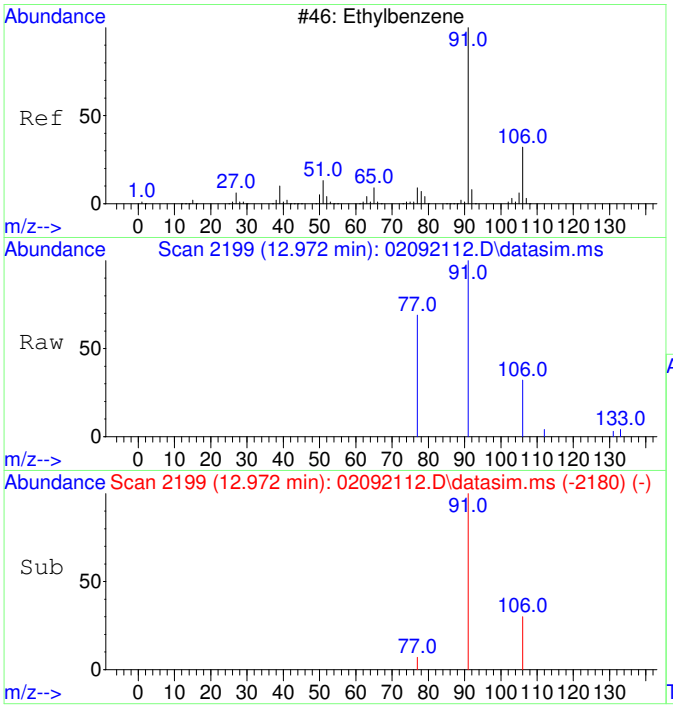


#13
Toluene
Concen: 129.25 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 5961

Ion	Ratio	Lower	Upper
91	100		
92	62.0	29.9	89.9

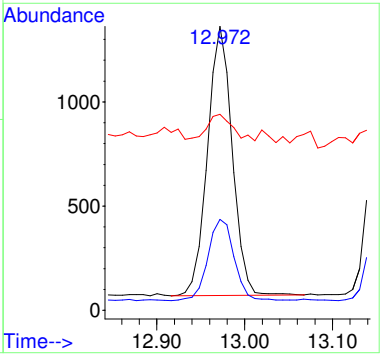


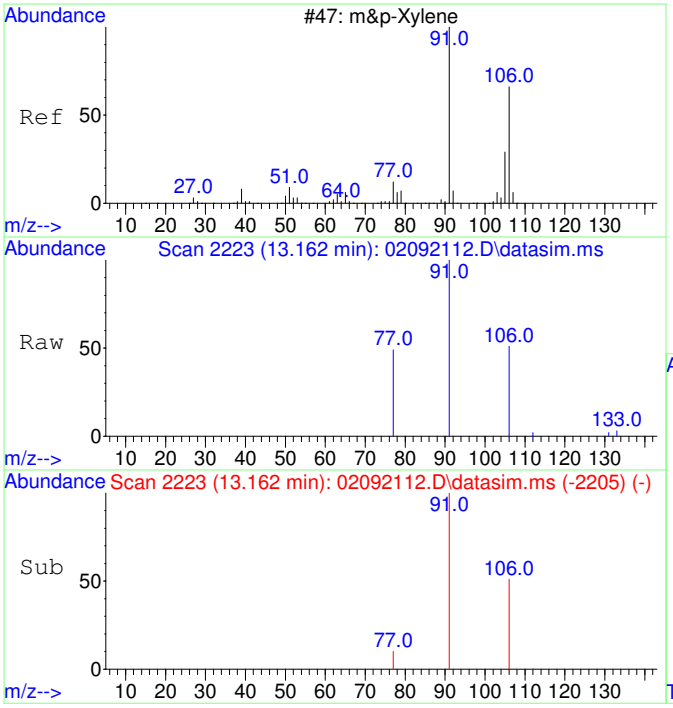


#18
Ethylbenzene
Concen: 42.93 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 2529

Ion	Ratio	Lower	Upper
91	100		
106	31.4	3.0	63.0
77	10.2	0.0	38.2

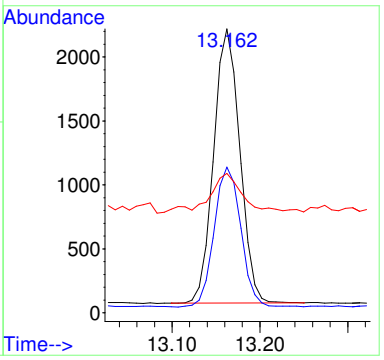


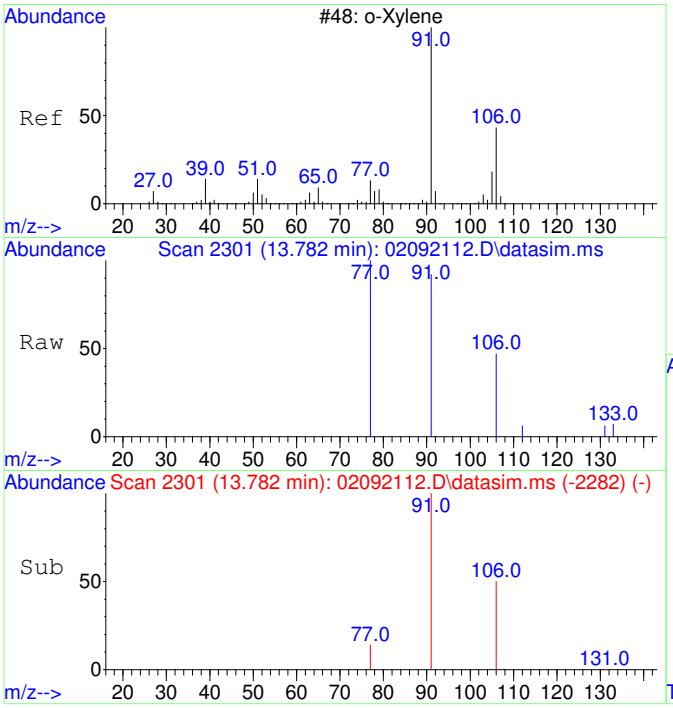


#19
m&p-Xylene
Concen: 97.90 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 4441

Ion	Ratio	Lower	Upper
91	100		
106	51.9	22.2	82.2
77	17.2	0.0	42.4

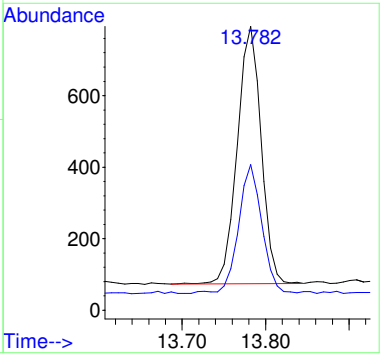


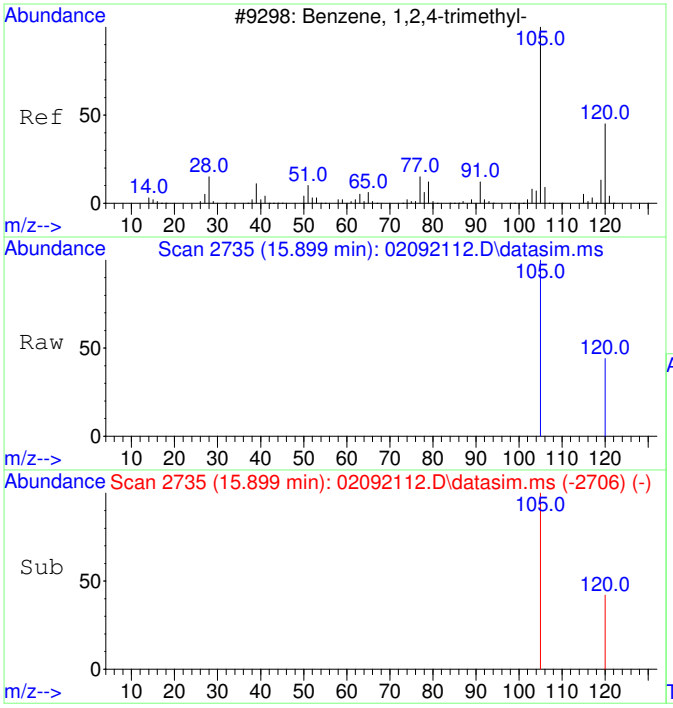


#20
o-Xylene
Concen: 29.35 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 1430

Ion	Ratio	Lower	Upper
91	100		
106	48.5	19.2	79.2

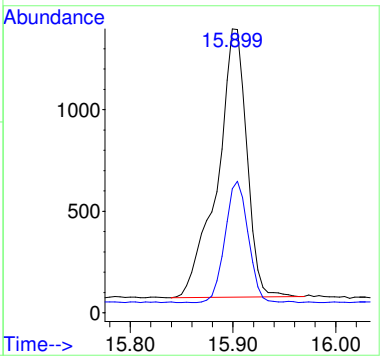


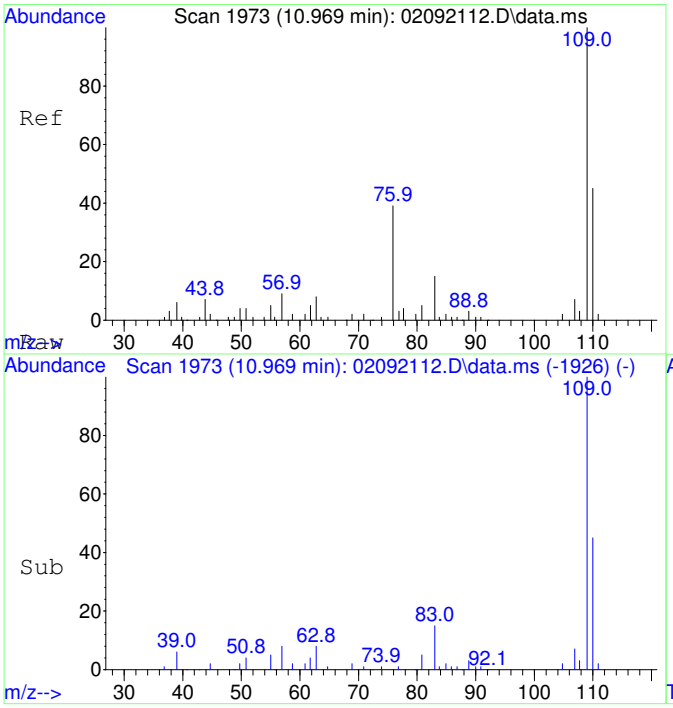


#23
1,2,4-Trimethylbenzene
Concen: 47.84 ug/L
RT: 15.899 min Scan# 2735
Delta R.T. -0.006 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion:105 Resp: 2622

Ion	Ratio	Lower	Upper
105	100		
120	35.3	17.2	77.2

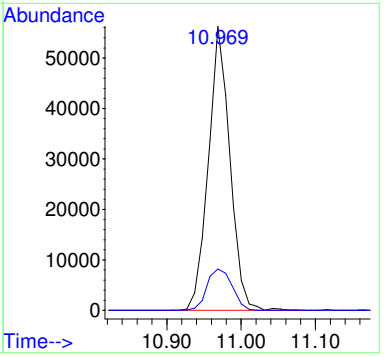


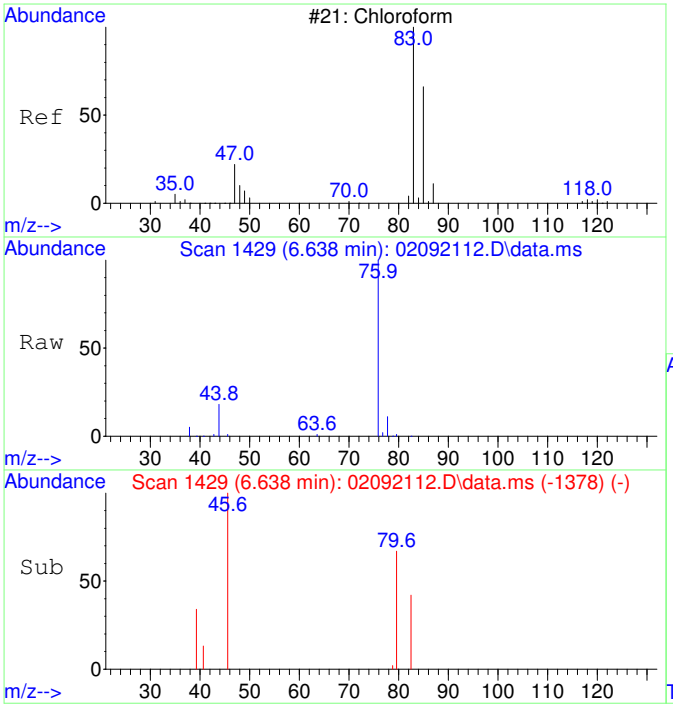


#25
2-Fluorotoluene SCAN
Concen: 5210.69 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion:109 Resp: 113125

Ion	Ratio	Lower	Upper
109	100		
83	17.0	0.0	43.8

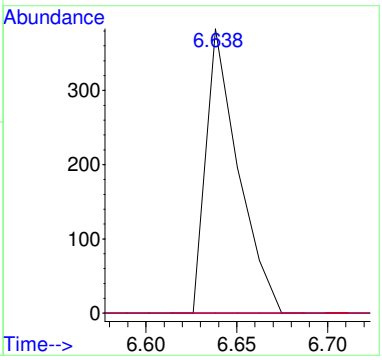


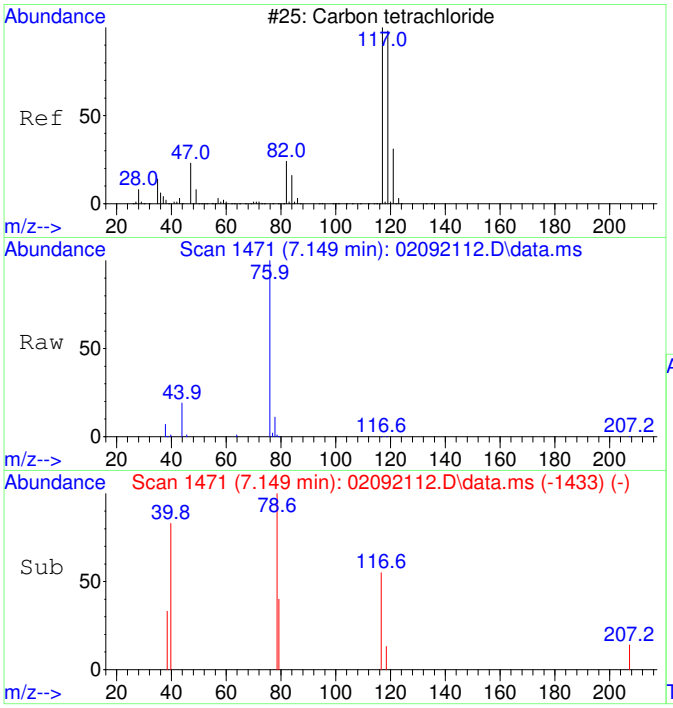


#30
Chloroform SCAN
Concen: 67.84 ug/L
RT: 6.638 min Scan# 1429
Delta R.T. -0.024 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 83 Resp: 474

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

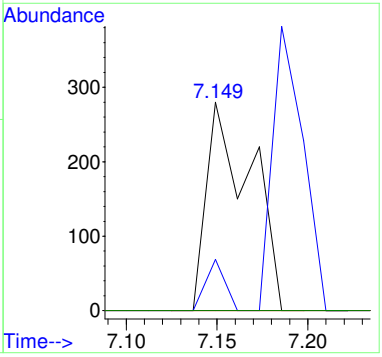


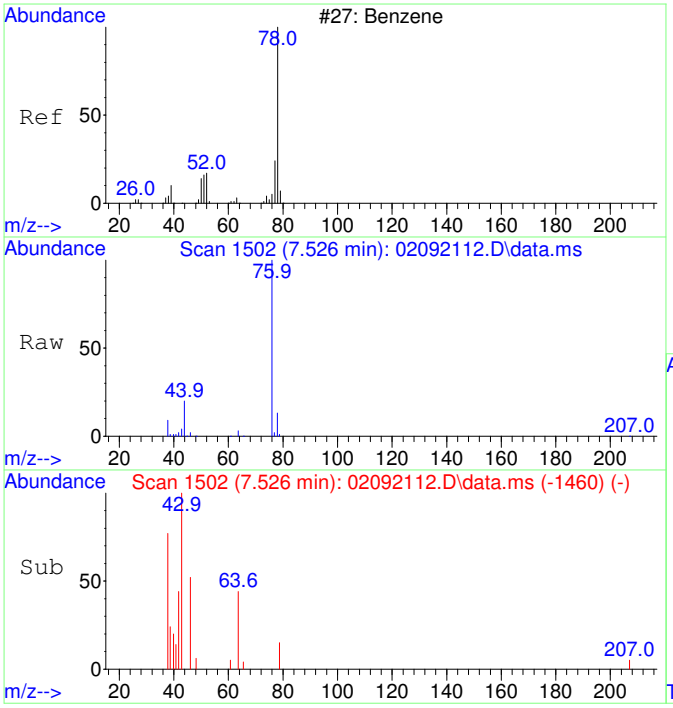


#32
Carbon tetrachloride SCAN
Concen: 76.94 ug/L
RT: 7.149 min Scan# 1471
Delta R.T. -0.036 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion:117 Resp: 474

Ion	Ratio	Lower	Upper
117	100		
119	0.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

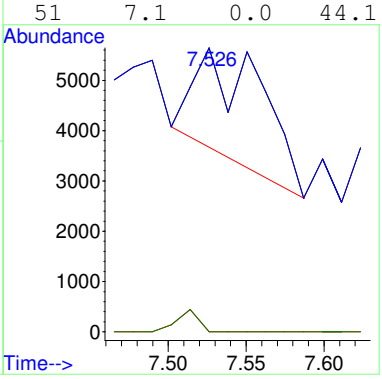


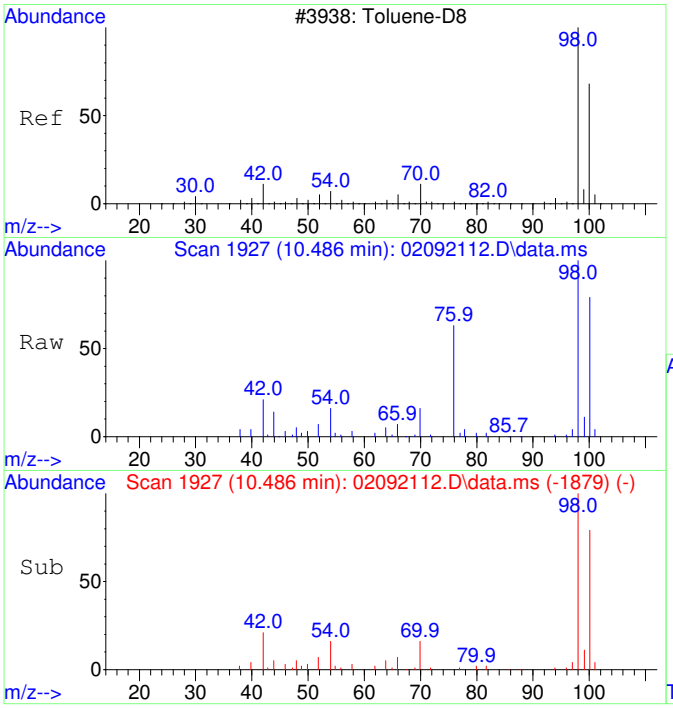


#33
Benzene SCAN
Concen: 275.54 ug/L
RT: 7.526 min Scan# 1502
Delta R.T. 0.012 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 78 Resp: 6010

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	7.1	0.0	47.9
51	7.1	0.0	44.1

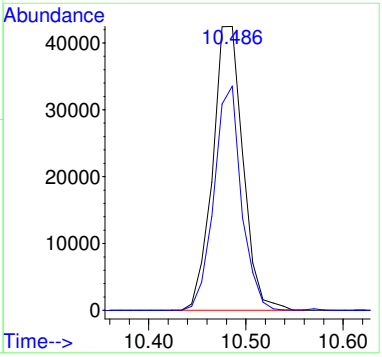


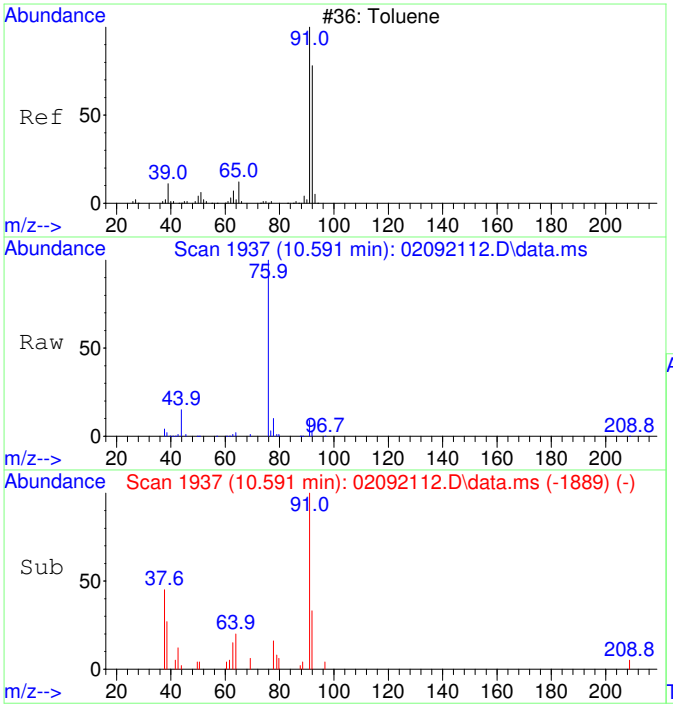


#36
Toluene-d8 SCAN
Concen: 4518.80 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 98 Resp: 92011

Ion	Ratio	Lower	Upper
98	100		
100	71.2	40.0	100.0

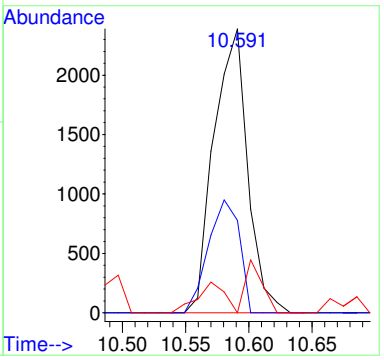


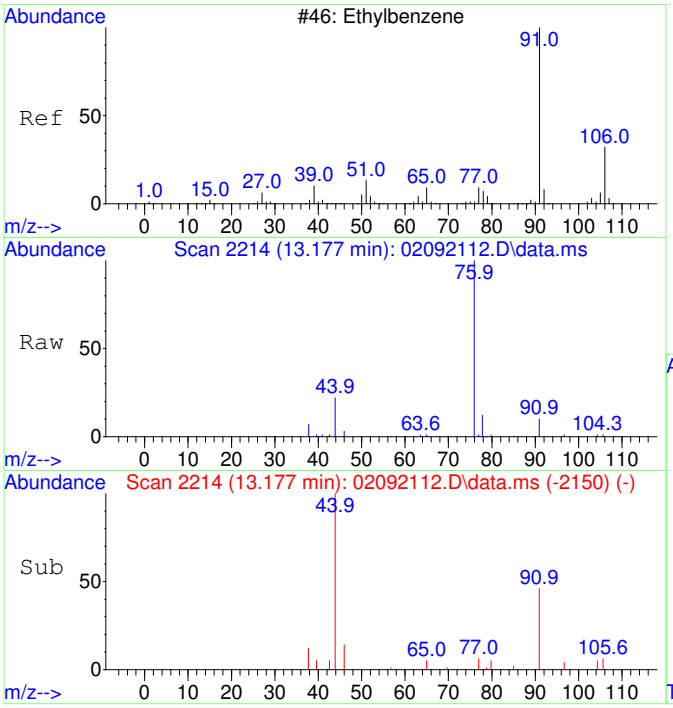


#37
Toluene SCAN
Concen: 177.10 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.000 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 4440

Ion	Ratio	Lower	Upper
91	100		
92	36.7	28.3	88.3
65	0.0	0.0	41.0

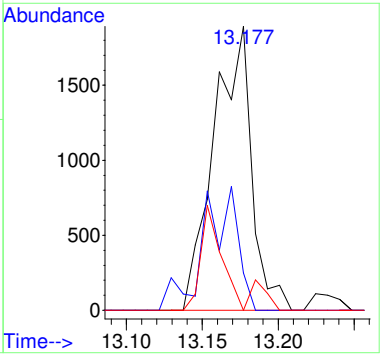


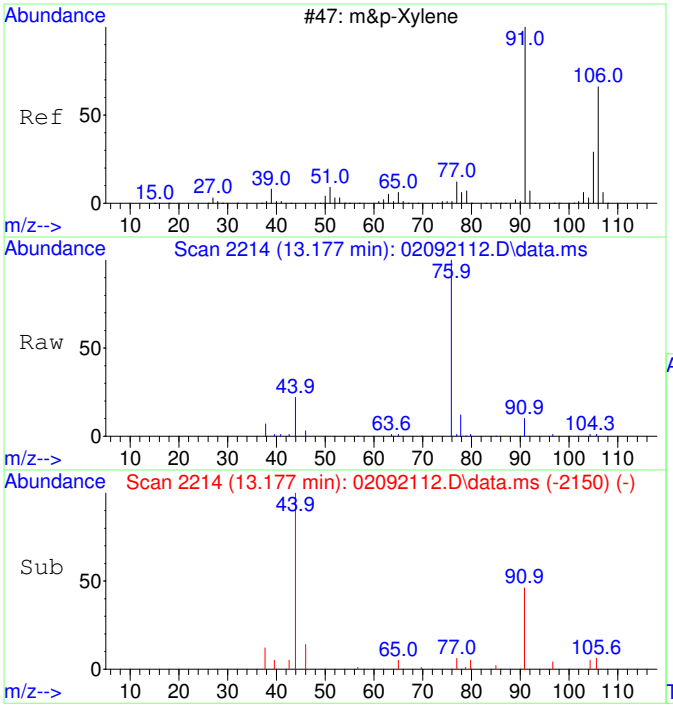


#42
Ethylbenzene SCAN
Concen: 68.63 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 3279

Ion	Ratio	Lower	Upper
91	100		
106	39.1	23.1	83.1
51	4.6	0.0	40.1

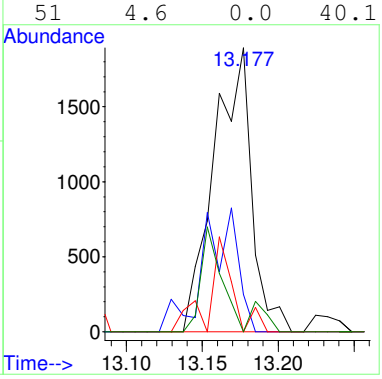


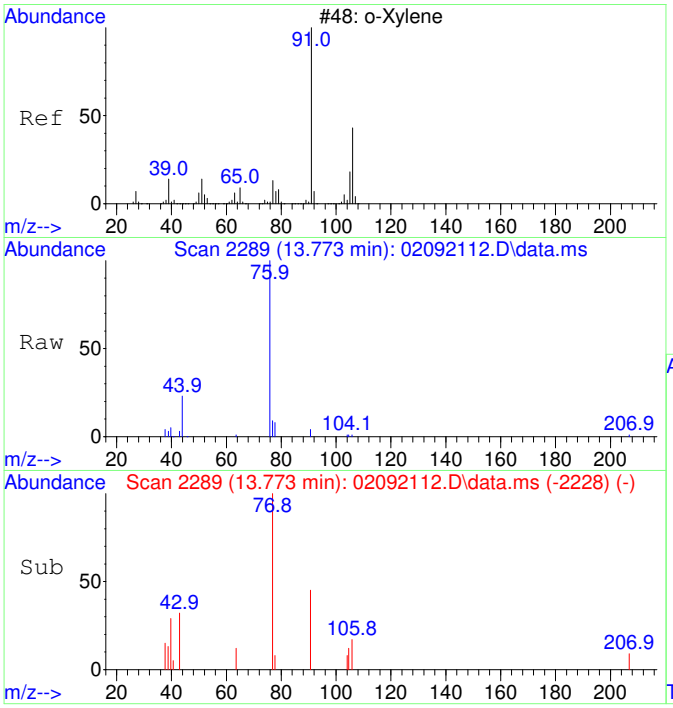


#43
m&p-Xylene SCAN
Concen: 68.63 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 3279

Ion	Ratio	Lower	Upper
91	100		
106	0.0	23.1	83.1#
105	0.0	0.0	54.7
51	4.6	0.0	40.1

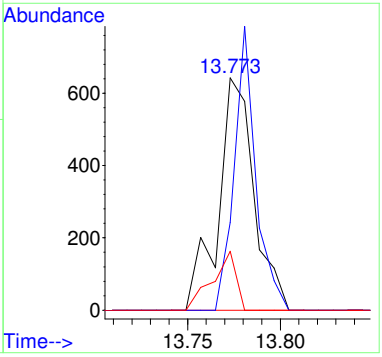


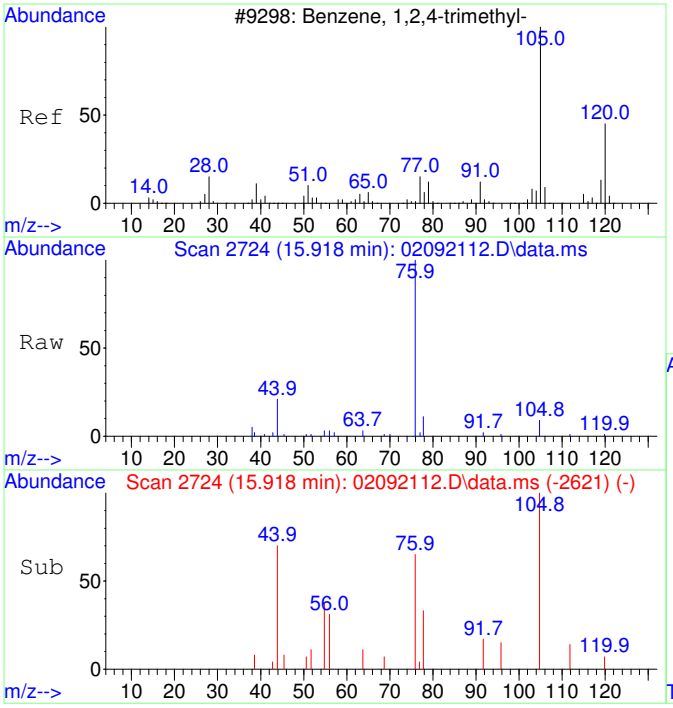


#44
o-Xylene SCAN
Concen: 33.27 ug/L
RT: 13.773 min Scan# 2289
Delta R.T. -0.016 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion: 91 Resp: 868

Ion	Ratio	Lower	Upper
91	100		
106	73.4	18.0	78.0
105	16.8	0.0	56.6

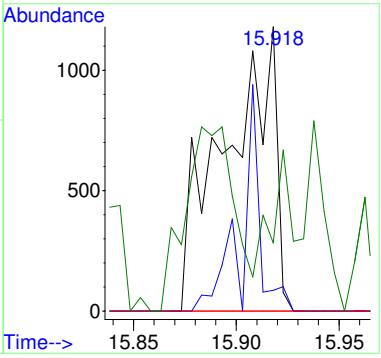




#47
1,2,4-Trimethylbenzene SCAN
Concen: 72.58 ug/L
RT: 15.918 min Scan# 2724
Delta R.T. 0.014 min
Lab File: 02092112.D
Acq: 9 Feb 2021 14:08

Tgt Ion:105 Resp: 2041

Ion	Ratio	Lower	Upper
105	100		
120	27.8	16.9	76.9
119	0.0	0.0	41.9
77	12.2	0.0	42.3



2102007-05

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092113.D
Acq On : 9 Feb 2021 14:32
InstName : AG5975C
Operator : TD
Sample : 2102007-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 10 06:29:55 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

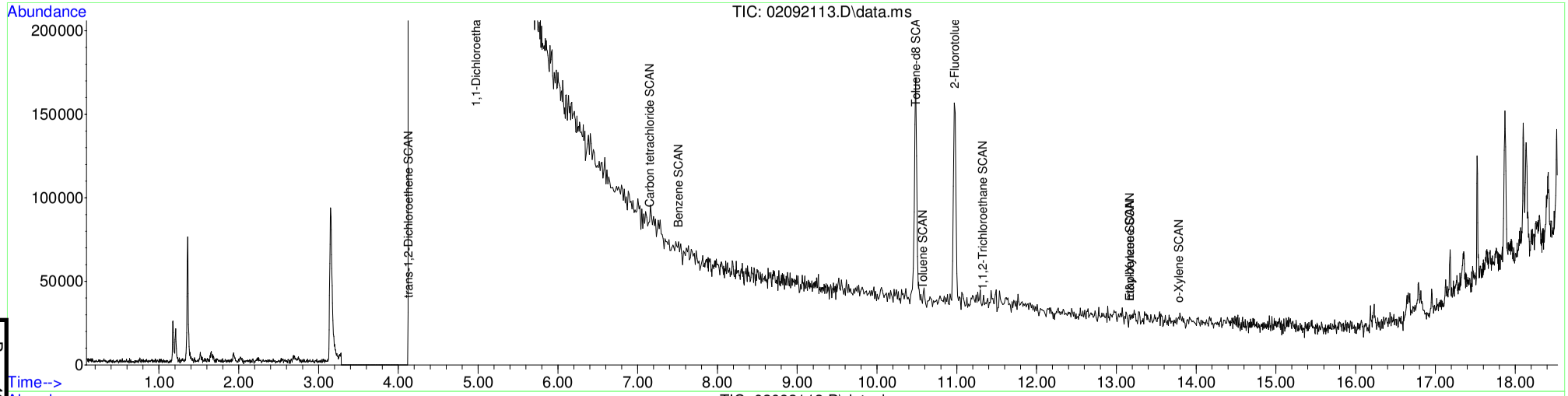
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	172611	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	144122	4311.10	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.22%			
Target Compounds						Qvalue
8] Carbon tetrachloride	7.175	117	421	39.98	ug/L	99
9] Benzene	7.503	78	2853	98.22	ug/L	56
13] Toluene	10.582	91	4871	117.02	ug/L	99
18] Ethylbenzene	12.972	91	1981	37.26	ug/L	91
19] m&p-Xylene	13.163	91	3836	93.70	ug/L	94
20] o-Xylene	13.782	91	1171	26.63	ug/L	95
23] 1,2,4-Trimethylbenzene	15.901	105	2529	51.13	ug/L	68
25) 2-Fluorotoluene SCAN	10.969	109	98410	5022.68	ug/L	96
27) trans-1,2-Dichloroethe...	4.122	61	300	51.49	ug/L #	12
28) 1,1-Dichloroethane SCAN	4.972	63	176	25.59	ug/L #	40
32) Carbon tetrachloride SCAN	7.149	117	457	82.19	ug/L #	15
33) Benzene SCAN	7.514	78	8830	448.57	ug/L #	91
36) Toluene-d8 SCAN	10.486	98	92925	5056.81	ug/L	96
37) Toluene SCAN	10.570	91	4525	200.00	ug/L #	30
38) 1,1,2-Trichloroethane ...	11.326	97	225	39.67	ug/L #	13
42) Ethylbenzene SCAN	13.161	91	2260	52.42	ug/L	89
43) m&p-Xylene SCAN	13.161	91	2260	52.42	ug/L	89
44) o-Xylene SCAN	13.781	91	722	30.67	ug/L #	32

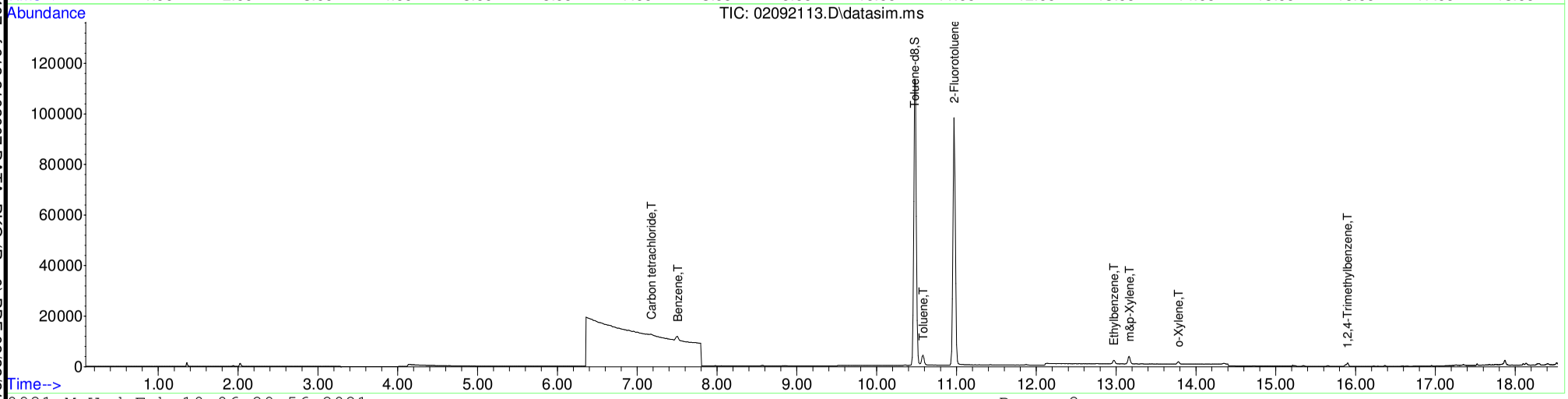
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092113.D
Acq On : 9 Feb 2021 14:32
InstName : AG5975C
Operator : TD
Sample : 2102007-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 10 06:29:55 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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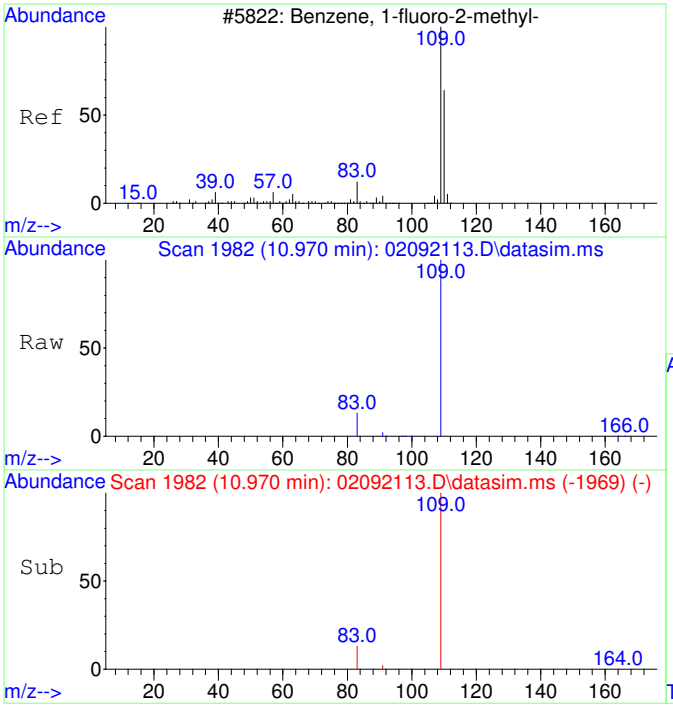
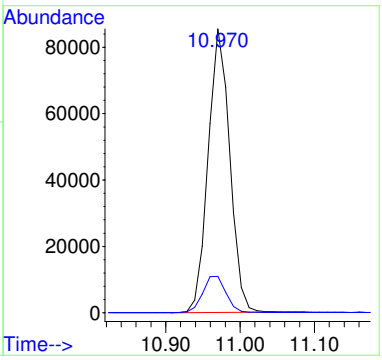
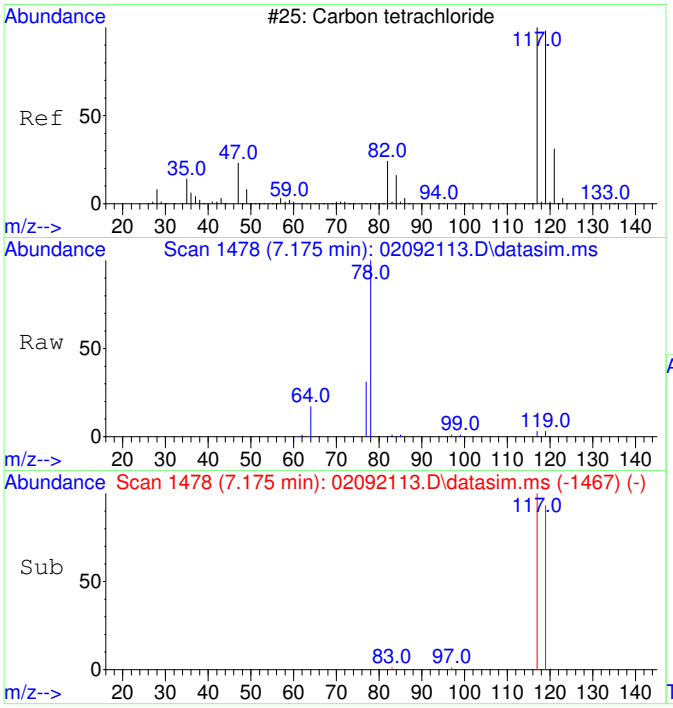


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion:109 Resp: 172611

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

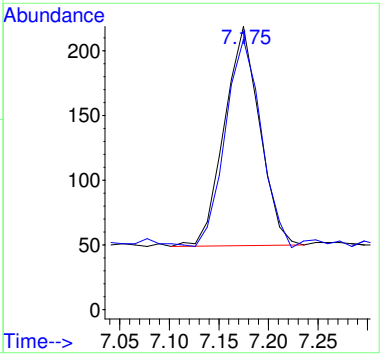


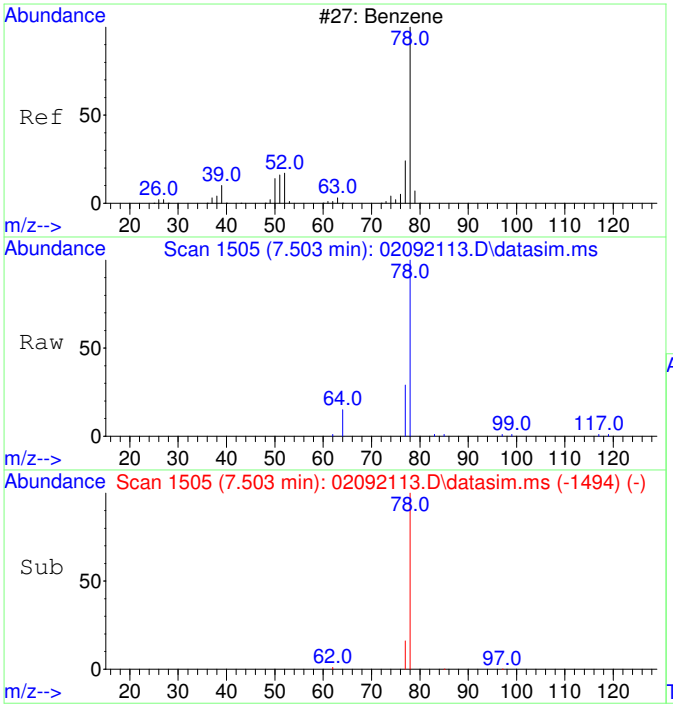


#8
Carbon tetrachloride
Concen: 39.98 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion:117 Resp: 421

Ion	Ratio	Lower	Upper
117	100		
119	95.0	66.4	126.4

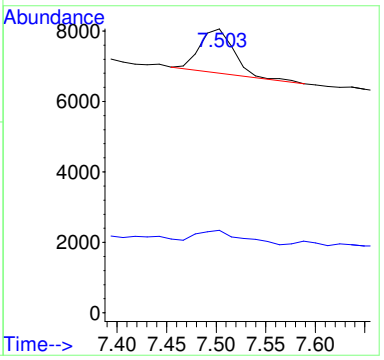


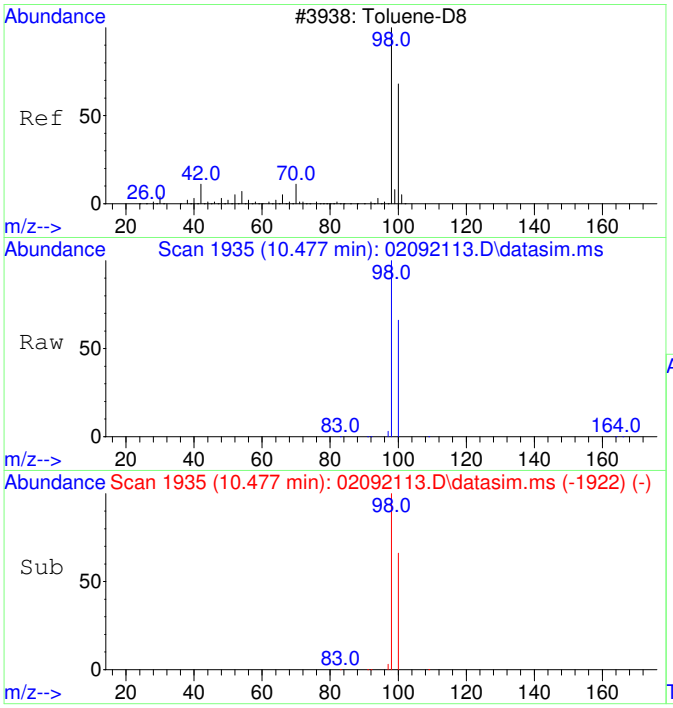


#9
Benzene
Concen: 98.22 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 78 Resp: 2853

Ion	Ratio	Lower	Upper
78	100		
77	44.7	0.0	53.2

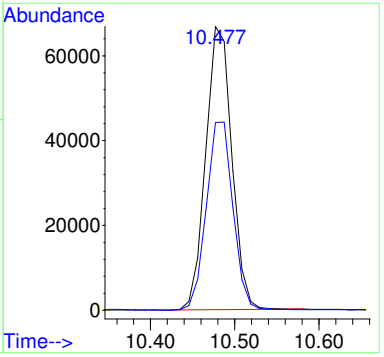


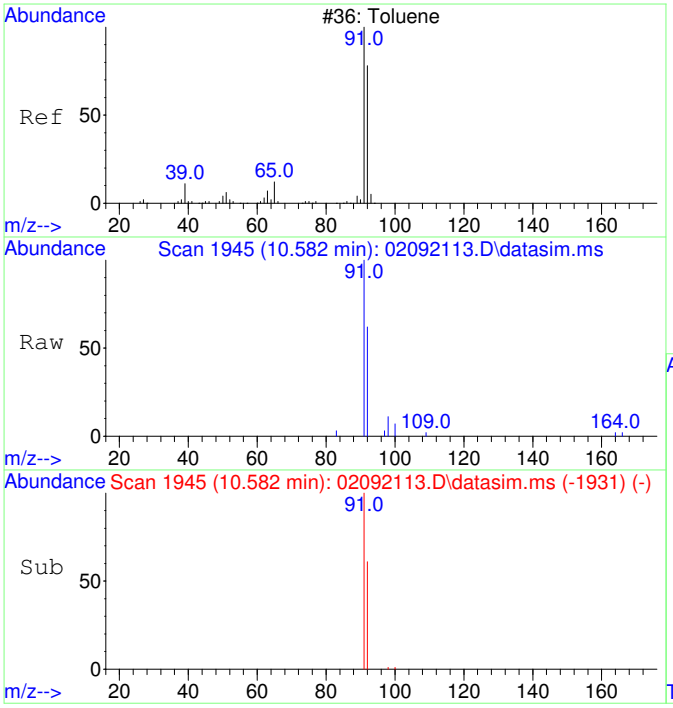


#12
Toluene-d8
Concen: 4311.10 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 98 Resp: 144122

Ion	Ratio	Lower	Upper
98	100		
100	67.5	37.1	97.1

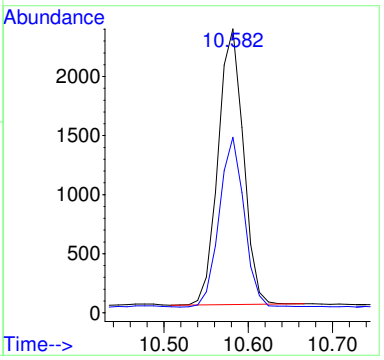


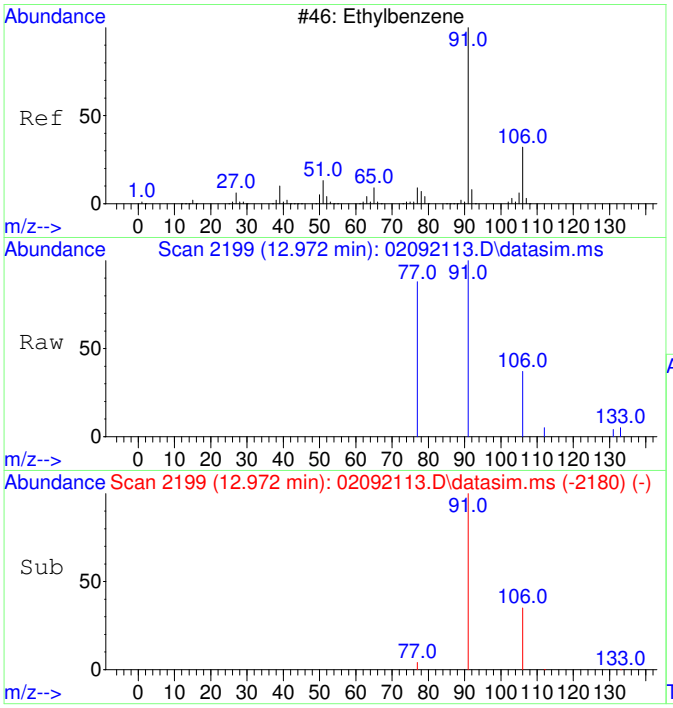


#13
Toluene
Concen: 117.02 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 4871

Ion	Ratio	Lower	Upper
91	100		
92	60.3	29.9	89.9

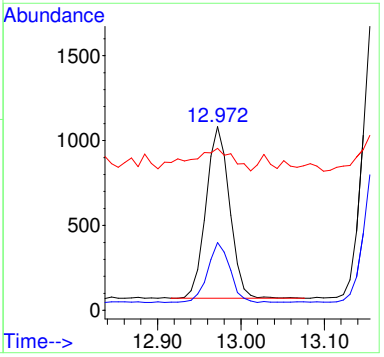


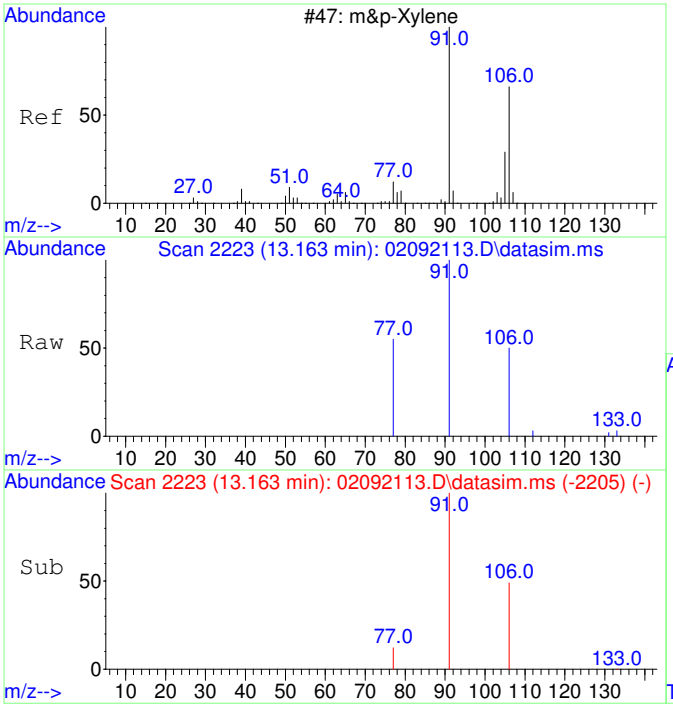


#18
Ethylbenzene
Concen: 37.26 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 1981

Ion	Ratio	Lower	Upper
91	100		
106	32.9	3.0	63.0
77	24.0	0.0	38.2

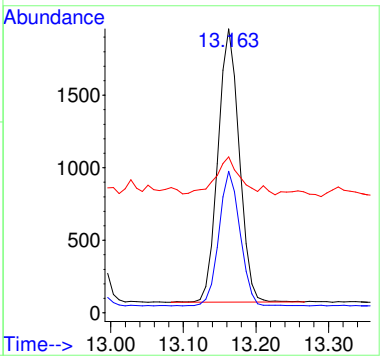


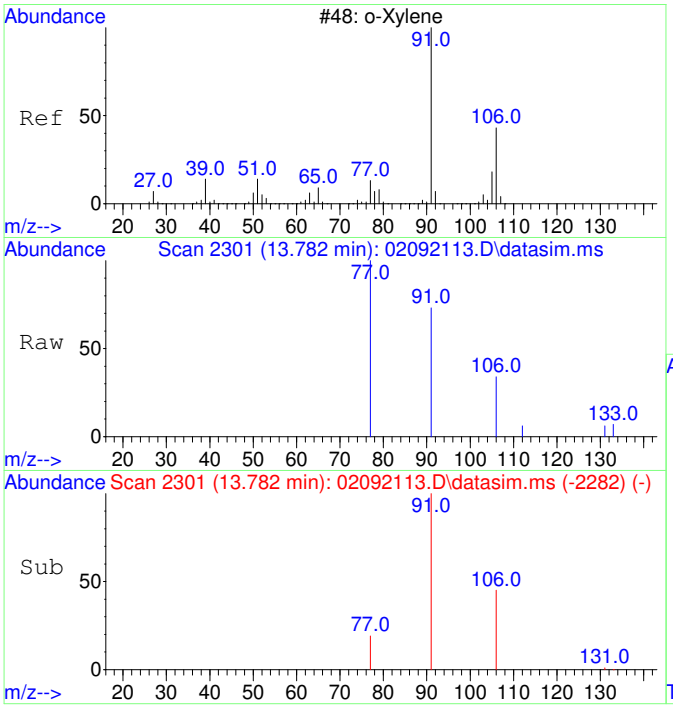


#19
m&p-Xylene
Concen: 93.70 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 3836

Ion	Ratio	Lower	Upper
91	100		
106	48.6	22.2	82.2
77	16.5	0.0	42.4

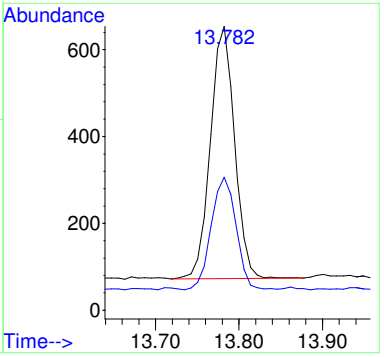


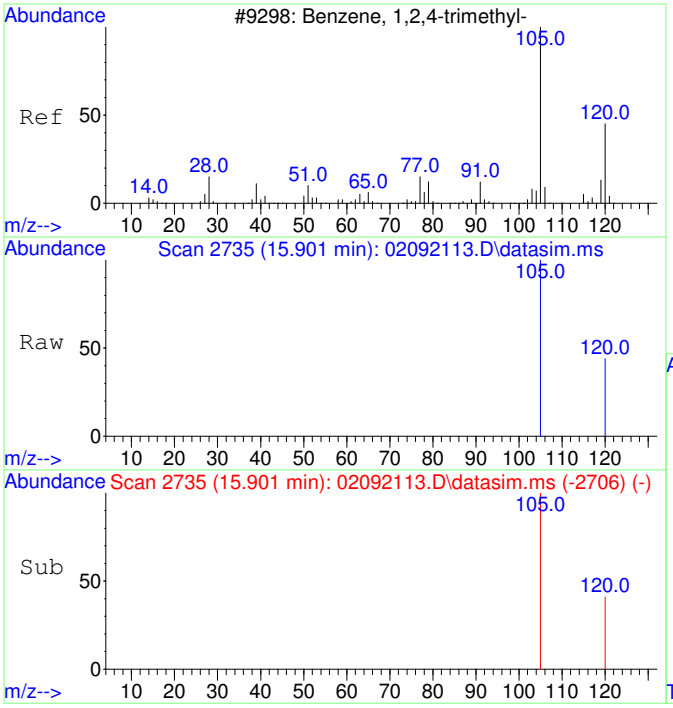


#20
o-Xylene
Concen: 26.63 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 1171

Ion	Ratio	Lower	Upper
91	100		
106	45.5	19.2	79.2

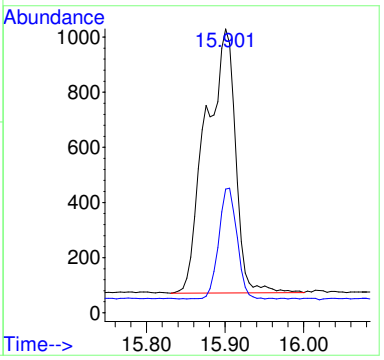


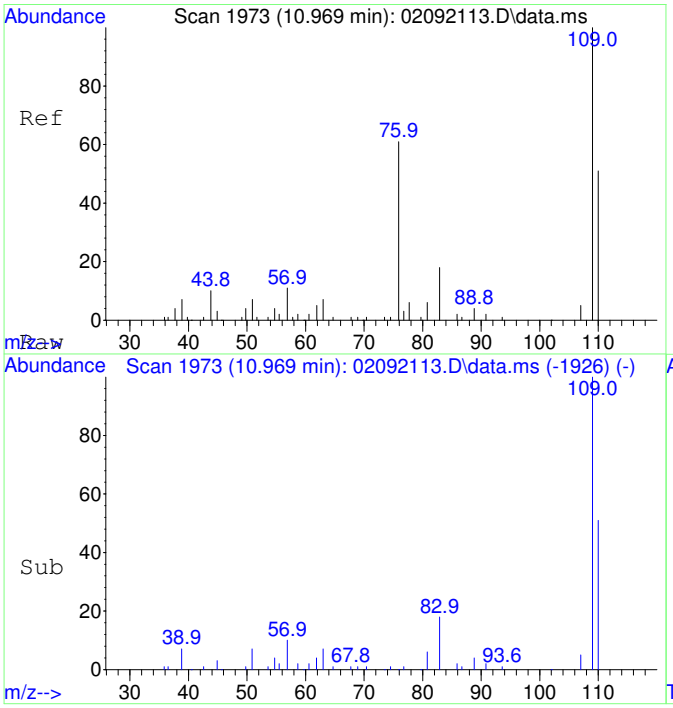


#23
1,2,4-Trimethylbenzene
Concen: 51.13 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion:105 Resp: 2529

Ion	Ratio	Lower	Upper
105	100		
120	25.5	17.2	77.2

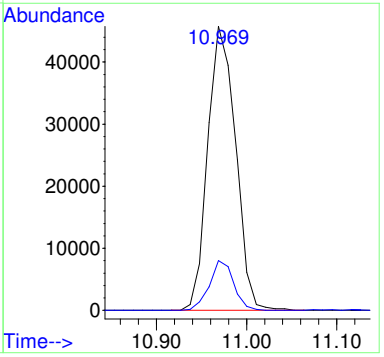


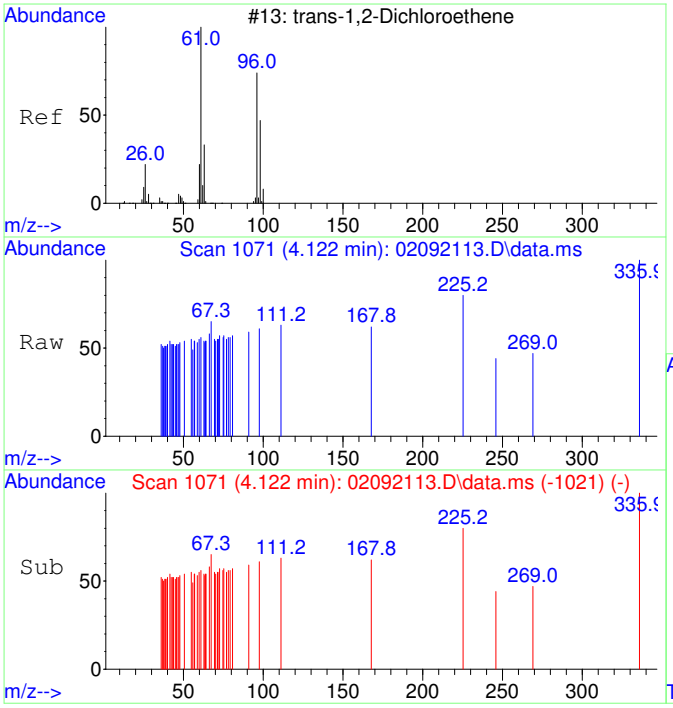


#25
2-Fluorotoluene SCAN
Concen: 5022.68 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion:109 Resp: 98410

Ion	Ratio	Lower	Upper
109	100		
83	15.2	0.0	43.8

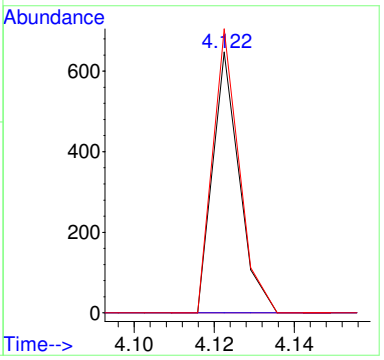


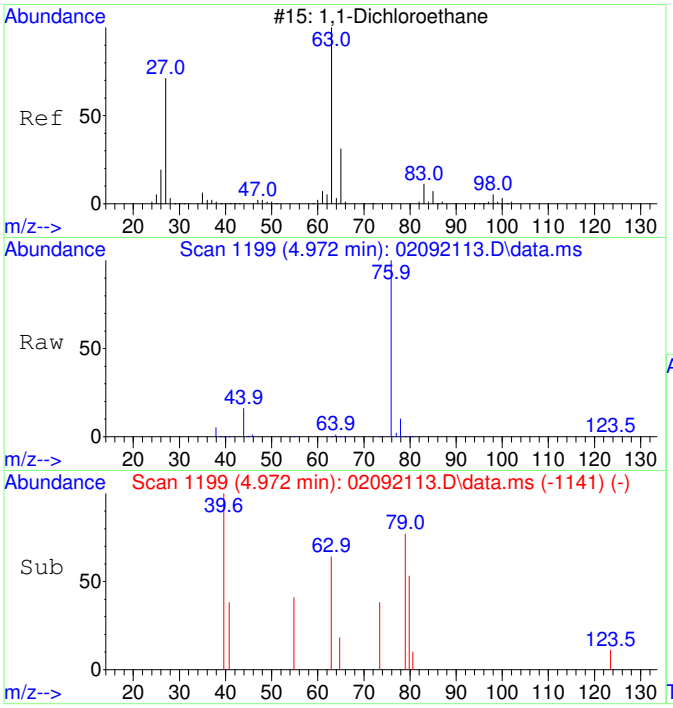


#27
trans-1,2-Dichloroethene SCAN
Concen: 51.49 ug/L
RT: 4.122 min Scan# 1071
Delta R.T. -0.259 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 61 Resp: 300

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	108.3	20.5	80.5#

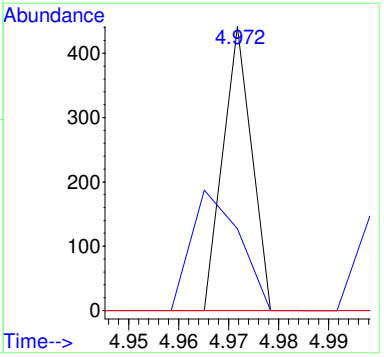


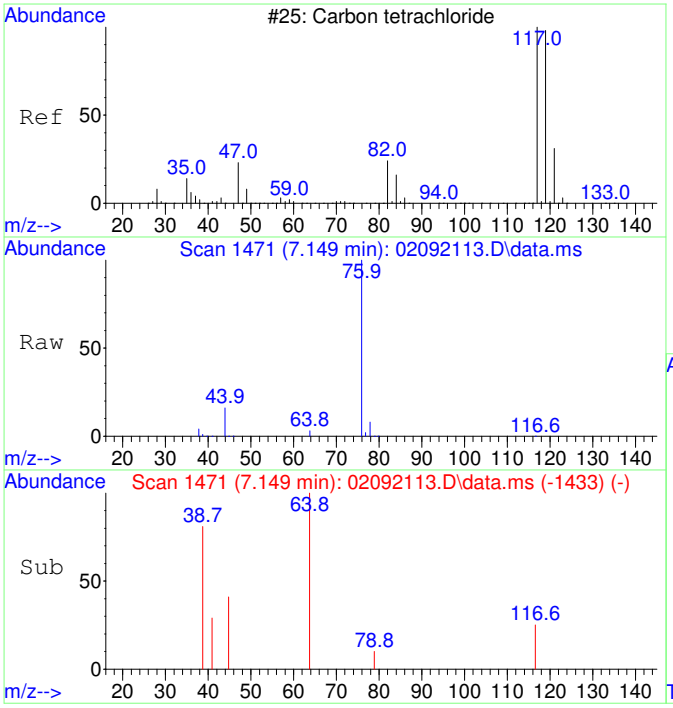


#28
1,1-Dichloroethane SCAN
Concen: 25.59 ug/L
RT: 4.972 min Scan# 1199
Delta R.T. -0.113 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 63 Resp: 176

Ion	Ratio	Lower	Upper
63	100		
65	71.0	1.3	61.3#
83	0.0	0.0	45.9

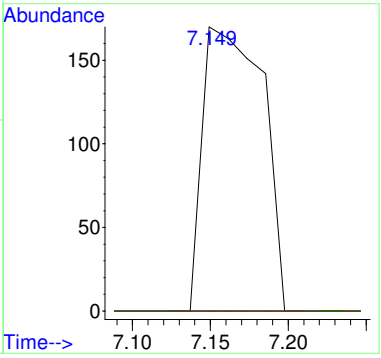


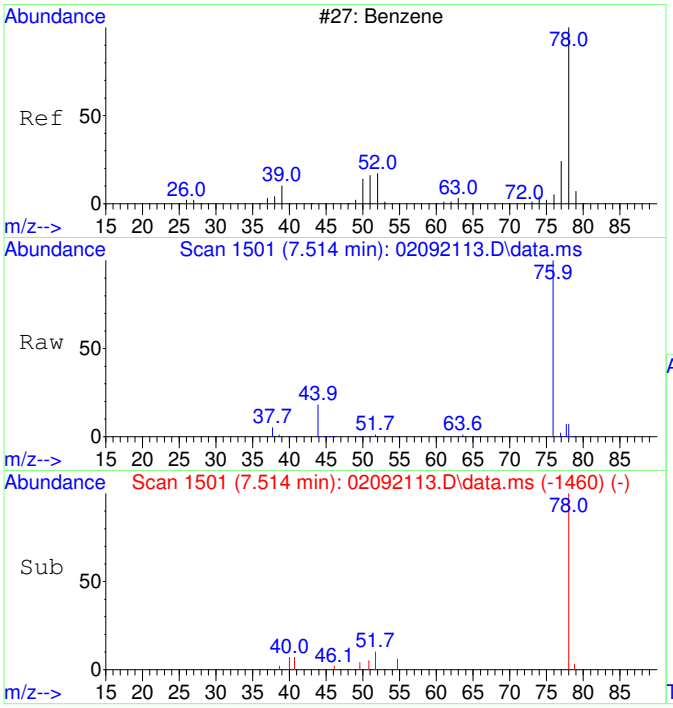


#32
Carbon tetrachloride SCAN
Concen: 82.19 ug/L
RT: 7.149 min Scan# 1471
Delta R.T. -0.036 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion:117 Resp: 457

Ion	Ratio	Lower	Upper
117	100		
119	0.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

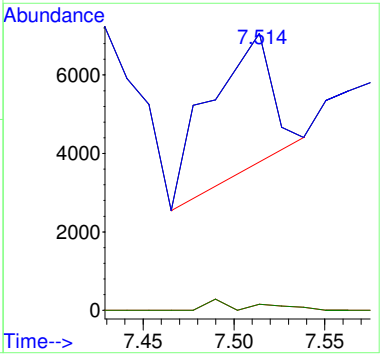


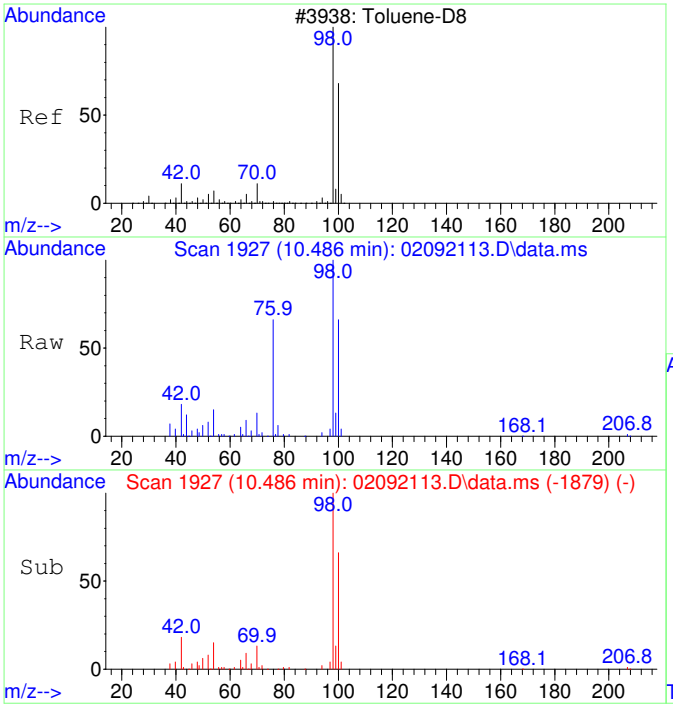


#33
Benzene SCAN
Concen: 448.57 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 78 Resp: 8830

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

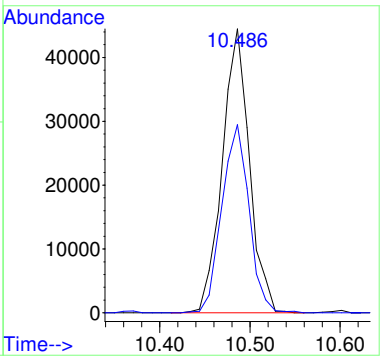


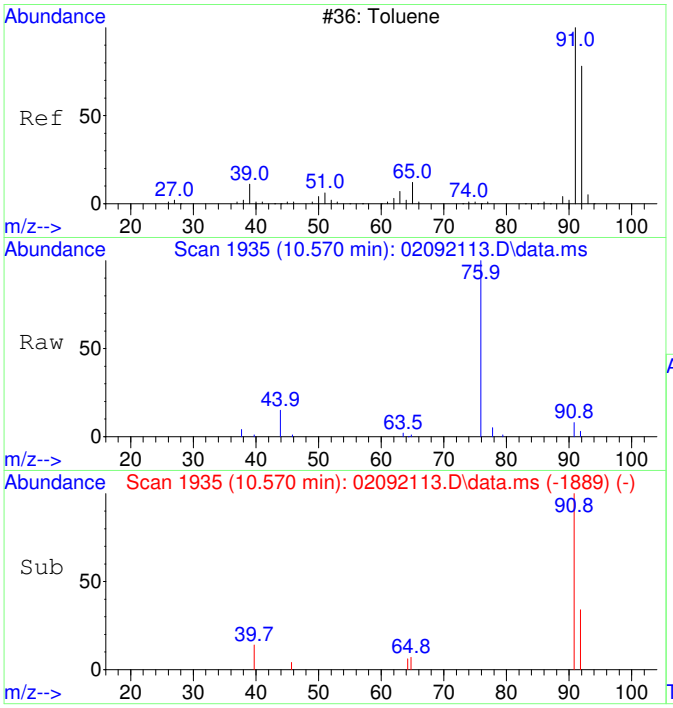


#36
Toluene-d8 SCAN
Concen: 5056.81 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 98 Resp: 92925

Ion	Ratio	Lower	Upper
98	100		
100	66.3	40.0	100.0

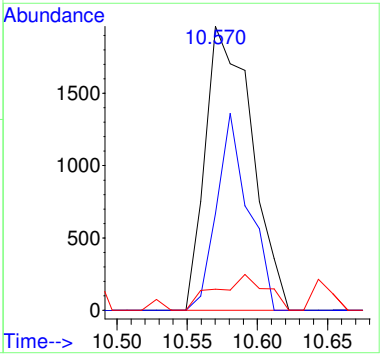


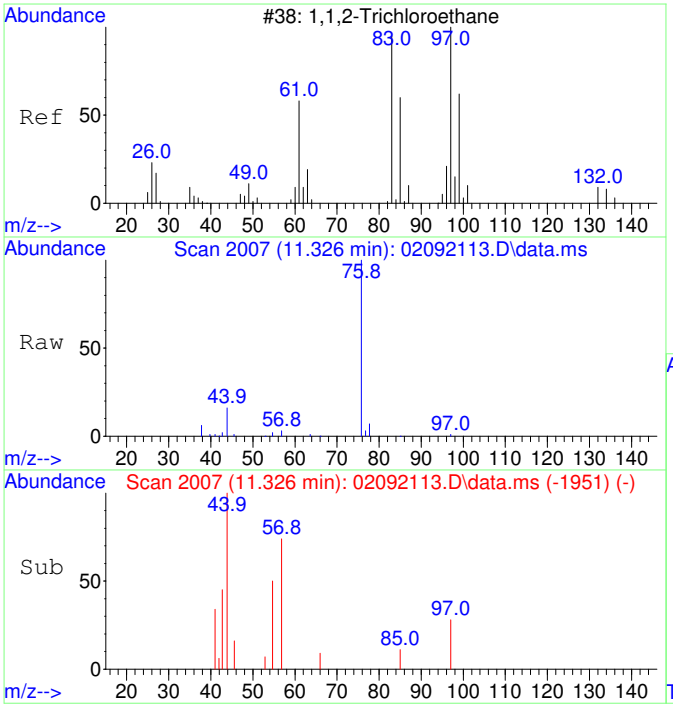


#37
Toluene SCAN
Concen: 200.00 ug/L
RT: 10.570 min Scan# 1935
Delta R.T. -0.021 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 4525

Ion	Ratio	Lower	Upper
91	100		
92	0.0	28.3	88.3#
65	0.0	0.0	41.0

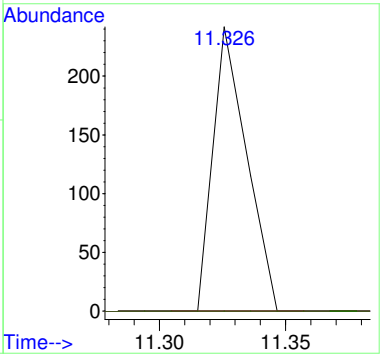


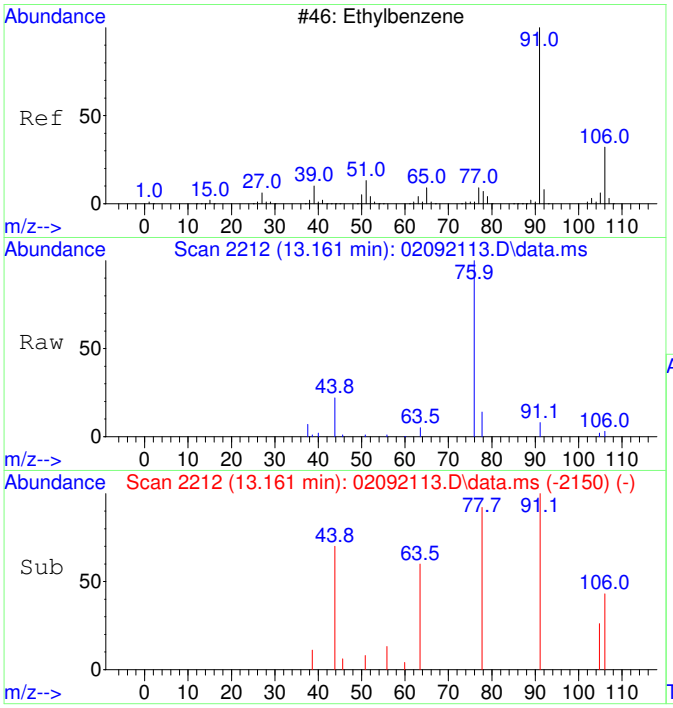


#38
1,1,2-Trichloroethane SCAN
Concen: 39.67 ug/L
RT: 11.326 min Scan# 2007
Delta R.T. 0.084 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 97 Resp: 225

Ion	Ratio	Lower	Upper
97	100		
83	0.0	57.7	117.7#
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

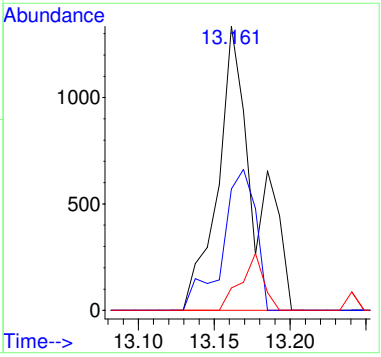


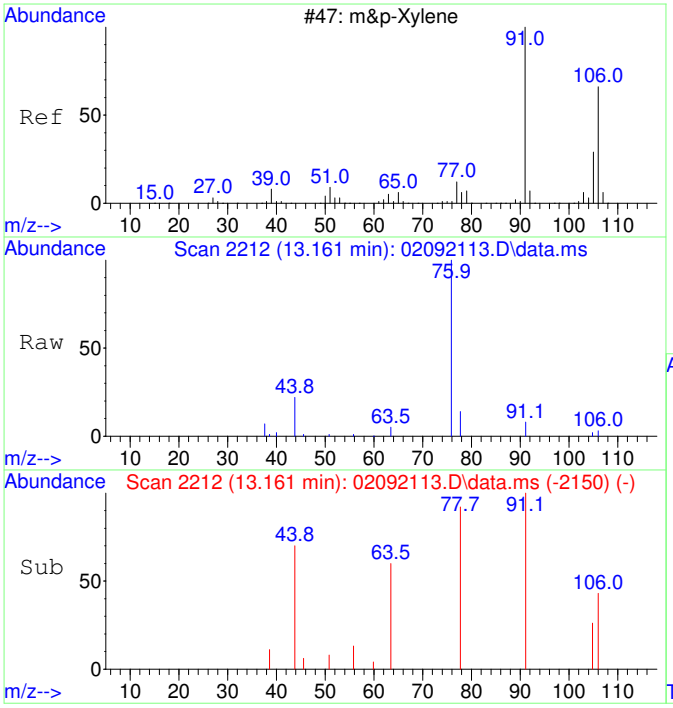


#42
Ethylbenzene SCAN
Concen: 52.42 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.008 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 2260

Ion	Ratio	Lower	Upper
91	100		
106	44.9	23.1	83.1
51	12.4	0.0	40.1

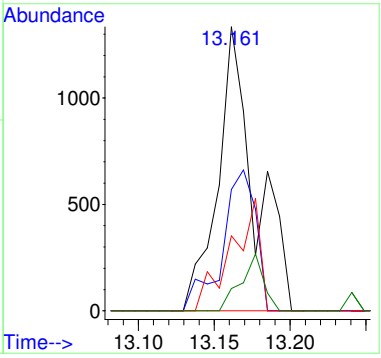


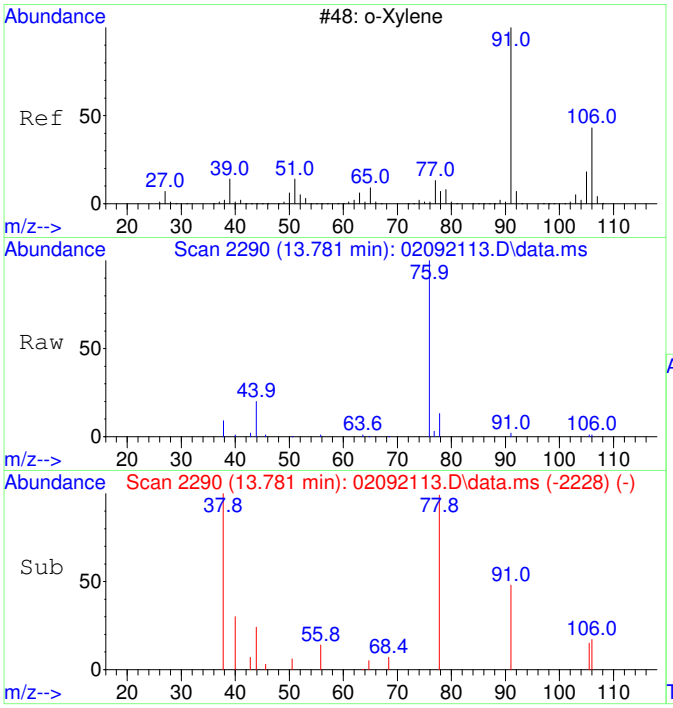


#43
m&p-Xylene SCAN
Concen: 52.42 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.008 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 2260

Ion	Ratio	Lower	Upper
91	100		
106	44.9	23.1	83.1
105	30.7	0.0	54.7
51	12.4	0.0	40.1

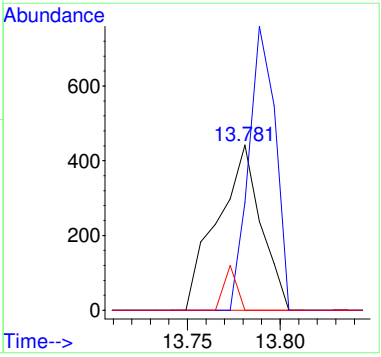




#44
o-Xylene SCAN
Concen: 30.67 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.008 min
Lab File: 02092113.D
Acq: 9 Feb 2021 14:32

Tgt Ion: 91 Resp: 722

Ion	Ratio	Lower	Upper
91	100		
106	105.4	18.0	78.0#
105	7.9	0.0	56.6



2102007-06

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092114.D
Acq On : 9 Feb 2021 14:56
InstName : AG5975C
Operator : TD
Sample : 2102007-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 10 06:30:00 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

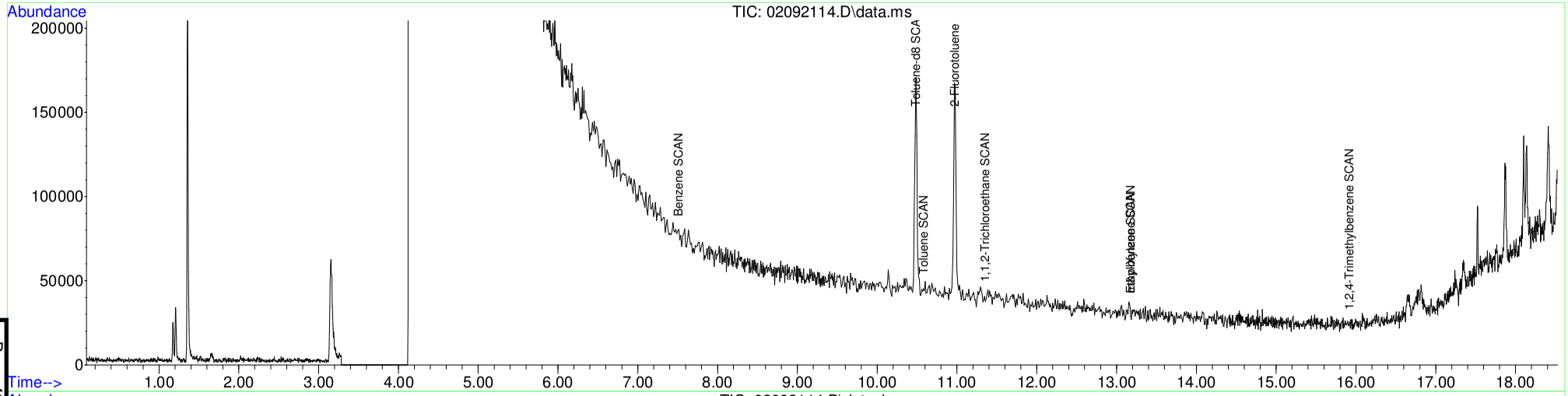
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	175061	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	146618	4324.38	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.49%			
Target Compounds						Qvalue
8] Carbon tetrachloride	7.175	117	463	43.36	ug/L	97
9] Benzene	7.503	78	3205	108.80	ug/L #	26
13] Toluene	10.582	91	4018	95.18	ug/L	99
18] Ethylbenzene	12.972	91	1482	27.49	ug/L	90
19] m&p-Xylene	13.163	91	3680	88.63	ug/L	93
20] o-Xylene	13.782	91	1140	25.56	ug/L	95
23] 1,2,4-Trimethylbenzene	15.901	105	1252	24.96	ug/L	89
25) 2-Fluorotoluene SCAN	10.969	109	102002	5133.15	ug/L	98
33) Benzene SCAN	7.502	78	7019	351.58	ug/L	98
36) Toluene-d8 SCAN	10.486	98	94674	5079.88	ug/L	89
37) Toluene SCAN	10.581	91	2583	112.57	ug/L #	76
38) 1,1,2-Trichloroethane ...	11.347	97	387	67.29	ug/L #	13
42) Ethylbenzene SCAN	13.169	91	2398	54.84	ug/L #	87
43) m&p-Xylene SCAN	13.169	91	2398	54.84	ug/L #	79
47) 1,2,4-Trimethylbenzene...	15.909	105	645	25.06	ug/L #	13

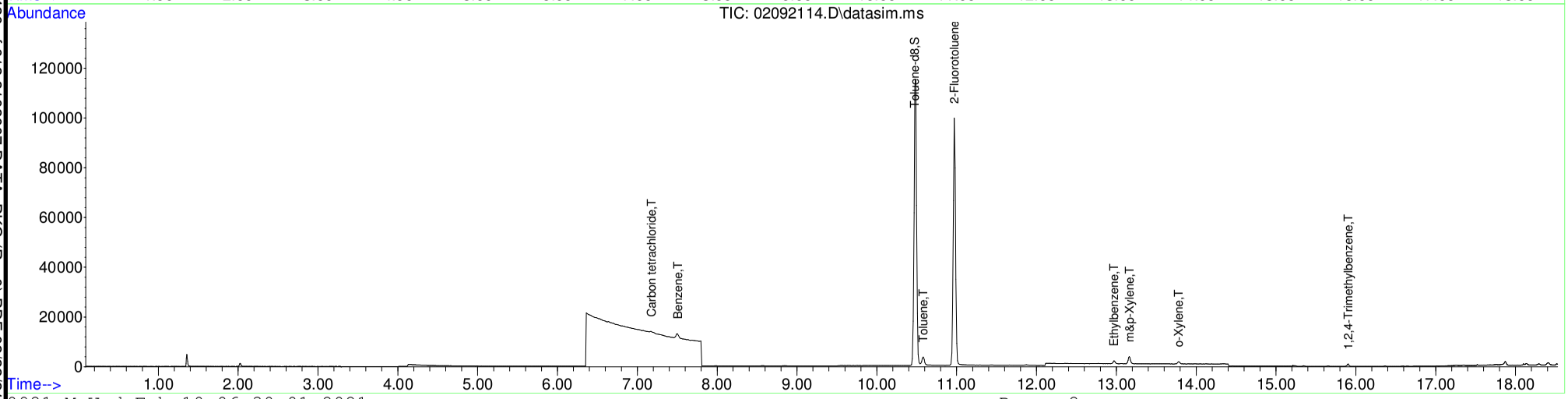
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092114.D
Acq On : 9 Feb 2021 14:56
InstName : AG5975C
Operator : TD
Sample : 2102007-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 10 06:30:00 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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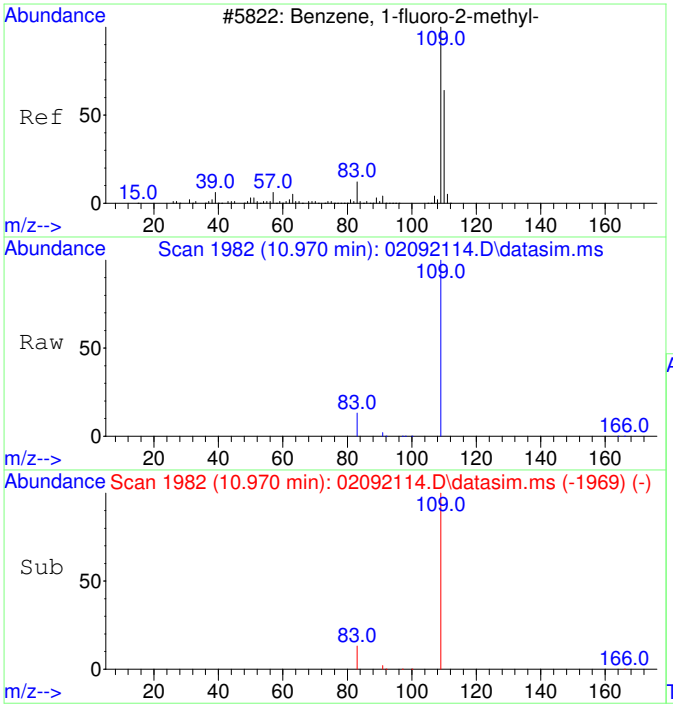
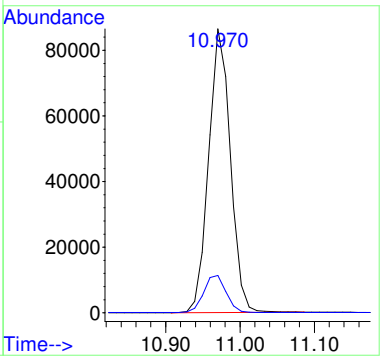
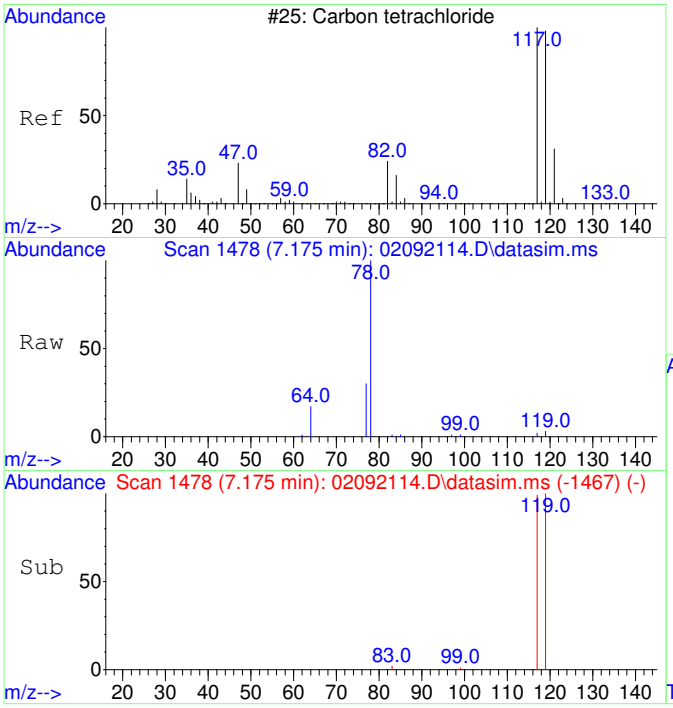


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion:109 Resp: 175061

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

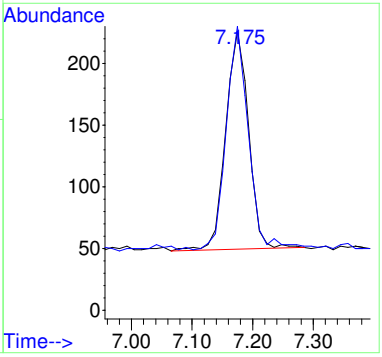


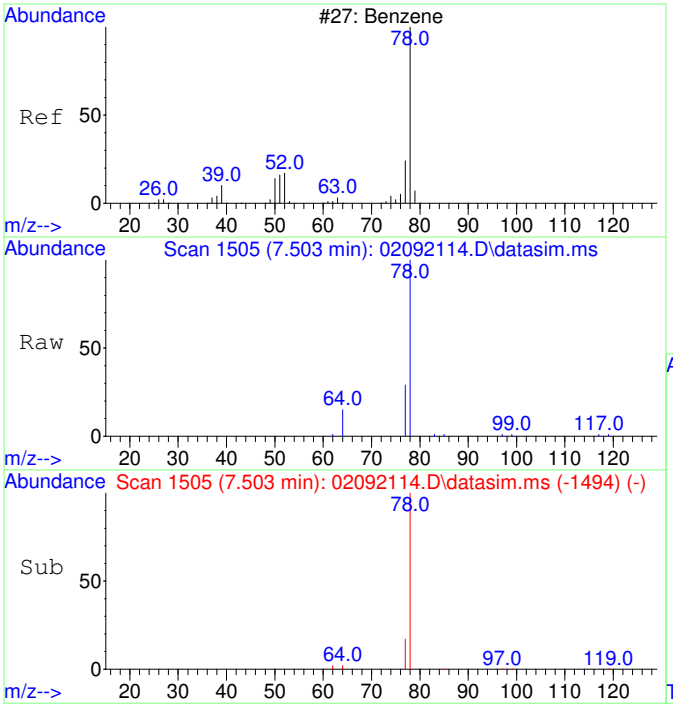


#8
Carbon tetrachloride
Concen: 43.36 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion:117 Resp: 463

Ion	Ratio	Lower	Upper
117	100		
119	99.8	66.4	126.4

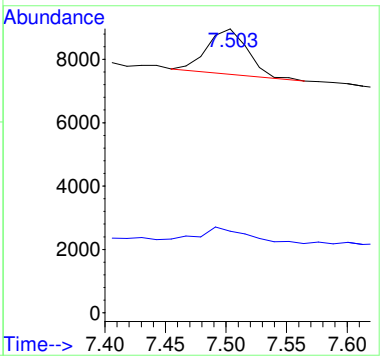


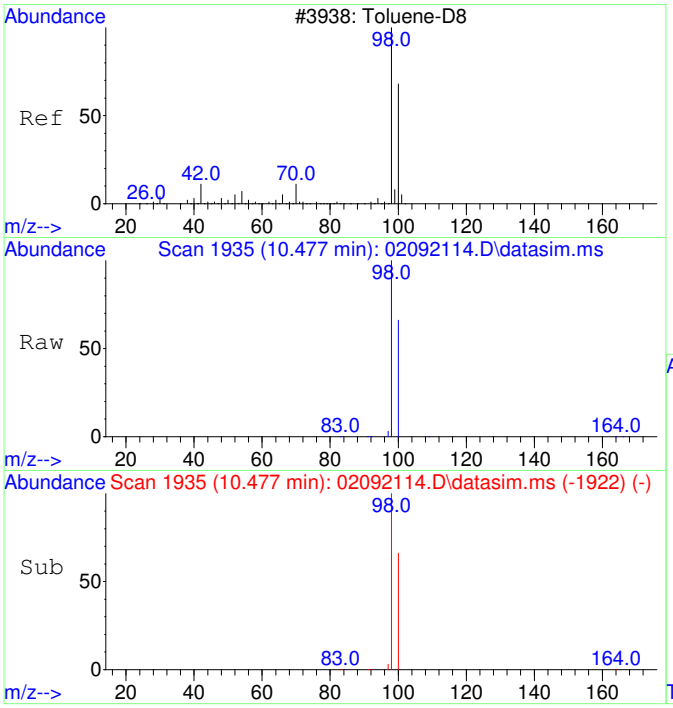


#9
Benzene
Concen: 108.80 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 78 Resp: 3205

Ion	Ratio	Lower	Upper
78	100		
77	59.0	0.0	53.2#

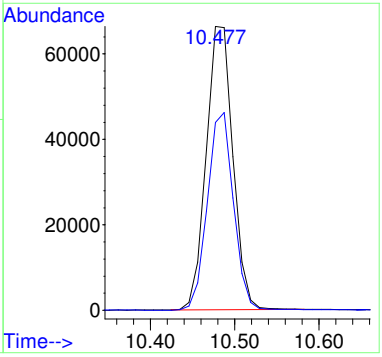


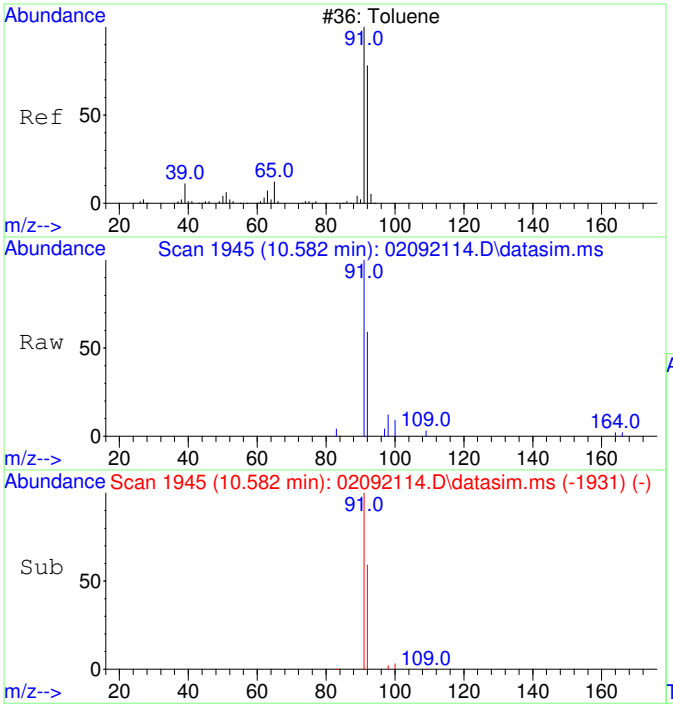


#12
Toluene-d8
Concen: 4324.38 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 98 Resp: 146618

Ion	Ratio	Lower	Upper
98	100		
100	67.7	37.1	97.1

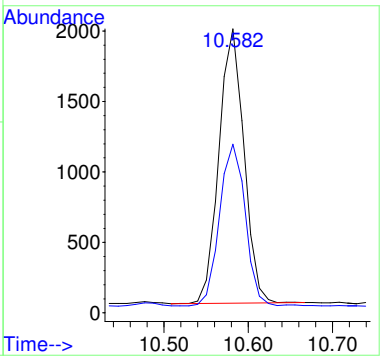


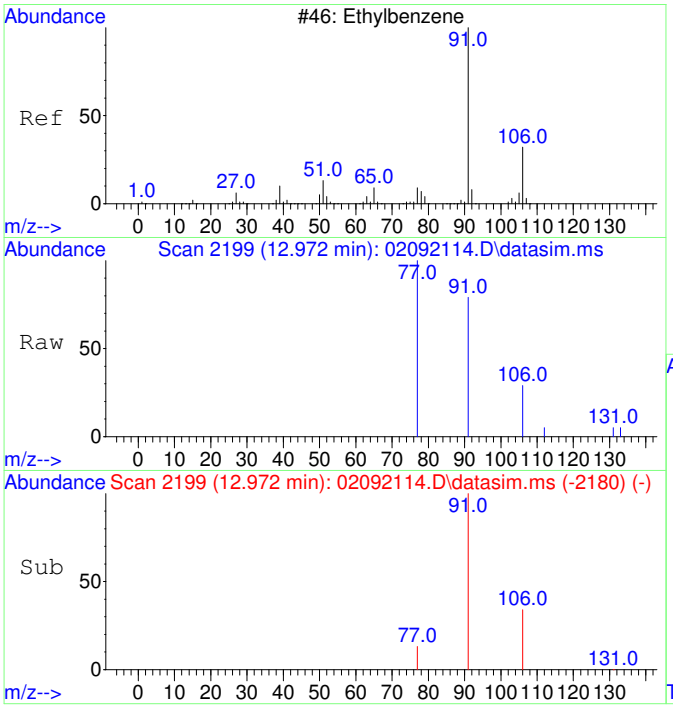


#13
Toluene
Concen: 95.18 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 4018

Ion	Ratio	Lower	Upper
91	100		
92	60.6	29.9	89.9

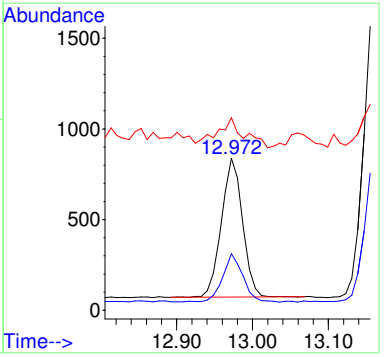


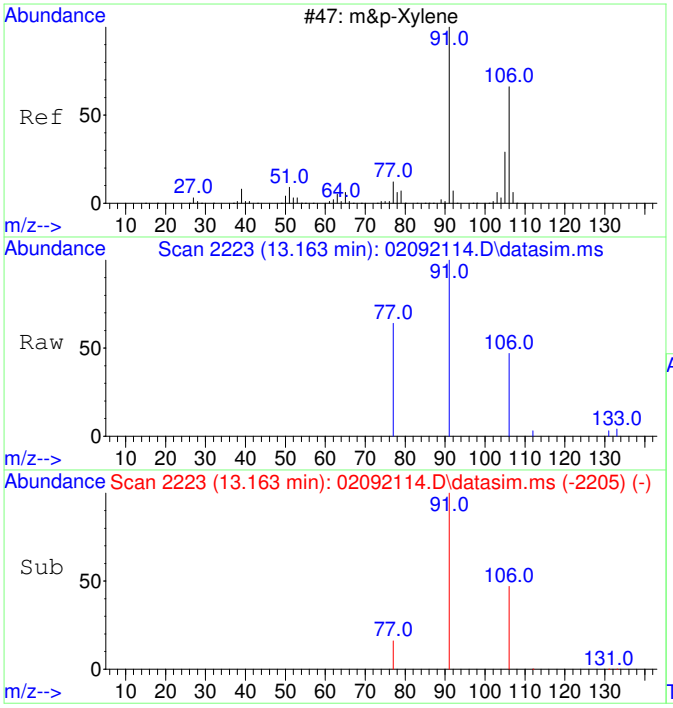


#18
Ethylbenzene
Concen: 27.49 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 1482

Ion	Ratio	Lower	Upper
91	100		
106	33.3	3.0	63.0
77	24.7	0.0	38.2

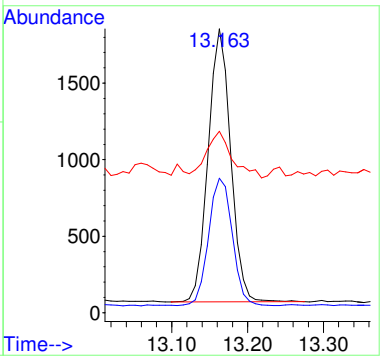


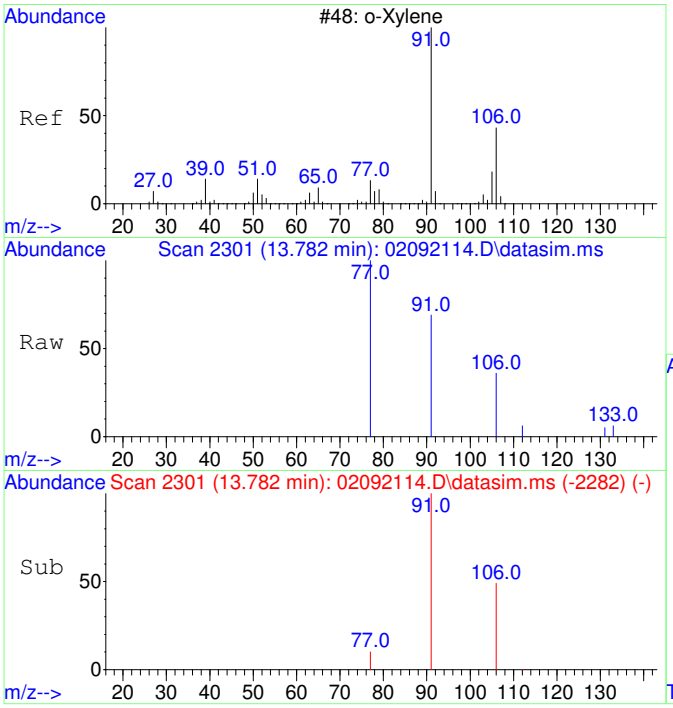


#19
m&p-Xylene
Concen: 88.63 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 3680

Ion	Ratio	Lower	Upper
91	100		
106	48.9	22.2	82.2
77	19.4	0.0	42.4

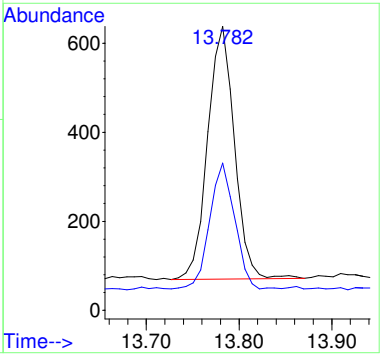


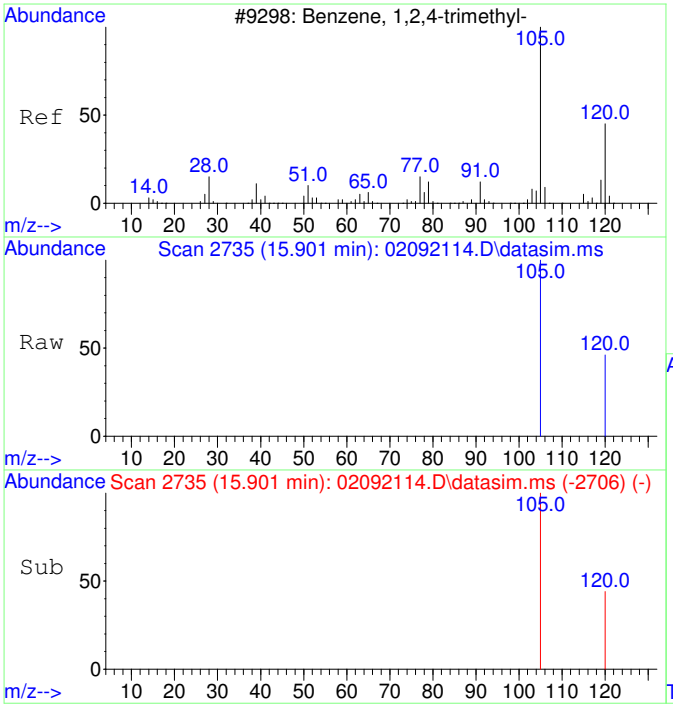


#20
o-Xylene
Concen: 25.56 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 1140

Ion	Ratio	Lower	Upper
91	100		
106	46.0	19.2	79.2

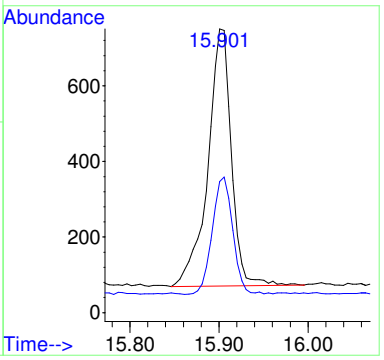


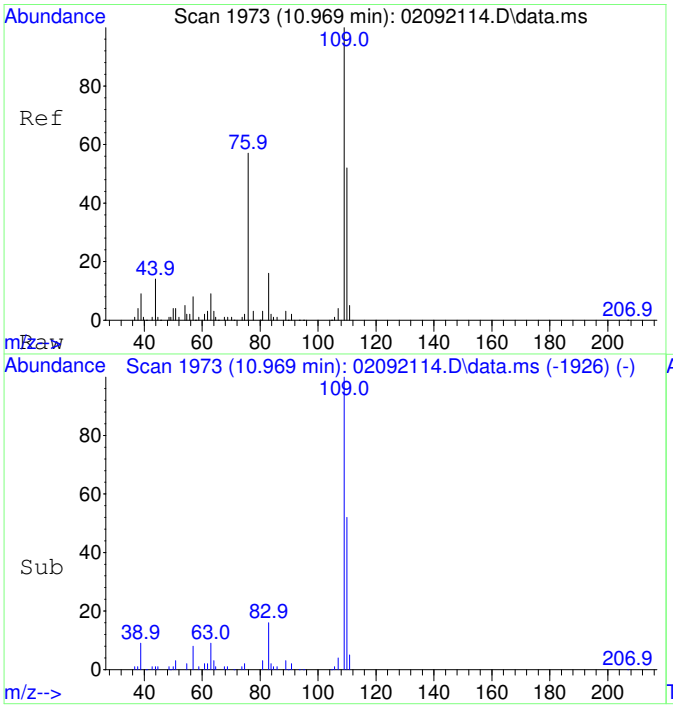


#23
1,2,4-Trimethylbenzene
Concen: 24.96 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion:105 Resp: 1252

Ion	Ratio	Lower	Upper
105	100		
120	39.5	17.2	77.2

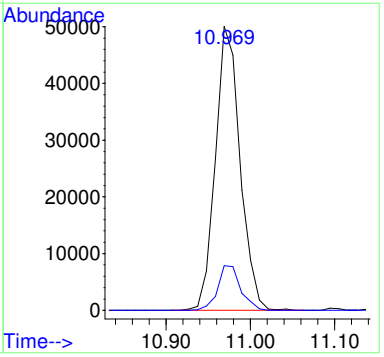


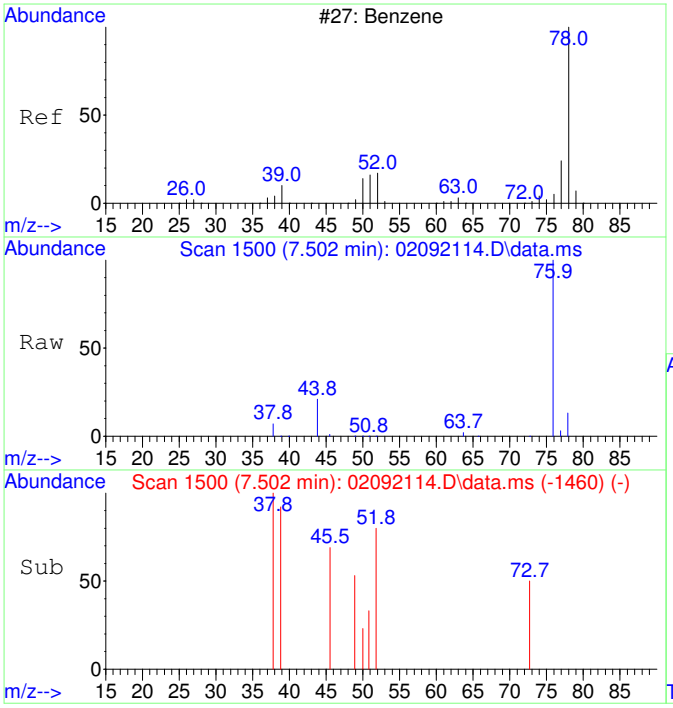


#25
2-Fluorotoluene SCAN
Concen: 5133.15 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion:109 Resp: 102002

Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	43.8

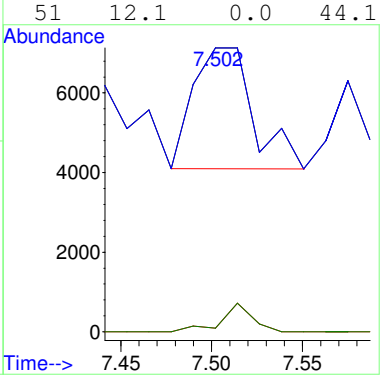


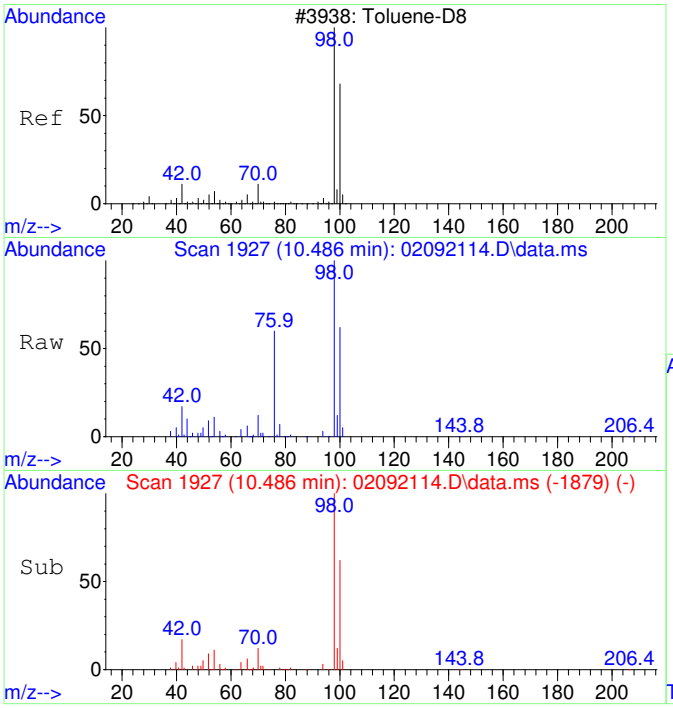


#33
Benzene SCAN
Concen: 351.58 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. -0.012 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 78 Resp: 7019

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	12.1	0.0	47.9
51	12.1	0.0	44.1

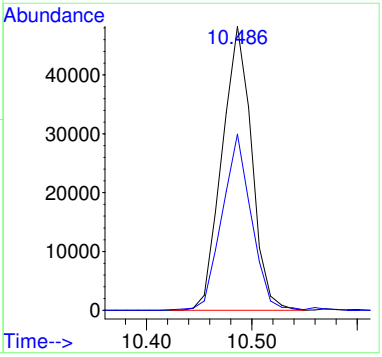


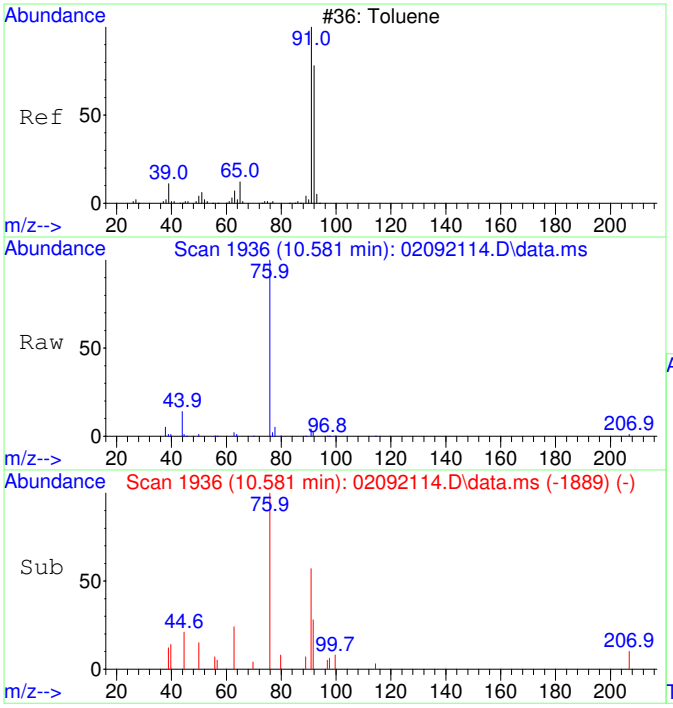


#36
Toluene-d8 SCAN
Concen: 5079.88 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 98 Resp: 94674

Ion	Ratio	Lower	Upper
98	100		
100	60.7	40.0	100.0

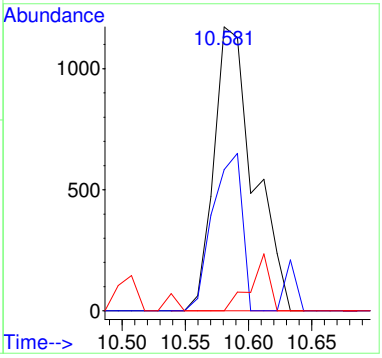


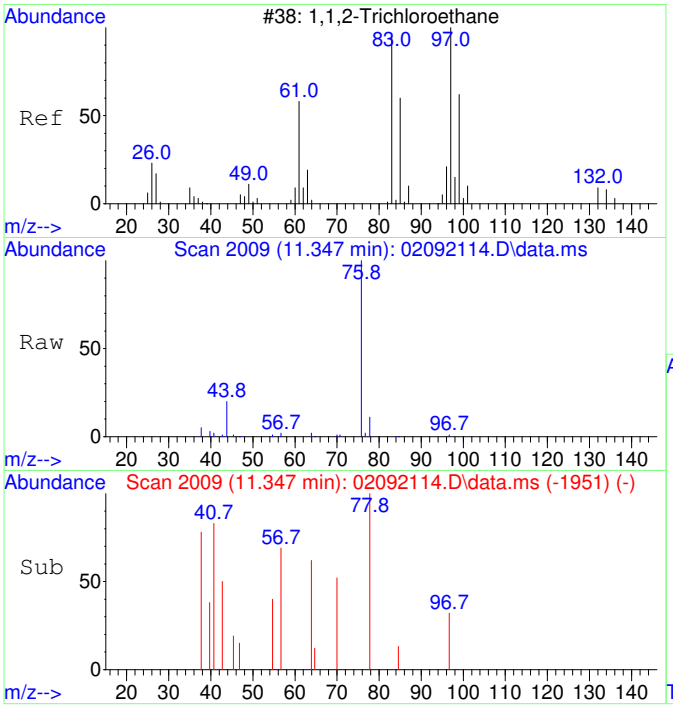


#37
Toluene SCAN
Concen: 112.57 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 2583

Ion	Ratio	Lower	Upper
91	100		
92	41.0	28.3	88.3
65	0.0	0.0	41.0

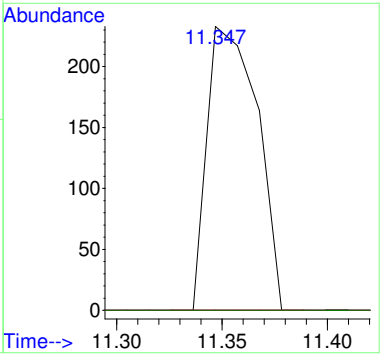


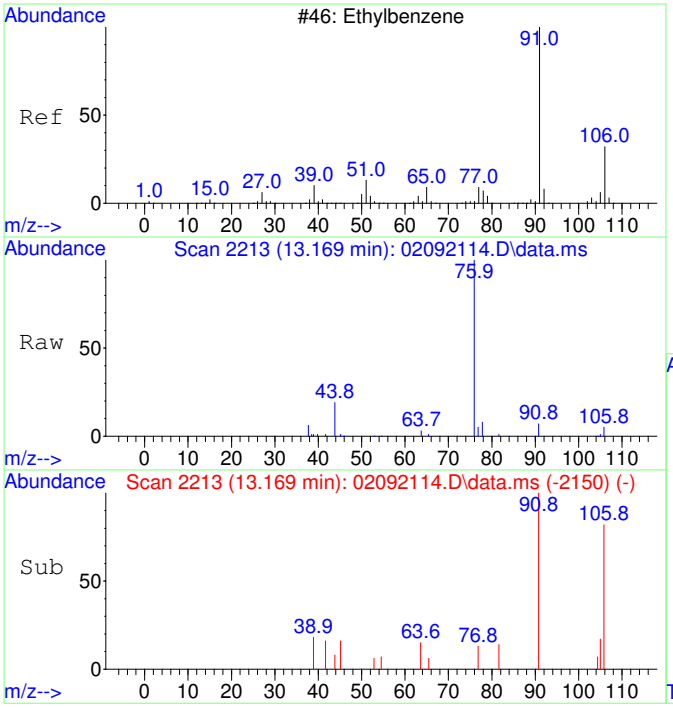


#38
1,1,2-Trichloroethane SCAN
Concen: 67.29 ug/L
RT: 11.347 min Scan# 2009
Delta R.T. 0.105 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 97 Resp: 387

Ion	Ratio	Lower	Upper
97	100		
83	0.0	57.7	117.7#
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

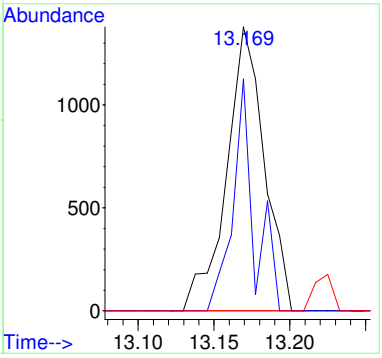


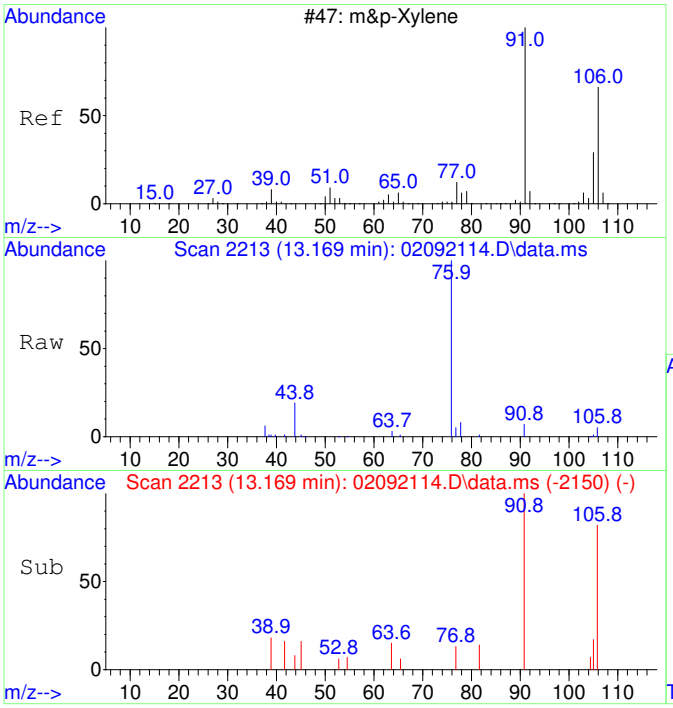


#42
Ethylbenzene SCAN
Concen: 54.84 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 2398

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
51	0.0	0.0	40.1

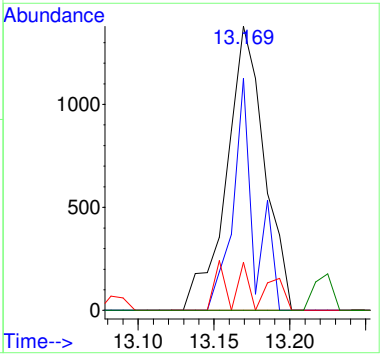


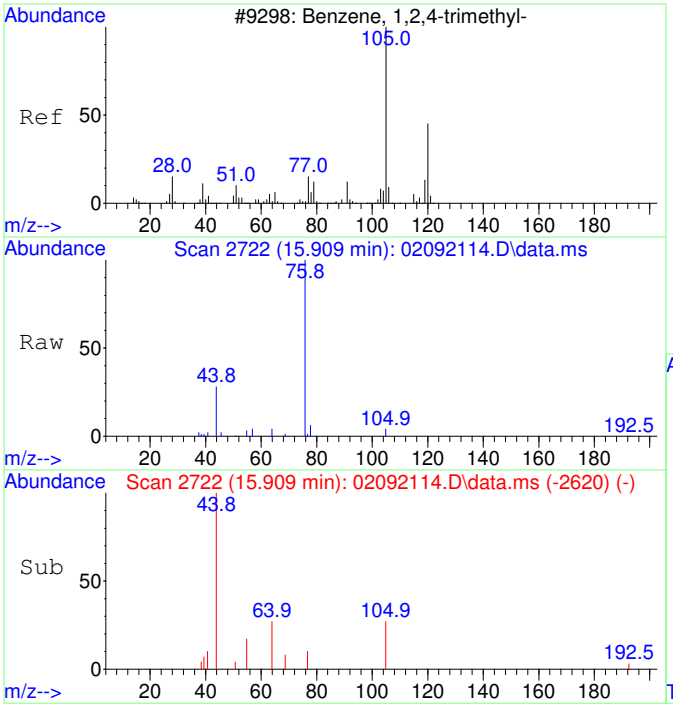


#43
m&p-Xylene SCAN
Concen: 54.84 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.000 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion: 91 Resp: 2398

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
105	4.8	0.0	54.7
51	0.0	0.0	40.1

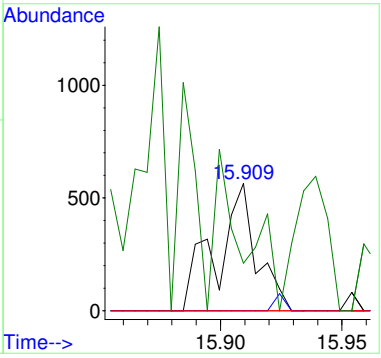




#47
1,2,4-Trimethylbenzene SCAN
Concen: 25.06 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.005 min
Lab File: 02092114.D
Acq: 9 Feb 2021 14:56

Tgt Ion:105 Resp: 645

Ion	Ratio	Lower	Upper
105	100		
120	0.0	16.9	76.9#
119	0.0	0.0	41.9
77	92.6	0.0	42.3#



2102007-07

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092115.D
Acq On : 9 Feb 2021 15:19
InstName : AG5975C
Operator : TD
Sample : 2102007-07
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 10 06:30:05 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

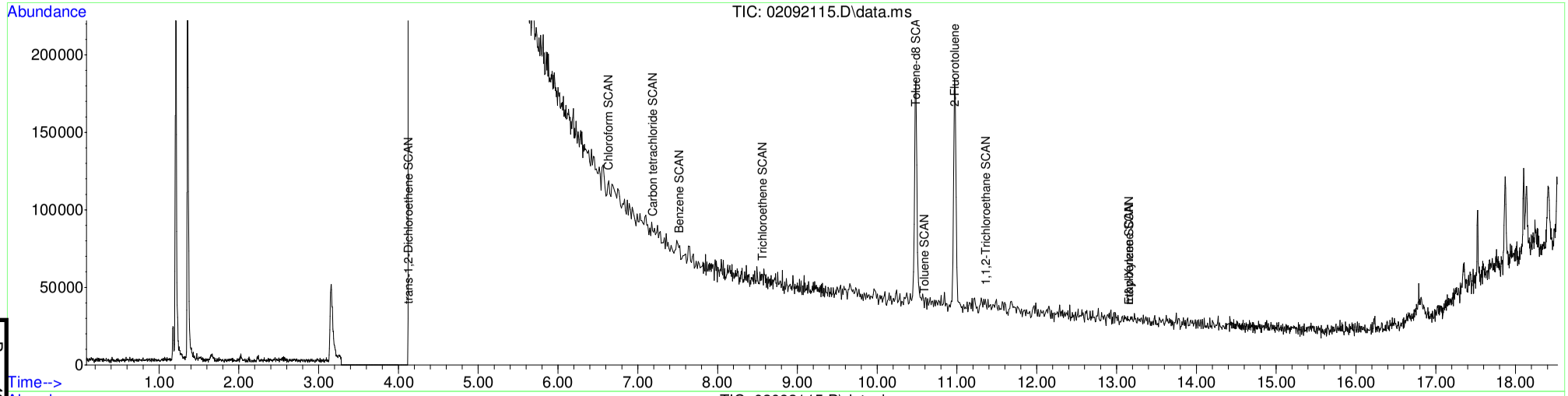
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	197236	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	165159	4323.57	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.47%			
Target Compounds						Qvalue
5] cis-1,2-Dichloroethene	6.075	61	361	29.60	ug/L	96
6] Chloroform	6.640	83	748	63.85	ug/L	98
8] Carbon tetrachloride	7.175	117	325	27.01	ug/L	95
9] Benzene	7.503	78	2591	78.07	ug/L	45
11] Trichloroethene	8.570	130	2350	224.26	ug/L	96
13] Toluene	10.582	91	2899	60.95	ug/L	100
19] m&p-Xylene	13.163	91	2849	60.90	ug/L	94
25) 2-Fluorotoluene SCAN	10.969	109	117292	5238.99	ug/L	100
27) trans-1,2-Dichloroethe...	4.123	61	297	44.61	ug/L #	53
30) Chloroform SCAN	6.626	83	522	72.45	ug/L #	27
32) Carbon tetrachloride SCAN	7.186	117	237	37.30	ug/L #	20
33) Benzene SCAN	7.514	78	3475	154.49	ug/L	99
35) Trichloroethene SCAN	8.557	130	1077	219.59	ug/L #	38
36) Toluene-d8 SCAN	10.486	98	101720	4844.32	ug/L	97
37) Toluene SCAN	10.591	91	1726	66.76	ug/L	68
38) 1,1,2-Trichloroethane ...	11.357	97	156	24.07	ug/L #	13
42) Ethylbenzene SCAN	13.153	91	2911	59.09	ug/L	80
43) m&p-Xylene SCAN	13.153	91	2911	59.09	ug/L	75

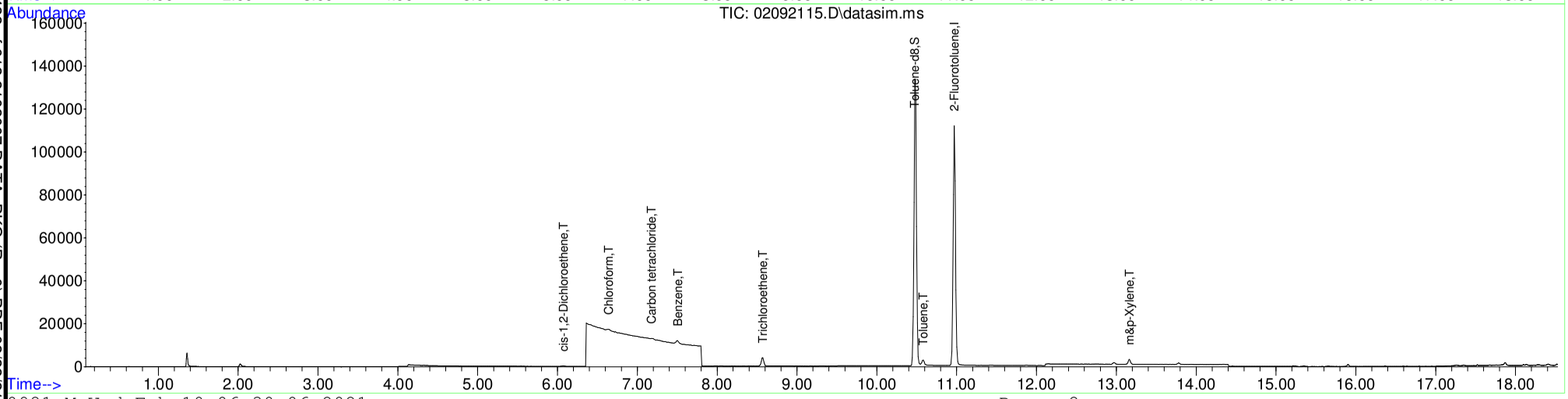
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092115.D
Acq On : 9 Feb 2021 15:19
InstName : AG5975C
Operator : TD
Sample : 2102007-07
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 10 06:30:05 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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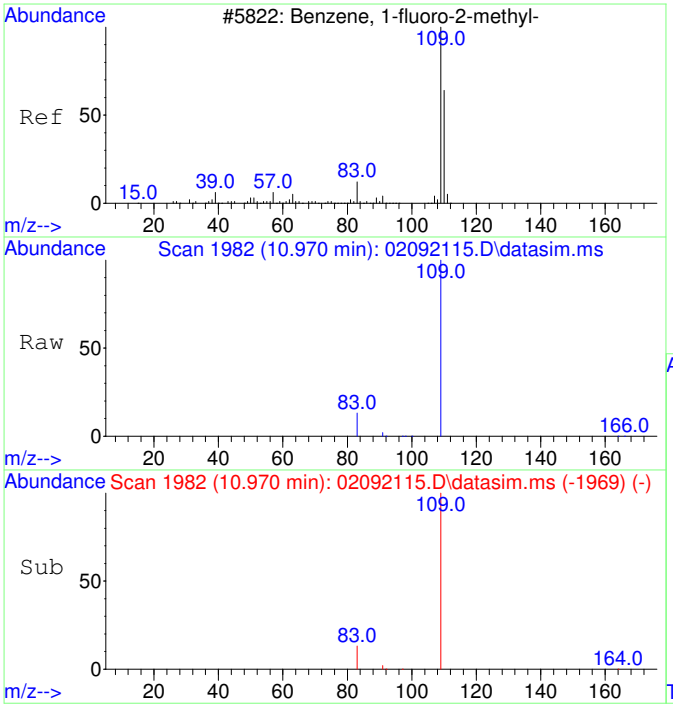
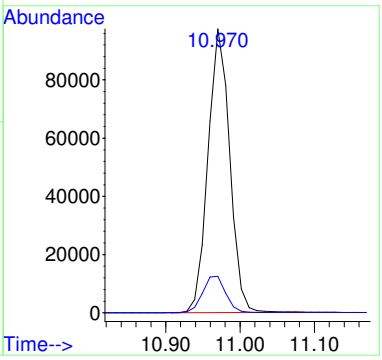
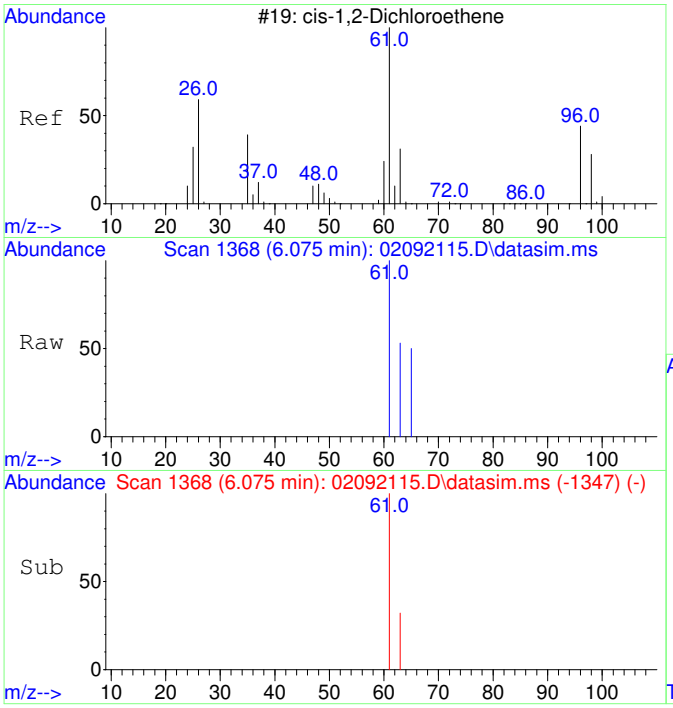


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion:109 Resp: 197236

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

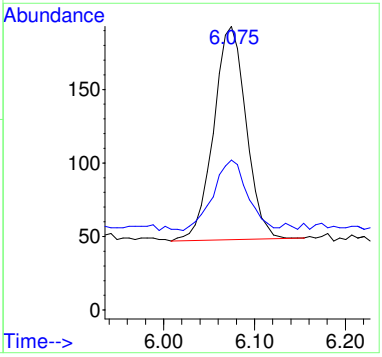


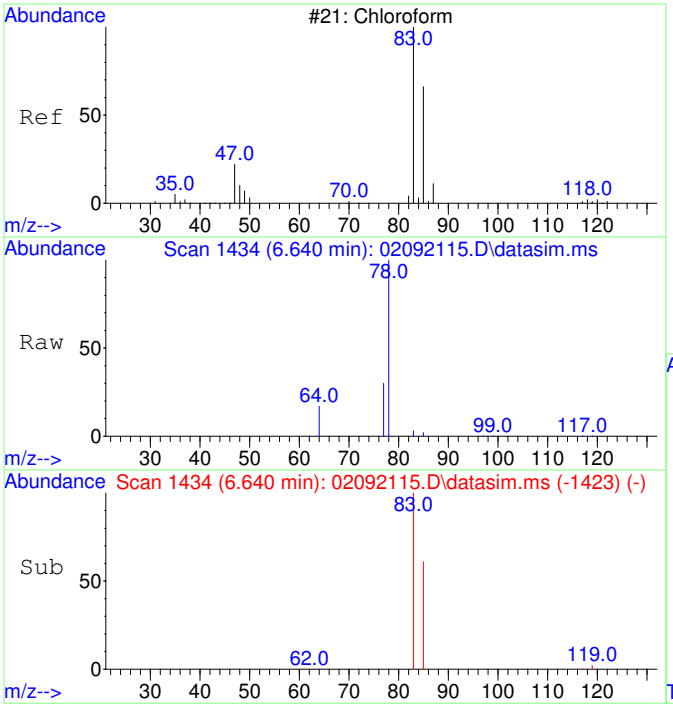


#5
cis-1,2-Dichloroethene
Concen: 29.60 ug/L
RT: 6.075 min Scan# 1368
Delta R.T. -0.013 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 61 Resp: 361

Ion	Ratio	Lower	Upper
61	100		
63	34.9	2.5	62.5

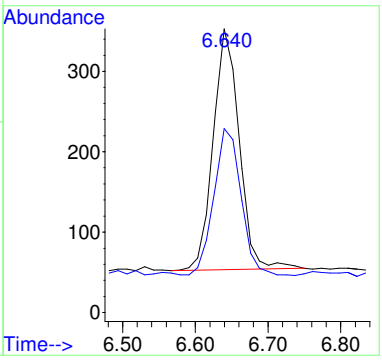


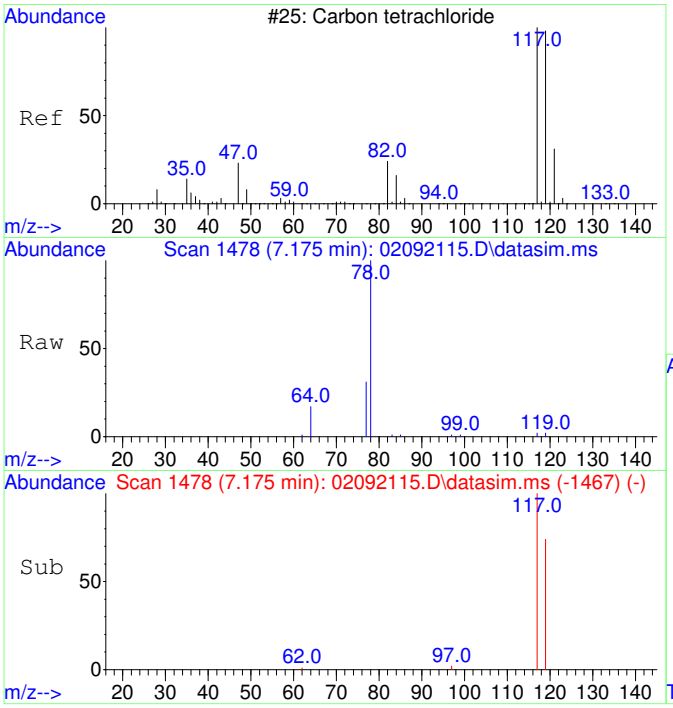


#6
Chloroform
Concen: 63.85 ug/L
RT: 6.640 min Scan# 1434
Delta R.T. -0.012 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 83 Resp: 748

Ion	Ratio	Lower	Upper
83	100		
85	63.2	35.1	95.1

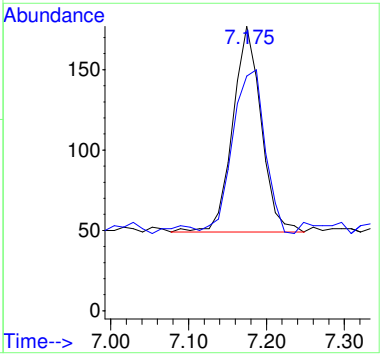


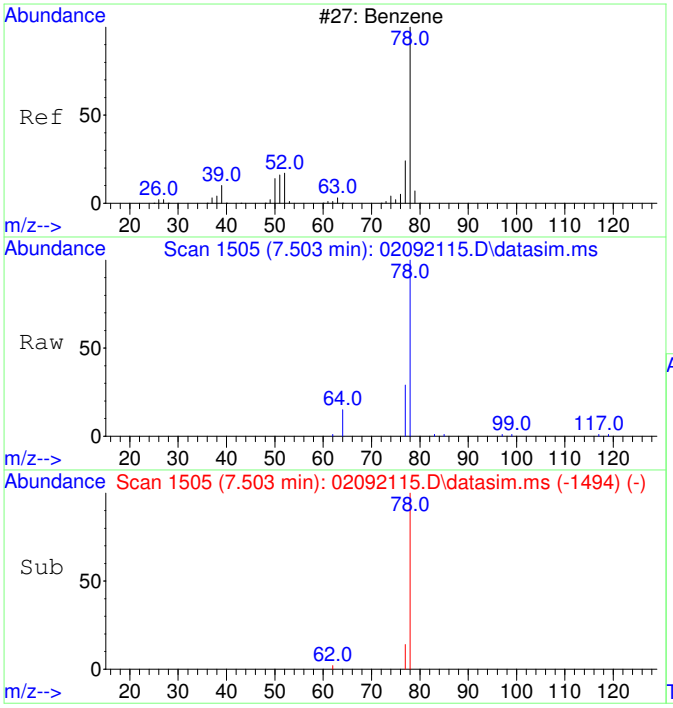


#8
Carbon tetrachloride
Concen: 27.01 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion:117 Resp: 325

Ion	Ratio	Lower	Upper
117	100		
119	91.1	66.4	126.4

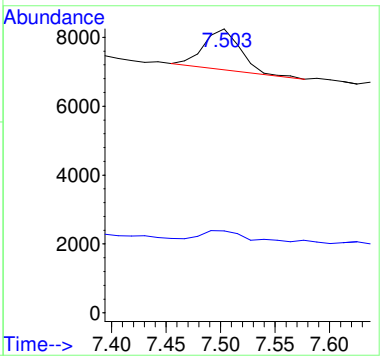


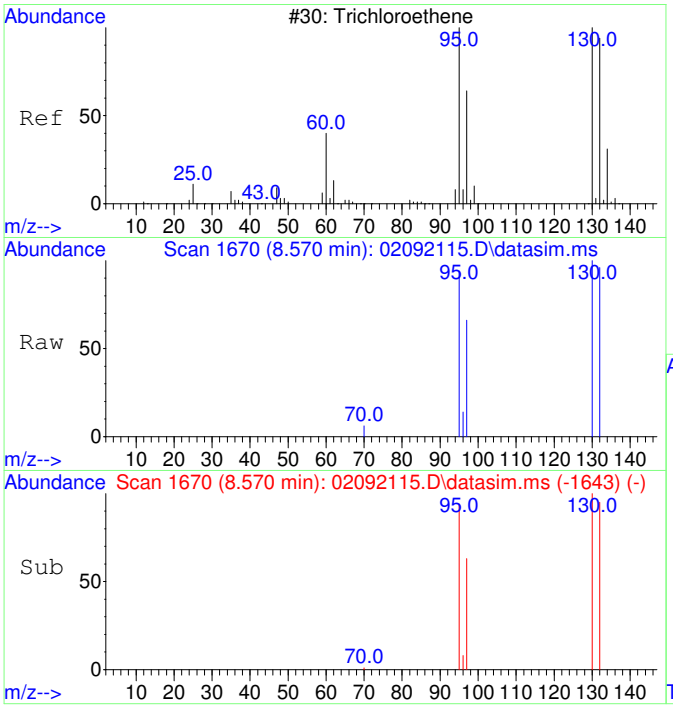


#9
Benzene
Concen: 78.07 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 78 Resp: 2591

Ion	Ratio	Lower	Upper
78	100		
77	49.9	0.0	53.2

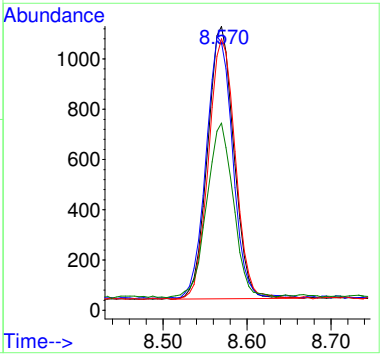


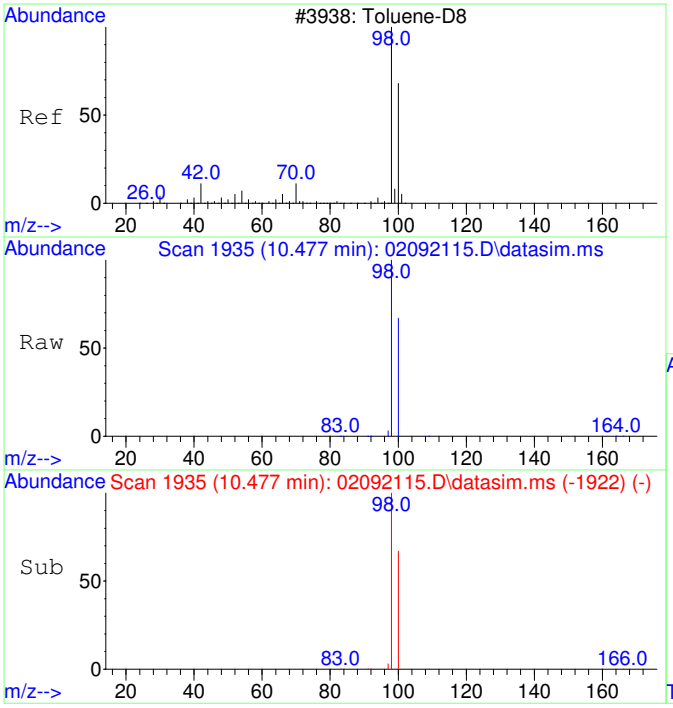


#11
Trichloroethene
Concen: 224.26 ug/L
RT: 8.570 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion:130 Resp: 2350

Ion	Ratio	Lower	Upper
130	100		
95	95.4	60.7	120.7
132	96.5	76.0	116.0
97	64.7	38.6	78.6

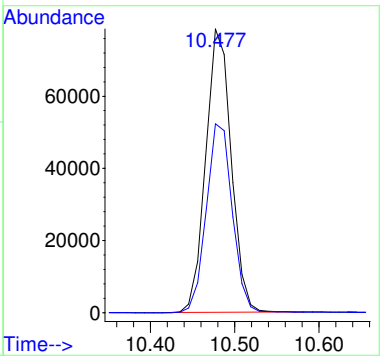


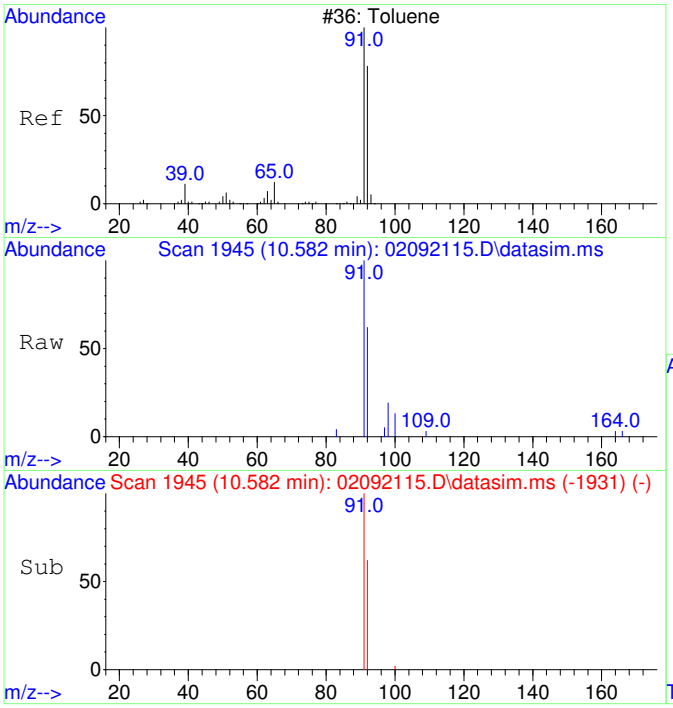


#12
Toluene-d8
Concen: 4323.57 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 98 Resp: 165159

Ion	Ratio	Lower	Upper
98	100		
100	67.8	37.1	97.1

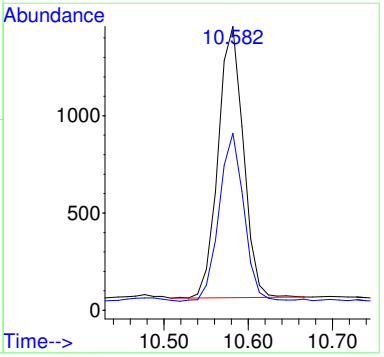


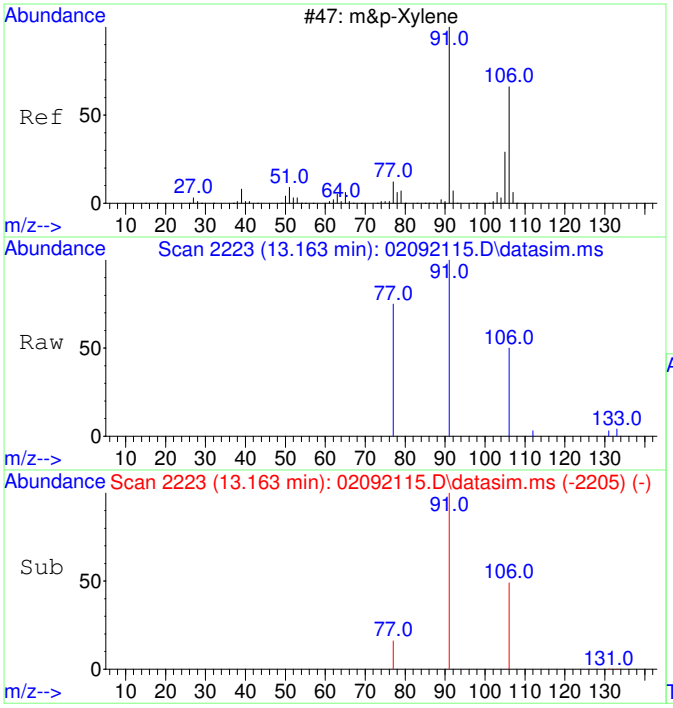


#13
Toluene
Concen: 60.95 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 91 Resp: 2899

Ion	Ratio	Lower	Upper
91	100		
92	60.2	29.9	89.9

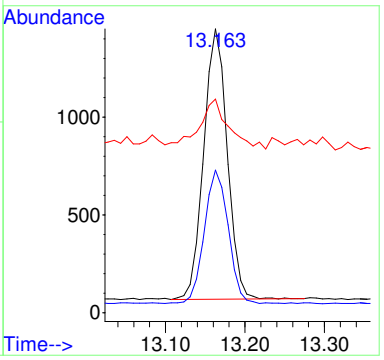


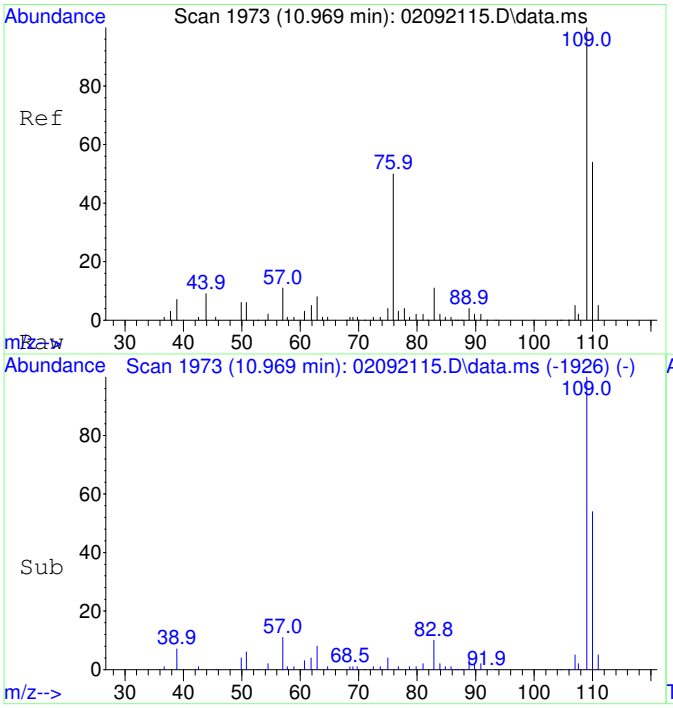


#19
m&p-Xylene
Concen: 60.90 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 91 Resp: 2849

Ion	Ratio	Lower	Upper
91	100		
106	49.9	22.2	82.2
77	19.0	0.0	42.4

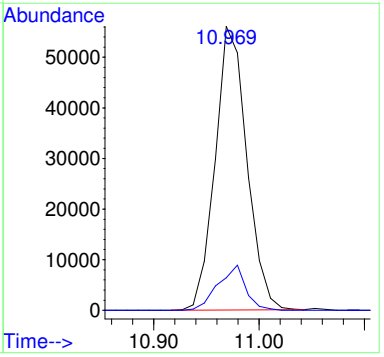


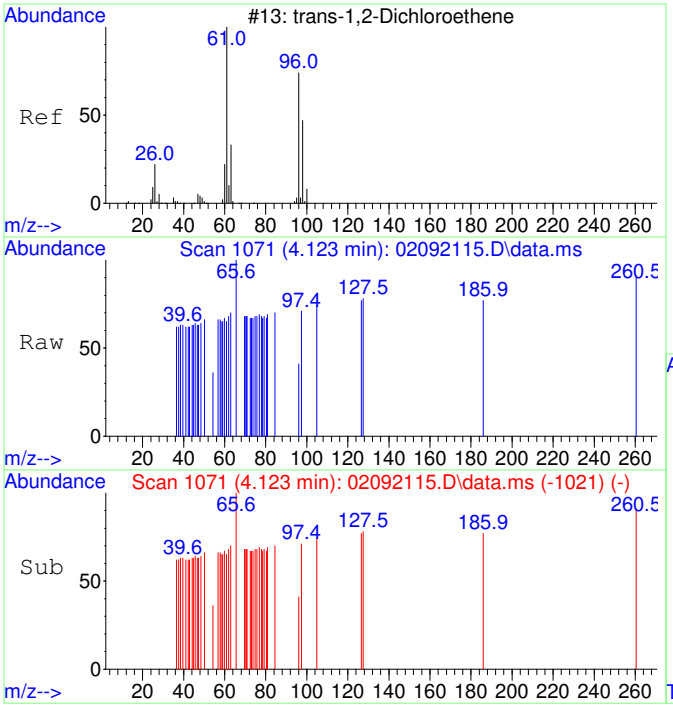


#25
2-Fluorotoluene SCAN
Concen: 5238.99 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion:109 Resp: 117292

Ion	Ratio	Lower	Upper
109	100		
83	13.9	0.0	43.8

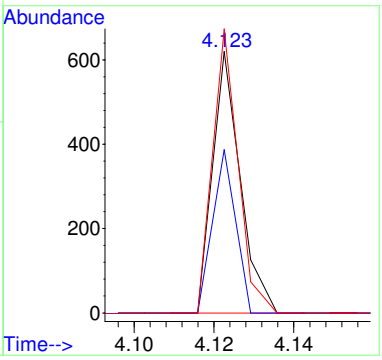


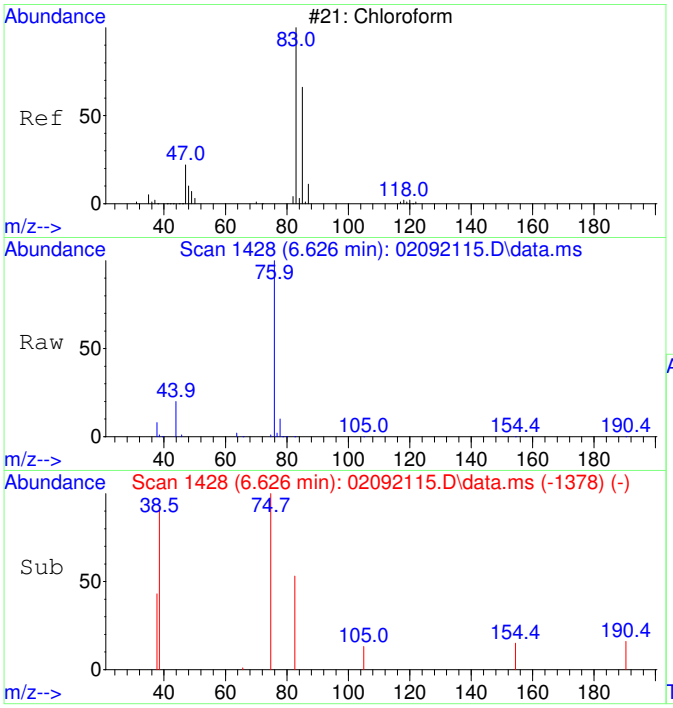


#27
trans-1,2-Dichloroethene SCAN
Concen: 44.61 ug/L
RT: 4.123 min Scan# 1071
Delta R.T. -0.259 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 61 Resp: 297

Ion	Ratio	Lower	Upper
61	100		
96	51.9	49.0	109.0
98	100.3	20.5	80.5#

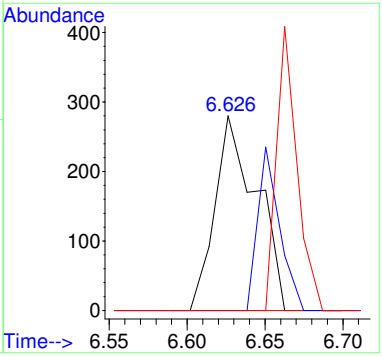


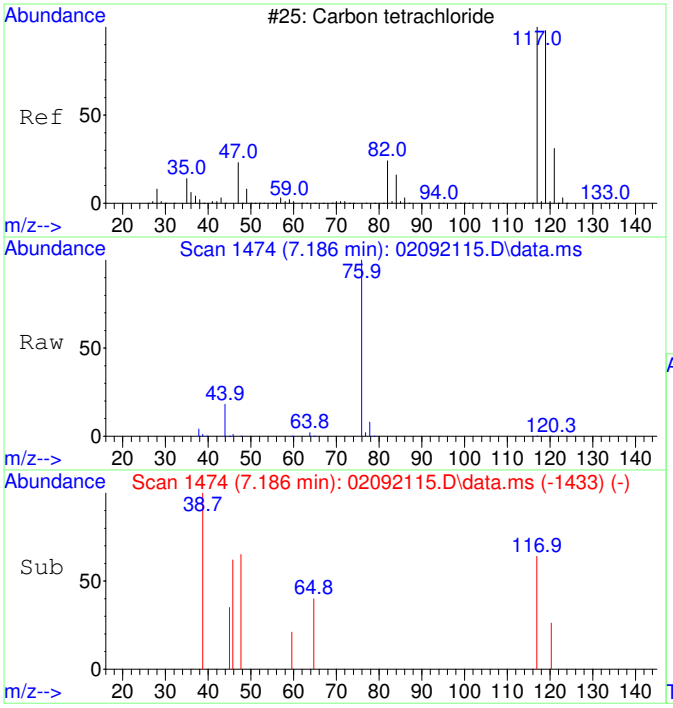


#30
Chloroform SCAN
Concen: 72.45 ug/L
RT: 6.626 min Scan# 1428
Delta R.T. -0.036 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 83 Resp: 522

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

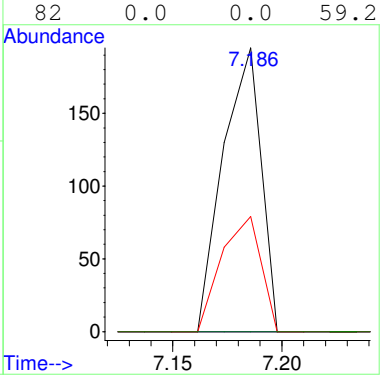


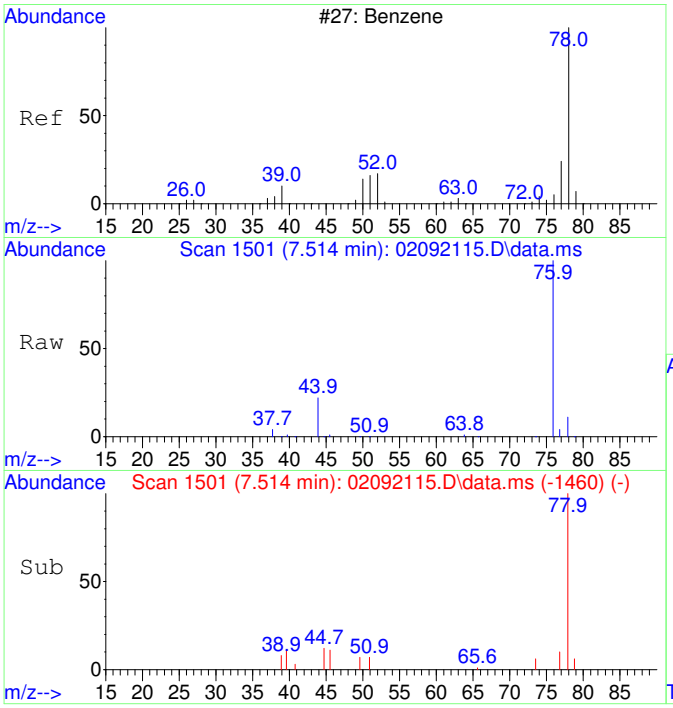


#32
Carbon tetrachloride SCAN
Concen: 37.30 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion:117 Resp: 237

Ion	Ratio	Lower	Upper
117	100		
119	0.0	75.5	135.5#
121	42.2	0.0	58.8
82	0.0	0.0	59.2

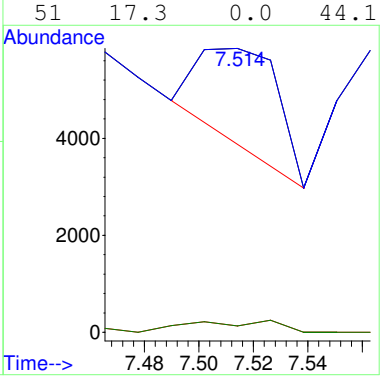


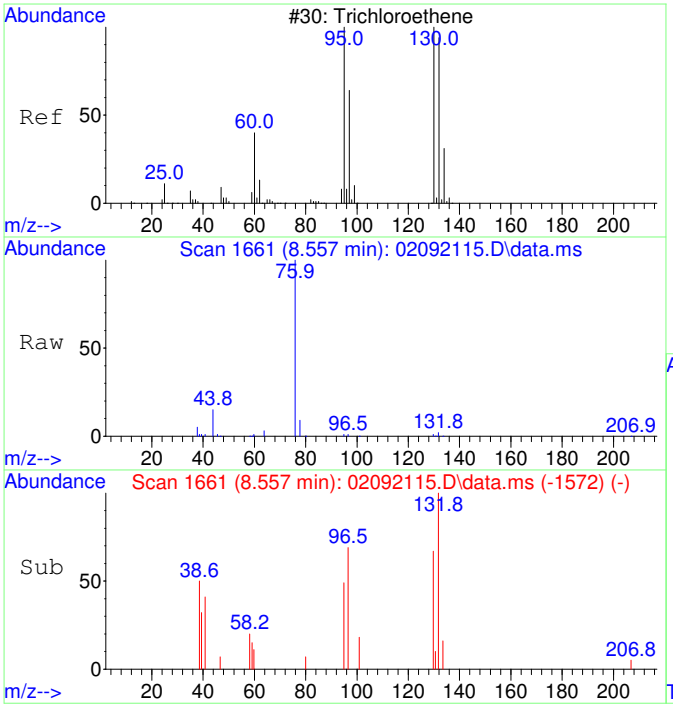


#33
Benzene SCAN
Concen: 154.49 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 78 Resp: 3475

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	17.3	0.0	47.9
51	17.3	0.0	44.1

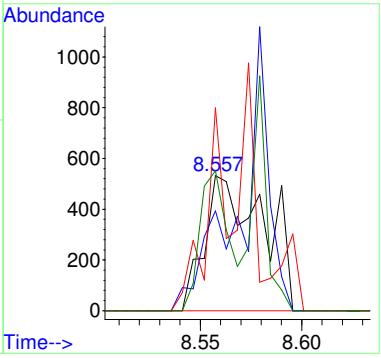


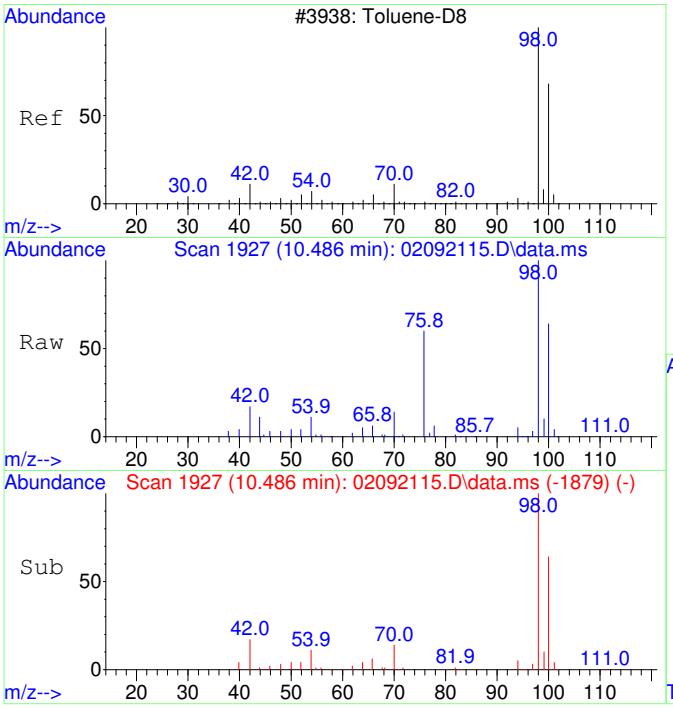


#35
Trichloroethene SCAN
Concen: 219.59 ug/L
RT: 8.557 min Scan# 1661
Delta R.T. -0.016 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion:130 Resp: 1077

Ion	Ratio	Lower	Upper
130	100		
95	15.8	60.5	120.5#
132	26.2	59.6	119.6#
97	36.7	28.2	88.2

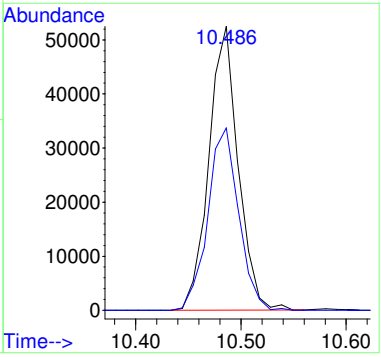


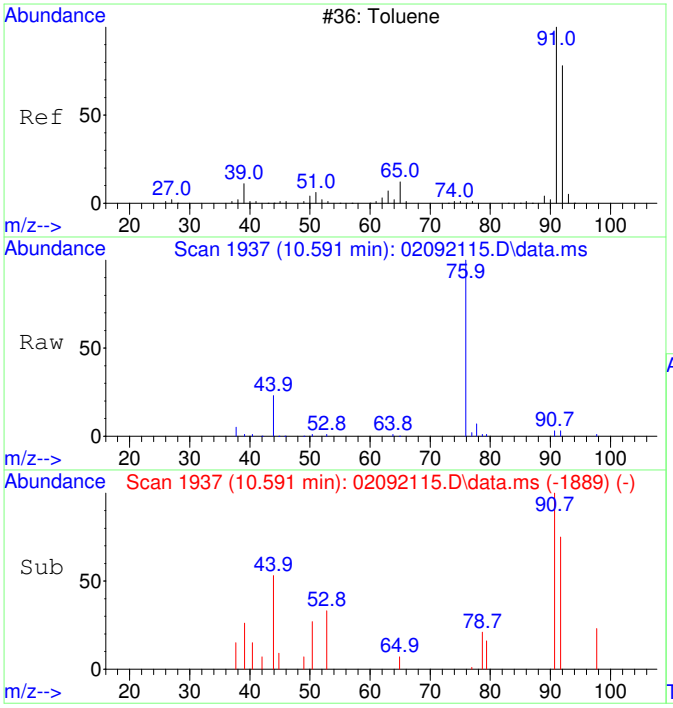


#36
Toluene-d8 SCAN
Concen: 4844.32 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 98 Resp: 101720

Ion	Ratio	Lower	Upper
98	100		
100	67.6	40.0	100.0

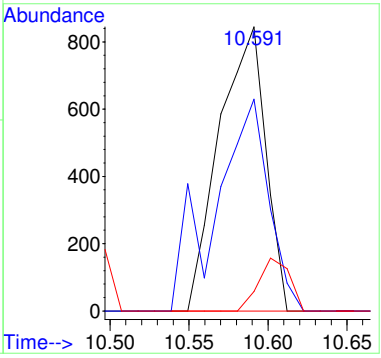


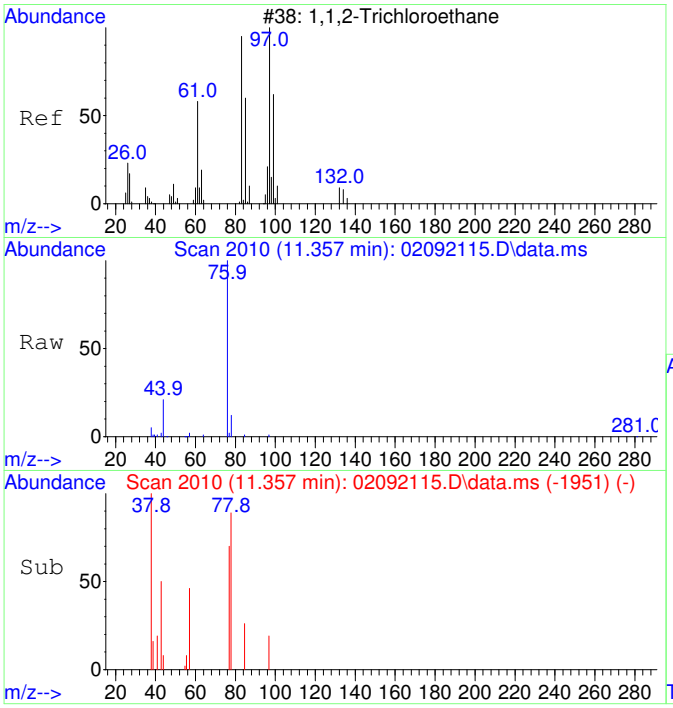


#37
Toluene SCAN
Concen: 66.76 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.000 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 91 Resp: 1726

Ion	Ratio	Lower	Upper
91	100		
92	86.0	28.3	88.3
65	12.5	0.0	41.0

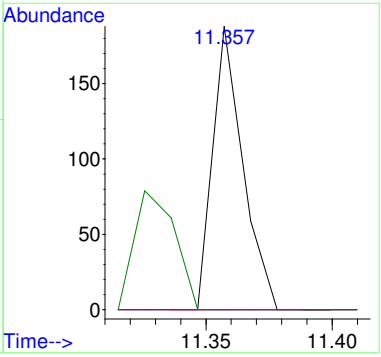


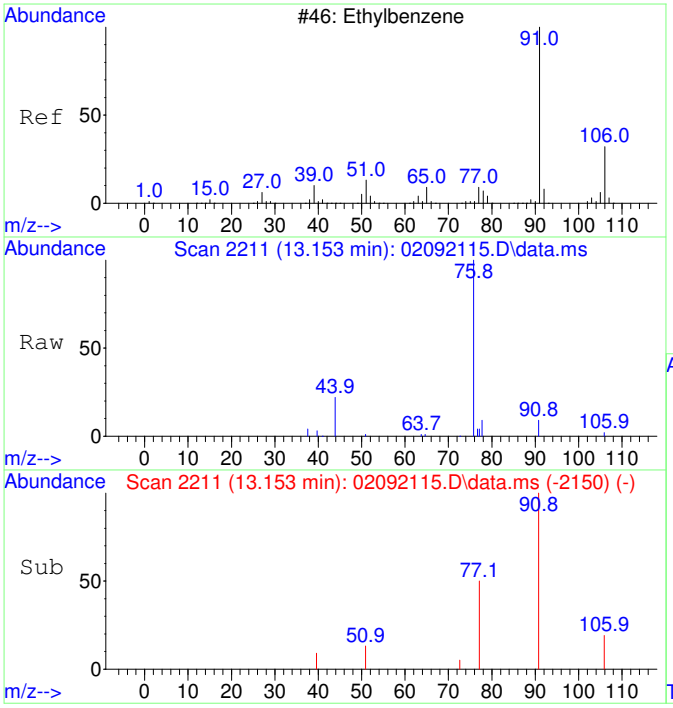


#38
1,1,2-Trichloroethane SCAN
Concen: 24.07 ug/L
RT: 11.357 min Scan# 2010
Delta R.T. 0.116 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 97 Resp: 156

Ion	Ratio	Lower	Upper
97	100		
83	0.0	57.7	117.7#
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

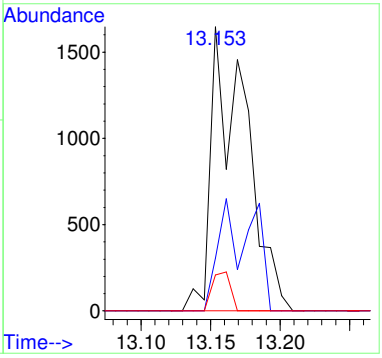


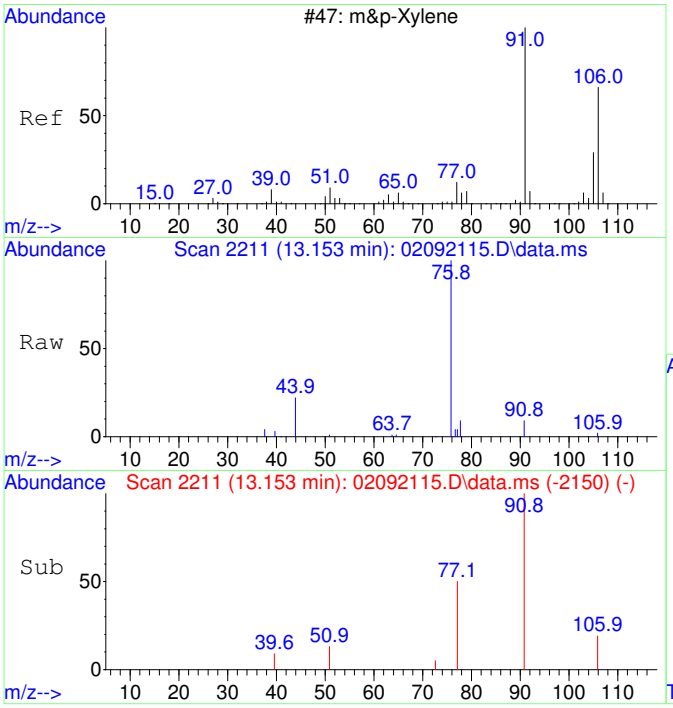


#42
Ethylbenzene SCAN
Concen: 59.09 ug/L
RT: 13.153 min Scan# 2211
Delta R.T. -0.016 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 91 Resp: 2911

Ion	Ratio	Lower	Upper
91	100		
106	37.5	23.1	83.1
51	7.1	0.0	40.1

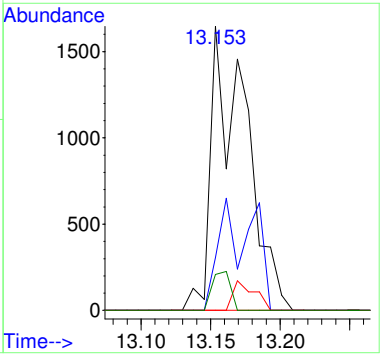




#43
m&p-Xylene SCAN
Concen: 59.09 ug/L
RT: 13.153 min Scan# 2211
Delta R.T. -0.016 min
Lab File: 02092115.D
Acq: 9 Feb 2021 15:19

Tgt Ion: 91 Resp: 2911

Ion	Ratio	Lower	Upper
91	100		
106	37.5	23.1	83.1
105	6.3	0.0	54.7
51	7.1	0.0	40.1



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory
SDG: 21039B
Client: California Site Cleanup Section 3
Project: MEW OU1 FY2021 Vapor Intrusion Investigation
Instrument ID: AG5975CV
Calibration: 2012007
Sequence: S21B025

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B21B038-MRL1	1,1-Dichloroethene	0.131	0.093	71	ug/m³ Air	50 - 150
	trans-1,2-Dichloroethene	0.160	0.112	70	ug/m³ Air	50 - 150
	1,1-Dichloroethane	0.157	0.108	69	ug/m³ Air	50 - 150
	cis-1,2-Dichloroethene	0.160	0.114	71	ug/m³ Air	50 - 150
	Chloroform	0.132	0.109	82	ug/m³ Air	50 - 150
	Trichloroethene	0.144	0.114	79	ug/m³ Air	50 - 150
	Tetrachloroethene	0.168	0.144	85	ug/m³ Air	50 - 150
	Toluene-d8	992	860	87	ug/m³ Air	86 - 118

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

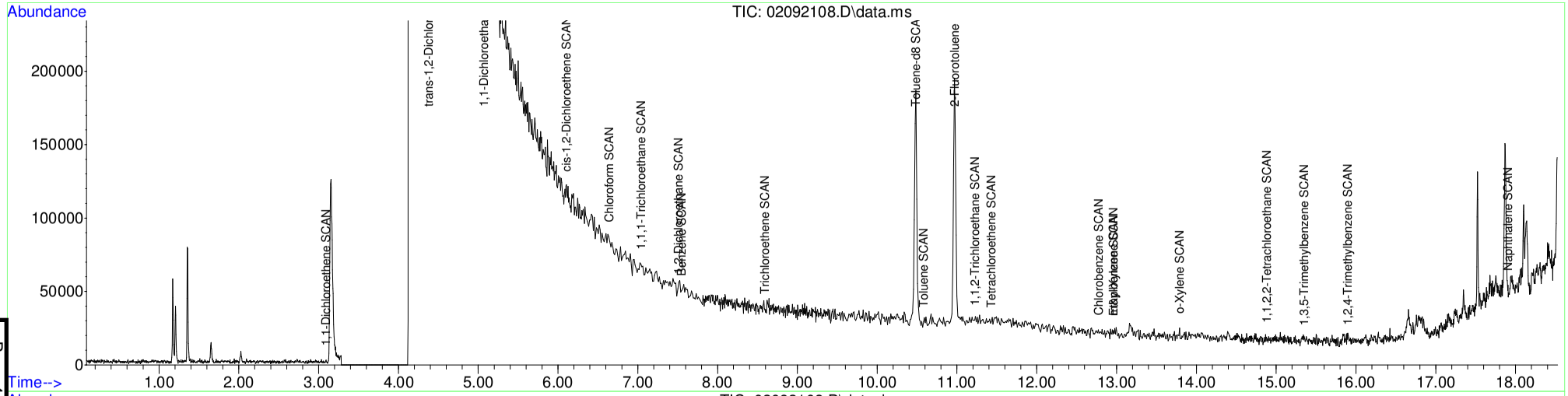
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	218554	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.477	98	183575	4336.91 ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.74%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.094	61	592	68.31 ug/L #	25
3] trans-1,2-Dichloroethene	4.376	61	381	34.87 ug/L	68
4] 1,1-Dichloroethane	5.086	63	448	34.33 ug/L	84
5] cis-1,2-Dichloroethene	6.088	61	483	35.74 ug/L	100
6] Chloroform	6.652	83	534	41.14 ug/L	99
7] 1,1,1-Trichloroethane	6.907	97	566	40.59 ug/L	97
8] Carbon tetrachloride	7.187	117	525	39.38 ug/L	94
9] Benzene	7.503	78	3551	96.56 ug/L	73
10] 1,2-Dichloroethane	7.552	62	529	42.16 ug/L #	31
11] Trichloroethene	8.569	130	461	39.70 ug/L	95
13] Toluene	10.582	91	2494	47.32 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	484	39.65 ug/L	70
15] Tetrachloroethene	11.432	166	701	42.70 ug/L	98
16] Chlorobenzene	12.765	112	1670	40.90 ug/L	65
17] 1,1,1,2-Tetrachloroethane	12.916	131	589	41.22 ug/L	99
18] Ethylbenzene	12.972	91	3187	47.34 ug/L	97
19] m&p-Xylene	13.163	91	5850	112.85 ug/L	96
20] o-Xylene	13.782	91	2542	45.66 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	1035	39.90 ug/L	98
22] 1,3,5-Trimethylbenzene	15.345	105	2847	46.50 ug/L	100
23] 1,2,4-Trimethylbenzene	15.901	105	3254	51.96 ug/L	89
24] Naphthalene	17.903	128	581	5.73 ug/L #	68
25) 2-Fluorotoluene SCAN	10.969	109	131343	5294.36 ug/L	99
26) 1,1-Dichloroethene SCAN	3.092	61	52	8.98 ug/L #	25
27) trans-1,2-Dichloroethe...	4.381	61	150	20.33 ug/L #	17
28) 1,1-Dichloroethane SCAN	5.071	63	107	12.29 ug/L #	33
29) cis-1,2-Dichloroethene...	6.100	61	318	37.15 ug/L #	1
30) Chloroform SCAN	6.638	83	338	42.34 ug/L #	27
31) 1,1,1-Trichloroethane ...	7.040	97	155	18.81 ug/L #	19
33) Benzene SCAN	7.551	78	3893	156.19 ug/L #	91
34) 1,2-Dichloroethane SCAN	7.502	62	237	30.40 ug/L #	40
35) Trichloroethene SCAN	8.585	130	237	43.61 ug/L #	9
36) Toluene-d8 SCAN	10.486	98	106622	4582.48 ug/L	99
37) Toluene SCAN	10.581	91	2679	93.52 ug/L #	58
38) 1,1,2-Trichloroethane ...	11.221	97	297	41.36 ug/L #	43
39) Tetrachloroethene SCAN	11.431	166	203	31.50 ug/L #	30
40) Chlorobenzene SCAN	12.772	112	804	39.07 ug/L #	32
42) Ethylbenzene SCAN	12.963	91	2047	37.50 ug/L	69
43) m&p-Xylene SCAN	12.963	91	2047	37.50 ug/L	66
44) o-Xylene SCAN	13.789	91	1809	60.68 ug/L	77
45) 1,1,2,2-Tetrachloroeth...	14.876	83	418	26.97 ug/L #	89
46) 1,3,5-Trimethylbenzene...	15.344	105	1041	33.10 ug/L	96
47) 1,2,4-Trimethylbenzene...	15.895	105	921	28.66 ug/L #	71
48) Naphthalene SCAN	17.905	128	741	15.36 ug/L	72

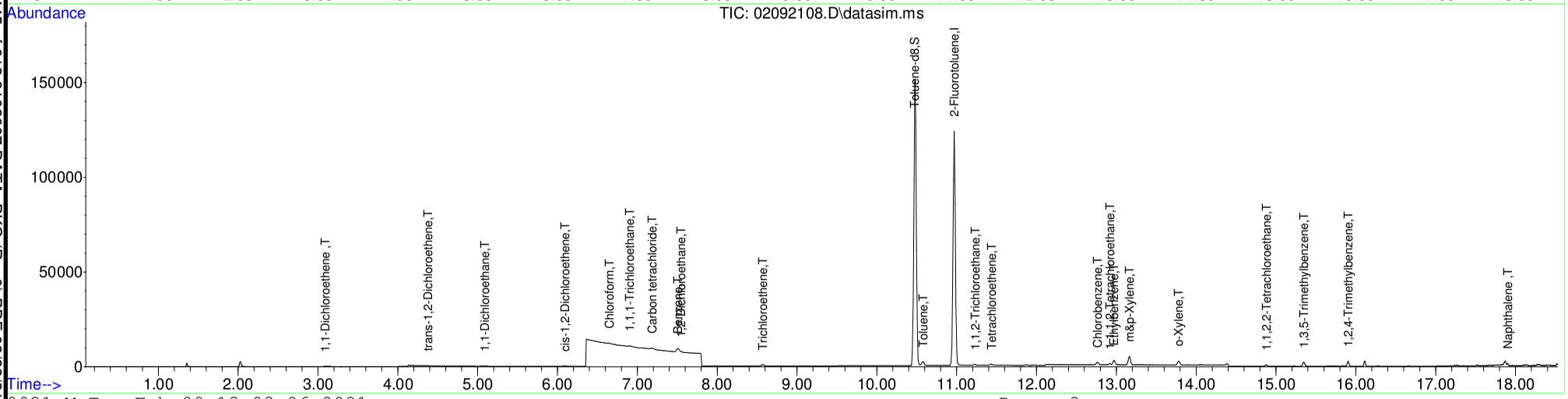
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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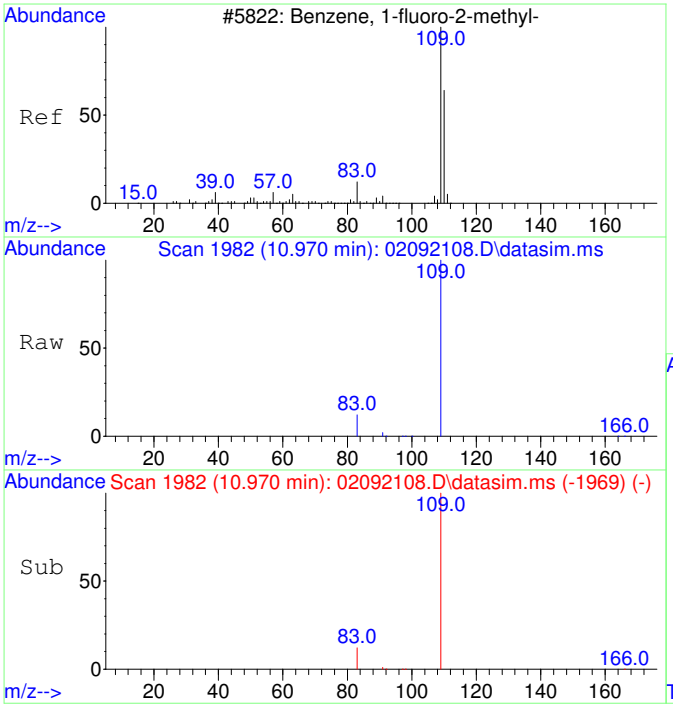
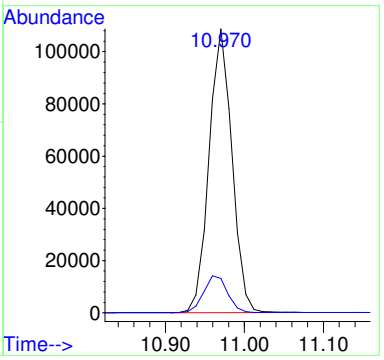
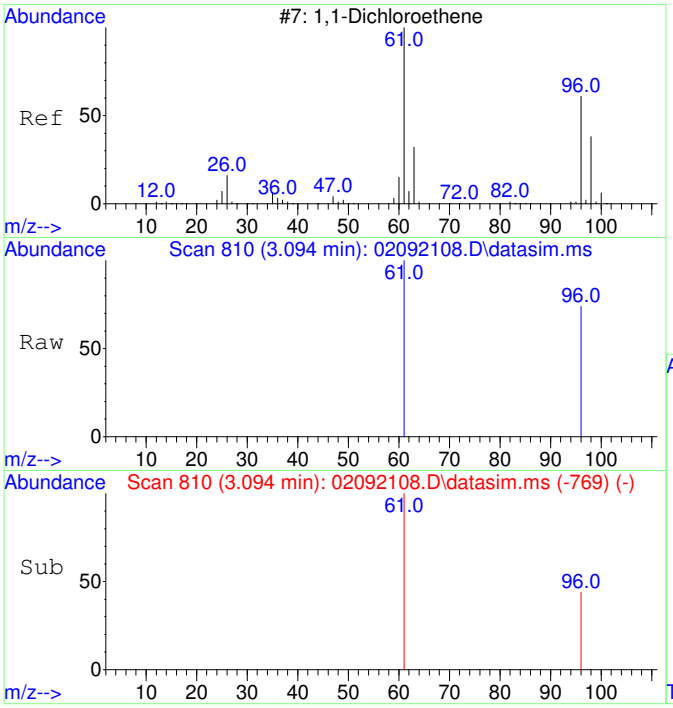


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 218554

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

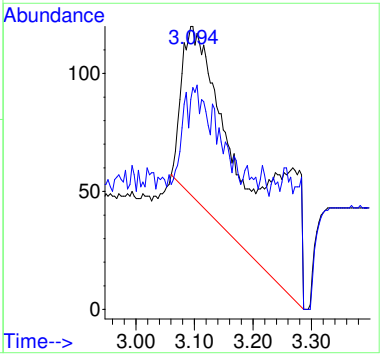




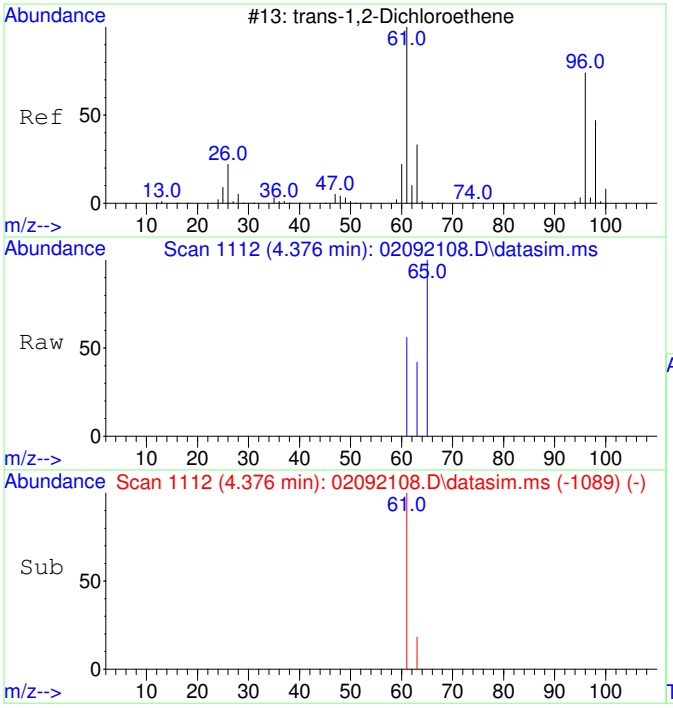
#2
1,1-Dichloroethene
Concen: 68.31 ug/L
RT: 3.094 min Scan# 810
Delta R.T. 0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 592

Ion	Ratio	Lower	Upper
61	100		
96	6.6	37.2	97.2#



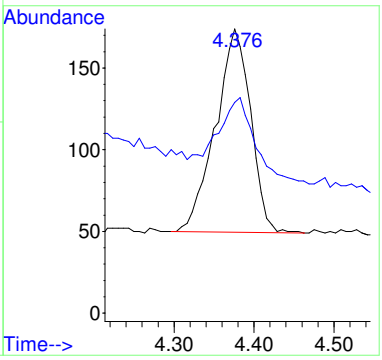
Before MI:
IMPROPER
BASELINE

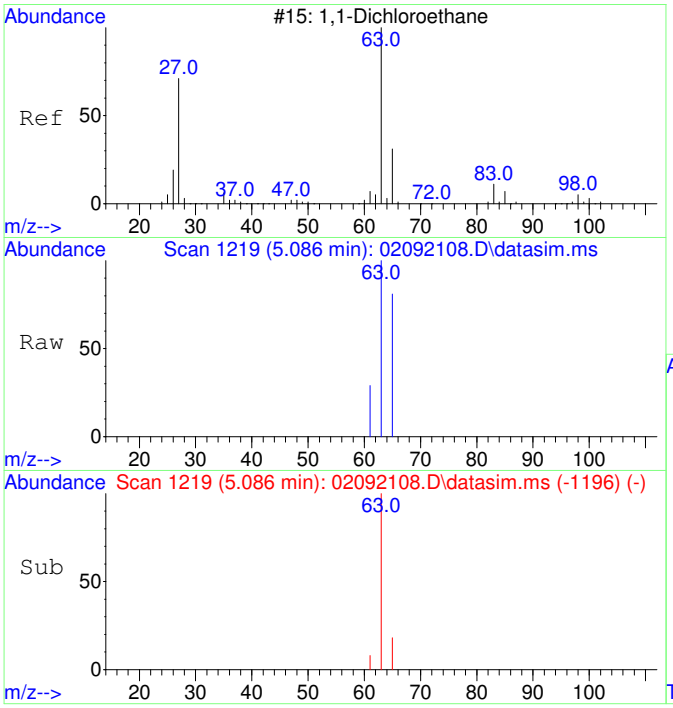


#3
trans-1,2-Dichloroethene
Concen: 34.87 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 381

Ion	Ratio	Lower	Upper
61	100		
63	50.1	2.4	62.4

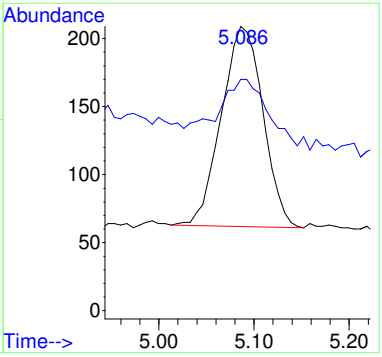


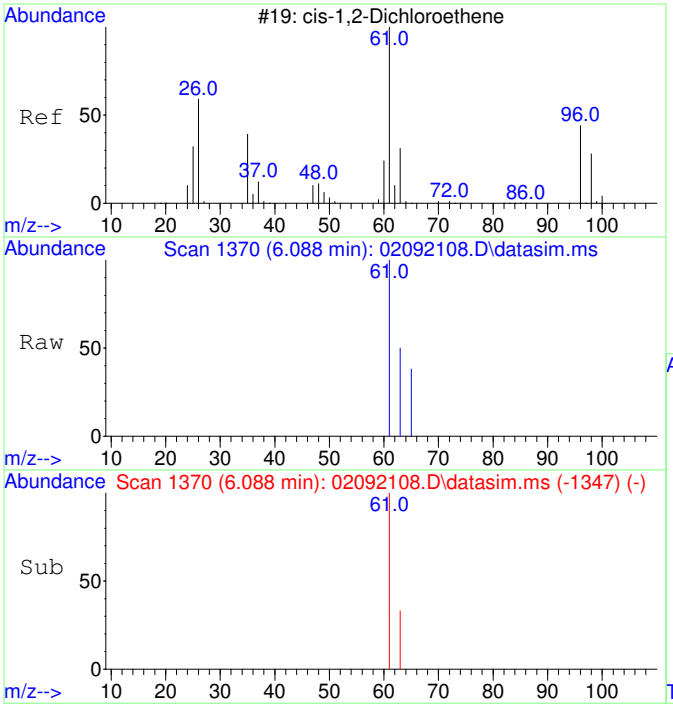


#4
1,1-Dichloroethane
Concen: 34.33 ug/L
RT: 5.086 min Scan# 1219
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 448

Ion	Ratio	Lower	Upper
63	100		
65	40.8	1.8	61.8

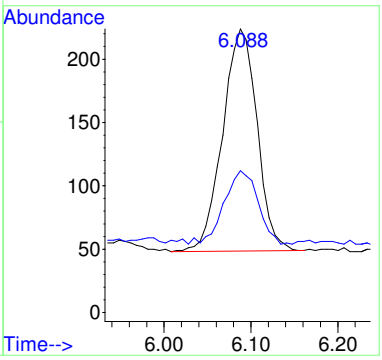


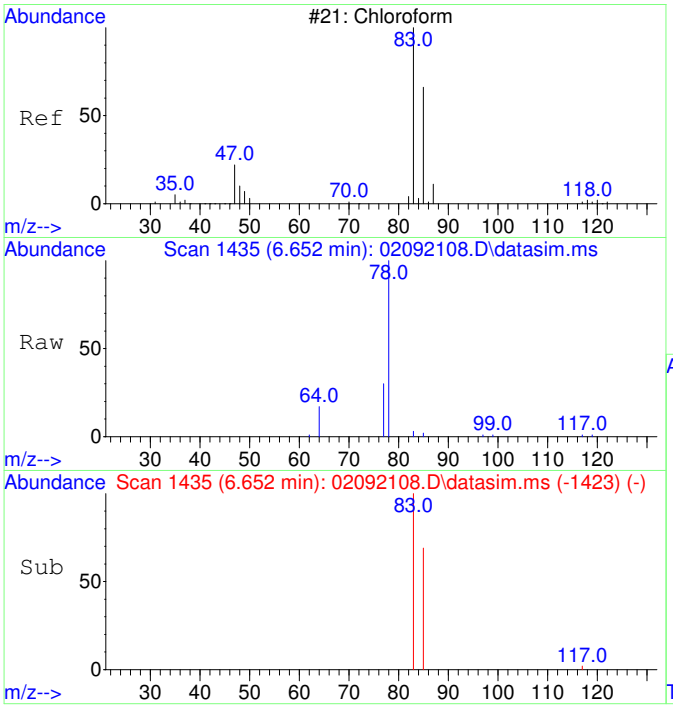


#5
cis-1,2-Dichloroethene
Concen: 35.74 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 483

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.5	62.5

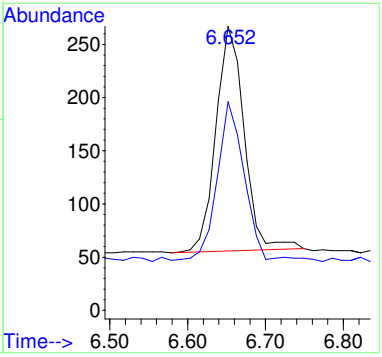


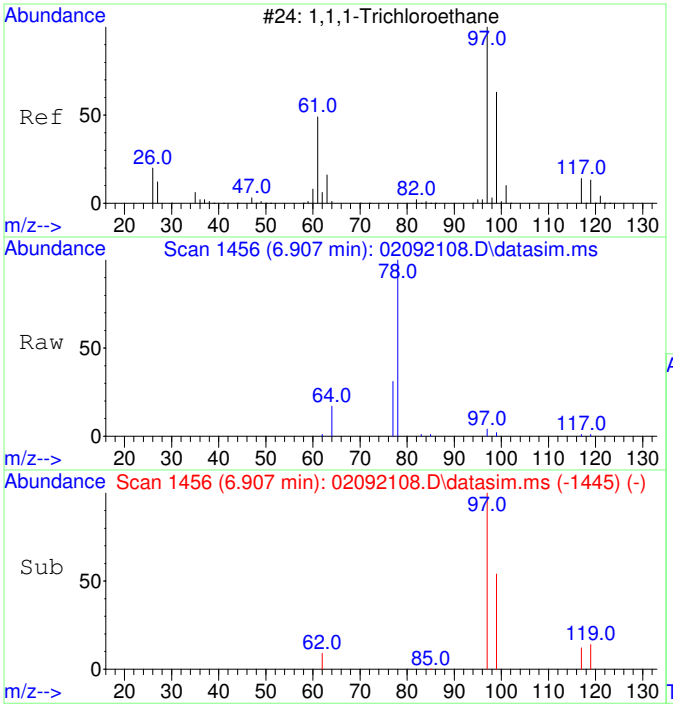


#6
Chloroform
Concen: 41.14 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 534

Ion	Ratio	Lower	Upper
83	100		
85	66.1	35.1	95.1

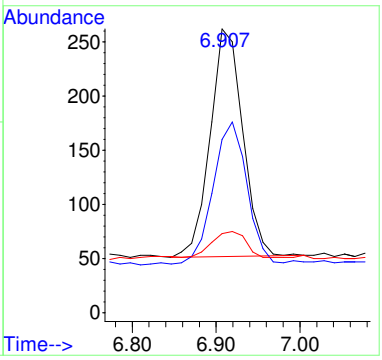


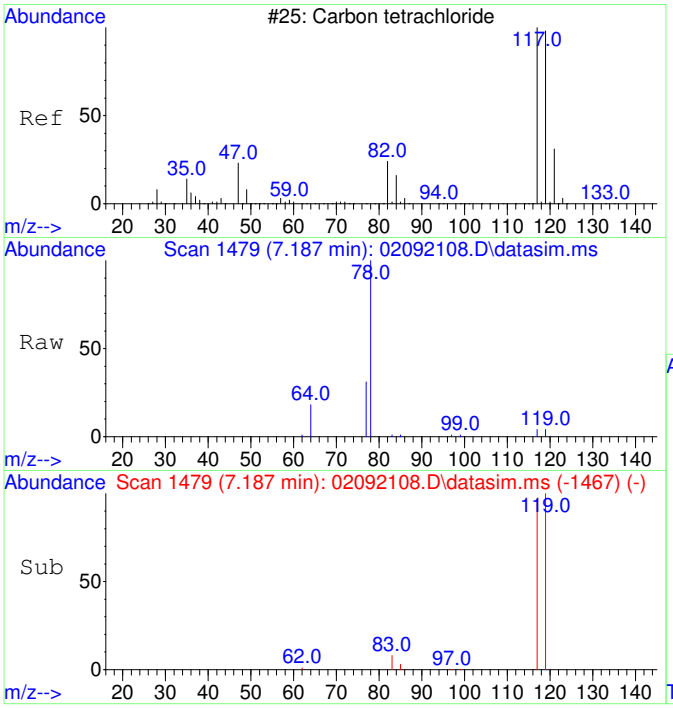


#7
1,1,1-Trichloroethane
Concen: 40.59 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 566

Ion	Ratio	Lower	Upper
97	100		
99	66.4	34.6	94.6
117	11.7	0.0	43.2

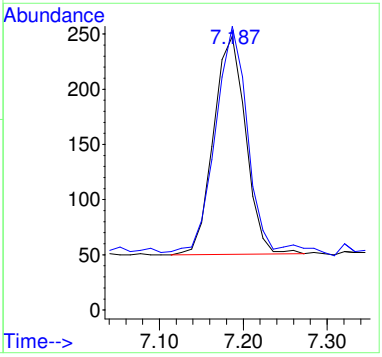


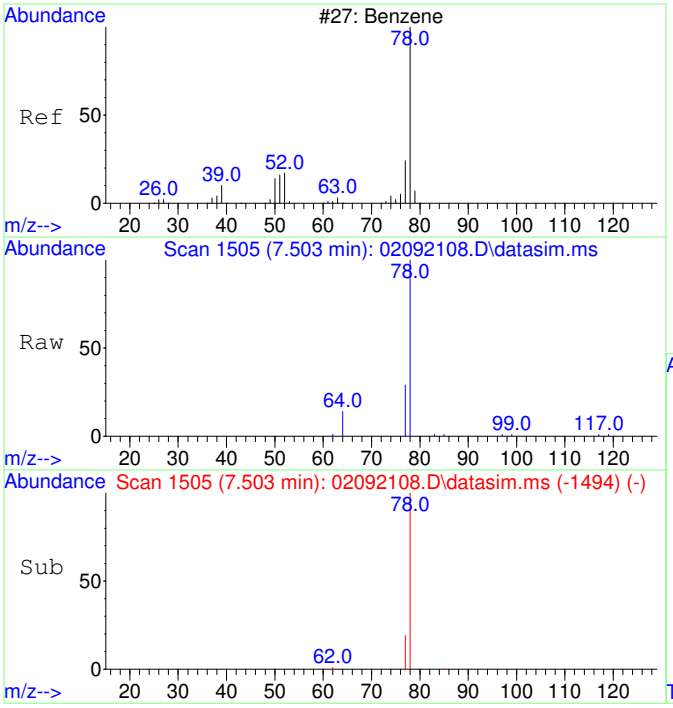


#8
Carbon tetrachloride
Concen: 39.38 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:117 Resp: 525

Ion	Ratio	Lower	Upper
117	100		
119	102.1	66.4	126.4

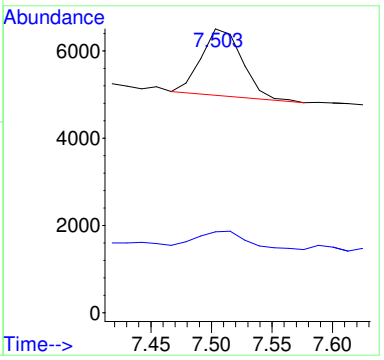


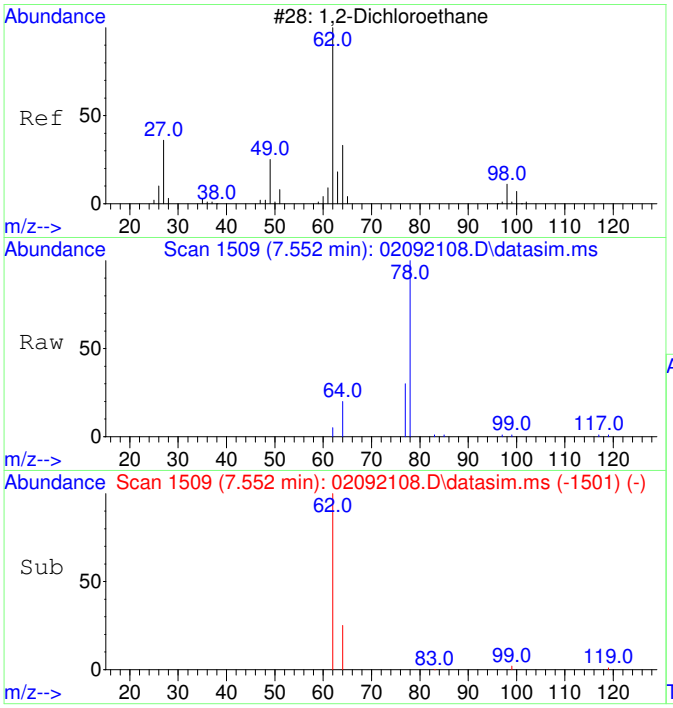


#9
Benzene
Concen: 96.56 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3551

Ion	Ratio	Lower	Upper
78	100		
77	36.1	0.0	53.2

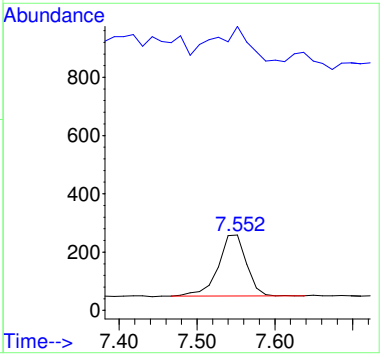


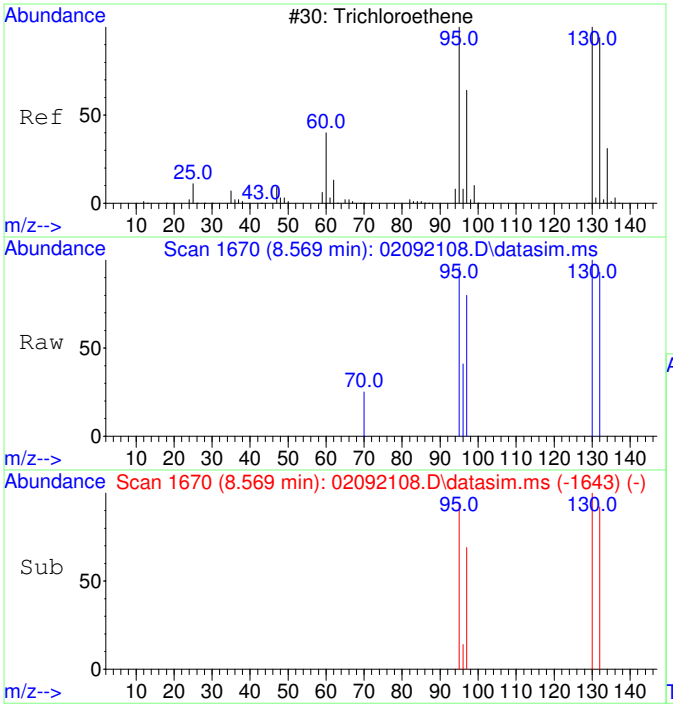


#10
1,2-Dichloroethane
Concen: 42.16 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 529

Ion	Ratio	Lower	Upper
62	100		
64	70.9	2.3	62.3#

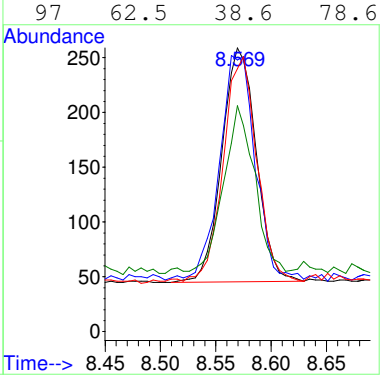


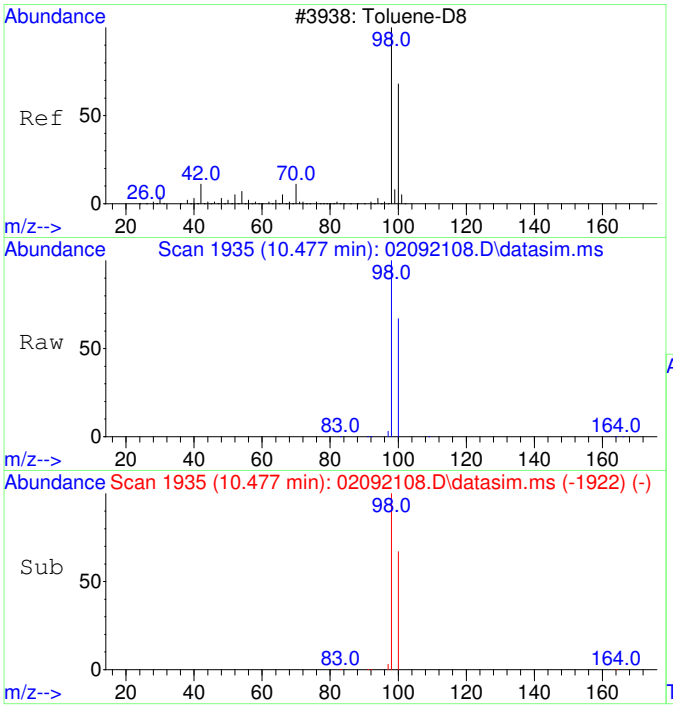


#11
Trichloroethene
Concen: 39.70 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 461

Ion	Ratio	Lower	Upper
130	100		
95	99.3	60.7	120.7
132	95.4	76.0	116.0
97	62.5	38.6	78.6

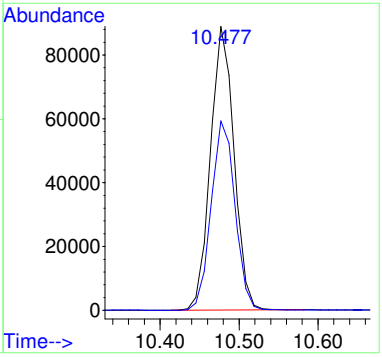


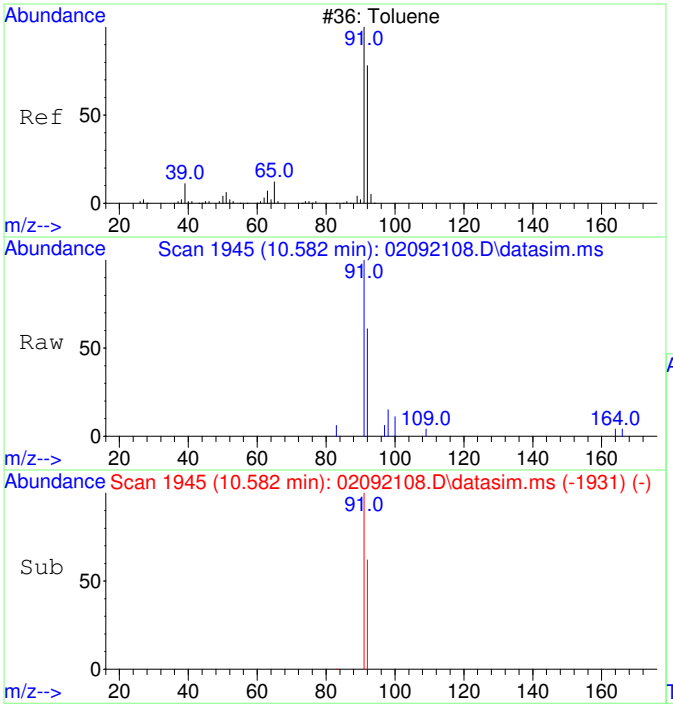


#12
Toluene-d8
Concen: 4336.91 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 183575

Ion	Ratio	Lower	Upper
98	100		
100	67.5	37.1	97.1

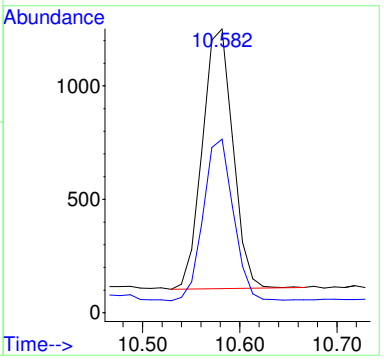


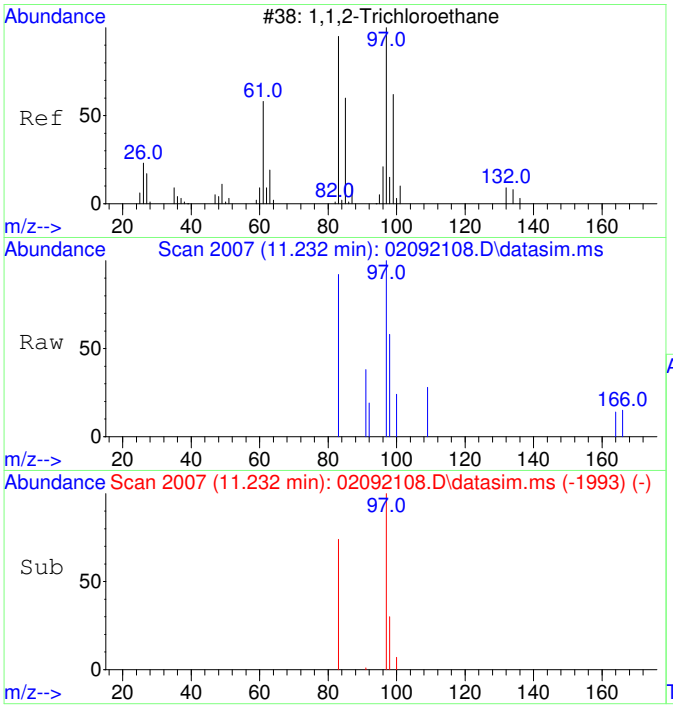


#13
Toluene
Concen: 47.32 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2494

Ion	Ratio	Lower	Upper
91	100		
92	60.4	29.9	89.9

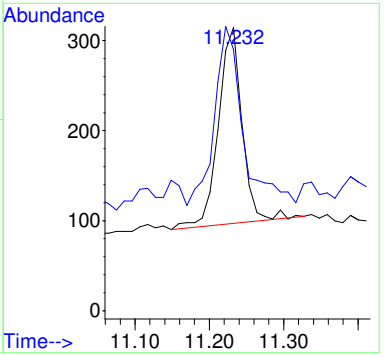


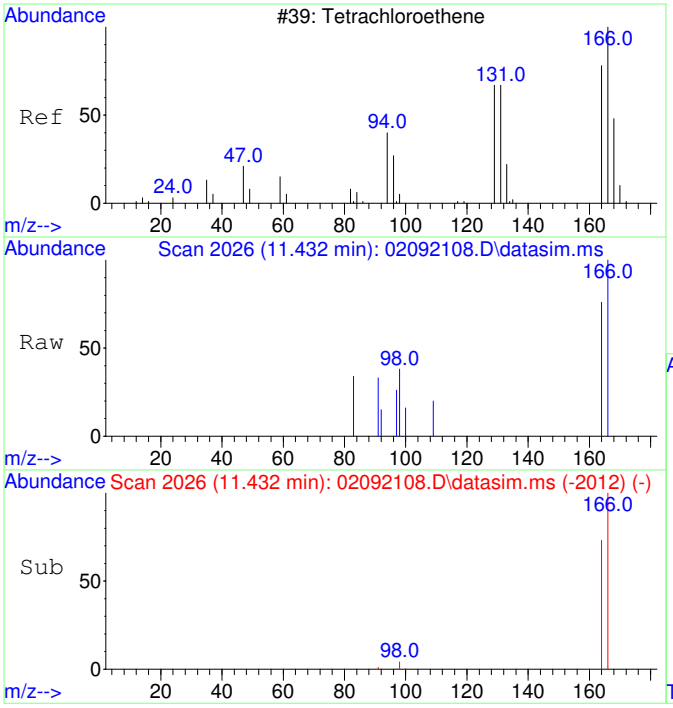


#14
1,1,2-Trichloroethane
Concen: 39.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 484

Ion	Ratio	Lower	Upper
97	100		
83	108.1	51.2	111.2

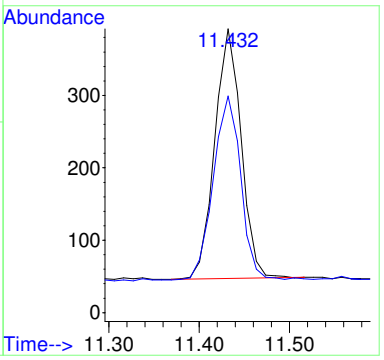


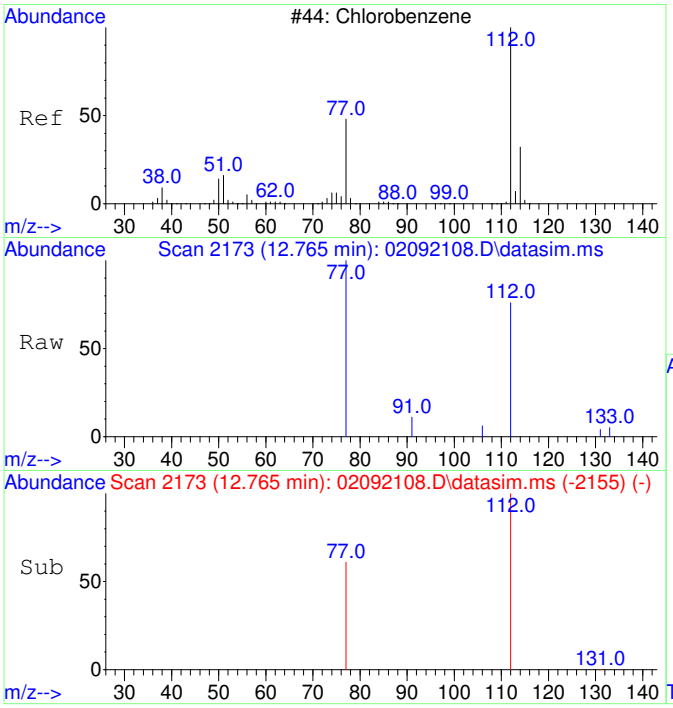


#15
Tetrachloroethene
Concen: 42.70 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 701

Ion	Ratio	Lower	Upper
166	100		
164	76.3	47.8	107.8

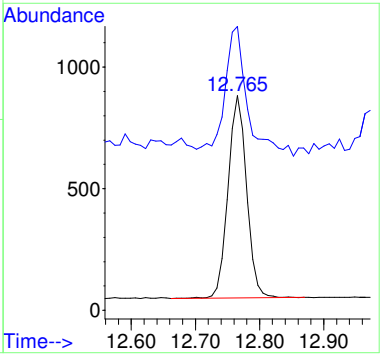


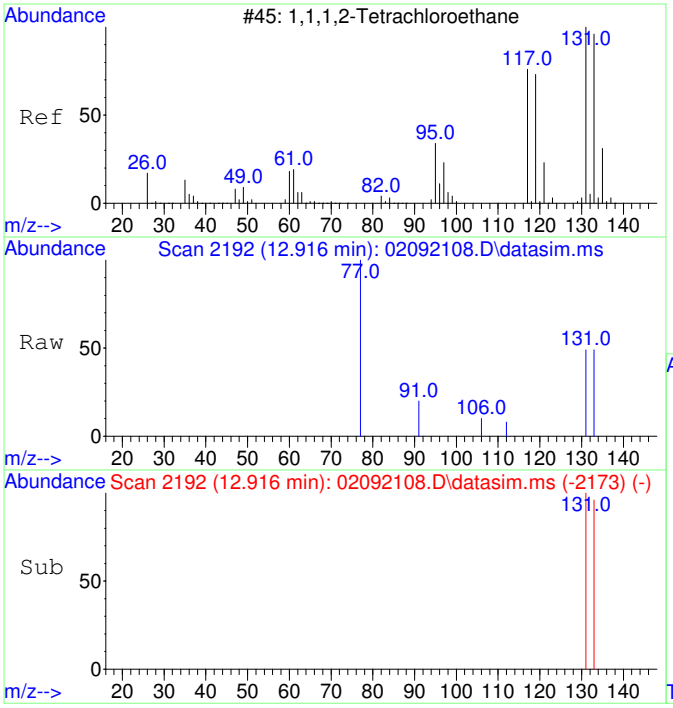


#16
Chlorobenzene
Concen: 40.90 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 1670

Ion	Ratio	Lower	Upper
112	100		
77	78.9	23.6	83.6

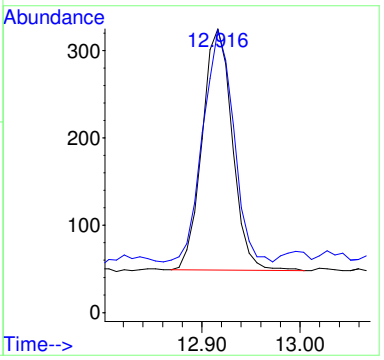


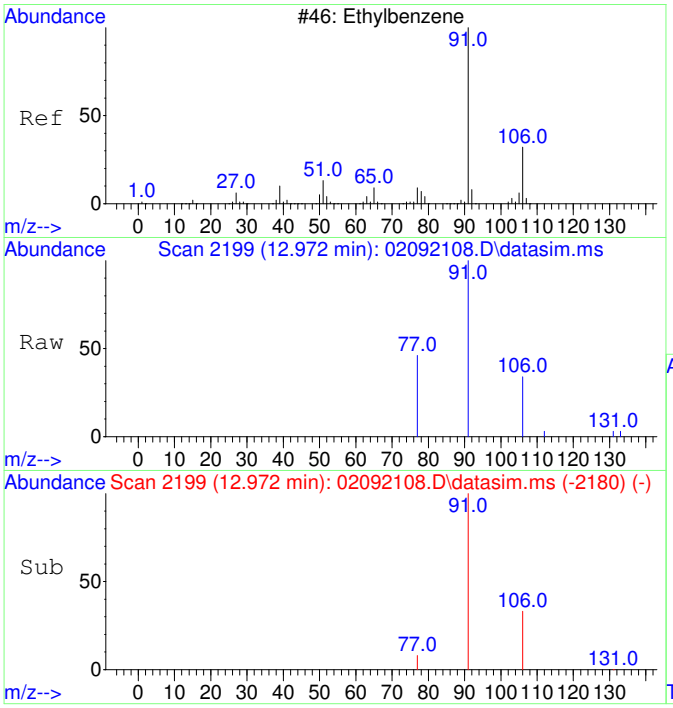


#17
1,1,1,2-Tetrachloroethane
Concen: 41.22 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:131 Resp: 589

Ion	Ratio	Lower	Upper
131	100		
133	97.6	66.3	126.3

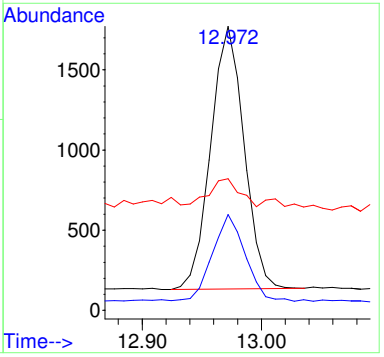


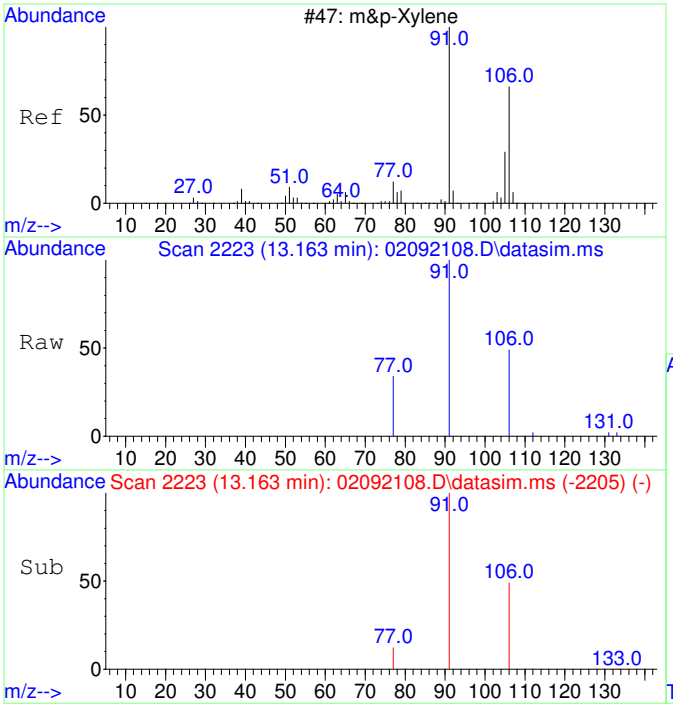


#18
Ethylbenzene
Concen: 47.34 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 3187

Ion	Ratio	Lower	Upper
91	100		
106	32.0	3.0	63.0
77	11.6	0.0	38.2

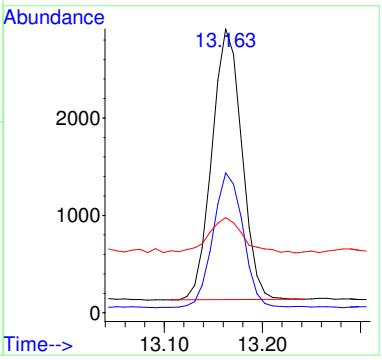


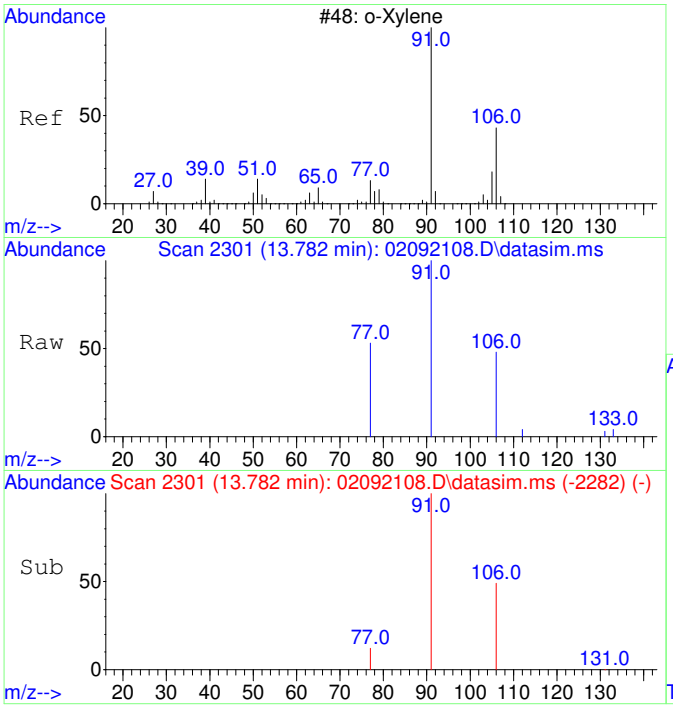


#19
m&p-Xylene
Concen: 112.85 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 5850

Ion	Ratio	Lower	Upper
91	100		
106	49.8	22.2	82.2
77	14.7	0.0	42.4

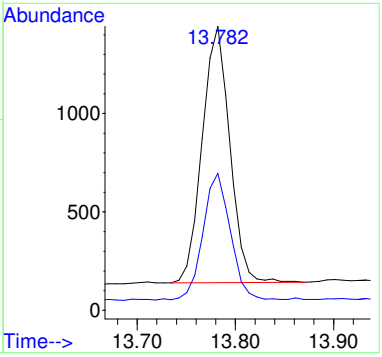


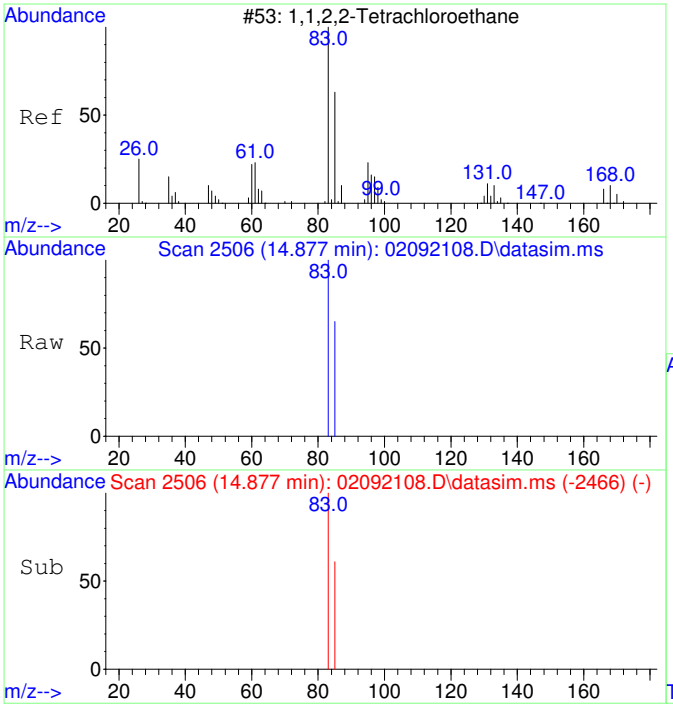


#20
o-Xylene
Concen: 45.66 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2542

Ion	Ratio	Lower	Upper
91	100		
106	48.7	19.2	79.2

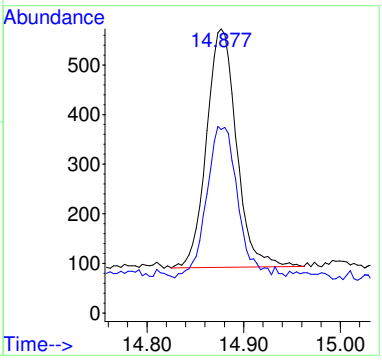


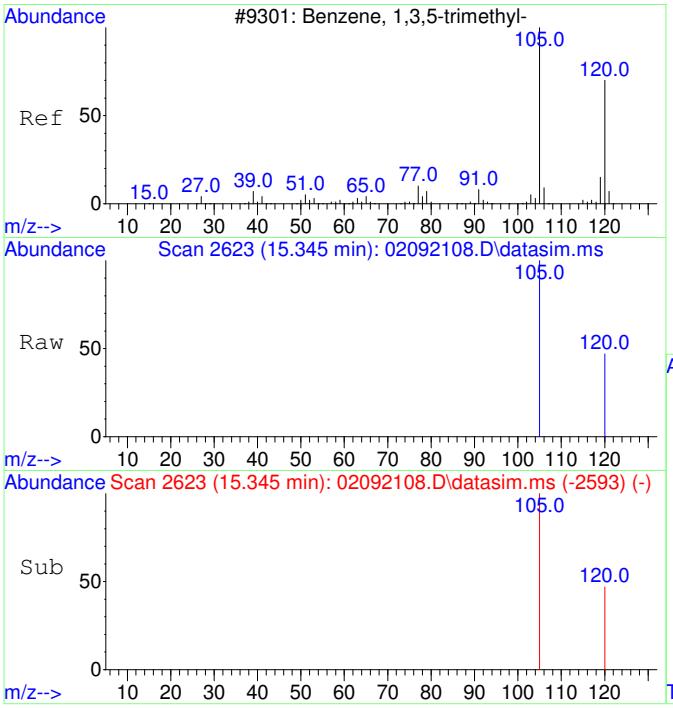


#21
1,1,2,2-Tetrachloroethane
Concen: 39.90 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 1035

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.8	94.8

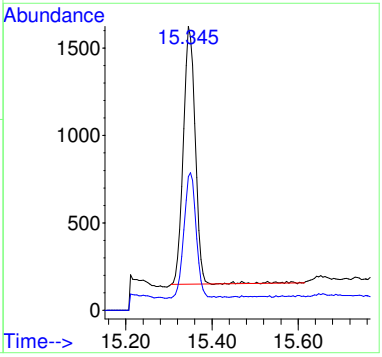


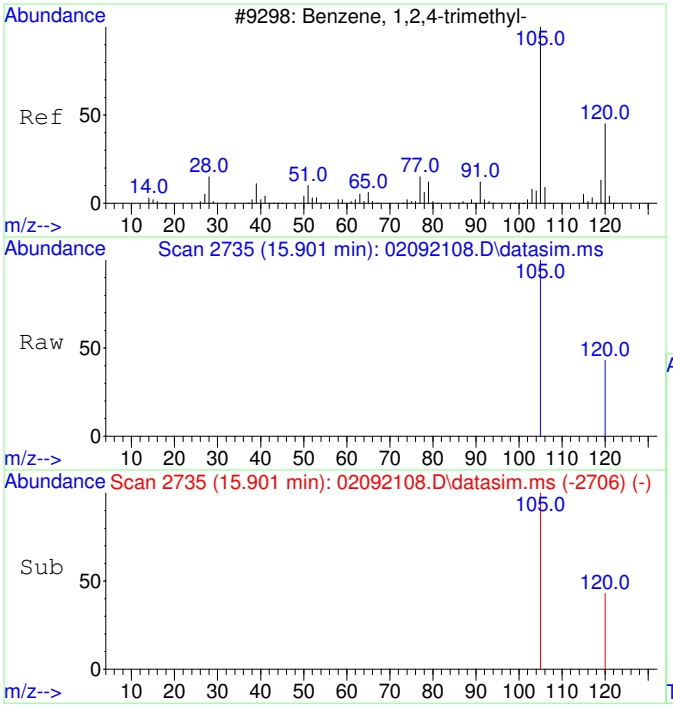


#22
1,3,5-Trimethylbenzene
Concen: 46.50 ug/L
RT: 15.345 min Scan# 2623
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 2847

Ion	Ratio	Lower	Upper
105	100		
120	50.9	21.1	81.1

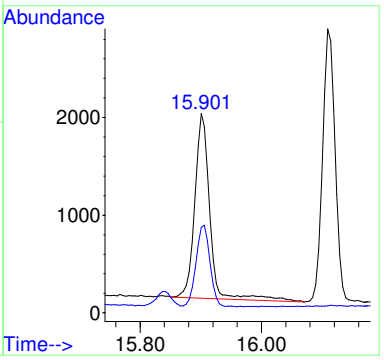


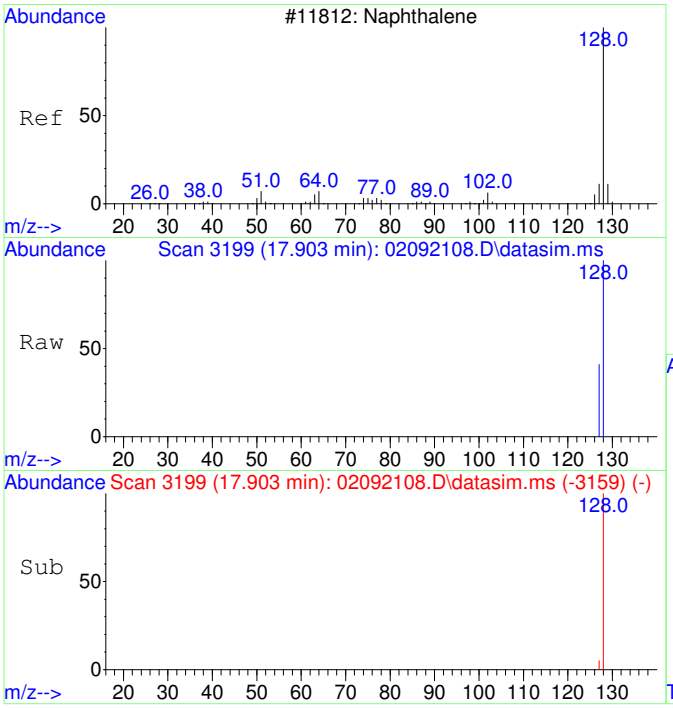


#23
1,2,4-Trimethylbenzene
Concen: 51.96 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 3254

Ion	Ratio	Lower	Upper
105	100		
120	40.2	17.2	77.2

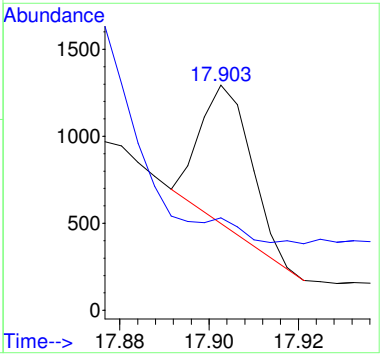


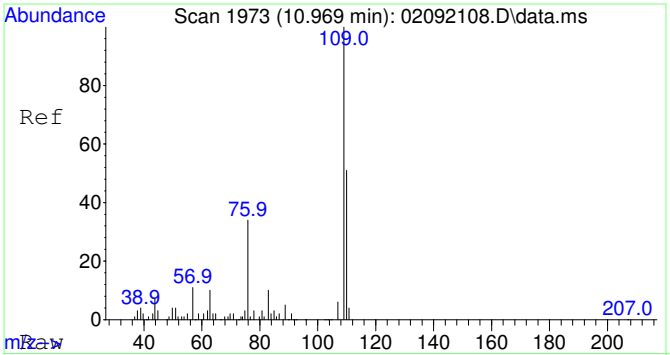


#24
Naphthalene
Concen: 5.73 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 581

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5

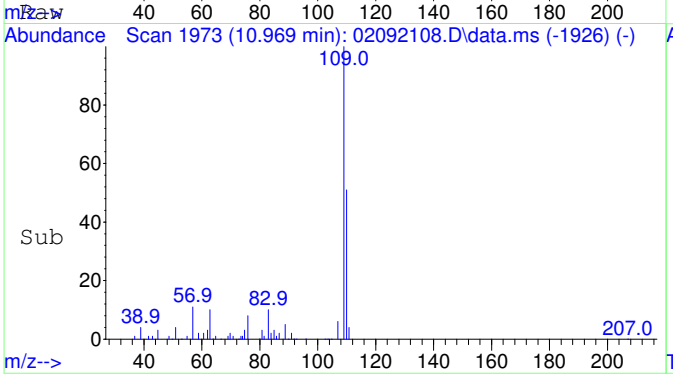


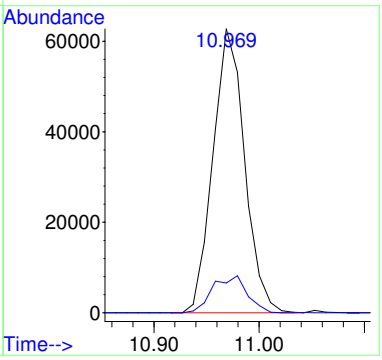


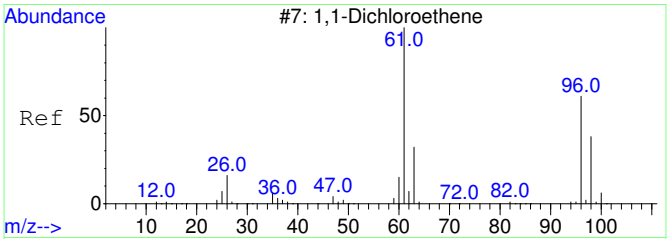
#25
2-Fluorotoluene SCAN
Concen: 5294.36 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 131343

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	43.8



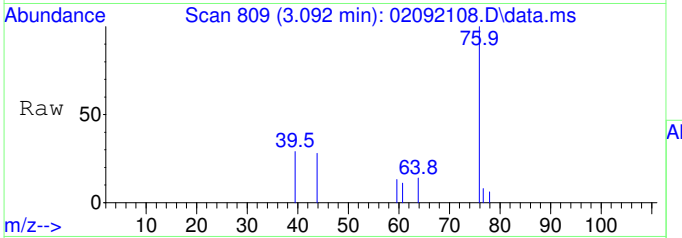


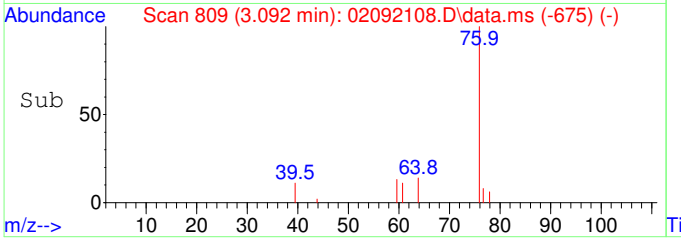


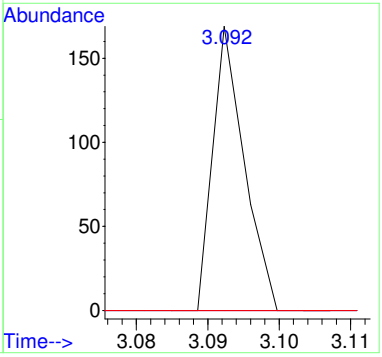
#26
1,1-Dichloroethene SCAN
Concen: 8.98 ug/L
RT: 3.092 min Scan# 809
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

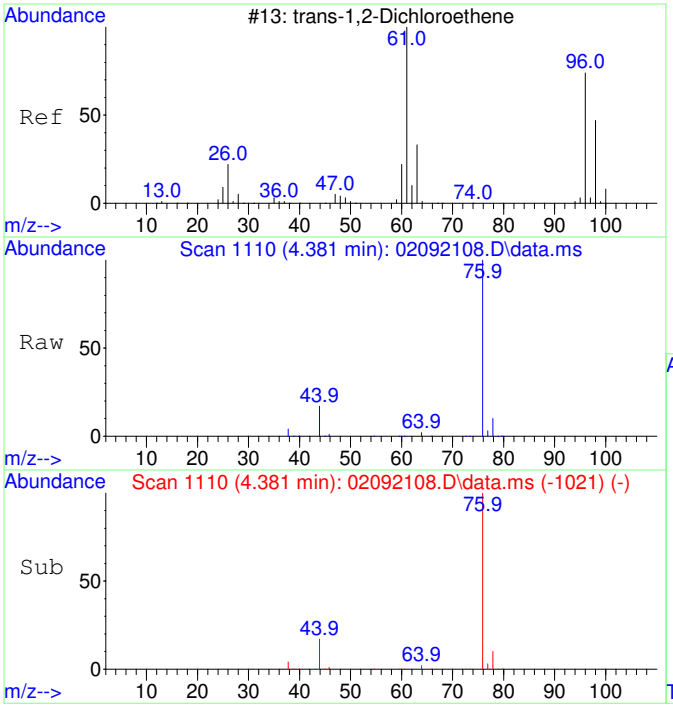
Tgt Ion: 61 Resp: 52

Ion	Ratio	Lower	Upper
61	100		
96	0.0	33.1	93.1#
98	0.0	11.2	71.2#





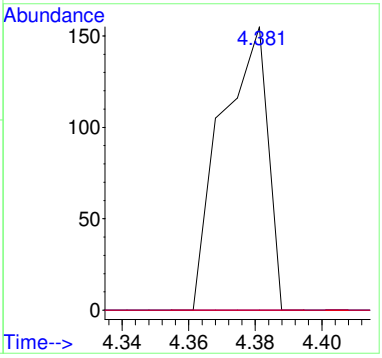


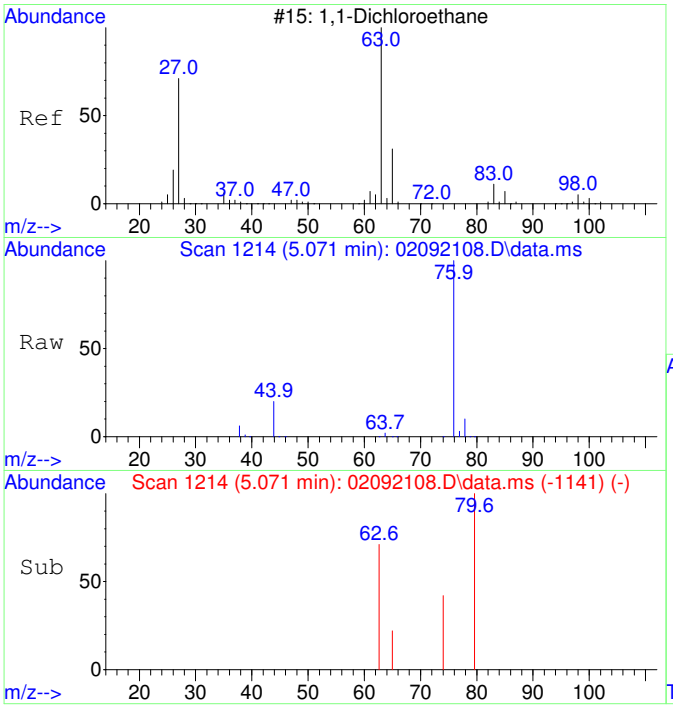


#27
trans-1,2-Dichloroethene SCAN
Concen: 20.33 ug/L
RT: 4.381 min Scan# 1110
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

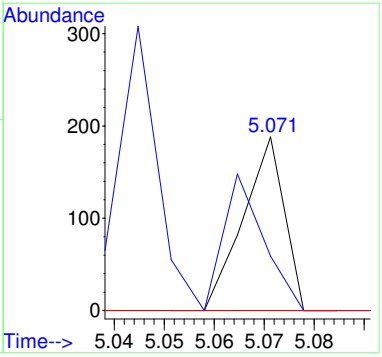


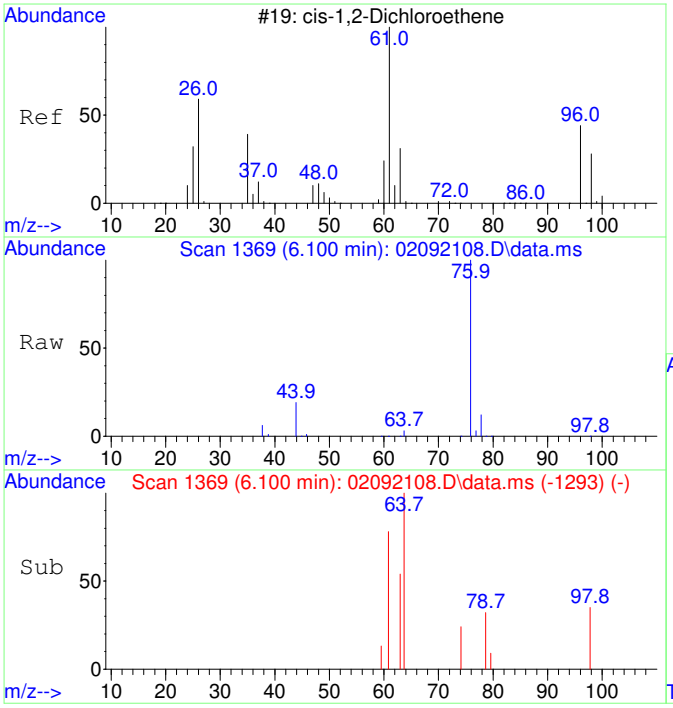


#28
1,1-Dichloroethane SCAN
Concen: 12.29 ug/L
RT: 5.071 min Scan# 1214
Delta R.T. -0.013 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 107

Ion	Ratio	Lower	Upper
63	100		
65	76.6	1.3	61.3#
83	0.0	0.0	45.9

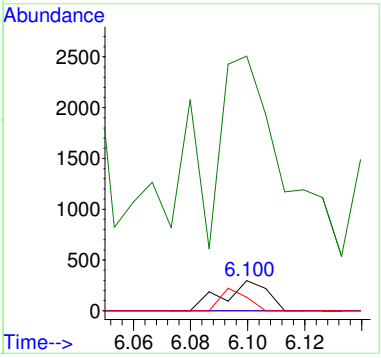


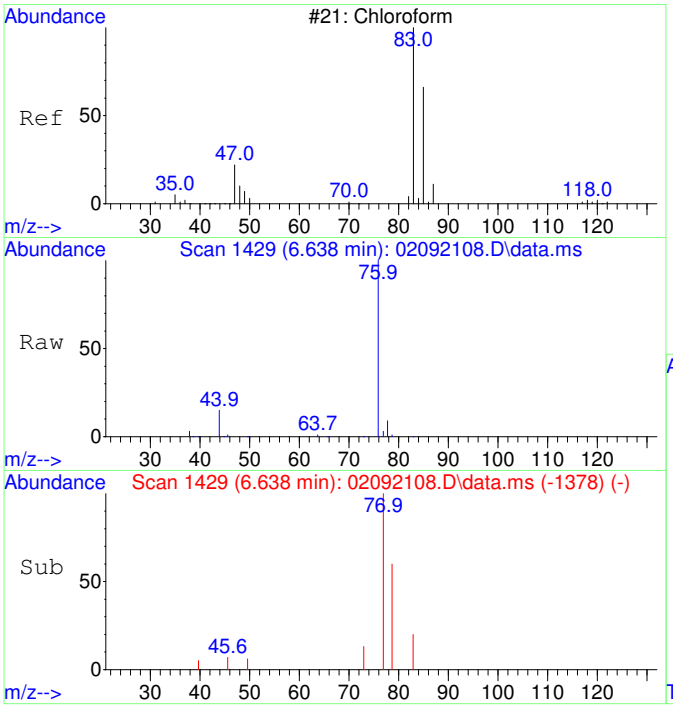


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.15 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 318

Ion	Ratio	Lower	Upper
61	100		
96	0.0	39.9	99.9#
98	44.7	13.5	73.5
64	854.1	4.5	64.5#

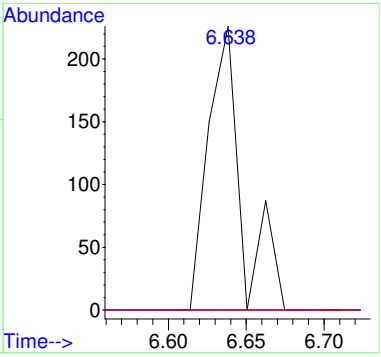


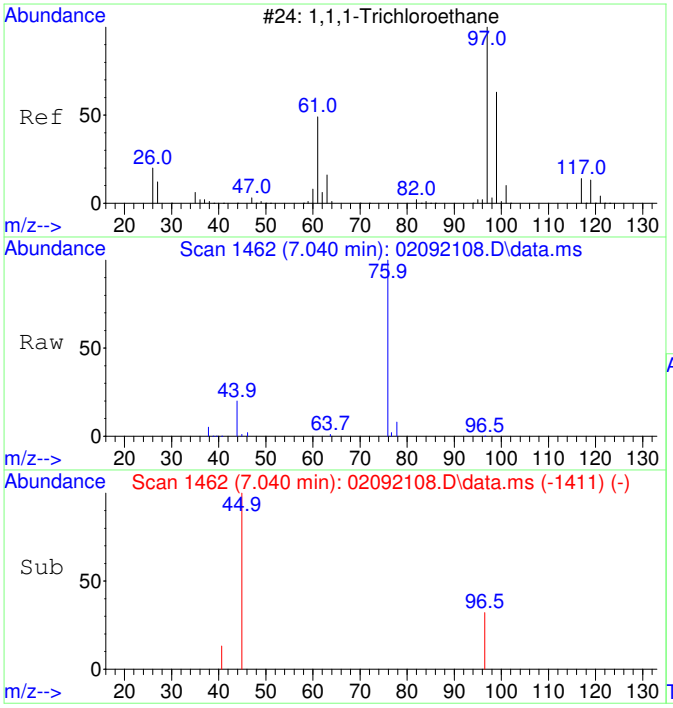


#30
Chloroform SCAN
Concen: 42.34 ug/L
RT: 6.638 min Scan# 1429
Delta R.T. -0.024 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 338

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

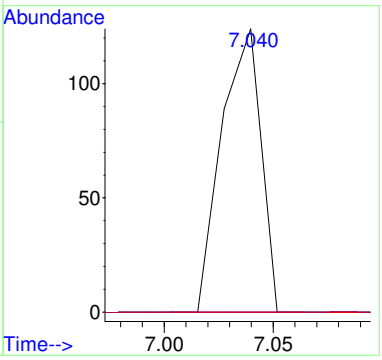


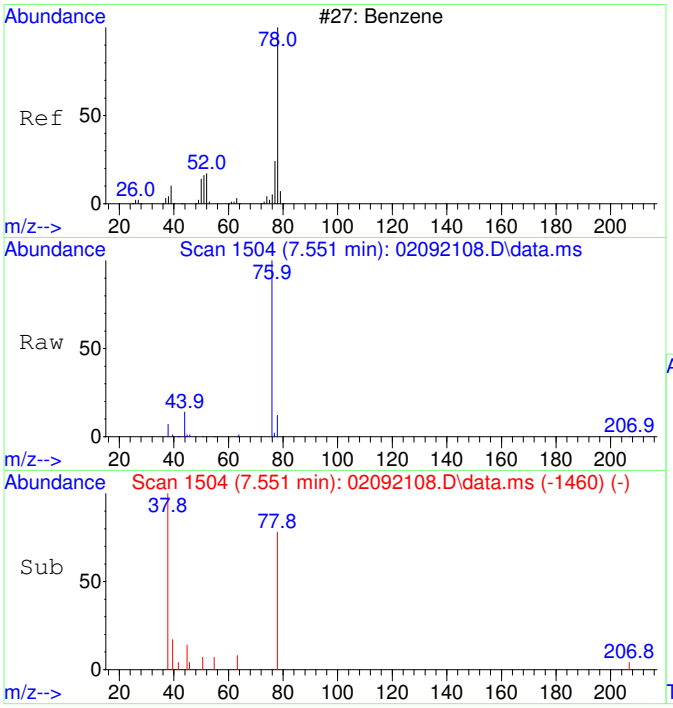


#31
1,1,1-Trichloroethane SCAN
Concen: 18.81 ug/L
RT: 7.040 min Scan# 1462
Delta R.T. 0.122 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 155

Ion	Ratio	Lower	Upper
97	100		
99	0.0	43.6	103.6#
61	0.0	18.0	78.0#

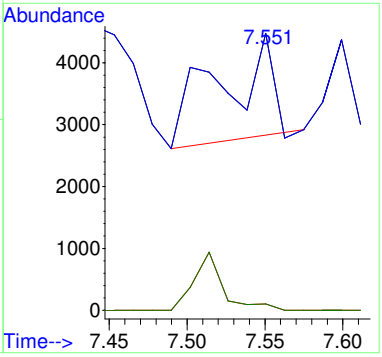


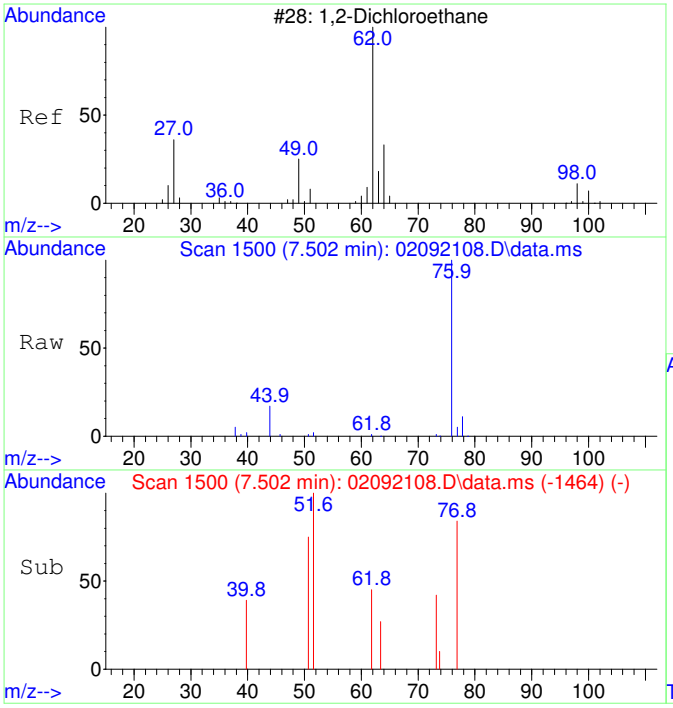


#33
Benzene SCAN
Concen: 156.19 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. 0.037 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3893

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

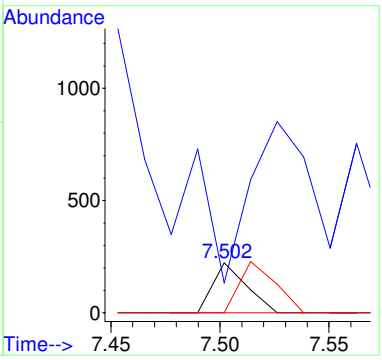


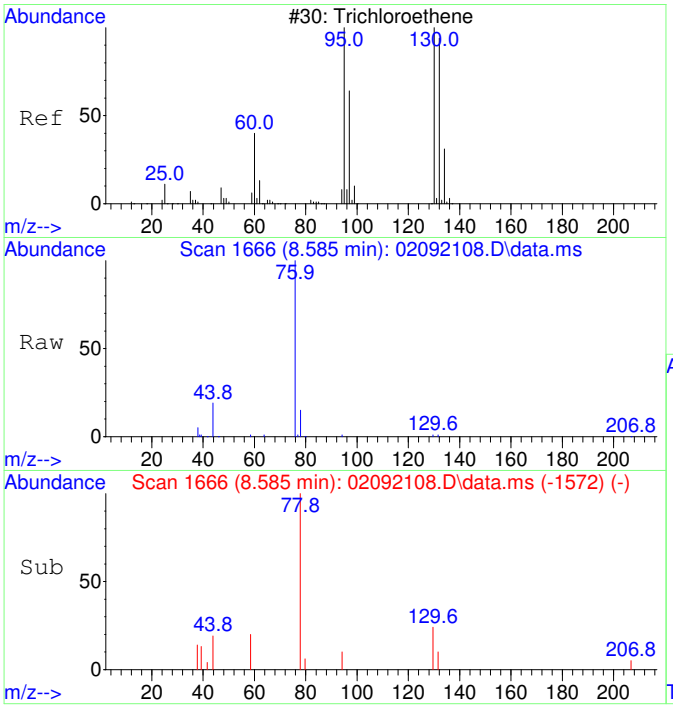


#34
1,2-Dichloroethane SCAN
Concen: 30.40 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. -0.061 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 237

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

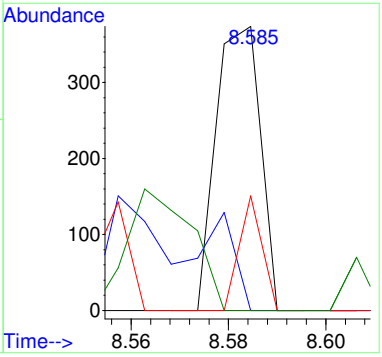


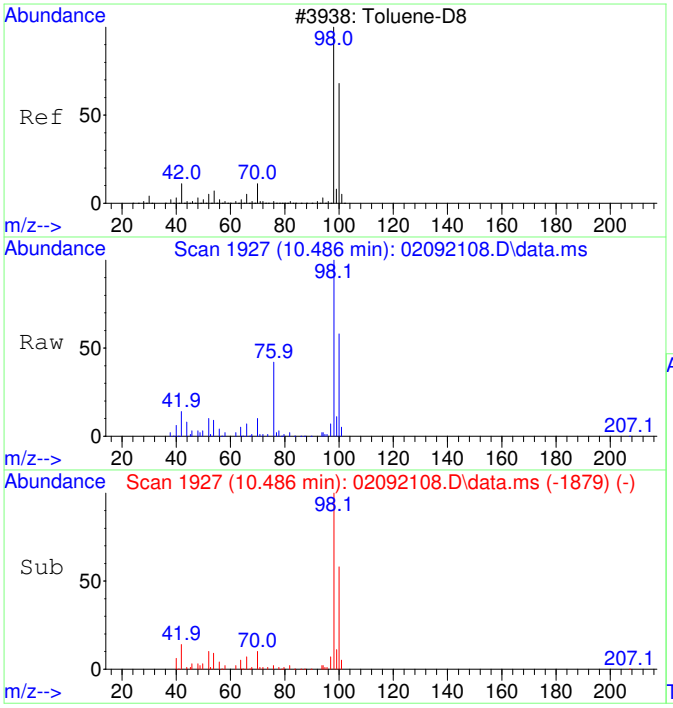


#35
Trichloroethene SCAN
Concen: 43.61 ug/L
RT: 8.585 min Scan# 1666
Delta R.T. 0.011 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 237

Ion	Ratio	Lower	Upper
130	100		
95	0.0	60.5	120.5#
132	0.0	59.6	119.6#
97	0.0	28.2	88.2#

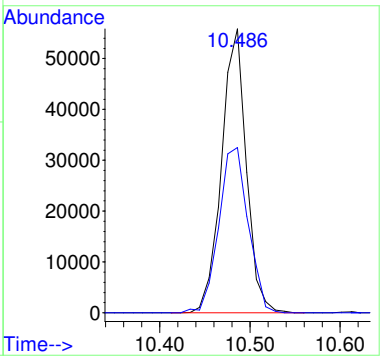


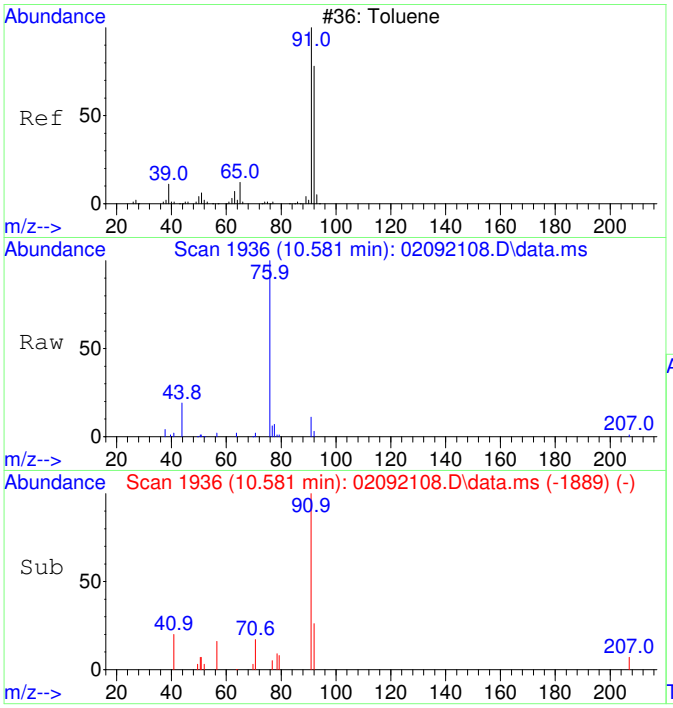


#36
Toluene-d8 SCAN
Concen: 4582.48 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 106622

Ion	Ratio	Lower	Upper
98	100		
100	69.3	40.0	100.0

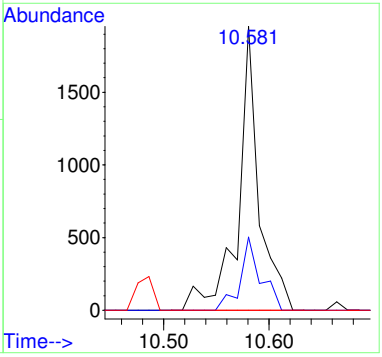


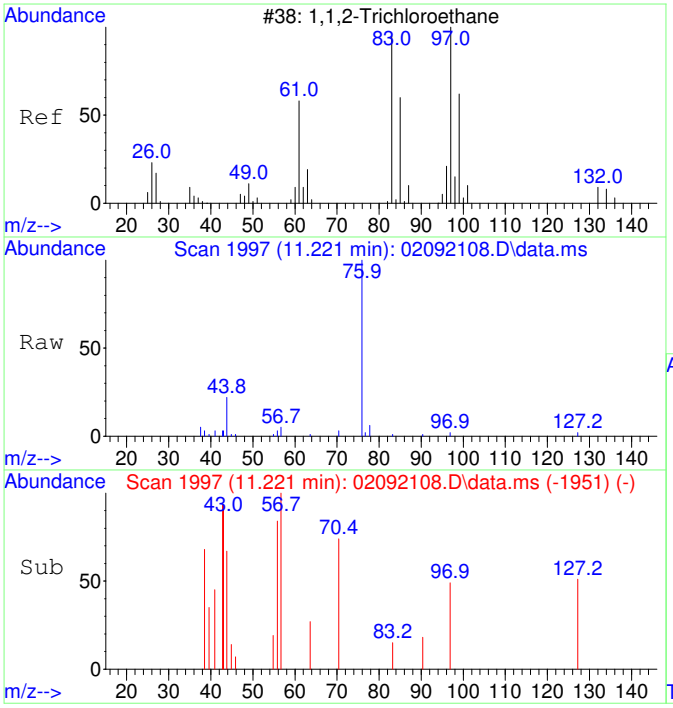


#37
Toluene SCAN
Concen: 93.52 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2679

Ion	Ratio	Lower	Upper
91	100		
92	25.4	28.3	88.3#
65	0.0	0.0	41.0

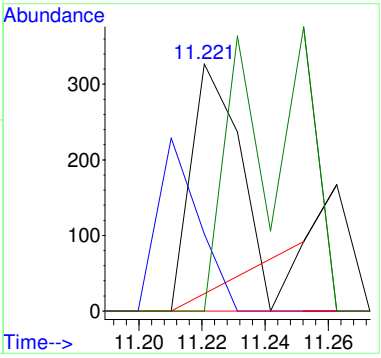


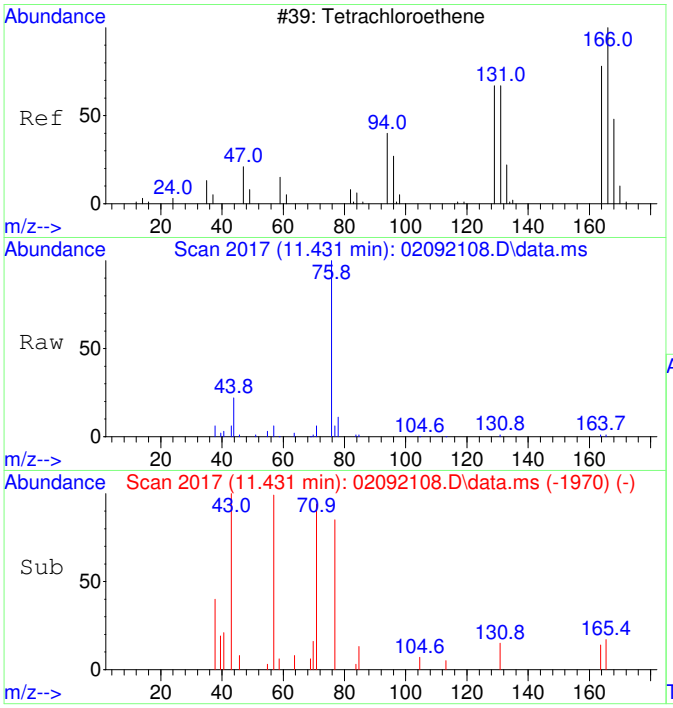


#38
1,1,2-Trichloroethane SCAN
Concen: 41.36 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. -0.021 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 297

Ion	Ratio	Lower	Upper
97	100		
83	70.0	57.7	117.7
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

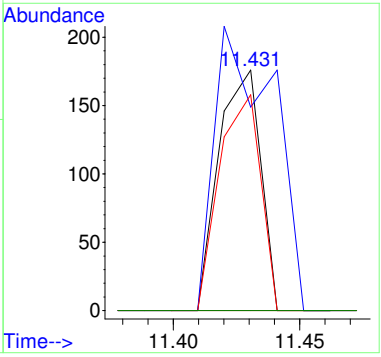


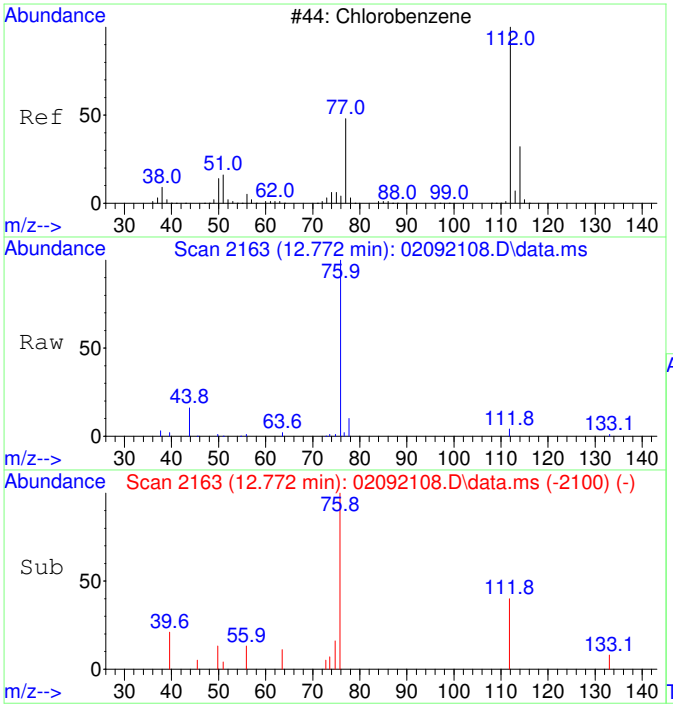


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 203

Ion	Ratio	Lower	Upper
166	100		
164	165.5	50.9	110.9#
131	88.2	38.7	98.7
129	0.0	41.8	101.8#

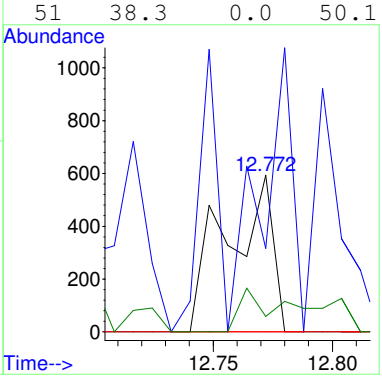


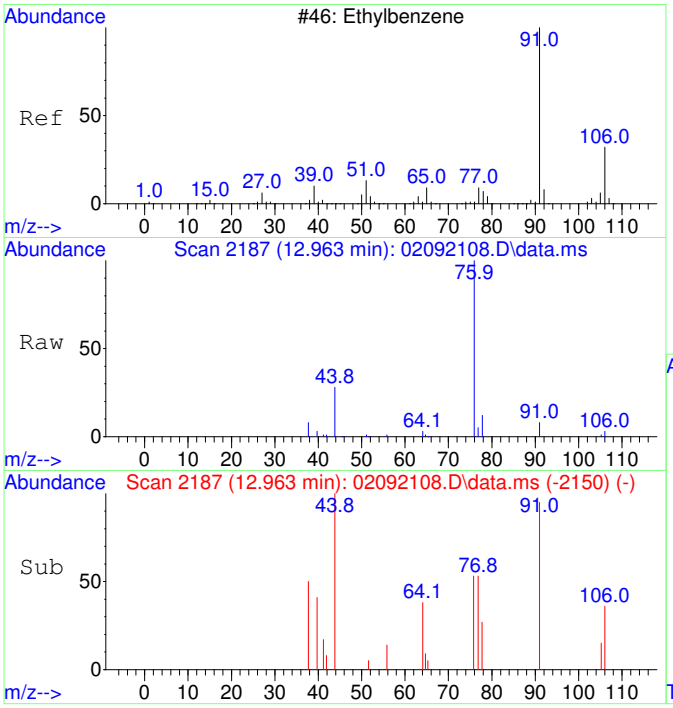


#40
Chlorobenzene SCAN
Concen: 39.07 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 804

Ion	Ratio	Lower	Upper
112	100		
77	119.8	28.2	88.2#
114	0.0	2.3	62.3#
51	38.3	0.0	50.1

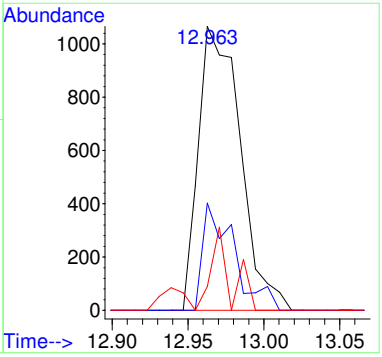


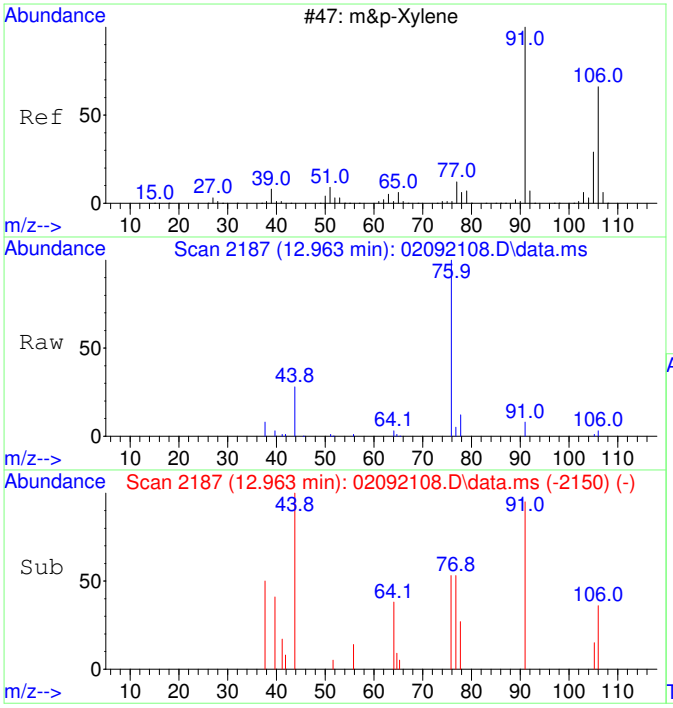


#42
Ethylbenzene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
51	13.8	0.0	40.1

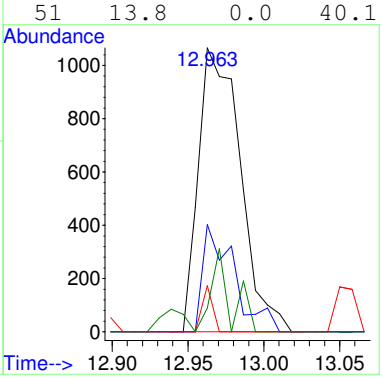


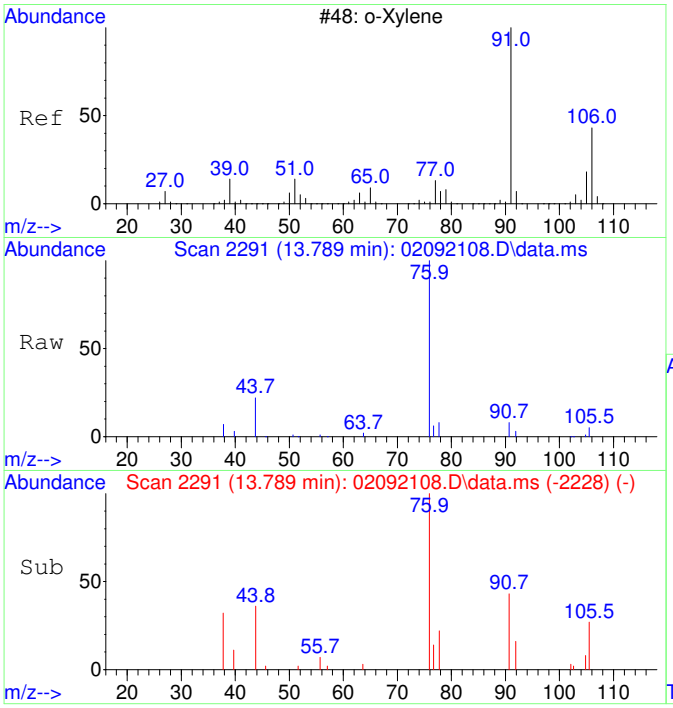


#43
m&p-Xylene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
105	4.0	0.0	54.7
51	13.8	0.0	40.1

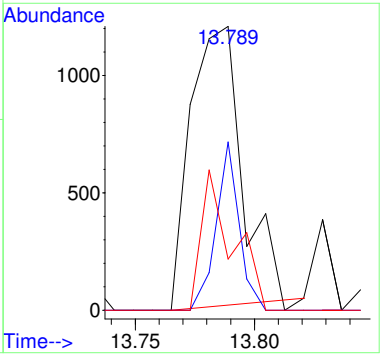


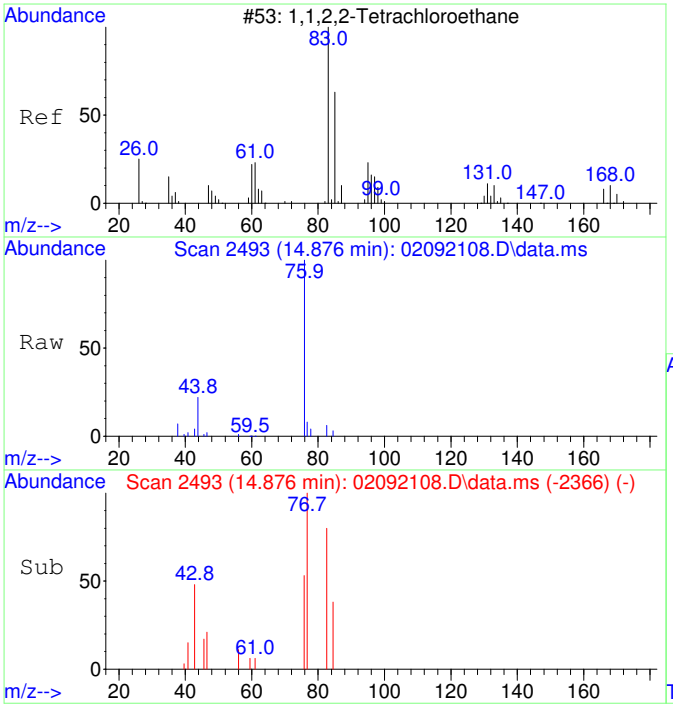


#44
o-Xylene SCAN
Concen: 60.68 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 1809

Ion	Ratio	Lower	Upper
91	100		
106	26.6	18.0	78.0
105	30.2	0.0	56.6

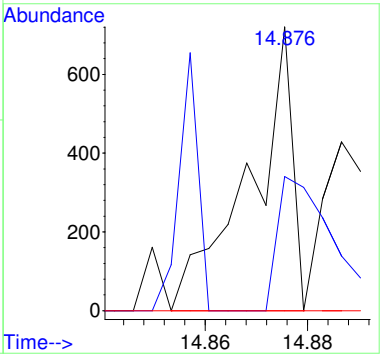


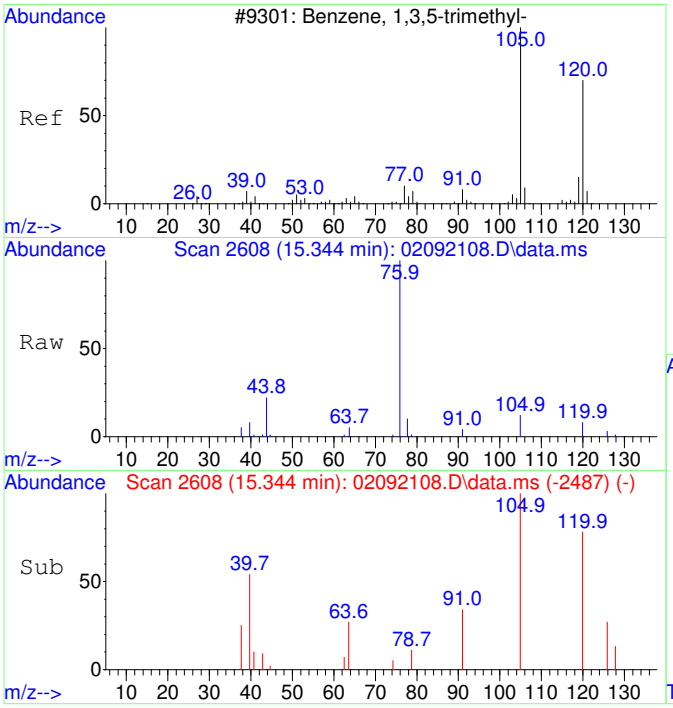


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 26.97 ug/L
RT: 14.876 min Scan# 2493
Delta R.T. -0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 418

Ion	Ratio	Lower	Upper
83	100		
85	62.9	35.9	95.9
95	0.0	0.0	47.4

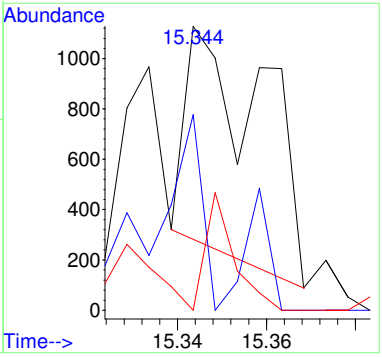


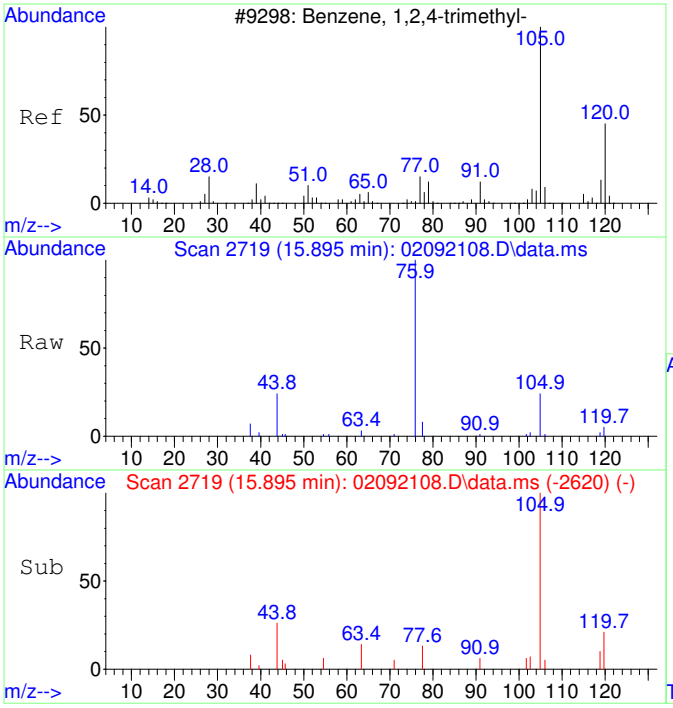


#46
1,3,5-Trimethylbenzene SCAN
Concen: 33.10 ug/L
RT: 15.344 min Scan# 2608
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 1041

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.3	78.3
119	19.9	0.0	43.1

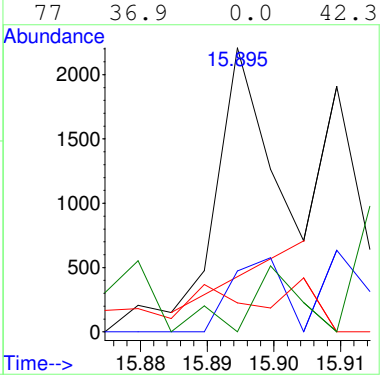


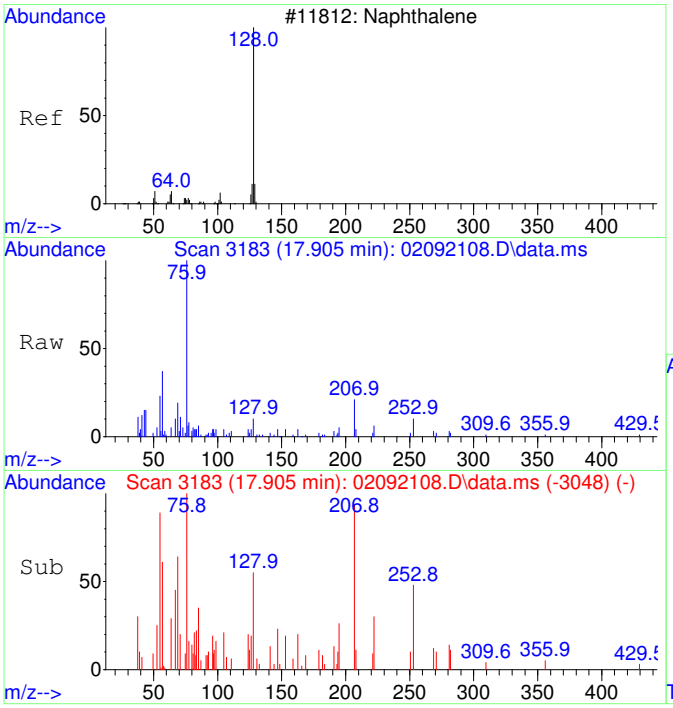


#47
1,2,4-Trimethylbenzene SCAN
Concen: 28.66 ug/L
RT: 15.895 min Scan# 2719
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 921

Ion	Ratio	Lower	Upper
105	100		
120	34.0	16.9	76.9
119	0.0	0.0	41.9
77	36.9	0.0	42.3

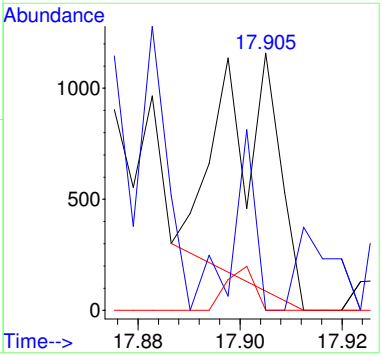




#48
Naphthalene SCAN
Concen: 15.36 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 741

Ion	Ratio	Lower	Upper
128	100		
127	33.9	0.0	44.0
129	10.1	0.0	40.8



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
TD at 1:04 pm, Feb 09, 2021

M.I. Approved By:
ZAR at 3:08 pm, Feb 10, 2021

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

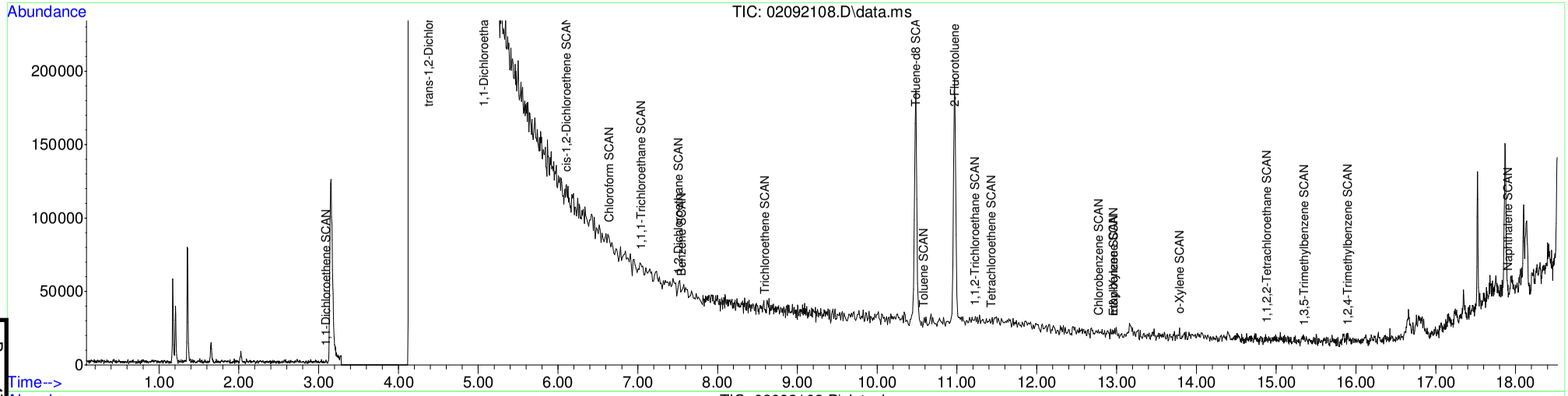
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	218554	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	183575	4336.91	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.74%			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.094	61	309m	35.66	ug/L	
3] trans-1,2-Dichloroethene	4.376	61	381	34.87	ug/L	68
4] 1,1-Dichloroethane	5.086	63	448	34.33	ug/L	84
5] cis-1,2-Dichloroethene	6.088	61	483	35.74	ug/L	100
6] Chloroform	6.652	83	534	41.14	ug/L	99
7] 1,1,1-Trichloroethane	6.907	97	566	40.59	ug/L	97
8] Carbon tetrachloride	7.187	117	525	39.38	ug/L	94
9] Benzene	7.503	78	3551	96.56	ug/L	73
10] 1,2-Dichloroethane	7.552	62	529	42.16	ug/L #	31
11] Trichloroethene	8.569	130	461	39.70	ug/L	95
13] Toluene	10.582	91	2494	47.32	ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	484	39.65	ug/L	70
15] Tetrachloroethene	11.432	166	701	42.70	ug/L	98
16] Chlorobenzene	12.765	112	1670	40.90	ug/L	65
17] 1,1,1,2-Tetrachloroethane	12.916	131	589	41.22	ug/L	99
18] Ethylbenzene	12.972	91	3187	47.34	ug/L	97
19] m&p-Xylene	13.163	91	5850	112.85	ug/L	96
20] o-Xylene	13.782	91	2542	45.66	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	1035	39.90	ug/L	98
22] 1,3,5-Trimethylbenzene	15.345	105	2847	46.50	ug/L	100
23] 1,2,4-Trimethylbenzene	15.901	105	3254	51.96	ug/L	89
24] Naphthalene	17.903	128	581	5.73	ug/L #	68
25) 2-Fluorotoluene SCAN	10.969	109	131343	5294.36	ug/L	99
26) 1,1-Dichloroethene SCAN	3.092	61	52	8.98	ug/L #	25
27) trans-1,2-Dichloroethe...	4.381	61	150	20.33	ug/L #	17
28) 1,1-Dichloroethane SCAN	5.071	63	107	12.29	ug/L #	33
29) cis-1,2-Dichloroethene...	6.100	61	318	37.15	ug/L #	1
30) Chloroform SCAN	6.638	83	338	42.34	ug/L #	27
31) 1,1,1-Trichloroethane ...	7.040	97	155	18.81	ug/L #	19
33) Benzene SCAN	7.551	78	3893	156.19	ug/L #	91
34) 1,2-Dichloroethane SCAN	7.502	62	237	30.40	ug/L #	40
35) Trichloroethene SCAN	8.585	130	237	43.61	ug/L #	9
36) Toluene-d8 SCAN	10.486	98	106622	4582.48	ug/L	99
37) Toluene SCAN	10.581	91	2679	93.52	ug/L #	58
38) 1,1,2-Trichloroethane ...	11.221	97	297	41.36	ug/L #	43
39) Tetrachloroethene SCAN	11.431	166	203	31.50	ug/L #	30
40) Chlorobenzene SCAN	12.772	112	804	39.07	ug/L #	32
42) Ethylbenzene SCAN	12.963	91	2047	37.50	ug/L	69
43) m&p-Xylene SCAN	12.963	91	2047	37.50	ug/L	66
44) o-Xylene SCAN	13.789	91	1809	60.68	ug/L	77
45) 1,1,2,2-Tetrachloroeth...	14.876	83	418	26.97	ug/L #	89
46) 1,3,5-Trimethylbenzene...	15.344	105	1041	33.10	ug/L	96
47) 1,2,4-Trimethylbenzene...	15.895	105	921	28.66	ug/L #	71
48) Naphthalene SCAN	17.905	128	741	15.36	ug/L	72

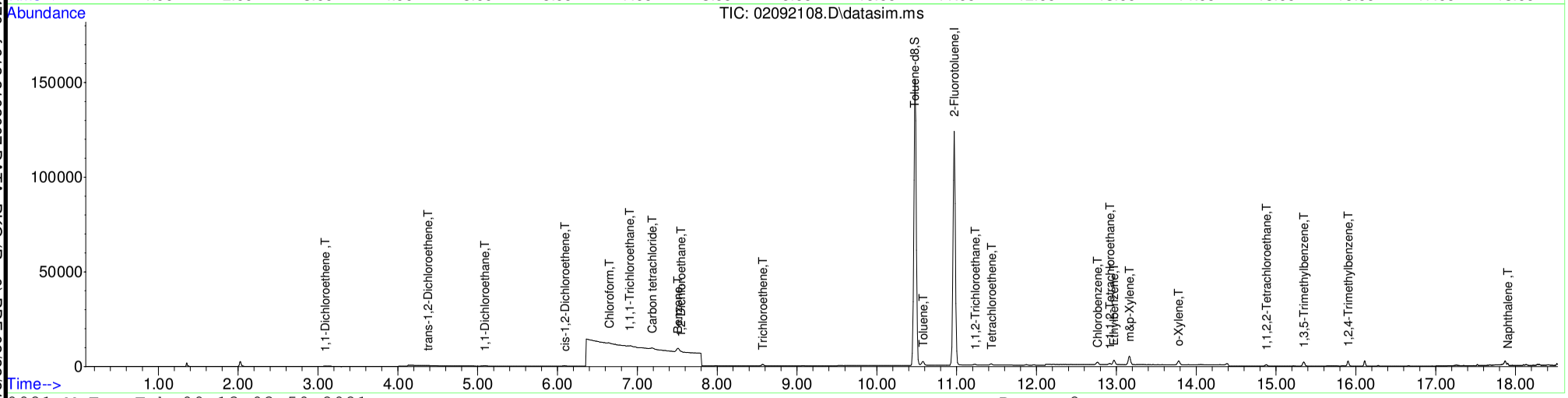
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092108.D
Acq On : 9 Feb 2021 12:34
InstName : AG5975C
Operator : TD
Sample : B21B038-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 13:03:04 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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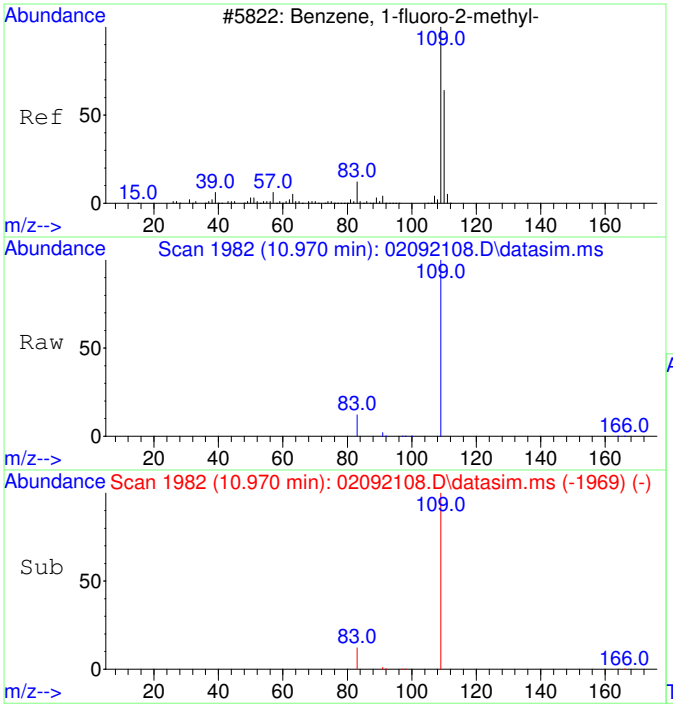
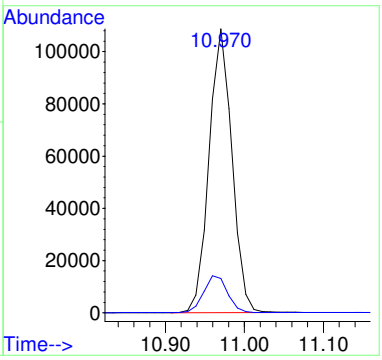
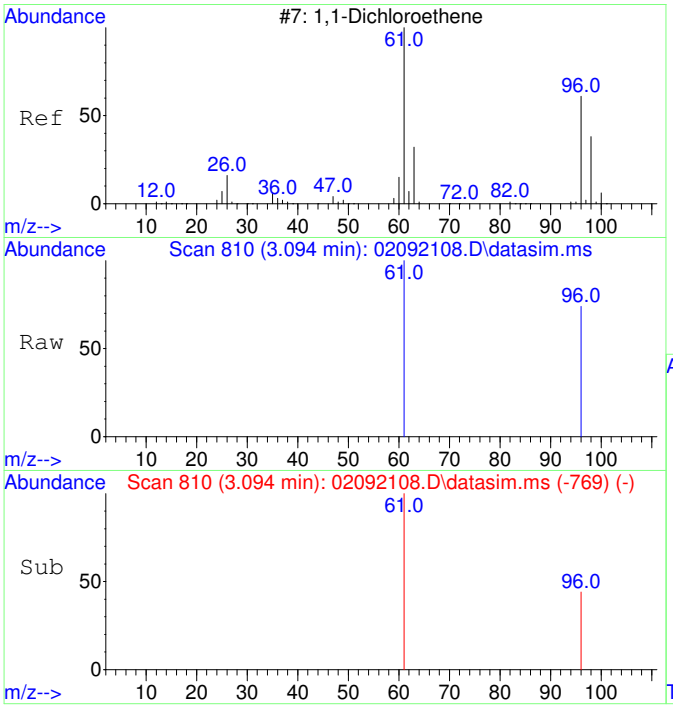


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 218554

Ion	Ratio	Lower	Upper
109	100		
83	13.6	0.0	42.3

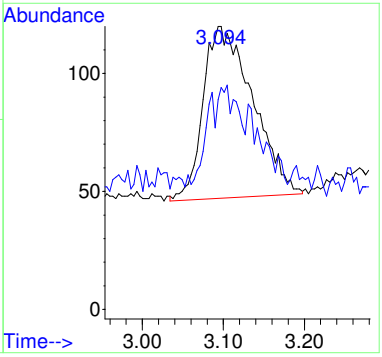


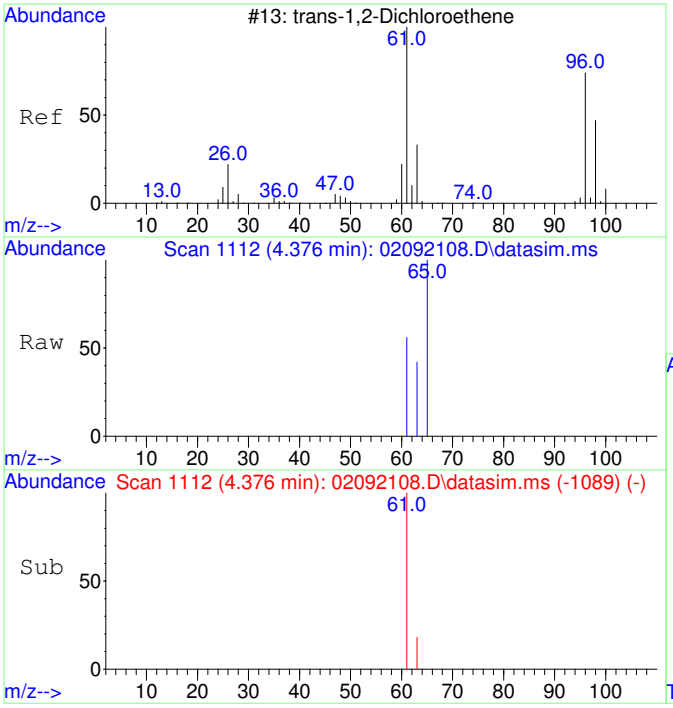


#2
1,1-Dichloroethene
Concen: 35.66 ug/L m
RT: 3.094 min Scan# 810
Delta R.T. 0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 309

Ion	Ratio	Lower	Upper
61	100		
96	12.6	37.2	97.2#

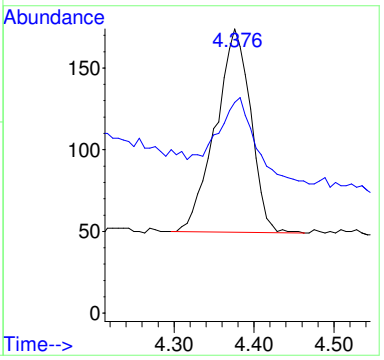


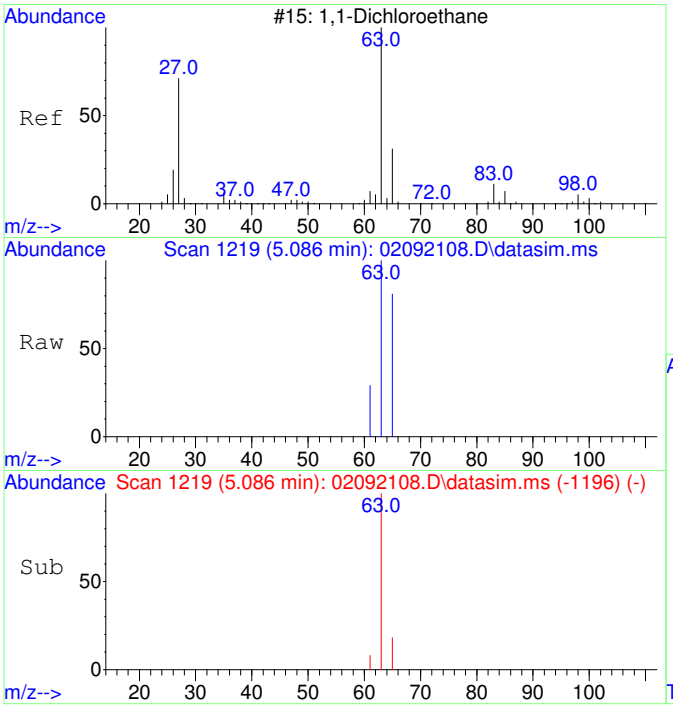


#3
trans-1,2-Dichloroethene
Concen: 34.87 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 381

Ion	Ratio	Lower	Upper
61	100		
63	50.1	2.4	62.4

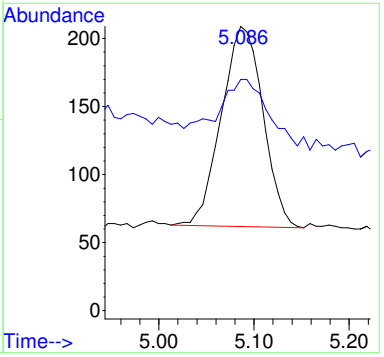


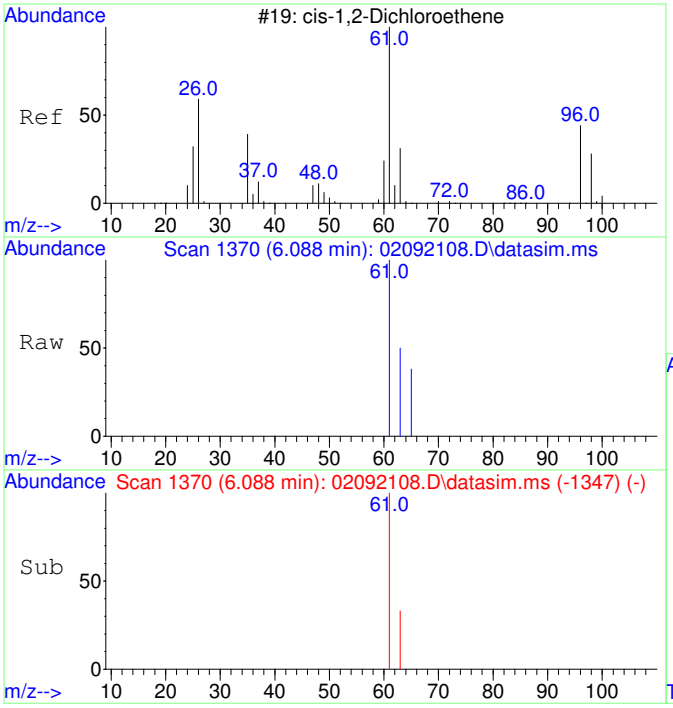


#4
1,1-Dichloroethane
Concen: 34.33 ug/L
RT: 5.086 min Scan# 1219
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 448

Ion	Ratio	Lower	Upper
63	100		
65	40.8	1.8	61.8

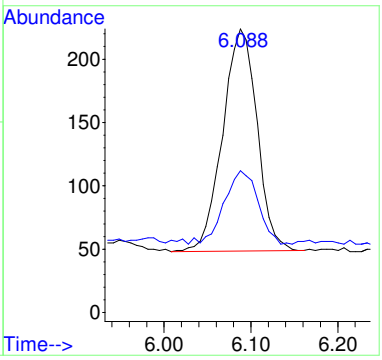


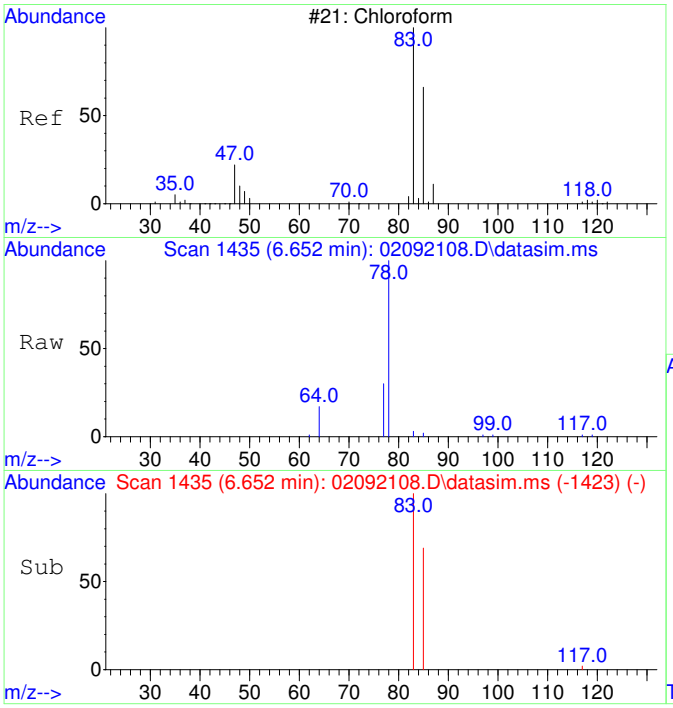


#5
cis-1,2-Dichloroethene
Concen: 35.74 ug/L
RT: 6.088 min Scan# 1370
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 483

Ion	Ratio	Lower	Upper
61	100		
63	32.5	2.5	62.5

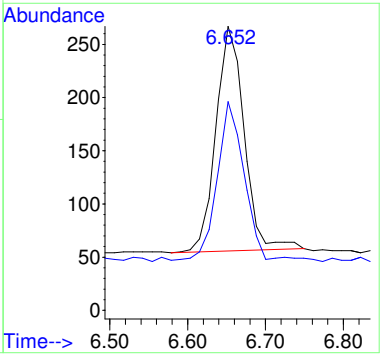


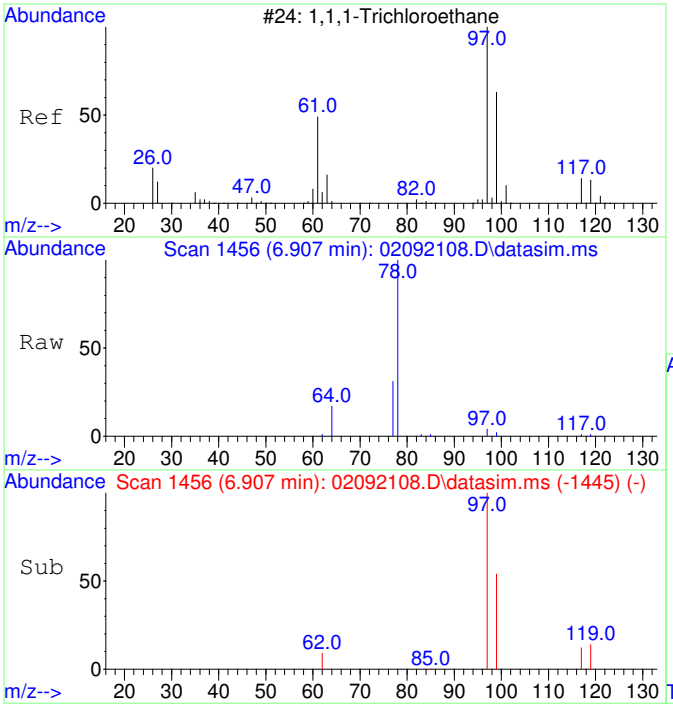


#6
Chloroform
Concen: 41.14 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 534

Ion	Ratio	Lower	Upper
83	100		
85	66.1	35.1	95.1

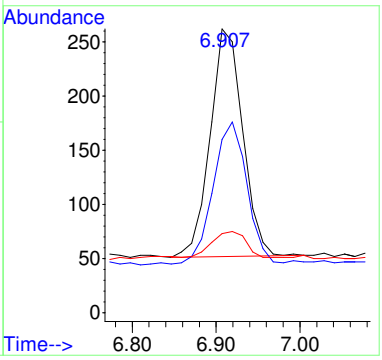


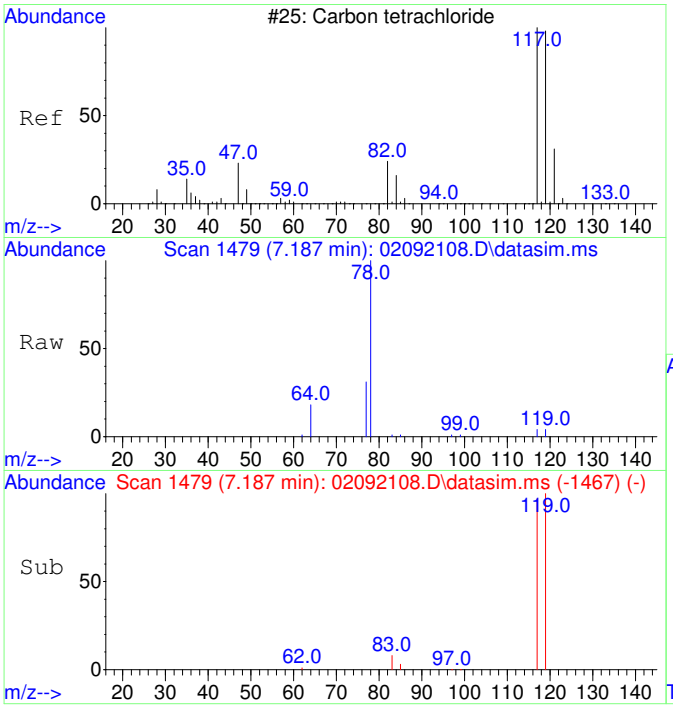


#7
1,1,1-Trichloroethane
Concen: 40.59 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 566

Ion	Ratio	Lower	Upper
97	100		
99	66.4	34.6	94.6
117	11.7	0.0	43.2

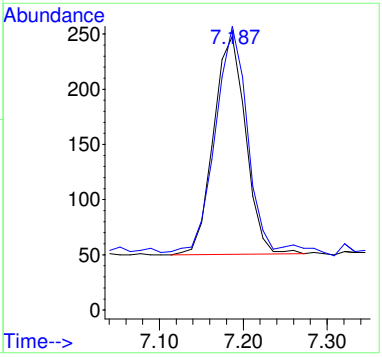


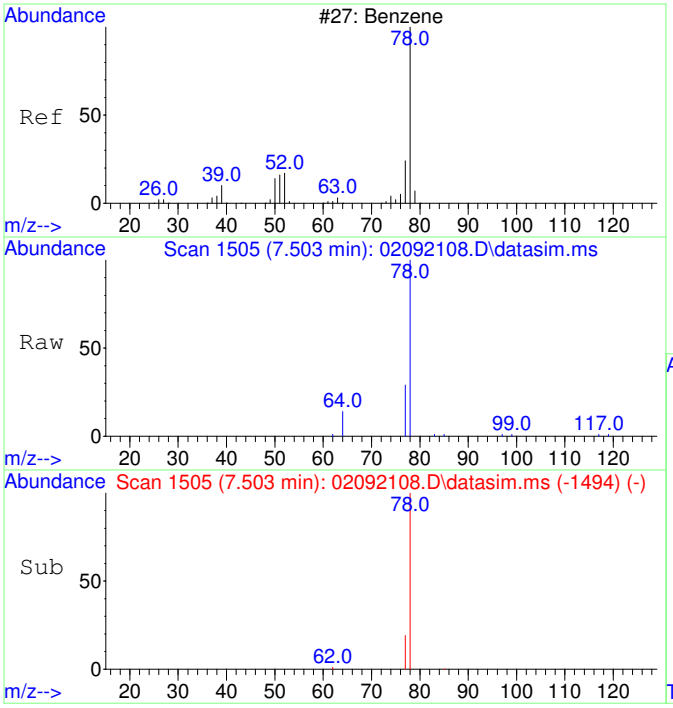


#8
Carbon tetrachloride
Concen: 39.38 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:117 Resp: 525

Ion	Ratio	Lower	Upper
117	100		
119	102.1	66.4	126.4

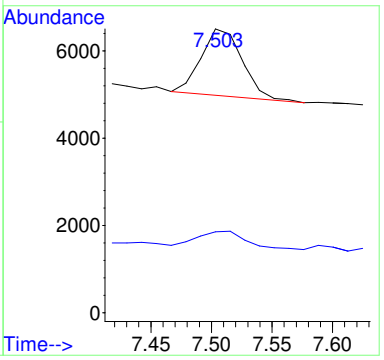


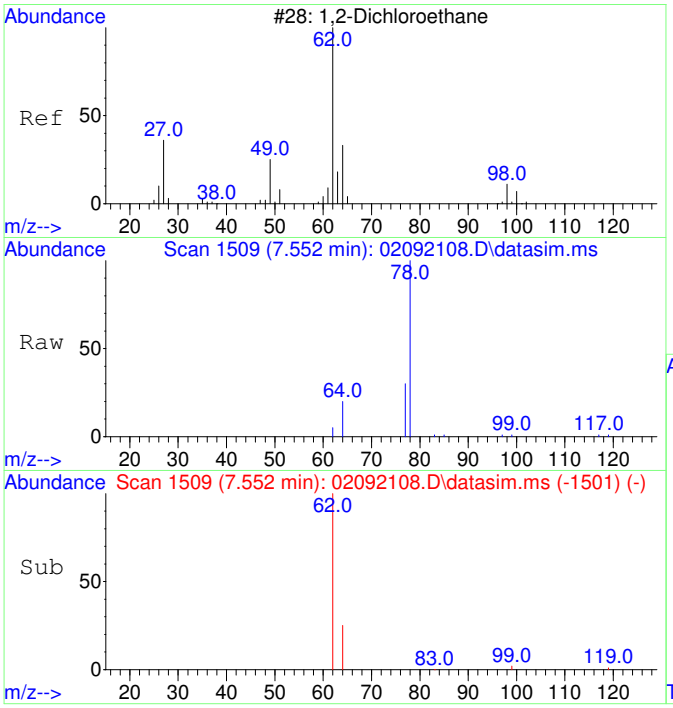


#9
Benzene
Concen: 96.56 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3551

Ion	Ratio	Lower	Upper
78	100		
77	36.1	0.0	53.2

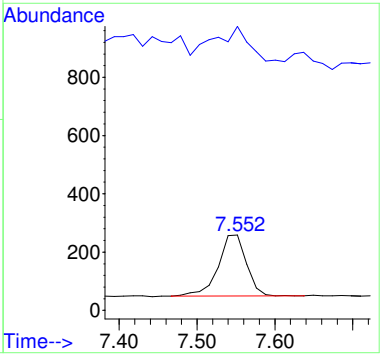


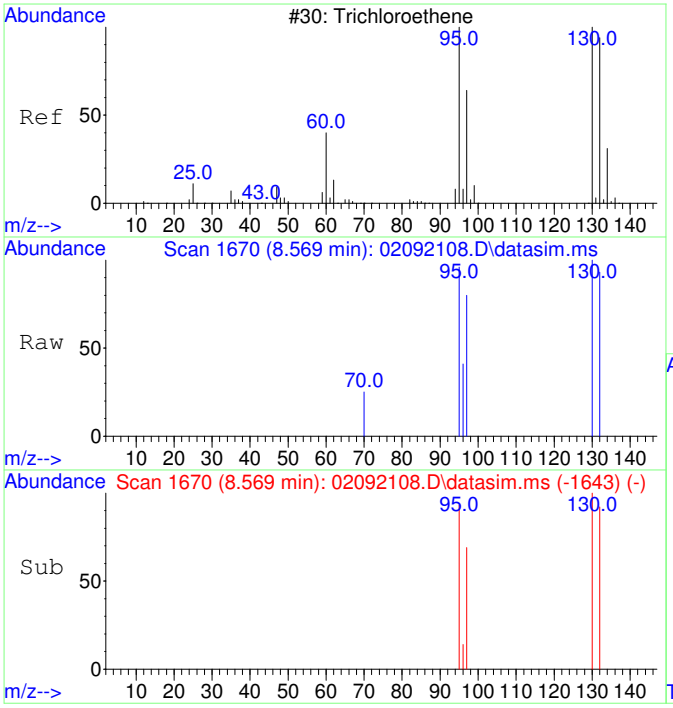


#10
1,2-Dichloroethane
Concen: 42.16 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 529

Ion	Ratio	Lower	Upper
62	100		
64	70.9	2.3	62.3#

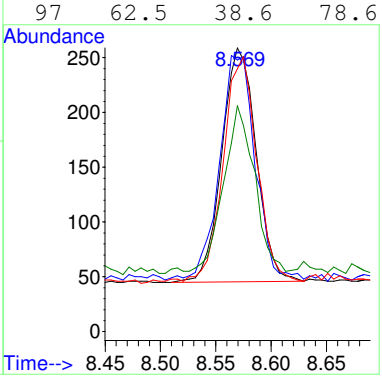


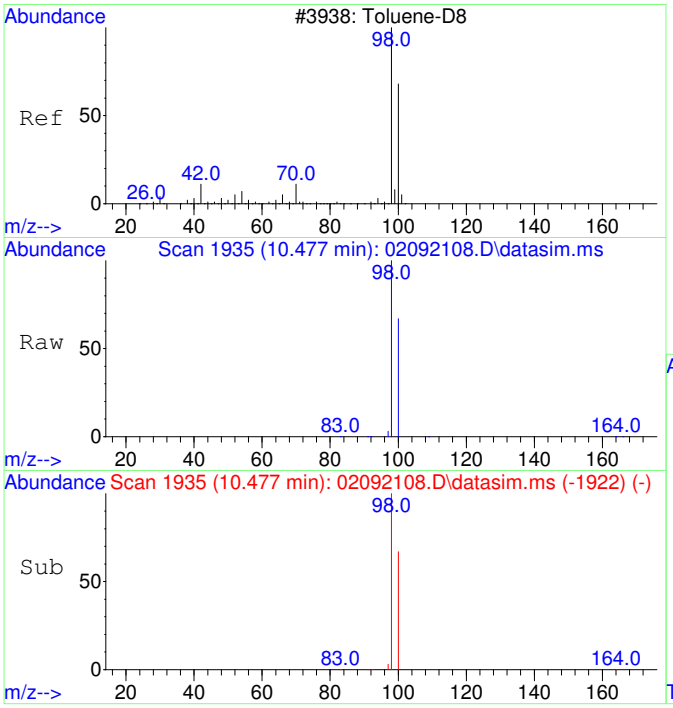


#11
Trichloroethene
Concen: 39.70 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 461

Ion	Ratio	Lower	Upper
130	100		
95	99.3	60.7	120.7
132	95.4	76.0	116.0
97	62.5	38.6	78.6

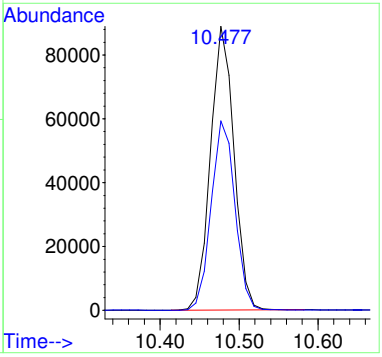


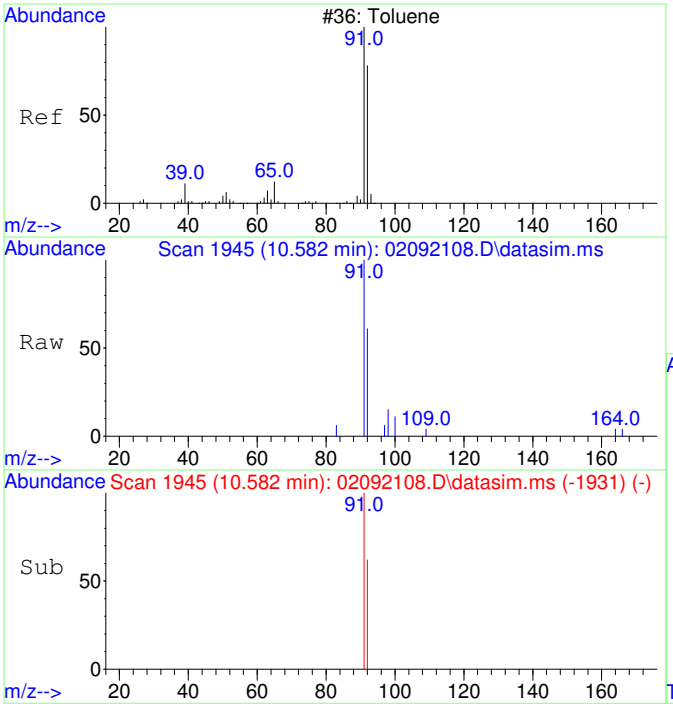


#12
Toluene-d8
Concen: 4336.91 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 183575

Ion	Ratio	Lower	Upper
98	100		
100	67.5	37.1	97.1

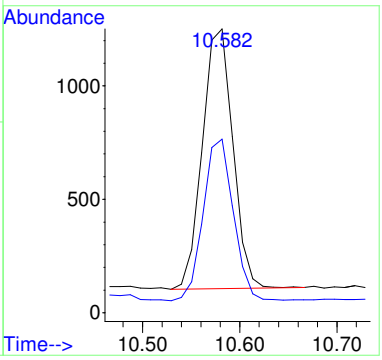


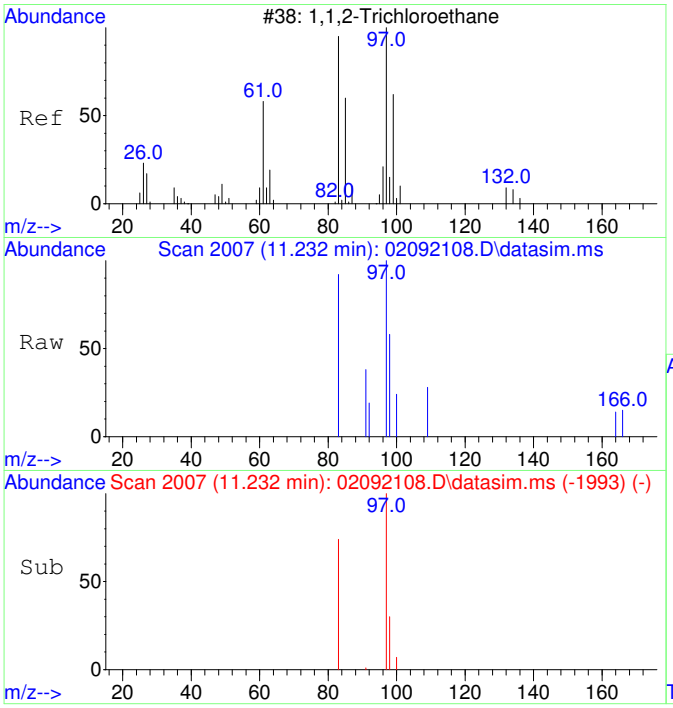


#13
Toluene
Concen: 47.32 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2494

Ion	Ratio	Lower	Upper
91	100		
92	60.4	29.9	89.9

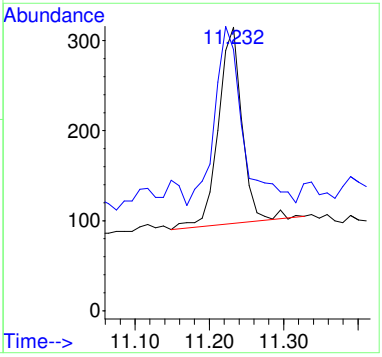


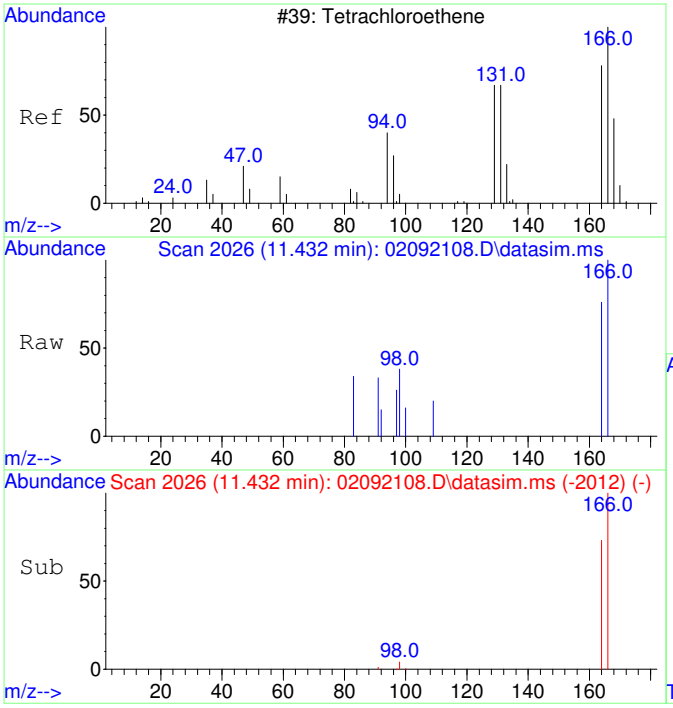


#14
1,1,2-Trichloroethane
Concen: 39.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 484

Ion	Ratio	Lower	Upper
97	100		
83	108.1	51.2	111.2

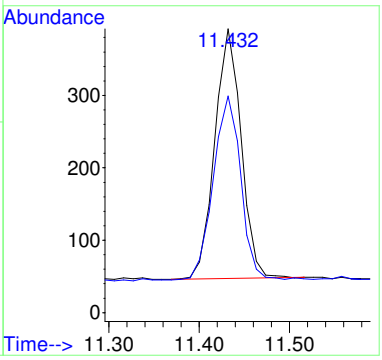


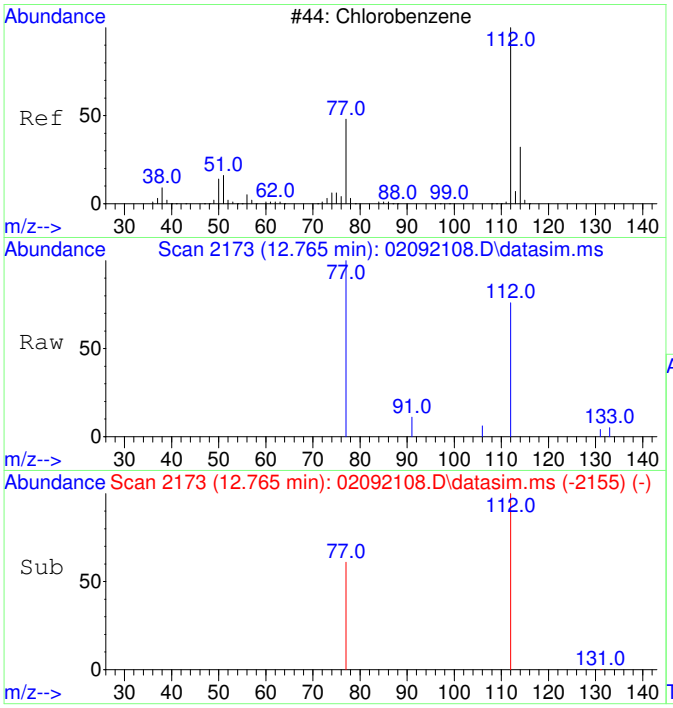


#15
Tetrachloroethene
Concen: 42.70 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 701

Ion	Ratio	Lower	Upper
166	100		
164	76.3	47.8	107.8

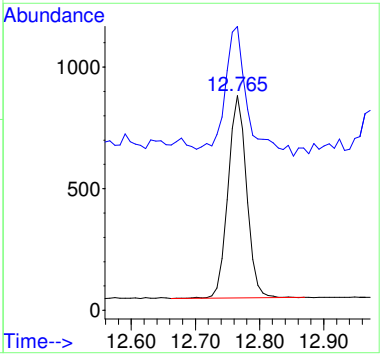


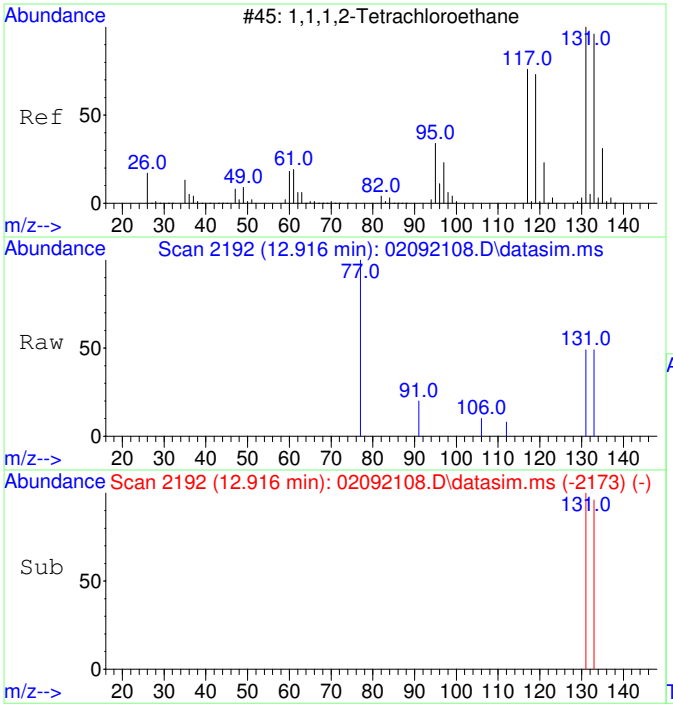


#16
Chlorobenzene
Concen: 40.90 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 1670

Ion	Ratio	Lower	Upper
112	100		
77	78.9	23.6	83.6

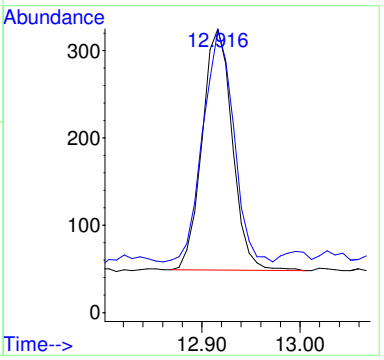


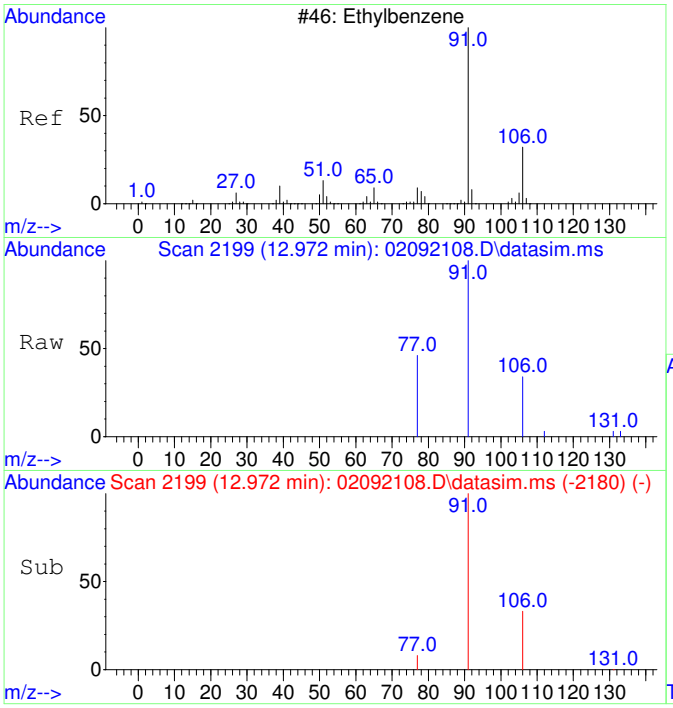


#17
1,1,1,2-Tetrachloroethane
Concen: 41.22 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:131 Resp: 589

Ion	Ratio	Lower	Upper
131	100		
133	97.6	66.3	126.3

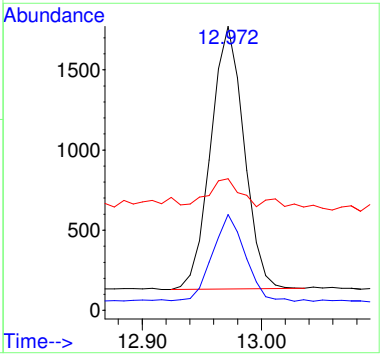


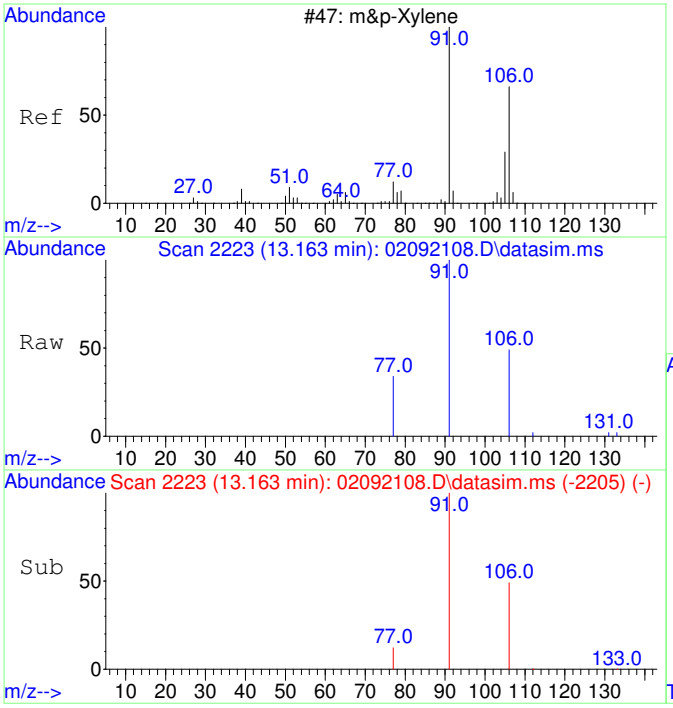


#18
Ethylbenzene
Concen: 47.34 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 3187

Ion	Ratio	Lower	Upper
91	100		
106	32.0	3.0	63.0
77	11.6	0.0	38.2

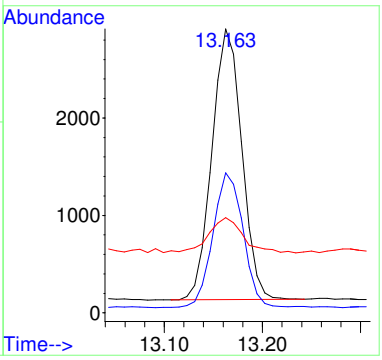


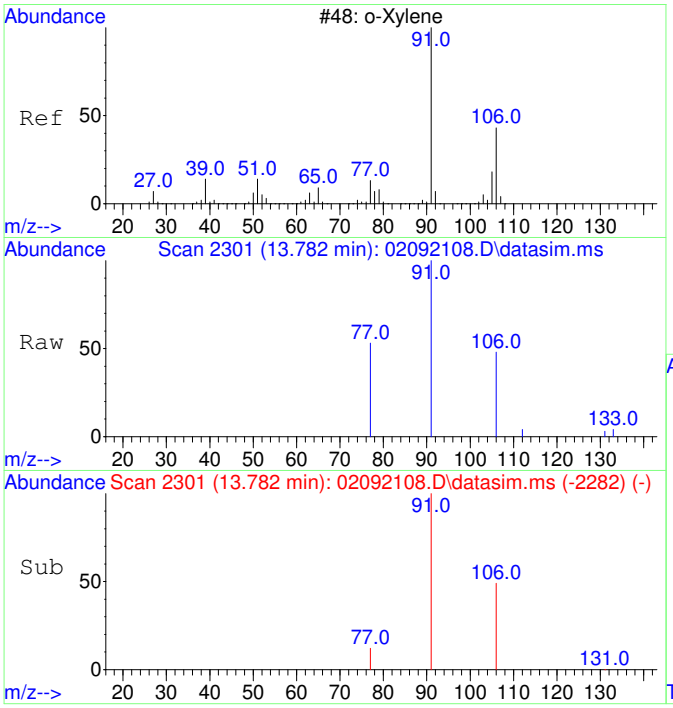


#19
m&p-Xylene
Concen: 112.85 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 5850

Ion	Ratio	Lower	Upper
91	100		
106	49.8	22.2	82.2
77	14.7	0.0	42.4

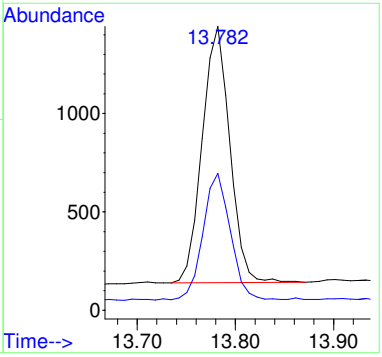


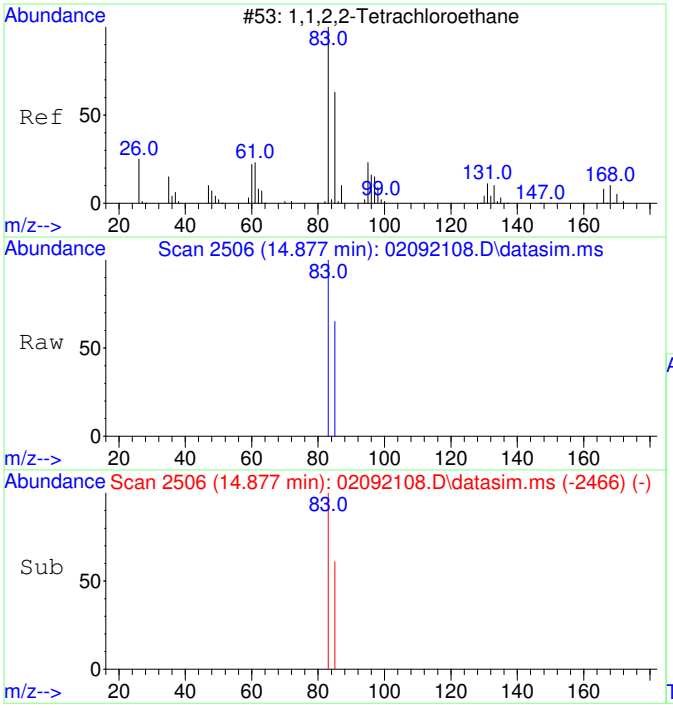


#20
o-Xylene
Concen: 45.66 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2542

Ion	Ratio	Lower	Upper
91	100		
106	48.7	19.2	79.2

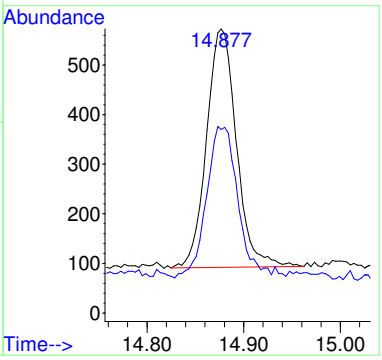


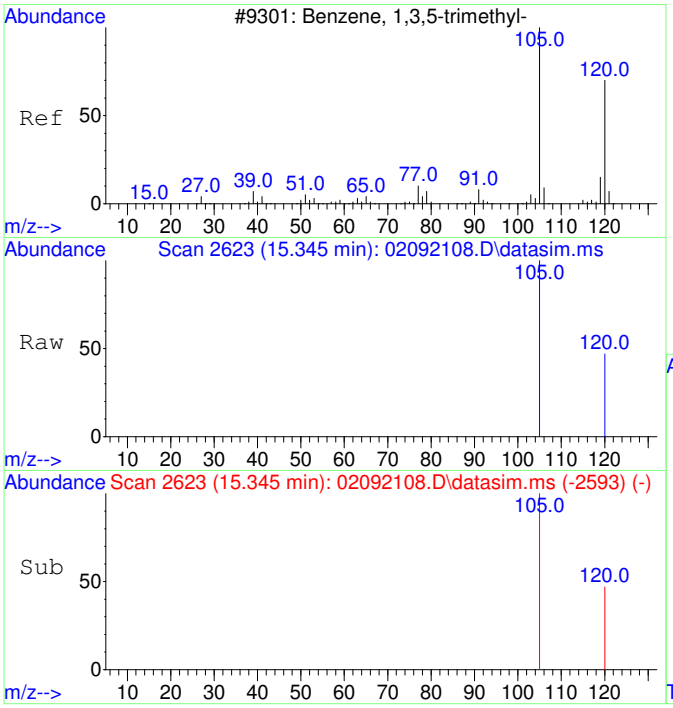


#21
1,1,2,2-Tetrachloroethane
Concen: 39.90 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 1035

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.8	94.8

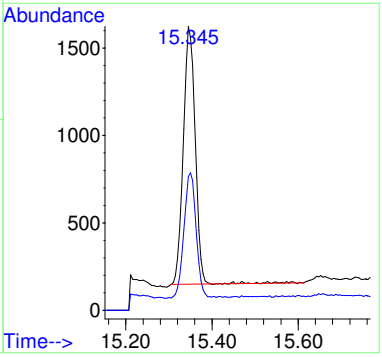


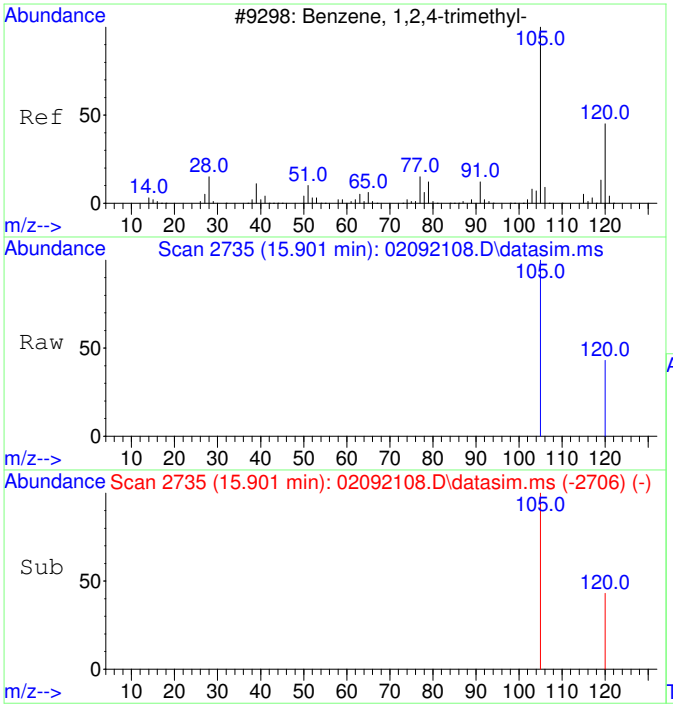


#22
1,3,5-Trimethylbenzene
Concen: 46.50 ug/L
RT: 15.345 min Scan# 2623
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 2847

Ion	Ratio	Lower	Upper
105	100		
120	50.9	21.1	81.1

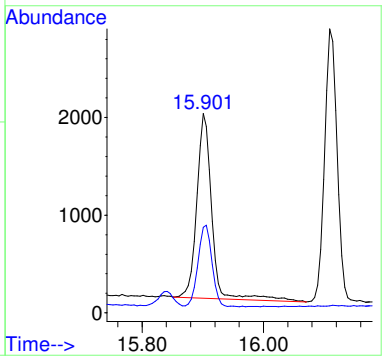


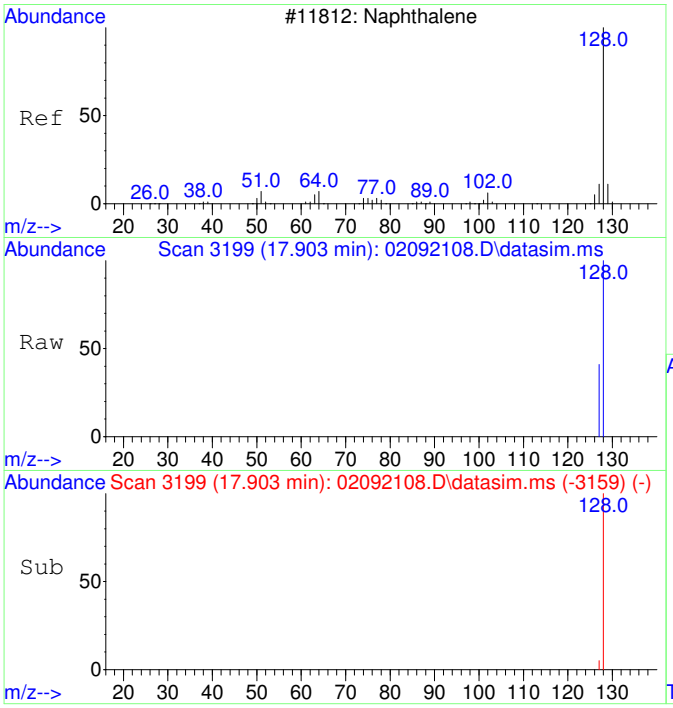


#23
1,2,4-Trimethylbenzene
Concen: 51.96 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 3254

Ion	Ratio	Lower	Upper
105	100		
120	40.2	17.2	77.2

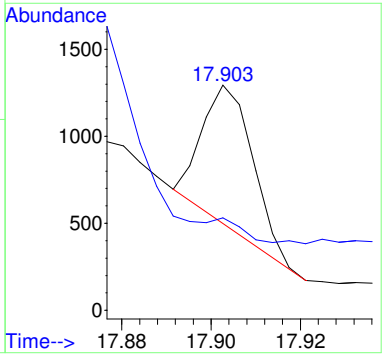


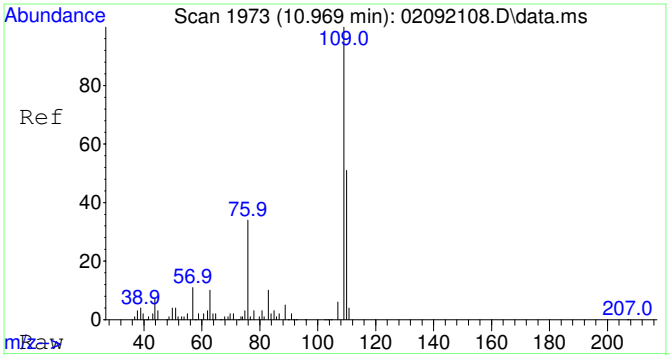


#24
Naphthalene
Concen: 5.73 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 581

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5

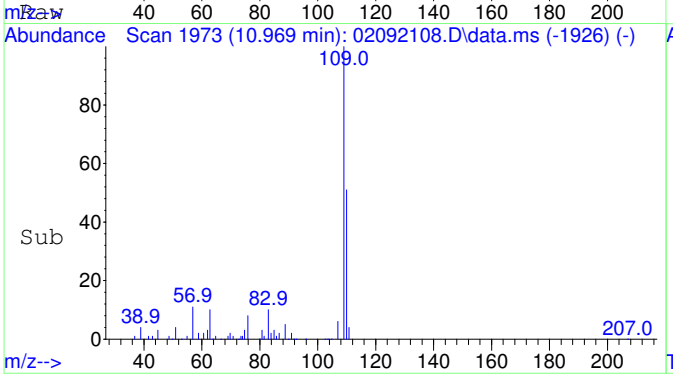


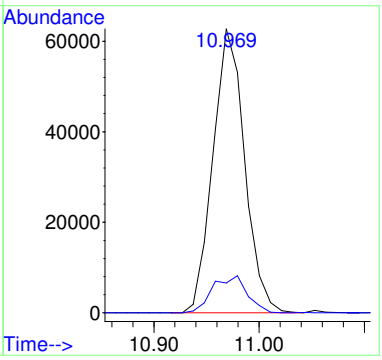


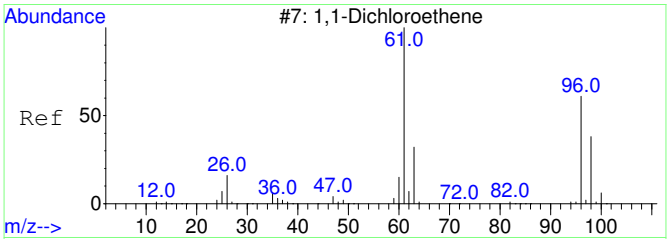
#25
2-Fluorotoluene SCAN
Concen: 5294.36 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:109 Resp: 131343

Ion	Ratio	Lower	Upper
109	100		
83	14.3	0.0	43.8



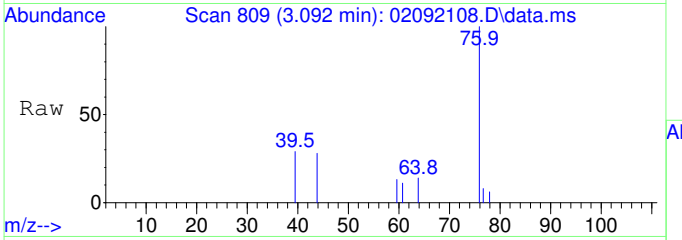


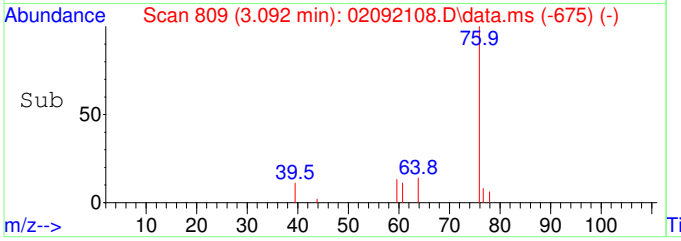


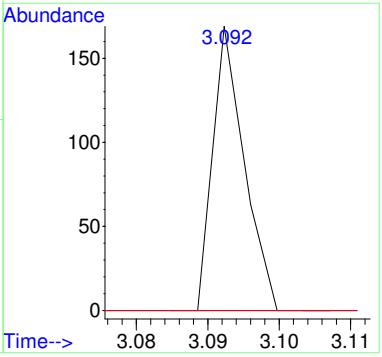
#26
1,1-Dichloroethene SCAN
Concen: 8.98 ug/L
RT: 3.092 min Scan# 809
Delta R.T. -0.004 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

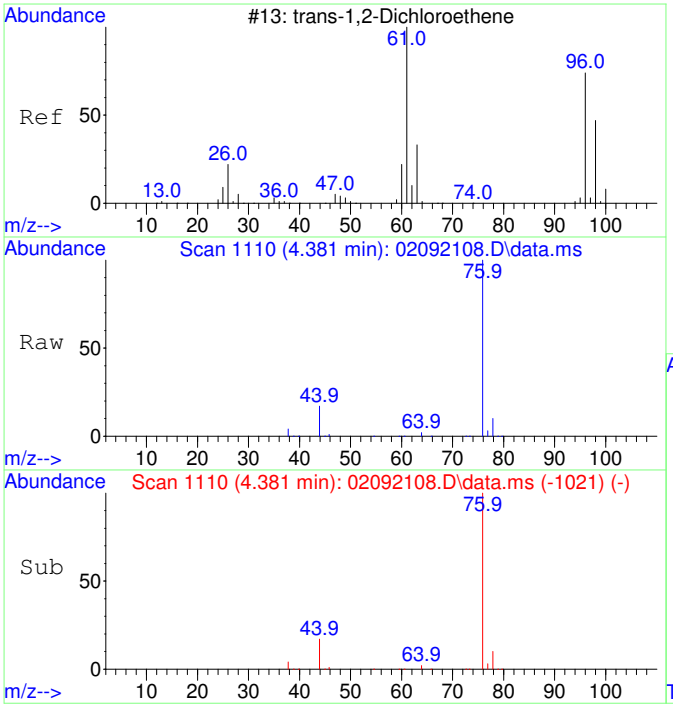
Tgt Ion: 61 Resp: 52

Ion	Ratio	Lower	Upper
61	100		
96	0.0	33.1	93.1#
98	0.0	11.2	71.2#





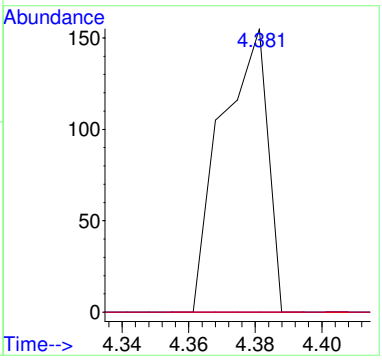


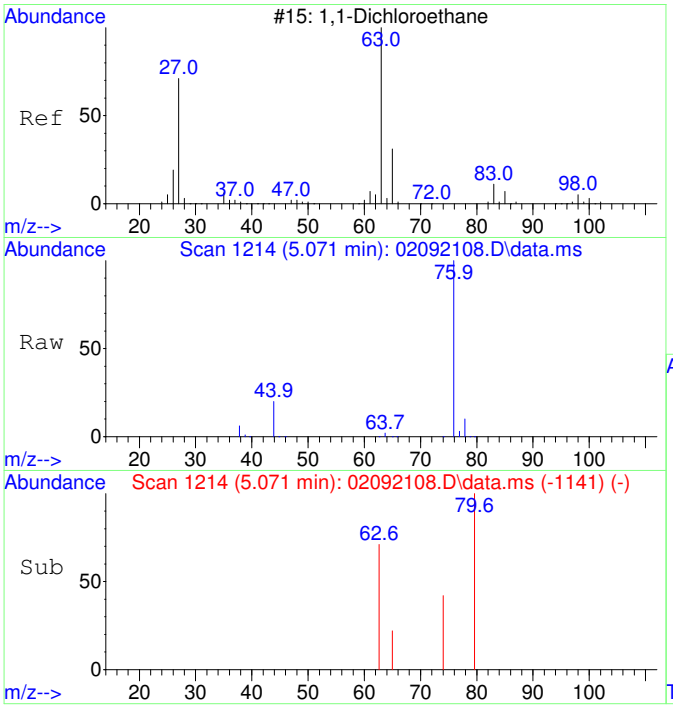


#27
trans-1,2-Dichloroethene SCAN
Concen: 20.33 ug/L
RT: 4.381 min Scan# 1110
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	0.0	49.0	109.0#
98	0.0	20.5	80.5#

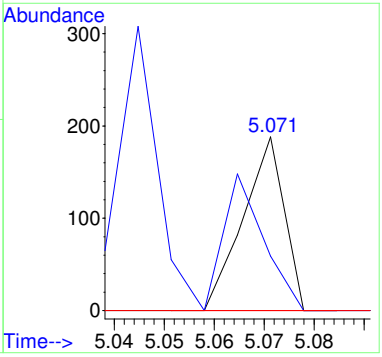


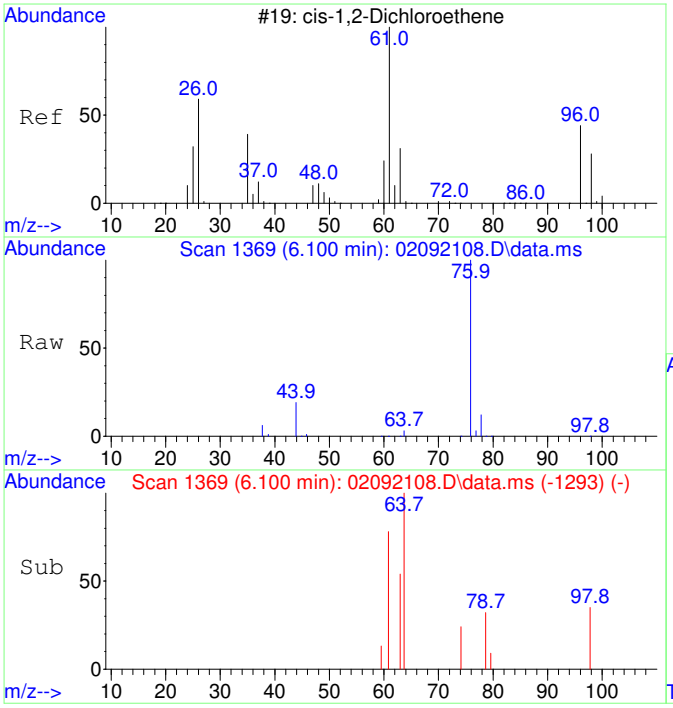


#28
1,1-Dichloroethane SCAN
Concen: 12.29 ug/L
RT: 5.071 min Scan# 1214
Delta R.T. -0.013 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 63 Resp: 107

Ion	Ratio	Lower	Upper
63	100		
65	76.6	1.3	61.3#
83	0.0	0.0	45.9

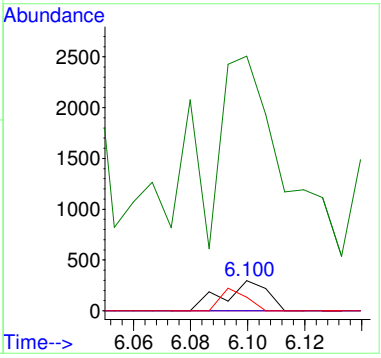


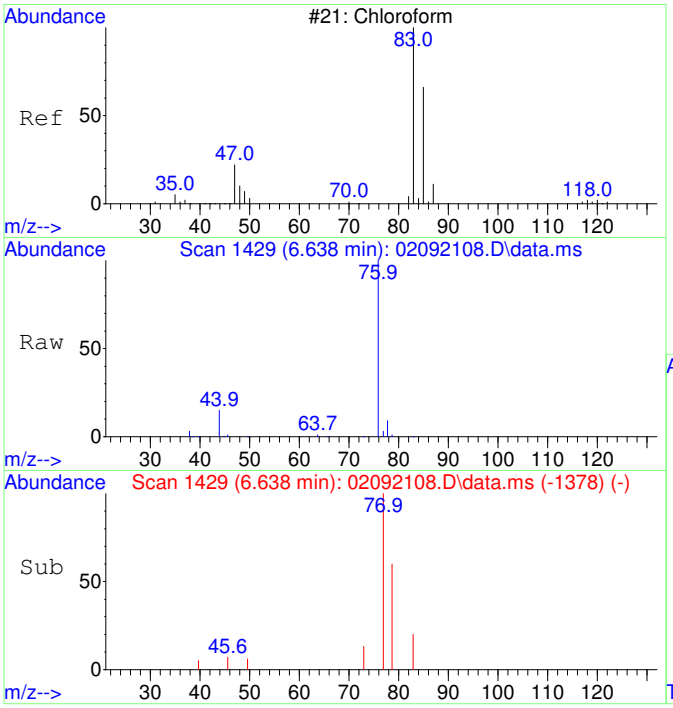


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.15 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 61 Resp: 318

Ion	Ratio	Lower	Upper
61	100		
96	0.0	39.9	99.9#
98	44.7	13.5	73.5
64	854.1	4.5	64.5#

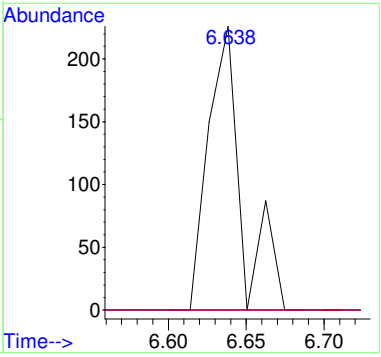


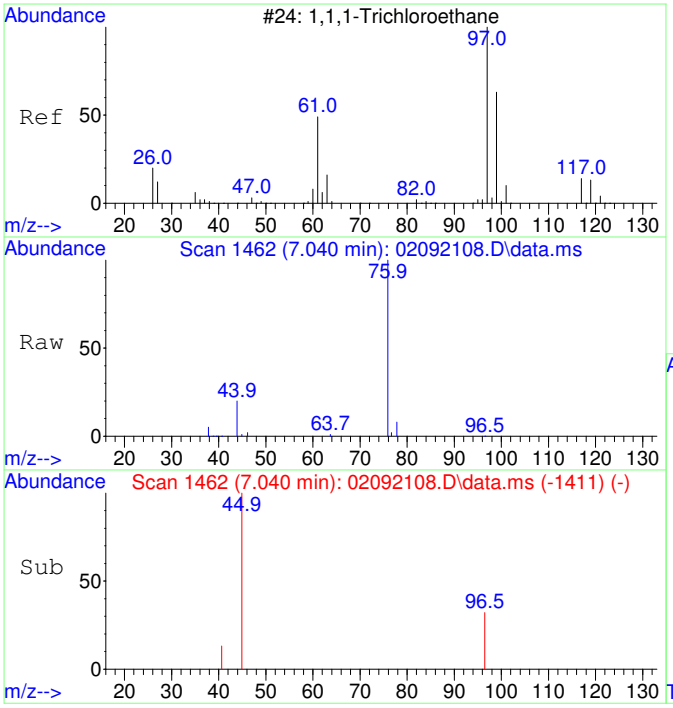


#30
Chloroform SCAN
Concen: 42.34 ug/L
RT: 6.638 min Scan# 1429
Delta R.T. -0.024 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 338

Ion	Ratio	Lower	Upper
83	100		
85	0.0	34.6	94.6#
47	0.0	0.0	53.4

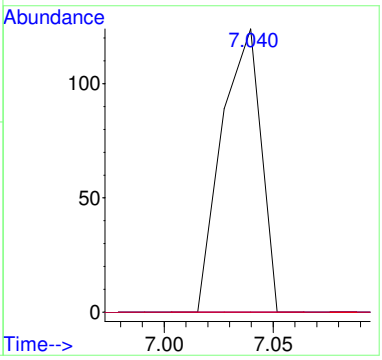


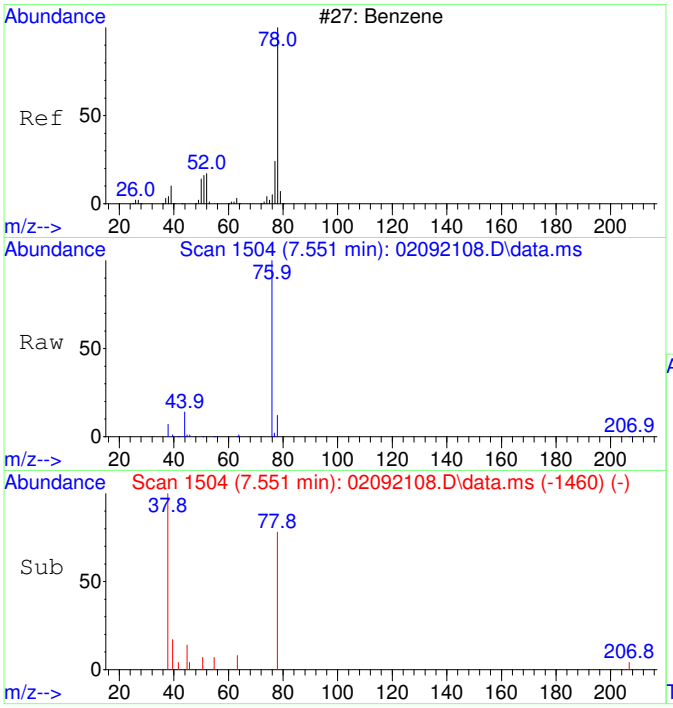


#31
1,1,1-Trichloroethane SCAN
Concen: 18.81 ug/L
RT: 7.040 min Scan# 1462
Delta R.T. 0.122 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 155

Ion	Ratio	Lower	Upper
97	100		
99	0.0	43.6	103.6#
61	0.0	18.0	78.0#

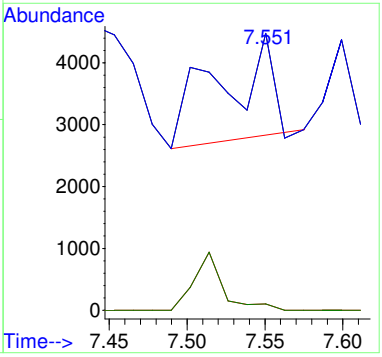


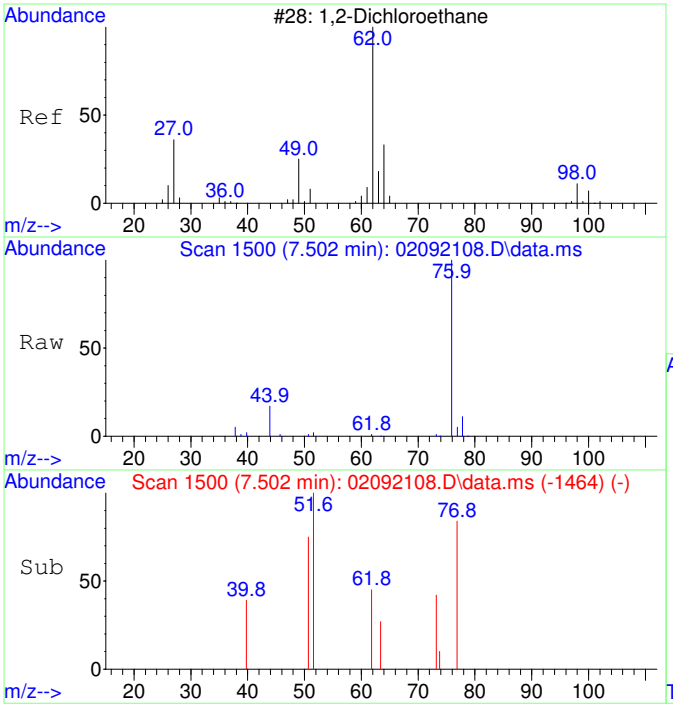


#33
Benzene SCAN
Concen: 156.19 ug/L
RT: 7.551 min Scan# 1504
Delta R.T. 0.037 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 78 Resp: 3893

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	47.9
51	0.0	0.0	44.1

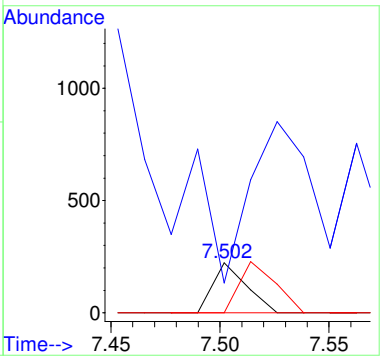


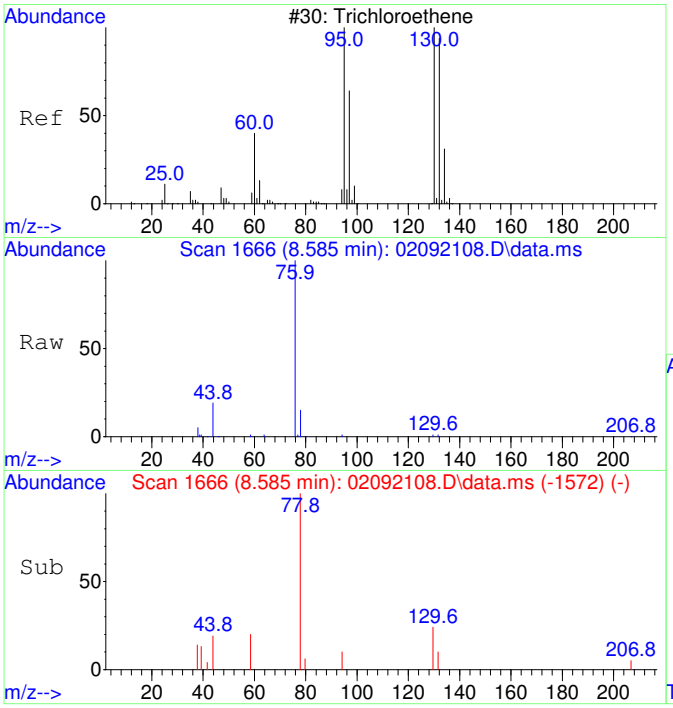


#34
1,2-Dichloroethane SCAN
Concen: 30.40 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. -0.061 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 62 Resp: 237

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

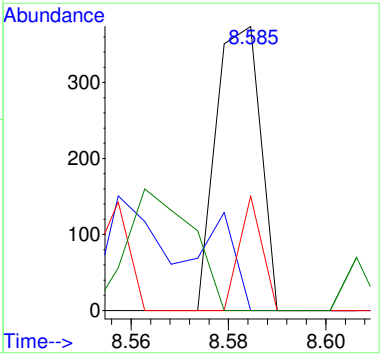


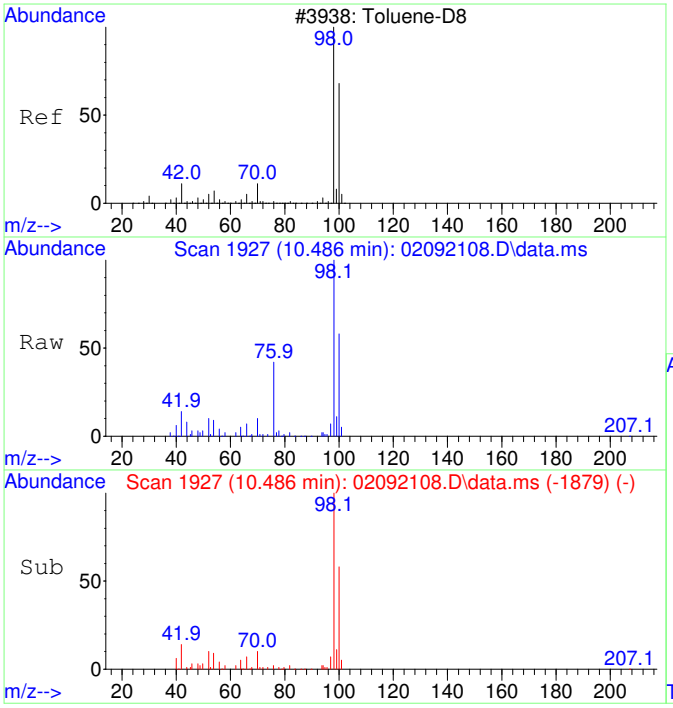


#35
Trichloroethene SCAN
Concen: 43.61 ug/L
RT: 8.585 min Scan# 1666
Delta R.T. 0.011 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:130 Resp: 237

Ion	Ratio	Lower	Upper
130	100		
95	0.0	60.5	120.5#
132	0.0	59.6	119.6#
97	0.0	28.2	88.2#

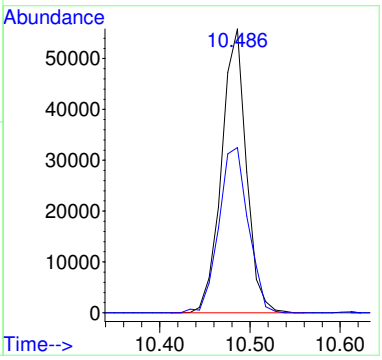


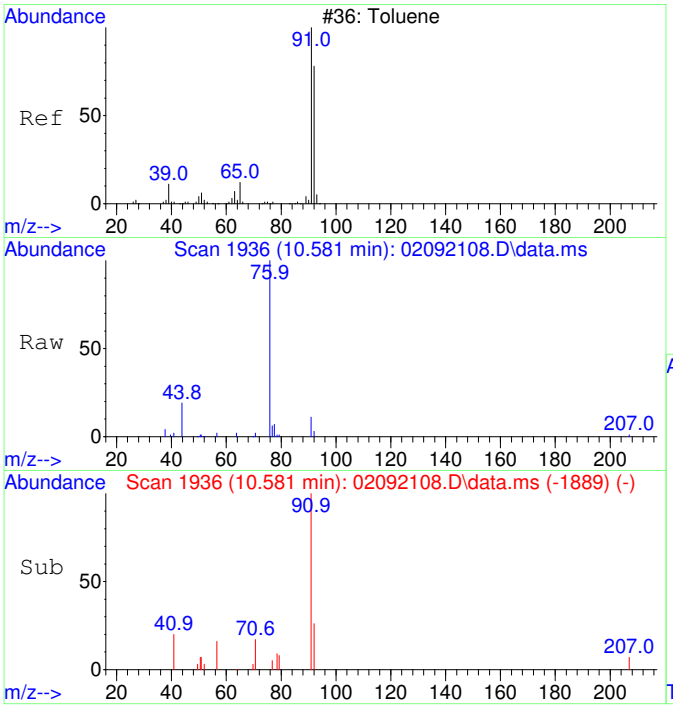


#36
Toluene-d8 SCAN
Concen: 4582.48 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 98 Resp: 106622

Ion	Ratio	Lower	Upper
98	100		
100	69.3	40.0	100.0

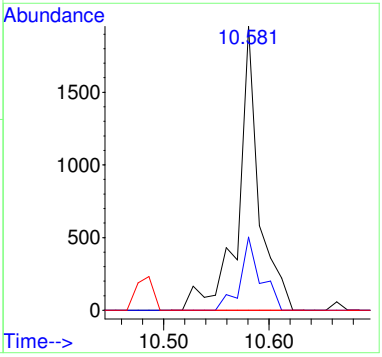


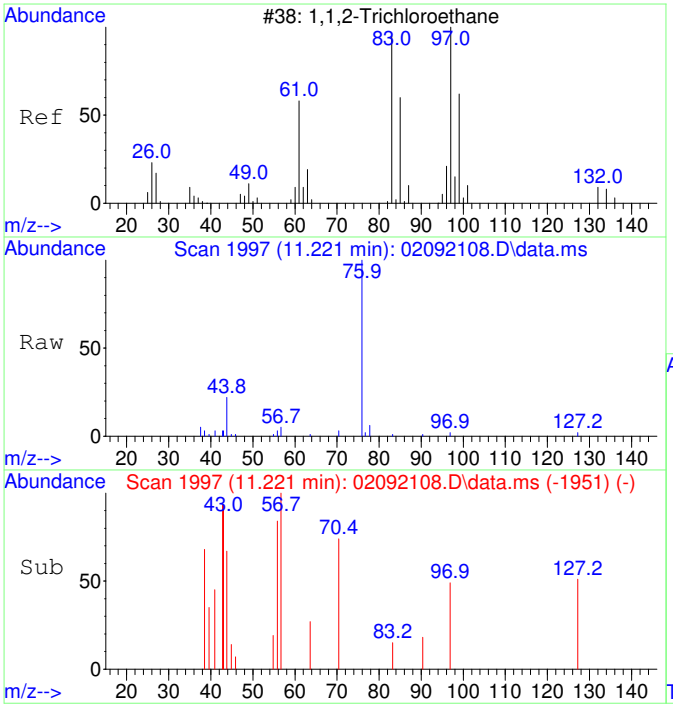


#37
Toluene SCAN
Concen: 93.52 ug/L
RT: 10.581 min Scan# 1936
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2679

Ion	Ratio	Lower	Upper
91	100		
92	25.4	28.3	88.3#
65	0.0	0.0	41.0

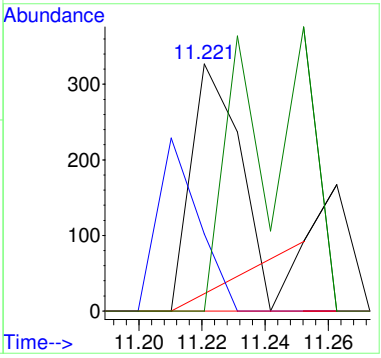


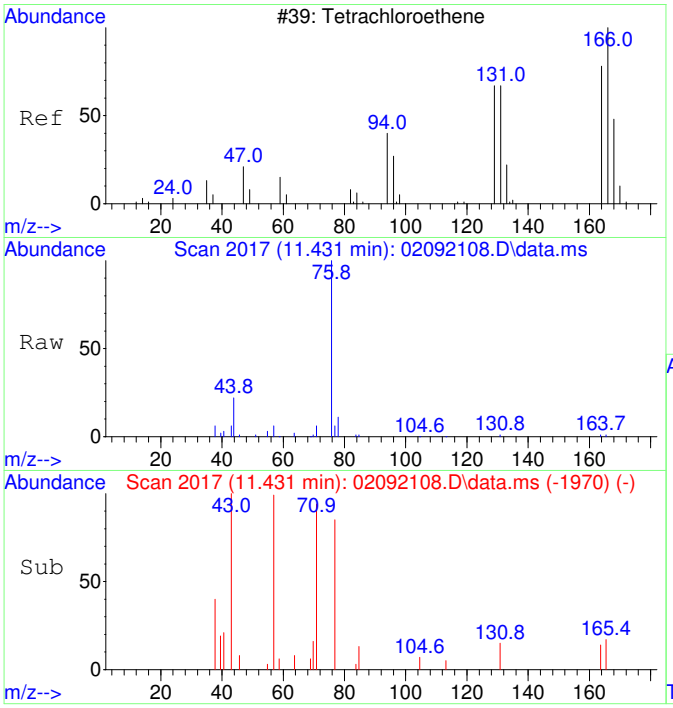


#38
1,1,2-Trichloroethane SCAN
Concen: 41.36 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. -0.021 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 97 Resp: 297

Ion	Ratio	Lower	Upper
97	100		
83	70.0	57.7	117.7
61	0.0	32.1	92.1#
99	0.0	36.7	96.7#

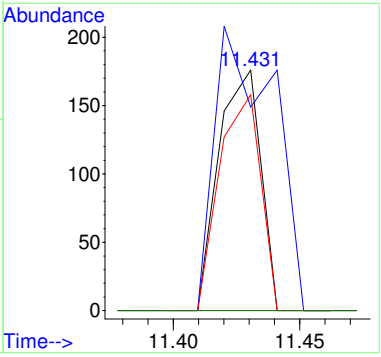


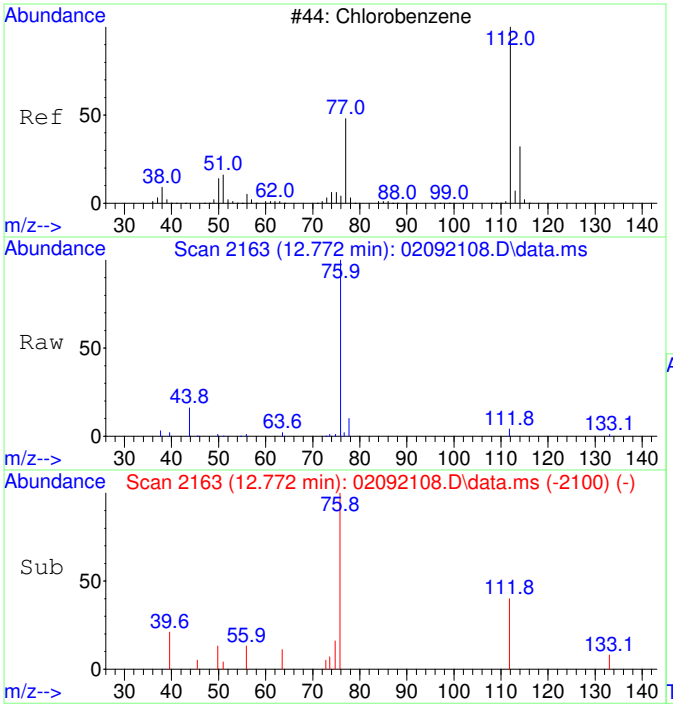


#39
Tetrachloroethene SCAN
Concen: 31.50 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:166 Resp: 203

Ion	Ratio	Lower	Upper
166	100		
164	165.5	50.9	110.9#
131	88.2	38.7	98.7
129	0.0	41.8	101.8#

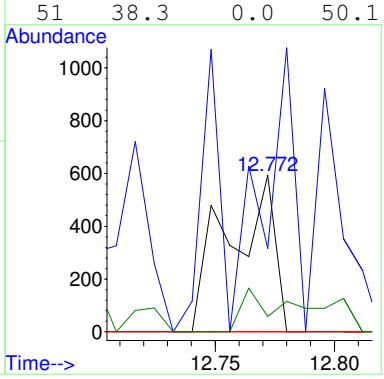


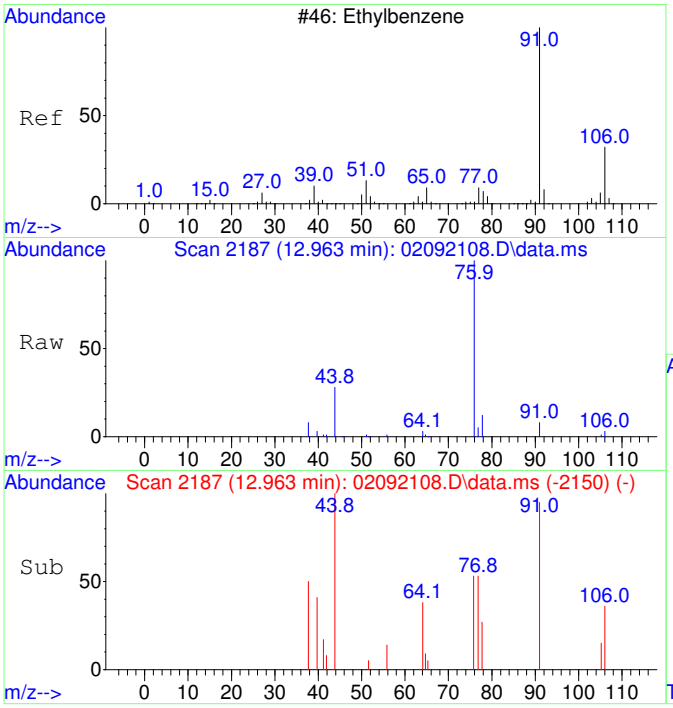


#40
Chlorobenzene SCAN
Concen: 39.07 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:112 Resp: 804

Ion	Ratio	Lower	Upper
112	100		
77	119.8	28.2	88.2#
114	0.0	2.3	62.3#
51	38.3	0.0	50.1

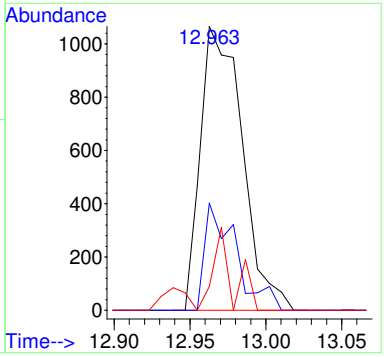


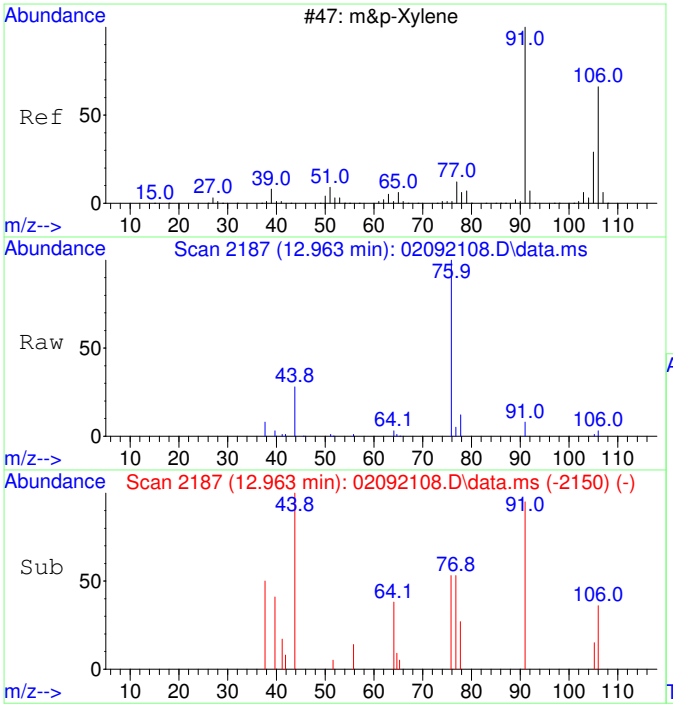


#42
Ethylbenzene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
51	13.8	0.0	40.1

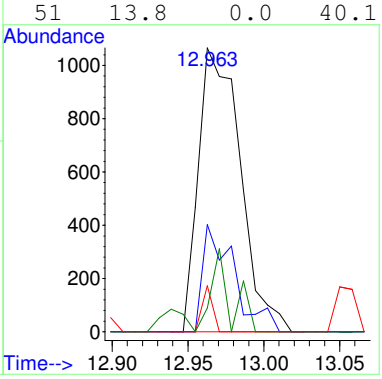


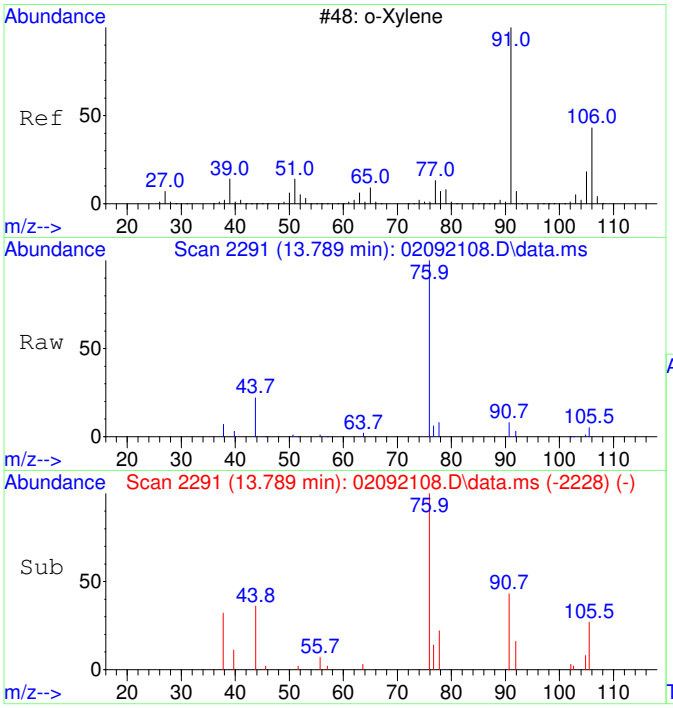


#43
m&p-Xylene SCAN
Concen: 37.50 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. -0.206 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 2047

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.1	83.1
105	4.0	0.0	54.7
51	13.8	0.0	40.1

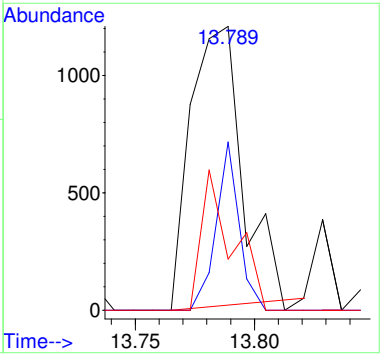


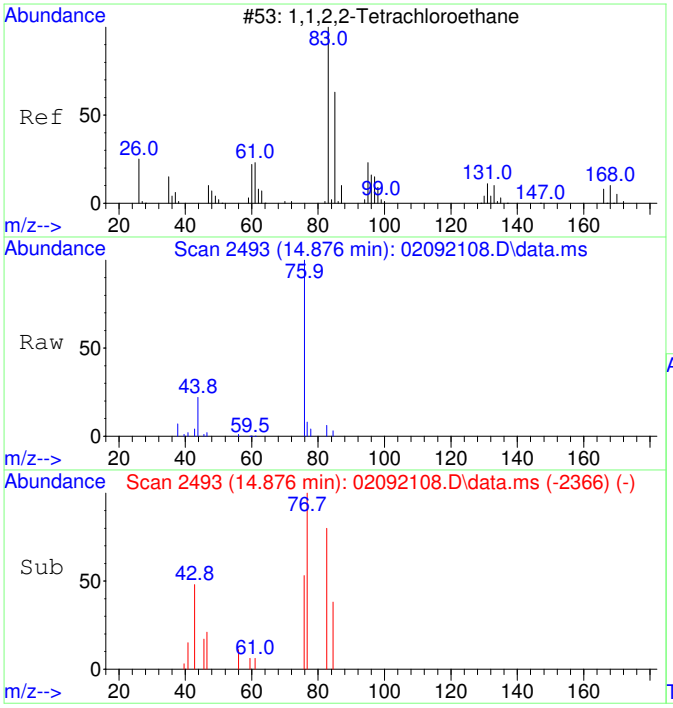


#44
o-Xylene SCAN
Concen: 60.68 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.000 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 91 Resp: 1809

Ion	Ratio	Lower	Upper
91	100		
106	26.6	18.0	78.0
105	30.2	0.0	56.6

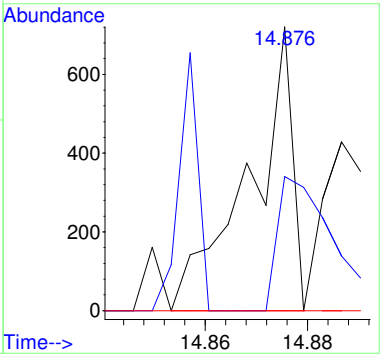


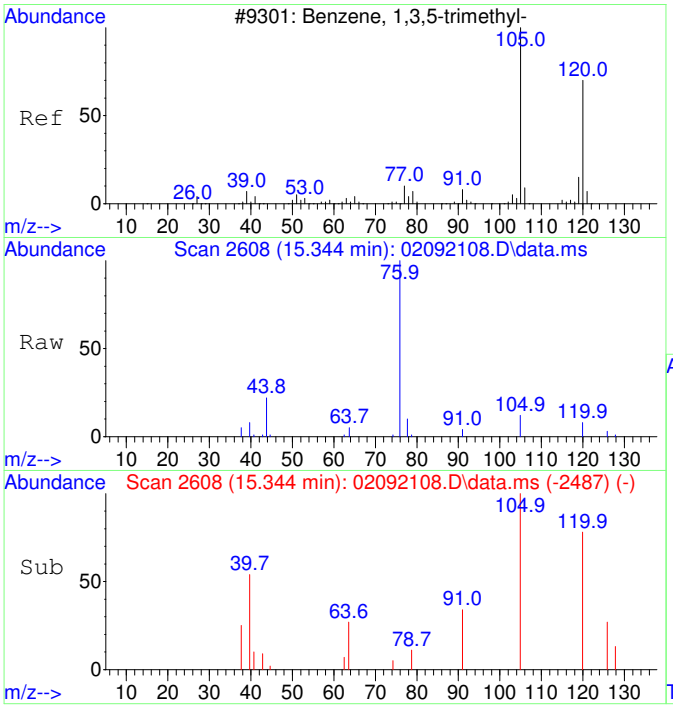


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 26.97 ug/L
RT: 14.876 min Scan# 2493
Delta R.T. -0.007 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion: 83 Resp: 418

Ion	Ratio	Lower	Upper
83	100		
85	62.9	35.9	95.9
95	0.0	0.0	47.4

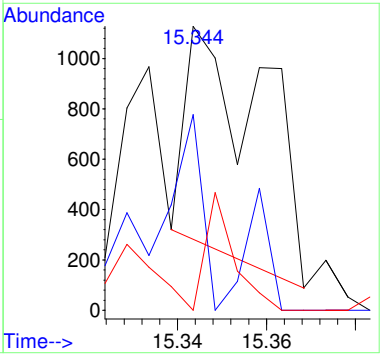


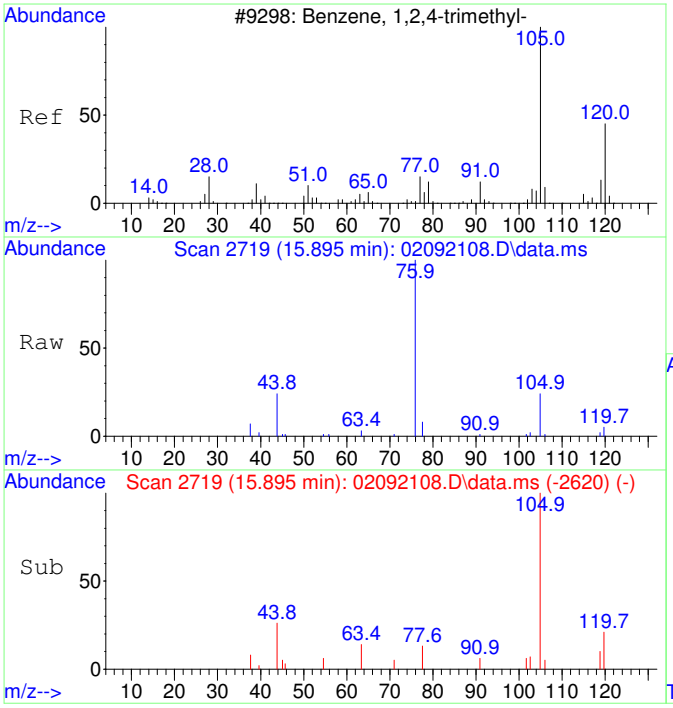


#46
1,3,5-Trimethylbenzene SCAN
Concen: 33.10 ug/L
RT: 15.344 min Scan# 2608
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 1041

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.3	78.3
119	19.9	0.0	43.1

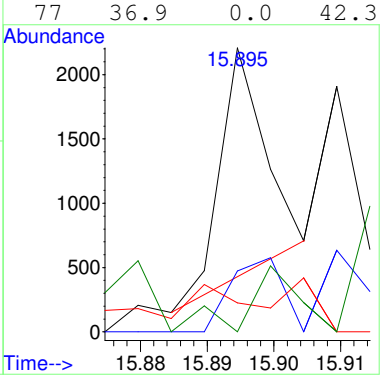


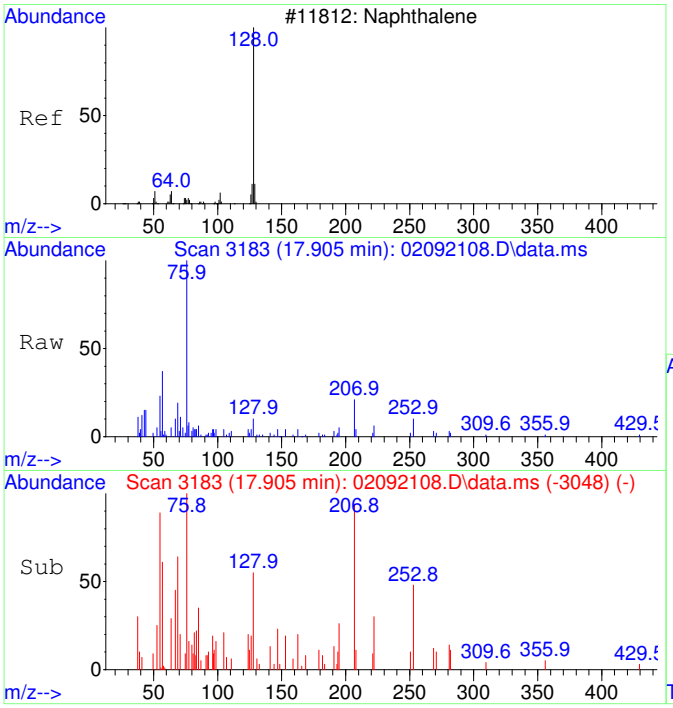


#47
1,2,4-Trimethylbenzene SCAN
Concen: 28.66 ug/L
RT: 15.895 min Scan# 2719
Delta R.T. -0.010 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:105 Resp: 921

Ion	Ratio	Lower	Upper
105	100		
120	34.0	16.9	76.9
119	0.0	0.0	41.9
77	36.9	0.0	42.3

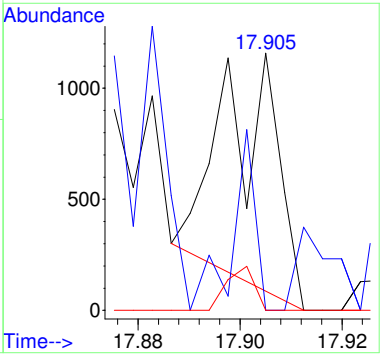




#48
Naphthalene SCAN
Concen: 15.36 ug/L
RT: 17.905 min Scan# 3183
Delta R.T. 0.003 min
Lab File: 02092108.D
Acq: 9 Feb 2021 12:34

Tgt Ion:128 Resp: 741

Ion	Ratio	Lower	Upper
128	100		
127	33.9	0.0	44.0
129	10.1	0.0	40.8



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory
SDG: 21039B
Client: California Site Cleanup Section 3
Project: MEW OU1 FY2021 Vapor Intrusion Investigation
Instrument ID: AG5975CV
Calibration: 2012007
Sequence: S21B025

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S21B025-CRL1	1,1-Dichloroethene	50.0	43.7	87	ug/L	60 - 140
	trans-1,2-Dichloroethene	50.0	39.2	78	ug/L	60 - 140
	1,1-Dichloroethane	50.0	38.7	77	ug/L	60 - 140
	cis-1,2-Dichloroethene	50.0	40.7	81	ug/L	60 - 140
	Chloroform	50.0	47.5	95	ug/L	60 - 140
	Trichloroethene	50.0	42.6	85	ug/L	60 - 140
	Tetrachloroethene	50.0	45.3	91	ug/L	60 - 140
	Toluene-d8	50.0	42.8	86	ug/L	60 - 140

QLS REPORT

Instrument Name: AG5975C
Sample Name: S21B025-CRL1
Misc Info: 2106042 0.05 mg/L
Date Acquired: 2/9/21 10:59
QLast Update: Tue Dec 08 06:26:34 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	10.980	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	3.090	50.0	43.68	87%	60	140	pass
3)	trans-1,2-Dichloroethene	4.376	50.0	39.25	78%	60	140	pass
4)	1,1-Dichloroethane	5.086	50.0	38.68	77%	60	140	pass
5)	cis-1,2-Dichloroethene	6.088	50.0	40.72	81%	60	140	pass
6)	Chloroform	6.652	50.0	47.52	95%	60	140	pass
7)	1,1,1-Trichloroethane	6.919	50.0	44.15	88%	60	140	pass
8)	Carbon tetrachloride	7.187	50.0	42.94	86%	60	140	pass
10)	1,2-Dichloroethane	7.552	50.0	45.91	92%	60	140	pass
11)	Trichloroethene	8.575	50.0	42.56	85%	60	140	pass
12)	Toluene-d8	10.487	50.0	42.75	86%	60	140	pass
13)	Toluene	10.582	50.0	50.17	100%	60	140	pass
14)	1,1,2-Trichloroethane	11.232	50.0	44.22	88%	60	140	pass
15)	Tetrachloroethene	11.432	50.0	45.26	91%	60	140	pass
16)	Chlorobenzene	12.773	50.0	77.23	154%	60	140	FAIL
17)	1,1,1,2-Tetrachloroethane	12.916	50.0	43.82	88%	60	140	pass
18)	Ethylbenzene	12.972	50.0	46.53	93%	60	140	pass
19)	m&p-Xylene	13.170	100.0	96.98	97%	60	140	pass
20)	o-Xylene	13.782	50.0	46.31	93%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.880	50.0	44.85	90%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.350	50.0	45.53	91%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.906	50.0	51.73	103%	60	140	pass
24)	Naphthalene	17.904	50.0	38.49	77%	60	140	pass

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 11:18:27 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

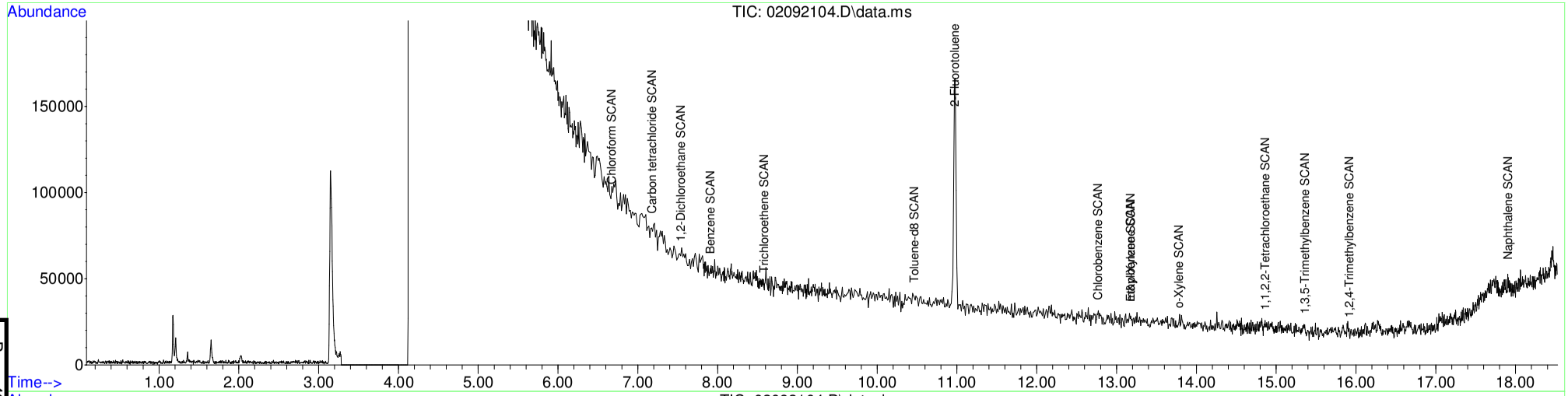
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	187070	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	1549	42.75	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 0.85%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.086	61	652	87.90	ug/L #	62
3] trans-1,2-Dichloroethene	4.349	61	367	39.25	ug/L	85
4] 1,1-Dichloroethane	5.073	63	432	38.68	ug/L	78
5] cis-1,2-Dichloroethene	6.074	61	471	40.72	ug/L	98
6] Chloroform	6.652	83	528	47.52	ug/L	96
7] 1,1,1-Trichloroethane	6.907	97	527	44.15	ug/L	98
8] Carbon tetrachloride	7.175	117	490	42.94	ug/L	91
9] Benzene	7.503	78	2993	95.08	ug/L	56
10] 1,2-Dichloroethane	7.540	62	493	45.91	ug/L #	1
11] Trichloroethene	8.569	130	423	42.56	ug/L	94
13] Toluene	10.582	91	2263	50.17	ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	462	44.22	ug/L	93
15] Tetrachloroethene	11.432	166	636	45.26	ug/L	100
16] Chlorobenzene	12.765	112	2699	77.23	ug/L	88
17] 1,1,1,2-Tetrachloroethane	12.916	131	536	43.82	ug/L	83
18] Ethylbenzene	12.972	91	2681	46.53	ug/L	93
19] m&p-Xylene	13.163	91	4303	96.98	ug/L	94
20] o-Xylene	13.782	91	2207	46.31	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	996	44.85	ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	2386	45.53	ug/L	97
23] 1,2,4-Trimethylbenzene	15.901	105	2773	51.73	ug/L	90
24] Naphthalene	17.903	128	3343	38.49	ug/L	100
25) 2-Fluorotoluene SCAN	10.969	109	111895	5269.53	ug/L	98
30) Chloroform SCAN	6.663	83	502	73.46	ug/L #	64
32) Carbon tetrachloride SCAN	7.173	117	226	37.50	ug/L #	53
33) Benzene SCAN	7.909	78	1654	77.53	ug/L	95
34) 1,2-Dichloroethane SCAN	7.538	62	473	70.88	ug/L #	40
35) Trichloroethene SCAN	8.579	130	217	46.65	ug/L #	54
36) Toluene-d8 SCAN	10.465	98	1002	50.31	ug/L #	15
40) Chlorobenzene SCAN	12.764	112	1254	71.20	ug/L #	1
42) Ethylbenzene SCAN	13.177	91	2813	60.20	ug/L	84
43) m&p-Xylene SCAN	13.177	91	2813	60.20	ug/L	85
44) o-Xylene SCAN	13.781	91	1223	47.93	ug/L	91
45) 1,1,2,2-Tetrachloroeth...	14.857	83	453	34.14	ug/L	74
46) 1,3,5-Trimethylbenzene...	15.353	105	1500	55.72	ug/L	88
47) 1,2,4-Trimethylbenzene...	15.909	105	1546	56.21	ug/L	67
48) Naphthalene SCAN	17.901	128	1956	47.38	ug/L	82

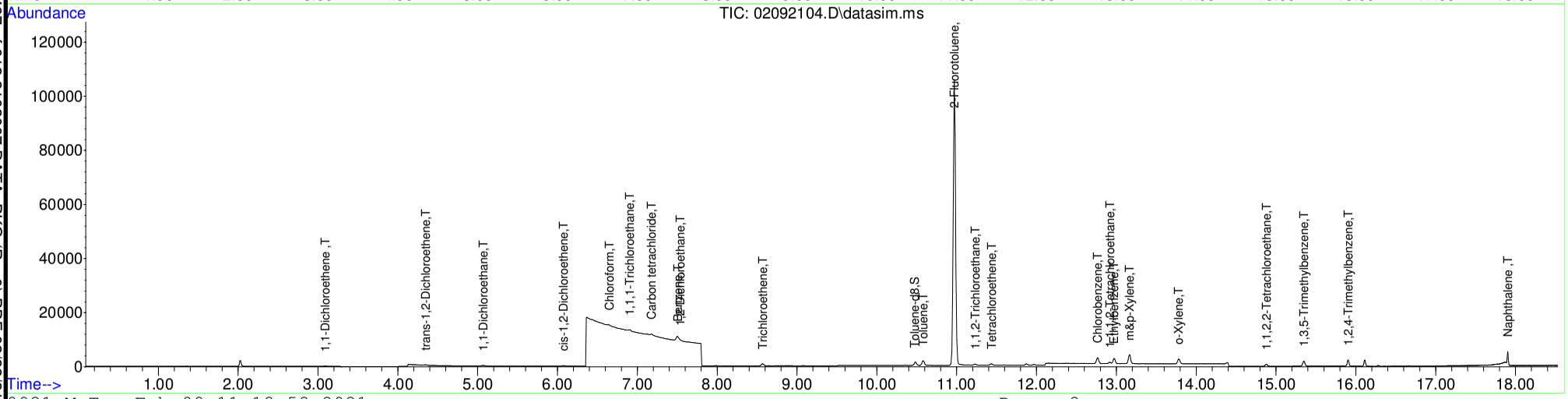
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 11:18:27 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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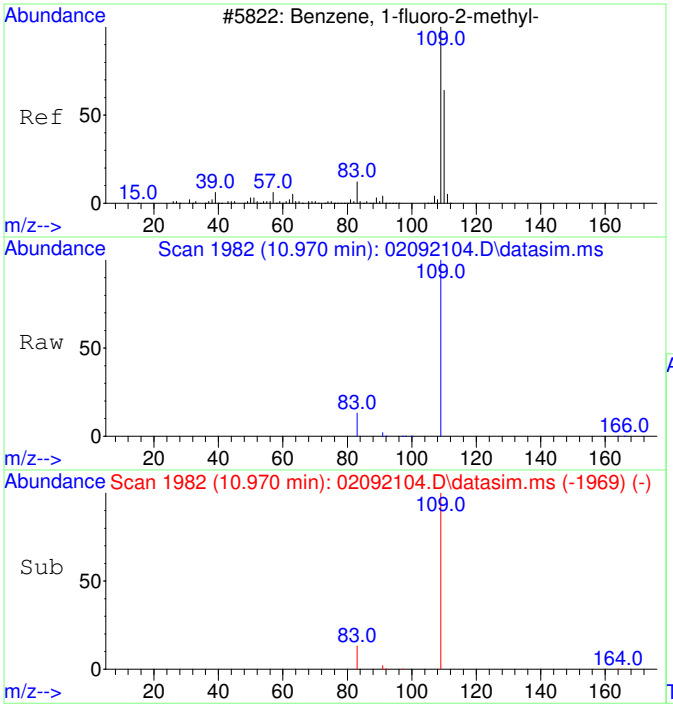
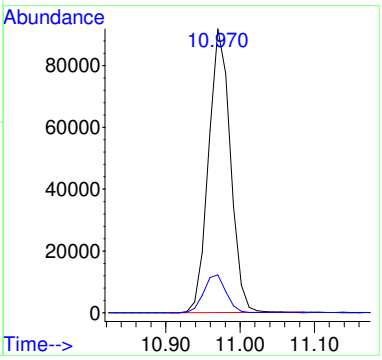
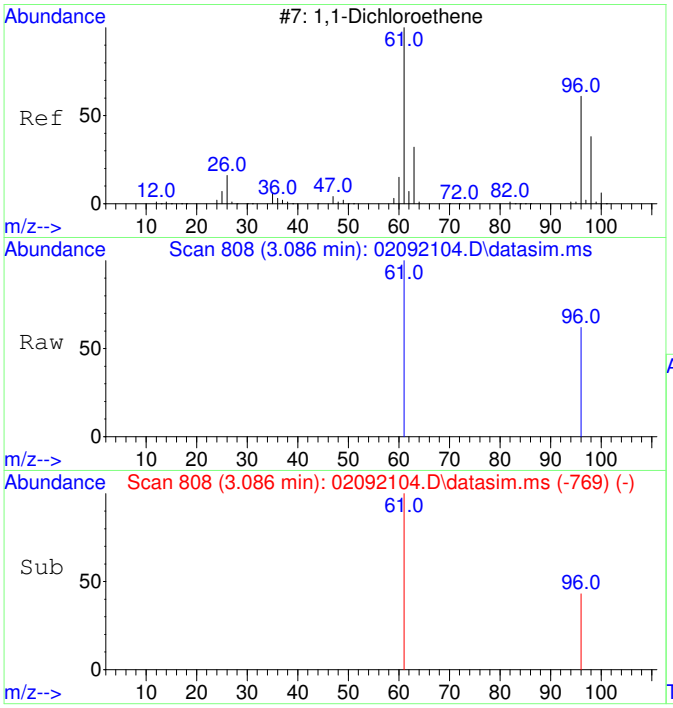


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:109 Resp: 187070

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

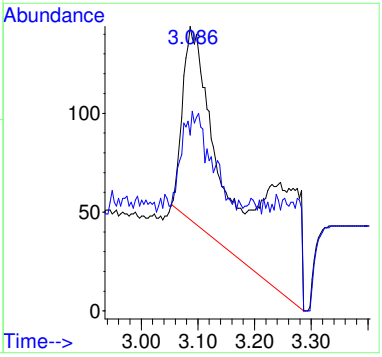




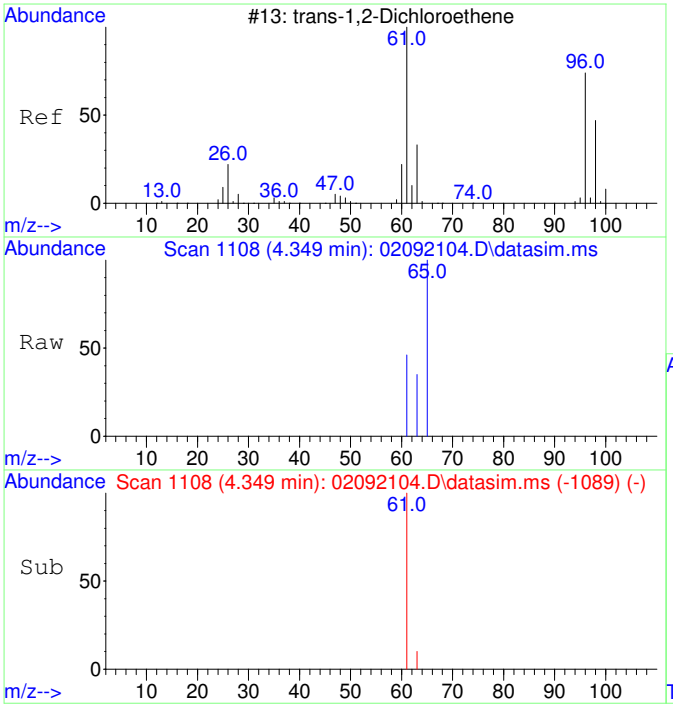
#2
1,1-Dichloroethene
Concen: 87.90 ug/L
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 652

Ion	Ratio	Lower	Upper
61	100		
96	36.5	37.2	97.2#



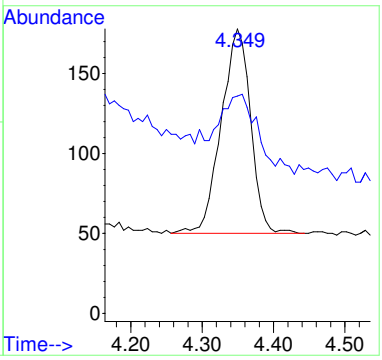
Before MI:
IMPROPER
BASELINE

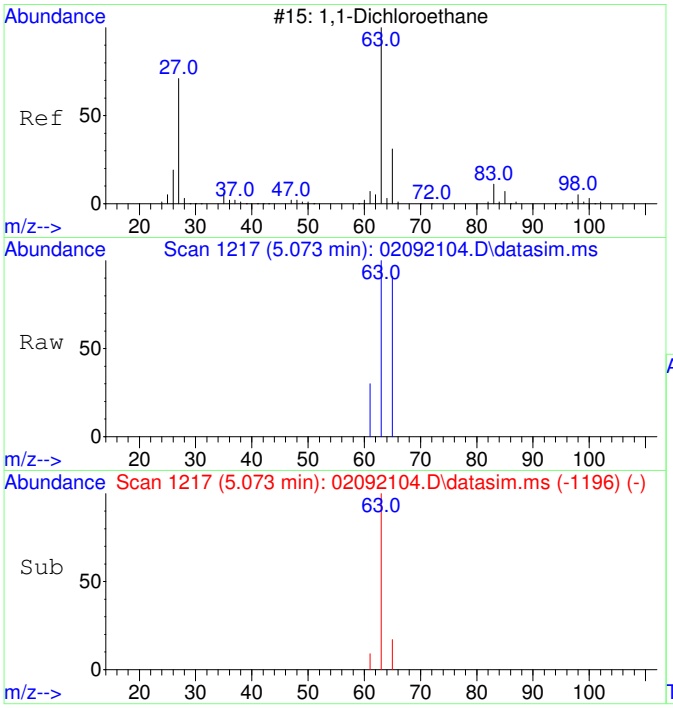


#3
trans-1,2-Dichloroethene
Concen: 39.25 ug/L
RT: 4.349 min Scan# 1108
Delta R.T. -0.026 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 367

Ion	Ratio	Lower	Upper
61	100		
63	40.6	2.4	62.4

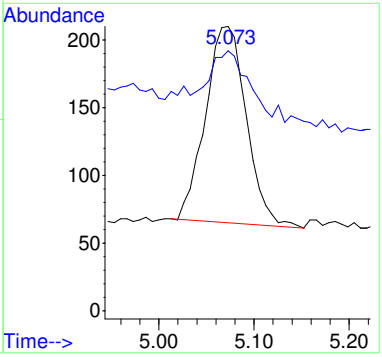


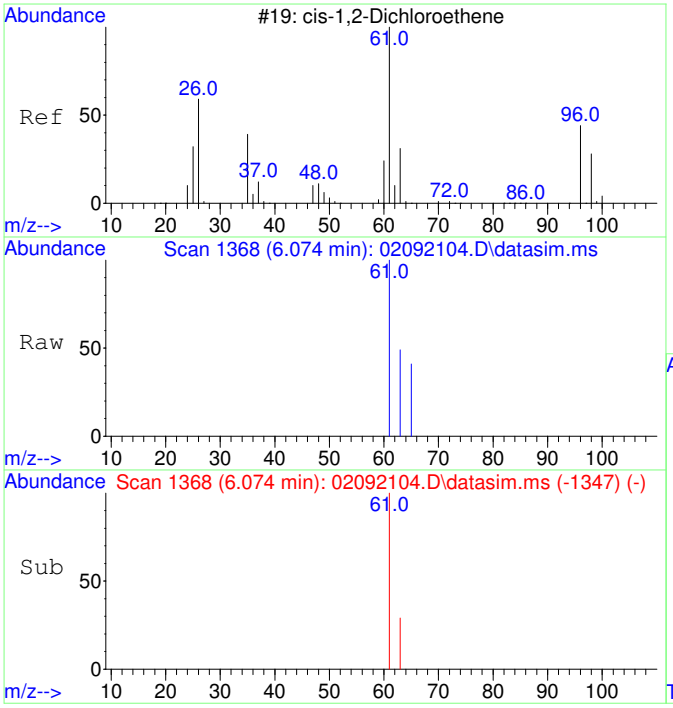


#4
1,1-Dichloroethane
Concen: 38.68 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. -0.013 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 63 Resp: 432

Ion	Ratio	Lower	Upper
63	100		
65	44.2	1.8	61.8

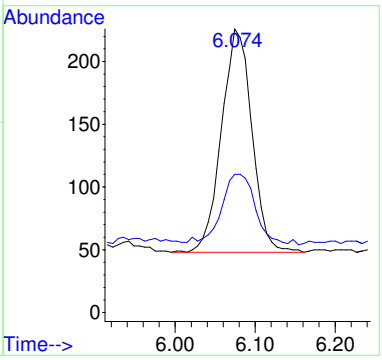


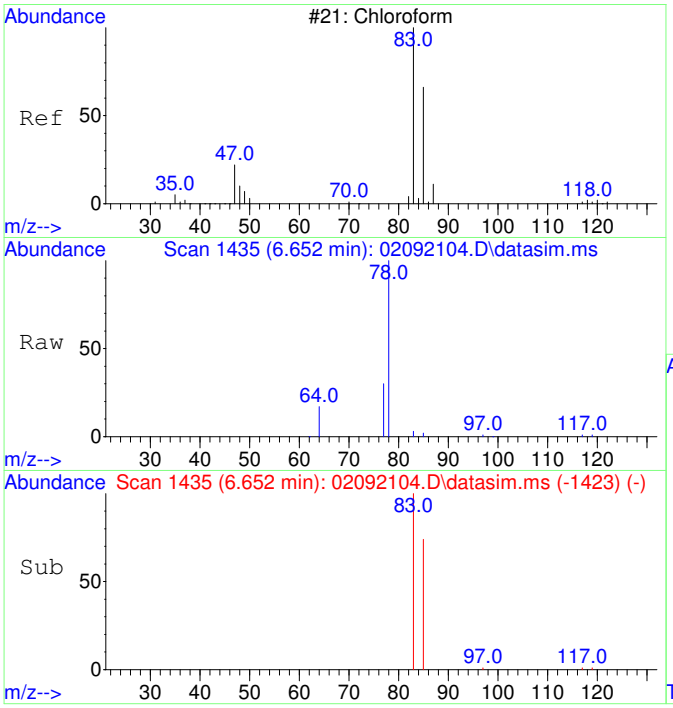


#5
cis-1,2-Dichloroethene
Concen: 40.72 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.013 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 471

Ion	Ratio	Lower	Upper
61	100		
63	33.5	2.5	62.5

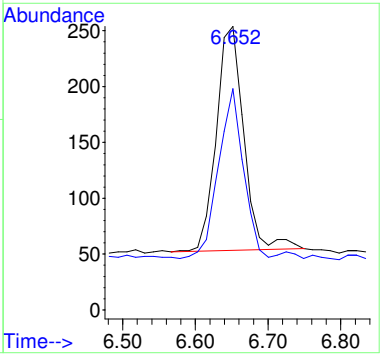


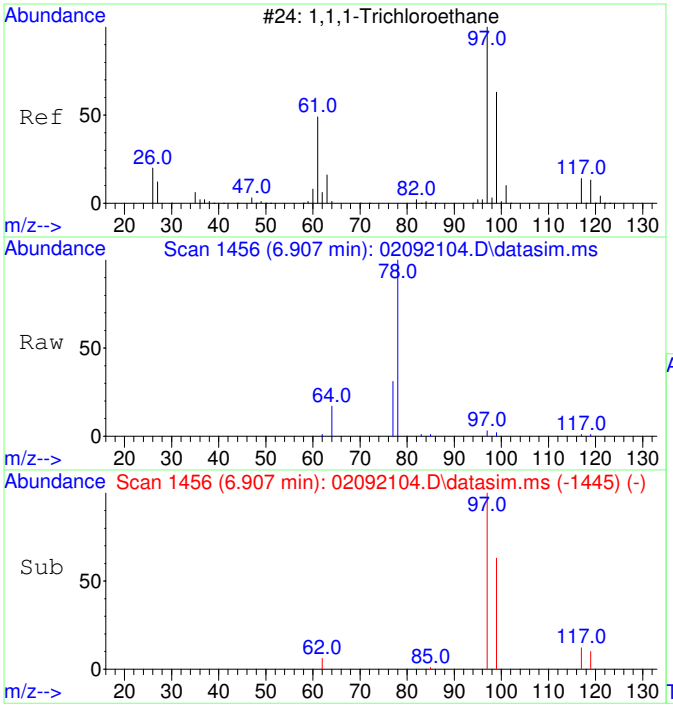


#6
Chloroform
Concen: 47.52 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 528

Ion	Ratio	Lower	Upper
83	100		
85	68.2	35.1	95.1

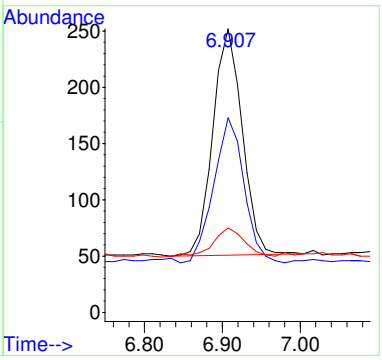


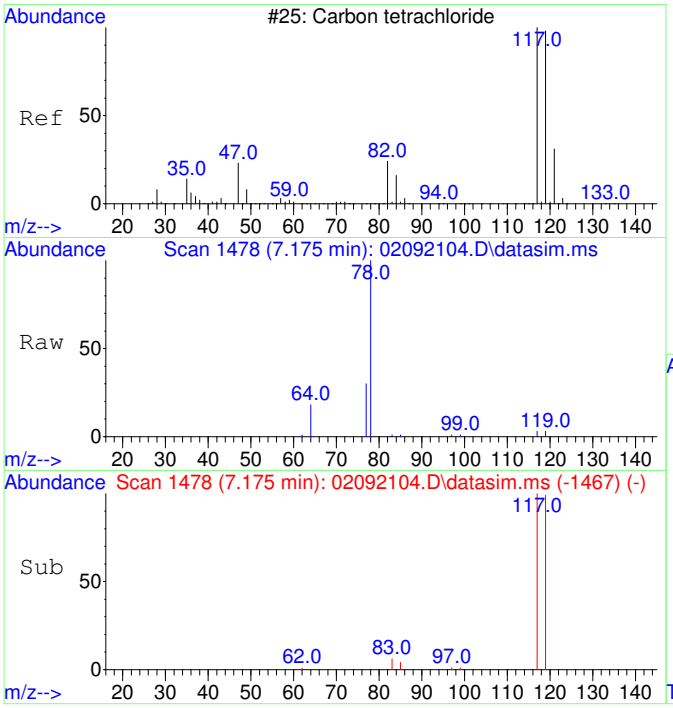


#7
1,1,1-Trichloroethane
Concen: 44.15 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 527

Ion	Ratio	Lower	Upper
97	100		
99	66.0	34.6	94.6
117	14.4	0.0	43.2

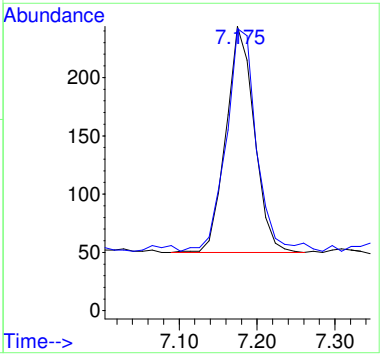


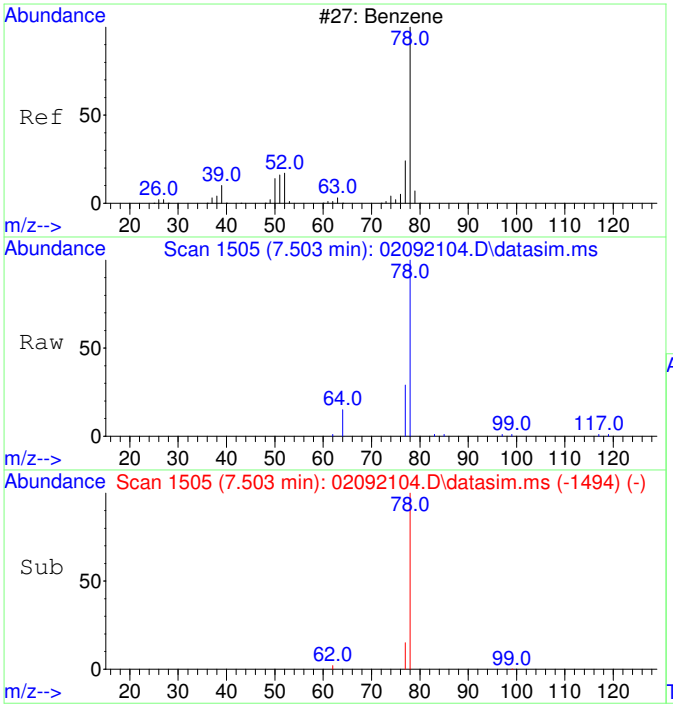


#8
Carbon tetrachloride
Concen: 42.94 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 490

Ion	Ratio	Lower	Upper
117	100		
119	105.3	66.4	126.4

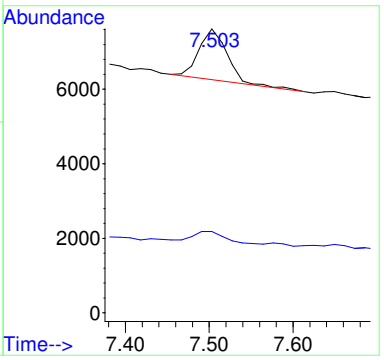


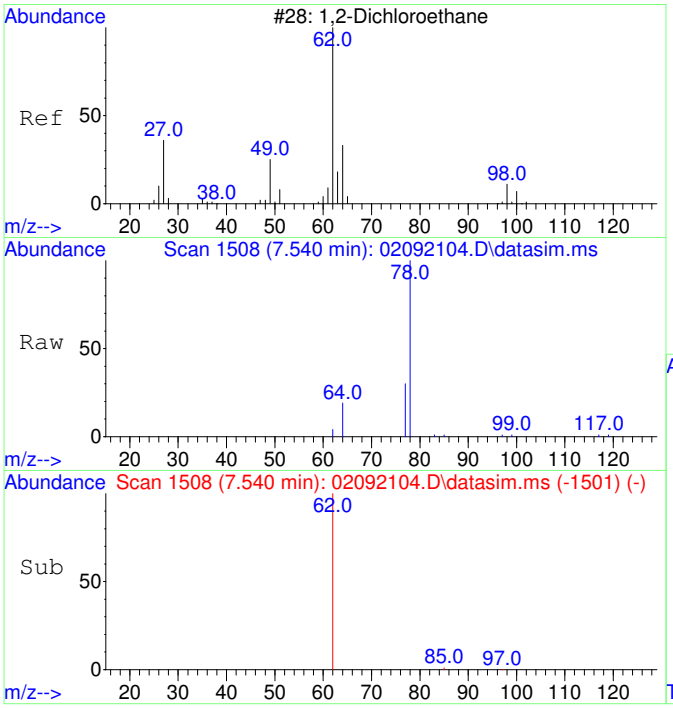


#9
Benzene
Concen: 95.08 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 2993

Ion	Ratio	Lower	Upper
78	100		
77	44.8	0.0	53.2

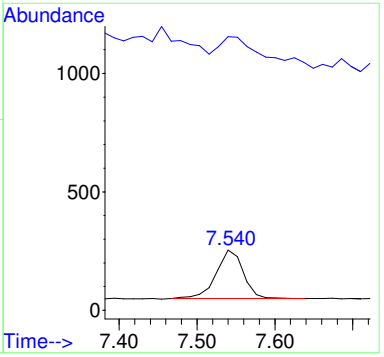


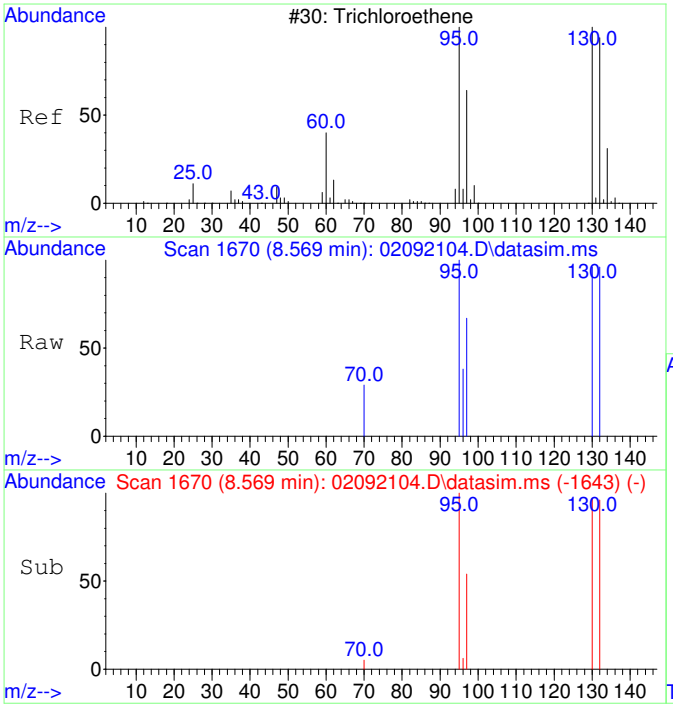


#10
1,2-Dichloroethane
Concen: 45.91 ug/L
RT: 7.540 min Scan# 1508
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 493

Ion	Ratio	Lower	Upper
62	100		
64	104.9	2.3	62.3#

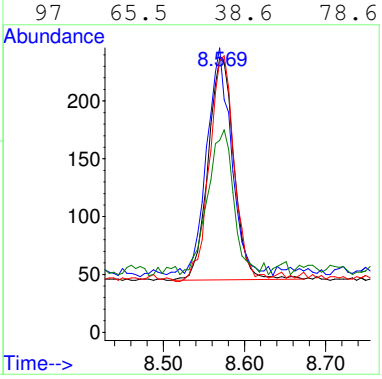


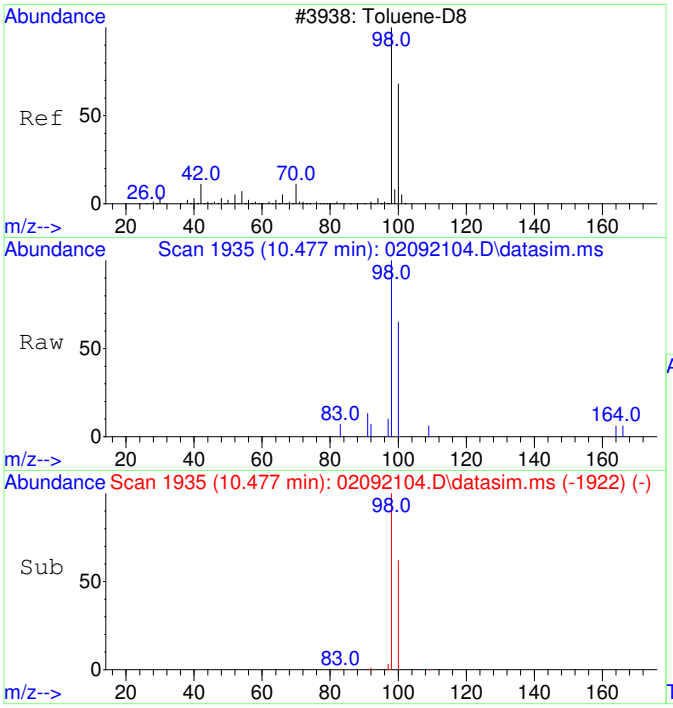


#11
Trichloroethene
Concen: 42.56 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 423

Ion	Ratio	Lower	Upper
130	100		
95	97.4	60.7	120.7
132	98.3	76.0	116.0
97	65.5	38.6	78.6

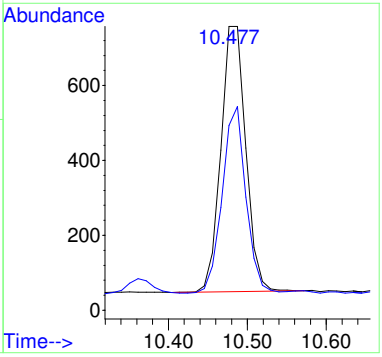


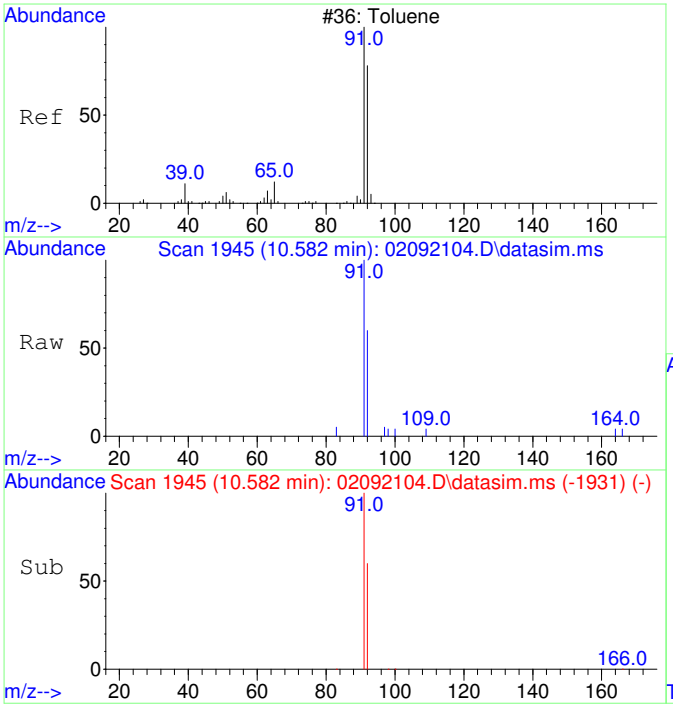


#12
Toluene-d8
Concen: 42.75 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1549

Ion	Ratio	Lower	Upper
98	100		
100	65.8	37.1	97.1

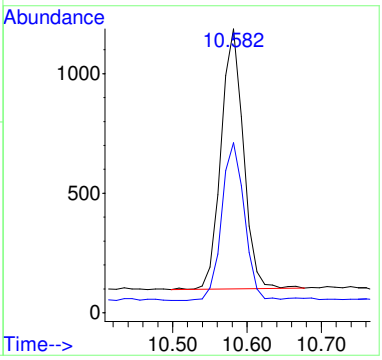


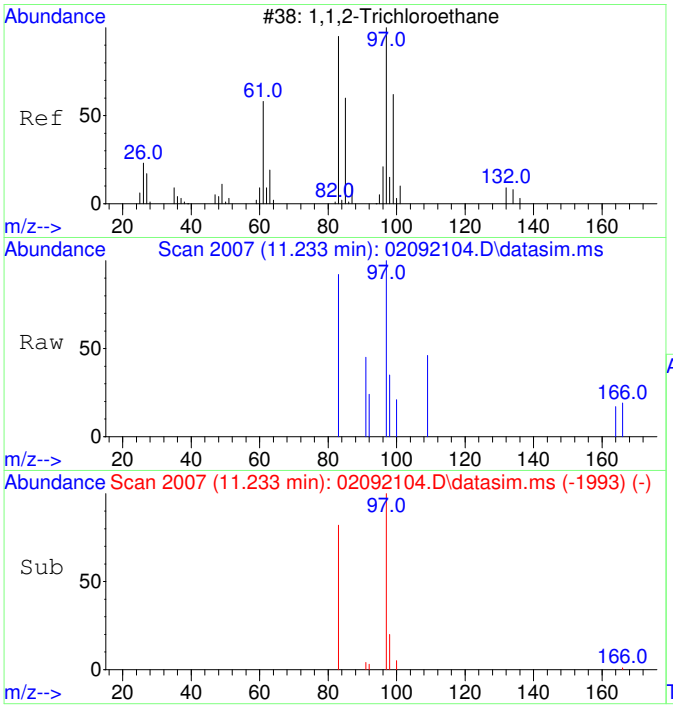


#13
Toluene
Concen: 50.17 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2263

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.9	89.9

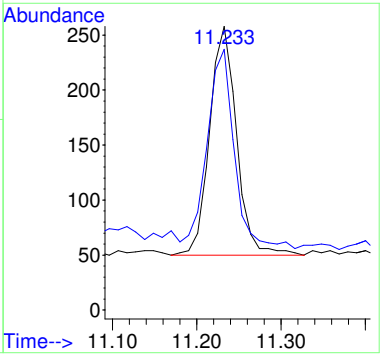


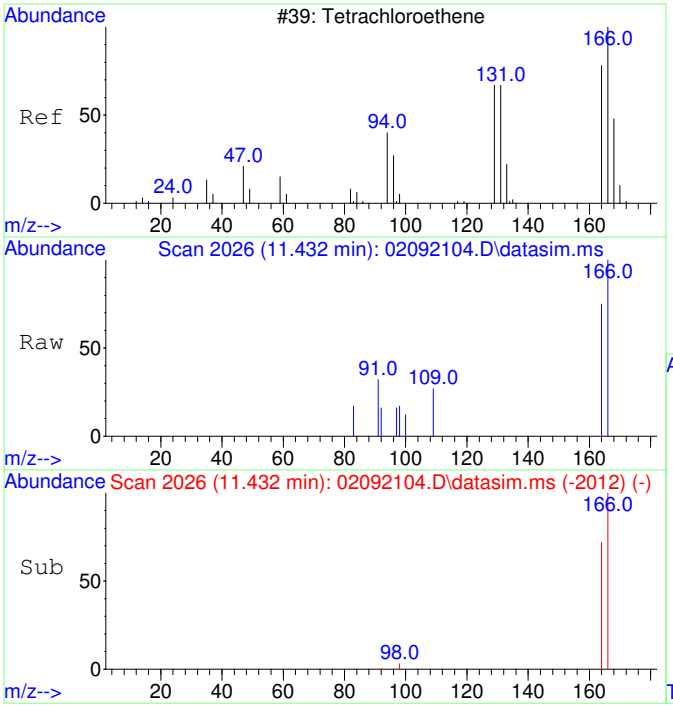


#14
1,1,2-Trichloroethane
Concen: 44.22 ug/L
RT: 11.233 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 462

Ion	Ratio	Lower	Upper
97	100		
83	87.7	51.2	111.2

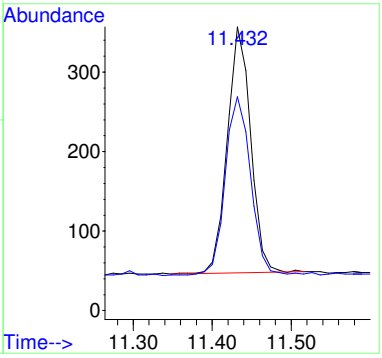


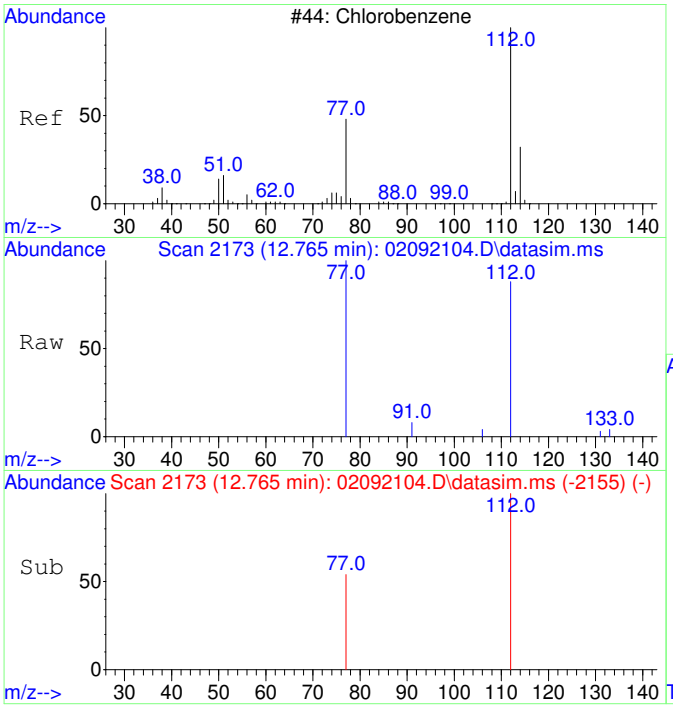


#15
Tetrachloroethene
Concen: 45.26 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:166 Resp: 636

Ion	Ratio	Lower	Upper
166	100		
164	78.0	47.8	107.8

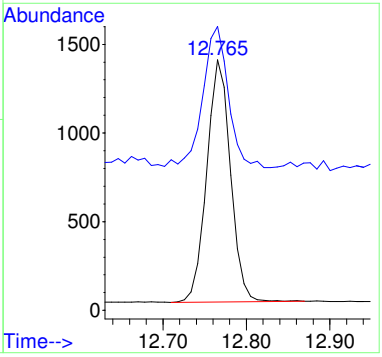


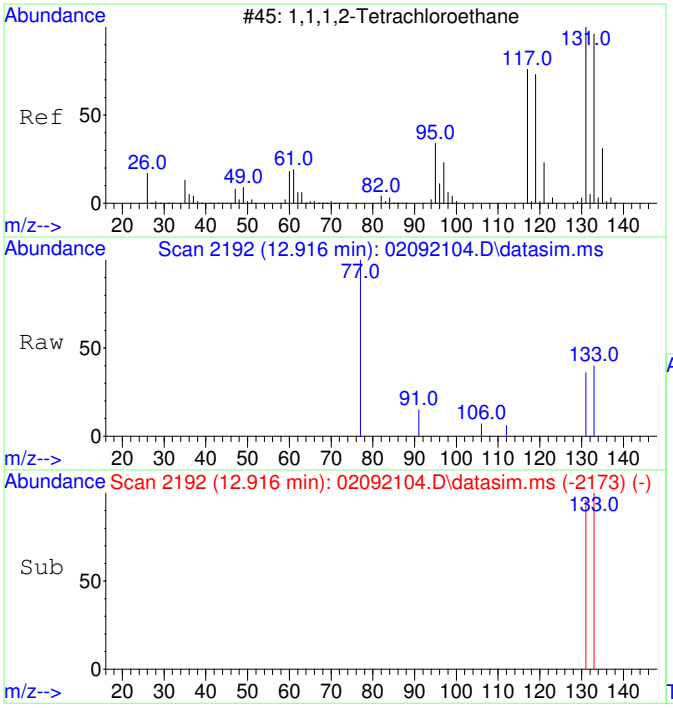


#16
Chlorobenzene
Concen: 77.23 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 2699

Ion	Ratio	Lower	Upper
112	100		
77	61.9	23.6	83.6

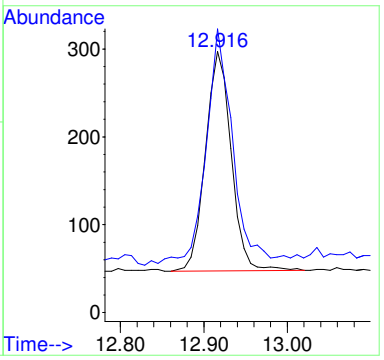


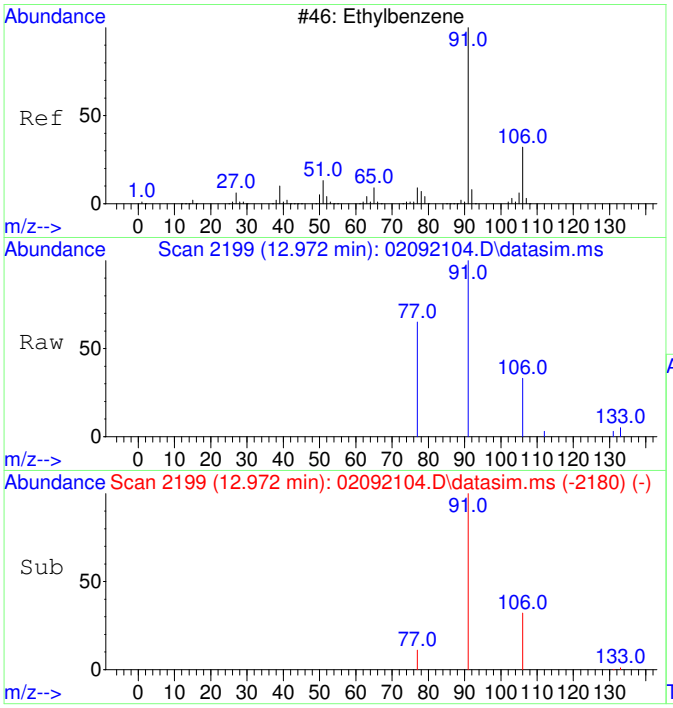


#17
1,1,1,2-Tetrachloroethane
Concen: 43.82 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:131 Resp: 536

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.3	126.3

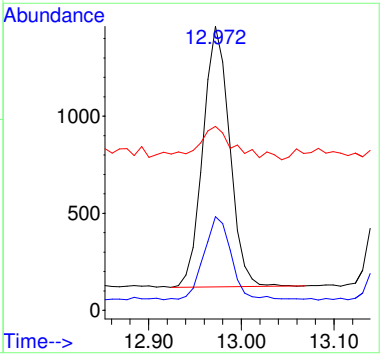


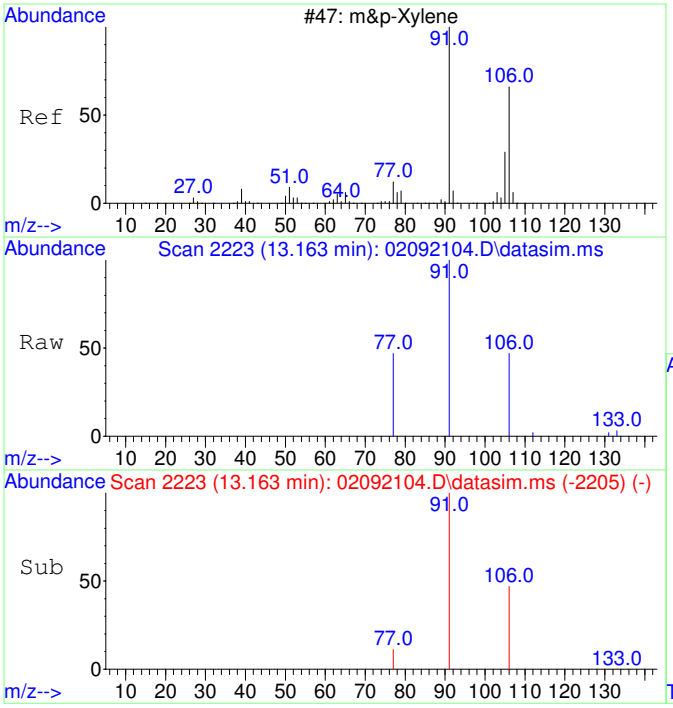


#18
Ethylbenzene
Concen: 46.53 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2681

Ion	Ratio	Lower	Upper
91	100		
106	32.2	3.0	63.0
77	18.4	0.0	38.2

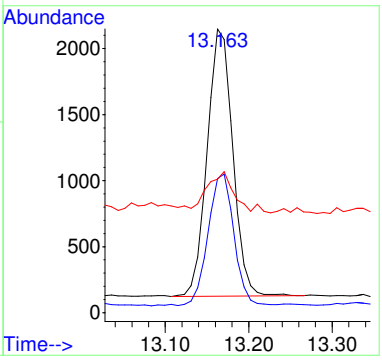


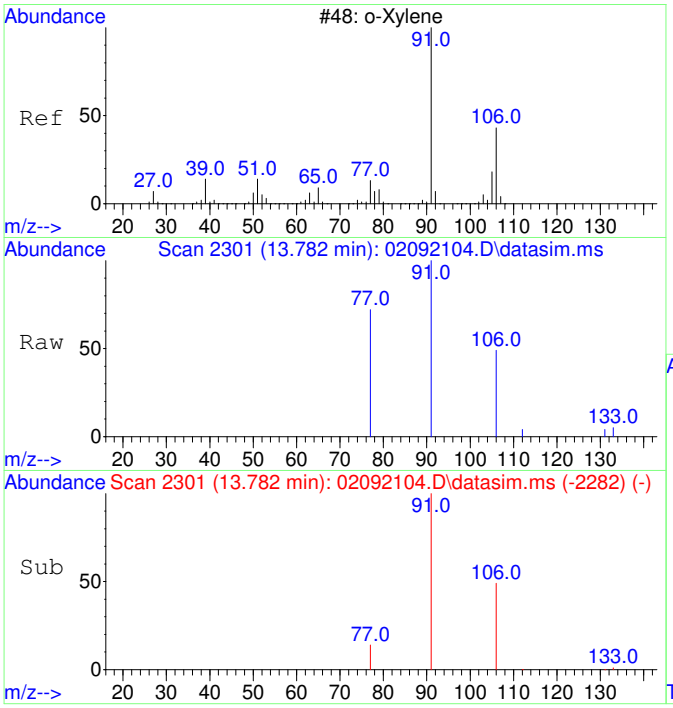


#19
m&p-Xylene
Concen: 96.98 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 4303

Ion	Ratio	Lower	Upper
91	100		
106	49.3	22.2	82.2
77	17.4	0.0	42.4

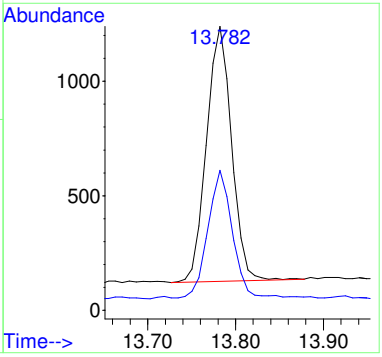


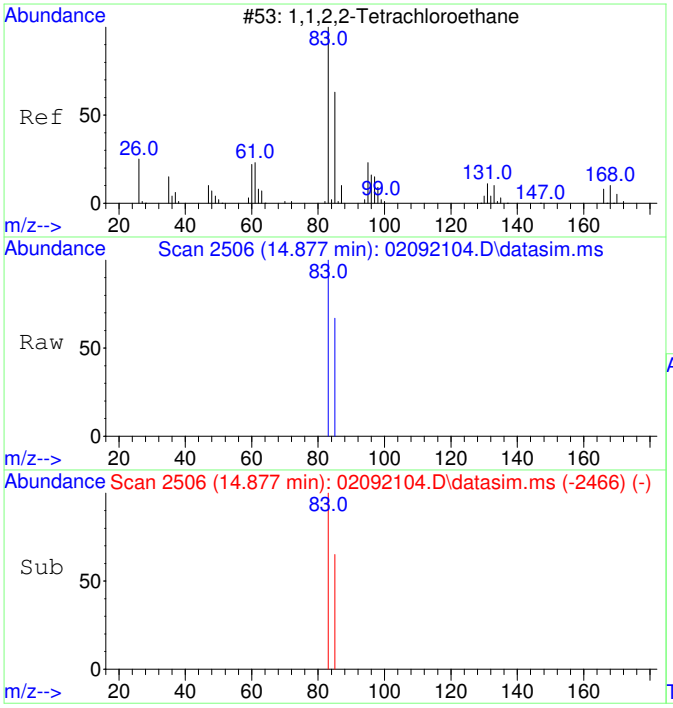


#20
o-Xylene
Concen: 46.31 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2207

Ion	Ratio	Lower	Upper
91	100		
106	48.8	19.2	79.2

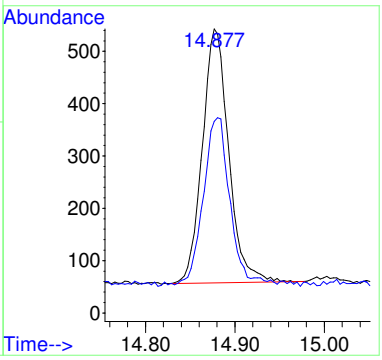


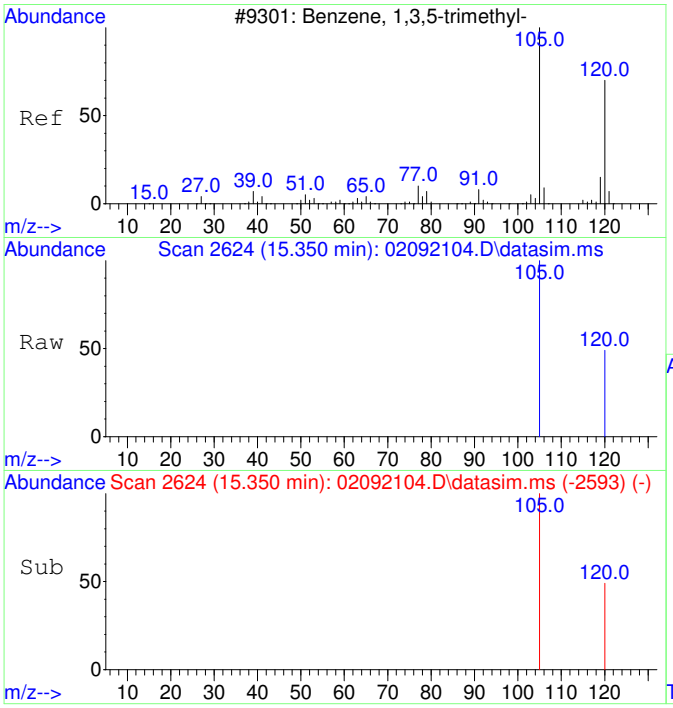


#21
1,1,2,2-Tetrachloroethane
Concen: 44.85 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 996

Ion	Ratio	Lower	Upper
83	100		
85	64.4	34.8	94.8

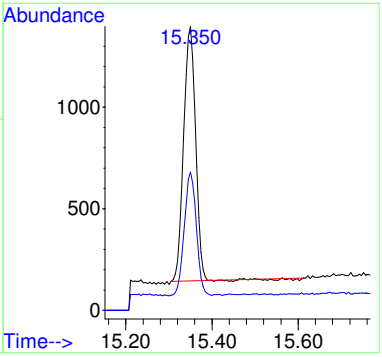


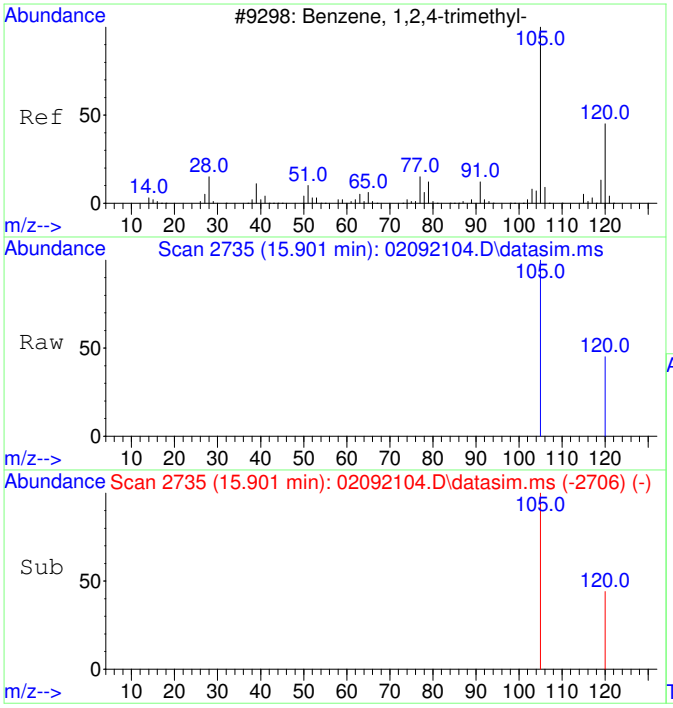


#22
1,3,5-Trimethylbenzene
Concen: 45.53 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2386

Ion	Ratio	Lower	Upper
105	100		
120	48.8	21.1	81.1

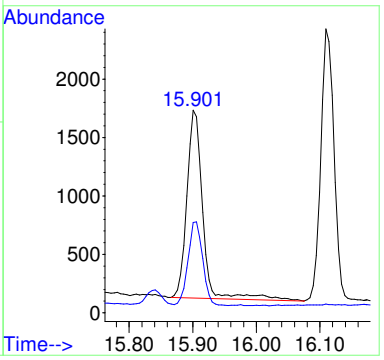


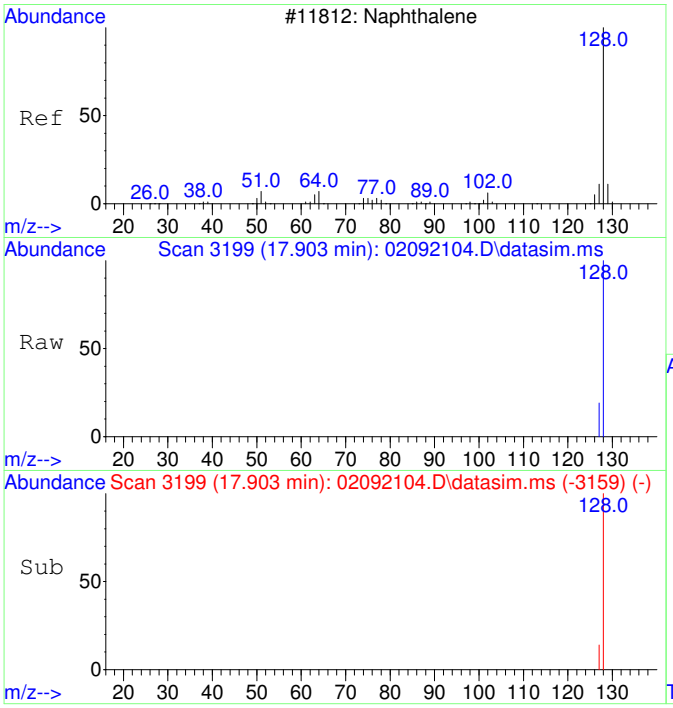


#23
1,2,4-Trimethylbenzene
Concen: 51.73 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2773

Ion	Ratio	Lower	Upper
105	100		
120	40.4	17.2	77.2

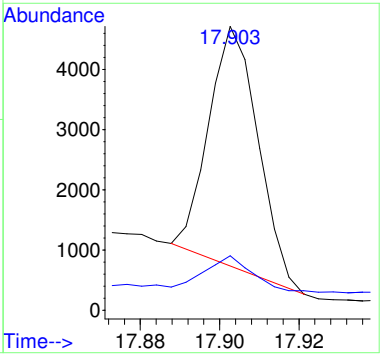


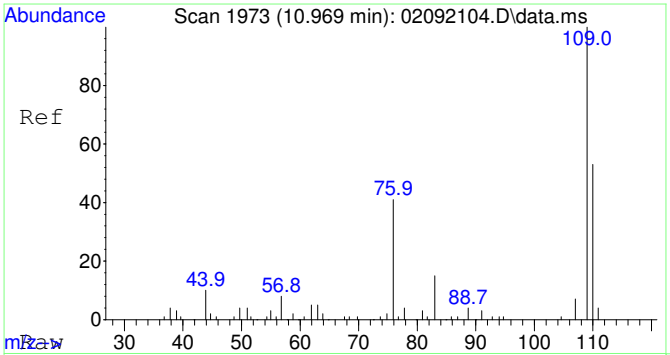


#24
Naphthalene
Concen: 38.49 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 3343

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.5

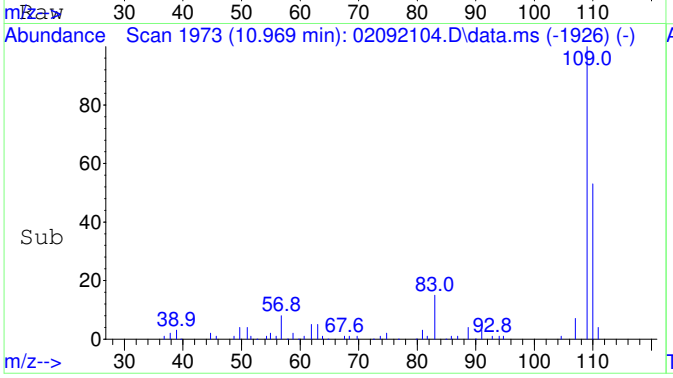


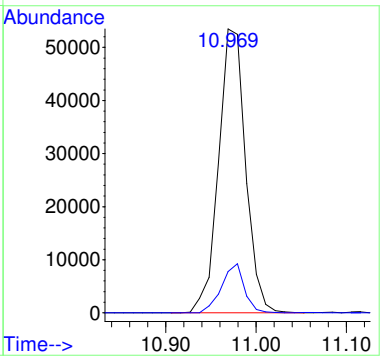


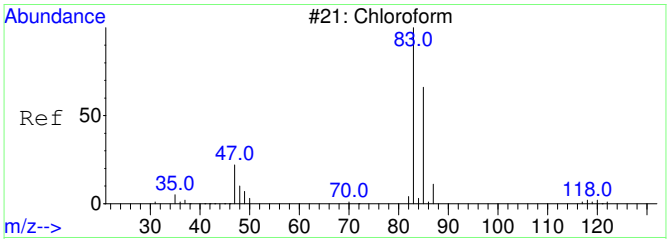
#25
2-Fluorotoluene SCAN
Concen: 5269.53 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

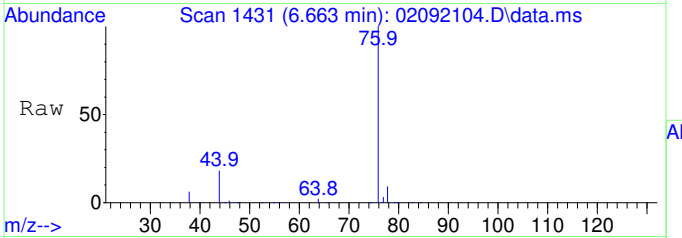
Tgt Ion:109 Resp: 111895

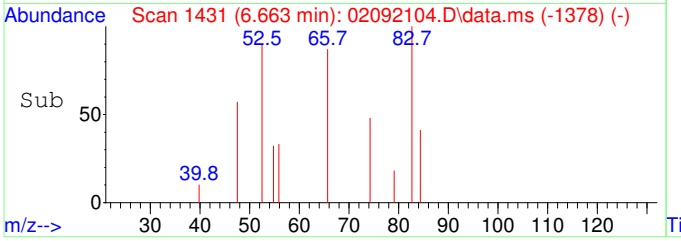
Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	43.8







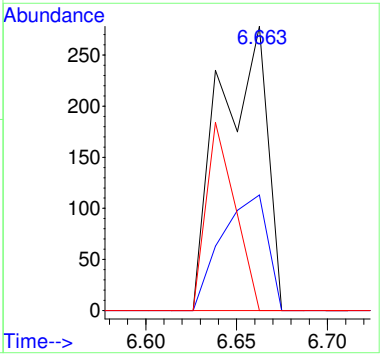


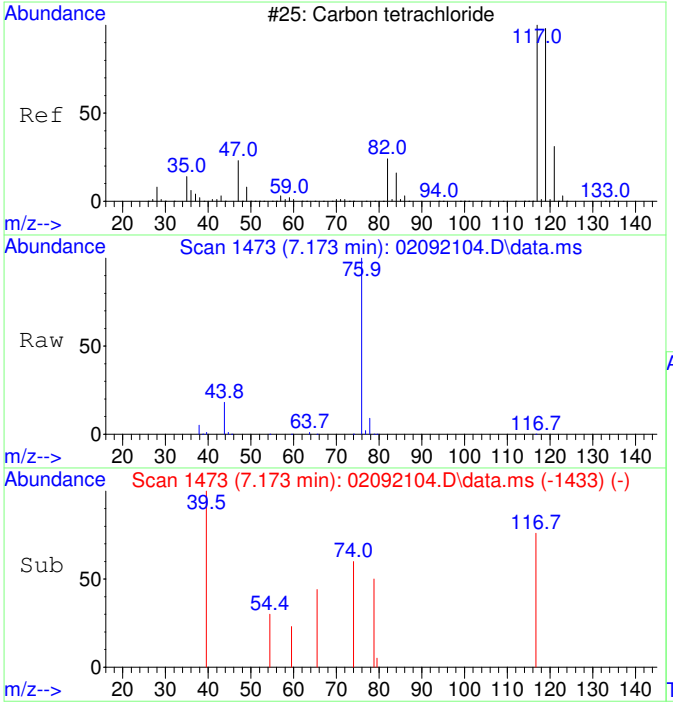


#30
Chloroform SCAN
Concen: 73.46 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 502

Ion	Ratio	Lower	Upper
83	100		
85	39.8	34.6	94.6
47	0.0	0.0	53.4

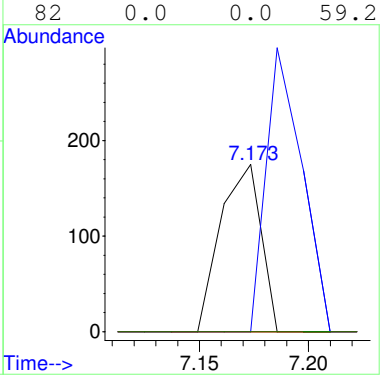


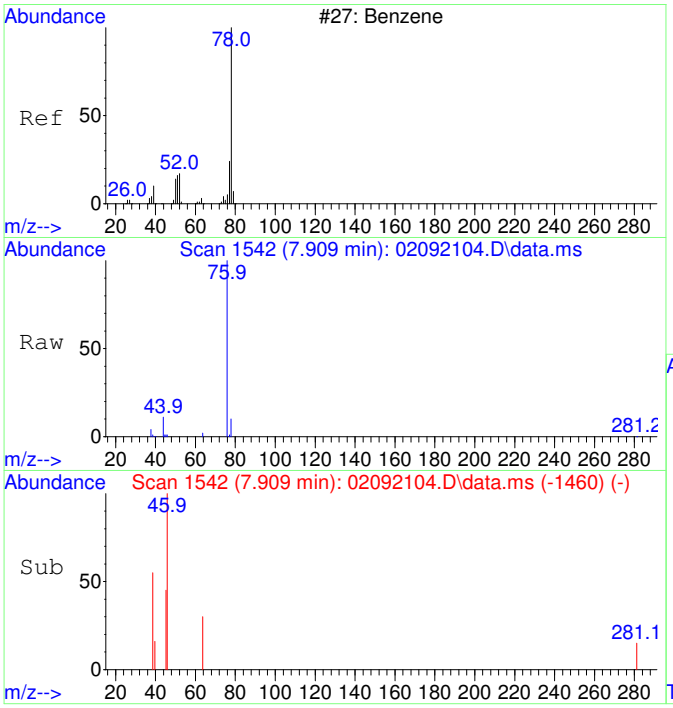


#32
Carbon tetrachloride SCAN
Concen: 37.50 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 226

Ion	Ratio	Lower	Upper
117	100		
119	150.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

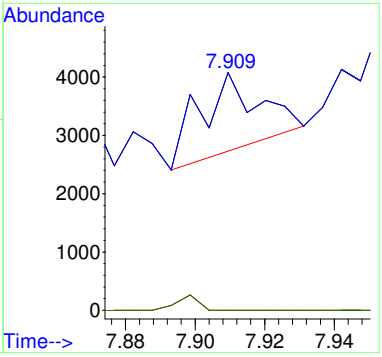


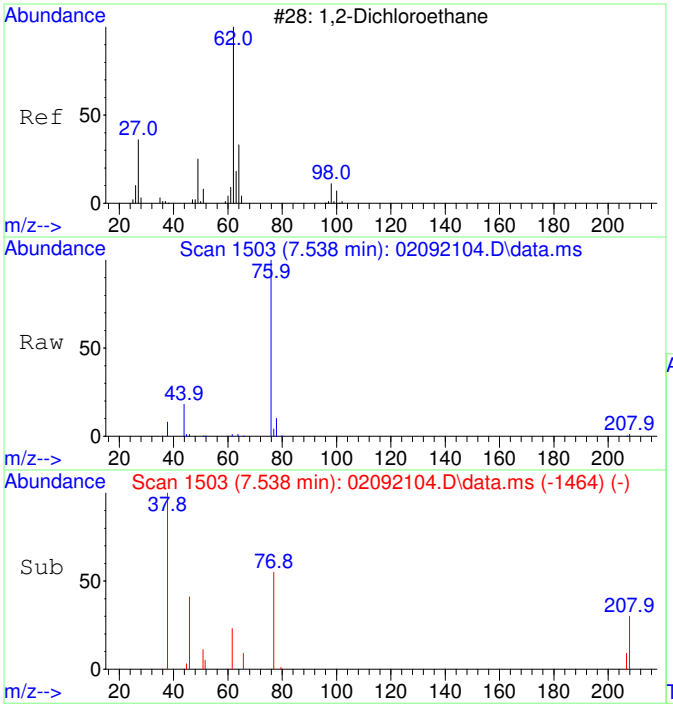


#33
Benzene SCAN
Concen: 77.53 ug/L
RT: 7.909 min Scan# 1542
Delta R.T. 0.396 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 1654

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	6.8	0.0	47.9
51	6.8	0.0	44.1

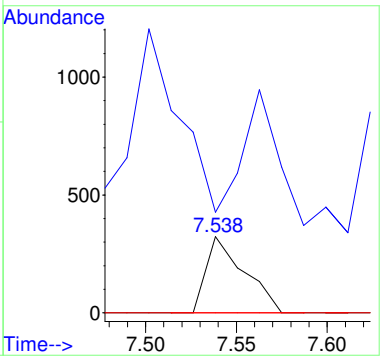


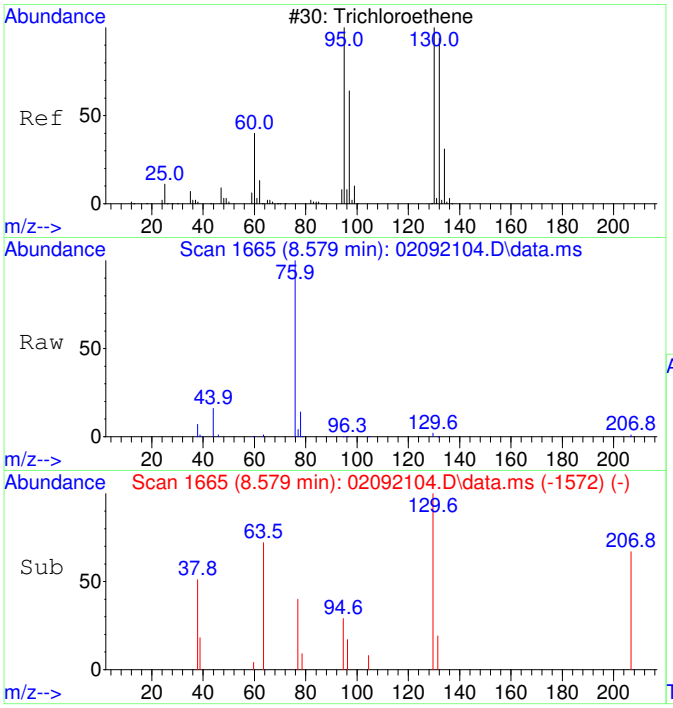


#34
1,2-Dichloroethane SCAN
Concen: 70.88 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.024 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 473

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

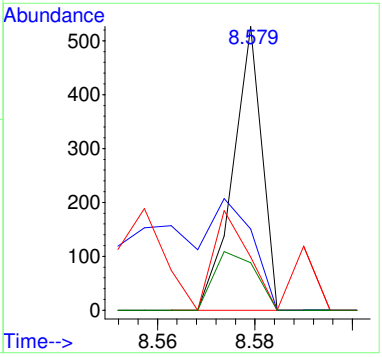


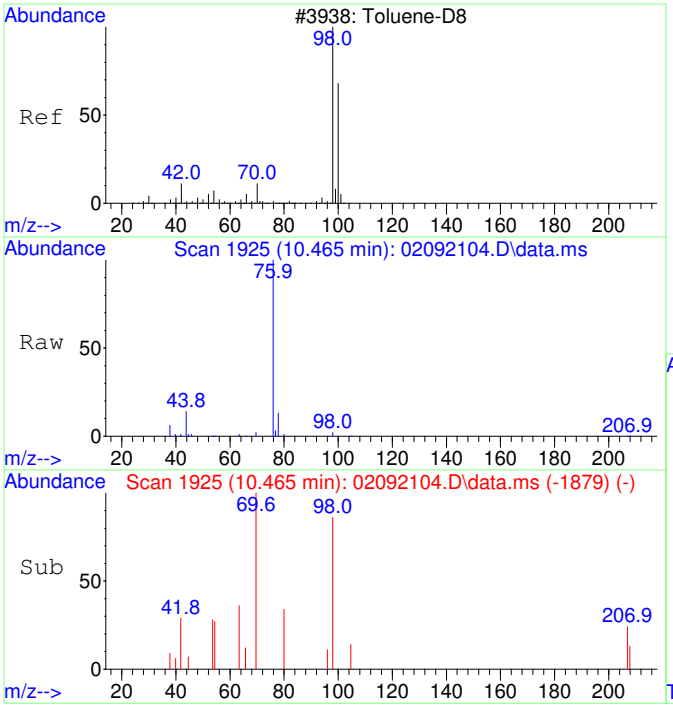


#35
Trichloroethene SCAN
Concen: 46.65 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.006 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 217

Ion	Ratio	Lower	Upper
130	100		
95	135.5	60.5	120.5#
132	42.9	59.6	119.6#
97	29.5	28.2	88.2

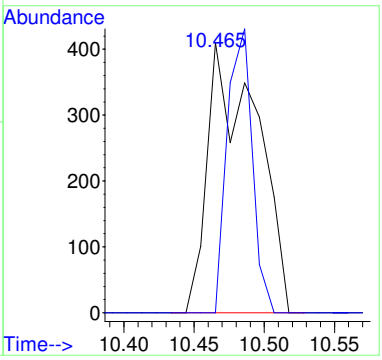


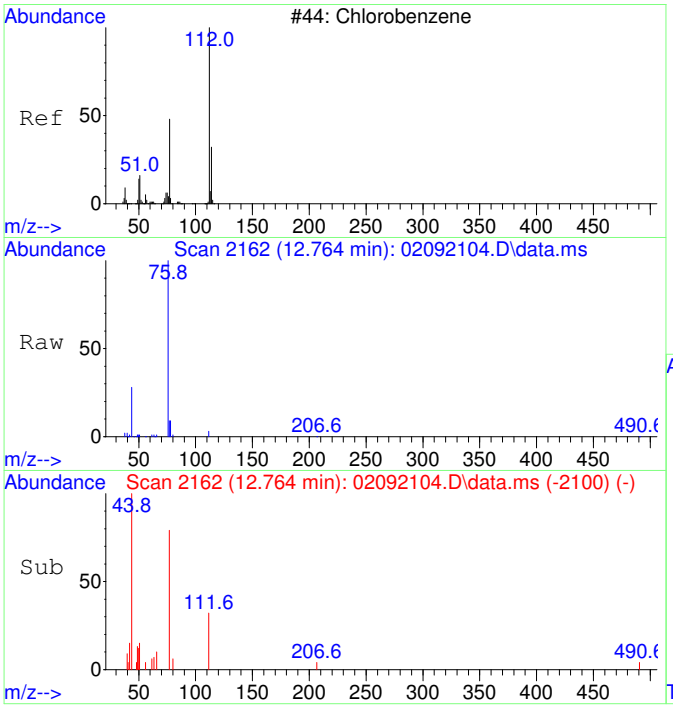


#36
Toluene-d8 SCAN
Concen: 50.31 ug/L
RT: 10.465 min Scan# 1925
Delta R.T. -0.021 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1002

Ion	Ratio	Lower	Upper
98	100		
100	0.0	40.0	100.0#

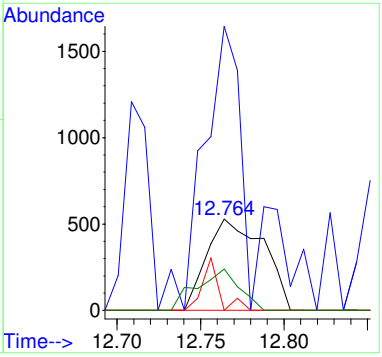


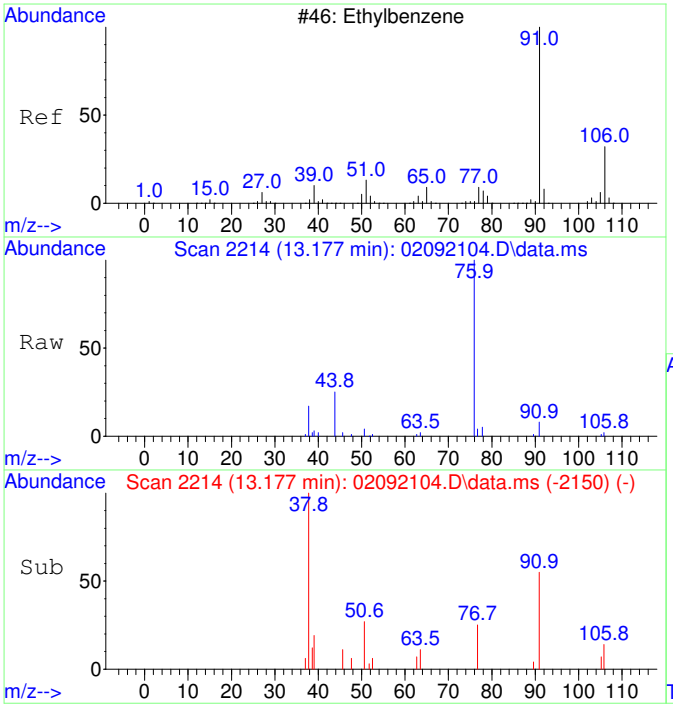


#40
Chlorobenzene SCAN
Concen: 71.20 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 1254

Ion	Ratio	Lower	Upper
112	100		
77	252.6	28.2	88.2#
114	16.9	2.3	62.3
51	33.8	0.0	50.1

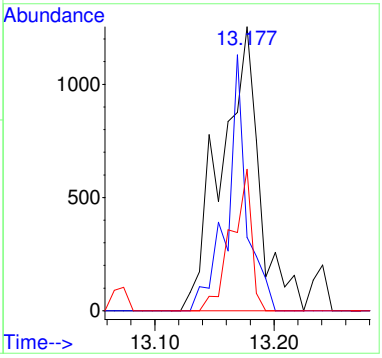


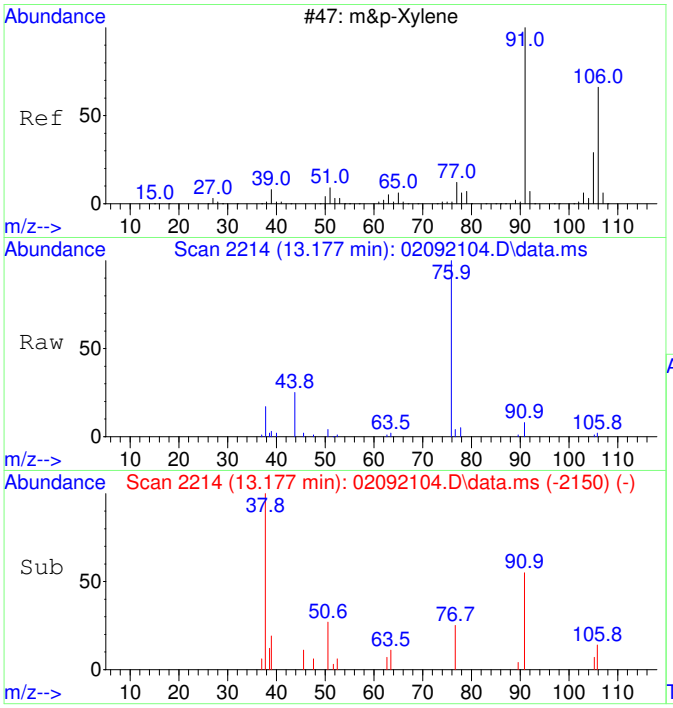


#42
Ethylbenzene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
51	26.0	0.0	40.1

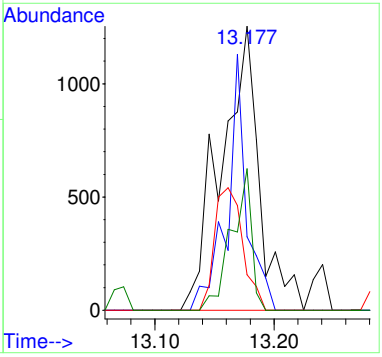


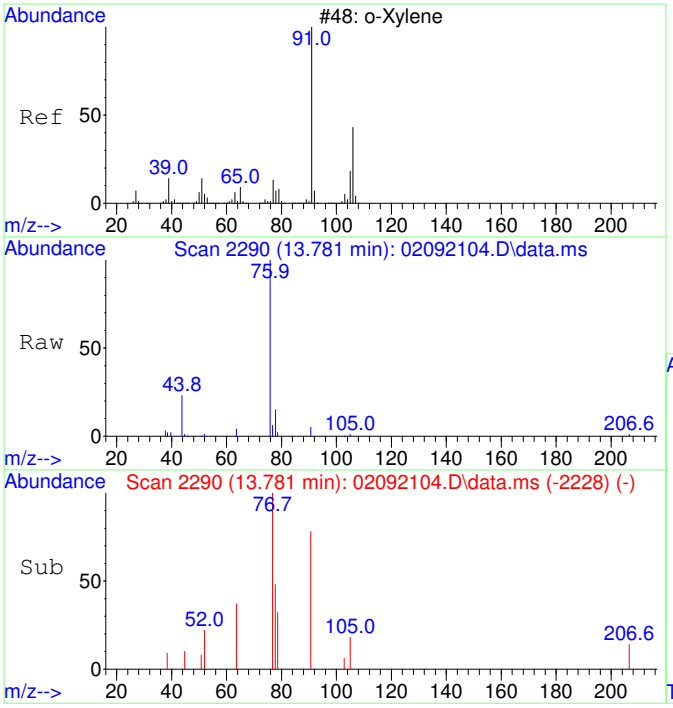


#43
m&p-Xylene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
105	31.8	0.0	54.7
51	26.0	0.0	40.1

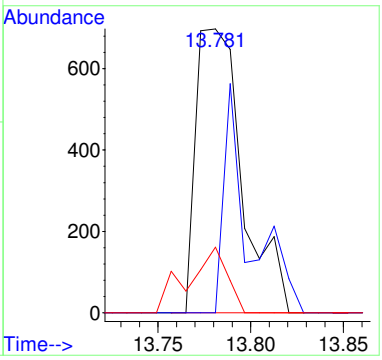


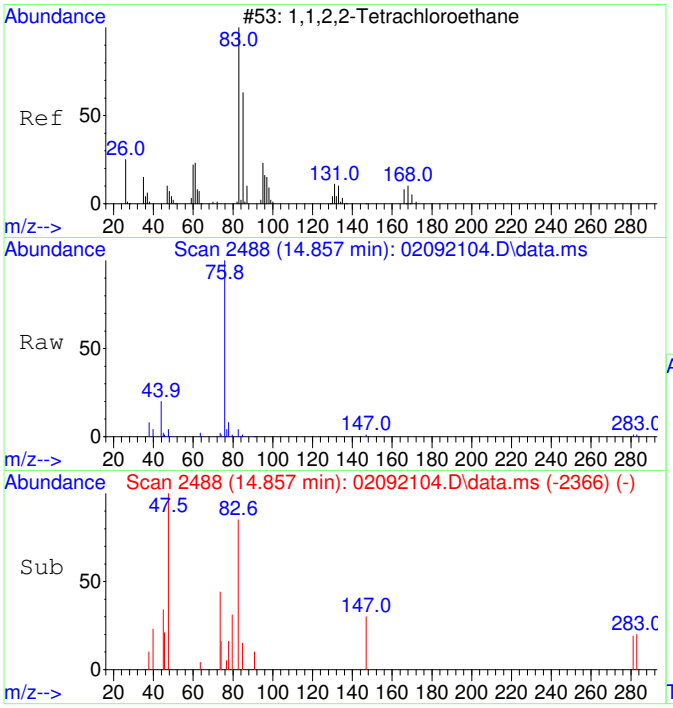


#44
o-Xylene SCAN
Concen: 47.93 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 1223

Ion	Ratio	Lower	Upper
91	100		
106	43.4	18.0	78.0
105	19.5	0.0	56.6

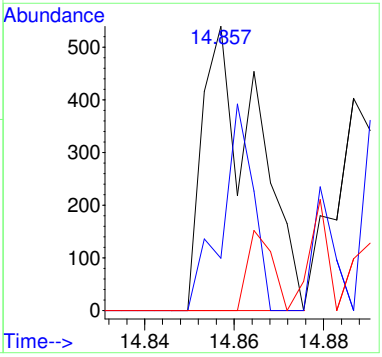


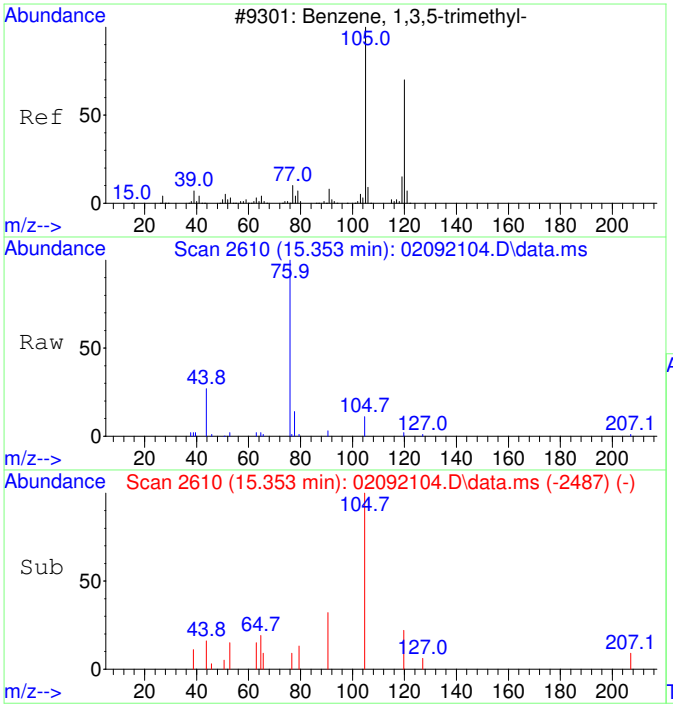


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 34.14 ug/L
RT: 14.857 min Scan# 2488
Delta R.T. -0.026 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 453

Ion	Ratio	Lower	Upper
83	100		
85	41.9	35.9	95.9
95	13.0	0.0	47.4

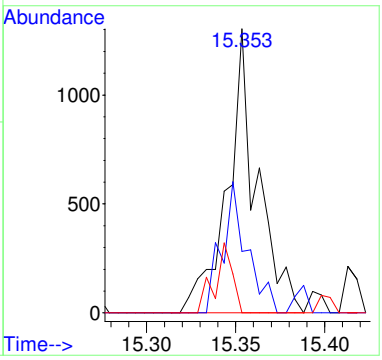


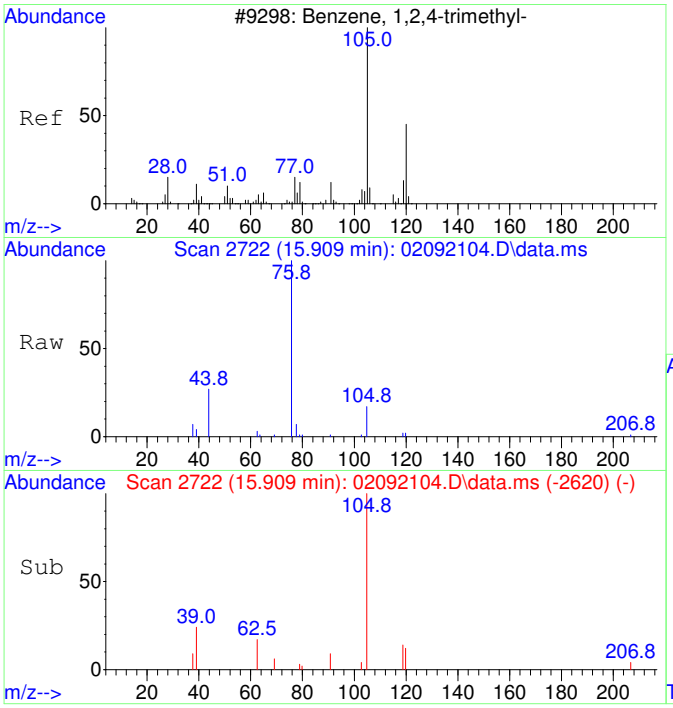


#46
1,3,5-Trimethylbenzene SCAN
Concen: 55.72 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1500

Ion	Ratio	Lower	Upper
105	100		
120	38.7	18.3	78.3
119	14.5	0.0	43.1

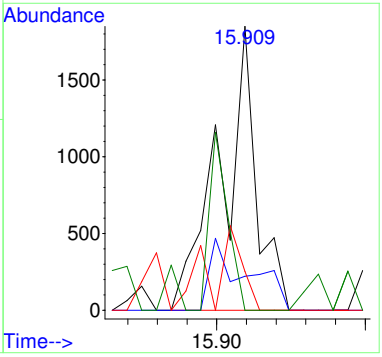


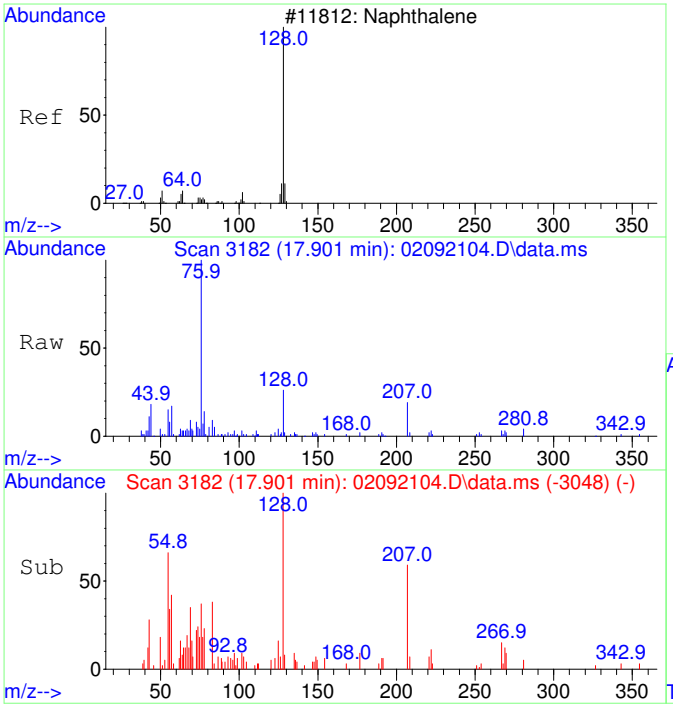


#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.21 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1546

Ion	Ratio	Lower	Upper
105	100		
120	26.4	16.9	76.9
119	15.5	0.0	41.9
77	37.9	0.0	42.3

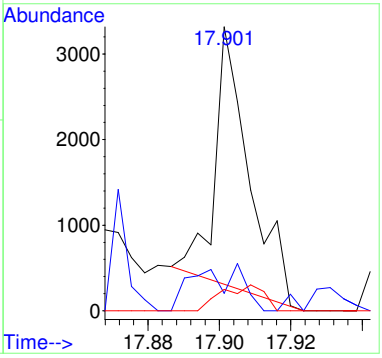




#48
Naphthalene SCAN
Concen: 47.38 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 1956

Ion	Ratio	Lower	Upper
128	100		
127	25.3	0.0	44.0
129	12.7	0.0	40.8



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 1:05 pm, Feb 09, 2021

M.I. Approved By:
ZAR at 3:06 pm, Feb 10, 2021

Quant Time: Feb 09 11:24:46 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

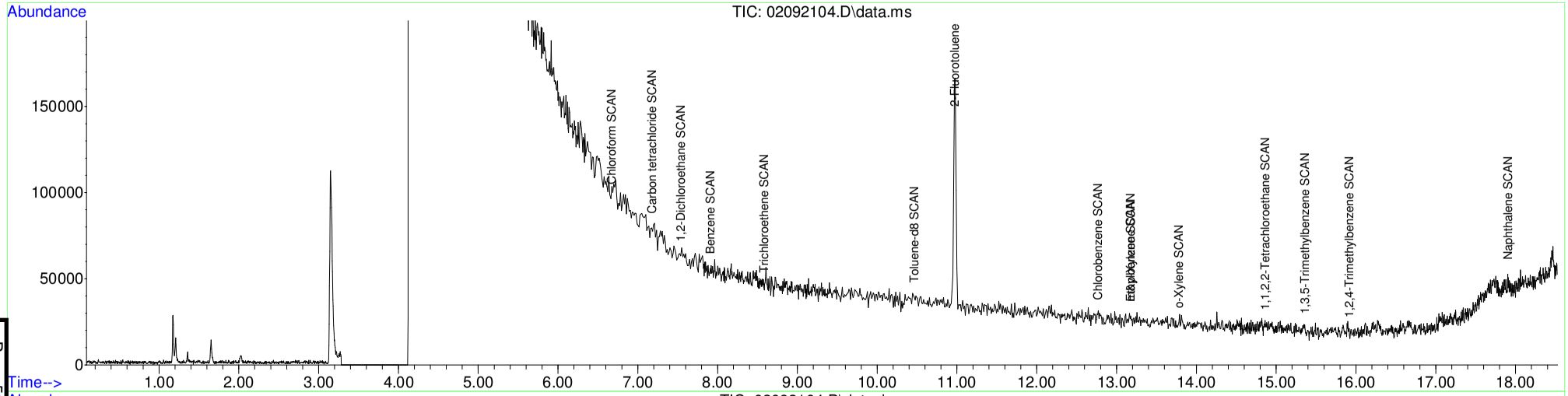
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	10.970	109	187070	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.477	98	1549	42.75	ug/L	-0.01
Spiked Amount 5000.000	Range 86 - 118		Recovery = 0.85%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.086	61	324m	43.68	ug/L	
3] trans-1,2-Dichloroethene	4.349	61	367	39.25	ug/L	85
4] 1,1-Dichloroethane	5.073	63	432	38.68	ug/L	78
5] cis-1,2-Dichloroethene	6.074	61	471	40.72	ug/L	98
6] Chloroform	6.652	83	528	47.52	ug/L	96
7] 1,1,1-Trichloroethane	6.907	97	527	44.15	ug/L	98
8] Carbon tetrachloride	7.175	117	490	42.94	ug/L	91
9] Benzene	7.503	78	2993	95.08	ug/L	56
10] 1,2-Dichloroethane	7.540	62	493	45.91	ug/L #	1
11] Trichloroethene	8.569	130	423	42.56	ug/L	94
13] Toluene	10.582	91	2263	50.17	ug/L	99
14] 1,1,2-Trichloroethane	11.233	97	462	44.22	ug/L	93
15] Tetrachloroethene	11.432	166	636	45.26	ug/L	100
16] Chlorobenzene	12.765	112	2699	77.23	ug/L	88
17] 1,1,1,2-Tetrachloroethane	12.916	131	536	43.82	ug/L	83
18] Ethylbenzene	12.972	91	2681	46.53	ug/L	93
19] m&p-Xylene	13.163	91	4303	96.98	ug/L	94
20] o-Xylene	13.782	91	2207	46.31	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.877	83	996	44.85	ug/L	99
22] 1,3,5-Trimethylbenzene	15.350	105	2386	45.53	ug/L	97
23] 1,2,4-Trimethylbenzene	15.901	105	2773	51.73	ug/L	90
24] Naphthalene	17.903	128	3343	38.49	ug/L	100
25) 2-Fluorotoluene SCAN	10.969	109	111895	5269.53	ug/L	98
30) Chloroform SCAN	6.663	83	502	73.46	ug/L #	64
32) Carbon tetrachloride SCAN	7.173	117	226	37.50	ug/L #	53
33) Benzene SCAN	7.909	78	1654	77.53	ug/L	95
34) 1,2-Dichloroethane SCAN	7.538	62	473	70.88	ug/L #	40
35) Trichloroethene SCAN	8.579	130	217	46.65	ug/L #	54
36) Toluene-d8 SCAN	10.465	98	1002	50.31	ug/L #	15
40) Chlorobenzene SCAN	12.764	112	1254	71.20	ug/L #	1
42) Ethylbenzene SCAN	13.177	91	2813	60.20	ug/L	84
43) m&p-Xylene SCAN	13.177	91	2813	60.20	ug/L	85
44) o-Xylene SCAN	13.781	91	1223	47.93	ug/L	91
45) 1,1,2,2-Tetrachloroeth...	14.857	83	453	34.14	ug/L	74
46) 1,3,5-Trimethylbenzene...	15.353	105	1500	55.72	ug/L	88
47) 1,2,4-Trimethylbenzene...	15.909	105	1546	56.21	ug/L	67
48) Naphthalene SCAN	17.901	128	1956	47.38	ug/L	82

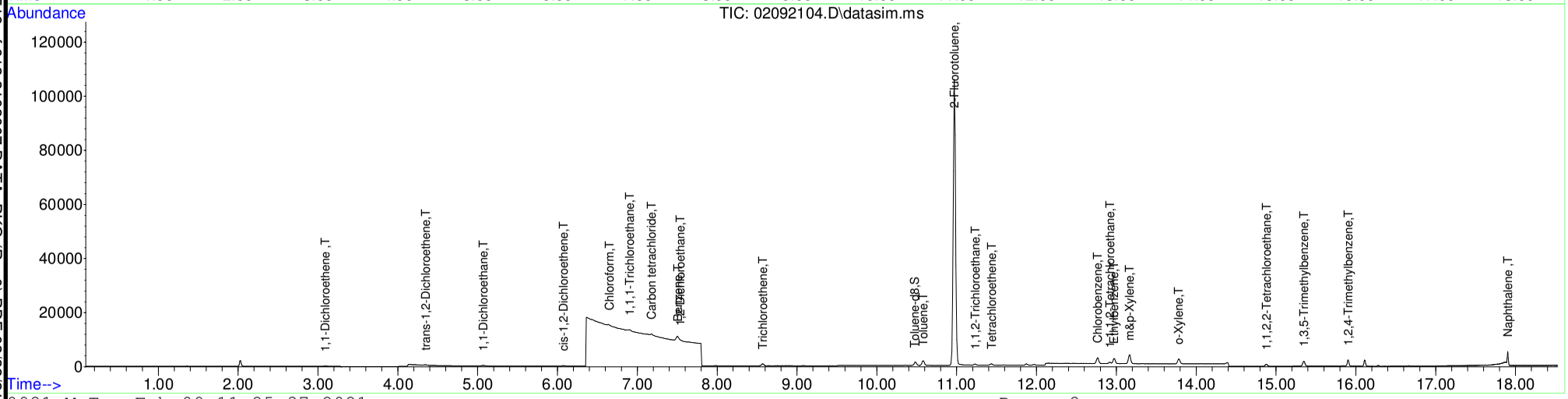
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2021\020921\
Data File : 02092104.D
Acq On : 9 Feb 2021 10:59
InstName : AG5975C
Operator : TD
Sample : S21B025-CRL1
Misc : 2106042 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 11:24:46 2021
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2021\020921.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration





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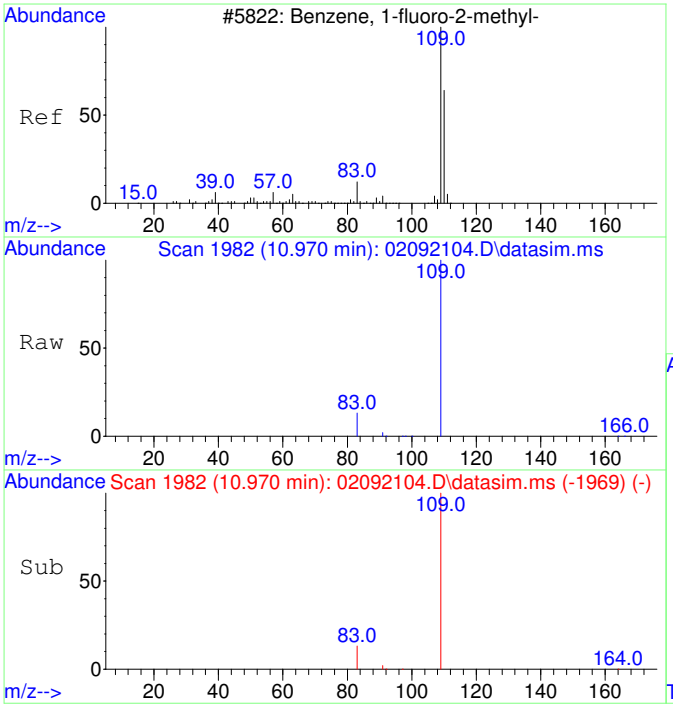
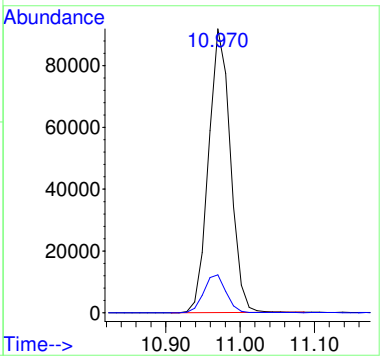
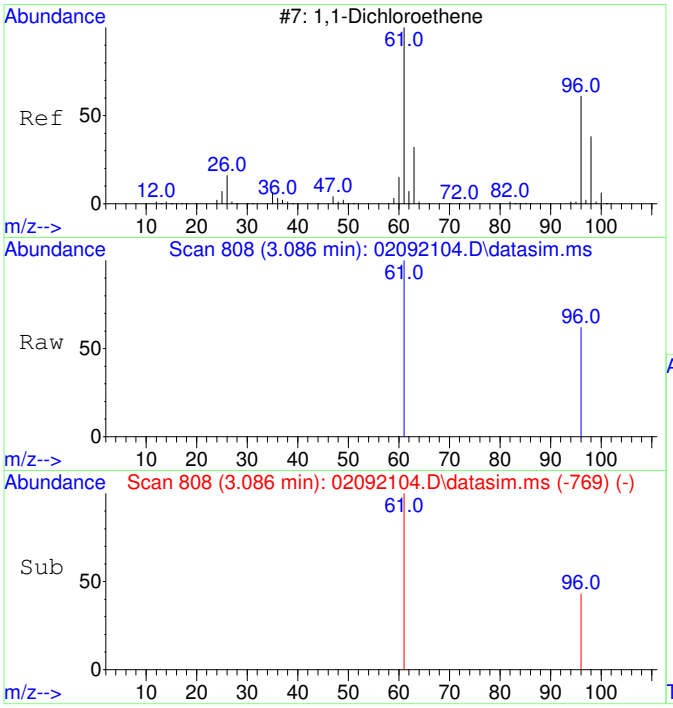


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:109 Resp: 187070

Ion	Ratio	Lower	Upper
109	100		
83	13.7	0.0	42.3

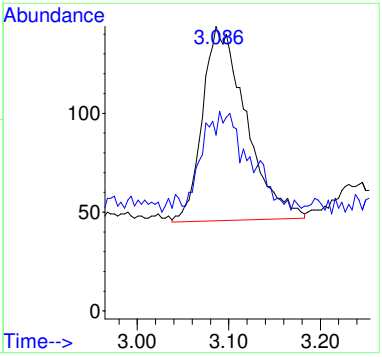


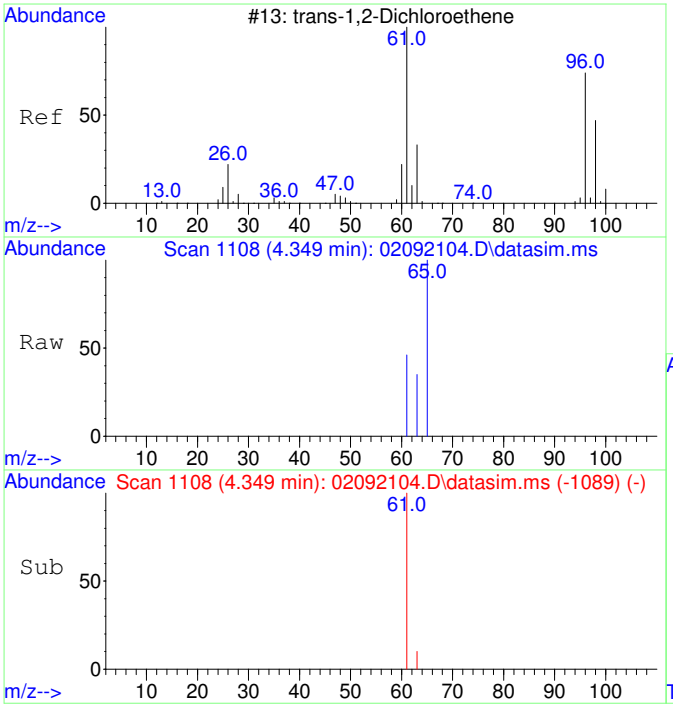


#2
1,1-Dichloroethene
Concen: 43.68 ug/L m
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 324

Ion	Ratio	Lower	Upper
61	100		
96	73.5	37.2	97.2

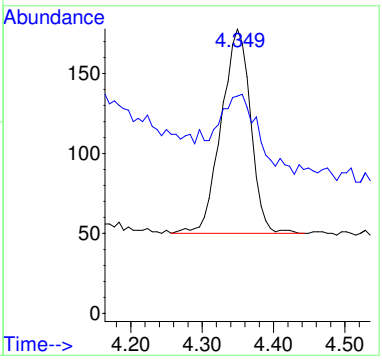


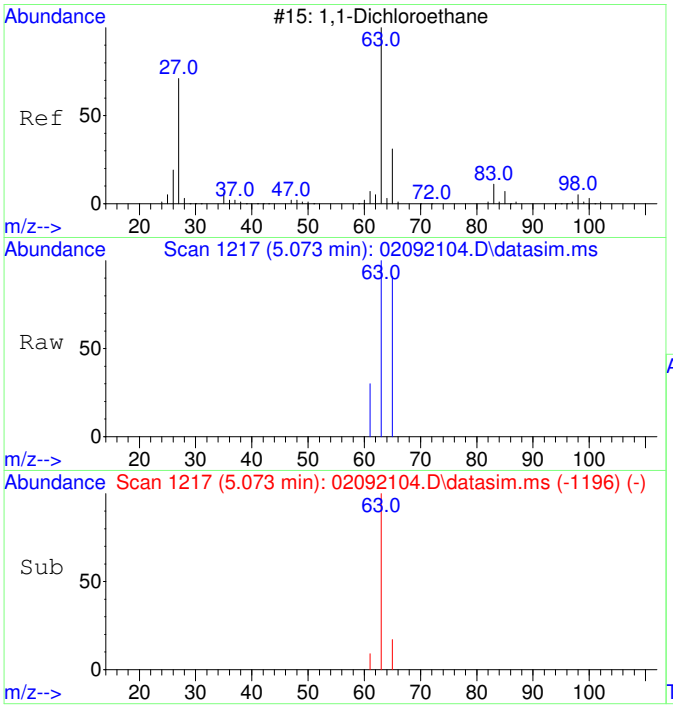


#3
trans-1,2-Dichloroethene
Concen: 39.25 ug/L
RT: 4.349 min Scan# 1108
Delta R.T. -0.027 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 367

Ion	Ratio	Lower	Upper
61	100		
63	40.6	2.4	62.4

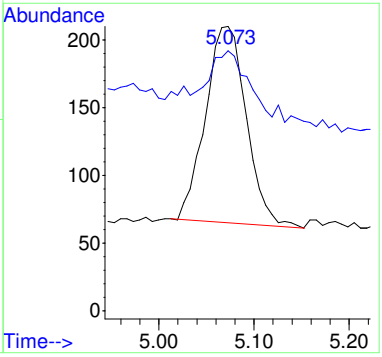


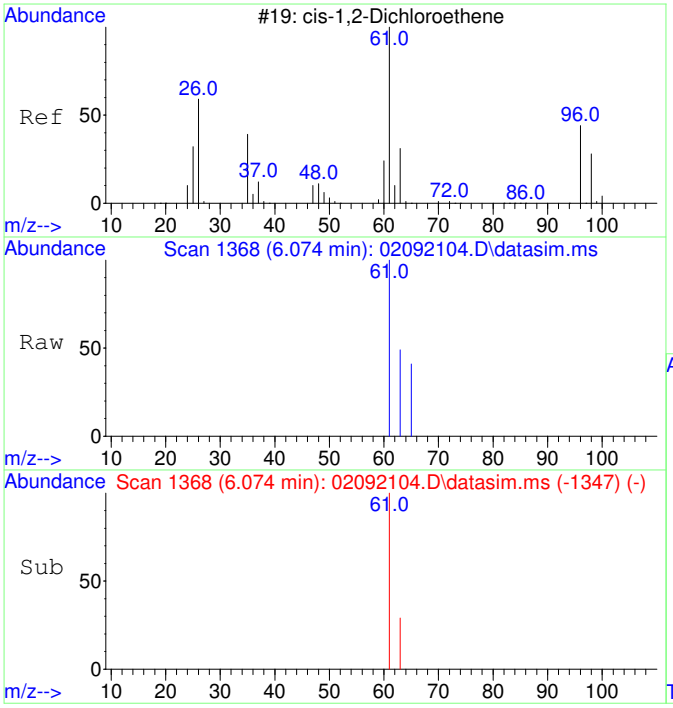


#4
1,1-Dichloroethane
Concen: 38.68 ug/L
RT: 5.073 min Scan# 1217
Delta R.T. -0.013 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 63 Resp: 432

Ion	Ratio	Lower	Upper
63	100		
65	44.2	1.8	61.8

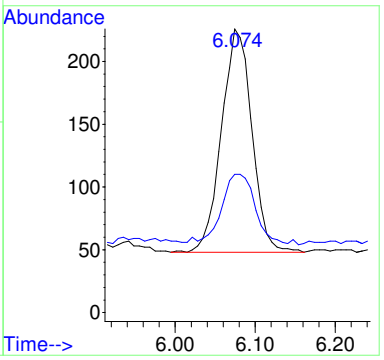


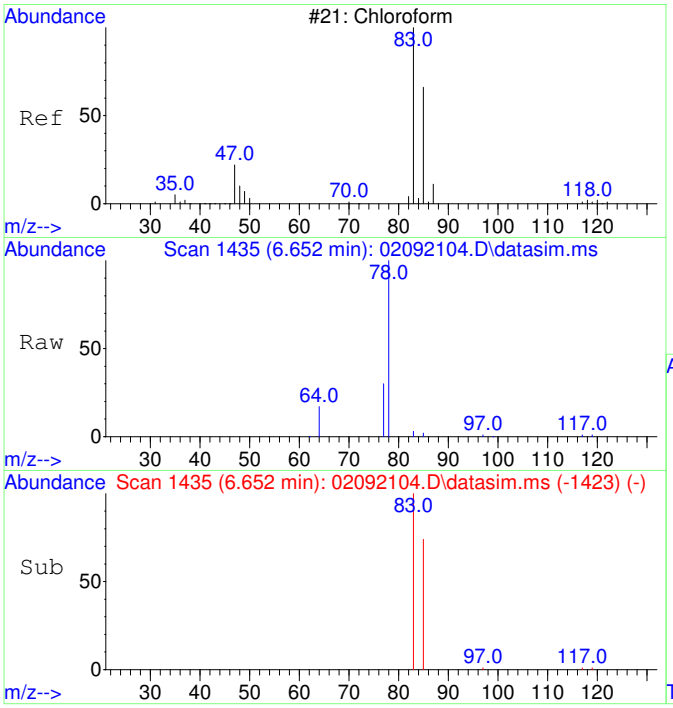


#5
cis-1,2-Dichloroethene
Concen: 40.72 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.014 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 61 Resp: 471

Ion	Ratio	Lower	Upper
61	100		
63	33.5	2.5	62.5

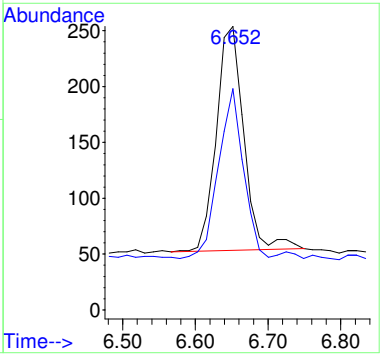


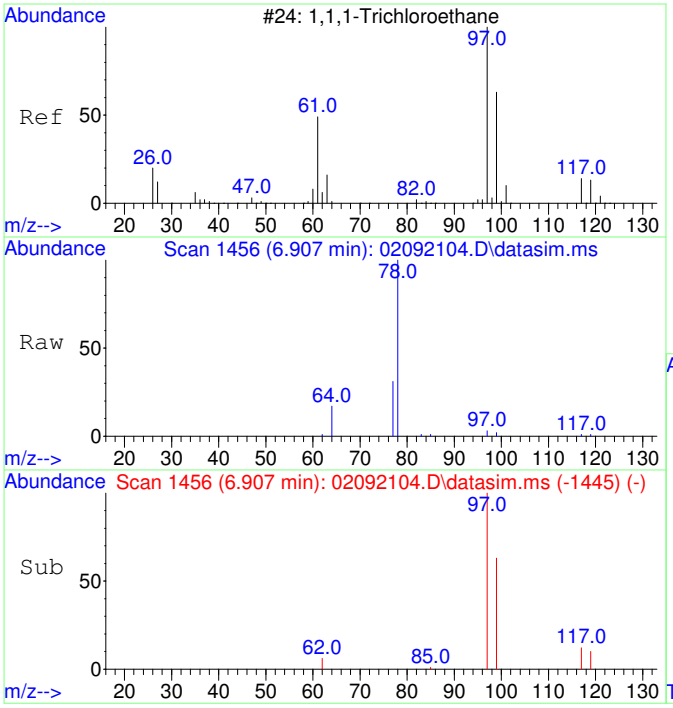


#6
Chloroform
Concen: 47.52 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 528

Ion	Ratio	Lower	Upper
83	100		
85	68.2	35.1	95.1

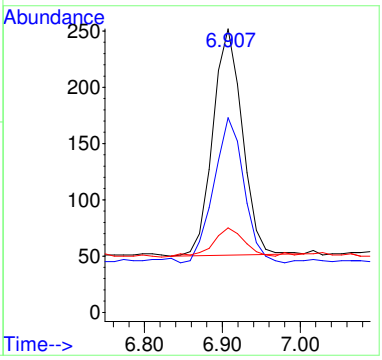


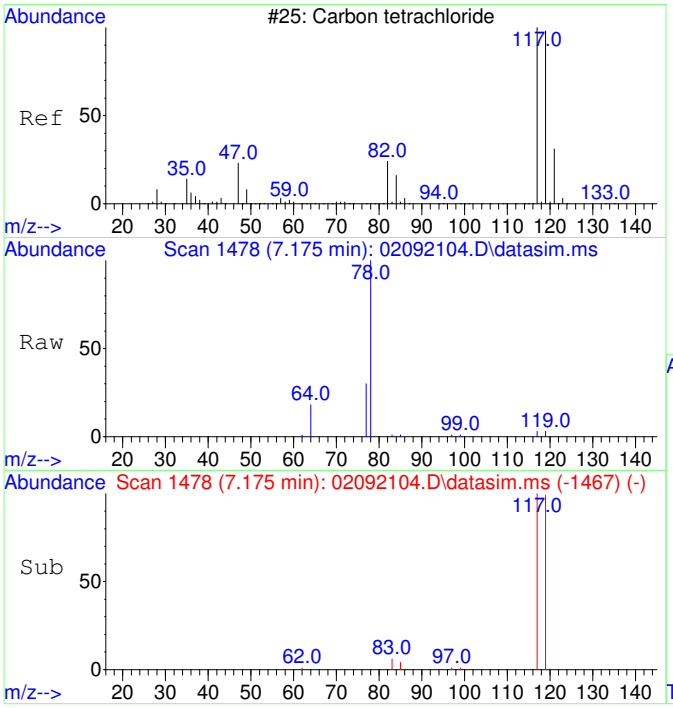


#7
1,1,1-Trichloroethane
Concen: 44.15 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 527

Ion	Ratio	Lower	Upper
97	100		
99	66.0	34.6	94.6
117	14.4	0.0	43.2

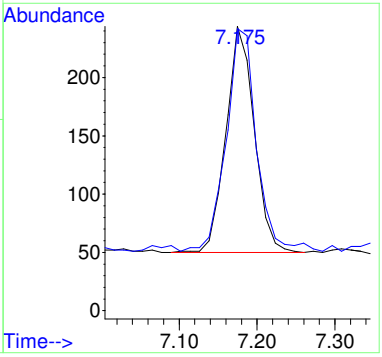


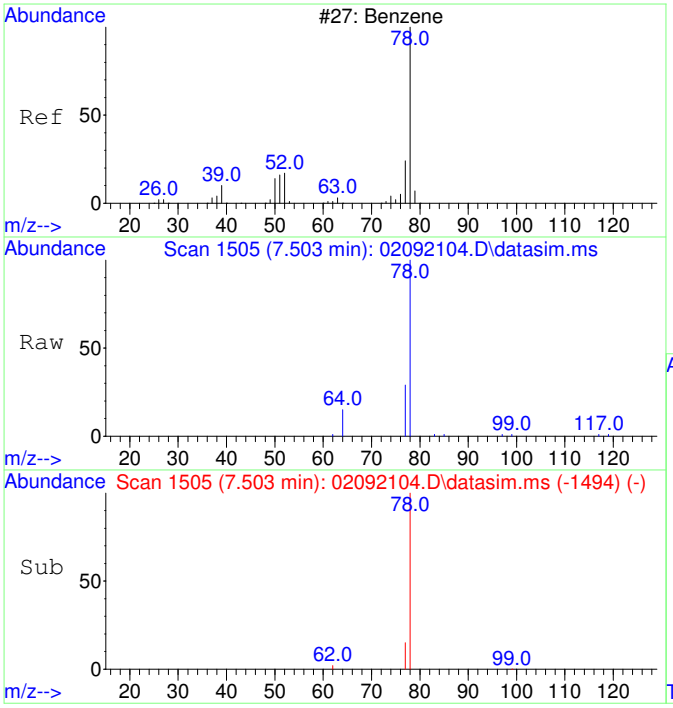


#8
Carbon tetrachloride
Concen: 42.94 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 490

Ion	Ratio	Lower	Upper
117	100		
119	105.3	66.4	126.4

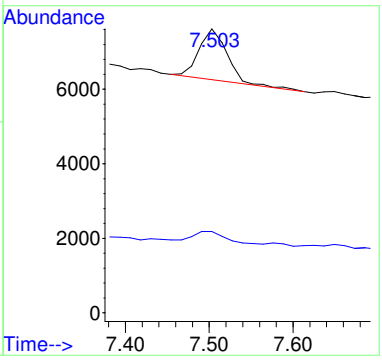


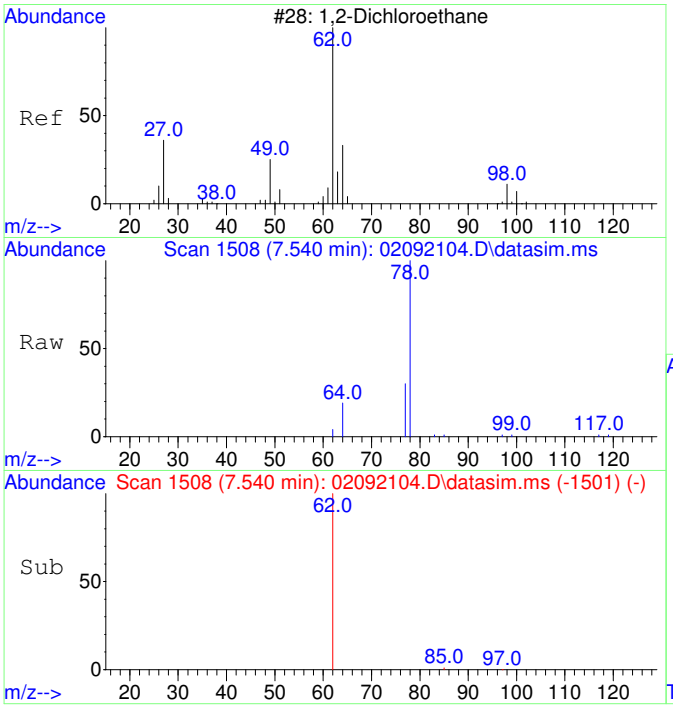


#9
Benzene
Concen: 95.08 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 2993

Ion	Ratio	Lower	Upper
78	100		
77	44.8	0.0	53.2

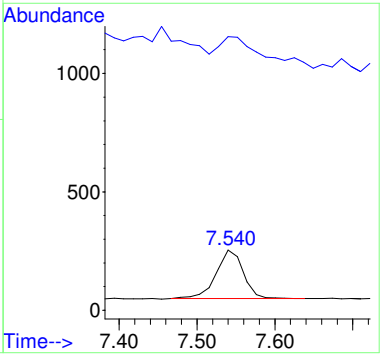


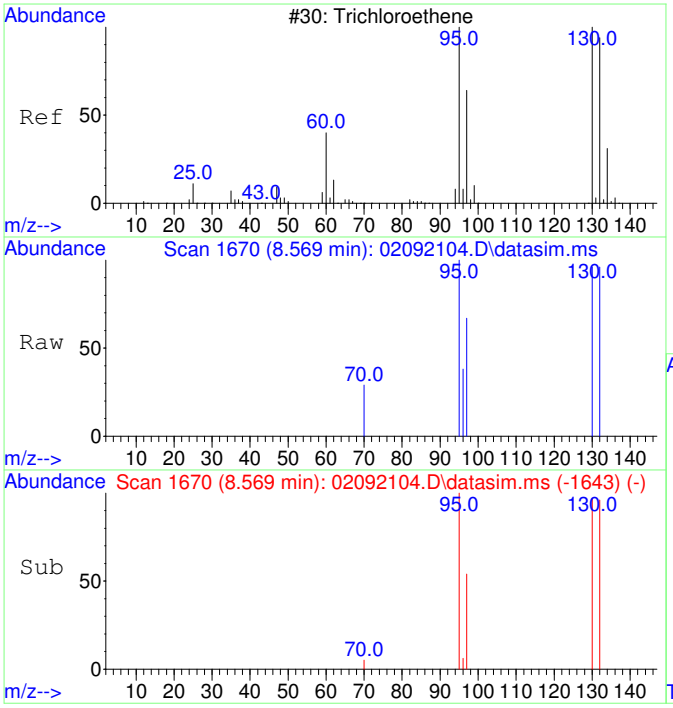


#10
1,2-Dichloroethane
Concen: 45.91 ug/L
RT: 7.540 min Scan# 1508
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 493

Ion	Ratio	Lower	Upper
62	100		
64	104.9	2.3	62.3#

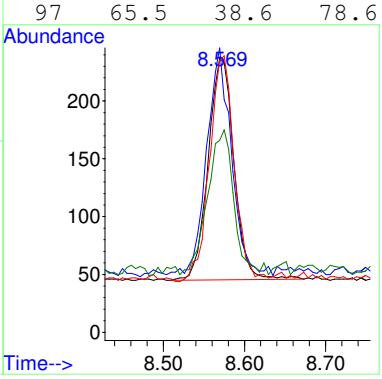


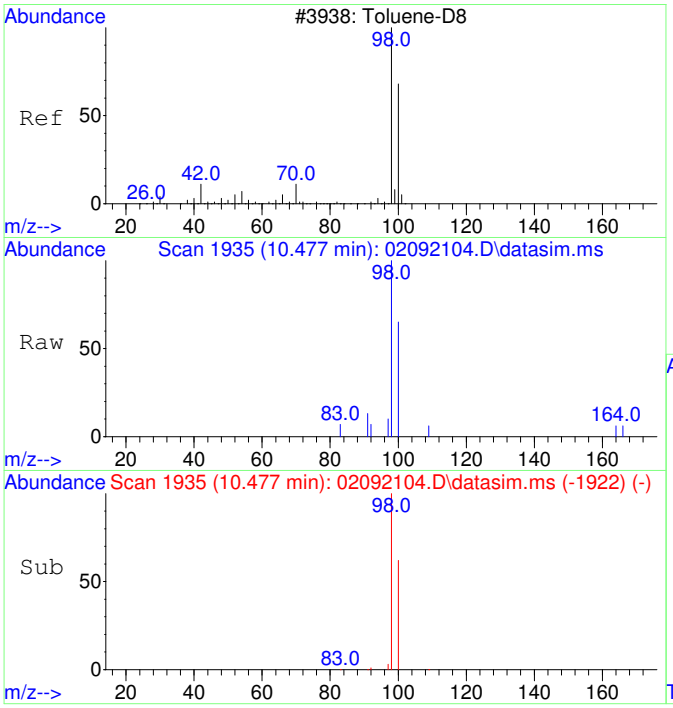


#11
Trichloroethene
Concen: 42.56 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 423

Ion	Ratio	Lower	Upper
130	100		
95	97.4	60.7	120.7
132	98.3	76.0	116.0
97	65.5	38.6	78.6

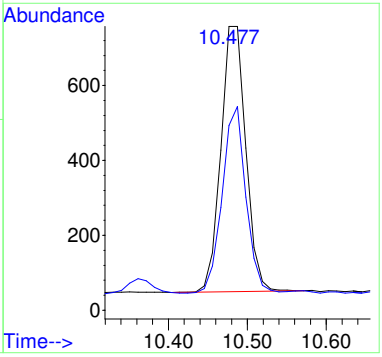


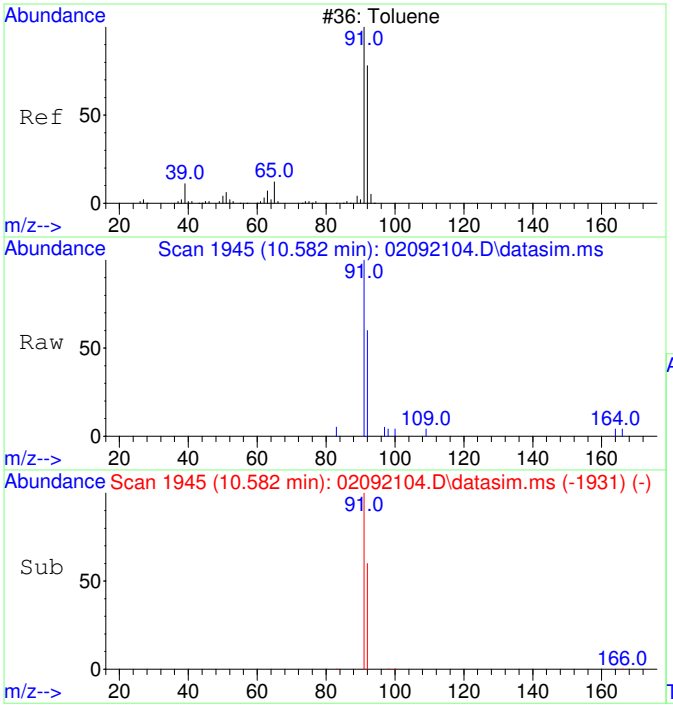


#12
Toluene-d8
Concen: 42.75 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1549

Ion	Ratio	Lower	Upper
98	100		
100	65.8	37.1	97.1

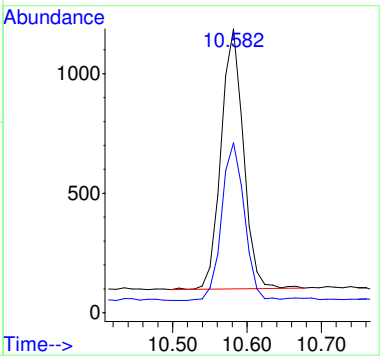


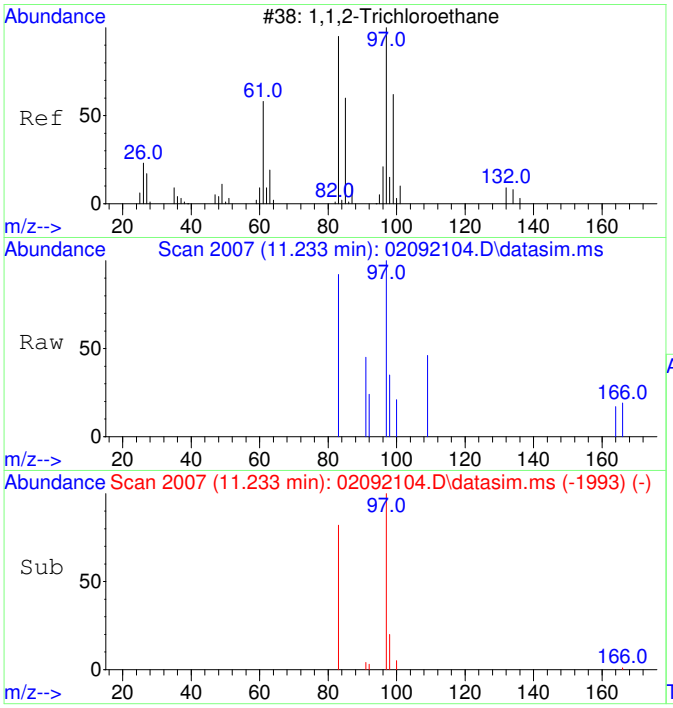


#13
Toluene
Concen: 50.17 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2263

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.9	89.9

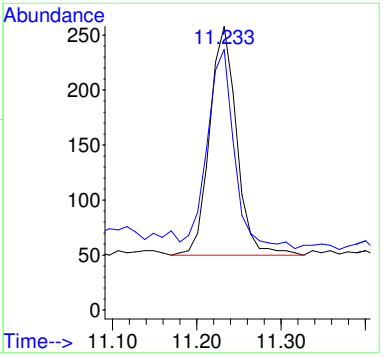


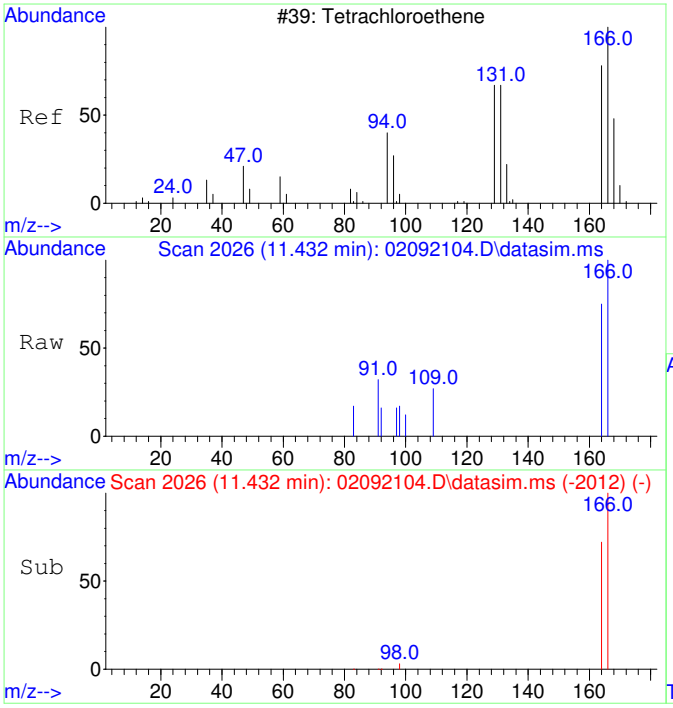


#14
1,1,2-Trichloroethane
Concen: 44.22 ug/L
RT: 11.233 min Scan# 2007
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 97 Resp: 462

Ion	Ratio	Lower	Upper
97	100		
83	87.7	51.2	111.2

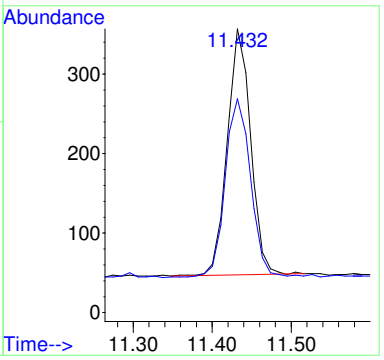


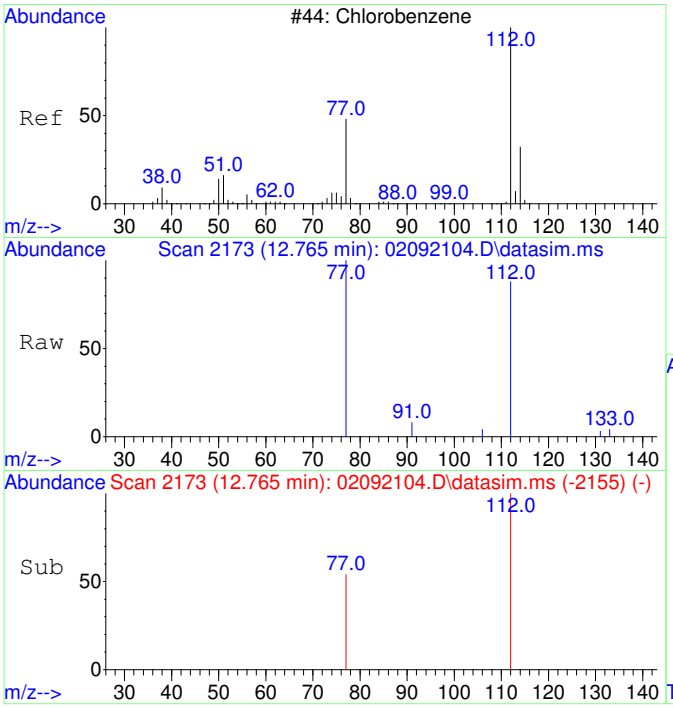


#15
Tetrachloroethene
Concen: 45.26 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:166 Resp: 636

Ion	Ratio	Lower	Upper
166	100		
164	78.0	47.8	107.8

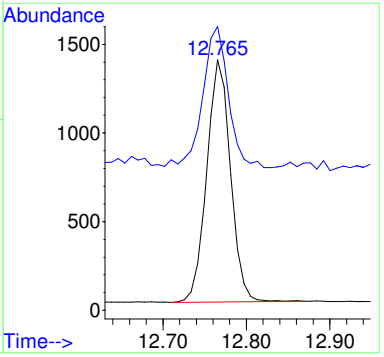


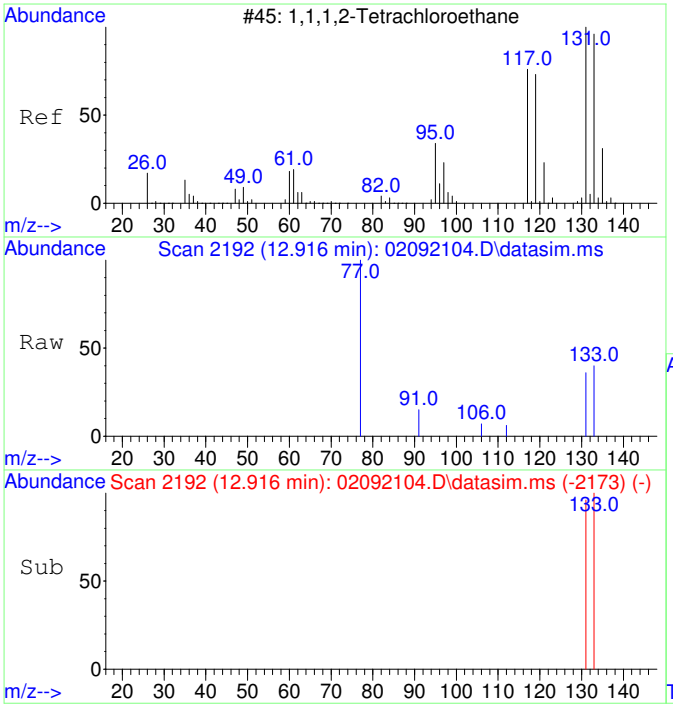


#16
Chlorobenzene
Concen: 77.23 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 2699

Ion	Ratio	Lower	Upper
112	100		
77	61.9	23.6	83.6

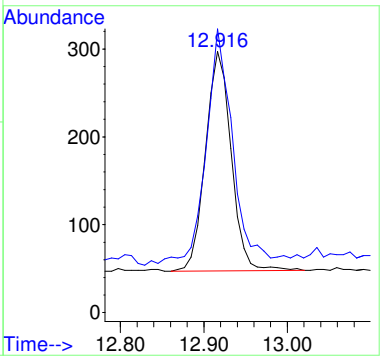


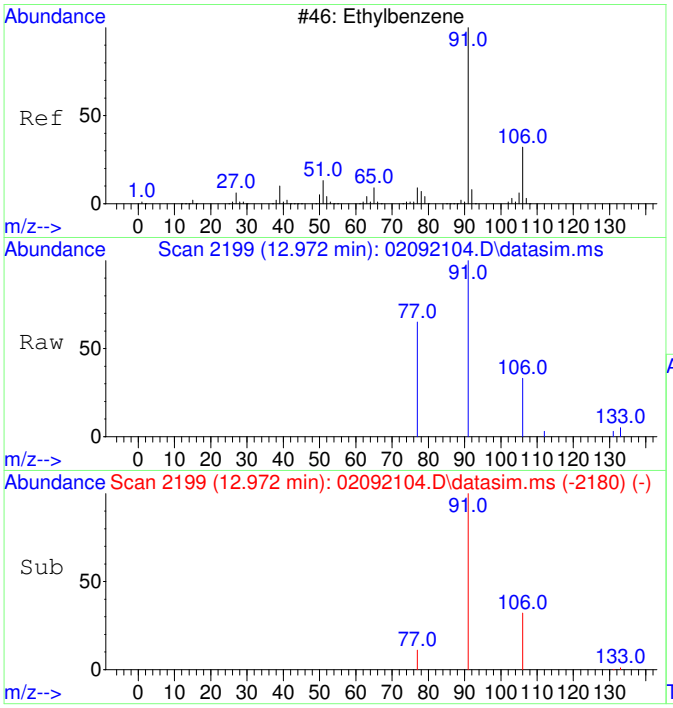


#17
1,1,1,2-Tetrachloroethane
Concen: 43.82 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:131 Resp: 536

Ion	Ratio	Lower	Upper
131	100		
133	112.7	66.3	126.3

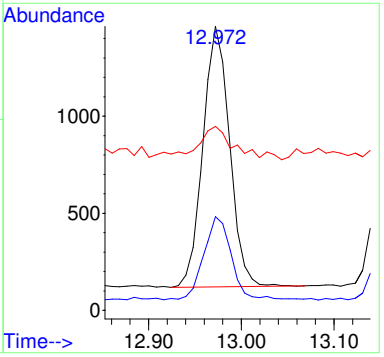


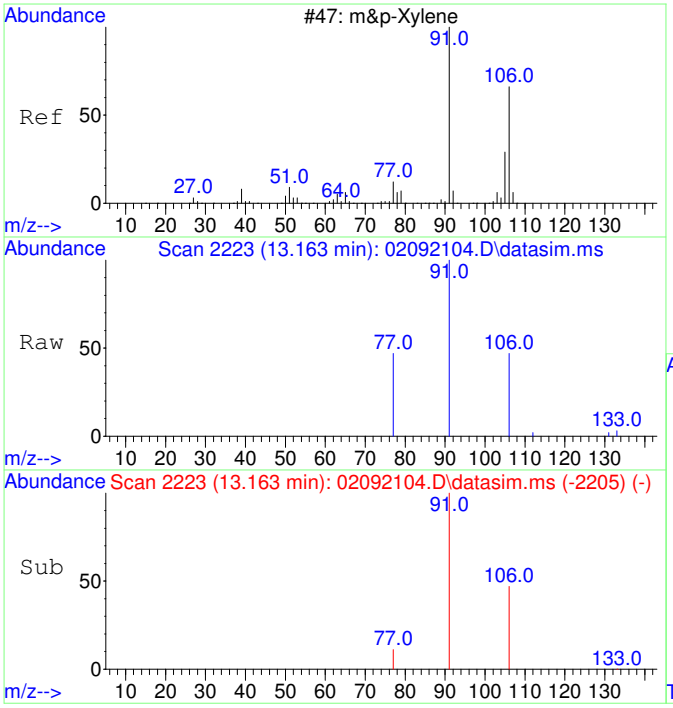


#18
Ethylbenzene
Concen: 46.53 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2681

Ion	Ratio	Lower	Upper
91	100		
106	32.2	3.0	63.0
77	18.4	0.0	38.2

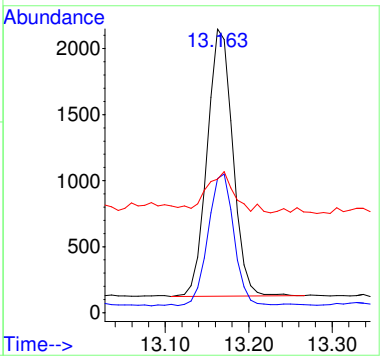


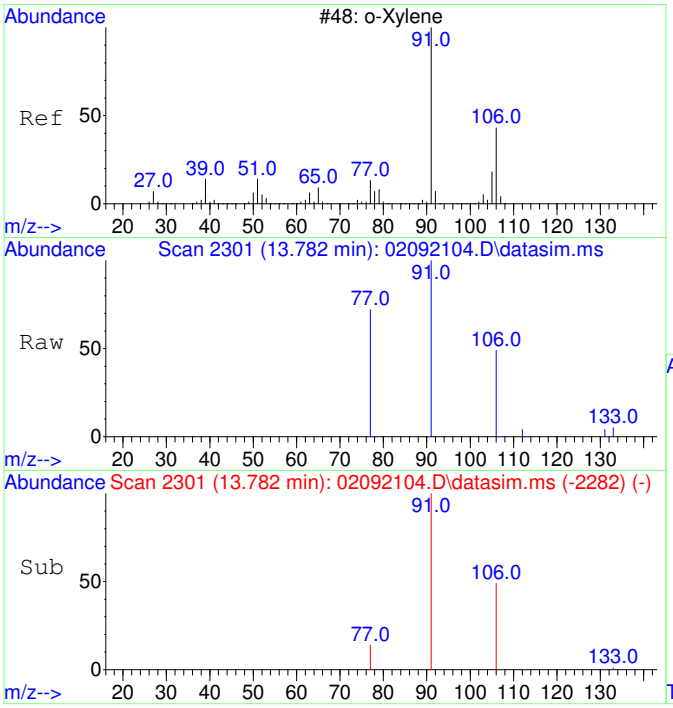


#19
m&p-Xylene
Concen: 96.98 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 4303

Ion	Ratio	Lower	Upper
91	100		
106	49.3	22.2	82.2
77	17.4	0.0	42.4

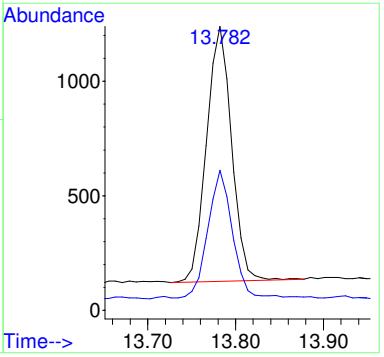


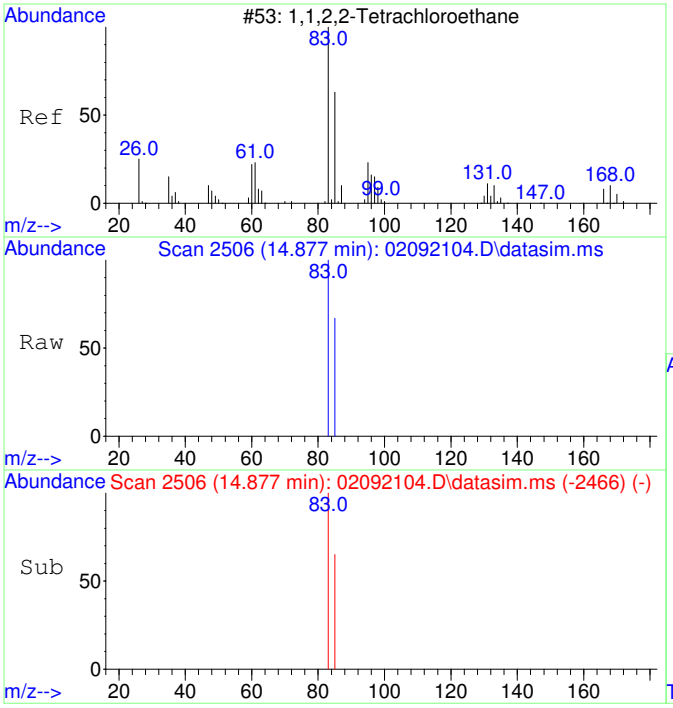


#20
o-Xylene
Concen: 46.31 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2207

Ion	Ratio	Lower	Upper
91	100		
106	48.8	19.2	79.2

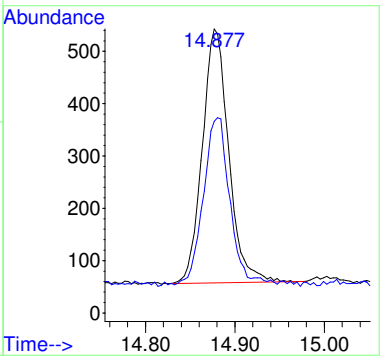


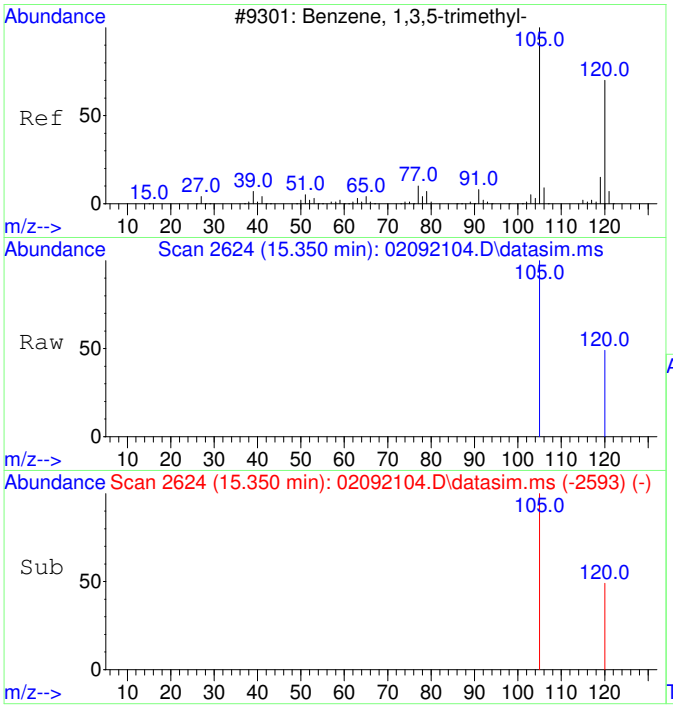


#21
1,1,2,2-Tetrachloroethane
Concen: 44.85 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. -0.004 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 996

Ion	Ratio	Lower	Upper
83	100		
85	64.4	34.8	94.8

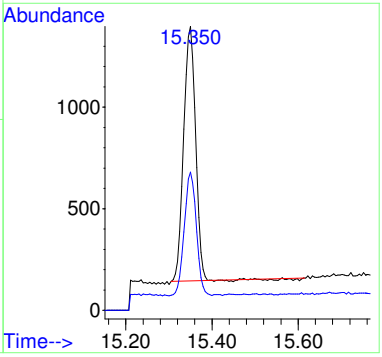


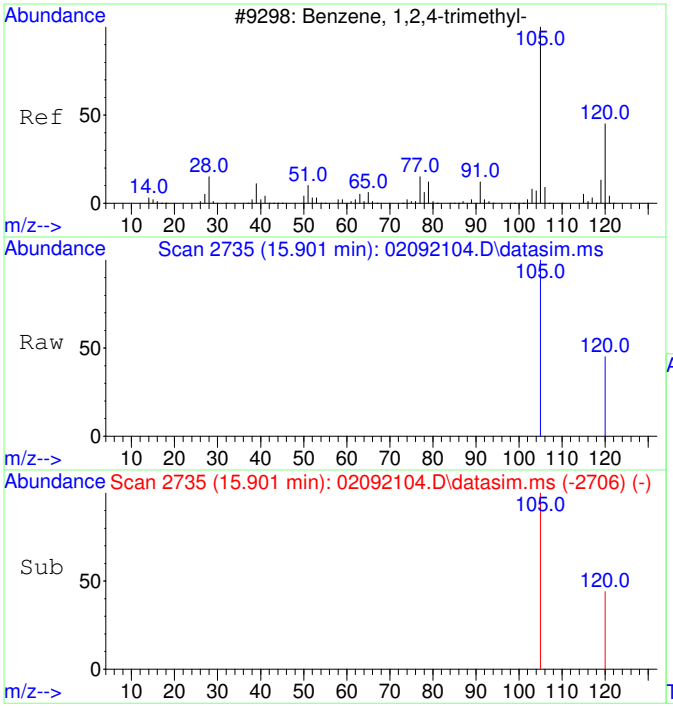


#22
1,3,5-Trimethylbenzene
Concen: 45.53 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2386

Ion	Ratio	Lower	Upper
105	100		
120	48.8	21.1	81.1

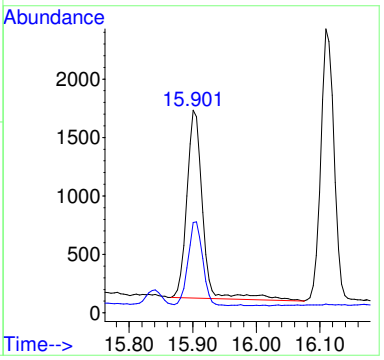


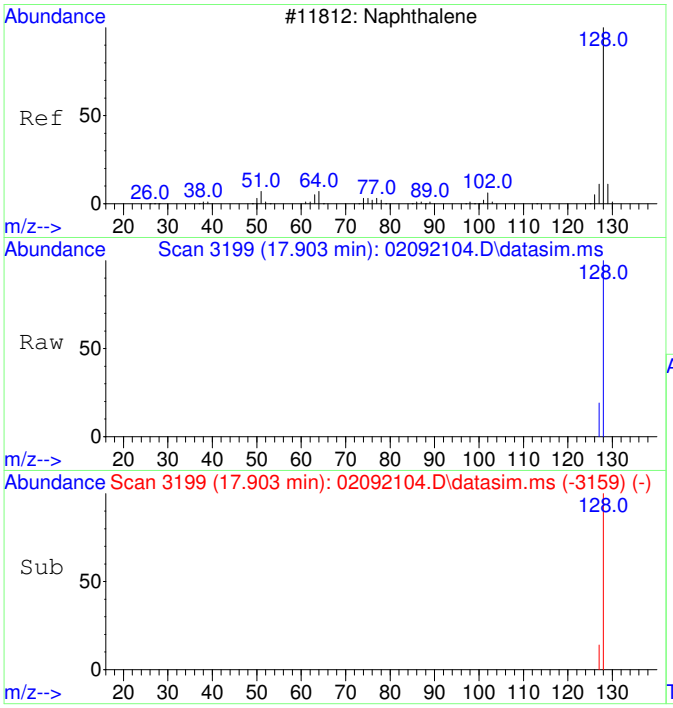


#23
1,2,4-Trimethylbenzene
Concen: 51.73 ug/L
RT: 15.901 min Scan# 2735
Delta R.T. -0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 2773

Ion	Ratio	Lower	Upper
105	100		
120	40.4	17.2	77.2

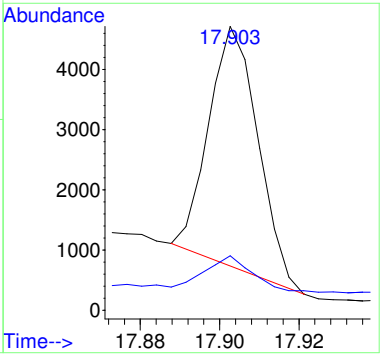


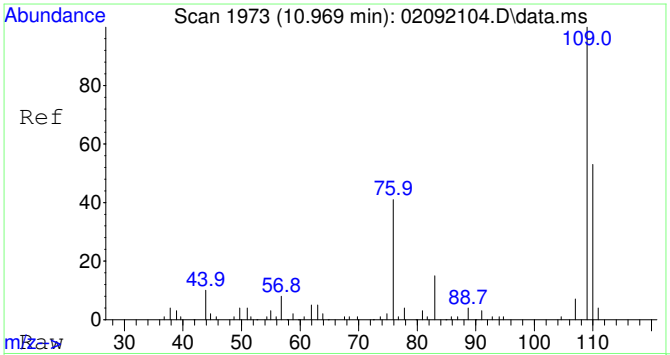


#24
Naphthalene
Concen: 38.49 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 3343

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.5

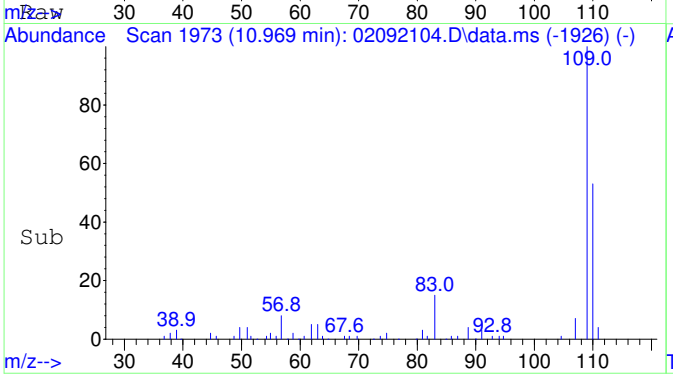


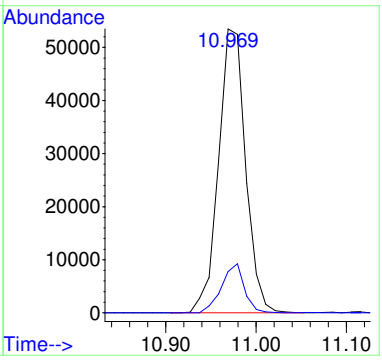


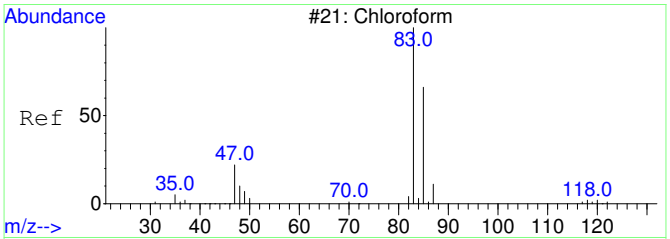
#25
2-Fluorotoluene SCAN
Concen: 5269.53 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. -0.010 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

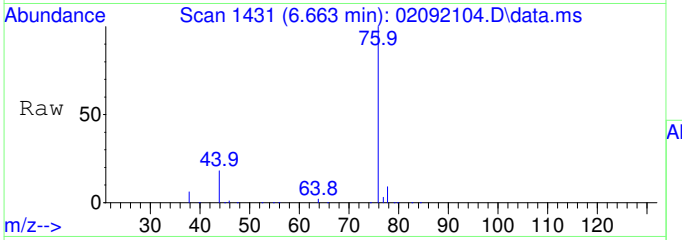
Tgt Ion:109 Resp: 111895

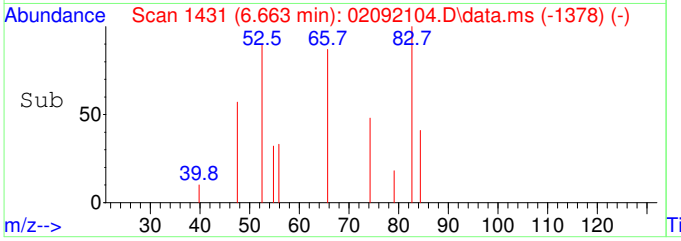
Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	43.8







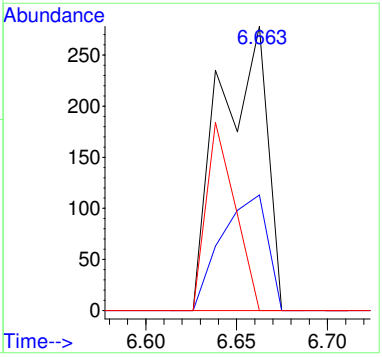


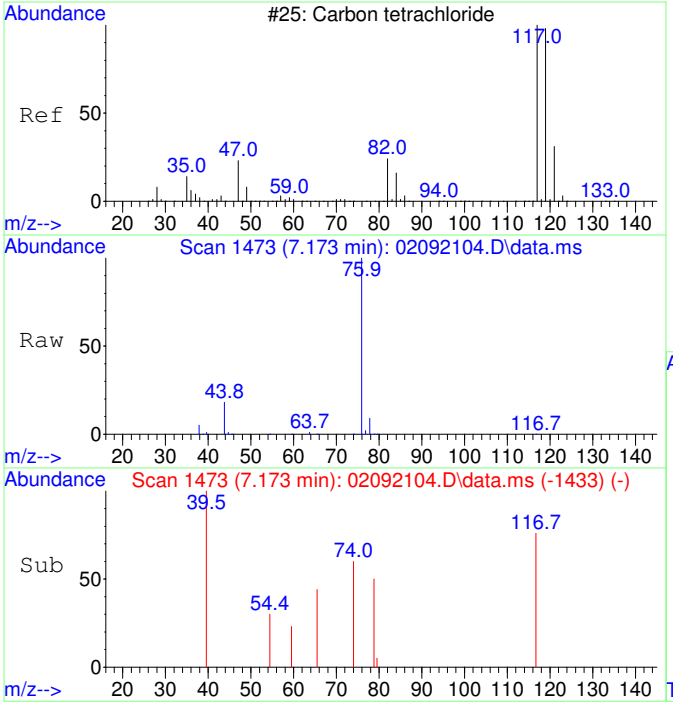


#30
Chloroform SCAN
Concen: 73.46 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 502

Ion	Ratio	Lower	Upper
83	100		
85	39.8	34.6	94.6
47	0.0	0.0	53.4

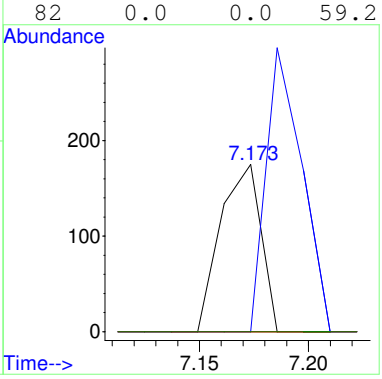


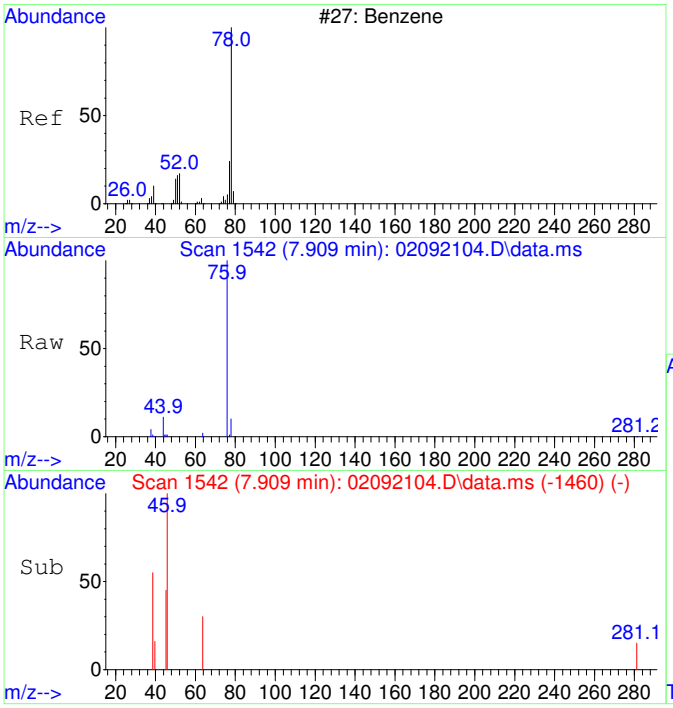


#32
Carbon tetrachloride SCAN
Concen: 37.50 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:117 Resp: 226

Ion	Ratio	Lower	Upper
117	100		
119	150.0	75.5	135.5#
121	0.0	0.0	58.8
82	0.0	0.0	59.2

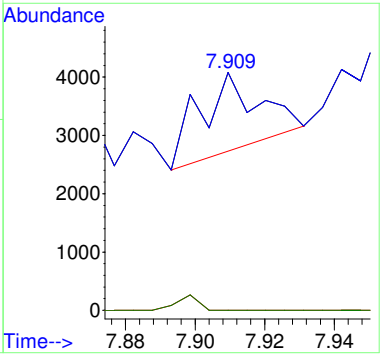


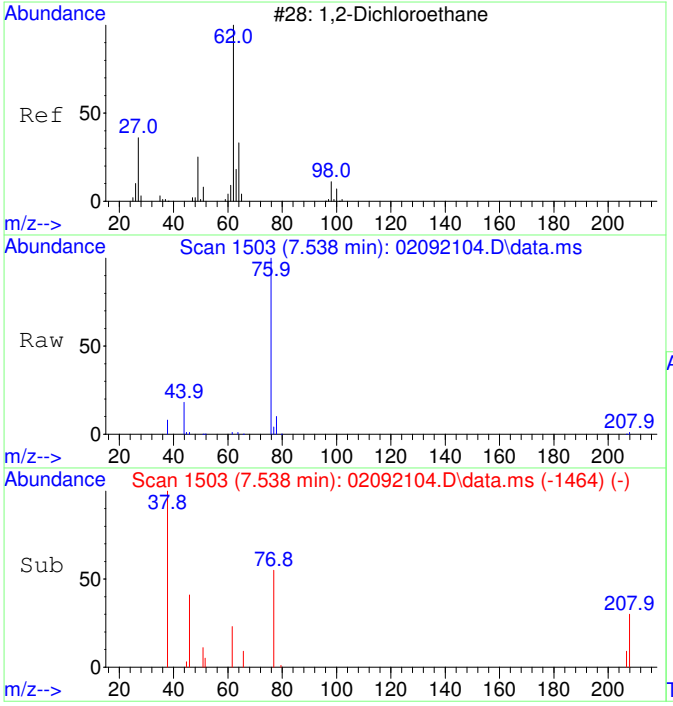


#33
Benzene SCAN
Concen: 77.53 ug/L
RT: 7.909 min Scan# 1542
Delta R.T. 0.396 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 78 Resp: 1654

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	6.8	0.0	47.9
51	6.8	0.0	44.1

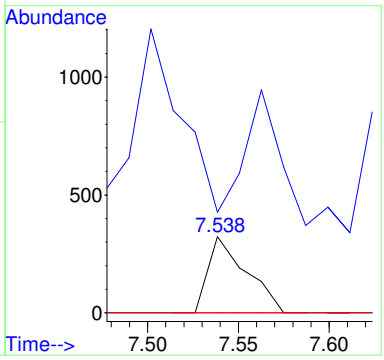


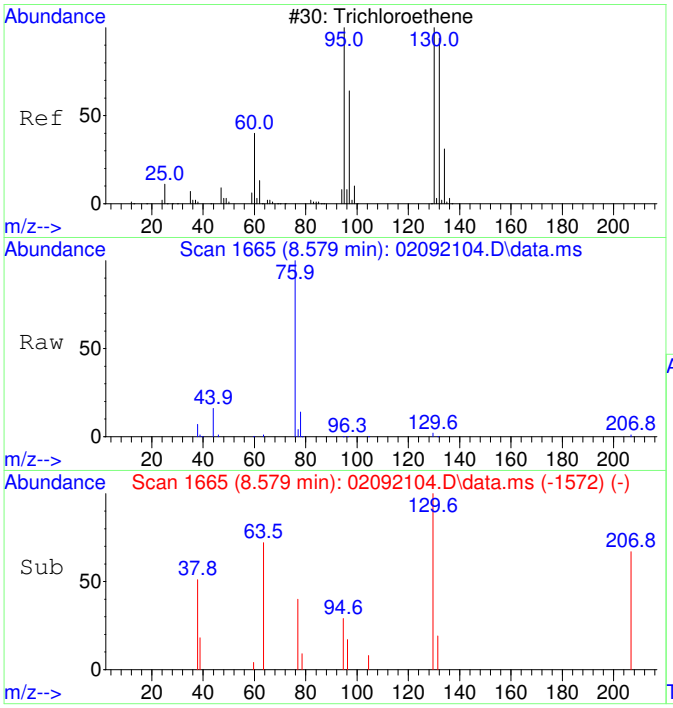


#34
1,2-Dichloroethane SCAN
Concen: 70.88 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. -0.024 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 62 Resp: 473

Ion	Ratio	Lower	Upper
62	100		
64	0.0	5.2	65.2#
49	0.0	3.9	63.9#

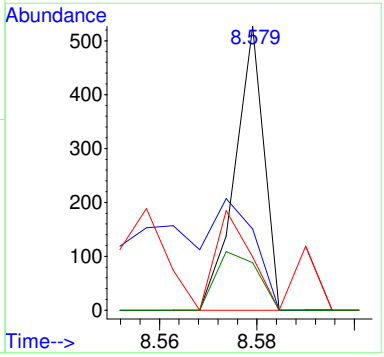


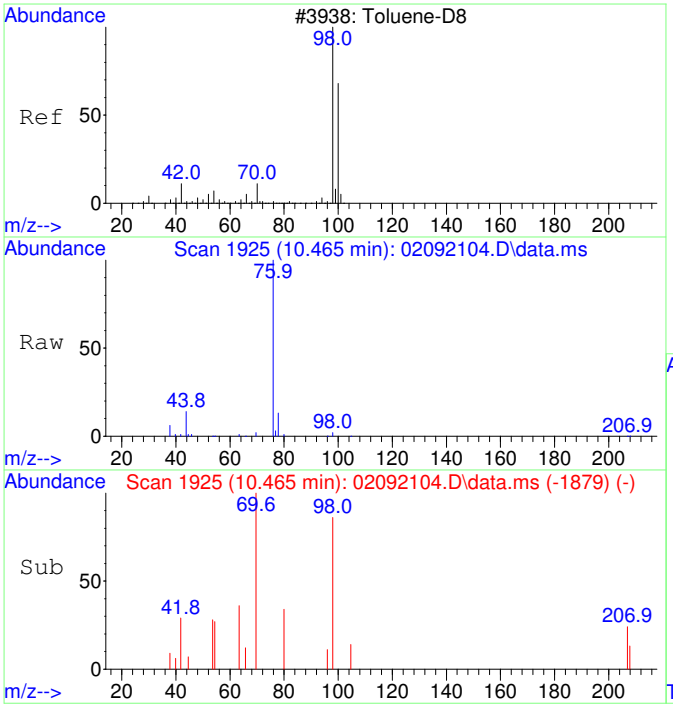


#35
Trichloroethene SCAN
Concen: 46.65 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.006 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:130 Resp: 217

Ion	Ratio	Lower	Upper
130	100		
95	135.5	60.5	120.5#
132	42.9	59.6	119.6#
97	29.5	28.2	88.2

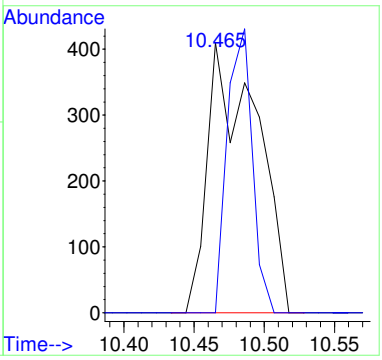


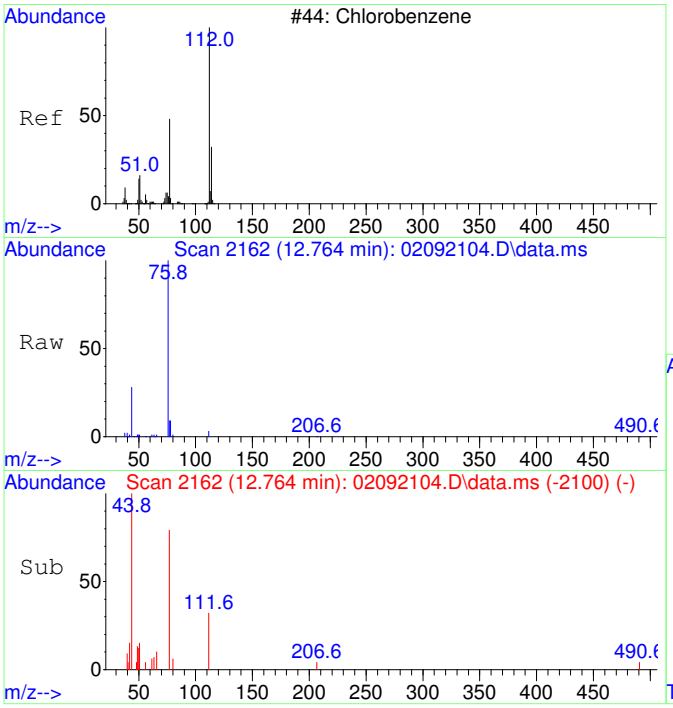


#36
Toluene-d8 SCAN
Concen: 50.31 ug/L
RT: 10.465 min Scan# 1925
Delta R.T. -0.021 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 98 Resp: 1002

Ion	Ratio	Lower	Upper
98	100		
100	0.0	40.0	100.0#

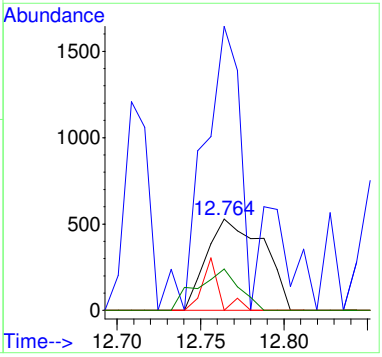


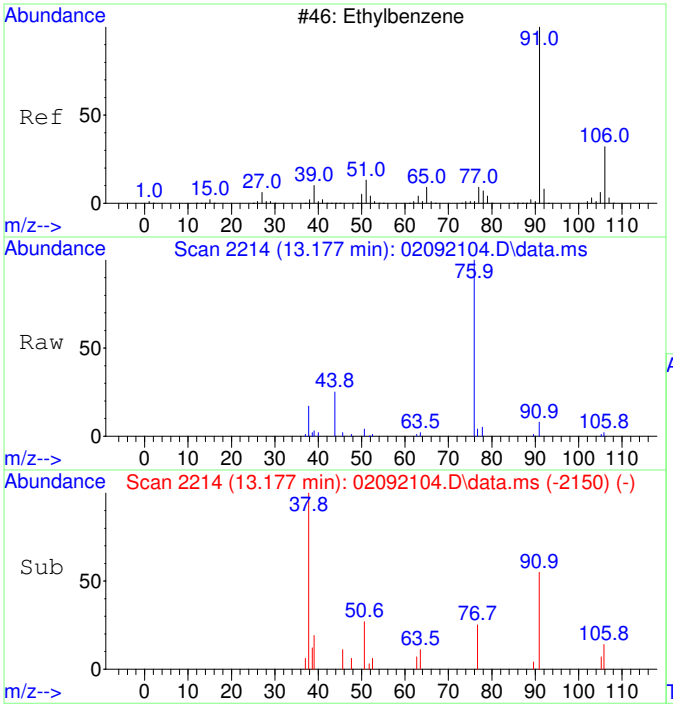


#40
Chlorobenzene SCAN
Concen: 71.20 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:112 Resp: 1254

Ion	Ratio	Lower	Upper
112	100		
77	252.6	28.2	88.2#
114	16.9	2.3	62.3
51	33.8	0.0	50.1

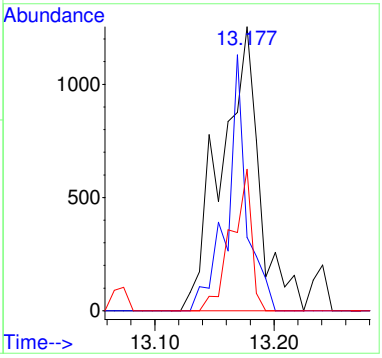


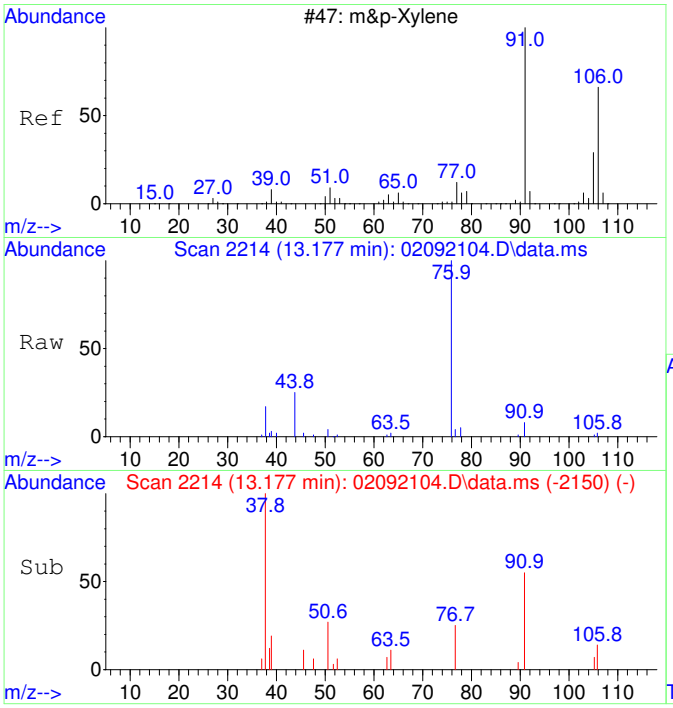


#42
Ethylbenzene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
51	26.0	0.0	40.1

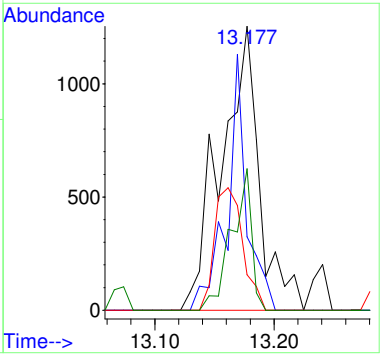


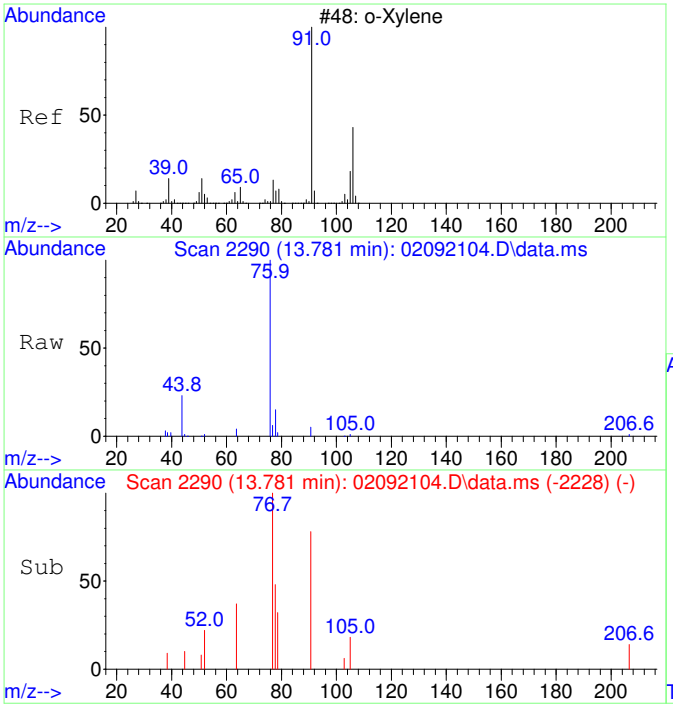


#43
m&p-Xylene SCAN
Concen: 60.20 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 2813

Ion	Ratio	Lower	Upper
91	100		
106	45.7	23.1	83.1
105	31.8	0.0	54.7
51	26.0	0.0	40.1

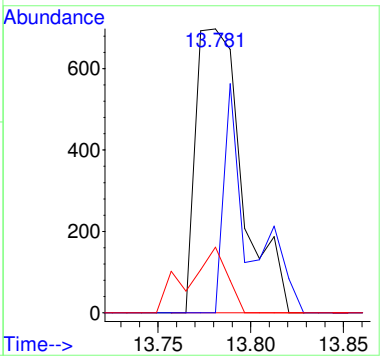


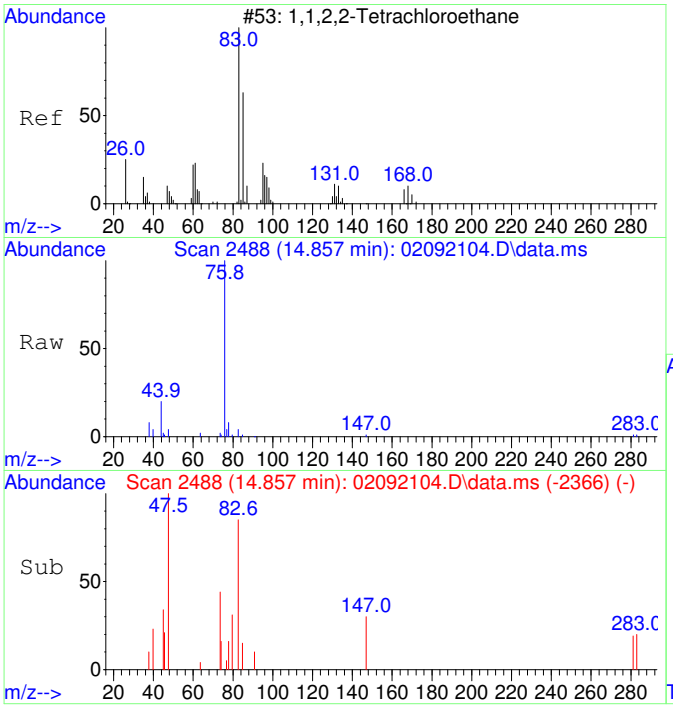


#44
o-Xylene SCAN
Concen: 47.93 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.008 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 91 Resp: 1223

Ion	Ratio	Lower	Upper
91	100		
106	43.4	18.0	78.0
105	19.5	0.0	56.6

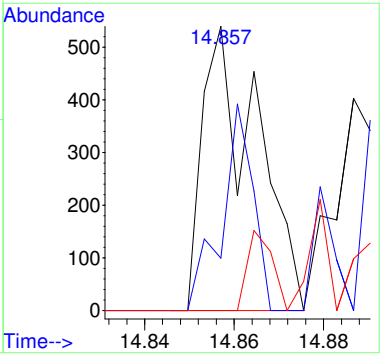


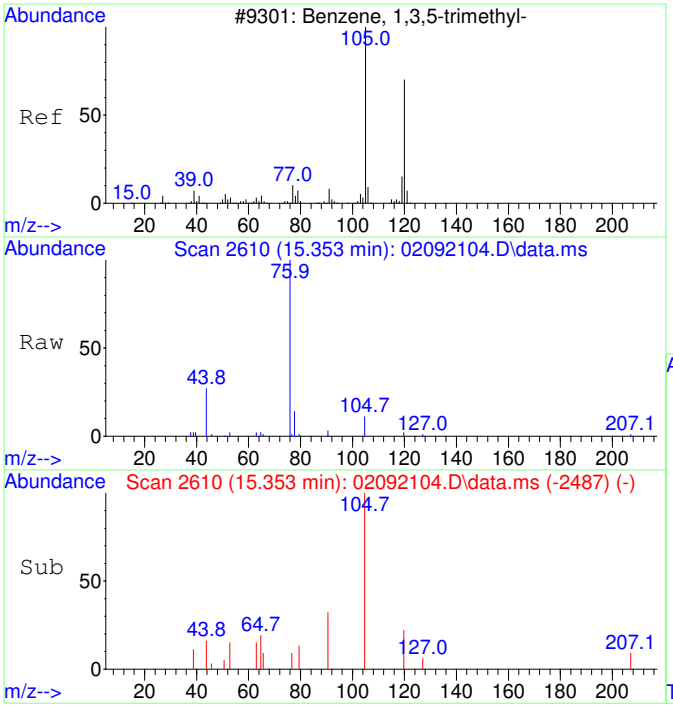


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 34.14 ug/L
RT: 14.857 min Scan# 2488
Delta R.T. -0.026 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion: 83 Resp: 453

Ion	Ratio	Lower	Upper
83	100		
85	41.9	35.9	95.9
95	13.0	0.0	47.4

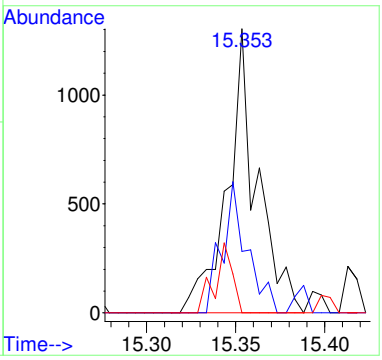


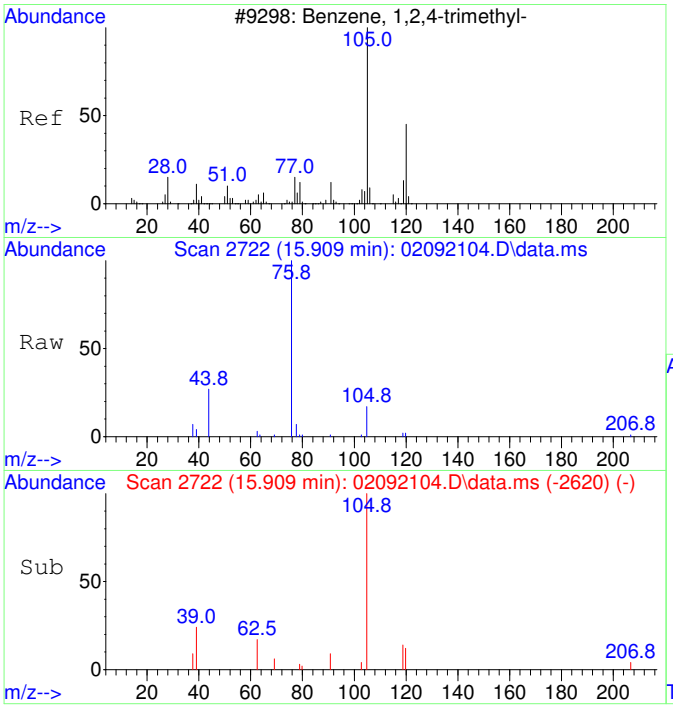


#46
1,3,5-Trimethylbenzene SCAN
Concen: 55.72 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.000 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1500

Ion	Ratio	Lower	Upper
105	100		
120	38.7	18.3	78.3
119	14.5	0.0	43.1

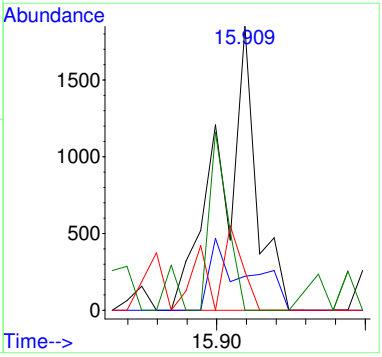


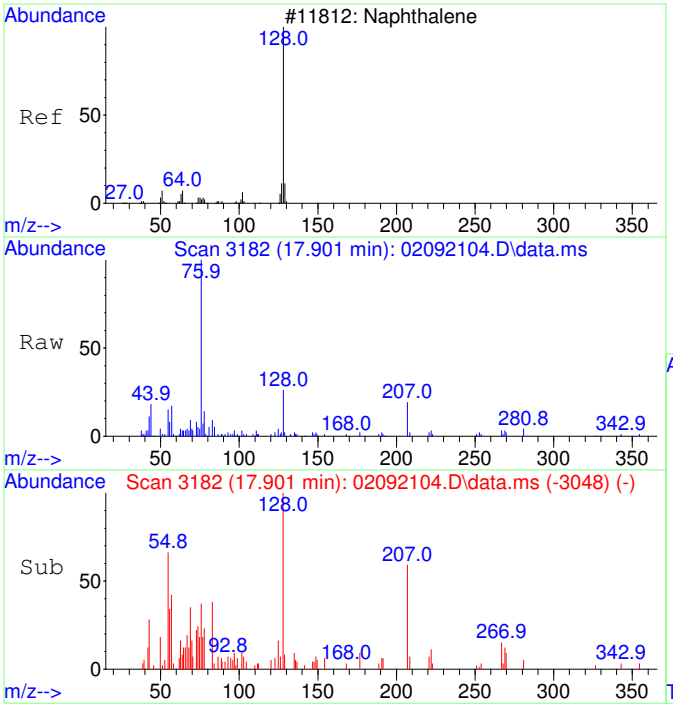


#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.21 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.005 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:105 Resp: 1546

Ion	Ratio	Lower	Upper
105	100		
120	26.4	16.9	76.9
119	15.5	0.0	41.9
77	37.9	0.0	42.3

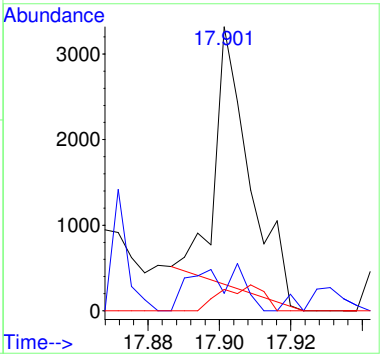




#48
Naphthalene SCAN
Concen: 47.38 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. -0.001 min
Lab File: 02092104.D
Acq: 9 Feb 2021 10:59

Tgt Ion:128 Resp: 1956

Ion	Ratio	Lower	Upper
128	100		
127	25.3	0.0	44.0
129	12.7	0.0	40.8



SECOND SOURCE CALIBRATION CHECK

Radiello D1

Laboratory:	EPA Region 9 Laboratory	SDG:	21039B
Client:	California Site Cleanup Section 3	Project:	MEW OU1 FY2021 Vapor Intrusion Investigation
Instrument ID:	AG5975CV	Calibration:	2012007
Lab File ID:	12072009.D	Calibration Date:	12/07/20 08:54
Sequence:	S20L021	Injection Date:	12/07/20
Lab Sample ID:	S20L021-SCV1	Injection Time:	15:07

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	SCV	ICAL	SCV	MIN (#)	SCV	LIMIT (#)
1,1-Dichloroethene	L	5000	4700	0.1982577	0.1862658		-6.0	30
trans-1,2-Dichloroethene	L	5000	4320	0.2499405	0.2158574		-13.6	30
1,1-Dichloroethane	L	5000	4220	0.2985216	0.2520923		-15.6	30
cis-1,2-Dichloroethene	L	5000	4270	0.3091786	0.2640148		-14.6	30
Chloroform	L	5000	4260	0.2969683	0.2531433		-14.8	30
1,1,1-Trichloroethane	L	5000	4310	0.3190104	0.274891		-13.8	30
Carbon tetrachloride	L	5000	4350	0.3049925	0.265437		-13.0	30
1,2-Dichloroethane	L	5000	4300	0.287022	0.2467458		-14.0	30
Trichloroethene	L	5000	4340	0.2656418	0.2306146		-13.2	30
Toluene	L	5000	4260	1.205713	1.027335		-14.8	30
1,1,2-Trichloroethane	L	5000	4330	0.2792661	0.2418428		-13.4	30
Tetrachloroethene	L	5000	4350	0.3755505	0.3265148		-13.1	30
Chlorobenzene	L	5000	4280	0.934068	0.7998544		-14.4	30
1,1,1,2-Tetrachloroethane	L	5000	4340	0.3269185	0.283593		-13.3	30
Ethylbenzene	L	5000	4710	1.392025	1.176402		-5.8	30
m&p-Xylene	L	10000	8400	1.185909	0.9967		-16.0	30
o-Xylene	L	5000	4220	1.27376	1.075382		-15.6	30
1,1,2,2-Tetrachloroethane	L	5000	4190	0.59351	0.4970254		-16.3	30
1,3,5-Trimethylbenzene	L	5000	4200	1.400752	1.177337		-15.9	30
1,2,4-Trimethylbenzene	L	5000	4080	1.432724	1.170077		-18.3	30
Toluene-d8	L	5000	4350	0.9683759	0.8422362		-13.0	30

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072009.D
Acq On : 7 Dec 2020 15:07
InstName : AG5975C
Operator : TD
Sample : S20L021-SCV1
Misc : 2050006 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 06:27:44 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration

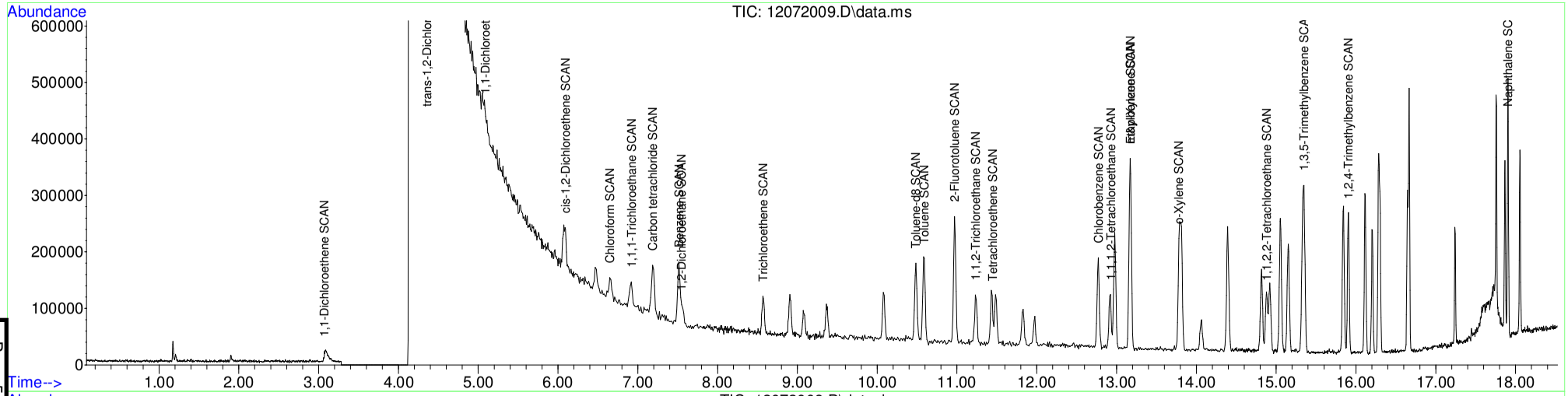
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	10.970	109	207424	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.487	98	174700	4348.70 ug/L	0.00
Spiked Amount 5000.000	Range 86 - 118		Recovery = 86.97%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.090	61	38636	4697.57 ug/L	83
3] trans-1,2-Dichloroethene	4.363	61	44774	4318.17 ug/L	98
4] 1,1-Dichloroethane	5.079	63	52290	4222.35 ug/L	96
5] cis-1,2-Dichloroethene	6.081	61	54763	4269.62 ug/L	98
6] Chloroform	6.652	83	52508	4262.13 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	57019	4308.50 ug/L	100
8] Carbon tetrachloride	7.187	117	55058	4351.53 ug/L	100
9] Benzene	7.503	78	146674	4202.26 ug/L	99
10] 1,2-Dichloroethane	7.540	62	51181	4298.38 ug/L	99
11] Trichloroethene	8.569	130	47835	4340.71 ug/L	97
13] Toluene	10.582	91	213094	4260.28 ug/L	99
14] 1,1,2-Trichloroethane	11.232	97	50164	4329.97 ug/L	99
15] Tetrachloroethene	11.432	166	67727	4347.15 ug/L	100
16] Chlorobenzene	12.765	112	165909	4281.56 ug/L	97
17] 1,1,1,2-Tetrachloroethane	12.916	131	58824	4337.37 ug/L	99
18] Ethylbenzene	12.972	91	271921	4256.29 ug/L	99
19] m&p-Xylene	13.170	91	413479	8404.52 ug/L	98
20] o-Xylene	13.782	91	223060	4221.29 ug/L	98
21] 1,1,2,2-Tetrachloroethane	14.880	83	103095	4187.17 ug/L	100
22] 1,3,5-Trimethylbenzene	15.348	105	244208	4202.52 ug/L	97
23] 1,2,4-Trimethylbenzene	15.904	105	242702	4083.40 ug/L	97
24] Naphthalene	17.906	128	383301	3980.40 ug/L	99
25) 2-Fluorotoluene SCAN	10.969	109	113839	4835.01 ug/L	95
26) 1,1-Dichloroethene SCAN	3.074	61	23589	4291.60 ug/L #	25
27) trans-1,2-Dichloroethe...	4.355	61	31153	4449.79 ug/L	75
28) 1,1-Dichloroethane SCAN	5.085	63	34885	4221.49 ug/L	98
29) cis-1,2-Dichloroethene...	6.086	61	39559	4869.56 ug/L	73
30) Chloroform SCAN	6.650	83	31690	4182.31 ug/L	83
31) 1,1,1-Trichloroethane ...	6.918	97	35723	4568.77 ug/L	94
32) Carbon tetrachloride SCAN	7.186	117	30391	4548.43 ug/L	87
33) Benzene SCAN	7.514	78	90391	3821.24 ug/L	92
34) 1,2-Dichloroethane SCAN	7.550	62	33773	4564.44 ug/L	93
35) Trichloroethene SCAN	8.568	130	23933	4640.02 ug/L	80
36) Toluene-d8 SCAN	10.486	98	104677	4740.29 ug/L	97
37) Toluene SCAN	10.591	91	124623	4583.66 ug/L	91
38) 1,1,2-Trichloroethane ...	11.231	97	30637	4495.59 ug/L	90
39) Tetrachloroethene SCAN	11.441	166	28525	4663.66 ug/L	89
40) Chlorobenzene SCAN	12.772	112	86547	4431.87 ug/L	86
41) 1,1,1,2-Tetrachloroeth...	12.923	131	32613	4840.63 ug/L	93
42) Ethylbenzene SCAN	13.169	91	244014	4709.58 ug/L	91
43) m&p-Xylene SCAN	13.169	91	244014	4709.58 ug/L	92
44) o-Xylene SCAN	13.781	91	136107	4810.72 ug/L	94
45) 1,1,2,2-Tetrachloroeth...	14.876	83	66354	4510.62 ug/L	94
46) 1,3,5-Trimethylbenzene...	15.347	105	134206	4496.33 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.903	105	131912	4325.59 ug/L	97
48) Naphthalene SCAN	17.905	128	192878	4213.67 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\120720\
Data File : 12072009.D
Acq On : 7 Dec 2020 15:07
InstName : AG5975C
Operator : TD
Sample : S20L021-SCV1
Misc : 2050006 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 06:27:44 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\120720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Dec 08 06:26:34 2020
Response via : Initial Calibration



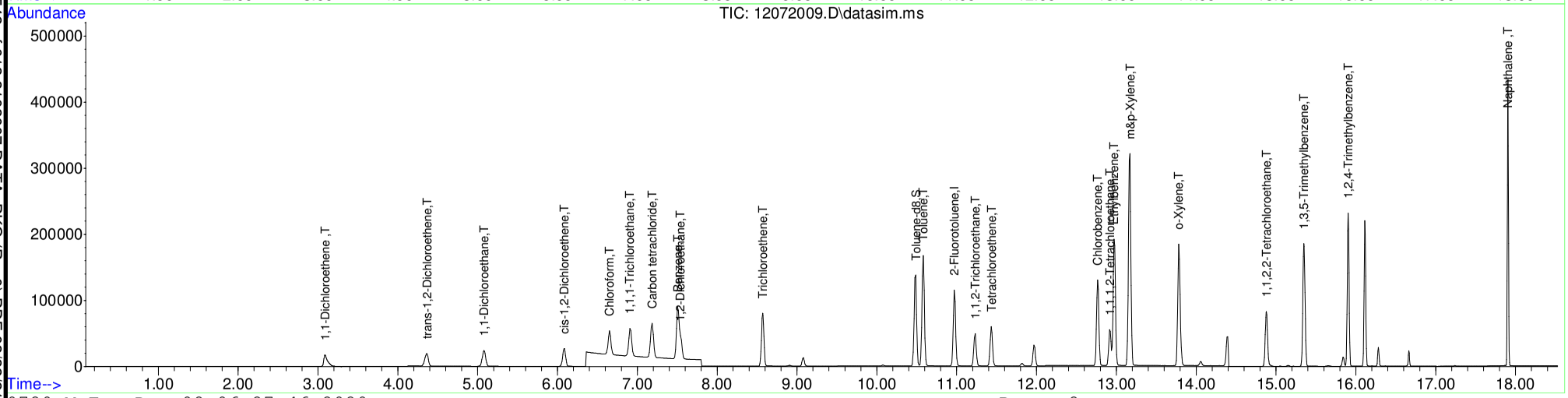


Table of Contents

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

1920045

Description:	Toluene-d8	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	05/15/19
Solvent:	na	**Prepared By:**	** Vendor **
Final Volume (mls):	0.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/21/20 11:28 by ZAR
Vendor:	Cambridge Isotope Lab.	**Lot Numbe**	I-21928

Part # DLM-5-10X1; POS #: 18C-262, bar code #AU0010913

Expiration date changed, neat standard, per ZAR

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	1000000

CERTIFICATE OF ANALYSIS

FROM VENDOR

IS NOT AVAILABLE.

Analytical Standard Record

EPA Region 9 Laboratory

1920046

Description:	Toluene-d8	**Expires:**	03/23/29
Standard Type:	Other Solution	**Prepared:**	05/15/19
Solvent:	na	**Prepared By:**	** Vendor **
Final Volume (mls):	0.1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/21/20 11:22 by ZAR
Vendor:	Cambridge Isotope Lab.	**Lot Numbe**	I-21928

Part # DLM-5-10X1; POS #: 18C-262, bar code #AU0010914

Expiration date changed, neat standard, per ZAR

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	1000000

CERTIFICATE OF ANALYSIS

FROM VENDOR

IS NOT AVAILABLE.

Analytical Standard Record

EPA Region 9 Laboratory

1937063

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 13:18 by YNB
Vendor:	Restek	**Lot Numbe**	A0146957

RESTEK, catalog # 30431, Barcode AU011279

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

1937063

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

www.restek.com

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30431 **Lot No.:** A0146957

Description : 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1-dichloroethene	2,008.6 µg/mL	+/- 12.7358	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBG8609V)		+/- 90.6111	µg/mL	Unstressed
	Purity 99%		+/- 100.5146	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	2,007.1 µg/mL	+/- 12.7263	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBK5095)		+/- 90.5435	µg/mL	Unstressed
	Purity 99%		+/- 100.4395	µg/mL	Stressed
3	trans-1,2-Dichloroethene	2,005.2 µg/mL	+/- 12.7140	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/- 90.4563	µg/mL	Unstressed
	Purity 99%		+/- 100.3427	µg/mL	Stressed
4	1,1-Dichloroethane	2,003.1 µg/mL	+/- 12.7009	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 462600)		+/- 90.3630	µg/mL	Unstressed
	Purity 99%		+/- 100.2393	µg/mL	Stressed
5	2,2-Dichloropropane	2,000.3 µg/mL	+/- 12.6830	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot BCBT5124)		+/- 90.2358	µg/mL	Unstressed
	Purity 99%		+/- 100.0982	µg/mL	Stressed
6	cis-1,2-Dichloroethene	2,002.5 µg/mL	+/- 12.6972	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKBX5945V)		+/- 90.3369	µg/mL	Unstressed
	Purity 99%		+/- 100.2103	µg/mL	Stressed
7	chloroform	2,004.8 µg/mL	+/- 12.7115	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBJ9076)		+/- 90.4382	µg/mL	Unstressed
	Purity 99%		+/- 100.3227	µg/mL	Stressed

8	Bromochloromethane			2,000.7	µg/mL	+/-	12.6854	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00008541)			+/-	90.2525	µg/mL	Unstressed
	Purity	98%				+/-	100.1167	µg/mL	Stressed
9	1,1,1-trichloroethane			2,000.9	µg/mL	+/-	12.6872	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot 190123CG)			+/-	90.2652	µg/mL	Unstressed
	Purity	98%				+/-	100.1308	µg/mL	Stressed
10	1,1-Dichloropropene			2,004.3	µg/mL	+/-	12.7084	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot 190122JLM)			+/-	90.4163	µg/mL	Unstressed
	Purity	99%				+/-	100.2984	µg/mL	Stressed
11	carbon tetrachloride			2,004.5	µg/mL	+/-	12.7100	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBJ2110)			+/-	90.4277	µg/mL	Unstressed
	Purity	99%				+/-	100.3110	µg/mL	Stressed
12	1,2-Dichloroethane			2,007.5	µg/mL	+/-	12.7290	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot SHBJ6510)			+/-	90.5630	µg/mL	Unstressed
	Purity	99%				+/-	100.4612	µg/mL	Stressed
13	Benzene			2,004.2	µg/mL	+/-	12.7079	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBJ5344)			+/-	90.4126	µg/mL	Unstressed
	Purity	99%				+/-	100.2944	µg/mL	Stressed
14	Trichloroethene			2,003.4	µg/mL	+/-	12.7030	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBH1955V)			+/-	90.3781	µg/mL	Unstressed
	Purity	99%				+/-	100.2560	µg/mL	Stressed
15	1,2-Dichloropropane			2,007.7	µg/mL	+/-	12.7299	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot BCBR0882V)			+/-	90.5690	µg/mL	Unstressed
	Purity	99%				+/-	100.4678	µg/mL	Stressed
16	bromodichloromethane			2,016.1	µg/mL	+/-	12.7833	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKCF8470)			+/-	90.9495	µg/mL	Unstressed
	Purity	99%				+/-	100.8899	µg/mL	Stressed
17	Dibromomethane			2,002.3	µg/mL	+/-	12.6960	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10201030)			+/-	90.3278	µg/mL	Unstressed
	Purity	99%				+/-	100.2003	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,005.6	µg/mL	+/-	12.7170	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 25076)			+/-	90.4773	µg/mL	Unstressed
	Purity	99%				+/-	100.3661	µg/mL	Stressed
19	Toluene			2,000.7	µg/mL	+/-	12.6856	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBJ5659)			+/-	90.2539	µg/mL	Unstressed
	Purity	99%				+/-	100.1182	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,004.3	µg/mL	+/-	12.7083	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C797620)			+/-	90.4155	µg/mL	Unstressed
	Purity	98%				+/-	100.2975	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,007.0	µg/mL	+/-	12.7254	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.5375	µg/mL	Unstressed
	Purity	99%				+/-	100.4328	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.5	µg/mL	+/-	12.6909	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)			+/-	90.2918	µg/mL	Unstressed
	Purity	99%				+/-	100.1603	µg/mL	Stressed
23	Tetrachloroethene			2,005.1	µg/mL	+/-	12.7136	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBH9691)			+/-	90.4533	µg/mL	Unstressed
	Purity	99%				+/-	100.3394	µg/mL	Stressed

24	dibromochloromethane			2,003.7	µg/mL	+/-	12.7046	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKCC0877)				+/-	90.3890	µg/mL	Unstressed
	Purity 98%					+/-	100.2681	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,000.7	µg/mL	+/-	12.6858	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBP2268V)				+/-	90.2557	µg/mL	Unstressed
	Purity 99%					+/-	100.1202	µg/mL	Stressed
26	Chlorobenzene			2,005.3	µg/mL	+/-	12.7147	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBH4459V)				+/-	90.4608	µg/mL	Unstressed
	Purity 99%					+/-	100.3477	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,001.7	µg/mL	+/-	12.6919	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)				+/-	90.2990	µg/mL	Unstressed
	Purity 99%					+/-	100.1683	µg/mL	Stressed
28	Ethylbenzene			2,001.6	µg/mL	+/-	12.6917	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBJ4278)				+/-	90.2972	µg/mL	Unstressed
	Purity 99%					+/-	100.1663	µg/mL	Stressed
29	m-Xylene			2,003.4	µg/mL	+/-	12.7031	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBJ2338)				+/-	90.3784	µg/mL	Unstressed
	Purity 99%					+/-	100.2563	µg/mL	Stressed
30	p-Xylene			2,001.8	µg/mL	+/-	12.6927	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBJ7329)				+/-	90.3044	µg/mL	Unstressed
	Purity 99%					+/-	100.1743	µg/mL	Stressed
31	o-Xylene			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBH7231)				+/-	90.4289	µg/mL	Unstressed
	Purity 99%					+/-	100.3124	µg/mL	Stressed
32	Styrene			2,001.4	µg/mL	+/-	12.6899	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKCC9766)				+/-	90.2845	µg/mL	Unstressed
	Purity 99%					+/-	100.1522	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,001.3	µg/mL	+/-	12.6894	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot P15E008)				+/-	90.2809	µg/mL	Unstressed
	Purity 99%					+/-	100.1482	µg/mL	Stressed
34	bromoform			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBJ4835)				+/-	90.4292	µg/mL	Unstressed
	Purity 99%					+/-	100.3127	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,005.5	µg/mL	+/-	12.7161	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)				+/-	90.4713	µg/mL	Unstressed
	Purity 99%					+/-	100.3594	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,002.0	µg/mL	+/-	12.6942	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)				+/-	90.3152	µg/mL	Unstressed
	Purity 99%					+/-	100.1863	µg/mL	Stressed
37	n-Propylbenzene			2,001.2	µg/mL	+/-	12.6891	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot WXBC3346V)				+/-	90.2791	µg/mL	Unstressed
	Purity 99%					+/-	100.1462	µg/mL	Stressed
38	Bromobenzene			2,003.2	µg/mL	+/-	12.7016	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot WXBC5147V)				+/-	90.3675	µg/mL	Unstressed
	Purity 99%					+/-	100.2443	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,001.4	µg/mL	+/-	12.6904	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBS7648V)				+/-	90.2881	µg/mL	Unstressed
	Purity 99%					+/-	100.1562	µg/mL	Stressed

40	2-Chlorotoluene		2,003.5	µg/mL	+/-	12.7033	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/-	90.3802	µg/mL	Unstressed
	Purity 99%				+/-	100.2583	µg/mL	Stressed
41	4-Chlorotoluene		2,002.8	µg/mL	+/-	12.6990	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	90.3495	µg/mL	Unstressed
	Purity 99%				+/-	100.2243	µg/mL	Stressed
42	tert-Butylbenzene		2,002.2	µg/mL	+/-	12.6950	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	90.3206	µg/mL	Unstressed
	Purity 99%				+/-	100.1923	µg/mL	Stressed
43	1,2,4-Trimethylbenzene		2,001.6	µg/mL	+/-	12.6911	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	90.2932	µg/mL	Unstressed
	Purity 98%				+/-	100.1619	µg/mL	Stressed
44	sec-Butylbenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)		2,000.4	µg/mL	+/-	12.6835	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKCB7536)			+/-	90.2394	µg/mL	Unstressed
	Purity 99%				+/-	100.1022	µg/mL	Stressed
46	1,3-Dichlorobenzene		2,008.3	µg/mL	+/-	12.7339	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/-	90.5976	µg/mL	Unstressed
	Purity 99%				+/-	100.4995	µg/mL	Stressed
47	1,4-Dichlorobenzene		2,000.4	µg/mL	+/-	12.6836	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	90.2397	µg/mL	Unstressed
	Purity 99%				+/-	100.1025	µg/mL	Stressed
48	n-Butylbenzene		2,000.3	µg/mL	+/-	12.6833	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09804AE)			+/-	90.2376	µg/mL	Unstressed
	Purity 99%				+/-	100.1002	µg/mL	Stressed
49	1,2-Dichlorobenzene		2,005.0	µg/mL	+/-	12.7128	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/-	90.4472	µg/mL	Unstressed
	Purity 99%				+/-	100.3327	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		2,000.1	µg/mL	+/-	12.6820	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/-	90.2286	µg/mL	Unstressed
	Purity 99%				+/-	100.0902	µg/mL	Stressed
51	1,2,4-Trichlorobenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBJ9215)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
52	Hexachlorobutadiene		2,004.0	µg/mL	+/-	12.7064	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	90.4018	µg/mL	Unstressed
	Purity 99%				+/-	100.2824	µg/mL	Stressed
53	Naphthalene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBZ8680V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	µg/mL	Stressed
54	1,2,3-Trichlorobenzene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

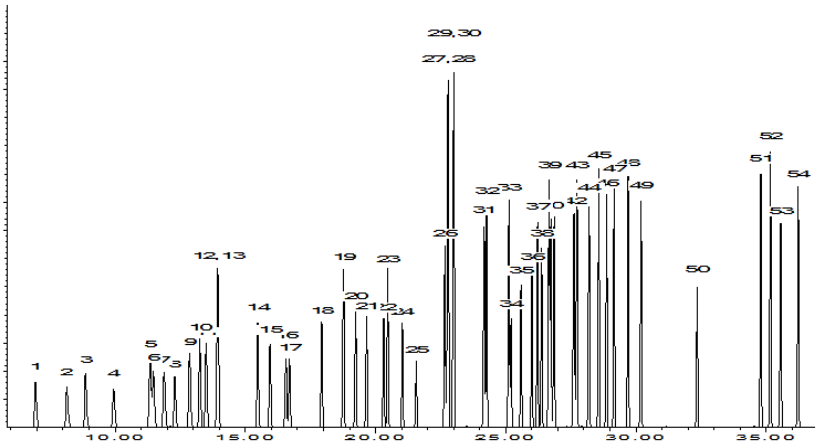
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Date Mixed: 12-Mar-2019 **Balance:** 1126342624

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

2006155

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	07/31/21
Standard Type:	Other Solution	**Prepared:**	07/16/19
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/06/20 16:36 by EM
Vendor:	Restek	**Lot Numbe**	A0150913

RESTEK, catalog # 30431, Barcode AU011648

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

2006155

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

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
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.:** A0150913

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 : July 31, 2021 **Storage:** 0°C or colder

A0011645 646 647 648 649 650 651 652

2006152 6153 6154 6155 ~~6156~~ 6157 ~~6157~~ 6158 ~~6158~~ 6159 ~~6159~~ 616

3/10/20

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)[1]		Expanded Uncertainty (95% C.L., K=2)		
1	1,1-dichloroethene		2,001.7 µg/mL	+/- 12.6162	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot SHBG8609V)		+/- 90.2903	µg/mL	Unstressed
	Purity 99%			+/- 100.1609	µg/mL	Stressed
2	Methylene chloride (dichloromethane)		2,002.3 µg/mL	+/- 12.6195	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBK5095)		+/- 90.3140	µg/mL	Unstressed
	Purity 99%			+/- 100.1872	µg/mL	Stressed
3	trans-1,2-Dichloroethene		2,001.7 µg/mL	+/- 12.6157	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)		+/- 90.2870	µg/mL	Unstressed
	Purity 99%			+/- 100.1572	µg/mL	Stressed
4	1,1-Dichloroethane		2,001.3 µg/mL	+/- 12.6135	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 462600)		+/- 90.2712	µg/mL	Unstressed
	Purity 99%			+/- 100.1396	µg/mL	Stressed
5	2,2-Dichloropropane		2,008.0 µg/mL	+/- 12.7321	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBW4162)		+/- 90.5850	µg/mL	Unstressed
	Purity 98%			+/- 100.4855	µg/mL	Stressed
6	cis-1,2-Dichloroethene		2,001.5 µg/mL	+/- 12.6910	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBX5945V)		+/- 90.2924	µg/mL	Unstressed
	Purity 99%			+/- 100.1609	µg/mL	Stressed
7	chloroform		2,005.2 µg/mL	+/- 12.6381	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBJ9076)		+/- 90.4471	µg/mL	Unstressed
	Purity 99%			+/- 100.3348	µg/mL	Stressed

8	Bromochloromethane		2,015.5	µg/mL	+/-	12.7795	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00008541)			+/-	90.9224	µg/mL	Unstressed
	Purity 98%				+/-	100.8599	µg/mL	Stressed
9	1,1,1-trichloroethane		2,002.9	µg/mL	+/-	12.6236	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot 190123CG)			+/-	90.3433	µg/mL	Unstressed
	Purity 98%				+/-	100.2197	µg/mL	Stressed
10	1,1-Dichloropropene		2,013.5	µg/mL	+/-	12.7669	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot 180531JLM)			+/-	90.8322	µg/mL	Unstressed
	Purity 99%				+/-	100.7598	µg/mL	Stressed
11	carbon tetrachloride		2,005.4	µg/mL	+/-	12.6395	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG8938V)			+/-	90.4572	µg/mL	Unstressed
	Purity 99%				+/-	100.3460	µg/mL	Stressed
12	1,2-Dichloroethane		2,004.9	µg/mL	+/-	12.6359	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot SHBJ6510)			+/-	90.4313	µg/mL	Unstressed
	Purity 99%				+/-	100.3173	µg/mL	Stressed
13	Benzene		2,005.0	µg/mL	+/-	12.7130	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBK7357)			+/-	90.4487	µg/mL	Unstressed
	Purity 99%				+/-	100.3344	µg/mL	Stressed
14	Trichloroethene		2,006.1	µg/mL	+/-	12.6436	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBH1955V)			+/-	90.4866	µg/mL	Unstressed
	Purity 99%				+/-	100.3786	µg/mL	Stressed
15	1,2-Dichloropropane		2,001.0	µg/mL	+/-	12.6113	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot BCBR0882V)			+/-	90.2554	µg/mL	Unstressed
	Purity 99%				+/-	100.1221	µg/mL	Stressed
16	bromodichloromethane		2,006.7	µg/mL	+/-	12.6476	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKCJ0238)			+/-	90.5148	µg/mL	Unstressed
	Purity 99%				+/-	100.4098	µg/mL	Stressed
17	Dibromomethane		2,011.9	µg/mL	+/-	12.7567	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10201030)			+/-	90.7600	µg/mL	Unstressed
	Purity 99%				+/-	100.6797	µg/mL	Stressed
18	cis-1,3-Dichloropropene		2,002.7	µg/mL	+/-	12.6223	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 25649)			+/-	90.3343	µg/mL	Unstressed
	Purity 99%				+/-	100.2097	µg/mL	Stressed
19	Toluene		2,003.6	µg/mL	+/-	12.7043	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBK3737)			+/-	90.3871	µg/mL	Unstressed
	Purity 99%				+/-	100.2660	µg/mL	Stressed
20	trans-1,3-Dichloropropene		2,002.2	µg/mL	+/-	12.6189	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot 19160070-D19056)			+/-	90.3095	µg/mL	Unstressed
	Purity 99%				+/-	100.1822	µg/mL	Stressed
21	1,1,2-Trichloroethane		2,000.6	µg/mL	+/-	12.6088	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	90.2373	µg/mL	Unstressed
	Purity 99%				+/-	100.1021	µg/mL	Stressed
22	1,3-Dichloropropane		2,001.6	µg/mL	+/-	12.6912	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBC6265)			+/-	90.2939	µg/mL	Unstressed
	Purity 99%				+/-	100.1626	µg/mL	Stressed
23	Tetrachloroethene		2,003.4	µg/mL	+/-	12.6268	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBJ7422)			+/-	90.3659	µg/mL	Unstressed
	Purity 99%				+/-	100.2447	µg/mL	Stressed

40	2-Chlorotoluene			2,011.5	µg/mL	+/-	12.7544	µg/mL	Gravimetric
	CAS #	95-49-8	(Lot MKBW5554V)			+/-	90.7435	µg/mL	Unstressed
	Purity	99%				+/-	100.6613	µg/mL	Stressed
41	4-Chlorotoluene			2,006.2	µg/mL	+/-	12.7206	µg/mL	Gravimetric
	CAS #	106-43-4	(Lot MKBL7753V)			+/-	90.5029	µg/mL	Unstressed
	Purity	99%				+/-	100.3944	µg/mL	Stressed
42	tert-Butylbenzene			2,010.9	µg/mL	+/-	12.7502	µg/mL	Gravimetric
	CAS #	98-06-6	(Lot STBD6954V)			+/-	90.7134	µg/mL	Unstressed
	Purity	99%				+/-	100.6280	µg/mL	Stressed
43	1,2,4-Trimethylbenzene			2,007.3	µg/mL	+/-	12.7278	µg/mL	Gravimetric
	CAS #	95-63-6	(Lot WXBC4246V)			+/-	90.5540	µg/mL	Unstressed
	Purity	99%				+/-	100.4512	µg/mL	Stressed
44	sec-Butylbenzene			2,011.4	µg/mL	+/-	12.7533	µg/mL	Gravimetric
	CAS #	135-98-8	(Lot MKCG5431)			+/-	90.7359	µg/mL	Unstressed
	Purity	99%				+/-	100.6530	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)			2,010.8	µg/mL	+/-	12.7500	µg/mL	Gravimetric
	CAS #	99-87-6	(Lot MKCB7536)			+/-	90.7119	µg/mL	Unstressed
	Purity	99%				+/-	100.6263	µg/mL	Stressed
46	1,3-Dichlorobenzene			2,005.6	µg/mL	+/-	12.6406	µg/mL	Gravimetric
	CAS #	541-73-1	(Lot BCBQ7100V)			+/-	90.4651	µg/mL	Unstressed
	Purity	99%				+/-	100.3548	µg/mL	Stressed
47	1,4-Dichlorobenzene			2,008.0	µg/mL	+/-	12.6558	µg/mL	Gravimetric
	CAS #	106-46-7	(Lot MKBS4401V)			+/-	90.5734	µg/mL	Unstressed
	Purity	99%				+/-	100.4749	µg/mL	Stressed
48	n-Butylbenzene			2,006.9	µg/mL	+/-	12.7252	µg/mL	Gravimetric
	CAS #	104-51-8	(Lot 09804AE)			+/-	90.5360	µg/mL	Unstressed
	Purity	99%				+/-	100.4311	µg/mL	Stressed
49	1,2-Dichlorobenzene			2,007.2	µg/mL	+/-	12.6509	µg/mL	Gravimetric
	CAS #	95-50-1	(Lot SHBG3111V)			+/-	90.5384	µg/mL	Unstressed
	Purity	99%				+/-	100.4361	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane			2,001.3	µg/mL	+/-	12.6897	µg/mL	Gravimetric
	CAS #	96-12-8	(Lot FBL01)			+/-	90.2835	µg/mL	Unstressed
	Purity	97%				+/-	100.1511	µg/mL	Stressed
51	1,2,4-Trichlorobenzene			2,011.9	µg/mL	+/-	12.7567	µg/mL	Gravimetric
	CAS #	120-82-1	(Lot SHBJ9215)			+/-	90.7600	µg/mL	Unstressed
	Purity	99%				+/-	100.6797	µg/mL	Stressed
52	Hexachlorobutadiene			2,005.5	µg/mL	+/-	12.7163	µg/mL	Gravimetric
	CAS #	87-68-3	(Lot J31X013)			+/-	90.4728	µg/mL	Unstressed
	Purity	99%				+/-	100.3611	µg/mL	Stressed
53	Naphthalene			2,003.1	µg/mL	+/-	12.7009	µg/mL	Gravimetric
	CAS #	91-20-3	(Lot MKBZ8680V)			+/-	90.3630	µg/mL	Unstressed
	Purity	99%				+/-	100.2393	µg/mL	Stressed
54	1,2,3-Trichlorobenzene			2,004.8	µg/mL	+/-	12.7119	µg/mL	Gravimetric
	CAS #	87-61-6	(Lot MKBX7627V)			+/-	90.4412	µg/mL	Unstressed
	Purity	99%				+/-	100.3261	µg/mL	Stressed

24	dibromochloromethane			2,004.8	µg/mL	+/-	12.6358	µg/mL	Gravimetric
	CAS #	124-48-1	(Lot MKCJ3856)			+/-	90.4306	µg/mL	Unstressed
	Purity	98%				+/-	100.3165	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,002.8	µg/mL	+/-	12.6990	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBP2268V)			+/-	90.3495	µg/mL	Unstressed
	Purity	99%				+/-	100.2243	µg/mL	Stressed
26	Chlorobenzene			2,003.2	µg/mL	+/-	12.6252	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBJ0839)			+/-	90.3546	µg/mL	Unstressed
	Purity	99%				+/-	100.2322	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,007.3	µg/mL	+/-	12.7275	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)			+/-	90.5525	µg/mL	Unstressed
	Purity	99%				+/-	100.4495	µg/mL	Stressed
28	Ethylbenzene			2,003.7	µg/mL	+/-	12.7045	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBJ4278)			+/-	90.3886	µg/mL	Unstressed
	Purity	99%				+/-	100.2677	µg/mL	Stressed
29	m-Xylene			2,006.0	µg/mL	+/-	12.7195	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBJ8743)			+/-	90.4954	µg/mL	Unstressed
	Purity	99%				+/-	100.3861	µg/mL	Stressed
30	p-Xylene			2,013.1	µg/mL	+/-	12.7645	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBJ7329)			+/-	90.8156	µg/mL	Unstressed
	Purity	99%				+/-	100.7414	µg/mL	Stressed
31	o-Xylene			2,007.6	µg/mL	+/-	12.7295	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBK7739)			+/-	90.5660	µg/mL	Unstressed
	Purity	99%				+/-	100.4645	µg/mL	Stressed
32	Styrene			2,012.8	µg/mL	+/-	12.7624	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKCC9766)			+/-	90.8006	µg/mL	Unstressed
	Purity	99%				+/-	100.7247	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,007.2	µg/mL	+/-	12.7271	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot P15E008)			+/-	90.5495	µg/mL	Unstressed
	Purity	99%				+/-	100.4462	µg/mL	Stressed
34	bromoform			2,009.4	µg/mL	+/-	12.6644	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBJ4835)			+/-	90.6354	µg/mL	Unstressed
	Purity	99%				+/-	100.5437	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,008.7	µg/mL	+/-	12.6600	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)			+/-	90.6038	µg/mL	Unstressed
	Purity	99%				+/-	100.5087	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,010.2	µg/mL	+/-	12.7461	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)			+/-	90.6848	µg/mL	Unstressed
	Purity	99%				+/-	100.5963	µg/mL	Stressed
37	n-Propylbenzene			2,005.1	µg/mL	+/-	12.7134	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot WXBC5978V)			+/-	90.4517	µg/mL	Unstressed
	Purity	99%				+/-	100.3377	µg/mL	Stressed
38	Bromobenzene			2,010.9	µg/mL	+/-	12.7504	µg/mL	Gravimetric
	CAS #	108-86-1	(Lot MKBD4032V)			+/-	90.7149	µg/mL	Unstressed
	Purity	99%				+/-	100.6296	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,008.1	µg/mL	+/-	12.7326	µg/mL	Gravimetric
	CAS #	108-67-8	(Lot BCBZ6781)			+/-	90.5886	µg/mL	Unstressed
	Purity	99%				+/-	100.4895	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)

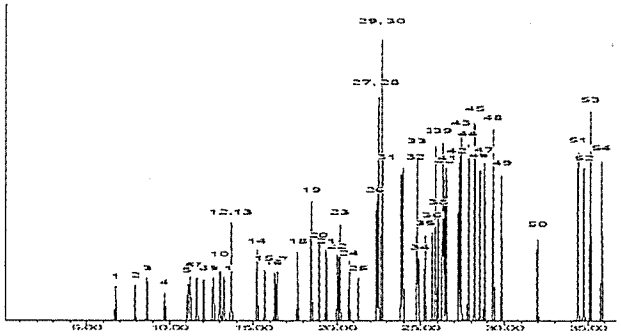
Carrier Gas:
helium-constant pressure 30 psi

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.

Cydnei L. Crust - Mix Technician

Date Mixed: 16-Jul-2019 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 19-Jul-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

2006158

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	07/31/21
Standard Type:	Other Solution	**Prepared:**	07/16/19
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/06/20 16:38 by EM
Vendor:	Restek	**Lot Numbe**	A0150913

RESTEK, catalog # 30431, Barcode AU011650

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

2006158

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

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
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.:** A0150913

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 : July 31, 2021 **Storage:** 0°C or colder

A0011645 646 647 648 649 650 651 652

2006152 6153 6154 6155 ~~6156~~ 6157 ~~6157~~ 6158 ~~6158~~ 6159 ~~6159~~ 616

3/10/20

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)[1]		Expanded Uncertainty (95% C.L., K=2)		
1	1,1-dichloroethene		2,001.7 µg/mL	+/- 12.6162	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot SHBG8609V)		+/- 90.2903	µg/mL	Unstressed
	Purity 99%			+/- 100.1609	µg/mL	Stressed
2	Methylene chloride (dichloromethane)		2,002.3 µg/mL	+/- 12.6195	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBK5095)		+/- 90.3140	µg/mL	Unstressed
	Purity 99%			+/- 100.1872	µg/mL	Stressed
3	trans-1,2-Dichloroethene		2,001.7 µg/mL	+/- 12.6157	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)		+/- 90.2870	µg/mL	Unstressed
	Purity 99%			+/- 100.1572	µg/mL	Stressed
4	1,1-Dichloroethane		2,001.3 µg/mL	+/- 12.6135	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 462600)		+/- 90.2712	µg/mL	Unstressed
	Purity 99%			+/- 100.1396	µg/mL	Stressed
5	2,2-Dichloropropane		2,008.0 µg/mL	+/- 12.7321	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBW4162)		+/- 90.5850	µg/mL	Unstressed
	Purity 98%			+/- 100.4855	µg/mL	Stressed
6	cis-1,2-Dichloroethene		2,001.5 µg/mL	+/- 12.6910	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBX5945V)		+/- 90.2924	µg/mL	Unstressed
	Purity 99%			+/- 100.1609	µg/mL	Stressed
7	chloroform		2,005.2 µg/mL	+/- 12.6381	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBJ9076)		+/- 90.4471	µg/mL	Unstressed
	Purity 99%			+/- 100.3348	µg/mL	Stressed

8	Bromochloromethane			2,015.5	µg/mL	+/-	12.7795	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00008541)			+/-	90.9224	µg/mL	Unstressed
	Purity	98%				+/-	100.8599	µg/mL	Stressed
9	1,1,1-trichloroethane			2,002.9	µg/mL	+/-	12.6236	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot 190123CG)			+/-	90.3433	µg/mL	Unstressed
	Purity	98%				+/-	100.2197	µg/mL	Stressed
10	1,1-Dichloropropene			2,013.5	µg/mL	+/-	12.7669	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot 180531JLM)			+/-	90.8322	µg/mL	Unstressed
	Purity	99%				+/-	100.7598	µg/mL	Stressed
11	carbon tetrachloride			2,005.4	µg/mL	+/-	12.6395	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBG8938V)			+/-	90.4572	µg/mL	Unstressed
	Purity	99%				+/-	100.3460	µg/mL	Stressed
12	1,2-Dichloroethane			2,004.9	µg/mL	+/-	12.6359	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot SHBJ6510)			+/-	90.4313	µg/mL	Unstressed
	Purity	99%				+/-	100.3173	µg/mL	Stressed
13	Benzene			2,005.0	µg/mL	+/-	12.7130	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBK7357)			+/-	90.4487	µg/mL	Unstressed
	Purity	99%				+/-	100.3344	µg/mL	Stressed
14	Trichloroethene			2,006.1	µg/mL	+/-	12.6436	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBH1955V)			+/-	90.4866	µg/mL	Unstressed
	Purity	99%				+/-	100.3786	µg/mL	Stressed
15	1,2-Dichloropropane			2,001.0	µg/mL	+/-	12.6113	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot BCBR0882V)			+/-	90.2554	µg/mL	Unstressed
	Purity	99%				+/-	100.1221	µg/mL	Stressed
16	bromodichloromethane			2,006.7	µg/mL	+/-	12.6476	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKCJ0238)			+/-	90.5148	µg/mL	Unstressed
	Purity	99%				+/-	100.4098	µg/mL	Stressed
17	Dibromomethane			2,011.9	µg/mL	+/-	12.7567	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10201030)			+/-	90.7600	µg/mL	Unstressed
	Purity	99%				+/-	100.6797	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,002.7	µg/mL	+/-	12.6223	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 25649)			+/-	90.3343	µg/mL	Unstressed
	Purity	99%				+/-	100.2097	µg/mL	Stressed
19	Toluene			2,003.6	µg/mL	+/-	12.7043	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBK3737)			+/-	90.3871	µg/mL	Unstressed
	Purity	99%				+/-	100.2660	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,002.2	µg/mL	+/-	12.6189	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot 19160070-D19056)			+/-	90.3095	µg/mL	Unstressed
	Purity	99%				+/-	100.1822	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,000.6	µg/mL	+/-	12.6088	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.2373	µg/mL	Unstressed
	Purity	99%				+/-	100.1021	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.6	µg/mL	+/-	12.6912	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBC6265)			+/-	90.2939	µg/mL	Unstressed
	Purity	99%				+/-	100.1626	µg/mL	Stressed
23	Tetrachloroethene			2,003.4	µg/mL	+/-	12.6268	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBJ7422)			+/-	90.3659	µg/mL	Unstressed
	Purity	99%				+/-	100.2447	µg/mL	Stressed

40	2-Chlorotoluene			2,011.5	µg/mL	+/-	12.7544	µg/mL	Gravimetric
	CAS #	95-49-8	(Lot MKBW5554V)			+/-	90.7435	µg/mL	Unstressed
	Purity	99%				+/-	100.6613	µg/mL	Stressed
41	4-Chlorotoluene			2,006.2	µg/mL	+/-	12.7206	µg/mL	Gravimetric
	CAS #	106-43-4	(Lot MKBL7753V)			+/-	90.5029	µg/mL	Unstressed
	Purity	99%				+/-	100.3944	µg/mL	Stressed
42	tert-Butylbenzene			2,010.9	µg/mL	+/-	12.7502	µg/mL	Gravimetric
	CAS #	98-06-6	(Lot STBD6954V)			+/-	90.7134	µg/mL	Unstressed
	Purity	99%				+/-	100.6280	µg/mL	Stressed
43	1,2,4-Trimethylbenzene			2,007.3	µg/mL	+/-	12.7278	µg/mL	Gravimetric
	CAS #	95-63-6	(Lot WXBC4246V)			+/-	90.5540	µg/mL	Unstressed
	Purity	99%				+/-	100.4512	µg/mL	Stressed
44	sec-Butylbenzene			2,011.4	µg/mL	+/-	12.7533	µg/mL	Gravimetric
	CAS #	135-98-8	(Lot MKCG5431)			+/-	90.7359	µg/mL	Unstressed
	Purity	99%				+/-	100.6530	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)			2,010.8	µg/mL	+/-	12.7500	µg/mL	Gravimetric
	CAS #	99-87-6	(Lot MKCB7536)			+/-	90.7119	µg/mL	Unstressed
	Purity	99%				+/-	100.6263	µg/mL	Stressed
46	1,3-Dichlorobenzene			2,005.6	µg/mL	+/-	12.6406	µg/mL	Gravimetric
	CAS #	541-73-1	(Lot BCBQ7100V)			+/-	90.4651	µg/mL	Unstressed
	Purity	99%				+/-	100.3548	µg/mL	Stressed
47	1,4-Dichlorobenzene			2,008.0	µg/mL	+/-	12.6558	µg/mL	Gravimetric
	CAS #	106-46-7	(Lot MKBS4401V)			+/-	90.5734	µg/mL	Unstressed
	Purity	99%				+/-	100.4749	µg/mL	Stressed
48	n-Butylbenzene			2,006.9	µg/mL	+/-	12.7252	µg/mL	Gravimetric
	CAS #	104-51-8	(Lot 09804AE)			+/-	90.5360	µg/mL	Unstressed
	Purity	99%				+/-	100.4311	µg/mL	Stressed
49	1,2-Dichlorobenzene			2,007.2	µg/mL	+/-	12.6509	µg/mL	Gravimetric
	CAS #	95-50-1	(Lot SHBG3111V)			+/-	90.5384	µg/mL	Unstressed
	Purity	99%				+/-	100.4361	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane			2,001.3	µg/mL	+/-	12.6897	µg/mL	Gravimetric
	CAS #	96-12-8	(Lot FBL01)			+/-	90.2835	µg/mL	Unstressed
	Purity	97%				+/-	100.1511	µg/mL	Stressed
51	1,2,4-Trichlorobenzene			2,011.9	µg/mL	+/-	12.7567	µg/mL	Gravimetric
	CAS #	120-82-1	(Lot SHBJ9215)			+/-	90.7600	µg/mL	Unstressed
	Purity	99%				+/-	100.6797	µg/mL	Stressed
52	Hexachlorobutadiene			2,005.5	µg/mL	+/-	12.7163	µg/mL	Gravimetric
	CAS #	87-68-3	(Lot J31X013)			+/-	90.4728	µg/mL	Unstressed
	Purity	99%				+/-	100.3611	µg/mL	Stressed
53	Naphthalene			2,003.1	µg/mL	+/-	12.7009	µg/mL	Gravimetric
	CAS #	91-20-3	(Lot MKBZ8680V)			+/-	90.3630	µg/mL	Unstressed
	Purity	99%				+/-	100.2393	µg/mL	Stressed
54	1,2,3-Trichlorobenzene			2,004.8	µg/mL	+/-	12.7119	µg/mL	Gravimetric
	CAS #	87-61-6	(Lot MKBX7627V)			+/-	90.4412	µg/mL	Unstressed
	Purity	99%				+/-	100.3261	µg/mL	Stressed

24	dibromochloromethane			2,004.8	µg/mL	+/-	12.6358	µg/mL	Gravimetric
	CAS #	124-48-1	(Lot MKCJ3856)			+/-	90.4306	µg/mL	Unstressed
	Purity	98%				+/-	100.3165	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,002.8	µg/mL	+/-	12.6990	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBP2268V)			+/-	90.3495	µg/mL	Unstressed
	Purity	99%				+/-	100.2243	µg/mL	Stressed
26	Chlorobenzene			2,003.2	µg/mL	+/-	12.6252	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBJ0839)			+/-	90.3546	µg/mL	Unstressed
	Purity	99%				+/-	100.2322	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,007.3	µg/mL	+/-	12.7275	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)			+/-	90.5525	µg/mL	Unstressed
	Purity	99%				+/-	100.4495	µg/mL	Stressed
28	Ethylbenzene			2,003.7	µg/mL	+/-	12.7045	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBJ4278)			+/-	90.3886	µg/mL	Unstressed
	Purity	99%				+/-	100.2677	µg/mL	Stressed
29	m-Xylene			2,006.0	µg/mL	+/-	12.7195	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBJ8743)			+/-	90.4954	µg/mL	Unstressed
	Purity	99%				+/-	100.3861	µg/mL	Stressed
30	p-Xylene			2,013.1	µg/mL	+/-	12.7645	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBJ7329)			+/-	90.8156	µg/mL	Unstressed
	Purity	99%				+/-	100.7414	µg/mL	Stressed
31	o-Xylene			2,007.6	µg/mL	+/-	12.7295	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBK7739)			+/-	90.5660	µg/mL	Unstressed
	Purity	99%				+/-	100.4645	µg/mL	Stressed
32	Styrene			2,012.8	µg/mL	+/-	12.7624	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKCC9766)			+/-	90.8006	µg/mL	Unstressed
	Purity	99%				+/-	100.7247	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,007.2	µg/mL	+/-	12.7271	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot P15E008)			+/-	90.5495	µg/mL	Unstressed
	Purity	99%				+/-	100.4462	µg/mL	Stressed
34	bromoform			2,009.4	µg/mL	+/-	12.6644	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBJ4835)			+/-	90.6354	µg/mL	Unstressed
	Purity	99%				+/-	100.5437	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,008.7	µg/mL	+/-	12.6600	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)			+/-	90.6038	µg/mL	Unstressed
	Purity	99%				+/-	100.5087	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,010.2	µg/mL	+/-	12.7461	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)			+/-	90.6848	µg/mL	Unstressed
	Purity	99%				+/-	100.5963	µg/mL	Stressed
37	n-Propylbenzene			2,005.1	µg/mL	+/-	12.7134	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot WXBC5978V)			+/-	90.4517	µg/mL	Unstressed
	Purity	99%				+/-	100.3377	µg/mL	Stressed
38	Bromobenzene			2,010.9	µg/mL	+/-	12.7504	µg/mL	Gravimetric
	CAS #	108-86-1	(Lot MKBD4032V)			+/-	90.7149	µg/mL	Unstressed
	Purity	99%				+/-	100.6296	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,008.1	µg/mL	+/-	12.7326	µg/mL	Gravimetric
	CAS #	108-67-8	(Lot BCBZ6781)			+/-	90.5886	µg/mL	Unstressed
	Purity	99%				+/-	100.4895	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)

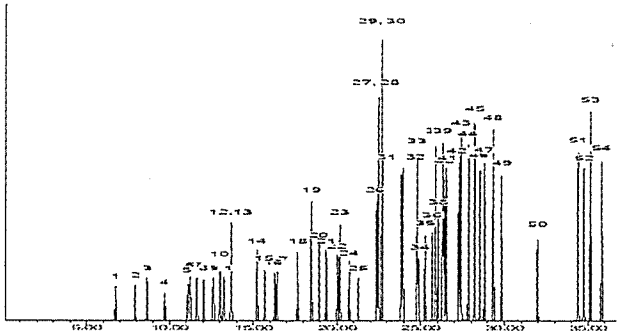
Carrier Gas:
helium-constant pressure 30 psi

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.

Cydnei L. Crust - Mix Technician

Date Mixed: 16-Jul-2019 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 19-Jul-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

2030064

Description:	Passive indoor air Surrogate Stock	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	2	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:52 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	10000

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1920045	Toluene-d8	05/15/19	** Vendor **	01/22/21	07/22/20 08:49 by TD	0.02

Analytical Standard Record

EPA Region 9 Laboratory

2030065

Description:	Passive indoor air Internal Standard Stock	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	2	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:52 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
2-Fluorotoluene	95-52-3	10000

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

Analytical Standard Record

EPA Region 9 Laboratory

2030066

Description:	Passive indoor air stock std 50	**Expires:**	01/22/21
Standard Type:	Analyte Spike	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	20	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:55 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	50
1,1,1,2-Tetrachloroethane	630-20-6	50
Bromobenzene	108-86-1	50
Benzene	71-43-2	50
4-Chlorotoluene	106-43-4	50
2-Chlorotoluene	95-49-8	50
2,2-Dichloropropane	594-20-7	50
1,4-Dichlorobenzene	106-46-7	50
1,3-Dichloropropane	142-28-9	50
1,3-Dichlorobenzene	541-73-1	50
1,3,5-Trimethylbenzene	108-67-8	50
1,2-Dichloropropane	78-87-5	50
Bromodichloromethane	75-27-4	50
1,2-Dichlorobenzene	95-50-1	50
Bromoform	75-25-2	50
1,2-Dibromo-3-chloropropane	96-12-8	50
1,2,4-Trimethylbenzene	95-63-6	50
1,2,4-Trichlorobenzene	120-82-1	50
1,2,3-Trichloropropane	96-18-4	50
1,2,3-Trichlorobenzene	87-61-6	50
1,1-Dichloropropene	563-58-6	50
1,1-Dichloroethene	75-35-4	50
1,1-Dichloroethane	75-34-3	50
1,1,2-Trichloroethane	79-00-5	50
1,1,2,2-Tetrachloroethane	79-34-5	50
1,1,1-Trichloroethane	71-55-6	50
1,2-Dichloroethane	107-06-2	50
Isopropylbenzene	98-82-8	50
trans-1,3-Dichloropropene	10061-02-6	50
trans-1,2-Dichloroethene	156-60-5	50

Analytical Standard Record

EPA Region 9 Laboratory

2030066

Toluene-d8	2037-26-5	50
Toluene	108-88-3	50
Tetrachloroethene	127-18-4	50
tert-Butylbenzene	98-06-6	50
Styrene	100-42-5	50
sec-Butylbenzene	135-98-8	50
Propylbenzene	103-65-1	50
p-Isopropyltoluene	99-87-6	50
o-Xylene	95-47-6	50
Bromochloromethane	74-97-5	50
m&p-Xylene	179601-23-1	100
Trichloroethene	79-01-6	50
Hexachlorobutadiene	87-68-3	50
Ethylbenzene	100-41-4	50
Dichloromethane	75-09-2	50
Dibromomethane	74-95-3	50
cis-1,3-Dichloropropene	10061-01-5	50
cis-1,2-Dichloroethene	156-59-2	50
Chloroform	67-66-3	50
Chlorodibromomethane	124-48-1	50
Chlorobenzene	108-90-7	50
Carbon tetrachloride	56-23-5	50
Butylbenzene	104-51-8	50
Naphthalene	91-20-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1937063	VOA 502.2 CAL 2000 MEGA MIX, St	09/10/19	** Vendor **	01/22/21	07/22/20 08:48 by TD	0.5
2030064	Passive indoor air Surrogate Stock	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2030067

Description:	Passive air Surrogate/I.S. Working solutio	**Expires:**	01/22/21
Standard Type:	Surrogate Spike	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	25	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:56 by TD
Vendor:	Restek	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	200
2-Fluorotoluene	95-52-3	200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030064	Passive indoor air Surrogate Stock	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.5
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.5

Analytical Standard Record

EPA Region 9 Laboratory

2030068

Description:	Passive indoor air 25	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:58 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	25
Bromobenzene	108-86-1	25
Benzene	71-43-2	25
4-Chlorotoluene	106-43-4	25
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	25
2,2-Dichloropropane	594-20-7	25
1,4-Dichlorobenzene	106-46-7	25
1,3-Dichloropropane	142-28-9	25
1,3-Dichlorobenzene	541-73-1	25
1,3,5-Trimethylbenzene	108-67-8	25
1,2-Dichloropropane	78-87-5	25
1,1,1,2-Tetrachloroethane	630-20-6	25
1,2-Dichlorobenzene	95-50-1	25
Bromoform	75-25-2	25
1,2-Dibromo-3-chloropropane	96-12-8	25
1,2,4-Trimethylbenzene	95-63-6	25
1,2,4-Trichlorobenzene	120-82-1	25
1,2,3-Trichloropropane	96-18-4	25
1,2,3-Trichlorobenzene	87-61-6	25
1,1-Dichloropropene	563-58-6	25
1,1-Dichloroethene	75-35-4	25
1,1-Dichloroethane	75-34-3	25
1,1,2-Trichloroethane	79-00-5	25
1,1,2,2-Tetrachloroethane	79-34-5	25
1,1,1-Trichloroethane	71-55-6	25
1,2-Dichloroethane	107-06-2	25
Isopropylbenzene	98-82-8	25
trans-1,3-Dichloropropene	10061-02-6	25
trans-1,2-Dichloroethene	156-60-5	25

Analytical Standard Record

EPA Region 9 Laboratory

2030068

Toluene-d8	2037-26-5	25
Toluene	108-88-3	25
Tetrachloroethene	127-18-4	25
tert-Butylbenzene	98-06-6	25
Styrene	100-42-5	25
sec-Butylbenzene	135-98-8	25
Propylbenzene	103-65-1	25
p-Isopropyltoluene	99-87-6	25
o-Xylene	95-47-6	25
Bromochloromethane	74-97-5	25
m&p-Xylene	179601-23-1	50
Bromodichloromethane	75-27-4	25
Hexachlorobutadiene	87-68-3	25
Ethylbenzene	100-41-4	25
Dichloromethane	75-09-2	25
Dibromomethane	74-95-3	25
cis-1,3-Dichloropropene	10061-01-5	25
cis-1,2-Dichloroethene	156-59-2	25
Chloroform	67-66-3	25
Chlorodibromomethane	124-48-1	25
Chlorobenzene	108-90-7	25
Carbon tetrachloride	56-23-5	25
Butylbenzene	104-51-8	25
Trichloroethene	79-01-6	25
Naphthalene	91-20-3	25

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030066	Passive indoor air stock std 50	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:55 by TD	5
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.005

Analytical Standard Record

EPA Region 9 Laboratory

2030069

Description:	Passive indoor air 10	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:59 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	10
Bromobenzene	108-86-1	10
Benzene	71-43-2	10
4-Chlorotoluene	106-43-4	10
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	10
2,2-Dichloropropane	594-20-7	10
1,4-Dichlorobenzene	106-46-7	10
1,3-Dichloropropane	142-28-9	10
1,3-Dichlorobenzene	541-73-1	10
1,3,5-Trimethylbenzene	108-67-8	10
1,2-Dichloropropane	78-87-5	10
1,1,1,2-Tetrachloroethane	630-20-6	10
1,2-Dichlorobenzene	95-50-1	10
Bromoform	75-25-2	10
1,2-Dibromo-3-chloropropane	96-12-8	10
1,2,4-Trimethylbenzene	95-63-6	10
1,2,4-Trichlorobenzene	120-82-1	10
1,2,3-Trichloropropane	96-18-4	10
1,2,3-Trichlorobenzene	87-61-6	10
1,1-Dichloropropene	563-58-6	10
1,1-Dichloroethene	75-35-4	10
1,1-Dichloroethane	75-34-3	10
1,1,2-Trichloroethane	79-00-5	10
1,1,2,2-Tetrachloroethane	79-34-5	10
1,1,1-Trichloroethane	71-55-6	10
1,2-Dichloroethane	107-06-2	10
Isopropylbenzene	98-82-8	10
trans-1,3-Dichloropropene	10061-02-6	10
trans-1,2-Dichloroethene	156-60-5	10

Analytical Standard Record

EPA Region 9 Laboratory

2030069

Toluene-d8	2037-26-5	10
Toluene	108-88-3	10
Tetrachloroethene	127-18-4	10
tert-Butylbenzene	98-06-6	10
Styrene	100-42-5	10
sec-Butylbenzene	135-98-8	10
Propylbenzene	103-65-1	10
p-Isopropyltoluene	99-87-6	10
o-Xylene	95-47-6	10
Bromochloromethane	74-97-5	10
m&p-Xylene	179601-23-1	20
Bromodichloromethane	75-27-4	10
Hexachlorobutadiene	87-68-3	10
Ethylbenzene	100-41-4	10
Dichloromethane	75-09-2	10
Dibromomethane	74-95-3	10
cis-1,3-Dichloropropene	10061-01-5	10
cis-1,2-Dichloroethene	156-59-2	10
Chloroform	67-66-3	10
Chlorodibromomethane	124-48-1	10
Chlorobenzene	108-90-7	10
Carbon tetrachloride	56-23-5	10
Butylbenzene	104-51-8	10
Trichloroethene	79-01-6	10
Naphthalene	91-20-3	10

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030066	Passive indoor air stock std 50	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:55 by TD	2
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.005

Analytical Standard Record

EPA Region 9 Laboratory

2030070

Description:	Passive indoor air 5	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 08:59 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	5
Bromobenzene	108-86-1	5
Benzene	71-43-2	5
4-Chlorotoluene	106-43-4	5
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	5
2,2-Dichloropropane	594-20-7	5
1,4-Dichlorobenzene	106-46-7	5
1,3-Dichloropropane	142-28-9	5
1,3-Dichlorobenzene	541-73-1	5
1,3,5-Trimethylbenzene	108-67-8	5
1,2-Dichloropropane	78-87-5	5
1,1,1,2-Tetrachloroethane	630-20-6	5
1,2-Dichlorobenzene	95-50-1	5
Bromoform	75-25-2	5
1,2-Dibromo-3-chloropropane	96-12-8	5
1,2,4-Trimethylbenzene	95-63-6	5
1,2,4-Trichlorobenzene	120-82-1	5
1,2,3-Trichloropropane	96-18-4	5
1,2,3-Trichlorobenzene	87-61-6	5
1,1-Dichloropropene	563-58-6	5
1,1-Dichloroethene	75-35-4	5
1,1-Dichloroethane	75-34-3	5
1,1,2-Trichloroethane	79-00-5	5
1,1,2,2-Tetrachloroethane	79-34-5	5
1,1,1-Trichloroethane	71-55-6	5
1,2-Dichloroethane	107-06-2	5
Isopropylbenzene	98-82-8	5
trans-1,3-Dichloropropene	10061-02-6	5
trans-1,2-Dichloroethene	156-60-5	5

Analytical Standard Record

EPA Region 9 Laboratory

2030070

Toluene-d8	2037-26-5	5
Toluene	108-88-3	5
Tetrachloroethene	127-18-4	5
tert-Butylbenzene	98-06-6	5
Styrene	100-42-5	5
sec-Butylbenzene	135-98-8	5
Propylbenzene	103-65-1	5
p-Isopropyltoluene	99-87-6	5
o-Xylene	95-47-6	5
Bromochloromethane	74-97-5	5
m&p-Xylene	179601-23-1	10
Bromodichloromethane	75-27-4	5
Hexachlorobutadiene	87-68-3	5
Ethylbenzene	100-41-4	5
Dichloromethane	75-09-2	5
Dibromomethane	74-95-3	5
cis-1,3-Dichloropropene	10061-01-5	5
cis-1,2-Dichloroethene	156-59-2	5
Chloroform	67-66-3	5
Chlorodibromomethane	124-48-1	5
Chlorobenzene	108-90-7	5
Carbon tetrachloride	56-23-5	5
Butylbenzene	104-51-8	5
Trichloroethene	79-01-6	5
Naphthalene	91-20-3	5

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030066	Passive indoor air stock std 50	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:55 by TD	1
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.005

Analytical Standard Record

EPA Region 9 Laboratory

2030071

Description:	Passive indoor air 1	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 09:00 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	1
Bromobenzene	108-86-1	1
Benzene	71-43-2	1
4-Chlorotoluene	106-43-4	1
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	1
2,2-Dichloropropane	594-20-7	1
1,4-Dichlorobenzene	106-46-7	1
1,3-Dichloropropane	142-28-9	1
1,3-Dichlorobenzene	541-73-1	1
1,3,5-Trimethylbenzene	108-67-8	1
1,2-Dichloropropane	78-87-5	1
1,1,1,2-Tetrachloroethane	630-20-6	1
1,2-Dichlorobenzene	95-50-1	1
Bromoform	75-25-2	1
1,2-Dibromo-3-chloropropane	96-12-8	1
1,2,4-Trimethylbenzene	95-63-6	1
1,2,4-Trichlorobenzene	120-82-1	1
1,2,3-Trichloropropane	96-18-4	1
1,2,3-Trichlorobenzene	87-61-6	1
1,1-Dichloropropene	563-58-6	1
1,1-Dichloroethene	75-35-4	1
1,1-Dichloroethane	75-34-3	1
1,1,2-Trichloroethane	79-00-5	1
1,1,2,2-Tetrachloroethane	79-34-5	1
1,1,1-Trichloroethane	71-55-6	1
1,2-Dichloroethane	107-06-2	1
Isopropylbenzene	98-82-8	1
trans-1,3-Dichloropropene	10061-02-6	1
trans-1,2-Dichloroethene	156-60-5	1

Analytical Standard Record

EPA Region 9 Laboratory

2030071

Toluene-d8	2037-26-5	1
Toluene	108-88-3	1
Tetrachloroethene	127-18-4	1
tert-Butylbenzene	98-06-6	1
Styrene	100-42-5	1
sec-Butylbenzene	135-98-8	1
Propylbenzene	103-65-1	1
p-Isopropyltoluene	99-87-6	1
o-Xylene	95-47-6	1
Bromochloromethane	74-97-5	1
m&p-Xylene	179601-23-1	2
Bromodichloromethane	75-27-4	1
Hexachlorobutadiene	87-68-3	1
Ethylbenzene	100-41-4	1
Dichloromethane	75-09-2	1
Dibromomethane	74-95-3	1
cis-1,3-Dichloropropene	10061-01-5	1
cis-1,2-Dichloroethene	156-59-2	1
Chloroform	67-66-3	1
Chlorodibromomethane	124-48-1	1
Chlorobenzene	108-90-7	1
Carbon tetrachloride	56-23-5	1
Butylbenzene	104-51-8	1
Trichloroethene	79-01-6	1
Naphthalene	91-20-3	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030066	Passive indoor air stock std 50	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:55 by TD	0.2
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.005

Analytical Standard Record

EPA Region 9 Laboratory

2030072

Description:	Passive indoor air 0.15	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 09:01 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	0.15
Bromobenzene	108-86-1	0.15
Benzene	71-43-2	0.15
4-Chlorotoluene	106-43-4	0.15
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	0.15
2,2-Dichloropropane	594-20-7	0.15
1,4-Dichlorobenzene	106-46-7	0.15
1,3-Dichloropropane	142-28-9	0.15
1,3-Dichlorobenzene	541-73-1	0.15
1,3,5-Trimethylbenzene	108-67-8	0.15
1,2-Dichloropropane	78-87-5	0.15
1,1,1,2-Tetrachloroethane	630-20-6	0.15
1,2-Dichlorobenzene	95-50-1	0.15
Bromoform	75-25-2	0.15
1,2-Dibromo-3-chloropropane	96-12-8	0.15
1,2,4-Trimethylbenzene	95-63-6	0.15
1,2,4-Trichlorobenzene	120-82-1	0.15
1,2,3-Trichloropropane	96-18-4	0.15
1,2,3-Trichlorobenzene	87-61-6	0.15
1,1-Dichloropropene	563-58-6	0.15
1,1-Dichloroethene	75-35-4	0.15
1,1-Dichloroethane	75-34-3	0.15
1,1,2-Trichloroethane	79-00-5	0.15
1,1,2,2-Tetrachloroethane	79-34-5	0.15
1,1,1-Trichloroethane	71-55-6	0.15
1,2-Dichloroethane	107-06-2	0.15
Isopropylbenzene	98-82-8	0.15
trans-1,3-Dichloropropene	10061-02-6	0.15
trans-1,2-Dichloroethene	156-60-5	0.15

Analytical Standard Record

EPA Region 9 Laboratory

2030072

Toluene-d8	2037-26-5	0.15
Toluene	108-88-3	0.15
Tetrachloroethene	127-18-4	0.15
tert-Butylbenzene	98-06-6	0.15
Styrene	100-42-5	0.15
sec-Butylbenzene	135-98-8	0.15
Propylbenzene	103-65-1	0.15
p-Isopropyltoluene	99-87-6	0.15
o-Xylene	95-47-6	0.15
Bromochloromethane	74-97-5	0.15
m&p-Xylene	179601-23-1	0.3
Bromodichloromethane	75-27-4	0.15
Hexachlorobutadiene	87-68-3	0.15
Ethylbenzene	100-41-4	0.15
Dichloromethane	75-09-2	0.15
Dibromomethane	74-95-3	0.15
cis-1,3-Dichloropropene	10061-01-5	0.15
cis-1,2-Dichloroethene	156-59-2	0.15
Chloroform	67-66-3	0.15
Chlorodibromomethane	124-48-1	0.15
Chlorobenzene	108-90-7	0.15
Carbon tetrachloride	56-23-5	0.15
Butylbenzene	104-51-8	0.15
Trichloroethene	79-01-6	0.15
Naphthalene	91-20-3	0.15

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030066	Passive indoor air stock std 50	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:55 by TD	0.03
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.005

Analytical Standard Record

EPA Region 9 Laboratory

2030073

Description:	Passive indoor air 0.05	**Expires:**	01/22/21
Standard Type:	Other Solution	**Prepared:**	07/22/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	07/22/20 09:01 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	0.05
Bromobenzene	108-86-1	0.05
Benzene	71-43-2	0.05
4-Chlorotoluene	106-43-4	0.05
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	0.05
2,2-Dichloropropane	594-20-7	0.05
1,4-Dichlorobenzene	106-46-7	0.05
1,3-Dichloropropane	142-28-9	0.05
1,3-Dichlorobenzene	541-73-1	0.05
1,3,5-Trimethylbenzene	108-67-8	0.05
1,2-Dichloropropane	78-87-5	0.05
1,1,1,2-Tetrachloroethane	630-20-6	0.05
1,2-Dichlorobenzene	95-50-1	0.05
Bromoform	75-25-2	0.05
1,2-Dibromo-3-chloropropane	96-12-8	0.05
1,2,4-Trimethylbenzene	95-63-6	0.05
1,2,4-Trichlorobenzene	120-82-1	0.05
1,2,3-Trichloropropane	96-18-4	0.05
1,2,3-Trichlorobenzene	87-61-6	0.05
1,1-Dichloropropene	563-58-6	0.05
1,1-Dichloroethene	75-35-4	0.05
1,1-Dichloroethane	75-34-3	0.05
1,1,2-Trichloroethane	79-00-5	0.05
1,1,2,2-Tetrachloroethane	79-34-5	0.05
1,1,1-Trichloroethane	71-55-6	0.05
1,2-Dichloroethane	107-06-2	0.05
Isopropylbenzene	98-82-8	0.05
trans-1,3-Dichloropropene	10061-02-6	0.05
trans-1,2-Dichloroethene	156-60-5	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2030073

Toluene-d8	2037-26-5	0.05
Toluene	108-88-3	0.05
Tetrachloroethene	127-18-4	0.05
tert-Butylbenzene	98-06-6	0.05
Styrene	100-42-5	0.05
sec-Butylbenzene	135-98-8	0.05
Propylbenzene	103-65-1	0.05
p-Isopropyltoluene	99-87-6	0.05
o-Xylene	95-47-6	0.05
Bromochloromethane	74-97-5	0.05
m&p-Xylene	179601-23-1	0.1
Bromodichloromethane	75-27-4	0.05
Hexachlorobutadiene	87-68-3	0.05
Ethylbenzene	100-41-4	0.05
Dichloromethane	75-09-2	0.05
Dibromomethane	74-95-3	0.05
cis-1,3-Dichloropropene	10061-01-5	0.05
cis-1,2-Dichloroethene	156-59-2	0.05
Chloroform	67-66-3	0.05
Chlorodibromomethane	124-48-1	0.05
Chlorobenzene	108-90-7	0.05
Carbon tetrachloride	56-23-5	0.05
Butylbenzene	104-51-8	0.05
Trichloroethene	79-01-6	0.05
Naphthalene	91-20-3	0.05

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2030066	Passive indoor air stock std 50	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:55 by TD	0.01
2030065	Passive indoor air Internal Standard Sto	07/22/20	Tatyana Dadiomov	01/22/21	07/22/20 08:52 by TD	0.005

Analytical Standard Record

EPA Region 9 Laboratory

2039024

Description:	VOA BFB tuning mix, stock STD.	**Expires:**	10/31/25
Standard Type:	Other Solution	**Prepared:**	09/24/20
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/24/20 11:26 by EM
Vendor:	Restek	**Lot Numbe**	A0162498

RESTEK Cat No. 30003, LOT # A0162498 Bar code #AU012127

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	5000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

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. : 30003 **Lot No.:** A0162498

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 : October 31, 2025 **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)	5,012.0 µg/mL	+/- 29.4132 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 281.0463 µg/mL	Unstressed
	Purity 99%		+/- 287.6211 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

AU012127/2039024
AU012128/2039025
AU012129/2039026
AU012130/2039027
AU012131/2039028

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

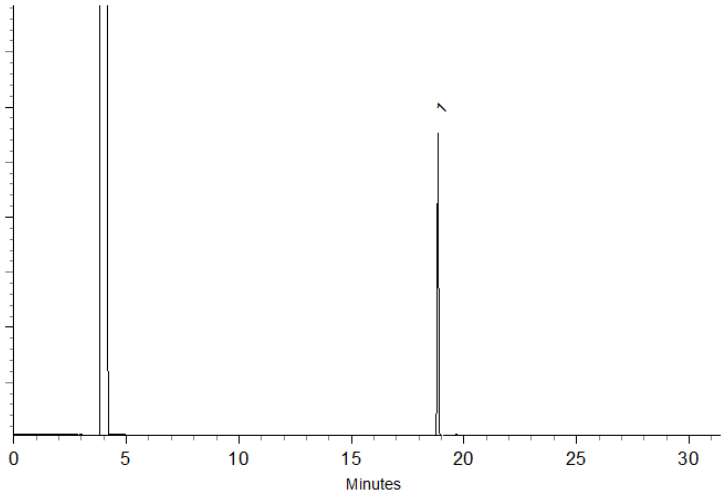
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Kylie Struble - Operations Technician I

Date Mixed: 13-Jul-2020 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 14-Jul-2020

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) -20°C or colder (Deep 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.

Analytical Standard Record

EPA Region 9 Laboratory

2040028

Description:	passive air WORKING BFB 50 mg/L	**Expires:**	03/30/21
Standard Type:	Other Solution	**Prepared:**	09/30/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/05/20 08:43 by TD
Vendor:	*Prepared*	**Lot Numbe**	1748145

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2039024	VOA BFB tuning mix, stock STD.	09/24/20	** Vendor **	10/31/25	09/24/20 11:26 by EM	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2045061

Description:	VOA 502/524 VOC Mix, Stock	**Expires:**	09/01/22
Standard Type:	Other Solution	**Prepared:**	09/01/20
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1.15	**Department:**	Volatiles
Vials:	1	**Last Edit:**	11/04/20 11:15 by EM
Vendor:	Sigma Aldrich	**Lot Numbe**	LRAC7008

Sigma-Aldrich (Supelco), Cat # 502111, Lot# LRAC7008, bar code AU012216

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

2045061

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

EPA 502/524 Volatiles Organic Calibration Mix (without gases)

Certified Reference Material

Description

Product ID 502111
Lot **LRAC7008**
Expiration Date September 2022
Manufacturing Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

2045060 / AU012215
2045061 / AU012216
2045062 / AU012217
2045063 / AU012218
2045064 / AU012219

Certified Values

Analyte	*Units*	*Certified Value* [1,4]	*Raw Material Purity,%*	*Analytical Value*	*Elution order* [6]	*Raw Material Lot*	*CAS*
1,1-DICHLOROETHYLENE	µg/ml	2000 ± 170	99.9998	2120	1	LC08188	75-35-4
DICHLOROMETHANE	µg/ml	2000 ± 140	99.99	2040	2	SHBK1353	75-09-2
TRANS-1,2-DICHLOROETHYLENE	µg/ml	2000 ± 140	99.7	2040	3	MKBH9850V	156-60-5
1,1-DICHLOROETHANE	µg/ml	2001 ± 130	99.9	1980	4	LB68167	75-34-3
2,2-DICHLOROPROPANE	µg/ml	2000 ± 135	98.4	2010	5	BCBR0622V	594-20-7
CIS-1,2-DICHLOROETHYLENE	µg/ml	2001 ± 130	99.9	2010	6	LB73428	156-59-2
CHLOROFORM	µg/ml	2000 ± 120	99.94	2000	7	MKBV7632V	67-66-3
BROMOCHLOROMETHANE	µg/ml	2001 ± 110	98.9	1990	8	LB39040	74-97-5
1,1,1-TRICHLOROETHANE	µg/ml	2000 ± 140	97.2	2020	9	LC06533	71-55-6
1,1-DICHLOROPROPYLENE	µg/ml	2001 ± 125	99.5	1990	10	7738900	563-58-6
CARBON TETRACHLORIDE	µg/ml	2000 ± 140	99.97	1990	11	02041MB	56-23-5
1,2-DICHLOROETHANE	µg/ml	2001 ± 110	99.9	2010	12	LB74294	107-06-02
BENZENE	µg/ml	2000 ± 120	99.99	1970	13	SHBJ5344	71-43-2
TRICHLOROETHYLENE	µg/ml	2001 ± 110	98.6	2010	14	LB86674	79-01-6
1,2-DICHLOROPROPANE	µg/ml	2001 ± 120	99.9	1980	15	LC14320	78-87-5
BROMODICHLOROMETHANE	µg/ml	2001 ± 120	97.9	1980	16	MKCF8470	75-27-4
DIBROMOMETHANE	µg/ml	2001 ± 110	98.8	2030	17	LB81118	74-95-3
TRANS 1,3-DICHLOROPROPENE	µg/ml	2002 ± 120	99	1970	18	ZDMSLEK	10061-02-06
TOLUENE	µg/ml	2000 ± 110	99.98	2010	19	MKCF0747	108-88-3
CIS 1,3-DICHLOROPROPENE	µg/ml	2001 ± 120	99.3	1990	20	MKBZ5000V	10061-01-5
1,1,2-TRICHLOROETHANE	µg/ml	2000 ± 110	99.9	2010	21	LB87978	79-00-5
1,3-DICHLOROPROPANE	µg/ml	2000 ± 110	99.9	1990	22	LC10811	142-28-9
TETRACHLOROETHYLENE	µg/ml	2000 ± 110	99.9	2010	23	LB67182	127-18-4
DIBROMOCHLOROMETHANE	µg/ml	2000 ± 120	96.5	2020	24	LB89245	124-48-1
1,2-DIBROMOETHANE	µg/ml	2003 ± 110	99.1	2020	25	LB42792	106-93-4
CHLOROBENZENE	µg/ml	2000 ± 94	99.9	1990	26	LB93949	108-90-7

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC7008**
Expiration Date September 2022
Manufacturing Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

1,1,1,2-TETRACHLOROETHANE	µg/ml	2000 ± 110	99.9	1980	27	LC14810	630-20-6
ETHYLBENZENE	µg/ml	2000 ± 110	99.87	1980	28	SHBK2389	100-41-4
M-XYLENE	µg/ml	2002 ± 110	99.8	2000	29	LB87531	108-38-3
P-XYLENE	µg/ml	2000 ± 110	99.9	2000	29	LB73203	106-42-3
O-XYLENE	µg/ml	2000 ± 110	99.5	2000	30	LB92424	95-47-6
STYRENE	µg/ml	2000 ± 98	99.9	1990	31	LC17632	100-42-5
CUMENE	µg/ml	2000 ± 99	99.9	2010	32	LB89580	98-82-8
BROMOFORM	µg/ml	2001 ± 120	96.1	2050	33	67996PJ	75-25-2
1,1,2,2-TETRACHLOROETHANE	µg/ml	2000 ± 100	99.9	1990	34	LB51327	79-34-5
1,2,3-TRICHLOROPROPANE	µg/ml	2001 ± 99	99	2020	35	BCBH8722V	96-18-4
N-PROPYLBENZENE	µg/ml	2000 ± 100	99.9	1990	36	T2HFC	103-65-1
BROMOBENZENE	µg/ml	2001 ± 98	99.5	1980	37	LB99843	108-86-1
1,2,4-TRIMETHYLBENZENE	µg/ml	2000 ± 100	98.9	2020	38	LB97224	95-63-6
2-CHLOROTOLUENE	µg/ml	2001 ± 98	99.9	2010	39	LC01464	95-49-8
4-CHLOROTOLUENE	µg/ml	2001 ± 92	99.9	2000	40	LC02742	106-43-4
TERT-BUTYLBENZENE	µg/ml	2000 ± 93	99.9	2000	41	LB40373	98-06-6
1,3,5-TRIMETHYLBENZENE	µg/ml	2000 ± 94	99.3	1980	42	LB82157	108-67-8
SEC-BUTYLBENZENE	µg/ml	2000 ± 93	99.4	1990	43	LB77150	135-98-8
P-ISOPROPYLTOLUENE	µg/ml	2000 ± 88	98.7	1960	44	LB40003	99-87-6
1,4-DICHLOROBENZENE	µg/ml	2000 ± 88	99.9	2000	45	LB90630	106-46-7
1,3-DICHLOROBENZENE	µg/ml	2001 ± 94	99.9	2010	46	LC17654	541-73-1
N-BUTYLBENZENE	µg/ml	2000 ± 91	99.9	2010	47	LB81630	104-51-8
1,2-DICHLOROBENZENE	µg/ml	2001 ± 82	99.4	2010	48	LB58923	95-50-1
1,2-DIBROMO-3-CHLOROPROPANE	µg/ml	2000 ± 89	96.8	2060	49	LB06608	96-12-8
1,2,3-TRICHLOROBENZENE	µg/ml	2000 ± 73	99.9	2010	50	LC20450	87-61-6
HEXACHLOROBUTADIENE	µg/ml	2000 ± 81	97.4	2060	51	MKCD4346	87-68-3
NAPHTHALENE	µg/ml	2000 ± 81	99.9	1990	52	16412TN	91-20-3
1,2,4-TRICHLOROBENZENE	µg/ml	2001 ± 67	99.4	2020	53	LB48083	120-82-1

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

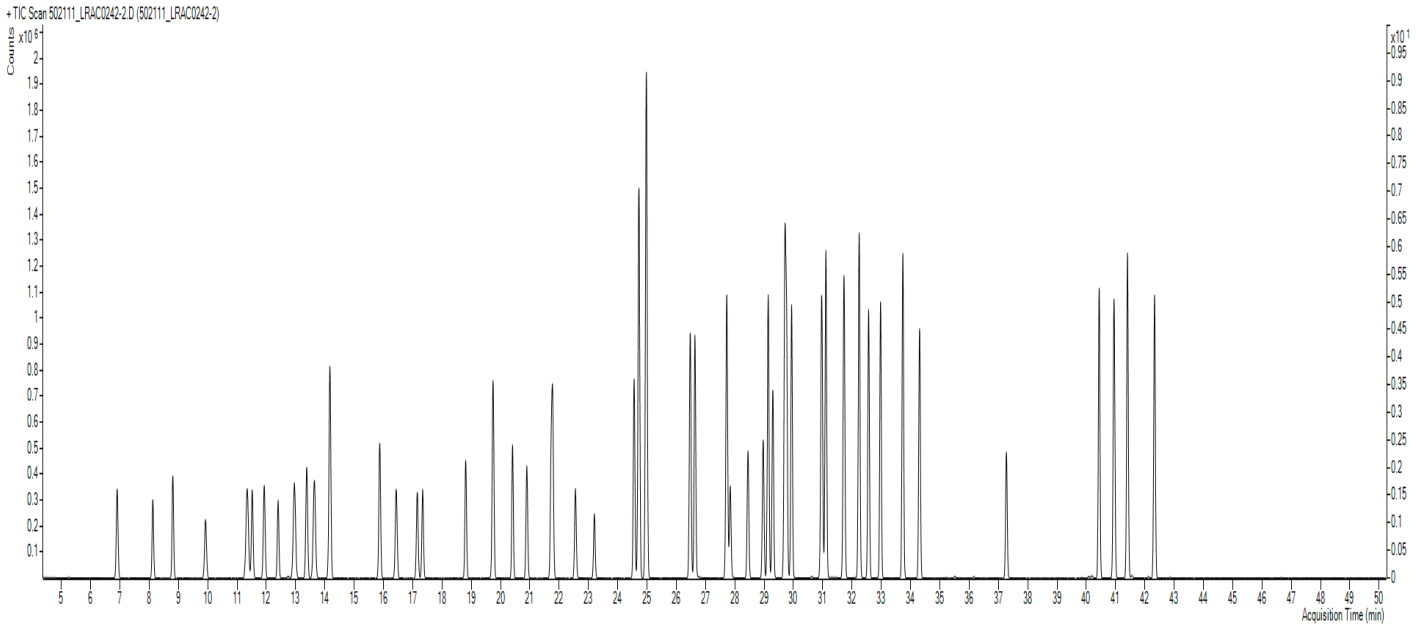
Certificate of Analysis

EPA 502/524 Volatiles Organic Calibration Mix (without gases)

Certified Reference Material

Description

Product ID	502111
Lot	**LRAC7008**
Expiration Date	September 2022
Manufacturing Date	September 2018
Storage Conditions	Freeze
Solvent/Matrix	METHANOL



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

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TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot	**LRAC7008**
Expiration Date	September 2022
Manufacturing Date	September 2018
Storage Conditions	Freeze
Solvent/Matrix	METHANOL

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
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. K=2 unless specified. 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:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

***k*:** Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 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 17034:2016. 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.

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.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date	September 30, 2020
Version	0-9302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Analytical Standard Record

EPA Region 9 Laboratory

2047001

Description:	Passive indoor air MRL Spike	**Expires:**	05/16/21
Standard Type:	Analyte Spike	**Prepared:**	11/16/20
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	2	**Department:**	Volatiles
Vials:	1	**Last Edit:**	11/16/20 06:20 by TD
Vendor:	*Prepared*	**Lot Numbe**	A0150913

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	20
Bromobenzene	108-86-1	20
Benzene	71-43-2	20
4-Chlorotoluene	106-43-4	20
2-Chlorotoluene	95-49-8	20
2,2-Dichloropropane	594-20-7	20
1,4-Dichlorobenzene	106-46-7	20
1,3-Dichloropropane	142-28-9	20
1,3-Dichlorobenzene	541-73-1	20
1,3,5-Trimethylbenzene	108-67-8	20
1,2-Dichloropropane	78-87-5	20
1,1,1,2-Tetrachloroethane	630-20-6	20
1,2-Dichlorobenzene	95-50-1	20
Bromoform	75-25-2	20
1,2-Dibromo-3-chloropropane	96-12-8	20
1,2,4-Trimethylbenzene	95-63-6	20
1,2,4-Trichlorobenzene	120-82-1	20
1,2,3-Trichloropropane	96-18-4	20
1,2,3-Trichlorobenzene	87-61-6	20
1,1-Dichloropropene	563-58-6	20
1,1-Dichloroethene	75-35-4	20
1,1-Dichloroethane	75-34-3	20
1,1,2-Trichloroethane	79-00-5	20
1,1,2,2-Tetrachloroethane	79-34-5	20
1,1,1-Trichloroethane	71-55-6	20
1,2-Dichloroethane	107-06-2	20
Hexachlorobutadiene	87-68-3	20
trans-1,3-Dichloropropene	10061-02-6	20
trans-1,2-Dichloroethene	156-60-5	20
Toluene	108-88-3	20

Analytical Standard Record

EPA Region 9 Laboratory

2047001

Tetrachloroethene	127-18-4	20
tert-Butylbenzene	98-06-6	20
Styrene	100-42-5	20
sec-Butylbenzene	135-98-8	20
Propylbenzene	103-65-1	20
p-Isopropyltoluene	99-87-6	20
o-Xylene	95-47-6	20
Naphthalene	91-20-3	20
Bromochloromethane	74-97-5	20
Isopropylbenzene	98-82-8	20
Bromodichloromethane	75-27-4	20
Ethylbenzene	100-41-4	20
Dichloromethane	75-09-2	20
Dibromomethane	74-95-3	20
cis-1,3-Dichloropropene	10061-01-5	20
cis-1,2-Dichloroethene	156-59-2	20
Chloroform	67-66-3	20
Chlorodibromomethane	124-48-1	20
Chlorobenzene	108-90-7	20
Carbon tetrachloride	56-23-5	20
Butylbenzene	104-51-8	20
Trichloroethene	79-01-6	20
m&p-Xylene	179601-23-1	40

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2006155	VOA 502.2 CAL 2000 MEGA MIX, St	07/16/19	** Vendor **	05/31/21	11/16/20 06:17 by TD	0.02

Analytical Standard Record

EPA Region 9 Laboratory

2050006

Description:	Passive indoor air SCV	Expires:	01/22/21
Standard Type:	Calibration Standa	Prepared:	12/07/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	12/07/20 09:36 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

2050006

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)
2045061	VOA 502/524 VOC Mix, Stock	09/01/20	** Vendor **	06/07/21	12/07/20 09:28 by TD	0.005
2030067	Passive air Surrogate/I.S. Working solu	07/22/20	Tatyana Dadiomov	01/22/21	10/21/20 11:28 by ZAR	0.05

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2106033

Description:	Passive indoor air Internal Standard Stock	**Expires:**	08/02/21
Standard Type:	Other Solution	**Prepared:**	02/02/21
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	2	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/21 07:39 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
2-Fluorotoluene	95-52-3	10000

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(ml
1639096	2-Fluorotoluene	09/22/16	** Vendor **	12/31/29	09/22/17 11:57 by TD	0.(

Analytical Standard Record

EPA Region 9 Laboratory

2106034

Description:	Passive indoor air stock std 50	**Expires:**	07/31/21
Standard Type:	Analyte Spike	**Prepared:**	02/02/21
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	20	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/21 07:43 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	50
1,1,1,2-Tetrachloroethane	630-20-6	50
Bromobenzene	108-86-1	50
Benzene	71-43-2	50
4-Chlorotoluene	106-43-4	50
2-Chlorotoluene	95-49-8	50
2,2-Dichloropropane	594-20-7	50
1,4-Dichlorobenzene	106-46-7	50
1,3-Dichloropropane	142-28-9	50
1,3-Dichlorobenzene	541-73-1	50
1,3,5-Trimethylbenzene	108-67-8	50
1,2-Dichloropropane	78-87-5	50
Bromodichloromethane	75-27-4	50
1,2-Dichlorobenzene	95-50-1	50
Bromoform	75-25-2	50
1,2-Dibromo-3-chloropropane	96-12-8	50
1,2,4-Trimethylbenzene	95-63-6	50
1,2,4-Trichlorobenzene	120-82-1	50
1,2,3-Trichloropropane	96-18-4	50
1,2,3-Trichlorobenzene	87-61-6	50
1,1-Dichloropropene	563-58-6	50
1,1-Dichloroethene	75-35-4	50
1,1-Dichloroethane	75-34-3	50
1,1,2-Trichloroethane	79-00-5	50
1,1,2,2-Tetrachloroethane	79-34-5	50
1,1,1-Trichloroethane	71-55-6	50
1,2-Dichloroethane	107-06-2	50
Isopropylbenzene	98-82-8	50
trans-1,3-Dichloropropene	10061-02-6	50
trans-1,2-Dichloroethene	156-60-5	50
Toluene-d8	2037-26-5	50
Toluene	108-88-3	50
Tetrachloroethene	127-18-4	50

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tert-Butylbenzene	98-06-6	50
Styrene	100-42-5	50
sec-Butylbenzene	135-98-8	50
Propylbenzene	103-65-1	50
p-Isopropyltoluene	99-87-6	50
o-Xylene	95-47-6	50
Bromochloromethane	74-97-5	50
m&p-Xylene	179601-23-1	100
Trichloroethene	79-01-6	50
Hexachlorobutadiene	87-68-3	50
Ethylbenzene	100-41-4	50
Dichloromethane	75-09-2	50
Dibromomethane	74-95-3	50
cis-1,3-Dichloropropene	10061-01-5	50
cis-1,2-Dichloroethene	156-59-2	50
Chloroform	67-66-3	50
Chlorodibromomethane	124-48-1	50
Chlorobenzene	108-90-7	50
Carbon tetrachloride	56-23-5	50
Butylbenzene	104-51-8	50
Naphthalene	91-20-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(ml
2006158	VOA 502.2 CAL 2000 MEGA MIX, St	07/16/19	** Vendor **	07/31/21	02/02/21 07:42 by TD	0
2106032	Passive indoor air Surrogate Stock	02/02/21	Tatyana Dadiomov	08/02/21	02/02/21 07:36 by TD	0

Analytical Standard Record

EPA Region 9 Laboratory

2106036

Description:	Passive air Surrogate/I.S. Working solutio	**Expires:**	08/02/21
Standard Type:	Surrogate Spike	**Prepared:**	02/02/21
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	25	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/21 07:45 by TD
Vendor:	Restek	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	200
2-Fluorotoluene	95-52-3	200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(ml
2106032	Passive indoor air Surrogate Stock	02/02/21	Tatyana Dadiomov	08/02/21	02/02/21 07:36 by TD	0
2106033	Passive indoor air Internal Standard Sto	02/02/21	Tatyana Dadiomov	08/02/21	02/02/21 07:39 by TD	0

Analytical Standard Record

EPA Region 9 Laboratory

2106039

Description:	Passive indoor air 5	**Expires:**	07/31/21
Standard Type:	Other Solution	**Prepared:**	02/02/21
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/21 07:48 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	5
Bromobenzene	108-86-1	5
Benzene	71-43-2	5
4-Chlorotoluene	106-43-4	5
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	5
2,2-Dichloropropane	594-20-7	5
1,4-Dichlorobenzene	106-46-7	5
1,3-Dichloropropane	142-28-9	5
1,3-Dichlorobenzene	541-73-1	5
1,3,5-Trimethylbenzene	108-67-8	5
1,2-Dichloropropane	78-87-5	5
1,1,1,2-Tetrachloroethane	630-20-6	5
1,2-Dichlorobenzene	95-50-1	5
Bromoform	75-25-2	5
1,2-Dibromo-3-chloropropane	96-12-8	5
1,2,4-Trimethylbenzene	95-63-6	5
1,2,4-Trichlorobenzene	120-82-1	5
1,2,3-Trichloropropane	96-18-4	5
1,2,3-Trichlorobenzene	87-61-6	5
1,1-Dichloropropene	563-58-6	5
1,1-Dichloroethene	75-35-4	5
1,1-Dichloroethane	75-34-3	5
1,1,2-Trichloroethane	79-00-5	5
1,1,2,2-Tetrachloroethane	79-34-5	5
1,1,1-Trichloroethane	71-55-6	5
1,2-Dichloroethane	107-06-2	5
Isopropylbenzene	98-82-8	5
trans-1,3-Dichloropropene	10061-02-6	5
trans-1,2-Dichloroethene	156-60-5	5
Toluene-d8	2037-26-5	5
Toluene	108-88-3	5
Tetrachloroethene	127-18-4	5

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tert-Butylbenzene	98-06-6	5
Styrene	100-42-5	5
sec-Butylbenzene	135-98-8	5
Propylbenzene	103-65-1	5
p-Isopropyltoluene	99-87-6	5
o-Xylene	95-47-6	5
Bromochloromethane	74-97-5	5
m&p-Xylene	179601-23-1	10
Bromodichloromethane	75-27-4	5
Hexachlorobutadiene	87-68-3	5
Ethylbenzene	100-41-4	5
Dichloromethane	75-09-2	5
Dibromomethane	74-95-3	5
cis-1,3-Dichloropropene	10061-01-5	5
cis-1,2-Dichloroethene	156-59-2	5
Chloroform	67-66-3	5
Chlorodibromomethane	124-48-1	5
Chlorobenzene	108-90-7	5
Carbon tetrachloride	56-23-5	5
Butylbenzene	104-51-8	5
Trichloroethene	79-01-6	5
Naphthalene	91-20-3	5

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(ml
2106034	Passive indoor air stock std 50	02/02/21	Tatyana Dadiomov	07/31/21	02/02/21 07:43 by TD	
2106033	Passive indoor air Internal Standard Sto	02/02/21	Tatyana Dadiomov	08/02/21	02/02/21 07:39 by TD	0.0(

Analytical Standard Record

EPA Region 9 Laboratory

2106042

Description:	Passive indoor air 0.05	**Expires:**	07/31/21
Standard Type:	Other Solution	**Prepared:**	02/02/21
Solvent:	CS2	**Prepared By:**	Tatyana Dadiomov
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/02/21 07:50 by TD
Vendor:	*Prepared*	**Lot Numbe**	1705143

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	0.05
Bromobenzene	108-86-1	0.05
Benzene	71-43-2	0.05
4-Chlorotoluene	106-43-4	0.05
2-Fluorotoluene	95-52-3	5
2-Chlorotoluene	95-49-8	0.05
2,2-Dichloropropane	594-20-7	0.05
1,4-Dichlorobenzene	106-46-7	0.05
1,3-Dichloropropane	142-28-9	0.05
1,3-Dichlorobenzene	541-73-1	0.05
1,3,5-Trimethylbenzene	108-67-8	0.05
1,2-Dichloropropane	78-87-5	0.05
1,1,1,2-Tetrachloroethane	630-20-6	0.05
1,2-Dichlorobenzene	95-50-1	0.05
Bromoform	75-25-2	0.05
1,2-Dibromo-3-chloropropane	96-12-8	0.05
1,2,4-Trimethylbenzene	95-63-6	0.05
1,2,4-Trichlorobenzene	120-82-1	0.05
1,2,3-Trichloropropane	96-18-4	0.05
1,2,3-Trichlorobenzene	87-61-6	0.05
1,1-Dichloropropene	563-58-6	0.05
1,1-Dichloroethene	75-35-4	0.05
1,1-Dichloroethane	75-34-3	0.05
1,1,2-Trichloroethane	79-00-5	0.05
1,1,2,2-Tetrachloroethane	79-34-5	0.05
1,1,1-Trichloroethane	71-55-6	0.05
1,2-Dichloroethane	107-06-2	0.05
Isopropylbenzene	98-82-8	0.05
trans-1,3-Dichloropropene	10061-02-6	0.05
trans-1,2-Dichloroethene	156-60-5	0.05
Toluene-d8	2037-26-5	0.05
Toluene	108-88-3	0.05
Tetrachloroethene	127-18-4	0.05

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2106042

tert-Butylbenzene	98-06-6	0.05
Styrene	100-42-5	0.05
sec-Butylbenzene	135-98-8	0.05
Propylbenzene	103-65-1	0.05
p-Isopropyltoluene	99-87-6	0.05
o-Xylene	95-47-6	0.05
Bromochloromethane	74-97-5	0.05
m&p-Xylene	179601-23-1	0.1
Bromodichloromethane	75-27-4	0.05
Hexachlorobutadiene	87-68-3	0.05
Ethylbenzene	100-41-4	0.05
Dichloromethane	75-09-2	0.05
Dibromomethane	74-95-3	0.05
cis-1,3-Dichloropropene	10061-01-5	0.05
cis-1,2-Dichloroethene	156-59-2	0.05
Chloroform	67-66-3	0.05
Chlorodibromomethane	124-48-1	0.05
Chlorobenzene	108-90-7	0.05
Carbon tetrachloride	56-23-5	0.05
Butylbenzene	104-51-8	0.05
Trichloroethene	79-01-6	0.05
Naphthalene	91-20-3	0.05

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(ml
2106033	Passive indoor air Internal Standard Sto	02/02/21	Tatyana Dadiomov	08/02/21	02/02/21 07:39 by TD	0.0(
2106034	Passive indoor air stock std 50	02/02/21	Tatyana Dadiomov	07/31/21	02/02/21 07:43 by TD	0.(