



Cover Page

Order ID : O1233

Project ID : NYCDDC Phase II SCI Arthur Kill Road CEQR

Client : Louis Berger U.S., Inc., A WSP Company

Lab Sample Number

O1233-02
O1233-03
O1233-04
O1233-05
O1233-06
O1233-07
O1233-08
O1233-09
O1233-10
O1233-11
O1233-12

Client Sample Number

B-P34A
B-P34B
B-P36A
B-P36B
B-P37A
B-P37B
B-38A
B-P38B
WC-38
B-P38C
FB01

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 2/1/2023

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Louis Berger U.S., Inc., A WSP Company

Project Name: NYCDDC Phase II SCI Arthur Kill Road CEQR

Project # N/A

Chemtech Project # O1233

Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

10 Solid samples were received on 01/19/2023.

1 Water sample was received on 01/19/2023.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-PAH, SVOC-TCL BNA -20, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, VOC-TCLVOA-10 and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_D were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by SUPELCO, K (VOACARB 3000) , TEKMAR LSC-2000 Concentrator. The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868. The analysis performed on instrument MSVOA_Y were done using GC column Rxi-624Sil MS, which is 30 meters, 0.25 mm id, 1.4 um df, Restek Cat. #13868. The Trap was supplied by Supelco, VOCARB 3000, ATOMAX XYZ Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260D.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for

B-P36B [1,2-Dichloroethane-d4 - 185%],

B-38A [1,2-Dichloroethane-d4 - 181%],

B-38ARE [Dibromofluoromethane - 52%], sample was reanalyzed to confirm the failure and reported, while for

B-P37B [1,2-Dichloroethane-d4 - 166%], as corrective action sample was reanalyzed to confirm the failure but not purged therefore sample reported with failure, while for

B-P38C [4-Bromofluorobenzene - 182%] Due to high concentration of compounds, this sample required dilution. Therefore, sample was reanalyzed with dilution and reported.



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The Internal Standards Areas met the acceptable requirements except for B-P36B, B-P36BRE, B-38A, B-38ARE, B-P38B and B-P38BRE samples were reanalyzed to confirm the failure and reported, while for B-P37B, sample reanalyzed to confirm the failure but not purged therefore sample reported with failure.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 15% in the Initial Calibration method (82D011823S.M) for Dichlorodifluoromethane, Methylene Chloride are passing on Linear Regression.

The %RSD is greater than 15% in the Initial Calibration method (82N011623W.M) for Acetone, Methylene Chloride, 1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene are passing on Linear Regression.

The %RSD is greater than 15% in the Initial Calibration method (82Y011623S.M) for Methylene Chloride, 1,2-Dichloroethane-d4, Toluene-d8 are passing on Linear Regression.

The Continuous Calibration File ID VD075168.D met the requirements except for Acetone is failing high but no positive hit in associate sample therefore no corrective action taken.

The Tuning criteria met requirements.

Sample B-P38C was directly analyzed in methanol as low level soil vial not purged.

Sample B-P38C was diluted due to high concentration.

E. Additional Comments:

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Trip Blank was not provided with this set of samples.

The soil samples results are based on a dry weight basis.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.



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I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A**QA REVIEW GENERAL DOCUMENTATION**

Project #: 01233

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

☒

Check chain-of-custody for proper relinquish/return of samples

☒

Is the chain of custody signed and complete

☒

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

☒

Collect information for each project id from server. Were all requirements followed

☒**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

☒

Do lab numbers and client Ids on cover page agree with the Chain of Custody

☒**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results

☒

Do requested analyses on Chain of Custody agree with the log-in page

☒

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

☒

Were the samples received within hold time

☒

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

☒**ANALYTICAL:**

Was method requirement followed?

☒

Was client requirement followed?

☒

Does the case narrative summarize all QC failure?

☒

All runlogs and manual integration are reviewed for requirements

☒

All manual calculations and /or hand notations verified

☒

1st Level QA Review Signature: PRIYANKA DAVE

Date: 02/01/2023

2nd Level QA Review Signature: _____

Date: _____



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Contact: Jonathan Ganz

OrderDate: 1/19/2023 1:53:00 PM
Project: NYCDDC Phase II SCI Arthur Kill Road CEQR
Location: N11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O1233-02	B-P34A	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-03	B-P34B	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-04	B-P36A	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-05	B-P36B	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/20/23	01/19/23
O1233-05RE	B-P36BRE	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-06	B-P37A	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-07	B-P37B	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-08	B-38A	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/20/23	01/19/23
O1233-08RE	B-38ARE	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-09	B-P38B	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/20/23	01/19/23
O1233-09RE	B-P38BRE	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23
O1233-11	B-P38C	SOIL	VOC-TCLVOA-10	8260D	01/18/23		01/23/23	01/19/23



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LAB CHRONICLE

O1233-11DL	B-P38CDL	SOIL			01/18/23		01/19/23
			VOC-TCLVOA-10	8260D		01/23/23	
O1233-12	FB01	Water			01/18/23		01/19/23
			VOC-TCLVOA-10	8260-Low		01/20/23	

Hit Summary Sheet

SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: O1233-02	B-P34A B-P34A	SOIL	Acetone	22.2	J	14.1	28.9	ug/Kg
			Total Voc :	22.2				
O1233-02	B-P34A	SOIL	unknown11.034	* 6.40	J	0	0	ug/Kg
O1233-02	B-P34A	SOIL	Ethanol, 2-(trimethylsilyl)-	* 27.6	J	0	0	ug/Kg
			Total Tics :	34.0				
			Total Concentration:	56.2				
Client ID: O1233-03	B-P34B B-P34B	SOIL	Silanol, trimethyl-	* 24.0	J	0	0	ug/Kg
			Total Tics :	24.0				
			Total Concentration:	24.0				
Client ID: O1233-04	B-P36A B-P36A	SOIL	Acetone	17.6	J	13.5	27.7	ug/Kg
			Total Voc :	17.6				
O1233-04	B-P36A	SOIL	Silanol, trimethyl-	* 9.90	J	0	0	ug/Kg
			Total Tics :	9.90				
			Total Concentration:	27.5				
Client ID: O1233-06	B-P37A B-P37A	SOIL	Ethanol, 2-(trimethylsilyl)-	* 11.8	J	0	0	ug/Kg
			Total Tics :	11.8				
			Total Concentration:	11.8				
Client ID: O1233-07	B-P37B B-P37B	SOIL	Acetone	20.6	J	14.6	29.8	ug/Kg
			Total Voc :	20.6				
O1233-07	B-P37B	SOIL	unknown10.947	* 8.50	J	0	0	ug/Kg
O1233-07	B-P37B	SOIL	Ethylene glycol, TMS derivativ	* 40.0	J	0	0	ug/Kg
			Total Tics :	48.5				
			Total Concentration:	69.1				
Client ID: O1233-09	B-P38B B-P38B	SOIL	Octane	* 6.70	J	0	0	ug/Kg
			Total Tics :	6.70				
			Total Concentration:	6.70				
Client ID: O1233-11	B-P38C B-P38C	SOIL	Cyclohexane	4600		97.2	580	ug/Kg
O1233-11	B-P38C	SOIL	Methylcyclohexane	31500	E	92.6	580	ug/Kg
O1233-11	B-P38C	SOIL	Ethyl Benzene	860		81.0	580	ug/Kg
O1233-11	B-P38C	SOIL	m/p-Xylenes	2400		170	1200	ug/Kg
O1233-11	B-P38C	SOIL	o-Xylene	320	J	91.4	580	ug/Kg
O1233-11	B-P38C	SOIL	Isopropylbenzene	1500		83.3	580	ug/Kg
			Total Voc :	41200				
O1233-11	B-P38C	SOIL	unknown12.600	* 47300	J	0	0	ug/Kg

Hit Summary Sheet SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-11	B-P38C	SOIL	Octane	* 54700	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane	* 22000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 3-methyl-	* 22900	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 2-methyl-	* 38200	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	1-Phenyl-1-butene	* 31200	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 3-methyl-	* 30700	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 2-methyl-	* 49000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane, 3-methyl-	* 28400	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane, 4-methyl-	* 27300	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	n-propylbenzene	* 3300	J	82.2	580	ug/Kg
O1233-11	B-P38C	SOIL	1,3,5-Trimethylbenzene	* 4000	J	74.1	580	ug/Kg
O1233-11	B-P38C	SOIL	1,2,4-Trimethylbenzene	* 7700	J	82.2	580	ug/Kg
O1233-11	B-P38C	SOIL	sec-Butylbenzene	* 1300	J	87.9	580	ug/Kg
O1233-11	B-P38C	SOIL	p-Isopropyltoluene	* 2600	J	96.0	580	ug/Kg
O1233-11	B-P38C	SOIL	n-Butylbenzene	* 3700	J	82.2	580	ug/Kg
Total Tics :				374000				
Total Concentration:				415000				
Client ID:	B-P38CDL							
O1233-11DL	B-P38CDL	SOIL	Cyclohexane	6300	D	970	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Methylcyclohexane	33800	D	930	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Ethyl Benzene	1000	JD	810	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	m/p-Xylenes	2800	JD	1700	11600	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Isopropylbenzene	2100	JD	830	5800	ug/Kg
Total Voc :				46000				
Total Concentration:				46000				
Client ID:	FB01							
O1233-12	FB01	Water	Methylene Chloride	2.80		0.18	1.00	ug/L
Total Voc :				2.80				
Total Concentration:				2.80				

QC SUMMARY

Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
O1233-02	B-P34A	1,2-Dichloroethane-d4	50	58.5	117	50	163
		Dibromofluoromethane	50	51.4	103	54	147
		Toluene-d8	50	52.1	104	58	134
		4-Bromofluorobenzene	50	53.8	108	30	143
O1233-03	B-P34B	1,2-Dichloroethane-d4	50	66.4	133	50	163
		Dibromofluoromethane	50	53.5	107	54	147
		Toluene-d8	50	52.7	105	58	134
		4-Bromofluorobenzene	50	56.2	112	30	143
O1233-04	B-P36A	1,2-Dichloroethane-d4	50	49.8	100	50	163
		Dibromofluoromethane	50	47.1	94	54	147
		Toluene-d8	50	51.5	103	58	134
		4-Bromofluorobenzene	50	50.5	101	30	143
O1233-05	B-P36B	1,2-Dichloroethane-d4	50	92.5	185 *	50	163
		Dibromofluoromethane	50	56.1	112	54	147
		Toluene-d8	50	51.5	103	58	134
		4-Bromofluorobenzene	50	60.1	120	30	143
O1233-05RE	B-P36BRE	1,2-Dichloroethane-d4	50	68.1	136	50	163
		Dibromofluoromethane	50	52.3	105	54	147
		Toluene-d8	50	48.9	98	58	134
		4-Bromofluorobenzene	50	45.8	92	30	143
O1233-06	B-P37A	1,2-Dichloroethane-d4	50	50.8	102	50	163
		Dibromofluoromethane	50	48.2	96	54	147
		Toluene-d8	50	51.4	103	58	134
		4-Bromofluorobenzene	50	50.0	100	30	143
O1233-07	B-P37B	1,2-Dichloroethane-d4	50	83.0	166 *	50	163
		Dibromofluoromethane	50	60.1	120	54	147
		Toluene-d8	50	66.9	134	58	134
		4-Bromofluorobenzene	50	48.8	98	30	143
O1233-08	B-38A	1,2-Dichloroethane-d4	50	90.7	181 *	50	163
		Dibromofluoromethane	50	55.9	112	54	147
		Toluene-d8	50	55.2	110	58	134
		4-Bromofluorobenzene	50	56.9	114	30	143
O1233-08RE	B-38ARE	1,2-Dichloroethane-d4	50	81.0	162	50	163
		Dibromofluoromethane	50	26.2	52 *	54	147
		Toluene-d8	50	66.0	132	58	134
		4-Bromofluorobenzene	50	43.1	86	30	143
O1233-09	B-P38B	1,2-Dichloroethane-d4	50	74.0	148	50	163
		Dibromofluoromethane	50	54.8	110	54	147
		Toluene-d8	50	54.3	109	58	134
		4-Bromofluorobenzene	50	60.4	121	30	143
O1233-09RE	B-P38BRE	1,2-Dichloroethane-d4	50	59.5	119	50	163
		Dibromofluoromethane	50	48.3	97	54	147
		Toluene-d8	50	56.8	114	58	134
		4-Bromofluorobenzene	50	50.4	101	30	143
O1233-11	B-P38C	1,2-Dichloroethane-d4	50	47.8	96	50	163
		Dibromofluoromethane	50	45.9	92	54	147
		Toluene-d8	50	65.5	131	58	134
		4-Bromofluorobenzene	50	91.1	182 *	30	143
O1233-11DL	B-P38CDL	1,2-Dichloroethane-d4	50	48.6	97	50	163
		Dibromofluoromethane	50	46.9	94	54	147
		Toluene-d8	50	52.4	105	58	134
		4-Bromofluorobenzene	50	56.2	112	30	143



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Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
VD0120SBL04	VD0120SBL04	1,2-Dichloroethane-d4	50	57.2	114	50	163
		Dibromofluoromethane	50	50.7	101	54	147
		Toluene-d8	50	52.1	104	58	134
		4-Bromofluorobenzene	50	53.6	107	30	143
VD0120SBS02	VD0120SBS02	1,2-Dichloroethane-d4	50	56.1	112	50	163
		Dibromofluoromethane	50	53.0	106	54	147
		Toluene-d8	50	53.3	107	58	134
		4-Bromofluorobenzene	50	53.5	107	30	143
VD0123SBL01	VD0123SBL01	1,2-Dichloroethane-d4	50	51.9	104	50	163
		Dibromofluoromethane	50	48.5	97	54	147
		Toluene-d8	50	50.8	102	58	134
		4-Bromofluorobenzene	50	50.5	101	30	143
VD0123SBS01	VD0123SBS01	1,2-Dichloroethane-d4	50	54.9	110	50	163
		Dibromofluoromethane	50	53.1	106	54	147
		Toluene-d8	50	53.7	107	58	134
		4-Bromofluorobenzene	50	51.6	103	30	143
VD0123SBSD01	VD0123SBSD01	1,2-Dichloroethane-d4	50	53.7	107	50	163
		Dibromofluoromethane	50	51.7	103	54	147
		Toluene-d8	50	52.9	106	58	134
		4-Bromofluorobenzene	50	51.2	102	30	143
VN0123MBL01	VN0123MBL01	1,2-Dichloroethane-d4	50	49.9	100	50	163
		Dibromofluoromethane	50	49.5	99	54	147
		Toluene-d8	50	48.9	98	58	134
		4-Bromofluorobenzene	50	44.4	89	30	143
VN0123MBS01	VN0123MBS01	1,2-Dichloroethane-d4	50	52.1	104	50	163
		Dibromofluoromethane	50	51.5	103	54	147
		Toluene-d8	50	50.9	102	58	134
		4-Bromofluorobenzene	50	51.3	103	30	143
VY0123SBL01	VY0123SBL01	1,2-Dichloroethane-d4	50	52.7	105	50	163
		Dibromofluoromethane	50	45.4	91	54	147
		Toluene-d8	50	47.0	94	58	134
		4-Bromofluorobenzene	50	41.2	82	30	143
VY0123SBS01	VY0123SBS01	1,2-Dichloroethane-d4	50	49.4	99	50	163
		Dibromofluoromethane	50	46.3	93	54	147
		Toluene-d8	50	48.5	97	58	134
		4-Bromofluorobenzene	50	44.5	89	30	143



Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low

							Limits
Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Low	High
O1233-12	FB01	1,2-Dichloroethane-d4	50	49.1	98	74	125
		Dibromofluoromethane	50	48.1	96	75	124
		Toluene-d8	50	49.6	99	86	113
		4-Bromofluorobenzene	50	48.0	96	64	133
VN0120WBL01	VN0120WBL01	1,2-Dichloroethane-d4	50	47.5	95	74	125
		Dibromofluoromethane	50	48.7	97	75	124
		Toluene-d8	50	49.7	99	86	113
		4-Bromofluorobenzene	50	45.5	91	64	133
VN0120WBS01	VN0120WBS01	1,2-Dichloroethane-d4	50	49.0	98	74	125
		Dibromofluoromethane	50	50.3	101	75	124
		Toluene-d8	50	50.7	101	86	113
		4-Bromofluorobenzene	50	50.9	102	64	133
VN0120WBSD0	VN0120WBSD01	1,2-Dichloroethane-d4	50	51.3	103	74	125
		Dibromofluoromethane	50	52.0	104	75	124
		Toluene-d8	50	51.4	103	86	113
		4-Bromofluorobenzene	50	53.4	107	64	133



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VD075150.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VD0120SBS02	Dichlorodifluoromethane	20	25.8	ug/Kg	129			64	136	
	Chloromethane	20	22.6	ug/Kg	113			70	130	
	Vinyl chloride	20	20.1	ug/Kg	101			72	129	
	Bromomethane	20	21.1	ug/Kg	106			58	141	
	Chloroethane	20	20.7	ug/Kg	104			69	130	
	Trichlorofluoromethane	20	21.2	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	21.7	ug/Kg	109			81	123	
	1,1-Dichloroethene	20	22.5	ug/Kg	113			79	121	
	Acetone	100	99.8	ug/Kg	100			60	131	
	Carbon disulfide	20	21.8	ug/Kg	109			45	154	
	Methyl tert-butyl Ether	20	21.8	ug/Kg	109			77	129	
	Methyl Acetate	20	22.8	ug/Kg	114			69	149	
	Methylene Chloride	20	20.1	ug/Kg	101			39	175	
	trans-1,2-Dichloroethene	20	21.1	ug/Kg	106			80	123	
	1,1-Dichloroethane	20	21.6	ug/Kg	108			82	123	
	Cyclohexane	20	21.7	ug/Kg	109			76	122	
	2-Butanone	100	110	ug/Kg	110			69	131	
	Carbon Tetrachloride	20	20.0	ug/Kg	100			76	129	
	cis-1,2-Dichloroethene	20	21.6	ug/Kg	108			82	123	
	Bromochloromethane	20	24.1	ug/Kg	121			62	134	
	Chloroform	20	21.5	ug/Kg	108			82	125	
	1,1,1-Trichloroethane	20	20.8	ug/Kg	104			80	126	
	Methylcyclohexane	20	21.0	ug/Kg	105			77	123	
	Benzene	20	21.4	ug/Kg	107			84	121	
	1,2-Dichloroethane	20	20.9	ug/Kg	104			81	126	
	Trichloroethene	20	20.6	ug/Kg	103			83	122	
	1,2-Dichloropropane	20	20.7	ug/Kg	104			83	122	
	Bromodichloromethane	20	20.4	ug/Kg	102			82	123	
	4-Methyl-2-Pentanone	100	110	ug/Kg	110			70	135	
	Toluene	20	20.7	ug/Kg	104			83	122	
	t-1,3-Dichloropropene	20	20.0	ug/Kg	100			78	124	
	cis-1,3-Dichloropropene	20	20.7	ug/Kg	104			81	122	
	1,1,2-Trichloroethane	20	20.9	ug/Kg	104			82	125	
	2-Hexanone	100	110	ug/Kg	110			66	138	
	Dibromochloromethane	20	20.0	ug/Kg	100			79	125	
	1,2-Dibromoethane	20	21.0	ug/Kg	105			80	125	
	Tetrachloroethene	20	19.2	ug/Kg	96			83	125	
	Chlorobenzene	20	20.4	ug/Kg	102			84	122	
	Ethyl Benzene	20	20.4	ug/Kg	102			82	124	
	m/p-Xylenes	40	41.6	ug/Kg	104			83	124	
	o-Xylene	20	20.9	ug/Kg	104			83	123	
	Styrene	20	20.7	ug/Kg	104			82	124	
	Bromoform	20	19.9	ug/Kg	100			75	127	
	Isopropylbenzene	20	20.1	ug/Kg	101			82	124	
	1,1,2,2-Tetrachloroethane	20	21.7	ug/Kg	109			77	127	
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99			83	122	
	1,4-Dichlorobenzene	20	20.8	ug/Kg	104			84	121	
	1,2-Dichlorobenzene	20	20.4	ug/Kg	102			83	124	
	1,2-Dibromo-3-Chloropropane	20	21.7	ug/Kg	109			66	134	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Analytical Method: SW8260D

Datafile : VD075150.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VD0120SBS02	1,2,4-Trichlorobenzene	20	18.2	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	20	18.4	ug/Kg	92			70	137	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VD075170.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VD0123SBS01	Dichlorodifluoromethane	20	24.9	ug/Kg	125			64	136	
	Chloromethane	20	22.7	ug/Kg	114			70	130	
	Vinyl chloride	20	20.4	ug/Kg	102			72	129	
	Bromomethane	20	19.9	ug/Kg	100			58	141	
	Chloroethane	20	19.7	ug/Kg	99			69	130	
	Trichlorofluoromethane	20	21.3	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	22.1	ug/Kg	111			81	123	
	1,1-Dichloroethene	20	21.7	ug/Kg	109			79	121	
	Acetone	100	100	ug/Kg	100			60	131	
	Carbon disulfide	20	21.8	ug/Kg	109			45	154	
	Methyl tert-butyl Ether	20	21.1	ug/Kg	106			77	129	
	Methyl Acetate	20	22.0	ug/Kg	110			69	149	
	Methylene Chloride	20	16.3	ug/Kg	81			39	175	
	trans-1,2-Dichloroethene	20	21.2	ug/Kg	106			80	123	
	1,1-Dichloroethane	20	21.5	ug/Kg	108			82	123	
	Cyclohexane	20	22.0	ug/Kg	110			76	122	
	2-Butanone	100	100	ug/Kg	100			69	131	
	Carbon Tetrachloride	20	20.3	ug/Kg	102			76	129	
	cis-1,2-Dichloroethene	20	20.8	ug/Kg	104			82	123	
	Bromochloromethane	20	23.2	ug/Kg	116			62	134	
	Chloroform	20	20.9	ug/Kg	104			82	125	
	1,1,1-Trichloroethane	20	21.0	ug/Kg	105			80	126	
	Methylcyclohexane	20	20.8	ug/Kg	104			77	123	
	Benzene	20	21.1	ug/Kg	106			84	121	
	1,2-Dichloroethane	20	21.3	ug/Kg	106			81	126	
	Trichloroethene	20	19.8	ug/Kg	99			83	122	
	1,2-Dichloropropane	20	19.9	ug/Kg	100			83	122	
	Bromodichloromethane	20	20.8	ug/Kg	104			82	123	
	4-Methyl-2-Pentanone	100	110	ug/Kg	110			70	135	
	Toluene	20	20.8	ug/Kg	104			83	122	
	t-1,3-Dichloropropene	20	19.8	ug/Kg	99			78	124	
	cis-1,3-Dichloropropene	20	20.3	ug/Kg	102			81	122	
	1,1,2-Trichloroethane	20	21.7	ug/Kg	109			82	125	
	2-Hexanone	100	110	ug/Kg	110			66	138	
	Dibromochloromethane	20	21.3	ug/Kg	106			79	125	
	1,2-Dibromoethane	20	20.6	ug/Kg	103			80	125	
	Tetrachloroethene	20	19.7	ug/Kg	99			83	125	
	Chlorobenzene	20	20.6	ug/Kg	103			84	122	
	Ethyl Benzene	20	20.9	ug/Kg	104			82	124	
	m/p-Xylenes	40	41.1	ug/Kg	103			83	124	
	o-Xylene	20	20.8	ug/Kg	104			83	123	
	Styrene	20	20.7	ug/Kg	104			82	124	
	Bromoform	20	20.2	ug/Kg	101			75	127	
	Isopropylbenzene	20	19.9	ug/Kg	100			82	124	
	1,1,2,2-Tetrachloroethane	20	20.7	ug/Kg	104			77	127	
	1,3-Dichlorobenzene	20	19.9	ug/Kg	100			83	122	
	1,4-Dichlorobenzene	20	20.1	ug/Kg	101			84	121	
	1,2-Dichlorobenzene	20	19.7	ug/Kg	99			83	124	
	1,2-Dibromo-3-Chloropropane	20	20.7	ug/Kg	104			66	134	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VD075170.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VD0123SBS01	1,2,4-Trichlorobenzene	20	18.2	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	20	18.1	ug/Kg	91			70	137	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VD075171.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VD0123SBSD01	Dichlorodifluoromethane	20	26.4	ug/Kg	132	5		64	136	20
	Chloromethane	20	22.1	ug/Kg	111	3		70	130	20
	Vinyl chloride	20	20.9	ug/Kg	104	2		72	129	20
	Bromomethane	20	20.4	ug/Kg	102	2		58	141	20
	Chloroethane	20	21.5	ug/Kg	108	9		69	130	20
	Trichlorofluoromethane	20	22.5	ug/Kg	113	6		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	22.5	ug/Kg	113	2		81	123	20
	1,1-Dichloroethene	20	22.4	ug/Kg	112	3		79	121	20
	Acetone	100	100	ug/Kg	100	0		60	131	20
	Carbon disulfide	20	22.3	ug/Kg	112	3		45	154	20
	Methyl tert-butyl Ether	20	21.2	ug/Kg	106	0		77	129	20
	Methyl Acetate	20	22.9	ug/Kg	115	4		69	149	20
	Methylene Chloride	20	16.9	ug/Kg	85	5		39	175	20
	trans-1,2-Dichloroethene	20	21.8	ug/Kg	109	3		80	123	20
	1,1-Dichloroethane	20	21.7	ug/Kg	109	1		82	123	20
	Cyclohexane	20	21.6	ug/Kg	108	2		76	122	20
	2-Butanone	100	110	ug/Kg	110	10		69	131	20
	Carbon Tetrachloride	20	20.2	ug/Kg	101	1		76	129	20
	cis-1,2-Dichloroethene	20	21.5	ug/Kg	108	4		82	123	20
	Bromochloromethane	20	24.2	ug/Kg	121	4		62	134	20
	Chloroform	20	21.3	ug/Kg	106	2		82	125	20
	1,1,1-Trichloroethane	20	21.3	ug/Kg	106	1		80	126	20
	Methylcyclohexane	20	21.1	ug/Kg	106	2		77	123	20
	Benzene	20	21.6	ug/Kg	108	2		84	121	20
	1,2-Dichloroethane	20	21.1	ug/Kg	106	0		81	126	20
	Trichloroethene	20	20.0	ug/Kg	100	1		83	122	20
	1,2-Dichloropropane	20	21.3	ug/Kg	106	6		83	122	20
	Bromodichloromethane	20	21.5	ug/Kg	108	4		82	123	20
	4-Methyl-2-Pentanone	100	110	ug/Kg	110	0		70	135	20
	Toluene	20	21.3	ug/Kg	106	2		83	122	20
	t-1,3-Dichloropropene	20	19.7	ug/Kg	99	0		78	124	20
	cis-1,3-Dichloropropene	20	20.4	ug/Kg	102	0		81	122	20
	1,1,2-Trichloroethane	20	21.3	ug/Kg	106	3		82	125	20
	2-Hexanone	100	110	ug/Kg	110	0		66	138	20
	Dibromochloromethane	20	20.9	ug/Kg	104	2		79	125	20
	1,2-Dibromoethane	20	21.2	ug/Kg	106	3		80	125	20
	Tetrachloroethene	20	20.1	ug/Kg	101	2		83	125	20
	Chlorobenzene	20	20.5	ug/Kg	103	0		84	122	20
	Ethyl Benzene	20	21.0	ug/Kg	105	1		82	124	20
	m/p-Xylenes	40	42.9	ug/Kg	107	4		83	124	20
	o-Xylene	20	20.4	ug/Kg	102	2		83	123	20
	Styrene	20	21.5	ug/Kg	108	4		82	124	20
	Bromoform	20	20.2	ug/Kg	101	0		75	127	20
	Isopropylbenzene	20	20.1	ug/Kg	101	1		82	124	20
	1,1,2,2-Tetrachloroethane	20	21.6	ug/Kg	108	4		77	127	20
	1,3-Dichlorobenzene	20	20.2	ug/Kg	101	1		83	122	20
	1,4-Dichlorobenzene	20	20.6	ug/Kg	103	2		84	121	20
	1,2-Dichlorobenzene	20	20.6	ug/Kg	103	4		83	124	20
	1,2-Dibromo-3-Chloropropane	20	22.7	ug/Kg	114	9		66	134	20



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Analytical Method: SW8260D

Datafile : VD075171.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VD0123SBSD01	1,2,4-Trichlorobenzene	20	19.0	ug/Kg	95	4		78	127	20
	1,2,3-Trichlorobenzene	20	18.8	ug/Kg	94	3		70	137	20



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low

Datafile : VN076340.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VN0120WBS01	Dichlorodifluoromethane	20	17.4	ug/L	87			69	116	
	Chloromethane	20	16.6	ug/L	83			65	116	
	Vinyl chloride	20	17.5	ug/L	88			65	117	
	Bromomethane	20	17.6	ug/L	88			42	173	
	Chloroethane	20	18.8	ug/L	94			44	165	
	Trichlorofluoromethane	20	16.9	ug/L	85			73	115	
	1,1,2-Trichlorotrifluoroethane	20	17.2	ug/L	86			80	112	
	1,1-Dichloroethene	20	16.8	ug/L	84			74	110	
	Acetone	100	85.8	ug/L	86			60	125	
	Carbon disulfide	20	15.2	ug/L	76			64	112	
	Methyl tert-butyl Ether	20	17.6	ug/L	88			78	114	
	Methyl Acetate	20	16.4	ug/L	82			67	125	
	Methylene Chloride	20	18.5	ug/L	93			72	114	
	trans-1,2-Dichloroethene	20	16.2	ug/L	81			75	108	
	1,1-Dichloroethane	20	16.8	ug/L	84			78	112	
	Cyclohexane	20	16.2	ug/L	81			75	110	
	2-Butanone	100	83.8	ug/L	84			65	122	
	Carbon Tetrachloride	20	17.2	ug/L	86			77	113	
	cis-1,2-Dichloroethene	20	17.3	ug/L	86			77	110	
	Bromochloromethane	20	18.8	ug/L	94			70	124	
	Chloroform	20	17.0	ug/L	85			79	113	
	1,1,1-Trichloroethane	20	17.5	ug/L	88			80	108	
	Methylcyclohexane	20	17.6	ug/L	88			72	115	
	Benzene	20	17.2	ug/L	86			82	109	
	1,2-Dichloroethane	20	17.3	ug/L	86			80	115	
	Trichloroethene	20	16.7	ug/L	84			77	113	
	1,2-Dichloropropane	20	17.0	ug/L	85			83	111	
	Bromodichloromethane	20	17.6	ug/L	88			83	110	
	4-Methyl-2-Pentanone	100	88.6	ug/L	89			74	118	
	Toluene	20	16.7	ug/L	84			82	110	
	t-1,3-Dichloropropene	20	17.9	ug/L	90			79	110	
	cis-1,3-Dichloropropene	20	17.3	ug/L	86			82	110	
	1,1,2-Trichloroethane	20	17.5	ug/L	88			83	112	
	2-Hexanone	100	88.3	ug/L	88			73	117	
	Dibromochloromethane	20	18.0	ug/L	90			82	110	
	1,2-Dibromoethane	20	17.8	ug/L	89			81	110	
	Tetrachloroethene	20	17.6	ug/L	88			67	123	
	Chlorobenzene	20	17.8	ug/L	89			82	109	
	Ethyl Benzene	20	18.3	ug/L	92			83	109	
	m/p-Xylenes	40	36.8	ug/L	92			82	110	
	o-Xylene	20	18.5	ug/L	93			83	109	
	Styrene	20	18.3	ug/L	92			80	111	
	Bromoform	20	18.1	ug/L	91			79	109	
	Isopropylbenzene	20	19.4	ug/L	97			83	112	
	1,1,2,2-Tetrachloroethane	20	18.1	ug/L	91			76	118	
	1,3-Dichlorobenzene	20	17.6	ug/L	88			82	108	
	1,4-Dichlorobenzene	20	18.0	ug/L	90			82	107	
	1,2-Dichlorobenzene	20	17.4	ug/L	87			82	109	
	1,2-Dibromo-3-Chloropropane	20	17.9	ug/L	90			68	112	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Analytical Method: SW8260-Low

Datafile : VN076340.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VN0120WBS01	1,2,4-Trichlorobenzene	20	16.7	ug/L	84			74	114	
	1,2,3-Trichlorobenzene	20	17.1	ug/L	86			77	113	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260-Low

Datafile : VN076341.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VN0120WBSD01	Dichlorodifluoromethane	20	18.1	ug/L	91	4		69	116	20
	Chloromethane	20	17.3	ug/L	86	4		65	116	20
	Vinyl chloride	20	18.3	ug/L	92	4		65	117	20
	Bromomethane	20	18.7	ug/L	94	7		42	173	20
	Chloroethane	20	18.9	ug/L	95	1		44	165	20
	Trichlorofluoromethane	20	18.0	ug/L	90	6		73	115	20
	1,1,2-Trichlorotrifluoroethane	20	18.7	ug/L	94	9		80	112	20
	1,1-Dichloroethene	20	17.4	ug/L	87	4		74	110	20
	Acetone	100	91.0	ug/L	91	6		60	125	20
	Carbon disulfide	20	16.3	ug/L	81	6		64	112	20
	Methyl tert-butyl Ether	20	19.9	ug/L	100	13		78	114	20
	Methyl Acetate	20	18.5	ug/L	93	13		67	125	20
	Methylene Chloride	20	20.5	ug/L	103	10		72	114	20
	trans-1,2-Dichloroethene	20	18.0	ug/L	90	11		75	108	20
	1,1-Dichloroethane	20	18.4	ug/L	92	9		78	112	20
	Cyclohexane	20	17.4	ug/L	87	7		75	110	20
	2-Butanone	100	92.2	ug/L	92	9		65	122	20
	Carbon Tetrachloride	20	18.7	ug/L	94	9		77	113	20
	cis-1,2-Dichloroethene	20	18.6	ug/L	93	8		77	110	20
	Bromochloromethane	20	20.4	ug/L	102	8		70	124	20
	Chloroform	20	18.8	ug/L	94	10		79	113	20
	1,1,1-Trichloroethane	20	18.5	ug/L	93	6		80	108	20
	Methylcyclohexane	20	19.1	ug/L	96	9		72	115	20
	Benzene	20	18.8	ug/L	94	9		82	109	20
	1,2-Dichloroethane	20	19.5	ug/L	98	13		80	115	20
	Trichloroethene	20	18.0	ug/L	90	7		77	113	20
	1,2-Dichloropropane	20	19.2	ug/L	96	12		83	111	20
	Bromodichloromethane	20	19.5	ug/L	98	11		83	110	20
	4-Methyl-2-Pentanone	100	98.9	ug/L	99	11		74	118	20
	Toluene	20	18.5	ug/L	93	10		82	110	20
	t-1,3-Dichloropropene	20	19.8	ug/L	99	10		79	110	20
	cis-1,3-Dichloropropene	20	19.4	ug/L	97	12		82	110	20
	1,1,2-Trichloroethane	20	19.5	ug/L	98	11		83	112	20
	2-Hexanone	100	98.1	ug/L	98	11		73	117	20
	Dibromochloromethane	20	20.2	ug/L	101	12		82	110	20
	1,2-Dibromoethane	20	19.4	ug/L	97	9		81	110	20
	Tetrachloroethene	20	18.4	ug/L	92	4		67	123	20
	Chlorobenzene	20	18.8	ug/L	94	5		82	109	20
	Ethyl Benzene	20	19.1	ug/L	96	4		83	109	20
	m/p-Xylenes	40	38.2	ug/L	96	4		82	110	20
	o-Xylene	20	19.2	ug/L	96	3		83	109	20
	Styrene	20	19.4	ug/L	97	5		80	111	20
	Bromoform	20	19.8	ug/L	99	8		79	109	20
	Isopropylbenzene	20	19.9	ug/L	100	3		83	112	20
	1,1,2,2-Tetrachloroethane	20	19.3	ug/L	97	6		76	118	20
	1,3-Dichlorobenzene	20	18.1	ug/L	91	3		82	108	20
	1,4-Dichlorobenzene	20	18.8	ug/L	94	4		82	107	20
	1,2-Dichlorobenzene	20	18.1	ug/L	91	4		82	109	20
	1,2-Dibromo-3-Chloropropane	20	19.9	ug/L	100	11		68	112	20



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Analytical Method: SW8260-Low

Datafile : VN076341.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VN0120WBSD01	1,2,4-Trichlorobenzene	20	18.4	ug/L	92	9		74	114	20
	1,2,3-Trichlorobenzene	20	18.5	ug/L	93	8		77	113	20



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VN076358.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VN0123MBS01	Dichlorodifluoromethane	2000	1800	ug/Kg	90			64	136	
	Chloromethane	2000	1800	ug/Kg	90			70	130	
	Vinyl chloride	2000	2000	ug/Kg	100			72	129	
	Bromomethane	2000	1900	ug/Kg	95			58	141	
	Chloroethane	2000	2000	ug/Kg	100			69	130	
	Trichlorofluoromethane	2000	1700	ug/Kg	85			69	134	
	1,1,2-Trichlorotrifluoroethane	2000	1800	ug/Kg	90			81	123	
	1,1-Dichloroethene	2000	1700	ug/Kg	85			79	121	
	Acetone	10000	10700	ug/Kg	107			60	131	
	Carbon disulfide	2000	1700	ug/Kg	85			45	154	
	Methyl tert-butyl Ether	2000	1800	ug/Kg	90			77	129	
	Methyl Acetate	2000	1800	ug/Kg	90			69	149	
	Methylene Chloride	2000	1700	ug/Kg	85			39	175	
	trans-1,2-Dichloroethene	2000	1700	ug/Kg	85			80	123	
	1,1-Dichloroethane	2000	1800	ug/Kg	90			82	123	
	Cyclohexane	2000	1700	ug/Kg	85			76	122	
	2-Butanone	10000	9300	ug/Kg	93			69	131	
	Carbon Tetrachloride	2000	1900	ug/Kg	95			76	129	
	cis-1,2-Dichloroethene	2000	1700	ug/Kg	85			82	123	
	Bromochloromethane	2000	2100	ug/Kg	105			62	134	
	Chloroform	2000	1800	ug/Kg	90			82	125	
	1,1,1-Trichloroethane	2000	1800	ug/Kg	90			80	126	
	Methylcyclohexane	2000	1700	ug/Kg	85			77	123	
	Benzene	2000	1800	ug/Kg	90			84	121	
	1,2-Dichloroethane	2000	1800	ug/Kg	90			81	126	
	Trichloroethene	2000	1700	ug/Kg	85			83	122	
	1,2-Dichloropropane	2000	1800	ug/Kg	90			83	122	
	Bromodichloromethane	2000	1900	ug/Kg	95			82	123	
	4-Methyl-2-Pentanone	10000	9500	ug/Kg	95			70	135	
	Toluene	2000	1700	ug/Kg	85			83	122	
	t-1,3-Dichloropropene	2000	1900	ug/Kg	95			78	124	
	cis-1,3-Dichloropropene	2000	1900	ug/Kg	95			81	122	
	1,1,2-Trichloroethane	2000	1800	ug/Kg	90			82	125	
	2-Hexanone	10000	9400	ug/Kg	94			66	138	
	Dibromochloromethane	2000	2000	ug/Kg	100			79	125	
	1,2-Dibromoethane	2000	1800	ug/Kg	90			80	125	
	Tetrachloroethene	2000	1700	ug/Kg	85			83	125	
	Chlorobenzene	2000	1800	ug/Kg	90			84	122	
	Ethyl Benzene	2000	1900	ug/Kg	95			82	124	
	m/p-Xylenes	4000	3700	ug/Kg	93			83	124	
	o-Xylene	2000	1800	ug/Kg	90			83	123	
	Styrene	2000	1900	ug/Kg	95			82	124	
	Bromoform	2000	2100	ug/Kg	105			75	127	
	Isopropylbenzene	2000	2000	ug/Kg	100			82	124	
	1,1,2,2-Tetrachloroethane	2000	1900	ug/Kg	95			77	127	
	1,3-Dichlorobenzene	2000	1800	ug/Kg	90			83	122	
	1,4-Dichlorobenzene	2000	1800	ug/Kg	90			84	121	
	1,2-Dichlorobenzene	2000	1700	ug/Kg	85			83	124	
	1,2-Dibromo-3-Chloropropane	2000	1800	ug/Kg	90			66	134	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VN076358.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VN0123MBS01	1,2,4-Trichlorobenzene	2000	1700	ug/Kg	85			78	127	
	1,2,3-Trichlorobenzene	2000	1700	ug/Kg	85			70	137	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: SW8260D

Datafile : VY012309.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VY0123SBS01	Dichlorodifluoromethane	20	21.2	ug/Kg	106			64	136	
	Chloromethane	20	19.7	ug/Kg	99			70	130	
	Vinyl chloride	20	20.0	ug/Kg	100			72	129	
	Bromomethane	20	21.0	ug/Kg	105			58	141	
	Chloroethane	20	20.8	ug/Kg	104			69	130	
	Trichlorofluoromethane	20	21.2	ug/Kg	106			69	134	
	1,1,2-Trichlorotrifluoroethane	20	20.8	ug/Kg	104			81	123	
	1,1-Dichloroethene	20	20.6	ug/Kg	103			79	121	
	Acetone	100	87.9	ug/Kg	88			60	131	
	Carbon disulfide	20	20.2	ug/Kg	101			45	154	
	Methyl tert-butyl Ether	20	19.4	ug/Kg	97			77	129	
	Methyl Acetate	20	18.3	ug/Kg	92			69	149	
	Methylene Chloride	20	15.2	ug/Kg	76			39	175	
	trans-1,2-Dichloroethene	20	20.1	ug/Kg	101			80	123	
	1,1-Dichloroethane	20	20.5	ug/Kg	103			82	123	
	Cyclohexane	20	20.2	ug/Kg	101			76	122	
	2-Butanone	100	92.3	ug/Kg	92			69	131	
	Carbon Tetrachloride	20	20.7	ug/Kg	104			76	129	
	cis-1,2-Dichloroethene	20	20.5	ug/Kg	103			82	123	
	Bromochloromethane	20	19.2	ug/Kg	96			62	134	
	Chloroform	20	20.4	ug/Kg	102			82	125	
	1,1,1-Trichloroethane	20	20.7	ug/Kg	104			80	126	
	Methylcyclohexane	20	20.8	ug/Kg	104			77	123	
	Benzene	20	20.5	ug/Kg	103			84	121	
	1,2-Dichloroethane	20	20.2	ug/Kg	101			81	126	
	Trichloroethene	20	20.1	ug/Kg	101			83	122	
	1,2-Dichloropropane	20	20.3	ug/Kg	102			83	122	
	Bromodichloromethane	20	20.3	ug/Kg	102			82	123	
	4-Methyl-2-Pentanone	100	93.5	ug/Kg	94			70	135	
	Toluene	20	20.4	ug/Kg	102			83	122	
	t-1,3-Dichloropropene	20	19.6	ug/Kg	98			78	124	
	cis-1,3-Dichloropropene	20	20.1	ug/Kg	101			81	122	
	1,1,2-Trichloroethane	20	19.6	ug/Kg	98			82	125	
	2-Hexanone	100	92.0	ug/Kg	92			66	138	
	Dibromochloromethane	20	19.7	ug/Kg	99			79	125	
	1,2-Dibromoethane	20	19.3	ug/Kg	97			80	125	
	Tetrachloroethene	20	21.0	ug/Kg	105			83	125	
	Chlorobenzene	20	20.2	ug/Kg	101			84	122	
	Ethyl Benzene	20	20.3	ug/Kg	102			82	124	
	m/p-Xylenes	40	41.2	ug/Kg	103			83	124	
	o-Xylene	20	20.0	ug/Kg	100			83	123	
	Styrene	20	20.4	ug/Kg	102			82	124	
	Bromoform	20	19.1	ug/Kg	96			75	127	
	Isopropylbenzene	20	20.6	ug/Kg	103			82	124	
	1,1,2,2-Tetrachloroethane	20	19.3	ug/Kg	97			77	127	
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99			83	122	
	1,4-Dichlorobenzene	20	19.5	ug/Kg	98			84	121	
	1,2-Dichlorobenzene	20	19.4	ug/Kg	97			83	124	
	1,2-Dibromo-3-Chloropropane	20	18.7	ug/Kg	94			66	134	



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Analytical Method: SW8260D

Datafile : VY012309.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	
									High	RPD
VY0123SBS01	1,2,4-Trichlorobenzene	20	17.9	ug/Kg	90			78	127	
	1,2,3-Trichlorobenzene	20	17.2	ug/Kg	86			70	137	



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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0120SBL04

Lab Name: CHEMTECH

Contract: loui01

Lab Code: CHEM Case No.: O1233

SAS No.: O1233 SDG NO.: O1233

Lab File ID: VD075147.D

Lab Sample ID: VD0120SBL04

Date Analyzed: 01/20/2023

Time Analyzed: 12:23

GC Column: RTX-VMS ID: 0.18 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0120SBS02	VD0120SBS02	VD075150.D	01/20/2023
B-P36B	O1233-05	VD075158.D	01/20/2023
B-38A	O1233-08	VD075161.D	01/20/2023
B-P38B	O1233-09	VD075162.D	01/20/2023

COMMENTS: _____



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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0123SBL01

Lab Name: CHEMTECH

Contract: loui01

Lab Code: CHEM Case No.: 01233

SAS No.: 01233 SDG NO.: 01233

Lab File ID: VD075169.D

Lab Sample ID: VD0123SBL01

Date Analyzed: 01/23/2023

Time Analyzed: 12:14

GC Column: RTX-VMS ID: 0.18 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0123SBS01	VD0123SBS01	VD075170.D	01/23/2023
VD0123SBSD01	VD0123SBSD01	VD075171.D	01/23/2023
B-P34A	01233-02	VD075172.D	01/23/2023
B-P34B	01233-03	VD075173.D	01/23/2023
B-P36A	01233-04	VD075174.D	01/23/2023
B-P36BRE	01233-05RE	VD075175.D	01/23/2023
B-P37A	01233-06	VD075176.D	01/23/2023
B-P38BRE	01233-09RE	VD075178.D	01/23/2023

COMMENTS:



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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0123MBL01

Lab Name: CHEMTECH

Contract: loui01

Lab Code: CHEM Case No.: O1233

SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076356.D

Lab Sample ID: VN0123MBL01

Date Analyzed: 01/23/2023

Time Analyzed: 10:51

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0123MBS01	VN0123MBS01	VN076358.D	01/23/2023
B-P38C	O1233-11	VN076364.D	01/23/2023
B-P38CDL	O1233-11DL	VN076367.D	01/23/2023

COMMENTS:



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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0123SBL01

Lab Name: CHEMTECH

Contract: loui01

Lab Code: CHEM Case No.: O1233

SAS No.: O1233 SDG NO.: O1233

Lab File ID: VY012308.D

Lab Sample ID: VY0123SBL01

Date Analyzed: 01/23/2023

Time Analyzed: 13:04

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0123SBS01	VY0123SBS01	VY012309.D	01/23/2023
B-P37B	O1233-07	VY012315.D	01/23/2023
B-38ARE	O1233-08RE	VY012316.D	01/23/2023

COMMENTS: _____



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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0120WBL01

Lab Name: CHEMTECH

Contract: loui01

Lab Code: CHEM Case No.: O1233

SAS No.: O1233 SDG NO.: O1233

Lab File ID: VN076339.D

Lab Sample ID: VN0120WBL01

Date Analyzed: 01/20/2023

Time Analyzed: 11:25

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0120WBS01	VN0120WBS01	VN076340.D	01/20/2023
VN0120WBSD01	VN0120WBSD01	VN076341.D	01/20/2023
FB01	O1233-12	VN076347.D	01/20/2023

COMMENTS: _____



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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>01233</u>
Lab File ID:	<u>VD075123.D</u>	SAS No.:	<u>01233</u>
Instrument ID:	<u>MSVOA_D</u>	SDG NO.:	<u>01233</u>
GC Column:	<u>RTX-VMS</u>	BFB Injection Date:	<u>01/18/2023</u>
ID:	<u>0.18</u>	BFB Injection Time:	<u>09:22</u>
(mm)		Heated Purge:	<u>Y/N</u>
			<u>Y</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	52.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	1 (1.3) 1
174	50.0 - 100.0% of mass 95	80.6
175	5.0 - 9.0% of mass 174	6.5 (8.1) 1
176	95.0 - 101.0% of mass 174	77.5 (96.1) 1
177	5.0 - 9.0% of mass 176	5.4 (7) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VD075124.D	01/18/2023	10:25
VSTDIC010	VSTDIC010	VD075125.D	01/18/2023	11:20
VSTDIC020	VSTDIC020	VD075126.D	01/18/2023	11:48
VSTDIC050	VSTDIC050	VD075127.D	01/18/2023	12:15
VSTDIC100	VSTDIC100	VD075128.D	01/18/2023	12:42
VSTDIC150	VSTDIC150	VD075129.D	01/18/2023	13:10



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>O1233</u>
Lab File ID:	<u>VD075145.D</u>	SAS No.:	<u>O1233</u>
Instrument ID:	<u>MSVOA_D</u>	SDG NO.:	<u>O1233</u>
GC Column:	<u>RTX-VMS</u>	BFB Injection Date:	<u>01/20/2023</u>
ID:	<u>0.18</u>	BFB Injection Time:	<u>10:40</u>
(mm)		Heated Purge: Y/N	<u>Y</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 60.0% of mass 95	52.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.2 (1.6) 1
174	50.0 - 100.0% of mass 95	74
175	5.0 - 9.0% of mass 174	5.8 (7.9) 1
176	95.0 - 101.0% of mass 174	72.5 (98) 1
177	5.0 - 9.0% of mass 176	4.6 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD075146.D	01/20/2023	11:13
VD0120SBL04	VD0120SBL04	VD075147.D	01/20/2023	12:23
VD0120SBS02	VD0120SBS02	VD075150.D	01/20/2023	13:45
B-P36B	O1233-05	VD075158.D	01/20/2023	17:26
B-38A	O1233-08	VD075161.D	01/20/2023	18:49
B-P38B	O1233-09	VD075162.D	01/20/2023	19:17



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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>O1233</u>
Lab File ID:	<u>VD075167.D</u>	SAS No.:	<u>O1233</u>
Instrument ID:	<u>MSVOA_D</u>	SDG NO.:	<u>O1233</u>
GC Column:	<u>RTX-VMS</u>	BFB Injection Date:	<u>01/23/2023</u>
ID:	<u>0.18</u>	BFB Injection Time:	<u>09:38</u>
(mm)		Heated Purge: Y/N	<u>Y</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.9
75	30.0 - 60.0% of mass 95	53.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.2 (1.5) 1
174	50.0 - 100.0% of mass 95	77.3
175	5.0 - 9.0% of mass 174	5.8 (7.5) 1
176	95.0 - 101.0% of mass 174	74.3 (96.1) 1
177	5.0 - 9.0% of mass 176	4.5 (6.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD075168.D	01/23/2023	10:15
VD0123SBL01	VD0123SBL01	VD075169.D	01/23/2023	12:14
VD0123SBS01	VD0123SBS01	VD075170.D	01/23/2023	12:41
VD0123SBSD01	VD0123SBSD01	VD075171.D	01/23/2023	13:08
B-P34A	O1233-02	VD075172.D	01/23/2023	13:36
B-P34B	O1233-03	VD075173.D	01/23/2023	14:04
B-P36A	O1233-04	VD075174.D	01/23/2023	14:32
B-P36BRE	O1233-05RE	VD075175.D	01/23/2023	15:00
B-P37A	O1233-06	VD075176.D	01/23/2023	15:27
B-P38BRE	O1233-09RE	VD075178.D	01/23/2023	16:23



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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>01233</u>
Lab File ID:	<u>VN076259.D</u>	SAS No.:	<u>01233</u>
Instrument ID:	<u>MSVOA_N</u>	SDG NO.:	<u>01233</u>
GC Column:	<u>RXI-624</u>	BFB Injection Date:	<u>01/16/2023</u>
ID:	<u>0.25</u>	BFB Injection Time:	<u>09:57</u>
(mm)		Heated Purge:	<u>Y/N</u>
			<u>N</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	53.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1.2 (1.4) 1
174	50.0 - 100.0% of mass 95	88.5
175	5.0 - 9.0% of mass 174	6 (6.7) 1
176	95.0 - 101.0% of mass 174	86.5 (97.7) 1
177	5.0 - 9.0% of mass 176	5.1 (5.9) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VN076261.D	01/16/2023	10:54
VSTDIC010	VSTDIC010	VN076262.D	01/16/2023	11:18
VSTDIC020	VSTDIC020	VN076263.D	01/16/2023	11:42
VSTDIC050	VSTDIC050	VN076264.D	01/16/2023	12:06
VSTDIC075	VSTDIC075	VN076265.D	01/16/2023	12:30
VSTDIC001	VSTDIC001	VN076267.D	01/16/2023	13:17



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name:	CHEMTECH		Contract:	loui01	
Lab Code:	CHEM	Case No.:	O1233	SAS No.:	O1233
				SDG NO.:	O1233
Lab File ID:	VN076336.D		BFB Injection Date:	01/20/2023	
Instrument ID:	MSVOA_N		BFB Injection Time:	09:54	
GC Column:	RXI-624	ID:	0.25	(mm)	
				Heated Purge: Y/N	N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	51.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1.1 (1.3) 1
174	50.0 - 100.0% of mass 95	87.5
175	5.0 - 9.0% of mass 174	6.6 (7.5) 1
176	95.0 - 101.0% of mass 174	84.4 (96.5) 1
177	5.0 - 9.0% of mass 176	5.8 (6.8) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN076337.D	01/20/2023	10:27
VN0120WBL01	VN0120WBL01	VN076339.D	01/20/2023	11:25
VN0120WBS01	VN0120WBS01	VN076340.D	01/20/2023	11:49
VN0120WBSD01	VN0120WBSD01	VN076341.D	01/20/2023	12:25
FB01	O1233-12	VN076347.D	01/20/2023	14:49



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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>01233</u>
Lab File ID:	<u>VN076354.D</u>	SAS No.:	<u>01233</u>
Instrument ID:	<u>MSVOA_N</u>	SDG NO.:	<u>01233</u>
GC Column:	<u>RXI-624</u>	BFB Injection Date:	<u>01/23/2023</u>
ID:	<u>0.25</u>	BFB Injection Time:	<u>09:44</u>
(mm)		Heated Purge:	<u>Y/N</u>
			<u>N</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.8
75	30.0 - 60.0% of mass 95	52.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	86.3
175	5.0 - 9.0% of mass 174	6.5 (7.6) 1
176	95.0 - 101.0% of mass 174	84.7 (98.1) 1
177	5.0 - 9.0% of mass 176	5.5 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN076355.D	01/23/2023	10:17
VN0123MBL01	VN0123MBL01	VN076356.D	01/23/2023	10:51
VN0123MBS01	VN0123MBS01	VN076358.D	01/23/2023	11:39
B-P38C	O1233-11	VN076364.D	01/23/2023	14:12
B-P38CDL	O1233-11DL	VN076367.D	01/23/2023	15:25



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>01233</u>
Lab File ID:	<u>VY012193.D</u>	SAS No.:	<u>01233</u>
Instrument ID:	<u>MSVOA_Y</u>	SDG NO.:	<u>01233</u>
GC Column:	<u>RXI-624</u>	BFB Injection Date:	<u>01/16/2023</u>
ID:	<u>0.25</u>	BFB Injection Time:	<u>09:00</u>
(mm)		Heated Purge: Y/N	<u>Y</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	54.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	88.4
175	5.0 - 9.0% of mass 174	6.7 (7.6) 1
176	95.0 - 101.0% of mass 174	85.2 (96.4) 1
177	5.0 - 9.0% of mass 176	5.9 (6.9) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VY012194.D	01/16/2023	12:17
VSTDIC010	VSTDIC010	VY012195.D	01/16/2023	13:03
VSTDIC020	VSTDIC020	VY012196.D	01/16/2023	13:26
VSTDIC050	VSTDIC050	VY012197.D	01/16/2023	13:48
VSTDIC100	VSTDIC100	VY012198.D	01/16/2023	14:11
VSTDIC150	VSTDIC150	VY012199.D	01/16/2023	14:34



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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>loui01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>O1233</u>
Lab File ID:	<u>VY012306.D</u>	SAS No.:	<u>O1233</u>
Instrument ID:	<u>MSVOA_Y</u>	SDG NO.:	<u>O1233</u>
GC Column:	<u>RXI-624</u>	BFB Injection Date:	<u>01/23/2023</u>
ID:	<u>0.25</u>	BFB Injection Time:	<u>10:03</u>
(mm)		Heated Purge: Y/N	<u>Y</u>

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	54.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	90.6
175	5.0 - 9.0% of mass 174	6.3 (7) 1
176	95.0 - 101.0% of mass 174	87.1 (96.1) 1
177	5.0 - 9.0% of mass 176	5.8 (6.6) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VY012307.D	01/23/2023	12:09
VY0123SBL01	VY0123SBL01	VY012308.D	01/23/2023	13:04
VY0123SBS01	VY0123SBS01	VY012309.D	01/23/2023	13:27
B-P37B	O1233-07	VY012315.D	01/23/2023	15:48
B-38ARE	O1233-08RE	VY012316.D	01/23/2023	16:11



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VD075146.D Date Analyzed: 01/20/2023
Instrument ID: MSVOA_D Time Analyzed: 11:13
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	87549	7.88	150535	8.78	130836	11.59
UPPER LIMIT	175098	8.375	301070	9.281	261672	12.087
LOWER LIMIT	43774.5	7.375	75267.5	8.281	65418	11.087
EPA SAMPLE NO.						
B-P36B	4925 *	7.88	11060 *	8.78	10688 *	11.59
B-38A	3464 *	7.88	6979 *	8.78	6961 *	11.58
B-P38B	41902 *	7.88	88407	8.78	88309	11.59
VD0120SBL04	86545	7.88	180550	8.78	168873	11.58
VD0120SBS02	78332	7.88	142964	8.78	128592	11.59

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VD075146.D Date Analyzed: 01/20/2023
Instrument ID: MSVOA_D Time Analyzed: 11:13
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	59366	13.522				
UPPER LIMIT	118732	14.022				
LOWER LIMIT	29683	13.022				
EPA SAMPLE NO.						
B-P36B	5310 *	13.52				
B-38A	2980 *	13.52				
B-P38B	40736	13.52				
VD0120SBL04	72499	13.52				
VD0120SBS02	58018	13.52				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VD075168.D Date Analyzed: 01/23/2023
Instrument ID: MSVOA_D Time Analyzed: 10:15
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	83058	7.88	142829	8.78	124569	11.59
UPPER LIMIT	166116	8.375	285658	9.281	249138	12.087
LOWER LIMIT	41529	7.375	71414.5	8.281	62284.5	11.087
EPA SAMPLE NO.						
B-P34A	67921	7.88	129748	8.78	124838	11.59
B-P34B	49085	7.88	95032	8.78	93578	11.59
B-P36A	87972	7.88	171041	8.78	157598	11.59
B-P36BRE	2289 *	7.88	4728 *	8.78	4222 *	11.58
B-P37A	85119	7.88	168462	8.78	154125	11.59
B-P38BRE	1300 *	7.88	2143 *	8.78	1966 *	11.59
VD0123SBL01	95373	7.88	184136	8.78	168096	11.59
VD0123SBS01	75965	7.88	134615	8.78	120882	11.59
VD0123SBS01	72362	7.88	130215	8.78	115554	11.59

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VD075168.D Date Analyzed: 01/23/2023
Instrument ID: MSVOA_D Time Analyzed: 10:15
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	56972	13.522				
UPPER LIMIT	113944	14.022				
LOWER LIMIT	28486	13.022				
EPA SAMPLE NO.						
B-P34A	54879	13.52				
B-P34B	41757	13.52				
B-P36A	64243	13.52				
B-P36BRE	1552 *	13.52				
B-P37A	63432	13.52				
B-P38BRE	699 *	13.53				
VD0123SBL01	71751	13.52				
VD0123SBS01	55819	13.52				
VD0123SBSD01	53241	13.52				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: louie01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VN076337.D Date Analyzed: 01/20/2023
Instrument ID: MSVOA_N Time Analyzed: 10:27
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	383049	8.23	610968	9.11	549444	11.87
UPPER LIMIT	766098	8.73	1221940	9.606	1098890	12.365
LOWER LIMIT	191525	7.73	305484	8.606	274722	11.365
EPA SAMPLE NO.						
FB01	370105	8.23	595933	9.11	523917	11.87
VN0120WBL01	490775	8.23	773684	9.11	657515	11.87
VN0120WBS01	434458	8.23	686884	9.11	590812	11.87
VN0120WBSD01	359856	8.23	567895	9.11	510094	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VN076337.D Date Analyzed: 01/20/2023
Instrument ID: MSVOA_N Time Analyzed: 10:27
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	272155	13.794				
UPPER LIMIT	544310	14.294				
LOWER LIMIT	136078	13.294				
EPA SAMPLE NO.						
FB01	212240	13.79				
VN0120WBL01	251353	13.79				
VN0120WBS01	268276	13.79				
VN0120WBSD01	238179	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG NO.: 01233
Lab File ID: VN076355.D Date Analyzed: 01/23/2023
Instrument ID: MSVOA_N Time Analyzed: 10:17
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	360494	8.23	576114	9.11	518968	11.87
UPPER LIMIT	720988	8.73	1152230	9.606	1037940	12.37
LOWER LIMIT	180247	7.73	288057	8.606	259484	11.37
EPA SAMPLE NO.						
B-P38C	380260	8.22	594043	9.10	544762	11.87
B-P38CDL	384506	8.23	612820	9.11	549267	11.87
VN0123MBL01	303559	8.23	491398	9.11	403787	11.87
VN0123MBS01	381993	8.23	609908	9.11	527333	11.87

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VN076355.D Date Analyzed: 01/23/2023
Instrument ID: MSVOA_N Time Analyzed: 10:17
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	248688	13.794				
UPPER LIMIT	497376	14.294				
LOWER LIMIT	124344	13.294				
EPA SAMPLE NO.						
B-P38C	318779	13.79				
B-P38CDL	255428	13.79				
VN0123MBL01	158993	13.79				
VN0123MBS01	238215	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: louie01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VY012307.D Date Analyzed: 01/23/2023
Instrument ID: MSVOA_Y Time Analyzed: 12:09
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	179464	7.79	268117	8.69	243165	11.49
UPPER LIMIT	358928	8.289	536234	9.191	486330	11.99
LOWER LIMIT	89732	7.289	134059	8.191	121583	10.99
EPA SAMPLE NO.						
B-P37B	35937 *	7.79	57297 *	8.69	55952 *	11.49
B-38ARE	4898 *	7.80	8005 *	8.69	7433 *	11.50
VY0123SBL01	162197	7.79	255207	8.69	227538	11.49
VY0123SBS01	173816	7.79	263834	8.69	239765	11.49

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.



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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: loui01
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233
Lab File ID: VY012307.D Date Analyzed: 01/23/2023
Instrument ID: MSVOA_Y Time Analyzed: 12:09
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	123436	13.428				
UPPER LIMIT	246872	13.928				
LOWER LIMIT	61718	12.928				
EPA SAMPLE NO.						
B-P37B	24351 *	13.43				
B-38ARE	2570 *	13.43				
VY0123SBL01	110055	13.43				
VY0123SBS01	122385	13.43				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

SAMPLE DATA



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075172.D	1		01/23/23 13:36	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.99	U	0.99	5.80	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.80	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	5.80	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.80	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.80	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.83	U	0.83	5.80	ug/Kg
75-35-4	1,1-Dichloroethene	0.99	U	0.99	5.80	ug/Kg
67-64-1	Acetone	22.2	J	14.1	28.9	ug/Kg
75-15-0	Carbon Disulfide	0.87	U	0.87	5.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	5.80	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	5.80	ug/Kg
75-09-2	Methylene Chloride	6.90	U	6.90	11.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.79	U	0.79	5.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.80	ug/Kg
110-82-7	Cyclohexane	0.97	U	0.97	5.80	ug/Kg
78-93-3	2-Butanone	8.40	U	8.40	28.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.79	U	0.79	5.80	ug/Kg
74-97-5	Bromochloromethane	0.94	U	0.94	5.80	ug/Kg
67-66-3	Chloroform	0.77	U	0.77	5.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.87	U	0.87	5.80	ug/Kg
108-87-2	Methylcyclohexane	0.92	U	0.92	5.80	ug/Kg
71-43-2	Benzene	0.76	U	0.76	5.80	ug/Kg
107-06-2	1,2-Dichloroethane	0.97	U	0.97	5.80	ug/Kg
79-01-6	Trichloroethene	0.84	U	0.84	5.80	ug/Kg
78-87-5	1,2-Dichloropropane	0.75	U	0.75	5.80	ug/Kg
75-27-4	Bromodichloromethane	0.81	U	0.81	5.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.30	U	5.30	28.9	ug/Kg
108-88-3	Toluene	0.73	U	0.73	5.80	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.86	U	0.86	5.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.82	U	0.82	5.80	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075172.D	1		01/23/23 13:36	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.99	U	0.99	5.80	ug/Kg
591-78-6	2-Hexanone	5.40	U	5.40	28.9	ug/Kg
124-48-1	Dibromochloromethane	0.87	U	0.87	5.80	ug/Kg
106-93-4	1,2-Dibromoethane	0.87	U	0.87	5.80	ug/Kg
127-18-4	Tetrachloroethene	0.88	U	0.88	5.80	ug/Kg
108-90-7	Chlorobenzene	0.75	U	0.75	5.80	ug/Kg
100-41-4	Ethyl Benzene	0.81	U	0.81	5.80	ug/Kg
179601-23-1	m/p-Xylenes	1.70	U	1.70	11.6	ug/Kg
95-47-6	o-Xylene	0.91	U	0.91	5.80	ug/Kg
100-42-5	Styrene	0.91	U	0.91	5.80	ug/Kg
75-25-2	Bromoform	0.94	U	0.94	5.80	ug/Kg
98-82-8	Isopropylbenzene	0.83	U	0.83	5.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.77	U	0.77	5.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.73	U	0.73	5.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.74	U	0.74	5.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	5.80	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.5		50 - 163	117%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	52.1		58 - 134	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.8		30 - 143	108%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	67900	7.881			
540-36-3	1,4-Difluorobenzene	130000	8.781			
3114-55-4	Chlorobenzene-d5	125000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	54900	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
002916-68-9	Ethanol, 2-(trimethylsilyl)-	27.6	J		7.07	ug/Kg
	unknown11.034	6.40	J		11.0	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.3
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075172.D	1		01/23/23 13:36	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075172.D
 Acq On : 23 Jan 2023 13:36
 Operator : KP/SY
 Sample : 01233-02
 Misc : 5.07G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P34A

Quant Time: Jan 23 14:04:47 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

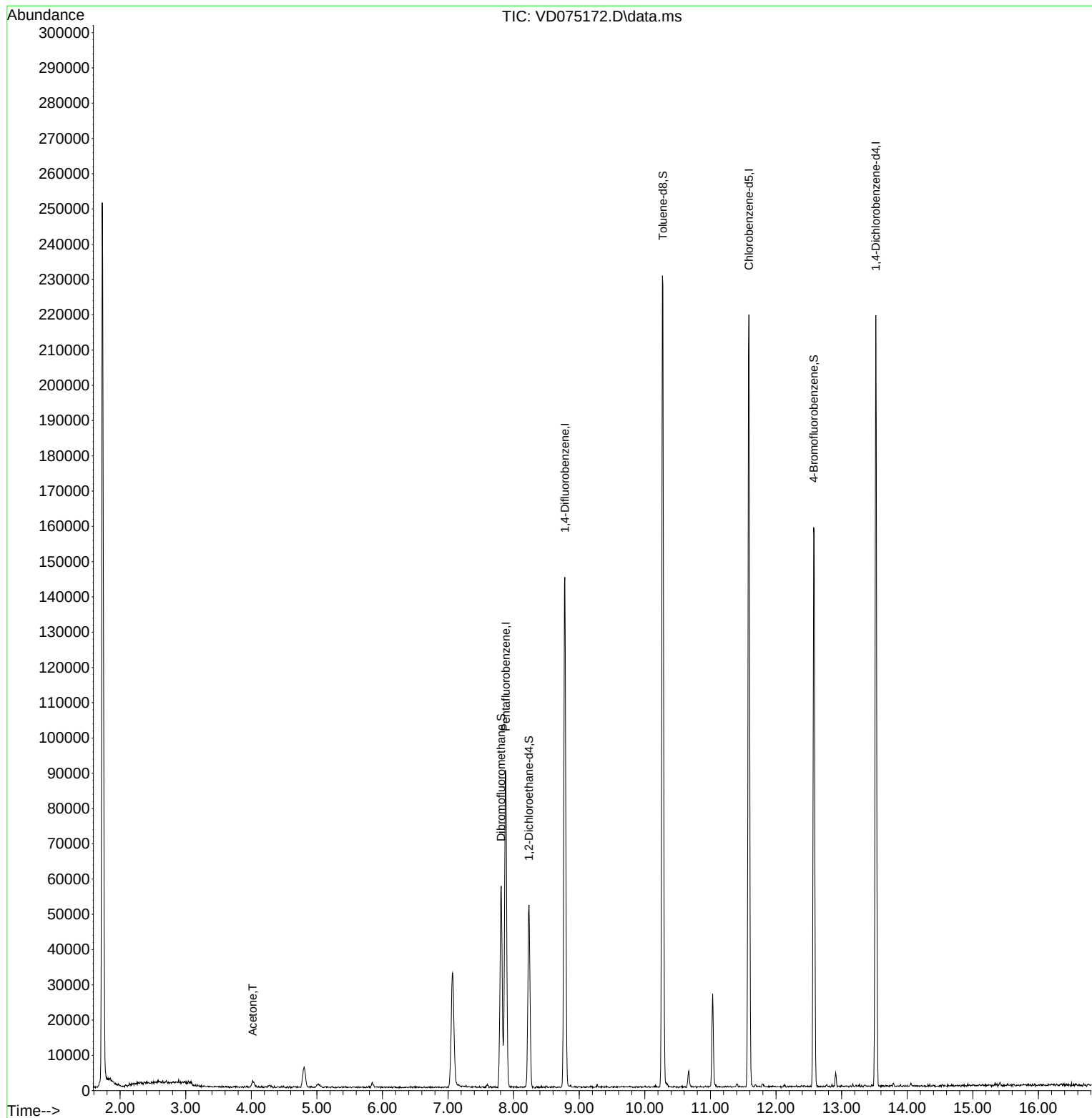
Internal Standards						
1) Pentafluorobenzene	7.881	168	67921	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	129748	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	124838	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	54879	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	40536	58.487	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	116.980%
35) Dibromofluoromethane	7.810	113	40288	51.386	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	102.780%
50) Toluene-d8	10.275	98	160846	52.104	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	104.200%
62) 4-Bromofluorobenzene	12.575	95	52693	53.784	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	107.560%
Target Compounds						Qvalue
16) Acetone	4.022	43	3516	19.234	ug/l	# 82

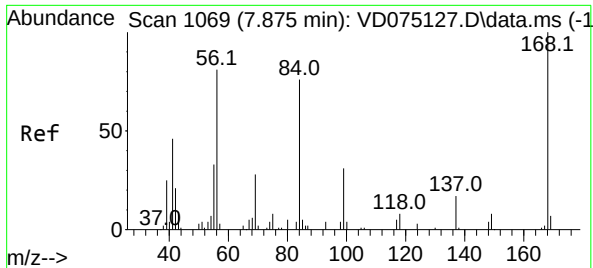
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075172.D
Acq On : 23 Jan 2023 13:36
Operator : KP/SY
Sample : 01233-02
Misc : 5.07G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34A

Quant Time: Jan 23 14:04:47 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

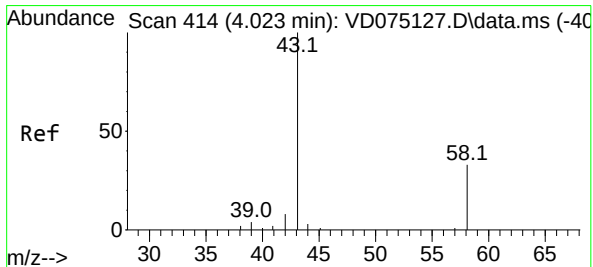
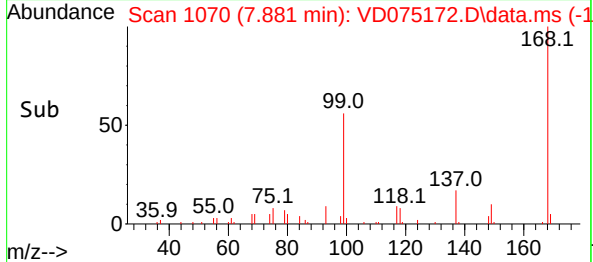
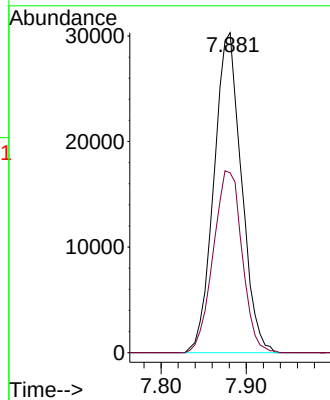
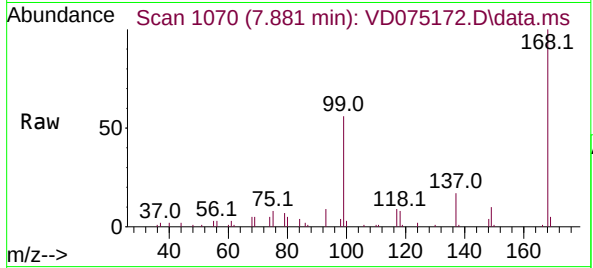




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.881 min Scan# 1069
Delta R.T. 0.006 min
Lab File: VD075172.D
Acq: 23 Jan 2023 13:36

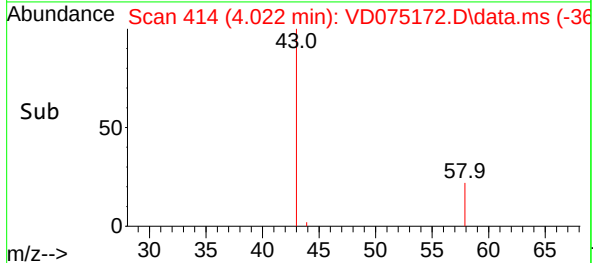
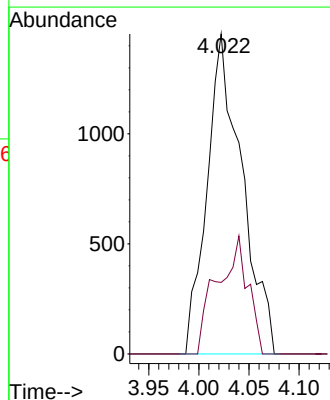
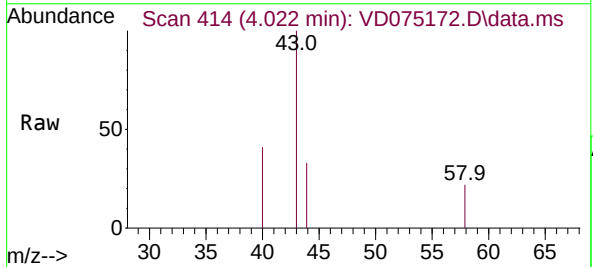
Instrument :
MSVOA_D
ClientSampleId :
B-P34A

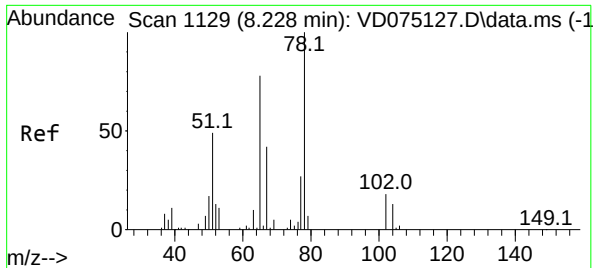
Tgt Ion:168 Resp: 67921
Ion Ratio Lower Upper
168 100
99 56.2 45.2 67.8



#16
Acetone
Concen: 19.234 ug/l
RT: 4.022 min Scan# 414
Delta R.T. -0.000 min
Lab File: VD075172.D
Acq: 23 Jan 2023 13:36

Tgt Ion: 43 Resp: 3516
Ion Ratio Lower Upper
43 100
58 22.4 26.0 39.0#





#33

1,2-Dichloroethane-d4

Concen: 58.487 ug/l

RT: 8.234 min Scan# 1129

Delta R.T. 0.006 min

Lab File: VD075172.D

Acq: 23 Jan 2023 13:36

Instrument :

MSVOA_D

ClientSampleId :

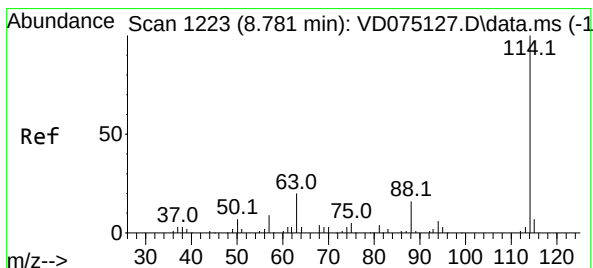
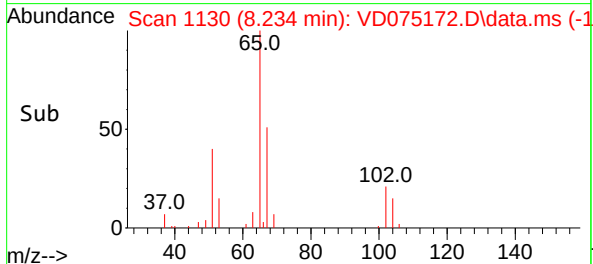
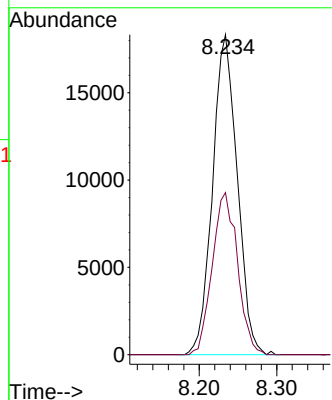
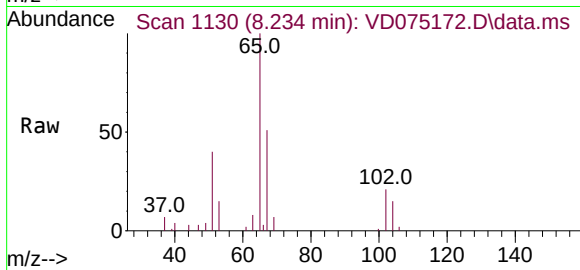
B-P34A

Tgt Ion: 65 Resp: 40536

Ion Ratio Lower Upper

65 100

67 51.8 0.0 105.2



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 1223

Delta R.T. -0.000 min

Lab File: VD075172.D

Acq: 23 Jan 2023 13:36

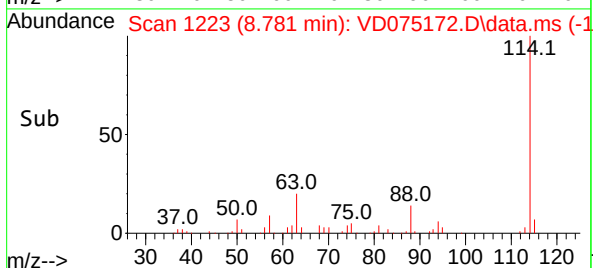
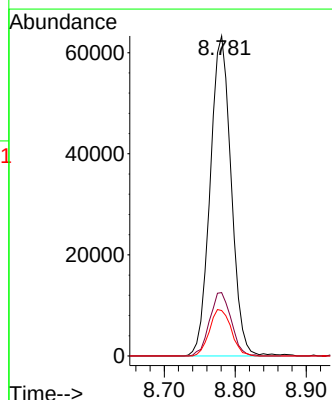
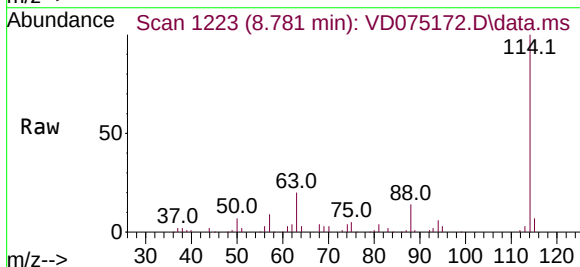
Tgt Ion: 114 Resp: 129748

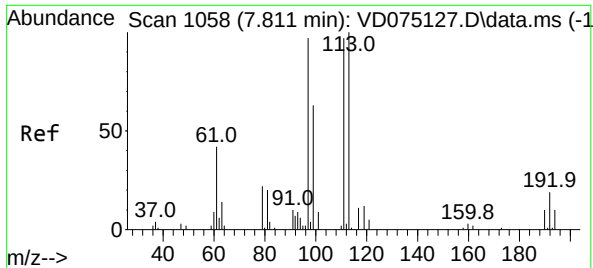
Ion Ratio Lower Upper

114 100

63 19.8 0.0 40.2

88 14.2 0.0 32.2





#35

Dibromofluoromethane

Concen: 51.386 ug/l

RT: 7.810 min Scan# 1058

Delta R.T. -0.000 min

Lab File: VD075172.D

Acq: 23 Jan 2023 13:36

Instrument :

MSVOA_D

ClientSampleId :

B-P34A

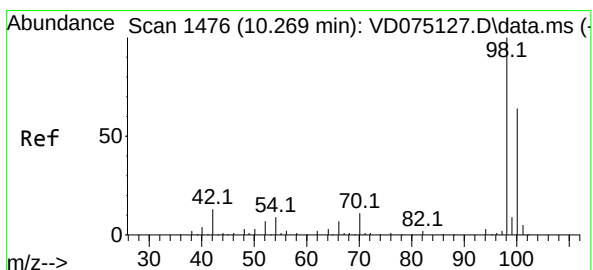
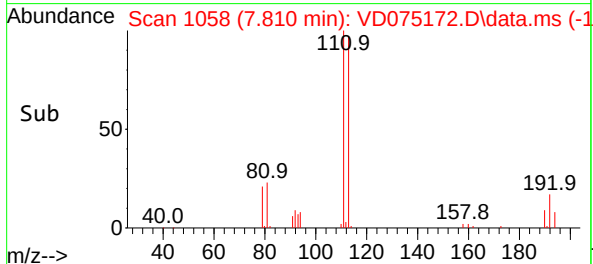
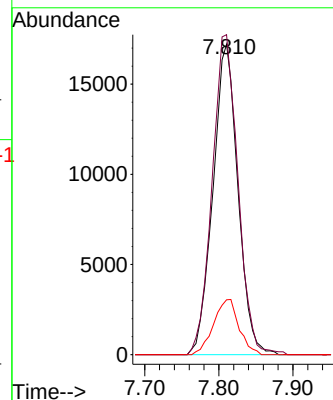
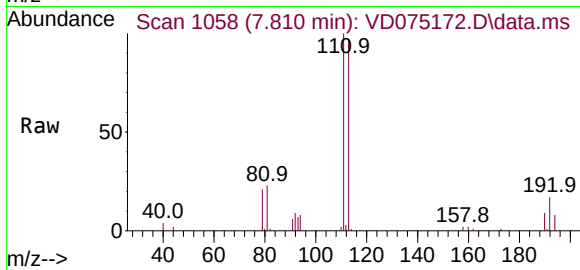
Tgt Ion:113 Resp: 40288

Ion Ratio Lower Upper

113 100

111 106.3 80.1 120.1

192 18.1 15.4 23.0



#50

Toluene-d8

Concen: 52.104 ug/l

RT: 10.275 min Scan# 1477

Delta R.T. 0.006 min

Lab File: VD075172.D

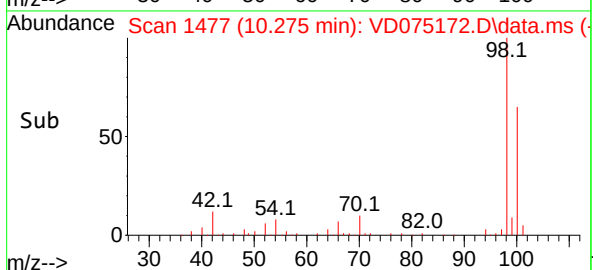
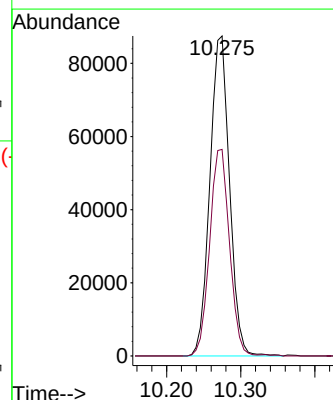
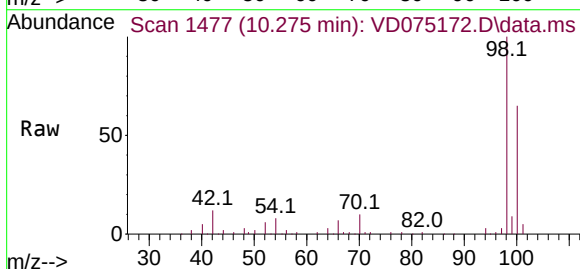
Acq: 23 Jan 2023 13:36

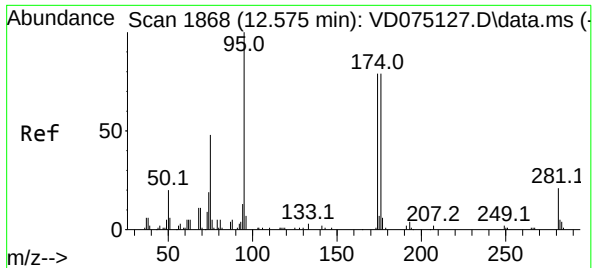
Tgt Ion: 98 Resp: 160846

Ion Ratio Lower Upper

98 100

100 65.4 52.7 79.1

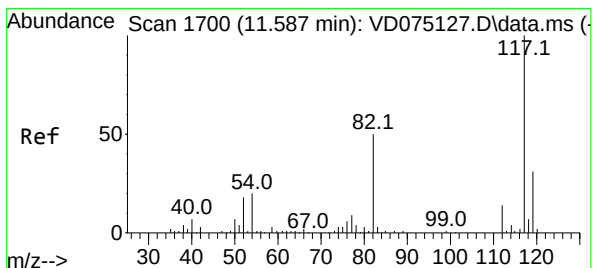
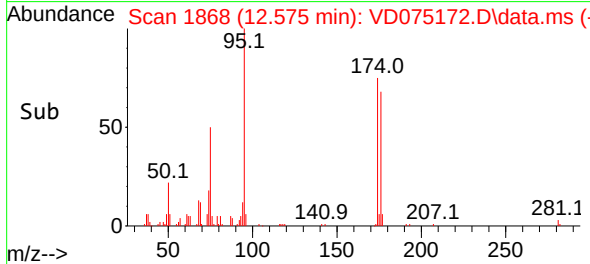
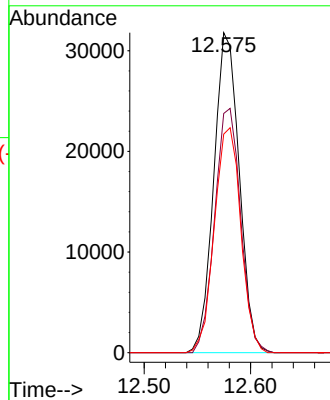
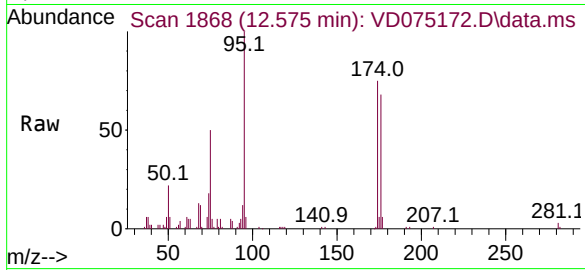




#62
4-Bromofluorobenzene
Concen: 53.784 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075172.D
Acq: 23 Jan 2023 13:36

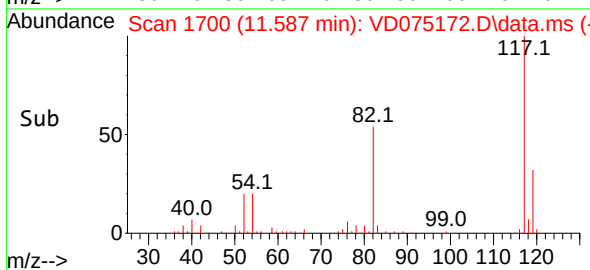
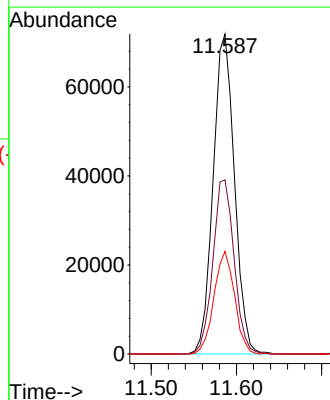
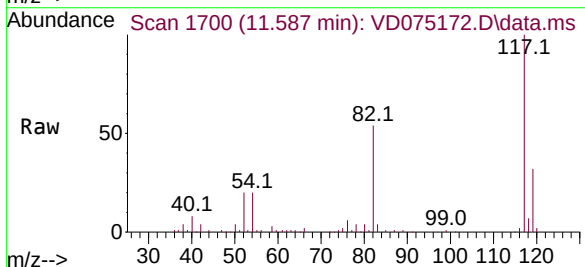
Instrument :
MSVOA_D
ClientSampleId :
B-P34A

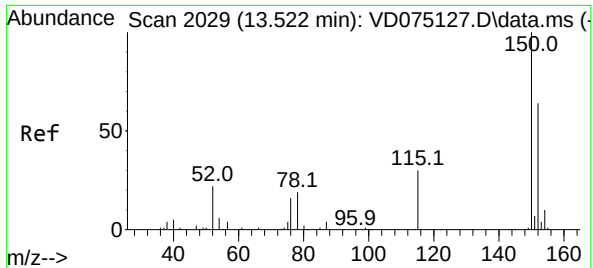
Tgt Ion: 95 Resp: 52693
Ion Ratio Lower Upper
95 100
174 78.0 0.0 161.2
176 73.1 0.0 160.2



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.587 min Scan# 1700
Delta R.T. -0.000 min
Lab File: VD075172.D
Acq: 23 Jan 2023 13:36

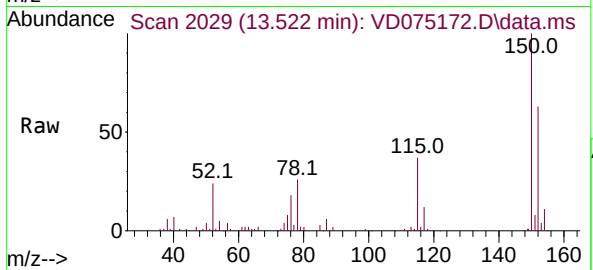
Tgt Ion: 117 Resp: 124838
Ion Ratio Lower Upper
117 100
82 54.4 39.6 59.4
119 32.1 24.6 37.0



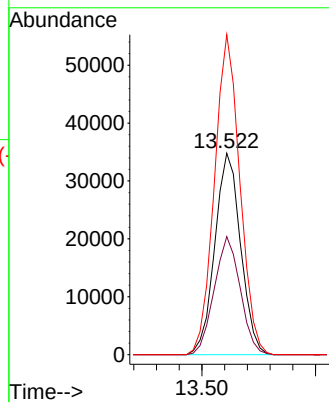
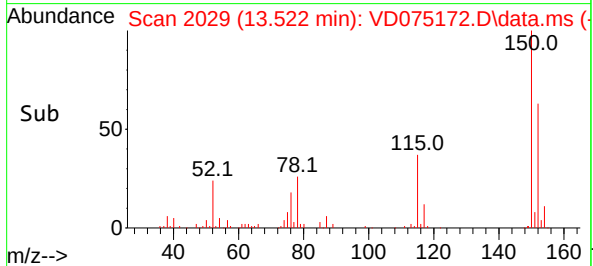


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.522 min Scan# 20
Delta R.T. -0.000 min
Lab File: VD075172.D
Acq: 23 Jan 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
B-P34A



Tgt Ion:152 Resp: 54879
Ion Ratio Lower Upper
152 100
115 59.0 28.8 86.4
150 156.4 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075172.D
 Acq On : 23 Jan 2023 13:36
 Operator : KP/SY
 Sample : 01233-02
 Misc : 5.07G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P34A

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075172.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	11	24	34	rBV	250898	467578	100.00%	16.625%
2	4.805	537	547	558	rBV3	5826	17687	3.78%	0.629%
3	7.069	921	932	944	rBV	32513	98438	21.05%	3.500%
4	7.810	1049	1058	1063	rBV2	57191	134461	28.76%	4.781%
5	7.875	1063	1069	1081	rVB	89922	206325	44.13%	7.336%
6	8.234	1121	1130	1139	rVB	51856	117833	25.20%	4.189%
7	8.781	1212	1223	1234	rBV	144736	300366	64.24%	10.679%
8	10.269	1468	1476	1485	rBV	230028	424403	90.77%	15.089%
9	10.669	1538	1544	1550	rBV2	4735	8430	1.80%	0.300%
10	11.034	1599	1606	1614	rBV	26222	42032	8.99%	1.494%
11	11.587	1692	1700	1712	rVB	219054	377637	80.76%	13.427%
12	12.575	1862	1868	1877	rVB	158690	268149	57.35%	9.534%
13	12.910	1922	1925	1929	rVB4	4017	5216	1.12%	0.185%
14	13.522	2022	2029	2036	rBV	218566	344026	73.58%	12.232%

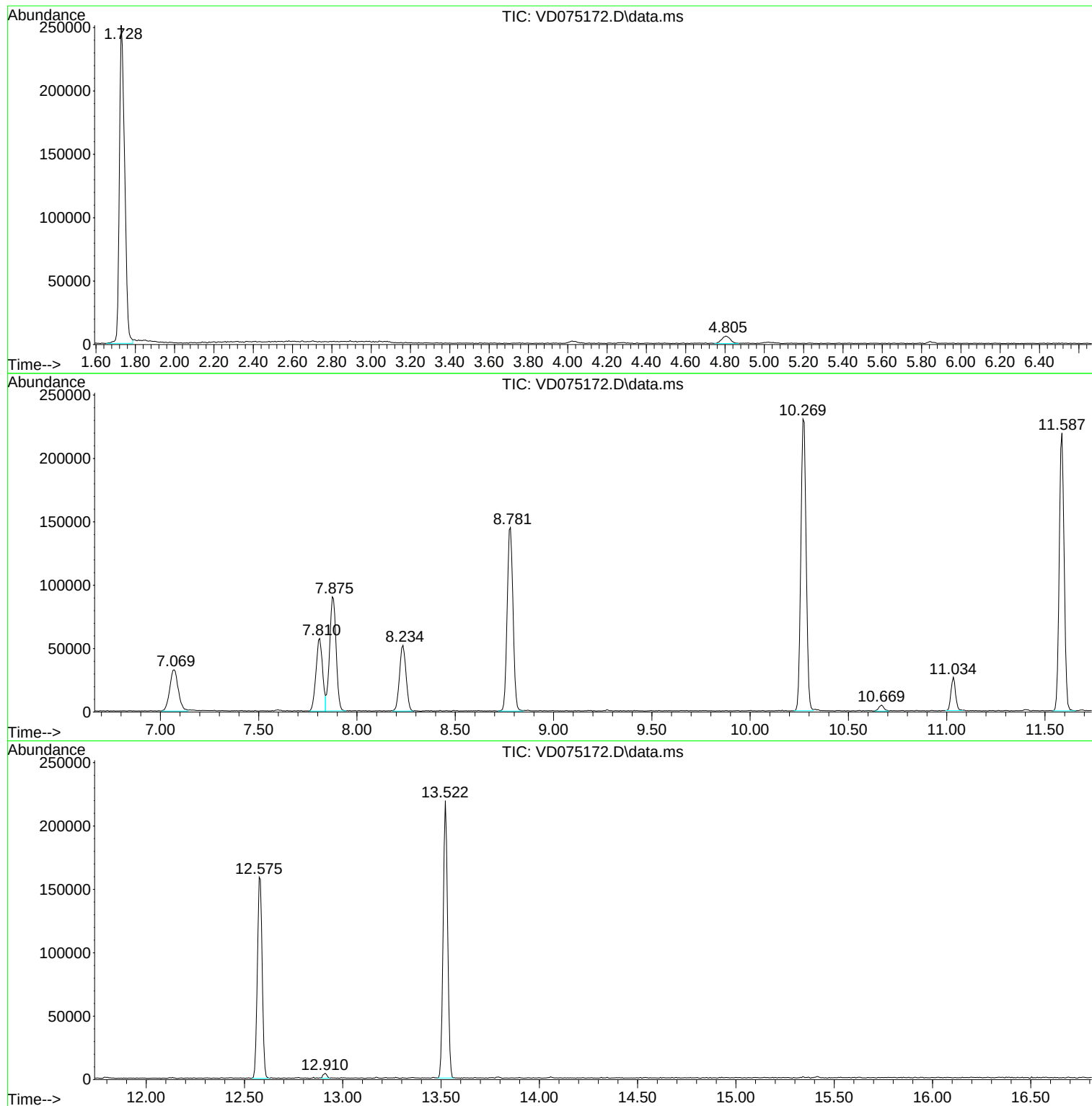
Sum of corrected areas: 2812581

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075172.D
Acq On : 23 Jan 2023 13:36
Operator : KP/SY
Sample : 01233-02
Misc : 5.07G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075172.D
Acq On : 23 Jan 2023 13:36
Operator : KP/SY
Sample : 01233-02
Misc : 5.07G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

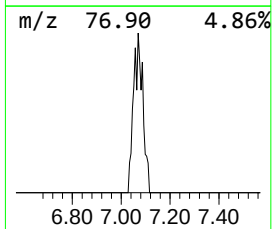
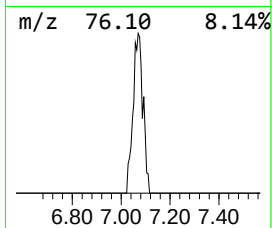
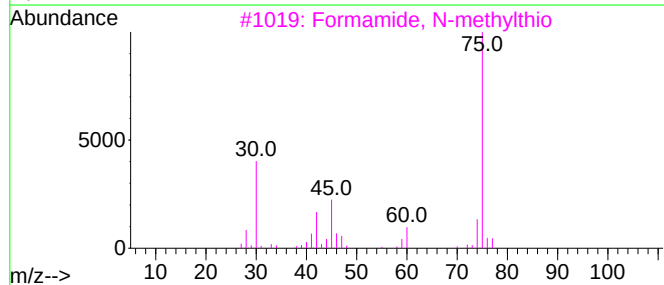
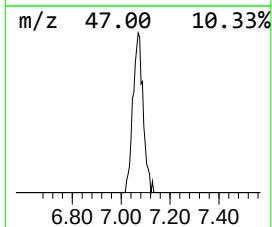
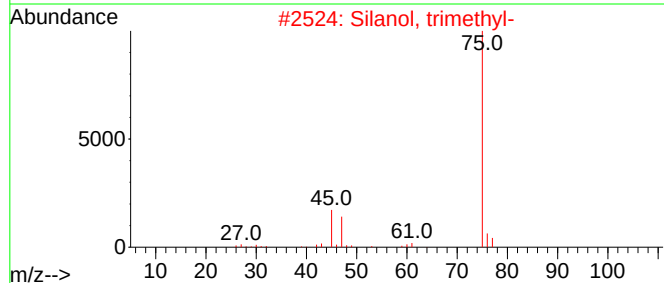
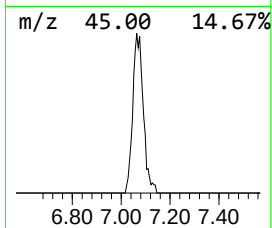
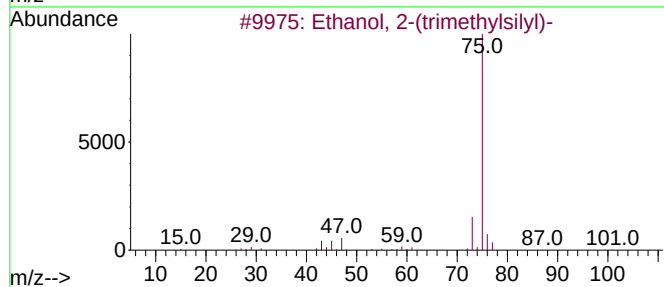
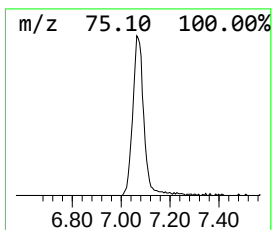
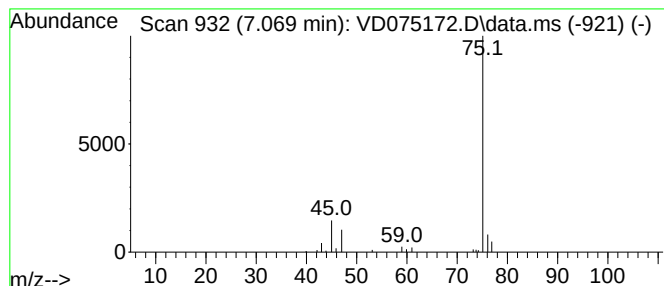
Instrument :
MSVOA_D
ClientSampleId :
B-P34A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 Ethanol, 2-(trimethylsilyl)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.	
7.069	23.86 ug/l	98438	Pentafluorobenzene	7.881	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	78
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	64
3	Formamide, N-methylthio	75	C2H5NS	018952-41-5	39
4	Ethanethioamide	75	C2H5NS	000062-55-5	9
5	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	4



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075172.D
Acq On : 23 Jan 2023 13:36
Operator : KP/SY
Sample : 01233-02
Misc : 5.07G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34A

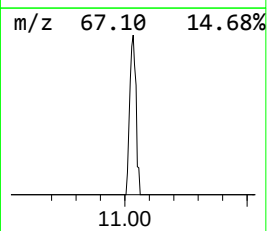
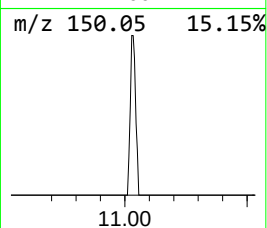
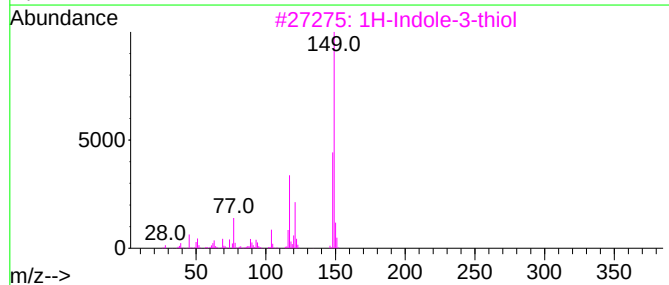
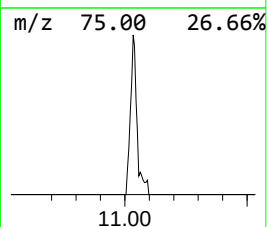
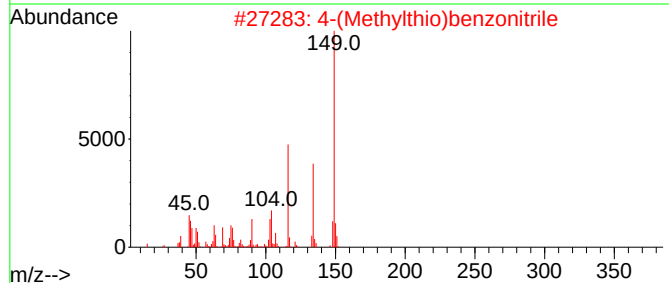
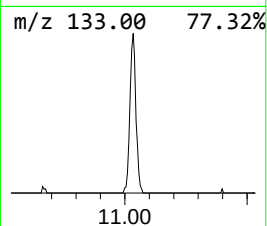
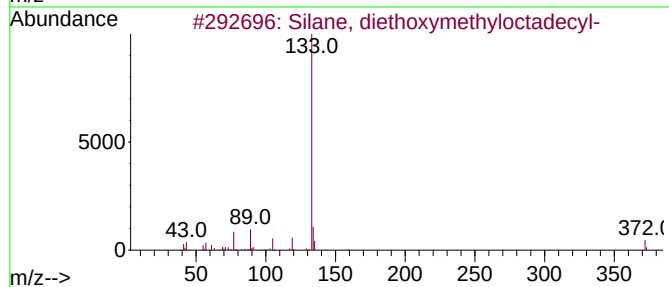
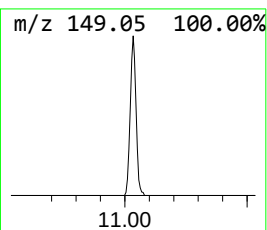
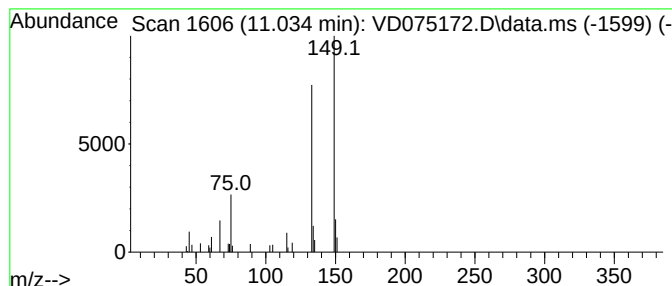
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 3 unknown11.034 Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.034	5.57 ug/l	42032	Chlorobenzene-d5	11.587

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Silane, diethoxymethyloctadecyl-	386	C23H50O2Si	067859-75-0	25
2			4-(Methylthio)benzonitrile	149	C8H7NS	021382-98-9	17
3			1H-Indole-3-thiol	149	C8H7NS	000480-94-4	17
4			2,4,6-Trimethylbenzyl mercaptan,...	238	C13H22SSi	1000469-60-9	17
5			Benzothiazole, 2-methyl-	149	C8H7NS	000120-75-2	16



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075172.D
Acq On : 23 Jan 2023 13:36
Operator : KP/SY
Sample : 01233-02
Misc : 5.07G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Ethanol, 2-(tri...	7.069	23.9	ug/l	98438	1	7.881	206325	50.0
unknown11.034	11.034	5.6	ug/l	42032	3	11.587	377637	50.0



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.7
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075173.D	1		01/23/23 14:04	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.94	U	0.94	5.40	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.40	ug/Kg
75-01-4	Vinyl Chloride	0.99	U	0.99	5.40	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.40	ug/Kg
75-00-3	Chloroethane	0.97	U	0.97	5.40	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.78	U	0.78	5.40	ug/Kg
75-35-4	1,1-Dichloroethene	0.94	U	0.94	5.40	ug/Kg
67-64-1	Acetone	13.3	U	13.3	27.2	ug/Kg
75-15-0	Carbon Disulfide	0.82	U	0.82	5.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.40	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.40	ug/Kg
75-09-2	Methylene Chloride	6.50	U	6.50	10.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
75-34-3	1,1-Dichloroethane	0.76	U	0.76	5.40	ug/Kg
110-82-7	Cyclohexane	0.92	U	0.92	5.40	ug/Kg
78-93-3	2-Butanone	7.90	U	7.90	27.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.86	U	0.86	5.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
74-97-5	Bromochloromethane	0.88	U	0.88	5.40	ug/Kg
67-66-3	Chloroform	0.73	U	0.73	5.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.82	U	0.82	5.40	ug/Kg
108-87-2	Methylcyclohexane	0.87	U	0.87	5.40	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.40	ug/Kg
107-06-2	1,2-Dichloroethane	0.92	U	0.92	5.40	ug/Kg
79-01-6	Trichloroethene	0.80	U	0.80	5.40	ug/Kg
78-87-5	1,2-Dichloropropane	0.71	U	0.71	5.40	ug/Kg
75-27-4	Bromodichloromethane	0.76	U	0.76	5.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.00	U	5.00	27.2	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.81	U	0.81	5.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.77	U	0.77	5.40	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.7
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075173.D	1		01/23/23 14:04	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.94	U	0.94	5.40	ug/Kg
591-78-6	2-Hexanone	5.10	U	5.10	27.2	ug/Kg
124-48-1	Dibromochloromethane	0.82	U	0.82	5.40	ug/Kg
106-93-4	1,2-Dibromoethane	0.82	U	0.82	5.40	ug/Kg
127-18-4	Tetrachloroethene	0.83	U	0.83	5.40	ug/Kg
108-90-7	Chlorobenzene	0.71	U	0.71	5.40	ug/Kg
100-41-4	Ethyl Benzene	0.76	U	0.76	5.40	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	10.9	ug/Kg
95-47-6	o-Xylene	0.86	U	0.86	5.40	ug/Kg
100-42-5	Styrene	0.86	U	0.86	5.40	ug/Kg
75-25-2	Bromoform	0.88	U	0.88	5.40	ug/Kg
98-82-8	Isopropylbenzene	0.78	U	0.78	5.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.73	U	0.73	5.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.69	U	0.69	5.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.70	U	0.70	5.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	66.4		50 - 163	133%	SPK: 50
1868-53-7	Dibromofluoromethane	53.5		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	52.7		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.2		30 - 143	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	49100	7.881			
540-36-3	1,4-Difluorobenzene	95000	8.781			
3114-55-4	Chlorobenzene-d5	93600	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	41800	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
001066-40-6	Silanol, trimethyl-	24.0	J		7.07	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.7
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075173.D	1		01/23/23 14:04	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075173.D
 Acq On : 23 Jan 2023 14:04
 Operator : KP/SY
 Sample : 01233-03
 Misc : 5.06G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P34B

Quant Time: Jan 23 14:11:08 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.881	168	49085	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	95032	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	93578	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	41757	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	33237	66.358	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 132.720%	
35) Dibromofluoromethane	7.804	113	30709	53.477	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 106.960%	
50) Toluene-d8	10.269	98	119243	52.738	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 105.480%	
62) 4-Bromofluorobenzene	12.575	95	40309	56.173	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 112.340%	

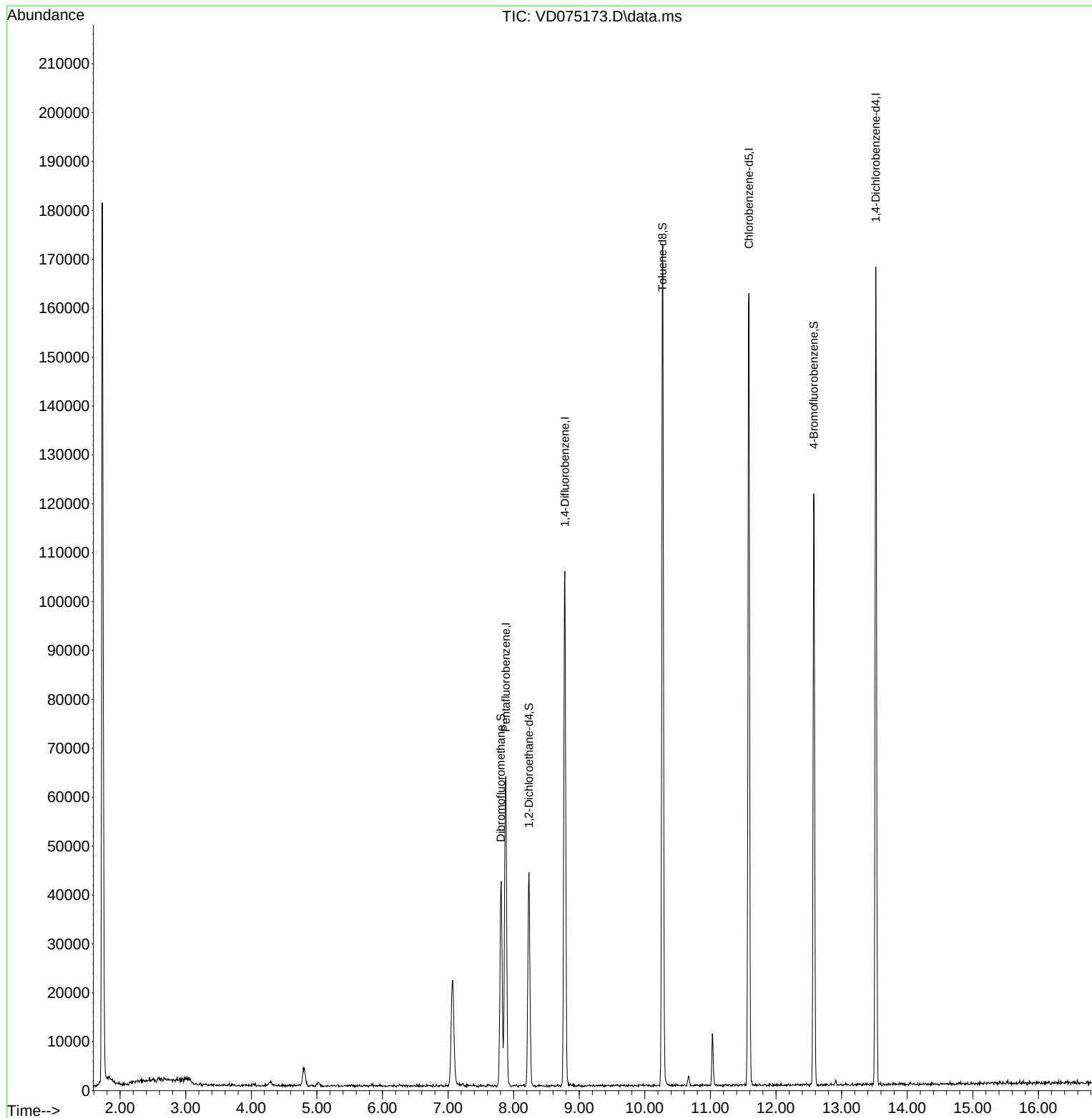
Target Compounds	Qvalue

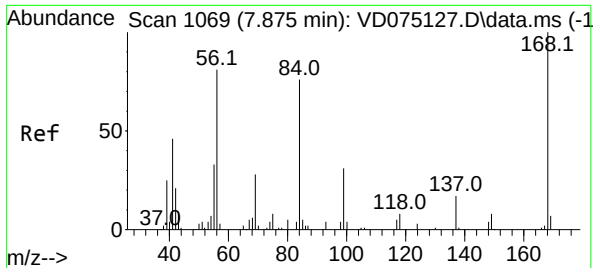
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075173.D
Acq On : 23 Jan 2023 14:04
Operator : KP/SY
Sample : 01233-03
Misc : 5.06G/5.00ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34B

Quant Time: Jan 23 14:11:08 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

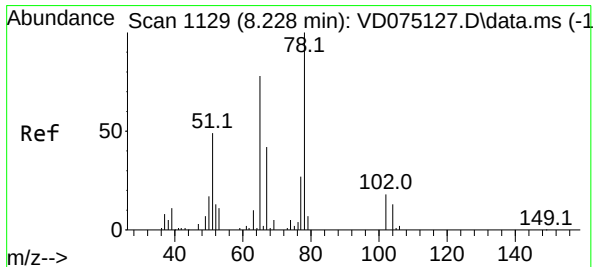
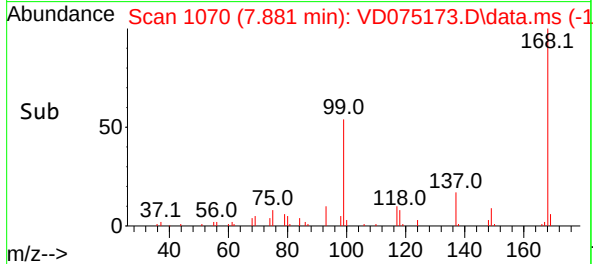
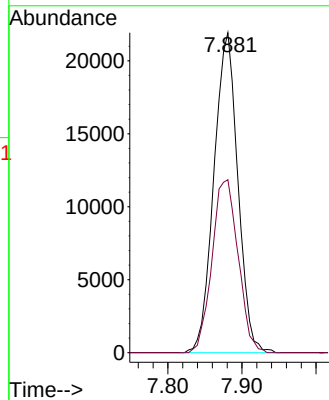
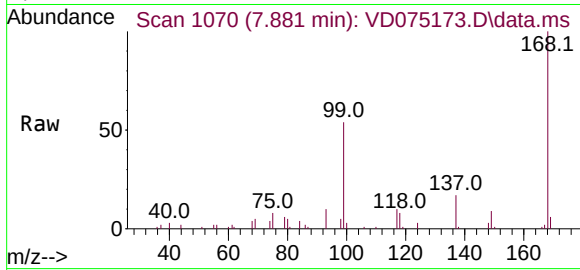




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.881 min Scan# 110
Delta R.T. 0.006 min
Lab File: VD075173.D
Acq: 23 Jan 2023 14:04

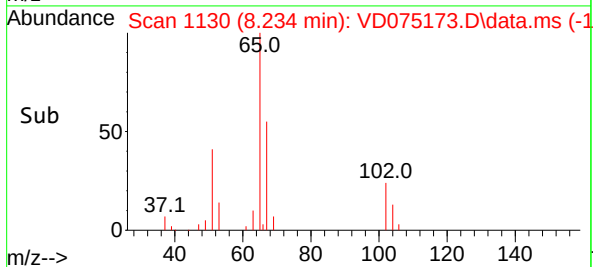
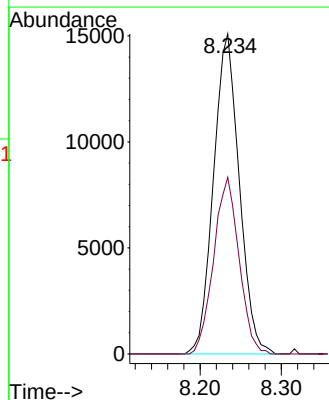
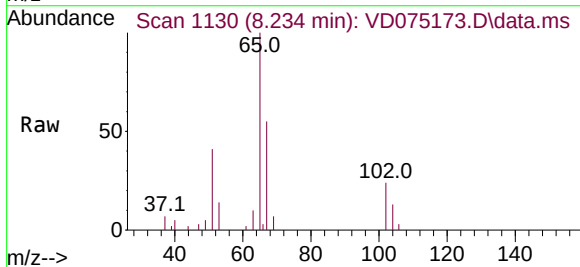
Instrument :
MSVOA_D
ClientSampleId :
B-P34B

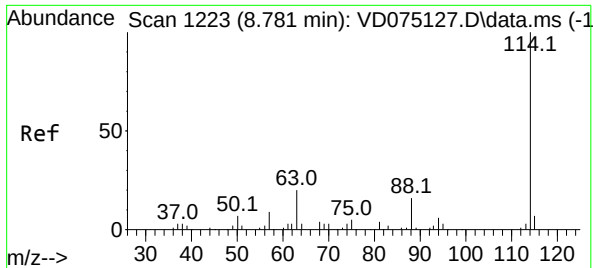
Tgt Ion:168 Resp: 49085
Ion Ratio Lower Upper
168 100
99 54.1 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 66.358 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.006 min
Lab File: VD075173.D
Acq: 23 Jan 2023 14:04

Tgt Ion: 65 Resp: 33237
Ion Ratio Lower Upper
65 100
67 54.3 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 1

Delta R.T. -0.000 min

Lab File: VD075173.D

Acq: 23 Jan 2023 14:04

Instrument :

MSVOA_D

ClientSampleId :

B-P34B

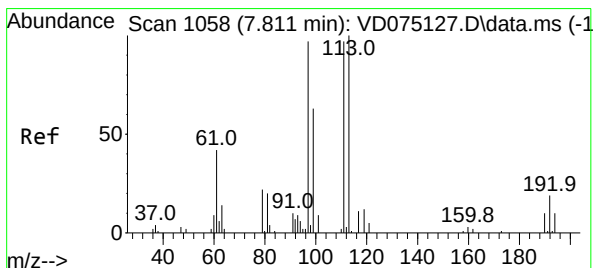
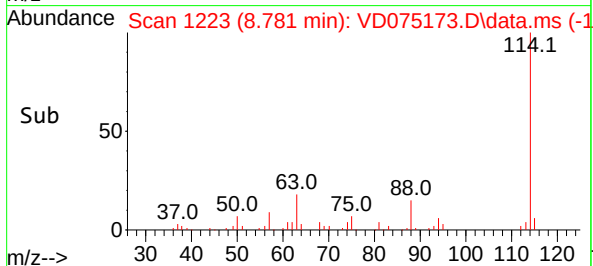
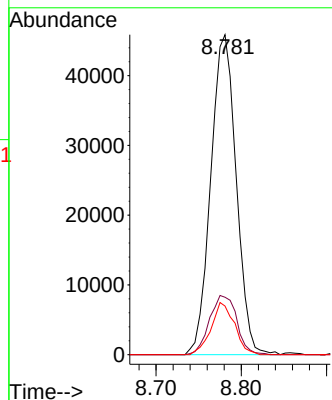
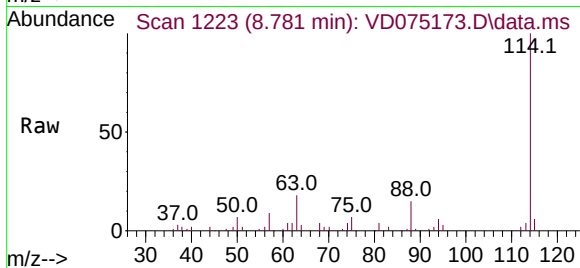
Tgt Ion:114 Resp: 95032

Ion Ratio Lower Upper

114 100

63 17.9 0.0 40.2

88 15.2 0.0 32.2



#35

Dibromofluoromethane

Concen: 53.477 ug/l

RT: 7.804 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075173.D

Acq: 23 Jan 2023 14:04

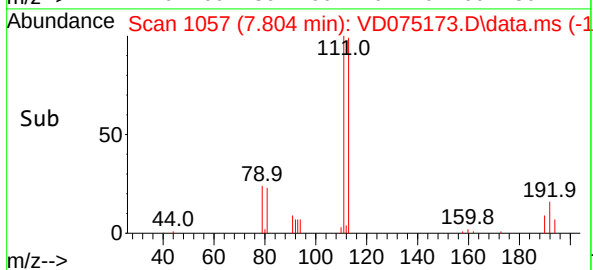
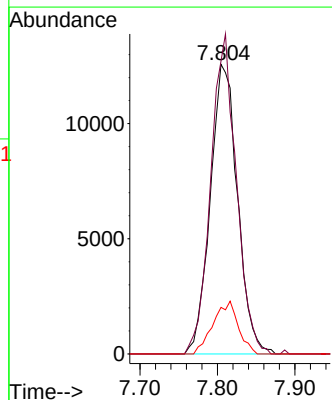
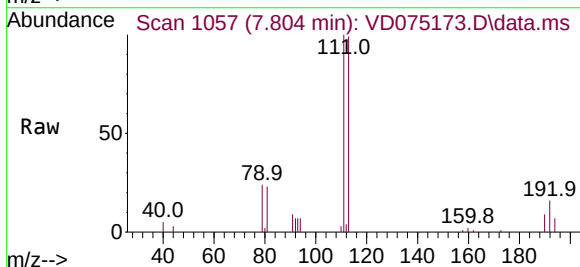
Tgt Ion:113 Resp: 30709

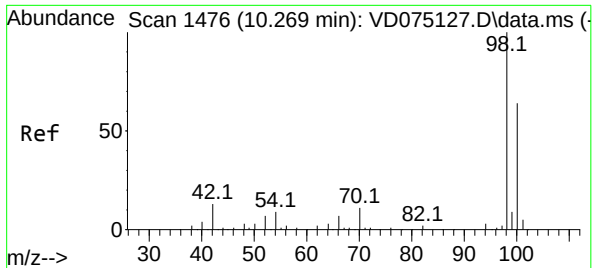
Ion Ratio Lower Upper

113 100

111 103.9 80.1 120.1

192 16.8 15.4 23.0

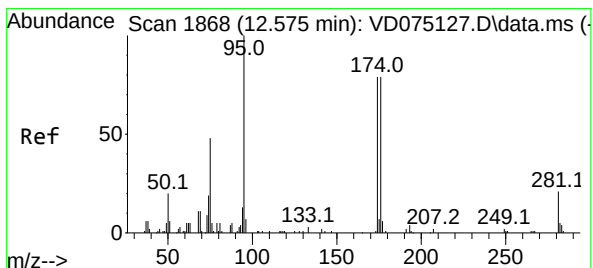
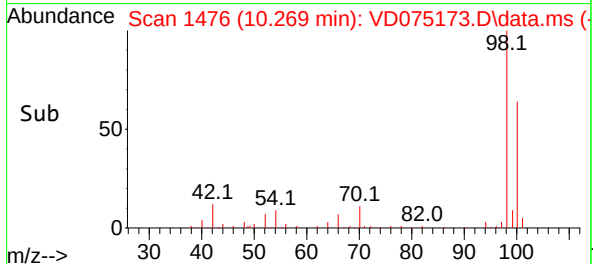
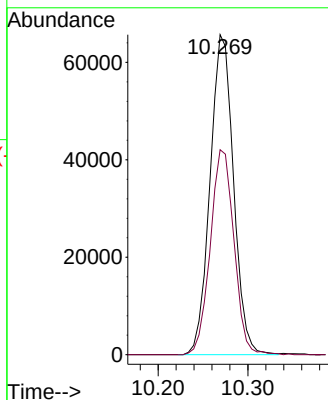
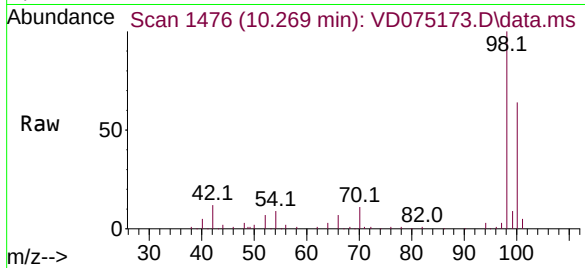




#50
Toluene-d8
Concen: 52.738 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD075173.D
Acq: 23 Jan 2023 14:04

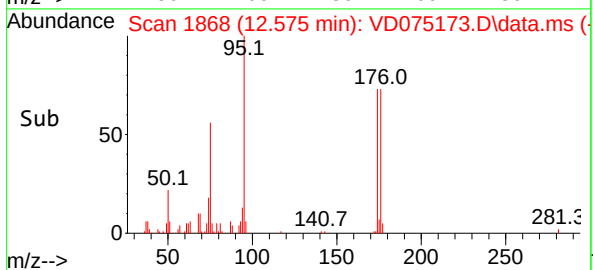
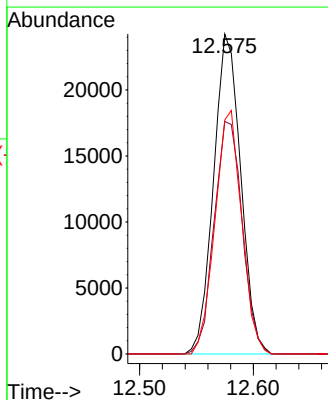
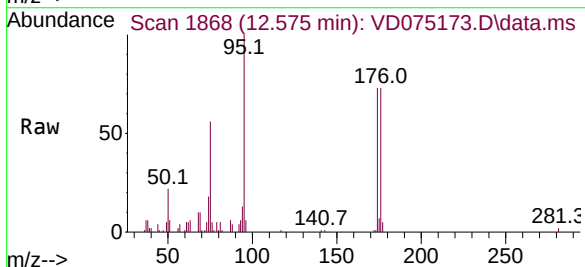
Instrument :
MSVOA_D
ClientSampleId :
B-P34B

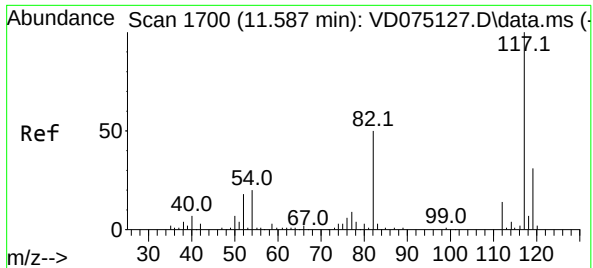
Tgt Ion: 98 Resp: 119243
Ion Ratio Lower Upper
98 100
100 64.6 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 56.173 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075173.D
Acq: 23 Jan 2023 14:04

Tgt Ion: 95 Resp: 40309
Ion Ratio Lower Upper
95 100
174 75.1 0.0 161.2
176 74.7 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.587 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075173.D

Acq: 23 Jan 2023 14:04

Instrument :

MSVOA_D

ClientSampleId :

B-P34B

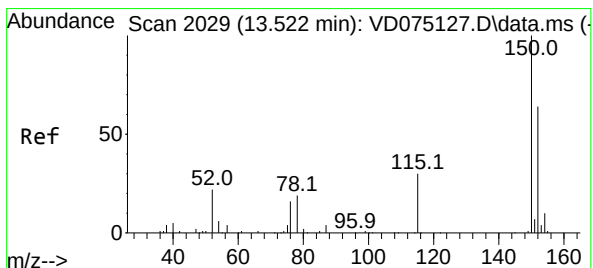
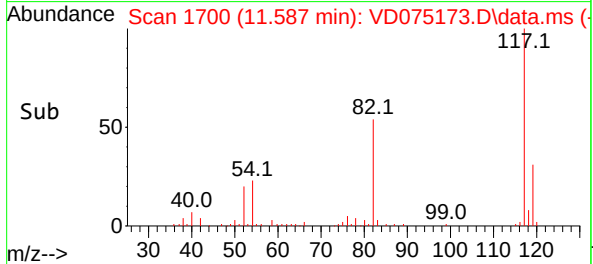
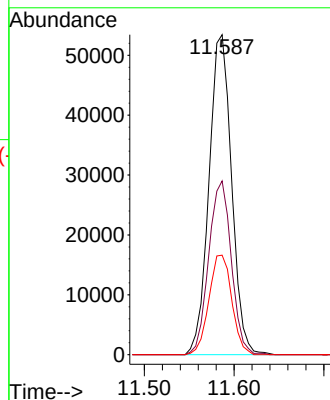
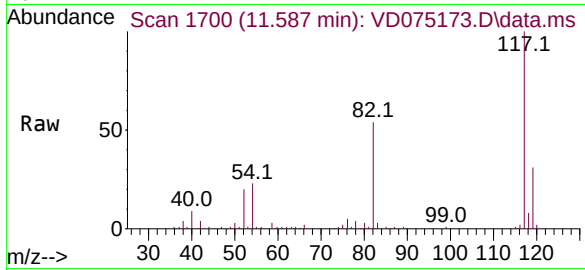
Tgt Ion:117 Resp: 93578

Ion Ratio Lower Upper

117 100

82 54.3 39.6 59.4

119 31.1 24.6 37.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 2029

Delta R.T. -0.000 min

Lab File: VD075173.D

Acq: 23 Jan 2023 14:04

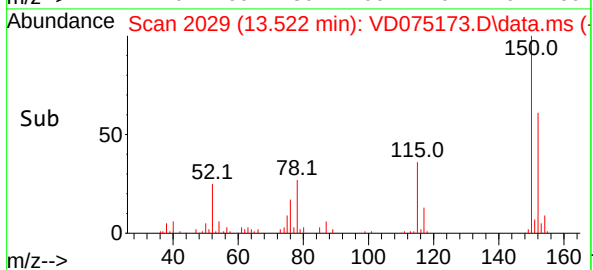
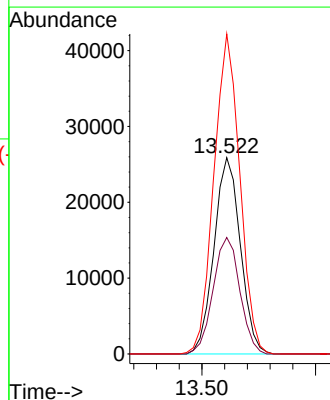
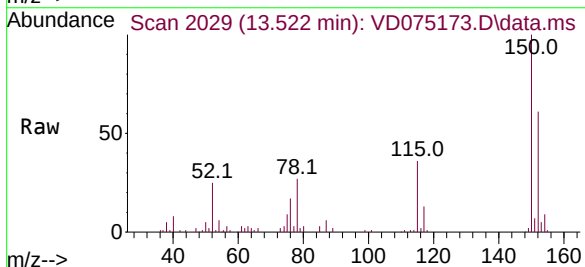
Tgt Ion:152 Resp: 41757

Ion Ratio Lower Upper

152 100

115 60.1 28.8 86.4

150 159.8 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075173.D
 Acq On : 23 Jan 2023 14:04
 Operator : KP/SY
 Sample : 01233-03
 Misc : 5.06G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P34B

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075173.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	36	rBV	179921	305378	97.59%	15.091%
2	4.793	538	545	546	rBV2	3694	4973	1.59%	0.246%
3	4.811	546	548	553	rVB3	3334	4584	1.46%	0.227%
4	7.069	921	932	944	rBV2	21676	65760	21.01%	3.250%
5	7.810	1046	1058	1063	rBV2	42040	100672	32.17%	4.975%
6	7.881	1063	1070	1084	rVB	63489	148964	47.60%	7.361%
7	8.234	1119	1130	1138	rBV2	43831	97307	31.10%	4.809%
8	8.781	1214	1223	1234	rVB	105230	217033	69.36%	10.725%
9	10.269	1469	1476	1488	rBV	172279	312926	100.00%	15.464%
10	10.669	1538	1544	1548	rBV4	2053	3793	1.21%	0.187%
11	11.028	1600	1605	1614	rBV2	10631	16423	5.25%	0.812%
12	11.587	1692	1700	1706	rBV	162055	281414	89.93%	13.907%
13	12.575	1862	1868	1877	rVB	121091	199849	63.86%	9.876%
14	13.522	2022	2029	2036	rBV	167261	264521	84.53%	13.072%

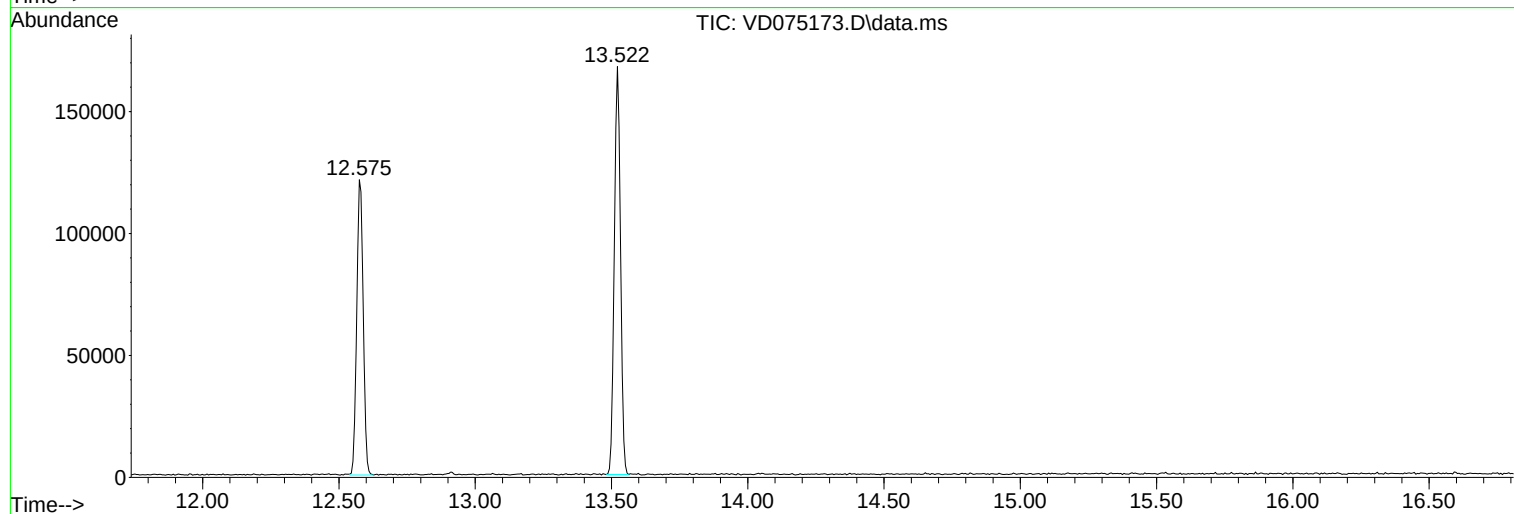
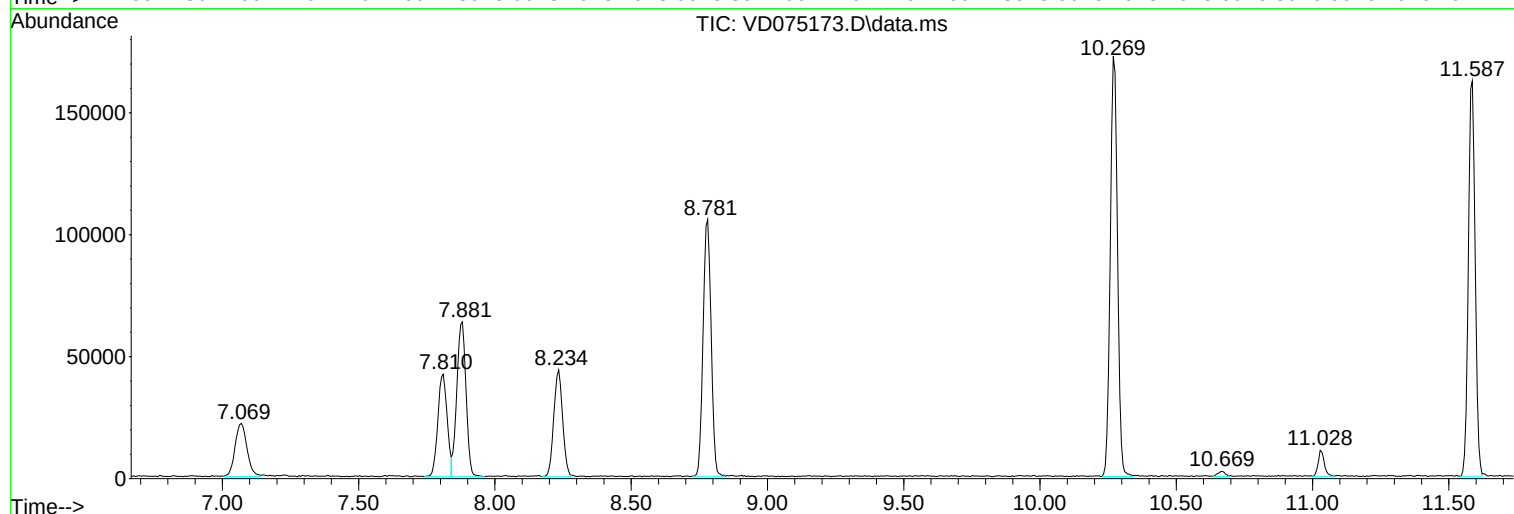
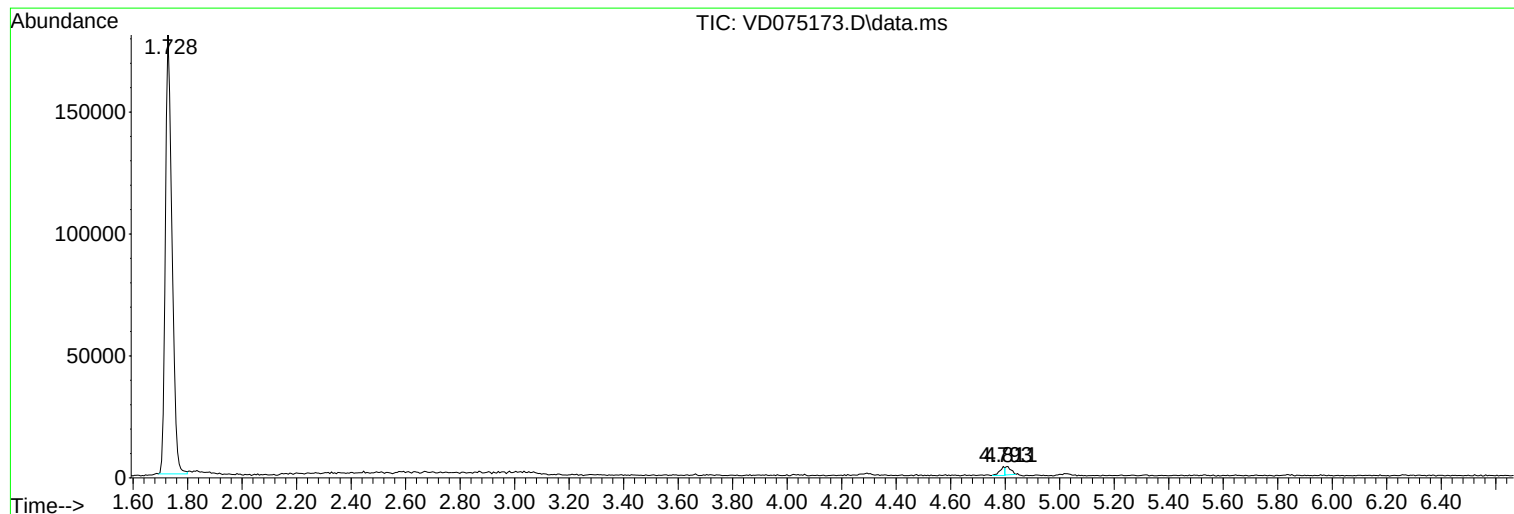
Sum of corrected areas: 2023597

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075173.D
Acq On : 23 Jan 2023 14:04
Operator : KP/SY
Sample : 01233-03
Misc : 5.06G/5.00ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075173.D
Acq On : 23 Jan 2023 14:04
Operator : KP/SY
Sample : 01233-03
Misc : 5.06G/5.00ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34B

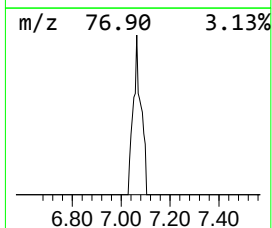
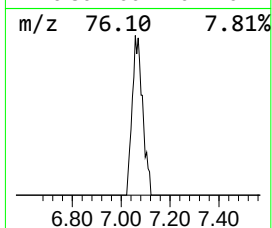
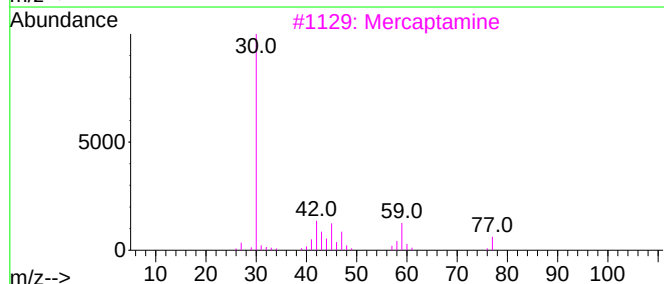
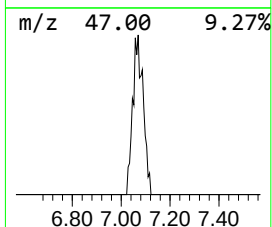
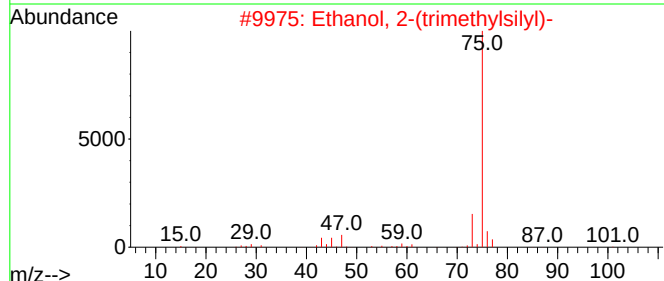
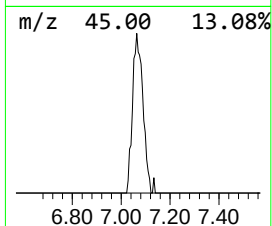
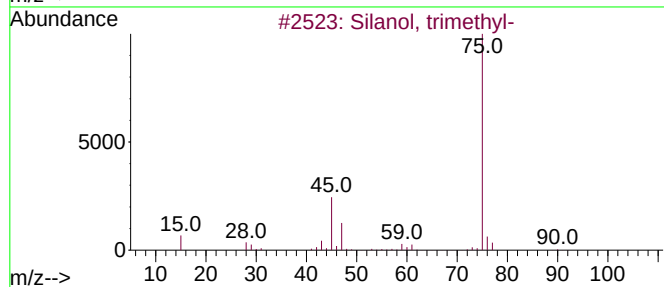
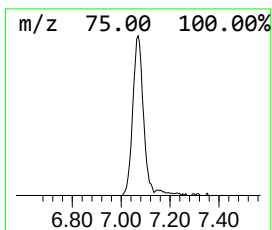
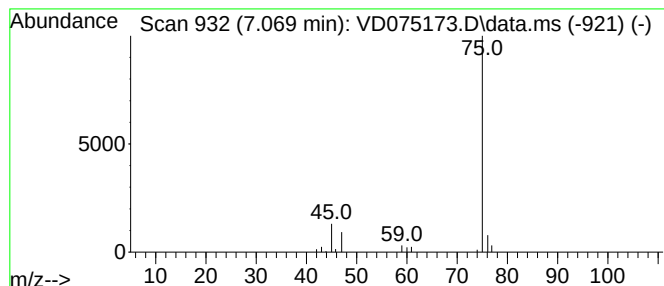
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 Silanol, trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.069	22.07 ug/l	65760	Pentafluorobenzene	7.881

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Silanol, trimethyl-	90	C3H10OSi	001066-40-6	83
2			Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	9
3			Mercaptamine	77	C2H7NS	000060-23-1	7
4			Formamide, N-methylthio	75	C2H5NS	018952-41-5	7
5			Ethanethioamide	75	C2H5NS	000062-55-5	5



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075173.D
Acq On : 23 Jan 2023 14:04
Operator : KP/SY
Sample : 01233-03
Misc : 5.06G/5.00ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P34B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Silanol, trimet...	7.069	22.1	ug/l	65760	1	7.881	148964	50.0



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.6
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075174.D	1		01/23/23 14:32	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.95	U	0.95	5.50	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.50	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.50	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.50	ug/Kg
75-00-3	Chloroethane	0.99	U	0.99	5.50	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	0.80	5.50	ug/Kg
75-35-4	1,1-Dichloroethene	0.95	U	0.95	5.50	ug/Kg
67-64-1	Acetone	17.6	J	13.5	27.7	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.50	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.50	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
75-34-3	1,1-Dichloroethane	0.78	U	0.78	5.50	ug/Kg
110-82-7	Cyclohexane	0.93	U	0.93	5.50	ug/Kg
78-93-3	2-Butanone	8.10	U	8.10	27.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.88	U	0.88	5.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
74-97-5	Bromochloromethane	0.90	U	0.90	5.50	ug/Kg
67-66-3	Chloroform	0.74	U	0.74	5.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.50	ug/Kg
108-87-2	Methylcyclohexane	0.89	U	0.89	5.50	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.93	U	0.93	5.50	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.50	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.50	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.10	U	5.10	27.7	ug/Kg
108-88-3	Toluene	0.70	U	0.70	5.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.79	U	0.79	5.50	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.6
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075174.D	1		01/23/23 14:32	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.95	U	0.95	5.50	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.7	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.50	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.50	ug/Kg
127-18-4	Tetrachloroethene	0.84	U	0.84	5.50	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.50	ug/Kg
100-41-4	Ethyl Benzene	0.78	U	0.78	5.50	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.1	ug/Kg
95-47-6	o-Xylene	0.88	U	0.88	5.50	ug/Kg
100-42-5	Styrene	0.88	U	0.88	5.50	ug/Kg
75-25-2	Bromoform	0.90	U	0.90	5.50	ug/Kg
98-82-8	Isopropylbenzene	0.80	U	0.80	5.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.70	U	0.70	5.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.8		50 - 163	100%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		54 - 147	94%	SPK: 50
2037-26-5	Toluene-d8	51.5		58 - 134	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		30 - 143	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	88000	7.875			
540-36-3	1,4-Difluorobenzene	171000	8.781			
3114-55-4	Chlorobenzene-d5	158000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	64200	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
001066-40-6	Silanol, trimethyl-	9.90	J		7.07	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

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File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075174.D	1		01/23/23 14:32	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075174.D
 Acq On : 23 Jan 2023 14:32
 Operator : KP/SY
 Sample : 01233-04
 Misc : 5.03G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P36A

Quant Time: Jan 23 15:24:25 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

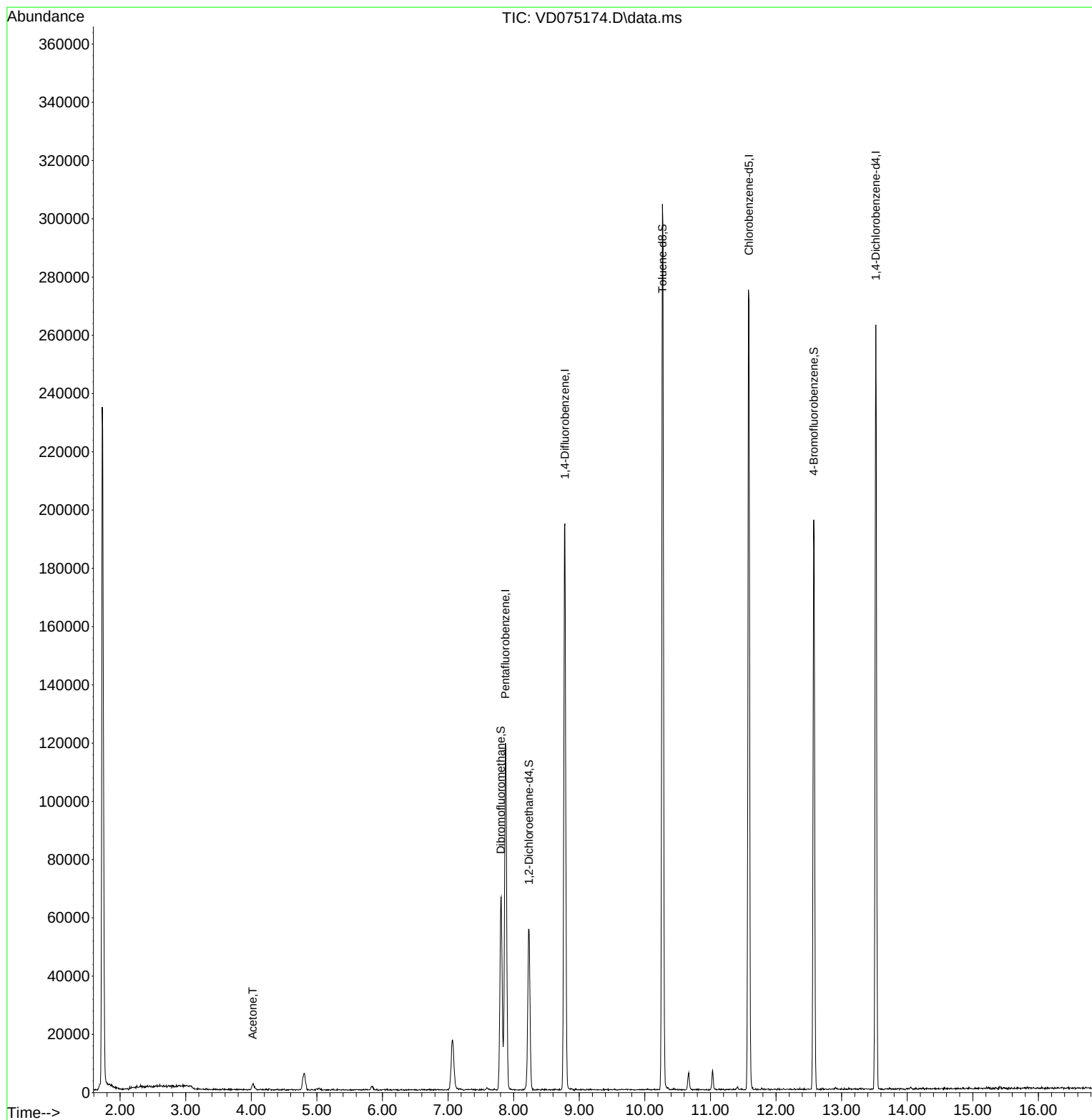
Internal Standards						
1) Pentafluorobenzene	7.875	168	87972	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	171041	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	157598	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	64243	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	44732	49.830	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	99.660%
35) Dibromofluoromethane	7.804	113	48680	47.100	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	94.200%
50) Toluene-d8	10.269	98	209398	51.456	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	102.920%
62) 4-Bromofluorobenzene	12.575	95	65265	50.533	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	101.060%
Target Compounds						
16) Acetone	4.022	43	3746	15.822	ug/l	Qvalue 93

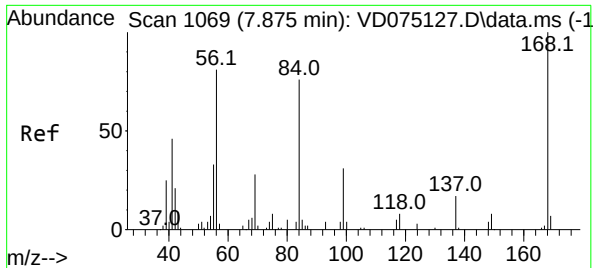
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075174.D
Acq On : 23 Jan 2023 14:32
Operator : KP/SY
Sample : 01233-04
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36A

Quant Time: Jan 23 15:24:25 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

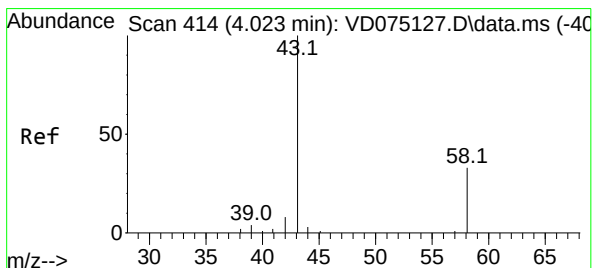
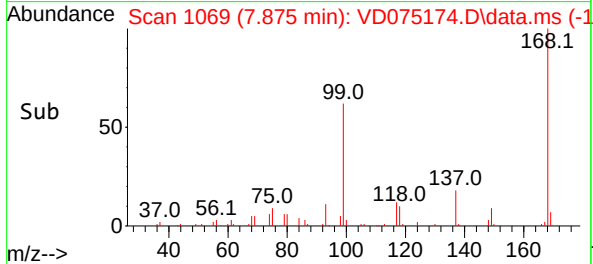
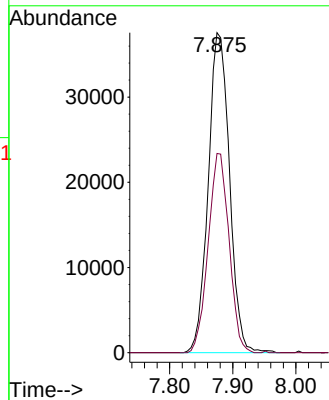
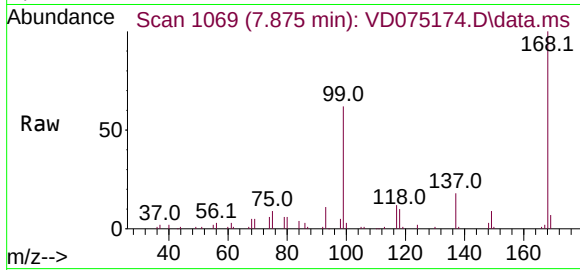




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1069
Delta R.T. -0.000 min
Lab File: VD075174.D
Acq: 23 Jan 2023 14:32

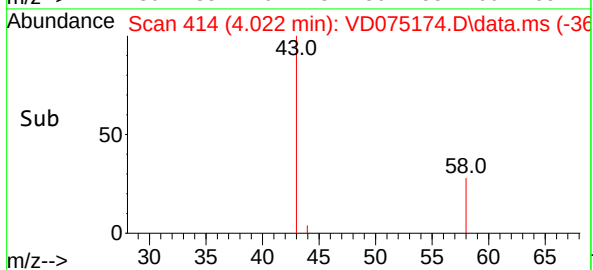
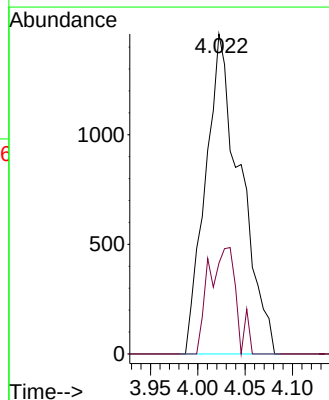
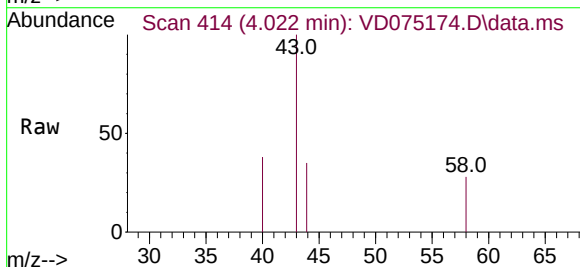
Instrument :
MSVOA_D
ClientSampleId :
B-P36A

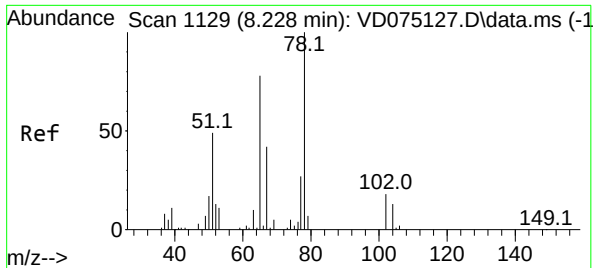
Tgt Ion: 168 Resp: 87972
Ion Ratio Lower Upper
168 100
99 62.2 45.2 67.8



#16
Acetone
Concen: 15.822 ug/l
RT: 4.022 min Scan# 414
Delta R.T. -0.000 min
Lab File: VD075174.D
Acq: 23 Jan 2023 14:32

Tgt Ion: 43 Resp: 3746
Ion Ratio Lower Upper
43 100
58 28.4 26.0 39.0





#33

1,2-Dichloroethane-d4

Concen: 49.830 ug/l

RT: 8.234 min Scan# 1129

Delta R.T. 0.006 min

Lab File: VD075174.D

Acq: 23 Jan 2023 14:32

Instrument :

MSVOA_D

ClientSampleId :

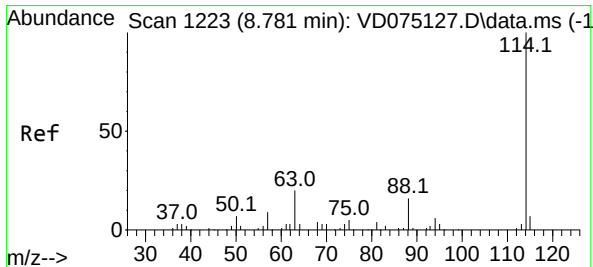
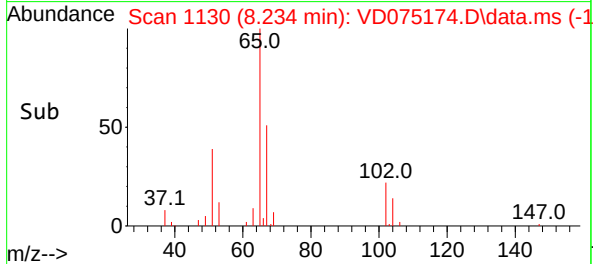
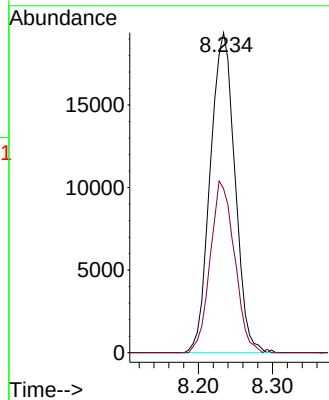
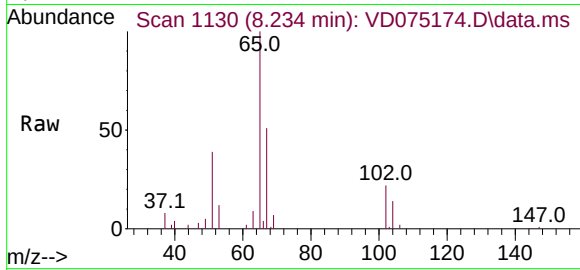
B-P36A

Tgt Ion: 65 Resp: 44732

Ion Ratio Lower Upper

65 100

67 53.0 0.0 105.2



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 1223

Delta R.T. -0.000 min

Lab File: VD075174.D

Acq: 23 Jan 2023 14:32

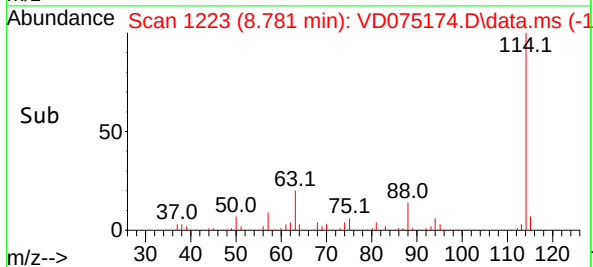
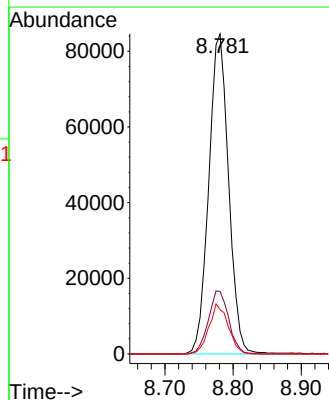
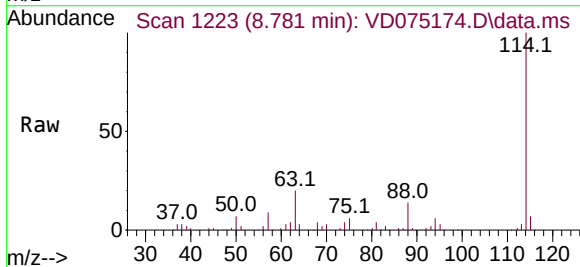
Tgt Ion: 114 Resp: 171041

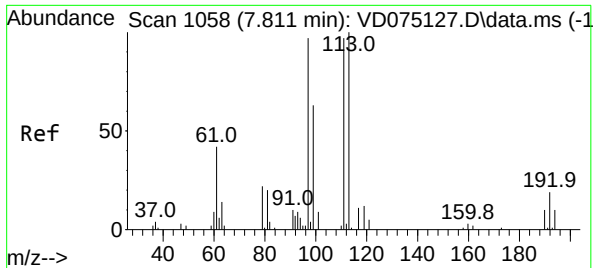
Ion Ratio Lower Upper

114 100

63 19.5 0.0 40.2

88 13.8 0.0 32.2





#35

Dibromofluoromethane

Concen: 47.100 ug/l

RT: 7.804 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075174.D

Acq: 23 Jan 2023 14:32

Instrument :

MSVOA_D

ClientSampleId :

B-P36A

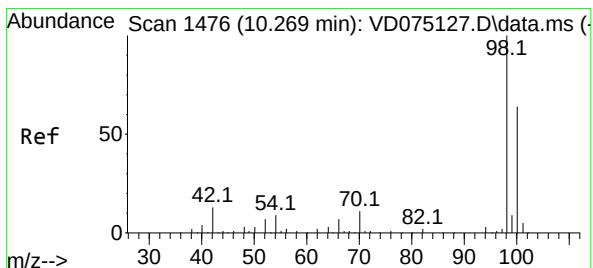
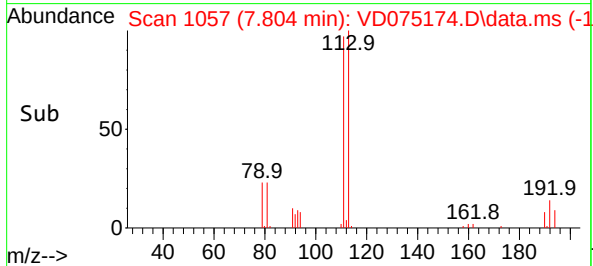
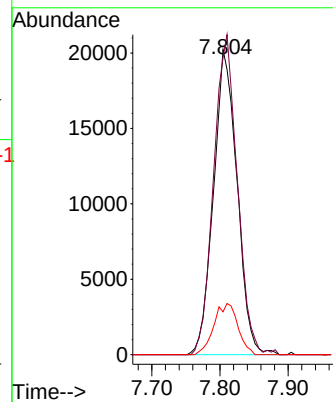
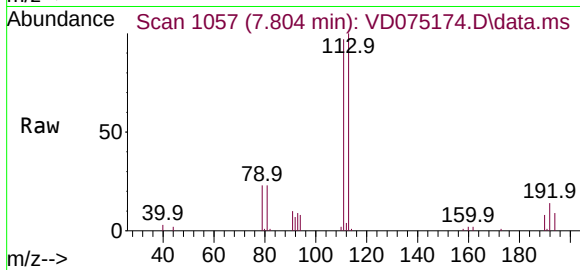
Tgt Ion:113 Resp: 48680

Ion Ratio Lower Upper

113 100

111 105.5 80.1 120.1

192 17.1 15.4 23.0



#50

Toluene-d8

Concen: 51.456 ug/l

RT: 10.269 min Scan# 1476

Delta R.T. -0.000 min

Lab File: VD075174.D

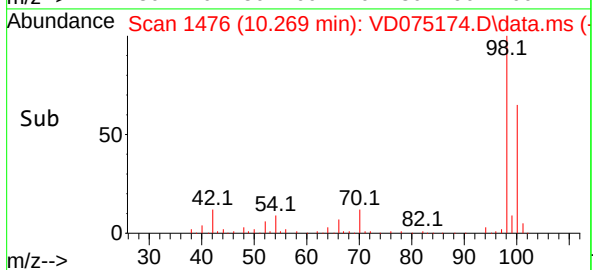
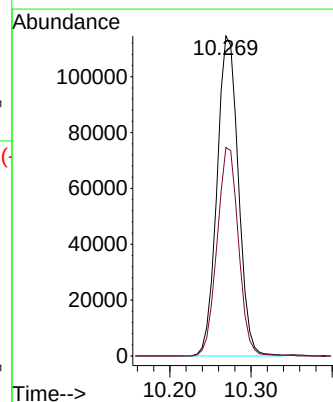
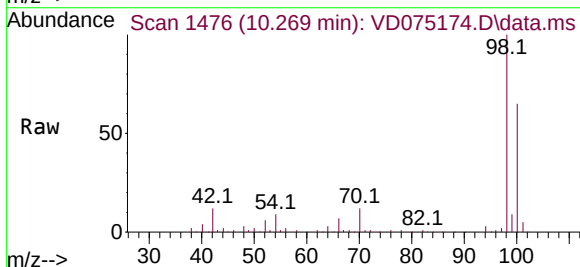
Acq: 23 Jan 2023 14:32

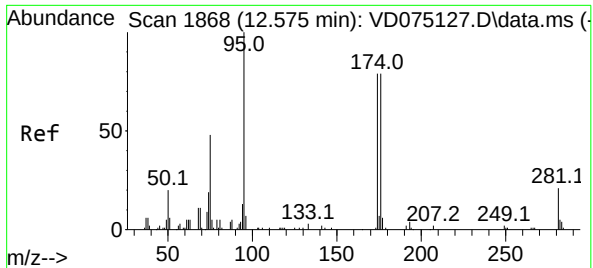
Tgt Ion: 98 Resp: 209398

Ion Ratio Lower Upper

98 100

100 65.3 52.7 79.1

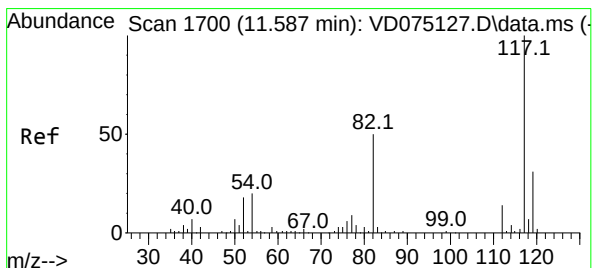
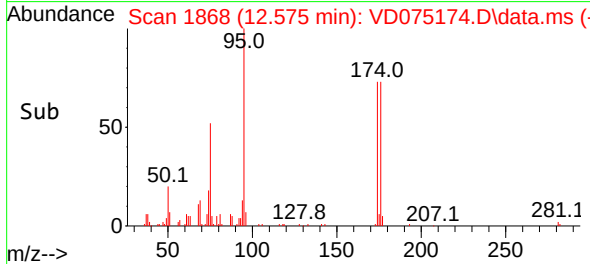
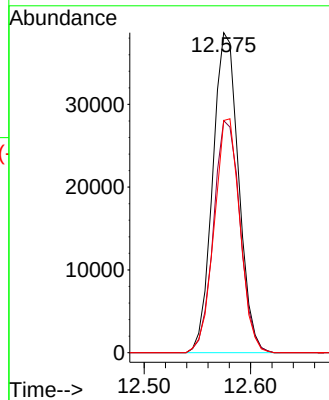
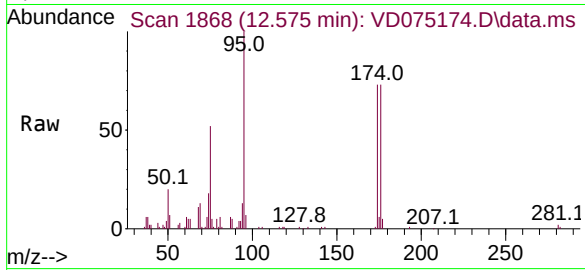




#62
4-Bromofluorobenzene
Concen: 50.533 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075174.D
Acq: 23 Jan 2023 14:32

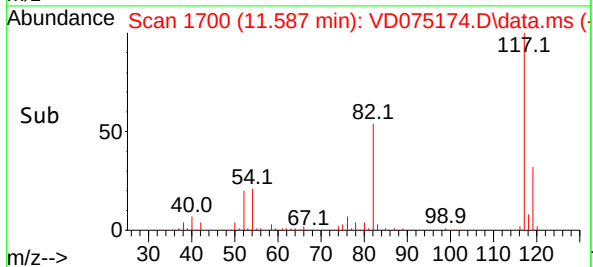
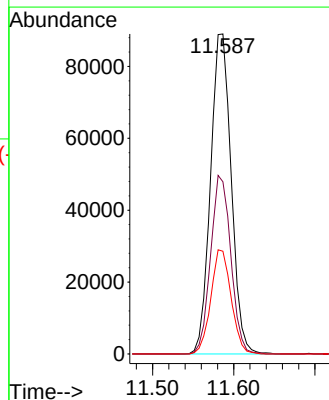
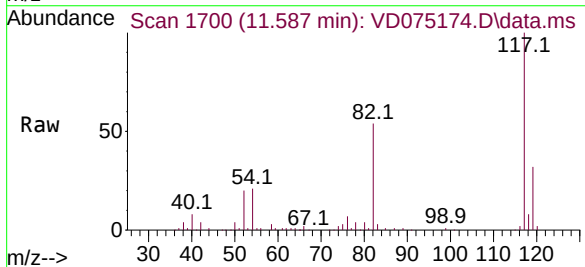
Instrument :
MSVOA_D
ClientSampleId :
B-P36A

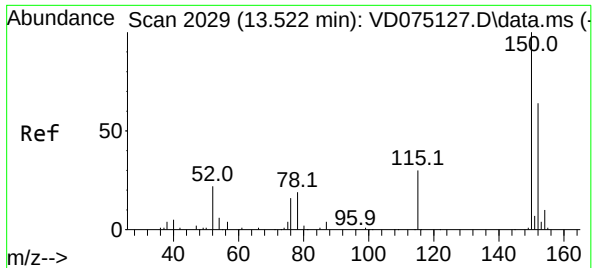
Tgt Ion: 95 Resp: 65265
Ion Ratio Lower Upper
95 100
174 74.3 0.0 161.2
176 72.7 0.0 160.2



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.587 min Scan# 1700
Delta R.T. -0.000 min
Lab File: VD075174.D
Acq: 23 Jan 2023 14:32

Tgt Ion: 117 Resp: 157598
Ion Ratio Lower Upper
117 100
82 53.8 39.6 59.4
119 32.1 24.6 37.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 20

Delta R.T. -0.000 min

Lab File: VD075174.D

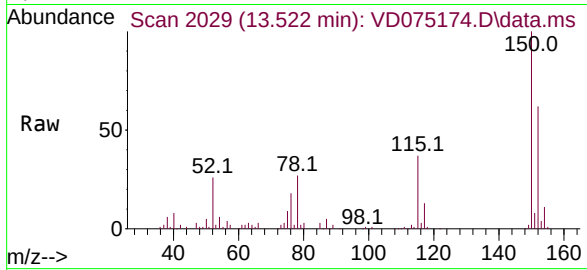
Acq: 23 Jan 2023 14:32

Instrument :

MSVOA_D

ClientSampleId :

B-P36A



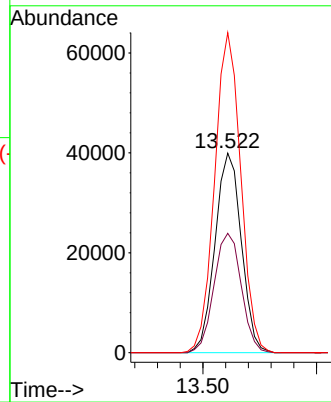
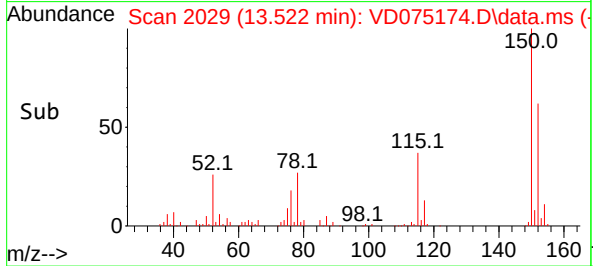
Tgt Ion:152 Resp: 64243

Ion Ratio Lower Upper

152 100

115 61.9 28.8 86.4

150 159.0 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075174.D
Acq On : 23 Jan 2023 14:32
Operator : KP/SY
Sample : 01233-04
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36A

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075174.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	37	rVV	233303	426353	76.56%	13.098%
2	4.805	538	547	555	rVB3	5770	17285	3.10%	0.531%
3	7.069	923	932	943	rVB	16707	48657	8.74%	1.495%
4	7.810	1047	1058	1063	rBV2	66370	161754	29.05%	4.969%
5	7.875	1063	1069	1081	rVB	118941	271394	48.74%	8.338%
6	8.228	1118	1129	1139	rVB2	55188	132947	23.87%	4.084%
7	8.781	1212	1223	1235	rBV	194512	395306	70.99%	12.144%
8	10.269	1468	1476	1489	rBV	304077	556857	100.00%	17.107%
9	10.669	1534	1544	1551	rBV2	6024	11382	2.04%	0.350%
10	11.034	1600	1606	1612	rBV4	6696	10170	1.83%	0.312%
11	11.581	1691	1699	1709	rBV	274730	480618	86.31%	14.765%
12	12.575	1862	1868	1876	rVB	195616	325339	58.42%	9.995%
13	13.522	2022	2029	2036	rBV	262456	417025	74.89%	12.811%

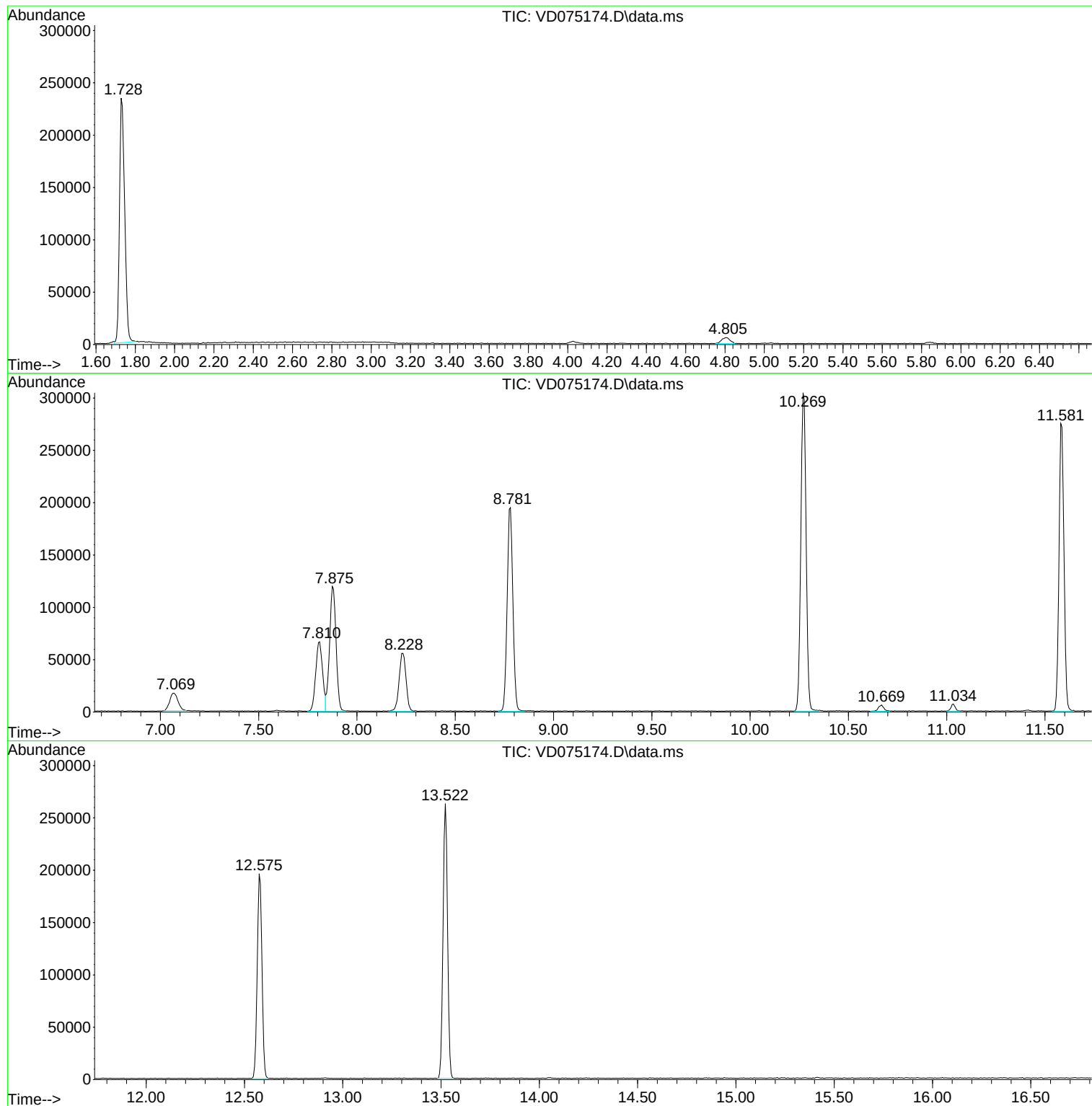
Sum of corrected areas: 3255087

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075174.D
Acq On : 23 Jan 2023 14:32
Operator : KP/SY
Sample : 01233-04
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075174.D
Acq On : 23 Jan 2023 14:32
Operator : KP/SY
Sample : 01233-04
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36A

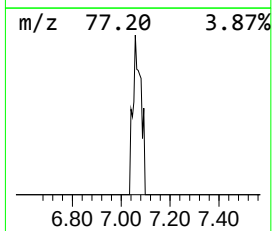
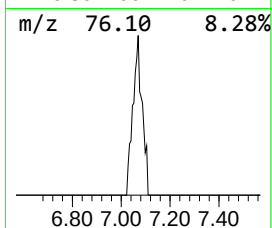
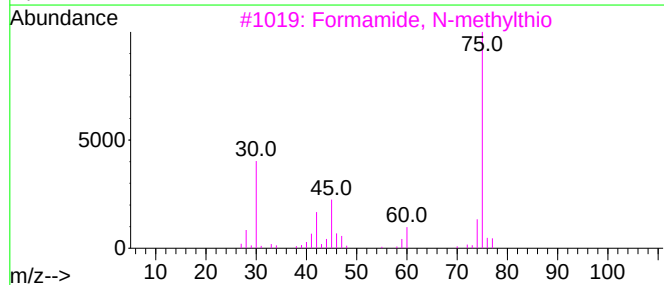
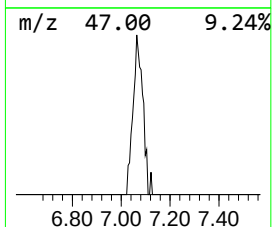
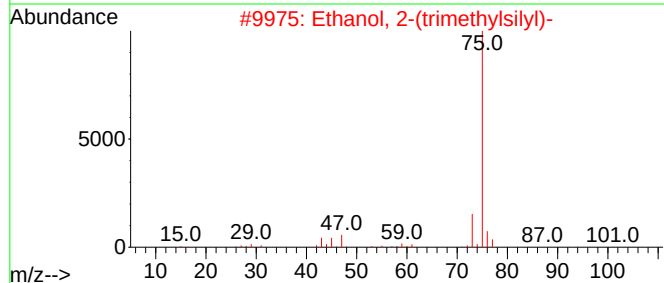
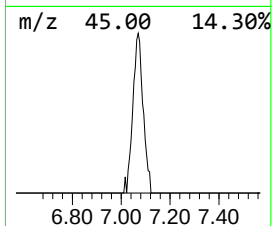
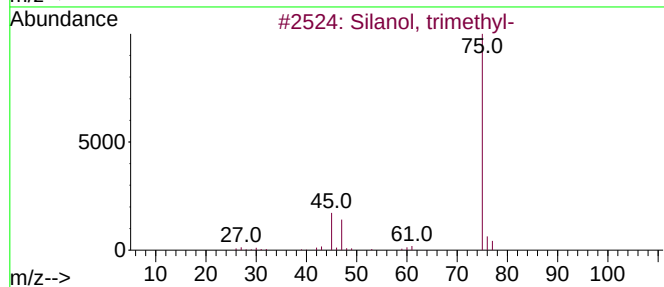
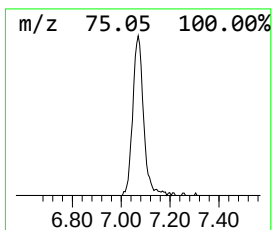
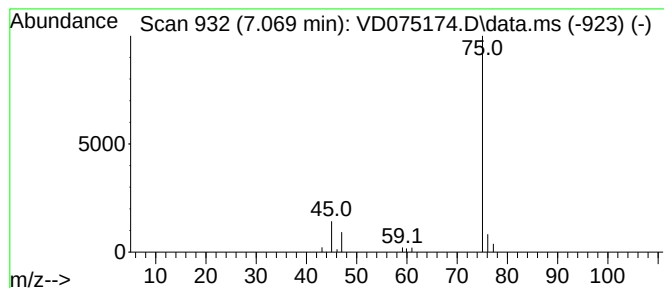
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 Silanol, trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.069	8.96 ug/l	48657	Pentafluorobenzene	7.875

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Silanol, trimethyl-	90	C3H10OSi	001066-40-6	83
2			Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	43
3			Formamide, N-methylthio	75	C2H5NS	018952-41-5	9
4			Mercaptamine	77	C2H7NS	000060-23-1	7
5			Ethanethioamide	75	C2H5NS	000062-55-5	5



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075174.D
Acq On : 23 Jan 2023 14:32
Operator : KP/SY
Sample : 01233-04
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Silanol, trimet...	7.069	9.0	ug/l	48657	1	7.875	271394	50.0



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075158.D	1		01/20/23 17:26	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.94	U	0.94	5.40	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.40	ug/Kg
75-01-4	Vinyl Chloride	0.99	U	0.99	5.40	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.40	ug/Kg
75-00-3	Chloroethane	0.97	U	0.97	5.40	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.78	U	0.78	5.40	ug/Kg
75-35-4	1,1-Dichloroethene	0.94	U	0.94	5.40	ug/Kg
67-64-1	Acetone	13.3	U	13.3	27.2	ug/Kg
75-15-0	Carbon Disulfide	0.82	U	0.82	5.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.40	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.40	ug/Kg
75-09-2	Methylene Chloride	6.50	U	6.50	10.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
75-34-3	1,1-Dichloroethane	0.76	U	0.76	5.40	ug/Kg
110-82-7	Cyclohexane	0.91	U	0.91	5.40	ug/Kg
78-93-3	2-Butanone	7.90	U	7.90	27.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.86	U	0.86	5.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.74	U	0.74	5.40	ug/Kg
74-97-5	Bromochloromethane	0.88	U	0.88	5.40	ug/Kg
67-66-3	Chloroform	0.73	U	0.73	5.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.82	U	0.82	5.40	ug/Kg
108-87-2	Methylcyclohexane	0.87	U	0.87	5.40	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.40	ug/Kg
107-06-2	1,2-Dichloroethane	0.91	U	0.91	5.40	ug/Kg
79-01-6	Trichloroethene	0.79	U	0.79	5.40	ug/Kg
78-87-5	1,2-Dichloropropane	0.71	U	0.71	5.40	ug/Kg
75-27-4	Bromodichloromethane	0.76	U	0.76	5.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.00	U	5.00	27.2	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.81	U	0.81	5.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.77	U	0.77	5.40	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075158.D	1		01/20/23 17:26	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.94	U	0.94	5.40	ug/Kg
591-78-6	2-Hexanone	5.10	U	5.10	27.2	ug/Kg
124-48-1	Dibromochloromethane	0.82	U	0.82	5.40	ug/Kg
106-93-4	1,2-Dibromoethane	0.82	U	0.82	5.40	ug/Kg
127-18-4	Tetrachloroethene	0.83	U	0.83	5.40	ug/Kg
108-90-7	Chlorobenzene	0.71	U	0.71	5.40	ug/Kg
100-41-4	Ethyl Benzene	0.76	U	0.76	5.40	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	10.9	ug/Kg
95-47-6	o-Xylene	0.86	U	0.86	5.40	ug/Kg
100-42-5	Styrene	0.86	U	0.86	5.40	ug/Kg
75-25-2	Bromoform	0.88	U	0.88	5.40	ug/Kg
98-82-8	Isopropylbenzene	0.78	U	0.78	5.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.73	U	0.73	5.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.69	U	0.69	5.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.70	U	0.70	5.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	92.5	*	50 - 163	185%	SPK: 50
1868-53-7	Dibromofluoromethane	56.1		54 - 147	112%	SPK: 50
2037-26-5	Toluene-d8	51.5		58 - 134	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	60.1		30 - 143	120%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	4930	7.875			
540-36-3	1,4-Difluorobenzene	11100	8.781			
3114-55-4	Chlorobenzene-d5	10700	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	5310	13.522			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075158.D	1		01/20/23 17:26	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075158.D
 Acq On : 20 Jan 2023 17:26
 Operator : KP/SY
 Sample : 01233-05
 Misc : 5.08G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P36B

Quant Time: Jan 23 00:32:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	4925	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	11060	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	10688	50.000	ug/l	# 0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	5310	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	4647	92.467	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	184.940%#
35) Dibromofluoromethane	7.811	113	3747	56.066	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	112.140%
50) Toluene-d8	10.269	98	13542	51.462	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	102.920%
62) 4-Bromofluorobenzene	12.575	95	5018	60.086	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	120.180%

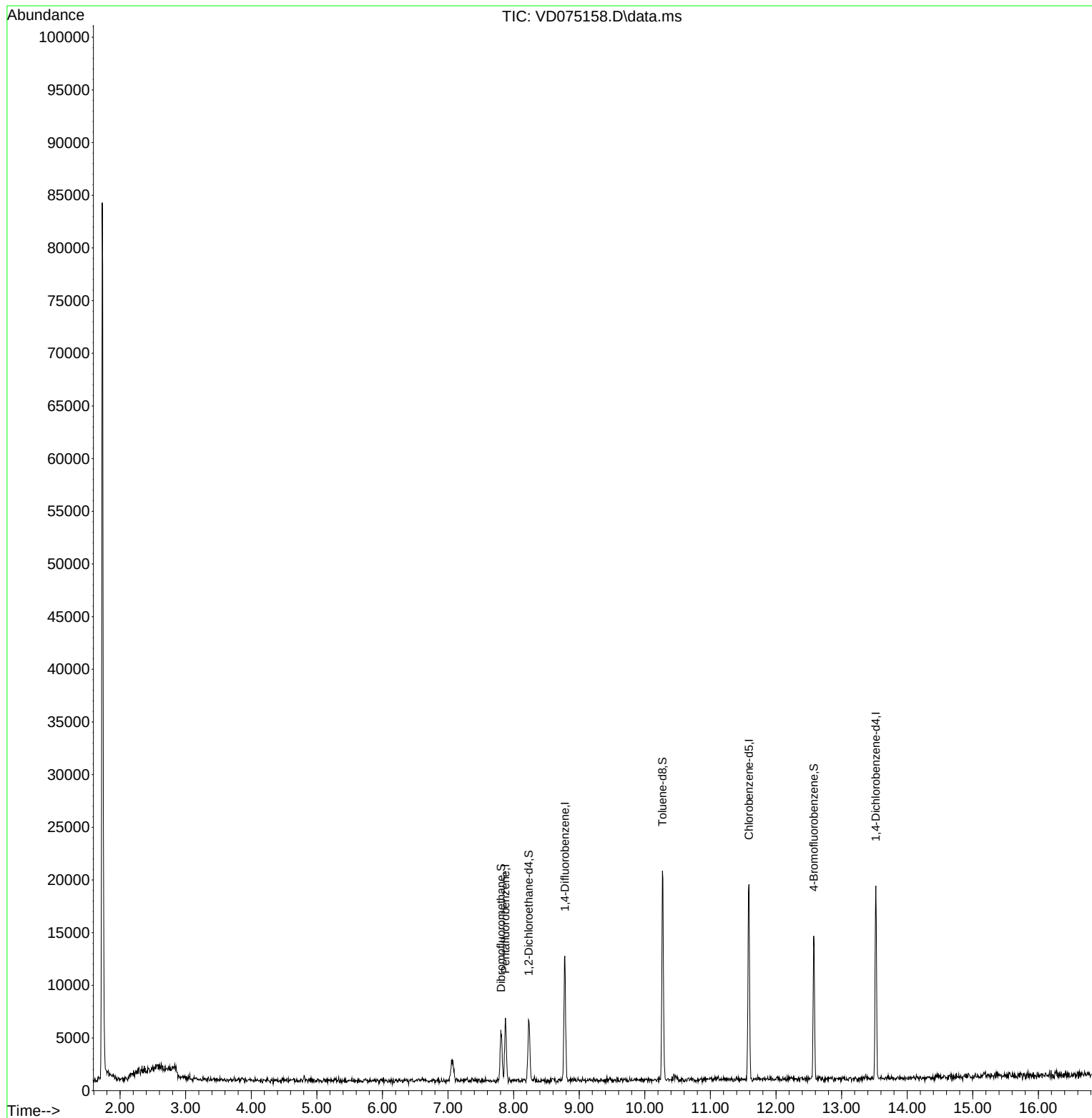
Target Compounds	Qvalue

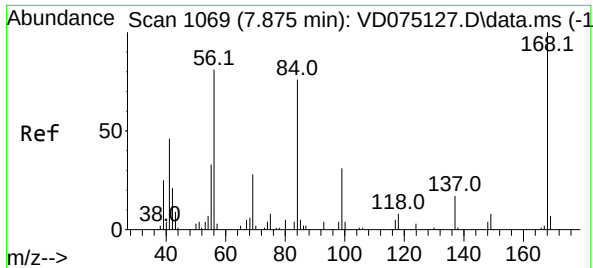
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075158.D
Acq On : 20 Jan 2023 17:26
Operator : KP/SY
Sample : 01233-05
Misc : 5.08G/5.00ml/MSVOA_D/SOIL
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36B

Quant Time: Jan 23 00:32:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

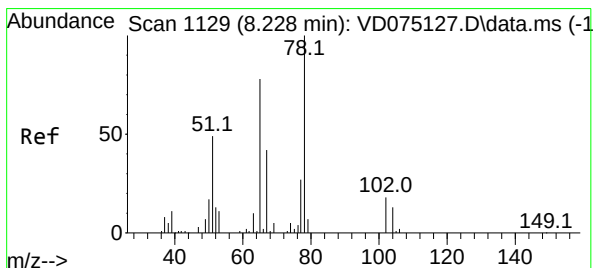
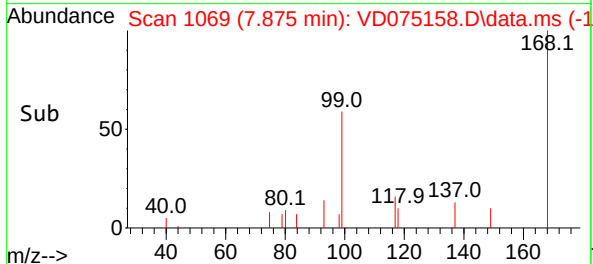
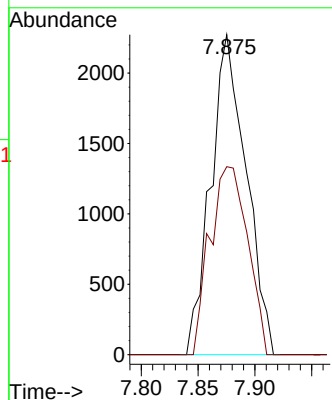
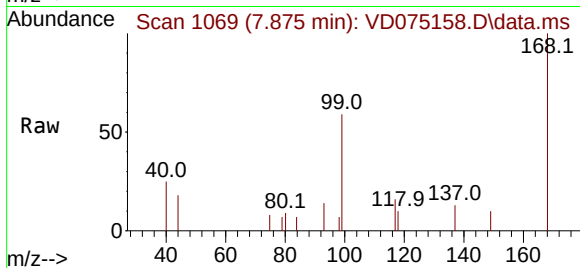




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1069
Delta R.T. 0.000 min
Lab File: VD075158.D
Acq: 20 Jan 2023 17:26

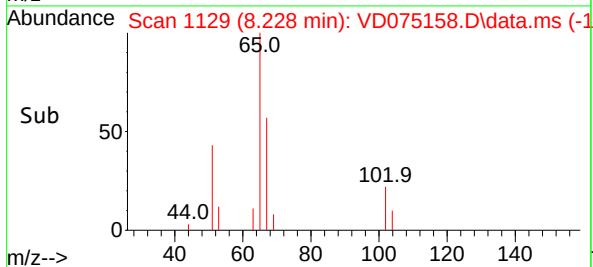
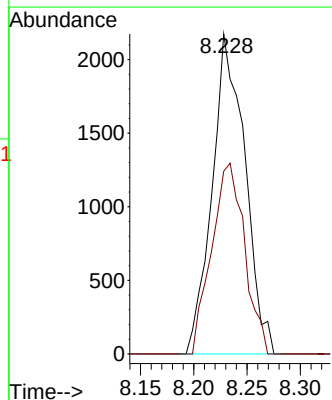
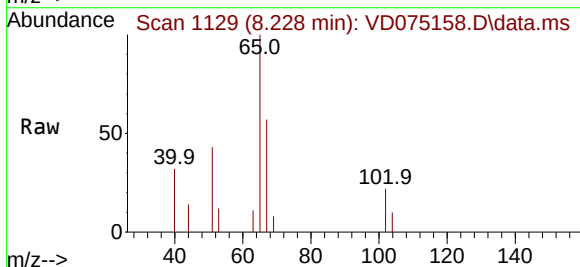
Instrument :
MSVOA_D
ClientSampleId :
B-P36B

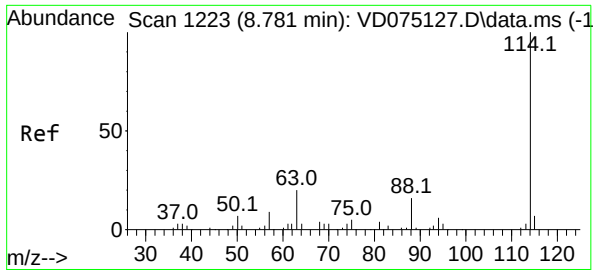
Tgt Ion:168 Resp: 4925
Ion Ratio Lower Upper
168 100
99 58.7 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 92.467 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD075158.D
Acq: 20 Jan 2023 17:26

Tgt Ion: 65 Resp: 4647
Ion Ratio Lower Upper
65 100
67 60.0 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075158.D

Acq: 20 Jan 2023 17:26

Instrument :

MSVOA_D

ClientSampleId :

B-P36B

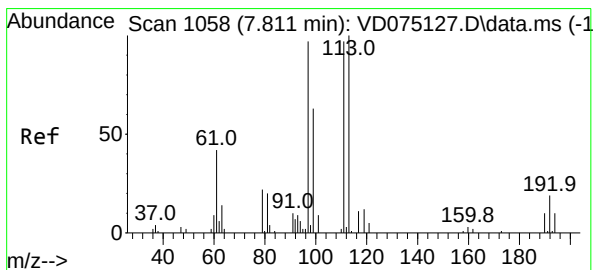
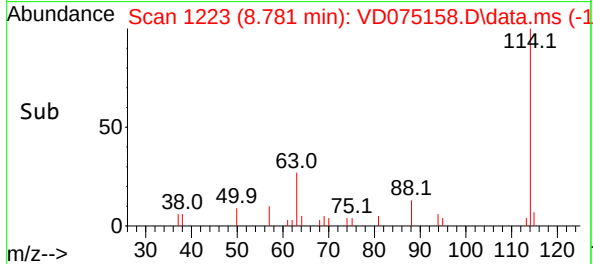
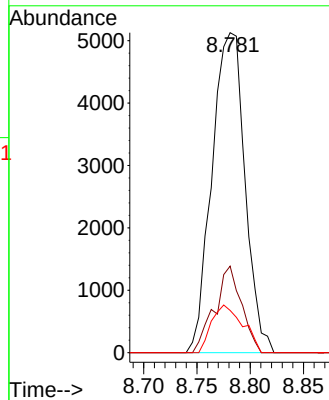
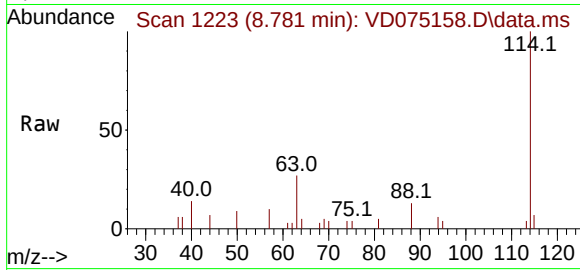
Tgt Ion:114 Resp: 11060

Ion Ratio Lower Upper

114 100

63 27.0 0.0 40.2

88 13.2 0.0 32.2



#35

Dibromofluoromethane

Concen: 56.066 ug/l

RT: 7.811 min Scan# 1058

Delta R.T. -0.000 min

Lab File: VD075158.D

Acq: 20 Jan 2023 17:26

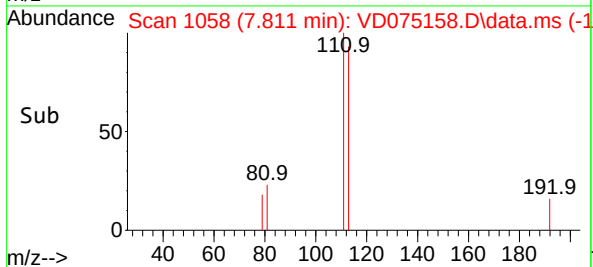
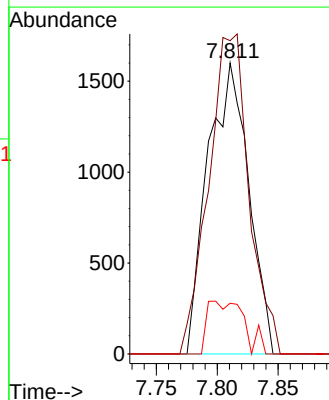
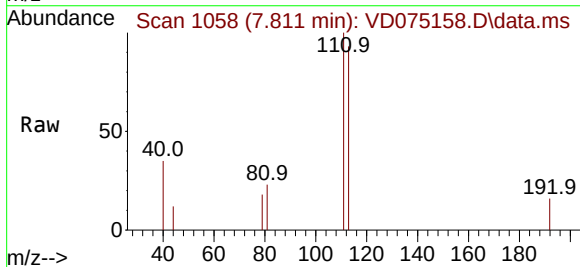
Tgt Ion:113 Resp: 3747

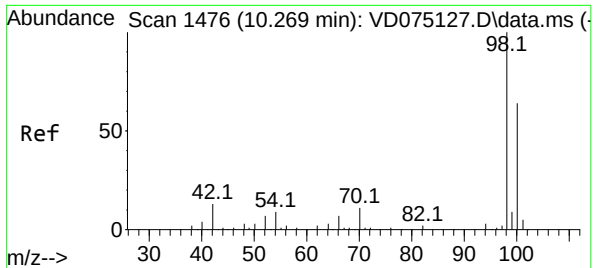
Ion Ratio Lower Upper

113 100

111 108.0 80.1 120.1

192 16.4 15.4 23.0

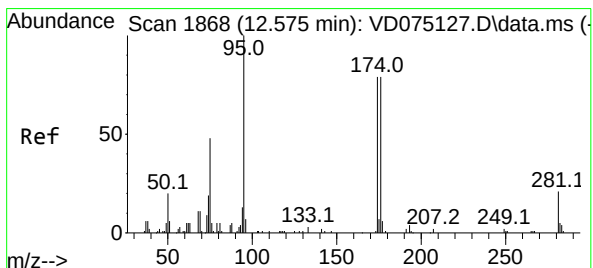
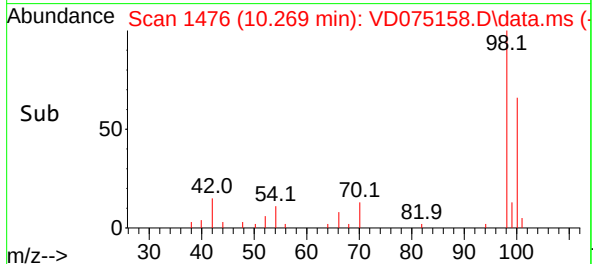
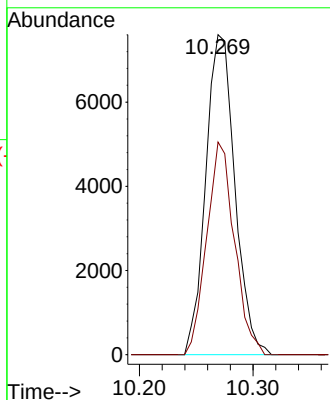
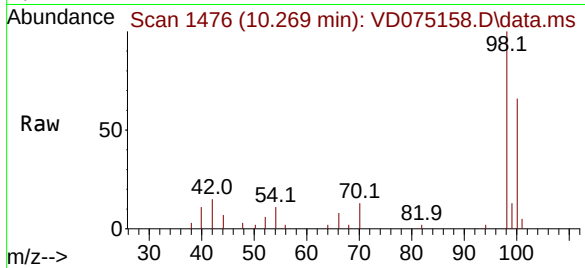




#50
Toluene-d8
Concen: 51.462 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD075158.D
Acq: 20 Jan 2023 17:26

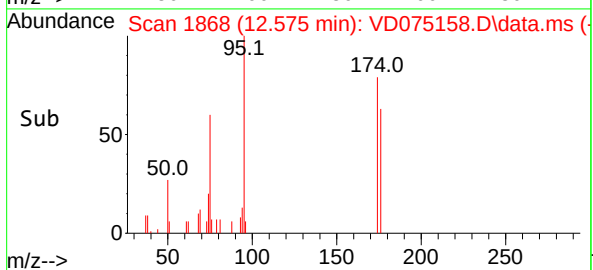
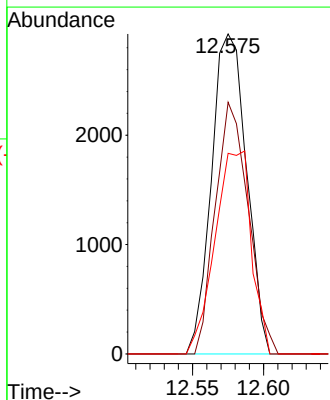
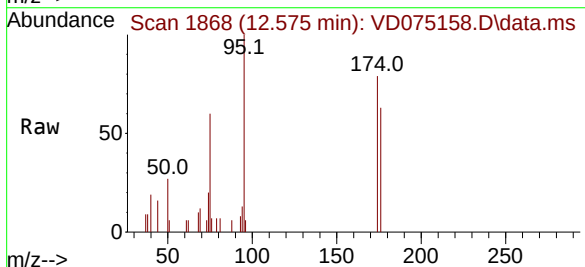
Instrument :
MSVOA_D
ClientSampleId :
B-P36B

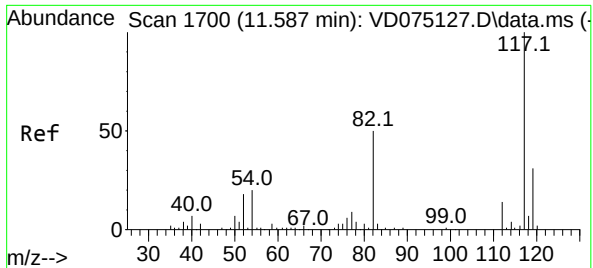
Tgt Ion: 98 Resp: 13542
Ion Ratio Lower Upper
98 100
100 63.3 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 60.086 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075158.D
Acq: 20 Jan 2023 17:26

Tgt Ion: 95 Resp: 5018
Ion Ratio Lower Upper
95 100
174 74.2 0.0 161.2
176 65.9 0.0 160.2

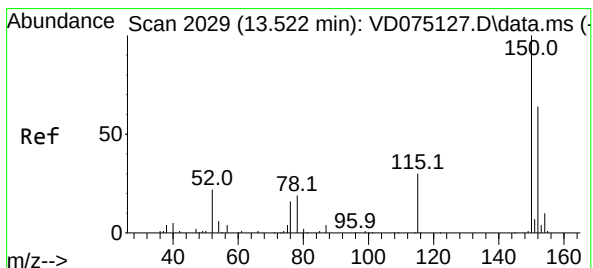
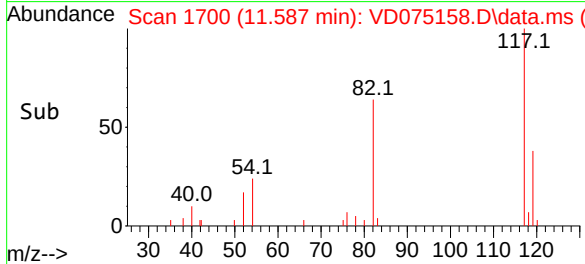
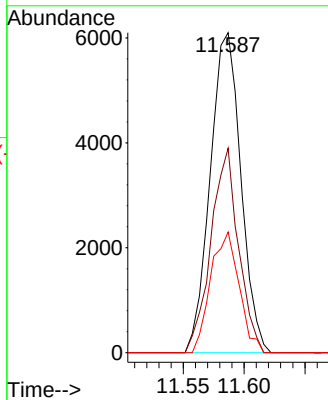
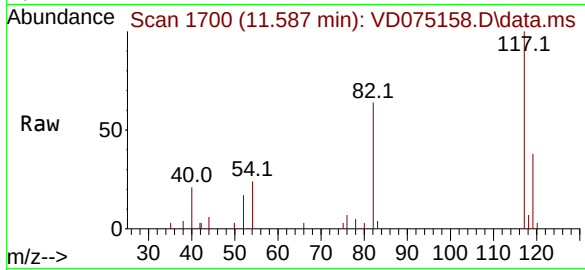




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.587 min Scan# 11
Delta R.T. -0.000 min
Lab File: VD075158.D
Acq: 20 Jan 2023 17:26

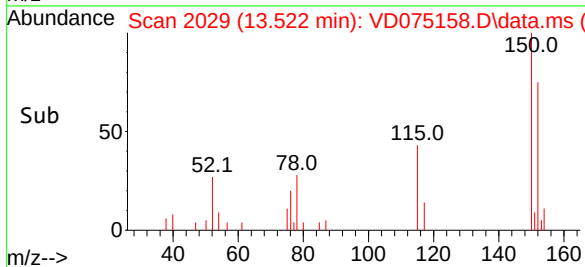
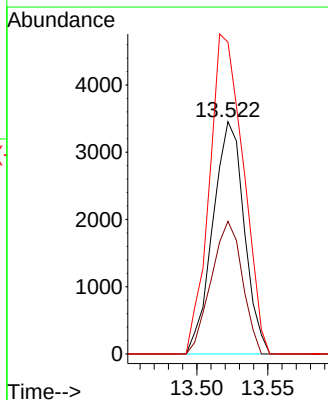
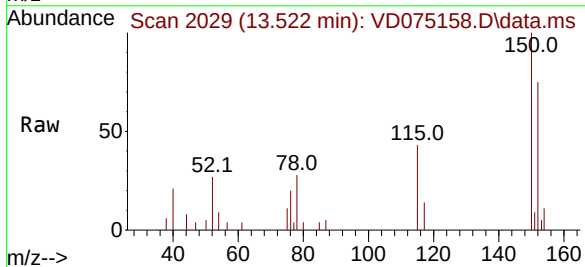
Instrument :
MSVOA_D
ClientSampleId :
B-P36B

Tgt Ion:117 Resp: 10688
Ion Ratio Lower Upper
117 100
82 63.9 39.6 59.4#
119 37.7 24.6 37.0#



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.522 min Scan# 2029
Delta R.T. -0.000 min
Lab File: VD075158.D
Acq: 20 Jan 2023 17:26

Tgt Ion:152 Resp: 5310
Ion Ratio Lower Upper
152 100
115 56.5 28.8 86.4
150 149.2 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075158.D
Acq On : 20 Jan 2023 17:26
Operator : KP/SY
Sample : 01233-05
Misc : 5.08G/5.00ml/MSVOA_D/SOIL
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36B

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075158.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	36	rBV	83217	125140	100.00%	41.913%
2	7.052	925	929	932	rBV3	1544	2406	1.92%	0.806%
3	7.805	1050	1057	1064	rBV3	4931	10945	8.75%	3.666%
4	7.875	1064	1069	1076	rVB2	6149	11846	9.47%	3.968%
5	8.228	1122	1129	1138	rBV2	5933	13258	10.59%	4.441%
6	8.781	1215	1223	1231	rVB2	11940	22024	17.60%	7.377%
7	10.269	1471	1476	1486	rVB	19909	33412	26.70%	11.191%
8	11.587	1694	1700	1705	rBV	18521	30841	24.65%	10.330%
9	12.575	1864	1868	1875	rVB2	13623	20228	16.16%	6.775%
10	13.522	2023	2029	2034	rBV	18372	28468	22.75%	9.535%

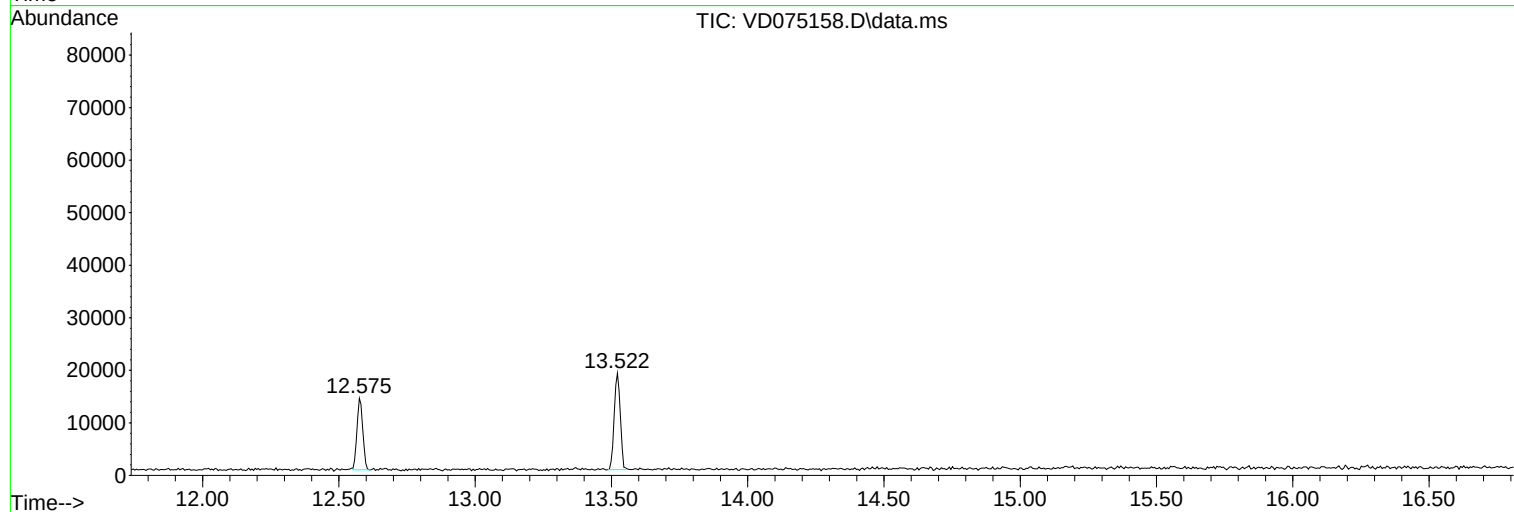
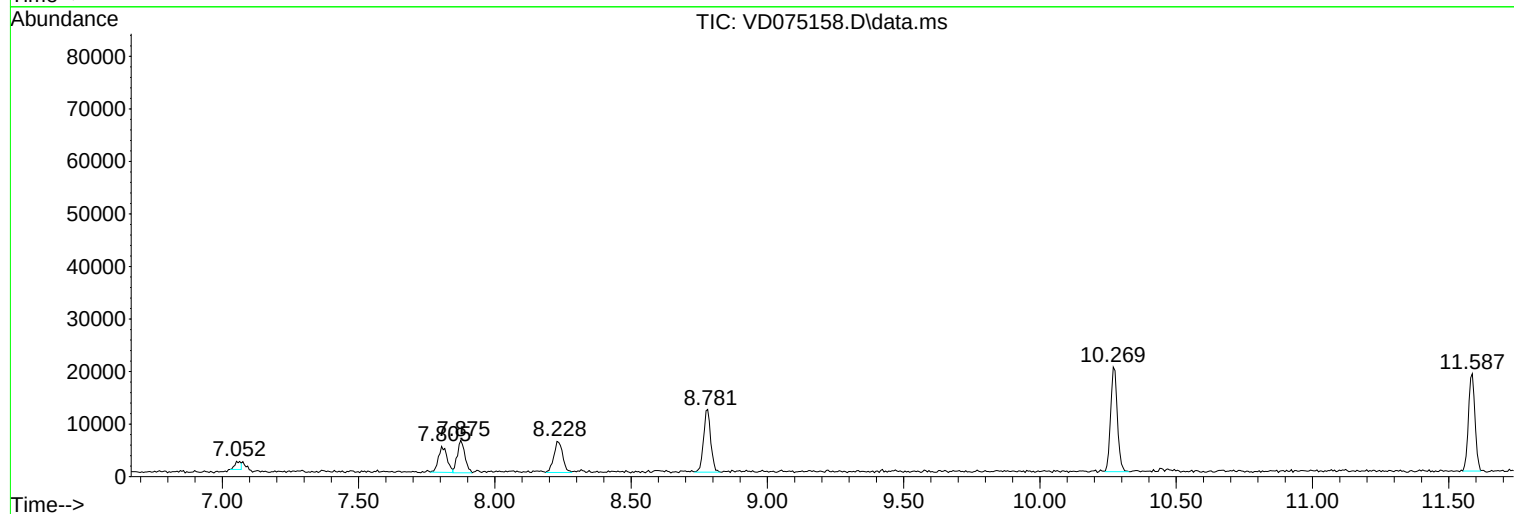
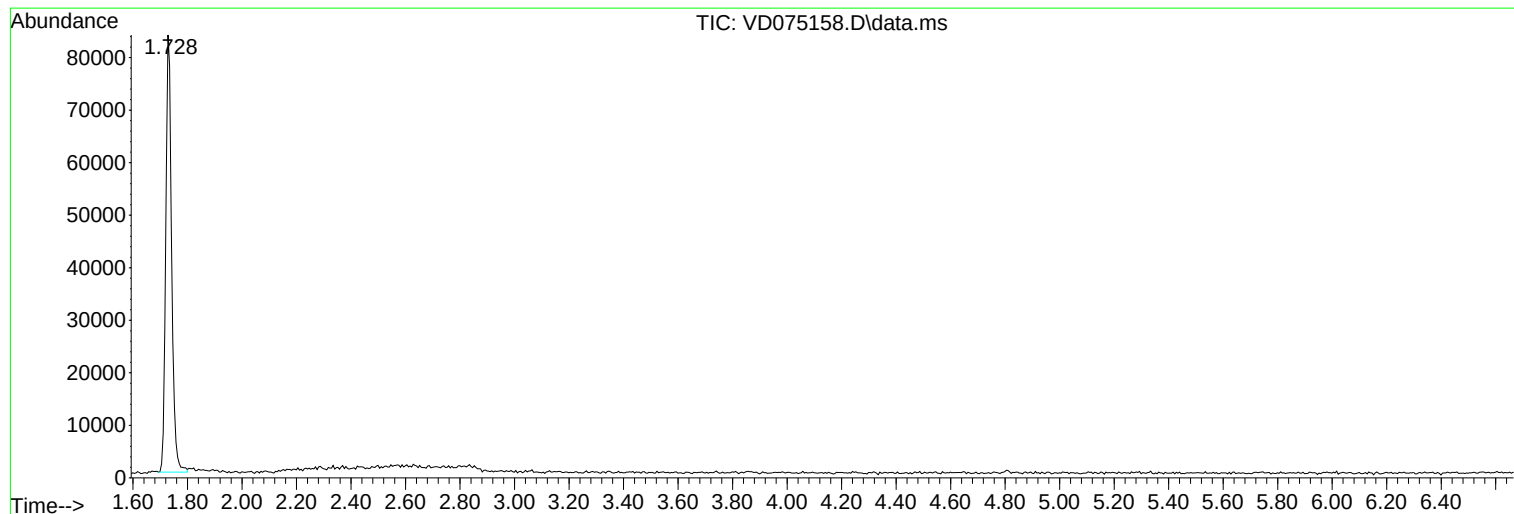
Sum of corrected areas: 298568

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075158.D
Acq On : 20 Jan 2023 17:26
Operator : KP/SY
Sample : 01233-05
Misc : 5.08G/5.00ml/MSVOA_D/SOIL
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075158.D
Acq On : 20 Jan 2023 17:26
Operator : KP/SY
Sample : 01233-05
Misc : 5.08G/5.00ml/MSVOA_D/SOIL
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075158.D
Acq On : 20 Jan 2023 17:26
Operator : KP/SY
Sample : 01233-05
Misc : 5.08G/5.00ml/MSVOA_D/SOIL
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36BRE	SDG No.:	O1233
Lab Sample ID:	O1233-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075175.D	1		01/23/23 15:00	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.95	U	0.95	5.50	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.50	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.50	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.50	ug/Kg
75-00-3	Chloroethane	0.98	U	0.98	5.50	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.79	U	0.79	5.50	ug/Kg
75-35-4	1,1-Dichloroethene	0.95	U	0.95	5.50	ug/Kg
67-64-1	Acetone	13.4	U	13.4	27.5	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.50	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.50	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
75-34-3	1,1-Dichloroethane	0.77	U	0.77	5.50	ug/Kg
110-82-7	Cyclohexane	0.93	U	0.93	5.50	ug/Kg
78-93-3	2-Butanone	8.00	U	8.00	27.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.87	U	0.87	5.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.75	5.50	ug/Kg
74-97-5	Bromochloromethane	0.89	U	0.89	5.50	ug/Kg
67-66-3	Chloroform	0.74	U	0.74	5.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.50	ug/Kg
108-87-2	Methylcyclohexane	0.88	U	0.88	5.50	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.93	U	0.93	5.50	ug/Kg
79-01-6	Trichloroethene	0.80	U	0.80	5.50	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.50	ug/Kg
75-27-4	Bromodichloromethane	0.77	U	0.77	5.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.00	U	5.00	27.5	ug/Kg
108-88-3	Toluene	0.69	U	0.69	5.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.78	U	0.78	5.50	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36BRE	SDG No.:	O1233
Lab Sample ID:	O1233-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075175.D	1		01/23/23 15:00	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.95	U	0.95	5.50	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.5	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.50	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.50	ug/Kg
127-18-4	Tetrachloroethene	0.84	U	0.84	5.50	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.50	ug/Kg
100-41-4	Ethyl Benzene	0.77	U	0.77	5.50	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.0	ug/Kg
95-47-6	o-Xylene	0.87	U	0.87	5.50	ug/Kg
100-42-5	Styrene	0.87	U	0.87	5.50	ug/Kg
75-25-2	Bromoform	0.89	U	0.89	5.50	ug/Kg
98-82-8	Isopropylbenzene	0.79	U	0.79	5.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.69	U	0.69	5.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	68.1		50 - 163	136%	SPK: 50
1868-53-7	Dibromofluoromethane	52.3		54 - 147	105%	SPK: 50
2037-26-5	Toluene-d8	48.9		58 - 134	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.8		30 - 143	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	2290	7.881			
540-36-3	1,4-Difluorobenzene	4730	8.775			
3114-55-4	Chlorobenzene-d5	4220	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	1550	13.522			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36BRE	SDG No.:	O1233
Lab Sample ID:	O1233-05RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	90.4
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075175.D	1		01/23/23 15:00	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075175.D
 Acq On : 23 Jan 2023 15:00
 Operator : KP/SY
 Sample : 01233-05RE
 Misc : 5.02G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P36BRE

Quant Time: Jan 23 15:24:33 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.881	168	2289	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	4728	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	4222	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	1552	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.222	65	1591	68.115	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	136.240%
35) Dibromofluoromethane	7.805	113	1495	52.328	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	104.660%
50) Toluene-d8	10.275	98	5496	48.858	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	97.720%
62) 4-Bromofluorobenzene	12.569	95	1635	45.797	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	91.600%

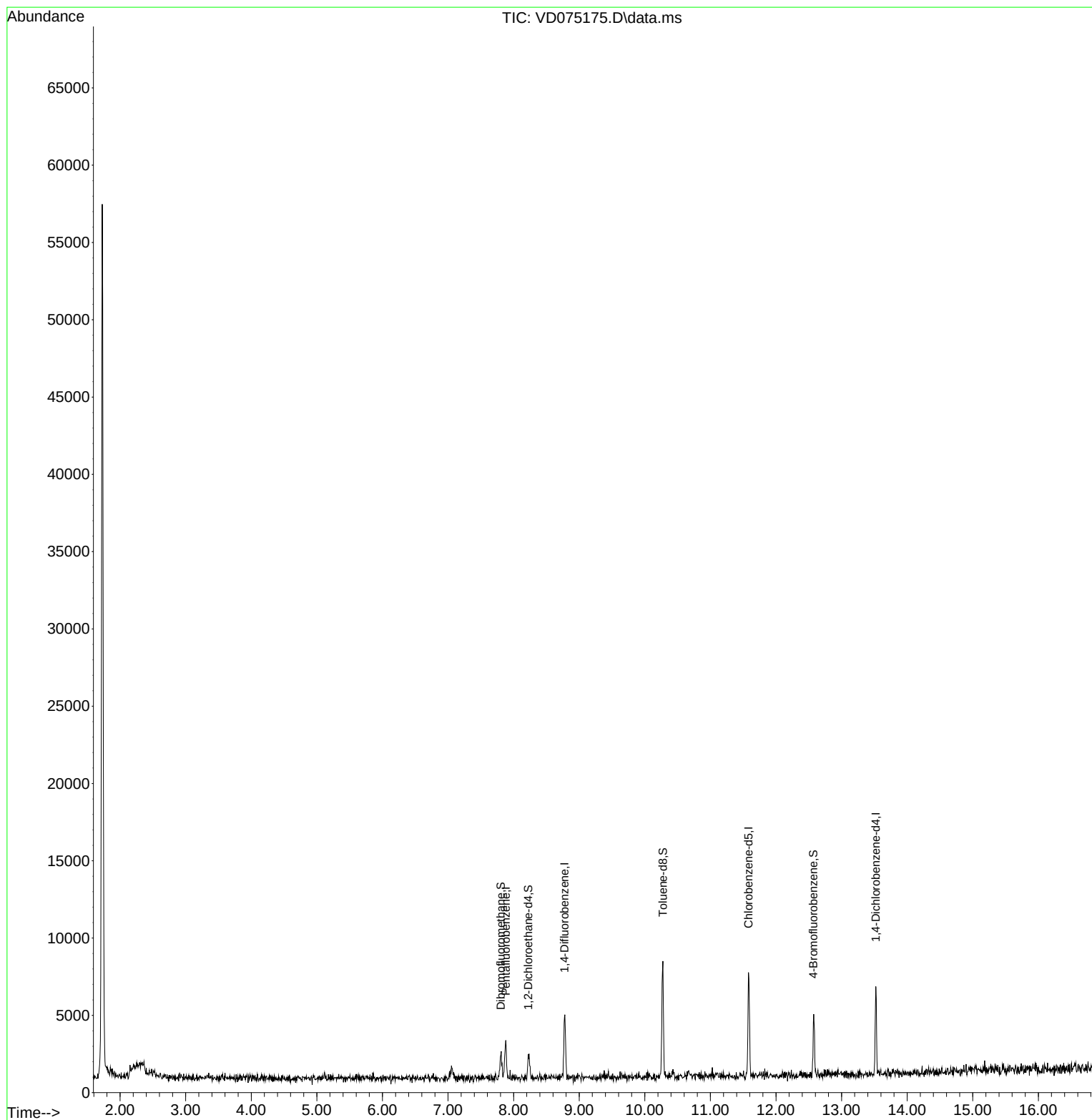
Target Compounds	Qvalue

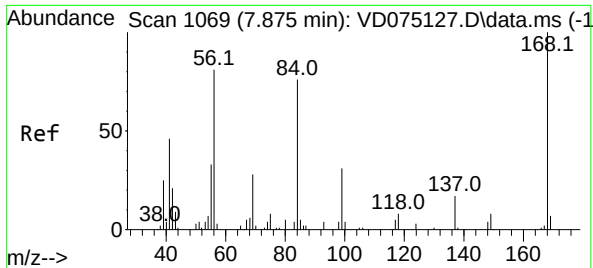
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075175.D
Acq On : 23 Jan 2023 15:00
Operator : KP/SY
Sample : 01233-05RE
Misc : 5.02G/5.00ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P36BRE

Quant Time: Jan 23 15:24:33 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

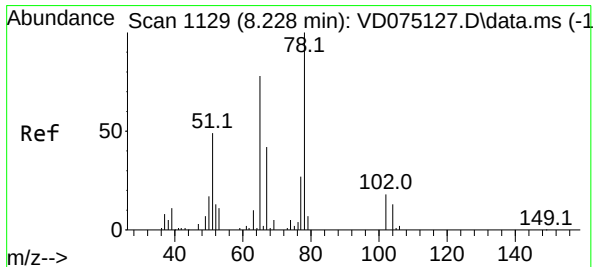
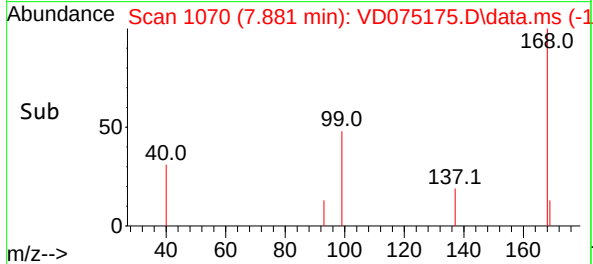
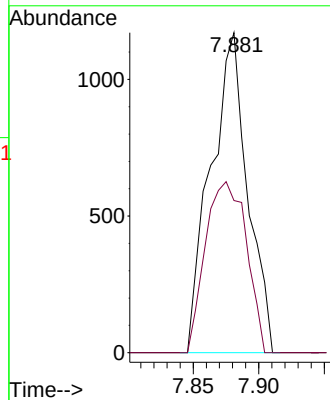
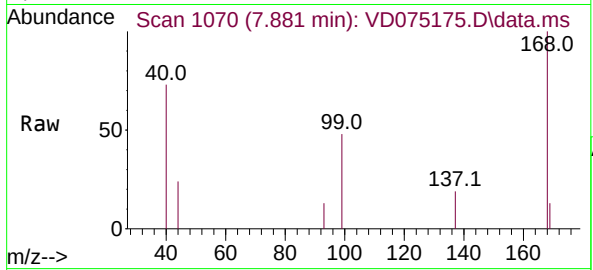




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.881 min Scan# 1069
Delta R.T. 0.006 min
Lab File: VD075175.D
Acq: 23 Jan 2023 15:00

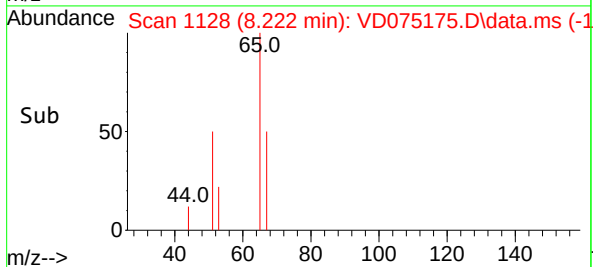
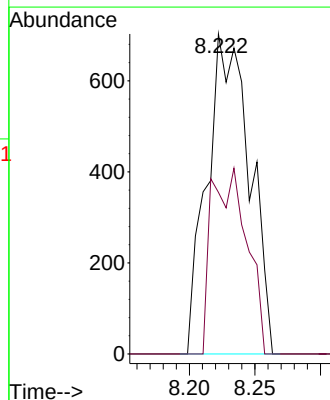
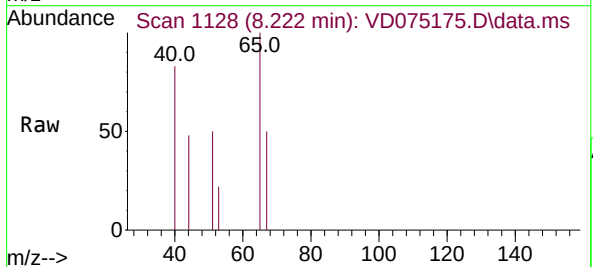
Instrument :
MSVOA_D
ClientSampleId :
B-P36BRE

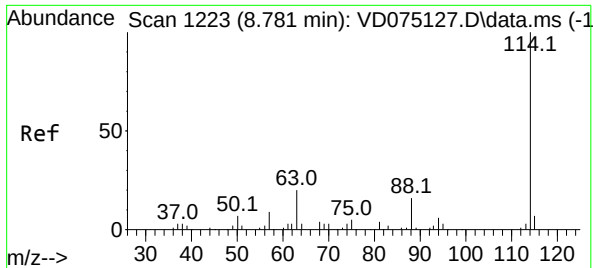
Tgt Ion:168 Resp: 2289
Ion Ratio Lower Upper
168 100
99 47.6 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 68.115 ug/l
RT: 8.222 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VD075175.D
Acq: 23 Jan 2023 15:00

Tgt Ion: 65 Resp: 1591
Ion Ratio Lower Upper
65 100
67 48.2 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.775 min Scan# 11

Delta R.T. -0.006 min

Lab File: VD075175.D

Acq: 23 Jan 2023 15:00

Instrument :

MSVOA_D

ClientSampleId :

B-P36BRE

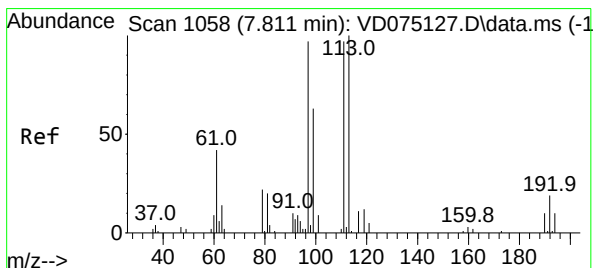
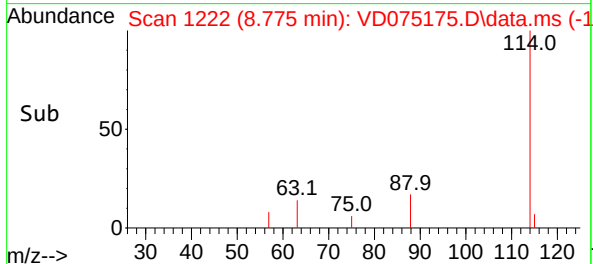
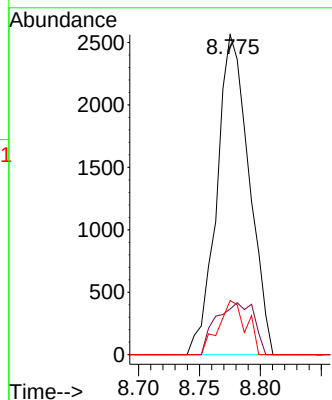
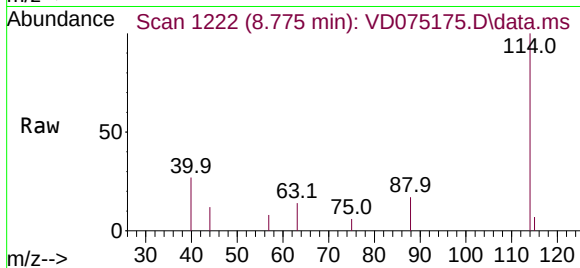
Tgt Ion:114 Resp: 4728

Ion Ratio Lower Upper

114 100

63 14.2 0.0 40.2

88 16.9 0.0 32.2



#35

Dibromofluoromethane

Concen: 52.328 ug/l

RT: 7.805 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075175.D

Acq: 23 Jan 2023 15:00

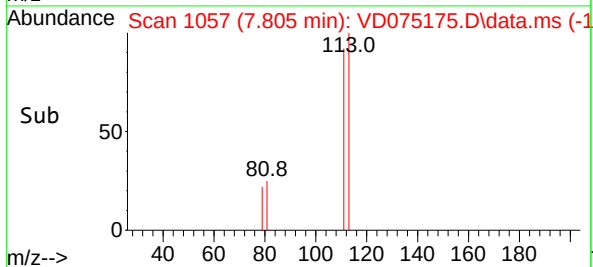
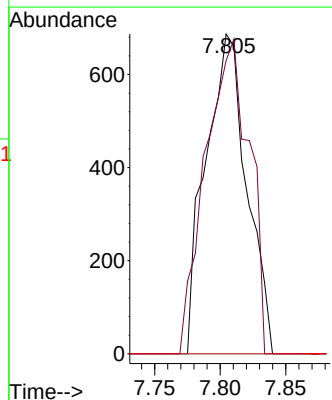
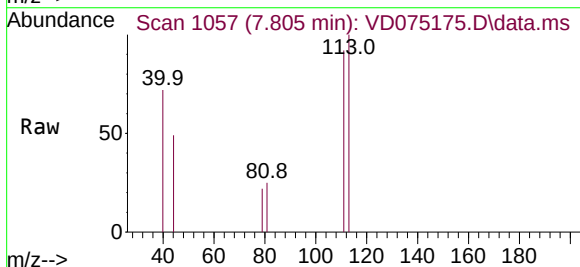
Tgt Ion:113 Resp: 1495

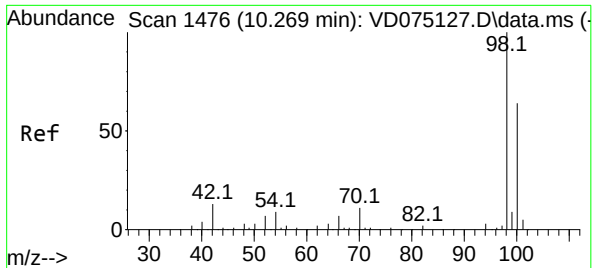
Ion Ratio Lower Upper

113 100

111 105.1 80.1 120.1

192 0.0 15.4 23.0#

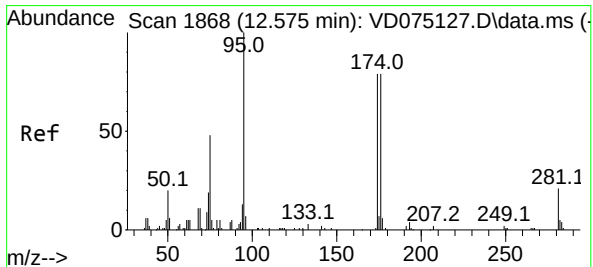
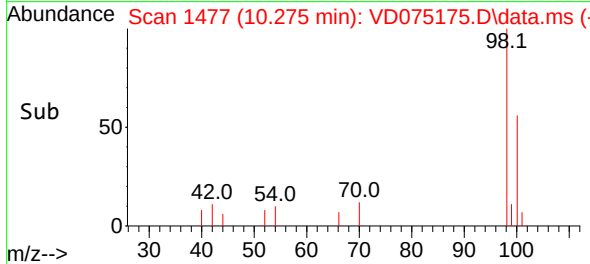
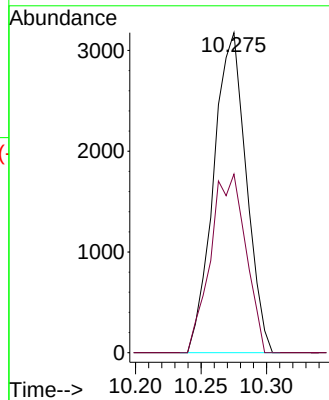
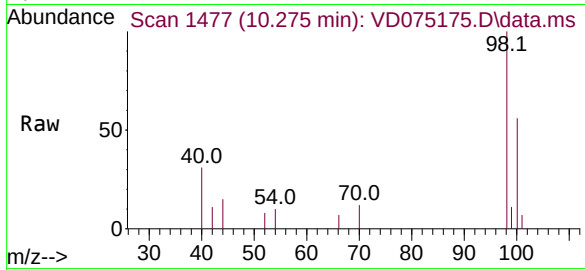




#50
Toluene-d8
Concen: 48.858 ug/l
RT: 10.275 min Scan# 1476
Delta R.T. 0.006 min
Lab File: VD075175.D
Acq: 23 Jan 2023 15:00

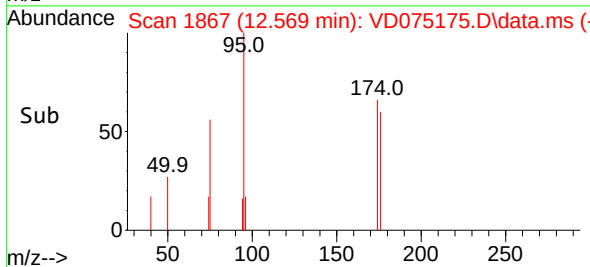
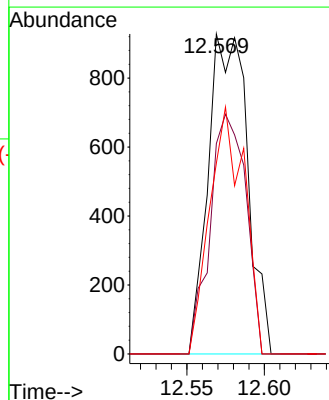
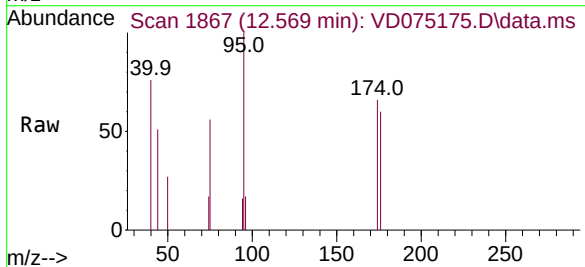
Instrument :
MSVOA_D
ClientSampleId :
B-P36BRE

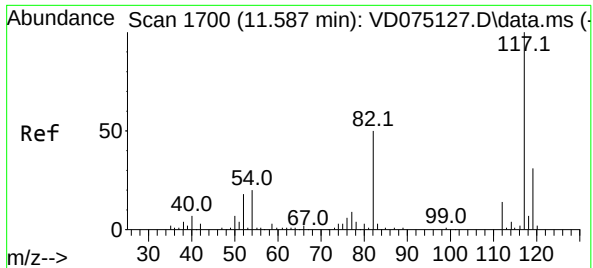
Tgt Ion: 98 Resp: 5496
Ion Ratio Lower Upper
98 100
100 60.2 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 45.797 ug/l
RT: 12.569 min Scan# 1867
Delta R.T. -0.006 min
Lab File: VD075175.D
Acq: 23 Jan 2023 15:00

Tgt Ion: 95 Resp: 1635
Ion Ratio Lower Upper
95 100
174 68.4 0.0 161.2
176 68.3 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.581 min Scan# 1699

Delta R.T. -0.006 min

Lab File: VD075175.D

Acq: 23 Jan 2023 15:00

Instrument :

MSVOA_D

ClientSampleId :

B-P36BRE

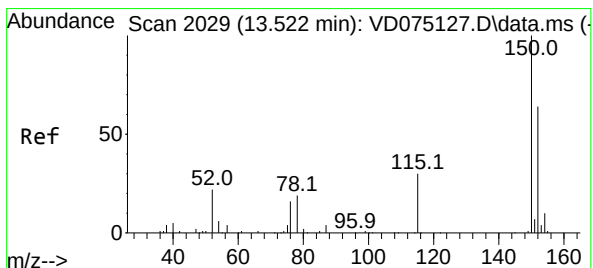
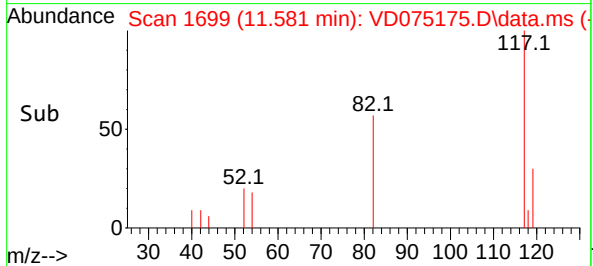
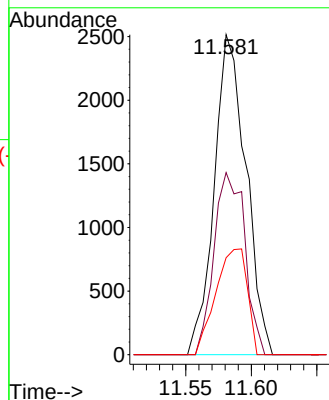
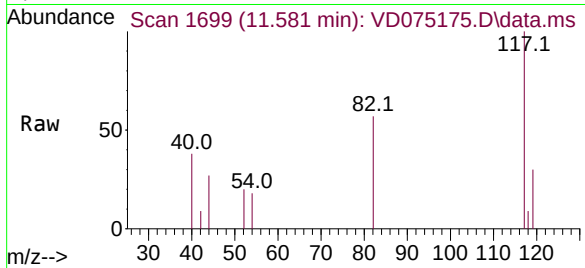
Tgt Ion:117 Resp: 4222

Ion Ratio Lower Upper

117 100

82 56.9 39.6 59.4

119 30.3 24.6 37.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 2029

Delta R.T. -0.000 min

Lab File: VD075175.D

Acq: 23 Jan 2023 15:00

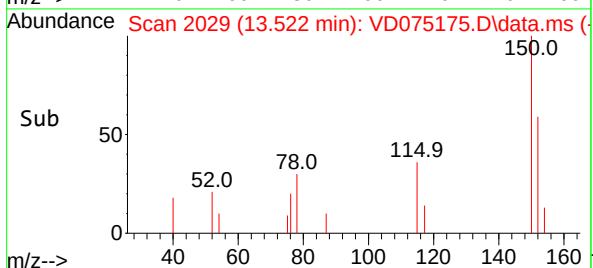
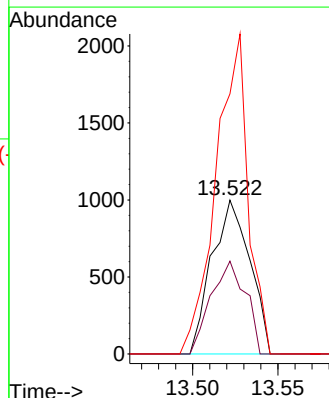
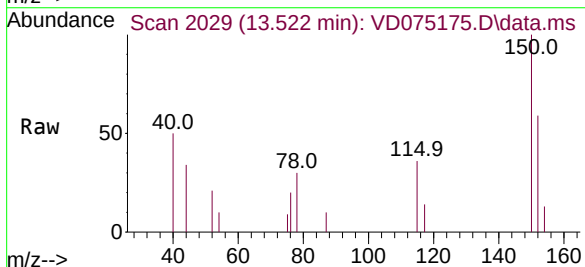
Tgt Ion:152 Resp: 1552

Ion Ratio Lower Upper

152 100

115 54.8 28.8 86.4

150 175.2 0.0 348.6





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075176.D	1		01/23/23 15:27	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.98	U	0.98	5.70	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.70	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.70	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.70	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.70	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.70	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.82	U	0.82	5.70	ug/Kg
75-35-4	1,1-Dichloroethene	0.98	U	0.98	5.70	ug/Kg
67-64-1	Acetone	13.9	U	13.9	28.4	ug/Kg
75-15-0	Carbon Disulfide	0.85	U	0.85	5.70	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	5.70	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.70	ug/Kg
75-09-2	Methylene Chloride	6.80	U	6.80	11.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.77	U	0.77	5.70	ug/Kg
75-34-3	1,1-Dichloroethane	0.80	U	0.80	5.70	ug/Kg
110-82-7	Cyclohexane	0.96	U	0.96	5.70	ug/Kg
78-93-3	2-Butanone	8.30	U	8.30	28.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.90	U	0.90	5.70	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.77	U	0.77	5.70	ug/Kg
74-97-5	Bromochloromethane	0.92	U	0.92	5.70	ug/Kg
67-66-3	Chloroform	0.76	U	0.76	5.70	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.85	U	0.85	5.70	ug/Kg
108-87-2	Methylcyclohexane	0.91	U	0.91	5.70	ug/Kg
71-43-2	Benzene	0.75	U	0.75	5.70	ug/Kg
107-06-2	1,2-Dichloroethane	0.96	U	0.96	5.70	ug/Kg
79-01-6	Trichloroethene	0.83	U	0.83	5.70	ug/Kg
78-87-5	1,2-Dichloropropane	0.74	U	0.74	5.70	ug/Kg
75-27-4	Bromodichloromethane	0.80	U	0.80	5.70	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.20	U	5.20	28.4	ug/Kg
108-88-3	Toluene	0.72	U	0.72	5.70	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.84	U	0.84	5.70	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.81	U	0.81	5.70	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075176.D	1		01/23/23 15:27	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.98	U	0.98	5.70	ug/Kg
591-78-6	2-Hexanone	5.30	U	5.30	28.4	ug/Kg
124-48-1	Dibromochloromethane	0.85	U	0.85	5.70	ug/Kg
106-93-4	1,2-Dibromoethane	0.85	U	0.85	5.70	ug/Kg
127-18-4	Tetrachloroethene	0.86	U	0.86	5.70	ug/Kg
108-90-7	Chlorobenzene	0.74	U	0.74	5.70	ug/Kg
100-41-4	Ethyl Benzene	0.80	U	0.80	5.70	ug/Kg
179601-23-1	m/p-Xylenes	1.70	U	1.70	11.4	ug/Kg
95-47-6	o-Xylene	0.90	U	0.90	5.70	ug/Kg
100-42-5	Styrene	0.90	U	0.90	5.70	ug/Kg
75-25-2	Bromoform	0.92	U	0.92	5.70	ug/Kg
98-82-8	Isopropylbenzene	0.82	U	0.82	5.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.70	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.76	U	0.76	5.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.72	U	0.72	5.70	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.73	U	0.73	5.70	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.70	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.70	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.70	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.8		50 - 163	102%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		54 - 147	96%	SPK: 50
2037-26-5	Toluene-d8	51.4		58 - 134	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.0		30 - 143	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	85100	7.881			
540-36-3	1,4-Difluorobenzene	168000	8.781			
3114-55-4	Chlorobenzene-d5	154000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	63400	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
002916-68-9	Ethanol, 2-(trimethylsilyl)-	11.8	J		7.08	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075176.D	1		01/23/23 15:27	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075176.D
 Acq On : 23 Jan 2023 15:27
 Operator : KP/SY
 Sample : 01233-06
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P37A

Quant Time: Jan 23 15:36:53 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.881	168	85119	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	168462	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	154125	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	63432	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	44088	50.759	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	101.520%
35) Dibromofluoromethane	7.810	113	49031	48.166	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	96.340%
50) Toluene-d8	10.269	98	206068	51.413	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	102.820%
62) 4-Bromofluorobenzene	12.575	95	63633	50.024	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	100.040%

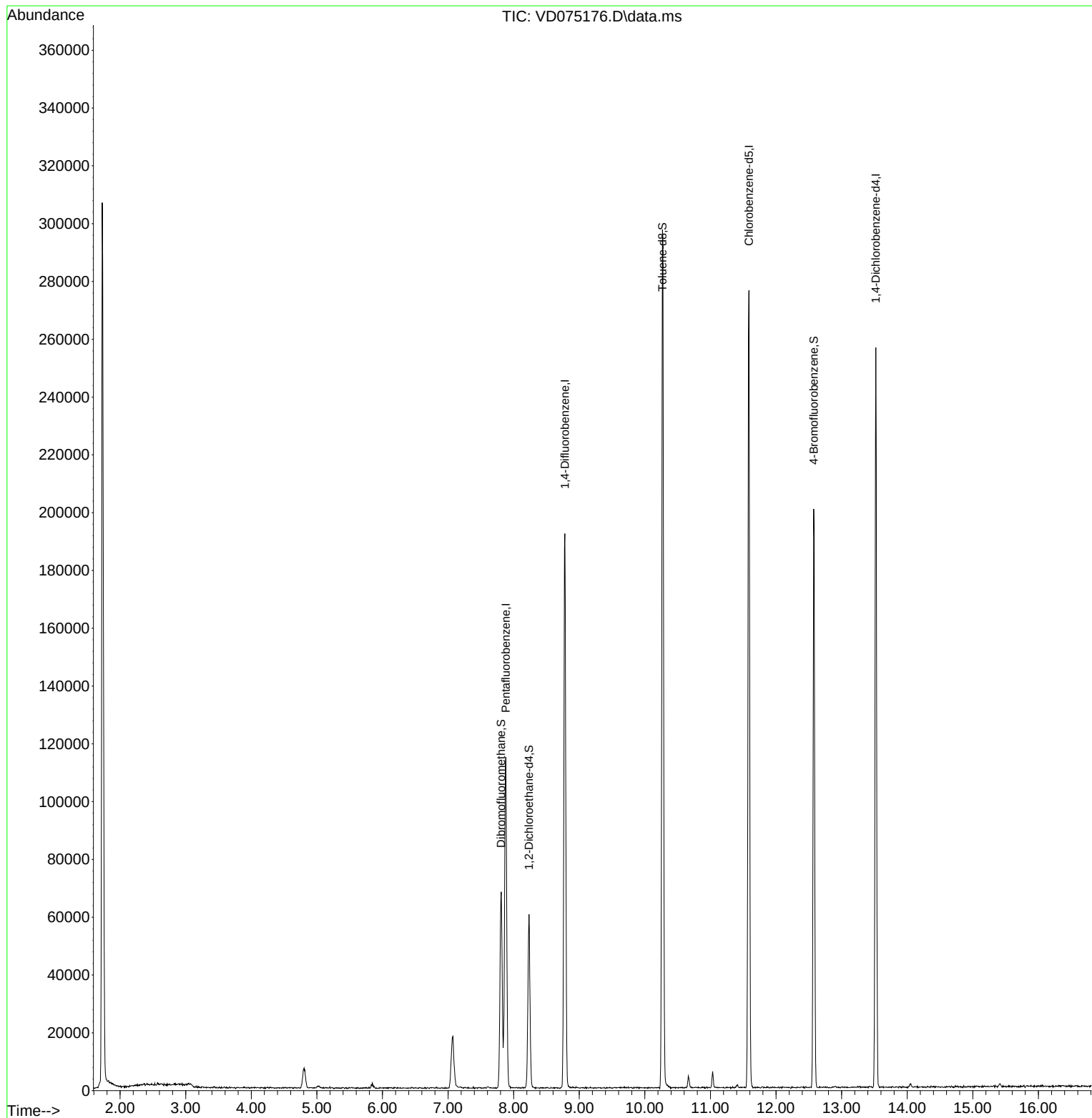
Target Compounds	Qvalue

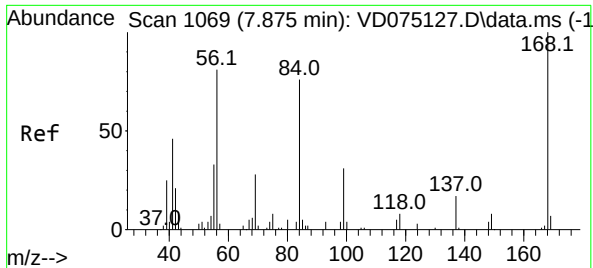
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075176.D
Acq On : 23 Jan 2023 15:27
Operator : KP/SY
Sample : 01233-06
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P37A

Quant Time: Jan 23 15:36:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

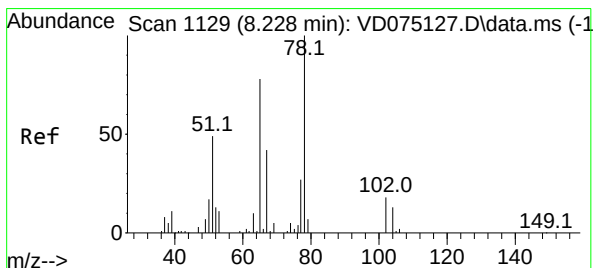
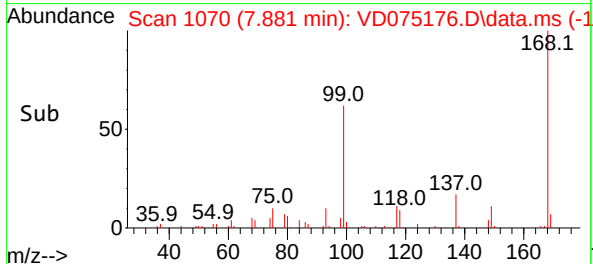
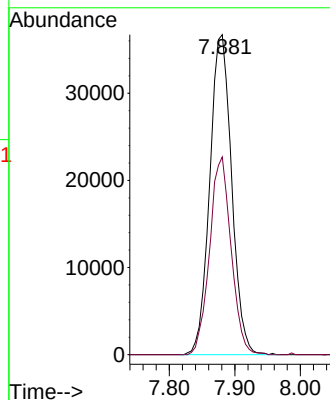
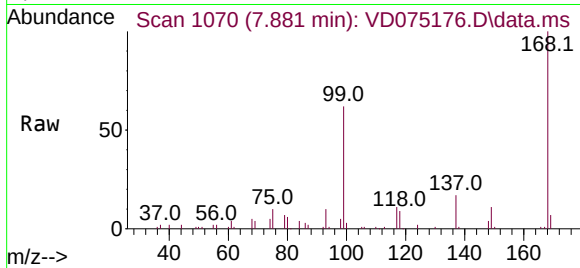




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.881 min Scan# 110
Delta R.T. 0.006 min
Lab File: VD075176.D
Acq: 23 Jan 2023 15:27

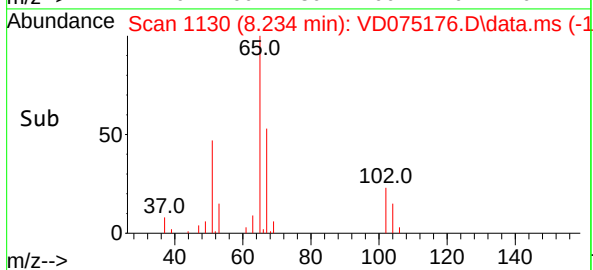
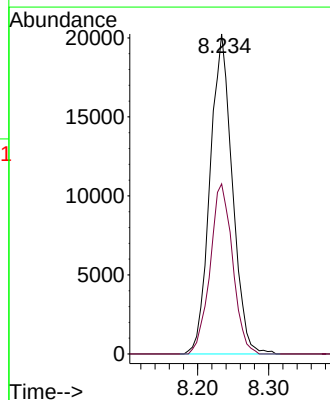
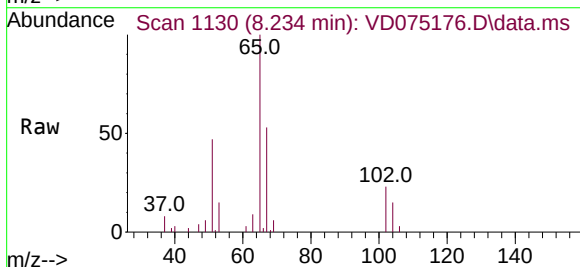
Instrument :
MSVOA_D
ClientSampleId :
B-P37A

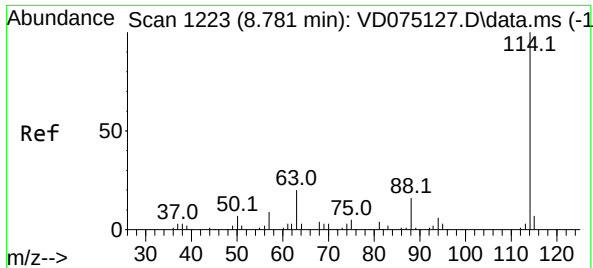
Tgt Ion:168 Resp: 85119
Ion Ratio Lower Upper
168 100
99 61.8 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 50.759 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.006 min
Lab File: VD075176.D
Acq: 23 Jan 2023 15:27

Tgt Ion: 65 Resp: 44088
Ion Ratio Lower Upper
65 100
67 53.4 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 1

Delta R.T. -0.000 min

Lab File: VD075176.D

Acq: 23 Jan 2023 15:27

Instrument :

MSVOA_D

ClientSampleId :

B-P37A

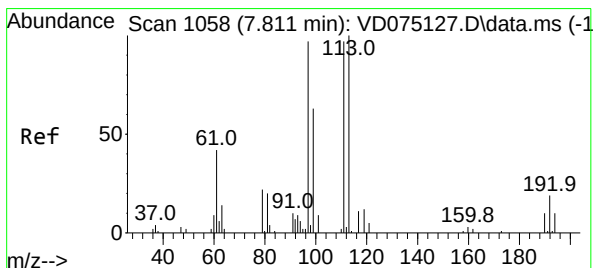
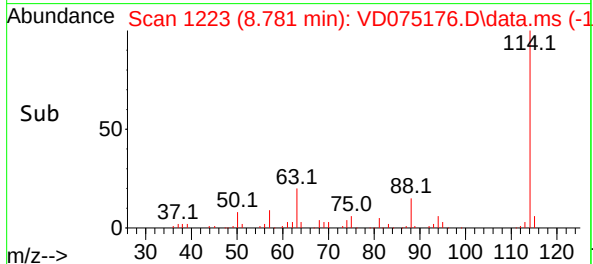
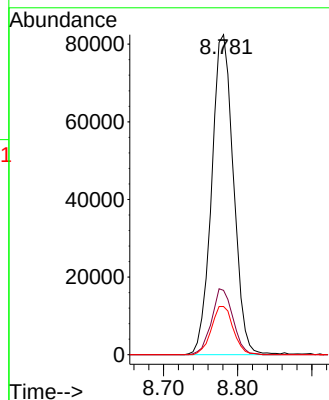
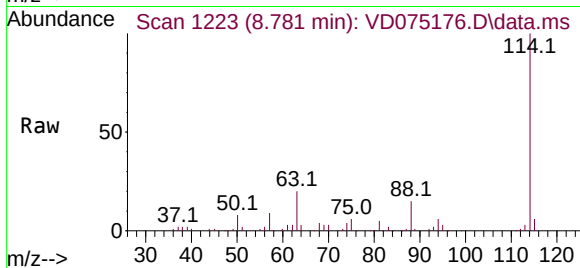
Tgt Ion:114 Resp: 168462

Ion Ratio Lower Upper

114 100

63 20.1 0.0 40.2

88 15.0 0.0 32.2



#35

Dibromofluoromethane

Concen: 48.166 ug/l

RT: 7.810 min Scan# 1058

Delta R.T. -0.000 min

Lab File: VD075176.D

Acq: 23 Jan 2023 15:27

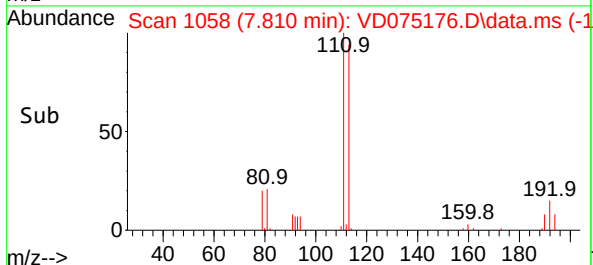
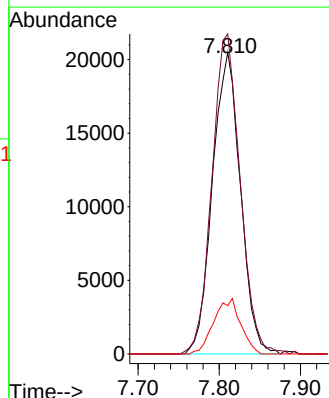
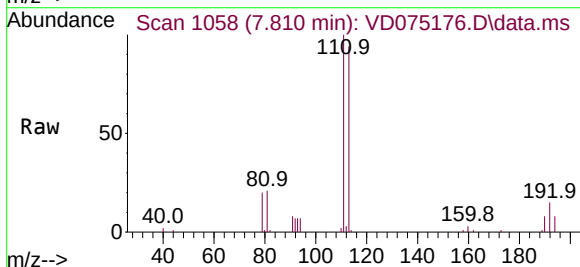
Tgt Ion:113 Resp: 49031

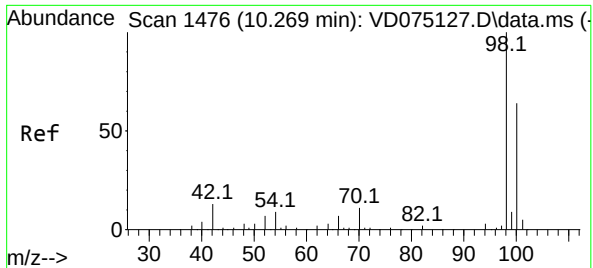
Ion Ratio Lower Upper

113 100

111 106.9 80.1 120.1

192 17.6 15.4 23.0

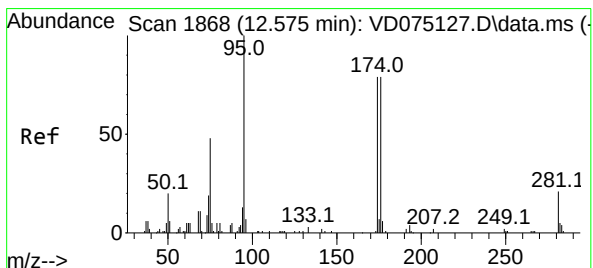
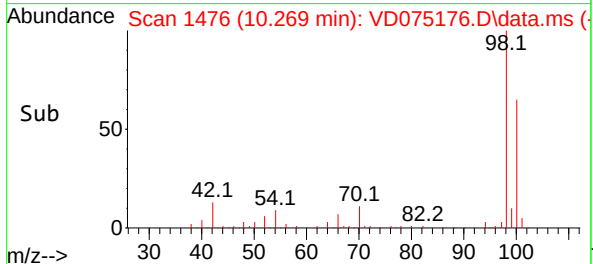
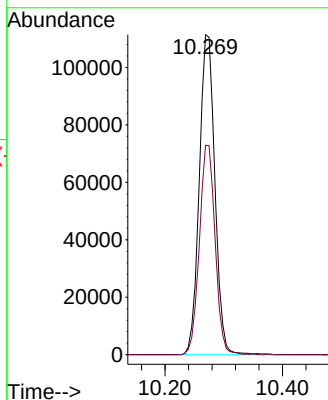
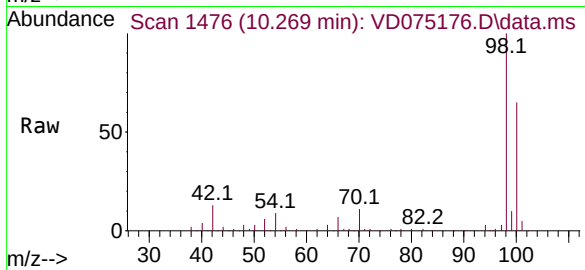




#50
Toluene-d8
Concen: 51.413 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD075176.D
Acq: 23 Jan 2023 15:27

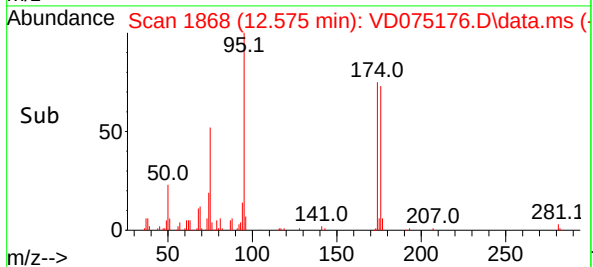
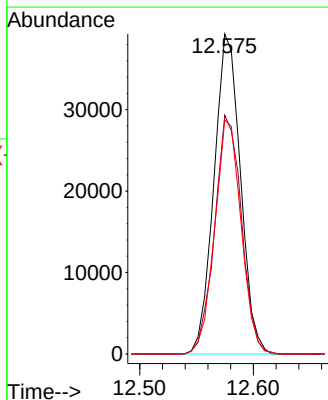
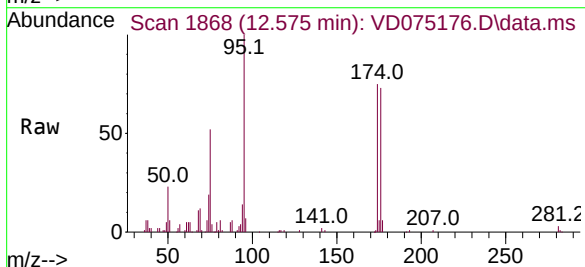
Instrument :
MSVOA_D
ClientSampleId :
B-P37A

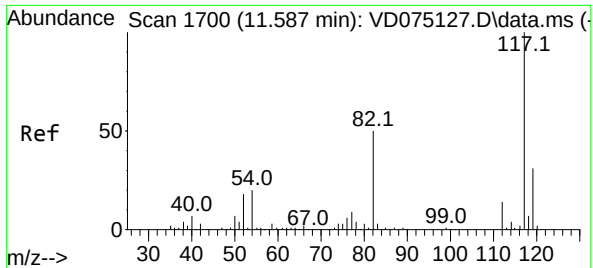
Tgt Ion: 98 Resp: 206068
Ion Ratio Lower Upper
98 100
100 65.8 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 50.024 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075176.D
Acq: 23 Jan 2023 15:27

Tgt Ion: 95 Resp: 63633
Ion Ratio Lower Upper
95 100
174 75.6 0.0 161.2
176 73.1 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.587 min Scan# 1

Delta R.T. -0.000 min

Lab File: VD075176.D

Acq: 23 Jan 2023 15:27

Instrument :

MSVOA_D

ClientSampleId :

B-P37A

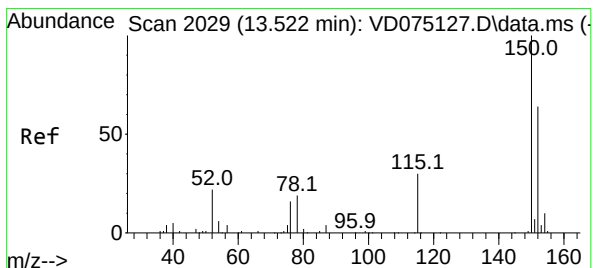
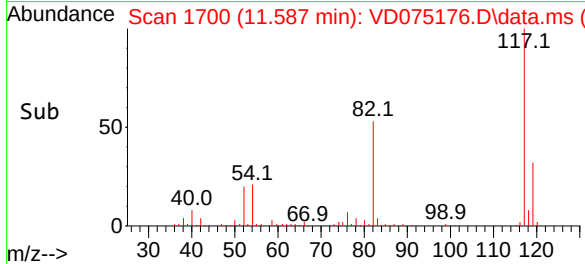
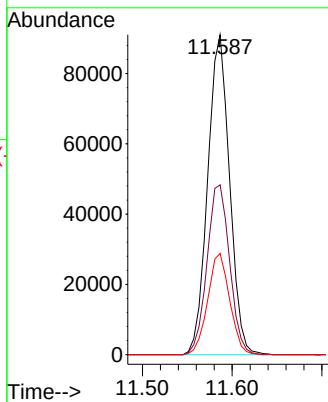
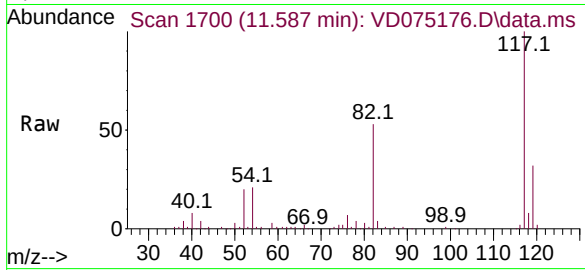
Tgt Ion:117 Resp: 154125

Ion Ratio Lower Upper

117 100

82 53.1 39.6 59.4

119 31.6 24.6 37.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 2029

Delta R.T. -0.000 min

Lab File: VD075176.D

Acq: 23 Jan 2023 15:27

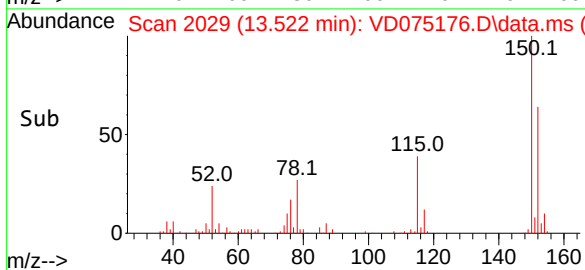
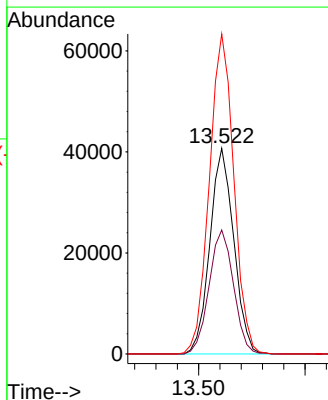
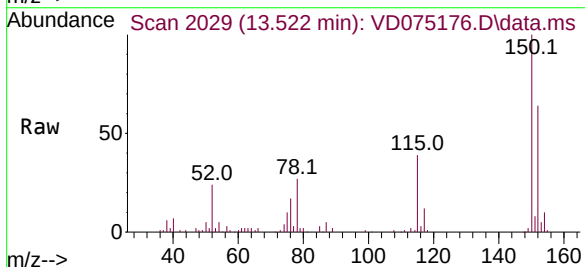
Tgt Ion:152 Resp: 63432

Ion Ratio Lower Upper

152 100

115 61.5 28.8 86.4

150 158.9 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075176.D
Acq On : 23 Jan 2023 15:27
Operator : KP/SY
Sample : 01233-06
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P37A

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075176.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	38	rBV	304431	556915	100.00%	16.662%
2	4.805	537	547	556	rBV2	6982	21159	3.80%	0.633%
3	7.075	921	933	942	rBV2	17958	53992	9.69%	1.615%
4	7.810	1046	1058	1063	rBV2	67985	163665	29.39%	4.897%
5	7.881	1063	1070	1079	rVB	114052	260922	46.85%	7.806%
6	8.234	1118	1130	1145	rBV	60137	132539	23.80%	3.965%
7	8.781	1210	1223	1236	rBV	192017	390232	70.07%	11.675%
8	10.269	1469	1476	1488	rBV	297151	549068	98.59%	16.427%
9	10.663	1538	1543	1551	rBV2	4181	6927	1.24%	0.207%
10	11.034	1600	1606	1611	rBV	5694	8216	1.48%	0.246%
11	11.587	1692	1700	1710	rVB	275980	471039	84.58%	14.093%
12	12.575	1862	1868	1877	rBV	200225	319845	57.43%	9.569%
13	13.522	2022	2029	2039	rVB	256192	407948	73.25%	12.205%

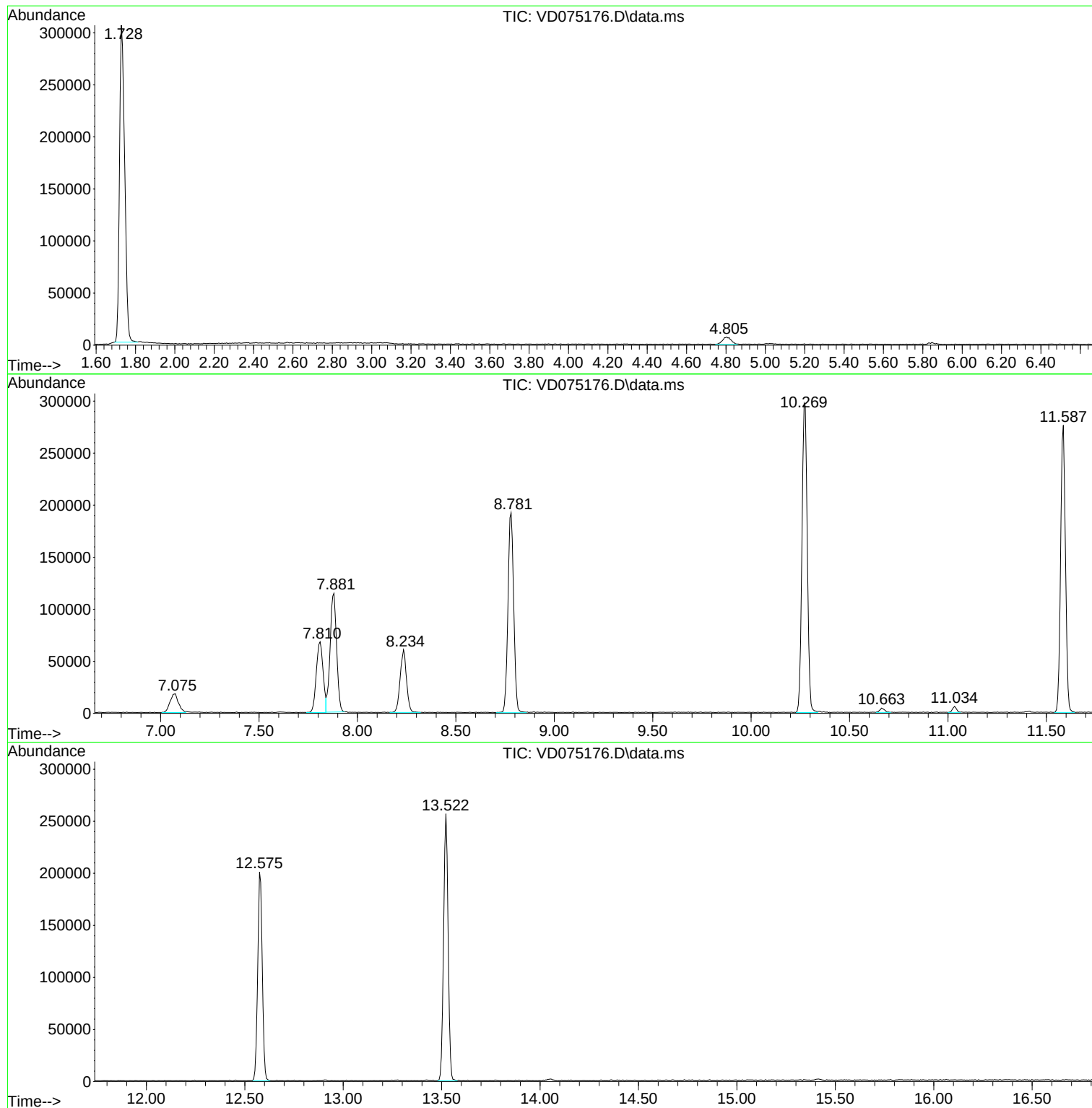
Sum of corrected areas: 3342467

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075176.D
Acq On : 23 Jan 2023 15:27
Operator : KP/SY
Sample : 01233-06
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P37A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075176.D
Acq On : 23 Jan 2023 15:27
Operator : KP/SY
Sample : 01233-06
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P37A

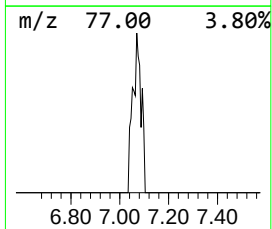
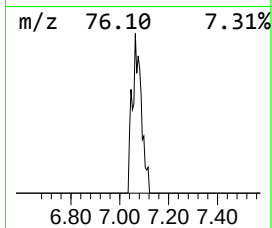
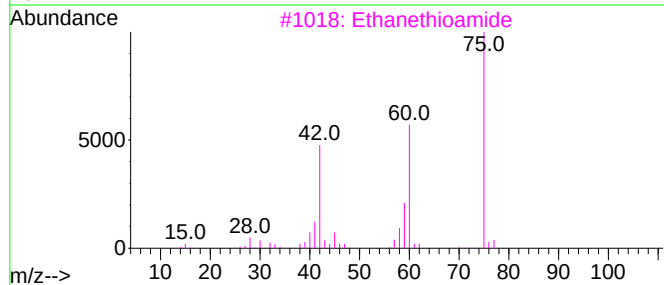
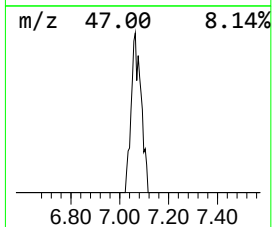
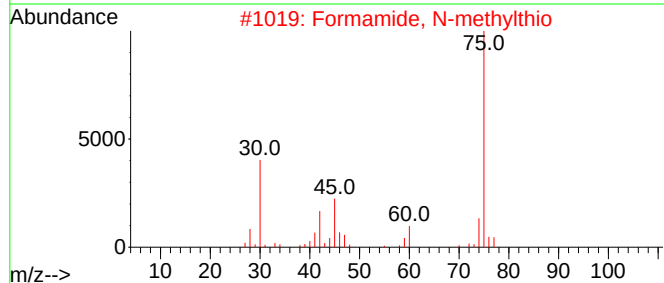
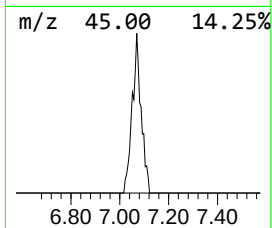
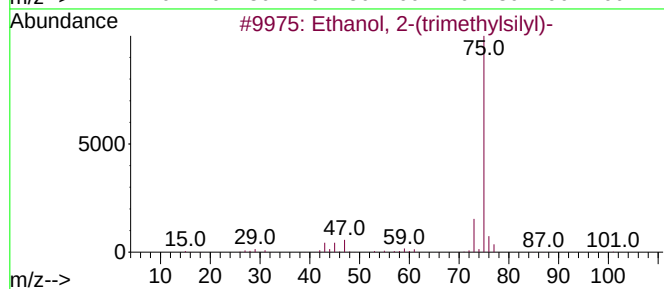
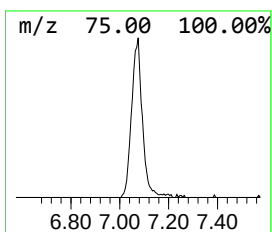
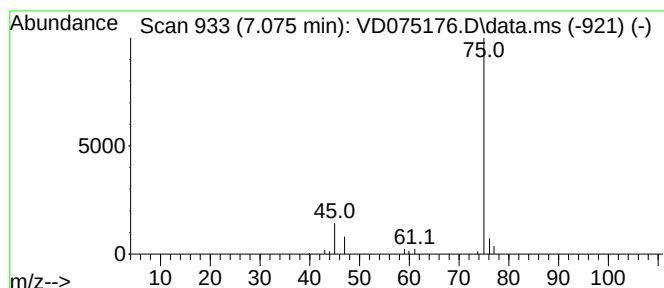
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 Ethanol, 2-(trimethylsilyl)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.075	10.35 ug/l	53992	Pentafluorobenzene	7.881

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	78
2			Formamide, N-methylthio	75	C2H5NS	018952-41-5	9
3			Ethanethioamide	75	C2H5NS	000062-55-5	5
4			Silanol, trimethyl-	90	C3H10OSi	001066-40-6	4
5			Glycolaldehyde dimethyl acetal	106	C4H10O3	030934-97-5	2



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075176.D
Acq On : 23 Jan 2023 15:27
Operator : KP/SY
Sample : 01233-06
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P37A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Ethanol, 2-(tri...	7.075	10.4	ug/l	53992	1	7.881	260922	50.0



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.5
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012315.D	1		01/23/23 15:48	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	1.00	6.00	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	6.00	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	6.00	ug/Kg
74-83-9	Bromomethane	1.40	U	1.40	6.00	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	6.00	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	6.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.86	U	0.86	6.00	ug/Kg
75-35-4	1,1-Dichloroethene	1.00	U	1.00	6.00	ug/Kg
67-64-1	Acetone	20.6	J	14.6	29.8	ug/Kg
75-15-0	Carbon Disulfide	0.89	U	0.89	6.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	6.00	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	6.00	ug/Kg
75-09-2	Methylene Chloride	7.10	U	7.10	11.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.81	U	0.81	6.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.83	U	0.83	6.00	ug/Kg
110-82-7	Cyclohexane	1.00	U	1.00	6.00	ug/Kg
78-93-3	2-Butanone	8.70	U	8.70	29.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.94	U	0.94	6.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.81	U	0.81	6.00	ug/Kg
74-97-5	Bromochloromethane	0.97	U	0.97	6.00	ug/Kg
67-66-3	Chloroform	0.80	U	0.80	6.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.89	U	0.89	6.00	ug/Kg
108-87-2	Methylcyclohexane	0.95	U	0.95	6.00	ug/Kg
71-43-2	Benzene	0.79	U	0.79	6.00	ug/Kg
107-06-2	1,2-Dichloroethane	1.00	U	1.00	6.00	ug/Kg
79-01-6	Trichloroethene	0.87	U	0.87	6.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.78	U	0.78	6.00	ug/Kg
75-27-4	Bromodichloromethane	0.83	U	0.83	6.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.50	U	5.50	29.8	ug/Kg
108-88-3	Toluene	0.75	U	0.75	6.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.88	U	0.88	6.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.85	U	0.85	6.00	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.5
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012315.D	1		01/23/23 15:48	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1.00	U	1.00	6.00	ug/Kg
591-78-6	2-Hexanone	5.60	U	5.60	29.8	ug/Kg
124-48-1	Dibromochloromethane	0.89	U	0.89	6.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.89	U	0.89	6.00	ug/Kg
127-18-4	Tetrachloroethene	0.91	U	0.91	6.00	ug/Kg
108-90-7	Chlorobenzene	0.78	U	0.78	6.00	ug/Kg
100-41-4	Ethyl Benzene	0.83	U	0.83	6.00	ug/Kg
179601-23-1	m/p-Xylenes	1.80	U	1.80	11.9	ug/Kg
95-47-6	o-Xylene	0.94	U	0.94	6.00	ug/Kg
100-42-5	Styrene	0.94	U	0.94	6.00	ug/Kg
75-25-2	Bromoform	0.97	U	0.97	6.00	ug/Kg
98-82-8	Isopropylbenzene	0.86	U	0.86	6.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	6.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.80	U	0.80	6.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.75	U	0.75	6.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.76	U	0.76	6.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.50	U	1.50	6.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	6.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	6.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	83.0	*	50 - 163	166%	SPK: 50
1868-53-7	Dibromofluoromethane	60.1		54 - 147	120%	SPK: 50
2037-26-5	Toluene-d8	66.9		58 - 134	134%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		30 - 143	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	35900	7.789			
540-36-3	1,4-Difluorobenzene	57300	8.691			
3114-55-4	Chlorobenzene-d5	56000	11.489			
3855-82-1	1,4-Dichlorobenzene-d4	24400	13.428			
TENTATIVE IDENTIFIED COMPOUNDS						
004403-13-8	Ethylene glycol, TMS derivative	40.0	J		6.97	ug/Kg
	unknown10.947	8.50	J		10.9	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.5
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012315.D	1		01/23/23 15:48	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012315.D
 Acq On : 23 Jan 2023 15:48
 Operator : KP/MD
 Sample : 01233-07
 Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 B-P37B

Quant Time: Jan 23 16:16:55 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

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

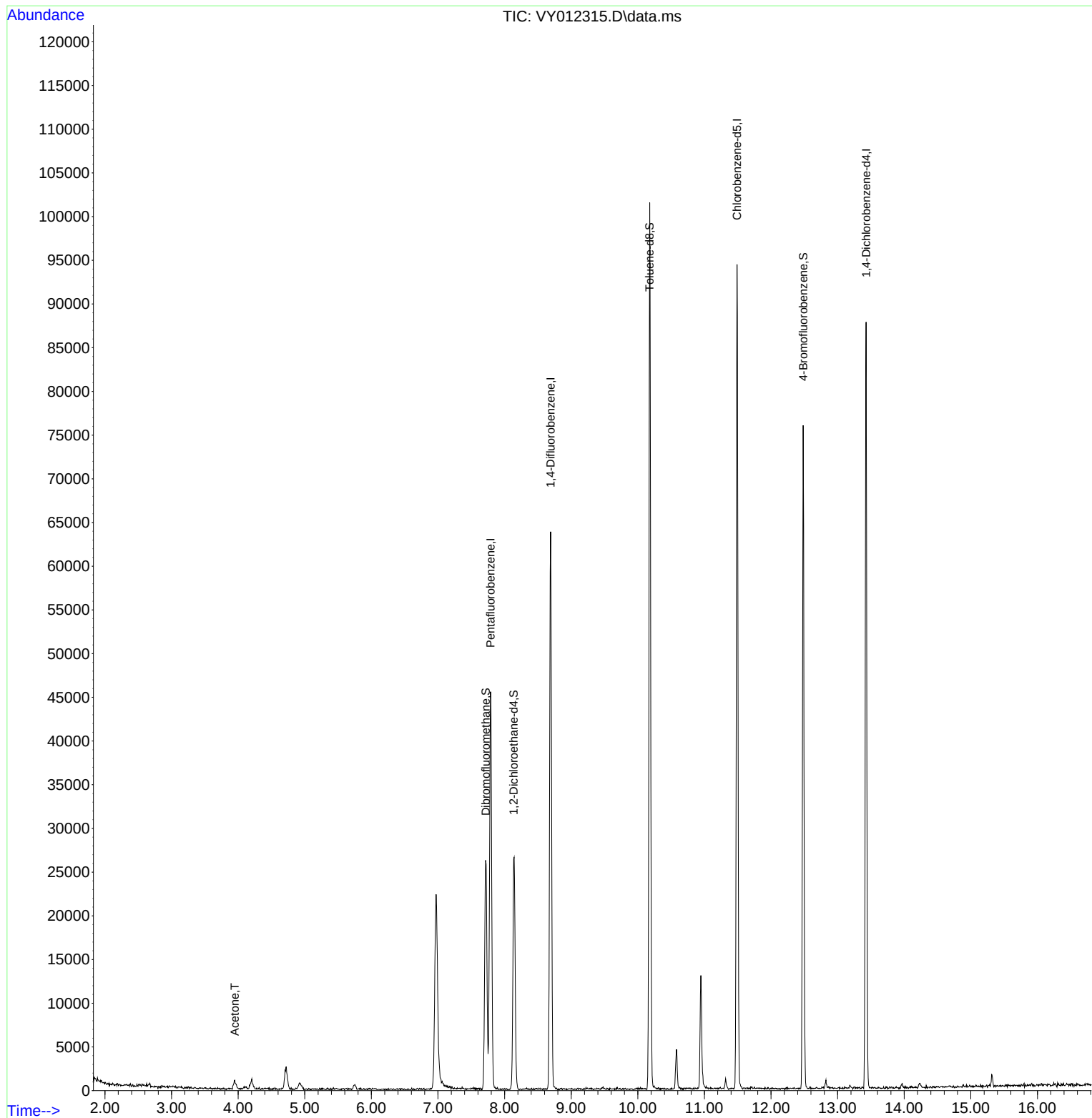
Internal Standards						
1) Pentafluorobenzene	7.789	168	35937	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	57297	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	55952	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	24351	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.136	65	23941	82.964	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 165.920%#	
35) Dibromofluoromethane	7.716	113	18245	60.138	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 120.280%	
50) Toluene-d8	10.179	98	68774	66.888	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 133.780%	
62) 4-Bromofluorobenzene	12.483	95	20851	48.753	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 97.500%	
Target Compounds						
16) Acetone	3.948	43	1729	17.278	ug/l	Qvalue 89

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

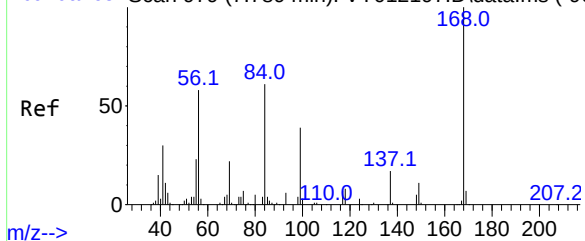
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012315.D
Acq On : 23 Jan 2023 15:48
Operator : KP/MD
Sample : 01233-07
Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
B-P37B

Quant Time: Jan 23 16:16:55 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration



Abundance Scan 979 (7.789 min): VY012197.D\data.ms (-96



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.789 min Scan# 91

Delta R.T. -0.000 min

Lab File: VY012315.D

Acq: 23 Jan 2023 15:48

Instrument :

MSVOA_Y

ClientSampleId :

B-P37B

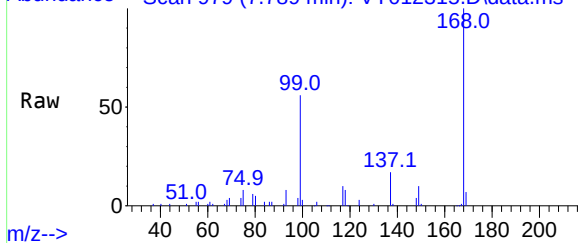
Tgt Ion:168 Resp: 35937

Ion Ratio Lower Upper

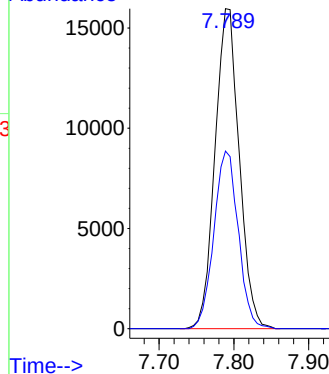
168 100

99 55.5 44.0 66.0

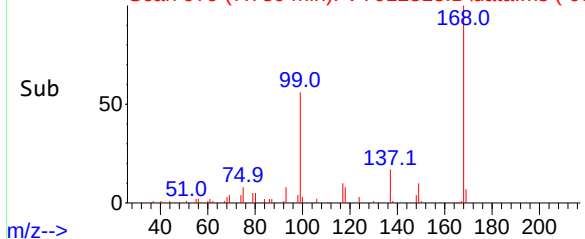
Abundance Scan 979 (7.789 min): VY012315.D\data.ms



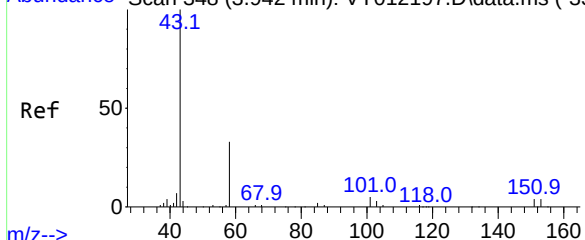
Abundance



Abundance Scan 979 (7.789 min): VY012315.D\data.ms (-93



Abundance Scan 348 (3.942 min): VY012197.D\data.ms (-33



#16

Acetone

Concen: 17.278 ug/l

RT: 3.948 min Scan# 349

Delta R.T. 0.006 min

Lab File: VY012315.D

Acq: 23 Jan 2023 15:48

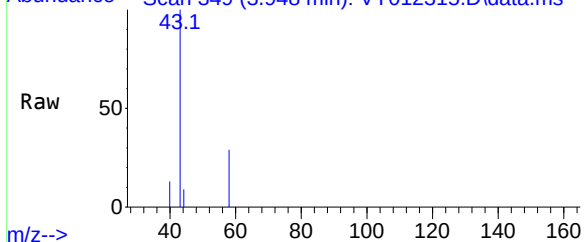
Tgt Ion: 43 Resp: 1729

Ion Ratio Lower Upper

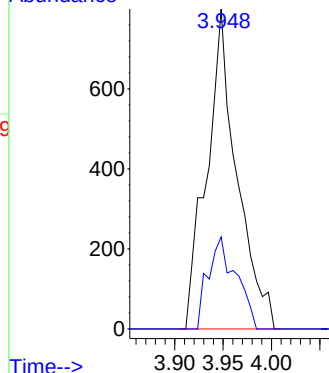
43 100

58 28.7 27.9 41.9

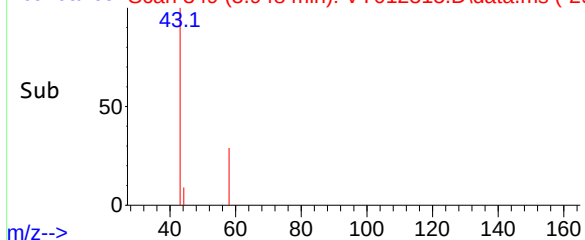
Abundance Scan 349 (3.948 min): VY012315.D\data.ms

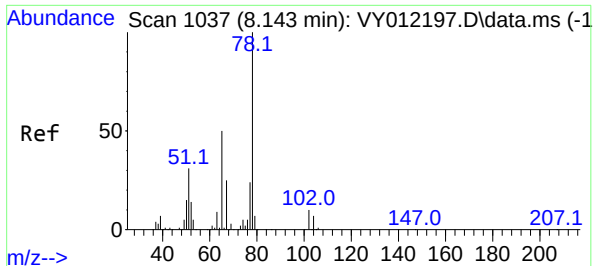


Abundance



Abundance Scan 349 (3.948 min): VY012315.D\data.ms (-29





#33

1,2-Dichloroethane-d4

Concen: 82.964 ug/l

RT: 8.136 min Scan# 1036

Delta R.T. -0.007 min

Lab File: VY012315.D

Acq: 23 Jan 2023 15:48

Instrument :

MSVOA_Y

ClientSampleId :

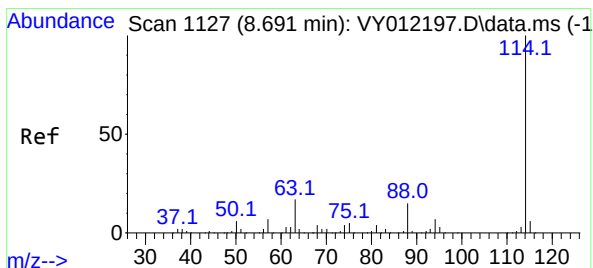
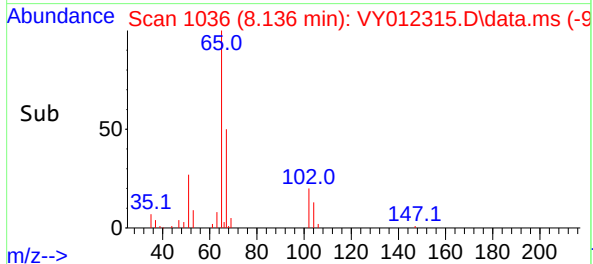
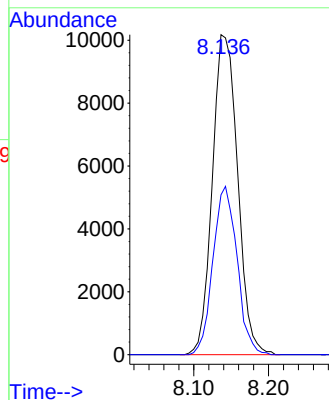
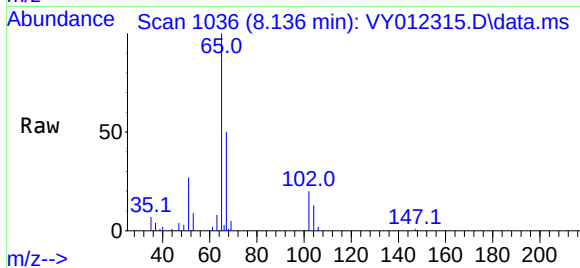
B-P37B

Tgt Ion: 65 Resp: 23941

Ion Ratio Lower Upper

65 100

67 50.1 0.0 103.2



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.691 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VY012315.D

Acq: 23 Jan 2023 15:48

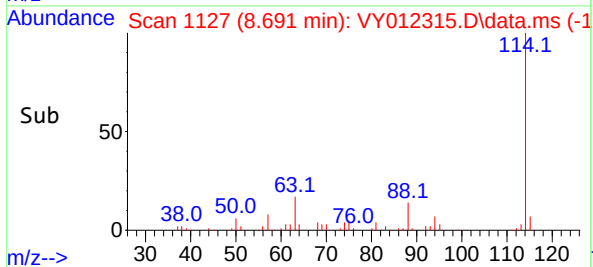
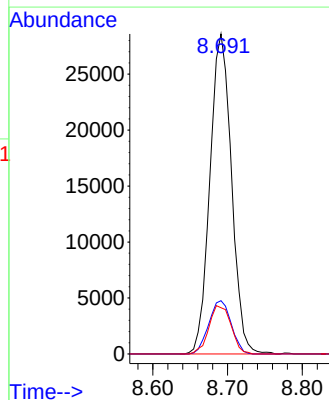
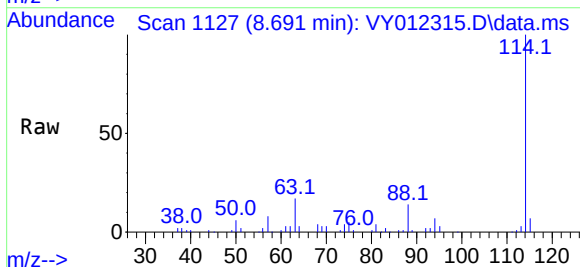
Tgt Ion: 114 Resp: 57297

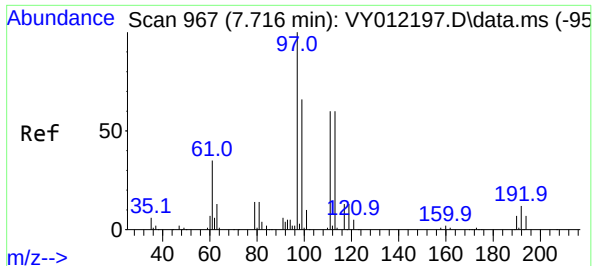
Ion Ratio Lower Upper

114 100

63 16.6 0.0 39.6

88 14.5 0.0 32.2





#35

Dibromofluoromethane

Concen: 60.138 ug/l

RT: 7.716 min Scan# 967

Delta R.T. -0.000 min

Lab File: VY012315.D

Acq: 23 Jan 2023 15:48

Instrument :

MSVOA_Y

ClientSampleId :

B-P37B

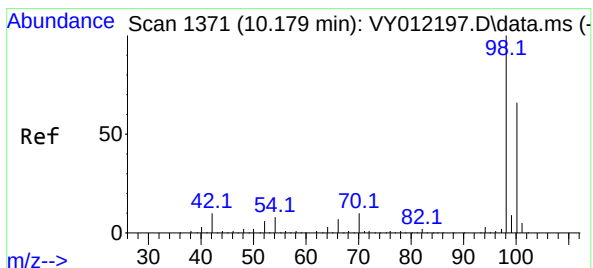
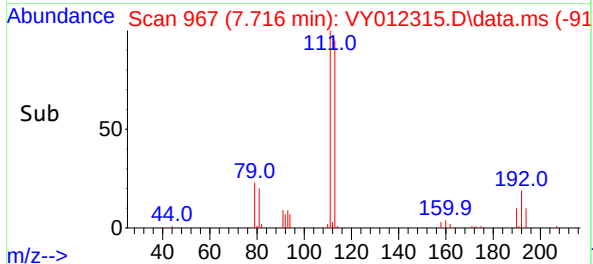
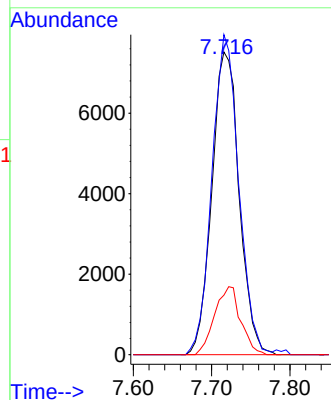
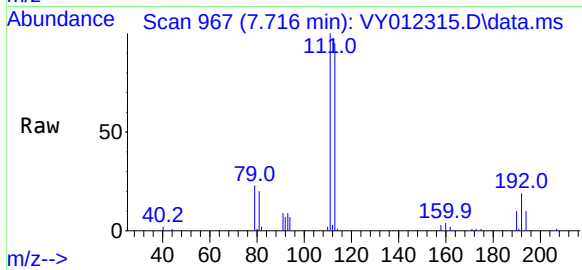
Tgt Ion:113 Resp: 18245

Ion Ratio Lower Upper

113 100

111 103.5 83.0 124.4

192 21.4 16.0 24.0



#50

Toluene-d8

Concen: 66.888 ug/l

RT: 10.179 min Scan# 1371

Delta R.T. -0.000 min

Lab File: VY012315.D

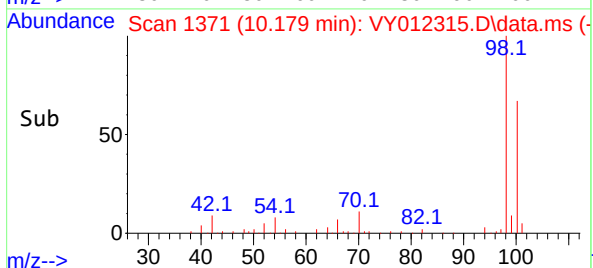
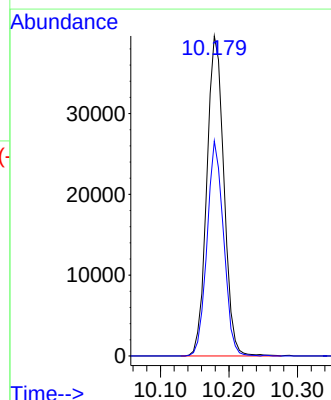
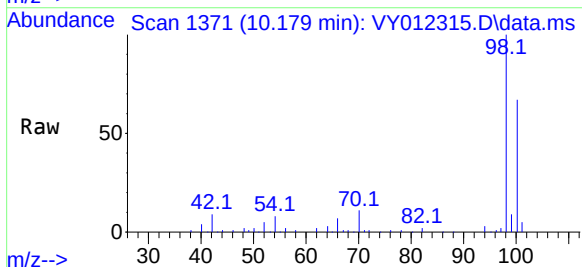
Acq: 23 Jan 2023 15:48

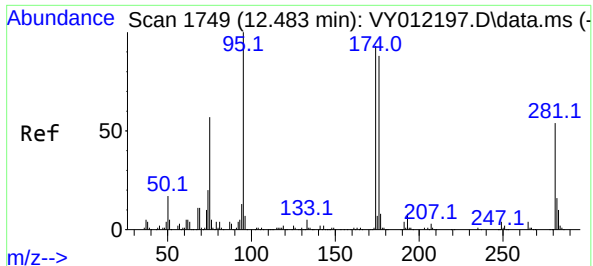
Tgt Ion: 98 Resp: 68774

Ion Ratio Lower Upper

98 100

100 65.0 51.9 77.9

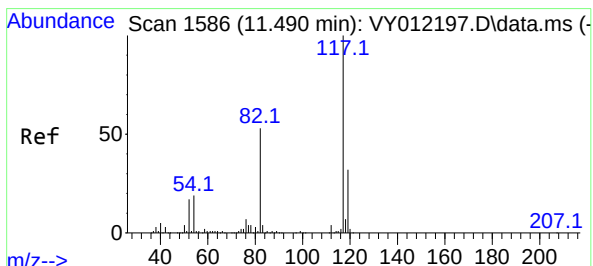
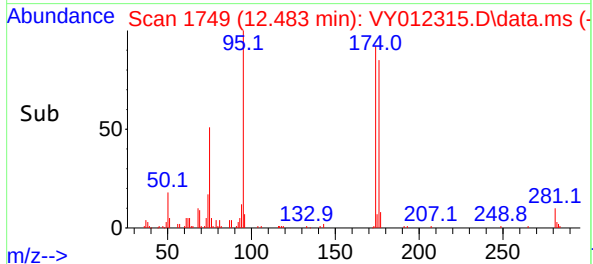
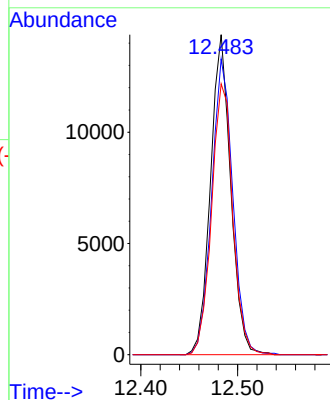
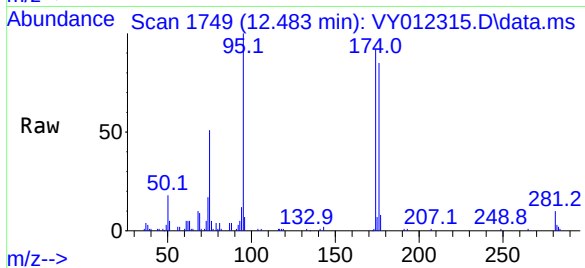




#62
4-Bromofluorobenzene
Concen: 48.753 ug/l
RT: 12.483 min Scan# 11
Delta R.T. 0.000 min
Lab File: VY012315.D
Acq: 23 Jan 2023 15:48

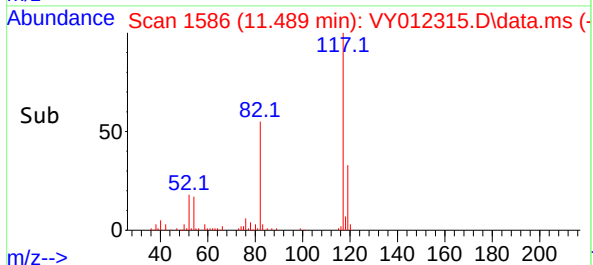
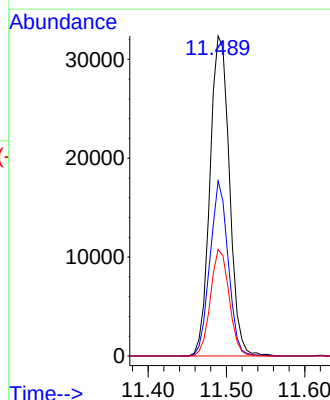
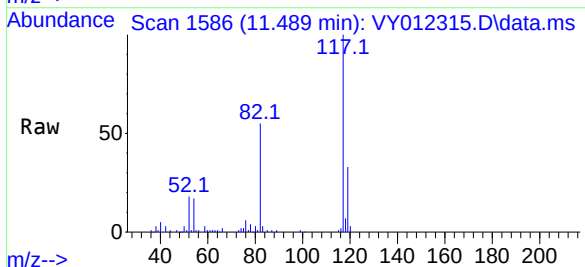
Instrument :
MSVOA_Y
ClientSampleId :
B-P37B

Tgt Ion: 95 Resp: 20851
Ion Ratio Lower Upper
95 100
174 96.5 0.0 172.0
176 88.8 0.0 167.6

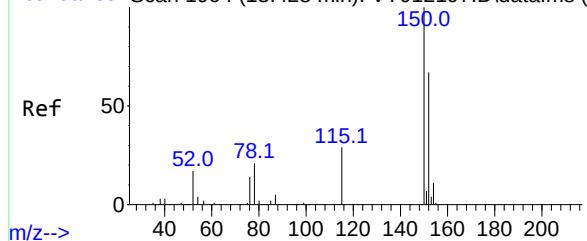


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.489 min Scan# 1586
Delta R.T. -0.001 min
Lab File: VY012315.D
Acq: 23 Jan 2023 15:48

Tgt Ion: 117 Resp: 55952
Ion Ratio Lower Upper
117 100
82 54.7 44.8 67.2
119 33.3 25.4 38.2



Abundance Scan 1904 (13.428 min): VY012197.D\data.ms (-



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.428 min Scan# 1904

Delta R.T. 0.006 min

Lab File: VY012315.D

Acq: 23 Jan 2023 15:48

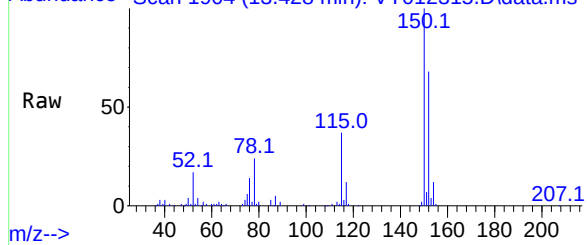
Instrument :

MSVOA_Y

ClientSampleId :

B-P37B

Abundance Scan 1904 (13.428 min): VY012315.D\data.ms (-



Tgt Ion:152 Resp: 24351

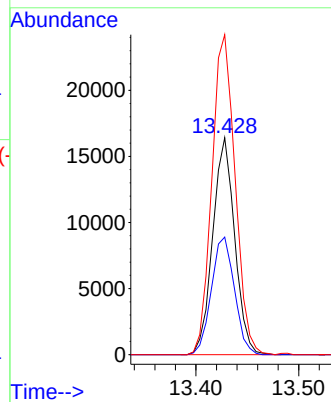
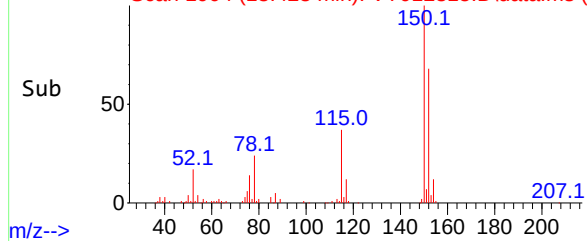
Ion Ratio Lower Upper

152 100

115 57.0 29.1 87.3

150 155.8 0.0 342.6

Abundance Scan 1904 (13.428 min): VY012315.D\data.ms (-



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012315.D
 Acq On : 23 Jan 2023 15:48
 Operator : KP/MD
 Sample : 01233-07
 Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 B-P37B

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M

Title : SW846 8260

Signal : TIC: VY012315.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.948	343	349	359	rBV2	1023	2635	1.52%	0.250%
2	4.204	383	391	393	rBV3	1108	2102	1.21%	0.199%
3	4.722	466	476	486	rVB3	2600	7460	4.29%	0.706%
4	4.923	502	509	514	rBV3	690	1862	1.07%	0.176%
5	6.972	833	845	858	rBV	22277	68062	39.17%	6.445%
6	7.716	958	967	973	rBV2	26245	63260	36.40%	5.991%
7	7.789	973	979	990	rVB	45371	101546	58.43%	9.616%
8	8.142	1027	1037	1050	rVB	26599	61939	35.64%	5.866%
9	8.691	1118	1127	1136	rBV	63834	127997	73.65%	12.121%
10	10.179	1364	1371	1380	rBV	101498	173782	100.00%	16.457%
11	10.581	1432	1437	1444	rBV2	4449	7510	4.32%	0.711%
12	10.947	1490	1497	1509	rBV	12927	22562	12.98%	2.137%
13	11.319	1554	1558	1565	rVB2	1245	1957	1.13%	0.185%
14	11.489	1578	1586	1595	rBV	94346	158014	90.93%	14.964%
15	12.483	1742	1749	1761	rVB2	75908	117136	67.40%	11.093%
16	13.428	1898	1904	1912	rBV	87706	135999	78.26%	12.879%
17	15.312	2210	2213	2218	rVB3	1423	2143	1.23%	0.203%

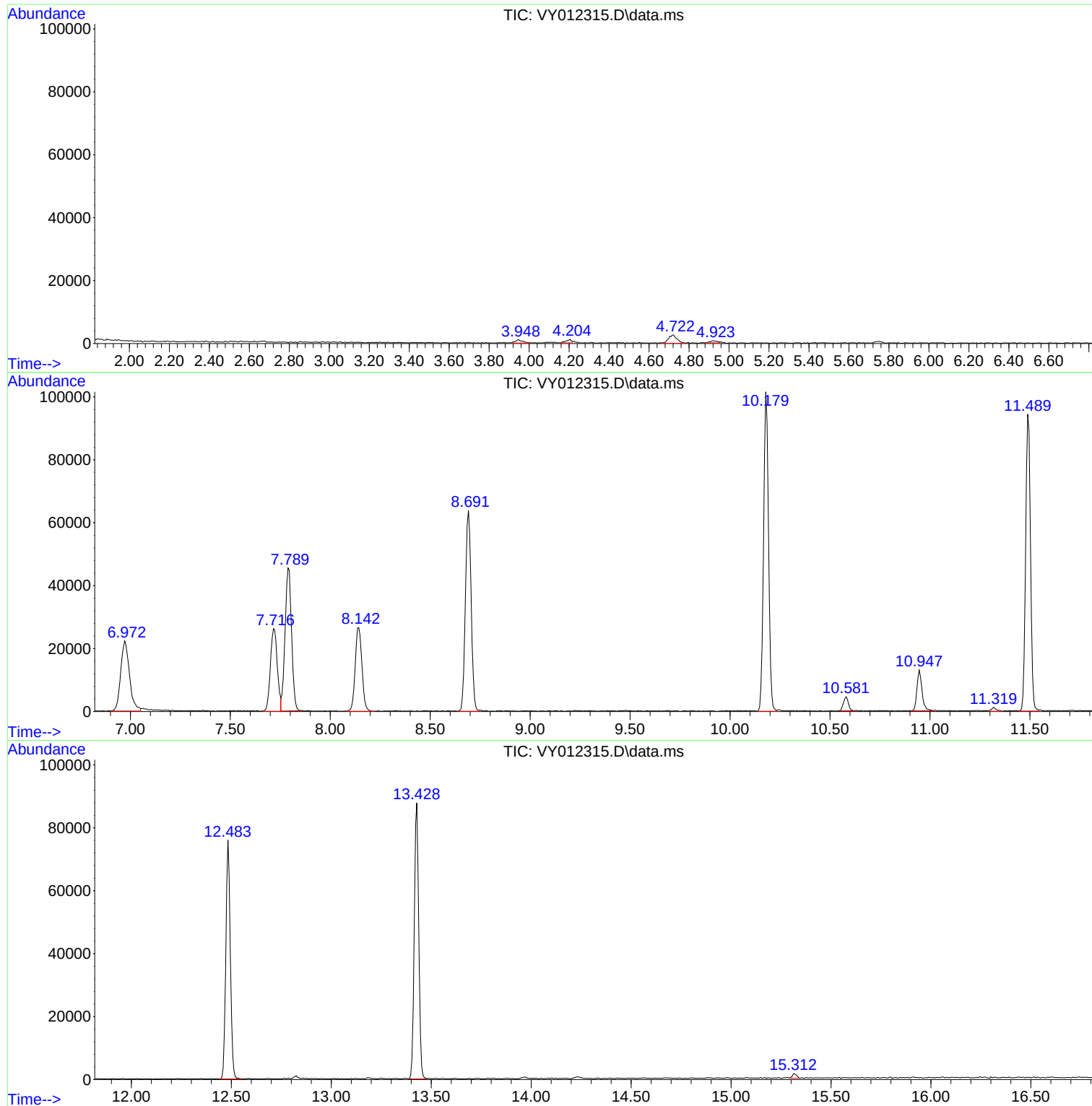
Sum of corrected areas: 1055966

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012315.D
Acq On : 23 Jan 2023 15:48
Operator : KP/MD
Sample : 01233-07
Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
B-P37B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012315.D
Acq On : 23 Jan 2023 15:48
Operator : KP/MD
Sample : 01233-07
Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
B-P37B

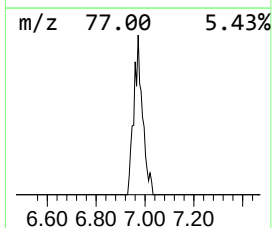
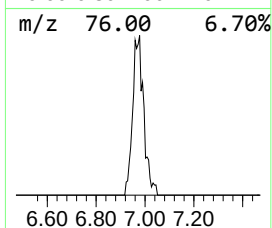
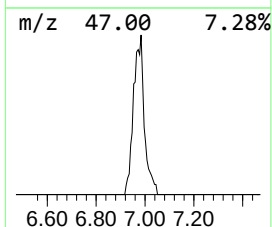
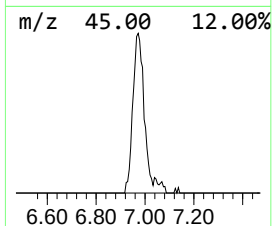
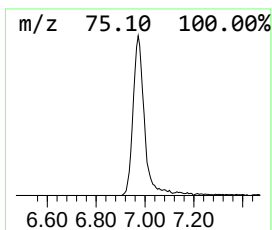
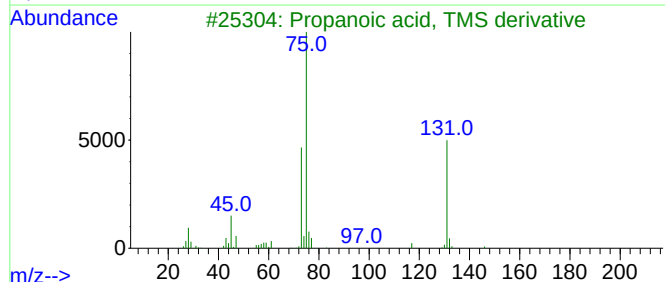
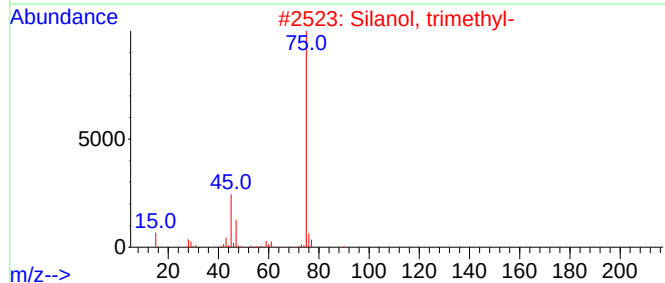
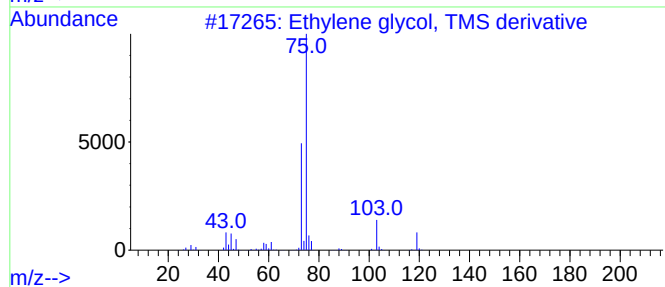
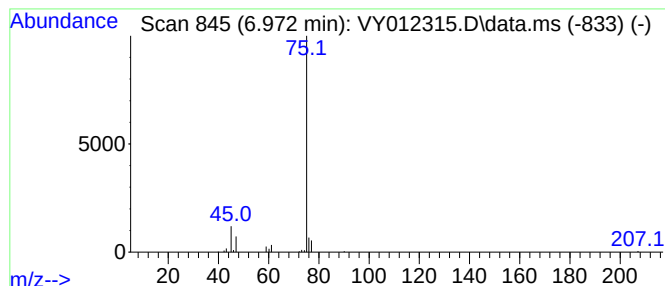
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 1 Ethylene glycol, TMS deriva... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.972	33.51 ug/l	68062	Pentafluorobenzene	7.789

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Ethylene glycol, TMS derivative	134	C5H14O2Si	004403-13-8	83
2			Silanol, trimethyl-	90	C3H10OSi	001066-40-6	83
3			Propanoic acid, TMS derivative	146	C6H14O2Si	016844-98-7	83
4			2-Methylpropanoic acid, TBDMS de...	202	C10H22O2Si	111864-21-2	83
5			Acetic acid, TMS derivative	132	C5H12O2Si	002754-27-0	74



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012315.D
Acq On : 23 Jan 2023 15:48
Operator : KP/MD
Sample : 01233-07
Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
B-P37B

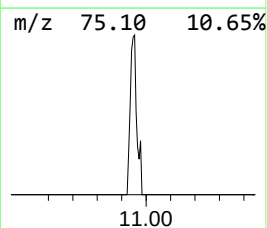
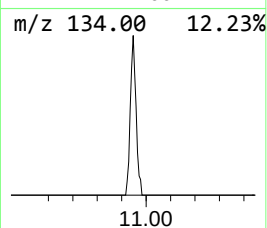
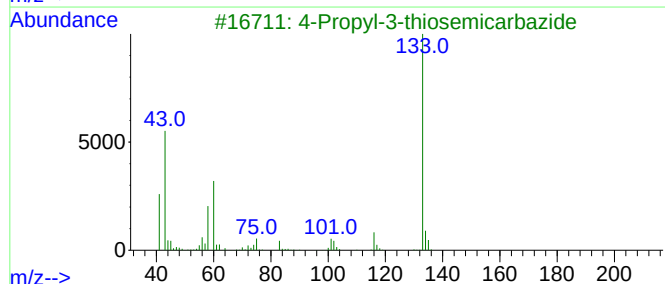
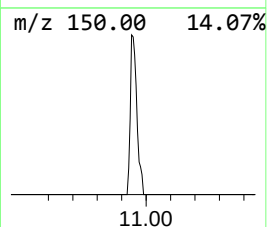
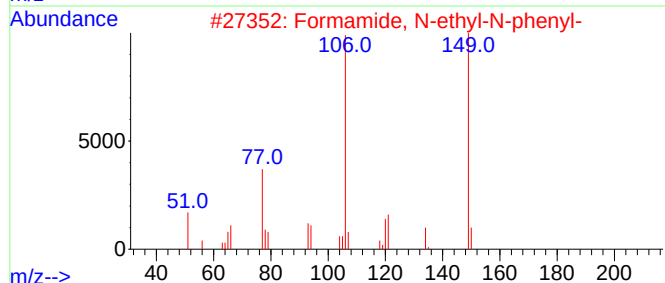
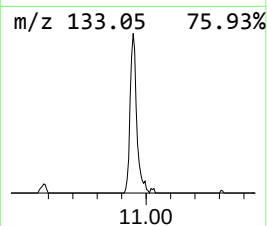
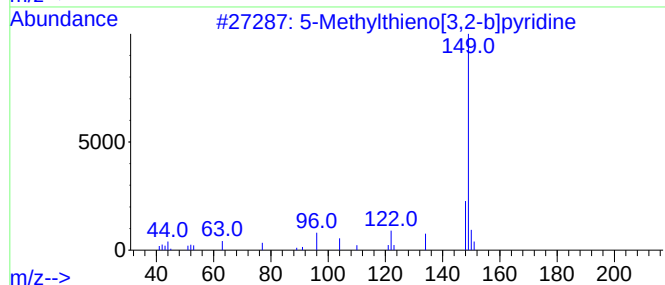
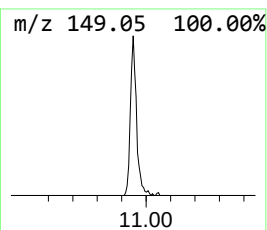
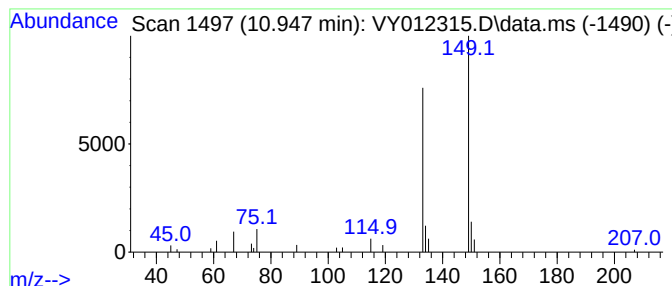
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 unknown10.947 Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.947	7.14 ug/l	22562	Chlorobenzene-d5	11.489

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			5-Methylthieno[3,2-b]pyridine	149	C8H7NS	001759-29-1	25
2			Formamide, N-ethyl-N-phenyl-	149	C9H11NO	005461-49-4	25
3			4-Propyl-3-thiosemicarbazide	133	C4H11N3S	013431-35-1	25
4			4-Ethylbenzoic acid, ethyl ester	178	C11H14O2	036207-13-3	23
5			4-Ethylbenzoic acid, 2-pentyl ester	220	C14H20O2	1000293-31-9	17



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012315.D
Acq On : 23 Jan 2023 15:48
Operator : KP/MD
Sample : 01233-07
Misc : 5.02g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
B-P37B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Ethylene glycol...	6.972	33.5	ug/l	68062	1	7.789	101546	50.0
unknown10.947	10.947	7.1	ug/l	22562	3	11.489	158014	50.0



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075161.D	1		01/20/23 18:49	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.96	U	0.96	5.60	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.60	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.60	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.60	ug/Kg
75-00-3	Chloroethane	0.99	U	0.99	5.60	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	0.80	5.60	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	0.96	5.60	ug/Kg
67-64-1	Acetone	13.6	U	13.6	27.8	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.60	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.60	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
75-34-3	1,1-Dichloroethane	0.78	U	0.78	5.60	ug/Kg
110-82-7	Cyclohexane	0.94	U	0.94	5.60	ug/Kg
78-93-3	2-Butanone	8.10	U	8.10	27.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.88	U	0.88	5.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
74-97-5	Bromochloromethane	0.90	U	0.90	5.60	ug/Kg
67-66-3	Chloroform	0.75	U	0.75	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.60	ug/Kg
108-87-2	Methylcyclohexane	0.89	U	0.89	5.60	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.60	ug/Kg
107-06-2	1,2-Dichloroethane	0.94	U	0.94	5.60	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.60	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.60	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.10	U	5.10	27.8	ug/Kg
108-88-3	Toluene	0.70	U	0.70	5.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.79	U	0.79	5.60	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075161.D	1		01/20/23 18:49	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.96	U	0.96	5.60	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.8	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.60	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.60	ug/Kg
127-18-4	Tetrachloroethene	0.85	U	0.85	5.60	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.78	U	0.78	5.60	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.1	ug/Kg
95-47-6	o-Xylene	0.88	U	0.88	5.60	ug/Kg
100-42-5	Styrene	0.88	U	0.88	5.60	ug/Kg
75-25-2	Bromoform	0.90	U	0.90	5.60	ug/Kg
98-82-8	Isopropylbenzene	0.80	U	0.80	5.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.75	U	0.75	5.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.70	U	0.70	5.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	90.7	*	50 - 163	181%	SPK: 50
1868-53-7	Dibromofluoromethane	55.9		54 - 147	112%	SPK: 50
2037-26-5	Toluene-d8	55.2		58 - 134	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.9		30 - 143	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	3460	7.875			
540-36-3	1,4-Difluorobenzene	6980	8.775			
3114-55-4	Chlorobenzene-d5	6960	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	2980	13.516			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075161.D	1		01/20/23 18:49	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075161.D
 Acq On : 20 Jan 2023 18:49
 Operator : KP/SY
 Sample : 01233-08
 Misc : 5.03G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 18 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-38A

Quant Time: Jan 23 00:33:39 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	3464	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.775	114	6979	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	6961	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	2980	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	3206	90.700	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 181.400%#	
35) Dibromofluoromethane	7.805	113	2359	55.938	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 111.880%	
50) Toluene-d8	10.269	98	9169	55.219	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 110.440%	
62) 4-Bromofluorobenzene	12.575	95	2999	56.909	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 113.820%	

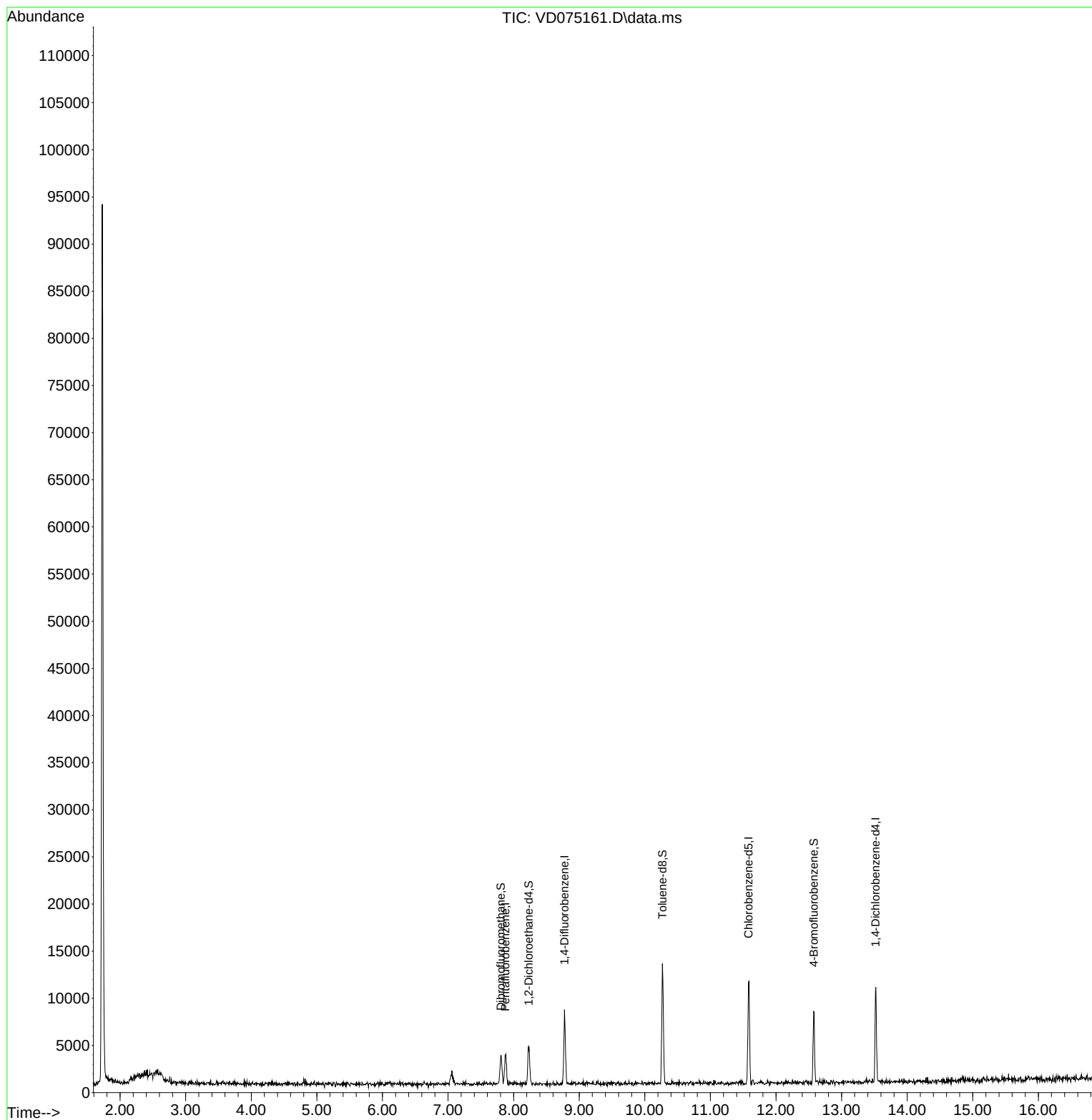
Target Compounds	Qvalue

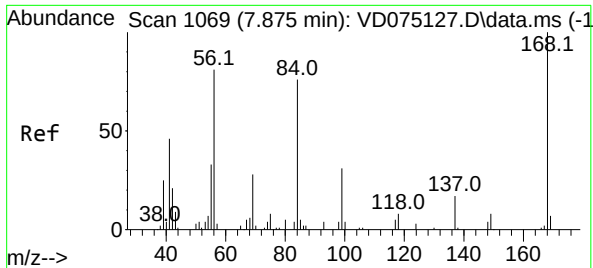
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075161.D
Acq On : 20 Jan 2023 18:49
Operator : KP/SY
Sample : 01233-08
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-38A

Quant Time: Jan 23 00:33:39 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

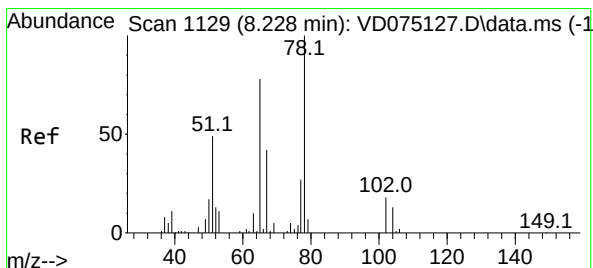
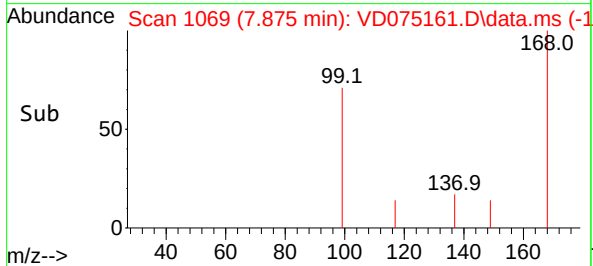
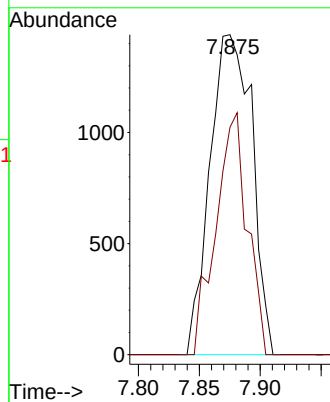
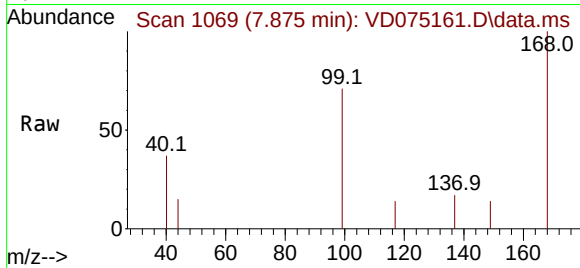




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1069
Delta R.T. 0.000 min
Lab File: VD075161.D
Acq: 20 Jan 2023 18:49

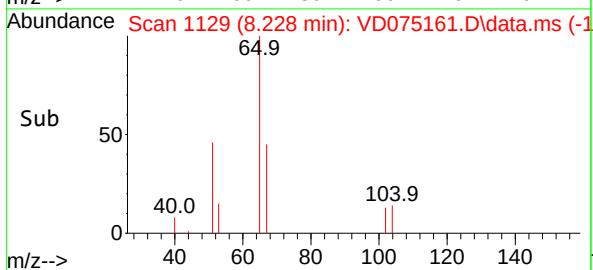
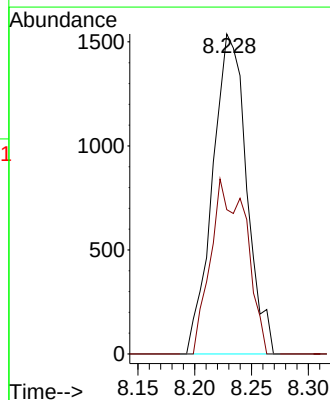
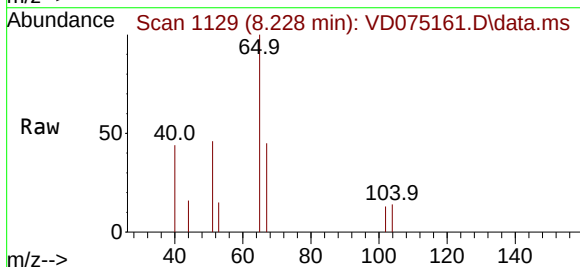
Instrument :
MSVOA_D
ClientSampleId :
B-38A

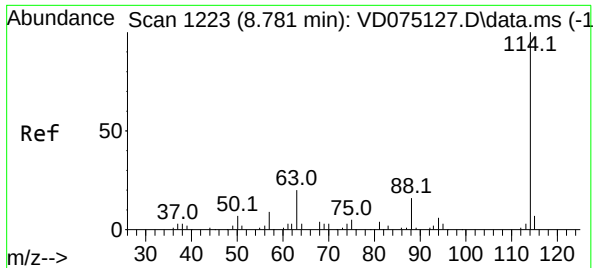
Tgt Ion:168 Resp: 3464
Ion Ratio Lower Upper
168 100
99 71.0 45.2 67.8#



#33
1,2-Dichloroethane-d4
Concen: 90.700 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD075161.D
Acq: 20 Jan 2023 18:49

Tgt Ion: 65 Resp: 3206
Ion Ratio Lower Upper
65 100
67 57.0 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.775 min Scan# 11

Delta R.T. -0.006 min

Lab File: VD075161.D

Acq: 20 Jan 2023 18:49

Instrument :

MSVOA_D

ClientSampleId :

B-38A

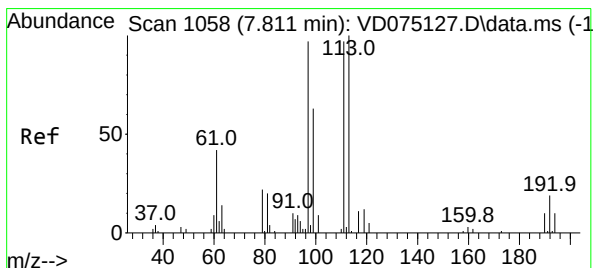
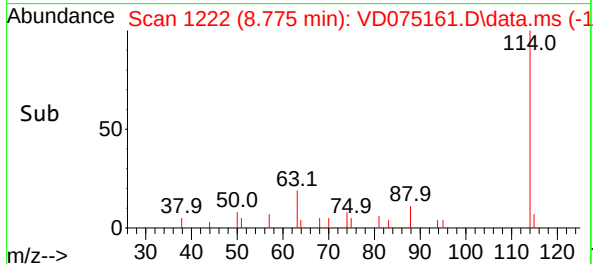
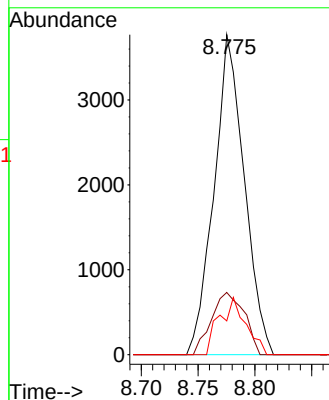
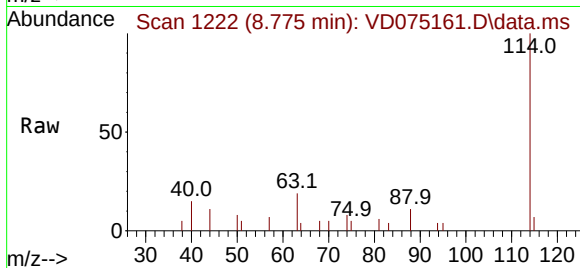
Tgt Ion:114 Resp: 6979

Ion Ratio Lower Upper

114 100

63 19.4 0.0 40.2

88 10.5 0.0 32.2



#35

Dibromofluoromethane

Concen: 55.938 ug/l

RT: 7.805 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075161.D

Acq: 20 Jan 2023 18:49

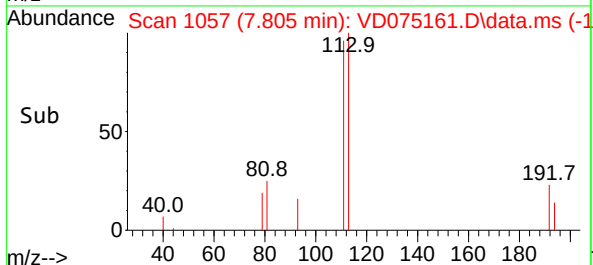
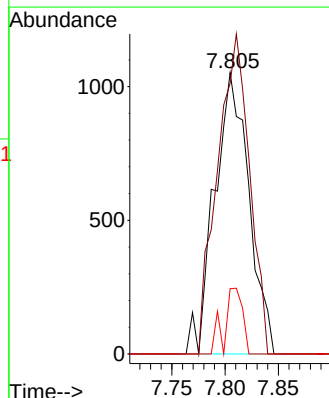
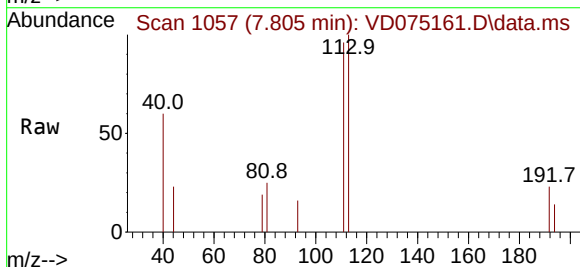
Tgt Ion:113 Resp: 2359

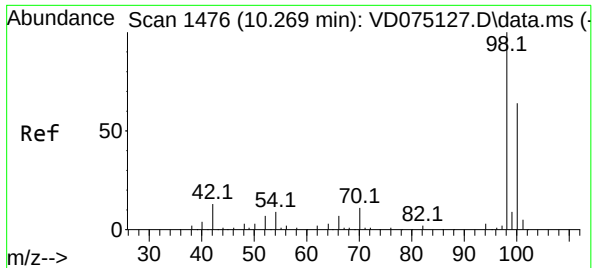
Ion Ratio Lower Upper

113 100

111 106.4 80.1 120.1

192 12.3 15.4 23.0#

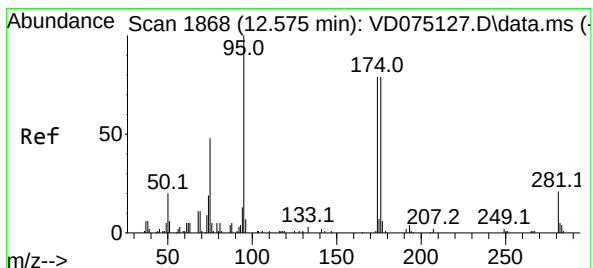
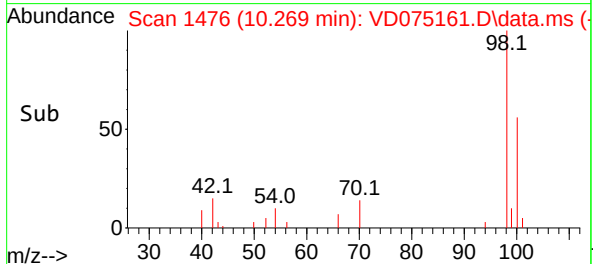
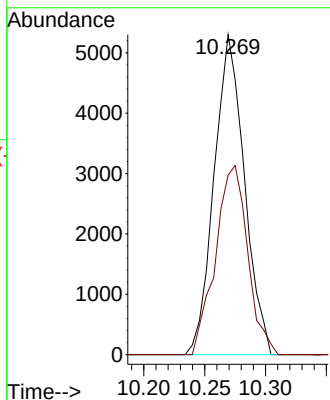
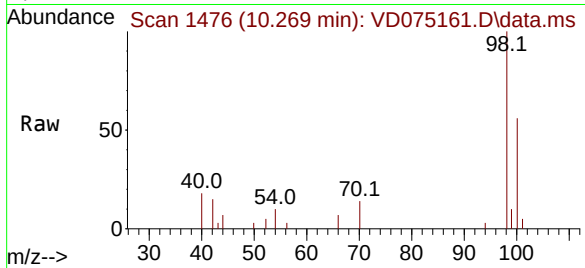




#50
Toluene-d8
Concen: 55.219 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD075161.D
Acq: 20 Jan 2023 18:49

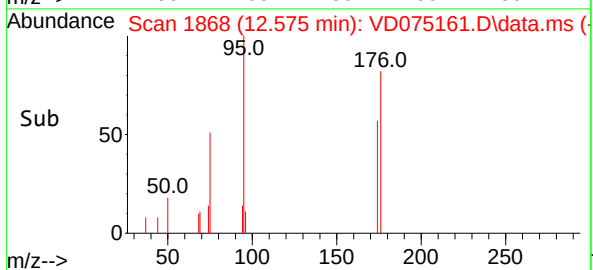
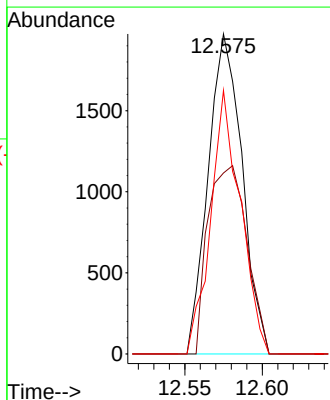
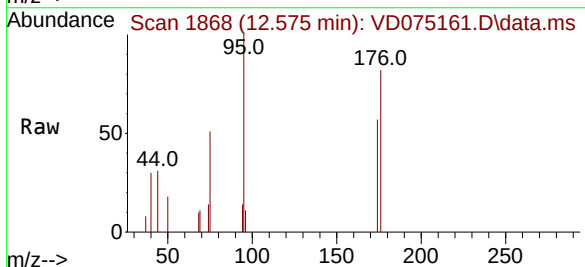
Instrument :
MSVOA_D
ClientSampleId :
B-38A

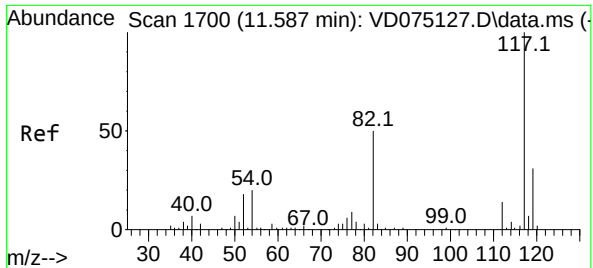
Tgt Ion: 98 Resp: 9169
Ion Ratio Lower Upper
98 100
100 63.0 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 56.909 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075161.D
Acq: 20 Jan 2023 18:49

Tgt Ion: 95 Resp: 2999
Ion Ratio Lower Upper
95 100
174 68.1 0.0 161.2
176 72.3 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.581 min Scan# 1

Delta R.T. -0.006 min

Lab File: VD075161.D

Acq: 20 Jan 2023 18:49

Instrument :

MSVOA_D

ClientSampleId :

B-38A

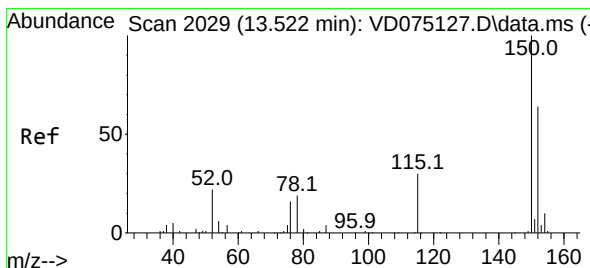
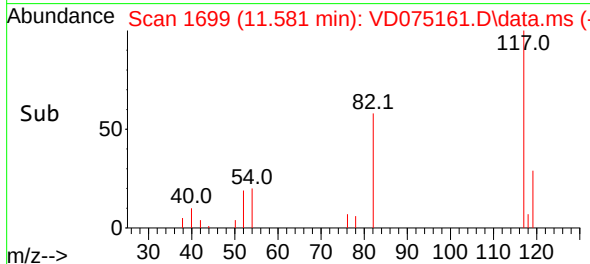
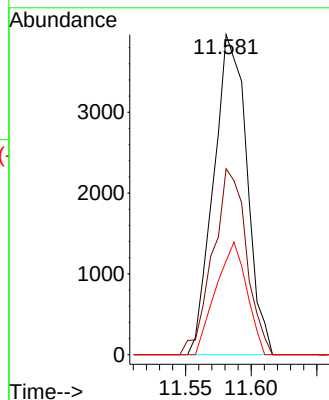
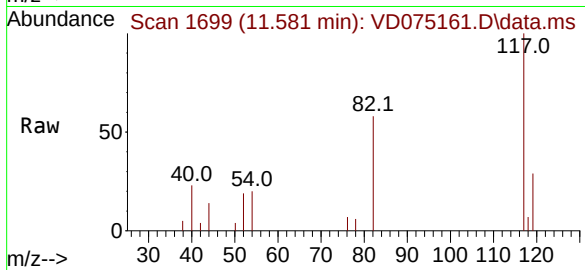
Tgt Ion:117 Resp: 6961

Ion Ratio Lower Upper

117 100

82 58.1 39.6 59.4

119 29.3 24.6 37.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.516 min Scan# 2028

Delta R.T. -0.006 min

Lab File: VD075161.D

Acq: 20 Jan 2023 18:49

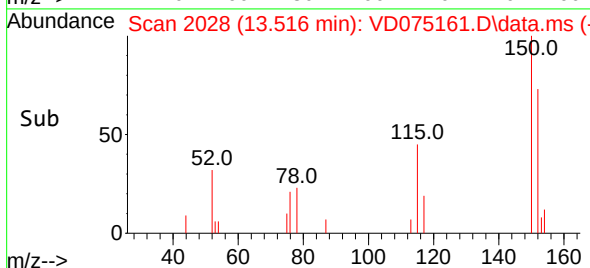
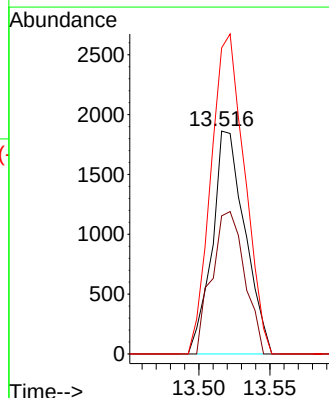
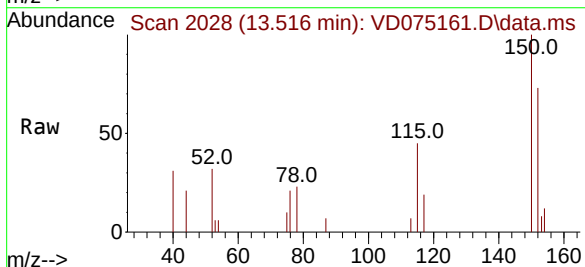
Tgt Ion:152 Resp: 2980

Ion Ratio Lower Upper

152 100

115 64.1 28.8 86.4

150 148.0 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075161.D
Acq On : 20 Jan 2023 18:49
Operator : KP/SY
Sample : 01233-08
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-38A

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075161.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	17	24	34	rBV	93052	144104	100.00%	58.886%
2	7.046	923	928	929	rBV2	1078	1623	1.13%	0.663%
3	7.805	1049	1057	1063	rVV2	3016	6449	4.48%	2.635%
4	7.881	1063	1070	1075	rVB3	3139	6479	4.50%	2.648%
5	8.222	1123	1128	1129	rBV3	4007	4347	3.02%	1.776%
6	8.775	1217	1222	1228	rBV2	7920	13195	9.16%	5.392%
7	10.269	1471	1476	1482	rBV2	12760	21644	15.02%	8.845%
8	11.587	1693	1700	1707	rVB	10951	19618	13.61%	8.017%
9	12.575	1863	1868	1873	rBV2	7642	11923	8.27%	4.872%
10	13.522	2023	2029	2034	rBV	10093	15334	10.64%	6.266%

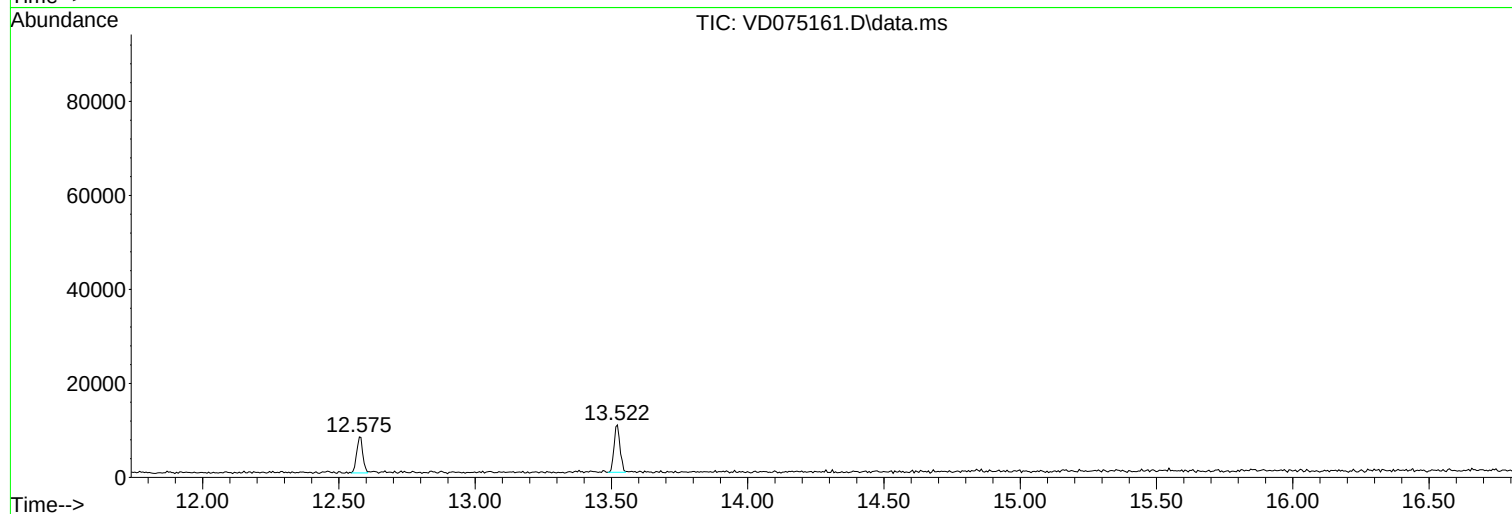
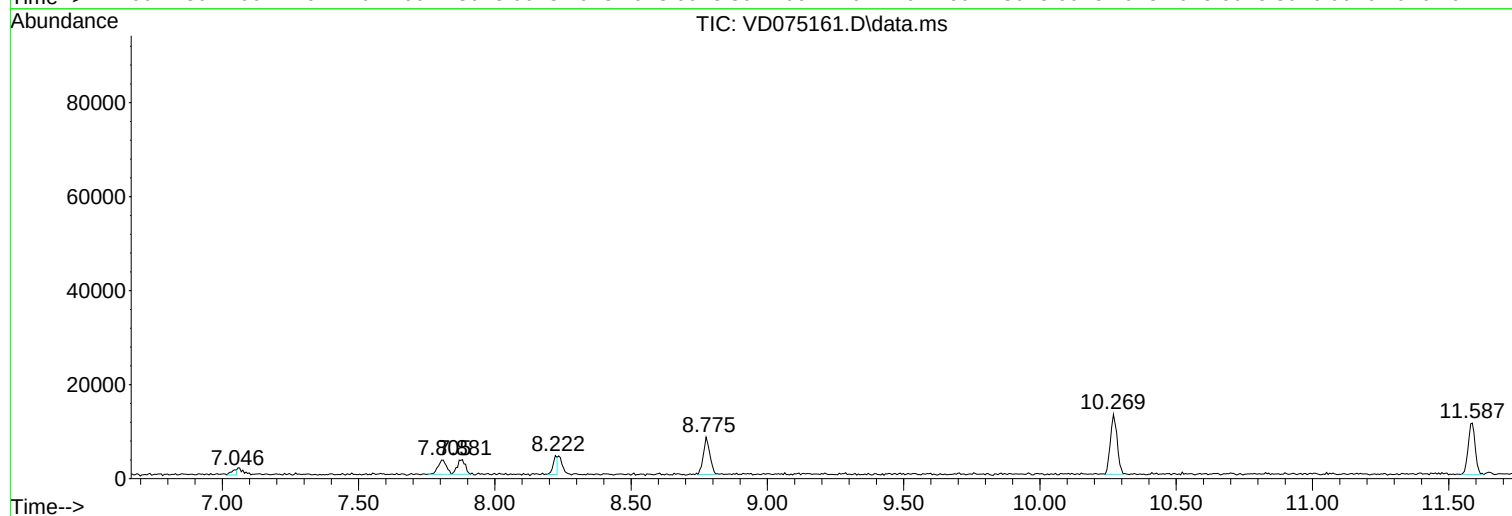
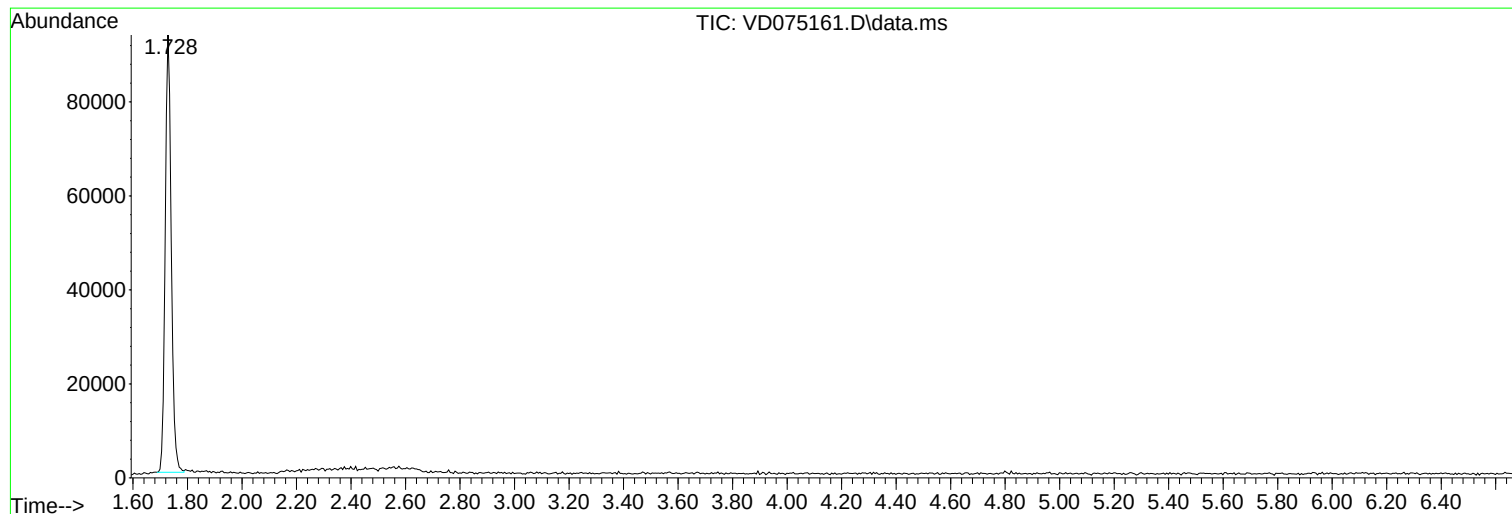
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075161.D
Acq On : 20 Jan 2023 18:49
Operator : KP/SY
Sample : 01233-08
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-38A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075161.D
Acq On : 20 Jan 2023 18:49
Operator : KP/SY
Sample : 01233-08
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-38A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075161.D
Acq On : 20 Jan 2023 18:49
Operator : KP/SY
Sample : 01233-08
Misc : 5.03G/5.00ml/MSVOA_D/SOIL
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-38A

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-38ARE	SDG No.:	O1233
Lab Sample ID:	O1233-08RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012316.D	1		01/23/23 16:11	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.96	U	0.96	5.60	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.60	ug/Kg
75-01-4	Vinyl Chloride	1.00	U	1.00	5.60	ug/Kg
74-83-9	Bromomethane	1.30	U	1.30	5.60	ug/Kg
75-00-3	Chloroethane	0.99	U	0.99	5.60	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	5.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	0.80	5.60	ug/Kg
75-35-4	1,1-Dichloroethene	0.96	U	0.96	5.60	ug/Kg
67-64-1	Acetone	13.6	U	13.6	27.8	ug/Kg
75-15-0	Carbon Disulfide	0.83	U	0.83	5.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.00	U	1.00	5.60	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	5.60	ug/Kg
75-09-2	Methylene Chloride	6.60	U	6.60	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
75-34-3	1,1-Dichloroethane	0.78	U	0.78	5.60	ug/Kg
110-82-7	Cyclohexane	0.93	U	0.93	5.60	ug/Kg
78-93-3	2-Butanone	8.10	U	8.10	27.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.88	U	0.88	5.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.76	U	0.76	5.60	ug/Kg
74-97-5	Bromochloromethane	0.90	U	0.90	5.60	ug/Kg
67-66-3	Chloroform	0.74	U	0.74	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.60	ug/Kg
108-87-2	Methylcyclohexane	0.89	U	0.89	5.60	ug/Kg
71-43-2	Benzene	0.73	U	0.73	5.60	ug/Kg
107-06-2	1,2-Dichloroethane	0.93	U	0.93	5.60	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.60	ug/Kg
78-87-5	1,2-Dichloropropane	0.72	U	0.72	5.60	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.10	U	5.10	27.8	ug/Kg
108-88-3	Toluene	0.70	U	0.70	5.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.82	U	0.82	5.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.79	U	0.79	5.60	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-38ARE	SDG No.:	O1233
Lab Sample ID:	O1233-08RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012316.D	1		01/23/23 16:11	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.96	U	0.96	5.60	ug/Kg
591-78-6	2-Hexanone	5.20	U	5.20	27.8	ug/Kg
124-48-1	Dibromochloromethane	0.83	U	0.83	5.60	ug/Kg
106-93-4	1,2-Dibromoethane	0.83	U	0.83	5.60	ug/Kg
127-18-4	Tetrachloroethene	0.84	U	0.84	5.60	ug/Kg
108-90-7	Chlorobenzene	0.72	U	0.72	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.78	U	0.78	5.60	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	11.1	ug/Kg
95-47-6	o-Xylene	0.88	U	0.88	5.60	ug/Kg
100-42-5	Styrene	0.88	U	0.88	5.60	ug/Kg
75-25-2	Bromoform	0.90	U	0.90	5.60	ug/Kg
98-82-8	Isopropylbenzene	0.80	U	0.80	5.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.70	U	0.70	5.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	5.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	5.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	81.0		50 - 163	162%	SPK: 50
1868-53-7	Dibromofluoromethane	26.2	*	54 - 147	52%	SPK: 50
2037-26-5	Toluene-d8	66.0		58 - 134	132%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.1		30 - 143	86%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	4900	7.795			
540-36-3	1,4-Difluorobenzene	8010	8.691			
3114-55-4	Chlorobenzene-d5	7430	11.496			
3855-82-1	1,4-Dichlorobenzene-d4	2570	13.428			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-38ARE	SDG No.:	O1233
Lab Sample ID:	O1233-08RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012316.D	1		01/23/23 16:11	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012316.D
 Acq On : 23 Jan 2023 16:11
 Operator : KP/MD
 Sample : 01233-08RE
 Misc : 5.04g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 B-38ARE

Quant Time: Jan 23 16:34:31 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.795	168	4898	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	8005	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.496	117	7433	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	2570	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	3188	80.959	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	161.920%
35) Dibromofluoromethane	7.728	113	1109	26.164	ug/l	0.01
Spiked Amount	50.000	Range	54 - 147	Recovery	=	52.320%#
50) Toluene-d8	10.179	98	9489	65.998	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	132.000%
62) 4-Bromofluorobenzene	12.483	95	2573	43.061	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	86.120%

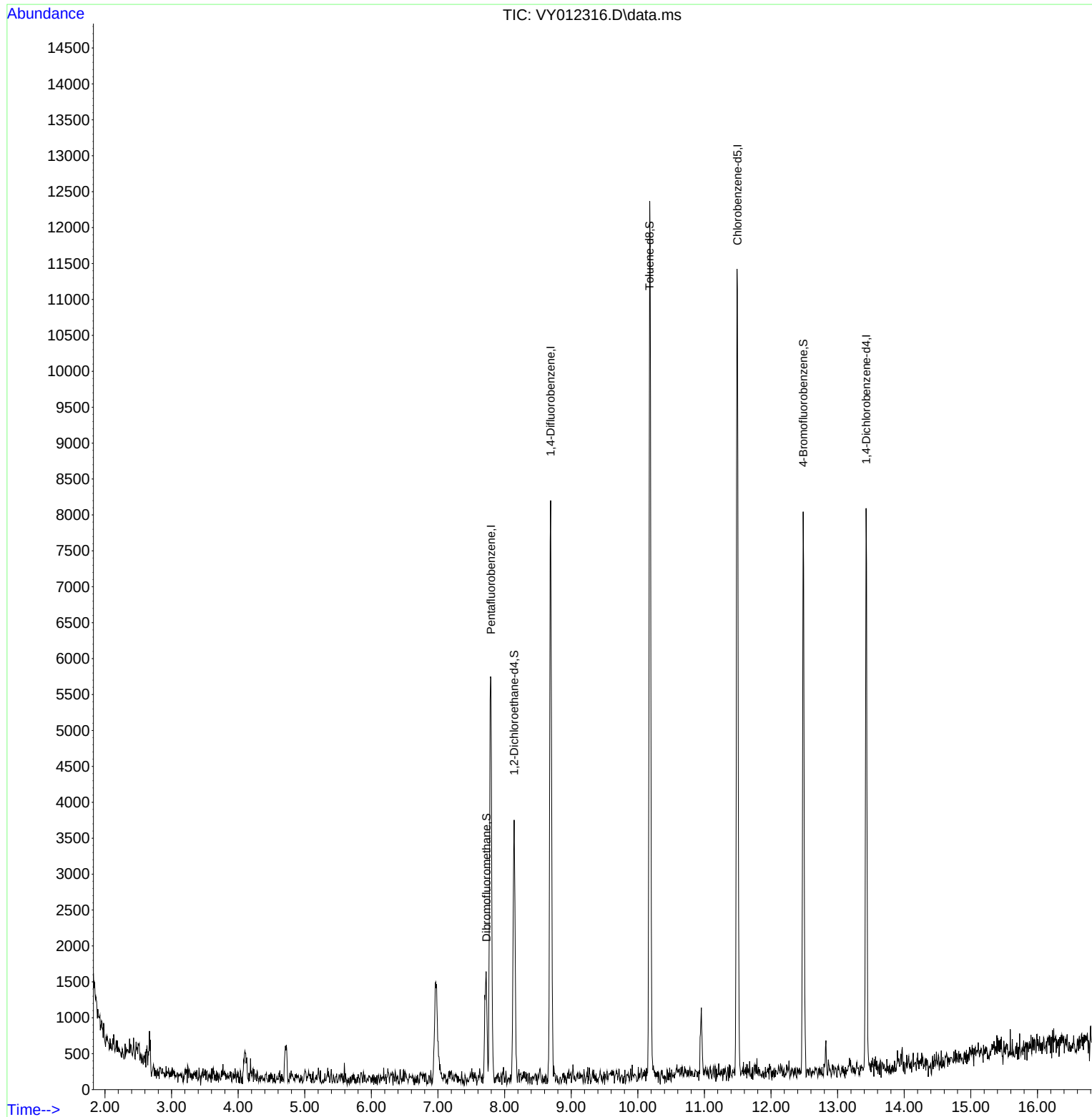
Target Compounds	Qvalue

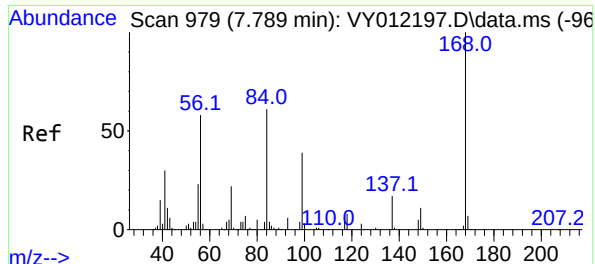
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012316.D
Acq On : 23 Jan 2023 16:11
Operator : KP/MD
Sample : 01233-08RE
Misc : 5.04g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
B-38ARE

Quant Time: Jan 23 16:34:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration

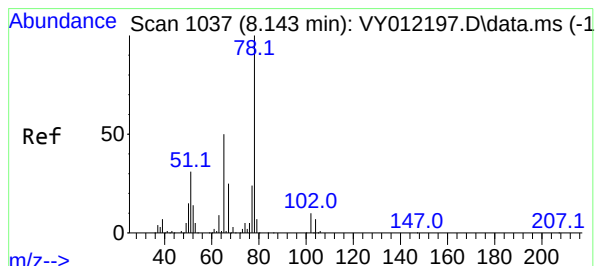
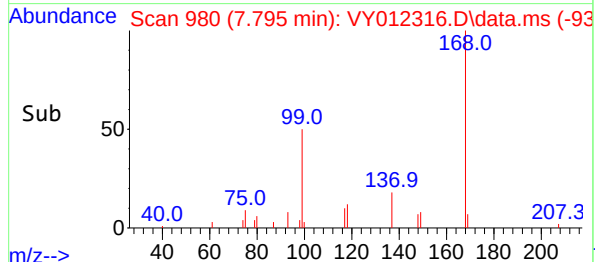
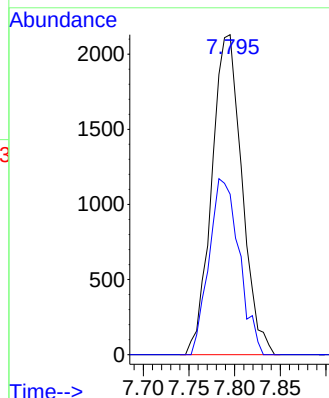
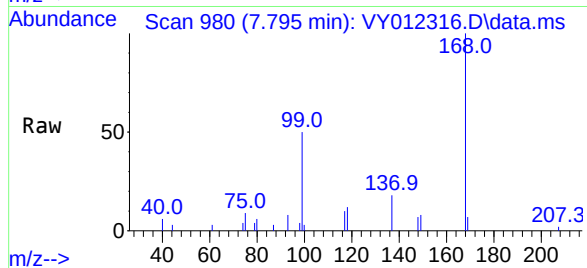




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.795 min Scan# 91
Delta R.T. 0.006 min
Lab File: VY012316.D
Acq: 23 Jan 2023 16:11

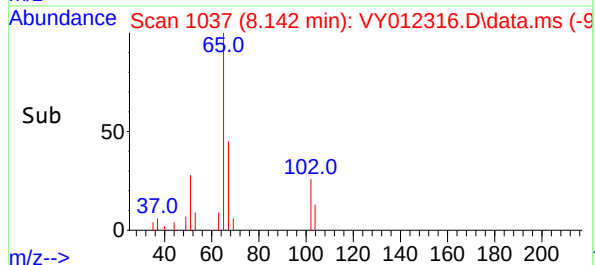
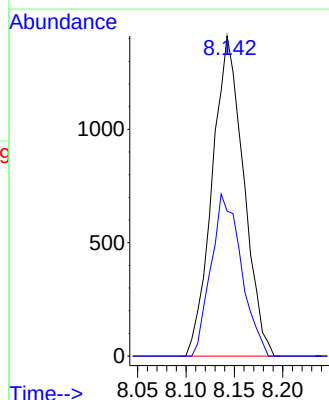
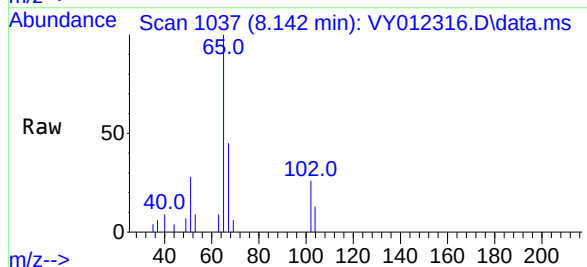
Instrument :
MSVOA_Y
ClientSampleId :
B-38ARE

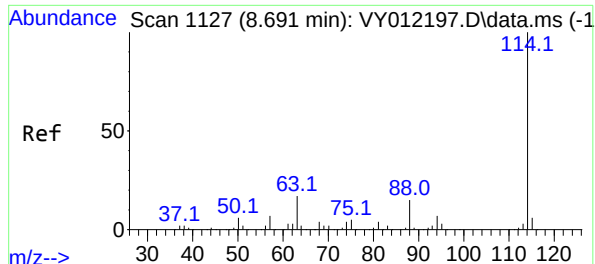
Tgt Ion:168 Resp: 4898
Ion Ratio Lower Upper
168 100
99 50.1 44.0 66.0



#33
1,2-Dichloroethane-d4
Concen: 80.959 ug/l
RT: 8.142 min Scan# 1037
Delta R.T. -0.001 min
Lab File: VY012316.D
Acq: 23 Jan 2023 16:11

Tgt Ion: 65 Resp: 3188
Ion Ratio Lower Upper
65 100
67 48.7 0.0 103.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.691 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VY012316.D

Acq: 23 Jan 2023 16:11

Instrument :

MSVOA_Y

ClientSampleId :

B-38ARE

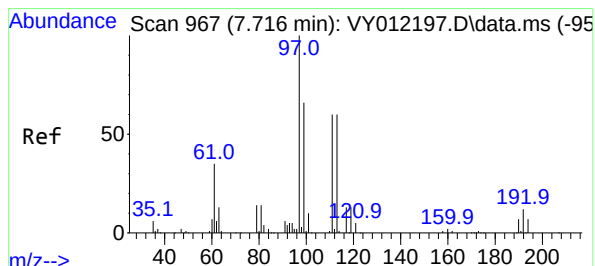
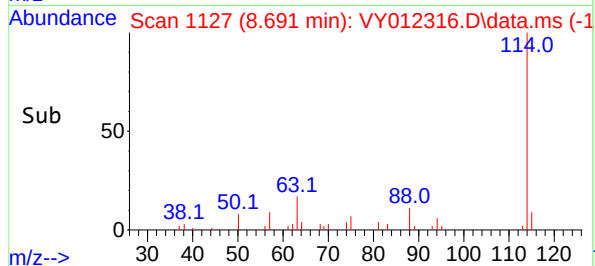
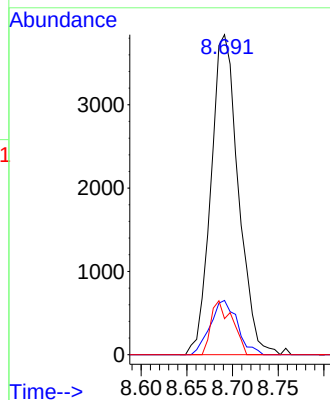
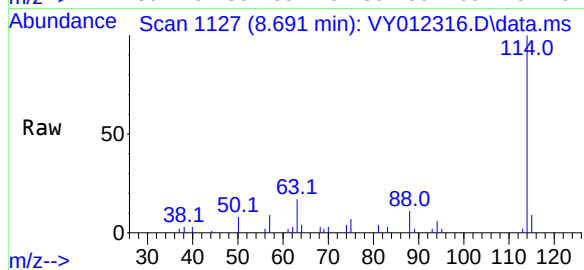
Tgt Ion:114 Resp: 8005

Ion Ratio Lower Upper

114 100

63 16.9 0.0 39.6

88 11.3 0.0 32.2



#35

Dibromofluoromethane

Concen: 26.164 ug/l

RT: 7.728 min Scan# 969

Delta R.T. 0.012 min

Lab File: VY012316.D

Acq: 23 Jan 2023 16:11

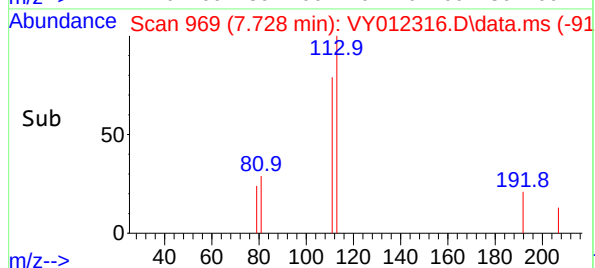
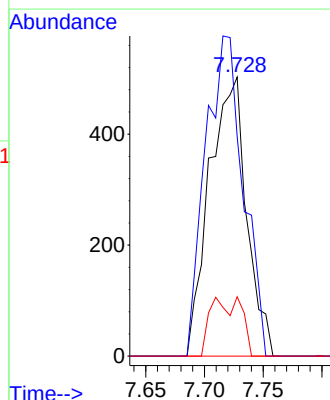
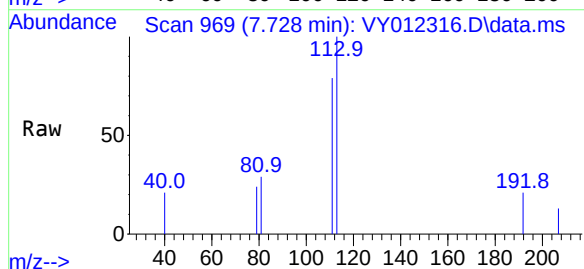
Tgt Ion:113 Resp: 1109

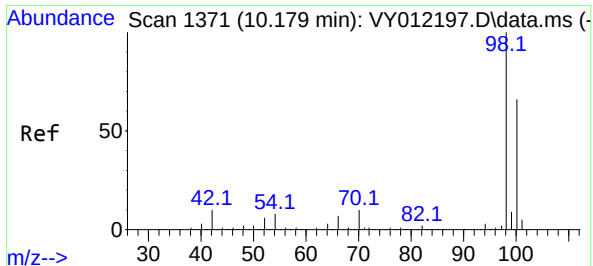
Ion Ratio Lower Upper

113 100

111 116.1 83.0 124.4

192 17.4 16.0 24.0





#50

Toluene-d8

Concen: 65.998 ug/l

RT: 10.179 min Scan# 11

Delta R.T. -0.000 min

Lab File: VY012316.D

Acq: 23 Jan 2023 16:11

Instrument :

MSVOA_Y

ClientSampleId :

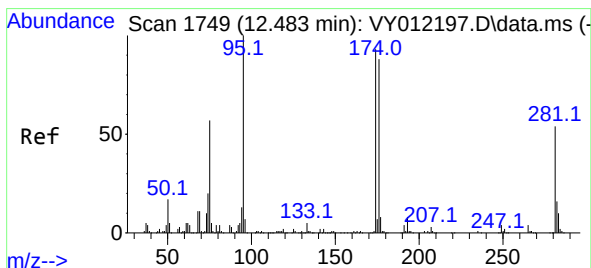
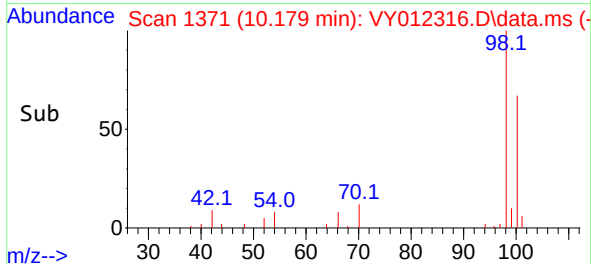
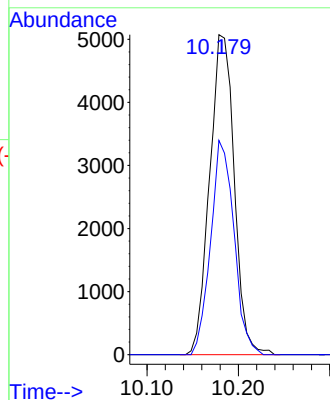
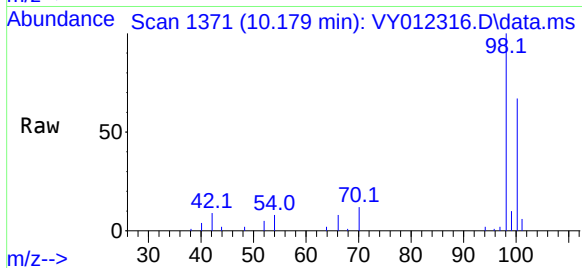
B-38ARE

Tgt Ion: 98 Resp: 9489

Ion Ratio Lower Upper

98 100

100 63.6 51.9 77.9



#62

4-Bromofluorobenzene

Concen: 43.061 ug/l

RT: 12.483 min Scan# 1749

Delta R.T. 0.000 min

Lab File: VY012316.D

Acq: 23 Jan 2023 16:11

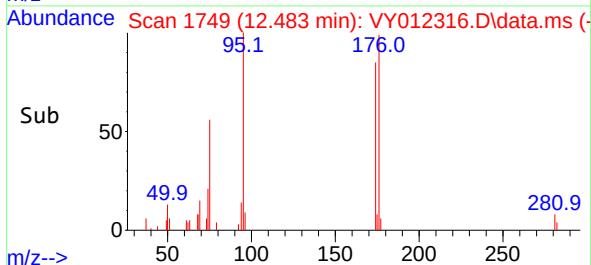
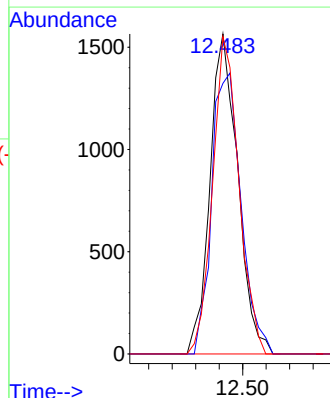
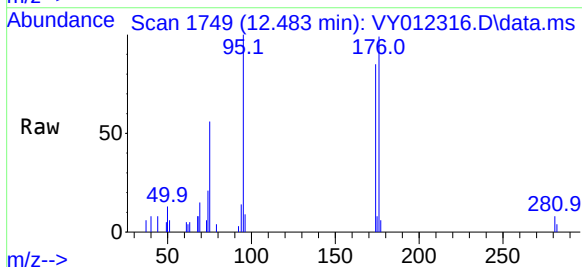
Tgt Ion: 95 Resp: 2573

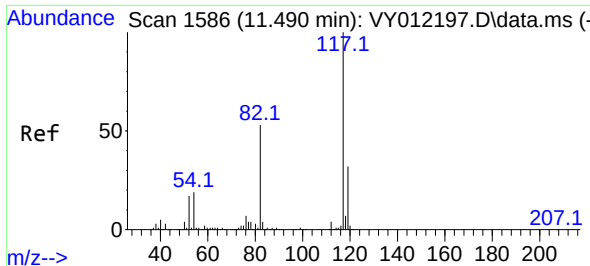
Ion Ratio Lower Upper

95 100

174 93.0 0.0 172.0

176 93.7 0.0 167.6

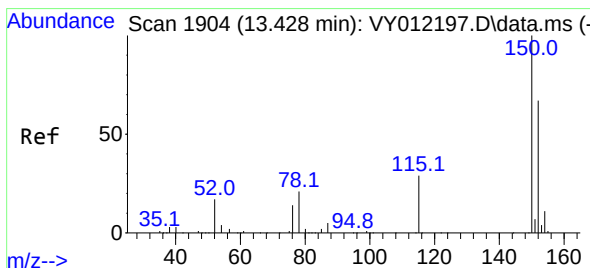
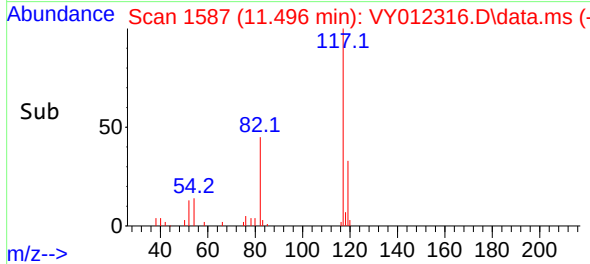
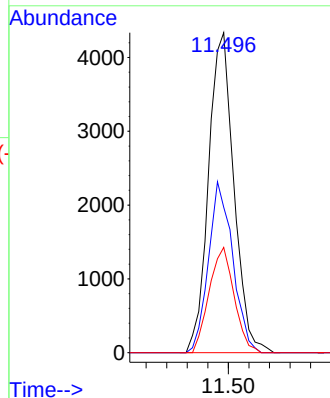
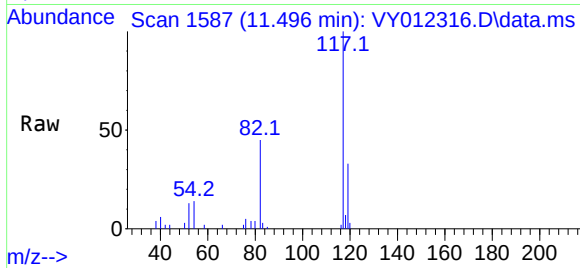




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.496 min Scan# 11
Delta R.T. 0.005 min
Lab File: VY012316.D
Acq: 23 Jan 2023 16:11

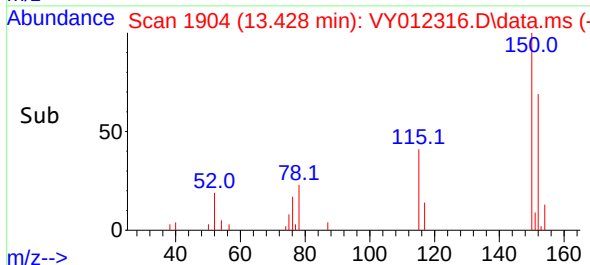
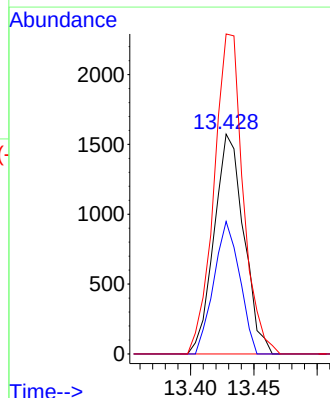
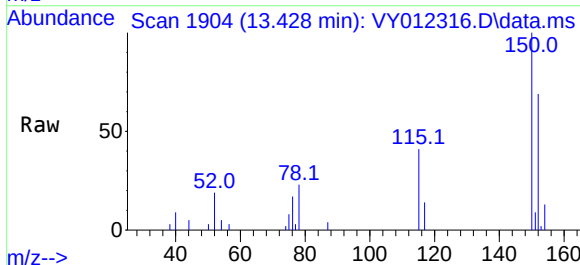
Instrument :
MSVOA_Y
ClientSampleId :
B-38ARE

Tgt Ion:117 Resp: 7433
Ion Ratio Lower Upper
117 100
82 45.4 44.8 67.2
119 32.9 25.4 38.2



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.428 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VY012316.D
Acq: 23 Jan 2023 16:11

Tgt Ion:152 Resp: 2570
Ion Ratio Lower Upper
152 100
115 52.3 29.1 87.3
150 142.8 0.0 342.6





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075162.D	1		01/20/23 19:17	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.10	U	1.10	6.20	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	6.20	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	6.20	ug/Kg
74-83-9	Bromomethane	1.40	U	1.40	6.20	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	6.20	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	6.20	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.89	U	0.89	6.20	ug/Kg
75-35-4	1,1-Dichloroethene	1.10	U	1.10	6.20	ug/Kg
67-64-1	Acetone	15.1	U	15.1	30.9	ug/Kg
75-15-0	Carbon Disulfide	0.93	U	0.93	6.20	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.20	U	1.20	6.20	ug/Kg
79-20-9	Methyl Acetate	1.60	U	1.60	6.20	ug/Kg
75-09-2	Methylene Chloride	7.40	U	7.40	12.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.84	U	0.84	6.20	ug/Kg
75-34-3	1,1-Dichloroethane	0.87	U	0.87	6.20	ug/Kg
110-82-7	Cyclohexane	1.00	U	1.00	6.20	ug/Kg
78-93-3	2-Butanone	9.00	U	9.00	30.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.98	U	0.98	6.20	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.84	U	0.84	6.20	ug/Kg
74-97-5	Bromochloromethane	1.00	U	1.00	6.20	ug/Kg
67-66-3	Chloroform	0.83	U	0.83	6.20	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.93	U	0.93	6.20	ug/Kg
108-87-2	Methylcyclohexane	0.99	U	0.99	6.20	ug/Kg
71-43-2	Benzene	0.82	U	0.82	6.20	ug/Kg
107-06-2	1,2-Dichloroethane	1.00	U	1.00	6.20	ug/Kg
79-01-6	Trichloroethene	0.90	U	0.90	6.20	ug/Kg
78-87-5	1,2-Dichloropropane	0.80	U	0.80	6.20	ug/Kg
75-27-4	Bromodichloromethane	0.87	U	0.87	6.20	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.70	U	5.70	30.9	ug/Kg
108-88-3	Toluene	0.78	U	0.78	6.20	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.92	U	0.92	6.20	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.88	U	0.88	6.20	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075162.D	1		01/20/23 19:17	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1.10	U	1.10	6.20	ug/Kg
591-78-6	2-Hexanone	5.80	U	5.80	30.9	ug/Kg
124-48-1	Dibromochloromethane	0.93	U	0.93	6.20	ug/Kg
106-93-4	1,2-Dibromoethane	0.93	U	0.93	6.20	ug/Kg
127-18-4	Tetrachloroethene	0.94	U	0.94	6.20	ug/Kg
108-90-7	Chlorobenzene	0.80	U	0.80	6.20	ug/Kg
100-41-4	Ethyl Benzene	0.87	U	0.87	6.20	ug/Kg
179601-23-1	m/p-Xylenes	1.80	U	1.80	12.4	ug/Kg
95-47-6	o-Xylene	0.98	U	0.98	6.20	ug/Kg
100-42-5	Styrene	0.98	U	0.98	6.20	ug/Kg
75-25-2	Bromoform	1.00	U	1.00	6.20	ug/Kg
98-82-8	Isopropylbenzene	0.89	U	0.89	6.20	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.40	U	1.40	6.20	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.83	U	0.83	6.20	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.78	U	0.78	6.20	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.79	U	0.79	6.20	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.50	U	1.50	6.20	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.20	U	1.20	6.20	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	6.20	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	74.0		50 - 163	148%	SPK: 50
1868-53-7	Dibromofluoromethane	54.8		54 - 147	110%	SPK: 50
2037-26-5	Toluene-d8	54.3		58 - 134	109%	SPK: 50
460-00-4	4-Bromofluorobenzene	60.4		30 - 143	121%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	41900	7.881			
540-36-3	1,4-Difluorobenzene	88400	8.781			
3114-55-4	Chlorobenzene-d5	88300	11.586			
3855-82-1	1,4-Dichlorobenzene-d4	40700	13.522			
TENTATIVE IDENTIFIED COMPOUNDS						
000111-65-9	Octane	6.70	J		10.5	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075162.D	1		01/20/23 19:17	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075162.D
 Acq On : 20 Jan 2023 19:17
 Operator : KP/SY
 Sample : 01233-09
 Misc : 5.01G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P38B

Quant Time: Jan 23 00:33:56 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

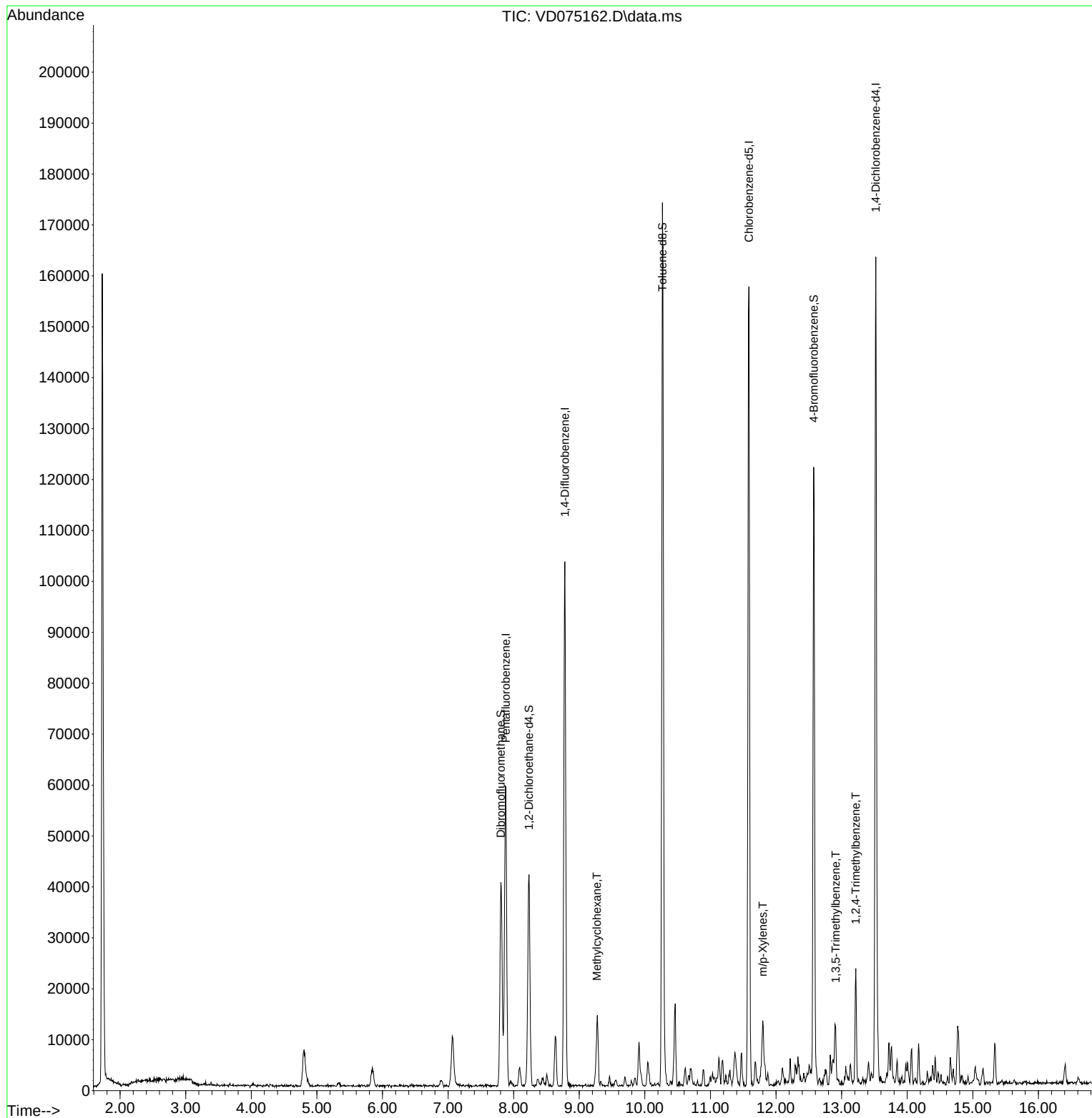
Internal Standards						
1) Pentafluorobenzene	7.881	168	41902	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	88407	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.586	117	88309	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	40736	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	31629	73.973	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 147.940%	
35) Dibromofluoromethane	7.804	113	29269	54.789	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 109.580%	
50) Toluene-d8	10.269	98	114170	54.279	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 108.560%	
62) 4-Bromofluorobenzene	12.575	95	40344	60.435	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 120.880%	
Target Compounds						
					Qvalue	
39) Methylcyclohexane	9.269	83	5376	5.082	ug/l	96
68) m/p-Xylenes	11.798	106	3296	2.619	ug/l	90
80) 1,3,5-Trimethylbenzene	12.910	105	4273	1.621	ug/l	97
84) 1,2,4-Trimethylbenzene	13.216	105	12047	4.653	ug/l	98

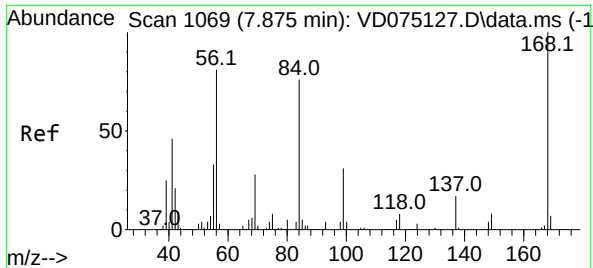
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075162.D
Acq On : 20 Jan 2023 19:17
Operator : KP/SY
Sample : 01233-09
Misc : 5.01G/5.00ml/MSVOA_D/SOIL
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P38B

Quant Time: Jan 23 00:33:56 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

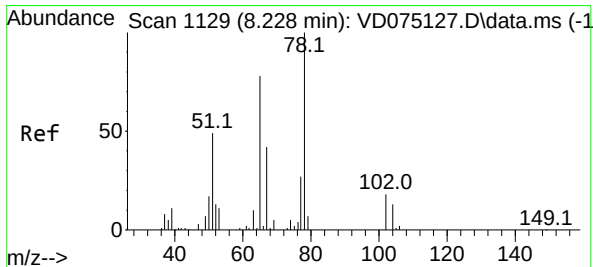
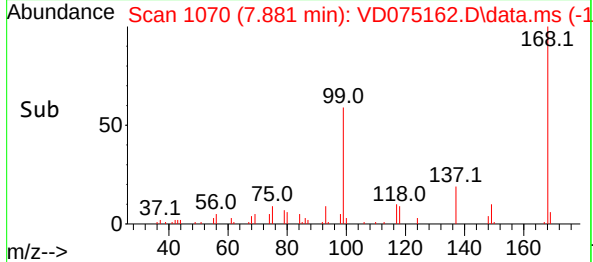
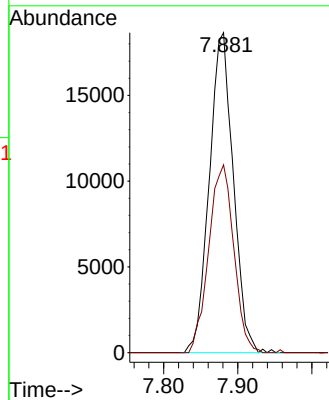
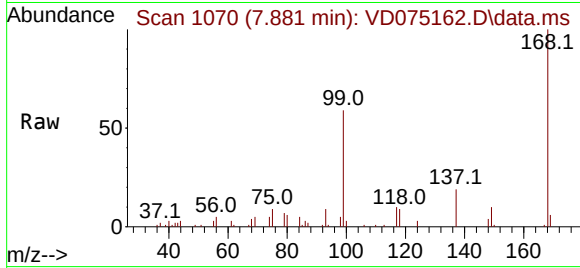




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.881 min Scan# 1107
Delta R.T. 0.006 min
Lab File: VD075162.D
Acq: 20 Jan 2023 19:17

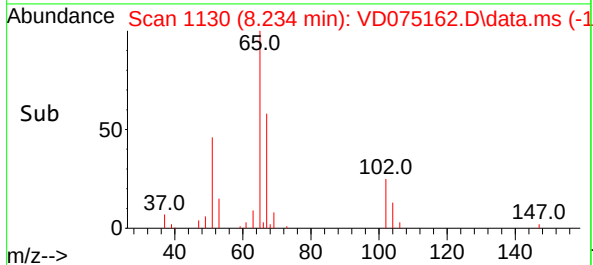
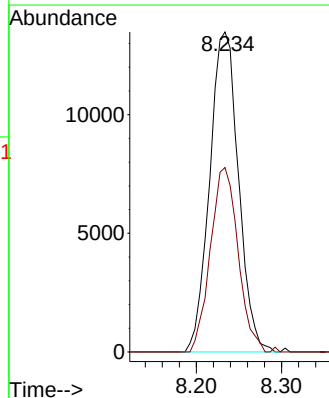
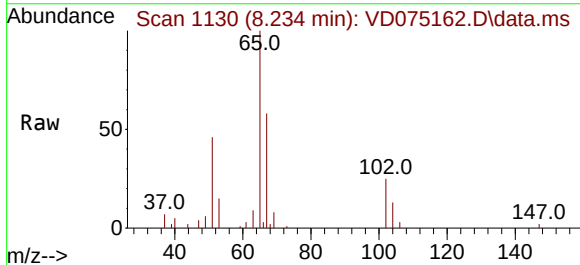
Instrument :
MSVOA_D
ClientSampleId :
B-P38B

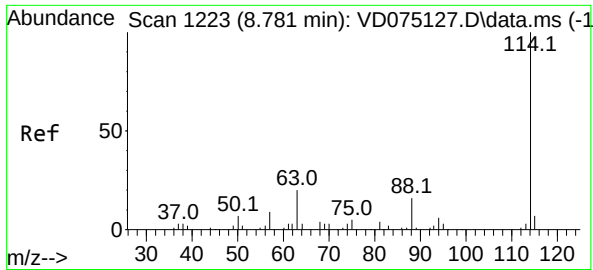
Tgt Ion:168 Resp: 41902
Ion Ratio Lower Upper
168 100
99 58.7 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 73.973 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.005 min
Lab File: VD075162.D
Acq: 20 Jan 2023 19:17

Tgt Ion: 65 Resp: 31629
Ion Ratio Lower Upper
65 100
67 55.4 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075162.D

Acq: 20 Jan 2023 19:17

Instrument :

MSVOA_D

ClientSampleId :

B-P38B

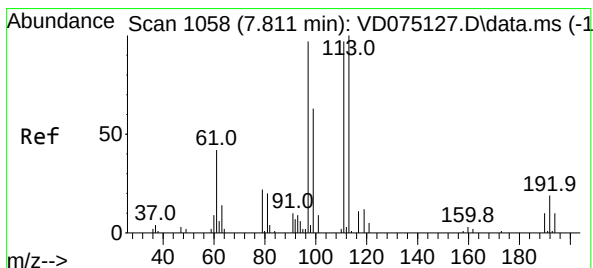
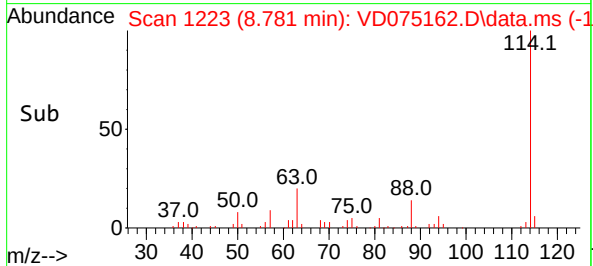
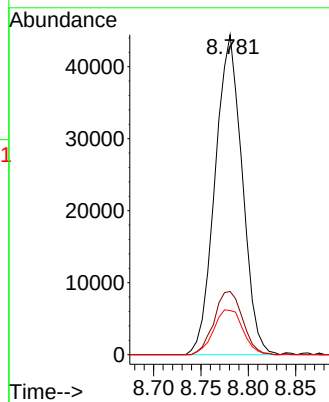
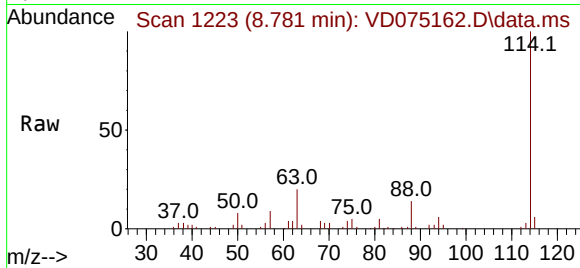
Tgt Ion:114 Resp: 88407

Ion Ratio Lower Upper

114 100

63 19.8 0.0 40.2

88 13.8 0.0 32.2



#35

Dibromofluoromethane

Concen: 54.789 ug/l

RT: 7.804 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075162.D

Acq: 20 Jan 2023 19:17

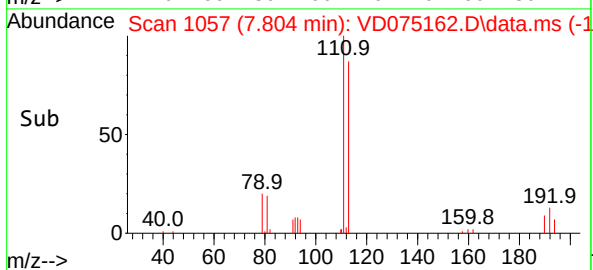
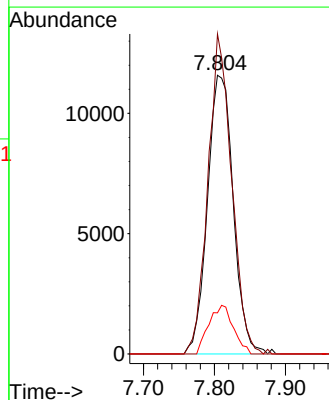
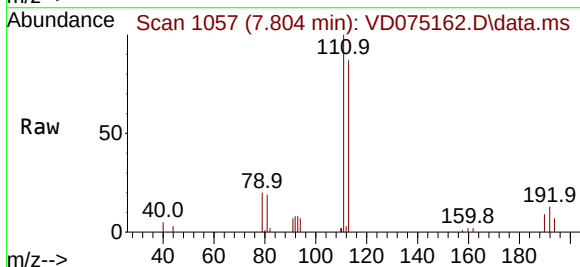
Tgt Ion:113 Resp: 29269

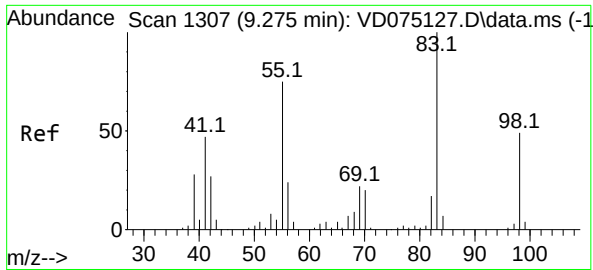
Ion Ratio Lower Upper

113 100

111 105.1 80.1 120.1

192 16.5 15.4 23.0





#39

Methylcyclohexane

Concen: 5.082 ug/l

RT: 9.269 min Scan# 1306

Delta R.T. -0.006 min

Lab File: VD075162.D

Acq: 20 Jan 2023 19:17

Instrument :

MSVOA_D

ClientSampleId :

B-P38B

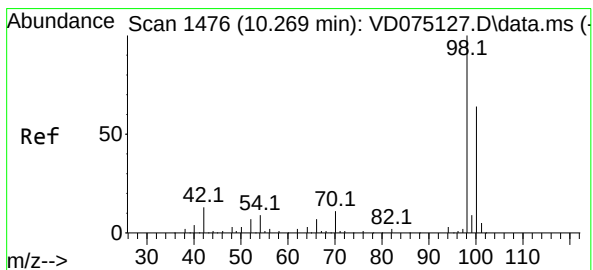
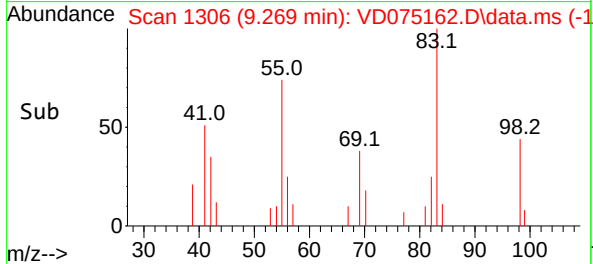
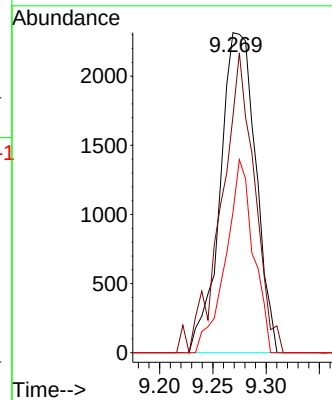
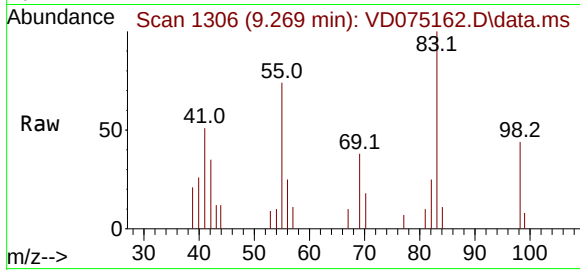
Tgt Ion: 83 Resp: 5376

Ion Ratio Lower Upper

83 100

55 73.9 60.0 90.0

98 43.8 39.0 58.4



#50

Toluene-d8

Concen: 54.279 ug/l

RT: 10.269 min Scan# 1476

Delta R.T. -0.000 min

Lab File: VD075162.D

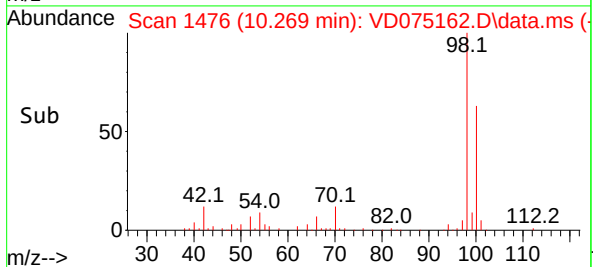
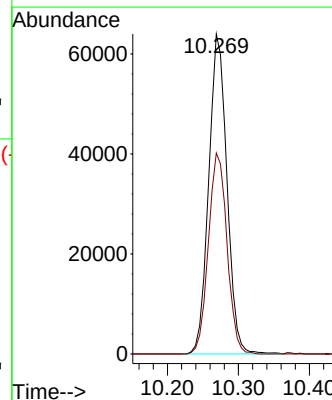
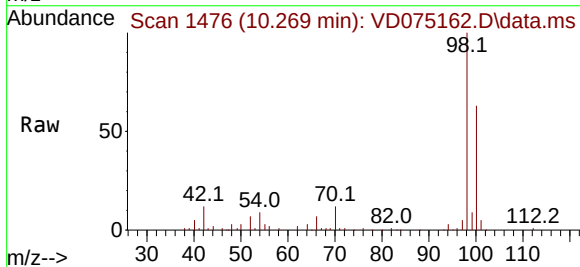
Acq: 20 Jan 2023 19:17

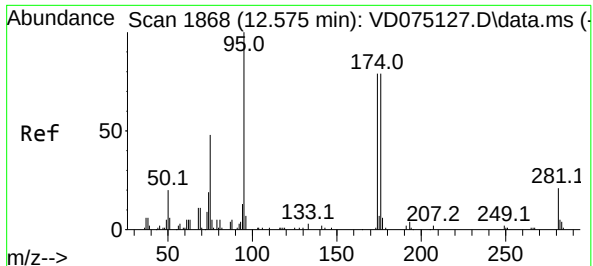
Tgt Ion: 98 Resp: 114170

Ion Ratio Lower Upper

98 100

100 64.1 52.7 79.1

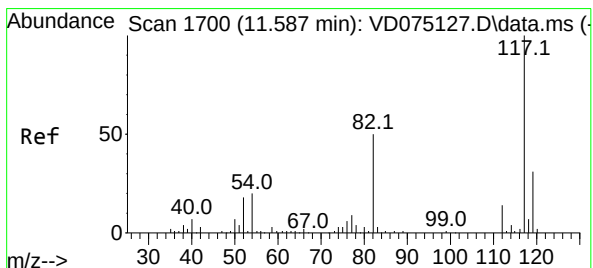
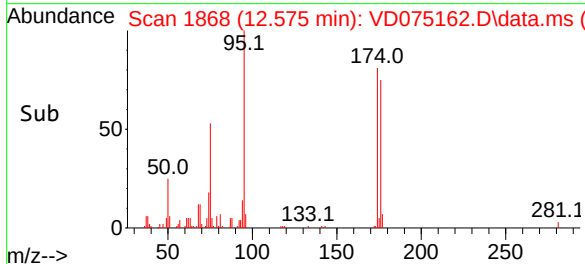
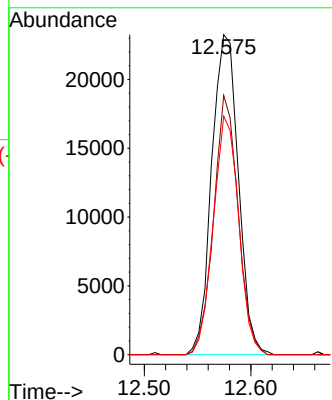
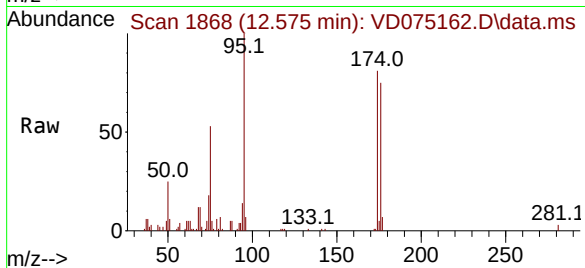




#62
4-Bromofluorobenzene
Concen: 60.435 ug/l
RT: 12.575 min Scan# 11
Delta R.T. -0.000 min
Lab File: VD075162.D
Acq: 20 Jan 2023 19:17

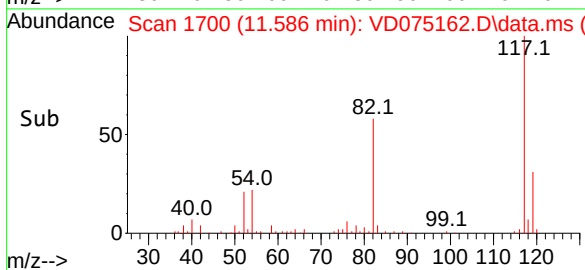
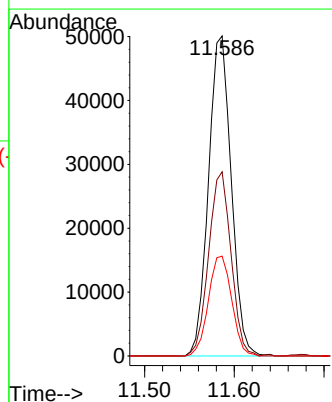
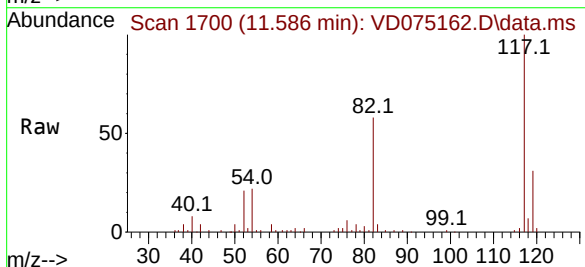
Instrument :
MSVOA_D
ClientSampleId :
B-P38B

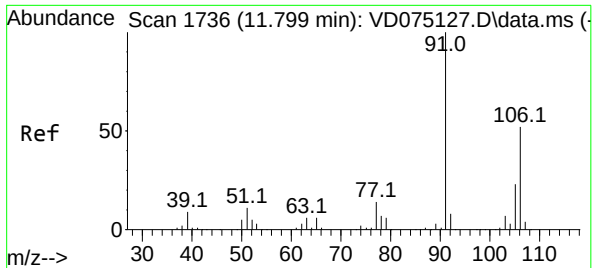
Tgt Ion: 95 Resp: 40344
Ion Ratio Lower Upper
95 100
174 74.5 0.0 161.2
176 71.2 0.0 160.2



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.586 min Scan# 1700
Delta R.T. -0.000 min
Lab File: VD075162.D
Acq: 20 Jan 2023 19:17

Tgt Ion: 117 Resp: 88309
Ion Ratio Lower Upper
117 100
82 57.6 39.6 59.4
119 31.2 24.6 37.0

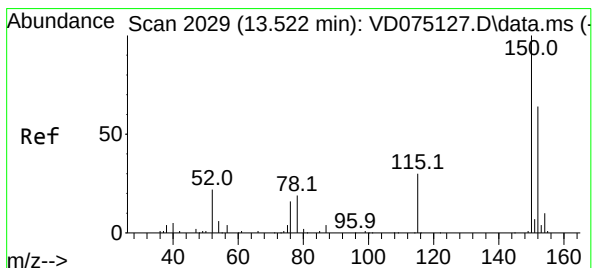
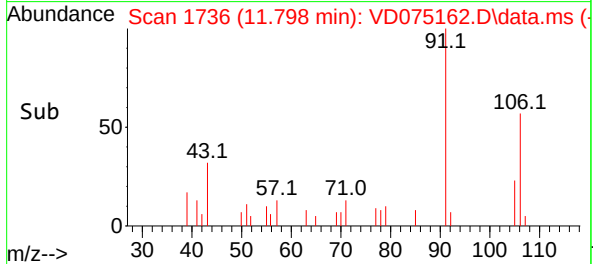
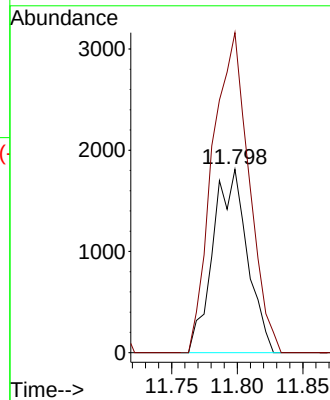
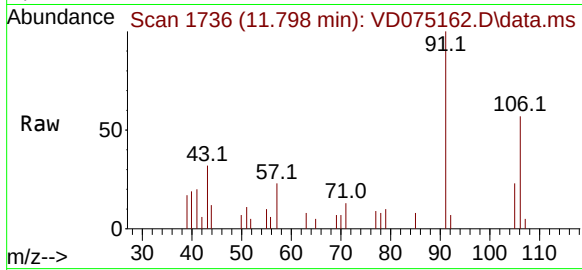




#68
m/p-Xylenes
Concen: 2.619 ug/l
RT: 11.798 min Scan# 1736
Delta R.T. -0.000 min
Lab File: VD075162.D
Acq: 20 Jan 2023 19:17

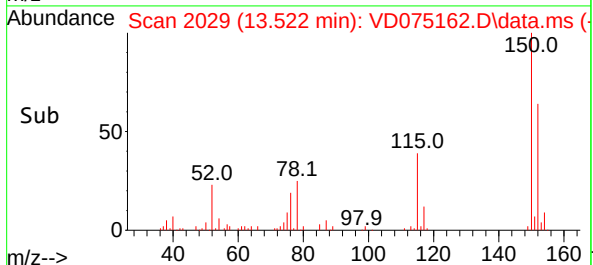
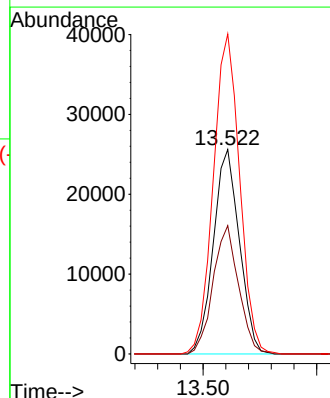
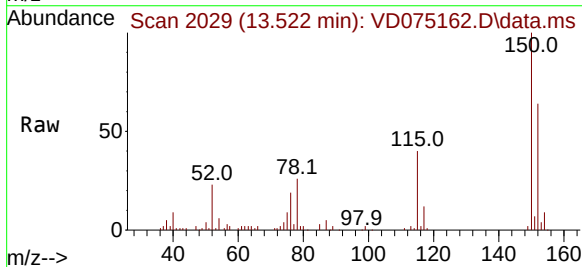
Instrument :
MSVOA_D
ClientSampleId :
B-P38B

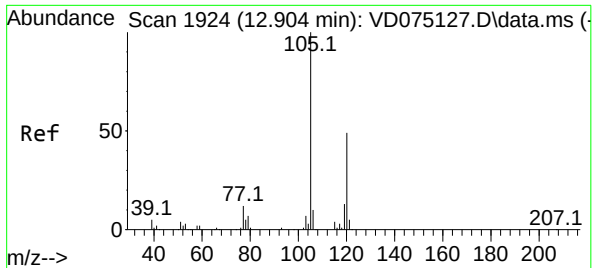
Tgt Ion:106 Resp: 3296
Ion Ratio Lower Upper
106 100
91 185.5 160.3 240.5



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.522 min Scan# 2029
Delta R.T. -0.000 min
Lab File: VD075162.D
Acq: 20 Jan 2023 19:17

Tgt Ion:152 Resp: 40736
Ion Ratio Lower Upper
152 100
115 61.5 28.8 86.4
150 158.3 0.0 348.6





#80

1,3,5-Trimethylbenzene

Concen: 1.621 ug/l

RT: 12.910 min Scan# 1924

Delta R.T. 0.005 min

Lab File: VD075162.D

Acq: 20 Jan 2023 19:17

Instrument :

MSVOA_D

ClientSampleId :

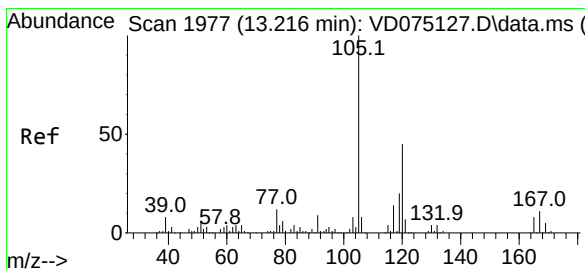
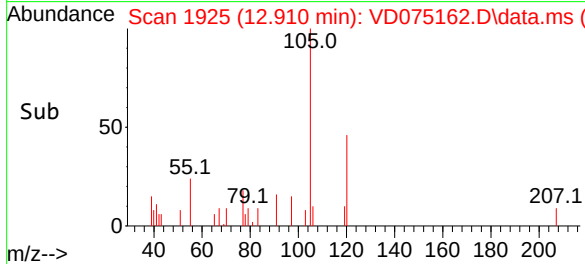
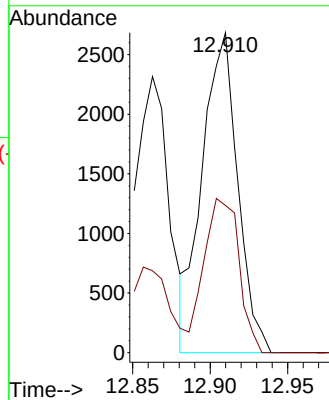
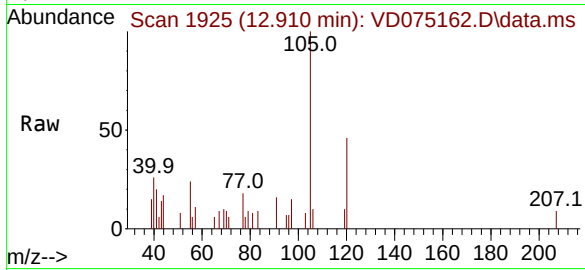
B-P38B

Tgt Ion:105 Resp: 4273

Ion Ratio Lower Upper

105 100

120 47.0 24.6 73.8



#84

1,2,4-Trimethylbenzene

Concen: 4.653 ug/l

RT: 13.216 min Scan# 1977

Delta R.T. -0.000 min

Lab File: VD075162.D

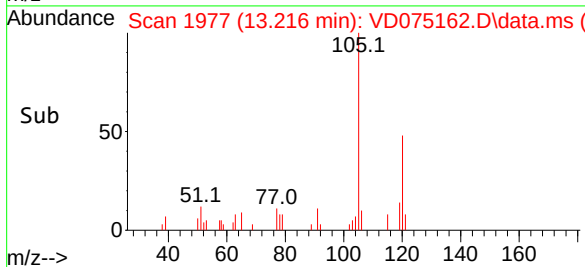
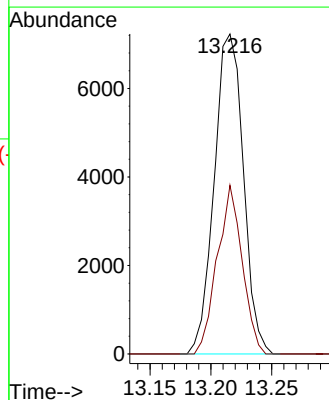
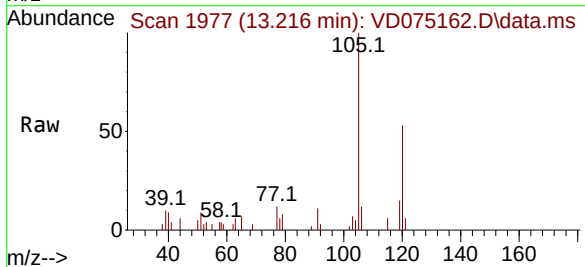
Acq: 20 Jan 2023 19:17

Tgt Ion:105 Resp: 12047

Ion Ratio Lower Upper

105 100

120 45.1 23.2 69.5



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075162.D
 Acq On : 20 Jan 2023 19:17
 Operator : KP/SY
 Sample : 01233-09
 Misc : 5.01G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P38B

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Title : SW846 8260

Signal : TIC: VD075162.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	37	rBV	158842	262854	82.87%	10.880%
2	4.804	537	547	556	rBV5	7255	23129	7.29%	0.957%
3	5.846	716	724	735	rVB5	3743	10443	3.29%	0.432%
4	7.063	922	931	946	rBV	9974	28704	9.05%	1.188%
5	7.804	1049	1057	1063	rBV3	39978	96429	30.40%	3.991%
6	7.875	1063	1069	1078	rVB	58792	136734	43.11%	5.660%
7	8.092	1100	1106	1113	rVB3	3591	7725	2.44%	0.320%
8	8.234	1118	1130	1139	rBV2	41585	99048	31.23%	4.100%
9	8.634	1191	1198	1207	rVB3	9831	20744	6.54%	0.859%
10	8.781	1214	1223	1232	rBV	103107	209113	65.92%	8.656%
11	9.275	1297	1307	1314	rBV2	13974	30020	9.46%	1.243%
12	9.910	1410	1415	1427	rVB3	8544	17795	5.61%	0.737%
13	10.045	1429	1438	1444	rBV5	4732	10100	3.18%	0.418%
14	10.269	1469	1476	1488	rBV	173521	317206	100.00%	13.130%
15	10.463	1501	1509	1514	rVB3	16180	29792	9.39%	1.233%
16	10.616	1529	1535	1540	rBV4	3546	6305	1.99%	0.261%
17	10.892	1576	1582	1586	rBV4	3249	5531	1.74%	0.229%
18	11.128	1618	1622	1627	rVB4	5144	8417	2.65%	0.348%
19	11.186	1627	1632	1636	rVV4	4707	8599	2.71%	0.356%
20	11.298	1644	1651	1656	rVB4	2915	5234	1.65%	0.217%
21	11.375	1656	1664	1672	rBV7	6374	16925	5.34%	0.701%
22	11.475	1676	1681	1686	rBV2	6355	10260	3.23%	0.425%
23	11.586	1693	1700	1707	rBV	156828	273488	86.22%	11.320%
24	11.686	1710	1717	1721	rBV3	4726	8796	2.77%	0.364%
25	11.798	1726	1736	1745	rVV4	12745	34042	10.73%	1.409%
26	12.098	1780	1787	1794	rBV5	3312	7107	2.24%	0.294%
27	12.216	1802	1807	1812	rVB4	4940	6046	1.91%	0.250%
28	12.292	1816	1820	1823	rBV6	3431	5077	1.60%	0.210%
29	12.333	1825	1827	1833	rVB5	4636	6861	2.16%	0.284%
30	12.504	1853	1856	1859	rVV4	3752	6029	1.90%	0.250%
31	12.575	1862	1868	1879	rVB	121182	202112	63.72%	8.366%
32	12.828	1907	1911	1914	rBV2	5820	8018	2.53%	0.332%
33	12.869	1914	1918	1920	rVV3	4251	7807	2.46%	0.323%
34	12.898	1920	1923	1929	rVB4	11002	18808	5.93%	0.779%
35	13.063	1945	1951	1956	rBV2	3685	6641	2.09%	0.275%
36	13.133	1959	1963	1969	rVB3	3804	6064	1.91%	0.251%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075162.D
 Acq On : 20 Jan 2023 19:17
 Operator : KP/SY
 Sample : 01233-09
 Misc : 5.01G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P38B

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Title : SW846 8260

37	13.216	1972	1977	1982	rVB	22321	32050	10.10%	1.327%
38	13.410	2004	2010	2014	rBV5	4030	6448	2.03%	0.267%
39	13.522	2022	2029	2040	rVB	161847	273777	86.31%	11.332%
40	13.722	2059	2063	2066	rVV3	7839	11670	3.68%	0.483%
41	13.763	2066	2070	2078	rVB4	7095	12485	3.94%	0.517%
42	13.845	2078	2084	2088	rBV4	4415	6073	1.91%	0.251%
43	13.980	2104	2107	2109	rBV3	3619	4683	1.48%	0.194%
44	14.004	2109	2111	2117	rVV4	3943	5503	1.73%	0.228%
45	14.069	2117	2122	2126	rVB	6850	10364	3.27%	0.429%
46	14.175	2136	2140	2145	rVB2	8049	11156	3.52%	0.462%
47	14.304	2156	2162	2166	rBV3	2774	3929	1.24%	0.163%
48	14.386	2172	2176	2180	rBV2	3094	4196	1.32%	0.174%
49	14.427	2180	2183	2187	rVV2	4828	5824	1.84%	0.241%
50	14.657	2219	2222	2227	rVV3	5337	8079	2.55%	0.334%
51	14.704	2227	2230	2234	rVB4	3100	3940	1.24%	0.163%
52	14.769	2234	2241	2247	rBV5	11529	24069	7.59%	0.996%
53	15.039	2278	2287	2291	rBV7	3147	6383	2.01%	0.264%
54	15.157	2300	2307	2310	rBV4	3149	5717	1.80%	0.237%
55	15.333	2332	2337	2343	rVB2	8023	13859	4.37%	0.574%
56	16.410	2513	2520	2526	rBV3	3931	7681	2.42%	0.318%

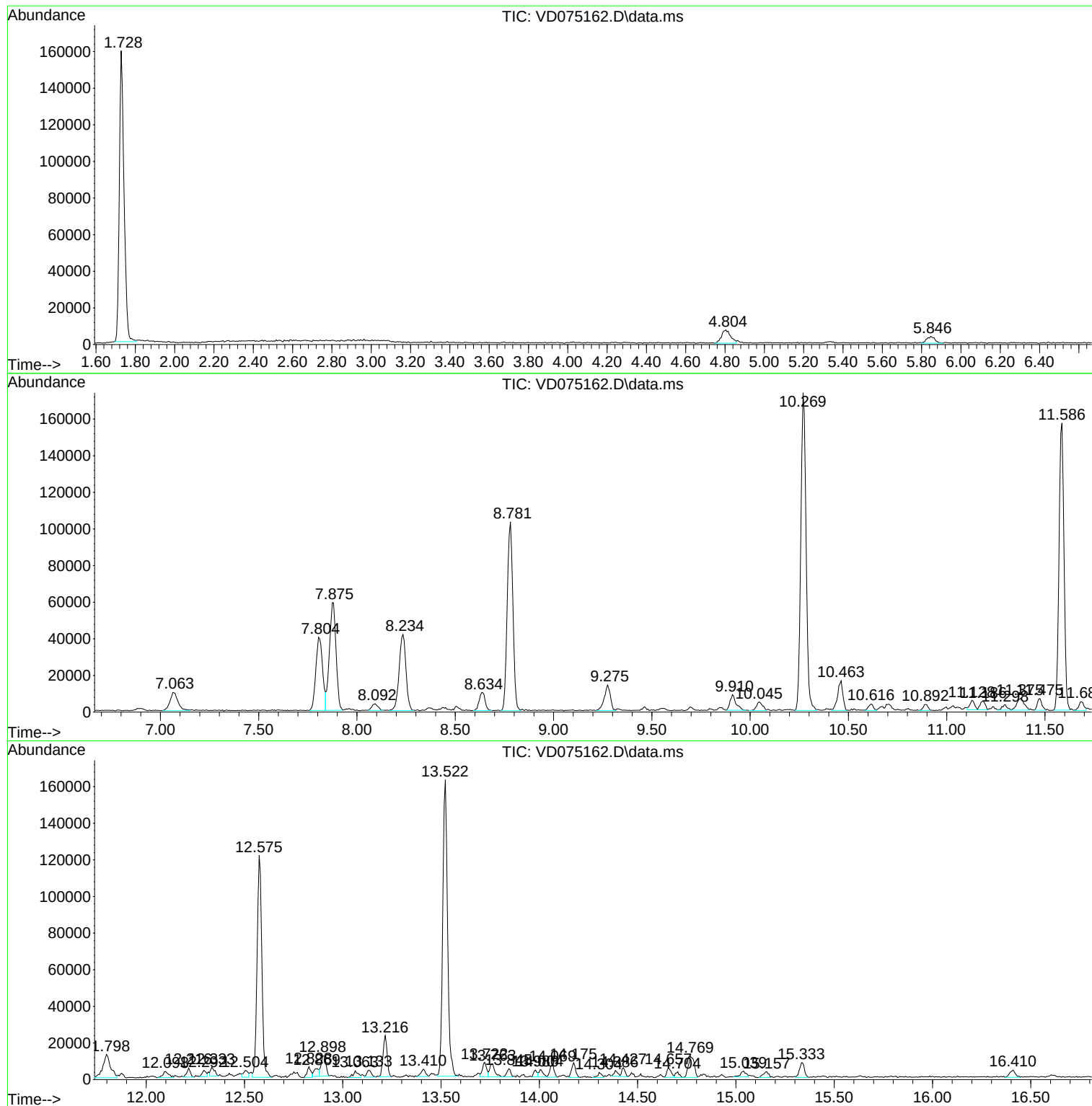
Sum of corrected areas: 2415889

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075162.D
Acq On : 20 Jan 2023 19:17
Operator : KP/SY
Sample : 01233-09
Misc : 5.01G/5.00ml/MSVOA_D/SOIL
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P38B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075162.D
Acq On : 20 Jan 2023 19:17
Operator : KP/SY
Sample : 01233-09
Misc : 5.01G/5.00ml/MSVOA_D/SOIL
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P38B

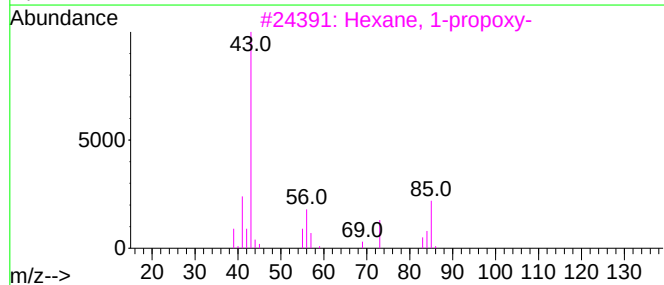
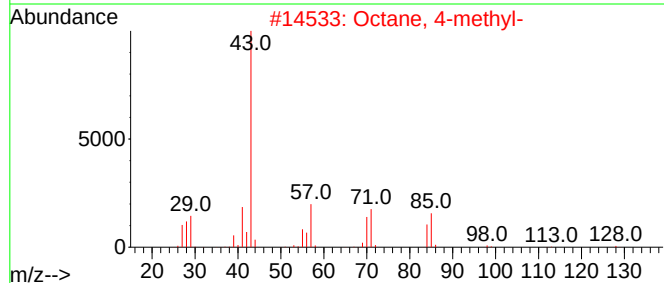
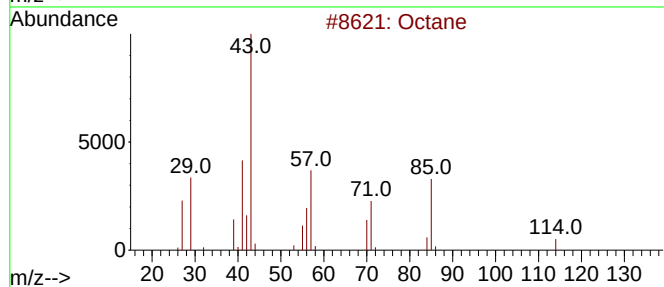
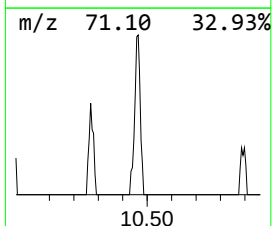
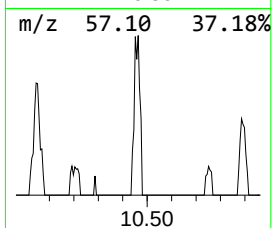
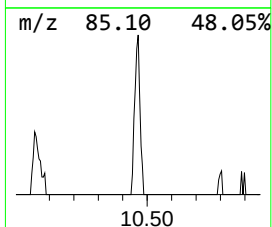
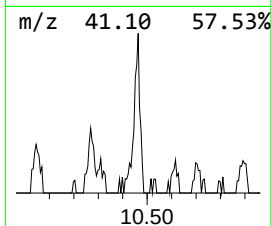
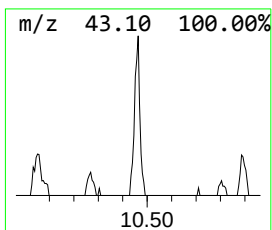
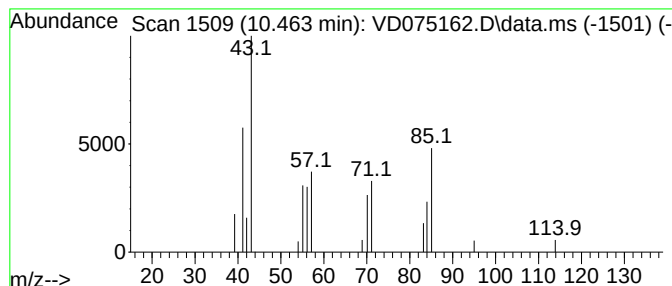
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 4 Octane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.463	5.45 ug/l	29792	Chlorobenzene-d5	11.586

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane			114	C8H18	000111-65-9	64
2	Octane, 4-methyl-			128	C9H20	002216-34-4	59
3	Hexane, 1-propoxy-			144	C9H20O	053685-78-2	50
4	Hexyl octyl ether			214	C14H30O	017071-54-4	45
5	Hexane, 3-ethyl-			114	C8H18	000619-99-8	45



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075162.D
Acq On : 20 Jan 2023 19:17
Operator : KP/SY
Sample : 01233-09
Misc : 5.01G/5.00ml/MSVOA_D/SOIL
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P38B

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Octane	10.463	5.5	ug/l	29792	3	11.586	273488	50.0



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38BRE	SDG No.:	O1233
Lab Sample ID:	O1233-09RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075178.D	1		01/23/23 16:23	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.10	U	1.10	6.10	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	6.10	ug/Kg
75-01-4	Vinyl Chloride	1.10	U	1.10	6.10	ug/Kg
74-83-9	Bromomethane	1.40	U	1.40	6.10	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	6.10	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	6.10	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.88	U	0.88	6.10	ug/Kg
75-35-4	1,1-Dichloroethene	1.10	U	1.10	6.10	ug/Kg
67-64-1	Acetone	15.0	U	15.0	30.7	ug/Kg
75-15-0	Carbon Disulfide	0.92	U	0.92	6.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1.10	U	1.10	6.10	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	6.10	ug/Kg
75-09-2	Methylene Chloride	7.30	U	7.30	12.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.83	U	0.83	6.10	ug/Kg
75-34-3	1,1-Dichloroethane	0.86	U	0.86	6.10	ug/Kg
110-82-7	Cyclohexane	1.00	U	1.00	6.10	ug/Kg
78-93-3	2-Butanone	8.90	U	8.90	30.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.97	U	0.97	6.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.83	U	0.83	6.10	ug/Kg
74-97-5	Bromochloromethane	0.99	U	0.99	6.10	ug/Kg
67-66-3	Chloroform	0.82	U	0.82	6.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.92	U	0.92	6.10	ug/Kg
108-87-2	Methylcyclohexane	0.98	U	0.98	6.10	ug/Kg
71-43-2	Benzene	0.81	U	0.81	6.10	ug/Kg
107-06-2	1,2-Dichloroethane	1.00	U	1.00	6.10	ug/Kg
79-01-6	Trichloroethene	0.90	U	0.90	6.10	ug/Kg
78-87-5	1,2-Dichloropropane	0.80	U	0.80	6.10	ug/Kg
75-27-4	Bromodichloromethane	0.86	U	0.86	6.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.60	U	5.60	30.7	ug/Kg
108-88-3	Toluene	0.77	U	0.77	6.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.91	U	0.91	6.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.87	U	0.87	6.10	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38BRE	SDG No.:	O1233
Lab Sample ID:	O1233-09RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075178.D	1		01/23/23 16:23	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1.10	U	1.10	6.10	ug/Kg
591-78-6	2-Hexanone	5.70	U	5.70	30.7	ug/Kg
124-48-1	Dibromochloromethane	0.92	U	0.92	6.10	ug/Kg
106-93-4	1,2-Dibromoethane	0.92	U	0.92	6.10	ug/Kg
127-18-4	Tetrachloroethene	0.93	U	0.93	6.10	ug/Kg
108-90-7	Chlorobenzene	0.80	U	0.80	6.10	ug/Kg
100-41-4	Ethyl Benzene	0.86	U	0.86	6.10	ug/Kg
179601-23-1	m/p-Xylenes	1.80	U	1.80	12.3	ug/Kg
95-47-6	o-Xylene	0.97	U	0.97	6.10	ug/Kg
100-42-5	Styrene	0.97	U	0.97	6.10	ug/Kg
75-25-2	Bromoform	0.99	U	0.99	6.10	ug/Kg
98-82-8	Isopropylbenzene	0.88	U	0.88	6.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.40	U	1.40	6.10	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.82	U	0.82	6.10	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.77	U	0.77	6.10	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.79	U	0.79	6.10	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.50	U	1.50	6.10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1.20	U	1.20	6.10	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.20	U	1.20	6.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.5		50 - 163	119%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	56.8		58 - 134	114%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		30 - 143	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1300	7.875			
540-36-3	1,4-Difluorobenzene	2140	8.775			
3114-55-4	Chlorobenzene-d5	1970	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	699	13.528			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38BRE	SDG No.:	O1233
Lab Sample ID:	O1233-09RE	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.7
Sample Wt/Vol:	5.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075178.D	1		01/23/23 16:23	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075178.D
 Acq On : 23 Jan 2023 16:23
 Operator : KP/SY
 Sample : 01233-09RE
 Misc : 5.05G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 B-P38BRE

Quant Time: Jan 23 16:38:56 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	1300	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.775	114	2143	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	1966	50.000	ug/l	# 0.00
72) 1,4-Dichlorobenzene-d4	13.528	152	699	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	789	59.478	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 118.960%	
35) Dibromofluoromethane	7.805	113	625	48.265	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 96.520%	
50) Toluene-d8	10.275	98	2894	56.760	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 113.520%	
62) 4-Bromofluorobenzene	12.575	95	816	50.427	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 100.860%	

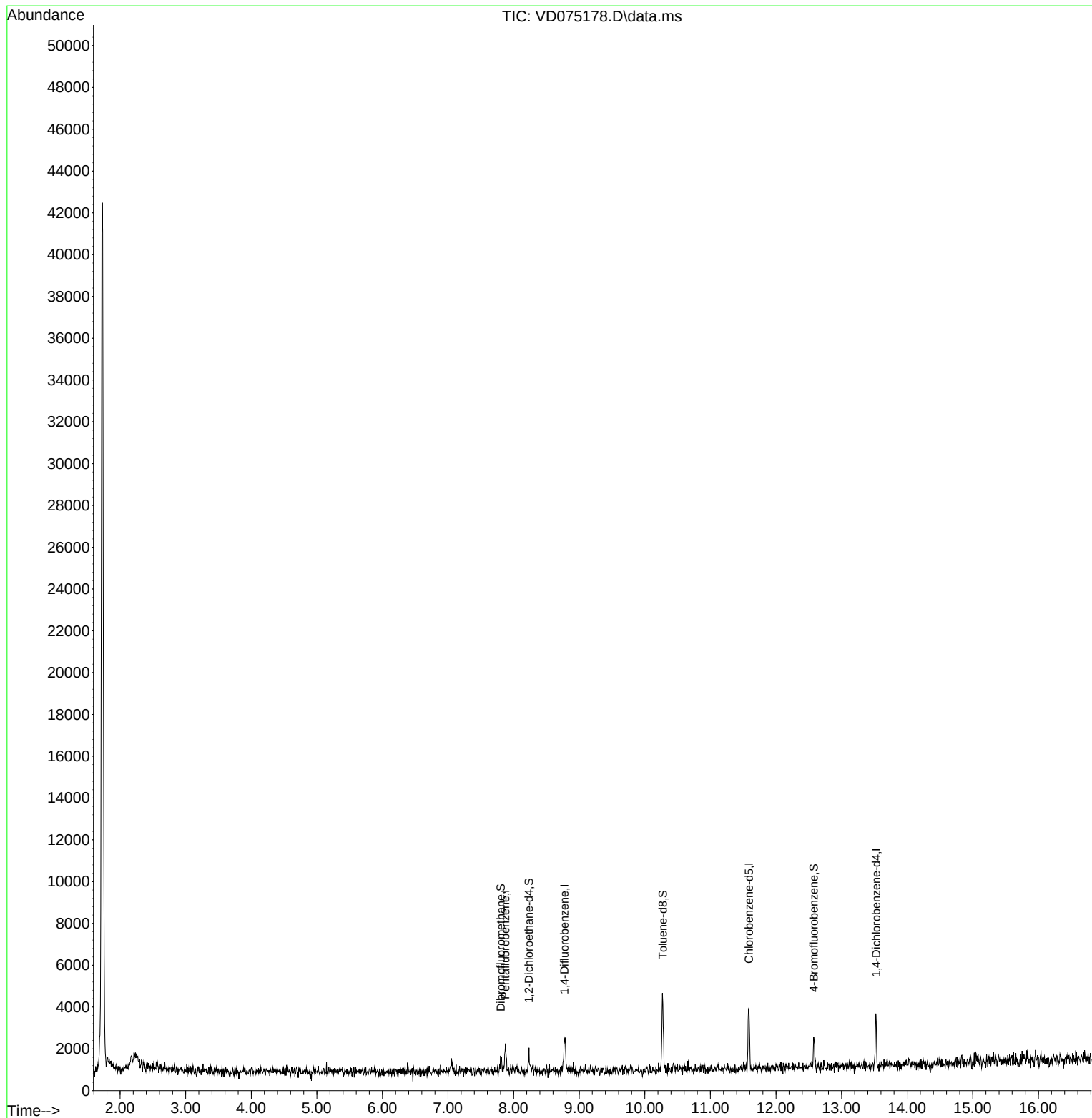
Target Compounds	Qvalue

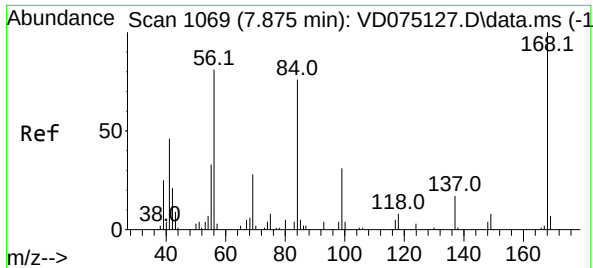
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075178.D
Acq On : 23 Jan 2023 16:23
Operator : KP/SY
Sample : 01233-09RE
Misc : 5.05G/5.00ml/MSVOA_D/SOIL
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
B-P38BRE

Quant Time: Jan 23 16:38:56 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

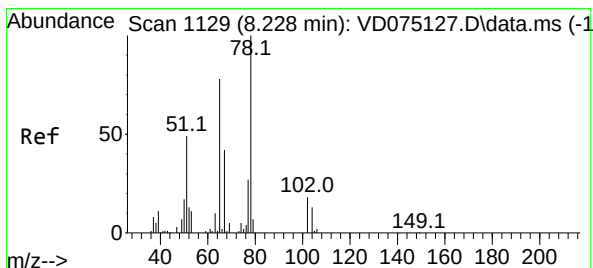
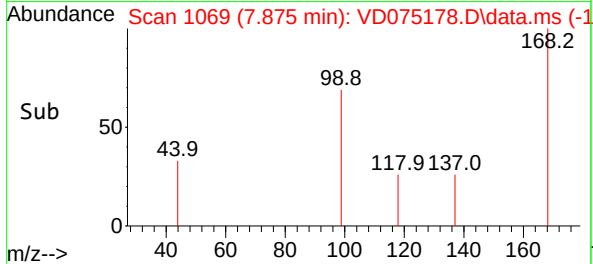
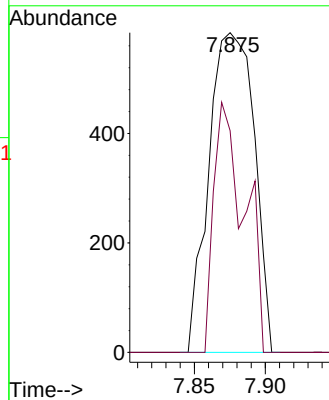
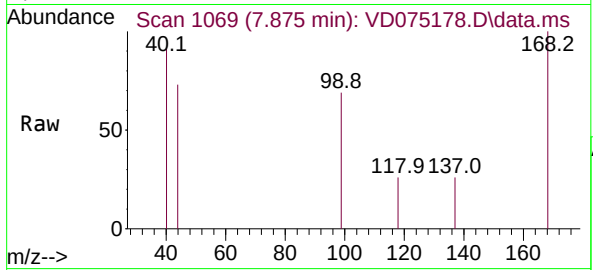




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1130
Delta R.T. 0.000 min
Lab File: VD075178.D
Acq: 23 Jan 2023 16:23

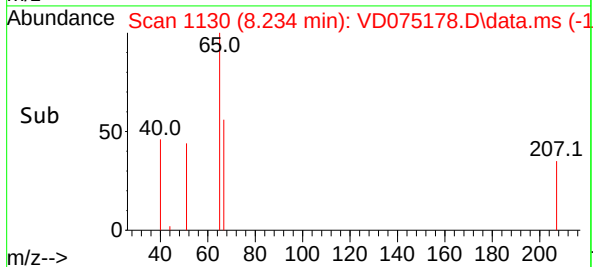
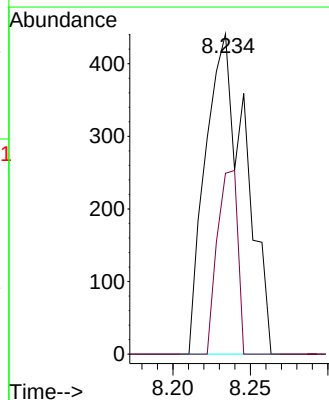
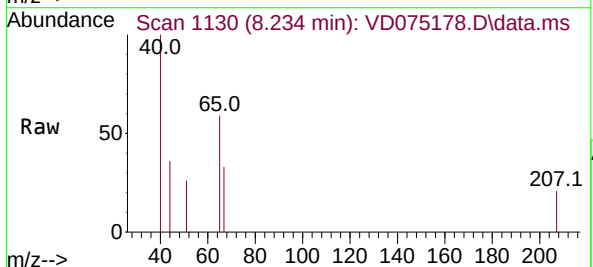
Instrument :
MSVOA_D
ClientSampleId :
B-P38BRE

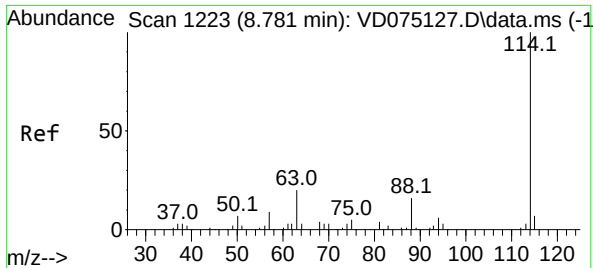
Tgt Ion:168 Resp: 1300
Ion Ratio Lower Upper
168 100
99 69.3 45.2 67.8#



#33
1,2-Dichloroethane-d4
Concen: 59.478 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.006 min
Lab File: VD075178.D
Acq: 23 Jan 2023 16:23

Tgt Ion: 65 Resp: 789
Ion Ratio Lower Upper
65 100
67 29.4 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.775 min Scan# 11

Delta R.T. -0.006 min

Lab File: VD075178.D

Acq: 23 Jan 2023 16:23

Instrument :

MSVOA_D

ClientSampleId :

B-P38BRE

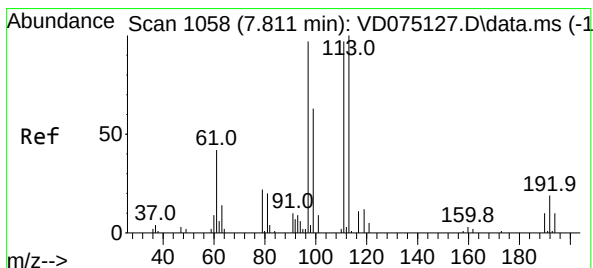
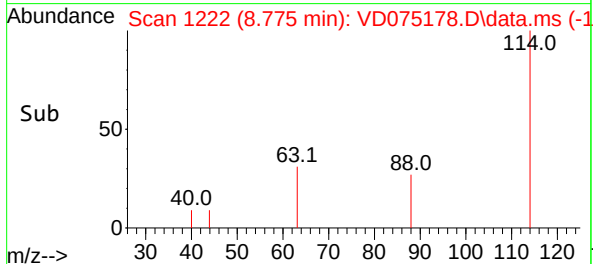
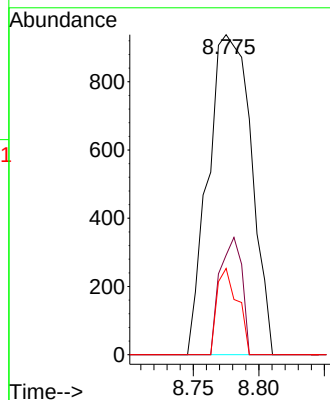
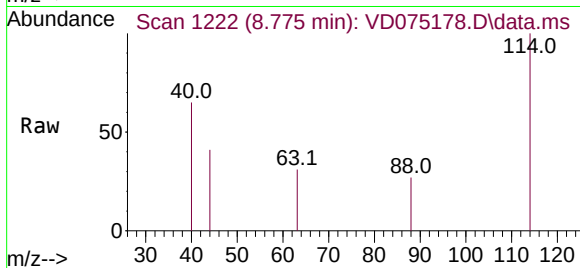
Tgt Ion:114 Resp: 2143

Ion Ratio Lower Upper

114 100

63 31.1 0.0 40.2

88 27.0 0.0 32.2



#35

Dibromofluoromethane

Concen: 48.265 ug/l

RT: 7.805 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075178.D

Acq: 23 Jan 2023 16:23

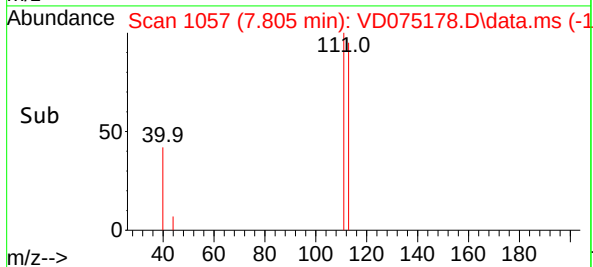
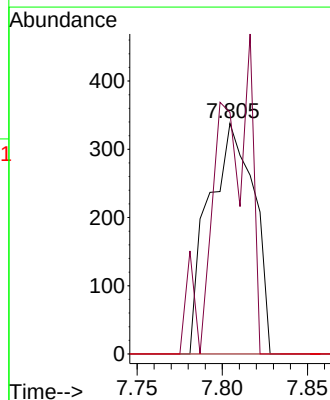
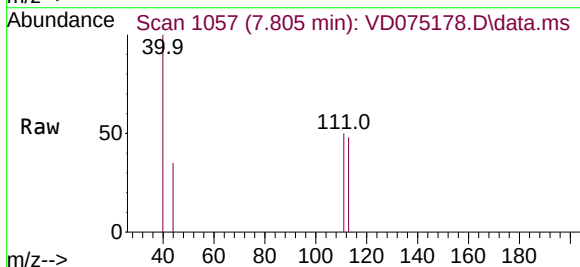
Tgt Ion:113 Resp: 625

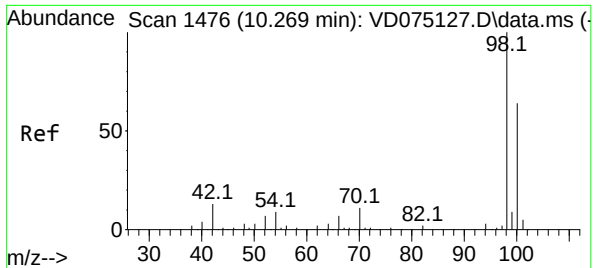
Ion Ratio Lower Upper

113 100

111 97.9 80.1 120.1

192 0.0 15.4 23.0#

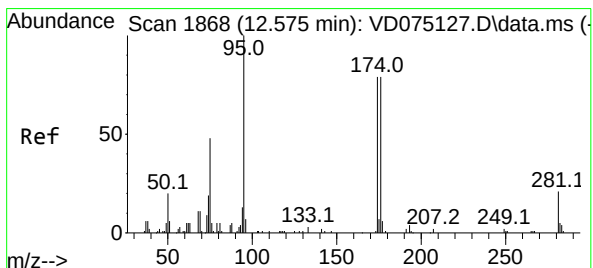
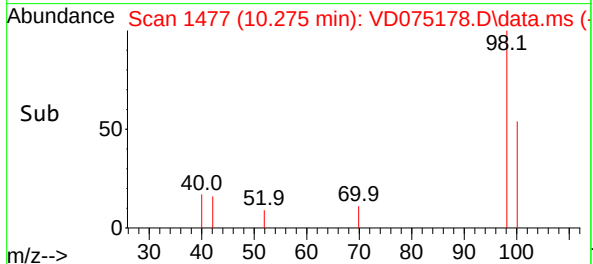
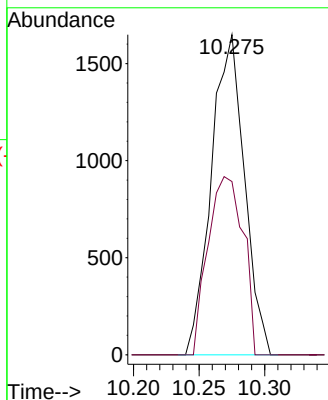
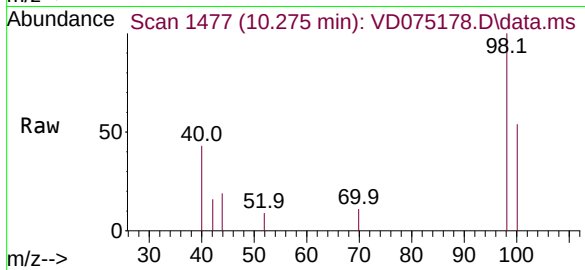




#50
Toluene-d8
Concen: 56.760 ug/l
RT: 10.275 min Scan# 1476
Delta R.T. 0.006 min
Lab File: VD075178.D
Acq: 23 Jan 2023 16:23

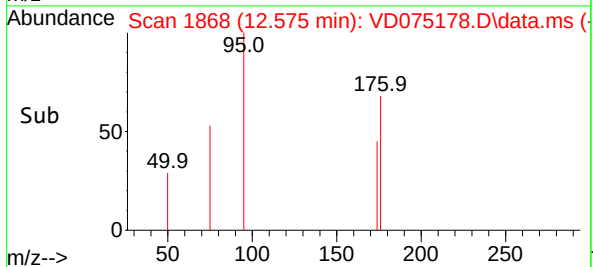
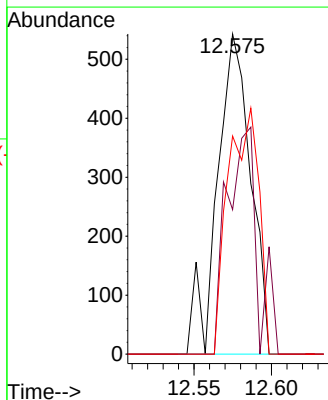
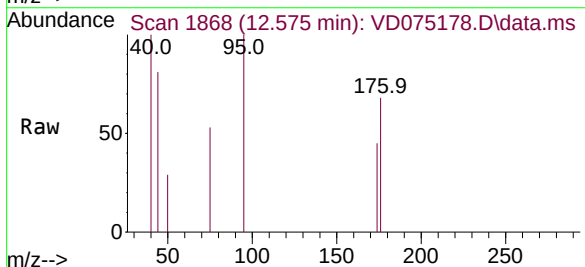
Instrument :
MSVOA_D
ClientSampleId :
B-P38BRE

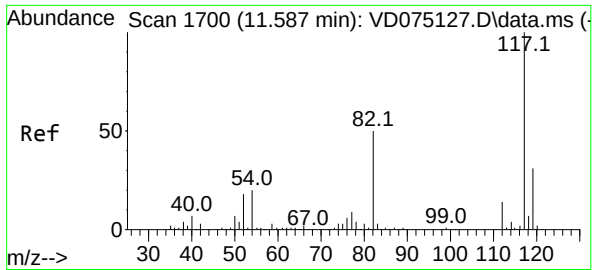
Tgt Ion: 98 Resp: 2894
Ion Ratio Lower Upper
98 100
100 59.3 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 50.427 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075178.D
Acq: 23 Jan 2023 16:23

Tgt Ion: 95 Resp: 816
Ion Ratio Lower Upper
95 100
174 63.6 0.0 161.2
176 70.6 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.587 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075178.D

Acq: 23 Jan 2023 16:23

Instrument :

MSVOA_D

ClientSampleId :

B-P38BRE

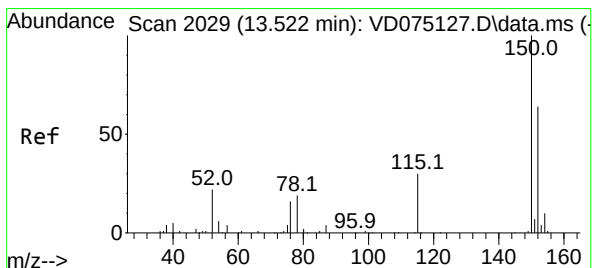
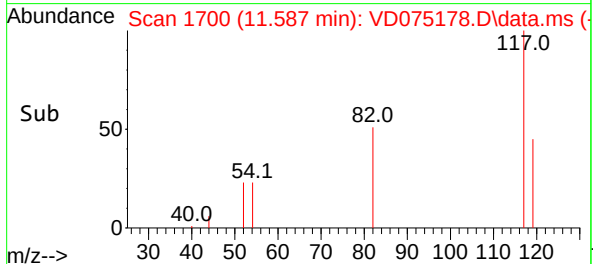
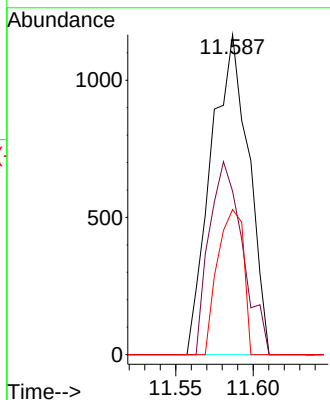
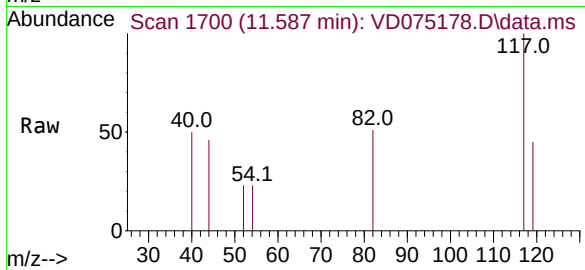
Tgt Ion:117 Resp: 1966

Ion Ratio Lower Upper

117 100

82 51.0 39.6 59.4

119 45.4 24.6 37.0#



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.528 min Scan# 2030

Delta R.T. 0.006 min

Lab File: VD075178.D

Acq: 23 Jan 2023 16:23

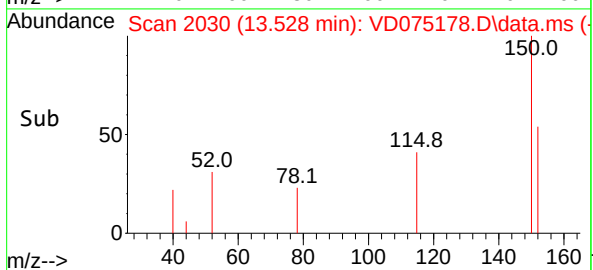
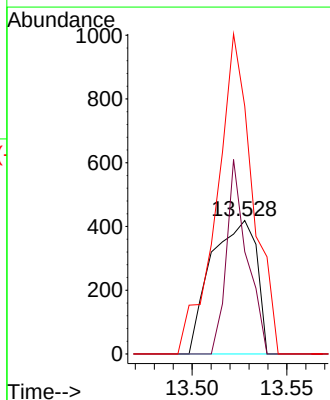
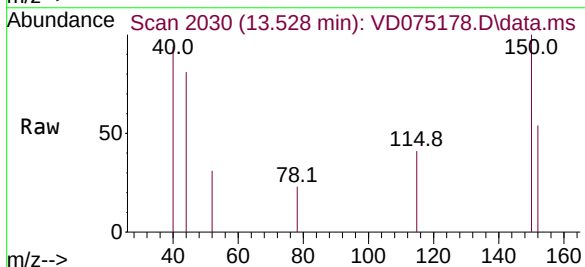
Tgt Ion:152 Resp: 699

Ion Ratio Lower Upper

152 100

115 65.4 28.8 86.4

150 188.8 0.0 348.6





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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076364.D	1		01/23/23 14:12	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	99.5	U	99.5	580	ug/Kg
74-87-3	Chloromethane	120	U	120	580	ug/Kg
75-01-4	Vinyl Chloride	110	U	110	580	ug/Kg
74-83-9	Bromomethane	130	U	130	580	ug/Kg
75-00-3	Chloroethane	100	U	100	580	ug/Kg
75-69-4	Trichlorofluoromethane	110	U	110	580	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	83.3	U	83.3	580	ug/Kg
75-35-4	1,1-Dichloroethene	99.5	U	99.5	580	ug/Kg
67-64-1	Acetone	1400	U	1400	2900	ug/Kg
75-15-0	Carbon Disulfide	86.8	U	86.8	580	ug/Kg
1634-04-4	Methyl tert-butyl Ether	110	U	110	580	ug/Kg
79-20-9	Methyl Acetate	150	U	150	580	ug/Kg
75-09-2	Methylene Chloride	690	U	690	1200	ug/Kg
156-60-5	trans-1,2-Dichloroethene	78.7	U	78.7	580	ug/Kg
75-34-3	1,1-Dichloroethane	81.0	U	81.0	580	ug/Kg
110-82-7	Cyclohexane	4600		97.2	580	ug/Kg
78-93-3	2-Butanone	840	U	840	2900	ug/Kg
56-23-5	Carbon Tetrachloride	91.4	U	91.4	580	ug/Kg
156-59-2	cis-1,2-Dichloroethene	78.7	U	78.7	580	ug/Kg
74-97-5	Bromochloromethane	93.7	U	93.7	580	ug/Kg
67-66-3	Chloroform	77.5	U	77.5	580	ug/Kg
71-55-6	1,1,1-Trichloroethane	86.8	U	86.8	580	ug/Kg
108-87-2	Methylcyclohexane	31500	E	92.6	580	ug/Kg
71-43-2	Benzene	76.4	U	76.4	580	ug/Kg
107-06-2	1,2-Dichloroethane	97.2	U	97.2	580	ug/Kg
79-01-6	Trichloroethene	84.5	U	84.5	580	ug/Kg
78-87-5	1,2-Dichloropropane	75.2	U	75.2	580	ug/Kg
75-27-4	Bromodichloromethane	81.0	U	81.0	580	ug/Kg
108-10-1	4-Methyl-2-Pentanone	530	U	530	2900	ug/Kg
108-88-3	Toluene	72.9	U	72.9	580	ug/Kg
10061-02-6	t-1,3-Dichloropropene	85.6	U	85.6	580	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	82.2	U	82.2	580	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076364.D	1		01/23/23 14:12	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	99.5	U	99.5	580	ug/Kg
591-78-6	2-Hexanone	540	U	540	2900	ug/Kg
124-48-1	Dibromochloromethane	86.8	U	86.8	580	ug/Kg
106-93-4	1,2-Dibromoethane	86.8	U	86.8	580	ug/Kg
127-18-4	Tetrachloroethene	87.9	U	87.9	580	ug/Kg
108-90-7	Chlorobenzene	75.2	U	75.2	580	ug/Kg
100-41-4	Ethyl Benzene	860		81.0	580	ug/Kg
179601-23-1	m/p-Xylenes	2400		170	1200	ug/Kg
95-47-6	o-Xylene	320	J	91.4	580	ug/Kg
100-42-5	Styrene	91.4	U	91.4	580	ug/Kg
75-25-2	Bromoform	93.7	U	93.7	580	ug/Kg
98-82-8	Isopropylbenzene	1500		83.3	580	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	130	U	130	580	ug/Kg
541-73-1	1,3-Dichlorobenzene	77.5	U	77.5	580	ug/Kg
106-46-7	1,4-Dichlorobenzene	72.9	U	72.9	580	ug/Kg
95-50-1	1,2-Dichlorobenzene	74.1	U	74.1	580	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	140	U	140	580	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	110	U	110	580	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	120	U	120	580	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		50 - 163	96%	SPK: 50
1868-53-7	Dibromofluoromethane	45.9		54 - 147	92%	SPK: 50
2037-26-5	Toluene-d8	65.5		58 - 134	131%	SPK: 50
460-00-4	4-Bromofluorobenzene	91.1	*	30 - 143	182%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	380000	8.224			
540-36-3	1,4-Difluorobenzene	594000	9.1			
3114-55-4	Chlorobenzene-d5	545000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	319000	13.794			
TENTATIVE IDENTIFIED COMPOUNDS						
000142-82-5	Heptane	22000	J		8.96	ug/Kg
000592-27-8	Heptane, 2-methyl-	38200	J		10.2	ug/Kg
000589-81-1	Heptane, 3-methyl-	22900	J		10.3	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076364.D	1		01/23/23 14:12	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000111-65-9	Octane	54700	J		10.7	ug/Kg
003221-61-2	Octane, 2-methyl-	49000	J		11.6	ug/Kg
002216-33-3	Octane, 3-methyl-	30700	J		11.7	ug/Kg
005911-04-6	Nonane, 3-methyl-	28400	J		12.5	ug/Kg
	unknown12.600	47300	J		12.6	ug/Kg
017301-94-9	Nonane, 4-methyl-	27300	J		12.8	ug/Kg
103-65-1	n-propylbenzene	3300	J		13.0	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	4000	J		13.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	7700	J		13.5	ug/Kg
135-98-8	sec-Butylbenzene	1300	J		13.6	ug/Kg
99-87-6	p-Isopropyltoluene	2600	J		13.7	ug/Kg
104-51-8	n-Butylbenzene	3700	J		14.1	ug/Kg
000824-90-8	1-Phenyl-1-butene	31200	J		15.0	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076364.D
 Acq On : 23 Jan 2023 14:12
 Operator : JC\MD
 Sample : 01233-11
 Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 B-P38C

Quant Time: Jan 23 14:32:31 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

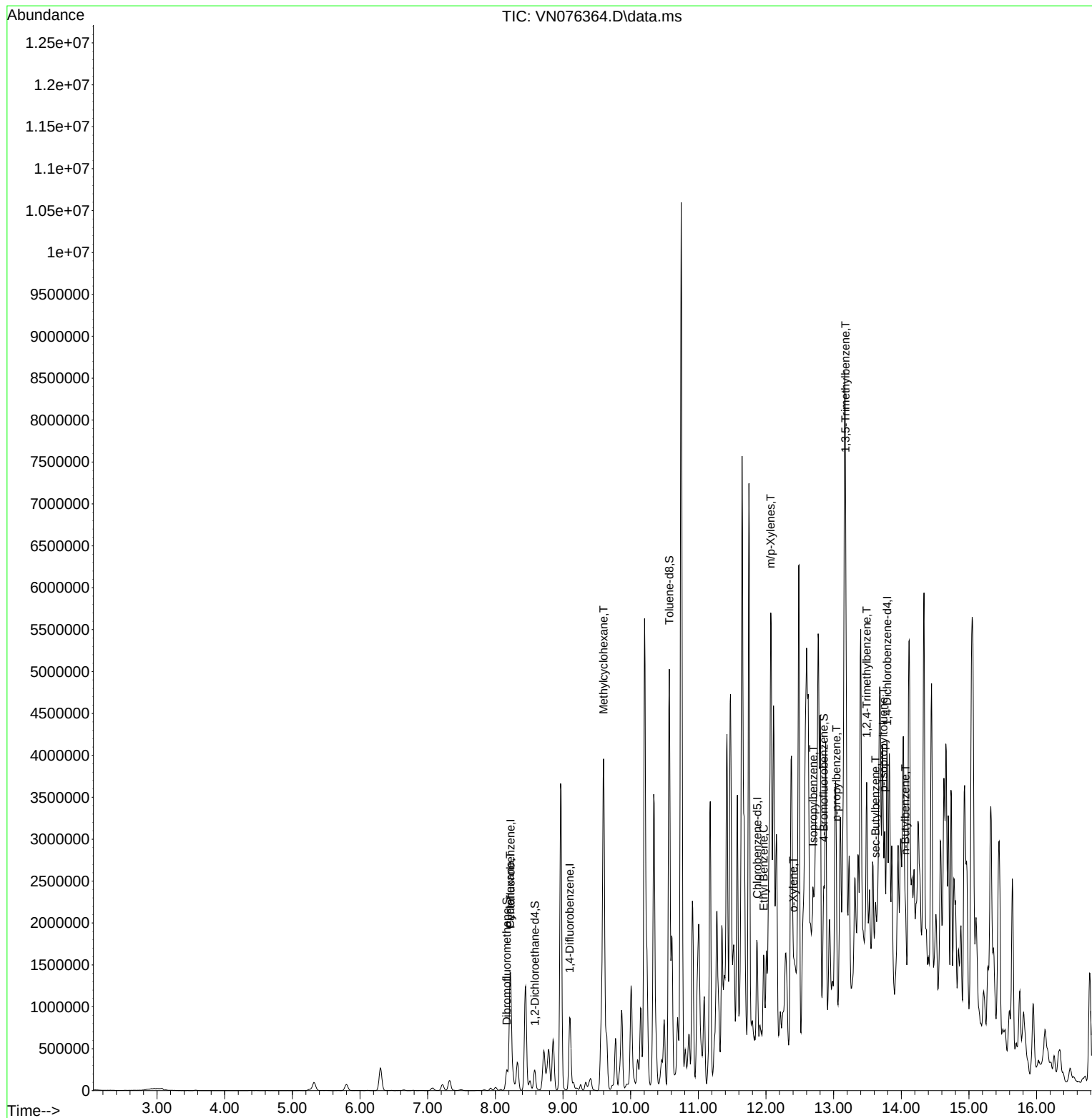
Internal Standards						
1) Pentafluorobenzene	8.224	168	380260	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	594043	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	544762	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	318779	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	203624	47.825	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	95.640%		
35) Dibromofluoromethane	8.171	113	170665	45.927	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	91.860%		
50) Toluene-d8	10.571	98	898887	65.500	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	131.000%#		
62) 4-Bromofluorobenzene	12.853	95	408169	91.107	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery =	182.220%#		
Target Compounds						
					Qvalue	
31) Cyclohexane	8.218	56	259403	39.661	ug/l #	48
39) Methylcyclohexane	9.600	83	1757162	272.504	ug/l	96
67) Ethyl Benzene	11.965	91	146518	7.434	ug/l	96
68) m/p-Xylenes	12.071	106	167223	21.160	ug/l	92
69) o-Xylene	12.406	106	21412	2.759	ug/l	52
73) Isopropylbenzene	12.700	105	322036	13.059	ug/l	99
78) n-propylbenzene	13.041	91	798475	28.696	ug/l	98
80) 1,3,5-Trimethylbenzene	13.176	105	715535	34.634	ug/l	96
84) 1,2,4-Trimethylbenzene	13.488	105	1375210	66.383	ug/l	100
85) sec-Butylbenzene	13.618	105	293032	11.493	ug/l #	64
86) p-Isopropyltoluene	13.735	119	478090	22.803	ug/l	95
89) n-Butylbenzene	14.059	91	529712	31.826	ug/l #	75

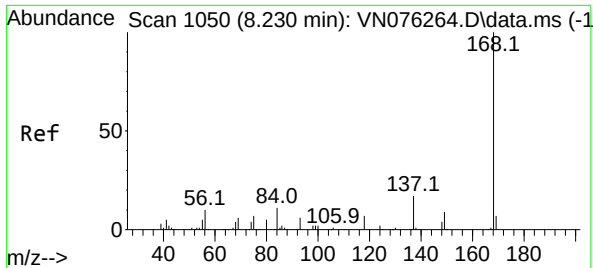
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

Quant Time: Jan 23 14:32:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

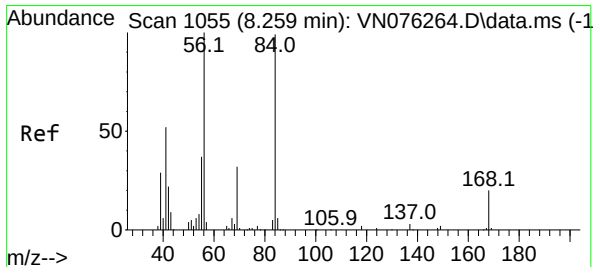
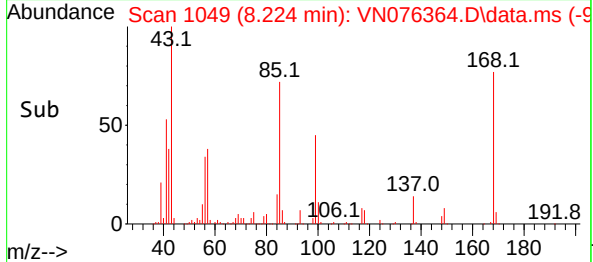
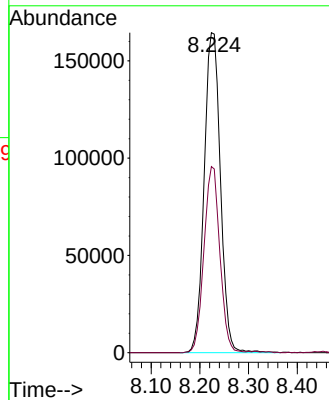
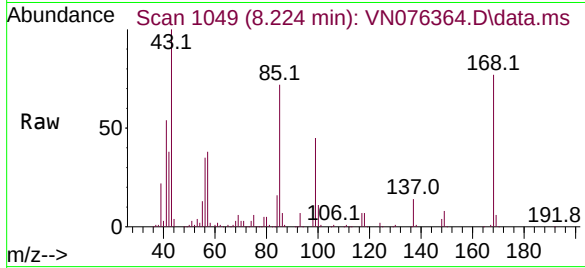




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1049
Delta R.T. -0.006 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

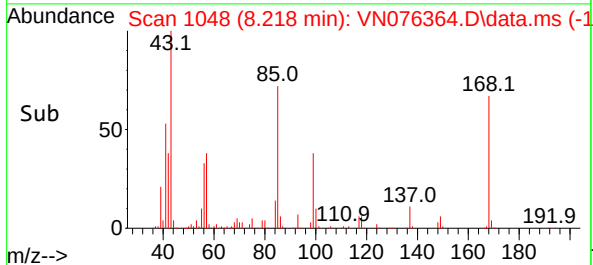
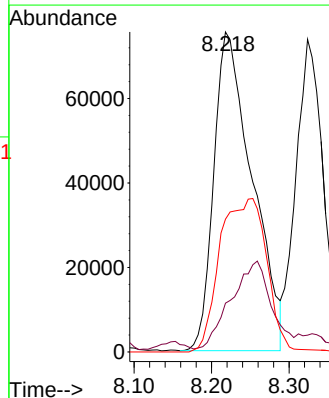
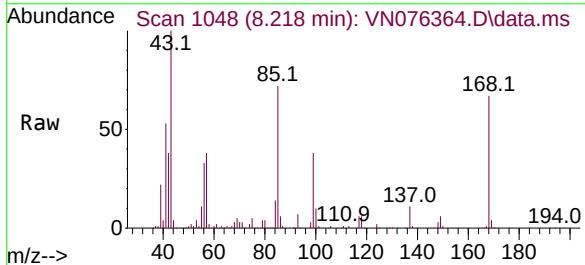
Instrument :
MSVOA_N
ClientSampleId :
B-P38C

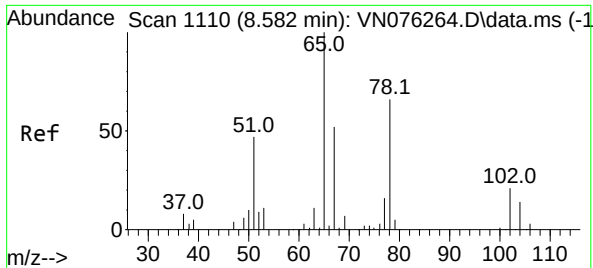
Tgt Ion:168 Resp: 380260
Ion Ratio Lower Upper
168 100
99 58.2 41.6 62.4



#31
Cyclohexane
Concen: 39.661 ug/l
RT: 8.218 min Scan# 1048
Delta R.T. -0.041 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

Tgt Ion: 56 Resp: 259403
Ion Ratio Lower Upper
56 100
69 13.0 25.8 38.8#
84 41.7 79.0 118.4#





#33

1,2-Dichloroethane-d4

Concen: 47.825 ug/l

RT: 8.583 min Scan# 1110

Delta R.T. 0.001 min

Lab File: VN076364.D

Acq: 23 Jan 2023 14:12

Instrument :

MSVOA_N

ClientSampleId :

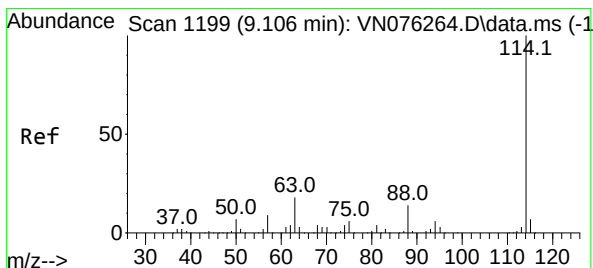
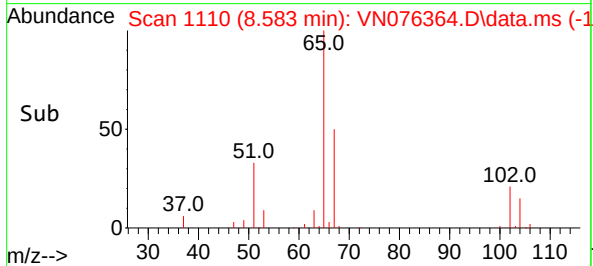
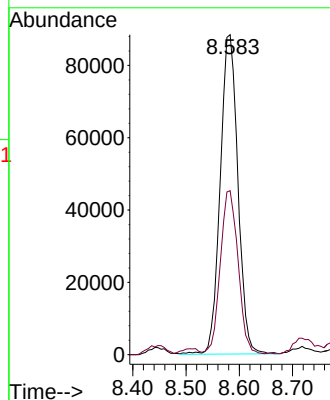
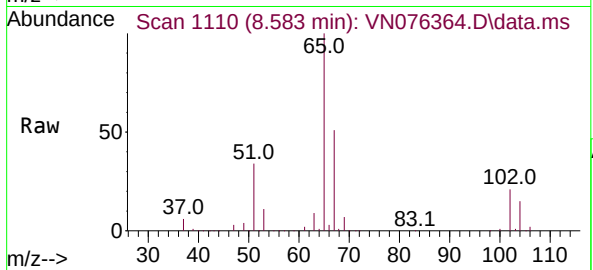
B-P38C

Tgt Ion: 65 Resp: 203624

Ion Ratio Lower Upper

65 100

67 51.3 0.0 104.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1198

Delta R.T. -0.006 min

Lab File: VN076364.D

Acq: 23 Jan 2023 14:12

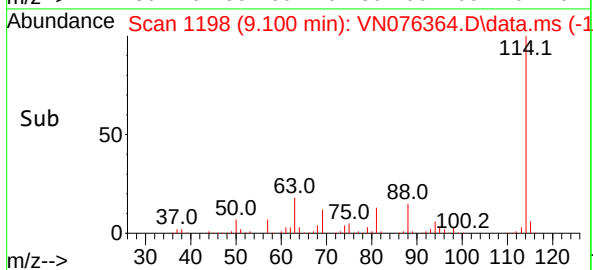
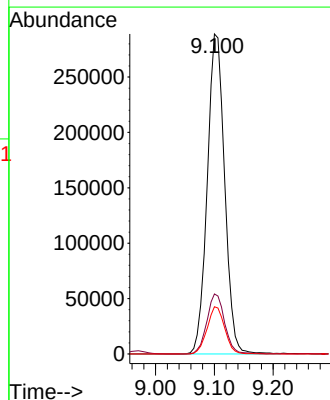
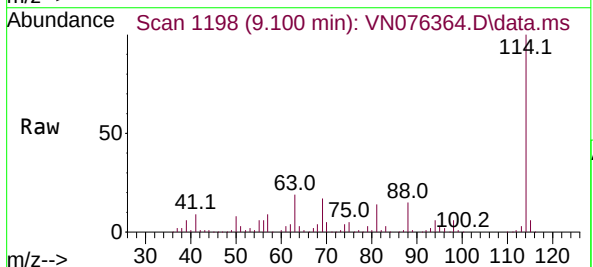
Tgt Ion: 114 Resp: 594043

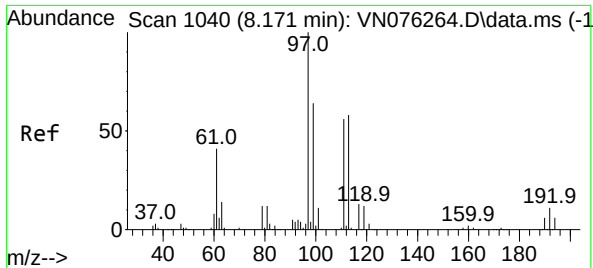
Ion Ratio Lower Upper

114 100

63 18.7 0.0 35.8

88 14.8 0.0 28.0





#35

Dibromofluoromethane

Concen: 45.927 ug/l

RT: 8.171 min Scan# 1040

Delta R.T. -0.000 min

Lab File: VN076364.D

Acq: 23 Jan 2023 14:12

Instrument :

MSVOA_N

ClientSampleId :

B-P38C

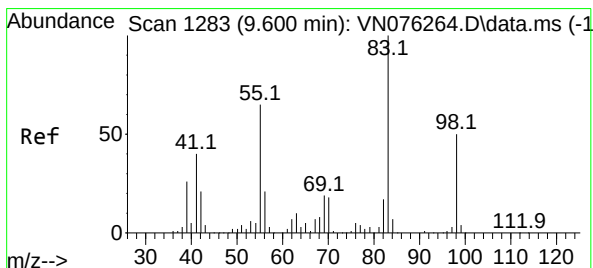
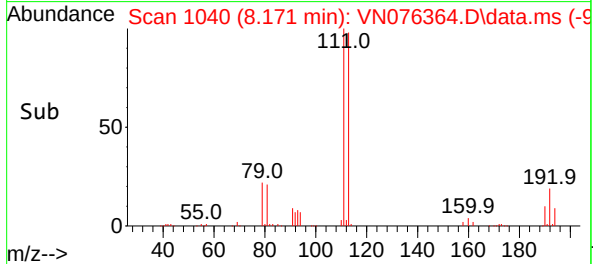
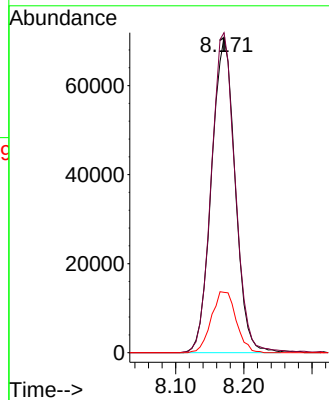
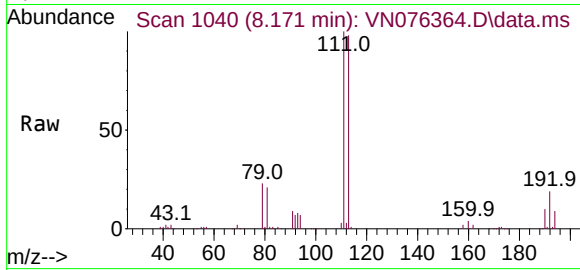
Tgt Ion:113 Resp: 170665

Ion Ratio Lower Upper

113 100

111 102.8 82.7 124.1

192 20.2 15.6 23.4



#39

Methylcyclohexane

Concen: 272.504 ug/l

RT: 9.600 min Scan# 1283

Delta R.T. 0.000 min

Lab File: VN076364.D

Acq: 23 Jan 2023 14:12

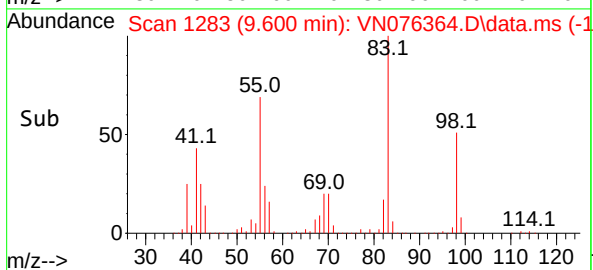
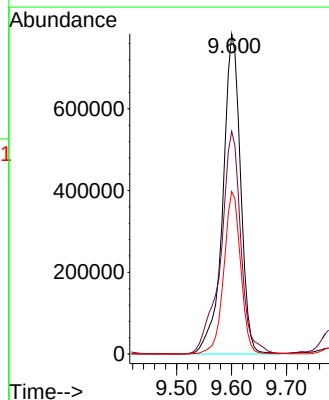
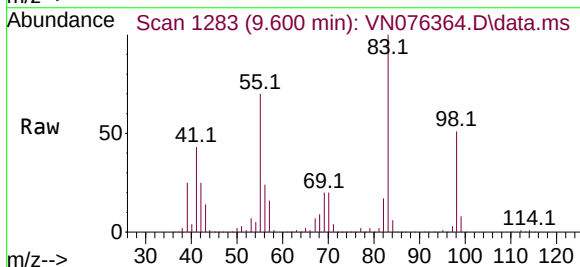
Tgt Ion: 83 Resp: 1757162

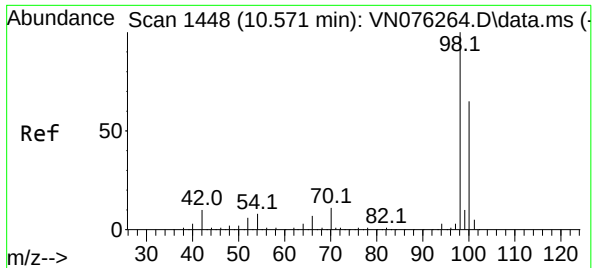
Ion Ratio Lower Upper

83 100

55 69.5 51.7 77.5

98 50.7 40.0 60.0

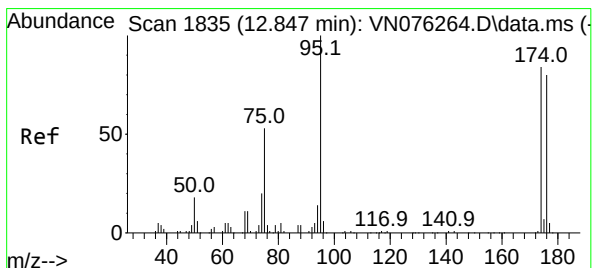
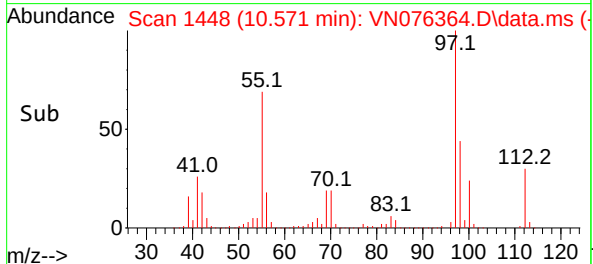
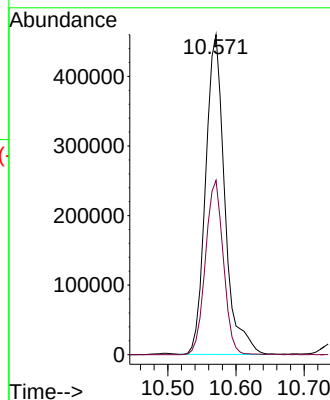
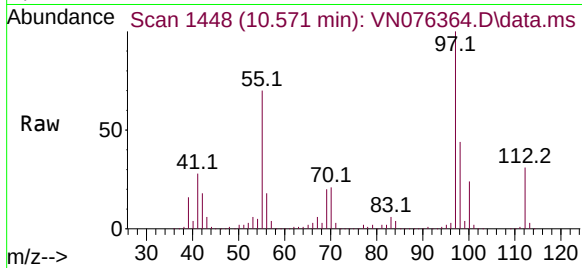




#50
Toluene-d8
Concen: 65.500 ug/l
RT: 10.571 min Scan# 1448
Delta R.T. -0.000 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

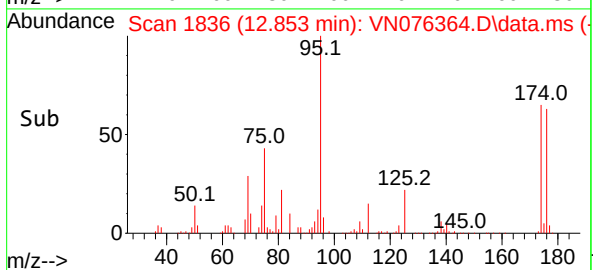
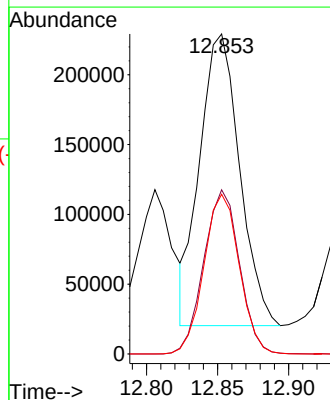
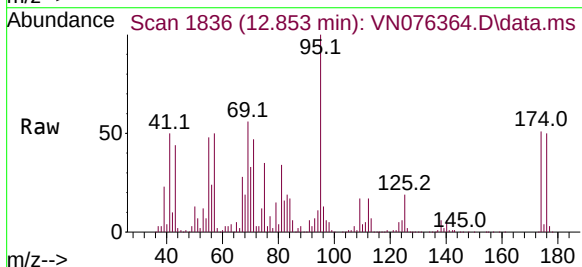
Instrument :
MSVOA_N
ClientSampleId :
B-P38C

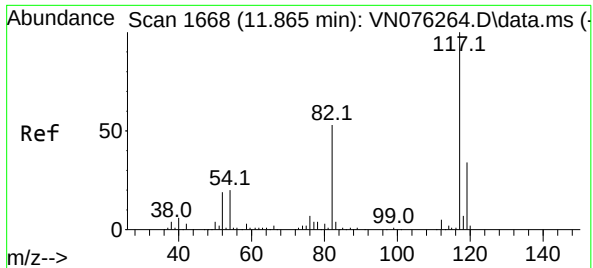
Tgt Ion: 98 Resp: 898887
Ion Ratio Lower Upper
98 100
100 50.9 52.2 78.4#



#62
4-Bromofluorobenzene
Concen: 91.107 ug/l
RT: 12.853 min Scan# 1836
Delta R.T. 0.006 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

Tgt Ion: 95 Resp: 408169
Ion Ratio Lower Upper
95 100
174 50.3 0.0 174.6
176 48.6 0.0 167.8

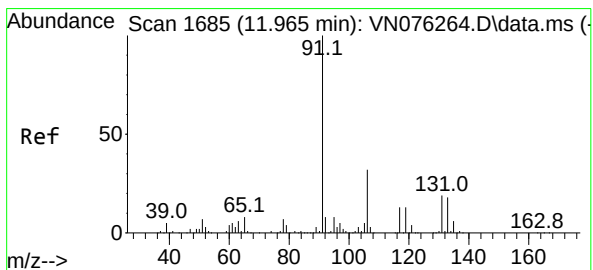
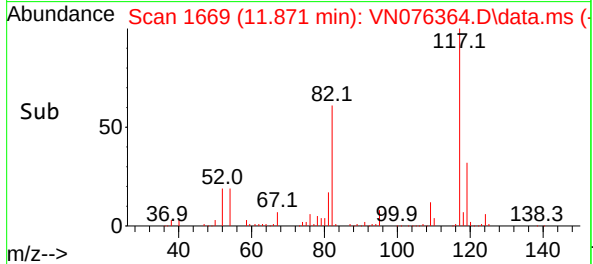
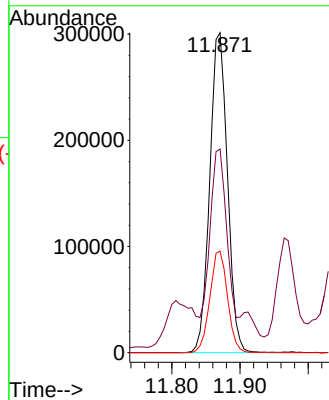
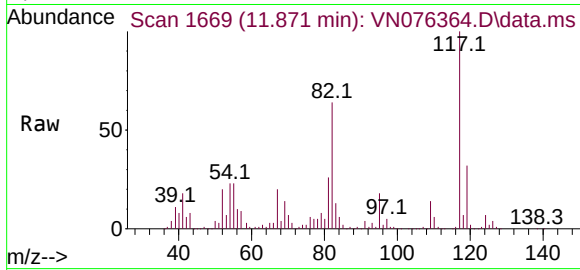




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1669
Delta R.T. 0.006 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

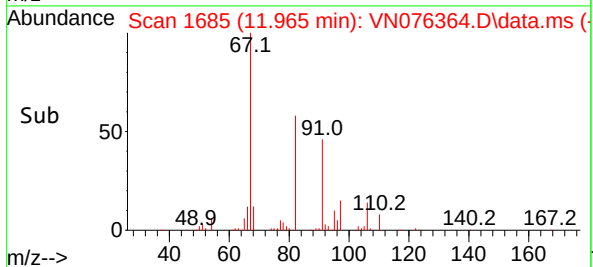
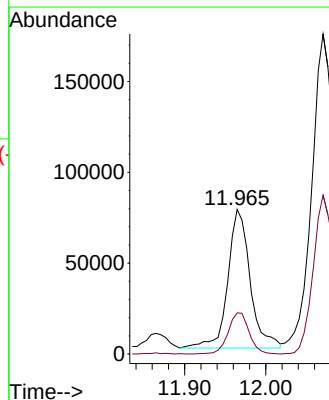
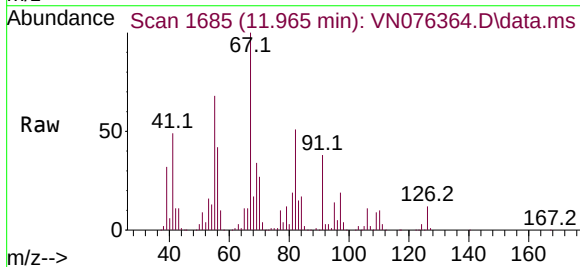
Instrument :
MSVOA_N
ClientSampleId :
B-P38C

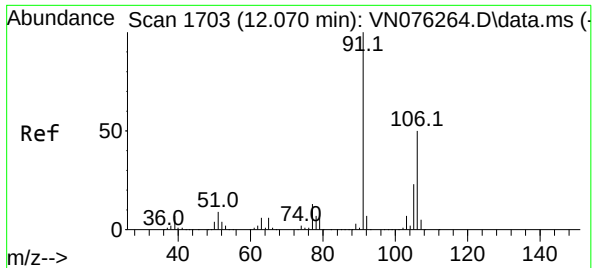
Tgt Ion:117 Resp: 544762
Ion Ratio Lower Upper
117 100
82 48.5 42.2 63.2
119 31.8 26.9 40.3



#67
Ethyl Benzene
Concen: 7.434 ug/l
RT: 11.965 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

Tgt Ion: 91 Resp: 146518
Ion Ratio Lower Upper
91 100
106 29.7 25.5 38.3

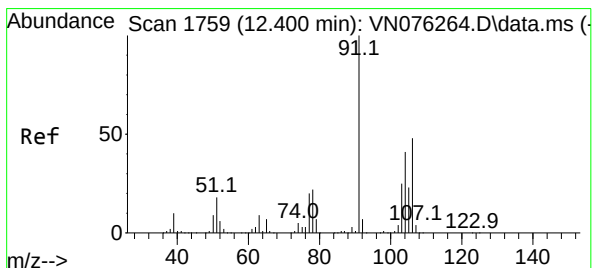
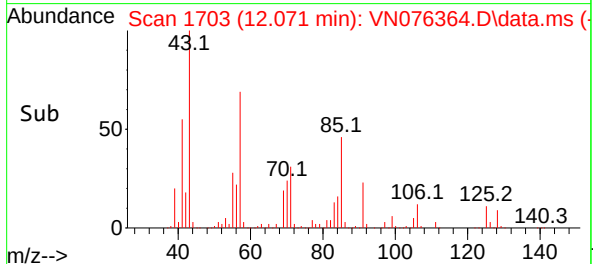
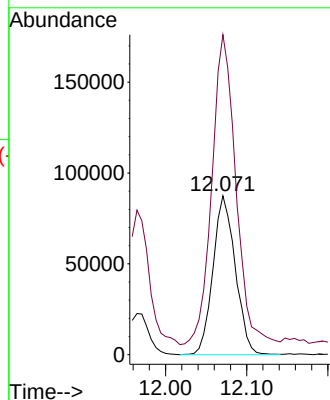
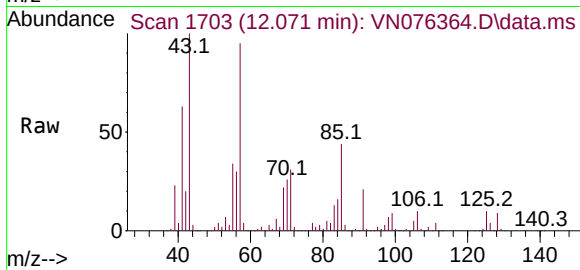




#68
m/p-Xylenes
Concen: 21.160 ug/l
RT: 12.071 min Scan# 1703
Delta R.T. 0.001 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

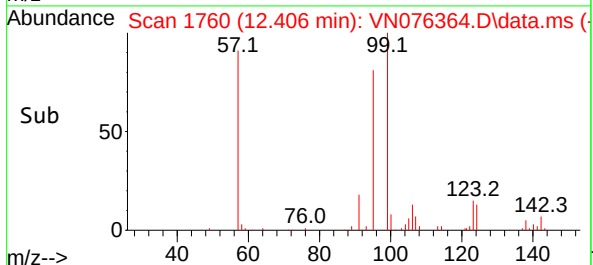
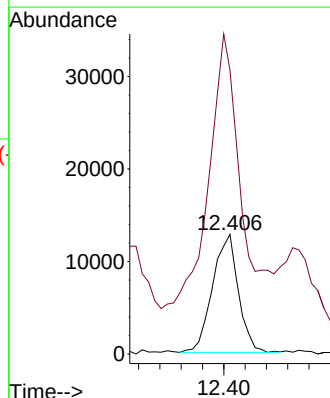
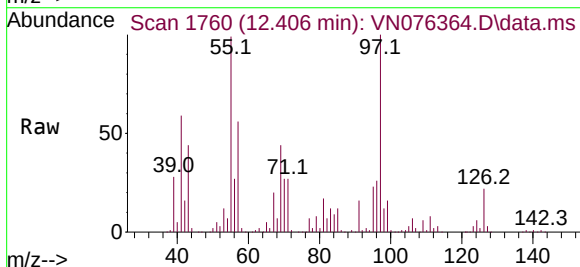
Instrument :
MSVOA_N
ClientSampleId :
B-P38C

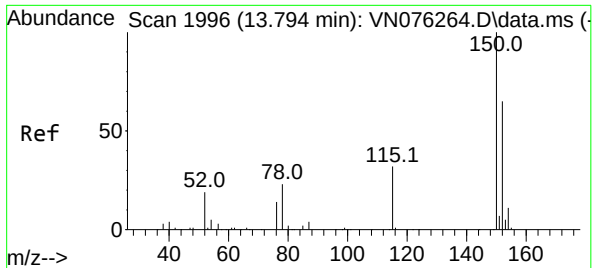
Tgt Ion:106 Resp: 167223
Ion Ratio Lower Upper
106 100
91 209.3 157.5 236.3



#69
o-Xylene
Concen: 2.759 ug/l
RT: 12.406 min Scan# 1760
Delta R.T. 0.006 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

Tgt Ion:106 Resp: 21412
Ion Ratio Lower Upper
106 100
91 280.8 103.2 309.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 1996

Delta R.T. -0.000 min

Lab File: VN076364.D

Acq: 23 Jan 2023 14:12

Instrument :

MSVOA_N

ClientSampleId :

B-P38C

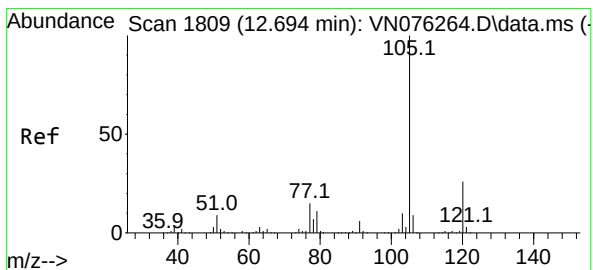
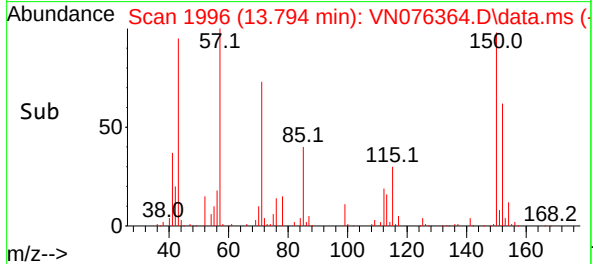
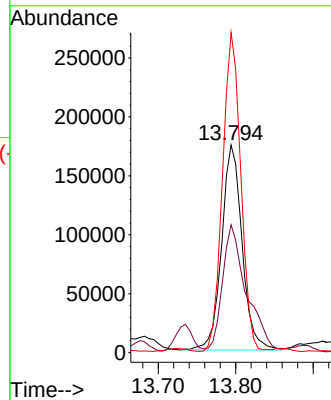
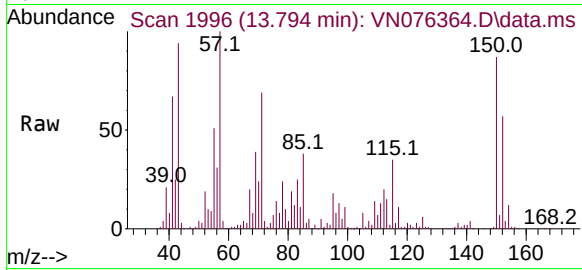
Tgt Ion:152 Resp: 318779

Ion Ratio Lower Upper

152 100

115 69.1 29.6 88.9

150 139.0 0.0 351.4



#73

Isopropylbenzene

Concen: 13.059 ug/l

RT: 12.700 min Scan# 1810

Delta R.T. 0.006 min

Lab File: VN076364.D

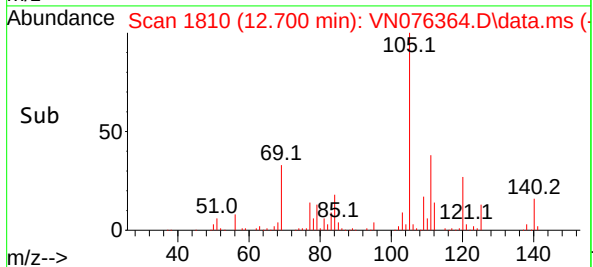
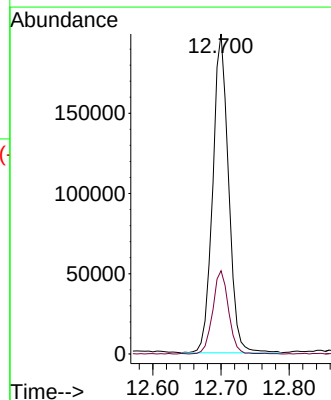
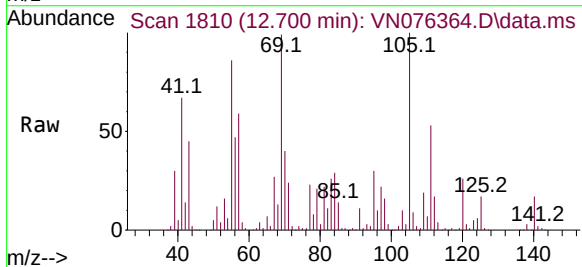
Acq: 23 Jan 2023 14:12

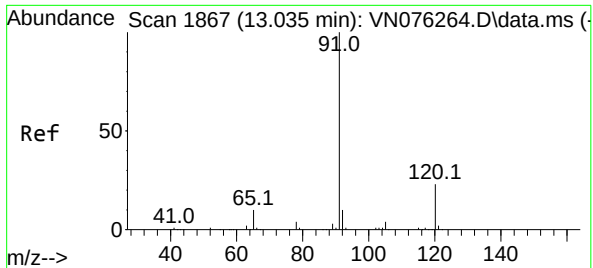
Tgt Ion:105 Resp: 322036

Ion Ratio Lower Upper

105 100

120 26.0 13.4 40.1





#78

n-propylbenzene

Concen: 28.696 ug/l

RT: 13.041 min Scan# 1867

Delta R.T. 0.006 min

Lab File: VN076364.D

Acq: 23 Jan 2023 14:12

Instrument :

MSVOA_N

ClientSampleId :

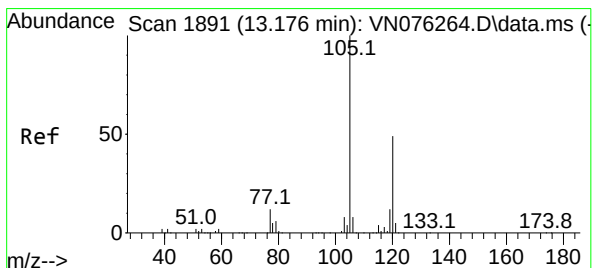
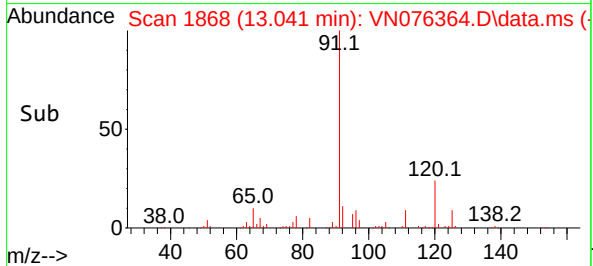
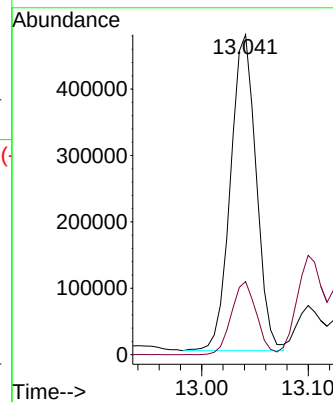
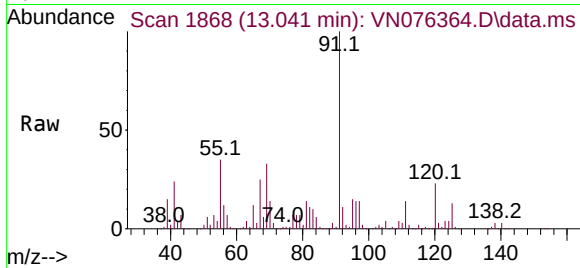
B-P38C

Tgt Ion: 91 Resp: 798475

Ion Ratio Lower Upper

91 100

120 22.5 11.9 35.5



#80

1,3,5-Trimethylbenzene

Concen: 34.634 ug/l

RT: 13.176 min Scan# 1891

Delta R.T. 0.000 min

Lab File: VN076364.D

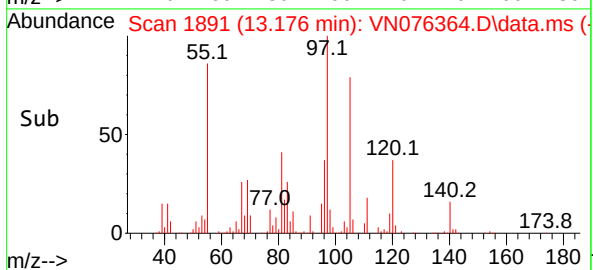
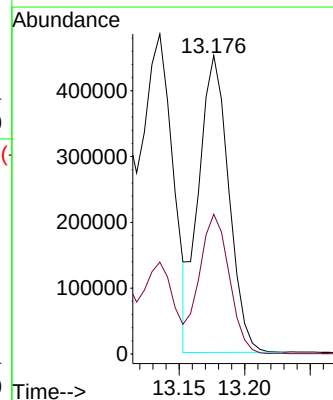
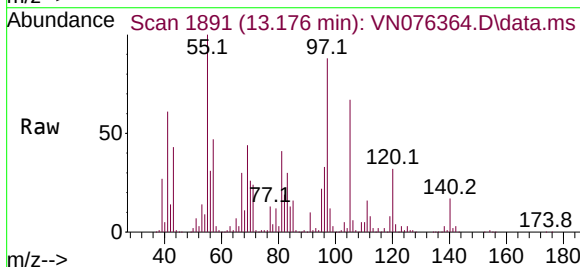
Acq: 23 Jan 2023 14:12

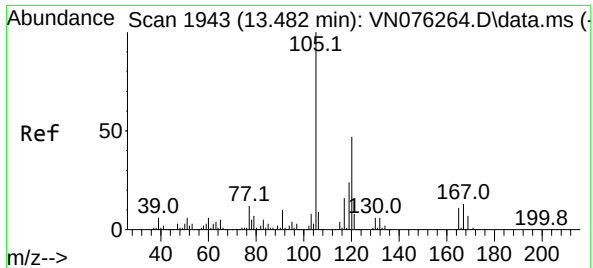
Tgt Ion:105 Resp: 715535

Ion Ratio Lower Upper

105 100

120 47.4 25.0 75.0

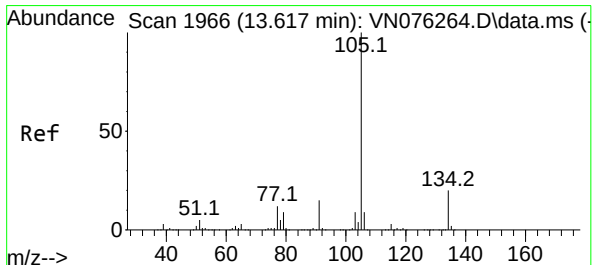
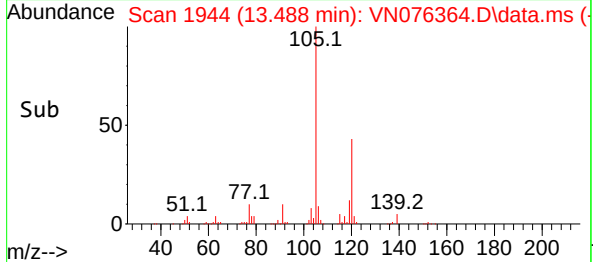
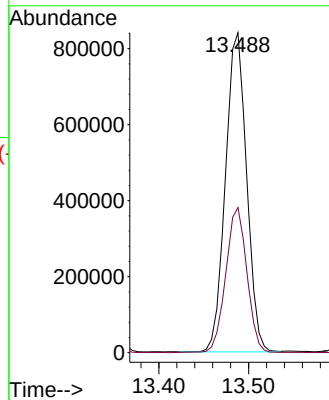
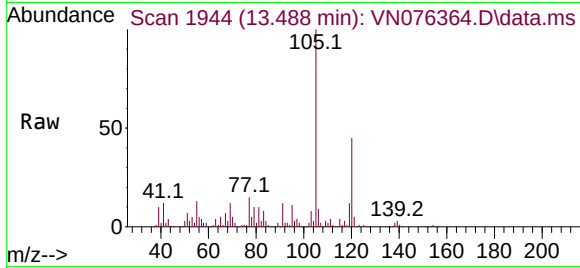




#84
1,2,4-Trimethylbenzene
Concen: 66.383 ug/l
RT: 13.488 min Scan# 1943
Delta R.T. 0.006 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

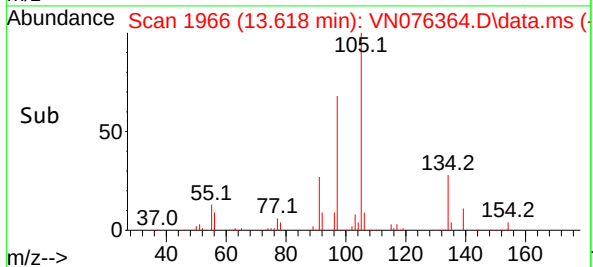
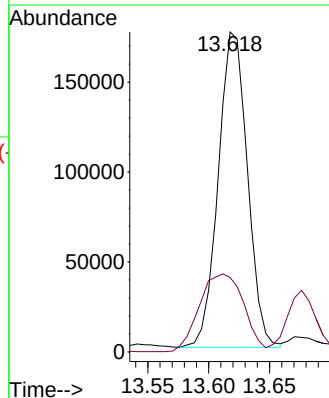
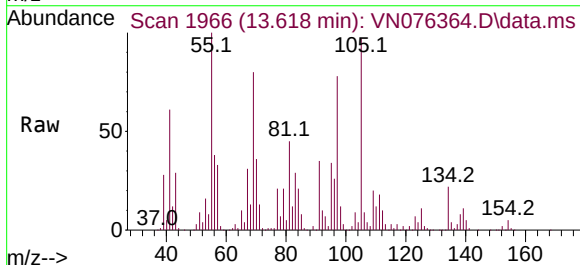
Instrument :
MSVOA_N
ClientSampleId :
B-P38C

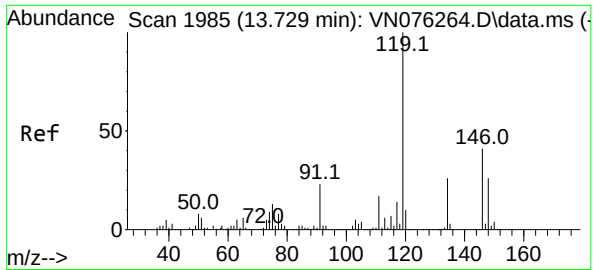
Tgt Ion:105 Resp: 1375210
Ion Ratio Lower Upper
105 100
120 45.5 22.9 68.5



#85
sec-Butylbenzene
Concen: 11.493 ug/l
RT: 13.618 min Scan# 1966
Delta R.T. 0.001 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

Tgt Ion:105 Resp: 293032
Ion Ratio Lower Upper
105 100
134 37.1 10.3 30.8#

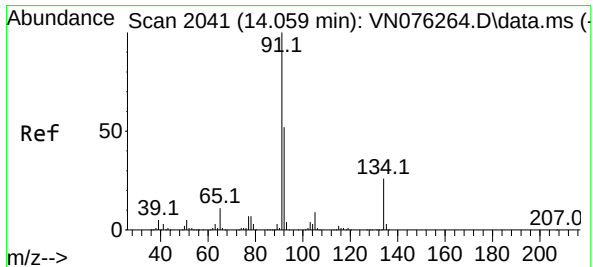
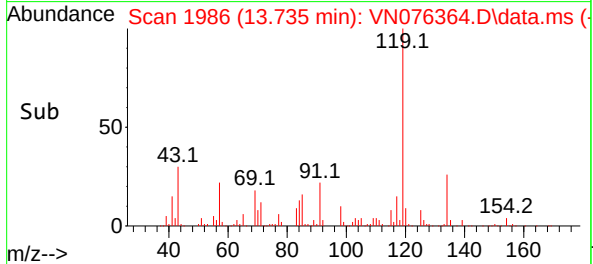
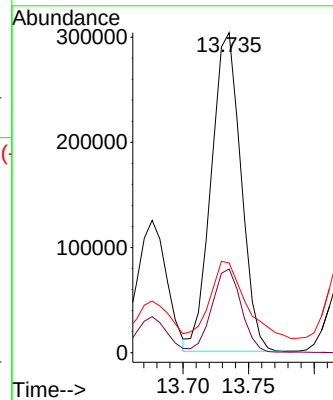
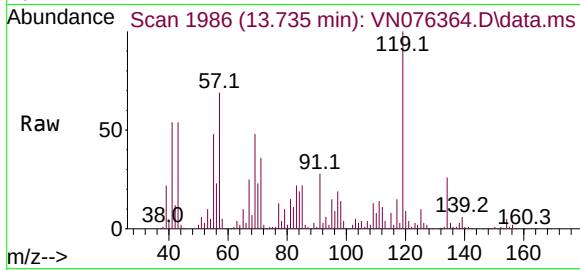




#86
p-Isopropyltoluene
Concen: 22.803 ug/l
RT: 13.735 min Scan# 1985
Delta R.T. 0.006 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

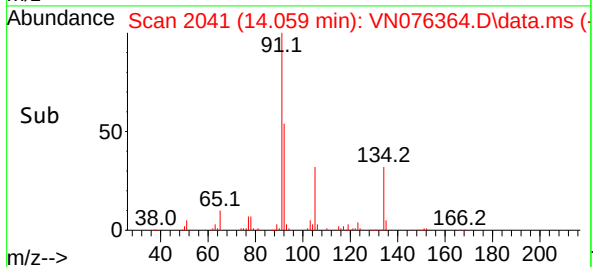
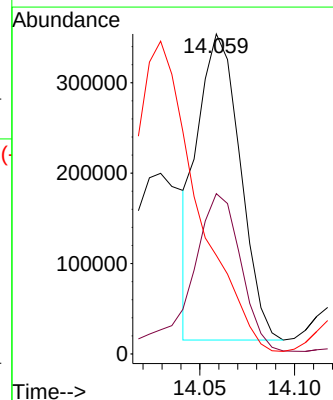
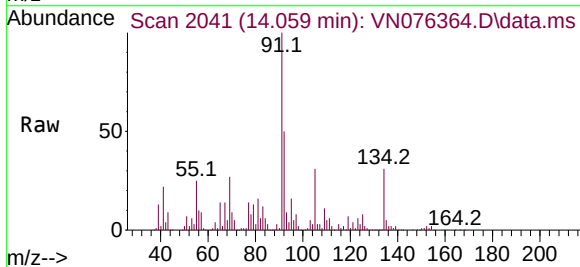
Instrument :
MSVOA_N
ClientSampleId :
B-P38C

Tgt Ion:119 Resp: 478090
Ion Ratio Lower Upper
119 100
134 26.0 13.2 39.6
91 28.5 11.8 35.3



#89
n-Butylbenzene
Concen: 31.826 ug/l
RT: 14.059 min Scan# 2041
Delta R.T. -0.000 min
Lab File: VN076364.D
Acq: 23 Jan 2023 14:12

Tgt Ion: 91 Resp: 529712
Ion Ratio Lower Upper
91 100
92 60.5 26.3 78.9
134 0.0 13.2 39.5#



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076364.D
 Acq On : 23 Jan 2023 14:12
 Operator : JC\MD
 Sample : 01233-11
 Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 B-P38C

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Title : SW846 8260

Signal : TIC: VN076364.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.318	533	555	569	rBV2	98484	386308	2.08%	0.095%
2	6.300	708	722	736	rBV	270916	810242	4.37%	0.199%
3	8.171	1029	1040	1042	rBV	243878	513498	2.77%	0.126%
4	8.224	1042	1049	1060	rVV3	1394025	3699548	19.96%	0.911%
5	8.324	1060	1066	1077	rVB2	334306	848625	4.58%	0.209%
6	8.447	1077	1087	1094	rBV	1239462	2827196	15.25%	0.696%
7	8.583	1103	1110	1123	rVB	235562	544399	2.94%	0.134%
8	8.718	1123	1133	1138	rBV2	467881	1225872	6.61%	0.302%
9	8.788	1139	1145	1150	rVV2	427571	1051504	5.67%	0.259%
10	8.853	1150	1156	1165	rVB	599236	1375747	7.42%	0.339%
11	8.965	1165	1175	1189	rBV	3654978	7288370	39.32%	1.794%
12	9.100	1190	1198	1205	rBV3	860859	1919721	10.36%	0.473%
13	9.406	1243	1250	1267	rVB2	143844	436139	2.35%	0.107%
14	9.600	1267	1283	1299	rBV2	3957549	11300334	60.97%	2.782%
15	9.777	1299	1313	1319	rBV	609495	1302710	7.03%	0.321%
16	9.865	1319	1328	1336	rVB2	926984	2118183	11.43%	0.521%
17	10.006	1345	1352	1363	rBV3	1175124	2446474	13.20%	0.602%
18	10.100	1363	1368	1372	rBV2	282565	541505	2.92%	0.133%
19	10.147	1372	1376	1380	rVV2	757824	1253291	6.76%	0.309%
20	10.206	1380	1386	1400	rVB2	5566675	12658295	68.29%	3.116%
21	10.341	1400	1409	1422	rBV	3469470	7588148	40.94%	1.868%
22	10.459	1422	1429	1431	rBV2	286110	563527	3.04%	0.139%
23	10.494	1431	1435	1441	rVB	768224	1366071	7.37%	0.336%
24	10.571	1441	1448	1452	rBV	4950688	9448591	50.98%	2.326%
25	10.606	1452	1454	1461	rVB	1661176	2525816	13.63%	0.622%
26	10.694	1463	1469	1472	rBV	676789	1202780	6.49%	0.296%
27	10.747	1472	1478	1485	rVB	10308920	18076332	97.52%	4.450%
28	10.859	1492	1497	1501	rBV3	400991	680905	3.67%	0.168%
29	10.912	1501	1506	1513	rVB	2097889	3817888	20.60%	0.940%
30	11.006	1513	1522	1531	rBV5	1822763	5452963	29.42%	1.342%
31	11.088	1531	1536	1542	rVB2	1036962	1926204	10.39%	0.474%
32	11.177	1542	1551	1557	rBV	3364145	6078021	32.79%	1.496%
33	11.277	1557	1568	1576	rBV2	1948934	5436824	29.33%	1.339%
34	11.347	1576	1580	1584	rBV2	1510849	2655270	14.33%	0.654%
35	11.424	1588	1593	1597	rVB	2951890	4292920	23.16%	1.057%
36	11.476	1597	1602	1607	rBV	3427801	5679936	30.64%	1.398%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076364.D
 Acq On : 23 Jan 2023 14:12
 Operator : JC\MD
 Sample : 01233-11
 Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 B-P38C

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Title : SW846 8260

37	11.576	1614	1619	1623	rBV	2700206	3817901	20.60%	0.940%
38	11.647	1623	1631	1643	rVB3	6904912	16180000	87.29%	3.983%
39	11.747	1643	1648	1654	rBV	6578147	10142416	54.72%	2.497%
40	11.865	1663	1668	1673	rBV2	1194664	1911468	10.31%	0.471%
41	11.965	1681	1685	1689	rVV3	976222	1598960	8.63%	0.394%
42	12.006	1689	1692	1694	rVV3	1006840	1390613	7.50%	0.342%
43	12.071	1694	1703	1707	rVV3	5015257	12649762	68.25%	3.114%
44	12.112	1707	1710	1714	rVV	3887565	6656456	35.91%	1.639%
45	12.153	1714	1717	1723	rVB3	2400491	4054299	21.87%	0.998%
46	12.294	1736	1741	1748	rVB4	1102080	2670901	14.41%	0.658%
47	12.376	1748	1755	1767	rBV3	3451801	10196693	55.01%	2.510%
48	12.488	1768	1774	1779	rVB	5581774	9384908	50.63%	2.310%
49	12.600	1779	1793	1796	rBV4	4590069	15635575	84.36%	3.849%
50	12.694	1807	1809	1811	rBV3	404263	443562	2.39%	0.109%
51	12.771	1813	1822	1825	rVV3	3588255	9016186	48.64%	2.220%
52	12.800	1825	1827	1832	rVB2	3373203	4161534	22.45%	1.025%
53	12.859	1832	1837	1838	rBV2	1338953	2095419	11.30%	0.516%
54	12.882	1838	1841	1846	rVB	3203990	4442148	23.97%	1.094%
55	12.941	1846	1851	1855	rBV5	1076315	1978584	10.67%	0.487%
56	13.029	1860	1866	1872	rVB4	2666290	5251086	28.33%	1.293%
57	13.100	1872	1878	1881	rBV3	2239989	4093035	22.08%	1.008%
58	13.165	1881	1889	1897	rVV5	7277547	18535395	100.00%	4.563%
59	13.229	1897	1900	1905	rVB3	1580006	2358685	12.73%	0.581%
60	13.312	1910	1914	1919	rBV4	1131611	2248896	12.13%	0.554%
61	13.359	1919	1922	1925	rVV	949044	1352199	7.30%	0.333%
62	13.400	1925	1929	1938	rVB2	3735589	5753846	31.04%	1.417%
63	13.488	1940	1944	1948	rVV	1842668	2707939	14.61%	0.667%
64	13.529	1949	1951	1955	rVB2	703642	683951	3.69%	0.168%
65	13.576	1956	1959	1963	rBV2	984405	1259321	6.79%	0.310%
66	13.682	1971	1977	1981	rBV4	2657924	5538701	29.88%	1.364%
67	13.723	1981	1984	1987	rVB2	1387184	1769071	9.54%	0.436%
68	13.788	1992	1995	1998	rVV2	1929919	2468477	13.32%	0.608%
69	13.823	1998	2001	2005	rVB	1772634	2227434	12.02%	0.548%
70	13.859	2005	2007	2014	rVB3	1775441	2375838	12.82%	0.585%
71	13.953	2018	2023	2026	rBV2	1404518	2246492	12.12%	0.553%
72	13.988	2026	2029	2032	rBV2	882846	1347699	7.27%	0.332%
73	14.029	2032	2036	2045	rVB4	2726634	6029932	32.53%	1.485%
74	14.118	2045	2051	2056	rBV3	3873741	8071946	43.55%	1.987%
75	14.247	2070	2073	2082	rVB2	1361180	3019346	16.29%	0.743%
76	14.335	2083	2088	2093	rVB	4016431	5888821	31.77%	1.450%

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076364.D
 Acq On : 23 Jan 2023 14:12
 Operator : JC\MD
 Sample : 01233-11
 Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 B-P38C

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Title : SW846 8260

77	14.447	2101	2107	2112	rVB3	3386968	5674750	30.62%	1.397%
78	14.576	2124	2129	2133	rBV3	1762420	3255658	17.56%	0.802%
79	14.629	2134	2138	2141	rVV3	2268335	3990782	21.53%	0.983%
80	14.659	2141	2143	2147	rVV2	2525282	3678918	19.85%	0.906%
81	14.694	2147	2149	2153	rVB	1781540	2121038	11.44%	0.522%
82	14.735	2153	2156	2160	rVB	2094436	2641290	14.25%	0.650%
83	14.776	2160	2163	2171	rVB3	1307982	3121131	16.84%	0.768%
84	14.847	2171	2175	2177	rBV2	462332	655902	3.54%	0.161%
85	14.882	2178	2181	2185	rVB2	890582	1163133	6.28%	0.286%
86	14.935	2185	2190	2194	rBV3	2564044	5582805	30.12%	1.374%
87	15.047	2201	2209	2216	rBV4	4679248	13316036	71.84%	3.278%
88	15.217	2234	2238	2244	rVB3	396273	757079	4.08%	0.186%
89	15.282	2244	2249	2250	rBV3	693191	1010001	5.45%	0.249%
90	15.323	2251	2256	2261	rVV3	1951157	3791658	20.46%	0.933%
91	15.447	2269	2277	2283	rVB2	2299086	5645467	30.46%	1.390%
92	15.600	2297	2303	2305	rBV3	477888	905965	4.89%	0.223%
93	15.641	2305	2310	2316	rVB	2034259	3821257	20.62%	0.941%
94	15.753	2323	2329	2333	rBV2	670376	1315608	7.10%	0.324%
95	15.806	2334	2338	2354	rVB5	731697	2475110	13.35%	0.609%
96	15.947	2354	2362	2370	rBV	838478	1995429	10.77%	0.491%
97	16.123	2386	2392	2404	rVB3	391377	1188764	6.41%	0.293%
98	16.341	2421	2429	2436	rVB3	273245	800144	4.32%	0.197%
99	16.494	2447	2455	2461	rBV4	163107	441707	2.38%	0.109%
100	16.782	2497	2504	2505	rBV3	1283690	1841151	9.93%	0.453%

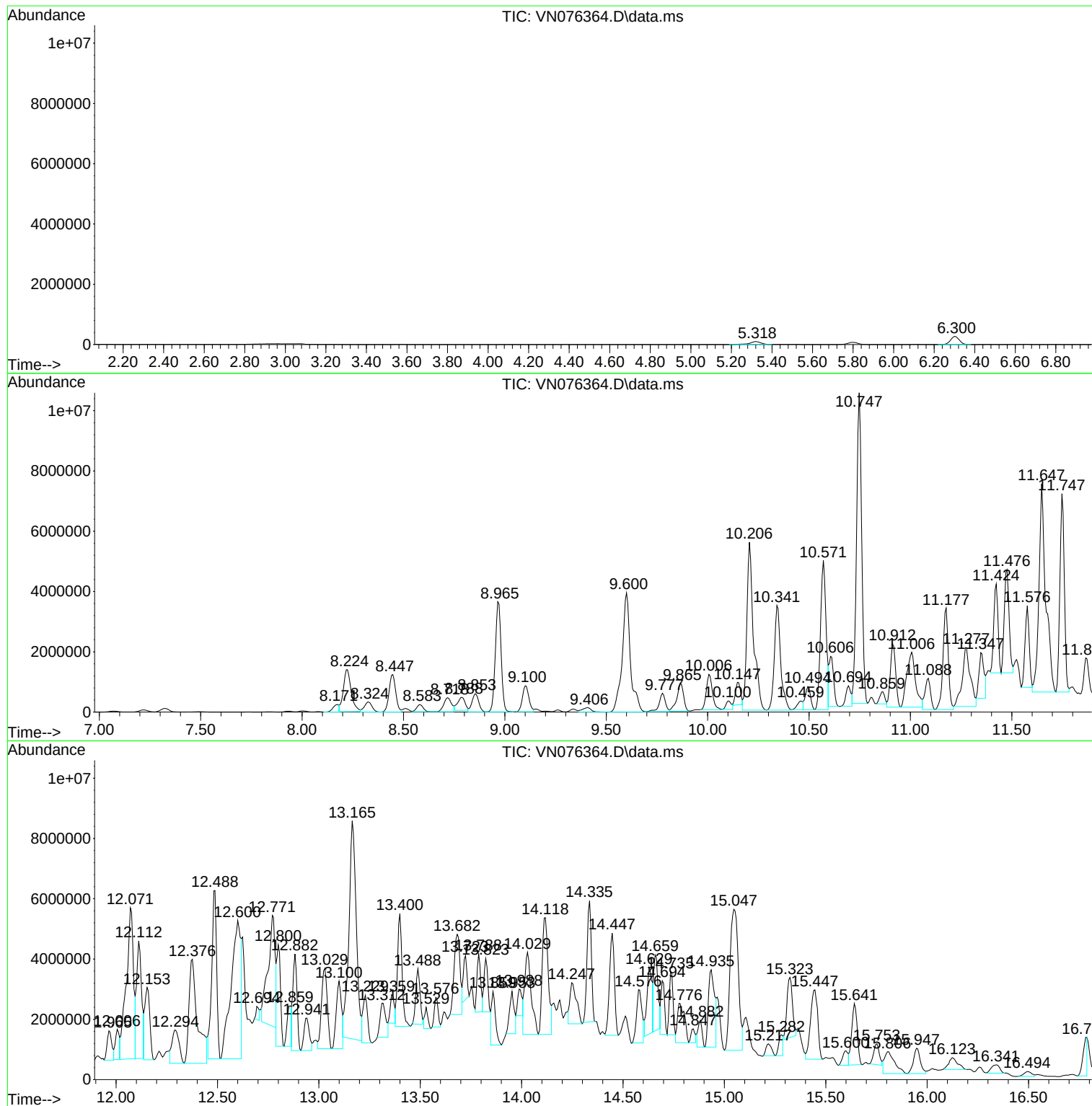
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Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



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Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

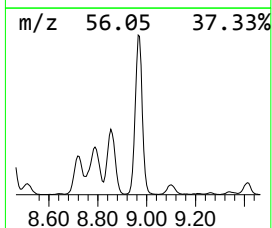
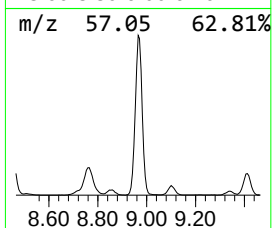
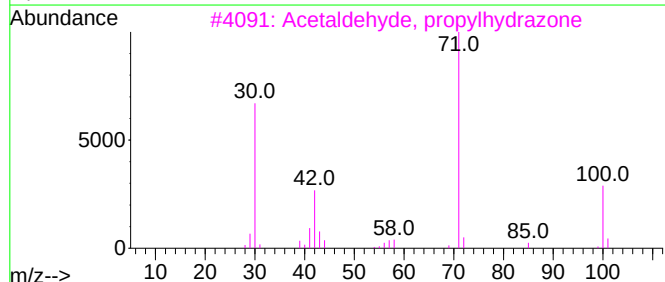
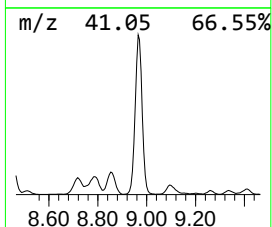
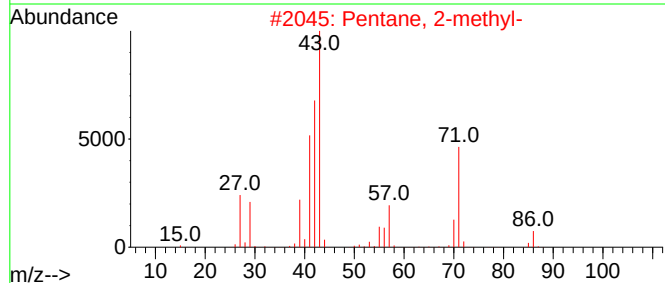
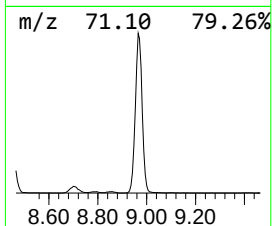
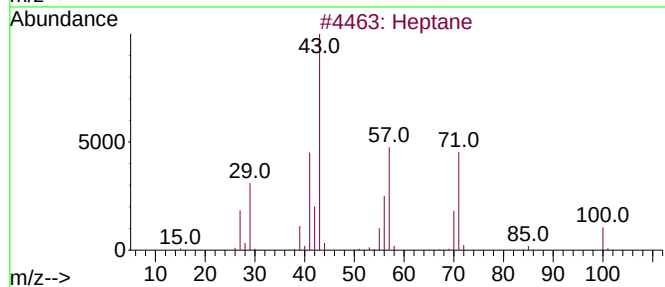
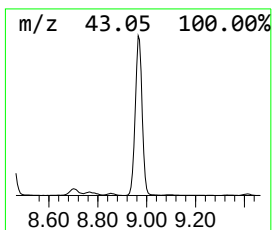
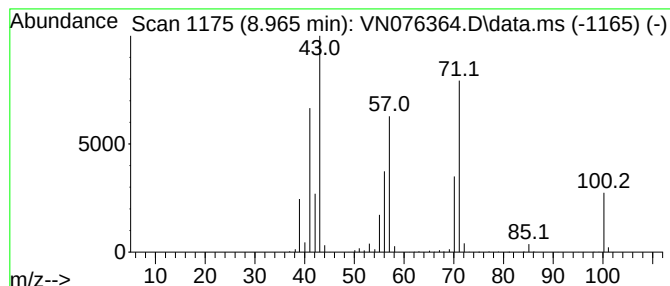
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 1 Heptane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.965	189.83 ug/l	7288370	1,4-Difluorobenzene	9.100

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Heptane	100	C7H16	000142-82-5	91
2			Pentane, 2-methyl-	86	C6H14	000107-83-5	53
3			Acetaldehyde, propylhydrazone	100	C5H12N2	007422-88-0	53
4			Hexane, 3-methyl-	100	C7H16	000589-34-4	43
5			Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	42



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
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Operator : JC\MD
Sample : 01233-11
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ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
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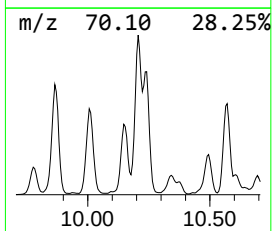
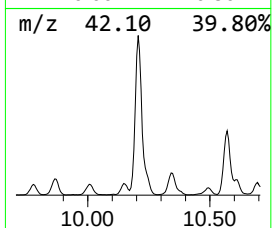
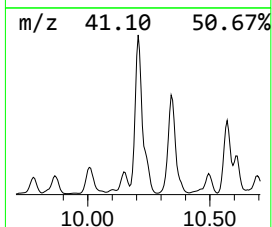
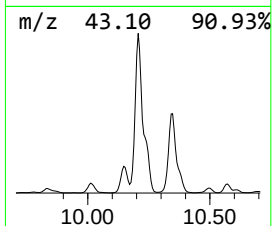
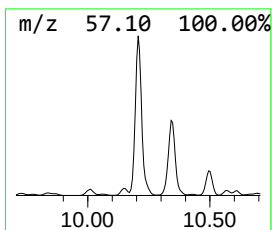
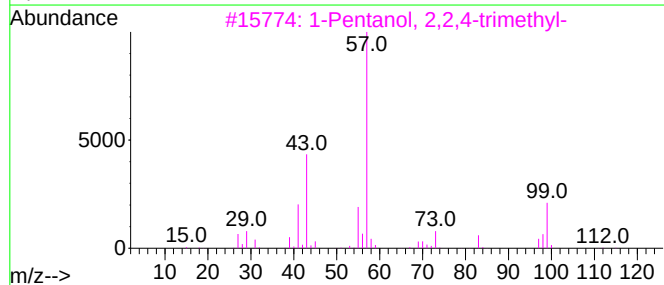
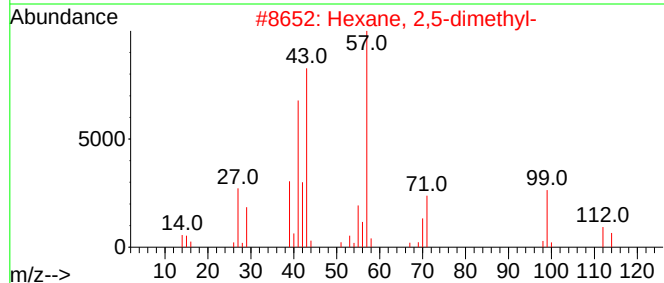
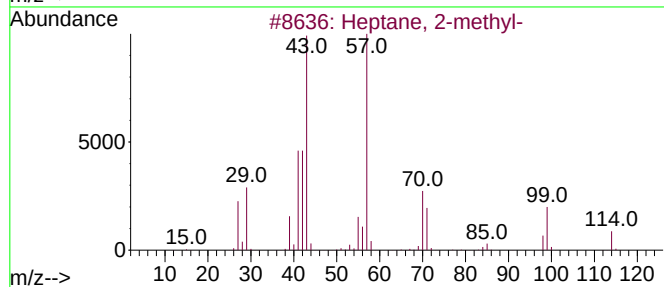
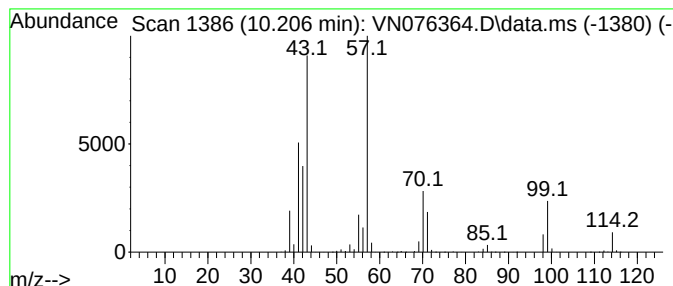
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 Heptane, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.206	329.69 ug/l	12658300	1,4-Difluorobenzene	9.100

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Heptane, 2-methyl-	114	C8H18	000592-27-8	97
2			Hexane, 2,5-dimethyl-	114	C8H18	000592-13-2	62
3			1-Pentanol, 2,2,4-trimethyl-	130	C8H18O	000123-44-4	38
4			Octane	114	C8H18	000111-65-9	35
5			1-Pyrrolidinecarboxaldehyde	99	C5H9NO	003760-54-1	35



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

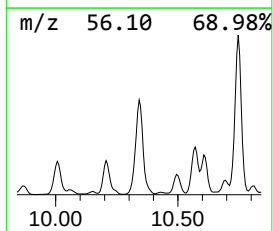
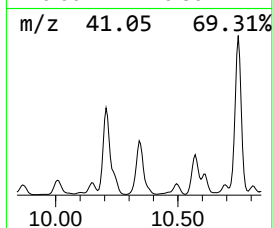
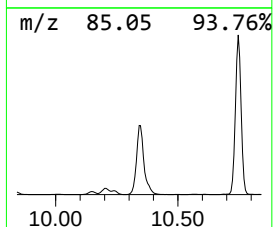
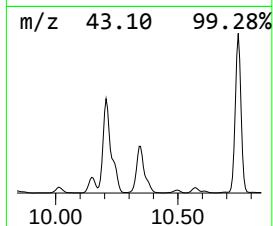
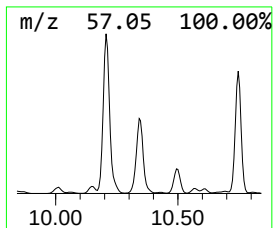
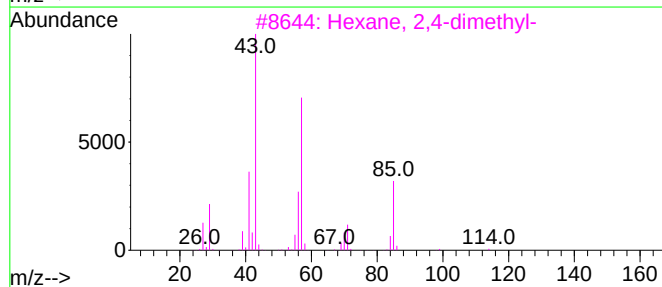
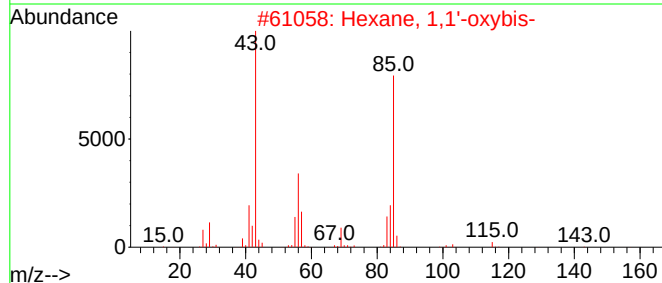
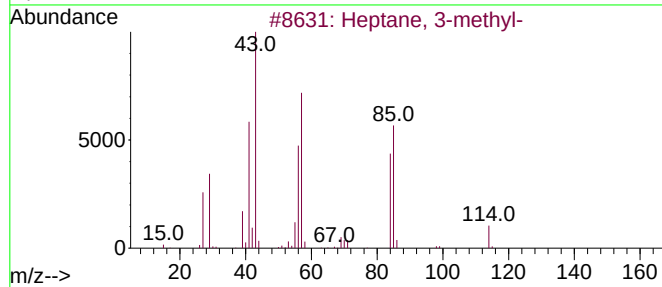
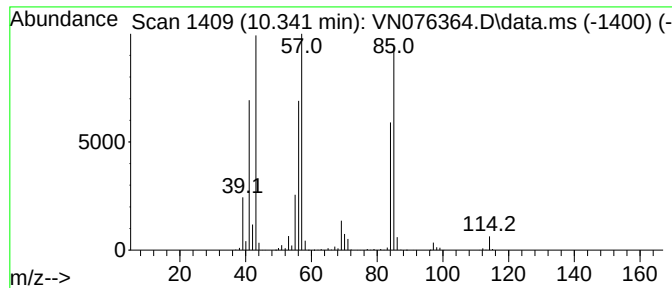
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 3 Heptane, 3-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.341	197.64 ug/l	7588150	1,4-Difluorobenzene	9.100

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Heptane, 3-methyl-	114	C8H18	000589-81-1	91
2			Hexane, 1,1'-oxybis-	186	C12H26O	000112-58-3	64
3			Hexane, 2,4-dimethyl-	114	C8H18	000589-43-5	59
4			Hexane, 3-ethyl-	114	C8H18	000619-99-8	59
5			Heptane, 3,4,5-trimethyl-	142	C10H22	020278-89-1	59



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

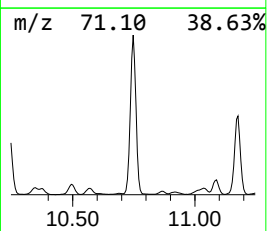
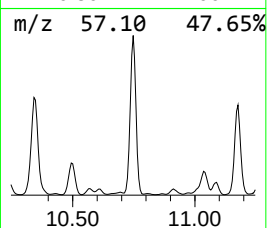
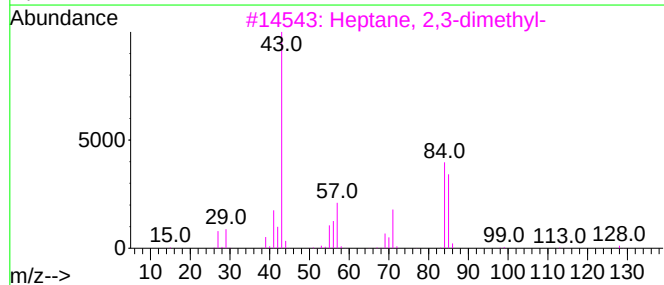
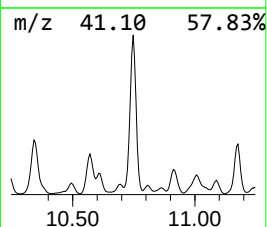
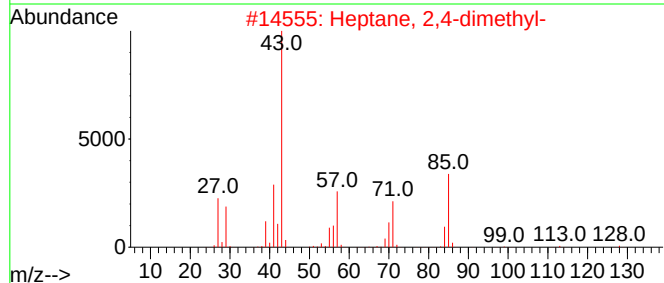
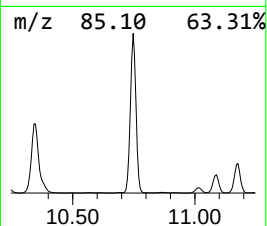
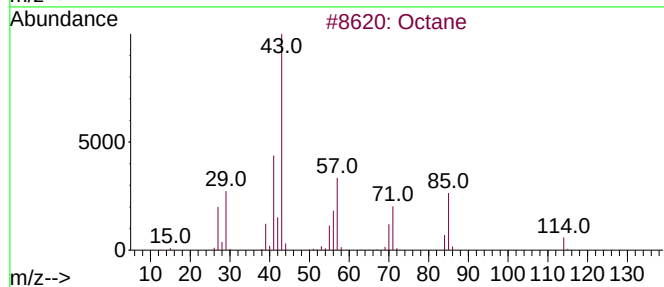
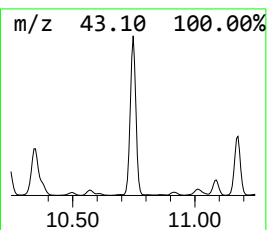
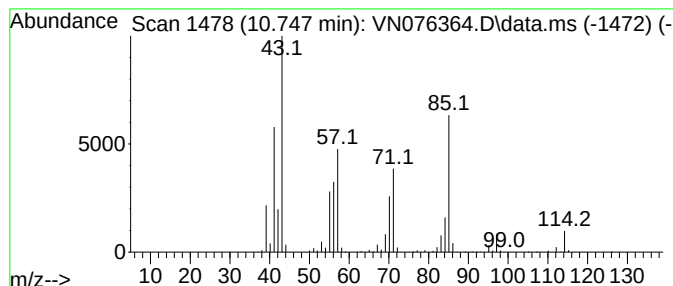
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 4 Octane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.747	472.84 ug/l	18076300	Chlorobenzene-d5	11.871

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Octane	114	C8H18	000111-65-9	90
2			Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	72
3			Heptane, 2,3-dimethyl-	128	C9H20	003074-71-3	64
4			Octane, 2-methyl-	128	C9H20	003221-61-2	47
5			Hexane, 3,3-dimethyl-	114	C8H18	000563-16-6	47



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
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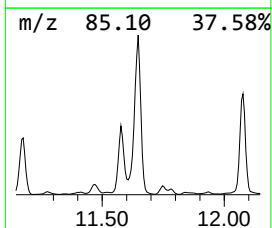
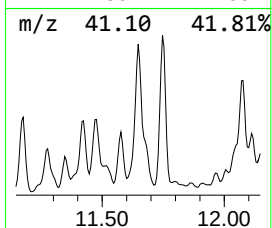
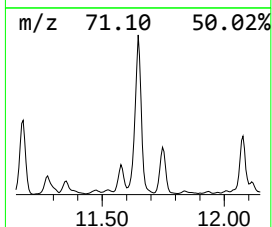
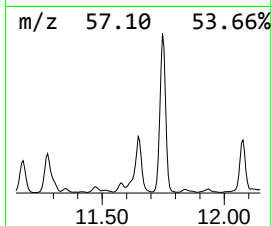
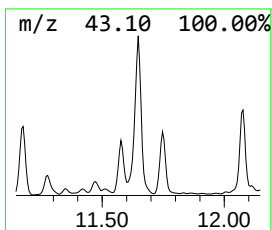
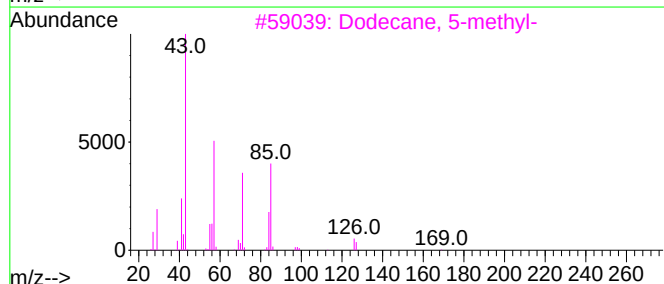
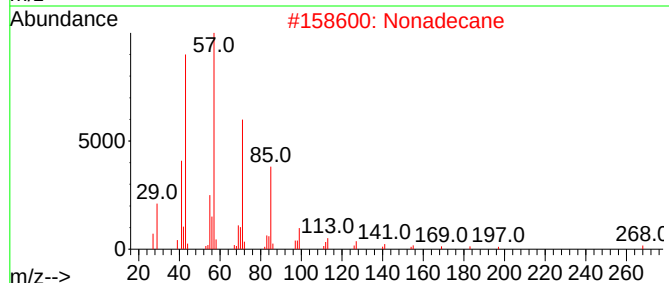
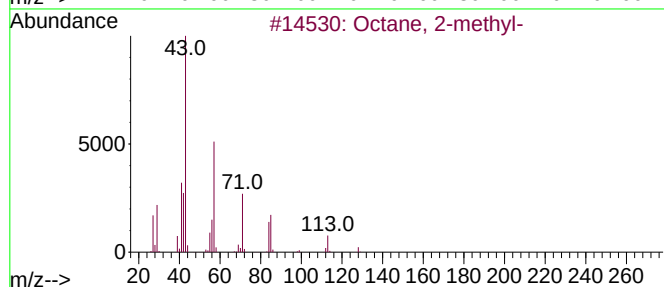
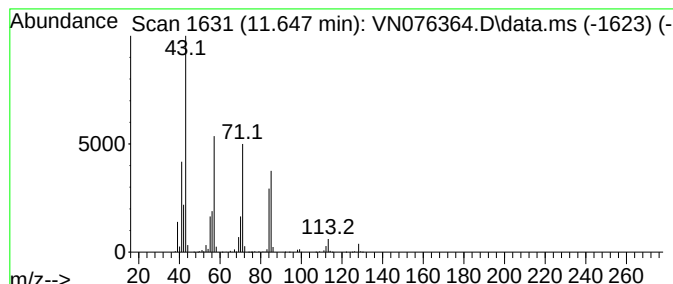
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 5 Octane, 2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.647	423.24 ug/l	16180000	Chlorobenzene-d5	11.871

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Octane, 2-methyl-	128	C9H20	003221-61-2	86
2			Nonadecane	268	C19H40	000629-92-5	59
3			Dodecane, 5-methyl-	184	C13H28	017453-93-9	53
4			Hexane, 3,3-dimethyl-	114	C8H18	000563-16-6	53
5			Octane, 4-methyl-	128	C9H20	002216-34-4	52



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

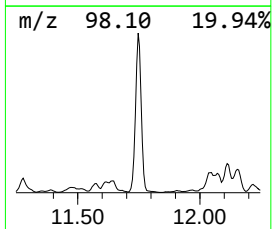
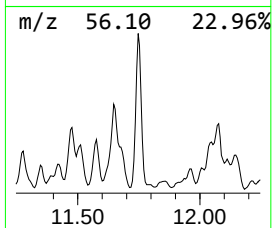
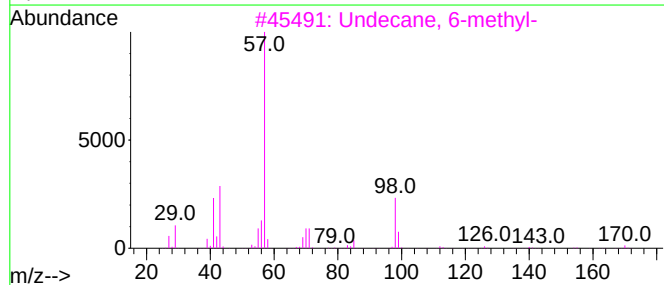
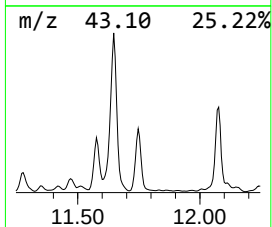
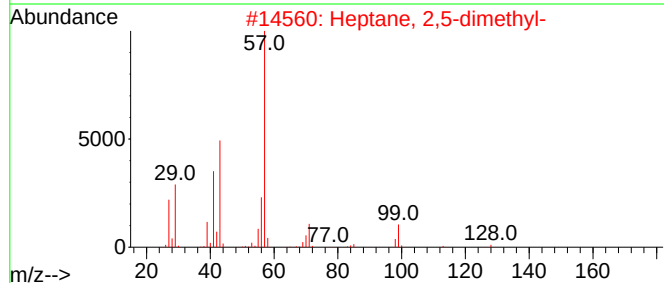
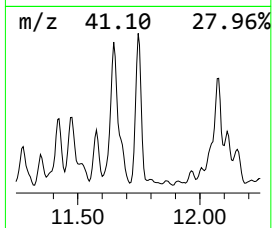
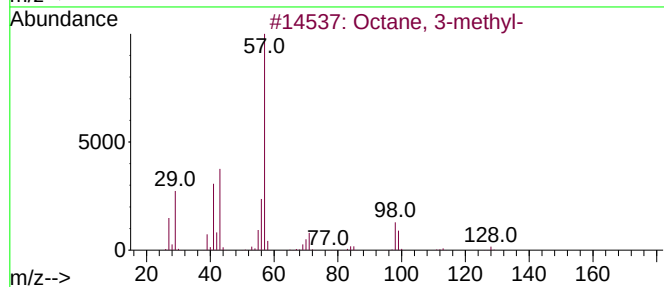
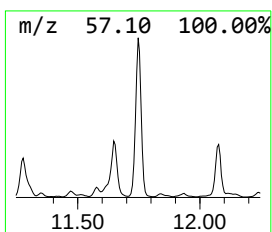
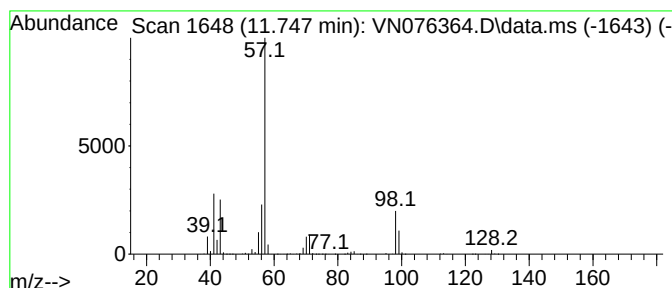
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ClientSampleId :
B-P38C

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 6 Octane, 3-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.747	265.30 ug/l	10142400	Chlorobenzene-d5	11.871	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane, 3-methyl-	128	C9H20	002216-33-3	91
2	Heptane, 2,5-dimethyl-	128	C9H20	002216-30-0	76
3	Undecane, 6-methyl-	170	C12H26	017302-33-9	64
4	Heptane, 4-(1-methylethyl)-	142	C10H22	052896-87-4	64
5	Heptane, 3,5-dimethyl-	128	C9H20	000926-82-9	47



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
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Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
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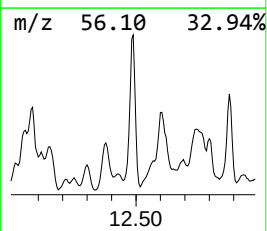
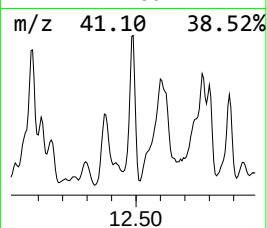
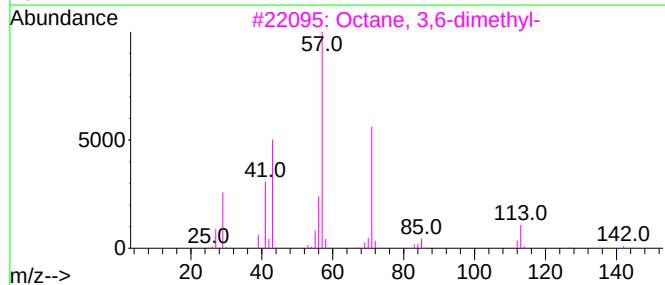
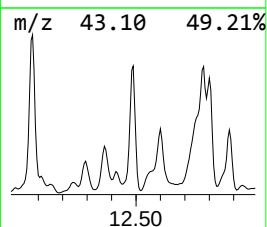
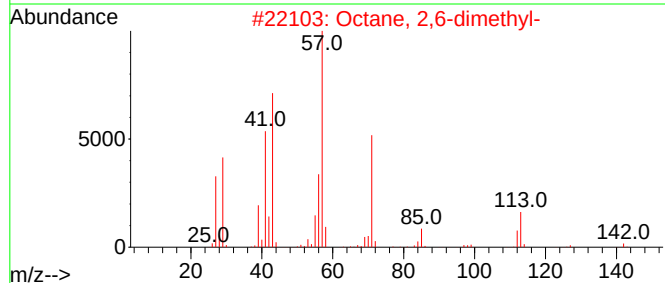
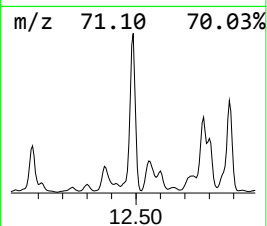
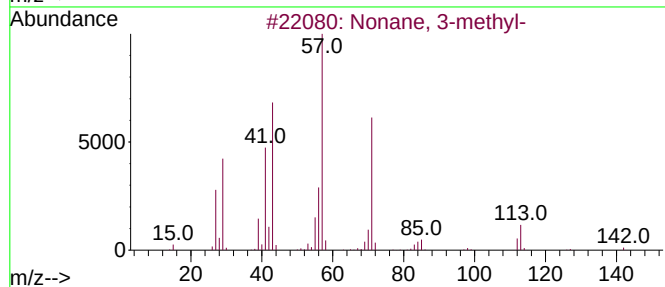
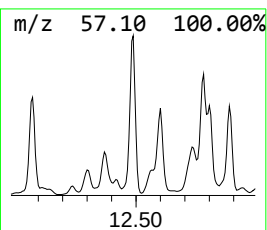
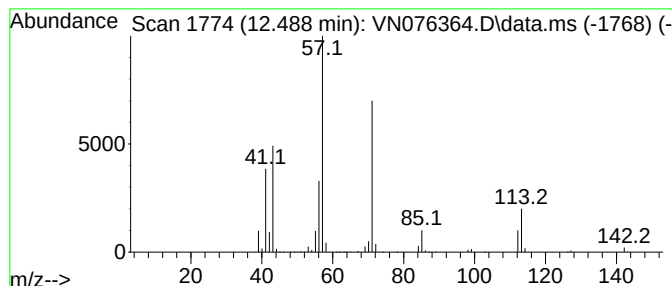
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 7 Nonane, 3-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.488	245.49 ug/l	9384910	Chlorobenzene-d5	11.871

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Nonane, 3-methyl-	142	C10H22	005911-04-6	91
2			Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	90
3			Octane, 3,6-dimethyl-	142	C10H22	015869-94-0	87
4			Undecane, 6,6-dimethyl-	184	C13H28	017312-76-4	64
5			Nonane, 4-methyl-5-propyl-	184	C13H28	062185-55-1	59



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

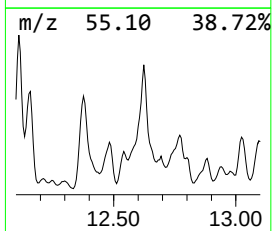
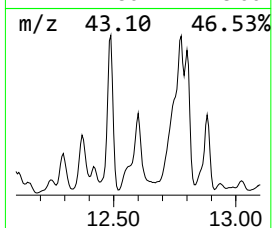
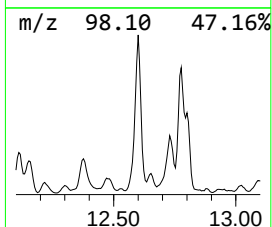
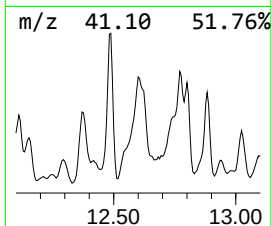
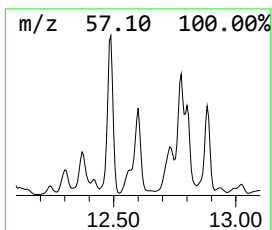
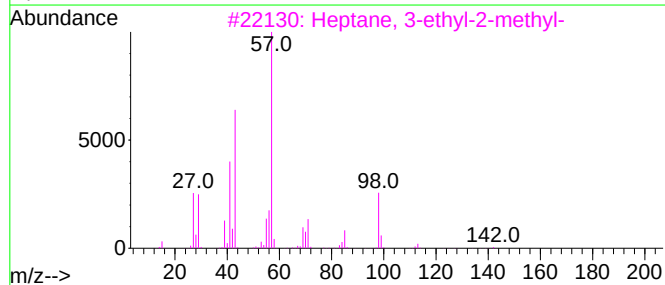
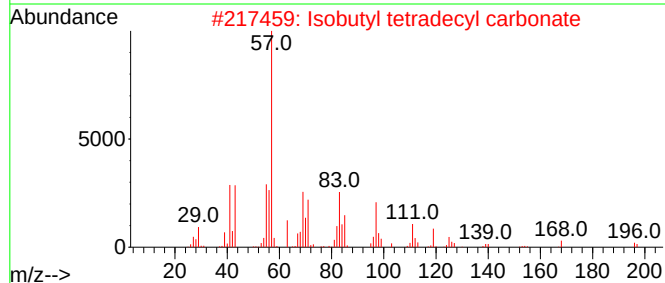
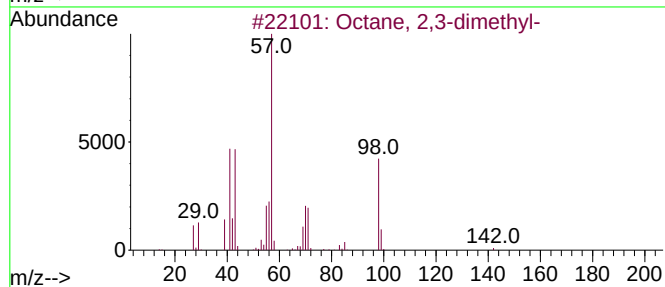
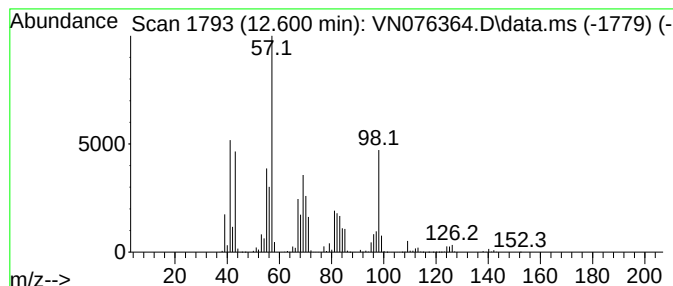
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Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 8 unknown12.600 Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.600	408.99 ug/l	15635600	Chlorobenzene-d5	11.871

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Octane, 2,3-dimethyl-	142	C10H22	007146-60-3	46
2			Isobutyl tetradecyl carbonate	314	C19H38O3	959275-58-2	38
3			Heptane, 3-ethyl-2-methyl-	142	C10H22	014676-29-0	38
4			Nonanal	142	C9H18O	000124-19-6	27
5			Dodecyl isobutyl carbonate	286	C17H34O3	959067-22-2	27



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

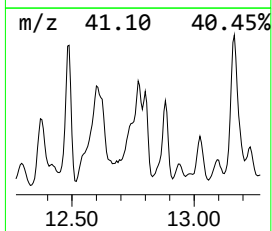
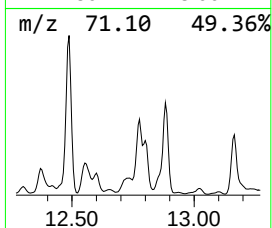
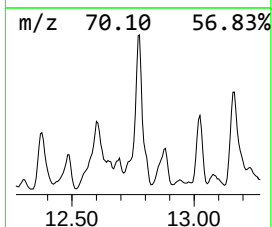
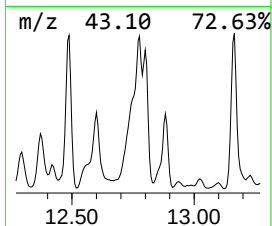
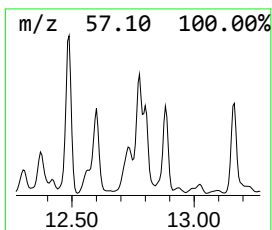
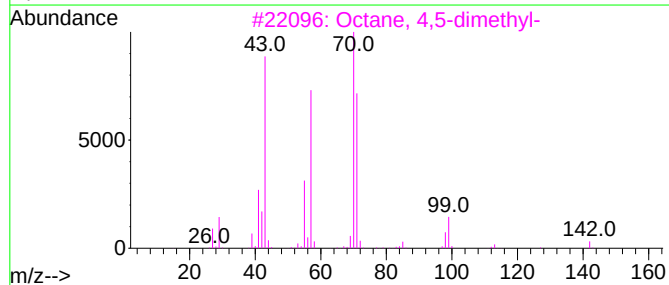
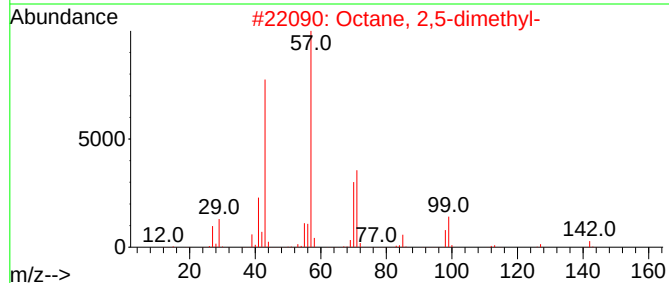
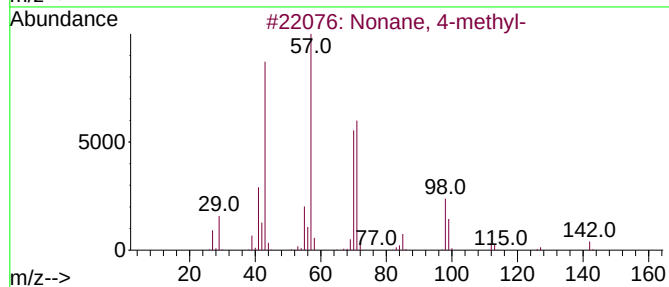
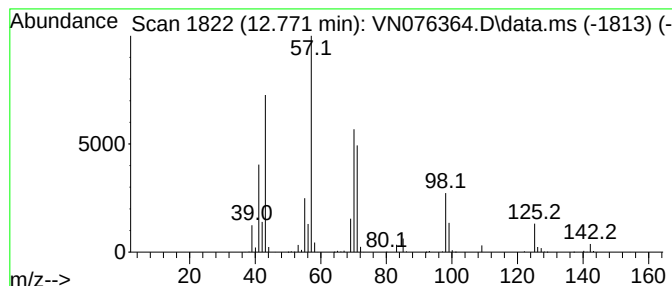
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 9 Nonane, 4-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.771	235.85 ug/l	9016190	Chlorobenzene-d5	11.871

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Nonane, 4-methyl-	142	C10H22	017301-94-9	87
2			Octane, 2,5-dimethyl-	142	C10H22	015869-89-3	70
3			Octane, 4,5-dimethyl-	142	C10H22	015869-96-2	58
4			1-Butanol, 2-ethyl-	102	C6H14O	000097-95-0	47
5			Pentane, 2,2,3,3-tetramethyl-	128	C9H20	007154-79-2	47



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

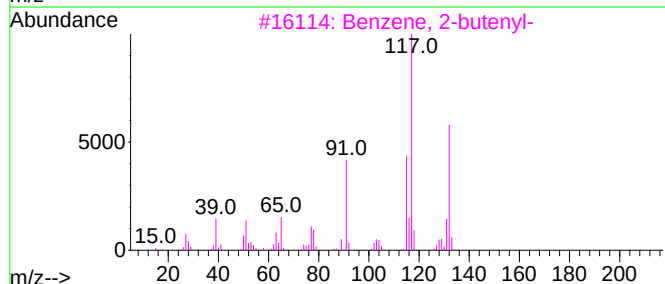
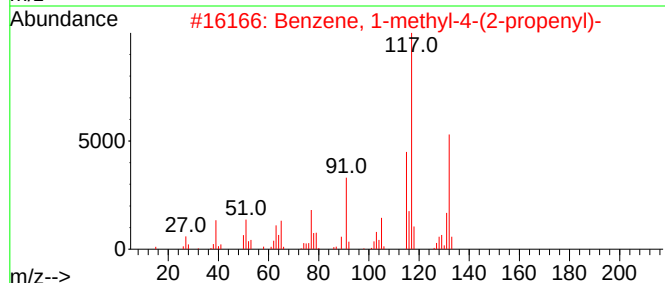
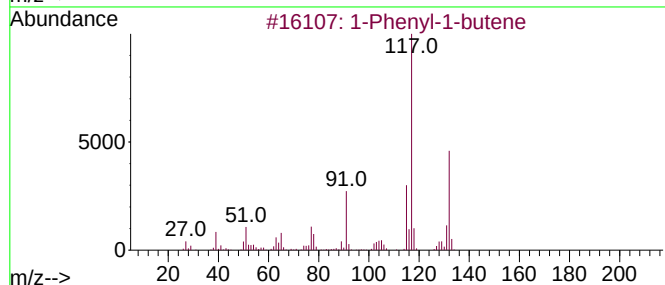
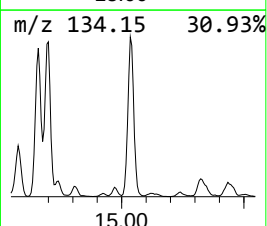
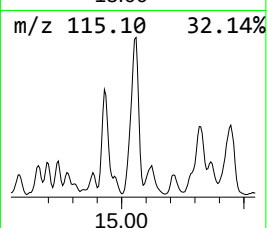
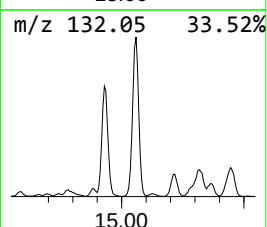
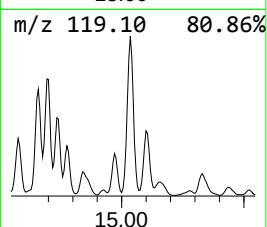
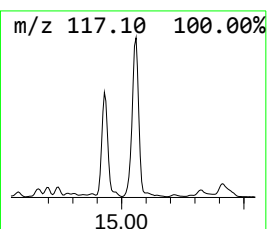
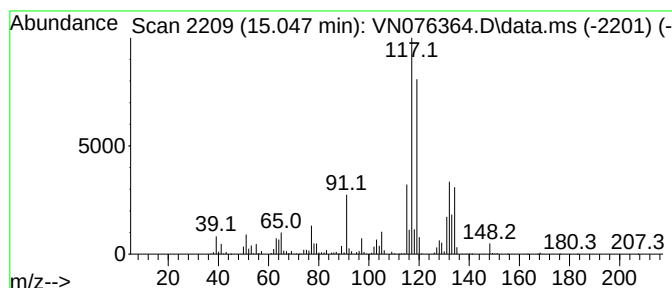
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 10 1-Phenyl-1-butene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.047	269.72 ug/l	13316000	1,4-Dichlorobenzene-d4	13.794

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Phenyl-1-butene	132	C10H12	000824-90-8	87
2			Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	80
3			Benzene, 2-butenyl-	132	C10H12	001560-06-1	70
4			3-Phenylbut-1-ene	132	C10H12	000934-10-1	70
5			1-Methyl-2-phenylcyclopropane	132	C10H12	003145-76-4	55



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076364.D
Acq On : 23 Jan 2023 14:12
Operator : JC\MD
Sample : 01233-11
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38C

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST0.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Heptane	8.965	189.8	ug/l	7288370	2	9.100	1919720	50.0
Heptane, 2-methyl-	10.206	329.7	ug/l	12658300	2	9.100	1919720	50.0
Heptane, 3-methyl-	10.341	197.6	ug/l	7588150	2	9.100	1919720	50.0
Octane	10.747	472.8	ug/l	18076300	3	11.871	1911470	50.0
Octane, 2-methyl-	11.647	423.2	ug/l	16180000	3	11.871	1911470	50.0
Octane, 3-methyl-	11.747	265.3	ug/l	10142400	3	11.871	1911470	50.0
Nonane, 3-methyl-	12.488	245.5	ug/l	9384910	3	11.871	1911470	50.0
unknown12.600	12.600	409.0	ug/l	15635600	3	11.871	1911470	50.0
Nonane, 4-methyl-	12.771	235.8	ug/l	9016190	3	11.871	1911470	50.0
1-Phenyl-1-butene	15.047	269.7	ug/l	13316000	4	13.794	2468480	50.0



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38CDL	SDG No.:	O1233
Lab Sample ID:	O1233-11DL	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076367.D	10		01/23/23 15:25	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1000	UD	1000	5800	ug/Kg
74-87-3	Chloromethane	1200	UD	1200	5800	ug/Kg
75-01-4	Vinyl Chloride	1100	UD	1100	5800	ug/Kg
74-83-9	Bromomethane	1300	UD	1300	5800	ug/Kg
75-00-3	Chloroethane	1000	UD	1000	5800	ug/Kg
75-69-4	Trichlorofluoromethane	1100	UD	1100	5800	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	830	UD	830	5800	ug/Kg
75-35-4	1,1-Dichloroethene	1000	UD	1000	5800	ug/Kg
67-64-1	Acetone	14100	UD	14100	28900	ug/Kg
75-15-0	Carbon Disulfide	870	UD	870	5800	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1100	UD	1100	5800	ug/Kg
79-20-9	Methyl Acetate	1500	UD	1500	5800	ug/Kg
75-09-2	Methylene Chloride	6900	UD	6900	11600	ug/Kg
156-60-5	trans-1,2-Dichloroethene	790	UD	790	5800	ug/Kg
75-34-3	1,1-Dichloroethane	810	UD	810	5800	ug/Kg
110-82-7	Cyclohexane	6300	D	970	5800	ug/Kg
78-93-3	2-Butanone	8400	UD	8400	28900	ug/Kg
56-23-5	Carbon Tetrachloride	910	UD	910	5800	ug/Kg
156-59-2	cis-1,2-Dichloroethene	790	UD	790	5800	ug/Kg
74-97-5	Bromochloromethane	940	UD	940	5800	ug/Kg
67-66-3	Chloroform	780	UD	780	5800	ug/Kg
71-55-6	1,1,1-Trichloroethane	870	UD	870	5800	ug/Kg
108-87-2	Methylcyclohexane	33800	D	930	5800	ug/Kg
71-43-2	Benzene	760	UD	760	5800	ug/Kg
107-06-2	1,2-Dichloroethane	970	UD	970	5800	ug/Kg
79-01-6	Trichloroethene	840	UD	840	5800	ug/Kg
78-87-5	1,2-Dichloropropane	750	UD	750	5800	ug/Kg
75-27-4	Bromodichloromethane	810	UD	810	5800	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5300	UD	5300	28900	ug/Kg
108-88-3	Toluene	730	UD	730	5800	ug/Kg
10061-02-6	t-1,3-Dichloropropene	860	UD	860	5800	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	820	UD	820	5800	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38CDL	SDG No.:	O1233
Lab Sample ID:	O1233-11DL	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076367.D	10		01/23/23 15:25	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1000	UD	1000	5800	ug/Kg
591-78-6	2-Hexanone	5400	UD	5400	28900	ug/Kg
124-48-1	Dibromochloromethane	870	UD	870	5800	ug/Kg
106-93-4	1,2-Dibromoethane	870	UD	870	5800	ug/Kg
127-18-4	Tetrachloroethene	880	UD	880	5800	ug/Kg
108-90-7	Chlorobenzene	750	UD	750	5800	ug/Kg
100-41-4	Ethyl Benzene	1000	JD	810	5800	ug/Kg
179601-23-1	m/p-Xylenes	2800	JD	1700	11600	ug/Kg
95-47-6	o-Xylene	910	UD	910	5800	ug/Kg
100-42-5	Styrene	910	UD	910	5800	ug/Kg
75-25-2	Bromoform	940	UD	940	5800	ug/Kg
98-82-8	Isopropylbenzene	2100	JD	830	5800	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1300	UD	1300	5800	ug/Kg
541-73-1	1,3-Dichlorobenzene	780	UD	780	5800	ug/Kg
106-46-7	1,4-Dichlorobenzene	730	UD	730	5800	ug/Kg
95-50-1	1,2-Dichlorobenzene	740	UD	740	5800	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1400	UD	1400	5800	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1100	UD	1100	5800	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1200	UD	1200	5800	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.6		50 - 163	97%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		54 - 147	94%	SPK: 50
2037-26-5	Toluene-d8	52.4		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.2		30 - 143	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	385000	8.23			
540-36-3	1,4-Difluorobenzene	613000	9.106			
3114-55-4	Chlorobenzene-d5	549000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	255000	13.794			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38CDL	SDG No.:	O1233
Lab Sample ID:	O1233-11DL	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076367.D	10		01/23/23 15:25	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076367.D
 Acq On : 23 Jan 2023 15:25
 Operator : JC\MD
 Sample : 01233-11DL 10X
 Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 B-P38CDL

Quant Time: Jan 23 15:45:04 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	384506	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	612820	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	549267	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	255428	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.583	65	209241	48.601	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	97.200%
35) Dibromofluoromethane	8.171	113	179587	46.847	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	93.700%
50) Toluene-d8	10.571	98	741982	52.410	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	104.820%
62) 4-Bromofluorobenzene	12.853	95	259802	56.213	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	=	112.420%

Target Compounds

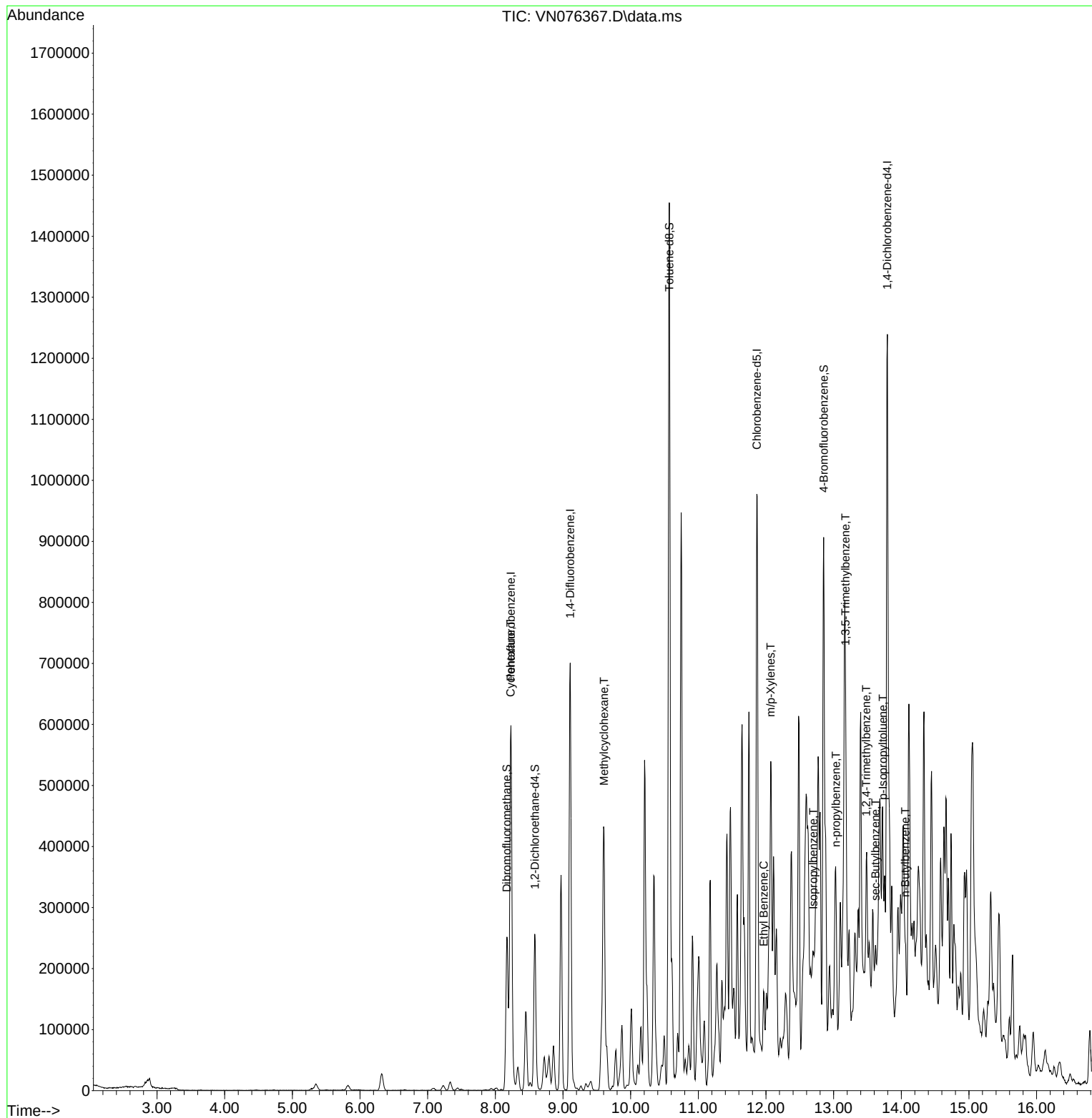
					Qvalue	
31) Cyclohexane	8.224	56	36183	5.471	ug/l #	59
39) Methylcyclohexane	9.606	83	194397	29.224	ug/l	96
67) Ethyl Benzene	11.965	91	17110	0.861	ug/l #	87
68) m/p-Xylenes	12.071	106	19120	2.400	ug/l	90
73) Isopropylbenzene	12.700	105	35914	1.818	ug/l	96
78) n-propylbenzene	13.035	91	88789	3.982	ug/l	99
80) 1,3,5-Trimethylbenzene	13.176	105	73992	4.470	ug/l	97
84) 1,2,4-Trimethylbenzene	13.482	105	154523	9.309	ug/l	99
85) sec-Butylbenzene	13.617	105	32833	1.607	ug/l #	63
86) p-Isopropyltoluene	13.729	119	52671	3.135	ug/l	99
89) n-Butylbenzene	14.059	91	104829	7.860	ug/l #	63

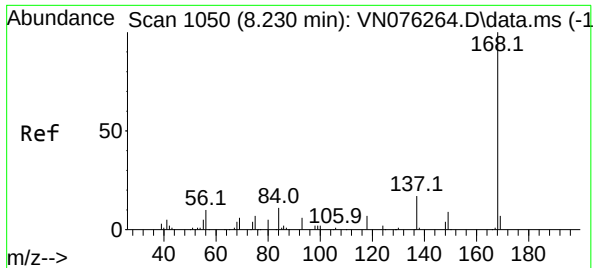
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076367.D
Acq On : 23 Jan 2023 15:25
Operator : JC\MD
Sample : 01233-11DL 10X
Misc : 5.03g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
B-P38CDL

Quant Time: Jan 23 15:45:04 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

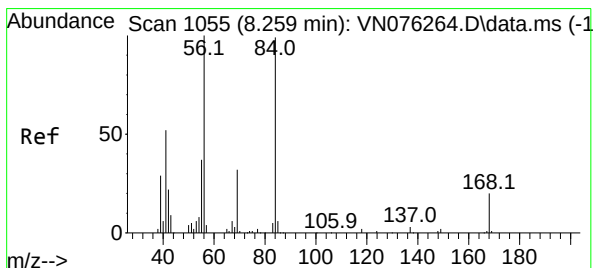
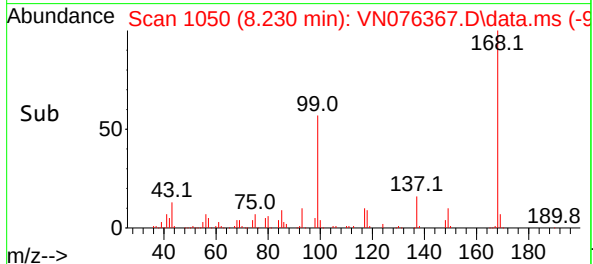
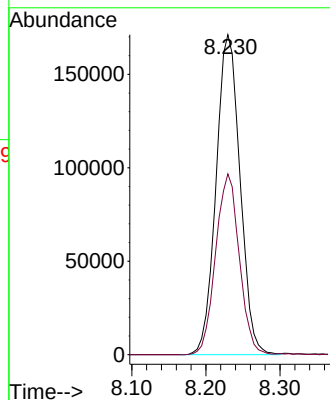
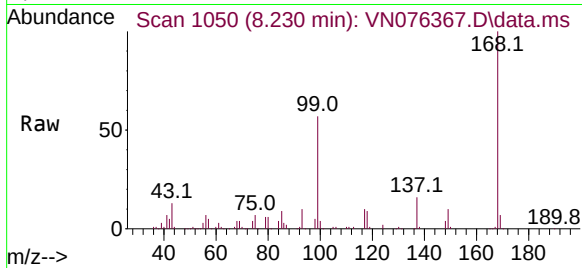




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1049
Delta R.T. -0.000 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

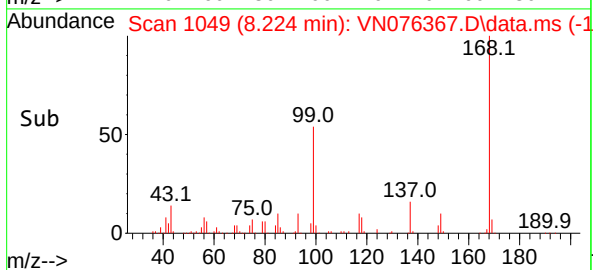
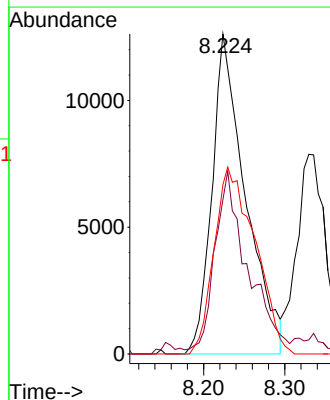
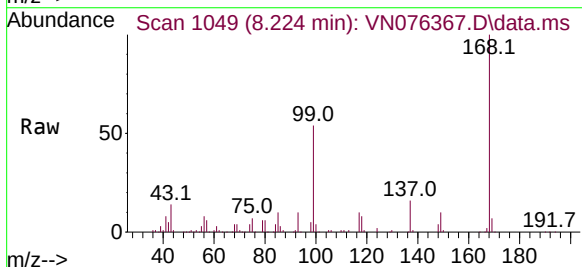
Instrument :
MSVOA_N
ClientSampleId :
B-P38CDL

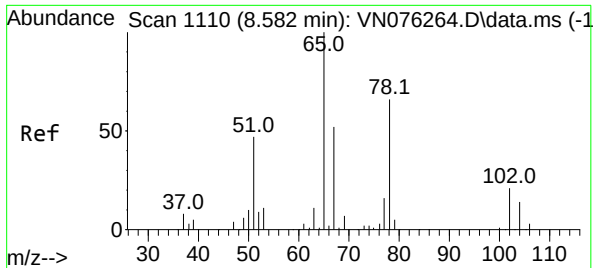
Tgt Ion:168 Resp: 384506
Ion Ratio Lower Upper
168 100
99 56.5 41.6 62.4



#31
Cyclohexane
Concen: 5.471 ug/l
RT: 8.224 min Scan# 1049
Delta R.T. -0.035 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

Tgt Ion: 56 Resp: 36183
Ion Ratio Lower Upper
56 100
69 46.4 25.8 38.8#
84 52.9 79.0 118.4#





#33

1,2-Dichloroethane-d4

Concen: 48.601 ug/l

RT: 8.583 min Scan# 1110

Delta R.T. 0.001 min

Lab File: VN076367.D

Acq: 23 Jan 2023 15:25

Instrument :

MSVOA_N

ClientSampleId :

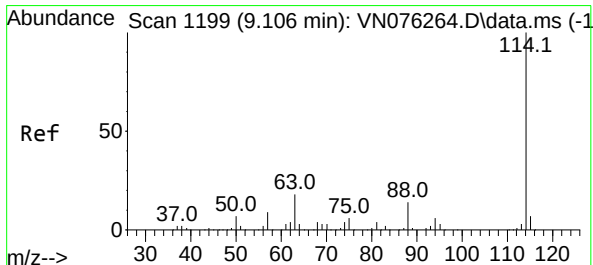
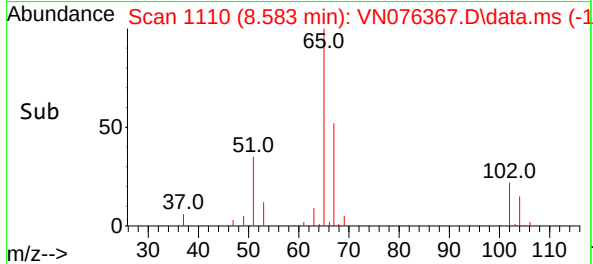
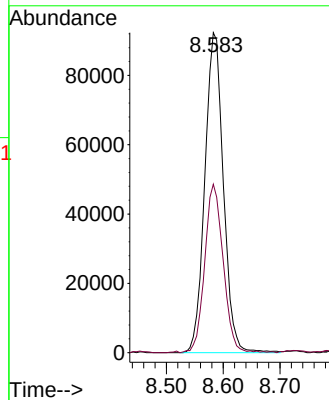
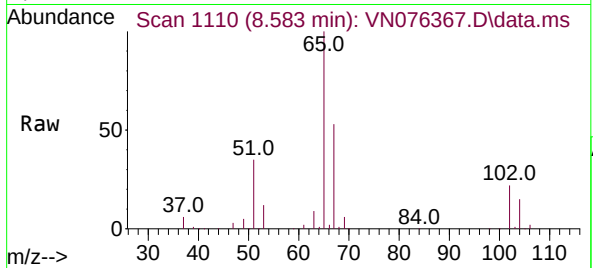
B-P38CDL

Tgt Ion: 65 Resp: 209241

Ion Ratio Lower Upper

65 100

67 52.4 0.0 104.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.106 min Scan# 1199

Delta R.T. 0.000 min

Lab File: VN076367.D

Acq: 23 Jan 2023 15:25

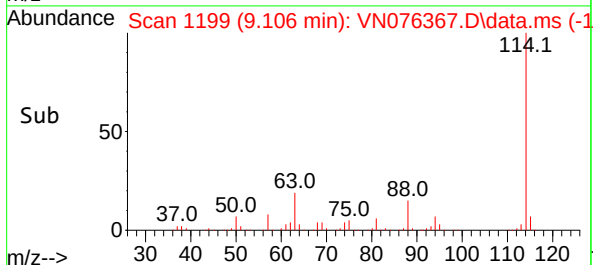
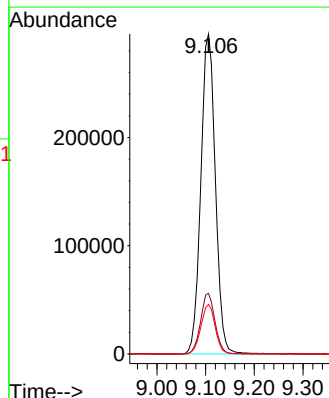
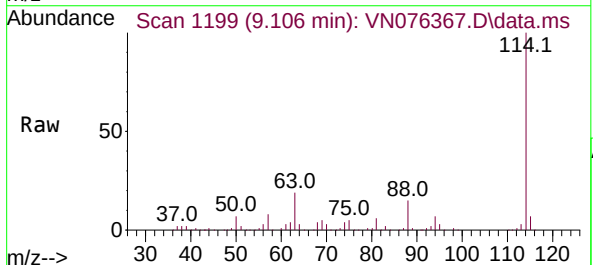
Tgt Ion: 114 Resp: 612820

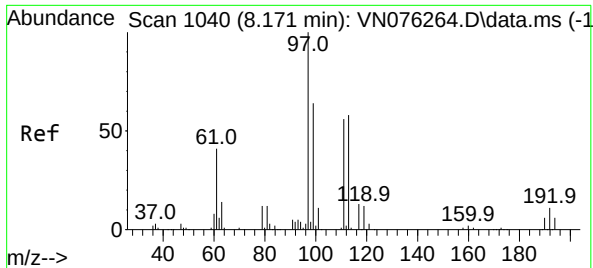
Ion Ratio Lower Upper

114 100

63 18.9 0.0 35.8

88 15.5 0.0 28.0





#35

Dibromofluoromethane

Concen: 46.847 ug/l

RT: 8.171 min Scan# 1

Delta R.T. -0.000 min

Lab File: VN076367.D

Acq: 23 Jan 2023 15:25

Instrument :

MSVOA_N

ClientSampleId :

B-P38CDL

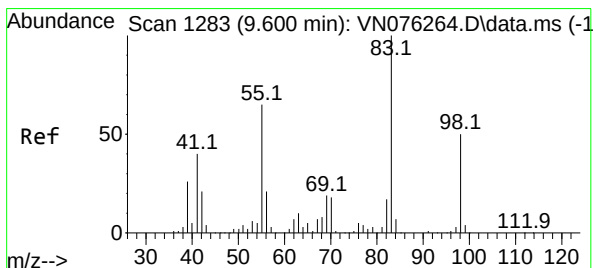
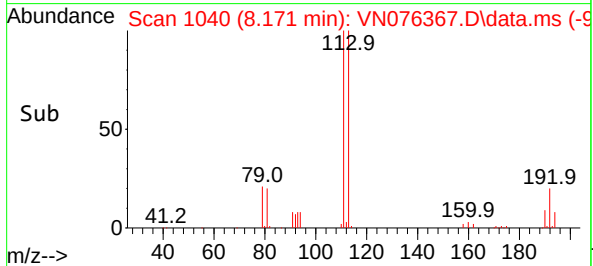
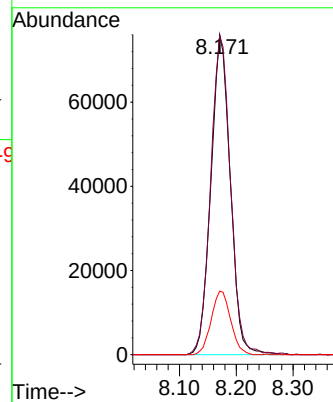
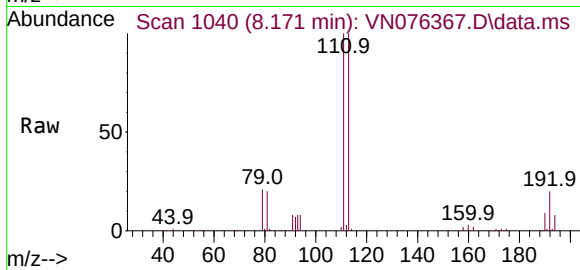
Tgt Ion:113 Resp: 179587

Ion Ratio Lower Upper

113 100

111 102.5 82.7 124.1

192 19.9 15.6 23.4



#39

Methylcyclohexane

Concen: 29.224 ug/l

RT: 9.606 min Scan# 1284

Delta R.T. 0.006 min

Lab File: VN076367.D

Acq: 23 Jan 2023 15:25

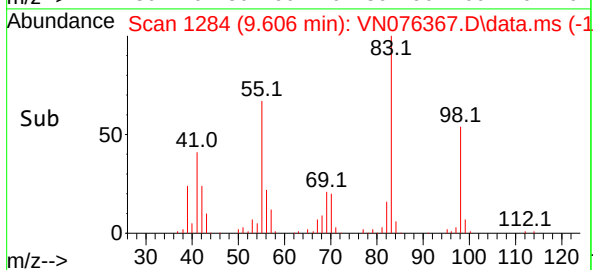
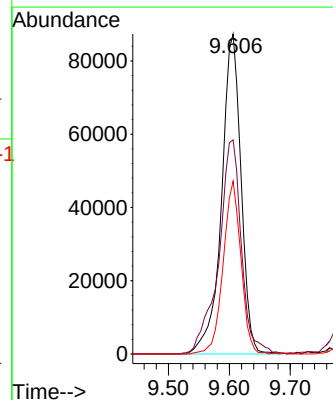
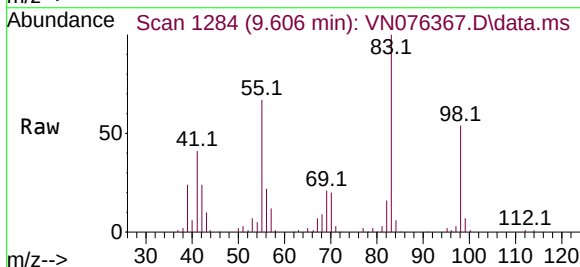
Tgt Ion: 83 Resp: 194397

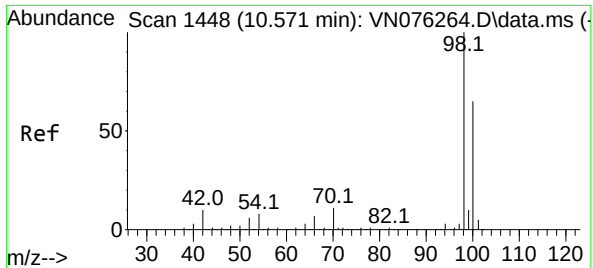
Ion Ratio Lower Upper

83 100

55 66.7 51.7 77.5

98 54.0 40.0 60.0

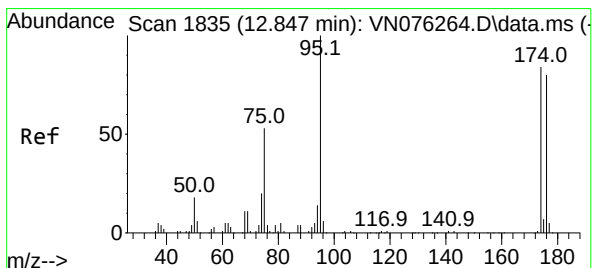
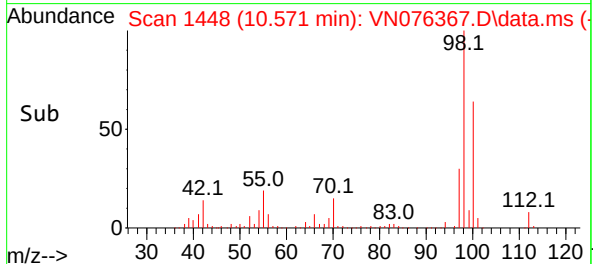
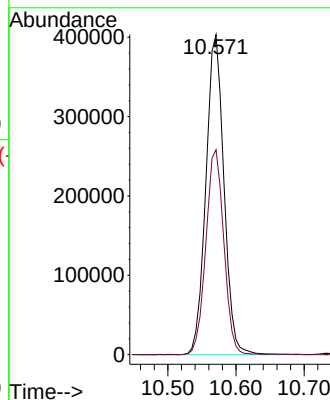
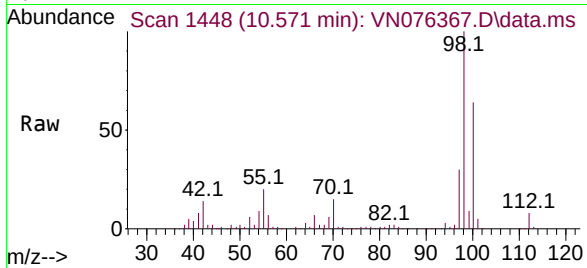




#50
Toluene-d8
Concen: 52.410 ug/l
RT: 10.571 min Scan# 1448
Delta R.T. -0.000 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

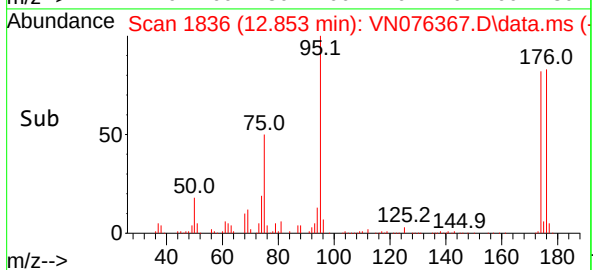
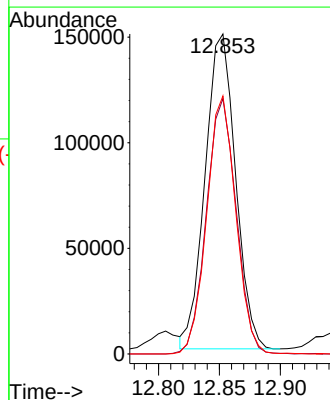
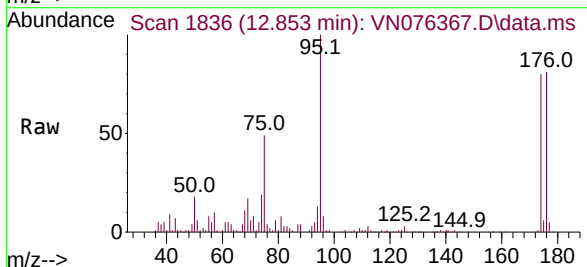
Instrument :
MSVOA_N
ClientSampleId :
B-P38CDL

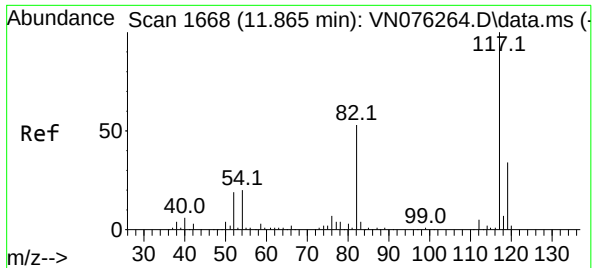
Tgt Ion: 98 Resp: 741982
Ion Ratio Lower Upper
98 100
100 63.8 52.2 78.4



#62
4-Bromofluorobenzene
Concen: 56.213 ug/l
RT: 12.853 min Scan# 1836
Delta R.T. 0.006 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

Tgt Ion: 95 Resp: 259802
Ion Ratio Lower Upper
95 100
174 79.3 0.0 174.6
176 78.2 0.0 167.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1668

Delta R.T. -0.000 min

Lab File: VN076367.D

Acq: 23 Jan 2023 15:25

Instrument :

MSVOA_N

ClientSampleId :

B-P38CDL

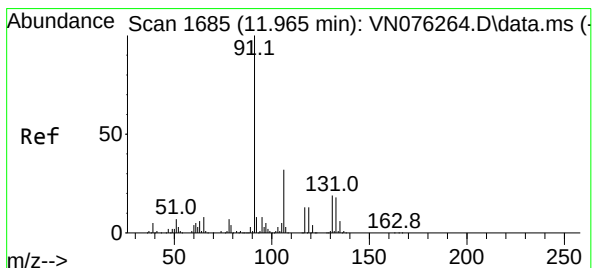
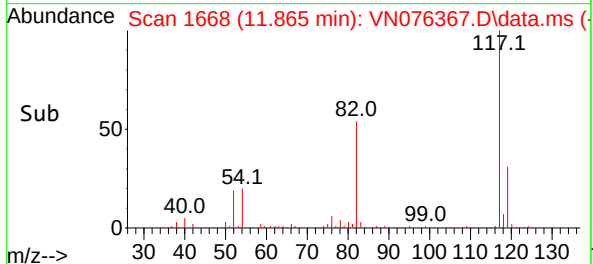
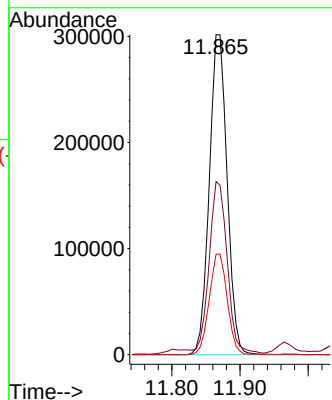
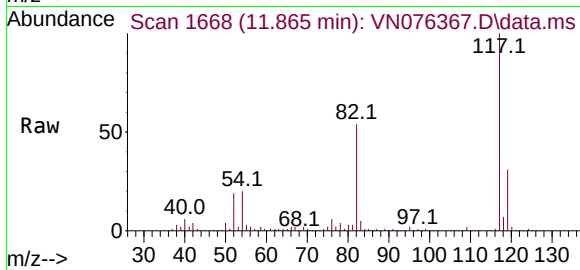
Tgt Ion:117 Resp: 549267

Ion Ratio Lower Upper

117 100

82 52.6 42.2 63.2

119 31.4 26.9 40.3



#67

Ethyl Benzene

Concen: 0.861 ug/l

RT: 11.965 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN076367.D

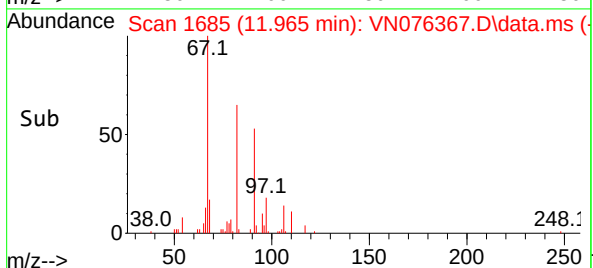
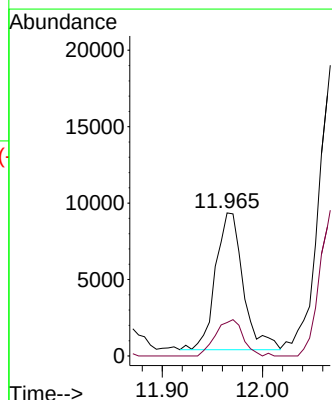
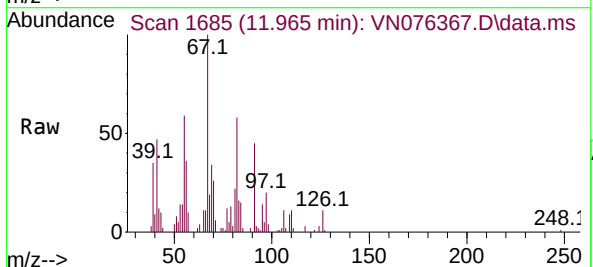
Acq: 23 Jan 2023 15:25

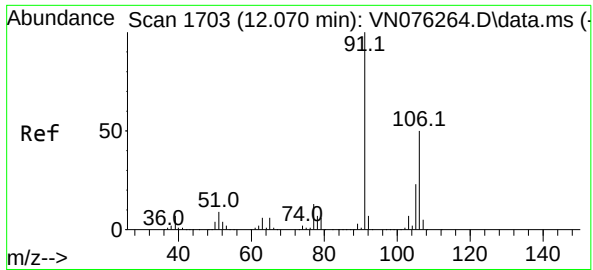
Tgt Ion: 91 Resp: 17110

Ion Ratio Lower Upper

91 100

106 24.4 25.5 38.3#

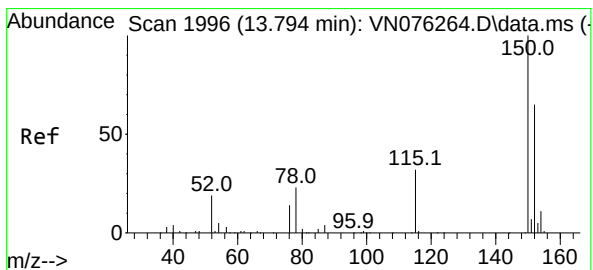
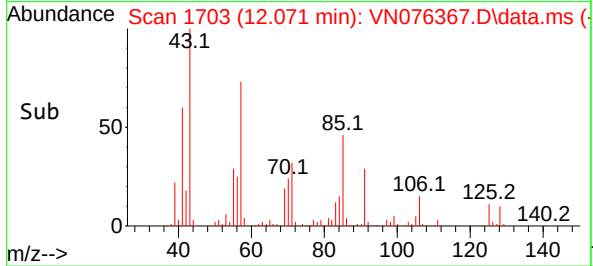
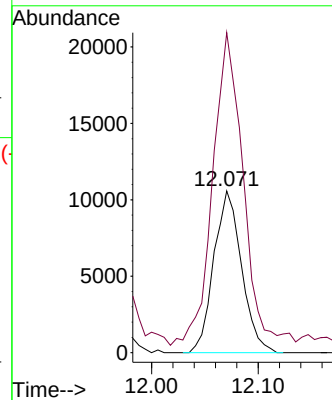
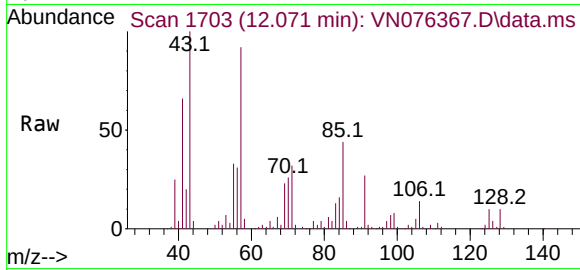




#68
m/p-Xylenes
Concen: 2.400 ug/l
RT: 12.071 min Scan# 1703
Delta R.T. 0.001 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

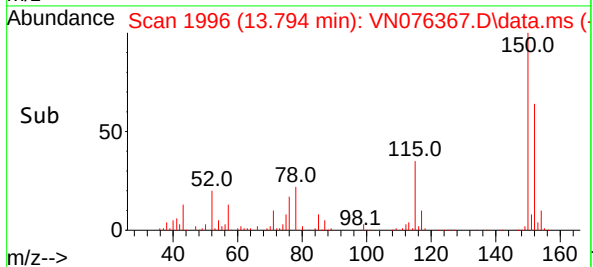
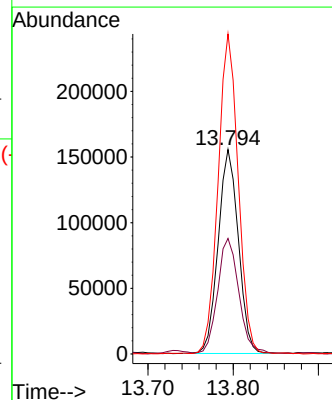
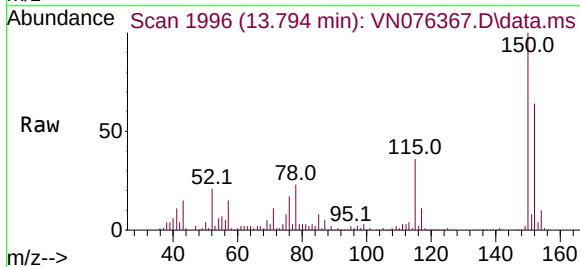
Instrument :
MSVOA_N
ClientSampleId :
B-P38CDL

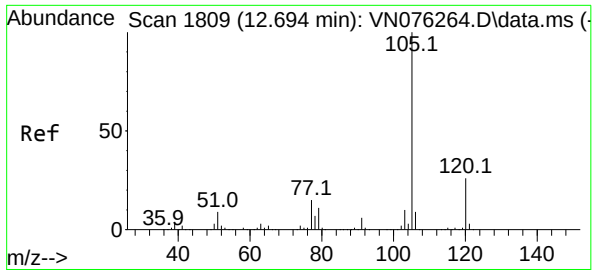
Tgt Ion:106 Resp: 19120
Ion Ratio Lower Upper
106 100
91 212.3 157.5 236.3



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 1996
Delta R.T. -0.000 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

Tgt Ion:152 Resp: 255428
Ion Ratio Lower Upper
152 100
115 59.9 29.6 88.9
150 155.5 0.0 351.4

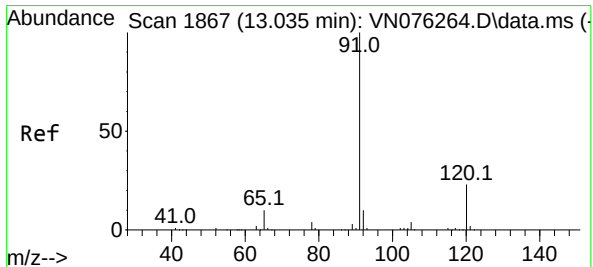
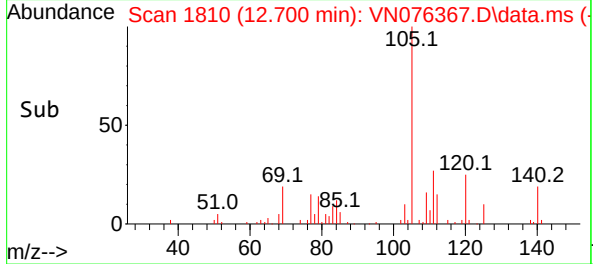
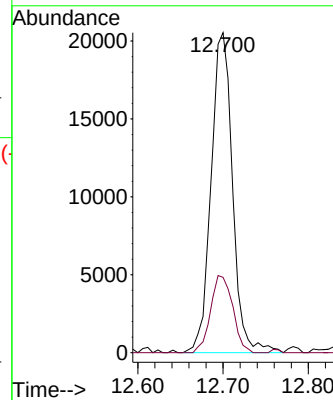
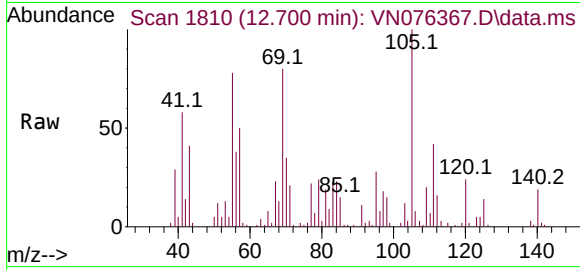




#73
Isopropylbenzene
Concen: 1.818 ug/l
RT: 12.700 min Scan# 1810
Delta R.T. 0.006 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

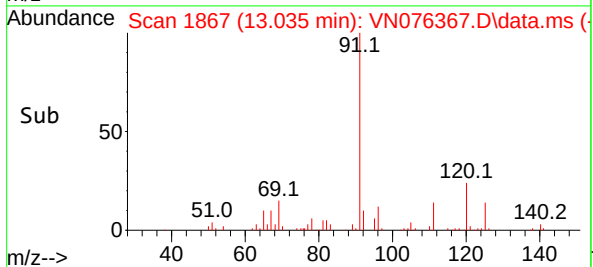
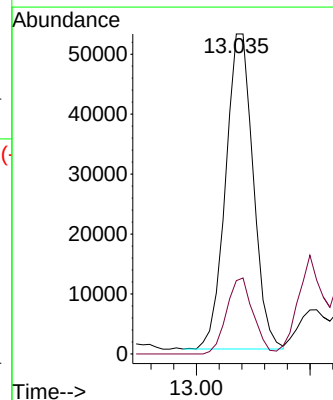
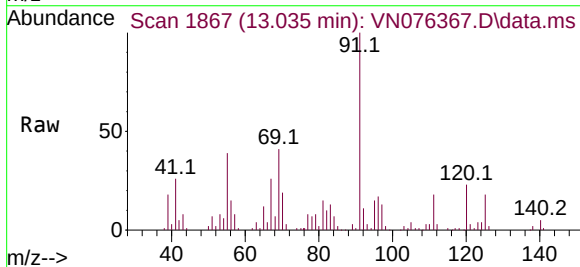
Instrument :
MSVOA_N
ClientSampleId :
B-P38CDL

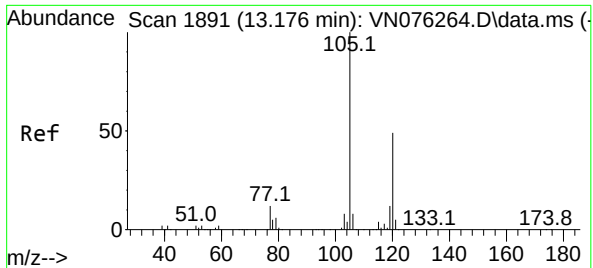
Tgt Ion:105 Resp: 35914
Ion Ratio Lower Upper
105 100
120 24.8 13.4 40.1



#78
n-propylbenzene
Concen: 3.982 ug/l
RT: 13.035 min Scan# 1867
Delta R.T. 0.000 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

Tgt Ion: 91 Resp: 88789
Ion Ratio Lower Upper
91 100
120 23.2 11.9 35.5

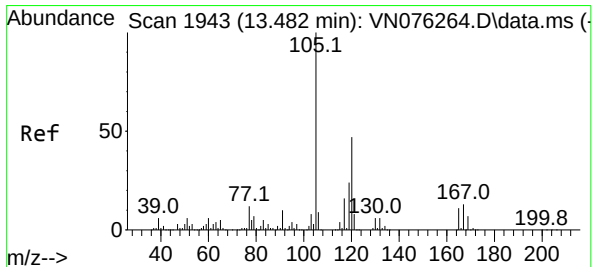
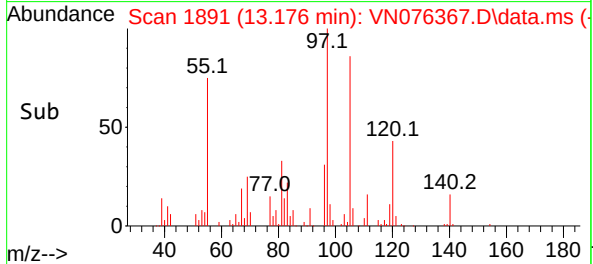
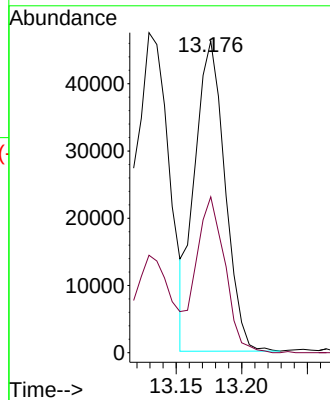
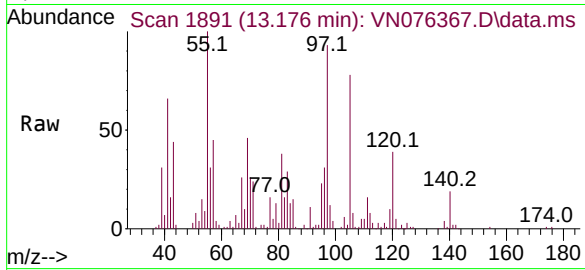




#80
1,3,5-Trimethylbenzene
Concen: 4.470 ug/l
RT: 13.176 min Scan# 1891
Delta R.T. 0.000 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

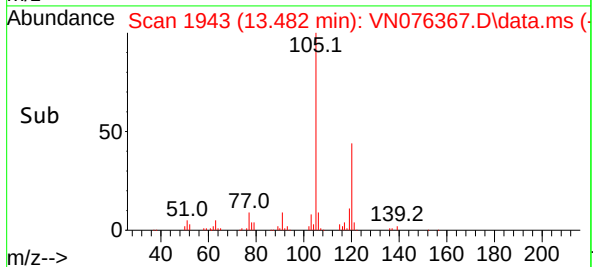
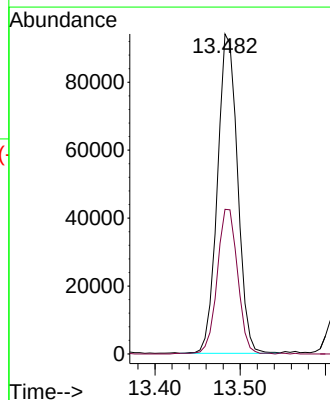
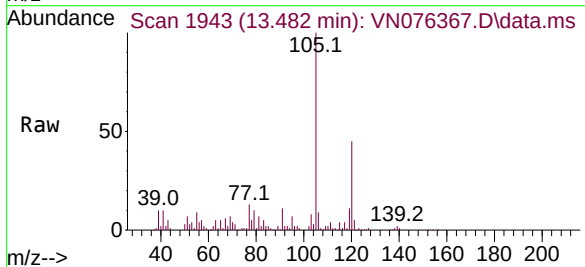
Instrument :
MSVOA_N
ClientSampleId :
B-P38CDL

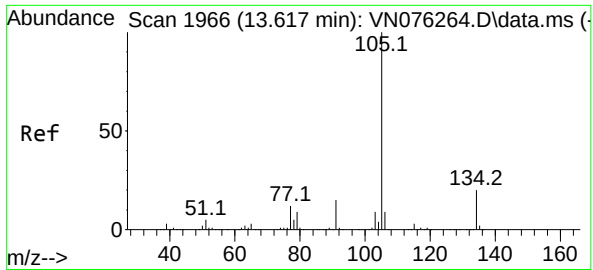
Tgt Ion:105 Resp: 73992
Ion Ratio Lower Upper
105 100
120 48.1 25.0 75.0



#84
1,2,4-Trimethylbenzene
Concen: 9.309 ug/l
RT: 13.482 min Scan# 1943
Delta R.T. 0.000 min
Lab File: VN076367.D
Acq: 23 Jan 2023 15:25

Tgt Ion:105 Resp: 154523
Ion Ratio Lower Upper
105 100
120 46.1 22.9 68.5

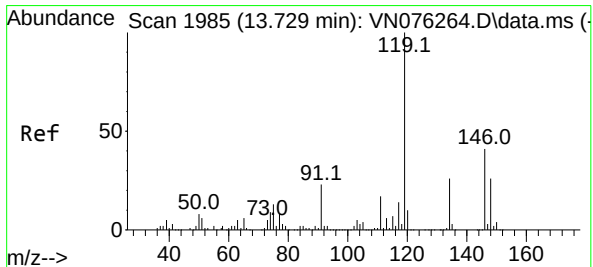
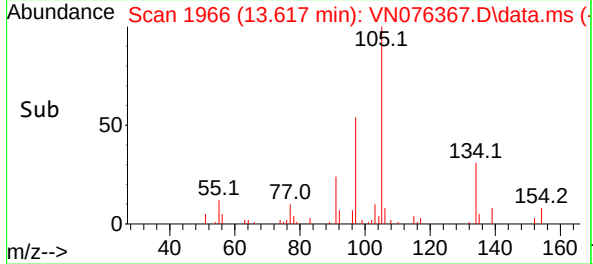
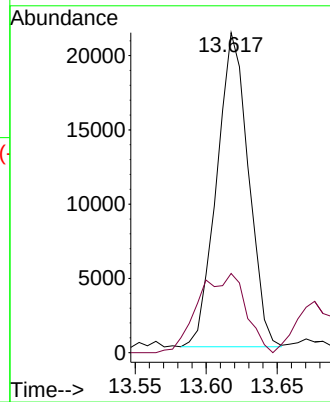
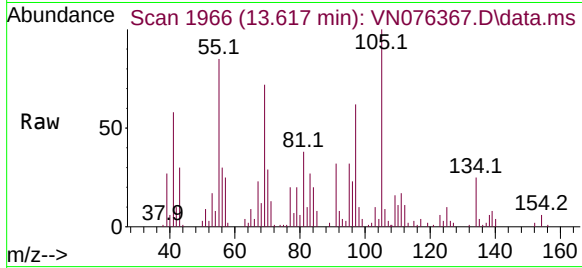




#85
 sec-Butylbenzene
 Concen: 1.607 ug/l
 RT: 13.617 min Scan# 1966
 Delta R.T. 0.000 min
 Lab File: VN076367.D
 Acq: 23 Jan 2023 15:25

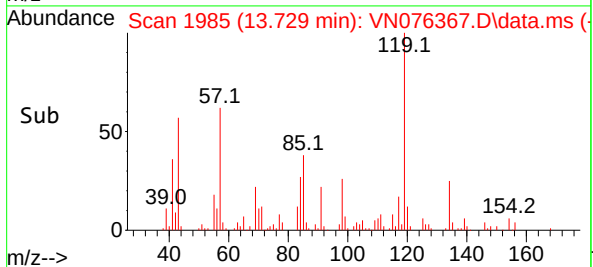
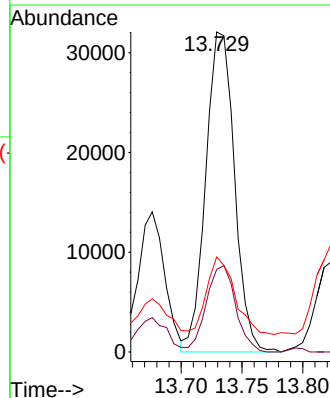
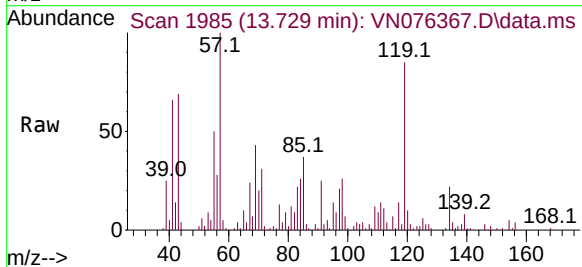
Instrument :
 MSVOA_N
 ClientSampleId :
 B-P38CDL

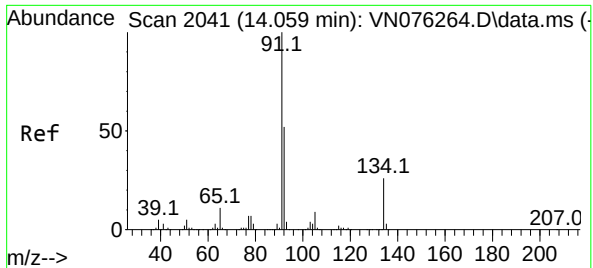
Tgt Ion:105 Resp: 32833
 Ion Ratio Lower Upper
 105 100
 134 37.7 10.3 30.8#



#86
 p-Isopropyltoluene
 Concen: 3.135 ug/l
 RT: 13.729 min Scan# 1985
 Delta R.T. 0.000 min
 Lab File: VN076367.D
 Acq: 23 Jan 2023 15:25

Tgt Ion:119 Resp: 52671
 Ion Ratio Lower Upper
 119 100
 134 27.3 13.2 39.6
 91 23.6 11.8 35.3





#89

n-Butylbenzene

Concen: 7.860 ug/l

RT: 14.059 min Scan# 2041

Delta R.T. -0.000 min

Lab File: VN076367.D

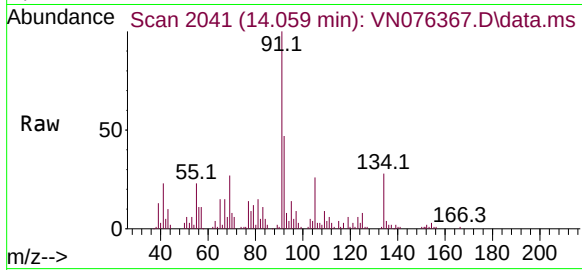
Acq: 23 Jan 2023 15:25

Instrument :

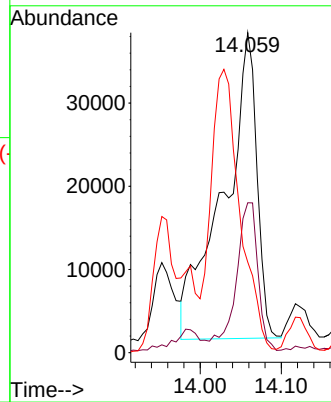
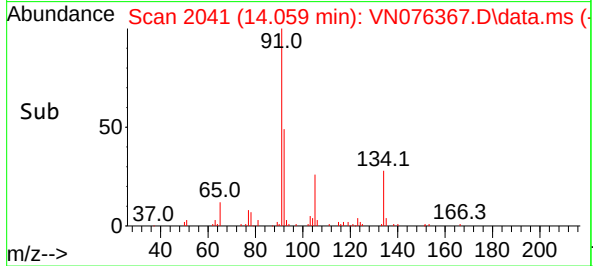
MSVOA_N

ClientSampleId :

B-P38CDL



Tgt Ion:	91	Resp:	104829
Ion Ratio	Lower	Upper	
91	100		
92	31.1	26.3	78.9
134	0.0	13.2	39.5





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	FB01	SDG No.:	O1233
Lab Sample ID:	O1233-12	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076347.D	1		01/20/23 14:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	0.17	1.00	ug/L
74-87-3	Chloromethane	0.20	U	0.20	1.00	ug/L
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
74-83-9	Bromomethane	1.60	U	1.60	5.00	ug/L
75-00-3	Chloroethane	0.26	U	0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.20	U	0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.17	U	0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
67-64-1	Acetone	1.20	U	1.20	5.00	ug/L
75-15-0	Carbon Disulfide	0.26	U	0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.18	U	0.18	1.00	ug/L
79-20-9	Methyl Acetate	0.53	U	0.53	1.00	ug/L
75-09-2	Methylene Chloride	2.80		0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
110-82-7	Cyclohexane	1.20	U	1.20	5.00	ug/L
78-93-3	2-Butanone	0.82	U	0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.18	U	0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
74-97-5	Bromochloromethane	0.19	U	0.19	1.00	ug/L
67-66-3	Chloroform	0.18	U	0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
108-87-2	Methylcyclohexane	0.13	U	0.13	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.17	U	0.17	1.00	ug/L
75-27-4	Bromodichloromethane	0.18	U	0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.87	U	0.87	5.00	ug/L
108-88-3	Toluene	0.17	U	0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.14	U	0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	FB01	SDG No.:	O1233
Lab Sample ID:	O1233-12	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076347.D	1		01/20/23 14:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
591-78-6	2-Hexanone	0.76	U	0.76	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.14	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
108-90-7	Chlorobenzene	0.17	U	0.17	1.00	ug/L
100-41-4	Ethyl Benzene	0.17	U	0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	0.33	U	0.33	2.00	ug/L
95-47-6	o-Xylene	0.18	U	0.18	1.00	ug/L
100-42-5	Styrene	0.13	U	0.13	1.00	ug/L
75-25-2	Bromoform	0.16	U	0.16	1.00	ug/L
98-82-8	Isopropylbenzene	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.23	U	0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.42	U	0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.23	U	0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.33	U	0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		75 - 124	96%	SPK: 50
2037-26-5	Toluene-d8	49.6		86 - 113	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.0		64 - 133	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	370000	8.23			
540-36-3	1,4-Difluorobenzene	596000	9.106			
3114-55-4	Chlorobenzene-d5	524000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	212000	13.794			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	FB01	SDG No.:	O1233
Lab Sample ID:	O1233-12	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076347.D	1		01/20/23 14:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076347.D
 Acq On : 20 Jan 2023 14:49
 Operator : JC\MD
 Sample : 01233-12
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 FB01

Quant Time: Jan 20 22:16:22 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

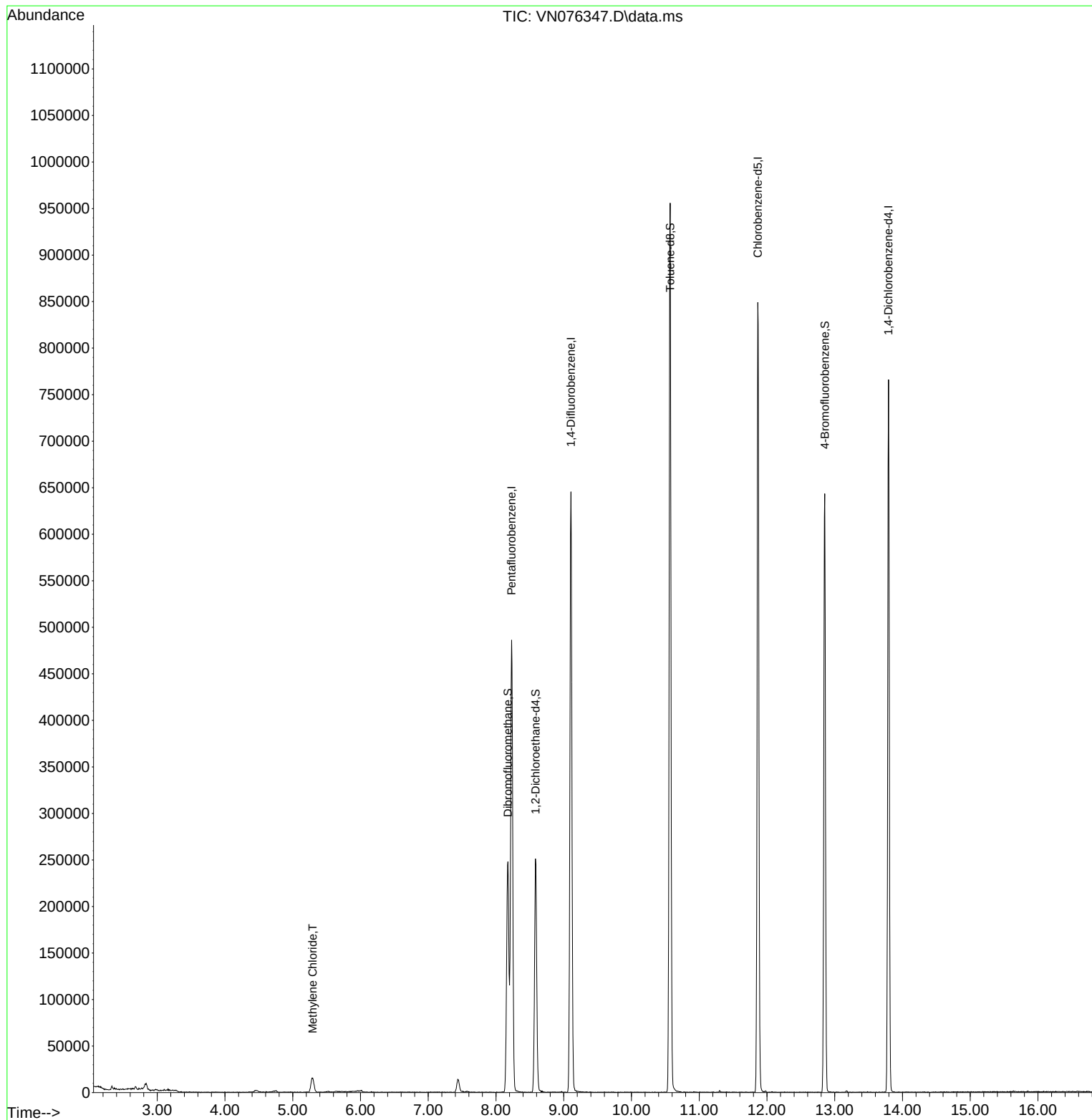
Internal Standards						
1) Pentafluorobenzene	8.230	168	370105	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	595933	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	523917	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	212240	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	203331	49.066	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	98.140%		
35) Dibromofluoromethane	8.177	113	179169	48.063	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	96.120%		
50) Toluene-d8	10.571	98	682616	49.583	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	99.160%		
62) 4-Bromofluorobenzene	12.853	95	215515	47.952	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery =	95.900%		
Target Compounds						
20) Methylene Chloride	5.295	84	13253	2.803	ug/l	97

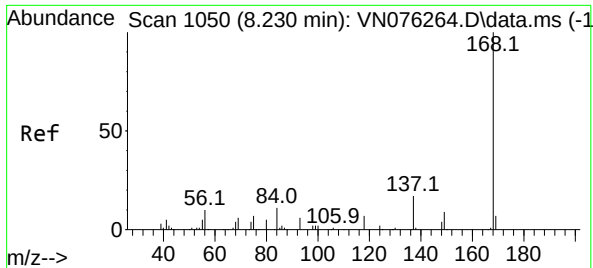
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076347.D
Acq On : 20 Jan 2023 14:49
Operator : JC\MD
Sample : 01233-12
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
FB01

Quant Time: Jan 20 22:16:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

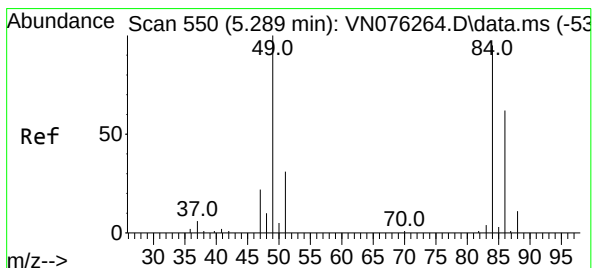
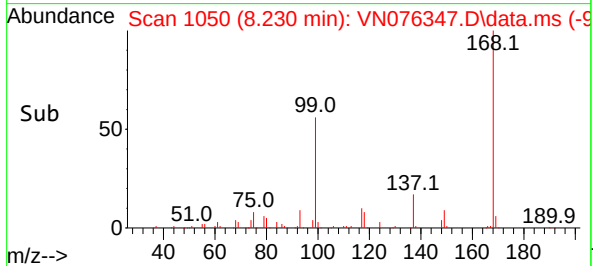
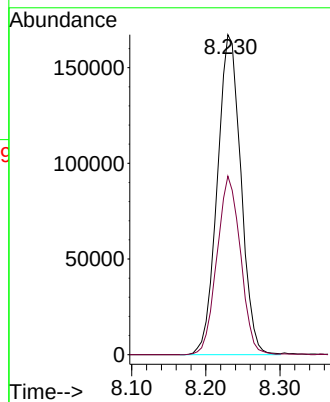
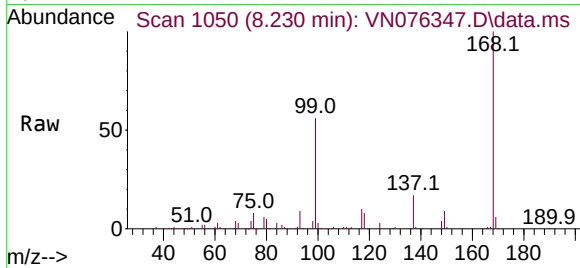




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1050
Delta R.T. -0.000 min
Lab File: VN076347.D
Acq: 20 Jan 2023 14:49

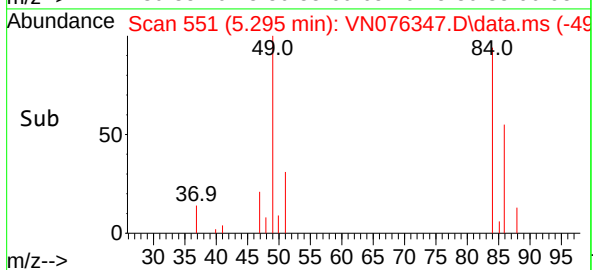
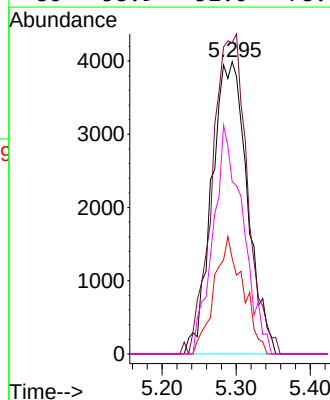
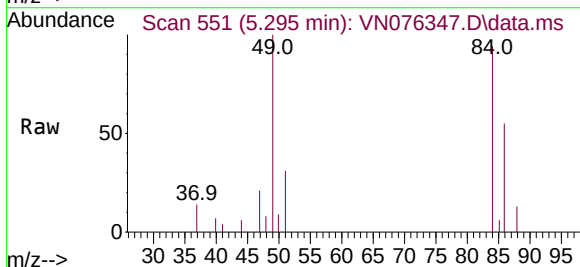
Instrument :
MSVOA_N
ClientSampleId :
FB01

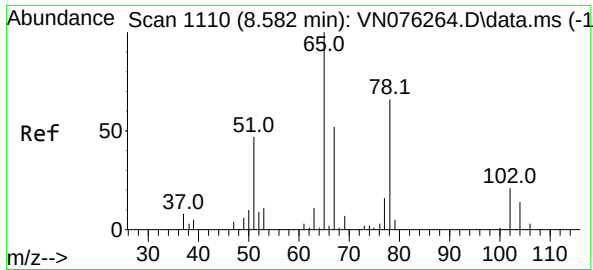
Tgt Ion:168 Resp: 370105
Ion Ratio Lower Upper
168 100
99 55.8 41.6 62.4



#20
Methylene Chloride
Concen: 2.803 ug/l
RT: 5.295 min Scan# 551
Delta R.T. 0.006 min
Lab File: VN076347.D
Acq: 20 Jan 2023 14:49

Tgt Ion: 84 Resp: 13253
Ion Ratio Lower Upper
84 100
49 106.6 84.5 126.7
51 32.7 26.0 39.0
86 58.9 52.0 78.0





#33

1,2-Dichloroethane-d4

Concen: 49.066 ug/l

RT: 8.583 min Scan# 1110

Delta R.T. 0.001 min

Lab File: VN076347.D

Acq: 20 Jan 2023 14:49

Instrument :

MSVOA_N

ClientSampleId :

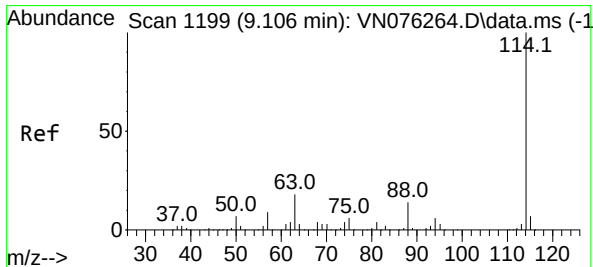
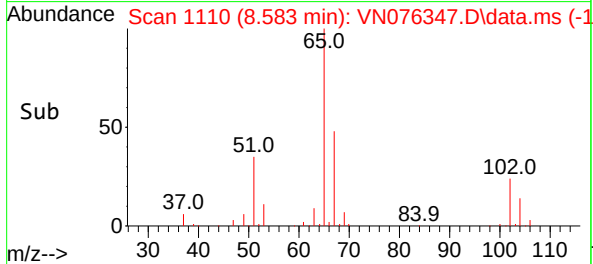
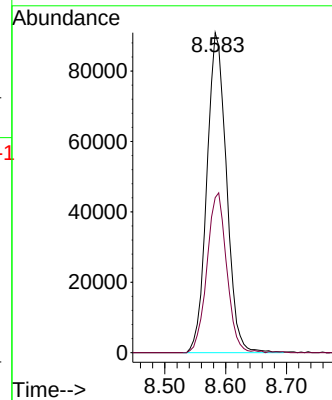
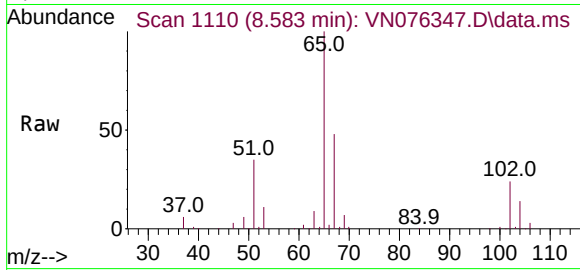
FB01

Tgt Ion: 65 Resp: 203331

Ion Ratio Lower Upper

65 100

67 50.1 0.0 104.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.106 min Scan# 1199

Delta R.T. 0.000 min

Lab File: VN076347.D

Acq: 20 Jan 2023 14:49

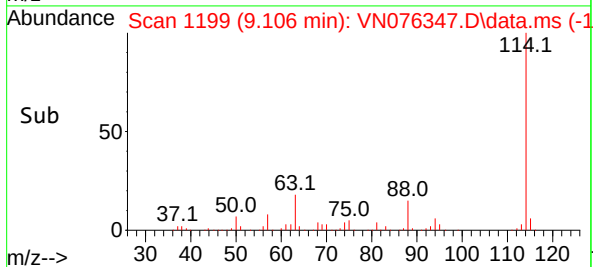
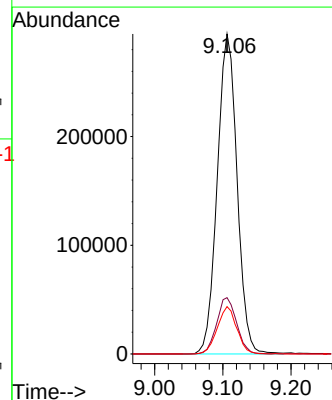
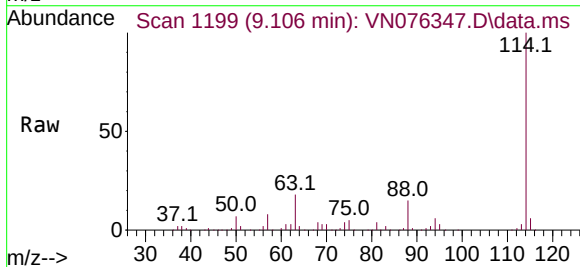
Tgt Ion: 114 Resp: 595933

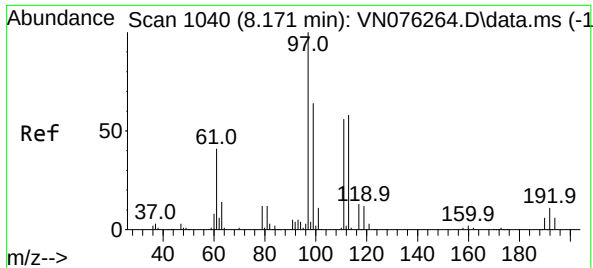
Ion Ratio Lower Upper

114 100

63 17.6 0.0 35.8

88 14.8 0.0 28.0





#35

Dibromofluoromethane

Concen: 48.063 ug/l

RT: 8.177 min Scan# 1040

Delta R.T. 0.006 min

Lab File: VN076347.D

Acq: 20 Jan 2023 14:49

Instrument :

MSVOA_N

ClientSampleId :

FB01

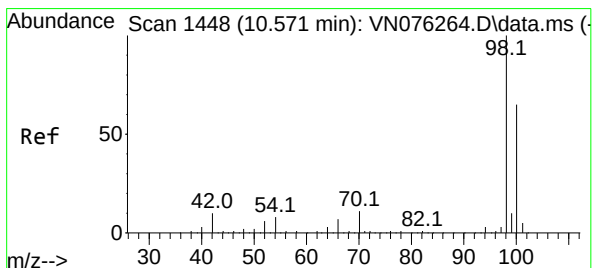
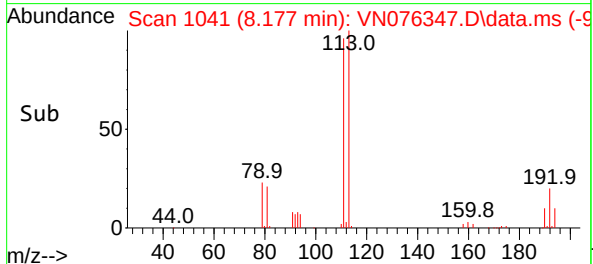
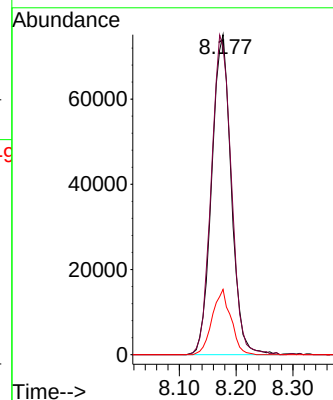
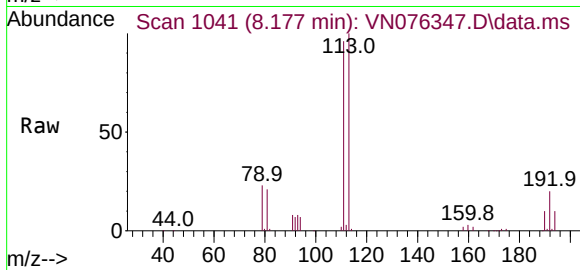
Tgt Ion:113 Resp: 179169

Ion Ratio Lower Upper

113 100

111 102.3 82.7 124.1

192 19.5 15.6 23.4



#50

Toluene-d8

Concen: 49.583 ug/l

RT: 10.571 min Scan# 1448

Delta R.T. -0.000 min

Lab File: VN076347.D

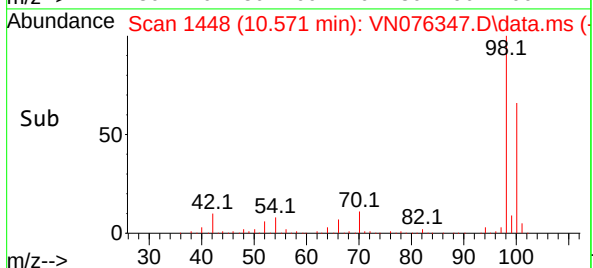
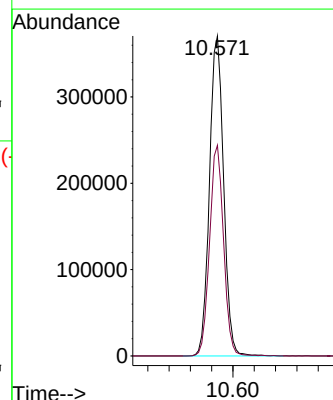
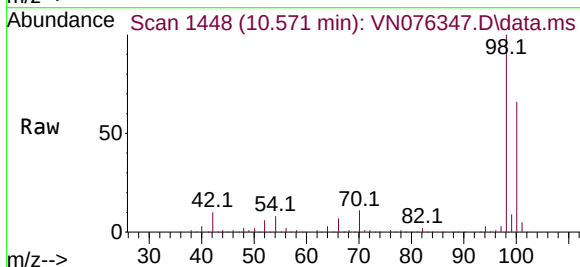
Acq: 20 Jan 2023 14:49

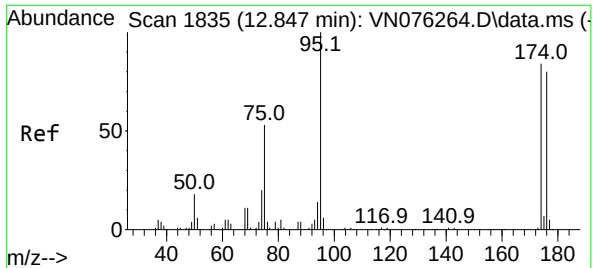
Tgt Ion: 98 Resp: 682616

Ion Ratio Lower Upper

98 100

100 65.0 52.2 78.4

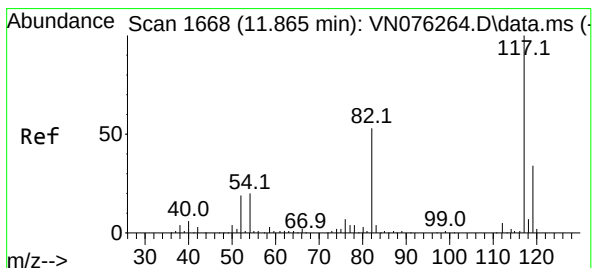
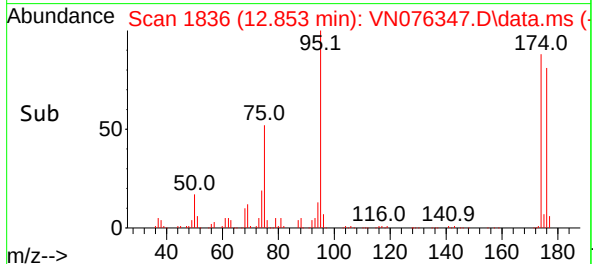
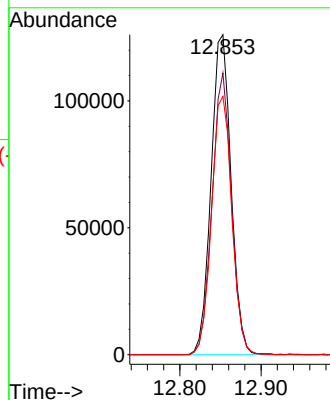
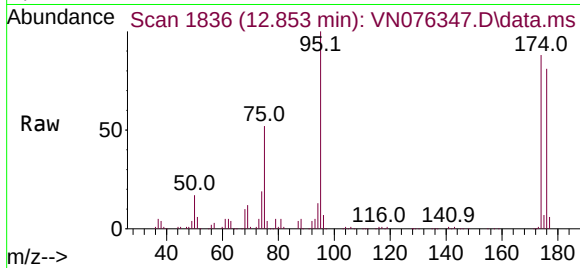




#62
4-Bromofluorobenzene
Concen: 47.952 ug/l
RT: 12.853 min Scan# 1836
Delta R.T. 0.006 min
Lab File: VN076347.D
Acq: 20 Jan 2023 14:49

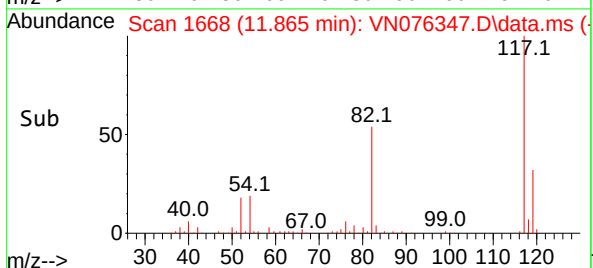
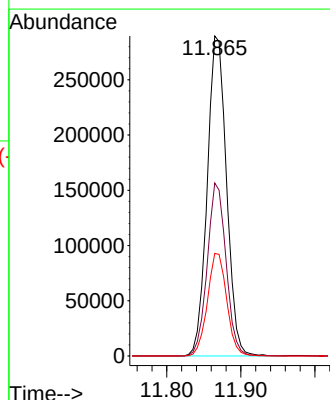
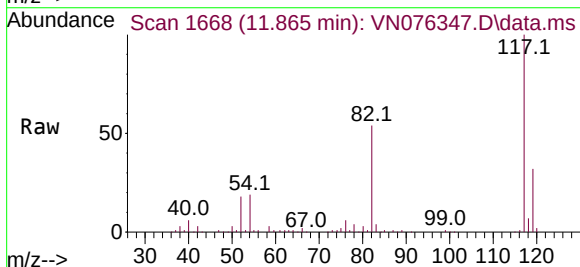
Instrument :
MSVOA_N
ClientSampleId :
FB01

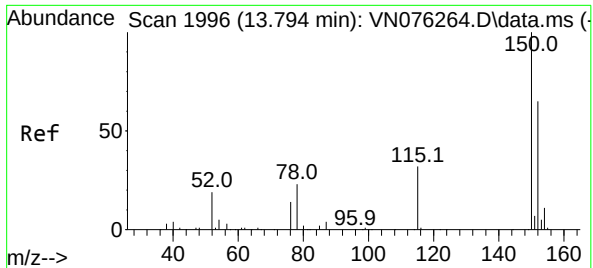
Tgt Ion: 95 Resp: 215515
Ion Ratio Lower Upper
95 100
174 85.7 0.0 174.6
176 82.0 0.0 167.8



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1668
Delta R.T. -0.000 min
Lab File: VN076347.D
Acq: 20 Jan 2023 14:49

Tgt Ion: 117 Resp: 523917
Ion Ratio Lower Upper
117 100
82 54.1 42.2 63.2
119 32.1 26.9 40.3





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 1996

Delta R.T. 0.000 min

Lab File: VN076347.D

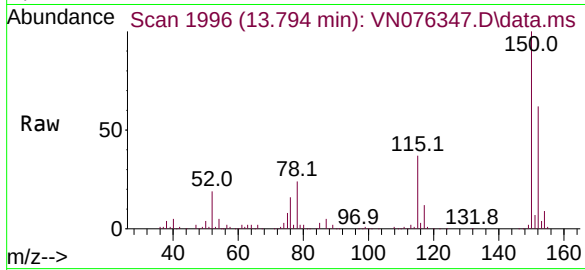
Acq: 20 Jan 2023 14:49

Instrument :

MSVOA_N

ClientSampleId :

FB01



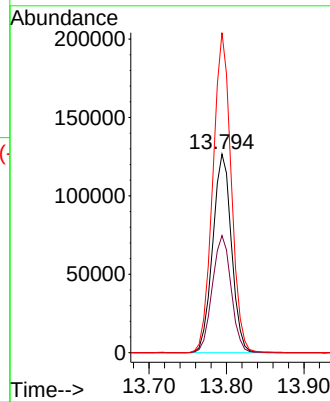
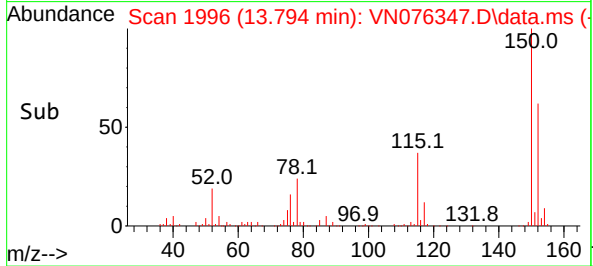
Tgt Ion:152 Resp: 212240

Ion Ratio Lower Upper

152 100

115 59.3 29.6 88.9

150 157.9 0.0 351.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076347.D
 Acq On : 20 Jan 2023 14:49
 Operator : JC\MD
 Sample : 01233-12
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 FB01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Title : SW846 8260

Signal : TIC: VN076347.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.295	541	551	562	rVB4	15308	49325	2.81%	0.531%
2	7.436	906	915	927	rBV	14055	40575	2.31%	0.437%
3	8.177	1029	1041	1045	rBV	247932	605135	34.44%	6.517%
4	8.230	1045	1050	1062	rVB	485027	1064247	60.56%	11.461%
5	8.583	1101	1110	1124	rBV	251188	561270	31.94%	6.044%
6	9.106	1190	1199	1210	rBV	645062	1314220	74.79%	14.153%
7	10.571	1436	1448	1465	rBV	955645	1757266	100.00%	18.924%
8	11.865	1661	1668	1681	rBV	848839	1523861	86.72%	16.410%
9	12.853	1828	1836	1847	rBV	643270	1097689	62.47%	11.821%
10	13.794	1988	1996	2009	rBV	765769	1272527	72.42%	13.704%

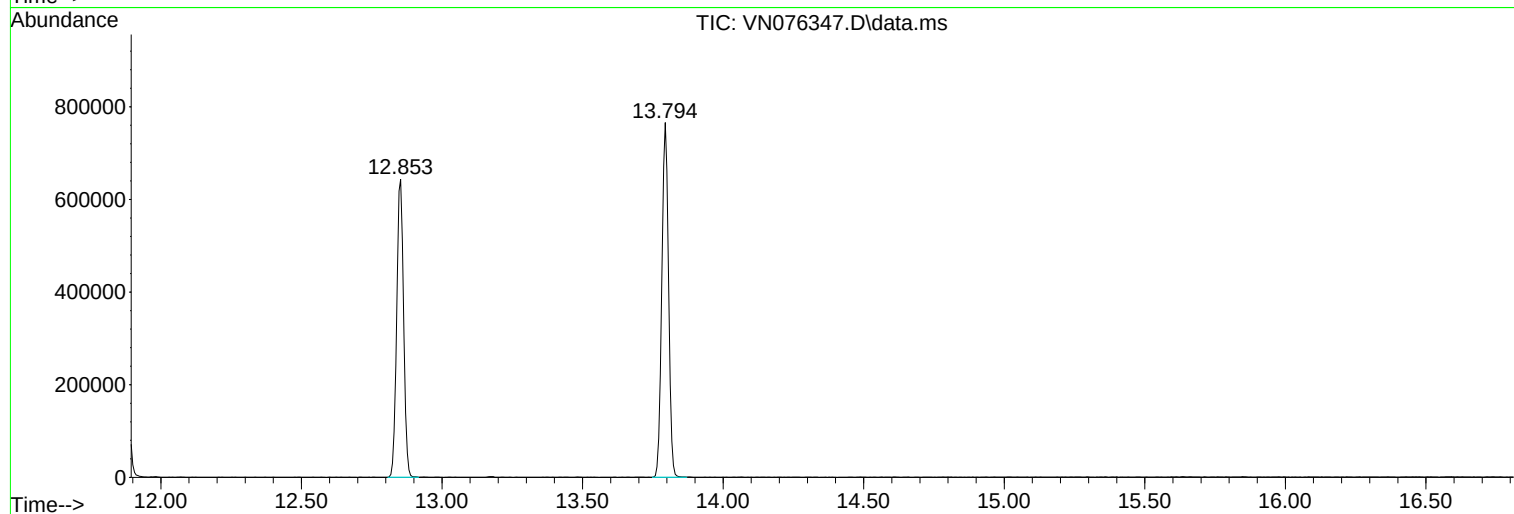
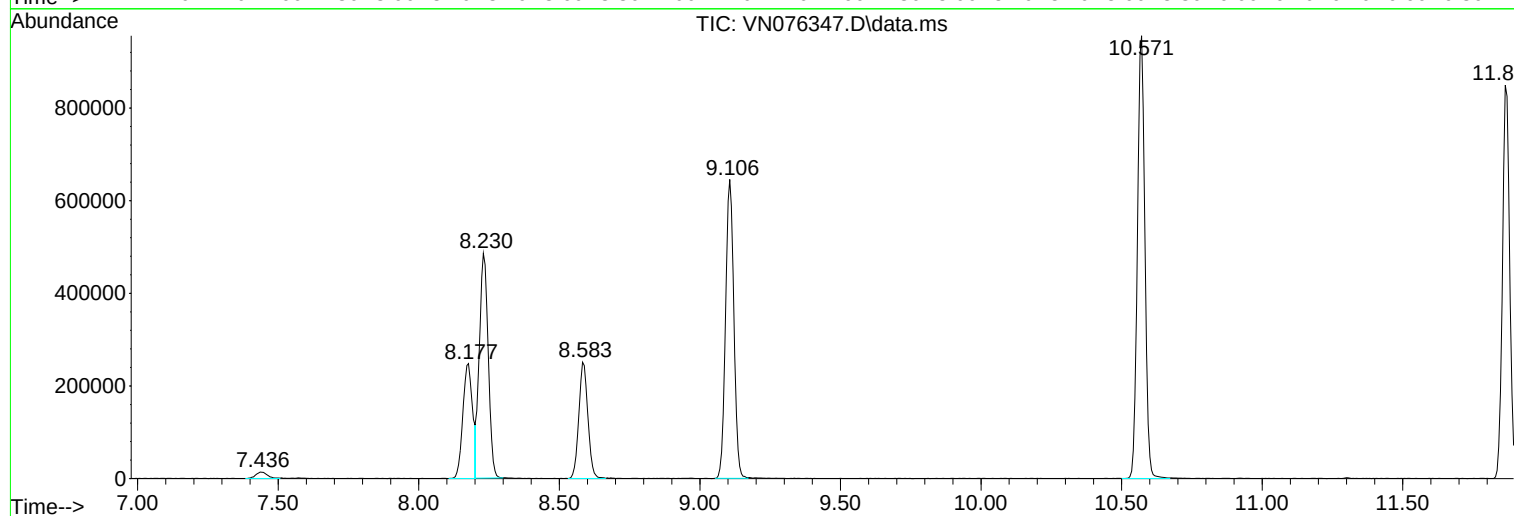
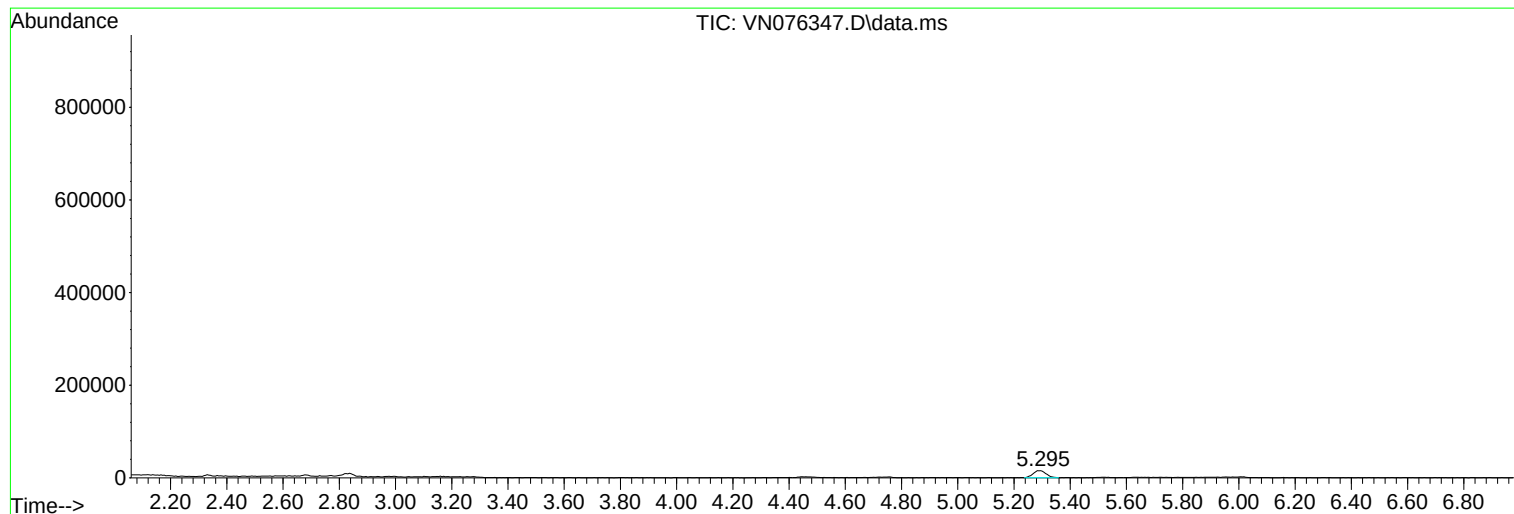
Sum of corrected areas: 9286115

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076347.D
Acq On : 20 Jan 2023 14:49
Operator : JC\MD
Sample : 01233-12
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
FB01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076347.D
Acq On : 20 Jan 2023 14:49
Operator : JC\MD
Sample : 01233-12
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
FB01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076347.D
Acq On : 20 Jan 2023 14:49
Operator : JC\MD
Sample : 01233-12
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
FB01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_D Calibration Date(s): 01/18/2023 01/18/2023
 Heated Purge: (Y/N) Y Calibration Time(s): 10:25 13:10
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:	RRF005 = VD075124.D	RRF010 = VD075125.D	RRF020 = VD075126.D					
	RRF050 = VD075127.D	RRF100 = VD075128.D	RRF150 = VD075129.D					
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Dichlorodifluoromethane	0.476	0.507	0.518	0.365	0.373	0.374	0.435	16.6
Chloromethane	0.725	0.734	0.686	0.608	0.556	0.566	0.646	12.3
Vinyl Chloride	0.741	0.724	0.728	0.656	0.641	0.668	0.693	6.2
Bromomethane	0.534	0.516	0.461	0.451	0.415	0.451	0.471	9.5
Chloroethane	0.496	0.511	0.487	0.473	0.445	0.471	0.481	4.7
Trichlorofluoromethane	0.959	0.897	0.901	0.850	0.832	0.847	0.881	5.4
1,1,2-Trichlorotrifluoroethane	0.580	0.547	0.579	0.517	0.519	0.521	0.544	5.5
1,1-Dichloroethene	0.596	0.603	0.595	0.563	0.537	0.541	0.573	5.2
Acetone	0.109	0.139	0.126	0.160	0.136	0.138	0.135	12.6
Carbon Disulfide	1.982	1.978	1.942	1.832	1.710	1.698	1.857	7
Methyl tert-butyl Ether	1.168	1.255	1.164	1.290	1.128	1.170	1.196	5.2
Methyl Acetate	0.390	0.401	0.353	0.387	0.325	0.338	0.366	8.5
Methylene Chloride	0.972	1.161	0.911	0.794	0.629	0.625	0.849	24.6
trans-1,2-Dichloroethene	0.695	0.676	0.631	0.657	0.583	0.583	0.637	7.4
1,1-Dichloroethane	1.130	1.181	1.083	1.112	1.002	1.012	1.087	6.4
Cyclohexane	1.295	1.059	1.049	0.935	0.895	0.907	1.023	14.7
2-Butanone	0.159	0.176	0.150	0.182	0.151	0.158	0.163	8.2
Carbon Tetrachloride	0.398	0.375	0.404	0.406	0.434	0.435	0.409	5.6
cis-1,2-Dichloroethene	0.720	0.728	0.707	0.726	0.648	0.640	0.695	5.8
Bromochloromethane	0.312	0.338	0.320	0.297	0.258	0.255	0.297	11.3
Chloroform	1.169	1.159	1.067	1.122	0.986	0.999	1.084	7.3
1,1,1-Trichloroethane	0.981	0.987	0.926	0.937	0.878	0.894	0.934	4.7
Methylcyclohexane	0.646	0.590	0.599	0.570	0.597	0.588	0.598	4.2
Benzene	1.458	1.425	1.368	1.438	1.328	1.290	1.384	4.8
1,2-Dichloroethane	0.359	0.376	0.350	0.384	0.355	0.358	0.364	3.6
Trichloroethene	0.410	0.401	0.373	0.400	0.376	0.374	0.389	4.2
1,2-Dichloropropane	0.365	0.355	0.323	0.355	0.327	0.321	0.341	5.7
Bromodichloromethane	0.449	0.455	0.417	0.473	0.443	0.440	0.446	4.2
4-Methyl-2-Pentanone	0.171	0.192	0.172	0.192	0.180	0.190	0.183	5.4
Toluene	0.912	0.906	0.864	0.916	0.829	0.822	0.875	4.9
t-1,3-Dichloropropene	0.402	0.426	0.399	0.447	0.426	0.433	0.422	4.4
cis-1,3-Dichloropropene	0.486	0.519	0.501	0.556	0.511	0.521	0.516	4.6
1,1,2-Trichloroethane	0.243	0.245	0.229	0.255	0.225	0.232	0.238	4.7

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_D Calibration Date(s): 01/18/2023 01/18/2023
 Heated Purge: (Y/N) Y Calibration Time(s): 10:25 13:10
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:	RRF005 = VD075124.D	RRF010 = VD075125.D	RRF020 = VD075126.D					
	RRF050 = VD075127.D	RRF100 = VD075128.D	RRF150 = VD075129.D					
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
2-Hexanone	0.115	0.140	0.123	0.144	0.131	0.140	0.132	8.7
Dibromochloromethane	0.279	0.299	0.262	0.310	0.283	0.288	0.287	5.7
1,2-Dibromoethane	0.234	0.228	0.221	0.242	0.217	0.222	0.227	4
Tetrachloroethene	0.380	0.363	0.358	0.350	0.346	0.344	0.357	3.8
Chlorobenzene	1.129	1.025	1.005	1.054	0.972	0.962	1.025	6
Ethyl Benzene	1.914	1.826	1.855	1.865	1.805	1.800	1.844	2.3
m/p-Xylenes	0.755	0.701	0.722	0.718	0.689	0.690	0.712	3.5
o-Xylene	0.687	0.668	0.661	0.696	0.647	0.651	0.668	2.9
Styrene	1.119	1.139	1.102	1.153	1.073	1.079	1.111	2.9
Bromoform	0.166	0.176	0.166	0.188	0.184	0.187	0.178	5.7
Isopropylbenzene	4.215	3.842	3.974	3.847	3.954	3.864	3.949	3.6
1,1,2,2-Tetrachloroethane	0.601	0.674	0.626	0.645	0.614	0.615	0.629	4.2
1,3-Dichlorobenzene	1.817	1.801	1.783	1.756	1.684	1.651	1.749	3.8
1,4-Dichlorobenzene	1.818	1.764	1.700	1.721	1.676	1.644	1.720	3.6
1,2-Dichlorobenzene	1.532	1.491	1.515	1.532	1.454	1.453	1.496	2.4
1,2-Dibromo-3-Chloropropane	0.084	0.095	0.095	0.102	0.097	0.104	0.096	7.4
1,2,4-Trichlorobenzene	0.983	0.990	0.933	0.997	0.987	1.005	0.982	2.6
1,2,3-Trichlorobenzene	0.813	0.833	0.820	0.854	0.847	0.863	0.838	2.3
1,2-Dichloroethane-d4	0.524	0.543	0.501	0.537	0.472	0.485	0.510	5.7
Dibromofluoromethane	0.288	0.312	0.301	0.322	0.297	0.293	0.302	4.2
Toluene-d8	1.228	1.239	1.152	1.232	1.153	1.133	1.190	4.1
4-Bromofluorobenzene	0.409	0.376	0.363	0.397	0.357	0.363	0.378	5.6

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Method Path : Z:\voasrv\HPCHEM1\MSVOA_D\Method\
 Method File : 82D011823S.M
 Title : SW846 8260
 Last Update : Thu Jan 19 01:32:27 2023
 Response Via : Initial Calibration

Calibration Files

10 =VD075125.D 5 =VD075124.D 20 =VD075126.D 50 =VD075127.D 100 =VD075128.D 150 =VD075129.D

Compound		10	5	20	50	100	150	Avg	%RSD

1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.507	0.476	0.518	0.365	0.373	0.374	0.435	16.59
3) P	Chloromethane	0.734	0.725	0.686	0.608	0.556	0.566	0.646	12.29
4) C	Vinyl Chloride	0.724	0.741	0.728	0.656	0.641	0.668	0.693	6.21#
5) T	Bromomethane	0.516	0.534	0.461	0.451	0.415	0.451	0.471	9.46
6) T	Chloroethane	0.511	0.496	0.487	0.473	0.445	0.471	0.481	4.74
7) T	Trichlorofluor...	0.897	0.959	0.901	0.850	0.832	0.847	0.881	5.41
8) T	Diethyl Ether	0.303	0.278	0.280	0.298	0.267	0.277	0.284	4.87
9) T	1,1,2-Trichlor...	0.547	0.580	0.579	0.517	0.519	0.521	0.544	5.51
10) T	Methyl Iodide	0.675	0.660	0.738	0.800	0.763	0.756	0.732	7.36
11) T	Tert butyl alc...	0.041	0.040	0.039	0.033	0.030	0.030	0.036	13.83
12) CM	1,1-Dichloroet...	0.603	0.596	0.595	0.563	0.537	0.541	0.573	5.15#
13) T	Acrolein	0.045	0.038	0.041	0.029	0.027	0.027	0.035	22.20
14) T	Allyl chloride	0.961	1.015	0.927	0.966	0.856	0.849	0.929	7.08
15) T	Acrylonitrile	0.134	0.111	0.117	0.130	0.112	0.116	0.120	8.04
16) T	Acetone	0.139	0.109	0.126	0.160	0.136	0.138	0.135	12.63
17) T	Carbon Disulfide	1.978	1.982	1.942	1.832	1.710	1.698	1.857	7.02
18) T	Methyl Acetate	0.401	0.390	0.353	0.387	0.325	0.338	0.366	8.52
19) T	Methyl tert-bu...	1.255	1.168	1.164	1.290	1.128	1.170	1.196	5.22
20) T	Methylene Chlo...	1.161	0.972	0.911	0.794	0.629	0.625	0.849	24.61
21) T	trans-1,2-Dich...	0.676	0.695	0.631	0.657	0.583	0.583	0.637	7.40
22) T	Diisopropyl ether	1.826	1.780	1.731	1.828	1.581	1.631	1.729	5.98
23) T	Vinyl Acetate	0.743	0.707	0.748	0.788	0.763	0.825	0.762	5.33
24) P	1,1-Dichloroet...	1.181	1.130	1.083	1.112	1.002	1.012	1.087	6.39
25) T	2-Butanone	0.176	0.159	0.150	0.182	0.151	0.158	0.163	8.25
26) T	2,2-Dichloropr...	1.017	1.085	0.974	0.957	0.881	0.898	0.969	7.82
27) T	cis-1,2-Dichlo...	0.728	0.720	0.707	0.726	0.648	0.640	0.695	5.77
28) T	Bromochloromet...	0.338	0.312	0.320	0.297	0.258	0.255	0.297	11.35
29) T	Tetrahydrofuran	0.101	0.087	0.090	0.101	0.086	0.091	0.093	7.52
30) C	Chloroform	1.159	1.169	1.067	1.122	0.986	0.999	1.084	7.31#
31) T	Cyclohexane	1.059	1.295	1.049	0.935	0.895	0.907	1.023	14.72
32) T	1,1,1-Trichlor...	0.987	0.981	0.926	0.937	0.878	0.894	0.934	4.73
33) S	1,2-Dichloroet...	0.543	0.524	0.501	0.537	0.472	0.485	0.510	5.68
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.312	0.288	0.301	0.322	0.297	0.293	0.302	4.18
36) T	1,1-Dichloropr...	0.485	0.525	0.481	0.475	0.474	0.472	0.485	4.12
37) T	Ethyl Acetate	0.223	0.186	0.192	0.203	0.179	0.191	0.196	7.99
38) T	Carbon Tetrach...	0.375	0.398	0.404	0.406	0.434	0.435	0.409	5.61
39) T	Methylcyclohexane	0.590	0.646	0.599	0.570	0.597	0.588	0.598	4.24
40) TM	Benzene	1.425	1.458	1.368	1.438	1.328	1.290	1.384	4.82
41) T	Methacrylonitrile	0.128	0.109	0.106	0.115	0.123	0.127	0.118	7.93
42) TM	1,2-Dichloroet...	0.376	0.359	0.350	0.384	0.355	0.358	0.364	3.64
43) T	Isopropyl Acetate	0.392	0.387	0.354	0.401	0.364	0.386	0.381	4.72
44) TM	Trichloroethene	0.401	0.410	0.373	0.400	0.376	0.374	0.389	4.23
45) C	1,2-Dichloropr...	0.355	0.365	0.323	0.355	0.327	0.321	0.341	5.71#
46) T	Dibromomethane	0.195	0.170	0.174	0.191	0.173	0.175	0.180	5.84
47) T	Bromodichlorom...	0.455	0.449	0.417	0.473	0.443	0.440	0.446	4.17
48) T	Methyl methacr...	0.196	0.186	0.174	0.190	0.183	0.188	0.186	3.96
49) T	1,4-Dioxane	0.002	0.002	0.002	0.002	0.002	0.002	0.002	8.29
50) S	Toluene-d8	1.239	1.228	1.152	1.232	1.153	1.133	1.190	4.07
51) T	4-Methyl-2-Pen...	0.192	0.171	0.172	0.192	0.180	0.190	0.183	5.38
52) CM	Toluene	0.906	0.912	0.864	0.916	0.829	0.822	0.875	4.86#
53) T	t-1,3-Dichloro...	0.426	0.402	0.399	0.447	0.426	0.433	0.422	4.37
54) T	cis-1,3-Dichlo...	0.519	0.486	0.501	0.556	0.511	0.521	0.516	4.59
55) T	1,1,2-Trichlor...	0.245	0.243	0.229	0.255	0.225	0.232	0.238	4.74
56) T	Ethyl methacry...	0.287	0.262	0.275	0.313	0.287	0.295	0.286	6.09

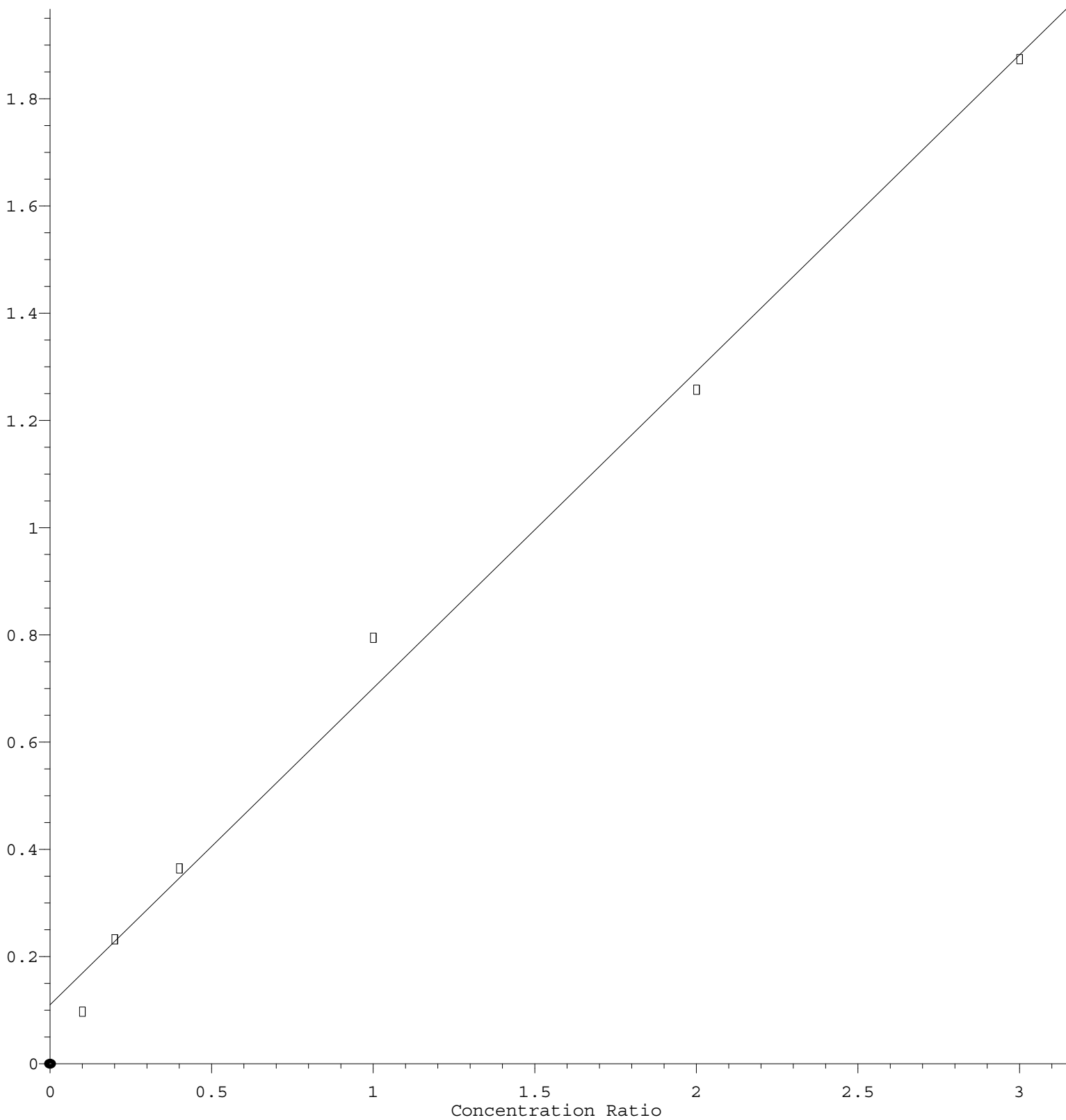
Method Path : Z:\voasrv\HPCHEM1\MSVOA_D\Method\
 Method File : 82D011823S.M

57)	T	1,3-Dichloropr...	0.425	0.397	0.391	0.446	0.394	0.401	0.409	5.30
58)	T	2-Chloroethyl ...	0.098	0.093	0.098	0.097	0.099	0.103	0.098	3.41
59)	T	2-Hexanone	0.140	0.115	0.123	0.144	0.131	0.140	0.132	8.73
60)	T	Dibromochlorom...	0.299	0.279	0.262	0.310	0.283	0.288	0.287	5.73
61)	T	1,2-Dibromoethane	0.228	0.234	0.221	0.242	0.217	0.222	0.227	4.02
62)	S	4-Bromofluorob...	0.376	0.409	0.363	0.397	0.357	0.363	0.378	5.56
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.363	0.380	0.358	0.350	0.346	0.344	0.357	3.80
65)	PM	Chlorobenzene	1.025	1.129	1.005	1.054	0.972	0.962	1.025	5.99
66)	T	1,1,1,2-Tetrac...	0.341	0.359	0.335	0.349	0.339	0.344	0.345	2.48
67)	C	Ethyl Benzene	1.826	1.914	1.855	1.865	1.805	1.800	1.844	2.32#
68)	T	m/p-Xylenes	0.701	0.755	0.722	0.718	0.689	0.690	0.712	3.53
69)	T	o-Xylene	0.668	0.687	0.661	0.696	0.647	0.651	0.668	2.94
70)	T	Styrene	1.139	1.119	1.102	1.153	1.073	1.079	1.111	2.89
71)	P	Bromoform	0.176	0.166	0.166	0.188	0.184	0.187	0.178	5.69
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.842	4.215	3.974	3.847	3.954	3.864	3.949	3.59
74)	T	N-amyl acetate	0.865	0.844	0.832	0.865	0.874	0.911	0.865	3.16
75)	P	1,1,2,2-Tetrac...	0.674	0.601	0.626	0.645	0.614	0.615	0.629	4.20
76)	T	1,2,3-Trichlor...	0.408	0.487	0.391	0.397	0.464	0.393	0.423	9.79
77)	T	Bromobenzene	0.891	0.964	0.906	0.925	0.878	0.849	0.902	4.42
78)	T	n-propylbenzene	4.734	5.162	4.945	4.737	4.796	4.746	4.853	3.52
79)	T	2-Chlorotoluene	2.656	2.809	2.696	2.648	2.601	2.606	2.669	2.88
80)	T	1,3,5-Trimethy...	3.156	3.337	3.235	3.242	3.244	3.200	3.236	1.85
81)	T	trans-1,4-Dich...	0.172	0.174	0.170	0.183	0.190	0.206	0.183	7.51
82)	T	4-Chlorotoluene	2.779	2.915	2.752	2.712	2.665	2.643	2.744	3.57
83)	T	tert-Butylbenzene	2.719	2.929	2.908	2.725	2.800	2.718	2.800	3.47
84)	T	1,2,4-Trimethy...	3.102	3.302	3.228	3.159	3.130	3.145	3.178	2.33
85)	T	sec-Butylbenzene	4.157	4.563	4.310	4.104	4.227	4.158	4.253	3.94
86)	T	p-Isopropyltol...	3.425	3.604	3.516	3.412	3.499	3.436	3.482	2.09
87)	T	1,3-Dichlorobe...	1.801	1.817	1.783	1.756	1.684	1.651	1.749	3.83
88)	T	1,4-Dichlorobe...	1.764	1.818	1.700	1.721	1.676	1.644	1.720	3.65
89)	T	n-Butylbenzene	3.349	3.594	3.379	3.293	3.385	3.358	3.393	3.06
90)	T	Hexachloroethane	0.594	0.663	0.597	0.591	0.614	0.630	0.615	4.53
91)	T	1,2-Dichlorobe...	1.491	1.532	1.515	1.532	1.454	1.453	1.496	2.42
92)	T	1,2-Dibromo-3-...	0.095	0.084	0.095	0.102	0.097	0.104	0.096	7.39
93)	T	1,2,4-Trichlor...	0.990	0.983	0.933	0.997	0.987	1.005	0.982	2.58
94)	T	Hexachlorobuta...	0.454	0.490	0.474	0.473	0.498	0.500	0.481	3.70
95)	T	Naphthalene	1.946	2.218	1.823	1.926	1.885	1.937	1.956	6.96
96)	T	1,2,3-Trichlor...	0.833	0.813	0.820	0.854	0.847	0.863	0.838	2.32

(#) = Out of Range

Methylene Chloride

Response Ratio



$$\text{Response} = 5.907\text{e-}001 * \text{Amt} + 1.103\text{e-}001$$

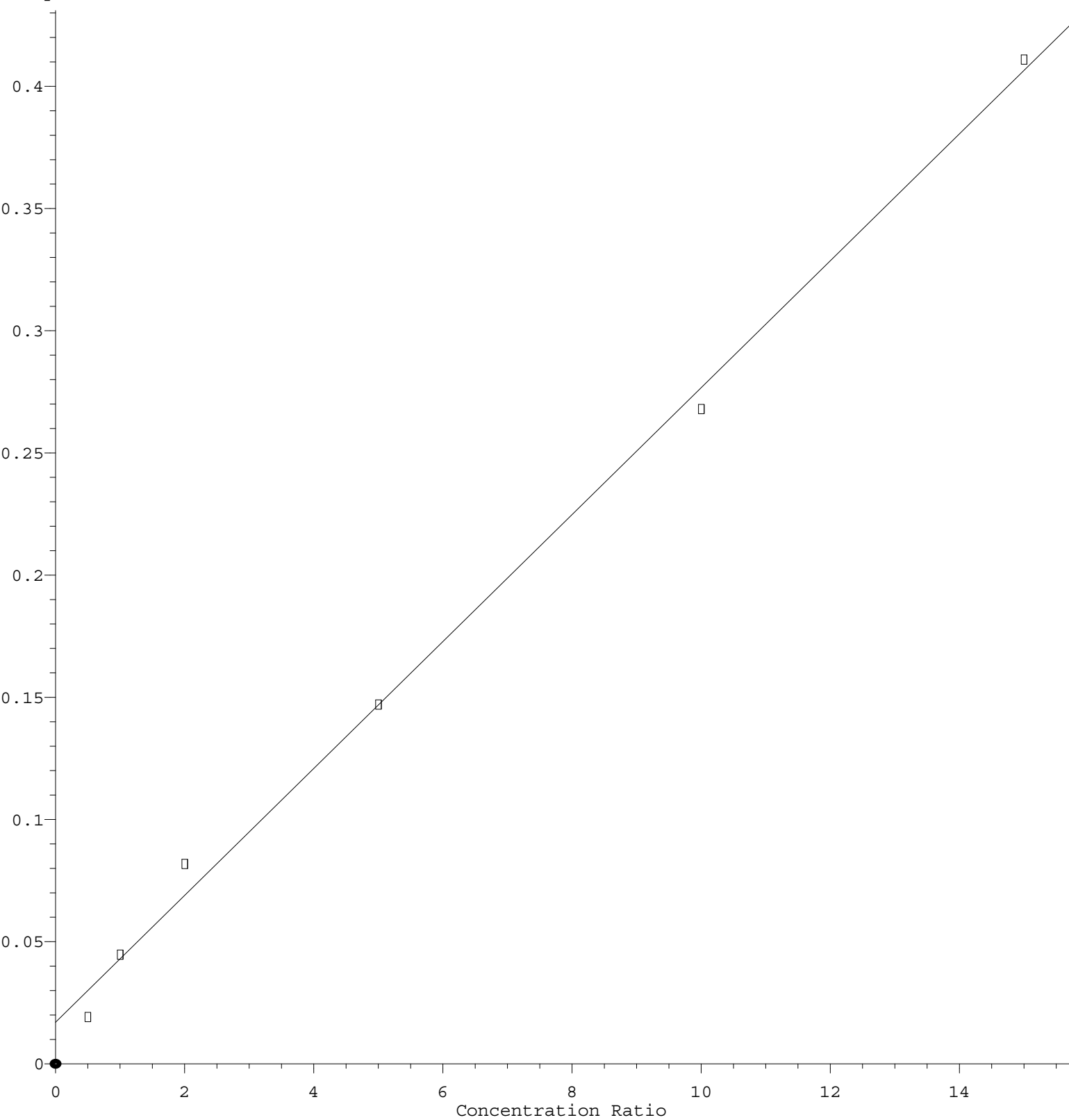
Coef of Det (r^2) = 0.993432 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA D\Method\82D011823S.M

Calibration Table Last Updated: Thu Jan 19 01:32:27 2023

Acrolein

Response Ratio



$$\text{Response} = 2.599\text{e-}002 * \text{Amt} + 1.679\text{e-}002$$

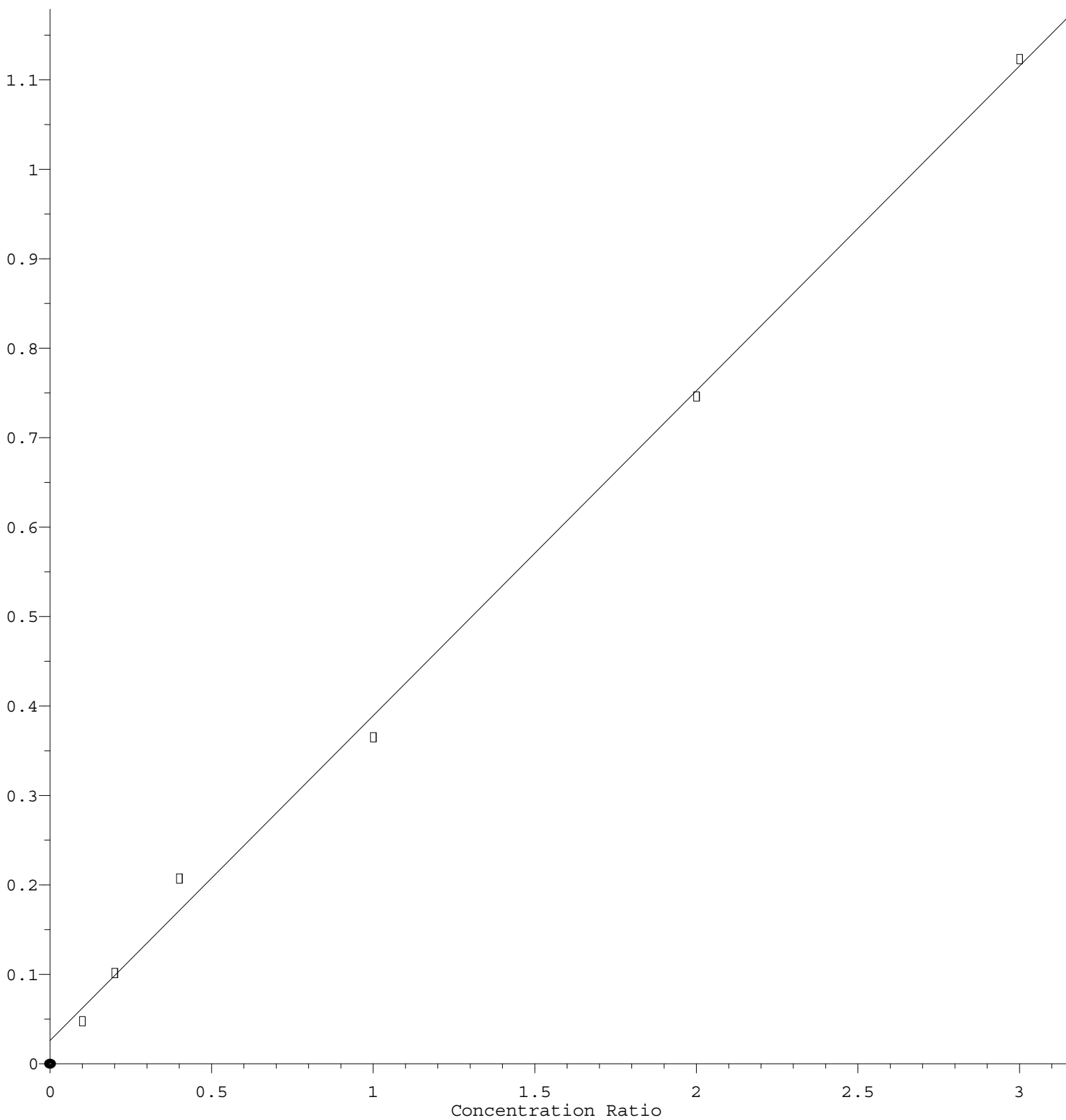
Coef of Det (r^2) = 0.996658 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA D\Method\82D011823S.M

Calibration Table Last Updated: Thu Jan 19 01:32:27 2023

Dichlorodifluoromethane

Response Ratio



$$\text{Response} = 3.629\text{e-}001 * \text{Amt} + 2.642\text{e-}002$$

Coef of Det (r^2) = 0.997533 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA D\Method\82D011823S.M

Calibration Table Last Updated: Thu Jan 19 01:32:27 2023

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075124.D
 Acq On : 18 Jan 2023 10:25
 Operator : KP/SY
 Sample : VSTDICC005
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:28:52 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:24:39 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	104422	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	182518	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	158637	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	70443	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	5472	5.135	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	10.280%#		
35) Dibromofluoromethane	7.799	113	5252	4.762	ug/l	-0.01
Spiked Amount 50.000	Range 54 - 147		Recovery =	9.520%#		
50) Toluene-d8	10.275	98	22415	5.162	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	10.320%#		
62) 4-Bromofluorobenzene	12.575	95	7457	5.411	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	10.820%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	4968	5.463	ug/l	83
3) Chloromethane	2.146	50	7573	5.614	ug/l	95
4) Vinyl Chloride	2.281	62	7738	5.346	ug/l	99
5) Bromomethane	2.693	94	5571	5.660	ug/l	97
6) Chloroethane	2.834	64	5180	5.161	ug/l	98
7) Trichlorofluoromethane	3.181	101	10017	5.445	ug/l	97
8) Diethyl Ether	3.587	74	2899	4.890	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.969	101	6061	5.337	ug/l	99
10) Methyl Iodide	4.164	142	6897	4.511	ug/l	94
11) Tert butyl alcohol	5.052	59	2065m	27.779	ug/l	
12) 1,1-Dichloroethene	3.946	96	6224	5.206	ug/l	88
13) Acrolein	3.793	56	1998	27.673	ug/l	90
14) Allyl chloride	4.558	41	10604	5.465	ug/l	99
15) Acrylonitrile	5.258	53	5803	23.152	ug/l	97
16) Acetone	4.022	43	5666	20.161	ug/l #	83
17) Carbon Disulfide	4.269	76	20698	5.337	ug/l	99
18) Methyl Acetate	4.558	43	4072	5.331	ug/l	100
19) Methyl tert-butyl Ether	5.316	73	12198	4.884	ug/l	92
20) Methylene Chloride	4.799	84	10151	5.728	ug/l	94
21) trans-1,2-Dichloroethene	5.316	96	7253	5.449	ug/l #	93
22) Diisopropyl ether	6.210	45	18582	5.145	ug/l #	95
23) Vinyl Acetate	6.158	43	36891m	23.176	ug/l	
24) 1,1-Dichloroethane	6.110	63	11797	5.198	ug/l	98
25) 2-Butanone	7.087	43	8281	24.380	ug/l #	89
26) 2,2-Dichloropropane	7.075	77	11331	5.600	ug/l	91
27) cis-1,2-Dichloroethene	7.069	96	7517	5.181	ug/l	99
28) Bromochloromethane	7.428	49	3257	5.256	ug/l #	95
29) Tetrahydrofuran	7.457	42	4547	23.471	ug/l #	34
30) Chloroform	7.599	83	12208	5.394	ug/l	96
31) Cyclohexane	7.875	56	13518	6.326	ug/l #	86
32) 1,1,1-Trichloroethane	7.793	97	10239	5.251	ug/l	98
36) 1,1-Dichloropropene	8.010	75	9585	5.409	ug/l	96
37) Ethyl Acetate	7.169	43	3387	4.744	ug/l #	72
38) Carbon Tetrachloride	7.993	117	7262	4.867	ug/l	90
39) Methylcyclohexane	9.275	83	11783	5.396	ug/l	95
40) Benzene	8.252	78	26605	5.265	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075124.D
 Acq On : 18 Jan 2023 10:25
 Operator : KP/SY
 Sample : VSTDICC005
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_D

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :Krupa Patel 01/19/2023

Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:28:52 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Quant Title : SW846 8260

QLast Update : Thu Jan 19 01:24:39 2023

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.399	41	1988	4.628	ug/l #	68
42) 1,2-Dichloroethane	8.322	62	6555	4.938	ug/l	98
43) Isopropyl Acetate	8.357	43	7063	5.084	ug/l	98
44) Trichloroethene	9.028	130	7492	5.272	ug/l	91
45) 1,2-Dichloropropane	9.310	63	6659	5.349	ug/l	90
46) Dibromomethane	9.393	93	3107	4.733	ug/l	96
47) Bromodichloromethane	9.581	83	8199	5.034	ug/l #	94
48) Methyl methacrylate	9.381	41	3397	5.000	ug/l	89
49) 1,4-Dioxane	9.381	88	569	90.788	ug/l #	58
51) 4-Methyl-2-Pentanone	10.157	43	15596	23.377	ug/l	98
52) Toluene	10.334	92	16641	5.211	ug/l	99
53) t-1,3-Dichloropropene	10.551	75	7330	4.757	ug/l	92
54) cis-1,3-Dichloropropene	10.016	75	8876	4.715	ug/l	97
55) 1,1,2-Trichloroethane	10.740	97	4435	5.105	ug/l	94
56) Ethyl methacrylate	10.604	69	4774	4.569	ug/l	96
57) 1,3-Dichloropropane	10.887	76	7247	4.854	ug/l	95
58) 2-Chloroethyl Vinyl ether	9.869	63	8473	23.699	ug/l	99
59) 2-Hexanone	10.922	43	10468	21.701	ug/l	97
60) Dibromochloromethane	11.075	129	5085	4.856	ug/l	98
61) 1,2-Dibromoethane	11.175	107	4266	5.139	ug/l	95
64) Tetrachloroethene	10.816	164	6034	5.326	ug/l	95
65) Chlorobenzene	11.610	112	17913	5.511	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.681	131	5698	5.211	ug/l	97
67) Ethyl Benzene	11.687	91	30358	5.188	ug/l	96
68) m/p-Xylenes	11.798	106	23960	10.600	ug/l	98
69) o-Xylene	12.122	106	10891	5.137	ug/l	95
70) Styrene	12.134	104	17755	5.037	ug/l	97
71) Bromoform	12.298	173	2638	4.672	ug/l #	97
73) Isopropylbenzene	12.422	105	29692	5.336	ug/l	100
74) N-amyl acetate	12.234	43	5943	4.876	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.681	83	4235	4.777	ug/l	90
76) 1,2,3-Trichloropropane	12.722	75	3429m	5.748	ug/l	
77) Bromobenzene	12.704	156	6792	5.344	ug/l	97
78) n-propylbenzene	12.769	91	36360	5.318	ug/l	98
79) 2-Chlorotoluene	12.851	91	19785	5.261	ug/l	98
80) 1,3,5-Trimethylbenzene	12.910	105	23508	5.157	ug/l	98
81) trans-1,4-Dichloro-2-b...	12.469	75	1227	4.771	ug/l	98
82) 4-Chlorotoluene	12.951	91	20536	5.311	ug/l	100
83) tert-Butylbenzene	13.169	119	20634	5.231	ug/l	99
84) 1,2,4-Trimethylbenzene	13.216	105	23263	5.196	ug/l	100
85) sec-Butylbenzene	13.351	105	32142	5.364	ug/l	96
86) p-Isopropyltoluene	13.463	119	25388	5.175	ug/l	100
87) 1,3-Dichlorobenzene	13.463	146	12798	5.195	ug/l	97
88) 1,4-Dichlorobenzene	13.540	146	12809	5.284	ug/l	92
89) n-Butylbenzene	13.792	91	25318	5.296	ug/l	99
90) Hexachloroethane	14.057	117	4672	5.393	ug/l	80
91) 1,2-Dichlorobenzene	13.834	146	10789	5.119	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.451	75	589	4.345	ug/l	80
93) 1,2,4-Trichlorobenzene	15.104	180	6922	5.001	ug/l	95
94) Hexachlorobutadiene	15.210	225	3451	5.088	ug/l	98
95) Naphthalene	15.334	128	15623	5.670	ug/l	99
96) 1,2,3-Trichlorobenzene	15.528	180	5730	4.852	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075124.D
Acq On : 18 Jan 2023 10:25
Operator : KP/SY
Sample : VSTDICC005
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:28:52 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:24:39 2023
Response via : Initial Calibration

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

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

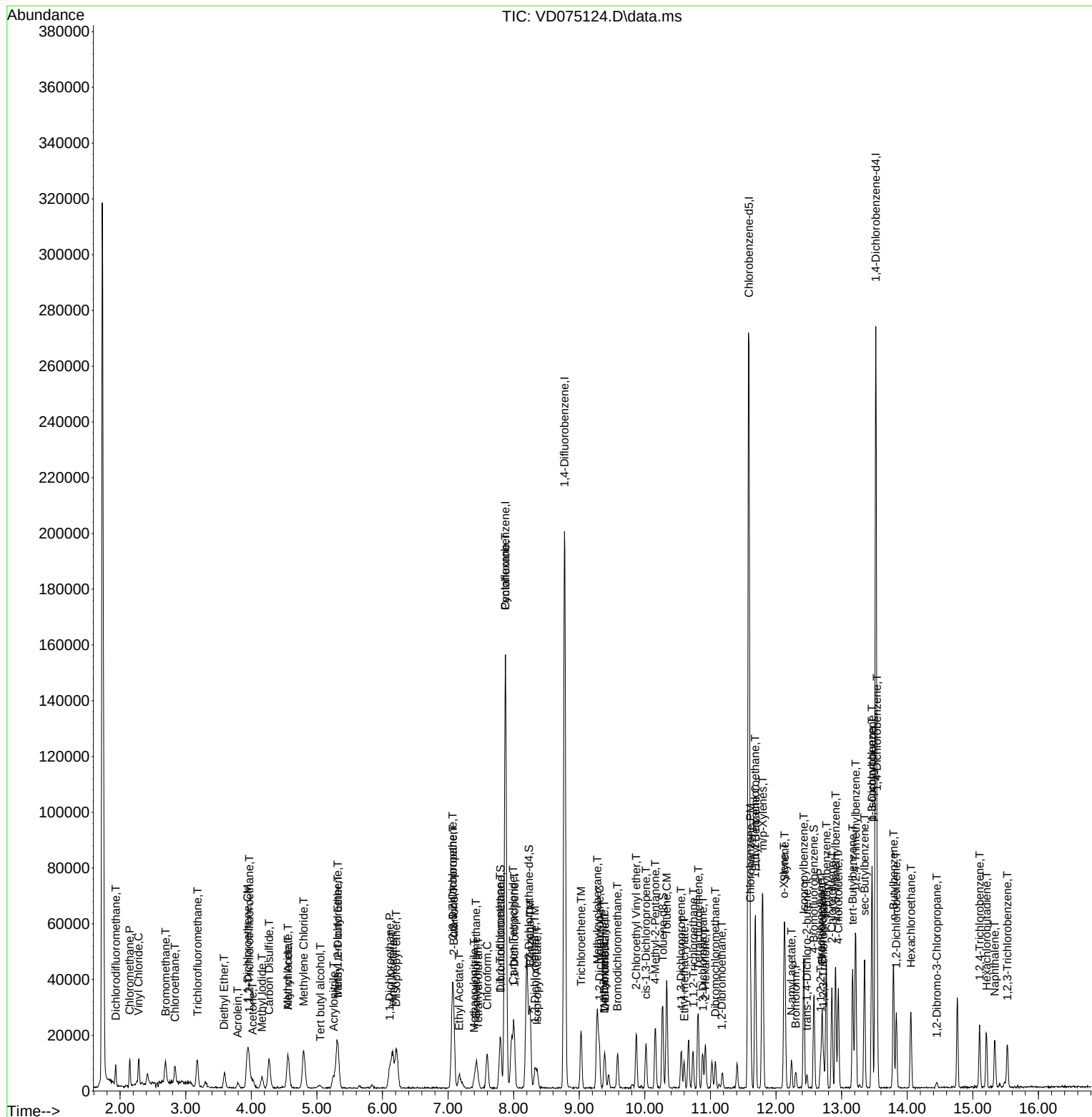
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075124.D
Acq On : 18 Jan 2023 10:25
Operator : KP/SY
Sample : VSTDICC005
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Quant Time: Jan 19 01:28:52 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:24:39 2023
Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075125.D
 Acq On : 18 Jan 2023 11:20
 Operator : KP/SY
 Sample : VSTDICC010
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC010

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:08:10 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	96011	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	171368	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	154817	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	68764	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	10421	10.633	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	21.260%#		
35) Dibromofluoromethane	7.811	113	10679	10.236	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	20.480%#		
50) Toluene-d8	10.269	98	42475	10.468	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	20.940%#		
62) 4-Bromofluorobenzene	12.575	95	12893	10.064	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	20.120%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	9732	11.596	ug/l	98
3) Chloromethane	2.146	50	14092	11.235	ug/l	98
4) Vinyl Chloride	2.287	62	13910	10.413	ug/l	98
5) Bromomethane	2.693	94	9911	10.777	ug/l	97
6) Chloroethane	2.840	64	9809	10.687	ug/l	93
7) Trichlorofluoromethane	3.175	101	17225	10.251	ug/l	99
8) Diethyl Ether	3.587	74	5813	10.765	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.975	101	10511	9.998	ug/l	96
10) Methyl Iodide	4.164	142	12969	9.322	ug/l	99
11) Tert butyl alcohol	5.058	59	3971	56.593	ug/l #	89
12) 1,1-Dichloroethene	3.934	96	11573	10.522	ug/l	92
13) Acrolein	3.793	56	4290	63.692	ug/l	92
14) Allyl chloride	4.564	41	18458	10.531	ug/l	98
15) Acrylonitrile	5.252	53	12894	55.055	ug/l	92
16) Acetone	4.028	43	13335	50.827	ug/l	92
17) Carbon Disulfide	4.270	76	37977	10.659	ug/l	99
18) Methyl Acetate	4.564	43	7708	10.885	ug/l	99
19) Methyl tert-butyl Ether	5.317	73	24097	10.435	ug/l	91
20) Methylene Chloride	4.805	84	22289	13.294	ug/l	97
21) trans-1,2-Dichloroethene	5.317	96	12984	10.760	ug/l	97
22) Diisopropyl ether	6.216	45	35071	10.588	ug/l	99
23) Vinyl Acetate	6.164	43	71323	49.572	ug/l	98
24) 1,1-Dichloroethane	6.111	63	22677	10.875	ug/l	99
25) 2-Butanone	7.081	43	16887	53.633	ug/l	98
26) 2,2-Dichloropropane	7.075	77	19538	10.642	ug/l	99
27) cis-1,2-Dichloroethene	7.081	96	13974	10.436	ug/l	99
28) Bromochloromethane	7.434	49	6486	11.363	ug/l #	97
29) Tetrahydrofuran	7.446	42	9735	54.233	ug/l	96
30) Chloroform	7.599	83	22249	10.732	ug/l	99
31) Cyclohexane	7.881	56	20337	10.454	ug/l #	92
32) 1,1,1-Trichloroethane	7.793	97	18948	10.518	ug/l	98
36) 1,1-Dichloropropene	8.016	75	16613	9.980	ug/l	99
37) Ethyl Acetate	7.175	43	7641	11.194	ug/l #	90
38) Carbon Tetrachloride	7.987	117	12852	9.299	ug/l #	94
39) Methylcyclohexane	9.275	83	20212	9.905	ug/l	93
40) Benzene	8.252	78	48840	10.331	ug/l	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075125.D
 Acq On : 18 Jan 2023 11:20
 Operator : KP/SY
 Sample : VSTDICC010
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_D

ClientSampleId :

VSTDICC010

Manual Integrations

APPROVED

Reviewed By :Krupa Patel 01/19/2023

Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:08:10 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Quant Title : SW846 8260

QLast Update : Thu Jan 19 01:06:43 2023

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.399	41	4374	10.636	ug/l #	83
42) 1,2-Dichloroethane	8.328	62	12883	10.283	ug/l	98
43) Isopropyl Acetate	8.358	43	13429	10.293	ug/l #	83
44) Trichloroethene	9.028	130	13740	10.403	ug/l	99
45) 1,2-Dichloropropane	9.305	63	12183	10.474	ug/l	96
46) Dibromomethane	9.393	93	6676	10.730	ug/l	92
47) Bromodichloromethane	9.587	83	15601	10.231	ug/l	97
48) Methyl methacrylate	9.375	41	6710	10.579	ug/l	94
49) 1,4-Dioxane	9.381	88	1323	225.379	ug/l #	66
51) 4-Methyl-2-Pentanone	10.157	43	32858	52.040	ug/l	95
52) Toluene	10.334	92	31056	10.448	ug/l	98
53) t-1,3-Dichloropropene	10.557	75	14593	10.120	ug/l	94
54) cis-1,3-Dichloropropene	10.022	75	17774	10.049	ug/l	96
55) 1,1,2-Trichloroethane	10.740	97	8383	10.409	ug/l	94
56) Ethyl methacrylate	10.599	69	9826	9.864	ug/l	99
57) 1,3-Dichloropropane	10.881	76	14558	10.350	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.875	63	16778	50.376	ug/l	97
59) 2-Hexanone	10.922	43	23910	52.217	ug/l	96
60) Dibromochloromethane	11.075	129	10250	10.407	ug/l	93
61) 1,2-Dibromoethane	11.181	107	7829	10.055	ug/l	96
64) Tetrachloroethene	10.810	164	11246	10.132	ug/l	96
65) Chlorobenzene	11.610	112	31739	10.138	ug/l	95
66) 1,1,1,2-Tetrachloroethane	11.681	131	10566	9.966	ug/l	99
67) Ethyl Benzene	11.687	91	56542	9.898	ug/l	95
68) m/p-Xylenes	11.793	106	43391	19.711	ug/l	99
69) o-Xylene	12.122	106	20680	9.976	ug/l	97
70) Styrene	12.134	104	35272	10.169	ug/l	99
71) Bromoform	12.304	173	5463	9.782	ug/l #	100
73) Isopropylbenzene	12.422	105	52844	9.819	ug/l	98
74) N-amyl acetate	12.240	43	11900	10.061	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.675	83	9269	10.570	ug/l	96
76) 1,2,3-Trichloropropane	12.728	75	5618m	8.661	ug/l	
77) Bromobenzene	12.704	156	12251	10.023	ug/l	93
78) n-propylbenzene	12.769	91	65110	9.753	ug/l	100
79) 2-Chlorotoluene	12.851	91	36521	9.977	ug/l	99
80) 1,3,5-Trimethylbenzene	12.904	105	43405	9.814	ug/l	96
81) trans-1,4-Dichloro-2-b...	12.475	75	2363	9.526	ug/l	96
82) 4-Chlorotoluene	12.951	91	38214	10.081	ug/l	98
83) tert-Butylbenzene	13.169	119	37390	9.708	ug/l	98
84) 1,2,4-Trimethylbenzene	13.216	105	42662	9.840	ug/l	98
85) sec-Butylbenzene	13.345	105	57172	9.818	ug/l	99
86) p-Isopropyltoluene	13.463	119	47110	9.844	ug/l	98
87) 1,3-Dichlorobenzene	13.457	146	24771	10.248	ug/l	99
88) 1,4-Dichlorobenzene	13.546	146	24255	10.315	ug/l	96
89) n-Butylbenzene	13.793	91	46062	9.920	ug/l	98
90) Hexachloroethane	14.057	117	8176	9.831	ug/l	98
91) 1,2-Dichlorobenzene	13.834	146	20509	9.953	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.451	75	1310	9.855	ug/l	97
93) 1,2,4-Trichlorobenzene	15.104	180	13610	10.187	ug/l	98
94) Hexachlorobutadiene	15.210	225	6237	9.459	ug/l	96
95) Naphthalene	15.334	128	26762	10.090	ug/l	99
96) 1,2,3-Trichlorobenzene	15.522	180	11451	9.892	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075125.D
Acq On : 18 Jan 2023 11:20
Operator : KP/SY
Sample : VSTDICC010
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:08:10 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:06:43 2023
Response via : Initial Calibration

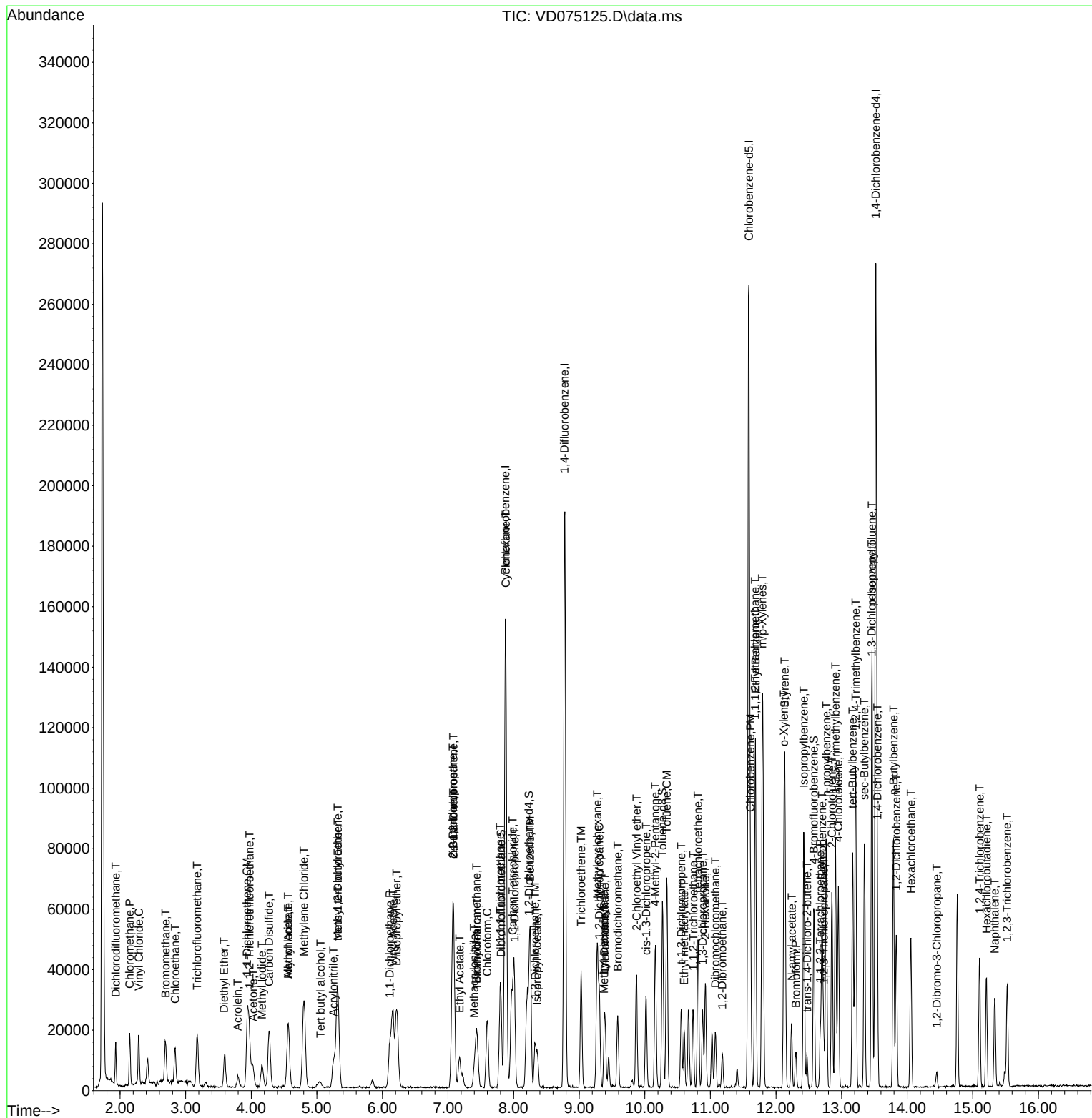
Compound	R.T.	Q	Ion	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC010

Manual Integrations

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075126.D
 Acq On : 18 Jan 2023 11:48
 Operator : KP/SY
 Sample : VSTDICC020
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:08:55 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.881	168	97655	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	173869	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	151068	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	66779	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	19557	19.619	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	39.240%#		
35) Dibromofluoromethane	7.810	113	20920	19.763	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	39.520%#		
50) Toluene-d8	10.269	98	80097	19.456	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	38.920%#		
62) 4-Bromofluorobenzene	12.575	95	25223	19.405	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	38.800%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	20224	23.692	ug/l	90
3) Chloromethane	2.146	50	26791	20.999	ug/l	95
4) Vinyl Chloride	2.281	62	28452	20.940	ug/l	96
5) Bromomethane	2.681	94	18009	19.253	ug/l	96
6) Chloroethane	2.834	64	19018	20.372	ug/l	99
7) Trichlorofluoromethane	3.175	101	35188	20.588	ug/l	97
8) Diethyl Ether	3.587	74	10941	19.920	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.969	101	22619	21.154	ug/l	98
10) Methyl Iodide	4.169	142	28820	20.367	ug/l	96
11) Tert butyl alcohol	5.052	59	7576	106.152	ug/l #	89
12) 1,1-Dichloroethene	3.940	96	23260	20.792	ug/l	98
13) Acrolein	3.799	56	7986	116.569	ug/l	90
14) Allyl chloride	4.563	41	36228	20.322	ug/l	98
15) Acrylonitrile	5.252	53	22842	95.889	ug/l	97
16) Acetone	4.022	43	24547	91.988	ug/l	94
17) Carbon Disulfide	4.275	76	75848	20.930	ug/l	98
18) Methyl Acetate	4.563	43	13798	19.156	ug/l	100
19) Methyl tert-butyl Ether	5.316	73	45461	19.355	ug/l	94
20) Methylene Chloride	4.805	84	35574	20.861	ug/l	89
21) trans-1,2-Dichloroethene	5.310	96	24640	20.076	ug/l	95
22) Diisopropyl ether	6.216	45	67604	20.066	ug/l	96
23) Vinyl Acetate	6.157	43	146013	99.776	ug/l	99
24) 1,1-Dichloroethane	6.116	63	42318	19.952	ug/l	97
25) 2-Butanone	7.081	43	29283	91.437	ug/l	97
26) 2,2-Dichloropropane	7.075	77	38033	20.366	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	27625	20.284	ug/l	99
28) Bromochloromethane	7.428	49	12498	21.527	ug/l	100
29) Tetrahydrofuran	7.446	42	17632	96.573	ug/l	100
30) Chloroform	7.598	83	41672	19.763	ug/l	93
31) Cyclohexane	7.875	56	40994	20.718	ug/l	94
32) 1,1,1-Trichloroethane	7.798	97	36156	19.733	ug/l	99
36) 1,1-Dichloropropene	8.010	75	33448	19.805	ug/l	99
37) Ethyl Acetate	7.163	43	13378	19.317	ug/l	97
38) Carbon Tetrachloride	7.993	117	28083	20.028	ug/l	95
39) Methylcyclohexane	9.275	83	41652	20.117	ug/l	90
40) Benzene	8.251	78	95163	19.839	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075126.D
 Acq On : 18 Jan 2023 11:48
 Operator : KP/SY
 Sample : VSTDICC020
 Misc : 5.00G/5.00ml/MSVOA_D/soil
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:08:55 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.399	41	7348	17.611	ug/l	94
42) 1,2-Dichloroethane	8.328	62	24353	19.159	ug/l	98
43) Isopropyl Acetate	8.363	43	24605	18.589	ug/l	99
44) Trichloroethene	9.028	130	25948	19.364	ug/l	92
45) 1,2-Dichloropropane	9.310	63	22483	19.051	ug/l	95
46) Dibromomethane	9.398	93	12135	19.224	ug/l	94
47) Bromodichloromethane	9.587	83	28974	18.727	ug/l	96
48) Methyl methacrylate	9.381	41	12086	18.780	ug/l	96
49) 1,4-Dioxane	9.393	88	2228	374.090	ug/l	93
51) 4-Methyl-2-Pentanone	10.157	43	59740	93.254	ug/l	99
52) Toluene	10.334	92	60120	19.935	ug/l	98
53) t-1,3-Dichloropropene	10.551	75	27773	18.983	ug/l	93
54) cis-1,3-Dichloropropene	10.016	75	34838	19.413	ug/l	98
55) 1,1,2-Trichloroethane	10.734	97	15900	19.459	ug/l	95
56) Ethyl methacrylate	10.598	69	19109	18.906	ug/l	99
57) 1,3-Dichloropropane	10.881	76	27223	19.076	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.869	63	33954	100.481	ug/l	99
59) 2-Hexanone	10.922	43	42633	91.767	ug/l	99
60) Dibromochloromethane	11.075	129	18253	18.266	ug/l	97
61) 1,2-Dibromoethane	11.187	107	15395	19.488	ug/l	98
64) Tetrachloroethene	10.816	164	21658	19.997	ug/l	93
65) Chlorobenzene	11.610	112	60701	19.871	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.687	131	20272	19.595	ug/l	96
67) Ethyl Benzene	11.687	91	112112	20.112	ug/l	99
68) m/p-Xylenes	11.792	106	87264	40.626	ug/l	98
69) o-Xylene	12.122	106	39955	19.752	ug/l	98
70) Styrene	12.139	104	66595	19.676	ug/l	98
71) Bromoform	12.304	173	10016	18.379	ug/l #	99
73) Isopropylbenzene	12.422	105	106155	20.312	ug/l	99
74) N-amyl acetate	12.239	43	22227	19.350	ug/l	100
75) 1,1,2,2-Tetrachloroethane	12.681	83	16721	19.636	ug/l	99
76) 1,2,3-Trichloropropane	12.728	75	10444m	16.580	ug/l	
77) Bromobenzene	12.704	156	24212	20.397	ug/l	99
78) n-propylbenzene	12.769	91	132084	20.374	ug/l	99
79) 2-Chlorotoluene	12.851	91	72024	20.260	ug/l	99
80) 1,3,5-Trimethylbenzene	12.904	105	86402	20.115	ug/l	98
81) trans-1,4-Dichloro-2-b...	12.475	75	4542	18.854	ug/l	97
82) 4-Chlorotoluene	12.951	91	73509	19.968	ug/l	100
83) tert-Butylbenzene	13.169	119	77679	20.769	ug/l	96
84) 1,2,4-Trimethylbenzene	13.216	105	86221	20.478	ug/l	99
85) sec-Butylbenzene	13.351	105	115114	20.356	ug/l	98
86) p-Isopropyltoluene	13.463	119	93915	20.207	ug/l	99
87) 1,3-Dichlorobenzene	13.463	146	47634	20.292	ug/l	98
88) 1,4-Dichlorobenzene	13.539	146	45405	19.883	ug/l	97
89) n-Butylbenzene	13.792	91	90253	20.015	ug/l	99
90) Hexachloroethane	14.057	117	15939	19.736	ug/l	98
91) 1,2-Dichlorobenzene	13.833	146	40466	20.223	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.451	75	2548	19.738	ug/l	98
93) 1,2,4-Trichlorobenzene	15.104	180	24928	19.214	ug/l	97
94) Hexachlorobutadiene	15.210	225	12670	19.786	ug/l	97
95) Naphthalene	15.339	128	48699	18.907	ug/l	100
96) 1,2,3-Trichlorobenzene	15.522	180	21906	19.487	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075126.D
Acq On : 18 Jan 2023 11:48
Operator : KP/SY
Sample : VSTDICC020
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:08:55 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:06:43 2023
Response via : Initial Calibration

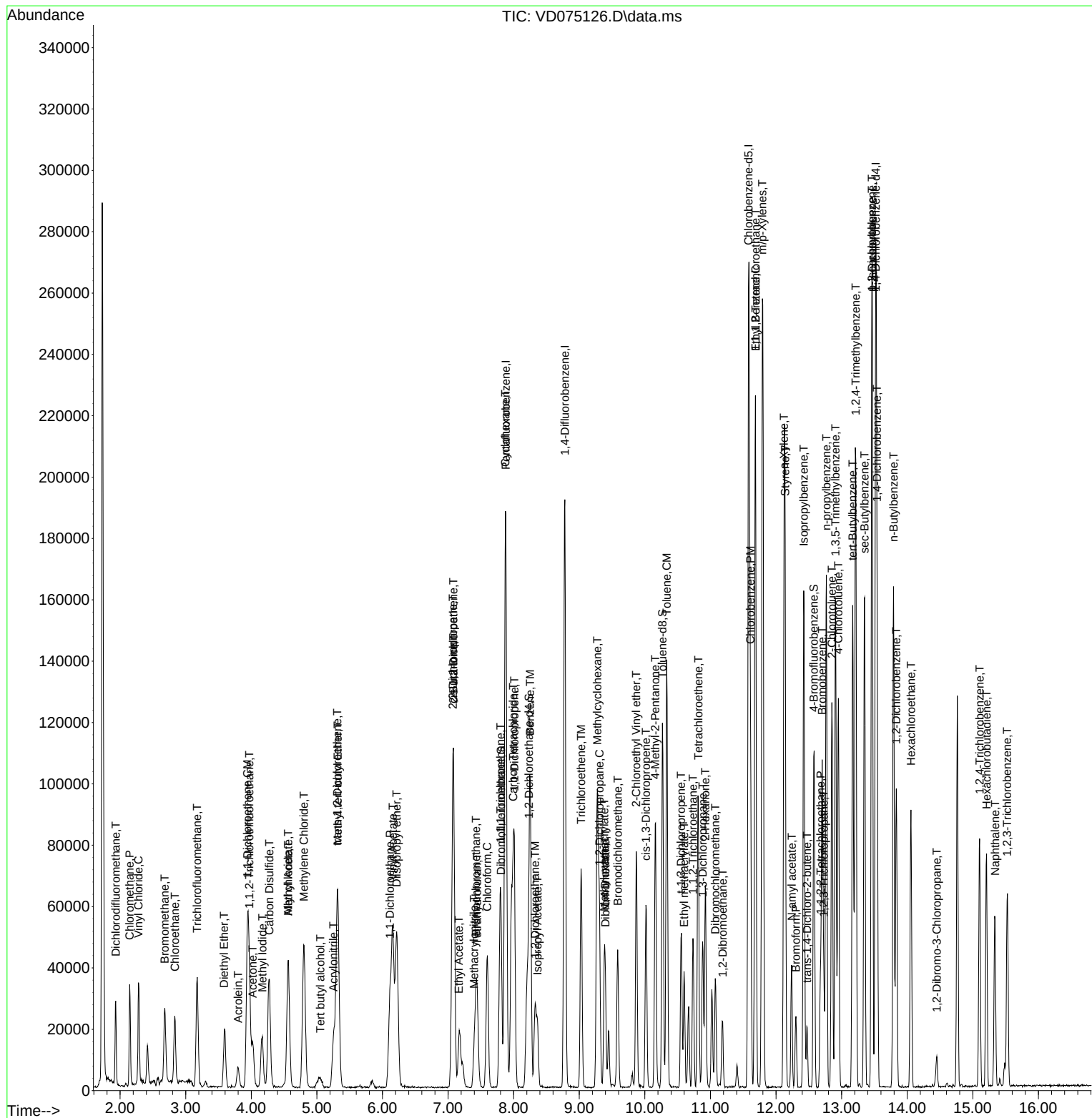
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075127.D
 Acq On : 18 Jan 2023 12:15
 Operator : KP/SY
 Sample : VSTDICCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:09:41 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	84769	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	148398	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	133588	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	61111	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	45548	52.639	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 105.280%			
35) Dibromofluoromethane	7.811	113	47797	52.905	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 105.800%			
50) Toluene-d8	10.269	98	182874	52.044	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 104.080%			
62) 4-Bromofluorobenzene	12.575	95	58988	53.170	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 106.340%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	30938	41.753	ug/l	100
3) Chloromethane	2.146	50	51574	46.570	ug/l	100
4) Vinyl Chloride	2.287	62	55568	47.114	ug/l	100
5) Bromomethane	2.687	94	38260	47.121	ug/l	100
6) Chloroethane	2.834	64	40100	49.485	ug/l	100
7) Trichlorofluoromethane	3.175	101	72040	48.557	ug/l	100
8) Diethyl Ether	3.593	74	25300	53.064	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.970	101	43810	47.200	ug/l	100
10) Methyl Iodide	4.164	142	67826	55.218	ug/l	100
11) Tert butyl alcohol	5.052	59	14135	228.161	ug/l #	89
12) 1,1-Dichloroethene	3.940	96	47736	49.157	ug/l	100
13) Acrolein	3.799	56	12462	209.556	ug/l	100
14) Allyl chloride	4.564	41	81866	52.904	ug/l	100
15) Acrylonitrile	5.252	53	54988	265.925	ug/l	100
16) Acetone	4.023	43	67865	292.978	ug/l	100
17) Carbon Disulfide	4.275	76	155289	49.366	ug/l	100
18) Methyl Acetate	4.564	43	32775	52.420	ug/l	100
19) Methyl tert-butyl Ether	5.322	73	109391	53.653	ug/l	100
20) Methylene Chloride	4.805	84	67343	45.494	ug/l	100
21) trans-1,2-Dichloroethene	5.317	96	55654	52.237	ug/l	100
22) Diisopropyl ether	6.216	45	154942	52.980	ug/l	100
23) Vinyl Acetate	6.158	43	333919m	262.866	ug/l	
24) 1,1-Dichloroethane	6.117	63	94281	51.209	ug/l	100
25) 2-Butanone	7.081	43	77336	278.191	ug/l	100
26) 2,2-Dichloropropane	7.075	77	81133	50.050	ug/l	100
27) cis-1,2-Dichloroethene	7.081	96	61514	52.033	ug/l	100
28) Bromochloromethane	7.422	49	25204	50.012	ug/l	100
29) Tetrahydrofuran	7.446	42	42992	271.267	ug/l	100
30) Chloroform	7.599	83	95149	51.985	ug/l	100
31) Cyclohexane	7.881	56	79222	46.125	ug/l	100
32) 1,1,1-Trichloroethane	7.793	97	79442	49.947	ug/l	100
36) 1,1-Dichloropropene	8.011	75	70556	48.948	ug/l	100
37) Ethyl Acetate	7.169	43	30112	50.942	ug/l	100
38) Carbon Tetrachloride	7.993	117	60299	50.385	ug/l	100
39) Methylcyclohexane	9.275	83	84588	47.867	ug/l	100
40) Benzene	8.252	78	213325	52.107	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075127.D
 Acq On : 18 Jan 2023 12:15
 Operator : KP/SY
 Sample : VSTDICCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:09:41 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.399	41	16994	47.721	ug/l	100
42) 1,2-Dichloroethane	8.328	62	56986	52.528	ug/l	100
43) Isopropyl Acetate	8.363	43	59554	52.715	ug/l	100
44) Trichloroethene	9.028	130	59422	51.955	ug/l	100
45) 1,2-Dichloropropane	9.305	63	52662	52.282	ug/l	100
46) Dibromomethane	9.399	93	28418	52.746	ug/l	100
47) Bromodichloromethane	9.587	83	70193	53.156	ug/l	100
48) Methyl methacrylate	9.381	41	28151	51.251	ug/l	100
49) 1,4-Dioxane	9.387	88	5280	1038.698	ug/l	100
51) 4-Methyl-2-Pentanone	10.163	43	142443	260.518	ug/l	100
52) Toluene	10.334	92	135910	52.802	ug/l	100
53) t-1,3-Dichloropropene	10.557	75	66290	53.085	ug/l	100
54) cis-1,3-Dichloropropene	10.016	75	82581	53.917	ug/l	100
55) 1,1,2-Trichloroethane	10.734	97	37811	54.216	ug/l	100
56) Ethyl methacrylate	10.599	69	46406	53.795	ug/l	100
57) 1,3-Dichloropropane	10.881	76	66161	54.317	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.869	63	72168	250.224	ug/l	100
59) 2-Hexanone	10.922	43	107016	269.887	ug/l	100
60) Dibromochloromethane	11.075	129	45958	53.885	ug/l	100
61) 1,2-Dibromoethane	11.181	107	35860	53.185	ug/l	100
64) Tetrachloroethene	10.810	164	46785	48.849	ug/l	100
65) Chlorobenzene	11.610	112	140805	52.125	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.681	131	46664	51.007	ug/l	100
67) Ethyl Benzene	11.687	91	249164	50.548	ug/l	100
68) m/p-Xylenes	11.799	106	191827	100.990	ug/l	100
69) o-Xylene	12.122	106	93019	52.002	ug/l	100
70) Styrene	12.134	104	154030	51.465	ug/l	100
71) Bromoform	12.299	173	25168	52.226	ug/l #	100
73) Isopropylbenzene	12.422	105	235104	49.158	ug/l	100
74) N-amyl acetate	12.234	43	52870	50.295	ug/l	100
75) 1,1,2,2-Tetrachloroethane	12.675	83	39439	50.609	ug/l	100
76) 1,2,3-Trichloropropane	12.728	75	24250m	42.068	ug/l	100
77) Bromobenzene	12.704	156	56500	52.012	ug/l	100
78) n-propylbenzene	12.763	91	289455	48.790	ug/l	100
79) 2-Chlorotoluene	12.851	91	161808	49.737	ug/l	100
80) 1,3,5-Trimethylbenzene	12.904	105	198123	50.404	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.469	75	11200	50.803	ug/l	100
82) 4-Chlorotoluene	12.951	91	165747	49.200	ug/l	100
83) tert-Butylbenzene	13.169	119	166518	48.652	ug/l	100
84) 1,2,4-Trimethylbenzene	13.216	105	193073	50.109	ug/l	100
85) sec-Butylbenzene	13.346	105	250827	48.468	ug/l	100
86) p-Isopropyltoluene	13.463	119	208497	49.021	ug/l	100
87) 1,3-Dichlorobenzene	13.457	146	107297	49.948	ug/l	100
88) 1,4-Dichlorobenzene	13.540	146	105166	50.323	ug/l	100
89) n-Butylbenzene	13.793	91	201235	48.766	ug/l	100
90) Hexachloroethane	14.057	117	36111	48.860	ug/l	100
91) 1,2-Dichlorobenzene	13.834	146	93606	51.118	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.451	75	6253	52.932	ug/l	100
93) 1,2,4-Trichlorobenzene	15.098	180	60933	51.322	ug/l	100
94) Hexachlorobutadiene	15.204	225	28918	49.348	ug/l	100
95) Naphthalene	15.334	128	117677	49.926	ug/l	100
96) 1,2,3-Trichlorobenzene	15.522	180	52164	50.707	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075127.D
Acq On : 18 Jan 2023 12:15
Operator : KP/SY
Sample : VSTDICCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:09:41 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:06:43 2023
Response via : Initial Calibration

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

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

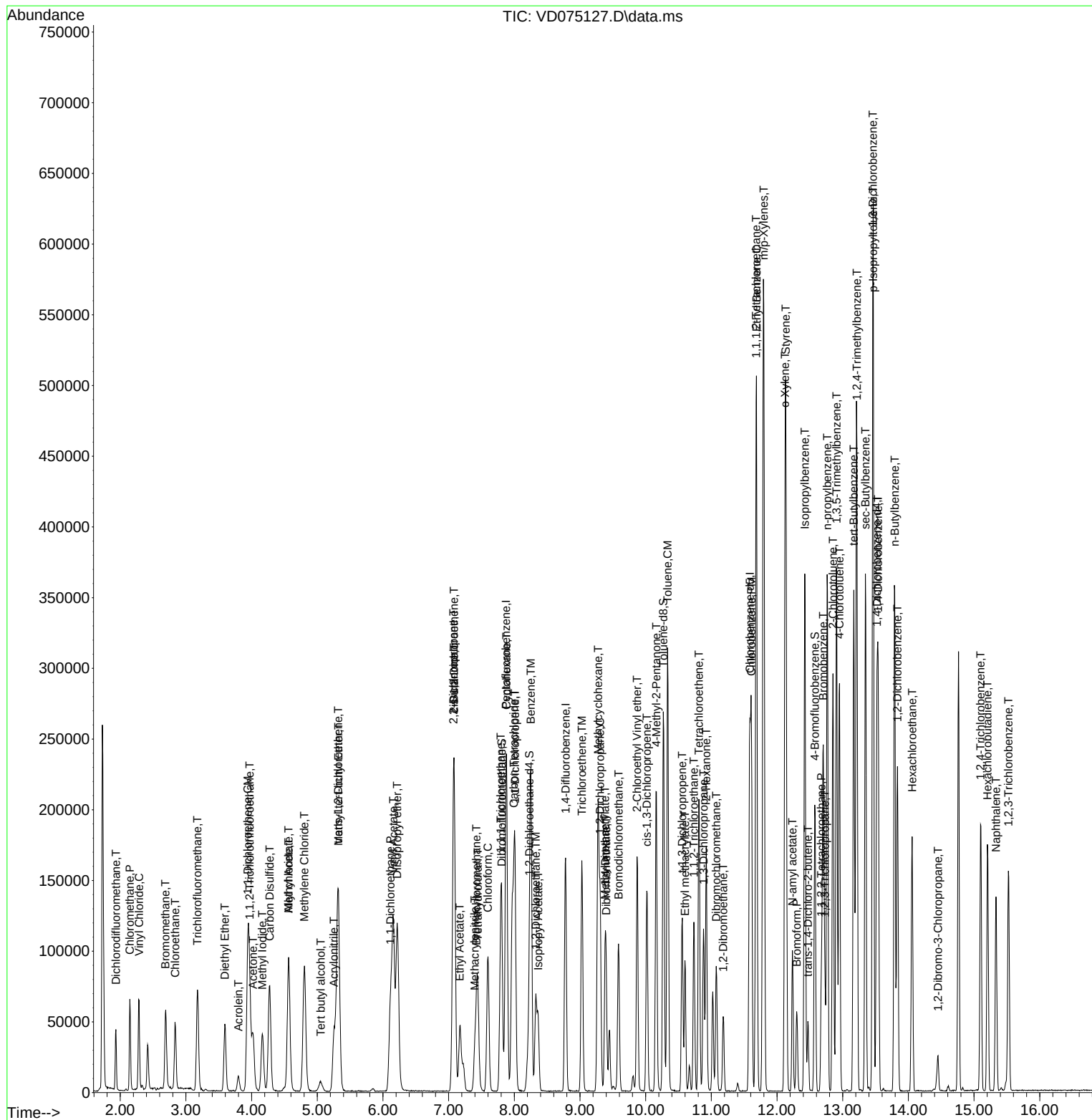
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075127.D
Acq On : 18 Jan 2023 12:15
Operator : KP/SY
Sample : VSTDICCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:09:41 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:06:43 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075128.D
 Acq On : 18 Jan 2023 12:42
 Operator : KP/SY
 Sample : VSTDICC100
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:10:31 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.881	168	99818	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	164910	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	144508	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	63041	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	94216	92.468	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 184.940%#			
35) Dibromofluoromethane	7.810	113	98092	97.703	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 195.400%#			
50) Toluene-d8	10.269	98	380306	97.395	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 194.780%#			
62) 4-Bromofluorobenzene	12.575	95	117766	95.522	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 191.040%#			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.928	85	74462	85.341	ug/l	99
3) Chloromethane	2.146	50	110994	85.114	ug/l	100
4) Vinyl Chloride	2.281	62	128037	92.192	ug/l	99
5) Bromomethane	2.681	94	82919	86.727	ug/l	99
6) Chloroethane	2.834	64	88867	93.132	ug/l	97
7) Trichlorofluoromethane	3.175	101	166061	95.056	ug/l	98
8) Diethyl Ether	3.593	74	53282	94.905	ug/l	95
9) 1,1,2-Trichlorotrifluo...	3.964	101	103512	94.708	ug/l	99
10) Methyl Iodide	4.164	142	152278	105.280	ug/l	99
11) Tert butyl alcohol	5.052	59	30005	411.309	ug/l #	84
12) 1,1-Dichloroethene	3.940	96	107121	93.679	ug/l	97
13) Acrolein	3.793	56	26746	381.943	ug/l	96
14) Allyl chloride	4.558	41	170963	93.824	ug/l	98
15) Acrylonitrile	5.258	53	111989	459.933	ug/l	97
16) Acetone	4.022	43	135837	498.007	ug/l	99
17) Carbon Disulfide	4.269	76	341305	92.142	ug/l	99
18) Methyl Acetate	4.558	43	64922	88.181	ug/l	99
19) Methyl tert-butyl Ether	5.316	73	225247	93.821	ug/l	98
20) Methylene Chloride	4.799	84	125499	72.000	ug/l	95
21) trans-1,2-Dichloroethene	5.311	96	116292	92.696	ug/l	99
22) Diisopropyl ether	6.216	45	315545	91.628	ug/l	99
23) Vinyl Acetate	6.158	43	761986	509.412	ug/l	98
24) 1,1-Dichloroethane	6.111	63	200112	92.305	ug/l	98
25) 2-Butanone	7.081	43	151060	461.466	ug/l	97
26) 2,2-Dichloropropane	7.081	77	175977	92.192	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	129457	92.995	ug/l	98
28) Bromochloromethane	7.428	49	51552	86.872	ug/l	97
29) Tetrahydrofuran	7.446	42	85422	457.729	ug/l	98
30) Chloroform	7.599	83	196871	91.344	ug/l	99
31) Cyclohexane	7.881	56	178703	88.359	ug/l	96
32) 1,1,1-Trichloroethane	7.793	97	175319	93.609	ug/l	99
36) 1,1-Dichloropropene	8.010	75	156466	97.680	ug/l	99
37) Ethyl Acetate	7.175	43	58920	89.698	ug/l	98
38) Carbon Tetrachloride	7.993	117	143279	107.734	ug/l	96
39) Methylcyclohexane	9.275	83	197061	100.348	ug/l	98
40) Benzene	8.252	78	437904	96.253	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075128.D
 Acq On : 18 Jan 2023 12:42
 Operator : KP/SY
 Sample : VSTDICC100
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:10:31 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.405	41	40499m	102.338	ug/l	
42) 1,2-Dichloroethane	8.328	62	117078	97.114	ug/l	100
43) Isopropyl Acetate	8.357	43	120052	95.625	ug/l	99
44) Trichloroethene	9.028	130	124138	97.671	ug/l	98
45) 1,2-Dichloropropane	9.305	63	107821	96.324	ug/l	99
46) Dibromomethane	9.399	93	56994	95.192	ug/l	98
47) Bromodichloromethane	9.587	83	146234	99.652	ug/l	94
48) Methyl methacrylate	9.381	41	60389	98.934	ug/l	96
49) 1,4-Dioxane	9.387	88	10771	1906.744	ug/l	97
51) 4-Methyl-2-Pentanone	10.157	43	297355	489.388	ug/l	98
52) Toluene	10.334	92	273463	95.605	ug/l	99
53) t-1,3-Dichloropropene	10.552	75	140477	101.231	ug/l	97
54) cis-1,3-Dichloropropene	10.016	75	168617	99.066	ug/l	96
55) 1,1,2-Trichloroethane	10.734	97	74368	95.957	ug/l	97
56) Ethyl methacrylate	10.599	69	94549	98.629	ug/l	99
57) 1,3-Dichloropropane	10.881	76	129957	96.010	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.869	63	162760	507.825	ug/l	99
59) 2-Hexanone	10.922	43	216582	491.515	ug/l	100
60) Dibromochloromethane	11.075	129	93345	98.487	ug/l	99
61) 1,2-Dibromoethane	11.181	107	71498	95.423	ug/l	99
64) Tetrachloroethene	10.810	164	100049	96.569	ug/l	98
65) Chlorobenzene	11.610	112	280992	96.161	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.681	131	97906	98.932	ug/l	95
67) Ethyl Benzene	11.687	91	521627	97.825	ug/l	99
68) m/p-Xylenes	11.793	106	398055	193.726	ug/l	100
69) o-Xylene	12.122	106	186962	96.623	ug/l	96
70) Styrene	12.140	104	310062	95.771	ug/l	98
71) Bromoform	12.298	173	53114	101.888	ug/l #	95
73) Isopropylbenzene	12.422	105	498545	101.049	ug/l	98
74) N-amyl acetate	12.234	43	110144	101.572	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.675	83	77428	96.316	ug/l	99
76) 1,2,3-Trichloropropane	12.728	75	58559m	98.476	ug/l	
77) Bromobenzene	12.704	156	110681	98.771	ug/l	98
78) n-propylbenzene	12.769	91	604678	98.804	ug/l	99
79) 2-Chlorotoluene	12.851	91	327943	97.719	ug/l	99
80) 1,3,5-Trimethylbenzene	12.904	105	409070	100.884	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.475	75	23991	105.492	ug/l	95
82) 4-Chlorotoluene	12.951	91	335953	96.670	ug/l	100
83) tert-Butylbenzene	13.169	119	352991	99.976	ug/l	99
84) 1,2,4-Trimethylbenzene	13.216	105	394661	99.293	ug/l	99
85) sec-Butylbenzene	13.345	105	532931	99.827	ug/l	98
86) p-Isopropyltoluene	13.463	119	441202	100.558	ug/l	99
87) 1,3-Dichlorobenzene	13.463	146	212372	95.835	ug/l	98
88) 1,4-Dichlorobenzene	13.540	146	211306	98.017	ug/l	99
89) n-Butylbenzene	13.793	91	426802	100.263	ug/l	99
90) Hexachloroethane	14.057	117	77415	101.539	ug/l	99
91) 1,2-Dichlorobenzene	13.834	146	183265	97.016	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.451	75	12243	100.464	ug/l	96
93) 1,2,4-Trichlorobenzene	15.104	180	124398	101.569	ug/l	98
94) Hexachlorobutadiene	15.210	225	62745	103.796	ug/l	99
95) Naphthalene	15.334	128	237651	97.739	ug/l	100
96) 1,2,3-Trichlorobenzene	15.528	180	106776	100.615	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075128.D
Acq On : 18 Jan 2023 12:42
Operator : KP/SY
Sample : VSTDICC100
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:10:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:06:43 2023
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075128.D
 Acq On : 18 Jan 2023 12:42
 Operator : KP/SY
 Sample : VSTDICC100
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :

MSVOA_D

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :Krupa Patel 01/19/2023

Supervised By :Mahesh Dadoda 01/19/2023

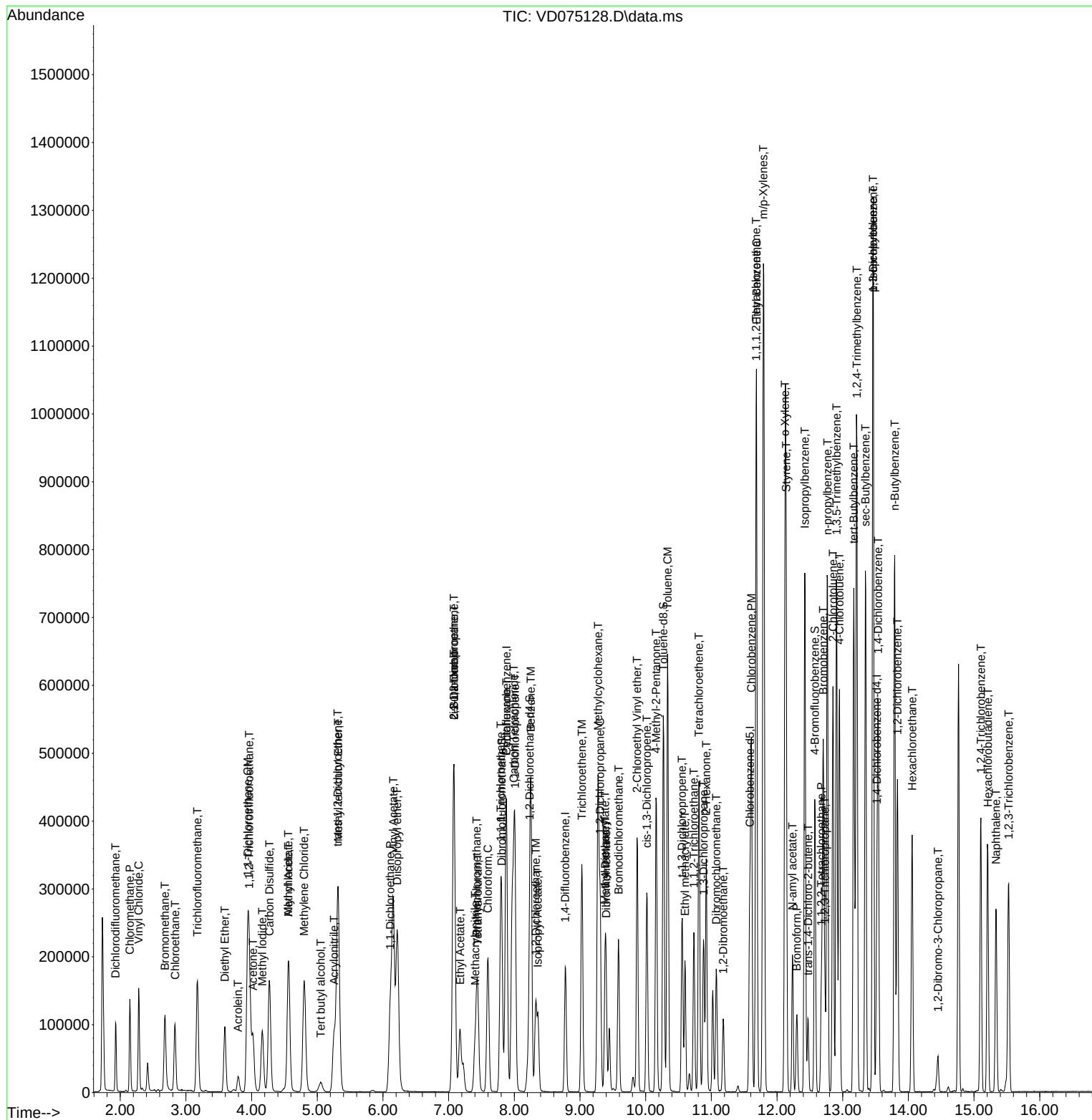
Quant Time: Jan 19 01:10:31 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Quant Title : SW846 8260

QLast Update : Thu Jan 19 01:06:43 2023

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075129.D
 Acq On : 18 Jan 2023 13:10
 Operator : KP/SY
 Sample : VSTDICC150
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:11:21 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	97841	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	165298	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	145845	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	64782	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	142247	142.429	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 284.860%#			
35) Dibromofluoromethane	7.810	113	145383	144.467	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 288.940%#			
50) Toluene-d8	10.269	98	561966	143.579	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 287.160%#			
62) 4-Bromofluorobenzene	12.575	95	180167	145.794	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 291.580%#			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.928	85	109887	128.486	ug/l	98
3) Chloromethane	2.146	50	166120	129.961	ug/l	97
4) Vinyl Chloride	2.281	62	195968	143.956	ug/l	98
5) Bromomethane	2.664	94	132271	141.141	ug/l	100
6) Chloroethane	2.822	64	138340	147.909	ug/l	99
7) Trichlorofluoromethane	3.169	101	248544	145.145	ug/l	98
8) Diethyl Ether	3.587	74	81378	147.878	ug/l	93
9) 1,1,2-Trichlorotrifluo...	3.969	101	152853	142.679	ug/l	98
10) Methyl Iodide	4.158	142	221841	156.473	ug/l	99
11) Tert butyl alcohol	5.063	59	44694	625.046	ug/l #	81
12) 1,1-Dichloroethene	3.940	96	158843	141.717	ug/l	96
13) Acrolein	3.793	56	40205	585.745	ug/l	95
14) Allyl chloride	4.563	41	249055	139.442	ug/l	97
15) Acrylonitrile	5.252	53	169937	712.025	ug/l	98
16) Acetone	4.016	43	202678	758.074	ug/l	99
17) Carbon Disulfide	4.269	76	498502	137.300	ug/l	100
18) Methyl Acetate	4.563	43	99264	137.551	ug/l	98
19) Methyl tert-butyl Ether	5.316	73	343438	145.942	ug/l	98
20) Methylene Chloride	4.799	84	183340	107.310	ug/l	95
21) trans-1,2-Dichloroethene	5.310	96	171253	139.264	ug/l	97
22) Diisopropyl ether	6.216	45	478746	141.828	ug/l	99
23) Vinyl Acetate	6.157	43	1210582	825.666	ug/l	97
24) 1,1-Dichloroethane	6.110	63	297053	139.790	ug/l	99
25) 2-Butanone	7.081	43	231310	720.895	ug/l	96
26) 2,2-Dichloropropane	7.075	77	263555	140.863	ug/l	99
27) cis-1,2-Dichloroethene	7.075	96	187712	137.567	ug/l	99
28) Bromochloromethane	7.428	49	74886	128.743	ug/l	99
29) Tetrahydrofuran	7.446	42	133264	728.516	ug/l	100
30) Chloroform	7.599	83	293308	138.839	ug/l	94
31) Cyclohexane	7.881	56	266158	134.260	ug/l	95
32) 1,1,1-Trichloroethane	7.793	97	262356	142.912	ug/l	99
36) 1,1-Dichloropropene	8.010	75	234044	145.768	ug/l	99
37) Ethyl Acetate	7.169	43	94715	143.852	ug/l	99
38) Carbon Tetrachloride	7.993	117	215681	161.793	ug/l	95
39) Methylcyclohexane	9.275	83	291431	148.055	ug/l	99
40) Benzene	8.251	78	639711	140.280	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075129.D
 Acq On : 18 Jan 2023 13:10
 Operator : KP/SY
 Sample : VSTDICC150
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:11:21 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:06:43 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.404	41	62769	158.240	ug/l #	82
42) 1,2-Dichloroethane	8.328	62	177366	146.776	ug/l	99
43) Isopropyl Acetate	8.363	43	191227	151.960	ug/l	98
44) Trichloroethene	9.028	130	185705	145.769	ug/l	95
45) 1,2-Dichloropropane	9.304	63	159045	141.753	ug/l	97
46) Dibromomethane	9.393	93	86913	144.823	ug/l	98
47) Bromodichloromethane	9.587	83	218039	148.236	ug/l	97
48) Methyl methacrylate	9.381	41	93310	152.509	ug/l	96
49) 1,4-Dioxane	9.387	88	17843	3151.256	ug/l #	86
51) 4-Methyl-2-Pentanone	10.163	43	470705	772.870	ug/l	97
52) Toluene	10.334	92	407518	142.137	ug/l	99
53) t-1,3-Dichloropropene	10.557	75	214920	154.512	ug/l	96
54) cis-1,3-Dichloropropene	10.016	75	258248	151.370	ug/l	96
55) 1,1,2-Trichloroethane	10.734	97	114826	147.812	ug/l	96
56) Ethyl methacrylate	10.598	69	146260	152.213	ug/l	99
57) 1,3-Dichloropropane	10.881	76	198735	146.478	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.869	63	256106	797.196	ug/l	100
59) 2-Hexanone	10.922	43	348329	788.648	ug/l	98
60) Dibromochloromethane	11.075	129	143019	150.543	ug/l	100
61) 1,2-Dibromoethane	11.181	107	110323	146.894	ug/l	99
64) Tetrachloroethene	10.810	164	150483	143.917	ug/l	97
65) Chlorobenzene	11.610	112	421052	142.772	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.687	131	150392	150.574	ug/l	94
67) Ethyl Benzene	11.687	91	787707	146.371	ug/l	100
68) m/p-Xylenes	11.792	106	603851	291.189	ug/l	98
69) o-Xylene	12.122	106	284771	145.821	ug/l	96
70) Styrene	12.139	104	472212	144.518	ug/l	98
71) Bromoform	12.304	173	81835	155.544	ug/l #	96
73) Isopropylbenzene	12.422	105	750936	148.115	ug/l	99
74) N-amyl acetate	12.234	43	177075	158.905	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.675	83	119509	144.667	ug/l	98
76) 1,2,3-Trichloropropane	12.728	75	76425m	125.066	ug/l	
77) Bromobenzene	12.704	156	164965	143.257	ug/l	96
78) n-propylbenzene	12.763	91	922391	146.667	ug/l	99
79) 2-Chlorotoluene	12.851	91	506462	146.857	ug/l	98
80) 1,3,5-Trimethylbenzene	12.904	105	621956	149.263	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.475	75	39990	171.116	ug/l	96
82) 4-Chlorotoluene	12.951	91	513749	143.858	ug/l	99
83) tert-Butylbenzene	13.169	119	528254	145.594	ug/l	98
84) 1,2,4-Trimethylbenzene	13.216	105	611175	149.634	ug/l	98
85) sec-Butylbenzene	13.345	105	808102	147.303	ug/l	98
86) p-Isopropyltoluene	13.463	119	667733	148.098	ug/l	98
87) 1,3-Dichlorobenzene	13.463	146	320791	140.870	ug/l	98
88) 1,4-Dichlorobenzene	13.539	146	319535	144.237	ug/l	99
89) n-Butylbenzene	13.792	91	652667	149.202	ug/l	99
90) Hexachloroethane	14.057	117	122438	156.276	ug/l	98
91) 1,2-Dichlorobenzene	13.834	146	282438	145.498	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.451	75	20134	160.777	ug/l	98
93) 1,2,4-Trichlorobenzene	15.104	180	195353	155.215	ug/l	98
94) Hexachlorobutadiene	15.210	225	97208	156.485	ug/l	99
95) Naphthalene	15.333	128	376402	150.643	ug/l	99
96) 1,2,3-Trichlorobenzene	15.528	180	167709	153.786	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075129.D
Acq On : 18 Jan 2023 13:10
Operator : KP/SY
Sample : VSTDICC150
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:11:21 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:06:43 2023
Response via : Initial Calibration

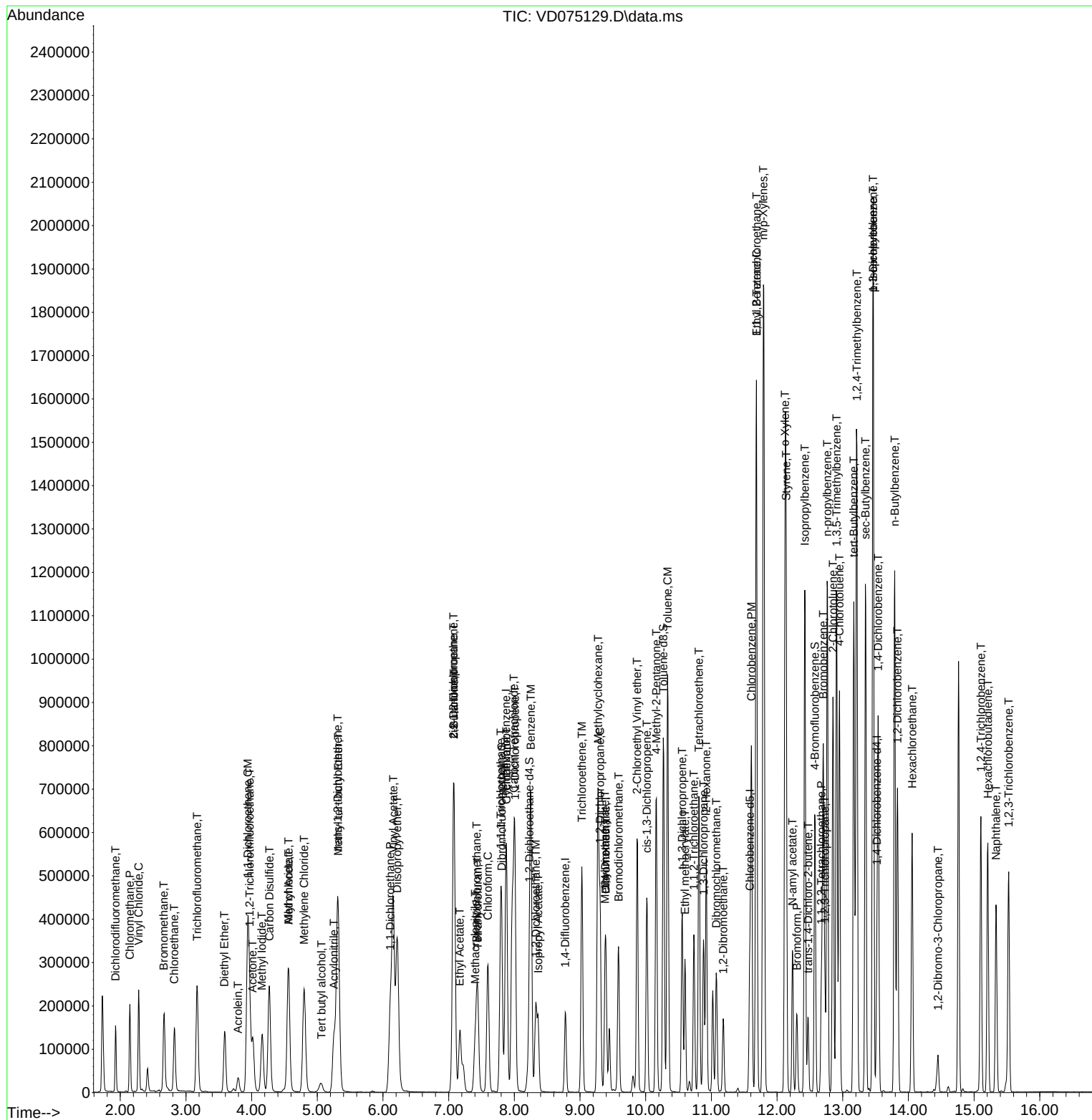
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075131.D
 Acq On : 18 Jan 2023 14:19
 Operator : KP/SY
 Sample : VSTDICV050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 ICVVD011823

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:37:37 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	95059	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	167201	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	148789	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	65990	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	49556	51.088	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 102.180%			
35) Dibromofluoromethane	7.810	113	52410	51.873	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 103.740%			
50) Toluene-d8	10.269	98	207028	52.042	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 104.080%			
62) 4-Bromofluorobenzene	12.575	95	64819	51.341	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 102.680%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	36609	49.418	ug/l	98
3) Chloromethane	2.146	50	55347	45.073	ug/l	99
4) Vinyl Chloride	2.281	62	61075	46.352	ug/l	98
5) Bromomethane	2.693	94	43451	48.489	ug/l	100
6) Chloroethane	2.840	64	43463	47.573	ug/l	95
7) Trichlorofluoromethane	3.175	101	81350	48.573	ug/l	94
8) Diethyl Ether	3.593	74	27378	50.735	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.963	101	51181	49.502	ug/l	98
10) Methyl Iodide	4.163	142	68958	49.546	ug/l	100
11) Tert butyl alcohol	5.052	59	14799	218.693	ug/l #	89
12) 1,1-Dichloroethene	3.940	96	54314	49.900	ug/l	92
13) Acrolein	3.799	56	13635	243.627	ug/l	98
14) Allyl chloride	4.563	41	89482	50.656	ug/l	98
15) Acrylonitrile	5.257	53	58775	257.584	ug/l	99
16) Acetone	4.016	43	66644	260.497	ug/l	100
17) Carbon Disulfide	4.275	76	173883	49.254	ug/l	98
18) Methyl Acetate	4.563	43	33397	48.026	ug/l	98
19) Methyl tert-butyl Ether	5.322	73	119071	52.369	ug/l	99
20) Methylene Chloride	4.805	84	62921	46.695	ug/l	99
21) trans-1,2-Dichloroethene	5.310	96	61146	50.463	ug/l	94
22) Diisopropyl ether	6.216	45	170226	51.775	ug/l	99
23) Vinyl Acetate	6.157	43	413078m	285.068	ug/l	
24) 1,1-Dichloroethane	6.116	63	106530	51.559	ug/l	98
25) 2-Butanone	7.081	43	79822	258.152	ug/l	97
26) 2,2-Dichloropropane	7.075	77	89188	48.423	ug/l	100
27) cis-1,2-Dichloroethene	7.081	96	67572	51.159	ug/l	98
28) Bromochloromethane	7.428	49	26709	47.347	ug/l	99
29) Tetrahydrofuran	7.446	42	44944	254.845	ug/l	98
30) Chloroform	7.599	83	102182	49.594	ug/l	98
31) Cyclohexane	7.881	56	91684	47.128	ug/l	97
32) 1,1,1-Trichloroethane	7.793	97	86623	48.799	ug/l	99
36) 1,1-Dichloropropene	8.004	75	78863	48.582	ug/l	98
37) Ethyl Acetate	7.169	43	29824	45.603	ug/l	100
38) Carbon Tetrachloride	7.993	117	70344	51.467	ug/l	98
39) Methylcyclohexane	9.275	83	98799	49.387	ug/l	99
40) Benzene	8.251	78	233272	50.390	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075131.D
 Acq On : 18 Jan 2023 14:19
 Operator : KP/SY
 Sample : VSTDICV050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 ICVVD011823

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/19/2023
 Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:37:37 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.404	41	19428	49.369	ug/l	93
42) 1,2-Dichloroethane	8.328	62	61536	50.604	ug/l	98
43) Isopropyl Acetate	8.363	43	63605	49.977	ug/l	100
44) Trichloroethene	9.028	130	64517	49.560	ug/l	98
45) 1,2-Dichloropropane	9.304	63	58329	51.150	ug/l	98
46) Dibromomethane	9.393	93	29813	49.572	ug/l	98
47) Bromodichloromethane	9.587	83	76971	51.588	ug/l	96
48) Methyl methacrylate	9.381	41	31048	49.889	ug/l	97
49) 1,4-Dioxane	9.381	88	5571	970.318	ug/l	97
51) 4-Methyl-2-Pentanone	10.157	43	155677	254.726	ug/l	99
52) Toluene	10.334	92	144923	49.538	ug/l	99
53) t-1,3-Dichloropropene	10.557	75	73167	51.833	ug/l	99
54) cis-1,3-Dichloropropene	10.016	75	91403	53.000	ug/l	98
55) 1,1,2-Trichloroethane	10.734	97	39353	49.445	ug/l	98
56) Ethyl methacrylate	10.598	69	50463	52.723	ug/l	97
57) 1,3-Dichloropropane	10.881	76	69169	50.576	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.869	63	83194	254.015	ug/l	98
59) 2-Hexanone	10.922	43	113056	255.840	ug/l	99
60) Dibromochloromethane	11.075	129	48601	50.662	ug/l	100
61) 1,2-Dibromoethane	11.181	107	37700	49.577	ug/l	100
64) Tetrachloroethene	10.810	164	50373	47.410	ug/l	98
65) Chlorobenzene	11.610	112	151068	49.549	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.681	131	52969	51.652	ug/l	95
67) Ethyl Benzene	11.687	91	271978	49.558	ug/l	99
68) m/p-Xylenes	11.792	106	208639	98.412	ug/l	98
69) o-Xylene	12.122	106	99495	50.031	ug/l	98
70) Styrene	12.139	104	163837	49.560	ug/l	99
71) Bromoform	12.304	173	27341	51.632	ug/l #	95
73) Isopropylbenzene	12.422	105	260529	49.982	ug/l	98
74) N-amyl acetate	12.234	43	55943	48.994	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.675	83	41514	49.987	ug/l	99
76) 1,2,3-Trichloropropane	12.728	75	31669m	56.664	ug/l	
77) Bromobenzene	12.704	156	58760	49.353	ug/l	97
78) n-propylbenzene	12.769	91	318903	49.788	ug/l	99
79) 2-Chlorotoluene	12.851	91	172439	48.949	ug/l	99
80) 1,3,5-Trimethylbenzene	12.904	105	211706	49.573	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.469	75	13167	54.648	ug/l	99
82) 4-Chlorotoluene	12.951	91	178276	49.220	ug/l	99
83) tert-Butylbenzene	13.169	119	186591	50.496	ug/l	98
84) 1,2,4-Trimethylbenzene	13.216	105	206608	49.262	ug/l	100
85) sec-Butylbenzene	13.351	105	274315	48.869	ug/l	100
86) p-Isopropyltoluene	13.463	119	226333	49.250	ug/l	100
87) 1,3-Dichlorobenzene	13.463	146	113646	49.242	ug/l	97
88) 1,4-Dichlorobenzene	13.539	146	113864	50.145	ug/l	99
89) n-Butylbenzene	13.792	91	221063	49.364	ug/l	99
90) Hexachloroethane	14.057	117	41051	50.584	ug/l	99
91) 1,2-Dichlorobenzene	13.833	146	99408	50.346	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.451	75	6258	49.282	ug/l	99
93) 1,2,4-Trichlorobenzene	15.104	180	65358	50.408	ug/l	98
94) Hexachlorobutadiene	15.204	225	31093	48.932	ug/l	98
95) Naphthalene	15.339	128	126739	49.102	ug/l	100
96) 1,2,3-Trichlorobenzene	15.528	180	55946	50.569	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075131.D
Acq On : 18 Jan 2023 14:19
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD011823

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023

Quant Time: Jan 19 01:37:37 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

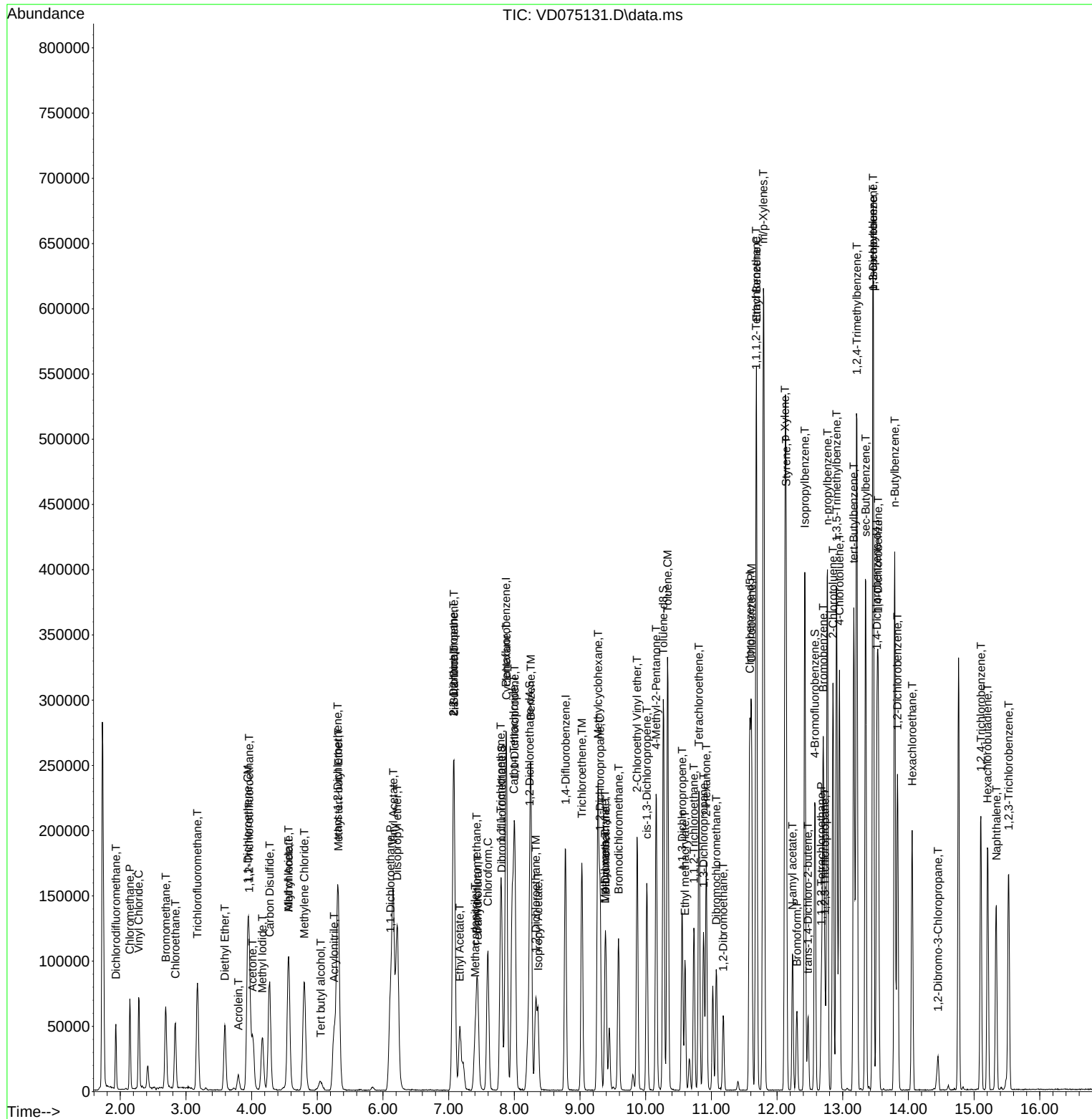
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_D
ClientSampleId :
ICVVD011823

Manual Integrations

Reviewed By :Krupa Patel 01/19/2023
Supervised By :Mahesh Dadoda 01/19/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075131.D
 Acq On : 18 Jan 2023 14:19
 Operator : KP/SY
 Sample : VSTDICV050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 ICVVD011823

Quant Time: Jan 19 01:37:37 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	112	0.00
2 T	Dichlorodifluoromethane	0.435	0.385	11.5	118	0.00
3 P	Chloromethane	0.646	0.582	9.9	107	0.00
4 C	Vinyl Chloride	0.693	0.642	7.4#	110	0.00
5 T	Bromomethane	0.471	0.457	3.0	114	0.00
6 T	Chloroethane	0.481	0.457	5.0	108	0.00
7 T	Trichlorofluoromethane	0.881	0.856	2.8	113	0.00
8 T	Diethyl Ether	0.284	0.288	-1.4	108	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.544	0.538	1.1	117	0.00
10 T	Methyl Iodide	0.732	0.725	1.0	102	0.00
11 T	Tert butyl alcohol	0.036	0.031	13.9	105	0.00
12 CM	1,1-Dichloroethene	0.573	0.571	0.3#	114	0.00
13 T	Acrolein	0.035	0.029	17.1	109	0.00
14 T	Allyl chloride	0.929	0.941	-1.3	109	0.00
15 T	Acrylonitrile	0.120	0.124	-3.3	107	0.00
16 T	Acetone	0.135	0.140	-3.7	98	0.00
17 T	Carbon Disulfide	1.857	1.829	1.5	112	0.00
18 T	Methyl Acetate	0.366	0.351	4.1	102	0.00
19 T	Methyl tert-butyl Ether	1.196	1.253	-4.8	109	0.00
20 T	Methylene Chloride	0.849	0.662	22.0	93	0.00
21 T	trans-1,2-Dichloroethene	0.637	0.643	-0.9	110	0.00
22 T	Diisopropyl ether	1.729	1.791	-3.6	110	0.00
23 T	Vinyl Acetate	0.762	0.869	-14.0	124	0.00
24 P	1,1-Dichloroethane	1.087	1.121	-3.1	113	0.00
25 T	2-Butanone	0.163	0.168	-3.1	103	0.00
26 T	2,2-Dichloropropane	0.969	0.938	3.2	110	0.00
27 T	cis-1,2-Dichloroethene	0.695	0.711	-2.3	110	0.00
28 T	Bromochloromethane	0.297	0.281	5.4	106	0.00
29 T	Tetrahydrofuran	0.093	0.095	-2.2	105	0.00
30 C	Chloroform	1.084	1.075	0.8#	107	0.00
31 T	Cyclohexane	1.023	0.964	5.8	116	0.00
32 T	1,1,1-Trichloroethane	0.934	0.911	2.5	109	0.00
33 S	1,2-Dichloroethane-d4	0.510	0.521	-2.2	109	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
35 S	Dibromofluoromethane	0.302	0.313	-3.6	110	0.00
36 T	1,1-Dichloropropene	0.485	0.472	2.7	112	0.00
37 T	Ethyl Acetate	0.196	0.178	9.2	99	0.00
38 T	Carbon Tetrachloride	0.409	0.421	-2.9	117	0.00
39 T	Methylcyclohexane	0.598	0.591	1.2	117	0.00
40 TM	Benzene	1.384	1.395	-0.8	109	0.00
41 T	Methacrylonitrile	0.118	0.116	1.7	114	0.00
42 TM	1,2-Dichloroethane	0.364	0.368	-1.1	108	0.00
43 T	Isopropyl Acetate	0.381	0.380	0.3	107	0.00
44 TM	Trichloroethene	0.389	0.386	0.8	109	0.00
45 C	1,2-Dichloropropane	0.341	0.349	-2.3#	111	0.00
46 T	Dibromomethane	0.180	0.178	1.1	105	0.00
47 T	Bromodichloromethane	0.446	0.460	-3.1	110	0.00
48 T	Methyl methacrylate	0.186	0.186	0.0	110	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075131.D
 Acq On : 18 Jan 2023 14:19
 Operator : KP/SY
 Sample : VSTDICV050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 ICVVD011823

Quant Time: Jan 19 01:37:37 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	106	0.00
50 S	Toluene-d8	1.190	1.238	-4.0	113	0.00
51 T	4-Methyl-2-Pentanone	0.183	0.186	-1.6	109	0.00
52 CM	Toluene	0.875	0.867	0.9#	107	0.00
53 T	t-1,3-Dichloropropene	0.422	0.438	-3.8	110	0.00
54 T	cis-1,3-Dichloropropene	0.516	0.547	-6.0	111	0.00
55 T	1,1,2-Trichloroethane	0.238	0.235	1.3	104	0.00
56 T	Ethyl methacrylate	0.286	0.302	-5.6	109	0.00
57 T	1,3-Dichloropropane	0.409	0.414	-1.2	105	0.00
58 T	2-Chloroethyl Vinyl ether	0.098	0.100	-2.0	115	0.00
59 T	2-Hexanone	0.132	0.135	-2.3	106	0.00
60 T	Dibromochloromethane	0.287	0.291	-1.4	106	0.00
61 T	1,2-Dibromoethane	0.227	0.225	0.9	105	0.00
62 S	4-Bromofluorobenzene	0.378	0.388	-2.6	110	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
64 T	Tetrachloroethene	0.357	0.339	5.0	108	0.00
65 PM	Chlorobenzene	1.025	1.015	1.0	107	0.00
66 T	1,1,1,2-Tetrachloroethane	0.345	0.356	-3.2	114	0.00
67 C	Ethyl Benzene	1.844	1.828	0.9#	109	0.00
68 T	m/p-Xylenes	0.712	0.701	1.5	109	0.00
69 T	o-Xylene	0.668	0.669	-0.1	107	0.00
70 T	Styrene	1.111	1.101	0.9	106	0.00
71 P	Bromoform	0.178	0.184	-3.4	109	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
73 T	Isopropylbenzene	3.949	3.948	0.0	111	0.00
74 T	N-amyl acetate	0.865	0.848	2.0	106	0.00
75 P	1,1,2,2-Tetrachloroethane	0.629	0.629	0.0	105	0.00
76 T	1,2,3-Trichloropropane	0.423	0.480	-13.5	131	0.00
77 T	Bromobenzene	0.902	0.890	1.3	104	0.00
78 T	n-propylbenzene	4.853	4.833	0.4	110	0.00
79 T	2-Chlorotoluene	2.669	2.613	2.1	107	0.00
80 T	1,3,5-Trimethylbenzene	3.236	3.208	0.9	107	0.00
81 T	trans-1,4-Dichloro-2-butene	0.183	0.200	-9.3	118	0.00
82 T	4-Chlorotoluene	2.744	2.702	1.5	108	0.00
83 T	tert-Butylbenzene	2.800	2.828	-1.0	112	0.00
84 T	1,2,4-Trimethylbenzene	3.178	3.131	1.5	107	0.00
85 T	sec-Butylbenzene	4.253	4.157	2.3	109	0.00
86 T	p-Isopropyltoluene	3.482	3.430	1.5	109	0.00
87 T	1,3-Dichlorobenzene	1.749	1.722	1.5	106	0.00
88 T	1,4-Dichlorobenzene	1.720	1.725	-0.3	108	0.00
89 T	n-Butylbenzene	3.393	3.350	1.3	110	0.00
90 T	Hexachloroethane	0.615	0.622	-1.1	114	0.00
91 T	1,2-Dichlorobenzene	1.496	1.506	-0.7	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.096	0.095	1.0	100	0.00
93 T	1,2,4-Trichlorobenzene	0.982	0.990	-0.8	107	0.00
94 T	Hexachlorobutadiene	0.481	0.471	2.1	108	0.00
95 T	Naphthalene	1.956	1.921	1.8	108	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075131.D
Acq On : 18 Jan 2023 14:19
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD011823

Quant Time: Jan 19 01:37:37 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.838	0.848	-1.2	107	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075131.D
 Acq On : 18 Jan 2023 14:19
 Operator : KP/SY
 Sample : VSTDICV050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 ICVVD011823

Quant Time: Jan 19 01:37:37 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	112	0.00
2 T	Dichlorodifluoromethane	50.000	49.418	1.2	118	0.00
3 P	Chloromethane	50.000	45.073	9.9	107	0.00
4 C	Vinyl Chloride	50.000	46.352	7.3#	110	0.00
5 T	Bromomethane	50.000	48.489	3.0	114	0.00
6 T	Chloroethane	50.000	47.573	4.9	108	0.00
7 T	Trichlorofluoromethane	50.000	48.573	2.9	113	0.00
8 T	Diethyl Ether	50.000	50.735	-1.5	108	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.502	1.0	117	0.00
10 T	Methyl Iodide	50.000	49.546	0.9	102	0.00
11 T	Tert butyl alcohol	250.000	218.693	12.5	105	0.00
12 CM	1,1-Dichloroethene	50.000	49.900	0.2#	114	0.00
13 T	Acrolein	250.000	243.627	2.5	109	0.00
14 T	Allyl chloride	50.000	50.656	-1.3	109	0.00
15 T	Acrylonitrile	250.000	257.584	-3.0	107	0.00
16 T	Acetone	250.000	260.497	-4.2	98	0.00
17 T	Carbon Disulfide	50.000	49.254	1.5	112	0.00
18 T	Methyl Acetate	50.000	48.026	3.9	102	0.00
19 T	Methyl tert-butyl Ether	50.000	52.369	-4.7	109	0.00
20 T	Methylene Chloride	50.000	46.695	6.6	93	0.00
21 T	trans-1,2-Dichloroethene	50.000	50.463	-0.9	110	0.00
22 T	Diisopropyl ether	50.000	51.775	-3.5	110	0.00
23 T	Vinyl Acetate	250.000	285.068	-14.0	124	0.00
24 P	1,1-Dichloroethane	50.000	51.559	-3.1	113	0.00
25 T	2-Butanone	250.000	258.152	-3.3	103	0.00
26 T	2,2-Dichloropropane	50.000	48.423	3.2	110	0.00
27 T	cis-1,2-Dichloroethene	50.000	51.159	-2.3	110	0.00
28 T	Bromochloromethane	50.000	47.347	5.3	106	0.00
29 T	Tetrahydrofuran	250.000	254.845	-1.9	105	0.00
30 C	Chloroform	50.000	49.594	0.8#	107	0.00
31 T	Cyclohexane	50.000	47.128	5.7	116	0.00
32 T	1,1,1-Trichloroethane	50.000	48.799	2.4	109	0.00
33 S	1,2-Dichloroethane-d4	50.000	51.088	-2.2	109	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	113	0.00
35 S	Dibromofluoromethane	50.000	51.873	-3.7	110	0.00
36 T	1,1-Dichloropropene	50.000	48.582	2.8	112	0.00
37 T	Ethyl Acetate	50.000	45.603	8.8	99	0.00
38 T	Carbon Tetrachloride	50.000	51.467	-2.9	117	0.00
39 T	Methylcyclohexane	50.000	49.387	1.2	117	0.00
40 TM	Benzene	50.000	50.390	-0.8	109	0.00
41 T	Methacrylonitrile	50.000	49.369	1.3	114	0.00
42 TM	1,2-Dichloroethane	50.000	50.604	-1.2	108	0.00
43 T	Isopropyl Acetate	50.000	49.977	0.0	107	0.00
44 TM	Trichloroethene	50.000	49.560	0.9	109	0.00
45 C	1,2-Dichloropropane	50.000	51.150	-2.3#	111	0.00
46 T	Dibromomethane	50.000	49.572	0.9	105	0.00
47 T	Bromodichloromethane	50.000	51.588	-3.2	110	0.00
48 T	Methyl methacrylate	50.000	49.889	0.2	110	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
 Data File : VD075131.D
 Acq On : 18 Jan 2023 14:19
 Operator : KP/SY
 Sample : VSTDICV050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 ICVVD011823

Quant Time: Jan 19 01:37:37 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	970.318	3.0	106	0.00
50 S	Toluene-d8	50.000	52.042	-4.1	113	0.00
51 T	4-Methyl-2-Pentanone	250.000	254.726	-1.9	109	0.00
52 CM	Toluene	50.000	49.538	0.9#	107	0.00
53 T	t-1,3-Dichloropropene	50.000	51.833	-3.7	110	0.00
54 T	cis-1,3-Dichloropropene	50.000	53.000	-6.0	111	0.00
55 T	1,1,2-Trichloroethane	50.000	49.445	1.1	104	0.00
56 T	Ethyl methacrylate	50.000	52.723	-5.4	109	0.00
57 T	1,3-Dichloropropane	50.000	50.576	-1.2	105	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	254.015	-1.6	115	0.00
59 T	2-Hexanone	250.000	255.840	-2.3	106	0.00
60 T	Dibromochloromethane	50.000	50.662	-1.3	106	0.00
61 T	1,2-Dibromoethane	50.000	49.577	0.8	105	0.00
62 S	4-Bromofluorobenzene	50.000	51.341	-2.7	110	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	111	0.00
64 T	Tetrachloroethene	50.000	47.410	5.2	108	0.00
65 PM	Chlorobenzene	50.000	49.549	0.9	107	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	51.652	-3.3	114	0.00
67 C	Ethyl Benzene	50.000	49.558	0.9#	109	0.00
68 T	m/p-Xylenes	100.000	98.412	1.6	109	0.00
69 T	o-Xylene	50.000	50.031	-0.1	107	0.00
70 T	Styrene	50.000	49.560	0.9	106	0.00
71 P	Bromoform	50.000	51.632	-3.3	109	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	108	0.00
73 T	Isopropylbenzene	50.000	49.982	0.0	111	0.00
74 T	N-ethyl acetate	50.000	48.994	2.0	106	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	49.987	0.0	105	0.00
76 T	1,2,3-Trichloropropane	50.000	56.664	-13.3	131	0.00
77 T	Bromobenzene	50.000	49.353	1.3	104	0.00
78 T	n-propylbenzene	50.000	49.788	0.4	110	0.00
79 T	2-Chlorotoluene	50.000	48.949	2.1	107	0.00
80 T	1,3,5-Trimethylbenzene	50.000	49.573	0.9	107	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	54.648	-9.3	118	0.00
82 T	4-Chlorotoluene	50.000	49.220	1.6	108	0.00
83 T	tert-Butylbenzene	50.000	50.496	-1.0	112	0.00
84 T	1,2,4-Trimethylbenzene	50.000	49.262	1.5	107	0.00
85 T	sec-Butylbenzene	50.000	48.869	2.3	109	0.00
86 T	p-Isopropyltoluene	50.000	49.250	1.5	109	0.00
87 T	1,3-Dichlorobenzene	50.000	49.242	1.5	106	0.00
88 T	1,4-Dichlorobenzene	50.000	50.145	-0.3	108	0.00
89 T	n-Butylbenzene	50.000	49.364	1.3	110	0.00
90 T	Hexachloroethane	50.000	50.584	-1.2	114	0.00
91 T	1,2-Dichlorobenzene	50.000	50.346	-0.7	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	49.282	1.4	100	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.408	-0.8	107	0.00
94 T	Hexachlorobutadiene	50.000	48.932	2.1	108	0.00
95 T	Naphthalene	50.000	49.102	1.8	108	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075131.D
Acq On : 18 Jan 2023 14:19
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD011823

Quant Time: Jan 19 01:37:37 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	50.569	-1.1	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_N Calibration Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) N Calibration Time(s): 10:54 13:17
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VN076261.D		RRF010 = VN076262.D		RRF020 = VN076263.D		RRF050 = VN076264.D		RRF075 = VN076265.D		RRF001 = VN076267.D	
COMPOUND		RRF005	RRF010	RRF020	RRF050	RRF075	RRF001	RRF	% RSD				
Dichlorodifluoromethane		0.452	0.537	0.523	0.526	0.541	0.496	0.512	6.6				
Chloromethane		0.503	0.544	0.523	0.522	0.522	0.569	0.531	4.3				
Vinyl Chloride		0.658	0.653	0.644	0.644	0.657	0.647	0.650	1				
Bromomethane		0.558	0.534	0.525	0.515	0.532		0.533	3				
Chloroethane		0.475	0.484	0.471	0.457	0.487	0.553	0.488	6.9				
Trichlorofluoromethane		0.887	0.887	0.880	0.875	0.898	0.942	0.895	2.7				
1,1,2-Trichlorotrifluoroethane		0.511	0.531	0.502	0.498	0.511	0.487	0.507	3				
1,1-Dichloroethene		0.470	0.479	0.459	0.477	0.486	0.503	0.479	3.1				
Acetone		0.187	0.185	0.173	0.175	0.182	0.269	0.195	18.8				
Carbon Disulfide		1.073	1.179	1.141	1.184	1.228	1.350	1.192	7.8				
Methyl tert-butyl Ether		1.517	1.535	1.537	1.597	1.633	1.535	1.559	2.9				
Methyl Acetate		0.618	0.606	0.574	0.588	0.599	0.664	0.608	5.1				
Methylene Chloride		0.579	0.550	0.543	0.517	0.535	1.144	0.645	38.1				
trans-1,2-Dichloroethene		0.520	0.501	0.500	0.506	0.513	0.573	0.519	5.4				
1,1-Dichloroethane		0.910	0.897	0.854	0.868	0.893	0.842	0.877	3.1				
Cyclohexane		1.007	0.875	0.833	0.787	0.798		0.860	10.4				
2-Butanone		0.265	0.275	0.263	0.273	0.278	0.290	0.274	3.5				
Carbon Tetrachloride		0.489	0.490	0.486	0.499	0.514	0.496	0.496	2				
cis-1,2-Dichloroethene		0.615	0.591	0.597	0.599	0.614	0.614	0.605	1.7				
Bromochloromethane		0.364	0.333	0.353	0.362	0.380	0.342	0.356	4.7				
Chloroform		0.966	0.972	0.931	0.965	0.978	1.013	0.971	2.7				
1,1,1-Trichloroethane		0.885	0.878	0.870	0.884	0.924	0.876	0.886	2.2				
Methylcyclohexane		0.532	0.525	0.557	0.572	0.597	0.474	0.543	7.9				
Benzene		1.325	1.322	1.316	1.333	1.358	1.320	1.329	1.1				
1,2-Dichloroethane		0.458	0.448	0.441	0.450	0.460	0.471	0.455	2.4				
Trichloroethene		0.398	0.372	0.354	0.361	0.370	0.399	0.376	5				
1,2-Dichloropropane		0.326	0.315	0.314	0.315	0.325	0.315	0.318	1.8				
Bromodichloromethane		0.450	0.459	0.456	0.474	0.486	0.471	0.466	2.8				
4-Methyl-2-Pentanone		0.327	0.341	0.341	0.356	0.367	0.310	0.340	5.9				
Toluene		0.891	0.894	0.870	0.885	0.909	0.883	0.889	1.5				
t-1,3-Dichloropropene		0.409	0.426	0.442	0.489	0.514	0.386	0.444	10.9				
cis-1,3-Dichloropropene		0.468	0.506	0.505	0.531	0.565	0.490	0.511	6.6				
1,1,2-Trichloroethane		0.340	0.336	0.330	0.331	0.350	0.350	0.340	2.6				

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_N Calibration Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) N Calibration Time(s): 10:54 13:17
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:	RRF005 = VN076261.D	RRF010 = VN076262.D	RRF020 = VN076263.D	RRF050 = VN076264.D	RRF075 = VN076265.D	RRF001 = VN076267.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF075	RRF001	RRF	% RSD
2-Hexanone	0.232	0.242	0.249	0.261	0.269	0.228	0.247	6.5
Dibromochloromethane	0.342	0.354	0.358	0.382	0.400	0.310	0.358	8.8
1,2-Dibromoethane	0.334	0.340	0.335	0.350	0.361	0.314	0.339	4.7
Tetrachloroethene	0.501	0.460	0.422	0.393	0.388	0.541	0.451	13.6
Chlorobenzene	1.040	1.054	1.017	1.034	1.051	1.146	1.057	4.3
Ethyl Benzene	1.707	1.820	1.814	1.880	1.921	1.711	1.809	4.8
m/p-Xylenes	0.678	0.727	0.721	0.745	0.771	0.710	0.725	4.4
o-Xylene	0.670	0.706	0.710	0.739	0.751	0.699	0.712	4.1
Styrene	1.037	1.097	1.137	1.206	1.250	1.096	1.137	6.9
Bromoform	0.252	0.270	0.282	0.304	0.323	0.273	0.284	9
Isopropylbenzene	3.802	4.040	3.943	3.806	3.824	3.793	3.868	2.6
1,1,2,2-Tetrachloroethane	1.108	1.079	1.071	1.057	1.047	1.309	1.112	8.9
1,3-Dichlorobenzene	1.692	1.760	1.675	1.724	1.759	2.328	1.823	13.7
1,4-Dichlorobenzene	1.740	1.728	1.692	1.701	1.752	2.439	1.842	15.9
1,2-Dichlorobenzene	1.766	1.760	1.703	1.716	1.725	2.224	1.816	11.1
1,2-Dibromo-3-Chloropropane	0.182	0.180	0.187	0.207	0.201	0.204	0.193	6.2
1,2,4-Trichlorobenzene	0.652	0.757	0.760	0.875	0.892	1.282	0.870	25.3
1,2,3-Trichlorobenzene	0.648	0.758	0.730	0.832	0.850	1.121	0.823	19.8
1,2-Dichloroethane-d4	0.584	0.526	0.549	0.554	0.586		0.560	4.5
Dibromofluoromethane	0.331	0.295	0.312	0.306	0.321		0.313	4.4
Toluene-d8	1.176	1.062	1.151	1.165	1.222		1.155	5.1
4-Bromofluorobenzene	0.356	0.334	0.371	0.393	0.431		0.377	9.8

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 82N011623W.M
 Title : SW846 8260
 Last Update : Tue Jan 17 03:59:22 2023
 Response Via : Initial Calibration

Calibration Files

5 =VN076261.D 10 =VN076262.D 20 =VN076263.D 50 =VN076264.D 75 =VN076265.D 1 =VN076267.D

	Compound	5	10	20	50	75	1	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.452	0.537	0.523	0.526	0.541	0.496	0.512	6.58
3) P	Chloromethane	0.503	0.544	0.523	0.522	0.522	0.569	0.531	4.34
4) C	Vinyl Chloride	0.658	0.653	0.644	0.644	0.657	0.647	0.650	0.95#
5) T	Bromomethane	0.558	0.534	0.525	0.515	0.532		0.533	2.99
6) T	Chloroethane	0.475	0.484	0.471	0.457	0.487	0.553	0.488	6.91
7) T	Trichlorofluor...	0.887	0.887	0.880	0.875	0.898	0.942	0.895	2.70
8) T	Diethyl Ether	0.299	0.299	0.298	0.307	0.313	0.286	0.300	3.05
9) T	1,1,2-Trichlor...	0.511	0.531	0.502	0.498	0.511	0.487	0.507	3.00
10) T	Methyl Iodide	0.743	0.774	0.761	0.785	0.807		0.774	3.14
11) T	Tert butyl alc...	0.075	0.075	0.070	0.075	0.079		0.075	4.25
12) CM	1,1-Dichloroet...	0.470	0.479	0.459	0.477	0.486	0.503	0.479	3.13#
13) T	Acrolein	0.095	0.086	0.088	0.088	0.091		0.090	3.68
14) T	Allyl chloride	0.531	0.582	0.522	0.549	0.570	0.595	0.558	5.17
15) T	Acrylonitrile	0.212	0.211	0.208	0.216	0.219	0.213	0.213	1.81
16) T	Acetone	0.187	0.185	0.173	0.175	0.182	0.269	0.195	18.77
17) T	Carbon Disulfide	1.073	1.179	1.141	1.184	1.228	1.350	1.192	7.80
18) T	Methyl Acetate	0.618	0.606	0.574	0.588	0.599	0.664	0.608	5.13
19) T	Methyl tert-bu...	1.517	1.535	1.537	1.597	1.633	1.535	1.559	2.91
20) T	Methylene Chlo...	0.579	0.550	0.543	0.517	0.535	1.144	0.645	38.06
21) T	trans-1,2-Dich...	0.520	0.501	0.500	0.506	0.513	0.573	0.519	5.36
22) T	Diisopropyl ether	1.302	1.338	1.324	1.346	1.367	1.220	1.316	3.95
23) T	Vinyl Acetate	0.795	0.825	0.880	0.912	0.943	0.748	0.851	8.69
24) P	1,1-Dichloroet...	0.910	0.897	0.854	0.868	0.893	0.842	0.877	3.07
25) T	2-Butanone	0.265	0.275	0.263	0.273	0.278	0.290	0.274	3.46
26) T	2,2-Dichloropr...	0.733	0.731	0.725	0.769	0.800	0.678	0.739	5.59
27) T	cis-1,2-Dichlo...	0.615	0.591	0.597	0.599	0.614	0.614	0.605	1.71
28) T	Bromochloromet...	0.364	0.333	0.353	0.362	0.380	0.342	0.356	4.69
29) T	Tetrahydrofuran	0.163	0.174	0.170	0.177	0.180	0.150	0.169	6.69
30) C	Chloroform	0.966	0.972	0.931	0.965	0.978	1.013	0.971	2.73#
31) T	Cyclohexane	1.007	0.875	0.833	0.787	0.798		0.860	10.38
32) T	1,1,1-Trichlor...	0.885	0.878	0.870	0.884	0.924	0.876	0.886	2.17
33) S	1,2-Dichloroet...	0.584	0.526	0.549	0.554	0.586		0.560	4.51
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.331	0.295	0.312	0.306	0.321		0.313	4.39
36) T	1,1-Dichloropr...	0.443	0.431	0.440	0.446	0.459	0.448	0.444	2.12
37) T	Ethyl Acetate	0.388	0.325	0.356	0.350	0.360	0.568	0.391	22.79
38) T	Carbon Tetrach...	0.489	0.490	0.486	0.499	0.514	0.496	0.496	2.04
39) T	Methylcyclohexane	0.532	0.525	0.557	0.572	0.597	0.474	0.543	7.89
40) TM	Benzene	1.325	1.322	1.316	1.333	1.358	1.320	1.329	1.14
41) T	Methacrylonitrile	0.177	0.194	0.182	0.191	0.193	0.183	0.187	3.72
42) TM	1,2-Dichloroet...	0.458	0.448	0.441	0.450	0.460	0.471	0.455	2.38
43) T	Isopropyl Acetate	0.571	0.566	0.564	0.598	0.616	0.564	0.580	3.77
44) TM	Trichloroethene	0.398	0.372	0.354	0.361	0.370	0.399	0.376	5.03
45) C	1,2-Dichloropr...	0.326	0.315	0.314	0.315	0.325	0.315	0.318	1.78#
46) T	Dibromomethane	0.246	0.235	0.232	0.239	0.245	0.244	0.240	2.36
47) T	Bromodichlorom...	0.450	0.459	0.456	0.474	0.486	0.471	0.466	2.83
48) T	Methyl methacr...	0.257	0.259	0.266	0.283	0.293	0.289	0.275	5.72
49) T	1,4-Dioxane	0.006	0.006	0.006	0.006	0.006	0.005	0.006	7.16
50) S	Toluene-d8	1.176	1.062	1.151	1.165	1.222		1.155	5.06
51) T	4-Methyl-2-Pen...	0.327	0.341	0.341	0.356	0.367	0.310	0.340	5.95
52) CM	Toluene	0.891	0.894	0.870	0.885	0.909	0.883	0.889	1.47#
53) T	t-1,3-Dichloro...	0.409	0.426	0.442	0.489	0.514	0.386	0.444	10.91
54) T	cis-1,3-Dichlo...	0.468	0.506	0.505	0.531	0.565	0.490	0.511	6.60
55) T	1,1,2-Trichlor...	0.340	0.336	0.330	0.331	0.350	0.350	0.340	2.63
56) T	Ethyl methacry...	0.407	0.410	0.448	0.480	0.505	0.381	0.439	10.86

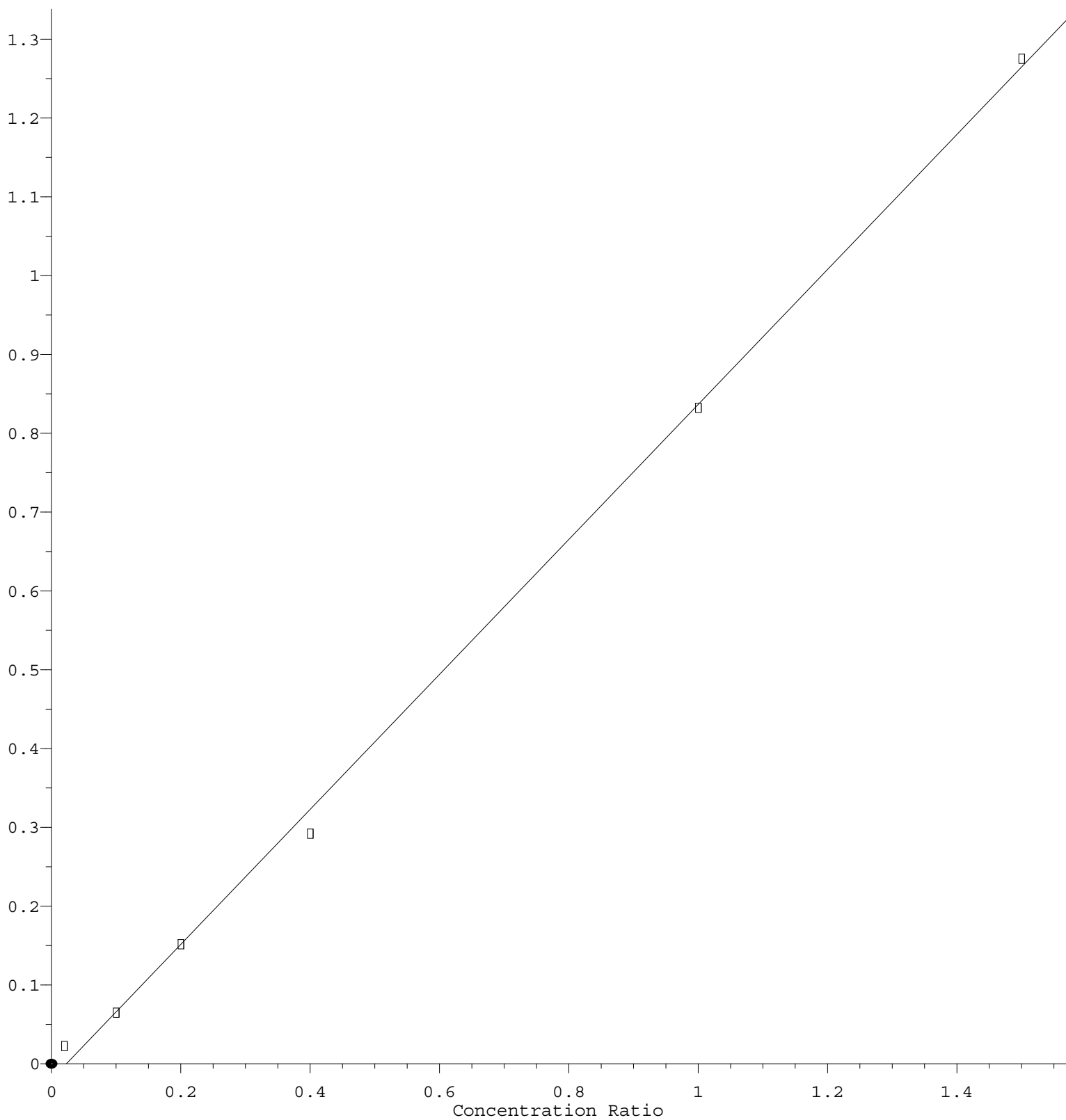
Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 82N011623W.M

57)	T	1,3-Dichloropr...	0.539	0.543	0.543	0.557	0.561	0.570	0.552	2.28
58)	T	2-Chloroethyl ...	0.139	0.140	0.150	0.161	0.161	0.137	0.148	7.59
59)	T	2-Hexanone	0.232	0.242	0.249	0.261	0.269	0.228	0.247	6.54
60)	T	Dibromochlorom...	0.342	0.354	0.358	0.382	0.400	0.310	0.358	8.77
61)	T	1,2-Dibromoethane	0.334	0.340	0.335	0.350	0.361	0.314	0.339	4.69
62)	S	4-Bromofluorob...	0.356	0.334	0.371	0.393	0.431		0.377	9.82
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.501	0.460	0.422	0.393	0.388	0.541	0.451	13.59
65)	PM	Chlorobenzene	1.040	1.054	1.017	1.034	1.051	1.146	1.057	4.31
66)	T	1,1,1,2-Tetrac...	0.387	0.392	0.383	0.391	0.405	0.402	0.393	2.18
67)	C	Ethyl Benzene	1.707	1.820	1.814	1.880	1.921	1.711	1.809	4.80#
68)	T	m/p-Xylenes	0.678	0.727	0.721	0.745	0.771	0.710	0.725	4.36
69)	T	o-Xylene	0.670	0.706	0.710	0.739	0.751	0.699	0.712	4.06
70)	T	Styrene	1.037	1.097	1.137	1.206	1.250	1.096	1.137	6.88
71)	P	Bromoform	0.252	0.270	0.282	0.304	0.323	0.273	0.284	8.96
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.802	4.040	3.943	3.806	3.824	3.793	3.868	2.61
74)	T	N-amyl acetate	0.992	1.112	1.099	1.140	1.178	1.154	1.113	5.92
75)	P	1,1,2,2-Tetrac...	1.108	1.079	1.071	1.057	1.047	1.309	1.112	8.90
76)	T	1,2,3-Trichlor...	1.349	0.848	0.952	0.918	0.902	1.237	1.034	19.93
77)	T	Bromobenzene	0.967	0.989	0.921	0.894	0.905	1.290	0.994	15.02
78)	T	n-propylbenzene	4.080	4.410	4.349	4.367	4.442	4.538	4.364	3.54
79)	T	2-Chlorotoluene	2.746	2.704	2.577	2.554	2.571	2.917	2.678	5.27
80)	T	1,3,5-Trimethy...	3.269	3.394	3.266	3.237	3.270	3.007	3.240	3.91
81)	T	trans-1,4-Dich...	0.295	0.273	0.294	0.319	0.321		0.301	6.68
82)	T	4-Chlorotoluene	2.746	2.704	2.577	2.554	2.571	2.917	2.678	5.27
83)	T	tert-Butylbenzene	2.856	3.027	2.872	2.851	2.868	2.819	2.882	2.55
84)	T	1,2,4-Trimethy...	3.119	3.408	3.276	3.243	3.315	3.134	3.249	3.39
85)	T	sec-Butylbenzene	3.832	4.060	3.986	4.069	4.149	3.899	3.999	2.94
86)	T	p-Isopropyltol...	3.042	3.341	3.327	3.447	3.553	3.022	3.289	6.54
87)	T	1,3-Dichlorobe...	1.692	1.760	1.675	1.724	1.759	2.328	1.823	13.69
88)	T	1,4-Dichlorobe...	1.740	1.727	1.692	1.701	1.752	2.439	1.842	15.94
89)	T	n-Butylbenzene	2.248	2.495	2.542	2.812	2.952	2.614	2.611	9.48
90)	T	Hexachloroethane	0.539	0.550	0.562	0.588	0.604	0.563	0.568	4.23
91)	T	1,2-Dichlorobe...	1.766	1.760	1.703	1.716	1.725	2.224	1.816	11.11
92)	T	1,2-Dibromo-3-...	0.182	0.180	0.187	0.207	0.201	0.204	0.193	6.21
93)	T	1,2,4-Trichlor...	0.652	0.757	0.760	0.875	0.892	1.282	0.870	25.30
94)	T	Hexachlorobuta...	0.475	0.452	0.445	0.476	0.463	0.581	0.482	10.35
95)	T	Naphthalene	1.709	1.997	2.207	2.537	2.677	4.129	2.543	33.55
96)	T	1,2,3-Trichlor...	0.648	0.758	0.730	0.832	0.850	1.121	0.823	19.81

(#) = Out of Range

1,2,3-Trichlorobenzene

Response Ratio



$$\text{Response} = 8.561\text{e-}001 * \text{Amt} - 1.976\text{e-}002$$

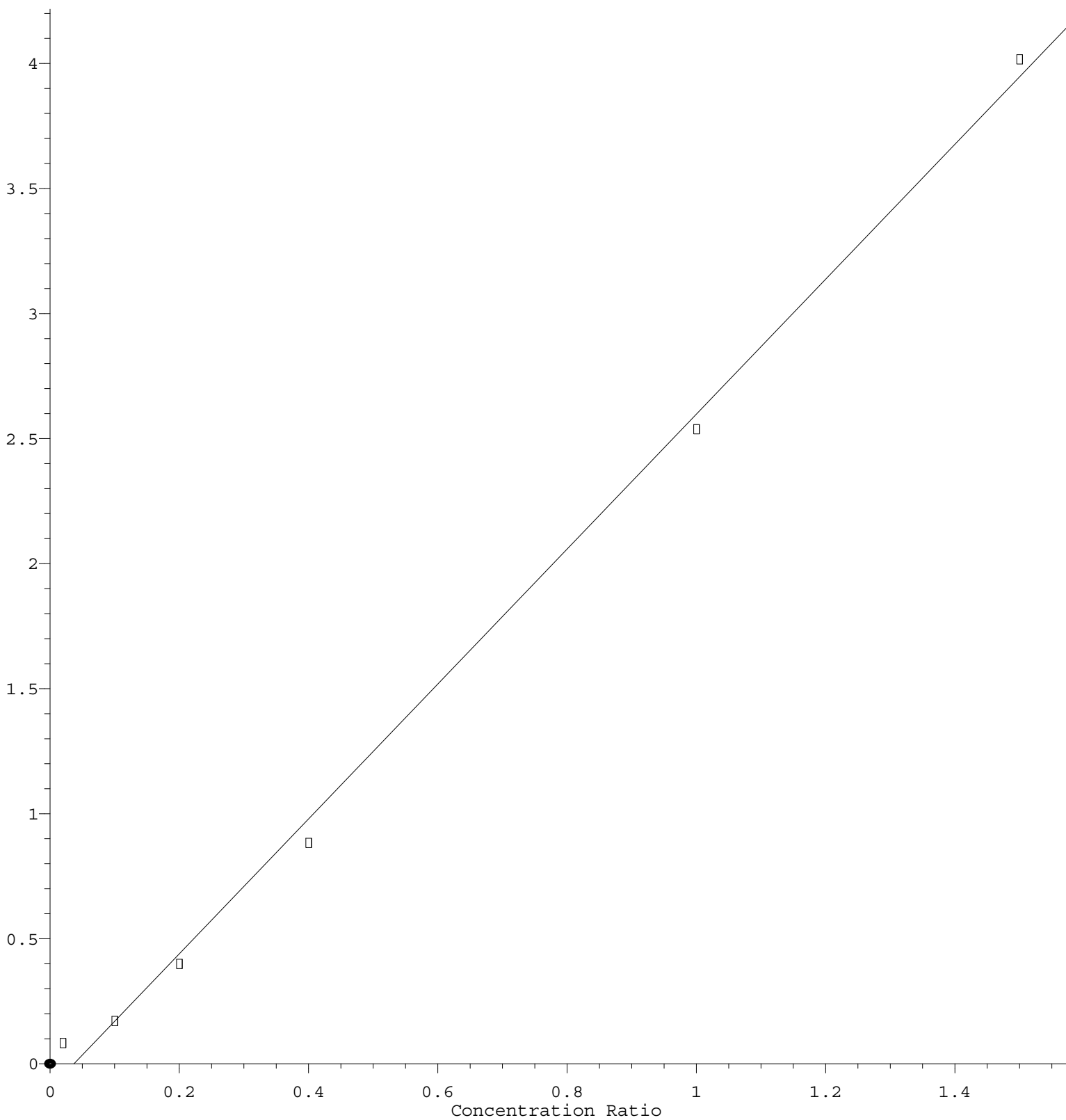
Coef of Det (r^2) = 0.998658 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M

Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

Naphthalene

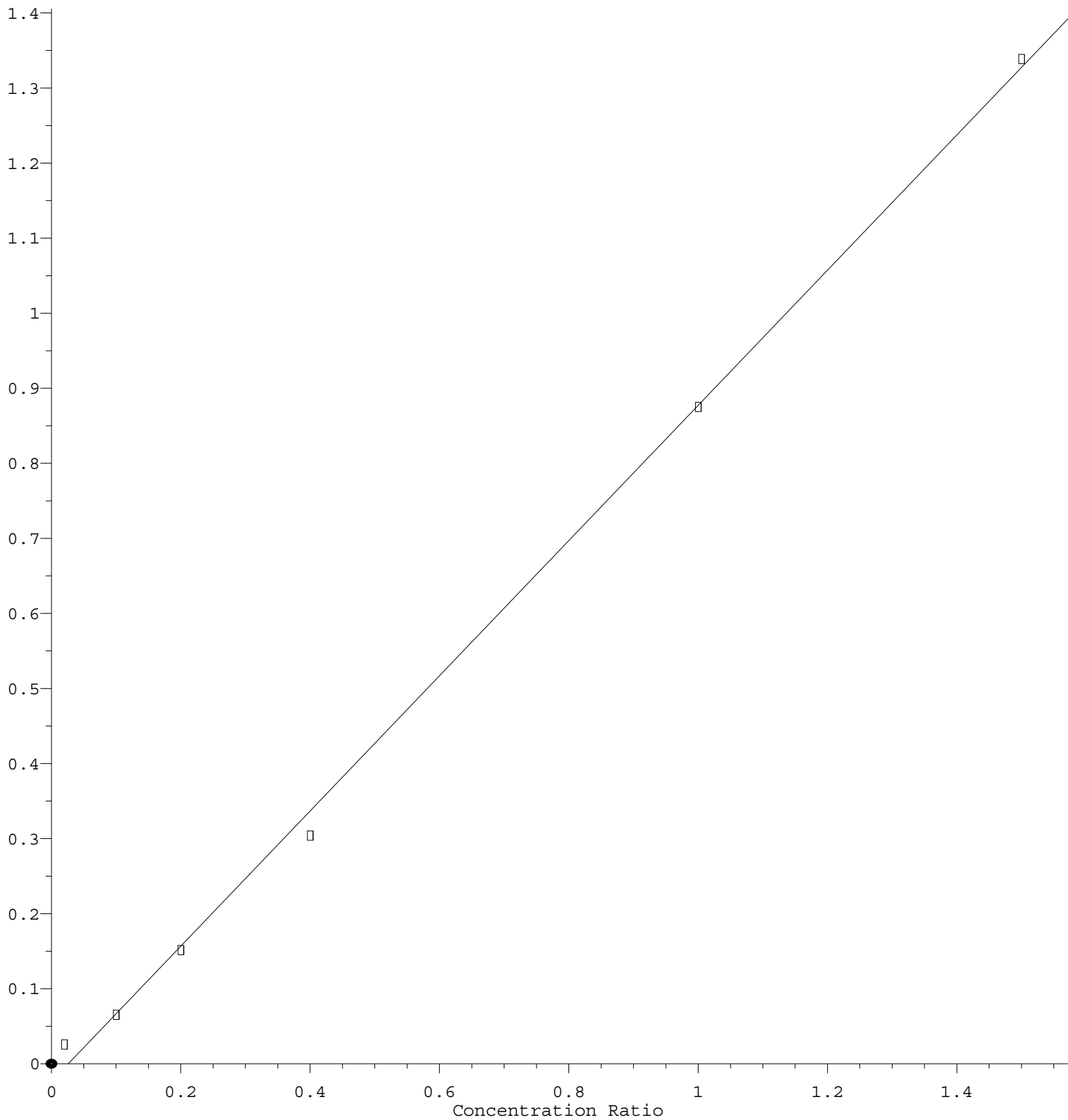
Response Ratio



Response = 2.697e+000 * Amt - 9.919e-002
 Coef of Det (r^2) = 0.997160 Curve Fit: Linear
 Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M
 Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

1,2,4-Trichlorobenzene

Response Ratio



$$\text{Response} = 9.009\text{e-}001 * \text{Amt} - 2.352\text{e-}002$$

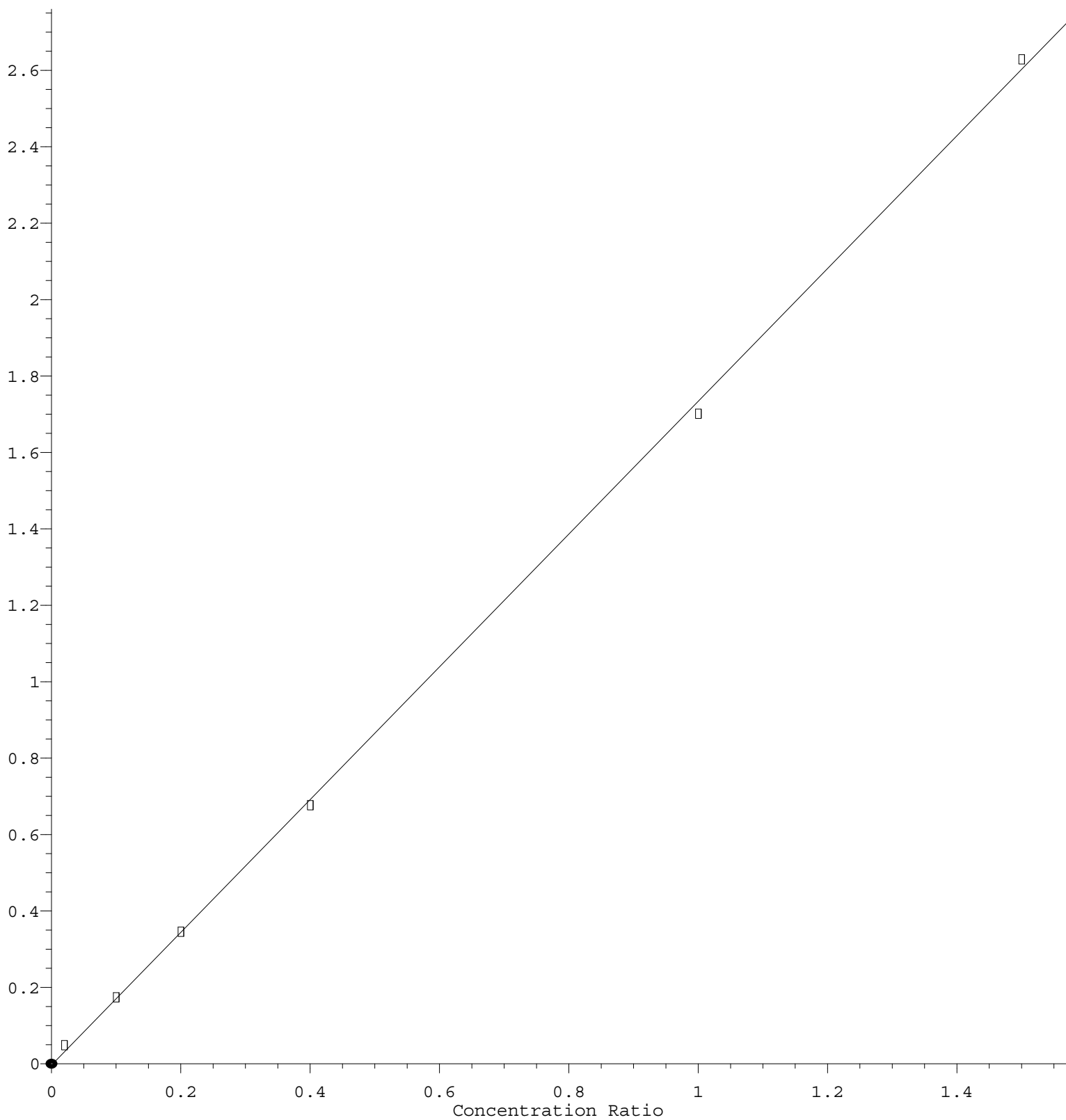
Coef of Det (r^2) = 0.998436 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M

Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

1,4-Dichlorobenzene

Response Ratio



$$\text{Response} = 1.738\text{e}+000 * \text{Amt} - 3.518\text{e}-003$$

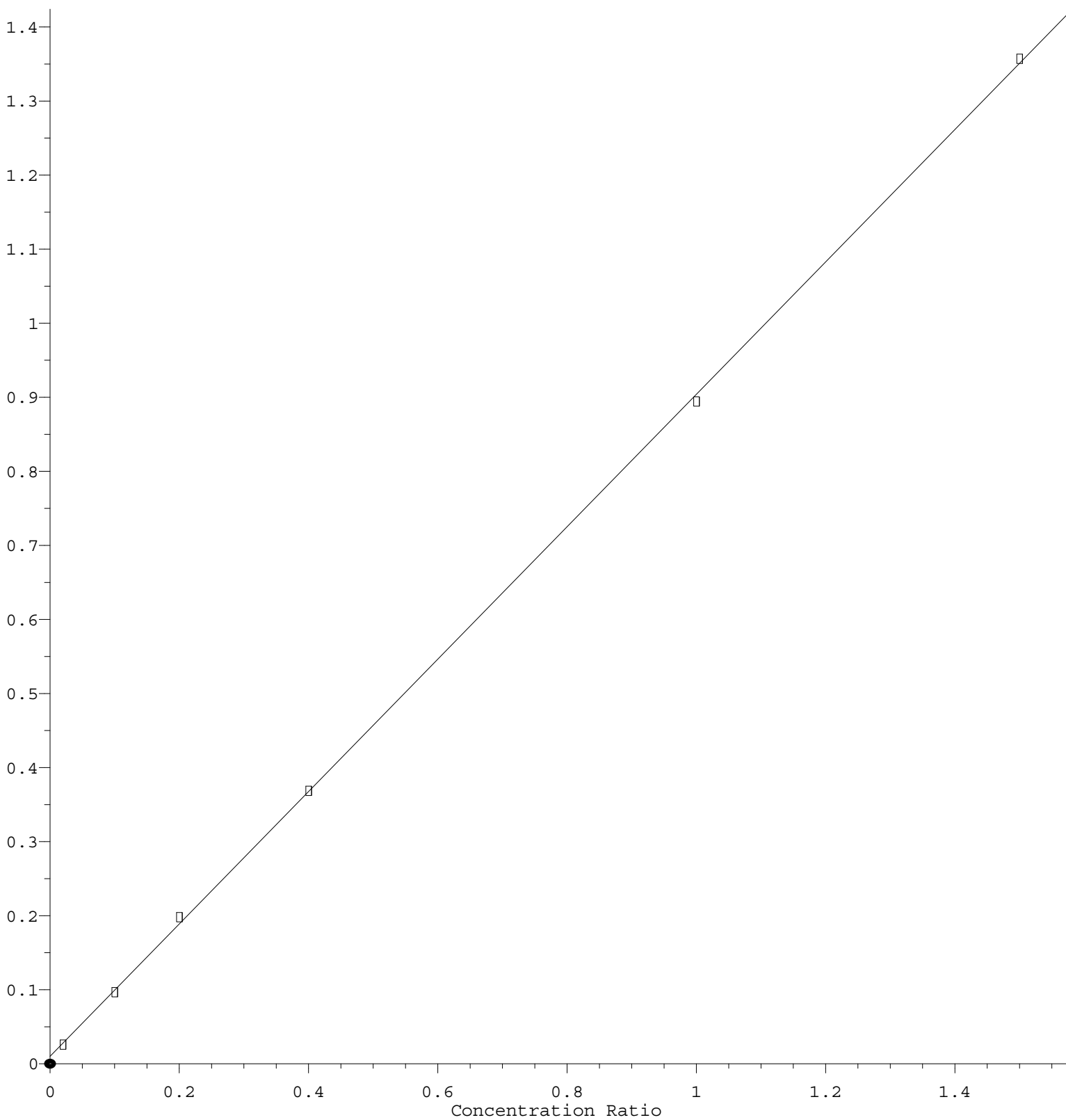
Coef of Det (r^2) = 0.999560 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M

Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

Bromobenzene

Response Ratio



$$\text{Response} = 8.942\text{e-}001 * \text{Amt} + 1.015\text{e-}002$$

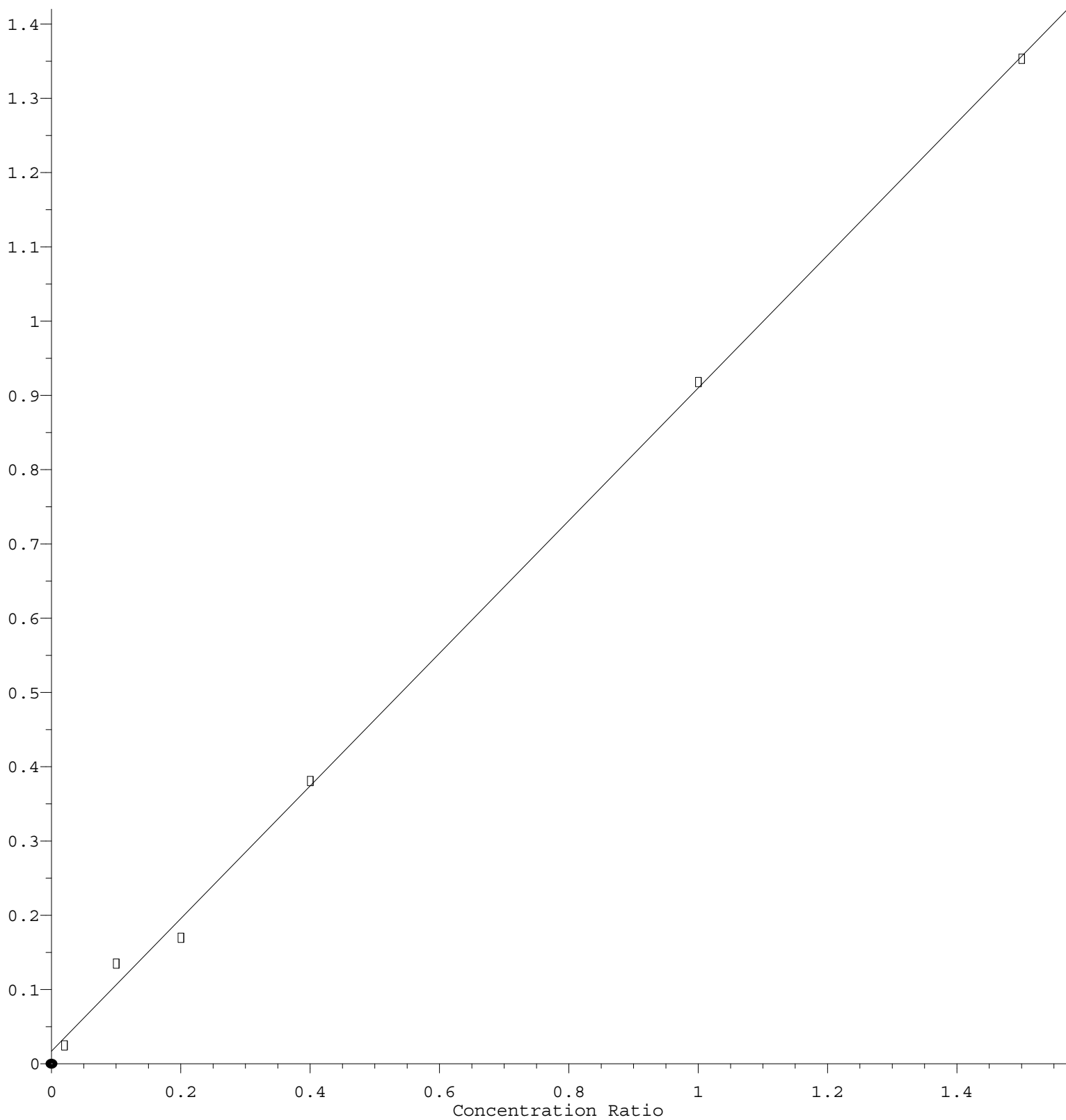
Coef of Det (r^2) = 0.999837 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M

Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

1,2,3-Trichloropropane

Response Ratio



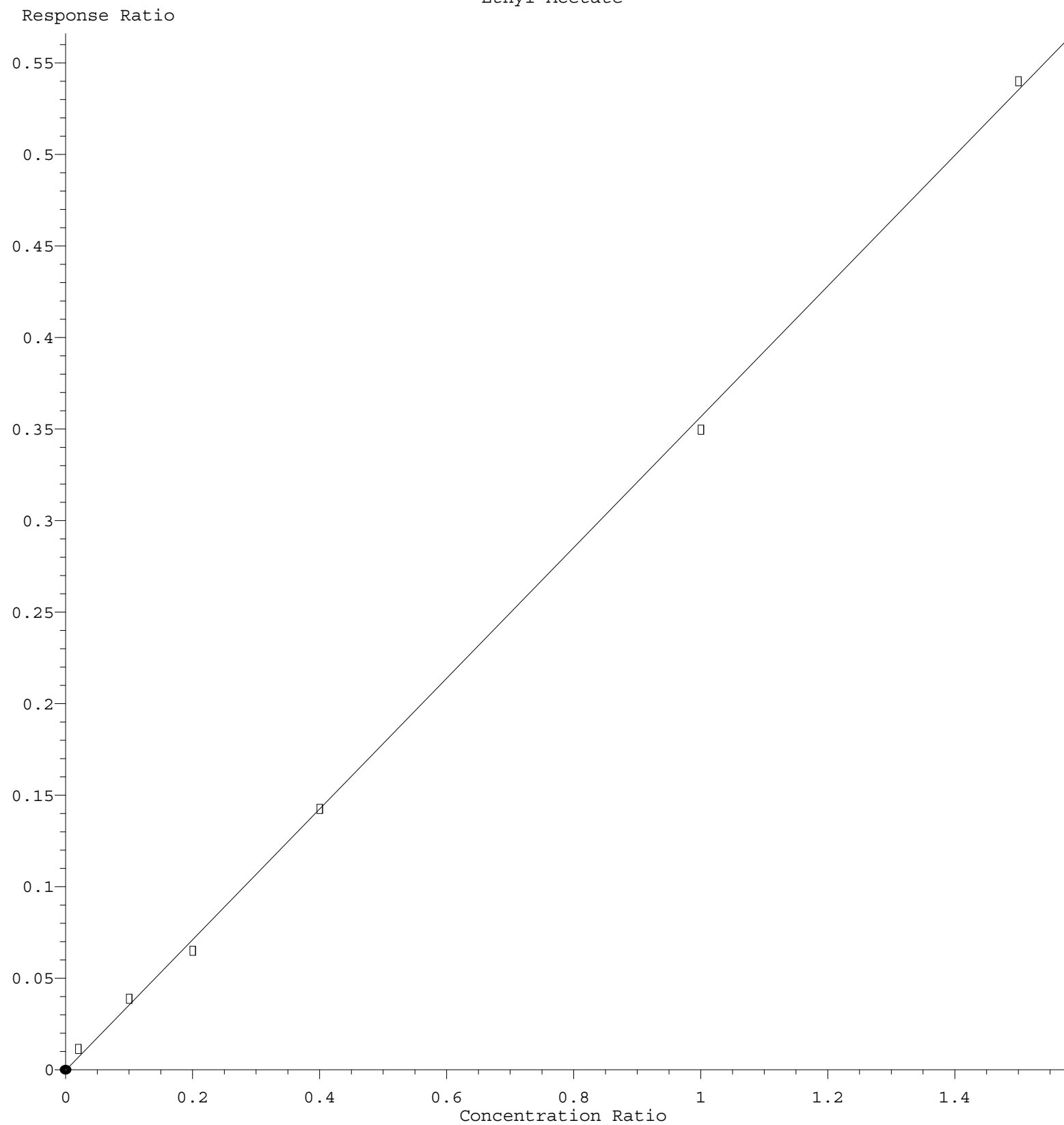
$$\text{Response} = 8.936\text{e-}001 * \text{Amt} + 1.727\text{e-}002$$

Coef of Det (r^2) = 0.998770 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M

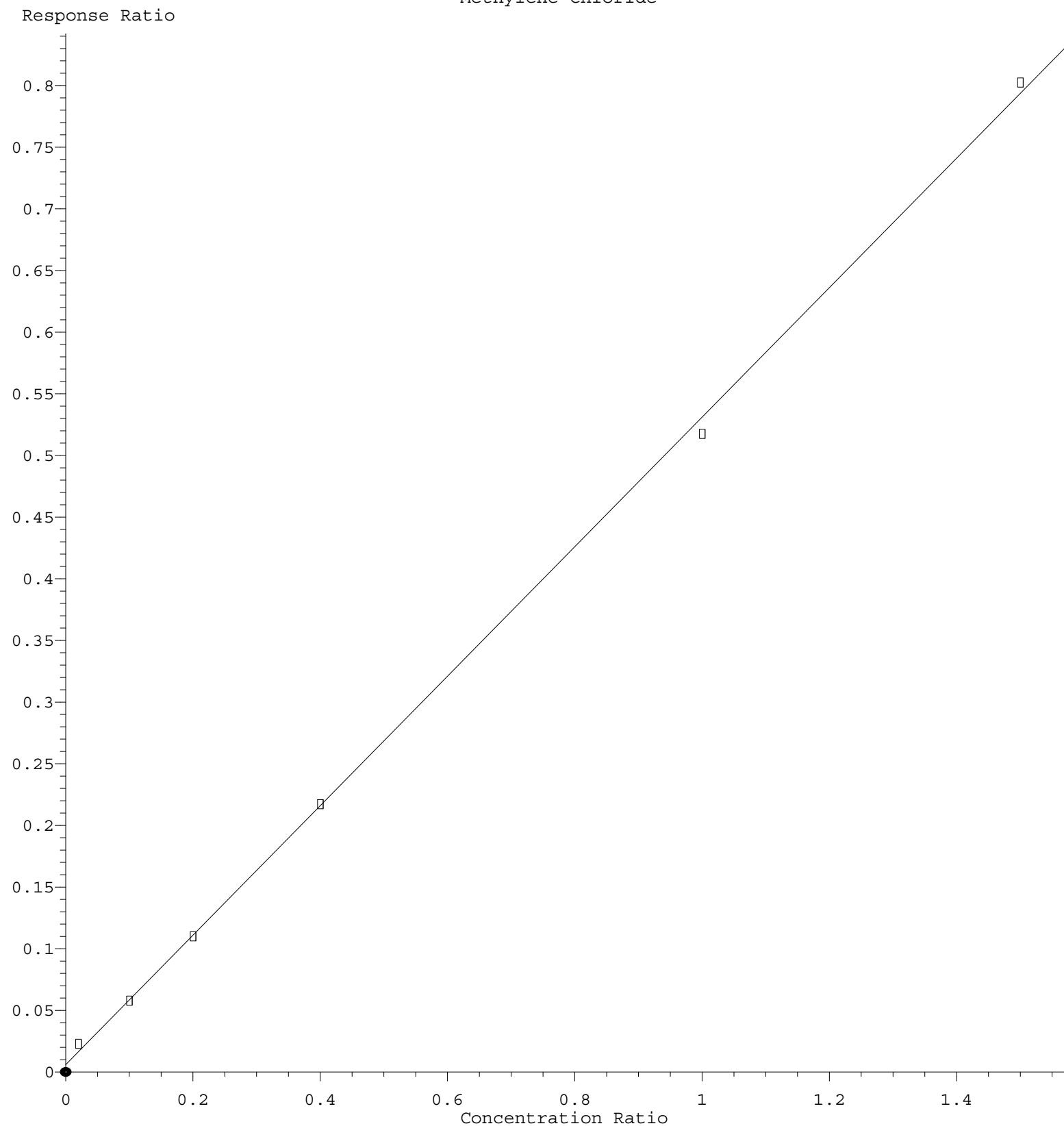
Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

Ethyl Acetate



Response = $3.567 \times 10^{-1} \times \text{Amt} - 2.613 \times 10^{-4}$
Coef of Det (r^2) = 0.999360 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M
Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

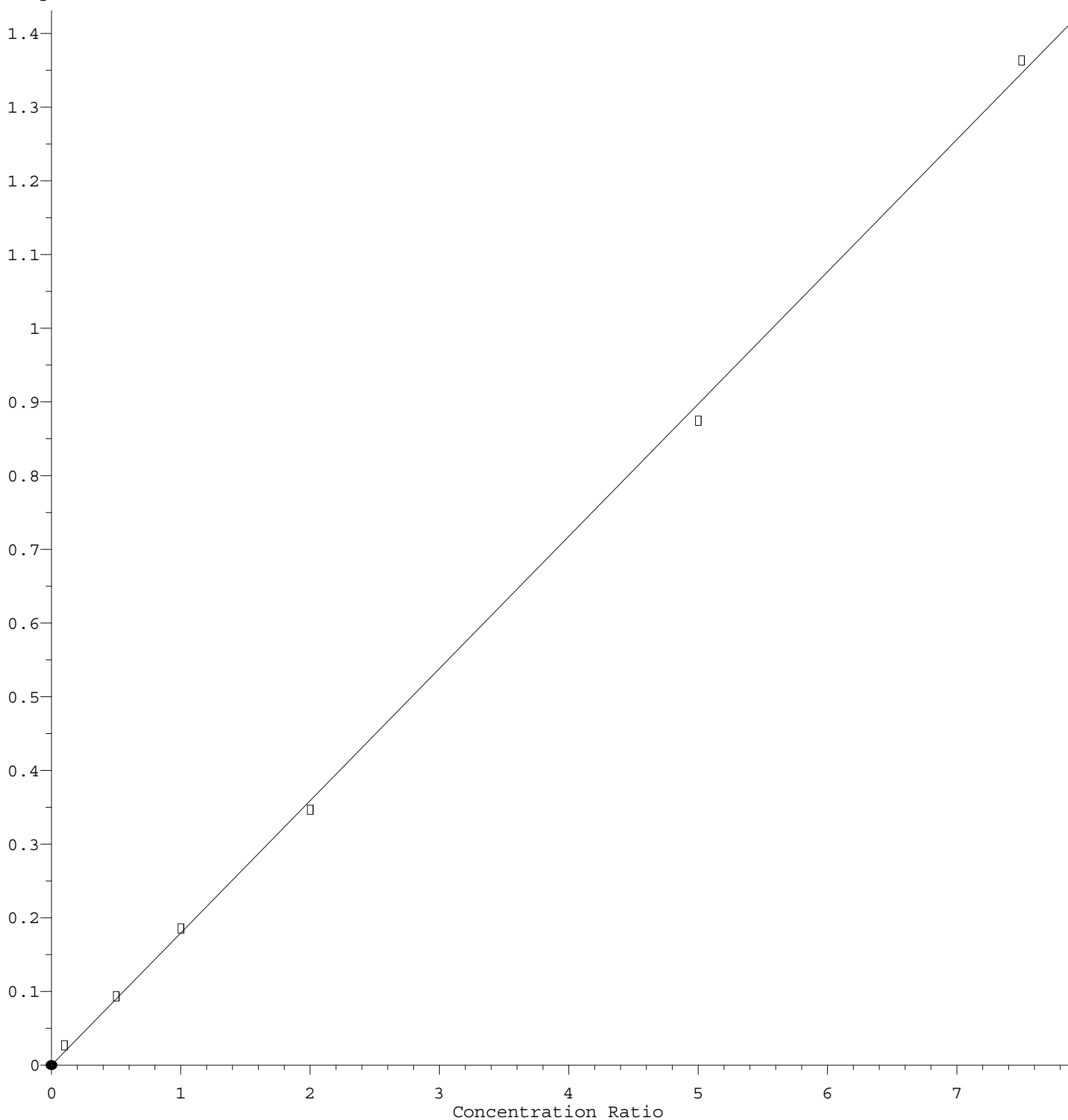
Methylene Chloride



Response = $5.247 \times 10^{-1} \times \text{Amt} + 6.399 \times 10^{-3}$
Coef of Det (r^2) = 0.999363 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M
Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

Acetone

Response Ratio



$$\text{Response} = 1.794\text{e-}001 * \text{Amt} + 2.638\text{e-}004$$

Coef of Det (r^2) = 0.999205 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N011623W.M

Calibration Table Last Updated: Tue Jan 17 03:59:22 2023

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076261.D
 Acq On : 16 Jan 2023 10:54
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC005

Quant Time: Jan 17 03:26:10 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	314006	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	506719	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	446975	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	196010	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	18348	5.219	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	10.440%#
35) Dibromofluoromethane	8.171	113	16750	5.284	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	10.560%#
50) Toluene-d8	10.565	98	59566	5.088	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	10.180%#
62) 4-Bromofluorobenzene	12.847	95	18054	4.724	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	=	9.440%#
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.142	85	14188	4.503	ug/l	100
3) Chloromethane	2.371	50	15794	4.696	ug/l	97
4) Vinyl Chloride	2.524	62	20666	4.983	ug/l	99
5) Bromomethane	2.954	94	17519	5.237	ug/l	94
6) Chloroethane	3.124	64	14904	4.909	ug/l	92
7) Trichlorofluoromethane	3.507	101	27844	4.953	ug/l	87
8) Diethyl Ether	3.977	74	9395	5.057	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.389	101	16038	5.104	ug/l	96
10) Methyl Iodide	4.601	142	23322	4.799	ug/l	99
11) Tert butyl alcohol	5.536	59	11737	24.958	ug/l #	84
12) 1,1-Dichloroethene	4.354	96	14743	5.050	ug/l	92
13) Acrolein	4.201	56	14871	26.442	ug/l	94
14) Allyl chloride	5.042	41	16664	4.866	ug/l	98
15) Acrylonitrile	5.730	53	33308	24.631	ug/l	97
16) Acetone	4.448	43	29331	25.232	ug/l	97
17) Carbon Disulfide	4.724	76	33691	4.585	ug/l #	93
18) Methyl Acetate	5.048	43	19408	5.113	ug/l	96
19) Methyl tert-butyl Ether	5.806	73	47650	4.904	ug/l #	91
20) Methylene Chloride	5.295	84	18166	5.193	ug/l	96
21) trans-1,2-Dichloroethene	5.795	96	16342	5.063	ug/l	96
22) Diisopropyl ether	6.689	45	40879	4.899	ug/l	98
23) Vinyl Acetate	6.612	43	124869	23.573	ug/l	99
24) 1,1-Dichloroethane	6.577	63	28567	5.103	ug/l	98
25) 2-Butanone	7.495	43	41677	24.632	ug/l	88
26) 2,2-Dichloropropane	7.500	77	23021	4.817	ug/l	99
27) cis-1,2-Dichloroethene	7.495	96	19315	5.077	ug/l	96
28) Bromochloromethane	7.812	49	11418	5.055	ug/l #	97
29) Tetrahydrofuran	7.847	42	25626	24.110	ug/l	99
30) Chloroform	7.971	83	30329	4.870	ug/l	95
31) Cyclohexane	8.259	56	31629	5.856	ug/l	86
32) 1,1,1-Trichloroethane	8.177	97	27800	5.010	ug/l #	83
36) 1,1-Dichloropropene	8.377	75	22426	4.990	ug/l	99
37) Ethyl Acetate	7.565	43	19638	5.507	ug/l	96
38) Carbon Tetrachloride	8.371	117	24797	4.954	ug/l	98
39) Methylcyclohexane	9.600	83	26978	4.963	ug/l	96
40) Benzene	8.612	78	67142	5.018	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076261.D
 Acq On : 16 Jan 2023 10:54
 Operator : JC\MD
 Sample : VSTDIC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDIC005

Quant Time: Jan 17 03:26:10 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.777	41	8986	4.891	ug/l	95
42) 1,2-Dichloroethane	8.677	62	23219	5.049	ug/l	100
43) Isopropyl Acetate	8.689	43	28939	3.744	ug/l	99
44) Trichloroethene	9.359	130	20191	5.372	ug/l	93
45) 1,2-Dichloropropane	9.624	63	16500	5.140	ug/l	94
46) Dibromomethane	9.712	93	12470	5.181	ug/l	99
47) Bromodichloromethane	9.888	83	22811	4.897	ug/l	96
48) Methyl methacrylate	9.683	41	13034	4.889	ug/l	94
49) 1,4-Dioxane	9.700	88	5805	100.635	ug/l #	84
51) 4-Methyl-2-Pentanone	10.447	43	82826	24.178	ug/l	98
52) Toluene	10.630	92	45133	5.108	ug/l	98
53) t-1,3-Dichloropropene	10.835	75	20705	4.657	ug/l	99
54) cis-1,3-Dichloropropene	10.312	75	23719	4.691	ug/l	99
55) 1,1,2-Trichloroethane	11.018	97	17237	5.133	ug/l	98
56) Ethyl methacrylate	10.871	69	20612	4.698	ug/l	99
57) 1,3-Dichloropropane	11.165	76	27308	5.035	ug/l	98
58) 2-Chloroethyl Vinyl ether	10.159	63	35150	23.865	ug/l	97
59) 2-Hexanone	11.194	43	58678	23.814	ug/l	97
60) Dibromochloromethane	11.359	129	17345	4.721	ug/l	97
61) 1,2-Dibromoethane	11.471	107	16910	4.972	ug/l	100
64) Tetrachloroethene	11.106	164	22378	5.668	ug/l	83
65) Chlorobenzene	11.894	112	46492	4.966	ug/l #	88
66) 1,1,1,2-Tetrachloroethane	11.959	131	17302	4.969	ug/l	98
67) Ethyl Benzene	11.965	91	76316	4.742	ug/l	98
68) m/p-Xylenes	12.071	106	60599	9.532	ug/l	97
69) o-Xylene	12.400	106	29957	4.806	ug/l	99
70) Styrene	12.412	104	46371	4.700	ug/l	99
71) Bromoform	12.582	173	11267	4.466	ug/l #	93
73) Isopropylbenzene	12.700	105	74523	4.983	ug/l	100
74) N-amyl acetate	12.494	43	19438	4.608	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.941	83	21717	4.941	ug/l	97
76) 1,2,3-Trichloropropane	12.994	75	26437	6.555	ug/l	90
77) Bromobenzene	12.982	156	18956	5.081	ug/l	97
78) n-propylbenzene	13.041	91	79976	4.838	ug/l	99
79) 2-Chlorotoluene	13.129	91	53822	5.227	ug/l	98
80) 1,3,5-Trimethylbenzene	13.176	105	64076	5.092	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.735	75	5783	4.909	ug/l	94
82) 4-Chlorotoluene	13.129	91	53822	5.227	ug/l	98
83) tert-Butylbenzene	13.435	119	55983	4.988	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	61140	4.975	ug/l	98
85) sec-Butylbenzene	13.618	105	75118	4.909	ug/l	98
86) p-Isopropyltoluene	13.735	119	59629	4.775	ug/l	99
87) 1,3-Dichlorobenzene	13.735	146	33174	4.851	ug/l	97
88) 1,4-Dichlorobenzene	13.812	146	34098	5.024	ug/l	94
89) n-Butylbenzene	14.059	91	44065	4.458	ug/l	99
90) Hexachloroethane	14.335	117	10573	4.809	ug/l	99
91) 1,2-Dichlorobenzene	14.112	146	34611	5.021	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.723	75	3560	4.863	ug/l	93
93) 1,2,4-Trichlorobenzene	15.394	180	12787	4.326	ug/l	89
94) Hexachlorobutadiene	15.500	225	9302	5.168	ug/l	96
95) Naphthalene	15.641	128	33506	4.075	ug/l	99
96) 1,2,3-Trichlorobenzene	15.841	180	12705	4.409	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076261.D
Acq On : 16 Jan 2023 10:54
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Quant Time: Jan 17 03:26:10 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration

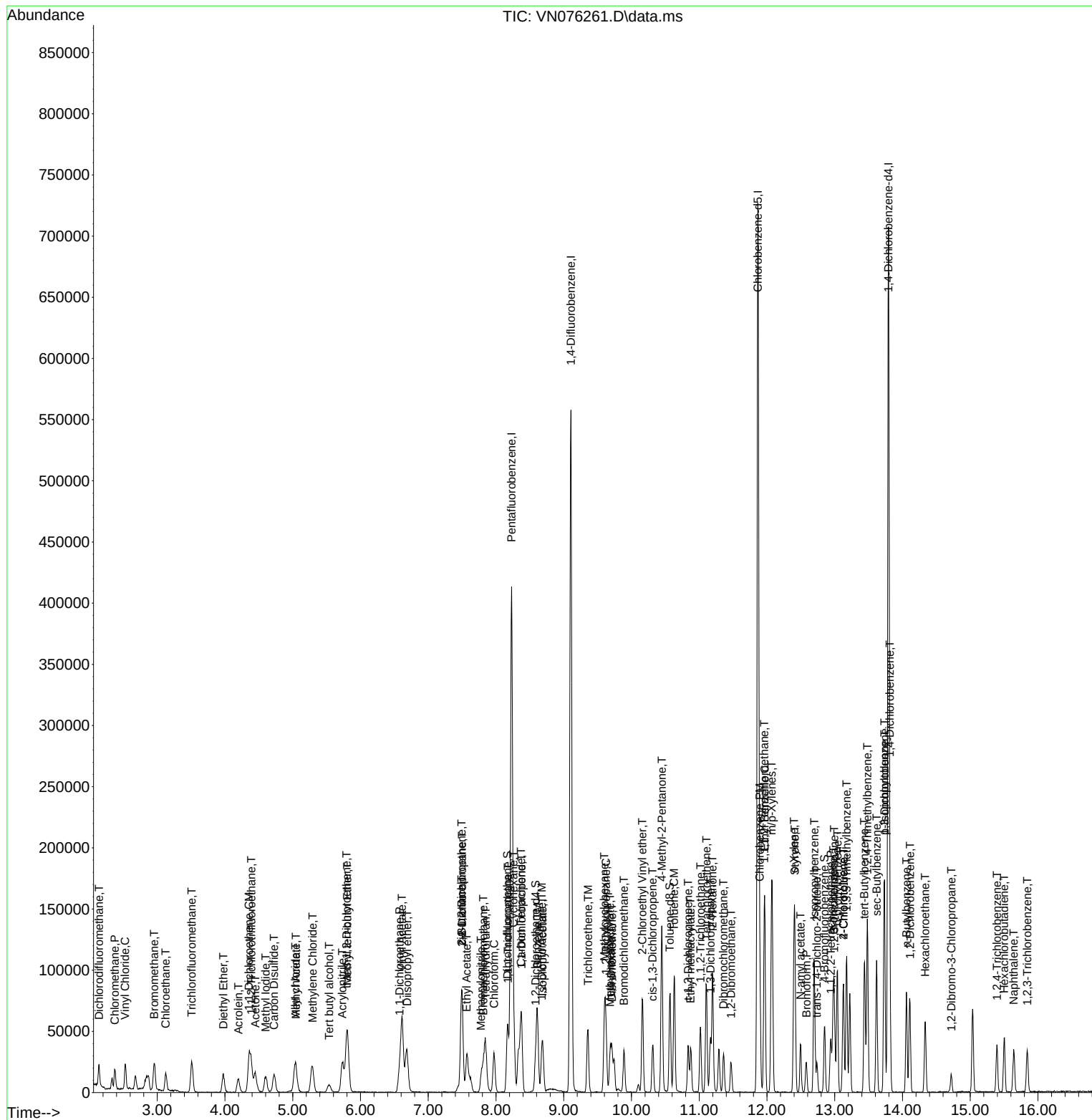
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076261.D
Acq On : 16 Jan 2023 10:54
Operator : JC\MD
Sample : VSTDIC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDIC005

Quant Time: Jan 17 03:26:10 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076262.D
 Acq On : 16 Jan 2023 11:18
 Operator : JC\MD
 Sample : VSTDIC010
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDIC010

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:05 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.229	168	320544	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	517017	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	453787	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	202701	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	33716	9.394	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	18.780%#		
35) Dibromofluoromethane	8.171	113	30456	9.417	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	18.840%#		
50) Toluene-d8	10.565	98	109806	9.193	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	18.380%#		
62) 4-Bromofluorobenzene	12.853	95	34536	8.857	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery =	17.720%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	34452	10.710	ug/l	96
3) Chloromethane	2.377	50	34904	10.166	ug/l	99
4) Vinyl Chloride	2.530	62	41852	9.885	ug/l	99
5) Bromomethane	2.977	94	34241	10.026	ug/l	99
6) Chloroethane	3.136	64	31040	10.016	ug/l	92
7) Trichlorofluoromethane	3.512	101	56868	9.909	ug/l	95
8) Diethyl Ether	3.971	74	19183	10.115	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.394	101	34066	10.620	ug/l	97
10) Methyl Iodide	4.600	142	49618	10.001	ug/l	99
11) Tert butyl alcohol	5.530	59	24141	50.287	ug/l	98
12) 1,1-Dichloroethene	4.359	96	30697	10.300	ug/l	98
13) Acrolein	4.194	56	27631	48.128	ug/l	98
14) Allyl chloride	5.041	41	37303	10.671	ug/l	90
15) Acrylonitrile	5.736	53	67502	48.900	ug/l	97
16) Acetone	4.447	43	59437	50.088	ug/l	97
17) Carbon Disulfide	4.724	76	75610	10.080	ug/l	97
18) Methyl Acetate	5.041	43	38840	10.024	ug/l	99
19) Methyl tert-butyl Ether	5.812	73	98404	9.920	ug/l	96
20) Methylene Chloride	5.294	84	35269	9.876	ug/l	95
21) trans-1,2-Dichloroethene	5.806	96	32099	9.742	ug/l	98
22) Diisopropyl ether	6.683	45	85802	10.074	ug/l	97
23) Vinyl Acetate	6.618	43	264462	48.907	ug/l	99
24) 1,1-Dichloroethane	6.583	63	57517	10.065	ug/l	99
25) 2-Butanone	7.494	43	88191	51.059	ug/l	99
26) 2,2-Dichloropropane	7.494	77	46879	9.608	ug/l	99
27) cis-1,2-Dichloroethene	7.500	96	37916	9.763	ug/l	99
28) Bromochloromethane	7.818	49	21348	9.258	ug/l	99
29) Tetrahydrofuran	7.841	42	55875	51.498	ug/l	98
30) Chloroform	7.971	83	62299	9.800	ug/l	98
31) Cyclohexane	8.265	56	56096	10.174	ug/l	99
32) 1,1,1-Trichloroethane	8.177	97	56305	9.941	ug/l	93
36) 1,1-Dichloropropene	8.377	75	44575	9.722	ug/l	98
37) Ethyl Acetate	7.565	43	33601	9.234	ug/l #	92
38) Carbon Tetrachloride	8.365	117	50624	9.912	ug/l	97
39) Methylcyclohexane	9.606	83	54271	9.785	ug/l	99
40) Benzene	8.612	78	136726	10.014	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076262.D
 Acq On : 16 Jan 2023 11:18
 Operator : JC\MD
 Sample : VSTDICC010
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC010

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/17/2023

Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:05 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Quant Title : SW846 8260

QLast Update : Tue Jan 17 03:09:59 2023

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.782	41	20080	10.711	ug/l	98
42) 1,2-Dichloroethane	8.671	62	46352	9.879	ug/l	98
43) Isopropyl Acetate	8.694	43	58576	7.427	ug/l	97
44) Trichloroethene	9.353	130	38467	10.031	ug/l	97
45) 1,2-Dichloropropane	9.623	63	32522	9.929	ug/l	92
46) Dibromomethane	9.712	93	24351	9.915	ug/l	97
47) Bromodichloromethane	9.888	83	47459	9.985	ug/l	94
48) Methyl methacrylate	9.682	41	26795	9.851	ug/l	98
49) 1,4-Dioxane	9.694	88	11604	197.159	ug/l #	85
51) 4-Methyl-2-Pentanone	10.447	43	176417	50.473	ug/l	98
52) Toluene	10.629	92	92447	10.255	ug/l	97
53) t-1,3-Dichloropropene	10.835	75	44067	9.714	ug/l	97
54) cis-1,3-Dichloropropene	10.312	75	52278	10.133	ug/l	96
55) 1,1,2-Trichloroethane	11.018	97	34782	10.151	ug/l	93
56) Ethyl methacrylate	10.876	69	42444	9.481	ug/l	93
57) 1,3-Dichloropropane	11.165	76	56103	10.139	ug/l	99
58) 2-Chloroethyl Vinyl ether	10.165	63	72411	48.184	ug/l	100
59) 2-Hexanone	11.194	43	124902	49.680	ug/l	98
60) Dibromochloromethane	11.359	129	36578	9.758	ug/l	100
61) 1,2-Dibromoethane	11.470	107	35181	10.138	ug/l	98
64) Tetrachloroethene	11.106	164	41762	10.419	ug/l	99
65) Chlorobenzene	11.894	112	95693	10.069	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.959	131	35576	10.065	ug/l	99
67) Ethyl Benzene	11.965	91	165217	10.111	ug/l	96
68) m/p-Xylenes	12.070	106	131940	20.442	ug/l	99
69) o-Xylene	12.400	106	64085	10.127	ug/l	98
70) Styrene	12.412	104	99564	9.940	ug/l	99
71) Bromoform	12.576	173	24549	9.585	ug/l #	98
73) Isopropylbenzene	12.700	105	163800	10.592	ug/l	100
74) N-amyl acetate	12.494	43	45088	10.336	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	43747	9.625	ug/l	96
76) 1,2,3-Trichloropropane	12.994	75	34391m	8.245	ug/l	
77) Bromobenzene	12.982	156	40112	10.397	ug/l	97
78) n-propylbenzene	13.035	91	178798	10.459	ug/l	100
79) 2-Chlorotoluene	13.129	91	109634	10.296	ug/l	100
80) 1,3,5-Trimethylbenzene	13.176	105	137585	10.572	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.741	75	11062	9.080	ug/l	90
82) 4-Chlorotoluene	13.129	91	109634	10.296	ug/l	100
83) tert-Butylbenzene	13.441	119	122723	10.574	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	138168	10.872	ug/l	99
85) sec-Butylbenzene	13.617	105	164588	10.401	ug/l	100
86) p-Isopropyltoluene	13.729	119	135432	10.488	ug/l	98
87) 1,3-Dichlorobenzene	13.735	146	71354	10.089	ug/l	99
88) 1,4-Dichlorobenzene	13.811	146	70033	9.978	ug/l	99
89) n-Butylbenzene	14.059	91	101141	9.895	ug/l	98
90) Hexachloroethane	14.329	117	22281	9.800	ug/l	94
91) 1,2-Dichlorobenzene	14.106	146	71367	10.012	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.723	75	7288	9.627	ug/l	88
93) 1,2,4-Trichlorobenzene	15.394	180	30695	10.043	ug/l	98
94) Hexachlorobutadiene	15.505	225	18333	9.849	ug/l	96
95) Naphthalene	15.641	128	80951	9.521	ug/l	99
96) 1,2,3-Trichlorobenzene	15.847	180	30742	10.316	ug/l	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076262.D
Acq On : 16 Jan 2023 11:18
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration

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

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

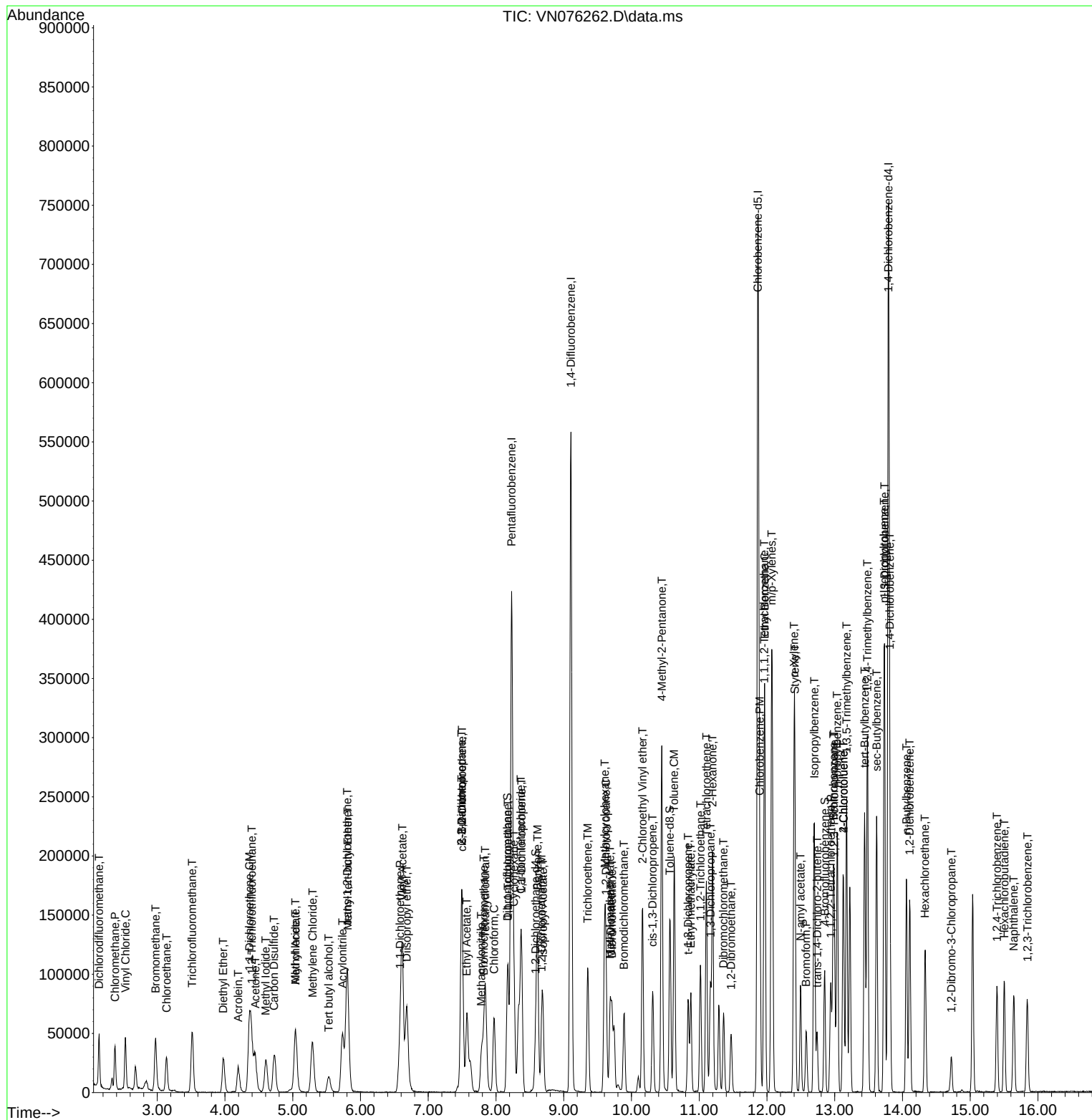
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076262.D
Acq On : 16 Jan 2023 11:18
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076263.D
 Acq On : 16 Jan 2023 11:42
 Operator : JC\MD
 Sample : VSTDIC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDIC020

Manual Integrations
 APPROVED

Reviewed By :John Carlone 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.229	168	333376	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	532805	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	475986	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	223693	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	73264	19.627	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	39.260%#		
35) Dibromofluoromethane	8.171	113	66517	19.958	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	39.920%#		
50) Toluene-d8	10.570	98	245379	19.935	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	39.880%#		
62) 4-Bromofluorobenzene	12.847	95	79158	19.700	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery =	39.400%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	69689	20.831	ug/l	95
3) Chloromethane	2.377	50	69779	19.541	ug/l	97
4) Vinyl Chloride	2.530	62	85936	19.516	ug/l	98
5) Bromomethane	2.971	94	69958	19.697	ug/l	93
6) Chloroethane	3.136	64	62765	19.474	ug/l	100
7) Trichlorofluoromethane	3.518	101	117412	19.671	ug/l	99
8) Diethyl Ether	3.971	74	39695	20.125	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.389	101	66915	20.057	ug/l	99
10) Methyl Iodide	4.600	142	101460	19.664	ug/l	99
11) Tert butyl alcohol	5.536	59	46729	93.593	ug/l #	85
12) 1,1-Dichloroethene	4.359	96	61228	19.754	ug/l	86
13) Acrolein	4.200	56	58773	98.432	ug/l	99
14) Allyl chloride	5.036	41	69646	19.155	ug/l	99
15) Acrylonitrile	5.730	53	138844	96.710	ug/l	99
16) Acetone	4.441	43	115561	93.637	ug/l	97
17) Carbon Disulfide	4.730	76	152132	19.500	ug/l	98
18) Methyl Acetate	5.041	43	76599	19.007	ug/l	99
19) Methyl tert-butyl Ether	5.806	73	204903	19.861	ug/l	98
20) Methylene Chloride	5.288	84	72411	19.497	ug/l	96
21) trans-1,2-Dichloroethene	5.800	96	66652	19.449	ug/l	96
22) Diisopropyl ether	6.683	45	176596	19.936	ug/l	96
23) Vinyl Acetate	6.612	43	586941	104.365	ug/l	97
24) 1,1-Dichloroethane	6.577	63	113831	19.154	ug/l	99
25) 2-Butanone	7.488	43	175557	97.729	ug/l	99
26) 2,2-Dichloropropane	7.500	77	96641	19.045	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	79611	19.711	ug/l	98
28) Bromochloromethane	7.824	49	47125	19.649	ug/l	98
29) Tetrahydrofuran	7.841	42	113622	100.690	ug/l	99
30) Chloroform	7.971	83	124094	18.769	ug/l	92
31) Cyclohexane	8.265	56	111143	19.383	ug/l	97
32) 1,1,1-Trichloroethane	8.177	97	116028	19.697	ug/l	91
36) 1,1-Dichloropropene	8.377	75	93699	19.830	ug/l	100
37) Ethyl Acetate	7.565	43	75898	20.240	ug/l	99
38) Carbon Tetrachloride	8.371	117	103587	19.682	ug/l	97
39) Methylcyclohexane	9.606	83	118648	20.759	ug/l	98
40) Benzene	8.612	78	280396	19.928	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076263.D
 Acq On : 16 Jan 2023 11:42
 Operator : JC\MD
 Sample : VSTDIC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDIC020

Manual Integrations
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Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.782	41	38707	20.035	ug/l	96
42) 1,2-Dichloroethane	8.677	62	93910	19.422	ug/l	99
43) Isopropyl Acetate	8.694	43	120216	14.791	ug/l	99
44) Trichloroethene	9.359	130	75515	19.108	ug/l	97
45) 1,2-Dichloropropane	9.623	63	66832	19.798	ug/l	100
46) Dibromomethane	9.712	93	49419	19.526	ug/l	98
47) Bromodichloromethane	9.888	83	97172	19.838	ug/l	97
48) Methyl methacrylate	9.682	41	56694	20.225	ug/l	99
49) 1,4-Dioxane	9.694	88	24139	397.983	ug/l	96
51) 4-Methyl-2-Pentanone	10.447	43	363112	100.808	ug/l	100
52) Toluene	10.629	92	185436	19.960	ug/l	99
53) t-1,3-Dichloropropene	10.835	75	94115	20.132	ug/l	99
54) cis-1,3-Dichloropropene	10.312	75	107692	20.256	ug/l	96
55) 1,1,2-Trichloroethane	11.018	97	70284	19.905	ug/l	99
56) Ethyl methacrylate	10.876	69	95501	20.700	ug/l	98
57) 1,3-Dichloropropane	11.165	76	115621	20.276	ug/l	100
58) 2-Chloroethyl Vinyl ether	10.165	63	159890	103.241	ug/l	100
59) 2-Hexanone	11.200	43	265249	102.378	ug/l	100
60) Dibromochloromethane	11.359	129	76237	19.734	ug/l	100
61) 1,2-Dibromoethane	11.470	107	71501	19.994	ug/l	98
64) Tetrachloroethene	11.106	164	80374	19.117	ug/l	99
65) Chlorobenzene	11.894	112	193594	19.419	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.959	131	72903	19.663	ug/l	99
67) Ethyl Benzene	11.965	91	345405	20.152	ug/l	99
68) m/p-Xylenes	12.070	106	274693	40.574	ug/l	99
69) o-Xylene	12.400	106	135135	20.358	ug/l	100
70) Styrene	12.412	104	216551	20.611	ug/l	99
71) Bromoform	12.582	173	53606	19.954	ug/l #	99
73) Isopropylbenzene	12.700	105	352772	20.671	ug/l	99
74) N-amyl acetate	12.494	43	98317	20.423	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	95815	19.102	ug/l	98
76) 1,2,3-Trichloropropane	12.994	75	85153m	18.500	ug/l	
77) Bromobenzene	12.982	156	82443	19.363	ug/l	98
78) n-propylbenzene	13.035	91	389172	20.629	ug/l	100
79) 2-Chlorotoluene	13.129	91	230561	19.621	ug/l	99
80) 1,3,5-Trimethylbenzene	13.176	105	292268	20.350	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.741	75	26323	19.579	ug/l	99
82) 4-Chlorotoluene	13.129	91	230561	19.621	ug/l	99
83) tert-Butylbenzene	13.441	119	256981	20.064	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	293171	20.904	ug/l	100
85) sec-Butylbenzene	13.617	105	356622	20.421	ug/l	99
86) p-Isopropyltoluene	13.729	119	297726	20.892	ug/l	100
87) 1,3-Dichlorobenzene	13.735	146	149901	19.206	ug/l	99
88) 1,4-Dichlorobenzene	13.817	146	151364	19.542	ug/l	99
89) n-Butylbenzene	14.059	91	227494	20.168	ug/l	99
90) Hexachloroethane	14.335	117	50245	20.026	ug/l	99
91) 1,2-Dichlorobenzene	14.106	146	152406	19.374	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	16704	19.995	ug/l	96
93) 1,2,4-Trichlorobenzene	15.394	180	67990	20.157	ug/l	99
94) Hexachlorobutadiene	15.505	225	39847	19.399	ug/l	98
95) Naphthalene	15.641	128	197487	21.049	ug/l	100
96) 1,2,3-Trichlorobenzene	15.841	180	65299	19.856	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076263.D
Acq On : 16 Jan 2023 11:42
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
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Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:27:59 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration

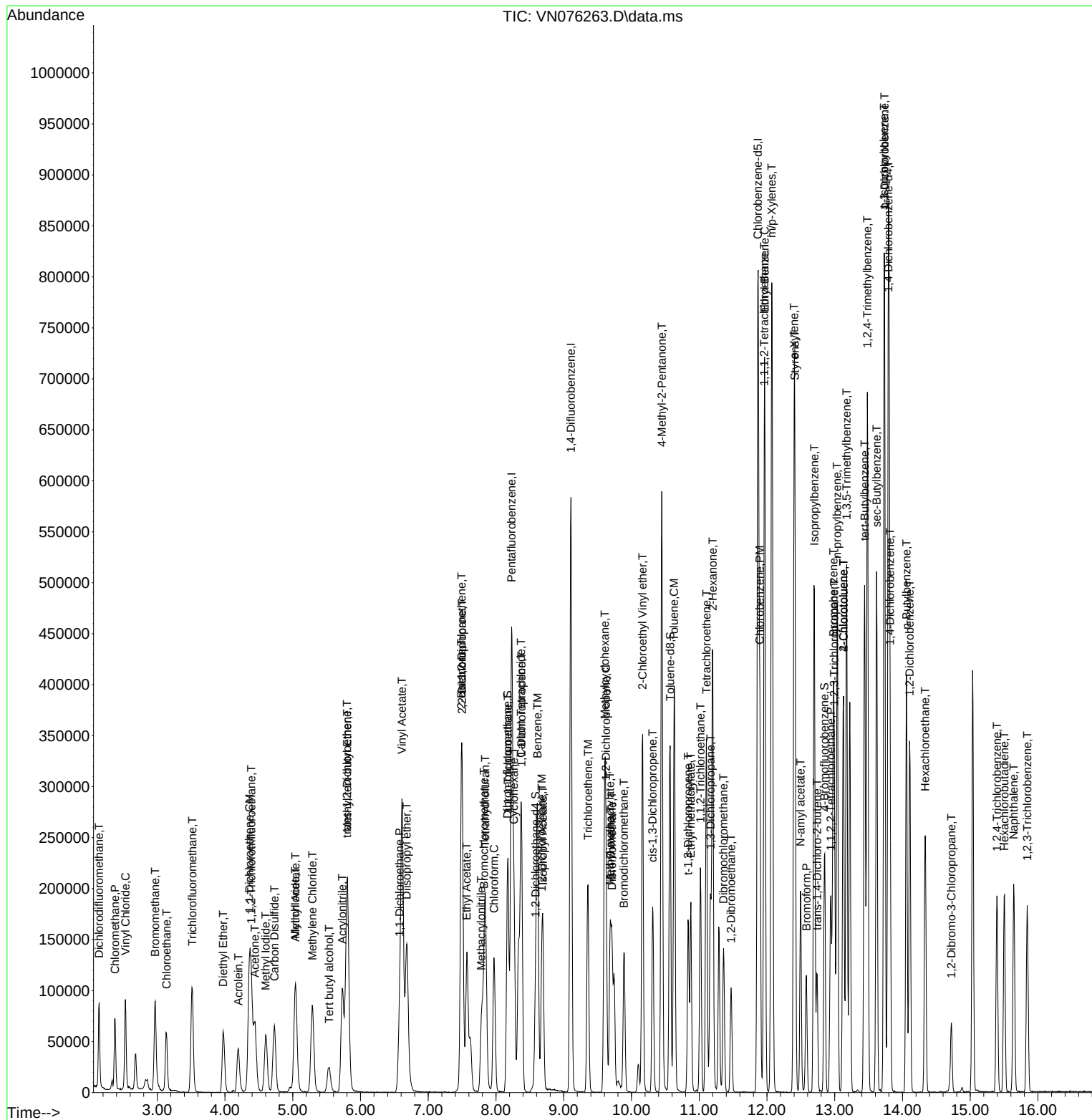
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations

Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076264.D
 Acq On : 16 Jan 2023 12:06
 Operator : JC\MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:28:52 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	334320	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	533540	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	482751	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	243254	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	185216	49.479	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	98.960%		
35) Dibromofluoromethane	8.171	113	163335	48.939	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	97.880%		
50) Toluene-d8	10.571	98	621427	50.417	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	100.840%		
62) 4-Bromofluorobenzene	12.847	95	209462	52.056	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery =	104.120%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.136	85	175749	52.385	ug/l	100
3) Chloromethane	2.371	50	174360	48.691	ug/l	100
4) Vinyl Chloride	2.530	62	215352	48.768	ug/l	100
5) Bromomethane	2.953	94	172179	48.340	ug/l	100
6) Chloroethane	3.124	64	152855	47.292	ug/l	100
7) Trichlorofluoromethane	3.512	101	292683	48.898	ug/l	100
8) Diethyl Ether	3.971	74	102475	51.808	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.389	101	166380	49.729	ug/l	100
10) Methyl Iodide	4.600	142	262342	50.701	ug/l	100
11) Tert butyl alcohol	5.530	59	125739	251.130	ug/l	100
12) 1,1-Dichloroethene	4.359	96	159397	51.282	ug/l	100
13) Acrolein	4.189	56	147125	245.707	ug/l	100
14) Allyl chloride	5.036	41	183513	50.331	ug/l	100
15) Acrylonitrile	5.730	53	360527	250.412	ug/l	100
16) Acetone	4.442	43	292325	236.196	ug/l	100
17) Carbon Disulfide	4.724	76	395842	50.596	ug/l	100
18) Methyl Acetate	5.036	43	196481	48.617	ug/l	100
19) Methyl tert-butyl Ether	5.806	73	534043	51.618	ug/l	100
20) Methylene Chloride	5.289	84	173002	46.449	ug/l	100
21) trans-1,2-Dichloroethene	5.794	96	169025	49.183	ug/l	100
22) Diisopropyl ether	6.683	45	449978	50.654	ug/l	100
23) Vinyl Acetate	6.612	43	1523871	270.197	ug/l	100
24) 1,1-Dichloroethane	6.583	63	290237	48.699	ug/l	100
25) 2-Butanone	7.488	43	456534	253.425	ug/l	100
26) 2,2-Dichloropropane	7.500	77	257207	50.545	ug/l	100
27) cis-1,2-Dichloroethene	7.494	96	200405	49.477	ug/l	100
28) Bromochloromethane	7.824	49	120873	50.257	ug/l	100
29) Tetrahydrofuran	7.841	42	296147	261.700	ug/l	100
30) Chloroform	7.971	83	322667	48.664	ug/l	100
31) Cyclohexane	8.259	56	262943	45.726	ug/l	100
32) 1,1,1-Trichloroethane	8.171	97	295415	50.008	ug/l	100
36) 1,1-Dichloropropene	8.377	75	238088	50.317	ug/l	100
37) Ethyl Acetate	7.565	43	186551	49.680	ug/l	100
38) Carbon Tetrachloride	8.365	117	266407	50.548	ug/l	100
39) Methylcyclohexane	9.600	83	305209	53.326	ug/l	100
40) Benzene	8.612	78	711084	50.468	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076264.D
 Acq On : 16 Jan 2023 12:06
 Operator : JC\MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :John Carlone 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:28:52 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.788	41	101944	52.695	ug/l	100
42) 1,2-Dichloroethane	8.677	62	239913	49.549	ug/l	100
43) Isopropyl Acetate	8.694	43	318943	39.187	ug/l	100
44) Trichloroethene	9.353	130	192795	48.717	ug/l	100
45) 1,2-Dichloropropane	9.624	63	168115	49.734	ug/l	100
46) Dibromomethane	9.712	93	127706	50.388	ug/l	100
47) Bromodichloromethane	9.888	83	252956	51.571	ug/l	100
48) Methyl methacrylate	9.682	41	150846	53.738	ug/l	100
49) 1,4-Dioxane	9.700	88	66877	1101.092	ug/l	100
51) 4-Methyl-2-Pentanone	10.447	43	949542	263.252	ug/l	100
52) Toluene	10.629	92	472098	50.747	ug/l	100
53) t-1,3-Dichloropropene	10.835	75	260689	55.686	ug/l	100
54) cis-1,3-Dichloropropene	10.312	75	283382	53.228	ug/l	100
55) 1,1,2-Trichloroethane	11.018	97	176843	50.015	ug/l	100
56) Ethyl methacrylate	10.876	69	255967	55.405	ug/l	100
57) 1,3-Dichloropropane	11.165	76	296986	52.009	ug/l	100
58) 2-Chloroethyl Vinyl ether	10.165	63	430143	277.362	ug/l	100
59) 2-Hexanone	11.194	43	694975	267.869	ug/l	100
60) Dibromochloromethane	11.359	129	203721	52.662	ug/l	100
61) 1,2-Dibromoethane	11.470	107	186523	52.087	ug/l	100
64) Tetrachloroethene	11.106	164	189737	44.496	ug/l	100
65) Chlorobenzene	11.894	112	498987	49.352	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.965	131	188538	50.139	ug/l	100
67) Ethyl Benzene	11.965	91	907487	52.204	ug/l	100
68) m/p-Xylenes	12.070	106	719578	104.797	ug/l	100
69) o-Xylene	12.400	106	356554	52.962	ug/l	100
70) Styrene	12.412	104	582214	54.638	ug/l	100
71) Bromoform	12.582	173	146734	53.853	ug/l #	100
73) Isopropylbenzene	12.694	105	925723	49.881	ug/l	100
74) N-amyl acetate	12.494	43	277388	52.987	ug/l	100
75) 1,1,2,2-Tetrachloroethane	12.941	83	257135	47.141	ug/l	100
76) 1,2,3-Trichloropropane	12.994	75	223276m	44.607	ug/l	
77) Bromobenzene	12.982	156	217521	46.980	ug/l	100
78) n-propylbenzene	13.035	91	1062200	51.778	ug/l	100
79) 2-Chlorotoluene	13.129	91	621318	48.624	ug/l	100
80) 1,3,5-Trimethylbenzene	13.176	105	787365	50.415	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.735	75	77684	53.135	ug/l	100
82) 4-Chlorotoluene	13.129	91	621318	48.624	ug/l	100
83) tert-Butylbenzene	13.441	119	693416	49.784	ug/l	100
84) 1,2,4-Trimethylbenzene	13.482	105	788992	51.735	ug/l	100
85) sec-Butylbenzene	13.617	105	989722	52.117	ug/l	100
86) p-Isopropyltoluene	13.729	119	838422	54.102	ug/l	100
87) 1,3-Dichlorobenzene	13.735	146	419320	49.404	ug/l	100
88) 1,4-Dichlorobenzene	13.812	146	413781	49.126	ug/l	100
89) n-Butylbenzene	14.059	91	684062	55.767	ug/l	100
90) Hexachloroethane	14.335	117	142991	52.409	ug/l	100
91) 1,2-Dichlorobenzene	14.106	146	417490	48.804	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	50421	55.502	ug/l	100
93) 1,2,4-Trichlorobenzene	15.394	180	212850	58.031	ug/l	100
94) Hexachlorobutadiene	15.506	225	115721	51.807	ug/l	100
95) Naphthalene	15.641	128	617257	60.498	ug/l	100
96) 1,2,3-Trichlorobenzene	15.841	180	202445	56.608	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076264.D
Acq On : 16 Jan 2023 12:06
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
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Reviewed By :John Carlone 01/17/2023
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076264.D
 Acq On : 16 Jan 2023 12:06
 Operator : JC\MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

MSVOA_N

Client SampleId :

VSTDICCC050

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/17/2023

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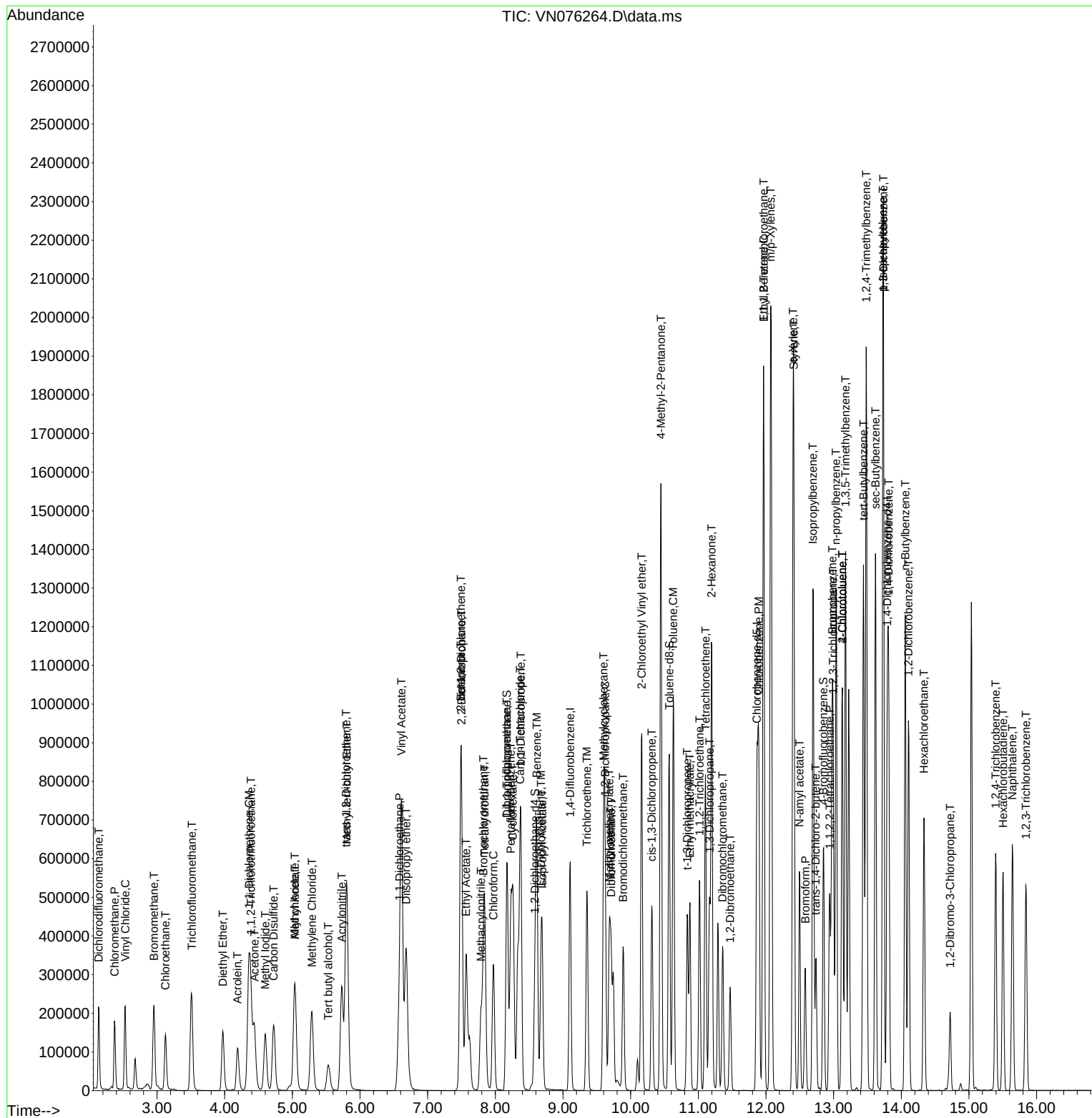
Quant Time: Jan 17 03:28:52 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Quant Title : SW846 8260

QLast Update : Tue Jan 17 03:09:59 2023

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076265.D
 Acq On : 16 Jan 2023 12:30
 Operator : JC\MD
 Sample : VSTDIC075
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDIC075

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:29:43 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.229	168	321221	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	512326	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	472453	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	243203	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	282139	78.445	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 156.880%#			
35) Dibromofluoromethane	8.171	113	246315	76.858	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 153.720%#			
50) Toluene-d8	10.570	98	939073	79.342	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 158.680%#			
62) 4-Bromofluorobenzene	12.853	95	331324	85.750	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 171.500%#			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	260721	80.881	ug/l	99
3) Chloromethane	2.371	50	251376	73.060	ug/l	96
4) Vinyl Chloride	2.530	62	316378	74.567	ug/l	100
5) Bromomethane	2.947	94	256258	74.879	ug/l	99
6) Chloroethane	3.124	64	234550	75.527	ug/l	99
7) Trichlorofluoromethane	3.506	101	432757	75.249	ug/l	99
8) Diethyl Ether	3.971	74	150709	79.300	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.383	101	246426	76.658	ug/l	99
10) Methyl Iodide	4.600	142	388844	78.214	ug/l	99
11) Tert butyl alcohol	5.535	59	190414	395.809	ug/l	99
12) 1,1-Dichloroethene	4.353	96	234152	78.405	ug/l	91
13) Acrolein	4.189	56	218465	379.726	ug/l	97
14) Allyl chloride	5.036	41	274771	78.433	ug/l	99
15) Acrylonitrile	5.730	53	528031	381.712	ug/l	99
16) Acetone	4.441	43	437951	368.290	ug/l	98
17) Carbon Disulfide	4.724	76	591526	78.691	ug/l	98
18) Methyl Acetate	5.041	43	288691	74.347	ug/l	99
19) Methyl tert-butyl Ether	5.806	73	786692	79.139	ug/l	96
20) Methylene Chloride	5.283	84	257729	72.020	ug/l	97
21) trans-1,2-Dichloroethene	5.794	96	247260	74.882	ug/l	98
22) Diisopropyl ether	6.677	45	658464	77.146	ug/l	97
23) Vinyl Acetate	6.612	43	2271912	419.259	ug/l	99
24) 1,1-Dichloroethane	6.582	63	430474	75.174	ug/l	97
25) 2-Butanone	7.488	43	669792	386.968	ug/l	99
26) 2,2-Dichloropropane	7.500	77	385240	78.793	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	295605	75.957	ug/l	100
28) Bromochloromethane	7.818	49	183075	79.223	ug/l	98
29) Tetrahydrofuran	7.841	42	434632	399.738	ug/l	99
30) Chloroform	7.971	83	471128	73.953	ug/l	99
31) Cyclohexane	8.265	56	384400	69.574	ug/l	95
32) 1,1,1-Trichloroethane	8.171	97	445214	78.440	ug/l	97
36) 1,1-Dichloropropene	8.377	75	353100	77.714	ug/l	99
37) Ethyl Acetate	7.565	43	276624	76.717	ug/l	98
38) Carbon Tetrachloride	8.371	117	394857	78.022	ug/l	99
39) Methylcyclohexane	9.606	83	458567	83.438	ug/l	99
40) Benzene	8.612	78	1043272	77.111	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076265.D
 Acq On : 16 Jan 2023 12:30
 Operator : JC\MD
 Sample : VSTDICC075
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC075

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:29:43 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.788	41	148180	79.766	ug/l	96
42) 1,2-Dichloroethane	8.676	62	353475	76.025	ug/l	100
43) Isopropyl Acetate	8.694	43	473502	60.586	ug/l	99
44) Trichloroethene	9.353	130	284186	74.784	ug/l	97
45) 1,2-Dichloropropane	9.623	63	250014	77.025	ug/l	98
46) Dibromomethane	9.712	93	187933	77.222	ug/l	99
47) Bromodichloromethane	9.888	83	373113	79.217	ug/l	100
48) Methyl methacrylate	9.682	41	225142	83.526	ug/l	98
49) 1,4-Dioxane	9.694	88	96546	1655.395	ug/l	96
51) 4-Methyl-2-Pentanone	10.447	43	1411548	407.543	ug/l	100
52) Toluene	10.635	92	698829	78.229	ug/l	99
53) t-1,3-Dichloropropene	10.835	75	394750	87.815	ug/l	99
54) cis-1,3-Dichloropropene	10.312	75	434489	84.990	ug/l	95
55) 1,1,2-Trichloroethane	11.018	97	269253	79.303	ug/l	97
56) Ethyl methacrylate	10.876	69	388287	87.526	ug/l	99
57) 1,3-Dichloropropane	11.165	76	431392	78.674	ug/l	99
58) 2-Chloroethyl Vinyl ether	10.165	63	620118	416.417	ug/l	100
59) 2-Hexanone	11.200	43	1034778	415.357	ug/l	100
60) Dibromochloromethane	11.359	129	307475	82.773	ug/l	100
61) 1,2-Dibromoethane	11.470	107	277617	80.735	ug/l	99
64) Tetrachloroethene	11.106	164	275241	65.955	ug/l	99
65) Chlorobenzene	11.894	112	744778	75.267	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.964	131	287174	78.034	ug/l	99
67) Ethyl Benzene	11.964	91	1361237	80.013	ug/l	100
68) m/p-Xylenes	12.070	106	1092867	162.630	ug/l	98
69) o-Xylene	12.400	106	532038	80.751	ug/l	98
70) Styrene	12.412	104	885741	84.935	ug/l	99
71) Bromoform	12.582	173	228835	85.815	ug/l #	100
73) Isopropylbenzene	12.700	105	1395160	75.192	ug/l	100
74) N-amyl acetate	12.494	43	429886	82.135	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	382091	70.064	ug/l	98
76) 1,2,3-Trichloropropane	12.994	75	329099m	65.762	ug/l	
77) Bromobenzene	12.982	156	330022	71.293	ug/l	100
78) n-propylbenzene	13.041	91	1620281	78.998	ug/l	100
79) 2-Chlorotoluene	13.129	91	937812	73.407	ug/l	100
80) 1,3,5-Trimethylbenzene	13.176	105	1192854	76.395	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.741	75	117145	80.143	ug/l	97
82) 4-Chlorotoluene	13.129	91	937812	73.407	ug/l	100
83) tert-Butylbenzene	13.441	119	1046292	75.135	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	1209296	79.311	ug/l	99
85) sec-Butylbenzene	13.617	105	1513706	79.725	ug/l	100
86) p-Isopropyltoluene	13.729	119	1296140	83.655	ug/l	100
87) 1,3-Dichlorobenzene	13.735	146	641823	75.636	ug/l	100
88) 1,4-Dichlorobenzene	13.811	146	639291	75.916	ug/l	100
89) n-Butylbenzene	14.058	91	1076797	87.802	ug/l	99
90) Hexachloroethane	14.335	117	220210	80.728	ug/l	97
91) 1,2-Dichlorobenzene	14.106	146	629182	73.565	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	73257	80.656	ug/l	98
93) 1,2,4-Trichlorobenzene	15.394	180	325551	88.775	ug/l	98
94) Hexachlorobutadiene	15.500	225	168799	75.585	ug/l	98
95) Naphthalene	15.641	128	976754	95.753	ug/l	100
96) 1,2,3-Trichlorobenzene	15.841	180	310091	86.726	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076265.D
Acq On : 16 Jan 2023 12:30
Operator : JC\MD
Sample : VSTDICC075
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC075

Manual Integrations
APPROVED

Reviewed By : John Carlone 01/17/2023
Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:29:43 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:09:59 2023
Response via : Initial Calibration

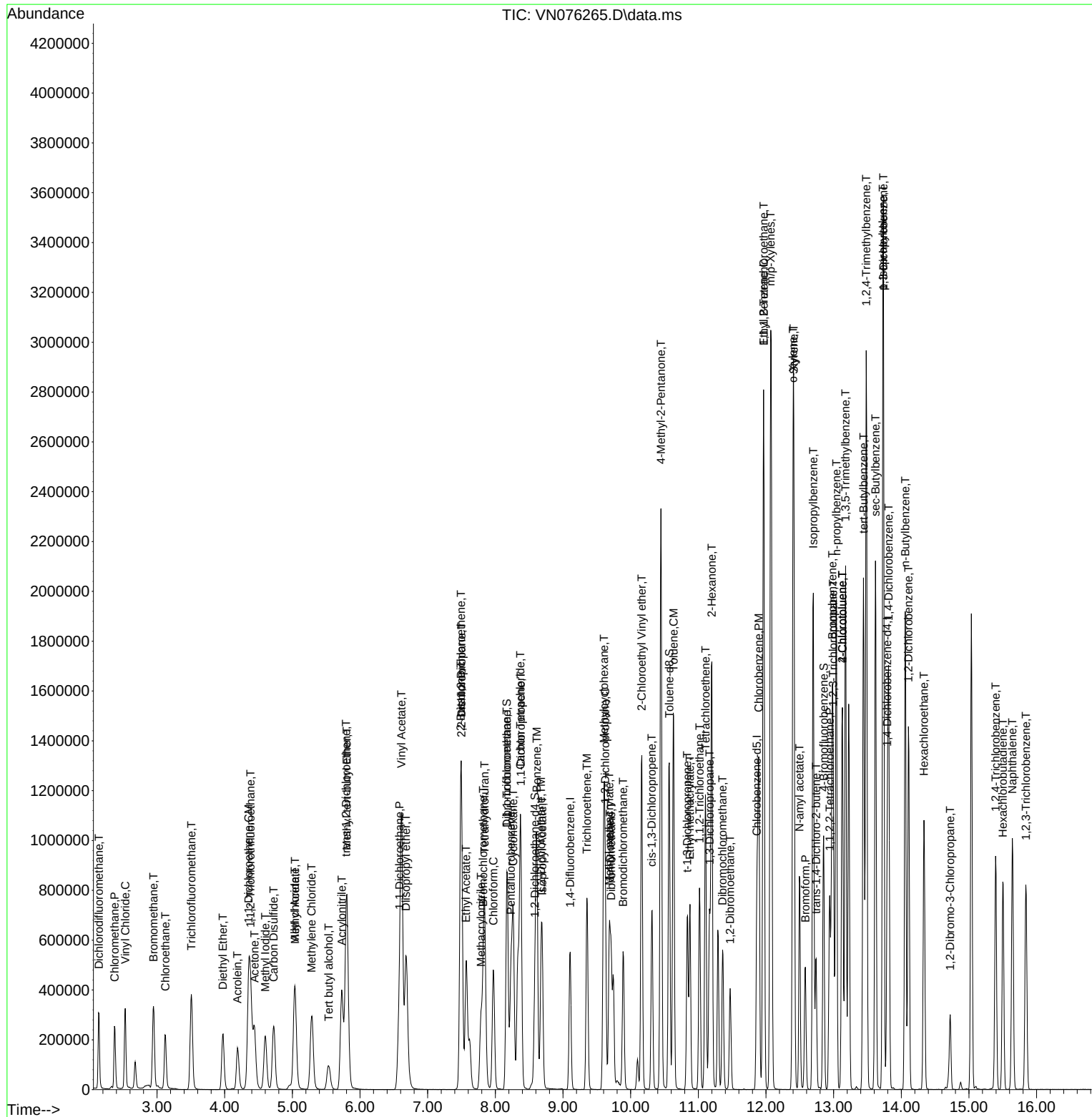
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC075

Manual Integrations

Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076267.D
 Acq On : 16 Jan 2023 13:17
 Operator : JC\MD
 Sample : VSTDICC001
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC001

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:30:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	323517	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	525216	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	438856	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	174896	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l	
Spiked Amount	50.000	Range	74 - 125	Recovery	=	0.000%#
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l	
Spiked Amount	50.000	Range	75 - 124	Recovery	=	0.000%#
50) Toluene-d8	0.000	98	0d	0.000	ug/l	
Spiked Amount	50.000	Range	86 - 113	Recovery	=	0.000%#
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l	
Spiked Amount	50.000	Range	83 - 123	Recovery	=	0.000%#

Target Compounds

					Qvalue	
2) Dichlorodifluoromethane	2.136	85	3207	0.988	ug/l	95
3) Chloromethane	2.377	50	3682	1.063	ug/l #	79
4) Vinyl Chloride	2.530	62	4185	0.979	ug/l	97
6) Chloroethane	3.136	64	3579	1.144	ug/l #	85
7) Trichlorofluoromethane	3.518	101	6093	1.052	ug/l	92
8) Diethyl Ether	3.983	74	1848	0.965	ug/l	84
9) 1,1,2-Trichlorotrifluo...	4.383	101	3149	0.973	ug/l #	85
12) 1,1-Dichloroethene	4.353	96	3256	1.083	ug/l	91
14) Allyl chloride	5.041	41	3847	1.090	ug/l	91
15) Acrylonitrile	5.753	53	6882	4.940	ug/l	97
16) Acetone	4.453	43	8709	7.272	ug/l	93
17) Carbon Disulfide	4.718	76	8734	1.154	ug/l #	94
18) Methyl Acetate	5.053	43	4297	1.099	ug/l #	70
19) Methyl tert-butyl Ether	5.812	73	9935	0.992	ug/l	95
20) Methylene Chloride	5.294	84	7401m	2.053	ug/l	
21) trans-1,2-Dichloroethene	5.794	96	3709	1.115	ug/l	92
22) Diisopropyl ether	6.688	45	7892	0.918	ug/l	98
23) Vinyl Acetate	6.612	43	24209	4.436	ug/l #	86
24) 1,1-Dichloroethane	6.588	63	5446	0.944	ug/l #	81
25) 2-Butanone	7.500	43	9369	5.374	ug/l #	84
26) 2,2-Dichloropropane	7.512	77	4390m	0.892	ug/l	
27) cis-1,2-Dichloroethene	7.488	96	3974	1.014	ug/l	97
28) Bromochloromethane	7.818	49	2213	0.951	ug/l #	98
29) Tetrahydrofuran	7.853	42	4837	4.417	ug/l	93
30) Chloroform	7.977	83	6556	1.022	ug/l	94
32) 1,1,1-Trichloroethane	8.177	97	5670	0.992	ug/l #	42
36) 1,1-Dichloropropene	8.377	75	4702	1.009	ug/l	96
37) Ethyl Acetate	7.571	43	5970	1.615	ug/l #	85
38) Carbon Tetrachloride	8.365	117	5206	1.003	ug/l #	82
39) Methylcyclohexane	9.606	83	4976	0.883	ug/l	90
40) Benzene	8.612	78	13870	1.000	ug/l	98
41) Methacrylonitrile	7.794	41	1921	1.009	ug/l #	86
42) 1,2-Dichloroethane	8.677	62	4952	1.039	ug/l	81
43) Isopropyl Acetate	8.694	43	5924	0.739	ug/l	94
44) Trichloroethene	9.359	130	4194	1.077	ug/l	90
45) 1,2-Dichloropropane	9.624	63	3308	0.994	ug/l	89

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076267.D
 Acq On : 16 Jan 2023 13:17
 Operator : JC\MD
 Sample : VSTDICC001
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC001

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 03:30:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:09:59 2023
 Response via : Initial Calibration

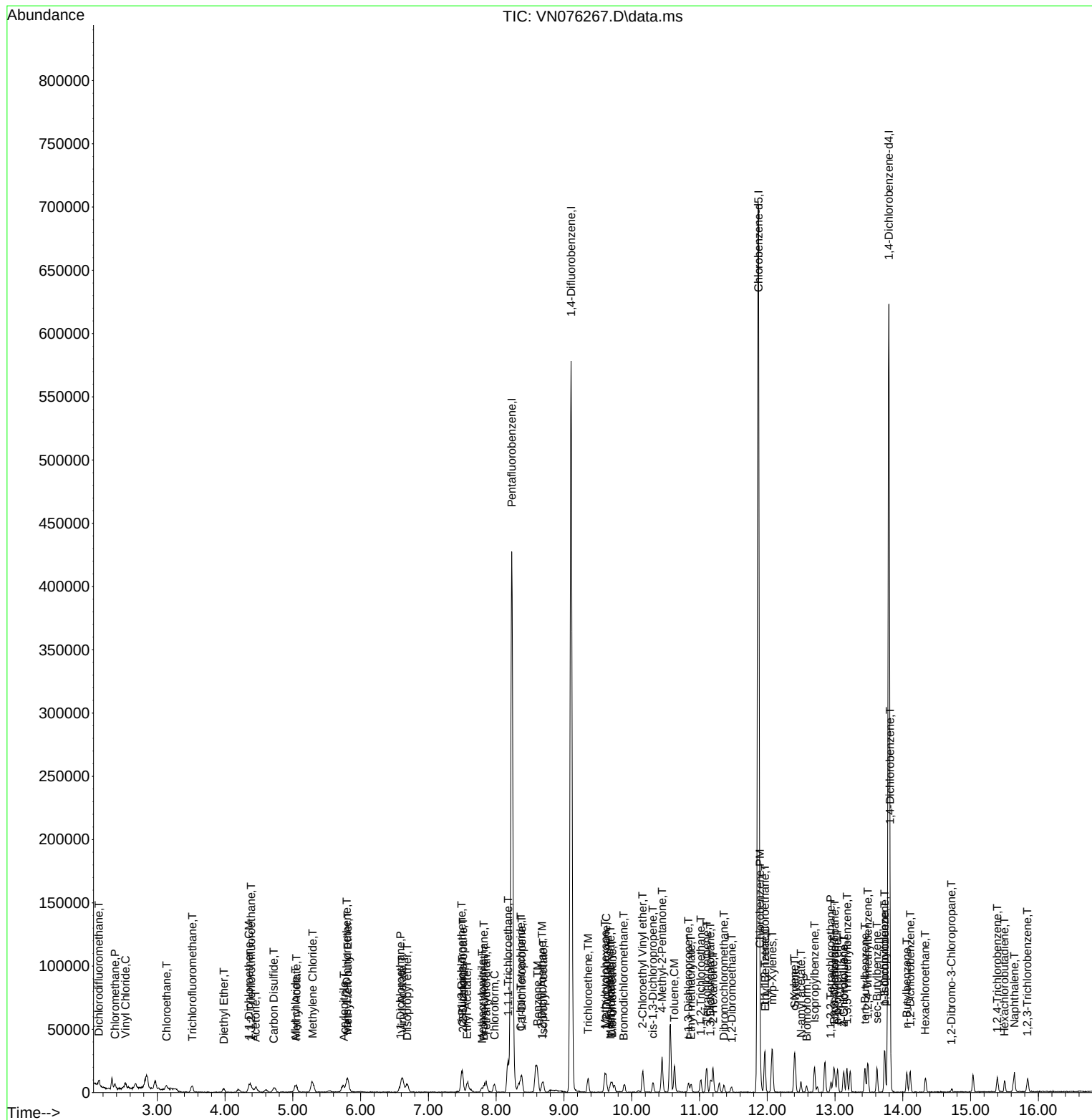
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) Dibromomethane	9.712	93	2563	1.027	ug/l	99
47) Bromodichloromethane	9.882	83	4946	1.024	ug/l #	82
48) Methyl methacrylate	9.688	41	3038	1.099	ug/l	84
49) 1,4-Dioxane	9.694	88	1094	18.298	ug/l #	68
51) 4-Methyl-2-Pentanone	10.447	43	16305	4.592	ug/l	99
52) Toluene	10.629	92	9278	1.013	ug/l	93
53) t-1,3-Dichloropropene	10.835	75	4058	0.881	ug/l	97
54) cis-1,3-Dichloropropene	10.312	75	5152	0.983	ug/l	95
55) 1,1,2-Trichloroethane	11.018	97	3677	1.056	ug/l #	82
56) Ethyl methacrylate	10.876	69	4002	0.880	ug/l	93
57) 1,3-Dichloropropane	11.159	76	5990	1.066	ug/l	100
58) 2-Chloroethyl Vinyl ether	10.159	63	7188	4.708	ug/l	95
59) 2-Hexanone	11.200	43	11990	4.695	ug/l	99
60) Dibromochloromethane	11.359	129	3255	0.855	ug/l	98
61) 1,2-Dibromoethane	11.476	107	3300	0.936	ug/l	100
64) Tetrachloroethene	11.106	164	4749	1.225	ug/l	82
65) Chlorobenzene	11.894	112	10056	1.094	ug/l	94
66) 1,1,1,2-Tetrachloroethane	11.965	131	3526	1.031	ug/l #	61
67) Ethyl Benzene	11.970	91	15017	0.950	ug/l	93
68) m/p-Xylenes	12.076	106	12457	1.996	ug/l	98
69) o-Xylene	12.400	106	6131	1.002	ug/l	98
70) Styrene	12.406	104	9624	0.994	ug/l	96
71) Bromoform	12.582	173	2396	0.967	ug/l #	88
73) Isopropylbenzene	12.700	105	13268	0.994	ug/l	94
74) N-amyl acetate	12.500	43	4038	1.073	ug/l	96
75) 1,1,2,2-Tetrachloroethane	12.935	83	4580	1.168	ug/l #	96
76) 1,2,3-Trichloropropane	12.994	75	4328m	1.203	ug/l	
77) Bromobenzene	12.988	156	4512	1.355	ug/l	95
78) n-propylbenzene	13.035	91	15875	1.076	ug/l	94
79) 2-Chlorotoluene	13.129	91	10204	1.111	ug/l	94
80) 1,3,5-Trimethylbenzene	13.176	105	10518	0.937	ug/l	94
82) 4-Chlorotoluene	13.129	91	10204	1.111	ug/l	94
83) tert-Butylbenzene	13.441	119	9859	0.984	ug/l	96
84) 1,2,4-Trimethylbenzene	13.482	105	10961	1.000	ug/l	92
85) sec-Butylbenzene	13.617	105	13639	0.999	ug/l	96
86) p-Isopropyltoluene	13.729	119	10569	0.949	ug/l	97
87) 1,3-Dichlorobenzene	13.729	146	8142	1.334	ug/l	97
88) 1,4-Dichlorobenzene	13.812	146	8533m	1.409	ug/l	
89) n-Butylbenzene	14.059	91	9144	1.037	ug/l	100
90) Hexachloroethane	14.329	117	1971	1.005	ug/l	100
91) 1,2-Dichlorobenzene	14.111	146	7781	1.265	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.717	75	712	1.090	ug/l	94
93) 1,2,4-Trichlorobenzene	15.394	180	4483	1.700	ug/l	91
94) Hexachlorobutadiene	15.500	225	2031	1.265	ug/l	82
95) Naphthalene	15.647	128	14442	1.969	ug/l	99
96) 1,2,3-Trichlorobenzene	15.835	180	3921	1.525	ug/l	91

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
 Operator : JC\MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN011623

Quant Time: Jan 17 04:00:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	330380	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	525981	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	482232	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	240545	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	190314	51.447	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 102.900%			
35) Dibromofluoromethane	8.171	113	165743	50.374	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.740%			
50) Toluene-d8	10.571	98	629527	51.808	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.620%			
62) 4-Bromofluorobenzene	12.853	95	222484	56.086	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 112.180%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	168263	49.700	ug/l	97
3) Chloromethane	2.371	50	161239	45.998	ug/l	97
4) Vinyl Chloride	2.530	62	196496	45.716	ug/l	99
5) Bromomethane	2.959	94	166938	47.427	ug/l	98
6) Chloroethane	3.130	64	144083	44.705	ug/l	99
7) Trichlorofluoromethane	3.512	101	274807	46.473	ug/l	97
8) Diethyl Ether	3.977	74	100800	50.822	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.389	101	157511	47.053	ug/l	99
10) Methyl Iodide	4.600	142	248280	48.556	ug/l	99
11) Tert butyl alcohol	5.536	59	117992	238.467	ug/l	100
12) 1,1-Dichloroethene	4.348	96	149593	47.273	ug/l	97
13) Acrolein	4.189	56	152382	257.521	ug/l	99
14) Allyl chloride	5.036	41	173173	46.960	ug/l	99
15) Acrylonitrile	5.730	53	344565	244.715	ug/l	98
16) Acetone	4.436	43	340539	287.178	ug/l	100
17) Carbon Disulfide	4.724	76	374327	47.508	ug/l	100
18) Methyl Acetate	5.036	43	185916	46.261	ug/l	98
19) Methyl tert-butyl Ether	5.806	73	516800	50.165	ug/l	99
20) Methylene Chloride	5.289	84	169755	48.357	ug/l	99
21) trans-1,2-Dichloroethene	5.806	96	161324	47.058	ug/l	91
22) Diisopropyl ether	6.683	45	425712	48.952	ug/l	97
23) Vinyl Acetate	6.612	43	1474391	262.326	ug/l	99
24) 1,1-Dichloroethane	6.577	63	276409	47.683	ug/l	97
25) 2-Butanone	7.489	43	457894	252.818	ug/l	98
26) 2,2-Dichloropropane	7.494	77	245071	50.161	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	192526	48.151	ug/l	99
28) Bromochloromethane	7.818	49	116053	49.393	ug/l	100
29) Tetrahydrofuran	7.841	42	281046	251.424	ug/l	99
30) Chloroform	7.971	83	311047	48.493	ug/l	98
31) Cyclohexane	8.265	56	245609	43.221	ug/l	98
32) 1,1,1-Trichloroethane	8.177	97	278895	47.624	ug/l	97
36) 1,1-Dichloropropene	8.377	75	225813	48.299	ug/l	99
37) Ethyl Acetate	7.565	43	177468	47.326	ug/l	99
38) Carbon Tetrachloride	8.371	117	252564	48.442	ug/l	98
39) Methylcyclohexane	9.606	83	292316	51.199	ug/l	98
40) Benzene	8.612	78	676159	48.366	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
 Operator : JC\MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN011623

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/17/2023
 Supervised By : Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 04:00:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.789	41	98214	50.020	ug/l	98
42) 1,2-Dichloroethane	8.677	62	235177	49.167	ug/l	100
43) Isopropyl Acetate	8.694	43	311804	51.110	ug/l	99
44) Trichloroethene	9.353	130	183273	46.351	ug/l	98
45) 1,2-Dichloropropane	9.624	63	161230	48.170	ug/l	98
46) Dibromomethane	9.712	93	125294	49.580	ug/l	99
47) Bromodichloromethane	9.888	83	244611	49.907	ug/l	99
48) Methyl methacrylate	9.682	41	144096	49.893	ug/l	100
49) 1,4-Dioxane	9.694	88	63029	1034.263	ug/l	97
51) 4-Methyl-2-Pentanone	10.447	43	912472	254.790	ug/l	100
52) Toluene	10.630	92	445177	47.618	ug/l	98
53) t-1,3-Dichloropropene	10.835	75	255385	54.658	ug/l	99
54) cis-1,3-Dichloropropene	10.318	75	277331	51.592	ug/l	97
55) 1,1,2-Trichloroethane	11.018	97	178657	49.995	ug/l	98
56) Ethyl methacrylate	10.877	69	251482	54.510	ug/l	99
57) 1,3-Dichloropropane	11.165	76	289318	49.820	ug/l	98
58) 2-Chloroethyl Vinyl ether	10.165	63	405571	260.404	ug/l	99
59) 2-Hexanone	11.194	43	688480	265.290	ug/l	100
60) Dibromochloromethane	11.359	129	199929	53.148	ug/l	99
61) 1,2-Dibromoethane	11.471	107	182514	51.168	ug/l	100
64) Tetrachloroethene	11.106	164	177815	40.888	ug/l	96
65) Chlorobenzene	11.894	112	482822	47.364	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.965	131	185295	48.855	ug/l	99
67) Ethyl Benzene	11.965	91	873391	50.061	ug/l	100
68) m/p-Xylenes	12.071	106	700187	100.087	ug/l	99
69) o-Xylene	12.400	106	340902	49.621	ug/l	98
70) Styrene	12.412	104	566288	51.624	ug/l	99
71) Bromoform	12.582	173	145509	53.125	ug/l #	99
73) Isopropylbenzene	12.700	105	892024	47.936	ug/l	100
74) N-amyl acetate	12.494	43	278102	51.955	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	248908	46.529	ug/l	98
76) 1,2,3-Trichloropropane	12.994	75	184406m	41.928	ug/l	
77) Bromobenzene	12.982	156	211874	48.685	ug/l	98
78) n-propylbenzene	13.035	91	1030613	49.084	ug/l	100
79) 2-Chlorotoluene	13.129	91	603698	46.855	ug/l	100
80) 1,3,5-Trimethylbenzene	13.176	105	767925	49.259	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.741	75	75825	52.447	ug/l	98
82) 4-Chlorotoluene	13.129	91	603698	46.855	ug/l	100
83) tert-Butylbenzene	13.441	119	677671	48.875	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	769939	49.254	ug/l	100
85) sec-Butylbenzene	13.618	105	953364	49.552	ug/l	99
86) p-Isopropyltoluene	13.729	119	821383	51.917	ug/l	99
87) 1,3-Dichlorobenzene	13.735	146	410189	46.768	ug/l	99
88) 1,4-Dichlorobenzene	13.812	146	406201	48.688	ug/l	99
89) n-Butylbenzene	14.059	91	675183	53.760	ug/l	100
90) Hexachloroethane	14.335	117	139536	51.101	ug/l	98
91) 1,2-Dichlorobenzene	14.106	146	401752	45.990	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.723	75	45454	48.881	ug/l	97
93) 1,2,4-Trichlorobenzene	15.394	180	196649	46.676	ug/l	98
94) Hexachlorobutadiene	15.506	225	101628	43.839	ug/l	95
95) Naphthalene	15.641	128	593905	47.611	ug/l	100
96) 1,2,3-Trichlorobenzene	15.847	180	192542	47.903	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076268.D
Acq On : 16 Jan 2023 14:40
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN011623

Manual Integrations
APPROVED

Reviewed By :John Carlone 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 17 04:00:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
 Operator : JC\MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :

MSVOA_N

Client Sample Id :

ICVVN011623

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/17/2023

Supervised By : Mahesh Dadoda 01/17/2023

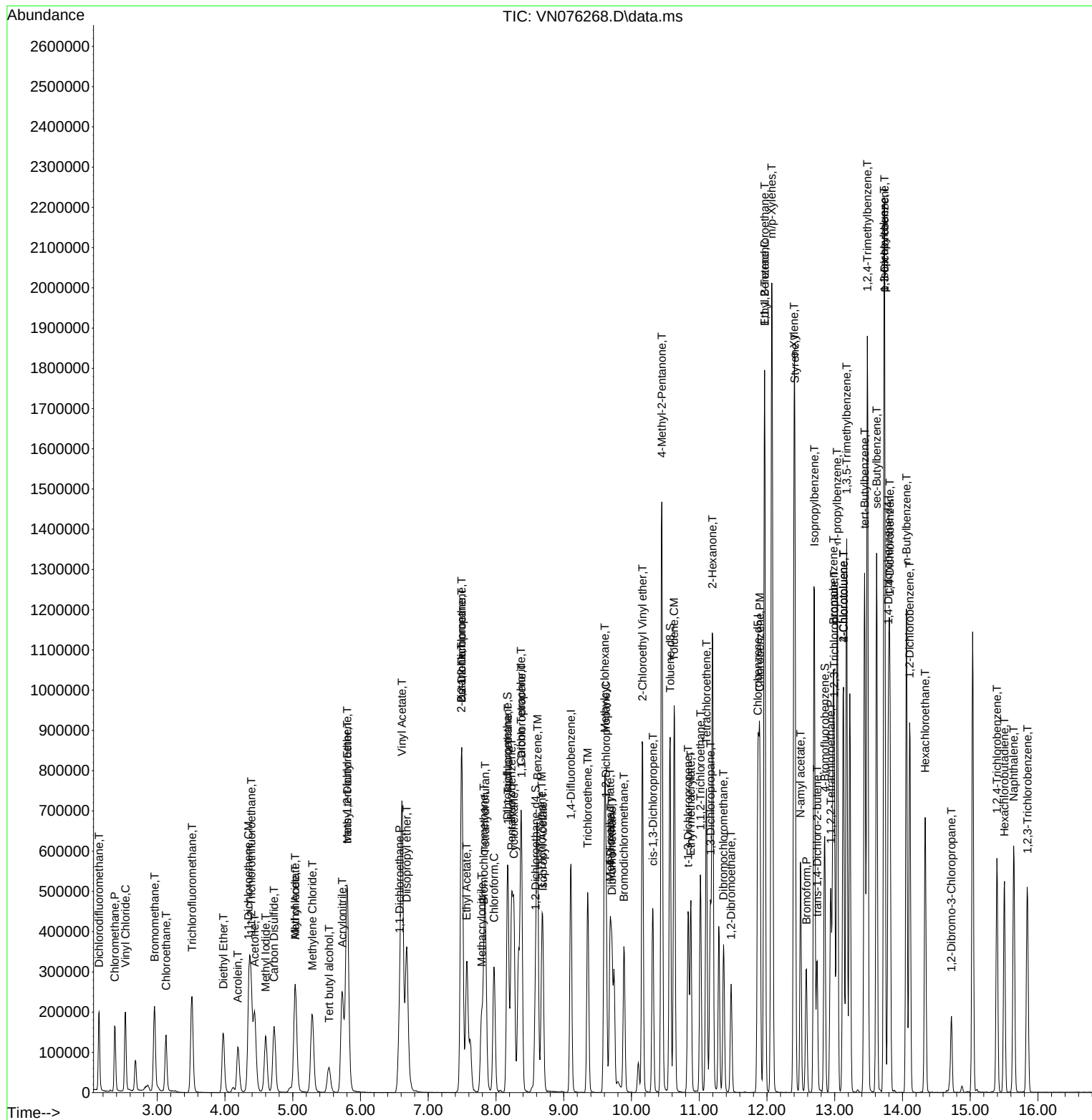
Quant Time: Jan 17 04:00:28 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Quant Title : SW846 8260

QLast Update : Tue Jan 17 03:59:22 2023

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
 Operator : JC\MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICSVN011623

Quant Time: Jan 17 04:00:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	99	0.00
2 T	Dichlorodifluoromethane	0.512	0.509	0.6	96	0.00
3 P	Chloromethane	0.531	0.488	8.1	92	0.00
4 C	Vinyl Chloride	0.650	0.595	8.5#	91	0.00
5 T	Bromomethane	0.533	0.505	5.3	97	0.00
6 T	Chloroethane	0.488	0.436	10.7	94	0.00
7 T	Trichlorofluoromethane	0.895	0.832	7.0	94	0.00
8 T	Diethyl Ether	0.300	0.305	-1.7	98	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.507	0.477	5.9	95	0.00
10 T	Methyl Iodide	0.774	0.751	3.0	95	0.00
11 T	Tert butyl alcohol	0.075	0.071	5.3	94	0.00
12 CM	1,1-Dichloroethene	0.479	0.453	5.4#	94	-0.01
13 T	Acrolein	0.090	0.092	-2.2	104	0.00
14 T	Allyl chloride	0.558	0.524	6.1	94	0.00
15 T	Acrylonitrile	0.213	0.209	1.9	96	0.00
16 T	Acetone	0.195	0.206	-5.6	116	0.00
17 T	Carbon Disulfide	1.192	1.133	4.9	95	0.00
18 T	Methyl Acetate	0.608	0.563	7.4	95	0.00
19 T	Methyl tert-butyl Ether	1.559	1.564	-0.3	97	0.00
20 T	Methylene Chloride	0.645	0.514	20.3	98	0.00
21 T	trans-1,2-Dichloroethene	0.519	0.488	6.0	95	0.01
22 T	Diisopropyl ether	1.316	1.289	2.1	95	0.00
23 T	Vinyl Acetate	0.851	0.893	-4.9	97	0.00
24 P	1,1-Dichloroethane	0.877	0.837	4.6	95	0.00
25 T	2-Butanone	0.274	0.277	-1.1	100	0.00
26 T	2,2-Dichloropropane	0.739	0.742	-0.4	95	0.00
27 T	cis-1,2-Dichloroethene	0.605	0.583	3.6	96	0.00
28 T	Bromochloromethane	0.356	0.351	1.4	96	0.00
29 T	Tetrahydrofuran	0.169	0.170	-0.6	95	0.00
30 C	Chloroform	0.971	0.941	3.1#	96	0.00
31 T	Cyclohexane	0.860	0.743	13.6	93	0.00
32 T	1,1,1-Trichloroethane	0.886	0.844	4.7	94	0.00
33 S	1,2-Dichloroethane-d4	0.560	0.576	-2.9	103	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
35 S	Dibromofluoromethane	0.313	0.315	-0.6	101	0.00
36 T	1,1-Dichloropropene	0.444	0.429	3.4	95	0.00
37 T	Ethyl Acetate	0.391	0.337	13.8	95	0.00
38 T	Carbon Tetrachloride	0.496	0.480	3.2	95	0.00
39 T	Methylcyclohexane	0.543	0.556	-2.4	96	0.00
40 TM	Benzene	1.329	1.286	3.2	95	0.00
41 T	Methacrylonitrile	0.187	0.187	0.0	96	0.00
42 TM	1,2-Dichloroethane	0.455	0.447	1.8	98	0.00
43 T	Isopropyl Acetate	0.580	0.593	-2.2	98	0.00
44 TM	Trichloroethene	0.376	0.348	7.4	95	0.00
45 C	1,2-Dichloropropane	0.318	0.307	3.5#	96	0.00
46 T	Dibromomethane	0.240	0.238	0.8	98	0.00
47 T	Bromodichloromethane	0.466	0.465	0.2	97	0.00
48 T	Methyl methacrylate	0.275	0.274	0.4	96	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
 Operator : JC\MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICSVN011623

Quant Time: Jan 17 04:00:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.006	0.006	0.0	94	0.00
50 S	Toluene-d8	1.155	1.197	-3.6	101	0.00
51 T	4-Methyl-2-Pentanone	0.340	0.347	-2.1	96	0.00
52 CM	Toluene	0.889	0.846	4.8#	94	0.00
53 T	t-1,3-Dichloropropene	0.444	0.486	-9.5	98	0.00
54 T	cis-1,3-Dichloropropene	0.511	0.527	-3.1	98	0.00
55 T	1,1,2-Trichloroethane	0.340	0.340	0.0	101	0.00
56 T	Ethyl methacrylate	0.439	0.478	-8.9	98	0.00
57 T	1,3-Dichloropropane	0.552	0.550	0.4	97	0.00
58 T	2-Chloroethyl Vinyl ether	0.148	0.154	-4.1	94	0.00
59 T	2-Hexanone	0.247	0.262	-6.1	99	0.00
60 T	Dibromochloromethane	0.358	0.380	-6.1	98	0.00
61 T	1,2-Dibromoethane	0.339	0.347	-2.4	98	0.00
62 S	4-Bromofluorobenzene	0.377	0.423	-12.2	106	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
64 T	Tetrachloroethene	0.451	0.369	18.2	94	0.00
65 PM	Chlorobenzene	1.057	1.001	5.3	97	0.00
66 T	1,1,1,2-Tetrachloroethane	0.393	0.384	2.3	98	0.00
67 C	Ethyl Benzene	1.809	1.811	-0.1#	96	0.00
68 T	m/p-Xylenes	0.725	0.726	-0.1	97	0.00
69 T	o-Xylene	0.712	0.707	0.7	96	0.00
70 T	Styrene	1.137	1.174	-3.3	97	0.00
71 P	Bromoform	0.284	0.302	-6.3	99	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00
73 T	Isopropylbenzene	3.868	3.708	4.1	96	0.00
74 T	N-amyl acetate	1.113	1.156	-3.9	100	0.00
75 P	1,1,2,2-Tetrachloroethane	1.112	1.035	6.9	97	0.00
76 T	1,2,3-Trichloropropane	1.034	0.767	25.8#	83	0.00
77 T	Bromobenzene	0.994	0.881	11.4	97	0.00
78 T	n-propylbenzene	4.364	4.284	1.8	97	0.00
79 T	2-Chlorotoluene	2.678	2.510	6.3	97	0.00
80 T	1,3,5-Trimethylbenzene	3.240	3.192	1.5	98	0.00
81 T	trans-1,4-Dichloro-2-butene	0.301	0.315	-4.7	98	0.00
82 T	4-Chlorotoluene	2.678	2.510	6.3	97	0.00
83 T	tert-Butylbenzene	2.882	2.817	2.3	98	0.00
84 T	1,2,4-Trimethylbenzene	3.249	3.201	1.5	98	0.00
85 T	sec-Butylbenzene	3.999	3.963	0.9	96	0.00
86 T	p-Isopropyltoluene	3.289	3.415	-3.8	98	0.00
87 T	1,3-Dichlorobenzene	1.823	1.705	6.5	98	0.00
88 T	1,4-Dichlorobenzene	1.842	1.689	8.3	98	0.00
89 T	n-Butylbenzene	2.611	2.807	-7.5	99	0.00
90 T	Hexachloroethane	0.568	0.580	-2.1	98	0.00
91 T	1,2-Dichlorobenzene	1.816	1.670	8.0	96	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.193	0.189	2.1	90	0.00
93 T	1,2,4-Trichlorobenzene	0.870	0.818	6.0	92	0.00
94 T	Hexachlorobutadiene	0.482	0.422	12.4	88	0.00
95 T	Naphthalene	2.543	2.469	2.9	96	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076268.D
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Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN011623

Quant Time: Jan 17 04:00:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.823	0.800	2.8	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
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 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	99	0.00
2 T	Dichlorodifluoromethane	50.000	49.700	0.6	96	0.00
3 P	Chloromethane	50.000	45.998	8.0	92	0.00
4 C	Vinyl Chloride	50.000	45.716	8.6#	91	0.00
5 T	Bromomethane	50.000	47.427	5.1	97	0.00
6 T	Chloroethane	50.000	44.705	10.6	94	0.00
7 T	Trichlorofluoromethane	50.000	46.473	7.1	94	0.00
8 T	Diethyl Ether	50.000	50.822	-1.6	98	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	47.053	5.9	95	0.00
10 T	Methyl Iodide	50.000	48.556	2.9	95	0.00
11 T	Tert butyl alcohol	250.000	238.467	4.6	94	0.00
12 CM	1,1-Dichloroethene	50.000	47.273	5.5#	94	-0.01
13 T	Acrolein	250.000	257.521	-3.0	104	0.00
14 T	Allyl chloride	50.000	46.960	6.1	94	0.00
15 T	Acrylonitrile	250.000	244.715	2.1	96	0.00
16 T	Acetone	250.000	287.178	-14.9	116	0.00
17 T	Carbon Disulfide	50.000	47.508	5.0	95	0.00
18 T	Methyl Acetate	50.000	46.261	7.5	95	0.00
19 T	Methyl tert-butyl Ether	50.000	50.165	-0.3	97	0.00
20 T	Methylene Chloride	50.000	48.357	3.3	98	0.00
21 T	trans-1,2-Dichloroethene	50.000	47.058	5.9	95	0.01
22 T	Diisopropyl ether	50.000	48.952	2.1	95	0.00
23 T	Vinyl Acetate	250.000	262.326	-4.9	97	0.00
24 P	1,1-Dichloroethane	50.000	47.683	4.6	95	0.00
25 T	2-Butanone	250.000	252.818	-1.1	100	0.00
26 T	2,2-Dichloropropane	50.000	50.161	-0.3	95	0.00
27 T	cis-1,2-Dichloroethene	50.000	48.151	3.7	96	0.00
28 T	Bromochloromethane	50.000	49.393	1.2	96	0.00
29 T	Tetrahydrofuran	250.000	251.424	-0.6	95	0.00
30 C	Chloroform	50.000	48.493	3.0#	96	0.00
31 T	Cyclohexane	50.000	43.221	13.6	93	0.00
32 T	1,1,1-Trichloroethane	50.000	47.624	4.8	94	0.00
33 S	1,2-Dichloroethane-d4	50.000	51.447	-2.9	103	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	99	0.00
35 S	Dibromofluoromethane	50.000	50.374	-0.7	101	0.00
36 T	1,1-Dichloropropene	50.000	48.299	3.4	95	0.00
37 T	Ethyl Acetate	50.000	47.326	5.3	95	0.00
38 T	Carbon Tetrachloride	50.000	48.442	3.1	95	0.00
39 T	Methylcyclohexane	50.000	51.199	-2.4	96	0.00
40 TM	Benzene	50.000	48.366	3.3	95	0.00
41 T	Methacrylonitrile	50.000	50.020	-0.0	96	0.00
42 TM	1,2-Dichloroethane	50.000	49.167	1.7	98	0.00
43 T	Isopropyl Acetate	50.000	51.110	-2.2	98	0.00
44 TM	Trichloroethene	50.000	46.351	7.3	95	0.00
45 C	1,2-Dichloropropane	50.000	48.170	3.7#	96	0.00
46 T	Dibromomethane	50.000	49.580	0.8	98	0.00
47 T	Bromodichloromethane	50.000	49.907	0.2	97	0.00
48 T	Methyl methacrylate	50.000	49.893	0.2	96	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
 Data File : VN076268.D
 Acq On : 16 Jan 2023 14:40
 Operator : JC\MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICSVN011623

Quant Time: Jan 17 04:00:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1034.263	-3.4	94	0.00
50 S	Toluene-d8	50.000	51.808	-3.6	101	0.00
51 T	4-Methyl-2-Pentanone	250.000	254.790	-1.9	96	0.00
52 CM	Toluene	50.000	47.618	4.8#	94	0.00
53 T	t-1,3-Dichloropropene	50.000	54.658	-9.3	98	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.592	-3.2	98	0.00
55 T	1,1,2-Trichloroethane	50.000	49.995	0.0	101	0.00
56 T	Ethyl methacrylate	50.000	54.510	-9.0	98	0.00
57 T	1,3-Dichloropropane	50.000	49.820	0.4	97	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	260.404	-4.2	94	0.00
59 T	2-Hexanone	250.000	265.290	-6.1	99	0.00
60 T	Dibromochloromethane	50.000	53.148	-6.3	98	0.00
61 T	1,2-Dibromoethane	50.000	51.168	-2.3	98	0.00
62 S	4-Bromofluorobenzene	50.000	56.086	-12.2	106	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	100	0.00
64 T	Tetrachloroethene	50.000	40.888	18.2	94	0.00
65 PM	Chlorobenzene	50.000	47.364	5.3	97	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	48.855	2.3	98	0.00
67 C	Ethyl Benzene	50.000	50.061	-0.1#	96	0.00
68 T	m/p-Xylenes	100.000	100.087	-0.1	97	0.00
69 T	o-Xylene	50.000	49.621	0.8	96	0.00
70 T	Styrene	50.000	51.624	-3.2	97	0.00
71 P	Bromoform	50.000	53.125	-6.3	99	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	99	0.00
73 T	Isopropylbenzene	50.000	47.936	4.1	96	0.00
74 T	N-amyl acetate	50.000	51.955	-3.9	100	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	46.529	6.9	97	0.00
76 T	1,2,3-Trichloropropane	50.000	41.928	16.1	83	0.00
77 T	Bromobenzene	50.000	48.685	2.6	97	0.00
78 T	n-propylbenzene	50.000	49.084	1.8	97	0.00
79 T	2-Chlorotoluene	50.000	46.855	6.3	97	0.00
80 T	1,3,5-Trimethylbenzene	50.000	49.259	1.5	98	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	52.447	-4.9	98	0.00
82 T	4-Chlorotoluene	50.000	46.855	6.3	97	0.00
83 T	tert-Butylbenzene	50.000	48.875	2.3	98	0.00
84 T	1,2,4-Trimethylbenzene	50.000	49.254	1.5	98	0.00
85 T	sec-Butylbenzene	50.000	49.552	0.9	96	0.00
86 T	p-Isopropyltoluene	50.000	51.917	-3.8	98	0.00
87 T	1,3-Dichlorobenzene	50.000	46.768	6.5	98	0.00
88 T	1,4-Dichlorobenzene	50.000	48.688	2.6	98	0.00
89 T	n-Butylbenzene	50.000	53.760	-7.5	99	0.00
90 T	Hexachloroethane	50.000	51.101	-2.2	98	0.00
91 T	1,2-Dichlorobenzene	50.000	45.990	8.0	96	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.881	2.2	90	0.00
93 T	1,2,4-Trichlorobenzene	50.000	46.676	6.6	92	0.00
94 T	Hexachlorobutadiene	50.000	43.839	12.3	88	0.00
95 T	Naphthalene	50.000	47.611	4.8	96	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076268.D
Acq On : 16 Jan 2023 14:40
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN011623

Quant Time: Jan 17 04:00:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	47.903	4.2	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_Y Calibration Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) Y Calibration Time(s): 12:17 14:34
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VY012194.D		RRF010 = VY012195.D		RRF020 = VY012196.D			
		RRF050 = VY012197.D		RRF100 = VY012198.D		RRF150 = VY012199.D			
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
Dichlorodifluoromethane	0.456	0.520	0.486	0.372	0.410	0.378	0.437	13.8	
Chloromethane	0.452	0.440	0.400	0.368	0.389	0.372	0.403	8.7	
Vinyl Chloride	0.503	0.508	0.479	0.435	0.464	0.436	0.471	6.8	
Bromomethane	0.428	0.398	0.355	0.334	0.352	0.317	0.364	11.4	
Chloroethane	0.324	0.324	0.310	0.287	0.310	0.288	0.307	5.3	
Trichlorofluoromethane	0.951	0.994	0.945	0.842	0.929	0.853	0.919	6.5	
1,1,2-Trichlorotrifluoroethane	0.454	0.481	0.455	0.407	0.457	0.430	0.447	5.7	
1,1-Dichloroethene	0.470	0.477	0.459	0.438	0.469	0.443	0.459	3.4	
Acetone	0.111	0.149	0.123	0.154	0.149	0.150	0.139	12.9	
Carbon Disulfide	1.466	1.490	1.413	1.343	1.443	1.367	1.420	4	
Methyl tert-butyl Ether	1.159	1.395	1.250	1.280	1.325	1.273	1.280	6.1	
Methyl Acetate	0.308	0.340	0.287	0.301	0.308	0.326	0.312	6	
Methylene Chloride	1.174	1.020	0.736	0.570	0.559	0.513	0.762	36.1	
trans-1,2-Dichloroethene	0.519	0.543	0.512	0.495	0.519	0.487	0.512	3.9	
1,1-Dichloroethane	0.804	0.812	0.772	0.760	0.805	0.759	0.785	3.1	
Cyclohexane	0.845	0.795	0.707	0.633	0.713	0.681	0.729	10.6	
2-Butanone	0.125	0.175	0.143	0.157	0.156	0.166	0.154	11.5	
Carbon Tetrachloride	0.600	0.615	0.594	0.552	0.583	0.543	0.581	4.9	
cis-1,2-Dichloroethene	0.571	0.583	0.555	0.548	0.582	0.538	0.563	3.3	
Bromochloromethane	0.214	0.177	0.160	0.159	0.160	0.158	0.171	12.8	
Chloroform	0.940	0.997	0.912	0.900	0.952	0.860	0.927	5.1	
1,1,1-Trichloroethane	0.932	0.969	0.901	0.885	0.950	0.868	0.918	4.3	
Methylcyclohexane	0.549	0.566	0.556	0.514	0.564	0.550	0.550	3.4	
Benzene	1.354	1.375	1.297	1.237	1.289	1.239	1.299	4.4	
1,2-Dichloroethane	0.404	0.453	0.413	0.408	0.414	0.389	0.413	5.2	
Trichloroethene	0.404	0.405	0.395	0.372	0.387	0.366	0.388	4.2	
1,2-Dichloropropane	0.267	0.288	0.268	0.261	0.277	0.266	0.271	3.6	
Bromodichloromethane	0.437	0.488	0.460	0.446	0.468	0.440	0.457	4.2	
4-Methyl-2-Pentanone	0.165	0.218	0.193	0.199	0.195	0.211	0.197	9.3	
Toluene	0.875	0.896	0.872	0.840	0.877	0.828	0.865	3	
t-1,3-Dichloropropene	0.454	0.501	0.478	0.475	0.488	0.470	0.478	3.3	
cis-1,3-Dichloropropene	0.492	0.547	0.514	0.508	0.525	0.500	0.514	3.8	
1,1,2-Trichloroethane	0.252	0.286	0.255	0.254	0.253	0.246	0.258	5.5	

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_Y Calibration Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) Y Calibration Time(s): 12:17 14:34
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VY012194.D		RRF010 = VY012195.D		RRF020 = VY012196.D			
		RRF050 = VY012197.D		RRF100 = VY012198.D		RRF150 = VY012199.D			
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
2-Hexanone	0.115	0.166	0.145	0.158	0.153	0.163	0.150	12.5	
Dibromochloromethane	0.321	0.369	0.345	0.343	0.344	0.328	0.342	4.8	
1,2-Dibromoethane	0.233	0.273	0.247	0.247	0.250	0.243	0.249	5.4	
Tetrachloroethene	0.461	0.494	0.468	0.451	0.447	0.417	0.456	5.6	
Chlorobenzene	1.097	1.064	1.013	0.990	1.013	0.961	1.023	4.8	
Ethyl Benzene	1.877	1.892	1.821	1.791	1.838	1.752	1.828	2.9	
m/p-Xylenes	0.732	0.752	0.730	0.711	0.726	0.687	0.723	3.1	
o-Xylene	0.706	0.715	0.695	0.680	0.692	0.654	0.690	3.1	
Styrene	1.140	1.203	1.157	1.149	1.167	1.106	1.154	2.8	
Bromoform	0.227	0.272	0.250	0.249	0.242	0.240	0.247	6	
Isopropylbenzene	3.672	3.672	3.604	3.501	3.715	3.469	3.605	2.8	
1,1,2,2-Tetrachloroethane	0.544	0.622	0.546	0.563	0.561	0.572	0.568	5	
1,3-Dichlorobenzene	1.837	1.799	1.736	1.665	1.725	1.591	1.726	5.2	
1,4-Dichlorobenzene	1.888	1.818	1.695	1.642	1.705	1.577	1.721	6.6	
1,2-Dichlorobenzene	1.660	1.639	1.521	1.485	1.511	1.422	1.540	6	
1,2-Dibromo-3-Chloropropane	0.103	0.133	0.116	0.116	0.115	0.121	0.117	8.3	
1,2,4-Trichlorobenzene	1.049	0.995	0.986	0.932	0.977	0.980	0.987	3.8	
1,2,3-Trichlorobenzene	0.870	0.862	0.864	0.798	0.837	0.862	0.849	3.3	
1,2-Dichloroethane-d4	0.533	0.551	0.498	0.409	0.409	0.388	0.465	15.3	
Dibromofluoromethane	0.292	0.291	0.289	0.241	0.242	0.233	0.265	10.8	
Toluene-d8	1.242	1.188	1.195	0.890	0.892	0.859	1.044	17.3	
4-Bromofluorobenzene	0.425	0.419	0.403	0.333	0.336	0.323	0.373	12.7	

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\
 Method File : 82Y011623S.M
 Title : SW846 8260
 Last Update : Tue Jan 17 04:31:47 2023
 Response Via : Continuing Calibration

Calibration Files

5 =VY012194.D 10 =VY012195.D 20 =VY012196.D 50 =VY012197.D 100 =VY012198.D 150 =VY012199.D

	Compound	5	10	20	50	100	150	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.456	0.520	0.486	0.372	0.410	0.378	0.437	13.76
3) P	Chloromethane	0.452	0.440	0.400	0.368	0.389	0.372	0.403	8.70
4) C	Vinyl Chloride	0.503	0.508	0.479	0.435	0.464	0.436	0.471	6.76#
5) T	Bromomethane	0.428	0.398	0.355	0.334	0.352	0.317	0.364	11.36
6) T	Chloroethane	0.324	0.324	0.310	0.287	0.310	0.288	0.307	5.29
7) T	Trichlorofluor...	0.951	0.994	0.945	0.842	0.929	0.853	0.919	6.50
8) T	Diethyl Ether	0.274	0.303	0.267	0.260	0.274	0.264	0.273	5.61
9) T	1,1,2-Trichlor...	0.454	0.481	0.455	0.407	0.457	0.430	0.447	5.70
10) T	Methyl Iodide	0.644	0.678	0.682	0.684	0.725	0.666	0.680	3.92
11) T	Tert butyl alc...	0.069	0.078	0.051	0.046	0.047	0.048	0.057	23.99
12) CM	1,1-Dichloroet...	0.470	0.477	0.459	0.438	0.469	0.443	0.459	3.42#
13) T	Acrolein	0.030	0.033	0.028	0.016	0.017	0.017	0.023	32.27
14) T	Allyl chloride	0.567	0.579	0.544	0.544	0.595	0.578	0.568	3.60
15) T	Acrylonitrile	0.108	0.134	0.115	0.117	0.119	0.123	0.119	7.44
16) T	Acetone	0.111	0.149	0.123	0.154	0.149	0.150	0.139	12.86
17) T	Carbon Disulfide	1.466	1.490	1.413	1.343	1.443	1.367	1.420	4.03
18) T	Methyl Acetate	0.308	0.340	0.287	0.301	0.308	0.326	0.312	5.98
19) T	Methyl tert-bu...	1.159	1.395	1.250	1.280	1.324	1.273	1.280	6.13
20) T	Methylene Chlo...	1.174	1.020	0.736	0.570	0.559	0.513	0.762	36.05
21) T	trans-1,2-Dich...	0.519	0.543	0.512	0.495	0.519	0.487	0.512	3.90
22) T	Diisopropyl ether	1.121	1.184	1.109	1.098	1.166	1.115	1.132	3.05
23) T	Vinyl Acetate	0.617	0.755	0.693	0.704	0.732	0.731	0.705	6.90
24) P	1,1-Dichloroet...	0.804	0.812	0.772	0.760	0.805	0.759	0.785	3.10
25) T	2-Butanone	0.125	0.175	0.143	0.157	0.156	0.166	0.154	11.49
26) T	2,2-Dichloropr...	0.871	0.909	0.840	0.812	0.875	0.808	0.852	4.62
27) T	cis-1,2-Dichlo...	0.571	0.583	0.555	0.548	0.582	0.538	0.563	3.33
28) T	Bromochloromet...	0.214	0.177	0.160	0.159	0.160	0.158	0.171	12.81
29) T	Tetrahydrofuran	0.069	0.095	0.080	0.085	0.085	0.092	0.084	11.05
30) C	Chloroform	0.940	0.997	0.912	0.900	0.952	0.860	0.927	5.08#
31) T	Cyclohexane	0.845	0.795	0.707	0.633	0.713	0.681	0.729	10.64
32) T	1,1,1-Trichlor...	0.932	0.969	0.901	0.885	0.950	0.868	0.918	4.30
33) S	1,2-Dichloroet...	0.533	0.551	0.498	0.409	0.409	0.388	0.465	15.35
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.292	0.291	0.289	0.241	0.242	0.233	0.265	10.77
36) T	1,1-Dichloropr...	0.467	0.478	0.452	0.426	0.447	0.431	0.450	4.48
37) T	Ethyl Acetate	0.173	0.223	0.200	0.196	0.191	0.206	0.198	8.28
38) T	Carbon Tetrach...	0.600	0.615	0.594	0.552	0.583	0.543	0.581	4.88
39) T	Methylcyclohexane	0.549	0.566	0.556	0.514	0.564	0.550	0.550	3.41
40) TM	Benzene	1.354	1.375	1.297	1.237	1.289	1.239	1.299	4.41
41) T	Methacrylonitrile	0.121	0.127	0.113	0.120	0.106	0.112	0.117	6.44
42) TM	1,2-Dichloroet...	0.404	0.453	0.413	0.408	0.414	0.389	0.413	5.23
43) T	Isopropyl Acetate	0.318	0.405	0.361	0.369	0.371	0.391	0.369	8.08
44) TM	Trichloroethene	0.404	0.405	0.395	0.372	0.387	0.366	0.388	4.19
45) C	1,2-Dichloropr...	0.267	0.288	0.268	0.261	0.277	0.266	0.271	3.60#
46) T	Dibromomethane	0.175	0.197	0.182	0.179	0.181	0.175	0.181	4.42
47) T	Bromodichlorom...	0.437	0.488	0.460	0.446	0.468	0.440	0.457	4.24
48) T	Methyl methacr...	0.140	0.182	0.161	0.176	0.173	0.188	0.170	10.02
49) T	1,4-Dioxane	0.002	0.003	0.002	0.003	0.002	0.003	0.002	8.65
50) S	Toluene-d8	1.242	1.188	1.195	0.890	0.892	0.859	1.044	17.33
51) T	4-Methyl-2-Pen...	0.165	0.218	0.193	0.199	0.195	0.211	0.197	9.33
52) CM	Toluene	0.875	0.896	0.872	0.840	0.877	0.828	0.865	2.95#
53) T	t-1,3-Dichloro...	0.454	0.501	0.478	0.475	0.488	0.470	0.478	3.33
54) T	cis-1,3-Dichlo...	0.492	0.547	0.514	0.508	0.525	0.500	0.514	3.84
55) T	1,1,2-Trichlor...	0.252	0.286	0.255	0.254	0.253	0.246	0.258	5.52
56) T	Ethyl methacry...	0.291	0.358	0.333	0.346	0.349	0.352	0.338	7.24

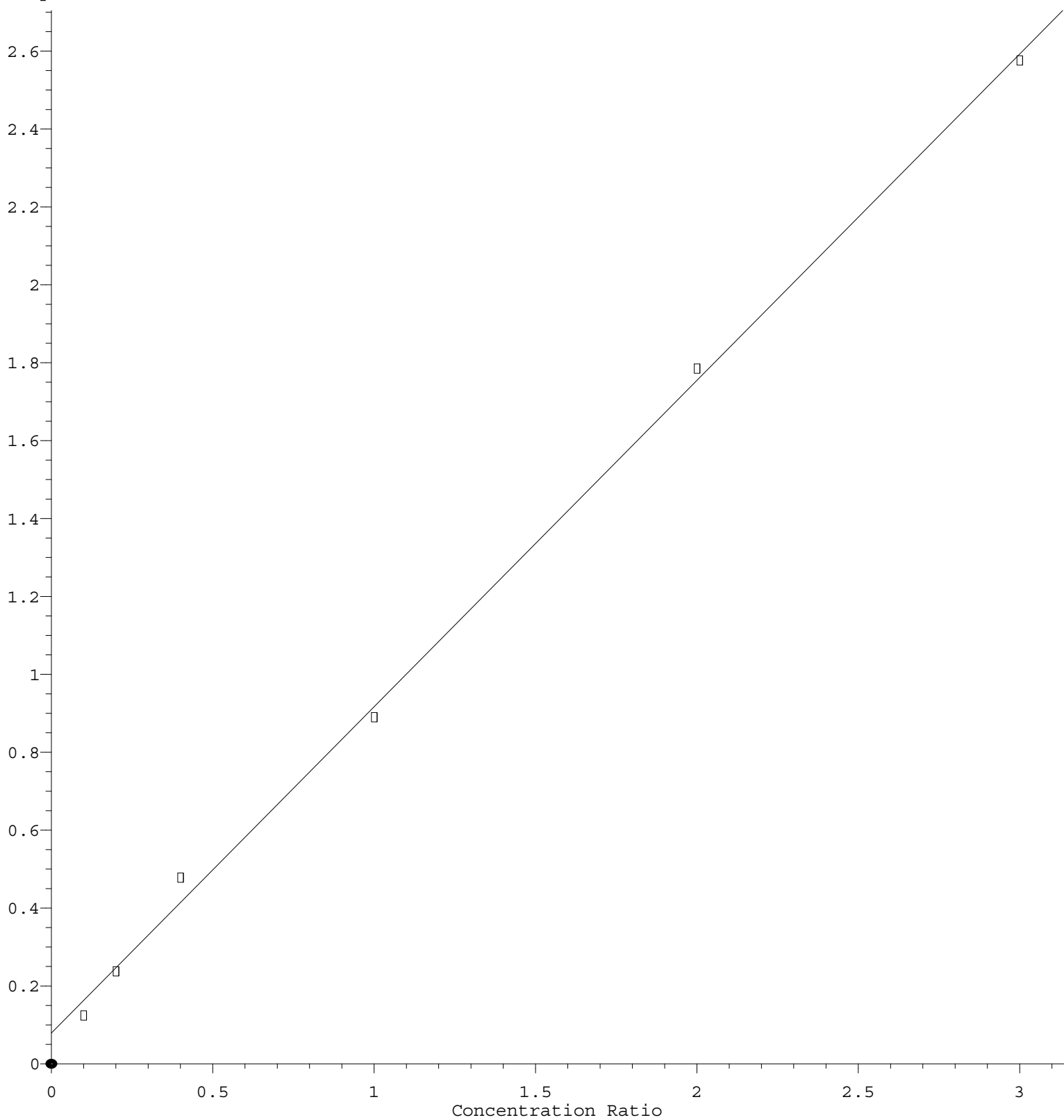
Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\
 Method File : 82Y011623S.M

57)	T	1,3-Dichloropr...	0.407	0.450	0.422	0.415	0.423	0.408	0.421	3.76
58)	T	2-Chloroethyl ...	0.110	0.122	0.112	0.108	0.107	0.112	0.112	4.60
59)	T	2-Hexanone	0.115	0.166	0.145	0.158	0.153	0.163	0.150	12.46
60)	T	Dibromochlorom...	0.321	0.369	0.345	0.343	0.344	0.328	0.342	4.83
61)	T	1,2-Dibromoethane	0.233	0.273	0.247	0.247	0.250	0.243	0.249	5.42
62)	S	4-Bromofluorob...	0.425	0.419	0.403	0.333	0.336	0.323	0.373	12.69
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.461	0.494	0.468	0.451	0.447	0.417	0.456	5.62
65)	PM	Chlorobenzene	1.097	1.064	1.013	0.990	1.013	0.961	1.023	4.85
66)	T	1,1,1,2-Tetrac...	0.385	0.408	0.386	0.385	0.387	0.366	0.386	3.48
67)	C	Ethyl Benzene	1.877	1.892	1.821	1.791	1.838	1.752	1.828	2.86#
68)	T	m/p-Xylenes	0.732	0.752	0.730	0.711	0.726	0.687	0.723	3.06
69)	T	o-Xylene	0.706	0.715	0.695	0.680	0.692	0.654	0.690	3.11
70)	T	Styrene	1.140	1.203	1.157	1.149	1.167	1.106	1.154	2.75
71)	P	Bromoform	0.227	0.272	0.250	0.249	0.242	0.240	0.247	5.98
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.672	3.672	3.604	3.501	3.715	3.469	3.605	2.78
74)	T	N-amyl acetate	0.623	0.723	0.679	0.715	0.733	0.767	0.707	7.06
75)	P	1,1,2,2-Tetrac...	0.544	0.622	0.546	0.563	0.561	0.572	0.568	5.04
76)	T	1,2,3-Trichlor...	0.431	0.480	0.512	0.506	0.407	0.422	0.460	9.84
77)	T	Bromobenzene	0.915	0.905	0.848	0.852	0.868	0.817	0.868	4.27
78)	T	n-propylbenzene	4.376	4.340	4.225	4.025	4.313	4.034	4.219	3.67
79)	T	2-Chlorotoluene	2.464	2.470	2.365	2.302	2.432	2.281	2.385	3.45
80)	T	1,3,5-Trimethy...	3.234	3.280	3.154	3.016	3.184	2.937	3.134	4.20
81)	T	trans-1,4-Dich...	0.199	0.240	0.215	0.226	0.228	0.231	0.223	6.49
82)	T	4-Chlorotoluene	2.668	2.582	2.486	2.396	2.539	2.363	2.506	4.58
83)	T	tert-Butylbenzene	2.795	2.812	2.788	2.576	2.822	2.599	2.732	4.13
84)	T	1,2,4-Trimethy...	3.086	3.216	3.127	3.023	3.173	2.921	3.091	3.46
85)	T	sec-Butylbenzene	4.118	3.978	3.912	3.704	3.952	3.672	3.889	4.39
86)	T	p-Isopropyltol...	3.530	3.526	3.446	3.241	3.457	3.188	3.398	4.33
87)	T	1,3-Dichlorobe...	1.837	1.799	1.736	1.665	1.725	1.591	1.725	5.16
88)	T	1,4-Dichlorobe...	1.888	1.818	1.695	1.642	1.705	1.577	1.721	6.64
89)	T	n-Butylbenzene	3.091	3.013	2.958	2.800	2.993	2.813	2.945	3.93
90)	T	Hexachloroethane	0.666	0.635	0.623	0.580	0.607	0.569	0.613	5.89
91)	T	1,2-Dichlorobe...	1.660	1.639	1.521	1.485	1.511	1.422	1.540	5.98
92)	T	1,2-Dibromo-3-...	0.103	0.133	0.116	0.116	0.115	0.121	0.117	8.27
93)	T	1,2,4-Trichlor...	1.049	0.995	0.986	0.932	0.977	0.980	0.987	3.79
94)	T	Hexachlorobuta...	0.663	0.617	0.612	0.546	0.572	0.554	0.594	7.52
95)	T	Naphthalene	1.826	1.918	1.918	1.932	1.976	2.113	1.947	4.87
96)	T	1,2,3-Trichlor...	0.870	0.862	0.864	0.798	0.837	0.862	0.849	3.25

(#) = Out of Range

Toluene-d8

Response Ratio



$$\text{Response} = 8.378\text{e-}001 * \text{Amt} + 7.946\text{e-}002$$

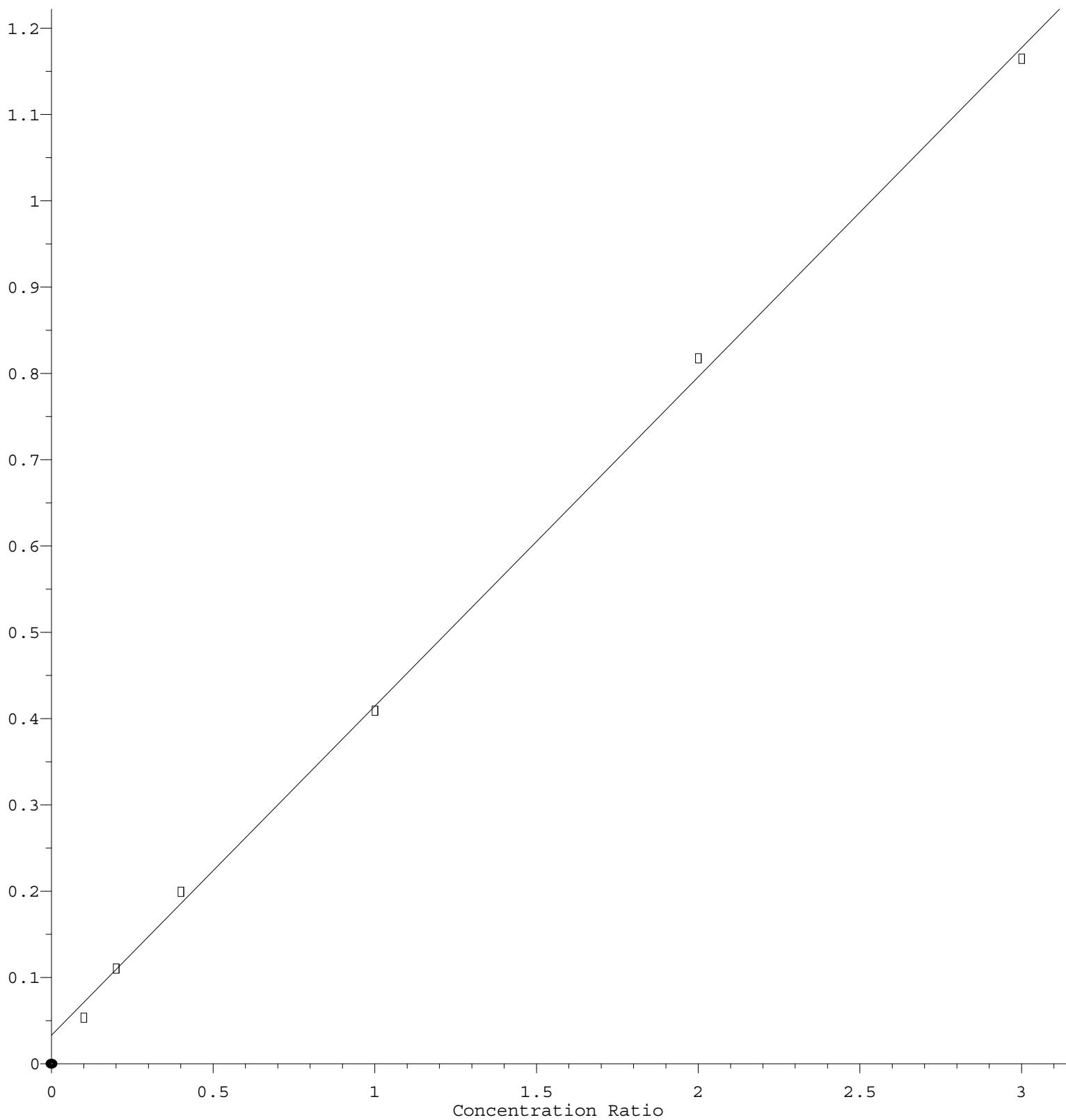
Coef of Det (r^2) = 0.998402 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y011623S.M

Calibration Table Last Updated: Tue Jan 17 04:31:47 2023

1,2-Dichloroethane-d4

Response Ratio



$$\text{Response} = 3.819\text{e-}001 * \text{Amt} + 3.259\text{e-}002$$

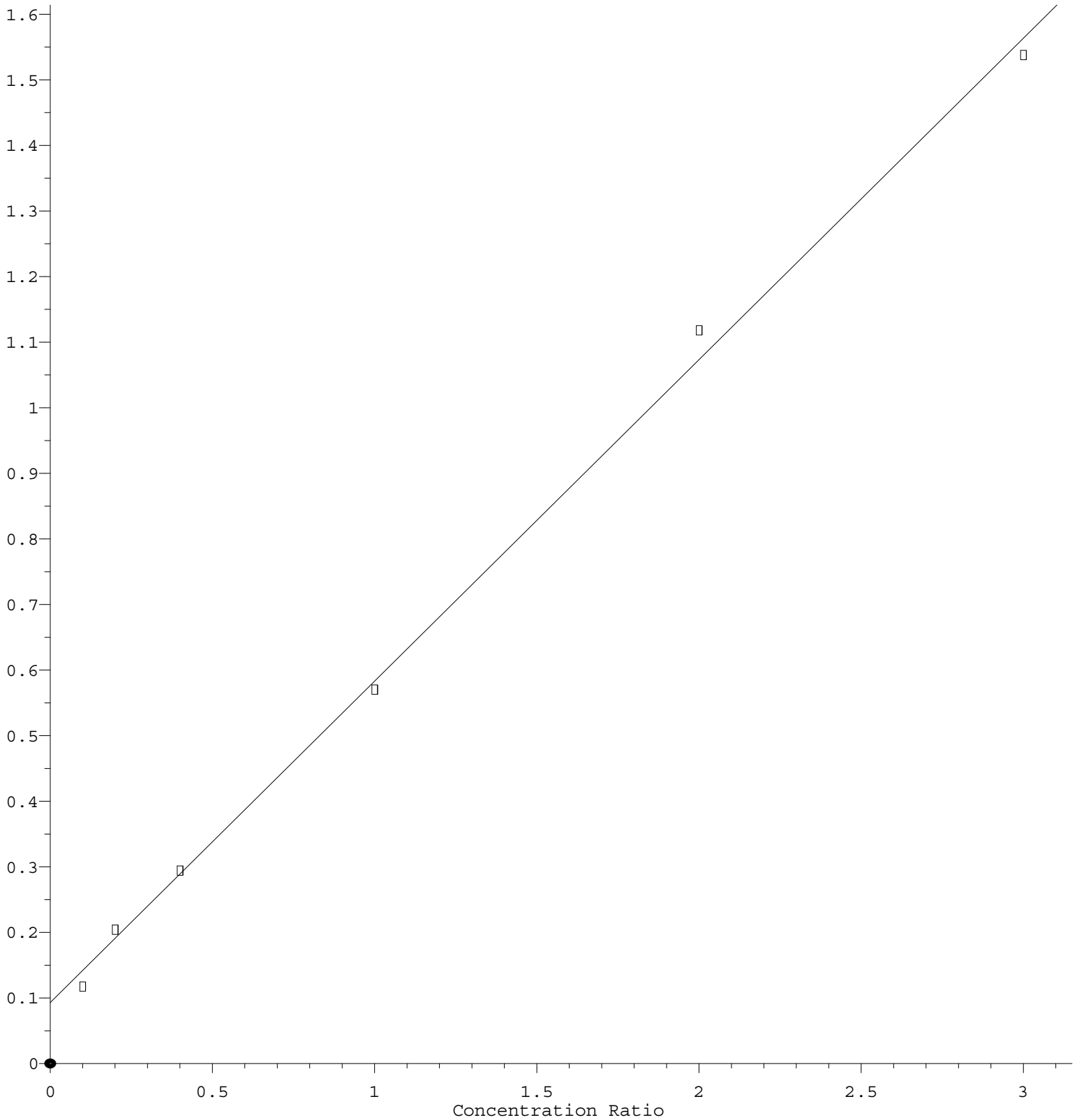
Coef of Det (r^2) = 0.998815 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y011623S.M

Calibration Table Last Updated: Tue Jan 17 04:31:47 2023

Methylene Chloride

Response Ratio



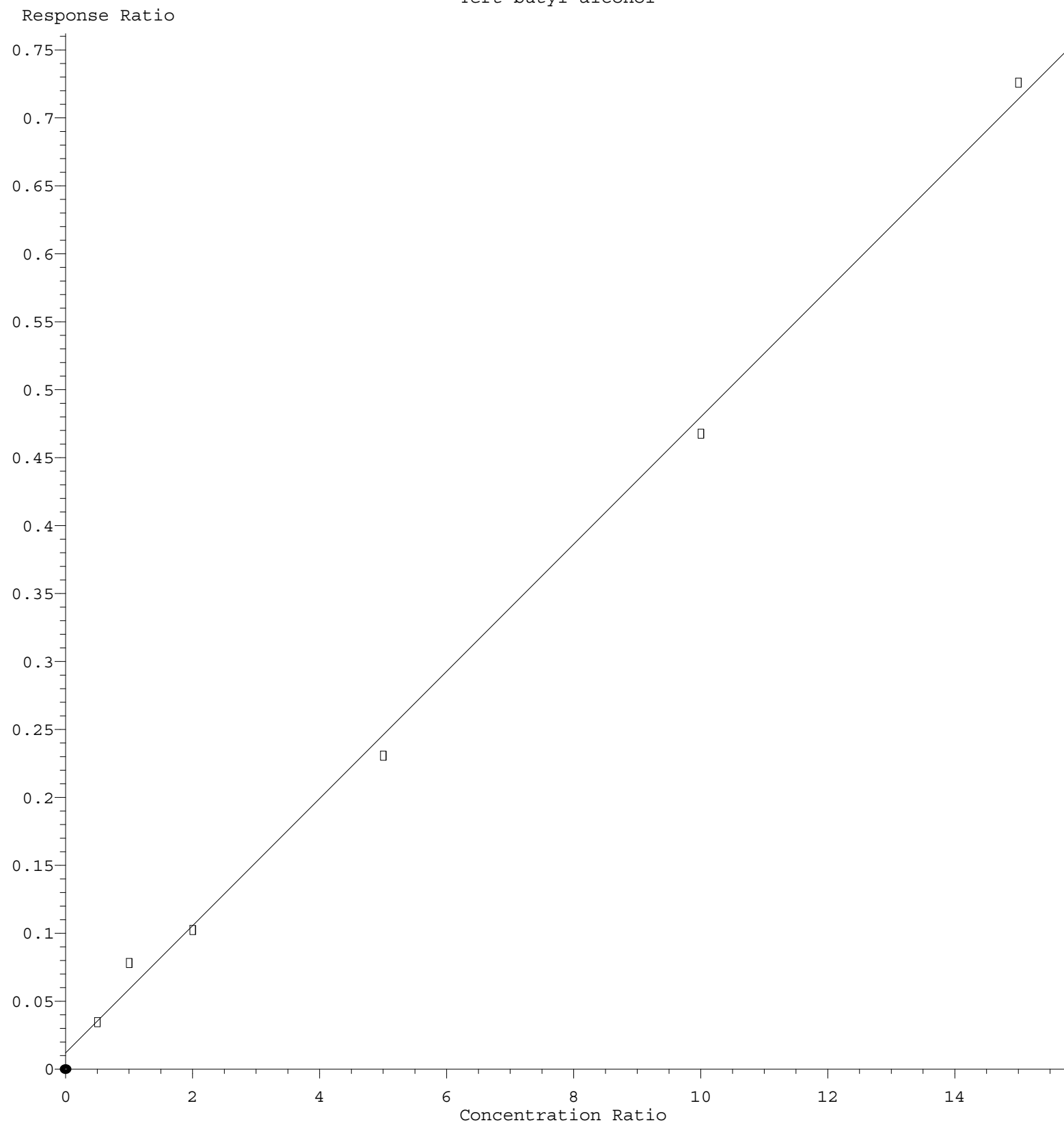
$$\text{Response} = 4.905\text{e-}001 * \text{Amt} + 9.259\text{e-}002$$

Coef of Det (r^2) = 0.997759 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y011623S.M

Calibration Table Last Updated: Tue Jan 17 04:31:47 2023

Tert butyl alcohol



Response = $4.676 \times 10^{-2} \times \text{Amt} + 1.211 \times 10^{-2}$
 Coef of Det (r^2) = 0.997521 Curve Fit: Linear
 Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y011623S.M
 Calibration Table Last Updated: Tue Jan 17 04:31:47 2023

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012194.D
 Acq On : 16 Jan 2023 12:17
 Operator : KP/MD
 Sample : VSTDIC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDIC005

Manual Integrations
 APPROVED

Reviewed By :Krupa
 Patel
 01/17/2023

Supervised By :Mahesh
 Dadoda
 01/17/2023

Quant Time: Jan 16 14:01:24 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	200893	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	304921	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.490	117	272553	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	137512	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.143	65	10716	4.747	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	9.500%#
35) Dibromofluoromethane	7.716	113	8898	4.440	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	8.880%#
50) Toluene-d8	10.179	98	37867	4.787	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	9.580%#
62) 4-Bromofluorobenzene	12.483	95	12960	4.687	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	9.380%#

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.906	85	9165	5.096	ug/l	93
3) Chloromethane	2.119	50	9071	5.492	ug/l	99
4) Vinyl Chloride	2.253	62	10104	5.175	ug/l #	87
5) Bromomethane	2.656	94	8600	5.758	ug/l	100
6) Chloroethane	2.796	64	6503	5.027	ug/l	98
7) Trichlorofluoromethane	3.131	101	19104	4.911	ug/l	100
8) Diethyl Ether	3.528	74	5502	4.620	ug/l	85
9) 1,1,2-Trichlorotrifluo...	3.906	101	9113	4.550	ug/l	91
10) Methyl Iodide	4.095	142	12934	4.764	ug/l	96
11) Tert butyl alcohol	4.942	59	6948	20.737	ug/l #	83
12) 1,1-Dichloroethene	3.881	96	9448	4.812	ug/l	92
13) Acrolein	3.735	56	2970	20.378	ug/l	98
14) Allyl chloride	4.479	41	11396	4.306	ug/l #	87
15) Acrylonitrile	5.161	53	10828	19.352	ug/l	98
16) Acetone	3.942	43	11134	20.967	ug/l	97
17) Carbon Disulfide	4.198	76	29451	5.320	ug/l	99
18) Methyl Acetate	4.473	43	6181	4.046	ug/l #	84
19) Methyl tert-butyl Ether	5.222	73	23274	4.027	ug/l	95
20) Methylene Chloride	4.723	84	23580	8.529	ug/l	87
21) trans-1,2-Dichloroethene	5.222	96	10431	4.801	ug/l	97
22) Diisopropyl ether	6.119	45	22514	4.135	ug/l	96
23) Vinyl Acetate	6.064	43	61979	18.811	ug/l #	92
24) 1,1-Dichloroethane	6.021	63	16146	4.458	ug/l	92
25) 2-Butanone	6.990	43	12535	17.892	ug/l	92
26) 2,2-Dichloropropane	6.978	77	17496	4.478	ug/l	96
27) cis-1,2-Dichloroethene	6.984	96	11473	4.624	ug/l	93
28) Bromochloromethane	7.332	49	4295	4.691	ug/l #	70
29) Tetrahydrofuran	7.350	42	6919	16.919	ug/l #	78
30) Chloroform	7.502	83	18879	4.573	ug/l	100
31) Cyclohexane	7.783	56	16974	5.230	ug/l #	73
32) 1,1,1-Trichloroethane	7.698	97	18722	4.669	ug/l	99
36) 1,1-Dichloropropene	7.917	75	14234	4.681	ug/l	99
37) Ethyl Acetate	7.076	43	5288	3.248	ug/l #	94
38) Carbon Tetrachloride	7.899	117	18285	4.738	ug/l	95
39) Methylcyclohexane	9.185	83	16733	4.607	ug/l	94
40) Benzene	8.161	78	41296	4.661	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012194.D
 Acq On : 16 Jan 2023 12:17
 Operator : KP/MD
 Sample : VSTDICC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :Krupa

Patel

01/17/2023

Supervised By :Mahesh

Dadoda

01/17/2023

Quant Time: Jan 16 14:01:24 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.301	41	3696m	4.174	ug/l	
42) 1,2-Dichloroethane	8.234	62	12309	4.388	ug/l	99
43) Isopropyl Acetate	8.271	43	9694	3.553	ug/l #	93
44) Trichloroethene	8.941	130	12327	4.765	ug/l	93
45) 1,2-Dichloropropane	9.216	63	8132	4.119	ug/l	98
46) Dibromomethane	9.307	93	5345	4.301	ug/l	95
47) Bromodichloromethane	9.496	83	13332	4.219	ug/l	99
48) Methyl methacrylate	9.295	41	4284	3.505	ug/l	86
49) 1,4-Dioxane	9.295	88	1306	75.886	ug/l	88
51) 4-Methyl-2-Pentanone	10.069	43	25129	17.309	ug/l	97
52) Toluene	10.246	92	26692	4.551	ug/l	99
53) t-1,3-Dichloropropene	10.465	75	13856	4.215	ug/l	99
54) cis-1,3-Dichloropropene	9.929	75	15002	4.218	ug/l	96
55) 1,1,2-Trichloroethane	10.642	97	7693	4.286	ug/l	91
56) Ethyl methacrylate	10.508	69	8879	3.776	ug/l	94
57) 1,3-Dichloropropane	10.795	76	12399	4.186	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.783	63	16764	19.491	ug/l	91
59) 2-Hexanone	10.831	43	17541	17.207	ug/l	91
60) Dibromochloromethane	10.984	129	9802	4.142	ug/l	100
61) 1,2-Dibromoethane	11.087	107	7090	4.127	ug/l	97
64) Tetrachloroethene	10.721	164	12555	4.702	ug/l	96
65) Chlorobenzene	11.520	112	29902	4.804	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.593	131	10495	4.367	ug/l	95
67) Ethyl Benzene	11.593	91	51147	4.597	ug/l	97
68) m/p-Xylenes	11.703	106	39906	9.145	ug/l	99
69) o-Xylene	12.032	106	19253	4.634	ug/l	94
70) Styrene	12.050	104	31073	4.403	ug/l	99
71) Bromoform	12.209	173	6191	4.054	ug/l #	99
73) Isopropylbenzene	12.331	105	50493	4.640	ug/l	100
74) N-amyl acetate	12.148	43	8569	3.815	ug/l	93
75) 1,1,2,2-Tetrachloroethane	12.581	83	7474	4.083	ug/l	97
76) 1,2,3-Trichloropropane	12.636	75	5927m	3.775	ug/l	
77) Bromobenzene	12.611	156	12586	4.850	ug/l	88
78) n-propylbenzene	12.672	91	60181	4.738	ug/l	98
79) 2-Chlorotoluene	12.758	91	33883	4.663	ug/l	96
80) 1,3,5-Trimethylbenzene	12.819	105	44469	4.765	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.380	75	2730	3.861	ug/l	90
82) 4-Chlorotoluene	12.861	91	36685	4.827	ug/l	97
83) tert-Butylbenzene	13.075	119	38430	4.700	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	42436	4.594	ug/l	99
85) sec-Butylbenzene	13.258	105	56632	4.818	ug/l	97
86) p-Isopropyltoluene	13.373	119	48543	4.767	ug/l	99
87) 1,3-Dichlorobenzene	13.367	146	25260	4.856	ug/l	99
88) 1,4-Dichlorobenzene	13.447	146	25962	4.996	ug/l	94
89) n-Butylbenzene	13.703	91	42501	4.817	ug/l	97
90) Hexachloroethane	13.965	117	9164	4.851	ug/l	96
91) 1,2-Dichlorobenzene	13.745	146	22831	4.926	ug/l	97
92) 1,2-Dibromo-3-Chloropr...	14.361	75	1417	3.895	ug/l	89
93) 1,2,4-Trichlorobenzene	15.007	180	14422	4.991	ug/l	98
94) Hexachlorobutadiene	15.117	225	9112	5.227	ug/l	99
95) Naphthalene	15.245	128	25109	4.391	ug/l	99
96) 1,2,3-Trichlorobenzene	15.428	180	11970	4.765	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012194.D
Acq On : 16 Jan 2023 12:17
Operator : KP/MD
Sample : VSTDICC005
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Krupa
Patel
01/17/2023

Supervised By :Mahesh
Dadoda
01/17/2023

Quant Time: Jan 16 14:01:24 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration

Compound	R.T.	Q	Ion	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations

01/17/2023

01/17/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012195.D
 Acq On : 16 Jan 2023 13:03
 Operator : KP/MD
 Sample : VSTDICC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC010

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:17 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	179162	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	273419	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.490	117	253670	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	130330	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.136	65	19761	9.816	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	19.640%#		
35) Dibromofluoromethane	7.716	113	15889	8.841	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	17.680%#		
50) Toluene-d8	10.179	98	64948	9.156	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	18.320%#		
62) 4-Bromofluorobenzene	12.483	95	22919	9.244	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	18.480%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.906	85	18625	11.613	ug/l	96
3) Chloromethane	2.113	50	15769	10.705	ug/l	97
4) Vinyl Chloride	2.253	62	18212	10.459	ug/l	97
5) Bromomethane	2.650	94	14250	10.698	ug/l	95
6) Chloroethane	2.796	64	11597	10.053	ug/l	97
7) Trichlorofluoromethane	3.131	101	35633	10.272	ug/l	99
8) Diethyl Ether	3.534	74	10843	10.209	ug/l	81
9) 1,1,2-Trichlorotrifluo...	3.906	101	17248	9.657	ug/l	95
10) Methyl Iodide	4.095	142	24311	10.041	ug/l	93
11) Tert butyl alcohol	4.948	59	13988	46.813	ug/l #	84
12) 1,1-Dichloroethene	3.875	96	17081	9.755	ug/l	96
13) Acrolein	3.735	56	5886	45.284	ug/l	100
14) Allyl chloride	4.479	41	20763	8.796	ug/l #	84
15) Acrylonitrile	5.161	53	24075	48.247	ug/l	99
16) Acetone	3.948	43	26670	56.316	ug/l	96
17) Carbon Disulfide	4.198	76	53401	10.816	ug/l	100
18) Methyl Acetate	4.479	43	12168	8.932	ug/l #	85
19) Methyl tert-butyl Ether	5.222	73	49973	9.696	ug/l	92
20) Methylene Chloride	4.716	84	36560	14.827	ug/l	87
21) trans-1,2-Dichloroethene	5.216	96	19455	10.041	ug/l	87
22) Diisopropyl ether	6.119	45	42426	8.737	ug/l #	87
23) Vinyl Acetate	6.064	43	135296	46.044	ug/l #	90
24) 1,1-Dichloroethane	6.021	63	29079	9.003	ug/l	99
25) 2-Butanone	6.990	43	31276	50.056	ug/l	92
26) 2,2-Dichloropropane	6.984	77	32554	9.343	ug/l	98
27) cis-1,2-Dichloroethene	6.990	96	20908	9.448	ug/l	96
28) Bromochloromethane	7.332	49	6358	7.786	ug/l #	70
29) Tetrahydrofuran	7.350	42	17073	46.812	ug/l #	79
30) Chloroform	7.502	83	35715	9.700	ug/l	100
31) Cyclohexane	7.783	56	28490	9.843	ug/l #	91
32) 1,1,1-Trichloroethane	7.704	97	34735	9.713	ug/l	98
36) 1,1-Dichloropropene	7.917	75	26128	9.583	ug/l	98
37) Ethyl Acetate	7.076	43	12194	8.353	ug/l #	91
38) Carbon Tetrachloride	7.899	117	33643	9.722	ug/l	94
39) Methylcyclohexane	9.185	83	30952	9.503	ug/l	93
40) Benzene	8.161	78	75207	9.466	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012195.D
 Acq On : 16 Jan 2023 13:03
 Operator : KP/MD
 Sample : VSTDICC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC010

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:17 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.320	41	6918m	8.713	ug/l	
42) 1,2-Dichloroethane	8.240	62	24799	9.859	ug/l	98
43) Isopropyl Acetate	8.271	43	22151	9.054	ug/l #	95
44) Trichloroethene	8.941	130	22136	9.542	ug/l	98
45) 1,2-Dichloropropane	9.216	63	15739	8.891	ug/l	96
46) Dibromomethane	9.307	93	10763	9.658	ug/l	95
47) Bromodichloromethane	9.496	83	26678	9.415	ug/l #	99
48) Methyl methacrylate	9.295	41	9928	9.059	ug/l	85
49) 1,4-Dioxane	9.301	88	3007	194.855	ug/l	90
51) 4-Methyl-2-Pentanone	10.069	43	59640	45.813	ug/l	95
52) Toluene	10.246	92	48980	9.314	ug/l	98
53) t-1,3-Dichloropropene	10.465	75	27411	9.299	ug/l	99
54) cis-1,3-Dichloropropene	9.929	75	29935	9.387	ug/l	98
55) 1,1,2-Trichloroethane	10.648	97	15639	9.716	ug/l	94
56) Ethyl methacrylate	10.508	69	19575	9.284	ug/l	95
57) 1,3-Dichloropropane	10.788	76	24616	9.267	ug/l	97
58) 2-Chloroethyl Vinyl ether	9.783	63	33235	43.094	ug/l #	87
59) 2-Hexanone	10.831	43	45470	49.742	ug/l	95
60) Dibromochloromethane	10.984	129	20184	9.511	ug/l	99
61) 1,2-Dibromoethane	11.087	107	14942	9.699	ug/l	98
64) Tetrachloroethene	10.721	164	25078	10.092	ug/l	93
65) Chlorobenzene	11.520	112	53973	9.316	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.593	131	20709	9.259	ug/l	97
67) Ethyl Benzene	11.593	91	95965	9.267	ug/l	98
68) m/p-Xylenes	11.703	106	76335	18.795	ug/l	99
69) o-Xylene	12.032	106	36291	9.384	ug/l	96
70) Styrene	12.044	104	61017	9.289	ug/l	100
71) Bromoform	12.209	173	13782	9.698	ug/l #	96
73) Isopropylbenzene	12.331	105	95710	9.281	ug/l	98
74) N-amyl acetate	12.148	43	18834	8.846	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.581	83	16214	9.347	ug/l	97
76) 1,2,3-Trichloropropane	12.630	75	12519m	8.413	ug/l	
77) Bromobenzene	12.611	156	23583	9.588	ug/l	93
78) n-propylbenzene	12.672	91	113127	9.397	ug/l	98
79) 2-Chlorotoluene	12.758	91	64375	9.348	ug/l	97
80) 1,3,5-Trimethylbenzene	12.812	105	85494	9.666	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.380	75	6257	9.338	ug/l	94
82) 4-Chlorotoluene	12.855	91	67299	9.344	ug/l	97
83) tert-Butylbenzene	13.075	119	73291	9.457	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	83829	9.574	ug/l	100
85) sec-Butylbenzene	13.251	105	103678	9.307	ug/l	96
86) p-Isopropyltoluene	13.373	119	91914	9.524	ug/l	99
87) 1,3-Dichlorobenzene	13.367	146	46882	9.509	ug/l	100
88) 1,4-Dichlorobenzene	13.447	146	47386	9.621	ug/l	98
89) n-Butylbenzene	13.696	91	78545	9.392	ug/l	96
90) Hexachloroethane	13.965	117	16559	9.249	ug/l	96
91) 1,2-Dichlorobenzene	13.739	146	42720	9.726	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.355	75	3464	10.047	ug/l	94
93) 1,2,4-Trichlorobenzene	15.007	180	25931	9.469	ug/l	97
94) Hexachlorobutadiene	15.117	225	16082	9.733	ug/l	99
95) Naphthalene	15.239	128	49982	9.223	ug/l	100
96) 1,2,3-Trichlorobenzene	15.428	180	22473	9.439	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012195.D
Acq On : 16 Jan 2023 13:03
Operator : KP/MD
Sample : VSTDICC010
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:17 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration

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

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

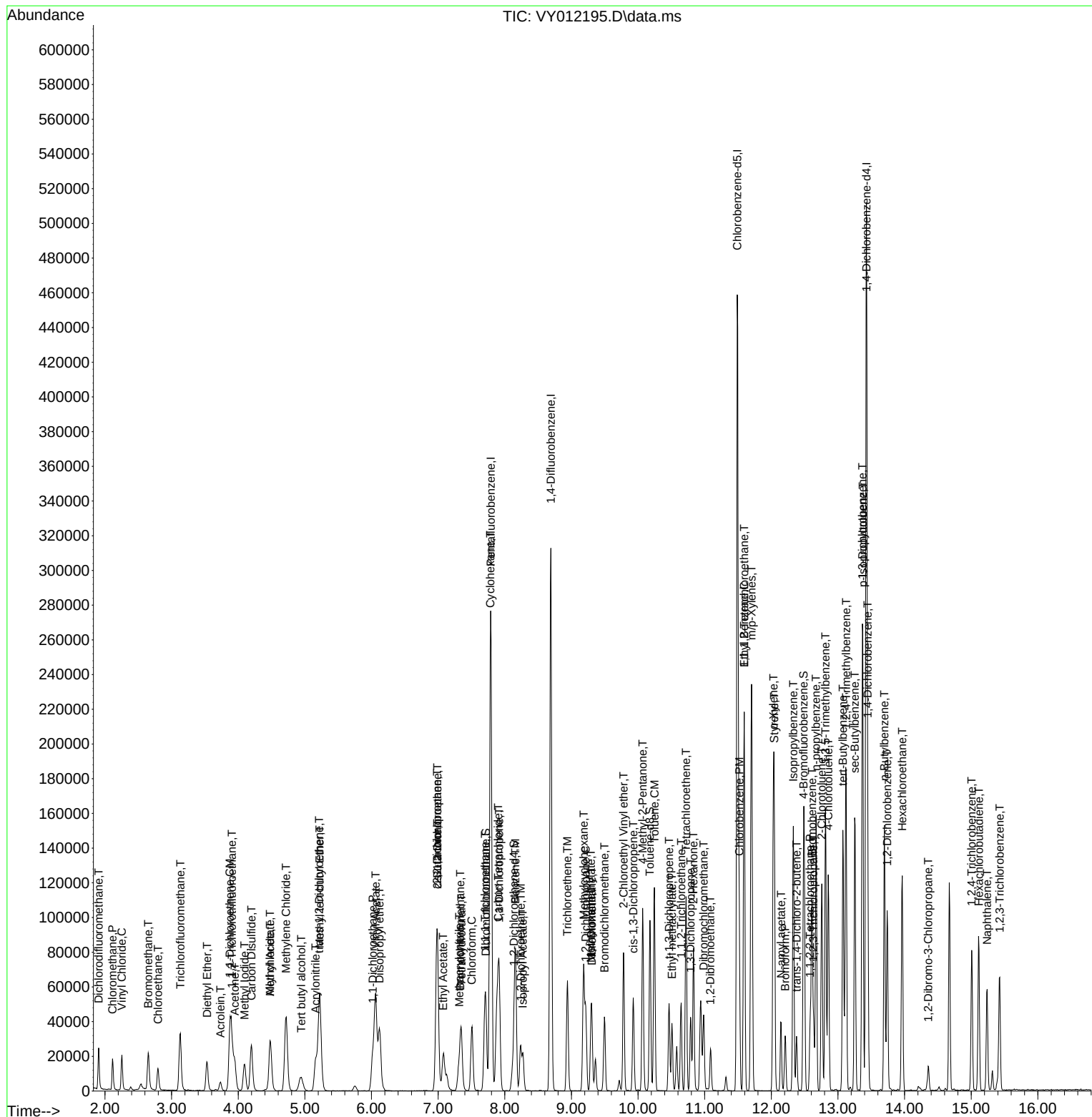
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012195.D
Acq On : 16 Jan 2023 13:03
Operator : KP/MD
Sample : VSTDIC010
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:17 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012196.D
 Acq On : 16 Jan 2023 13:26
 Operator : KP/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:35 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	188894	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	281893	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	259662	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	134252	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	37644	17.735	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	35.480%#		
35) Dibromofluoromethane	7.716	113	32639	17.616	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	35.240%#		
50) Toluene-d8	10.179	98	134756	18.426	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	36.860%#		
62) 4-Bromofluorobenzene	12.483	95	45453	17.781	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	35.560%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.906	85	36719	21.715	ug/l	96
3) Chloromethane	2.113	50	30242	19.473	ug/l	96
4) Vinyl Chloride	2.253	62	36178	19.706	ug/l	97
5) Bromomethane	2.643	94	26810	19.091	ug/l	98
6) Chloroethane	2.790	64	23391	19.231	ug/l	98
7) Trichlorofluoromethane	3.125	101	71374	19.515	ug/l	96
8) Diethyl Ether	3.533	74	20155	17.999	ug/l	83
9) 1,1,2-Trichlorotrifluo...	3.905	101	34344	18.238	ug/l	95
10) Methyl Iodide	4.088	142	51510	20.178	ug/l	94
11) Tert butyl alcohol	4.954	59	19339	61.386	ug/l	100
12) 1,1-Dichloroethene	3.869	96	34672	18.781	ug/l	96
13) Acrolein	3.722	56	10501	76.627	ug/l	97
14) Allyl chloride	4.478	41	41126	16.525	ug/l #	82
15) Acrylonitrile	5.161	53	43466	82.619	ug/l	99
16) Acetone	3.948	43	46355	92.840	ug/l	98
17) Carbon Disulfide	4.198	76	106761	20.509	ug/l	98
18) Methyl Acetate	4.478	43	21701	15.109	ug/l #	87
19) Methyl tert-butyl Ether	5.222	73	94460	17.384	ug/l	94
20) Methylene Chloride	4.716	84	55580	21.380	ug/l	88
21) trans-1,2-Dichloroethene	5.216	96	38668	18.929	ug/l	89
22) Diisopropyl ether	6.118	45	83784	16.365	ug/l #	88
23) Vinyl Acetate	6.057	43	261729	84.482	ug/l #	92
24) 1,1-Dichloroethane	6.021	63	58306	17.122	ug/l	96
25) 2-Butanone	6.984	43	54065	82.071	ug/l	92
26) 2,2-Dichloropropane	6.984	77	63472	17.277	ug/l	99
27) cis-1,2-Dichloroethene	6.984	96	41930	17.971	ug/l	94
28) Bromochloromethane	7.332	49	12104	14.059	ug/l #	71
29) Tetrahydrofuran	7.344	42	30262	78.700	ug/l #	81
30) Chloroform	7.508	83	68927	17.756	ug/l	93
31) Cyclohexane	7.789	56	53452	17.516	ug/l #	85
32) 1,1,1-Trichloroethane	7.703	97	68110	18.065	ug/l	97
36) 1,1-Dichloropropene	7.917	75	50950	18.125	ug/l	97
37) Ethyl Acetate	7.069	43	22554	14.985	ug/l #	97
38) Carbon Tetrachloride	7.899	117	67004	18.780	ug/l	100
39) Methylcyclohexane	9.185	83	62705	18.673	ug/l	92
40) Benzene	8.161	78	146247	17.854	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012196.D
 Acq On : 16 Jan 2023 13:26
 Operator : KP/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:35 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.313	41	12760m	15.588	ug/l	
42) 1,2-Dichloroethane	8.234	62	46555	17.952	ug/l	99
43) Isopropyl Acetate	8.270	43	40673	16.125	ug/l #	93
44) Trichloroethene	8.941	130	44526	18.616	ug/l	97
45) 1,2-Dichloropropane	9.215	63	30183	16.538	ug/l	95
46) Dibromomethane	9.307	93	20496	17.839	ug/l	95
47) Bromodichloromethane	9.496	83	51858	17.751	ug/l	98
48) Methyl methacrylate	9.295	41	18174	16.085	ug/l #	82
49) 1,4-Dioxane	9.295	88	5292	332.615	ug/l	94
51) 4-Methyl-2-Pentanone	10.069	43	108911	81.146	ug/l	95
52) Toluene	10.240	92	98367	18.142	ug/l	99
53) t-1,3-Dichloropropene	10.465	75	53860	17.722	ug/l	99
54) cis-1,3-Dichloropropene	9.929	75	57907	17.612	ug/l	98
55) 1,1,2-Trichloroethane	10.642	97	28772	17.338	ug/l	98
56) Ethyl methacrylate	10.508	69	37529	17.264	ug/l	95
57) 1,3-Dichloropropane	10.788	76	47594	17.379	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.782	63	63331	79.649	ug/l	89
59) 2-Hexanone	10.831	43	81493	86.470	ug/l	95
60) Dibromochloromethane	10.983	129	38881	17.770	ug/l	100
61) 1,2-Dibromoethane	11.087	107	27891	17.561	ug/l	99
64) Tetrachloroethene	10.721	164	48592	19.103	ug/l	96
65) Chlorobenzene	11.514	112	105251	17.748	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.587	131	40105	17.516	ug/l	97
67) Ethyl Benzene	11.593	91	189107	17.841	ug/l	97
68) m/p-Xylenes	11.703	106	151588	36.462	ug/l	99
69) o-Xylene	12.032	106	72199	18.239	ug/l	99
70) Styrene	12.044	104	120134	17.866	ug/l	99
71) Bromoform	12.209	173	26017	17.884	ug/l #	98
73) Isopropylbenzene	12.331	105	193545	18.219	ug/l	99
74) N-amyl acetate	12.142	43	36459	16.625	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.581	83	29327	16.412	ug/l	99
76) 1,2,3-Trichloropropane	12.629	75	27470m	17.920	ug/l	
77) Bromobenzene	12.611	156	45561	17.982	ug/l	92
78) n-propylbenzene	12.672	91	226889	18.296	ug/l	98
79) 2-Chlorotoluene	12.757	91	127009	17.904	ug/l	96
80) 1,3,5-Trimethylbenzene	12.812	105	169371	18.589	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.379	75	11564	16.754	ug/l	97
82) 4-Chlorotoluene	12.855	91	133493	17.992	ug/l	98
83) tert-Butylbenzene	13.074	119	149692	18.751	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	167914	18.618	ug/l	98
85) sec-Butylbenzene	13.251	105	210069	18.307	ug/l	97
86) p-Isopropyltoluene	13.367	119	185077	18.618	ug/l	99
87) 1,3-Dichlorobenzene	13.367	146	93243	18.359	ug/l	99
88) 1,4-Dichlorobenzene	13.446	146	91032	17.943	ug/l	99
89) n-Butylbenzene	13.696	91	158867	18.442	ug/l	97
90) Hexachloroethane	13.965	117	33471	18.149	ug/l	94
91) 1,2-Dichlorobenzene	13.739	146	81657	18.047	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.355	75	6205	17.471	ug/l	95
93) 1,2,4-Trichlorobenzene	15.007	180	52932	18.764	ug/l	98
94) Hexachlorobutadiene	15.117	225	32885	19.321	ug/l	100
95) Naphthalene	15.239	128	102999	18.450	ug/l	99
96) 1,2,3-Trichlorobenzene	15.428	180	46421	18.927	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012196.D
Acq On : 16 Jan 2023 13:26
Operator : KP/MD
Sample : VSTDICC020
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:35 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration

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

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

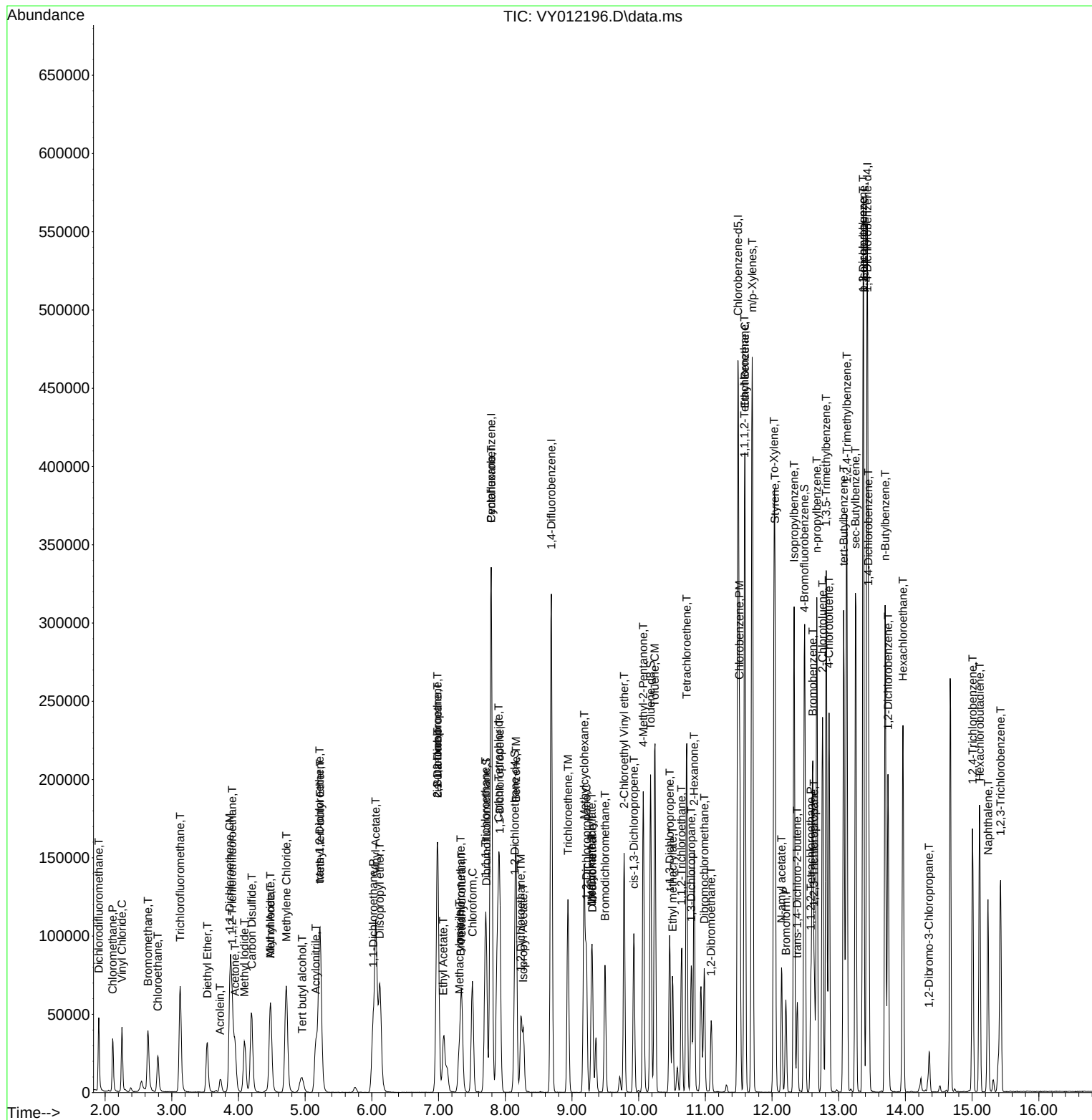
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012196.D
Acq On : 16 Jan 2023 13:26
Operator : KP/MD
Sample : VSTDICC020
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC020

Manual Integrations

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:04:35 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012197.D
 Acq On : 16 Jan 2023 13:48
 Operator : KP/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:05:34 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	191097	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	290797	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.490	117	264349	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	135964	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.143	65	78185	36.411	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	72.820%		
35) Dibromofluoromethane	7.716	113	70070	36.660	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	73.320%		
50) Toluene-d8	10.179	98	258797	34.304	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	68.600%		
62) 4-Bromofluorobenzene	12.483	95	96876	36.737	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	73.480%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.906	85	71105	41.565	ug/l	100
3) Chloromethane	2.113	50	70310	44.752	ug/l	98
4) Vinyl Chloride	2.253	62	83041	44.711	ug/l	98
5) Bromomethane	2.650	94	63798	44.905	ug/l	96
6) Chloroethane	2.796	64	54875	44.596	ug/l	96
7) Trichlorofluoromethane	3.125	101	160880	43.481	ug/l	99
8) Diethyl Ether	3.528	74	49618	43.800	ug/l	81
9) 1,1,2-Trichlorotrifluo...	3.899	101	77841	40.860	ug/l	94
10) Methyl Iodide	4.095	142	130616	50.576	ug/l	94
11) Tert butyl alcohol	4.954	59	44074	138.287	ug/l	97
12) 1,1-Dichloroethene	3.875	96	83711	44.821	ug/l	92
13) Acrolein	3.729	56	15519	111.938	ug/l	99
14) Allyl chloride	4.479	41	103883	41.261	ug/l #	83
15) Acrylonitrile	5.161	53	111889	210.223	ug/l	99
16) Acetone	3.942	43	147434	291.878	ug/l	97
17) Carbon Disulfide	4.198	76	256609	48.728	ug/l	97
18) Methyl Acetate	4.479	43	57492	39.567	ug/l #	89
19) Methyl tert-butyl Ether	5.222	73	244618	44.499	ug/l	93
20) Methylene Chloride	4.716	84	108941	41.422	ug/l	88
21) trans-1,2-Dichloroethene	5.222	96	94558	45.754	ug/l	89
22) Diisopropyl ether	6.119	45	209847	40.517	ug/l #	90
23) Vinyl Acetate	6.058	43	672550	214.587	ug/l #	93
24) 1,1-Dichloroethane	6.021	63	145139	42.129	ug/l	98
25) 2-Butanone	6.984	43	150321	225.559	ug/l #	87
26) 2,2-Dichloropropane	6.984	77	155087	41.729	ug/l	99
27) cis-1,2-Dichloroethene	6.990	96	104740	44.373	ug/l	94
28) Bromochloromethane	7.338	49	30470	34.984	ug/l #	73
29) Tetrahydrofuran	7.344	42	81443	209.361	ug/l #	83
30) Chloroform	7.509	83	171905	43.774	ug/l	98
31) Cyclohexane	7.789	56	120988	39.190	ug/l	89
32) 1,1,1-Trichloroethane	7.704	97	169110	44.336	ug/l	97
36) 1,1-Dichloropropene	7.917	75	123810	42.696	ug/l	98
37) Ethyl Acetate	7.076	43	57067	36.754	ug/l #	94
38) Carbon Tetrachloride	7.905	117	160502	43.608	ug/l	97
39) Methylcyclohexane	9.185	83	149602	43.187	ug/l	94
40) Benzene	8.161	78	359633	42.560	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012197.D
 Acq On : 16 Jan 2023 13:48
 Operator : KP/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:05:34 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.326	41	35041m	41.495	ug/l	
42) 1,2-Dichloroethane	8.234	62	118518	44.301	ug/l	99
43) Isopropyl Acetate	8.271	43	107287	41.232	ug/l #	94
44) Trichloroethene	8.941	130	108272	43.882	ug/l	99
45) 1,2-Dichloropropane	9.216	63	75802	40.261	ug/l	97
46) Dibromomethane	9.307	93	51976	43.853	ug/l	96
47) Bromodichloromethane	9.496	83	129678	43.029	ug/l	100
48) Methyl methacrylate	9.295	41	51213	43.938	ug/l	92
49) 1,4-Dioxane	9.295	88	14993	913.493	ug/l #	85
51) 4-Methyl-2-Pentanone	10.069	43	288706	208.518	ug/l	96
52) Toluene	10.246	92	244243	43.668	ug/l	99
53) t-1,3-Dichloropropene	10.465	75	138171	44.071	ug/l	99
54) cis-1,3-Dichloropropene	9.929	75	147746	43.560	ug/l	98
55) 1,1,2-Trichloroethane	10.642	97	74005	43.231	ug/l	97
56) Ethyl methacrylate	10.508	69	100550	44.839	ug/l	94
57) 1,3-Dichloropropane	10.789	76	120715	42.729	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.783	63	157504	192.021	ug/l #	89
59) 2-Hexanone	10.831	43	229234	235.786	ug/l	95
60) Dibromochloromethane	10.984	129	99798	44.215	ug/l	99
61) 1,2-Dibromoethane	11.087	107	71778	43.809	ug/l	100
64) Tetrachloroethene	10.721	164	119318	46.076	ug/l	96
65) Chlorobenzene	11.514	112	261736	43.353	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.593	131	101825	43.685	ug/l	97
67) Ethyl Benzene	11.593	91	473326	43.862	ug/l	98
68) m/p-Xylenes	11.703	106	375824	88.796	ug/l	100
69) o-Xylene	12.032	106	179706	44.593	ug/l	99
70) Styrene	12.044	104	303772	44.375	ug/l	99
71) Bromoform	12.209	173	65777	44.414	ug/l #	99
73) Isopropylbenzene	12.331	105	476002	44.244	ug/l	99
74) N-amyl acetate	12.142	43	97264	43.792	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.581	83	76529	42.287	ug/l	99
76) 1,2,3-Trichloropropane	12.630	75	68816m	44.328	ug/l	
77) Bromobenzene	12.611	156	115869	45.156	ug/l	92
78) n-propylbenzene	12.672	91	547297	43.577	ug/l	99
79) 2-Chlorotoluene	12.758	91	312943	43.560	ug/l	97
80) 1,3,5-Trimethylbenzene	12.813	105	410117	44.445	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.380	75	30675	43.882	ug/l	97
82) 4-Chlorotoluene	12.855	91	325814	43.360	ug/l	97
83) tert-Butylbenzene	13.075	119	350229	43.319	ug/l	98
84) 1,2,4-Trimethylbenzene	13.123	105	411062	45.003	ug/l	99
85) sec-Butylbenzene	13.251	105	503621	43.338	ug/l	98
86) p-Isopropyltoluene	13.367	119	440685	43.772	ug/l	99
87) 1,3-Dichlorobenzene	13.367	146	226393	44.015	ug/l	99
88) 1,4-Dichlorobenzene	13.447	146	223234	43.447	ug/l	99
89) n-Butylbenzene	13.697	91	380743	43.641	ug/l	98
90) Hexachloroethane	13.965	117	78888	42.237	ug/l	95
91) 1,2-Dichlorobenzene	13.739	146	201950	44.072	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.355	75	15833	44.018	ug/l	92
93) 1,2,4-Trichlorobenzene	15.007	180	126784	44.379	ug/l	99
94) Hexachlorobutadiene	15.111	225	74231	43.065	ug/l	97
95) Naphthalene	15.239	128	262749	46.473	ug/l	100
96) 1,2,3-Trichlorobenzene	15.428	180	108472	43.671	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012197.D
Acq On : 16 Jan 2023 13:48
Operator : KP/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:05:34 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration

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

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

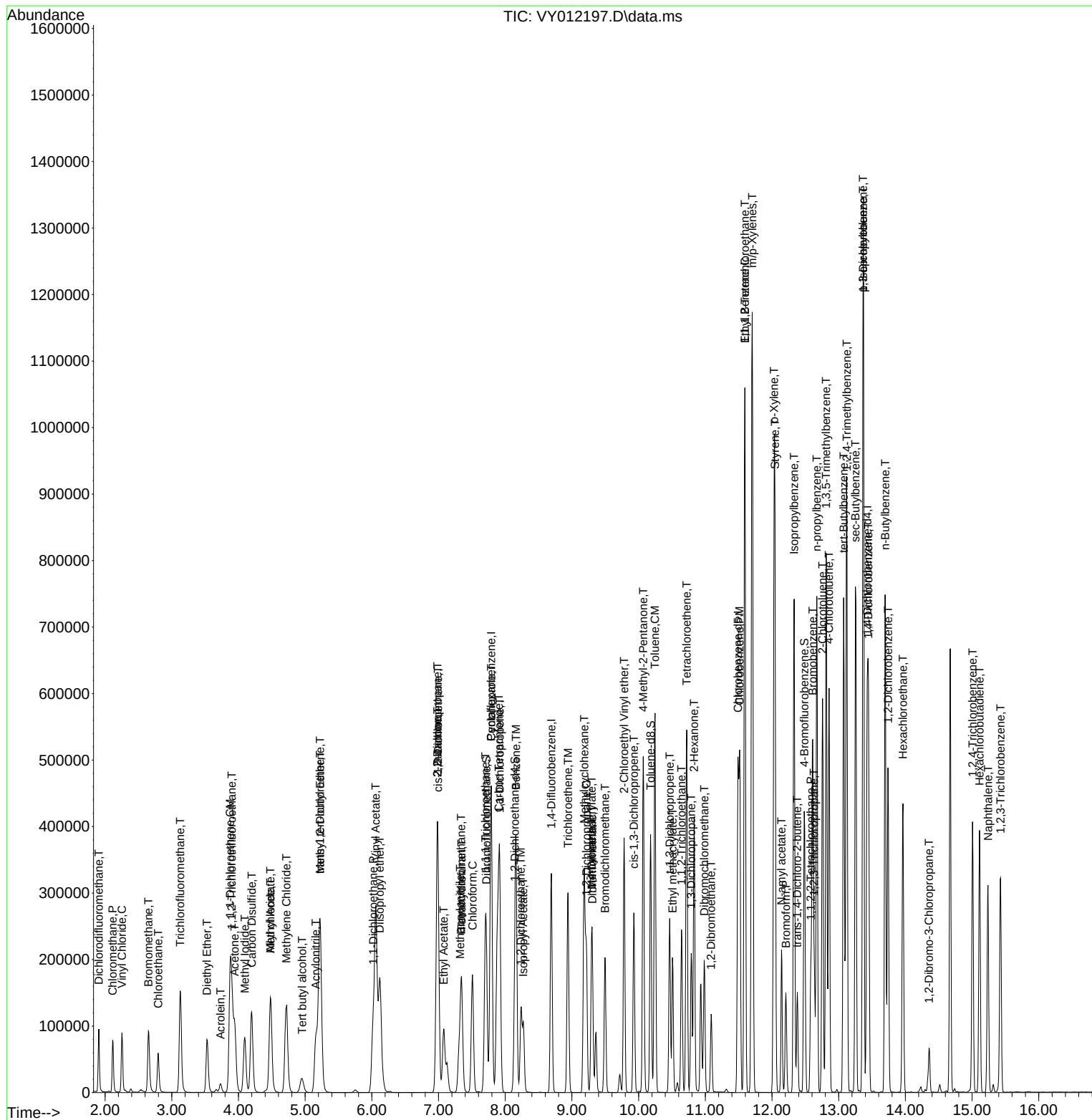
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012197.D
Acq On : 16 Jan 2023 13:48
Operator : KP/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:05:34 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012198.D
 Acq On : 16 Jan 2023 14:11
 Operator : KP/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:40:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	180015	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	280506	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	260191	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	128840	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	147153	72.749	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 145.500%			
35) Dibromofluoromethane	7.716	113	135949	73.736	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 147.480%#			
50) Toluene-d8	10.179	98	500641	68.796	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 137.600%			
62) 4-Bromofluorobenzene	12.483	95	188707	74.186	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 148.380%#			
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.906	85	147624	91.606	ug/l	98
3) Chloromethane	2.113	50	140031	94.615	ug/l	99
4) Vinyl Chloride	2.253	62	167204	95.569	ug/l	99
5) Bromomethane	2.643	94	126864	94.792	ug/l	97
6) Chloroethane	2.790	64	111623	96.299	ug/l	99
7) Trichlorofluoromethane	3.125	101	334439	95.952	ug/l	100
8) Diethyl Ether	3.527	74	98594	92.391	ug/l	81
9) 1,1,2-Trichlorotrifluo...	3.899	101	164492	91.660	ug/l	95
10) Methyl Iodide	4.094	142	260950	107.263	ug/l	95
11) Tert butyl alcohol	4.948	59	84169	280.347	ug/l	99
12) 1,1-Dichloroethene	3.869	96	168695	95.884	ug/l	96
13) Acrolein	3.723	56	29827	228.386	ug/l	98
14) Allyl chloride	4.478	41	214121	90.281	ug/l #	85
15) Acrylonitrile	5.161	53	214918	428.657	ug/l	99
16) Acetone	3.942	43	267421	562.010	ug/l	99
17) Carbon Disulfide	4.192	76	519621	104.745	ug/l	100
18) Methyl Acetate	4.478	43	110784	80.938	ug/l #	89
19) Methyl tert-butyl Ether	5.222	73	476858	92.085	ug/l	94
20) Methylene Chloride	4.716	84	201264	81.237	ug/l	87
21) trans-1,2-Dichloroethene	5.222	96	186962	96.035	ug/l	91
22) Diisopropyl ether	6.118	45	419710	86.025	ug/l #	91
23) Vinyl Acetate	6.057	43	1318064	446.437	ug/l #	93
24) 1,1-Dichloroethane	6.015	63	289955	89.345	ug/l	98
25) 2-Butanone	6.984	43	281214	447.942	ug/l #	88
26) 2,2-Dichloropropane	6.978	77	314909	89.947	ug/l	99
27) cis-1,2-Dichloroethene	6.984	96	209464	94.202	ug/l	95
28) Bromochloromethane	7.338	49	57714	70.343	ug/l #	74
29) Tetrahydrofuran	7.344	42	153367	418.522	ug/l #	84
30) Chloroform	7.502	83	342901	92.692	ug/l	99
31) Cyclohexane	7.783	56	256653	88.252	ug/l	93
32) 1,1,1-Trichloroethane	7.703	97	342159	95.226	ug/l	98
36) 1,1-Dichloropropene	7.917	75	250642	89.605	ug/l	97
37) Ethyl Acetate	7.069	43	107256	71.612	ug/l #	95
38) Carbon Tetrachloride	7.899	117	327048	92.117	ug/l	97
39) Methylcyclohexane	9.185	83	316505	94.720	ug/l	94
40) Benzene	8.161	78	723211	88.726	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012198.D
 Acq On : 16 Jan 2023 14:11
 Operator : KP/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:40:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.307	41	59303m	72.802	ug/l	
42) 1,2-Dichloroethane	8.240	62	232352	90.038	ug/l	99
43) Isopropyl Acetate	8.270	43	208105	82.911	ug/l #	94
44) Trichloroethene	8.941	130	216924	91.144	ug/l	96
45) 1,2-Dichloropropane	9.215	63	155318	85.522	ug/l	99
46) Dibromomethane	9.307	93	101311	88.613	ug/l	96
47) Bromodichloromethane	9.496	83	262819	90.407	ug/l	100
48) Methyl methacrylate	9.289	41	96997	86.272	ug/l	90
49) 1,4-Dioxane	9.295	88	27239	1720.503	ug/l	94
51) 4-Methyl-2-Pentanone	10.069	43	548265	410.512	ug/l	95
52) Toluene	10.246	92	491959	91.183	ug/l	99
53) t-1,3-Dichloropropene	10.465	75	273523	90.444	ug/l	100
54) cis-1,3-Dichloropropene	9.929	75	294668	90.065	ug/l	99
55) 1,1,2-Trichloroethane	10.642	97	141810	85.879	ug/l	96
56) Ethyl methacrylate	10.508	69	195851	90.541	ug/l	95
57) 1,3-Dichloropropane	10.788	76	237386	87.110	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.782	63	300641	379.973	ug/l	90
59) 2-Hexanone	10.831	43	428264	456.665	ug/l	96
60) Dibromochloromethane	10.983	129	193231	88.751	ug/l	100
61) 1,2-Dibromoethane	11.087	107	140109	88.652	ug/l	100
64) Tetrachloroethene	10.721	164	232458	91.200	ug/l	96
65) Chlorobenzene	11.520	112	527034	88.691	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.593	131	201129	87.667	ug/l	97
67) Ethyl Benzene	11.593	91	956614	90.065	ug/l	99
68) m/p-Xylenes	11.703	106	755232	181.290	ug/l	99
69) o-Xylene	12.032	106	360023	90.764	ug/l	100
70) Styrene	12.044	104	607373	90.143	ug/l	99
71) Bromoform	12.209	173	125922	86.383	ug/l #	99
73) Isopropylbenzene	12.331	105	957293	93.900	ug/l	99
74) N-amyl acetate	12.142	43	188961	89.782	ug/l	96
75) 1,1,2,2-Tetrachloroethane	12.581	83	144479	84.248	ug/l	99
76) 1,2,3-Trichloropropane	12.636	75	104951m	71.342	ug/l	
77) Bromobenzene	12.611	156	223708	92.004	ug/l	93
78) n-propylbenzene	12.672	91	1111374	93.384	ug/l	98
79) 2-Chlorotoluene	12.757	91	626555	92.035	ug/l	97
80) 1,3,5-Trimethylbenzene	12.812	105	820490	93.834	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.379	75	58824	88.804	ug/l	98
82) 4-Chlorotoluene	12.855	91	654235	91.882	ug/l	97
83) tert-Butylbenzene	13.074	119	727156	94.912	ug/l	100
84) 1,2,4-Trimethylbenzene	13.123	105	817581	94.458	ug/l	98
85) sec-Butylbenzene	13.257	105	1018287	92.471	ug/l	98
86) p-Isopropyltoluene	13.373	119	890750	93.367	ug/l	100
87) 1,3-Dichlorobenzene	13.367	146	444490	91.196	ug/l	99
88) 1,4-Dichlorobenzene	13.446	146	439397	90.246	ug/l	99
89) n-Butylbenzene	13.696	91	771352	93.301	ug/l	98
90) Hexachloroethane	13.965	117	156350	88.338	ug/l	93
91) 1,2-Dichlorobenzene	13.739	146	389265	89.647	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.355	75	29625	86.917	ug/l	96
93) 1,2,4-Trichlorobenzene	15.007	180	251814	93.017	ug/l	99
94) Hexachlorobutadiene	15.111	225	147339	90.205	ug/l	99
95) Naphthalene	15.239	128	509187	95.041	ug/l	100
96) 1,2,3-Trichlorobenzene	15.428	180	215596	91.599	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012198.D
Acq On : 16 Jan 2023 14:11
Operator : KP/MD
Sample : VSTDICC100
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:40:59 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012198.D
 Acq On : 16 Jan 2023 14:11
 Operator : KP/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :

MSVOA_Y

Client Sample Id :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :Krupa Patel 01/17/2023

Supervised By :Mahesh Dadoda 01/17/2023

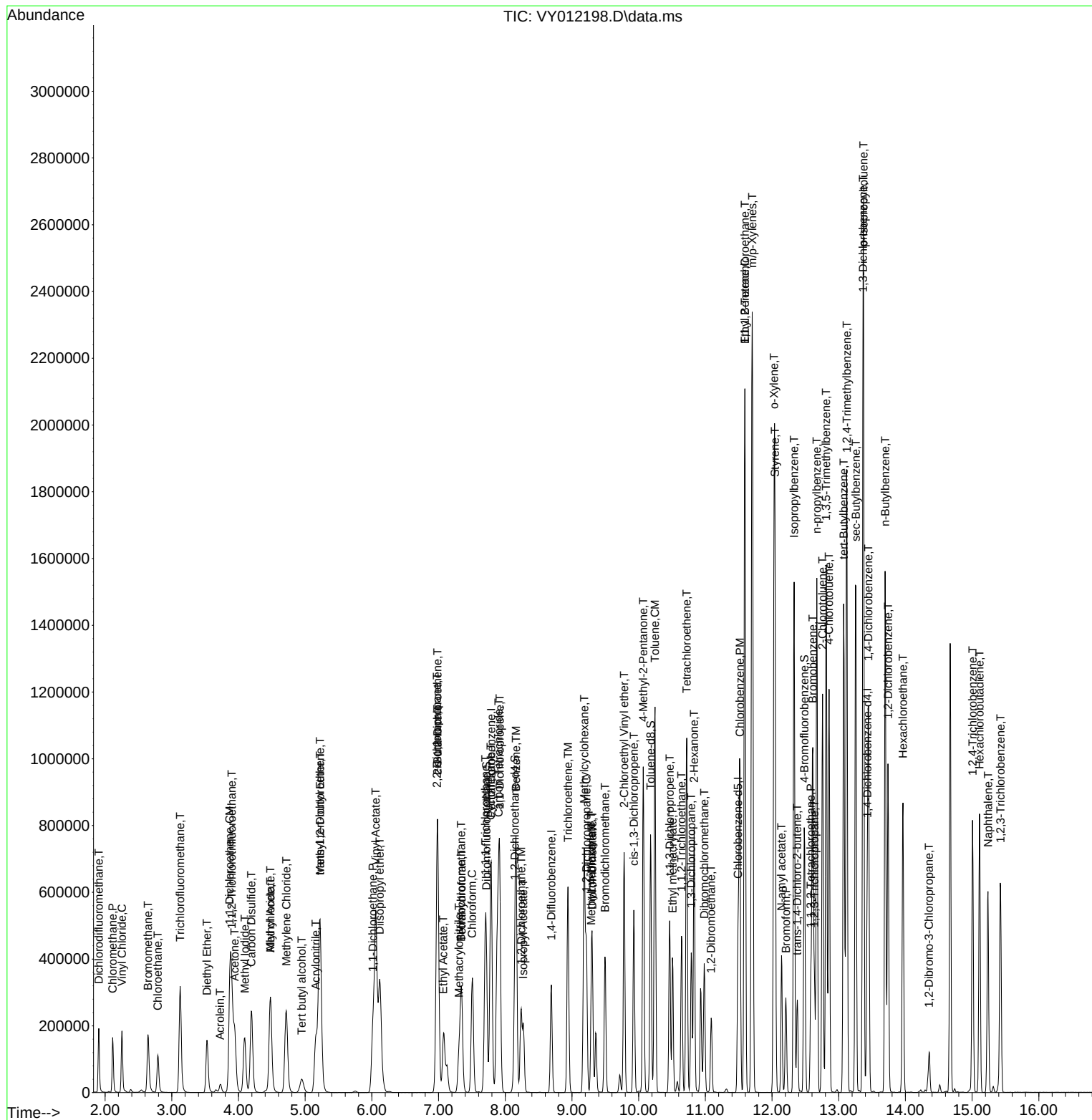
Quant Time: Jan 16 14:40:59 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M

Quant Title : SW846 8260

QLast Update : Mon Jan 16 13:57:37 2023

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012199.D
 Acq On : 16 Jan 2023 14:34
 Operator : KP/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:46:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	208490	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	318048	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	292116	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	146569	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	242775	103.630	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 207.260%#	
35) Dibromofluoromethane	7.716	113	222675	106.519	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 213.040%#	
50) Toluene-d8	10.179	98	819241	99.288	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 198.580%#	
62) 4-Bromofluorobenzene	12.483	95	307749	106.704	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 213.400%#	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.906	85	236192	126.549	ug/l	98
3) Chloromethane	2.113	50	232374	135.565	ug/l	100
4) Vinyl Chloride	2.253	62	272679	134.568	ug/l	98
5) Bromomethane	2.631	94	198439	128.022	ug/l	99
6) Chloroethane	2.784	64	180282	134.290	ug/l	96
7) Trichlorofluoromethane	3.125	101	533290	132.107	ug/l	98
8) Diethyl Ether	3.527	74	165049	133.541	ug/l	84
9) 1,1,2-Trichlorotrifluo...	3.899	101	268729	129.293	ug/l	95
10) Methyl Iodide	4.088	142	416311	147.752	ug/l	96
11) Tert butyl alcohol	4.960	59	151339	435.229	ug/l	98
12) 1,1-Dichloroethene	3.869	96	276973	135.927	ug/l	96
13) Acrolein	3.729	56	53521	353.840	ug/l	99
14) Allyl chloride	4.479	41	361209	131.498	ug/l #	88
15) Acrylonitrile	5.161	53	384331	661.861	ug/l	99
16) Acetone	3.948	43	469424	851.799	ug/l	99
17) Carbon Disulfide	4.192	76	855111	148.831	ug/l	100
18) Methyl Acetate	4.479	43	204053	128.718	ug/l	90
19) Methyl tert-butyl Ether	5.222	73	796131	132.743	ug/l	94
20) Methylene Chloride	4.716	84	320606	111.734	ug/l	87
21) trans-1,2-Dichloroethene	5.222	96	304371	134.991	ug/l	91
22) Diisopropyl ether	6.118	45	697127	123.370	ug/l #	92
23) Vinyl Acetate	6.058	43	2286941	668.808	ug/l	94
24) 1,1-Dichloroethane	6.015	63	474899	126.347	ug/l	98
25) 2-Butanone	6.984	43	519829	714.939	ug/l	90
26) 2,2-Dichloropropane	6.978	77	505656	124.704	ug/l	100
27) cis-1,2-Dichloroethene	6.984	96	336451	130.646	ug/l	95
28) Bromochloromethane	7.332	49	98630	103.794	ug/l #	79
29) Tetrahydrofuran	7.344	42	287280	676.886	ug/l #	86
30) Chloroform	7.508	83	538200	125.615	ug/l	99
31) Cyclohexane	7.783	56	425687	126.383	ug/l	94
32) 1,1,1-Trichloroethane	7.704	97	542606	130.388	ug/l	98
36) 1,1-Dichloropropene	7.917	75	410936	129.569	ug/l	98
37) Ethyl Acetate	7.069	43	196810	115.895	ug/l #	95
38) Carbon Tetrachloride	7.899	117	517769	128.622	ug/l	100
39) Methylcyclohexane	9.185	83	524437	138.422	ug/l	94
40) Benzene	8.161	78	1182619	127.962	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012199.D
 Acq On : 16 Jan 2023 14:34
 Operator : KP/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:46:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.319	41	107306m	116.183	ug/l	
42) 1,2-Dichloroethane	8.234	62	371025	126.804	ug/l	99
43) Isopropyl Acetate	8.271	43	372712	130.965	ug/l #	96
44) Trichloroethene	8.941	130	349231	129.414	ug/l	97
45) 1,2-Dichloropropane	9.215	63	253972	123.336	ug/l	100
46) Dibromomethane	9.307	93	167217	128.994	ug/l	97
47) Bromodichloromethane	9.496	83	420287	127.509	ug/l	99
48) Methyl methacrylate	9.295	41	179364	140.701	ug/l	94
49) 1,4-Dioxane	9.301	88	49394	2751.617	ug/l	92
51) 4-Methyl-2-Pentanone	10.069	43	1004437	663.296	ug/l	96
52) Toluene	10.246	92	789842	129.115	ug/l	99
53) t-1,3-Dichloropropene	10.465	75	448355	130.755	ug/l	99
54) cis-1,3-Dichloropropene	9.929	75	477227	128.646	ug/l	99
55) 1,1,2-Trichloroethane	10.642	97	234468	125.232	ug/l	98
56) Ethyl methacrylate	10.508	69	335819	136.922	ug/l	96
57) 1,3-Dichloropropane	10.788	76	389713	126.127	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.782	63	534173	595.437	ug/l	92
59) 2-Hexanone	10.831	43	776109	729.892	ug/l	95
60) Dibromochloromethane	10.983	129	313051	126.812	ug/l	99
61) 1,2-Dibromoethane	11.087	107	231425	129.146	ug/l	100
64) Tetrachloroethene	10.721	164	365089	127.581	ug/l	98
65) Chlorobenzene	11.514	112	842151	126.231	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.593	131	320565	124.456	ug/l	98
67) Ethyl Benzene	11.593	91	1535729	128.786	ug/l	99
68) m/p-Xylenes	11.703	106	1203720	257.369	ug/l	100
69) o-Xylene	12.032	106	573468	128.775	ug/l	99
70) Styrene	12.044	104	969563	128.172	ug/l	99
71) Bromoform	12.209	173	210448	128.591	ug/l #	99
73) Isopropylbenzene	12.331	105	1525295	131.518	ug/l	98
74) N-amyl acetate	12.142	43	337381	140.911	ug/l	96
75) 1,1,2,2-Tetrachloroethane	12.581	83	251588	128.959	ug/l	99
76) 1,2,3-Trichloropropane	12.636	75	185709m	110.969	ug/l	
77) Bromobenzene	12.611	156	359084	129.816	ug/l	94
78) n-propylbenzene	12.672	91	1773957	131.028	ug/l	99
79) 2-Chlorotoluene	12.758	91	1002816	129.487	ug/l	99
80) 1,3,5-Trimethylbenzene	12.812	105	1291608	129.845	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.380	75	101588	134.812	ug/l	98
82) 4-Chlorotoluene	12.855	91	1039235	128.298	ug/l	98
83) tert-Butylbenzene	13.075	119	1142627	131.102	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	1284295	130.431	ug/l	99
85) sec-Butylbenzene	13.257	105	1614796	128.903	ug/l	98
86) p-Isopropyltoluene	13.373	119	1401783	129.160	ug/l	99
87) 1,3-Dichlorobenzene	13.367	146	699605	126.175	ug/l	100
88) 1,4-Dichlorobenzene	13.446	146	693311	125.172	ug/l	99
89) n-Butylbenzene	13.696	91	1236807	131.506	ug/l	99
90) Hexachloroethane	13.965	117	250097	124.213	ug/l	94
91) 1,2-Dichlorobenzene	13.739	146	625273	126.581	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.355	75	53324	137.523	ug/l	91
93) 1,2,4-Trichlorobenzene	15.007	180	430955	139.935	ug/l	99
94) Hexachlorobutadiene	15.111	225	243621	131.110	ug/l	99
95) Naphthalene	15.239	128	929118	152.445	ug/l	100
96) 1,2,3-Trichlorobenzene	15.428	180	379033	141.558	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012199.D
Acq On : 16 Jan 2023 14:34
Operator : KP/MD
Sample : VSTDICC150
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 14:46:59 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 13:57:37 2023
Response via : Initial Calibration

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

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

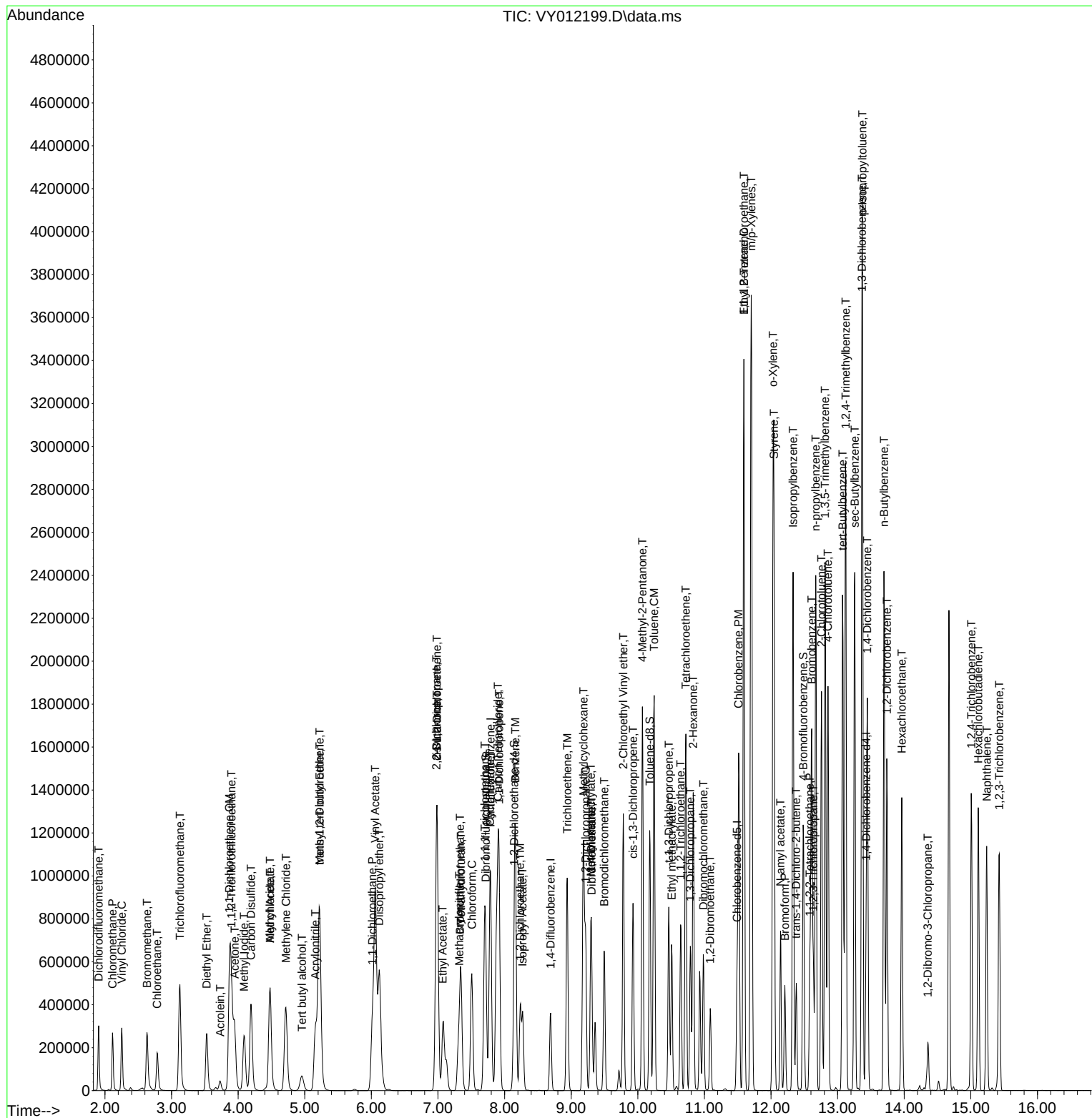
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012199.D
 Acq On : 16 Jan 2023 14:34
 Operator : KP/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC150

Quant Time: Jan 16 14:46:59 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 13:57:37 2023
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY011623

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	216305	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	328603	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	299858	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	152120	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	84654	46.978	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	93.960%		
35) Dibromofluoromethane	7.716	113	80172	46.077	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	92.160%		
50) Toluene-d8	10.179	98	291922	48.273	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	96.540%		
62) 4-Bromofluorobenzene	12.483	95	110178	44.919	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	89.840%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.906	85	85653	45.312	ug/l	98
3) Chloromethane	2.113	50	84630	48.497	ug/l	100
4) Vinyl Chloride	2.253	62	97140	47.692	ug/l	99
5) Bromomethane	2.650	94	77703	49.343	ug/l	95
6) Chloroethane	2.796	64	63518	47.816	ug/l	98
7) Trichlorofluoromethane	3.125	101	183805	46.237	ug/l	99
8) Diethyl Ether	3.527	74	56332	47.622	ug/l	85
9) 1,1,2-Trichlorotrifluo...	3.899	101	94826	49.012	ug/l	96
10) Methyl Iodide	4.094	142	125295	42.614	ug/l	96
11) Tert butyl alcohol	4.948	59	50188	235.151	ug/l	99
12) 1,1-Dichloroethene	3.875	96	97427	49.041	ug/l	99
13) Acrolein	3.729	56	17145	169.677	ug/l	98
14) Allyl chloride	4.485	41	127247	51.802	ug/l #	89
15) Acrylonitrile	5.161	53	131152	253.831	ug/l	100
16) Acetone	3.942	43	155900	258.836	ug/l	97
17) Carbon Disulfide	4.198	76	301549	49.073	ug/l	100
18) Methyl Acetate	4.478	43	67457	50.051	ug/l #	90
19) Methyl tert-butyl Ether	5.222	73	272026	49.120	ug/l	95
20) Methylene Chloride	4.716	84	126255	50.066	ug/l	89
21) trans-1,2-Dichloroethene	5.216	96	109342	49.322	ug/l	91
22) Diisopropyl ether	6.118	45	252934	51.649	ug/l #	93
23) Vinyl Acetate	6.057	43	797164	261.229	ug/l #	94
24) 1,1-Dichloroethane	6.021	63	170311	50.139	ug/l	99
25) 2-Butanone	6.984	43	171393	257.755	ug/l	94
26) 2,2-Dichloropropane	6.984	77	176514	47.870	ug/l	100
27) cis-1,2-Dichloroethene	6.984	96	118726	48.756	ug/l	95
28) Bromochloromethane	7.332	49	35409	47.732	ug/l #	79
29) Tetrahydrofuran	7.350	42	95941	262.673	ug/l #	86
30) Chloroform	7.502	83	192807	48.085	ug/l	97
31) Cyclohexane	7.783	56	150989	47.876	ug/l	91
32) 1,1,1-Trichloroethane	7.697	97	191163	48.157	ug/l	98
36) 1,1-Dichloropropene	7.917	75	145114	49.073	ug/l	98
37) Ethyl Acetate	7.069	43	65145	49.973	ug/l #	95
38) Carbon Tetrachloride	7.899	117	180637	47.298	ug/l	99
39) Methylcyclohexane	9.185	83	184773	51.131	ug/l	94
40) Benzene	8.161	78	416552	48.806	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY011623

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.313	41	36022m	39.088	ug/l	
42) 1,2-Dichloroethane	8.234	62	129058	47.498	ug/l	99
43) Isopropyl Acetate	8.270	43	125793	51.866	ug/l #	96
44) Trichloroethene	8.941	130	123908	48.572	ug/l	97
45) 1,2-Dichloropropane	9.215	63	90190	50.643	ug/l	100
46) Dibromomethane	9.307	93	58454	49.029	ug/l	96
47) Bromodichloromethane	9.496	83	148143	49.362	ug/l	99
48) Methyl methacrylate	9.295	41	57741	51.670	ug/l	91
49) 1,4-Dioxane	9.295	88	15364	945.728	ug/l	93
51) 4-Methyl-2-Pentanone	10.069	43	338592	261.813	ug/l	96
52) Toluene	10.246	92	277243	48.787	ug/l	100
53) t-1,3-Dichloropropene	10.465	75	155374	49.495	ug/l	98
54) cis-1,3-Dichloropropene	9.929	75	168268	49.773	ug/l	98
55) 1,1,2-Trichloroethane	10.642	97	83848	49.500	ug/l	99
56) Ethyl methacrylate	10.508	69	113265	50.968	ug/l	96
57) 1,3-Dichloropropane	10.788	76	138713	50.143	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.782	63	179333	243.884	ug/l	92
59) 2-Hexanone	10.831	43	262402	266.500	ug/l	97
60) Dibromochloromethane	10.983	129	109437	48.711	ug/l	100
61) 1,2-Dibromoethane	11.087	107	81193	49.674	ug/l	100
64) Tetrachloroethene	10.721	164	132743	48.514	ug/l	98
65) Chlorobenzene	11.520	112	298202	48.605	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.593	131	111694	48.232	ug/l	98
67) Ethyl Benzene	11.593	91	544154	49.627	ug/l	100
68) m/p-Xylenes	11.703	106	427541	98.617	ug/l	99
69) o-Xylene	12.032	106	202399	48.878	ug/l	98
70) Styrene	12.044	104	340188	49.169	ug/l	100
71) Bromoform	12.209	173	72390	48.927	ug/l #	99
73) Isopropylbenzene	12.331	105	546764	49.845	ug/l	99
74) N-amyl acetate	12.142	43	112607	52.369	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.581	83	88544	51.247	ug/l	99
76) 1,2,3-Trichloropropane	12.636	75	62061m	34.629	ug/l	
77) Bromobenzene	12.611	156	127976	48.485	ug/l	94
78) n-propylbenzene	12.672	91	636818	49.612	ug/l	99
79) 2-Chlorotoluene	12.757	91	359521	49.538	ug/l	99
80) 1,3,5-Trimethylbenzene	12.812	105	470393	49.330	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.379	75	34474	50.780	ug/l	98
82) 4-Chlorotoluene	12.855	91	373651	49.014	ug/l	99
83) tert-Butylbenzene	13.074	119	415947	50.048	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	465404	49.490	ug/l	99
85) sec-Butylbenzene	13.251	105	587183	49.623	ug/l	98
86) p-Isopropyltoluene	13.373	119	514435	49.759	ug/l	100
87) 1,3-Dichlorobenzene	13.367	146	254156	48.414	ug/l	99
88) 1,4-Dichlorobenzene	13.446	146	252556	48.240	ug/l	99
89) n-Butylbenzene	13.696	91	452372	50.492	ug/l	99
90) Hexachloroethane	13.958	117	91082	48.802	ug/l	93
91) 1,2-Dichlorobenzene	13.739	146	222981	47.603	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.355	75	17233	48.263	ug/l	93
93) 1,2,4-Trichlorobenzene	15.007	180	148260	49.397	ug/l	99
94) Hexachlorobutadiene	15.111	225	89257	49.393	ug/l	99
95) Naphthalene	15.239	128	294228	49.666	ug/l	100
96) 1,2,3-Trichlorobenzene	15.428	180	125958	48.769	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012201.D
Acq On : 16 Jan 2023 15:21
Operator : KP/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY011623

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/17/2023
Supervised By :Mahesh Dadoda 01/17/2023

Quant Time: Jan 16 17:31:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 14:54:53 2023
Response via : Initial Calibration

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

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

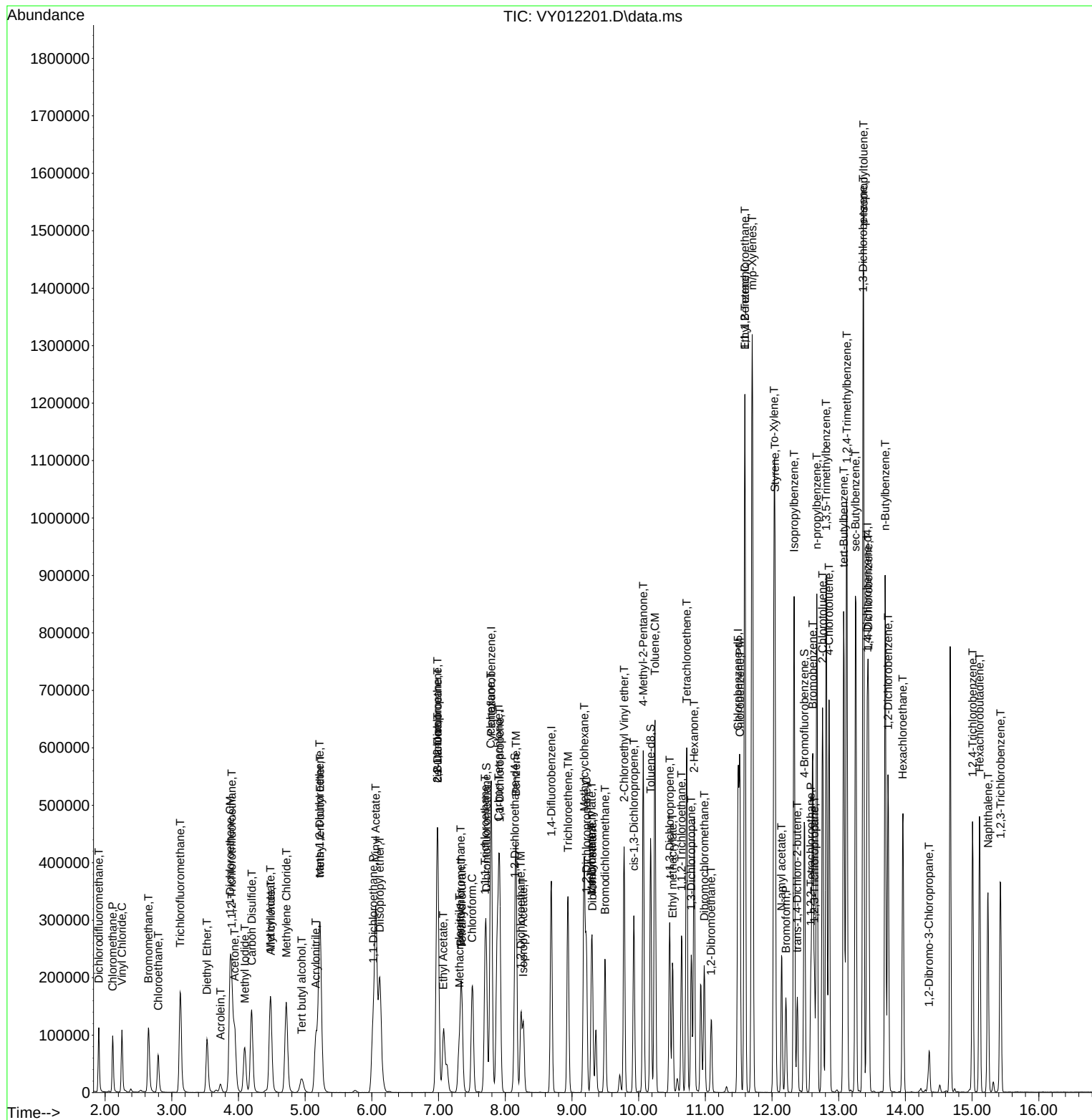
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY011623

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/17/2023
 Supervised By :Mahesh Dadoda 01/17/2023



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY011623

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	113	0.00
2 T	Dichlorodifluoromethane	0.437	0.396	9.4	120	0.00
3 P	Chloromethane	0.403	0.391	3.0	120	0.00
4 C	Vinyl Chloride	0.471	0.449	4.7#	117	0.00
5 T	Bromomethane	0.364	0.359	1.4	122	0.00
6 T	Chloroethane	0.307	0.294	4.2	116	0.00
7 T	Trichlorofluoromethane	0.919	0.850	7.5	114	0.00
8 T	Diethyl Ether	0.273	0.260	4.8	114	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.447	0.438	2.0	122	0.00
10 T	Methyl Iodide	0.680	0.579	14.9	96	0.00
11 T	Tert butyl alcohol	0.057	0.046	19.3	114	0.00
12 CM	1,1-Dichloroethene	0.459	0.450	2.0#	116	0.00
13 T	Acrolein	0.023	0.016	30.4#	110	0.00
14 T	Allyl chloride	0.568	0.588	-3.5	122	0.00
15 T	Acrylonitrile	0.119	0.121	-1.7	117	0.00
16 T	Acetone	0.139	0.144	-3.6	106	0.00
17 T	Carbon Disulfide	1.420	1.394	1.8	118	0.00
18 T	Methyl Acetate	0.312	0.312	0.0	117	0.00
19 T	Methyl tert-butyl Ether	1.280	1.258	1.7	111	0.00
20 T	Methylene Chloride	0.762	0.584	23.4	116	0.00
21 T	trans-1,2-Dichloroethene	0.512	0.505	1.4	116	0.00
22 T	Diisopropyl ether	1.132	1.169	-3.3	121	0.00
23 T	Vinyl Acetate	0.705	0.737	-4.5	119	0.00
24 P	1,1-Dichloroethane	0.785	0.787	-0.3	117	0.00
25 T	2-Butanone	0.154	0.158	-2.6	114	0.00
26 T	2,2-Dichloropropane	0.852	0.816	4.2	114	0.00
27 T	cis-1,2-Dichloroethene	0.563	0.549	2.5	113	0.00
28 T	Bromochloromethane	0.171	0.164	4.1	116	0.00
29 T	Tetrahydrofuran	0.084	0.089	-6.0	118	0.00
30 C	Chloroform	0.927	0.891	3.9#	112	0.00
31 T	Cyclohexane	0.729	0.698	4.3	125	0.00
32 T	1,1,1-Trichloroethane	0.918	0.884	3.7	113	0.00
33 S	1,2-Dichloroethane-d4	0.465	0.391	15.9	108	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
35 S	Dibromofluoromethane	0.265	0.244	7.9	114	0.00
36 T	1,1-Dichloropropene	0.450	0.442	1.8	117	0.00
37 T	Ethyl Acetate	0.198	0.198	0.0	114	0.00
38 T	Carbon Tetrachloride	0.581	0.550	5.3	113	0.00
39 T	Methylcyclohexane	0.550	0.562	-2.2	124	0.00
40 TM	Benzene	1.299	1.268	2.4	116	0.00
41 T	Methacrylonitrile	0.117	0.110	6.0	103	-0.01
42 TM	1,2-Dichloroethane	0.413	0.393	4.8	109	0.00
43 T	Isopropyl Acetate	0.369	0.383	-3.8	117	0.00
44 TM	Trichloroethene	0.388	0.377	2.8	114	0.00
45 C	1,2-Dichloropropane	0.271	0.274	-1.1#	119	0.00
46 T	Dibromomethane	0.181	0.178	1.7	112	0.00
47 T	Bromodichloromethane	0.457	0.451	1.3	114	0.00
48 T	Methyl methacrylate	0.170	0.176	-3.5	113	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY011623

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	102	0.00
50 S	Toluene-d8	1.044	0.888	14.9	113	0.00
51 T	4-Methyl-2-Pentanone	0.197	0.206	-4.6	117	0.00
52 CM	Toluene	0.865	0.844	2.4#	114	0.00
53 T	t-1,3-Dichloropropene	0.478	0.473	1.0	112	0.00
54 T	cis-1,3-Dichloropropene	0.514	0.512	0.4	114	0.00
55 T	1,1,2-Trichloroethane	0.258	0.255	1.2	113	0.00
56 T	Ethyl methacrylate	0.338	0.345	-2.1	113	0.00
57 T	1,3-Dichloropropane	0.421	0.422	-0.2	115	0.00
58 T	2-Chloroethyl Vinyl ether	0.112	0.109	2.7	114	0.00
59 T	2-Hexanone	0.150	0.160	-6.7	114	0.00
60 T	Dibromochloromethane	0.342	0.333	2.6	110	0.00
61 T	1,2-Dibromoethane	0.249	0.247	0.8	113	0.00
62 S	4-Bromofluorobenzene	0.373	0.335	10.2	114	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	113	0.00
64 T	Tetrachloroethene	0.456	0.443	2.9	111	0.00
65 PM	Chlorobenzene	1.023	0.994	2.8	114	0.00
66 T	1,1,1,2-Tetrachloroethane	0.386	0.372	3.6	110	0.00
67 C	Ethyl Benzene	1.828	1.815	0.7#	115	0.00
68 T	m/p-Xylenes	0.723	0.713	1.4	114	0.00
69 T	o-Xylene	0.690	0.675	2.2	113	0.00
70 T	Styrene	1.154	1.134	1.7	112	0.00
71 P	Bromoform	0.247	0.241	2.4	110	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	112	0.00
73 T	Isopropylbenzene	3.605	3.594	0.3	115	0.00
74 T	N-amyl acetate	0.707	0.740	-4.7	116	0.00
75 P	1,1,2,2-Tetrachloroethane	0.568	0.582	-2.5	116	0.00
76 T	1,2,3-Trichloropropane	0.460	0.408	11.3	90	0.00
77 T	Bromobenzene	0.868	0.841	3.1	110	0.00
78 T	n-propylbenzene	4.219	4.186	0.8	116	0.00
79 T	2-Chlorotoluene	2.385	2.363	0.9	115	0.00
80 T	1,3,5-Trimethylbenzene	3.134	3.092	1.3	115	0.00
81 T	trans-1,4-Dichloro-2-butene	0.223	0.227	-1.8	112	0.00
82 T	4-Chlorotoluene	2.506	2.456	2.0	115	0.00
83 T	tert-Butylbenzene	2.732	2.734	-0.1	119	0.00
84 T	1,2,4-Trimethylbenzene	3.091	3.059	1.0	113	0.00
85 T	sec-Butylbenzene	3.889	3.860	0.7	117	0.00
86 T	p-Isopropyltoluene	3.398	3.382	0.5	117	0.00
87 T	1,3-Dichlorobenzene	1.725	1.671	3.1	112	0.00
88 T	1,4-Dichlorobenzene	1.721	1.660	3.5	113	0.00
89 T	n-Butylbenzene	2.945	2.974	-1.0	119	0.00
90 T	Hexachloroethane	0.613	0.599	2.3	115	0.00
91 T	1,2-Dichlorobenzene	1.540	1.466	4.8	110	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.117	0.113	3.4	109	0.00
93 T	1,2,4-Trichlorobenzene	0.987	0.975	1.2	117	0.00
94 T	Hexachlorobutadiene	0.594	0.587	1.2	120	0.00
95 T	Naphthalene	1.947	1.934	0.7	112	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012201.D
Acq On : 16 Jan 2023 15:21
Operator : KP/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY011623

Quant Time: Jan 16 17:31:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Mon Jan 16 14:54:53 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.849	0.828	2.5	116	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY011623

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	113	0.00
2 T	Dichlorodifluoromethane	50.000	45.312	9.4	120	0.00
3 P	Chloromethane	50.000	48.497	3.0	120	0.00
4 C	Vinyl Chloride	50.000	47.692	4.6#	117	0.00
5 T	Bromomethane	50.000	49.343	1.3	122	0.00
6 T	Chloroethane	50.000	47.816	4.4	116	0.00
7 T	Trichlorofluoromethane	50.000	46.237	7.5	114	0.00
8 T	Diethyl Ether	50.000	47.622	4.8	114	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.012	2.0	122	0.00
10 T	Methyl Iodide	50.000	42.614	14.8	96	0.00
11 T	Tert butyl alcohol	250.000	235.151	5.9	114	0.00
12 CM	1,1-Dichloroethene	50.000	49.041	1.9#	116	0.00
13 T	Acrolein	250.000	169.677	32.1#	110	0.00
14 T	Allyl chloride	50.000	51.802	-3.6	122	0.00
15 T	Acrylonitrile	250.000	253.831	-1.5	117	0.00
16 T	Acetone	250.000	258.836	-3.5	106	0.00
17 T	Carbon Disulfide	50.000	49.073	1.9	118	0.00
18 T	Methyl Acetate	50.000	50.051	-0.1	117	0.00
19 T	Methyl tert-butyl Ether	50.000	49.120	1.8	111	0.00
20 T	Methylene Chloride	50.000	50.066	-0.1	116	0.00
21 T	trans-1,2-Dichloroethene	50.000	49.322	1.4	116	0.00
22 T	Diisopropyl ether	50.000	51.649	-3.3	121	0.00
23 T	Vinyl Acetate	250.000	261.229	-4.5	119	0.00
24 P	1,1-Dichloroethane	50.000	50.139	-0.3	117	0.00
25 T	2-Butanone	250.000	257.755	-3.1	114	0.00
26 T	2,2-Dichloropropane	50.000	47.870	4.3	114	0.00
27 T	cis-1,2-Dichloroethene	50.000	48.756	2.5	113	0.00
28 T	Bromochloromethane	50.000	47.732	4.5	116	0.00
29 T	Tetrahydrofuran	250.000	262.673	-5.1	118	0.00
30 C	Chloroform	50.000	48.085	3.8#	112	0.00
31 T	Cyclohexane	50.000	47.876	4.2	125	0.00
32 T	1,1,1-Trichloroethane	50.000	48.157	3.7	113	0.00
33 S	1,2-Dichloroethane-d4	50.000	46.978	6.0	108	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	113	0.00
35 S	Dibromofluoromethane	50.000	46.077	7.8	114	0.00
36 T	1,1-Dichloropropene	50.000	49.073	1.9	117	0.00
37 T	Ethyl Acetate	50.000	49.973	0.1	114	0.00
38 T	Carbon Tetrachloride	50.000	47.298	5.4	113	0.00
39 T	Methylcyclohexane	50.000	51.131	-2.3	124	0.00
40 TM	Benzene	50.000	48.806	2.4	116	0.00
41 T	Methacrylonitrile	50.000	39.088	21.8	103	-0.01
42 TM	1,2-Dichloroethane	50.000	47.498	5.0	109	0.00
43 T	Isopropyl Acetate	50.000	51.866	-3.7	117	0.00
44 TM	Trichloroethene	50.000	48.572	2.9	114	0.00
45 C	1,2-Dichloropropane	50.000	50.643	-1.3#	119	0.00
46 T	Dibromomethane	50.000	49.029	1.9	112	0.00
47 T	Bromodichloromethane	50.000	49.362	1.3	114	0.00
48 T	Methyl methacrylate	50.000	51.670	-3.3	113	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
 Data File : VY012201.D
 Acq On : 16 Jan 2023 15:21
 Operator : KP/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICSVY011623

Quant Time: Jan 16 17:31:27 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Mon Jan 16 14:54:53 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	945.728	5.4	102	0.00
50 S	Toluene-d8	50.000	48.273	3.5	113	0.00
51 T	4-Methyl-2-Pentanone	250.000	261.813	-4.7	117	0.00
52 CM	Toluene	50.000	48.787	2.4#	114	0.00
53 T	t-1,3-Dichloropropene	50.000	49.495	1.0	112	0.00
54 T	cis-1,3-Dichloropropene	50.000	49.773	0.5	114	0.00
55 T	1,1,2-Trichloroethane	50.000	49.500	1.0	113	0.00
56 T	Ethyl methacrylate	50.000	50.968	-1.9	113	0.00
57 T	1,3-Dichloropropane	50.000	50.143	-0.3	115	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	243.884	2.4	114	0.00
59 T	2-Hexanone	250.000	266.500	-6.6	114	0.00
60 T	Dibromochloromethane	50.000	48.711	2.6	110	0.00
61 T	1,2-Dibromoethane	50.000	49.674	0.7	113	0.00
62 S	4-Bromofluorobenzene	50.000	44.919	10.2	114	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	113	0.00
64 T	Tetrachloroethene	50.000	48.514	3.0	111	0.00
65 PM	Chlorobenzene	50.000	48.605	2.8	114	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	48.232	3.5	110	0.00
67 C	Ethyl Benzene	50.000	49.627	0.7#	115	0.00
68 T	m/p-Xylenes	100.000	98.617	1.4	114	0.00
69 T	o-Xylene	50.000	48.878	2.2	113	0.00
70 T	Styrene	50.000	49.169	1.7	112	0.00
71 P	Bromoform	50.000	48.927	2.1	110	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	112	0.00
73 T	Isopropylbenzene	50.000	49.845	0.3	115	0.00
74 T	N-amyl acetate	50.000	52.369	-4.7	116	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	51.247	-2.5	116	0.00
76 T	1,2,3-Trichloropropane	50.000	34.629	30.7#	90	0.00
77 T	Bromobenzene	50.000	48.485	3.0	110	0.00
78 T	n-propylbenzene	50.000	49.612	0.8	116	0.00
79 T	2-Chlorotoluene	50.000	49.538	0.9	115	0.00
80 T	1,3,5-Trimethylbenzene	50.000	49.330	1.3	115	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	50.780	-1.6	112	0.00
82 T	4-Chlorotoluene	50.000	49.014	2.0	115	0.00
83 T	tert-Butylbenzene	50.000	50.048	-0.1	119	0.00
84 T	1,2,4-Trimethylbenzene	50.000	49.490	1.0	113	0.00
85 T	sec-Butylbenzene	50.000	49.623	0.8	117	0.00
86 T	p-Isopropyltoluene	50.000	49.759	0.5	117	0.00
87 T	1,3-Dichlorobenzene	50.000	48.414	3.2	112	0.00
88 T	1,4-Dichlorobenzene	50.000	48.240	3.5	113	0.00
89 T	n-Butylbenzene	50.000	50.492	-1.0	119	0.00
90 T	Hexachloroethane	50.000	48.802	2.4	115	0.00
91 T	1,2-Dichlorobenzene	50.000	47.603	4.8	110	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.263	3.5	109	0.00
93 T	1,2,4-Trichlorobenzene	50.000	49.397	1.2	117	0.00
94 T	Hexachlorobutadiene	50.000	49.393	1.2	120	0.00
95 T	Naphthalene	50.000	49.666	0.7	112	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012201.D
Acq On : 16 Jan 2023 15:21
Operator : KP/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
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Quant Time: Jan 16 17:31:27 2023
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Quant Title : SW846 8260
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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	48.769	2.5	116	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233
 Instrument ID: MSVOA_D Calibration Date/Time: 01/20/2023 11:13
 Lab File ID: VD075146.D Init. Calib. Date(s): 01/18/2023 01/18/2023
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10
 GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.435	0.403		-7.36	20
Chloromethane	0.646	0.592	0.1	-8.36	20
Vinyl Chloride	0.693	0.650		-6.2	20
Bromomethane	0.471	0.446		-5.31	20
Chloroethane	0.481	0.471		-2.08	20
Trichlorofluoromethane	0.881	0.908		3.07	20
1,1,2-Trichlorotrifluoroethane	0.544	0.579		6.43	20
1,1-Dichloroethene	0.573	0.596		4.01	20
Acetone	0.135	0.162		20	20
Carbon Disulfide	1.857	1.937		4.31	20
Methyl tert-butyl Ether	1.196	1.225		2.42	20
Methyl Acetate	0.366	0.370		1.09	20
Methylene Chloride	0.849	0.689		-18.85	20
trans-1,2-Dichloroethene	0.637	0.665		4.4	20
1,1-Dichloroethane	1.087	1.152	0.1	5.98	20
Cyclohexane	1.023	1.045		2.15	20
2-Butanone	0.163	0.183		12.27	20
Carbon Tetrachloride	0.409	0.449		9.78	20
cis-1,2-Dichloroethene	0.695	0.719		3.45	20
Bromochloromethane	0.297	0.289		-2.69	20
Chloroform	1.084	1.111		2.49	20
1,1,1-Trichloroethane	0.934	0.984		5.35	20
Methylcyclohexane	0.598	0.658		10.03	20
Benzene	1.384	1.453		4.99	20
1,2-Dichloroethane	0.364	0.387		6.32	20
Trichloroethene	0.389	0.402		3.34	20
1,2-Dichloropropane	0.341	0.366		7.33	20
Bromodichloromethane	0.446	0.473		6.05	20
4-Methyl-2-Pentanone	0.183	0.194		6.01	20
Toluene	0.875	0.922		5.37	20
t-1,3-Dichloropropene	0.422	0.441		4.5	20
cis-1,3-Dichloropropene	0.516	0.551		6.78	20
1,1,2-Trichloroethane	0.238	0.249		4.62	20
2-Hexanone	0.132	0.152		15.15	20
Dibromochloromethane	0.287	0.301		4.88	20
1,2-Dibromoethane	0.227	0.233		2.64	20
Tetrachloroethene	0.357	0.381		6.72	20
Chlorobenzene	1.025	1.070	0.3	4.39	20
Ethyl Benzene	1.844	1.986		7.7	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_D Calibration Date/Time: 01/20/2023 11:13
 Lab File ID: VD075146.D Init. Calib. Date(s): 01/18/2023 01/18/2023
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10
 GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.712	0.763		7.16	20
o-Xylene	0.668	0.712		6.59	20
Styrene	1.111	1.175		5.76	20
Bromoform	0.178	0.191	0.1	7.3	20
Isopropylbenzene	3.949	4.198		6.3	20
1,1,2,2-Tetrachloroethane	0.629	0.668	0.3	6.2	20
1,3-Dichlorobenzene	1.749	1.801		2.97	20
1,4-Dichlorobenzene	1.720	1.777		3.31	20
1,2-Dichlorobenzene	1.496	1.536		2.67	20
1,2-Dibromo-3-Chloropropane	0.096	0.100		4.17	20
1,2,4-Trichlorobenzene	0.982	0.996		1.43	20
1,2,3-Trichlorobenzene	0.838	0.846		0.95	20
1,2-Dichloroethane-d4	0.510	0.508		-0.39	20
Dibromofluoromethane	0.302	0.312		3.31	20
Toluene-d8	1.190	1.231		3.44	20
4-Bromofluorobenzene	0.378	0.382		1.06	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075146.D
 Acq On : 20 Jan 2023 11:13
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/23/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:24:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	87549	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	150535	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	130836	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	59366	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	44472	49.780	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	99.560%		
35) Dibromofluoromethane	7.805	113	46918	51.579	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	103.160%		
50) Toluene-d8	10.269	98	185290	51.734	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	103.460%		
62) 4-Bromofluorobenzene	12.575	95	57435	50.528	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	101.060%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	35307	51.921	ug/l	99
3) Chloromethane	2.146	50	51829	45.829	ug/l	99
4) Vinyl Chloride	2.281	62	56901	46.889	ug/l	97
5) Bromomethane	2.693	94	39063	47.332	ug/l	100
6) Chloroethane	2.834	64	41232	49.003	ug/l	95
7) Trichlorofluoromethane	3.175	101	79531	51.560	ug/l	97
8) Diethyl Ether	3.593	74	25564	51.437	ug/l	95
9) 1,1,2-Trichlorotrifluo...	3.969	101	50649	53.190	ug/l	97
10) Methyl Iodide	4.164	142	64604	50.400	ug/l	98
11) Tert butyl alcohol	5.058	59	14381	230.745	ug/l #	89
12) 1,1-Dichloroethene	3.940	96	52222	52.094	ug/l	90
13) Acrolein	3.799	56	12061	232.711	ug/l	96
14) Allyl chloride	4.564	41	84473	51.923	ug/l	98
15) Acrylonitrile	5.252	53	55730	265.190	ug/l	98
16) Acetone	4.017	43	70787	300.426	ug/l	99
17) Carbon Disulfide	4.269	76	169543	52.144	ug/l	99
18) Methyl Acetate	4.564	43	32383	50.562	ug/l	98
19) Methyl tert-butyl Ether	5.316	73	107220	51.202	ug/l	99
20) Methylene Chloride	4.799	84	60348	49.014	ug/l	98
21) trans-1,2-Dichloroethene	5.311	96	58244	52.191	ug/l	96
22) Diisopropyl ether	6.216	45	157678	52.073	ug/l	98
23) Vinyl Acetate	6.158	43	378433	283.562	ug/l	98
24) 1,1-Dichloroethane	6.116	63	100857	53.001	ug/l	97
25) 2-Butanone	7.081	43	80160	281.484	ug/l	94
26) 2,2-Dichloropropane	7.075	77	84148	49.606	ug/l	100
27) cis-1,2-Dichloroethene	7.087	96	62923	51.726	ug/l	98
28) Bromochloromethane	7.428	49	25280	48.657	ug/l	96
29) Tetrahydrofuran	7.446	42	42305	260.458	ug/l	98
30) Chloroform	7.599	83	97276	51.262	ug/l	95
31) Cyclohexane	7.881	56	91494	51.065	ug/l	99
32) 1,1,1-Trichloroethane	7.793	97	86186	52.718	ug/l	99
36) 1,1-Dichloropropene	8.005	75	77573	53.077	ug/l	100
37) Ethyl Acetate	7.169	43	30191	51.275	ug/l	98
38) Carbon Tetrachloride	7.993	117	67593	54.929	ug/l	99
39) Methylcyclohexane	9.275	83	99062	55.001	ug/l	98
40) Benzene	8.252	78	218691	52.470	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075146.D
 Acq On : 20 Jan 2023 11:13
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/23/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:24:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.405	41	17649	49.814	ug/l	94
42) 1,2-Dichloroethane	8.328	62	58190	53.151	ug/l	99
43) Isopropyl Acetate	8.363	43	59908	52.284	ug/l	98
44) Trichloroethene	9.028	130	60442	51.570	ug/l	94
45) 1,2-Dichloropropane	9.305	63	55143	53.710	ug/l	100
46) Dibromomethane	9.393	93	28053	51.810	ug/l	99
47) Bromodichloromethane	9.587	83	71209	53.010	ug/l	92
48) Methyl methacrylate	9.381	41	28284	50.479	ug/l	98
49) 1,4-Dioxane	9.381	88	5451	1054.529	ug/l	97
51) 4-Methyl-2-Pentanone	10.157	43	146015	265.368	ug/l	99
52) Toluene	10.340	92	138802	52.698	ug/l	99
53) t-1,3-Dichloropropene	10.557	75	66417	52.260	ug/l	96
54) cis-1,3-Dichloropropene	10.016	75	82933	53.413	ug/l	99
55) 1,1,2-Trichloroethane	10.734	97	37523	52.365	ug/l	97
56) Ethyl methacrylate	10.604	69	45930	53.300	ug/l	99
57) 1,3-Dichloropropane	10.881	76	64609	52.472	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.875	63	81317	275.772	ug/l	99
59) 2-Hexanone	10.922	43	114072	286.719	ug/l	99
60) Dibromochloromethane	11.075	129	45252	52.394	ug/l	98
61) 1,2-Dibromoethane	11.181	107	35116	51.291	ug/l	100
64) Tetrachloroethene	10.810	164	49845	53.350	ug/l	95
65) Chlorobenzene	11.610	112	140009	52.223	ug/l	97
66) 1,1,1,2-Tetrachloroethane	11.687	131	48499	53.782	ug/l	97
67) Ethyl Benzene	11.687	91	259813	53.838	ug/l	98
68) m/p-Xylenes	11.798	106	199580	107.057	ug/l	97
69) o-Xylene	12.122	106	93139	53.262	ug/l	100
70) Styrene	12.140	104	153776	52.899	ug/l	99
71) Bromoform	12.304	173	25017	53.726	ug/l #	96
73) Isopropylbenzene	12.422	105	249210	53.145	ug/l	100
74) N-amyl acetate	12.234	43	52161	50.779	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.675	83	39654	53.075	ug/l	99
76) 1,2,3-Trichloropropane	12.728	75	26074m	51.859	ug/l	
77) Bromobenzene	12.704	156	53866	50.291	ug/l	97
78) n-propylbenzene	12.769	91	299521	51.979	ug/l	100
79) 2-Chlorotoluene	12.851	91	164329	51.852	ug/l	100
80) 1,3,5-Trimethylbenzene	12.904	105	201502	52.449	ug/l	98
81) trans-1,4-Dichloro-2-b...	12.469	75	12073	55.698	ug/l	97
82) 4-Chlorotoluene	12.951	91	166226	51.014	ug/l	99
83) tert-Butylbenzene	13.169	119	179459	53.985	ug/l	98
84) 1,2,4-Trimethylbenzene	13.216	105	198623	52.643	ug/l	99
85) sec-Butylbenzene	13.351	105	265431	52.562	ug/l	98
86) p-Isopropyltoluene	13.463	119	217189	52.533	ug/l	99
87) 1,3-Dichlorobenzene	13.463	146	106905	51.490	ug/l	97
88) 1,4-Dichlorobenzene	13.540	146	105489	51.641	ug/l	99
89) n-Butylbenzene	13.793	91	210257	52.190	ug/l	100
90) Hexachloroethane	14.057	117	38487	52.717	ug/l	97
91) 1,2-Dichlorobenzene	13.834	146	91200	51.343	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.451	75	5937	51.971	ug/l	95
93) 1,2,4-Trichlorobenzene	15.104	180	59112	50.678	ug/l	99
94) Hexachlorobutadiene	15.210	225	29075	50.862	ug/l	99
95) Naphthalene	15.339	128	112258	48.345	ug/l	100
96) 1,2,3-Trichlorobenzene	15.528	180	50204	50.442	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075146.D
Acq On : 20 Jan 2023 11:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:24:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075146.D
Acq On : 20 Jan 2023 11:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_D

ClientSampleId :

VSTDCCC050

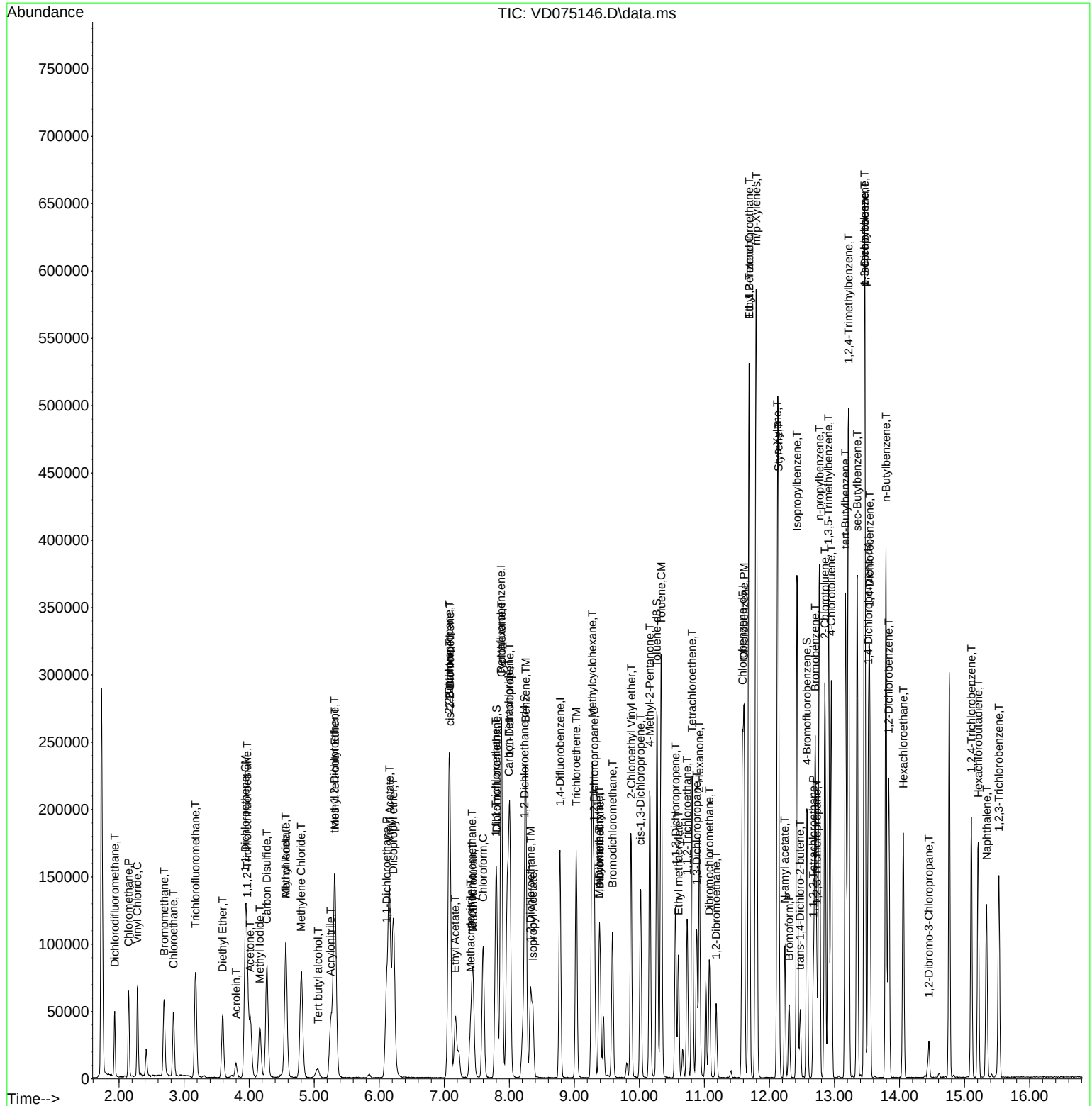
Manual Integrations

APPROVED

Reviewed By :Krupa Patel 01/23/2023

Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:24:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075146.D
 Acq On : 20 Jan 2023 11:13
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 00:24:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	103	0.00
2 T	Dichlorodifluoromethane	0.435	0.403	7.4	114	0.00
3 P	Chloromethane	0.646	0.592	8.4	100	0.00
4 C	Vinyl Chloride	0.693	0.650	6.2#	102	0.00
5 T	Bromomethane	0.471	0.446	5.3	102	0.00
6 T	Chloroethane	0.481	0.471	2.1	103	0.00
7 T	Trichlorofluoromethane	0.881	0.908	-3.1	110	0.00
8 T	Diethyl Ether	0.284	0.292	-2.8	101	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.544	0.579	-6.4	116	0.00
10 T	Methyl Iodide	0.732	0.738	-0.8	95	0.00
11 T	Tert butyl alcohol	0.036	0.033	8.3	102	0.00
12 CM	1,1-Dichloroethene	0.573	0.596	-4.0#	109	0.00
13 T	Acrolein	0.035	0.028	20.0	97	0.00
14 T	Allyl chloride	0.929	0.965	-3.9	103	0.00
15 T	Acrylonitrile	0.120	0.127	-5.8	101	0.00
16 T	Acetone	0.135	0.162	-20.0	104	0.00
17 T	Carbon Disulfide	1.857	1.937	-4.3	109	0.00
18 T	Methyl Acetate	0.366	0.370	-1.1	99	0.00
19 T	Methyl tert-butyl Ether	1.196	1.225	-2.4	98	0.00
20 T	Methylene Chloride	0.849	0.689	18.8	90	0.00
21 T	trans-1,2-Dichloroethene	0.637	0.665	-4.4	105	0.00
22 T	Diisopropyl ether	1.729	1.801	-4.2	102	0.00
23 T	Vinyl Acetate	0.762	0.865	-13.5	113	0.00
24 P	1,1-Dichloroethane	1.087	1.152	-6.0	107	0.00
25 T	2-Butanone	0.163	0.183	-12.3	104	0.00
26 T	2,2-Dichloropropane	0.969	0.961	0.8	104	0.00
27 T	cis-1,2-Dichloroethene	0.695	0.719	-3.5	102	0.00
28 T	Bromochloromethane	0.297	0.289	2.7	100	0.00
29 T	Tetrahydrofuran	0.093	0.097	-4.3	98	0.00
30 C	Chloroform	1.084	1.111	-2.5#	102	0.00
31 T	Cyclohexane	1.023	1.045	-2.2	115	0.00
32 T	1,1,1-Trichloroethane	0.934	0.984	-5.4	108	0.00
33 S	1,2-Dichloroethane-d4	0.510	0.508	0.4	98	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	101	0.00
35 S	Dibromofluoromethane	0.302	0.312	-3.3	98	0.00
36 T	1,1-Dichloropropene	0.485	0.515	-6.2	110	0.00
37 T	Ethyl Acetate	0.196	0.201	-2.6	100	0.00
38 T	Carbon Tetrachloride	0.409	0.449	-9.8	112	0.00
39 T	Methylcyclohexane	0.598	0.658	-10.0	117	0.00
40 TM	Benzene	1.384	1.453	-5.0	103	0.00
41 T	Methacrylonitrile	0.118	0.117	0.8	104	0.00
42 TM	1,2-Dichloroethane	0.364	0.387	-6.3	102	0.00
43 T	Isopropyl Acetate	0.381	0.398	-4.5	101	0.00
44 TM	Trichloroethene	0.389	0.402	-3.3	102	0.00
45 C	1,2-Dichloropropane	0.341	0.366	-7.3#	105	0.00
46 T	Dibromomethane	0.180	0.186	-3.3	99	0.00
47 T	Bromodichloromethane	0.446	0.473	-6.1	101	0.00
48 T	Methyl methacrylate	0.186	0.188	-1.1	100	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075146.D
 Acq On : 20 Jan 2023 11:13
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 00:24:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	103	0.00
50 S	Toluene-d8	1.190	1.231	-3.4	101	0.00
51 T	4-Methyl-2-Pentanone	0.183	0.194	-6.0	103	0.00
52 CM	Toluene	0.875	0.922	-5.4#	102	0.00
53 T	t-1,3-Dichloropropene	0.422	0.441	-4.5	100	0.00
54 T	cis-1,3-Dichloropropene	0.516	0.551	-6.8	100	0.00
55 T	1,1,2-Trichloroethane	0.238	0.249	-4.6	99	0.00
56 T	Ethyl methacrylate	0.286	0.305	-6.6	99	0.00
57 T	1,3-Dichloropropane	0.409	0.429	-4.9	98	0.00
58 T	2-Chloroethyl Vinyl ether	0.098	0.108	-10.2	113	0.00
59 T	2-Hexanone	0.132	0.152	-15.2	107	0.00
60 T	Dibromochloromethane	0.287	0.301	-4.9	98	0.00
61 T	1,2-Dibromoethane	0.227	0.233	-2.6	98	0.00
62 S	4-Bromofluorobenzene	0.378	0.382	-1.1	97	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
64 T	Tetrachloroethene	0.357	0.381	-6.7	107	0.00
65 PM	Chlorobenzene	1.025	1.070	-4.4	99	0.00
66 T	1,1,1,2-Tetrachloroethane	0.345	0.371	-7.5	104	0.00
67 C	Ethyl Benzene	1.844	1.986	-7.7#	104	0.00
68 T	m/p-Xylenes	0.712	0.763	-7.2	104	0.00
69 T	o-Xylene	0.668	0.712	-6.6	100	0.00
70 T	Styrene	1.111	1.175	-5.8	100	0.00
71 P	Bromoform	0.178	0.191	-7.3	99	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
73 T	Isopropylbenzene	3.949	4.198	-6.3	106	0.00
74 T	N-amyl acetate	0.865	0.879	-1.6	99	0.00
75 P	1,1,2,2-Tetrachloroethane	0.629	0.668	-6.2	101	0.00
76 T	1,2,3-Trichloropropane	0.423	0.439	-3.8	108	0.00
77 T	Bromobenzene	0.902	0.907	-0.6	95	0.00
78 T	n-propylbenzene	4.853	5.045	-4.0	103	0.00
79 T	2-Chlorotoluene	2.669	2.768	-3.7	102	0.00
80 T	1,3,5-Trimethylbenzene	3.236	3.394	-4.9	102	0.00
81 T	trans-1,4-Dichloro-2-butene	0.183	0.203	-10.9	108	0.00
82 T	4-Chlorotoluene	2.744	2.800	-2.0	100	0.00
83 T	tert-Butylbenzene	2.800	3.023	-8.0	108	0.00
84 T	1,2,4-Trimethylbenzene	3.178	3.346	-5.3	103	0.00
85 T	sec-Butylbenzene	4.253	4.471	-5.1	106	0.00
86 T	p-Isopropyltoluene	3.482	3.658	-5.1	104	0.00
87 T	1,3-Dichlorobenzene	1.749	1.801	-3.0	100	0.00
88 T	1,4-Dichlorobenzene	1.720	1.777	-3.3	100	0.00
89 T	n-Butylbenzene	3.393	3.542	-4.4	104	0.00
90 T	Hexachloroethane	0.615	0.648	-5.4	107	0.00
91 T	1,2-Dichlorobenzene	1.496	1.536	-2.7	97	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.096	0.100	-4.2	95	0.00
93 T	1,2,4-Trichlorobenzene	0.982	0.996	-1.4	97	0.00
94 T	Hexachlorobutadiene	0.481	0.490	-1.9	101	0.00
95 T	Naphthalene	1.956	1.891	3.3	95	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075146.D
Acq On : 20 Jan 2023 11:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 00:24:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.838	0.846	-1.0	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075146.D
 Acq On : 20 Jan 2023 11:13
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 00:24:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	103	0.00
2 T	Dichlorodifluoromethane	50.000	51.921	-3.8	114	0.00
3 P	Chloromethane	50.000	45.829	8.3	100	0.00
4 C	Vinyl Chloride	50.000	46.889	6.2#	102	0.00
5 T	Bromomethane	50.000	47.332	5.3	102	0.00
6 T	Chloroethane	50.000	49.003	2.0	103	0.00
7 T	Trichlorofluoromethane	50.000	51.560	-3.1	110	0.00
8 T	Diethyl Ether	50.000	51.437	-2.9	101	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	53.190	-6.4	116	0.00
10 T	Methyl Iodide	50.000	50.400	-0.8	95	0.00
11 T	Tert butyl alcohol	250.000	230.745	7.7	102	0.00
12 CM	1,1-Dichloroethene	50.000	52.094	-4.2#	109	0.00
13 T	Acrolein	250.000	232.711	6.9	97	0.00
14 T	Allyl chloride	50.000	51.923	-3.8	103	0.00
15 T	Acrylonitrile	250.000	265.190	-6.1	101	0.00
16 T	Acetone	250.000	300.426	-20.2	104	0.00
17 T	Carbon Disulfide	50.000	52.144	-4.3	109	0.00
18 T	Methyl Acetate	50.000	50.562	-1.1	99	0.00
19 T	Methyl tert-butyl Ether	50.000	51.202	-2.4	98	0.00
20 T	Methylene Chloride	50.000	49.014	2.0	90	0.00
21 T	trans-1,2-Dichloroethene	50.000	52.191	-4.4	105	0.00
22 T	Diisopropyl ether	50.000	52.073	-4.1	102	0.00
23 T	Vinyl Acetate	250.000	283.562	-13.4	113	0.00
24 P	1,1-Dichloroethane	50.000	53.001	-6.0	107	0.00
25 T	2-Butanone	250.000	281.484	-12.6	104	0.00
26 T	2,2-Dichloropropane	50.000	49.606	0.8	104	0.00
27 T	cis-1,2-Dichloroethene	50.000	51.726	-3.5	102	0.00
28 T	Bromochloromethane	50.000	48.657	2.7	100	0.00
29 T	Tetrahydrofuran	250.000	260.458	-4.2	98	0.00
30 C	Chloroform	50.000	51.262	-2.5#	102	0.00
31 T	Cyclohexane	50.000	51.065	-2.1	115	0.00
32 T	1,1,1-Trichloroethane	50.000	52.718	-5.4	108	0.00
33 S	1,2-Dichloroethane-d4	50.000	49.780	0.4	98	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	101	0.00
35 S	Dibromofluoromethane	50.000	51.579	-3.2	98	0.00
36 T	1,1-Dichloropropene	50.000	53.077	-6.2	110	0.00
37 T	Ethyl Acetate	50.000	51.275	-2.5	100	0.00
38 T	Carbon Tetrachloride	50.000	54.929	-9.9	112	0.00
39 T	Methylcyclohexane	50.000	55.001	-10.0	117	0.00
40 TM	Benzene	50.000	52.470	-4.9	103	0.00
41 T	Methacrylonitrile	50.000	49.814	0.4	104	0.00
42 TM	1,2-Dichloroethane	50.000	53.151	-6.3	102	0.00
43 T	Isopropyl Acetate	50.000	52.284	-4.6	101	0.00
44 TM	Trichloroethene	50.000	51.570	-3.1	102	0.00
45 C	1,2-Dichloropropane	50.000	53.710	-7.4#	105	0.00
46 T	Dibromomethane	50.000	51.810	-3.6	99	0.00
47 T	Bromodichloromethane	50.000	53.010	-6.0	101	0.00
48 T	Methyl methacrylate	50.000	50.479	-1.0	100	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075146.D
 Acq On : 20 Jan 2023 11:13
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 00:24:28 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1054.529	-5.5	103	0.00
50 S	Toluene-d8	50.000	51.734	-3.5	101	0.00
51 T	4-Methyl-2-Pentanone	250.000	265.368	-6.1	103	0.00
52 CM	Toluene	50.000	52.698	-5.4#	102	0.00
53 T	t-1,3-Dichloropropene	50.000	52.260	-4.5	100	0.00
54 T	cis-1,3-Dichloropropene	50.000	53.413	-6.8	100	0.00
55 T	1,1,2-Trichloroethane	50.000	52.365	-4.7	99	0.00
56 T	Ethyl methacrylate	50.000	53.300	-6.6	99	0.00
57 T	1,3-Dichloropropane	50.000	52.472	-4.9	98	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	275.772	-10.3	113	0.00
59 T	2-Hexanone	250.000	286.719	-14.7	107	0.00
60 T	Dibromochloromethane	50.000	52.394	-4.8	98	0.00
61 T	1,2-Dibromoethane	50.000	51.291	-2.6	98	0.00
62 S	4-Bromofluorobenzene	50.000	50.528	-1.1	97	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	98	0.00
64 T	Tetrachloroethene	50.000	53.350	-6.7	107	0.00
65 PM	Chlorobenzene	50.000	52.223	-4.4	99	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	53.782	-7.6	104	0.00
67 C	Ethyl Benzene	50.000	53.838	-7.7#	104	0.00
68 T	m/p-Xylenes	100.000	107.057	-7.1	104	0.00
69 T	o-Xylene	50.000	53.262	-6.5	100	0.00
70 T	Styrene	50.000	52.899	-5.8	100	0.00
71 P	Bromoform	50.000	53.726	-7.5	99	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	97	0.00
73 T	Isopropylbenzene	50.000	53.145	-6.3	106	0.00
74 T	N-ethyl acetate	50.000	50.779	-1.6	99	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	53.075	-6.2	101	0.00
76 T	1,2,3-Trichloropropane	50.000	51.859	-3.7	108	0.00
77 T	Bromobenzene	50.000	50.291	-0.6	95	0.00
78 T	n-propylbenzene	50.000	51.979	-4.0	103	0.00
79 T	2-Chlorotoluene	50.000	51.852	-3.7	102	0.00
80 T	1,3,5-Trimethylbenzene	50.000	52.449	-4.9	102	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	55.698	-11.4	108	0.00
82 T	4-Chlorotoluene	50.000	51.014	-2.0	100	0.00
83 T	tert-Butylbenzene	50.000	53.985	-8.0	108	0.00
84 T	1,2,4-Trimethylbenzene	50.000	52.643	-5.3	103	0.00
85 T	sec-Butylbenzene	50.000	52.562	-5.1	106	0.00
86 T	p-Isopropyltoluene	50.000	52.533	-5.1	104	0.00
87 T	1,3-Dichlorobenzene	50.000	51.490	-3.0	100	0.00
88 T	1,4-Dichlorobenzene	50.000	51.641	-3.3	100	0.00
89 T	n-Butylbenzene	50.000	52.190	-4.4	104	0.00
90 T	Hexachloroethane	50.000	52.717	-5.4	107	0.00
91 T	1,2-Dichlorobenzene	50.000	51.343	-2.7	97	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	51.971	-3.9	95	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.678	-1.4	97	0.00
94 T	Hexachlorobutadiene	50.000	50.862	-1.7	101	0.00
95 T	Naphthalene	50.000	48.345	3.3	95	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075146.D
Acq On : 20 Jan 2023 11:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 00:24:28 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	50.442	-0.9	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233
 Instrument ID: MSVOA_D Calibration Date/Time: 01/23/2023 10:15
 Lab File ID: VD075168.D Init. Calib. Date(s): 01/18/2023 01/18/2023
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10
 GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.435	0.374		-14.02	20
Chloromethane	0.646	0.586	0.1	-9.29	20
Vinyl Chloride	0.693	0.633		-8.66	20
Bromomethane	0.471	0.424		-9.98	20
Chloroethane	0.481	0.441		-8.32	20
Trichlorofluoromethane	0.881	0.868		-1.48	20
1,1,2-Trichlorotrifluoroethane	0.544	0.536		-1.47	20
1,1-Dichloroethene	0.573	0.563		-1.75	20
Acetone	0.135	0.184		36.3	20
Carbon Disulfide	1.857	1.830		-1.45	20
Methyl tert-butyl Ether	1.196	1.193		-0.25	20
Methyl Acetate	0.366	0.363		-0.82	20
Methylene Chloride	0.849	0.628		-26.03	20
trans-1,2-Dichloroethene	0.637	0.641		0.63	20
1,1-Dichloroethane	1.087	1.102	0.1	1.38	20
Cyclohexane	1.023	0.970		-5.18	20
2-Butanone	0.163	0.195		19.63	20
Carbon Tetrachloride	0.409	0.430		5.13	20
cis-1,2-Dichloroethene	0.695	0.694		-0.14	20
Bromochloromethane	0.297	0.283		-4.71	20
Chloroform	1.084	1.088		0.37	20
1,1,1-Trichloroethane	0.934	0.931		-0.32	20
Methylcyclohexane	0.598	0.611		2.17	20
Benzene	1.384	1.437		3.83	20
1,2-Dichloroethane	0.364	0.373		2.47	20
Trichloroethene	0.389	0.385		-1.03	20
1,2-Dichloropropane	0.341	0.349		2.35	20
Bromodichloromethane	0.446	0.463		3.81	20
4-Methyl-2-Pentanone	0.183	0.190		3.83	20
Toluene	0.875	0.902		3.09	20
t-1,3-Dichloropropene	0.422	0.432		2.37	20
cis-1,3-Dichloropropene	0.516	0.533		3.3	20
1,1,2-Trichloroethane	0.238	0.242		1.68	20
2-Hexanone	0.132	0.157		18.94	20
Dibromochloromethane	0.287	0.288		0.35	20
1,2-Dibromoethane	0.227	0.226		-0.44	20
Tetrachloroethene	0.357	0.356		-0.28	20
Chlorobenzene	1.025	1.046	0.3	2.05	20
Ethyl Benzene	1.844	1.911		3.63	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_D Calibration Date/Time: 01/23/2023 10:15
 Lab File ID: VD075168.D Init. Calib. Date(s): 01/18/2023 01/18/2023
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:25 13:10
 GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.712	0.735		3.23	20
o-Xylene	0.668	0.697		4.34	20
Styrene	1.111	1.138		2.43	20
Bromoform	0.178	0.184	0.1	3.37	20
Isopropylbenzene	3.949	3.967		0.46	20
1,1,2,2-Tetrachloroethane	0.629	0.641	0.3	1.91	20
1,3-Dichlorobenzene	1.749	1.721		-1.6	20
1,4-Dichlorobenzene	1.720	1.704		-0.93	20
1,2-Dichlorobenzene	1.496	1.503		0.47	20
1,2-Dibromo-3-Chloropropane	0.096	0.097		1.04	20
1,2,4-Trichlorobenzene	0.982	0.896		-8.76	20
1,2,3-Trichlorobenzene	0.838	0.768		-8.35	20
1,2-Dichloroethane-d4	0.510	0.517		1.37	20
Dibromofluoromethane	0.302	0.318		5.3	20
Toluene-d8	1.190	1.250		5.04	20
4-Bromofluorobenzene	0.378	0.377		-0.26	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075168.D
 Acq On : 23 Jan 2023 10:15
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:03:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	83058	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	142829	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	124569	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	56972	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	42902	50.619	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 101.240%			
35) Dibromofluoromethane	7.805	113	45452	52.663	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 105.320%			
50) Toluene-d8	10.269	98	178555	52.543	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 105.080%			
62) 4-Bromofluorobenzene	12.575	95	53814	49.897	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 99.800%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.934	85	31025	47.822	ug/l	94
3) Chloromethane	2.146	50	48701	45.391	ug/l	95
4) Vinyl Chloride	2.287	62	52560	45.654	ug/l	100
5) Bromomethane	2.693	94	35200	44.957	ug/l	99
6) Chloroethane	2.840	64	36598	45.847	ug/l	96
7) Trichlorofluoromethane	3.175	101	72111	49.278	ug/l	96
8) Diethyl Ether	3.593	74	22259	47.208	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.969	101	44558	49.324	ug/l	99
10) Methyl Iodide	4.164	142	57252	47.079	ug/l	99
11) Tert butyl alcohol	5.052	59	11326	191.553	ug/l #	80
12) 1,1-Dichloroethene	3.940	96	46799	49.209	ug/l	94
13) Acrolein	3.799	56	15537	327.546	ug/l	90
14) Allyl chloride	4.564	41	77688	50.334	ug/l	99
15) Acrylonitrile	5.258	53	50639	253.994	ug/l	98
16) Acetone	4.016	43	76406	341.807	ug/l	97
17) Carbon Disulfide	4.269	76	151962	49.264	ug/l	99
18) Methyl Acetate	4.564	43	30131	49.590	ug/l	97
19) Methyl tert-butyl Ether	5.316	73	99081	49.873	ug/l	99
20) Methylene Chloride	4.799	84	52154	43.818	ug/l	96
21) trans-1,2-Dichloroethene	5.316	96	53251	50.297	ug/l	95
22) Diisopropyl ether	6.216	45	144321	50.239	ug/l	97
23) Vinyl Acetate	6.158	43	337360	266.454	ug/l	96
24) 1,1-Dichloroethane	6.116	63	91538	50.705	ug/l	98
25) 2-Butanone	7.075	43	80952	299.635	ug/l	97
26) 2,2-Dichloropropane	7.075	77	76810	47.728	ug/l	99
27) cis-1,2-Dichloroethene	7.081	96	57652	49.955	ug/l	99
28) Bromochloromethane	7.422	49	23477	47.630	ug/l #	11
29) Tetrahydrofuran	7.446	42	38129	247.441	ug/l	98
30) Chloroform	7.599	83	90358	50.191	ug/l	98
31) Cyclohexane	7.875	56	80554	47.390	ug/l	99
32) 1,1,1-Trichloroethane	7.793	97	77325	49.855	ug/l	100
36) 1,1-Dichloropropene	8.010	75	69809	50.342	ug/l	100
37) Ethyl Acetate	7.169	43	27096	48.501	ug/l	99
38) Carbon Tetrachloride	7.993	117	61368	52.561	ug/l	96
39) Methylcyclohexane	9.275	83	87281	51.075	ug/l	100
40) Benzene	8.252	78	205199	51.889	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075168.D
 Acq On : 23 Jan 2023 10:15
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:03:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.399	41	16705	49.693	ug/l	92
42) 1,2-Dichloroethane	8.328	62	53290	51.301	ug/l	99
43) Isopropyl Acetate	8.357	43	54400	50.038	ug/l	99
44) Trichloroethene	9.028	130	54968	49.430	ug/l	97
45) 1,2-Dichloropropane	9.304	63	49839	51.162	ug/l	95
46) Dibromomethane	9.393	93	26301	51.195	ug/l	95
47) Bromodichloromethane	9.587	83	66108	51.868	ug/l	95
48) Methyl methacrylate	9.381	41	26120	49.132	ug/l	99
49) 1,4-Dioxane	9.381	88	5030	1025.584	ug/l	97
51) 4-Methyl-2-Pentanone	10.163	43	135450	259.448	ug/l	99
52) Toluene	10.334	92	128896	51.578	ug/l	100
53) t-1,3-Dichloropropene	10.557	75	61748	51.208	ug/l	98
54) cis-1,3-Dichloropropene	10.016	75	76146	51.688	ug/l	98
55) 1,1,2-Trichloroethane	10.734	97	34585	50.869	ug/l	96
56) Ethyl methacrylate	10.599	69	41392	50.625	ug/l	99
57) 1,3-Dichloropropane	10.881	76	59643	51.052	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.869	63	73560	262.925	ug/l	99
59) 2-Hexanone	10.922	43	112469	297.941	ug/l	100
60) Dibromochloromethane	11.075	129	41135	50.197	ug/l	97
61) 1,2-Dibromoethane	11.181	107	32308	49.736	ug/l	100
64) Tetrachloroethene	10.810	164	44369	49.878	ug/l	94
65) Chlorobenzene	11.610	112	130247	51.026	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.687	131	44220	51.504	ug/l	96
67) Ethyl Benzene	11.687	91	238081	51.816	ug/l	100
68) m/p-Xylenes	11.798	106	183179	103.203	ug/l	99
69) o-Xylene	12.122	106	86818	52.145	ug/l	99
70) Styrene	12.140	104	141768	51.222	ug/l	98
71) Bromoform	12.304	173	22894	51.640	ug/l #	94
73) Isopropylbenzene	12.428	105	226017	50.224	ug/l	99
74) N-amyl acetate	12.240	43	46805	47.480	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.681	83	36514	50.926	ug/l	98
76) 1,2,3-Trichloropropane	12.728	75	23626m	48.965	ug/l	
77) Bromobenzene	12.704	156	49559	48.214	ug/l	95
78) n-propylbenzene	12.769	91	277054	50.101	ug/l	100
79) 2-Chlorotoluene	12.851	91	148837	48.937	ug/l	100
80) 1,3,5-Trimethylbenzene	12.910	105	184606	50.070	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.475	75	11572	55.630	ug/l	97
82) 4-Chlorotoluene	12.951	91	155416	49.701	ug/l	100
83) tert-Butylbenzene	13.169	119	161335	50.573	ug/l	99
84) 1,2,4-Trimethylbenzene	13.216	105	182204	50.320	ug/l	99
85) sec-Butylbenzene	13.351	105	243633	50.273	ug/l	97
86) p-Isopropyltoluene	13.463	119	195384	49.245	ug/l	100
87) 1,3-Dichlorobenzene	13.463	146	98062	49.216	ug/l	98
88) 1,4-Dichlorobenzene	13.545	146	97083	49.523	ug/l	99
89) n-Butylbenzene	13.792	91	193203	49.972	ug/l	99
90) Hexachloroethane	14.057	117	34485	49.220	ug/l	94
91) 1,2-Dichlorobenzene	13.834	146	85647	50.243	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.451	75	5499	50.160	ug/l	96
93) 1,2,4-Trichlorobenzene	15.104	180	51064	45.618	ug/l	100
94) Hexachlorobutadiene	15.210	225	25786	47.004	ug/l	97
95) Naphthalene	15.339	128	101873	45.716	ug/l	99
96) 1,2,3-Trichlorobenzene	15.528	180	43769	45.824	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075168.D
Acq On : 23 Jan 2023 10:15
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:03:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

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

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

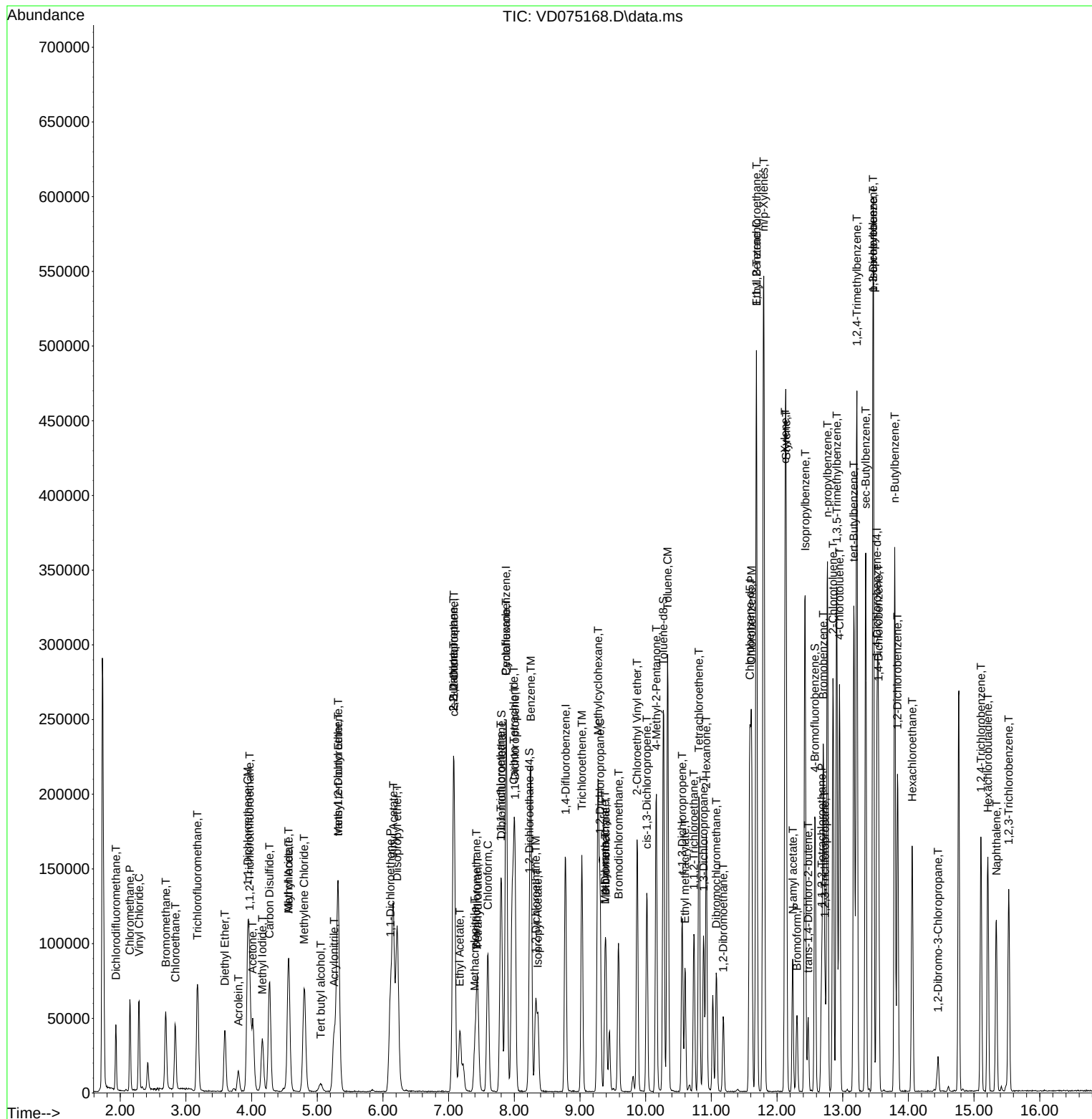
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075168.D
Acq On : 23 Jan 2023 10:15
Operator : KP/SY
Sample : VSTDCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:03:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075168.D
 Acq On : 23 Jan 2023 10:15
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
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Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 14:03:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	98	0.00
2 T	Dichlorodifluoromethane	0.435	0.374	14.0	100	0.00
3 P	Chloromethane	0.646	0.586	9.3	94	0.00
4 C	Vinyl Chloride	0.693	0.633	8.7#	95	0.00
5 T	Bromomethane	0.471	0.424	10.0	92	0.00
6 T	Chloroethane	0.481	0.441	8.3	91	0.00
7 T	Trichlorofluoromethane	0.881	0.868	1.5	100	0.00
8 T	Diethyl Ether	0.284	0.268	5.6	88	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.544	0.536	1.5	102	0.00
10 T	Methyl Iodide	0.732	0.689	5.9	84	0.00
11 T	Tert butyl alcohol	0.036	0.027	25.0	80	0.00
12 CM	1,1-Dichloroethene	0.573	0.563	1.7#	98	0.00
13 T	Acrolein	0.035	0.037	-5.7	125	0.00
14 T	Allyl chloride	0.929	0.935	-0.6	95	0.00
15 T	Acrylonitrile	0.120	0.122	-1.7	92	0.00
16 T	Acetone	0.135	0.184	-36.3#	113	0.00
17 T	Carbon Disulfide	1.857	1.830	1.5	98	0.00
18 T	Methyl Acetate	0.366	0.363	0.8	92	0.00
19 T	Methyl tert-butyl Ether	1.196	1.193	0.3	91	0.00
20 T	Methylene Chloride	0.849	0.628	26.0#	77	0.00
21 T	trans-1,2-Dichloroethene	0.637	0.641	-0.6	96	0.00
22 T	Diisopropyl ether	1.729	1.738	-0.5	93	0.00
23 T	Vinyl Acetate	0.762	0.812	-6.6	101	0.00
24 P	1,1-Dichloroethane	1.087	1.102	-1.4	97	0.00
25 T	2-Butanone	0.163	0.195	-19.6	105	0.00
26 T	2,2-Dichloropropane	0.969	0.925	4.5	95	0.00
27 T	cis-1,2-Dichloroethene	0.695	0.694	0.1	94	0.00
28 T	Bromochloromethane	0.297	0.283	4.7	93	0.00
29 T	Tetrahydrofuran	0.093	0.092	1.1	89	0.00
30 C	Chloroform	1.084	1.088	-0.4#	95	0.00
31 T	Cyclohexane	1.023	0.970	5.2	102	0.00
32 T	1,1,1-Trichloroethane	0.934	0.931	0.3	97	0.00
33 S	1,2-Dichloroethane-d4	0.510	0.517	-1.4	94	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	96	0.00
35 S	Dibromofluoromethane	0.302	0.318	-5.3	95	0.00
36 T	1,1-Dichloropropene	0.485	0.489	-0.8	99	0.00
37 T	Ethyl Acetate	0.196	0.190	3.1	90	0.00
38 T	Carbon Tetrachloride	0.409	0.430	-5.1	102	0.00
39 T	Methylcyclohexane	0.598	0.611	-2.2	103	0.00
40 TM	Benzene	1.384	1.437	-3.8	96	0.00
41 T	Methacrylonitrile	0.118	0.117	0.8	98	0.00
42 TM	1,2-Dichloroethane	0.364	0.373	-2.5	94	0.00
43 T	Isopropyl Acetate	0.381	0.381	0.0	91	0.00
44 TM	Trichloroethene	0.389	0.385	1.0	93	0.00
45 C	1,2-Dichloropropane	0.341	0.349	-2.3#	95	0.00
46 T	Dibromomethane	0.180	0.184	-2.2	93	0.00
47 T	Bromodichloromethane	0.446	0.463	-3.8	94	0.00
48 T	Methyl methacrylate	0.186	0.183	1.6	93	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075168.D
 Acq On : 23 Jan 2023 10:15
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 14:03:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	95	0.00
50 S	Toluene-d8	1.190	1.250	-5.0	98	0.00
51 T	4-Methyl-2-Pentanone	0.183	0.190	-3.8	95	0.00
52 CM	Toluene	0.875	0.902	-3.1#	95	0.00
53 T	t-1,3-Dichloropropene	0.422	0.432	-2.4	93	0.00
54 T	cis-1,3-Dichloropropene	0.516	0.533	-3.3	92	0.00
55 T	1,1,2-Trichloroethane	0.238	0.242	-1.7	91	0.00
56 T	Ethyl methacrylate	0.286	0.290	-1.4	89	0.00
57 T	1,3-Dichloropropane	0.409	0.418	-2.2	90	0.00
58 T	2-Chloroethyl Vinyl ether	0.098	0.103	-5.1	102	0.00
59 T	2-Hexanone	0.132	0.157	-18.9	105	0.00
60 T	Dibromochloromethane	0.287	0.288	-0.3	90	0.00
61 T	1,2-Dibromoethane	0.227	0.226	0.4	90	0.00
62 S	4-Bromofluorobenzene	0.378	0.377	0.3	91	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
64 T	Tetrachloroethene	0.357	0.356	0.3	95	0.00
65 PM	Chlorobenzene	1.025	1.046	-2.0	93	0.00
66 T	1,1,1,2-Tetrachloroethane	0.345	0.355	-2.9	95	0.00
67 C	Ethyl Benzene	1.844	1.911	-3.6#	96	0.00
68 T	m/p-Xylenes	0.712	0.735	-3.2	95	0.00
69 T	o-Xylene	0.668	0.697	-4.3	93	0.00
70 T	Styrene	1.111	1.138	-2.4	92	0.00
71 P	Bromoform	0.178	0.184	-3.4	91	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
73 T	Isopropylbenzene	3.949	3.967	-0.5	96	0.00
74 T	N-amyl acetate	0.865	0.822	5.0	89	0.00
75 P	1,1,2,2-Tetrachloroethane	0.629	0.641	-1.9	93	0.00
76 T	1,2,3-Trichloropropane	0.423	0.415	1.9	97	0.00
77 T	Bromobenzene	0.902	0.870	3.5	88	0.00
78 T	n-propylbenzene	4.853	4.863	-0.2	96	0.00
79 T	2-Chlorotoluene	2.669	2.612	2.1	92	0.00
80 T	1,3,5-Trimethylbenzene	3.236	3.240	-0.1	93	0.00
81 T	trans-1,4-Dichloro-2-butene	0.183	0.203	-10.9	103	0.00
82 T	4-Chlorotoluene	2.744	2.728	0.6	94	0.00
83 T	tert-Butylbenzene	2.800	2.832	-1.1	97	0.00
84 T	1,2,4-Trimethylbenzene	3.178	3.198	-0.6	94	0.00
85 T	sec-Butylbenzene	4.253	4.276	-0.5	97	0.00
86 T	p-Isopropyltoluene	3.482	3.429	1.5	94	0.00
87 T	1,3-Dichlorobenzene	1.749	1.721	1.6	91	0.00
88 T	1,4-Dichlorobenzene	1.720	1.704	0.9	92	0.00
89 T	n-Butylbenzene	3.393	3.391	0.1	96	0.00
90 T	Hexachloroethane	0.615	0.605	1.6	95	0.00
91 T	1,2-Dichlorobenzene	1.496	1.503	-0.5	91	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.096	0.097	-1.0	88	0.00
93 T	1,2,4-Trichlorobenzene	0.982	0.896	8.8	84	0.00
94 T	Hexachlorobutadiene	0.481	0.453	5.8	89	0.00
95 T	Naphthalene	1.956	1.788	8.6	87	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075168.D
Acq On : 23 Jan 2023 10:15
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 14:03:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.838	0.768	8.4	84	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075168.D
 Acq On : 23 Jan 2023 10:15
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 14:03:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	98	0.00
2 T	Dichlorodifluoromethane	50.000	47.822	4.4	100	0.00
3 P	Chloromethane	50.000	45.391	9.2	94	0.00
4 C	Vinyl Chloride	50.000	45.654	8.7#	95	0.00
5 T	Bromomethane	50.000	44.957	10.1	92	0.00
6 T	Chloroethane	50.000	45.847	8.3	91	0.00
7 T	Trichlorofluoromethane	50.000	49.278	1.4	100	0.00
8 T	Diethyl Ether	50.000	47.208	5.6	88	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.324	1.4	102	0.00
10 T	Methyl Iodide	50.000	47.079	5.8	84	0.00
11 T	Tert butyl alcohol	250.000	191.553	23.4	80	0.00
12 CM	1,1-Dichloroethene	50.000	49.209	1.6#	98	0.00
13 T	Acrolein	250.000	327.546	-31.0#	125	0.00
14 T	Allyl chloride	50.000	50.334	-0.7	95	0.00
15 T	Acrylonitrile	250.000	253.994	-1.6	92	0.00
16 T	Acetone	250.000	341.807	-36.7#	113	0.00
17 T	Carbon Disulfide	50.000	49.264	1.5	98	0.00
18 T	Methyl Acetate	50.000	49.590	0.8	92	0.00
19 T	Methyl tert-butyl Ether	50.000	49.873	0.3	91	0.00
20 T	Methylene Chloride	50.000	43.818	12.4	77	0.00
21 T	trans-1,2-Dichloroethene	50.000	50.297	-0.6	96	0.00
22 T	Diisopropyl ether	50.000	50.239	-0.5	93	0.00
23 T	Vinyl Acetate	250.000	266.454	-6.6	101	0.00
24 P	1,1-Dichloroethane	50.000	50.705	-1.4	97	0.00
25 T	2-Butanone	250.000	299.635	-19.9	105	0.00
26 T	2,2-Dichloropropane	50.000	47.728	4.5	95	0.00
27 T	cis-1,2-Dichloroethene	50.000	49.955	0.1	94	0.00
28 T	Bromochloromethane	50.000	47.630	4.7	93	0.00
29 T	Tetrahydrofuran	250.000	247.441	1.0	89	0.00
30 C	Chloroform	50.000	50.191	-0.4#	95	0.00
31 T	Cyclohexane	50.000	47.390	5.2	102	0.00
32 T	1,1,1-Trichloroethane	50.000	49.855	0.3	97	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.619	-1.2	94	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	96	0.00
35 S	Dibromofluoromethane	50.000	52.663	-5.3	95	0.00
36 T	1,1-Dichloropropene	50.000	50.342	-0.7	99	0.00
37 T	Ethyl Acetate	50.000	48.501	3.0	90	0.00
38 T	Carbon Tetrachloride	50.000	52.561	-5.1	102	0.00
39 T	Methylcyclohexane	50.000	51.075	-2.2	103	0.00
40 TM	Benzene	50.000	51.889	-3.8	96	0.00
41 T	Methacrylonitrile	50.000	49.693	0.6	98	0.00
42 TM	1,2-Dichloroethane	50.000	51.301	-2.6	94	0.00
43 T	Isopropyl Acetate	50.000	50.038	-0.1	91	0.00
44 TM	Trichloroethene	50.000	49.430	1.1	93	0.00
45 C	1,2-Dichloropropane	50.000	51.162	-2.3#	95	0.00
46 T	Dibromomethane	50.000	51.195	-2.4	93	0.00
47 T	Bromodichloromethane	50.000	51.868	-3.7	94	0.00
48 T	Methyl methacrylate	50.000	49.132	1.7	93	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075168.D
 Acq On : 23 Jan 2023 10:15
 Operator : KP/SY
 Sample : VSTDCCC050
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_D
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 14:03:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1025.584	-2.6	95	0.00
50 S	Toluene-d8	50.000	52.543	-5.1	98	0.00
51 T	4-Methyl-2-Pentanone	250.000	259.448	-3.8	95	0.00
52 CM	Toluene	50.000	51.578	-3.2#	95	0.00
53 T	t-1,3-Dichloropropene	50.000	51.208	-2.4	93	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.688	-3.4	92	0.00
55 T	1,1,2-Trichloroethane	50.000	50.869	-1.7	91	0.00
56 T	Ethyl methacrylate	50.000	50.625	-1.3	89	0.00
57 T	1,3-Dichloropropane	50.000	51.052	-2.1	90	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	262.925	-5.2	102	0.00
59 T	2-Hexanone	250.000	297.941	-19.2	105	0.00
60 T	Dibromochloromethane	50.000	50.197	-0.4	90	0.00
61 T	1,2-Dibromoethane	50.000	49.736	0.5	90	0.00
62 S	4-Bromofluorobenzene	50.000	49.897	0.2	91	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	93	0.00
64 T	Tetrachloroethene	50.000	49.878	0.2	95	0.00
65 PM	Chlorobenzene	50.000	51.026	-2.1	93	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	51.504	-3.0	95	0.00
67 C	Ethyl Benzene	50.000	51.816	-3.6#	96	0.00
68 T	m/p-Xylenes	100.000	103.203	-3.2	95	0.00
69 T	o-Xylene	50.000	52.145	-4.3	93	0.00
70 T	Styrene	50.000	51.222	-2.4	92	0.00
71 P	Bromoform	50.000	51.640	-3.3	91	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	93	0.00
73 T	Isopropylbenzene	50.000	50.224	-0.4	96	0.00
74 T	N-amyl acetate	50.000	47.480	5.0	89	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	50.926	-1.9	93	0.00
76 T	1,2,3-Trichloropropane	50.000	48.965	2.1	97	0.00
77 T	Bromobenzene	50.000	48.214	3.6	88	0.00
78 T	n-propylbenzene	50.000	50.101	-0.2	96	0.00
79 T	2-Chlorotoluene	50.000	48.937	2.1	92	0.00
80 T	1,3,5-Trimethylbenzene	50.000	50.070	-0.1	93	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	55.630	-11.3	103	0.00
82 T	4-Chlorotoluene	50.000	49.701	0.6	94	0.00
83 T	tert-Butylbenzene	50.000	50.573	-1.1	97	0.00
84 T	1,2,4-Trimethylbenzene	50.000	50.320	-0.6	94	0.00
85 T	sec-Butylbenzene	50.000	50.273	-0.5	97	0.00
86 T	p-Isopropyltoluene	50.000	49.245	1.5	94	0.00
87 T	1,3-Dichlorobenzene	50.000	49.216	1.6	91	0.00
88 T	1,4-Dichlorobenzene	50.000	49.523	1.0	92	0.00
89 T	n-Butylbenzene	50.000	49.972	0.1	96	0.00
90 T	Hexachloroethane	50.000	49.220	1.6	95	0.00
91 T	1,2-Dichlorobenzene	50.000	50.243	-0.5	91	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	50.160	-0.3	88	0.00
93 T	1,2,4-Trichlorobenzene	50.000	45.618	8.8	84	0.00
94 T	Hexachlorobutadiene	50.000	47.004	6.0	89	0.00
95 T	Naphthalene	50.000	45.716	8.6	87	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075168.D
Acq On : 23 Jan 2023 10:15
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 14:03:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	45.824	8.4	84	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: louie01

Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233

Instrument ID: MSVOA_N Calibration Date/Time: 01/20/2023 10:27

Lab File ID: VN076337.D Init. Calib. Date(s): 01/16/2023 01/16/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.512	0.472		-7.81	20
Chloromethane	0.531	0.468	0.1	-11.86	20
Vinyl Chloride	0.650	0.587		-9.69	20
Bromomethane	0.533	0.487		-8.63	20
Chloroethane	0.488	0.443		-9.22	20
Trichlorofluoromethane	0.895	0.825		-7.82	20
1,1,2-Trichlorotrifluoroethane	0.507	0.479		-5.52	20
1,1-Dichloroethene	0.479	0.448		-6.47	20
Acetone	0.195	0.184		-5.64	20
Carbon Disulfide	1.192	1.019		-14.51	20
Methyl tert-butyl Ether	1.559	1.530		-1.86	20
Methyl Acetate	0.608	0.535		-12.01	20
Methylene Chloride	0.645	0.515		-20.16	20
trans-1,2-Dichloroethene	0.519	0.471		-9.25	20
1,1-Dichloroethane	0.877	0.813	0.1	-7.3	20
Cyclohexane	0.860	0.733		-14.77	20
2-Butanone	0.274	0.255		-6.93	20
Carbon Tetrachloride	0.496	0.476		-4.03	20
cis-1,2-Dichloroethene	0.605	0.578		-4.46	20
Bromochloromethane	0.356	0.353		-0.84	20
Chloroform	0.971	0.919		-5.36	20
1,1,1-Trichloroethane	0.886	0.851		-3.95	20
Methylcyclohexane	0.543	0.530		-2.39	20
Benzene	1.329	1.262		-5.04	20
1,2-Dichloroethane	0.455	0.425		-6.59	20
Trichloroethene	0.376	0.353		-6.12	20
1,2-Dichloropropane	0.318	0.300		-5.66	20
Bromodichloromethane	0.466	0.454		-2.58	20
4-Methyl-2-Pentanone	0.340	0.325		-4.41	20
Toluene	0.889	0.843		-5.17	20
t-1,3-Dichloropropene	0.444	0.470		5.86	20
cis-1,3-Dichloropropene	0.511	0.511		0	20
1,1,2-Trichloroethane	0.340	0.322		-5.29	20
2-Hexanone	0.247	0.242		-2.02	20
Dibromochloromethane	0.358	0.371		3.63	20
1,2-Dibromoethane	0.339	0.338		-0.29	20
Tetrachloroethene	0.451	0.415		-7.98	20
Chlorobenzene	1.057	1.011	0.3	-4.35	20
Ethyl Benzene	1.809	1.805		-0.22	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_N Calibration Date/Time: 01/20/2023 10:27
 Lab File ID: VN076337.D Init. Calib. Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.725	0.724		-0.14	20
o-Xylene	0.712	0.712		0	20
Styrene	1.137	1.175		3.34	20
Bromoform	0.284	0.293	0.1	3.17	20
Isopropylbenzene	3.868	3.769		-2.56	20
1,1,2,2-Tetrachloroethane	1.112	0.997	0.3	-10.34	20
1,3-Dichlorobenzene	1.823	1.710		-6.2	20
1,4-Dichlorobenzene	1.842	1.691		-8.2	20
1,2-Dichlorobenzene	1.816	1.687		-7.1	20
1,2-Dibromo-3-Chloropropane	0.193	0.185		-4.14	20
1,2,4-Trichlorobenzene	0.870	0.848		-2.53	20
1,2,3-Trichlorobenzene	0.823	0.806		-2.07	20
1,2-Dichloroethane-d4	0.560	0.568		1.43	20
Dibromofluoromethane	0.313	0.326		4.15	20
Toluene-d8	1.155	1.207		4.5	20
4-Bromofluorobenzene	0.377	0.435		15.39	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076337.D
 Acq On : 20 Jan 2023 10:27
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:10:42 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	383049	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	610968	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	549444	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	272155	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	217554	50.724	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 101.440%			
35) Dibromofluoromethane	8.177	113	199349	52.160	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 104.320%			
50) Toluene-d8	10.571	98	737178	52.228	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 104.460%			
62) 4-Bromofluorobenzene	12.853	95	265749	57.674	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 115.340%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	180777	46.054	ug/l	98
3) Chloromethane	2.371	50	179416	44.146	ug/l	96
4) Vinyl Chloride	2.530	62	224808	45.111	ug/l	99
5) Bromomethane	2.954	94	186736	45.757	ug/l	98
6) Chloroethane	3.124	64	169783	45.435	ug/l	99
7) Trichlorofluoromethane	3.506	101	316129	46.110	ug/l	100
8) Diethyl Ether	3.977	74	113938	49.547	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.389	101	183623	47.311	ug/l	98
10) Methyl Iodide	4.601	142	281421	47.469	ug/l	99
11) Tert butyl alcohol	5.536	59	129020	224.902	ug/l	100
12) 1,1-Dichloroethene	4.354	96	171773	46.819	ug/l	91
13) Acrolein	4.189	56	149996	218.634	ug/l	99
14) Allyl chloride	5.036	41	211991	49.582	ug/l	94
15) Acrylonitrile	5.730	53	372887	228.415	ug/l	99
16) Acetone	4.442	43	353330	256.987	ug/l	99
17) Carbon Disulfide	4.724	76	390473	42.743	ug/l	98
18) Methyl Acetate	5.036	43	205053	44.007	ug/l	98
19) Methyl tert-butyl Ether	5.806	73	585879	49.051	ug/l	99
20) Methylene Chloride	5.289	84	197270	48.470	ug/l	97
21) trans-1,2-Dichloroethene	5.800	96	180547	45.424	ug/l	99
22) Diisopropyl ether	6.683	45	487765	48.376	ug/l	98
23) Vinyl Acetate	6.612	43	1599013	245.380	ug/l	99
24) 1,1-Dichloroethane	6.577	63	311302	46.318	ug/l	99
25) 2-Butanone	7.489	43	488735	232.743	ug/l	95
26) 2,2-Dichloropropane	7.494	77	275916	48.709	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	221287	47.735	ug/l	99
28) Bromochloromethane	7.818	49	135108	49.596	ug/l	99
29) Tetrahydrofuran	7.841	42	307363	237.159	ug/l	99
30) Chloroform	7.971	83	351972	47.329	ug/l	98
31) Cyclohexane	8.265	56	280606	42.590	ug/l	99
32) 1,1,1-Trichloroethane	8.177	97	325943	48.005	ug/l	95
36) 1,1-Dichloropropene	8.377	75	254336	46.832	ug/l	100
37) Ethyl Acetate	7.565	43	200035	45.925	ug/l	99
38) Carbon Tetrachloride	8.371	117	291124	48.071	ug/l	98
39) Methylcyclohexane	9.606	83	323607	48.795	ug/l	99
40) Benzene	8.612	78	771016	47.480	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076337.D
 Acq On : 20 Jan 2023 10:27
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:10:42 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.789	41	107443	47.108	ug/l	97
42) 1,2-Dichloroethane	8.677	62	259393	46.686	ug/l	99
43) Isopropyl Acetate	8.694	43	343362	48.454	ug/l	99
44) Trichloroethene	9.353	130	215893	47.006	ug/l	99
45) 1,2-Dichloropropane	9.624	63	183173	47.113	ug/l	100
46) Dibromomethane	9.712	93	138237	47.093	ug/l	99
47) Bromodichloromethane	9.894	83	277513	48.744	ug/l	98
48) Methyl methacrylate	9.683	41	157628	46.986	ug/l	99
49) 1,4-Dioxane	9.700	88	71487	1009.879	ug/l	96
51) 4-Methyl-2-Pentanone	10.447	43	994095	238.969	ug/l	99
52) Toluene	10.630	92	515055	47.429	ug/l	100
53) t-1,3-Dichloropropene	10.841	75	287090	52.897	ug/l	98
54) cis-1,3-Dichloropropene	10.312	75	312316	50.019	ug/l	98
55) 1,1,2-Trichloroethane	11.018	97	196926	47.442	ug/l	99
56) Ethyl methacrylate	10.877	69	279619	52.178	ug/l	99
57) 1,3-Dichloropropane	11.165	76	321327	47.636	ug/l	99
58) 2-Chloroethyl Vinyl ether	10.165	63	449814	248.637	ug/l	100
59) 2-Hexanone	11.200	43	737760	244.735	ug/l	100
60) Dibromochloromethane	11.359	129	226815	51.908	ug/l	100
61) 1,2-Dibromoethane	11.471	107	206498	49.839	ug/l	99
64) Tetrachloroethene	11.106	164	227910	45.996	ug/l	99
65) Chlorobenzene	11.894	112	555223	47.804	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.965	131	207880	48.105	ug/l	99
67) Ethyl Benzene	11.965	91	991891	49.899	ug/l	100
68) m/p-Xylenes	12.071	106	795104	99.752	ug/l	98
69) o-Xylene	12.400	106	391040	49.956	ug/l	99
70) Styrene	12.412	104	645803	51.671	ug/l	99
71) Bromoform	12.582	173	161083	51.617	ug/l #	99
73) Isopropylbenzene	12.694	105	1025853	48.725	ug/l	99
74) N-amyl acetate	12.494	43	294615	48.647	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	271246	44.816	ug/l	98
76) 1,2,3-Trichloropropane	12.994	75	244243m	49.248	ug/l	
77) Bromobenzene	12.982	156	247247	50.232	ug/l	95
78) n-propylbenzene	13.035	91	1176985	49.545	ug/l	99
79) 2-Chlorotoluene	13.129	91	689468	47.296	ug/l	100
80) 1,3,5-Trimethylbenzene	13.176	105	881318	49.967	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.735	75	80111	48.976	ug/l	97
82) 4-Chlorotoluene	13.129	91	689468	47.296	ug/l	100
83) tert-Butylbenzene	13.441	119	760823	48.499	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	877680	49.625	ug/l	100
85) sec-Butylbenzene	13.618	105	1094637	50.287	ug/l	100
86) p-Isopropyltoluene	13.729	119	937303	52.363	ug/l	100
87) 1,3-Dichlorobenzene	13.735	146	465451	46.904	ug/l	99
88) 1,4-Dichlorobenzene	13.812	146	460202	48.754	ug/l	100
89) n-Butylbenzene	14.059	91	761799	53.612	ug/l	99
90) Hexachloroethane	14.335	117	158186	51.203	ug/l	99
91) 1,2-Dichlorobenzene	14.106	146	459019	46.442	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.723	75	50448	47.951	ug/l	96
93) 1,2,4-Trichlorobenzene	15.394	180	230887	48.389	ug/l	98
94) Hexachlorobutadiene	15.506	225	123336	47.024	ug/l	96
95) Naphthalene	15.647	128	653881	46.380	ug/l	100
96) 1,2,3-Trichlorobenzene	15.841	180	219421	48.242	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076337.D
Acq On : 20 Jan 2023 10:27
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:10:42 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

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

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

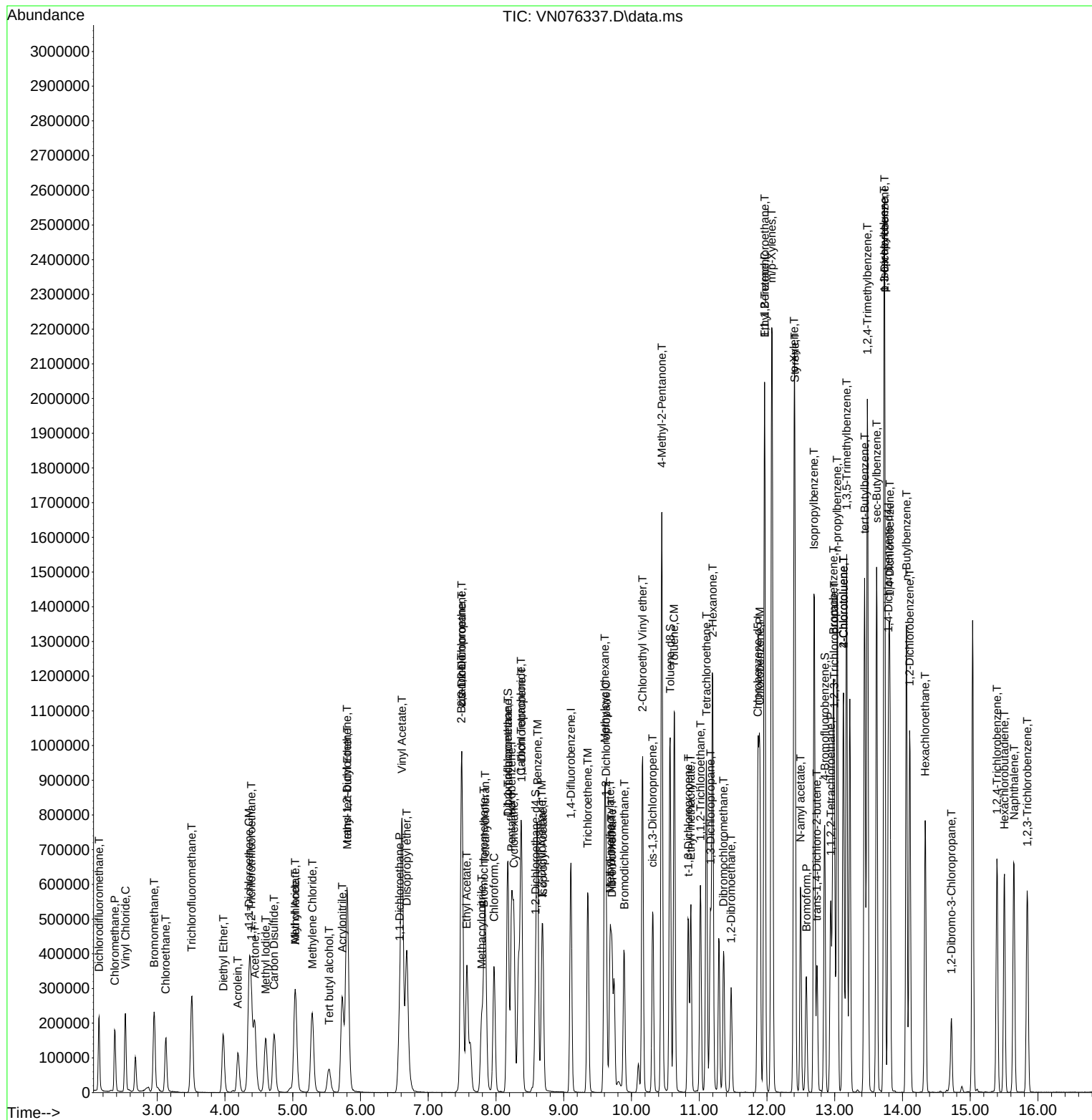
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\  
Data File : VN076337.D  
Acq On    : 20 Jan 2023  10:27  
Operator  : JC\MD  
Sample    : VSTDCCC050  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 2    Sample Multiplier: 1
```

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:10:42 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076337.D
 Acq On : 20 Jan 2023 10:27
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 20 22:10:42 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	115	0.00
2 T	Dichlorodifluoromethane	0.512	0.472	7.8	103	0.00
3 P	Chloromethane	0.531	0.468	11.9	103	0.00
4 C	Vinyl Chloride	0.650	0.587	9.7#	104	0.00
5 T	Bromomethane	0.533	0.487	8.6	108	0.00
6 T	Chloroethane	0.488	0.443	9.2	111	0.00
7 T	Trichlorofluoromethane	0.895	0.825	7.8	108	0.00
8 T	Diethyl Ether	0.300	0.297	1.0	111	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.507	0.479	5.5	110	0.00
10 T	Methyl Iodide	0.774	0.735	5.0	107	0.00
11 T	Tert butyl alcohol	0.075	0.067	10.7	103	0.00
12 CM	1,1-Dichloroethene	0.479	0.448	6.5#	108	0.00
13 T	Acrolein	0.090	0.078	13.3	102	0.00
14 T	Allyl chloride	0.558	0.553	0.9	116	0.00
15 T	Acrylonitrile	0.213	0.195	8.5	103	0.00
16 T	Acetone	0.195	0.184	5.6	121	0.00
17 T	Carbon Disulfide	1.192	1.019	14.5	99	0.00
18 T	Methyl Acetate	0.608	0.535	12.0	104	0.00
19 T	Methyl tert-butyl Ether	1.559	1.530	1.9	110	0.00
20 T	Methylene Chloride	0.645	0.515	20.2	114	0.00
21 T	trans-1,2-Dichloroethene	0.519	0.471	9.2	107	0.00
22 T	Diisopropyl ether	1.316	1.273	3.3	108	0.00
23 T	Vinyl Acetate	0.851	0.835	1.9	105	0.00
24 P	1,1-Dichloroethane	0.877	0.813	7.3	107	0.00
25 T	2-Butanone	0.274	0.255	6.9	107	0.00
26 T	2,2-Dichloropropane	0.739	0.720	2.6	107	0.00
27 T	cis-1,2-Dichloroethene	0.605	0.578	4.5	110	0.00
28 T	Bromochloromethane	0.356	0.353	0.8	112	0.00
29 T	Tetrahydrofuran	0.169	0.160	5.3	104	0.00
30 C	Chloroform	0.971	0.919	5.4#	109	0.00
31 T	Cyclohexane	0.860	0.733	14.8	107	0.00
32 T	1,1,1-Trichloroethane	0.886	0.851	4.0	110	0.00
33 S	1,2-Dichloroethane-d4	0.560	0.568	-1.4	117	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	115	0.00
35 S	Dibromofluoromethane	0.313	0.326	-4.2	122	0.00
36 T	1,1-Dichloropropene	0.444	0.416	6.3	107	0.00
37 T	Ethyl Acetate	0.391	0.327	16.4	107	0.00
38 T	Carbon Tetrachloride	0.496	0.476	4.0	109	0.00
39 T	Methylcyclohexane	0.543	0.530	2.4	106	0.00
40 TM	Benzene	1.329	1.262	5.0	108	0.00
41 T	Methacrylonitrile	0.187	0.176	5.9	105	0.00
42 TM	1,2-Dichloroethane	0.455	0.425	6.6	108	0.00
43 T	Isopropyl Acetate	0.580	0.562	3.1	108	0.00
44 TM	Trichloroethene	0.376	0.353	6.1	112	0.00
45 C	1,2-Dichloropropane	0.318	0.300	5.7#	109	0.00
46 T	Dibromomethane	0.240	0.226	5.8	108	0.00
47 T	Bromodichloromethane	0.466	0.454	2.6	110	0.00
48 T	Methyl methacrylate	0.275	0.258	6.2	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076337.D
 Acq On : 20 Jan 2023 10:27
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 20 22:10:42 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.006	0.006	0.0	107	0.00
50 S	Toluene-d8	1.155	1.207	-4.5	119	0.00
51 T	4-Methyl-2-Pentanone	0.340	0.325	4.4	105	0.00
52 CM	Toluene	0.889	0.843	5.2#	109	0.00
53 T	t-1,3-Dichloropropene	0.444	0.470	-5.9	110	0.00
54 T	cis-1,3-Dichloropropene	0.511	0.511	0.0	110	0.00
55 T	1,1,2-Trichloroethane	0.340	0.322	5.3	111	0.00
56 T	Ethyl methacrylate	0.439	0.458	-4.3	109	0.00
57 T	1,3-Dichloropropane	0.552	0.526	4.7	108	0.00
58 T	2-Chloroethyl Vinyl ether	0.148	0.147	0.7	105	0.00
59 T	2-Hexanone	0.247	0.242	2.0	106	0.00
60 T	Dibromochloromethane	0.358	0.371	-3.6	111	0.00
61 T	1,2-Dibromoethane	0.339	0.338	0.3	111	0.00
62 S	4-Bromofluorobenzene	0.377	0.435	-15.4	127	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
64 T	Tetrachloroethene	0.451	0.415	8.0	120	0.00
65 PM	Chlorobenzene	1.057	1.011	4.4	111	0.00
66 T	1,1,1,2-Tetrachloroethane	0.393	0.378	3.8	110	0.00
67 C	Ethyl Benzene	1.809	1.805	0.2#	109	0.00
68 T	m/p-Xylenes	0.725	0.724	0.1	110	0.00
69 T	o-Xylene	0.712	0.712	0.0	110	0.00
70 T	Styrene	1.137	1.175	-3.3	111	0.00
71 P	Bromoform	0.284	0.293	-3.2	110	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	112	0.00
73 T	Isopropylbenzene	3.868	3.769	2.6	111	0.00
74 T	N-amyl acetate	1.113	1.083	2.7	106	0.00
75 P	1,1,2,2-Tetrachloroethane	1.112	0.997	10.3	105	0.00
76 T	1,2,3-Trichloropropane	1.034	0.897	13.2	109	0.00
77 T	Bromobenzene	0.994	0.908	8.7	114	0.00
78 T	n-propylbenzene	4.364	4.325	0.9	111	0.00
79 T	2-Chlorotoluene	2.678	2.533	5.4	111	0.00
80 T	1,3,5-Trimethylbenzene	3.240	3.238	0.1	112	0.00
81 T	trans-1,4-Dichloro-2-butene	0.301	0.294	2.3	103	0.00
82 T	4-Chlorotoluene	2.678	2.533	5.4	111	0.00
83 T	tert-Butylbenzene	2.882	2.796	3.0	110	0.00
84 T	1,2,4-Trimethylbenzene	3.249	3.225	0.7	111	0.00
85 T	sec-Butylbenzene	3.999	4.022	-0.6	111	0.00
86 T	p-Isopropyltoluene	3.289	3.444	-4.7	112	0.00
87 T	1,3-Dichlorobenzene	1.823	1.710	6.2	111	0.00
88 T	1,4-Dichlorobenzene	1.842	1.691	8.2	111	0.00
89 T	n-Butylbenzene	2.611	2.799	-7.2	111	0.00
90 T	Hexachloroethane	0.568	0.581	-2.3	111	0.00
91 T	1,2-Dichlorobenzene	1.816	1.687	7.1	110	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.193	0.185	4.1	100	0.00
93 T	1,2,4-Trichlorobenzene	0.870	0.848	2.5	108	0.00
94 T	Hexachlorobutadiene	0.482	0.453	6.0	107	0.00
95 T	Naphthalene	2.543	2.403	5.5	106	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076337.D
Acq On : 20 Jan 2023 10:27
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jan 20 22:10:42 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.823	0.806	2.1	108	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076337.D
 Acq On : 20 Jan 2023 10:27
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 20 22:10:42 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	115	0.00
2 T	Dichlorodifluoromethane	50.000	46.054	7.9	103	0.00
3 P	Chloromethane	50.000	44.146	11.7	103	0.00
4 C	Vinyl Chloride	50.000	45.111	9.8#	104	0.00
5 T	Bromomethane	50.000	45.757	8.5	108	0.00
6 T	Chloroethane	50.000	45.435	9.1	111	0.00
7 T	Trichlorofluoromethane	50.000	46.110	7.8	108	0.00
8 T	Diethyl Ether	50.000	49.547	0.9	111	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	47.311	5.4	110	0.00
10 T	Methyl Iodide	50.000	47.469	5.1	107	0.00
11 T	Tert butyl alcohol	250.000	224.902	10.0	103	0.00
12 CM	1,1-Dichloroethene	50.000	46.819	6.4#	108	0.00
13 T	Acrolein	250.000	218.634	12.5	102	0.00
14 T	Allyl chloride	50.000	49.582	0.8	116	0.00
15 T	Acrylonitrile	250.000	228.415	8.6	103	0.00
16 T	Acetone	250.000	256.987	-2.8	121	0.00
17 T	Carbon Disulfide	50.000	42.743	14.5	99	0.00
18 T	Methyl Acetate	50.000	44.007	12.0	104	0.00
19 T	Methyl tert-butyl Ether	50.000	49.051	1.9	110	0.00
20 T	Methylene Chloride	50.000	48.470	3.1	114	0.00
21 T	trans-1,2-Dichloroethene	50.000	45.424	9.2	107	0.00
22 T	Diisopropyl ether	50.000	48.376	3.2	108	0.00
23 T	Vinyl Acetate	250.000	245.380	1.8	105	0.00
24 P	1,1-Dichloroethane	50.000	46.318	7.4	107	0.00
25 T	2-Butanone	250.000	232.743	6.9	107	0.00
26 T	2,2-Dichloropropane	50.000	48.709	2.6	107	0.00
27 T	cis-1,2-Dichloroethene	50.000	47.735	4.5	110	0.00
28 T	Bromochloromethane	50.000	49.596	0.8	112	0.00
29 T	Tetrahydrofuran	250.000	237.159	5.1	104	0.00
30 C	Chloroform	50.000	47.329	5.3#	109	0.00
31 T	Cyclohexane	50.000	42.590	14.8	107	0.00
32 T	1,1,1-Trichloroethane	50.000	48.005	4.0	110	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.724	-1.4	117	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	115	0.00
35 S	Dibromofluoromethane	50.000	52.160	-4.3	122	0.00
36 T	1,1-Dichloropropene	50.000	46.832	6.3	107	0.00
37 T	Ethyl Acetate	50.000	45.925	8.2	107	0.00
38 T	Carbon Tetrachloride	50.000	48.071	3.9	109	0.00
39 T	Methylcyclohexane	50.000	48.795	2.4	106	0.00
40 TM	Benzene	50.000	47.480	5.0	108	0.00
41 T	Methacrylonitrile	50.000	47.108	5.8	105	0.00
42 TM	1,2-Dichloroethane	50.000	46.686	6.6	108	0.00
43 T	Isopropyl Acetate	50.000	48.454	3.1	108	0.00
44 TM	Trichloroethene	50.000	47.006	6.0	112	0.00
45 C	1,2-Dichloropropane	50.000	47.113	5.8#	109	0.00
46 T	Dibromomethane	50.000	47.093	5.8	108	0.00
47 T	Bromodichloromethane	50.000	48.744	2.5	110	0.00
48 T	Methyl methacrylate	50.000	46.986	6.0	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076337.D
 Acq On : 20 Jan 2023 10:27
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 20 22:10:42 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1009.879	-1.0	107	0.00
50 S	Toluene-d8	50.000	52.228	-4.5	119	0.00
51 T	4-Methyl-2-Pentanone	250.000	238.969	4.4	105	0.00
52 CM	Toluene	50.000	47.429	5.1#	109	0.00
53 T	t-1,3-Dichloropropene	50.000	52.897	-5.8	110	0.00
54 T	cis-1,3-Dichloropropene	50.000	50.019	-0.0	110	0.00
55 T	1,1,2-Trichloroethane	50.000	47.442	5.1	111	0.00
56 T	Ethyl methacrylate	50.000	52.178	-4.4	109	0.00
57 T	1,3-Dichloropropane	50.000	47.636	4.7	108	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	248.637	0.5	105	0.00
59 T	2-Hexanone	250.000	244.735	2.1	106	0.00
60 T	Dibromochloromethane	50.000	51.908	-3.8	111	0.00
61 T	1,2-Dibromoethane	50.000	49.839	0.3	111	0.00
62 S	4-Bromofluorobenzene	50.000	57.674	-15.3	127	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	114	0.00
64 T	Tetrachloroethene	50.000	45.996	8.0	120	0.00
65 PM	Chlorobenzene	50.000	47.804	4.4	111	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	48.105	3.8	110	0.00
67 C	Ethyl Benzene	50.000	49.899	0.2#	109	0.00
68 T	m/p-Xylenes	100.000	99.752	0.2	110	0.00
69 T	o-Xylene	50.000	49.956	0.1	110	0.00
70 T	Styrene	50.000	51.671	-3.3	111	0.00
71 P	Bromoform	50.000	51.617	-3.2	110	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	112	0.00
73 T	Isopropylbenzene	50.000	48.725	2.5	111	0.00
74 T	N-ethyl acetate	50.000	48.647	2.7	106	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	44.816	10.4	105	0.00
76 T	1,2,3-Trichloropropane	50.000	49.248	1.5	109	0.00
77 T	Bromobenzene	50.000	50.232	-0.5	114	0.00
78 T	n-propylbenzene	50.000	49.545	0.9	111	0.00
79 T	2-Chlorotoluene	50.000	47.296	5.4	111	0.00
80 T	1,3,5-Trimethylbenzene	50.000	49.967	0.1	112	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	48.976	2.0	103	0.00
82 T	4-Chlorotoluene	50.000	47.296	5.4	111	0.00
83 T	tert-Butylbenzene	50.000	48.499	3.0	110	0.00
84 T	1,2,4-Trimethylbenzene	50.000	49.625	0.8	111	0.00
85 T	sec-Butylbenzene	50.000	50.287	-0.6	111	0.00
86 T	p-Isopropyltoluene	50.000	52.363	-4.7	112	0.00
87 T	1,3-Dichlorobenzene	50.000	46.904	6.2	111	0.00
88 T	1,4-Dichlorobenzene	50.000	48.754	2.5	111	0.00
89 T	n-Butylbenzene	50.000	53.612	-7.2	111	0.00
90 T	Hexachloroethane	50.000	51.203	-2.4	111	0.00
91 T	1,2-Dichlorobenzene	50.000	46.442	7.1	110	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	47.951	4.1	100	0.00
93 T	1,2,4-Trichlorobenzene	50.000	48.389	3.2	108	0.00
94 T	Hexachlorobutadiene	50.000	47.024	6.0	107	0.00
95 T	Naphthalene	50.000	46.380	7.2	106	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076337.D
Acq On : 20 Jan 2023 10:27
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jan 20 22:10:42 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	48.242	3.5	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233
 Instrument ID: MSVOA_N Calibration Date/Time: 01/23/2023 10:17
 Lab File ID: VN076355.D Init. Calib. Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.512	0.458		-10.55	20
Chloromethane	0.531	0.476	0.1	-10.36	20
Vinyl Chloride	0.650	0.625		-3.85	20
Bromomethane	0.533	0.520		-2.44	20
Chloroethane	0.488	0.479		-1.84	20
Trichlorofluoromethane	0.895	0.812		-9.27	20
1,1,2-Trichlorotrifluoroethane	0.507	0.467		-7.89	20
1,1-Dichloroethene	0.479	0.428		-10.65	20
Acetone	0.195	0.177		-9.23	20
Carbon Disulfide	1.192	1.088		-8.73	20
Methyl tert-butyl Ether	1.559	1.510		-3.14	20
Methyl Acetate	0.608	0.533		-12.34	20
Methylene Chloride	0.645	0.523		-18.92	20
trans-1,2-Dichloroethene	0.519	0.463		-10.79	20
1,1-Dichloroethane	0.877	0.828	0.1	-5.59	20
Cyclohexane	0.860	0.717		-16.63	20
2-Butanone	0.274	0.251		-8.39	20
Carbon Tetrachloride	0.496	0.489		-1.41	20
cis-1,2-Dichloroethene	0.605	0.565		-6.61	20
Bromochloromethane	0.356	0.387		8.71	20
Chloroform	0.971	0.932		-4.02	20
1,1,1-Trichloroethane	0.886	0.858		-3.16	20
Methylcyclohexane	0.543	0.526		-3.13	20
Benzene	1.329	1.247		-6.17	20
1,2-Dichloroethane	0.455	0.430		-5.49	20
Trichloroethene	0.376	0.335		-10.9	20
1,2-Dichloropropane	0.318	0.300		-5.66	20
Bromodichloromethane	0.466	0.475		1.93	20
4-Methyl-2-Pentanone	0.340	0.330		-2.94	20
Toluene	0.889	0.825		-7.2	20
t-1,3-Dichloropropene	0.444	0.477		7.43	20
cis-1,3-Dichloropropene	0.511	0.524		2.54	20
1,1,2-Trichloroethane	0.340	0.319		-6.18	20
2-Hexanone	0.247	0.234		-5.26	20
Dibromochloromethane	0.358	0.384		7.26	20
1,2-Dibromoethane	0.339	0.327		-3.54	20
Tetrachloroethene	0.451	0.385		-14.63	20
Chlorobenzene	1.057	0.969	0.3	-8.32	20
Ethyl Benzene	1.809	1.778		-1.71	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_N Calibration Date/Time: 01/23/2023 10:17
 Lab File ID: VN076355.D Init. Calib. Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) N Init. Calib. Time(s): 10:54 13:17
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.725	0.699		-3.59	20
o-Xylene	0.712	0.691		-2.95	20
Styrene	1.137	1.135		-0.18	20
Bromoform	0.284	0.309	0.1	8.8	20
Isopropylbenzene	3.868	3.758		-2.84	20
1,1,2,2-Tetrachloroethane	1.112	1.010	0.3	-9.17	20
1,3-Dichlorobenzene	1.823	1.657		-9.11	20
1,4-Dichlorobenzene	1.842	1.609		-12.65	20
1,2-Dichlorobenzene	1.816	1.613		-11.18	20
1,2-Dibromo-3-Chloropropane	0.193	0.183		-5.18	20
1,2,4-Trichlorobenzene	0.870	0.821		-5.63	20
1,2,3-Trichlorobenzene	0.823	0.789		-4.13	20
1,2-Dichloroethane-d4	0.560	0.565		0.89	20
Dibromofluoromethane	0.313	0.314		0.32	20
Toluene-d8	1.155	1.173		1.56	20
4-Bromofluorobenzene	0.377	0.403		6.9	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076355.D
 Acq On : 23 Jan 2023 10:17
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 12:59:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	360494	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	576114	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	518968	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	248688	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.588	65	203781	50.486	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	= 100.980%	
35) Dibromofluoromethane	8.171	113	180722	50.147	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	= 100.300%	
50) Toluene-d8	10.571	98	675909	50.784	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	= 101.560%	
62) 4-Bromofluorobenzene	12.853	95	232157	53.432	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	= 106.860%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.142	85	165184	44.714	ug/l	97
3) Chloromethane	2.371	50	171598	44.864	ug/l	98
4) Vinyl Chloride	2.530	62	225300	48.039	ug/l	100
5) Bromomethane	2.953	94	187464	48.810	ug/l	100
6) Chloroethane	3.124	64	172851	49.150	ug/l	98
7) Trichlorofluoromethane	3.512	101	292894	45.394	ug/l	100
8) Diethyl Ether	3.977	74	105220	48.619	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.389	101	168211	46.052	ug/l	99
10) Methyl Iodide	4.600	142	254948	45.695	ug/l	99
11) Tert butyl alcohol	5.536	59	112279	207.965	ug/l	98
12) 1,1-Dichloroethene	4.353	96	154449	44.731	ug/l	87
13) Acrolein	4.189	56	132444	205.129	ug/l	99
14) Allyl chloride	5.042	41	193940	48.198	ug/l	99
15) Acrylonitrile	5.730	53	352914	229.707	ug/l	100
16) Acetone	4.442	43	319575	246.976	ug/l	99
17) Carbon Disulfide	4.730	76	392101	45.607	ug/l	97
18) Methyl Acetate	5.036	43	192303	43.853	ug/l	99
19) Methyl tert-butyl Ether	5.806	73	544250	48.417	ug/l	98
20) Methylene Chloride	5.283	84	188691	49.273	ug/l	96
21) trans-1,2-Dichloroethene	5.800	96	166879	44.612	ug/l	98
22) Diisopropyl ether	6.683	45	476415	50.206	ug/l	97
23) Vinyl Acetate	6.612	43	1496210	243.970	ug/l	97
24) 1,1-Dichloroethane	6.583	63	298665	47.218	ug/l	98
25) 2-Butanone	7.488	43	452452	228.945	ug/l	97
26) 2,2-Dichloropropane	7.500	77	267397	50.158	ug/l	98
27) cis-1,2-Dichloroethene	7.494	96	203584	46.664	ug/l	98
28) Bromochloromethane	7.818	49	139665	54.477	ug/l	98
29) Tetrahydrofuran	7.847	42	290365	238.061	ug/l	97
30) Chloroform	7.971	83	335849	47.986	ug/l	99
31) Cyclohexane	8.265	56	258600	41.706	ug/l	100
32) 1,1,1-Trichloroethane	8.177	97	309257	48.398	ug/l	97
36) 1,1-Dichloropropene	8.377	75	238363	46.547	ug/l	99
37) Ethyl Acetate	7.565	43	185932	45.270	ug/l	98
38) Carbon Tetrachloride	8.371	117	281838	49.353	ug/l	98
39) Methylcyclohexane	9.606	83	302854	48.429	ug/l	97
40) Benzene	8.612	78	718544	46.925	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076355.D
 Acq On : 23 Jan 2023 10:17
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 12:59:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.788	41	101965	47.411	ug/l	97
42) 1,2-Dichloroethane	8.677	62	247775	47.293	ug/l	99
43) Isopropyl Acetate	8.694	43	317807	47.561	ug/l	99
44) Trichloroethene	9.359	130	193216	44.614	ug/l	96
45) 1,2-Dichloropropane	9.624	63	172983	47.184	ug/l	96
46) Dibromomethane	9.712	93	128757	46.517	ug/l	98
47) Bromodichloromethane	9.894	83	273679	50.978	ug/l	98
48) Methyl methacrylate	9.682	41	152492	48.205	ug/l	97
49) 1,4-Dioxane	9.694	88	63386	949.611	ug/l #	83
51) 4-Methyl-2-Pentanone	10.447	43	949464	242.048	ug/l	99
52) Toluene	10.635	92	475280	46.414	ug/l	99
53) t-1,3-Dichloropropene	10.835	75	274554	53.647	ug/l	98
54) cis-1,3-Dichloropropene	10.312	75	301979	51.289	ug/l	98
55) 1,1,2-Trichloroethane	11.018	97	183807	46.960	ug/l	97
56) Ethyl methacrylate	10.876	69	254680	50.400	ug/l	99
57) 1,3-Dichloropropane	11.165	76	303745	47.753	ug/l	98
58) 2-Chloroethyl Vinyl ether	10.165	63	407937	239.131	ug/l	100
59) 2-Hexanone	11.200	43	672934	236.736	ug/l	100
60) Dibromochloromethane	11.359	129	221168	53.678	ug/l	99
61) 1,2-Dibromoethane	11.470	107	188417	48.227	ug/l	98
64) Tetrachloroethene	11.106	164	199982	42.730	ug/l	99
65) Chlorobenzene	11.894	112	502748	45.828	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.965	131	202640	49.646	ug/l	99
67) Ethyl Benzene	11.965	91	922831	49.151	ug/l	99
68) m/p-Xylenes	12.070	106	725094	96.311	ug/l	100
69) o-Xylene	12.400	106	358434	48.480	ug/l	99
70) Styrene	12.412	104	588955	49.890	ug/l	99
71) Bromoform	12.582	173	160379	54.409	ug/l #	99
73) Isopropylbenzene	12.700	105	934631	48.581	ug/l	100
74) N-amyl acetate	12.494	43	264210	47.743	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	251056	45.394	ug/l	100
76) 1,2,3-Trichloropropane	12.994	75	222560m	49.108	ug/l	
77) Bromobenzene	12.982	156	216695	48.156	ug/l	97
78) n-propylbenzene	13.041	91	1072268	49.396	ug/l	99
79) 2-Chlorotoluene	13.129	91	618883	46.461	ug/l	99
80) 1,3,5-Trimethylbenzene	13.176	105	789818	49.004	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.741	75	77957	52.157	ug/l	97
82) 4-Chlorotoluene	13.129	91	618883	46.461	ug/l	99
83) tert-Butylbenzene	13.441	119	707593	49.362	ug/l	98
84) 1,2,4-Trimethylbenzene	13.482	105	785620	48.611	ug/l	100
85) sec-Butylbenzene	13.617	105	984375	49.489	ug/l	100
86) p-Isopropyltoluene	13.735	119	840639	51.395	ug/l	100
87) 1,3-Dichlorobenzene	13.735	146	412020	45.438	ug/l	100
88) 1,4-Dichlorobenzene	13.817	146	400166	46.399	ug/l	98
89) n-Butylbenzene	14.059	91	687301	52.933	ug/l	100
90) Hexachloroethane	14.335	117	158599	56.181	ug/l	100
91) 1,2-Dichlorobenzene	14.106	146	401028	44.403	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.723	75	45551	47.382	ug/l	96
93) 1,2,4-Trichlorobenzene	15.394	180	204174	46.870	ug/l	99
94) Hexachlorobutadiene	15.506	225	108834	45.410	ug/l	96
95) Naphthalene	15.647	128	570056	44.334	ug/l	99
96) 1,2,3-Trichlorobenzene	15.841	180	196268	47.248	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076355.D
Acq On : 23 Jan 2023 10:17
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 12:59:06 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

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

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

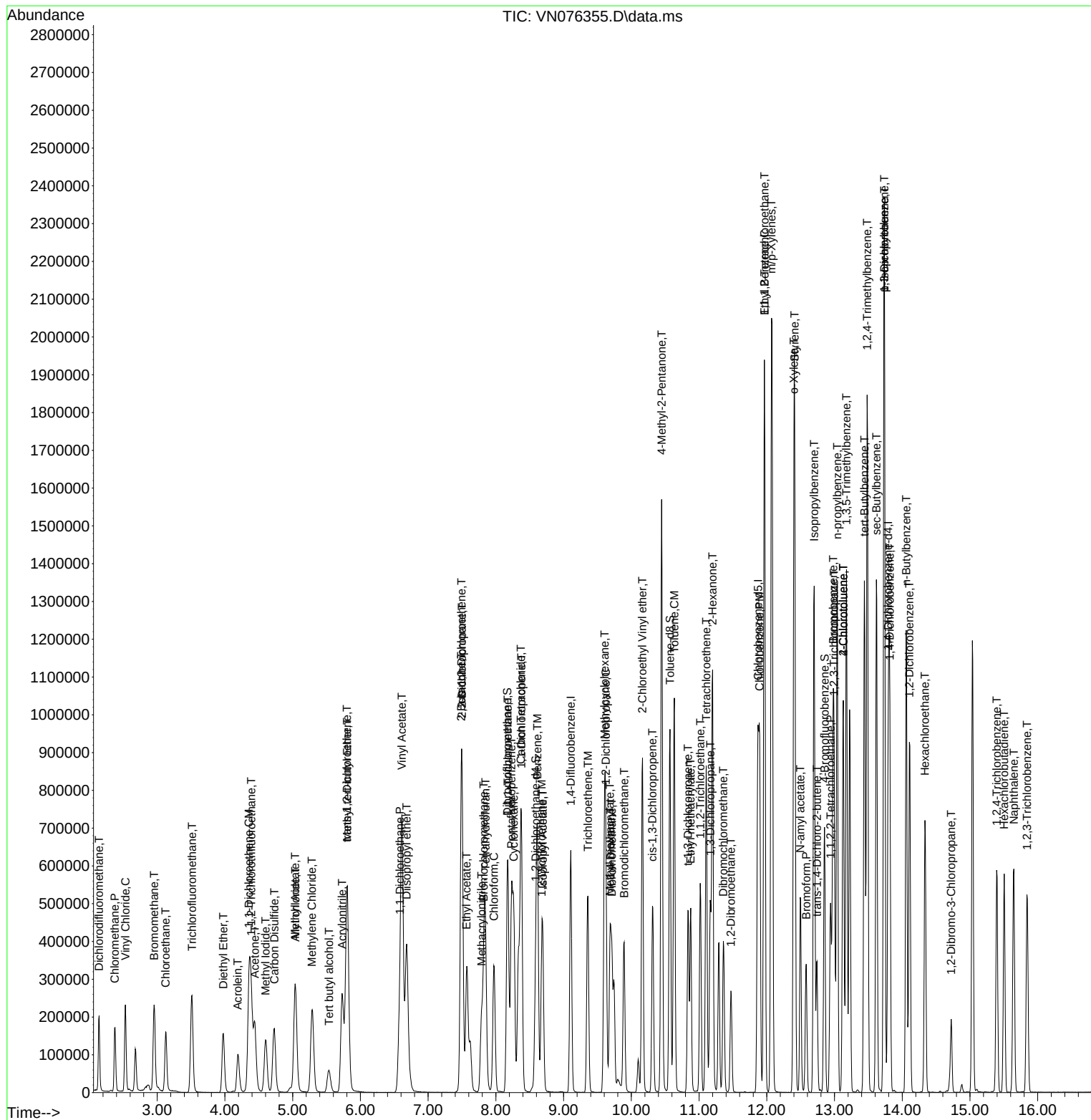
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\  
Data File : VN076355.D  
Acq On    : 23 Jan 2023  10:17  
Operator  : JC\MD  
Sample    : VSTDCCC050  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 2    Sample Multiplier: 1
```

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 12:59:06 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076355.D
 Acq On : 23 Jan 2023 10:17
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
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Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 12:59:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	108	0.00
2 T	Dichlorodifluoromethane	0.512	0.458	10.5	94	0.00
3 P	Chloromethane	0.531	0.476	10.4	98	0.00
4 C	Vinyl Chloride	0.650	0.625	3.8#	105	0.00
5 T	Bromomethane	0.533	0.520	2.4	109	0.00
6 T	Chloroethane	0.488	0.479	1.8	113	0.00
7 T	Trichlorofluoromethane	0.895	0.812	9.3	100	0.00
8 T	Diethyl Ether	0.300	0.292	2.7	103	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.507	0.467	7.9	101	0.00
10 T	Methyl Iodide	0.774	0.707	8.7	97	0.00
11 T	Tert butyl alcohol	0.075	0.062	17.3	89	0.00
12 CM	1,1-Dichloroethene	0.479	0.428	10.6#	97	0.00
13 T	Acrolein	0.090	0.073	18.9	90	0.00
14 T	Allyl chloride	0.558	0.538	3.6	106	0.00
15 T	Acrylonitrile	0.213	0.196	8.0	98	0.00
16 T	Acetone	0.195	0.177	9.2	109	0.00
17 T	Carbon Disulfide	1.192	1.088	8.7	99	0.00
18 T	Methyl Acetate	0.608	0.533	12.3	98	0.00
19 T	Methyl tert-butyl Ether	1.559	1.510	3.1	102	0.00
20 T	Methylene Chloride	0.645	0.523	18.9	109	0.00
21 T	trans-1,2-Dichloroethene	0.519	0.463	10.8	99	0.00
22 T	Diisopropyl ether	1.316	1.322	-0.5	106	0.00
23 T	Vinyl Acetate	0.851	0.830	2.5	98	0.00
24 P	1,1-Dichloroethane	0.877	0.828	5.6	103	0.00
25 T	2-Butanone	0.274	0.251	8.4	99	0.00
26 T	2,2-Dichloropropane	0.739	0.742	-0.4	104	0.00
27 T	cis-1,2-Dichloroethene	0.605	0.565	6.6	102	0.00
28 T	Bromochloromethane	0.356	0.387	-8.7	116	0.00
29 T	Tetrahydrofuran	0.169	0.161	4.7	98	0.00
30 C	Chloroform	0.971	0.932	4.0#	104	0.00
31 T	Cyclohexane	0.860	0.717	16.6	98	0.00
32 T	1,1,1-Trichloroethane	0.886	0.858	3.2	105	0.00
33 S	1,2-Dichloroethane-d4	0.560	0.565	-0.9	110	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
35 S	Dibromofluoromethane	0.313	0.314	-0.3	111	0.00
36 T	1,1-Dichloropropene	0.444	0.414	6.8	100	0.00
37 T	Ethyl Acetate	0.391	0.323	17.4	100	0.00
38 T	Carbon Tetrachloride	0.496	0.489	1.4	106	0.00
39 T	Methylcyclohexane	0.543	0.526	3.1	99	0.00
40 TM	Benzene	1.329	1.247	6.2	101	0.00
41 T	Methacrylonitrile	0.187	0.177	5.3	100	0.00
42 TM	1,2-Dichloroethane	0.455	0.430	5.5	103	0.00
43 T	Isopropyl Acetate	0.580	0.552	4.8	100	0.00
44 TM	Trichloroethene	0.376	0.335	10.9	100	0.00
45 C	1,2-Dichloropropane	0.318	0.300	5.7#	103	0.00
46 T	Dibromomethane	0.240	0.223	7.1	101	0.00
47 T	Bromodichloromethane	0.466	0.475	-1.9	108	0.00
48 T	Methyl methacrylate	0.275	0.265	3.6	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076355.D
 Acq On : 23 Jan 2023 10:17
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 12:59:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.006	0.006	0.0	95	0.00
50 S	Toluene-d8	1.155	1.173	-1.6	109	0.00
51 T	4-Methyl-2-Pentanone	0.340	0.330	2.9	100	0.00
52 CM	Toluene	0.889	0.825	7.2#	101	0.00
53 T	t-1,3-Dichloropropene	0.444	0.477	-7.4	105	0.00
54 T	cis-1,3-Dichloropropene	0.511	0.524	-2.5	107	0.00
55 T	1,1,2-Trichloroethane	0.340	0.319	6.2	104	0.00
56 T	Ethyl methacrylate	0.439	0.442	-0.7	99	0.00
57 T	1,3-Dichloropropane	0.552	0.527	4.5	102	0.00
58 T	2-Chloroethyl Vinyl ether	0.148	0.142	4.1	95	0.00
59 T	2-Hexanone	0.247	0.234	5.3	97	0.00
60 T	Dibromochloromethane	0.358	0.384	-7.3	109	0.00
61 T	1,2-Dibromoethane	0.339	0.327	3.5	101	0.00
62 S	4-Bromofluorobenzene	0.377	0.403	-6.9	111	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	108	0.00
64 T	Tetrachloroethene	0.451	0.385	14.6	105	0.00
65 PM	Chlorobenzene	1.057	0.969	8.3	101	0.00
66 T	1,1,1,2-Tetrachloroethane	0.393	0.390	0.8	107	0.00
67 C	Ethyl Benzene	1.809	1.778	1.7#	102	0.00
68 T	m/p-Xylenes	0.725	0.699	3.6	101	0.00
69 T	o-Xylene	0.712	0.691	2.9	101	0.00
70 T	Styrene	1.137	1.135	0.2	101	0.00
71 P	Bromoform	0.284	0.309	-8.8	109	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00
73 T	Isopropylbenzene	3.868	3.758	2.8	101	0.00
74 T	N-amyl acetate	1.113	1.062	4.6	95	0.00
75 P	1,1,2,2-Tetrachloroethane	1.112	1.010	9.2	98	0.00
76 T	1,2,3-Trichloropropane	1.034	0.895	13.4	100	0.00
77 T	Bromobenzene	0.994	0.871	12.4	100	0.00
78 T	n-propylbenzene	4.364	4.312	1.2	101	0.00
79 T	2-Chlorotoluene	2.678	2.489	7.1	100	0.00
80 T	1,3,5-Trimethylbenzene	3.240	3.176	2.0	100	0.00
81 T	trans-1,4-Dichloro-2-butene	0.301	0.313	-4.0	100	0.00
82 T	4-Chlorotoluene	2.678	2.489	7.1	100	0.00
83 T	tert-Butylbenzene	2.882	2.845	1.3	102	0.00
84 T	1,2,4-Trimethylbenzene	3.249	3.159	2.8	100	0.00
85 T	sec-Butylbenzene	3.999	3.958	1.0	99	0.00
86 T	p-Isopropyltoluene	3.289	3.380	-2.8	100	0.00
87 T	1,3-Dichlorobenzene	1.823	1.657	9.1	98	0.00
88 T	1,4-Dichlorobenzene	1.842	1.609	12.6	97	0.00
89 T	n-Butylbenzene	2.611	2.764	-5.9	100	0.00
90 T	Hexachloroethane	0.568	0.638	-12.3	111	0.00
91 T	1,2-Dichlorobenzene	1.816	1.613	11.2	96	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.193	0.183	5.2	90	0.00
93 T	1,2,4-Trichlorobenzene	0.870	0.821	5.6	96	0.00
94 T	Hexachlorobutadiene	0.482	0.438	9.1	94	0.00
95 T	Naphthalene	2.543	2.292	9.9	92	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076355.D
Acq On : 23 Jan 2023 10:17
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 12:59:06 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.823	0.789	4.1	97	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076355.D
 Acq On : 23 Jan 2023 10:17
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 12:59:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	108	0.00
2 T	Dichlorodifluoromethane	50.000	44.714	10.6	94	0.00
3 P	Chloromethane	50.000	44.864	10.3	98	0.00
4 C	Vinyl Chloride	50.000	48.039	3.9#	105	0.00
5 T	Bromomethane	50.000	48.810	2.4	109	0.00
6 T	Chloroethane	50.000	49.150	1.7	113	0.00
7 T	Trichlorofluoromethane	50.000	45.394	9.2	100	0.00
8 T	Diethyl Ether	50.000	48.619	2.8	103	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	46.052	7.9	101	0.00
10 T	Methyl Iodide	50.000	45.695	8.6	97	0.00
11 T	Tert butyl alcohol	250.000	207.965	16.8	89	0.00
12 CM	1,1-Dichloroethene	50.000	44.731	10.5#	97	0.00
13 T	Acrolein	250.000	205.129	17.9	90	0.00
14 T	Allyl chloride	50.000	48.198	3.6	106	0.00
15 T	Acrylonitrile	250.000	229.707	8.1	98	0.00
16 T	Acetone	250.000	246.976	1.2	109	0.00
17 T	Carbon Disulfide	50.000	45.607	8.8	99	0.00
18 T	Methyl Acetate	50.000	43.853	12.3	98	0.00
19 T	Methyl tert-butyl Ether	50.000	48.417	3.2	102	0.00
20 T	Methylene Chloride	50.000	49.273	1.5	109	0.00
21 T	trans-1,2-Dichloroethene	50.000	44.612	10.8	99	0.00
22 T	Diisopropyl ether	50.000	50.206	-0.4	106	0.00
23 T	Vinyl Acetate	250.000	243.970	2.4	98	0.00
24 P	1,1-Dichloroethane	50.000	47.218	5.6	103	0.00
25 T	2-Butanone	250.000	228.945	8.4	99	0.00
26 T	2,2-Dichloropropane	50.000	50.158	-0.3	104	0.00
27 T	cis-1,2-Dichloroethene	50.000	46.664	6.7	102	0.00
28 T	Bromochloromethane	50.000	54.477	-9.0	116	0.00
29 T	Tetrahydrofuran	250.000	238.061	4.8	98	0.00
30 C	Chloroform	50.000	47.986	4.0#	104	0.00
31 T	Cyclohexane	50.000	41.706	16.6	98	0.00
32 T	1,1,1-Trichloroethane	50.000	48.398	3.2	105	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.486	-1.0	110	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	108	0.00
35 S	Dibromofluoromethane	50.000	50.147	-0.3	111	0.00
36 T	1,1-Dichloropropene	50.000	46.547	6.9	100	0.00
37 T	Ethyl Acetate	50.000	45.270	9.5	100	0.00
38 T	Carbon Tetrachloride	50.000	49.353	1.3	106	0.00
39 T	Methylcyclohexane	50.000	48.429	3.1	99	0.00
40 TM	Benzene	50.000	46.925	6.2	101	0.00
41 T	Methacrylonitrile	50.000	47.411	5.2	100	0.00
42 TM	1,2-Dichloroethane	50.000	47.293	5.4	103	0.00
43 T	Isopropyl Acetate	50.000	47.561	4.9	100	0.00
44 TM	Trichloroethene	50.000	44.614	10.8	100	0.00
45 C	1,2-Dichloropropane	50.000	47.184	5.6#	103	0.00
46 T	Dibromomethane	50.000	46.517	7.0	101	0.00
47 T	Bromodichloromethane	50.000	50.978	-2.0	108	0.00
48 T	Methyl methacrylate	50.000	48.205	3.6	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076355.D
 Acq On : 23 Jan 2023 10:17
 Operator : JC\MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 12:59:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	949.611	5.0	95	0.00
50 S	Toluene-d8	50.000	50.784	-1.6	109	0.00
51 T	4-Methyl-2-Pentanone	250.000	242.048	3.2	100	0.00
52 CM	Toluene	50.000	46.414	7.2#	101	0.00
53 T	t-1,3-Dichloropropene	50.000	53.647	-7.3	105	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.289	-2.6	107	0.00
55 T	1,1,2-Trichloroethane	50.000	46.960	6.1	104	0.00
56 T	Ethyl methacrylate	50.000	50.400	-0.8	99	0.00
57 T	1,3-Dichloropropane	50.000	47.753	4.5	102	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	239.131	4.3	95	0.00
59 T	2-Hexanone	250.000	236.736	5.3	97	0.00
60 T	Dibromochloromethane	50.000	53.678	-7.4	109	0.00
61 T	1,2-Dibromoethane	50.000	48.227	3.5	101	0.00
62 S	4-Bromofluorobenzene	50.000	53.432	-6.9	111	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	108	0.00
64 T	Tetrachloroethene	50.000	42.730	14.5	105	0.00
65 PM	Chlorobenzene	50.000	45.828	8.3	101	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	49.646	0.7	107	0.00
67 C	Ethyl Benzene	50.000	49.151	1.7#	102	0.00
68 T	m/p-Xylenes	100.000	96.311	3.7	101	0.00
69 T	o-Xylene	50.000	48.480	3.0	101	0.00
70 T	Styrene	50.000	49.890	0.2	101	0.00
71 P	Bromoform	50.000	54.409	-8.8	109	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	102	0.00
73 T	Isopropylbenzene	50.000	48.581	2.8	101	0.00
74 T	N-amyl acetate	50.000	47.743	4.5	95	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	45.394	9.2	98	0.00
76 T	1,2,3-Trichloropropane	50.000	49.108	1.8	100	0.00
77 T	Bromobenzene	50.000	48.156	3.7	100	0.00
78 T	n-propylbenzene	50.000	49.396	1.2	101	0.00
79 T	2-Chlorotoluene	50.000	46.461	7.1	100	0.00
80 T	1,3,5-Trimethylbenzene	50.000	49.004	2.0	100	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	52.157	-4.3	100	0.00
82 T	4-Chlorotoluene	50.000	46.461	7.1	100	0.00
83 T	tert-Butylbenzene	50.000	49.362	1.3	102	0.00
84 T	1,2,4-Trimethylbenzene	50.000	48.611	2.8	100	0.00
85 T	sec-Butylbenzene	50.000	49.489	1.0	99	0.00
86 T	p-Isopropyltoluene	50.000	51.395	-2.8	100	0.00
87 T	1,3-Dichlorobenzene	50.000	45.438	9.1	98	0.00
88 T	1,4-Dichlorobenzene	50.000	46.399	7.2	97	0.00
89 T	n-Butylbenzene	50.000	52.933	-5.9	100	0.00
90 T	Hexachloroethane	50.000	56.181	-12.4	111	0.00
91 T	1,2-Dichlorobenzene	50.000	44.403	11.2	96	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	47.382	5.2	90	0.00
93 T	1,2,4-Trichlorobenzene	50.000	46.870	6.3	96	0.00
94 T	Hexachlorobutadiene	50.000	45.410	9.2	94	0.00
95 T	Naphthalene	50.000	44.334	11.3	92	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076355.D
Acq On : 23 Jan 2023 10:17
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 12:59:06 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	47.248	5.5	97	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: 01233 SAS No.: 01233 SDG No.: 01233
 Instrument ID: MSVOA_Y Calibration Date/Time: 01/23/2023 12:09
 Lab File ID: VY012307.D Init. Calib. Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:17 14:34
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.437	0.387		-11.44	20
Chloromethane	0.403	0.377	0.1	-6.45	20
Vinyl Chloride	0.471	0.462		-1.91	20
Bromomethane	0.364	0.354		-2.75	20
Chloroethane	0.307	0.305		-0.65	20
Trichlorofluoromethane	0.919	0.884		-3.81	20
1,1,2-Trichlorotrifluoroethane	0.447	0.440		-1.57	20
1,1-Dichloroethene	0.459	0.454		-1.09	20
Acetone	0.139	0.146		5.04	20
Carbon Disulfide	1.420	1.365		-3.87	20
Methyl tert-butyl Ether	1.280	1.242		-2.97	20
Methyl Acetate	0.312	0.292		-6.41	20
Methylene Chloride	0.762	0.518		-32.02	20
trans-1,2-Dichloroethene	0.512	0.505		-1.37	20
1,1-Dichloroethane	0.785	0.778	0.1	-0.89	20
Cyclohexane	0.729	0.682		-6.45	20
2-Butanone	0.154	0.146		-5.2	20
Carbon Tetrachloride	0.581	0.569		-2.07	20
cis-1,2-Dichloroethene	0.563	0.549		-2.66	20
Bromochloromethane	0.171	0.159		-7.02	20
Chloroform	0.927	0.919		-0.86	20
1,1,1-Trichloroethane	0.918	0.900		-1.96	20
Methylcyclohexane	0.550	0.560		1.82	20
Benzene	1.299	1.299		0	20
1,2-Dichloroethane	0.413	0.406		-1.7	20
Trichloroethene	0.388	0.383		-1.29	20
1,2-Dichloropropane	0.271	0.274		1.11	20
Bromodichloromethane	0.457	0.456		-0.22	20
4-Methyl-2-Pentanone	0.197	0.186		-5.58	20
Toluene	0.865	0.875		1.16	20
t-1,3-Dichloropropene	0.478	0.466		-2.51	20
cis-1,3-Dichloropropene	0.514	0.511		-0.58	20
1,1,2-Trichloroethane	0.258	0.247		-4.26	20
2-Hexanone	0.150	0.147		-2	20
Dibromochloromethane	0.342	0.329		-3.8	20
1,2-Dibromoethane	0.249	0.239		-4.02	20
Tetrachloroethene	0.456	0.461		1.1	20
Chlorobenzene	1.023	1.005	0.3	-1.76	20
Ethyl Benzene	1.828	1.852		1.31	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: loui01
 Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
 Instrument ID: MSVOA_Y Calibration Date/Time: 01/23/2023 12:09
 Lab File ID: VY012307.D Init. Calib. Date(s): 01/16/2023 01/16/2023
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:17 14:34
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.723	0.728		0.69	20
o-Xylene	0.690	0.693		0.44	20
Styrene	1.154	1.171		1.47	20
Bromoform	0.247	0.234	0.1	-5.26	20
Isopropylbenzene	3.605	3.679		2.05	20
1,1,2,2-Tetrachloroethane	0.568	0.540	0.3	-4.93	20
1,3-Dichlorobenzene	1.726	1.693		-1.91	20
1,4-Dichlorobenzene	1.721	1.678		-2.5	20
1,2-Dichlorobenzene	1.540	1.496		-2.86	20
1,2-Dibromo-3-Chloropropane	0.117	0.110		-5.98	20
1,2,4-Trichlorobenzene	0.987	0.948		-3.95	20
1,2,3-Trichlorobenzene	0.849	0.816		-3.89	20
1,2-Dichloroethane-d4	0.465	0.425		-8.6	20
Dibromofluoromethane	0.265	0.258		-2.64	20
Toluene-d8	1.044	0.958		-8.24	20
4-Bromofluorobenzene	0.373	0.357		-4.29	20

All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012307.D
 Acq On : 23 Jan 2023 12:09
 Operator : KP/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 15:08:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	179464	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	268117	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.490	117	243165	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	123436	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.143	65	76295	51.399	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 102.800%			
35) Dibromofluoromethane	7.716	113	69285	48.803	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 97.600%			
50) Toluene-d8	10.179	98	256759	52.407	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 104.820%			
62) 4-Bromofluorobenzene	12.483	95	95780	47.859	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 95.720%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.906	85	69479	44.301	ug/l	98
3) Chloromethane	2.119	50	67723	46.776	ug/l	97
4) Vinyl Chloride	2.253	62	82884	49.046	ug/l	99
5) Bromomethane	2.656	94	63593	48.672	ug/l	98
6) Chloroethane	2.796	64	54695	49.627	ug/l	96
7) Trichlorofluoromethane	3.131	101	158656	48.104	ug/l	99
8) Diethyl Ether	3.528	74	46336	47.213	ug/l	83
9) 1,1,2-Trichlorotrifluo...	3.906	101	79039	49.238	ug/l	96
10) Methyl Iodide	4.095	142	110551	45.318	ug/l	96
11) Tert butyl alcohol	4.954	59	36722	205.849	ug/l	99
12) 1,1-Dichloroethene	3.875	96	81481	49.434	ug/l	98
13) Acrolein	3.729	56	18162	279.360	ug/l	99
14) Allyl chloride	4.479	41	102863	50.472	ug/l #	87
15) Acrylonitrile	5.161	53	101474	236.709	ug/l	100
16) Acetone	3.948	43	131213	262.569	ug/l	98
17) Carbon Disulfide	4.198	76	244963	48.048	ug/l	100
18) Methyl Acetate	4.479	43	52468	46.921	ug/l #	88
19) Methyl tert-butyl Ether	5.222	73	222836	48.498	ug/l	94
20) Methylene Chloride	4.716	84	92884	43.325	ug/l	88
21) trans-1,2-Dichloroethene	5.222	96	90614	49.265	ug/l	90
22) Diisopropyl ether	6.119	45	204071	50.226	ug/l #	94
23) Vinyl Acetate	6.058	43	607035	239.760	ug/l #	93
24) 1,1-Dichloroethane	6.021	63	139701	49.571	ug/l	98
25) 2-Butanone	6.984	43	131032	237.510	ug/l #	89
26) 2,2-Dichloropropane	6.978	77	148983	48.698	ug/l	99
27) cis-1,2-Dichloroethene	6.990	96	98436	48.722	ug/l	95
28) Bromochloromethane	7.338	49	28598	46.464	ug/l #	75
29) Tetrahydrofuran	7.344	42	70189	231.617	ug/l #	83
30) Chloroform	7.509	83	164858	49.555	ug/l	96
31) Cyclohexane	7.789	56	122450	46.797	ug/l	88
32) 1,1,1-Trichloroethane	7.704	97	161495	49.034	ug/l	98
36) 1,1-Dichloropropene	7.917	75	120453	49.923	ug/l	97
37) Ethyl Acetate	7.076	43	48859	45.935	ug/l #	95
38) Carbon Tetrachloride	7.899	117	152603	48.972	ug/l	96
39) Methylcyclohexane	9.185	83	150160	50.927	ug/l	95
40) Benzene	8.161	78	348196	50.001	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012307.D
 Acq On : 23 Jan 2023 12:09
 Operator : KP/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDCCC050

Manual Integrations

APPROVED

Reviewed By :Krupa Patel 01/24/2023

Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 15:08:58 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M

Quant Title : SW846 8260

QLast Update : Tue Jan 17 04:31:47 2023

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.307	41	25854m	41.353	ug/l	
42) 1,2-Dichloroethane	8.234	62	108837	49.092	ug/l	100
43) Isopropyl Acetate	8.271	43	93314	47.155	ug/l #	93
44) Trichloroethene	8.941	130	102774	49.376	ug/l	99
45) 1,2-Dichloropropane	9.216	63	73571	50.630	ug/l	98
46) Dibromomethane	9.307	93	46970	48.284	ug/l	97
47) Bromodichloromethane	9.496	83	122193	49.901	ug/l	99
48) Methyl methacrylate	9.295	41	43293	47.481	ug/l	87
49) 1,4-Dioxane	9.295	88	12643	953.804	ug/l	89
51) 4-Methyl-2-Pentanone	10.069	43	248846	235.827	ug/l	95
52) Toluene	10.246	92	234512	50.577	ug/l	98
53) t-1,3-Dichloropropene	10.465	75	124919	48.771	ug/l	100
54) cis-1,3-Dichloropropene	9.929	75	136892	49.627	ug/l	98
55) 1,1,2-Trichloroethane	10.648	97	66121	47.841	ug/l	97
56) Ethyl methacrylate	10.508	69	89434	49.324	ug/l	94
57) 1,3-Dichloropropane	10.795	76	111623	49.453	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.783	63	140673	234.467	ug/l	90
59) 2-Hexanone	10.831	43	196678	244.812	ug/l	95
60) Dibromochloromethane	10.990	129	88104	48.062	ug/l	99
61) 1,2-Dibromoethane	11.087	107	64171	48.117	ug/l	97
64) Tetrachloroethene	10.721	164	111986	50.470	ug/l	98
65) Chlorobenzene	11.520	112	244267	49.096	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.593	131	93076	49.563	ug/l	97
67) Ethyl Benzene	11.593	91	450227	50.634	ug/l	99
68) m/p-Xylenes	11.703	106	354184	100.744	ug/l	99
69) o-Xylene	12.032	106	168467	50.169	ug/l	99
70) Styrene	12.044	104	284630	50.730	ug/l	99
71) Bromoform	12.209	173	56800	47.341	ug/l #	100
73) Isopropylbenzene	12.331	105	454081	51.015	ug/l	99
74) N-amyl acetate	12.148	43	81251	46.567	ug/l	93
75) 1,1,2,2-Tetrachloroethane	12.587	83	66707	47.580	ug/l	99
76) 1,2,3-Trichloropropane	12.636	75	52206m	45.995	ug/l	
77) Bromobenzene	12.611	156	103987	48.551	ug/l	92
78) n-propylbenzene	12.672	91	530629	50.946	ug/l	98
79) 2-Chlorotoluene	12.758	91	295033	50.099	ug/l	98
80) 1,3,5-Trimethylbenzene	12.819	105	394911	51.038	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.380	75	26584	48.258	ug/l	96
82) 4-Chlorotoluene	12.855	91	309484	50.031	ug/l	98
83) tert-Butylbenzene	13.081	119	339903	50.402	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	384515	50.390	ug/l	99
85) sec-Butylbenzene	13.258	105	491026	51.140	ug/l	98
86) p-Isopropyltoluene	13.373	119	427935	51.011	ug/l	100
87) 1,3-Dichlorobenzene	13.367	146	208955	49.053	ug/l	100
88) 1,4-Dichlorobenzene	13.453	146	207144	48.760	ug/l	99
89) n-Butylbenzene	13.703	91	371565	51.110	ug/l	98
90) Hexachloroethane	13.965	117	74537	49.217	ug/l	95
91) 1,2-Dichlorobenzene	13.745	146	184613	48.571	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.361	75	13546	46.753	ug/l	97
93) 1,2,4-Trichlorobenzene	15.013	180	117033	48.054	ug/l	98
94) Hexachlorobutadiene	15.117	225	71499	48.760	ug/l	99
95) Naphthalene	15.239	128	228440	47.522	ug/l	100
96) 1,2,3-Trichlorobenzene	15.428	180	100753	48.075	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012307.D
Acq On : 23 Jan 2023 12:09
Operator : KP/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 15:08:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration

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

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

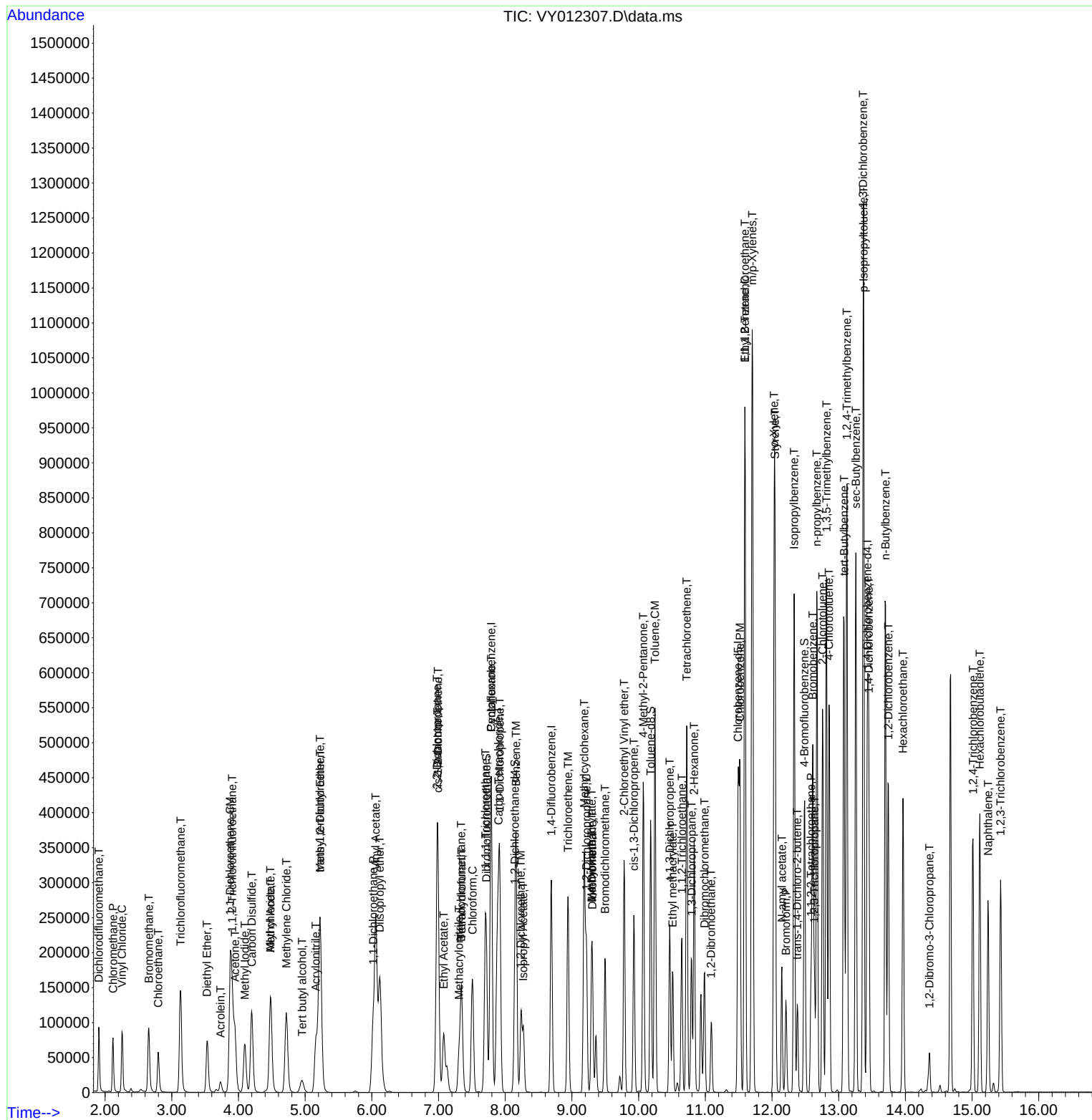
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012307.D
Acq On : 23 Jan 2023 12:09
Operator : KP/MD
Sample : VSTDC0050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 15:08:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012307.D
 Acq On : 23 Jan 2023 12:09
 Operator : KP/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 15:08:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	94	0.00
2 T	Dichlorodifluoromethane	0.437	0.387	11.4	98	0.00
3 P	Chloromethane	0.403	0.377	6.5	96	0.00
4 C	Vinyl Chloride	0.471	0.462	1.9#	100	0.00
5 T	Bromomethane	0.364	0.354	2.7	100	0.00
6 T	Chloroethane	0.307	0.305	0.7	100	0.00
7 T	Trichlorofluoromethane	0.919	0.884	3.8	99	0.00
8 T	Diethyl Ether	0.273	0.258	5.5	93	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.447	0.440	1.6	102	0.00
10 T	Methyl Iodide	0.680	0.616	9.4	85	0.00
11 T	Tert butyl alcohol	0.057	0.041	28.1#	83	0.00
12 CM	1,1-Dichloroethene	0.459	0.454	1.1#	97	0.00
13 T	Acrolein	0.023	0.020	13.0	117	0.00
14 T	Allyl chloride	0.568	0.573	-0.9	99	0.00
15 T	Acrylonitrile	0.119	0.113	5.0	91	0.00
16 T	Acetone	0.139	0.146	-5.0	89	0.00
17 T	Carbon Disulfide	1.420	1.365	3.9	95	0.00
18 T	Methyl Acetate	0.312	0.292	6.4	91	0.00
19 T	Methyl tert-butyl Ether	1.280	1.242	3.0	91	0.00
20 T	Methylene Chloride	0.762	0.518	32.0#	85	0.00
21 T	trans-1,2-Dichloroethene	0.512	0.505	1.4	96	0.00
22 T	Diisopropyl ether	1.132	1.137	-0.4	97	0.00
23 T	Vinyl Acetate	0.705	0.676	4.1	90	0.00
24 P	1,1-Dichloroethane	0.785	0.778	0.9	96	0.00
25 T	2-Butanone	0.154	0.146	5.2	87	0.00
26 T	2,2-Dichloropropane	0.852	0.830	2.6	96	0.00
27 T	cis-1,2-Dichloroethene	0.563	0.548	2.7	94	0.00
28 T	Bromochloromethane	0.171	0.159	7.0	94	0.00
29 T	Tetrahydrofuran	0.084	0.078	7.1	86	0.00
30 C	Chloroform	0.927	0.919	0.9#	96	0.00
31 T	Cyclohexane	0.729	0.682	6.4	101	0.00
32 T	1,1,1-Trichloroethane	0.918	0.900	2.0	95	0.00
33 S	1,2-Dichloroethane-d4	0.465	0.425	8.6	98	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	92	0.00
35 S	Dibromofluoromethane	0.265	0.258	2.6	99	0.00
36 T	1,1-Dichloropropene	0.450	0.449	0.2	97	0.00
37 T	Ethyl Acetate	0.198	0.182	8.1	86	0.00
38 T	Carbon Tetrachloride	0.581	0.569	2.1	95	0.00
39 T	Methylcyclohexane	0.550	0.560	-1.8	100	0.00
40 TM	Benzene	1.299	1.299	0.0	97	0.00
41 T	Methacrylonitrile	0.117	0.096	17.9	74	-0.02
42 TM	1,2-Dichloroethane	0.413	0.406	1.7	92	0.00
43 T	Isopropyl Acetate	0.369	0.348	5.7	87	0.00
44 TM	Trichloroethene	0.388	0.383	1.3	95	0.00
45 C	1,2-Dichloropropane	0.271	0.274	-1.1#	97	0.00
46 T	Dibromomethane	0.181	0.175	3.3	90	0.00
47 T	Bromodichloromethane	0.457	0.456	0.2	94	0.00
48 T	Methyl methacrylate	0.170	0.161	5.3	85	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012307.D
 Acq On : 23 Jan 2023 12:09
 Operator : KP/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 15:08:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.002	0.002	0.0	84	0.00
50 S	Toluene-d8	1.044	0.958	8.2	99	0.00
51 T	4-Methyl-2-Pentanone	0.197	0.186	5.6	86	0.00
52 CM	Toluene	0.865	0.875	-1.2#	96	0.00
53 T	t-1,3-Dichloropropene	0.478	0.466	2.5	90	0.00
54 T	cis-1,3-Dichloropropene	0.514	0.511	0.6	93	0.00
55 T	1,1,2-Trichloroethane	0.258	0.247	4.3	89	0.00
56 T	Ethyl methacrylate	0.338	0.334	1.2	89	0.00
57 T	1,3-Dichloropropane	0.421	0.416	1.2	92	0.00
58 T	2-Chloroethyl Vinyl ether	0.112	0.105	6.3	89	0.00
59 T	2-Hexanone	0.150	0.147	2.0	86	0.00
60 T	Dibromochloromethane	0.342	0.329	3.8	88	0.00
61 T	1,2-Dibromoethane	0.249	0.239	4.0	89	0.00
62 S	4-Bromofluorobenzene	0.373	0.357	4.3	99	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
64 T	Tetrachloroethene	0.456	0.461	-1.1	94	0.00
65 PM	Chlorobenzene	1.023	1.005	1.8	93	0.00
66 T	1,1,1,2-Tetrachloroethane	0.386	0.383	0.8	91	0.00
67 C	Ethyl Benzene	1.828	1.852	-1.3#	95	0.00
68 T	m/p-Xylenes	0.723	0.728	-0.7	94	0.00
69 T	o-Xylene	0.690	0.693	-0.4	94	0.00
70 T	Styrene	1.154	1.171	-1.5	94	0.00
71 P	Bromoform	0.247	0.234	5.3	86	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	0.00
73 T	Isopropylbenzene	3.605	3.679	-2.1	95	0.00
74 T	N-amyl acetate	0.707	0.658	6.9	84	0.00
75 P	1,1,2,2-Tetrachloroethane	0.568	0.540	4.9	87	0.00
76 T	1,2,3-Trichloropropane	0.460	0.423	8.0	76	0.00
77 T	Bromobenzene	0.868	0.842	3.0	90	0.00
78 T	n-propylbenzene	4.219	4.299	-1.9	97	0.00
79 T	2-Chlorotoluene	2.385	2.390	-0.2	94	0.00
80 T	1,3,5-Trimethylbenzene	3.134	3.199	-2.1	96	0.00
81 T	trans-1,4-Dichloro-2-butene	0.223	0.215	3.6	87	0.00
82 T	4-Chlorotoluene	2.506	2.507	-0.0	95	0.00
83 T	tert-Butylbenzene	2.732	2.754	-0.8	97	0.00
84 T	1,2,4-Trimethylbenzene	3.091	3.115	-0.8	94	0.00
85 T	sec-Butylbenzene	3.889	3.978	-2.3	97	0.00
86 T	p-Isopropyltoluene	3.398	3.467	-2.0	97	0.00
87 T	1,3-Dichlorobenzene	1.725	1.693	1.9	92	0.00
88 T	1,4-Dichlorobenzene	1.721	1.678	2.5	93	0.00
89 T	n-Butylbenzene	2.945	3.010	-2.2	98	0.00
90 T	Hexachloroethane	0.613	0.604	1.5	94	0.00
91 T	1,2-Dichlorobenzene	1.540	1.496	2.9	91	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.117	0.110	6.0	86	0.00
93 T	1,2,4-Trichlorobenzene	0.987	0.948	4.0	92	0.00
94 T	Hexachlorobutadiene	0.594	0.579	2.5	96	0.00
95 T	Naphthalene	1.947	1.851	4.9	87	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012307.D
Acq On : 23 Jan 2023 12:09
Operator : KP/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 15:08:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.849	0.816	3.9	93	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012307.D
 Acq On : 23 Jan 2023 12:09
 Operator : KP/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 15:08:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	94	0.00
2 T	Dichlorodifluoromethane	50.000	44.301	11.4	98	0.00
3 P	Chloromethane	50.000	46.776	6.4	96	0.00
4 C	Vinyl Chloride	50.000	49.046	1.9#	100	0.00
5 T	Bromomethane	50.000	48.672	2.7	100	0.00
6 T	Chloroethane	50.000	49.627	0.7	100	0.00
7 T	Trichlorofluoromethane	50.000	48.104	3.8	99	0.00
8 T	Diethyl Ether	50.000	47.213	5.6	93	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.238	1.5	102	0.00
10 T	Methyl Iodide	50.000	45.318	9.4	85	0.00
11 T	Tert butyl alcohol	250.000	205.849	17.7	83	0.00
12 CM	1,1-Dichloroethene	50.000	49.434	1.1#	97	0.00
13 T	Acrolein	250.000	279.360	-11.7	117	0.00
14 T	Allyl chloride	50.000	50.472	-0.9	99	0.00
15 T	Acrylonitrile	250.000	236.709	5.3	91	0.00
16 T	Acetone	250.000	262.569	-5.0	89	0.00
17 T	Carbon Disulfide	50.000	48.048	3.9	95	0.00
18 T	Methyl Acetate	50.000	46.921	6.2	91	0.00
19 T	Methyl tert-butyl Ether	50.000	48.498	3.0	91	0.00
20 T	Methylene Chloride	50.000	43.325	13.3	85	0.00
21 T	trans-1,2-Dichloroethene	50.000	49.265	1.5	96	0.00
22 T	Diisopropyl ether	50.000	50.226	-0.5	97	0.00
23 T	Vinyl Acetate	250.000	239.760	4.1	90	0.00
24 P	1,1-Dichloroethane	50.000	49.571	0.9	96	0.00
25 T	2-Butanone	250.000	237.510	5.0	87	0.00
26 T	2,2-Dichloropropane	50.000	48.698	2.6	96	0.00
27 T	cis-1,2-Dichloroethene	50.000	48.722	2.6	94	0.00
28 T	Bromochloromethane	50.000	46.464	7.1	94	0.00
29 T	Tetrahydrofuran	250.000	231.617	7.4	86	0.00
30 C	Chloroform	50.000	49.555	0.9#	96	0.00
31 T	Cyclohexane	50.000	46.797	6.4	101	0.00
32 T	1,1,1-Trichloroethane	50.000	49.034	1.9	95	0.00
33 S	1,2-Dichloroethane-d4	50.000	51.399	-2.8	98	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	92	0.00
35 S	Dibromofluoromethane	50.000	48.803	2.4	99	0.00
36 T	1,1-Dichloropropene	50.000	49.923	0.2	97	0.00
37 T	Ethyl Acetate	50.000	45.935	8.1	86	0.00
38 T	Carbon Tetrachloride	50.000	48.972	2.1	95	0.00
39 T	Methylcyclohexane	50.000	50.927	-1.9	100	0.00
40 TM	Benzene	50.000	50.001	-0.0	97	0.00
41 T	Methacrylonitrile	50.000	41.353	17.3	74	-0.02
42 TM	1,2-Dichloroethane	50.000	49.092	1.8	92	0.00
43 T	Isopropyl Acetate	50.000	47.155	5.7	87	0.00
44 TM	Trichloroethene	50.000	49.376	1.2	95	0.00
45 C	1,2-Dichloropropane	50.000	50.630	-1.3#	97	0.00
46 T	Dibromomethane	50.000	48.284	3.4	90	0.00
47 T	Bromodichloromethane	50.000	49.901	0.2	94	0.00
48 T	Methyl methacrylate	50.000	47.481	5.0	85	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012307.D
 Acq On : 23 Jan 2023 12:09
 Operator : KP/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Jan 23 15:08:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	953.804	4.6	84	0.00
50 S	Toluene-d8	50.000	52.407	-4.8	99	0.00
51 T	4-Methyl-2-Pentanone	250.000	235.827	5.7	86	0.00
52 CM	Toluene	50.000	50.577	-1.2#	96	0.00
53 T	t-1,3-Dichloropropene	50.000	48.771	2.5	90	0.00
54 T	cis-1,3-Dichloropropene	50.000	49.627	0.7	93	0.00
55 T	1,1,2-Trichloroethane	50.000	47.841	4.3	89	0.00
56 T	Ethyl methacrylate	50.000	49.324	1.4	89	0.00
57 T	1,3-Dichloropropane	50.000	49.453	1.1	92	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	234.467	6.2	89	0.00
59 T	2-Hexanone	250.000	244.812	2.1	86	0.00
60 T	Dibromochloromethane	50.000	48.062	3.9	88	0.00
61 T	1,2-Dibromoethane	50.000	48.117	3.8	89	0.00
62 S	4-Bromofluorobenzene	50.000	47.859	4.3	99	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	92	0.00
64 T	Tetrachloroethene	50.000	50.470	-0.9	94	0.00
65 PM	Chlorobenzene	50.000	49.096	1.8	93	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	49.563	0.9	91	0.00
67 C	Ethyl Benzene	50.000	50.634	-1.3#	95	0.00
68 T	m/p-Xylenes	100.000	100.744	-0.7	94	0.00
69 T	o-Xylene	50.000	50.169	-0.3	94	0.00
70 T	Styrene	50.000	50.730	-1.5	94	0.00
71 P	Bromoform	50.000	47.341	5.3	86	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	91	0.00
73 T	Isopropylbenzene	50.000	51.015	-2.0	95	0.00
74 T	N-amyl acetate	50.000	46.567	6.9	84	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	47.580	4.8	87	0.00
76 T	1,2,3-Trichloropropane	50.000	45.995	8.0	76	0.00
77 T	Bromobenzene	50.000	48.551	2.9	90	0.00
78 T	n-propylbenzene	50.000	50.946	-1.9	97	0.00
79 T	2-Chlorotoluene	50.000	50.099	-0.2	94	0.00
80 T	1,3,5-Trimethylbenzene	50.000	51.038	-2.1	96	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	48.258	3.5	87	0.00
82 T	4-Chlorotoluene	50.000	50.031	-0.1	95	0.00
83 T	tert-Butylbenzene	50.000	50.402	-0.8	97	0.00
84 T	1,2,4-Trimethylbenzene	50.000	50.390	-0.8	94	0.00
85 T	sec-Butylbenzene	50.000	51.140	-2.3	97	0.00
86 T	p-Isopropyltoluene	50.000	51.011	-2.0	97	0.00
87 T	1,3-Dichlorobenzene	50.000	49.053	1.9	92	0.00
88 T	1,4-Dichlorobenzene	50.000	48.760	2.5	93	0.00
89 T	n-Butylbenzene	50.000	51.110	-2.2	98	0.00
90 T	Hexachloroethane	50.000	49.217	1.6	94	0.00
91 T	1,2-Dichlorobenzene	50.000	48.571	2.9	91	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	46.753	6.5	86	0.00
93 T	1,2,4-Trichlorobenzene	50.000	48.054	3.9	92	0.00
94 T	Hexachlorobutadiene	50.000	48.760	2.5	96	0.00
95 T	Naphthalene	50.000	47.522	5.0	87	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012307.D
Acq On : 23 Jan 2023 12:09
Operator : KP/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Jan 23 15:08:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	48.075	3.8	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

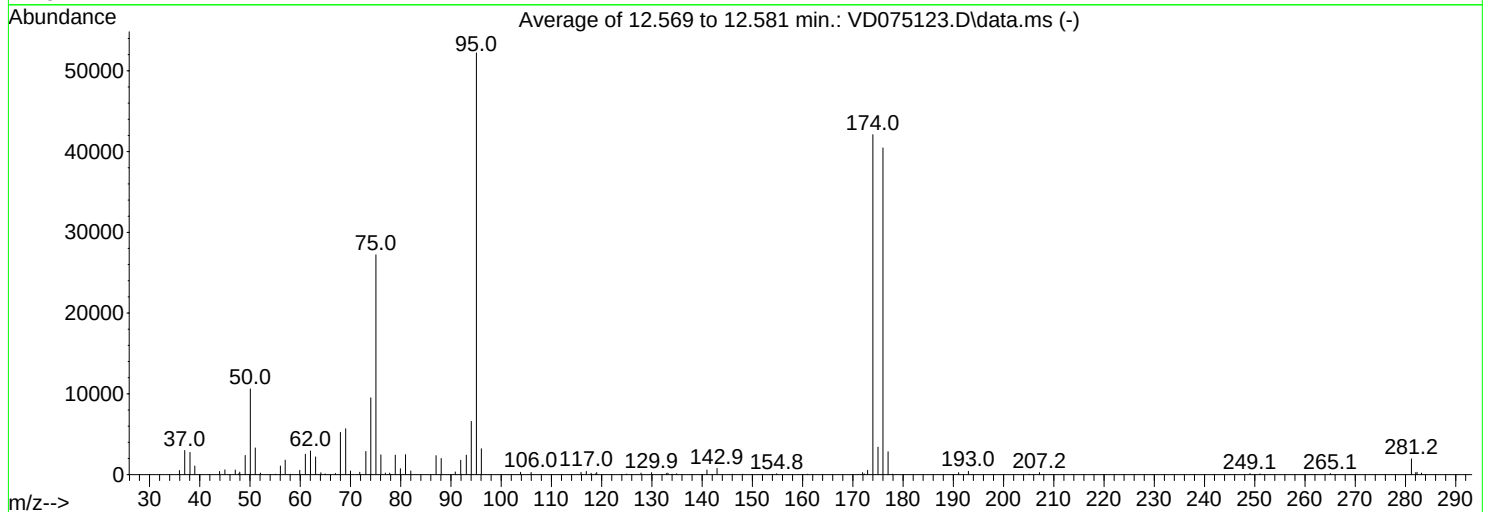
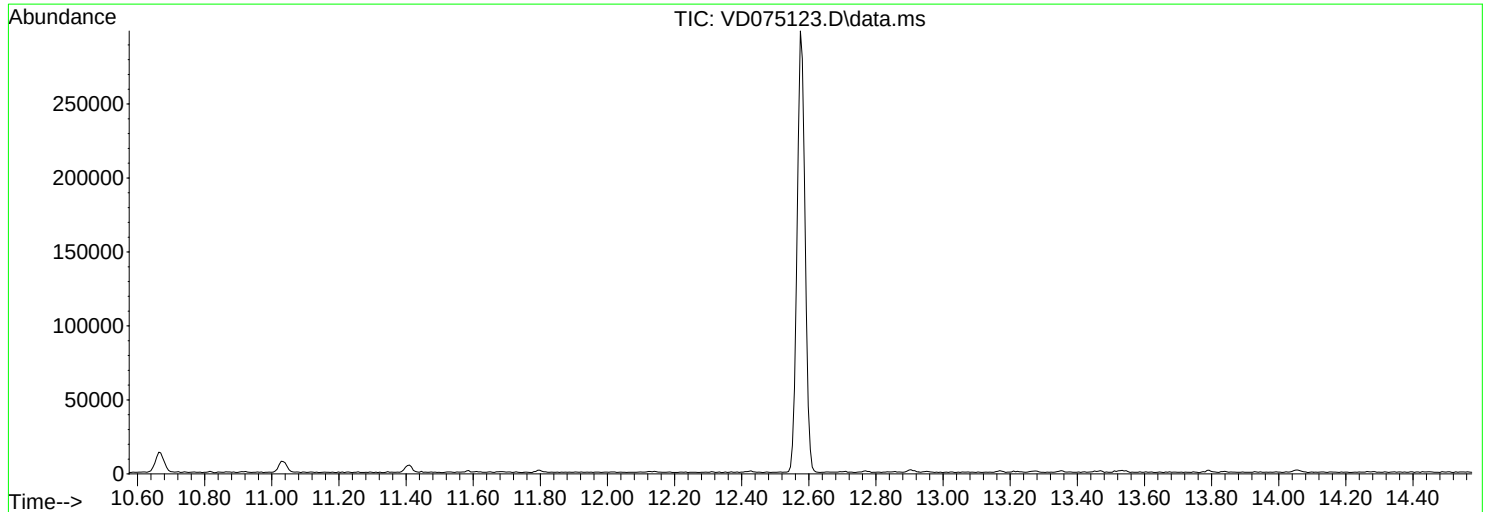
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD011823\
Data File : VD075123.D
Acq On : 18 Jan 2023 09:22
Operator : KP/SY
Sample : BFB
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Title : SW846 8260
Last Update : Thu Jan 19 01:32:27 2023



AutoFind: Scans 1867, 1868, 1869; Background Corrected with Scan 1859

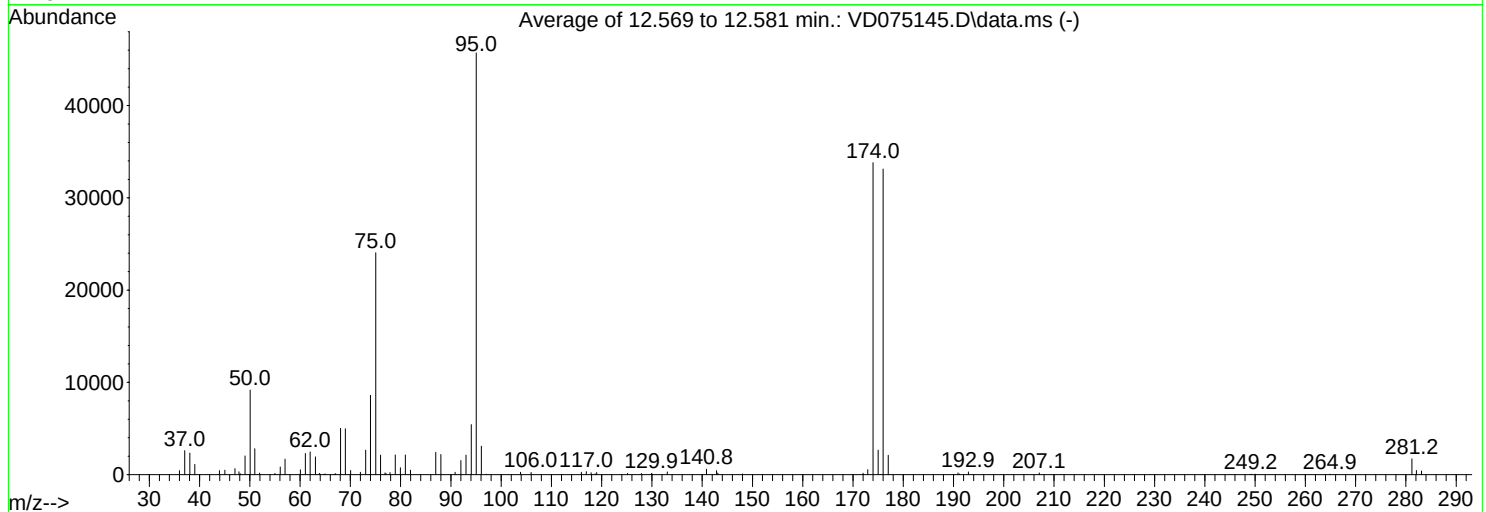
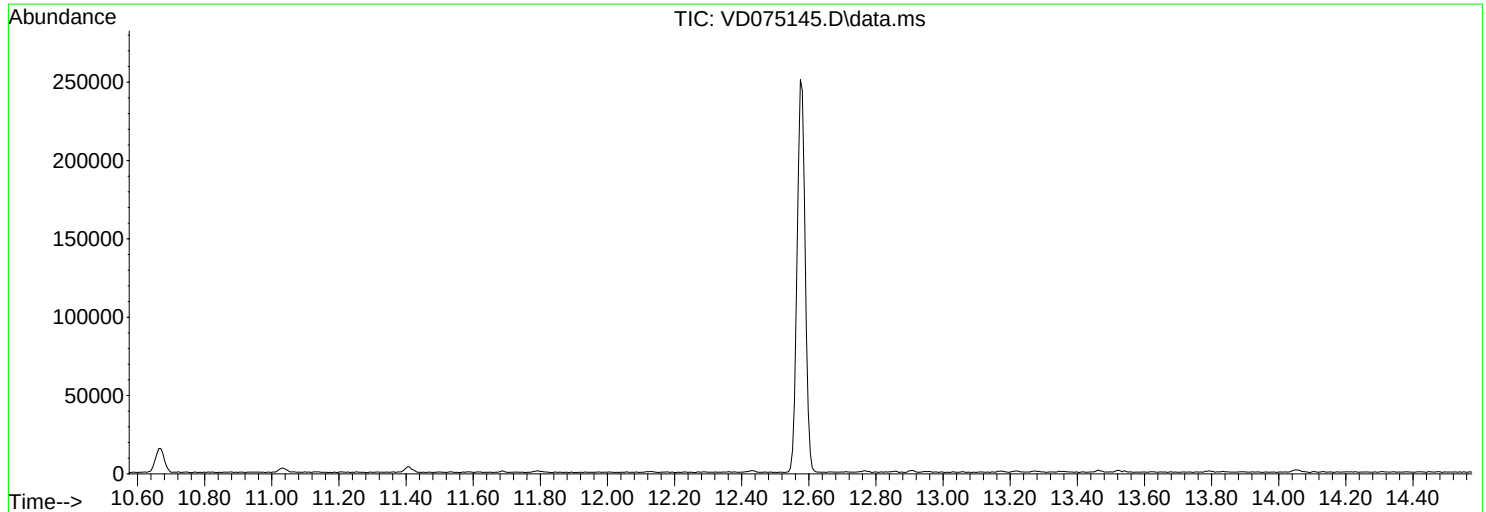
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	20.3	10625	PASS
75	95	30	60	52.1	27224	PASS
95	95	100	100	100.0	52219	PASS
96	95	5	9	6.1	3202	PASS
173	174	0.00	2	1.3	535	PASS
174	95	50	100	80.6	42088	PASS
175	174	5	9	8.1	3415	PASS
176	174	95	101	96.1	40448	PASS
177	176	5	9	7.0	2838	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075145.D
Acq On : 20 Jan 2023 10:40
Operator : KP/SY
Sample : BFB
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Title : SW846 8260
Last Update : Thu Jan 19 01:32:27 2023



AutoFind: Scans 1867, 1868, 1869; Background Corrected with Scan 1859

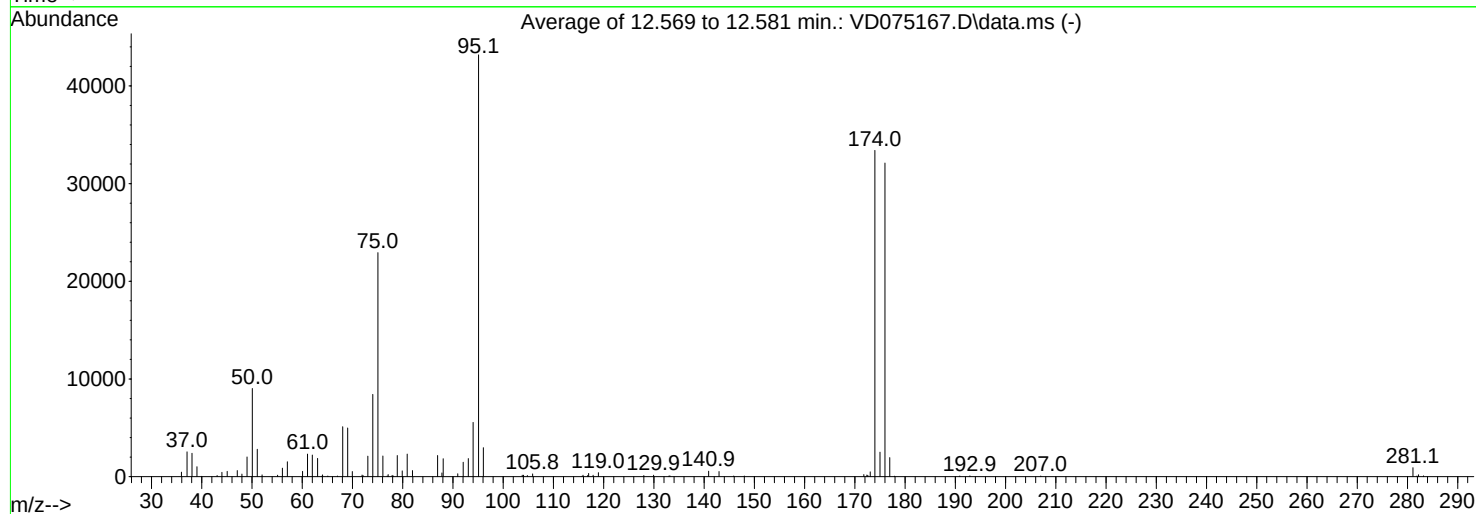
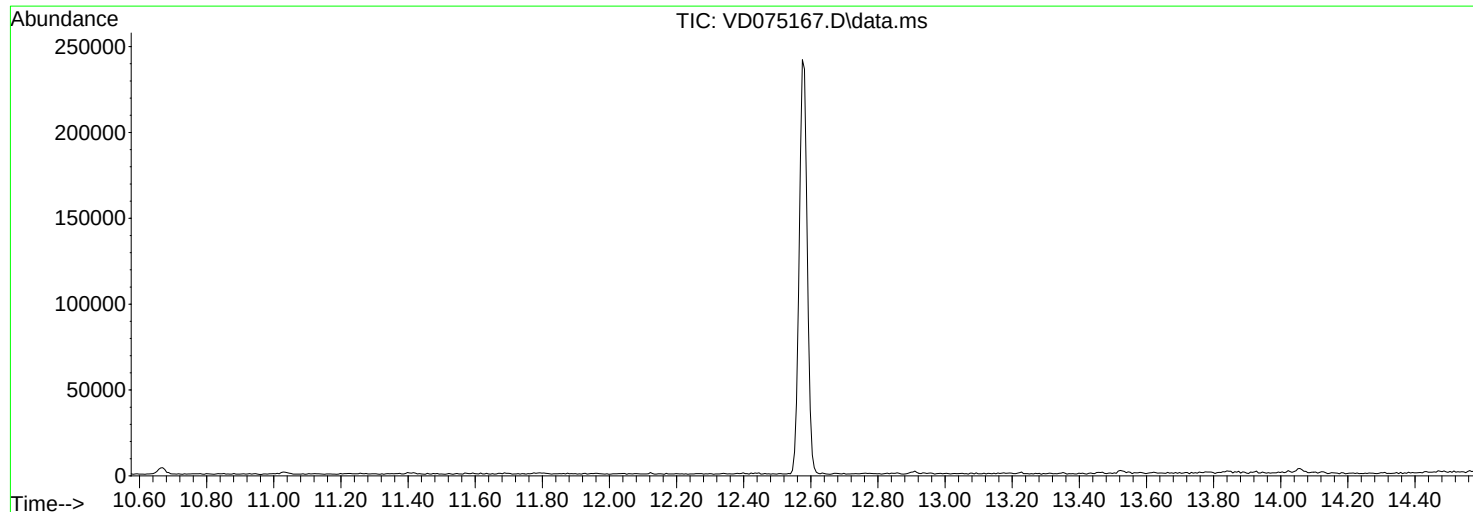
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	9167	PASS
75	95	30	60	52.6	24059	PASS
95	95	100	100	100.0	45717	PASS
96	95	5	9	6.8	3096	PASS
173	174	0.00	2	1.6	534	PASS
174	95	50	100	74.0	33813	PASS
175	174	5	9	7.9	2657	PASS
176	174	95	101	98.0	33128	PASS
177	176	5	9	6.4	2106	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075167.D
Acq On : 23 Jan 2023 09:38
Operator : KP/SY
Sample : BFB
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Title : SW846 8260
Last Update : Thu Jan 19 01:32:27 2023



AutoFind: Scans 1867, 1868, 1869; Background Corrected with Scan 1859

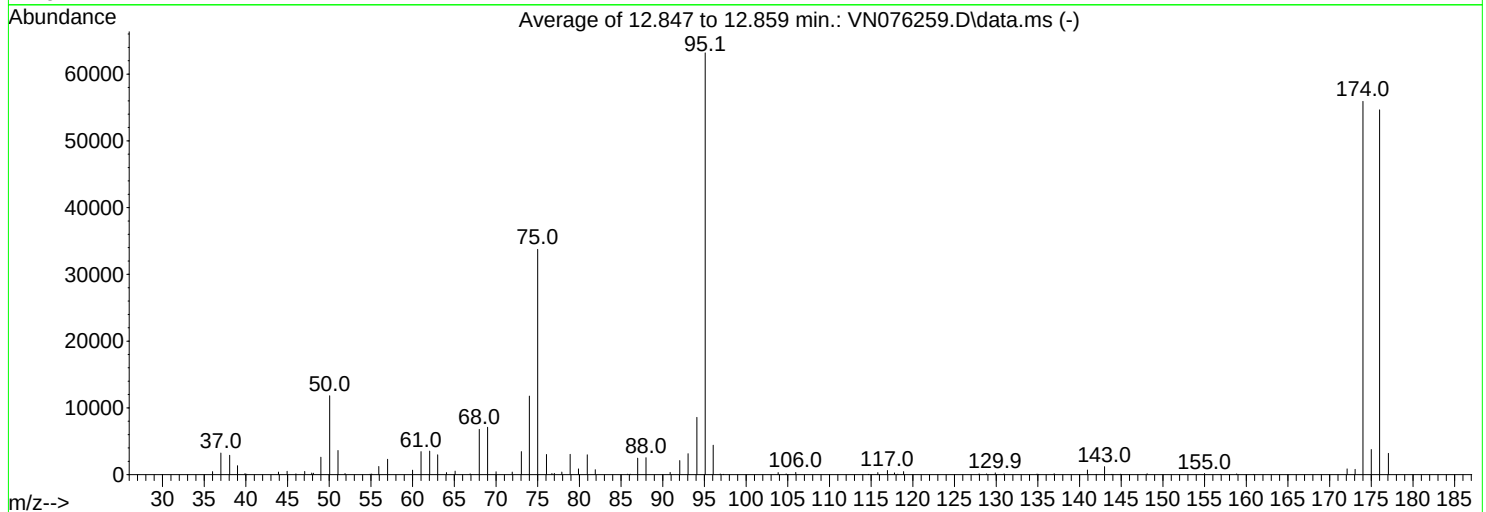
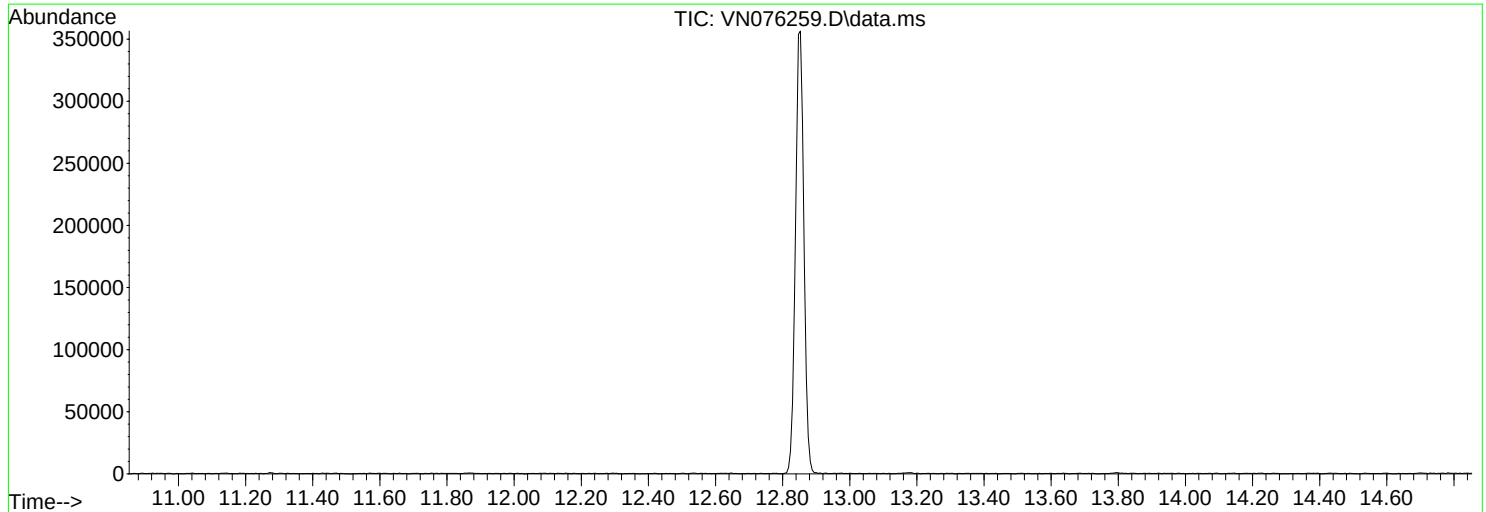
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	20.9	9034	PASS
75	95	30	60	53.1	22933	PASS
95	95	100	100	100.0	43181	PASS
96	95	5	9	6.9	2966	PASS
173	174	0.00	2	1.5	499	PASS
174	95	50	100	77.3	33392	PASS
175	174	5	9	7.5	2509	PASS
176	174	95	101	96.1	32101	PASS
177	176	5	9	6.1	1950	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN011623\
Data File : VN076259.D
Acq On : 16 Jan 2023 09:57
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Title : SW846 8260
Last Update : Tue Jan 17 03:59:22 2023



AutoFind: Scans 1835, 1836, 1837; Background Corrected with Scan 1827

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	11810	PASS
75	95	30	60	53.4	33757	PASS
95	95	100	100	100.0	63187	PASS
96	95	5	9	7.0	4408	PASS
173	174	0.00	2	1.4	785	PASS
174	95	50	100	88.5	55925	PASS
175	174	5	9	6.7	3766	PASS
176	174	95	101	97.7	54648	PASS
177	176	5	9	5.9	3201	PASS

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	468	48.10	217	62.05	3534	75.00	3375
37.00	3230	49.00	2627	63.00	2980	76.05	3011
38.05	2896	50.05	11810	64.05	320	76.70	161
39.00	1344	51.05	3614	65.10	536	77.00	191
39.90	171	51.90	178	66.90	130	77.90	393
40.10	66	54.90	76	68.00	6793	78.90	3042
43.90	396	55.10	96	69.00	7089	79.90	867
44.95	515	55.95	1235	70.00	445	80.95	2983
46.00	128	57.00	2292	71.95	397	81.90	736
47.05	492	60.00	661	73.05	3451	85.80	64
47.90	254	61.00	3466	74.00	11767	86.10	66

Average of 12.847 to 12.859 min.: VN076259.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	2469	104.80	120	130.95	121	155.00	179
88.00	2544	105.95	345	134.90	98	156.90	63
90.90	328	114.70	55	135.10	61	158.85	122
92.05	2123	115.80	324	136.95	139	160.90	58
93.05	3133	116.95	620	140.95	691	172.10	860
94.10	8590	117.80	278	142.00	52	173.05	785
95.10	63187	118.20	84	143.00	1193	174.00	55925
96.05	4408	118.90	461	143.80	51	175.00	3766
96.90	102	127.95	127	144.00	51	176.00	54648
97.30	51	128.85	118	144.90	87	177.05	3201
103.85	326	129.90	260	148.10	136		

Instrument :

MSVOA_N

ClientSampleId :

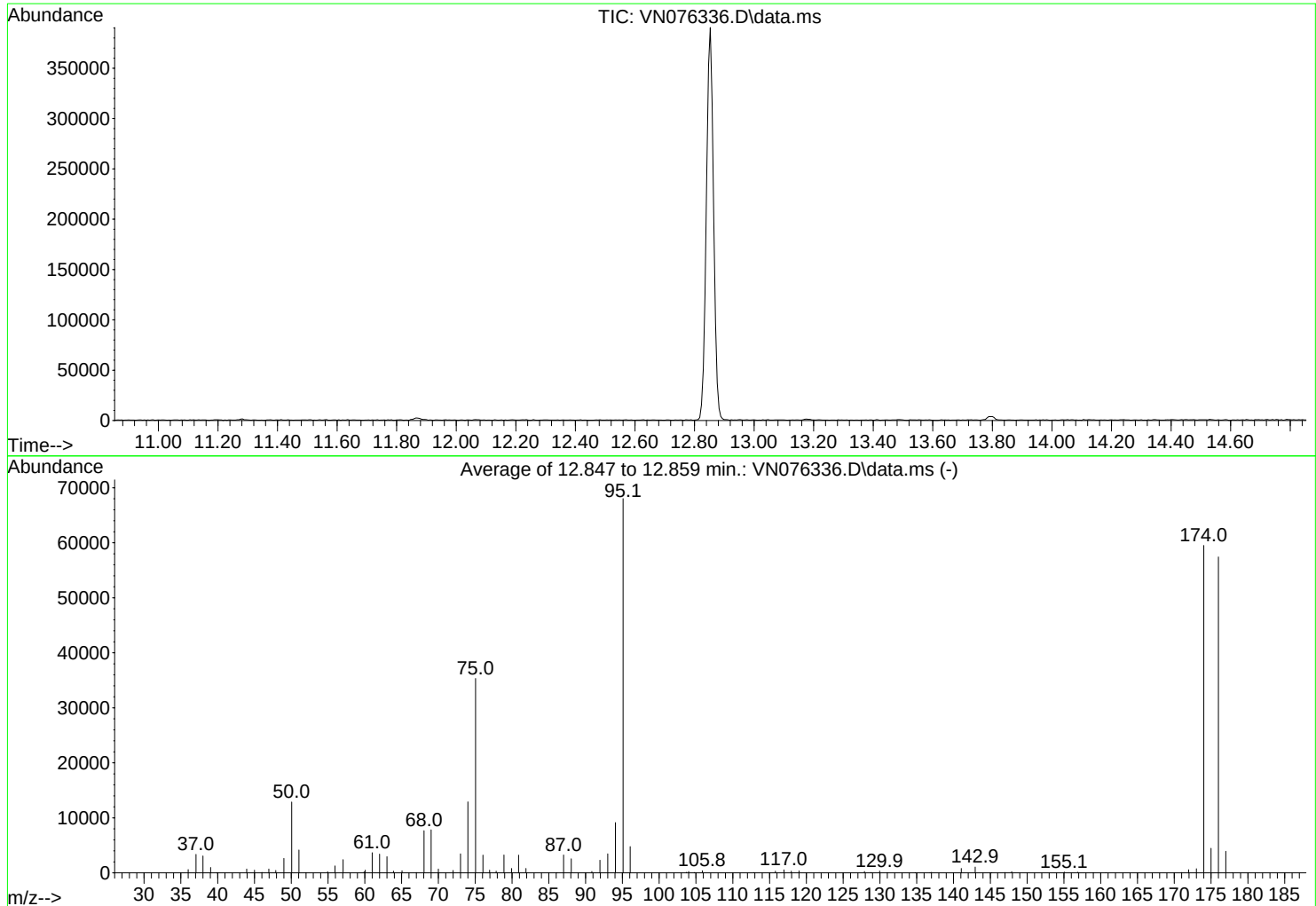
BFB

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076336.D
Acq On : 20 Jan 2023 09:54
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Title : SW846 8260
Last Update : Tue Jan 17 03:59:22 2023



AutoFind: Scans 1835, 1836, 1837; Background Corrected with Scan 1826

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	12889	PASS
75	95	30	60	51.9	35331	PASS
95	95	100	100	100.0	68035	PASS
96	95	5	9	7.0	4788	PASS
173	174	0.00	2	1.3	746	PASS
174	95	50	100	87.5	59504	PASS
175	174	5	9	7.5	4460	PASS
176	174	95	101	96.5	57435	PASS
177	176	5	9	6.8	3920	PASS

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	596	50.05	12889	63.90	320	76.95	491
37.05	3352	51.05	4171	65.05	395	77.85	309
38.00	3084	52.00	52	67.00	74	78.90	325
39.05	972	54.95	214	68.05	7672	79.95	79
39.90	7	55.95	1261	69.00	7808	80.90	3220
43.95	692	57.05	2401	70.00	711	81.90	799
45.00	505	59.90	213	72.00	437	86.10	52
46.00	104	60.05	501	73.00	3464	87.00	3262
46.95	702	61.00	3672	74.00	12908	88.05	2552
47.90	437	62.00	3396	75.05	35331	90.85	261
49.00	2634	63.00	2936	76.05	3239	91.95	2301

Average of 12.847 to 12.859 min.: VN076336.D\data.ms

BFB

Modified:subtracted

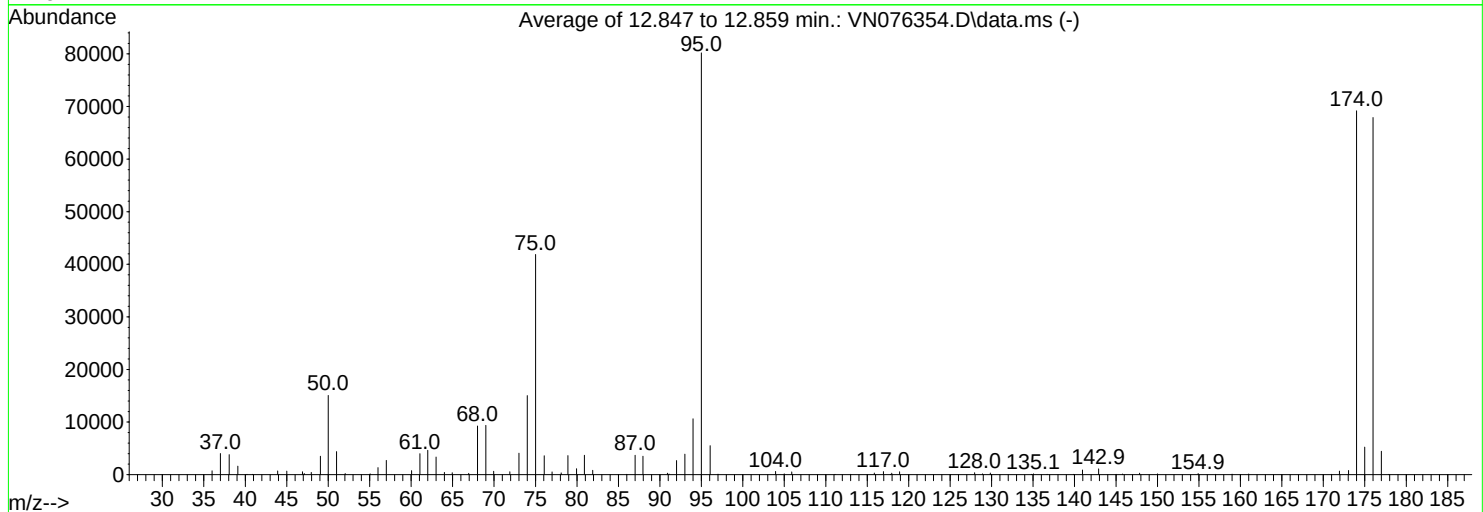
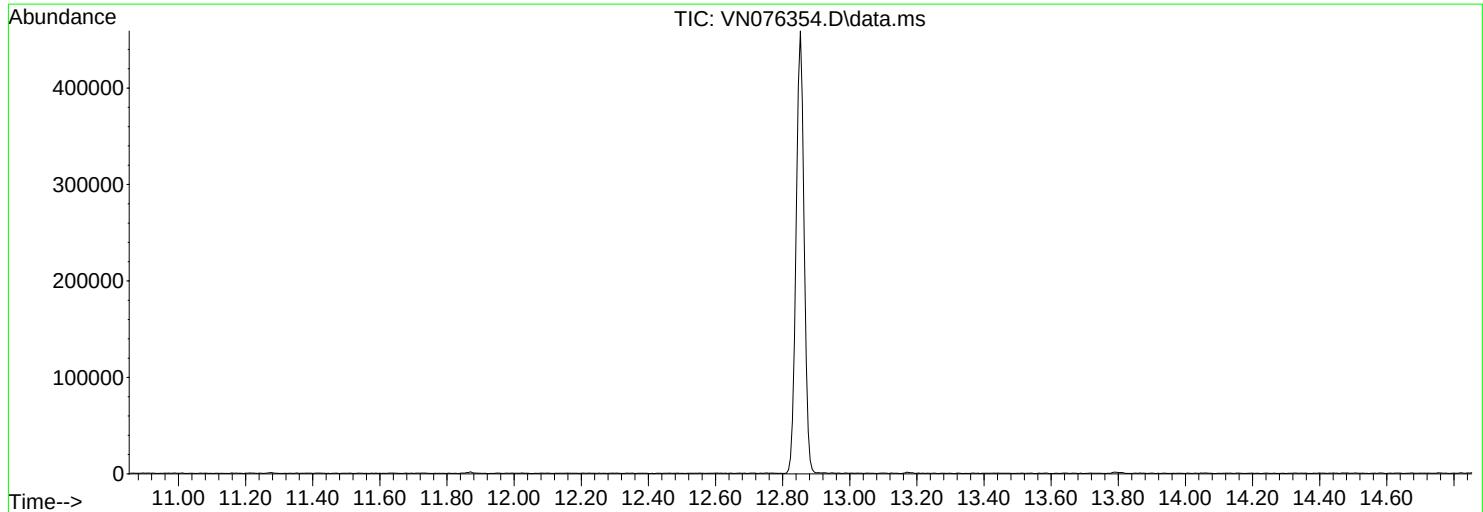
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	3457	117.95	321	145.00	62	174.00	59504
94.05	9147	119.00	372	145.20	56	175.00	4460
95.10	68035	127.90	262	147.00	69	176.00	57435
96.05	4788	128.80	73	147.90	239	177.00	3920
103.70	105	129.95	337	155.05	148	177.90	52
104.00	255	131.00	77	156.90	123		
104.80	76	134.80	63	159.00	69		
105.85	400	136.80	65	160.70	56		
112.90	86	137.00	95	171.00	71		
115.80	310	141.05	789	171.95	557		
116.95	533	142.95	1051	173.00	746		

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076354.D
Acq On : 23 Jan 2023 09:44
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Title : SW846 8260
Last Update : Tue Jan 17 03:59:22 2023



AutoFind: Scans 1835, 1836, 1837; Background Corrected with Scan 1826

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	15072	PASS
75	95	30	60	52.2	41859	PASS
95	95	100	100	100.0	80203	PASS
96	95	5	9	6.9	5523	PASS
173	174	0.00	2	1.1	792	PASS
174	95	50	100	86.3	69195	PASS
175	174	5	9	7.6	5238	PASS
176	174	95	101	98.1	67901	PASS
177	176	5	9	6.5	4444	PASS

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	730	49.05	3510	64.00	426	77.00	53
37.00	4015	50.00	15072	64.95	364	78.10	34
38.05	3793	51.00	4385	66.95	237	78.90	361
39.10	1612	52.05	208	68.00	9242	79.95	112
40.20	77	55.05	169	69.00	9383	80.90	3685
40.90	54	56.00	1342	69.95	633	81.90	821
43.90	699	57.00	2722	71.90	537	86.00	75
45.00	686	60.05	763	73.00	4081	87.00	3694
46.90	542	61.05	3976	74.00	15021	87.95	3502
47.10	220	62.00	4637	75.00	41859	90.90	272
47.95	426	63.00	3358	76.05	3579	91.10	128

Average of 12.847 to 12.859 min.: VN076354.D\data.ms

BFB

Modified:subtracted

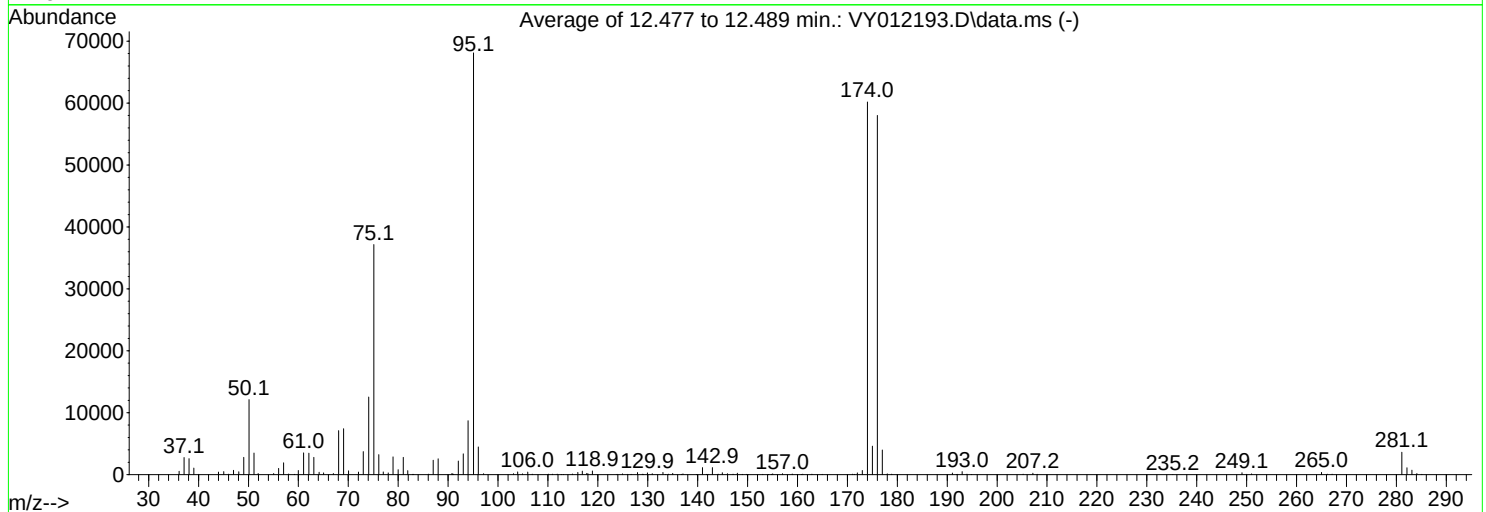
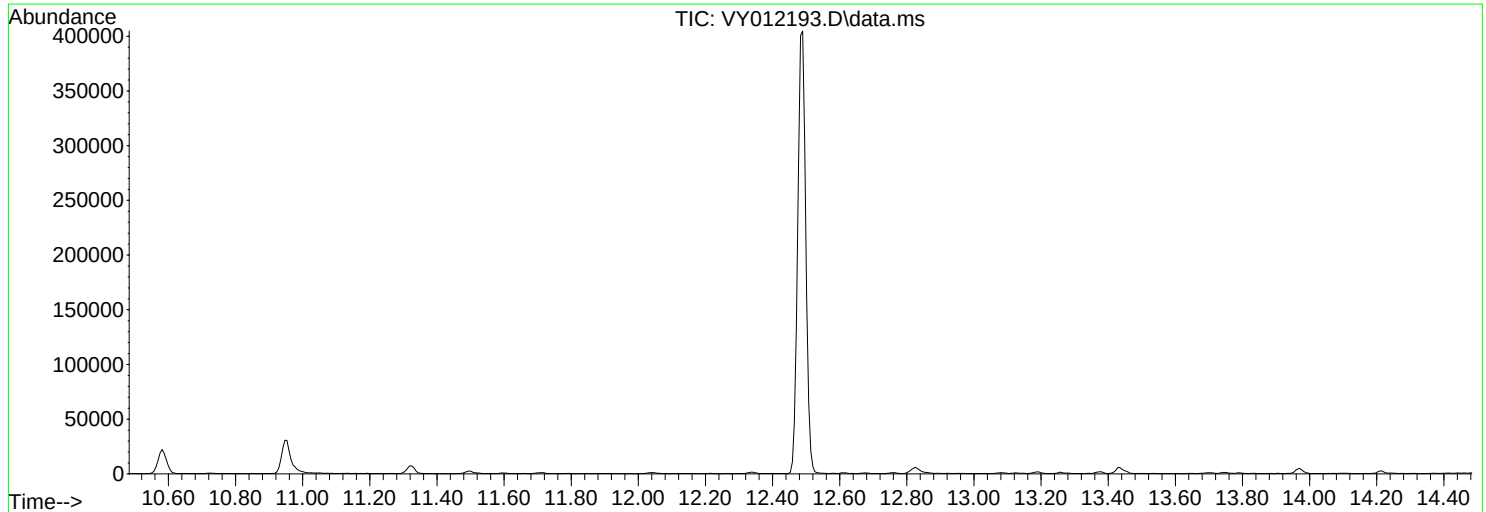
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	2683	115.85	323	139.90	61	171.00	51
93.00	3907	116.95	583	140.95	888	171.95	670
94.00	10632	117.80	79	142.90	1101	173.05	792
95.00	80203	117.95	274	145.00	75	174.00	69195
96.05	5523	118.90	554	145.80	114	175.00	5238
97.00	98	127.95	374	147.85	272	176.00	67901
103.95	604	128.90	148	150.00	153	177.00	4444
105.00	156	129.85	308	154.90	209	177.90	55
105.90	524	134.80	69	157.00	53		
111.10	57	135.05	162	159.00	90		
113.00	52	136.70	56	161.00	121		

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY011623\
Data File : VY012193.D
Acq On : 16 Jan 2023 09:00
Operator : KP/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Title : SW846 8260
Last Update : Tue Jan 17 04:31:47 2023



AutoFind: Scans 1748, 1749, 1750; Background Corrected with Scan 1741

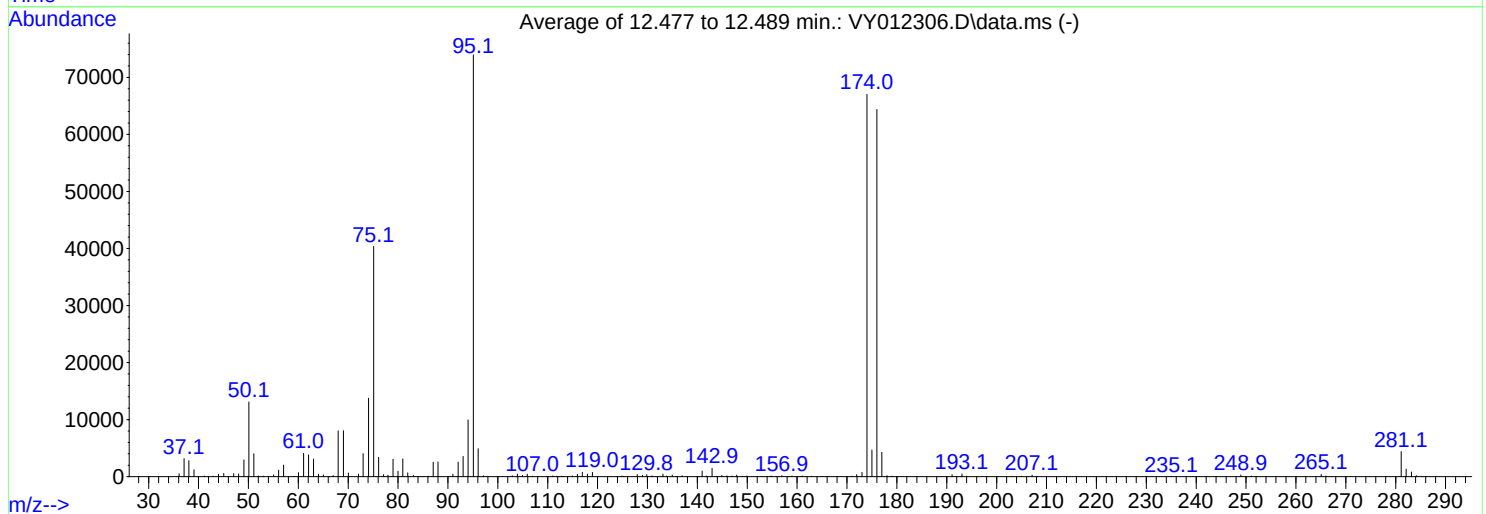
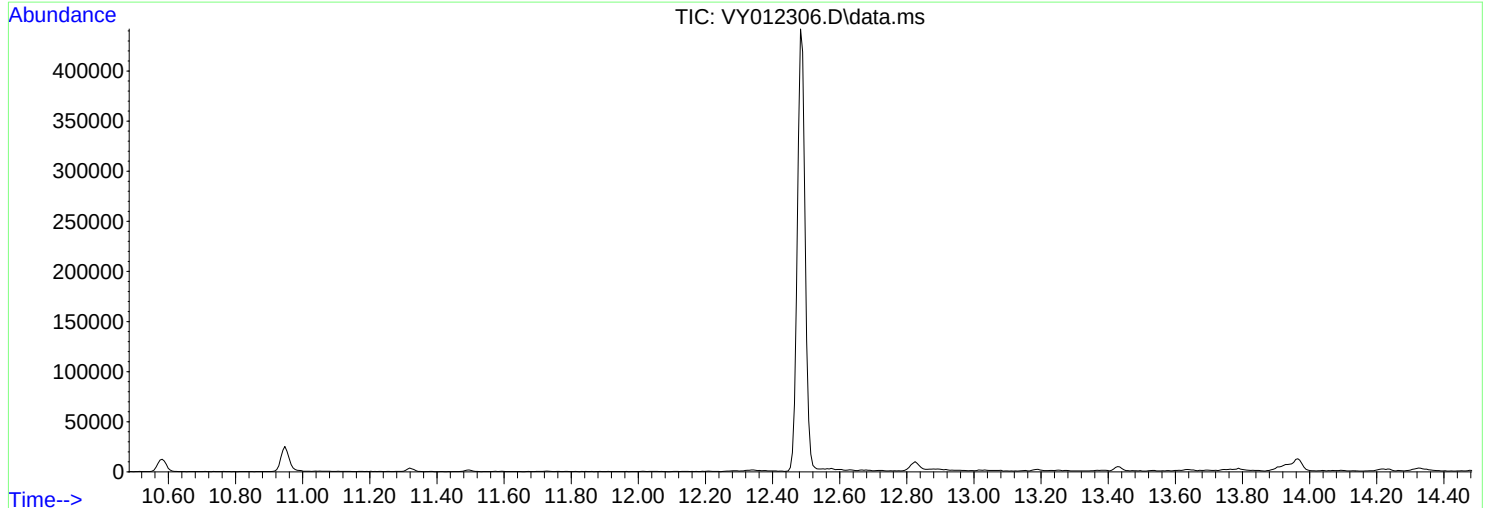
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	17.8	12122	PASS
75	95	30	60	54.6	37163	PASS
95	95	100	100	100.0	68115	PASS
96	95	5	9	6.6	4471	PASS
173	174	0.00	2	1.1	684	PASS
174	95	50	100	88.4	60187	PASS
175	174	5	9	7.6	4593	PASS
176	174	95	101	96.4	58008	PASS
177	176	5	9	6.9	3994	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012306.D
Acq On : 23 Jan 2023 10:03
Operator : KP/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Title : SW846 8260
Last Update : Tue Jan 17 04:31:47 2023



AutoFind: Scans 1748, 1749, 1750; Background Corrected with Scan 1740

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	15	40	17.7	13090	PASS
75	95	30	60	54.6	40355	PASS
95	95	100	100	100.0	73947	PASS
96	95	5	9	6.6	4899	PASS
173	174	0.00	2	1.1	765	PASS
174	95	50	100	90.6	67019	PASS
175	174	5	9	7.0	4689	PASS
176	174	95	101	96.1	64389	PASS
177	176	5	9	6.6	4278	PASS



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBL04	SDG No.:	O1233
Lab Sample ID:	VD0120SBL04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075147.D	1		01/20/23 12:23	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.86	U	0.86	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.91	U	0.91	5.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.97	U	0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.72	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
67-64-1	Acetone	12.2	U	12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	0.75	U	0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.93	U	0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	6.00	U	6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.70	U	0.70	5.00	ug/Kg
110-82-7	Cyclohexane	0.84	U	0.84	5.00	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.79	U	0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	0.81	U	0.81	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.75	U	0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.80	U	0.80	5.00	ug/Kg
71-43-2	Benzene	0.66	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.84	U	0.84	5.00	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	25.0	ug/Kg
108-88-3	Toluene	0.63	U	0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.74	U	0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.71	U	0.71	5.00	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBL04	SDG No.:	O1233
Lab Sample ID:	VD0120SBL04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075147.D	1		01/20/23 12:23	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.75	U	0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	0.65	U	0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.50	U	1.50	10.0	ug/Kg
95-47-6	o-Xylene	0.79	U	0.79	5.00	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.72	U	0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.20	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.94	U	0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.00	U	1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.2		50 - 163	114%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		54 - 147	101%	SPK: 50
2037-26-5	Toluene-d8	52.1		58 - 134	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.6		30 - 143	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	86500	7.875			
540-36-3	1,4-Difluorobenzene	181000	8.781			
3114-55-4	Chlorobenzene-d5	169000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	72500	13.522			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBL04	SDG No.:	O1233
Lab Sample ID:	VD0120SBL04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075147.D	1		01/20/23 12:23	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075147.D
 Acq On : 20 Jan 2023 12:23
 Operator : KP/SY
 Sample : VD0120SBL04
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0120SBL04

Quant Time: Jan 23 00:29:49 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	86545	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	180550	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	168873	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	72499	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	50502	57.186	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	114.380%
35) Dibromofluoromethane	7.805	113	55275	50.664	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	101.320%
50) Toluene-d8	10.269	98	223620	52.057	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	104.120%
62) 4-Bromofluorobenzene	12.575	95	73089	53.611	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	107.220%

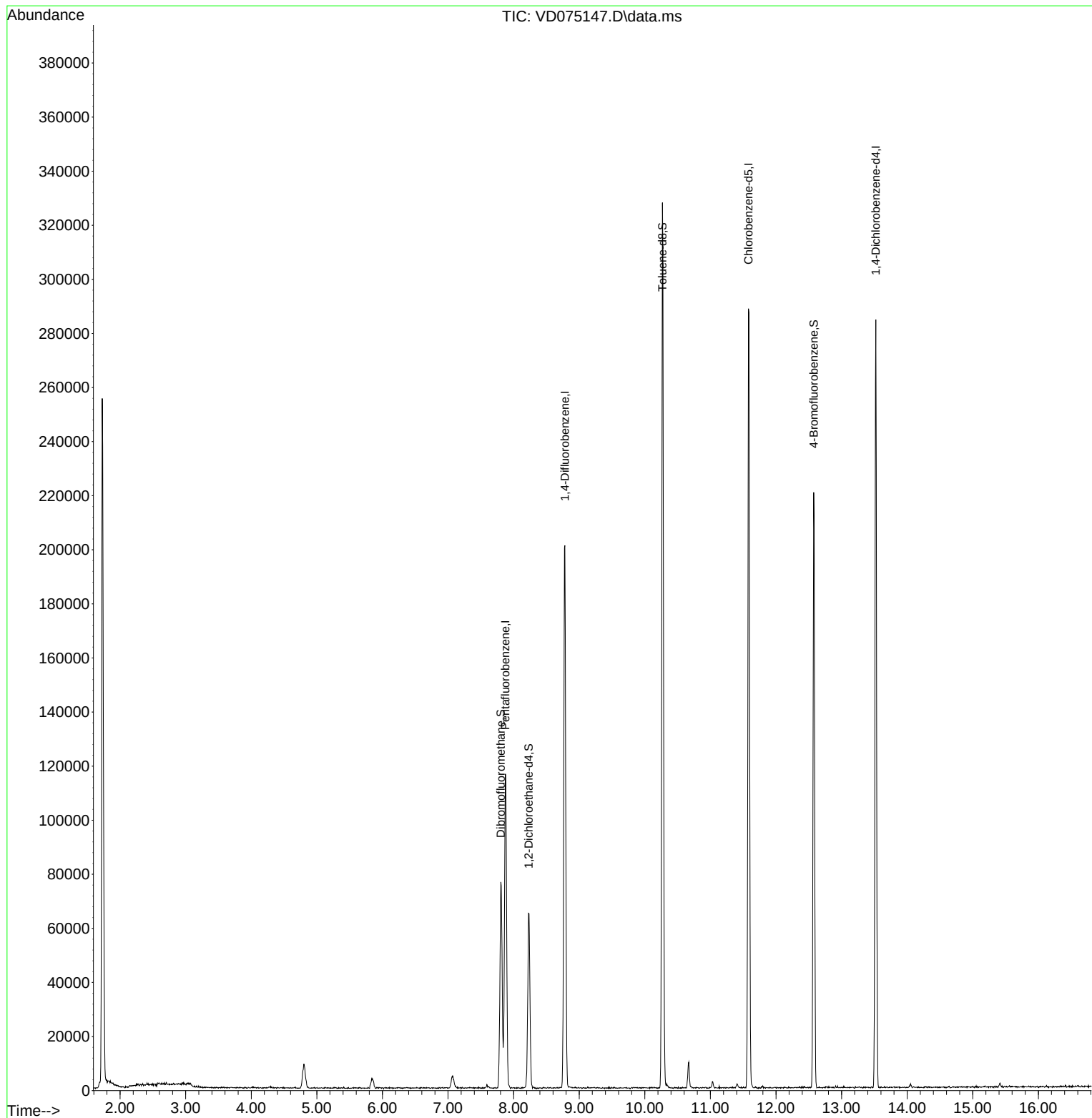
Target Compounds	Qvalue

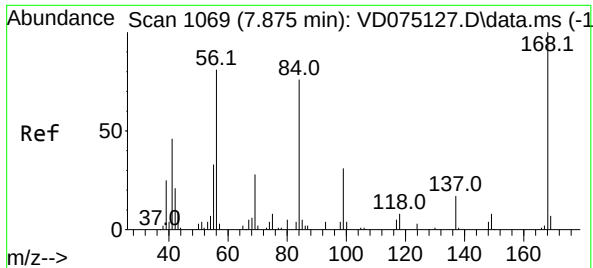
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075147.D
Acq On : 20 Jan 2023 12:23
Operator : KP/SY
Sample : VD0120SBL04
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0120SBL04

Quant Time: Jan 23 00:29:49 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

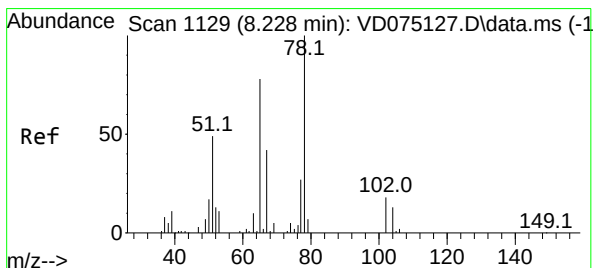
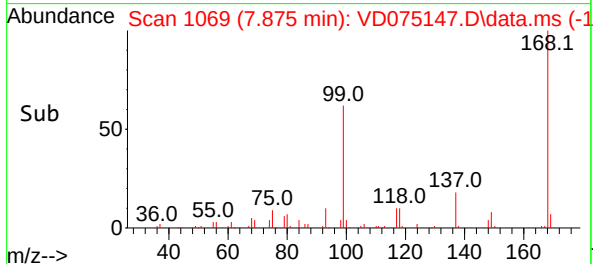
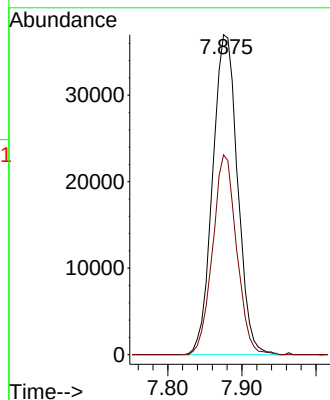
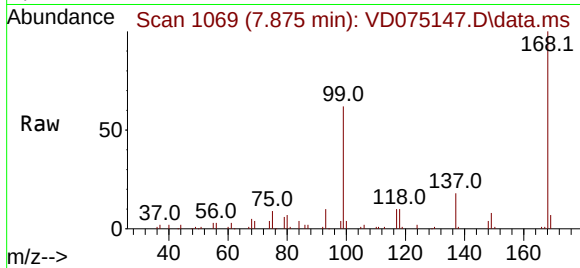




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1069
Delta R.T. 0.000 min
Lab File: VD075147.D
Acq: 20 Jan 2023 12:23

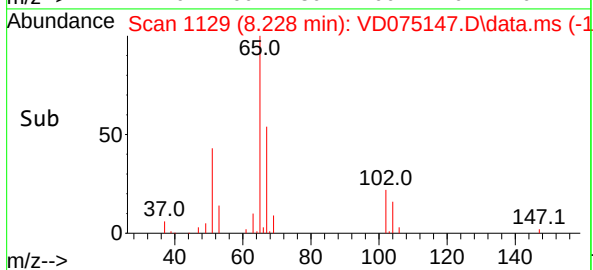
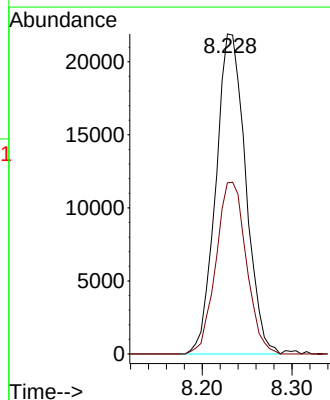
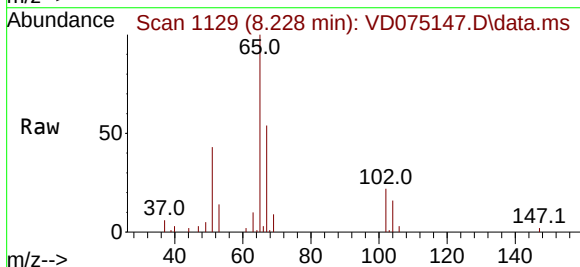
Instrument :
MSVOA_D
ClientSampleId :
VD0120SBL04

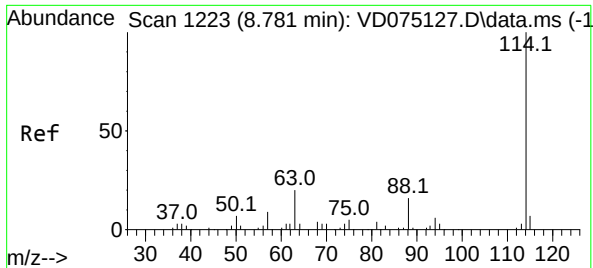
Tgt Ion:168 Resp: 86545
Ion Ratio Lower Upper
168 100
99 62.4 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 57.186 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD075147.D
Acq: 20 Jan 2023 12:23

Tgt Ion: 65 Resp: 50502
Ion Ratio Lower Upper
65 100
67 54.6 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075147.D

Acq: 20 Jan 2023 12:23

Instrument :

MSVOA_D

ClientSampleId :

VD0120SBL04

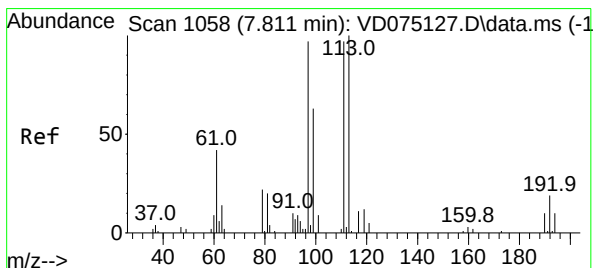
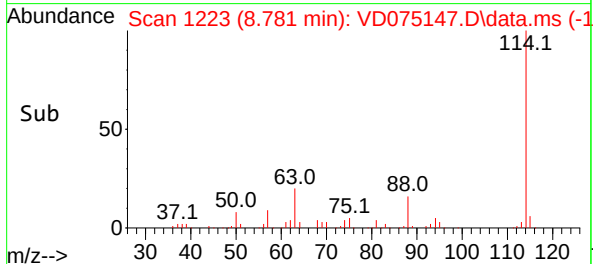
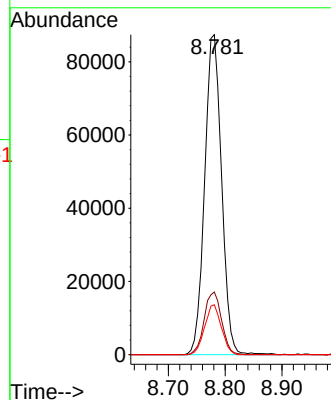
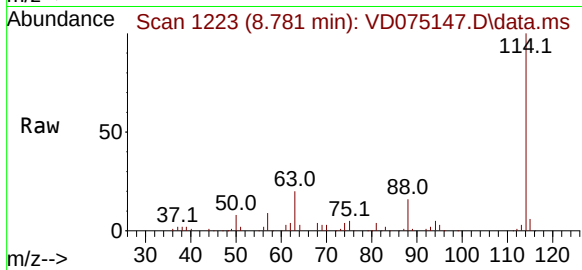
Tgt Ion:114 Resp: 180550

Ion Ratio Lower Upper

114 100

63 19.6 0.0 40.2

88 15.6 0.0 32.2



#35

Dibromofluoromethane

Concen: 50.664 ug/l

RT: 7.805 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075147.D

Acq: 20 Jan 2023 12:23

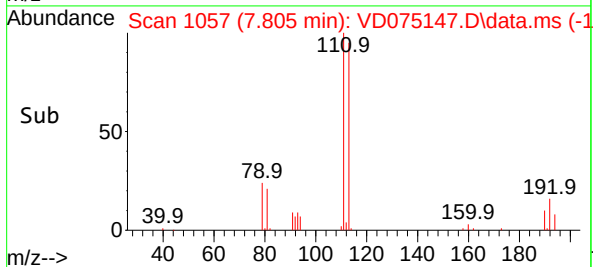
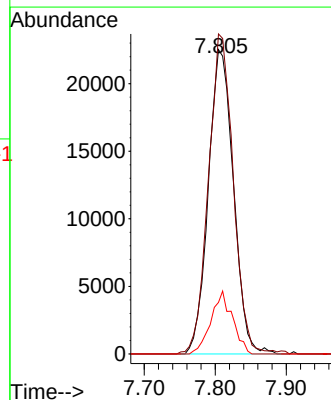
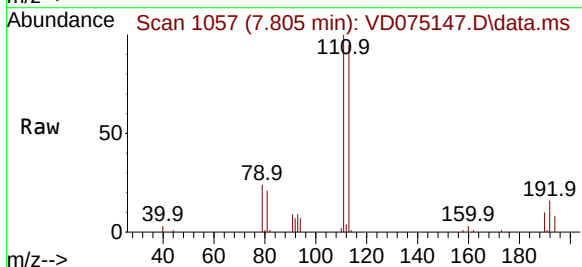
Tgt Ion:113 Resp: 55275

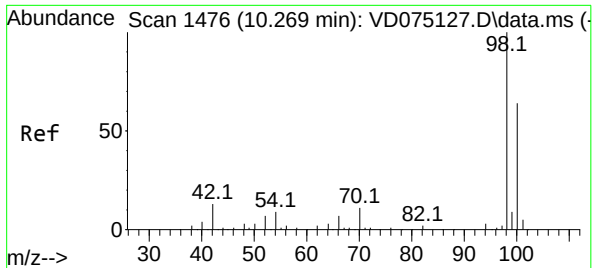
Ion Ratio Lower Upper

113 100

111 104.0 80.1 120.1

192 17.7 15.4 23.0

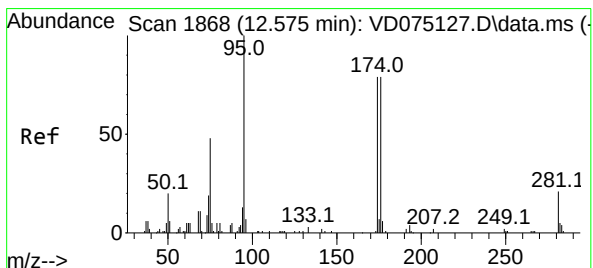
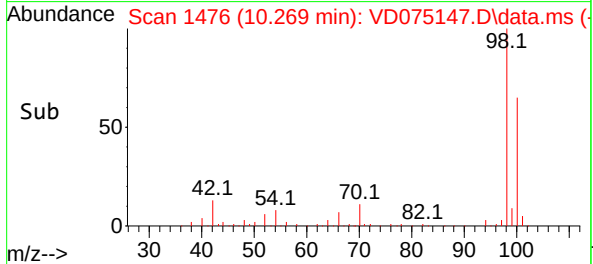
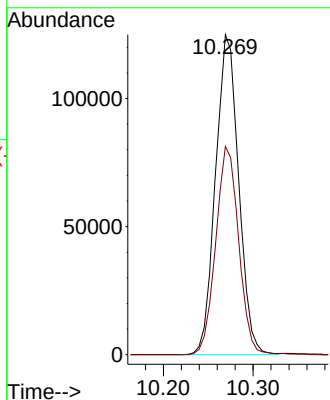
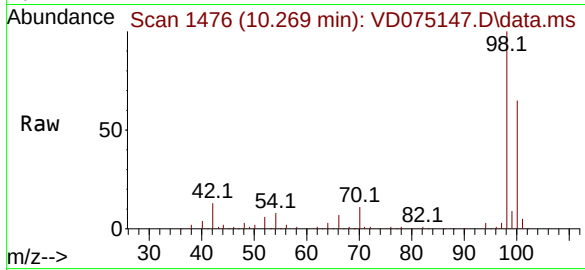




#50
Toluene-d8
Concen: 52.057 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD075147.D
Acq: 20 Jan 2023 12:23

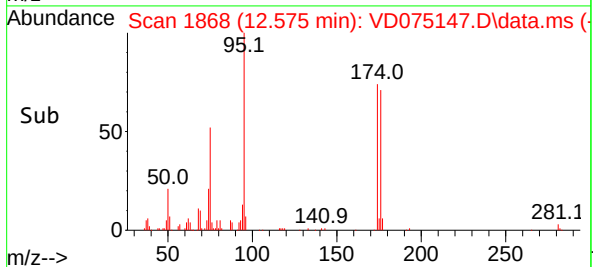
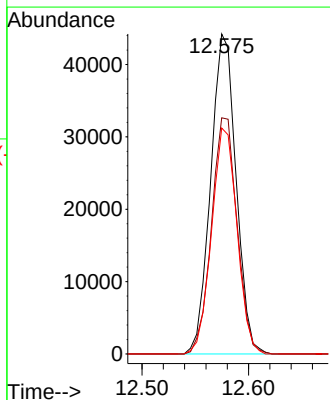
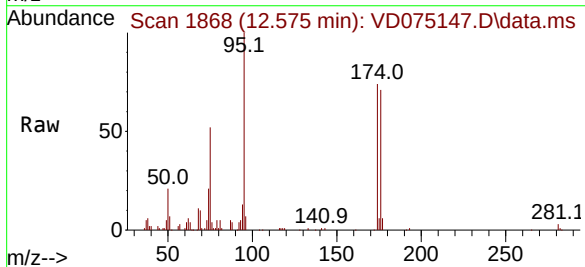
Instrument :
MSVOA_D
ClientSampleId :
VD0120SBL04

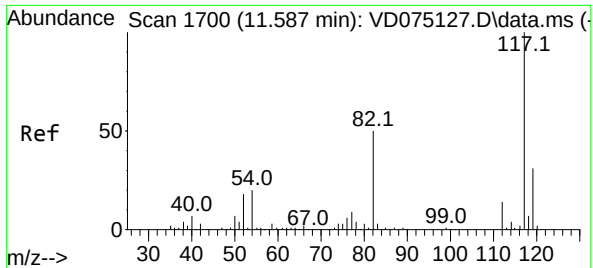
Tgt Ion: 98 Resp: 223620
Ion Ratio Lower Upper
98 100
100 64.6 52.7 79.1



#62
4-Bromofluorobenzene
Concen: 53.611 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD075147.D
Acq: 20 Jan 2023 12:23

Tgt Ion: 95 Resp: 73089
Ion Ratio Lower Upper
95 100
174 74.4 0.0 161.2
176 70.7 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.581 min Scan# 1

Delta R.T. -0.006 min

Lab File: VD075147.D

Acq: 20 Jan 2023 12:23

Instrument :

MSVOA_D

ClientSampleId :

VD0120SBL04

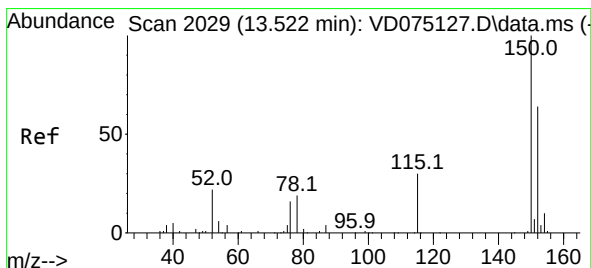
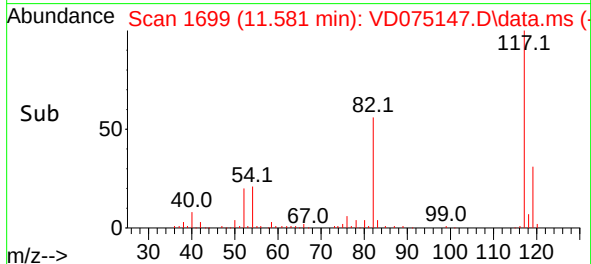
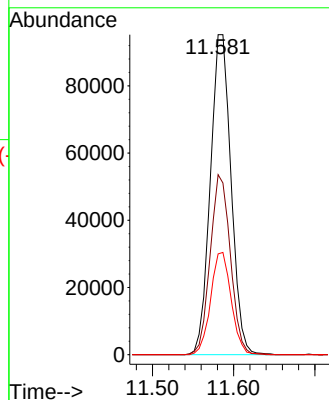
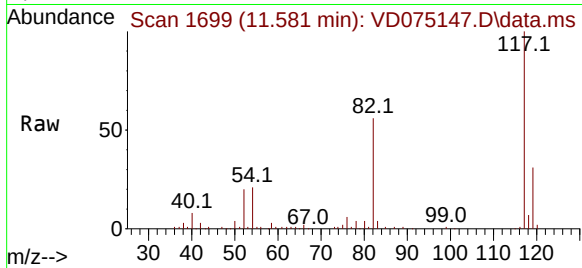
Tgt Ion:117 Resp: 168873

Ion Ratio Lower Upper

117 100

82 56.2 39.6 59.4

119 31.5 24.6 37.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 2029

Delta R.T. -0.000 min

Lab File: VD075147.D

Acq: 20 Jan 2023 12:23

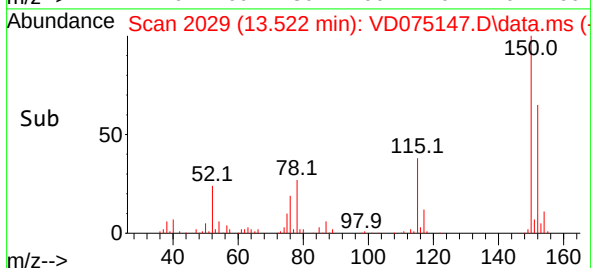
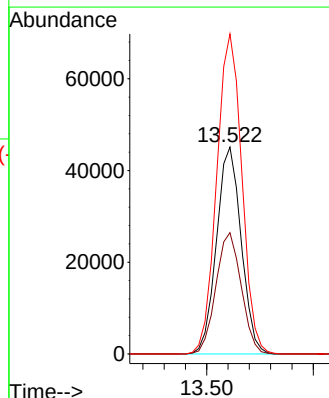
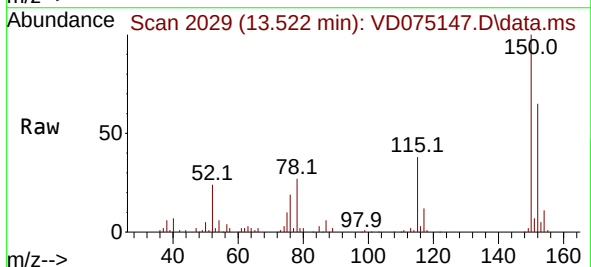
Tgt Ion:152 Resp: 72499

Ion Ratio Lower Upper

152 100

115 60.1 28.8 86.4

150 157.5 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075147.D
 Acq On : 20 Jan 2023 12:23
 Operator : KP/SY
 Sample : VD0120SBL04
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0120SBL04

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075147.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	34	rBV	252943	447957	76.55%	13.040%
2	4.799	537	546	556	rBV4	8938	27262	4.66%	0.794%
3	5.846	717	724	732	rVB4	3704	10762	1.84%	0.313%
4	7.063	923	931	932	rBV	4371	7062	1.21%	0.206%
5	7.805	1047	1057	1063	rBV	76279	181429	31.00%	5.281%
6	7.875	1063	1069	1082	rVB	116347	265821	45.43%	7.738%
7	8.228	1116	1129	1139	rVB	64736	152731	26.10%	4.446%
8	8.781	1214	1223	1233	rBV	200531	414236	70.79%	12.058%
9	10.269	1468	1476	1486	rBV	327448	585170	100.00%	17.034%
10	10.669	1538	1544	1549	rBV2	9552	16337	2.79%	0.476%
11	11.581	1692	1699	1714	rVB	288152	508561	86.91%	14.804%
12	12.575	1861	1868	1876	rVB	220236	359406	61.42%	10.462%
13	13.522	2022	2029	2037	rVB	284050	458601	78.37%	13.350%

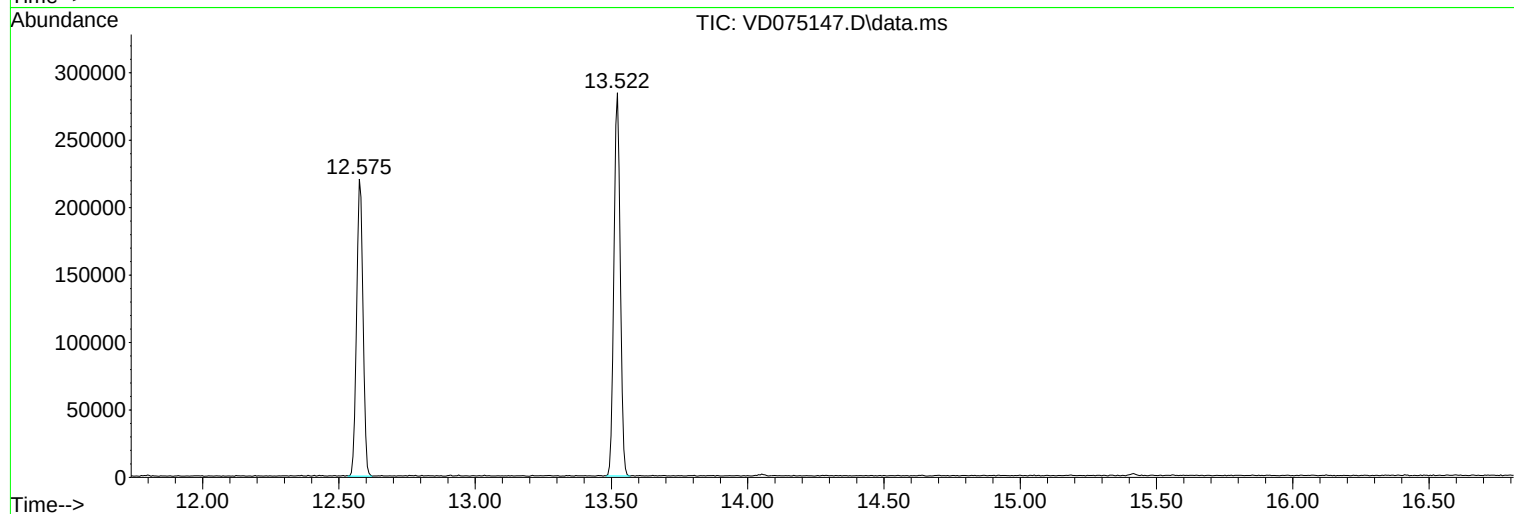
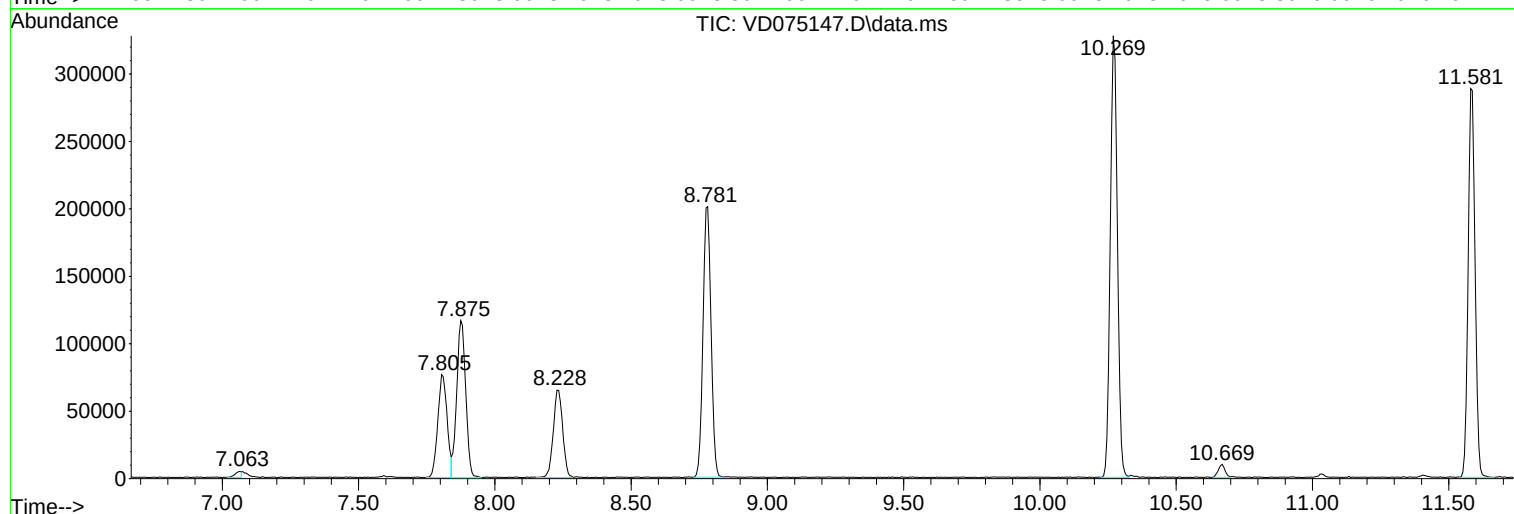
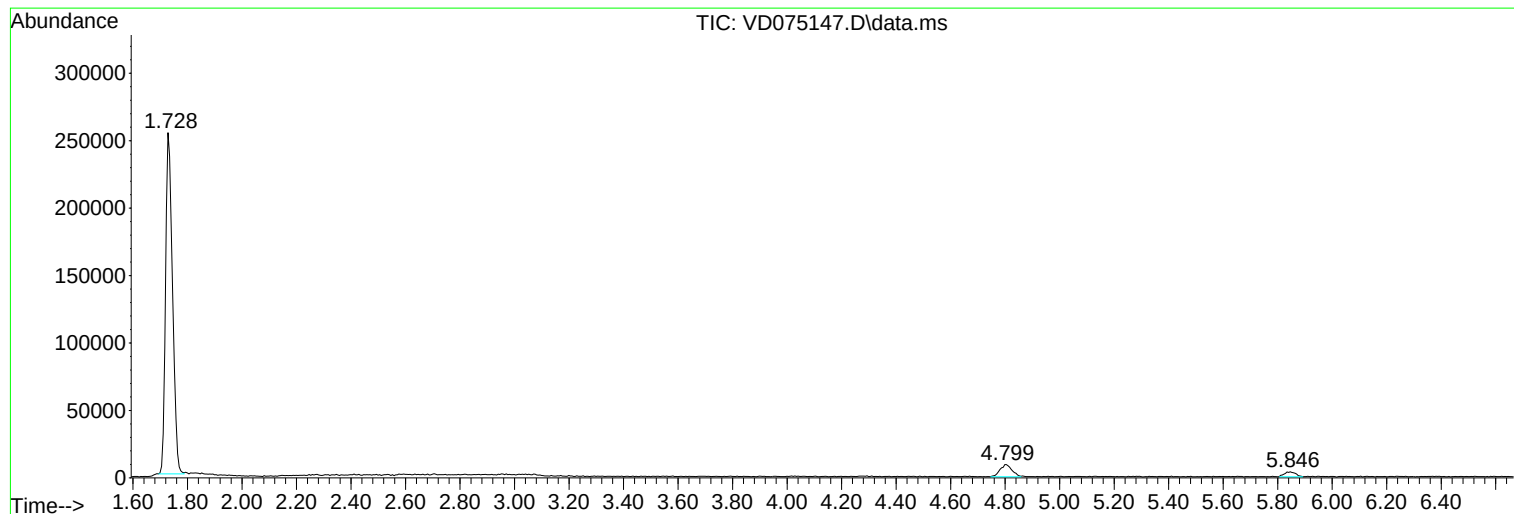
Sum of corrected areas: 3435335

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075147.D
Acq On : 20 Jan 2023 12:23
Operator : KP/SY
Sample : VD0120SBL04
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0120SBL04

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075147.D
Acq On : 20 Jan 2023 12:23
Operator : KP/SY
Sample : VD0120SBL04
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0120SBL04

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075147.D
Acq On : 20 Jan 2023 12:23
Operator : KP/SY
Sample : VD0120SBL04
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0120SBL04

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VD0123SBL01		SDG No.:	O1233
Lab Sample ID:	VD0123SBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075169.D	1		01/23/23 12:14	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.86	U	0.86	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.91	U	0.91	5.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.97	U	0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.72	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
67-64-1	Acetone	12.2	U	12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	0.75	U	0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.93	U	0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	6.00	U	6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.70	U	0.70	5.00	ug/Kg
110-82-7	Cyclohexane	0.84	U	0.84	5.00	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.79	U	0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	0.81	U	0.81	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.75	U	0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.80	U	0.80	5.00	ug/Kg
71-43-2	Benzene	0.66	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.84	U	0.84	5.00	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	25.0	ug/Kg
108-88-3	Toluene	0.63	U	0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.74	U	0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.71	U	0.71	5.00	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBL01	SDG No.:	O1233
Lab Sample ID:	VD0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075169.D	1		01/23/23 12:14	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.75	U	0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	0.65	U	0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.50	U	1.50	10.0	ug/Kg
95-47-6	o-Xylene	0.79	U	0.79	5.00	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.72	U	0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.20	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.94	U	0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.00	U	1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.9		50 - 163	104%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	50.8		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		30 - 143	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	95400	7.875			
540-36-3	1,4-Difluorobenzene	184000	8.781			
3114-55-4	Chlorobenzene-d5	168000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	71800	13.522			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBL01	SDG No.:	O1233
Lab Sample ID:	VD0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075169.D	1		01/23/23 12:14	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075169.D
 Acq On : 23 Jan 2023 12:14
 Operator : KP/SY
 Sample : VD0123SBL01
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0123SBL01

Quant Time: Jan 23 14:03:54 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	95373	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	184136	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	168096	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	71751	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	50548	51.940	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	103.880%
35) Dibromofluoromethane	7.805	113	53933	48.471	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	96.940%
50) Toluene-d8	10.269	98	222538	50.796	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	101.600%
62) 4-Bromofluorobenzene	12.575	95	70144	50.449	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	100.900%

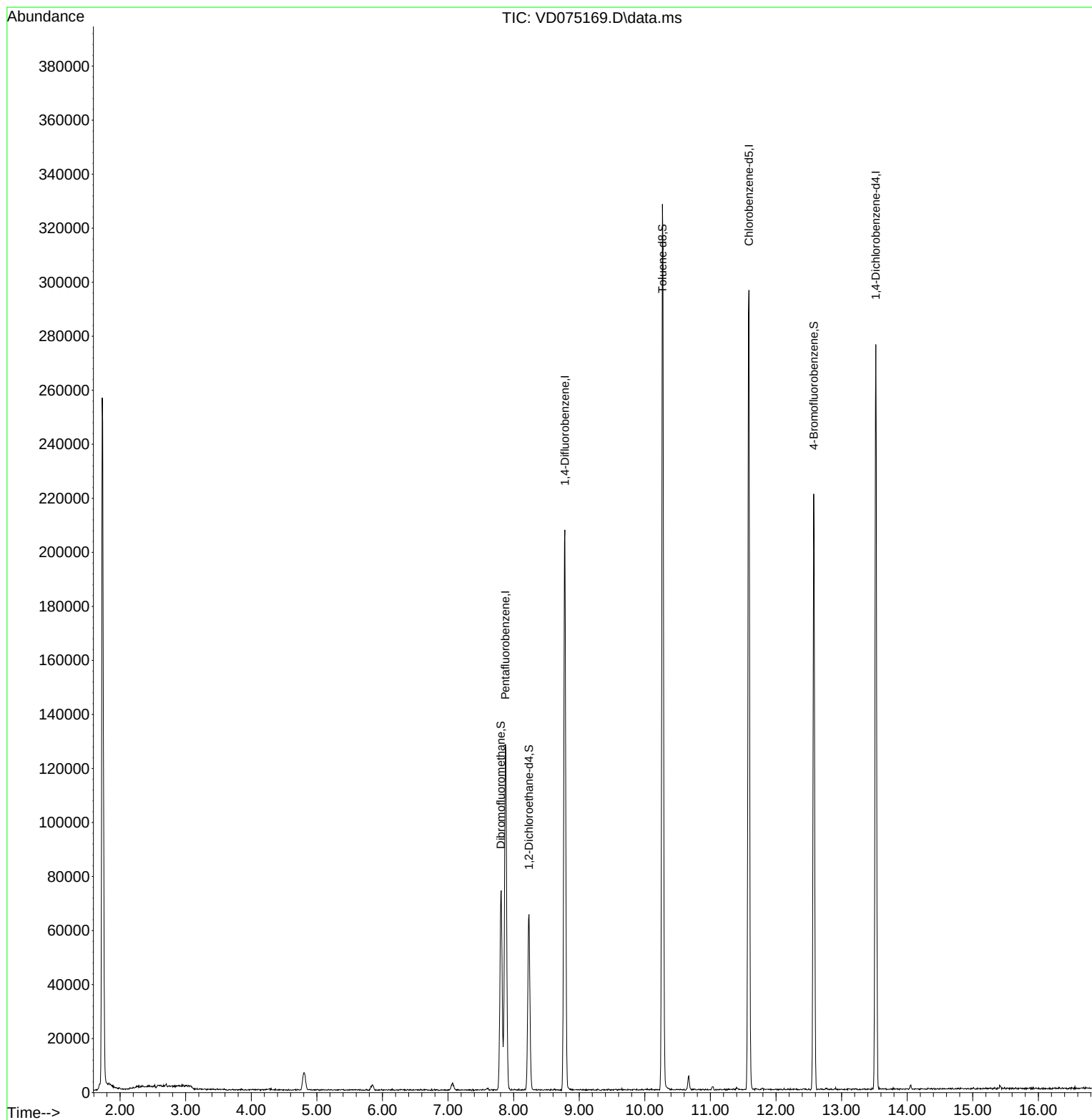
Target Compounds	Qvalue

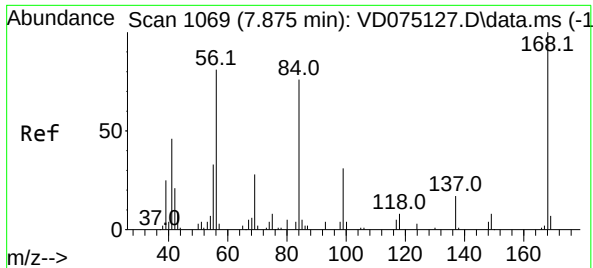
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075169.D
Acq On : 23 Jan 2023 12:14
Operator : KP/SY
Sample : VD0123SBL01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBL01

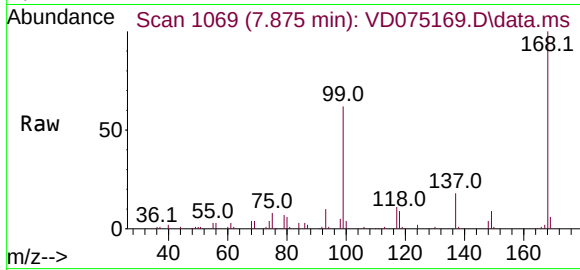
Quant Time: Jan 23 14:03:54 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration



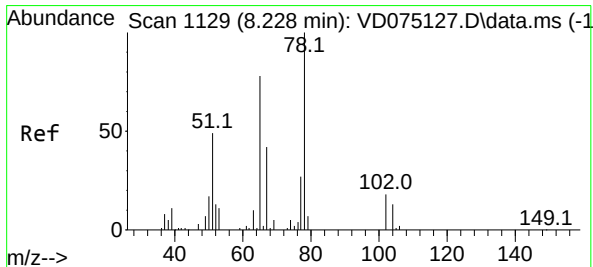
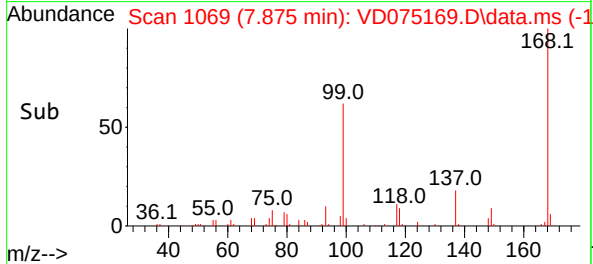
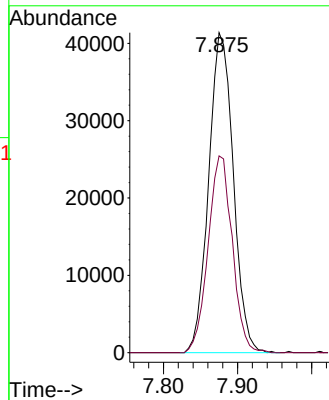


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 110
Delta R.T. 0.000 min
Lab File: VD075169.D
Acq: 23 Jan 2023 12:14

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBL01

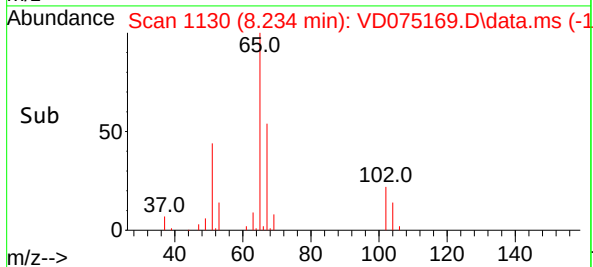
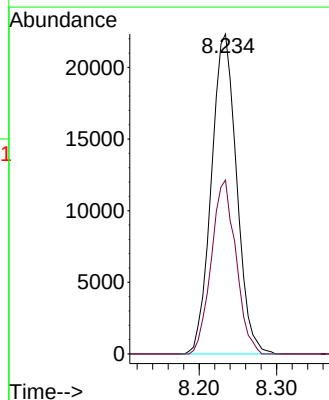
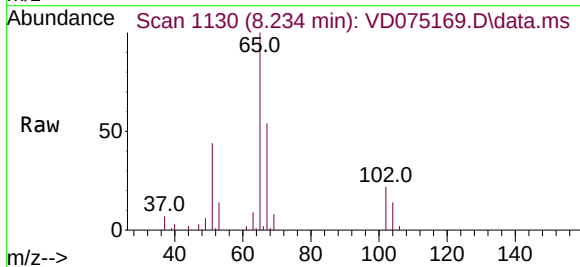


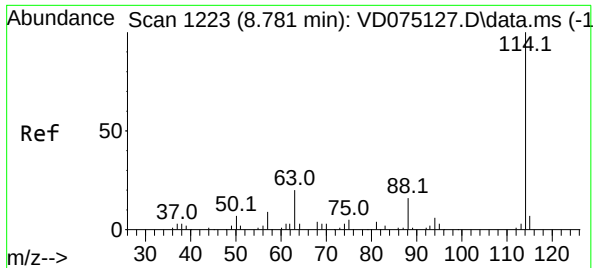
Tgt Ion:168 Resp: 95373
Ion Ratio Lower Upper
168 100
99 61.5 45.2 67.8



#33
1,2-Dichloroethane-d4
Concen: 51.940 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.006 min
Lab File: VD075169.D
Acq: 23 Jan 2023 12:14

Tgt Ion: 65 Resp: 50548
Ion Ratio Lower Upper
65 100
67 52.9 0.0 105.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075169.D

Acq: 23 Jan 2023 12:14

Instrument :

MSVOA_D

ClientSampleId :

VD0123SBL01

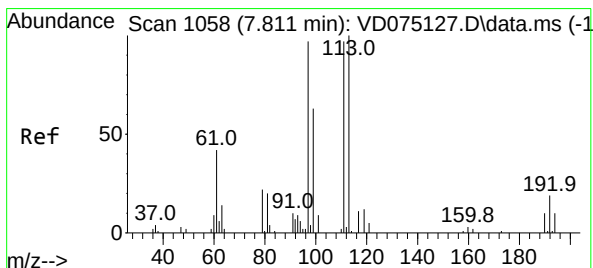
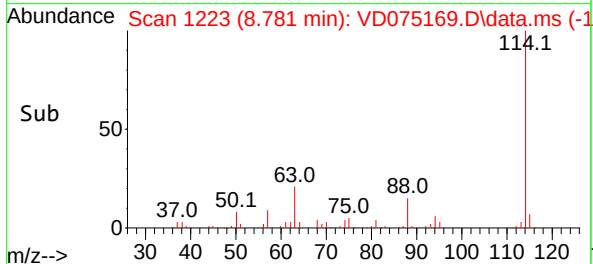
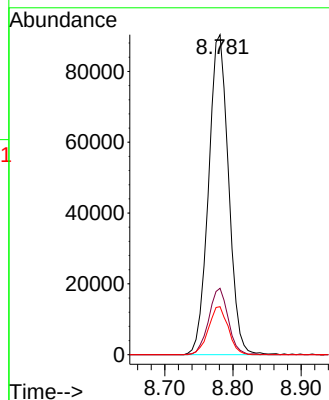
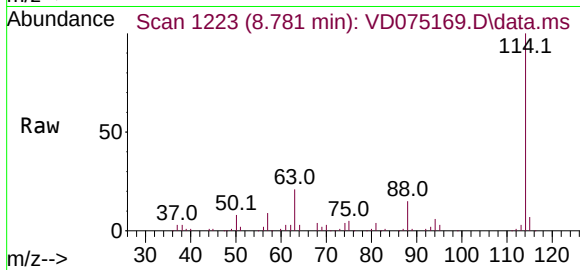
Tgt Ion:114 Resp: 184136

Ion Ratio Lower Upper

114 100

63 20.8 0.0 40.2

88 15.0 0.0 32.2



#35

Dibromofluoromethane

Concen: 48.471 ug/l

RT: 7.805 min Scan# 1057

Delta R.T. -0.006 min

Lab File: VD075169.D

Acq: 23 Jan 2023 12:14

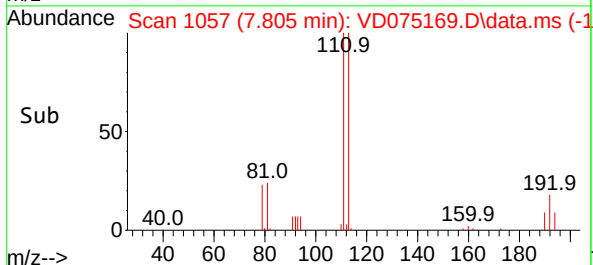
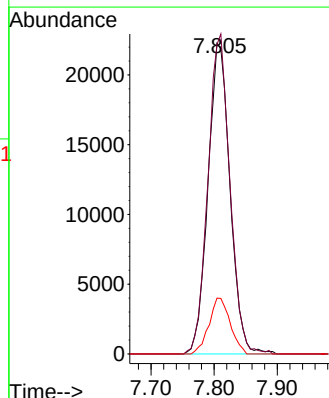
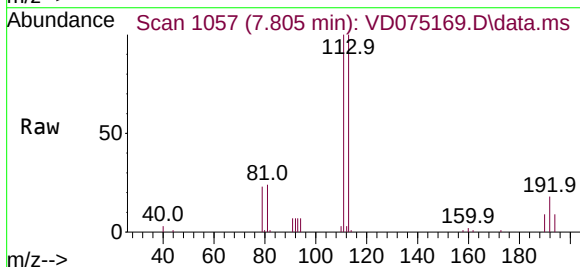
Tgt Ion:113 Resp: 53933

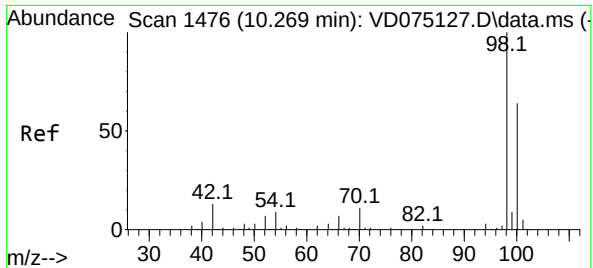
Ion Ratio Lower Upper

113 100

111 102.7 80.1 120.1

192 17.3 15.4 23.0





#50

Toluene-d8

Concen: 50.796 ug/l

RT: 10.269 min Scan# 1476

Delta R.T. -0.000 min

Lab File: VD075169.D

Acq: 23 Jan 2023 12:14

Instrument :

MSVOA_D

ClientSampleId :

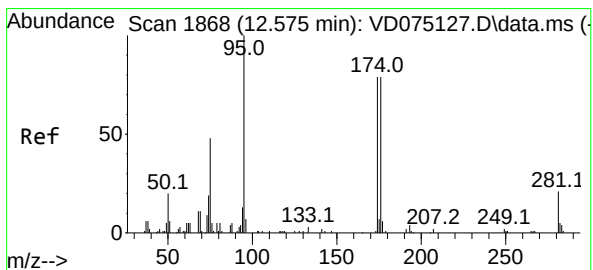
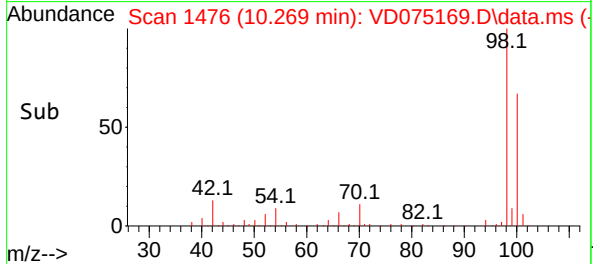
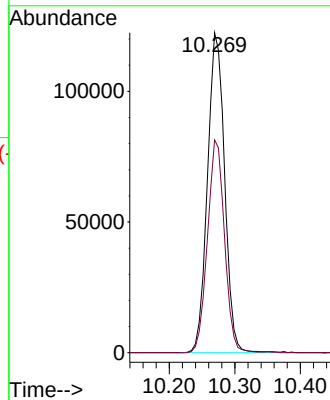
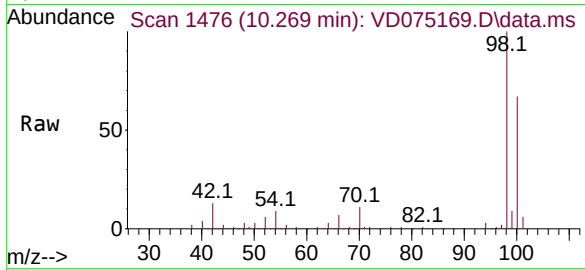
VD0123SBL01

Tgt Ion: 98 Resp: 222538

Ion Ratio Lower Upper

98 100

100 66.1 52.7 79.1



#62

4-Bromofluorobenzene

Concen: 50.449 ug/l

RT: 12.575 min Scan# 1868

Delta R.T. -0.000 min

Lab File: VD075169.D

Acq: 23 Jan 2023 12:14

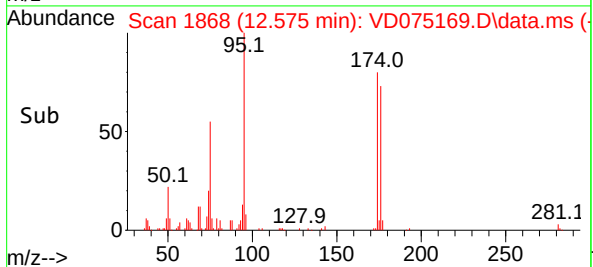
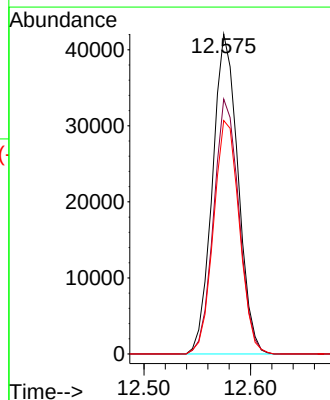
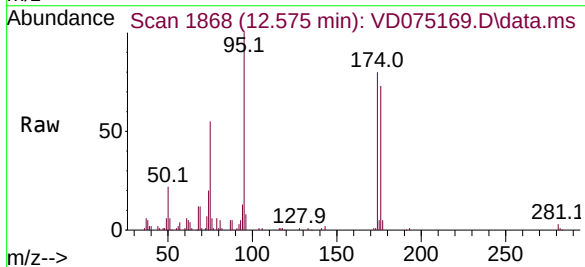
Tgt Ion: 95 Resp: 70144

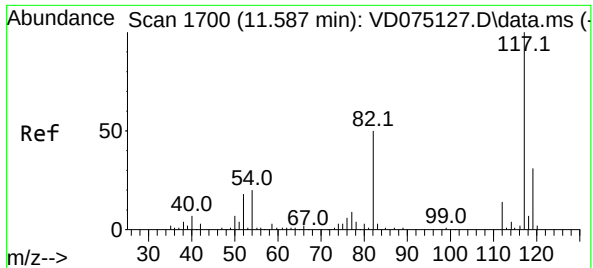
Ion Ratio Lower Upper

95 100

174 78.7 0.0 161.2

176 73.5 0.0 160.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.587 min Scan# 11

Delta R.T. -0.000 min

Lab File: VD075169.D

Acq: 23 Jan 2023 12:14

Instrument :

MSVOA_D

ClientSampleId :

VD0123SBL01

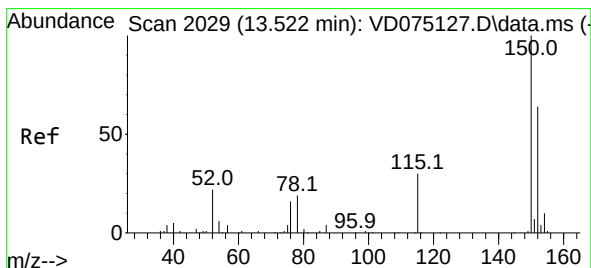
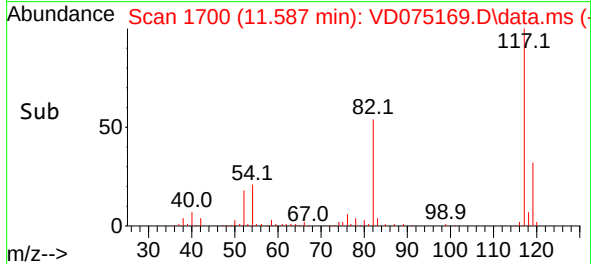
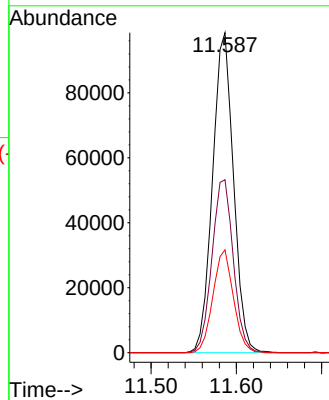
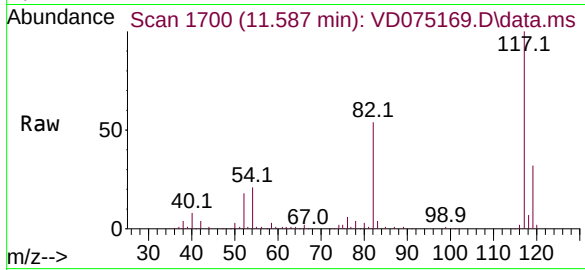
Tgt Ion:117 Resp: 168096

Ion Ratio Lower Upper

117 100

82 54.0 39.6 59.4

119 32.2 24.6 37.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.522 min Scan# 2029

Delta R.T. -0.000 min

Lab File: VD075169.D

Acq: 23 Jan 2023 12:14

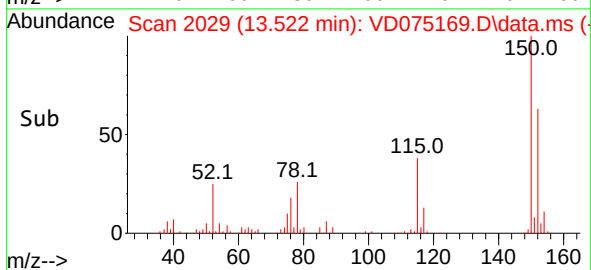
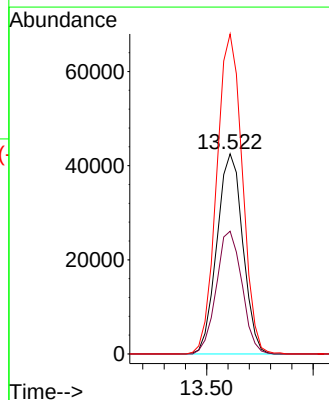
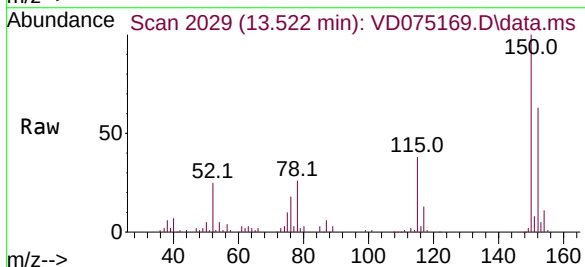
Tgt Ion:152 Resp: 71751

Ion Ratio Lower Upper

152 100

115 60.6 28.8 86.4

150 158.2 0.0 348.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075169.D
 Acq On : 23 Jan 2023 12:14
 Operator : KP/SY
 Sample : VD0123SBL01
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0123SBL01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M

Title : SW846 8260

Signal : TIC: VD075169.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.728	18	24	39	rVB	255056	468834	78.78%	13.511%
2	4.805	539	547	556	rBV4	6394	19911	3.35%	0.574%
3	7.069	922	932	943	rVB3	2787	7781	1.31%	0.224%
4	7.810	1047	1058	1063	rBV	73826	177019	29.75%	5.101%
5	7.875	1063	1069	1084	rVB	128133	293308	49.29%	8.453%
6	8.234	1120	1130	1143	rBV	64955	148497	24.95%	4.279%
7	8.781	1214	1223	1235	rBV	207580	423454	71.16%	12.203%
8	10.269	1468	1476	1490	rBV	327991	595105	100.00%	17.150%
9	10.669	1534	1544	1552	rBV2	5311	10028	1.69%	0.289%
10	11.587	1692	1700	1710	rBV	295936	511521	85.95%	14.741%
11	12.575	1861	1868	1876	rVB	220589	357442	60.06%	10.301%
12	13.522	2021	2029	2038	rVB	275739	457129	76.81%	13.174%

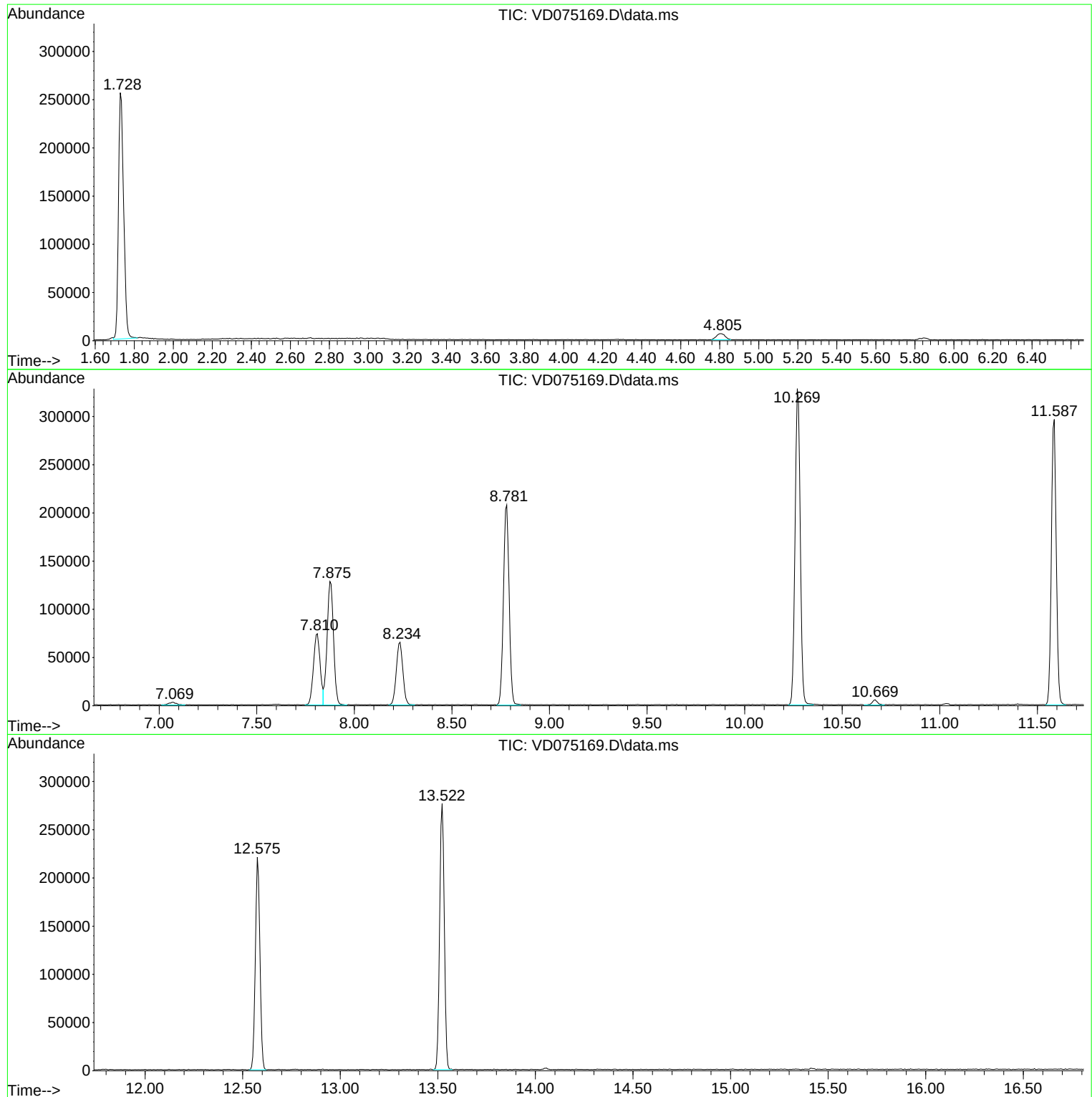
Sum of corrected areas: 3470029

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075169.D
Acq On : 23 Jan 2023 12:14
Operator : KP/SY
Sample : VD0123SBL01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075169.D
Acq On : 23 Jan 2023 12:14
Operator : KP/SY
Sample : VD0123SBL01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075169.D
Acq On : 23 Jan 2023 12:14
Operator : KP/SY
Sample : VD0123SBL01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBL01		SDG No.:	O1233
Lab Sample ID:	VN0120WBL01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076339.D	1		01/20/23 11:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.17	U	0.17	1.00	ug/L
74-87-3	Chloromethane	0.20	U	0.20	1.00	ug/L
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
74-83-9	Bromomethane	1.60	U	1.60	5.00	ug/L
75-00-3	Chloroethane	0.26	U	0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.20	U	0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.17	U	0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
67-64-1	Acetone	1.20	U	1.20	5.00	ug/L
75-15-0	Carbon Disulfide	0.26	U	0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.18	U	0.18	1.00	ug/L
79-20-9	Methyl Acetate	0.53	U	0.53	1.00	ug/L
75-09-2	Methylene Chloride	0.18	U	0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
110-82-7	Cyclohexane	1.20	U	1.20	5.00	ug/L
78-93-3	2-Butanone	0.82	U	0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.18	U	0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
74-97-5	Bromochloromethane	0.19	U	0.19	1.00	ug/L
67-66-3	Chloroform	0.18	U	0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
108-87-2	Methylcyclohexane	0.13	U	0.13	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.17	U	0.17	1.00	ug/L
75-27-4	Bromodichloromethane	0.18	U	0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.87	U	0.87	5.00	ug/L
108-88-3	Toluene	0.17	U	0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.14	U	0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBL01	SDG No.:	O1233
Lab Sample ID:	VN0120WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076339.D	1		01/20/23 11:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
591-78-6	2-Hexanone	0.76	U	0.76	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.14	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
108-90-7	Chlorobenzene	0.17	U	0.17	1.00	ug/L
100-41-4	Ethyl Benzene	0.17	U	0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	0.33	U	0.33	2.00	ug/L
95-47-6	o-Xylene	0.18	U	0.18	1.00	ug/L
100-42-5	Styrene	0.13	U	0.13	1.00	ug/L
75-25-2	Bromoform	0.16	U	0.16	1.00	ug/L
98-82-8	Isopropylbenzene	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.23	U	0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.42	U	0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.23	U	0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.33	U	0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.5		74 - 125	95%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	49.7		86 - 113	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		64 - 133	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	491000	8.23			
540-36-3	1,4-Difluorobenzene	774000	9.106			
3114-55-4	Chlorobenzene-d5	658000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	251000	13.794			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBL01		SDG No.:	O1233
Lab Sample ID:	VN0120WBL01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076339.D	1		01/20/23 11:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076339.D
 Acq On : 20 Jan 2023 11:25
 Operator : JC\MD
 Sample : VN0120WBL01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0120WBL01

Quant Time: Jan 20 22:12:15 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	490775	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	773684	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	657515	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	251353	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	261220	47.537	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	95.080%
35) Dibromofluoromethane	8.171	113	235603	48.681	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	97.360%
50) Toluene-d8	10.571	98	888086	49.687	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	99.380%
62) 4-Bromofluorobenzene	12.853	95	265409	45.486	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	=	90.980%

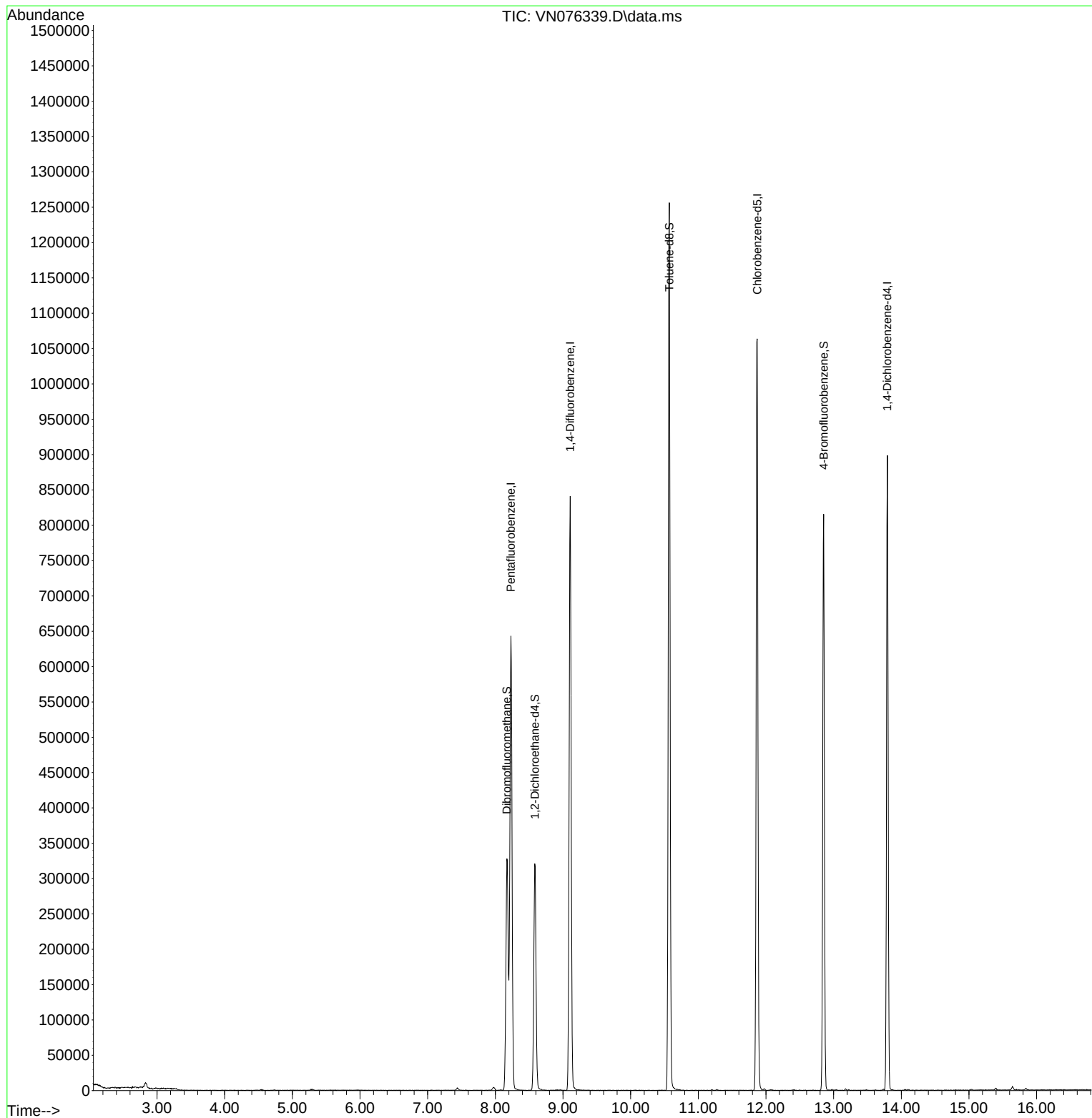
Target Compounds	Qvalue

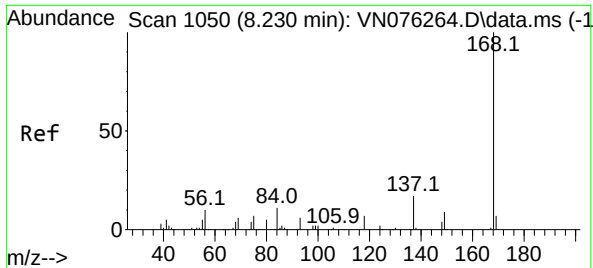
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076339.D
Acq On : 20 Jan 2023 11:25
Operator : JC\MD
Sample : VN0120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

Quant Time: Jan 20 22:12:15 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

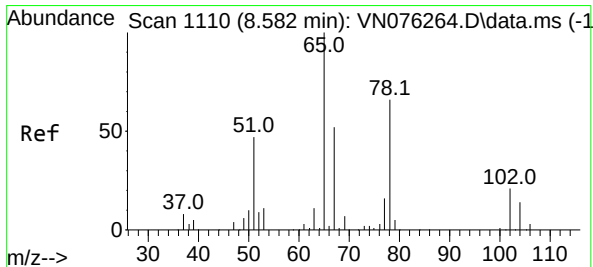
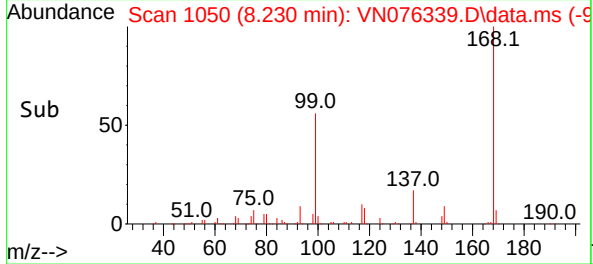
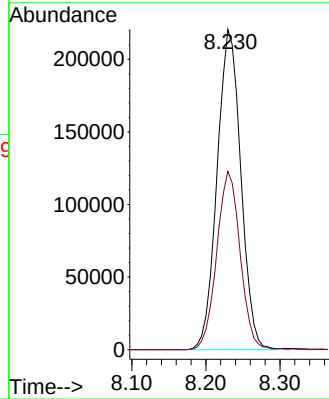
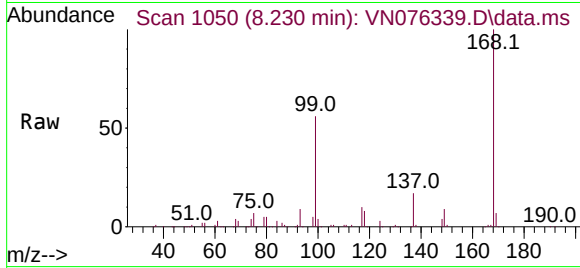




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1050
Delta R.T. -0.000 min
Lab File: VN076339.D
Acq: 20 Jan 2023 11:25

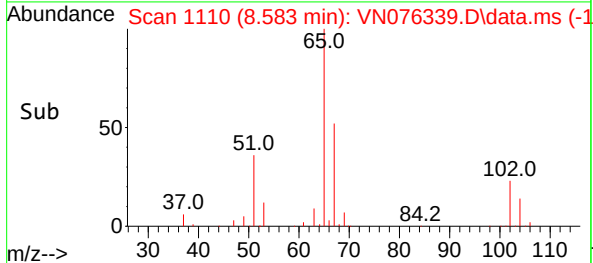
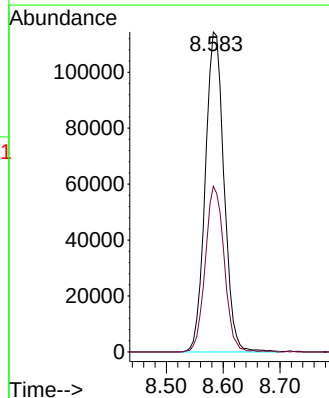
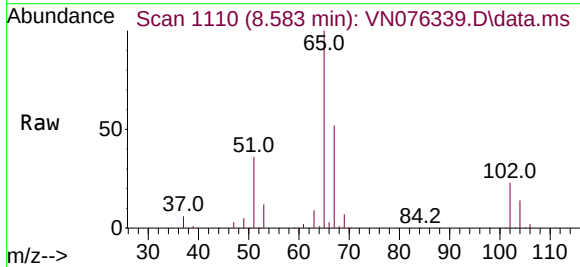
Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

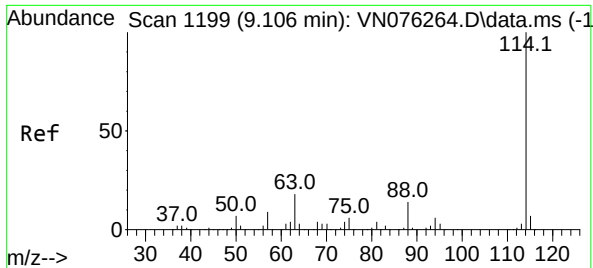
Tgt Ion:168 Resp: 490775
Ion Ratio Lower Upper
168 100
99 55.8 41.6 62.4



#33
1,2-Dichloroethane-d4
Concen: 47.537 ug/l
RT: 8.583 min Scan# 1110
Delta R.T. 0.001 min
Lab File: VN076339.D
Acq: 20 Jan 2023 11:25

Tgt Ion: 65 Resp: 261220
Ion Ratio Lower Upper
65 100
67 52.2 0.0 104.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.106 min Scan# 1199

Delta R.T. 0.000 min

Lab File: VN076339.D

Acq: 20 Jan 2023 11:25

Instrument :

MSVOA_N

ClientSampleId :

VN0120WBL01

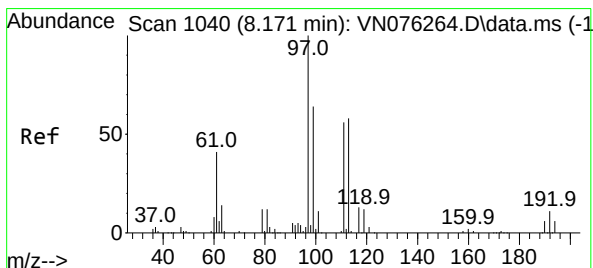
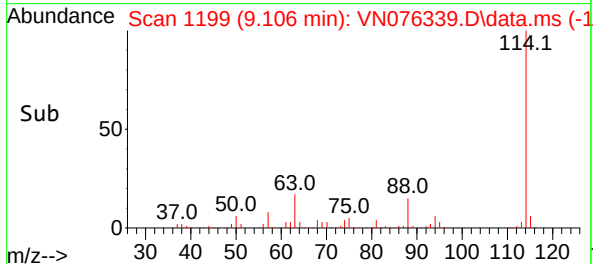
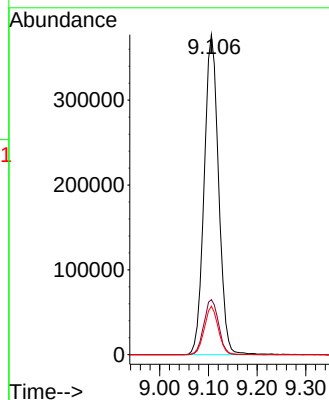
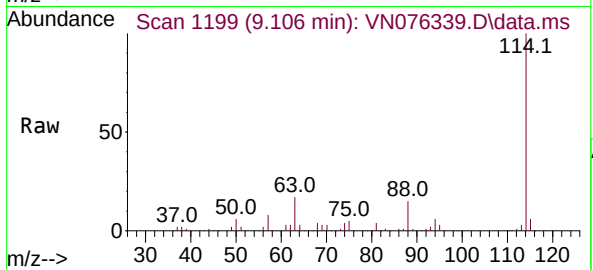
Tgt Ion:114 Resp: 773684

Ion Ratio Lower Upper

114 100

63 17.2 0.0 35.8

88 15.1 0.0 28.0



#35

Dibromofluoromethane

Concen: 48.681 ug/l

RT: 8.171 min Scan# 1040

Delta R.T. -0.000 min

Lab File: VN076339.D

Acq: 20 Jan 2023 11:25

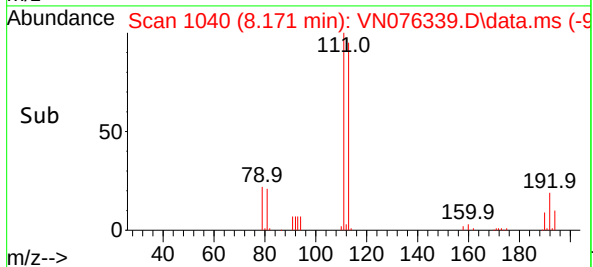
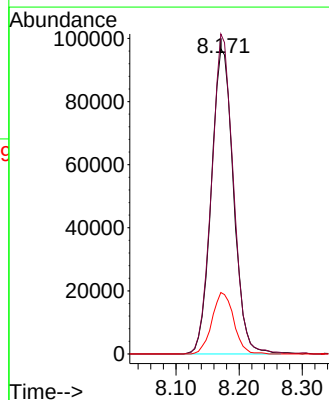
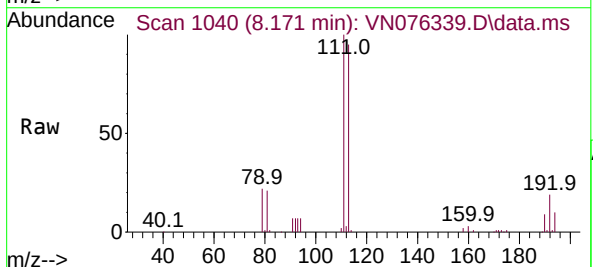
Tgt Ion:113 Resp: 235603

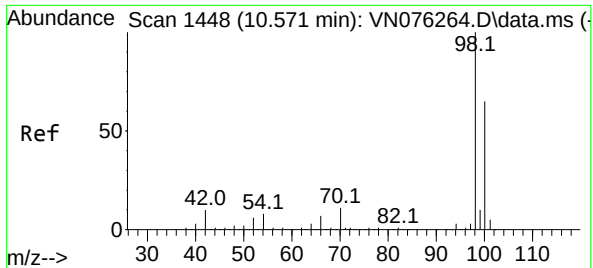
Ion Ratio Lower Upper

113 100

111 102.6 82.7 124.1

192 19.7 15.6 23.4

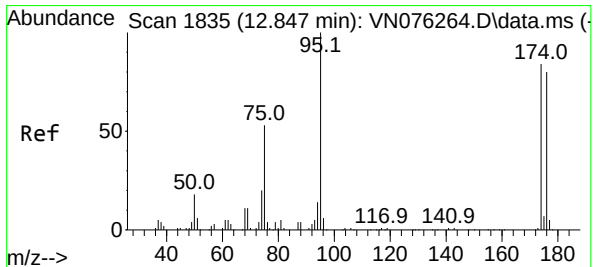
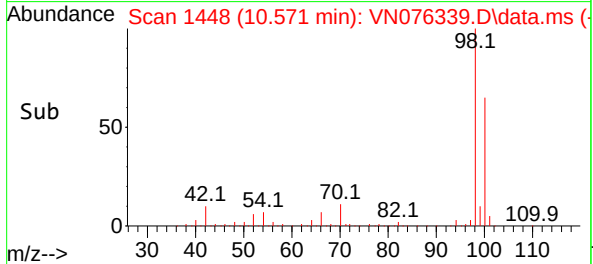
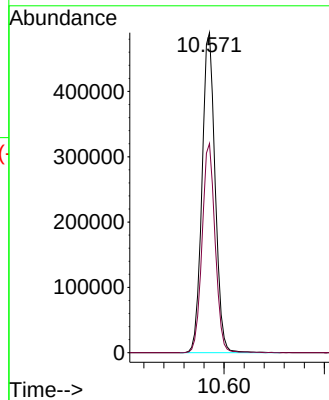
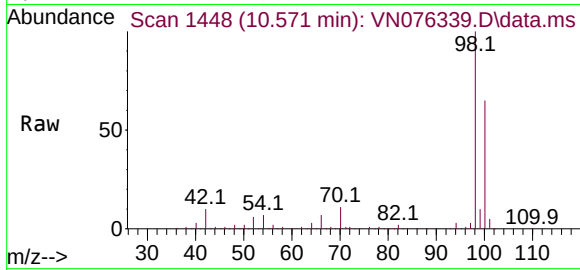




#50
Toluene-d8
Concen: 49.687 ug/l
RT: 10.571 min Scan# 1448
Delta R.T. -0.000 min
Lab File: VN076339.D
Acq: 20 Jan 2023 11:25

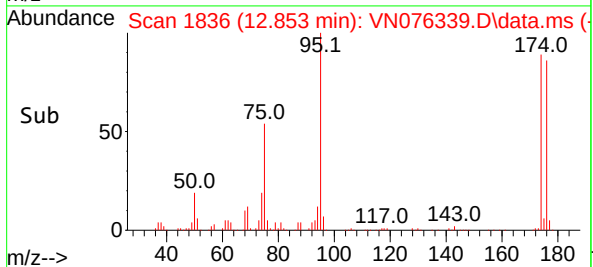
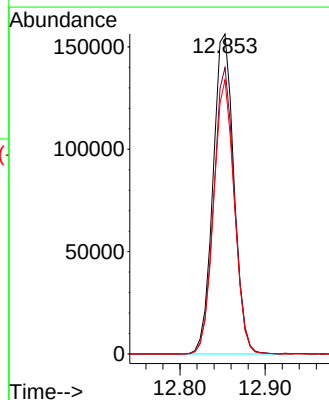
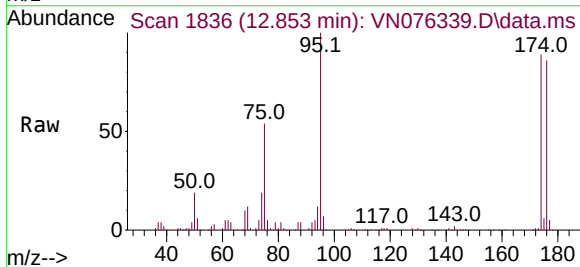
Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

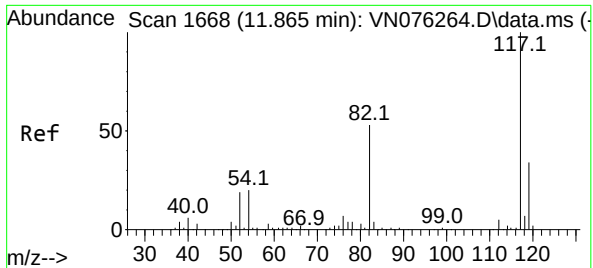
Tgt Ion: 98 Resp: 888086
Ion Ratio Lower Upper
98 100
100 65.1 52.2 78.4



#62
4-Bromofluorobenzene
Concen: 45.486 ug/l
RT: 12.853 min Scan# 1836
Delta R.T. 0.006 min
Lab File: VN076339.D
Acq: 20 Jan 2023 11:25

Tgt Ion: 95 Resp: 265409
Ion Ratio Lower Upper
95 100
174 88.5 0.0 174.6
176 84.7 0.0 167.8

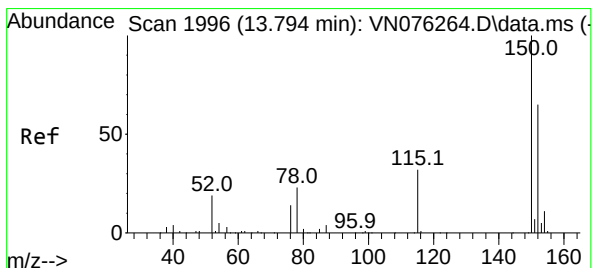
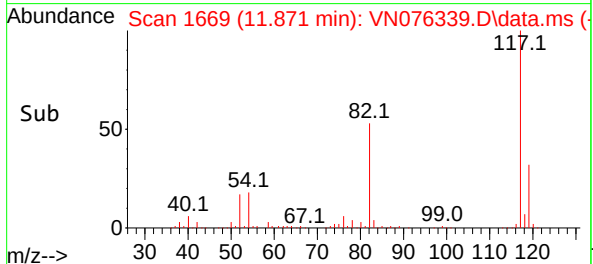
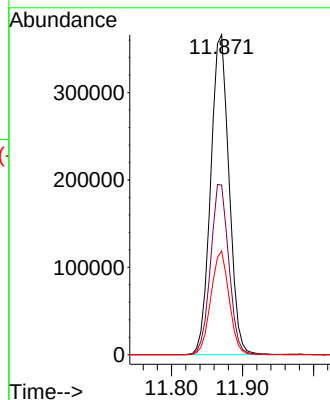
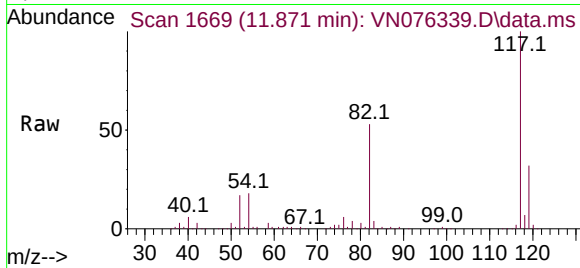




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1669
Delta R.T. 0.006 min
Lab File: VN076339.D
Acq: 20 Jan 2023 11:25

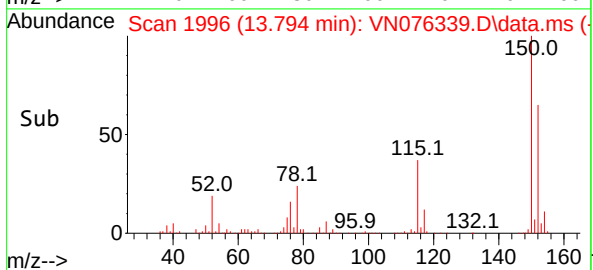
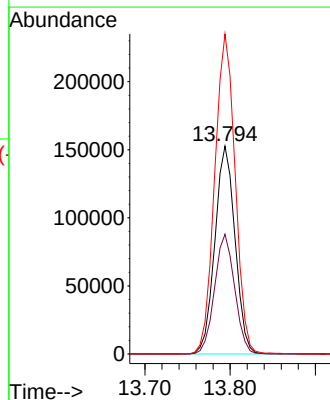
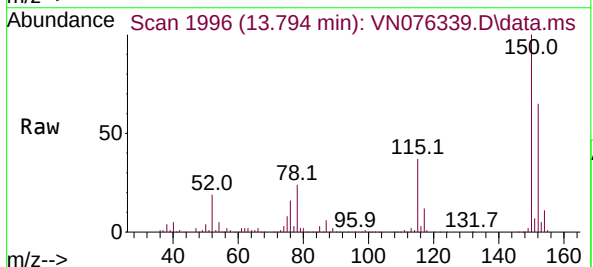
Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

Tgt Ion:117 Resp: 657515
Ion Ratio Lower Upper
117 100
82 53.0 42.2 63.2
119 32.4 26.9 40.3



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 1996
Delta R.T. 0.000 min
Lab File: VN076339.D
Acq: 20 Jan 2023 11:25

Tgt Ion:152 Resp: 251353
Ion Ratio Lower Upper
152 100
115 57.4 29.6 88.9
150 156.2 0.0 351.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076339.D
Acq On : 20 Jan 2023 11:25
Operator : JC\MD
Sample : VN0120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Title : SW846 8260

Signal : TIC: VN076339.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.171	1030	1040	1045	rBV	327718	793972	34.78%	6.777%
2	8.230	1045	1050	1067	rVB	642226	1404176	61.51%	11.985%
3	8.583	1100	1110	1129	rBV	320945	735577	32.22%	6.278%
4	9.106	1190	1199	1215	rBV	840575	1707226	74.79%	14.572%
5	10.571	1438	1448	1465	rBV	1256211	2282751	100.00%	19.484%
6	11.871	1657	1669	1681	rBV	1063499	1928873	84.50%	16.464%
7	12.853	1827	1836	1847	rBV	815482	1369393	59.99%	11.688%
8	13.794	1988	1996	2007	rBV	898187	1494022	65.45%	12.752%

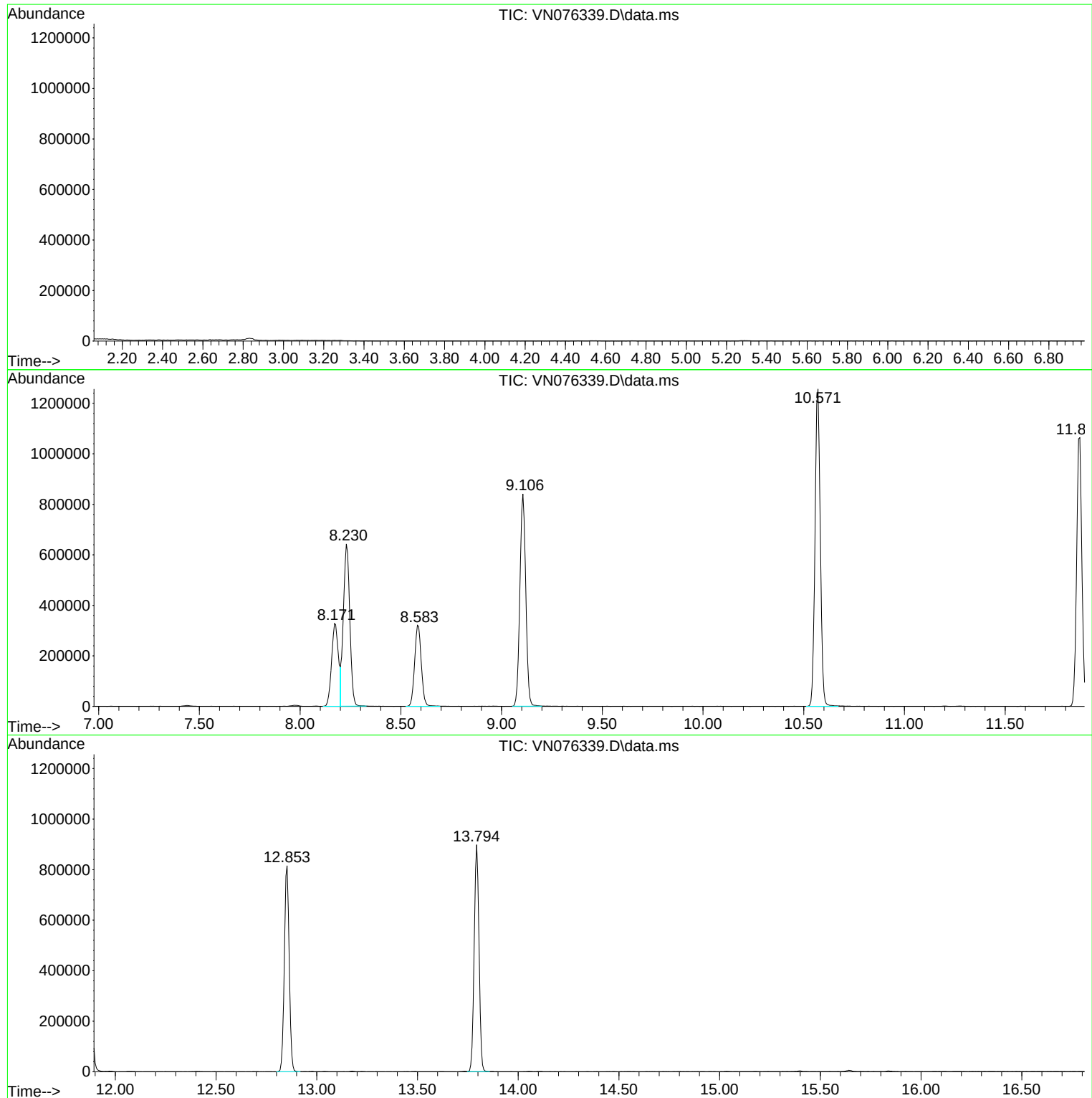
Sum of corrected areas: 11715990

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076339.D
Acq On : 20 Jan 2023 11:25
Operator : JC\MD
Sample : VN0120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076339.D
Acq On : 20 Jan 2023 11:25
Operator : JC\MD
Sample : VN0120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076339.D
Acq On : 20 Jan 2023 11:25
Operator : JC\MD
Sample : VN0120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0123MBL01		SDG No.:	O1233
Lab Sample ID:	VN0123MBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	MED
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076356.D	1		01/23/23 10:51	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	86.0	U	86.0	500	ug/Kg
74-87-3	Chloromethane	110	U	110	500	ug/Kg
75-01-4	Vinyl Chloride	91.0	U	91.0	500	ug/Kg
74-83-9	Bromomethane	120	U	120	500	ug/Kg
75-00-3	Chloroethane	89.0	U	89.0	500	ug/Kg
75-69-4	Trichlorofluoromethane	97.0	U	97.0	500	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	72.0	U	72.0	500	ug/Kg
75-35-4	1,1-Dichloroethene	86.0	U	86.0	500	ug/Kg
67-64-1	Acetone	1200	U	1200	2500	ug/Kg
75-15-0	Carbon Disulfide	75.0	U	75.0	500	ug/Kg
1634-04-4	Methyl tert-butyl Ether	93.0	U	93.0	500	ug/Kg
79-20-9	Methyl Acetate	130	U	130	500	ug/Kg
75-09-2	Methylene Chloride	600	U	600	1000	ug/Kg
156-60-5	trans-1,2-Dichloroethene	68.0	U	68.0	500	ug/Kg
75-34-3	1,1-Dichloroethane	70.0	U	70.0	500	ug/Kg
110-82-7	Cyclohexane	84.0	U	84.0	500	ug/Kg
78-93-3	2-Butanone	730	U	730	2500	ug/Kg
56-23-5	Carbon Tetrachloride	79.0	U	79.0	500	ug/Kg
156-59-2	cis-1,2-Dichloroethene	68.0	U	68.0	500	ug/Kg
74-97-5	Bromochloromethane	81.0	U	81.0	500	ug/Kg
67-66-3	Chloroform	67.0	U	67.0	500	ug/Kg
71-55-6	1,1,1-Trichloroethane	75.0	U	75.0	500	ug/Kg
108-87-2	Methylcyclohexane	80.0	U	80.0	500	ug/Kg
71-43-2	Benzene	66.0	U	66.0	500	ug/Kg
107-06-2	1,2-Dichloroethane	84.0	U	84.0	500	ug/Kg
79-01-6	Trichloroethene	73.0	U	73.0	500	ug/Kg
78-87-5	1,2-Dichloropropane	65.0	U	65.0	500	ug/Kg
75-27-4	Bromodichloromethane	70.0	U	70.0	500	ug/Kg
108-10-1	4-Methyl-2-Pentanone	460	U	460	2500	ug/Kg
108-88-3	Toluene	63.0	U	63.0	500	ug/Kg
10061-02-6	t-1,3-Dichloropropene	74.0	U	74.0	500	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	71.0	U	71.0	500	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBL01	SDG No.:	O1233
Lab Sample ID:	VN0123MBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076356.D	1		01/23/23 10:51	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	86.0	U	86.0	500	ug/Kg
591-78-6	2-Hexanone	470	U	470	2500	ug/Kg
124-48-1	Dibromochloromethane	75.0	U	75.0	500	ug/Kg
106-93-4	1,2-Dibromoethane	75.0	U	75.0	500	ug/Kg
127-18-4	Tetrachloroethene	76.0	U	76.0	500	ug/Kg
108-90-7	Chlorobenzene	65.0	U	65.0	500	ug/Kg
100-41-4	Ethyl Benzene	70.0	U	70.0	500	ug/Kg
179601-23-1	m/p-Xylenes	150	U	150	1000	ug/Kg
95-47-6	o-Xylene	79.0	U	79.0	500	ug/Kg
100-42-5	Styrene	79.0	U	79.0	500	ug/Kg
75-25-2	Bromoform	81.0	U	81.0	500	ug/Kg
98-82-8	Isopropylbenzene	72.0	U	72.0	500	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	110	U	110	500	ug/Kg
541-73-1	1,3-Dichlorobenzene	67.0	U	67.0	500	ug/Kg
106-46-7	1,4-Dichlorobenzene	63.0	U	63.0	500	ug/Kg
95-50-1	1,2-Dichlorobenzene	64.0	U	64.0	500	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	120	U	120	500	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	94.0	U	94.0	500	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	100	U	100	500	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		50 - 163	100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		54 - 147	99%	SPK: 50
2037-26-5	Toluene-d8	48.9		58 - 134	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.4		30 - 143	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	304000	8.23			
540-36-3	1,4-Difluorobenzene	491000	9.106			
3114-55-4	Chlorobenzene-d5	404000	11.87			
3855-82-1	1,4-Dichlorobenzene-d4	159000	13.794			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0123MBL01		SDG No.:	O1233
Lab Sample ID:	VN0123MBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	MED
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076356.D	1		01/23/23 10:51	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076356.D
 Acq On : 23 Jan 2023 10:51
 Operator : JC\MD
 Sample : VN0123MBL01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0123MBL01

Quant Time: Jan 23 12:59:29 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	303559	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	491398	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	403787	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	158993	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	169532	49.878	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	99.760%
35) Dibromofluoromethane	8.171	113	152183	49.508	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	99.020%
50) Toluene-d8	10.571	98	554976	48.887	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	97.780%
62) 4-Bromofluorobenzene	12.853	95	164687	44.438	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	=	88.880%

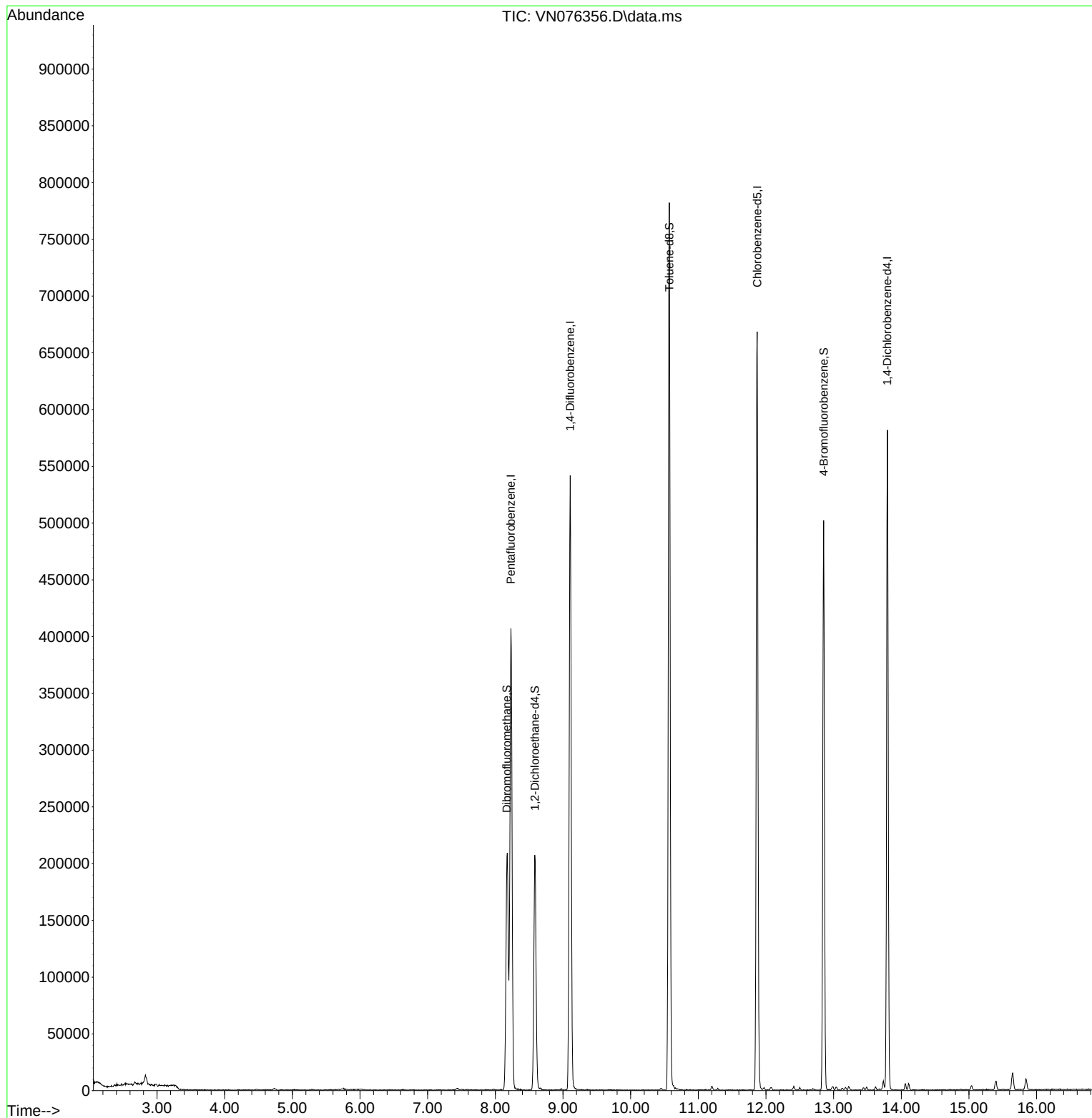
Target Compounds	Qvalue

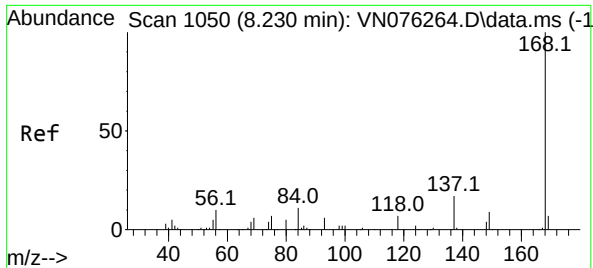
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076356.D
Acq On : 23 Jan 2023 10:51
Operator : JC\MD
Sample : VN0123MBL01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

Quant Time: Jan 23 12:59:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

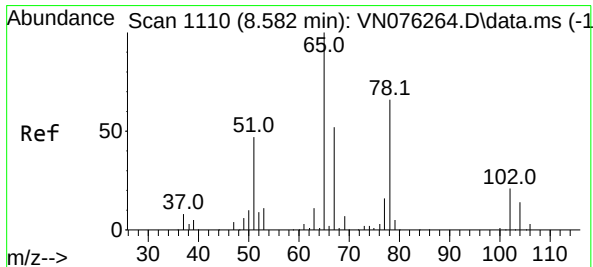
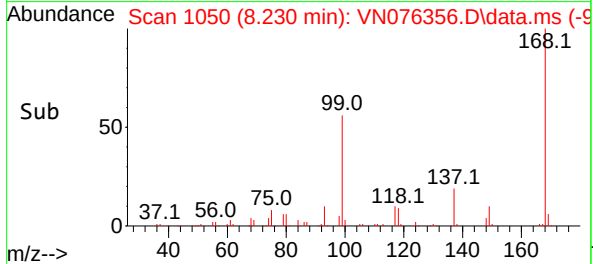
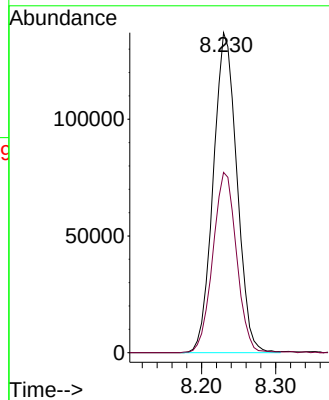
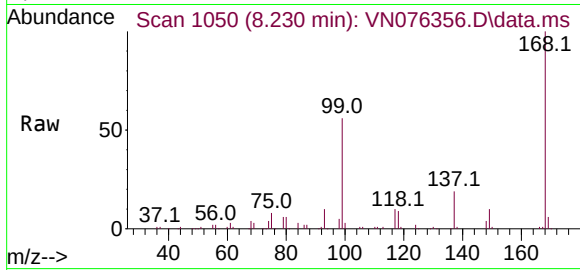




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1050
Delta R.T. -0.000 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

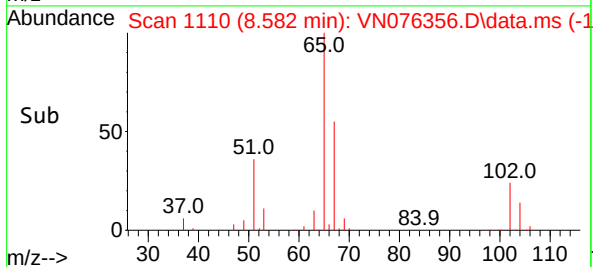
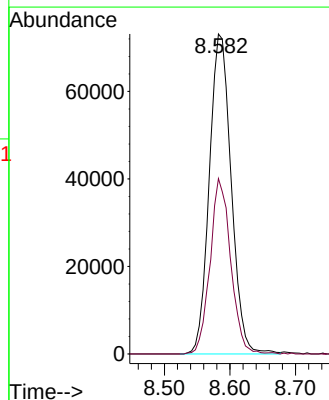
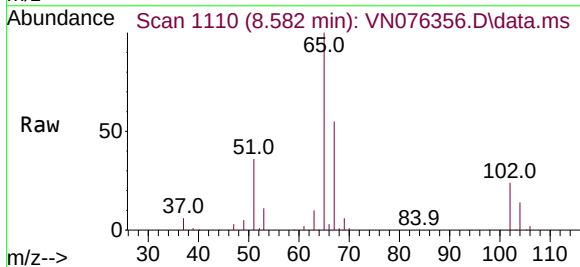
Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

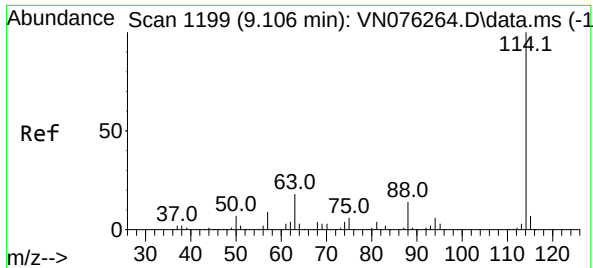
Tgt Ion:168 Resp: 303559
Ion Ratio Lower Upper
168 100
99 56.4 41.6 62.4



#33
1,2-Dichloroethane-d4
Concen: 49.878 ug/l
RT: 8.582 min Scan# 1110
Delta R.T. 0.000 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

Tgt Ion: 65 Resp: 169532
Ion Ratio Lower Upper
65 100
67 51.5 0.0 104.6

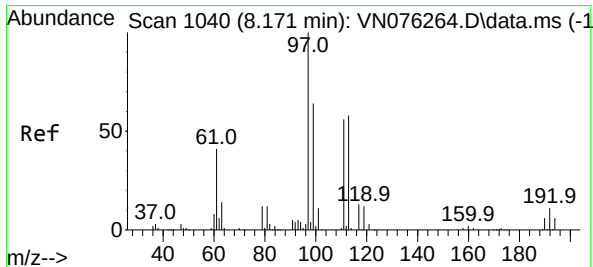
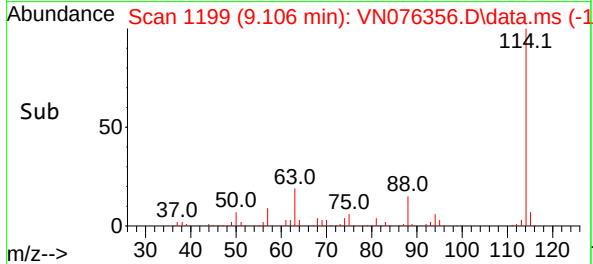
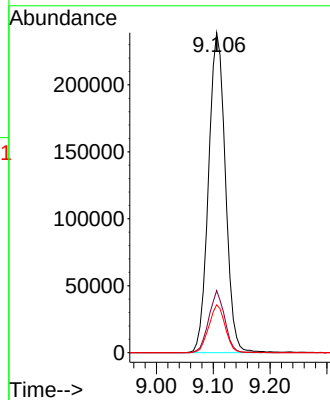
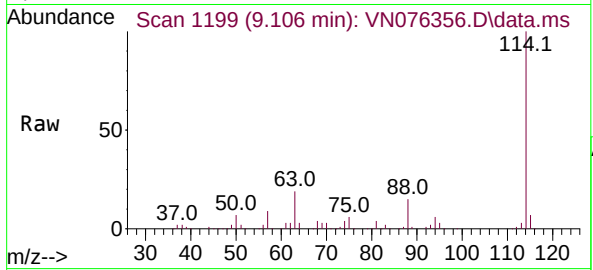




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1199
Delta R.T. -0.000 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

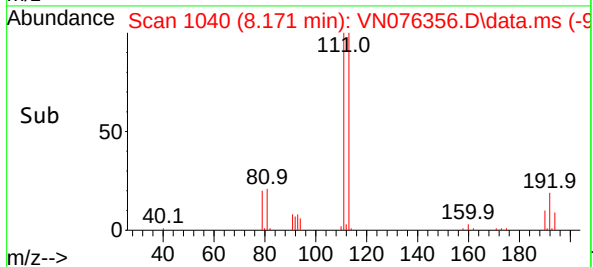
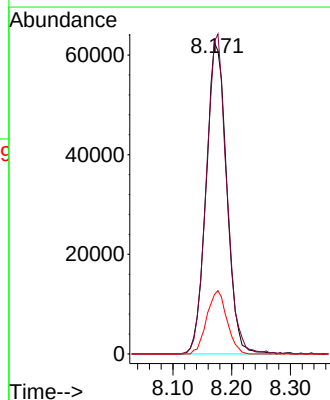
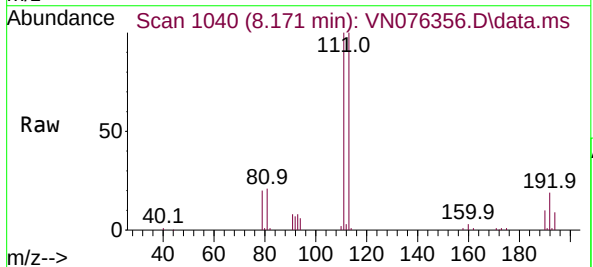
Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

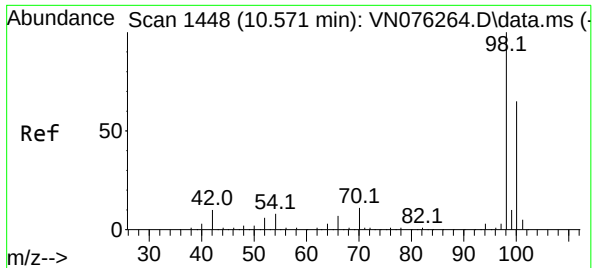
Tgt Ion:114 Resp: 491398
Ion Ratio Lower Upper
114 100
63 19.4 0.0 35.8
88 15.0 0.0 28.0



#35
Dibromofluoromethane
Concen: 49.508 ug/l
RT: 8.171 min Scan# 1040
Delta R.T. -0.000 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

Tgt Ion:113 Resp: 152183
Ion Ratio Lower Upper
113 100
111 101.2 82.7 124.1
192 19.8 15.6 23.4

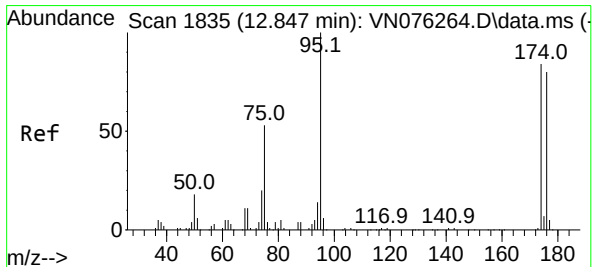
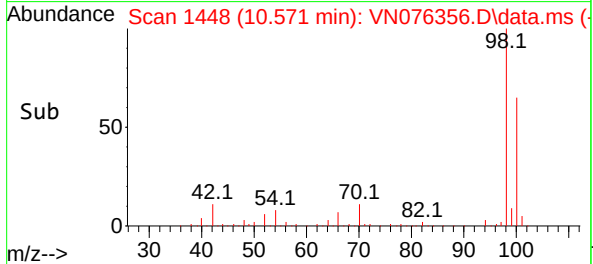
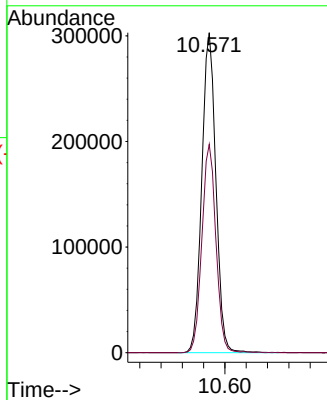
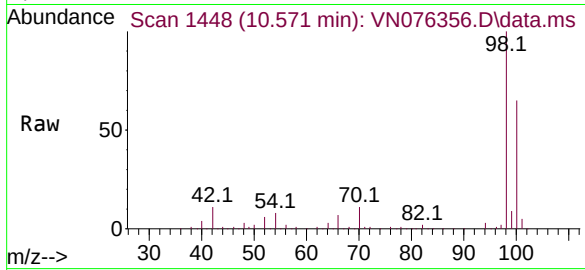




#50
Toluene-d8
Concen: 48.887 ug/l
RT: 10.571 min Scan# 1448
Delta R.T. -0.000 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

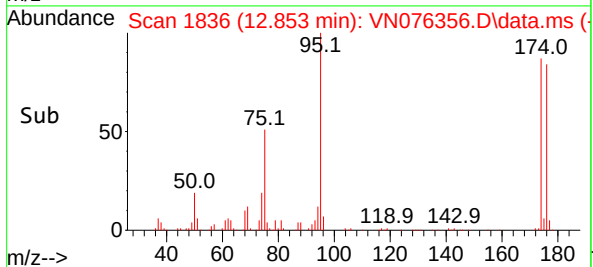
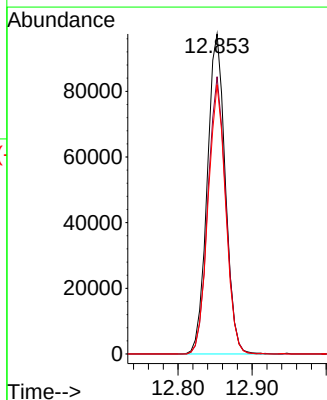
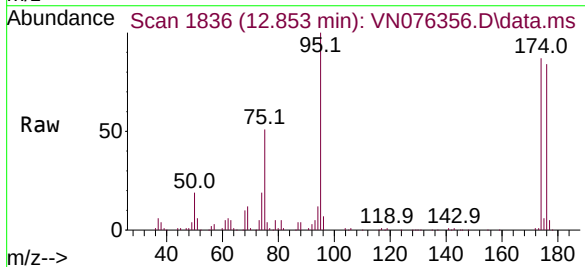
Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

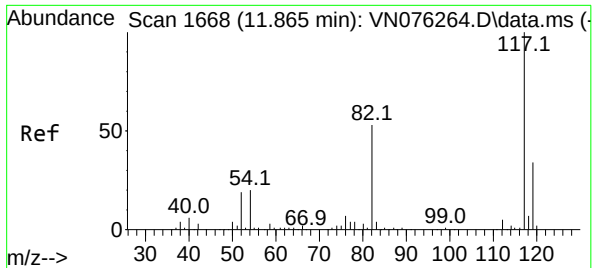
Tgt Ion: 98 Resp: 554976
Ion Ratio Lower Upper
98 100
100 65.0 52.2 78.4



#62
4-Bromofluorobenzene
Concen: 44.438 ug/l
RT: 12.853 min Scan# 1836
Delta R.T. 0.006 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

Tgt Ion: 95 Resp: 164687
Ion Ratio Lower Upper
95 100
174 85.6 0.0 174.6
176 82.4 0.0 167.8

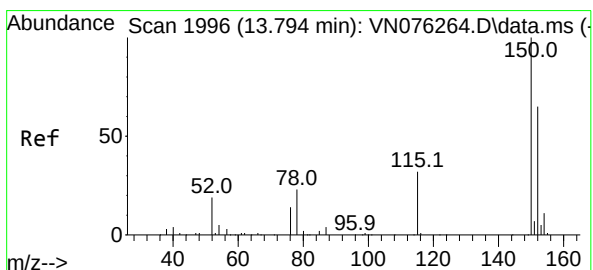
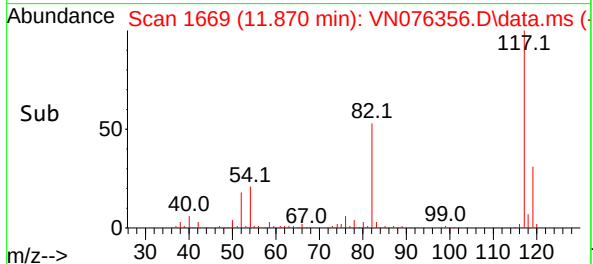
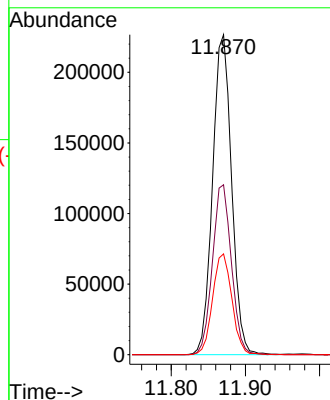
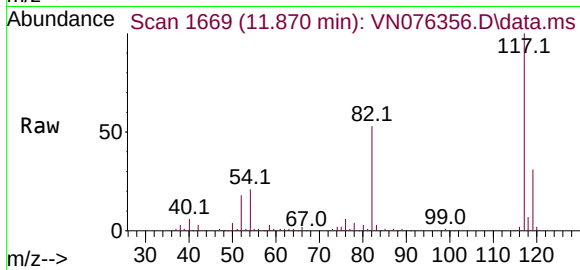




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 11
Delta R.T. 0.005 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

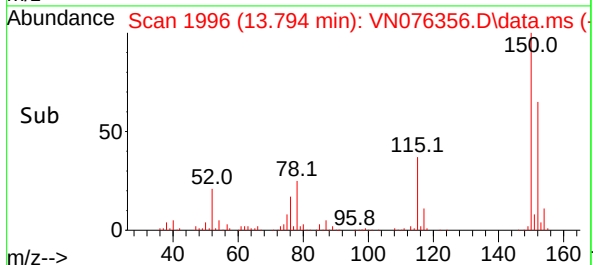
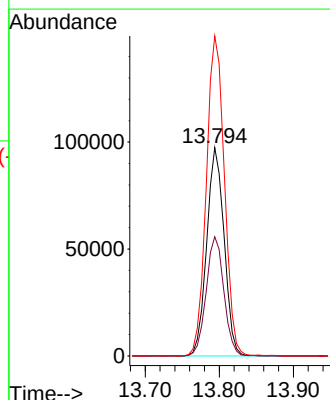
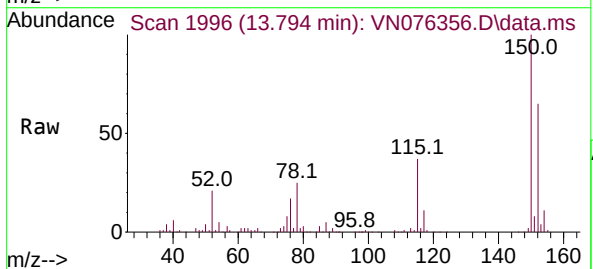
Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

Tgt Ion:117 Resp: 403787
Ion Ratio Lower Upper
117 100
82 53.1 42.2 63.2
119 31.5 26.9 40.3



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 1996
Delta R.T. -0.000 min
Lab File: VN076356.D
Acq: 23 Jan 2023 10:51

Tgt Ion:152 Resp: 158993
Ion Ratio Lower Upper
152 100
115 58.2 29.6 88.9
150 159.3 0.0 351.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076356.D
 Acq On : 23 Jan 2023 10:51
 Operator : JC\MD
 Sample : VN0123MBL01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0123MBL01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Title : SW846 8260

Signal : TIC: VN076356.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.830	127	132	138	rVB6	8168	16535	1.15%	0.221%
2	8.177	1030	1041	1045	rBV	208756	504959	35.13%	6.744%
3	8.230	1045	1050	1064	rVB	406215	889521	61.89%	11.881%
4	8.582	1101	1110	1122	rBV	207095	471482	32.81%	6.297%
5	9.106	1189	1199	1216	rBV	541600	1098819	76.46%	14.676%
6	10.571	1438	1448	1462	rBV	781870	1437210	100.00%	19.196%
7	11.870	1660	1669	1681	rBV	667953	1192592	82.98%	15.928%
8	12.853	1828	1836	1845	rBV	501778	844976	58.79%	11.286%
9	13.794	1989	1996	2005	rVB	580614	970171	67.50%	12.958%
10	15.400	2261	2269	2274	rBV4	7634	14629	1.02%	0.195%
11	15.647	2304	2311	2318	rVB	14842	29730	2.07%	0.397%
12	15.841	2339	2344	2350	rBV3	9395	16574	1.15%	0.221%

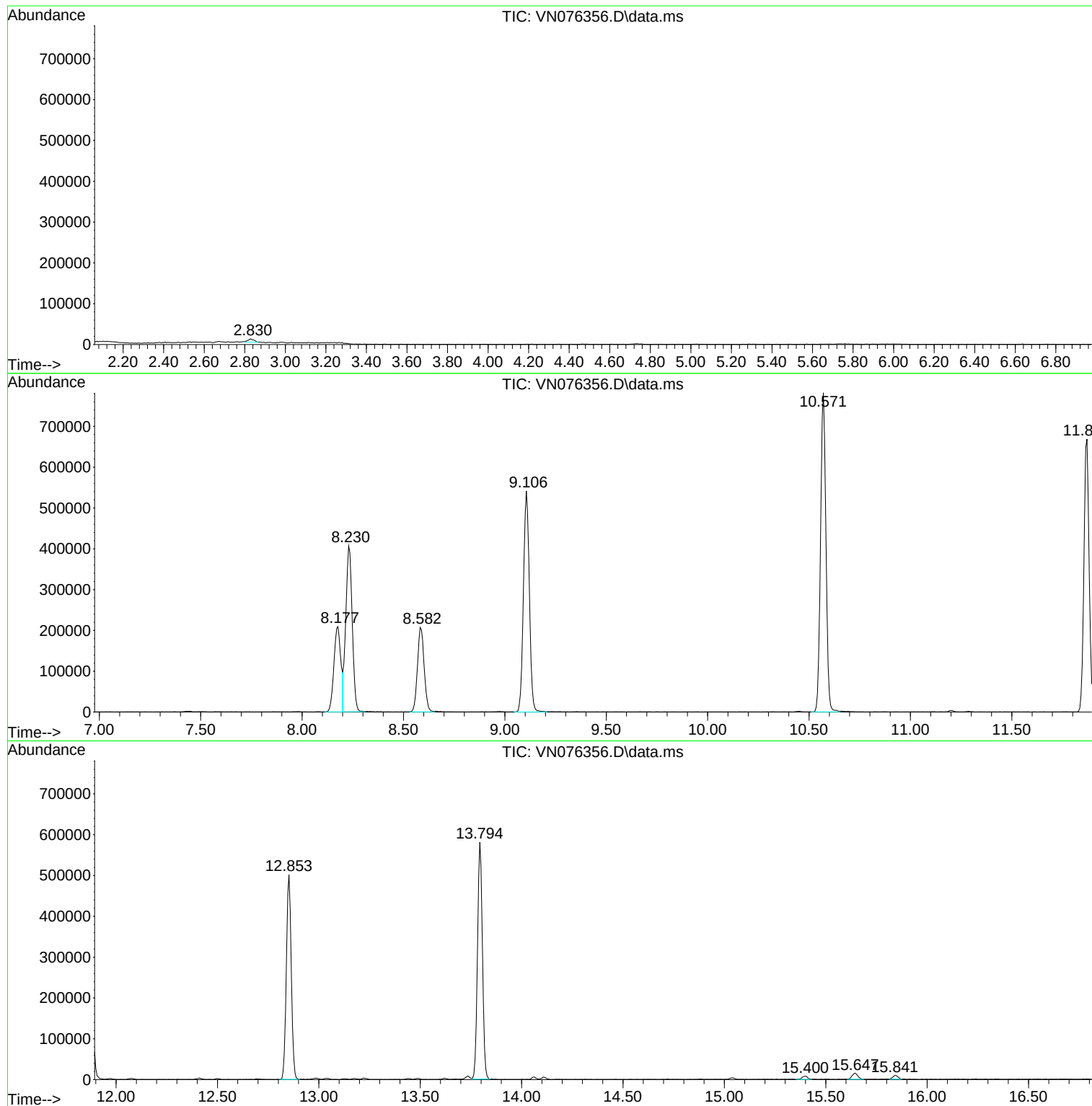
Sum of corrected areas: 7487198

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076356.D
Acq On : 23 Jan 2023 10:51
Operator : JC\MD
Sample : VN0123MBL01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076356.D
Acq On : 23 Jan 2023 10:51
Operator : JC\MD
Sample : VN0123MBL01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076356.D
Acq On : 23 Jan 2023 10:51
Operator : JC\MD
Sample : VN0123MBL01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0123MBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--
				#	RT Resp Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBL01	SDG No.:	O1233
Lab Sample ID:	VY0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012308.D	1		01/23/23 13:04	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.86	U	0.86	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.91	U	0.91	5.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	0.89	U	0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.97	U	0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.72	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
67-64-1	Acetone	12.2	U	12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	0.75	U	0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.93	U	0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	6.00	U	6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.70	U	0.70	5.00	ug/Kg
110-82-7	Cyclohexane	0.84	U	0.84	5.00	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.79	U	0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	0.81	U	0.81	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.75	U	0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.80	U	0.80	5.00	ug/Kg
71-43-2	Benzene	0.66	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.84	U	0.84	5.00	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.60	U	4.60	25.0	ug/Kg
108-88-3	Toluene	0.63	U	0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	0.74	U	0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.71	U	0.71	5.00	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBL01	SDG No.:	O1233
Lab Sample ID:	VY0123SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012308.D	1		01/23/23 13:04	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	0.86	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	4.70	U	4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.75	U	0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.76	U	0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	0.65	U	0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.50	U	1.50	10.0	ug/Kg
95-47-6	o-Xylene	0.79	U	0.79	5.00	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.72	U	0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.63	U	0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.20	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.94	U	0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1.00	U	1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.7		50 - 163	105%	SPK: 50
1868-53-7	Dibromofluoromethane	45.4		54 - 147	91%	SPK: 50
2037-26-5	Toluene-d8	47.0		58 - 134	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.2		30 - 143	82%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	162000	7.789			
540-36-3	1,4-Difluorobenzene	255000	8.691			
3114-55-4	Chlorobenzene-d5	228000	11.489			
3855-82-1	1,4-Dichlorobenzene-d4	110000	13.428			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VY0123SBL01		SDG No.:	O1233
Lab Sample ID:	VY0123SBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012308.D	1		01/23/23 13:04	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012308.D
 Acq On : 23 Jan 2023 13:04
 Operator : KP/MD
 Sample : VY0123SBL01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0123SBL01

Quant Time: Jan 23 14:21:45 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	162197	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	255207	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	227538	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	110055	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	70582	52.713	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	105.420%
35) Dibromofluoromethane	7.721	113	61363	45.410	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	90.820%
50) Toluene-d8	10.178	98	221191	46.981	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	=	93.960%
62) 4-Bromofluorobenzene	12.483	95	78432	41.173	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	=	82.340%

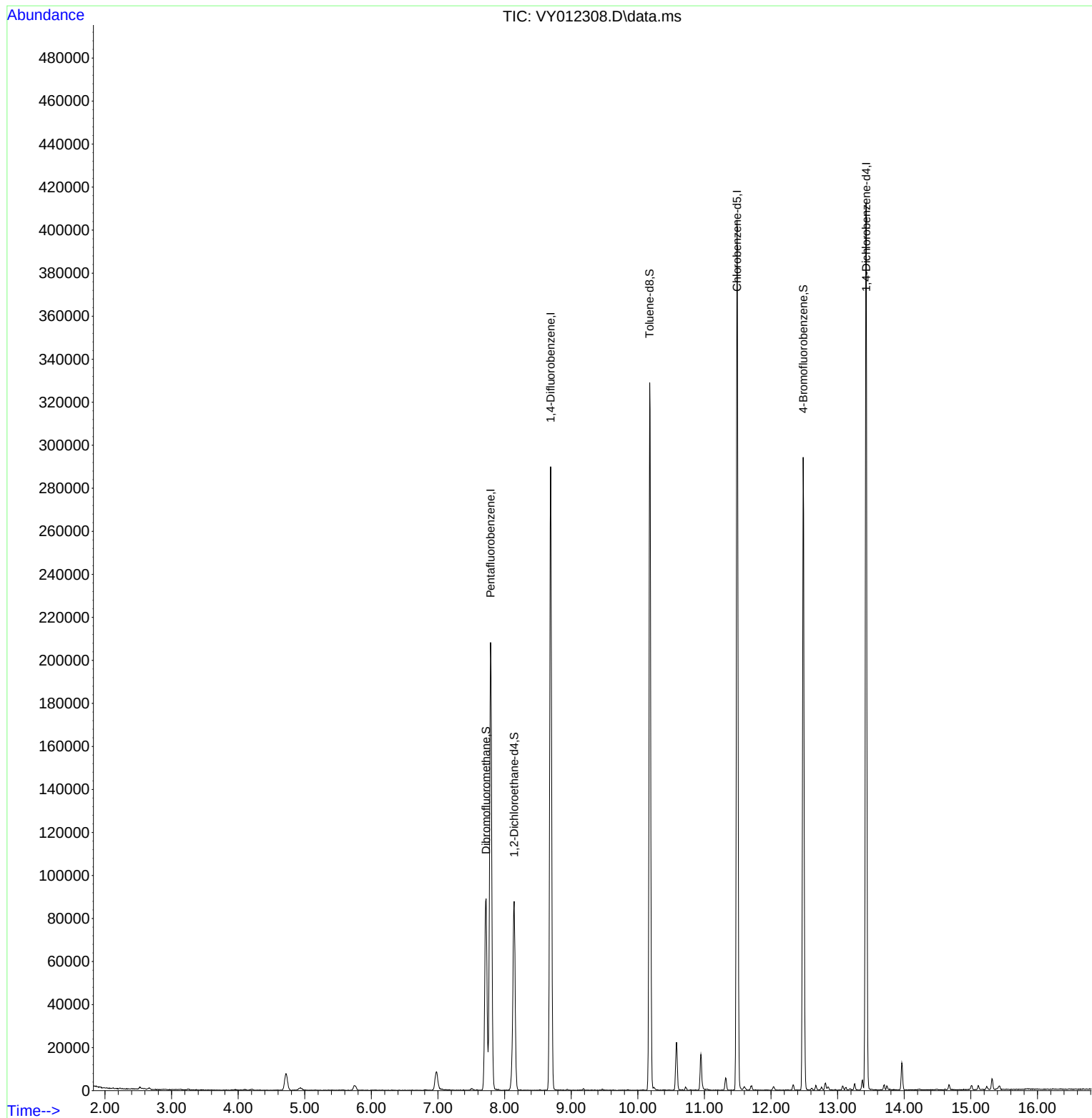
Target Compounds	Qvalue

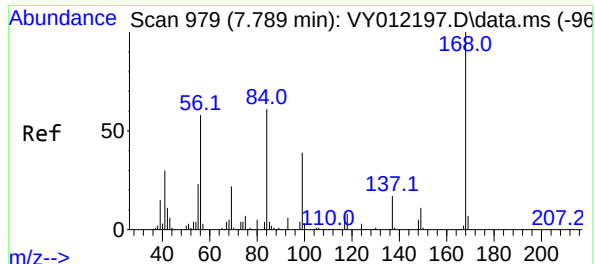
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012308.D
Acq On : 23 Jan 2023 13:04
Operator : KP/MD
Sample : VY0123SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBL01

Quant Time: Jan 23 14:21:45 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration





Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.789 min Scan# 91

Delta R.T. -0.000 min

Lab File: VY012308.D

Acq: 23 Jan 2023 13:04

Instrument :

MSVOA_Y

ClientSampleId :

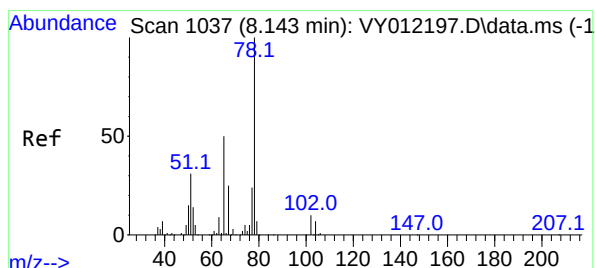
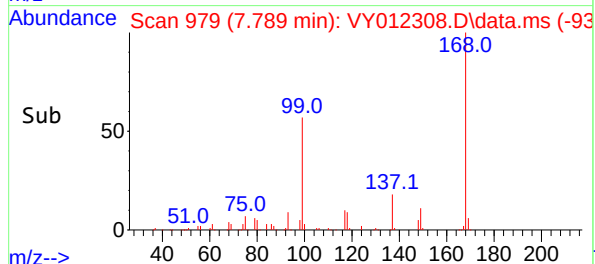
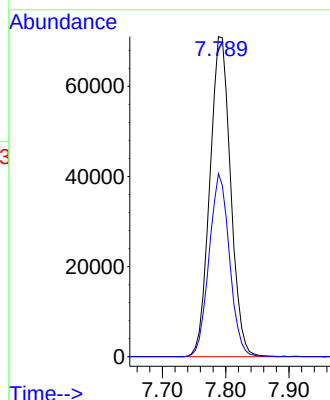
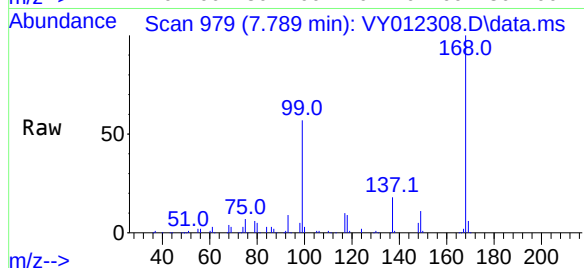
VY0123SBL01

Tgt Ion:168 Resp: 162197

Ion Ratio Lower Upper

168 100

99 57.2 44.0 66.0



#33

1,2-Dichloroethane-d4

Concen: 52.713 ug/l

RT: 8.142 min Scan# 1037

Delta R.T. -0.001 min

Lab File: VY012308.D

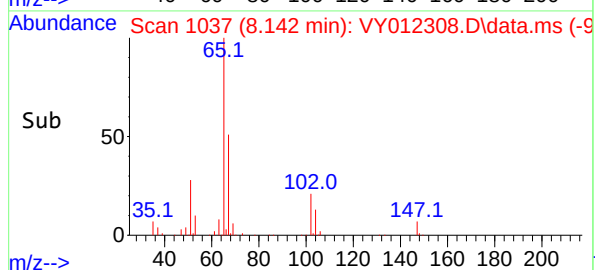
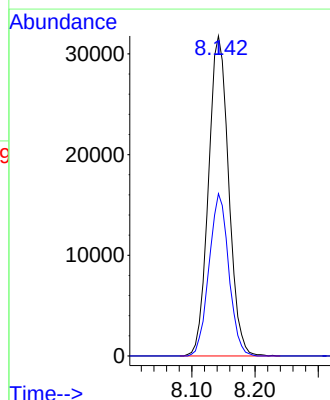
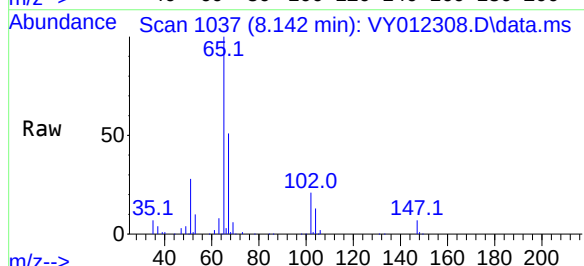
Acq: 23 Jan 2023 13:04

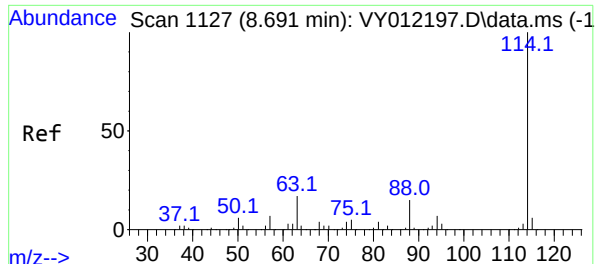
Tgt Ion: 65 Resp: 70582

Ion Ratio Lower Upper

65 100

67 49.5 0.0 103.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.691 min Scan# 1127

Delta R.T. -0.000 min

Lab File: VY012308.D

Acq: 23 Jan 2023 13:04

Instrument :

MSVOA_Y

ClientSampleId :

VY0123SBL01

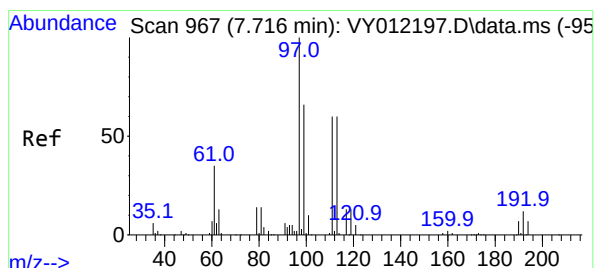
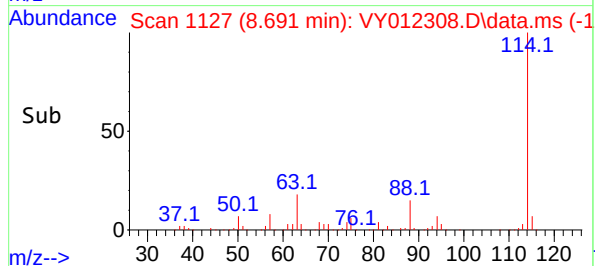
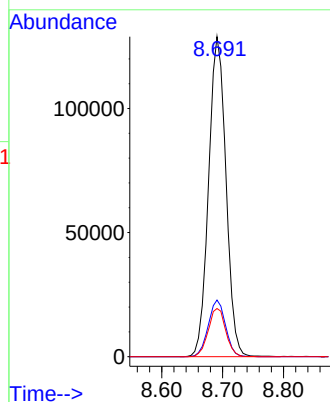
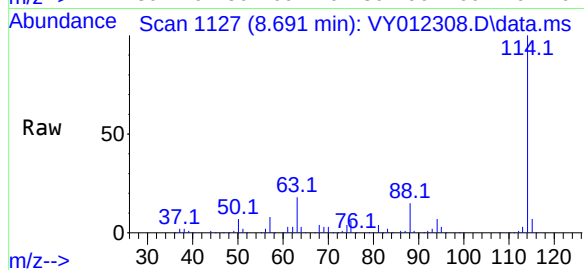
Tgt Ion:114 Resp: 255207

Ion Ratio Lower Upper

114 100

63 17.7 0.0 39.6

88 15.1 0.0 32.2



#35

Dibromofluoromethane

Concen: 45.410 ug/l

RT: 7.721 min Scan# 968

Delta R.T. 0.005 min

Lab File: VY012308.D

Acq: 23 Jan 2023 13:04

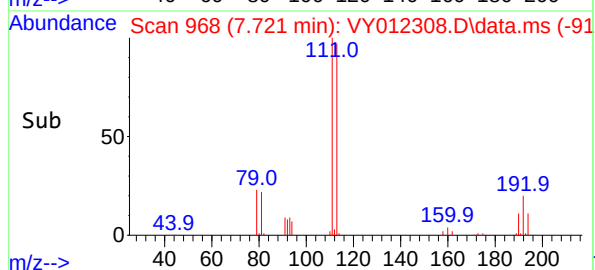
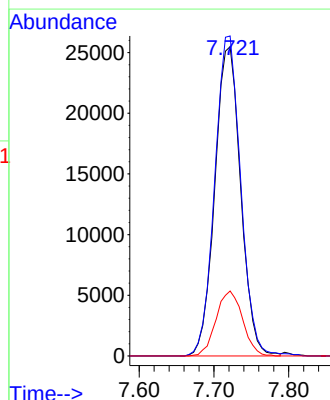
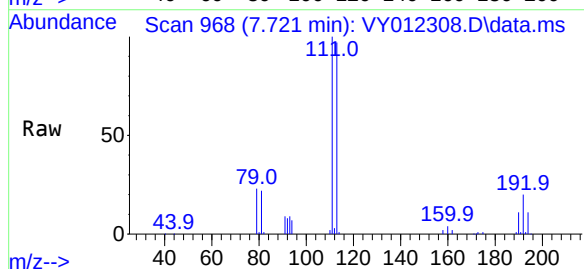
Tgt Ion:113 Resp: 61363

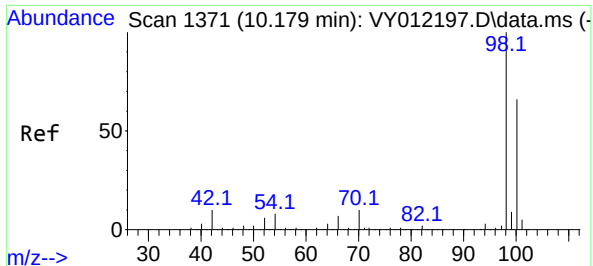
Ion Ratio Lower Upper

113 100

111 103.9 83.0 124.4

192 21.5 16.0 24.0

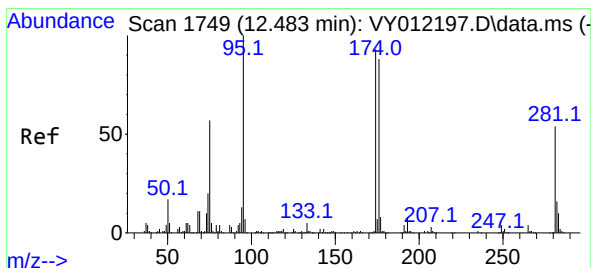
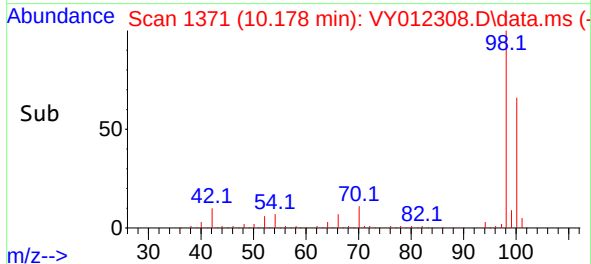
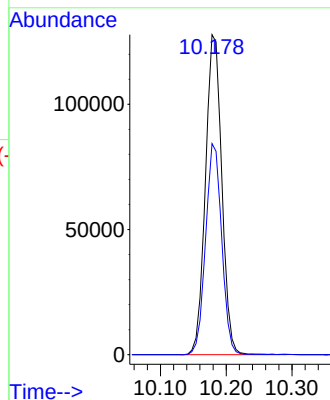
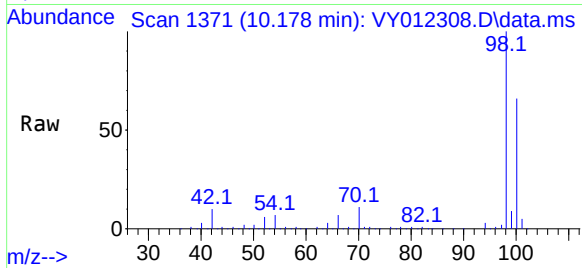




#50
Toluene-d8
Concen: 46.981 ug/l
RT: 10.178 min Scan# 11
Delta R.T. -0.001 min
Lab File: VY012308.D
Acq: 23 Jan 2023 13:04

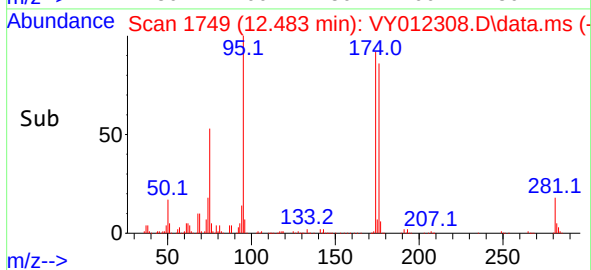
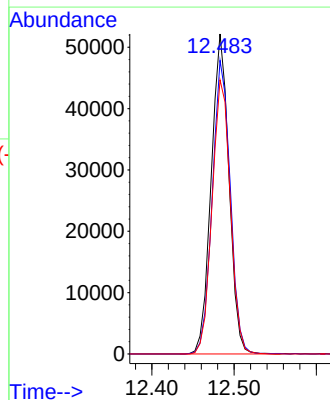
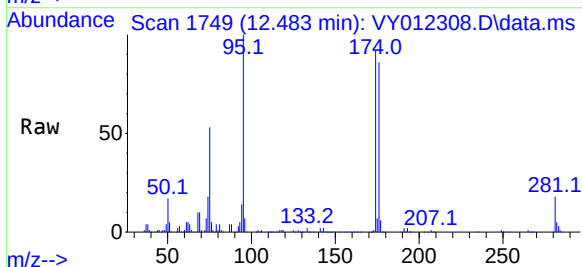
Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBL01

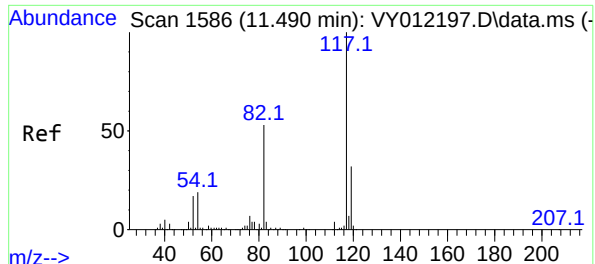
Tgt Ion: 98 Resp: 221191
Ion Ratio Lower Upper
98 100
100 64.9 51.9 77.9



#62
4-Bromofluorobenzene
Concen: 41.173 ug/l
RT: 12.483 min Scan# 1749
Delta R.T. -0.000 min
Lab File: VY012308.D
Acq: 23 Jan 2023 13:04

Tgt Ion: 95 Resp: 78432
Ion Ratio Lower Upper
95 100
174 92.6 0.0 172.0
176 87.8 0.0 167.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.489 min Scan# 11

Delta R.T. -0.001 min

Lab File: VY012308.D

Acq: 23 Jan 2023 13:04

Instrument :

MSVOA_Y

ClientSampleId :

VY0123SBL01

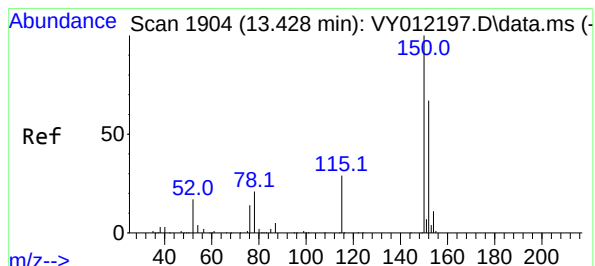
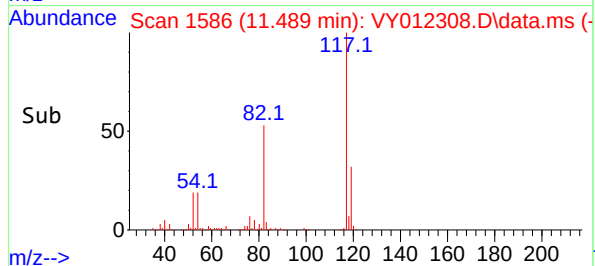
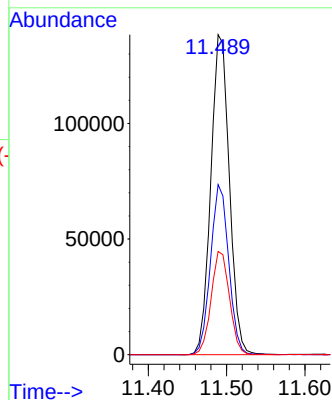
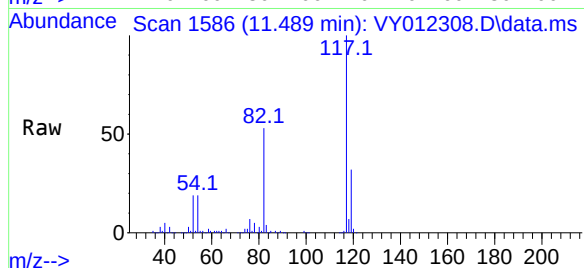
Tgt Ion:117 Resp: 227538

Ion Ratio Lower Upper

117 100

82 53.2 44.8 67.2

119 32.3 25.4 38.2



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.428 min Scan# 1904

Delta R.T. 0.006 min

Lab File: VY012308.D

Acq: 23 Jan 2023 13:04

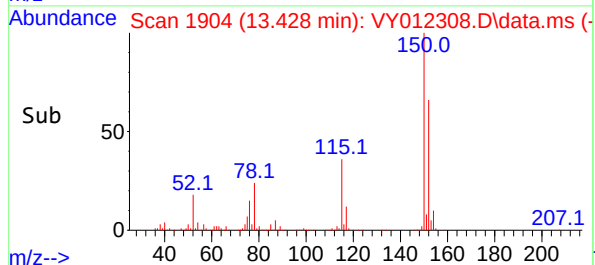
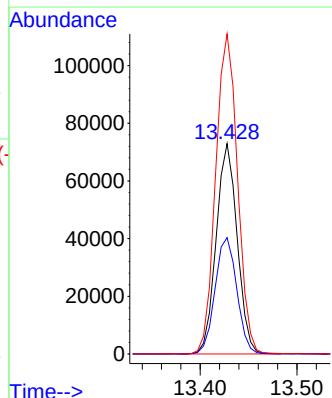
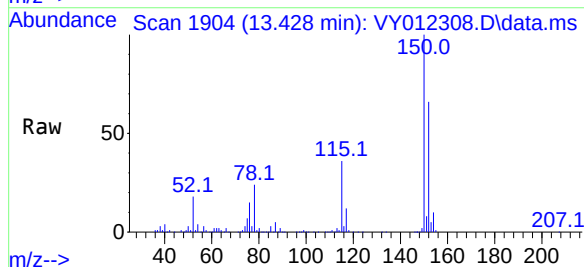
Tgt Ion:152 Resp: 110055

Ion Ratio Lower Upper

152 100

115 57.2 29.1 87.3

150 158.2 0.0 342.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012308.D
 Acq On : 23 Jan 2023 13:04
 Operator : KP/MD
 Sample : VY0123SBL01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0123SBL01

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 1

Min Area: 3 % of largest Peak

Start Thrs: 0.2

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Title : SW846 8260

Signal : TIC: VY012308.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.716	466	475	486	rVB3	7760	23990	3.65%	0.603%
2	5.740	635	643	655	rVB5	2184	6744	1.03%	0.170%
3	6.978	835	846	855	rBV3	8634	26764	4.07%	0.673%
4	7.721	958	968	973	rBV	88989	214151	32.59%	5.386%
5	7.789	973	979	992	rVB	207872	468537	71.30%	11.783%
6	8.142	1021	1037	1050	rBV2	87800	213281	32.46%	5.364%
7	8.691	1118	1127	1140	rBV	289905	569029	86.60%	14.311%
8	10.178	1364	1371	1379	rBV	328890	564010	85.83%	14.184%
9	10.581	1431	1437	1444	rVB	22192	38821	5.91%	0.976%
10	10.947	1491	1497	1508	rBV	16569	29125	4.43%	0.732%
11	11.318	1552	1558	1564	rBV2	5859	10151	1.54%	0.255%
12	11.489	1579	1586	1598	rBV	404362	657109	100.00%	16.526%
13	12.483	1742	1749	1760	rBV2	294047	476844	72.57%	11.992%
14	13.373	1889	1895	1898	rBV2	4470	6625	1.01%	0.167%
15	13.428	1898	1904	1913	rVB	412141	642404	97.76%	16.156%
16	13.964	1986	1992	2000	rBV	12686	20506	3.12%	0.516%
17	15.318	2209	2214	2222	rVB2	5105	8188	1.25%	0.206%

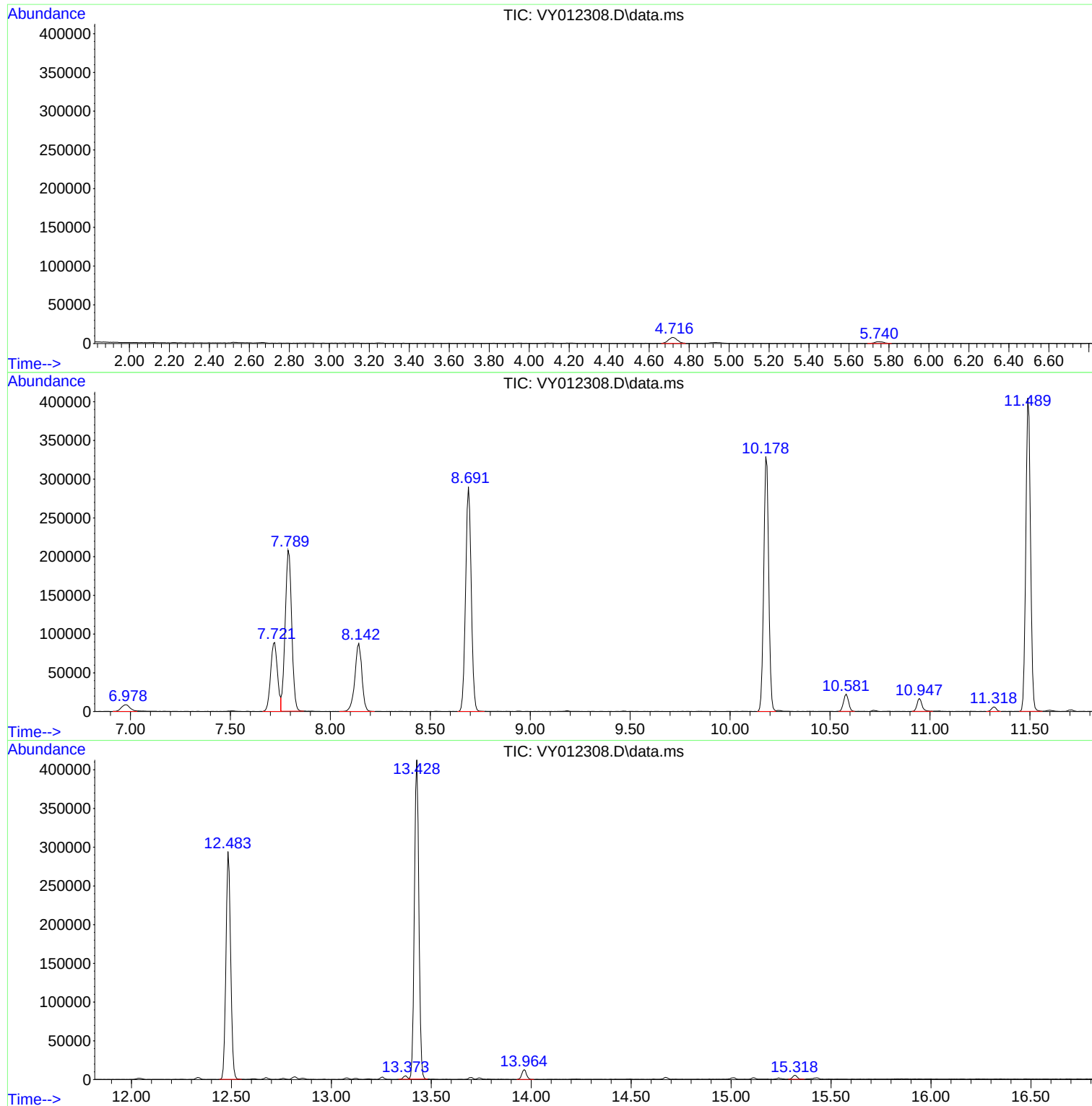
Sum of corrected areas: 3976279

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012308.D
Acq On : 23 Jan 2023 13:04
Operator : KP/MD
Sample : VY0123SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012308.D
Acq On : 23 Jan 2023 13:04
Operator : KP/MD
Sample : VY0123SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012308.D
Acq On : 23 Jan 2023 13:04
Operator : KP/MD
Sample : VY0123SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VD0120SBS02		SDG No.:	O1233
Lab Sample ID:	VD0120SBS02		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075150.D	1		01/20/23 13:45	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	25.8		0.86	5.00	ug/Kg
74-87-3	Chloromethane	22.6		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.1		0.91	5.00	ug/Kg
74-83-9	Bromomethane	21.1		1.20	5.00	ug/Kg
75-00-3	Chloroethane	20.7		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.2		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	21.7		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	22.5		0.86	5.00	ug/Kg
67-64-1	Acetone	99.8		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	21.8		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.8		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	22.8		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	20.1		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.1		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.6		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	21.7		0.84	5.00	ug/Kg
78-93-3	2-Butanone	110		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.0		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21.6		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	24.1		0.81	5.00	ug/Kg
67-66-3	Chloroform	21.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.8		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	21.0		0.80	5.00	ug/Kg
71-43-2	Benzene	21.4		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.9		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	20.6		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.7		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.4		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.60	25.0	ug/Kg
108-88-3	Toluene	20.7		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20.0		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.7		0.71	5.00	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBS02	SDG No.:	O1233
Lab Sample ID:	VD0120SBS02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075150.D	1		01/20/23 13:45	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	20.9		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.0		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	21.0		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.2		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.4		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.4		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.6		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.9		0.79	5.00	ug/Kg
100-42-5	Styrene	20.7		0.79	5.00	ug/Kg
75-25-2	Bromoform	19.9		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.1		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	21.7		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.8		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.8		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.4		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	21.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.2		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.4		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.1		50 - 163	112%	SPK: 50
1868-53-7	Dibromofluoromethane	53.0		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	53.3		58 - 134	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.5		30 - 143	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	78300	7.875			
540-36-3	1,4-Difluorobenzene	143000	8.781			
3114-55-4	Chlorobenzene-d5	129000	11.586			
3855-82-1	1,4-Dichlorobenzene-d4	58000	13.522			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0120SBS02	SDG No.:	O1233
Lab Sample ID:	VD0120SBS02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075150.D	1		01/20/23 13:45	VD012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075150.D
 Acq On : 20 Jan 2023 13:45
 Operator : KP/SY
 Sample : VD0120SBS02
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0120SBS02

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/23/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:31:03 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	78332	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	142964	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.586	117	128592	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	58018	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	44838	56.095	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 112.200%			
35) Dibromofluoromethane	7.810	113	45797	53.013	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 106.020%			
50) Toluene-d8	10.269	98	181451	53.345	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 106.700%			
62) 4-Bromofluorobenzene	12.575	95	57742	53.489	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 106.980%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.928	85	16744	25.810	ug/l	100
3) Chloromethane	2.146	50	22911	22.642	ug/l	98
4) Vinyl Chloride	2.281	62	21786	20.065	ug/l	98
5) Bromomethane	2.687	94	15595	21.120	ug/l	97
6) Chloroethane	2.834	64	15556	20.663	ug/l	97
7) Trichlorofluoromethane	3.175	101	29230	21.180	ug/l	99
8) Diethyl Ether	3.593	74	9792	22.021	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.969	101	18471	21.680	ug/l	99
10) Methyl Iodide	4.163	142	21116	18.412	ug/l	99
11) Tert butyl alcohol	5.051	59	6776m	121.515	ug/l	
12) 1,1-Dichloroethene	3.946	96	20141	22.456	ug/l	89
13) Acrolein	3.793	56	6739	133.197	ug/l	96
14) Allyl chloride	4.563	41	31684	21.767	ug/l	99
15) Acrylonitrile	5.251	53	22449	119.392	ug/l	95
16) Acetone	4.022	43	21046	99.831	ug/l	96
17) Carbon Disulfide	4.269	76	63561	21.849	ug/l	98
18) Methyl Acetate	4.569	43	13044	22.763	ug/l	99
19) Methyl tert-butyl Ether	5.316	73	40831	21.793	ug/l	96
20) Methylene Chloride	4.798	84	27243	20.105	ug/l	95
21) trans-1,2-Dichloroethene	5.310	96	21087	21.119	ug/l	96
22) Diisopropyl ether	6.216	45	58926	21.750	ug/l	96
23) Vinyl Acetate	6.157	43	118156	98.952	ug/l	99
24) 1,1-Dichloroethane	6.116	63	36826	21.629	ug/l	98
25) 2-Butanone	7.081	43	27005	105.987	ug/l #	88
26) 2,2-Dichloropropane	7.081	77	30829	20.312	ug/l	99
27) cis-1,2-Dichloroethene	7.087	96	23491	21.583	ug/l	99
28) Bromochloromethane	7.428	49	11183	24.057	ug/l #	94
29) Tetrahydrofuran	7.445	42	14988	103.134	ug/l	96
30) Chloroform	7.598	83	36571	21.540	ug/l	99
31) Cyclohexane	7.881	56	34816	21.718	ug/l	96
32) 1,1,1-Trichloroethane	7.792	97	30406	20.787	ug/l	98
36) 1,1-Dichloropropene	8.016	75	29109	20.972	ug/l	99
37) Ethyl Acetate	7.169	43	11336	20.272	ug/l #	77
38) Carbon Tetrachloride	7.992	117	23397	20.020	ug/l	97
39) Methylcyclohexane	9.275	83	35990	21.041	ug/l	97
40) Benzene	8.257	78	84656	21.387	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
 Data File : VD075150.D
 Acq On : 20 Jan 2023 13:45
 Operator : KP/SY
 Sample : VD0120SBS02
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0120SBS02

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/23/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:31:03 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.404	41	6420	19.080	ug/l	94
42) 1,2-Dichloroethane	8.322	62	21768	20.936	ug/l	97
43) Isopropyl Acetate	8.363	43	22364	20.551	ug/l	98
44) Trichloroethene	9.028	130	22876	20.552	ug/l	95
45) 1,2-Dichloropropane	9.310	63	20164	20.680	ug/l	99
46) Dibromomethane	9.398	93	11132	21.648	ug/l	90
47) Bromodichloromethane	9.586	83	25968	20.355	ug/l	100
48) Methyl methacrylate	9.381	41	11392	21.408	ug/l	91
49) 1,4-Dioxane	9.375	88	1879	382.754	ug/l	91
51) 4-Methyl-2-Pentanone	10.157	43	55776	106.735	ug/l	98
52) Toluene	10.333	92	51696	20.667	ug/l	96
53) t-1,3-Dichloropropene	10.557	75	24172	20.027	ug/l	97
54) cis-1,3-Dichloropropene	10.016	75	30475	20.667	ug/l	96
55) 1,1,2-Trichloroethane	10.733	97	14229	20.909	ug/l	97
56) Ethyl methacrylate	10.604	69	16941	20.700	ug/l	100
57) 1,3-Dichloropropane	10.881	76	25108	21.471	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.875	63	29564	105.571	ug/l	100
59) 2-Hexanone	10.928	43	39696	105.059	ug/l	99
60) Dibromochloromethane	11.075	129	16415	20.012	ug/l	99
61) 1,2-Dibromoethane	11.181	107	13652	20.996	ug/l	95
64) Tetrachloroethene	10.816	164	17673	19.246	ug/l	97
65) Chlorobenzene	11.610	112	53680	20.372	ug/l	94
66) 1,1,1,2-Tetrachloroethane	11.686	131	17354	19.580	ug/l	99
67) Ethyl Benzene	11.686	91	96677	20.383	ug/l	99
68) m/p-Xylenes	11.798	106	76194	41.585	ug/l	95
69) o-Xylene	12.122	106	35908	20.892	ug/l	99
70) Styrene	12.139	104	59225	20.729	ug/l	99
71) Bromoform	12.304	173	9093	19.869	ug/l #	95
73) Isopropylbenzene	12.428	105	91940	20.062	ug/l	99
74) N-amyl acetate	12.239	43	19440	19.365	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.675	83	15853	21.711	ug/l	97
76) 1,2,3-Trichloropropane	12.727	75	10031m	20.414	ug/l	
77) Bromobenzene	12.704	156	19839	18.953	ug/l	92
78) n-propylbenzene	12.769	91	114163	20.272	ug/l	100
79) 2-Chlorotoluene	12.851	91	61288	19.788	ug/l	99
80) 1,3,5-Trimethylbenzene	12.904	105	75225	20.035	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.469	75	4091	19.312	ug/l	94
82) 4-Chlorotoluene	12.951	91	64851	20.365	ug/l	99
83) tert-Butylbenzene	13.169	119	66075	20.339	ug/l	96
84) 1,2,4-Trimethylbenzene	13.216	105	73929	20.049	ug/l	100
85) sec-Butylbenzene	13.345	105	100360	20.336	ug/l	97
86) p-Isopropyltoluene	13.463	119	80055	19.813	ug/l	99
87) 1,3-Dichlorobenzene	13.463	146	40237	19.830	ug/l	97
88) 1,4-Dichlorobenzene	13.539	146	41521	20.798	ug/l	99
89) n-Butylbenzene	13.792	91	79235	20.125	ug/l	99
90) Hexachloroethane	14.057	117	13854	19.417	ug/l	95
91) 1,2-Dichlorobenzene	13.833	146	35436	20.413	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.451	75	2427	21.739	ug/l	89
93) 1,2,4-Trichlorobenzene	15.104	180	20781	18.230	ug/l	99
94) Hexachlorobutadiene	15.210	225	10476	18.752	ug/l	98
95) Naphthalene	15.339	128	41539	18.305	ug/l	99
96) 1,2,3-Trichlorobenzene	15.527	180	17863	18.365	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\
Data File : VD075150.D
Acq On : 20 Jan 2023 13:45
Operator : KP/SY
Sample : VD0120SBS02
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0120SBS02

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:31:03 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

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

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

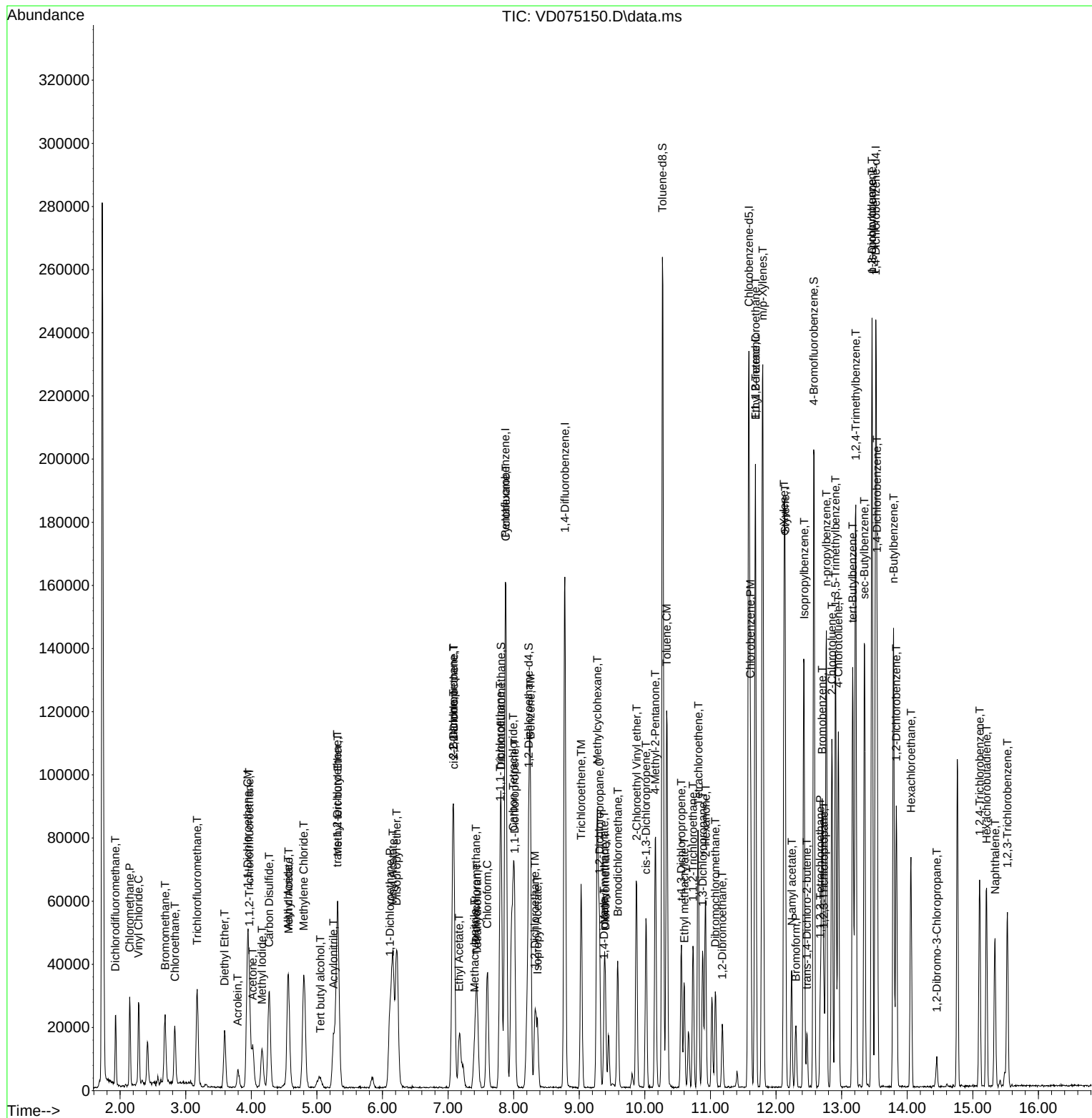
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012023\  
Data File : VD075150.D  
Acq On    : 20 Jan 2023   13:45  
Operator  : KP/SY  
Sample    : VD0120SBS02  
Misc      : 5.00G/5.00ml/MSVOA_D/SOIL  
ALS Vial  : 7      Sample Multiplier: 1
```

Instrument :
MSVOA_D
ClientSampleId :
VD0120SBS02

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 00:31:03 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VD0123SBS01		SDG No.:	O1233
Lab Sample ID:	VD0123SBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075170.D	1		01/23/23 12:41	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	24.9		0.86	5.00	ug/Kg
74-87-3	Chloromethane	22.7		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.4		0.91	5.00	ug/Kg
74-83-9	Bromomethane	19.9		1.20	5.00	ug/Kg
75-00-3	Chloroethane	19.7		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.3		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	22.1		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	21.7		0.86	5.00	ug/Kg
67-64-1	Acetone	100		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	21.8		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.1		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	22.0		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	16.3		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.2		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.5		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	22.0		0.84	5.00	ug/Kg
78-93-3	2-Butanone	100		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.3		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.8		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	23.2		0.81	5.00	ug/Kg
67-66-3	Chloroform	20.9		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	21.0		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.8		0.80	5.00	ug/Kg
71-43-2	Benzene	21.1		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.3		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	19.8		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.9		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.8		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.60	25.0	ug/Kg
108-88-3	Toluene	20.8		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.8		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.3		0.71	5.00	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBS01	SDG No.:	O1233
Lab Sample ID:	VD0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075170.D	1		01/23/23 12:41	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	21.7		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	21.3		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.6		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.7		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.6		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.9		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.1		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.8		0.79	5.00	ug/Kg
100-42-5	Styrene	20.7		0.79	5.00	ug/Kg
75-25-2	Bromoform	20.2		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	19.9		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.7		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.9		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.1		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.7		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.2		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.1		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.9		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.1		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	53.7		58 - 134	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.6		30 - 143	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	76000	7.881			
540-36-3	1,4-Difluorobenzene	135000	8.781			
3114-55-4	Chlorobenzene-d5	121000	11.586			
3855-82-1	1,4-Dichlorobenzene-d4	55800	13.522			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBS01	SDG No.:	O1233
Lab Sample ID:	VD0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075170.D	1		01/23/23 12:41	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075170.D
 Acq On : 23 Jan 2023 12:41
 Operator : KP/SY
 Sample : VD0123SBS01
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0123SBS01

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.881	168	75965	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	134615	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.586	117	120882	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	55819	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	42519	54.852	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	= 109.700%	
35) Dibromofluoromethane	7.804	113	43189	53.095	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	= 106.180%	
50) Toluene-d8	10.275	98	171966	53.692	ug/l	0.00
Spiked Amount	50.000	Range	49 - 140	Recovery	= 107.380%	
62) 4-Bromofluorobenzene	12.575	95	52443	51.593	ug/l	0.00
Spiked Amount	50.000	Range	25 - 144	Recovery	= 103.180%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	15727	24.883	ug/l	98
3) Chloromethane	2.146	50	22311	22.736	ug/l	99
4) Vinyl Chloride	2.281	62	21454	20.375	ug/l	97
5) Bromomethane	2.681	94	14268	19.925	ug/l	99
6) Chloroethane	2.834	64	14403	19.728	ug/l	99
7) Trichlorofluoromethane	3.175	101	28537	21.322	ug/l	94
8) Diethyl Ether	3.599	74	9150	21.218	ug/l	92
9) 1,1,2-Trichlorotrifluo...	3.969	101	18224	22.057	ug/l	98
10) Methyl Iodide	4.163	142	18478	16.614	ug/l	99
11) Tert butyl alcohol	5.057	59	4764	88.095	ug/l	98
12) 1,1-Dichloroethene	3.940	96	18833	21.652	ug/l	88
13) Acrolein	3.793	56	6555	133.694	ug/l	97
14) Allyl chloride	4.557	41	29258	20.726	ug/l	99
15) Acrylonitrile	5.263	53	19828	108.739	ug/l	99
16) Acetone	4.022	43	21044	102.932	ug/l	99
17) Carbon Disulfide	4.269	76	61624	21.843	ug/l	98
18) Methyl Acetate	4.569	43	12244	22.033	ug/l	99
19) Methyl tert-butyl Ether	5.316	73	38306	21.082	ug/l	96
20) Methylene Chloride	4.804	84	23024	16.321	ug/l	92
21) trans-1,2-Dichloroethene	5.310	96	20533	21.205	ug/l	92
22) Diisopropyl ether	6.216	45	56398	21.465	ug/l	96
23) Vinyl Acetate	6.151	43	84055	72.587	ug/l	95
24) 1,1-Dichloroethane	6.116	63	35445	21.467	ug/l	96
25) 2-Butanone	7.075	43	25853	104.627	ug/l	92
26) 2,2-Dichloropropane	7.075	77	28972	19.684	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	21924	20.771	ug/l	98
28) Bromochloromethane	7.428	49	10453	23.187	ug/l #	92
29) Tetrahydrofuran	7.445	42	15571	110.484	ug/l	99
30) Chloroform	7.598	83	34483	20.943	ug/l	96
31) Cyclohexane	7.881	56	34256	22.035	ug/l	97
32) 1,1,1-Trichloroethane	7.792	97	29804	21.010	ug/l	99
36) 1,1-Dichloropropene	8.010	75	27960	21.393	ug/l	98
37) Ethyl Acetate	7.163	43	11000	20.891	ug/l #	95
38) Carbon Tetrachloride	7.992	117	22389	20.346	ug/l	96
39) Methylcyclohexane	9.275	83	33566	20.840	ug/l	98
40) Benzene	8.257	78	78654	21.103	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075170.D
 Acq On : 23 Jan 2023 12:41
 Operator : KP/SY
 Sample : VD0123SBS01
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0123SBS01

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:06 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.404	41	7222	22.795	ug/l #	81
42) 1,2-Dichloroethane	8.328	62	20898	21.346	ug/l	99
43) Isopropyl Acetate	8.363	43	20791	20.291	ug/l	99
44) Trichloroethene	9.028	130	20794	19.840	ug/l	99
45) 1,2-Dichloropropane	9.310	63	18276	19.906	ug/l	98
46) Dibromomethane	9.398	93	9857	20.357	ug/l	97
47) Bromodichloromethane	9.586	83	24926	20.750	ug/l	94
48) Methyl methacrylate	9.381	41	10292	20.541	ug/l	97
49) 1,4-Dioxane	9.392	88	1929	417.310	ug/l	97
51) 4-Methyl-2-Pentanone	10.163	43	53406	108.539	ug/l	97
52) Toluene	10.333	92	48991	20.800	ug/l	95
53) t-1,3-Dichloropropene	10.557	75	22549	19.841	ug/l	98
54) cis-1,3-Dichloropropene	10.016	75	28211	20.318	ug/l	99
55) 1,1,2-Trichloroethane	10.739	97	13890	21.677	ug/l	97
56) Ethyl methacrylate	10.598	69	16060	20.841	ug/l	97
57) 1,3-Dichloropropane	10.880	76	23562	21.399	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.869	63	25824	97.935	ug/l	99
59) 2-Hexanone	10.922	43	37764	106.145	ug/l	100
60) Dibromochloromethane	11.075	129	16432	21.275	ug/l	98
61) 1,2-Dibromoethane	11.186	107	12617	20.608	ug/l	98
64) Tetrachloroethene	10.810	164	17010	19.705	ug/l	97
65) Chlorobenzene	11.610	112	51042	20.606	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.680	131	16713	20.060	ug/l	98
67) Ethyl Benzene	11.686	91	93045	20.868	ug/l	99
68) m/p-Xylenes	11.798	106	70775	41.091	ug/l	99
69) o-Xylene	12.122	106	33643	20.823	ug/l	100
70) Styrene	12.139	104	55663	20.725	ug/l	99
71) Bromoform	12.304	173	8704	20.232	ug/l #	98
73) Isopropylbenzene	12.427	105	87779	19.909	ug/l	99
74) N-amyl acetate	12.233	43	18544	19.200	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.680	83	14559	20.725	ug/l	99
76) 1,2,3-Trichloropropane	12.727	75	7709m	16.307	ug/l	
77) Bromobenzene	12.704	156	19390	19.253	ug/l	94
78) n-propylbenzene	12.769	91	111140	20.513	ug/l	98
79) 2-Chlorotoluene	12.851	91	60099	20.168	ug/l	99
80) 1,3,5-Trimethylbenzene	12.910	105	73088	20.233	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.475	75	3702	18.164	ug/l	88
82) 4-Chlorotoluene	12.951	91	61479	20.067	ug/l	99
83) tert-Butylbenzene	13.169	119	63676	20.372	ug/l	97
84) 1,2,4-Trimethylbenzene	13.216	105	71966	20.286	ug/l	97
85) sec-Butylbenzene	13.351	105	96362	20.295	ug/l	97
86) p-Isopropyltoluene	13.463	119	77734	19.997	ug/l	99
87) 1,3-Dichlorobenzene	13.463	146	38931	19.942	ug/l	96
88) 1,4-Dichlorobenzene	13.539	146	38555	20.073	ug/l	98
89) n-Butylbenzene	13.792	91	77039	20.338	ug/l	98
90) Hexachloroethane	14.057	117	13805	20.111	ug/l	93
91) 1,2-Dichlorobenzene	13.833	146	32882	19.688	ug/l	97
92) 1,2-Dibromo-3-Chloropr...	14.451	75	2227	20.733	ug/l	94
93) 1,2,4-Trichlorobenzene	15.104	180	19966	18.205	ug/l	99
94) Hexachlorobutadiene	15.210	225	9636	17.928	ug/l	96
95) Naphthalene	15.339	128	40202	18.413	ug/l	98
96) 1,2,3-Trichlorobenzene	15.533	180	16898	18.057	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075170.D
Acq On : 23 Jan 2023 12:41
Operator : KP/SY
Sample : VD0123SBS01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBS01

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:06 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

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

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

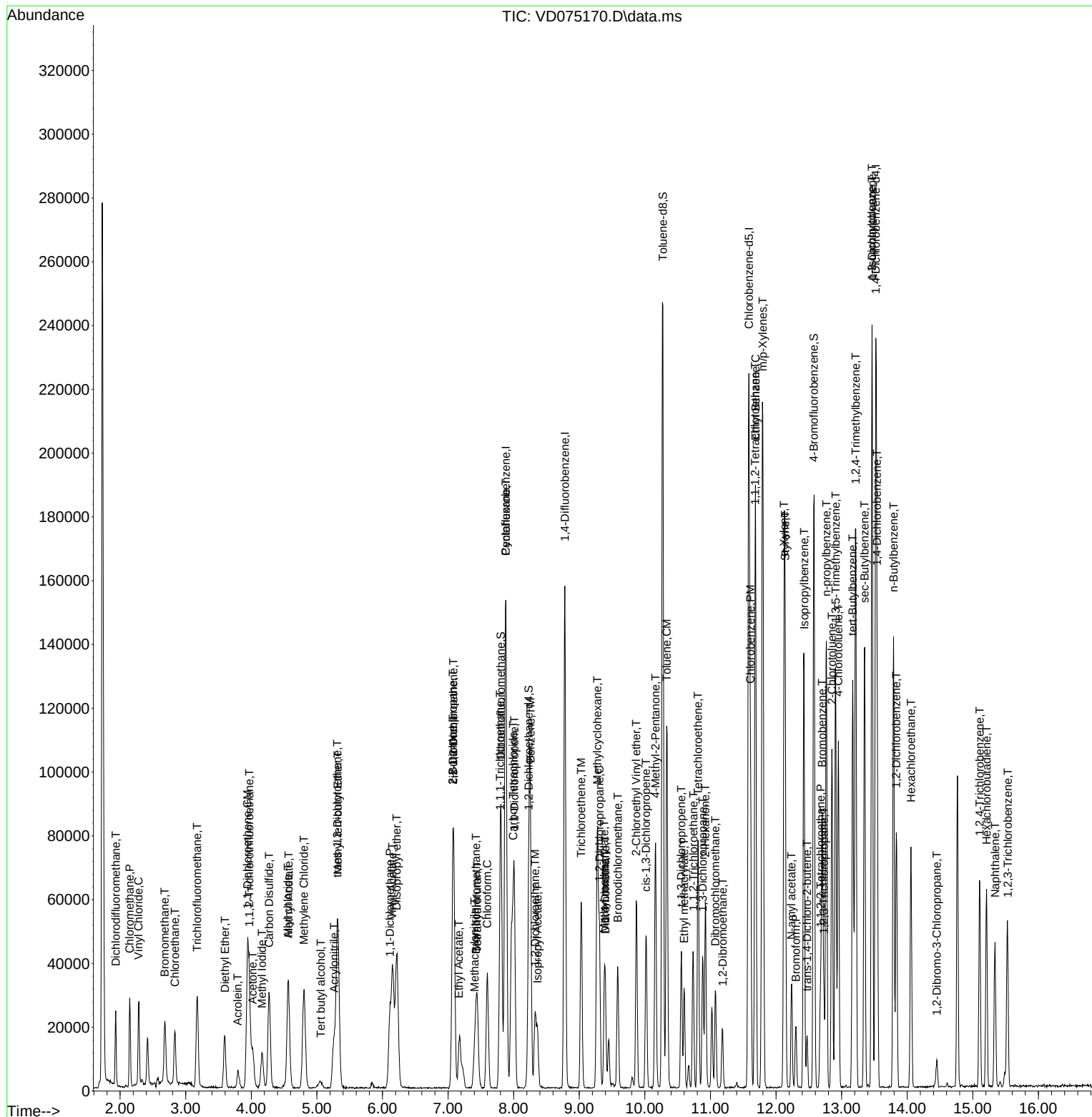
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075170.D
Acq On : 23 Jan 2023 12:41
Operator : KP/SY
Sample : VD0123SBS01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBS01

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:06 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0120WBS01	SDG No.:	O1233
Lab Sample ID:	VN0120WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076340.D	1		01/20/23 11:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.4		0.17	1.00	ug/L
74-87-3	Chloromethane	16.6		0.20	1.00	ug/L
75-01-4	Vinyl Chloride	17.5		0.22	1.00	ug/L
74-83-9	Bromomethane	17.6		1.60	5.00	ug/L
75-00-3	Chloroethane	18.8		0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	16.9		0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	17.2		0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.8		0.23	1.00	ug/L
67-64-1	Acetone	85.8		1.20	5.00	ug/L
75-15-0	Carbon Disulfide	15.2		0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	17.6		0.18	1.00	ug/L
79-20-9	Methyl Acetate	16.4		0.53	1.00	ug/L
75-09-2	Methylene Chloride	18.5		0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	16.2		0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	16.8		0.20	1.00	ug/L
110-82-7	Cyclohexane	16.2		1.20	5.00	ug/L
78-93-3	2-Butanone	83.8		0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	17.2		0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.3		0.17	1.00	ug/L
74-97-5	Bromochloromethane	18.8		0.19	1.00	ug/L
67-66-3	Chloroform	17.0		0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.5		0.18	1.00	ug/L
108-87-2	Methylcyclohexane	17.6		0.13	1.00	ug/L
71-43-2	Benzene	17.2		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	17.3		0.18	1.00	ug/L
79-01-6	Trichloroethene	16.7		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	17.0		0.17	1.00	ug/L
75-27-4	Bromodichloromethane	17.6		0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	88.6		0.87	5.00	ug/L
108-88-3	Toluene	16.7		0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.9		0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	17.3		0.16	1.00	ug/L



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBS01		SDG No.:	O1233
Lab Sample ID:	VN0120WBS01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076340.D	1		01/20/23 11:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	17.5		0.19	1.00	ug/L
591-78-6	2-Hexanone	88.3		0.76	5.00	ug/L
124-48-1	Dibromochloromethane	18.0		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	17.8		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	17.6		0.18	1.00	ug/L
108-90-7	Chlorobenzene	17.8		0.17	1.00	ug/L
100-41-4	Ethyl Benzene	18.3		0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	36.8		0.33	2.00	ug/L
95-47-6	o-Xylene	18.5		0.18	1.00	ug/L
100-42-5	Styrene	18.3		0.13	1.00	ug/L
75-25-2	Bromoform	18.1		0.16	1.00	ug/L
98-82-8	Isopropylbenzene	19.4		0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.1		0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	17.6		0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.0		0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	17.4		0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	17.9		0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	16.7		0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.1		0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	50.7		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		64 - 133	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	434000	8.23			
540-36-3	1,4-Difluorobenzene	687000	9.106			
3114-55-4	Chlorobenzene-d5	591000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	268000	13.794			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBS01		SDG No.:	O1233
Lab Sample ID:	VN0120WBS01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076340.D	1		01/20/23 11:49	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076340.D
 Acq On : 20 Jan 2023 11:49
 Operator : JC\MD
 Sample : VN0120WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0120WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:12:39 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	434458	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	686884	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	590812	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	268276	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.583	65	238528	49.034	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	98.060%
35) Dibromofluoromethane	8.171	113	216075	50.288	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	100.580%
50) Toluene-d8	10.571	98	804547	50.701	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	101.400%
62) 4-Bromofluorobenzene	12.853	95	263748	50.914	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	=	101.820%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	2.142	85	77610	17.432	ug/l	97
3) Chloromethane	2.377	50	76370	16.568	ug/l	98
4) Vinyl Chloride	2.530	62	98949	17.506	ug/l	97
5) Bromomethane	2.965	94	81538	17.616	ug/l	100
6) Chloroethane	3.130	64	79530	18.764	ug/l	100
7) Trichlorofluoromethane	3.512	101	131084	16.857	ug/l	95
8) Diethyl Ether	3.971	74	45368	17.394	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.389	101	75573	17.168	ug/l	97
10) Methyl Iodide	4.601	142	110607	16.449	ug/l	99
11) Tert butyl alcohol	5.530	59	56849	87.371	ug/l	96
12) 1,1-Dichloroethene	4.353	96	69844	16.784	ug/l	94
13) Acrolein	4.195	56	68929	88.582	ug/l	100
14) Allyl chloride	5.036	41	87576m	18.059	ug/l	
15) Acrylonitrile	5.730	53	160999	86.952	ug/l	98
16) Acetone	4.442	43	133869	85.797	ug/l	99
17) Carbon Disulfide	4.724	76	157669	15.217	ug/l	97
18) Methyl Acetate	5.042	43	86846	16.433	ug/l	97
19) Methyl tert-butyl Ether	5.812	73	238762	17.624	ug/l	100
20) Methylene Chloride	5.289	84	87170	18.511	ug/l	97
21) trans-1,2-Dichloroethene	5.800	96	73170	16.231	ug/l	99
22) Diisopropyl ether	6.683	45	197073	17.233	ug/l	97
23) Vinyl Acetate	6.612	43	632050	85.516	ug/l	99
24) 1,1-Dichloroethane	6.577	63	127878	16.775	ug/l	97
25) 2-Butanone	7.489	43	199642	83.823	ug/l	97
26) 2,2-Dichloropropane	7.500	77	112745	17.548	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	90751	17.260	ug/l	96
28) Bromochloromethane	7.818	49	58134	18.815	ug/l	100
29) Tetrahydrofuran	7.847	42	129034	87.781	ug/l	99
30) Chloroform	7.971	83	143467	17.009	ug/l	99
31) Cyclohexane	8.265	56	121204	16.219	ug/l	98
32) 1,1,1-Trichloroethane	8.177	97	134781	17.502	ug/l	90
36) 1,1-Dichloropropene	8.377	75	102658	16.814	ug/l	100
37) Ethyl Acetate	7.565	43	84360	17.250	ug/l	98
38) Carbon Tetrachloride	8.371	117	117266	17.223	ug/l	97
39) Methylcyclohexane	9.606	83	130958	17.564	ug/l	100
40) Benzene	8.612	78	314284	17.215	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076340.D
 Acq On : 20 Jan 2023 11:49
 Operator : JC\MD
 Sample : VN0120WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0120WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:12:39 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.789	41	43452	16.946	ug/l	93
42) 1,2-Dichloroethane	8.677	62	108252	17.330	ug/l	99
43) Isopropyl Acetate	8.694	43	138424	17.375	ug/l	98
44) Trichloroethene	9.359	130	86003	16.656	ug/l	93
45) 1,2-Dichloropropane	9.624	63	74191	16.973	ug/l	98
46) Dibromomethane	9.712	93	56579	17.144	ug/l	99
47) Bromodichloromethane	9.888	83	112922	17.642	ug/l	100
48) Methyl methacrylate	9.683	41	65341	17.324	ug/l	99
49) 1,4-Dioxane	9.700	88	28677	360.339	ug/l #	93
51) 4-Methyl-2-Pentanone	10.447	43	414223	88.569	ug/l	100
52) Toluene	10.630	92	204439	16.745	ug/l	96
53) t-1,3-Dichloropropene	10.835	75	109459	17.939	ug/l	97
54) cis-1,3-Dichloropropene	10.318	75	121122	17.254	ug/l	98
55) 1,1,2-Trichloroethane	11.018	97	81734	17.514	ug/l	97
56) Ethyl methacrylate	10.877	69	111865	18.568	ug/l	98
57) 1,3-Dichloropropane	11.165	76	132110	17.420	ug/l	100
58) 2-Chloroethyl Vinyl ether	10.165	63	166745	81.982	ug/l	97
59) 2-Hexanone	11.200	43	299104	88.255	ug/l	99
60) Dibromochloromethane	11.359	129	88450	18.005	ug/l	100
61) 1,2-Dibromoethane	11.471	107	83019	17.823	ug/l	98
64) Tetrachloroethene	11.106	164	93789	17.603	ug/l	95
65) Chlorobenzene	11.894	112	222573	17.822	ug/l	97
66) 1,1,1,2-Tetrachloroethane	11.959	131	83390	17.946	ug/l	99
67) Ethyl Benzene	11.965	91	391804	18.330	ug/l	99
68) m/p-Xylenes	12.071	106	315338	36.792	ug/l	99
69) o-Xylene	12.400	106	155543	18.480	ug/l	100
70) Styrene	12.412	104	246019	18.306	ug/l	98
71) Bromoform	12.582	173	60767	18.108	ug/l #	99
73) Isopropylbenzene	12.700	105	402670	19.402	ug/l	100
74) N-amyl acetate	12.494	43	111988	18.759	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	108149	18.127	ug/l	99
76) 1,2,3-Trichloropropane	12.994	75	99348m	19.754	ug/l	
77) Bromobenzene	12.982	156	95849	19.410	ug/l	96
78) n-propylbenzene	13.035	91	445078	19.006	ug/l	99
79) 2-Chlorotoluene	13.129	91	264602	18.414	ug/l	100
80) 1,3,5-Trimethylbenzene	13.176	105	335044	19.270	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.741	75	30519	18.928	ug/l	98
82) 4-Chlorotoluene	13.129	91	264602	18.414	ug/l	100
83) tert-Butylbenzene	13.441	119	297046	19.209	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	335586	19.249	ug/l	100
85) sec-Butylbenzene	13.618	105	412861	19.241	ug/l	100
86) p-Isopropyltoluene	13.729	119	342068	19.386	ug/l	99
87) 1,3-Dichlorobenzene	13.735	146	171972	17.581	ug/l	99
88) 1,4-Dichlorobenzene	13.812	146	167013	18.013	ug/l	98
89) n-Butylbenzene	14.059	91	259372	18.517	ug/l	99
90) Hexachloroethane	14.335	117	56103	18.422	ug/l	100
91) 1,2-Dichlorobenzene	14.106	146	169039	17.350	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	18572	17.908	ug/l	98
93) 1,2,4-Trichlorobenzene	15.394	180	74402	16.697	ug/l	99
94) Hexachlorobutadiene	15.506	225	43961	17.003	ug/l	99
95) Naphthalene	15.641	128	215636	16.740	ug/l	99
96) 1,2,3-Trichlorobenzene	15.841	180	73261	17.103	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076340.D
Acq On : 20 Jan 2023 11:49
Operator : JC\MD
Sample : VN0120WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBS01

Manual Integrations
APPROVED

Reviewed By : John Carlone 01/23/2023
Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:12:39 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

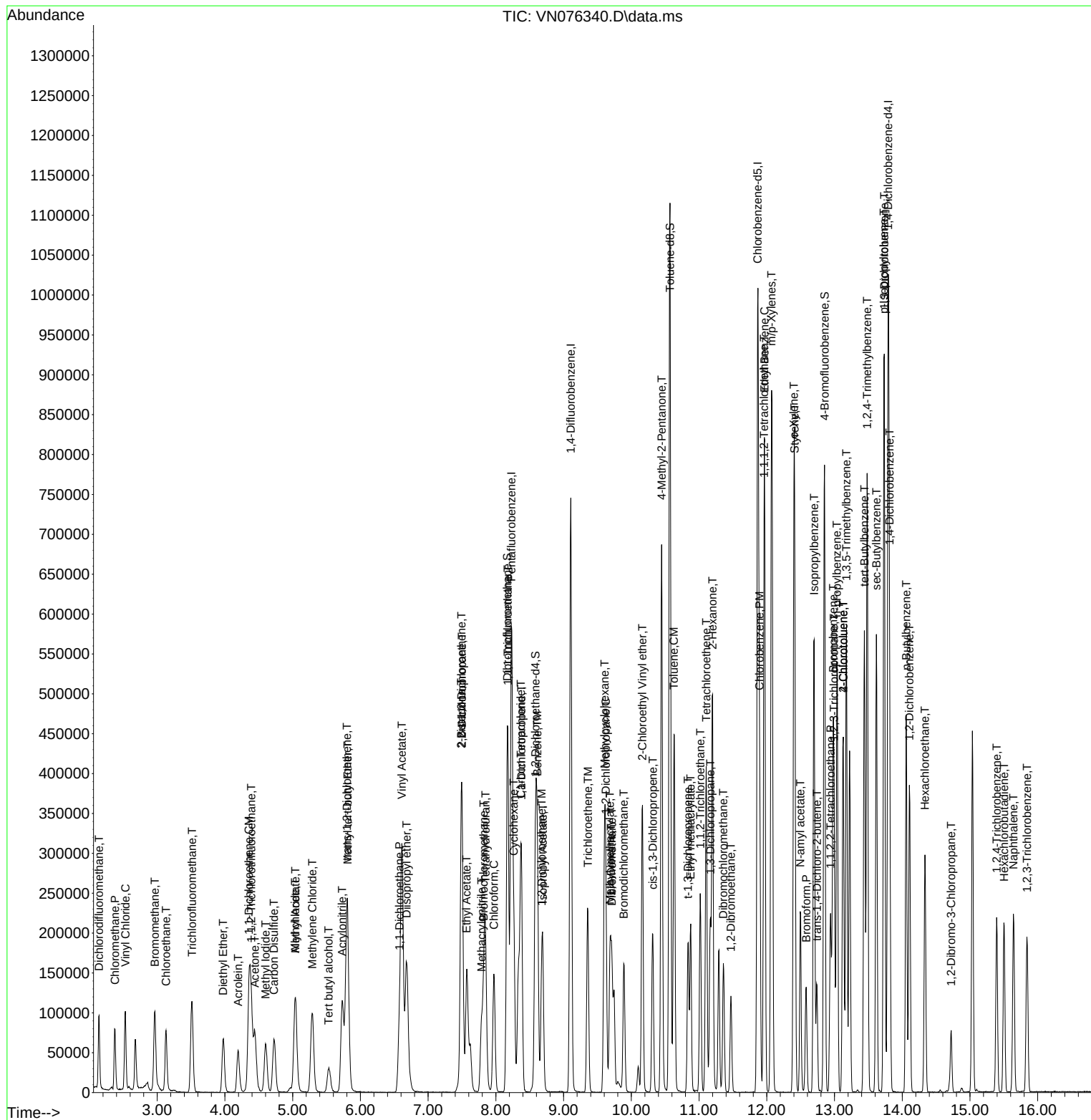
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VN0123MBS01	SDG No.:	O1233
Lab Sample ID:	VN0123MBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	MED
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076358.D	1		01/23/23 11:39	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1800		86.0	500	ug/Kg
74-87-3	Chloromethane	1800		110	500	ug/Kg
75-01-4	Vinyl Chloride	2000		91.0	500	ug/Kg
74-83-9	Bromomethane	1900		120	500	ug/Kg
75-00-3	Chloroethane	2000		89.0	500	ug/Kg
75-69-4	Trichlorofluoromethane	1700		97.0	500	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1800		72.0	500	ug/Kg
75-35-4	1,1-Dichloroethene	1700		86.0	500	ug/Kg
67-64-1	Acetone	10700		1200	2500	ug/Kg
75-15-0	Carbon Disulfide	1700		75.0	500	ug/Kg
1634-04-4	Methyl tert-butyl Ether	1800		93.0	500	ug/Kg
79-20-9	Methyl Acetate	1800		130	500	ug/Kg
75-09-2	Methylene Chloride	1700		600	1000	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1700		68.0	500	ug/Kg
75-34-3	1,1-Dichloroethane	1800		70.0	500	ug/Kg
110-82-7	Cyclohexane	1700		84.0	500	ug/Kg
78-93-3	2-Butanone	9300		730	2500	ug/Kg
56-23-5	Carbon Tetrachloride	1900		79.0	500	ug/Kg
156-59-2	cis-1,2-Dichloroethene	1700		68.0	500	ug/Kg
74-97-5	Bromochloromethane	2100		81.0	500	ug/Kg
67-66-3	Chloroform	1800		67.0	500	ug/Kg
71-55-6	1,1,1-Trichloroethane	1800		75.0	500	ug/Kg
108-87-2	Methylcyclohexane	1700		80.0	500	ug/Kg
71-43-2	Benzene	1800		66.0	500	ug/Kg
107-06-2	1,2-Dichloroethane	1800		84.0	500	ug/Kg
79-01-6	Trichloroethene	1700		73.0	500	ug/Kg
78-87-5	1,2-Dichloropropane	1800		65.0	500	ug/Kg
75-27-4	Bromodichloromethane	1900		70.0	500	ug/Kg
108-10-1	4-Methyl-2-Pentanone	9500		460	2500	ug/Kg
108-88-3	Toluene	1700		63.0	500	ug/Kg
10061-02-6	t-1,3-Dichloropropene	1900		74.0	500	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	1900		71.0	500	ug/Kg



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0123MBS01		SDG No.:	O1233
Lab Sample ID:	VN0123MBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	MED
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076358.D	1		01/23/23 11:39	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	1800		86.0	500	ug/Kg
591-78-6	2-Hexanone	9400		470	2500	ug/Kg
124-48-1	Dibromochloromethane	2000		75.0	500	ug/Kg
106-93-4	1,2-Dibromoethane	1800		75.0	500	ug/Kg
127-18-4	Tetrachloroethene	1700		76.0	500	ug/Kg
108-90-7	Chlorobenzene	1800		65.0	500	ug/Kg
100-41-4	Ethyl Benzene	1900		70.0	500	ug/Kg
179601-23-1	m/p-Xylenes	3700		150	1000	ug/Kg
95-47-6	o-Xylene	1800		79.0	500	ug/Kg
100-42-5	Styrene	1900		79.0	500	ug/Kg
75-25-2	Bromoform	2100		81.0	500	ug/Kg
98-82-8	Isopropylbenzene	2000		72.0	500	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1900		110	500	ug/Kg
541-73-1	1,3-Dichlorobenzene	1800		67.0	500	ug/Kg
106-46-7	1,4-Dichlorobenzene	1800		63.0	500	ug/Kg
95-50-1	1,2-Dichlorobenzene	1700		64.0	500	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1800		120	500	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1700		94.0	500	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	1700		100	500	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.1		50 - 163	104%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	50.9		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.3		30 - 143	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	382000	8.23			
540-36-3	1,4-Difluorobenzene	610000	9.106			
3114-55-4	Chlorobenzene-d5	527000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	238000	13.794			



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0123MBS01		SDG No.:	O1233
Lab Sample ID:	VN0123MBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	MED
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076358.D	1		01/23/23 11:39	VN012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076358.D
 Acq On : 23 Jan 2023 11:39
 Operator : JC\MD
 Sample : VN0123MBS01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0123MBS01

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

Quant Time: Jan 23 12:59:54 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	381993	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	609908	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	527333	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	238215	50.000	ug/l	0.00

01/23/2023
 Supervised By :Mahesh
 adoda

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.589	65	222976	52.132	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	= 104.260%	
35) Dibromofluoromethane	8.177	113	196282	51.447	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	= 102.900%	
50) Toluene-d8	10.571	98	717611	50.930	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	= 101.860%	
62) 4-Bromofluorobenzene	12.853	95	236038	51.315	ug/l	0.00
Spiked Amount	50.000	Range	83 - 123	Recovery	= 102.640%	

01/25/2023

Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	68994	17.625	ug/l	96
3) Chloromethane	2.377	50	72984	18.008	ug/l #	88
4) Vinyl Chloride	2.530	62	97783	19.676	ug/l	100
5) Bromomethane	2.971	94	79321	19.490	ug/l	98
6) Chloroethane	3.136	64	73537	19.733	ug/l	99
7) Trichlorofluoromethane	3.512	101	117621	17.203	ug/l	98
8) Diethyl Ether	3.971	74	41083	17.915	ug/l	92
9) 1,1,2-Trichlorotrifluo...	4.389	101	68043	17.580	ug/l	97
10) Methyl Iodide	4.601	142	99835	16.887	ug/l	98
11) Tert butyl alcohol	5.530	59	43603	76.217	ug/l #	86
12) 1,1-Dichloroethene	4.359	96	62806	17.166	ug/l	93
13) Acrolein	4.201	56	64163	93.783	ug/l	100
14) Allyl chloride	5.036	41	85772	20.116	ug/l	91
15) Acrylonitrile	5.730	53	148905	91.465	ug/l	100
16) Acetone	4.448	43	147450	107.498	ug/l	100
17) Carbon Disulfide	4.730	76	153592	16.859	ug/l	96
18) Methyl Acetate	5.042	43	81856	17.616	ug/l	99
19) Methyl tert-butyl Ether	5.812	73	219966	18.467	ug/l	98
20) Methylene Chloride	5.289	84	72064	17.369	ug/l	95
21) trans-1,2-Dichloroethene	5.806	96	66726	16.834	ug/l	95
22) Diisopropyl ether	6.683	45	188645	18.761	ug/l	99
23) Vinyl Acetate	6.618	43	570204	87.744	ug/l	97
24) 1,1-Dichloroethane	6.583	63	120279	17.946	ug/l	98
25) 2-Butanone	7.494	43	194215	92.744	ug/l	90
26) 2,2-Dichloropropane	7.500	77	104813	18.554	ug/l	98
27) cis-1,2-Dichloroethene	7.494	96	80268	17.363	ug/l	97
28) Bromochloromethane	7.818	49	57929	21.324	ug/l	96
29) Tetrahydrofuran	7.842	42	121558	94.053	ug/l	97
30) Chloroform	7.971	83	134521	18.139	ug/l	98
31) Cyclohexane	8.265	56	113448	17.267	ug/l	96
32) 1,1,1-Trichloroethane	8.177	97	121787	17.987	ug/l	93
36) 1,1-Dichloropropene	8.377	75	94230	17.381	ug/l	98
37) Ethyl Acetate	7.571	43	76562	17.631	ug/l	97
38) Carbon Tetrachloride	8.371	117	113790	18.822	ug/l	98
39) Methylcyclohexane	9.606	83	115806	17.492	ug/l	91
40) Benzene	8.612	78	290025	17.891	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
 Data File : VN076358.D
 Acq On : 23 Jan 2023 11:39
 Operator : JC\MD
 Sample : VN0123MBS01
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VN0123MBS01

Manual Integrations

APPROVED

Reviewed By :John
 Carlone

Quant Time: Jan 23 12:59:54 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M

Quant Title : SW846 8260

QLast Update : Tue Jan 17 03:59:22 2023

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.783	41	40855	17.944	ug/l	95
42) 1,2-Dichloroethane	8.677	62	100225	18.070	ug/l	99
43) Isopropyl Acetate	8.694	43	127563	18.033	ug/l	98
44) Trichloroethene	9.359	130	78062	17.026	ug/l	99
45) 1,2-Dichloropropane	9.624	63	69264	17.846	ug/l	96
46) Dibromomethane	9.712	93	53064	18.108	ug/l	96
47) Bromodichloromethane	9.894	83	107831	18.973	ug/l	94
48) Methyl methacrylate	9.683	41	61270	18.295	ug/l	96
49) 1,4-Dioxane	9.694	88	24396	345.235	ug/l	95
51) 4-Methyl-2-Pentanone	10.447	43	393266	94.701	ug/l	98
52) Toluene	10.635	92	187895	17.332	ug/l	97
53) t-1,3-Dichloropropene	10.835	75	105526	19.477	ug/l	99
54) cis-1,3-Dichloropropene	10.312	75	118803	19.060	ug/l	96
55) 1,1,2-Trichloroethane	11.018	97	75748	18.280	ug/l	96
56) Ethyl methacrylate	10.877	69	98896	18.487	ug/l	99
57) 1,3-Dichloropropane	11.165	76	124530	18.493	ug/l	99
58) 2-Chloroethyl Vinyl ether	10.165	63	141588	78.399	ug/l	97
59) 2-Hexanone	11.200	43	281870	93.667	ug/l	99
60) Dibromochloromethane	11.359	129	87738	20.114	ug/l	100
61) 1,2-Dibromoethane	11.471	107	75309	18.208	ug/l	99
64) Tetrachloroethene	11.106	164	81765	17.194	ug/l	92
65) Chlorobenzene	11.894	112	203172	18.226	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.965	131	79093	19.070	ug/l	99
67) Ethyl Benzene	11.965	91	363318	19.044	ug/l	100
68) m/p-Xylenes	12.071	106	282608	36.942	ug/l	99
69) o-Xylene	12.400	106	137663	18.324	ug/l	94
70) Styrene	12.412	104	226104	18.849	ug/l	98
71) Bromoform	12.582	173	62113	20.738	ug/l #	99
73) Isopropylbenzene	12.700	105	369835	20.069	ug/l	98
74) N-amyl acetate	12.494	43	102236	19.287	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.941	83	99982	18.873	ug/l	97
76) 1,2,3-Trichloropropane	12.994	75	89679m	20.098	ug/l	
77) Bromobenzene	12.982	156	84216	19.201	ug/l	97
78) n-propylbenzene	13.035	91	400857	19.278	ug/l	100
79) 2-Chlorotoluene	13.129	91	245396	19.232	ug/l	99
80) 1,3,5-Trimethylbenzene	13.176	105	307649	19.927	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.741	75	29011	20.263	ug/l	99
82) 4-Chlorotoluene	13.129	91	245396	19.232	ug/l	99
83) tert-Butylbenzene	13.441	119	272363	19.835	ug/l	99
84) 1,2,4-Trimethylbenzene	13.482	105	302663	19.551	ug/l	100
85) sec-Butylbenzene	13.618	105	376573	19.764	ug/l	100
86) p-Isopropyltoluene	13.729	119	314606	20.080	ug/l	99
87) 1,3-Dichlorobenzene	13.735	146	152901	17.603	ug/l	99
88) 1,4-Dichlorobenzene	13.812	146	151816	18.438	ug/l	99
89) n-Butylbenzene	14.059	91	235751	18.955	ug/l	99
90) Hexachloroethane	14.335	117	58391	21.593	ug/l	100
91) 1,2-Dichlorobenzene	14.106	146	150768	17.428	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	16893	18.345	ug/l	98
93) 1,2,4-Trichlorobenzene	15.394	180	65490	16.563	ug/l	99
94) Hexachlorobutadiene	15.506	225	38832	16.915	ug/l	98
95) Naphthalene	15.647	128	186894	16.384	ug/l	99
96) 1,2,3-Trichlorobenzene	15.841	180	63558	16.737	ug/l	98

01/23/2023

Supervised By :Mahesh
 Dadoda

01/25/2023

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076358.D
Acq On : 23 Jan 2023 11:39
Operator : JC\MD
Sample : VN0123MBS01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 23 12:59:54 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0123MBS01

Manual Integrations
APPROVED

Reviewed By :John
Carlone

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

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

01/23/2023
Supervised By :Mahesh
Dadoda

01/25/2023

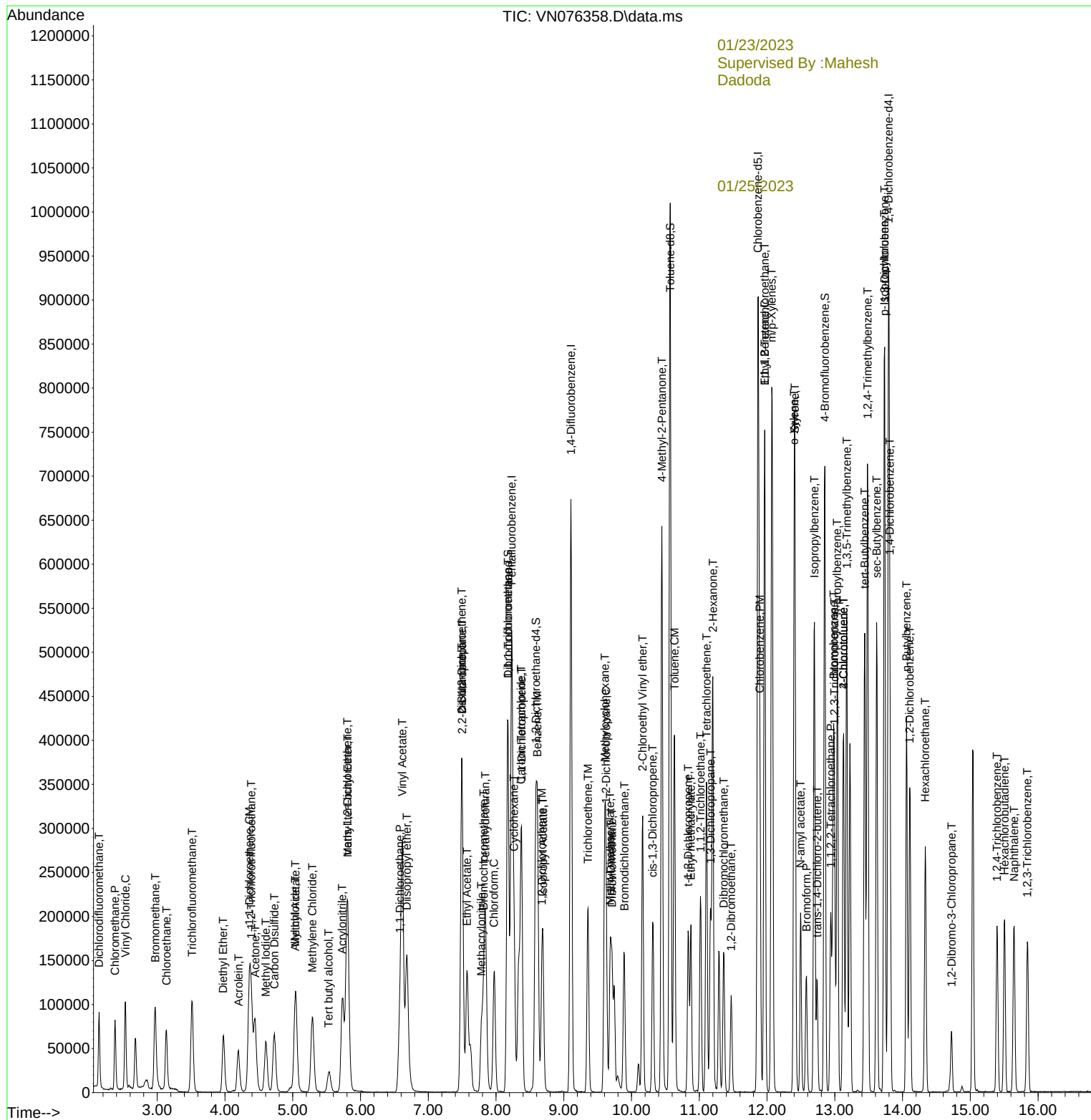
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012323\
Data File : VN076358.D
Acq On : 23 Jan 2023 11:39
Operator : JC\MD
Sample : VN0123MBS01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0123MBS01

Manual Integrations APPROVED

Reviewed By :John
Carlone

Quant Time: Jan 23 12:59:54 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VY0123SBS01		SDG No.:	O1233
Lab Sample ID:	VY0123SBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012309.D	1		01/23/23 13:27	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	21.2		0.86	5.00	ug/Kg
74-87-3	Chloromethane	19.7		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.0		0.91	5.00	ug/Kg
74-83-9	Bromomethane	21.0		1.20	5.00	ug/Kg
75-00-3	Chloroethane	20.8		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.2		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	20.8		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.6		0.86	5.00	ug/Kg
67-64-1	Acetone	87.9		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	20.2		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.4		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	18.3		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	15.2		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	20.1		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.5		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	20.2		0.84	5.00	ug/Kg
78-93-3	2-Butanone	92.3		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.7		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.5		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	19.2		0.81	5.00	ug/Kg
67-66-3	Chloroform	20.4		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.7		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.8		0.80	5.00	ug/Kg
71-43-2	Benzene	20.5		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.2		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	20.1		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.3		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.3		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	93.5		4.60	25.0	ug/Kg
108-88-3	Toluene	20.4		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.6		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.1		0.71	5.00	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBS01	SDG No.:	O1233
Lab Sample ID:	VY0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012309.D	1		01/23/23 13:27	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	19.6		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	92.0		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.7		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	19.3		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	21.0		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.2		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.3		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.2		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.0		0.79	5.00	ug/Kg
100-42-5	Styrene	20.4		0.79	5.00	ug/Kg
75-25-2	Bromoform	19.1		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.6		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.3		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.8		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.5		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.4		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	17.9		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.2		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.4		50 - 163	99%	SPK: 50
1868-53-7	Dibromofluoromethane	46.3		54 - 147	93%	SPK: 50
2037-26-5	Toluene-d8	48.5		58 - 134	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.5		30 - 143	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	174000	7.789			
540-36-3	1,4-Difluorobenzene	264000	8.691			
3114-55-4	Chlorobenzene-d5	240000	11.489			
3855-82-1	1,4-Dichlorobenzene-d4	122000	13.428			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VY0123SBS01	SDG No.:	O1233
Lab Sample ID:	VY0123SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY012309.D	1		01/23/23 13:27	VY012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012309.D
 Acq On : 23 Jan 2023 13:27
 Operator : KP/MD
 Sample : VY0123SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0123SBS01

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:21:55 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.789	168	173816	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.691	114	263834	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.489	117	239765	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.428	152	122385	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.142	65	71211	49.378	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	98.760%		
35) Dibromofluoromethane	7.716	113	64658	46.283	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	92.560%		
50) Toluene-d8	10.179	98	235197	48.457	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery =	96.920%		
62) 4-Bromofluorobenzene	12.483	95	87711	44.538	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery =	89.080%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.906	85	32166	21.176	ug/l	100
3) Chloromethane	2.113	50	27646	19.715	ug/l	100
4) Vinyl Chloride	2.253	62	32814	20.048	ug/l	100
5) Bromomethane	2.643	94	26557	20.987	ug/l	94
6) Chloroethane	2.790	64	22163	20.763	ug/l	97
7) Trichlorofluoromethane	3.125	101	67664	21.182	ug/l	99
8) Diethyl Ether	3.534	74	18286	19.237	ug/l	83
9) 1,1,2-Trichlorotrifluo...	3.899	101	32345	20.804	ug/l	96
10) Methyl Iodide	4.088	142	39679	16.794	ug/l	94
11) Tert butyl alcohol	4.948	59	18555	101.197	ug/l	98
12) 1,1-Dichloroethene	3.875	96	32897	20.607	ug/l	92
13) Acrolein	3.729	56	8344	112.220	ug/l	98
14) Allyl chloride	4.485	41	38754	19.633	ug/l #	81
15) Acrylonitrile	5.161	53	40478	97.491	ug/l	99
16) Acetone	3.942	43	42563	87.940	ug/l	99
17) Carbon Disulfide	4.192	76	99699	20.191	ug/l	99
18) Methyl Acetate	4.479	43	19810	18.291	ug/l #	86
19) Methyl tert-butyl Ether	5.222	73	86293	19.391	ug/l	95
20) Methylene Chloride	4.716	84	41944	15.162	ug/l	86
21) trans-1,2-Dichloroethene	5.222	96	35823	20.109	ug/l	92
22) Diisopropyl ether	6.118	45	80346	20.417	ug/l #	93
23) Vinyl Acetate	6.064	43	238749	97.363	ug/l #	92
24) 1,1-Dichloroethane	6.015	63	56023	20.525	ug/l	96
25) 2-Butanone	6.984	43	49303	92.271	ug/l	92
26) 2,2-Dichloropropane	6.984	77	61534	20.767	ug/l	97
27) cis-1,2-Dichloroethene	6.984	96	40072	20.478	ug/l	94
28) Bromochloromethane	7.332	49	11445	19.199	ug/l #	74
29) Tetrahydrofuran	7.344	42	27236	92.797	ug/l #	82
30) Chloroform	7.508	83	65855	20.439	ug/l	97
31) Cyclohexane	7.789	56	51309	20.246	ug/l #	88
32) 1,1,1-Trichloroethane	7.704	97	65953	20.676	ug/l	98
36) 1,1-Dichloropropene	7.917	75	48525	20.438	ug/l	97
37) Ethyl Acetate	7.069	43	19622	18.747	ug/l #	96
38) Carbon Tetrachloride	7.905	117	63470	20.699	ug/l	94
39) Methylcyclohexane	9.185	83	60427	20.827	ug/l	93
40) Benzene	8.161	78	140142	20.451	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
 Data File : VY012309.D
 Acq On : 23 Jan 2023 13:27
 Operator : KP/MD
 Sample : VY0123SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY0123SBS01

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:21:55 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 04:31:47 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.326	41	11768m	19.128	ug/l	
42) 1,2-Dichloroethane	8.234	62	44045	20.189	ug/l	98
43) Isopropyl Acetate	8.271	43	36162	18.570	ug/l #	92
44) Trichloroethene	8.941	130	41238	20.134	ug/l	99
45) 1,2-Dichloropropane	9.215	63	29066	20.327	ug/l	99
46) Dibromomethane	9.307	93	18803	19.643	ug/l	97
47) Bromodichloromethane	9.496	83	48976	20.325	ug/l	95
48) Methyl methacrylate	9.295	41	16759	18.679	ug/l	90
49) 1,4-Dioxane	9.301	88	4860	372.597	ug/l	89
51) 4-Methyl-2-Pentanone	10.069	43	97064	93.479	ug/l	95
52) Toluene	10.246	92	93058	20.396	ug/l	99
53) t-1,3-Dichloropropene	10.465	75	49338	19.575	ug/l	99
54) cis-1,3-Dichloropropene	9.929	75	54503	20.079	ug/l	97
55) 1,1,2-Trichloroethane	10.648	97	26694	19.628	ug/l	91
56) Ethyl methacrylate	10.508	69	34449	19.307	ug/l	93
57) 1,3-Dichloropropane	10.788	76	44679	20.116	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.782	63	58076	98.370	ug/l #	89
59) 2-Hexanone	10.831	43	72746	92.020	ug/l	95
60) Dibromochloromethane	10.983	129	35540	19.702	ug/l	100
61) 1,2-Dibromoethane	11.093	107	25288	19.269	ug/l	98
64) Tetrachloroethene	10.721	164	45972	21.013	ug/l	97
65) Chlorobenzene	11.520	112	98876	20.155	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.593	131	37687	20.353	ug/l	97
67) Ethyl Benzene	11.593	91	177709	20.269	ug/l	98
68) m/p-Xylenes	11.703	106	142838	41.205	ug/l	98
69) o-Xylene	12.032	106	66157	19.981	ug/l	99
70) Styrene	12.044	104	112594	20.352	ug/l	99
71) Bromoform	12.209	173	22551	19.062	ug/l #	99
73) Isopropylbenzene	12.331	105	182160	20.641	ug/l	99
74) N-amyl acetate	12.142	43	31380	18.139	ug/l	92
75) 1,1,2,2-Tetrachloroethane	12.581	83	26871	19.331	ug/l	98
76) 1,2,3-Trichloropropane	12.636	75	19966m	17.742	ug/l	
77) Bromobenzene	12.611	156	42185	19.865	ug/l	91
78) n-propylbenzene	12.672	91	212478	20.575	ug/l	98
79) 2-Chlorotoluene	12.758	91	118468	20.290	ug/l	98
80) 1,3,5-Trimethylbenzene	12.812	105	158399	20.647	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.380	75	10873	19.907	ug/l	99
82) 4-Chlorotoluene	12.855	91	122032	19.897	ug/l	97
83) tert-Butylbenzene	13.075	119	138763	20.753	ug/l	99
84) 1,2,4-Trimethylbenzene	13.123	105	155866	20.601	ug/l	99
85) sec-Butylbenzene	13.257	105	196179	20.607	ug/l	97
86) p-Isopropyltoluene	13.373	119	172287	20.714	ug/l	100
87) 1,3-Dichlorobenzene	13.367	146	83543	19.780	ug/l	100
88) 1,4-Dichlorobenzene	13.446	146	82032	19.476	ug/l	99
89) n-Butylbenzene	13.696	91	144797	20.088	ug/l	98
90) Hexachloroethane	13.965	117	30286	20.170	ug/l	97
91) 1,2-Dichlorobenzene	13.739	146	73295	19.449	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.361	75	5374	18.707	ug/l	97
93) 1,2,4-Trichlorobenzene	15.007	180	43247	17.910	ug/l	98
94) Hexachlorobutadiene	15.117	225	28131	19.349	ug/l	98
95) Naphthalene	15.239	128	78286	16.426	ug/l	99
96) 1,2,3-Trichlorobenzene	15.428	180	35677	17.170	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012309.D
Acq On : 23 Jan 2023 13:27
Operator : KP/MD
Sample : VY0123SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBS01

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:21:55 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration

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

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

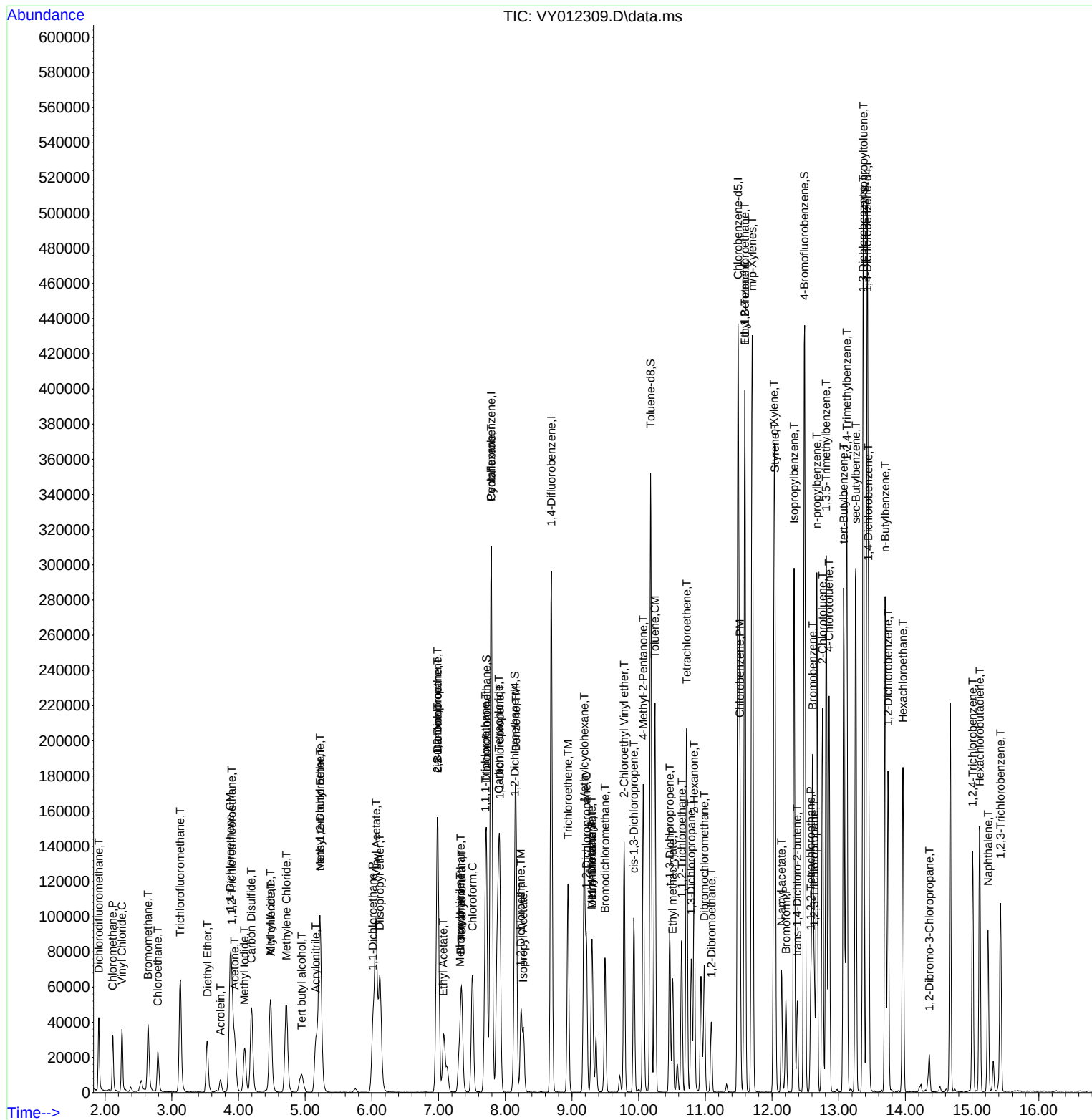
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY012323\
Data File : VY012309.D
Acq On : 23 Jan 2023 13:27
Operator : KP/MD
Sample : VY0123SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY0123SBS01

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:21:55 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y011623S.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 04:31:47 2023
Response via : Initial Calibration





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VD0123SBSD01		SDG No.:	O1233
Lab Sample ID:	VD0123SBSD01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075171.D	1		01/23/23 13:08	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	26.4		0.86	5.00	ug/Kg
74-87-3	Chloromethane	22.1		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.9		0.91	5.00	ug/Kg
74-83-9	Bromomethane	20.4		1.20	5.00	ug/Kg
75-00-3	Chloroethane	21.5		0.89	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	22.5		0.97	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	22.5		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	22.4		0.86	5.00	ug/Kg
67-64-1	Acetone	100		12.2	25.0	ug/Kg
75-15-0	Carbon Disulfide	22.3		0.75	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.2		0.93	5.00	ug/Kg
79-20-9	Methyl Acetate	22.9		1.30	5.00	ug/Kg
75-09-2	Methylene Chloride	16.9		6.00	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.8		0.68	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.7		0.70	5.00	ug/Kg
110-82-7	Cyclohexane	21.6		0.84	5.00	ug/Kg
78-93-3	2-Butanone	110		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	20.2		0.79	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21.5		0.68	5.00	ug/Kg
74-97-5	Bromochloromethane	24.2		0.81	5.00	ug/Kg
67-66-3	Chloroform	21.3		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	21.3		0.75	5.00	ug/Kg
108-87-2	Methylcyclohexane	21.1		0.80	5.00	ug/Kg
71-43-2	Benzene	21.6		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.1		0.84	5.00	ug/Kg
79-01-6	Trichloroethene	20.0		0.73	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	21.3		0.65	5.00	ug/Kg
75-27-4	Bromodichloromethane	21.5		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.60	25.0	ug/Kg
108-88-3	Toluene	21.3		0.63	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.7		0.74	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.4		0.71	5.00	ug/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VD0123SBSD01	SDG No.:	O1233
Lab Sample ID:	VD0123SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075171.D	1		01/23/23 13:08	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	21.3		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.9		0.75	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	21.2		0.75	5.00	ug/Kg
127-18-4	Tetrachloroethene	20.1		0.76	5.00	ug/Kg
108-90-7	Chlorobenzene	20.5		0.65	5.00	ug/Kg
100-41-4	Ethyl Benzene	21.0		0.70	5.00	ug/Kg
179601-23-1	m/p-Xylenes	42.9		1.50	10.0	ug/Kg
95-47-6	o-Xylene	20.4		0.79	5.00	ug/Kg
100-42-5	Styrene	21.5		0.79	5.00	ug/Kg
75-25-2	Bromoform	20.2		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.1		0.72	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	21.6		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	20.2		0.67	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.6		0.63	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.6		0.64	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	22.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	19.0		0.94	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.8		1.00	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.7		50 - 163	107%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	52.9		58 - 134	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2		30 - 143	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	72400	7.875			
540-36-3	1,4-Difluorobenzene	130000	8.781			
3114-55-4	Chlorobenzene-d5	116000	11.587			
3855-82-1	1,4-Dichlorobenzene-d4	53200	13.522			

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company			Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR			Date Received:	
Client Sample ID:	VD0123SBSD01			SDG No.:	O1233
Lab Sample ID:	VD0123SBSD01			Matrix:	SOIL
Analytical Method:	SW8260			% Solid:	100
Sample Wt/Vol:	5	Units:	g	Final Vol:	5000 uL
Soil Aliquot Vol:			uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID :	0.18	Level :	LOW
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD075171.D	1		01/23/23 13:08	VD012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075171.D
 Acq On : 23 Jan 2023 13:08
 Operator : KP/SY
 Sample : VD0123SBSD01
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0123SBSD01

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:29 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.875	168	72362	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	130215	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.587	117	115554	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	53241	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	39639	53.682	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 107.360%			
35) Dibromofluoromethane	7.804	113	40663	51.678	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 103.360%			
50) Toluene-d8	10.269	98	163908	52.906	ug/l	0.00
Spiked Amount 50.000	Range 49 - 140		Recovery = 105.820%			
62) 4-Bromofluorobenzene	12.575	95	50337	51.195	ug/l	0.00
Spiked Amount 50.000	Range 25 - 144		Recovery = 102.380%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.928	85	15794	26.430	ug/l	98
3) Chloromethane	2.146	50	20656	22.098	ug/l	98
4) Vinyl Chloride	2.281	62	21008	20.945	ug/l	97
5) Bromomethane	2.681	94	13934	20.427	ug/l	96
6) Chloroethane	2.834	64	14936	21.476	ug/l	96
7) Trichlorofluoromethane	3.175	101	28700	22.511	ug/l	95
8) Diethyl Ether	3.593	74	8188	19.933	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.969	101	17714	22.507	ug/l	99
10) Methyl Iodide	4.163	142	19916	18.798	ug/l	99
11) Tert butyl alcohol	5.046	59	5190	100.752	ug/l #	89
12) 1,1-Dichloroethene	3.934	96	18546	22.383	ug/l	85
13) Acrolein	3.799	56	6152	131.246	ug/l	92
14) Allyl chloride	4.558	41	27685	20.588	ug/l	97
15) Acrylonitrile	5.252	53	19225	110.681	ug/l	98
16) Acetone	4.022	43	20097	103.194	ug/l	98
17) Carbon Disulfide	4.275	76	59887	22.284	ug/l	96
18) Methyl Acetate	4.563	43	12104	22.865	ug/l	97
19) Methyl tert-butyl Ether	5.310	73	36742	21.228	ug/l	93
20) Methylene Chloride	4.799	84	22441	16.917	ug/l	96
21) trans-1,2-Dichloroethene	5.316	96	20103	21.795	ug/l	88
22) Diisopropyl ether	6.222	45	53204	21.258	ug/l	97
23) Vinyl Acetate	6.157	43	104574	94.803	ug/l	99
24) 1,1-Dichloroethane	6.110	63	34117	21.691	ug/l	95
25) 2-Butanone	7.087	43	25196	107.045	ug/l	98
26) 2,2-Dichloropropane	7.081	77	27891	19.893	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	21616	21.499	ug/l	96
28) Bromochloromethane	7.428	49	10404	24.228	ug/l #	92
29) Tetrahydrofuran	7.446	42	14548	108.365	ug/l	96
30) Chloroform	7.599	83	33412	21.303	ug/l	99
31) Cyclohexane	7.881	56	32008	21.614	ug/l	97
32) 1,1,1-Trichloroethane	7.793	97	28845	21.347	ug/l	99
36) 1,1-Dichloropropene	8.010	75	26566	21.014	ug/l	98
37) Ethyl Acetate	7.169	43	9701	19.047	ug/l	98
38) Carbon Tetrachloride	7.987	117	21523	20.220	ug/l	96
39) Methylcyclohexane	9.275	83	32925	21.133	ug/l	95
40) Benzene	8.252	78	77902	21.608	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
 Data File : VD075171.D
 Acq On : 23 Jan 2023 13:08
 Operator : KP/SY
 Sample : VD0123SBSD01
 Misc : 5.00G/5.00ml/MSVOA_D/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 VD0123SBSD01

Manual Integrations
 APPROVED

Reviewed By :Krupa Patel 01/24/2023
 Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:29 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
 Quant Title : SW846 8260
 QLast Update : Thu Jan 19 01:32:27 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.404	41	7488	24.433	ug/l #	80
42) 1,2-Dichloroethane	8.328	62	20009	21.128	ug/l	99
43) Isopropyl Acetate	8.363	43	20391	20.573	ug/l #	86
44) Trichloroethene	9.028	130	20245	19.969	ug/l	94
45) 1,2-Dichloropropane	9.304	63	18940	21.326	ug/l	90
46) Dibromomethane	9.399	93	9617	20.533	ug/l	96
47) Bromodichloromethane	9.587	83	24988	21.505	ug/l	96
48) Methyl methacrylate	9.381	41	9987	20.605	ug/l	93
49) 1,4-Dioxane	9.387	88	1583	354.030	ug/l	90
51) 4-Methyl-2-Pentanone	10.163	43	52127	109.519	ug/l	97
52) Toluene	10.334	92	48434	21.258	ug/l	100
53) t-1,3-Dichloropropene	10.557	75	21690	19.730	ug/l	99
54) cis-1,3-Dichloropropene	10.016	75	27463	20.448	ug/l	98
55) 1,1,2-Trichloroethane	10.734	97	13177	21.259	ug/l	93
56) Ethyl methacrylate	10.598	69	15290	20.512	ug/l	99
57) 1,3-Dichloropropane	10.881	76	22876	21.478	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.869	63	24615	96.504	ug/l	98
59) 2-Hexanone	10.928	43	36944	107.349	ug/l	96
60) Dibromochloromethane	11.081	129	15647	20.944	ug/l	99
61) 1,2-Dibromoethane	11.181	107	12526	21.151	ug/l	97
64) Tetrachloroethene	10.810	164	16547	20.053	ug/l	93
65) Chlorobenzene	11.610	112	48628	20.537	ug/l	94
66) 1,1,1,2-Tetrachloroethane	11.687	131	16060	20.165	ug/l	98
67) Ethyl Benzene	11.687	91	89678	21.040	ug/l	98
68) m/p-Xylenes	11.798	106	70636	42.901	ug/l	97
69) o-Xylene	12.122	106	31509	20.401	ug/l	93
70) Styrene	12.140	104	55248	21.519	ug/l	99
71) Bromoform	12.304	173	8322	20.236	ug/l #	98
73) Isopropylbenzene	12.422	105	84363	20.060	ug/l	99
74) N-amyl acetate	12.240	43	17788	19.309	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.681	83	14460	21.581	ug/l	98
76) 1,2,3-Trichloropropane	12.728	75	9466m	20.993	ug/l	
77) Bromobenzene	12.704	156	18261	19.010	ug/l	93
78) n-propylbenzene	12.769	91	106338	20.577	ug/l	99
79) 2-Chlorotoluene	12.851	91	59033	20.770	ug/l	100
80) 1,3,5-Trimethylbenzene	12.910	105	70060	20.334	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.475	75	3722	19.147	ug/l	94
82) 4-Chlorotoluene	12.951	91	61082	20.902	ug/l	99
83) tert-Butylbenzene	13.175	119	60714	20.365	ug/l	98
84) 1,2,4-Trimethylbenzene	13.216	105	69647	20.583	ug/l	99
85) sec-Butylbenzene	13.351	105	94203	20.801	ug/l	97
86) p-Isopropyltoluene	13.463	119	75694	20.415	ug/l	99
87) 1,3-Dichlorobenzene	13.463	146	37627	20.208	ug/l	96
88) 1,4-Dichlorobenzene	13.539	146	37699	20.578	ug/l	98
89) n-Butylbenzene	13.792	91	74774	20.696	ug/l	97
90) Hexachloroethane	14.063	117	13190	20.145	ug/l	91
91) 1,2-Dichlorobenzene	13.834	146	32779	20.577	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.457	75	2327	22.714	ug/l	91
93) 1,2,4-Trichlorobenzene	15.104	180	19887	19.011	ug/l	98
94) Hexachlorobutadiene	15.210	225	9434	18.402	ug/l	99
95) Naphthalene	15.339	128	38476	18.476	ug/l	99
96) 1,2,3-Trichlorobenzene	15.528	180	16785	18.805	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075171.D
Acq On : 23 Jan 2023 13:08
Operator : KP/SY
Sample : VD0123SBSD01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBSD01

Manual Integrations
APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration

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

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

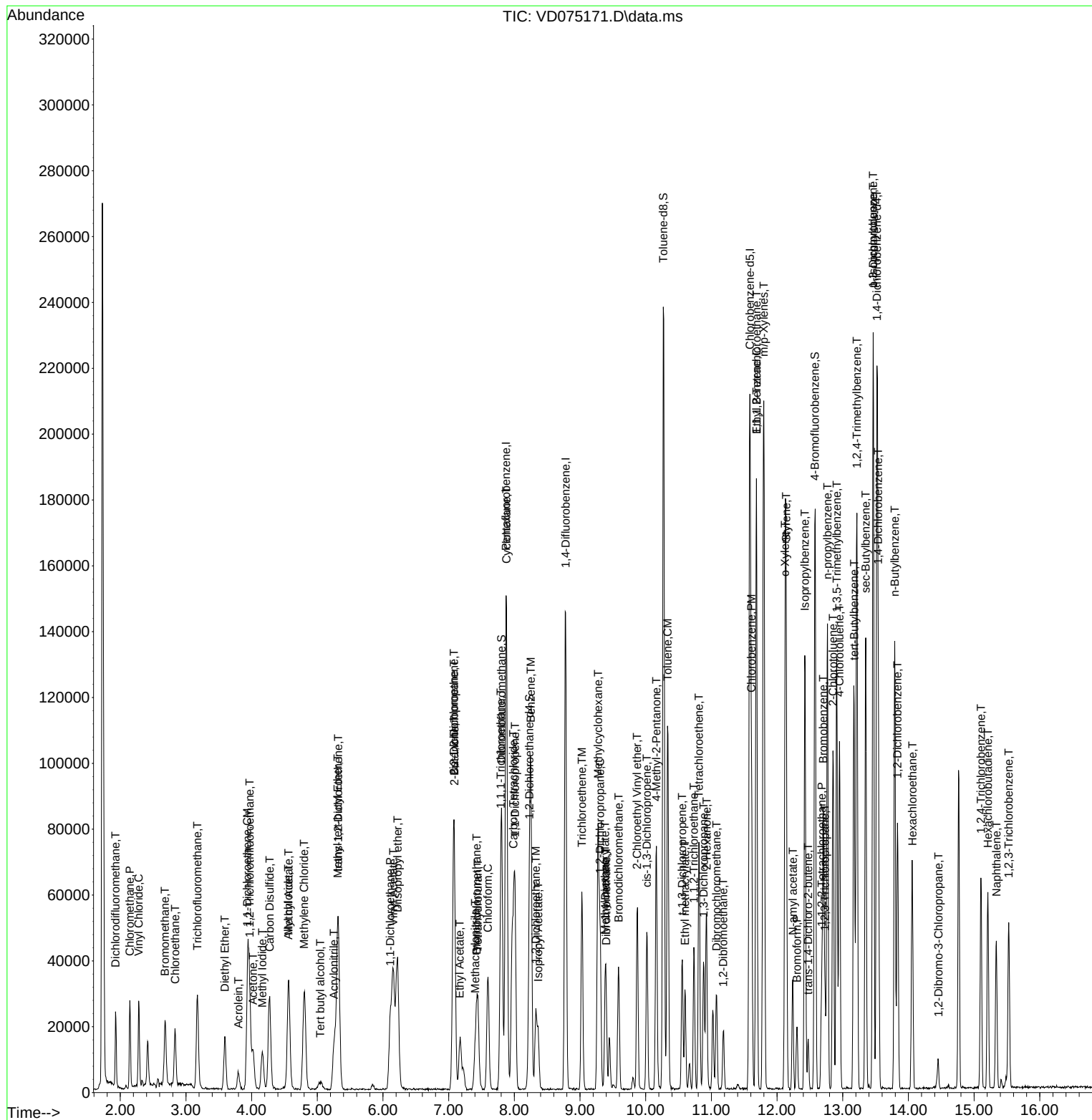
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD012323\
Data File : VD075171.D
Acq On : 23 Jan 2023 13:08
Operator : KP/SY
Sample : VD0123BSBD01
Misc : 5.00G/5.00ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0123SBSD01

Manual Integrations APPROVED

Reviewed By :Krupa Patel 01/24/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 23 14:04:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D011823S.M
Quant Title : SW846 8260
QLast Update : Thu Jan 19 01:32:27 2023
Response via : Initial Calibration





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBSD01		SDG No.:	O1233
Lab Sample ID:	VN0120WBSD01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076341.D	1		01/20/23 12:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	18.1		0.17	1.00	ug/L
74-87-3	Chloromethane	17.3		0.20	1.00	ug/L
75-01-4	Vinyl Chloride	18.3		0.22	1.00	ug/L
74-83-9	Bromomethane	18.7		1.60	5.00	ug/L
75-00-3	Chloroethane	18.9		0.26	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.0		0.20	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.7		0.17	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.4		0.23	1.00	ug/L
67-64-1	Acetone	91.0		1.20	5.00	ug/L
75-15-0	Carbon Disulfide	16.3		0.26	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.9		0.18	1.00	ug/L
79-20-9	Methyl Acetate	18.5		0.53	1.00	ug/L
75-09-2	Methylene Chloride	20.5		0.18	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.0		0.20	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.4		0.20	1.00	ug/L
110-82-7	Cyclohexane	17.4		1.20	5.00	ug/L
78-93-3	2-Butanone	92.2		0.82	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.7		0.18	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.6		0.17	1.00	ug/L
74-97-5	Bromochloromethane	20.4		0.19	1.00	ug/L
67-66-3	Chloroform	18.8		0.18	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.5		0.18	1.00	ug/L
108-87-2	Methylcyclohexane	19.1		0.13	1.00	ug/L
71-43-2	Benzene	18.8		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.5		0.18	1.00	ug/L
79-01-6	Trichloroethene	18.0		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.2		0.17	1.00	ug/L
75-27-4	Bromodichloromethane	19.5		0.18	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	98.9		0.87	5.00	ug/L
108-88-3	Toluene	18.5		0.17	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.8		0.14	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.4		0.16	1.00	ug/L



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBSD01		SDG No.:	O1233
Lab Sample ID:	VN0120WBSD01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076341.D	1		01/20/23 12:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.5		0.19	1.00	ug/L
591-78-6	2-Hexanone	98.1		0.76	5.00	ug/L
124-48-1	Dibromochloromethane	20.2		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.4		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	18.4		0.18	1.00	ug/L
108-90-7	Chlorobenzene	18.8		0.17	1.00	ug/L
100-41-4	Ethyl Benzene	19.1		0.17	1.00	ug/L
179601-23-1	m/p-Xylenes	38.2		0.33	2.00	ug/L
95-47-6	o-Xylene	19.2		0.18	1.00	ug/L
100-42-5	Styrene	19.4		0.13	1.00	ug/L
75-25-2	Bromoform	19.8		0.16	1.00	ug/L
98-82-8	Isopropylbenzene	19.9		0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.3		0.23	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.1		0.20	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.8		0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.1		0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.9		0.42	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	18.4		0.23	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	18.5		0.33	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.3		74 - 125	103%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	51.4		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.4		64 - 133	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	360000	8.23			
540-36-3	1,4-Difluorobenzene	568000	9.106			
3114-55-4	Chlorobenzene-d5	510000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	238000	13.794			



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	
Client Sample ID:	VN0120WBSD01		SDG No.:	O1233
Lab Sample ID:	VN0120WBSD01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN076341.D	1		01/20/23 12:25	VN012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076341.D
 Acq On : 20 Jan 2023 12:25
 Operator : JC\MD
 Sample : VN0120WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0120WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:13:33 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	8.230	168	359856	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	567895	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	510094	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	238179	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	206739	51.310	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 102.620%			
35) Dibromofluoromethane	8.177	113	184544	51.949	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.900%			
50) Toluene-d8	10.571	98	674666	51.425	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 102.840%			
62) 4-Bromofluorobenzene	12.853	95	228736	53.407	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 106.820%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	66768	18.106	ug/l	96
3) Chloromethane	2.371	50	65995	17.285	ug/l	92
4) Vinyl Chloride	2.530	62	85700	18.305	ug/l	99
5) Bromomethane	2.971	94	71845	18.739	ug/l	95
6) Chloroethane	3.130	64	66521	18.949	ug/l	92
7) Trichlorofluoromethane	3.506	101	115837	17.985	ug/l	98
8) Diethyl Ether	3.977	74	41649	19.279	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.389	101	68231	18.713	ug/l	99
10) Methyl Iodide	4.600	142	101336	18.195	ug/l	98
11) Tert butyl alcohol	5.530	59	52593	97.586	ug/l	99
12) 1,1-Dichloroethene	4.353	96	59882	17.373	ug/l	91
13) Acrolein	4.195	56	64851	100.619	ug/l	98
14) Allyl chloride	5.042	41	80012	19.920	ug/l	90
15) Acrylonitrile	5.730	53	145034	94.568	ug/l	99
16) Acetone	4.442	43	117609	91.006	ug/l	98
17) Carbon Disulfide	4.730	76	139789	16.288	ug/l	98
18) Methyl Acetate	5.042	43	81064	18.519	ug/l	97
19) Methyl tert-butyl Ether	5.806	73	222856	19.861	ug/l	99
20) Methylene Chloride	5.289	84	79552	20.458	ug/l	96
21) trans-1,2-Dichloroethene	5.806	96	67122	17.976	ug/l	93
22) Diisopropyl ether	6.683	45	182192	19.234	ug/l	94
23) Vinyl Acetate	6.612	43	605204	98.859	ug/l	99
24) 1,1-Dichloroethane	6.583	63	115870	18.351	ug/l	98
25) 2-Butanone	7.489	43	181956	92.235	ug/l	96
26) 2,2-Dichloropropane	7.500	77	100204	18.830	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	81172	18.638	ug/l	100
28) Bromochloromethane	7.818	49	52249	20.416	ug/l	97
29) Tetrahydrofuran	7.847	42	117556	96.551	ug/l	99
30) Chloroform	7.971	83	131113	18.767	ug/l	99
31) Cyclohexane	8.265	56	107403	17.352	ug/l	99
32) 1,1,1-Trichloroethane	8.177	97	118127	18.519	ug/l	92
36) 1,1-Dichloropropene	8.377	75	91550	18.136	ug/l	100
37) Ethyl Acetate	7.571	43	79109	19.561	ug/l	99
38) Carbon Tetrachloride	8.371	117	105471	18.736	ug/l	98
39) Methylcyclohexane	9.606	83	117793	19.109	ug/l	96
40) Benzene	8.612	78	283795	18.802	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076341.D
 Acq On : 20 Jan 2023 12:25
 Operator : JC\MD
 Sample : VN0120WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0120WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:13:33 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.789	41	39355	18.564	ug/l	95
42) 1,2-Dichloroethane	8.677	62	100512	19.463	ug/l	99
43) Isopropyl Acetate	8.694	43	126721	19.239	ug/l	100
44) Trichloroethene	9.359	130	76703	17.967	ug/l	99
45) 1,2-Dichloropropane	9.624	63	69462	19.221	ug/l	97
46) Dibromomethane	9.712	93	51505	18.877	ug/l	98
47) Bromodichloromethane	9.894	83	103221	19.505	ug/l	97
48) Methyl methacrylate	9.682	41	59243	18.999	ug/l	97
49) 1,4-Dioxane	9.700	88	27154	412.692	ug/l	96
51) 4-Methyl-2-Pentanone	10.447	43	382537	98.932	ug/l	100
52) Toluene	10.635	92	187153	18.541	ug/l	99
53) t-1,3-Dichloropropene	10.841	75	100015	19.826	ug/l	100
54) cis-1,3-Dichloropropene	10.318	75	112409	19.368	ug/l	97
55) 1,1,2-Trichloroethane	11.018	97	75047	19.451	ug/l	97
56) Ethyl methacrylate	10.877	69	104247	20.929	ug/l	99
57) 1,3-Dichloropropane	11.165	76	120714	19.253	ug/l	99
58) 2-Chloroethyl Vinyl ether	10.159	63	150219	89.332	ug/l	98
59) 2-Hexanone	11.200	43	274893	98.106	ug/l	100
60) Dibromochloromethane	11.365	129	82222	20.244	ug/l	100
61) 1,2-Dibromoethane	11.471	107	74612	19.374	ug/l	99
64) Tetrachloroethene	11.106	164	84550	18.380	ug/l	96
65) Chlorobenzene	11.894	112	202417	18.772	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.965	131	78380	19.537	ug/l	98
67) Ethyl Benzene	11.965	91	351745	19.060	ug/l	98
68) m/p-Xylenes	12.071	106	282887	38.228	ug/l	99
69) o-Xylene	12.400	106	139665	19.219	ug/l	97
70) Styrene	12.412	104	225404	19.426	ug/l	99
71) Bromoform	12.576	173	57383	19.806	ug/l #	100
73) Isopropylbenzene	12.700	105	365948	19.861	ug/l	100
74) N-amyl acetate	12.500	43	103656	19.557	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.941	83	102001	19.257	ug/l	98
76) 1,2,3-Trichloropropane	12.994	75	90078m	20.195	ug/l	
77) Bromobenzene	12.982	156	86603	19.764	ug/l	99
78) n-propylbenzene	13.041	91	403966	19.431	ug/l	100
79) 2-Chlorotoluene	13.129	91	243812	19.111	ug/l	99
80) 1,3,5-Trimethylbenzene	13.176	105	304105	19.701	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.735	75	26297	18.370	ug/l	97
82) 4-Chlorotoluene	13.129	91	243812	19.111	ug/l	99
83) tert-Butylbenzene	13.441	119	279577	20.364	ug/l	98
84) 1,2,4-Trimethylbenzene	13.482	105	306434	19.798	ug/l	98
85) sec-Butylbenzene	13.618	105	376667	19.772	ug/l	100
86) p-Isopropyltoluene	13.735	119	317969	20.298	ug/l	99
87) 1,3-Dichlorobenzene	13.735	146	157388	18.123	ug/l	99
88) 1,4-Dichlorobenzene	13.818	146	155032	18.829	ug/l	98
89) n-Butylbenzene	14.059	91	241448	19.416	ug/l	100
90) Hexachloroethane	14.335	117	51584	19.079	ug/l	99
91) 1,2-Dichlorobenzene	14.112	146	156897	18.139	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	18299	19.874	ug/l	98
93) 1,2,4-Trichlorobenzene	15.394	180	73264	18.377	ug/l	98
94) Hexachlorobutadiene	15.506	225	41004	17.864	ug/l	98
95) Naphthalene	15.647	128	219791	18.946	ug/l	99
96) 1,2,3-Trichlorobenzene	15.847	180	70926	18.546	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
Data File : VN076341.D
Acq On : 20 Jan 2023 12:25
Operator : JC\MD
Sample : VN0120WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0120WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 01/23/2023
Supervised By :Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:13:33 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
Quant Title : SW846 8260
QLast Update : Tue Jan 17 03:59:22 2023
Response via : Initial Calibration

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

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

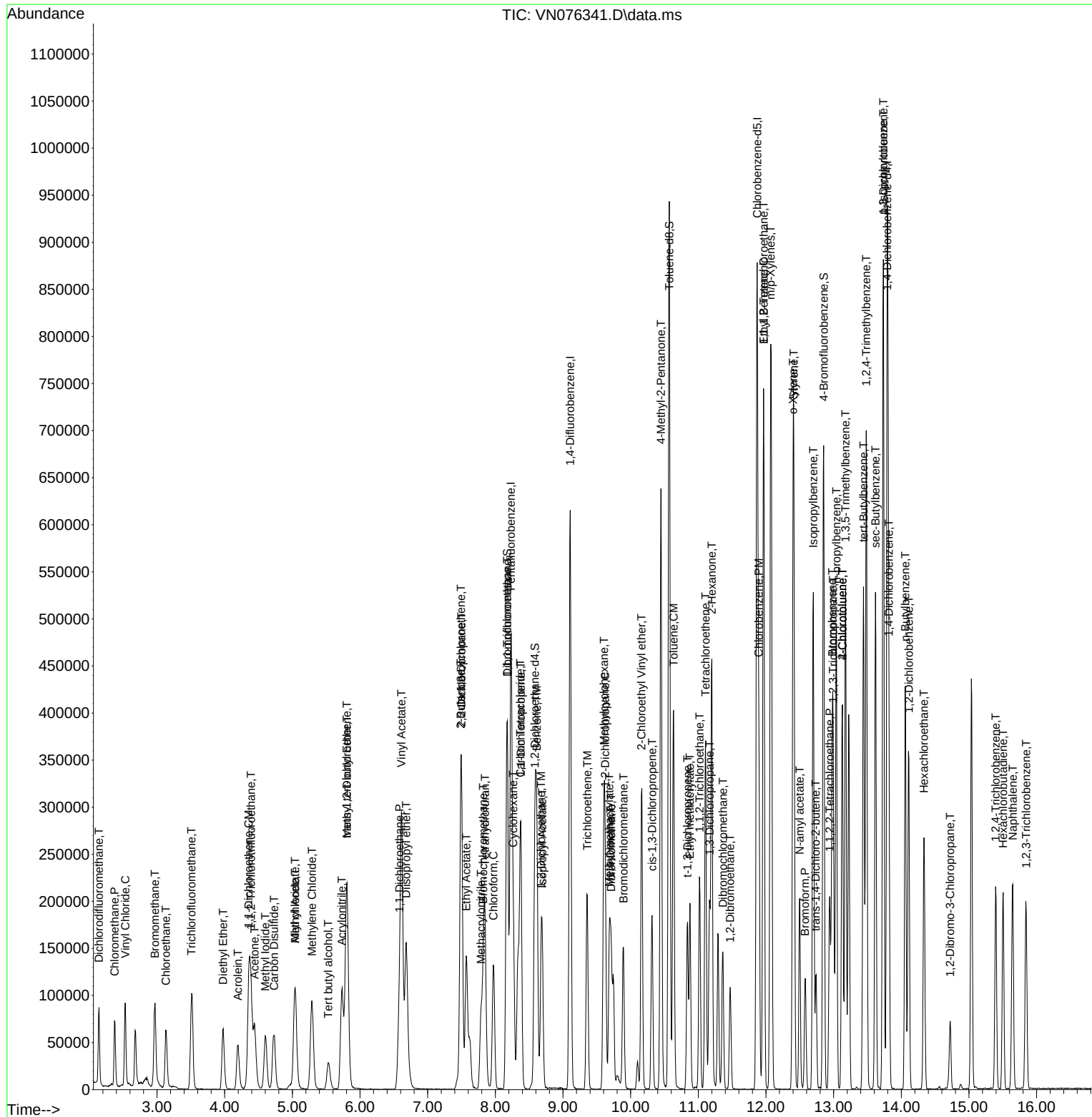
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN012023\
 Data File : VN076341.D
 Acq On : 20 Jan 2023 12:25
 Operator : JC\MD
 Sample : VN0120WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN0120WBSD01

Manual Integrations APPROVED

Reviewed By : John Carlone 01/23/2023
 Supervised By : Mahesh Dadoda 01/25/2023

Quant Time: Jan 20 22:13:33 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N011623W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 17 03:59:22 2023
 Response via : Initial Calibration





284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:

vd011823

Instrument

MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VD075124.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:06 AM	MMDadoda	1/19/2023 7:26:48 PM	Peak Integrated by Software
VSTDICC005	VD075124.D	Tert butyl alcohol	Krupa	1/19/2023 10:06:06 AM	MMDadoda	1/19/2023 7:26:48 PM	Peak Integrated by Software
VSTDICC005	VD075124.D	Vinyl Acetate	Krupa	1/19/2023 10:06:06 AM	MMDadoda	1/19/2023 7:26:48 PM	Peak Integrated by Software
VSTDICC010	VD075125.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:10 AM	MMDadoda	1/19/2023 7:26:50 PM	Peak Integrated by Software
VSTDICC020	VD075126.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:14 AM	MMDadoda	1/19/2023 7:26:52 PM	Peak Integrated by Software
VSTDICCC050	VD075127.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:21 AM	MMDadoda	1/19/2023 7:26:54 PM	Peak Integrated by Software
VSTDICCC050	VD075127.D	Vinyl Acetate	Krupa	1/19/2023 10:06:21 AM	MMDadoda	1/19/2023 7:26:54 PM	Peak Integrated by Software
VSTDICC100	VD075128.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:24 AM	MMDadoda	1/19/2023 7:26:56 PM	Peak Integrated by Software
VSTDICC100	VD075128.D	Methacrylonitrile	Krupa	1/19/2023 10:06:24 AM	MMDadoda	1/19/2023 7:26:56 PM	Peak Integrated by Software
VSTDICC150	VD075129.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:29 AM	MMDadoda	1/19/2023 7:26:58 PM	Peak Integrated by Software
VSTDICV050	VD075131.D	1,2,3-Trichloropropane	Krupa	1/19/2023 10:06:34 AM	MMDadoda	1/19/2023 7:26:59 PM	Peak Integrated by Software
VSTDICV050	VD075131.D	Vinyl Acetate	Krupa	1/19/2023 10:06:34 AM	MMDadoda	1/19/2023 7:26:59 PM	Peak Integrated by Software



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Manual Integration Report

Sequence:

vd012023

Instrument

MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VD075146.D	1,2,3-Trichloropropane	Krupa	1/23/2023 9:25:31 AM	MMdadoda	1/25/2023 12:29:01 AM	Peak Integrated by Software
VD0120SBS02	VD075150.D	1,2,3-Trichloropropane	Krupa	1/23/2023 9:25:38 AM	MMdadoda	1/25/2023 12:29:24 AM	Peak Integrated by Software
VD0120SBS02	VD075150.D	Tert butyl alcohol	Krupa	1/23/2023 9:25:38 AM	MMdadoda	1/25/2023 12:29:24 AM	Peak Integrated by Software
VSTDCCC050	VD075166.D	1,2,3-Trichloropropane	Krupa	1/23/2023 9:25:55 AM	MMdadoda	1/25/2023 12:29:42 AM	Peak Integrated by Software
VSTDCCC050	VD075166.D	Methacrylonitrile	Krupa	1/23/2023 9:25:55 AM	MMdadoda	1/25/2023 12:29:42 AM	Peak Integrated by Software
VSTDCCC050	VD075166.D	Vinyl Acetate	Krupa	1/23/2023 9:25:55 AM	MMdadoda	1/25/2023 12:29:42 AM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VD012323

Instrument

MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VD075168.D	1,2,3-Trichloropropane	Krupa	1/24/2023 9:20:50 AM	MMdadoda	1/25/2023 12:46:47 AM	Peak Integrated by Software
VD0123SBS01	VD075170.D	1,2,3-Trichloropropane	Krupa	1/24/2023 9:20:54 AM	MMdadoda	1/25/2023 12:46:52 AM	Peak Integrated by Software
VD0123SBSD01	VD075171.D	1,2,3-Trichloropropane	Krupa	1/24/2023 9:20:57 AM	MMdadoda	1/25/2023 12:46:57 AM	Peak Integrated by Software
VSTDCCC050	VD075179.D	1,2,3-Trichloropropane	Krupa	1/24/2023 9:21:01 AM	MMdadoda	1/25/2023 12:47:00 AM	Peak Integrated by Software
VSTDCCC050	VD075179.D	Vinyl Acetate	Krupa	1/24/2023 9:21:01 AM	MMdadoda	1/25/2023 12:47:00 AM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VN011623

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC010	VN076262.D	1,2,3-Trichloropropane	JOHN	1/17/2023 9:36:45 AM	MMDadoda	1/17/2023 2:38:58 PM	Peak Integrated by Software
VSTDICC020	VN076263.D	1,2,3-Trichloropropane	JOHN	1/17/2023 9:36:51 AM	MMDadoda	1/17/2023 2:39:01 PM	Peak Integrated by Software
VSTDICCC050	VN076264.D	1,2,3-Trichloropropane	JOHN	1/17/2023 9:36:57 AM	MMDadoda	1/17/2023 2:39:03 PM	Peak Integrated by Software
VSTDICC075	VN076265.D	1,2,3-Trichloropropane	JOHN	1/17/2023 9:37:03 AM	MMDadoda	1/17/2023 2:38:59 PM	Peak Integrated by Software
VSTDICC001	VN076267.D	1,2,3-Trichloropropane	JOHN	1/17/2023 9:37:09 AM	MMDadoda	1/17/2023 2:39:01 PM	Peak Integrated by Software
VSTDICC001	VN076267.D	1,4-Dichlorobenzene	JOHN	1/17/2023 9:37:09 AM	MMDadoda	1/17/2023 2:39:01 PM	Peak Integrated by Software
VSTDICC001	VN076267.D	2,2-Dichloropropane	JOHN	1/17/2023 9:37:09 AM	MMDadoda	1/17/2023 2:39:01 PM	Peak Integrated by Software
VSTDICC001	VN076267.D	Methylene Chloride	JOHN	1/17/2023 9:37:09 AM	MMDadoda	1/17/2023 2:39:01 PM	Peak Integrated by Software
VSTDICV050	VN076268.D	1,2,3-Trichloropropane	JOHN	1/17/2023 9:37:15 AM	MMDadoda	1/17/2023 2:38:57 PM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VN012023

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN076337.D	1,2,3-Trichloropropane	JOHN	1/23/2023 9:36:27 AM	MMdadoda	1/25/2023 12:35:43 AM	Peak Integrated by Software
VN0120WBS01	VN076340.D	1,2,3-Trichloropropane	JOHN	1/23/2023 9:36:35 AM	MMdadoda	1/25/2023 12:35:46 AM	Peak Integrated by Software
VN0120WBS01	VN076340.D	Allyl chloride	JOHN	1/23/2023 9:36:35 AM	MMdadoda	1/25/2023 12:35:46 AM	Peak Integrated by Software
VN0120WBSD01	VN076341.D	1,2,3-Trichloropropane	JOHN	1/23/2023 9:36:41 AM	MMdadoda	1/25/2023 12:35:48 AM	Peak Integrated by Software
VSTDCCC050	VN076353.D	1,2,3-Trichloropropane	JOHN	1/23/2023 9:37:05 AM	MMdadoda	1/25/2023 12:35:55 AM	Peak Integrated by Software
VSTDCCC050	VN076353.D	Allyl chloride	JOHN	1/23/2023 9:37:05 AM	MMdadoda	1/25/2023 12:35:55 AM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VN012323

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN076355.D	1,2,3-Trichloropropane	JOHN	1/23/2023 2:55:45 PM	MMdadoda	1/25/2023 12:38:39 AM	Peak Integrated by Software
VN0123MBS01	VN076358.D	1,2,3-Trichloropropane	JOHN	1/23/2023 2:55:52 PM	MMdadoda	1/25/2023 12:38:48 AM	Peak Integrated by Software
VSTDCCC050	VN076369.D	1,2,3-Trichloropropane	JOHN	1/24/2023 9:34:03 AM	MMdadoda	1/25/2023 12:39:19 AM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VY011623

Instrument

MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VY012194.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:36:38 AM	MMDadoda	1/17/2023 2:38:20 PM	Peak Integrated by Software
VSTDICC005	VY012194.D	Methacrylonitrile	Krupa	1/17/2023 8:36:38 AM	MMDadoda	1/17/2023 2:38:20 PM	Peak Integrated by Software
VSTDICC010	VY012195.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:36:42 AM	MMDadoda	1/17/2023 2:38:21 PM	Peak Integrated by Software
VSTDICC010	VY012195.D	Methacrylonitrile	Krupa	1/17/2023 8:36:42 AM	MMDadoda	1/17/2023 2:38:21 PM	Peak Integrated by Software
VSTDICC020	VY012196.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:36:46 AM	MMDadoda	1/17/2023 2:38:23 PM	Peak Integrated by Software
VSTDICC020	VY012196.D	Methacrylonitrile	Krupa	1/17/2023 8:36:46 AM	MMDadoda	1/17/2023 2:38:23 PM	Peak Integrated by Software
VSTDICCC050	VY012197.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:36:50 AM	MMDadoda	1/17/2023 2:38:26 PM	Peak Integrated by Software
VSTDICCC050	VY012197.D	Methacrylonitrile	Krupa	1/17/2023 8:36:50 AM	MMDadoda	1/17/2023 2:38:26 PM	Peak Integrated by Software
VSTDICC100	VY012198.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:39:09 AM	MMDadoda	1/17/2023 2:38:27 PM	Peak Integrated by Software
VSTDICC100	VY012198.D	Methacrylonitrile	Krupa	1/17/2023 8:39:09 AM	MMDadoda	1/17/2023 2:38:27 PM	Peak Integrated by Software
VSTDICC150	VY012199.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:39:13 AM	MMDadoda	1/17/2023 2:38:27 PM	Peak Integrated by Software
VSTDICC150	VY012199.D	Methacrylonitrile	Krupa	1/17/2023 8:39:13 AM	MMDadoda	1/17/2023 2:38:27 PM	Peak Integrated by Software
VSTDICV050	VY012201.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:39:19 AM	MMDadoda	1/17/2023 2:38:31 PM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VY011623

Instrument

MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV050	VY012201.D	Methacrylonitrile	Krupa	1/17/2023 8:39:19 AM	MMDadoda	1/17/2023 2:38:31 PM	Peak Integrated by Software
VSTDCCC050	VY012211.D	1,2,3-Trichloropropane	Krupa	1/17/2023 8:39:38 AM	MMDadoda	1/17/2023 2:38:36 PM	Peak Integrated by Software
VSTDCCC050	VY012211.D	Methacrylonitrile	Krupa	1/17/2023 8:39:38 AM	MMDadoda	1/17/2023 2:38:36 PM	Peak Integrated by Software



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Manual Integration Report

Sequence:

VY012323

Instrument

MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VY0123SBS01	VY012309.D	1,2,3-Trichloropropane	Krupa	1/24/2023 9:22:32 AM	MMDadoda	1/25/2023 3:08:37 PM	Peak Integrated by Software
VY0123SBS01	VY012309.D	Methacrylonitrile	Krupa	1/24/2023 9:22:32 AM	MMDadoda	1/25/2023 3:08:37 PM	Peak Integrated by Software
VSTDCCC050	VY012329.D	1,2,3-Trichloropropane	Krupa	1/24/2023 9:22:41 AM	MMDadoda	1/25/2023 3:08:44 PM	Peak Integrated by Software
VSTDCCC050	VY012329.D	Methacrylonitrile	Krupa	1/24/2023 9:22:41 AM	MMDadoda	1/25/2023 3:08:44 PM	Peak Integrated by Software



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Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QC Batch ID # VD011823

Review By	Krupa Patel	Review On	1/19/2023 7:25:30 PM		
Supervise By	Mahesh Dadoda	Supervise On	1/19/2023 7:27:08 PM		
SubDirectory	VD011823	HP Acquire Method	MSVOA_D	HP Processing Method	82D010923S.0
STD. NAME		STD REF.#			
Tune/Reschk		VP118035			
Initial Calibration Stds		VP118036,VP118037,VP118038,VP118039,VP118040,VP118041			
CCC					
Internal Standard/PEM					
ICV/I.BLK		VP118042			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	Sampled	Data File Name	Date-Time	Operator	Status
1	BFB	VD075123.D	18 Jan 2023 09:22	KP/SY	Ok
2	VSTDIC005	VD075124.D	18 Jan 2023 10:25	KP/SY	Ok,M
3	VSTDIC010	VD075125.D	18 Jan 2023 11:20	KP/SY	Ok,M
4	VSTDIC020	VD075126.D	18 Jan 2023 11:48	KP/SY	Ok,M
5	VSTDIC050	VD075127.D	18 Jan 2023 12:15	KP/SY	Ok,M
6	VSTDIC100	VD075128.D	18 Jan 2023 12:42	KP/SY	Ok,M
7	VSTDIC150	VD075129.D	18 Jan 2023 13:10	KP/SY	Ok,M
8	VIBLK	VD075130.D	18 Jan 2023 13:38	KP/SY	Ok
9	VSTDICV050	VD075131.D	18 Jan 2023 14:19	KP/SY	Ok,M

M : Manual Integration

Daily Analysis Runlog For Sequence/QC Batch ID # VD012023

Review By	Mahesh Dadoda	Review On	1/25/2023 12:30:15 AM		
Supervise By	Krupa Patel	Supervise On	1/25/2023 4:38:23 AM		
SubDirectory	VD012023	HP Acquire Method	MSVOA_D	HP Processing Method	82d011823s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP118097			
CCC		VP118098,VP118099,VP118100-MDL,VP118101-MDL			
Internal Standard/PEM		VP116738			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD075145.D	20 Jan 2023 10:40	KP/SY	Ok
2	VSTDCCC050	VD075146.D	20 Jan 2023 11:13	KP/SY	Ok,M
3	VD0120SBL04	VD075147.D	20 Jan 2023 12:23	KP/SY	Ok
4	VD0120SBL05	VD075148.D	20 Jan 2023 12:51	KP/SY	Ok
5	VD0120SBS01	VD075149.D	20 Jan 2023 13:18	KP/SY	Not Ok
6	VD0120SBS02	VD075150.D	20 Jan 2023 13:45	KP/SY	Ok,M
7	O1234-01	VD075151.D	20 Jan 2023 14:13	KP/SY	Not Ok
8	O1229-01	VD075152.D	20 Jan 2023 14:41	KP/SY	Ok
9	MDL04	VD075153.D	20 Jan 2023 15:08	KP/SY	Ok,M
10	MDL05	VD075154.D	20 Jan 2023 15:35	KP/SY	Ok,M
11	O1233-02	VD075155.D	20 Jan 2023 16:03	KP/SY	ReRun
12	O1233-03	VD075156.D	20 Jan 2023 16:31	KP/SY	ReRun
13	O1233-04	VD075157.D	20 Jan 2023 16:58	KP/SY	ReRun
14	O1233-05	VD075158.D	20 Jan 2023 17:26	KP/SY	ReRun
15	O1233-06	VD075159.D	20 Jan 2023 17:54	KP/SY	Not Ok
16	O1233-07	VD075160.D	20 Jan 2023 18:22	KP/SY	Not Ok
17	O1233-08	VD075161.D	20 Jan 2023 18:49	KP/SY	ReRun
18	O1233-09	VD075162.D	20 Jan 2023 19:17	KP/SY	ReRun
19	O1233-11	VD075163.D	20 Jan 2023 19:45	KP/SY	Not Ok
20	O1240-01	VD075164.D	20 Jan 2023 20:13	KP/SY	ReRun
21	O1258-01	VD075165.D	20 Jan 2023 20:41	KP/SY	Not Ok
22	VSTDCCC050	VD075166.D	20 Jan 2023 21:08	KP/SY	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QC Batch ID # VD012323

Review By	Mahesh Dadoda	Review On	1/25/2023 12:47:06 AM		
Supervise By	Krupa Patel	Supervise On	1/25/2023 4:39:25 AM		
SubDirectory	VD012323	HP Acquire Method	MSVOA_D	HP Processing Method	82D011823S.M
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VD118121			
CCC		VP118122,VP118123			
Internal Standard/PEM		VP116738			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD075167.D	23 Jan 2023 09:38	KP/SY	Ok
2	VSTDCCC050	VD075168.D	23 Jan 2023 10:15	KP/SY	Ok,M
3	VD0123SBL01	VD075169.D	23 Jan 2023 12:14	KP/SY	Ok
4	VD0123SBS01	VD075170.D	23 Jan 2023 12:41	KP/SY	Ok,M
5	VD0123SBSD01	VD075171.D	23 Jan 2023 13:08	KP/SY	Ok,M
6	O1233-02	VD075172.D	23 Jan 2023 13:36	KP/SY	Ok
7	O1233-03	VD075173.D	23 Jan 2023 14:04	KP/SY	Ok
8	O1233-04	VD075174.D	23 Jan 2023 14:32	KP/SY	Ok
9	O1233-05RE	VD075175.D	23 Jan 2023 15:00	KP/SY	Confirms
10	O1233-06	VD075176.D	23 Jan 2023 15:27	KP/SY	Ok
11	O1240-01	VD075177.D	23 Jan 2023 15:55	KP/SY	Ok
12	O1233-09RE	VD075178.D	23 Jan 2023 16:23	KP/SY	Confirms
13	VSTDCCC050	VD075179.D	23 Jan 2023 16:50	KP/SY	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN011623

Review By	John Carlone	Review On	1/17/2023 9:37:32 AM
Supervise By	Krupa Patel	Supervise On	1/17/2023 2:36:23 PM
SubDirectory	VN011623	HP Acquire Method	HP Processing Method 82N011623W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP118000 VP118001,VP118002,VP118003,VP118004,VP118005,VP118006		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP118007		

Sr#	SampleID	Data File Name	Date-Time	Operator	Status
1	BFB	VN076259.D	16 Jan 2023 09:57	JC\MD	Ok
2	VSTDICC001	VN076260.D	16 Jan 2023 10:30	JC\MD	Not Ok
3	VSTDICC005	VN076261.D	16 Jan 2023 10:54	JC\MD	Ok
4	VSTDICC010	VN076262.D	16 Jan 2023 11:18	JC\MD	Ok,M
5	VSTDICC020	VN076263.D	16 Jan 2023 11:42	JC\MD	Ok,M
6	VSTDICCC050	VN076264.D	16 Jan 2023 12:06	JC\MD	Ok,M
7	VSTDICC075	VN076265.D	16 Jan 2023 12:30	JC\MD	Ok,M
8	IBLK	VN076266.D	16 Jan 2023 12:53	JC\MD	Ok
9	VSTDICC001	VN076267.D	16 Jan 2023 13:17	JC\MD	Ok,M
10	VSTDICV050	VN076268.D	16 Jan 2023 14:40	JC\MD	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN012023

Review By	John Carlone	Review On	1/23/2023 9:38:40 AM
Supervise By	Maresh Dadoda	Supervise On	1/25/2023 12:36:06 AM
SubDirectory	VN012023	HP Acquire Method	HP Processing Method 82N011623W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP118110		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP118111,VP118112		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN076336.D	20 Jan 2023 09:54	JC\MD	Ok
2	VSTDCCC050	VN076337.D	20 Jan 2023 10:27	JC\MD	Ok,M
3	VN0120MBL01	VN076338.D	20 Jan 2023 11:01	JC\MD	Ok
4	VN0120WBL01	VN076339.D	20 Jan 2023 11:25	JC\MD	Ok
5	VN0120WBS01	VN076340.D	20 Jan 2023 11:49	JC\MD	Ok,M
6	VN0120WBSD01	VN076341.D	20 Jan 2023 12:25	JC\MD	Ok,M
7	IBLK	VN076342.D	20 Jan 2023 12:49	JC\MD	Ok
8	O1248-01	VN076343.D	20 Jan 2023 13:13	JC\MD	Ok
9	O1248-02	VN076344.D	20 Jan 2023 13:37	JC\MD	Ok
10	O1248-03	VN076345.D	20 Jan 2023 14:01	JC\MD	Ok
11	O1248-04	VN076346.D	20 Jan 2023 14:25	JC\MD	Ok
12	O1233-12	VN076347.D	20 Jan 2023 14:49	JC\MD	Ok
13	O1233-12RE	VN076348.D	20 Jan 2023 15:26	JC\MD	Not Ok
14	VN0120MBS01	VN076349.D	20 Jan 2023 16:20	JC\MD	Ok,M
15	VN0120MBSD01	VN076350.D	20 Jan 2023 16:54	JC\MD	Ok,M
16	O1258-01	VN076351.D	20 Jan 2023 17:18	JC\MD	Dilution
17	O1258-01DL	VN076352.D	20 Jan 2023 18:06	JC\MD	Ok
18	VSTDCCC050	VN076353.D	20 Jan 2023 18:30	JC\MD	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN012323

Review By	John Carlone	Review On	1/24/2023 9:34:32 AM
Supervise By	Maresh Dadoda	Supervise On	1/25/2023 12:39:37 AM
SubDirectory	VN012323	HP Acquire Method	HP Processing Method 82N011623W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP118126		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP118127,VP118128		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN076354.D	23 Jan 2023 09:44	JC\MD	Ok
2	VSTDCCC050	VN076355.D	23 Jan 2023 10:17	JC\MD	Ok,M
3	VN0123MBL01	VN076356.D	23 Jan 2023 10:51	JC\MD	Ok
4	VN0123WBL01	VN076357.D	23 Jan 2023 11:15	JC\MD	Ok
5	VN0123MBS01	VN076358.D	23 Jan 2023 11:39	JC\MD	Ok,M
6	VN0123MBSD01	VN076359.D	23 Jan 2023 12:12	JC\MD	Ok,M
7	O1233-11DL	VN076360.D	23 Jan 2023 12:36	JC\MD	Not Ok
8	IBLK	VN076361.D	23 Jan 2023 13:00	JC\MD	Ok
9	O1233-06	VN076362.D	23 Jan 2023 13:24	JC\MD	Not Ok
10	O1233-07	VN076363.D	23 Jan 2023 13:48	JC\MD	Not Ok
11	O1233-11	VN076364.D	23 Jan 2023 14:12	JC\MD	Dilution
12	O1234-01	VN076365.D	23 Jan 2023 14:36	JC\MD	Ok
13	VN0123WBS01	VN076366.D	23 Jan 2023 15:00	JC\MD	Ok,M
14	O1233-11DL	VN076367.D	23 Jan 2023 15:25	JC\MD	Ok
15	VN0123WBSD01	VN076368.D	23 Jan 2023 15:48	JC\MD	Ok,M
16	VSTDCCC050	VN076369.D	23 Jan 2023 17:06	JC\MD	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY011623

Review By	Krupa Patel	Review On	1/17/2023 2:36:16 PM		
Supervise By	Mahesh Dadoda	Supervise On	1/17/2023 2:38:16 PM		
SubDirectory	VY011623	HP Acquire Method	MSVOA_Y	HP Processing Method	82y011623s.m
STD. NAME		STD REF.#			
Tune/Reschk		VP117988			
Initial Calibration Stds		VP117989,VP117990,VP117991,VP117992,VP117993,VP117994			
CCC		VP117996			
Internal Standard/PEM		VP116738			
ICV/I.BLK		VP117995			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY012193.D	16 Jan 2023 09:00	KP/MD	Ok
2	VSTDICC005	VY012194.D	16 Jan 2023 12:17	KP/MD	Ok,M
3	VSTDICC010	VY012195.D	16 Jan 2023 13:03	KP/MD	Ok,M
4	VSTDICC020	VY012196.D	16 Jan 2023 13:26	KP/MD	Ok,M
5	VSTDICCC050	VY012197.D	16 Jan 2023 13:48	KP/MD	Ok,M
6	VSTDICC100	VY012198.D	16 Jan 2023 14:11	KP/MD	Ok,M
7	VSTDICC150	VY012199.D	16 Jan 2023 14:34	KP/MD	Ok,M
8	VIBLK	VY012200.D	16 Jan 2023 14:58	KP/MD	Ok
9	VSTDICV050	VY012201.D	16 Jan 2023 15:21	KP/MD	Ok,M
10	VY0116SBL01	VY012202.D	16 Jan 2023 16:21	KP/MD	Ok
11	O1100-05	VY012203.D	16 Jan 2023 16:45	KP/MD	Ok
12	VY0116SBS01	VY012204.D	16 Jan 2023 17:08	KP/MD	Ok,M
13	VY0116SBSD01	VY012205.D	16 Jan 2023 17:31	KP/MD	Ok,M
14	O1159-01	VY012206.D	16 Jan 2023 17:55	KP/MD	Ok
15	O1160-01	VY012207.D	16 Jan 2023 18:18	KP/MD	Ok
16	O1125-01RE	VY012208.D	16 Jan 2023 18:42	KP/MD	Confirms
17	O1157-01	VY012209.D	16 Jan 2023 19:05	KP/MD	Not Ok
18	O1133-08	VY012210.D	16 Jan 2023 19:29	KP/MD	Ok
19	VSTDCCC050	VY012211.D	16 Jan 2023 19:51	KP/MD	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY012323

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	VY012323	HP Acquire Method	MSVOA_Y	HP Processing Method	82y011623s.m
STD. NAME	STD REF.#				
Tune/Reschk Initial Calibration Stds	VP118120				
CCC	VP118124,VP118125				
Internal Standard/PEM	VP116738				
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY012306.D	23 Jan 2023 10:03	KP/MD	Ok
2	VSTDCCC050	VY012307.D	23 Jan 2023 12:09	KP/MD	Ok,NR
3	VY0123SBL01	VY012308.D	23 Jan 2023 13:04	KP/MD	Ok
4	VY0123SBS01	VY012309.D	23 Jan 2023 13:27	KP/MD	Ok,M
5	VY0123SBSD01	VY012310.D	23 Jan 2023 13:50	KP/MD	Ok,M
6	O1232-04	VY012311.D	23 Jan 2023 14:14	KP/MD	Ok
7	O1232-06	VY012312.D	23 Jan 2023 14:37	KP/MD	Ok
8	O1232-07	VY012313.D	23 Jan 2023 15:01	KP/MD	Not Ok
9	O1232-09RE	VY012314.D	23 Jan 2023 15:24	KP/MD	Confirms
10	O1233-07	VY012315.D	23 Jan 2023 15:48	KP/MD	Ok
11	O1233-08RE	VY012316.D	23 Jan 2023 16:11	KP/MD	Confirms
12	O1244-02	VY012317.D	23 Jan 2023 16:34	KP/MD	Ok
13	O1251-05	VY012318.D	23 Jan 2023 16:58	KP/MD	ReRun
14	O1251-06	VY012319.D	23 Jan 2023 17:21	KP/MD	Ok
15	O1251-11	VY012320.D	23 Jan 2023 17:45	KP/MD	ReRun
16	O1251-12	VY012321.D	23 Jan 2023 18:08	KP/MD	ReRun
17	O1237-02	VY012322.D	23 Jan 2023 18:31	KP/MD	Not Ok
18	O1254-01	VY012323.D	23 Jan 2023 18:55	KP/MD	ReRun
19	O1253-01	VY012324.D	23 Jan 2023 19:18	KP/MD	ReRun
20	O1243-01	VY012325.D	23 Jan 2023 19:42	KP/MD	Ok
21	O1243-03	VY012326.D	23 Jan 2023 20:05	KP/MD	ReRun
22	O1243-05	VY012327.D	23 Jan 2023 20:29	KP/MD	Ok
23	O1243-07	VY012328.D	23 Jan 2023 20:52	KP/MD	ReRun



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Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY012323

Review By		Review On			
Supervise By		Supervise On			
SubDirectory		VY012323	HP Acquire Method	MSVOA_Y	HP Processing Method 82y011623s.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP118120			
CCC		VP118124,VP118125			
Internal Standard/PEM		VP116738			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					
24	VSTDCCC050	VY012329.D	23 Jan 2023 21:15	KP/MD	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QC Batch ID # VD011823

Review By	Krupa Patel	Review On	1/19/2023 7:25:30 PM				
Supervise By	Mahesh Dadoda	Supervise On	1/19/2023 7:27:08 PM				
SubDirectory	VD011823	HP Acquire Method	MSVOA_D	HP Processing Method	82D010923S.0		
STD. NAME		STD REF.#					
Tune/Reschk		VP118035					
Initial Calibration Stds		VP118036,VP118037,VP118038,VP118039,VP118040,VP118041					
CCC		VP118042					
Internal Standard/PEM							
ICV/I.BLK							
Surrogate Standard							
MS/MSD Standard							
LCS Standard							

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD075123.D	18 Jan 2023 09:22		KP/SY	Ok
2	VSTDICC005	VSTDICC005	VD075124.D	18 Jan 2023 10:25	Good for DOD	KP/SY	Ok,M
3	VSTDICC010	VSTDICC010	VD075125.D	18 Jan 2023 11:20		KP/SY	Ok,M
4	VSTDICC020	VSTDICC020	VD075126.D	18 Jan 2023 11:48	Comp. #02,13,20 on Linear Regression	KP/SY	Ok,M
5	VSTDICCC050	VSTDICCC050	VD075127.D	18 Jan 2023 12:15		KP/SY	Ok,M
6	VSTDICC100	VSTDICC100	VD075128.D	18 Jan 2023 12:42		KP/SY	Ok,M
7	VSTDICC150	VSTDICC150	VD075129.D	18 Jan 2023 13:10		KP/SY	Ok,M
8	VIBLK	VIBLK	VD075130.D	18 Jan 2023 13:38		KP/SY	Ok
9	VSTDICV050	ICVVD011823	VD075131.D	18 Jan 2023 14:19		KP/SY	Ok,M

M : Manual Integration

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QC Batch ID # VD012023

Review By	Mahesh Dadoda	Review On	1/25/2023 12:30:15 AM				
Supervise By	Krupa Patel	Supervise On	1/25/2023 4:38:23 AM				
SubDirectory	VD012023	HP Acquire Method	MSVOA_D	HP Processing Method	82d011823s.m		
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard		VP118097					
		VP118098,VP118099,VP118100-MDL,VP118101-MDL					
		VP116738					
Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD075145.D	20 Jan 2023 10:40		KP/SY	Ok
2	VSTDCCC050	VSTDCCC050	VD075146.D	20 Jan 2023 11:13		KP/SY	Ok,M
3	VD0120SBL04	VD0120SBL04	VD075147.D	20 Jan 2023 12:23		KP/SY	Ok
4	VD0120SBL05	VD0120SBL05	VD075148.D	20 Jan 2023 12:51		KP/SY	Ok
5	VD0120SBS01	VD0120SBS01	VD075149.D	20 Jan 2023 13:18	spike error	KP/SY	Not Ok
6	VD0120SBS02	VD0120SBS02	VD075150.D	20 Jan 2023 13:45		KP/SY	Ok,M
7	O1234-01	EO-02-11923	VD075151.D	20 Jan 2023 14:13	Vial B, Not Purged	KP/SY	Not Ok
8	O1229-01	OK-02-011923	VD075152.D	20 Jan 2023 14:41	Vial B	KP/SY	Ok
9	MDL04	MDL04	VD075153.D	20 Jan 2023 15:08		KP/SY	Ok,M
10	MDL05	MDL05	VD075154.D	20 Jan 2023 15:35		KP/SY	Ok,M
11	O1233-02	B-P34A	VD075155.D	20 Jan 2023 16:03	BS Failed, Internal standard fail	KP/SY	ReRun
12	O1233-03	B-P34B	VD075156.D	20 Jan 2023 16:31	BS Failed	KP/SY	ReRun
13	O1233-04	B-P36A	VD075157.D	20 Jan 2023 16:58	BS Failed	KP/SY	ReRun
14	O1233-05	B-P36B	VD075158.D	20 Jan 2023 17:26	BS Failed , Surrogate fail;Internal standard fail	KP/SY	ReRun
15	O1233-06	B-P37A	VD075159.D	20 Jan 2023 17:54	BS Failed , Not Purged	KP/SY	Not Ok
16	O1233-07	B-P37B	VD075160.D	20 Jan 2023 18:22	BS Failed , Not Purged	KP/SY	Not Ok
17	O1233-08	B-38A	VD075161.D	20 Jan 2023 18:49	BS Failed , Surrogate fail;Internal standard fail	KP/SY	ReRun
18	O1233-09	B-P38B	VD075162.D	20 Jan 2023 19:17	BS Failed , Internal standard fail	KP/SY	ReRun



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Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QC Batch ID # VD012023

Review By	Mahesh Dadoda	Review On	1/25/2023 12:30:15 AM					
Supervise By	Krupa Patel	Supervise On	1/25/2023 4:38:23 AM					
SubDirectory	VD012023	HP Acquire Method	MSVOA_D	HP Processing Method	82d011823s.m			
STD. NAME		STD REF.#						
Tune/Reschk Initial Calibration Stds		VP118097						
CCC		VP118098,VP118099,VP118100-MDL,VP118101-MDL						
Internal Standard/PEM		VP116738						
ICV/I.BLK								
Surrogate Standard								
MS/MSD Standard								
LCS Standard								

19	O1233-11	B-P38C	VD075163.D	20 Jan 2023 19:45	Not purge;Need MeOH	KP/SY	Not Ok
20	O1240-01	TR-05-011923	VD075164.D	20 Jan 2023 20:13	BS Failed , Internal standard fail	KP/SY	ReRun
21	O1258-01	WASTE-VOA-2	VD075165.D	20 Jan 2023 20:41	Not Purge	KP/SY	Not Ok
22	VSTDCCC050	VSTDCCC050EC	VD075166.D	20 Jan 2023 21:08		KP/SY	Ok,M

M : Manual Integration

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QC Batch ID # VD012323

Review By	Mahesh Dadoda	Review On	1/25/2023 12:47:06 AM				
Supervise By	Krupa Patel	Supervise On	1/25/2023 4:39:25 AM				
SubDirectory	VD012323	HP Acquire Method	MSVOA_D	HP Processing Method	82D011823S.M		
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds		VD118121					
CCC		VP118122,VP118123					
Internal Standard/PEM		VP116738					
ICV/I.BLK							
Surrogate Standard							
MS/MSD Standard							
LCS Standard							

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD075167.D	23 Jan 2023 09:38		KP/SY	Ok
2	VSTDCCC050	VSTDCCC050	VD075168.D	23 Jan 2023 10:15		KP/SY	Ok,M
3	VD0123SBL01	VD0123SBL01	VD075169.D	23 Jan 2023 12:14		KP/SY	Ok
4	VD0123SBS01	VD0123SBS01	VD075170.D	23 Jan 2023 12:41		KP/SY	Ok,M
5	VD0123SBSD01	VD0123SBSD01	VD075171.D	23 Jan 2023 13:08		KP/SY	Ok,M
6	O1233-02	B-P34A	VD075172.D	23 Jan 2023 13:36	Vial B	KP/SY	Ok
7	O1233-03	B-P34B	VD075173.D	23 Jan 2023 14:04	Vial B	KP/SY	Ok
8	O1233-04	B-P36A	VD075174.D	23 Jan 2023 14:32	Vial B	KP/SY	Ok
9	O1233-05RE	B-P36BRE	VD075175.D	23 Jan 2023 15:00	Vial B, ISTD Fail	KP/SY	Confirms
10	O1233-06	B-P37A	VD075176.D	23 Jan 2023 15:27	Vial B	KP/SY	Ok
11	O1240-01	TR-05-011923	VD075177.D	23 Jan 2023 15:55	Vial B	KP/SY	Ok
12	O1233-09RE	B-P38BRE	VD075178.D	23 Jan 2023 16:23	Vial B, ISTD Fail	KP/SY	Confirms
13	VSTDCCC050	VSTDCCC050EC	VD075179.D	23 Jan 2023 16:50		KP/SY	Ok,M

M : Manual Integration



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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN011623

Review By	John Carlone	Review On	1/17/2023 9:37:32 AM				
Supervise By	Krupa Patel	Supervise On	1/17/2023 2:36:23 PM				
SubDirectory	VN011623	HP Acquire Method	HP Processing Method		82N011623W.M		
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds		VP118000 VP118001,VP118002,VP118003,VP118004,VP118005,VP118006					
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard		VP118007					
Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN076259.D	16 Jan 2023 09:57		JC\MD	Ok
2	VSTDICC001	VSTDICC001	VN076260.D	16 Jan 2023 10:30	Not used	JC\MD	Not Ok
3	VSTDICC005	VSTDICC005	VN076261.D	16 Jan 2023 10:54		JC\MD	Ok
4	VSTDICC010	VSTDICC010	VN076262.D	16 Jan 2023 11:18		JC\MD	Ok,M
5	VSTDICC020	VSTDICC020	VN076263.D	16 Jan 2023 11:42		JC\MD	Ok,M
6	VSTDICCC050	VSTDICCC050	VN076264.D	16 Jan 2023 12:06		JC\MD	Ok,M
7	VSTDICC075	VSTDICC075	VN076265.D	16 Jan 2023 12:30		JC\MD	Ok,M
8	IBLK	IBLK	VN076266.D	16 Jan 2023 12:53		JC\MD	Ok
9	VSTDICC001	VSTDICC001	VN076267.D	16 Jan 2023 13:17		JC\MD	Ok,M
10	VSTDICV050	ICVVN011623	VN076268.D	16 Jan 2023 14:40		JC\MD	Ok,M

M : Manual Integration



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN012023

Review By	John Carlone	Review On	1/23/2023 9:38:40 AM				
Supervise By	Mahesh Dadoda	Supervise On	1/25/2023 12:36:06 AM				
SubDirectory	VN012023	HP Acquire Method	HP Processing Method		82N011623W.M		
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard		VP118110					
		VP118111,VP118112					
Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN076336.D	20 Jan 2023 09:54		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN076337.D	20 Jan 2023 10:27	pH#Lot#V12668	JC\MD	Ok,M
3	VN0120MBL01	VN0120MBL01	VN076338.D	20 Jan 2023 11:01		JC\MD	Ok
4	VN0120WBL01	VN0120WBL01	VN076339.D	20 Jan 2023 11:25		JC\MD	Ok
5	VN0120WBS01	VN0120WBS01	VN076340.D	20 Jan 2023 11:49		JC\MD	Ok,M
6	VN0120WBSD01	VN0120WBSD01	VN076341.D	20 Jan 2023 12:25		JC\MD	Ok,M
7	IBLK	IBLK	VN076342.D	20 Jan 2023 12:49		JC\MD	Ok
8	O1248-01	STORAGE-BLANK-SO	VN076343.D	20 Jan 2023 13:13	vial A pH<2	JC\MD	Ok
9	O1248-02	STORAGE-BLANK-WA	VN076344.D	20 Jan 2023 13:37	vial A pH<2	JC\MD	Ok
10	O1248-03	STORAGE-BLANK-WA	VN076345.D	20 Jan 2023 14:01	vial A pH<2	JC\MD	Ok
11	O1248-04	STORAGE-BLANK-SAI	VN076346.D	20 Jan 2023 14:25	vial A pH<2	JC\MD	Ok
12	O1233-12	FB01	VN076347.D	20 Jan 2023 14:49	vial A pH<2 FB	JC\MD	Ok
13	O1233-12RE	FB01RE	VN076348.D	20 Jan 2023 15:26	Not Required	JC\MD	Not Ok
14	VN0120MBS01	VN0120MBS01	VN076349.D	20 Jan 2023 16:20		JC\MD	Ok,M
15	VN0120MBSD01	VN0120MBSD01	VN076350.D	20 Jan 2023 16:54		JC\MD	Ok,M
16	O1258-01	WASTE-VOA-2	VN076351.D	20 Jan 2023 17:18	Need 20X	JC\MD	Dilution
17	O1258-01DL	WASTE-VOA-2DL	VN076352.D	20 Jan 2023 18:06		JC\MD	Ok
18	VSTDCCC050	VSTDCCC050EC	VN076353.D	20 Jan 2023 18:30		JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN012323

Review By	John Carlone	Review On	1/24/2023 9:34:32 AM				
Supervise By	Mahesh Dadoda	Supervise On	1/25/2023 12:39:37 AM				
SubDirectory	VN012323	HP Acquire Method	HP Processing Method		82N011623W.M		
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds		VP118126					
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard		VP118127,VP118128					
Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN076354.D	23 Jan 2023 09:44		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN076355.D	23 Jan 2023 10:17		JC\MD	Ok,M
3	VN0123MBL01	VN0123MBL01	VN076356.D	23 Jan 2023 10:51		JC\MD	Ok
4	VN0123WBL01	VN0123WBL01	VN076357.D	23 Jan 2023 11:15		JC\MD	Ok
5	VN0123MBS01	VN0123MBS01	VN076358.D	23 Jan 2023 11:39		JC\MD	Ok,M
6	VN0123MBSD01	VN0123MBSD01	VN076359.D	23 Jan 2023 12:12		JC\MD	Ok,M
7	O1233-11DL	B-P38CDL	VN076360.D	23 Jan 2023 12:36	Run @10X, not match	JC\MD	Not Ok
8	IBLK	IBLK	VN076361.D	23 Jan 2023 13:00		JC\MD	Ok
9	O1233-06	B-P37A	VN076362.D	23 Jan 2023 13:24	Not req	JC\MD	Not Ok
10	O1233-07	B-P37B	VN076363.D	23 Jan 2023 13:48	Not req	JC\MD	Not Ok
11	O1233-11	B-P38C	VN076364.D	23 Jan 2023 14:12	Run @40X	JC\MD	Dilution
12	O1234-01	EO-02-11923	VN076365.D	23 Jan 2023 14:36		JC\MD	Ok
13	VN0123WBS01	VN0123WBS01	VN076366.D	23 Jan 2023 15:00		JC\MD	Ok,M
14	O1233-11DL	B-P38CDL	VN076367.D	23 Jan 2023 15:25		JC\MD	Ok
15	VN0123WBSD01	VN0123WBSD01	VN076368.D	23 Jan 2023 15:48		JC\MD	Ok,M
16	VSTDCCC050	VSTDCCC050EC	VN076369.D	23 Jan 2023 17:06		JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY011623

Review By	Krupa Patel	Review On	1/17/2023 2:36:16 PM				
Supervise By	Mahesh Dadoda	Supervise On	1/17/2023 2:38:16 PM				
SubDirectory	VY011623	HP Acquire Method	MSVOA_Y	HP Processing Method	82y011623s.m		
STD. NAME		STD REF.#					
Tune/Reschk		VP117988					
Initial Calibration Stds		VP117989,VP117990,VP117991,VP117992,VP117993,VP117994					
CCC		VP117996					
Internal Standard/PEM		VP116738					
ICV/I.BLK		VP117995					
Surrogate Standard							
MS/MSD Standard							
LCS Standard							

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY012193.D	16 Jan 2023 09:00		KP/MD	Ok
2	VSTDICC005	VSTDICC005	VY012194.D	16 Jan 2023 12:17		KP/MD	Ok,M
3	VSTDICC010	VSTDICC010	VY012195.D	16 Jan 2023 13:03		KP/MD	Ok,M
4	VSTDICC020	VSTDICC020	VY012196.D	16 Jan 2023 13:26		KP/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VY012197.D	16 Jan 2023 13:48		KP/MD	Ok,M
6	VSTDICC100	VSTDICC100	VY012198.D	16 Jan 2023 14:11		KP/MD	Ok,M
7	VSTDICC150	VSTDICC150	VY012199.D	16 Jan 2023 14:34		KP/MD	Ok,M
8	VIBLK	VIBLK	VY012200.D	16 Jan 2023 14:58		KP/MD	Ok
9	VSTDICV050	ICVVY011623	VY012201.D	16 Jan 2023 15:21		KP/MD	Ok,M
10	VY0116SBL01	VY0116SBL01	VY012202.D	16 Jan 2023 16:21		KP/MD	Ok
11	O1100-05	WASTE	VY012203.D	16 Jan 2023 16:45	Vial A	KP/MD	Ok
12	VY0116SBS01	VY0116SBS01	VY012204.D	16 Jan 2023 17:08		KP/MD	Ok,M
13	VY0116SBSD01	VY0116SBSD01	VY012205.D	16 Jan 2023 17:31		KP/MD	Ok,M
14	O1159-01	TP-E	VY012206.D	16 Jan 2023 17:55	Vial A	KP/MD	Ok
15	O1160-01	B-04-SB02	VY012207.D	16 Jan 2023 18:18	Vial A	KP/MD	Ok
16	O1125-01RE	B-04-SB01RE	VY012208.D	16 Jan 2023 18:42	Vial B, ISTD Fail	KP/MD	Confirms
17	O1157-01	TR-4-011323	VY012209.D	16 Jan 2023 19:05	Vial A, Not purged well	KP/MD	Not Ok
18	O1133-08	TOT-VOC	VY012210.D	16 Jan 2023 19:29	Vial A	KP/MD	Ok
19	VSTDCCC050	VSTDCCC050EC	VY012211.D	16 Jan 2023 19:51		KP/MD	Ok,M



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY011623

Review By	Krupa Patel	Review On	1/17/2023 2:36:16 PM
Supervise By	Maresh Dadoda	Supervise On	1/17/2023 2:38:16 PM
SubDirectory	VY011623	HP Acquire Method	MSVOA_Y HP Processing Method 82y011623s.m
STD. NAME	STD REF.#		
Tune/Reschk	VP117988		
Initial Calibration Stds	VP117989,VP117990,VP117991,VP117992,VP117993,VP117994		
CCC	VP117996		
Internal Standard/PEM	VP116738		
ICV/I.BLK	VP117995		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

M : Manual Integration



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY012323

Review By		Review On						
Supervise By		Supervise On						
SubDirectory		VY012323	HP Acquire Method		MSVOA_Y	HP Processing Method		82y011623s.m
STD. NAME		STD REF.#						
Tune/Reschk Initial Calibration Stds		VP118120						
CCC		VP118124,VP118125						
Internal Standard/PEM		VP116738						
ICV/I.BLK								
Surrogate Standard								
MS/MSD Standard								
LCS Standard								

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY012306.D	23 Jan 2023 10:03		KP/MD	Ok
2	VSTDCCC050	VSTDCCC050	VY012307.D	23 Jan 2023 12:09		KP/MD	Ok,NR
3	VY0123SBL01	VY0123SBL01	VY012308.D	23 Jan 2023 13:04		KP/MD	Ok
4	VY0123SBS01	VY0123SBS01	VY012309.D	23 Jan 2023 13:27		KP/MD	Ok,M
5	VY0123SBSD01	VY0123SBSD01	VY012310.D	23 Jan 2023 13:50		KP/MD	Ok,M
6	O1232-04	B-P-18A	VY012311.D	23 Jan 2023 14:14	Vial B	KP/MD	Ok
7	O1232-06	B-P-19A	VY012312.D	23 Jan 2023 14:37	Vial B	KP/MD	Ok
8	O1232-07	B-P-19B	VY012313.D	23 Jan 2023 15:01	Vial B, Not purged well	KP/MD	Not Ok
9	O1232-09RE	B-P-35BRE	VY012314.D	23 Jan 2023 15:24	Vial B, ISTD Fail and surr fail	KP/MD	Confirms
10	O1233-07	B-P37B	VY012315.D	23 Jan 2023 15:48	Vial B, Internal Standard and Surrogate Fail	KP/MD	Ok
11	O1233-08RE	B-38ARE	VY012316.D	23 Jan 2023 16:11	Vial B, Surrogate fail;Internal standard fail	KP/MD	Confirms
12	O1244-02	VNJ-223	VY012317.D	23 Jan 2023 16:34	Vial A	KP/MD	Ok
13	O1251-05	TOT-VOC-1	VY012318.D	23 Jan 2023 16:58	Vial A, ISTD Fail	KP/MD	ReRun
14	O1251-06	TOT-VOC-2	VY012319.D	23 Jan 2023 17:21	Vial A	KP/MD	Ok
15	O1251-11	TOT-VOC-3	VY012320.D	23 Jan 2023 17:45	Vial A, ISTD Fail	KP/MD	ReRun
16	O1251-12	TOT-VOC-4	VY012321.D	23 Jan 2023 18:08	Vial A, ISTD Fail	KP/MD	ReRun
17	O1237-02	3A	VY012322.D	23 Jan 2023 18:31	Vial B, Not Purge	KP/MD	Not Ok
18	O1254-01	HR-04-012023	VY012323.D	23 Jan 2023 18:55	Vial A, ISTD Fail	KP/MD	ReRun



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY012323

Review By		Review On									
Supervise By		Supervise On									
SubDirectory		VY012323		HP Acquire Method		MSVOA_Y		HP Processing Method		82y011623s.m	
STD. NAME		STD REF.#									
Tune/Reschk Initial Calibration Stds		VP118120									
CCC		VP118124,VP118125									
Internal Standard/PEM		VP116738									
ICV/I.BLK											
Surrogate Standard											
MS/MSD Standard											
LCS Standard											

19	O1253-01	SU-04-012023	VY012324.D	23 Jan 2023 19:18	Vial A, Surrogate Fail	KP/MD	ReRun
20	O1243-01	TJRC-11823-B4-0-10	VY012325.D	23 Jan 2023 19:42	Vial A	KP/MD	Ok
21	O1243-03	TJRC-11823-B4-10-20	VY012326.D	23 Jan 2023 20:05	Vial A, Surrogate Fail	KP/MD	ReRun
22	O1243-05	TJRC-011923-B4-20-30	VY012327.D	23 Jan 2023 20:29	Vial A	KP/MD	Ok
23	O1243-07	TJRC-011923-B4-30-40	VY012328.D	23 Jan 2023 20:52	Vial A, ISTD Fail	KP/MD	ReRun
24	VSTDCCC050	VSTDCCC050EC	VY012329.D	23 Jan 2023 21:15		KP/MD	Ok,M

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
O1229-01	OK-02-011923	1	1.12	8.72	9.84	8.73	87.3	
O1229-02	OK-02-011923-EPH-2	2	1.12	8.72	9.84	8.73	87.3	
O1230-01	BBC	3	1.15	8.45	9.6	9.47	98.5	
O1231-01	BBC	4	1.19	8.53	9.72	9.57	98.2	
O1232-01	B-P-17A	18	1.15	8.78	9.93	9.00	89.4	
O1232-02	B-P-17B	19	1.15	8.41	9.56	8.46	86.9	
O1232-03	WC-17	20	1.13	8.64	9.77	9.03	91.4	
O1232-04	B-P-18A	21	1.13	8.57	9.7	8.63	87.5	
O1232-05	B-P-18B	22	1.15	8.83	9.98	9.22	91.4	
O1232-06	B-P-19A	23	1.12	8.57	9.69	8.68	88.2	
O1232-07	B-P-19B	24	1.18	8.35	9.53	8.53	88.0	
O1232-08	B-P-35A	25	1.13	8.62	9.75	9.00	91.3	
O1232-09	B-P-35B	26	1.17	8.53	9.7	9.13	93.3	
O1232-10	DUP01	27	1.15	8.80	9.95	9.08	90.1	
O1233-02	B-P34A	28	1.13	8.76	9.89	8.6	85.3	
O1233-03	B-P34B	29	1.13	8.71	9.84	9.03	90.7	
O1233-04	B-P36A	30	1.16	8.75	9.91	9.00	89.6	
O1233-05	B-P36B	31	1.13	8.84	9.97	9.12	90.4	
O1233-06	B-P37A	32	1.18	8.60	9.78	8.74	87.9	
O1233-07	B-P37B	33	1.18	8.38	9.56	8.18	83.5	
O1233-08	B-P38A	34	1.12	8.66	9.78	8.85	89.3	
O1233-09	B-P38B	35	1.15	8.81	9.96	8.26	80.7	
O1233-10	WC-38	36	1.18	8.59	9.77	8.47	84.9	
O1233-11	B-P38C	37	1.15	8.82	9.97	8.73	85.9	
O1234-01	EO-02-11923	5	1.14	8.82	9.96	8.72	85.9	
O1234-02	EO-02-11923	6	1.12	8.54	9.66	8.48	86.2	
O1235-04	12X52	7	1.12	7.08	8.2	6.57	77.0	
O1235-05	12X53	8	1.16	5.17	6.33	5.91	91.9	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
O1235-06	12X54	9	1.11	8.50	9.61	5.73	54.4	
O1235-07	12X55	10	1.13	8.43	9.56	7.14	71.3	
O1237-01	COMP-1-2-3A	11	1.18	8.72	9.9	9.24	92.4	
O1237-02	3A	12	1.13	8.44	9.57	9.33	97.2	
O1238-01	RBRB22281-OILY-DEBRIS	13	1.00	1.00	2.00	2.00	100.0	OILY DEBRIS
O1239-01	BORING-3	14	1.17	8.73	9.9	8.29	81.6	
O1239-03	BORING-3-EPH-2	15	1.13	8.64	9.77	8.31	83.1	
O1240-01	TR-05-011923	16	1.18	8.50	9.68	8.38	84.7	
O1240-02	TR-05-011923-EPH-2	17	1.17	8.67	9.84	8.73	87.2	
O1241-01	34326-FRONT	38	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-02	34326-BACK	39	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-03	34327-FRONT	40	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-04	34327-BACK	41	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-05	34328-FRONT	42	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-06	34328BACK	43	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-07	343269-FRONT	44	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-08	34329-BACK	45	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1243-01	TJRC-11823-B4-0-10	60	1.12	8.65	9.77	8.54	85.8	
O1243-02	TJRC-11823-B4-0-10	61	1.14	8.45	9.59	8.02	81.4	
O1243-03	TJRC-11823-B4-10-20	62	1.15	8.81	9.96	8.85	87.4	
O1243-04	TJRC-11823-B4-10-20	63	1.17	8.57	9.74	8.16	81.6	
O1243-05	TJRC-11923-B4-20-30	64	1.15	8.75	9.9	8.28	81.5	
O1243-06	TJRC-11923-B4-20-30	65	1.13	8.70	9.83	8.43	83.9	
O1243-07	TJRC-11923-B4-30-40	66	1.16	8.77	9.93	8.29	81.3	
O1243-08	TJRC-11923-B4-30-40	67	1.14	8.83	9.97	8.47	83.0	
O1244-01	VNJ-223	46	1.12	8.62	9.74	8.59	86.7	
O1244-02	VNJ-223	47	1.16	8.80	9.96	8.62	84.8	
O1248-05	SVOC-GPC-BLANK	50	1.00	1.00	2.00	2.00	100.0	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
O1248-06	PEST-GPC-BLANK	51	1.00	1.00	2.00	2.00	100.0	
O1248-07	PEST-GPC-BLANK-SPIKE	52	1.00	1.00	2.00	2.00	100.0	
O1248-08	PCB-GPC-BLANK	53	1.00	1.00	2.00	2.00	100.0	
O1248-09	PCB-GPC-BLANK-SPIKE	54	1.00	1.00	2.00	2.00	100.0	
O1248-10	SVOC-GPC2-BLANK	55	1.00	1.00	2.00	2.00	100.0	
O1248-11	PEST-GPC2-BLANK	56	1.00	1.00	2.00	2.00	100.0	
O1248-12	PEST-GPC2-BLANK-SPIKE	57	1.00	1.00	2.00	2.00	100.0	
O1248-13	PCB-GCP2-BLANK	58	1.00	1.00	2.00	2.00	100.0	
O1248-14	PCB-GCP2-BLANK-SPIKE	59	1.00	1.00	2.00	2.00	100.0	
O1251-01	COMP-1	68	1.13	8.43	9.56	8.44	86.7	
O1251-03	EPH-1	69	1.11	8.51	9.62	8.47	86.5	
O1251-05	TOT-VOC-1	70	1.00	1.00	2.00	2.00	100.0	no jar
O1251-06	TOT-VOC-2	71	1.00	1.00	2.00	2.00	100.0	no jar
O1251-07	COMP-2	72	1.12	8.74	9.86	8.75	87.3	
O1251-09	EPH-2	73	1.14	8.80	9.94	8.8	87.0	
O1251-11	TOT-VOC-3	74	1.00	1.00	2.00	2.00	100.0	no jar
O1251-12	TOT-VOC-4	75	1.00	1.00	2.00	2.00	100.0	no jar
O1252-01	MH-9	48	1.14	8.84	9.98	9.47	94.2	
O1252-02	MH-9-EPH	49	1.12	8.46	9.58	8.67	89.2	
O1253-01	SU-04-012023	79	1.12	8.47	9.59	8.99	92.9	
O1253-02	SU-04-012023-EPH-2	80	1.18	8.69	9.87	9.17	91.9	
O1254-01	HR-04-012023	81	1.13	8.66	9.79	9.09	91.9	
O1254-02	HR-04-012023-EPH-2	82	1.16	8.69	9.85	8.95	89.6	
O1255-01	BORING-1	76	1.18	8.61	9.79	8.32	82.9	
O1255-03	BORING-1-EPH-2	77	1.11	8.78	9.89	8.35	82.5	
O1256-01	OR-02-012023	83	1.15	8.81	9.96	9.09	90.1	
O1256-02	OR-02-012023-EPH-2	84	1.1	8.87	9.97	8.66	85.2	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
O1258-01	WASTE-VOA-2	78	1.12	8.58	9.7	8.62	87.4	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023

WorkList ID : 166715

Department : Wet-Chemistry

Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/24/2023	Solid	O1229-01	Percent Solids	Cool 4 deg C	PSEG05	N11	OK-02-011923	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1229-02	Percent Solids	Cool 4 deg C	PSEG05	N11	OK-02-011923-EPH-2	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1230-01	Percent Solids	Cool 4 deg C	EART12	N11	BBC	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1231-01	Percent Solids	Cool 4 deg C	EART12	N11	BBC	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1232-01	Percent Solids	Cool 4 deg C	loui01	N11	B-P-17A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-02	Percent Solids	Cool 4 deg C	loui01	N11	B-P-17B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-03	Percent Solids	Cool 4 deg C	loui01	N11	WC-17	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-04	Percent Solids	Cool 4 deg C	loui01	N11	B-P-18A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-05	Percent Solids	Cool 4 deg C	loui01	N11	B-P-18B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-06	Percent Solids	Cool 4 deg C	loui01	N11	B-P-19A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-07	Percent Solids	Cool 4 deg C	loui01	N11	B-P-19B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-08	Percent Solids	Cool 4 deg C	loui01	N11	B-P-35A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-09	Percent Solids	Cool 4 deg C	loui01	N11	B-P-35B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-10	Percent Solids	Cool 4 deg C	loui01	N11	DUP01	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-02	Percent Solids	Cool 4 deg C	loui01	N11	B-P-34A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-03	Percent Solids	Cool 4 deg C	loui01	N11	B-P-34B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-04	Percent Solids	Cool 4 deg C	loui01	N11	B-P-36A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-05	Percent Solids	Cool 4 deg C	loui01	N11	B-P-36B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-06	Percent Solids	Cool 4 deg C	loui01	N11	B-P-37A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-07	Percent Solids	Cool 4 deg C	loui01	N11	B-P-37B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-08	Percent Solids	Cool 4 deg C	loui01	N11	B-P-38A	01/18/2023	Chemtech -SO

Date/Time 01-20-23 15:45

Raw Sample Received by: 70 (wjc)

Raw Sample Relinquished by: JDCSM

Date/Time

01-20-23

Raw Sample Received by:

Raw Sample Relinquished by:

123747

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023 WorkList ID : 166715 Department : Wet-Chemistry Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/26/2023	Solid	O1233-09	Percent Solids	Cool 4 deg C	loui01	N11	B-P38B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-10	Percent Solids	Cool 4 deg C	loui01	N11	WC-38	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-11	Percent Solids	Cool 4 deg C	loui01	N11	B-P38C	01/18/2023	Chemtech -SO
01/24/2023	Solid	O1234-01	Percent Solids	Cool 4 deg C	PSEG05	N11	EO-02-11923	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1234-02	Percent Solids	Cool 4 deg C	PSEG05	N11	EO-02-11923	01/19/2023	Chemtech -SO
01/28/2023	Solid	O1235-04	Percent Solids	Cool 4 deg C	ATCE02	N11	12X52	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1235-05	Percent Solids	Cool 4 deg C	ATCE02	N11	12X53	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1235-06	Percent Solids	Cool 4 deg C	ATCE02	N11	12X54	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1235-07	Percent Solids	Cool 4 deg C	ATCE02	N11	12X55	01/18/2023	Chemtech -SO
01/24/2023	Solid	O1237-01	Percent Solids	Cool 4 deg C	PSEG03	N12	COMP-1-2-3A	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1237-02	Percent Solids	Cool 4 deg C	PSEG03	N12	3A	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1238-01	Percent Solids	Cool 4 deg C	PSEG03	N12	RBRB22281-OILY-DEBRIS	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1239-01	Percent Solids	Cool 4 deg C	PSEG03	N12	BORING-3	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1239-03	Percent Solids	Cool 4 deg C	PSEG03	N12	BORING-3-EPH-2	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1240-01	Percent Solids	Cool 4 deg C	PSEG05	N12	TR-05-011923	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1240-02	Percent Solids	Cool 4 deg C	PSEG05	N12	TR-05-011923-EPH-2	01/19/2023	Chemtech -SO
01/27/2023	Solid	O1241-01	Percent Solids	Cool 4 deg C	PSEG03	N11	34326-FRONT	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-02	Percent Solids	Cool 4 deg C	PSEG03	N11	34326-BACK	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-03	Percent Solids	Cool 4 deg C	PSEG03	N11	34327-FRONT	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-04	Percent Solids	Cool 4 deg C	PSEG03	N11	34327-BACK	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-05	Percent Solids	Cool 4 deg C	PSEG03	N11	34328-FRONT	01/20/2023	Chemtech -SO

Date/Time 01-20-23 15:45
 Raw Sample Received by: JO (WCC)
 Raw Sample Relinquished by: JO CSM

Date/Time 01-20-23 17:25
 Raw Sample Received by: JDCSM
 Raw Sample Relinquished by: JO (WCC)

123747

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-01/2023 WorkList ID : 166715 Department : Wet-Chemistry Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/27/2023	Solid	O1241-06	Percent Solids	Cool 4 deg C	PSEG03	N11	34328BACK	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-07	Percent Solids	Cool 4 deg C	PSEG03	N11	343269-FRONT	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-08	Percent Solids	Cool 4 deg C	PSEG03	N11	34329-BACK	01/20/2023	Chemtech -SO
01/28/2023	Solid	O1243-01	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-0-10	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1243-02	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-0-10	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1243-03	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-10-20	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1243-04	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-10-20	01/18/2023	Chemtech -SO
01/29/2023	Solid	O1243-05	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-20-30	01/19/2023	Chemtech -SO
01/29/2023	Solid	O1243-06	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-20-30	01/19/2023	Chemtech -SO
01/29/2023	Solid	O1243-07	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-30-40	01/19/2023	Chemtech -SO
01/29/2023	Solid	O1243-08	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-30-40	01/19/2023	Chemtech -SO
01/27/2023	Solid	O1244-01	Percent Solids	Cool 4 deg C	PSEG03	N11	VNJ-223	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1244-02	Percent Solids	Cool 4 deg C	PSEG03	N11	VNJ-223	01/20/2023	Chemtech -SO
01/23/2023	Solid	O1248-05	Percent Solids	Cool 4 deg C	CHEM02	N11	SVOC-GPC-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-06	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-07	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC-BLANK-SPIKE	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-08	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GPC-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-09	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GPC-BLANK-SPIKE	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-10	Percent Solids	Cool 4 deg C	CHEM02	N11	SVOC-GPC2-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-11	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC2-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-12	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC2-BLANK-SPIKE	01/13/2023	Chemtech -SO

Date/Time 01/20/23 15:45
 Raw Sample Received by: JP (WC)
 Raw Sample Relinquished by: JDCSM2

Date/Time 01/20/23 17:25
 Raw Sample Received by: JDCSM2
 Raw Sample Relinquished by: JP (WC)

2523747

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023 WorkList ID : 166715 Department : Wet-Chemistry Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/23/2023	Solid	O1248-13	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GCP2-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-14	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GCP2-BLANK-SPIKE	01/13/2023	Chemtech -SO
01/25/2023	Solid	O1251-01	Percent Solids	Cool 4 deg C	SOUN03	N11	COMP-1	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-03	Percent Solids	Cool 4 deg C	SOUN03	N11	EPH-1	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-05	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-1	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-06	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-07	Percent Solids	Cool 4 deg C	SOUN03	N11	COMP-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-09	Percent Solids	Cool 4 deg C	SOUN03	N11	EPH-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-11	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-3	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-12	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-4	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1252-01	Percent Solids	Cool 4 deg C	PSEG03	N11	MH-9	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1252-02	Percent Solids	Cool 4 deg C	PSEG03	N11	MH-9-EPH	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1253-01	Percent Solids	Cool 4 deg C	PSEG05	N13	SU-04-012023	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1253-02	Percent Solids	Cool 4 deg C	PSEG05	N13	SU-04-012023-EPH-2	01/20/2023	Chemtech -SO
01/26/2023	Solid	O1254-01	Percent Solids	Cool 4 deg C	PSEG05	N11	HR-04-012023	01/20/2023	Chemtech -SO
01/26/2023	Solid	O1254-02	Percent Solids	Cool 4 deg C	PSEG05	N11	HR-04-012023-EPH-2	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1255-01	Percent Solids	Cool 4 deg C	PSEG03	N11	BORING-1	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1255-03	Percent Solids	Cool 4 deg C	PSEG03	N11	BORING-1-EPH-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1256-01	Percent Solids	Cool 4 deg C	PSEG05	N11	OR-02-012023	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1256-02	Percent Solids	Cool 4 deg C	PSEG05	N11	OR-02-012023-EPH-2	01/20/2023	Chemtech -SO
01/23/2023	Solid	O1258-01	Percent Solids	Cool 4 deg C	RMJE02	N11	WASTE-VOA-2	01/20/2023	Chemtech -SO

Date/Time 01-20-23 15:43
Raw Sample Received by: JP (wc)
Raw Sample Relinquished by: JDCSM

Date/Time 01-20-23 17:25
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: JP (wc)

SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 78-8922

www.chemtech.net

Chemtech Project Number:

01232/33

COC Number:

CLIENT INFORMATION

COMPANY: Louis Berger dba WSP USA Inc.

ADDRESS: 350 Mt. Kemble Ave

CITY: Morristown STATE: NJ ZIP: 07962

ATTENTION: Jonathan Ganz (Jon.Ganz@wsp.com)

PHONE: 212-612-7995

FAX:

PROJECT INFORMATION

PROJECT NAME: HWR1140A PCSMP Ph II SCI

PROJECT #: 31202661.297 Task 02 LOCATION: Staten Island

PROJECT MANAGER: Jon Ganz

E-MAIL: Jon.Ganz@wsp.com

PHONE: 212-612-7995

FAX:

BILLING INFORMATION

BILL TO: Louis Berger

PO# 31202661.297 Task 02

ADDRESS: 350 Mt. Kemble Ave

CITY: Morristown

STATE: NJ ZIP: 07962

ATTENTION: Jon Ganz

PHONE: 212-612-7995

DATA TURNAROUND INFORMATION

HARD COPY: _____ DAYS*
EDD See Contract Rates below _____ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

TCL VOC - 2 days

TCL SVOC - 5 days

PAH - 5 days

TPH GRO/DRO - 3 days

TAL Metals - 5 Days

PCBs and Pesticides - 5 Day

TCLP RCRA Metals - 5 Day

RCRA Characteristics and Paint Filter - 3 Days

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____

Level 2

☐ EDD Format

ANALYSIS

TCL VOC (8260C)	TCL SVOC (8270C/625)	TCL Pest (8081A/608)	PCB (3550B, 8082/608)	TAL Metals (7471A and 6010B)	PCBs (8082), PAHs (8270)	TCLP Metals (RCRA 8) EPA 1311/ 6010B	RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B	TPH-DRO/GRO (8015B)	Paint Filter Test (EPA 9095B)
1	2	3	4	5	6	7	8	9	

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	Preservatives									Comments ← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	B-P17A	507		X	1/18/23	0950	1	X	X	X	X	X					
2.	B-P17B	508		X	1/18/23	1005	1	X	X	X	X	X					
3.	WCL7	509	X		1/18/23	1010	1						X	X	X	X	
4.	B-P18A			X	1/18/23	1025		X	X	X	X	X					
5.	B-P18B			X	1/18/23	1045		X	X	X	X	X					
6.	B-P19A			X	1/18/23	1125		X	X	X	X	X					
7.	B-P19B			X	1/18/23	1135		X	X	X	X	X					
8.	B-P35A			X	1/18/23	1225		X	X	X	X	X					
9.	B-P35B			X	1/18/23	1245		X	X	X	X	X					
10.	DUPO1			X				X	X	X	X	X					

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>3.0</u>
1. <i>[Signature]</i>	1/19/23	<i>[Signature]</i> 1333	MeOH extraction requires an additional 4oz. Jar for percent solid
RELINQUISHED BY	DATE/TIME	RECEIVED BY	Comments:
2. <i>[Signature]</i>	1-19-23	2. <i>[Signature]</i>	
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY	
3. <i>[Signature]</i>	1-19-23	3. <i>[Signature]</i>	

Page 1 of 3

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
CHEMTECH: ☐ Picked Up ☐ OvernightShipment Complete
☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT

YELLOW - CHEMTECH COPY

PINK - SAMPLER COPY

CHEMTECH CHAIN OF CUSTODY RECORD		284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 78-8922 www.chemtech.net		Chemtech Project Number: <u>01232/33</u>																					
CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION																					
COMPANY: Louis Berger dba WSP USA Inc. ADDRESS: 350 Mt. Kemble Ave CITY: Morristown STATE: NJ ZIP: 07962 ATTENTION: Jonathan Ganz (Jon.Ganz@wsp.com) PHONE: 212-612-7995 FAX:		PROJECT NAME: HWR1140A PCSMP Ph II SCI PROJECT #: 31202661.297 Task 02 LOCATION: Staten Island PROJECT MANAGER: Jon Ganz E-MAIL: Jon.Ganz@wsp.com PHONE: 212-612-7995 FAX:		BILL TO: Louis Berger PO# 31202661.297 Task 02 ADDRESS: 350 Mt. Kemble Ave CITY: Morristown STATE: NJ ZIP: 07962 ATTENTION: Jon Ganz PHONE: 212-612-7995																					
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS																					
FAX: _____ DAYS HARD COPY: _____ DAYS* EDD See Contract Rates below DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS TCL VOC - 2 days TCL SVOC - 5 days PAH - 5 days TPH GRO/DRO - 3 days TAL Metals - 5 Days PCBs and Pesticides - 5 Day TCLP RCRA Metals - 5 Day RCRA Characteristics and Paint Filter - 3 Days		☐ RESULTS ONLY ☐ USEPA CLP ☐ RESULTS + QC ☐ New York State ASP "B" ☐ New Jersey REDUCED ☐ New York State ASP "A" ☐ New Jersey CLP ☐ Other _____ Level 2 ☐ EDD Format _____		<table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <th>TCL VOC (8260C)</th> <th>TCL SVOC (8270C/625)</th> <th>TCL Pest (8081A/608)</th> <th>PCB (3550B, 8082/608)</th> <th>TAL Metals (7471A and 6010B)</th> <th>PCBs (8082), PAHs (8270)</th> <th>TCLP Metals (RCRA 8) EPA 1311/6010B</th> <th>RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B</th> <th>TPH-DRO/GRO (8015B)</th> <th>Paint Filter Test (EPA 9095B)</th> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td></td> </tr> </table>		TCL VOC (8260C)	TCL SVOC (8270C/625)	TCL Pest (8081A/608)	PCB (3550B, 8082/608)	TAL Metals (7471A and 6010B)	PCBs (8082), PAHs (8270)	TCLP Metals (RCRA 8) EPA 1311/6010B	RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B	TPH-DRO/GRO (8015B)	Paint Filter Test (EPA 9095B)	1	2	3	4	5	6	7	8	9	
TCL VOC (8260C)	TCL SVOC (8270C/625)	TCL Pest (8081A/608)	PCB (3550B, 8082/608)	TAL Metals (7471A and 6010B)	PCBs (8082), PAHs (8270)	TCLP Metals (RCRA 8) EPA 1311/6010B	RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B	TPH-DRO/GRO (8015B)	Paint Filter Test (EPA 9095B)																
1	2	3	4	5	6	7	8	9																	
CHEMTECH SAMPLE ID		PROJECT SAMPLE IDENTIFICATION		SAMPLE MATRIX																					
				<table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <th colspan="2">SAMPLE TYPE</th> <th colspan="2">SAMPLE COLLECTION</th> <th rowspan="2"># of Bottles</th> </tr> <tr> <th>COMP</th> <th>GRAB</th> <th>DATE</th> <th>TIME</th> </tr> </table>		SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	COMP	GRAB	DATE	TIME											
SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles																					
COMP	GRAB	DATE	TIME																						
				<table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <th colspan="9">PRESERVATIVES</th> <th rowspan="4"> COMMENTS <-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other </th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th> </tr> </table>		PRESERVATIVES									COMMENTS <-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other	1	2	3	4	5	6	7	8	9	
PRESERVATIVES									COMMENTS <-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other																
1	2	3	4	5	6	7	8	9																	
1.	FB01	Field Blank		1/18/23	1205	2	X	X		X	X	X	HCl Preservative												
2.	B-P34A	soil	X	1/18/23	2115	1	X	X		X	X	X	Ice Preservative												
3.	B-P34B	soil	X	1/18/23	2140	1	X	X	X	X	X														
4.	B-P36A		X		2210	1	X	X	X	X	X														
5.	B-P36B		X		2225	1	X	X	X	X	X														
6.	B-P37A		X		2300	1	X	X	X	X	X														
7.	B-P37B		X		2315	1	X	X	X	X	X														
8.	B-38A		X		2345	1	X	X	X	X	X														
9.	B-P38B		X		2355	1	X	X	X	X	X														
10.	WC38		X		2355	1					X	X	X	X											

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER 1. <u>[Signature]</u>		DATE/TIME 1/19/23		RECEIVED BY <u>[Signature]</u> 1333		RECEIVED BY <u>[Signature]</u> 1-19-23		Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>3.0</u> MeOH extraction requires an additional 4oz. Jar for percent solid Comments:	
RELINQUISHED BY 2. <u>[Signature]</u>		DATE/TIME 1-19-23		RECEIVED FOR LAB BY 3. <u>[Signature]</u>		SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTECH: ☐ Picked Up ☐ Overnight		Shipment Complete ☐ YES ☐ NO	

Page 2 of 3

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT
YELLOW - CHEMTECH COPY
PINK - SAMPLER COPY



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255422
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-21-00137
Texas	T104704488-22-15

LOGIN REPORT/SAMPLE TRANSFER
Order ID : O1233 loui01

Order Date : 1/19/2023 1:53:00 PM

Project Mgr :
Client Name : Louis Berger U.S.. Inc., A V

Project Name : NYCDDC Phase II SCI Artl

Report Type : Level 2

Client Contact : Jonathan Ganz

Receive DateTime : 1/19/2023 12:00:00 AM

EDD Type : Excel NY

Invoice Name : Louis Berger U.S.. Inc., A V

Purchase Order : 18:05

Hard Copy Date :
Invoice Contact : Jonathan Ganz

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
O1233-02	B-P34A	Solid	01/18/2023	21:15	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-03	B-P34B	Solid	01/18/2023	21:40	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-04	B-P36A	Solid	01/18/2023	22:10	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-05	B-P36B	Solid	01/18/2023	22:25	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-06	B-P37A	Solid	01/18/2023	23:00	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-07	B-P37B	Solid	01/18/2023	23:15	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-08	B-P38A B-38A	Solid	01/18/2023	23:45	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-09	B-P38B	Solid	01/18/2023	23:55	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-11	B-P38C	Solid	01/18/2023	23:50					



LOGIN REPORT/SAMPLE TRANSFER

Order ID : O1233 loui01

Order Date : 1/19/2023 1:53:00 PM

Project Mgr :

Client Name : Louis Berger U.S., Inc., A V

Project Name : NYCDDC Phase II SCI Artl

Report Type : Level ■ 2 SB 01/31/2023

Client Contact : Jonathan Ganz

Receive DateTime : 1/19/2023 ~~12:00:00~~ AM

EDD Type : Excel NY

Invoice Name : Louis Berger U.S., Inc., A V

Purchase Order : 18:05

Hard Copy Date :

Invoice Contact : Jonathan Ganz

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
O1233-12	FB01	Water	01/18/2023	12:05	VOC-TCLVOA-10		8260D	2 Bus. Days	
					VOC-TCLVOA-10		8260D	2 Bus. Days	

JAN
samplersstored in vault
Free #2Relinquished By : celDate / Time : 1/20/23 9:20Received By : huy D. d.Date / Time : 1/20/23 9:20

Storage Area : VOA Refrigerator Room