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

Cover Page

Order ID : O3645

Project ID : Mackenna Parcels

Client : LaBella Associates P.C.

Lab Sample Number	Client Sample Number
O3645-01	SB-02-(3-5)
O3645-02	SB-04-(1-5)
O3645-03	SB-07-(1-3)
O3645-04	SB-08-(0.5-2.0)
O3645-05	SB-09-(2.0-4.0)
O3645-06	SB-10-(0.5-2.0)
O3645-07	DUP
O3645-08	RINSATE-BLANK
O3645-09	O3645-02MS
O3645-10	O3645-02MSD

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: 7/28/2023

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

LaBella Associates P.C.
Project Name: Mackenna Parcels
Project # N/A
Chemtech Project # O3645
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
9 Solid samples were received on 07/17/2023.
1 Water sample was received on 07/17/2023.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-RCRA, METALS RCRA, PCB Group1, SVOCMS Group1 and VOCMS Group1. This data package contains results for VOCMS Group1.

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 of VOCMS Group1 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .

The RPD for {O3645-10MSD} with File ID: VD076763.D met criteria except for 1,2,3-Trichlorobenzene[21%], 1,2,4-Trichlorobenzene[21%], Bromodichloromethane[21%], Bromoform[22%], Bromomethane[23%], cis-1,2-Dichloroethene[21%] and Methyl tert-butyl Ether[22%]due to difference in results of MS-MSD.

The RPD for {VN0718WBSD02} with File ID: VN078556.D met criteria except for 1,2-Dibromoethane[23%], 2-Hexanone[40%], Dibromochloromethane[30%], o-Xylene[22%], Styrene[24%] and Tetrachloroethene[40%] due to difference in results of BS-BSD.

The Blank Spike met requirements for all samples .

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922
The Blank Spike Duplicate for {VN0718WBSD02} with File ID: VN078556.D met requirements for all samples except for 1,1,1-Trichloroethane[109%], 1,1,2-Trichloroethane[129%], 1,2-Dibromoethane[127%], 1,2-Dichloropropane[112%], 2-Hexanone[150%], Bromoform[117%], Chloromethane[117%], cis-1,3-Dichloropropene[113%], Dibromochloromethane[138%], Ethyl Benzene[110%], m/p-Xylenes[113%], o-Xylene[111%], Styrene[116%], t-1,3-Dichloropropene[121%] and Tetrachloroethene[132%]failing high but no positive hit in associated sample therefore no corrective action taken.

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

The %RSD is greater than 20% in the Initial Calibration method (82D071423S.M) for Methylene Chloride, this compound is passing on Linear Regression.

The %RSD is greater than 15% in the Initial Calibration method (82N071023W.M) for Bromomethane, Chloroethane, Methylene Chloride, 1,1,2,2-Tetrachloroethane, 1,2-Dibromo-3-Chloropropane, these compounds are passing on Linear Regression.

The Continuous Calibration File ID VN078550.D met the requirements except for Carbon Disulfide failing marginally low therefore no corrective action taken.

The Tuning criteria met requirements.

E. Additional Comments:
The Samples #SB-02-(3-5),SB-08-(10.5-2.0),SB-10-(0.5-2.0),DUP have the concentration of Carbon Disulfide, while sample#SB-04-(1-5) have the concentration of Carbon Disulfide and Methylcyclohexane below Method detection limits, therefore it is not reported as Hit in Form1.

The temperature of the samples at the time of receipt was 24.3°C.
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.

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

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

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

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 is 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

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: O3645 MATRIX: /Water

METHOD: 8260D

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The %RSD is greater than 20% in the Initial Calibration method (82D071423S.M) for Methylene Chloride, this compound is passing on Linear Regression. The %RSD is greater than 15% in the Initial Calibration method (82N071023W.M) for Bromomethane, Chloroethane, Methylene Chloride, 1,1,2,2-Tetrachloroethane, 1,2-Dibromo-3-Chloropropane, these compounds are passing on Linear Regression. The Continuous Calibration File ID VN078550.D met the requirements except for Carbon Disulfide failing marginally low therefore no corrective action taken.		✓	
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

The Blank Spike met requirements for all samples .

The MS recoveries met the requirements for all compounds .

The MSD recoveries met the acceptable requirements .

The Blank Spike Duplicate for {VN0718WBSD02} with File ID: VN078556.D met requirements for all samples except for 1,1,1-Trichloroethane[109%], 1,1,2-Trichloroethane[129%], 1,2-Dibromoethane[127%], 1,2-Dichloropropane[112%], 2-Hexanone[150%], Bromoform[117%], Chloromethane[117%], cis-1,3-Dichloropropene[113%], Dibromochloromethane[138%], Ethyl Benzene[110%], m/p-Xylenes[113%], o-Xylene[111%], Styrene[116%], t-1,3-Dichloropropene[121%] and Tetrachloroethene[132%]failing high but no positive hit in associated sample therefore no corrective action taken.

The RPD for {O3645-10MSD} with File ID: VD076763.D met criteria except for 1,2,3-Trichlorobenzene[21%], 1,2,4-Trichlorobenzene[21%], Bromodichloromethane[21%], Bromoform[22%], Bromomethane[23%], cis-1,2-Dichloroethene[21%] and Methyl tert-butyl Ether[22%]due to difference in results of MS-MSD.

The RPD for {VN0718WBSD02} with File ID: VN078556.D met criteria except for 1,2-Dibromoethane[23%], 2-Hexanone[40%], Dibromochloromethane[30%], o-Xylene[22%], Styrene[24%] and Tetrachloroethene[40%] due to difference in results of BS-BSD.

9.	Internal Standard Area/Retention Time Shift Meet Criteria			✓

Comments:

10.	Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

The Samples #SB-02-(3-5),SB-08-(10.5-2.0),SB-10-(0.5-2.0),DUP have the concentration of Carbon Disulfide, while sample#SB-04-(1-5) have the concentration of Carbon Disulfide and Methylcyclohexane below Method detection limits, therefore it is not reported as Hit in Form1.

The temperature of the samples at the time of receipt was 24.3°C.

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

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

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.

_____ _____

QA REVIEW Date

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **O3645**

	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 Castody	✓
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: SOHIL JODHANI **Date:** 07/28/2023

2nd Level QA Review Signature: _____ **Date:** _____

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

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

LAB CHRONICLE

OrderID:	O3645	**OrderDate:**	7/17/2023 9:31:59 AM
Client:	LaBella Associates P.C.	**Project:**	Mackenna Parcels
Contact:	Andrew T. Benkleman	**Location:**	I11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O3645-01	**SB-02-(3-5)**	**SOIL**			**07/12/23**			**07/17/23**
			VOCMS Group1	8260D			07/17/23	
O3645-02	**SB-04-(1-5)**	**SOIL**			**07/12/23**			**07/17/23**
			VOCMS Group1	8260D			07/17/23	
O3645-03	**SB-07-(1-3)**	**SOIL**			**07/13/23**			**07/17/23**
			VOCMS Group1	8260D			07/17/23	
O3645-04	**SB-08-(0.5-2.0)**	**SOIL**			**07/13/23**			**07/17/23**
			VOCMS Group1	8260D			07/17/23	
O3645-06	**SB-10-(0.5-2.0)**	**SOIL**			**07/13/23**			**07/17/23**
			VOCMS Group1	8260D			07/17/23	
O3645-07	**DUP**	**SOIL**			**07/12/23**			**07/17/23**
			VOCMS Group1	8260D			07/18/23	
O3645-08	**RINSATE-BLANK**	**Water**			**07/12/23**			**07/17/23**
			VOCMS Group1	8260-Low			07/18/23	

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

Hit Summary Sheet
SW-846

SDG No.: O3645

Client: LaBella Associates P.C.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID:	**SB-02-(3-5)**								
O3645-01	SB-02-(3-5)	SOIL	Cyclohexane		8.60		0.63	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Methylcyclohexane		13.4		3.00	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Benzene		1.90	J	0.59	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Toluene		6.30		0.58	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Ethyl Benzene		1.20	J	0.60	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Total Xylenes		9.20	J	1.99	13.5	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	m/p-Xylenes		6.80	J	1.30	9.00	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	o-Xylene		2.40	J	0.69	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	1,3,5-Trimethylbenzene		1.70	J	0.57	4.50	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	1,2,4-Trimethylbenzene		4.90		0.60	4.50	ug/Kg
			Total Voc :		47.2				
O3645-01	SB-02-(3-5)	SOIL	Propane	*	8.80	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Isobutane	*	9.20	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Butane, 2-methyl-	*	23.1	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Butane	*	20.3	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Pentane	*	12.3	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Octane	*	7.60	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	Heptane	*	9.40	J	0	0	ug/Kg
O3645-01	SB-02-(3-5)	SOIL	2-Ethyl-oxetane	*	17.8	J	0	0	ug/Kg
			Total Tics :		109				
			Total Concentration:		156				
Client ID:	**SB-04-(1-5)**								
O3645-02	SB-04-(1-5)	SOIL	Cyclohexane		1.80	J	0.57	4.10	ug/Kg
			Total Voc :		1.80				
O3645-02	SB-04-(1-5)	SOIL	2-Ethyl-oxetane	*	10.7	J	0	0	ug/Kg
			Total Tics :		10.7				
			Total Concentration:		12.5				
Client ID:	**SB-08-(0.5-2.0)**								
O3645-04	SB-08-(0.5-2.0)	SOIL	Cyclohexane		2.00	J	0.83	5.90	ug/Kg
			Total Voc :		2.00				
O3645-04	SB-08-(0.5-2.0)	SOIL	2-Ethyl-oxetane	*	9.70	J	0	0	ug/Kg
			Total Tics :		9.70				
			Total Concentration:		11.7				
Client ID:	**SB-10-(0.5-2.0)**								
O3645-06	SB-10-(0.5-2.0)	SOIL	Cyclohexane		2.10	J	0.85	6.10	ug/Kg
			Total Voc :		2.10				
O3645-06	SB-10-(0.5-2.0)	SOIL	n-Hexane	*	21.6	J	0	0	ug/Kg
O3645-06	SB-10-(0.5-2.0)	SOIL	1H-Indene, 1-methylene-	*	7.50	J	0	0	ug/Kg

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

Hit Summary Sheet
SW-846

SDG No.: O3645

Client: LaBella Associates P.C.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
			Total Tics :		29.1				
			Total Concentration:		31.2				
Client ID:	**DUP**								
O3645-07	DUP	SOIL	Cyclohexane		6.20		0.73	5.20	ug/Kg
O3645-07	DUP	SOIL	Methylcyclohexane		6.90		3.50	5.20	ug/Kg
O3645-07	DUP	SOIL	Benzene		1.70	J	0.69	5.20	ug/Kg
O3645-07	DUP	SOIL	Toluene		4.90	J	0.68	5.20	ug/Kg
O3645-07	DUP	SOIL	Total Xylenes		6.00	J	2.30	15.7	ug/Kg
O3645-07	DUP	SOIL	m/p-Xylenes		4.40	J	1.50	10.5	ug/Kg
O3645-07	DUP	SOIL	o-Xylene		1.60	J	0.80	5.20	ug/Kg
O3645-07	DUP	SOIL	1,2,4-Trimethylbenzene		2.90	J	0.70	5.20	ug/Kg
			Total Voc :		28.6				
O3645-07	DUP	SOIL	Propane	*	7.90	J	0	0	ug/Kg
O3645-07	DUP	SOIL	Isobutane	*	6.70	J	0	0	ug/Kg
O3645-07	DUP	SOIL	Butane, 2-methyl-	*	16.7	J	0	0	ug/Kg
O3645-07	DUP	SOIL	Butane	*	16.5	J	0	0	ug/Kg
O3645-07	DUP	SOIL	Pentane	*	8.40	J	0	0	ug/Kg
O3645-07	DUP	SOIL	n-Hexane	*	14.5	J	0	0	ug/Kg
			Total Tics :		70.7				
			Total Concentration:		99.3				

CHEMTECH

QC SUMMARY

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

Surrogate Summary

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
O3645-01	SB-02-(3-5)	1,2-Dichloroethane-d4	50	57.1	114	50	163
		Dibromofluoromethane	50	53.0	106	54	147
		Toluene-d8	50	55.3	111	58	134
		4-Bromofluorobenzene	50	55.2	110	30	143
O3645-02	SB-04-(1-5)	1,2-Dichloroethane-d4	50	58.0	116	50	163
		Dibromofluoromethane	50	53.8	108	54	147
		Toluene-d8	50	55.7	111	58	134
		4-Bromofluorobenzene	50	56.7	113	30	143
O3645-03	SB-07-(1-3)	1,2-Dichloroethane-d4	50	58.1	116	50	163
		Dibromofluoromethane	50	52.3	105	54	147
		Toluene-d8	50	55.2	110	58	134
		4-Bromofluorobenzene	50	50.1	100	30	143
O3645-04	SB-08-(0.5-2.0)	1,2-Dichloroethane-d4	50	65.5	131	50	163
		Dibromofluoromethane	50	55.4	111	54	147
		Toluene-d8	50	54.8	110	58	134
		4-Bromofluorobenzene	50	40.7	81	30	143
O3645-06	SB-10-(0.5-2.0)	1,2-Dichloroethane-d4	50	67.2	134	50	163
		Dibromofluoromethane	50	54.5	109	54	147
		Toluene-d8	50	56.1	112	58	134
		4-Bromofluorobenzene	50	53.5	107	30	143
O3645-07	DUP	1,2-Dichloroethane-d4	50	63.8	128	50	163
		Dibromofluoromethane	50	51.5	103	54	147
		Toluene-d8	50	55.8	112	58	134
		4-Bromofluorobenzene	50	49.0	98	30	143
O3645-09MS	SB-04-(1-5)MS	1,2-Dichloroethane-d4	50	56.7	113	50	163
		Dibromofluoromethane	50	54.7	109	54	147
		Toluene-d8	50	50.8	102	58	134
		4-Bromofluorobenzene	50	50.0	100	30	143
O3645-10MSD	SB-04-(1-5)MSD	1,2-Dichloroethane-d4	50	51.1	102	50	163
		Dibromofluoromethane	50	51.1	102	54	147
		Toluene-d8	50	48.0	96	58	134
		4-Bromofluorobenzene	50	47.3	95	30	143
VD0717SBL01	VD0717SBL01	1,2-Dichloroethane-d4	50	55.7	111	50	163
		Dibromofluoromethane	50	51.9	104	54	147
		Toluene-d8	50	55.0	110	58	134
		4-Bromofluorobenzene	50	54.6	109	30	143
VD0717SBS01	VD0717SBS01	1,2-Dichloroethane-d4	50	49.1	98	50	163
		Dibromofluoromethane	50	49.0	98	54	147
		Toluene-d8	50	47.3	95	58	134
		4-Bromofluorobenzene	50	48.4	97	30	143
VD0718SBL01	VD0718SBL01	1,2-Dichloroethane-d4	50	63.4	127	50	163
		Dibromofluoromethane	50	52.5	105	54	147
		Toluene-d8	50	55.2	110	58	134
		4-Bromofluorobenzene	50	49.1	98	30	143
VD0718SBS01	VD0718SBS01	1,2-Dichloroethane-d4	50	45.4	91	50	163
		Dibromofluoromethane	50	46.8	94	54	147
		Toluene-d8	50	44.8	90	58	134
		4-Bromofluorobenzene	50	45.5	91	30	143

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

Surrogate Summary

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
O3645-08	RINSATE-BLANK	1,2-Dichloroethane-d4	50	50.8	102	74	125
		Dibromofluoromethane	50	54.3	109	75	124
		Toluene-d8	50	44.7	89	86	113
		4-Bromofluorobenzene	50	50.9	102	64	133
VN0718WBL01	VN0718WBL01	1,2-Dichloroethane-d4	50	48.5	97	74	125
		Dibromofluoromethane	50	56.7	113	75	124
		Toluene-d8	50	46.5	93	86	113
		4-Bromofluorobenzene	50	53.0	106	64	133
VN0718WBS02	VN0718WBS02	1,2-Dichloroethane-d4	50	54.0	108	74	125
		Dibromofluoromethane	50	53.4	107	75	124
		Toluene-d8	50	50.4	101	86	113
		4-Bromofluorobenzene	50	50.6	101	64	133
VN0718WBSD0	VN0718WBSD02	1,2-Dichloroethane-d4	50	50.0	100	74	125
		Dibromofluoromethane	50	50.5	101	75	124
		Toluene-d8	50	48.6	97	86	113
		4-Bromofluorobenzene	50	48.4	97	64	133

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : O3645-09MS	**Client Sample ID : SB-04-(1-5)MS**							**Datafile :** VD076762.D			
Dichlorodifluoromethane	44.4	0	41.9	ug/Kg	94				40	150	
Chloromethane	44.4	0	47.4	ug/Kg	107				24	175	
Vinyl chloride	44.4	0	44.9	ug/Kg	101				21	175	
Bromomethane	44.4	0	37.3	ug/Kg	84				46	150	
Chloroethane	44.4	0	45.5	ug/Kg	102				30	175	
Trichlorofluoromethane	44.4	0	42.7	ug/Kg	96				53	150	
1,1,2-Trichlorotrifluoroethane	44.4	0	42.5	ug/Kg	96				60	135	
1,1-Dichloroethene	44.4	0	42.7	ug/Kg	96				63	136	
Acetone	220	0	230	ug/Kg	105				41	175	
Carbon disulfide	44.4	0	43.3	ug/Kg	98				45	126	
Methyl tert-butyl Ether	44.4	0	45.5	ug/Kg	102				56	175	
Methyl Acetate	44.4	0	60.5	ug/Kg	136				32	175	
Methylene Chloride	44.4	0	54.3	ug/Kg	122				59	175	
trans-1,2-Dichloroethene	44.4	0	44.4	ug/Kg	100				63	137	
1,1-Dichloroethane	44.4	0	46.9	ug/Kg	106				62	154	
Cyclohexane	44.4	1.80	39.9	ug/Kg	86				41	131	
2-Butanone	220	0	230	ug/Kg	105				48	174	
Carbon Tetrachloride	44.4	0	43.7	ug/Kg	98				48	149	
cis-1,2-Dichloroethene	44.4	0	45.8	ug/Kg	103				59	153	
Bromochloromethane	44.4	0	47.5	ug/Kg	107				54	172	
Chloroform	44.4	0	47.0	ug/Kg	106				60	159	
1,1,1-Trichloroethane	44.4	0	46.3	ug/Kg	104				60	149	
Methylcyclohexane	44.4	0	41.4	ug/Kg	93				19	135	
Benzene	44.4	0	45.1	ug/Kg	102				59	140	
1,2-Dichloroethane	44.4	0	47.8	ug/Kg	108				63	153	
Trichloroethene	44.4	0	43.1	ug/Kg	97				45	154	
1,2-Dichloropropane	44.4	0	46.2	ug/Kg	104				67	141	
Bromodichloromethane	44.4	0	44.9	ug/Kg	101				54	160	
4-Methyl-2-Pentanone	220	0	230	ug/Kg	105				54	164	
Toluene	44.4	0	44.5	ug/Kg	100				61	134	
t-1,3-Dichloropropene	44.4	0	44.2	ug/Kg	100				47	155	
cis-1,3-Dichloropropene	44.4	0	44.0	ug/Kg	99				56	141	
1,1,2-Trichloroethane	44.4	0	46.2	ug/Kg	104				69	148	
2-Hexanone	220	0	220	ug/Kg	100				43	164	
Dibromochloromethane	44.4	0	46.3	ug/Kg	104				65	143	
1,2-Dibromoethane	44.4	0	45.3	ug/Kg	102				63	144	
Tetrachloroethene	44.4	0	62.9	ug/Kg	142				27	175	
Chlorobenzene	44.4	0	44.1	ug/Kg	99				66	127	
Ethyl Benzene	44.4	0	43.8	ug/Kg	99				54	134	
m/p-Xylenes	88.8	0	87.8	ug/Kg	99				51	137	
o-Xylene	44.4	0	44.1	ug/Kg	99				57	139	
Styrene	44.4	0	43.6	ug/Kg	98				47	136	
Bromoform	44.4	0	44.6	ug/Kg	100				64	144	
Isopropylbenzene	44.4	0	45.6	ug/Kg	103				44	160	
1,1,2,2-Tetrachloroethane	44.4	0	48.0	ug/Kg	108				18	175	
N-propylbenzene	44.4	0	44.3	ug/Kg	100				10	173	
1,3,5-Trimethylbenzene	44.4	0	45.6	ug/Kg	103				10	175	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
tert-Butylbenzene	44.4	0	44.6	ug/Kg	100				10	173	
1,2,4-Trimethylbenzene	44.4	0	45.5	ug/Kg	102				10	175	
Sec-butylbenzene	44.4	0	43.5	ug/Kg	98				10	172	
p-Isopropyltoluene	44.4	0	42.0	ug/Kg	95				26	153	
1,3-Dichlorobenzene	44.4	0	42.7	ug/Kg	96				55	131	
1,4-Dichlorobenzene	44.4	0	43.3	ug/Kg	98				57	129	
n-Butylbenzene	44.4	0	37.7	ug/Kg	85				10	175	
1,2-Dichlorobenzene	44.4	0	43.7	ug/Kg	98				54	140	
1,2-Dibromo-3-Chloropropane	44.4	0	48.7	ug/Kg	110				46	175	
1,2,4-Trichlorobenzene	44.4	0	33.5	ug/Kg	75				12	127	
1,2,3-Trichlorobenzene	44.4	0	33.8	ug/Kg	76				10	160	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : O3645-10MSD	**Client Sample ID : SB-04-(1-5)MSD**							**Datafile :** VD076763.D			
Dichlorodifluoromethane	43.4	0	49.8	ug/Kg	115		19		40	150	20
Chloromethane	43.4	0	56.0	ug/Kg	129		19		24	175	20
Vinyl chloride	43.4	0	53.4	ug/Kg	123		20		21	175	20
Bromomethane	43.4	0	45.9	ug/Kg	106		23	*	46	150	20
Chloroethane	43.4	0	52.9	ug/Kg	122		17		30	175	20
Trichlorofluoromethane	43.4	0	51.0	ug/Kg	118		20		53	150	20
1,1,2-Trichlorotrifluoroethane	43.4	0	50.1	ug/Kg	115		19		60	135	20
1,1-Dichloroethene	43.4	0	50.4	ug/Kg	116		19		63	136	20
Acetone	220	0	260	ug/Kg	118		12		41	175	20
Carbon disulfide	43.4	0	49.7	ug/Kg	115		16		45	126	20
Methyl tert-butyl Ether	43.4	0	55.2	ug/Kg	127		22	*	56	175	20
Methyl Acetate	43.4	0	69.8	ug/Kg	161		17		32	175	20
Methylene Chloride	43.4	0	62.5	ug/Kg	144		16		59	175	20
trans-1,2-Dichloroethene	43.4	0	50.9	ug/Kg	117		16		63	137	20
1,1-Dichloroethane	43.4	0	54.8	ug/Kg	126		18		62	154	20
Cyclohexane	43.4	1.80	44.2	ug/Kg	98		13		41	131	20
2-Butanone	220	0	270	ug/Kg	123		16		48	174	20
Carbon Tetrachloride	43.4	0	51.3	ug/Kg	118		18		48	149	20
cis-1,2-Dichloroethene	43.4	0	55.3	ug/Kg	127		21	*	59	153	20
Bromochloromethane	43.4	0	44.7	ug/Kg	103		4		54	172	20
Chloroform	43.4	0	56.3	ug/Kg	130		20		60	159	20
1,1,1-Trichloroethane	43.4	0	53.4	ug/Kg	123		17		60	149	20
Methylcyclohexane	43.4	0	43.4	ug/Kg	100		7		19	135	20
Benzene	43.4	0	52.7	ug/Kg	121		18		59	140	20
1,2-Dichloroethane	43.4	0	55.7	ug/Kg	128		18		63	153	20
Trichloroethene	43.4	0	49.2	ug/Kg	113		15		45	154	20
1,2-Dichloropropane	43.4	0	53.9	ug/Kg	124		18		67	141	20
Bromodichloromethane	43.4	0	54.1	ug/Kg	125		21	*	54	160	20
4-Methyl-2-Pentanone	220	0	260	ug/Kg	118		12		54	164	20
Toluene	43.4	0	51.1	ug/Kg	118		16		61	134	20
t-1,3-Dichloropropene	43.4	0	51.2	ug/Kg	118		17		47	155	20
cis-1,3-Dichloropropene	43.4	0	52.2	ug/Kg	120		19		56	141	20
1,1,2-Trichloroethane	43.4	0	52.8	ug/Kg	122		16		69	148	20
2-Hexanone	220	0	260	ug/Kg	118		17		43	164	20
Dibromochloromethane	43.4	0	55.0	ug/Kg	127		19		65	143	20
1,2-Dibromoethane	43.4	0	52.1	ug/Kg	120		16		63	144	20
Tetrachloroethene	43.4	0	69.4	ug/Kg	160		12		27	175	20
Chlorobenzene	43.4	0	50.3	ug/Kg	116		15		66	127	20
Ethyl Benzene	43.4	0	49.4	ug/Kg	114		14		54	134	20
m/p-Xylenes	86.8	0	98.8	ug/Kg	114		14		51	137	20
o-Xylene	43.4	0	50.8	ug/Kg	117		16		57	139	20
Styrene	43.4	0	50.7	ug/Kg	117		17		47	136	20
Bromoform	43.4	0	54.5	ug/Kg	126		22	*	64	144	20
Isopropylbenzene	43.4	0	50.8	ug/Kg	117		13		44	160	20
1,1,2,2-Tetrachloroethane	43.4	0	53.6	ug/Kg	124		13		18	175	20
N-propylbenzene	43.4	0	49.1	ug/Kg	113		13		10	173	20
1,3,5-Trimethylbenzene	43.4	0	50.2	ug/Kg	116		12		10	175	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
tert-Butylbenzene	43.4	0	49.2	ug/Kg	113		12		10	173	20
1,2,4-Trimethylbenzene	43.4	0	50.7	ug/Kg	117		13		10	175	20
Sec-butylbenzene	43.4	0	46.8	ug/Kg	108		10		10	172	20
p-Isopropyltoluene	43.4	0	46.3	ug/Kg	107		12		26	153	20
1,3-Dichlorobenzene	43.4	0	48.5	ug/Kg	112		15		55	131	20
1,4-Dichlorobenzene	43.4	0	48.5	ug/Kg	112		14		57	129	20
n-Butylbenzene	43.4	0	41.2	ug/Kg	95		11		10	175	20
1,2-Dichlorobenzene	43.4	0	50.5	ug/Kg	116		17		54	140	20
1,2-Dibromo-3-Chloropropane	43.4	0	53.3	ug/Kg	123		11		46	175	20
1,2,4-Trichlorobenzene	43.4	0	40.5	ug/Kg	93		21	*	12	127	20
1,2,3-Trichlorobenzene	43.4	0	40.6	ug/Kg	94		21	*	10	160	20

CHEMTECH

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

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D **Datafile :** VD076747.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD0717SBS01	Dichlorodifluoromethane	20	22.5	ug/Kg	113			64	136	
	Chloromethane	20	19.5	ug/Kg	98			70	130	
	Vinyl chloride	20	19.7	ug/Kg	99			72	129	
	Bromomethane	20	19.1	ug/Kg	96			58	141	
	Chloroethane	20	19.1	ug/Kg	96			69	130	
	Trichlorofluoromethane	20	21.9	ug/Kg	110			69	134	
	1,1,2-Trichlorotrifluoroethane	20	21.9	ug/Kg	110			81	123	
	1,1-Dichloroethene	20	20.5	ug/Kg	103			79	121	
	Acetone	100	100	ug/Kg	100			60	131	
	Carbon disulfide	20	20.5	ug/Kg	103			45	154	
	Methyl tert-butyl Ether	20	20.0	ug/Kg	100			77	129	
	Methyl Acetate	20	20.5	ug/Kg	103			69	149	
	Methylene Chloride	20	17.3	ug/Kg	86			39	175	
	trans-1,2-Dichloroethene	20	20.2	ug/Kg	101			80	123	
	1,1-Dichloroethane	20	20.1	ug/Kg	101			82	123	
	Cyclohexane	20	20.4	ug/Kg	102			76	122	
	2-Butanone	100	100	ug/Kg	100			69	131	
	Carbon Tetrachloride	20	21.4	ug/Kg	107			76	129	
	cis-1,2-Dichloroethene	20	20.8	ug/Kg	104			82	123	
	Bromochloromethane	20	23.7	ug/Kg	119			62	134	
	Chloroform	20	20.6	ug/Kg	103			82	125	
	1,1,1-Trichloroethane	20	22.5	ug/Kg	113			80	126	
	Methylcyclohexane	20	20.8	ug/Kg	104			77	123	
	Benzene	20	20.6	ug/Kg	103			84	121	
	1,2-Dichloroethane	20	21.4	ug/Kg	107			81	126	
	Trichloroethene	20	21.1	ug/Kg	106			83	122	
	1,2-Dichloropropane	20	20.7	ug/Kg	104			83	122	
	Bromodichloromethane	20	20.5	ug/Kg	103			82	123	
	4-Methyl-2-Pentanone	100	99.9	ug/Kg	100			70	135	
	Toluene	20	20.4	ug/Kg	102			83	122	
	t-1,3-Dichloropropene	20	19.8	ug/Kg	99			78	124	
	cis-1,3-Dichloropropene	20	19.8	ug/Kg	99			81	122	
	1,1,2-Trichloroethane	20	21.0	ug/Kg	105			82	125	
	2-Hexanone	100	99.6	ug/Kg	100			66	138	
	Dibromochloromethane	20	21.4	ug/Kg	107			79	125	
	1,2-Dibromoethane	20	20.6	ug/Kg	103			80	125	
	Tetrachloroethene	20	23.3	ug/Kg	117			83	125	
	Chlorobenzene	20	21.1	ug/Kg	106			84	122	
	Ethyl Benzene	20	20.7	ug/Kg	104			82	124	
	m/p-Xylenes	40	41.3	ug/Kg	103			83	124	
	o-Xylene	20	20.5	ug/Kg	103			83	123	
	Styrene	20	20.7	ug/Kg	104			82	124	
	Bromoform	20	22.4	ug/Kg	112			75	127	
	Isopropylbenzene	20	21.1	ug/Kg	106			82	124	
	1,1,2,2-Tetrachloroethane	20	20.5	ug/Kg	103			77	127	
	N-propylbenzene	20	21.1	ug/Kg	106			81	123	
	1,3,5-Trimethylbenzene	20	21.0	ug/Kg	105			82	124	
	tert-Butylbenzene	20	21.3	ug/Kg	106			81	125	
	1,2,4-Trimethylbenzene	20	20.3	ug/Kg	102			81	125	

CHEMTECH

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

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D **Datafile :** VD076747.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0717SBS01	Sec-butylbenzene	20	21.4	ug/Kg	107			80	124	
	p-Isopropyltoluene	20	21.1	ug/Kg	106			81	125	
	1,3-Dichlorobenzene	20	21.5	ug/Kg	108			83	122	
	1,4-Dichlorobenzene	20	21.3	ug/Kg	106			84	121	
	n-Butylbenzene	20	21.2	ug/Kg	106			78	126	
	1,2-Dichlorobenzene	20	21.6	ug/Kg	108			83	124	
	1,2-Dibromo-3-Chloropropane	20	20.1	ug/Kg	101			66	134	
	1,2,4-Trichlorobenzene	20	20.8	ug/Kg	104			78	127	
	1,2,3-Trichlorobenzene	20	21.3	ug/Kg	106			70	137	

CHEMTECH

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

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260D **Datafile :** VD076768.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD0718SBS01	Dichlorodifluoromethane	20	23.8	ug/Kg	119			64	136	
	Chloromethane	20	19.2	ug/Kg	96			70	130	
	Vinyl chloride	20	20.0	ug/Kg	100			72	129	
	Bromomethane	20	20.5	ug/Kg	103			58	141	
	Chloroethane	20	20.2	ug/Kg	101			69	130	
	Trichlorofluoromethane	20	22.6	ug/Kg	113			69	134	
	1,1,2-Trichlorotrifluoroethane	20	22.6	ug/Kg	113			81	123	
	1,1-Dichloroethene	20	20.8	ug/Kg	104			79	121	
	Acetone	100	92.4	ug/Kg	92			60	131	
	Carbon disulfide	20	19.6	ug/Kg	98			45	154	
	Methyl tert-butyl Ether	20	18.5	ug/Kg	93			77	129	
	Methyl Acetate	20	20.4	ug/Kg	102			69	149	
	Methylene Chloride	20	21.1	ug/Kg	106			39	175	
	trans-1,2-Dichloroethene	20	19.8	ug/Kg	99			80	123	
	1,1-Dichloroethane	20	20.4	ug/Kg	102			82	123	
	Cyclohexane	20	20.8	ug/Kg	104			76	122	
	2-Butanone	100	98.9	ug/Kg	99			69	131	
	Carbon Tetrachloride	20	21.9	ug/Kg	110			76	129	
	cis-1,2-Dichloroethene	20	19.7	ug/Kg	99			82	123	
	Bromochloromethane	20	22.2	ug/Kg	111			62	134	
	Chloroform	20	20.1	ug/Kg	101			82	125	
	1,1,1-Trichloroethane	20	21.3	ug/Kg	106			80	126	
	Methylcyclohexane	20	22.0	ug/Kg	110			77	123	
	Benzene	20	20.3	ug/Kg	102			84	121	
	1,2-Dichloroethane	20	20.8	ug/Kg	104			81	126	
	Trichloroethene	20	20.0	ug/Kg	100			83	122	
	1,2-Dichloropropane	20	20.6	ug/Kg	103			83	122	
	Bromodichloromethane	20	20.3	ug/Kg	102			82	123	
	4-Methyl-2-Pentanone	100	94.2	ug/Kg	94			70	135	
	Toluene	20	20.0	ug/Kg	100			83	122	
	t-1,3-Dichloropropene	20	19.0	ug/Kg	95			78	124	
	cis-1,3-Dichloropropene	20	19.3	ug/Kg	97			81	122	
	1,1,2-Trichloroethane	20	20.2	ug/Kg	101			82	125	
	2-Hexanone	100	93.8	ug/Kg	94			66	138	
	Dibromochloromethane	20	20.1	ug/Kg	101			79	125	
	1,2-Dibromoethane	20	19.6	ug/Kg	98			80	125	
	Tetrachloroethene	20	23.8	ug/Kg	119			83	125	
	Chlorobenzene	20	20.9	ug/Kg	104			84	122	
	Ethyl Benzene	20	21.1	ug/Kg	106			82	124	
	m/p-Xylenes	40	41.7	ug/Kg	104			83	124	
	o-Xylene	20	20.4	ug/Kg	102			83	123	
	Styrene	20	20.9	ug/Kg	104			82	124	
	Bromoform	20	20.9	ug/Kg	104			75	127	
	Isopropylbenzene	20	20.7	ug/Kg	104			82	124	
	1,1,2,2-Tetrachloroethane	20	20.4	ug/Kg	102			77	127	
	N-propylbenzene	20	21.1	ug/Kg	106			81	123	
	1,3,5-Trimethylbenzene	20	20.8	ug/Kg	104			82	124	
	tert-Butylbenzene	20	21.0	ug/Kg	105			81	125	
	1,2,4-Trimethylbenzene	20	20.2	ug/Kg	101			81	125	

CHEMTECH

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

SDG No.: **O3645**

Client: **LaBella Associates P.C.**

Analytical Method: **SW8260D** **Datafile :** VD076768.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0718SBS01	Sec-butylbenzene	20	21.7	ug/Kg	109			80	124	
	p-Isopropyltoluene	20	21.2	ug/Kg	106			81	125	
	1,3-Dichlorobenzene	20	19.9	ug/Kg	100			83	122	
	1,4-Dichlorobenzene	20	20.5	ug/Kg	103			84	121	
	n-Butylbenzene	20	21.2	ug/Kg	106			78	126	
	1,2-Dichlorobenzene	20	19.8	ug/Kg	99			83	124	
	1,2-Dibromo-3-Chloropropane	20	19.7	ug/Kg	99			66	134	
	1,2,4-Trichlorobenzene	20	19.3	ug/Kg	97			78	127	
	1,2,3-Trichlorobenzene	20	19.2	ug/Kg	96			70	137	

CHEMTECH

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

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260-Low **Datafile :** VN078554.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0718WBS02	Dichlorodifluoromethane	20	16.7	ug/L	84			69	116	
	Chloromethane	20	21.5	ug/L	108			65	116	
	Vinyl chloride	20	19.3	ug/L	97			65	117	
	Bromomethane	20	17.9	ug/L	90			42	173	
	Chloroethane	20	17.7	ug/L	89			44	165	
	Trichlorofluoromethane	20	18.2	ug/L	91			73	115	
	1,1,2-Trichlorotrifluoroethane	20	19.3	ug/L	97			80	112	
	1,1-Dichloroethene	20	18.1	ug/L	91			74	110	
	Acetone	100	99.4	ug/L	99			60	125	
	Carbon disulfide	20	15.7	ug/L	79			64	112	
	Methyl tert-butyl Ether	20	19.9	ug/L	100			78	114	
	Methyl Acetate	20	20.2	ug/L	101			67	125	
	Methylene Chloride	20	19.9	ug/L	100			72	114	
	trans-1,2-Dichloroethene	20	18.3	ug/L	92			75	108	
	1,1-Dichloroethane	20	18.8	ug/L	94			78	112	
	Cyclohexane	20	17.9	ug/L	90			75	110	
	2-Butanone	100	100	ug/L	100			65	122	
	Carbon Tetrachloride	20	19.0	ug/L	95			77	113	
	cis-1,2-Dichloroethene	20	19.0	ug/L	95			77	110	
	Bromochloromethane	20	20.4	ug/L	102			70	124	
	Chloroform	20	20.0	ug/L	100			79	113	
	1,1,1-Trichloroethane	20	19.3	ug/L	97			80	108	
	Methylcyclohexane	20	18.6	ug/L	93			72	115	
	Benzene	20	19.5	ug/L	98			82	109	
	1,2-Dichloroethane	20	20.4	ug/L	102			80	115	
	Trichloroethene	20	18.5	ug/L	93			77	113	
	1,2-Dichloropropane	20	20.1	ug/L	101			83	111	
	Bromodichloromethane	20	20.4	ug/L	102			83	110	
	4-Methyl-2-Pentanone	100	100	ug/L	100			74	118	
	Toluene	20	19.9	ug/L	100			82	110	
	t-1,3-Dichloropropene	20	20.1	ug/L	101			79	110	
	cis-1,3-Dichloropropene	20	20.3	ug/L	102			82	110	
	1,1,2-Trichloroethane	20	22.0	ug/L	110			83	112	
	2-Hexanone	100	100	ug/L	100			73	117	
	Dibromochloromethane	20	20.4	ug/L	102			82	110	
	1,2-Dibromoethane	20	20.2	ug/L	101			81	110	
	Tetrachloroethene	20	17.6	ug/L	88			67	123	
	Chlorobenzene	20	19.3	ug/L	97			82	109	
	Ethyl Benzene	20	18.7	ug/L	94			83	109	
	m/p-Xylenes	40	40.8	ug/L	102			82	110	
	o-Xylene	20	17.7	ug/L	89			83	109	
	Styrene	20	18.1	ug/L	91			80	111	
	Bromoform	20	20.3	ug/L	102			79	109	
	Isopropylbenzene	20	19.0	ug/L	95			83	112	
	1,1,2,2-Tetrachloroethane	20	21.7	ug/L	109			76	118	
	N-propylbenzene	20	19.2	ug/L	96			83	112	
	1,3,5-Trimethylbenzene	20	19.2	ug/L	96			85	112	
	tert-Butylbenzene	20	19.4	ug/L	97			83	112	
	1,2,4-Trimethylbenzene	20	19.8	ug/L	99			85	111	

CHEMTECH

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

SDG No.: **O3645**

Client: **LaBella Associates P.C.**

Analytical Method: **SW8260-Low** **Datafile :** VN078554.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0718WBS02	Sec-butylbenzene	20	19.2	ug/L	96			81	114	
	p-Isopropyltoluene	20	19.1	ug/L	96			78	116	
	1,3-Dichlorobenzene	20	19.0	ug/L	95			82	108	
	1,4-Dichlorobenzene	20	18.2	ug/L	91			82	107	
	n-Butylbenzene	20	19.2	ug/L	96			75	115	
	1,2-Dichlorobenzene	20	19.2	ug/L	96			82	109	
	1,2-Dibromo-3-Chloropropane	20	20.5	ug/L	103			68	112	
	1,2,4-Trichlorobenzene	20	15.6	ug/L	78			74	114	
	1,2,3-Trichlorobenzene	20	16.3	ug/L	81			77	113	

CHEMTECH

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

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260-Low **Datafile :** VN078556.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual		Limits Low	Limits High	Limits RPD
VN0718WBSD02	Dichlorodifluoromethane	20	18.6	ug/L	93	10			69	116	20
	Chloromethane	20	23.5	ug/L	117	8	*		65	116	20
	Vinyl chloride	20	21.7	ug/L	109	12			65	117	20
	Bromomethane	20	18.1	ug/L	91	1			42	173	20
	Chloroethane	20	20.8	ug/L	104	16			44	165	20
	Trichlorofluoromethane	20	20.9	ug/L	104	13			73	115	20
	1,1,2-Trichlorotrifluoroethane	20	21.3	ug/L	106	9			80	112	20
	1,1-Dichloroethene	20	21.0	ug/L	105	14			74	110	20
	Acetone	100	120	ug/L	120	19			60	125	20
	Carbon disulfide	20	17.4	ug/L	87	10			64	112	20
	Methyl tert-butyl Ether	20	21.1	ug/L	106	6			78	114	20
	Methyl Acetate	20	21.3	ug/L	106	5			67	125	20
	Methylene Chloride	20	21.9	ug/L	110	10			72	114	20
	trans-1,2-Dichloroethene	20	20.2	ug/L	101	9			75	108	20
	1,1-Dichloroethane	20	21.5	ug/L	108	14			78	112	20
	Cyclohexane	20	19.8	ug/L	99	10			75	110	20
	2-Butanone	100	110	ug/L	110	10			65	122	20
	Carbon Tetrachloride	20	21.7	ug/L	109	14			77	113	20
	cis-1,2-Dichloroethene	20	20.9	ug/L	104	9			77	110	20
	Bromochloromethane	20	20.3	ug/L	102	0			70	124	20
	Chloroform	20	22.0	ug/L	110	10			79	113	20
	1,1,1-Trichloroethane	20	21.7	ug/L	109	12	*		80	108	20
	Methylcyclohexane	20	20.9	ug/L	104	11			72	115	20
	Benzene	20	21.6	ug/L	108	10			82	109	20
	1,2-Dichloroethane	20	21.4	ug/L	107	5			80	115	20
	Trichloroethene	20	21.1	ug/L	106	13			77	113	20
	1,2-Dichloropropane	20	22.3	ug/L	112	10	*		83	111	20
	Bromodichloromethane	20	21.6	ug/L	108	6			83	110	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	10			74	118	20
	Toluene	20	22.0	ug/L	110	10			82	110	20
	t-1,3-Dichloropropene	20	24.3	ug/L	121	18	*		79	110	20
	cis-1,3-Dichloropropene	20	22.5	ug/L	113	10	*		82	110	20
	1,1,2-Trichloroethane	20	25.8	ug/L	129	16	*		83	112	20
	2-Hexanone	100	150	ug/L	150	40	*	*	73	117	20
	Dibromochloromethane	20	27.5	ug/L	138	30	*	*	82	110	20
	1,2-Dibromoethane	20	25.3	ug/L	127	23	*	*	81	110	20
	Tetrachloroethene	20	26.3	ug/L	132	40	*	*	67	123	20
	Chlorobenzene	20	21.8	ug/L	109	12			82	109	20
	Ethyl Benzene	20	22.0	ug/L	110	16	*		83	109	20
	m/p-Xylenes	40	45.2	ug/L	113	10	*		82	110	20
	o-Xylene	20	22.2	ug/L	111	22	*	*	83	109	20
	Styrene	20	23.1	ug/L	116	24	*	*	80	111	20
	Bromoform	20	23.5	ug/L	117	14	*		79	109	20
	Isopropylbenzene	20	20.8	ug/L	104	9			83	112	20
	1,1,2,2-Tetrachloroethane	20	22.5	ug/L	113	4			76	118	20
	N-propylbenzene	20	21.6	ug/L	108	12			83	112	20
	1,3,5-Trimethylbenzene	20	21.5	ug/L	108	12			85	112	20
	tert-Butylbenzene	20	21.5	ug/L	108	11			83	112	20
	1,2,4-Trimethylbenzene	20	21.6	ug/L	108	9			85	111	20

CHEMTECH

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

SDG No.: O3645

Client: LaBella Associates P.C.

Analytical Method: SW8260-Low **Datafile :** VN078556.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0718WBSD02	Sec-butylbenzene	20	21.4	ug/L	107	11		81	114	20
	p-Isopropyltoluene	20	22.1	ug/L	111	14		78	116	20
	1,3-Dichlorobenzene	20	21.4	ug/L	107	12		82	108	20
	1,4-Dichlorobenzene	20	20.3	ug/L	102	11		82	107	20
	n-Butylbenzene	20	21.7	ug/L	109	13		75	115	20
	1,2-Dichlorobenzene	20	21.2	ug/L	106	10		82	109	20
	1,2-Dibromo-3-Chloropropane	20	20.1	ug/L	101	2		68	112	20
	1,2,4-Trichlorobenzene	20	16.8	ug/L	84	7		74	114	20
	1,2,3-Trichlorobenzene	20	17.3	ug/L	86	6		77	113	20

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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0717SBL01

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VD076746.D Lab Sample ID: VD0717SBL01

Date Analyzed: 07/17/2023 Time Analyzed: 11:15

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
VD0717SBS01	VD0717SBS01	VD076747.D	07/17/2023
SB-02-(3-5)	O3645-01	VD076751.D	07/17/2023
SB-04-(1-5)	O3645-02	VD076752.D	07/17/2023
SB-07-(1-3)	O3645-03	VD076753.D	07/17/2023
SB-08-(0.5-2.0)	O3645-04	VD076754.D	07/17/2023
SB-10-(0.5-2.0)	O3645-06	VD076756.D	07/17/2023
SB-04-(1-5)MS	O3645-09MS	VD076762.D	07/17/2023
SB-04-(1-5)MSD	O3645-10MSD	VD076763.D	07/17/2023

COMMENTS:

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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0718SBL01

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VD076767.D Lab Sample ID: VD0718SBL01

Date Analyzed: 07/18/2023 Time Analyzed: 10:09

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
VD0718SBS01	VD0718SBS01	VD076768.D	07/18/2023
DUP	O3645-07	VD076777.D	07/18/2023

COMMENTS:

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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0718WBL01

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VN078552.D Lab Sample ID: VN0718WBL01

Date Analyzed: 07/18/2023 Time Analyzed: 11:27

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
VN0718WBS02	VN0718WBS02	VN078554.D	07/18/2023
VN0718WBSD02	VN0718WBSD02	VN078556.D	07/18/2023
RINSATE-BLANK	O3645-08	VN078566.D	07/18/2023

COMMENTS:

Raw Data: **VD076734.D**

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VD076734.D BFB Injection Date: 07/14/2023

Instrument ID: MSVOA_D BFB Injection Time: 10:44

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

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	54.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.9 (1) 1
174	50.0 - 100.0% of mass 95	88.6
175	5.0 - 9.0% of mass 174	6.5 (7.3) 1
176	95.0 - 101.0% of mass 174	85.3 (96.3) 1
177	5.0 - 9.0% of mass 176	5.7 (6.7) 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
VSTDICC020	VSTDICC020	VD076737.D	07/14/2023	12:50
VSTDICCC050	VSTDICCC050	VD076738.D	07/14/2023	13:21
VSTDICC100	VSTDICC100	VD076739.D	07/14/2023	13:49
VSTDICC150	VSTDICC150	VD076740.D	07/14/2023	14:17
VSTDICC005	VSTDICC005	VD076742.D	07/14/2023	15:57

Raw Data: **VD076744.D**

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VD076744.D BFB Injection Date: 07/17/2023

Instrument ID: MSVOA_D BFB Injection Time: 09:08

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	50.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1 (1.2) 1
174	50.0 - 100.0% of mass 95	85.9
175	5.0 - 9.0% of mass 174	5.9 (6.9) 1
176	95.0 - 101.0% of mass 174	83.3 (97) 1
177	5.0 - 9.0% of mass 176	5.7 (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
VSTDCCC050	VSTDCCC050	VD076745.D	07/17/2023	10:19
VD0717SBL01	VD0717SBL01	VD076746.D	07/17/2023	11:15
VD0717SBS01	VD0717SBS01	VD076747.D	07/17/2023	11:46
SB-02-(3-5)	O3645-01	VD076751.D	07/17/2023	13:36
SB-04-(1-5)	O3645-02	VD076752.D	07/17/2023	14:04
SB-07-(1-3)	O3645-03	VD076753.D	07/17/2023	14:32
SB-08-(0.5-2.0)	O3645-04	VD076754.D	07/17/2023	15:01
SB-10-(0.5-2.0)	O3645-06	VD076756.D	07/17/2023	15:57
SB-04-(1-5)MS	O3645-09MS	VD076762.D	07/17/2023	18:48
SB-04-(1-5)MSD	O3645-10MSD	VD076763.D	07/17/2023	19:17

Raw Data: **VD076765.D**

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VD076765.D BFB Injection Date: 07/18/2023

Instrument ID: MSVOA_D BFB Injection Time: 08:41

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	53
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 (1.2) 1
174	50.0 - 100.0% of mass 95	85.3
175	5.0 - 9.0% of mass 174	6.6 (7.7) 1
176	95.0 - 101.0% of mass 174	83 (97.3) 1
177	5.0 - 9.0% of mass 176	5.5 (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	VD076766.D	07/18/2023	09:13
VD0718SBL01	VD0718SBL01	VD076767.D	07/18/2023	10:09
VD0718SBS01	VD0718SBS01	VD076768.D	07/18/2023	10:36
DUP	O3645-07	VD076777.D	07/18/2023	14:49

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VN078448.D BFB Injection Date: 07/10/2023

Instrument ID: MSVOA_N BFB Injection Time: 11:48

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	18.6
75	30.0 - 60.0% of mass 95	54.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6 (0.8) 1
174	50.0 - 100.0% of mass 95	77.9
175	5.0 - 9.0% of mass 174	6.1 (7.8) 1
176	95.0 - 101.0% of mass 174	74.2 (95.3) 1
177	5.0 - 9.0% of mass 176	4.8 (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
VSTDICC100	VSTDICC100	VN078449.D	07/10/2023	12:21
VSTDICCC050	VSTDICCC050	VN078450.D	07/10/2023	12:46
VSTDICC040	VSTDICC040	VN078451.D	07/10/2023	13:10
VSTDICC020	VSTDICC020	VN078452.D	07/10/2023	13:34
VSTDICC005	VSTDICC005	VN078453.D	07/10/2023	13:58
VSTDICC001	VSTDICC001	VN078454.D	07/10/2023	14:46

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG NO.: O3645

Lab File ID: VN078549.D BFB Injection Date: 07/18/2023

Instrument ID: MSVOA_N BFB Injection Time: 09:55

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	18.6
75	30.0 - 60.0% of mass 95	51.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.8 (0.9) 1
174	50.0 - 100.0% of mass 95	79.5
175	5.0 - 9.0% of mass 174	6.4 (8.1) 1
176	95.0 - 101.0% of mass 174	77.3 (97.2) 1
177	5.0 - 9.0% of mass 176	4.8 (6.2) 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	VN078550.D	07/18/2023	10:29
VN0718WBL01	VN0718WBL01	VN078552.D	07/18/2023	11:27
VN0718WBS02	VN0718WBS02	VN078554.D	07/18/2023	12:25
VN0718WBSD02	VN0718WBSD02	VN078556.D	07/18/2023	13:13
RINSATE-BLANK	O3645-08	VN078566.D	07/18/2023	17:16

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG NO.: 03645

Lab File ID: VD076745.D Date Analyzed: 07/17/2023

Instrument ID: MSVOA_D Time Analyzed: 10:19

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	218354	7.88	378281	8.78	349288	11.58
UPPER LIMIT	436708	8.375	756562	9.275	698576	12.081
LOWER LIMIT	109177	7.375	189141	8.275	174644	11.081
EPA SAMPLE NO.						
SB-02-(3-5)	185224	7.88	404206	8.78	400992	11.58
SB-04-(1-5)	171628	7.88	365685	8.78	369301	11.58
SB-07-(1-3)	150618	7.88	331615	8.78	315417	11.58
SB-08-(0.5-2.0)	151025	7.88	339221	8.78	298250	11.58
SB-10-(0.5-2.0)	133536	7.88	310537	8.78	307752	11.58
SB-04-(1-5)MS	136385	7.87	255118	8.78	231626	11.58
SB-04-(1-5)MSD	154913	7.88	288394	8.78	267266	11.58
VD0717SBL01	186821	7.88	400093	8.78	394027	11.58
VD0717SBS01	204434	7.88	373707	8.78	339998	11.58

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.

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG NO.: 03645

Lab File ID: VD076745.D Date Analyzed: 07/17/2023

Instrument ID: MSVOA_D Time Analyzed: 10:19

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	160211	13.516				
UPPER LIMIT	320422	14.016				
LOWER LIMIT	80105.5	13.016				
EPA SAMPLE NO.						
SB-02-(3-5)	187559	13.52				
SB-04-(1-5)	170608	13.52				
SB-07-(1-3)	128769	13.52				
SB-08-(0.5-2.0)	92343	13.52				
SB-10-(0.5-2.0)	139423	13.52				
SB-04-(1-5)MS	102048	13.52				
SB-04-(1-5)MSD	117737	13.52				
VD0717SBL01	184069	13.52				
VD0717SBS01	159296	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.

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG NO.: 03645

Lab File ID: VD076766.D Date Analyzed: 07/18/2023

Instrument ID: MSVOA_D Time Analyzed: 09:13

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	206994	7.88	357390	8.78	317730	11.58
UPPER LIMIT	413988	8.375	714780	9.275	635460	12.081
LOWER LIMIT	103497	7.375	178695	8.275	158865	11.081
EPA SAMPLE NO.						
DUP	147654	7.88	354882	8.78	328863	11.58
VD0718SBL01	163878	7.88	390285	8.78	373979	11.58
VD0718SBS01	187561	7.88	339123	8.78	301791	11.58

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.

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG NO.: 03645

Lab File ID: VD076766.D Date Analyzed: 07/18/2023

Instrument ID: MSVOA_D Time Analyzed: 09:13

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	151547	13.516				
UPPER LIMIT	303094	14.016				
LOWER LIMIT	75773.5	13.016				
EPA SAMPLE NO.						
DUP	141705	13.52				
VD0718SBL01	159933	13.52				
VD0718SBS01	145517	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.**

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG NO.: 03645

Lab File ID: VN078550.D Date Analyzed: 07/18/2023

Instrument ID: MSVOA_N Time Analyzed: 10:29

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	483266	8.24	784393	9.11	713959	11.87
UPPER LIMIT	966532	8.735	1568790	9.606	1427920	12.37
LOWER LIMIT	241633	7.735	392197	8.606	356980	11.37
EPA SAMPLE NO.						
RINSATE-BLANK	401033	8.24	752774	9.11	693621	11.87
VN0718WBL01	402785	8.24	700602	9.11	679555	11.87
VN0718WBS02	432335	8.23	742826	9.11	745463	11.87
VN0718WBSD02	485193	8.24	833352	9.11	717025	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.

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG NO.: 03645

Lab File ID: VN078550.D Date Analyzed: 07/18/2023

Instrument ID: MSVOA_N Time Analyzed: 10:29

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	297857	13.8				
UPPER LIMIT	595714	14.3				
LOWER LIMIT	148929	13.3				
EPA SAMPLE NO.						
RINSATE-BLANK	242621	13.80				
VN0718WBL01	243985	13.79				
VN0718WBS02	251794	13.79				
VN0718WBSD02	285080	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.

CHEMTECH

SAMPLE DATA

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-02-(3-5)	SDG No.:	O3645
Lab Sample ID:	O3645-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.3
Sample Wt/Vol:	6.45 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076751.D	1		07/17/23 13:36	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	4.50	U	1.50	4.50	ug/Kg
74-87-3	Chloromethane	4.50	U	0.82	4.50	ug/Kg
75-01-4	Vinyl Chloride	4.50	U	0.84	4.50	ug/Kg
74-83-9	Bromomethane	4.50	U	1.10	4.50	ug/Kg
75-00-3	Chloroethane	4.50	U	0.79	4.50	ug/Kg
75-69-4	Trichlorofluoromethane	4.50	U	0.95	4.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	4.50	U	0.65	4.50	ug/Kg
75-35-4	1,1-Dichloroethene	4.50	U	0.71	4.50	ug/Kg
67-64-1	Acetone	22.5	U	8.40	22.5	ug/Kg
75-15-0	Carbon Disulfide	4.50	U	2.00	4.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	4.50	U	0.58	4.50	ug/Kg
79-20-9	Methyl Acetate	4.50	U	1.50	4.50	ug/Kg
75-09-2	Methylene Chloride	9.00	U	5.40	9.00	ug/Kg
156-60-5	trans-1,2-Dichloroethene	4.50	U	0.66	4.50	ug/Kg
75-34-3	1,1-Dichloroethane	4.50	U	0.65	4.50	ug/Kg
110-82-7	Cyclohexane	8.60		0.63	4.50	ug/Kg
78-93-3	2-Butanone	22.5	U	6.50	22.5	ug/Kg
56-23-5	Carbon Tetrachloride	4.50	U	0.70	4.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	4.50	U	0.57	4.50	ug/Kg
74-97-5	Bromochloromethane	4.50	U	2.10	4.50	ug/Kg
67-66-3	Chloroform	4.50	U	1.20	4.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	4.50	U	0.68	4.50	ug/Kg
108-87-2	Methylcyclohexane	13.4		3.00	4.50	ug/Kg
71-43-2	Benzene	1.90	J	0.59	4.50	ug/Kg
107-06-2	1,2-Dichloroethane	4.50	U	0.65	4.50	ug/Kg
79-01-6	Trichloroethene	4.50	U	0.59	4.50	ug/Kg
78-87-5	1,2-Dichloropropane	4.50	U	0.53	4.50	ug/Kg
75-27-4	Bromodichloromethane	4.50	U	0.63	4.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	22.5	U	4.10	22.5	ug/Kg
108-88-3	Toluene	6.30		0.58	4.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	4.50	U	0.69	4.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	4.50	U	0.66	4.50	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-02-(3-5)	SDG No.:	O3645
Lab Sample ID:	O3645-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.3
Sample Wt/Vol:	6.45 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076751.D	1		07/17/23 13:36	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	4.50	U	0.77	4.50	ug/Kg
591-78-6	2-Hexanone	22.5	U	4.70	22.5	ug/Kg
124-48-1	Dibromochloromethane	4.50	U	0.76	4.50	ug/Kg
106-93-4	1,2-Dibromoethane	4.50	U	0.71	4.50	ug/Kg
127-18-4	Tetrachloroethene	4.50	U	0.69	4.50	ug/Kg
108-90-7	Chlorobenzene	4.50	U	0.57	4.50	ug/Kg
100-41-4	Ethyl Benzene	1.20	J	0.60	4.50	ug/Kg
179601-23-1	m/p-Xylenes	6.80	J	1.30	9.00	ug/Kg
1330-20-7	Total Xylenes	9.20	J	1.99	13.5	ug/Kg
95-47-6	o-Xylene	2.40	J	0.69	4.50	ug/Kg
100-42-5	Styrene	4.50	U	0.62	4.50	ug/Kg
75-25-2	Bromoform	4.50	U	0.85	4.50	ug/Kg
98-82-8	Isopropylbenzene	4.50	U	0.64	4.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	4.50	U	0.96	4.50	ug/Kg
103-65-1	n-propylbenzene	4.50	U	0.63	4.50	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	1.70	J	0.57	4.50	ug/Kg
98-06-6	tert-Butylbenzene	4.50	U	0.69	4.50	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	4.90		0.60	4.50	ug/Kg
135-98-8	sec-Butylbenzene	4.50	U	0.69	4.50	ug/Kg
99-87-6	p-Isopropyltoluene	4.50	U	0.66	4.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	4.50	U	0.61	4.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	4.50	U	0.54	4.50	ug/Kg
104-51-8	n-Butylbenzene	4.50	U	0.61	4.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	4.50	U	0.54	4.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	4.50	U	1.10	4.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	4.50	U	0.55	4.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	4.50	U	0.57	4.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.1		50 - 163	114%	SPK: 50
1868-53-7	Dibromofluoromethane	53.0		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	55.3		58 - 134	111%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.2		30 - 143	110%	SPK: 50
INTERNAL STANDARDS						

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-02-(3-5)	SDG No.:	O3645
Lab Sample ID:	O3645-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	86.3
Sample Wt/Vol:	6.45 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076751.D	1		07/17/23 13:36	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	185000	7.875			
540-36-3	1,4-Difluorobenzene	404000	8.775			
3114-55-4	Chlorobenzene-d5	401000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	188000	13.516			
TENTATIVE IDENTIFIED COMPOUNDS						
000074-98-6	Propane	8.80	J		1.89	ug/Kg
000075-28-5	Isobutane	9.20	J		2.10	ug/Kg
000106-97-8	Butane	20.3	J		2.27	ug/Kg
000078-78-4	Butane, 2-methyl-	23.1	J		2.94	ug/Kg
000109-66-0	Pentane	12.3	J		3.29	ug/Kg
1010386-40-2	2-Ethyl-oxetane	17.8	J		5.84	ug/Kg
000142-82-5	Heptane	9.40	J		8.63	ug/Kg
000111-65-9	Octane	7.60	J		10.5	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_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Time: Jul 18 01:23:01 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

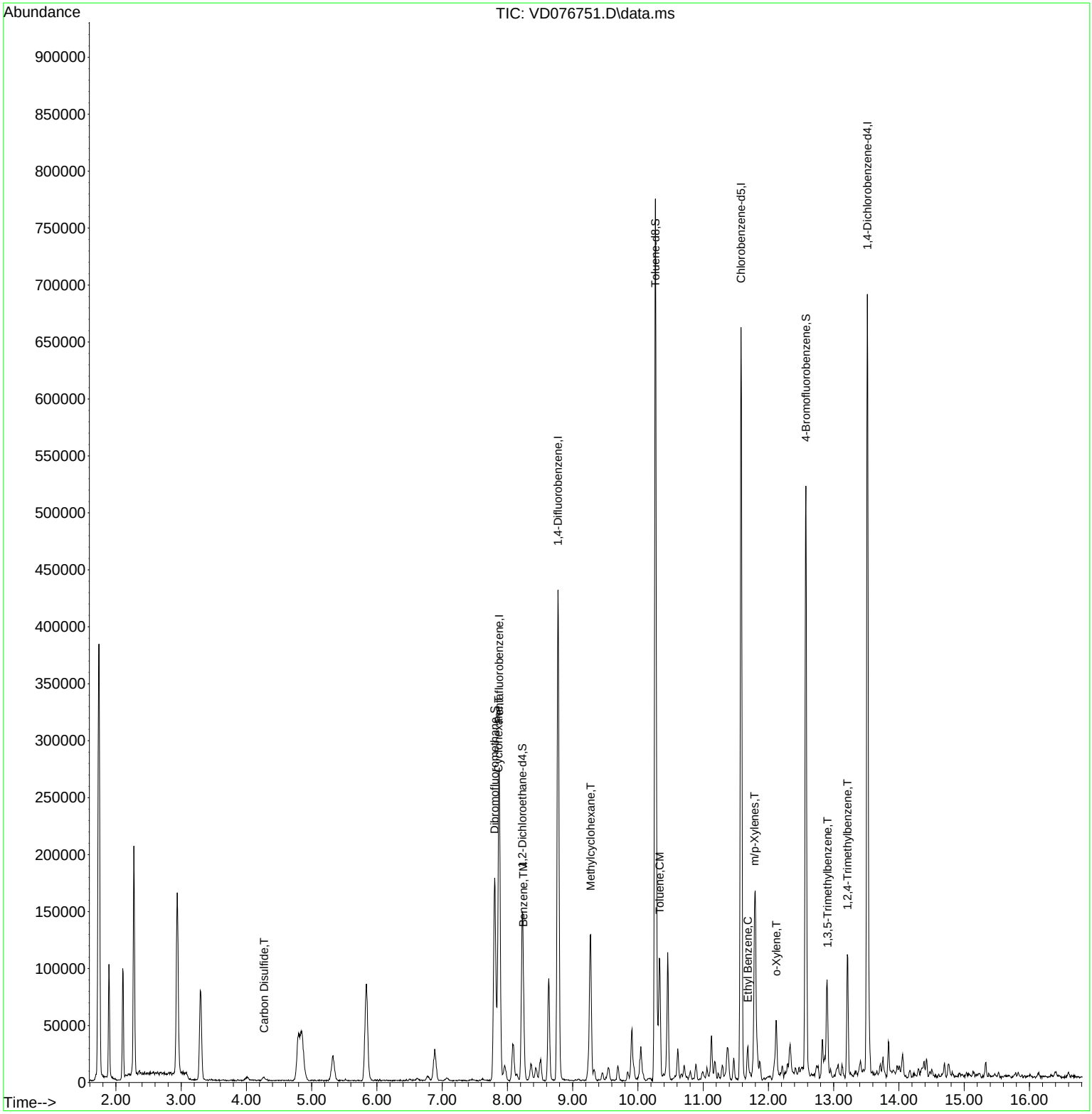
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	185224	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	404206	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	400992	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	187559	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	105337	57.097	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 114.200%			
35) Dibromofluoromethane	7.805	113	134728	53.041	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 106.080%			
50) Toluene-d8	10.269	98	502335	55.282	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 110.560%			
62) 4-Bromofluorobenzene	12.575	95	162163	55.166	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 110.340%			
Target Compounds						Qvalue
17) Carbon Disulfide	4.269	76	6642	1.554	ug/l #	94
31) Cyclohexane	7.863	56	25902	9.540	ug/l #	83
39) Methylcyclohexane	9.275	83	57287	14.948	ug/l	95
40) Benzene	8.246	78	22261	2.126	ug/l	93
52) Toluene	10.334	92	48497	7.051	ug/l	93
67) Ethyl Benzene	11.687	91	19318	1.364	ug/l	91
68) m/p-Xylenes	11.787	106	41076	7.551	ug/l	91
69) o-Xylene	12.122	106	13910	2.644	ug/l	97
80) 1,3,5-Trimethylbenzene	12.904	105	20323	1.847	ug/l	99
84) 1,2,4-Trimethylbenzene	13.210	105	60977	5.423	ug/l	96

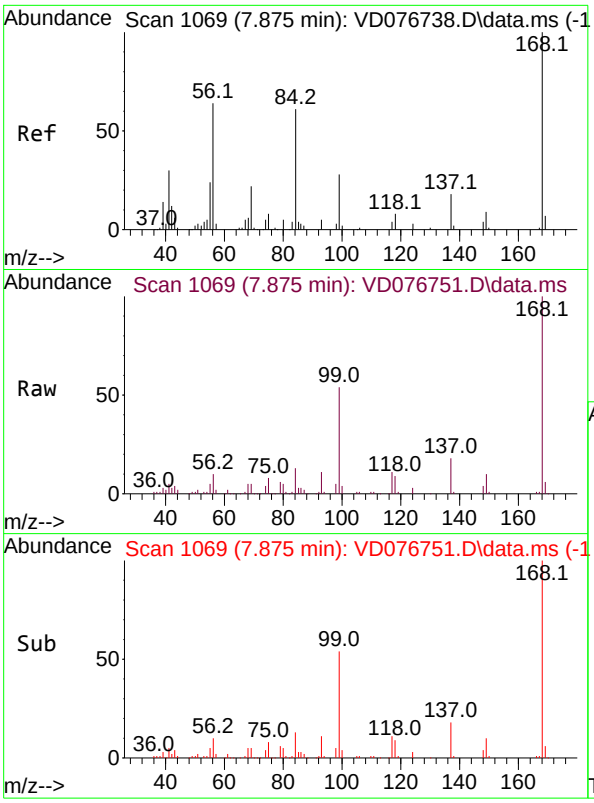
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Time: Jul 18 01:23:01 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



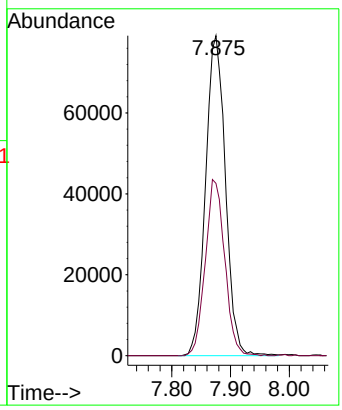


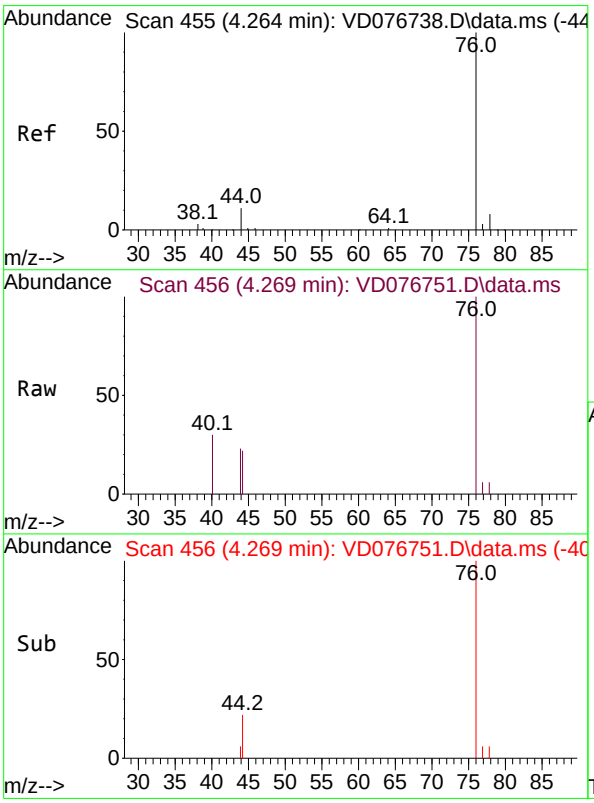
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion:168 Resp: 185224

Ion	Ratio	Lower	Upper
168	100		
99	53.8	36.7	55.1

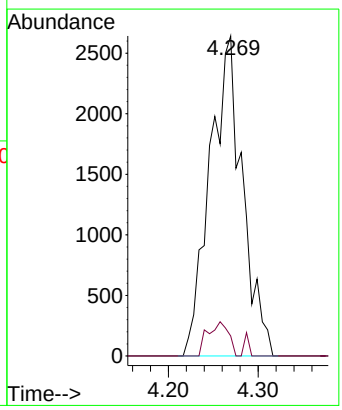


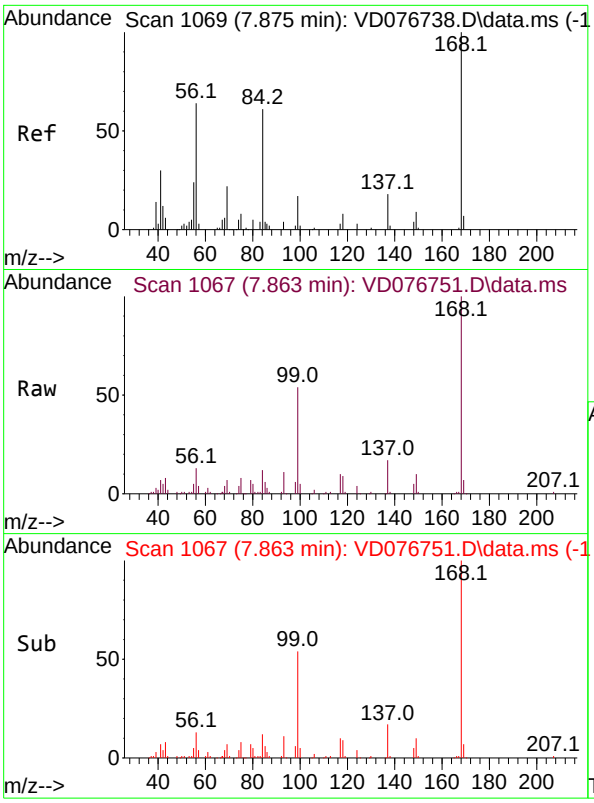


#17
Carbon Disulfide
Concen: 1.554 ug/l
RT: 4.269 min Scan# 456
Delta R.T. 0.005 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion: 76 Resp: 6642

Ion	Ratio	Lower	Upper
76	100		
78	6.3	6.8	10.2#



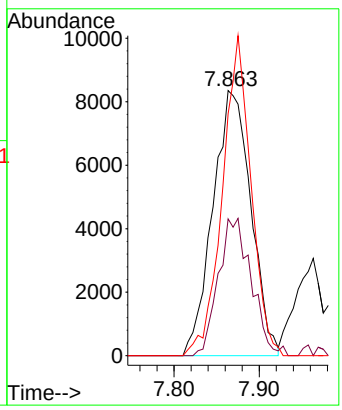


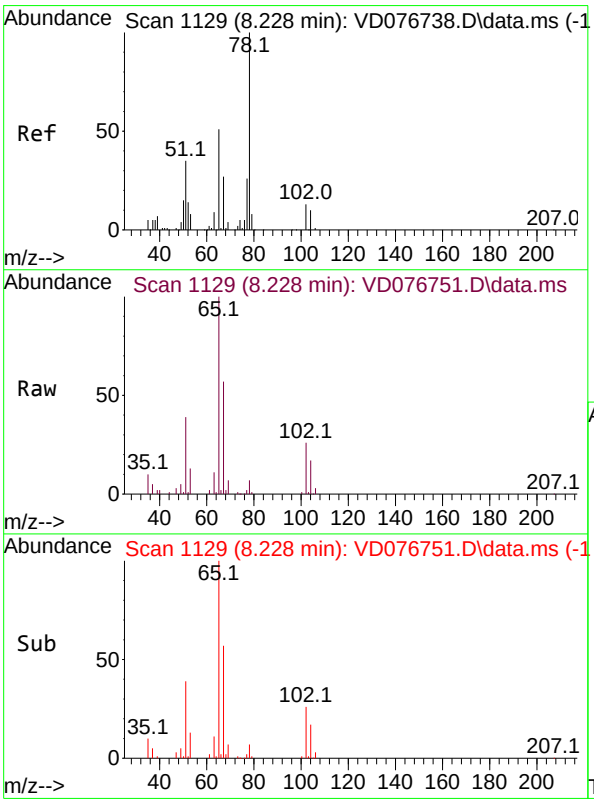
#31
Cyclohexane
Concen: 9.540 ug/l
RT: 7.863 min Scan# 1
Delta R.T. -0.012 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion: 56 Resp: 25902

Ion	Ratio	Lower	Upper
56	100		
69	51.6	28.6	43.0#
84	91.2	84.8	127.2

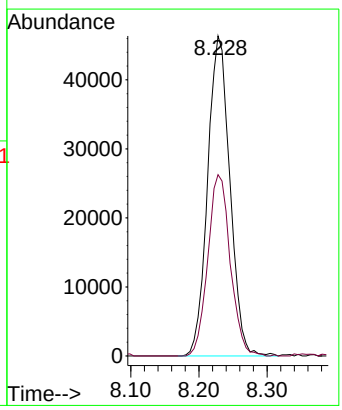


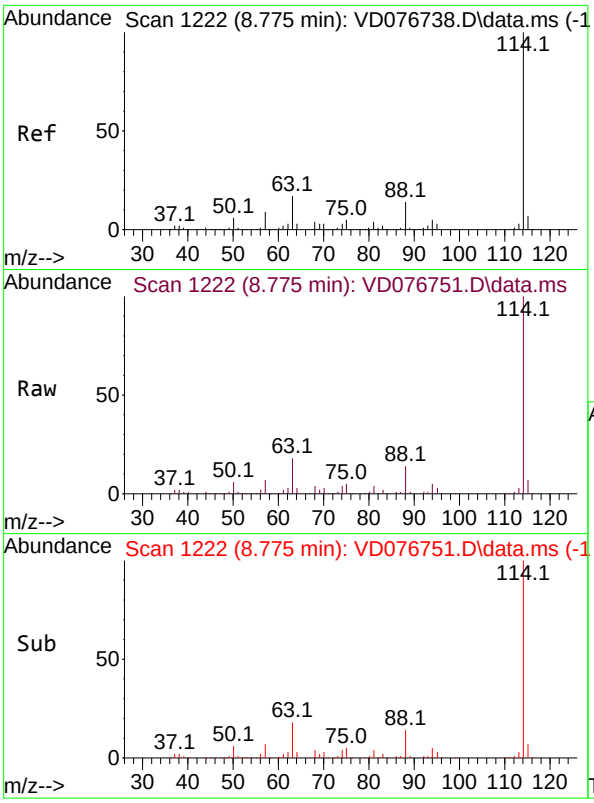


#33
1,2-Dichloroethane-d4
Concen: 57.097 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion: 65 Resp: 105337

Ion	Ratio	Lower	Upper
65	100		
67	57.1	0.0	115.0



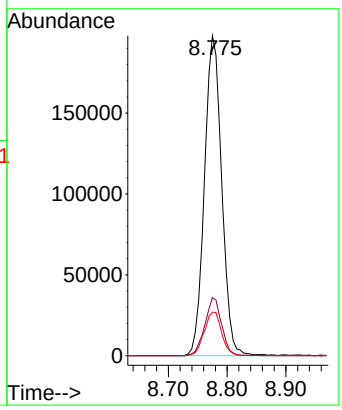


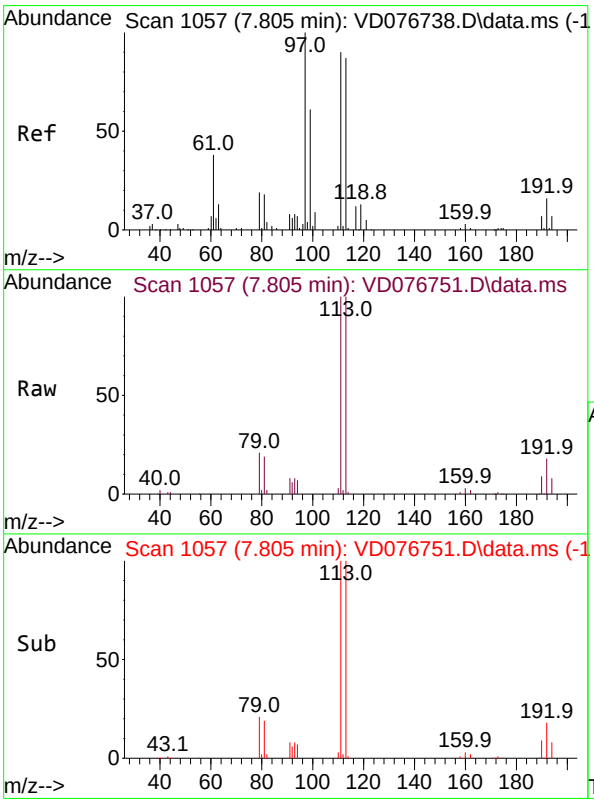
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion:114 Resp: 404206

Ion	Ratio	Lower	Upper
114	100		
63	18.1	0.0	33.4
88	13.6	0.0	26.2

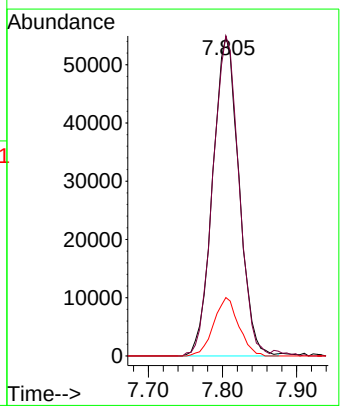


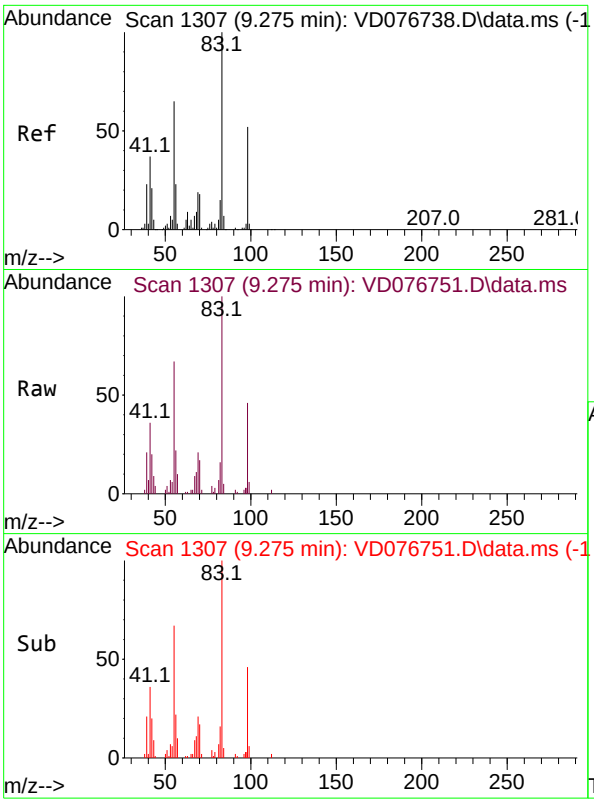


#35
Dibromofluoromethane
Concen: 53.041 ug/l
RT: 7.805 min Scan# 1057
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion:113 Resp: 134728

Ion	Ratio	Lower	Upper
113	100		
111	99.4	84.7	127.1
192	17.4	16.8	25.2



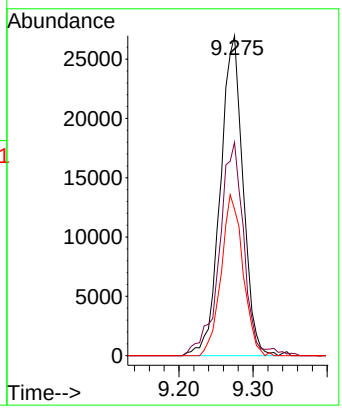


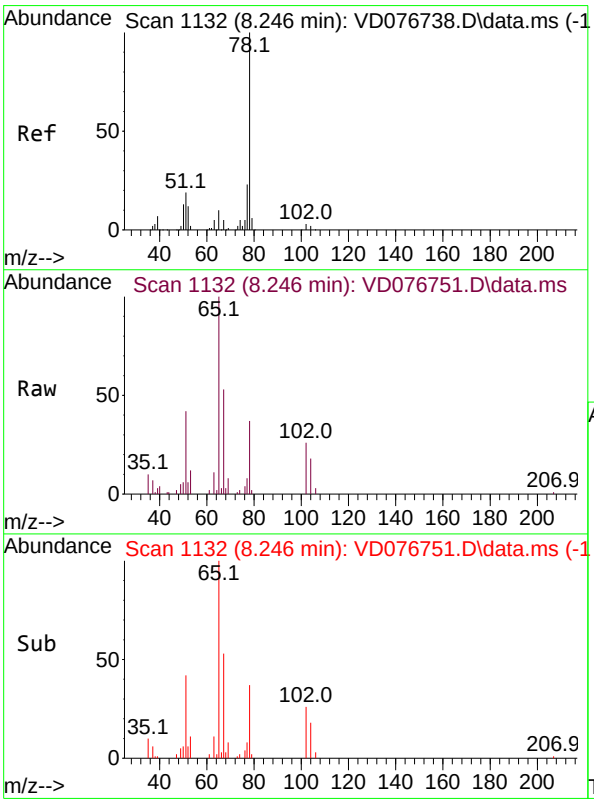
#39
Methylcyclohexane
Concen: 14.948 ug/l
RT: 9.275 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion: 83 Resp: 57287

Ion	Ratio	Lower	Upper
83	100		
55	66.6	49.4	74.0
98	45.8	38.4	57.6

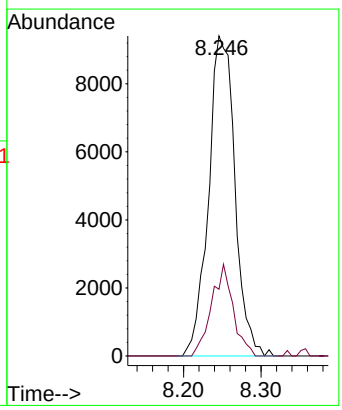


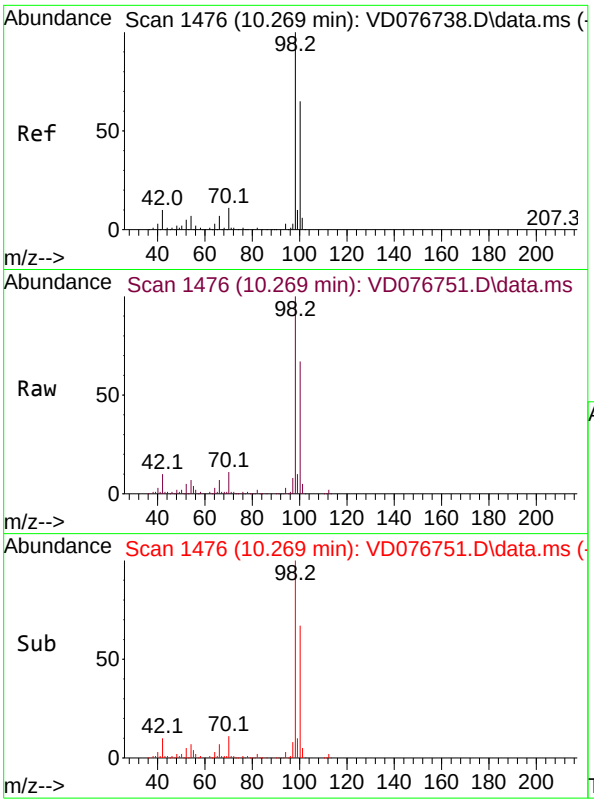


#40
Benzene
Concen: 2.126 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion: 78 Resp: 22261

Ion	Ratio	Lower	Upper
78	100		
77	20.9	19.4	29.0



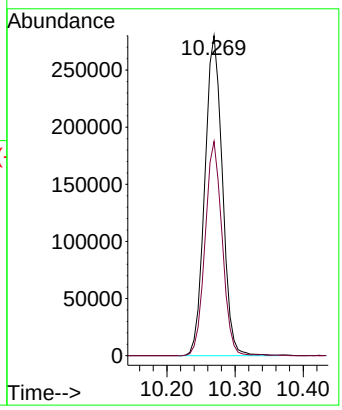


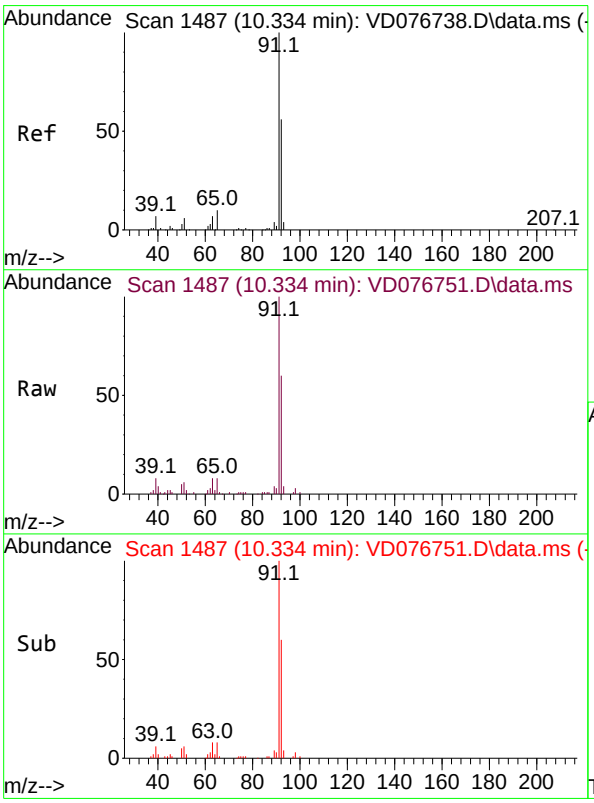
#50
Toluene-d8
Concen: 55.282 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion: 98 Resp: 502335

Ion	Ratio	Lower	Upper
98	100		
100	65.0	50.3	75.5

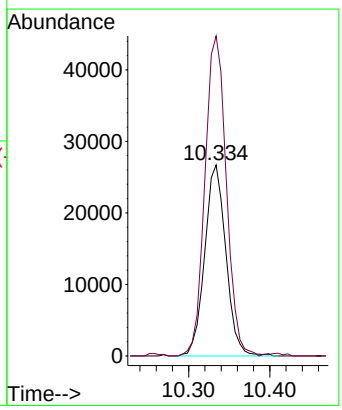


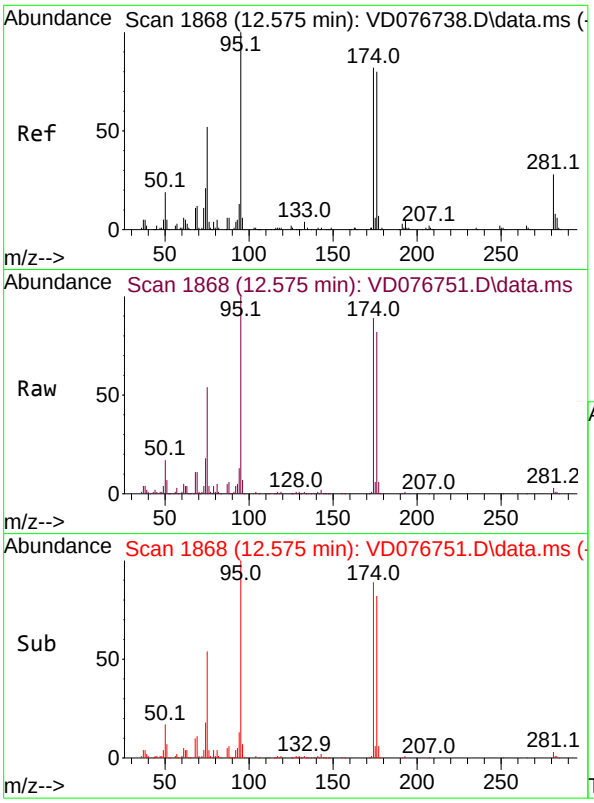


#52
Toluene
Concen: 7.051 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion: 92 Resp: 48497

Ion	Ratio	Lower	Upper
92	100		
91	168.6	143.0	214.4



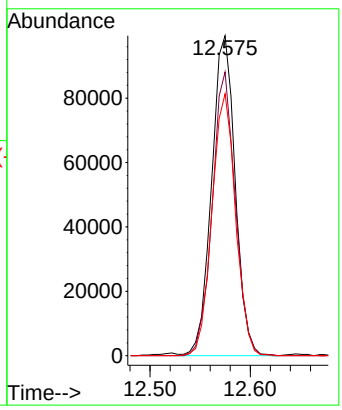


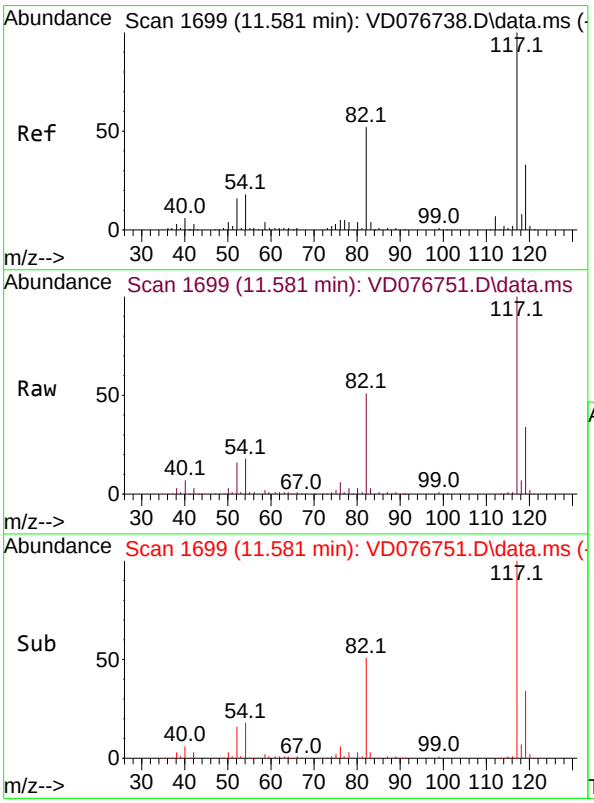
#62
4-Bromofluorobenzene
Concen: 55.166 ug/l
RT: 12.575 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion: 95 Resp: 162163

Ion	Ratio	Lower	Upper
95	100		
174	86.3	0.0	201.8
176	81.8	0.0	191.8

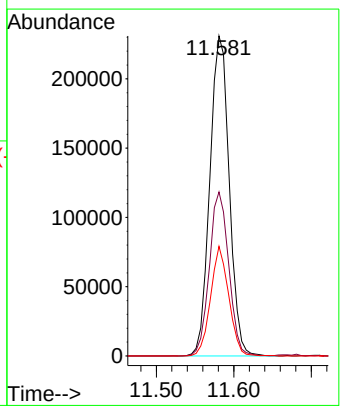


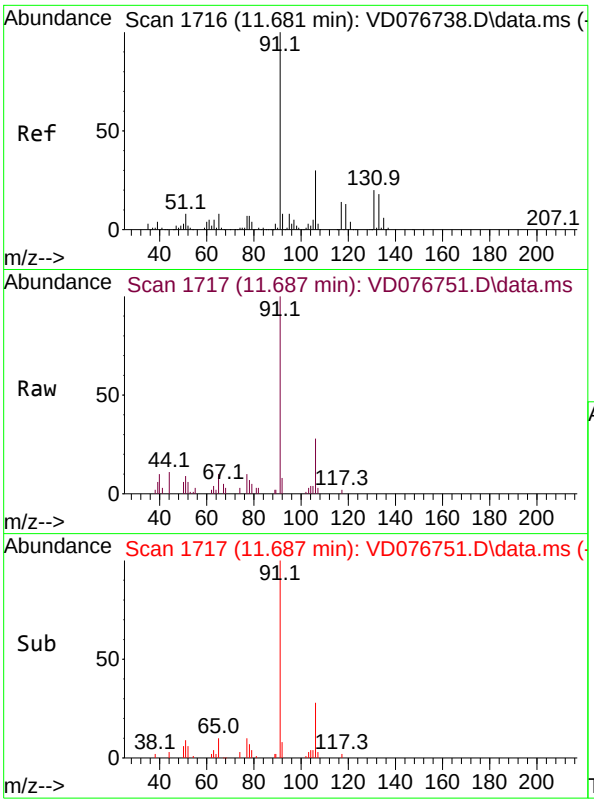


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1699
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion:117 Resp: 400992

Ion	Ratio	Lower	Upper
117	100		
82	51.2	38.3	57.5
119	34.2	25.0	37.4



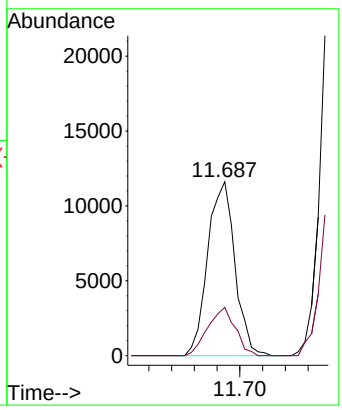


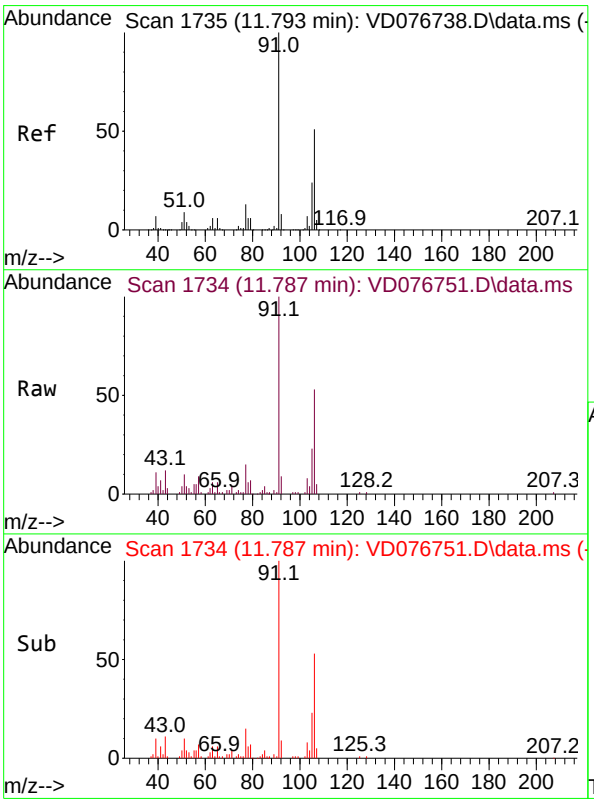
#67
Ethyl Benzene
Concen: 1.364 ug/l
RT: 11.687 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion: 91 Resp: 19318

Ion	Ratio	Lower	Upper
91	100		
106	27.8	26.5	39.7

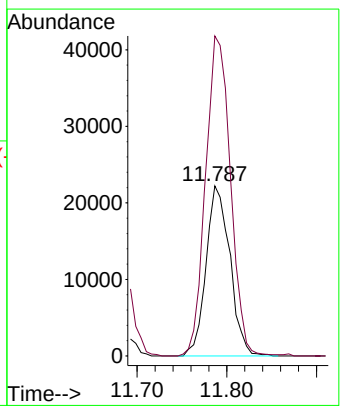


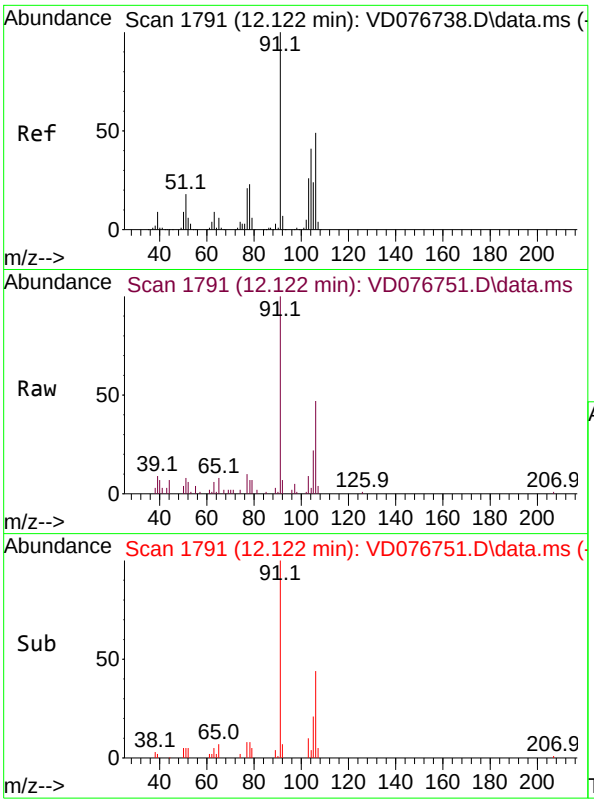


#68
m/p-Xylenes
Concen: 7.551 ug/l
RT: 11.787 min Scan# 1734
Delta R.T. -0.006 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion:106 Resp: 41076

Ion	Ratio	Lower	Upper
106	100		
91	196.1	147.0	220.6



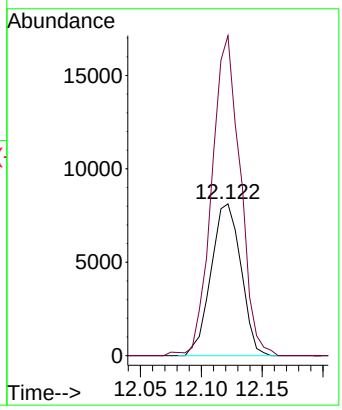


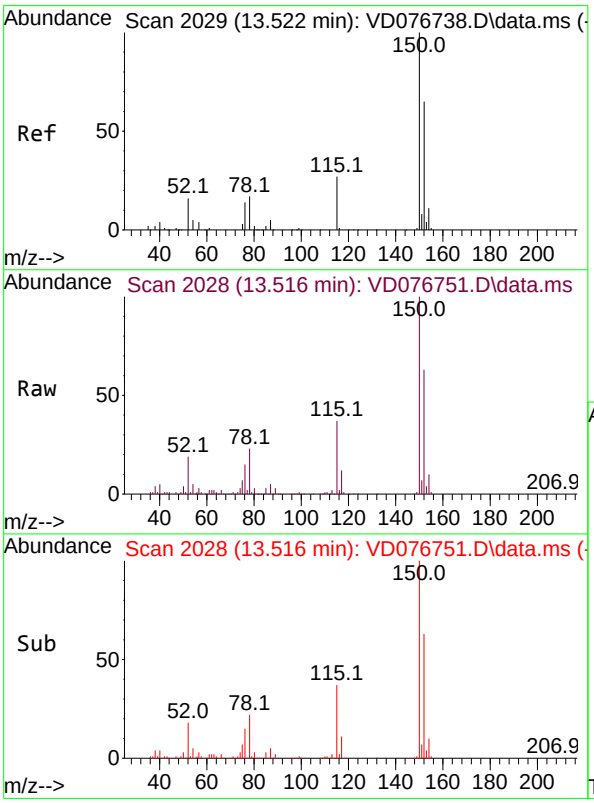
#69
o-Xylene
Concen: 2.644 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion:106 Resp: 13910

Ion	Ratio	Lower	Upper
106	100		
91	200.3	97.9	293.6

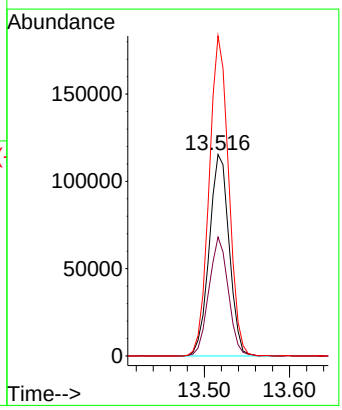


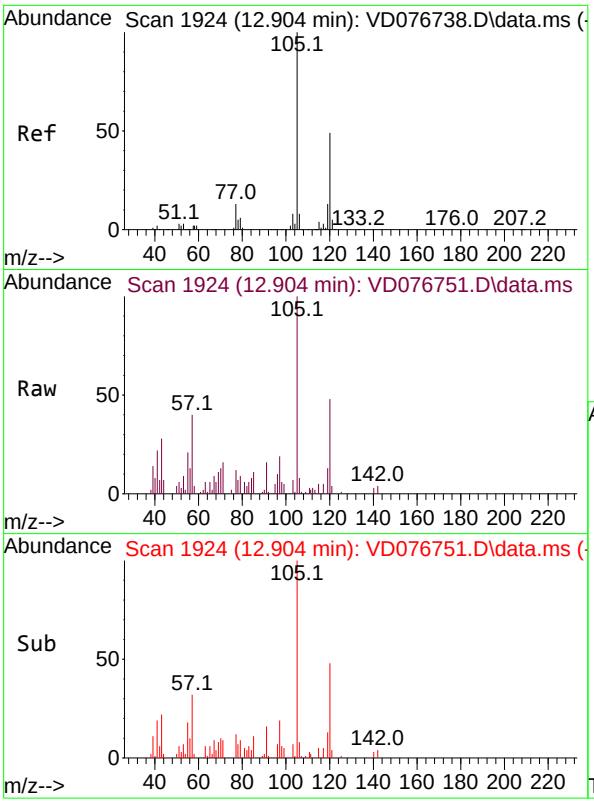


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion:152 Resp: 187559

Ion	Ratio	Lower	Upper
152	100		
115	57.4	27.1	81.3
150	155.1	0.0	353.6



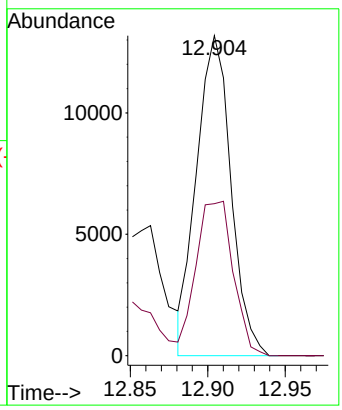


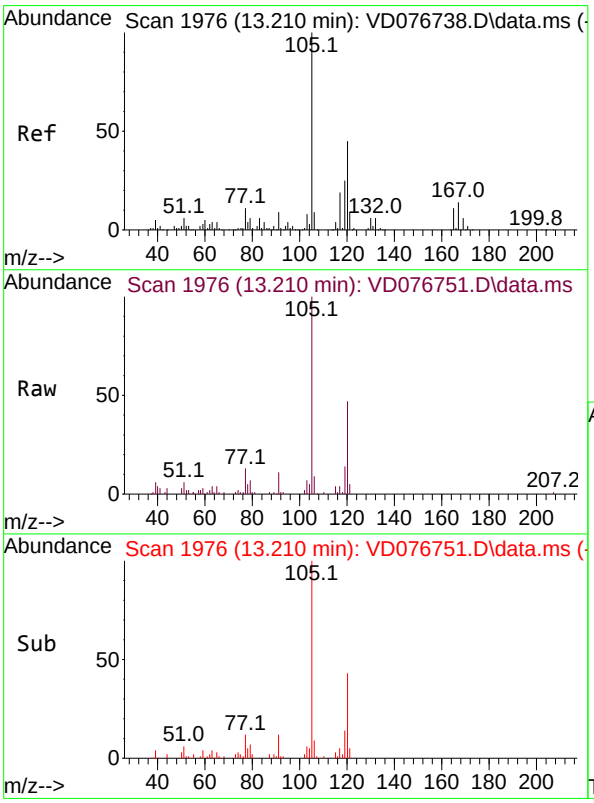
#80
1,3,5-Trimethylbenzene
Concen: 1.847 ug/l
RT: 12.904 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Tgt Ion:105 Resp: 20323

Ion	Ratio	Lower	Upper
105	100		
120	52.2	26.4	79.2

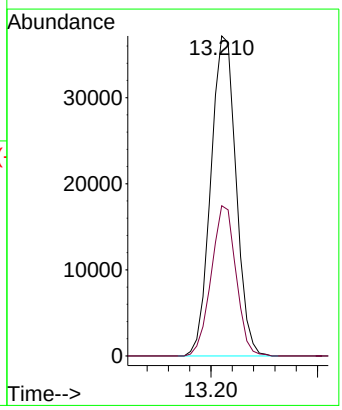




#84
1,2,4-Trimethylbenzene
Concen: 5.423 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076751.D
Acq: 17 Jul 2023 13:36

Tgt Ion:105 Resp: 60977

Ion	Ratio	Lower	Upper
105	100		
120	46.1	24.3	72.9



Sample Results: **VD076751.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076751.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	13	26	34	rBV	383171	744064	52.14%	5.993%
2	1.893	47	52	61	rVB	100080	127370	8.93%	1.026%
3	2.105	81	88	93	rBV	97795	133912	9.38%	1.079%
4	2.275	109	117	124	rBV	201126	294815	20.66%	2.375%
5	2.940	221	230	240	rBV	159147	335229	23.49%	2.700%
6	3.293	281	290	300	rBV2	78667	178536	12.51%	1.438%
7	4.799	535	546	549	rBV3	40459	114498	8.02%	0.922%
8	5.328	627	636	647	rVB3	21529	65741	4.61%	0.530%
9	5.840	711	723	736	rBV2	85203	258900	18.14%	2.085%
10	6.887	890	901	911	rVB3	27507	74232	5.20%	0.598%
11	7.805	1045	1057	1063	rBV	178385	466737	32.71%	3.759%
12	7.875	1063	1069	1077	rVV	273432	652022	45.69%	5.252%
13	7.957	1077	1083	1093	rVB4	13190	36199	2.54%	0.292%
14	8.081	1096	1104	1112	rBV3	32630	85671	6.00%	0.690%
15	8.228	1121	1129	1142	rVB2	147538	365218	25.59%	2.942%
16	8.357	1144	1151	1159	rVV7	14444	35451	2.48%	0.286%
17	8.434	1159	1164	1171	rVV6	11109	26333	1.85%	0.212%
18	8.510	1171	1177	1183	rVB4	18518	40500	2.84%	0.326%
19	8.634	1188	1198	1208	rBV2	90011	184402	12.92%	1.485%
20	8.775	1213	1222	1234	rBV	430294	876982	61.45%	7.064%
21	9.275	1295	1307	1313	rBV	128242	295044	20.67%	2.376%
22	9.328	1313	1316	1324	rVB5	9819	19234	1.35%	0.155%
23	9.546	1348	1353	1361	rVB9	11692	27449	1.92%	0.221%
24	9.693	1374	1378	1384	rVB4	12435	22489	1.58%	0.181%
25	9.846	1397	1404	1408	rBV4	7984	15873	1.11%	0.128%
26	9.910	1408	1415	1426	rVV4	45799	106019	7.43%	0.854%
27	10.046	1429	1438	1450	rVB4	30001	74097	5.19%	0.597%
28	10.269	1468	1476	1483	rBV	774272	1427098	100.00%	11.495%
29	10.328	1483	1486	1493	rVB	103703	190186	13.33%	1.532%
30	10.457	1499	1508	1515	rVB	111517	192508	13.49%	1.551%
31	10.610	1529	1534	1540	rVB3	25574	41062	2.88%	0.331%
32	10.710	1546	1551	1561	rVB7	12297	26464	1.85%	0.213%
33	10.887	1576	1581	1587	rVB4	13593	23907	1.68%	0.193%
34	10.993	1594	1599	1606	rBV4	6792	16253	1.14%	0.131%
35	11.057	1606	1610	1616	rVV4	10176	17311	1.21%	0.139%
36	11.128	1616	1622	1627	rVV	37803	67835	4.75%	0.546%

Sample Results: **VD076751.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

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\82D071423S.M
Title : SW846 8260

37	11.175	1627	1630	1637	rVB4	15047	26945	1.89%	0.217%
38	11.293	1645	1650	1654	rBV5	11608	20842	1.46%	0.168%
39	11.369	1654	1663	1674	rVB6	28694	79679	5.58%	0.642%
40	11.469	1674	1680	1689	rBV3	19628	33998	2.38%	0.274%
41	11.581	1691	1699	1710	rBV	660648	1141907	80.02%	9.198%
42	11.687	1710	1717	1722	rVV	29397	57243	4.01%	0.461%
43	11.798	1726	1736	1745	rVV3	166159	407070	28.52%	3.279%
44	11.863	1745	1747	1754	rVB5	16856	28326	1.98%	0.228%
45	12.116	1779	1790	1798	rBV3	52173	124556	8.73%	1.003%
46	12.210	1803	1806	1810	rVB4	10470	15960	1.12%	0.129%
47	12.298	1815	1821	1822	rVV3	10426	16665	1.17%	0.134%
48	12.334	1822	1827	1837	rVB7	26142	57733	4.05%	0.465%
49	12.575	1862	1868	1879	rVB	517989	856978	60.05%	6.903%
50	12.740	1891	1896	1899	rBV6	9246	18965	1.33%	0.153%
51	12.828	1903	1911	1914	rBV2	34183	59306	4.16%	0.478%
52	12.898	1918	1923	1930	rVV4	85599	163485	11.46%	1.317%
53	13.069	1943	1952	1959	rBV5	10652	27035	1.89%	0.218%
54	13.128	1959	1962	1967	rVB5	10150	14340	1.00%	0.116%
55	13.210	1970	1976	1983	rBV	108536	181610	12.73%	1.463%
56	13.410	2003	2010	2015	rBV7	13083	29099	2.04%	0.234%
57	13.516	2021	2028	2038	rVB	683443	1148231	80.46%	9.249%
58	13.716	2056	2062	2065	rBV3	9523	15153	1.06%	0.122%
59	13.757	2065	2069	2077	rVB4	18067	33139	2.32%	0.267%
60	13.839	2079	2083	2088	rBV3	30487	45951	3.22%	0.370%
61	14.057	2115	2120	2126	rVB4	19612	36059	2.53%	0.290%
62	14.387	2173	2176	2179	rVV2	13207	20174	1.41%	0.162%
63	14.422	2179	2182	2187	rVB2	15353	23113	1.62%	0.186%
64	14.698	2220	2229	2234	rVB7	12373	22977	1.61%	0.185%
65	14.763	2234	2240	2247	rBV6	11675	27368	1.92%	0.220%
66	15.334	2331	2337	2343	rBV	12944	21751	1.52%	0.175%

Sum of corrected areas: 12415299

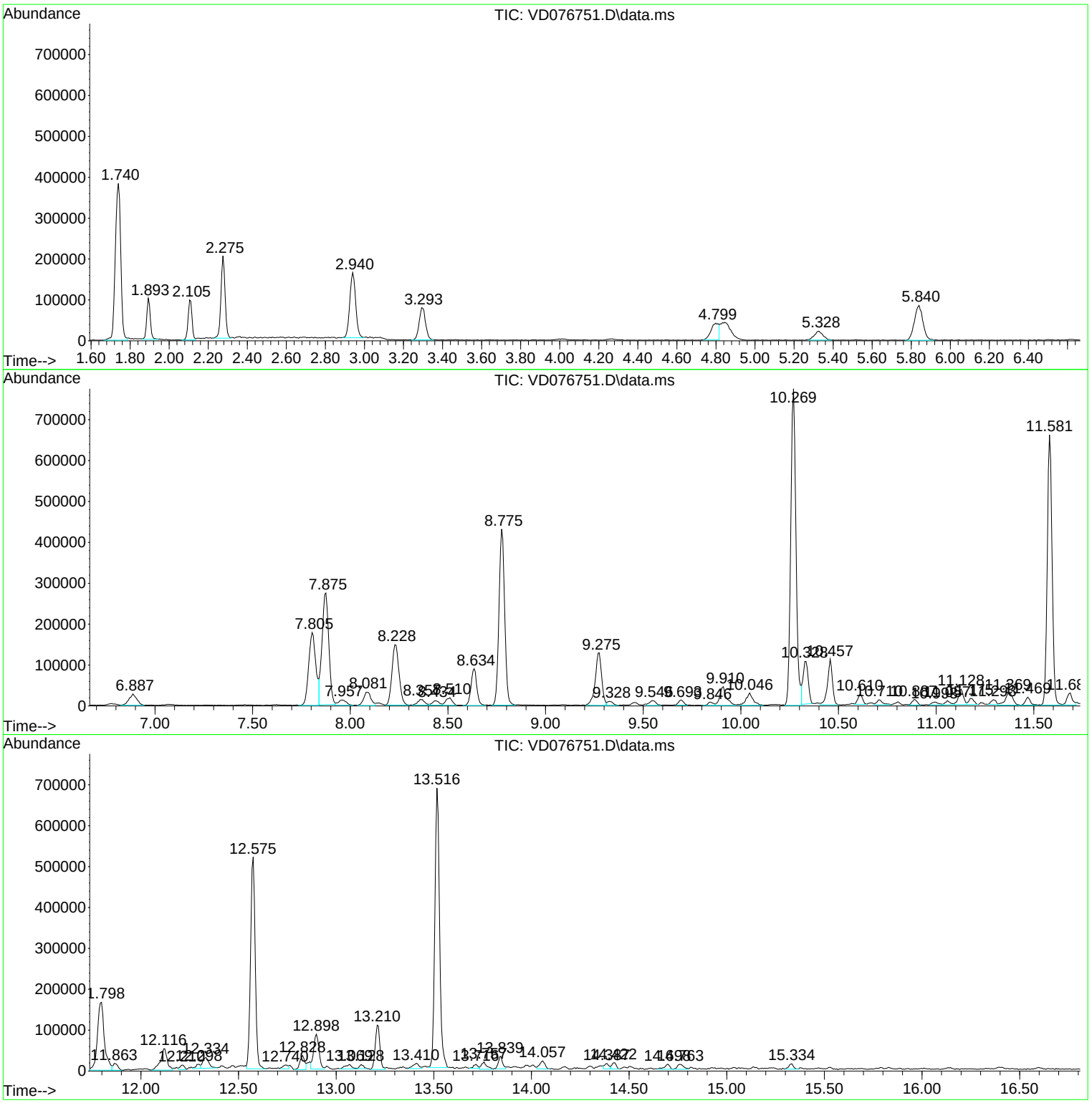
Sample Results: **VD076751.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

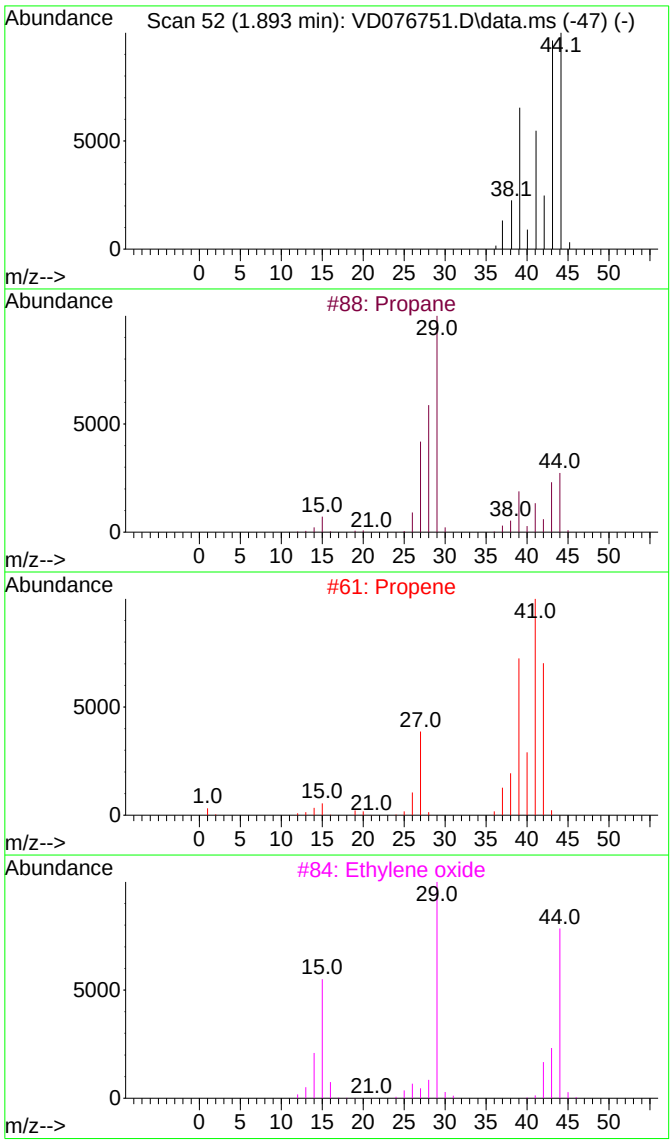
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

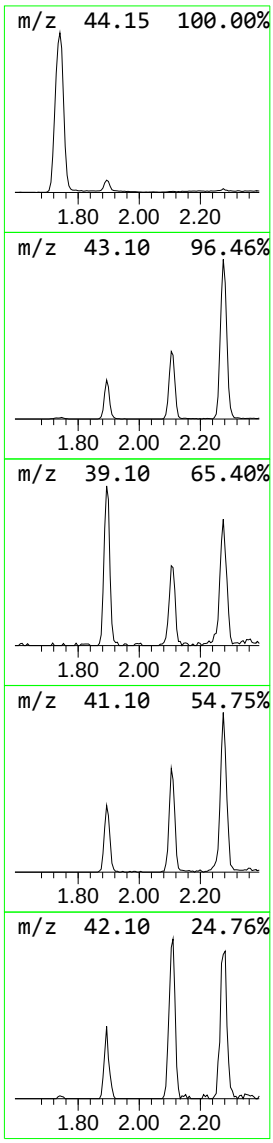
****

Peak Number 2 Propane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.893	9.77 ug/l	127370	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane	44	C3H8	000074-98-6	90
2	Propene	42	C3H6	000115-07-1	9
3	Ethylene oxide	44	C2H4O	000075-21-8	5
4	Acetaldehyde	44	C2H4O	000075-07-0	3
5	Acetonitrile-d3	44	C2D3N	002206-26-0	3





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

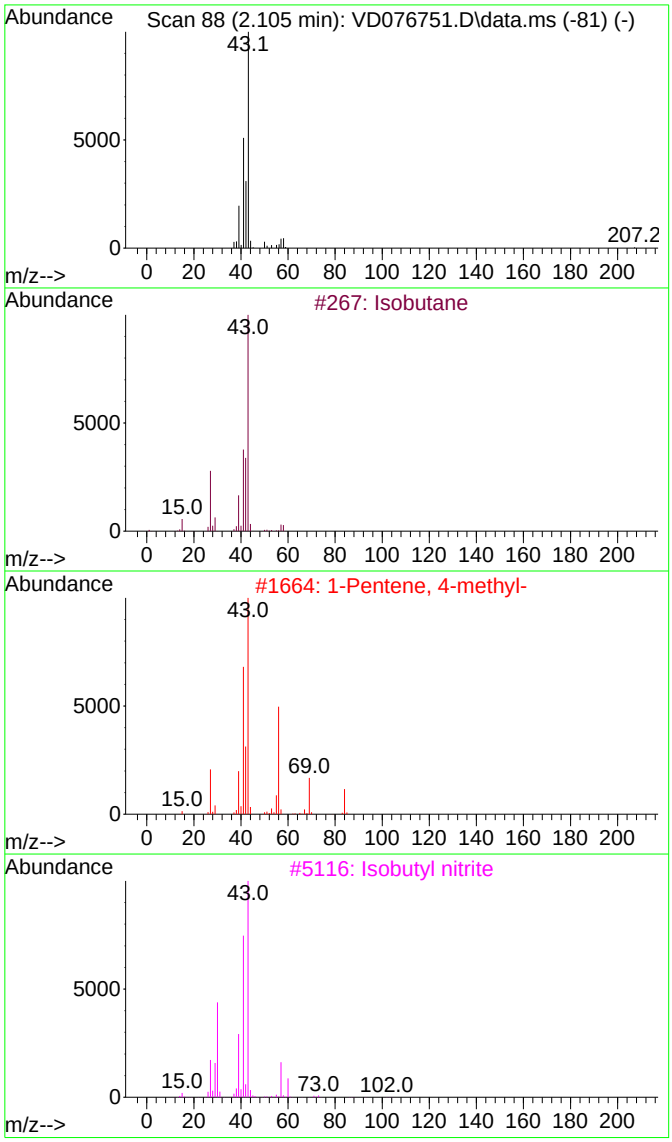
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

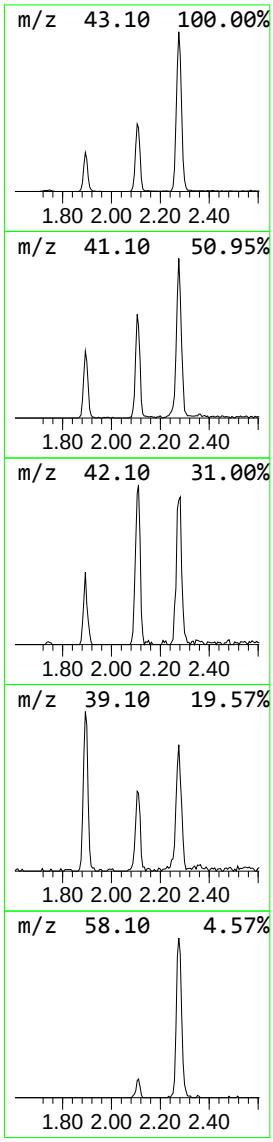
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Isobutane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.105	10.27 ug/l	133912	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	64
2	1-Pentene, 4-methyl-	84	C6H12	000691-37-2	33
3	Isobutyl nitrite	103	C4H9NO2	000542-56-3	9
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	9
5	Hydrogen isocyanate	43	CHNO	000075-13-8	4





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

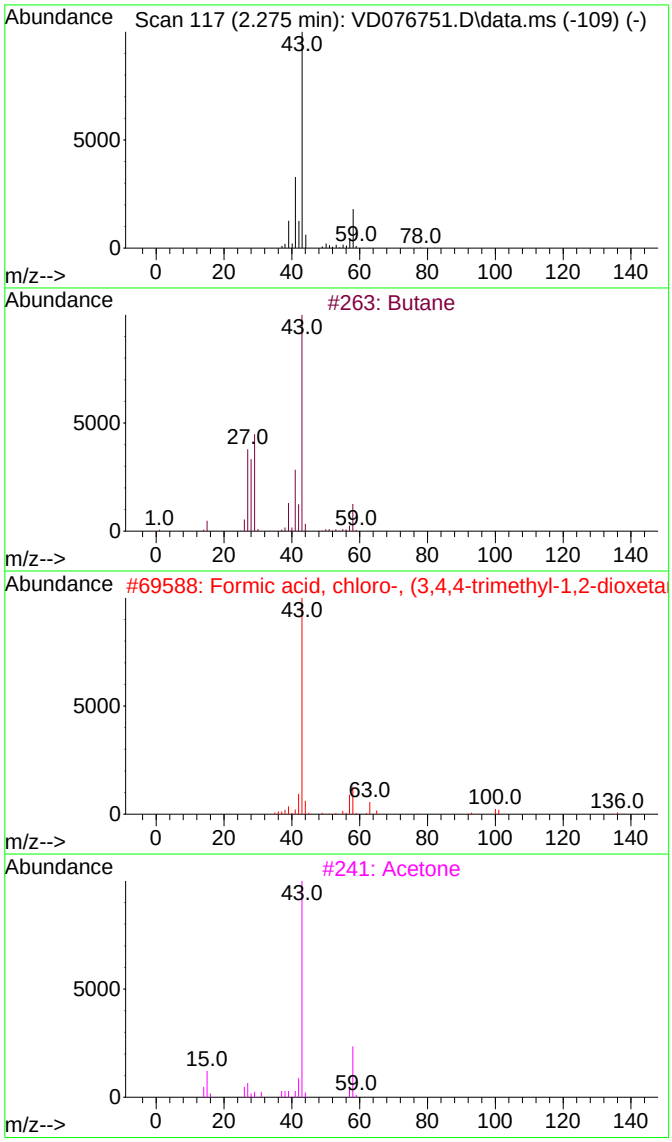
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

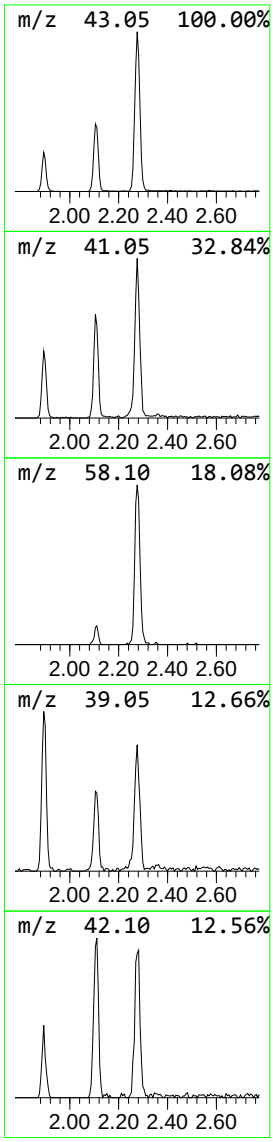
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Butane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.275	22.61 ug/l	294815	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	80
2	Formic acid, chloro-, (3,4,4-tri...	194	C7H11ClO4	107323-92-2	50
3	Acetone	58	C3H6O	000067-64-1	9
4	Isobutane	58	C4H10	000075-28-5	9
5	Diazene, dimethyl-	58	C2H6N2	000503-28-6	4





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

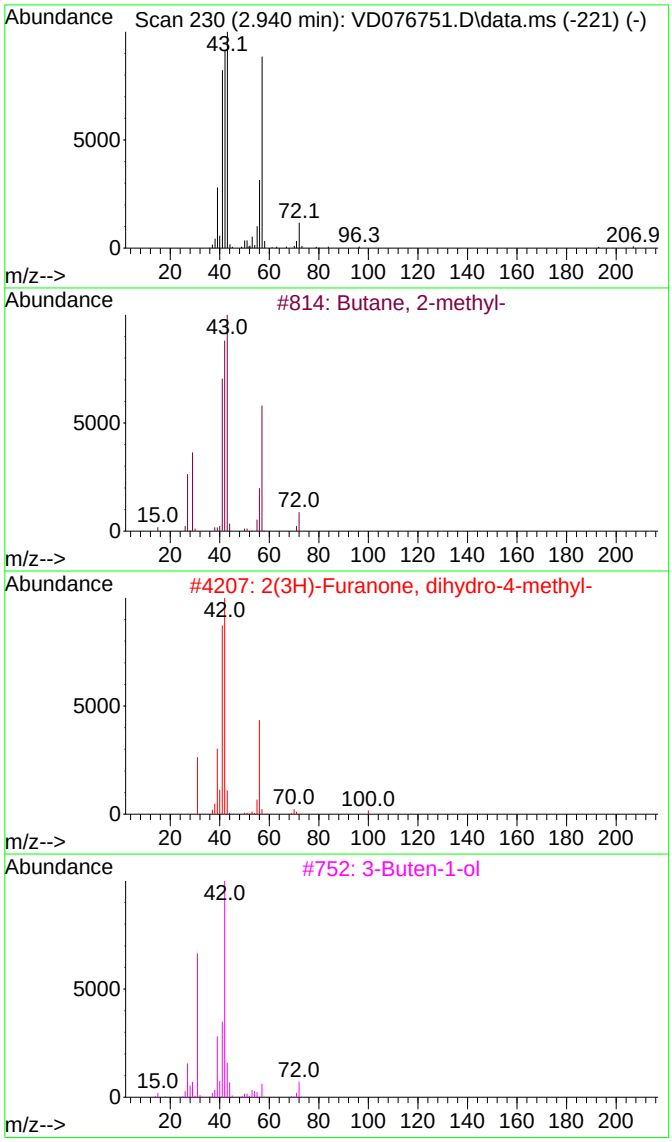
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

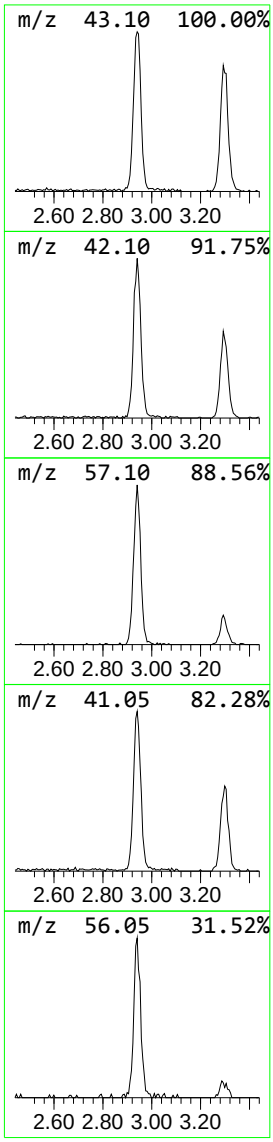
****

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.940	25.71 ug/l	335229	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	86
2	2(3H)-Furanone, dihydro-4-methyl-	100	C5H8O2	001679-49-8	50
3	3-Buten-1-ol	72	C4H8O	000627-27-0	43
4	Pentane	72	C5H12	000109-66-0	33
5	1,1-Diisobutoxy-butane	202	C12H26O2	013002-16-9	22





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

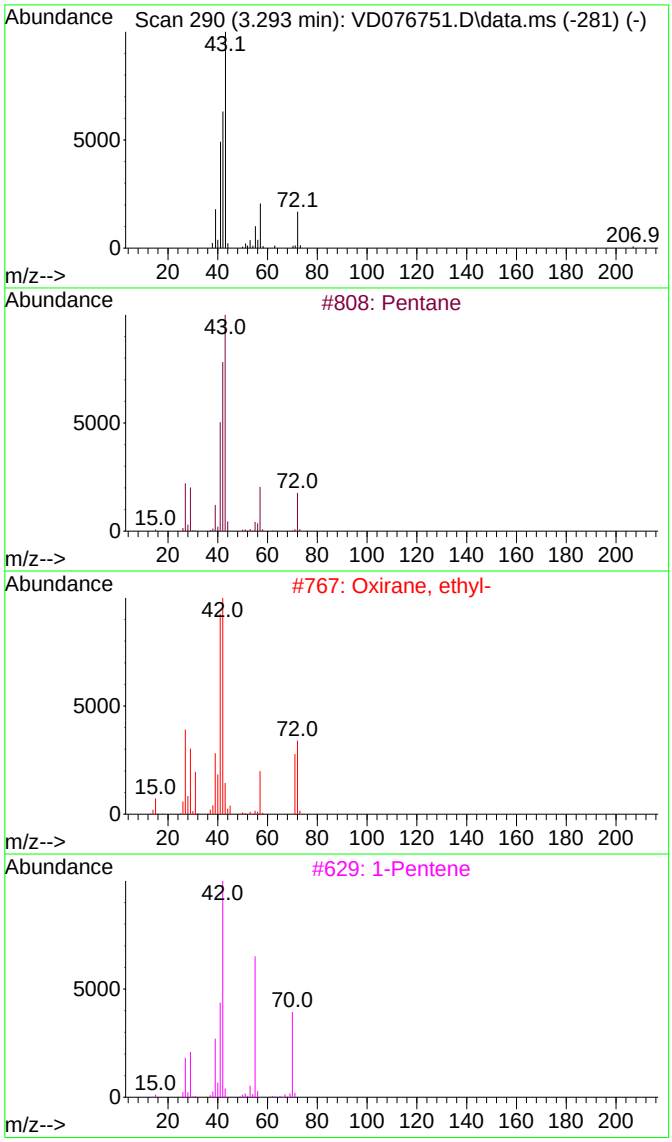
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

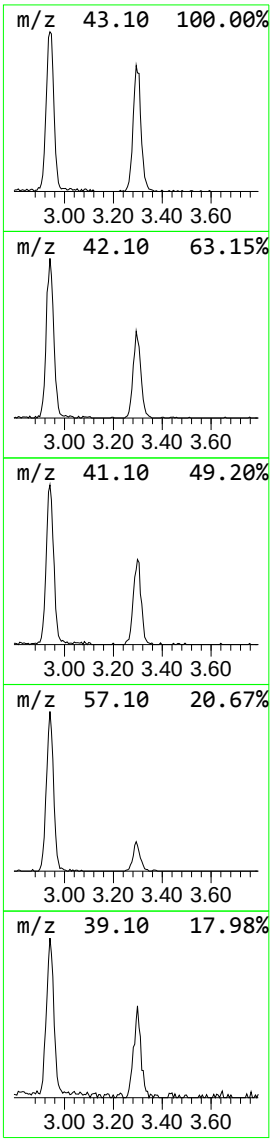
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 6 Pentane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.293	13.69 ug/l	178536	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	86
2	Oxirane, ethyl-	72	C4H8O	000106-88-7	42
3	1-Pentene	70	C5H10	000109-67-1	25
4	2-Butanone	72	C4H8O	000078-93-3	25
5	2-Hexanone, 3,4-dimethyl-	128	C8H16O	019550-10-8	25





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

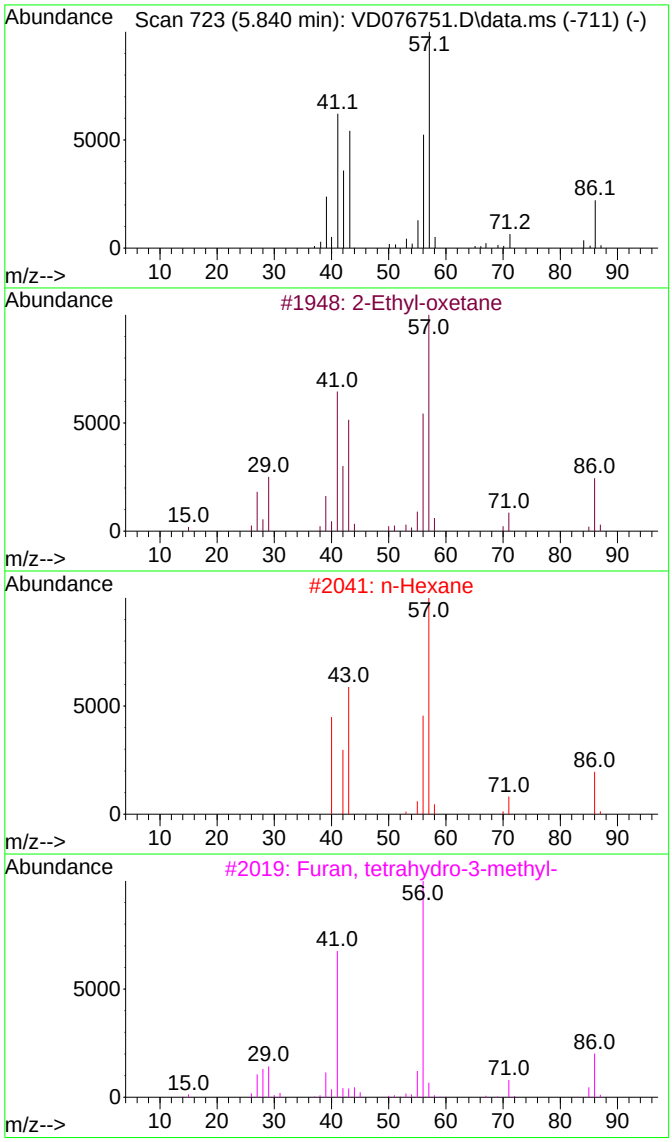
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

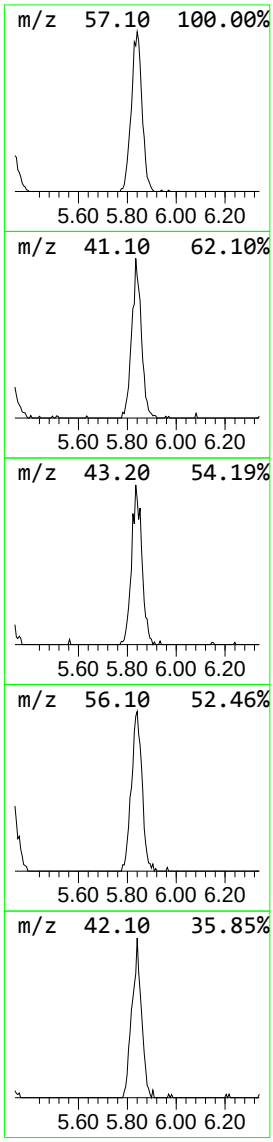
****

Peak Number 8 2-Ethyl-oxetane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.840	19.85 ug/l	258900	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethyl-oxetane	86	C5H10O	1010386-40-2	87
2	n-Hexane	86	C6H14	000110-54-3	86
3	Furan, tetrahydro-3-methyl-	86	C5H10O	013423-15-9	47
4	Pentane, 2,2-dimethyl-	100	C7H16	000590-35-2	43
5	Cyclopropane, propyl-	84	C6H12	002415-72-7	43





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

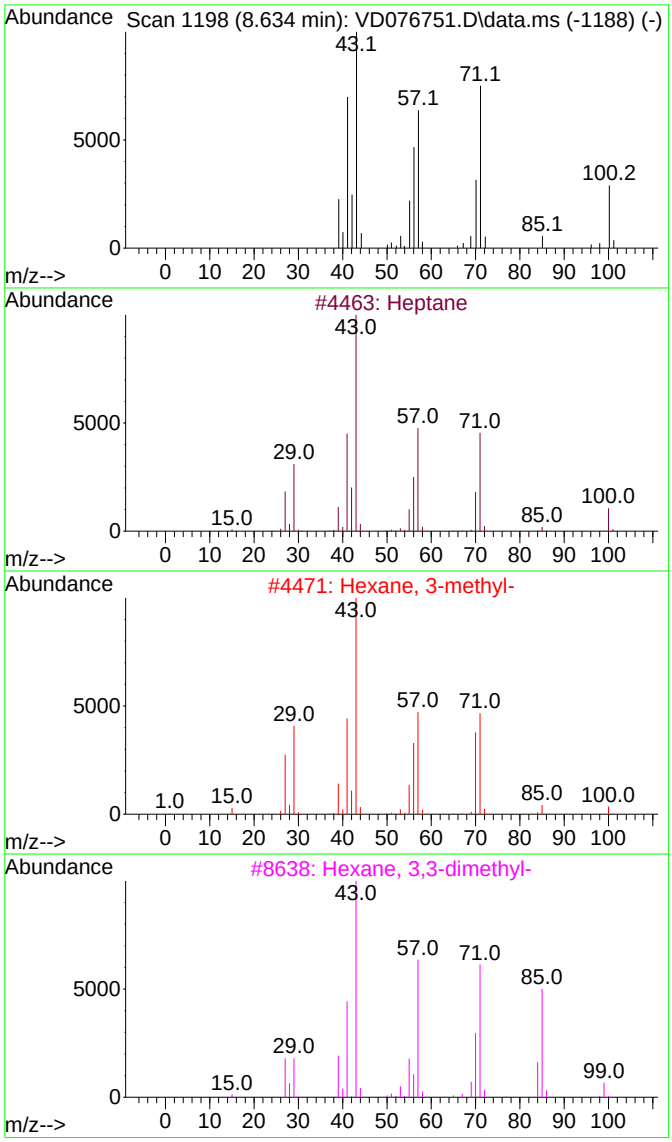
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

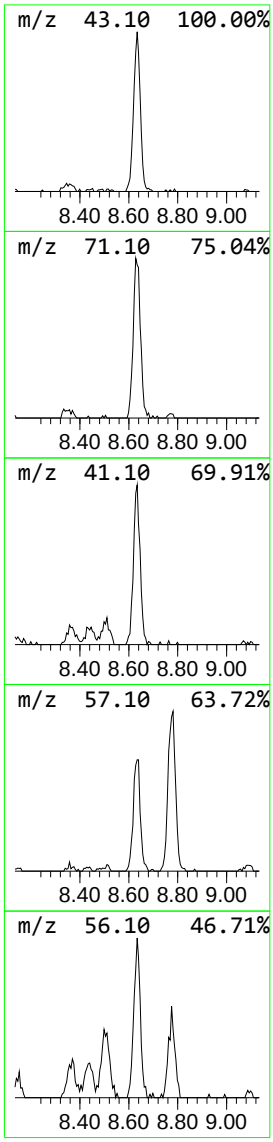
****

Peak Number 9 Heptane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.634	10.51 ug/l	184402	1,4-Difluorobenzene	8.775

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane	100	C7H16	000142-82-5	91
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	59
3	Hexane, 3,3-dimethyl-	114	C8H18	000563-16-6	50
4	1-Hexene, 3,4,5-trimethyl-	126	C9H18	056728-10-0	47
5	Acetaldehyde, propylhydrazone	100	C5H12N2	007422-88-0	47





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

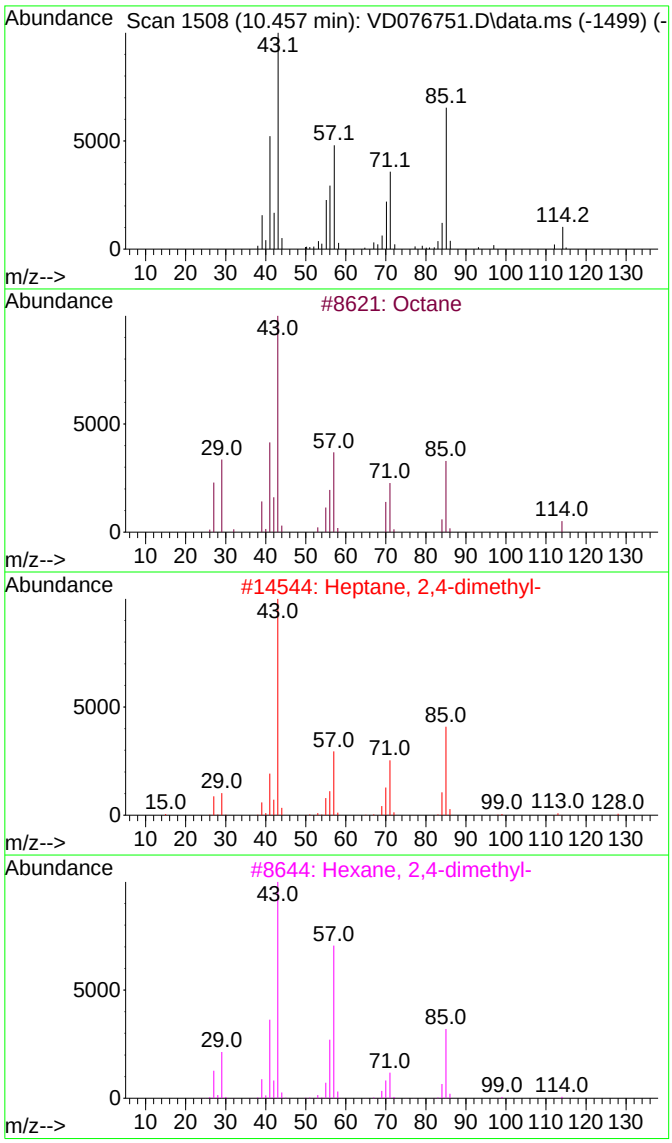
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

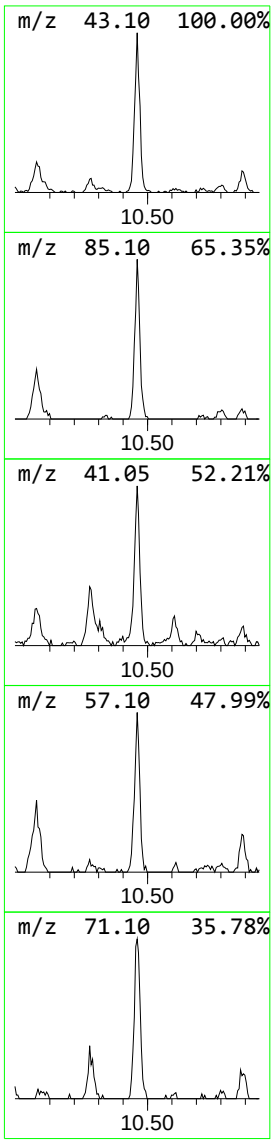
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 10 Octane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.457	8.43 ug/l	192508	Chlorobenzene-d5	11.581

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane	114	C8H18	000111-65-9	94
2	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	72
3	Hexane, 2,4-dimethyl-	114	C8H18	000589-43-5	53
4	Undecane, 2,4-dimethyl-	184	C13H28	017312-80-0	53
5	Oxalic acid, diisohexyl ester	258	C14H26O4	1010309-32-9	53





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076751.D
Acq On : 17 Jul 2023 13:36
Operator : KP/SY
Sample : 03645-01
Misc : 6.45G/5.0ml/MSVOA_D/SOIL
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-02-(3-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Propane	1.893	9.8	ug/l	127370	1	7.875	652022	50.0
Isobutane	2.105	10.3	ug/l	133912	1	7.875	652022	50.0
Butane	2.275	22.6	ug/l	294815	1	7.875	652022	50.0
Butane, 2-methyl-	2.940	25.7	ug/l	335229	1	7.875	652022	50.0
Pentane	3.293	13.7	ug/l	178536	1	7.875	652022	50.0
2-Ethyl-oxetane	5.840	19.9	ug/l	258900	1	7.875	652022	50.0
Heptane	8.634	10.5	ug/l	184402	2	8.775	876982	50.0
Octane	10.457	8.4	ug/l	192508	3	11.581	1141910	50.0

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)	SDG No.:	O3645
Lab Sample ID:	O3645-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076752.D	1		07/17/23 14:04	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	4.10	U	1.30	4.10	ug/Kg
74-87-3	Chloromethane	4.10	U	0.74	4.10	ug/Kg
75-01-4	Vinyl Chloride	4.10	U	0.76	4.10	ug/Kg
74-83-9	Bromomethane	4.10	U	0.98	4.10	ug/Kg
75-00-3	Chloroethane	4.10	U	0.72	4.10	ug/Kg
75-69-4	Trichlorofluoromethane	4.10	U	0.86	4.10	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	4.10	U	0.59	4.10	ug/Kg
75-35-4	1,1-Dichloroethene	4.10	U	0.64	4.10	ug/Kg
67-64-1	Acetone	20.3	U	7.60	20.3	ug/Kg
75-15-0	Carbon Disulfide	4.10	U	1.80	4.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	4.10	U	0.53	4.10	ug/Kg
79-20-9	Methyl Acetate	4.10	U	1.30	4.10	ug/Kg
75-09-2	Methylene Chloride	8.10	U	4.90	8.10	ug/Kg
156-60-5	trans-1,2-Dichloroethene	4.10	U	0.59	4.10	ug/Kg
75-34-3	1,1-Dichloroethane	4.10	U	0.59	4.10	ug/Kg
110-82-7	Cyclohexane	1.80	J	0.57	4.10	ug/Kg
78-93-3	2-Butanone	20.3	U	5.90	20.3	ug/Kg
56-23-5	Carbon Tetrachloride	4.10	U	0.63	4.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	4.10	U	0.52	4.10	ug/Kg
74-97-5	Bromochloromethane	4.10	U	1.90	4.10	ug/Kg
67-66-3	Chloroform	4.10	U	1.10	4.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	4.10	U	0.62	4.10	ug/Kg
108-87-2	Methylcyclohexane	4.10	U	2.70	4.10	ug/Kg
71-43-2	Benzene	4.10	U	0.54	4.10	ug/Kg
107-06-2	1,2-Dichloroethane	4.10	U	0.59	4.10	ug/Kg
79-01-6	Trichloroethene	4.10	U	0.54	4.10	ug/Kg
78-87-5	1,2-Dichloropropane	4.10	U	0.48	4.10	ug/Kg
75-27-4	Bromodichloromethane	4.10	U	0.57	4.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	20.3	U	3.70	20.3	ug/Kg
108-88-3	Toluene	4.10	U	0.53	4.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	4.10	U	0.63	4.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	4.10	U	0.60	4.10	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)	SDG No.:	O3645
Lab Sample ID:	O3645-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076752.D	1		07/17/23 14:04	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	4.10	U	0.70	4.10	ug/Kg
591-78-6	2-Hexanone	20.3	U	4.30	20.3	ug/Kg
124-48-1	Dibromochloromethane	4.10	U	0.69	4.10	ug/Kg
106-93-4	1,2-Dibromoethane	4.10	U	0.64	4.10	ug/Kg
127-18-4	Tetrachloroethene	4.10	U	0.63	4.10	ug/Kg
108-90-7	Chlorobenzene	4.10	U	0.51	4.10	ug/Kg
100-41-4	Ethyl Benzene	4.10	U	0.54	4.10	ug/Kg
179601-23-1	m/p-Xylenes	8.10	U	1.20	8.10	ug/Kg
1330-20-7	Total Xylenes	12.2	U	1.83	12.2	ug/Kg
95-47-6	o-Xylene	4.10	U	0.63	4.10	ug/Kg
100-42-5	Styrene	4.10	U	0.56	4.10	ug/Kg
75-25-2	Bromoform	4.10	U	0.77	4.10	ug/Kg
98-82-8	Isopropylbenzene	4.10	U	0.58	4.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	4.10	U	0.87	4.10	ug/Kg
103-65-1	n-propylbenzene	4.10	U	0.57	4.10	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	4.10	U	0.52	4.10	ug/Kg
98-06-6	tert-Butylbenzene	4.10	U	0.63	4.10	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	4.10	U	0.54	4.10	ug/Kg
135-98-8	sec-Butylbenzene	4.10	U	0.63	4.10	ug/Kg
99-87-6	p-Isopropyltoluene	4.10	U	0.60	4.10	ug/Kg
541-73-1	1,3-Dichlorobenzene	4.10	U	0.55	4.10	ug/Kg
106-46-7	1,4-Dichlorobenzene	4.10	U	0.49	4.10	ug/Kg
104-51-8	n-Butylbenzene	4.10	U	0.55	4.10	ug/Kg
95-50-1	1,2-Dichlorobenzene	4.10	U	0.49	4.10	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	4.10	U	0.97	4.10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	4.10	U	0.50	4.10	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	4.10	U	0.51	4.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.0		50 - 163	116%	SPK: 50
1868-53-7	Dibromofluoromethane	53.8		54 - 147	108%	SPK: 50
2037-26-5	Toluene-d8	55.7		58 - 134	111%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.7		30 - 143	113%	SPK: 50
INTERNAL STANDARDS						

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)	SDG No.:	O3645
Lab Sample ID:	O3645-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076752.D	1		07/17/23 14:04	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	172000	7.875			
540-36-3	1,4-Difluorobenzene	366000	8.775			
3114-55-4	Chlorobenzene-d5	369000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	171000	13.516			
TENTATIVE IDENTIFIED COMPOUNDS						
1010386-40-2	2-Ethyl-oxetane	10.7	J		5.83	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_D\Data\VD071723\
Data File : VD076752.D
Acq On : 17 Jul 2023 14:04
Operator : KP/SY
Sample : 03645-02
Misc : 6.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Quant Time: Jul 18 01:23:12 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

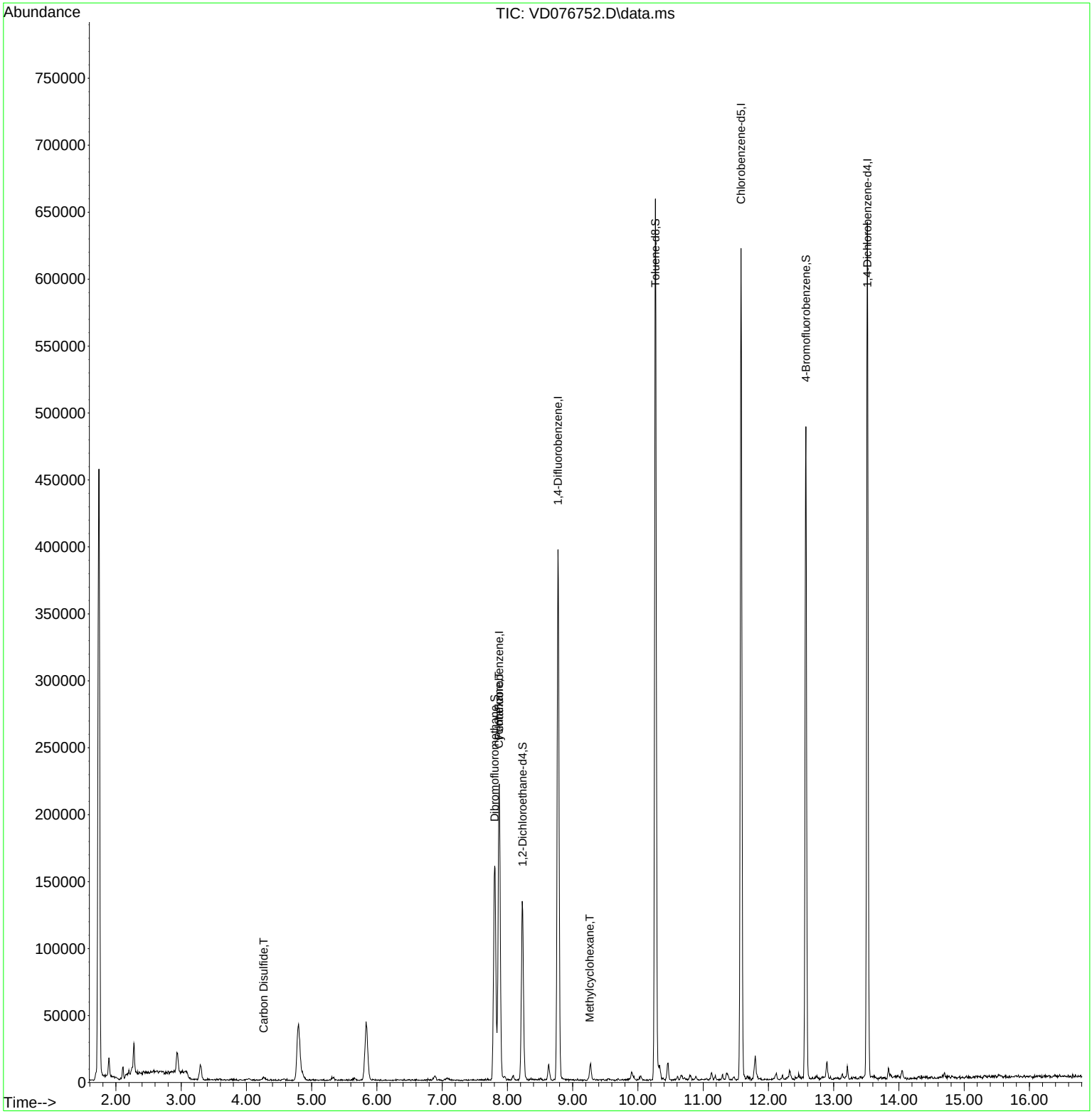
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	171628	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	365685	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	369301	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	170608	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	99163	58.008	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 116.020%			
35) Dibromofluoromethane	7.804	113	123536	53.758	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 107.520%			
50) Toluene-d8	10.269	98	458263	55.744	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 111.480%			
62) 4-Bromofluorobenzene	12.575	95	150770	56.693	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 113.380%			
Target Compounds						Qvalue
17) Carbon Disulfide	4.263	76	4904	1.238	ug/l #	76
31) Cyclohexane	7.869	56	5600	2.226	ug/l #	23
39) Methylcyclohexane	9.263	83	4939	1.424	ug/l #	74

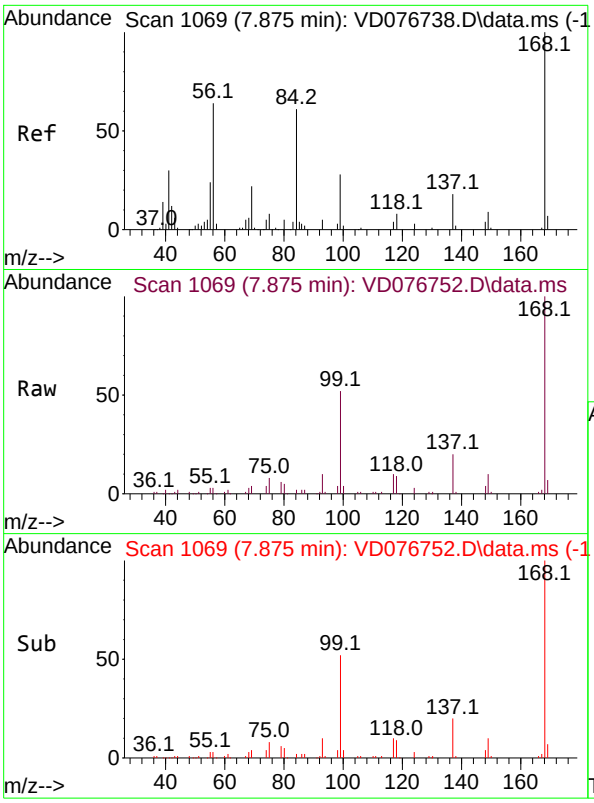
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076752.D
Acq On : 17 Jul 2023 14:04
Operator : KP/SY
Sample : 03645-02
Misc : 6.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Quant Time: Jul 18 01:23:12 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



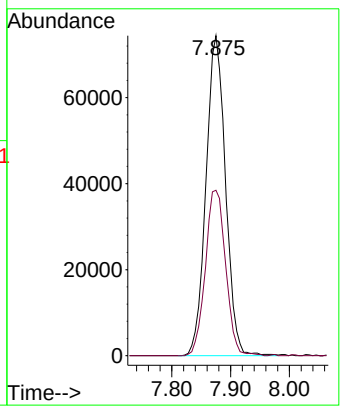


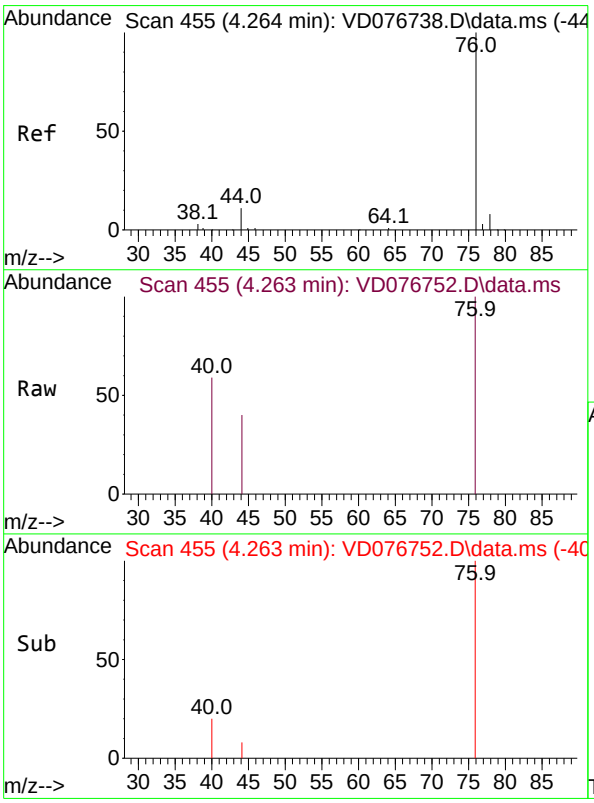
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Tgt Ion:168 Resp: 171628

Ion	Ratio	Lower	Upper
168	100		
99	51.7	36.7	55.1

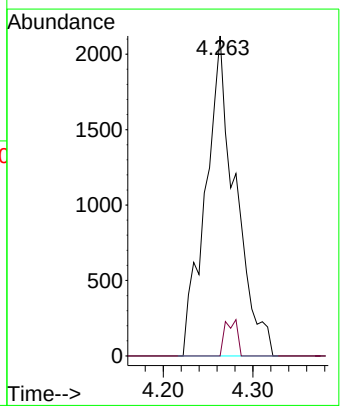


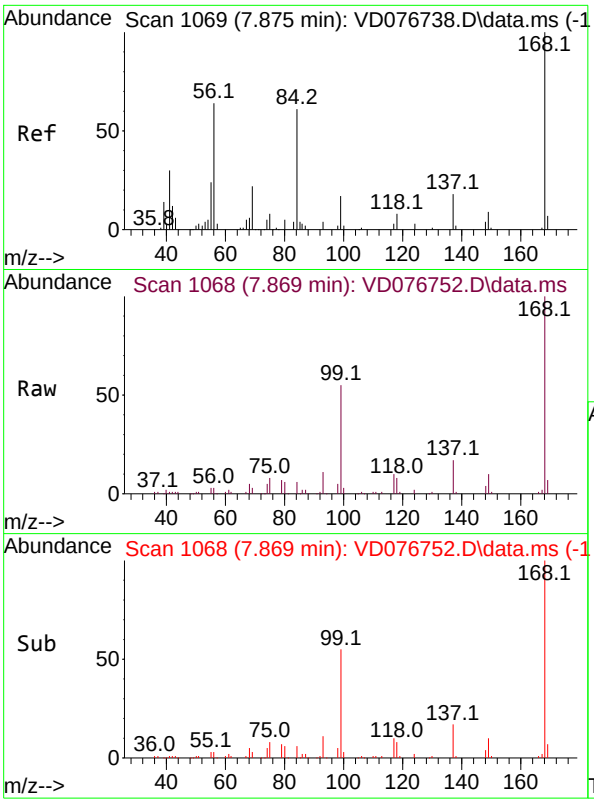


#17
Carbon Disulfide
Concen: 1.238 ug/l
RT: 4.263 min Scan# 455
Delta R.T. -0.001 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Tgt Ion: 76 Resp: 4904

Ion	Ratio	Lower	Upper
76	100		
78	0.0	6.8	10.2#



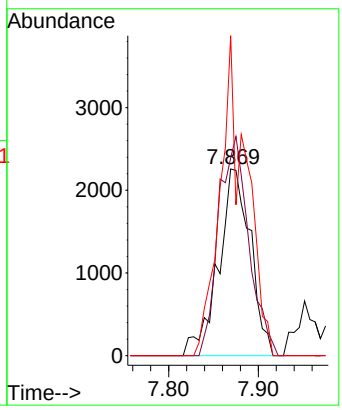


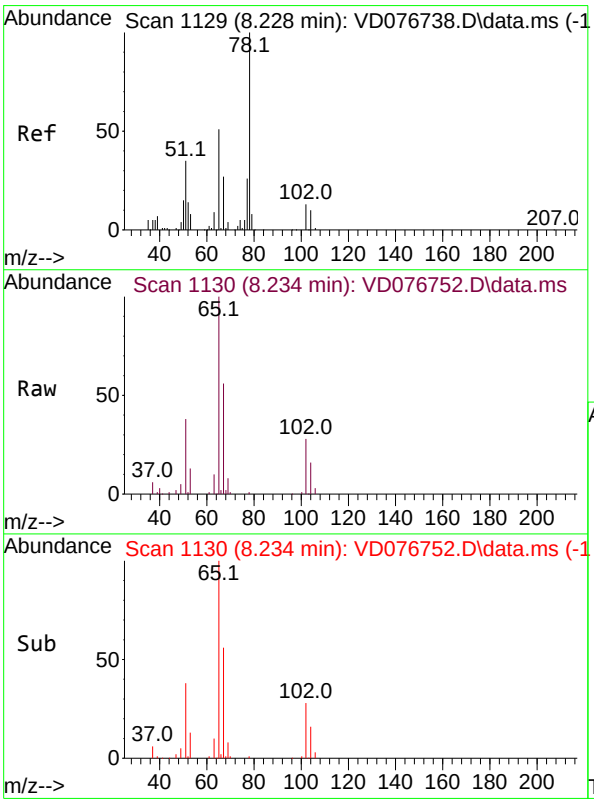
#31
Cyclohexane
Concen: 2.226 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Tgt Ion: 56 Resp: 5600

Ion	Ratio	Lower	Upper
56	100		
69	105.9	28.6	43.0#
84	171.4	84.8	127.2#

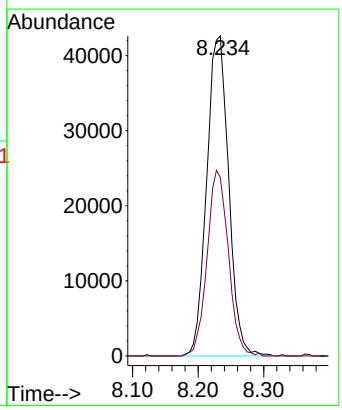


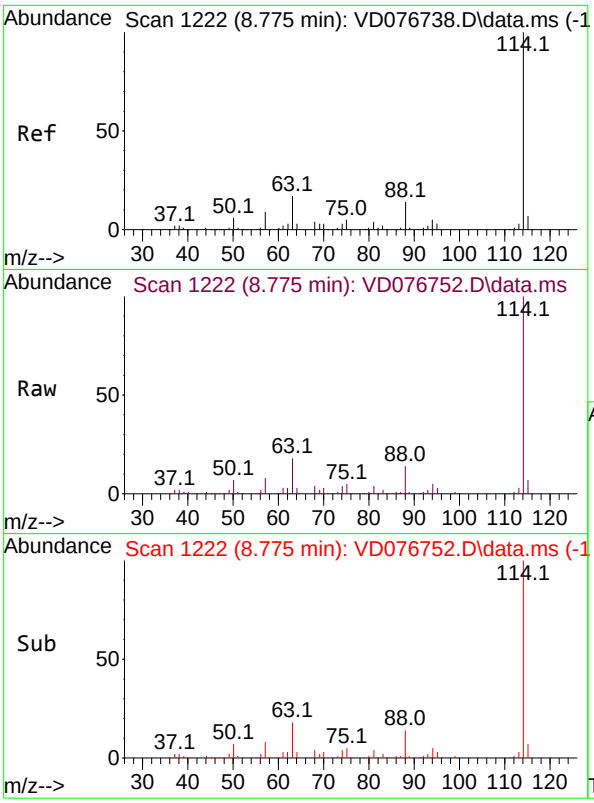


#33
1,2-Dichloroethane-d4
Concen: 58.008 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.006 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Tgt Ion: 65 Resp: 99163

Ion	Ratio	Lower	Upper
65	100		
67	56.2	0.0	115.0



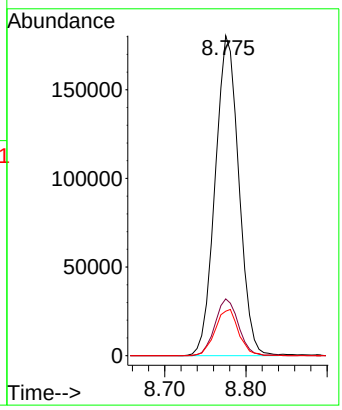


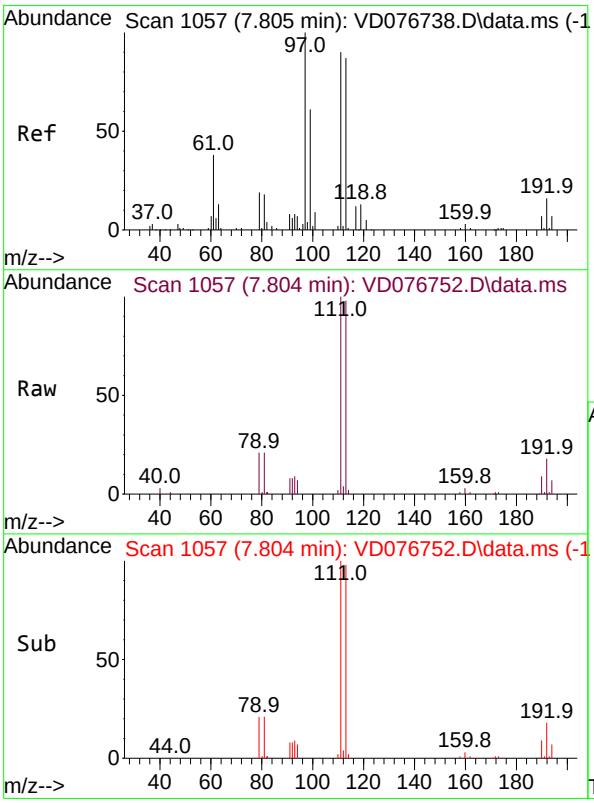
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Tgt Ion:114 Resp: 365685

Ion	Ratio	Lower	Upper
114	100		
63	17.8	0.0	33.4
88	13.9	0.0	26.2

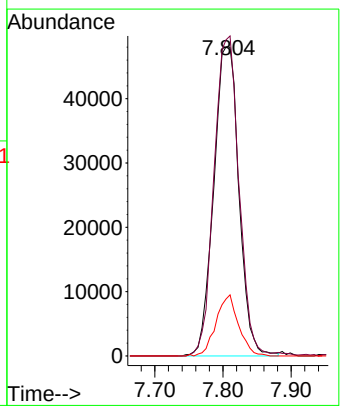


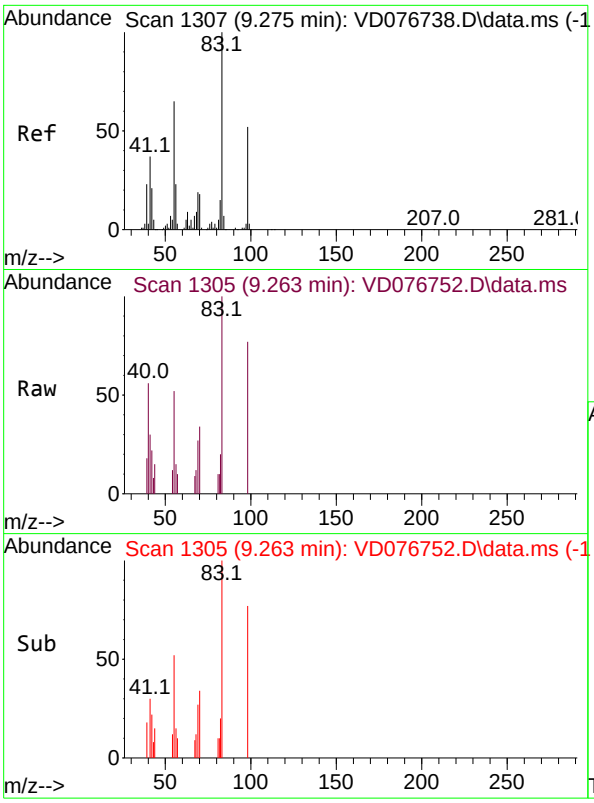


#35
Dibromofluoromethane
Concen: 53.758 ug/l
RT: 7.804 min Scan# 1057
Delta R.T. -0.001 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Tgt Ion:113 Resp: 123536

Ion	Ratio	Lower	Upper
113	100		
111	102.2	84.7	127.1
192	17.7	16.8	25.2



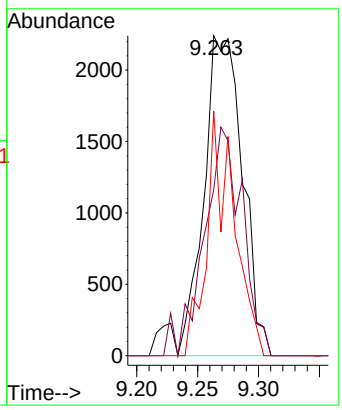


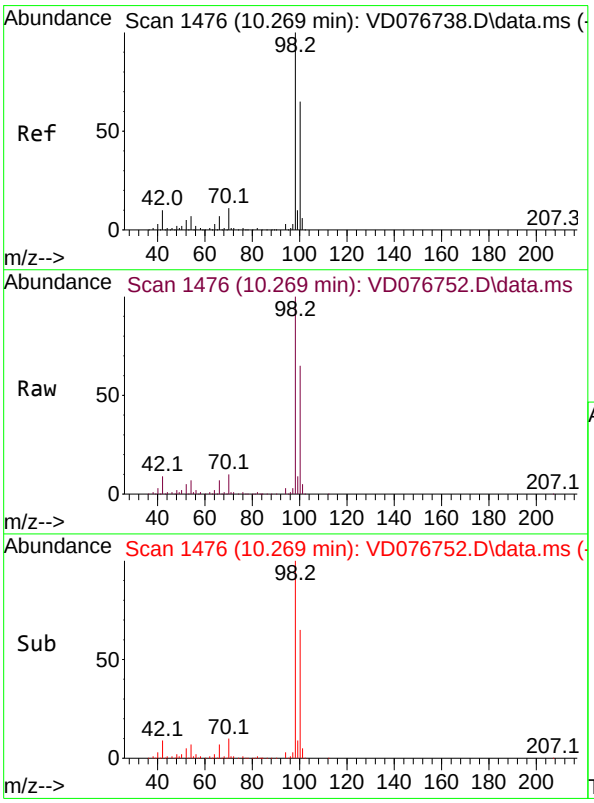
#39
Methylcyclohexane
Concen: 1.424 ug/l
RT: 9.263 min Scan# 1
Delta R.T. -0.012 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Tgt Ion: 83 Resp: 4939

Ion	Ratio	Lower	Upper
83	100		
55	51.9	49.4	74.0
98	76.5	38.4	57.6#

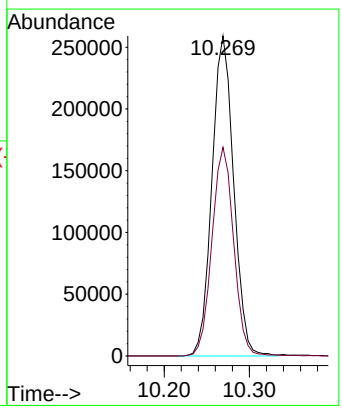


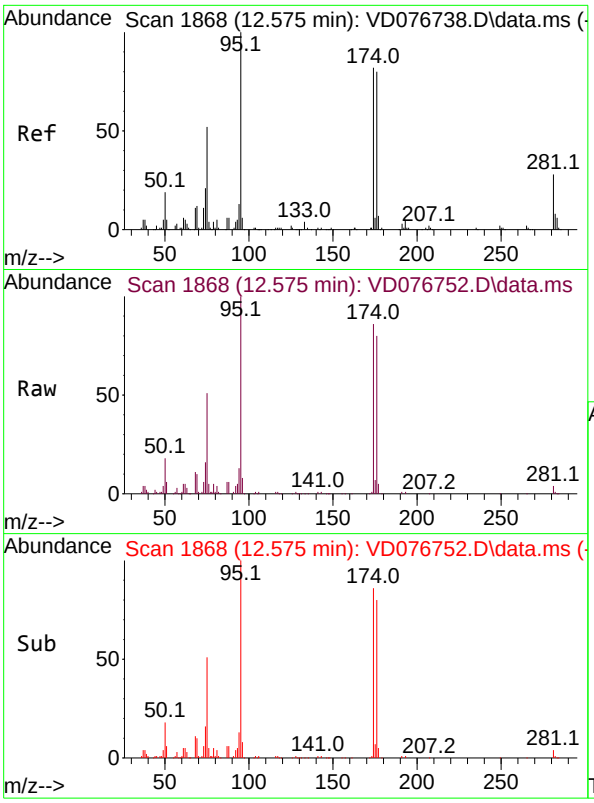


#50
Toluene-d8
Concen: 55.744 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Tgt Ion: 98 Resp: 458263

Ion	Ratio	Lower	Upper
98	100		
100	65.4	50.3	75.5



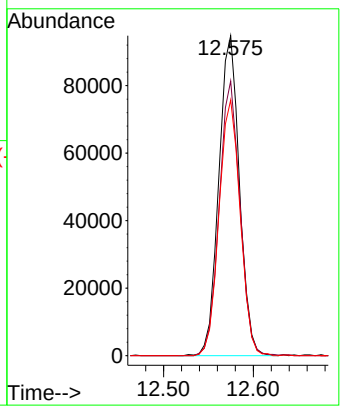


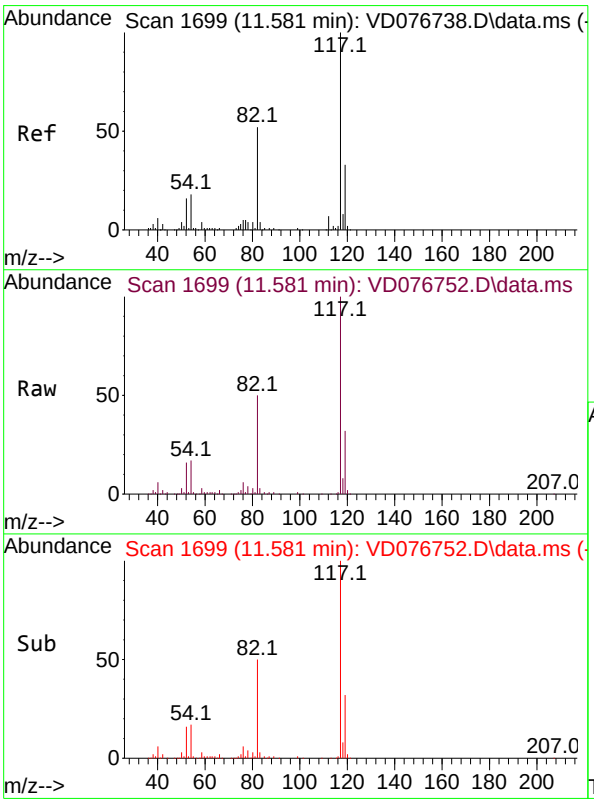
#62
4-Bromofluorobenzene
Concen: 56.693 ug/l
RT: 12.575 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Tgt Ion: 95 Resp: 150770

Ion	Ratio	Lower	Upper
95	100		
174	86.4	0.0	201.8
176	82.1	0.0	191.8

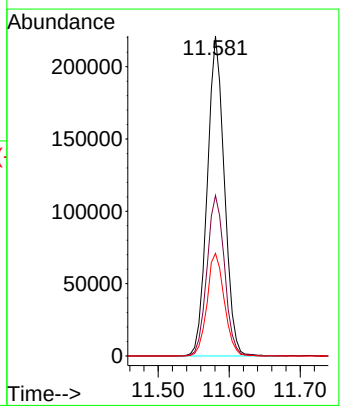


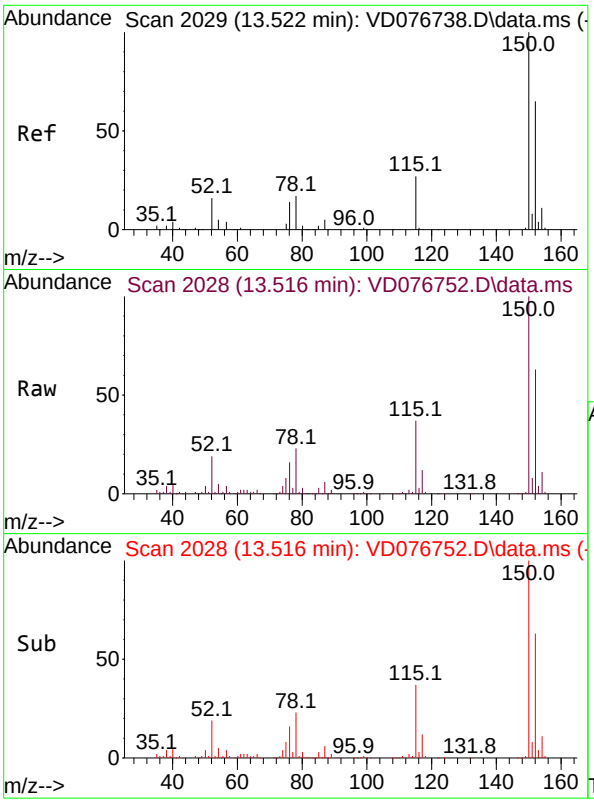


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1699
Delta R.T. -0.000 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Tgt Ion:117 Resp: 369301

Ion	Ratio	Lower	Upper
117	100		
82	50.1	38.3	57.5
119	32.1	25.0	37.4



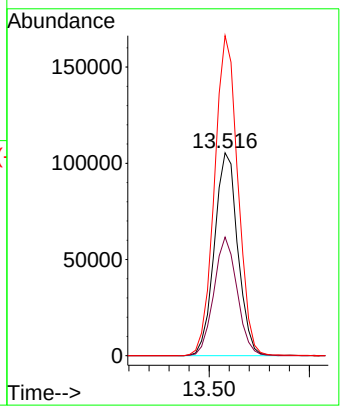


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2
Delta R.T. -0.006 min
Lab File: VD076752.D
Acq: 17 Jul 2023 14:04

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Tgt Ion:152 Resp: 170608

Ion	Ratio	Lower	Upper
152	100		
115	58.1	27.1	81.3
150	157.7	0.0	353.6



Sample Results: **VD076752.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076752.D
Acq On : 17 Jul 2023 14:04
Operator : KP/SY
Sample : 03645-02
Misc : 6.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076752.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	19	26	38	rVB	453435	865998	73.50%	11.503%
2	1.893	47	52	57	rVB2	14029	19479	1.65%	0.259%
3	2.111	84	89	92	rBV3	8793	12120	1.03%	0.161%
4	2.275	114	117	122	rVB	21860	30294	2.57%	0.402%
5	2.934	224	229	236	rBV3	14697	30744	2.61%	0.408%
6	3.293	283	290	301	rVB3	11526	27981	2.37%	0.372%
7	4.799	532	546	560	rBV4	42027	150909	12.81%	2.005%
8	5.834	712	722	737	rVB	43809	131712	11.18%	1.750%
9	7.804	1047	1057	1063	rBV	159992	405358	34.40%	5.384%
10	7.875	1063	1069	1078	rVB	219082	500807	42.51%	6.652%
11	8.228	1119	1129	1141	rBV	133822	303687	25.78%	4.034%
12	8.634	1192	1198	1208	rVB6	12091	23857	2.02%	0.317%
13	8.775	1214	1222	1232	rBV	395939	801546	68.03%	10.647%
14	9.275	1295	1307	1314	rBV5	12911	27598	2.34%	0.367%
15	9.904	1409	1414	1427	rVB6	6397	16691	1.42%	0.222%
16	10.269	1468	1476	1485	rBV	658024	1178215	100.00%	15.651%
17	10.328	1485	1486	1492	rVB4	10490	14448	1.23%	0.192%
18	10.463	1502	1509	1514	rBV2	13012	24882	2.11%	0.331%
19	11.363	1657	1662	1669	rVB4	5225	11835	1.00%	0.157%
20	11.581	1691	1699	1710	rBV	620990	1049779	89.10%	13.944%
21	11.798	1730	1736	1744	rVB7	17606	33489	2.84%	0.445%
22	12.322	1822	1825	1833	rVB6	6846	12293	1.04%	0.163%
23	12.575	1861	1868	1877	rVB	487022	788313	66.91%	10.471%
24	12.898	1918	1923	1930	rVB4	12551	21256	1.80%	0.282%
25	13.210	1972	1976	1981	rVB	9814	12499	1.06%	0.166%
26	13.516	2021	2028	2036	rVB	638959	1020464	86.61%	13.555%
27	13.839	2078	2083	2086	rBV2	8358	12021	1.02%	0.160%

Sum of corrected areas: 7528275

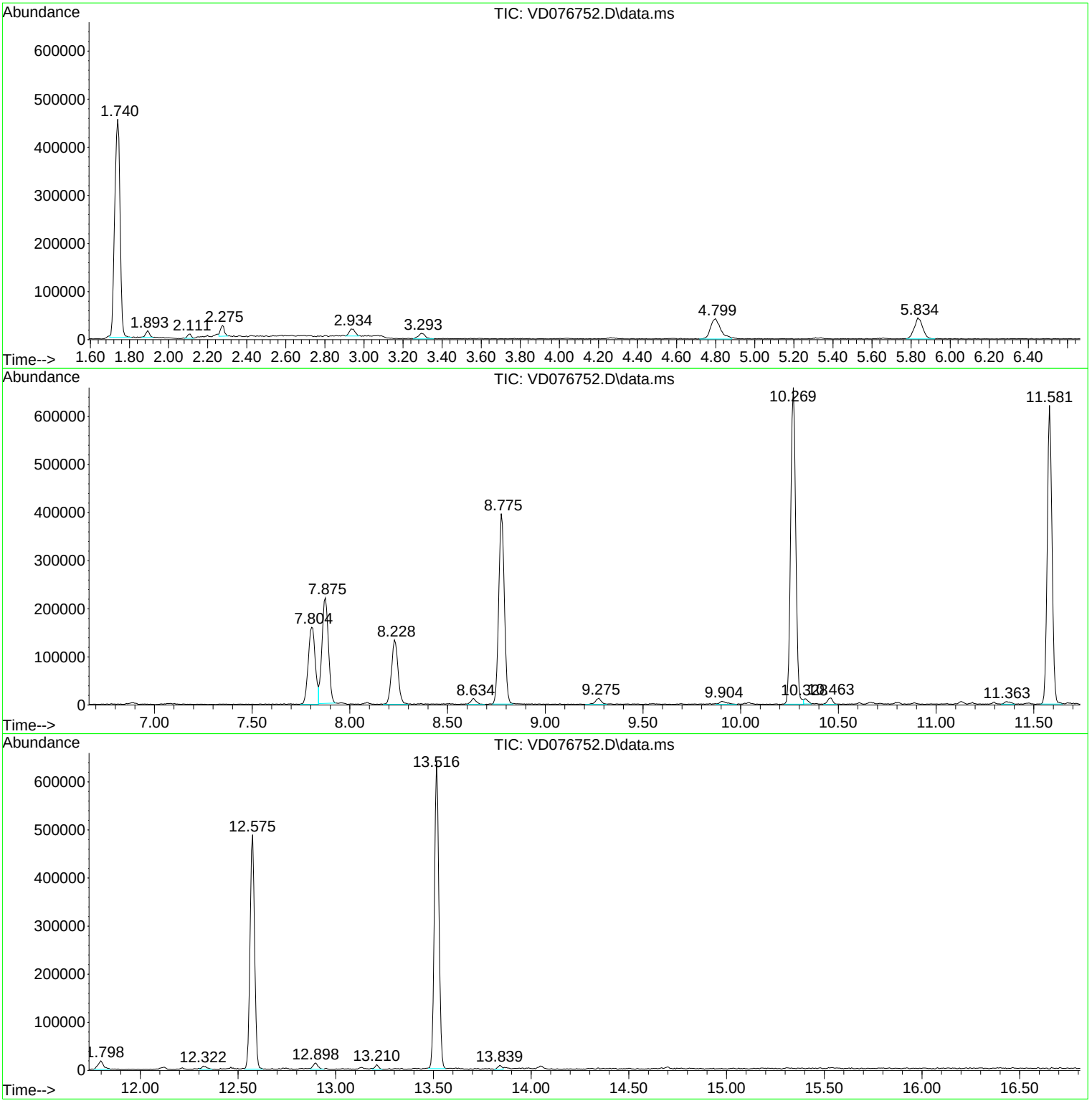
Sample Results: **VD076752.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076752.D
Acq On : 17 Jul 2023 14:04
Operator : KP/SY
Sample : 03645-02
Misc : 6.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076752.D
Acq On : 17 Jul 2023 14:04
Operator : KP/SY
Sample : 03645-02
Misc : 6.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

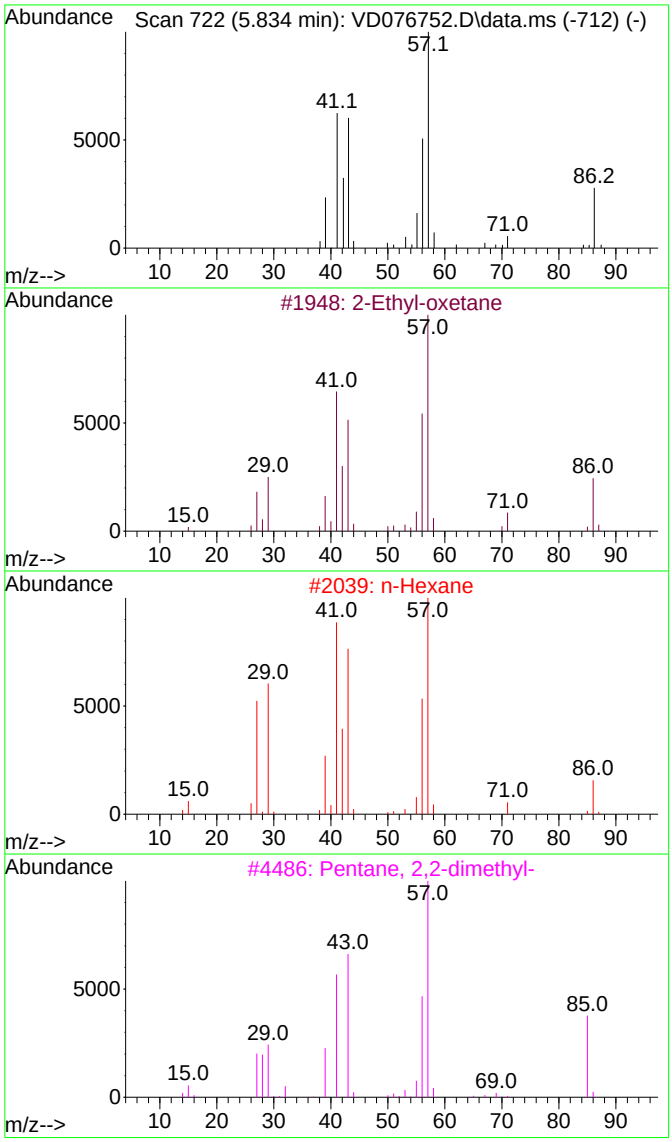
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

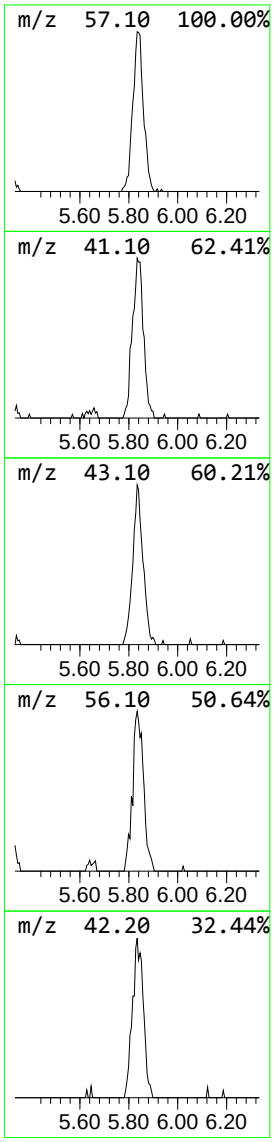
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 2-Ethyl-oxetane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.834	13.15 ug/l	131712	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethyl-oxetane	86	C5H10O	1010386-40-2	83
2	n-Hexane	86	C6H14	000110-54-3	72
3	Pentane, 2,2-dimethyl-	100	C7H16	000590-35-2	43
4	1-Hexene	84	C6H12	000592-41-6	37
5	1-Pentene, 4-methyl-	84	C6H12	000691-37-2	32





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076752.D
Acq On : 17 Jul 2023 14:04
Operator : KP/SY
Sample : 03645-02
Misc : 6.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
2-Ethyl-oxetane	5.834	13.2	ug/l	131712	1	7.875	500807	50.0

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-07-(1-3)	SDG No.:	O3645
Lab Sample ID:	O3645-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	79.5
Sample Wt/Vol:	5.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076753.D	1		07/17/23 14:32	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.50	U	1.80	5.50	ug/Kg
74-87-3	Chloromethane	5.50	U	1.00	5.50	ug/Kg
75-01-4	Vinyl Chloride	5.50	U	1.00	5.50	ug/Kg
74-83-9	Bromomethane	5.50	U	1.30	5.50	ug/Kg
75-00-3	Chloroethane	5.50	U	0.96	5.50	ug/Kg
75-69-4	Trichlorofluoromethane	5.50	U	1.20	5.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.50	U	0.79	5.50	ug/Kg
75-35-4	1,1-Dichloroethene	5.50	U	0.87	5.50	ug/Kg
67-64-1	Acetone	27.4	U	10.3	27.4	ug/Kg
75-15-0	Carbon Disulfide	5.50	U	2.40	5.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.50	U	0.71	5.50	ug/Kg
79-20-9	Methyl Acetate	5.50	U	1.80	5.50	ug/Kg
75-09-2	Methylene Chloride	11.0	U	6.60	11.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.50	U	0.80	5.50	ug/Kg
75-34-3	1,1-Dichloroethane	5.50	U	0.79	5.50	ug/Kg
110-82-7	Cyclohexane	5.50	U	0.77	5.50	ug/Kg
78-93-3	2-Butanone	27.4	U	8.00	27.4	ug/Kg
56-23-5	Carbon Tetrachloride	5.50	U	0.85	5.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.50	U	0.70	5.50	ug/Kg
74-97-5	Bromochloromethane	5.50	U	2.60	5.50	ug/Kg
67-66-3	Chloroform	5.50	U	1.40	5.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.50	U	0.83	5.50	ug/Kg
108-87-2	Methylcyclohexane	5.50	U	3.70	5.50	ug/Kg
71-43-2	Benzene	5.50	U	0.72	5.50	ug/Kg
107-06-2	1,2-Dichloroethane	5.50	U	0.79	5.50	ug/Kg
79-01-6	Trichloroethene	5.50	U	0.72	5.50	ug/Kg
78-87-5	1,2-Dichloropropane	5.50	U	0.65	5.50	ug/Kg
75-27-4	Bromodichloromethane	5.50	U	0.77	5.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	27.4	U	4.90	27.4	ug/Kg
108-88-3	Toluene	5.50	U	0.71	5.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.50	U	0.84	5.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.50	U	0.81	5.50	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-07-(1-3)	SDG No.:	O3645
Lab Sample ID:	O3645-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	79.5
Sample Wt/Vol:	5.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076753.D	1		07/17/23 14:32	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	5.50	U	0.94	5.50	ug/Kg
591-78-6	2-Hexanone	27.4	U	5.80	27.4	ug/Kg
124-48-1	Dibromochloromethane	5.50	U	0.93	5.50	ug/Kg
106-93-4	1,2-Dibromoethane	5.50	U	0.87	5.50	ug/Kg
127-18-4	Tetrachloroethene	5.50	U	0.84	5.50	ug/Kg
108-90-7	Chlorobenzene	5.50	U	0.69	5.50	ug/Kg
100-41-4	Ethyl Benzene	5.50	U	0.73	5.50	ug/Kg
179601-23-1	m/p-Xylenes	11.0	U	1.60	11.0	ug/Kg
1330-20-7	Total Xylenes	16.5	U	2.44	16.5	ug/Kg
95-47-6	o-Xylene	5.50	U	0.84	5.50	ug/Kg
100-42-5	Styrene	5.50	U	0.76	5.50	ug/Kg
75-25-2	Bromoform	5.50	U	1.00	5.50	ug/Kg
98-82-8	Isopropylbenzene	5.50	U	0.78	5.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.50	U	1.20	5.50	ug/Kg
103-65-1	n-propylbenzene	5.50	U	0.77	5.50	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.50	U	0.70	5.50	ug/Kg
98-06-6	tert-Butylbenzene	5.50	U	0.84	5.50	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.50	U	0.73	5.50	ug/Kg
135-98-8	sec-Butylbenzene	5.50	U	0.84	5.50	ug/Kg
99-87-6	p-Isopropyltoluene	5.50	U	0.81	5.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.50	U	0.75	5.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.50	U	0.66	5.50	ug/Kg
104-51-8	n-Butylbenzene	5.50	U	0.75	5.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.50	U	0.66	5.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.50	U	1.30	5.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.50	U	0.67	5.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.50	U	0.69	5.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.1		50 - 163	116%	SPK: 50
1868-53-7	Dibromofluoromethane	52.3		54 - 147	105%	SPK: 50
2037-26-5	Toluene-d8	55.2		58 - 134	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.1		30 - 143	100%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076753.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-07-(1-3)	SDG No.:	O3645
Lab Sample ID:	O3645-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	79.5
Sample Wt/Vol:	5.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076753.D	1		07/17/23 14:32	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	151000	7.875			
540-36-3	1,4-Difluorobenzene	332000	8.781			
3114-55-4	Chlorobenzene-d5	315000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	129000	13.516			

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\VD071723\
Data File : VD076753.D
Acq On : 17 Jul 2023 14:32
Operator : KP/SY
Sample : 03645-03
Misc : 5.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Quant Time: Jul 18 01:23:21 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

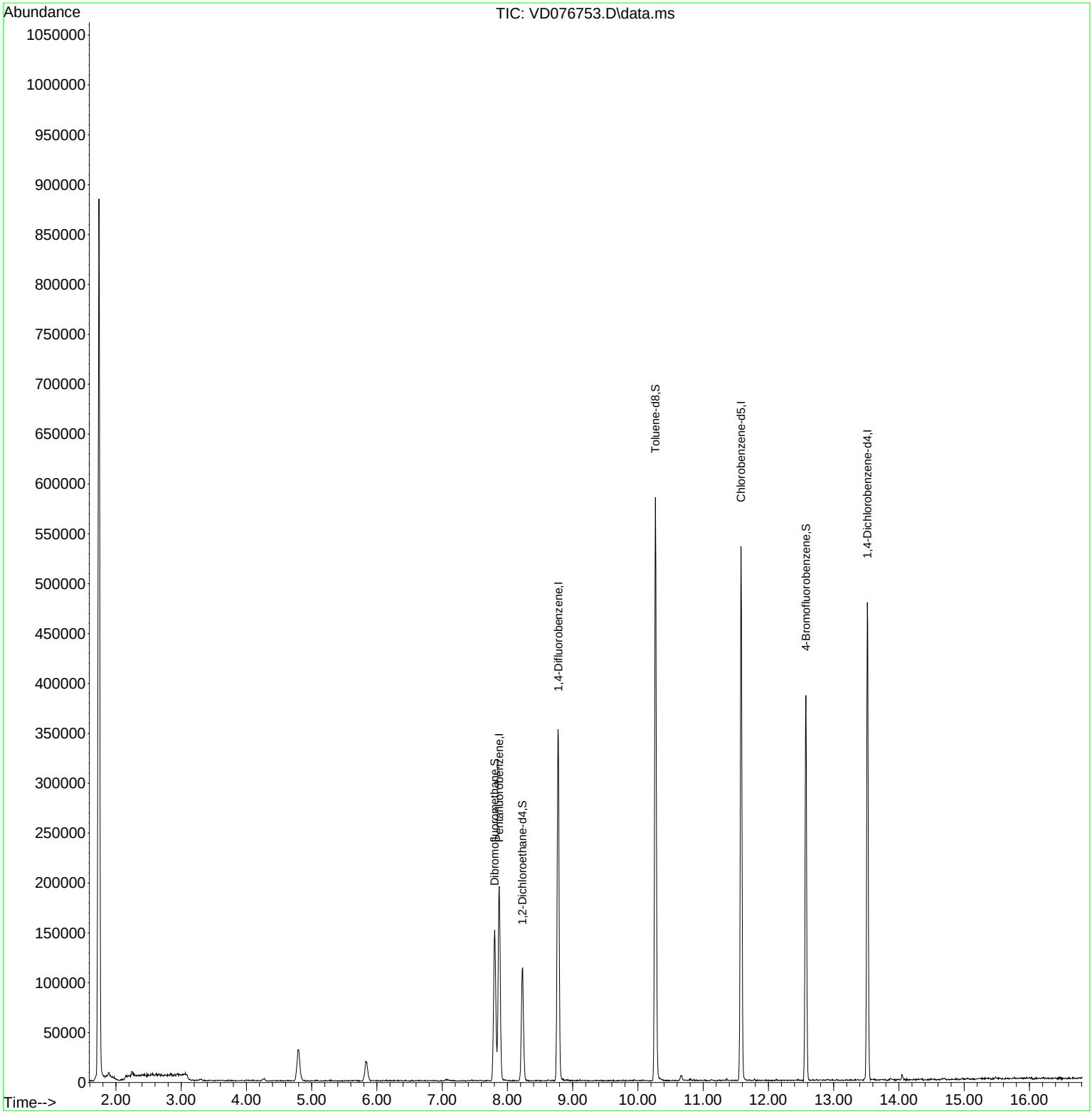
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	150618	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.781	114	331615	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	315417	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	128769	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	87169	58.105	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 116.200%			
35) Dibromofluoromethane	7.804	113	109076	52.342	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 104.680%			
50) Toluene-d8	10.269	98	411840	55.244	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 110.480%			
62) 4-Bromofluorobenzene	12.575	95	120843	50.108	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 100.220%			
Target Compounds						Qvalue

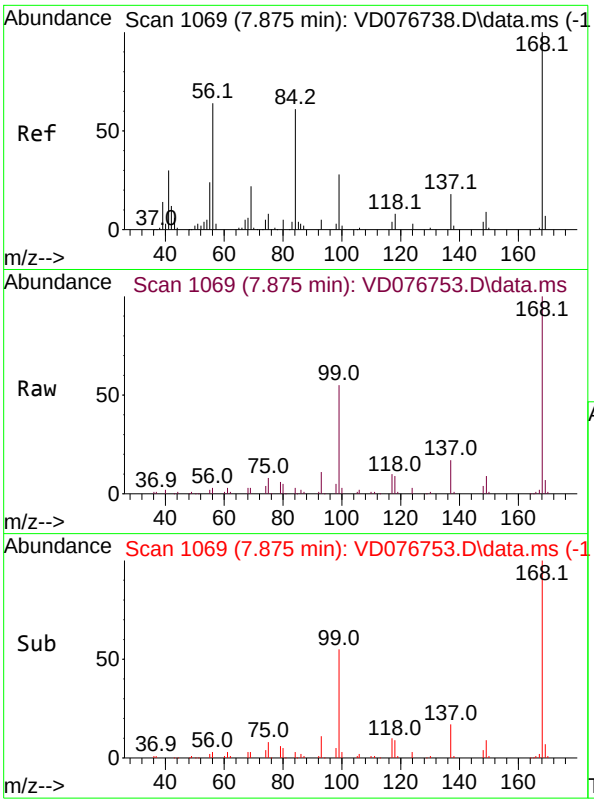
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076753.D
Acq On : 17 Jul 2023 14:32
Operator : KP/SY
Sample : 03645-03
Misc : 5.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Quant Time: Jul 18 01:23:21 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



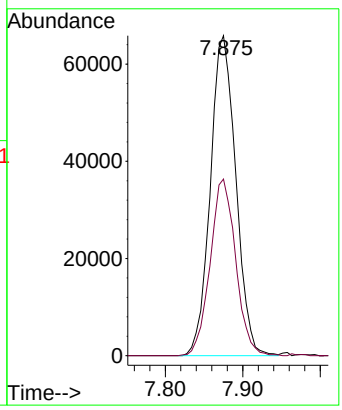


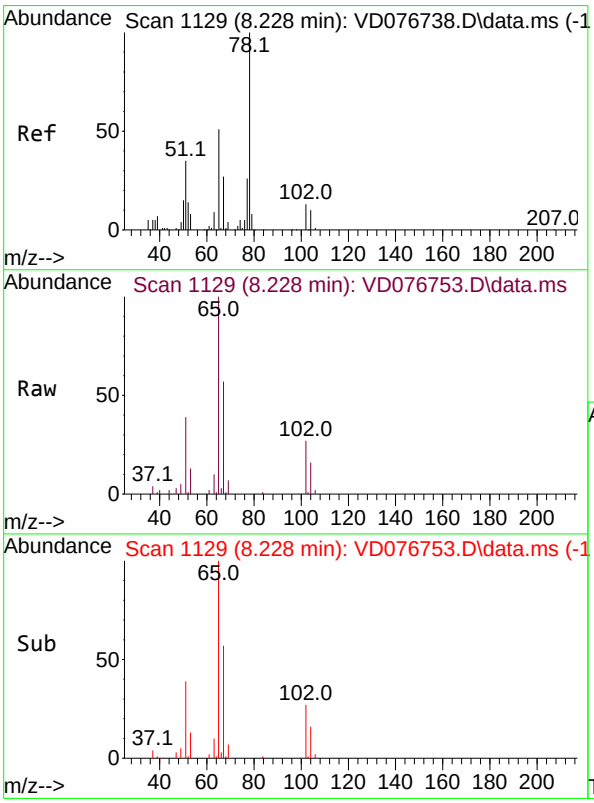
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Tgt Ion:168 Resp: 150618

Ion	Ratio	Lower	Upper
168	100		
99	55.2	36.7	55.1#

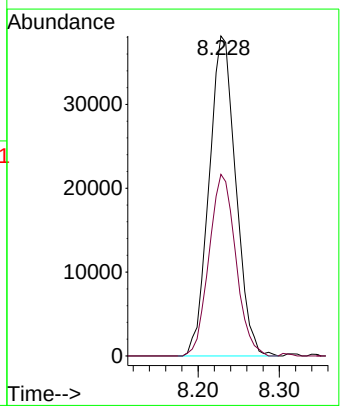


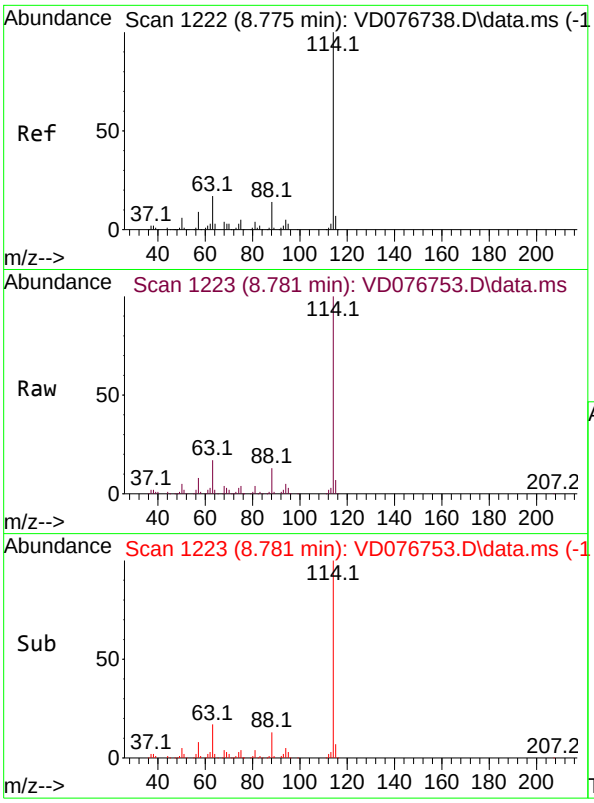


#33
1,2-Dichloroethane-d4
Concen: 58.105 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Tgt Ion: 65 Resp: 87169

Ion	Ratio	Lower	Upper
65	100		
67	56.9	0.0	115.0



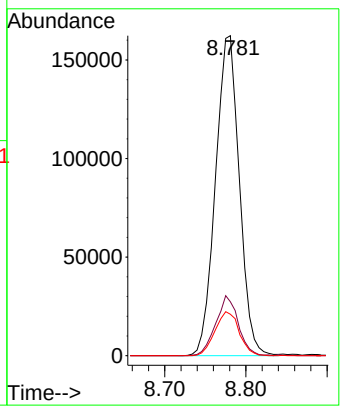


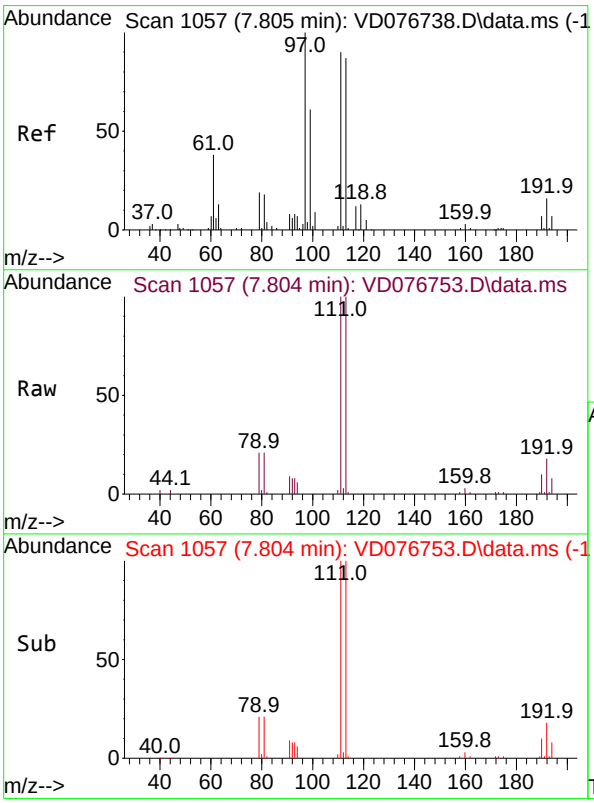
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.781 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Tgt Ion:114 Resp: 331615

Ion	Ratio	Lower	Upper
114	100		
63	16.8	0.0	33.4
88	13.0	0.0	26.2

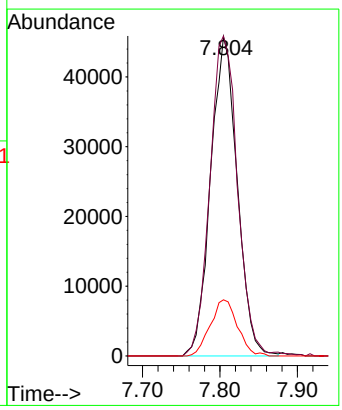


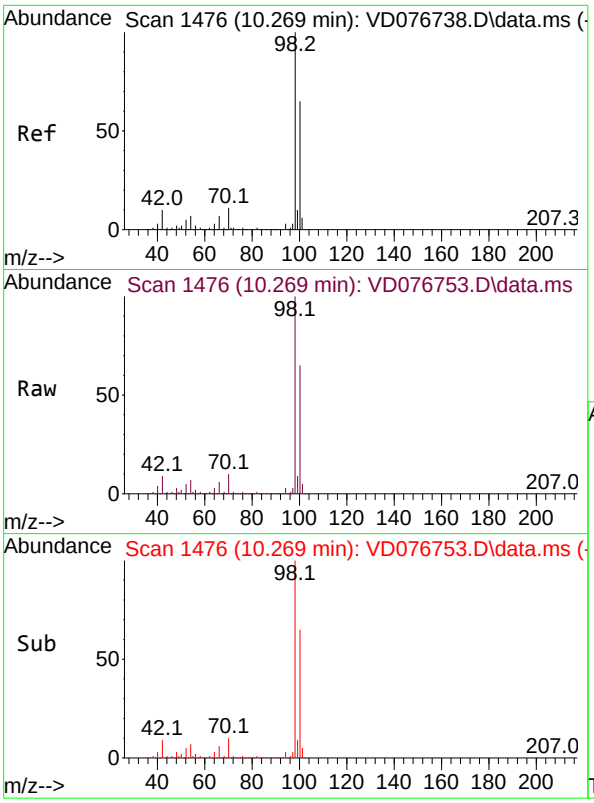


#35
Dibromofluoromethane
Concen: 52.342 ug/l
RT: 7.804 min Scan# 1057
Delta R.T. -0.001 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Tgt Ion:113 Resp: 109076

Ion	Ratio	Lower	Upper
113	100		
111	104.7	84.7	127.1
192	18.0	16.8	25.2



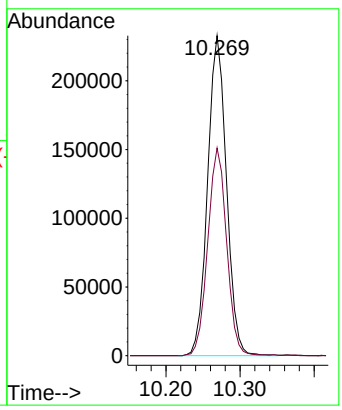


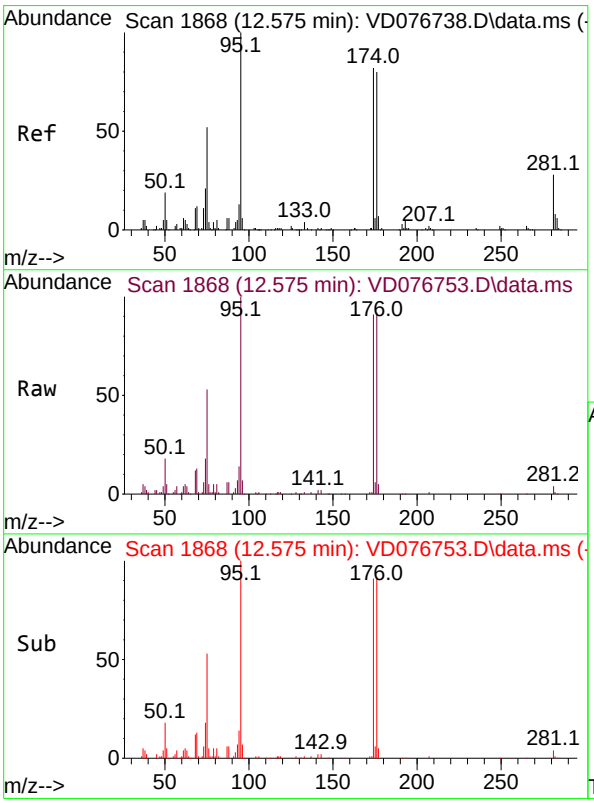
#50
Toluene-d8
Concen: 55.244 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Tgt Ion: 98 Resp: 411840

Ion	Ratio	Lower	Upper
98	100		
100	65.1	50.3	75.5

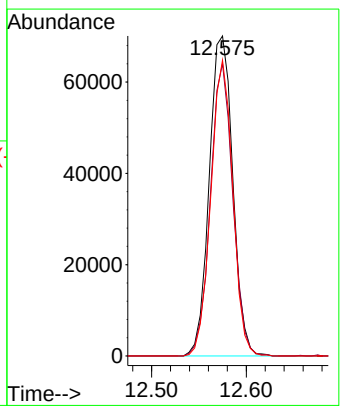


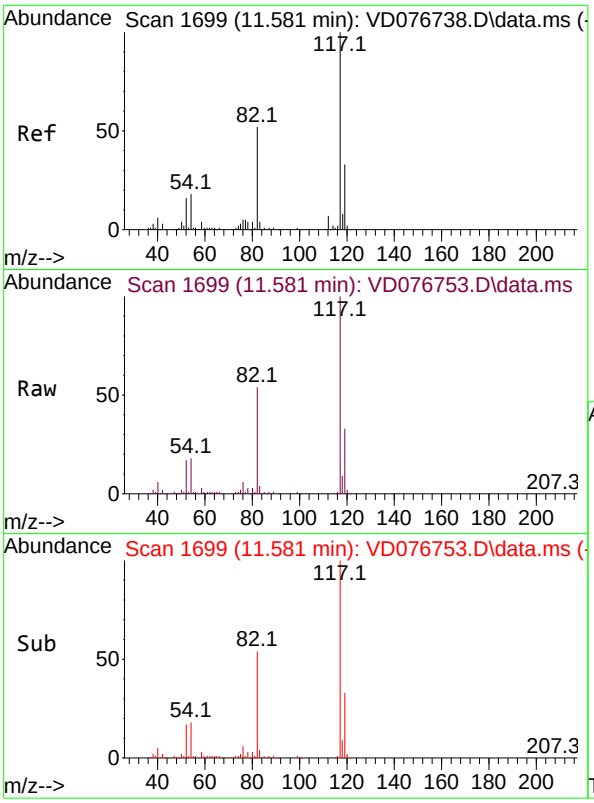


#62
4-Bromofluorobenzene
Concen: 50.108 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Tgt Ion: 95 Resp: 120843

Ion	Ratio	Lower	Upper
95	100		
174	86.8	0.0	201.8
176	86.3	0.0	191.8



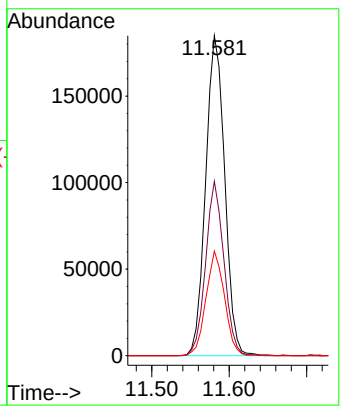


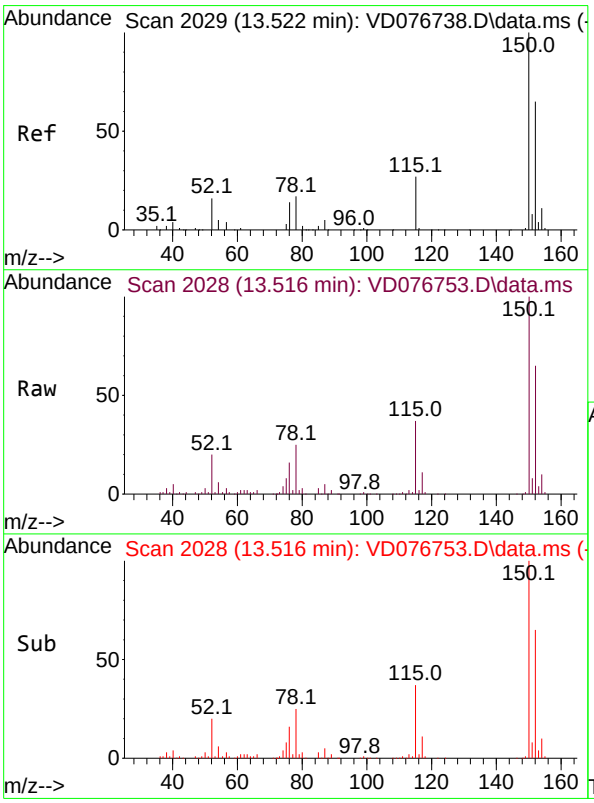
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Tgt Ion:117 Resp: 315417

Ion	Ratio	Lower	Upper
117	100		
82	54.5	38.3	57.5
119	32.7	25.0	37.4

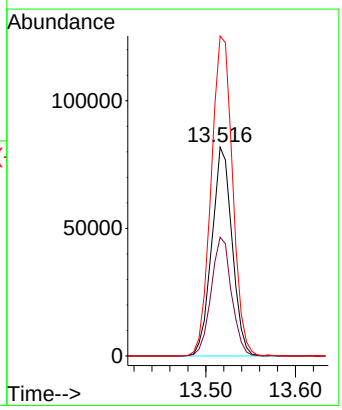




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076753.D
Acq: 17 Jul 2023 14:32

Tgt Ion:152 Resp: 128769

Ion	Ratio	Lower	Upper
152	100		
115	57.1	27.1	81.3
150	161.2	0.0	353.6



Sample Results: **VD076753.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076753.D
Acq On : 17 Jul 2023 14:32
Operator : KP/SY
Sample : 03645-03
Misc : 5.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076753.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	11	26	38	rBV	884501	1639909	100.00%	23.606%
2	4.793	534	545	557	rBV4	31619	102095	6.23%	1.470%
3	5.828	713	721	722	rBV	19490	29937	1.83%	0.431%
4	7.804	1047	1057	1063	rBV	151329	365314	22.28%	5.259%
5	7.875	1063	1069	1079	rVB2	194306	440245	26.85%	6.337%
6	8.234	1117	1130	1139	rBV	113044	261206	15.93%	3.760%
7	8.775	1213	1222	1232	rBV	352509	729477	44.48%	10.501%
8	10.269	1467	1476	1486	rBV	584937	1048724	63.95%	15.096%
9	11.581	1691	1699	1713	rBV	535733	904798	55.17%	13.024%
10	12.575	1861	1868	1877	rBV	386513	642443	39.18%	9.248%
11	13.516	2018	2028	2036	rBV	479270	782825	47.74%	11.269%

Sum of corrected areas: 6946973

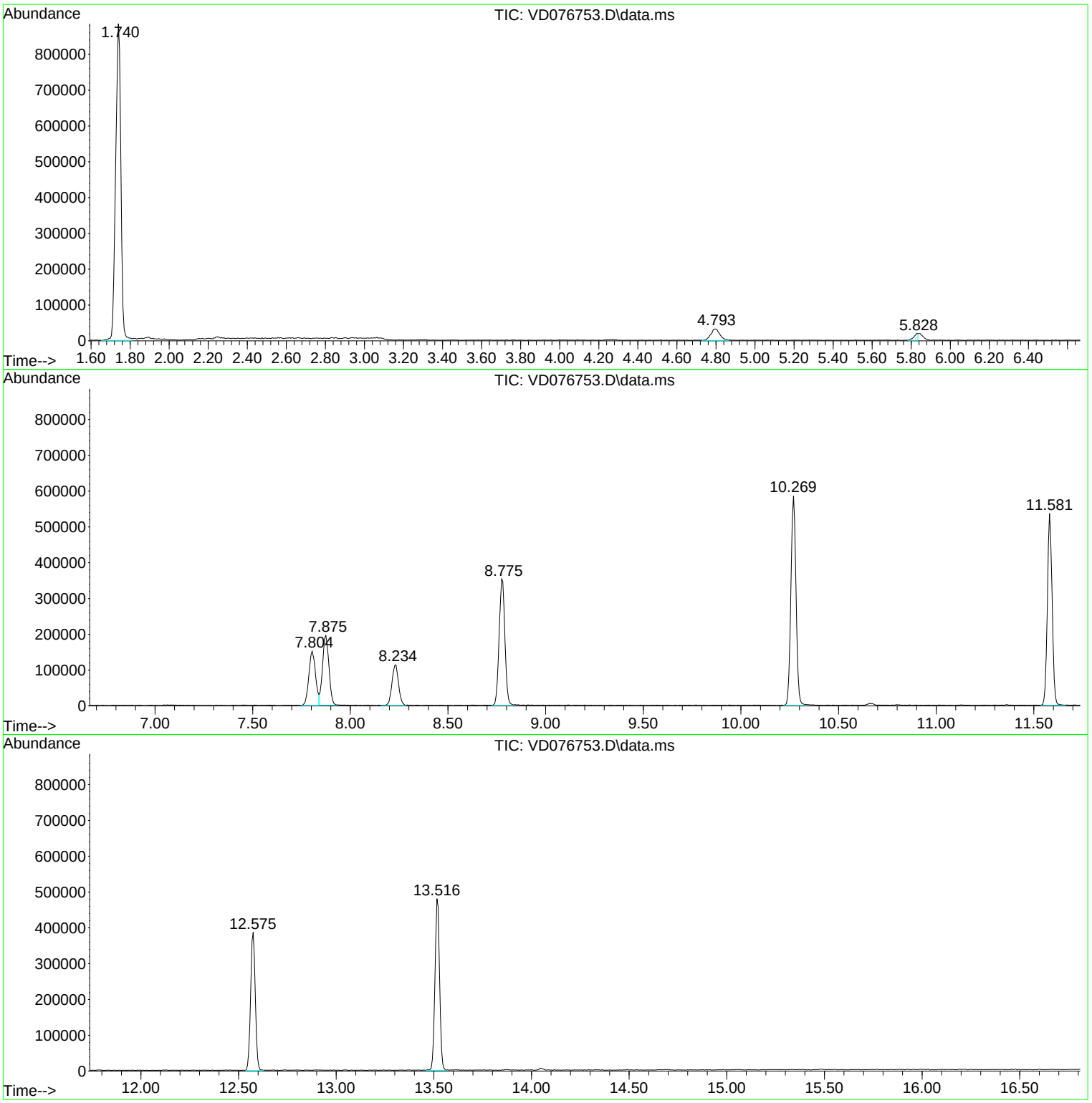
Sample Results: **VD076753.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076753.D
Acq On : 17 Jul 2023 14:32
Operator : KP/SY
Sample : 03645-03
Misc : 5.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VD076753.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076753.D
Acq On : 17 Jul 2023 14:32
Operator : KP/SY
Sample : 03645-03
Misc : 5.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.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\VD071723\
Data File : VD076753.D
Acq On : 17 Jul 2023 14:32
Operator : KP/SY
Sample : 03645-03
Misc : 5.74G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-07-(1-3)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.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 #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-08-(0.5-2.0)	SDG No.:	O3645
Lab Sample ID:	O3645-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	74.6
Sample Wt/Vol:	5.67 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076754.D	1		07/17/23 15:01	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.90	U	1.90	5.90	ug/Kg
74-87-3	Chloromethane	5.90	U	1.10	5.90	ug/Kg
75-01-4	Vinyl Chloride	5.90	U	1.10	5.90	ug/Kg
74-83-9	Bromomethane	5.90	U	1.40	5.90	ug/Kg
75-00-3	Chloroethane	5.90	U	1.00	5.90	ug/Kg
75-69-4	Trichlorofluoromethane	5.90	U	1.30	5.90	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.90	U	0.85	5.90	ug/Kg
75-35-4	1,1-Dichloroethene	5.90	U	0.93	5.90	ug/Kg
67-64-1	Acetone	29.6	U	11.1	29.6	ug/Kg
75-15-0	Carbon Disulfide	5.90	U	2.60	5.90	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.90	U	0.77	5.90	ug/Kg
79-20-9	Methyl Acetate	5.90	U	1.90	5.90	ug/Kg
75-09-2	Methylene Chloride	11.8	U	7.20	11.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.90	U	0.86	5.90	ug/Kg
75-34-3	1,1-Dichloroethane	5.90	U	0.85	5.90	ug/Kg
110-82-7	Cyclohexane	2.00	J	0.83	5.90	ug/Kg
78-93-3	2-Butanone	29.6	U	8.60	29.6	ug/Kg
56-23-5	Carbon Tetrachloride	5.90	U	0.92	5.90	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.90	U	0.76	5.90	ug/Kg
74-97-5	Bromochloromethane	5.90	U	2.80	5.90	ug/Kg
67-66-3	Chloroform	5.90	U	1.60	5.90	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.90	U	0.90	5.90	ug/Kg
108-87-2	Methylcyclohexane	5.90	U	4.00	5.90	ug/Kg
71-43-2	Benzene	5.90	U	0.78	5.90	ug/Kg
107-06-2	1,2-Dichloroethane	5.90	U	0.85	5.90	ug/Kg
79-01-6	Trichloroethene	5.90	U	0.78	5.90	ug/Kg
78-87-5	1,2-Dichloropropane	5.90	U	0.70	5.90	ug/Kg
75-27-4	Bromodichloromethane	5.90	U	0.83	5.90	ug/Kg
108-10-1	4-Methyl-2-Pentanone	29.6	U	5.30	29.6	ug/Kg
108-88-3	Toluene	5.90	U	0.77	5.90	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.90	U	0.91	5.90	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.90	U	0.87	5.90	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-08-(0.5-2.0)	SDG No.:	O3645
Lab Sample ID:	O3645-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	74.6
Sample Wt/Vol:	5.67 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076754.D	1		07/17/23 15:01	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	5.90	U	1.00	5.90	ug/Kg
591-78-6	2-Hexanone	29.6	U	6.20	29.6	ug/Kg
124-48-1	Dibromochloromethane	5.90	U	1.00	5.90	ug/Kg
106-93-4	1,2-Dibromoethane	5.90	U	0.93	5.90	ug/Kg
127-18-4	Tetrachloroethene	5.90	U	0.91	5.90	ug/Kg
108-90-7	Chlorobenzene	5.90	U	0.74	5.90	ug/Kg
100-41-4	Ethyl Benzene	5.90	U	0.79	5.90	ug/Kg
179601-23-1	m/p-Xylenes	11.8	U	1.70	11.8	ug/Kg
1330-20-7	Total Xylenes	17.7	U	2.61	17.7	ug/Kg
95-47-6	o-Xylene	5.90	U	0.91	5.90	ug/Kg
100-42-5	Styrene	5.90	U	0.82	5.90	ug/Kg
75-25-2	Bromoform	5.90	U	1.10	5.90	ug/Kg
98-82-8	Isopropylbenzene	5.90	U	0.84	5.90	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.90	U	1.30	5.90	ug/Kg
103-65-1	n-propylbenzene	5.90	U	0.83	5.90	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.90	U	0.76	5.90	ug/Kg
98-06-6	tert-Butylbenzene	5.90	U	0.91	5.90	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.90	U	0.79	5.90	ug/Kg
135-98-8	sec-Butylbenzene	5.90	U	0.91	5.90	ug/Kg
99-87-6	p-Isopropyltoluene	5.90	U	0.87	5.90	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.90	U	0.80	5.90	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.90	U	0.71	5.90	ug/Kg
104-51-8	n-Butylbenzene	5.90	U	0.80	5.90	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.90	U	0.71	5.90	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.90	U	1.40	5.90	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.90	U	0.72	5.90	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.90	U	0.74	5.90	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	65.5		50 - 163	131%	SPK: 50
1868-53-7	Dibromofluoromethane	55.4		54 - 147	111%	SPK: 50
2037-26-5	Toluene-d8	54.8		58 - 134	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.7		30 - 143	81%	SPK: 50
INTERNAL STANDARDS						

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-08-(0.5-2.0)	SDG No.:	O3645
Lab Sample ID:	O3645-04	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	74.6
Sample Wt/Vol:	5.67 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076754.D	1		07/17/23 15:01	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	151000	7.875			
540-36-3	1,4-Difluorobenzene	339000	8.775			
3114-55-4	Chlorobenzene-d5	298000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	92300	13.516			
TENTATIVE IDENTIFIED COMPOUNDS						
1010386-40-2	2-Ethyl-oxetane	9.70	J		5.84	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

Sample Results: **VD076754.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076754.D
Acq On : 17 Jul 2023 15:01
Operator : KP/SY
Sample : 03645-04
Misc : 5.67G/5.0ml/MSVOA_D/SOIL
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Quant Time: Jul 18 01:23:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

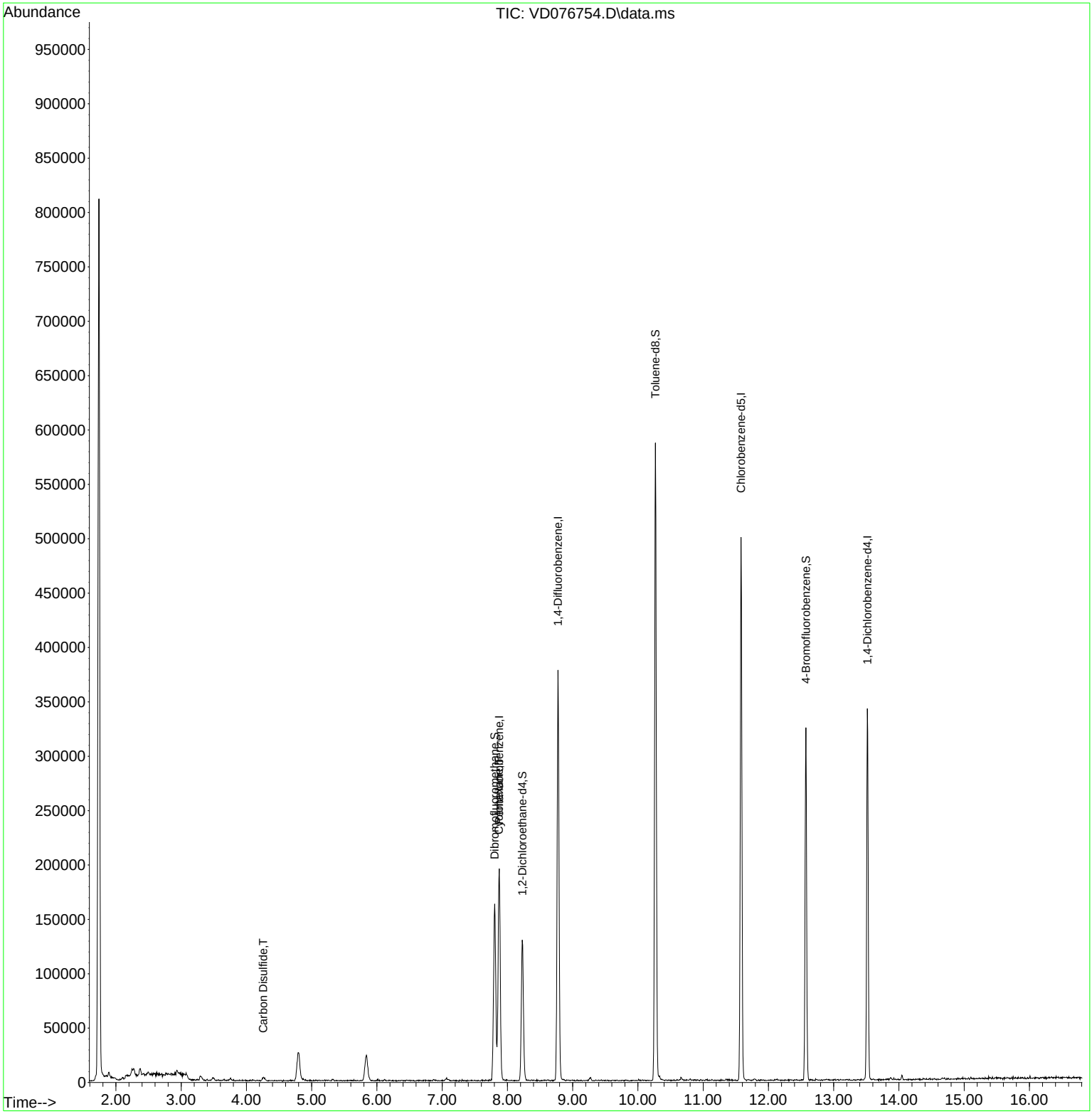
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	151025	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	339221	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	298250	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	92343	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	98541	65.508	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 131.020%			
35) Dibromofluoromethane	7.805	113	118036	55.372	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 110.740%			
50) Toluene-d8	10.269	98	418205	54.840	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 109.680%			
62) 4-Bromofluorobenzene	12.575	95	100296	40.656	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 81.320%			
Target Compounds						Qvalue
17) Carbon Disulfide	4.258	76	5724	1.642	ug/l #	76
31) Cyclohexane	7.869	56	3656	1.651	ug/l #	46

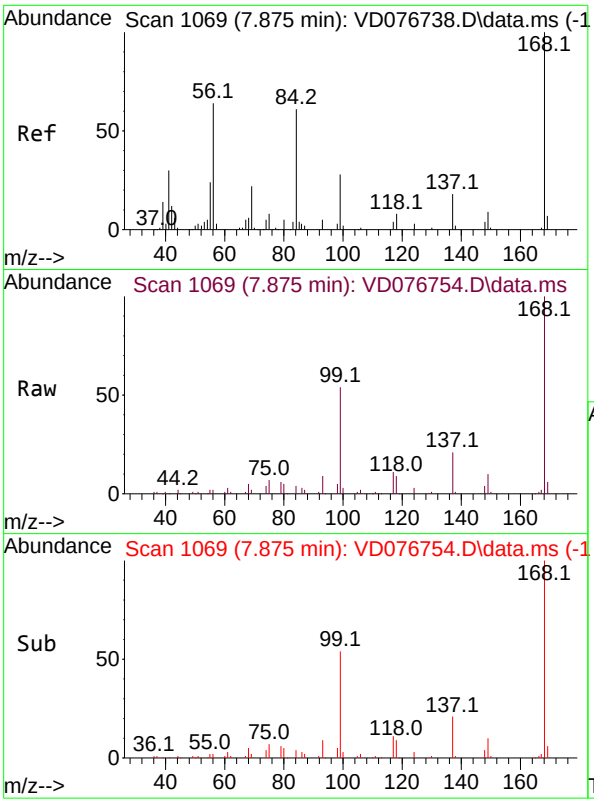
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076754.D
Acq On : 17 Jul 2023 15:01
Operator : KP/SY
Sample : 03645-04
Misc : 5.67G/5.0ml/MSVOA_D/SOIL
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Quant Time: Jul 18 01:23:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



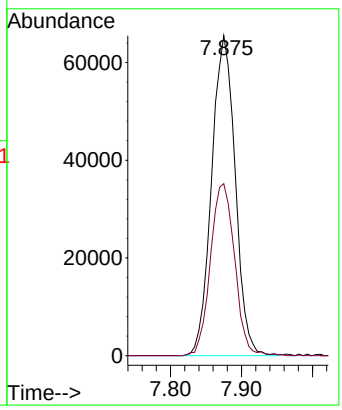


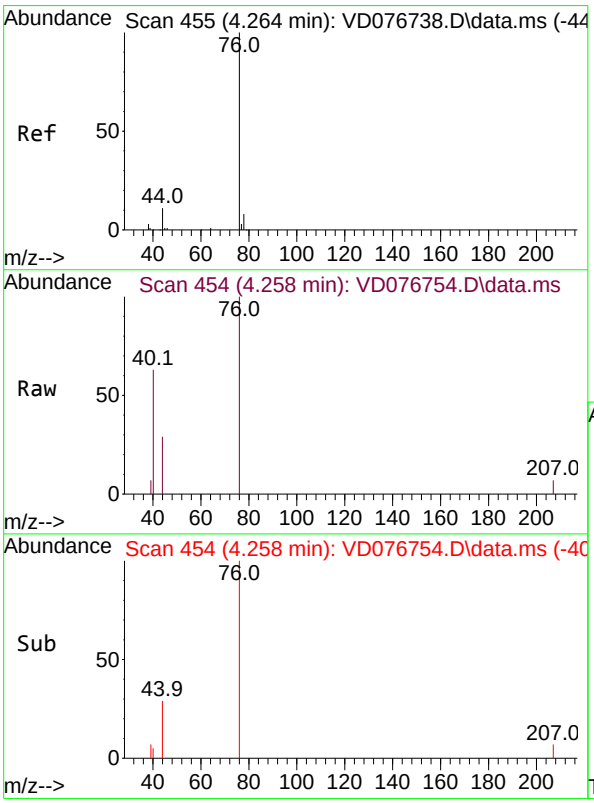
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Tgt Ion:168 Resp: 151025

Ion	Ratio	Lower	Upper
168	100		
99	53.8	36.7	55.1

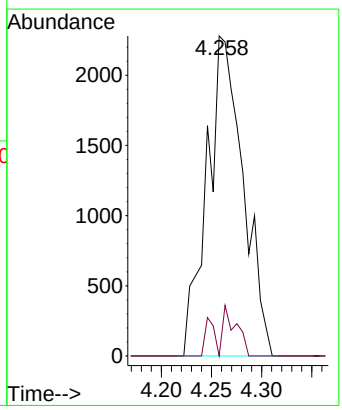


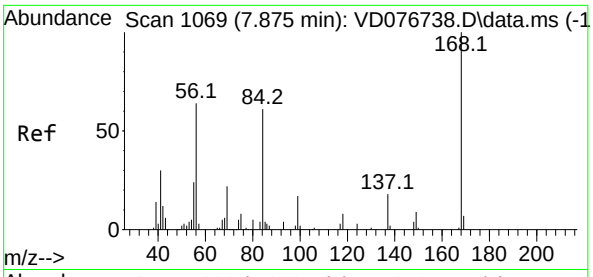


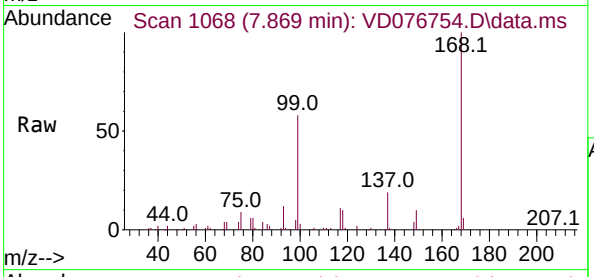
#17
Carbon Disulfide
Concen: 1.642 ug/l
RT: 4.258 min Scan# 454
Delta R.T. -0.006 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

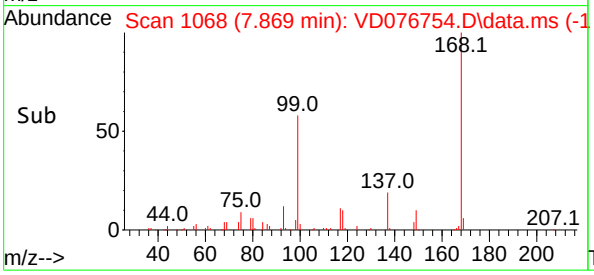
Tgt Ion: 76 Resp: 5724

Ion	Ratio	Lower	Upper
76	100		
78	0.0	6.8	10.2#







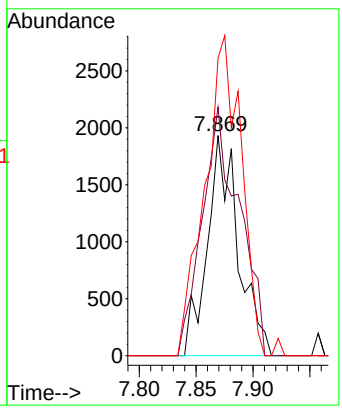


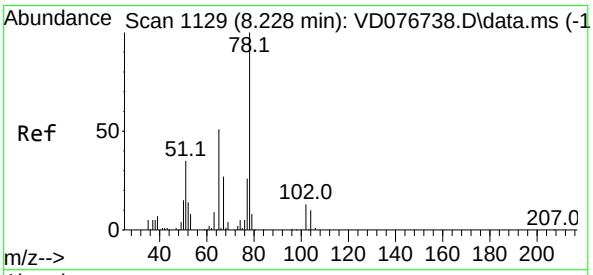
#31
Cyclohexane
Concen: 1.651 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

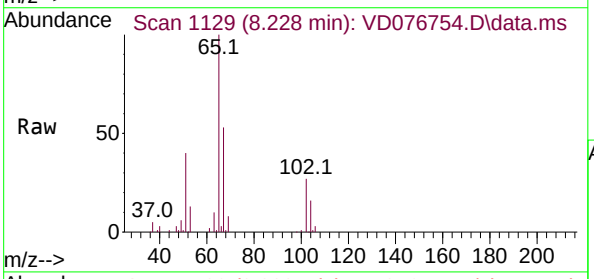
Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

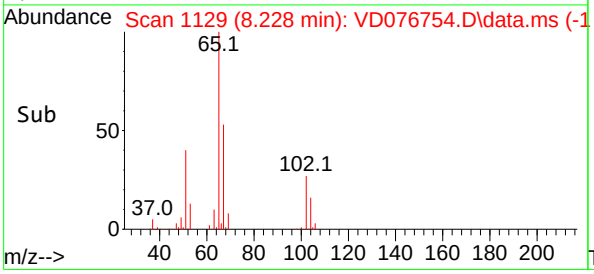
Tgt Ion: 56 Resp: 3656

Ion	Ratio	Lower	Upper
56	100		
69	112.8	28.6	43.0#
84	135.2	84.8	127.2#





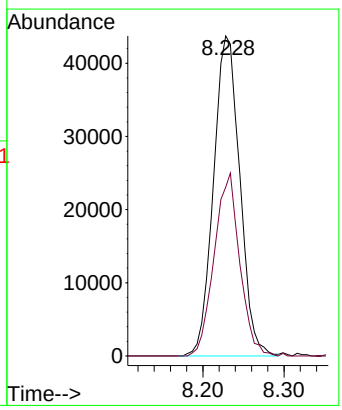


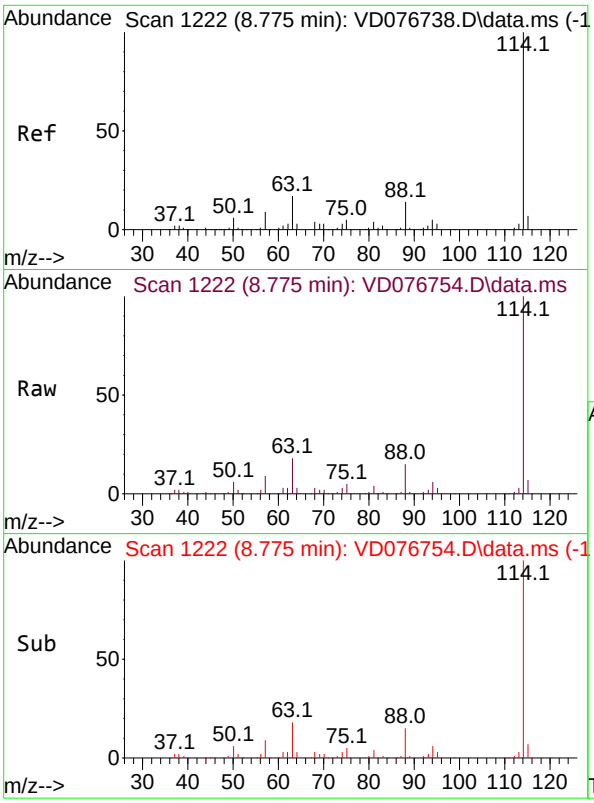


#33
1,2-Dichloroethane-d4
Concen: 65.508 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Tgt Ion: 65 Resp: 98541

Ion	Ratio	Lower	Upper
65	100		
67	55.2	0.0	115.0



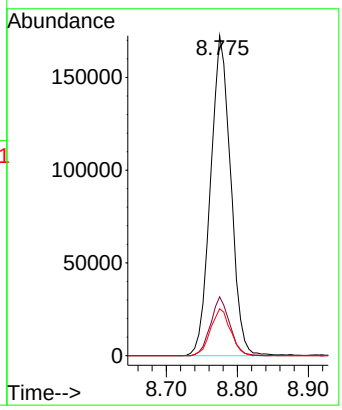


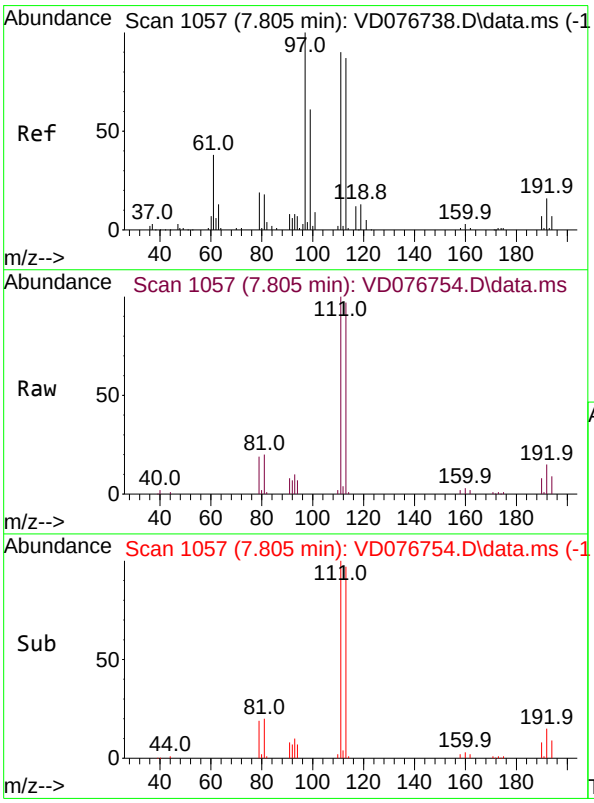
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Tgt Ion:114 Resp: 339221

Ion	Ratio	Lower	Upper
114	100		
63	18.4	0.0	33.4
88	14.7	0.0	26.2

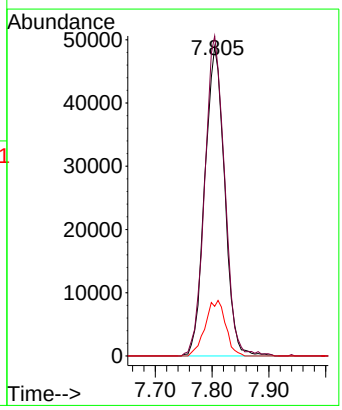


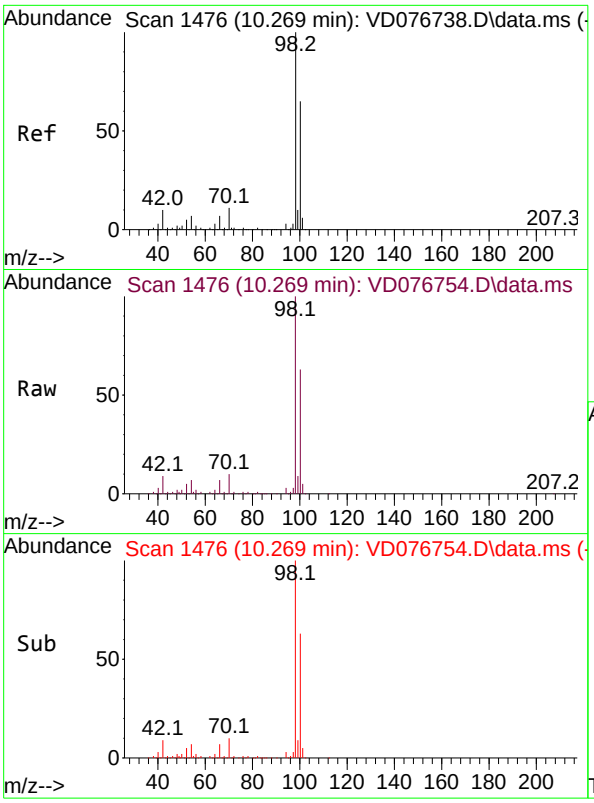


#35
Dibromofluoromethane
Concen: 55.372 ug/l
RT: 7.805 min Scan# 1057
Delta R.T. -0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Tgt Ion:113 Resp: 118036

Ion	Ratio	Lower	Upper
113	100		
111	104.0	84.7	127.1
192	18.5	16.8	25.2



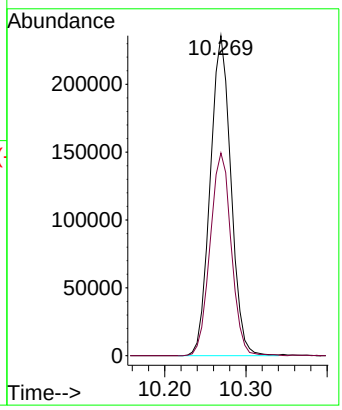


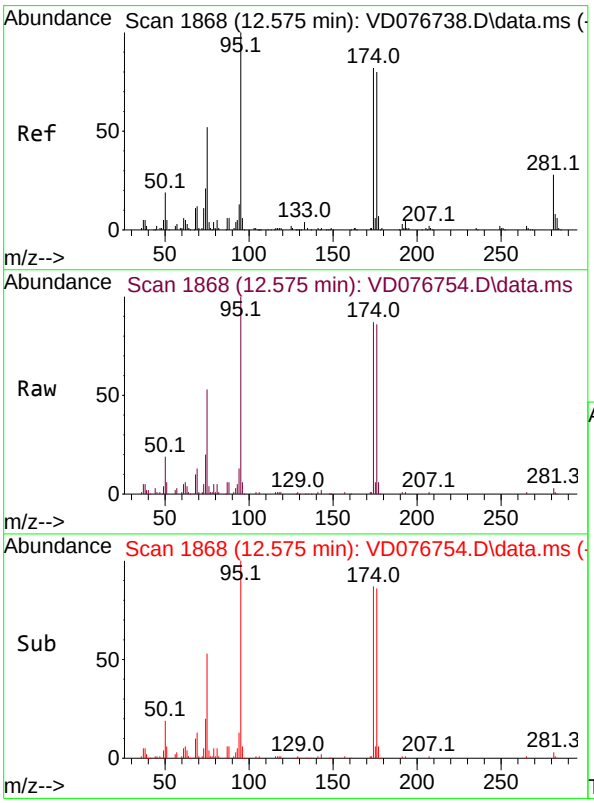
#50
Toluene-d8
Concen: 54.840 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Tgt Ion: 98 Resp: 418205

Ion	Ratio	Lower	Upper
98	100		
100	64.6	50.3	75.5

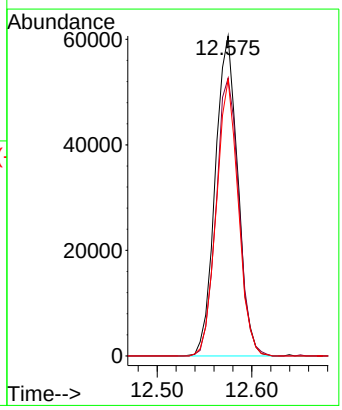


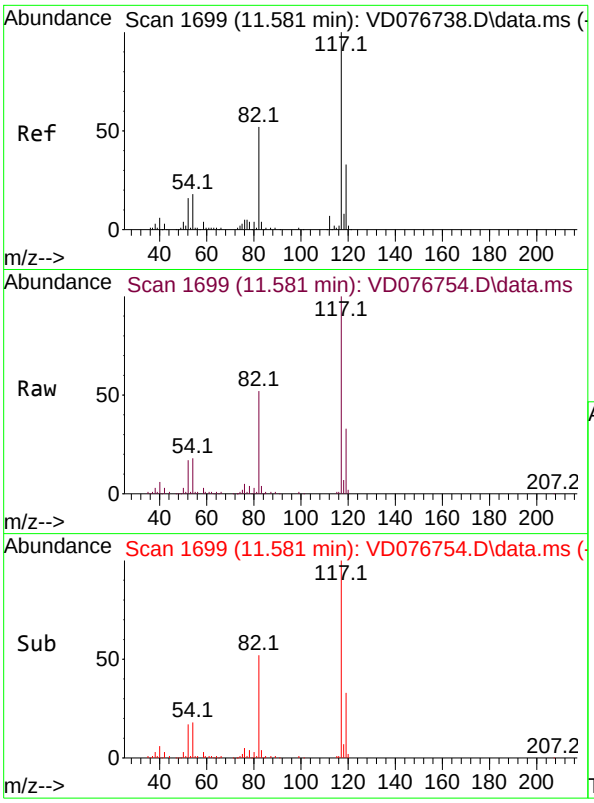


#62
4-Bromofluorobenzene
Concen: 40.656 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Tgt Ion: 95 Resp: 100296

Ion	Ratio	Lower	Upper
95	100		
174	87.6	0.0	201.8
176	83.7	0.0	191.8



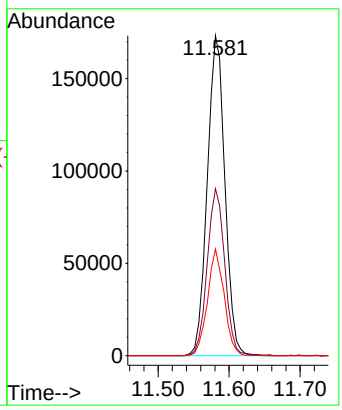


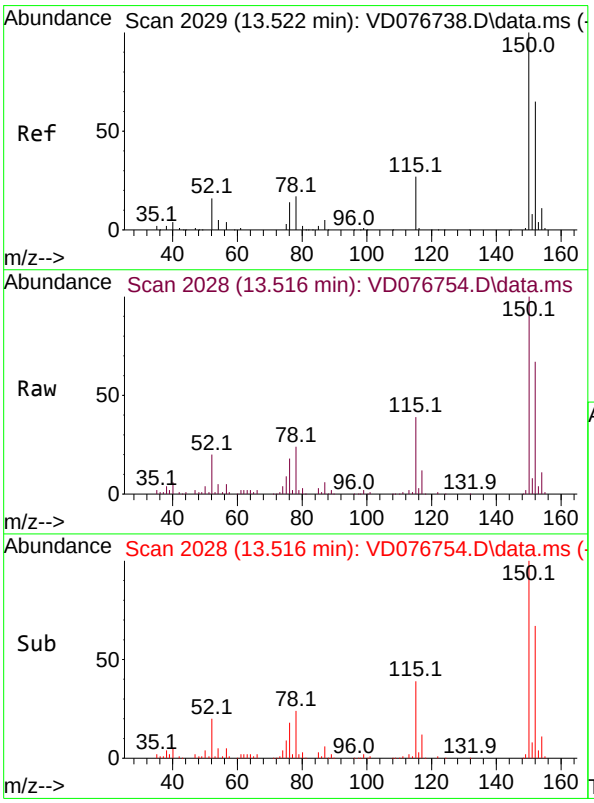
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Tgt Ion:117 Resp: 298250

Ion	Ratio	Lower	Upper
117	100		
82	52.2	38.3	57.5
119	33.3	25.0	37.4

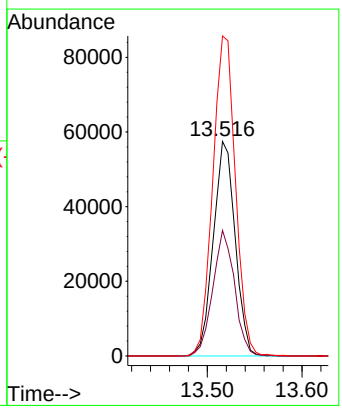




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076754.D
Acq: 17 Jul 2023 15:01

Tgt Ion:152 Resp: 92343

Ion	Ratio	Lower	Upper
152	100		
115	58.1	27.1	81.3
150	154.5	0.0	353.6



Sample Results: **VD076754.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076754.D
Acq On : 17 Jul 2023 15:01
Operator : KP/SY
Sample : 03645-04
Misc : 5.67G/5.0ml/MSVOA_D/SOIL
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076754.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	18	26	41	rVB	807174	1480572	100.00%	22.735%
2	4.793	535	545	557	rBV5	26194	85839	5.80%	1.318%
3	5.840	713	723	736	rVB4	23458	73532	4.97%	1.129%
4	7.805	1047	1057	1063	rBV2	162596	392199	26.49%	6.023%
5	7.875	1063	1069	1079	rVB	194573	446136	30.13%	6.851%
6	8.228	1120	1129	1140	rBV	129483	295246	19.94%	4.534%
7	8.775	1214	1222	1234	rBV	377114	745844	50.38%	11.453%
8	10.269	1468	1476	1486	rBV	586138	1054642	71.23%	16.195%
9	11.581	1690	1699	1711	rBV	499799	851148	57.49%	13.070%
10	12.575	1861	1868	1877	rVB	324723	532334	35.95%	8.174%
11	13.516	2018	2028	2040	rBV	341745	554736	37.47%	8.518%

Sum of corrected areas: 6512228

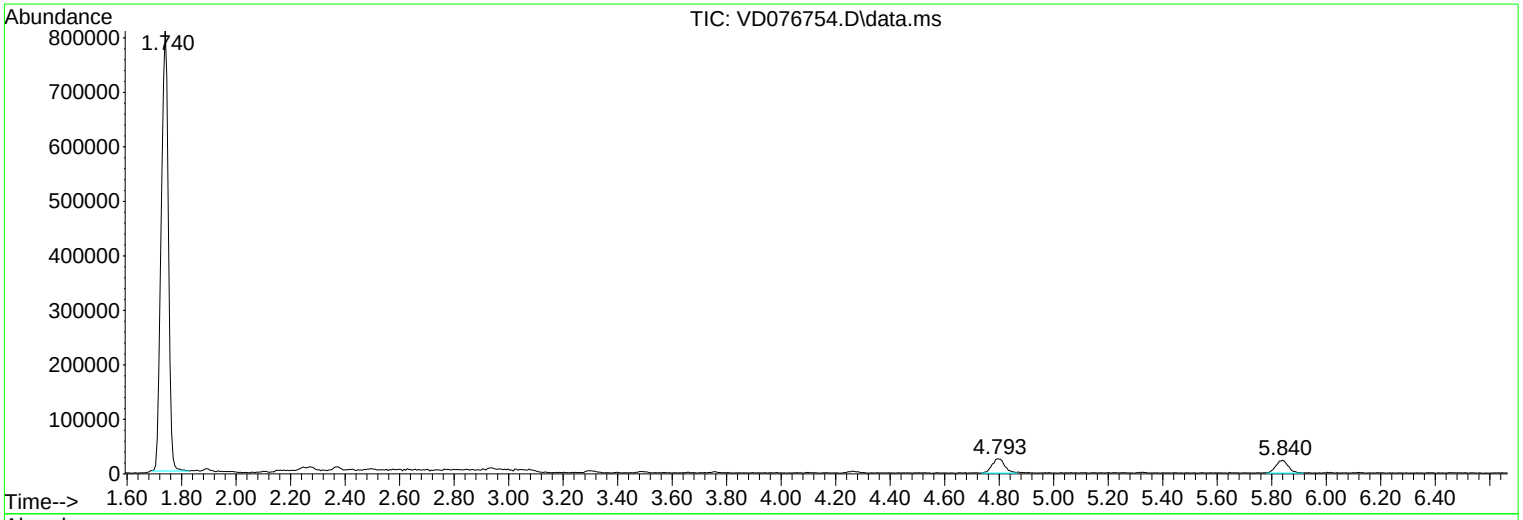
Sample Results: **VD076754.D**

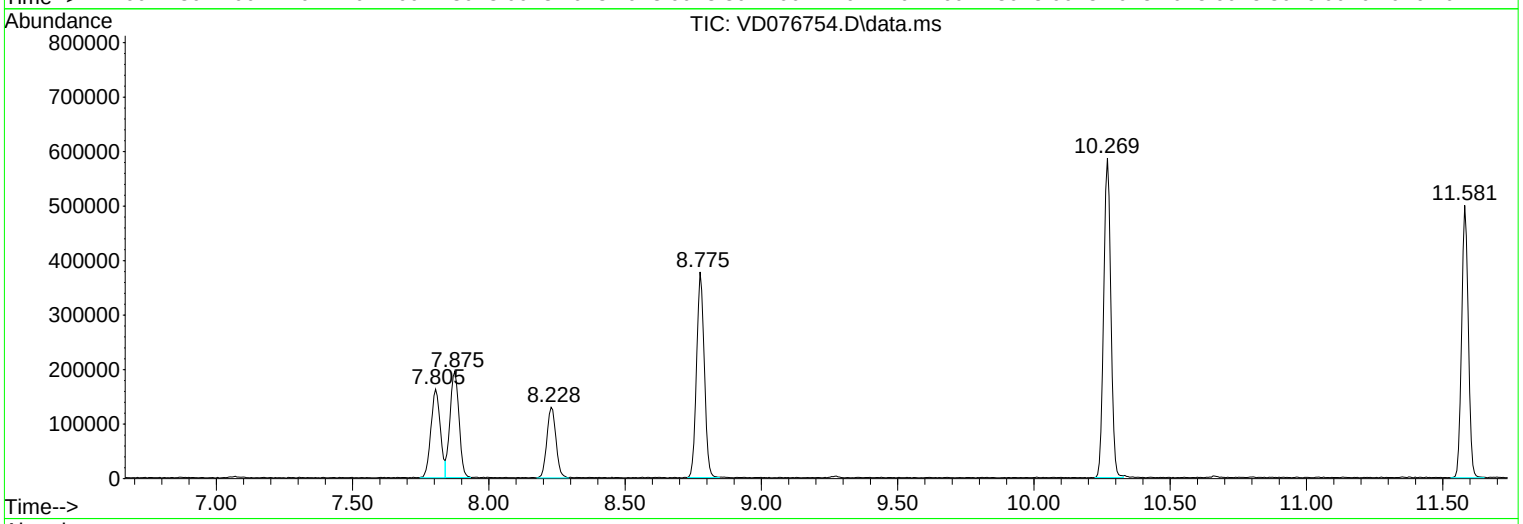
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076754.D
Acq On : 17 Jul 2023 15:01
Operator : KP/SY
Sample : 03645-04
Misc : 5.67G/5.0ml/MSVOA_D/SOIL
ALS Vial : 12 Sample Multiplier: 1

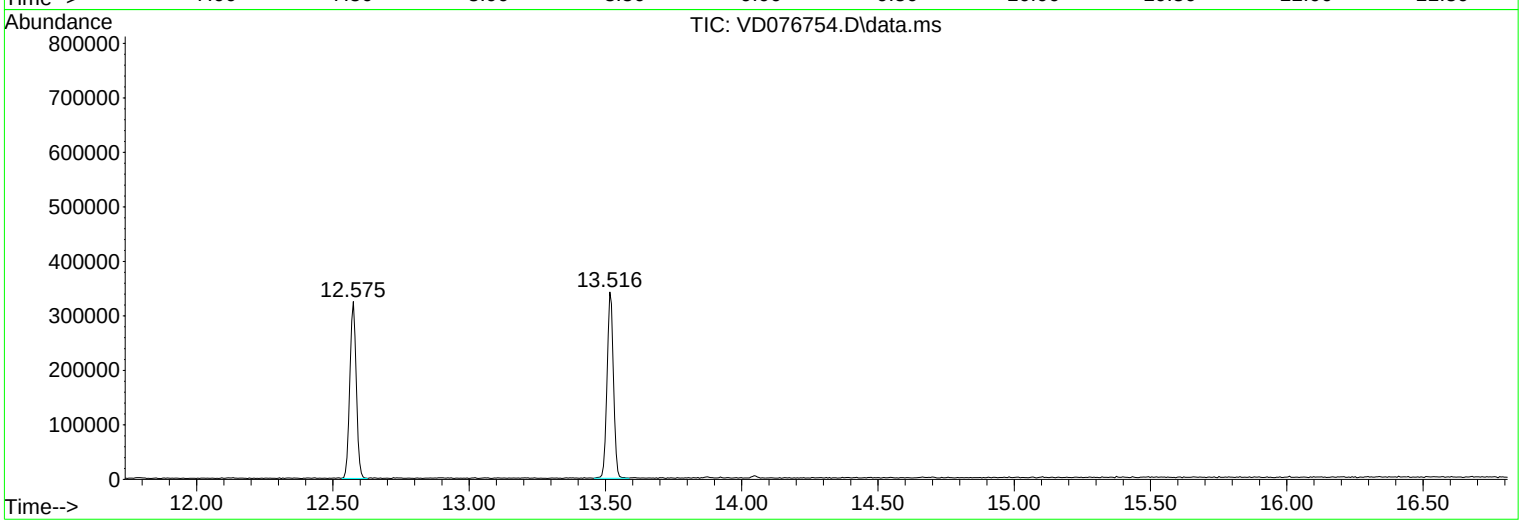
Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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







Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076754.D
Acq On : 17 Jul 2023 15:01
Operator : KP/SY
Sample : 03645-04
Misc : 5.67G/5.0ml/MSVOA_D/SOIL
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

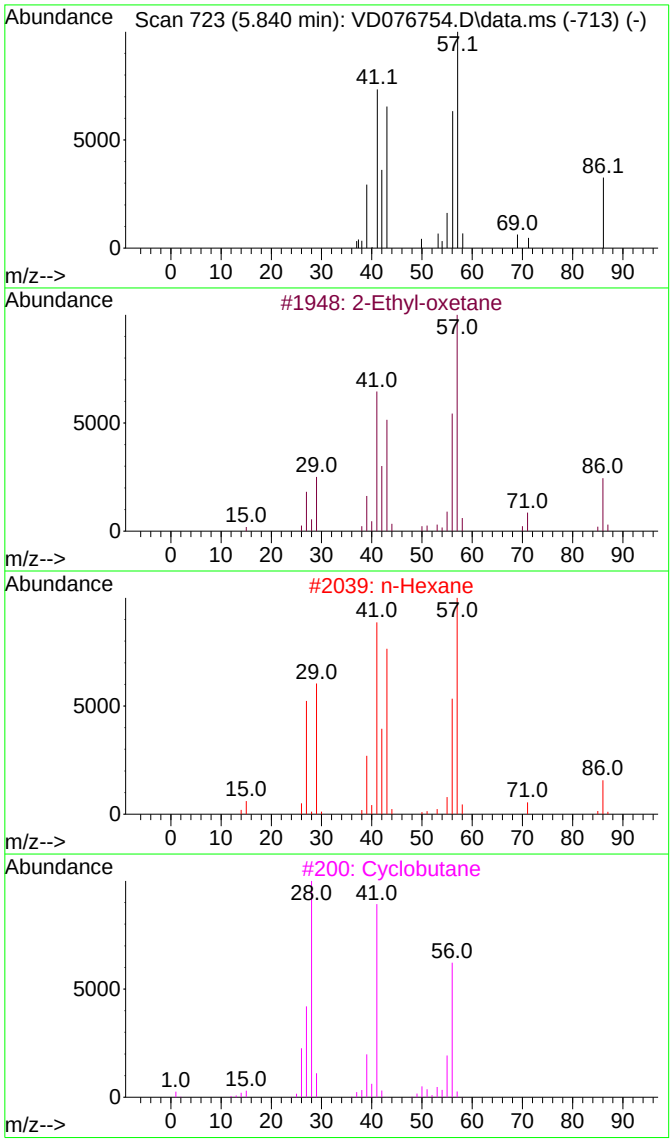
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

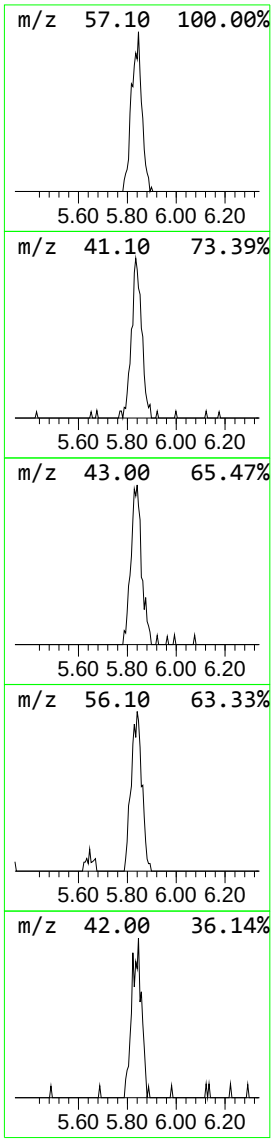
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 2-Ethyl-oxetane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.840	8.24 ug/l	73532	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethyl-oxetane	86	C5H10O	1010386-40-2	80
2	n-Hexane	86	C6H14	000110-54-3	64
3	Cyclobutane	56	C4H8	000287-23-0	38
4	Tetrahydropyran	86	C5H10O	000142-68-7	38
5	Hydroperoxide, hexyl	118	C6H14O2	004312-76-9	37





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076754.D
Acq On : 17 Jul 2023 15:01
Operator : KP/SY
Sample : 03645-04
Misc : 5.67G/5.0ml/MSVOA_D/SOIL
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-08-(0.5-2.0)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
2-Ethyl-oxetane	5.840	8.2	ug/l	73532	1	7.875	446136	50.0

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-10-(0.5-2.0)	SDG No.:	O3645
Lab Sample ID:	O3645-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.3
Sample Wt/Vol:	4.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076756.D	1		07/17/23 15:57	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	6.10	U	2.00	6.10	ug/Kg
74-87-3	Chloromethane	6.10	U	1.10	6.10	ug/Kg
75-01-4	Vinyl Chloride	6.10	U	1.10	6.10	ug/Kg
74-83-9	Bromomethane	6.10	U	1.50	6.10	ug/Kg
75-00-3	Chloroethane	6.10	U	1.10	6.10	ug/Kg
75-69-4	Trichlorofluoromethane	6.10	U	1.30	6.10	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	6.10	U	0.88	6.10	ug/Kg
75-35-4	1,1-Dichloroethene	6.10	U	0.96	6.10	ug/Kg
67-64-1	Acetone	30.5	U	11.4	30.5	ug/Kg
75-15-0	Carbon Disulfide	6.10	U	2.70	6.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	6.10	U	0.79	6.10	ug/Kg
79-20-9	Methyl Acetate	6.10	U	2.00	6.10	ug/Kg
75-09-2	Methylene Chloride	12.2	U	7.40	12.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	6.10	U	0.89	6.10	ug/Kg
75-34-3	1,1-Dichloroethane	6.10	U	0.88	6.10	ug/Kg
110-82-7	Cyclohexane	2.10	J	0.85	6.10	ug/Kg
78-93-3	2-Butanone	30.5	U	8.90	30.5	ug/Kg
56-23-5	Carbon Tetrachloride	6.10	U	0.95	6.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	6.10	U	0.78	6.10	ug/Kg
74-97-5	Bromochloromethane	6.10	U	2.90	6.10	ug/Kg
67-66-3	Chloroform	6.10	U	1.60	6.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	6.10	U	0.93	6.10	ug/Kg
108-87-2	Methylcyclohexane	6.10	U	4.10	6.10	ug/Kg
71-43-2	Benzene	6.10	U	0.81	6.10	ug/Kg
107-06-2	1,2-Dichloroethane	6.10	U	0.88	6.10	ug/Kg
79-01-6	Trichloroethene	6.10	U	0.81	6.10	ug/Kg
78-87-5	1,2-Dichloropropane	6.10	U	0.72	6.10	ug/Kg
75-27-4	Bromodichloromethane	6.10	U	0.85	6.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	30.5	U	5.50	30.5	ug/Kg
108-88-3	Toluene	6.10	U	0.79	6.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	6.10	U	0.94	6.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	6.10	U	0.90	6.10	ug/Kg

Raw Data: **VD076756.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-10-(0.5-2.0)	SDG No.:	O3645
Lab Sample ID:	O3645-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.3
Sample Wt/Vol:	4.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076756.D	1		07/17/23 15:57	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	6.10	U	1.00	6.10	ug/Kg
591-78-6	2-Hexanone	30.5	U	6.40	30.5	ug/Kg
124-48-1	Dibromochloromethane	6.10	U	1.00	6.10	ug/Kg
106-93-4	1,2-Dibromoethane	6.10	U	0.96	6.10	ug/Kg
127-18-4	Tetrachloroethene	6.10	U	0.94	6.10	ug/Kg
108-90-7	Chlorobenzene	6.10	U	0.77	6.10	ug/Kg
100-41-4	Ethyl Benzene	6.10	U	0.82	6.10	ug/Kg
179601-23-1	m/p-Xylenes	12.2	U	1.70	12.2	ug/Kg
1330-20-7	Total Xylenes	18.3	U	2.64	18.3	ug/Kg
95-47-6	o-Xylene	6.10	U	0.94	6.10	ug/Kg
100-42-5	Styrene	6.10	U	0.84	6.10	ug/Kg
75-25-2	Bromoform	6.10	U	1.20	6.10	ug/Kg
98-82-8	Isopropylbenzene	6.10	U	0.87	6.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	6.10	U	1.30	6.10	ug/Kg
103-65-1	n-propylbenzene	6.10	U	0.85	6.10	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	6.10	U	0.78	6.10	ug/Kg
98-06-6	tert-Butylbenzene	6.10	U	0.94	6.10	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	6.10	U	0.82	6.10	ug/Kg
135-98-8	sec-Butylbenzene	6.10	U	0.94	6.10	ug/Kg
99-87-6	p-Isopropyltoluene	6.10	U	0.90	6.10	ug/Kg
541-73-1	1,3-Dichlorobenzene	6.10	U	0.83	6.10	ug/Kg
106-46-7	1,4-Dichlorobenzene	6.10	U	0.73	6.10	ug/Kg
104-51-8	n-Butylbenzene	6.10	U	0.83	6.10	ug/Kg
95-50-1	1,2-Dichlorobenzene	6.10	U	0.73	6.10	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	6.10	U	1.50	6.10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	6.10	U	0.74	6.10	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	6.10	U	0.77	6.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	67.1		50 - 163	134%	SPK: 50
1868-53-7	Dibromofluoromethane	54.5		54 - 147	109%	SPK: 50
2037-26-5	Toluene-d8	56.1		58 - 134	112%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.5		30 - 143	107%	SPK: 50
INTERNAL STANDARDS						

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/13/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-10-(0.5-2.0)	SDG No.:	O3645
Lab Sample ID:	O3645-06	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	83.3
Sample Wt/Vol:	4.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076756.D	1		07/17/23 15:57	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	134000	7.875			
540-36-3	1,4-Difluorobenzene	311000	8.775			
3114-55-4	Chlorobenzene-d5	308000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	139000	13.516			
TENTATIVE IDENTIFIED COMPOUNDS						
000110-54-3	n-Hexane	21.6	J		5.84	ug/Kg
002471-84-3	1H-Indene, 1-methylene-	7.50	J		15.3	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_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Quant Time: Jul 18 01:23:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	133536	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	310537	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	307752	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	139423	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	89308	67.146	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 134.300%			
35) Dibromofluoromethane	7.805	113	106337	54.492	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 108.980%			
50) Toluene-d8	10.269	98	391530	56.085	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 112.160%			
62) 4-Bromofluorobenzene	12.575	95	120848	53.511	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 107.020%			
Target Compounds						Qvalue
17) Carbon Disulfide	4.269	76	4012	1.302	ug/l #	94
31) Cyclohexane	7.869	56	3387	1.730	ug/l #	35

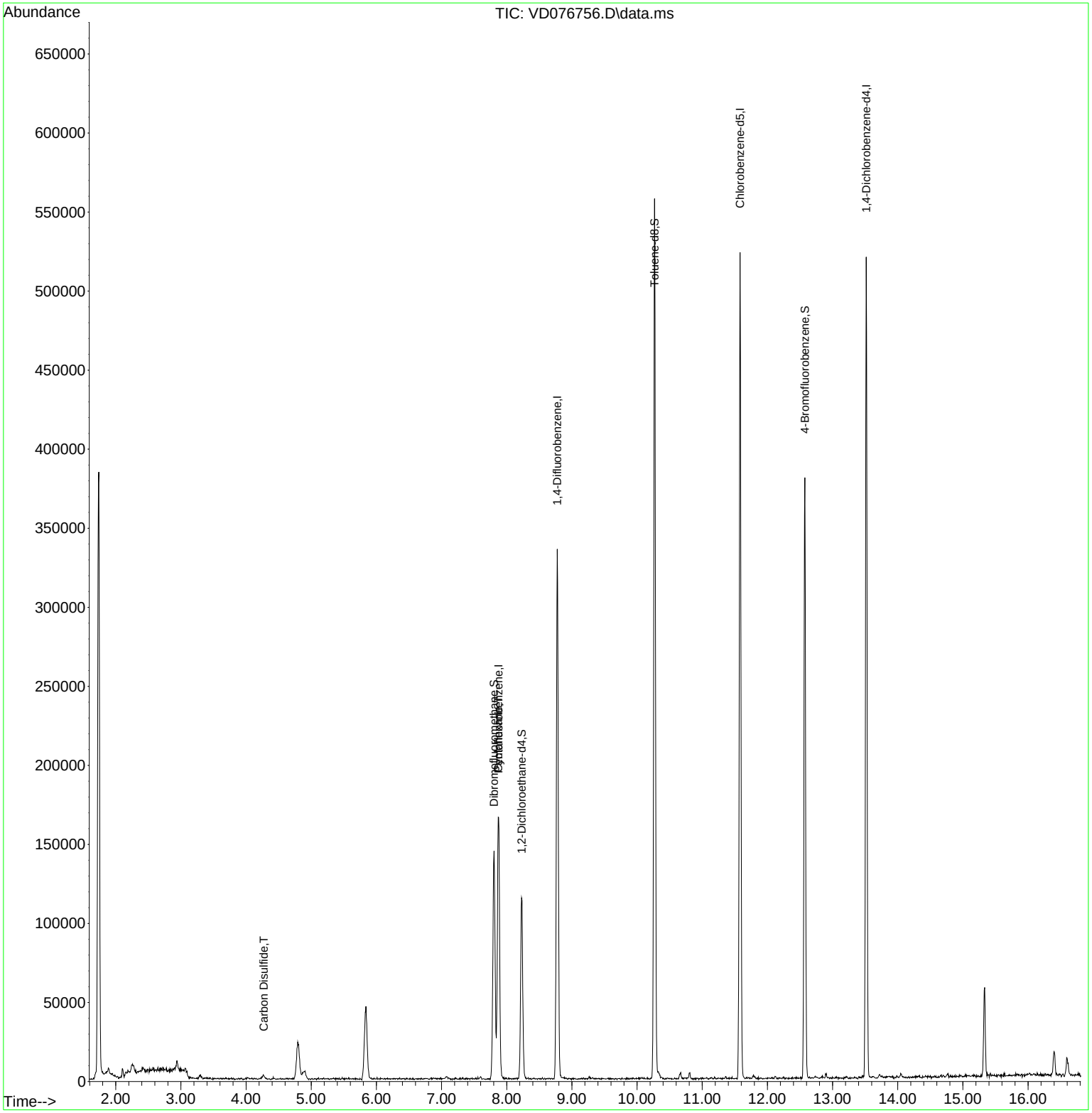
(#) = qualifier out of range (m) = manual integration (+) = signals summed

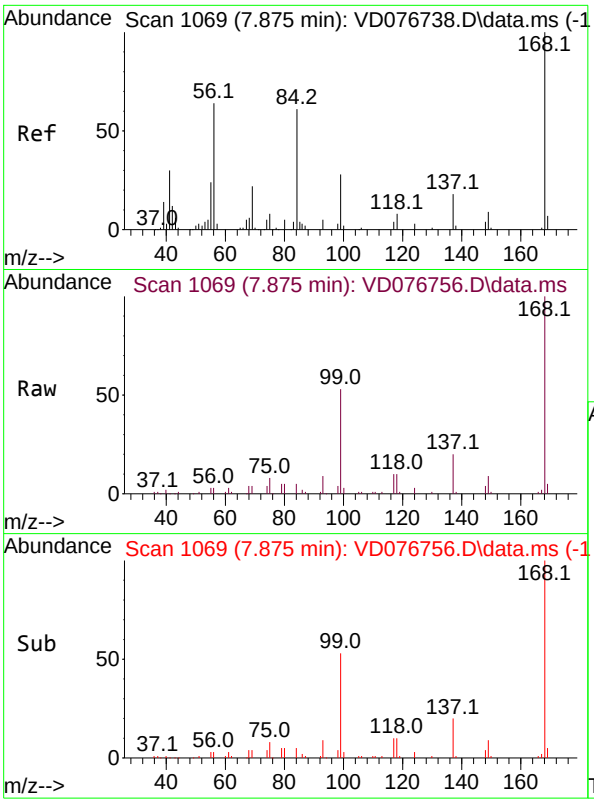
Sample Results: **VD076756.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Quant Time: Jul 18 01:23:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



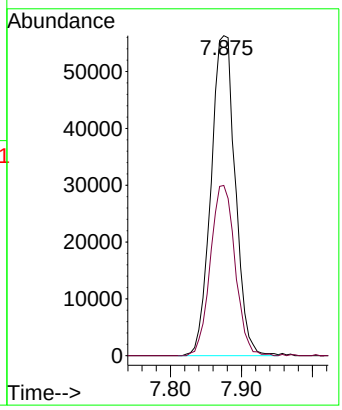


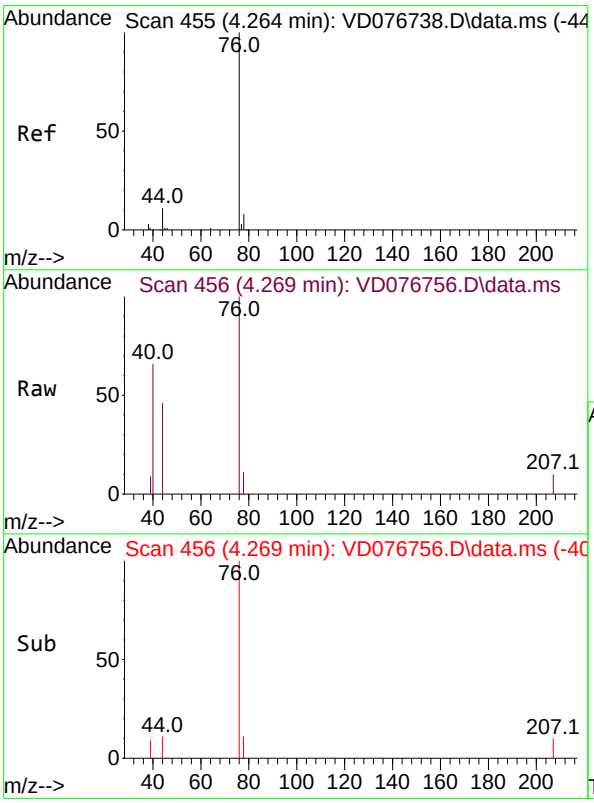
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Tgt Ion:168 Resp: 133536

Ion	Ratio	Lower	Upper
168	100		
99	53.2	36.7	55.1

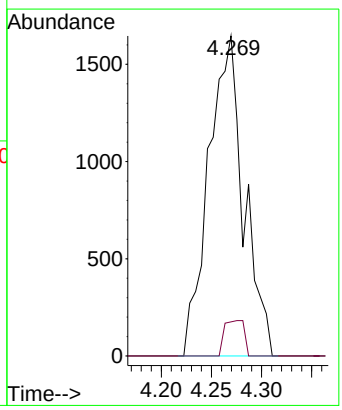


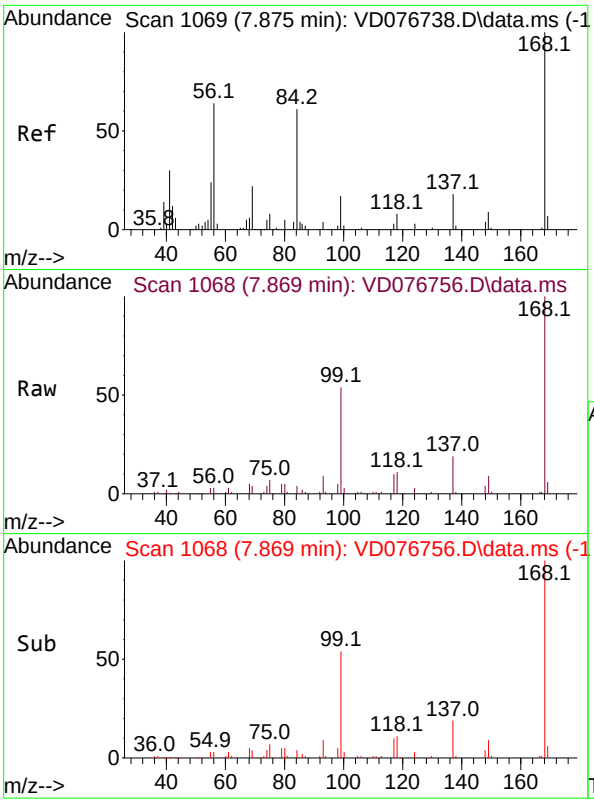


#17
Carbon Disulfide
Concen: 1.302 ug/l
RT: 4.269 min Scan# 456
Delta R.T. 0.005 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Tgt Ion: 76 Resp: 4012

Ion	Ratio	Lower	Upper
76	100		
78	10.7	6.8	10.2#



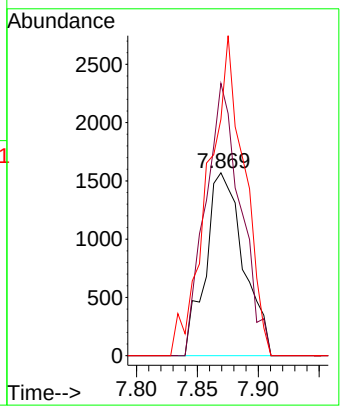


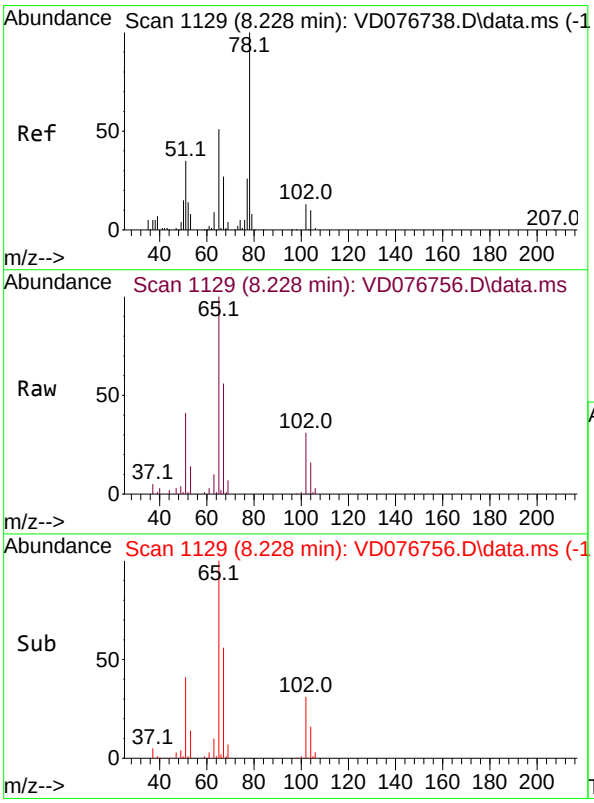
#31
Cyclohexane
Concen: 1.730 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Tgt Ion: 56 Resp: 3387

Ion	Ratio	Lower	Upper
56	100		
69	148.9	28.6	43.0#
84	129.2	84.8	127.2#

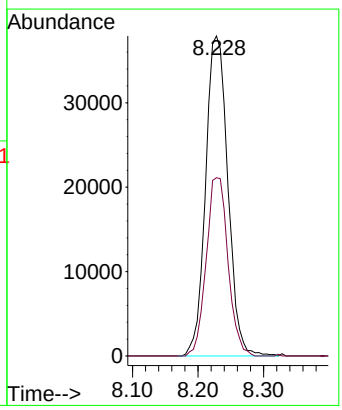


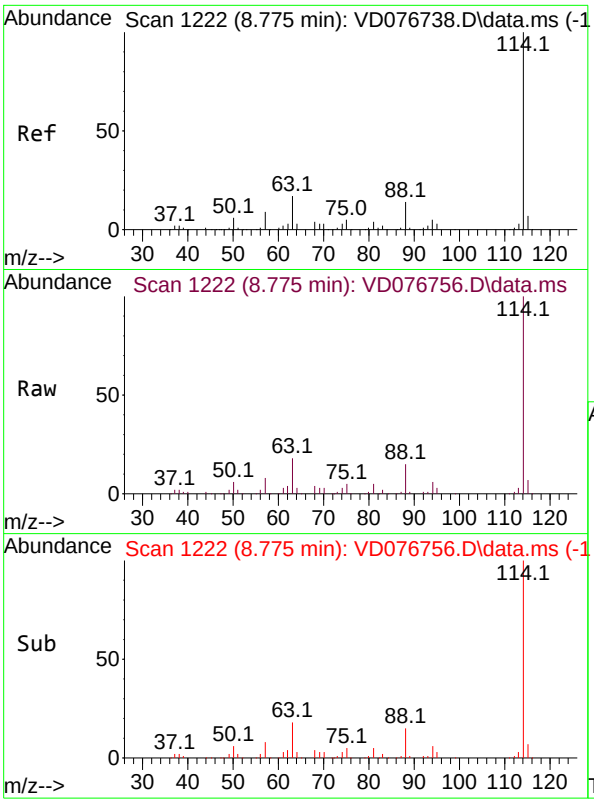


#33
1,2-Dichloroethane-d4
Concen: 67.146 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. 0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Tgt Ion: 65 Resp: 89308

Ion	Ratio	Lower	Upper
65	100		
67	54.6	0.0	115.0



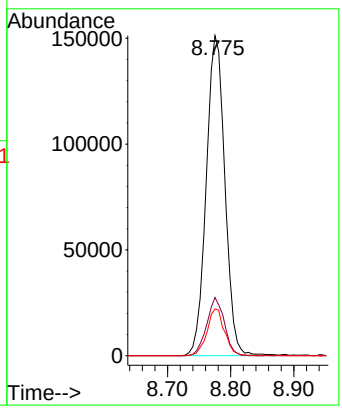


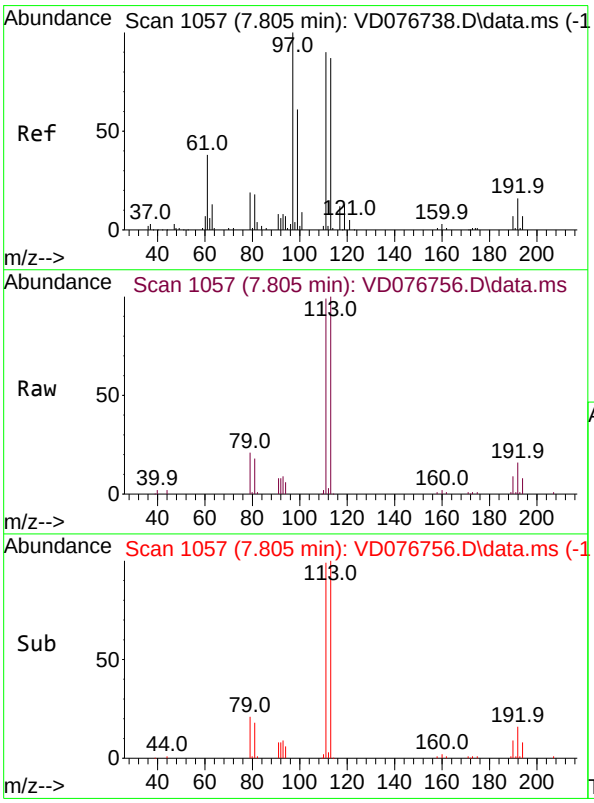
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Tgt Ion:114 Resp: 310537

Ion	Ratio	Lower	Upper
114	100		
63	18.2	0.0	33.4
88	14.6	0.0	26.2

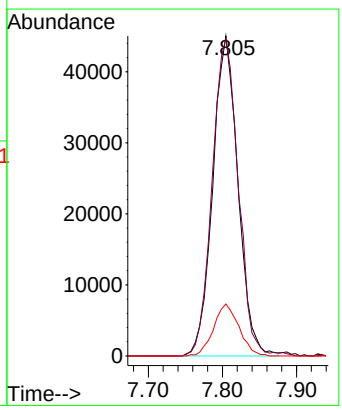


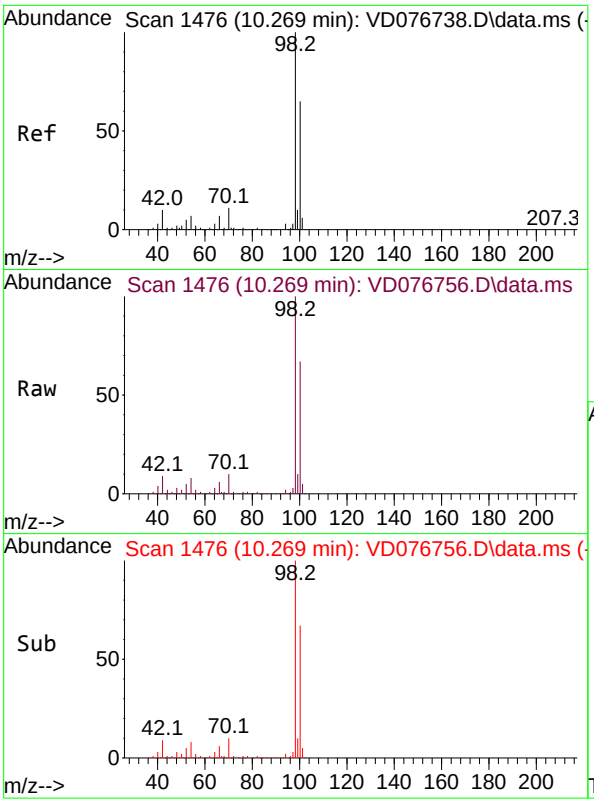


#35
Dibromofluoromethane
Concen: 54.492 ug/l
RT: 7.805 min Scan# 1057
Delta R.T. -0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Tgt Ion:113 Resp: 106337

Ion	Ratio	Lower	Upper
113	100		
111	102.7	84.7	127.1
192	16.3	16.8	25.2#



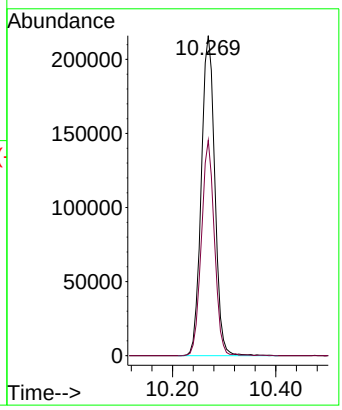


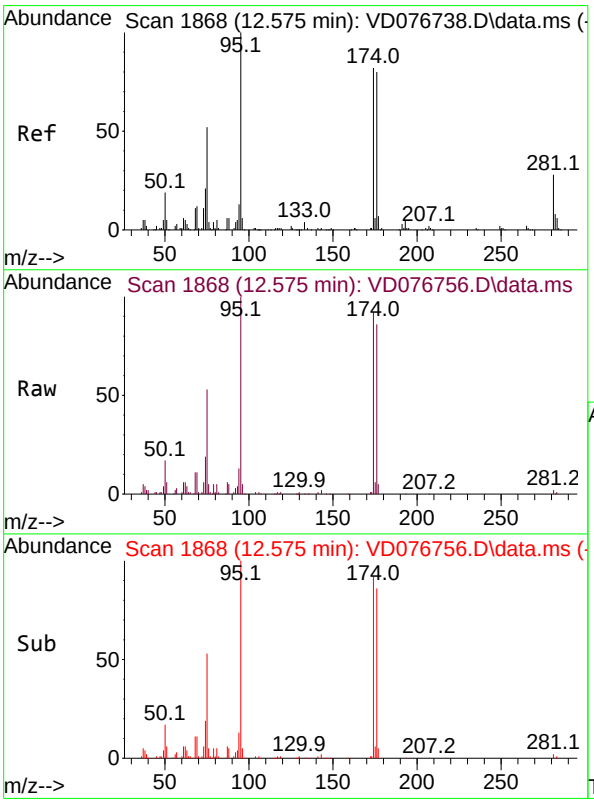
#50
Toluene-d8
Concen: 56.085 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Tgt Ion: 98 Resp: 391530

Ion	Ratio	Lower	Upper
98	100		
100	65.0	50.3	75.5

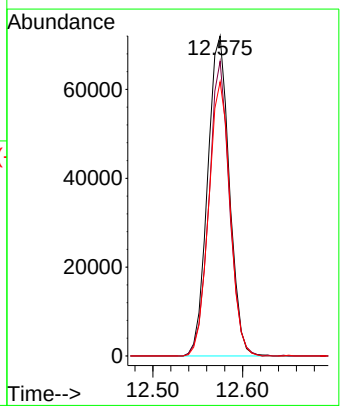


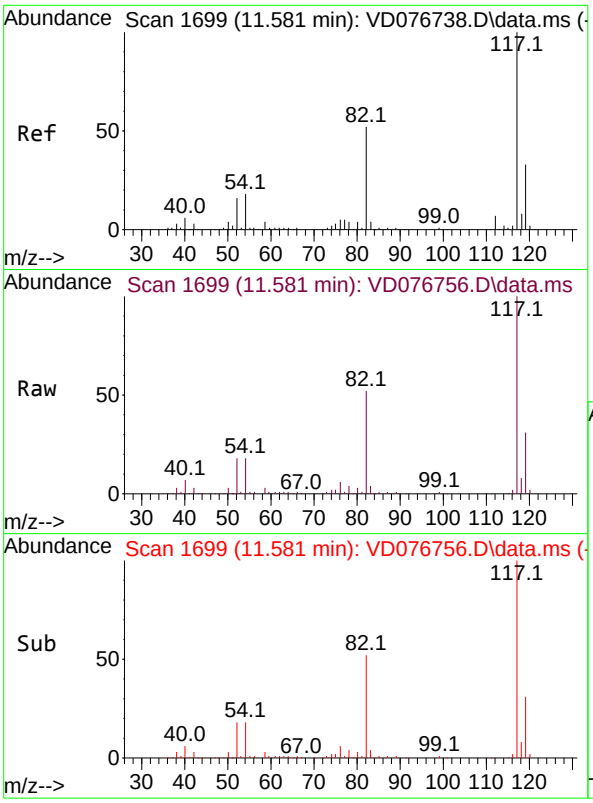


#62
4-Bromofluorobenzene
Concen: 53.511 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Tgt Ion: 95 Resp: 120848

Ion	Ratio	Lower	Upper
95	100		
174	87.0	0.0	201.8
176	84.5	0.0	191.8



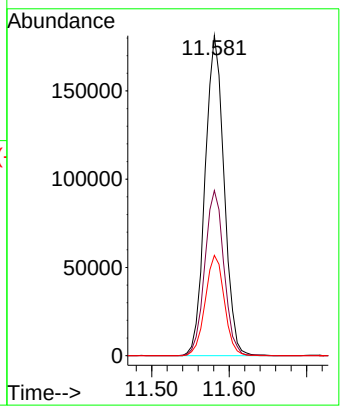


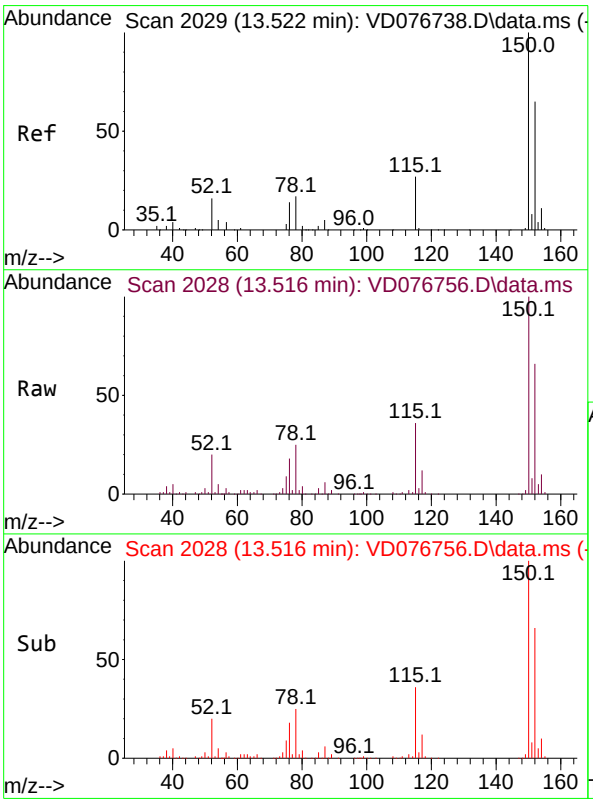
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Tgt Ion:117 Resp: 307752

Ion	Ratio	Lower	Upper
117	100		
82	51.6	38.3	57.5
119	31.4	25.0	37.4

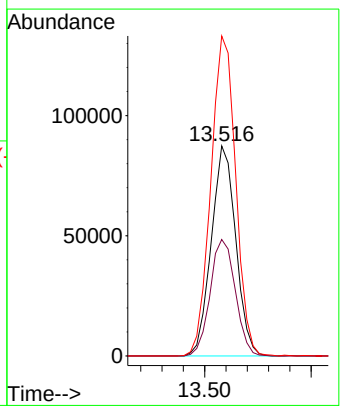




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076756.D
Acq: 17 Jul 2023 15:57

Tgt Ion:152 Resp: 139423

Ion	Ratio	Lower	Upper
152	100		
115	56.9	27.1	81.3
150	154.5	0.0	353.6



Sample Results: **VD076756.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076756.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	13	26	35	rBV	384014	775953	78.30%	12.510%
2	2.940	225	230	236	rVB3	6360	12003	1.21%	0.194%
3	4.793	535	545	556	rBV2	23508	78135	7.88%	1.260%
4	5.840	712	723	736	rBV3	46514	140064	14.13%	2.258%
5	7.805	1047	1057	1063	rBV	144589	351427	35.46%	5.666%
6	7.869	1063	1068	1082	rVB	165493	394910	39.85%	6.367%
7	8.228	1121	1129	1141	rVB2	114610	262094	26.45%	4.226%
8	8.775	1214	1222	1233	rBV	335194	679976	68.62%	10.963%
9	10.269	1467	1476	1484	rBV	556571	990956	100.00%	15.977%
10	11.581	1691	1699	1712	rBV	523068	884530	89.26%	14.261%
11	12.575	1861	1868	1879	rBV	380071	634667	64.05%	10.232%
12	13.516	2020	2028	2037	rBV	519035	831973	83.96%	13.413%
13	15.334	2329	2337	2343	rBV	56442	102664	10.36%	1.655%
14	16.398	2510	2518	2523	rBV3	15490	33411	3.37%	0.539%
15	16.592	2545	2551	2562	rBV4	12103	29762	3.00%	0.480%

Sum of corrected areas: 6202525

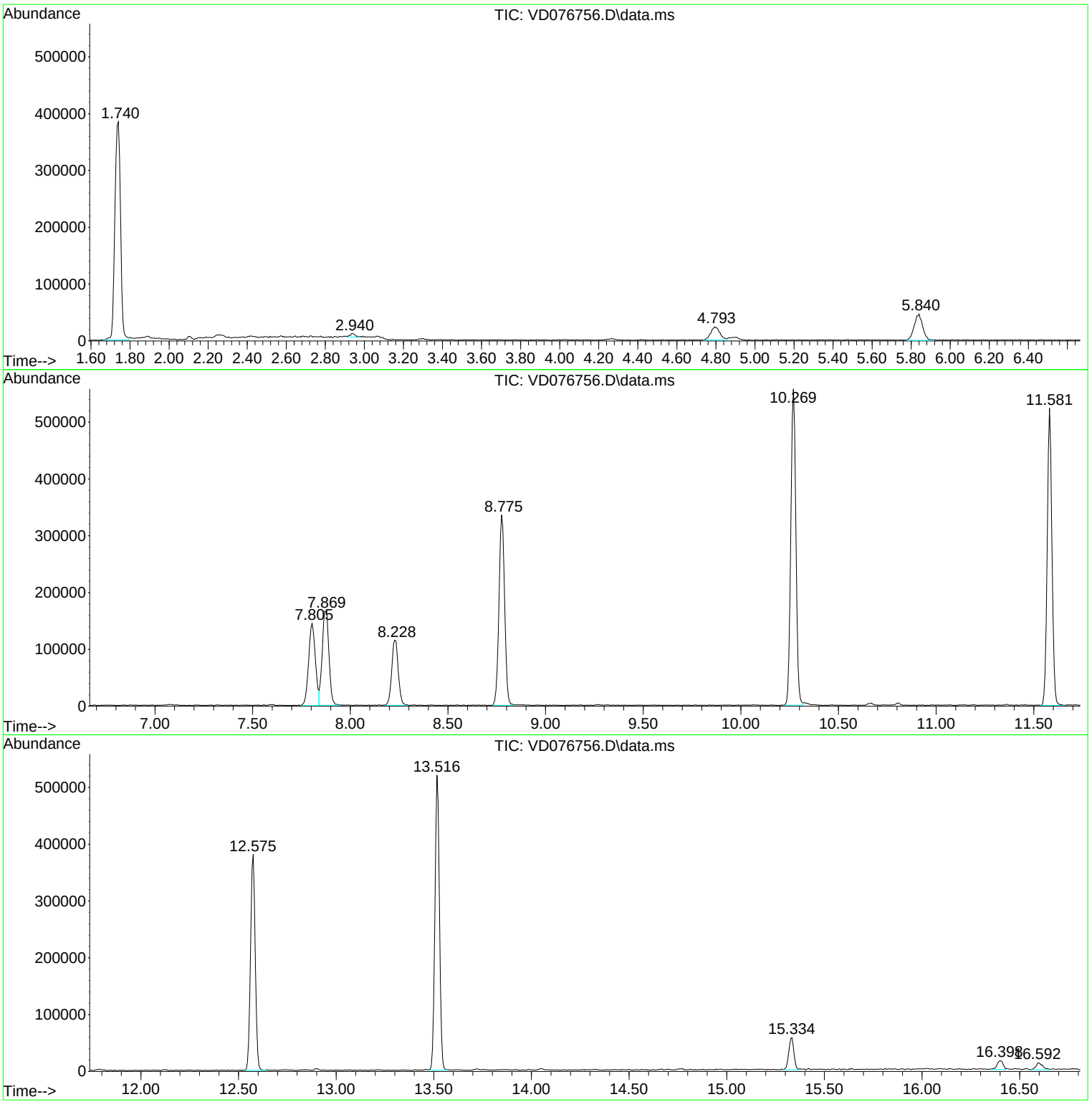
Sample Results: **VD076756.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

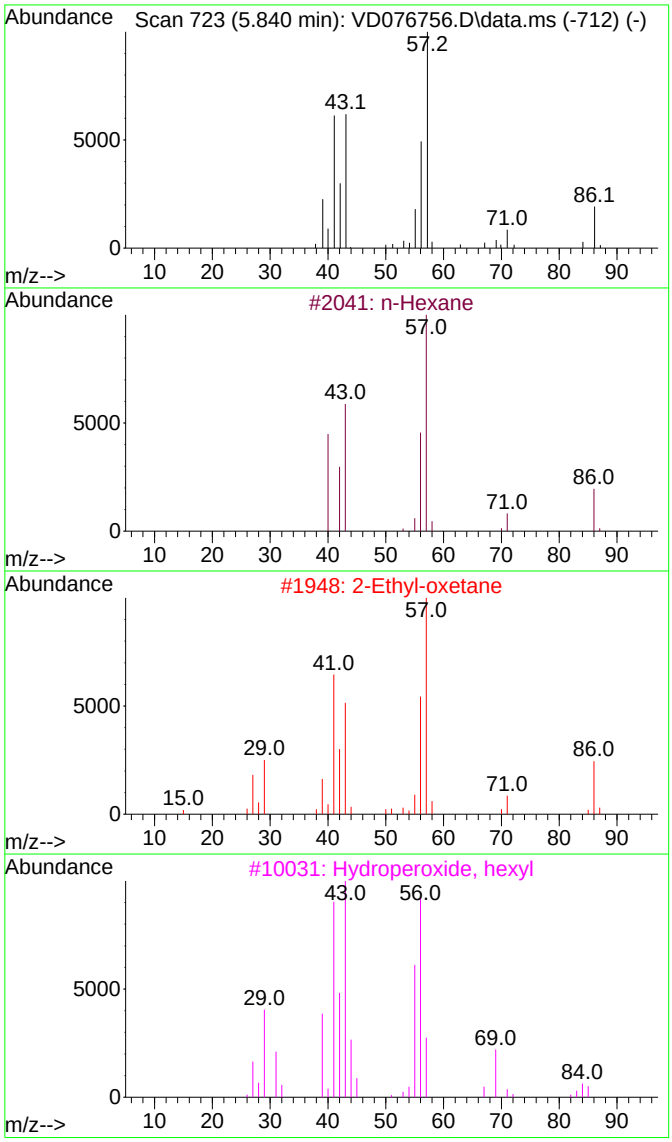
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

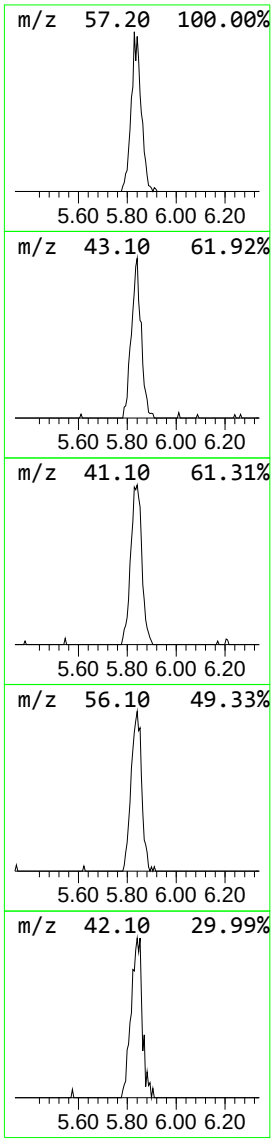
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 n-Hexane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.840	17.73 ug/l	140064	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexane	86	C6H14	000110-54-3	86
2	2-Ethyl-oxetane	86	C5H10O	1010386-40-2	86
3	Hydroperoxide, hexyl	118	C6H14O2	004312-76-9	37
4	Pentane, 2,2,3,4-tetramethyl-	128	C9H20	001186-53-4	33
5	Undecane, 2,2-dimethyl-	184	C13H28	017312-64-0	25





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

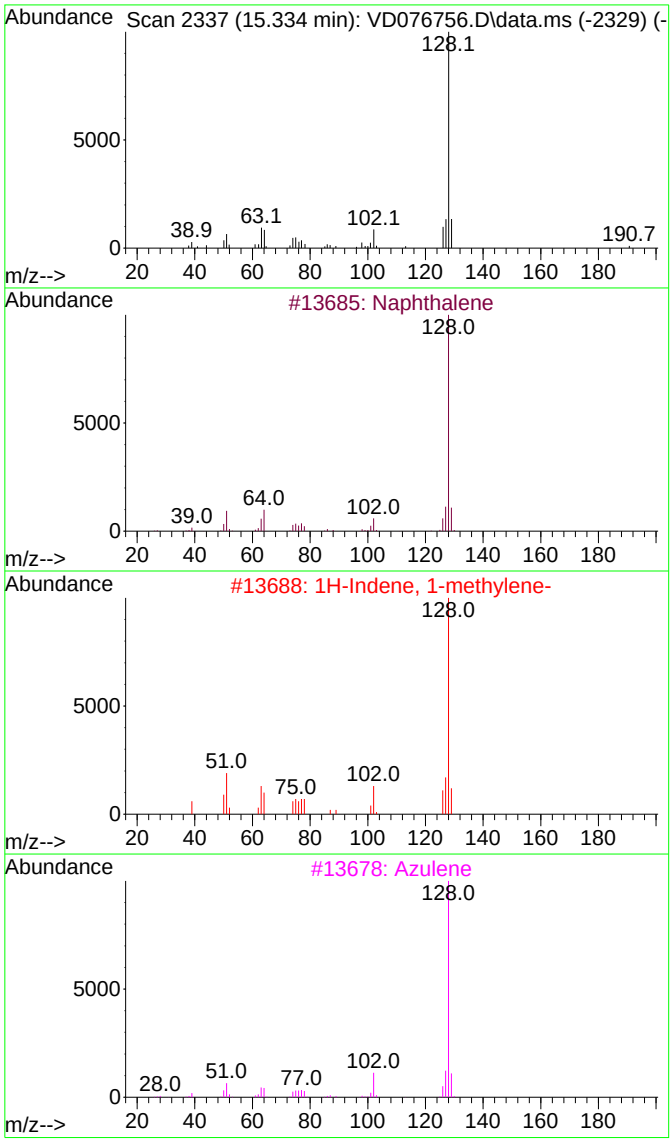
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

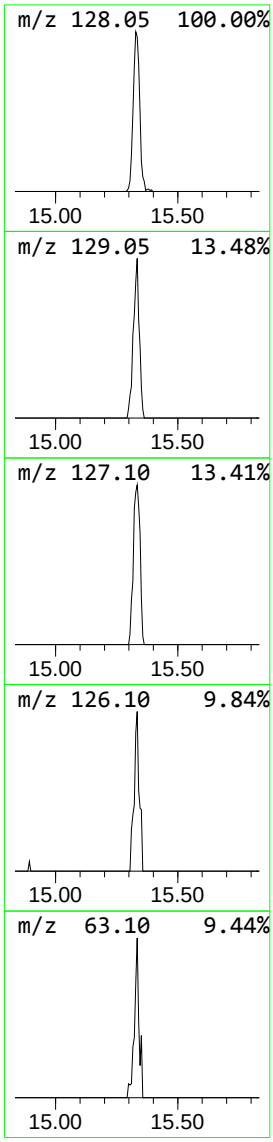
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 1H-Indene, 1-methylene- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.334	6.17 ug/l	102664	1,4-Dichlorobenzene-d4	13.516

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	94
2	1H-Indene, 1-methylene-	128	C10H8	002471-84-3	91
3	Azulene	128	C10H8	000275-51-4	90
4	1,3-Dicyanobenzene	128	C8H4N2	000626-17-5	58
5	[4.2.2]Propella-2,4,7,9-tetraene	128	C10H8	088090-34-0	45





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076756.D
Acq On : 17 Jul 2023 15:57
Operator : KP/SY
Sample : 03645-06
Misc : 4.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
SB-10-(0.5-2.0)

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
n-Hexane	5.840	17.7	ug/l	140064	1	7.875	394910	50.0
1H-Indene, 1-me...	15.334	6.2	ug/l	102664	4	13.516	831973	50.0

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	DUP	SDG No.:	O3645
Lab Sample ID:	O3645-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.8
Sample Wt/Vol:	5.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076777.D	1		07/18/23 14:49	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.20	U	1.70	5.20	ug/Kg
74-87-3	Chloromethane	5.20	U	0.95	5.20	ug/Kg
75-01-4	Vinyl Chloride	5.20	U	0.97	5.20	ug/Kg
74-83-9	Bromomethane	5.20	U	1.30	5.20	ug/Kg
75-00-3	Chloroethane	5.20	U	0.92	5.20	ug/Kg
75-69-4	Trichlorofluoromethane	5.20	U	1.10	5.20	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.20	U	0.75	5.20	ug/Kg
75-35-4	1,1-Dichloroethene	5.20	U	0.83	5.20	ug/Kg
67-64-1	Acetone	26.1	U	9.80	26.1	ug/Kg
75-15-0	Carbon Disulfide	5.20	U	2.30	5.20	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.20	U	0.68	5.20	ug/Kg
79-20-9	Methyl Acetate	5.20	U	1.70	5.20	ug/Kg
75-09-2	Methylene Chloride	10.5	U	6.30	10.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.20	U	0.76	5.20	ug/Kg
75-34-3	1,1-Dichloroethane	5.20	U	0.75	5.20	ug/Kg
110-82-7	Cyclohexane	6.20		0.73	5.20	ug/Kg
78-93-3	2-Butanone	26.1	U	7.60	26.1	ug/Kg
56-23-5	Carbon Tetrachloride	5.20	U	0.82	5.20	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.20	U	0.67	5.20	ug/Kg
74-97-5	Bromochloromethane	5.20	U	2.50	5.20	ug/Kg
67-66-3	Chloroform	5.20	U	1.40	5.20	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.20	U	0.79	5.20	ug/Kg
108-87-2	Methylcyclohexane	6.90		3.50	5.20	ug/Kg
71-43-2	Benzene	1.70	J	0.69	5.20	ug/Kg
107-06-2	1,2-Dichloroethane	5.20	U	0.75	5.20	ug/Kg
79-01-6	Trichloroethene	5.20	U	0.69	5.20	ug/Kg
78-87-5	1,2-Dichloropropane	5.20	U	0.62	5.20	ug/Kg
75-27-4	Bromodichloromethane	5.20	U	0.73	5.20	ug/Kg
108-10-1	4-Methyl-2-Pentanone	26.1	U	4.70	26.1	ug/Kg
108-88-3	Toluene	4.90	J	0.68	5.20	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.20	U	0.80	5.20	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.20	U	0.77	5.20	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	DUP	SDG No.:	O3645
Lab Sample ID:	O3645-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.8
Sample Wt/Vol:	5.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076777.D	1		07/18/23 14:49	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	5.20	U	0.90	5.20	ug/Kg
591-78-6	2-Hexanone	26.1	U	5.50	26.1	ug/Kg
124-48-1	Dibromochloromethane	5.20	U	0.89	5.20	ug/Kg
106-93-4	1,2-Dibromoethane	5.20	U	0.83	5.20	ug/Kg
127-18-4	Tetrachloroethene	5.20	U	0.80	5.20	ug/Kg
108-90-7	Chlorobenzene	5.20	U	0.66	5.20	ug/Kg
100-41-4	Ethyl Benzene	5.20	U	0.70	5.20	ug/Kg
179601-23-1	m/p-Xylenes	4.40	J	1.50	10.5	ug/Kg
1330-20-7	Total Xylenes	6.00	J	2.30	15.7	ug/Kg
95-47-6	o-Xylene	1.60	J	0.80	5.20	ug/Kg
100-42-5	Styrene	5.20	U	0.72	5.20	ug/Kg
75-25-2	Bromoform	5.20	U	0.99	5.20	ug/Kg
98-82-8	Isopropylbenzene	5.20	U	0.74	5.20	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.20	U	1.10	5.20	ug/Kg
103-65-1	n-propylbenzene	5.20	U	0.73	5.20	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.20	U	0.67	5.20	ug/Kg
98-06-6	tert-Butylbenzene	5.20	U	0.80	5.20	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.90	J	0.70	5.20	ug/Kg
135-98-8	sec-Butylbenzene	5.20	U	0.80	5.20	ug/Kg
99-87-6	p-Isopropyltoluene	5.20	U	0.77	5.20	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.20	U	0.71	5.20	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.20	U	0.63	5.20	ug/Kg
104-51-8	n-Butylbenzene	5.20	U	0.71	5.20	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.20	U	0.63	5.20	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.20	U	1.20	5.20	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.20	U	0.64	5.20	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.20	U	0.66	5.20	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	63.8		50 - 163	128%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	55.8		58 - 134	112%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.0		30 - 143	98%	SPK: 50
INTERNAL STANDARDS						

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	DUP	SDG No.:	O3645
Lab Sample ID:	O3645-07	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	80.8
Sample Wt/Vol:	5.92 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076777.D	1		07/18/23 14:49	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	148000	7.875			
540-36-3	1,4-Difluorobenzene	355000	8.775			
3114-55-4	Chlorobenzene-d5	329000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	142000	13.516			
TENTATIVE IDENTIFIED COMPOUNDS						
000074-98-6	Propane	7.90	J		1.89	ug/Kg
000075-28-5	Isobutane	6.70	J		2.10	ug/Kg
000106-97-8	Butane	16.5	J		2.27	ug/Kg
000078-78-4	Butane, 2-methyl-	16.7	J		2.93	ug/Kg
000109-66-0	Pentane	8.40	J		3.30	ug/Kg
000110-54-3	n-Hexane	14.5	J		5.83	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_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Time: Jul 19 06:43:37 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

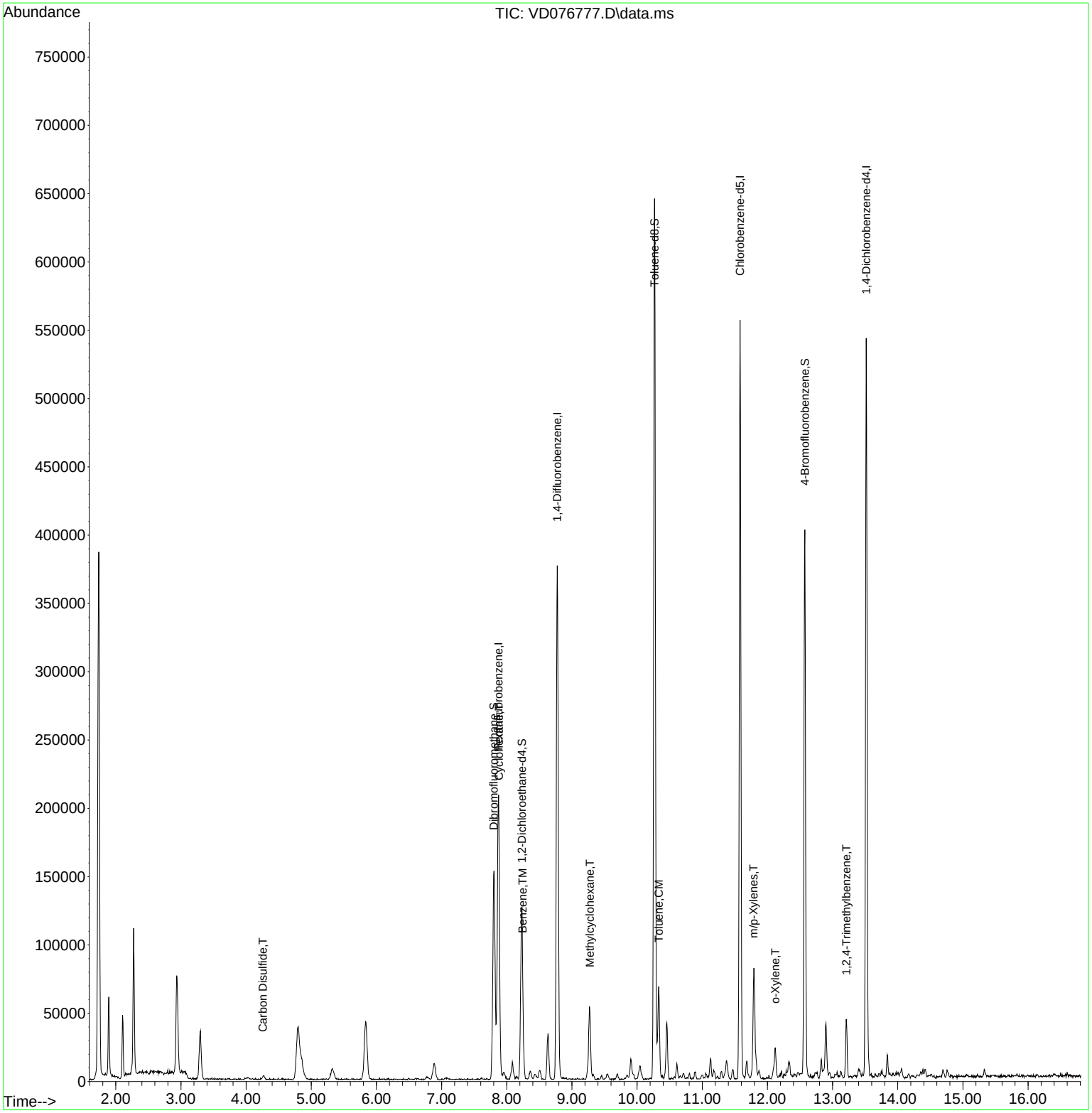
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	147654	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	354882	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	328863	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	141705	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	93783	63.768	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 127.540%			
35) Dibromofluoromethane	7.799	113	114850	51.500	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 103.000%			
50) Toluene-d8	10.269	98	445191	55.803	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 111.600%			
62) 4-Bromofluorobenzene	12.575	95	126360	48.960	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 97.920%			
Target Compounds						Qvalue
17) Carbon Disulfide	4.258	76	4962	1.456	ug/l #	93
31) Cyclohexane	7.881	56	12832	5.929	ug/l #	81
39) Methylcyclohexane	9.275	83	22081	6.562	ug/l	96
40) Benzene	8.246	78	14611	1.589	ug/l	96
52) Toluene	10.334	92	28084	4.650	ug/l	100
68) m/p-Xylenes	11.787	106	18906	4.238	ug/l	93
69) o-Xylene	12.122	106	6555	1.519	ug/l	98
84) 1,2,4-Trimethylbenzene	13.210	105	23726	2.793	ug/l	99

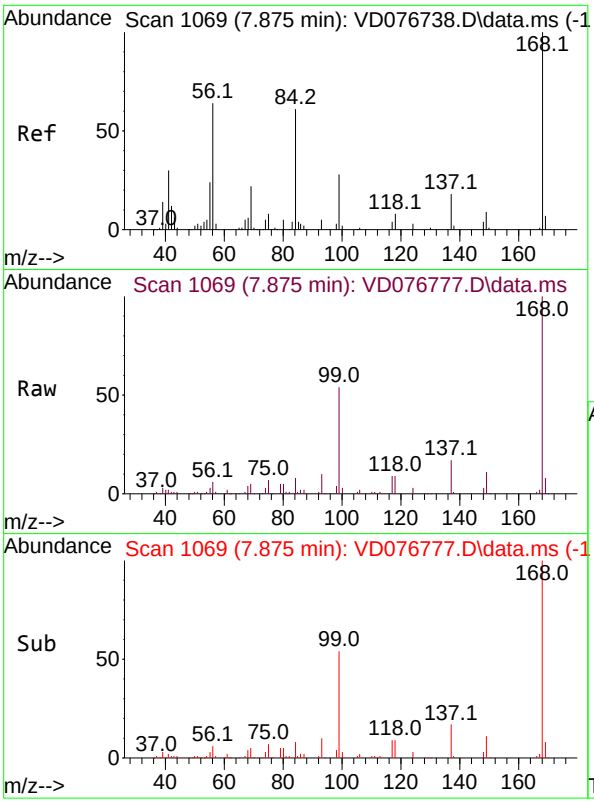
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Time: Jul 19 06:43:37 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



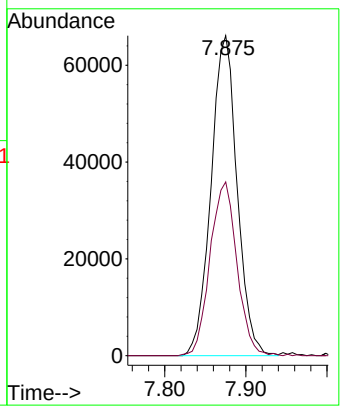


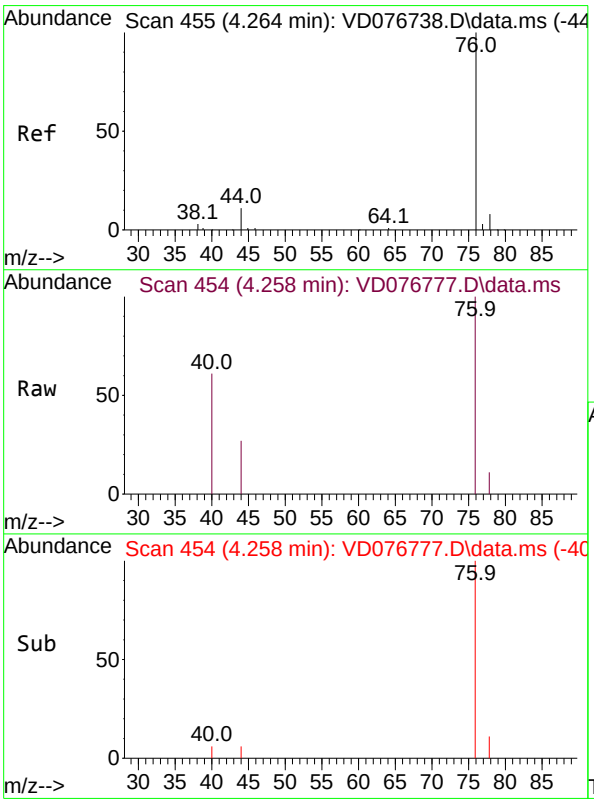
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion:168 Resp: 147654

Ion	Ratio	Lower	Upper
168	100		
99	54.3	36.7	55.1

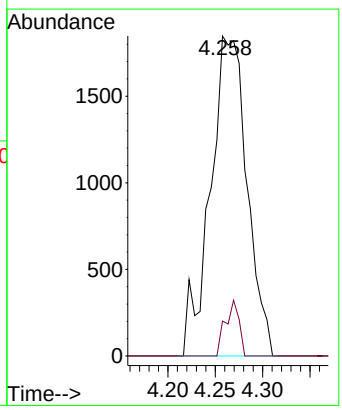


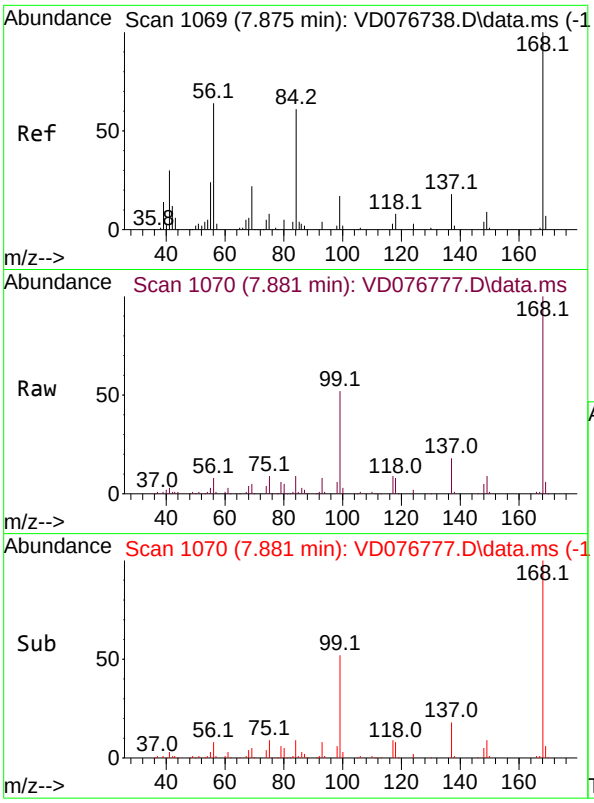


#17
Carbon Disulfide
Concen: 1.456 ug/l
RT: 4.258 min Scan# 454
Delta R.T. -0.006 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion: 76 Resp: 4962

Ion	Ratio	Lower	Upper
76	100		
78	10.9	6.8	10.2#



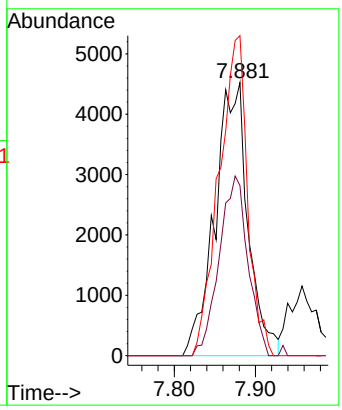


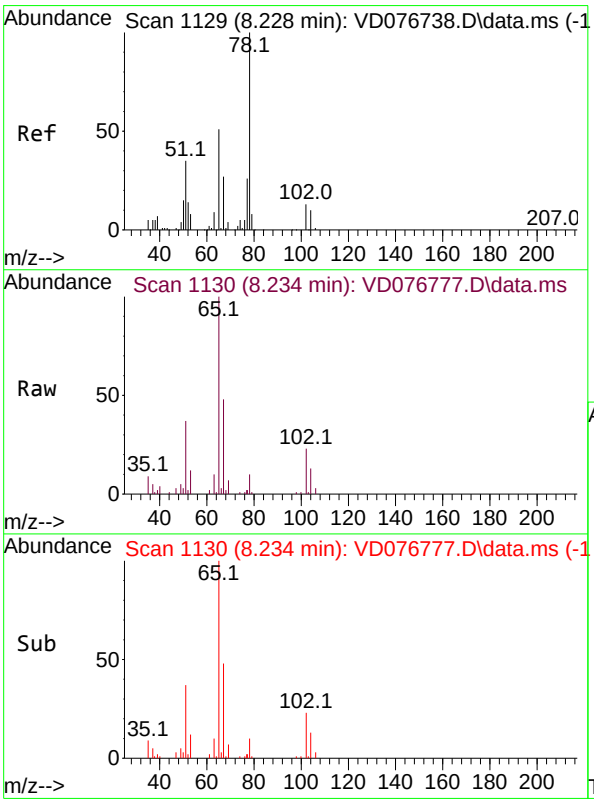
#31
Cyclohexane
Concen: 5.929 ug/l
RT: 7.881 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion: 56 Resp: 12832

Ion	Ratio	Lower	Upper
56	100		
69	62.3	28.6	43.0#
84	117.2	84.8	127.2

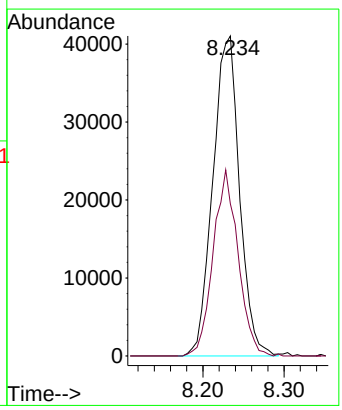


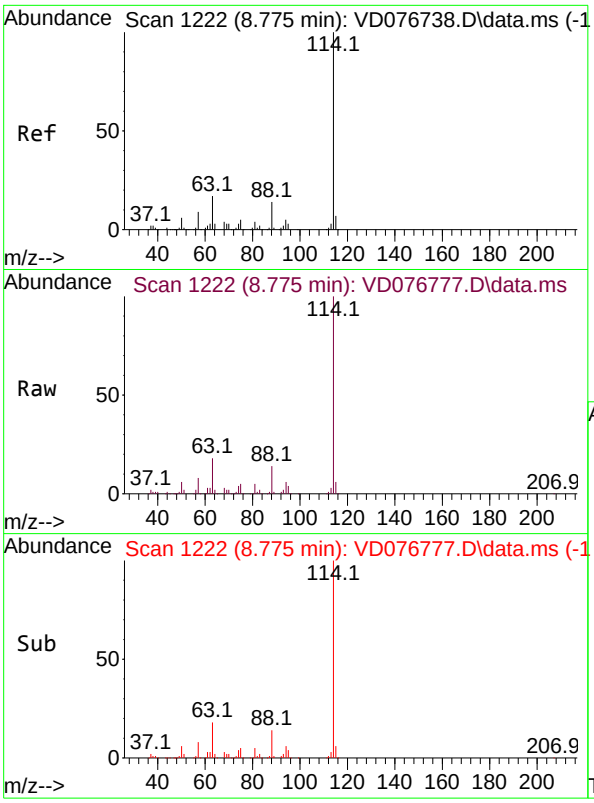


#33
1,2-Dichloroethane-d4
Concen: 63.768 ug/l
RT: 8.234 min Scan# 1130
Delta R.T. 0.006 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion: 65 Resp: 93783

Ion	Ratio	Lower	Upper
65	100		
67	54.3	0.0	115.0



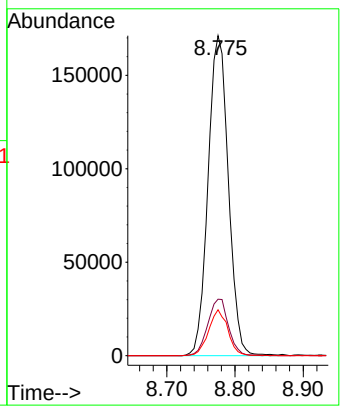


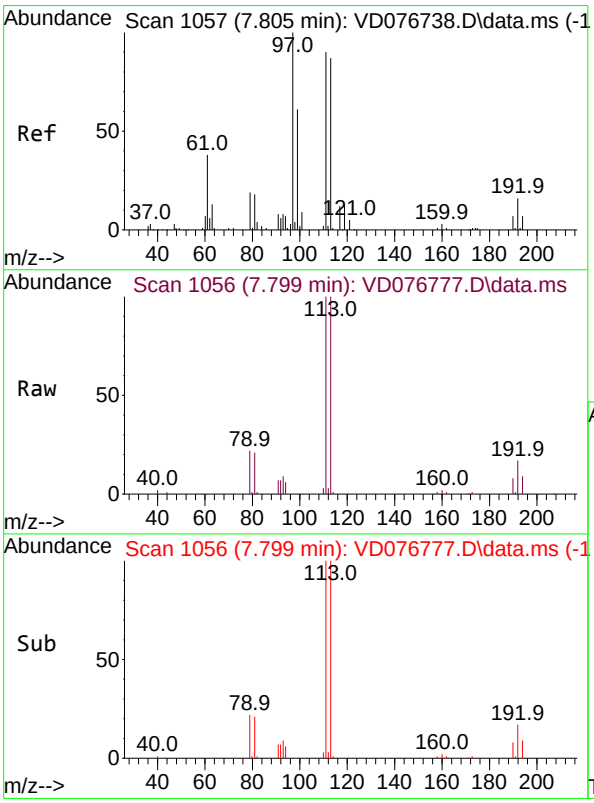
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion:114 Resp: 354882

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	33.4
88	14.3	0.0	26.2

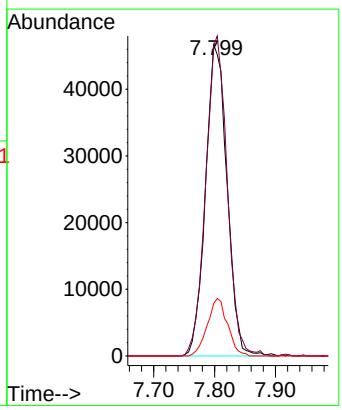


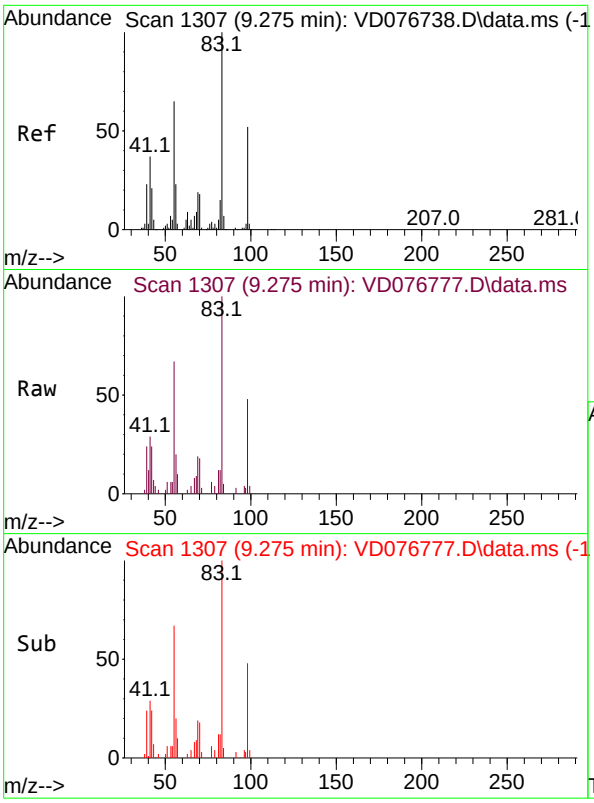


#35
Dibromofluoromethane
Concen: 51.500 ug/l
RT: 7.799 min Scan# 1056
Delta R.T. -0.006 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion:113 Resp: 114850

Ion	Ratio	Lower	Upper
113	100		
111	102.4	84.7	127.1
192	17.3	16.8	25.2



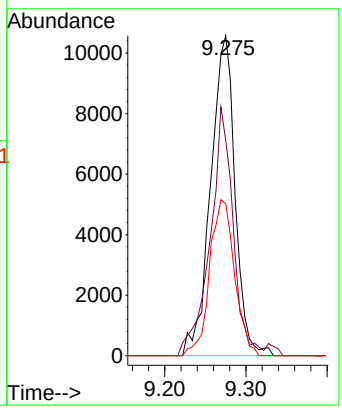


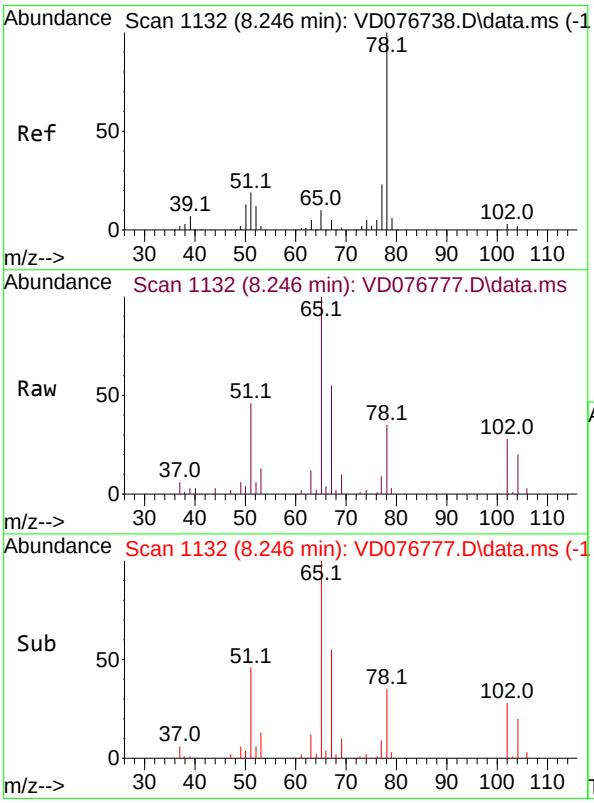
#39
Methylcyclohexane
Concen: 6.562 ug/l
RT: 9.275 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion: 83 Resp: 22081

Ion	Ratio	Lower	Upper
83	100		
55	67.3	49.4	74.0
98	47.5	38.4	57.6

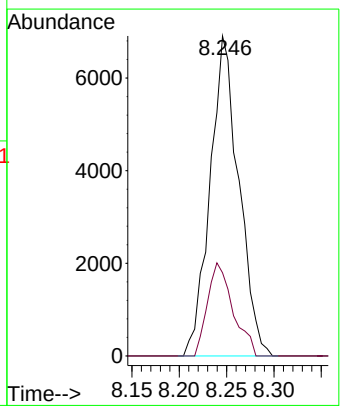


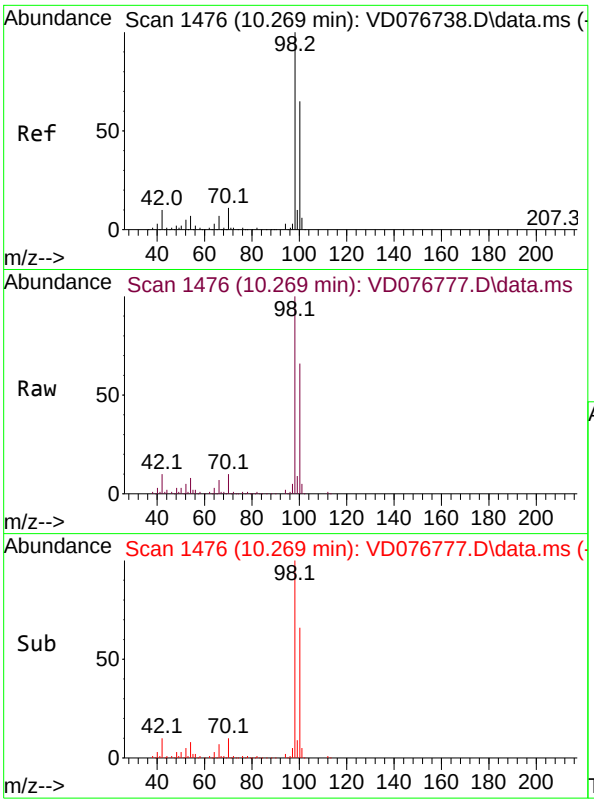


#40
Benzene
Concen: 1.589 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion: 78 Resp: 14611

Ion	Ratio	Lower	Upper
78	100		
77	26.0	19.4	29.0



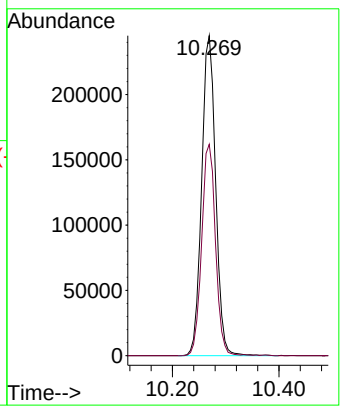


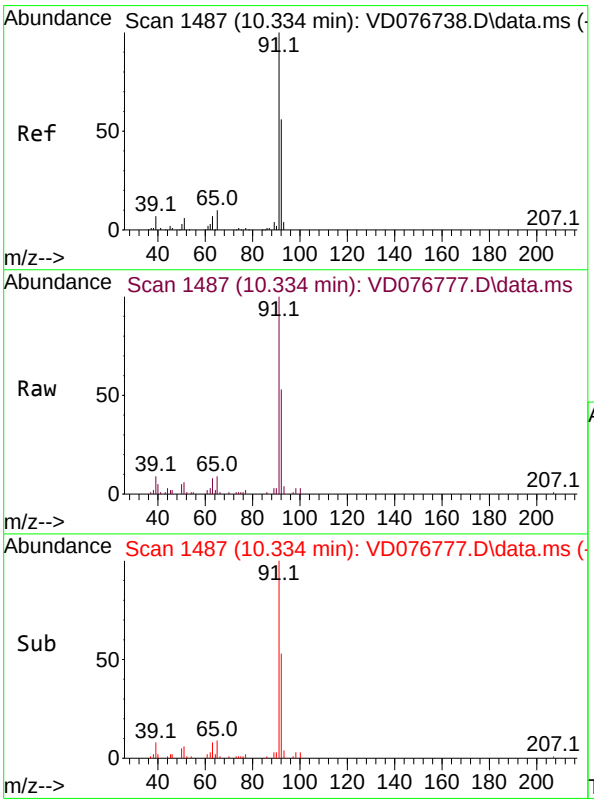
#50
Toluene-d8
Concen: 55.803 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion: 98 Resp: 445191

Ion	Ratio	Lower	Upper
98	100		
100	65.5	50.3	75.5

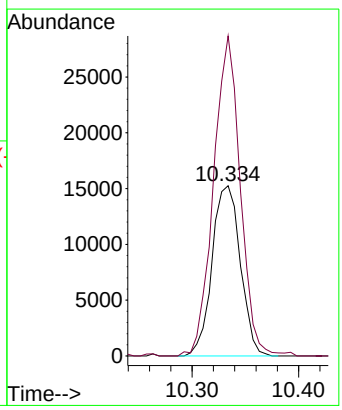


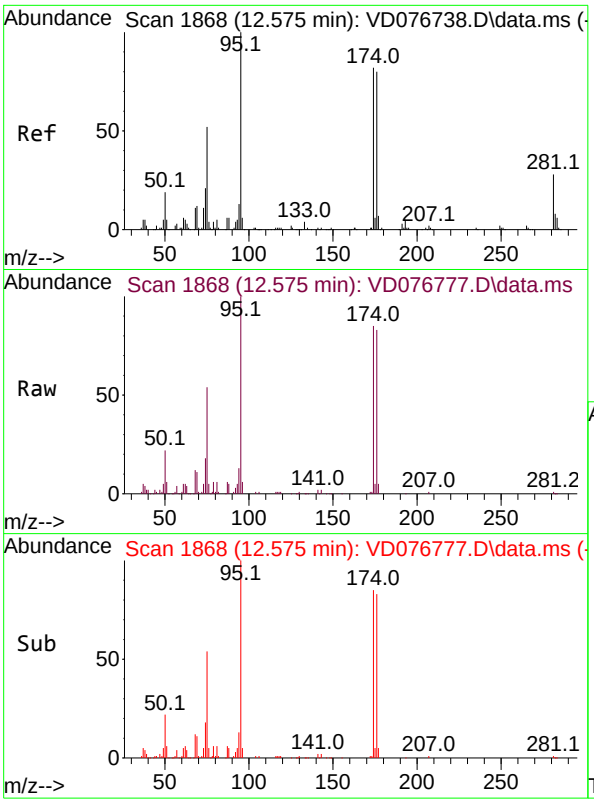


#52
Toluene
Concen: 4.650 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion: 92 Resp: 28084

Ion	Ratio	Lower	Upper
92	100		
91	178.5	143.0	214.4



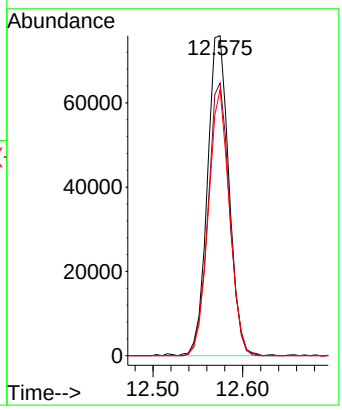


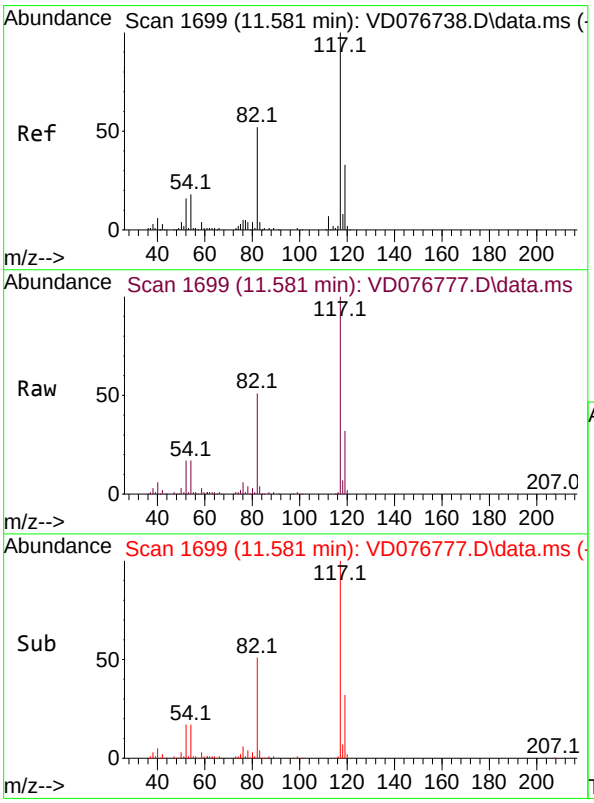
#62
4-Bromofluorobenzene
Concen: 48.960 ug/l
RT: 12.575 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion: 95 Resp: 126360

Ion	Ratio	Lower	Upper
95	100		
174	84.6	0.0	201.8
176	81.3	0.0	191.8

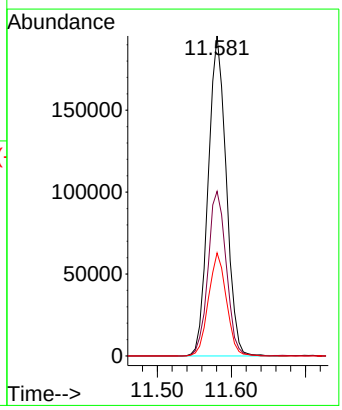


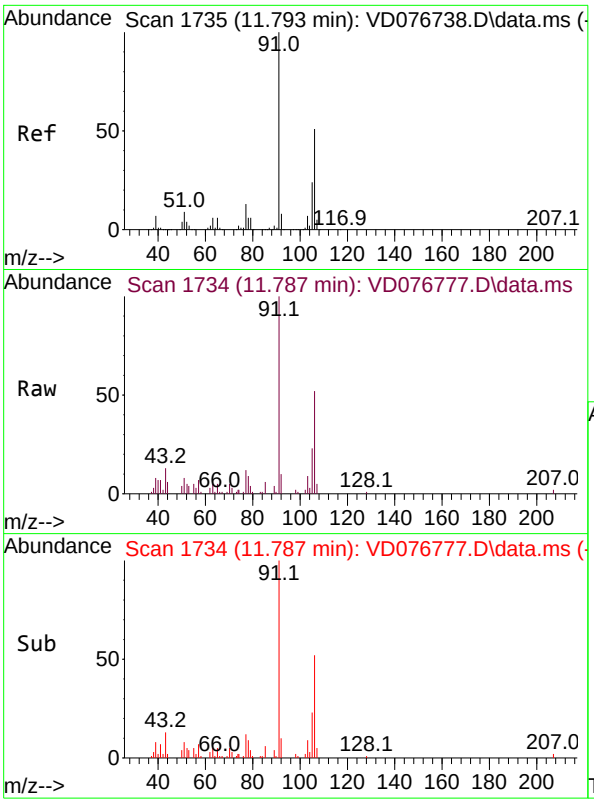


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1699
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion:117 Resp: 328863

Ion	Ratio	Lower	Upper
117	100		
82	51.5	38.3	57.5
119	32.2	25.0	37.4



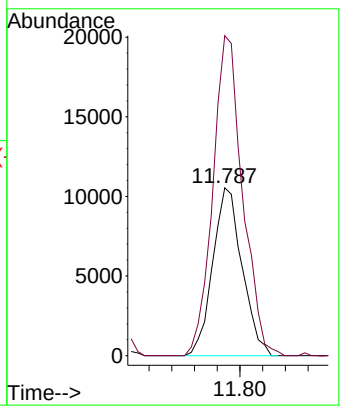


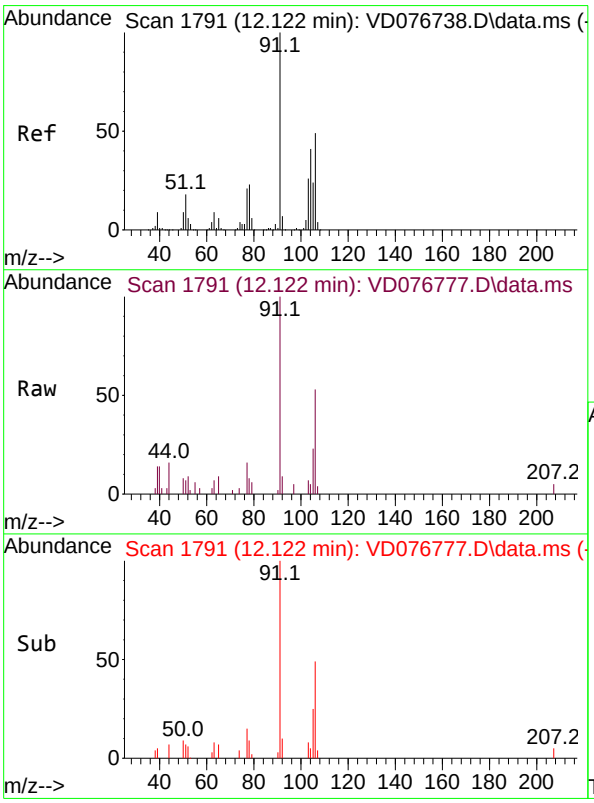
#68
m/p-Xylenes
Concen: 4.238 ug/l
RT: 11.787 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion:106 Resp: 18906

Ion	Ratio	Lower	Upper
106	100		
91	193.4	147.0	220.6

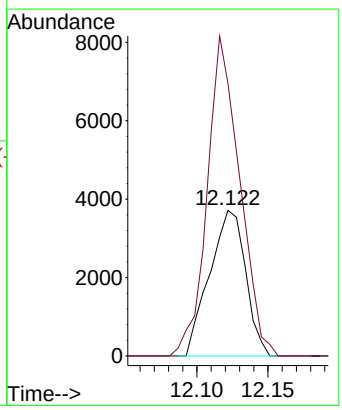


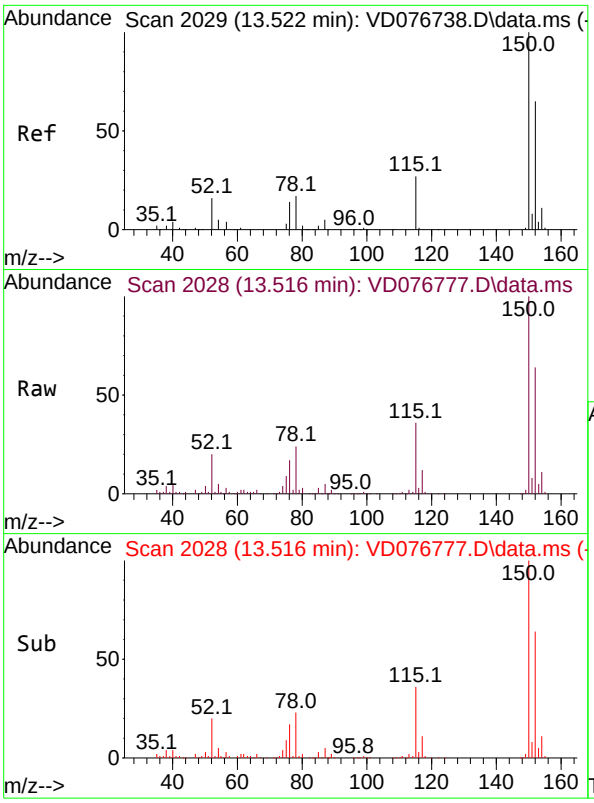


#69
o-Xylene
Concen: 1.519 ug/l
RT: 12.122 min Scan# 1791
Delta R.T. -0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion:106 Resp: 6555

Ion	Ratio	Lower	Upper
106	100		
91	198.2	97.9	293.6



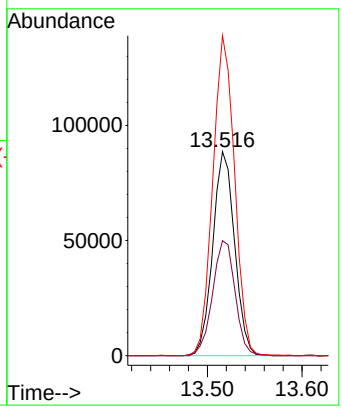


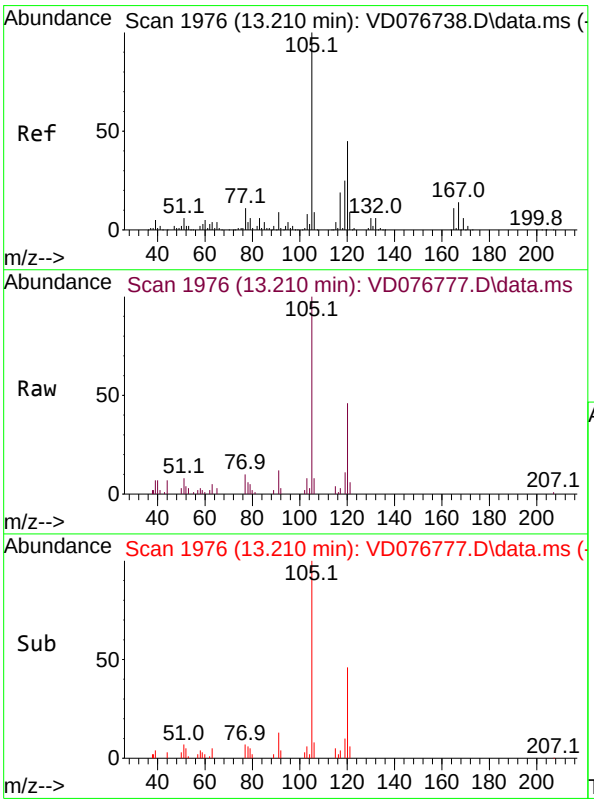
#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2
Delta R.T. -0.006 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Instrument :
MSVOA_D
ClientSampleId :
DUP

Tgt Ion:152 Resp: 141705

Ion	Ratio	Lower	Upper
152	100		
115	58.2	27.1	81.3
150	156.7	0.0	353.6

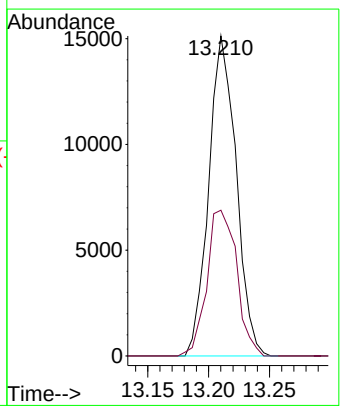




#84
1,2,4-Trimethylbenzene
Concen: 2.793 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076777.D
Acq: 18 Jul 2023 14:49

Tgt Ion:105 Resp: 23726

Ion	Ratio	Lower	Upper
105	100		
120	49.5	24.3	72.9



Sample Results: **VD076777.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076777.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	12	26	37	rBV	386299	743527	62.69%	8.918%
2	1.893	45	52	58	rBV	57462	73194	6.17%	0.878%
3	2.105	82	88	93	rBV	46596	62147	5.24%	0.745%
4	2.275	109	117	125	rBV	106785	154034	12.99%	1.848%
5	2.934	221	229	238	rBV2	71883	156062	13.16%	1.872%
6	3.299	282	291	300	rVB2	35283	78545	6.62%	0.942%
7	4.799	535	546	569	rVB8	38282	175054	14.76%	2.100%
8	5.322	625	635	646	rBV6	8088	27894	2.35%	0.335%
9	5.834	710	722	734	rBV4	42487	134833	11.37%	1.617%
10	6.887	891	901	910	rVB4	11866	34539	2.91%	0.414%
11	7.804	1046	1057	1062	rBV2	153118	377796	31.85%	4.532%
12	7.875	1062	1069	1078	rVB	205697	487514	41.11%	5.848%
13	8.087	1098	1105	1112	rBV4	12796	27554	2.32%	0.330%
14	8.234	1120	1130	1140	rBV3	125753	300746	25.36%	3.607%
15	8.357	1144	1151	1159	rVV6	5959	13496	1.14%	0.162%
16	8.504	1171	1176	1182	rVB4	6603	14027	1.18%	0.168%
17	8.634	1190	1198	1205	rBV3	33761	69290	5.84%	0.831%
18	8.775	1212	1222	1235	rBV	376226	781911	65.93%	9.379%
19	9.269	1296	1306	1314	rBV2	53297	118037	9.95%	1.416%
20	9.904	1408	1414	1421	rBV3	13433	26671	2.25%	0.320%
21	10.046	1428	1438	1447	rVB5	10245	28212	2.38%	0.338%
22	10.269	1468	1476	1482	rBV	644408	1186021	100.00%	14.226%
23	10.334	1482	1487	1493	rVB	66208	123962	10.45%	1.487%
24	10.457	1500	1508	1514	rVB3	41265	76085	6.42%	0.913%
25	10.610	1530	1534	1539	rBV5	10491	15315	1.29%	0.184%
26	11.128	1617	1622	1626	rBV3	13364	21730	1.83%	0.261%
27	11.375	1655	1664	1674	rVB6	13872	35618	3.00%	0.427%
28	11.469	1674	1680	1684	rBV5	7328	13589	1.15%	0.163%
29	11.581	1691	1699	1711	rBV	555391	945390	79.71%	11.340%
30	11.687	1711	1717	1725	rVV3	12889	26003	2.19%	0.312%
31	11.792	1725	1735	1745	rVV3	81056	182369	15.38%	2.187%
32	12.122	1780	1791	1798	rBV3	22771	53423	4.50%	0.641%
33	12.328	1822	1826	1831	rVB5	9748	18254	1.54%	0.219%
34	12.575	1860	1868	1877	rVB	399779	660544	55.69%	7.923%
35	12.828	1905	1911	1914	rBV2	13907	23112	1.95%	0.277%
36	12.898	1918	1923	1929	rVV4	40286	75422	6.36%	0.905%

Sample Results: **VD076777.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

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\82D071423S.M
Title : SW846 8260

37	13.210	1970	1976	1983	rVB2	42639	70551	5.95%	0.846%
38	13.398	2003	2008	2016	rBV8	6040	14636	1.23%	0.176%
39	13.516	2020	2028	2038	rVB	540215	883491	74.49%	10.597%
40	13.839	2077	2083	2087	rBV5	16872	26469	2.23%	0.317%

Sum of corrected areas: 8337067

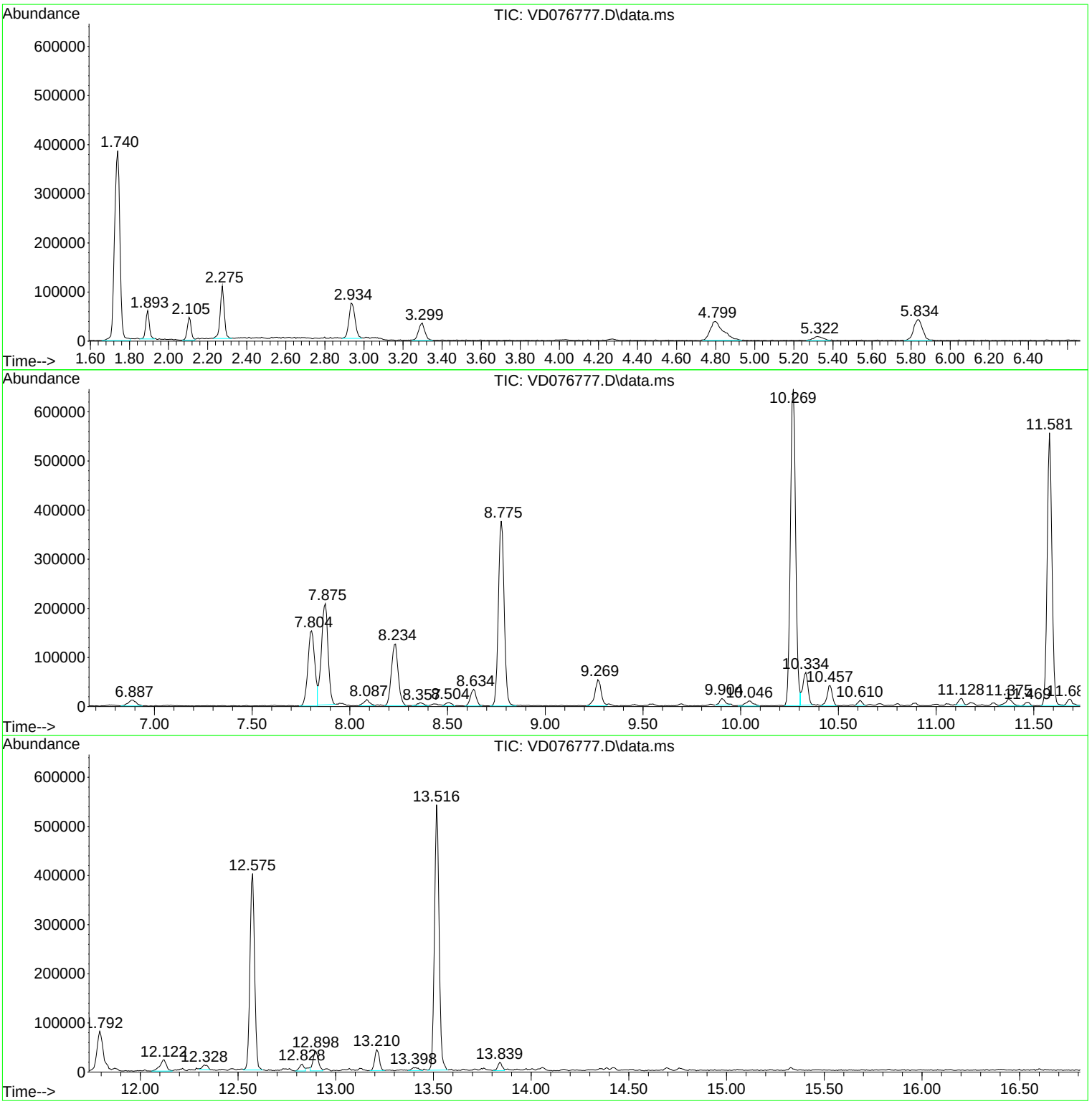
Sample Results: **VD076777.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

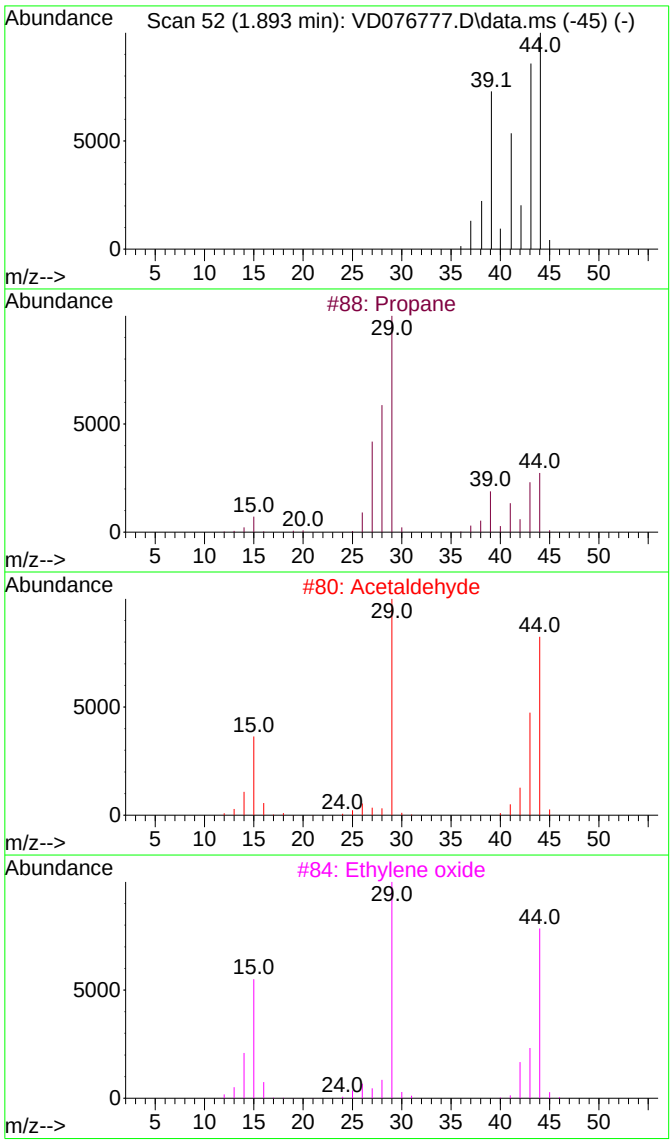
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

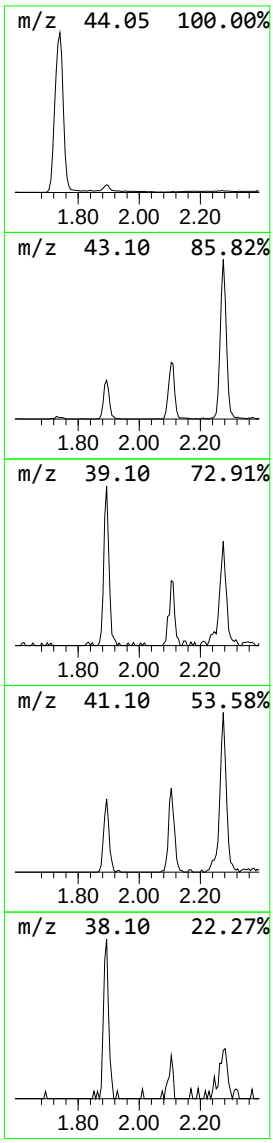
****

Peak Number 2 Propane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.893	7.51 ug/l	73194	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane	44	C3H8	000074-98-6	90
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Ethylene oxide	44	C2H4O	000075-21-8	5
4	Propene	42	C3H6	000115-07-1	4
5	Ethyne, fluoro-	44	C2HF	002713-09-9	3





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

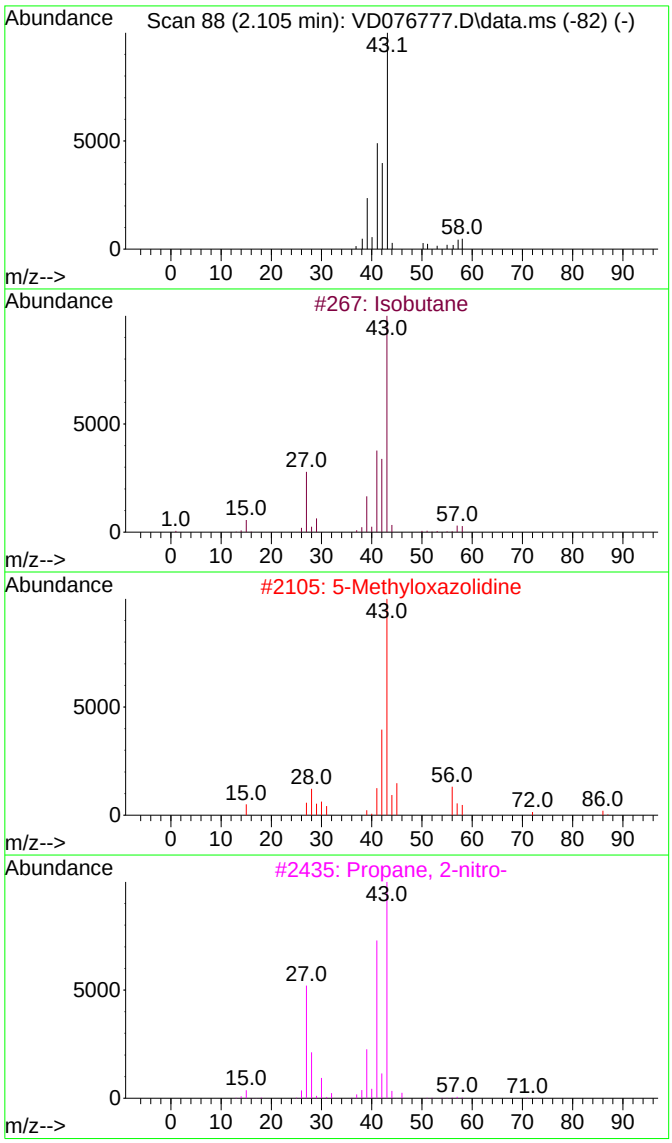
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

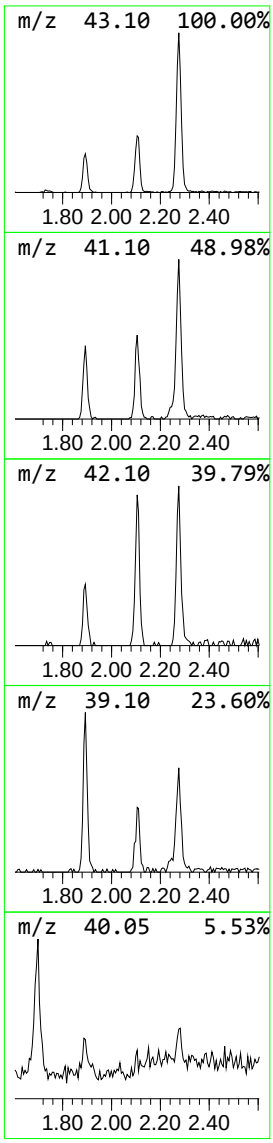
****

Peak Number 3 Isobutane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.105	6.37 ug/l	62147	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	72
2	5-Methyloxazolidine	87	C4H9NO	058328-22-6	4
3	Propane, 2-nitro-	89	C3H7NO2	000079-46-9	4
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	4
5	Hydrogen azide	43	HN3	007782-79-8	2





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

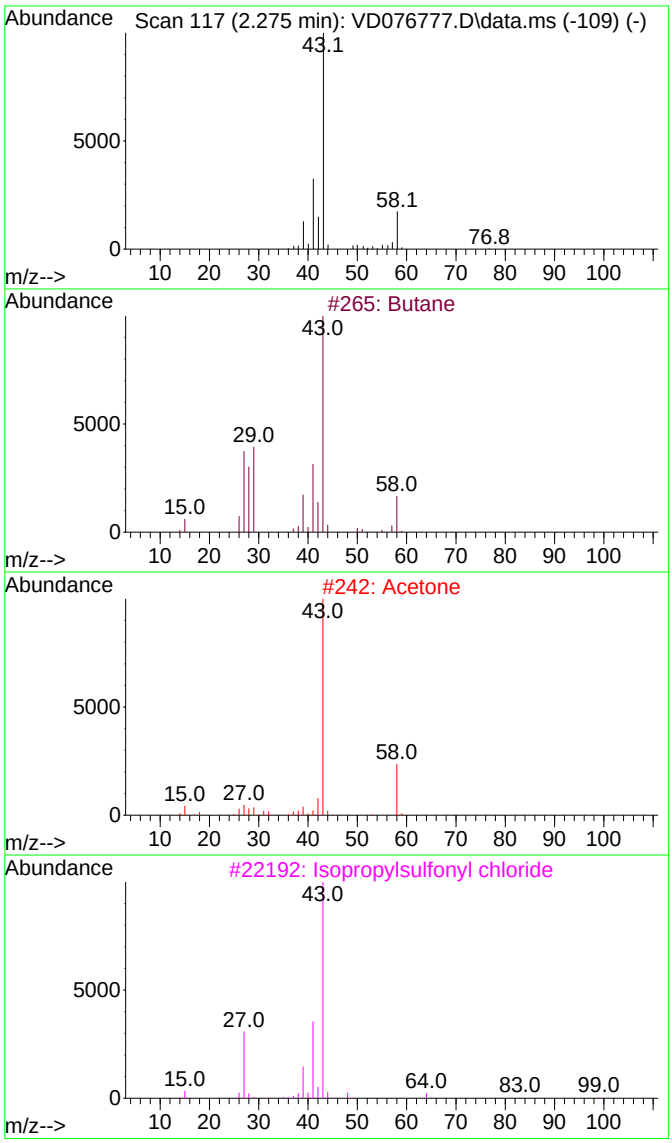
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

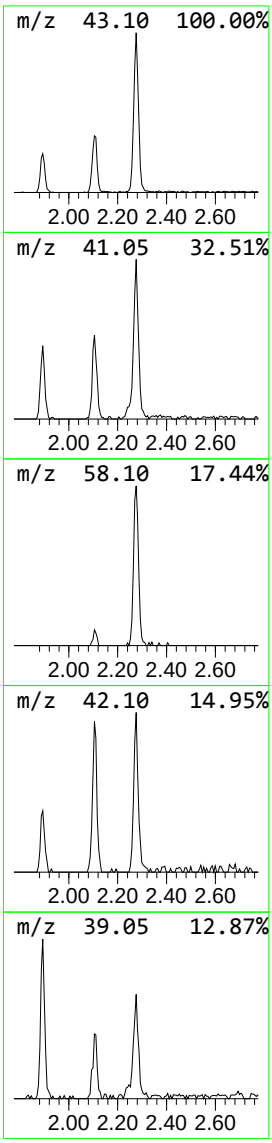
****

Peak Number 4 Butane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.275	15.80 ug/l	154034	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	64
2	Acetone	58	C3H6O	000067-64-1	9
3	Isopropylsulfonyl chloride	142	C3H7ClO2S	010147-37-2	9
4	Methyl glyoxal	72	C3H4O2	000078-98-8	9
5	Isobutane	58	C4H10	000075-28-5	5





Sample Results: **VD076777.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

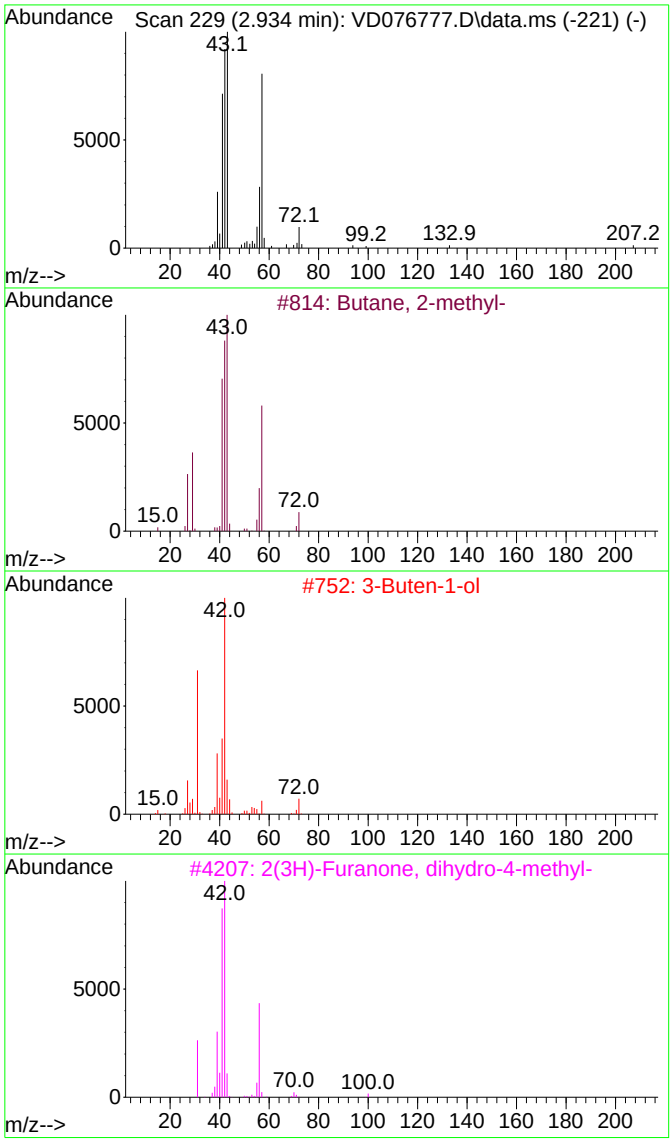
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

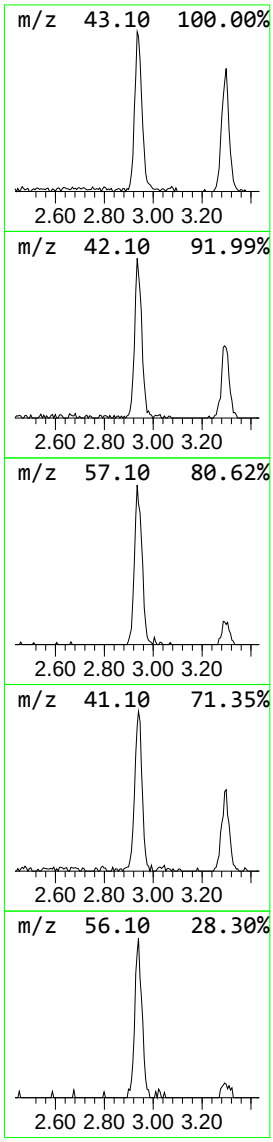
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 5 Butane, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.934	16.01 ug/l	156062	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	86
2	3-Buten-1-ol	72	C4H8O	000627-27-0	43
3	2(3H)-Furanone, dihydro-4-methyl-	100	C5H8O2	001679-49-8	33
4	Pentane	72	C5H12	000109-66-0	28
5	Butane, 1-isocyano-	83	C5H9N	002769-64-4	10





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

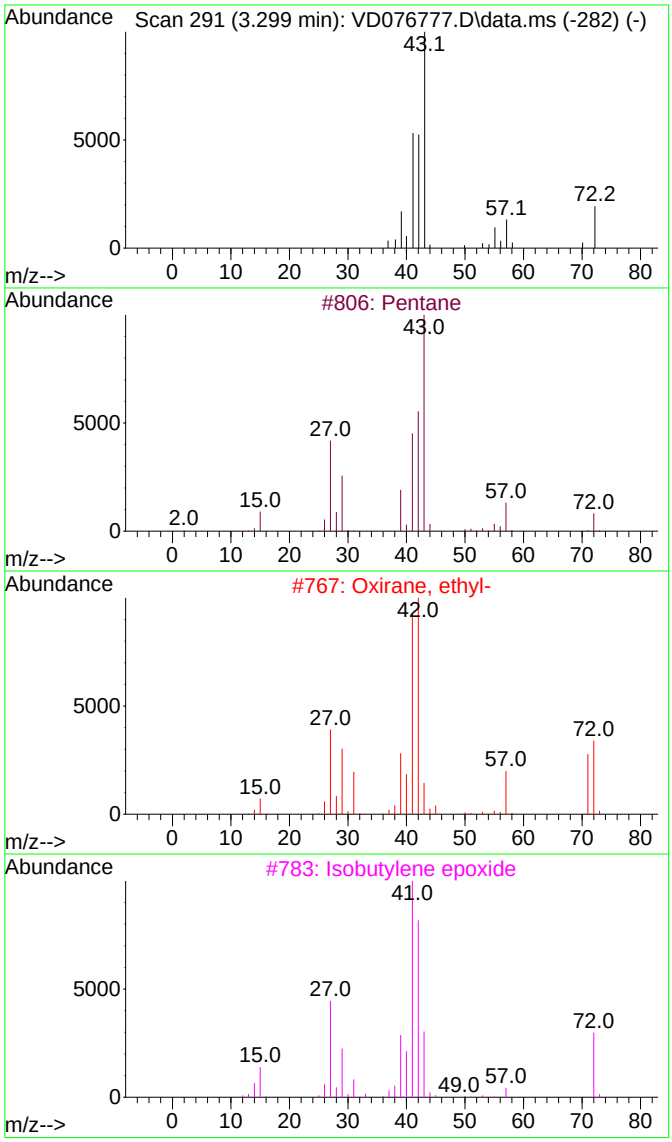
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

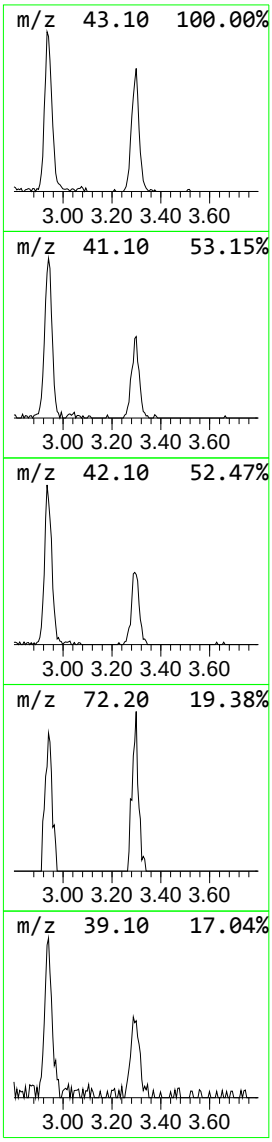
****

Peak Number 6 Pentane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.299	8.06 ug/l	78545	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	64
2	Oxirane, ethyl-	72	C4H8O	000106-88-7	53
3	Isobutylene epoxide	72	C4H8O	000558-30-5	50
4	Diaziridine,3,3-dimethyl-	72	C3H8N2	004901-76-2	9
5	Butanal	72	C4H8O	000123-72-8	9





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

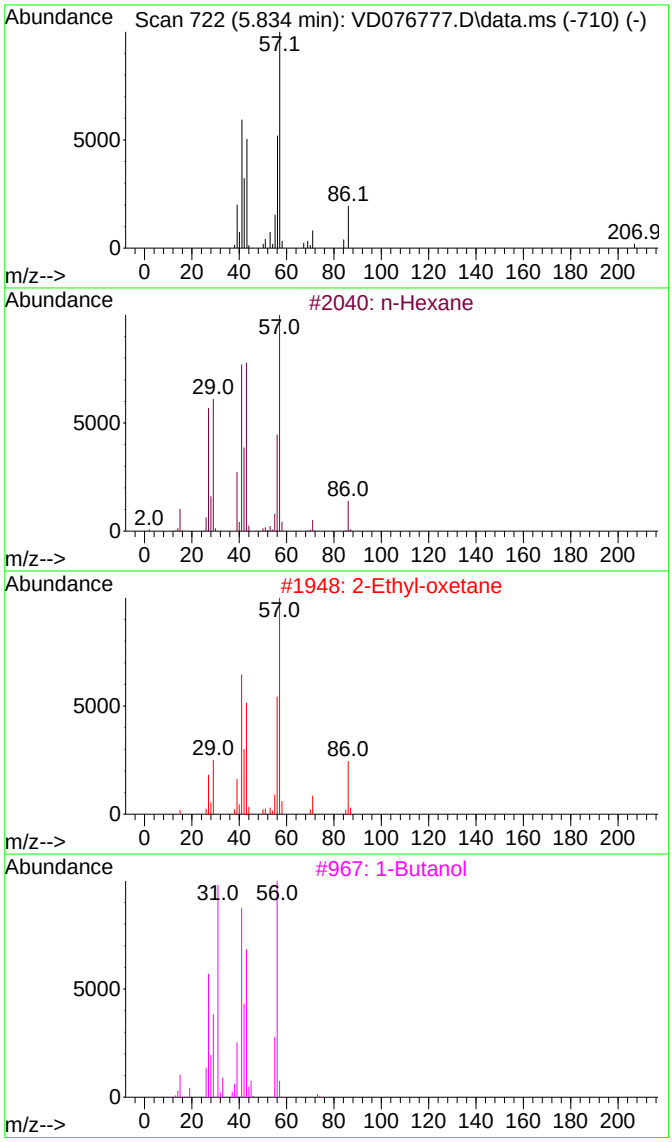
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

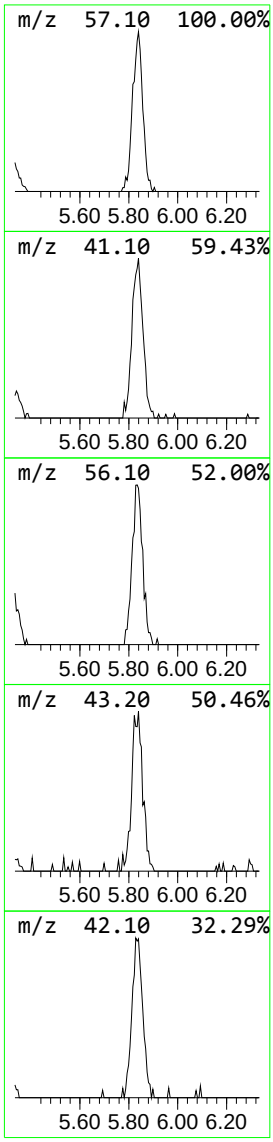
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 8 n-Hexane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.834	13.83 ug/l	134833	Pentafluorobenzene	7.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexane	86	C6H14	000110-54-3	72
2	2-Ethyl-oxetane	86	C5H10O	1010386-40-2	56
3	1-Butanol	74	C4H10O	000071-36-3	37
4	1-Pentene, 4-methyl-	84	C6H12	000691-37-2	37
5	Tetradecane, 2,2-dimethyl-	226	C16H34	059222-86-5	32





Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076777.D
Acq On : 18 Jul 2023 14:49
Operator : KP/SY
Sample : 03645-07
Misc : 5.92G/5.0ml/MSVOA_D/SOIL
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
DUP

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Propane	1.893	7.5	ug/l	73194	1	7.875	487514	50.0
Isobutane	2.105	6.4	ug/l	62147	1	7.875	487514	50.0
Butane	2.275	15.8	ug/l	154034	1	7.875	487514	50.0
Butane, 2-methyl-	2.934	16.0	ug/l	156062	1	7.875	487514	50.0
Pentane	3.299	8.1	ug/l	78545	1	7.875	487514	50.0
n-Hexane	5.834	13.8	ug/l	134833	1	7.875	487514	50.0

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	RINSATE-BLANK	SDG No.:	O3645
Lab Sample ID:	O3645-08	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078566.D	1		07/18/23 17:16	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.14	1.00	ug/L
74-87-3	Chloromethane	1.00	UQ	0.25	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.25	1.00	ug/L
74-83-9	Bromomethane	5.00	U	1.60	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.28	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.13	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.21	1.00	ug/L
67-64-1	Acetone	5.00	U	1.20	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.27	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.14	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.36	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.17	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.16	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.60	5.00	ug/L
78-93-3	2-Butanone	5.00	U	1.20	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.13	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.20	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.14	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	UQ	0.14	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	1.00	U	0.12	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.16	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.26	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	UQ	0.15	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.15	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.74	5.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	UQ	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	UQ	0.15	1.00	ug/L

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	RINSATE-BLANK	SDG No.:	O3645
Lab Sample ID:	O3645-08	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078566.D	1		07/18/23 17:16	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	UQ	0.13	1.00	ug/L
591-78-6	2-Hexanone	5.00	UQ	0.98	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	UQ	0.15	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	UQ	0.13	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	UQ	0.17	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.12	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	UQ	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	UQ	0.31	2.00	ug/L
1330-20-7	Total Xylenes	3.00	UQ	0.46	3.00	ug/L
95-47-6	o-Xylene	1.00	UQ	0.15	1.00	ug/L
100-42-5	Styrene	1.00	UQ	0.13	1.00	ug/L
75-25-2	Bromoform	1.00	UQ	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
103-65-1	n-propylbenzene	1.00	U	0.15	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.17	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.16	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.00	U	0.16	1.00	ug/L
135-98-8	sec-Butylbenzene	1.00	U	0.16	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.16	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.23	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
104-51-8	n-Butylbenzene	1.00	U	0.24	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.43	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.43	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.55	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.8		74 - 125	102%	SPK: 50
1868-53-7	Dibromofluoromethane	54.3		75 - 124	109%	SPK: 50
2037-26-5	Toluene-d8	44.7		86 - 113	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		64 - 133	102%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VN078566.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	RINSATE-BLANK	SDG No.:	O3645
Lab Sample ID:	O3645-08	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078566.D	1		07/18/23 17:16	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	401000	8.235			
540-36-3	1,4-Difluorobenzene	753000	9.106			
3114-55-4	Chlorobenzene-d5	694000	11.87			
3855-82-1	1,4-Dichlorobenzene-d4	243000	13.8			

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\VN071823\
Data File : VN078566.D
Acq On : 18 Jul 2023 17:16
Operator : JC\MD
Sample : 03645-08
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Quant Time: Jul 19 01:53:34 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.235	168	401033	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	752774	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	693621	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	242621	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	273157	50.808	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 101.620%			
35) Dibromofluoromethane	8.177	113	277378	54.281	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 108.560%			
50) Toluene-d8	10.570	98	862849	44.697	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 89.400%			
62) 4-Bromofluorobenzene	12.853	95	302388	50.855	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 101.700%			

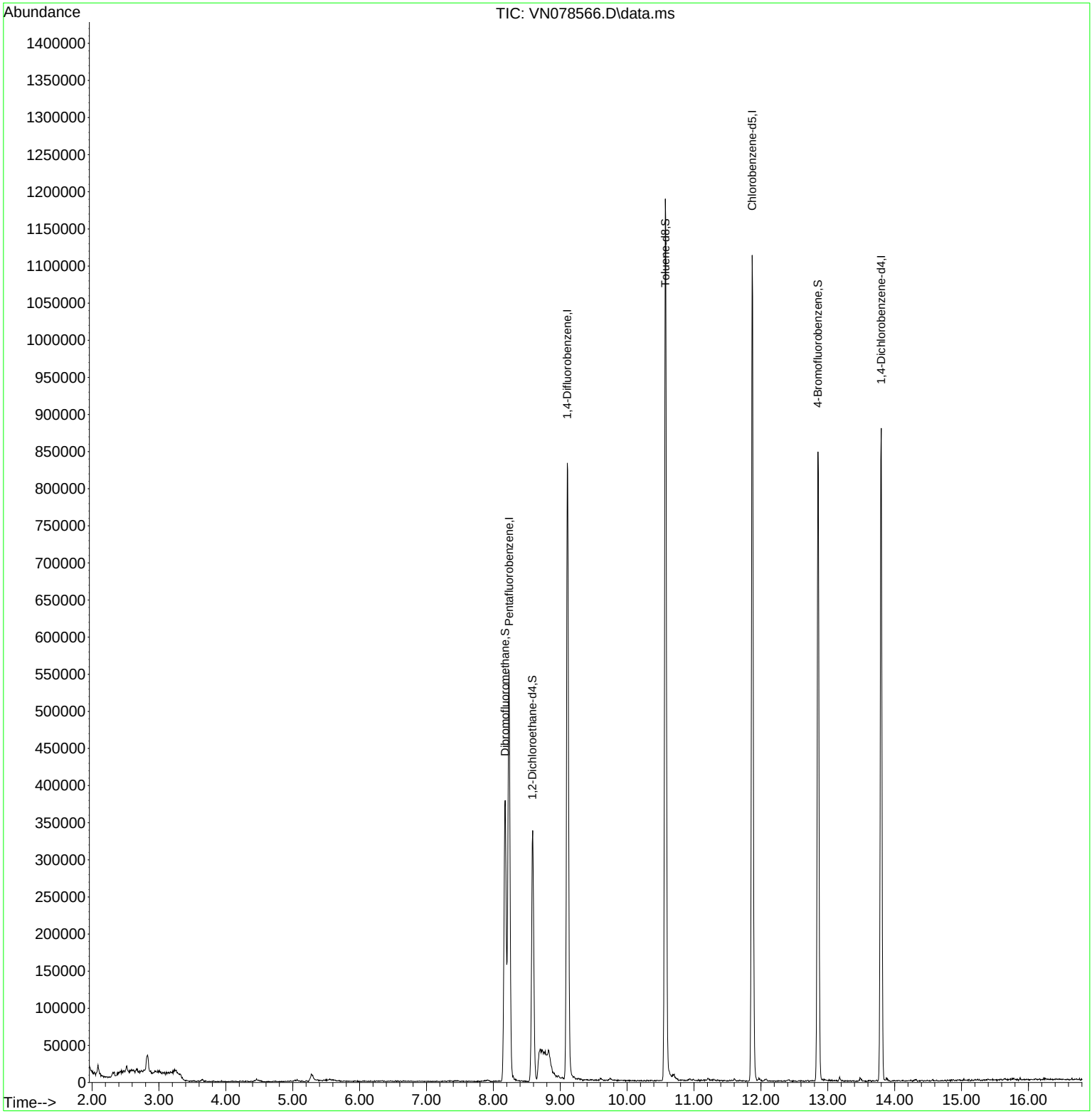
Target Compounds Qvalue

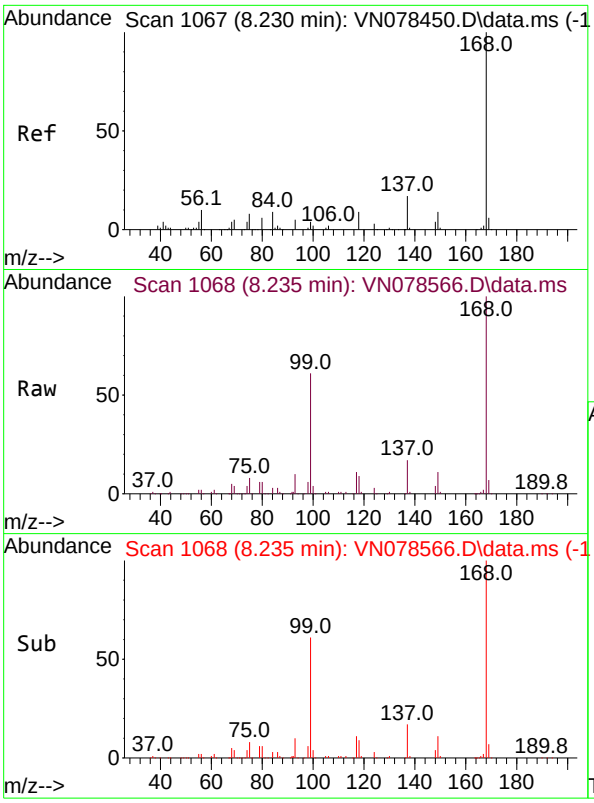
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078566.D
Acq On : 18 Jul 2023 17:16
Operator : JC\MD
Sample : 03645-08
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Quant Time: Jul 19 01:53:34 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration



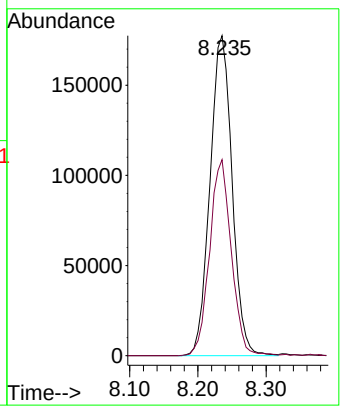


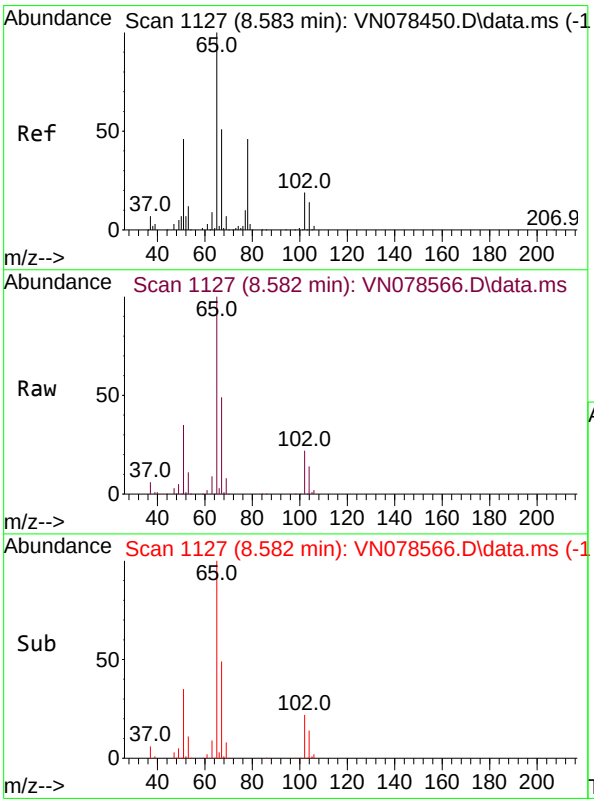
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.235 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Tgt Ion:168 Resp: 401033

Ion	Ratio	Lower	Upper
168	100		
99	61.2	53.0	79.6

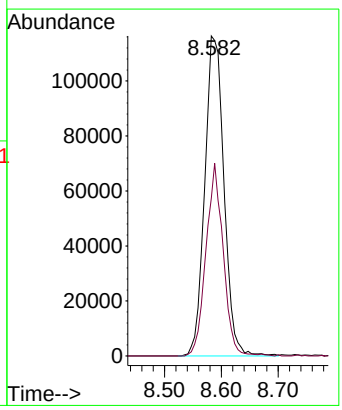


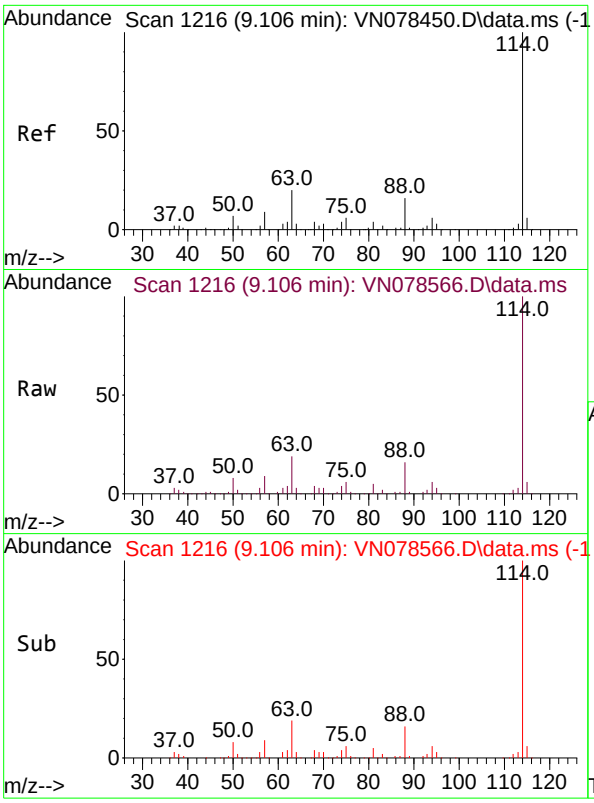


#33
1,2-Dichloroethane-d4
Concen: 50.808 ug/l
RT: 8.582 min Scan# 1127
Delta R.T. -0.001 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Tgt Ion: 65 Resp: 273157

Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	106.6



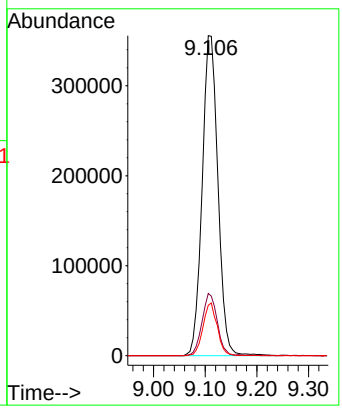


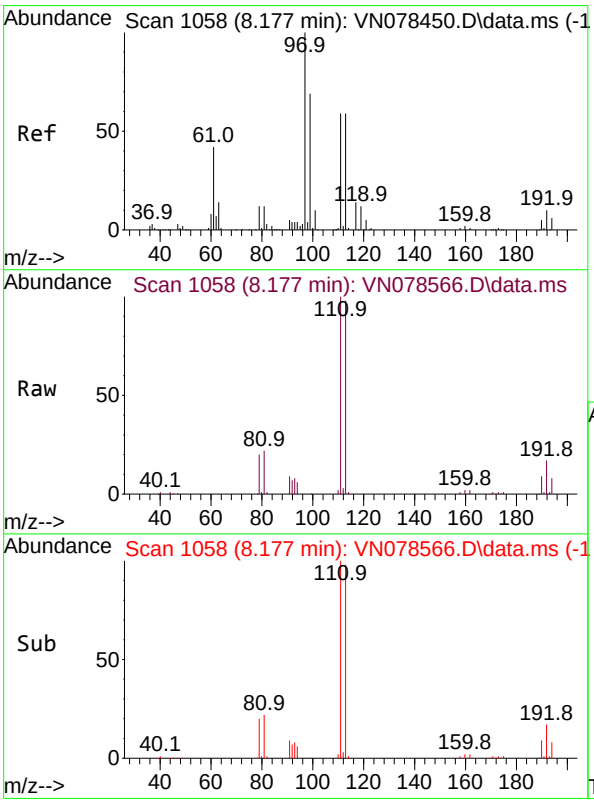
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Tgt Ion:114 Resp: 752774

Ion	Ratio	Lower	Upper
114	100		
63	19.5	0.0	36.4
88	15.8	0.0	30.6

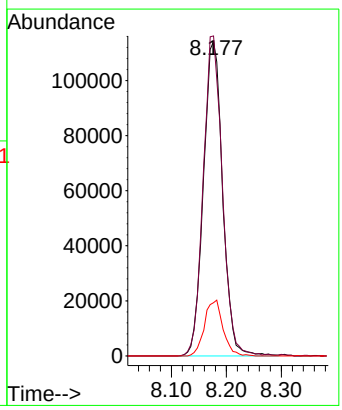


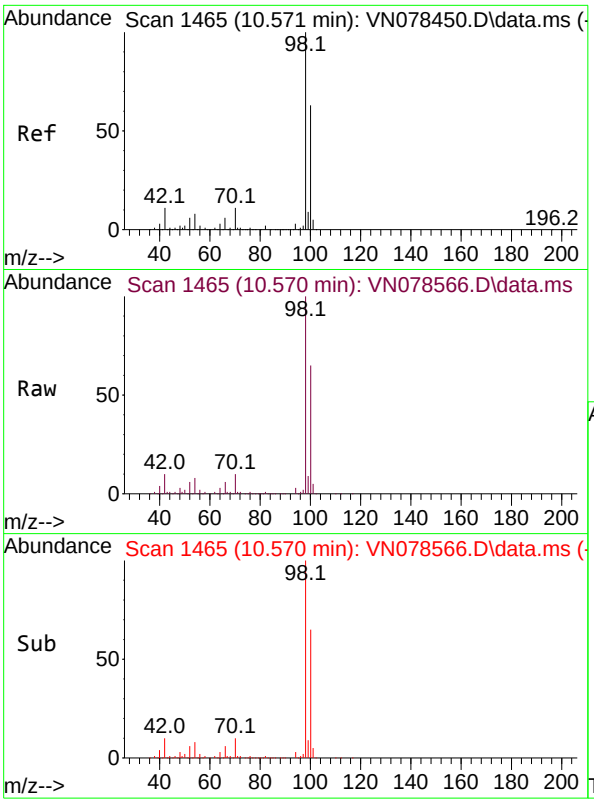


#35
Dibromofluoromethane
Concen: 54.281 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Tgt Ion:113 Resp: 277378

Ion	Ratio	Lower	Upper
113	100		
111	101.3	82.6	123.8
192	17.1	12.7	19.1



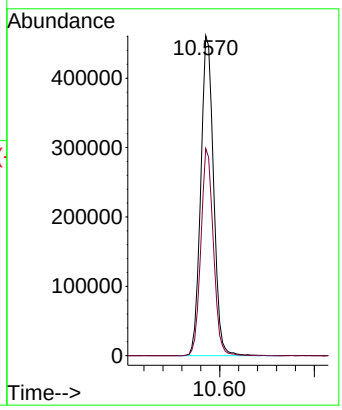


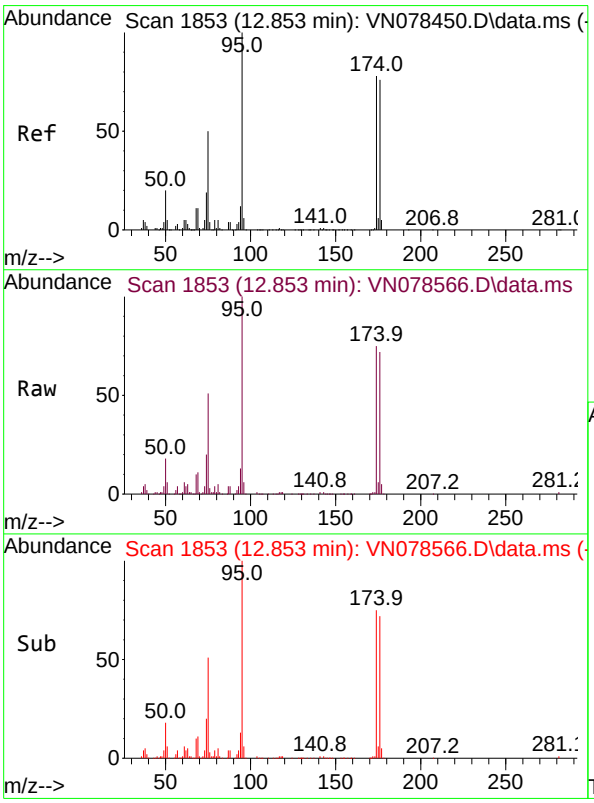
#50
Toluene-d8
Concen: 44.697 ug/l
RT: 10.570 min Scan# 14
Delta R.T. -0.001 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Tgt Ion: 98 Resp: 862849

Ion	Ratio	Lower	Upper
98	100		
100	63.2	52.0	78.0

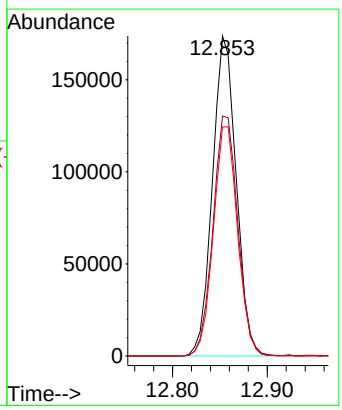


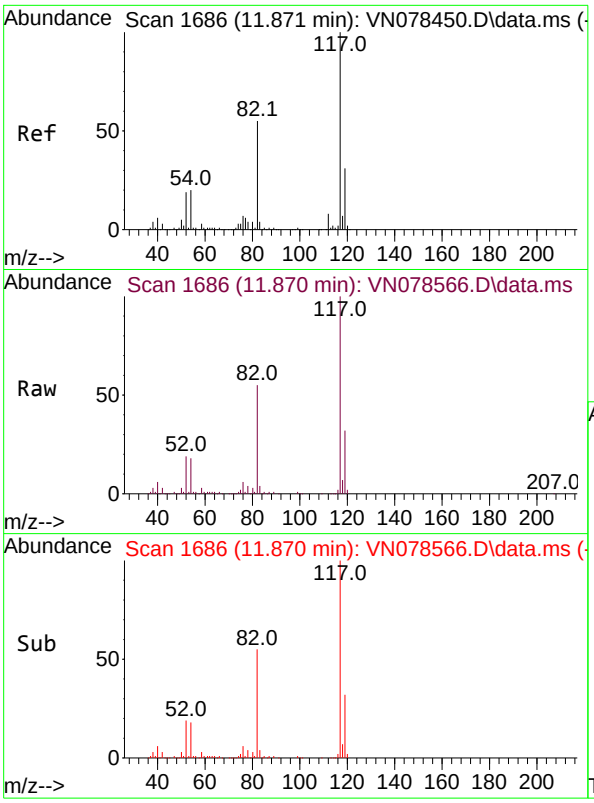


#62
4-Bromofluorobenzene
Concen: 50.855 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Tgt Ion: 95 Resp: 302388

Ion	Ratio	Lower	Upper
95	100		
174	78.5	0.0	143.8
176	73.4	0.0	135.8



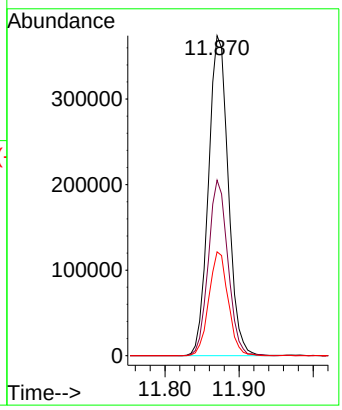


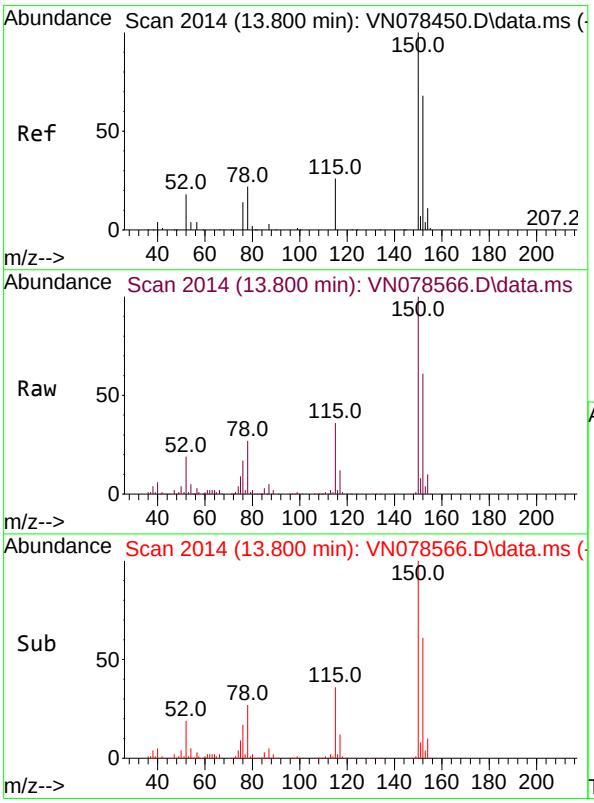
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Tgt Ion:117 Resp: 693621

Ion	Ratio	Lower	Upper
117	100		
82	54.9	44.0	66.0
119	32.4	25.6	38.4

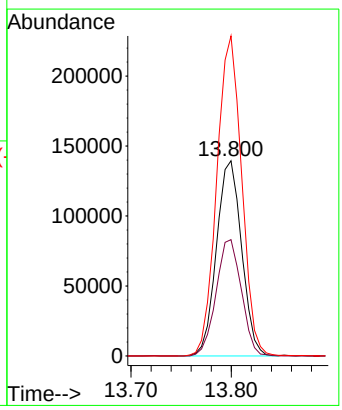




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078566.D
Acq: 18 Jul 2023 17:16

Tgt Ion:152 Resp: 242621

Ion	Ratio	Lower	Upper
152	100		
115	59.8	32.3	96.8
150	162.4	0.0	355.8



Sample Results: **VN078566.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078566.D
Acq On : 18 Jul 2023 17:16
Operator : JC\MD
Sample : 03645-08
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

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\82N071023W.M
Title : SW846 8260

Signal : TIC: VN078566.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.089	17	23	27	rBV4	13905	23599	1.05%	0.194%
2	2.830	143	149	156	rVB3	22311	49378	2.20%	0.406%
3	8.177	1048	1058	1062	rBV2	378459	884900	39.38%	7.274%
4	8.235	1062	1068	1077	rVB	548815	1242674	55.31%	10.215%
5	8.588	1117	1128	1138	rBV	338548	770579	34.30%	6.335%
6	8.700	1138	1147	1149	rBV3	40301	105419	4.69%	0.867%
7	9.106	1208	1216	1231	rBV	829774	1731328	77.06%	14.232%
8	10.570	1456	1465	1481	rBV	1187927	2246818	100.00%	18.470%
9	11.870	1678	1686	1698	rBV	1112505	2061365	91.75%	16.946%
10	12.853	1845	1853	1863	rBV	847954	1518784	67.60%	12.485%
11	13.800	2005	2014	2024	rBV	879970	1529793	68.09%	12.576%

Sum of corrected areas: 12164637

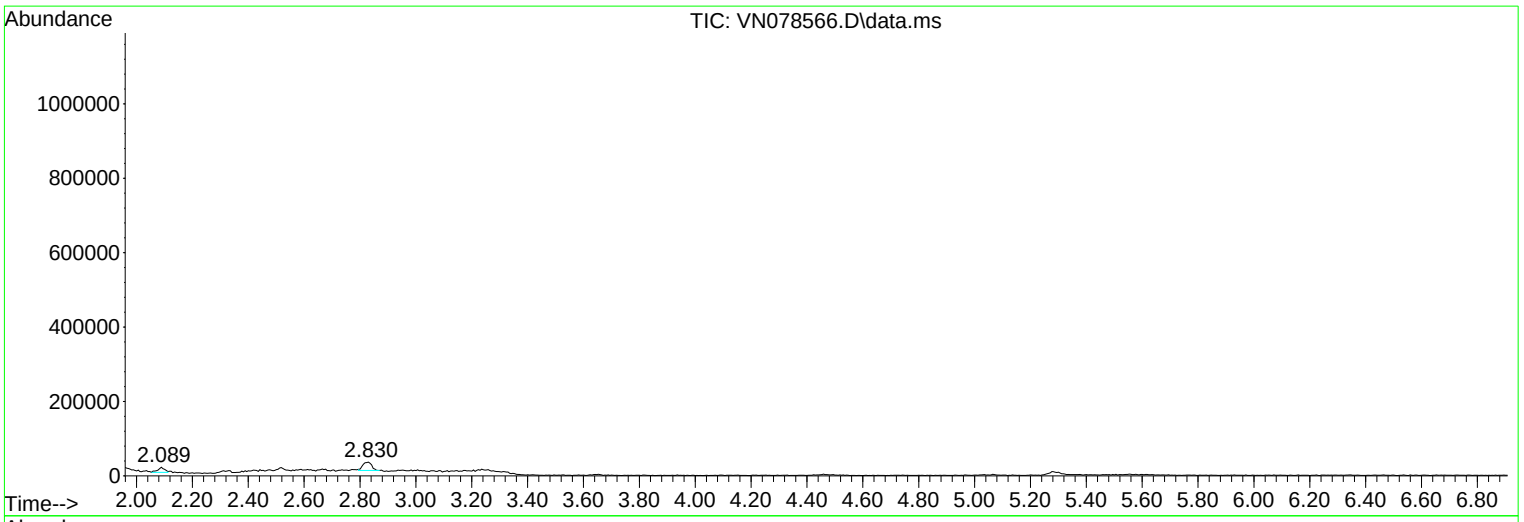
Sample Results: **VN078566.D**

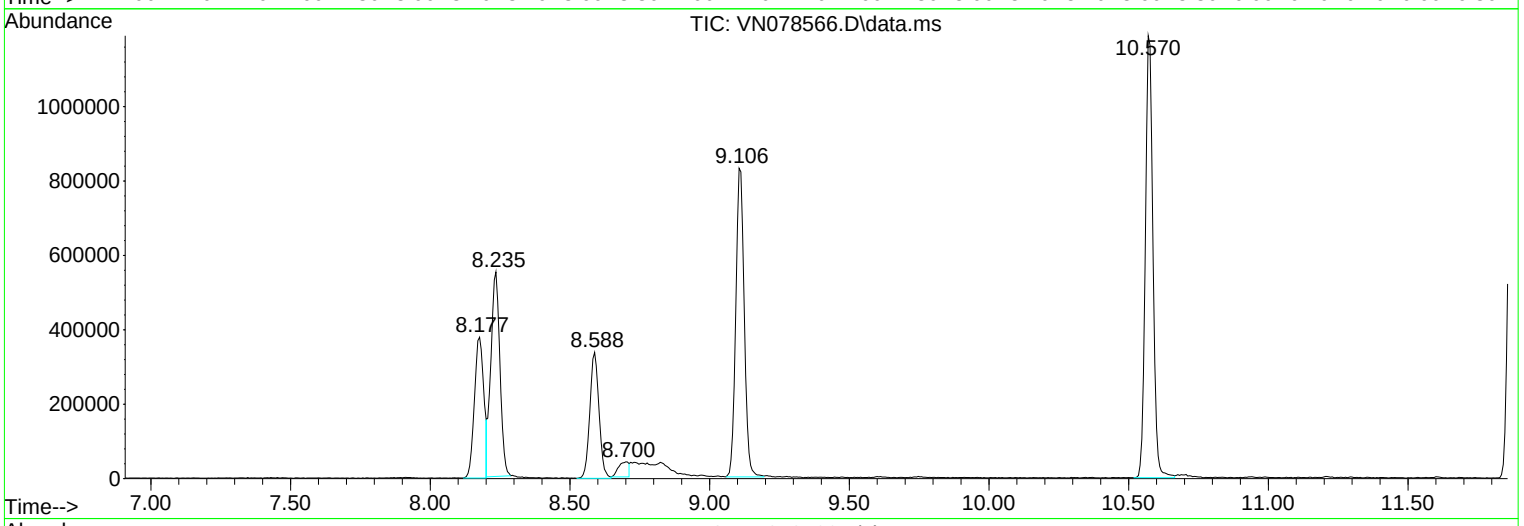
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078566.D
Acq On : 18 Jul 2023 17:16
Operator : JC\MD
Sample : 03645-08
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 18 Sample Multiplier: 1

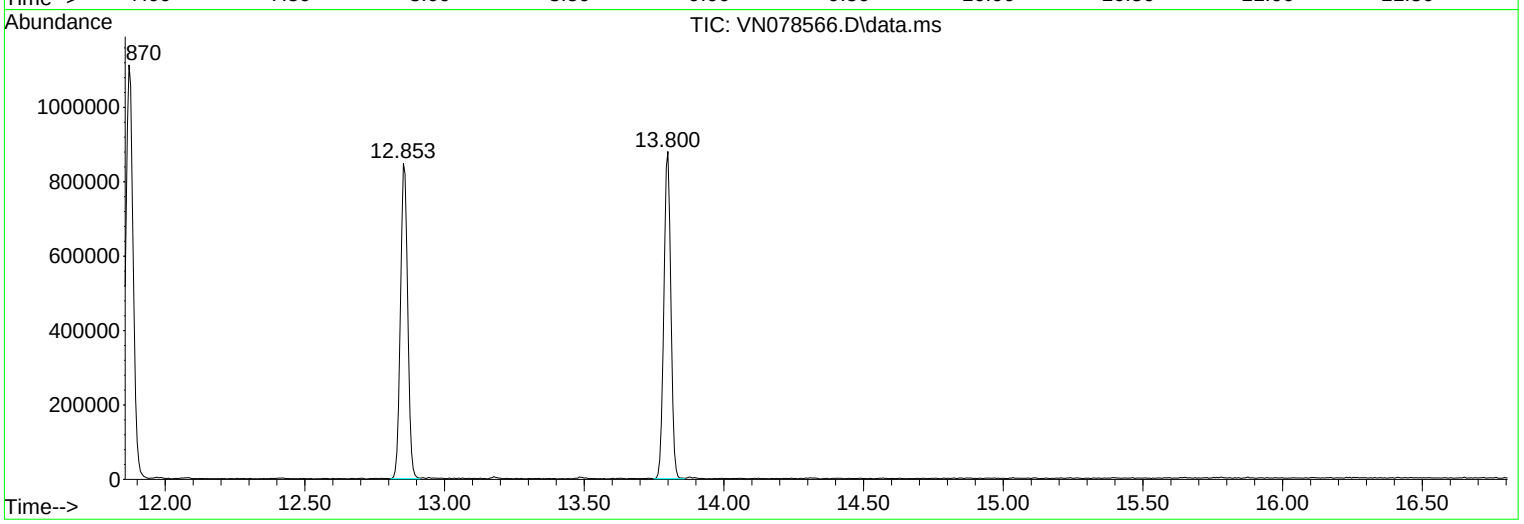
Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260

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







Library Search Compound Report

Sample Results: **VN078566.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078566.D
Acq On : 18 Jul 2023 17:16
Operator : JC\MD
Sample : 03645-08
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.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\VN071823\
Data File : VN078566.D
Acq On : 18 Jul 2023 17:16
Operator : JC\MD
Sample : 03645-08
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
RINSATE-BLANK

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260

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

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

CHEMTECH

CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG No.: O3645

Instrument ID: MSVOA_D Calibration Date(s): 07/14/2023 07/14/2023

Heated Purge: (Y/N) Y Calibration Time(s): 12:50 15:57

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

LAB FILE ID: RRF020 = VD076737.D RRF050 = VD076738.D RRF100 = VD076739.D
RRF150 = VD076740.D RRF005 = VD076742.D RRF =

COMPOUND	RRF020	RRF050	RRF100	RRF150	RRF005	RRF	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.449	0.393	0.359	0.383	0.372		0.391	8.9
Chloromethane	0.718	0.686	0.618	0.587	0.764		0.674	10.7
Vinyl Chloride	0.950	0.906	0.839	0.842	0.958		0.899	6.3
Bromomethane	0.729	0.705	0.690	0.709	0.866		0.740	9.8
Chloroethane	0.705	0.687	0.640	0.629	0.733		0.679	6.4
Trichlorofluoromethane	0.868	0.775	0.756	0.794	0.807		0.800	5.3
1,1,2-Trichlorotrifluoroethane	0.584	0.520	0.491	0.514	0.521		0.526	6.5
1,1-Dichloroethene	0.523	0.494	0.468	0.479	0.508		0.494	4.5
Acetone	0.109	0.123	0.118	0.104	0.141		0.119	12.1
Carbon Disulfide	1.218	1.205	1.127	1.113	1.106		1.154	4.6
Methyl tert-butyl Ether	1.306	1.404	1.328	1.284	1.303		1.325	3.5
Methyl Acetate	0.435	0.465	0.446	0.417	0.471		0.447	5
Methylene Chloride	0.803	0.735	0.659	0.600	2.123		0.984	65.2
trans-1,2-Dichloroethene	0.594	0.601	0.556	0.550	0.571		0.574	3.9
1,1-Dichloroethane	1.046	1.076	1.021	0.968	1.070		1.036	4.2
Cyclohexane	0.789	0.680	0.654	0.675	0.866		0.733	12.4
2-Butanone	0.154	0.170	0.163	0.147	0.162		0.159	5.6
Carbon Tetrachloride	0.423	0.393	0.396	0.407	0.346		0.393	7.3
cis-1,2-Dichloroethene	0.713	0.731	0.719	0.675	0.703		0.708	3
Bromochloromethane	0.294	0.246	0.238	0.216	0.301		0.259	14.3
Chloroform	1.175	1.133	1.115	1.045	1.206		1.135	5.4
1,1,1-Trichloroethane	0.968	0.935	0.909	0.897	0.869		0.916	4.1
Methylcyclohexane	0.509	0.478	0.466	0.492	0.425		0.474	6.7
Benzene	1.349	1.295	1.308	1.256	1.270		1.295	2.8
1,2-Dichloroethane	0.334	0.346	0.344	0.321	0.339		0.337	3
Trichloroethene	0.374	0.358	0.355	0.337	0.341		0.353	4.2
1,2-Dichloropropane	0.344	0.360	0.335	0.315	0.318		0.334	5.6
Bromodichloromethane	0.505	0.518	0.481	0.463	0.490		0.491	4.3
4-Methyl-2-Pentanone	0.185	0.207	0.195	0.181	0.185		0.191	5.6
Toluene	0.856	0.884	0.854	0.841	0.819		0.851	2.8
t-1,3-Dichloropropene	0.433	0.491	0.478	0.453	0.425		0.456	6.2
cis-1,3-Dichloropropene	0.551	0.570	0.545	0.526	0.494		0.537	5.3
1,1,2-Trichloroethane	0.285	0.304	0.292	0.270	0.278		0.286	4.6

* 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.

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG No.: O3645

Instrument ID: MSVOA_D Calibration Date(s): 07/14/2023 07/14/2023

Heated Purge: (Y/N) Y Calibration Time(s): 12:50 15:57

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

LAB FILE ID: RRF020 = VD076737.D RRF050 = VD076738.D RRF100 = VD076739.D
RRF150 = VD076740.D RRF005 = VD076742.D RRF =

COMPOUND	RRF020	RRF050	RRF100	RRF150	RRF005	RRF	$\overline{RRF}$	% RSD
2-Hexanone	0.129	0.148	0.140	0.128	0.134		0.136	6.1
Dibromochloromethane	0.328	0.354	0.341	0.325	0.312		0.332	4.9
1,2-Dibromoethane	0.265	0.287	0.269	0.250	0.254		0.265	5.6
Tetrachloroethene	0.315	0.279	0.277	0.284	0.271		0.285	6
Chlorobenzene	1.067	0.999	1.005	0.991	0.965		1.006	3.7
Ethyl Benzene	1.860	1.760	1.772	1.819	1.620		1.766	5.2
m/p-Xylenes	0.721	0.677	0.696	0.705	0.592		0.678	7.5
o-Xylene	0.668	0.661	0.683	0.678	0.589		0.656	5.9
Styrene	1.182	1.164	1.196	1.190	1.009		1.148	6.9
Bromoform	0.211	0.211	0.214	0.205	0.184		0.205	5.9
Isopropylbenzene	3.774	3.610	3.576	3.657	3.521		3.628	2.6
1,1,2,2-Tetrachloroethane	0.811	0.787	0.765	0.710	0.821		0.779	5.7
n-propylbenzene	4.710	4.375	4.341	4.423	4.139		4.398	4.7
1,3,5-Trimethylbenzene	3.115	2.959	2.954	2.997	2.641		2.933	6
tert-Butylbenzene	2.721	2.623	2.653	2.681	2.237		2.583	7.6
1,2,4-Trimethylbenzene	3.159	3.045	3.028	3.057	2.699		2.997	5.8
sec-Butylbenzene	4.253	3.935	3.926	4.056	3.560		3.946	6.4
p-Isopropyltoluene	3.475	3.289	3.330	3.451	2.749		3.259	9.1
1,3-Dichlorobenzene	1.810	1.738	1.736	1.730	1.597		1.722	4.5
1,4-Dichlorobenzene	1.752	1.677	1.692	1.647	1.669		1.687	2.3
n-Butylbenzene	3.482	3.167	3.145	3.254	2.896		3.189	6.6
1,2-Dichlorobenzene	1.569	1.528	1.488	1.483	1.521		1.518	2.3
1,2-Dibromo-3-Chloropropane	0.115	0.106	0.105	0.096	0.134		0.111	12.9
1,2,4-Trichlorobenzene	0.946	0.924	0.938	0.907	0.918		0.927	1.7
1,2,3-Trichlorobenzene	0.835	0.827	0.836	0.807	0.852		0.831	2
1,2-Dichloroethane-d4	0.534	0.468	0.484	0.449	0.554		0.498	8.9
Dibromofluoromethane	0.345	0.291	0.317	0.285	0.333		0.314	8.2
Toluene-d8	1.271	1.053	1.102	1.042	1.152		1.124	8.3
4-Bromofluorobenzene	0.392	0.351	0.373	0.346	0.357		0.364	5.1

* 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.

Response Factor Report MSVOA_D

Method Path : Z:\voasrv\HPCHEM1\MSVOA_D\Method\
Method File : 82D071423S.M
Title : SW846 8260
Last Update : Mon Jul 17 08:07:52 2023
Response Via : Initial Calibration

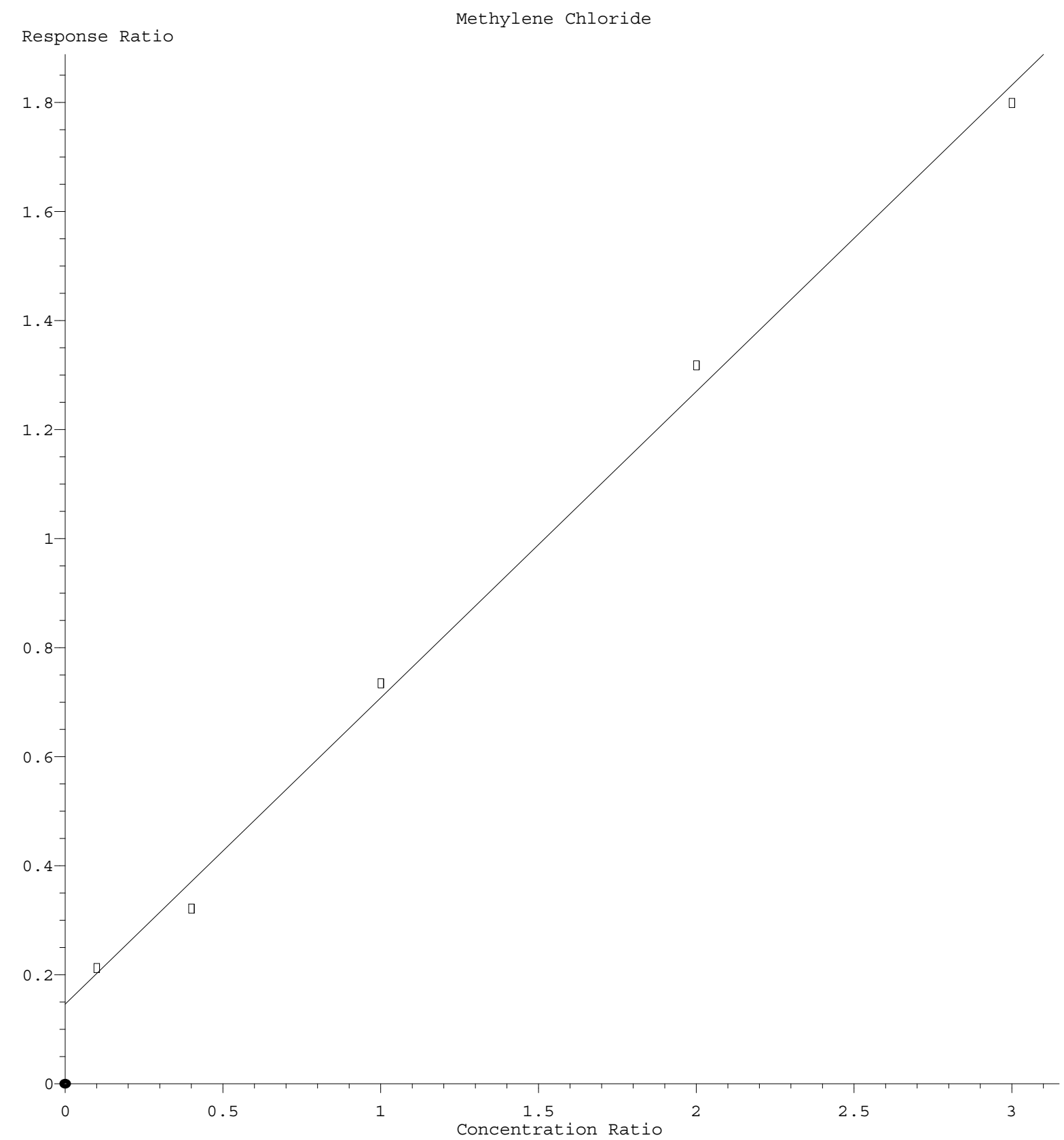
Calibration Files
5 =VD076742.D 150 =VD076740.D 20 =VD076737.D 50 =VD076738.D 100 =VD076739.D

		Compound	5	150	20	50	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluoro...	0.372	0.383	0.449	0.393	0.359	0.391	8.88
3)	P	Chloromethane	0.764	0.587	0.718	0.686	0.618	0.674	10.73
4)	C	Vinyl Chloride	0.958	0.842	0.950	0.906	0.839	0.899	6.33#
5)	T	Bromomethane	0.866	0.709	0.729	0.705	0.690	0.740	9.76
6)	T	Chloroethane	0.733	0.629	0.705	0.687	0.640	0.679	6.44
7)	T	Trichlorofluorom...	0.807	0.794	0.868	0.775	0.756	0.800	5.34
8)	T	Diethyl Ether	0.272	0.263	0.262	0.302	0.278	0.275	5.90
9)	T	1,1,2-Trichlorot...	0.521	0.514	0.584	0.520	0.491	0.526	6.54
10)	T	Methyl Iodide	0.466	0.611	0.605	0.638	0.644	0.593	12.28
11)	T	Tert butyl alcohol	0.036	0.035	0.040	0.038	0.037	0.037	4.75
12)	CM	1,1-Dichloroethene	0.508	0.479	0.523	0.494	0.468	0.494	4.47#
13)	T	Acrolein	0.027	0.022	0.032	0.023	0.023	0.025	16.02
14)	T	Allyl chloride	0.686	0.607	0.650	0.676	0.626	0.649	5.04
15)	T	Acrylonitrile	0.142	0.126	0.130	0.142	0.136	0.135	5.47
16)	T	Acetone	0.141	0.104	0.109	0.123	0.118	0.119	12.05
17)	T	Carbon Disulfide	1.106	1.113	1.218	1.205	1.127	1.154	4.63
18)	T	Methyl Acetate	0.471	0.417	0.435	0.465	0.446	0.447	4.96
19)	T	Methyl tert-buty...	1.303	1.284	1.306	1.404	1.328	1.325	3.54
20)	T	Methylene Chloride	2.123	0.600	0.803	0.735	0.659	0.984	65.19
21)	T	trans-1,2-Dichlo...	0.571	0.550	0.594	0.601	0.556	0.574	3.93
22)	T	Diisopropyl ether	1.536	1.437	1.552	1.626	1.533	1.537	4.37
23)	T	Vinyl Acetate	0.757	0.724	0.732	0.814	0.775	0.760	4.72
24)	P	1,1-Dichloroethane	1.070	0.968	1.046	1.076	1.021	1.036	4.24
25)	T	2-Butanone	0.162	0.147	0.154	0.170	0.163	0.159	5.63
26)	T	2,2-Dichloropropane	0.901	0.868	0.927	0.896	0.874	0.893	2.61
27)	T	cis-1,2-Dichloro...	0.703	0.675	0.713	0.731	0.719	0.708	2.98
28)	T	Bromochloromethane	0.301	0.216	0.294	0.246	0.238	0.259	14.31
29)	T	Tetrahydrofuran	0.097	0.087	0.093	0.097	0.095	0.094	4.28
30)	C	Chloroform	1.206	1.045	1.175	1.133	1.115	1.135	5.41#
31)	T	Cyclohexane	0.866	0.675	0.789	0.680	0.654	0.733	12.44
32)	T	1,1,1-Trichloroe...	0.869	0.897	0.968	0.935	0.909	0.916	4.11
33)	S	1,2-Dichloroetha...	0.554	0.449	0.534	0.468	0.484	0.498	8.95
34)	I	1,4-Difluorobenzene	----------ISTD----------						
35)	S	Dibromofluoromet...	0.333	0.285	0.345	0.291	0.317	0.314	8.23
36)	T	1,1-Dichloropropene	0.383	0.406	0.438	0.411	0.414	0.411	4.75
37)	T	Ethyl Acetate	0.174	0.173	0.181	0.200	0.190	0.184	6.11
38)	T	Carbon Tetrachlo...	0.346	0.407	0.423	0.393	0.396	0.393	7.30
39)	T	Methylcyclohexane	0.425	0.492	0.509	0.478	0.466	0.474	6.74
40)	TM	Benzene	1.270	1.256	1.349	1.295	1.308	1.295	2.79
41)	T	Methacrylonitrile	0.134	0.102	0.116	0.112	0.096	0.112	12.98
42)	TM	1,2-Dichloroethane	0.339	0.321	0.334	0.346	0.344	0.337	3.00
43)	T	Isopropyl Acetate	0.367	0.342	0.344	0.373	0.365	0.358	3.93
44)	TM	Trichloroethene	0.341	0.337	0.374	0.358	0.355	0.353	4.20
45)	C	1,2-Dichloropropane	0.318	0.315	0.344	0.360	0.335	0.334	5.60#
46)	T	Dibromomethane	0.183	0.187	0.199	0.211	0.198	0.196	5.48
47)	T	Bromodichloromet...	0.490	0.463	0.505	0.518	0.481	0.491	4.32
48)	T	Methyl methacrylate	0.162	0.151	0.161	0.176	0.165	0.163	5.63
49)	T	1,4-Dioxane	0.003	0.002	0.002	0.003	0.003	0.003	5.16
50)	S	Toluene-d8	1.152	1.042	1.271	1.053	1.102	1.124	8.26
51)	T	4-Methyl-2-Penta...	0.185	0.181	0.185	0.207	0.195	0.191	5.55
52)	CM	Toluene	0.819	0.841	0.856	0.884	0.854	0.851	2.76#
53)	T	t-1,3-Dichloropr...	0.425	0.453	0.433	0.491	0.478	0.456	6.24
54)	T	cis-1,3-Dichloro...	0.494	0.526	0.551	0.570	0.545	0.537	5.34
55)	T	1,1,2-Trichloroe...	0.278	0.270	0.285	0.304	0.292	0.286	4.57
56)	T	Ethyl methacrylate	0.288	0.327	0.323	0.365	0.348	0.330	8.79

Method Path : Z:\voasrv\HPCHEM1\MSVOA_D\Method\
Method File : 82D071423S.M

57)	T	1,3-Dichloropropane	0.462	0.442	0.472	0.484	0.468	0.465	3.35
58)	T	2-Chloroethyl Vi...	0.131	0.122	0.129	0.129	0.128	0.128	2.81
59)	T	2-Hexanone	0.134	0.128	0.129	0.148	0.140	0.136	6.14
60)	T	Dibromochloromet...	0.312	0.325	0.328	0.354	0.341	0.332	4.91
61)	T	1,2-Dibromoethane	0.254	0.250	0.265	0.287	0.269	0.265	5.56
62)	S	4-Bromofluoroben...	0.357	0.346	0.392	0.351	0.373	0.364	5.12
63)	I	Chlorobenzene-d5	----------ISTD----------						
64)	T	Tetrachloroethene	0.271	0.284	0.315	0.279	0.277	0.285	6.02
65)	PM	Chlorobenzene	0.965	0.991	1.067	0.999	1.005	1.006	3.73
66)	T	1,1,1,2-Tetrachl...	0.359	0.375	0.390	0.369	0.378	0.374	3.09
67)	C	Ethyl Benzene	1.620	1.819	1.860	1.760	1.772	1.766	5.15#
68)	T	m/p-Xylenes	0.592	0.705	0.721	0.677	0.696	0.678	7.50
69)	T	o-Xylene	0.589	0.678	0.668	0.661	0.683	0.656	5.85
70)	T	Styrene	1.009	1.190	1.182	1.164	1.196	1.148	6.88
71)	P	Bromoform	0.184	0.205	0.211	0.211	0.214	0.205	5.91
72)	I	1,4-Dichlorobenzen...	----------ISTD----------						
73)	T	Isopropylbenzene	3.521	3.657	3.774	3.610	3.576	3.628	2.64
74)	T	N-amyl acetate	0.806	0.723	0.768	0.760	0.764	0.764	3.89
75)	P	1,1,2,2-Tetrachl...	0.821	0.710	0.811	0.787	0.765	0.779	5.65
76)	T	1,2,3-Trichlorop...	0.430	0.458	0.523	0.488	0.479	0.475	7.29
77)	T	Bromobenzene	0.824	0.808	0.885	0.846	0.823	0.837	3.58
78)	T	n-propylbenzene	4.139	4.423	4.710	4.375	4.341	4.398	4.67
79)	T	2-Chlorotoluene	2.321	2.365	2.552	2.419	2.401	2.411	3.61
80)	T	1,3,5-Trimethylb...	2.641	2.997	3.115	2.959	2.954	2.933	5.99
81)	T	trans-1,4-Dichlo...	0.201	0.215	0.238	0.235	0.228	0.223	6.81
82)	T	4-Chlorotoluene	2.353	2.496	2.697	2.550	2.500	2.519	4.90
83)	T	tert-Butylbenzene	2.237	2.681	2.721	2.623	2.653	2.583	7.62
84)	T	1,2,4-Trimethylb...	2.699	3.057	3.159	3.045	3.028	2.997	5.83
85)	T	sec-Butylbenzene	3.560	4.056	4.253	3.935	3.926	3.946	6.41
86)	T	p-Isopropyltoluene	2.749	3.451	3.475	3.289	3.330	3.259	9.07
87)	T	1,3-Dichlorobenzene	1.597	1.730	1.810	1.738	1.736	1.722	4.49
88)	T	1,4-Dichlorobenzene	1.669	1.647	1.752	1.677	1.692	1.687	2.33
89)	T	n-Butylbenzene	2.896	3.254	3.482	3.167	3.145	3.189	6.62
90)	T	Hexachloroethane	0.534	0.620	0.631	0.613	0.615	0.602	6.50
91)	T	1,2-Dichlorobenzene	1.521	1.483	1.569	1.528	1.488	1.518	2.30
92)	T	1,2-Dibromo-3-Ch...	0.134	0.096	0.115	0.106	0.105	0.111	12.95
93)	T	1,2,4-Trichlorob...	0.918	0.907	0.946	0.924	0.938	0.927	1.67
94)	T	Hexachlorobutadiene	0.468	0.439	0.467	0.439	0.415	0.446	4.98
95)	T	Naphthalene	1.908	2.012	1.968	2.059	2.084	2.006	3.53
96)	T	1,2,3-Trichlorob...	0.852	0.807	0.835	0.827	0.836	0.831	1.95

(#) = Out of Range



Response = 5.623e-001 * Amt + 1.459e-001
Coef of Det (r^2) = 0.996345 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Calibration Table Last Updated: Mon Jul 17 08:07:52 2023

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076737.D
Acq On : 14 Jul 2023 12:50
Operator : KP/SY
Sample : VSTDICC020
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:42:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	188427	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	341736	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	308122	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	145897	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	40267	21.455	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	42.920%#		
35) Dibromofluoromethane	7.804	113	47149	21.955	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	43.920%#		
50) Toluene-d8	10.269	98	173680	22.608	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	45.220%#		
62) 4-Bromofluorobenzene	12.569	95	53534	21.541	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	43.080%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	33835	22.963	ug/l	97
3) Chloromethane	2.146	50	54139	21.300	ug/l	98
4) Vinyl Chloride	2.275	62	71573	21.124	ug/l	99
5) Bromomethane	2.669	94	54937	19.706	ug/l	100
6) Chloroethane	2.822	64	53171	20.784	ug/l	96
7) Trichlorofluoromethane	3.164	101	65433	21.703	ug/l	95
8) Diethyl Ether	3.587	74	19767	19.043	ug/l	85
9) 1,1,2-Trichlorotrifluo...	3.958	101	43982	22.193	ug/l	98
10) Methyl Iodide	4.158	142	45632	20.426	ug/l #	87
11) Tert butyl alcohol	5.058	59	15014	107.206	ug/l #	89
12) 1,1-Dichloroethene	3.928	96	39395	21.158	ug/l	93
13) Acrolein	3.799	56	12019	125.935	ug/l	91
14) Allyl chloride	4.552	41	49019	20.041	ug/l	92
15) Acrylonitrile	5.258	53	48957	96.027	ug/l	97
16) Acetone	4.022	43	40918	91.290	ug/l	90
17) Carbon Disulfide	4.258	76	91827	21.115	ug/l	98
18) Methyl Acetate	4.563	43	32801	19.478	ug/l	98
19) Methyl tert-butyl Ether	5.310	73	98398	19.707	ug/l	95
20) Methylene Chloride	4.793	84	60510	15.582	ug/l #	84
21) trans-1,2-Dichloroethene	5.299	96	44754	20.678	ug/l	93
22) Diisopropyl ether	6.210	45	117013	20.202	ug/l #	93
23) Vinyl Acetate	6.157	43	276011	96.312	ug/l	97
24) 1,1-Dichloroethane	6.105	63	78863	20.194	ug/l	98
25) 2-Butanone	7.081	43	58024	96.727	ug/l	89
26) 2,2-Dichloropropane	7.069	77	69853	20.750	ug/l	98
27) cis-1,2-Dichloroethene	7.075	96	53703	20.128	ug/l	93
28) Bromochloromethane	7.422	49	22176	22.713	ug/l	87
29) Tetrahydrofuran	7.440	42	35180	99.259	ug/l	92
30) Chloroform	7.593	83	88581	20.710	ug/l	96
31) Cyclohexane	7.875	56	59457	21.526	ug/l	94
32) 1,1,1-Trichloroethane	7.793	97	72942	21.137	ug/l	98
36) 1,1-Dichloropropene	8.004	75	59873	21.336	ug/l	96
37) Ethyl Acetate	7.169	43	24712	19.692	ug/l #	86
38) Carbon Tetrachloride	7.993	117	57874	21.539	ug/l	94
39) Methylcyclohexane	9.275	83	69610	21.483	ug/l	92
40) Benzene	8.251	78	184372	20.823	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076737.D
Acq On : 14 Jul 2023 12:50
Operator : KP/SY
Sample : VSTDICC020
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 17 07:42:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.404	41	15805	20.624	ug/l	#	84
42) 1,2-Dichloroethane	8.328	62	45636	19.837	ug/l		98
43) Isopropyl Acetate	8.357	43	47033	19.204	ug/l		95
44) Trichloroethene	9.028	130	51172	21.209	ug/l		94
45) 1,2-Dichloropropane	9.304	63	47063	20.591	ug/l		96
46) Dibromomethane	9.393	93	27204	20.334	ug/l		88
47) Bromodichloromethane	9.581	83	68983	20.547	ug/l		97
48) Methyl methacrylate	9.381	41	22051	19.782	ug/l		84
49) 1,4-Dioxane	9.387	88	6463	377.057	ug/l	#	87
51) 4-Methyl-2-Pentanone	10.157	43	126415	96.943	ug/l		95
52) Toluene	10.334	92	116995	20.119	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	59142	18.979	ug/l		95
54) cis-1,3-Dichloropropene	10.016	75	75330	20.512	ug/l		94
55) 1,1,2-Trichloroethane	10.734	97	38999	19.963	ug/l		96
56) Ethyl methacrylate	10.598	69	44099	19.558	ug/l		92
57) 1,3-Dichloropropane	10.881	76	64555	20.291	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	87893	100.703	ug/l		96
59) 2-Hexanone	10.922	43	88240	94.834	ug/l		91
60) Dibromochloromethane	11.075	129	44838	19.757	ug/l		96
61) 1,2-Dibromoethane	11.181	107	36159	19.964	ug/l		96
64) Tetrachloroethene	10.810	164	38792	22.079	ug/l		89
65) Chlorobenzene	11.604	112	131498	21.220	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.681	131	48118	20.856	ug/l		96
67) Ethyl Benzene	11.681	91	229255	21.065	ug/l		95
68) m/p-Xylenes	11.792	106	177761	42.529	ug/l		94
69) o-Xylene	12.122	106	82357	20.376	ug/l		90
70) Styrene	12.134	104	145654	20.585	ug/l		96
71) Bromoform	12.298	173	25960	20.544	ug/l	#	100
73) Isopropylbenzene	12.422	105	220227	20.805	ug/l		96
74) N-amyl acetate	12.234	43	44809	20.094	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.675	83	47315	20.819	ug/l		96
76) 1,2,3-Trichloropropane	12.722	75	30516m	21.049	ug/l		
77) Bromobenzene	12.698	156	51657	21.142	ug/l		86
78) n-propylbenzene	12.763	91	274887	21.421	ug/l		96
79) 2-Chlorotoluene	12.851	91	148926	21.166	ug/l		97
80) 1,3,5-Trimethylbenzene	12.904	105	181775	21.238	ug/l		97
81) trans-1,4-Dichloro-2-b...	12.469	75	13891	21.308	ug/l		96
82) 4-Chlorotoluene	12.945	91	157369	21.409	ug/l		95
83) tert-Butylbenzene	13.169	119	158776	21.069	ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	184364	21.079	ug/l		97
85) sec-Butylbenzene	13.345	105	248177	21.554	ug/l		95
86) p-Isopropyltoluene	13.457	119	202816	21.329	ug/l		96
87) 1,3-Dichlorobenzene	13.457	146	105645	21.022	ug/l		98
88) 1,4-Dichlorobenzene	13.539	146	102229	20.763	ug/l		96
89) n-Butylbenzene	13.786	91	203209	21.839	ug/l		95
90) Hexachloroethane	14.051	117	36824	20.947	ug/l		88
91) 1,2-Dichlorobenzene	13.828	146	91573	20.679	ug/l		96
92) 1,2-Dibromo-3-Chloropr...	14.445	75	6728	20.762	ug/l		93
93) 1,2,4-Trichlorobenzene	15.098	180	55187	20.413	ug/l		96
94) Hexachlorobutadiene	15.204	225	27256	20.963	ug/l		99
95) Naphthalene	15.328	128	114855	19.621	ug/l		97
96) 1,2,3-Trichlorobenzene	15.522	180	48718	20.081	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076737.D
Acq On : 14 Jul 2023 12:50
Operator : KP/SY
Sample : VSTDICC020
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:42:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

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

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

ICAL Form

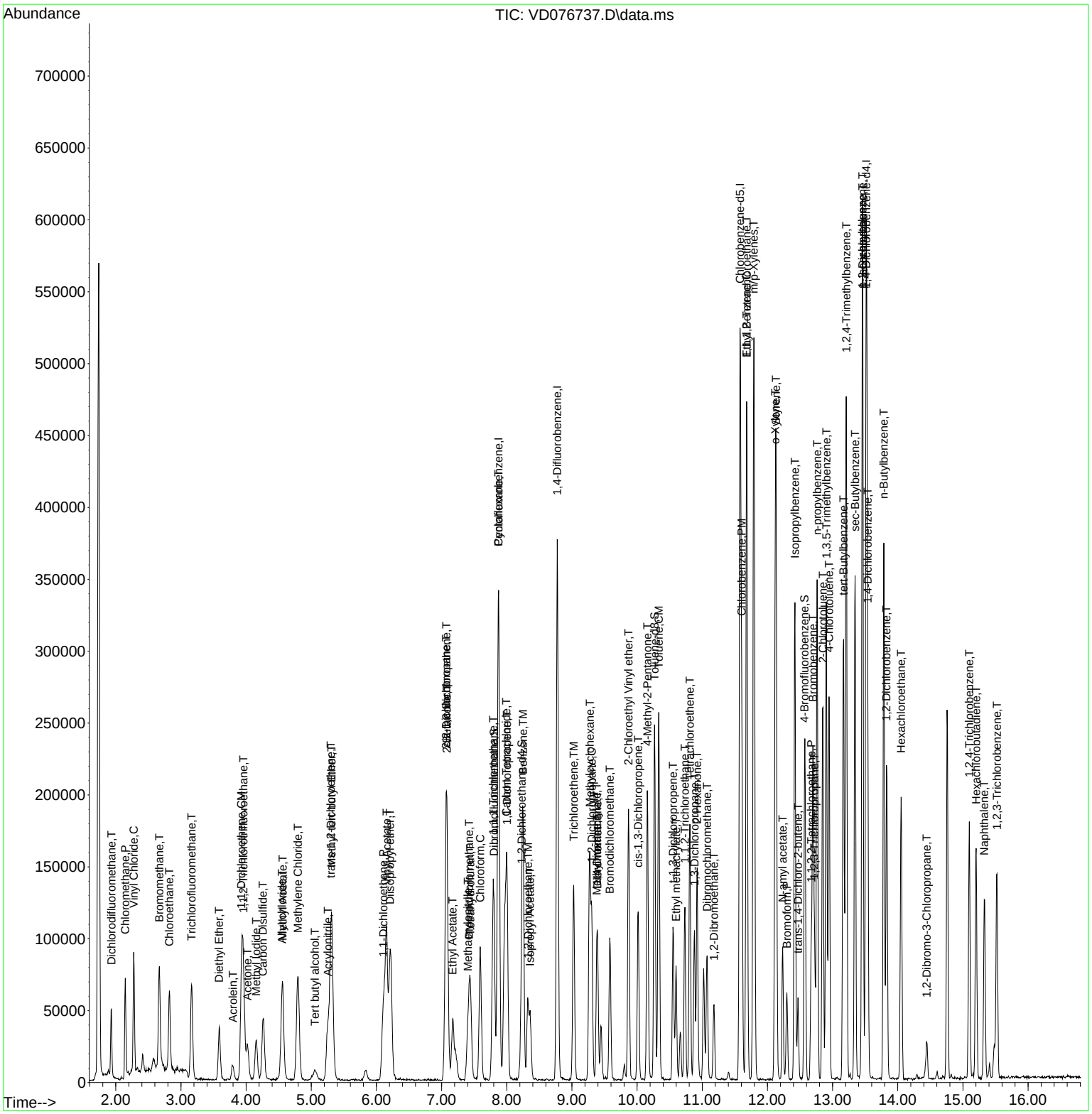
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076737.D
Acq On : 14 Jul 2023 12:50
Operator : KP/SY
Sample : VSTDICC020
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

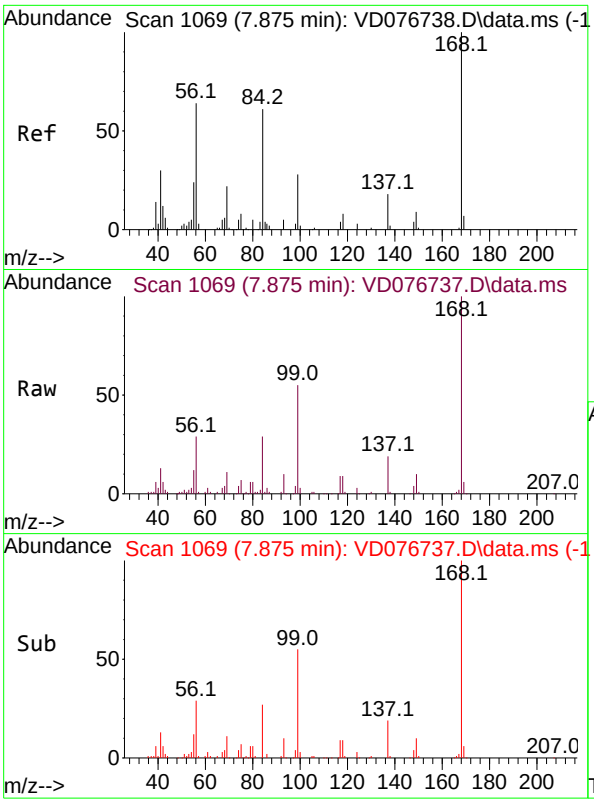
Quant Time: Jul 17 07:42:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

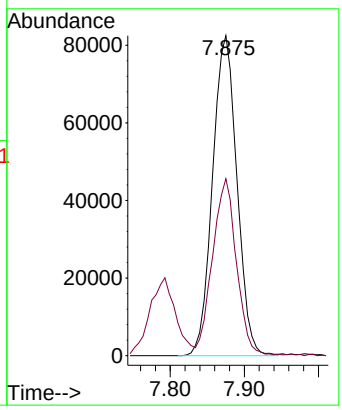




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:168 Resp: 18842

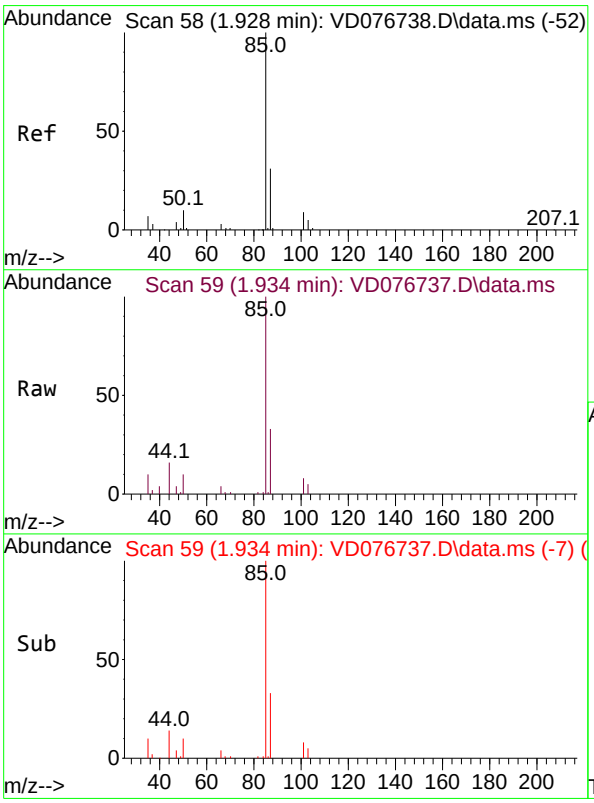
Ion	Ratio	Lower	Upper
168	100		
99	54.8	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

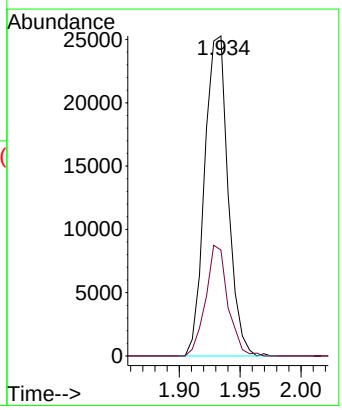
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

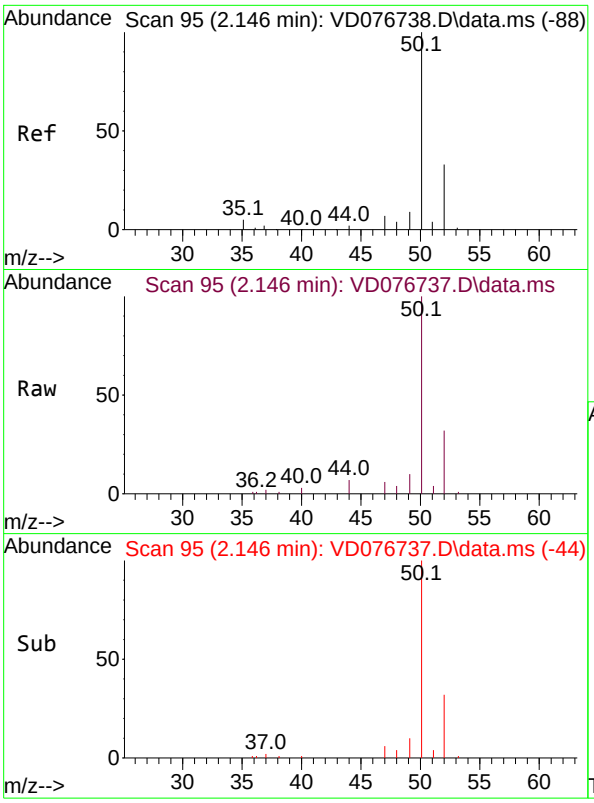


#2
Dichlorodifluoromethane
Concen: 22.963 ug/l
RT: 1.934 min Scan# 59
Delta R.T. 0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 85 Resp: 33835

Ion	Ratio	Lower	Upper
85	100		
87	33.1	15.7	47.0

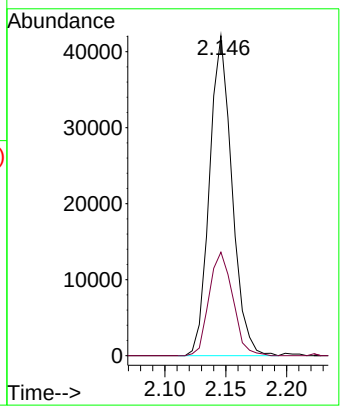




#3
Chloromethane
Concen: 21.300 ug/l
RT: 2.146 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 50 Resp: 5413

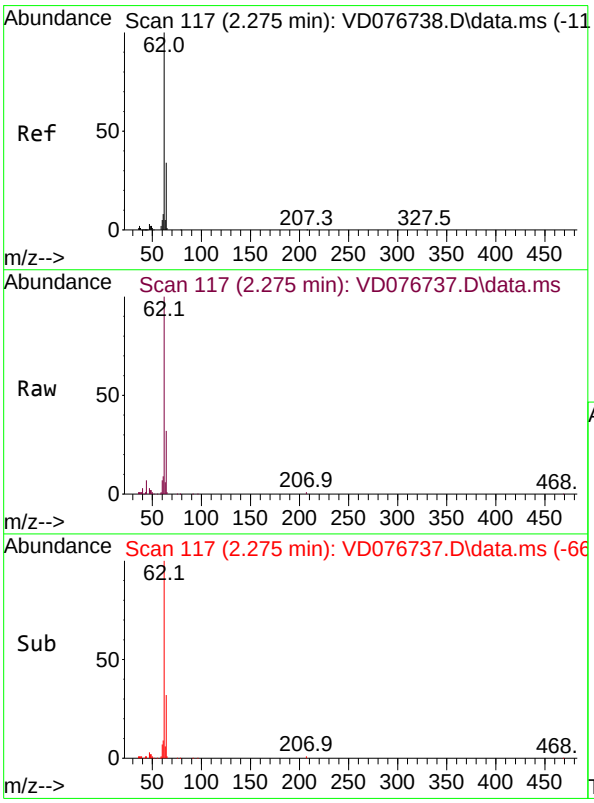
Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.6	40.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

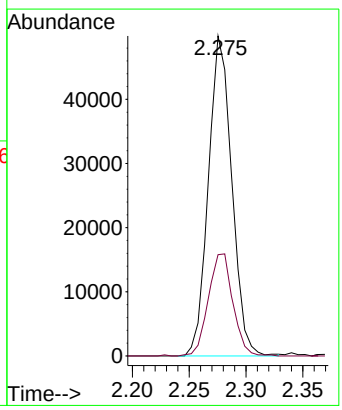
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

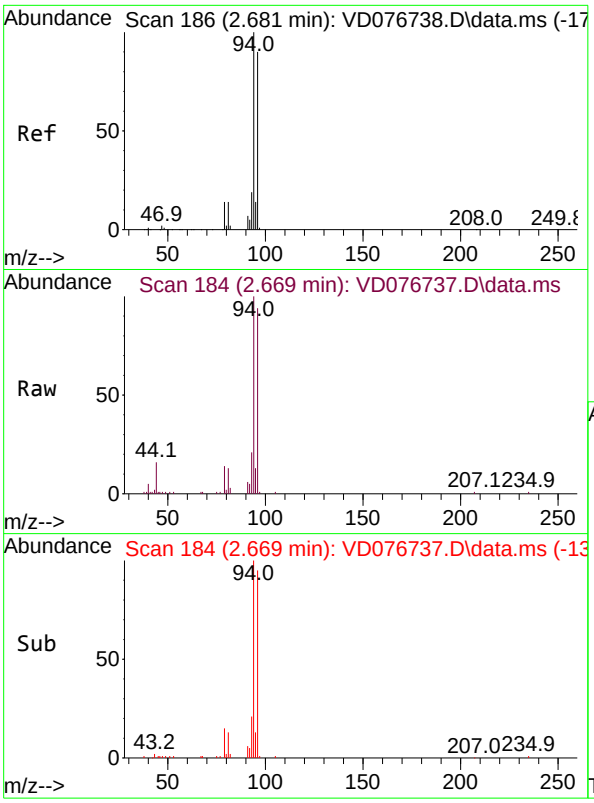


#4
Vinyl Chloride
Concen: 21.124 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 62 Resp: 71573

Ion	Ratio	Lower	Upper
62	100		
64	31.7	26.0	39.0

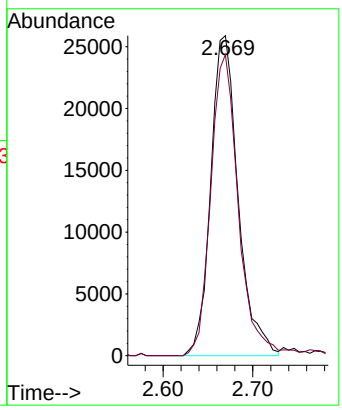




#5
Bromomethane
Concen: 19.706 ug/l
RT: 2.669 min Scan# 1
Delta R.T. -0.012 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 94 Resp: 5493

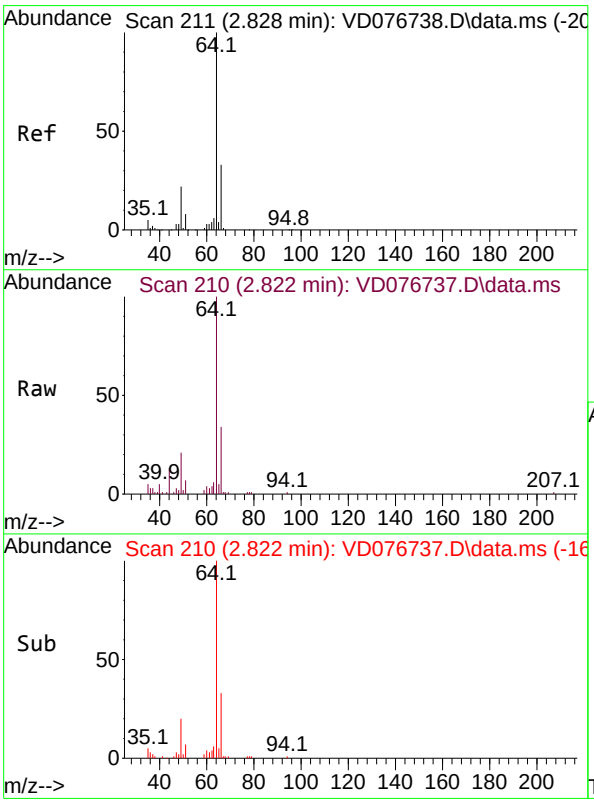
Ion	Ratio	Lower	Upper
94	100		
96	94.7	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

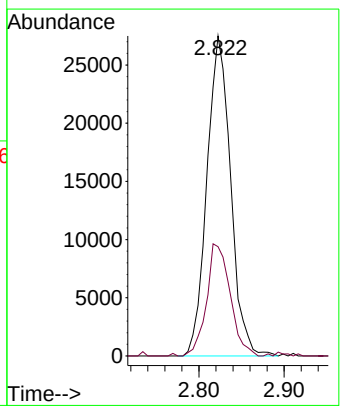
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

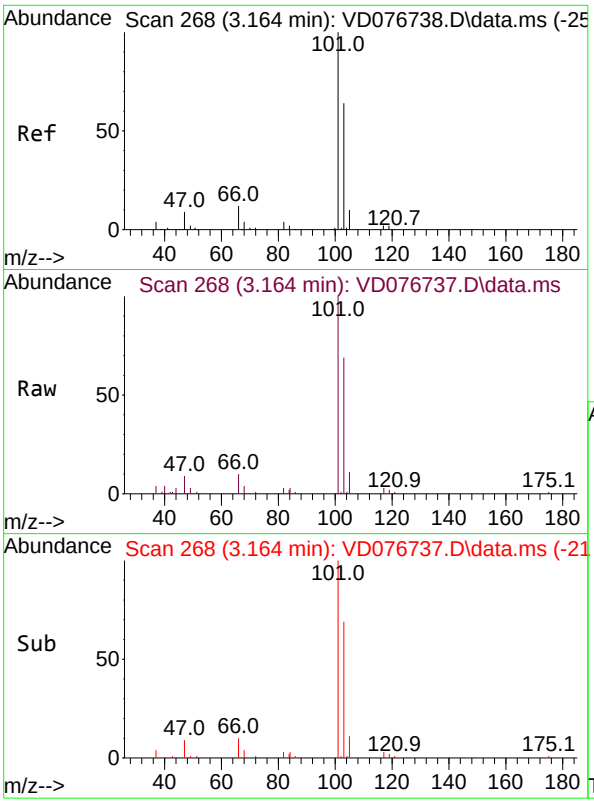


#6
Chloroethane
Concen: 20.784 ug/l
RT: 2.822 min Scan# 210
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 64 Resp: 53171

Ion	Ratio	Lower	Upper
64	100		
66	34.1	25.5	38.3





#7
Trichlorofluoromethane
Concen: 21.703 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

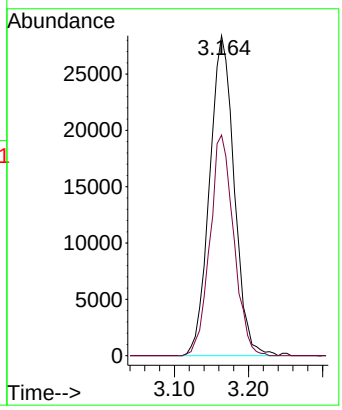
Tgt Ion:101 Resp: 6543

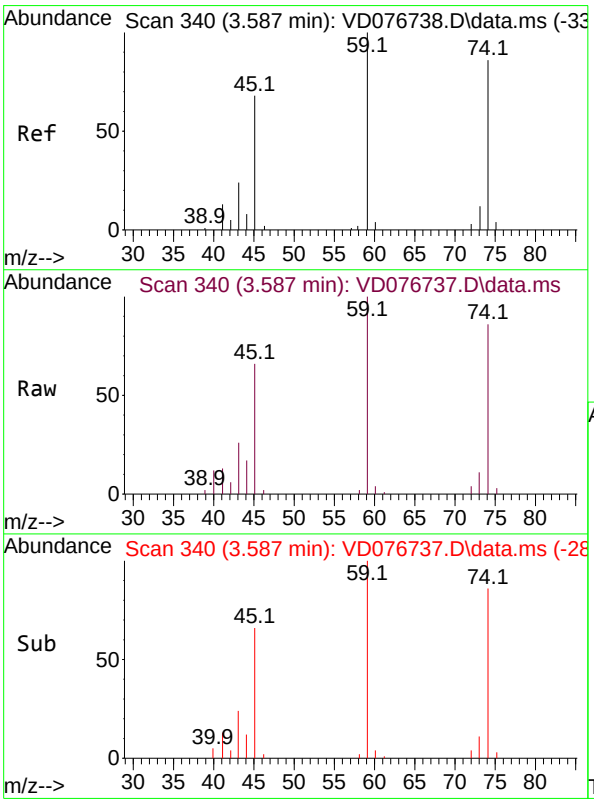
Ion	Ratio	Lower	Upper
101	100		
103	69.0	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

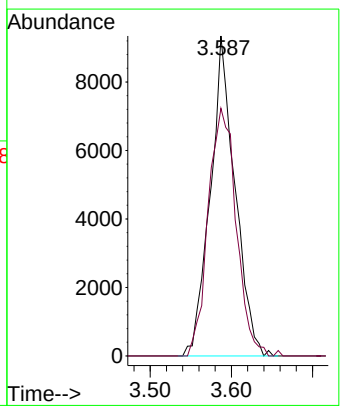


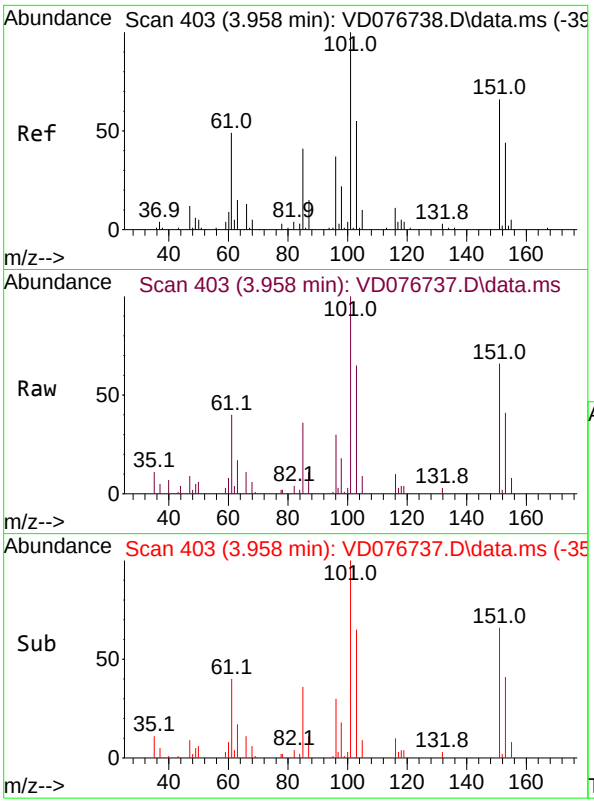


#8
Diethyl Ether
Concen: 19.043 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 74 Resp: 19767

Ion	Ratio	Lower	Upper
74	100		
45	87.6	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 22.193 ug/l
RT: 3.958 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

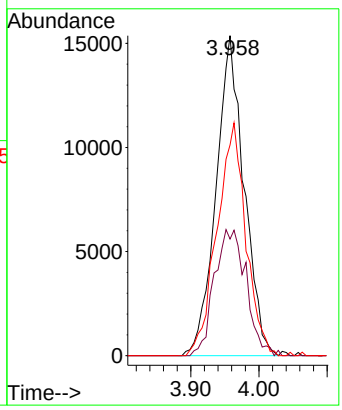
Tgt Ion:101 Resp: 4398

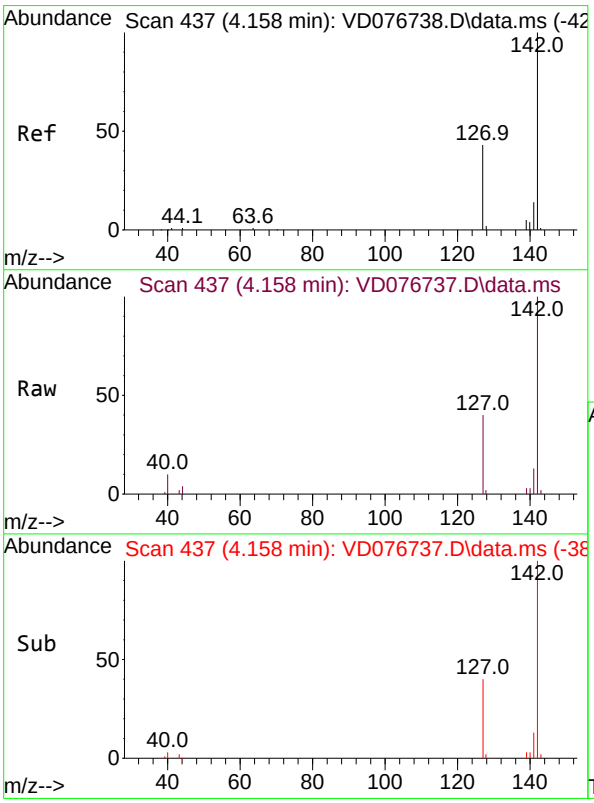
Ion	Ratio	Lower	Upper
101	100		
85	44.8	33.8	50.6
151	75.0	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

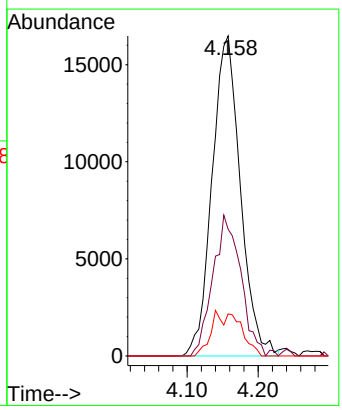


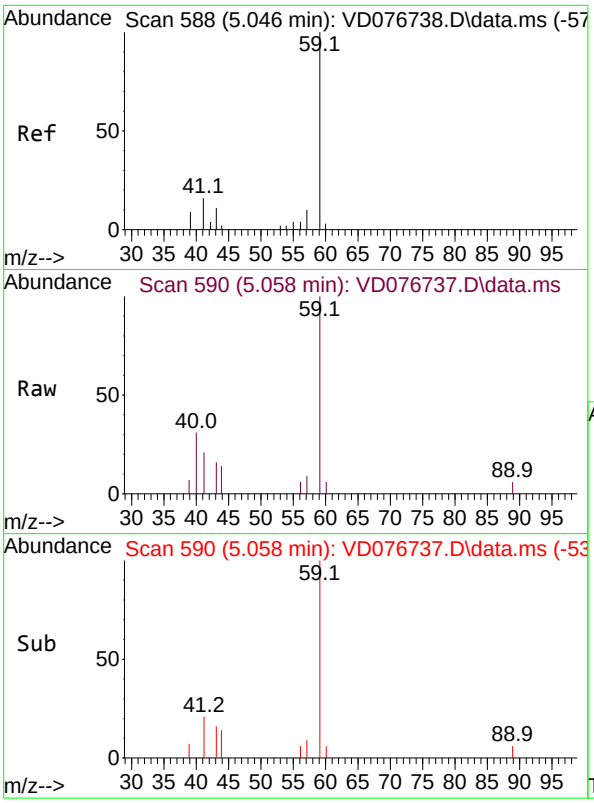


#10
Methyl Iodide
Concen: 20.426 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:142 Resp: 45632

Ion	Ratio	Lower	Upper
142	100		
127	43.6	29.4	44.0
141	6.5	11.1	16.7#

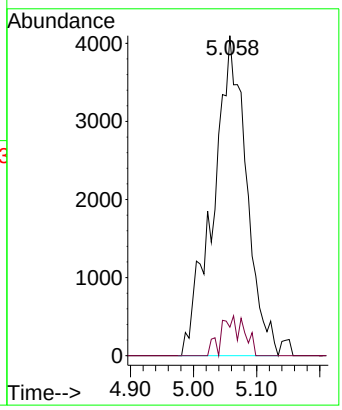




#11
Tert butyl alcohol
Concen: 107.206 ug/l
RT: 5.058 min Scan# 5
Delta R.T. 0.012 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 59 Resp: 1501

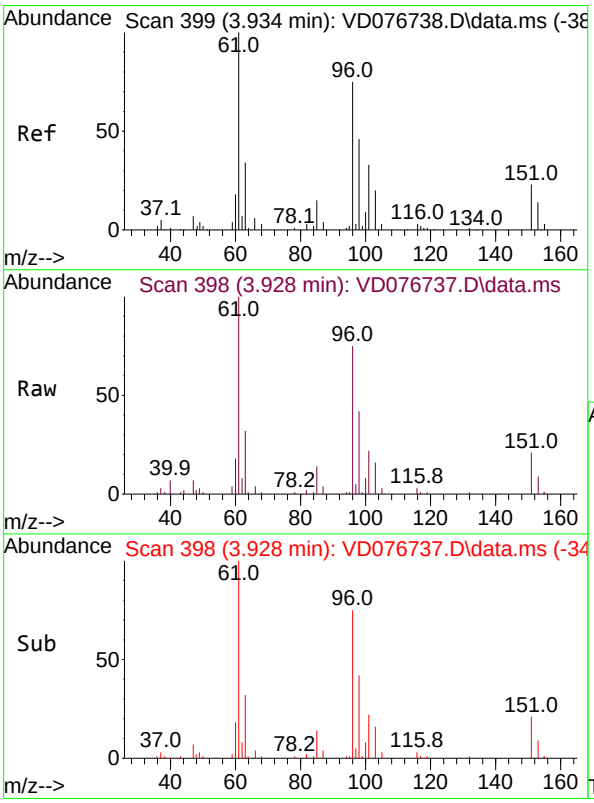
Ion	Ratio	Lower	Upper
59	100		
57	5.7	7.8	11.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

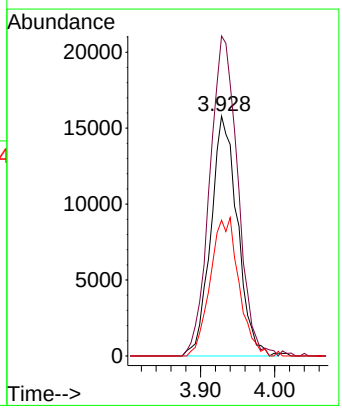
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

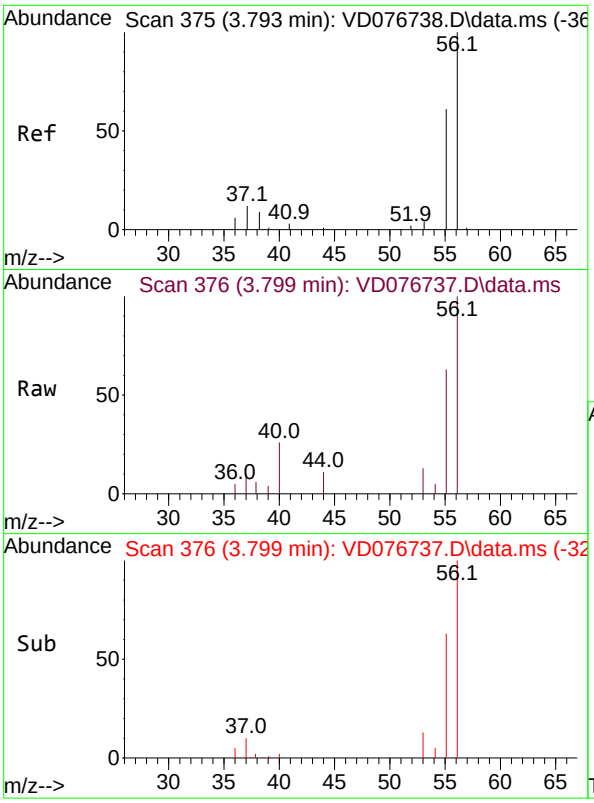


#12
1,1-Dichloroethene
Concen: 21.158 ug/l
RT: 3.928 min Scan# 398
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 96 Resp: 39395

Ion	Ratio	Lower	Upper
96	100		
61	133.4	100.6	150.8
98	56.6	50.2	75.2

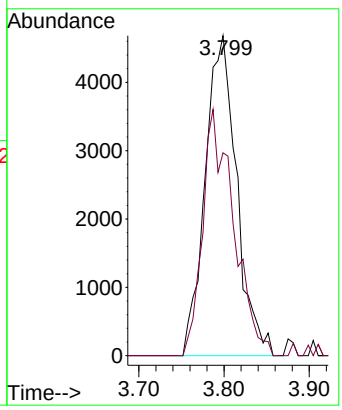




#13
Acrolein
Concen: 125.935 ug/l
RT: 3.799 min Scan# 3
Delta R.T. 0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 56 Resp: 1201

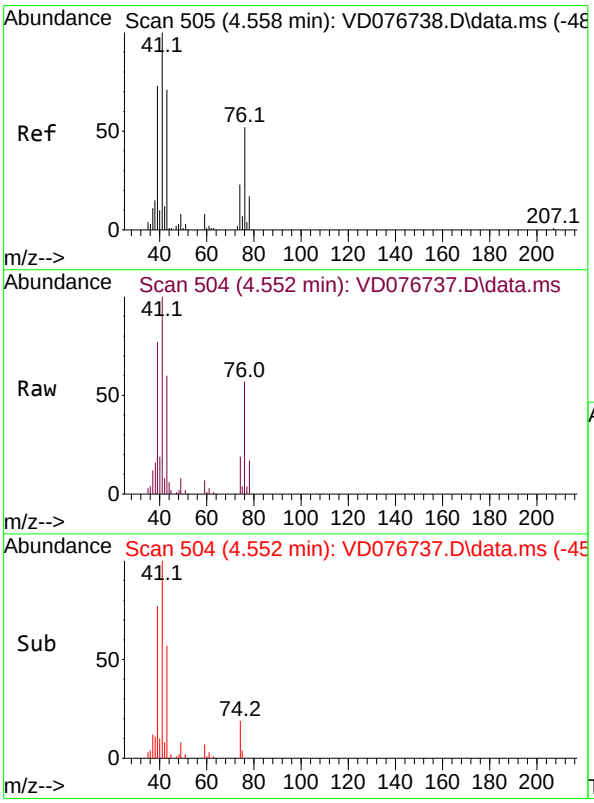
Ion	Ratio	Lower	Upper
56	100		
55	76.0	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

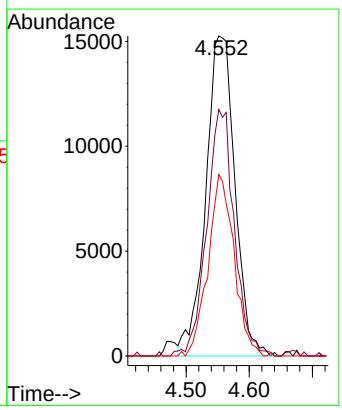
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

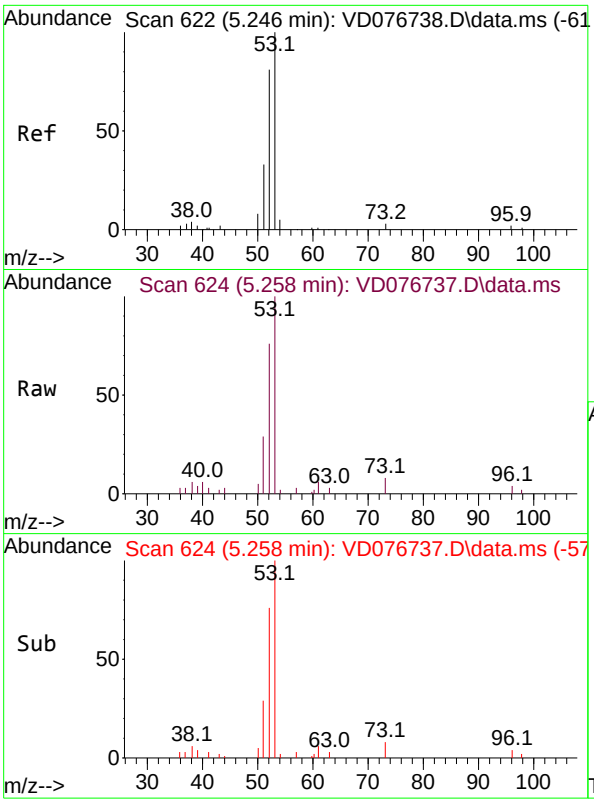


#14
Allyl chloride
Concen: 20.041 ug/l
RT: 4.552 min Scan# 504
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 41 Resp: 49019

Ion	Ratio	Lower	Upper
41	100		
39	72.9	53.8	80.6
76	50.6	45.8	68.8

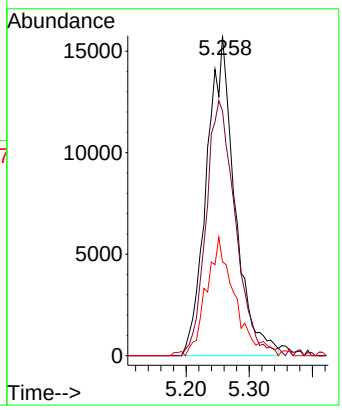




#15
Acrylonitrile
Concen: 96.027 ug/l
RT: 5.258 min Scan# 6
Delta R.T. 0.012 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 53 Resp: 4895

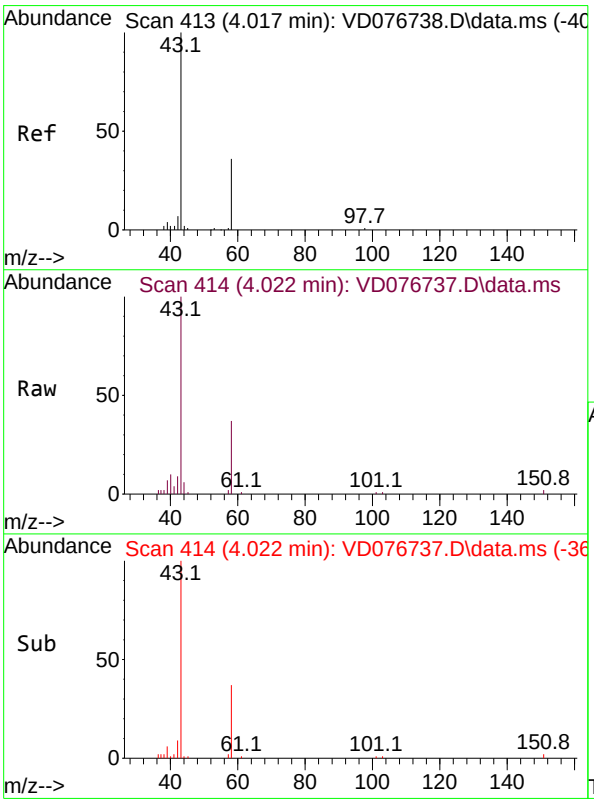
Ion	Ratio	Lower	Upper
53	100		
52	83.0	65.0	97.4
51	37.6	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

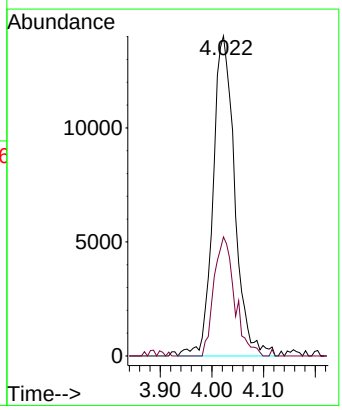
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

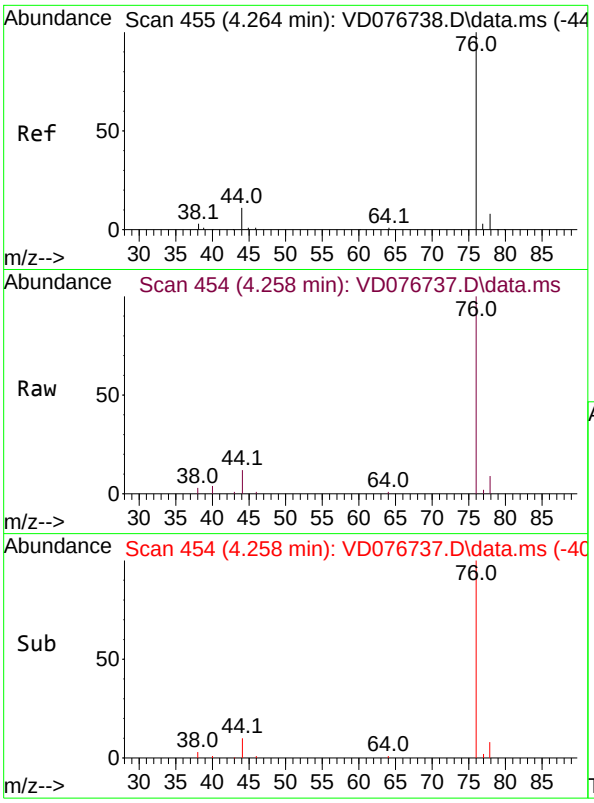


#16
Acetone
Concen: 91.290 ug/l
RT: 4.022 min Scan# 414
Delta R.T. 0.005 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 43 Resp: 40918

Ion	Ratio	Lower	Upper
43	100		
58	37.2	34.7	52.1





#17
Carbon Disulfide
Concen: 21.115 ug/l
RT: 4.258 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

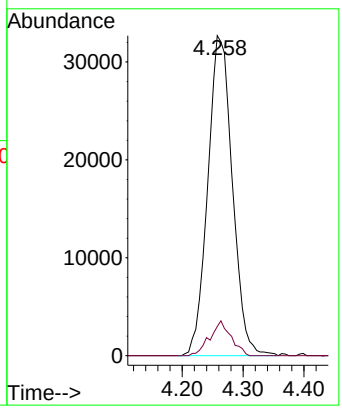
Tgt Ion: 76 Resp: 9182

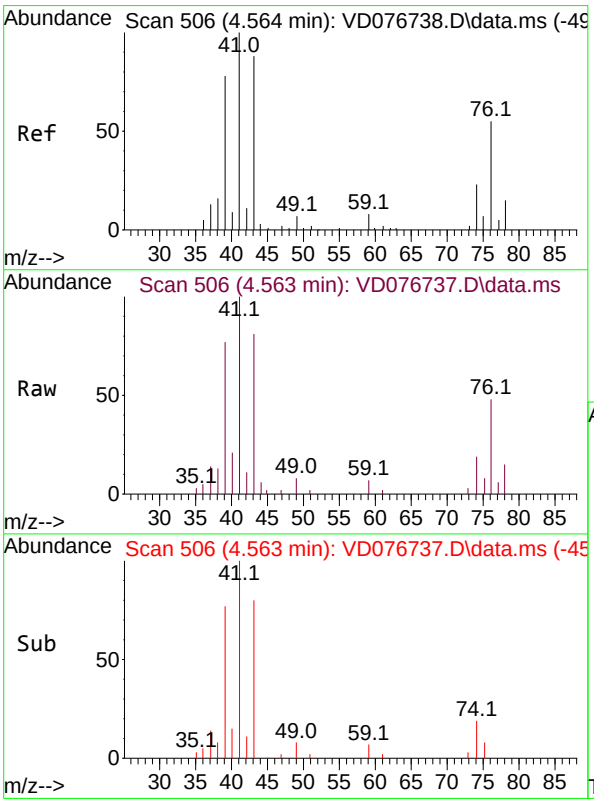
Ion	Ratio	Lower	Upper
76	100		
78	9.1	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

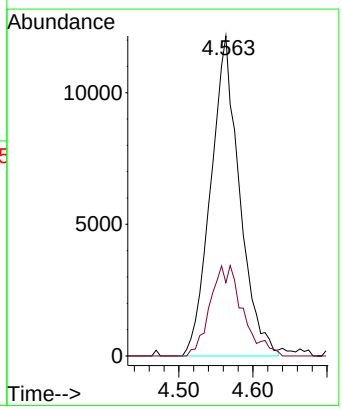


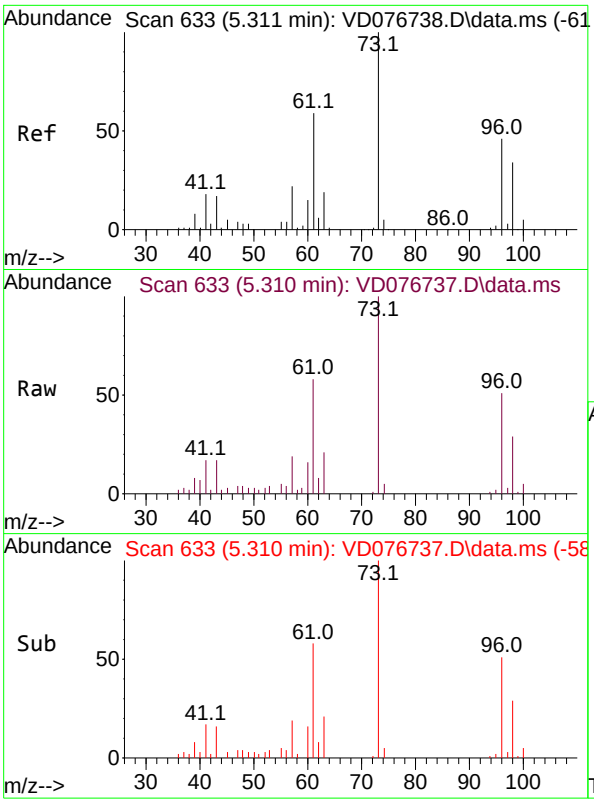


#18
Methyl Acetate
Concen: 19.478 ug/l
RT: 4.563 min Scan# 506
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 43 Resp: 32801

Ion	Ratio	Lower	Upper
43	100		
74	32.0	26.4	39.6

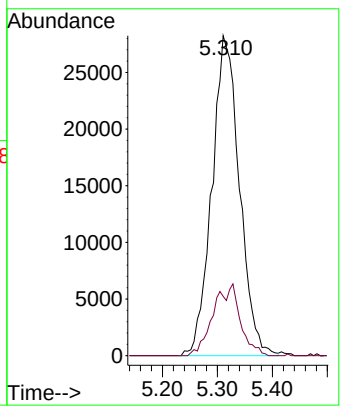




#19
Methyl tert-butyl Ether
Concen: 19.707 ug/l
RT: 5.310 min Scan# 6
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 73 Resp: 9839

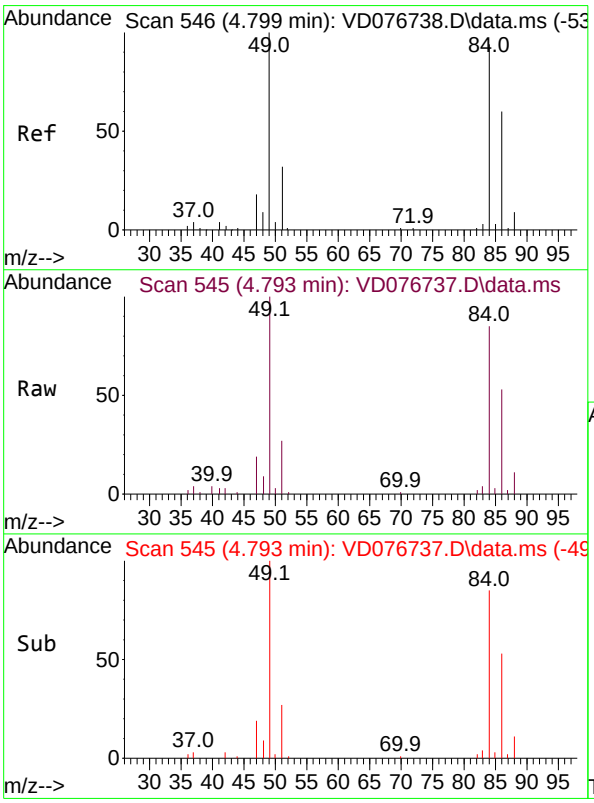
Ion	Ratio	Lower	Upper
73	100		
57	18.5	16.6	25.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

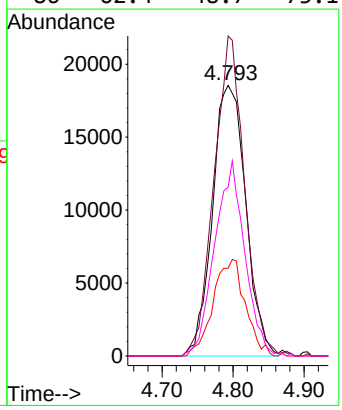
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

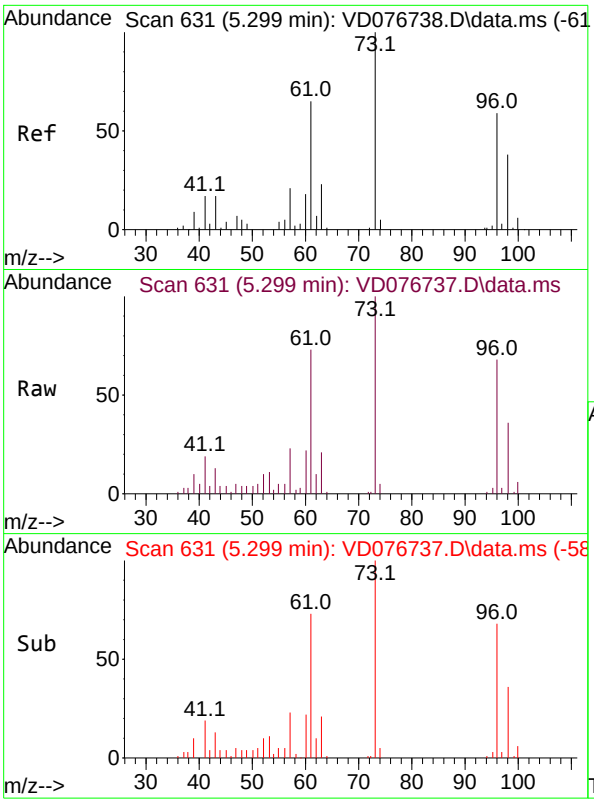


#20
Methylene Chloride
Concen: 15.582 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 84 Resp: 60510

Ion	Ratio	Lower	Upper
84	100		
49	118.2	71.4	107.2#
51	32.4	24.5	36.7
86	62.4	48.7	73.1

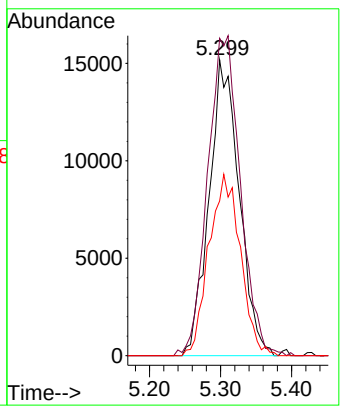




#21
trans-1,2-Dichloroethene
Concen: 20.678 ug/l
RT: 5.299 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 96 Resp: 4475

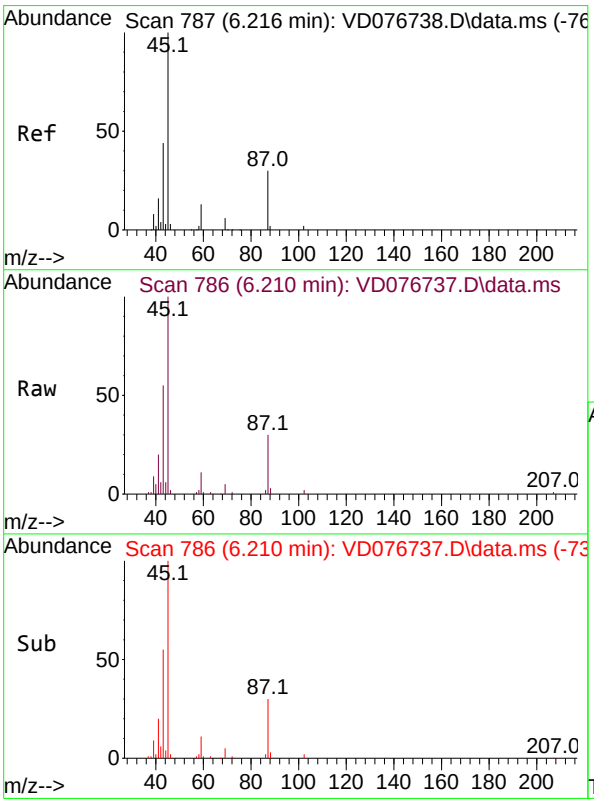
Ion	Ratio	Lower	Upper
96	100		
61	106.0	89.3	133.9
98	52.3	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

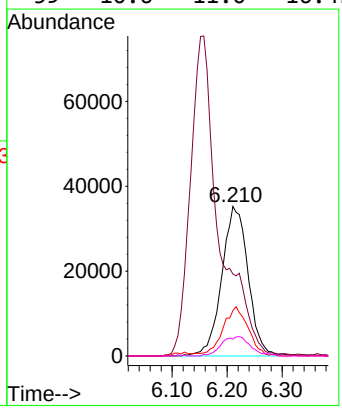
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

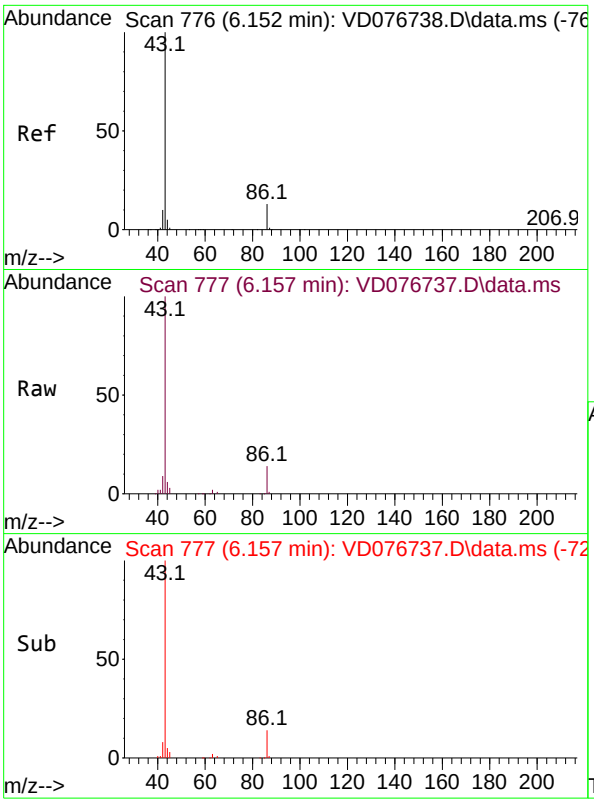


#22
Diisopropyl ether
Concen: 20.202 ug/l
RT: 6.210 min Scan# 786
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 45 Resp: 117013

Ion	Ratio	Lower	Upper
45	100		
43	53.4	40.0	60.0
87	30.4	28.2	42.4
59	10.6	11.0	16.4#





#23
Vinyl Acetate
Concen: 96.312 ug/l
RT: 6.157 min Scan# 7
Delta R.T. 0.005 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

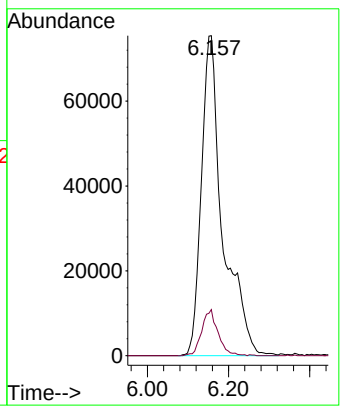
Tgt Ion: 43 Resp: 27601

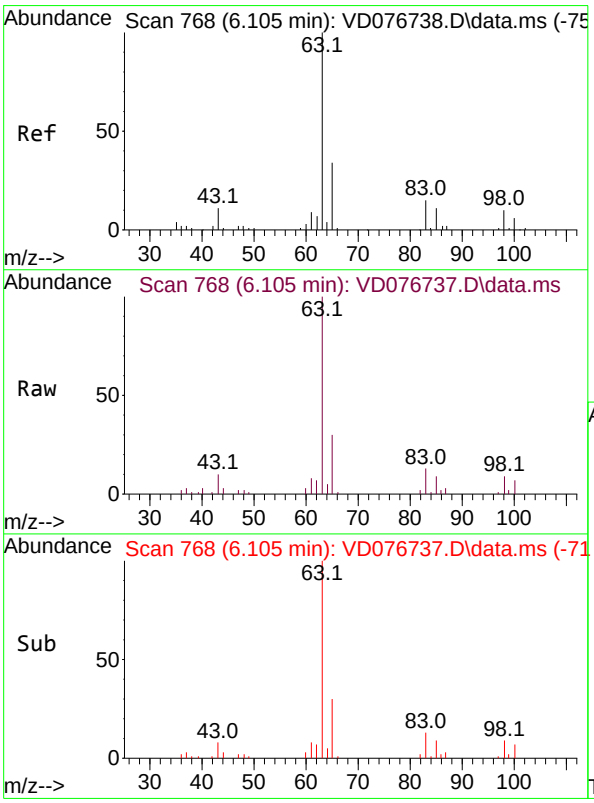
Ion	Ratio	Lower	Upper
43	100		
86	14.4	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

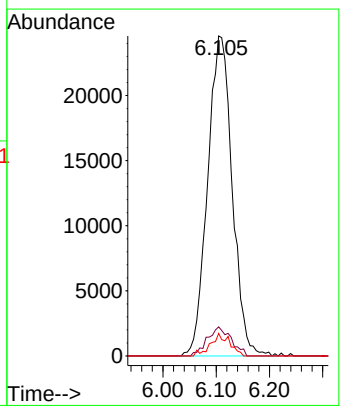


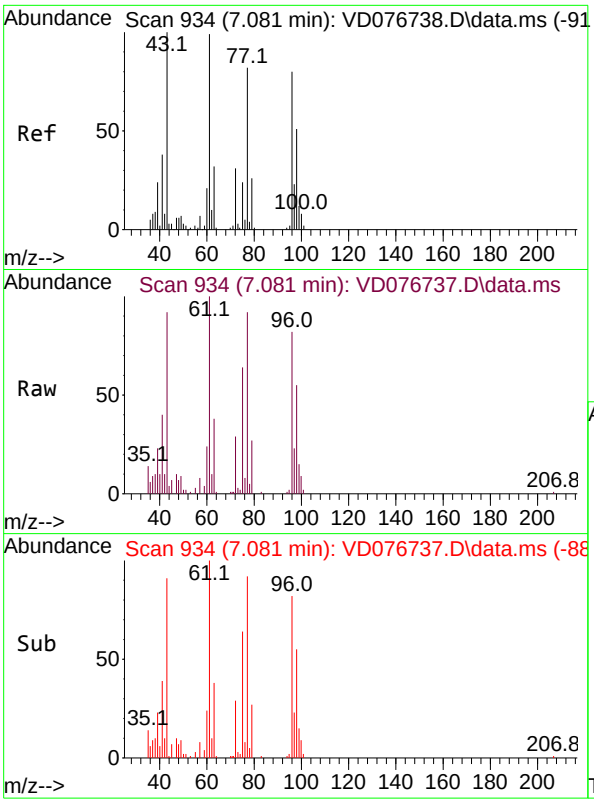


#24
1,1-Dichloroethane
Concen: 20.194 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 63 Resp: 78863

Ion	Ratio	Lower	Upper
63	100		
98	9.1	4.5	13.7
100	7.1	2.5	7.5





#25
2-Butanone
Concen: 96.727 ug/l
RT: 7.081 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

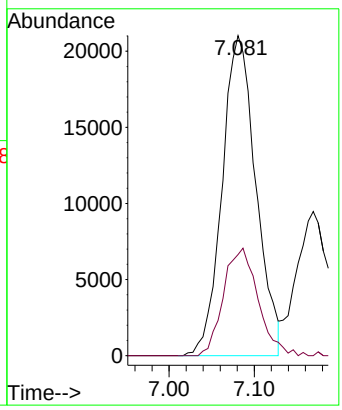
Tgt Ion: 43 Resp: 5802

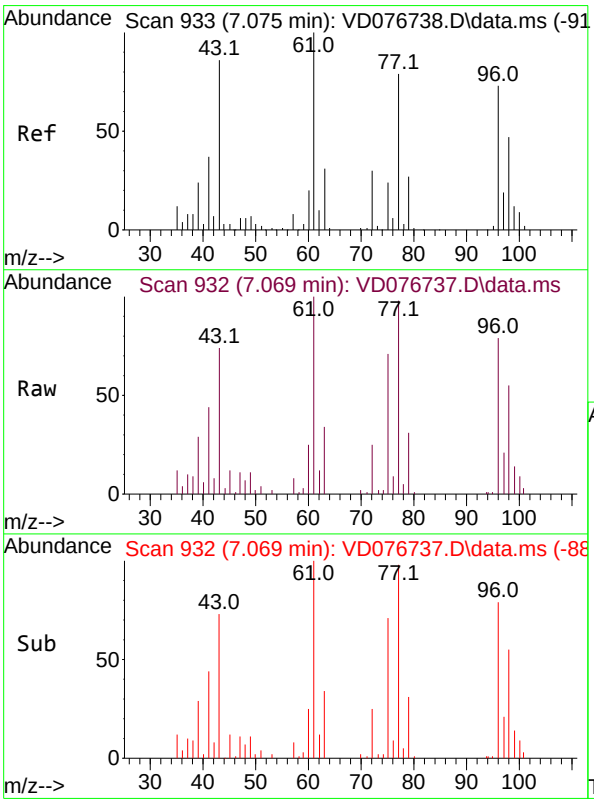
Ion	Ratio	Lower	Upper
43	100		
72	31.6	30.7	46.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

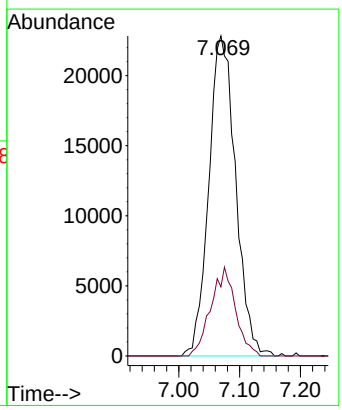


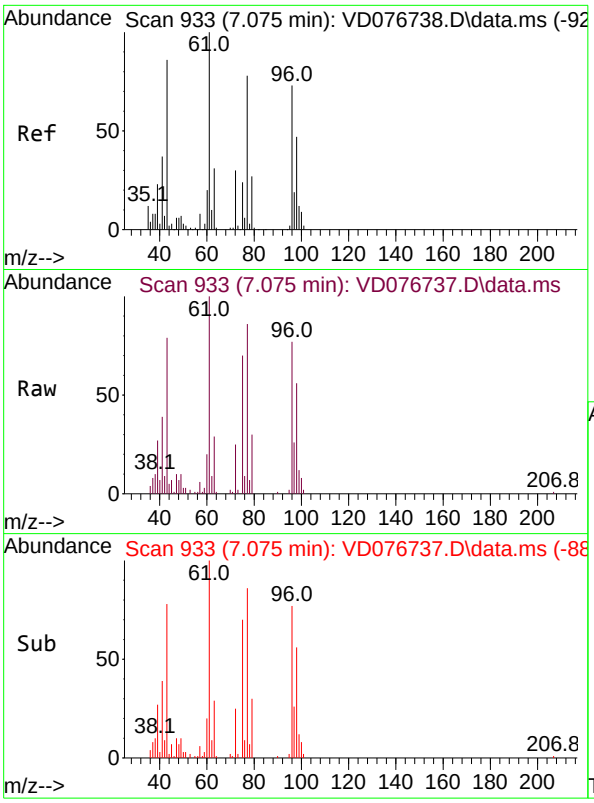


#26
2,2-Dichloropropane
Concen: 20.750 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 77 Resp: 69853

Ion	Ratio	Lower	Upper
77	100		
97	25.4	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 20.128 ug/l
RT: 7.075 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

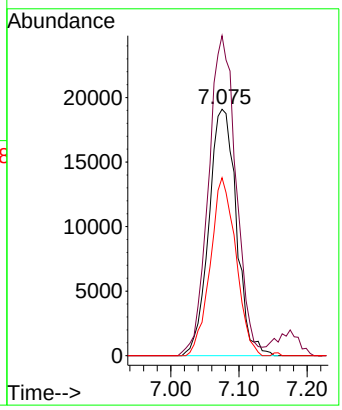
Tgt Ion: 96 Resp: 5370

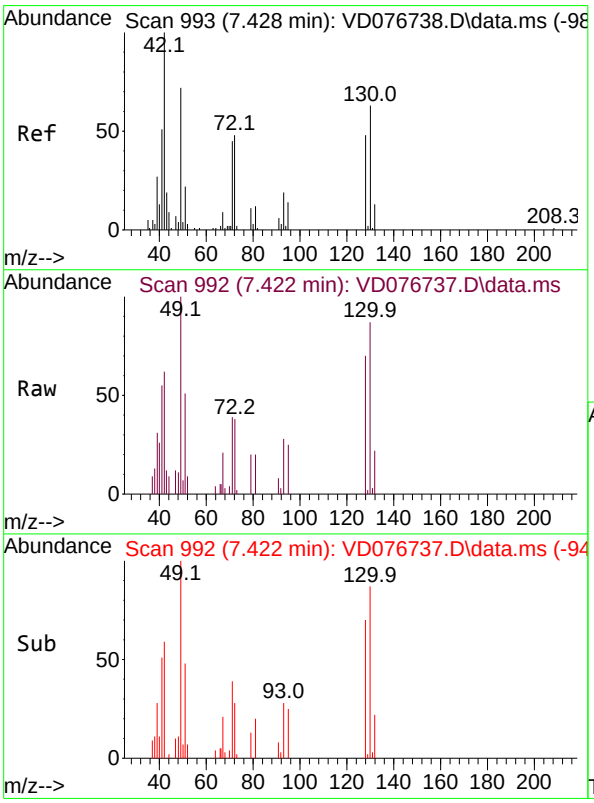
Ion	Ratio	Lower	Upper
96	100		
61	130.1	0.0	239.2
98	66.9	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

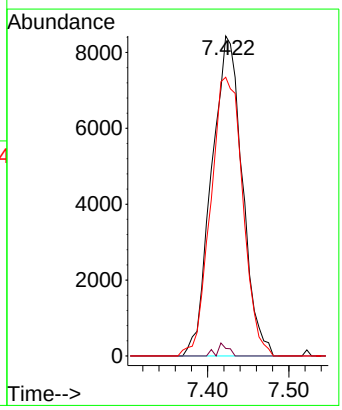


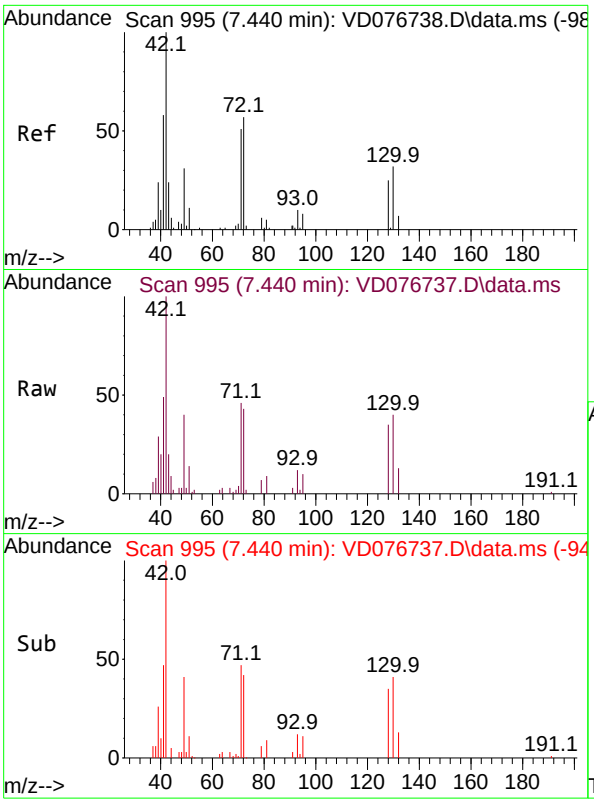


#28
Bromochloromethane
Concen: 22.713 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 49 Resp: 22176

Ion	Ratio	Lower	Upper
49	100		
129	1.4	0.0	6.0
130	90.9	83.2	124.8

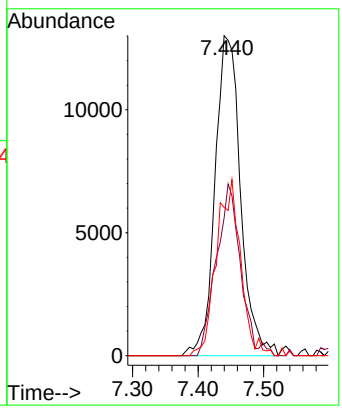




#29
Tetrahydrofuran
Concen: 99.259 ug/l
RT: 7.440 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 42 Resp: 3518

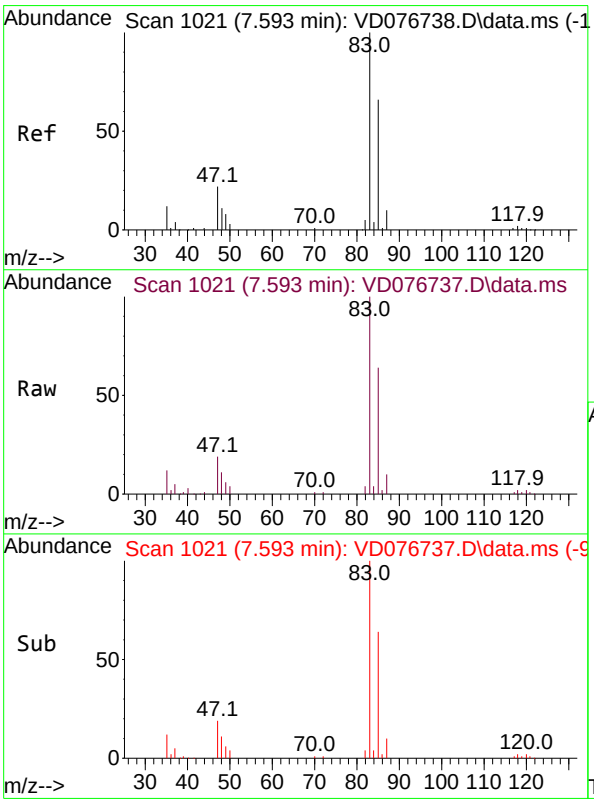
Ion	Ratio	Lower	Upper
42	100		
72	50.1	46.5	69.7
71	52.2	44.5	66.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

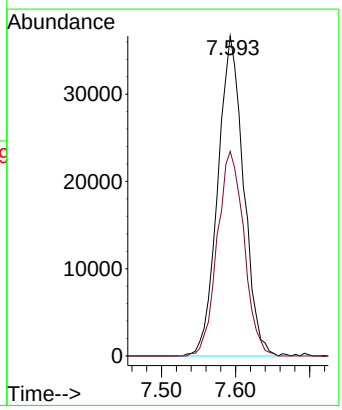
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

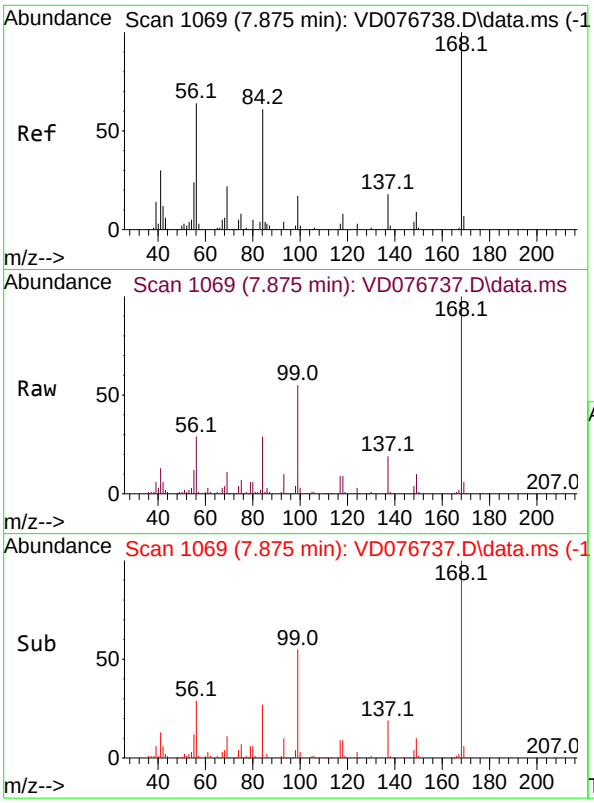


#30
Chloroform
Concen: 20.710 ug/l
RT: 7.593 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 83 Resp: 88581

Ion	Ratio	Lower	Upper
83	100		
85	63.9	53.4	80.2

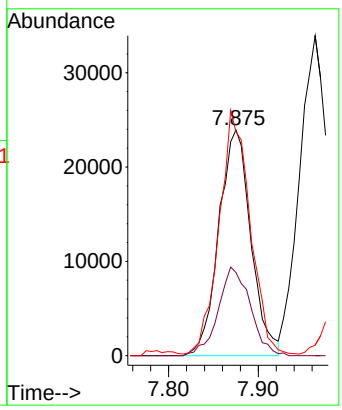




#31
Cyclohexane
Concen: 21.526 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 56 Resp: 5945

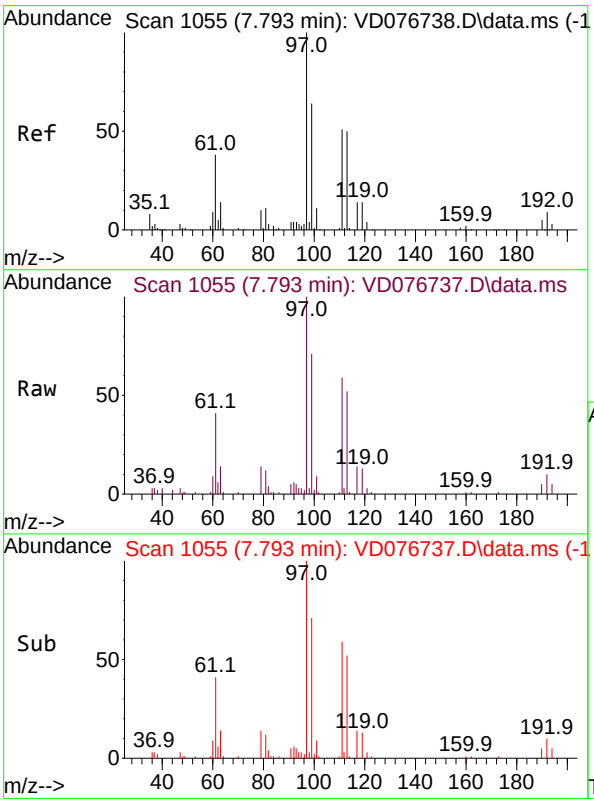
Ion	Ratio	Lower	Upper
56	100		
69	36.9	28.6	43.0
84	98.3	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

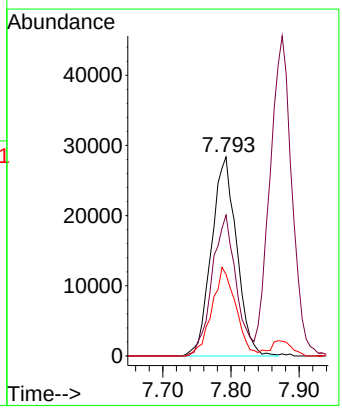
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

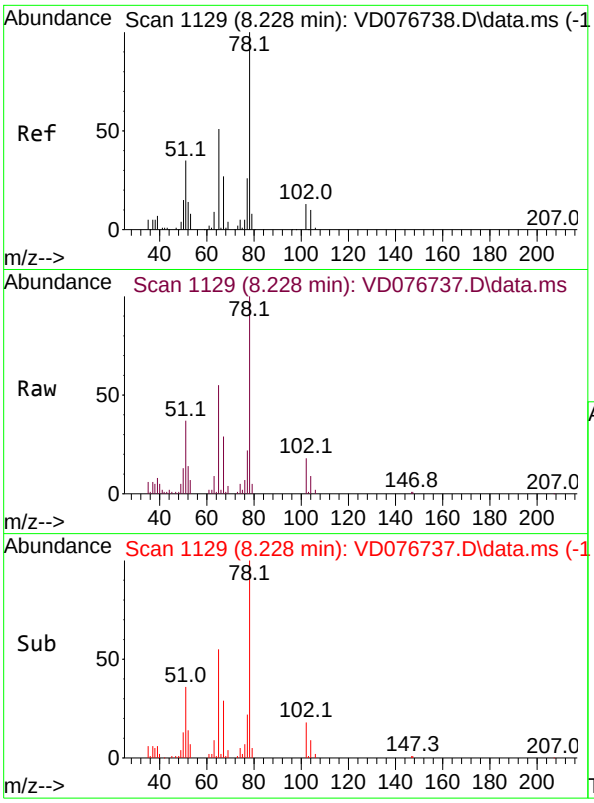


#32
1,1,1-Trichloroethane
Concen: 21.137 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 97 Resp: 72942

Ion	Ratio	Lower	Upper
97	100		
99	67.7	52.0	78.0
61	42.3	33.8	50.8

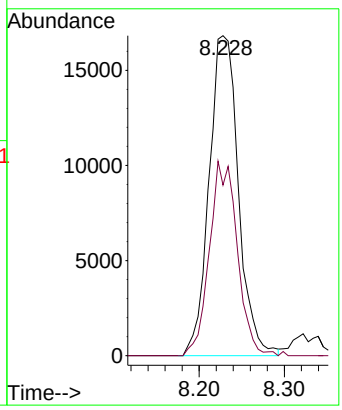




#33
1,2-Dichloroethane-d4
Concen: 21.455 ug/l
RT: 8.228 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 65 Resp: 4026

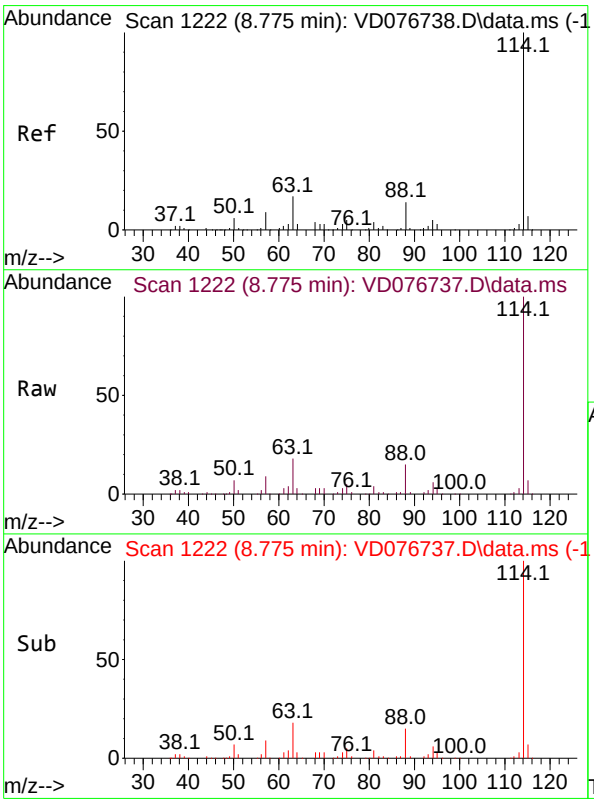
Ion	Ratio	Lower	Upper
65	100		
67	57.8	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

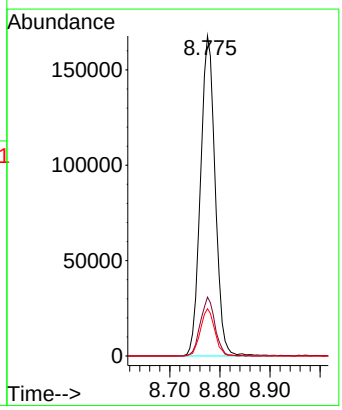
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

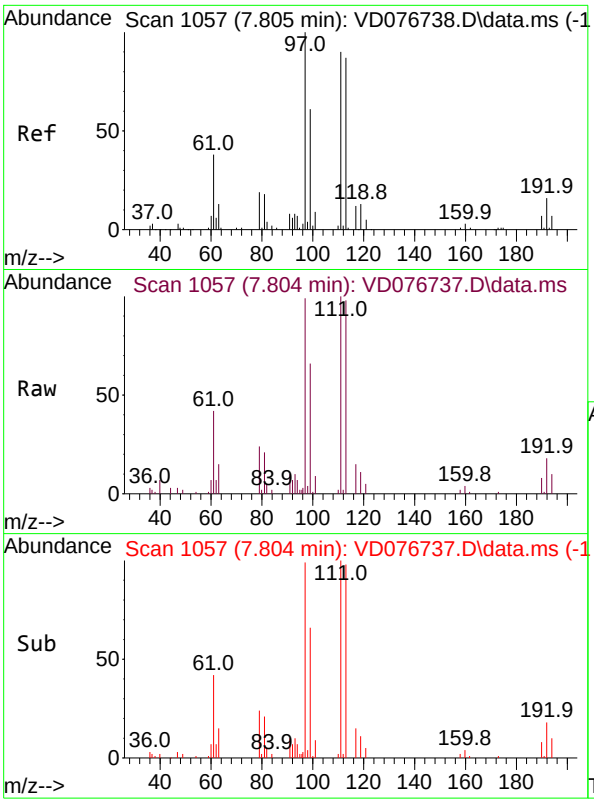


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:114 Resp: 341736

Ion	Ratio	Lower	Upper
114	100		
63	18.4	0.0	33.4
88	14.7	0.0	26.2

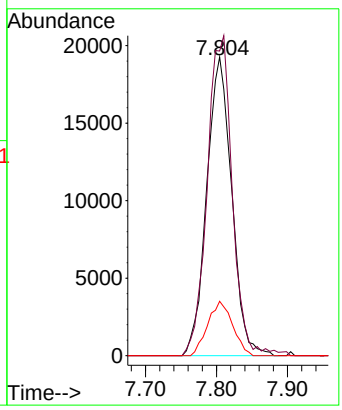




#35
Dibromofluoromethane
Concen: 21.955 ug/l
RT: 7.804 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:113 Resp: 4714

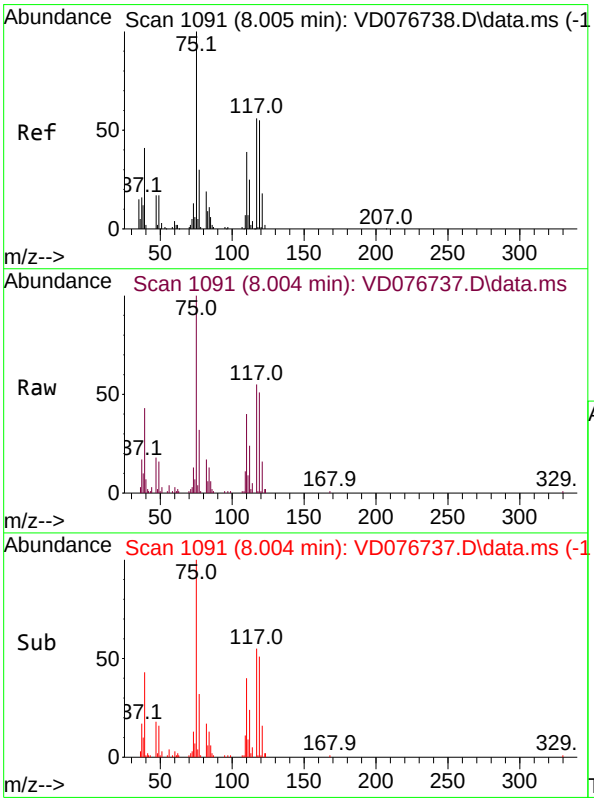
Ion	Ratio	Lower	Upper
113	100		
111	107.5	84.7	127.1
192	18.1	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

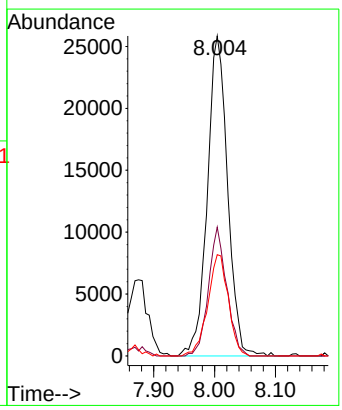
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

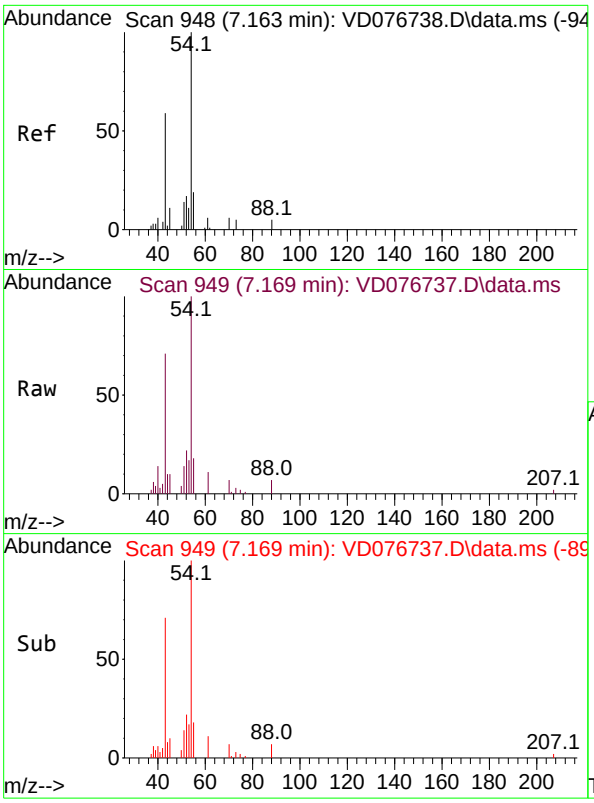


#36
1,1-Dichloropropene
Concen: 21.336 ug/l
RT: 8.004 min Scan# 1091
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 75 Resp: 59873

Ion	Ratio	Lower	Upper
75	100		
110	36.3	19.9	59.6
77	32.0	24.7	37.1





#37
Ethyl Acetate
Concen: 19.692 ug/l
RT: 7.169 min Scan# 94
Delta R.T. 0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

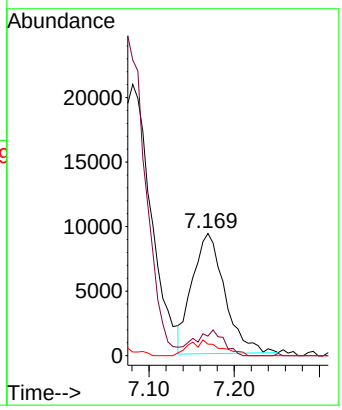
Tgt Ion: 43 Resp: 2471

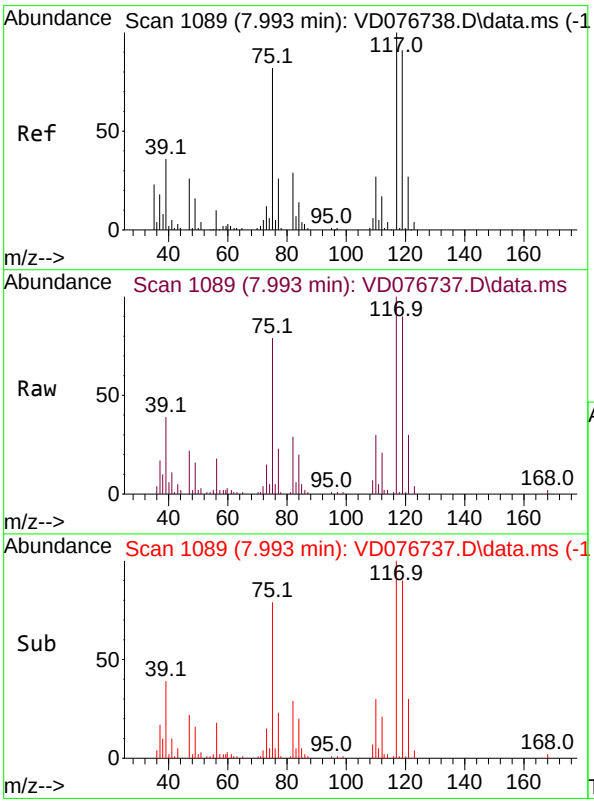
Ion	Ratio	Lower	Upper
43	100		
61	19.2	14.9	22.3
70	0.0	10.0	15.0#

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

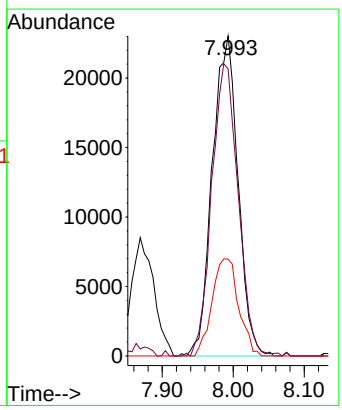


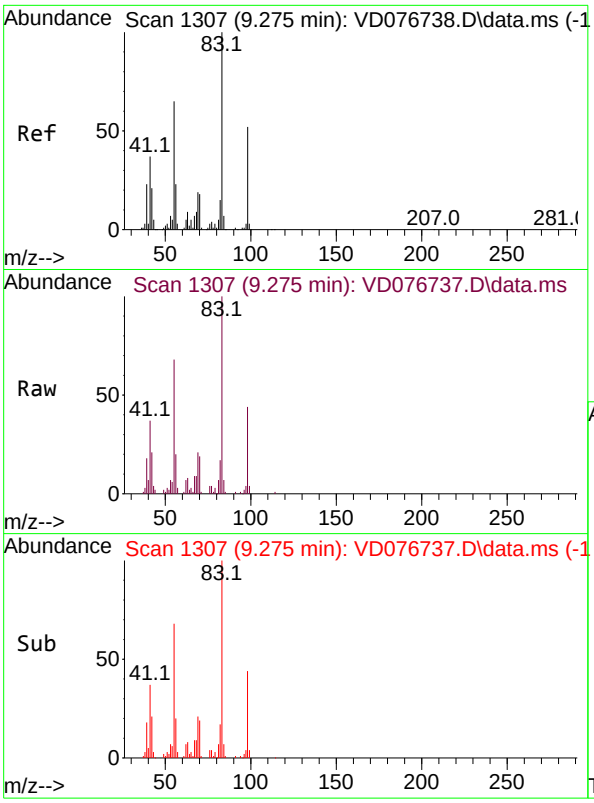


#38
Carbon Tetrachloride
Concen: 21.539 ug/l
RT: 7.993 min Scan# 1089
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:117 Resp: 57874

Ion	Ratio	Lower	Upper
117	100		
119	89.7	78.0	117.0
121	30.2	24.2	36.2





#39
Methylcyclohexane
Concen: 21.483 ug/l
RT: 9.275 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

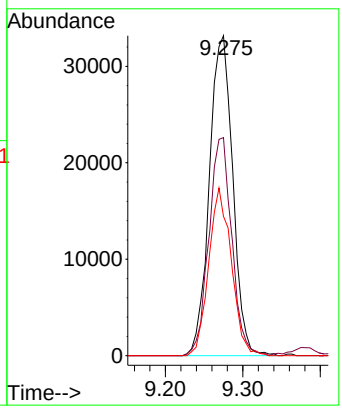
Tgt Ion: 83 Resp: 6961

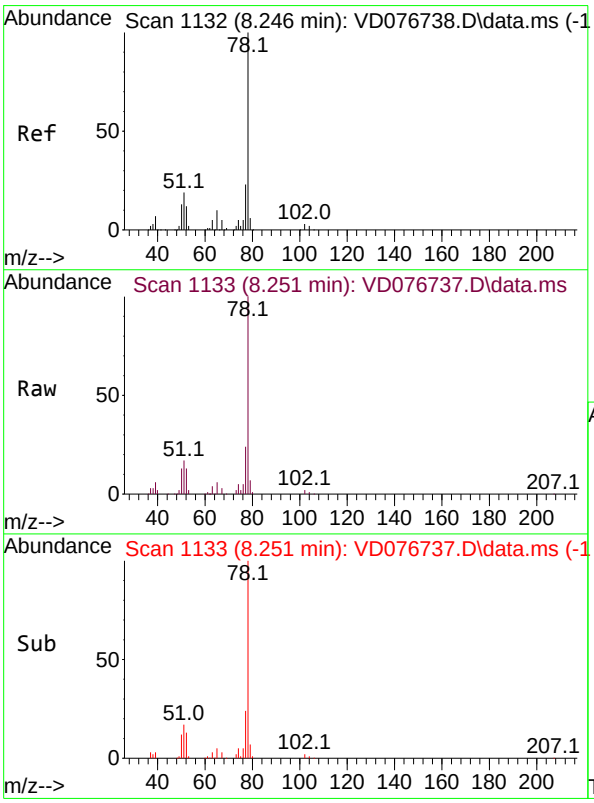
Ion	Ratio	Lower	Upper
83	100		
55	68.1	49.4	74.0
98	43.6	38.4	57.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

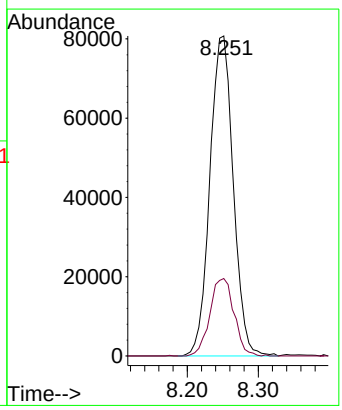


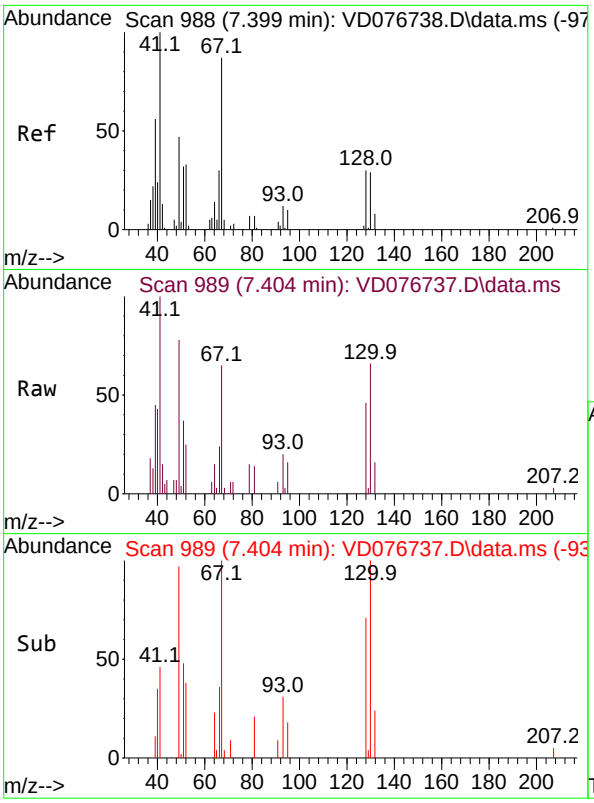


#40
Benzene
Concen: 20.823 ug/l
RT: 8.251 min Scan# 1133
Delta R.T. 0.005 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 78 Resp: 184372

Ion	Ratio	Lower	Upper
78	100		
77	24.2	19.4	29.0

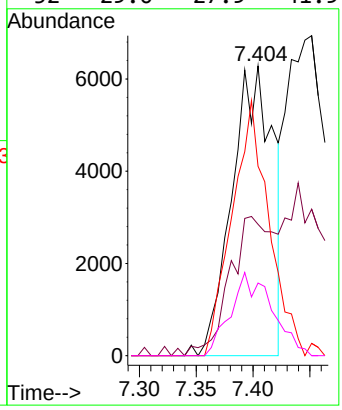




#41
Methacrylonitrile
Concen: 20.624 ug/l
RT: 7.404 min Scan# 9
Delta R.T. 0.005 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 41 Resp: 1580

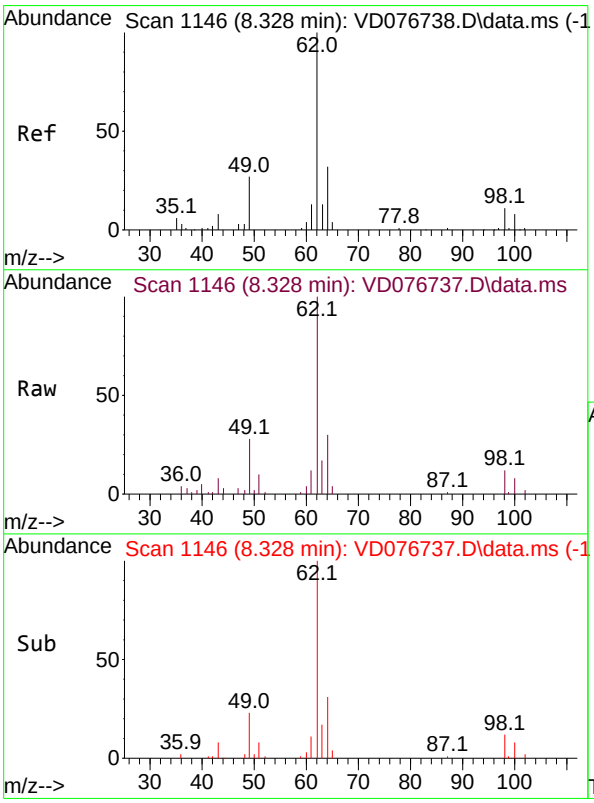
Ion	Ratio	Lower	Upper
41	100		
39	52.9	34.0	51.0
67	78.9	77.0	115.4
52	29.0	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

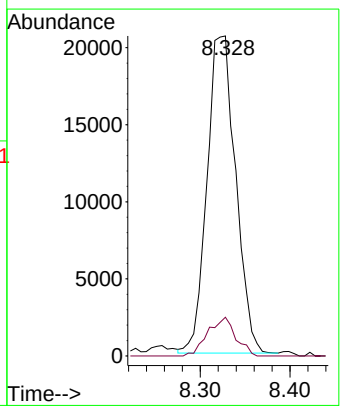
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

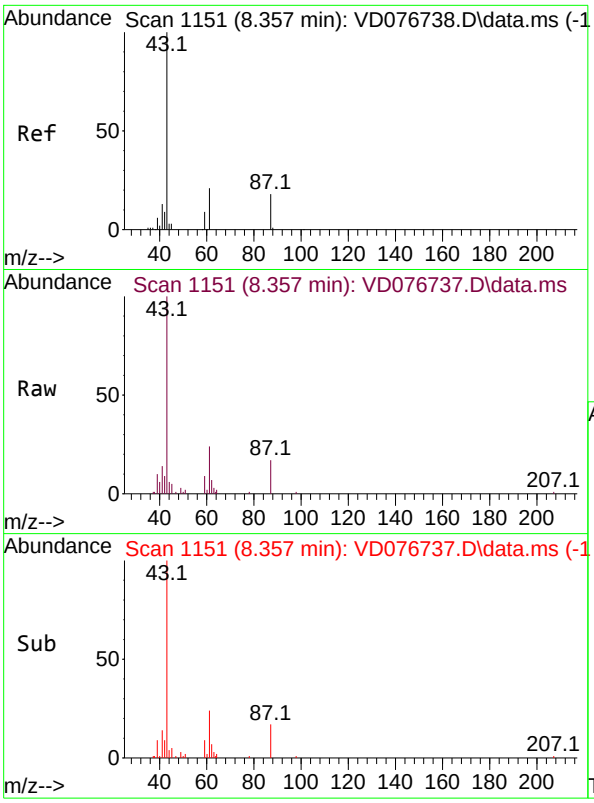


#42
1,2-Dichloroethane
Concen: 19.837 ug/l
RT: 8.328 min Scan# 1146
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 62 Resp: 45636

Ion	Ratio	Lower	Upper
62	100		
98	11.8	0.0	25.4





#43
Isopropyl Acetate
Concen: 19.204 ug/l
RT: 8.357 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

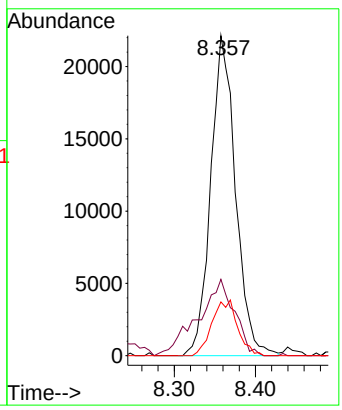
Tgt Ion: 43 Resp: 4703

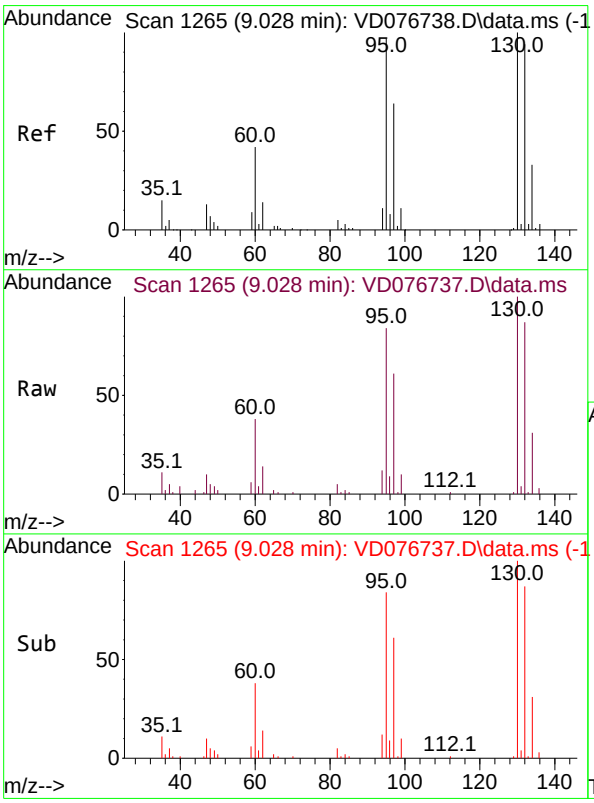
Ion	Ratio	Lower	Upper
43	100		
61	34.9	31.4	47.0
87	17.9	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

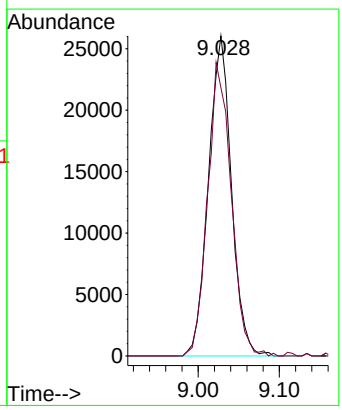


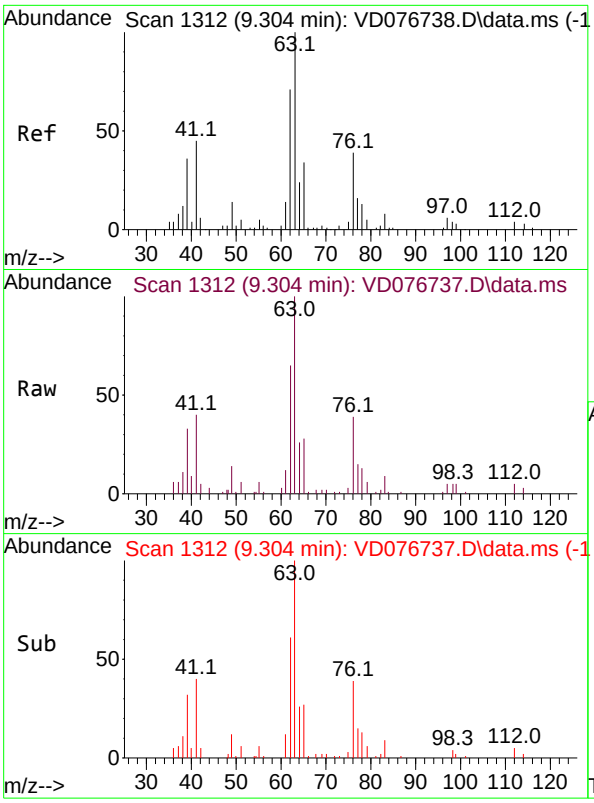


#44
Trichloroethene
Concen: 21.209 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:130 Resp: 51172

Ion	Ratio	Lower	Upper
130	100		
95	83.8	0.0	179.2

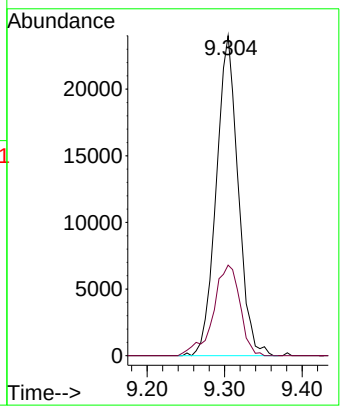




#45
1,2-Dichloropropane
Concen: 20.591 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 63 Resp: 4706

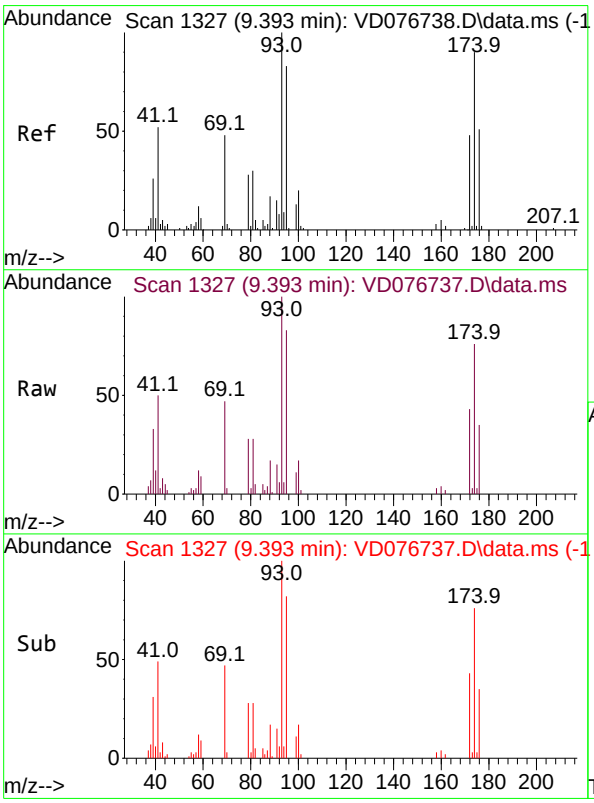
Ion	Ratio	Lower	Upper
63	100		
65	28.3	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

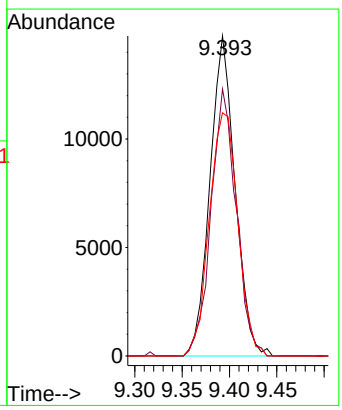
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

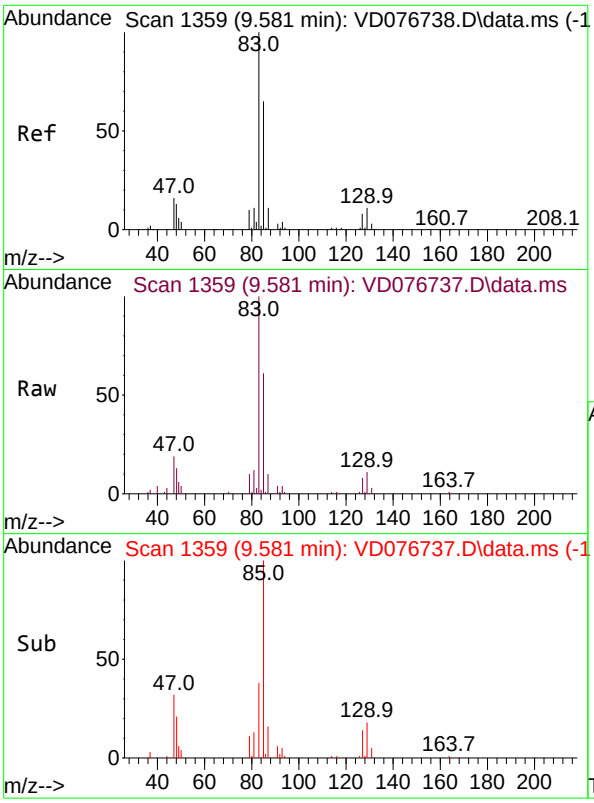


#46
Dibromomethane
Concen: 20.334 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 93 Resp: 27204

Ion	Ratio	Lower	Upper
93	100		
95	83.5	67.7	101.5
174	86.1	85.4	128.2

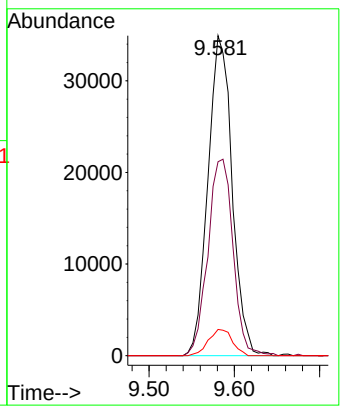




#47
Bromodichloromethane
Concen: 20.547 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 83 Resp: 6898

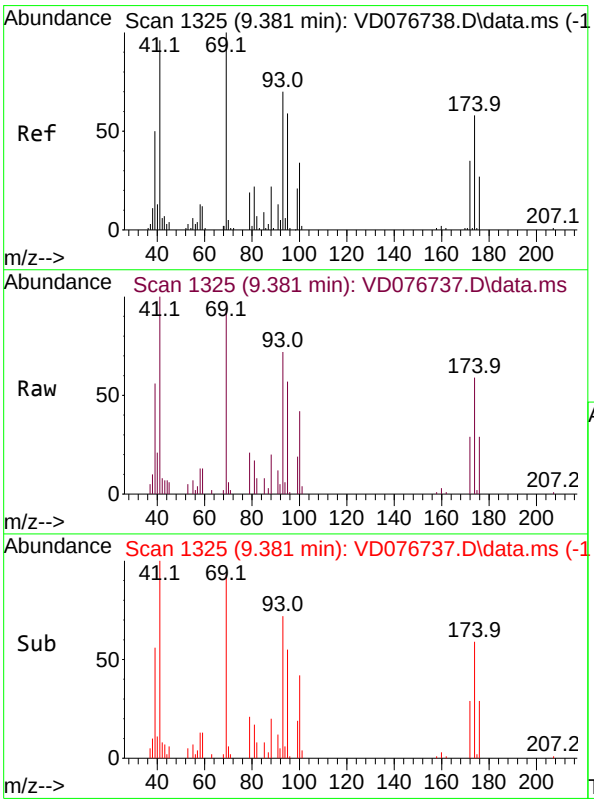
Ion	Ratio	Lower	Upper
83	100		
85	60.6	50.2	75.4
127	8.2	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

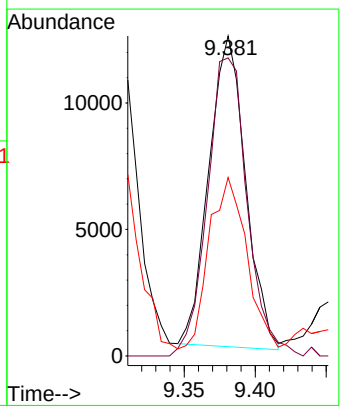
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

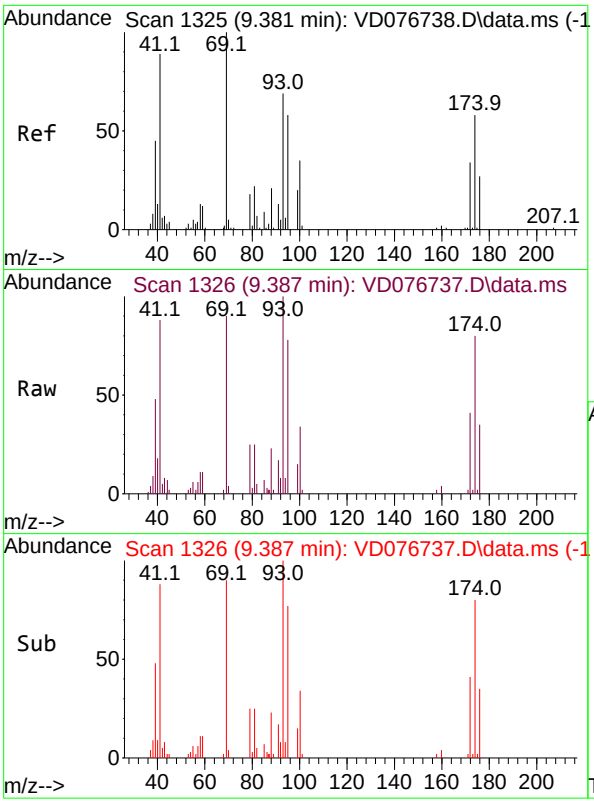


#48
Methyl methacrylate
Concen: 19.782 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 41 Resp: 22051

Ion	Ratio	Lower	Upper
41	100		
69	104.3	102.2	153.2
39	56.2	41.4	62.2

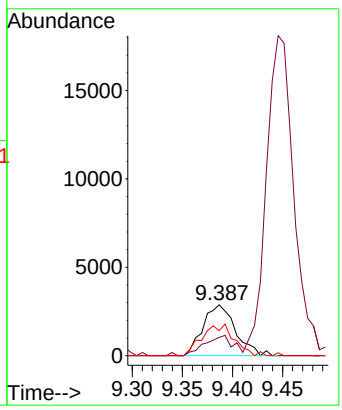




#49
1,4-Dioxane
Concen: 377.057 ug/l
RT: 9.387 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 88 Resp: 646

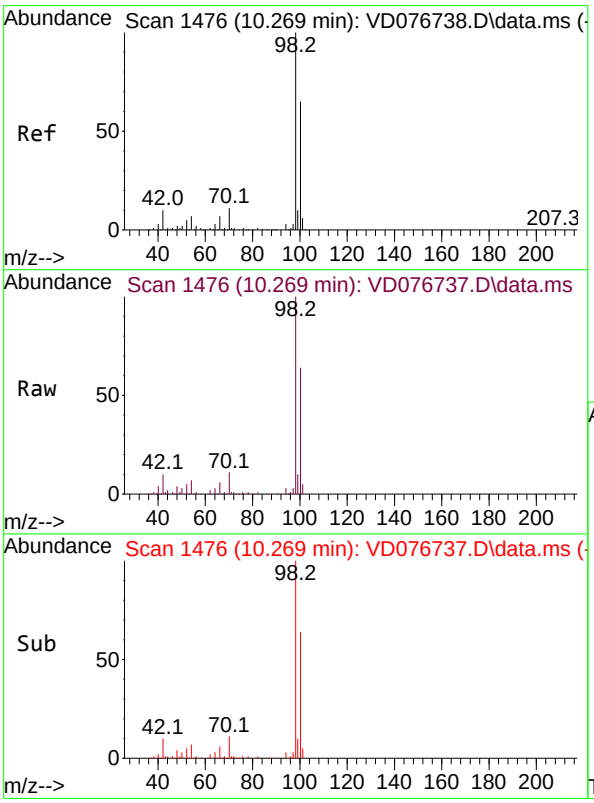
Ion	Ratio	Lower	Upper
88	100		
43	34.6	19.0	28.6
58	61.2	43.5	65.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

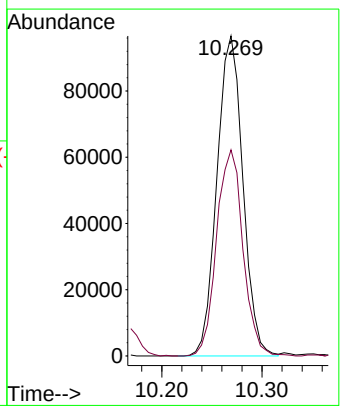
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

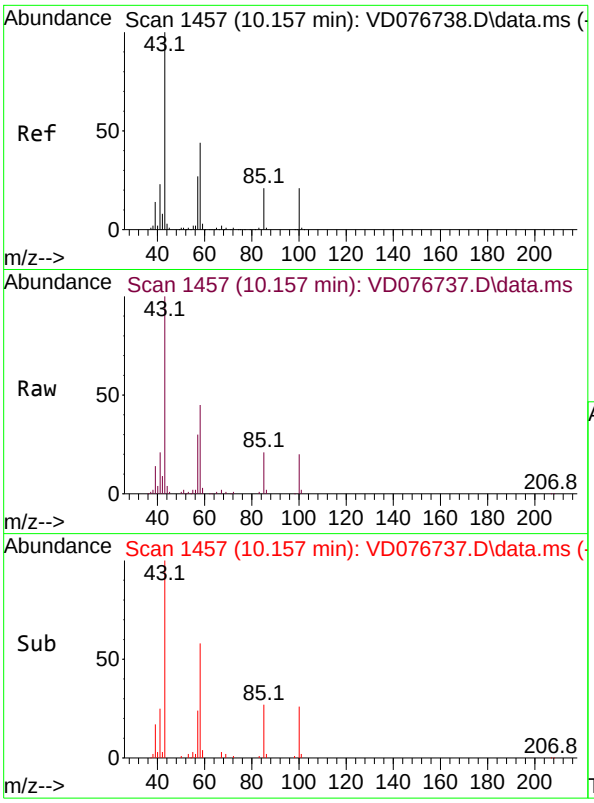


#50
Toluene-d8
Concen: 22.608 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 98 Resp: 173680

Ion	Ratio	Lower	Upper
98	100		
100	65.4	50.3	75.5

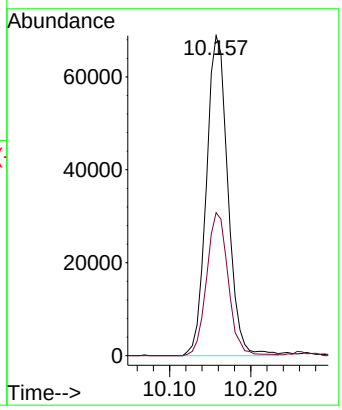




#51
4-Methyl-2-Pentanone
Concen: 96.943 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 43 Resp: 12641

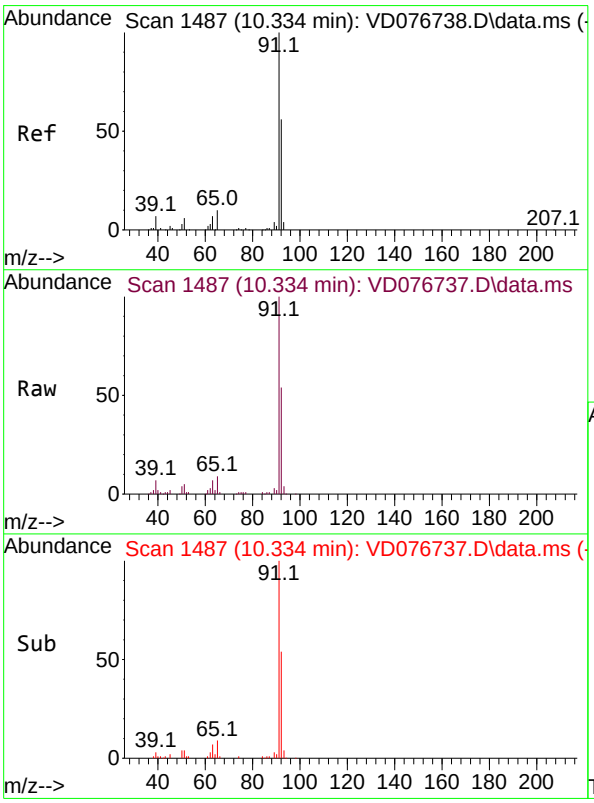
Ion	Ratio	Lower	Upper
43	100		
58	45.0	38.9	58.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

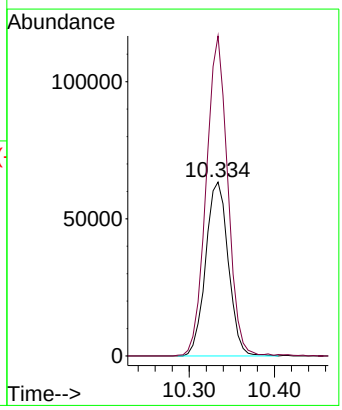
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

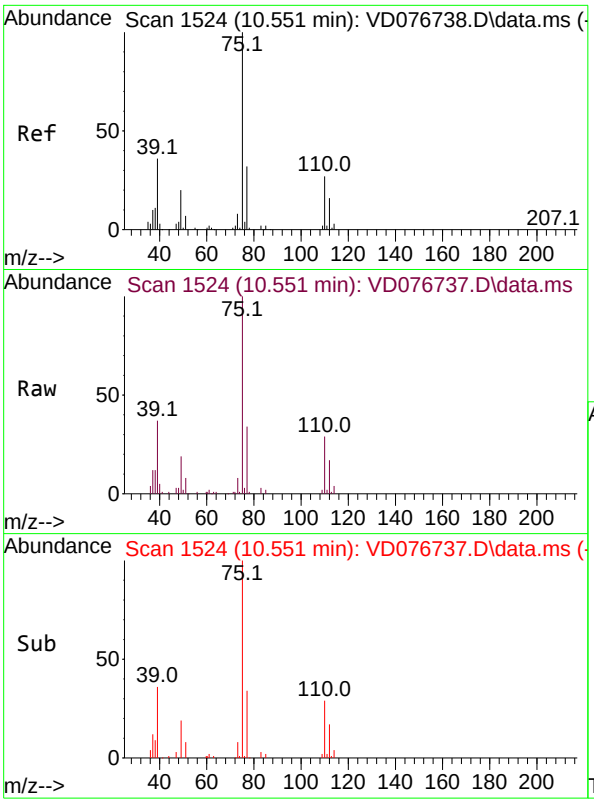


#52
Toluene
Concen: 20.119 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 92 Resp: 116995

Ion	Ratio	Lower	Upper
92	100		
91	174.8	143.0	214.4

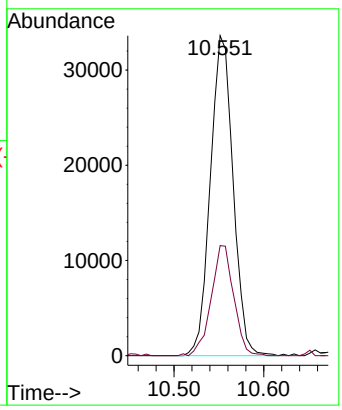




#53
t-1,3-Dichloropropene
Concen: 18.979 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 75 Resp: 5914

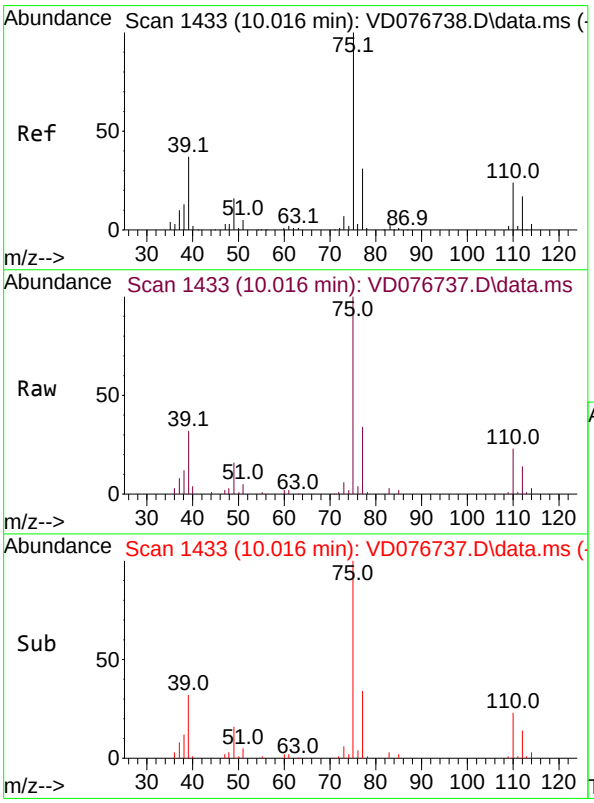
Ion	Ratio	Lower	Upper
75	100		
77	34.4	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

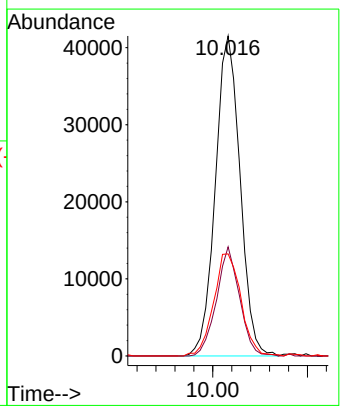
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

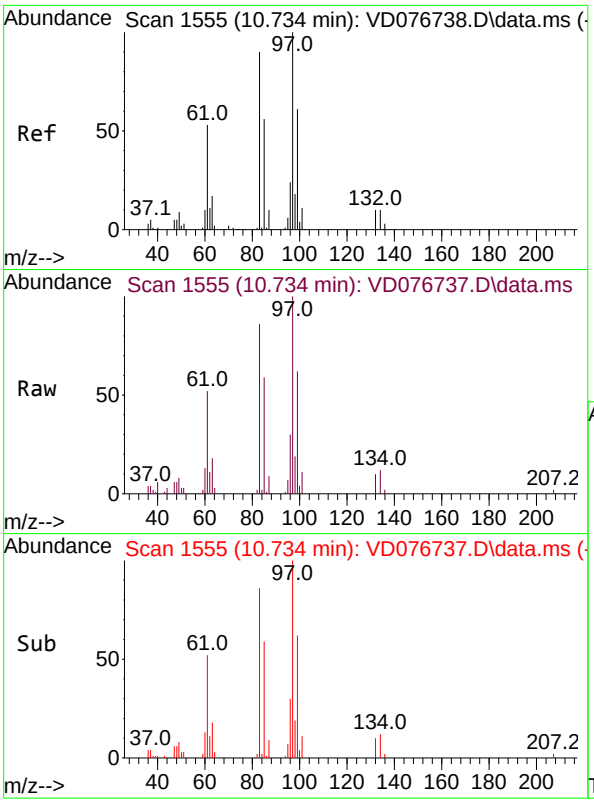


#54
cis-1,3-Dichloropropene
Concen: 20.512 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 75 Resp: 75330

Ion	Ratio	Lower	Upper
75	100		
77	34.1	25.5	38.3
39	31.9	22.1	33.1

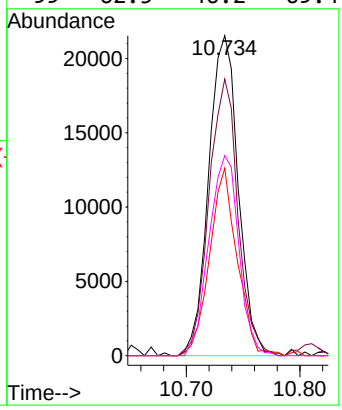




#55
1,1,2-Trichloroethane
Concen: 19.963 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 97 Resp: 3899

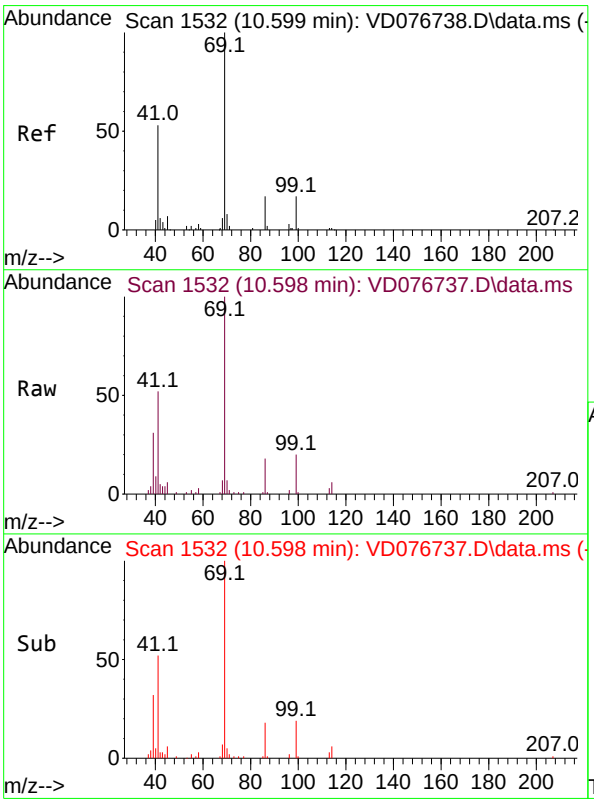
Ion	Ratio	Lower	Upper
97	100		
83	86.4	65.8	98.6
85	58.6	45.7	68.5
99	62.5	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

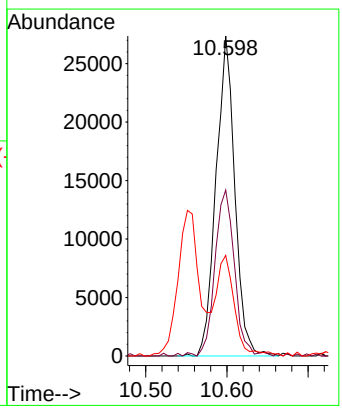
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

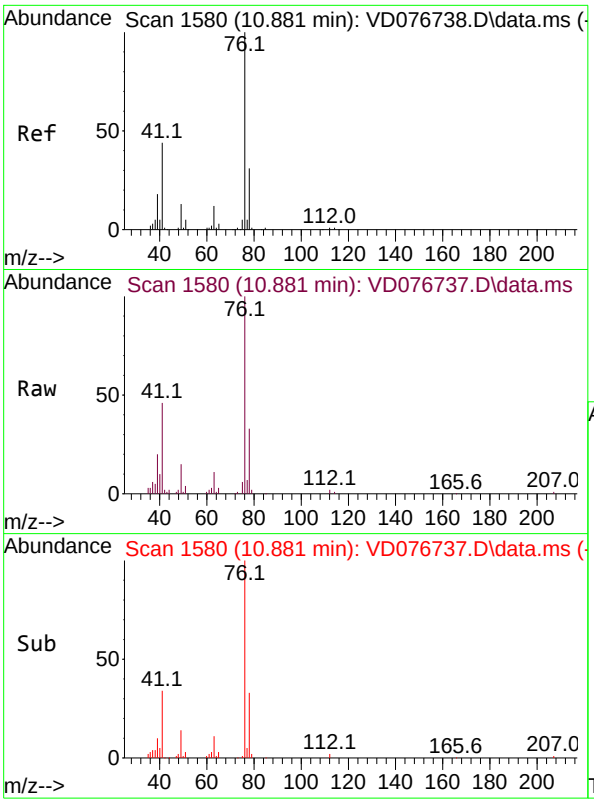


#56
Ethyl methacrylate
Concen: 19.558 ug/l
RT: 10.598 min Scan# 1532
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 69 Resp: 44099

Ion	Ratio	Lower	Upper
69	100		
41	54.3	39.1	58.7
39	29.5	20.0	30.0

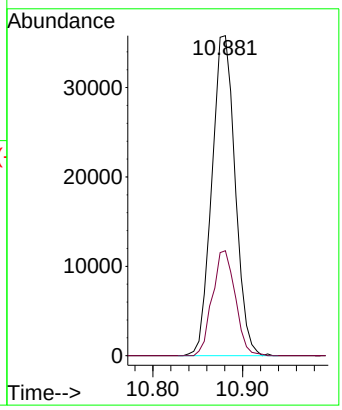




#57
1,3-Dichloropropane
Concen: 20.291 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 76 Resp: 6455

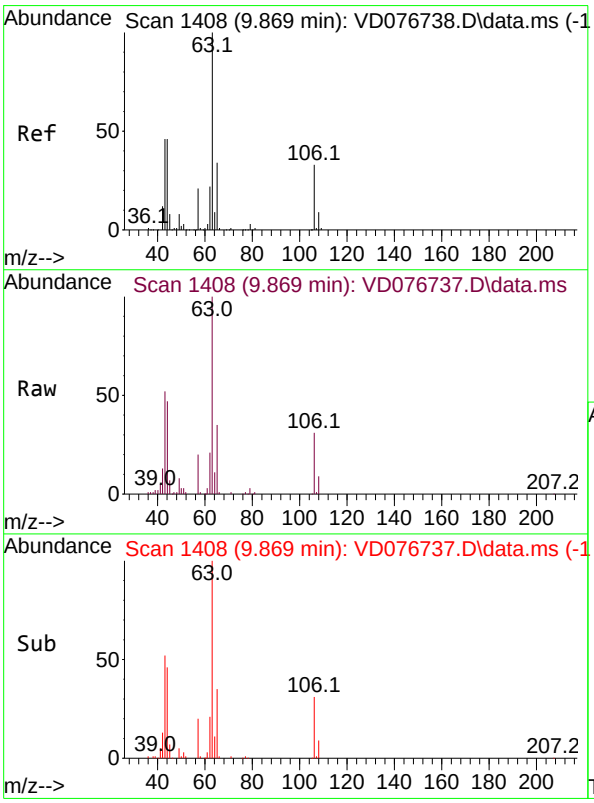
Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.4	39.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

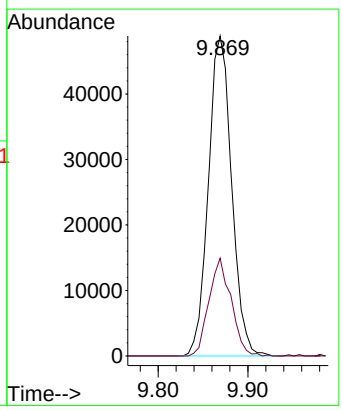
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

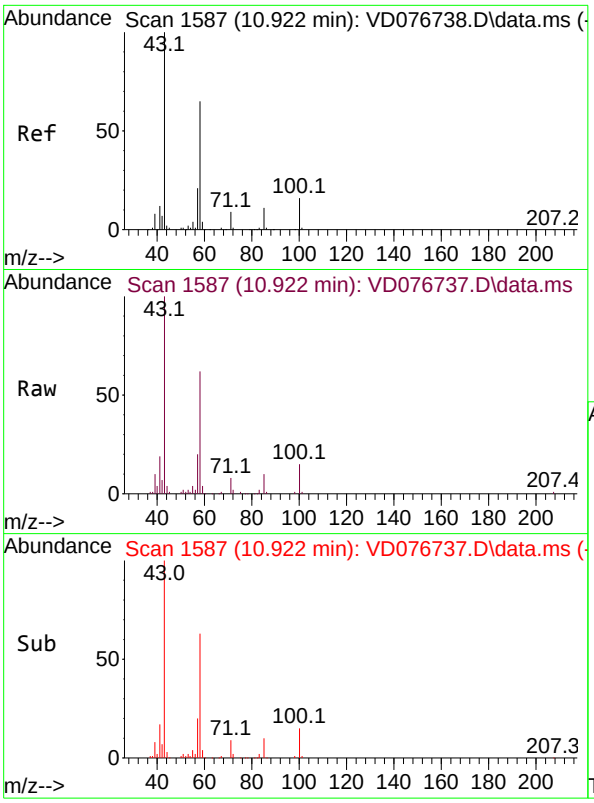


#58
2-Chloroethyl Vinyl ether
Concen: 100.703 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 63 Resp: 87893

Ion	Ratio	Lower	Upper
63	100		
106	29.2	25.3	37.9





#59
2-Hexanone
Concen: 94.834 ug/l
RT: 10.922 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

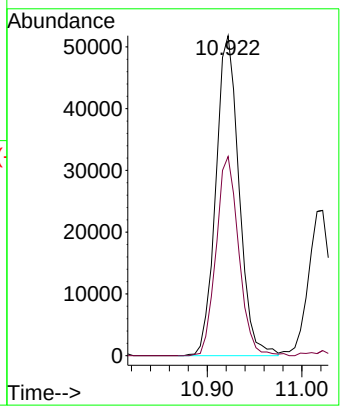
Tgt Ion: 43 Resp: 8824

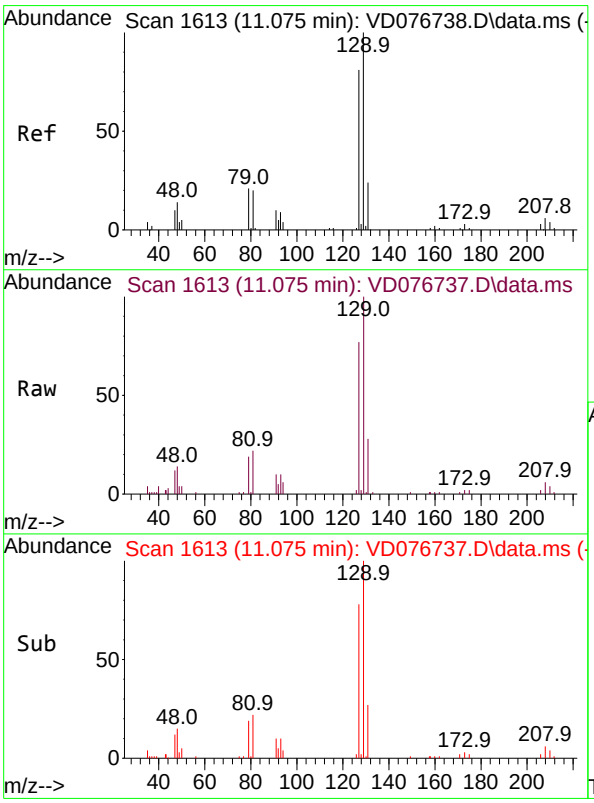
Ion	Ratio	Lower	Upper
43	100		
58	60.6	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

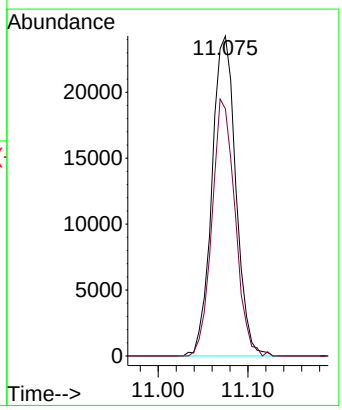


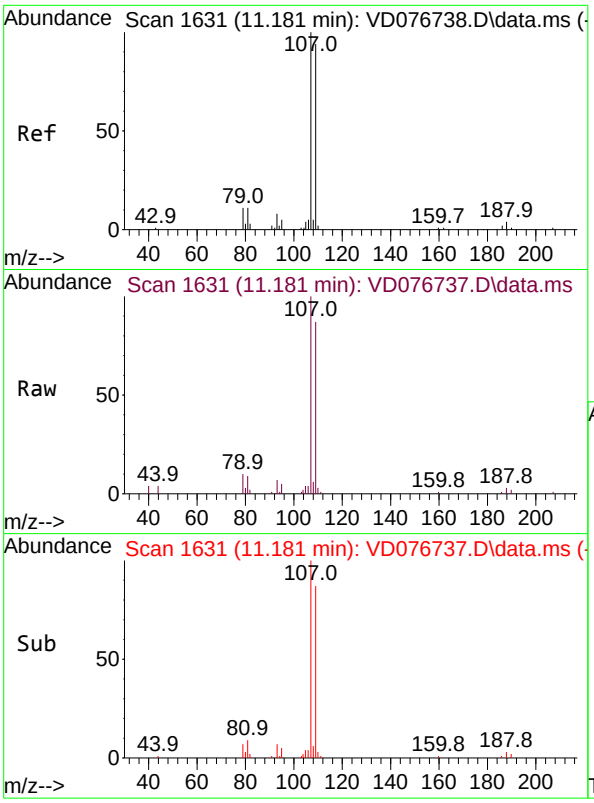


#60
Dibromochloromethane
Concen: 19.757 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:129 Resp: 44838

Ion	Ratio	Lower	Upper
129	100		
127	77.5	37.1	111.5





#61
1,2-Dibromoethane
Concen: 19.964 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

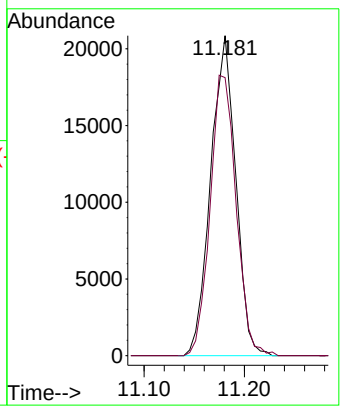
Tgt Ion:107 Resp: 3615

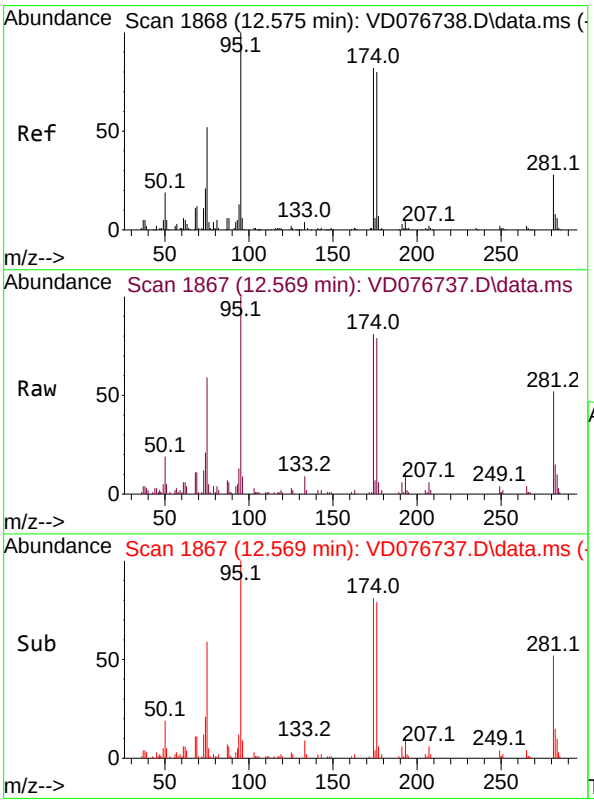
Ion	Ratio	Lower	Upper
107	100		
109	90.9	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

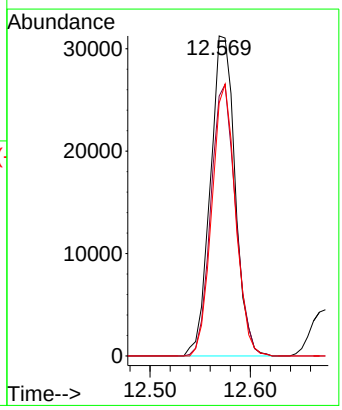


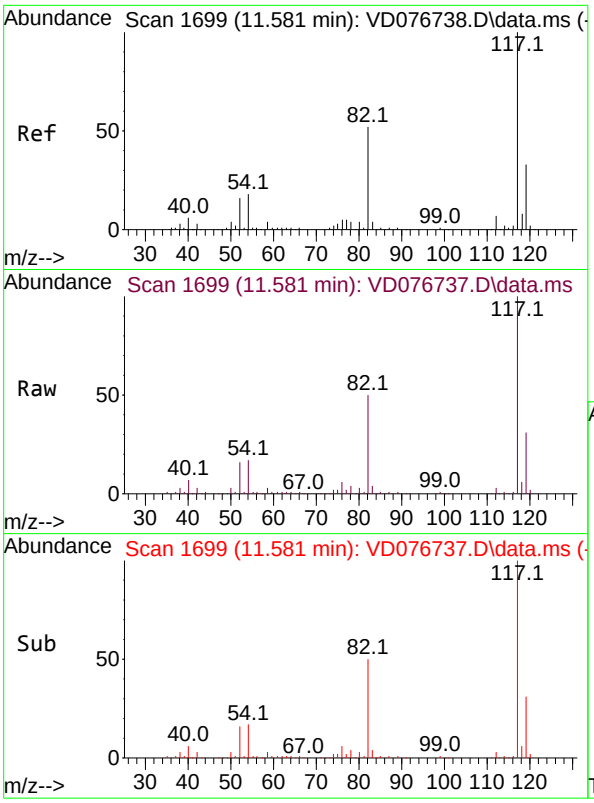


#62
4-Bromofluorobenzene
Concen: 21.541 ug/l
RT: 12.569 min Scan# 1867
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 95 Resp: 53534

Ion	Ratio	Lower	Upper
95	100		
174	84.1	0.0	201.8
176	80.7	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

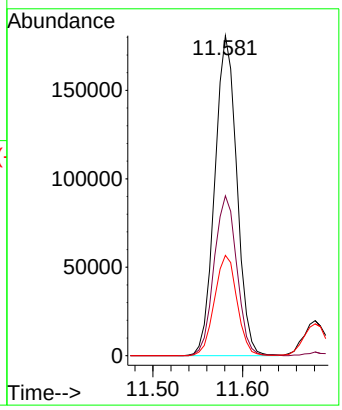
Tgt Ion:117 Resp: 30812

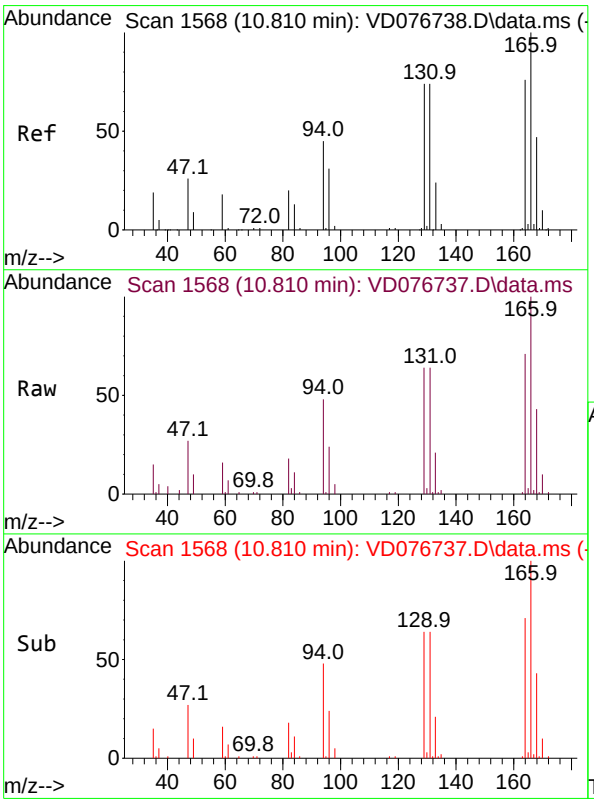
Ion	Ratio	Lower	Upper
117	100		
82	49.9	38.3	57.5
119	31.4	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

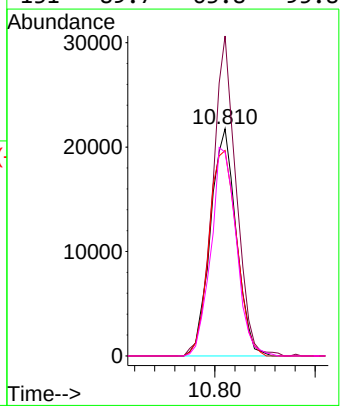


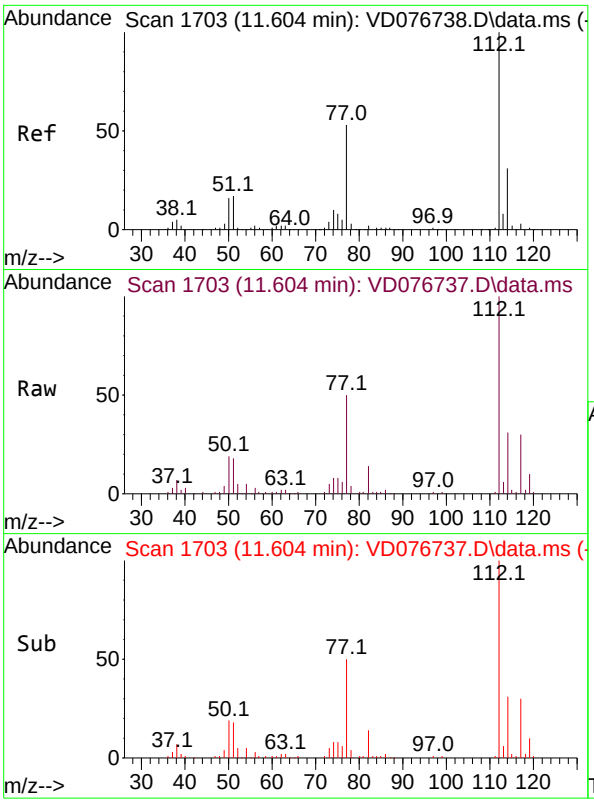


#64
Tetrachloroethene
Concen: 22.079 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:164 Resp: 38792

Ion	Ratio	Lower	Upper
164	100		
166	140.9	99.2	148.8
129	90.4	68.4	102.6
131	89.7	63.8	95.8

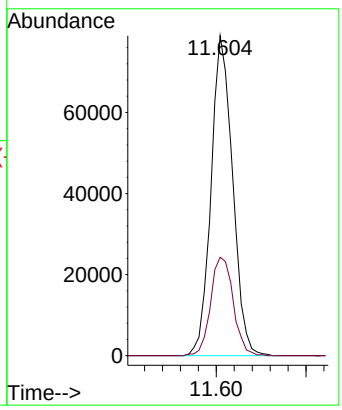




#65
Chlorobenzene
Concen: 21.220 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:112 Resp: 13149

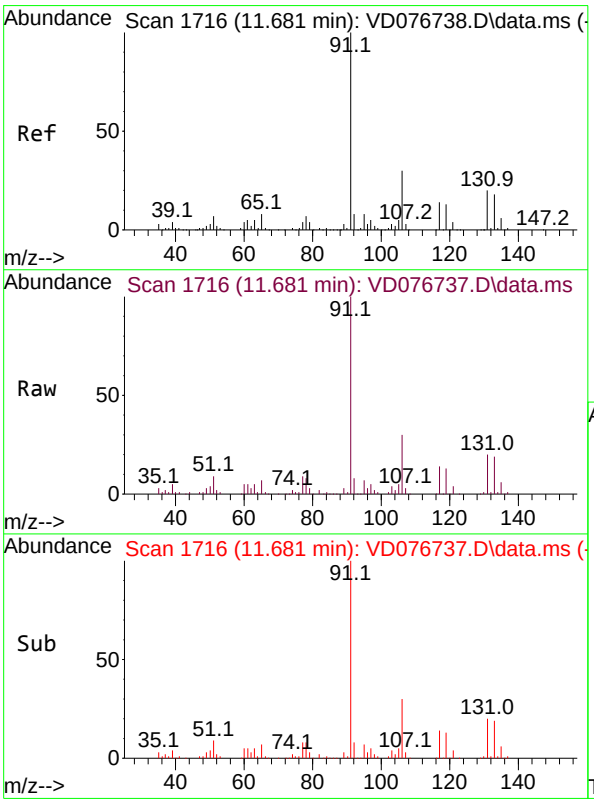
Ion	Ratio	Lower	Upper
112	100		
114	30.7	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

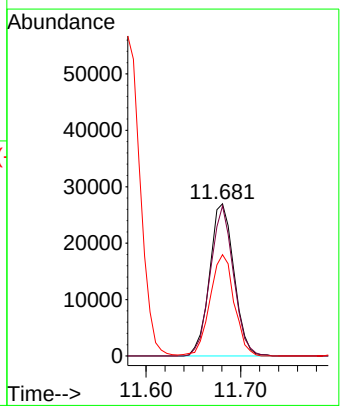
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

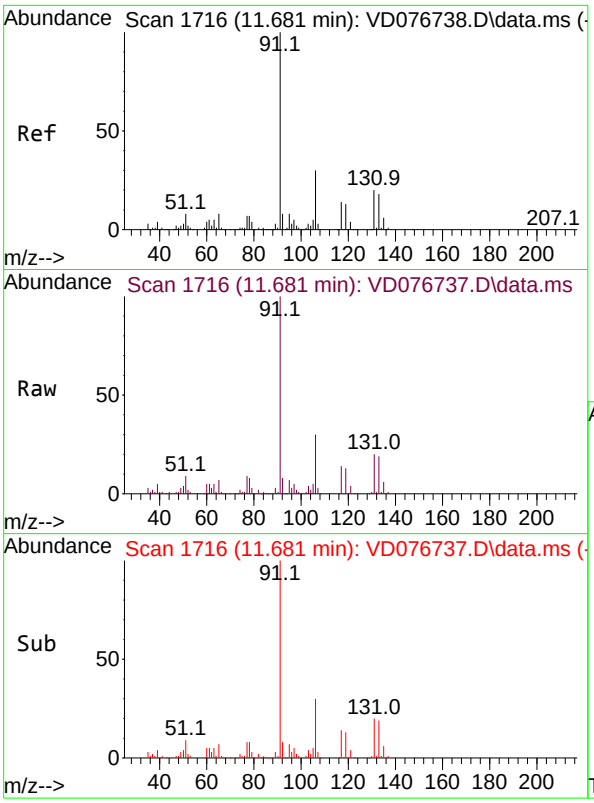


#66
1,1,1,2-Tetrachloroethane
Concen: 20.856 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:131 Resp: 48118

Ion	Ratio	Lower	Upper
131	100		
133	94.0	48.5	145.5
119	66.4	35.6	106.9





#67
Ethyl Benzene
Concen: 21.065 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

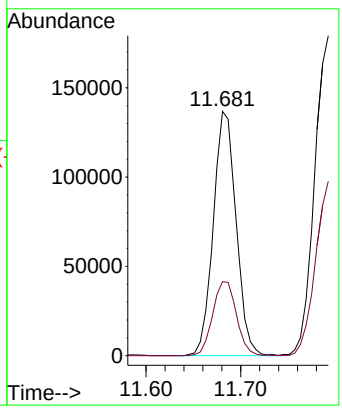
Tgt Ion: 91 Resp: 22925

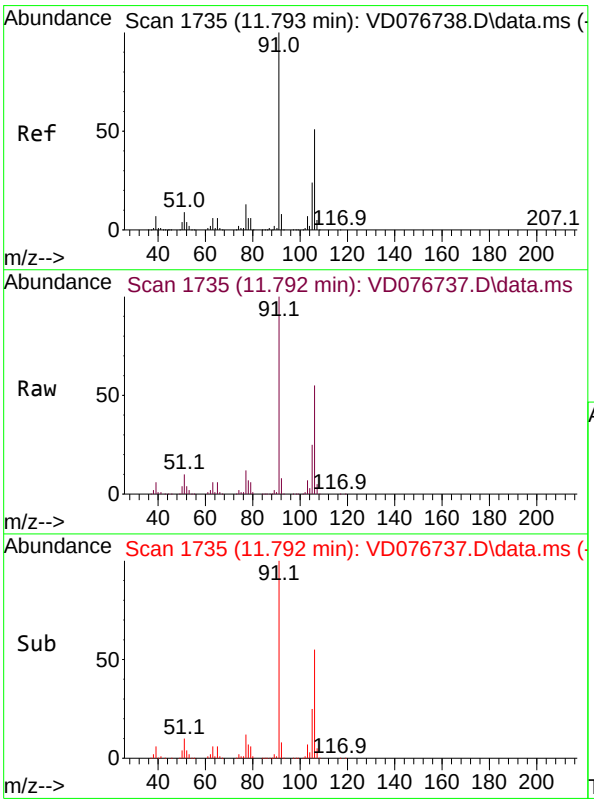
Ion	Ratio	Lower	Upper
91	100		
106	30.3	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

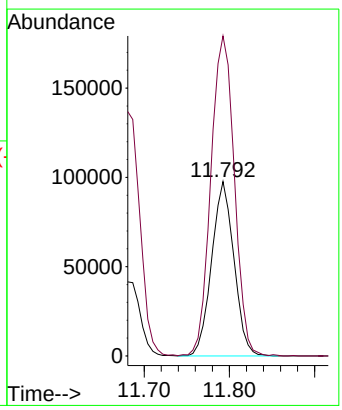


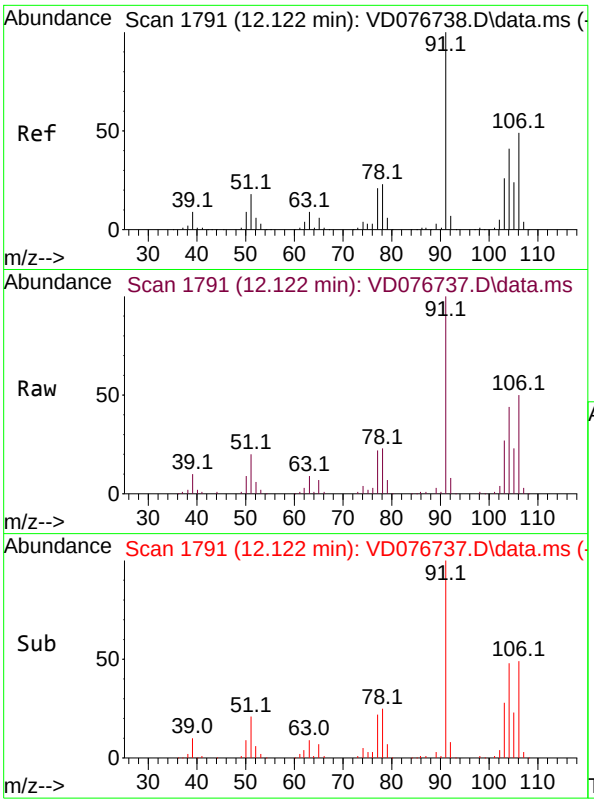


#68
m/p-Xylenes
Concen: 42.529 ug/l
RT: 11.792 min Scan# 1735
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:106 Resp: 177761

Ion	Ratio	Lower	Upper
106	100		
91	192.4	147.0	220.6

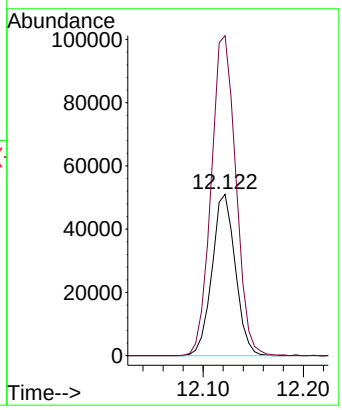




#69
o-Xylene
Concen: 20.376 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:106 Resp: 8235

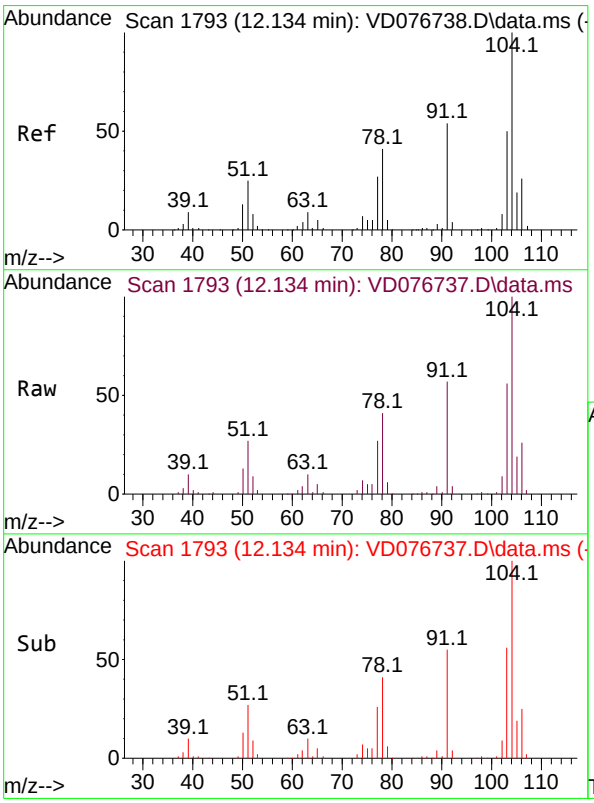
Ion	Ratio	Lower	Upper
106	100		
91	210.3	97.9	293.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

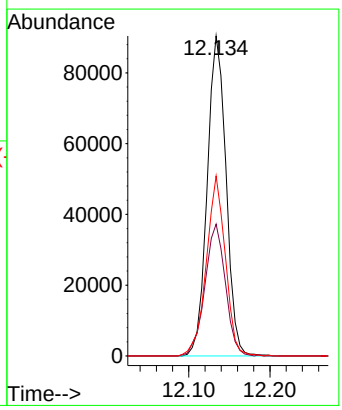
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

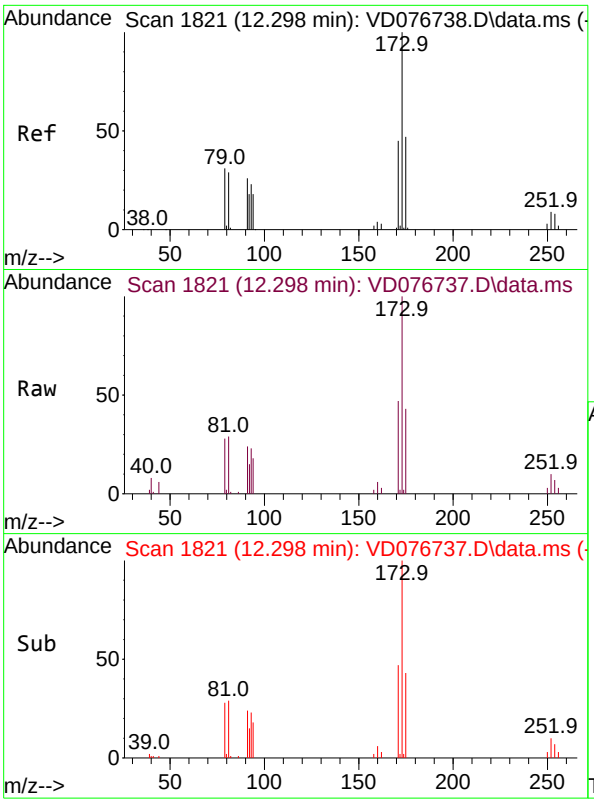


#70
Styrene
Concen: 20.585 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:104 Resp: 145654

Ion	Ratio	Lower	Upper
104	100		
78	44.8	33.2	49.8
103	56.8	43.6	65.4

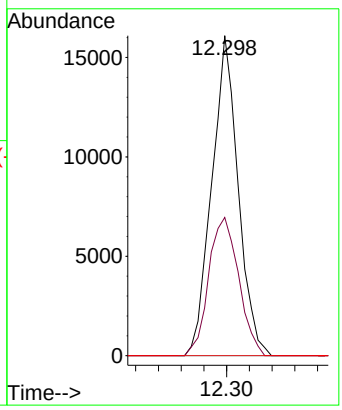




#71
Bromoform
Concen: 20.544 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:173 Resp: 2596

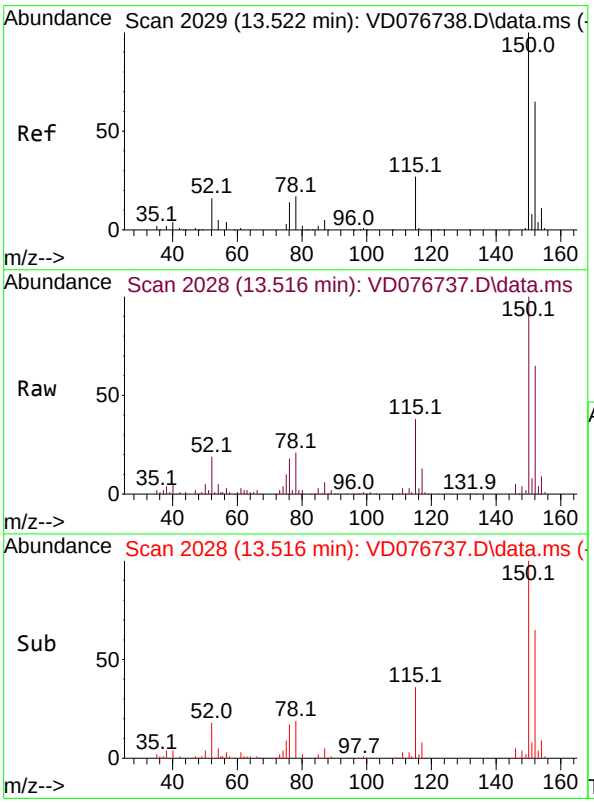
Ion	Ratio	Lower	Upper
173	100		
175	49.1	24.6	73.8
254	0.0	0.0	0.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

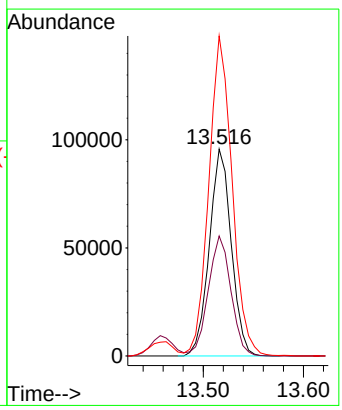
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

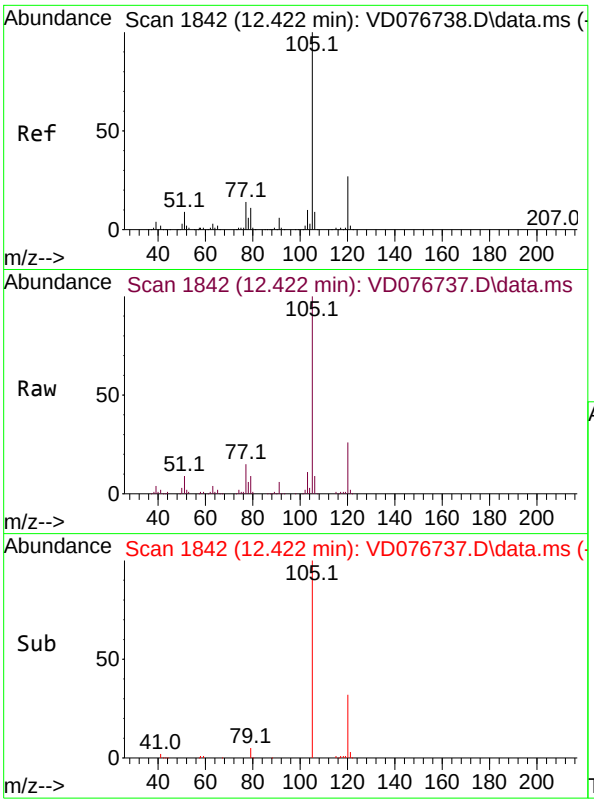


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:152 Resp: 145897

Ion	Ratio	Lower	Upper
152	100		
115	59.7	27.1	81.3
150	163.9	0.0	353.6





#73
Isopropylbenzene
Concen: 20.805 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

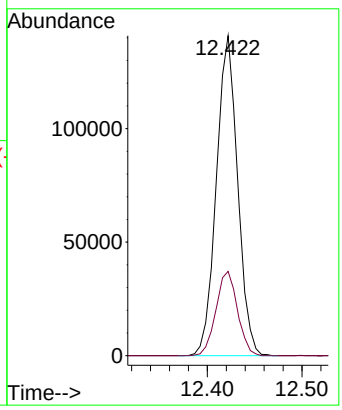
Tgt Ion:105 Resp: 22022

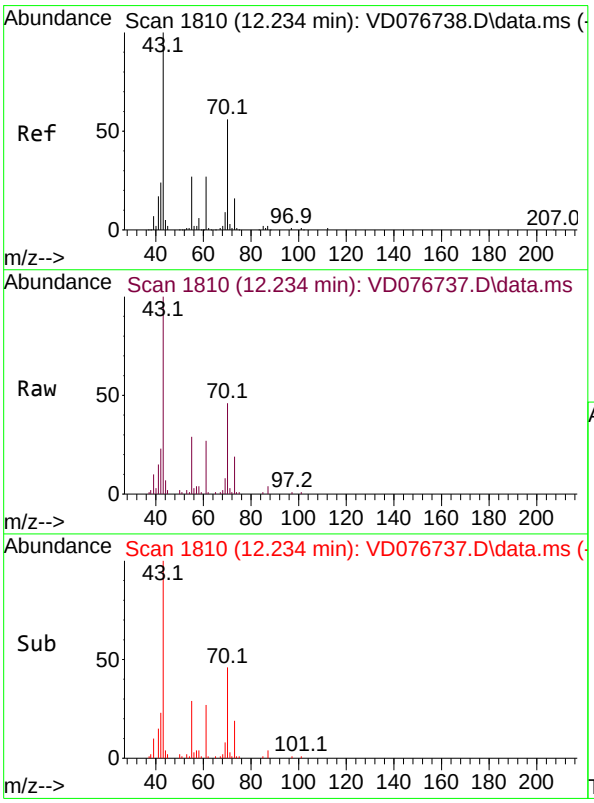
Ion	Ratio	Lower	Upper
105	100		
120	26.6	14.3	42.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

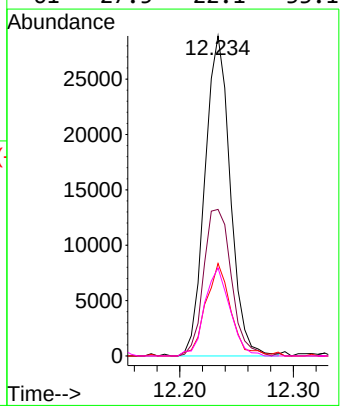


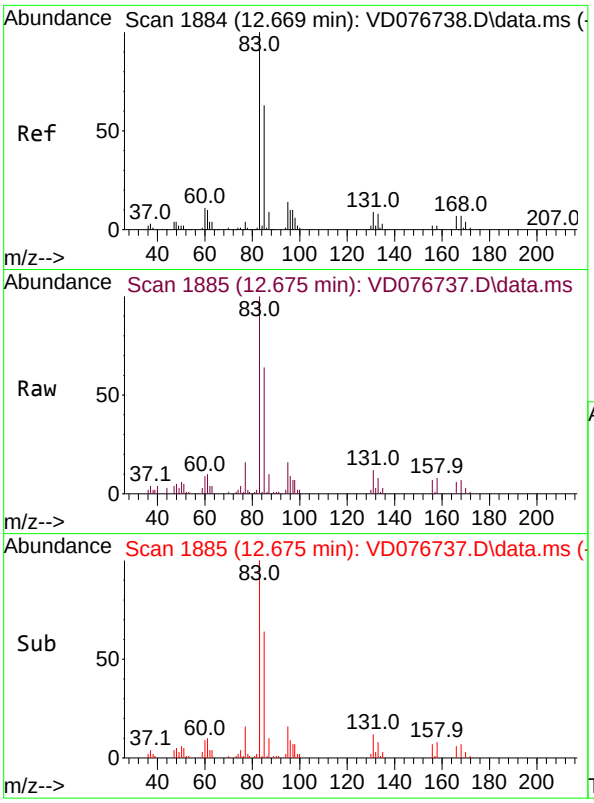


#74
N-amyl acetate
Concen: 20.094 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 43 Resp: 44809

Ion	Ratio	Lower	Upper
43	100		
70	50.1	45.0	67.4
55	28.8	23.8	35.6
61	27.5	22.1	33.1

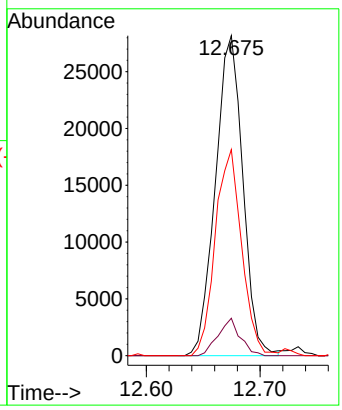




#75
1,1,2,2-Tetrachloroethane
Concen: 20.819 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 83 Resp: 4731

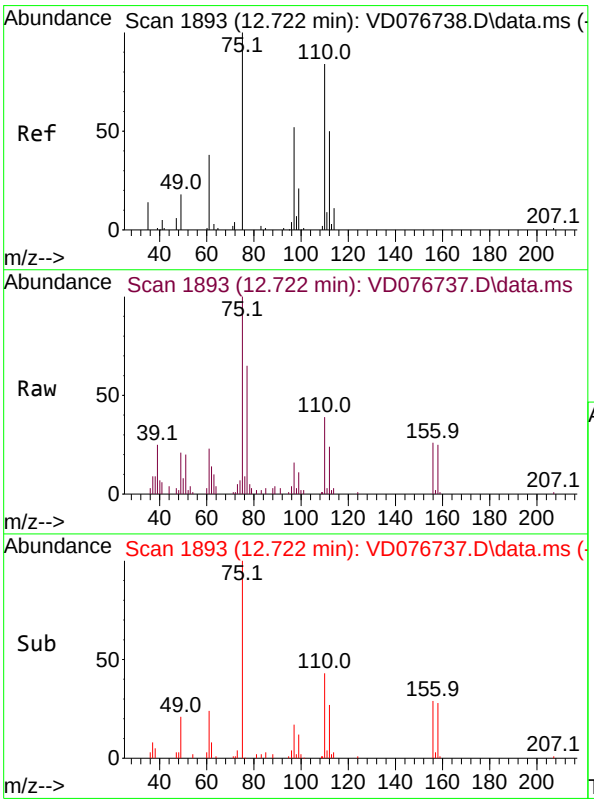
Ion	Ratio	Lower	Upper
83	100		
131	9.4	5.1	15.3
85	62.1	32.6	97.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

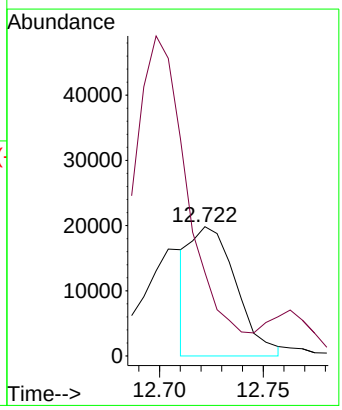
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

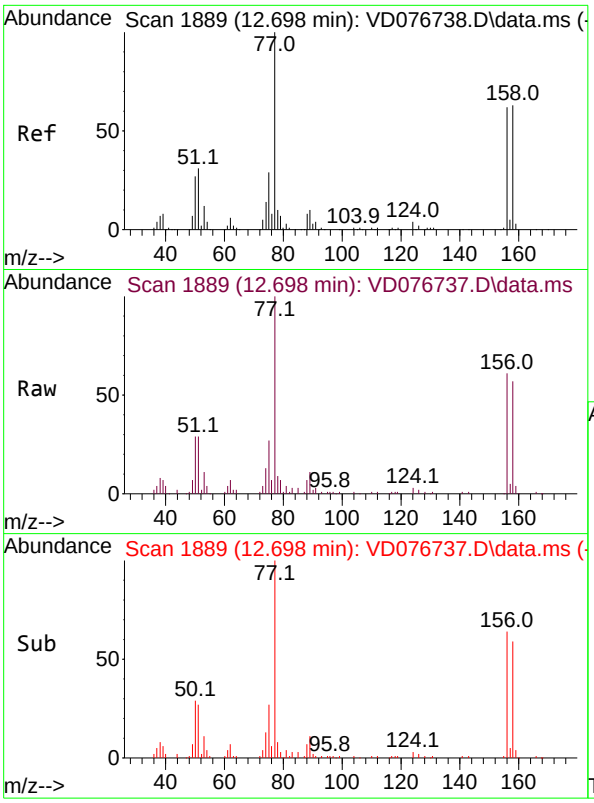


#76
1,2,3-Trichloropropane
Concen: 21.049 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 75 Resp: 30516

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0

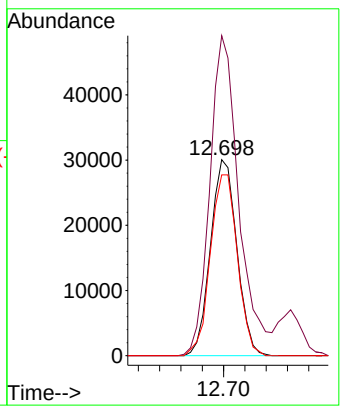




#77
Bromobenzene
Concen: 21.142 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:156 Resp: 5165

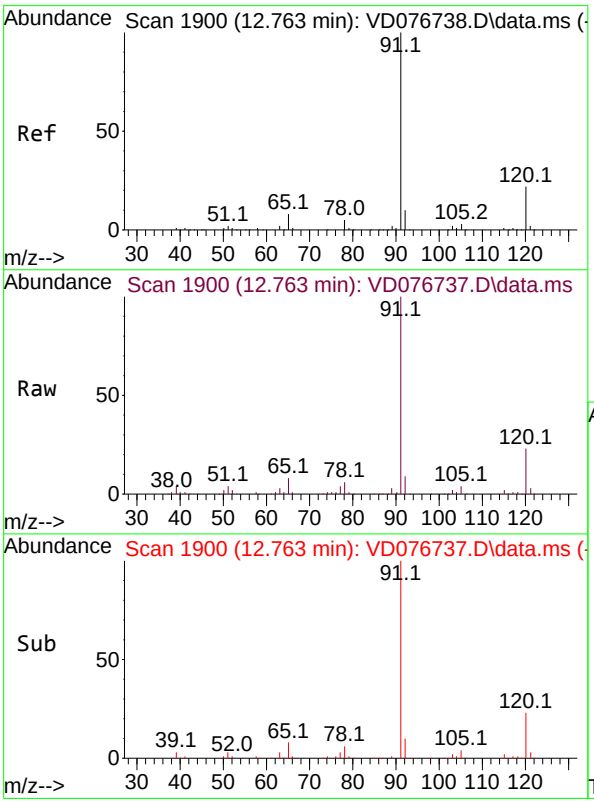
Ion	Ratio	Lower	Upper
156	100		
77	179.8	76.8	230.4
158	94.5	48.6	145.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

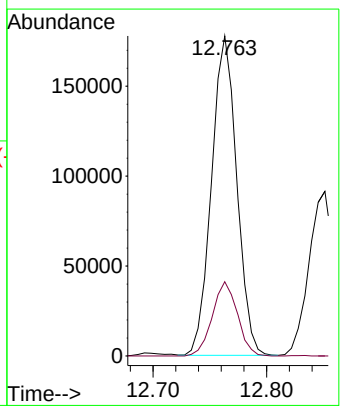
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

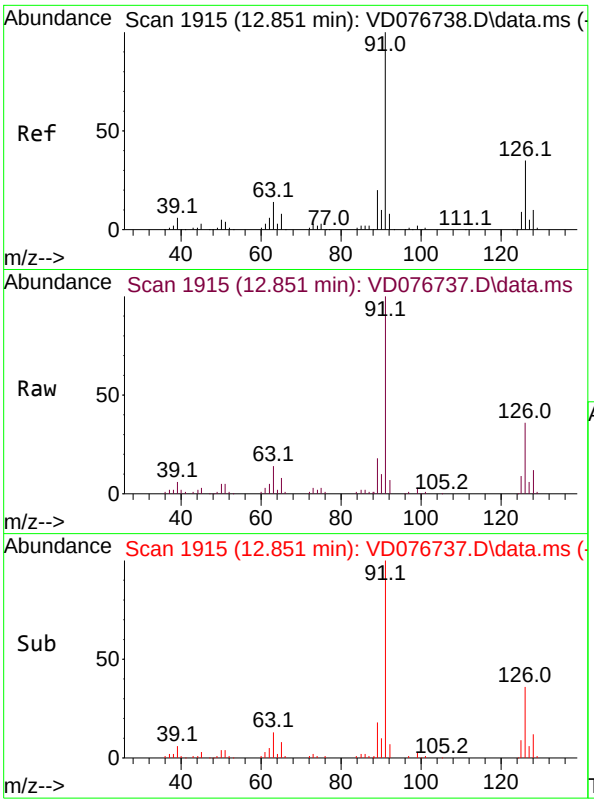


#78
n-propylbenzene
Concen: 21.421 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 91 Resp: 274887

Ion	Ratio	Lower	Upper
91	100		
120	23.0	12.4	37.2





#79
2-Chlorotoluene
Concen: 21.166 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

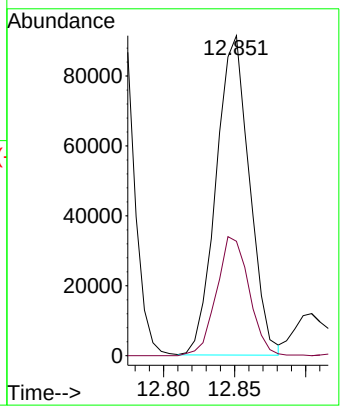
Tgt Ion: 91 Resp: 14892

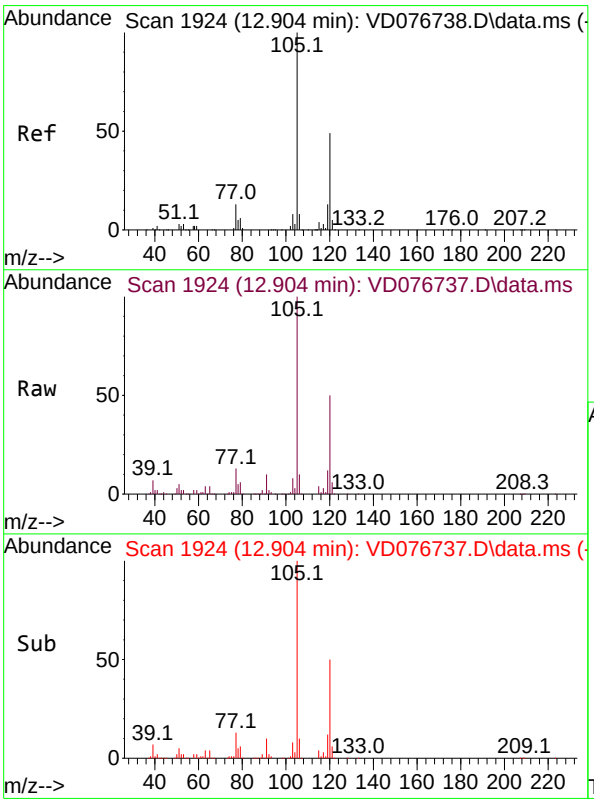
Ion	Ratio	Lower	Upper
91	100		
126	36.6	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

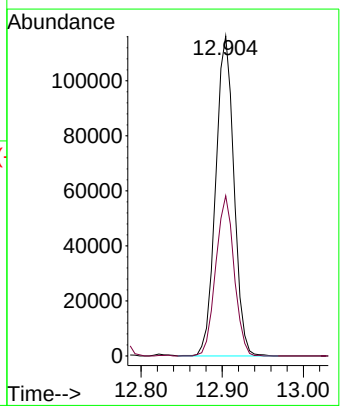


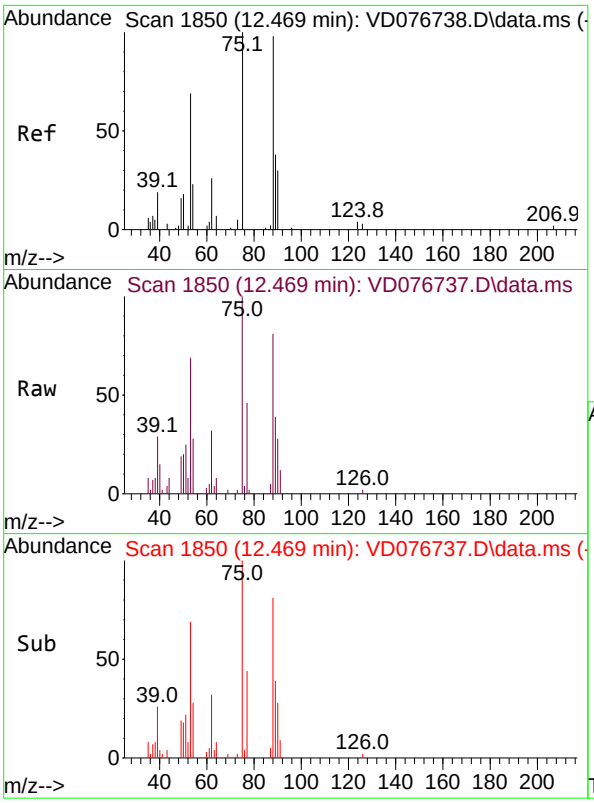


#80
1,3,5-Trimethylbenzene
Concen: 21.238 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:105 Resp: 181775

Ion	Ratio	Lower	Upper
105	100		
120	50.4	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 21.308 ug/l
RT: 12.469 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

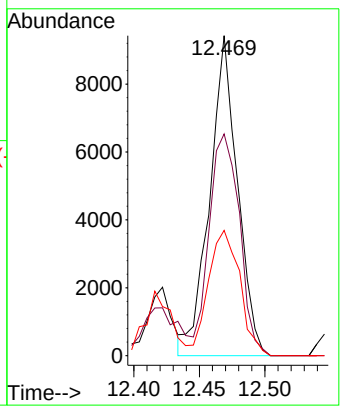
Tgt Ion: 75 Resp: 1389

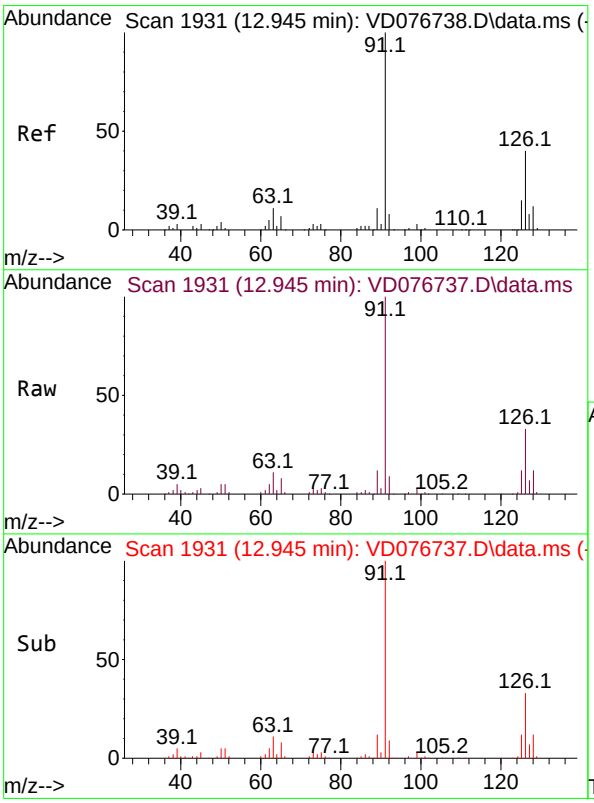
Ion	Ratio	Lower	Upper
75	100		
53	74.9	63.0	94.4
89	44.6	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

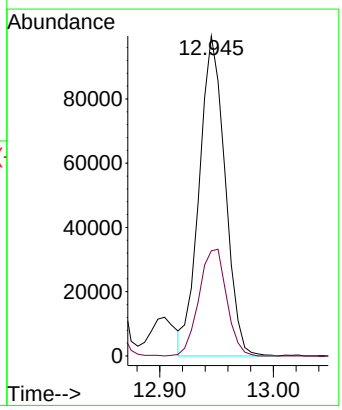


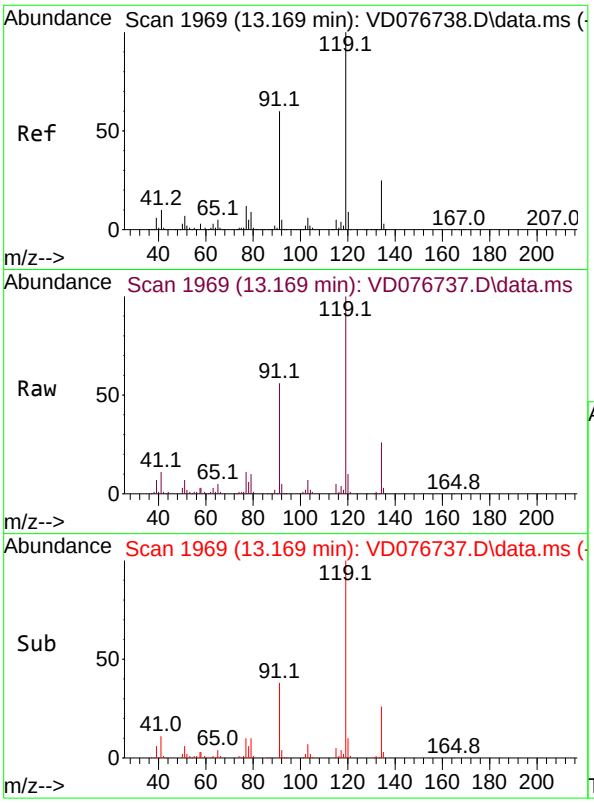


#82
4-Chlorotoluene
Concen: 21.409 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 91 Resp: 157369

Ion	Ratio	Lower	Upper
91	100		
126	35.7	19.4	58.4

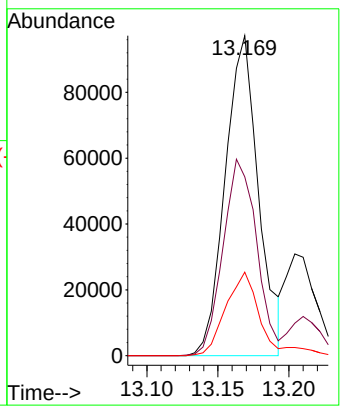




#83
tert-Butylbenzene
Concen: 21.069 ug/l
RT: 13.169 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:119 Resp: 15877

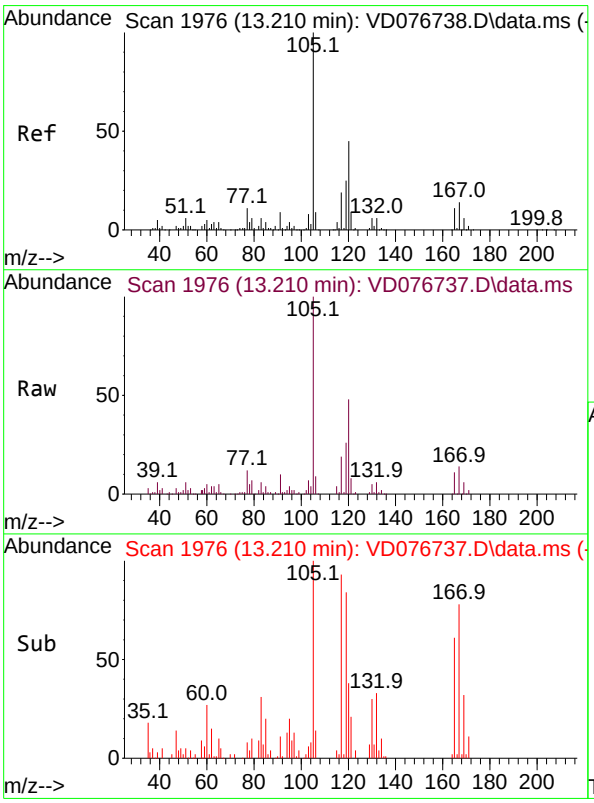
Ion	Ratio	Lower	Upper
119	100		
91	62.0	29.3	87.8
134	27.4	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

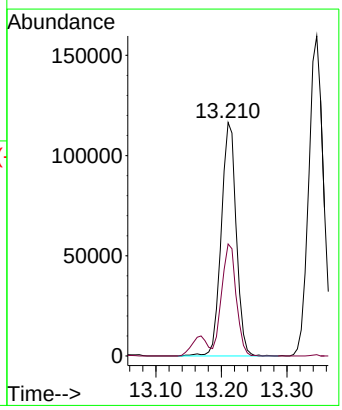
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

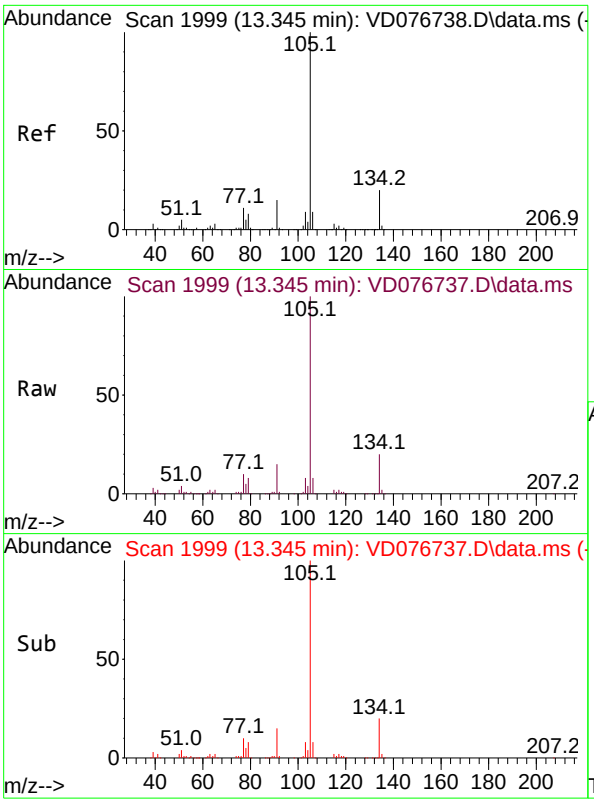


#84
1,2,4-Trimethylbenzene
Concen: 21.079 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:105 Resp: 184364

Ion	Ratio	Lower	Upper
105	100		
120	46.3	24.3	72.9

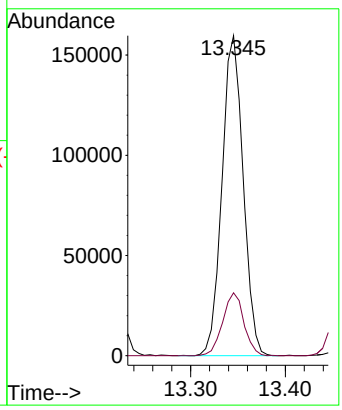




#85
sec-Butylbenzene
Concen: 21.554 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:105 Resp: 24817

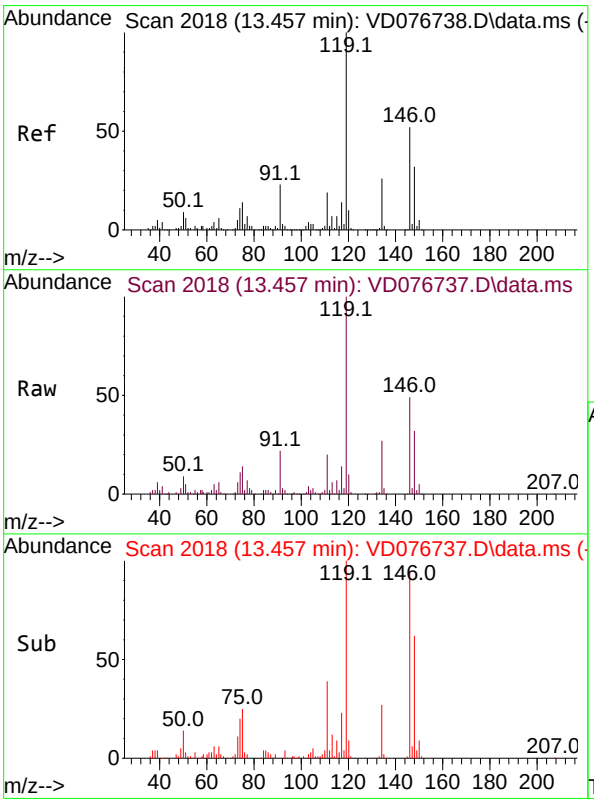
Ion	Ratio	Lower	Upper
105	100		
134	19.7	10.9	32.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

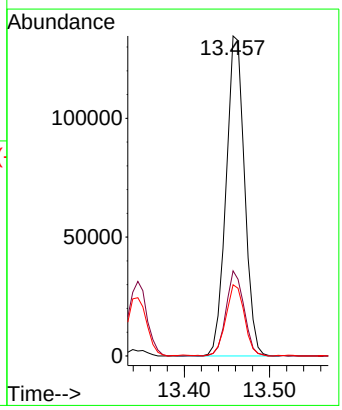
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

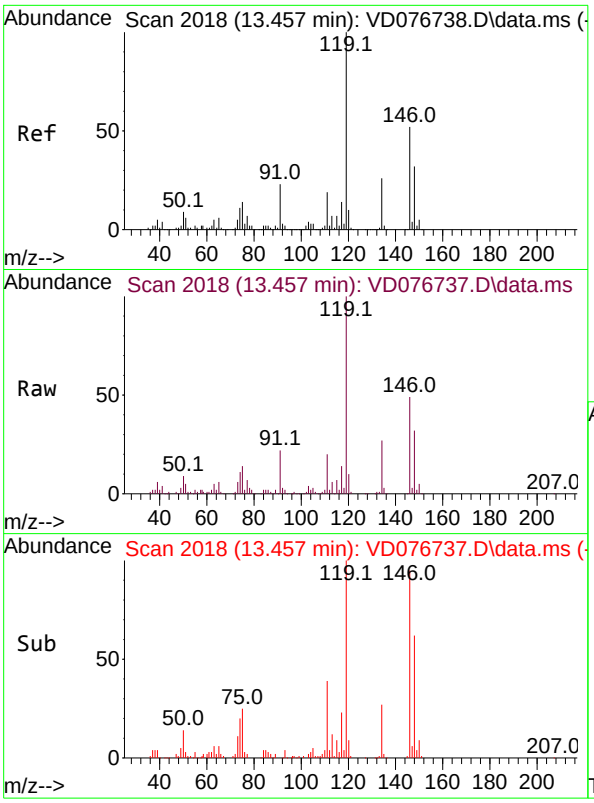


#86
p-Isopropyltoluene
Concen: 21.329 ug/l
RT: 13.457 min Scan# 2018
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:119 Resp: 202816

Ion	Ratio	Lower	Upper
119	100		
134	25.8	14.2	42.6
91	22.4	10.5	31.5

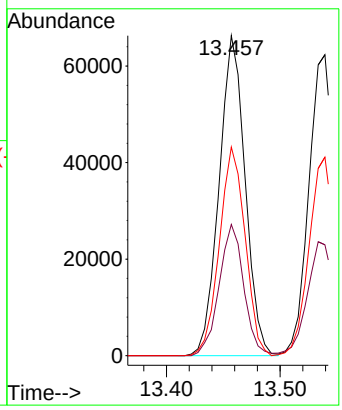




#87
1,3-Dichlorobenzene
Concen: 21.022 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:146 Resp: 10564

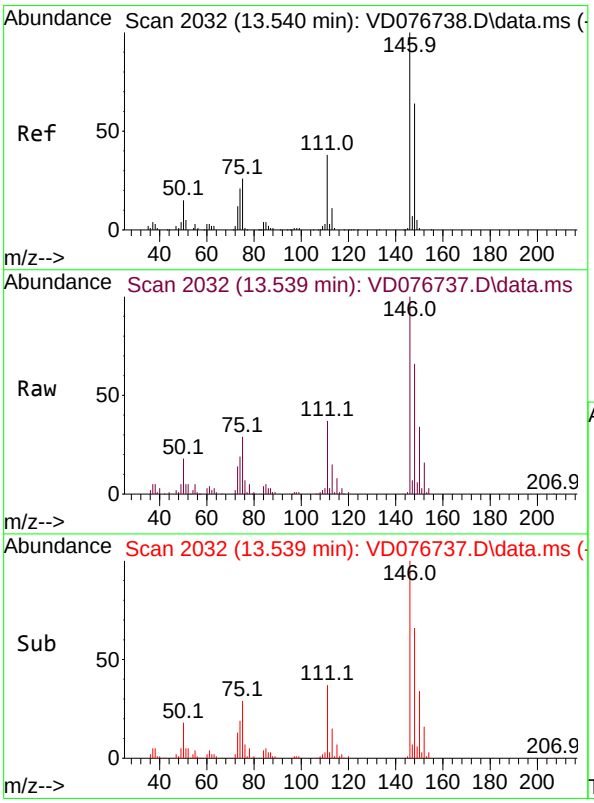
Ion	Ratio	Lower	Upper
146	100		
111	38.8	17.9	53.8
148	64.4	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

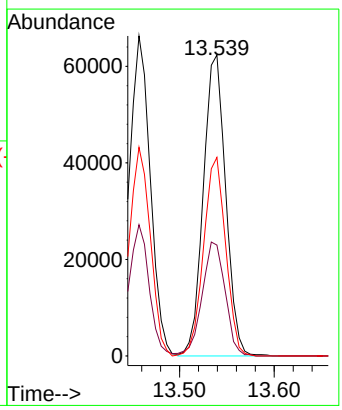
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

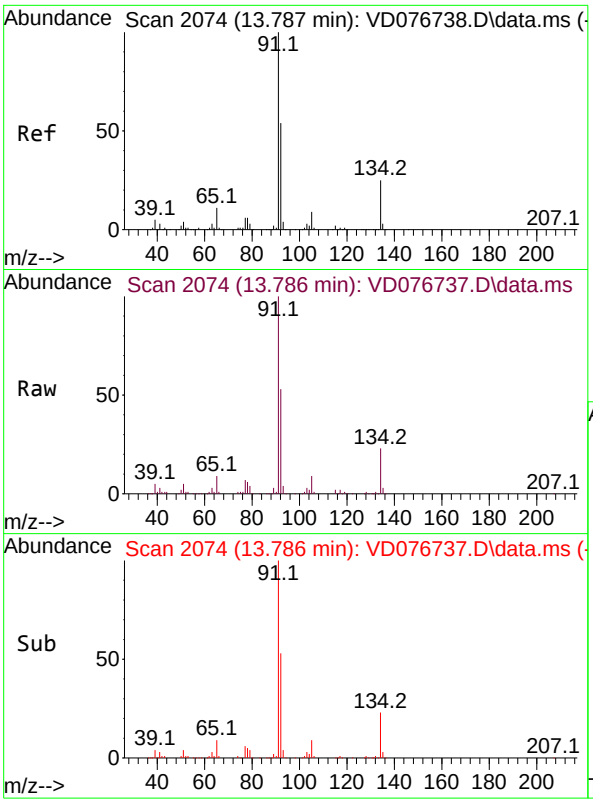


#88
1,4-Dichlorobenzene
Concen: 20.763 ug/l
RT: 13.539 min Scan# 2032
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:146 Resp: 102229

Ion	Ratio	Lower	Upper
146	100		
111	39.0	17.4	52.3
148	65.2	31.7	95.1

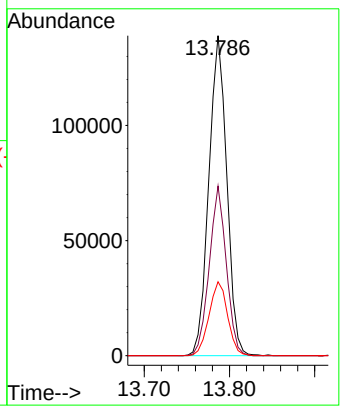




#89
n-Butylbenzene
Concen: 21.839 ug/l
RT: 13.786 min Scan# 2
Delta R.T. -0.001 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 91 Resp: 20320

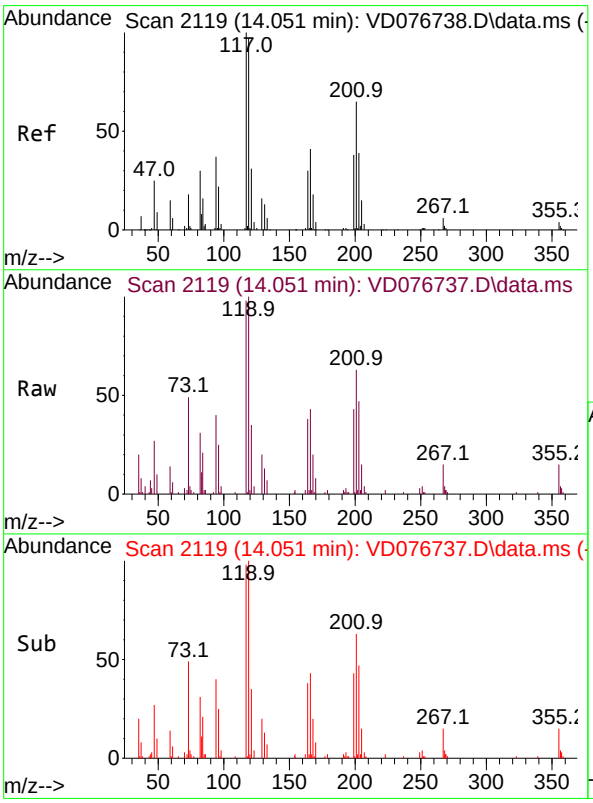
Ion	Ratio	Lower	Upper
91	100		
92	50.4	26.5	79.5
134	23.9	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

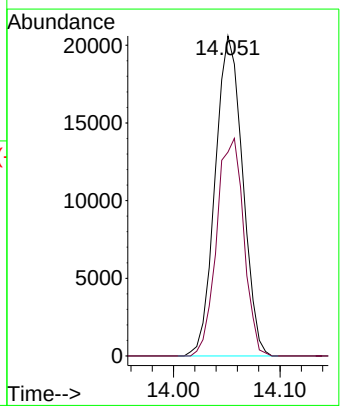
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

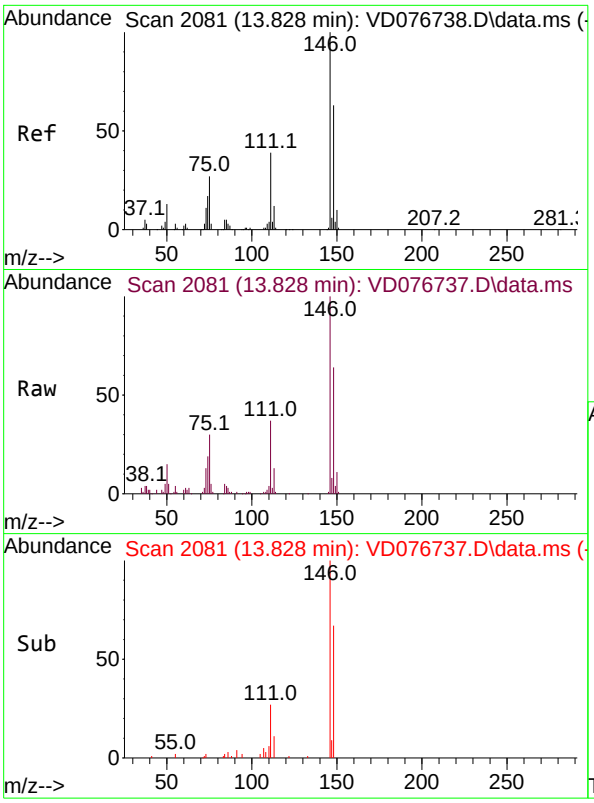


#90
Hexachloroethane
Concen: 20.947 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:117 Resp: 36824

Ion	Ratio	Lower	Upper
117	100		
201	67.0	38.5	115.5

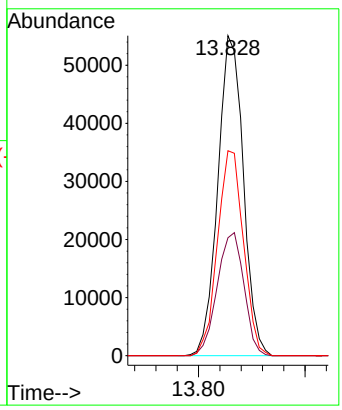




#91
1,2-Dichlorobenzene
Concen: 20.679 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:146 Resp: 9157

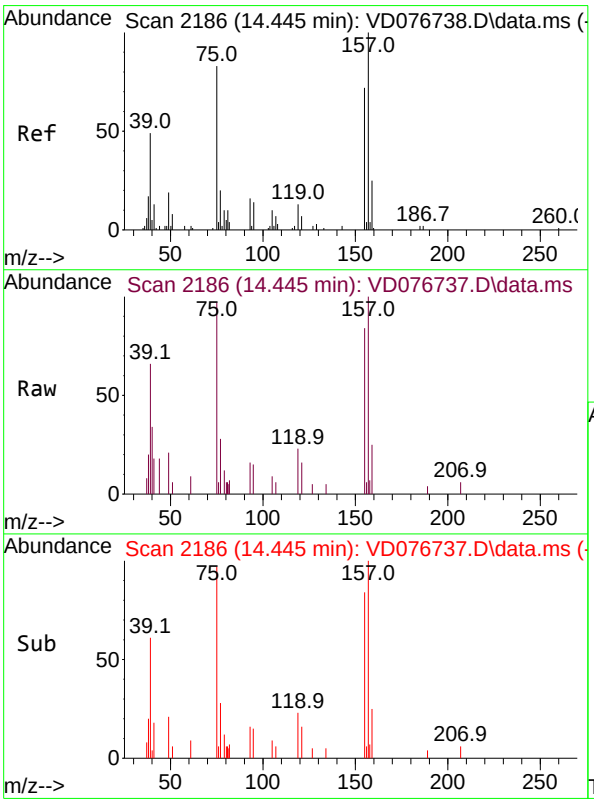
Ion	Ratio	Lower	Upper
146	100		
111	40.2	18.3	54.8
148	65.1	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

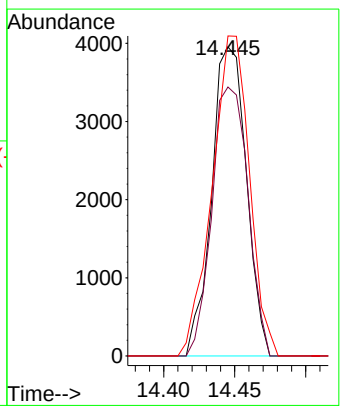
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

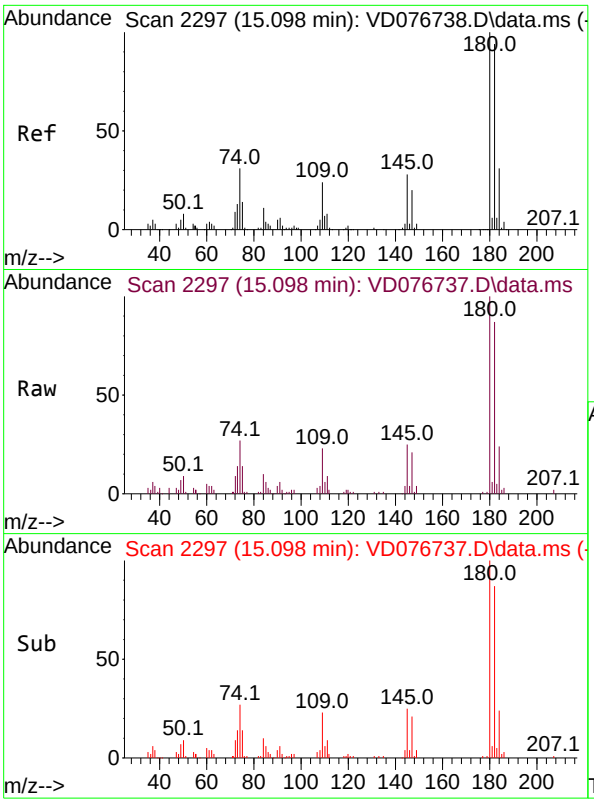


#92
1,2-Dibromo-3-Chloropropane
Concen: 20.762 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion: 75 Resp: 6728

Ion	Ratio	Lower	Upper
75	100		
155	90.4	47.9	143.8
157	111.2	59.9	179.7

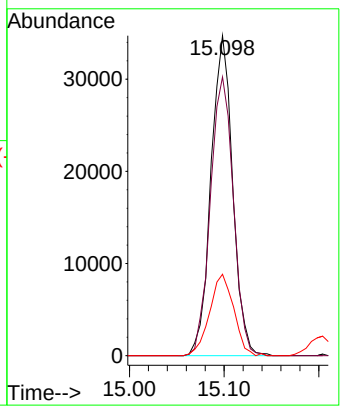




#93
1,2,4-Trichlorobenzene
Concen: 20.413 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:180 Resp: 5518

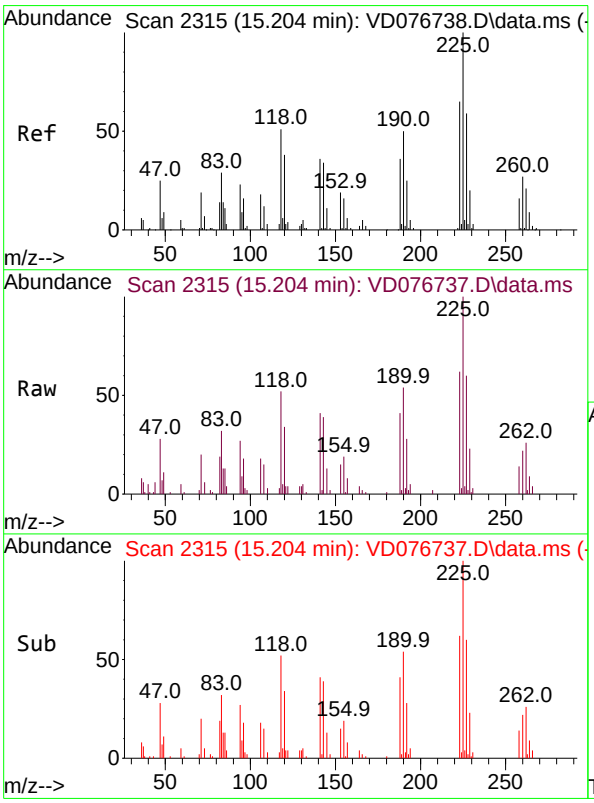
Ion	Ratio	Lower	Upper
180	100		
182	92.2	48.5	145.6
145	28.4	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

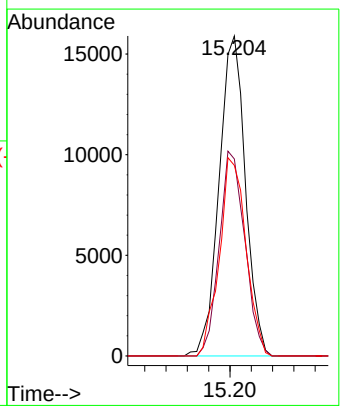
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

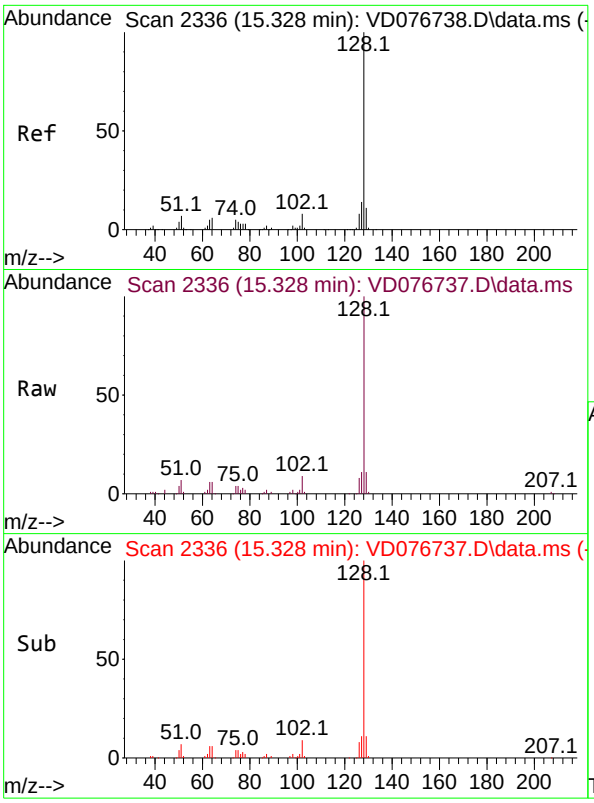


#94
Hexachlorobutadiene
Concen: 20.963 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:225 Resp: 27256

Ion	Ratio	Lower	Upper
225	100		
223	62.1	31.6	94.8
227	62.5	31.7	95.1

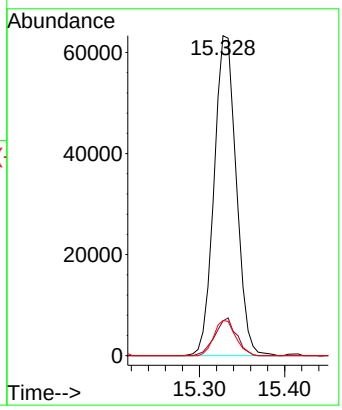




#95
Naphthalene
Concen: 19.621 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:128 Resp: 11485

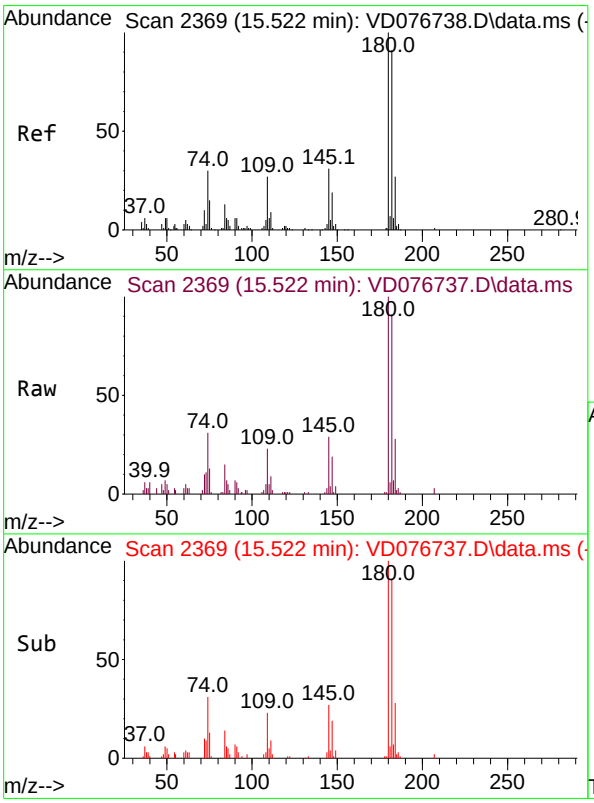
Ion	Ratio	Lower	Upper
128	100		
127	10.8	10.5	15.7
129	11.0	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

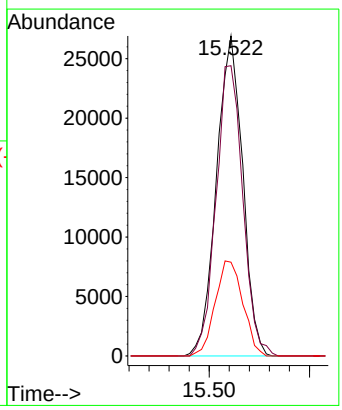
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023



#96
1,2,3-Trichlorobenzene
Concen: 20.081 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076737.D
Acq: 14 Jul 2023 12:50

Tgt Ion:180 Resp: 48718

Ion	Ratio	Lower	Upper
180	100		
182	92.8	47.3	141.9
145	31.4	15.1	45.3



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076738.D
Acq On : 14 Jul 2023 13:21
Operator : KP/SY
Sample : VSTDICCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:42:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	178749	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	329060	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	325327	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	153873	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	83721	47.024	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 94.040%			
35) Dibromofluoromethane	7.805	113	95800	46.329	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 92.660%			
50) Toluene-d8	10.269	98	346366	46.822	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 93.640%			
62) 4-Bromofluorobenzene	12.575	95	115426	48.233	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 96.460%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	70159	50.193	ug/l	100
3) Chloromethane	2.146	50	122593	50.842	ug/l	100
4) Vinyl Chloride	2.275	62	161972	50.392	ug/l	97
5) Bromomethane	2.681	94	126033	47.657	ug/l	97
6) Chloroethane	2.828	64	122811	50.606	ug/l	98
7) Trichlorofluoromethane	3.164	101	138594	48.458	ug/l	99
8) Diethyl Ether	3.587	74	53972	54.810	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.958	101	92887	49.407	ug/l	98
10) Methyl Iodide	4.158	142	114000	53.792	ug/l	92
11) Tert butyl alcohol	5.046	59	33661	253.366	ug/l	95
12) 1,1-Dichloroethene	3.934	96	88279	49.979	ug/l	95
13) Acrolein	3.793	56	20612	227.666	ug/l	99
14) Allyl chloride	4.558	41	120752	52.041	ug/l	92
15) Acrylonitrile	5.246	53	126927	262.440	ug/l	98
16) Acetone	4.017	43	110347	259.520	ug/l	88
17) Carbon Disulfide	4.264	76	215395	52.211	ug/l	100
18) Methyl Acetate	4.564	43	83150	52.050	ug/l	94
19) Methyl tert-butyl Ether	5.311	73	251018	52.994	ug/l	98
20) Methylene Chloride	4.799	84	131298	52.340	ug/l	89
21) trans-1,2-Dichloroethene	5.299	96	107458	52.338	ug/l	98
22) Diisopropyl ether	6.216	45	290581	52.885	ug/l	96
23) Vinyl Acetate	6.152	43	727262	267.513	ug/l	95
24) 1,1-Dichloroethane	6.105	63	192373	51.928	ug/l	98
25) 2-Butanone	7.081	43	152248	267.542	ug/l	88
26) 2,2-Dichloropropane	7.075	77	160237	50.177	ug/l	96
27) cis-1,2-Dichloroethene	7.075	96	130584	51.593	ug/l	95
28) Bromochloromethane	7.428	49	43937	47.438	ug/l	85
29) Tetrahydrofuran	7.440	42	86652	257.722	ug/l	94
30) Chloroform	7.593	83	202534	49.915	ug/l	99
31) Cyclohexane	7.875	56	121483	46.364	ug/l	90
32) 1,1,1-Trichloroethane	7.793	97	167216	51.078	ug/l	97
36) 1,1-Dichloropropene	8.005	75	135353	50.092	ug/l	96
37) Ethyl Acetate	7.163	43	65726	54.391	ug/l	98
38) Carbon Tetrachloride	7.993	117	129311	49.979	ug/l	94
39) Methylcyclohexane	9.275	83	157345	50.431	ug/l	95
40) Benzene	8.246	78	425999	49.966	ug/l	98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076738.D
Acq On : 14 Jul 2023 13:21
Operator : KP/SY
Sample : VSTDICCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 17 07:42:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	36882	49.981	ug/l	#	92
42) 1,2-Dichloroethane	8.328	62	113879	51.407	ug/l		98
43) Isopropyl Acetate	8.357	43	122722	52.038	ug/l		93
44) Trichloroethene	9.028	130	117790	50.700	ug/l		92
45) 1,2-Dichloropropane	9.304	63	118425	53.810	ug/l		94
46) Dibromomethane	9.393	93	69311	53.804	ug/l		90
47) Bromodichloromethane	9.581	83	170406	52.712	ug/l		98
48) Methyl methacrylate	9.381	41	58039	54.072	ug/l		83
49) 1,4-Dioxane	9.381	88	16572	1004.070	ug/l	#	88
51) 4-Methyl-2-Pentanone	10.157	43	340901	271.494	ug/l		94
52) Toluene	10.334	92	290844	51.940	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	161620	53.863	ug/l		100
54) cis-1,3-Dichloropropene	10.016	75	187531	53.030	ug/l	#	91
55) 1,1,2-Trichloroethane	10.734	97	99917	53.115	ug/l		95
56) Ethyl methacrylate	10.599	69	119962	55.252	ug/l	#	91
57) 1,3-Dichloropropane	10.881	76	159327	52.008	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.869	63	212213	252.507	ug/l		99
59) 2-Hexanone	10.922	43	244032	272.370	ug/l		92
60) Dibromochloromethane	11.075	129	116566	53.341	ug/l		96
61) 1,2-Dibromoethane	11.181	107	94598	54.241	ug/l		99
64) Tetrachloroethene	10.810	164	90749	48.919	ug/l	#	88
65) Chlorobenzene	11.604	112	325029	49.676	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.681	131	120109	49.306	ug/l		97
67) Ethyl Benzene	11.681	91	572548	49.827	ug/l		94
68) m/p-Xylenes	11.793	106	440372	99.786	ug/l		91
69) o-Xylene	12.122	106	215142	50.413	ug/l		92
70) Styrene	12.134	104	378667	50.687	ug/l		97
71) Bromoform	12.298	173	68612	51.427	ug/l	#	100
73) Isopropylbenzene	12.422	105	555530	49.762	ug/l		96
74) N-amyl acetate	12.234	43	116996	49.746	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.669	83	121134	50.537	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	75066m	49.093	ug/l		
77) Bromobenzene	12.698	156	130227	50.537	ug/l		87
78) n-propylbenzene	12.763	91	673260	49.745	ug/l		96
79) 2-Chlorotoluene	12.851	91	372233	50.160	ug/l		95
80) 1,3,5-Trimethylbenzene	12.904	105	455283	50.436	ug/l		95
81) trans-1,4-Dichloro-2-b...	12.469	75	36131	52.549	ug/l		97
82) 4-Chlorotoluene	12.945	91	392430	50.620	ug/l		95
83) tert-Butylbenzene	13.169	119	403558	50.774	ug/l		98
84) 1,2,4-Trimethylbenzene	13.210	105	468615	50.800	ug/l		95
85) sec-Butylbenzene	13.345	105	605537	49.865	ug/l		95
86) p-Isopropyltoluene	13.457	119	506039	50.459	ug/l		97
87) 1,3-Dichlorobenzene	13.457	146	267421	50.455	ug/l		98
88) 1,4-Dichlorobenzene	13.540	146	258046	49.693	ug/l		97
89) n-Butylbenzene	13.787	91	487385	49.664	ug/l		98
90) Hexachloroethane	14.051	117	94268	50.843	ug/l		84
91) 1,2-Dichlorobenzene	13.828	146	235080	50.335	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.445	75	16255	47.562	ug/l		94
93) 1,2,4-Trichlorobenzene	15.098	180	142208	49.875	ug/l		97
94) Hexachlorobutadiene	15.204	225	67512	49.232	ug/l		97
95) Naphthalene	15.328	128	316788	51.313	ug/l		99
96) 1,2,3-Trichlorobenzene	15.522	180	127234	49.726	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076738.D
Acq On : 14 Jul 2023 13:21
Operator : KP/SY
Sample : VSTDICCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:42:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

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

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

ICAL Form

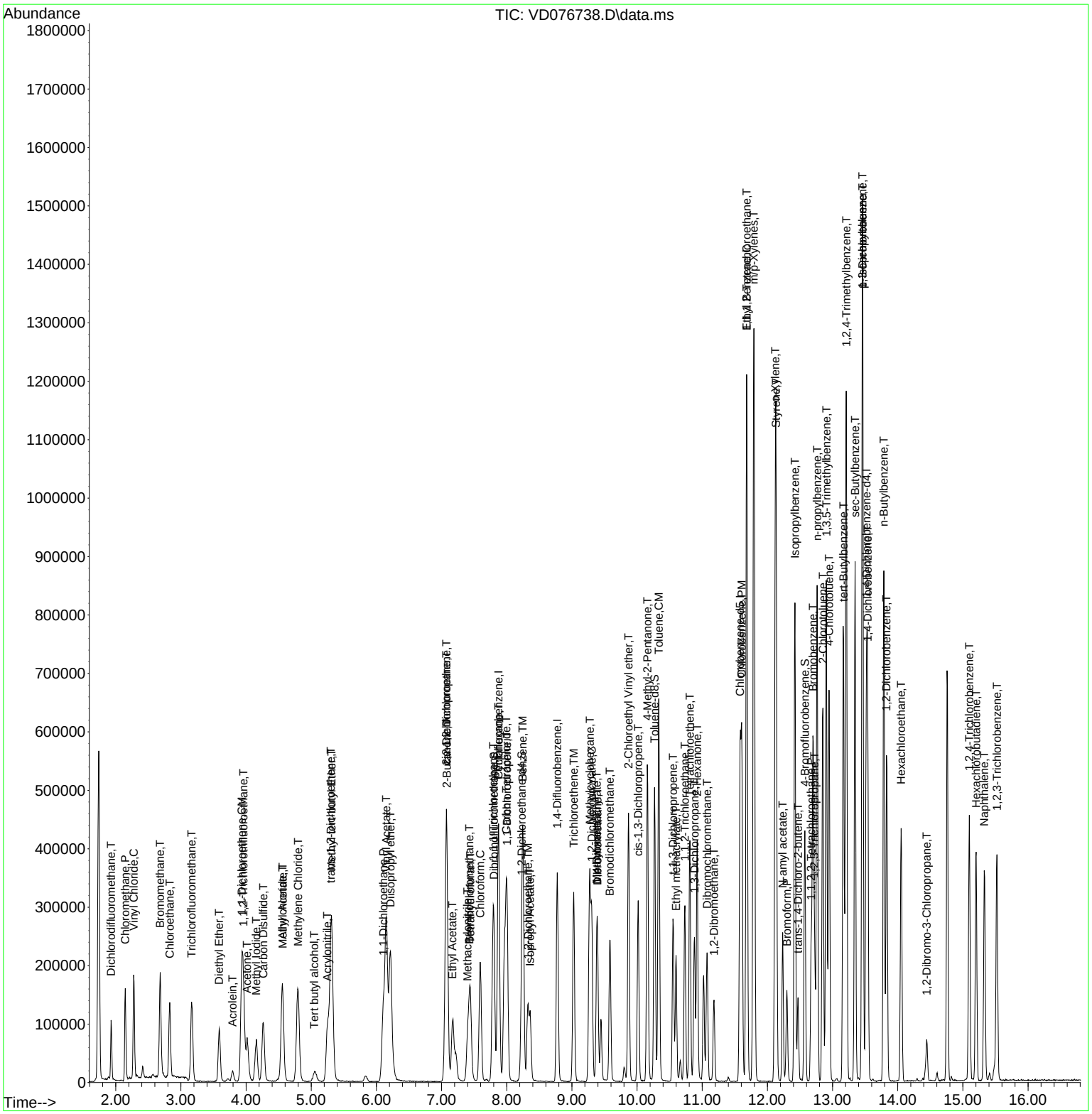
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076738.D
Acq On : 14 Jul 2023 13:21
Operator : KP/SY
Sample : VSTDICCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

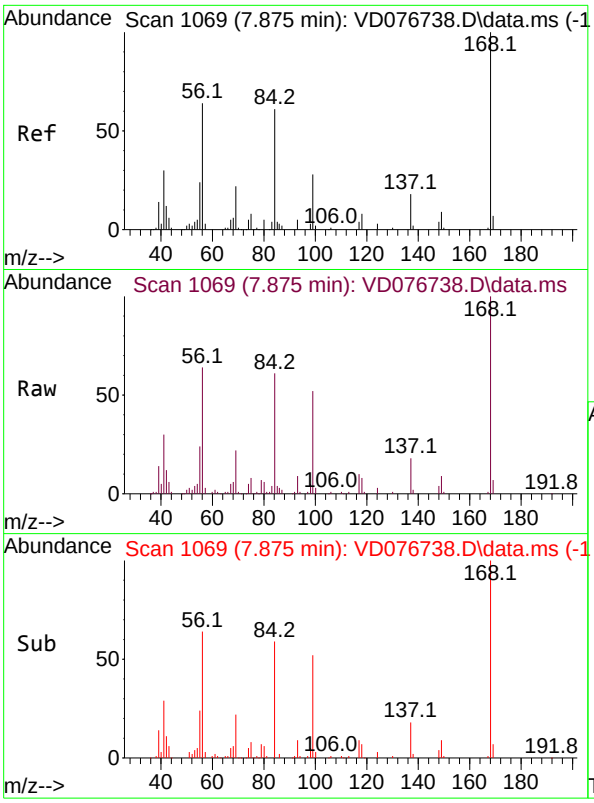
Quant Time: Jul 17 07:42:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

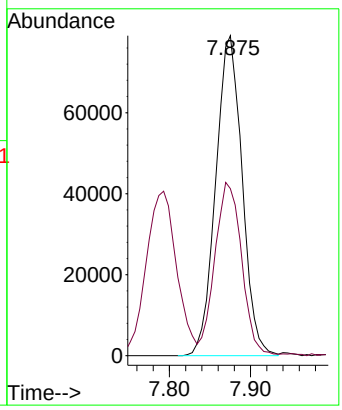
Tgt Ion:168 Resp: 178749

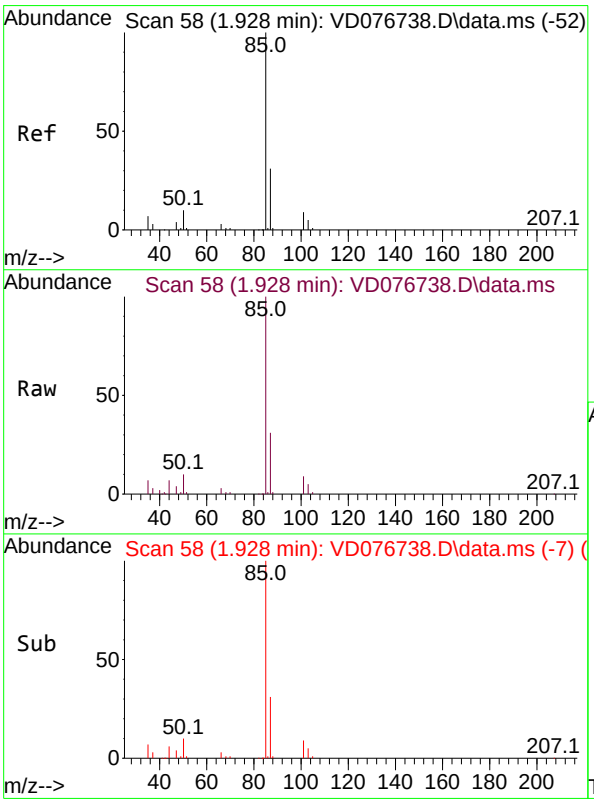
Ion	Ratio	Lower	Upper
168	100		
99	51.8	36.7	55.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

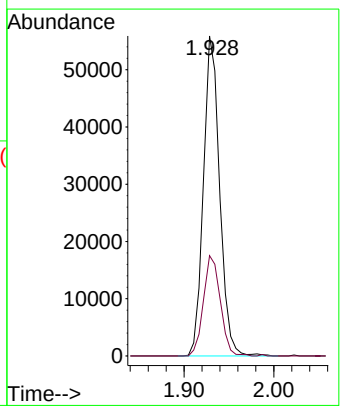


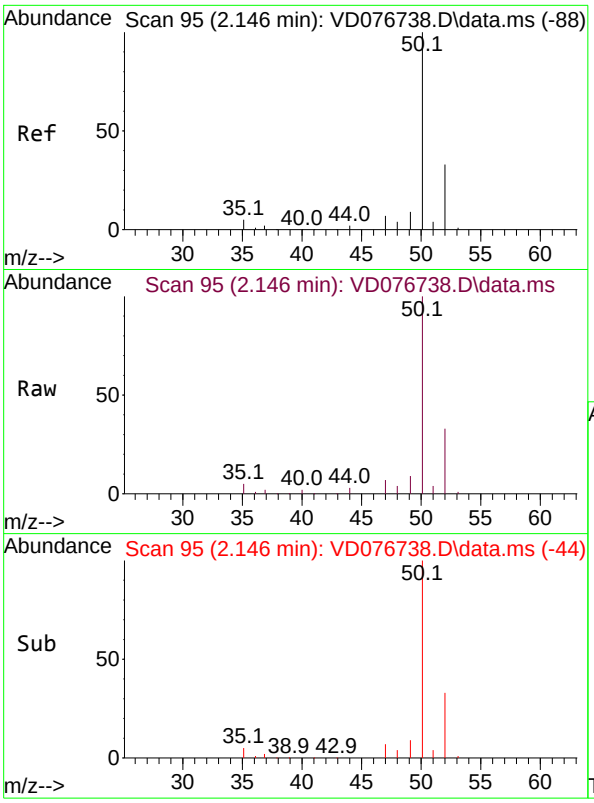


#2
Dichlorodifluoromethane
Concen: 50.193 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 85 Resp: 70159

Ion	Ratio	Lower	Upper
85	100		
87	31.4	15.7	47.0

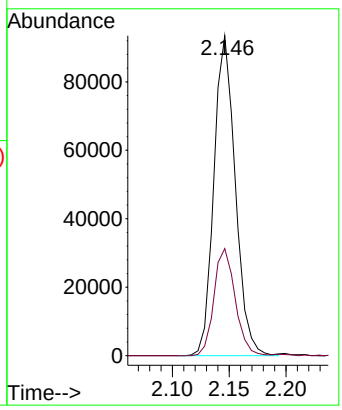




#3
Chloromethane
Concen: 50.842 ug/l
RT: 2.146 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 50 Resp: 12259

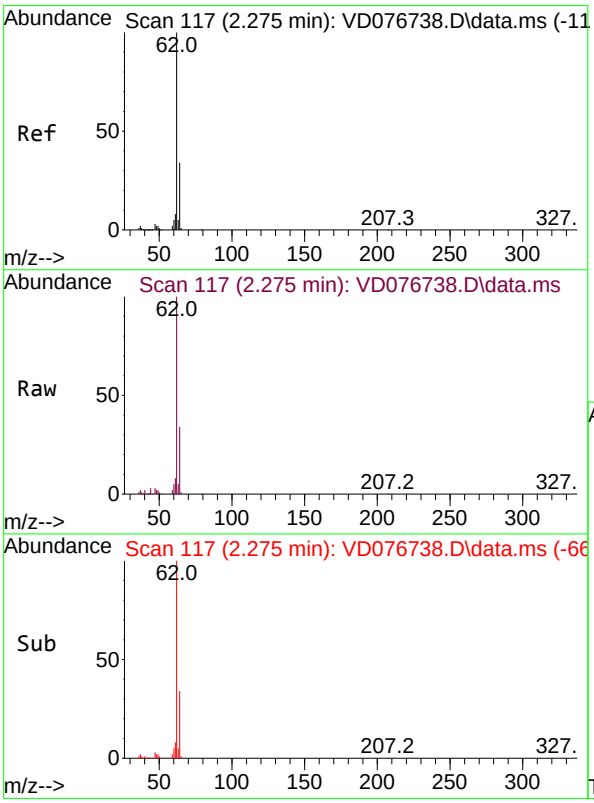
Ion	Ratio	Lower	Upper
50	100		
52	33.5	26.6	40.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

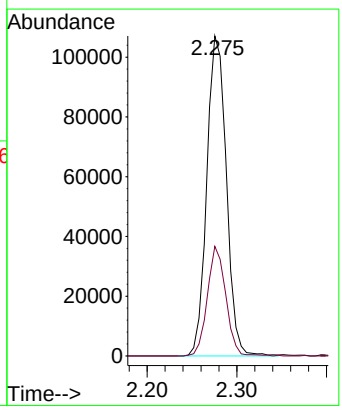
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

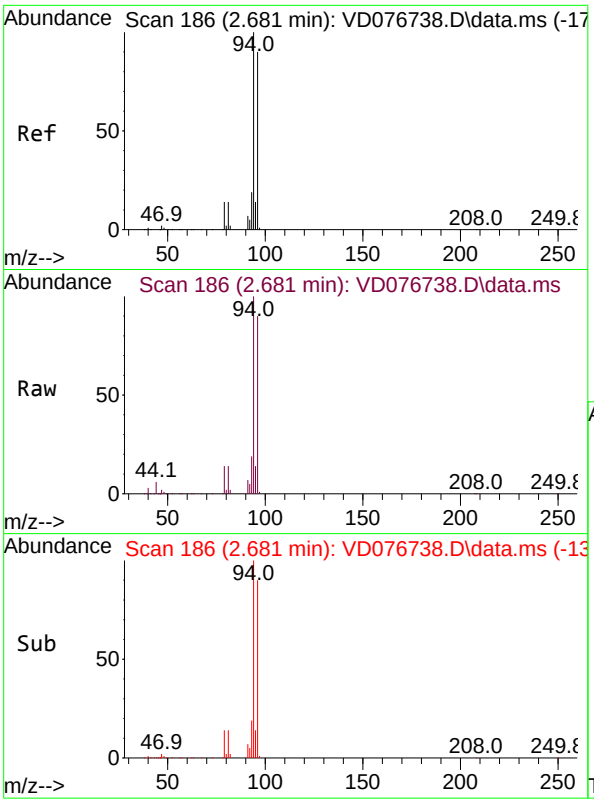


#4
Vinyl Chloride
Concen: 50.392 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 62 Resp: 161972

Ion	Ratio	Lower	Upper
62	100		
64	34.3	26.0	39.0

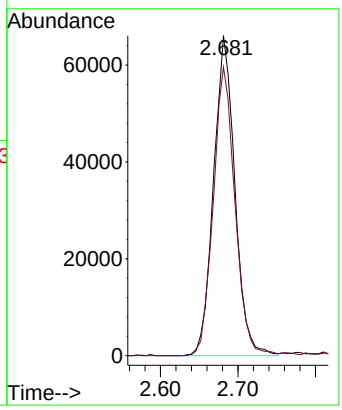




#5
Bromomethane
Concen: 47.657 ug/l
RT: 2.681 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 94 Resp: 12603

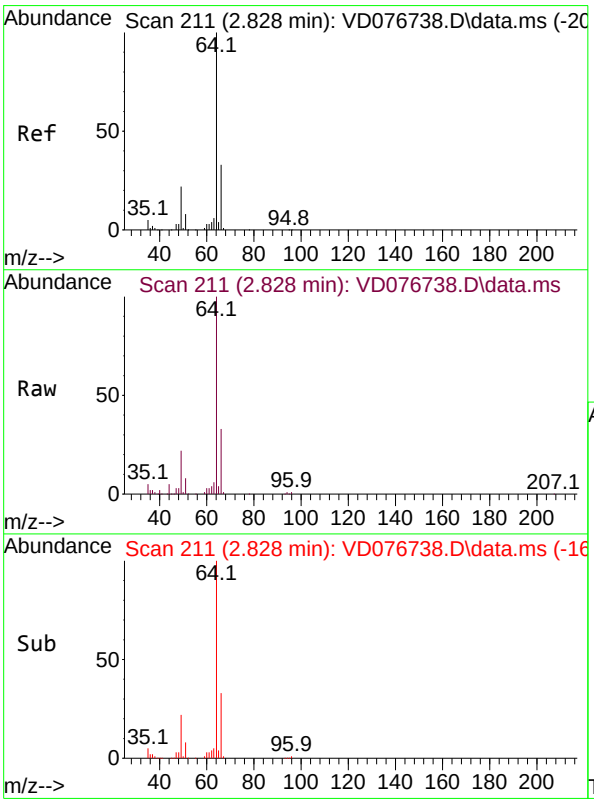
Ion	Ratio	Lower	Upper
94	100		
96	92.2	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

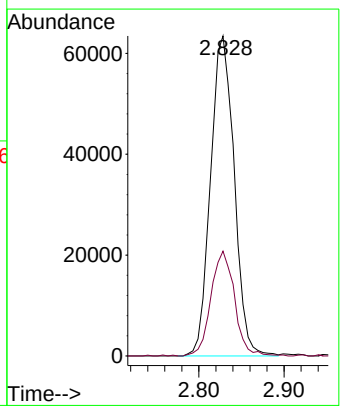
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

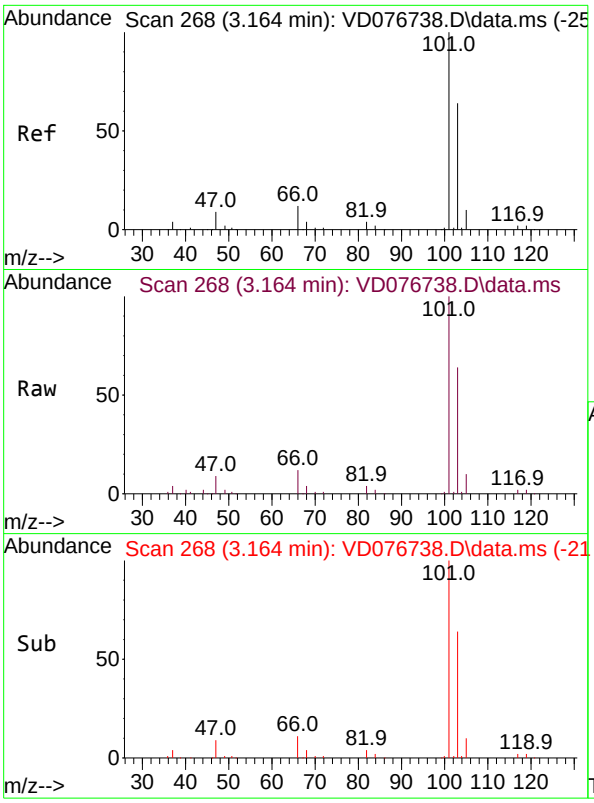


#6
Chloroethane
Concen: 50.606 ug/l
RT: 2.828 min Scan# 211
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 64 Resp: 122811

Ion	Ratio	Lower	Upper
64	100		
66	32.8	25.5	38.3

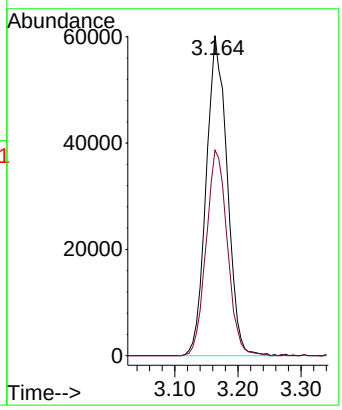




#7
Trichlorofluoromethane
Concen: 48.458 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:101 Resp: 13859

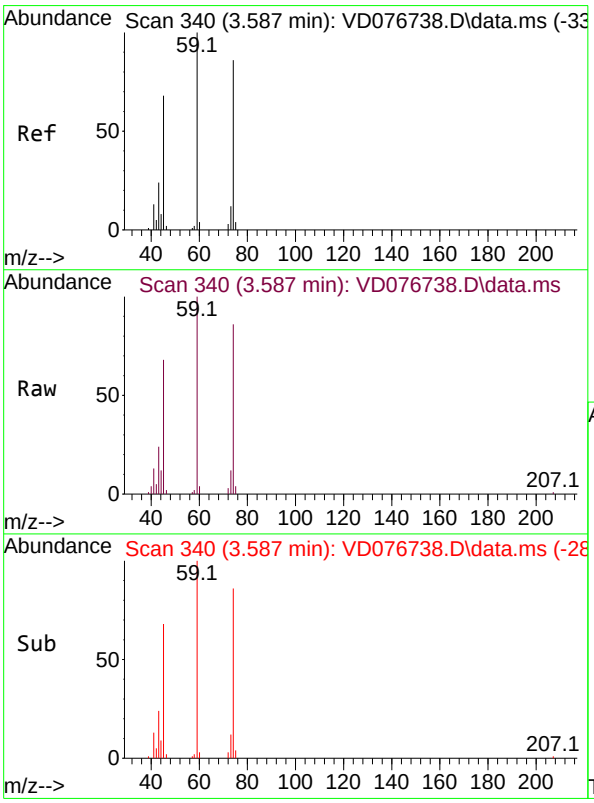
Ion	Ratio	Lower	Upper
101	100		
103	64.2	52.3	78.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

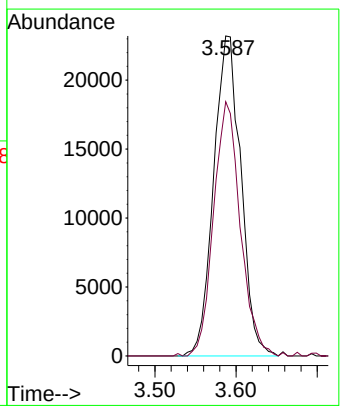
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

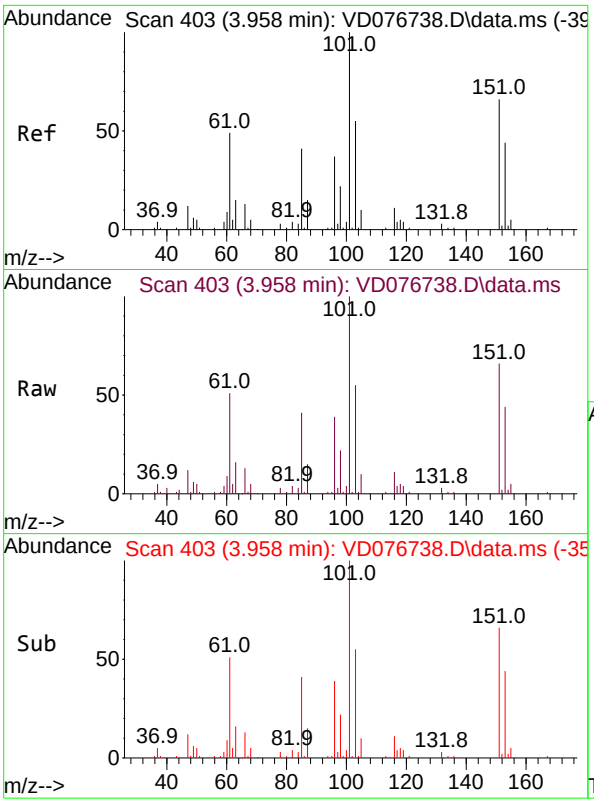


#8
Diethyl Ether
Concen: 54.810 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 74 Resp: 53972

Ion	Ratio	Lower	Upper
74	100		
45	78.0	37.5	112.7

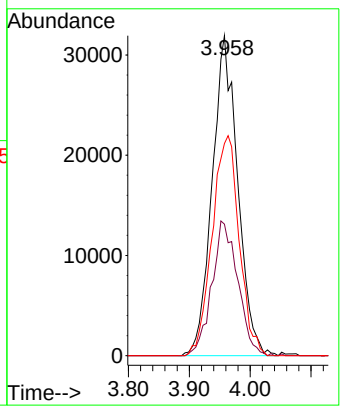




#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.407 ug/l
RT: 3.958 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:101 Resp: 9288

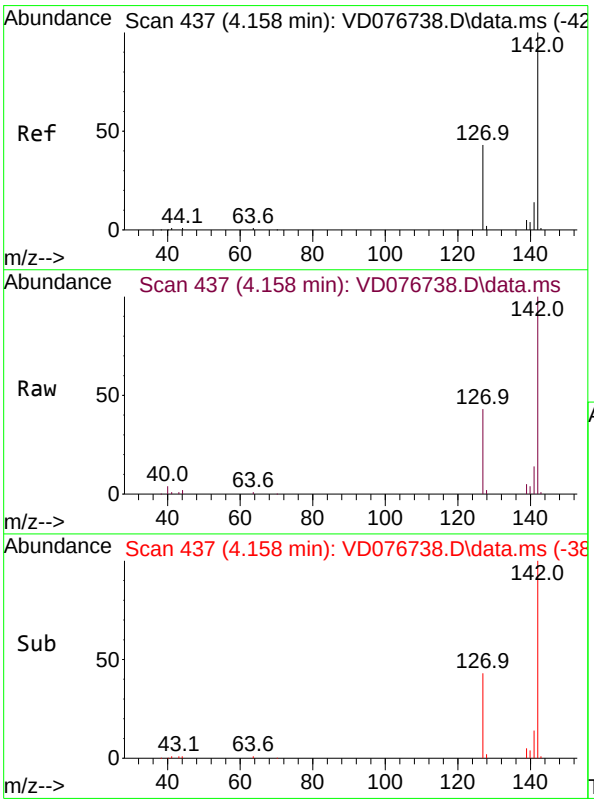
Ion	Ratio	Lower	Upper
101	100		
85	42.8	33.8	50.6
151	73.0	59.8	89.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

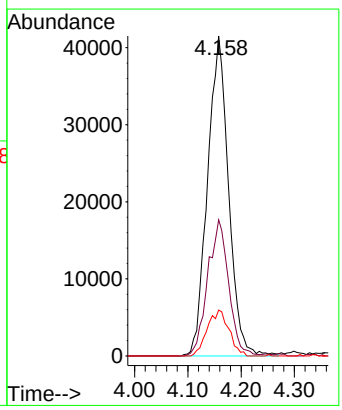
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

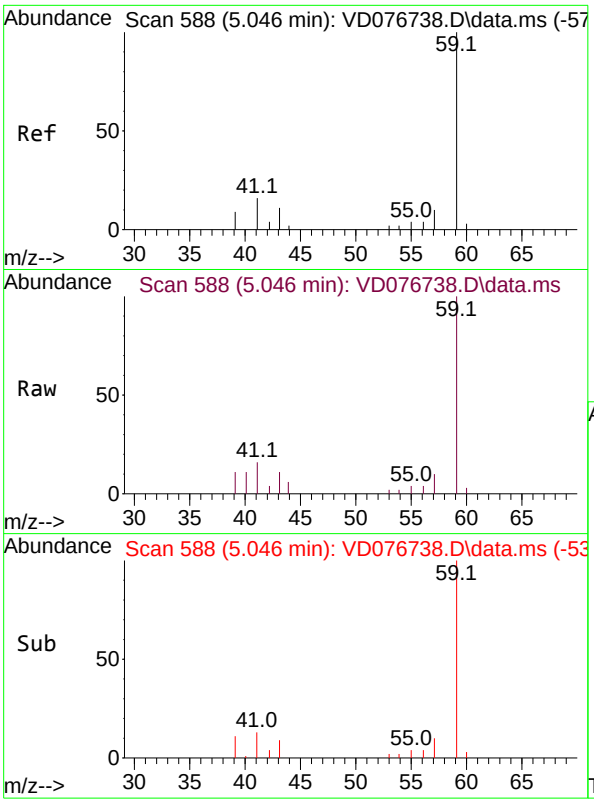


#10
Methyl Iodide
Concen: 53.792 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:142 Resp: 114000

Ion	Ratio	Lower	Upper
142	100		
127	42.4	29.4	44.0
141	14.8	11.1	16.7





#11
Tert butyl alcohol
Concen: 253.366 ug/l
RT: 5.046 min Scan# 5
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

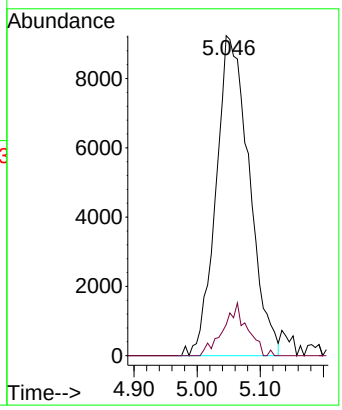
Tgt Ion: 59 Resp: 3366

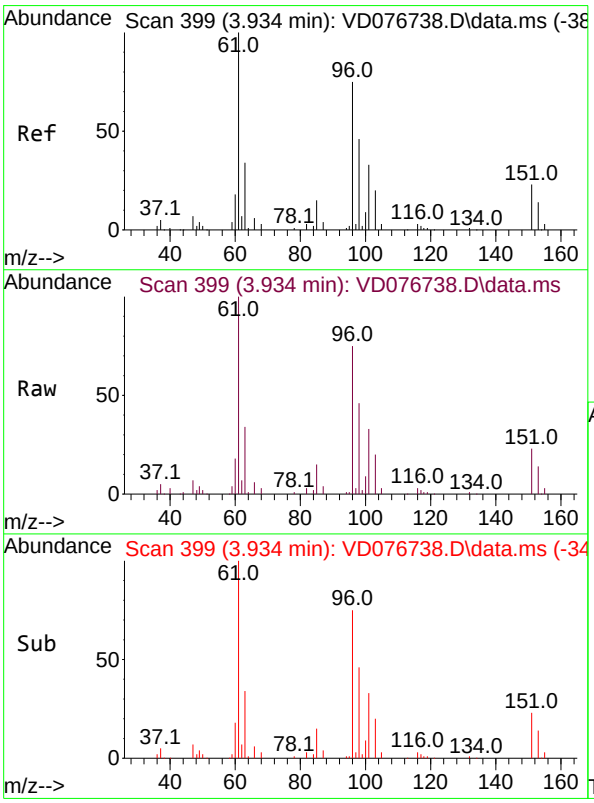
Ion	Ratio	Lower	Upper
59	100		
57	11.8	7.8	11.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

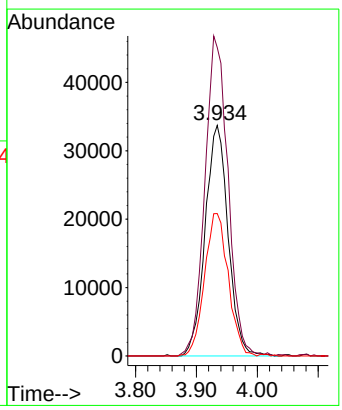


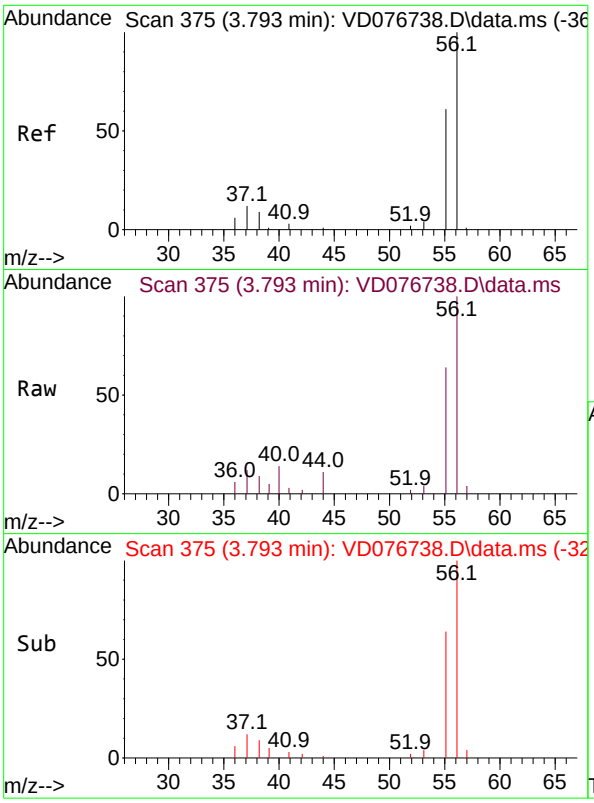


#12
1,1-Dichloroethene
Concen: 49.979 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 96 Resp: 88279

Ion	Ratio	Lower	Upper
96	100		
61	133.8	100.6	150.8
98	61.8	50.2	75.2





#13
Acrolein
Concen: 227.666 ug/l
RT: 3.793 min Scan# 3
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

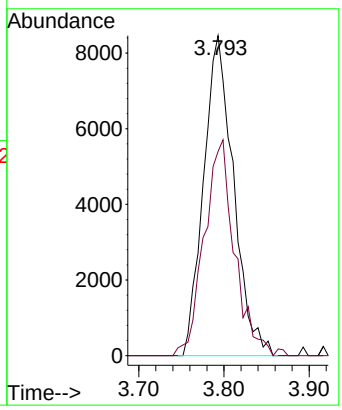
Tgt Ion: 56 Resp: 2061

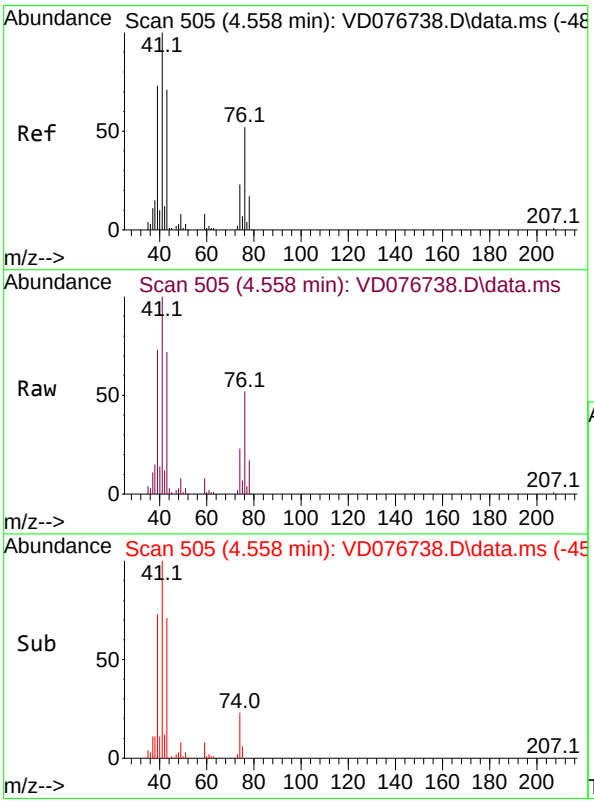
Ion	Ratio	Lower	Upper
56	100		
55	68.2	55.1	82.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

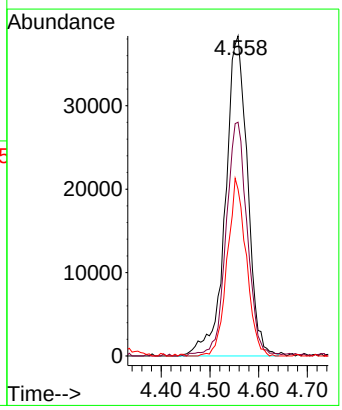


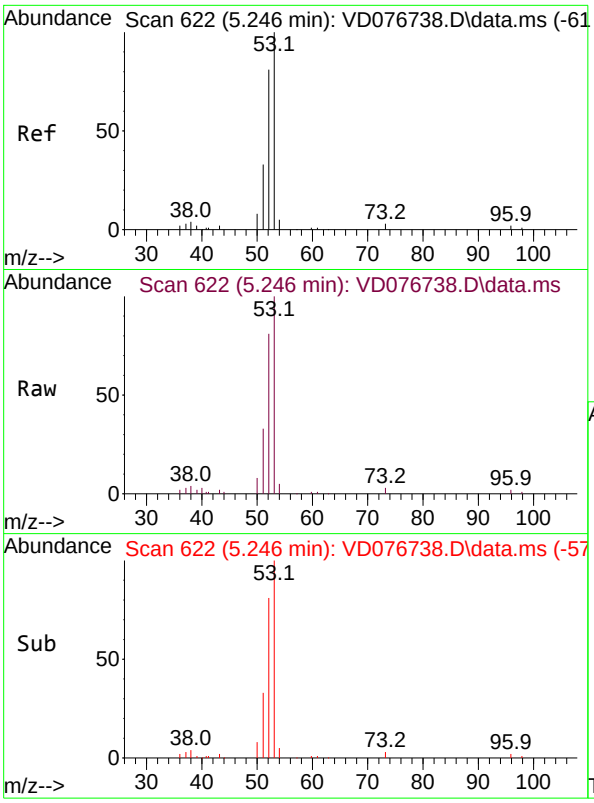


#14
Allyl chloride
Concen: 52.041 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 41 Resp: 120752

Ion	Ratio	Lower	Upper
41	100		
39	70.0	53.8	80.6
76	48.0	45.8	68.8

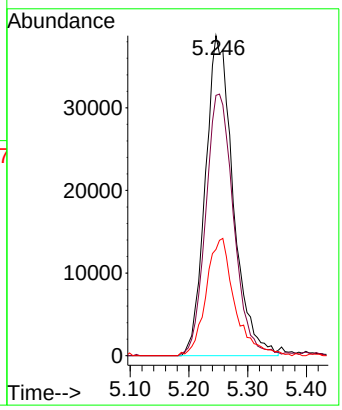




#15
Acrylonitrile
Concen: 262.440 ug/l
RT: 5.246 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 53 Resp: 12692

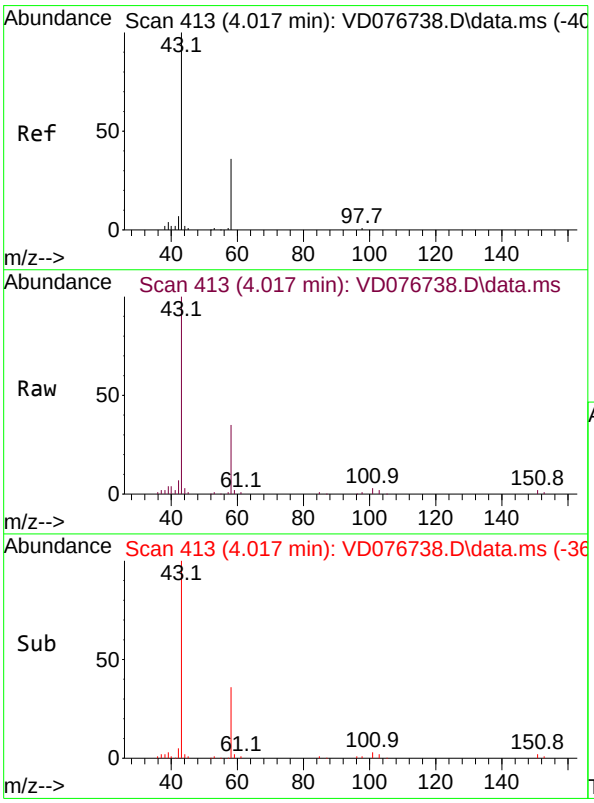
Ion	Ratio	Lower	Upper
53	100		
52	82.4	65.0	97.4
51	37.9	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

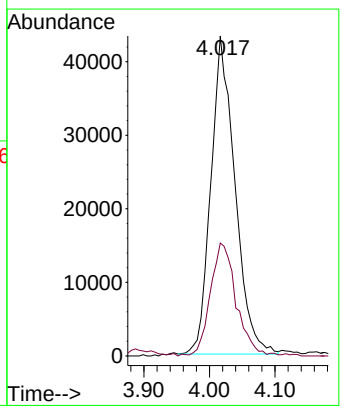
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

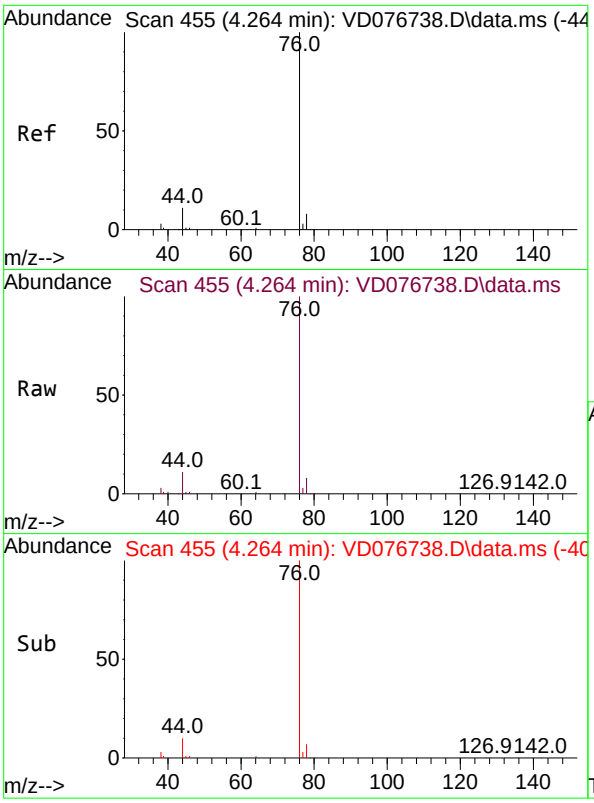


#16
Acetone
Concen: 259.520 ug/l
RT: 4.017 min Scan# 413
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 43 Resp: 110347

Ion	Ratio	Lower	Upper
43	100		
58	35.5	34.7	52.1





#17
Carbon Disulfide
Concen: 52.211 ug/l
RT: 4.264 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

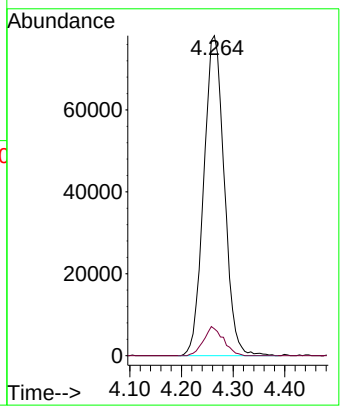
Tgt Ion: 76 Resp: 21539

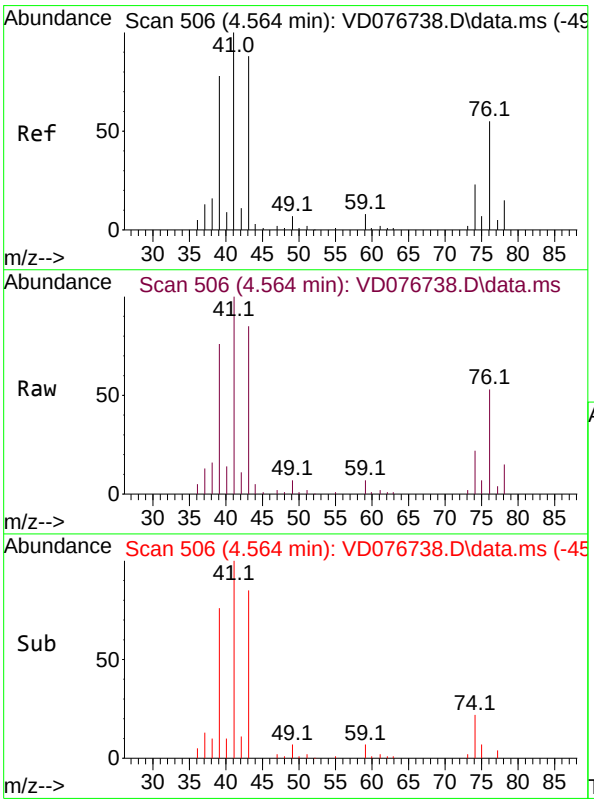
Ion	Ratio	Lower	Upper
76	100		
78	8.4	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

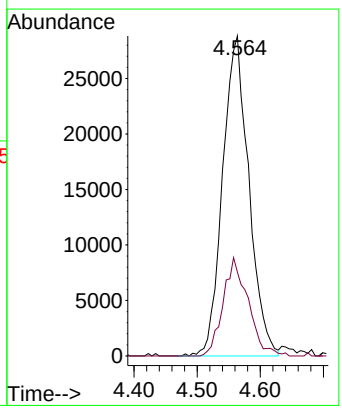


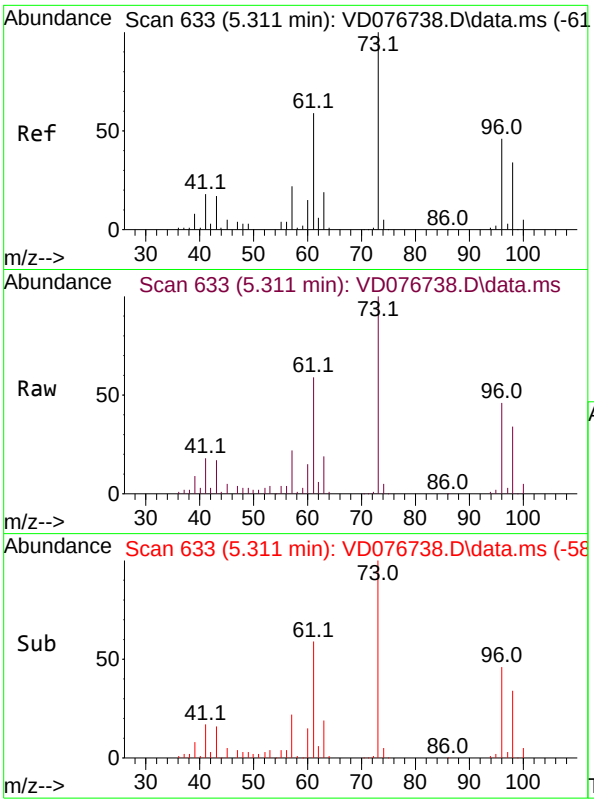


#18
Methyl Acetate
Concen: 52.050 ug/l
RT: 4.564 min Scan# 506
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 43 Resp: 83150

Ion	Ratio	Lower	Upper
43	100		
74	29.4	26.4	39.6

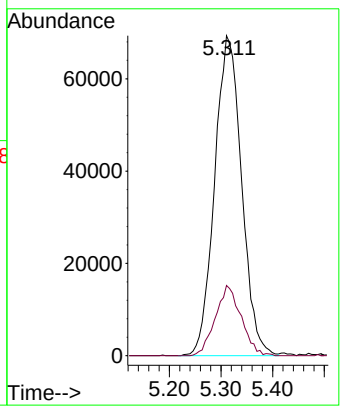




#19
Methyl tert-butyl Ether
Concen: 52.994 ug/l
RT: 5.311 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 73 Resp: 25101

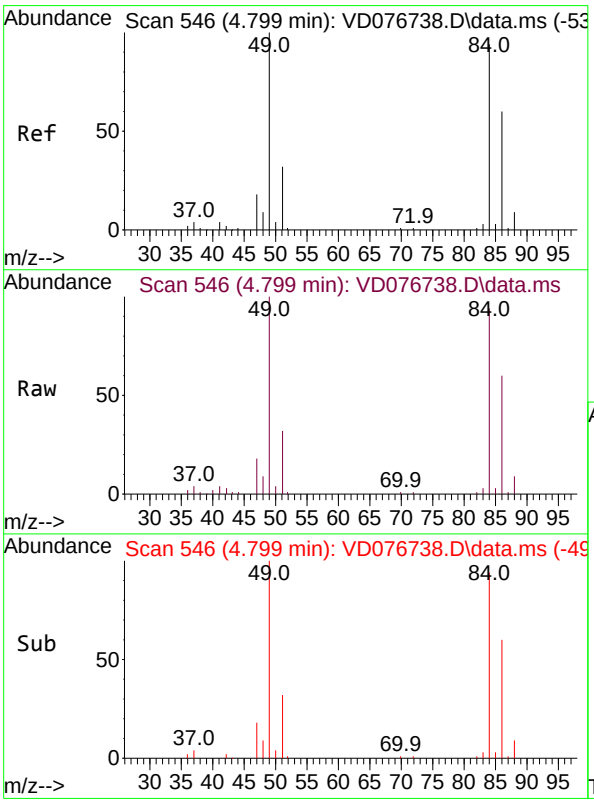
Ion	Ratio	Lower	Upper
73	100		
57	21.9	16.6	25.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

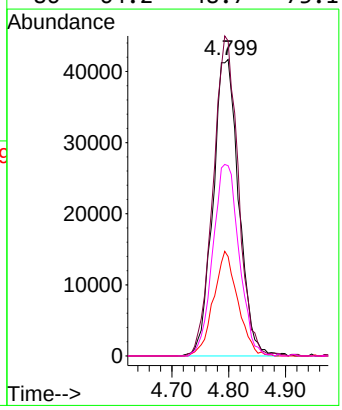
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

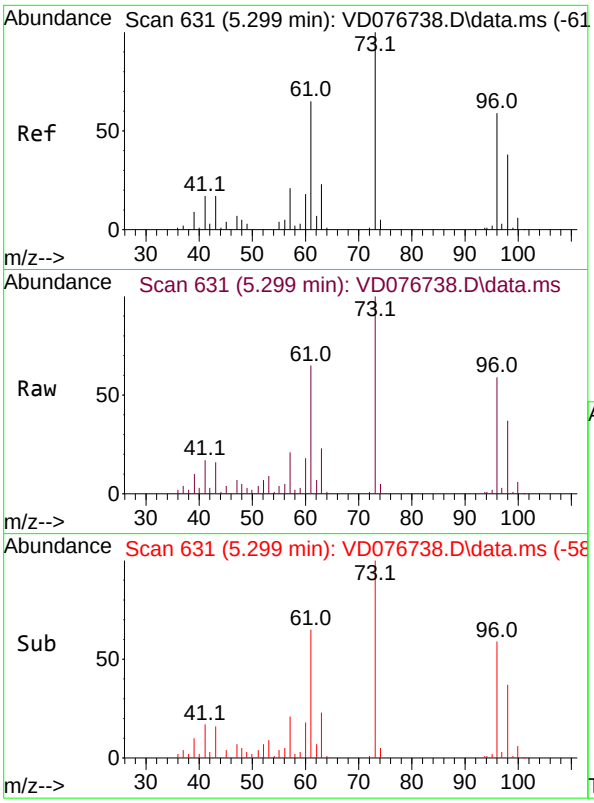


#20
Methylene Chloride
Concen: 52.340 ug/l
RT: 4.799 min Scan# 546
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 84 Resp: 131298

Ion	Ratio	Lower	Upper
84	100		
49	106.3	71.4	107.2
51	33.5	24.5	36.7
86	64.2	48.7	73.1

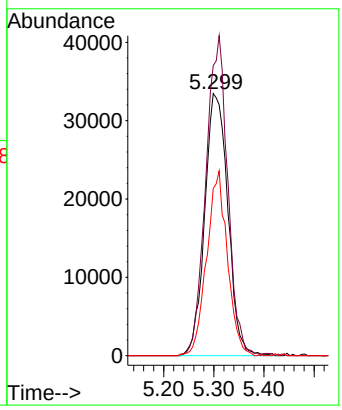




#21
trans-1,2-Dichloroethene
Concen: 52.338 ug/l
RT: 5.299 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 96 Resp: 10745

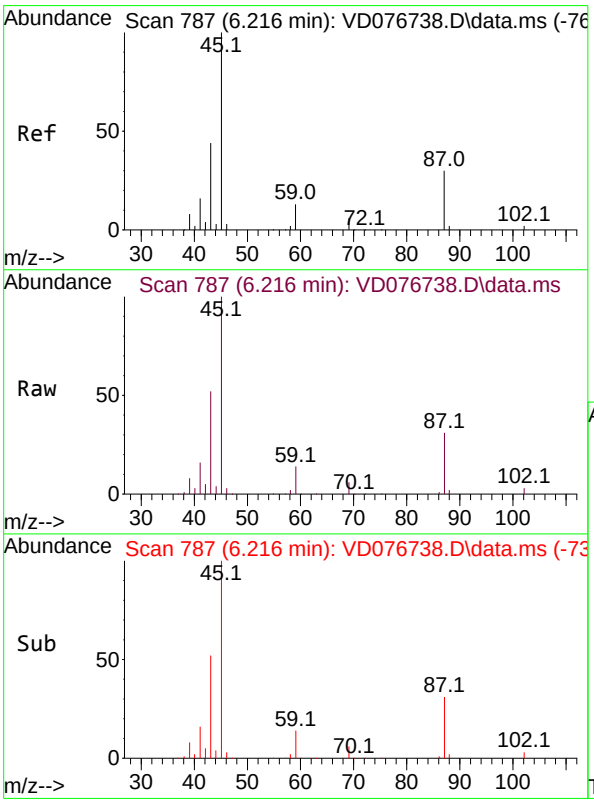
Ion	Ratio	Lower	Upper
96	100		
61	110.7	89.3	133.9
98	63.8	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

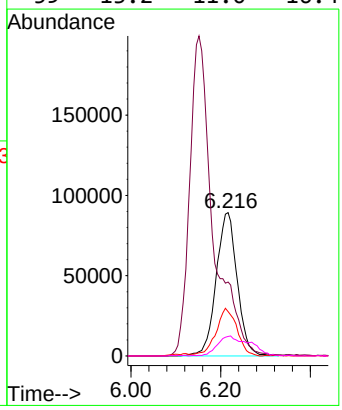
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

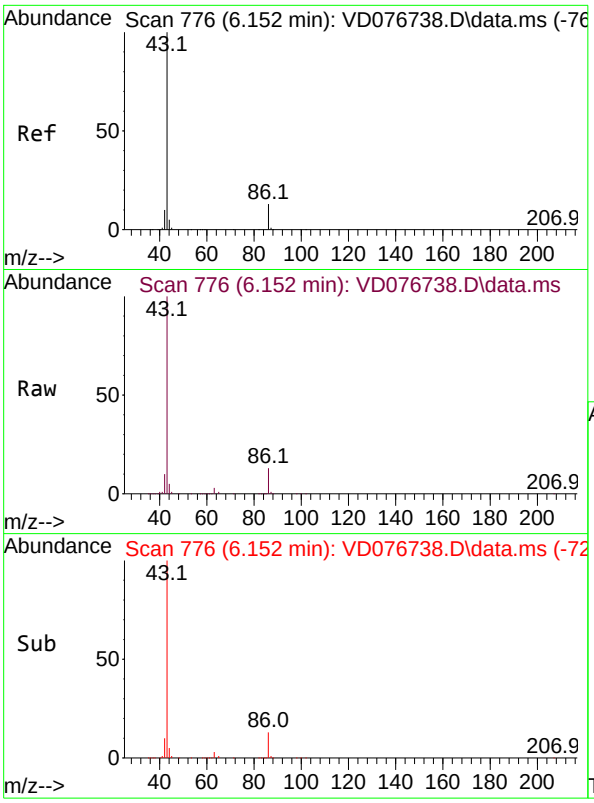


#22
Diisopropyl ether
Concen: 52.885 ug/l
RT: 6.216 min Scan# 787
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 45 Resp: 290581

Ion	Ratio	Lower	Upper
45	100		
43	50.7	40.0	60.0
87	30.7	28.2	42.4
59	13.2	11.0	16.4





#23
Vinyl Acetate
Concen: 267.513 ug/l
RT: 6.152 min Scan# 7
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

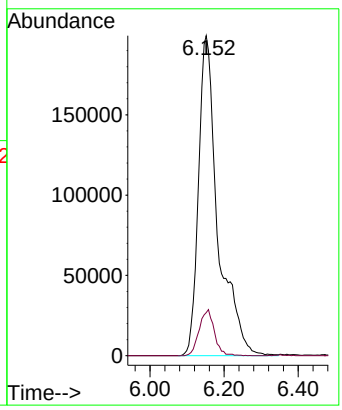
Tgt Ion: 43 Resp: 72726

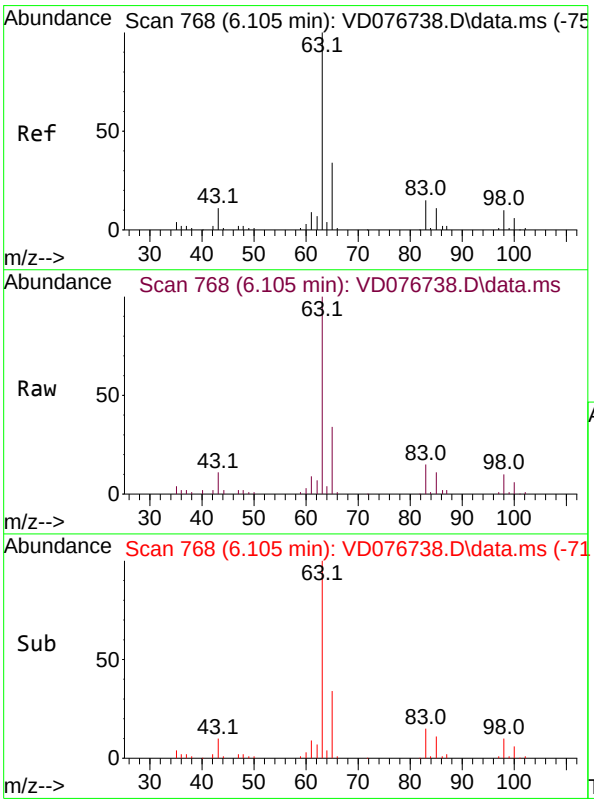
Ion	Ratio	Lower	Upper
43	100		
86	13.5	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

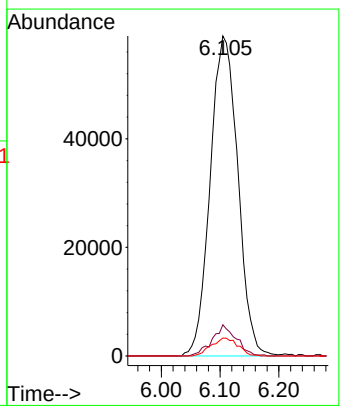


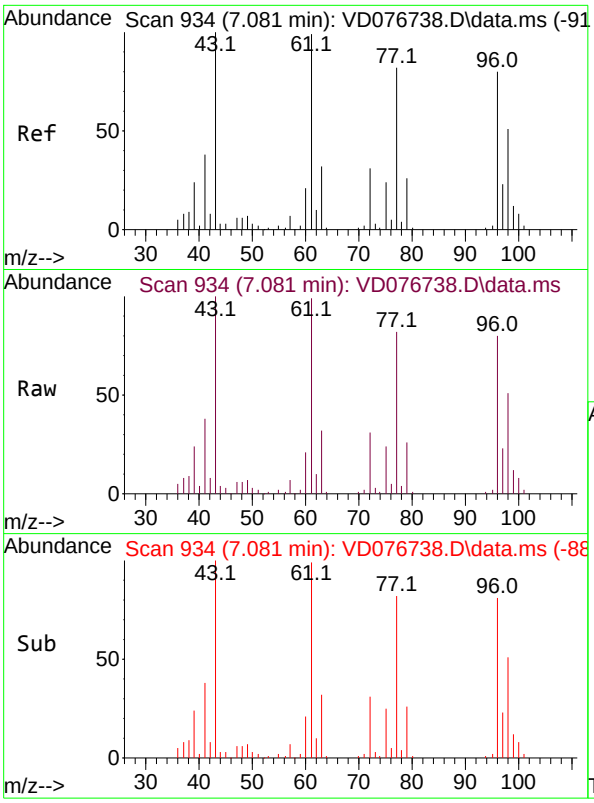


#24
1,1-Dichloroethane
Concen: 51.928 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 63 Resp: 192373

Ion	Ratio	Lower	Upper
63	100		
98	9.8	4.5	13.7
100	5.6	2.5	7.5

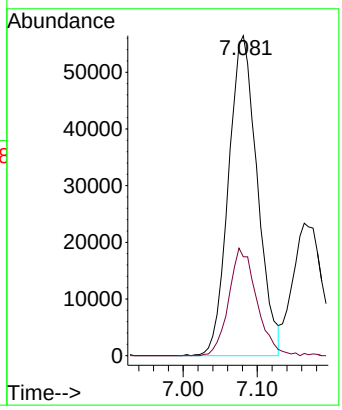




#25
2-Butanone
Concen: 267.542 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 43 Resp: 15224

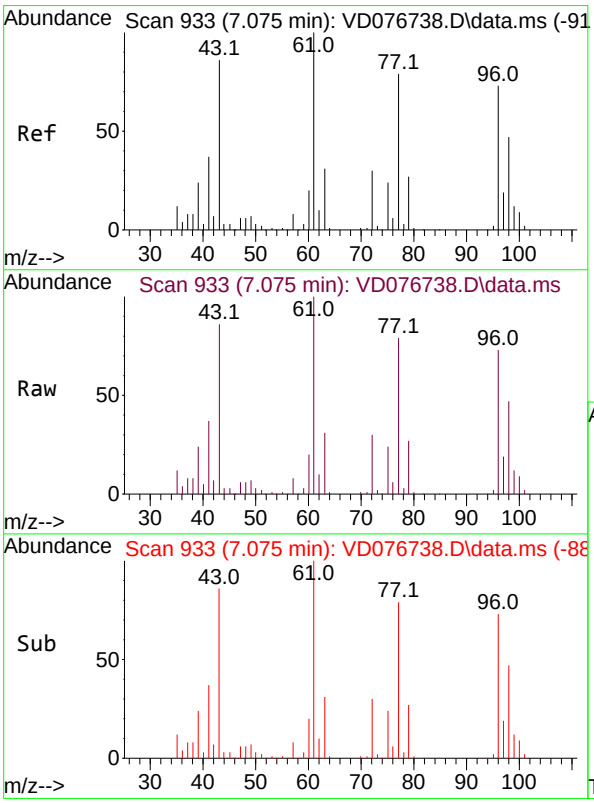
Ion	Ratio	Lower	Upper
43	100		
72	30.9	30.7	46.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

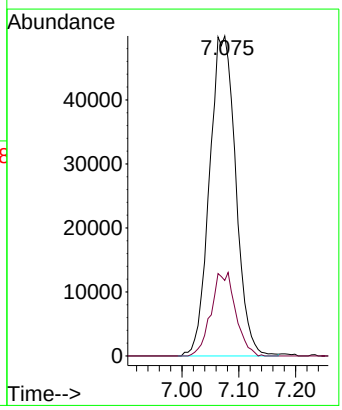
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

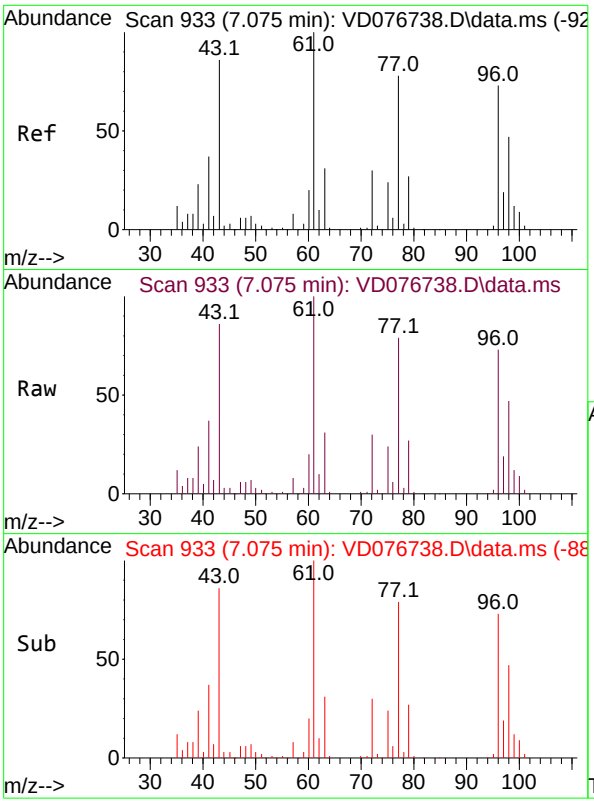


#26
2,2-Dichloropropane
Concen: 50.177 ug/l
RT: 7.075 min Scan# 933
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 77 Resp: 160237

Ion	Ratio	Lower	Upper
77	100		
97	24.4	13.2	39.6

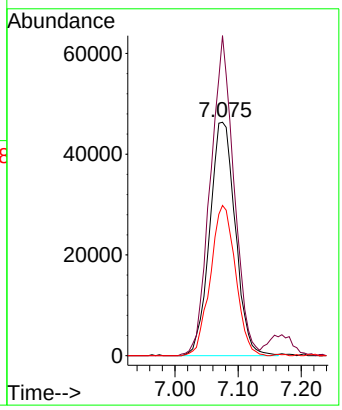




#27
cis-1,2-Dichloroethene
Concen: 51.593 ug/l
RT: 7.075 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 96 Resp: 13058

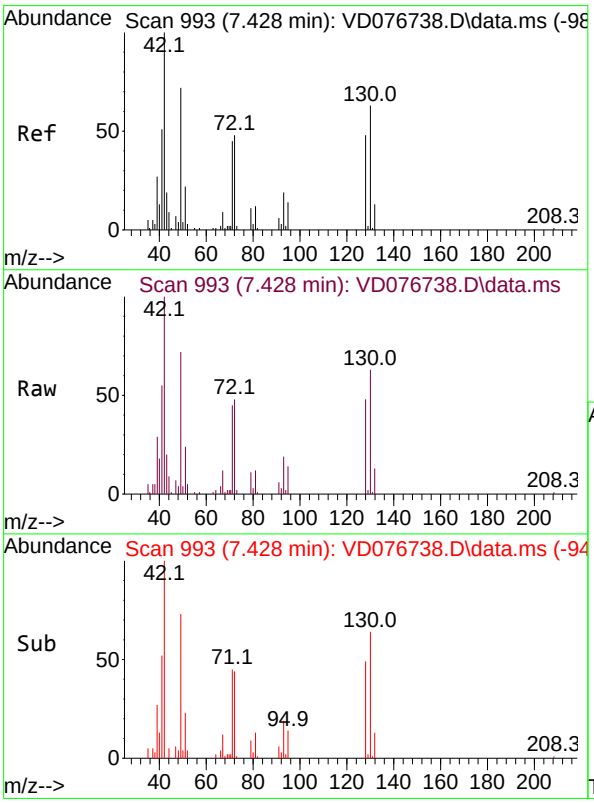
Ion	Ratio	Lower	Upper
96	100		
61	126.4	0.0	239.2
98	63.1	0.0	128.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

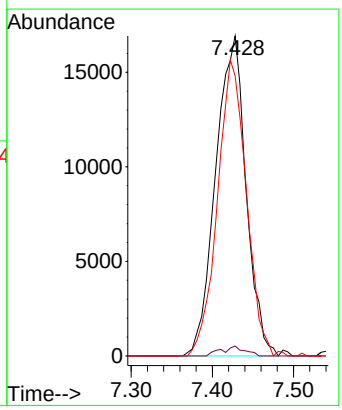
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

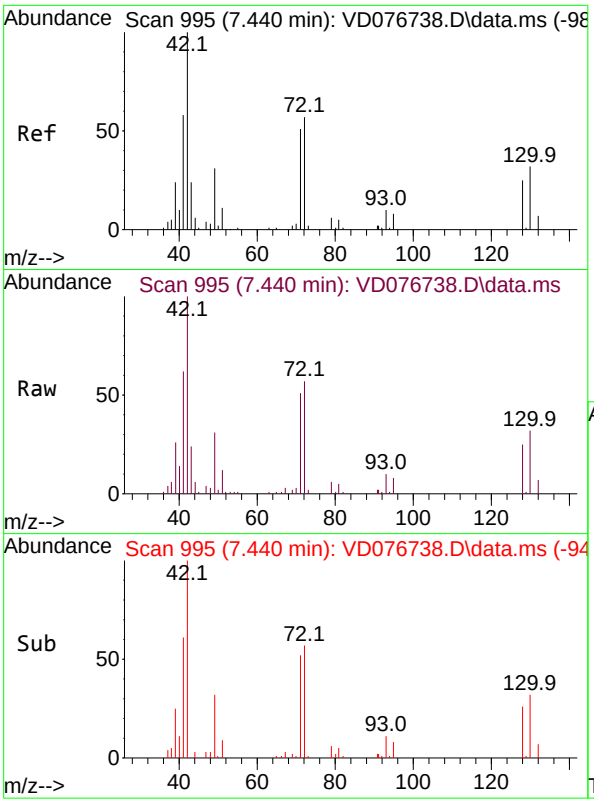


#28
Bromochloromethane
Concen: 47.438 ug/l
RT: 7.428 min Scan# 993
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 49 Resp: 43937

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	6.0
130	88.1	83.2	124.8





#29
Tetrahydrofuran
Concen: 257.722 ug/l
RT: 7.440 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

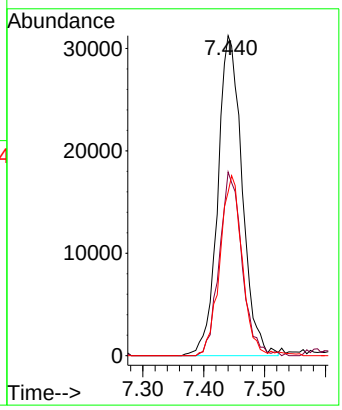
Tgt Ion: 42 Resp: 8665

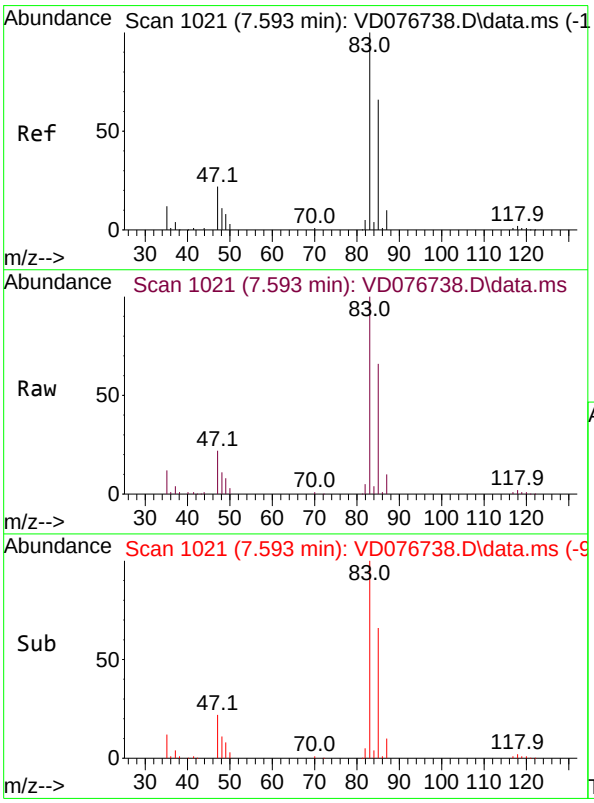
Ion	Ratio	Lower	Upper
42	100		
72	53.5	46.5	69.7
71	51.3	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

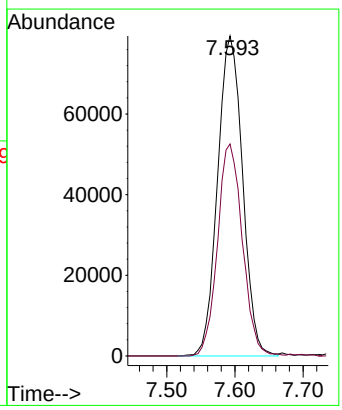


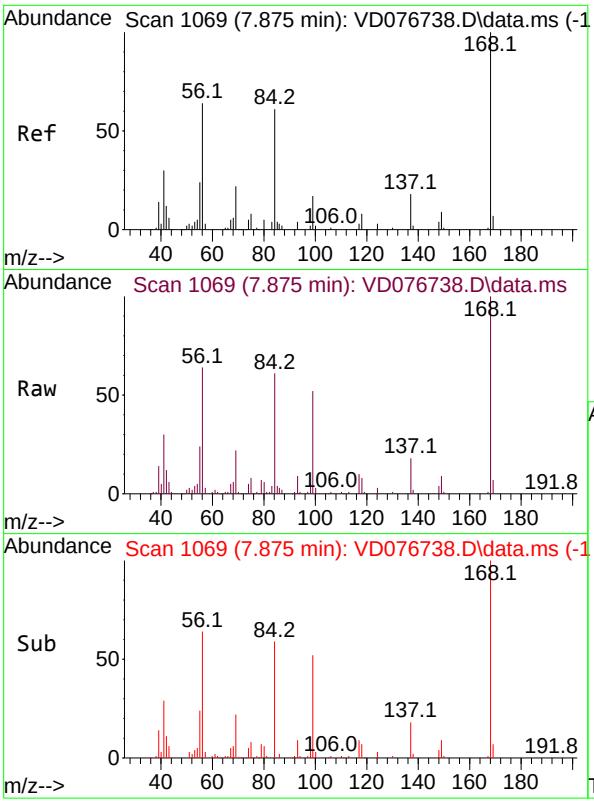


#30
Chloroform
Concen: 49.915 ug/l
RT: 7.593 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 83 Resp: 202534

Ion	Ratio	Lower	Upper
83	100		
85	66.2	53.4	80.2

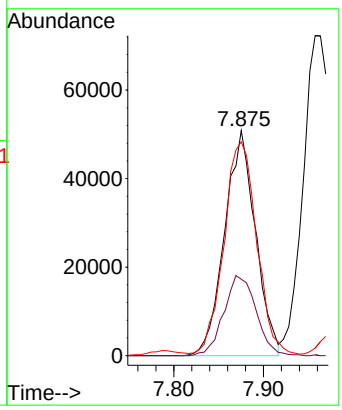




#31
Cyclohexane
Concen: 46.364 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 56 Resp: 12148

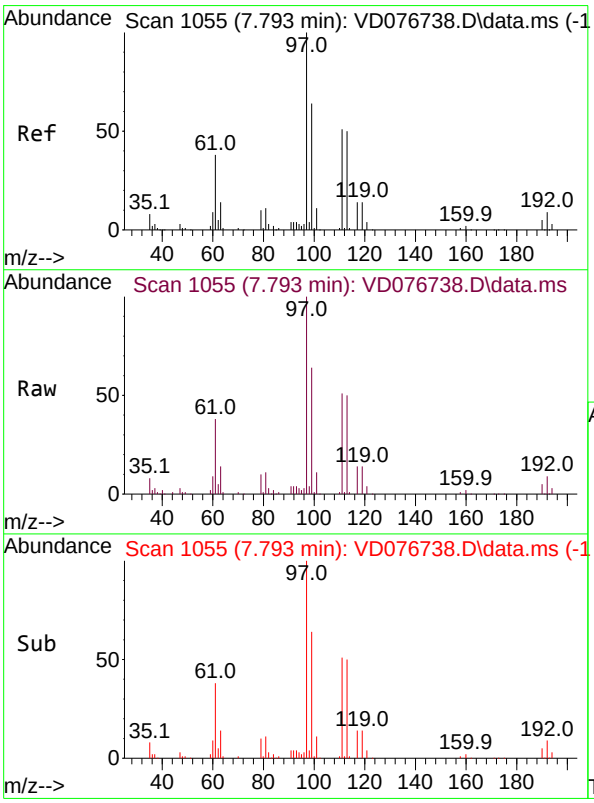
Ion	Ratio	Lower	Upper
56	100		
69	34.0	28.6	43.0
84	93.6	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

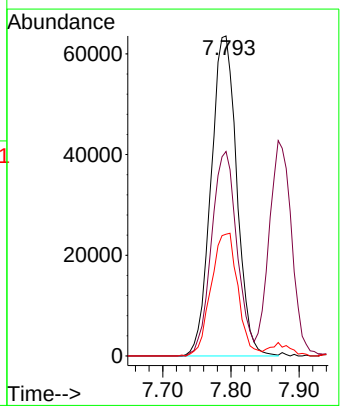
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

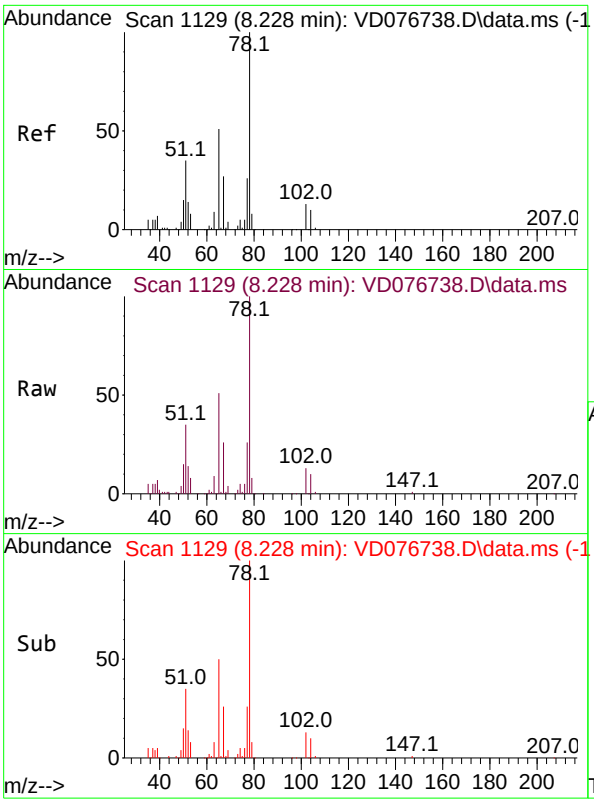


#32
1,1,1-Trichloroethane
Concen: 51.078 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 97 Resp: 167216

Ion	Ratio	Lower	Upper
97	100		
99	63.5	52.0	78.0
61	40.0	33.8	50.8

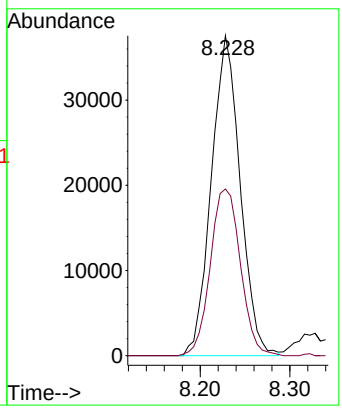




#33
1,2-Dichloroethane-d4
Concen: 47.024 ug/l
RT: 8.228 min Scan# 11
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 65 Resp: 8372

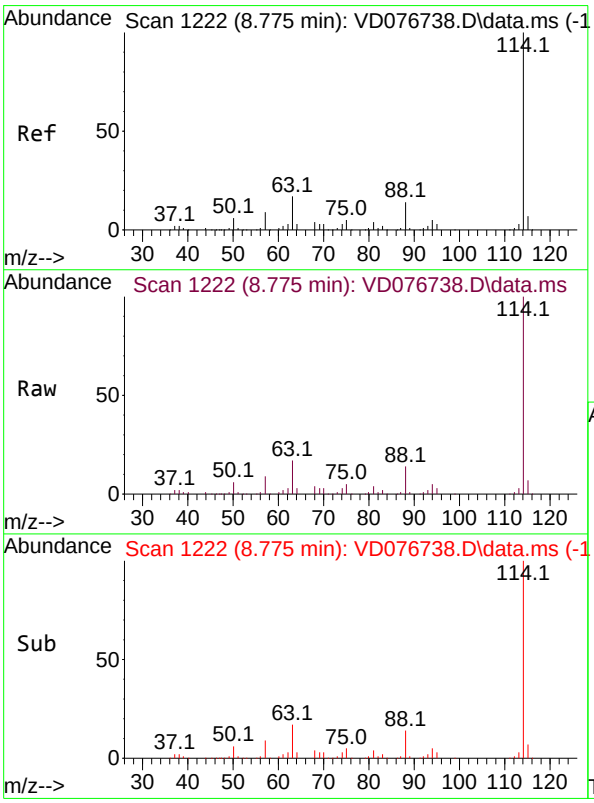
Ion	Ratio	Lower	Upper
65	100		
67	54.5	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

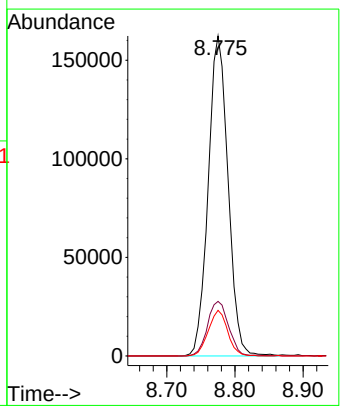
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

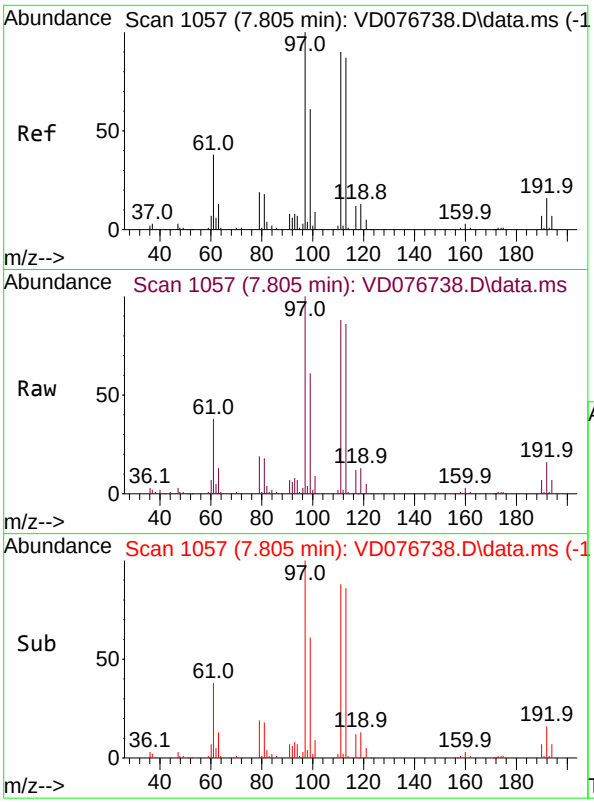


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:114 Resp: 329060

Ion	Ratio	Lower	Upper
114	100		
63	17.1	0.0	33.4
88	14.2	0.0	26.2

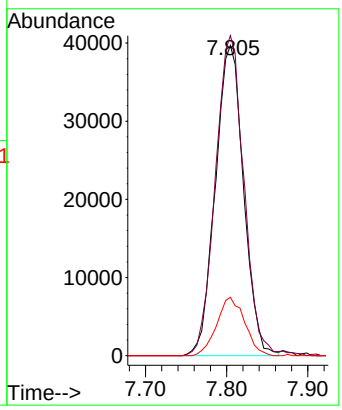




#35
Dibromofluoromethane
Concen: 46.329 ug/l
RT: 7.805 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:113 Resp: 9580

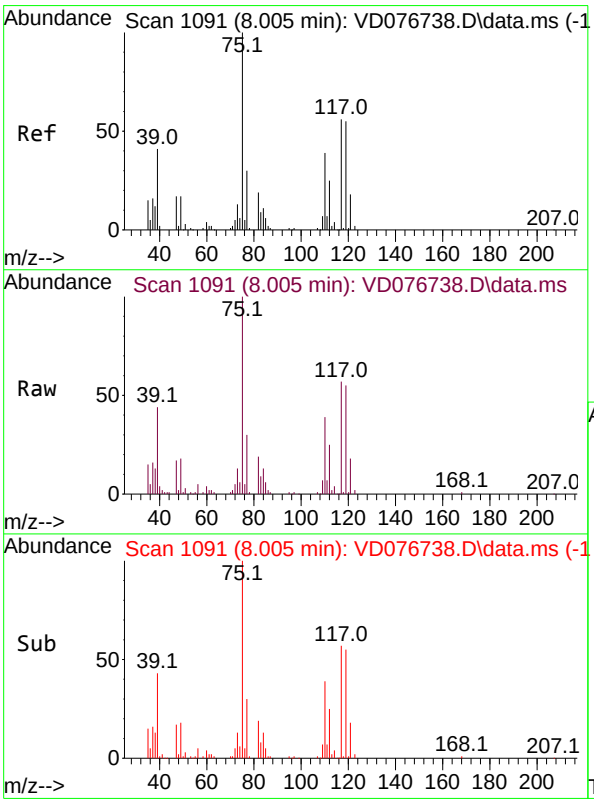
Ion	Ratio	Lower	Upper
113	100		
111	104.5	84.7	127.1
192	18.7	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

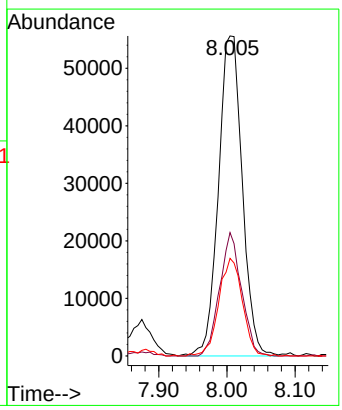
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

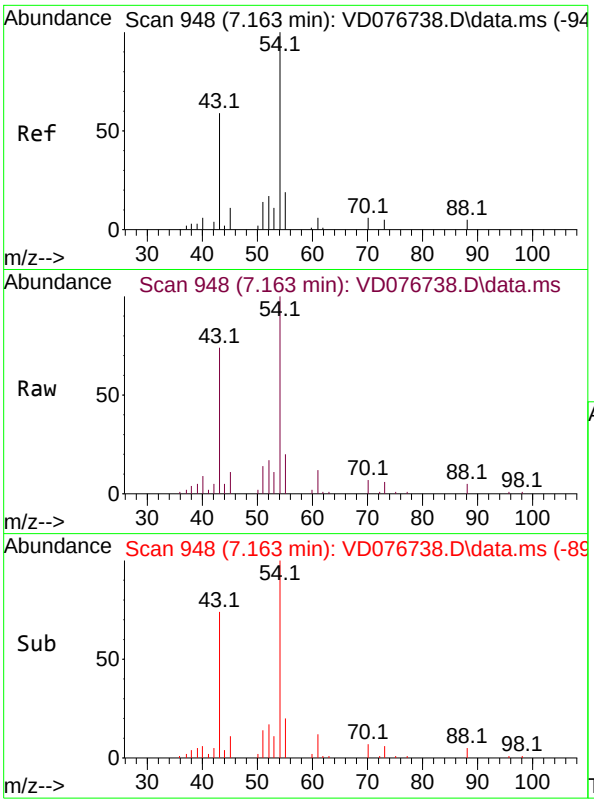


#36
1,1-Dichloropropene
Concen: 50.092 ug/l
RT: 8.005 min Scan# 1091
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 75 Resp: 135353

Ion	Ratio	Lower	Upper
75	100		
110	35.5	19.9	59.6
77	30.3	24.7	37.1





#37
Ethyl Acetate
Concen: 54.391 ug/l
RT: 7.163 min Scan# 94
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

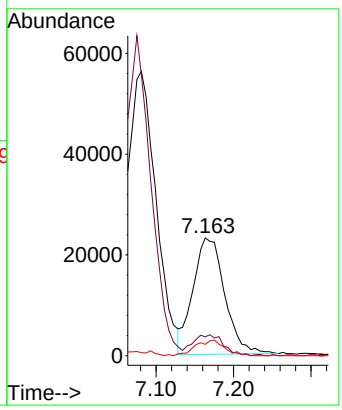
Tgt Ion: 43 Resp: 6572

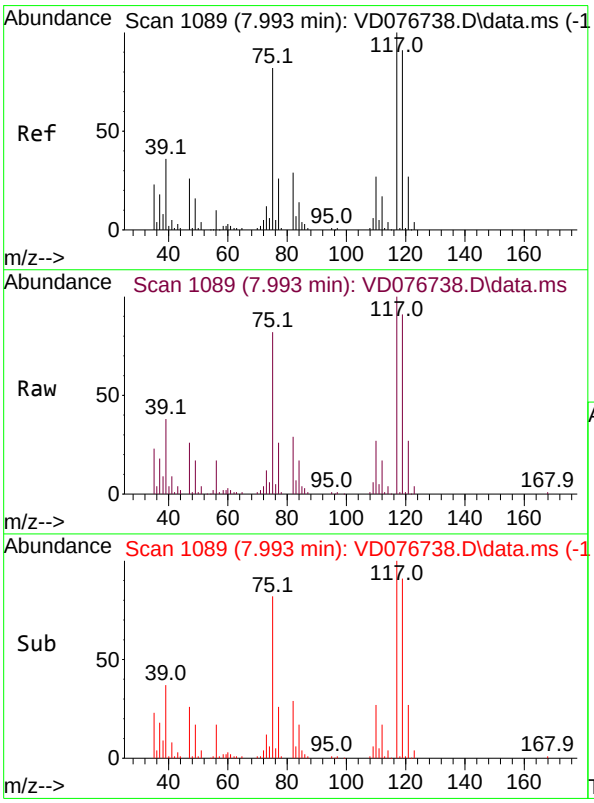
Ion	Ratio	Lower	Upper
43	100		
61	17.2	14.9	22.3
70	12.3	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

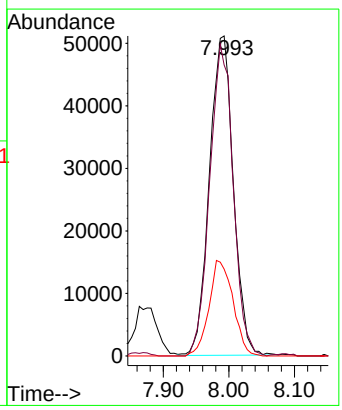


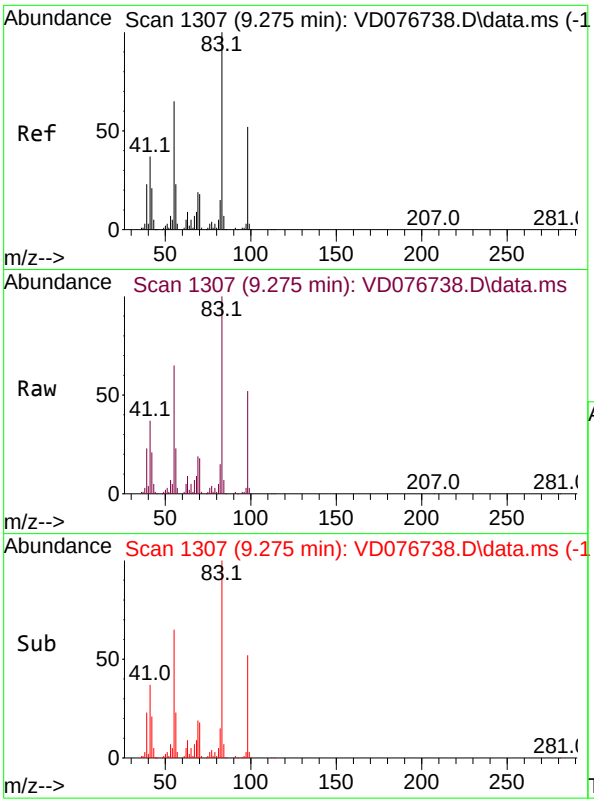


#38
Carbon Tetrachloride
Concen: 49.979 ug/l
RT: 7.993 min Scan# 1089
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:117 Resp: 129311

Ion	Ratio	Lower	Upper
117	100		
119	91.2	78.0	117.0
121	27.2	24.2	36.2

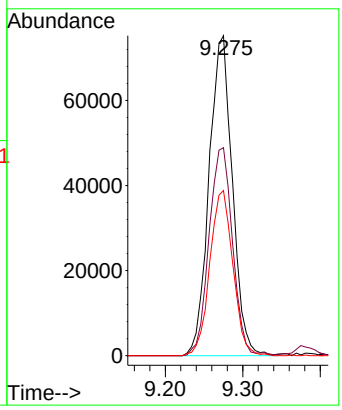




#39
Methylcyclohexane
Concen: 50.431 ug/l
RT: 9.275 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 83 Resp: 15734

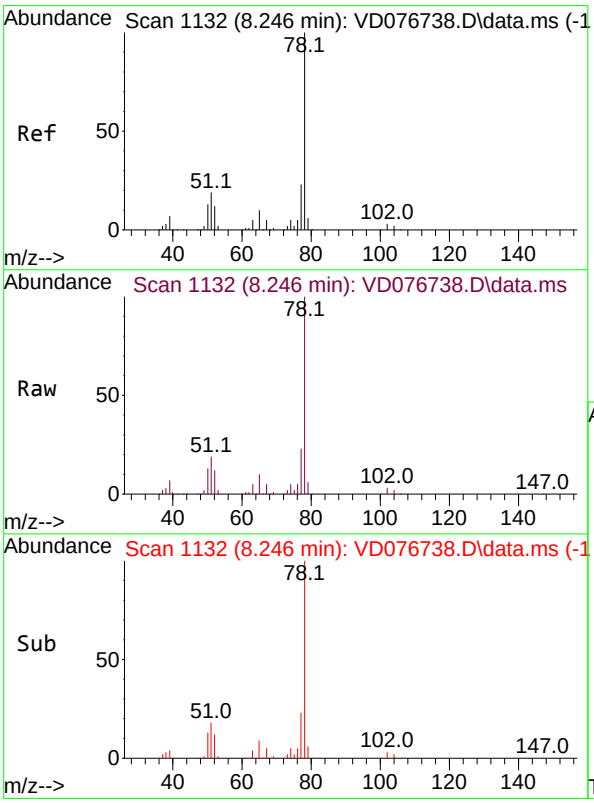
Ion	Ratio	Lower	Upper
83	100		
55	65.0	49.4	74.0
98	51.6	38.4	57.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

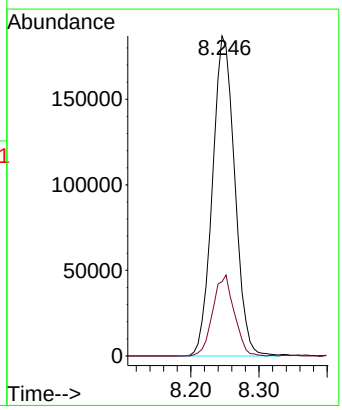
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

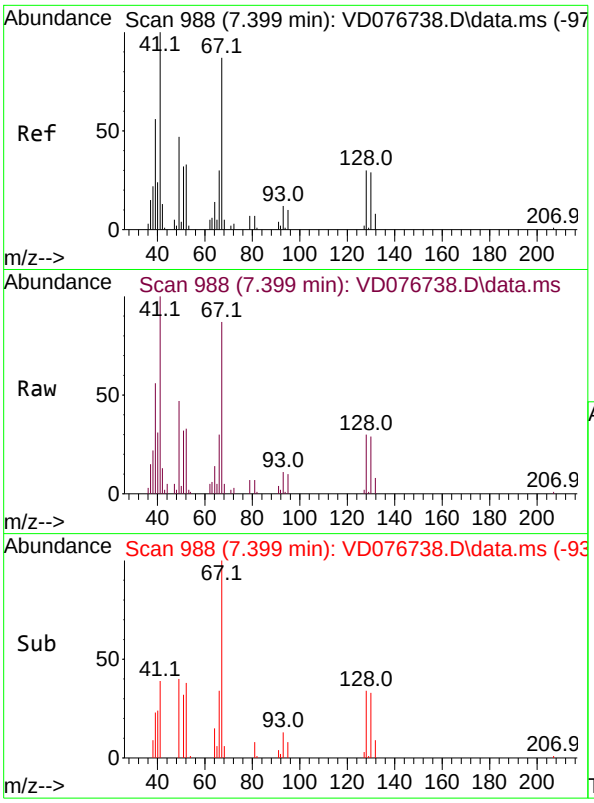


#40
Benzene
Concen: 49.966 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 78 Resp: 425999

Ion	Ratio	Lower	Upper
78	100		
77	23.2	19.4	29.0

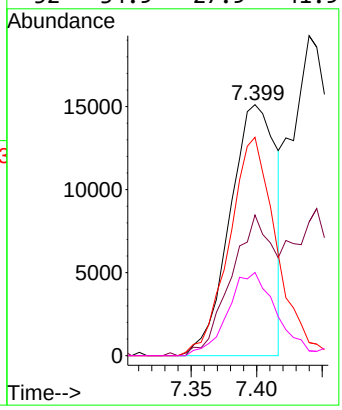




#41
Methacrylonitrile
Concen: 49.981 ug/l
RT: 7.399 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 41 Resp: 3688

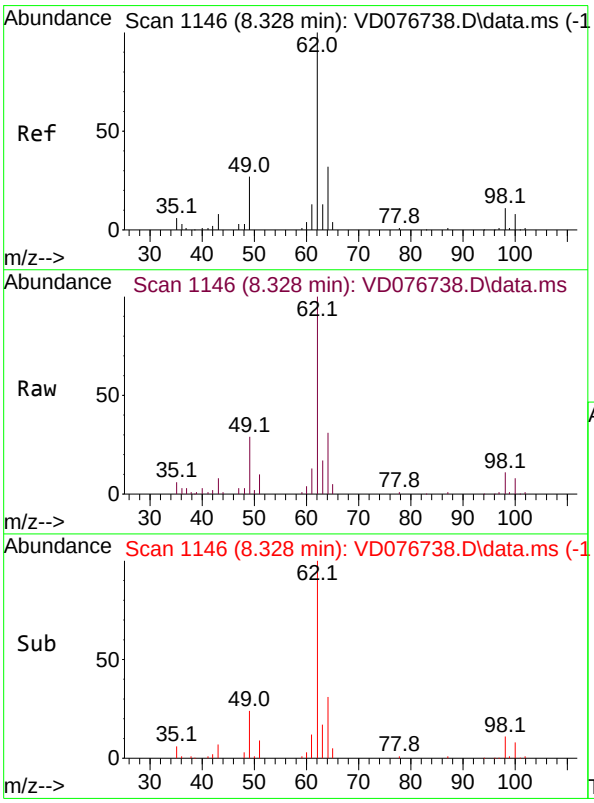
Ion	Ratio	Lower	Upper
41	100		
39	52.9	34.0	51.0
67	89.1	77.0	115.4
52	34.9	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

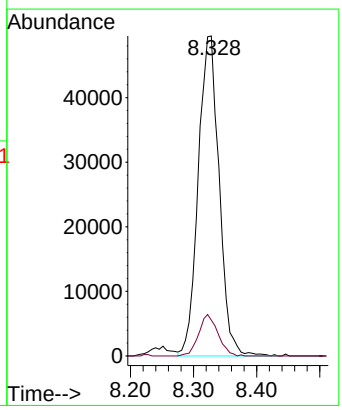
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

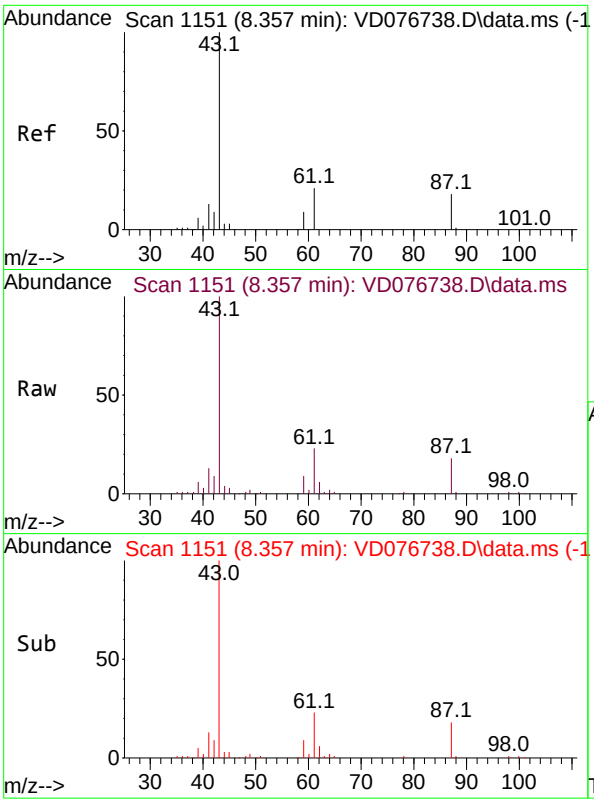


#42
1,2-Dichloroethane
Concen: 51.407 ug/l
RT: 8.328 min Scan# 1146
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 62 Resp: 113879

Ion	Ratio	Lower	Upper
62	100		
98	11.9	0.0	25.4





#43
Isopropyl Acetate
Concen: 52.038 ug/l
RT: 8.357 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

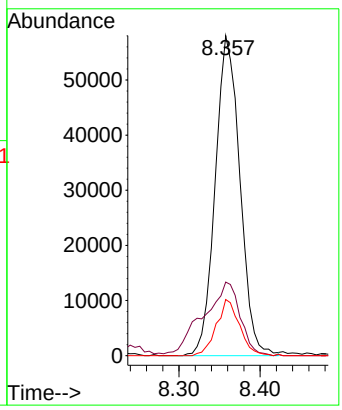
Tgt Ion: 43 Resp: 12272

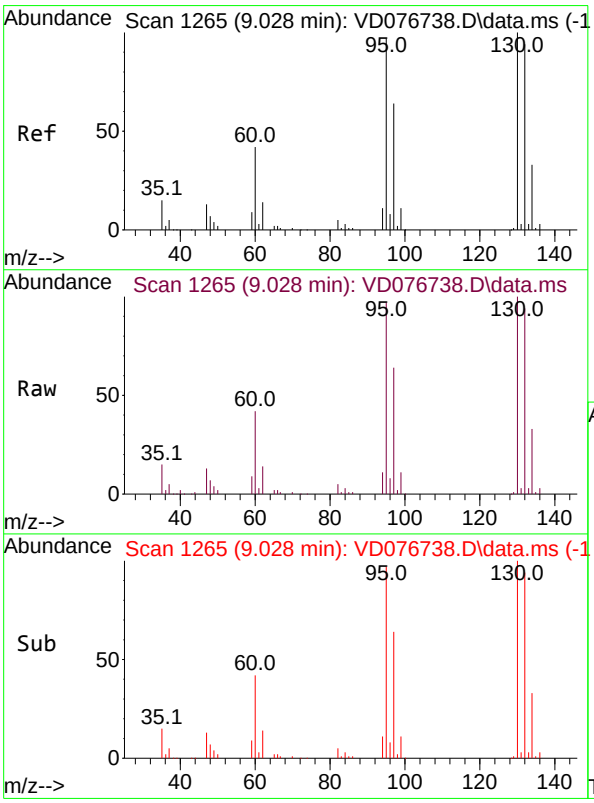
Ion	Ratio	Lower	Upper
43	100		
61	34.4	31.4	47.0
87	16.5	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

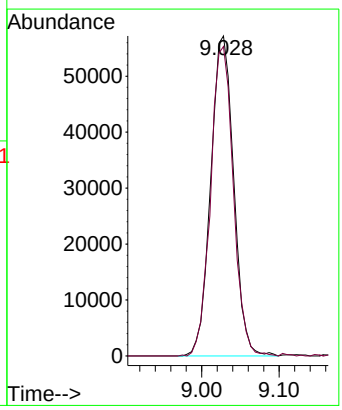


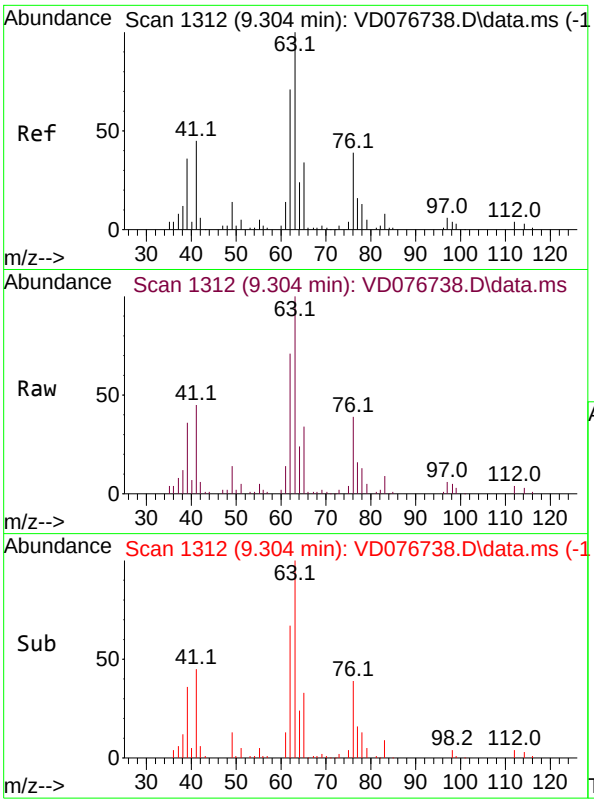


#44
Trichloroethene
Concen: 50.700 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:130 Resp: 117790

Ion	Ratio	Lower	Upper
130	100		
95	96.7	0.0	179.2

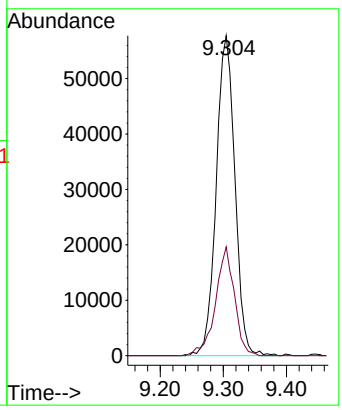




#45
1,2-Dichloropropane
Concen: 53.810 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 63 Resp: 11842

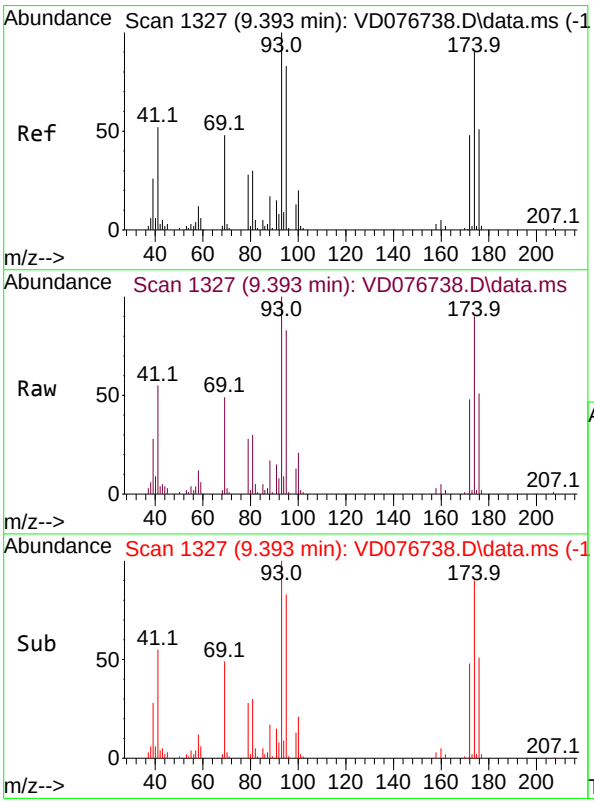
Ion	Ratio	Lower	Upper
63	100		
65	34.0	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

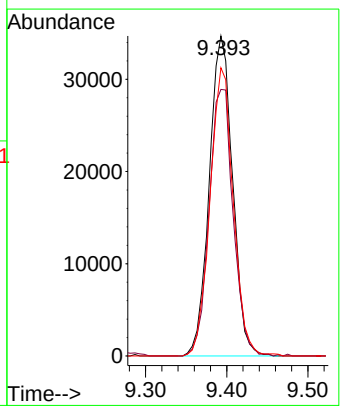
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

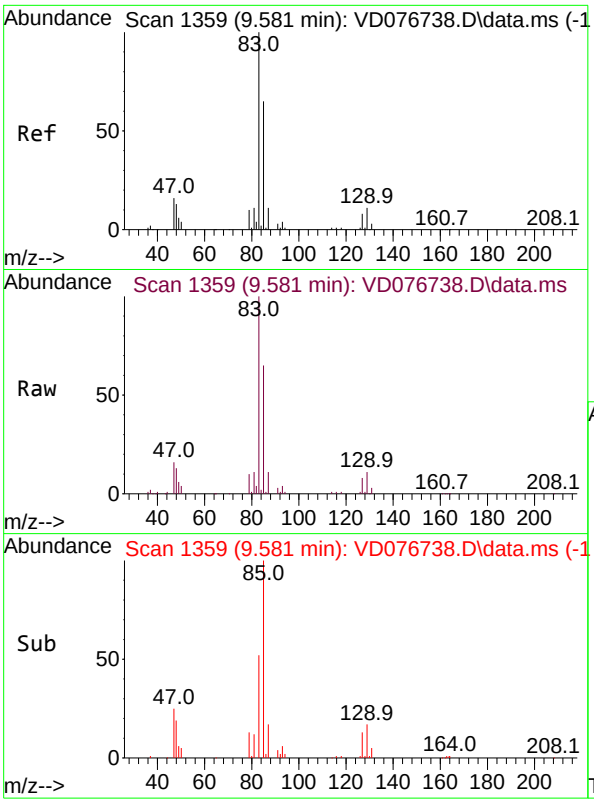


#46
Dibromomethane
Concen: 53.804 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 93 Resp: 69311

Ion	Ratio	Lower	Upper
93	100		
95	86.1	67.7	101.5
174	89.9	85.4	128.2

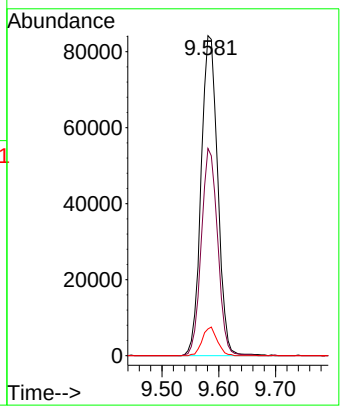




#47
Bromodichloromethane
Concen: 52.712 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 83 Resp: 17040

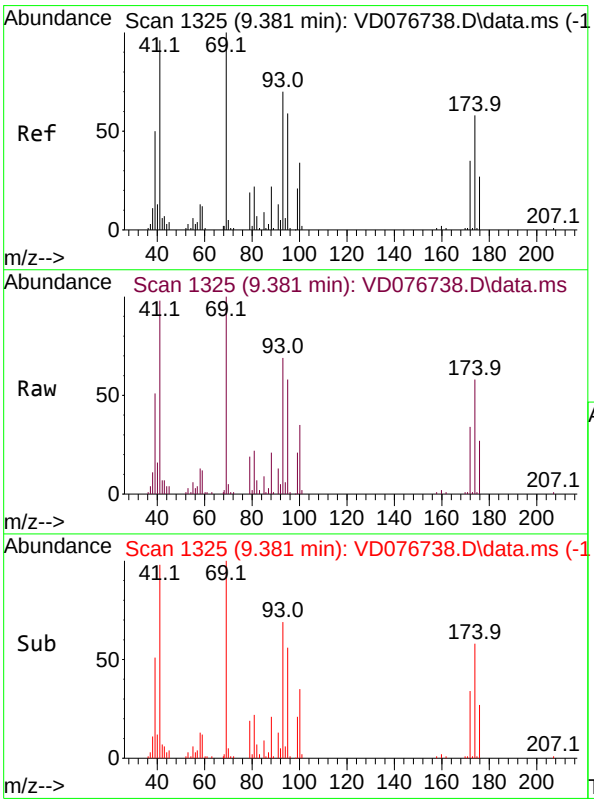
Ion	Ratio	Lower	Upper
83	100		
85	64.7	50.2	75.4
127	8.4	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

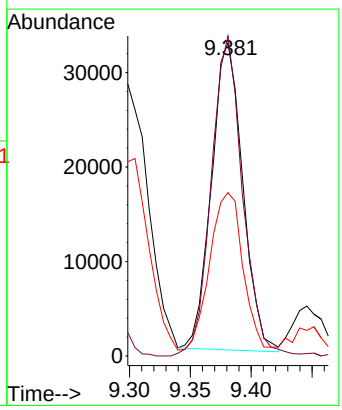
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

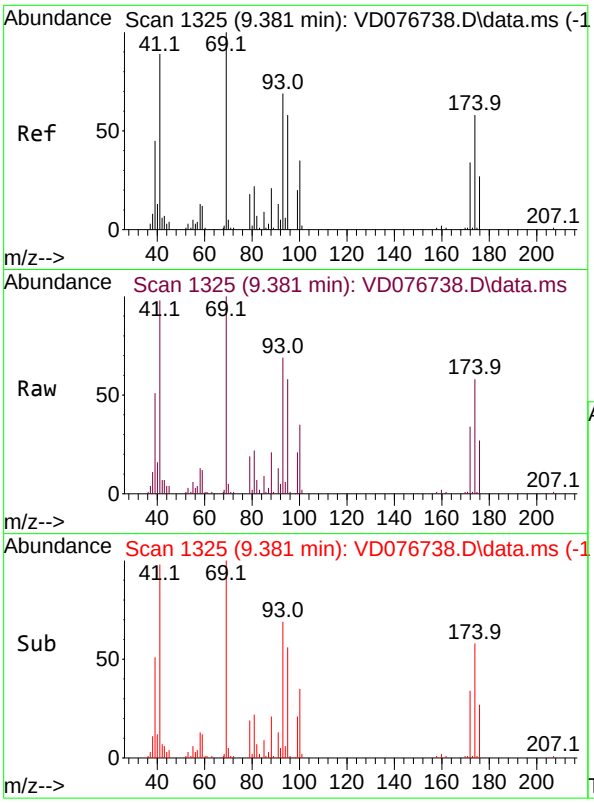


#48
Methyl methacrylate
Concen: 54.072 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 41 Resp: 58039

Ion	Ratio	Lower	Upper
41	100		
69	104.6	102.2	153.2
39	59.3	41.4	62.2

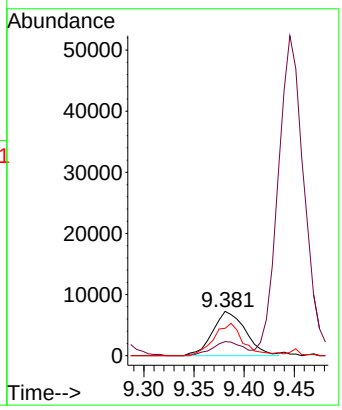




#49
1,4-Dioxane
Concen: 1004.070 ug/l
RT: 9.381 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 88 Resp: 1657

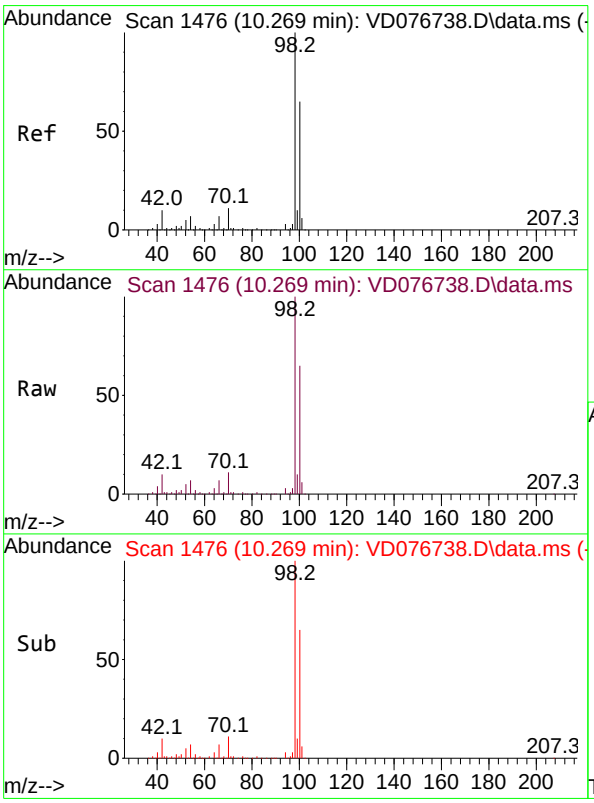
Ion	Ratio	Lower	Upper
88	100		
43	29.3	19.0	28.6
58	63.5	43.5	65.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

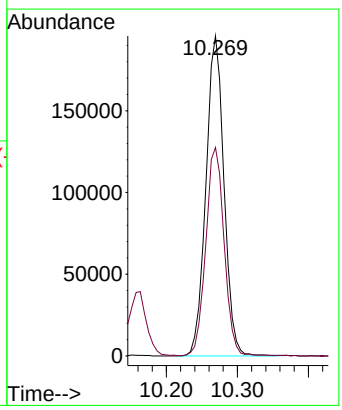
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

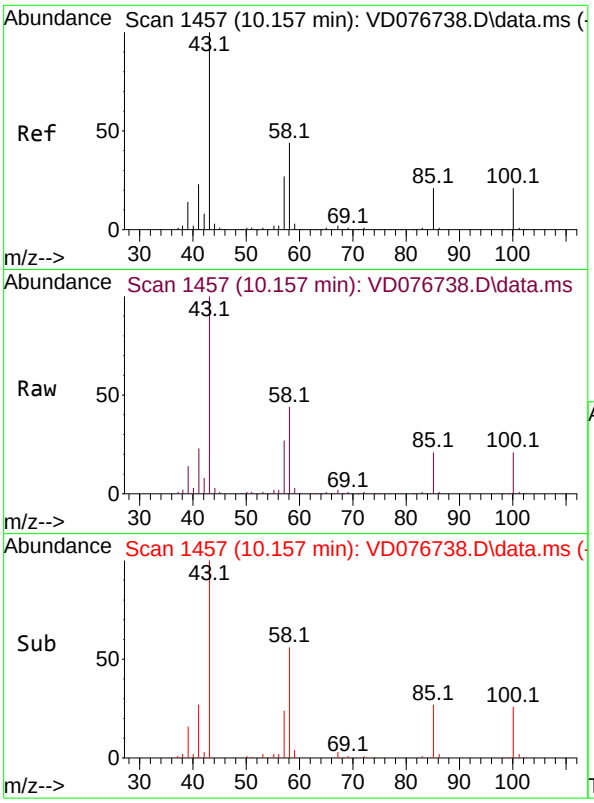


#50
Toluene-d8
Concen: 46.822 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 98 Resp: 346366

Ion	Ratio	Lower	Upper
98	100		
100	65.8	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 271.494 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

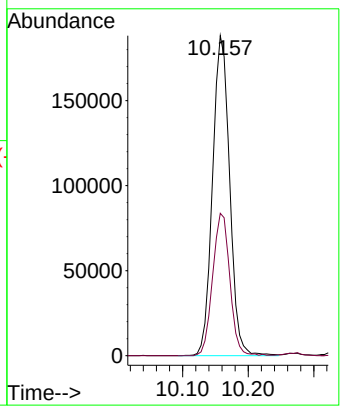
Tgt Ion: 43 Resp: 34090

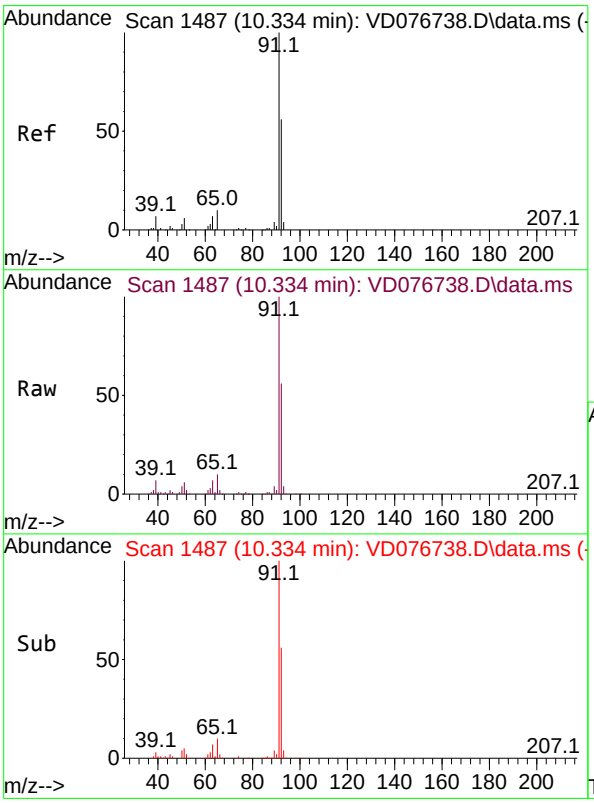
Ion	Ratio	Lower	Upper
43	100		
58	44.6	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

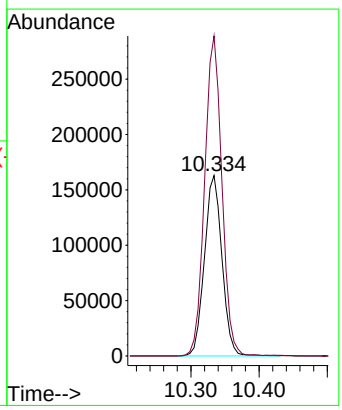


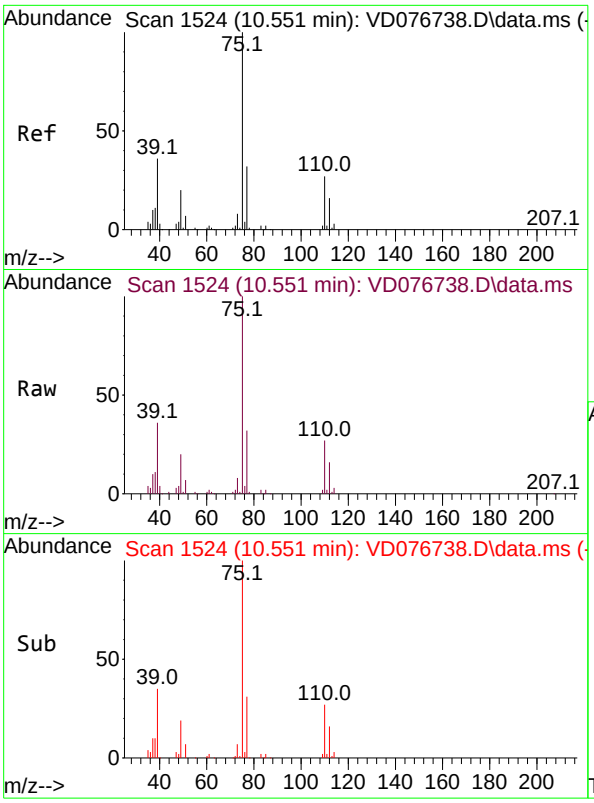


#52
Toluene
Concen: 51.940 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 92 Resp: 290844

Ion	Ratio	Lower	Upper
92	100		
91	174.7	143.0	214.4

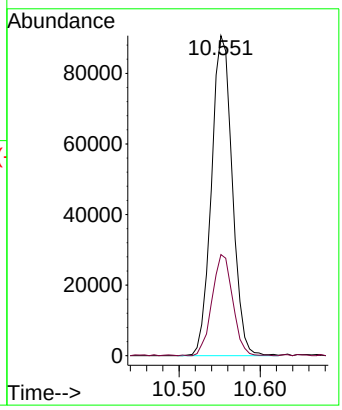




#53
t-1,3-Dichloropropene
Concen: 53.863 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 75 Resp: 16162

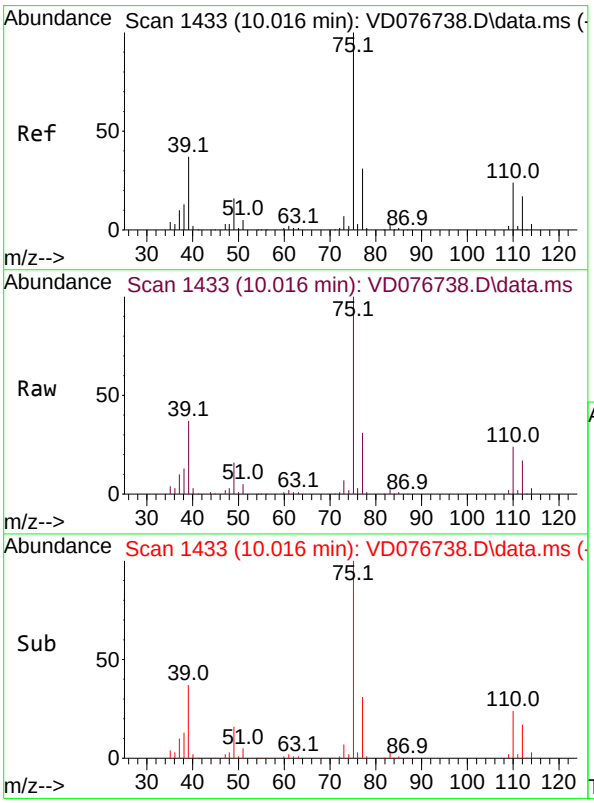
Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

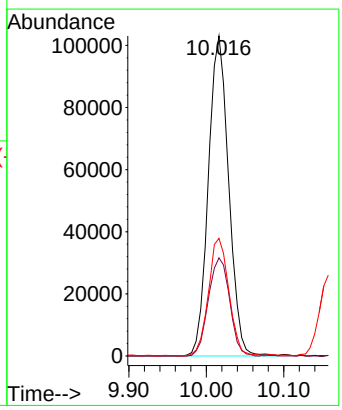
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

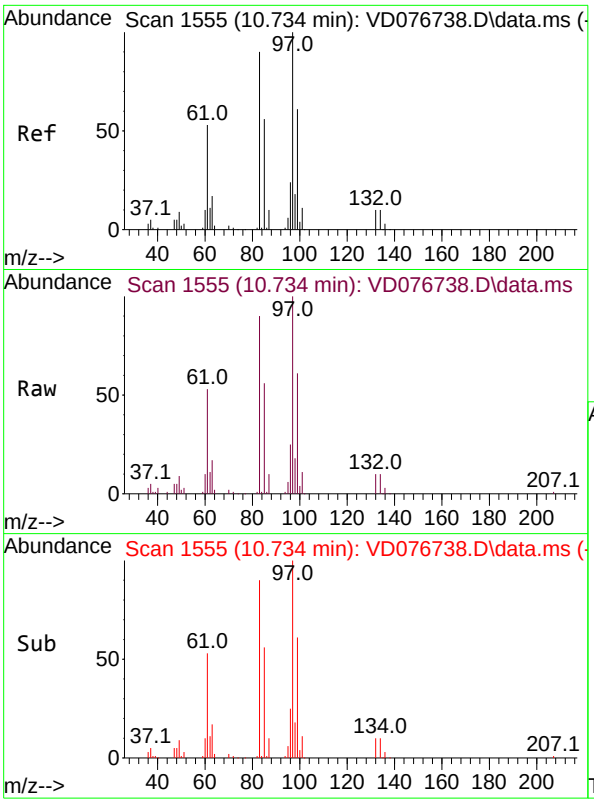


#54
cis-1,3-Dichloropropene
Concen: 53.030 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 75 Resp: 187531

Ion	Ratio	Lower	Upper
75	100		
77	30.6	25.5	38.3
39	36.8	22.1	33.1#

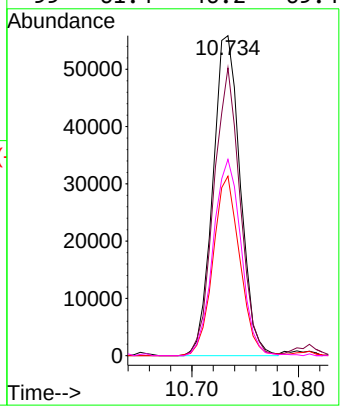




#55
1,1,2-Trichloroethane
Concen: 53.115 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 97 Resp: 9991

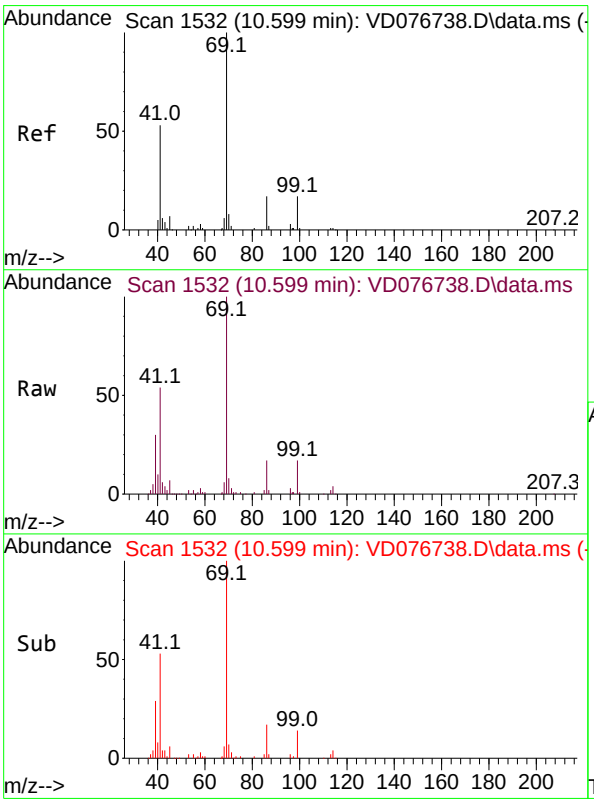
Ion	Ratio	Lower	Upper
97	100		
83	90.0	65.8	98.6
85	56.1	45.7	68.5
99	61.4	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

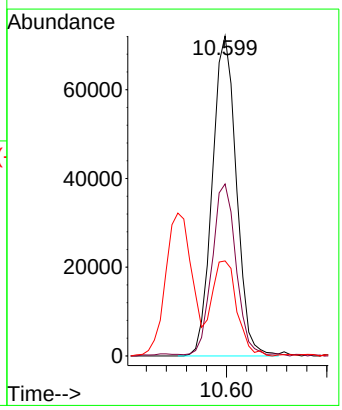
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

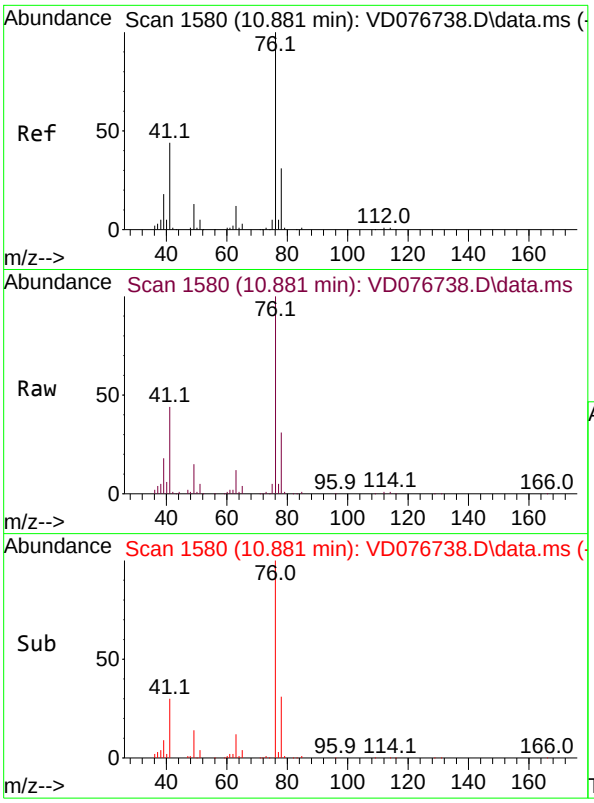


#56
Ethyl methacrylate
Concen: 55.252 ug/l
RT: 10.599 min Scan# 1532
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 69 Resp: 119962

Ion	Ratio	Lower	Upper
69	100		
41	54.2	39.1	58.7
39	31.2	20.0	30.0#

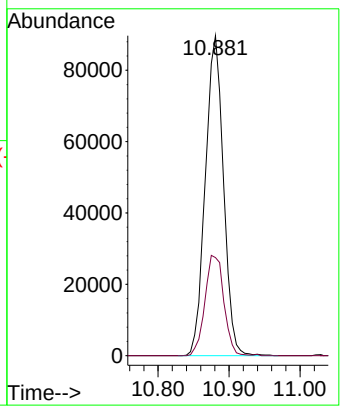




#57
1,3-Dichloropropane
Concen: 52.008 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 76 Resp: 15932

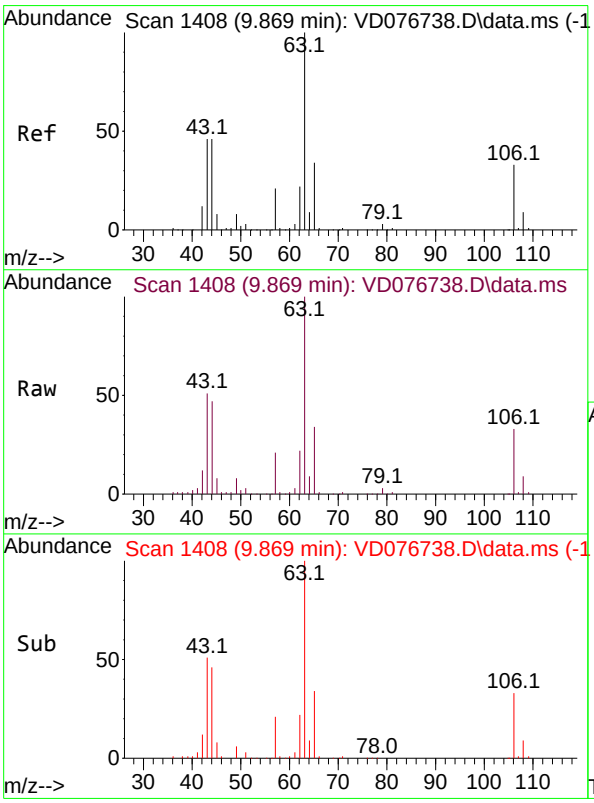
Ion	Ratio	Lower	Upper
76	100		
78	32.8	26.4	39.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

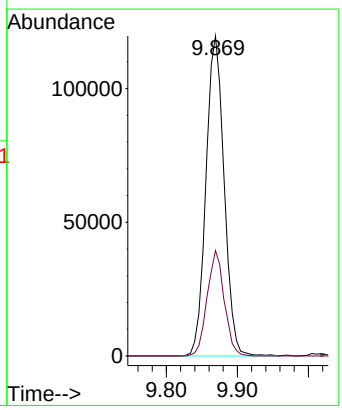
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

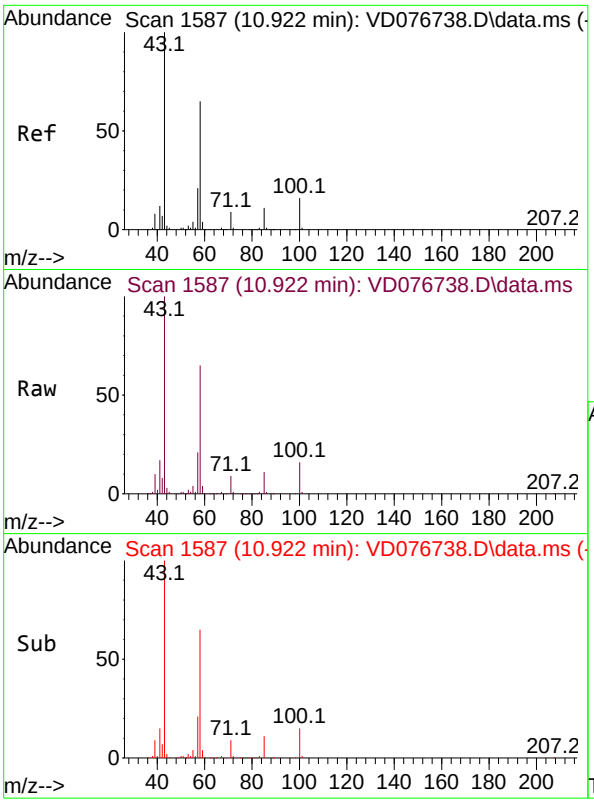


#58
2-Chloroethyl Vinyl ether
Concen: 252.507 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 63 Resp: 212213

Ion	Ratio	Lower	Upper
63	100		
106	31.1	25.3	37.9





#59
2-Hexanone
Concen: 272.370 ug/l
RT: 10.922 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

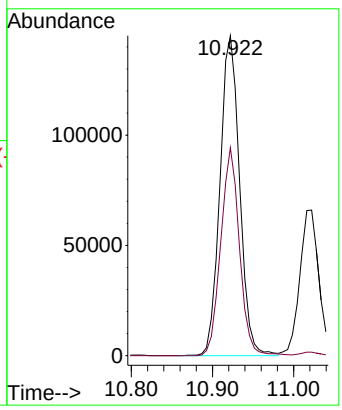
Tgt Ion: 43 Resp: 24403

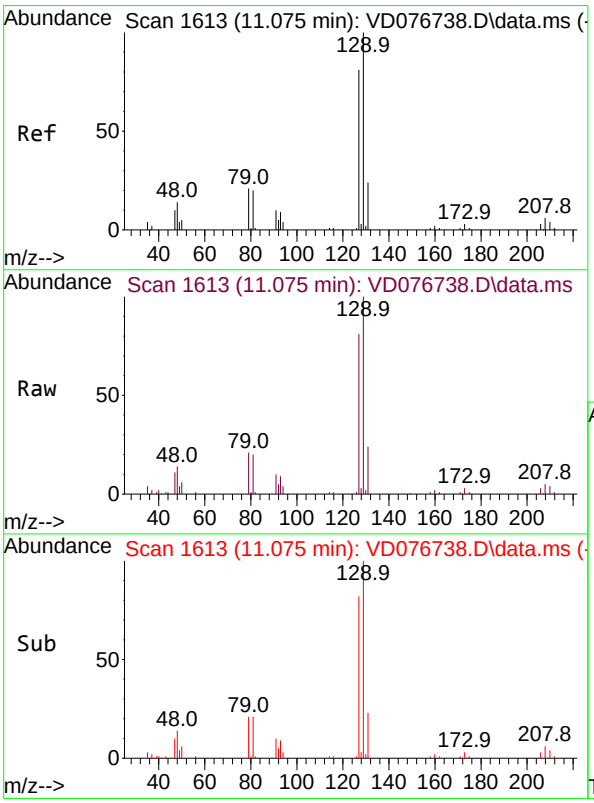
Ion	Ratio	Lower	Upper
43	100		
58	61.9	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

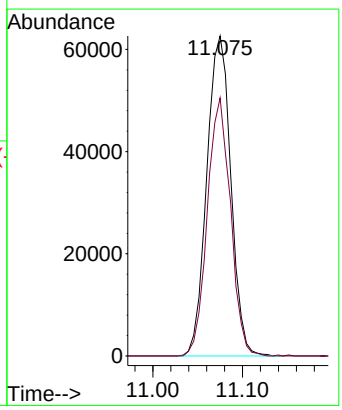


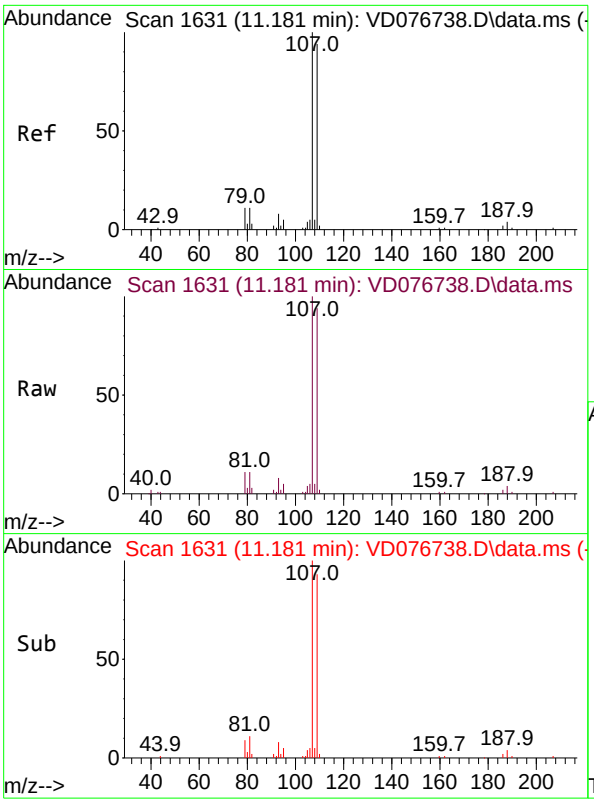


#60
Dibromochloromethane
Concen: 53.341 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:129 Resp: 116566

Ion	Ratio	Lower	Upper
129	100		
127	77.6	37.1	111.5

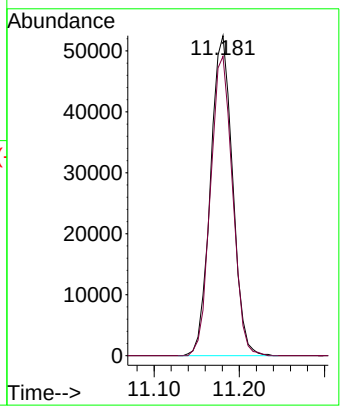




#61
1,2-Dibromoethane
Concen: 54.241 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:107 Resp: 9459

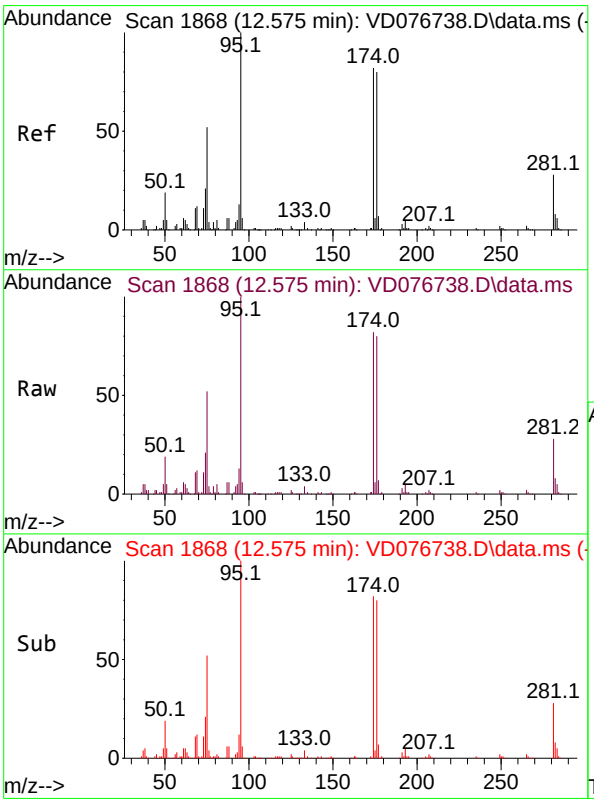
Ion	Ratio	Lower	Upper
107	100		
109	93.2	75.6	113.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

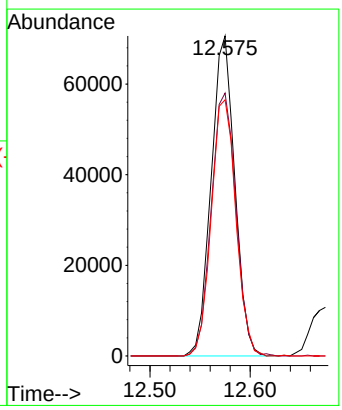
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

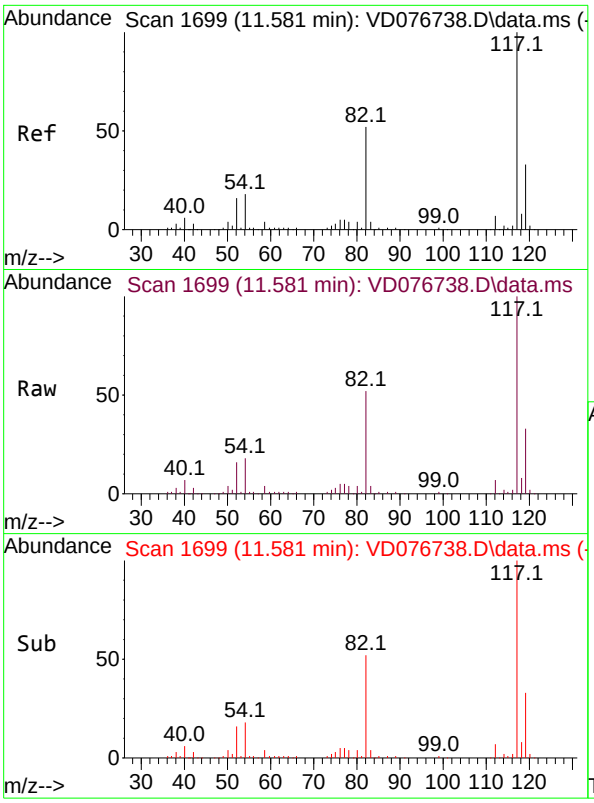


#62
4-Bromofluorobenzene
Concen: 48.233 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 95 Resp: 115426

Ion	Ratio	Lower	Upper
95	100		
174	85.8	0.0	201.8
176	83.1	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

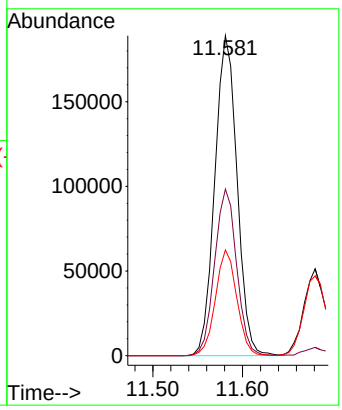
Tgt Ion:117 Resp: 32532

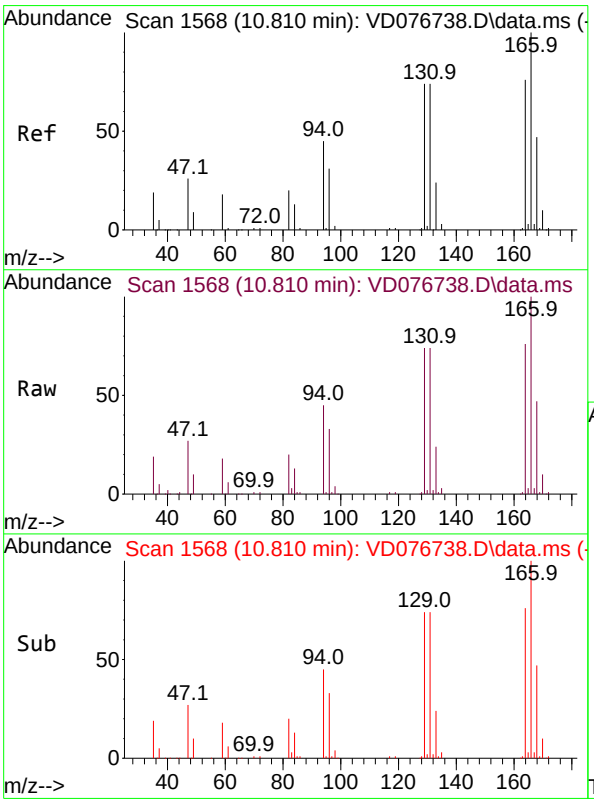
Ion	Ratio	Lower	Upper
117	100		
82	52.1	38.3	57.5
119	33.1	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

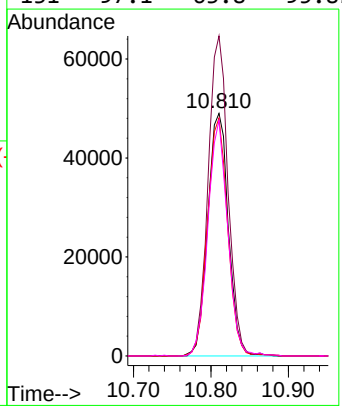


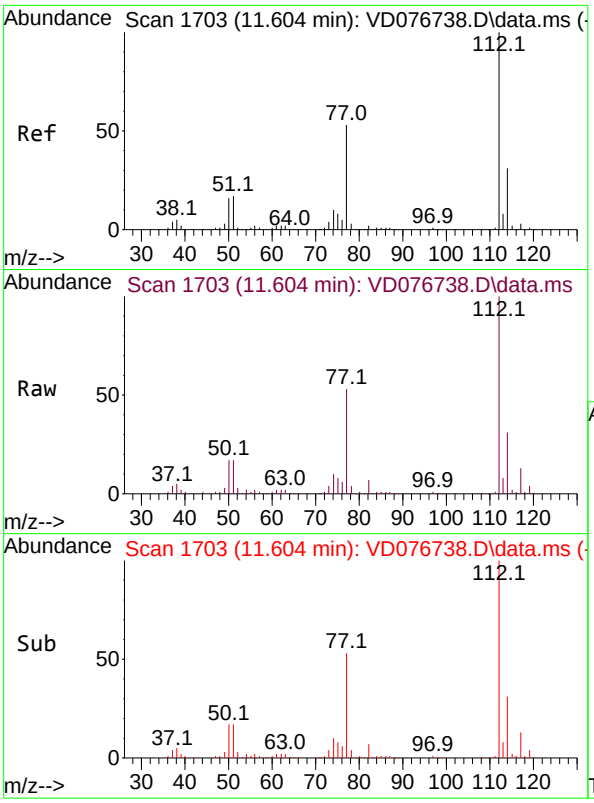


#64
Tetrachloroethene
Concen: 48.919 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:164 Resp: 90749

Ion	Ratio	Lower	Upper
164	100		
166	131.9	99.2	148.8
129	98.1	68.4	102.6
131	97.1	63.8	95.8#

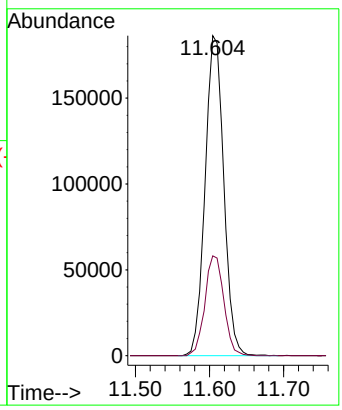




#65
Chlorobenzene
Concen: 49.676 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:112 Resp: 32502

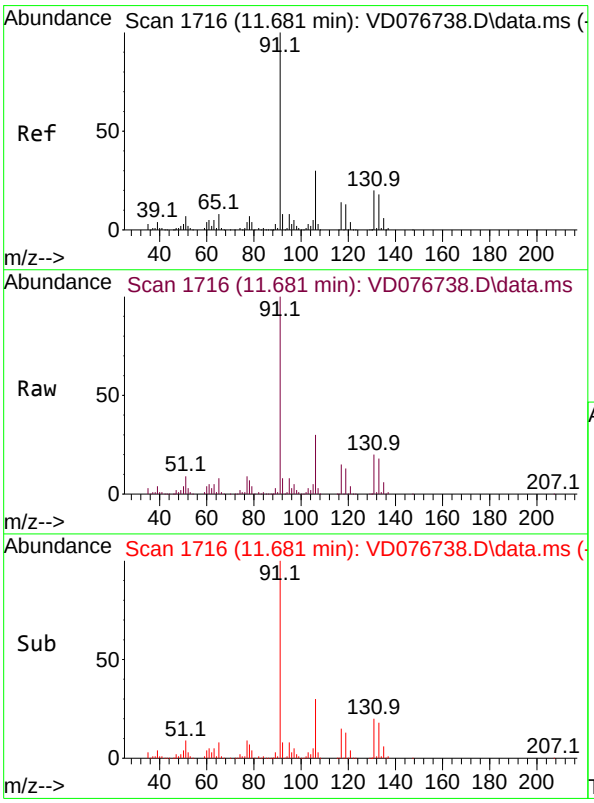
Ion	Ratio	Lower	Upper
112	100		
114	31.2	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

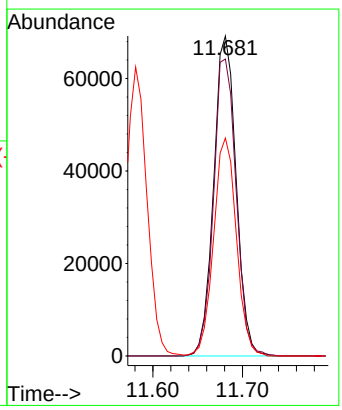
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

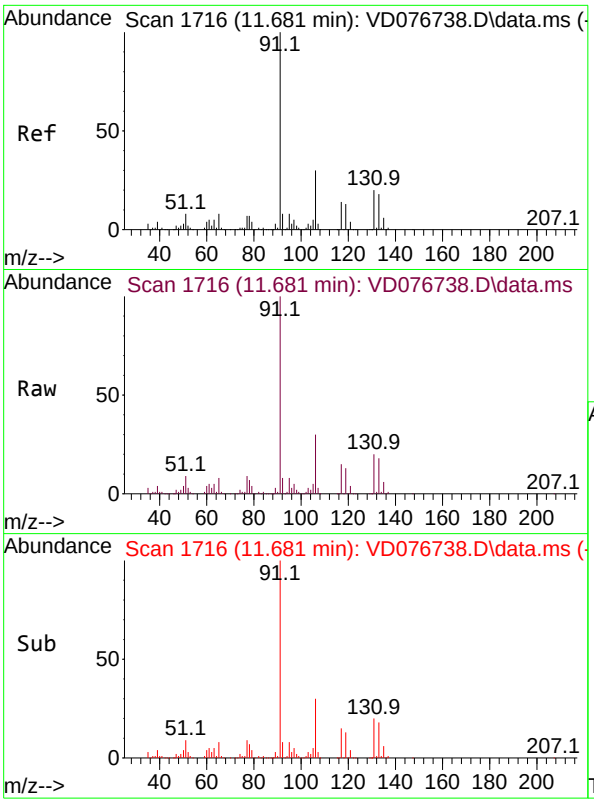


#66
1,1,1,2-Tetrachloroethane
Concen: 49.306 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:131 Resp: 120109

Ion	Ratio	Lower	Upper
131	100		
133	93.8	48.5	145.5
119	69.2	35.6	106.9

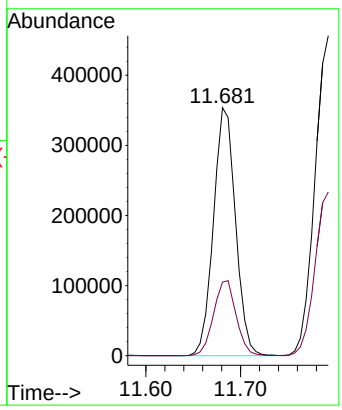




#67
Ethyl Benzene
Concen: 49.827 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 91 Resp: 57254

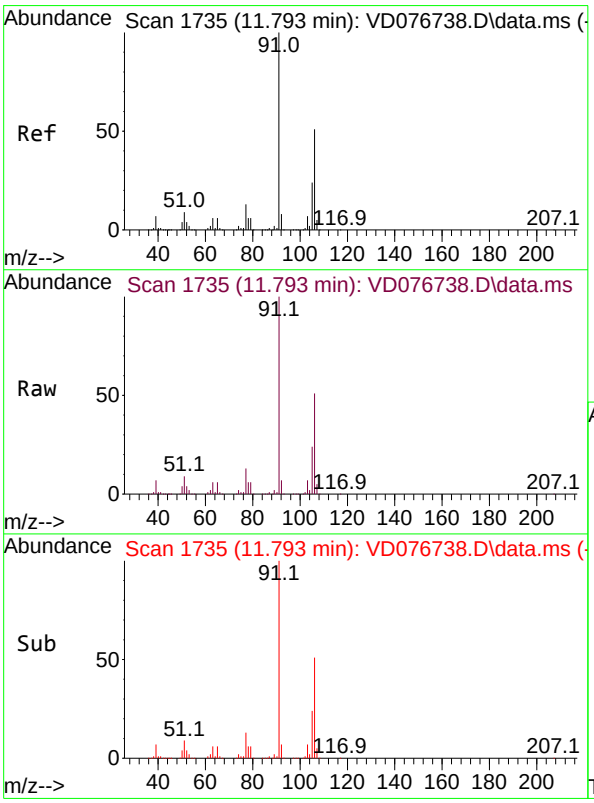
Ion	Ratio	Lower	Upper
91	100		
106	29.7	26.5	39.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

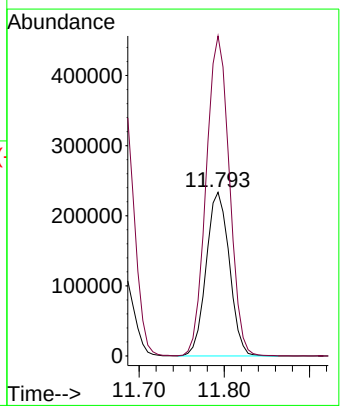
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

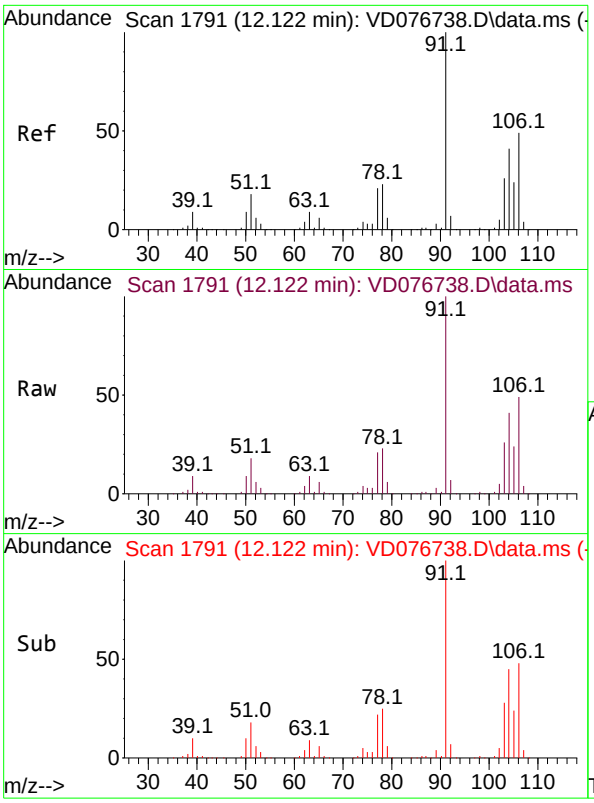


#68
m/p-Xylenes
Concen: 99.786 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:106 Resp: 440372

Ion	Ratio	Lower	Upper
106	100		
91	196.3	147.0	220.6





#69
o-Xylene
Concen: 50.413 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

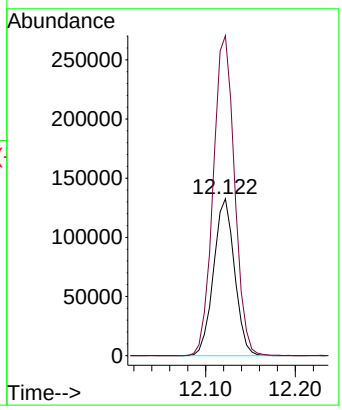
Tgt Ion:106 Resp: 21514

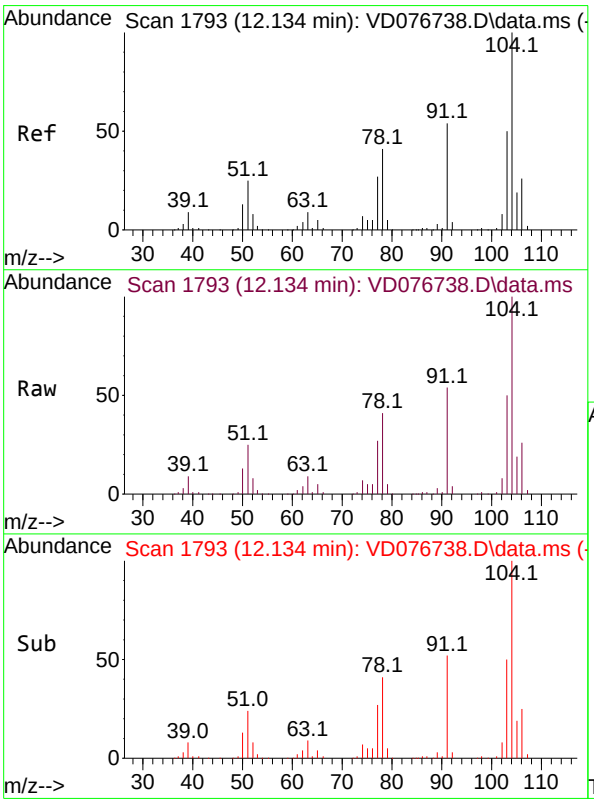
Ion	Ratio	Lower	Upper
106	100		
91	207.7	97.9	293.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

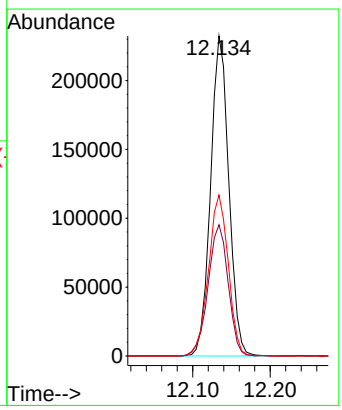


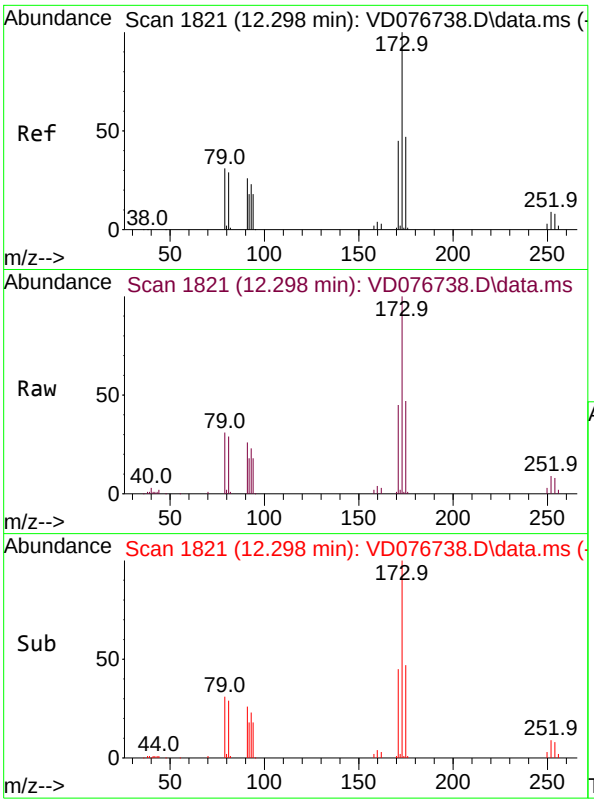


#70
Styrene
Concen: 50.687 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:104 Resp: 378667

Ion	Ratio	Lower	Upper
104	100		
78	45.3	33.2	49.8
103	54.6	43.6	65.4

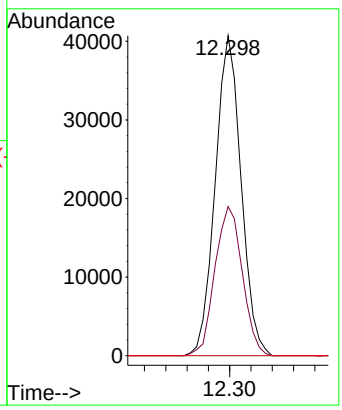




#71
Bromoform
Concen: 51.427 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:173 Resp: 6861

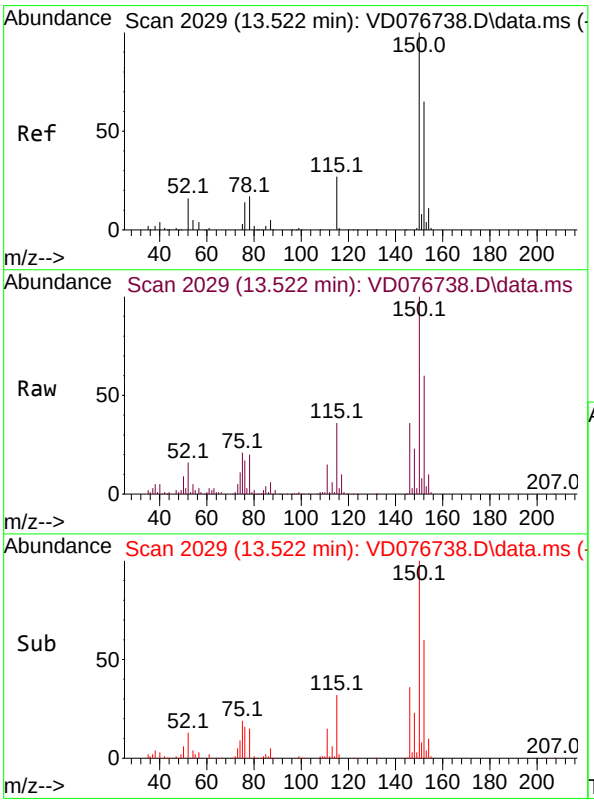
Ion	Ratio	Lower	Upper
173	100		
175	49.3	24.6	73.8
254	0.0	0.0	0.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

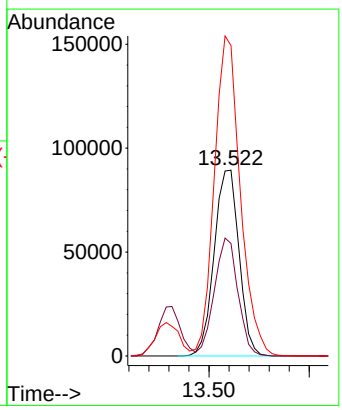
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

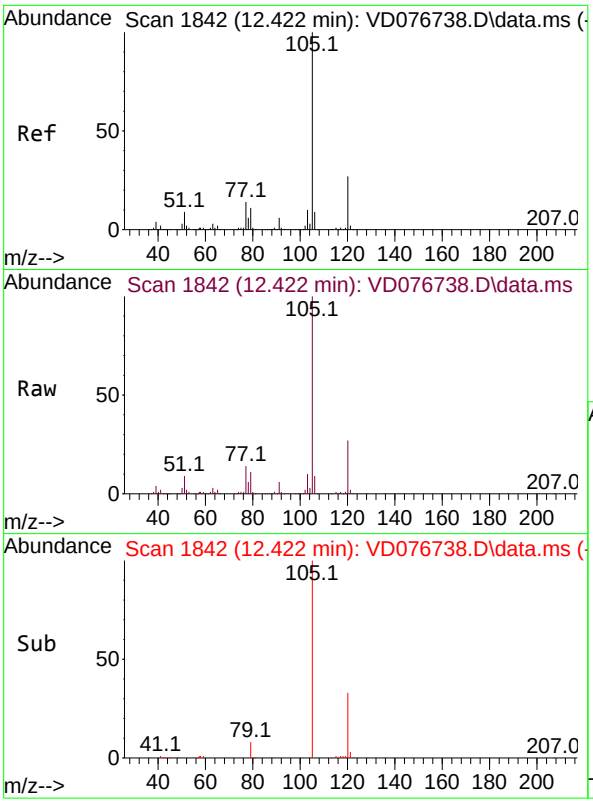


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.522 min Scan# 2029
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:152 Resp: 153873

Ion	Ratio	Lower	Upper
152	100		
115	60.2	27.1	81.3
150	180.3	0.0	353.6

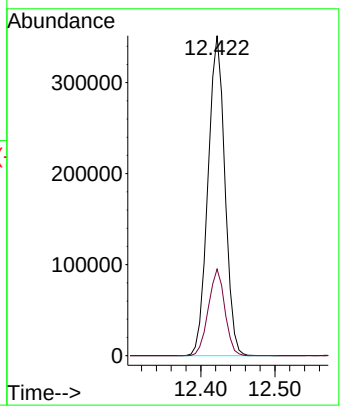




#73
Isopropylbenzene
Concen: 49.762 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:105 Resp: 55553

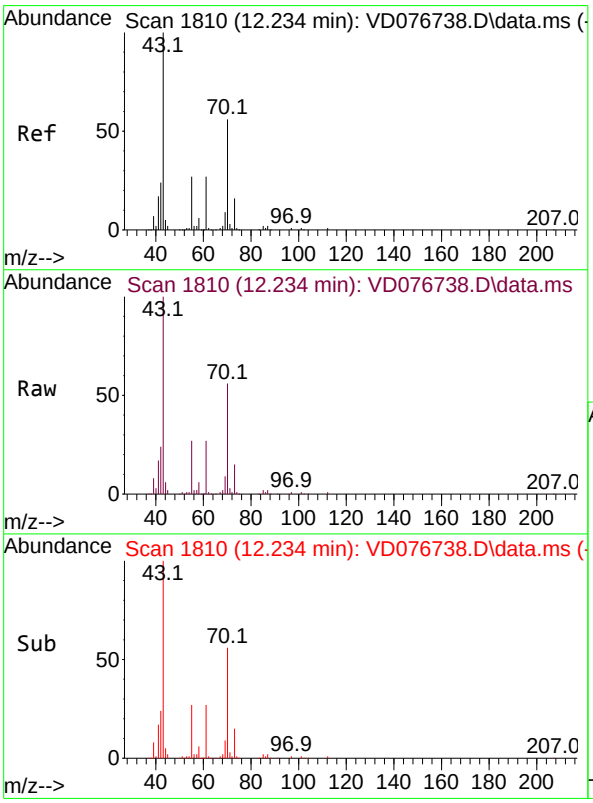
Ion	Ratio	Lower	Upper
105	100		
120	26.3	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

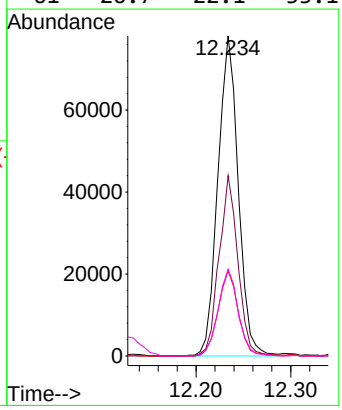
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

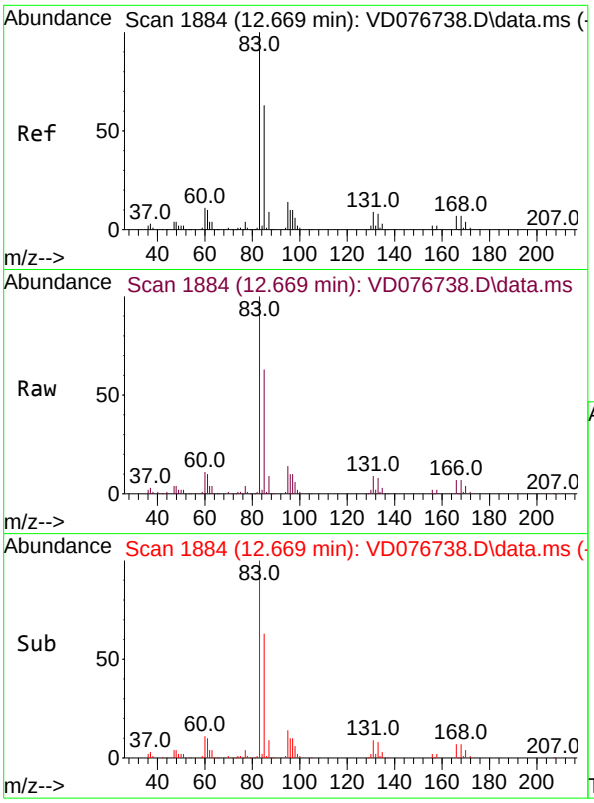


#74
N-amyl acetate
Concen: 49.746 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 43 Resp: 116996

Ion	Ratio	Lower	Upper
43	100		
70	52.1	45.0	67.4
55	26.5	23.8	35.6
61	26.7	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 50.537 ug/l
RT: 12.669 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

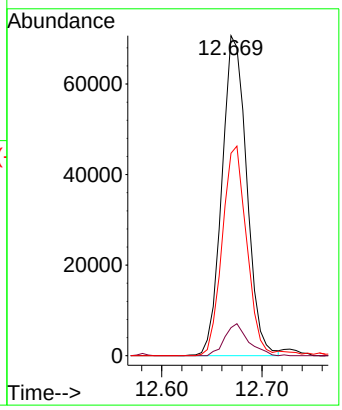
Tgt Ion: 83 Resp: 12113

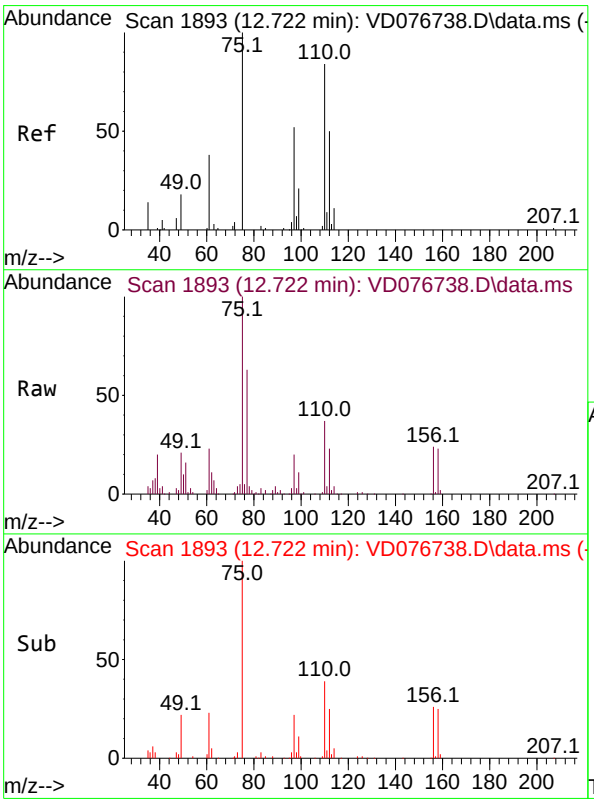
Ion	Ratio	Lower	Upper
83	100		
131	9.5	5.1	15.3
85	65.6	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

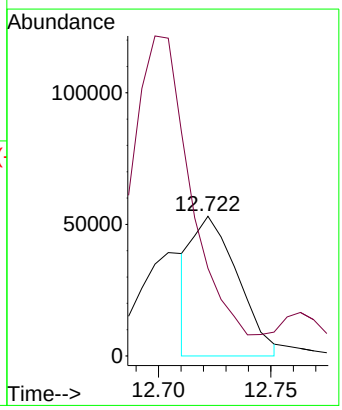


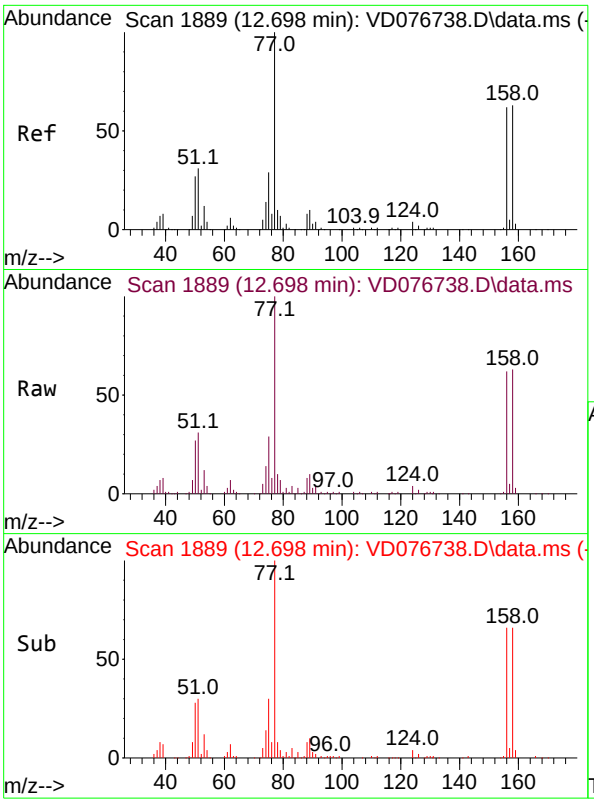


#76
1,2,3-Trichloropropane
Concen: 49.093 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 75 Resp: 75066

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0

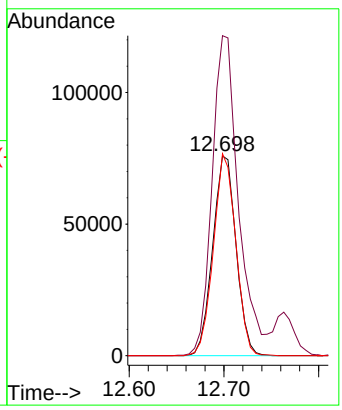




#77
Bromobenzene
Concen: 50.537 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:156 Resp: 13022

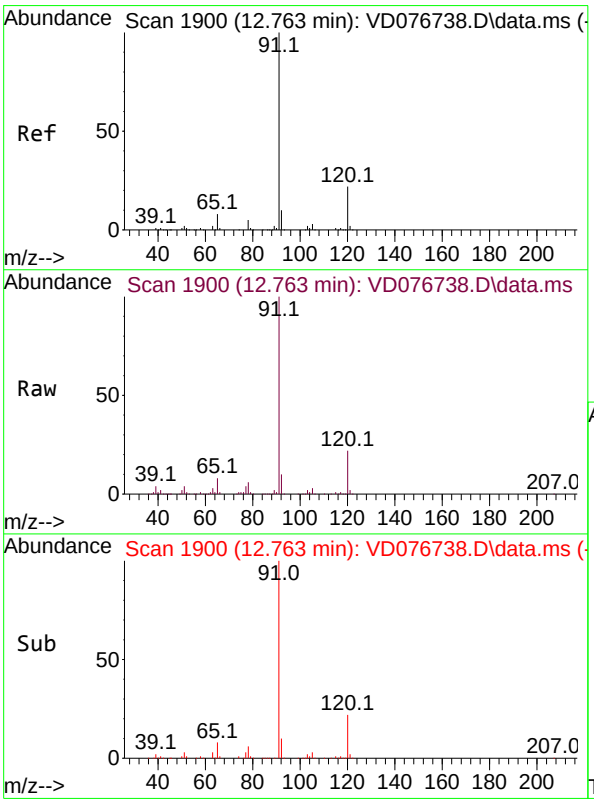
Ion	Ratio	Lower	Upper
156	100		
77	181.1	76.8	230.4
158	96.8	48.6	145.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

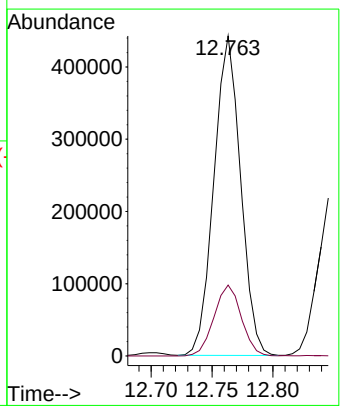
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

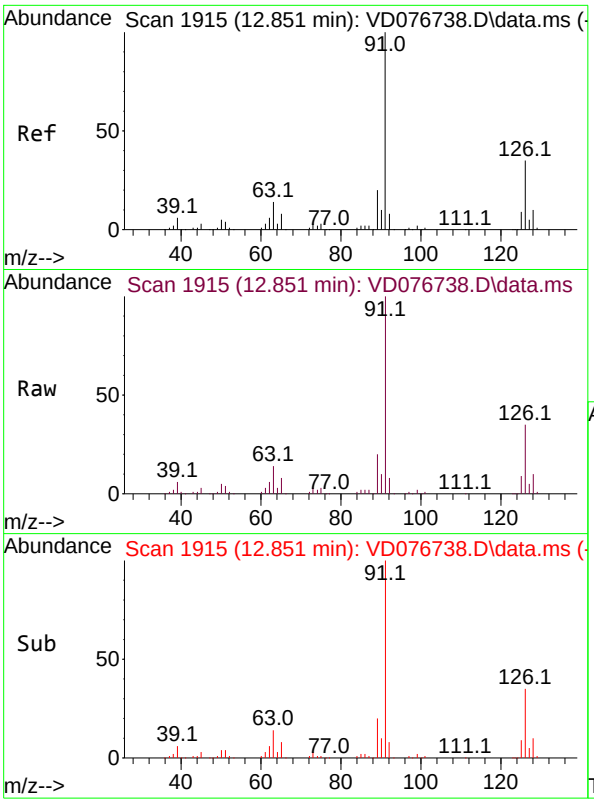


#78
n-propylbenzene
Concen: 49.745 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 91 Resp: 673260

Ion	Ratio	Lower	Upper
91	100		
120	22.7	12.4	37.2





#79
2-Chlorotoluene
Concen: 50.160 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

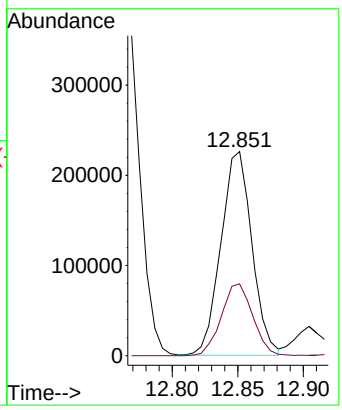
Tgt Ion: 91 Resp: 37223

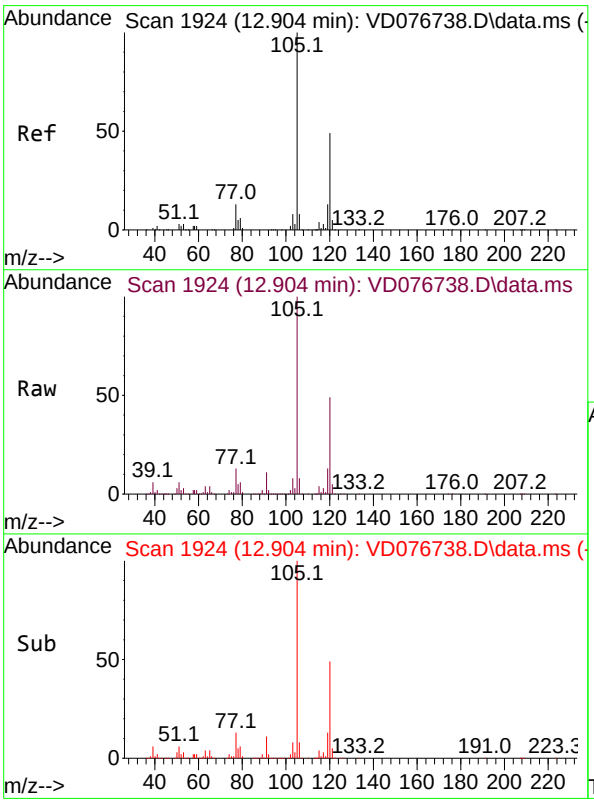
Ion	Ratio	Lower	Upper
91	100		
126	35.8	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

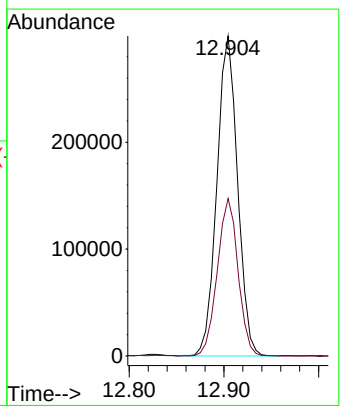


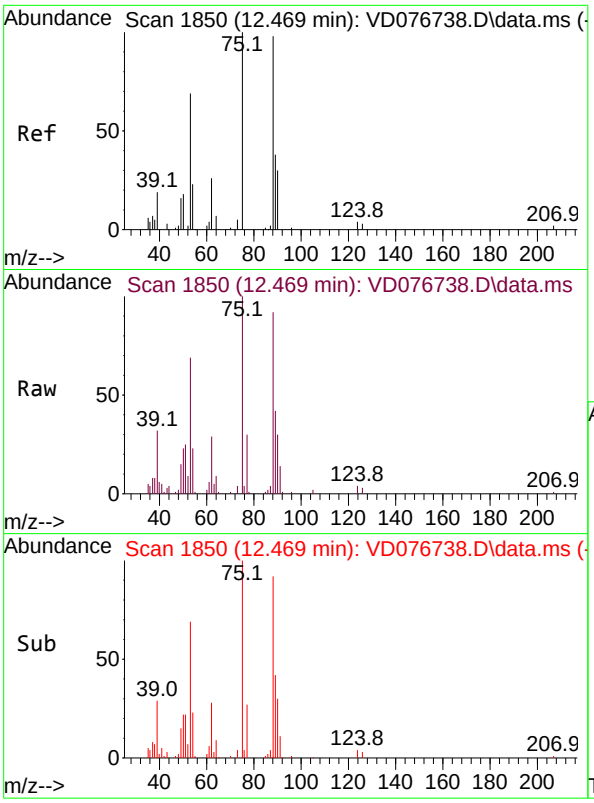


#80
1,3,5-Trimethylbenzene
Concen: 50.436 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:105 Resp: 455283

Ion	Ratio	Lower	Upper
105	100		
120	49.2	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 52.549 ug/l
RT: 12.469 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

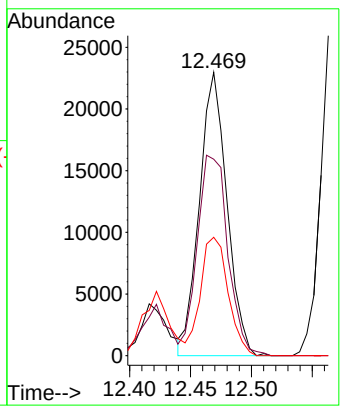
Tgt Ion: 75 Resp: 3613

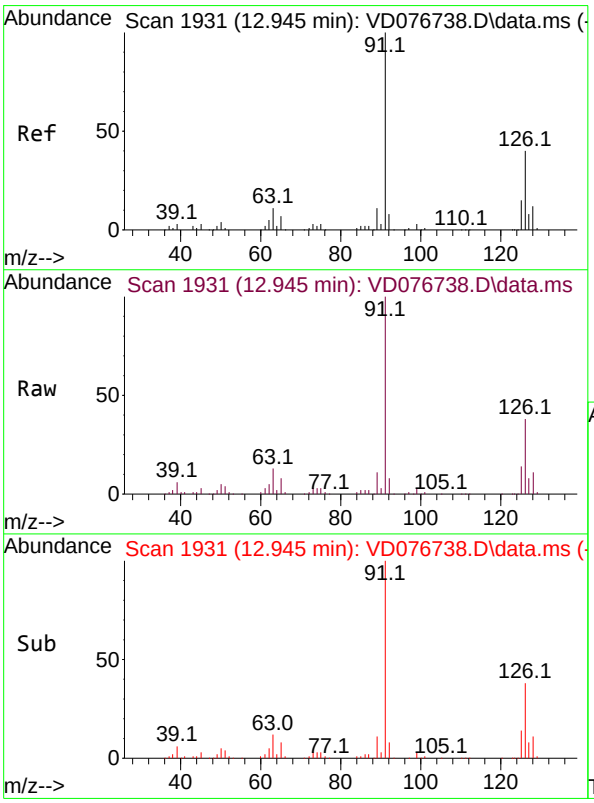
Ion	Ratio	Lower	Upper
75	100		
53	78.9	63.0	94.4
89	42.0	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

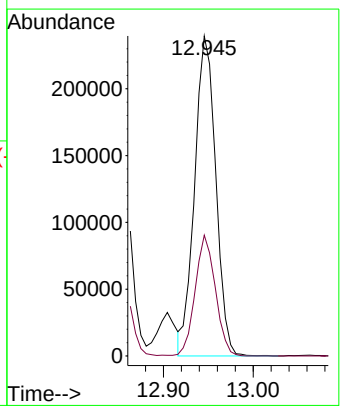


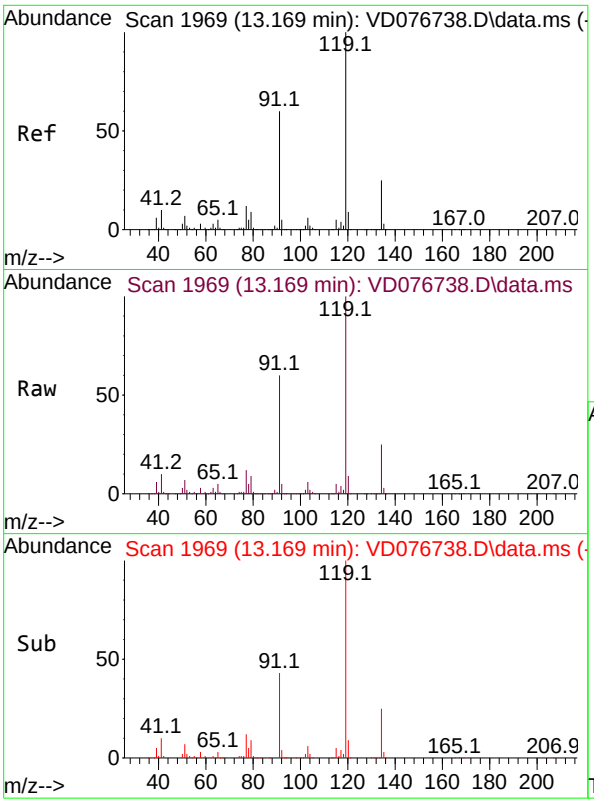


#82
4-Chlorotoluene
Concen: 50.620 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 91 Resp: 392430

Ion	Ratio	Lower	Upper
91	100		
126	36.1	19.4	58.4

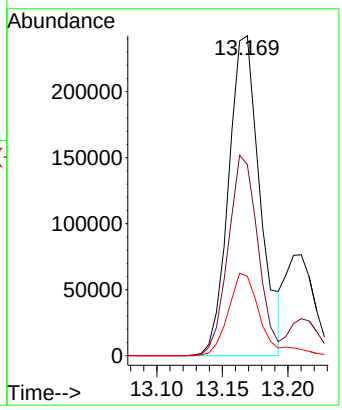




#83
tert-Butylbenzene
Concen: 50.774 ug/l
RT: 13.169 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:119 Resp: 40355

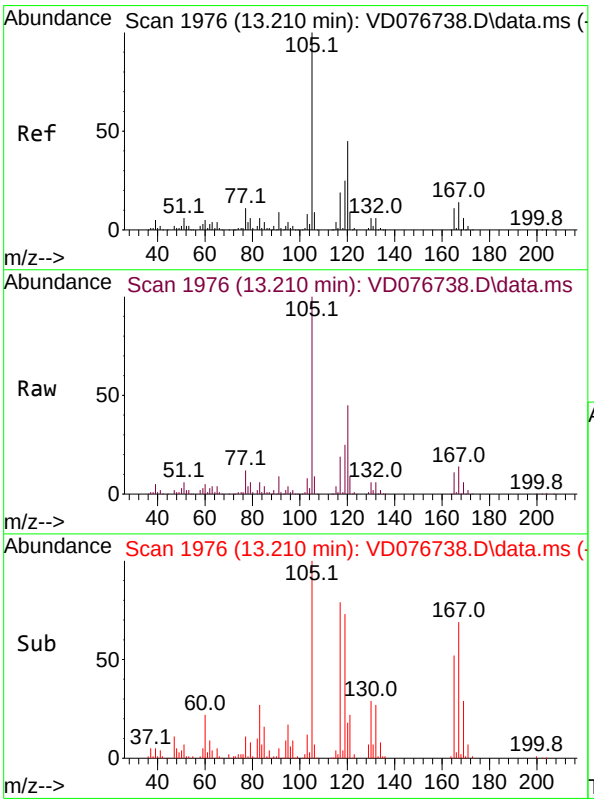
Ion	Ratio	Lower	Upper
119	100		
91	59.6	29.3	87.8
134	26.8	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

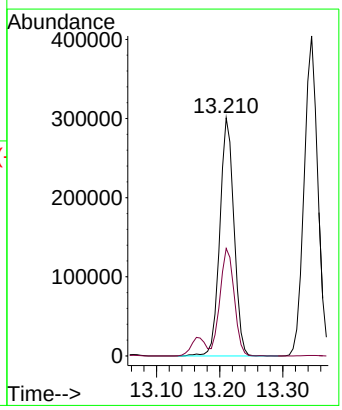
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

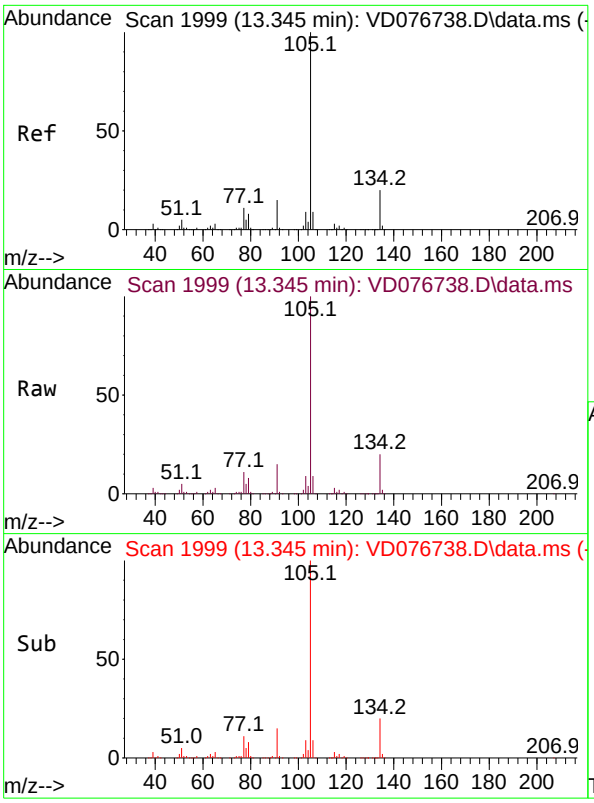


#84
1,2,4-Trimethylbenzene
Concen: 50.800 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:105 Resp: 468615

Ion	Ratio	Lower	Upper
105	100		
120	45.0	24.3	72.9





#85
sec-Butylbenzene
Concen: 49.865 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

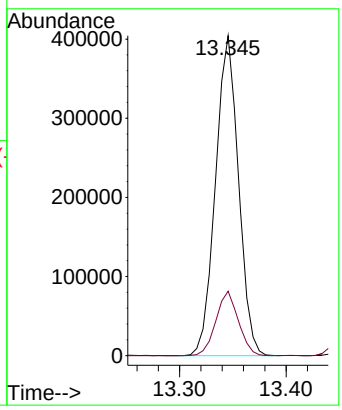
Tgt Ion:105 Resp: 60553

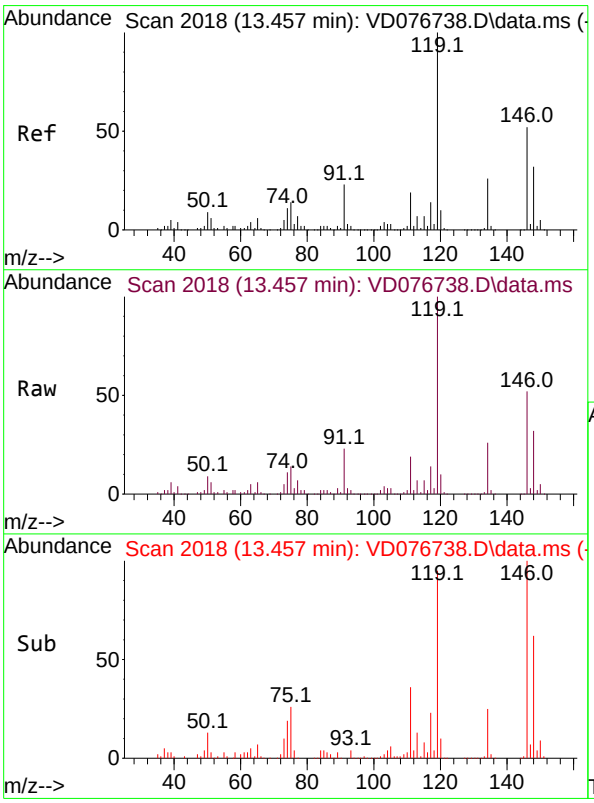
Ion	Ratio	Lower	Upper
105	100		
134	19.7	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

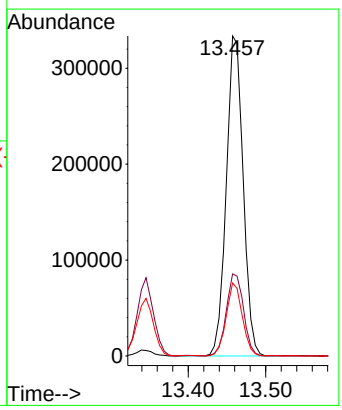


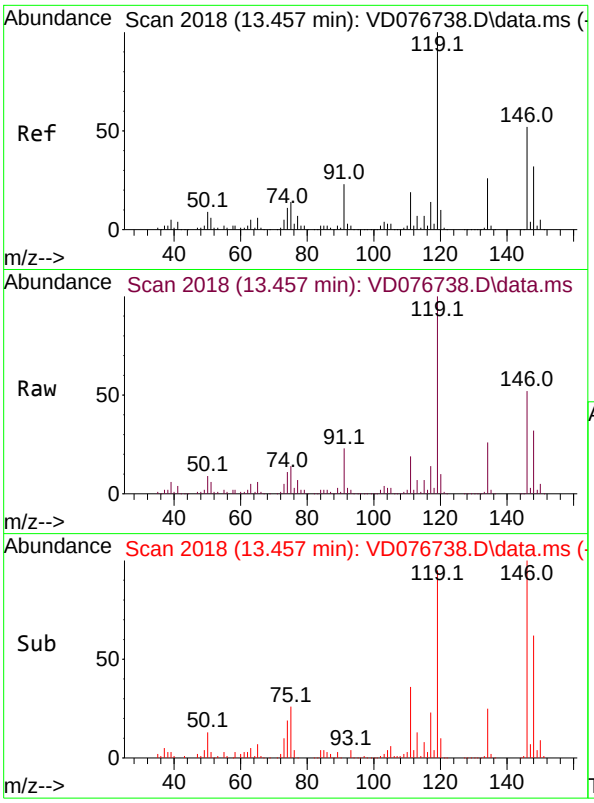


#86
p-Isopropyltoluene
Concen: 50.459 ug/l
RT: 13.457 min Scan# 2018
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:119 Resp: 506039

Ion	Ratio	Lower	Upper
119	100		
134	26.1	14.2	42.6
91	21.8	10.5	31.5

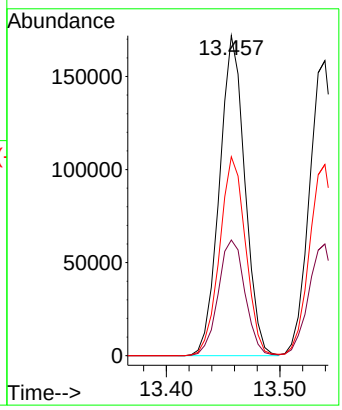




#87
1,3-Dichlorobenzene
Concen: 50.455 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:146 Resp: 26742

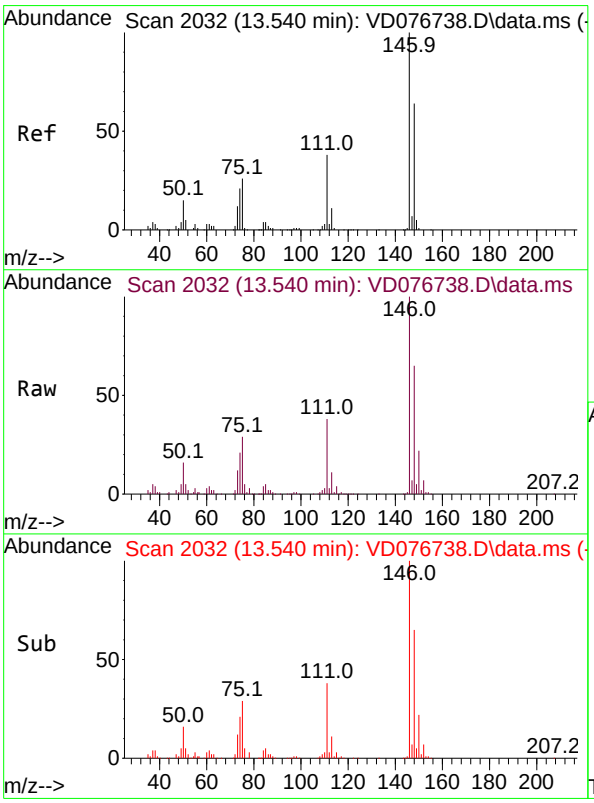
Ion	Ratio	Lower	Upper
146	100		
111	38.1	17.9	53.8
148	63.6	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

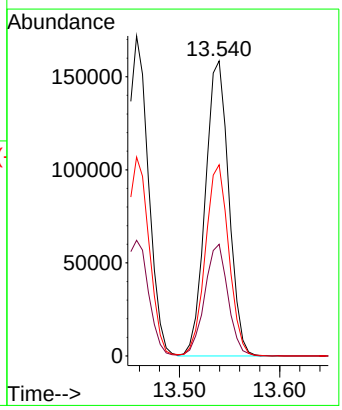
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

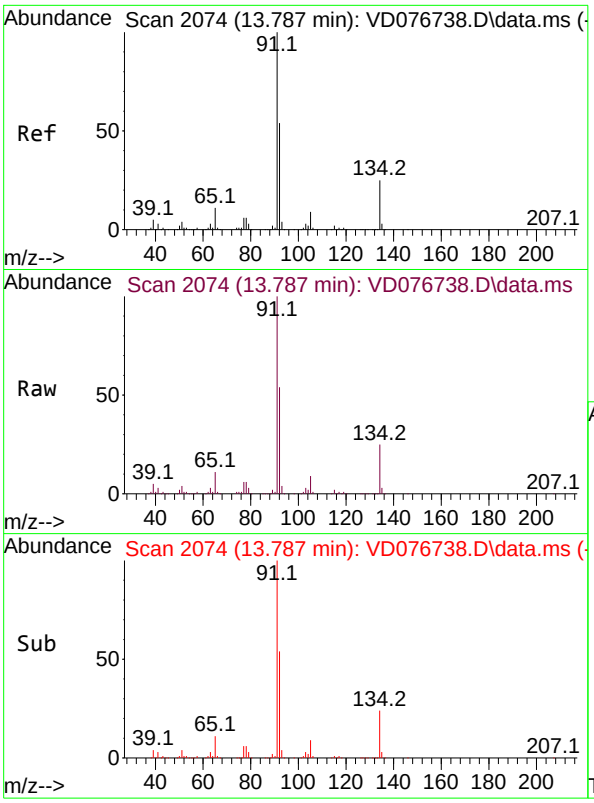


#88
1,4-Dichlorobenzene
Concen: 49.693 ug/l
RT: 13.540 min Scan# 2032
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:146 Resp: 258046

Ion	Ratio	Lower	Upper
146	100		
111	37.6	17.4	52.3
148	64.8	31.7	95.1

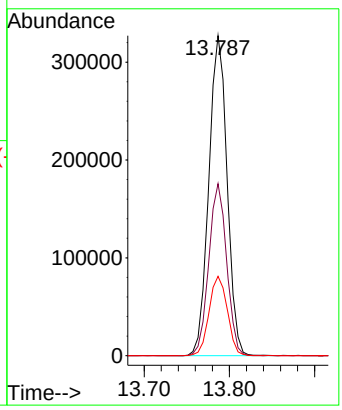




#89
n-Butylbenzene
Concen: 49.664 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 91 Resp: 48738

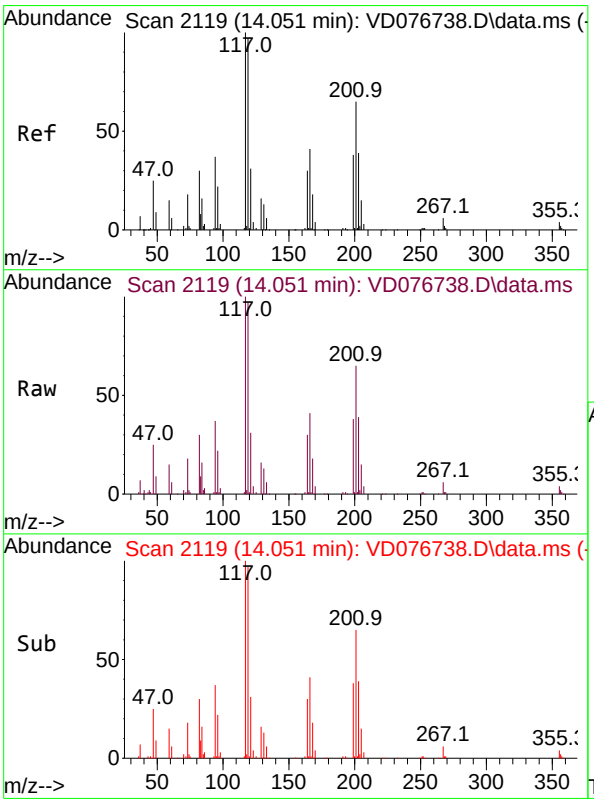
Ion	Ratio	Lower	Upper
91	100		
92	52.6	26.5	79.5
134	24.8	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

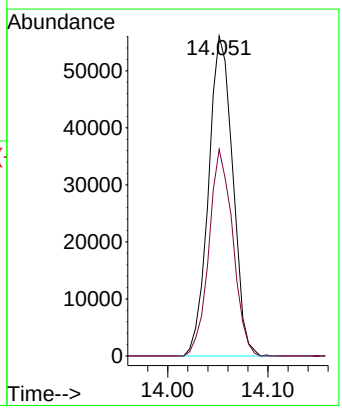
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

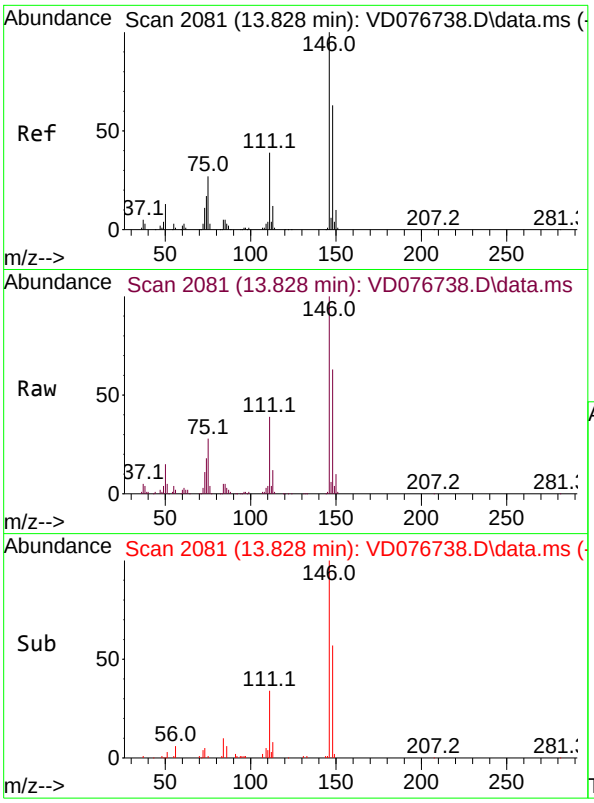


#90
Hexachloroethane
Concen: 50.843 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:117 Resp: 94268

Ion	Ratio	Lower	Upper
117	100		
201	63.4	38.5	115.5

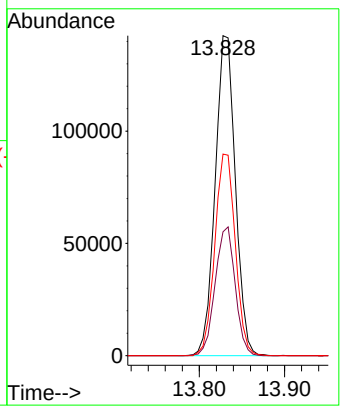




#91
1,2-Dichlorobenzene
Concen: 50.335 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:146 Resp: 23508

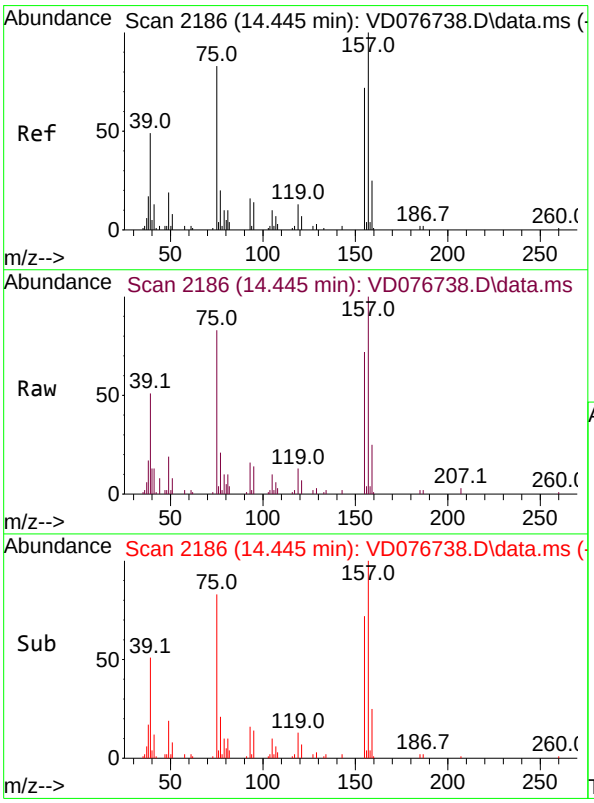
Ion	Ratio	Lower	Upper
146	100		
111	39.9	18.3	54.8
148	63.9	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

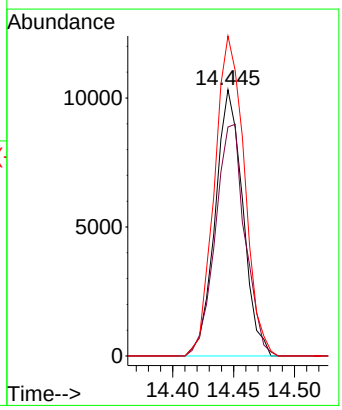
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

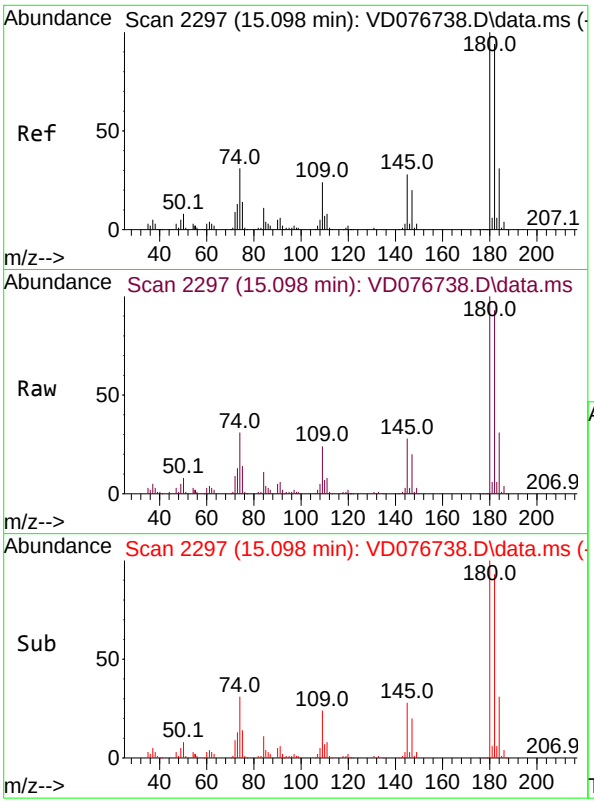


#92
1,2-Dibromo-3-Chloropropane
Concen: 47.562 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion: 75 Resp: 16255

Ion	Ratio	Lower	Upper
75	100		
155	93.7	47.9	143.8
157	130.1	59.9	179.7





#93
1,2,4-Trichlorobenzene
Concen: 49.875 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

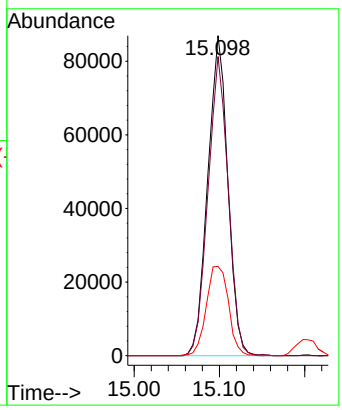
Tgt Ion:180 Resp: 14220

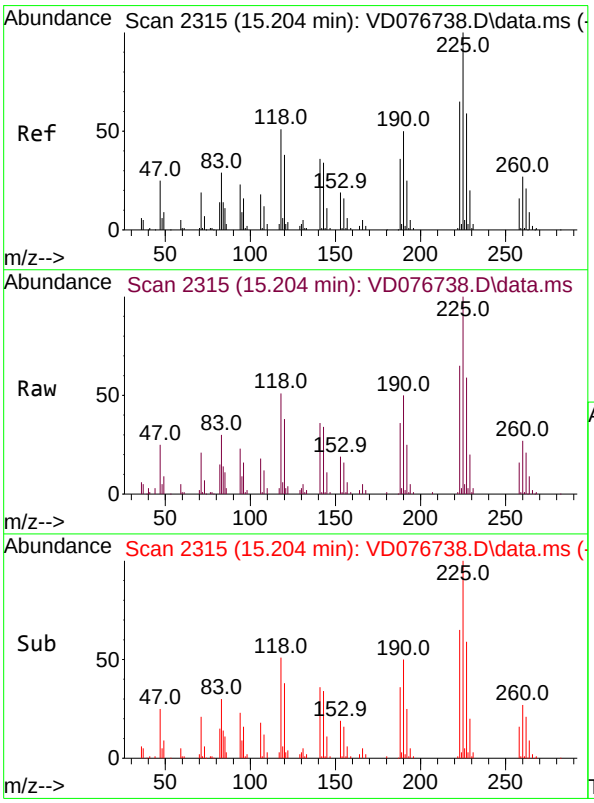
Ion	Ratio	Lower	Upper
180	100		
182	94.3	48.5	145.6
145	30.9	14.2	42.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

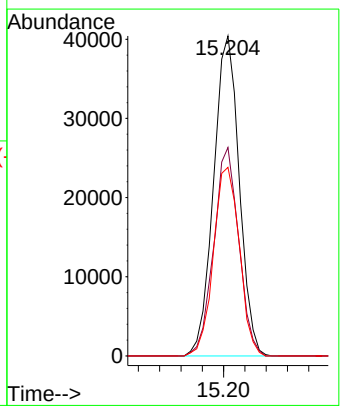


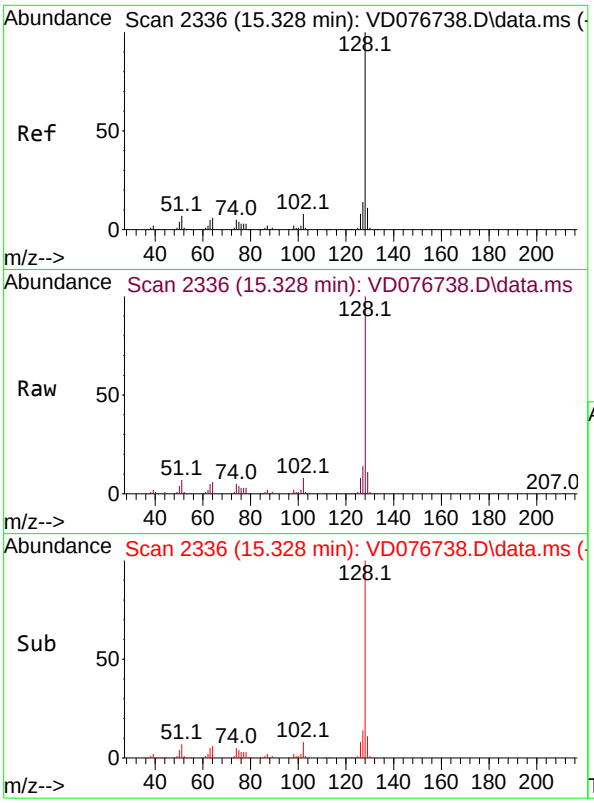


#94
Hexachlorobutadiene
Concen: 49.232 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:225 Resp: 67512

Ion	Ratio	Lower	Upper
225	100		
223	63.5	31.6	94.8
227	59.6	31.7	95.1

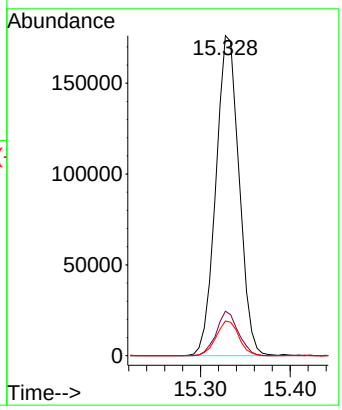




#95
Naphthalene
Concen: 51.313 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:128 Resp: 31678

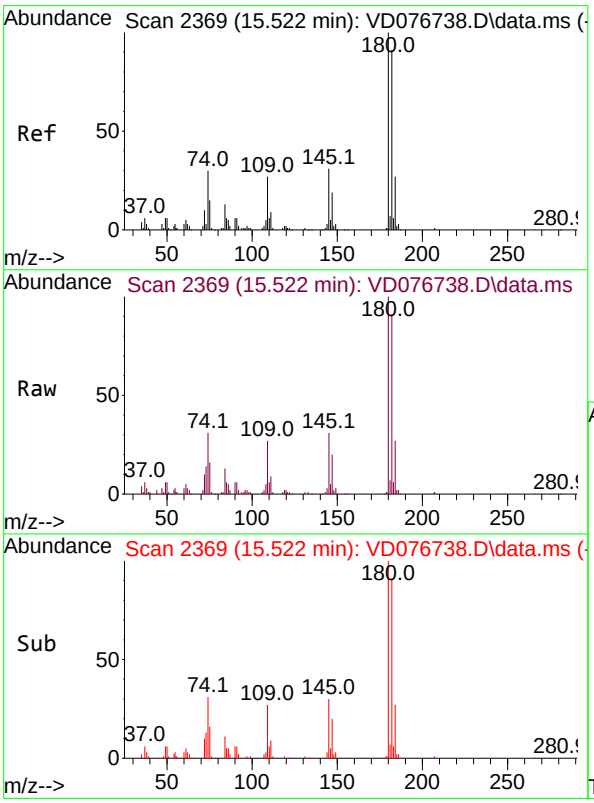
Ion	Ratio	Lower	Upper
128	100		
127	13.9	10.5	15.7
129	10.8	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

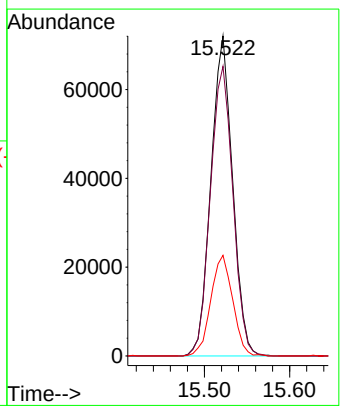
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023



#96
1,2,3-Trichlorobenzene
Concen: 49.726 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076738.D
Acq: 14 Jul 2023 13:21

Tgt Ion:180 Resp: 127234

Ion	Ratio	Lower	Upper
180	100		
182	94.1	47.3	141.9
145	31.8	15.1	45.3



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076739.D
Acq On : 14 Jul 2023 13:49
Operator : KP/SY
Sample : VSTDICC100
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:42:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	195620	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	349566	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	331974	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	160869	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	189379	97.195	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 194.400%#			
35) Dibromofluoromethane	7.805	113	221550	100.856	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 201.720%#			
50) Toluene-d8	10.269	98	770578	98.058	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 196.120%#			
62) 4-Bromofluorobenzene	12.575	95	260687	102.544	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 205.080%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	140465	91.824	ug/l	99
3) Chloromethane	2.146	50	241713	91.599	ug/l	99
4) Vinyl Chloride	2.275	62	328303	93.331	ug/l	100
5) Bromomethane	2.670	94	269833	93.232	ug/l	100
6) Chloroethane	2.822	64	250295	94.242	ug/l	98
7) Trichlorofluoromethane	3.164	101	295663	94.461	ug/l	97
8) Diethyl Ether	3.587	74	108820	100.979	ug/l	92
9) 1,1,2-Trichlorotrifluo...	3.952	101	192187	93.410	ug/l	97
10) Methyl Iodide	4.158	142	251902	108.611	ug/l	93
11) Tert butyl alcohol	5.058	59	72412	498.037	ug/l	99
12) 1,1-Dichloroethene	3.934	96	182921	94.629	ug/l	87
13) Acrolein	3.793	56	45363	457.836	ug/l	96
14) Allyl chloride	4.558	41	245046	96.500	ug/l	91
15) Acrylonitrile	5.252	53	266852	504.170	ug/l	99
16) Acetone	4.022	43	231039	496.508	ug/l	88
17) Carbon Disulfide	4.264	76	441040	97.687	ug/l	98
18) Methyl Acetate	4.558	43	174621	99.881	ug/l	94
19) Methyl tert-butyl Ether	5.311	73	519397	100.197	ug/l	99
20) Methylene Chloride	4.793	84	257763	104.190	ug/l	95
21) trans-1,2-Dichloroethene	5.305	96	217559	96.825	ug/l	98
22) Diisopropyl ether	6.216	45	599807	99.750	ug/l	98
23) Vinyl Acetate	6.152	43	1515915	509.517	ug/l	94
24) 1,1-Dichloroethane	6.105	63	399282	98.485	ug/l	96
25) 2-Butanone	7.081	43	318505	511.431	ug/l	92
26) 2,2-Dichloropropane	7.069	77	342084	97.882	ug/l	97
27) cis-1,2-Dichloroethene	7.075	96	281284	101.549	ug/l	97
28) Bromochloromethane	7.422	49	93093	91.843	ug/l	86
29) Tetrahydrofuran	7.446	42	186616	507.168	ug/l	95
30) Chloroform	7.593	83	436355	98.267	ug/l	99
31) Cyclohexane	7.875	56	256017	89.283	ug/l	99
32) 1,1,1-Trichloroethane	7.787	97	355810	99.313	ug/l	97
36) 1,1-Dichloropropene	8.005	75	289445	100.835	ug/l	97
37) Ethyl Acetate	7.163	43	132843	103.484	ug/l	97
38) Carbon Tetrachloride	7.987	117	276845	100.724	ug/l	96
39) Methylcyclohexane	9.269	83	325719	98.273	ug/l	99
40) Benzene	8.252	78	914564	100.978	ug/l	98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076739.D
Acq On : 14 Jul 2023 13:49
Operator : KP/SY
Sample : VSTDICC100
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 17 07:42:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	67463	86.059	ug/l	#	88
42) 1,2-Dichloroethane	8.322	62	240249	102.090	ug/l		97
43) Isopropyl Acetate	8.363	43	255471	101.973	ug/l		94
44) Trichloroethene	9.028	130	248001	100.484	ug/l		93
45) 1,2-Dichloropropane	9.304	63	234258	100.198	ug/l		97
46) Dibromomethane	9.393	93	138627	101.299	ug/l		92
47) Bromodichloromethane	9.581	83	336453	97.971	ug/l		98
48) Methyl methacrylate	9.381	41	115565	101.351	ug/l	#	85
49) 1,4-Dioxane	9.381	88	36357	2073.590	ug/l		93
51) 4-Methyl-2-Pentanone	10.157	43	683303	512.262	ug/l		95
52) Toluene	10.334	92	596917	100.347	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	334168	104.835	ug/l		99
54) cis-1,3-Dichloropropene	10.016	75	381222	101.477	ug/l	#	92
55) 1,1,2-Trichloroethane	10.734	97	204444	102.306	ug/l		96
56) Ethyl methacrylate	10.599	69	243261	105.468	ug/l	#	92
57) 1,3-Dichloropropane	10.881	76	326907	100.451	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.869	63	446452	500.060	ug/l		98
59) 2-Hexanone	10.922	43	491018	515.889	ug/l		93
60) Dibromochloromethane	11.075	129	238690	102.817	ug/l		95
61) 1,2-Dibromoethane	11.175	107	188039	101.494	ug/l		100
64) Tetrachloroethene	10.810	164	184114	97.262	ug/l		91
65) Chlorobenzene	11.610	112	667377	99.956	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.681	131	251172	101.044	ug/l		96
67) Ethyl Benzene	11.681	91	1176287	100.318	ug/l		98
68) m/p-Xylenes	11.793	106	924273	205.243	ug/l		91
69) o-Xylene	12.122	106	453783	104.203	ug/l		94
70) Styrene	12.134	104	794298	104.193	ug/l		99
71) Bromoform	12.298	173	142379	104.581	ug/l	#	98
73) Isopropylbenzene	12.422	105	1150548	98.579	ug/l		96
74) N-amyl acetate	12.234	43	245817	99.974	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.675	83	246196	98.245	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	153982m	96.325	ug/l		
77) Bromobenzene	12.698	156	264708	98.257	ug/l		88
78) n-propylbenzene	12.763	91	1396720	98.712	ug/l		96
79) 2-Chlorotoluene	12.851	91	772348	99.552	ug/l		95
80) 1,3,5-Trimethylbenzene	12.904	105	950468	100.713	ug/l		95
81) trans-1,4-Dichloro-2-b...	12.469	75	73319	101.998	ug/l		98
82) 4-Chlorotoluene	12.945	91	804411	99.250	ug/l		95
83) tert-Butylbenzene	13.163	119	853543	102.719	ug/l		99
84) 1,2,4-Trimethylbenzene	13.210	105	974087	101.004	ug/l		96
85) sec-Butylbenzene	13.345	105	1263179	99.498	ug/l		95
86) p-Isopropyltoluene	13.457	119	1071451	102.191	ug/l		97
87) 1,3-Dichlorobenzene	13.457	146	558389	100.771	ug/l		98
88) 1,4-Dichlorobenzene	13.540	146	544228	100.246	ug/l		99
89) n-Butylbenzene	13.787	91	1011805	98.618	ug/l		98
90) Hexachloroethane	14.051	117	197949	102.120	ug/l		85
91) 1,2-Dichlorobenzene	13.828	146	478636	98.027	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.445	75	33805	94.612	ug/l		98
93) 1,2,4-Trichlorobenzene	15.098	180	301750	101.227	ug/l		97
94) Hexachlorobutadiene	15.204	225	133680	93.245	ug/l		98
95) Naphthalene	15.328	128	670522	103.887	ug/l		99
96) 1,2,3-Trichlorobenzene	15.522	180	268994	100.558	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076739.D
Acq On : 14 Jul 2023 13:49
Operator : KP/SY
Sample : VSTDICC100
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:42:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

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

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

ICAL Form

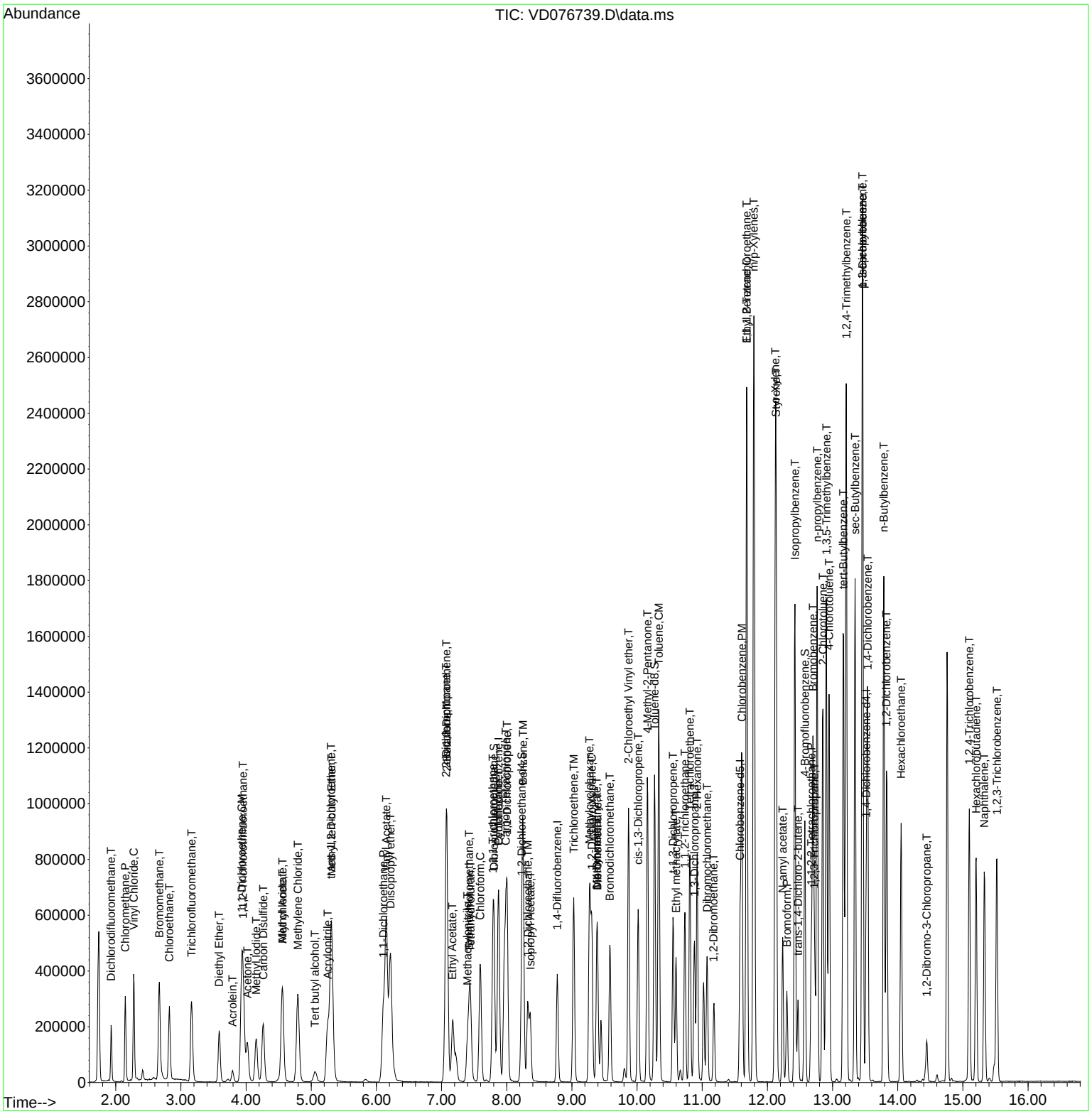
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076739.D
Acq On : 14 Jul 2023 13:49
Operator : KP/SY
Sample : VSTDICC100
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

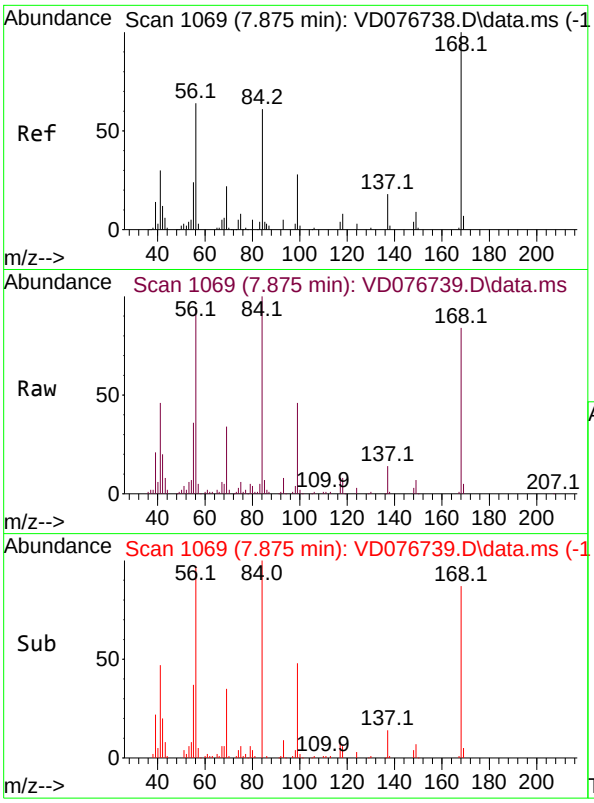
Quant Time: Jul 17 07:42:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

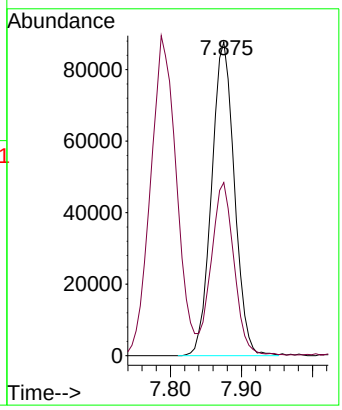




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:168 Resp: 19562

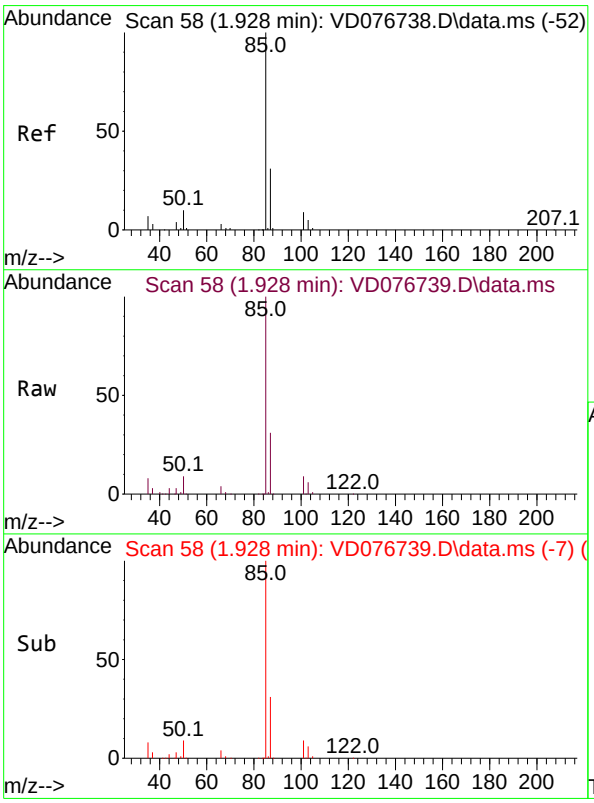
Ion	Ratio	Lower	Upper
168	100		
99	54.9	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

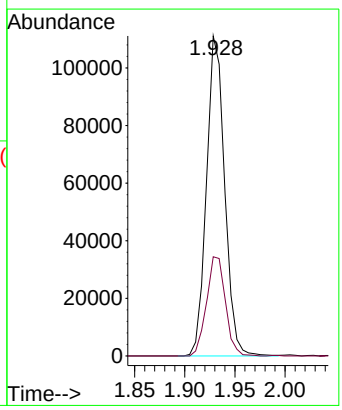
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

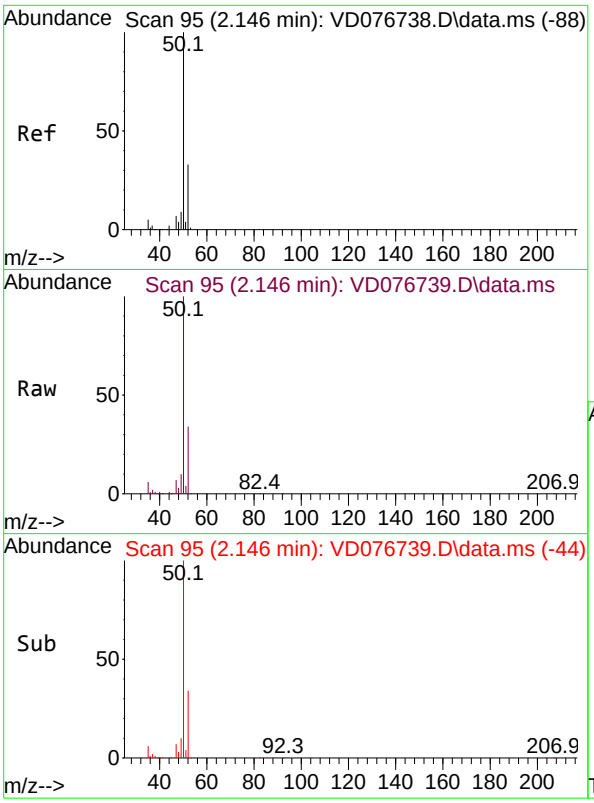


#2
Dichlorodifluoromethane
Concen: 91.824 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 85 Resp: 140465

Ion	Ratio	Lower	Upper
85	100		
87	31.0	15.7	47.0





#3
Chloromethane
Concen: 91.599 ug/l
RT: 2.146 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

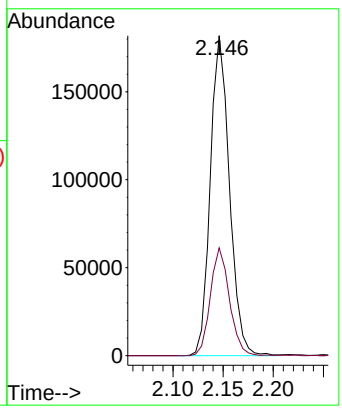
Tgt Ion: 50 Resp: 24171

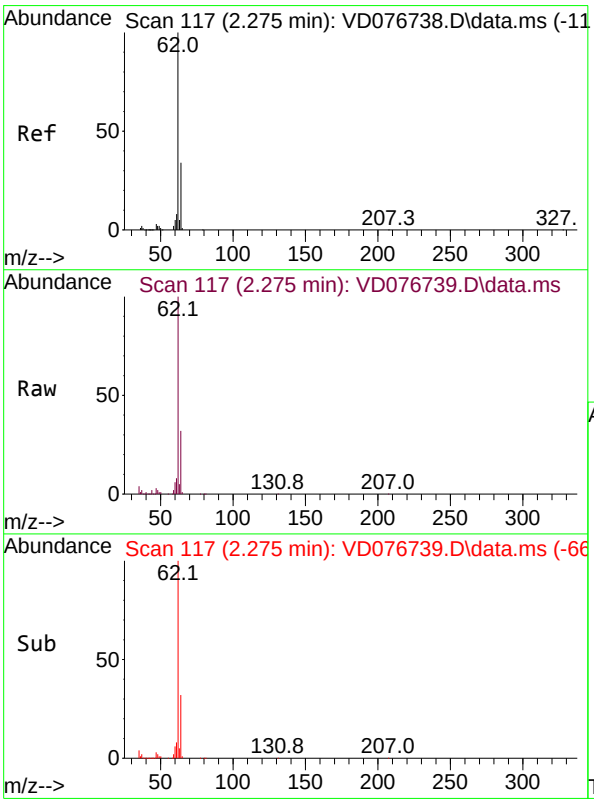
Ion	Ratio	Lower	Upper
50	100		
52	33.7	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

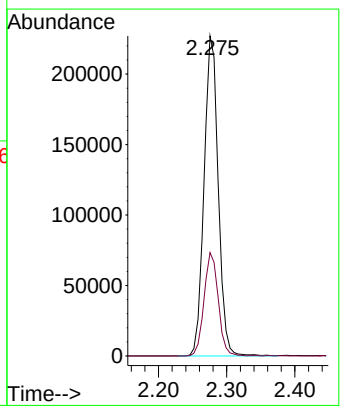


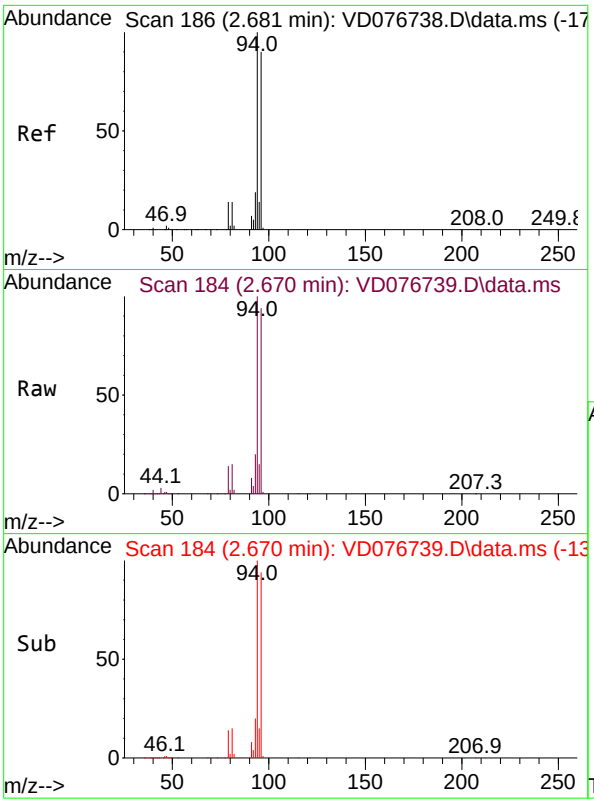


#4
Vinyl Chloride
Concen: 93.331 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 62 Resp: 328303

Ion	Ratio	Lower	Upper
62	100		
64	32.3	26.0	39.0

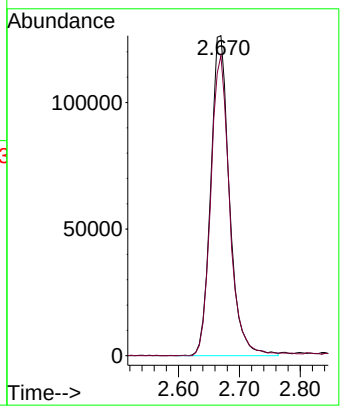




#5
Bromomethane
Concen: 93.232 ug/l
RT: 2.670 min Scan# 1
Delta R.T. -0.011 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 94 Resp: 26983

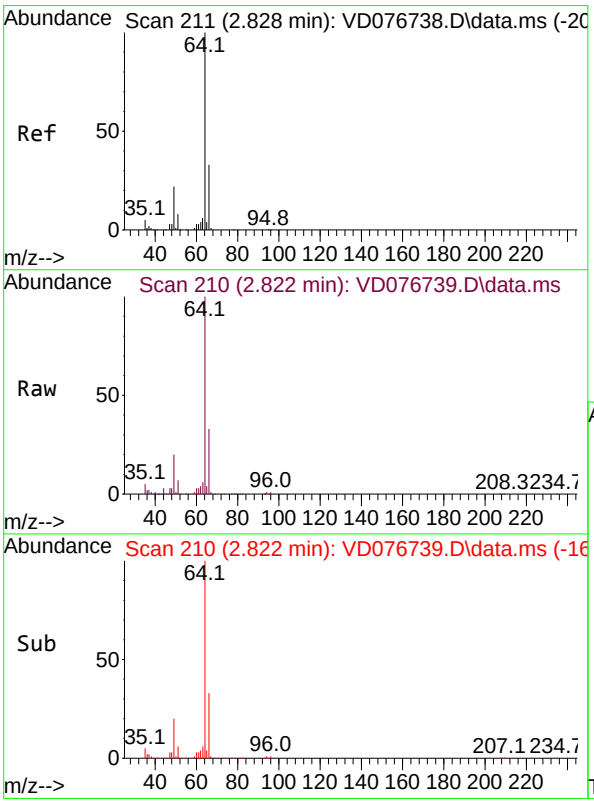
Ion	Ratio	Lower	Upper
94	100		
96	94.5	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

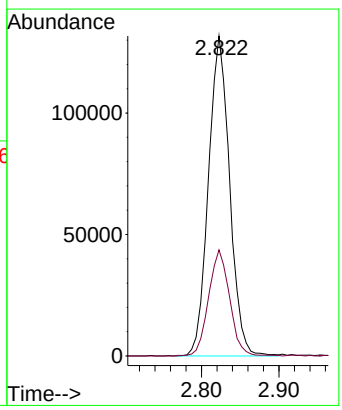
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

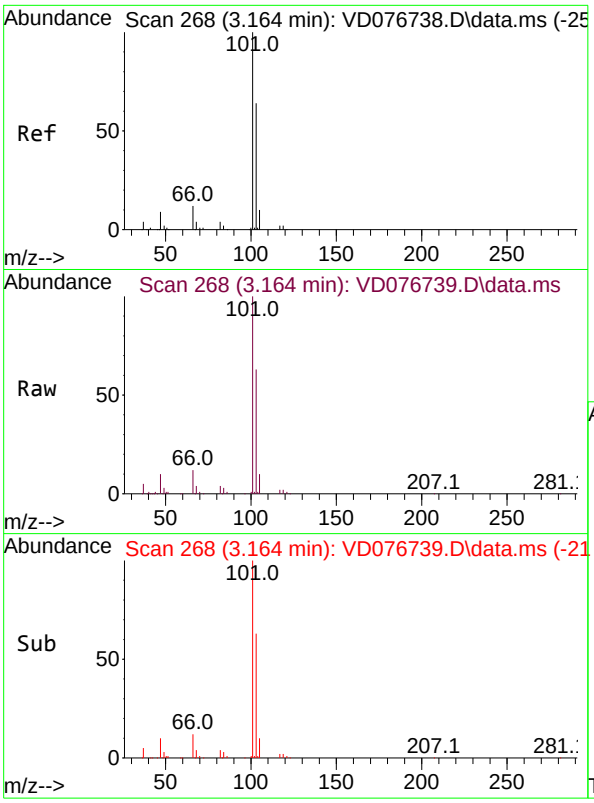


#6
Chloroethane
Concen: 94.242 ug/l
RT: 2.822 min Scan# 210
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 64 Resp: 250295

Ion	Ratio	Lower	Upper
64	100		
66	33.0	25.5	38.3





#7
Trichlorofluoromethane
Concen: 94.461 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

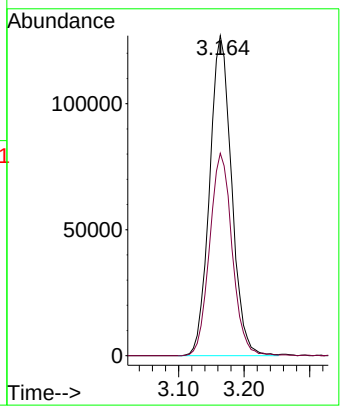
Tgt Ion:101 Resp: 29566

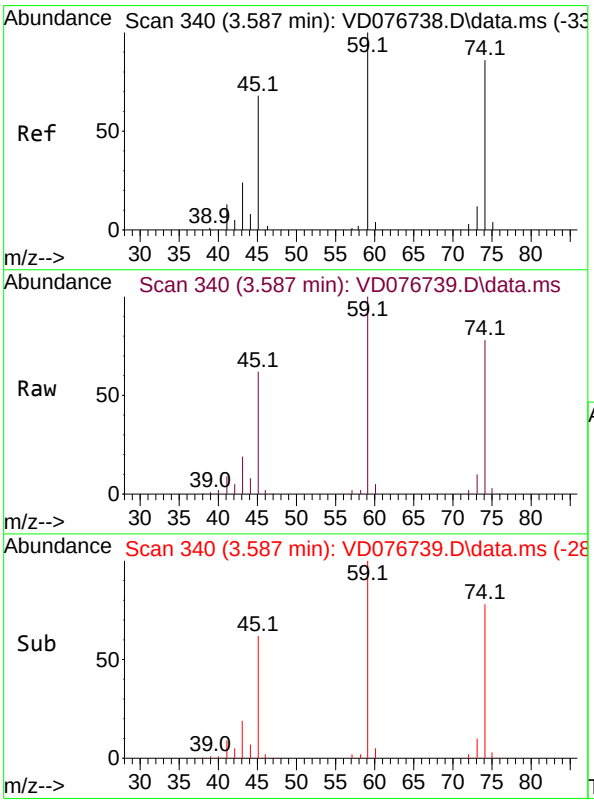
Ion	Ratio	Lower	Upper
101	100		
103	63.3	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

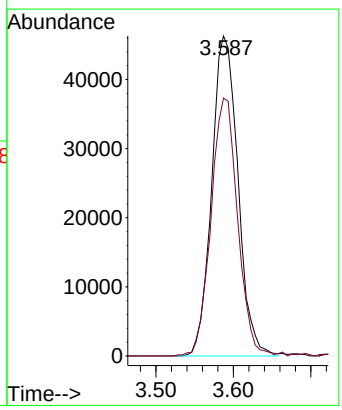


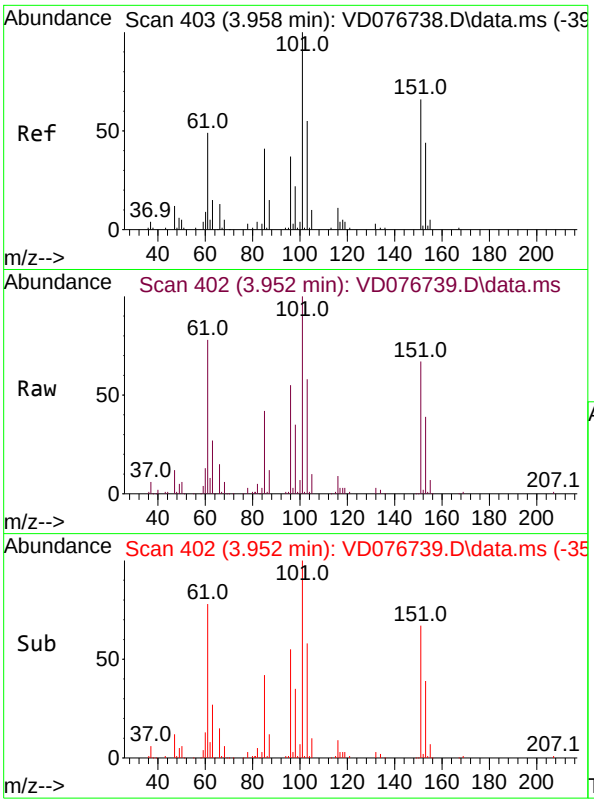


#8
Diethyl Ether
Concen: 100.979 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 74 Resp: 108820

Ion	Ratio	Lower	Upper
74	100		
45	82.1	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 93.410 ug/l
RT: 3.952 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

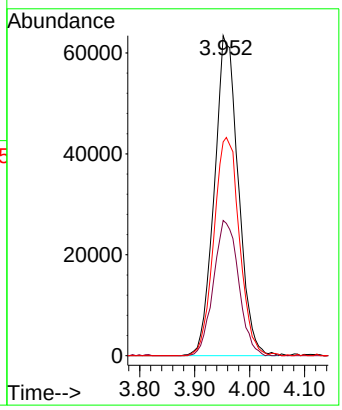
Tgt Ion:101 Resp: 19218

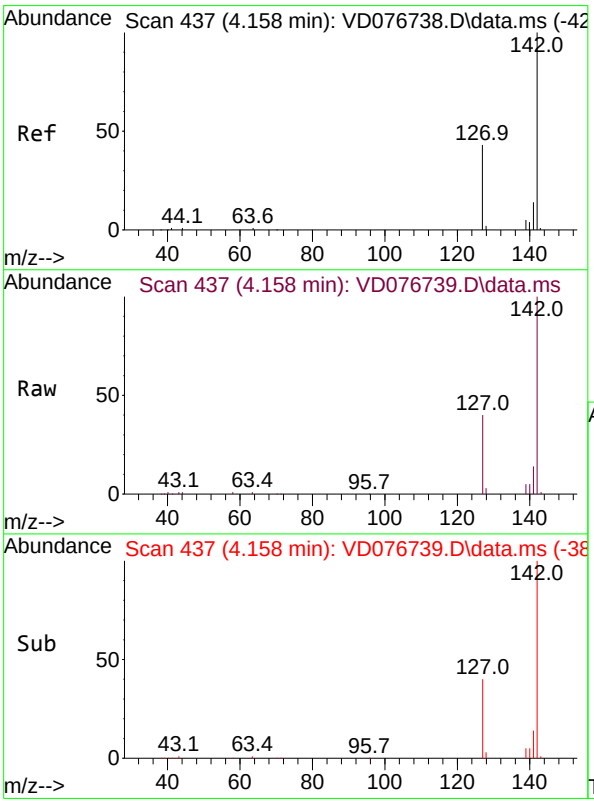
Ion	Ratio	Lower	Upper
101	100		
85	44.2	33.8	50.6
151	72.5	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

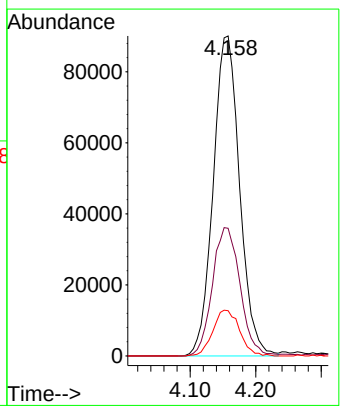


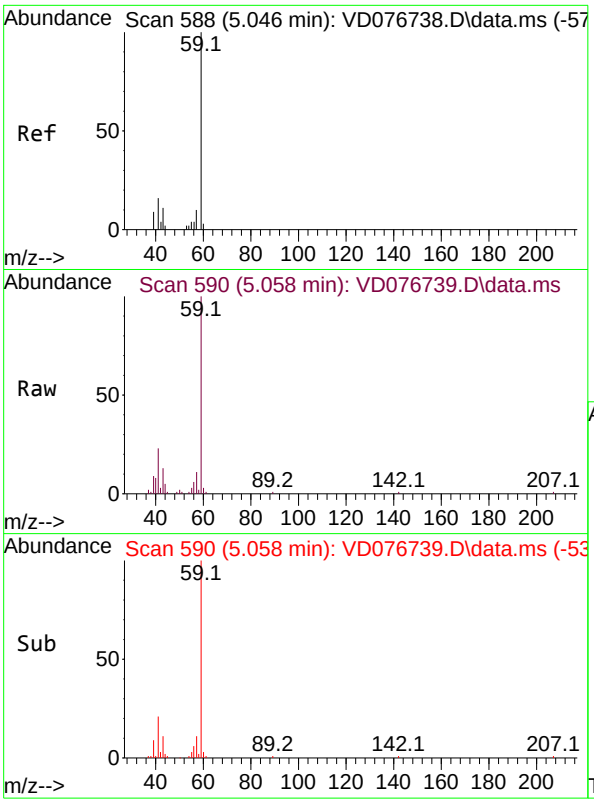


#10
Methyl Iodide
Concen: 108.611 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:142 Resp: 251902

Ion	Ratio	Lower	Upper
142	100		
127	42.3	29.4	44.0
141	14.5	11.1	16.7





#11
Tert butyl alcohol
Concen: 498.037 ug/l
RT: 5.058 min Scan# 5
Delta R.T. 0.012 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

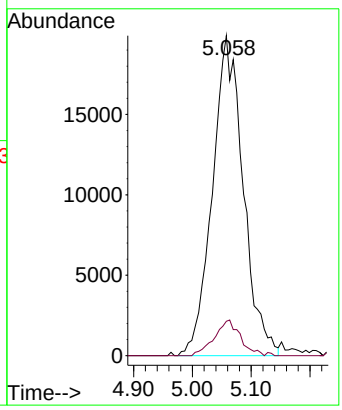
Tgt Ion: 59 Resp: 7241

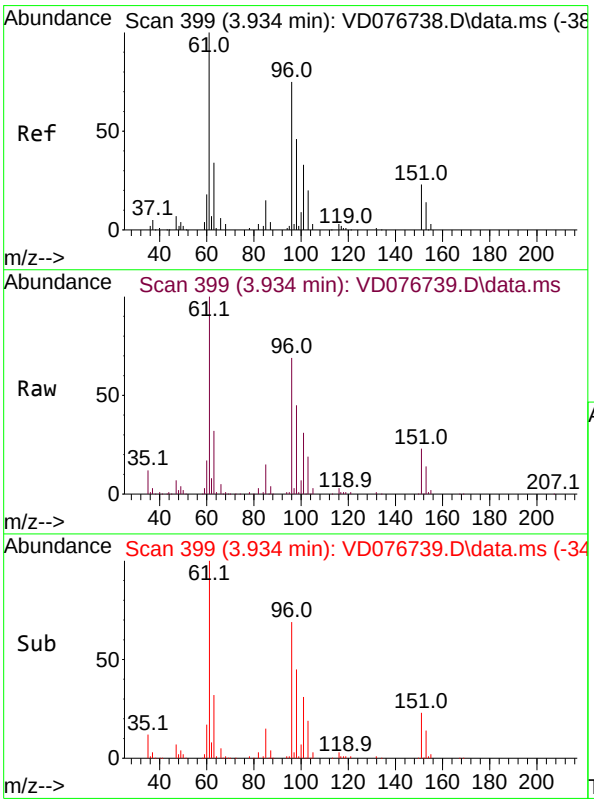
Ion	Ratio	Lower	Upper
59	100		
57	9.4	7.8	11.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

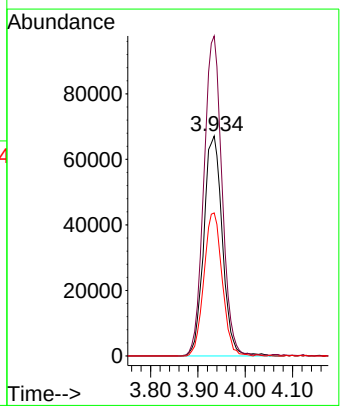


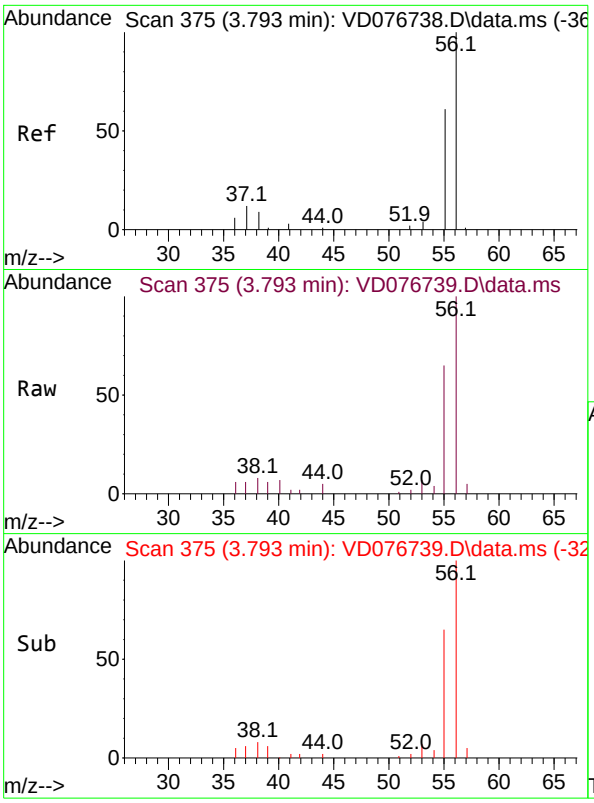


#12
1,1-Dichloroethene
Concen: 94.629 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 96 Resp: 182921

Ion	Ratio	Lower	Upper
96	100		
61	145.5	100.6	150.8
98	65.0	50.2	75.2

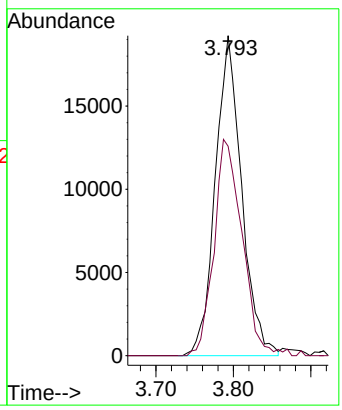




#13
Acrolein
Concen: 457.836 ug/l
RT: 3.793 min Scan# 3
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 56 Resp: 4536

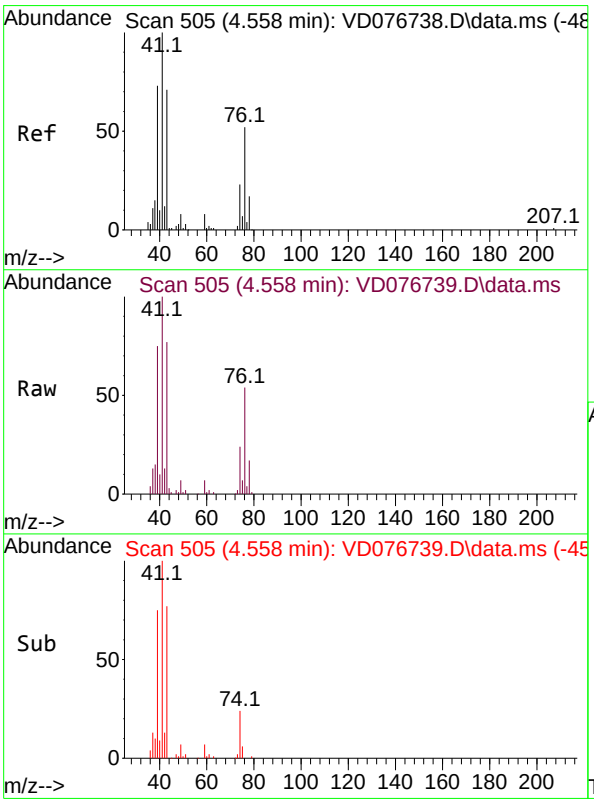
Ion	Ratio	Lower	Upper
56	100		
55	72.4	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

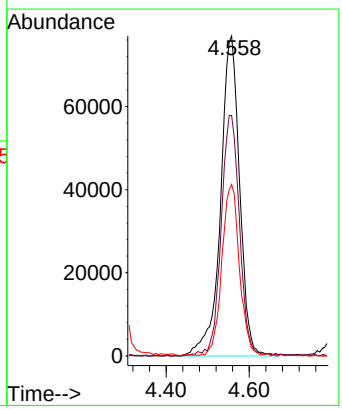
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

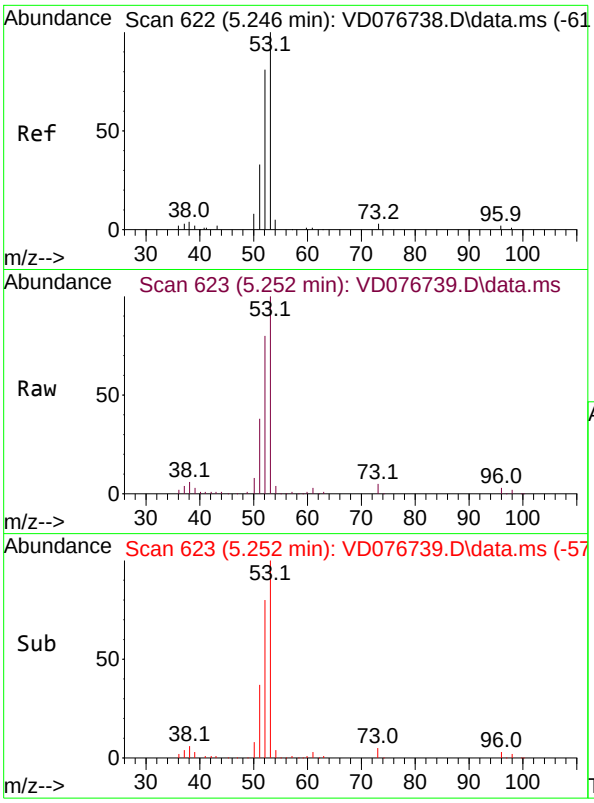


#14
Allyl chloride
Concen: 96.500 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 41 Resp: 245046

Ion	Ratio	Lower	Upper
41	100		
39	72.3	53.8	80.6
76	48.8	45.8	68.8

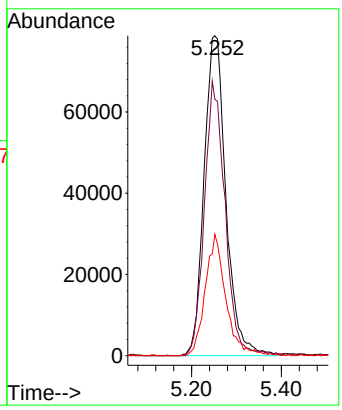




#15
Acrylonitrile
Concen: 504.170 ug/l
RT: 5.252 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 53 Resp: 26685

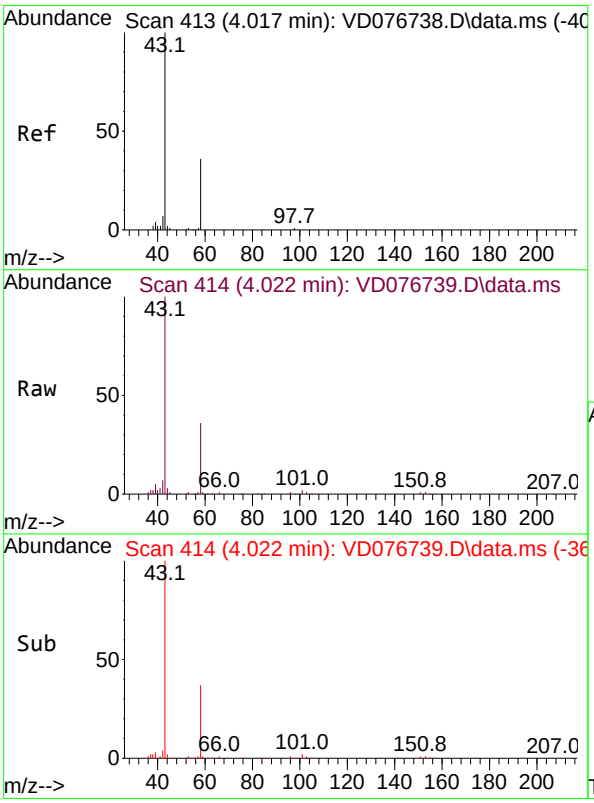
Ion	Ratio	Lower	Upper
53	100		
52	80.5	65.0	97.4
51	35.6	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

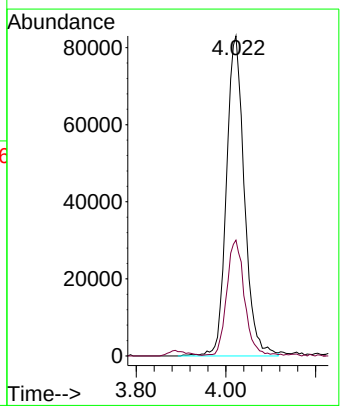
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

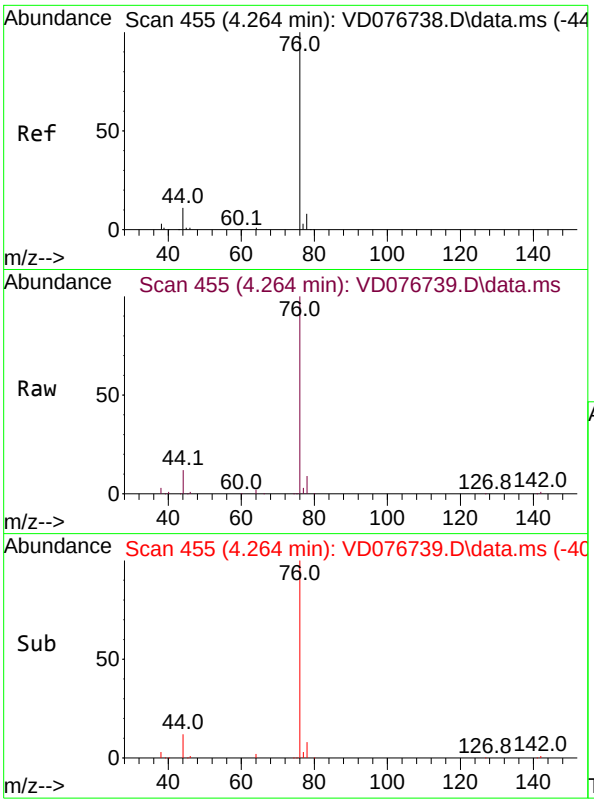


#16
Acetone
Concen: 496.508 ug/l
RT: 4.022 min Scan# 414
Delta R.T. 0.005 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 43 Resp: 231039

Ion	Ratio	Lower	Upper
43	100		
58	35.8	34.7	52.1





#17
Carbon Disulfide
Concen: 97.687 ug/l
RT: 4.264 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

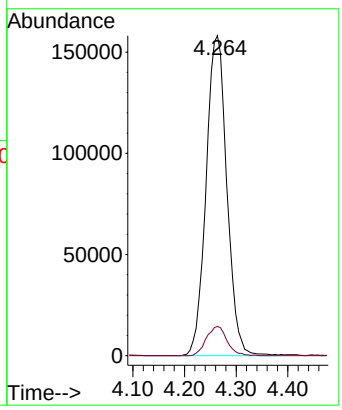
Tgt Ion: 76 Resp: 44104

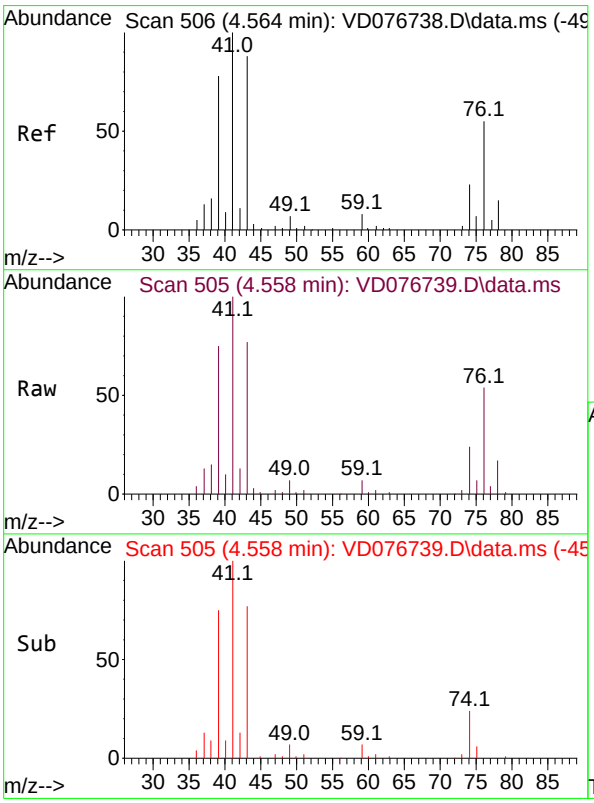
Ion	Ratio	Lower	Upper
76	100		
78	9.2	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

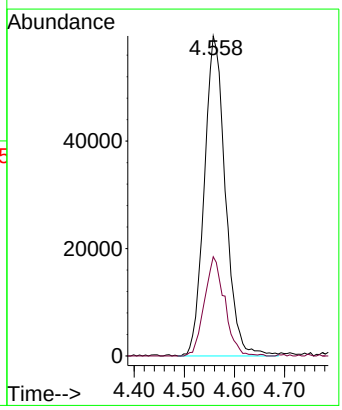


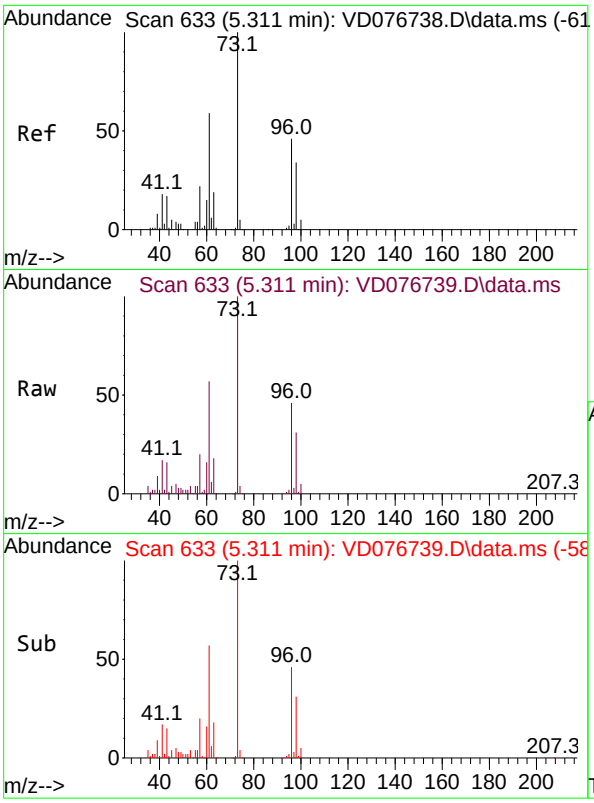


#18
Methyl Acetate
Concen: 99.881 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 43 Resp: 174621

Ion	Ratio	Lower	Upper
43	100		
74	29.6	26.4	39.6

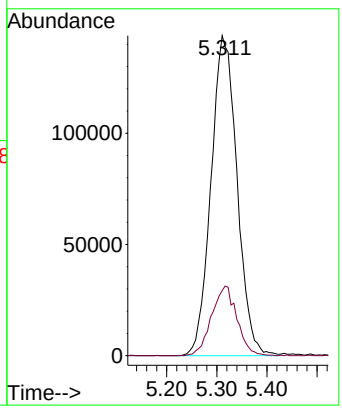




#19
Methyl tert-butyl Ether
Concen: 100.197 ug/l
RT: 5.311 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 73 Resp: 51939

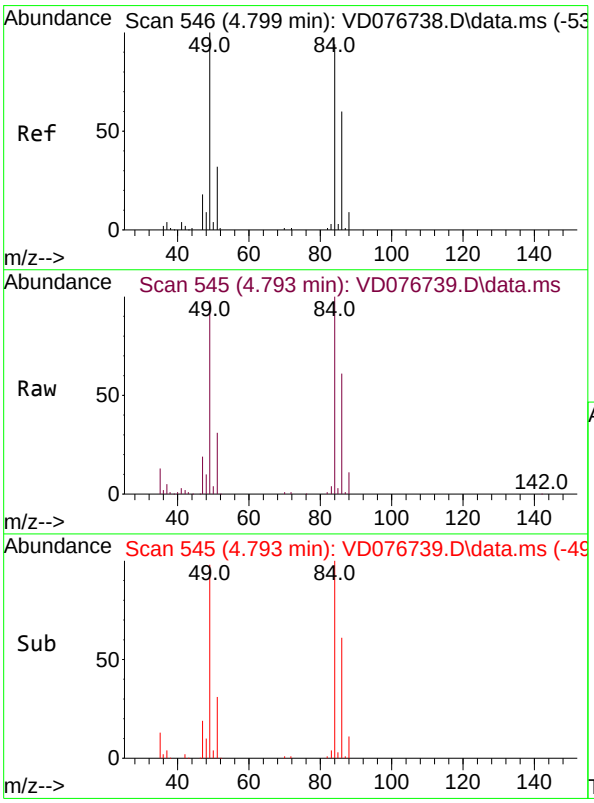
Ion	Ratio	Lower	Upper
73	100		
57	20.4	16.6	25.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

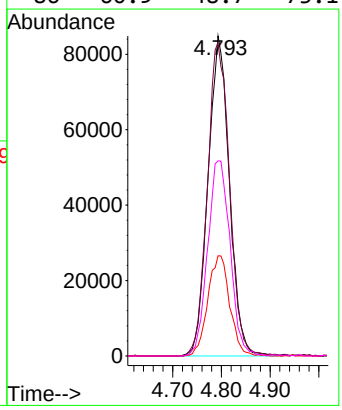
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

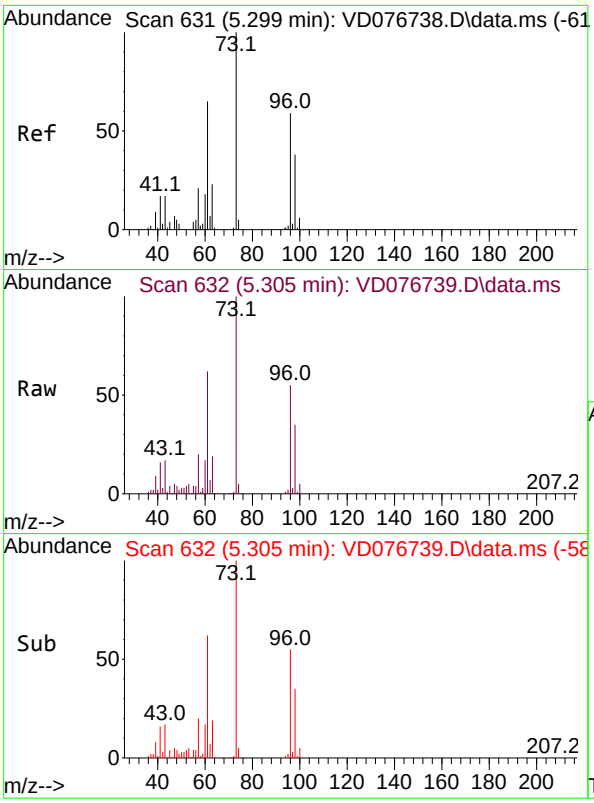


#20
Methylene Chloride
Concen: 104.190 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 84 Resp: 257763

Ion	Ratio	Lower	Upper
84	100		
49	98.0	71.4	107.2
51	31.3	24.5	36.7
86	60.9	48.7	73.1

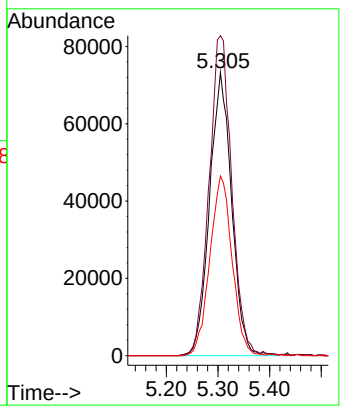




#21
trans-1,2-Dichloroethene
Concen: 96.825 ug/l
RT: 5.305 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 96 Resp: 21755

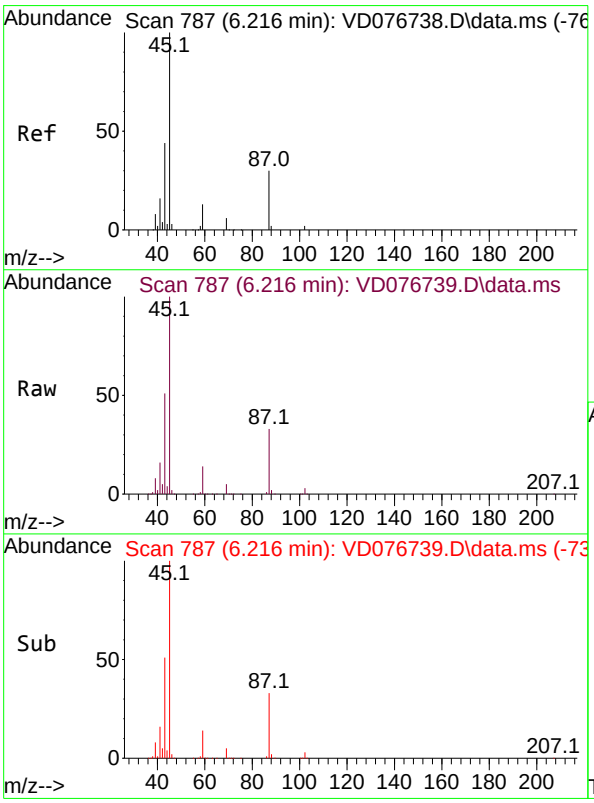
Ion	Ratio	Lower	Upper
96	100		
61	113.0	89.3	133.9
98	63.4	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

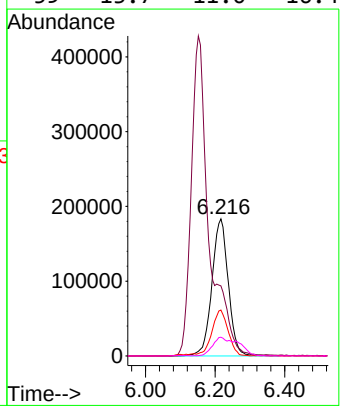
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

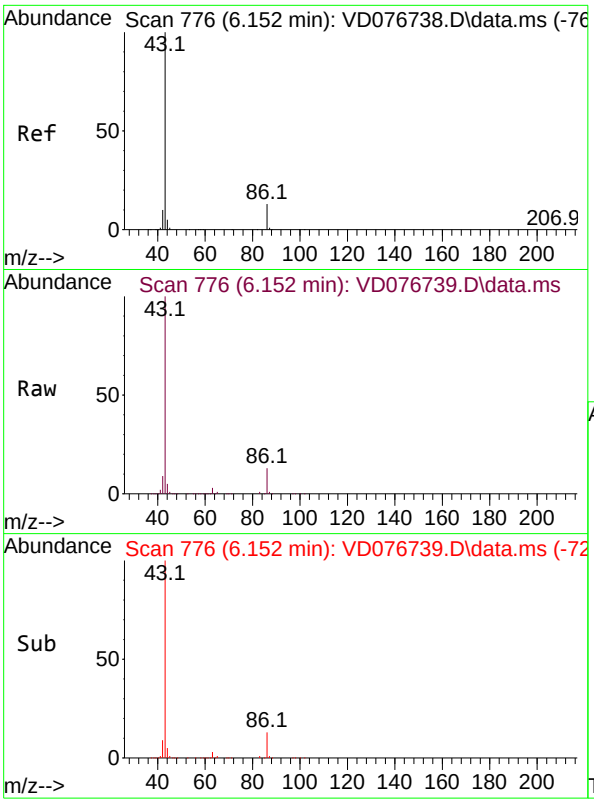


#22
Diisopropyl ether
Concen: 99.750 ug/l
RT: 6.216 min Scan# 787
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 45 Resp: 599807

Ion	Ratio	Lower	Upper
45	100		
43	50.7	40.0	60.0
87	33.4	28.2	42.4
59	13.7	11.0	16.4





#23
Vinyl Acetate
Concen: 509.517 ug/l
RT: 6.152 min Scan# 7
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

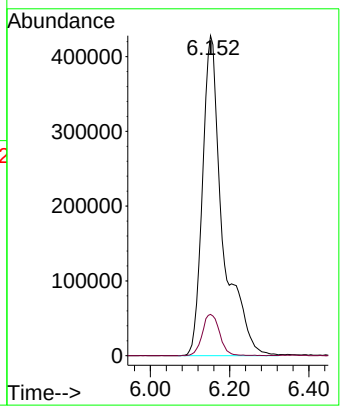
Tgt Ion: 43 Resp: 151591

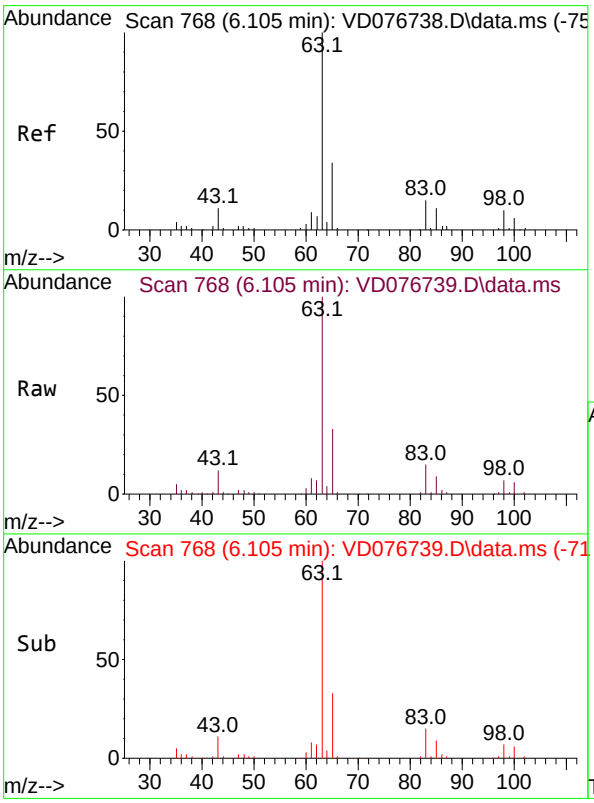
Ion	Ratio	Lower	Upper
43	100		
86	12.9	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

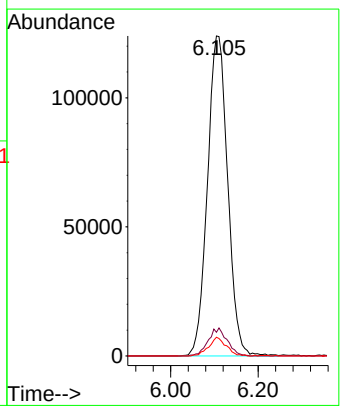


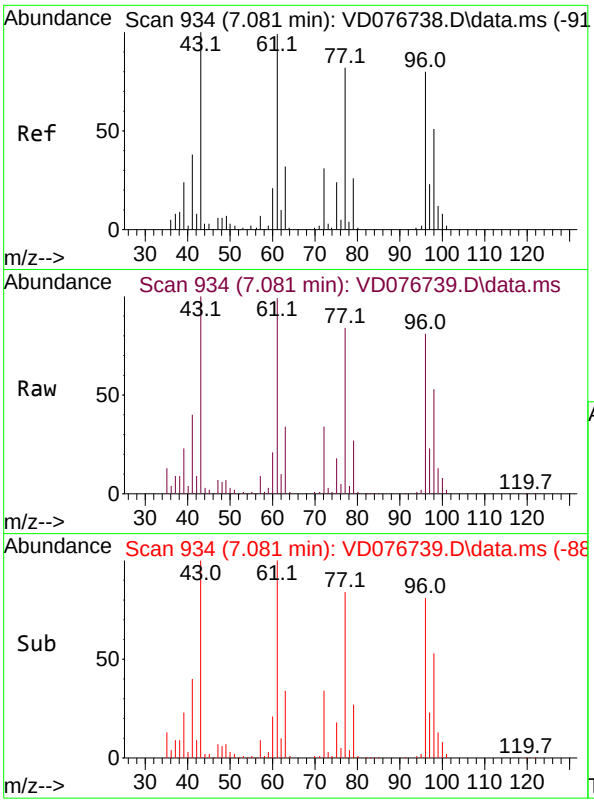


#24
1,1-Dichloroethane
Concen: 98.485 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 63 Resp: 399282

Ion	Ratio	Lower	Upper
63	100		
98	7.4	4.5	13.7
100	5.9	2.5	7.5

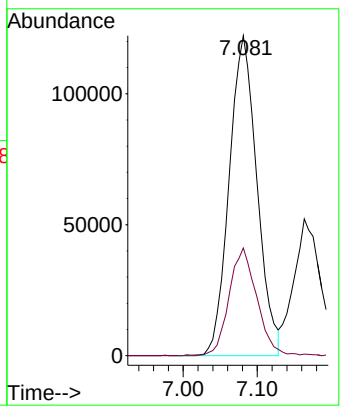




#25
2-Butanone
Concen: 511.431 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 43 Resp: 31850

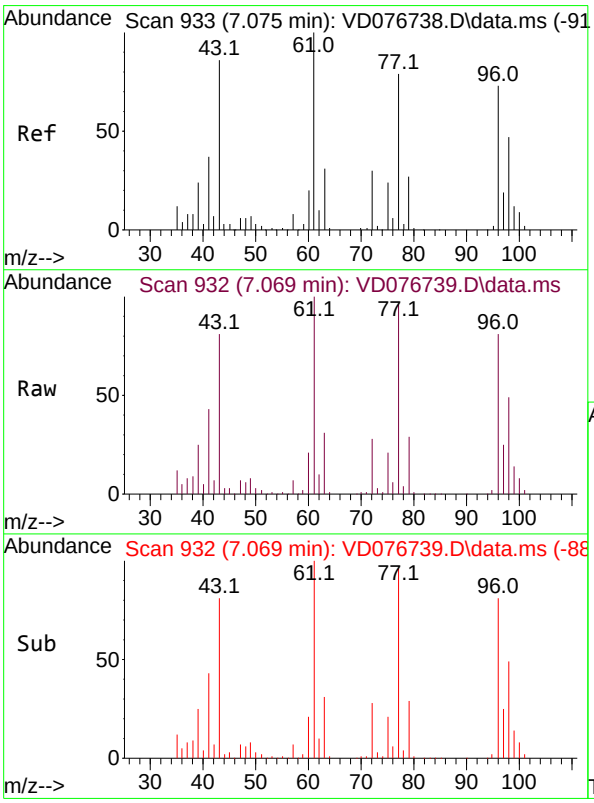
Ion	Ratio	Lower	Upper
43	100		
72	33.7	30.7	46.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

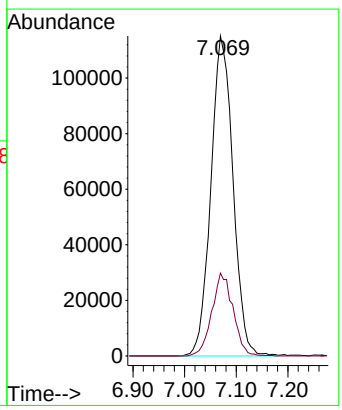
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

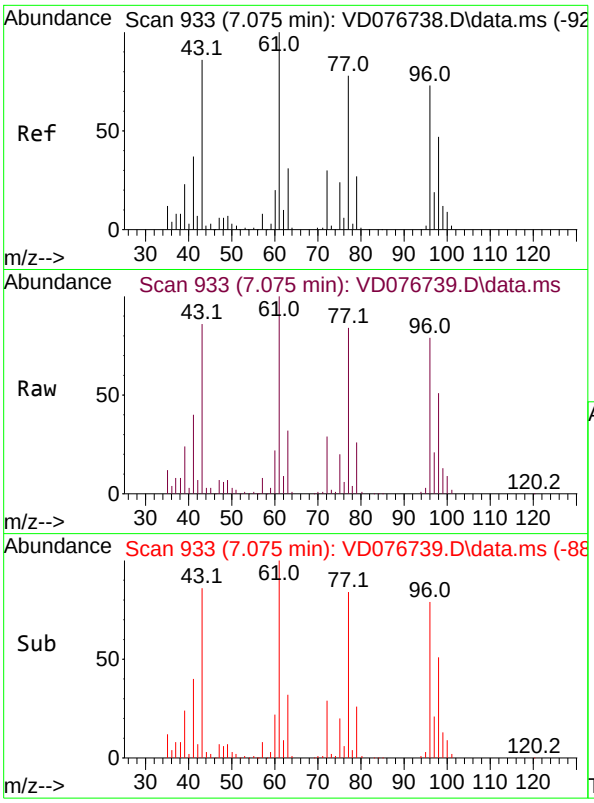


#26
2,2-Dichloropropane
Concen: 97.882 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 77 Resp: 342084

Ion	Ratio	Lower	Upper
77	100		
97	24.8	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 101.549 ug/l
RT: 7.075 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

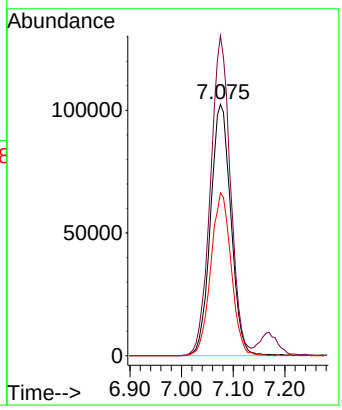
Tgt Ion: 96 Resp: 28128

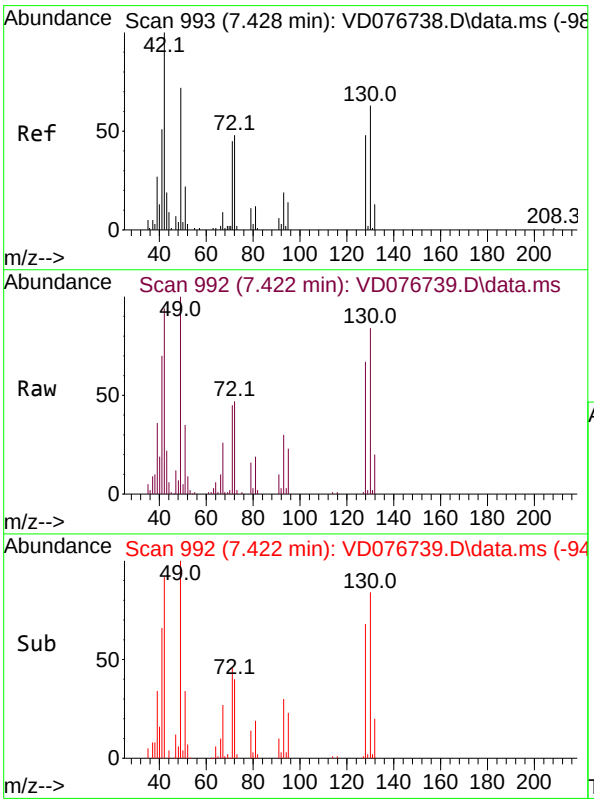
Ion	Ratio	Lower	Upper
96	100		
61	124.5	0.0	239.2
98	64.6	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

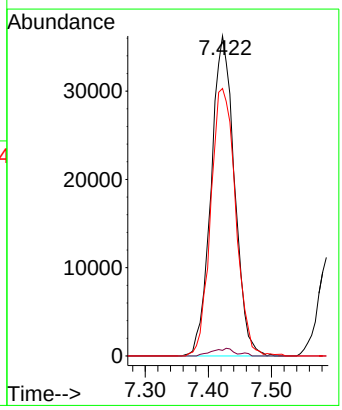


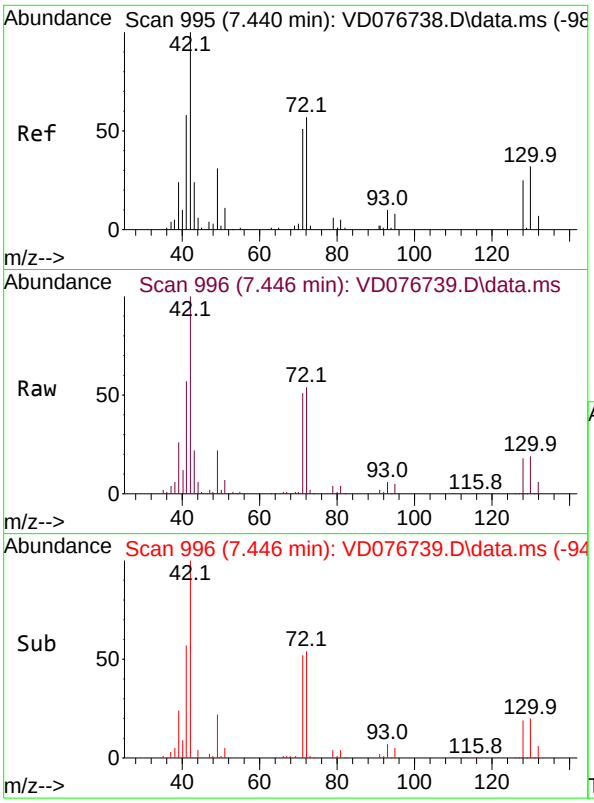


#28
Bromochloromethane
Concen: 91.843 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 49 Resp: 93093

Ion	Ratio	Lower	Upper
49	100		
129	2.5	0.0	6.0
130	88.8	83.2	124.8

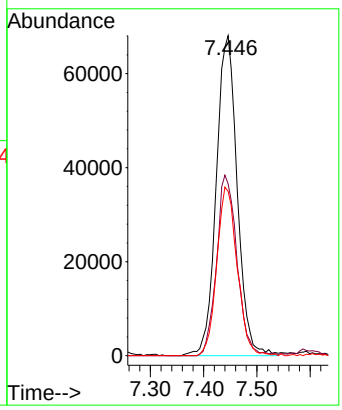




#29
Tetrahydrofuran
Concen: 507.168 ug/l
RT: 7.446 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 42 Resp: 18661

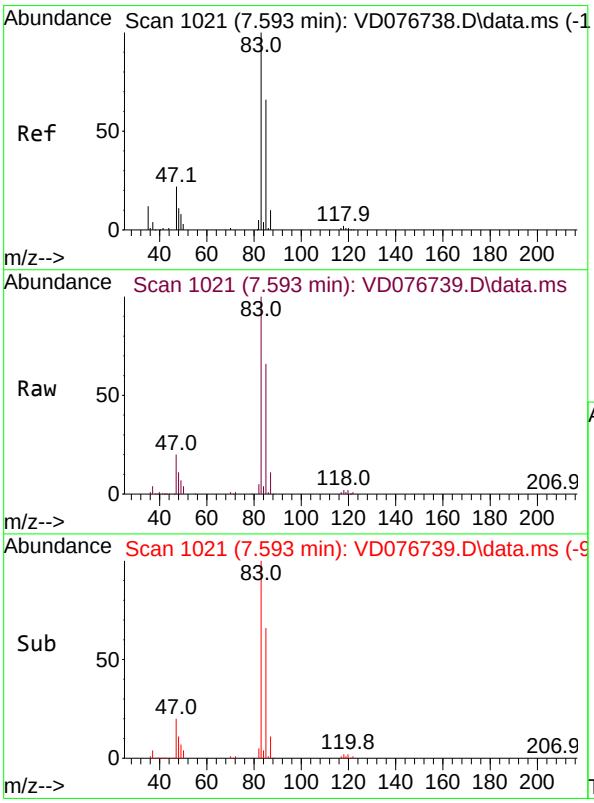
Ion	Ratio	Lower	Upper
42	100		
72	55.0	46.5	69.7
71	51.2	44.5	66.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

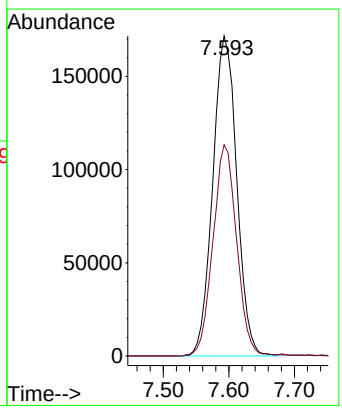
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

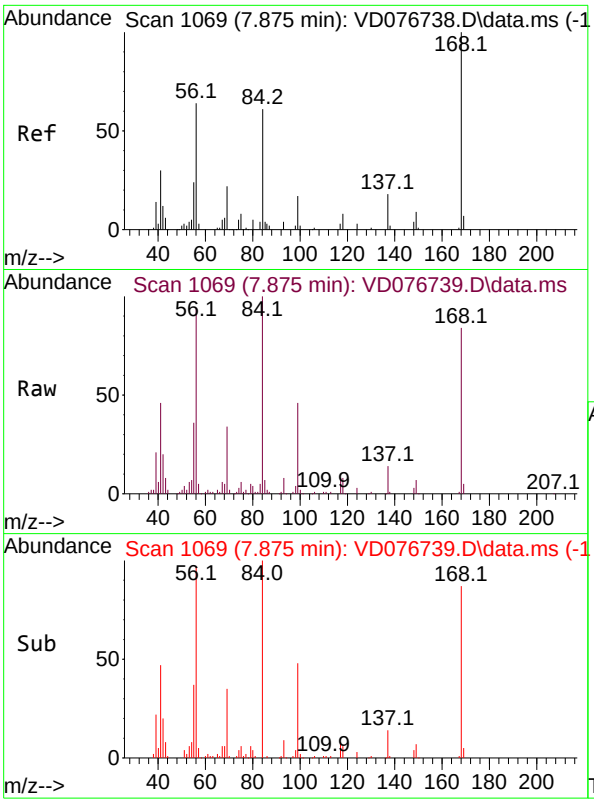


#30
Chloroform
Concen: 98.267 ug/l
RT: 7.593 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 83 Resp: 436355

Ion	Ratio	Lower	Upper
83	100		
85	66.0	53.4	80.2

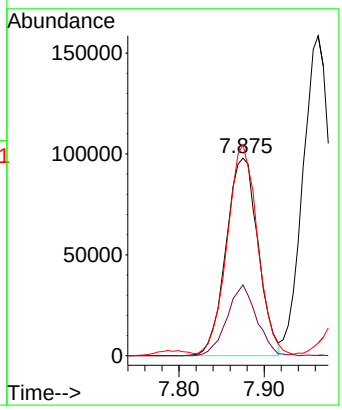




#31
Cyclohexane
Concen: 89.283 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 56 Resp: 25601

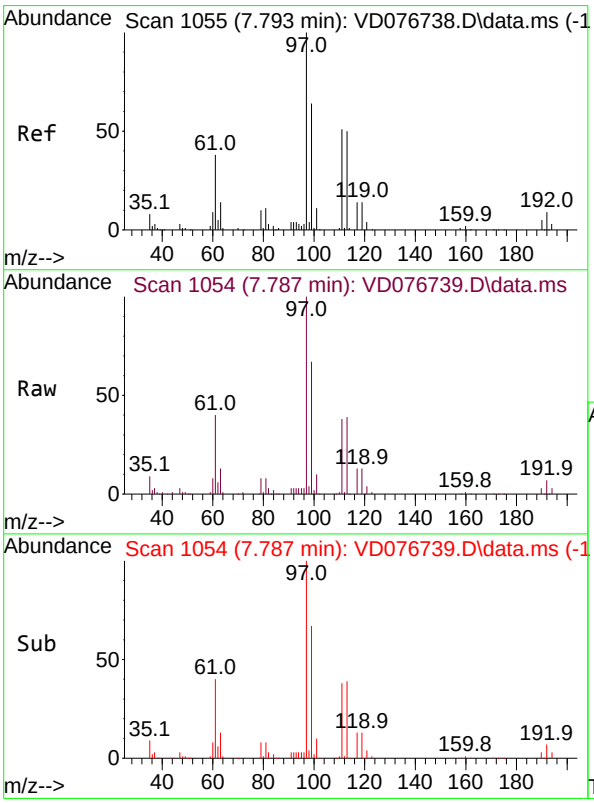
Ion	Ratio	Lower	Upper
56	100		
69	35.8	28.6	43.0
84	104.2	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

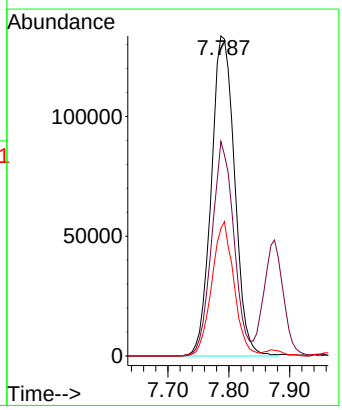
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

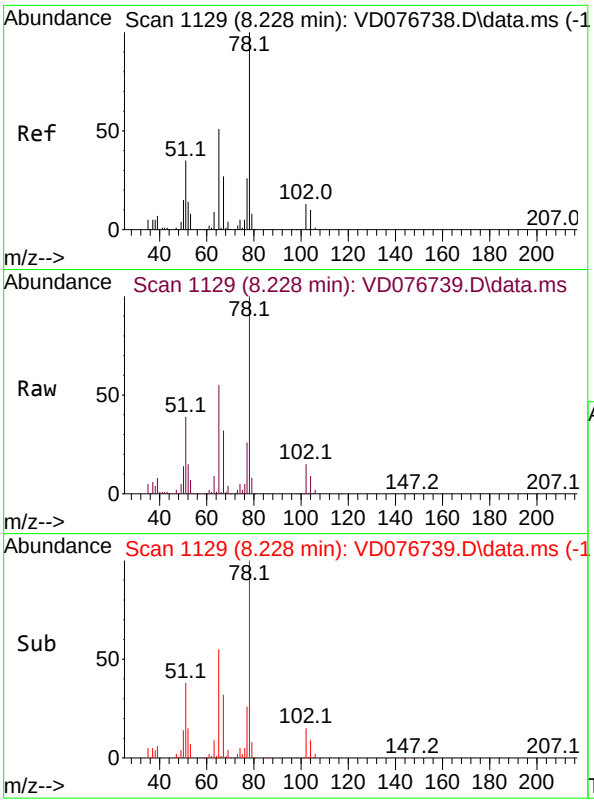


#32
1,1,1-Trichloroethane
Concen: 99.313 ug/l
RT: 7.787 min Scan# 1054
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 97 Resp: 355810

Ion	Ratio	Lower	Upper
97	100		
99	63.5	52.0	78.0
61	39.9	33.8	50.8

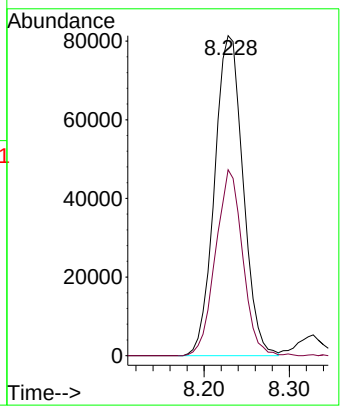




#33
1,2-Dichloroethane-d4
Concen: 97.195 ug/l
RT: 8.228 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 65 Resp: 18937

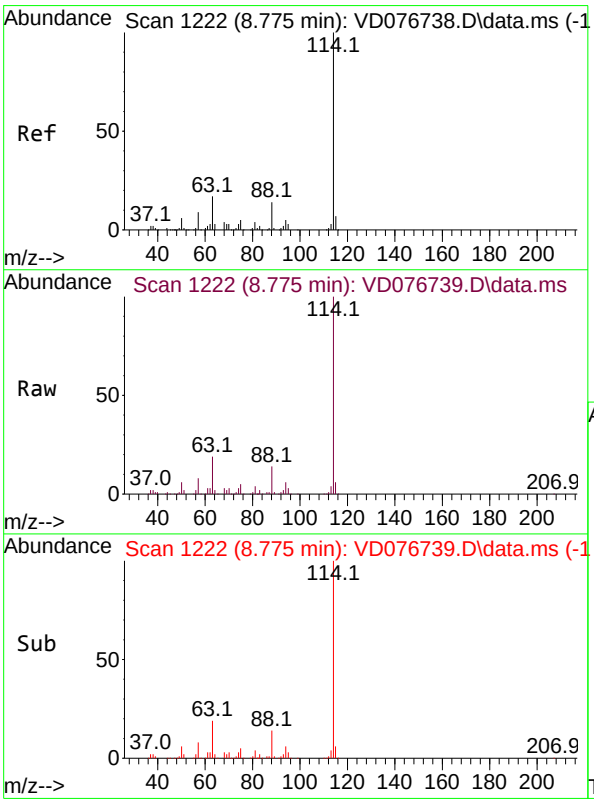
Ion	Ratio	Lower	Upper
65	100		
67	55.0	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

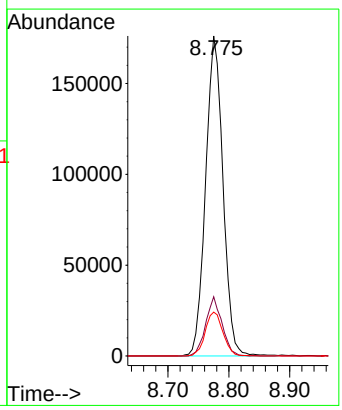
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

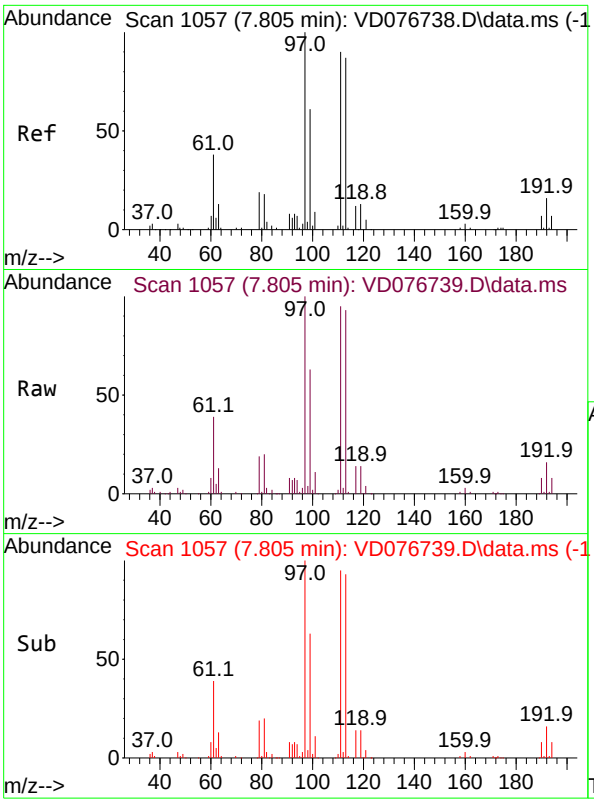


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:114 Resp: 349566

Ion	Ratio	Lower	Upper
114	100		
63	18.5	0.0	33.4
88	13.7	0.0	26.2

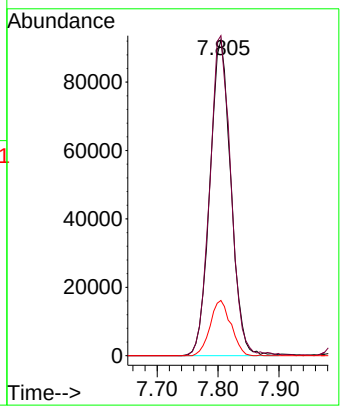




#35
Dibromofluoromethane
Concen: 100.856 ug/l
RT: 7.805 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:113 Resp: 22155

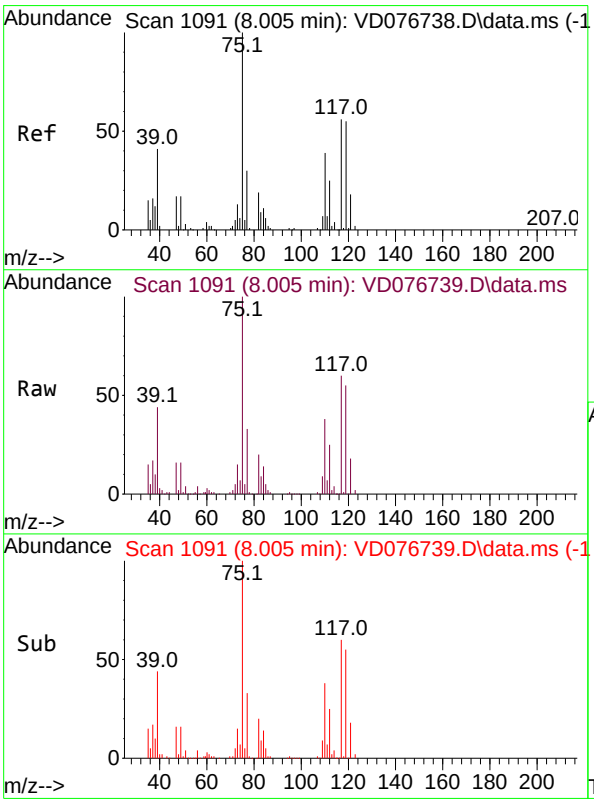
Ion	Ratio	Lower	Upper
113	100		
111	101.7	84.7	127.1
192	17.3	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

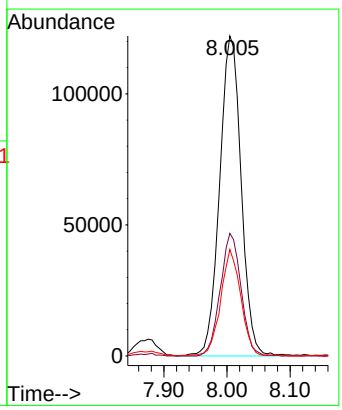
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

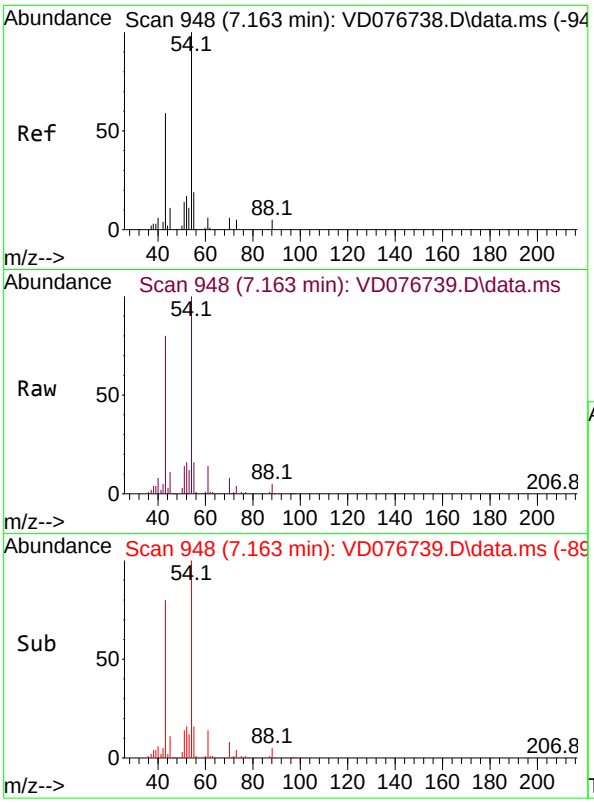


#36
1,1-Dichloropropene
Concen: 100.835 ug/l
RT: 8.005 min Scan# 1091
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 75 Resp: 289445

Ion	Ratio	Lower	Upper
75	100		
110	36.9	19.9	59.6
77	31.3	24.7	37.1





#37
Ethyl Acetate
Concen: 103.484 ug/l
RT: 7.163 min Scan# 94
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

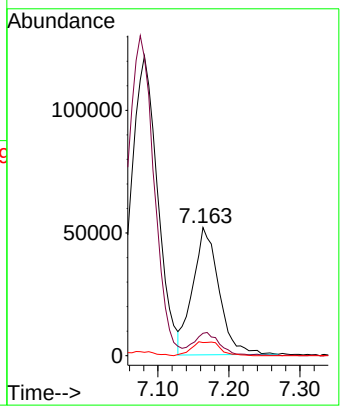
Tgt Ion: 43 Resp: 13284

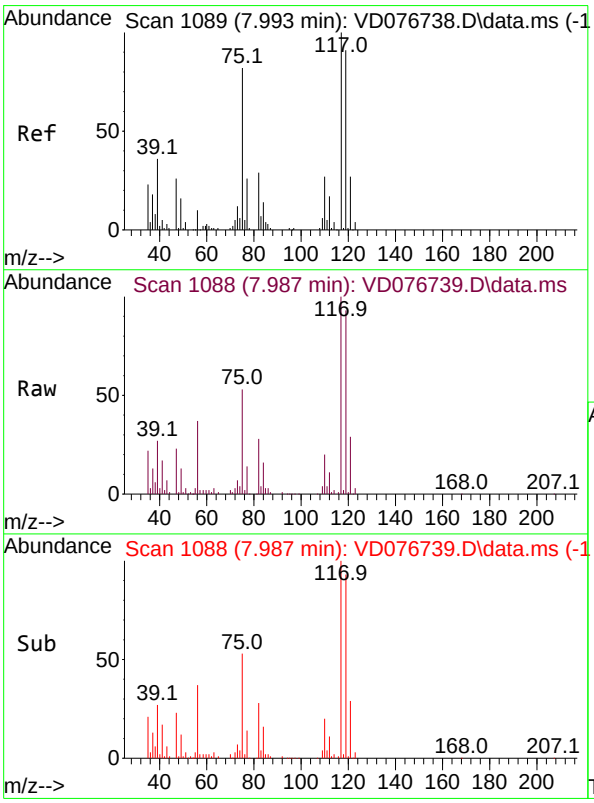
Ion	Ratio	Lower	Upper
43	100		
61	17.2	14.9	22.3
70	11.9	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

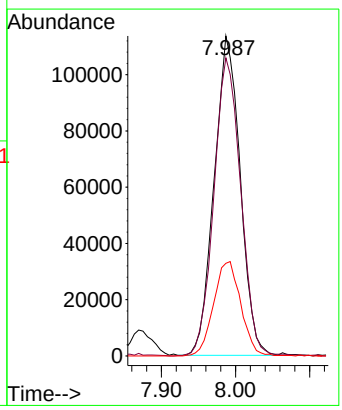


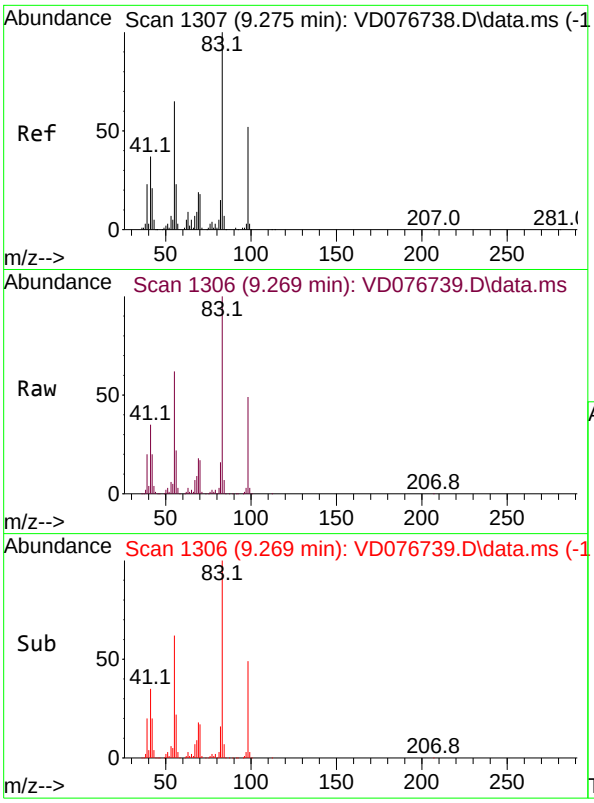


#38
Carbon Tetrachloride
Concen: 100.724 ug/l
RT: 7.987 min Scan# 1088
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:117 Resp: 276845

Ion	Ratio	Lower	Upper
117	100		
119	93.2	78.0	117.0
121	29.0	24.2	36.2

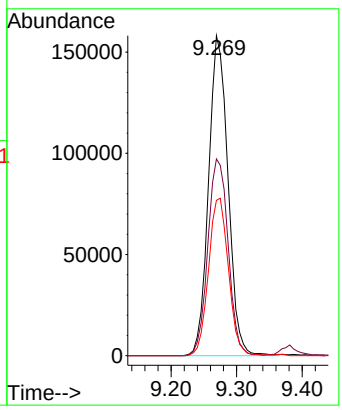




#39
Methylcyclohexane
Concen: 98.273 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 83 Resp: 32571

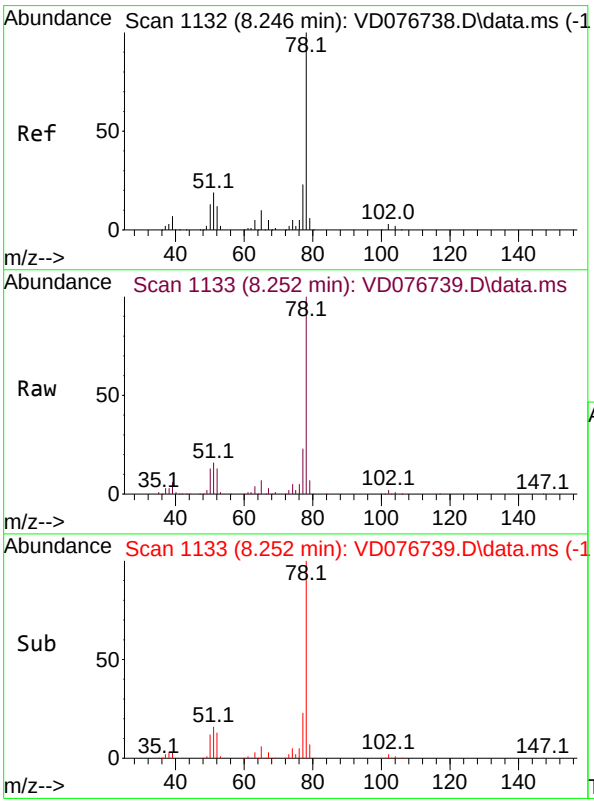
Ion	Ratio	Lower	Upper
83	100		
55	61.5	49.4	74.0
98	48.6	38.4	57.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

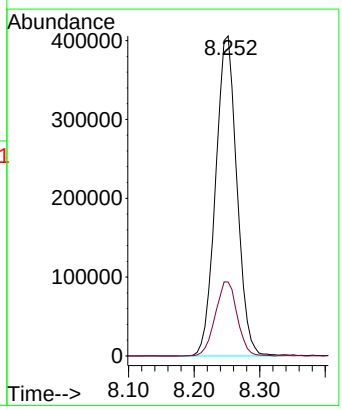
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

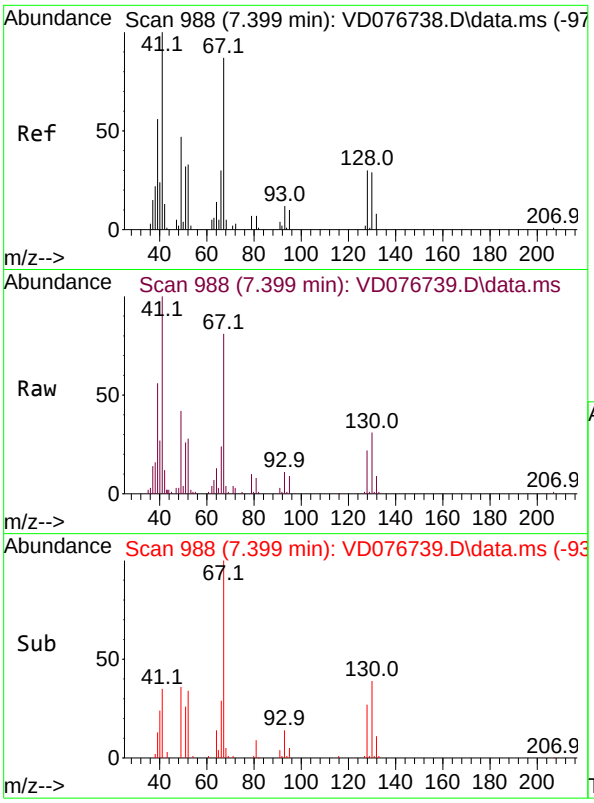


#40
Benzene
Concen: 100.978 ug/l
RT: 8.252 min Scan# 1133
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 78 Resp: 914564

Ion	Ratio	Lower	Upper
78	100		
77	23.1	19.4	29.0

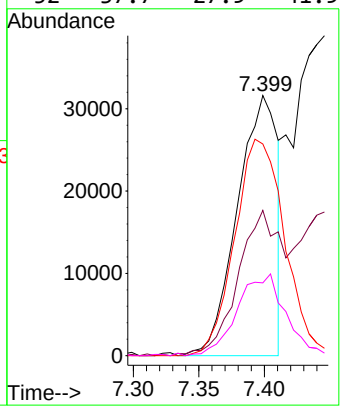




#41
Methacrylonitrile
Concen: 86.059 ug/l
RT: 7.399 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 41 Resp: 6746

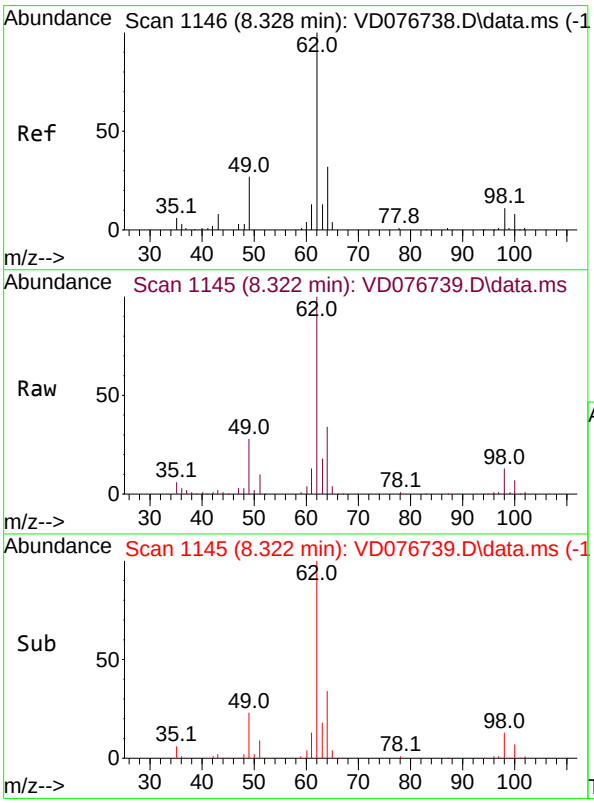
Ion	Ratio	Lower	Upper
41	100		
39	60.3	34.0	51.0#
67	104.3	77.0	115.4
52	37.7	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

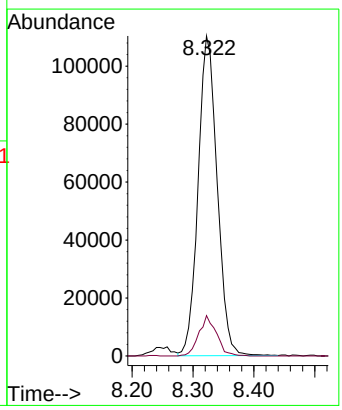
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

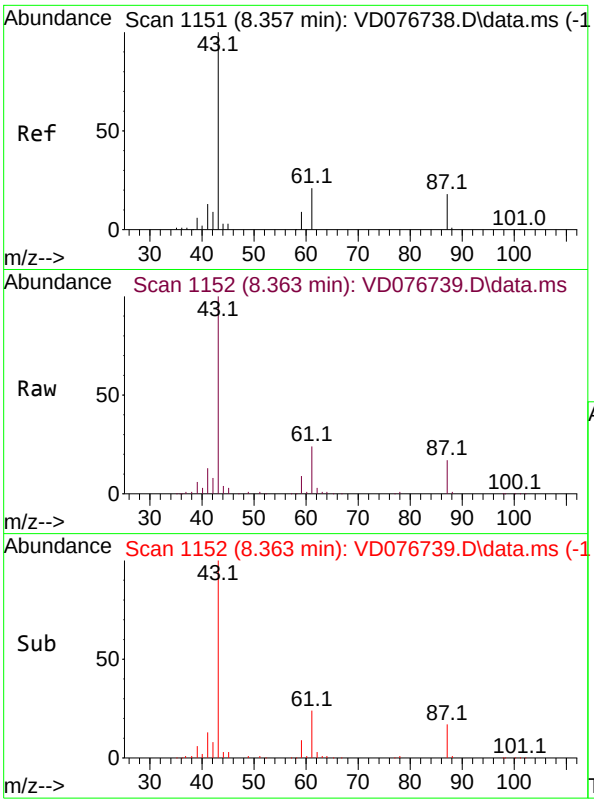


#42
1,2-Dichloroethane
Concen: 102.090 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 62 Resp: 240249

Ion	Ratio	Lower	Upper
62	100		
98	11.7	0.0	25.4





#43
Isopropyl Acetate
Concen: 101.973 ug/l
RT: 8.363 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

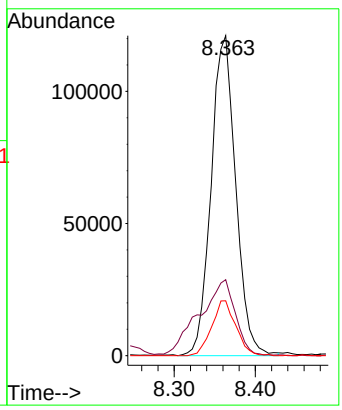
Tgt Ion: 43 Resp: 25547

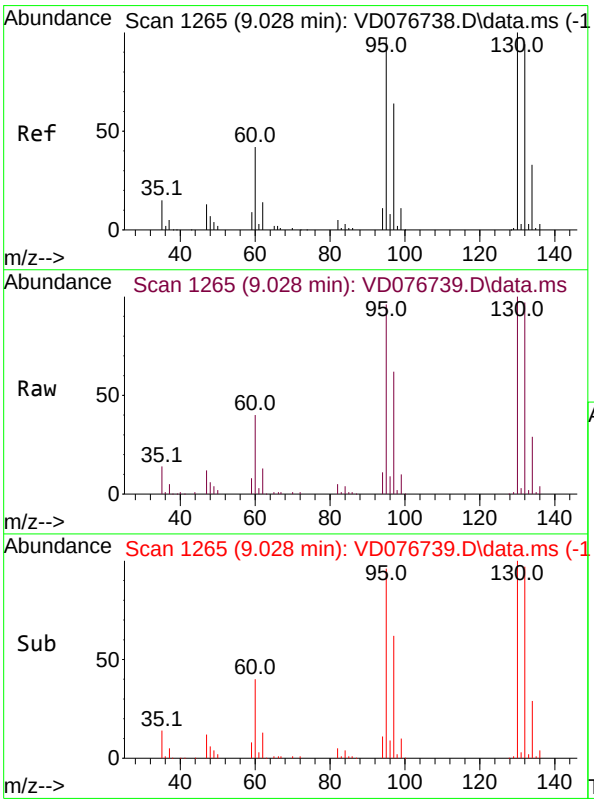
Ion	Ratio	Lower	Upper
43	100		
61	35.0	31.4	47.0
87	16.8	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

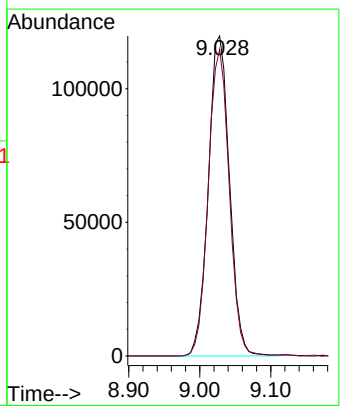


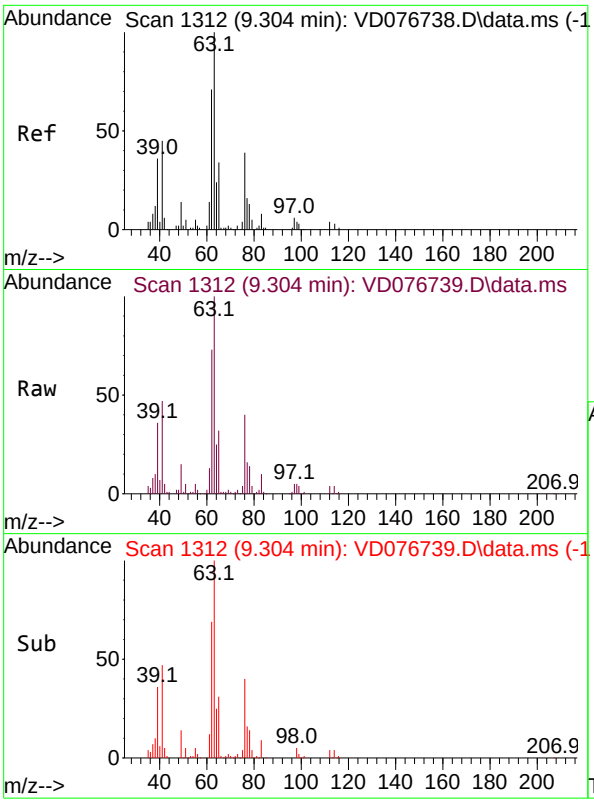


#44
Trichloroethene
Concen: 100.484 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:130 Resp: 248001

Ion	Ratio	Lower	Upper
130	100		
95	95.8	0.0	179.2

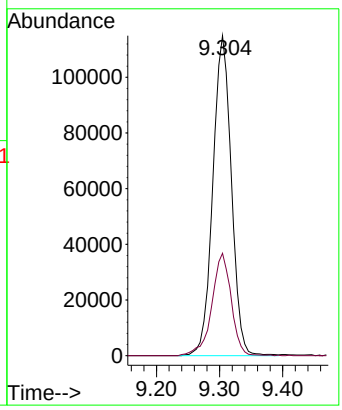




#45
1,2-Dichloropropane
Concen: 100.198 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 63 Resp: 23425

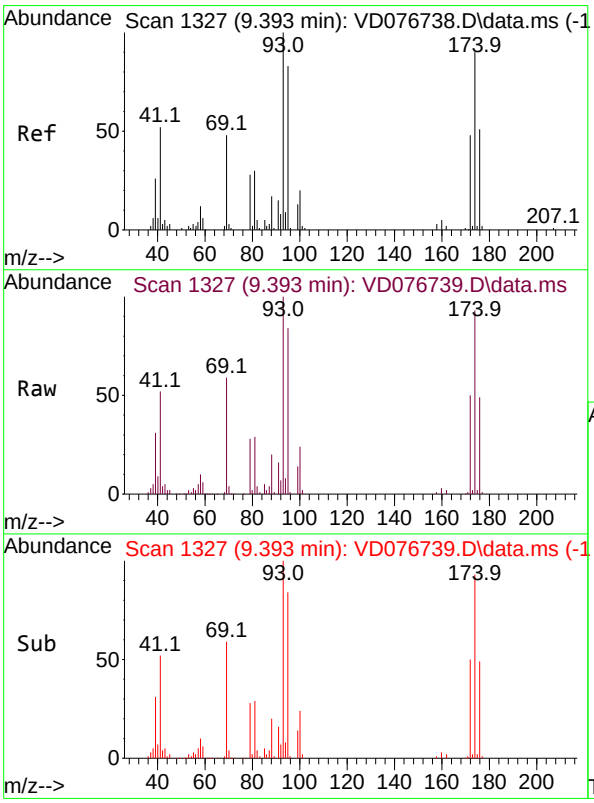
Ion	Ratio	Lower	Upper
63	100		
65	32.0	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

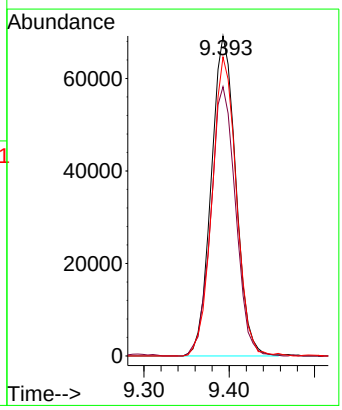
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

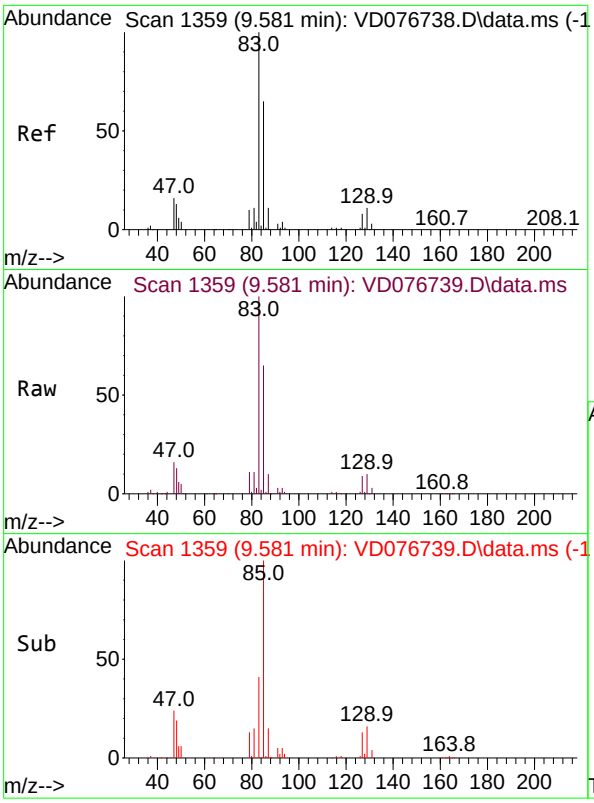


#46
Dibromomethane
Concen: 101.299 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 93 Resp: 138627

Ion	Ratio	Lower	Upper
93	100		
95	84.5	67.7	101.5
174	92.2	85.4	128.2

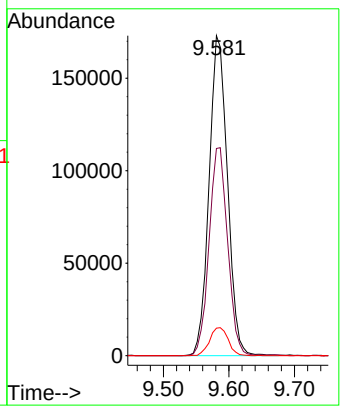




#47
Bromodichloromethane
Concen: 97.971 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 83 Resp: 33645

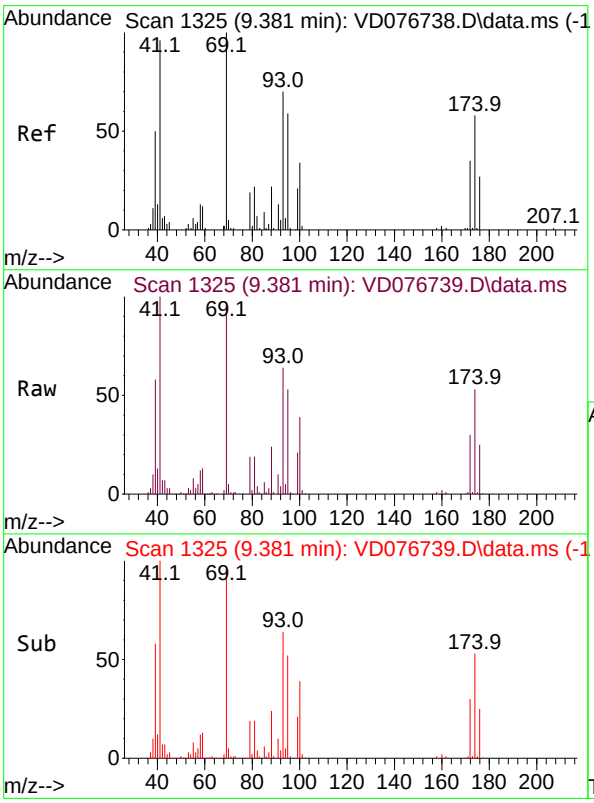
Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.2	75.4
127	8.6	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

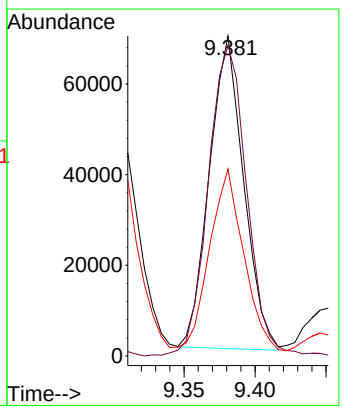
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

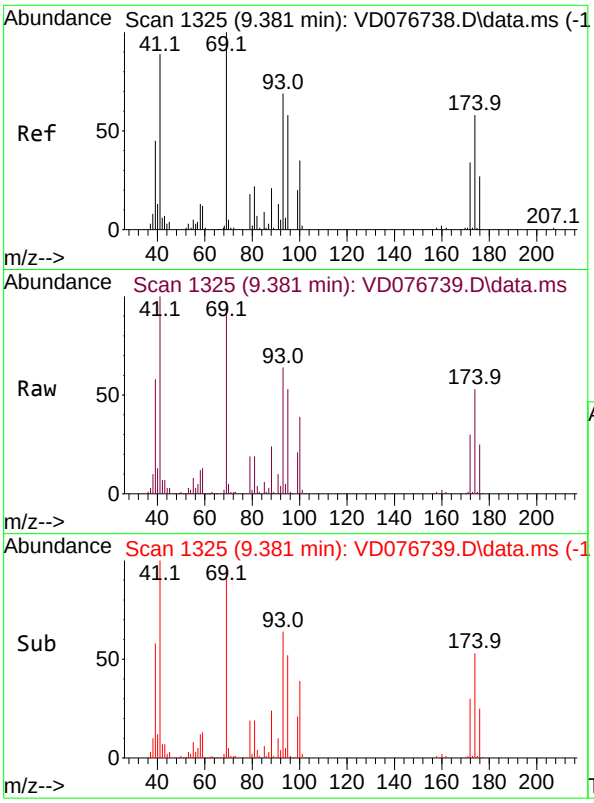


#48
Methyl methacrylate
Concen: 101.351 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 41 Resp: 115565

Ion	Ratio	Lower	Upper
41	100		
69	111.6	102.2	153.2
39	62.9	41.4	62.2#

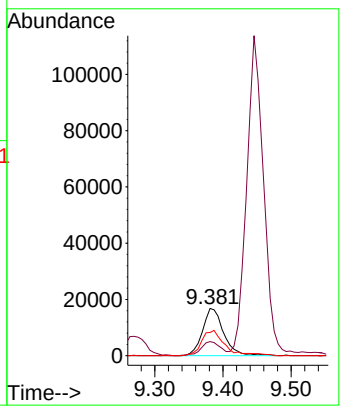




#49
1,4-Dioxane
Concen: 2073.590 ug/l
RT: 9.381 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 88 Resp: 3635

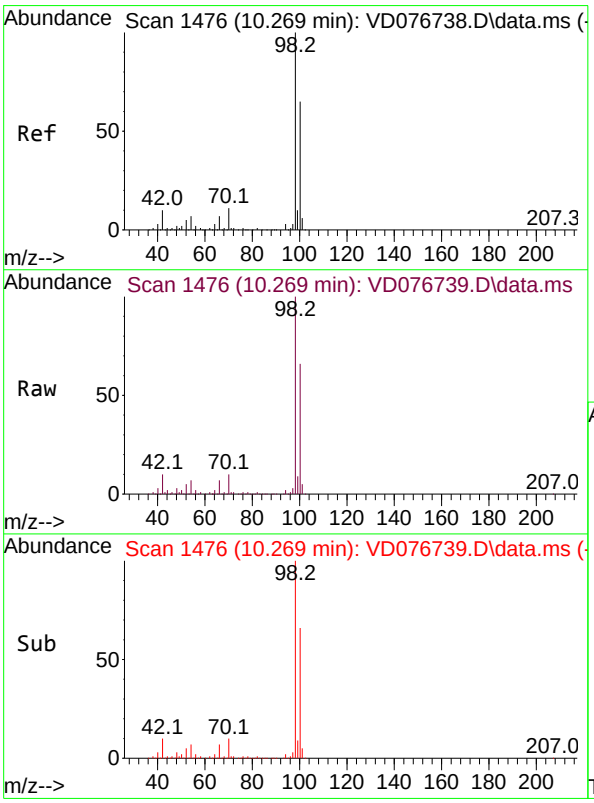
Ion	Ratio	Lower	Upper
88	100		
43	28.5	19.0	28.6
58	58.7	43.5	65.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

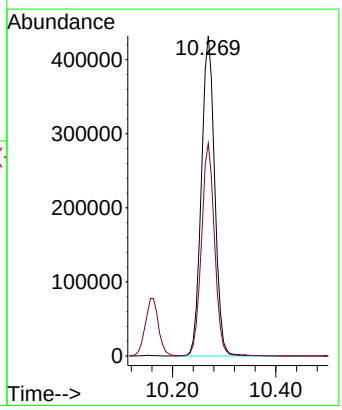
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

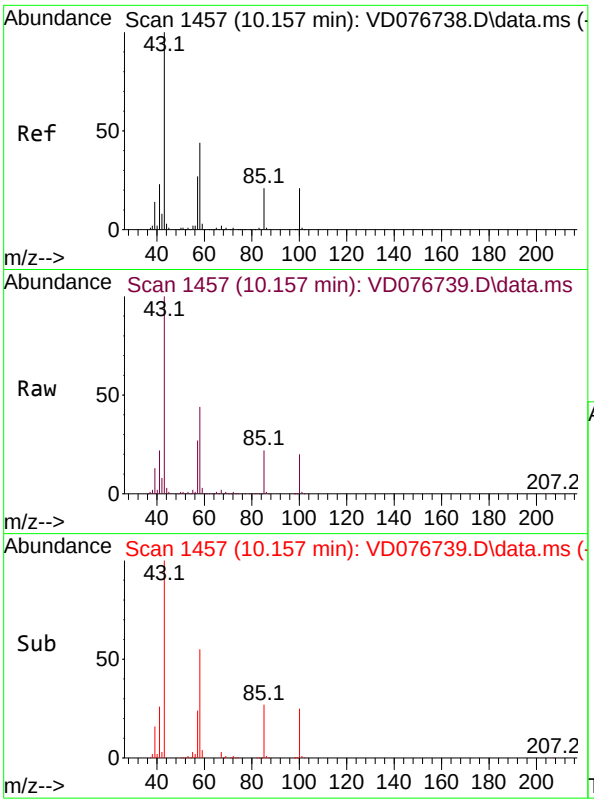


#50
Toluene-d8
Concen: 98.058 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 98 Resp: 770578

Ion	Ratio	Lower	Upper
98	100		
100	65.3	50.3	75.5

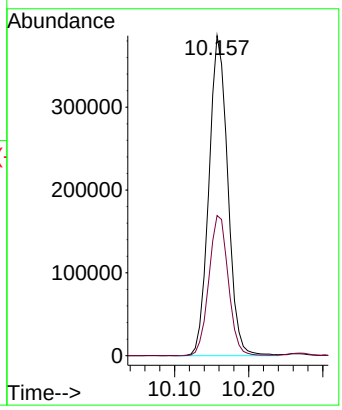




#51
4-Methyl-2-Pentanone
Concen: 512.262 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 43 Resp: 68330

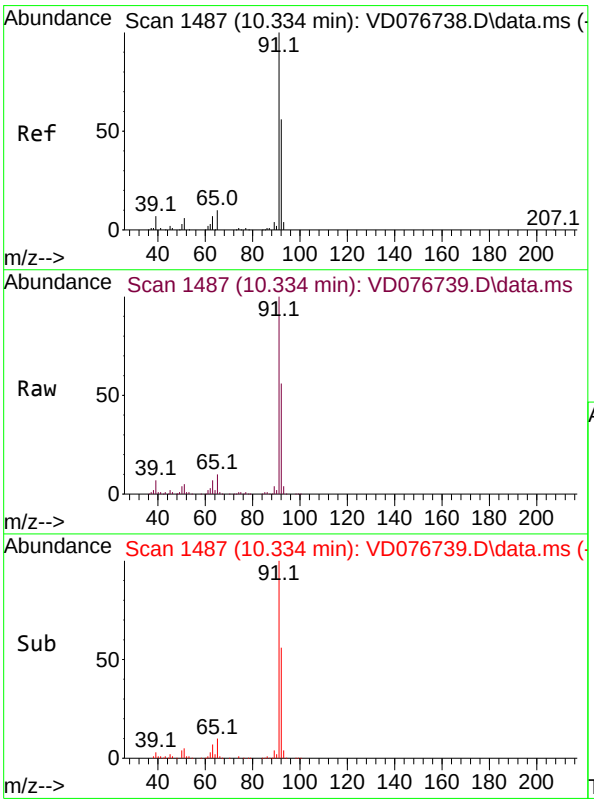
Ion	Ratio	Lower	Upper
43	100		
58	45.0	38.9	58.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

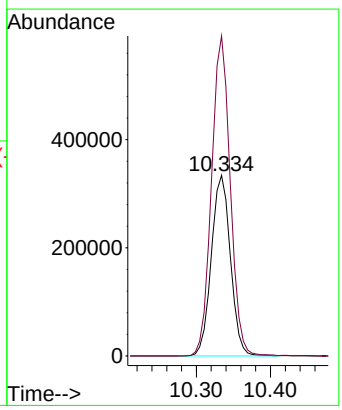
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

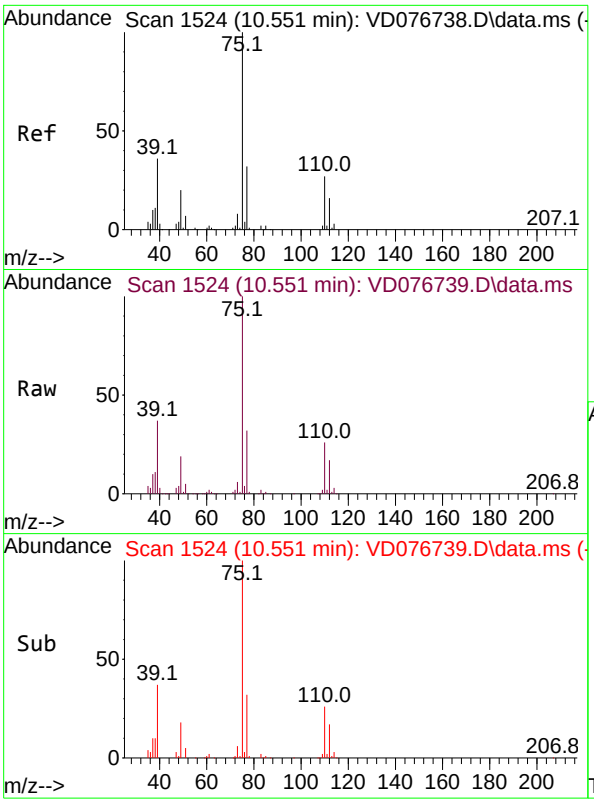


#52
Toluene
Concen: 100.347 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 92 Resp: 596917

Ion	Ratio	Lower	Upper
92	100		
91	174.1	143.0	214.4

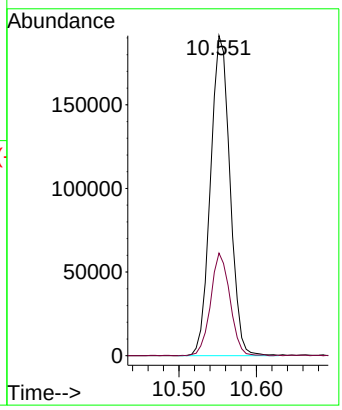




#53
t-1,3-Dichloropropene
Concen: 104.835 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 75 Resp: 33416

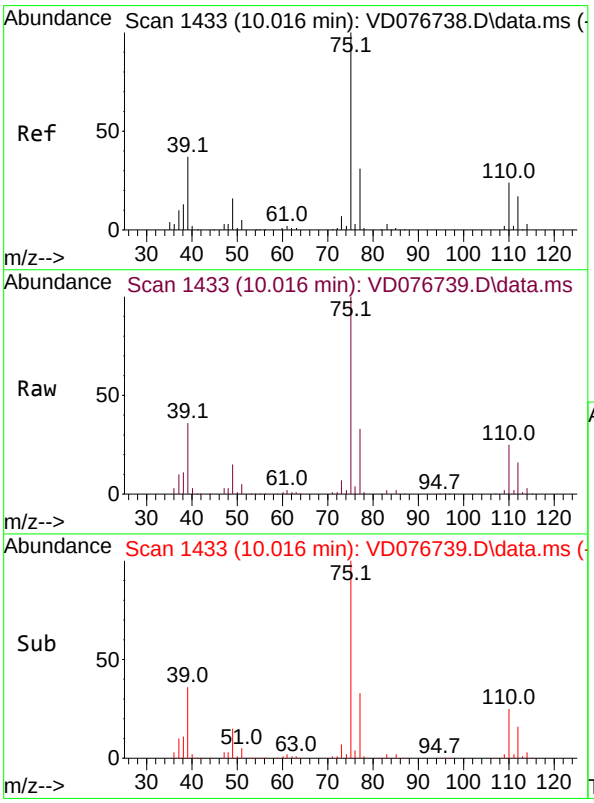
Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

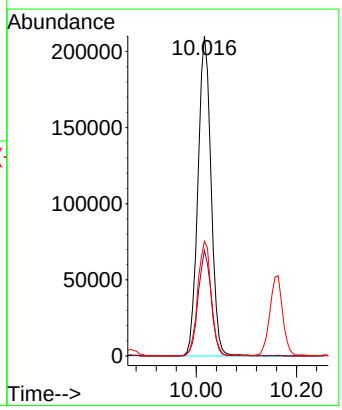
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

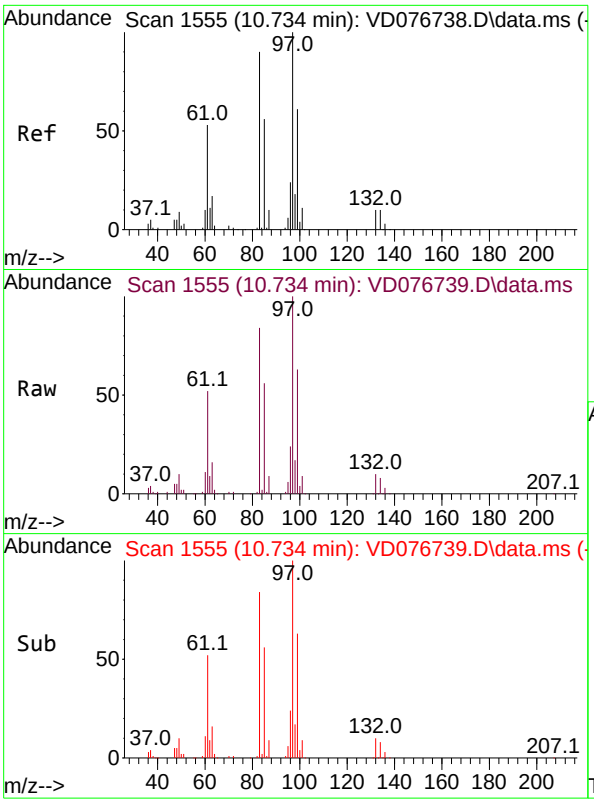


#54
cis-1,3-Dichloropropene
Concen: 101.477 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 75 Resp: 381222

Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.5	38.3
39	35.9	22.1	33.1#

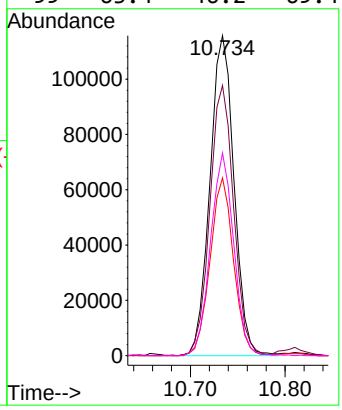




#55
1,1,2-Trichloroethane
Concen: 102.306 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 97 Resp: 20444

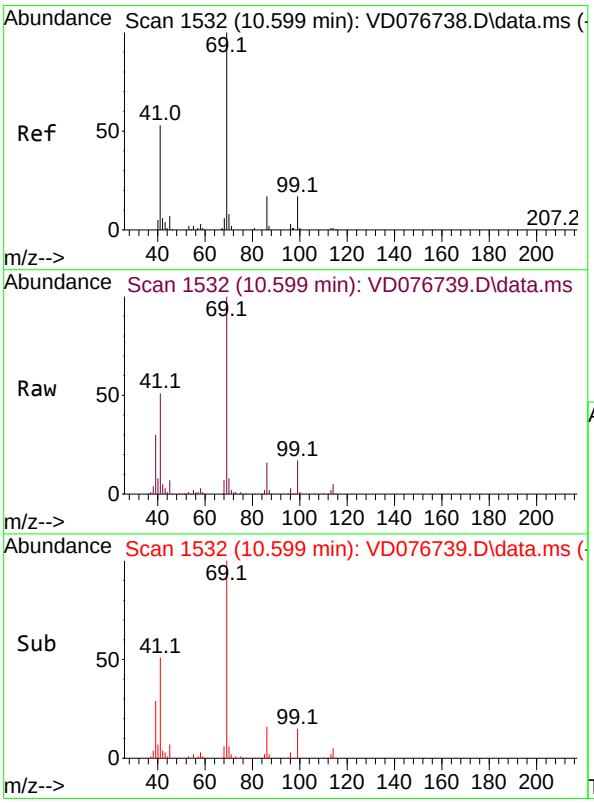
Ion	Ratio	Lower	Upper
97	100		
83	84.5	65.8	98.6
85	55.6	45.7	68.5
99	63.4	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

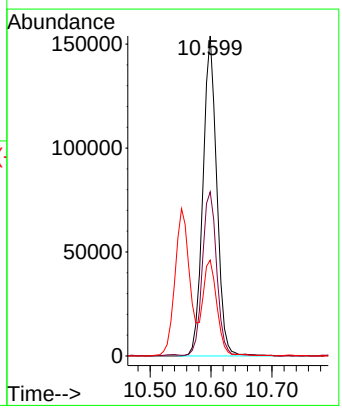
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

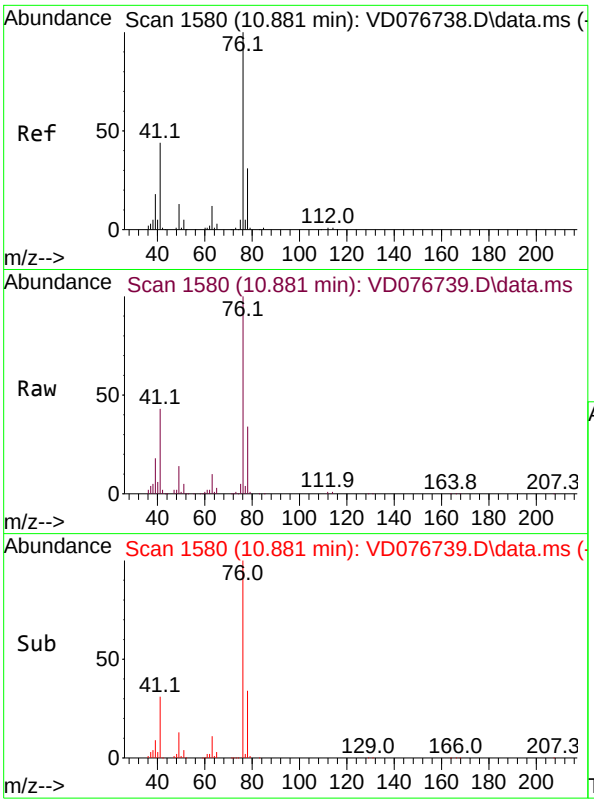


#56
Ethyl methacrylate
Concen: 105.468 ug/l
RT: 10.599 min Scan# 1532
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 69 Resp: 243261

Ion	Ratio	Lower	Upper
69	100		
41	54.0	39.1	58.7
39	30.2	20.0	30.0#

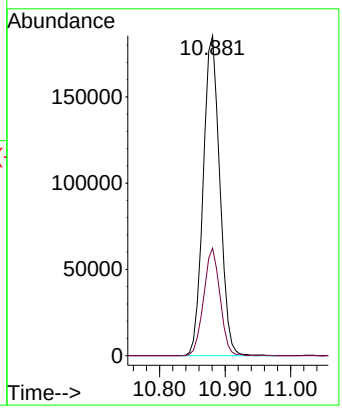




#57
1,3-Dichloropropane
Concen: 100.451 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 76 Resp: 32690

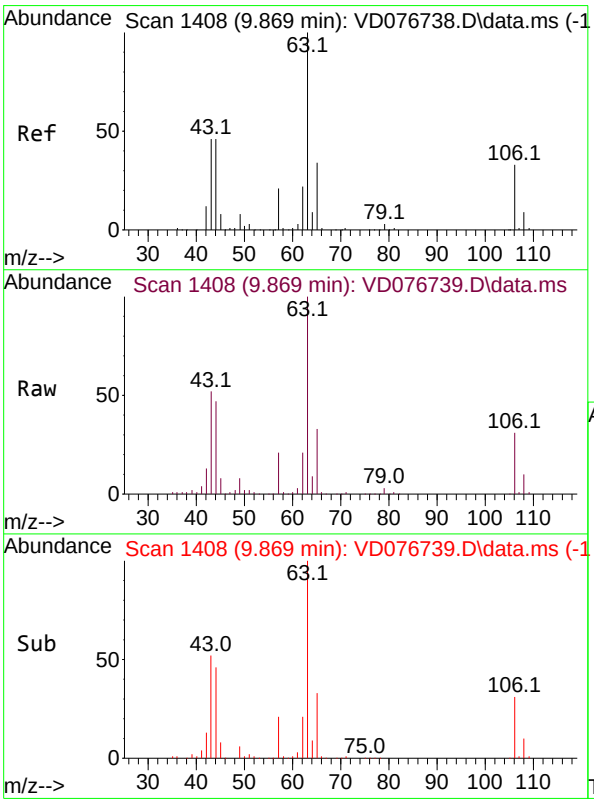
Ion	Ratio	Lower	Upper
76	100		
78	33.1	26.4	39.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

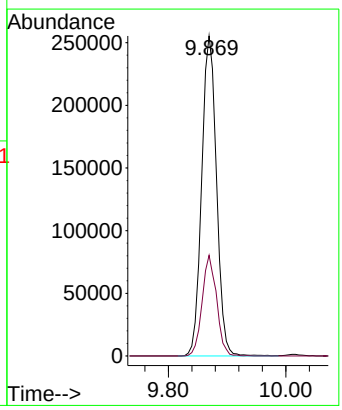
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

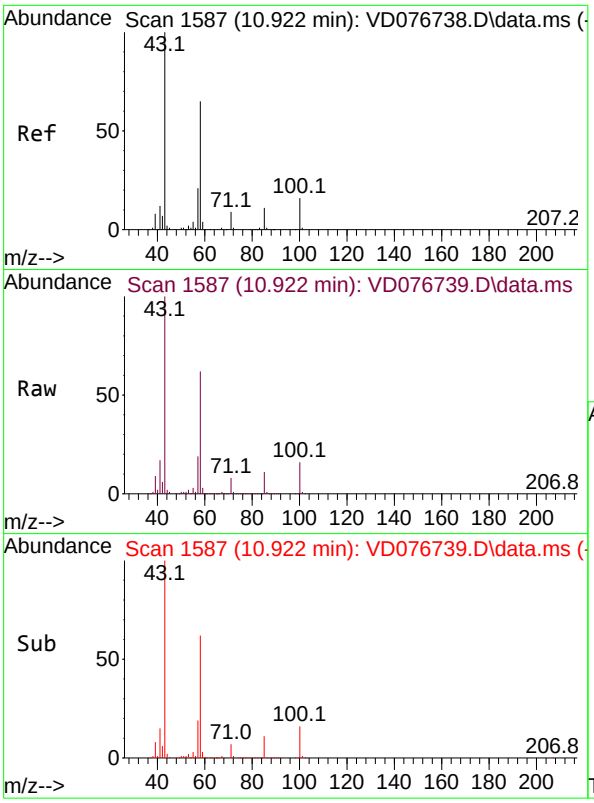


#58
2-Chloroethyl Vinyl ether
Concen: 500.060 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 63 Resp: 446452

Ion	Ratio	Lower	Upper
63	100		
106	30.6	25.3	37.9





#59
2-Hexanone
Concen: 515.889 ug/l
RT: 10.922 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

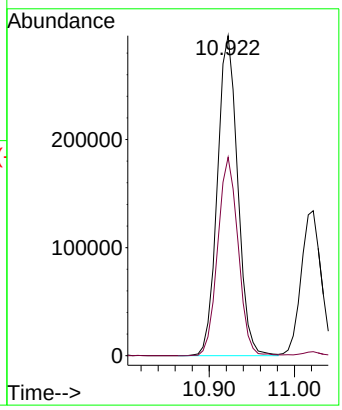
Tgt Ion: 43 Resp: 49101

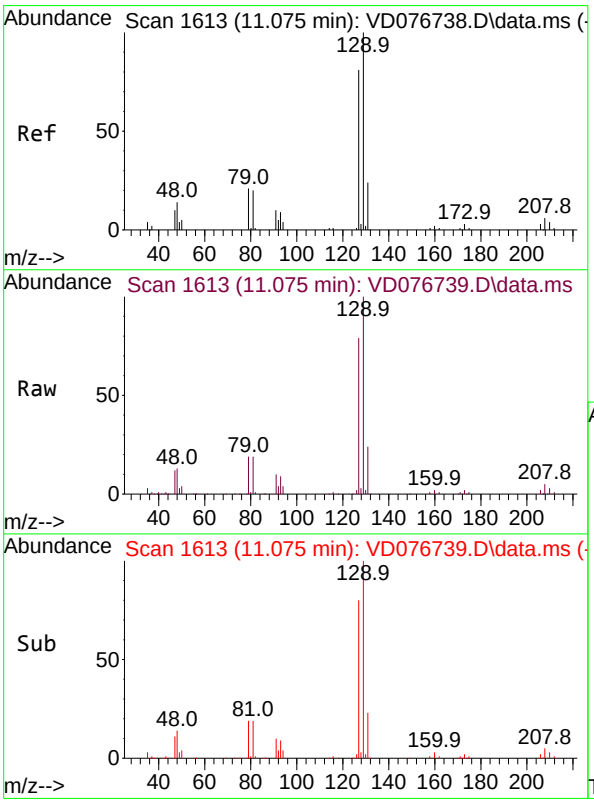
Ion	Ratio	Lower	Upper
43	100		
58	62.1	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

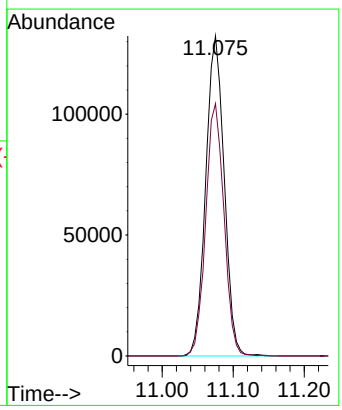


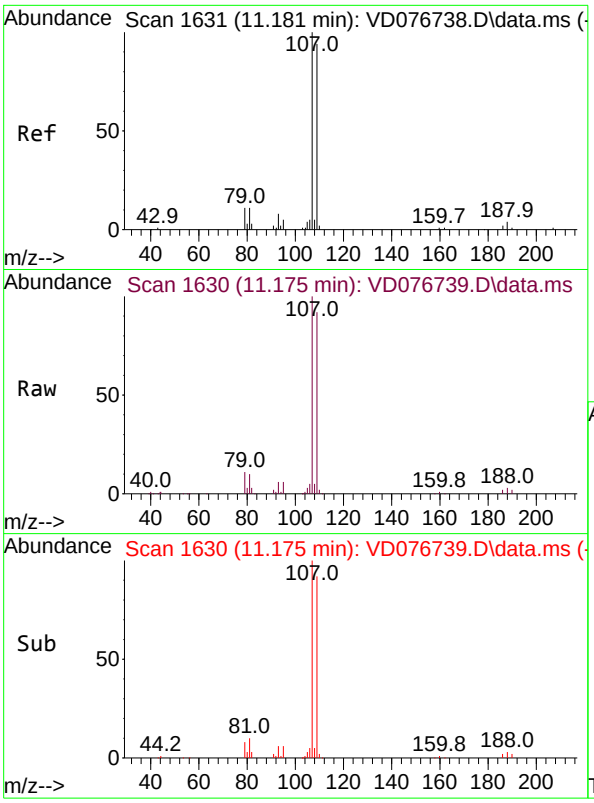


#60
Dibromochloromethane
Concen: 102.817 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:129 Resp: 238690

Ion	Ratio	Lower	Upper
129	100		
127	78.1	37.1	111.5





#61
1,2-Dibromoethane
Concen: 101.494 ug/l
RT: 11.175 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

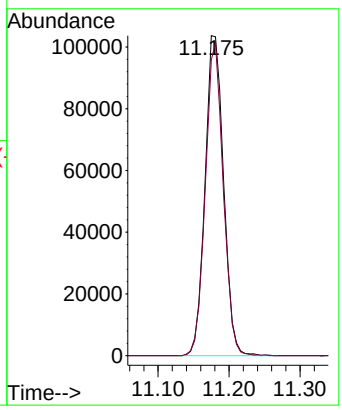
Tgt Ion:107 Resp: 18803

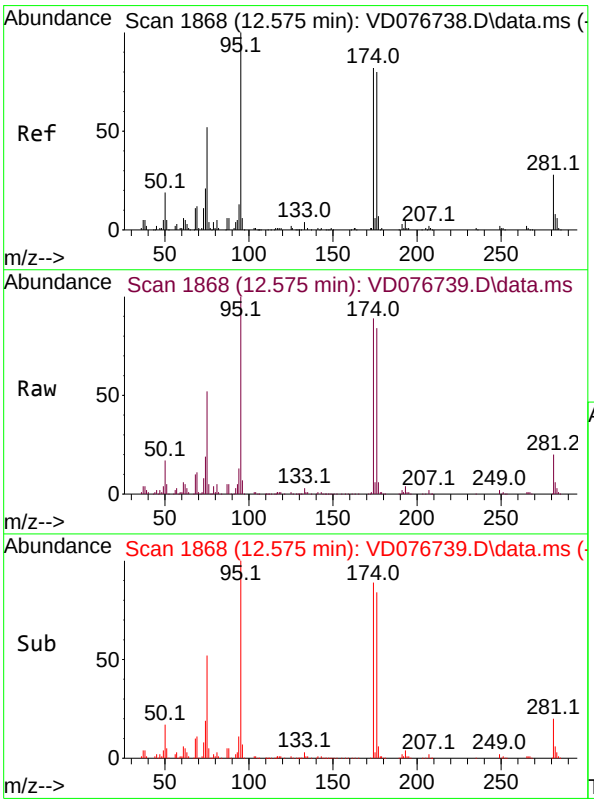
Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

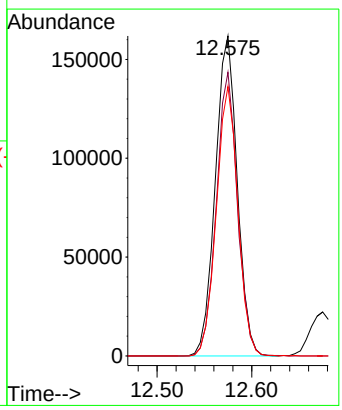


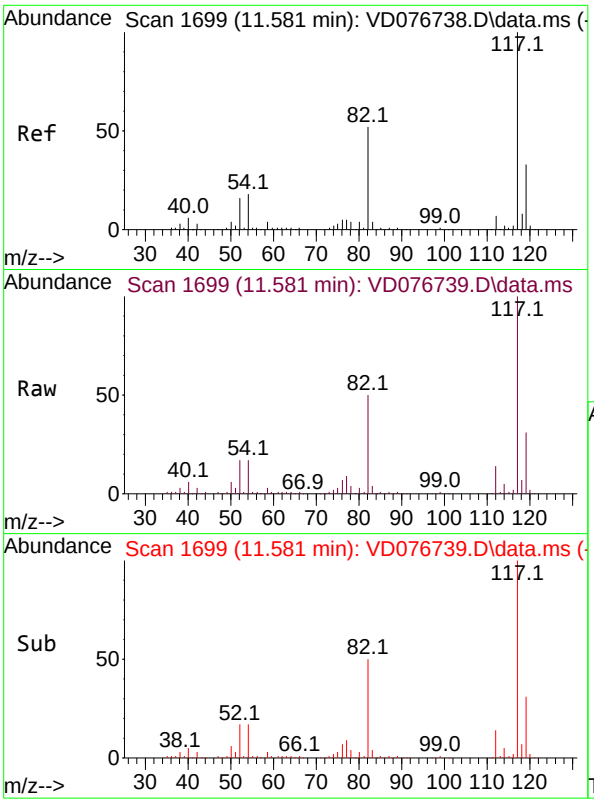


#62
4-Bromofluorobenzene
Concen: 102.544 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 95 Resp: 260687

Ion	Ratio	Lower	Upper
95	100		
174	85.4	0.0	201.8
176	82.8	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

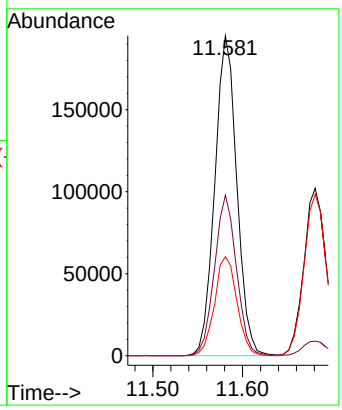
Tgt Ion:117 Resp: 33197

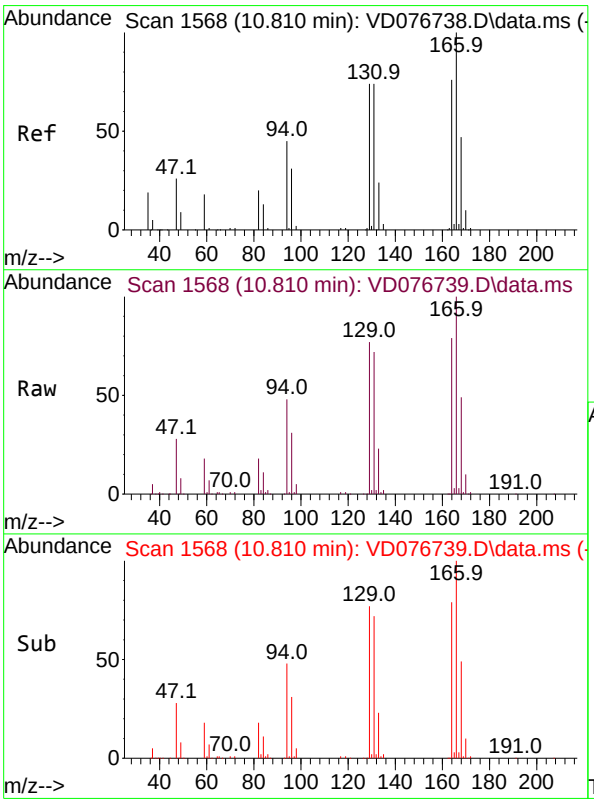
Ion	Ratio	Lower	Upper
117	100		
82	50.2	38.3	57.5
119	31.0	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

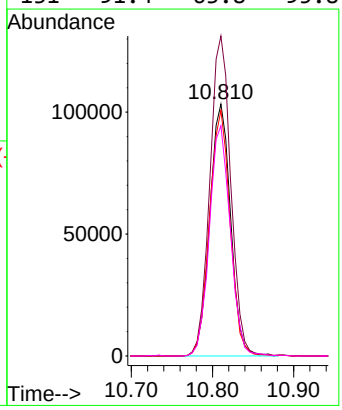


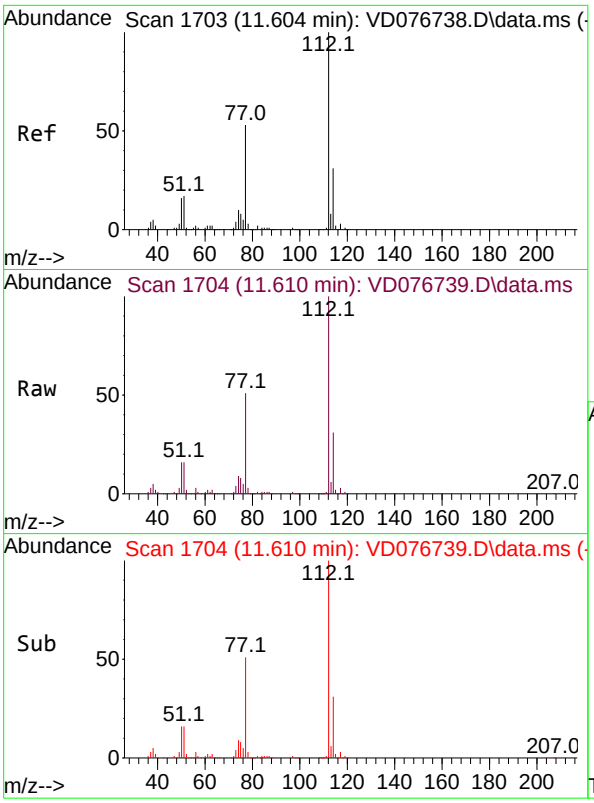


#64
Tetrachloroethene
Concen: 97.262 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:164 Resp: 184114

Ion	Ratio	Lower	Upper
164	100		
166	127.1	99.2	148.8
129	97.5	68.4	102.6
131	91.4	63.8	95.8

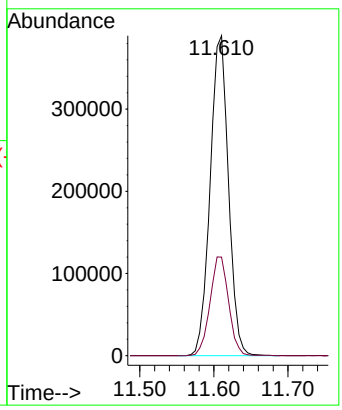




#65
Chlorobenzene
Concen: 99.956 ug/l
RT: 11.610 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:112 Resp: 66737

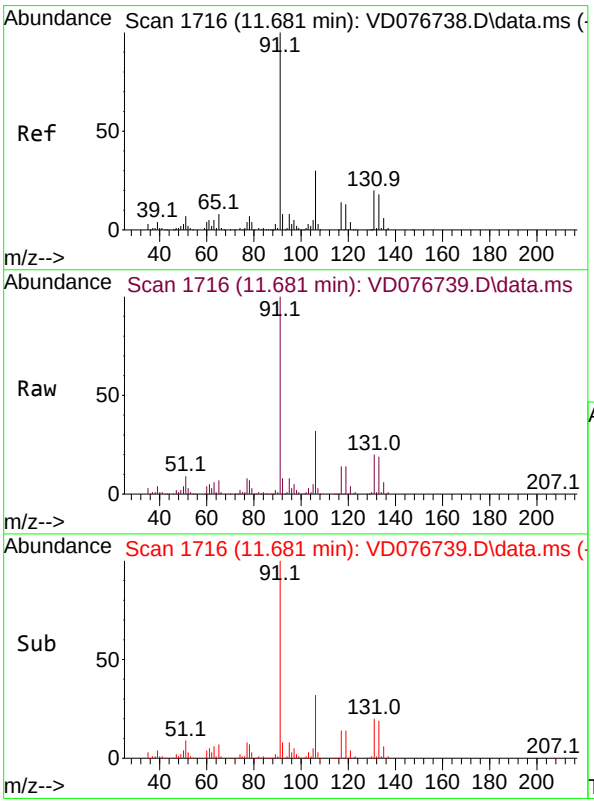
Ion	Ratio	Lower	Upper
112	100		
114	30.8	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

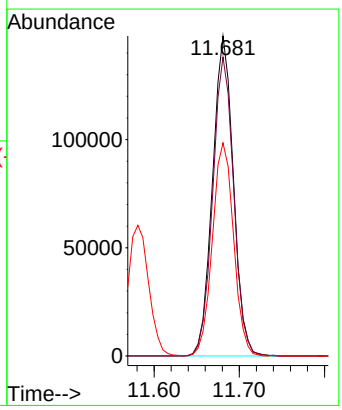
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

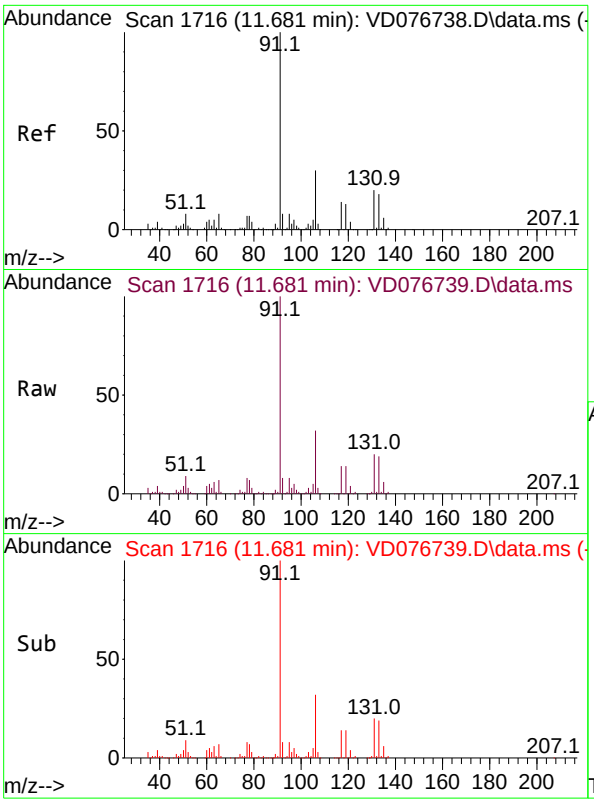


#66
1,1,1,2-Tetrachloroethane
Concen: 101.044 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:131 Resp: 251172

Ion	Ratio	Lower	Upper
131	100		
133	93.9	48.5	145.5
119	67.6	35.6	106.9





#67
Ethyl Benzene
Concen: 100.318 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

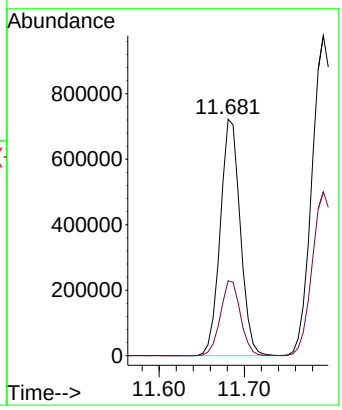
Tgt Ion: 91 Resp: 117628

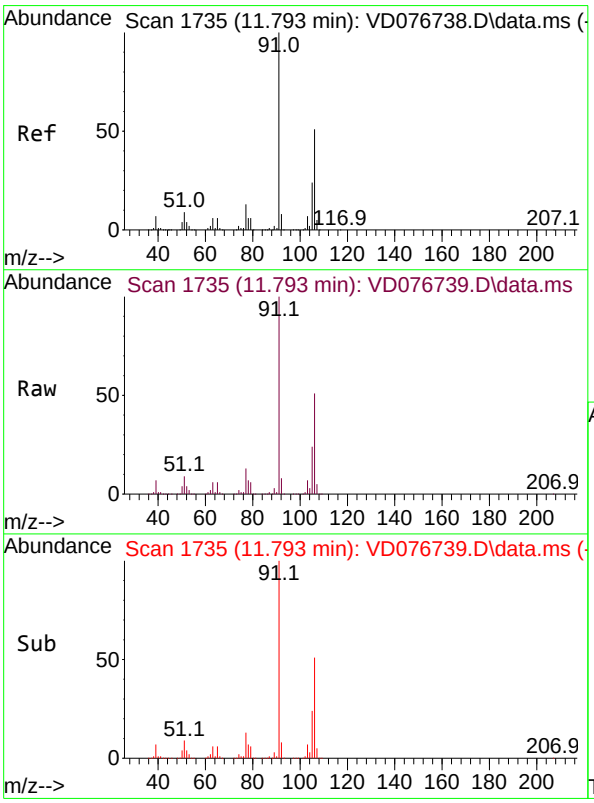
Ion	Ratio	Lower	Upper
91	100		
106	31.7	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

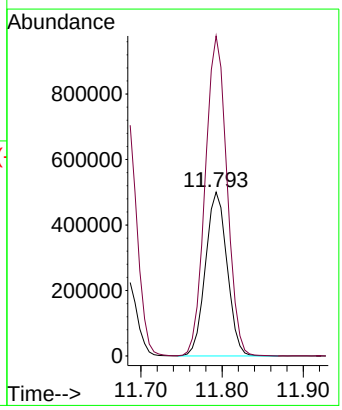


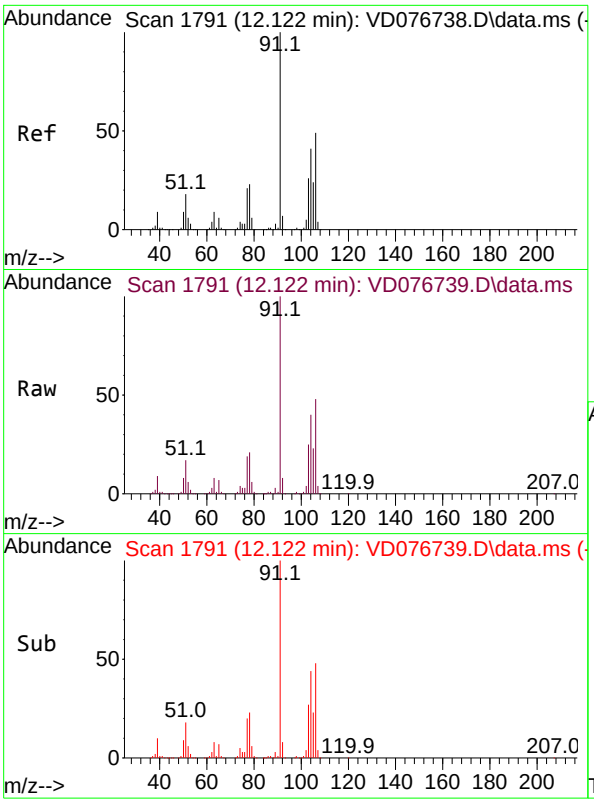


#68
m/p-Xylenes
Concen: 205.243 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:106 Resp: 924273

Ion	Ratio	Lower	Upper
106	100		
91	196.3	147.0	220.6

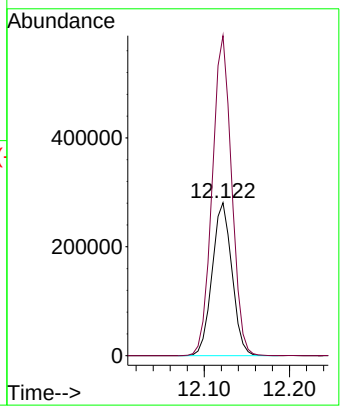




#69
o-Xylene
Concen: 104.203 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:106 Resp: 45378

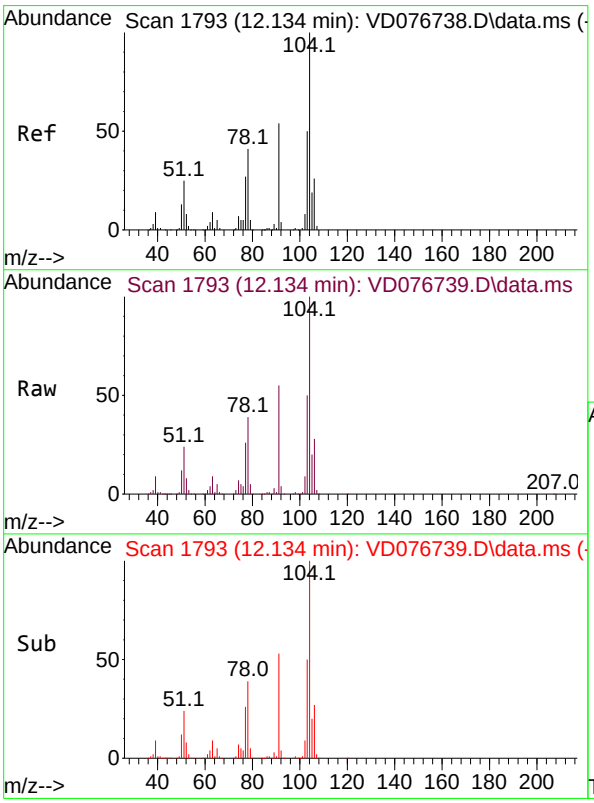
Ion	Ratio	Lower	Upper
106	100		
91	205.3	97.9	293.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

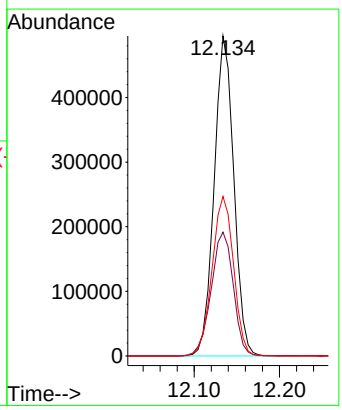
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

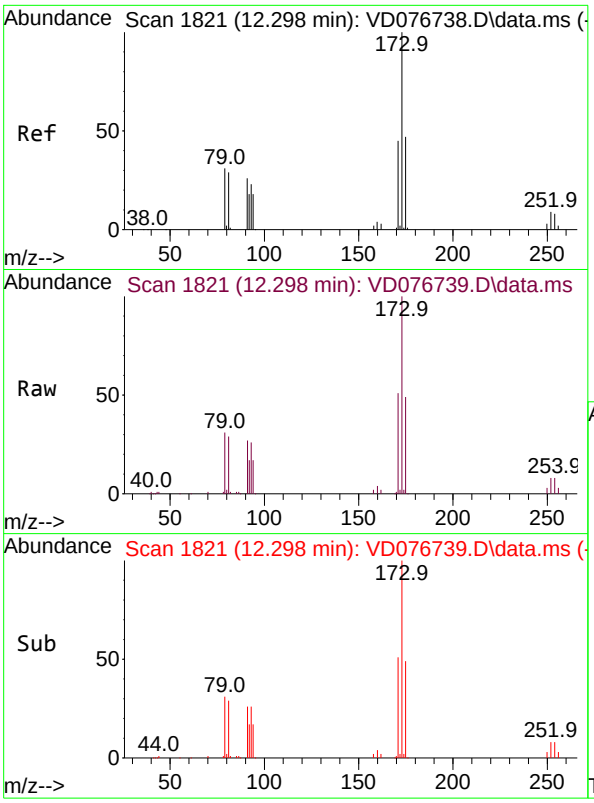


#70
Styrene
Concen: 104.193 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:104 Resp: 794298

Ion	Ratio	Lower	Upper
104	100		
78	43.4	33.2	49.8
103	54.5	43.6	65.4

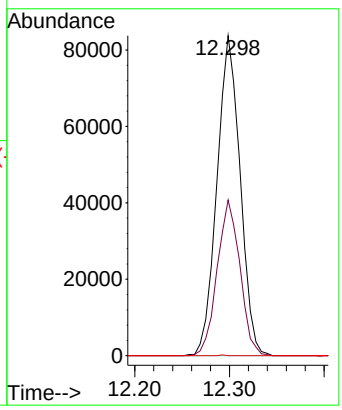




#71
Bromoform
Concen: 104.581 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:173 Resp: 14237

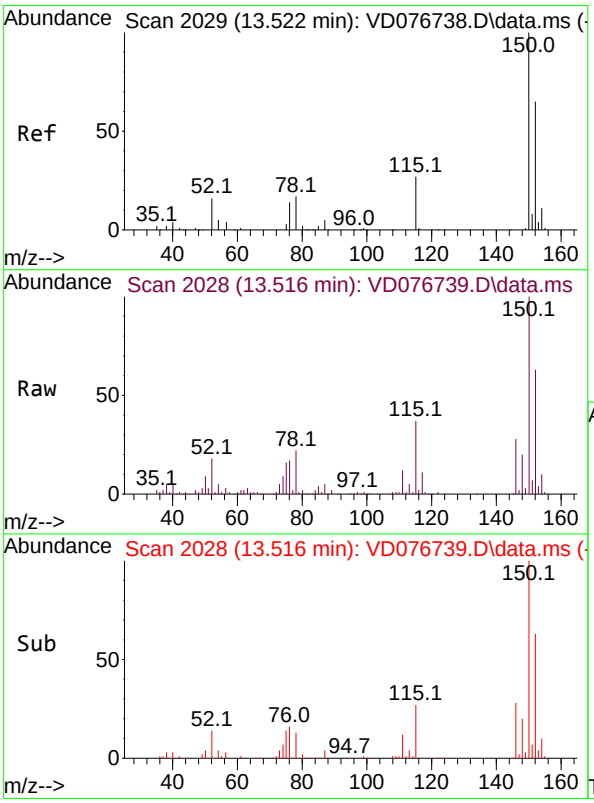
Ion	Ratio	Lower	Upper
173	100		
175	47.7	24.6	73.8
254	0.1	0.0	0.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

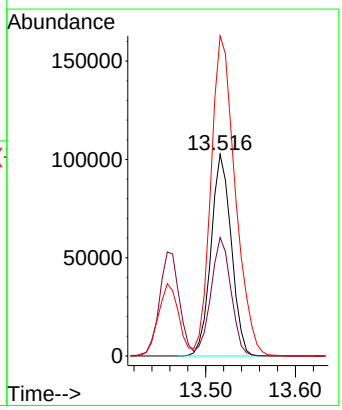
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

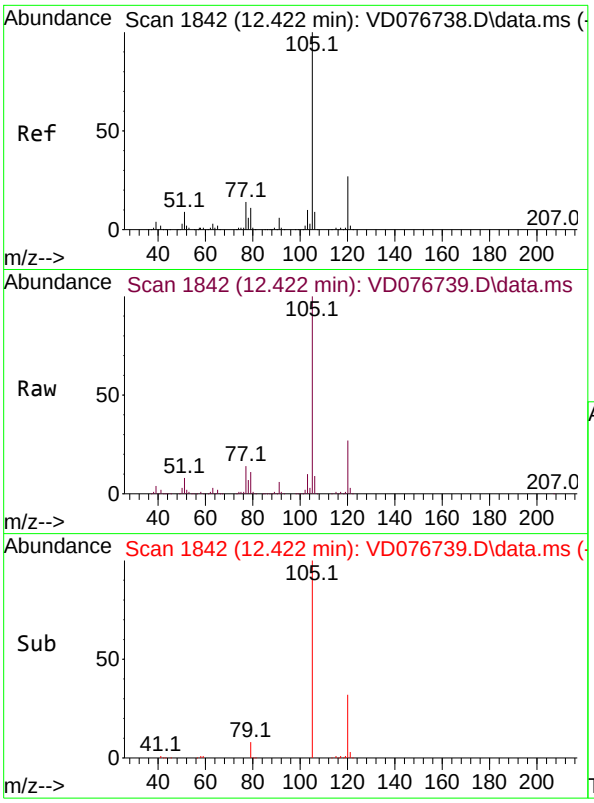


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:152 Resp: 160869

Ion	Ratio	Lower	Upper
152	100		
115	58.1	27.1	81.3
150	190.1	0.0	353.6

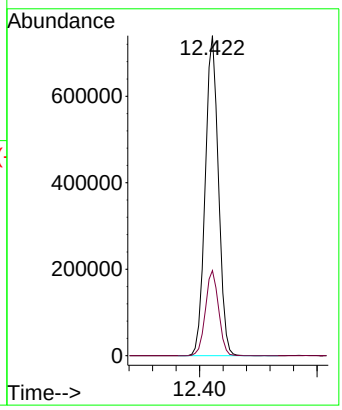




#73
Isopropylbenzene
Concen: 98.579 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:105 Resp: 115054

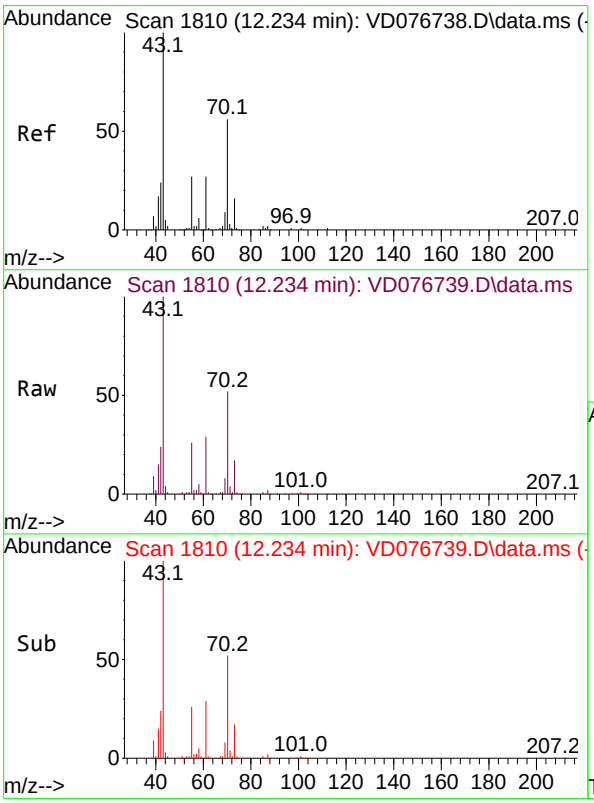
Ion	Ratio	Lower	Upper
105	100		
120	26.5	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

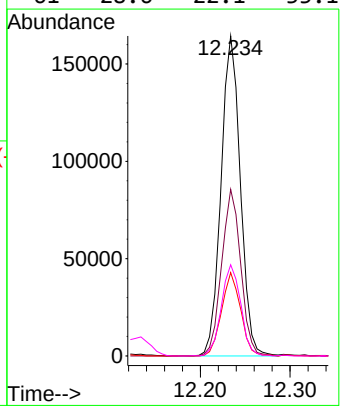
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

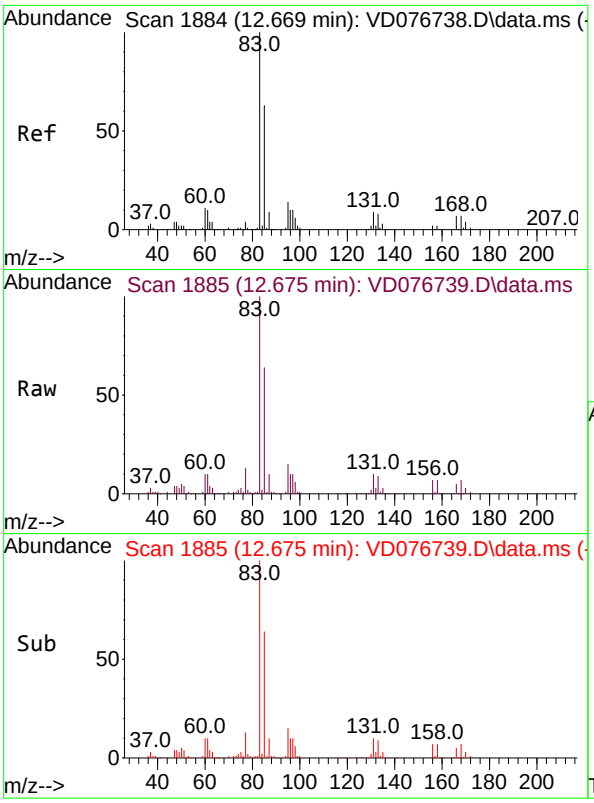


#74
N-amyl acetate
Concen: 99.974 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 43 Resp: 245817

Ion	Ratio	Lower	Upper
43	100		
70	51.5	45.0	67.4
55	25.7	23.8	35.6
61	28.6	22.1	33.1

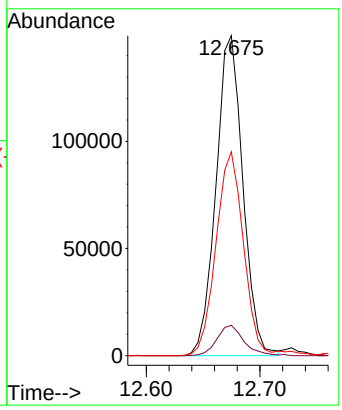




#75
1,1,2,2-Tetrachloroethane
Concen: 98.245 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 83 Resp: 24619

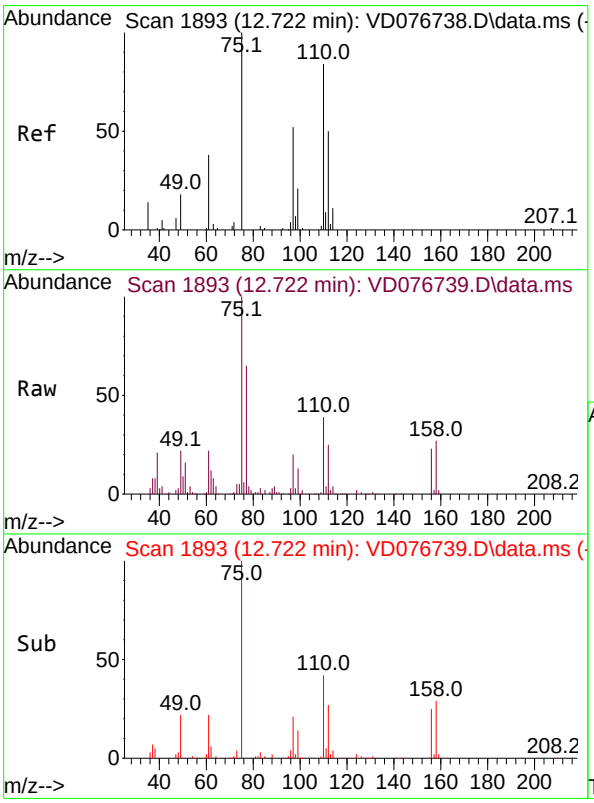
Ion	Ratio	Lower	Upper
83	100		
131	9.6	5.1	15.3
85	65.9	32.6	97.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

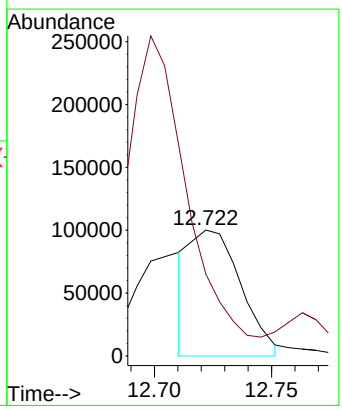
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

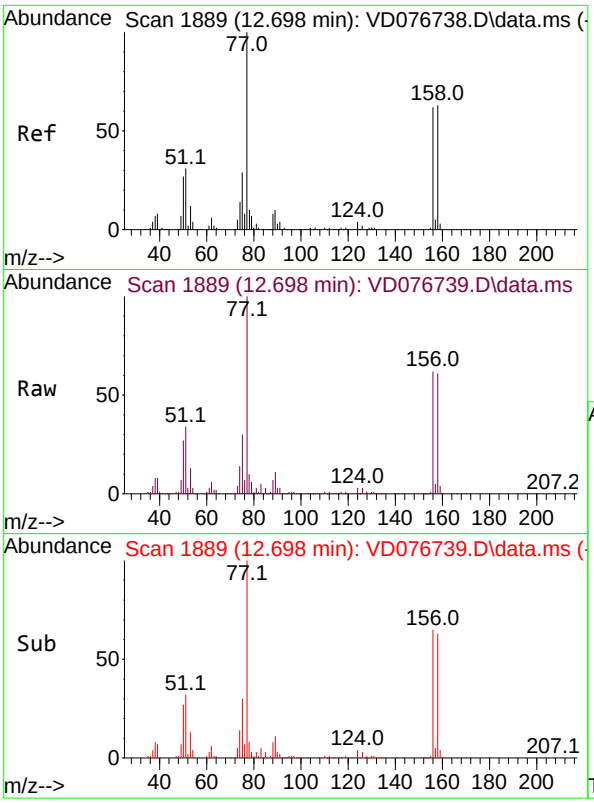


#76
1,2,3-Trichloropropane
Concen: 96.325 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 75 Resp: 153982

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 98.257 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

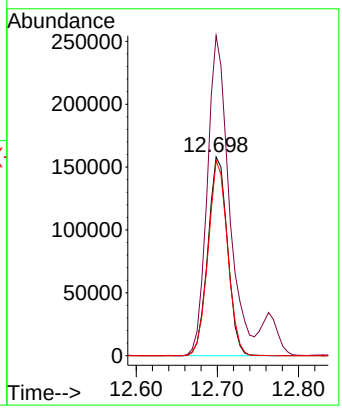
Tgt Ion:156 Resp: 26470

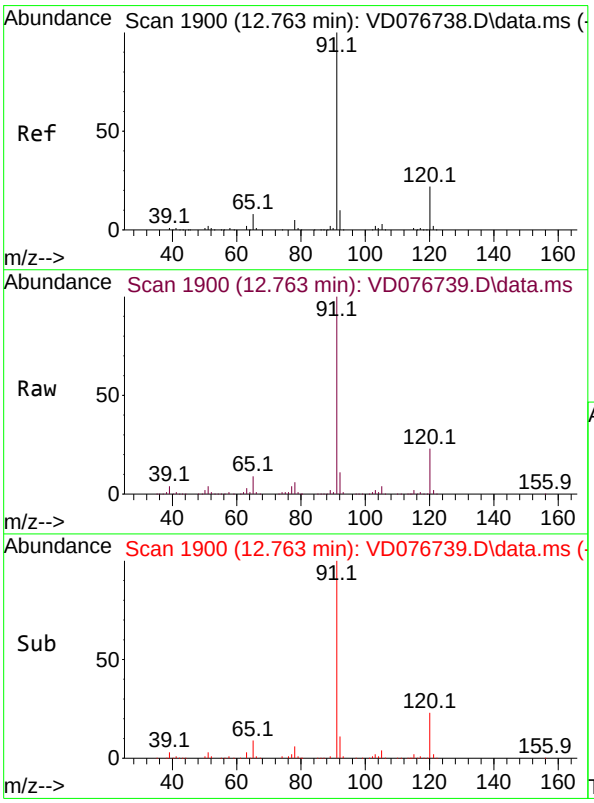
Ion	Ratio	Lower	Upper
156	100		
77	178.9	76.8	230.4
158	97.4	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

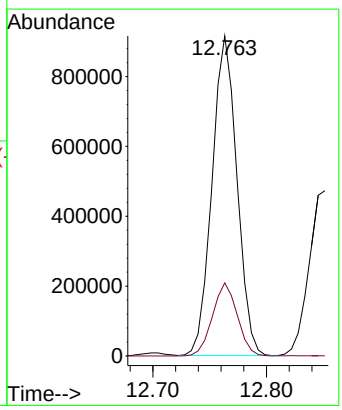


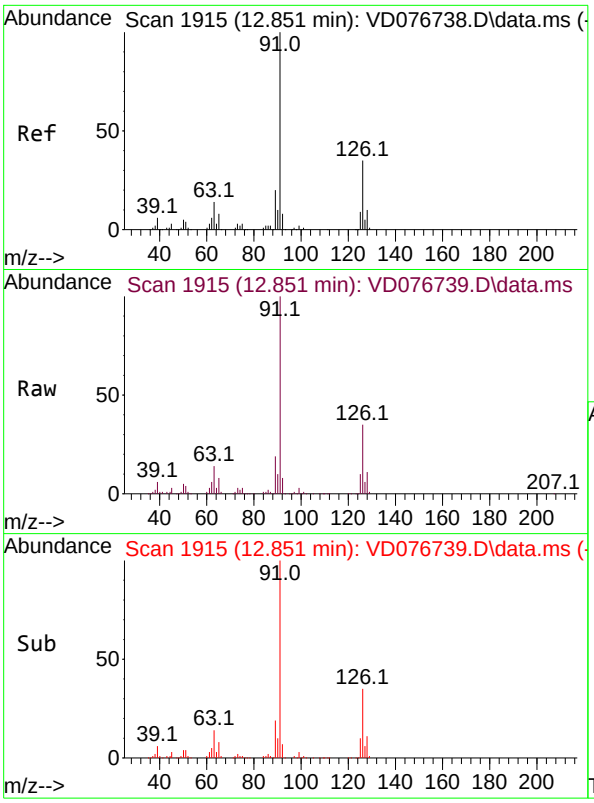


#78
n-propylbenzene
Concen: 98.712 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 91 Resp: 1396720

Ion	Ratio	Lower	Upper
91	100		
120	22.7	12.4	37.2

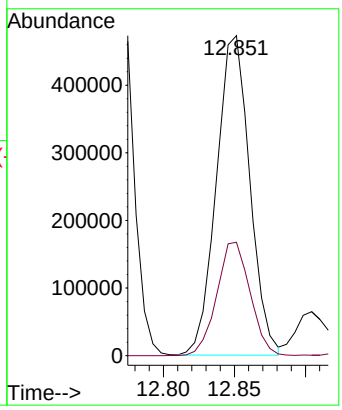




#79
2-Chlorotoluene
Concen: 99.552 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 91 Resp: 77234

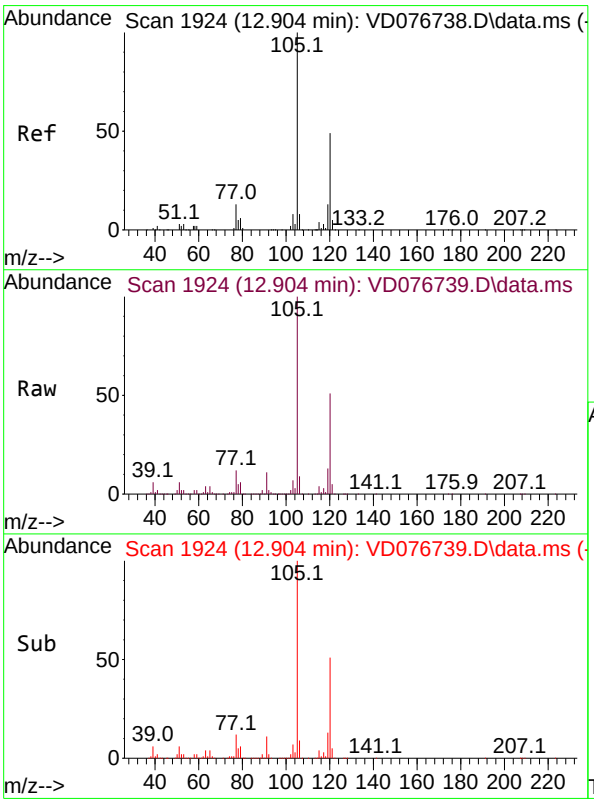
Ion	Ratio	Lower	Upper
91	100		
126	35.5	19.4	58.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

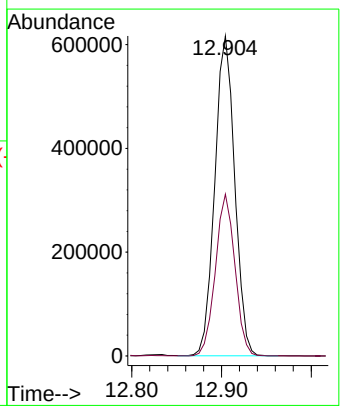
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

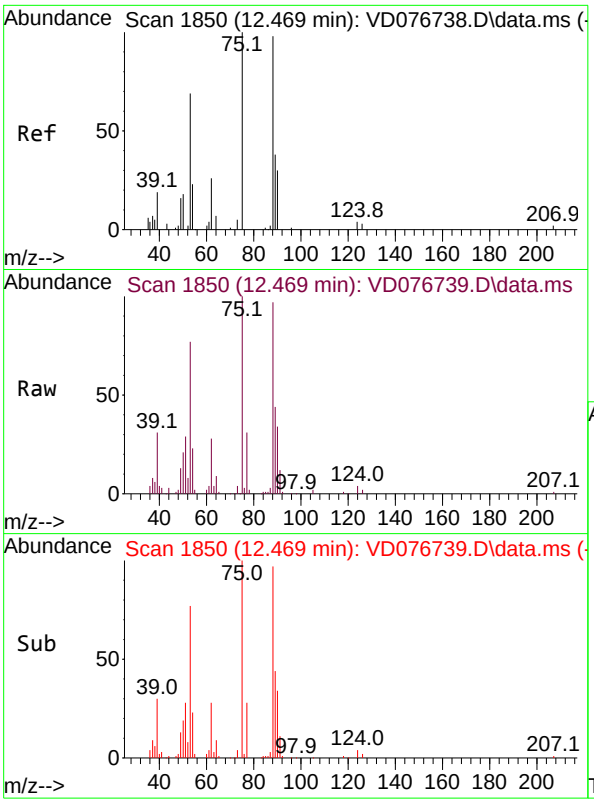


#80
1,3,5-Trimethylbenzene
Concen: 100.713 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:105 Resp: 950468

Ion	Ratio	Lower	Upper
105	100		
120	49.6	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 101.998 ug/l
RT: 12.469 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

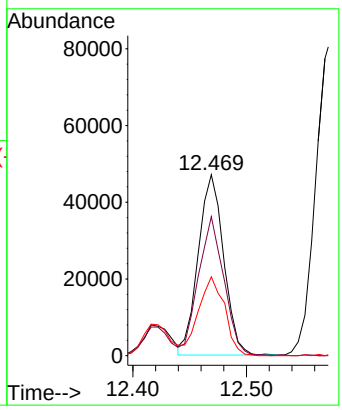
Tgt Ion: 75 Resp: 7331

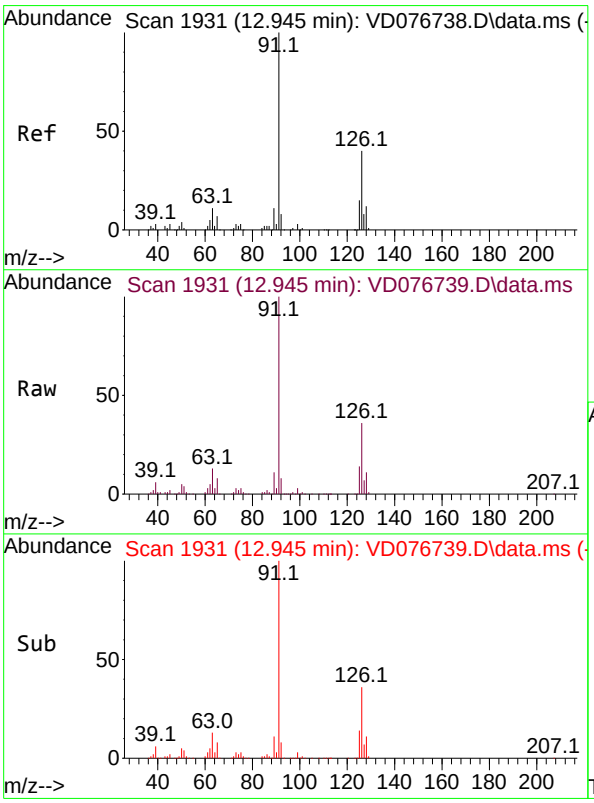
Ion	Ratio	Lower	Upper
75	100		
53	77.5	63.0	94.4
89	45.4	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

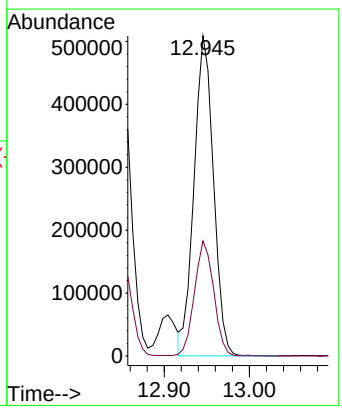


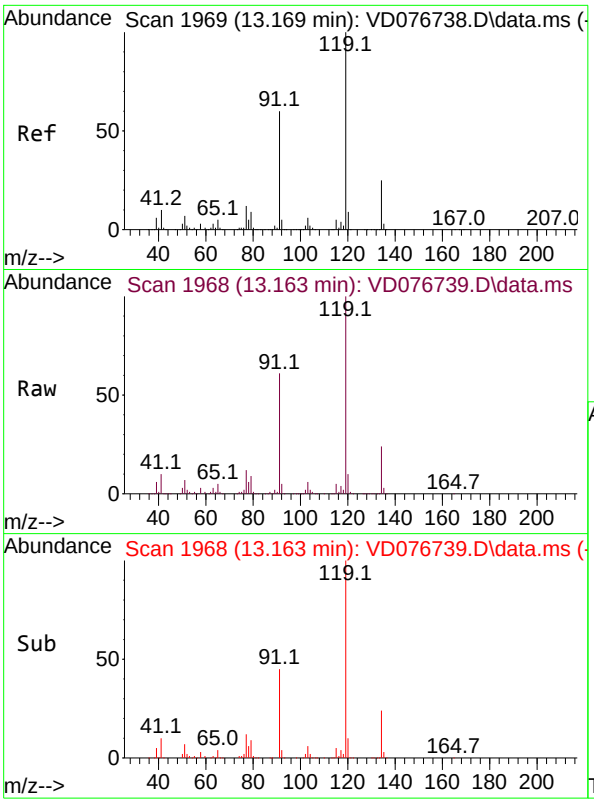


#82
4-Chlorotoluene
Concen: 99.250 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 91 Resp: 804411

Ion	Ratio	Lower	Upper
91	100		
126	35.7	19.4	58.4

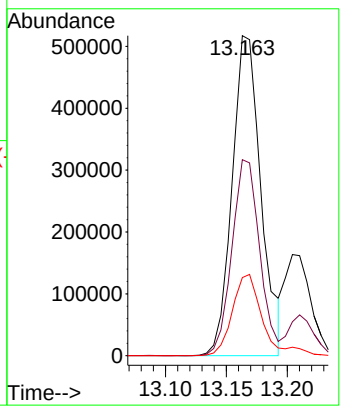




#83
tert-Butylbenzene
Concen: 102.719 ug/l
RT: 13.163 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:119 Resp: 85354

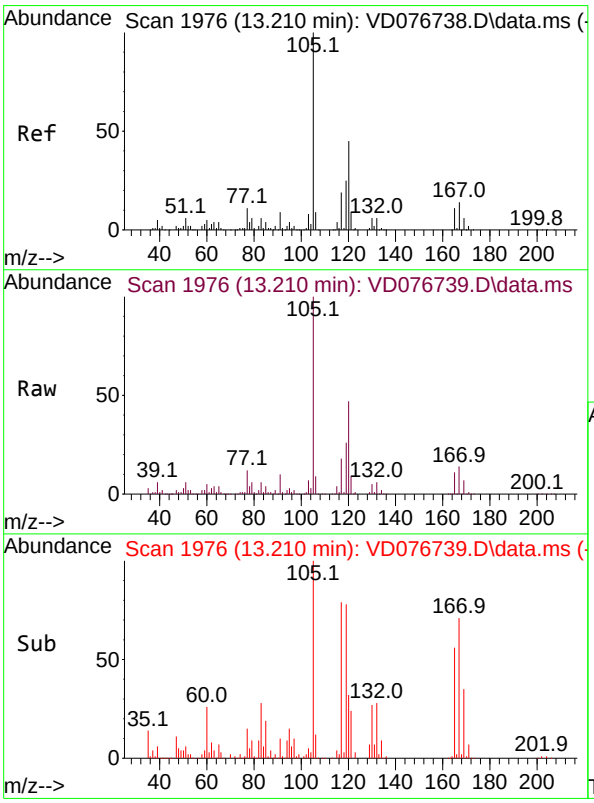
Ion	Ratio	Lower	Upper
119	100		
91	59.0	29.3	87.8
134	26.6	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

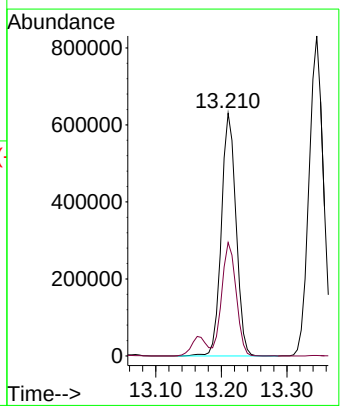
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

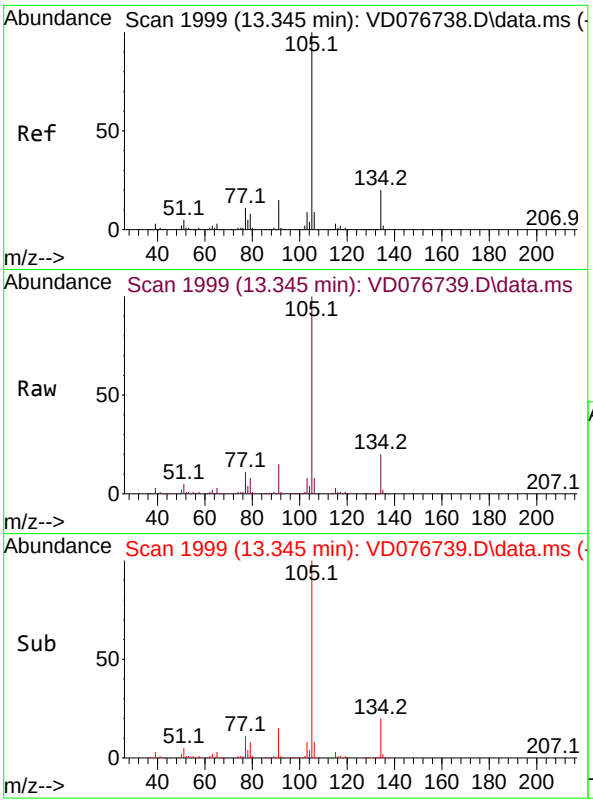


#84
1,2,4-Trimethylbenzene
Concen: 101.004 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:105 Resp: 974087

Ion	Ratio	Lower	Upper
105	100		
120	45.7	24.3	72.9

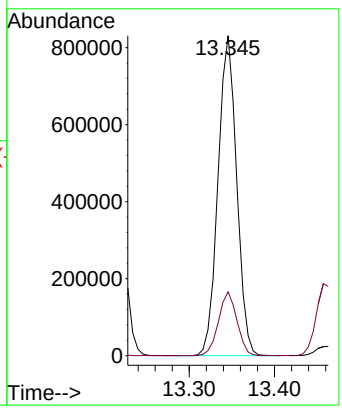




#85
sec-Butylbenzene
Concen: 99.498 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:105 Resp: 126317

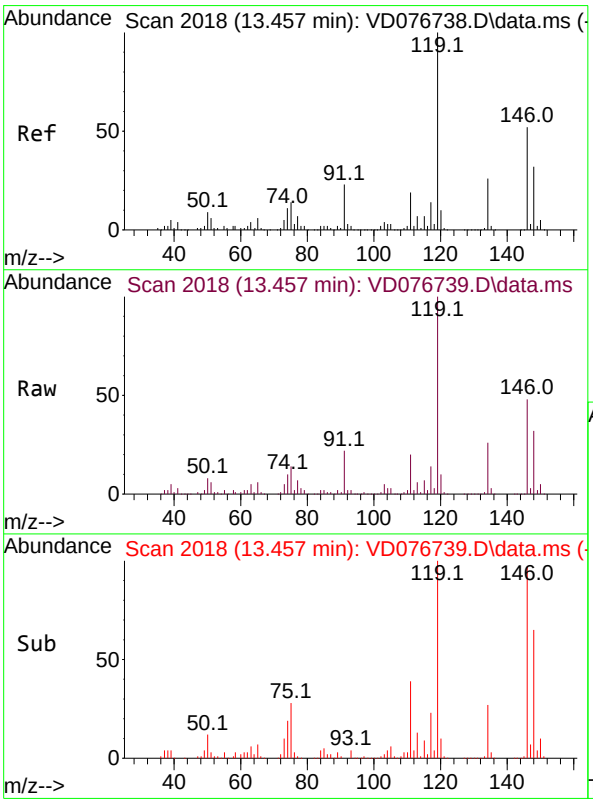
Ion	Ratio	Lower	Upper
105	100		
134	19.7	10.9	32.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

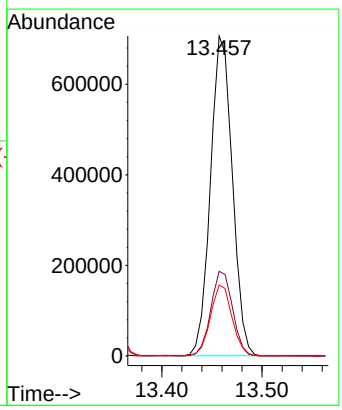
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

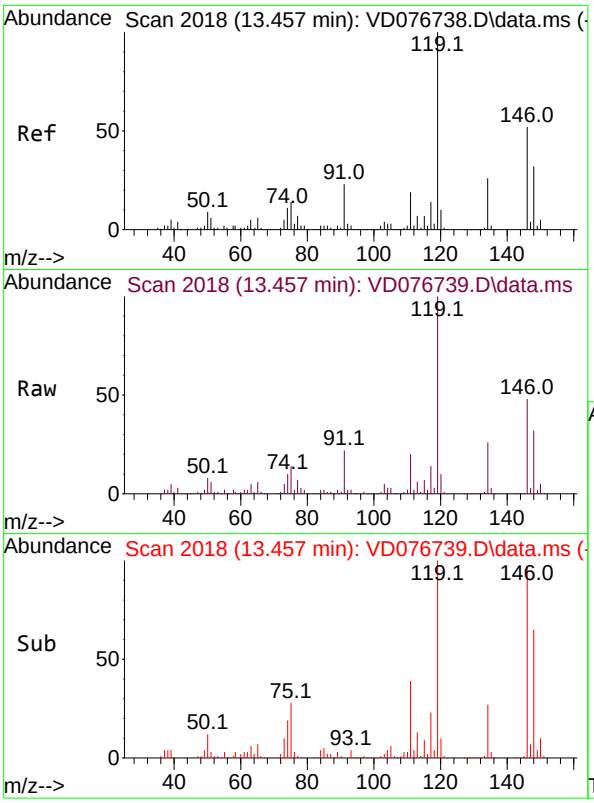


#86
p-Isopropyltoluene
Concen: 102.191 ug/l
RT: 13.457 min Scan# 2018
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:119 Resp: 1071451

Ion	Ratio	Lower	Upper
119	100		
134	26.3	14.2	42.6
91	21.9	10.5	31.5

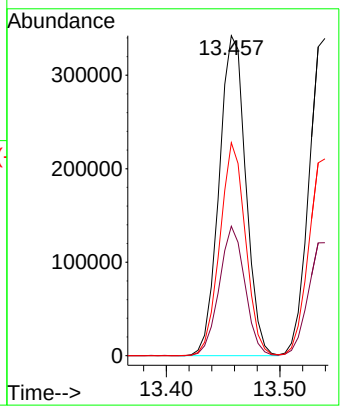




#87
1,3-Dichlorobenzene
Concen: 100.771 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:146 Resp: 55838

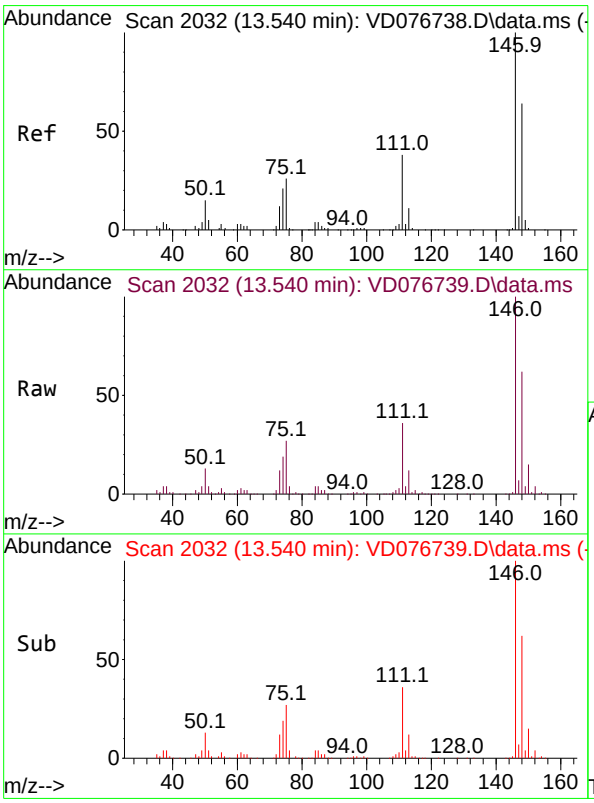
Ion	Ratio	Lower	Upper
146	100		
111	38.9	17.9	53.8
148	63.9	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

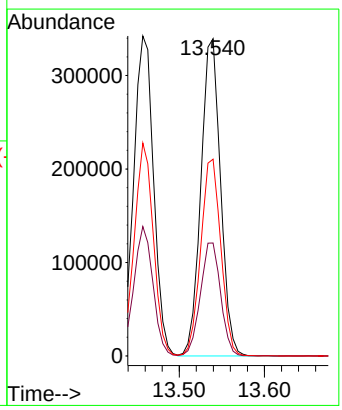
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

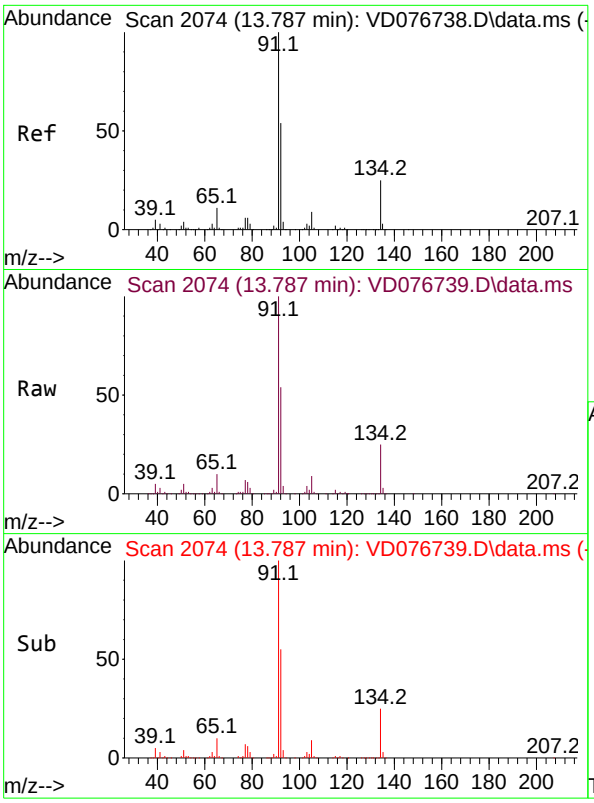


#88
1,4-Dichlorobenzene
Concen: 100.246 ug/l
RT: 13.540 min Scan# 2032
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:146 Resp: 544228

Ion	Ratio	Lower	Upper
146	100		
111	36.6	17.4	52.3
148	63.6	31.7	95.1

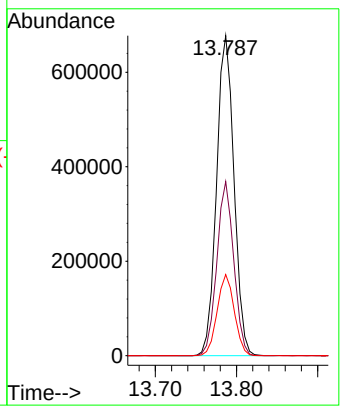




#89
n-Butylbenzene
Concen: 98.618 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 91 Resp: 101180

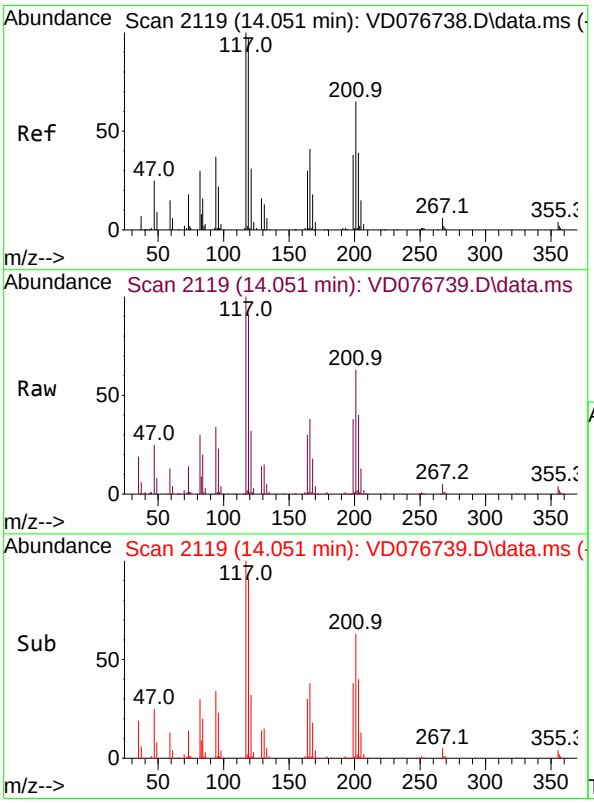
Ion	Ratio	Lower	Upper
91	100		
92	52.9	26.5	79.5
134	25.0	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

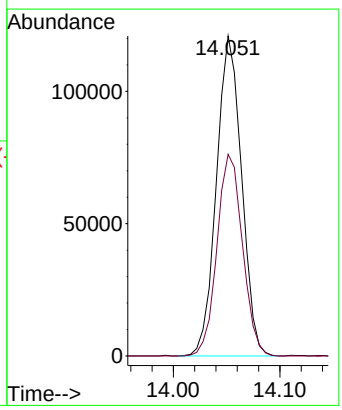
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

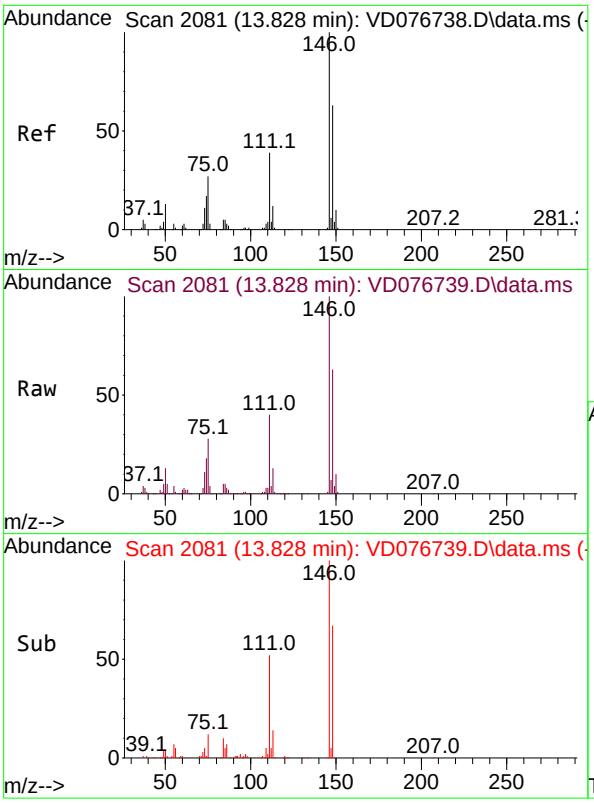


#90
Hexachloroethane
Concen: 102.120 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:117 Resp: 197949

Ion	Ratio	Lower	Upper
117	100		
201	64.0	38.5	115.5

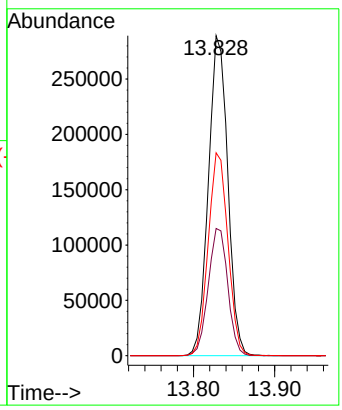




#91
1,2-Dichlorobenzene
Concen: 98.027 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:146 Resp: 47863

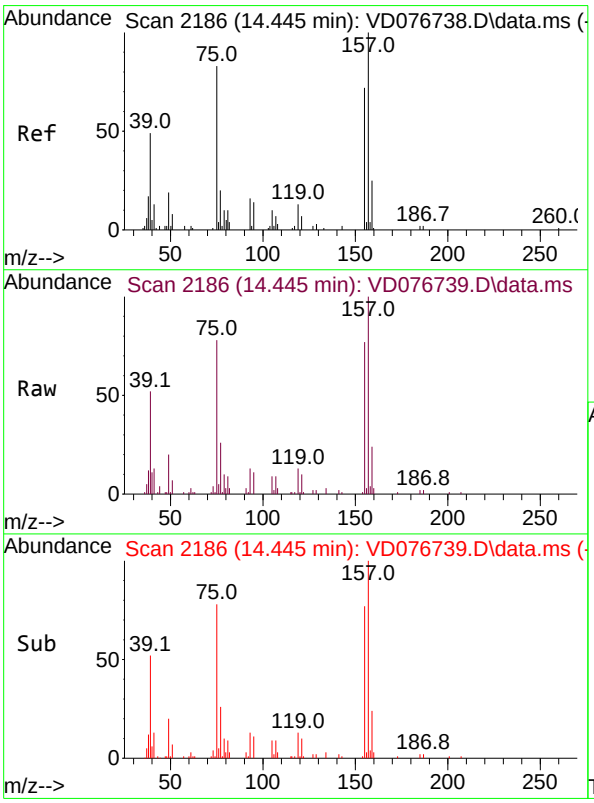
Ion	Ratio	Lower	Upper
146	100		
111	40.1	18.3	54.8
148	64.6	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

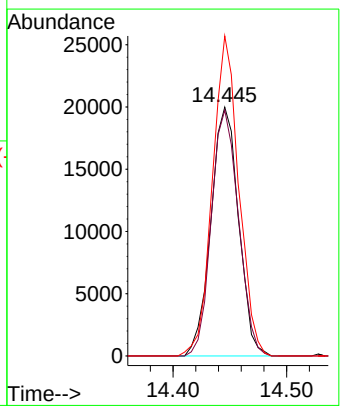
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

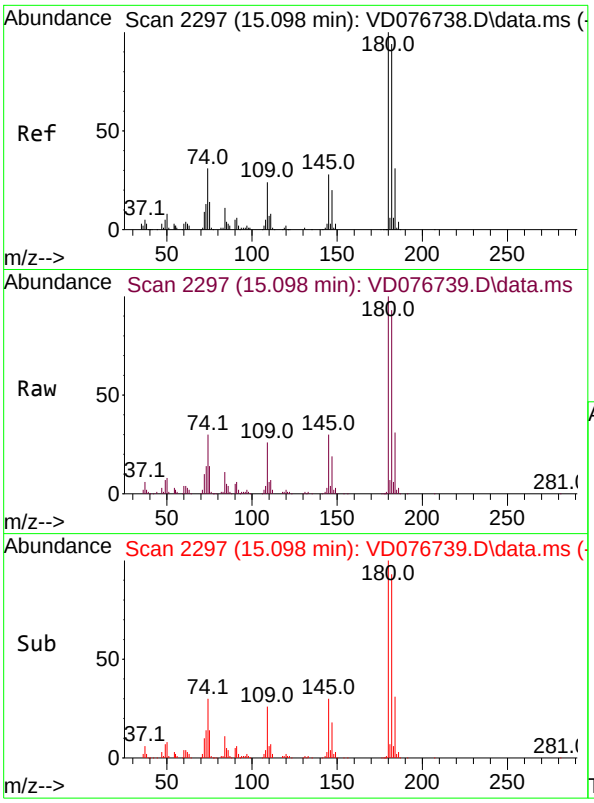


#92
1,2-Dibromo-3-Chloropropane
Concen: 94.612 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion: 75 Resp: 33805

Ion	Ratio	Lower	Upper
75	100		
155	96.7	47.9	143.8
157	122.4	59.9	179.7

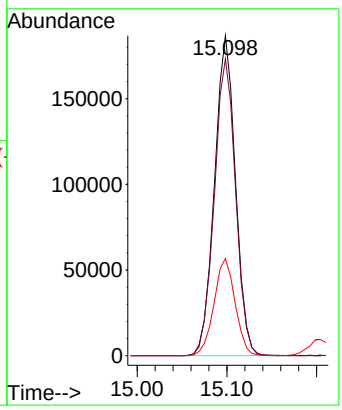




#93
1,2,4-Trichlorobenzene
Concen: 101.227 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:180 Resp: 30175

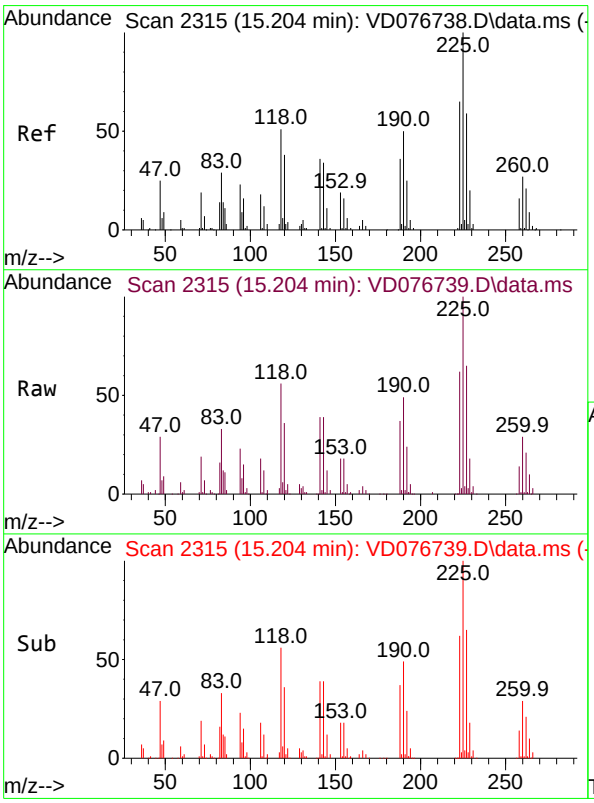
Ion	Ratio	Lower	Upper
180	100		
182	94.4	48.5	145.6
145	30.6	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

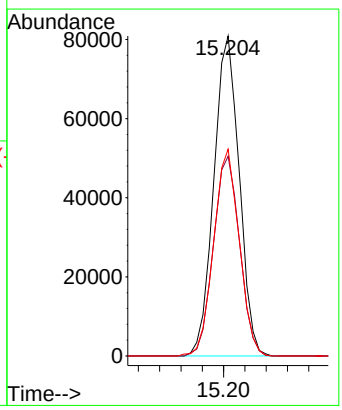
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

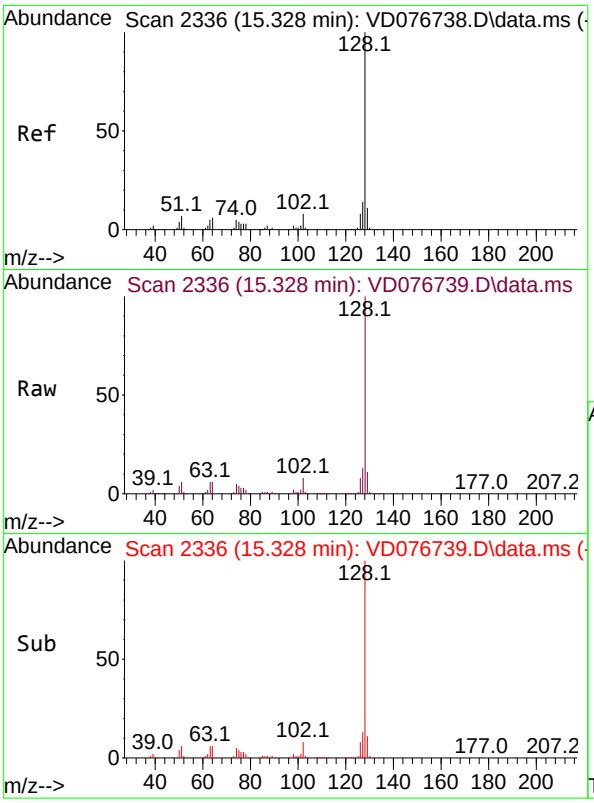


#94
Hexachlorobutadiene
Concen: 93.245 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:225 Resp: 133680

Ion	Ratio	Lower	Upper
225	100		
223	64.3	31.6	94.8
227	65.0	31.7	95.1

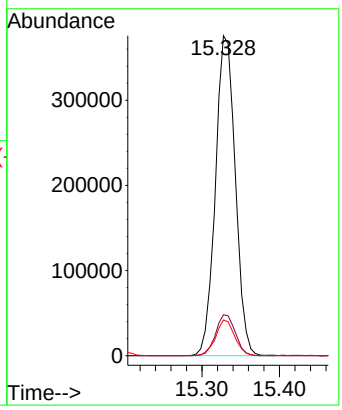




#95
Naphthalene
Concen: 103.887 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:128 Resp: 67052

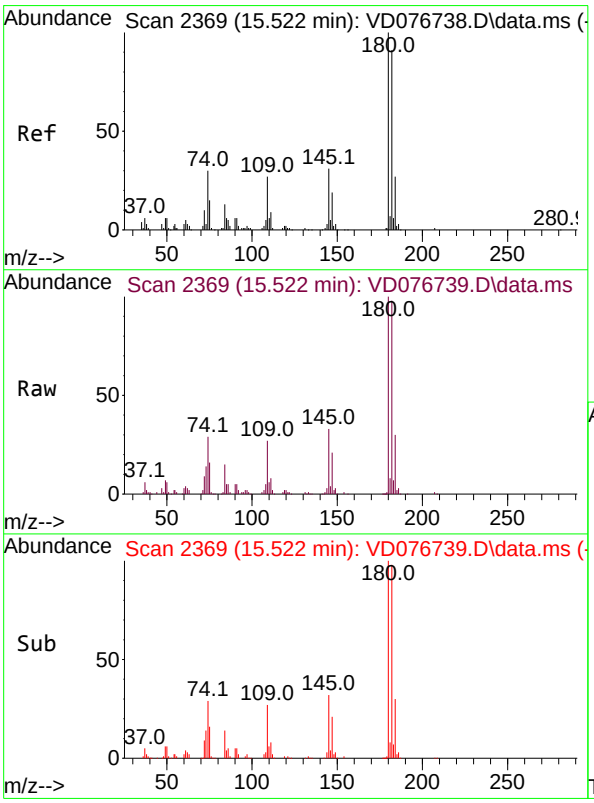
Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.5	15.7
129	11.2	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

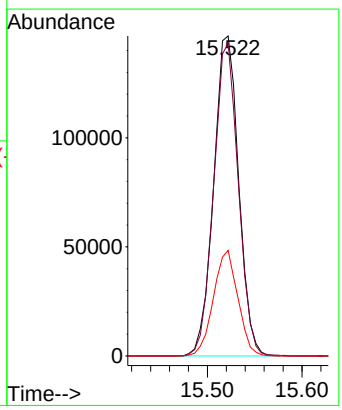
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023



#96
1,2,3-Trichlorobenzene
Concen: 100.558 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076739.D
Acq: 14 Jul 2023 13:49

Tgt Ion:180 Resp: 268994

Ion	Ratio	Lower	Upper
180	100		
182	96.1	47.3	141.9
145	32.3	15.1	45.3



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076740.D
Acq On : 14 Jul 2023 14:17
Operator : KP/SY
Sample : VSTDICC150
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 17 07:43:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	212434	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	382966	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	354747	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	172295	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	286230	135.275	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 270.560%#			
35) Dibromofluoromethane	7.799	113	327652	136.148	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 272.300%#			
50) Toluene-d8	10.269	98	1197621	139.108	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 278.220%#			
62) 4-Bromofluorobenzene	12.575	95	397686	142.790	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 285.580%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	244073	146.925	ug/l	97
3) Chloromethane	2.146	50	373869	130.466	ug/l	99
4) Vinyl Chloride	2.276	62	536743	140.509	ug/l	100
5) Bromomethane	2.658	94	451607	143.688	ug/l	99
6) Chloroethane	2.817	64	401075	139.062	ug/l	100
7) Trichlorofluoromethane	3.164	101	505874	148.828	ug/l	97
8) Diethyl Ether	3.587	74	167402	143.044	ug/l	92
9) 1,1,2-Trichlorotrifluo...	3.952	101	327545	146.598	ug/l	96
10) Methyl Iodide	4.152	142	389376	154.597	ug/l	93
11) Tert butyl alcohol	5.058	59	112118	710.094	ug/l	99
12) 1,1-Dichloroethene	3.928	96	305000	145.295	ug/l	87
13) Acrolein	3.793	56	69876	649.419	ug/l	98
14) Allyl chloride	4.552	41	387147	140.393	ug/l	93
15) Acrylonitrile	5.252	53	400388	696.590	ug/l	99
16) Acetone	4.017	43	331237	655.494	ug/l	89
17) Carbon Disulfide	4.258	76	709519	144.715	ug/l	99
18) Methyl Acetate	4.558	43	265535	139.861	ug/l	94
19) Methyl tert-butyl Ether	5.317	73	818466	145.393	ug/l	97
20) Methylene Chloride	4.793	84	382164	146.986	ug/l #	88
21) trans-1,2-Dichloroethene	5.305	96	350481	143.636	ug/l	95
22) Diisopropyl ether	6.211	45	915890	140.259	ug/l	96
23) Vinyl Acetate	6.152	43	2308014	714.351	ug/l	96
24) 1,1-Dichloroethane	6.111	63	616972	140.134	ug/l	98
25) 2-Butanone	7.075	43	468314	692.464	ug/l	92
26) 2,2-Dichloropropane	7.069	77	553371	145.806	ug/l	96
27) cis-1,2-Dichloroethene	7.075	96	430034	142.962	ug/l	97
28) Bromochloromethane	7.422	49	137684	125.084	ug/l	88
29) Tetrahydrofuran	7.446	42	278442	696.831	ug/l	94
30) Chloroform	7.593	83	666236	138.160	ug/l	100
31) Cyclohexane	7.869	56	430475	138.240	ug/l	91
32) 1,1,1-Trichloroethane	7.787	97	571421	146.870	ug/l	98
36) 1,1-Dichloropropene	8.005	75	466585	148.370	ug/l	98
37) Ethyl Acetate	7.169	43	199008	141.505	ug/l	95
38) Carbon Tetrachloride	7.987	117	467522	155.263	ug/l	95
39) Methylcyclohexane	9.269	83	565621	155.770	ug/l	97
40) Benzene	8.246	78	1442939	145.422	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076740.D
Acq On : 14 Jul 2023 14:17
Operator : KP/SY
Sample : VSTDICC150
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:43:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	7.393	41	117365	136.660 ug/l #	88
42) 1,2-Dichloroethane	8.322	62	368333	142.867 ug/l	98
43) Isopropyl Acetate	8.358	43	393401	143.333 ug/l	92
44) Trichloroethene	9.028	130	387654	143.370 ug/l	93
45) 1,2-Dichloropropane	9.305	63	361570	141.165 ug/l	97
46) Dibromomethane	9.393	93	215225	143.555 ug/l	92
47) Bromodichloromethane	9.581	83	531607	141.297 ug/l	98
48) Methyl methacrylate	9.381	41	173247	138.687 ug/l	88
49) 1,4-Dioxane	9.381	88	54978	2862.152 ug/l	96
51) 4-Methyl-2-Pentanone	10.157	43	1041204	712.497 ug/l	95
52) Toluene	10.334	92	966521	148.310 ug/l	95
53) t-1,3-Dichloropropene	10.552	75	520329	149.001 ug/l	99
54) cis-1,3-Dichloropropene	10.016	75	604647	146.914 ug/l #	92
55) 1,1,2-Trichloroethane	10.734	97	309832	141.521 ug/l	95
56) Ethyl methacrylate	10.599	69	375269	148.511 ug/l	93
57) 1,3-Dichloropropane	10.881	76	507703	142.400 ug/l	98
58) 2-Chloroethyl Vinyl ether	9.869	63	699479	715.140 ug/l	99
59) 2-Hexanone	10.922	43	737658	707.429 ug/l	94
60) Dibromochloromethane	11.075	129	373437	146.831 ug/l	97
61) 1,2-Dibromoethane	11.181	107	287127	141.460 ug/l	100
64) Tetrachloroethene	10.810	164	301744	149.169 ug/l	92
65) Chlorobenzene	11.604	112	1055085	147.881 ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.681	131	399085	150.242 ug/l	97
67) Ethyl Benzene	11.681	91	1935733	154.488 ug/l	96
68) m/p-Xylenes	11.793	106	1501344	311.985 ug/l	93
69) o-Xylene	12.122	106	721049	154.947 ug/l	91
70) Styrene	12.134	104	1266751	155.501 ug/l	98
71) Bromoform	12.299	173	218230	150.006 ug/l #	100
73) Isopropylbenzene	12.422	105	1890490	151.235 ug/l	96
74) N-amyl acetate	12.234	43	373508	141.832 ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.675	83	367123	136.786 ug/l	98
76) 1,2,3-Trichloropropane	12.722	75	236969m	138.407 ug/l	
77) Bromobenzene	12.698	156	417793	144.796 ug/l	88
78) n-propylbenzene	12.763	91	2286180	150.859 ug/l	96
79) 2-Chlorotoluene	12.851	91	1222268	147.097 ug/l	96
80) 1,3,5-Trimethylbenzene	12.904	105	1549307	153.280 ug/l	96
81) trans-1,4-Dichloro-2-b...	12.469	75	111242	144.492 ug/l	99
82) 4-Chlorotoluene	12.946	91	1289917	148.599 ug/l	95
83) tert-Butylbenzene	13.163	119	1385565	155.686 ug/l	97
84) 1,2,4-Trimethylbenzene	13.210	105	1579912	152.959 ug/l	96
85) sec-Butylbenzene	13.345	105	2096414	154.179 ug/l	96
86) p-Isopropyltoluene	13.457	119	1783540	158.827 ug/l	97
87) 1,3-Dichlorobenzene	13.457	146	894449	150.714 ug/l	97
88) 1,4-Dichlorobenzene	13.540	146	851544	146.451 ug/l	98
89) n-Butylbenzene	13.787	91	1681774	153.048 ug/l	99
90) Hexachloroethane	14.051	117	320425	154.342 ug/l	87
91) 1,2-Dichlorobenzene	13.828	146	766488	146.570 ug/l	97
92) 1,2-Dibromo-3-Chloropr...	14.445	75	49457	129.239 ug/l	92
93) 1,2,4-Trichlorobenzene	15.098	180	468870	146.860 ug/l	98
94) Hexachlorobutadiene	15.204	225	226689	147.635 ug/l	100
95) Naphthalene	15.328	128	1039946	150.438 ug/l	99
96) 1,2,3-Trichlorobenzene	15.522	180	417343	145.668 ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076740.D
Acq On : 14 Jul 2023 14:17
Operator : KP/SY
Sample : VSTDICC150
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:43:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

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

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

ICAL Form

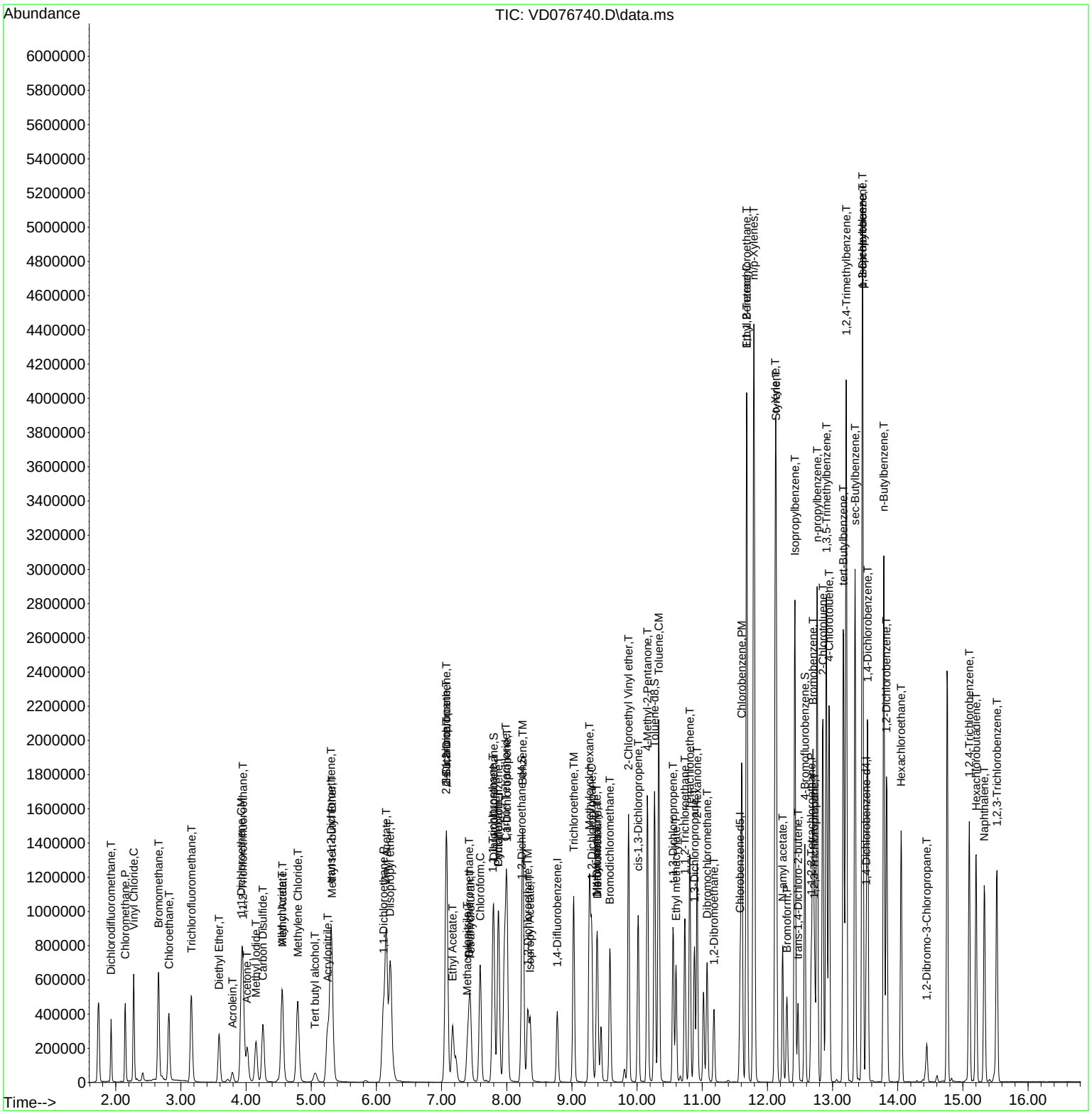
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076740.D
Acq On : 14 Jul 2023 14:17
Operator : KP/SY
Sample : VSTDICC150
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 8 Sample Multiplier: 1

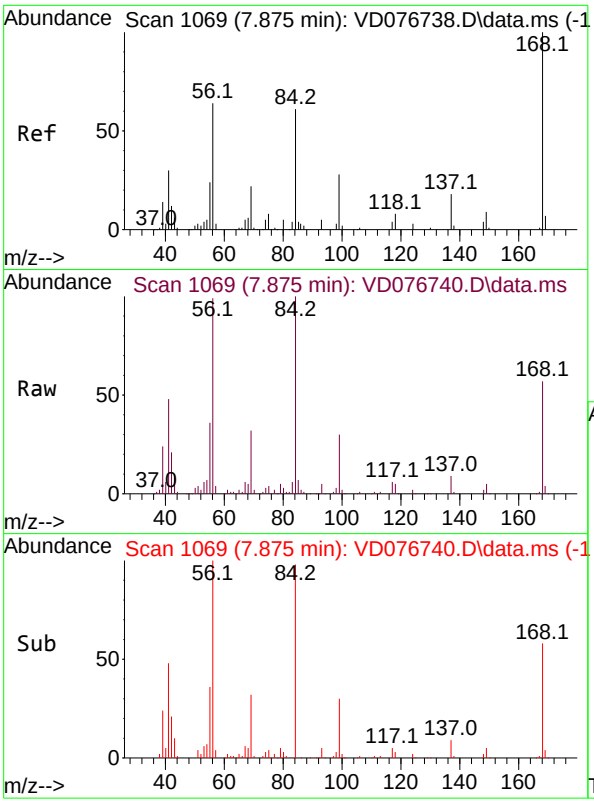
Quant Time: Jul 17 07:43:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

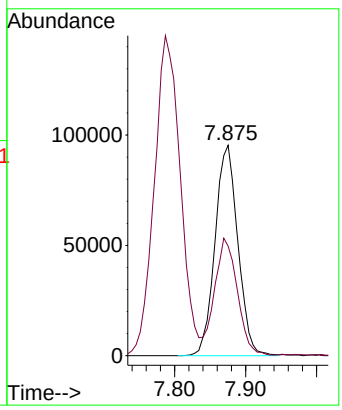




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:168 Resp: 21243

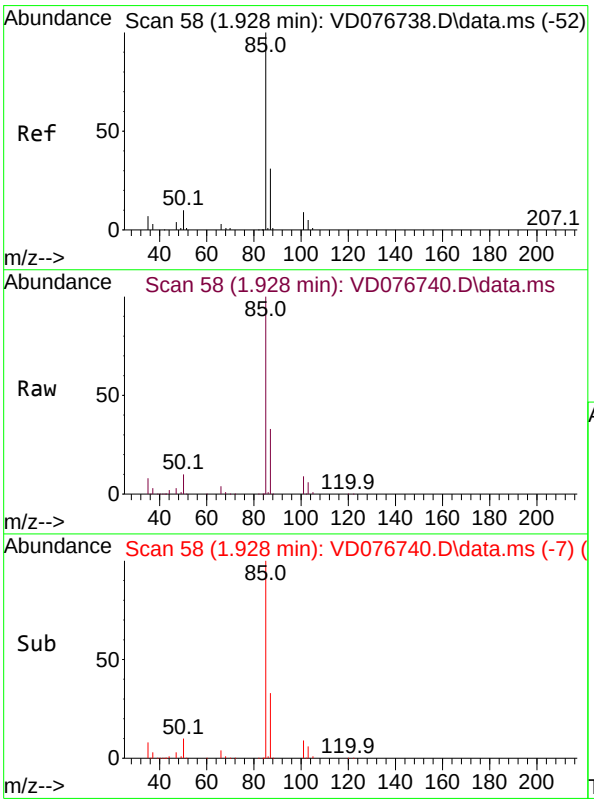
Ion	Ratio	Lower	Upper
168	100		
99	51.7	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

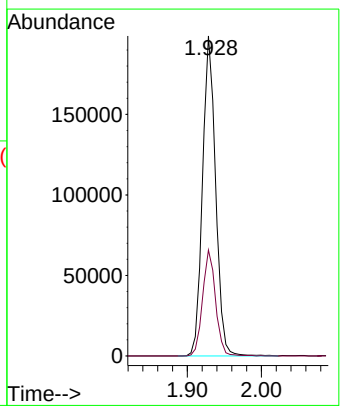
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

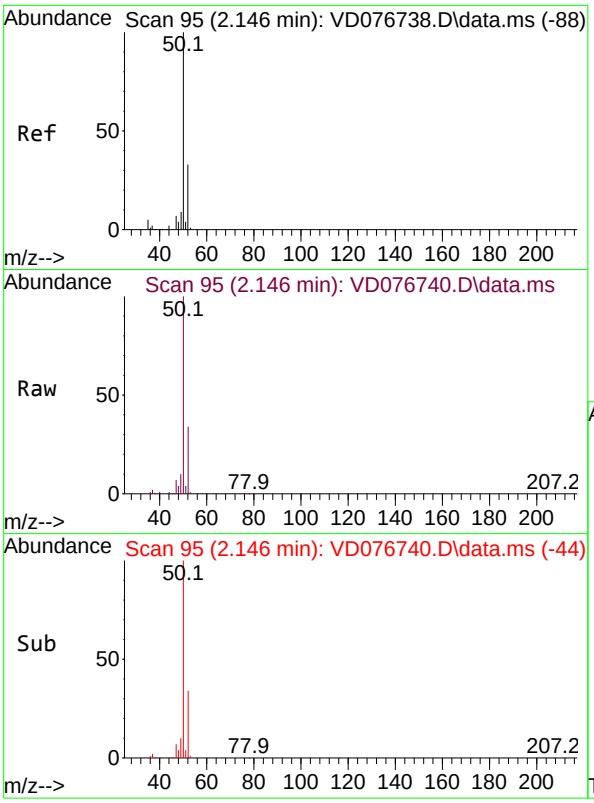


#2
Dichlorodifluoromethane
Concen: 146.925 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 85 Resp: 244073

Ion	Ratio	Lower	Upper
85	100		
87	33.1	15.7	47.0





#3
Chloromethane
Concen: 130.466 ug/l
RT: 2.146 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

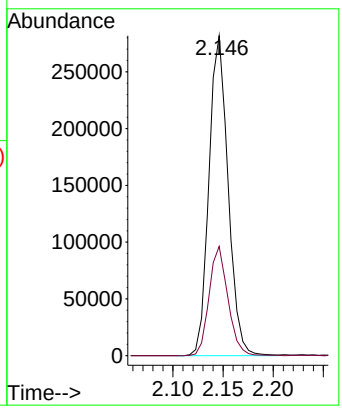
Tgt Ion: 50 Resp: 37386

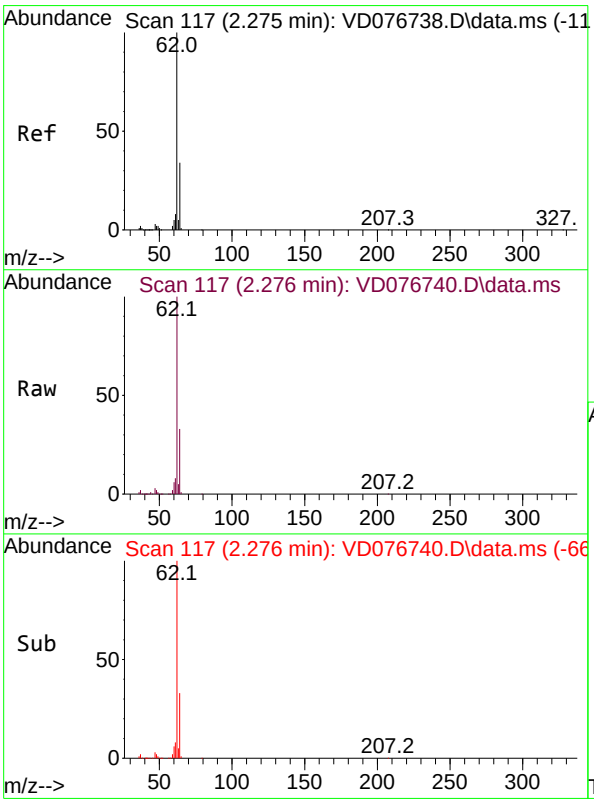
Ion	Ratio	Lower	Upper
50	100		
52	34.1	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

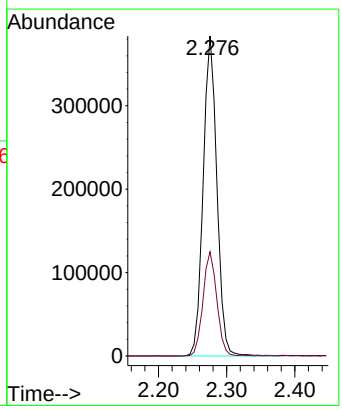


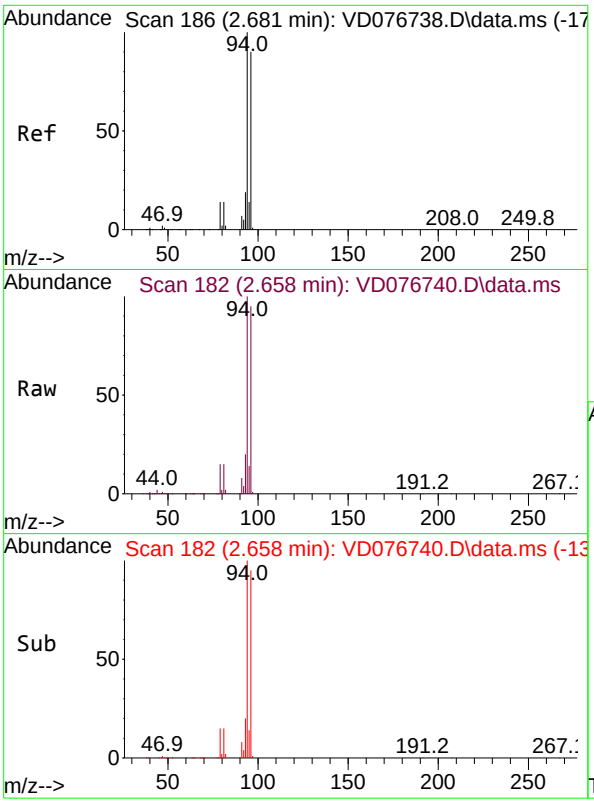


#4
Vinyl Chloride
Concen: 140.509 ug/l
RT: 2.276 min Scan# 117
Delta R.T. 0.001 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 62 Resp: 536743

Ion	Ratio	Lower	Upper
62	100		
64	32.6	26.0	39.0

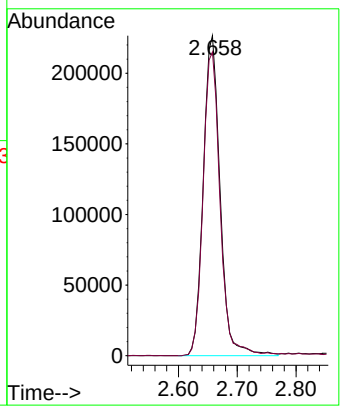




#5
Bromomethane
Concen: 143.688 ug/l
RT: 2.658 min Scan# 1
Delta R.T. -0.023 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 94 Resp: 45160

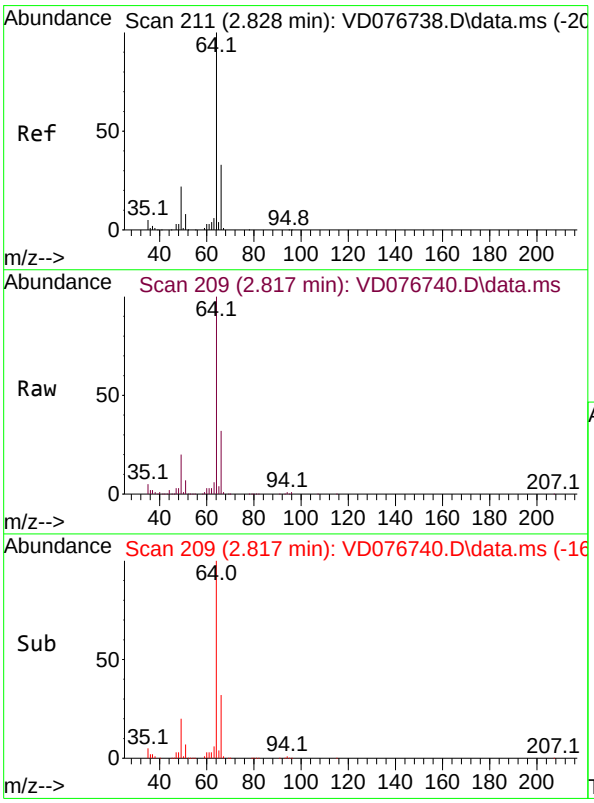
Ion	Ratio	Lower	Upper
94	100		
96	95.9	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

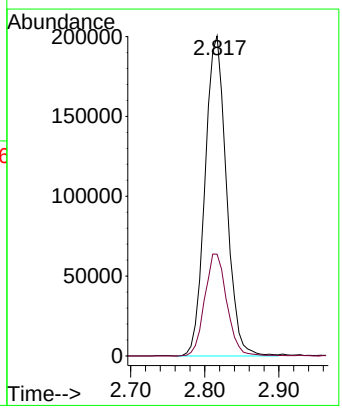
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

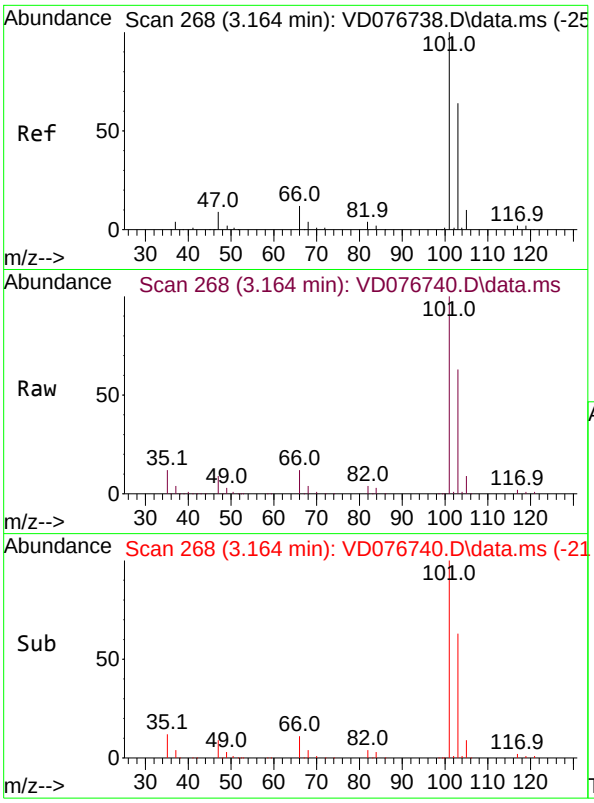


#6
Chloroethane
Concen: 139.062 ug/l
RT: 2.817 min Scan# 209
Delta R.T. -0.011 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 64 Resp: 401075

Ion	Ratio	Lower	Upper
64	100		
66	31.8	25.5	38.3





#7
Trichlorofluoromethane
Concen: 148.828 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

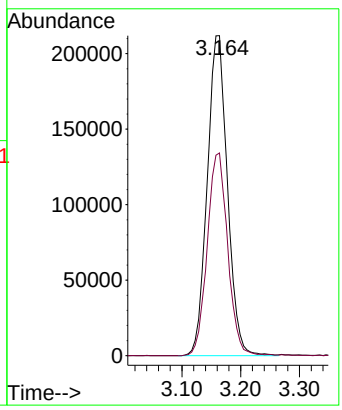
Tgt Ion:101 Resp: 50587

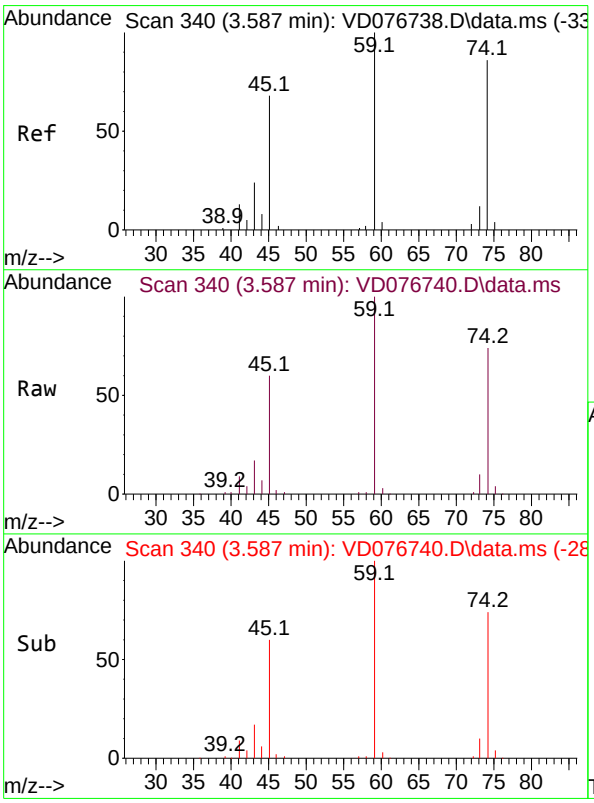
Ion	Ratio	Lower	Upper
101	100		
103	63.3	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

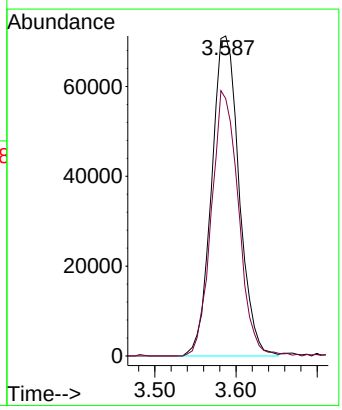


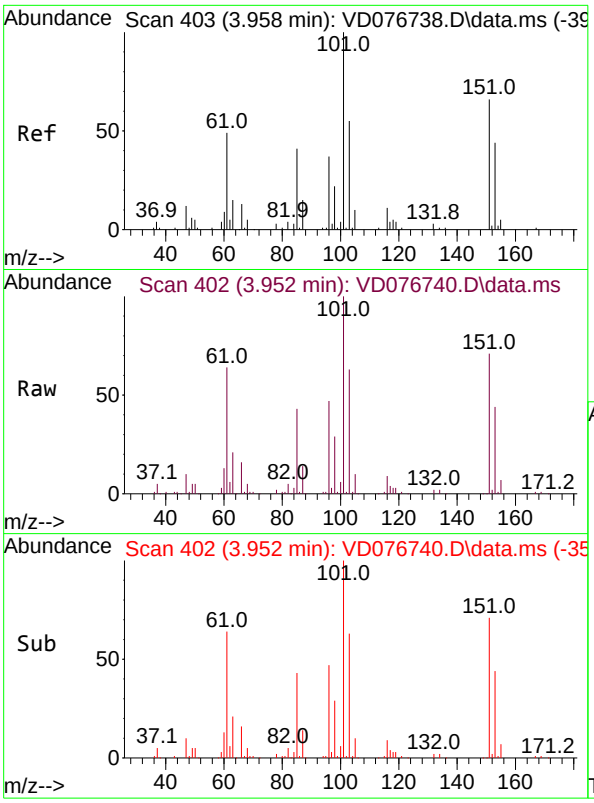


#8
Diethyl Ether
Concen: 143.044 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 74 Resp: 167402

Ion	Ratio	Lower	Upper
74	100		
45	81.8	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 146.598 ug/l
RT: 3.952 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

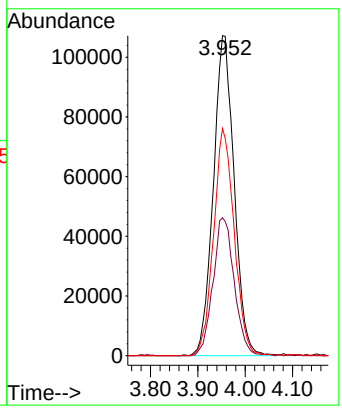
Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

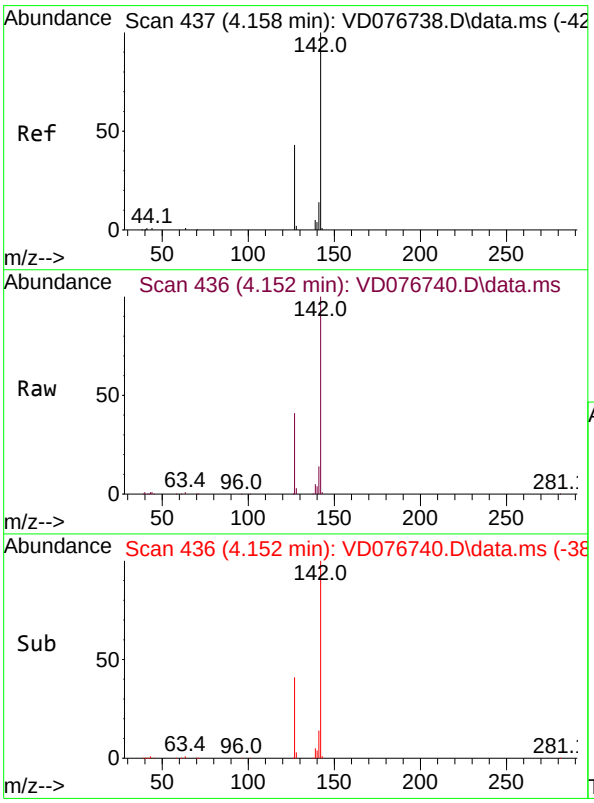
Tgt Ion:101 Resp: 32754

Ion	Ratio	Lower	Upper
101	100		
85	44.0	33.8	50.6
151	70.6	59.8	89.6

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

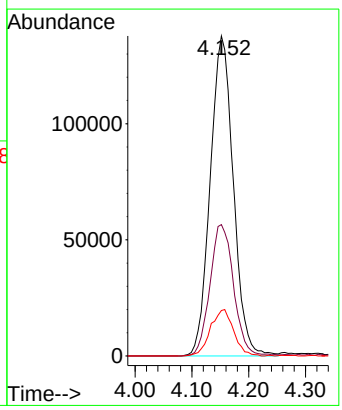


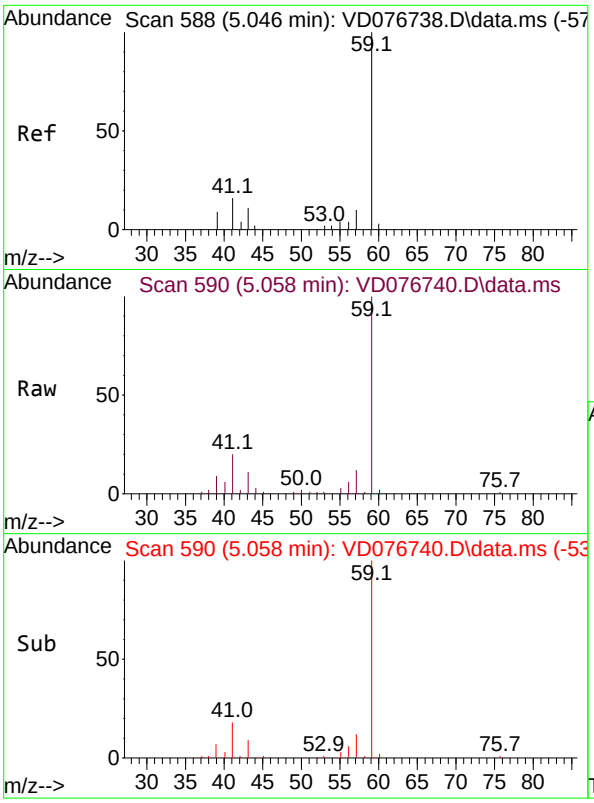


#10
Methyl Iodide
Concen: 154.597 ug/l
RT: 4.152 min Scan# 436
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:142 Resp: 389376

Ion	Ratio	Lower	Upper
142	100		
127	42.1	29.4	44.0
141	14.6	11.1	16.7





#11
Tert butyl alcohol
Concen: 710.094 ug/l
RT: 5.058 min Scan# 5
Delta R.T. 0.012 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

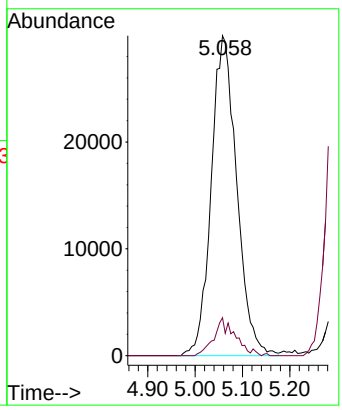
Tgt Ion: 59 Resp: 11211

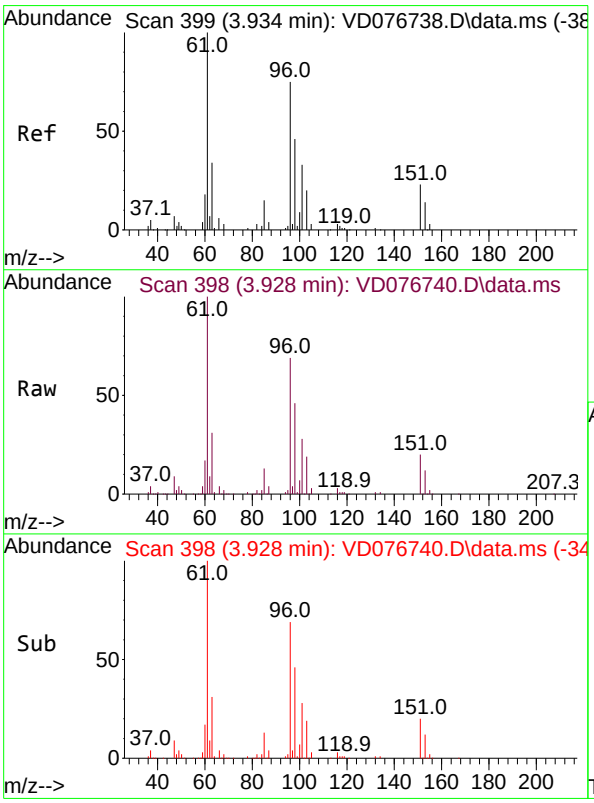
Ion	Ratio	Lower	Upper
59	100		
57	9.4	7.8	11.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

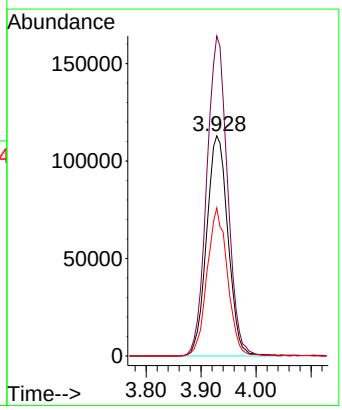


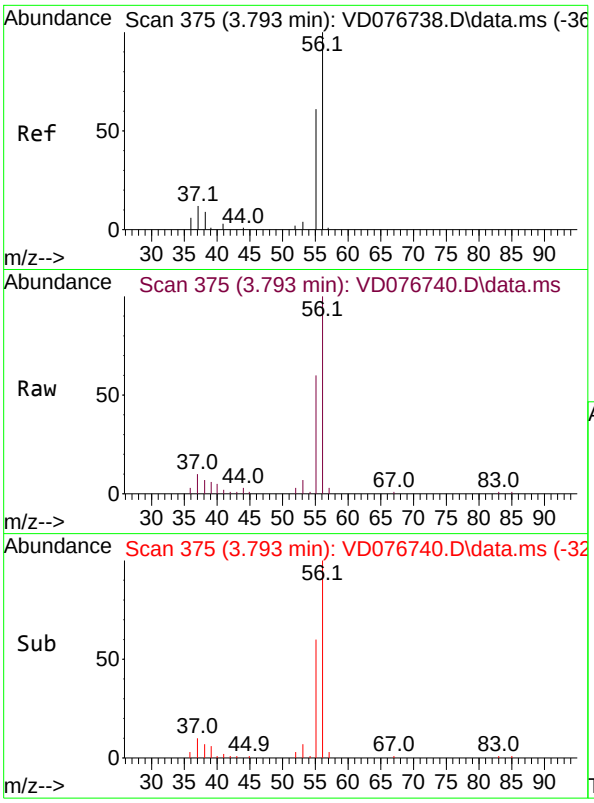


#12
1,1-Dichloroethene
Concen: 145.295 ug/l
RT: 3.928 min Scan# 398
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 96 Resp: 305000

Ion	Ratio	Lower	Upper
96	100		
61	145.3	100.6	150.8
98	67.2	50.2	75.2

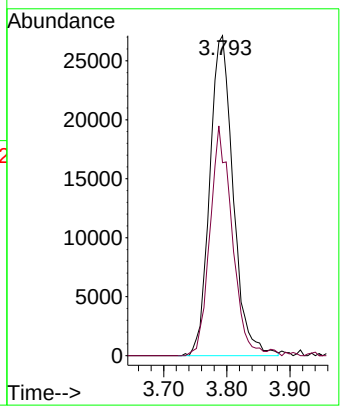




#13
Acrolein
Concen: 649.419 ug/l
RT: 3.793 min Scan# 3
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 56 Resp: 6987

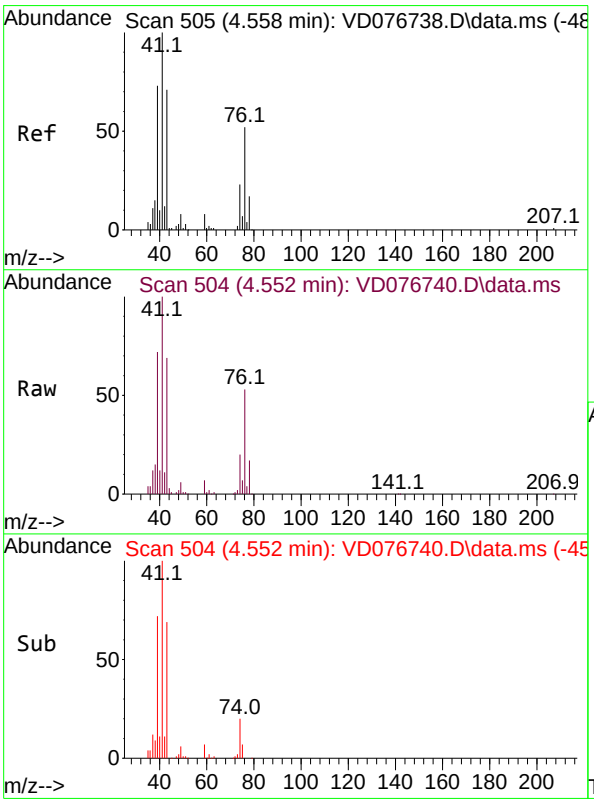
Ion	Ratio	Lower	Upper
56	100		
55	67.5	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

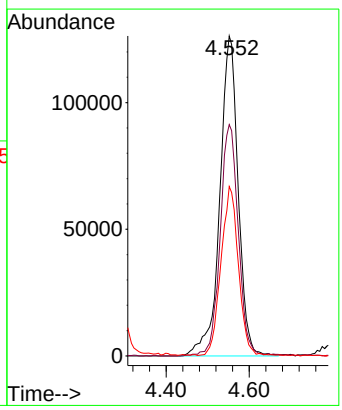
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

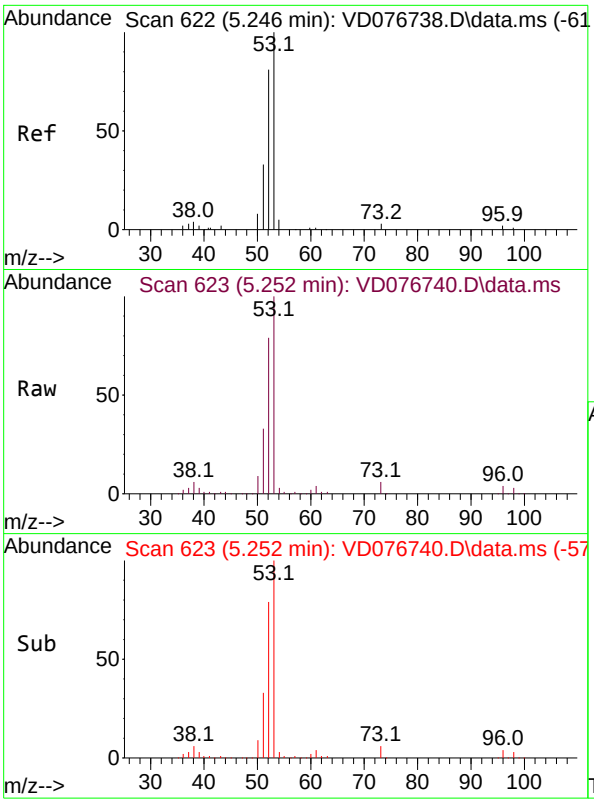


#14
Allyl chloride
Concen: 140.393 ug/l
RT: 4.552 min Scan# 504
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 41 Resp: 387147

Ion	Ratio	Lower	Upper
41	100		
39	71.2	53.8	80.6
76	49.9	45.8	68.8

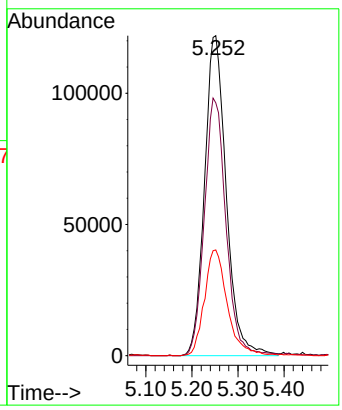




#15
Acrylonitrile
Concen: 696.590 ug/l
RT: 5.252 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 53 Resp: 40038

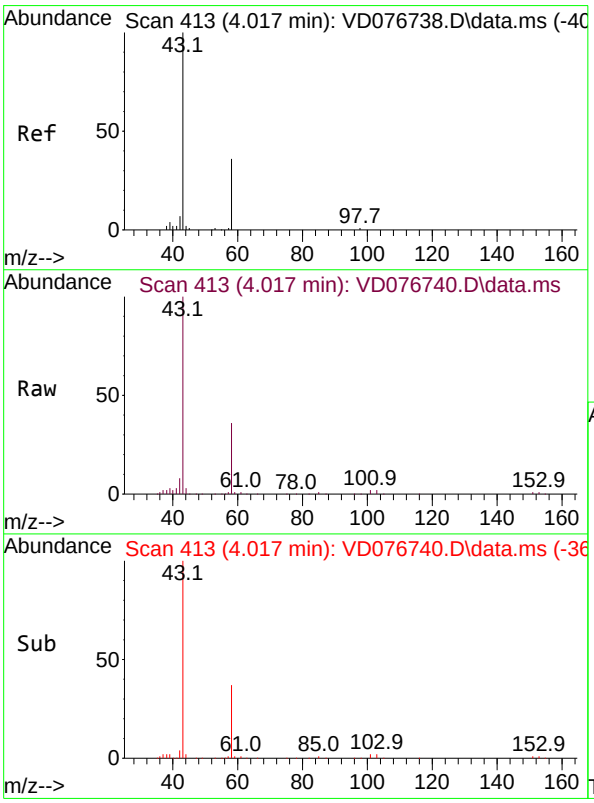
Ion	Ratio	Lower	Upper
53	100		
52	80.1	65.0	97.4
51	34.9	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

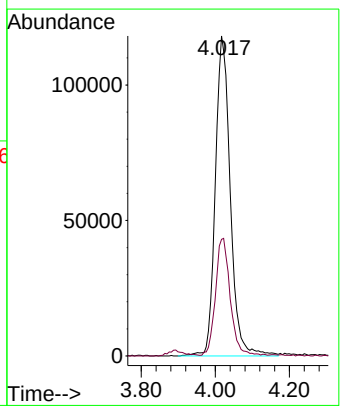
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

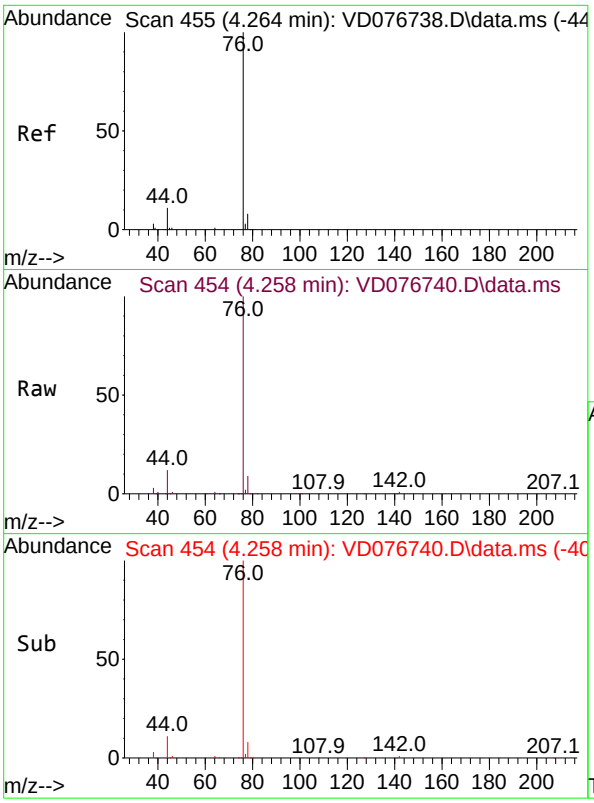


#16
Acetone
Concen: 655.494 ug/l
RT: 4.017 min Scan# 413
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 43 Resp: 331237

Ion	Ratio	Lower	Upper
43	100		
58	36.2	34.7	52.1

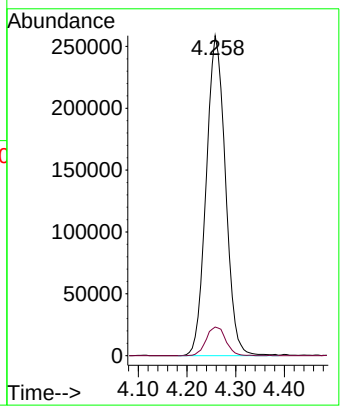




#17
Carbon Disulfide
Concen: 144.715 ug/l
RT: 4.258 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 76 Resp: 70951

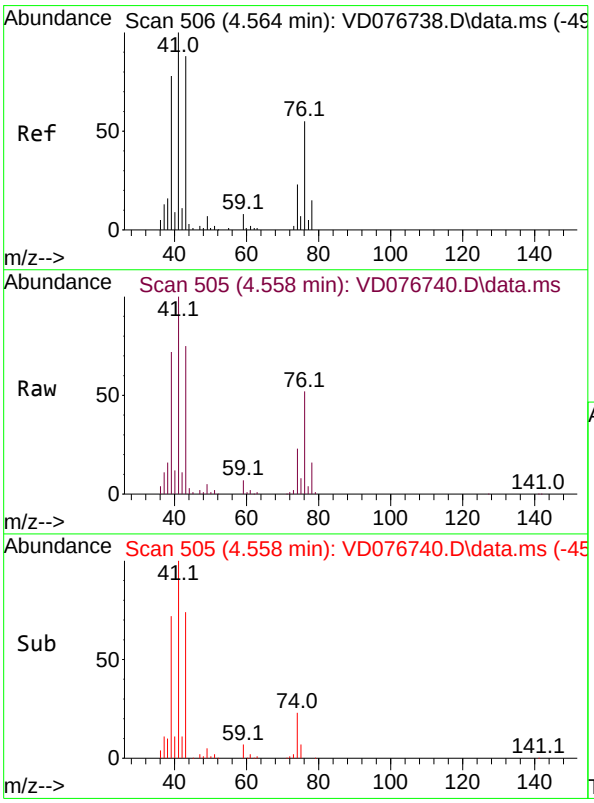
Ion	Ratio	Lower	Upper
76	100		
78	9.0	6.8	10.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

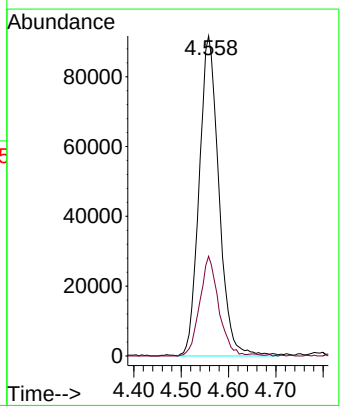
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

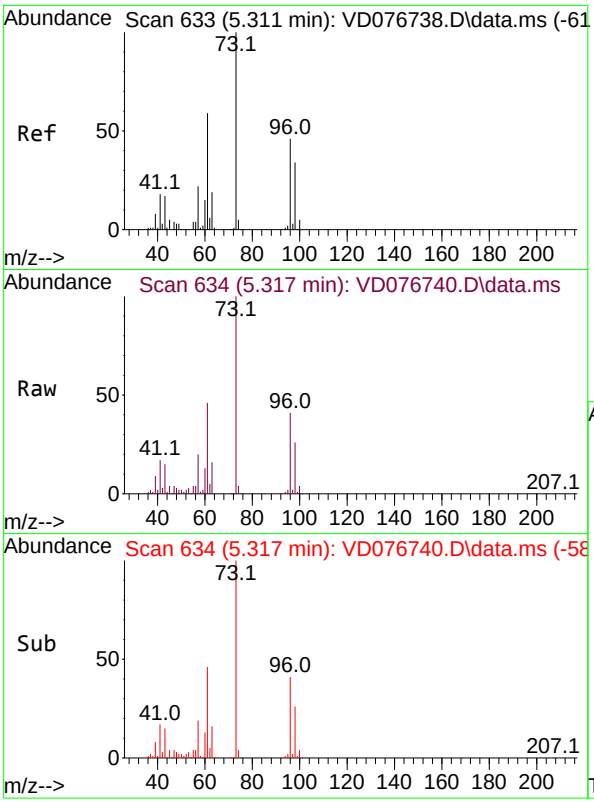


#18
Methyl Acetate
Concen: 139.861 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 43 Resp: 265535

Ion	Ratio	Lower	Upper
43	100		
74	29.8	26.4	39.6

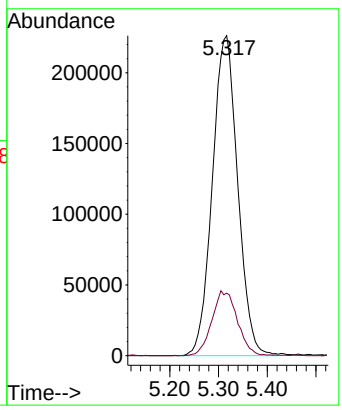




#19
Methyl tert-butyl Ether
Concen: 145.393 ug/l
RT: 5.317 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 73 Resp: 81846

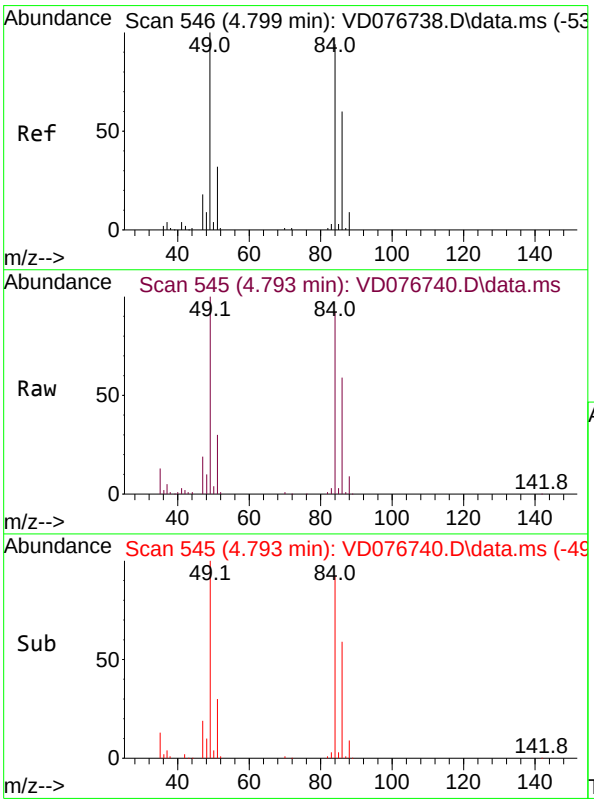
Ion	Ratio	Lower	Upper
73	100		
57	19.5	16.6	25.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

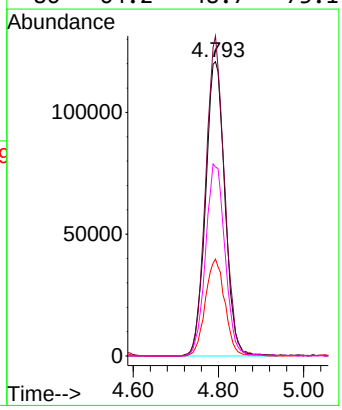
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

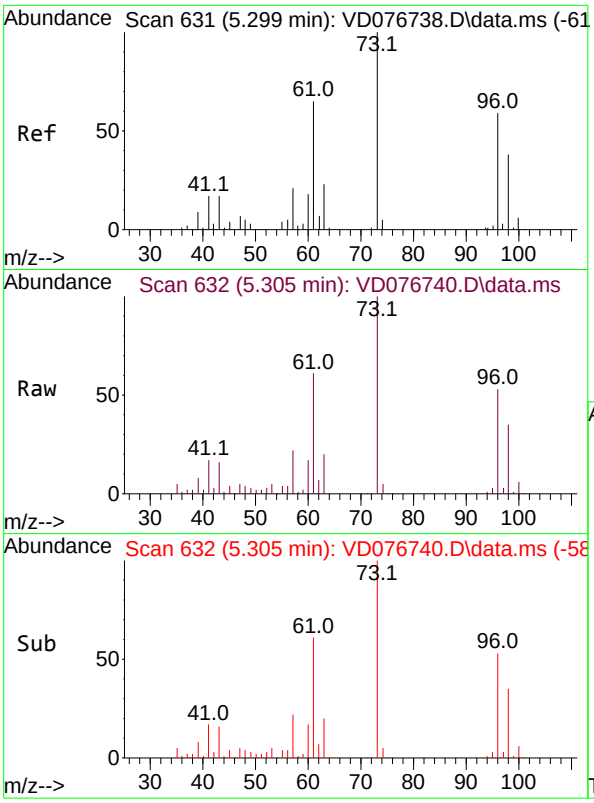


#20
Methylene Chloride
Concen: 146.986 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 84 Resp: 382164

Ion	Ratio	Lower	Upper
84	100		
49	108.7	71.4	107.2#
51	33.0	24.5	36.7
86	64.2	48.7	73.1

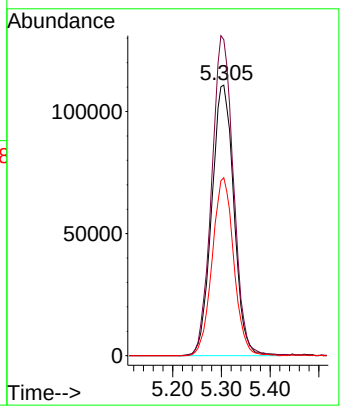




#21
trans-1,2-Dichloroethene
Concen: 143.636 ug/l
RT: 5.305 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 96 Resp: 35048

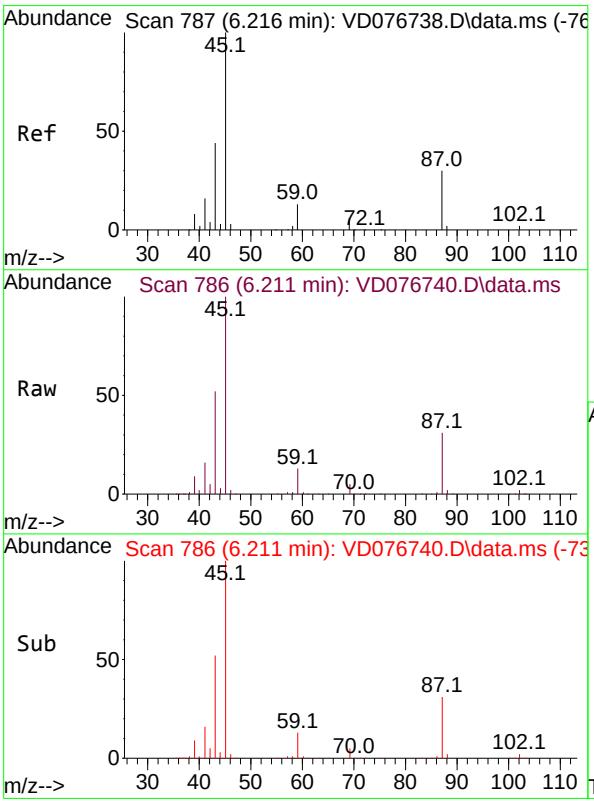
Ion	Ratio	Lower	Upper
96	100		
61	116.7	89.3	133.9
98	65.8	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

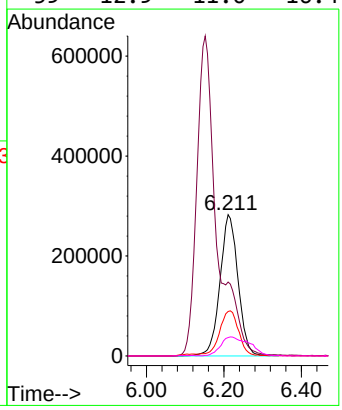
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

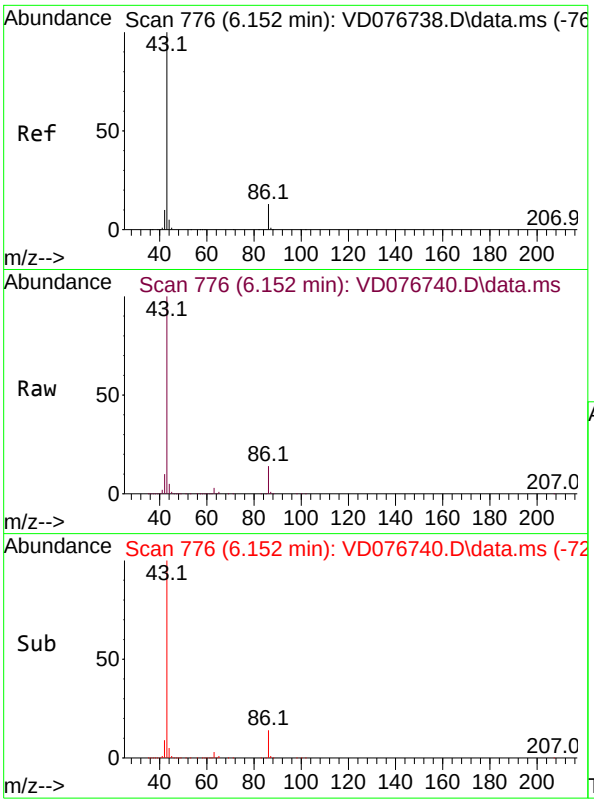


#22
Diisopropyl ether
Concen: 140.259 ug/l
RT: 6.211 min Scan# 786
Delta R.T. -0.005 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 45 Resp: 915890

Ion	Ratio	Lower	Upper
45	100		
43	52.1	40.0	60.0
87	31.3	28.2	42.4
59	12.9	11.0	16.4

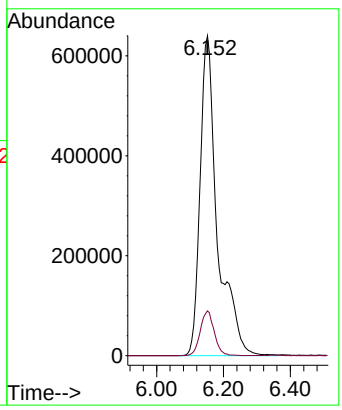




#23
Vinyl Acetate
Concen: 714.351 ug/l
RT: 6.152 min Scan# 7
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 43 Resp: 230801

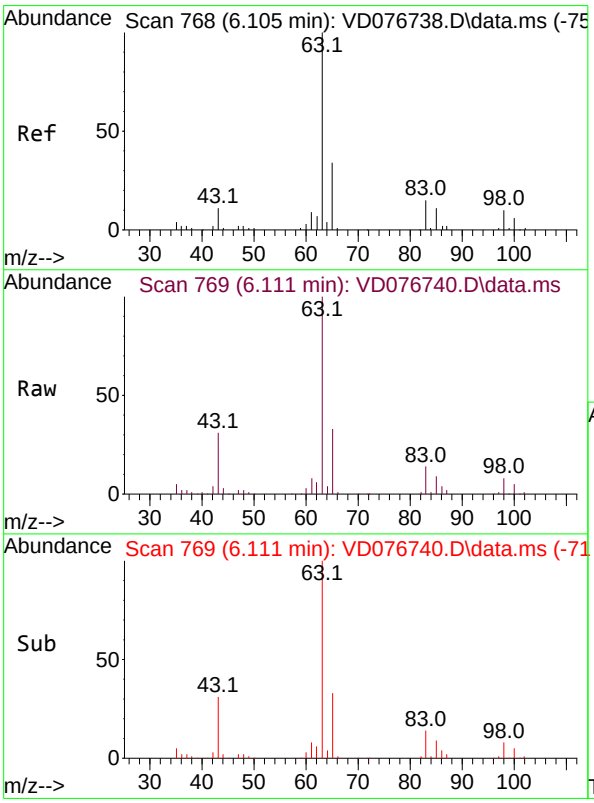
Ion	Ratio	Lower	Upper
43	100		
86	14.0	12.5	18.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

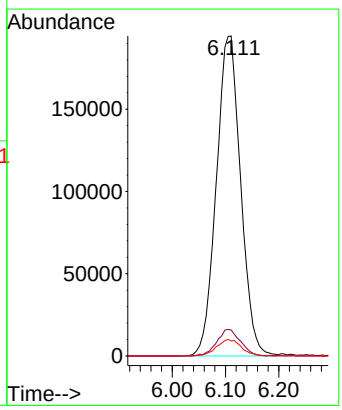
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

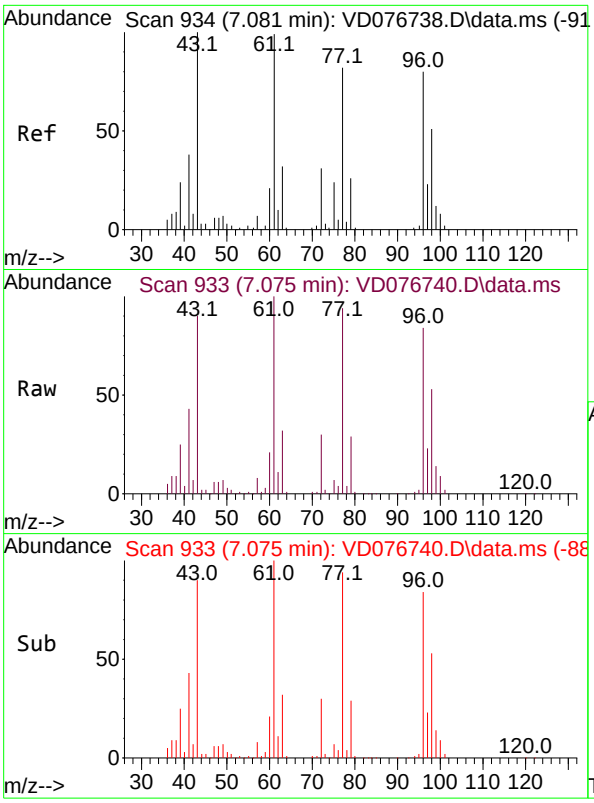


#24
1,1-Dichloroethane
Concen: 140.134 ug/l
RT: 6.111 min Scan# 769
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 63 Resp: 616972

Ion	Ratio	Lower	Upper
63	100		
98	8.1	4.5	13.7
100	4.7	2.5	7.5

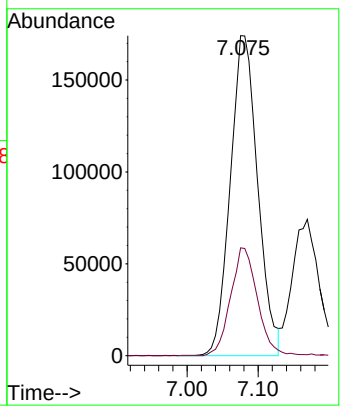




#25
2-Butanone
Concen: 692.464 ug/l
RT: 7.075 min Scan# 9
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 43 Resp: 46831

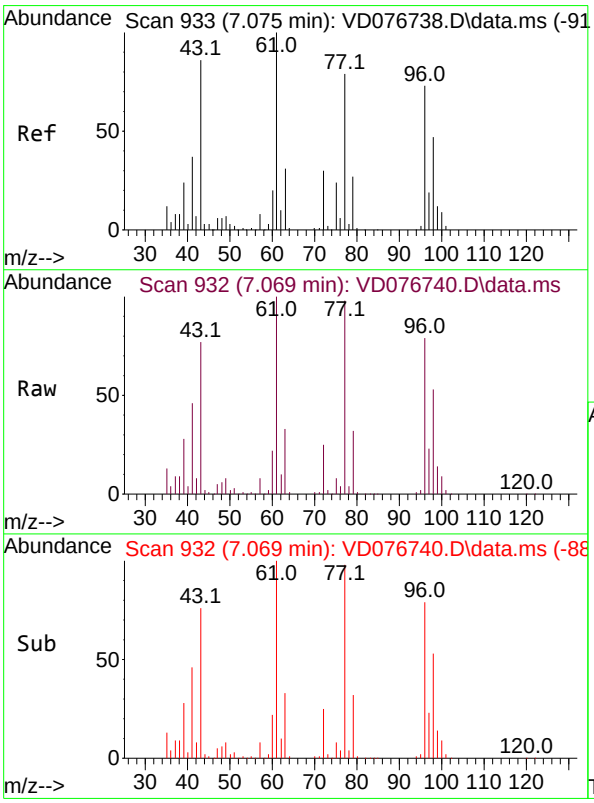
Ion	Ratio	Lower	Upper
43	100		
72	33.7	30.7	46.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

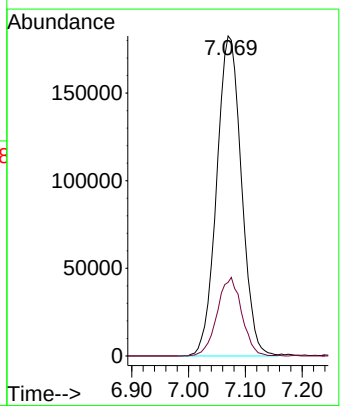
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

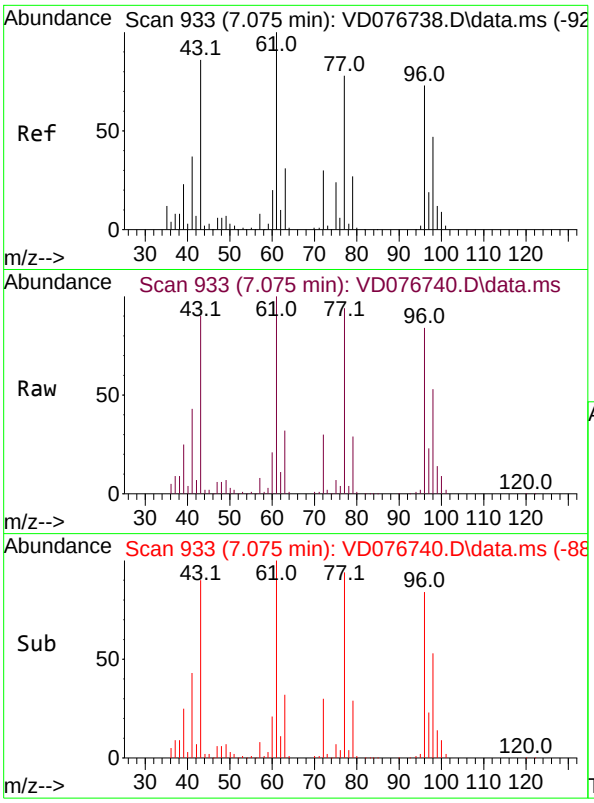


#26
2,2-Dichloropropane
Concen: 145.806 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 77 Resp: 553371

Ion	Ratio	Lower	Upper
77	100		
97	24.3	13.2	39.6

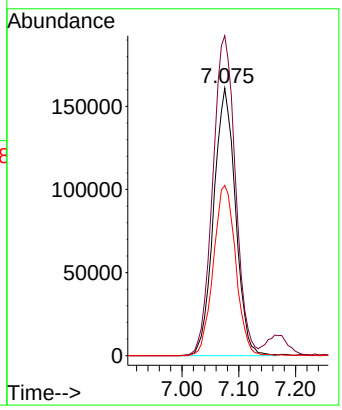




#27
cis-1,2-Dichloroethene
Concen: 142.962 ug/l
RT: 7.075 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 96 Resp: 43003

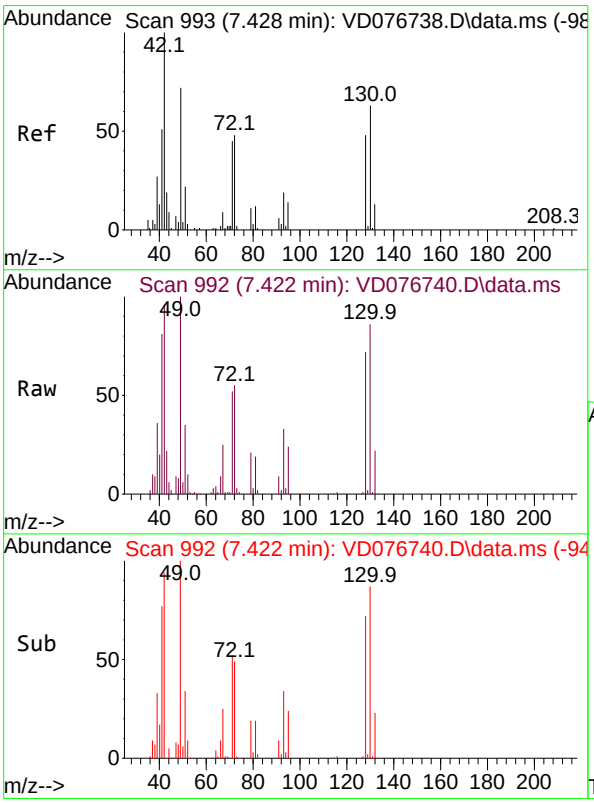
Ion	Ratio	Lower	Upper
96	100		
61	124.5	0.0	239.2
98	65.1	0.0	128.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

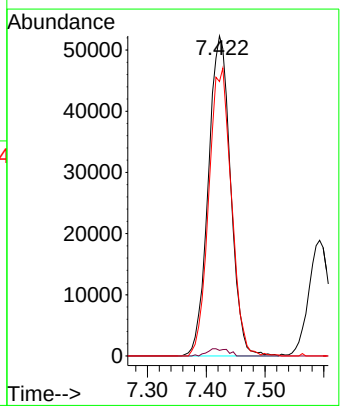
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

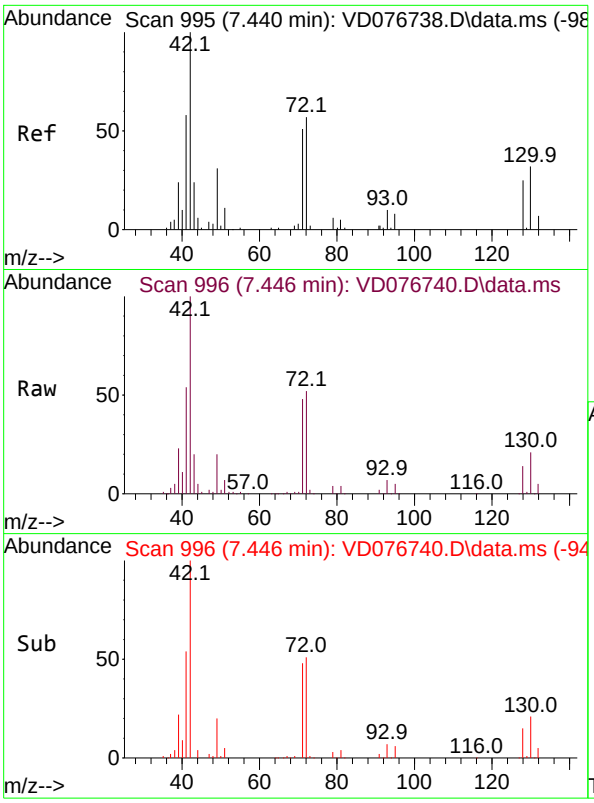


#28
Bromochloromethane
Concen: 125.084 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 49 Resp: 137684

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	6.0
130	91.2	83.2	124.8





#29
Tetrahydrofuran
Concen: 696.831 ug/l
RT: 7.446 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

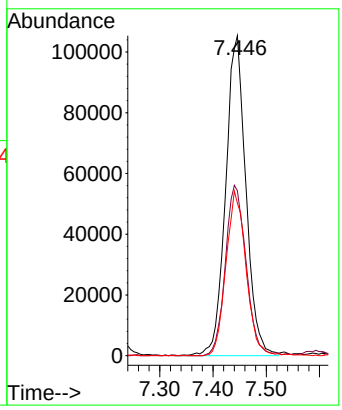
Tgt Ion: 42 Resp: 27844

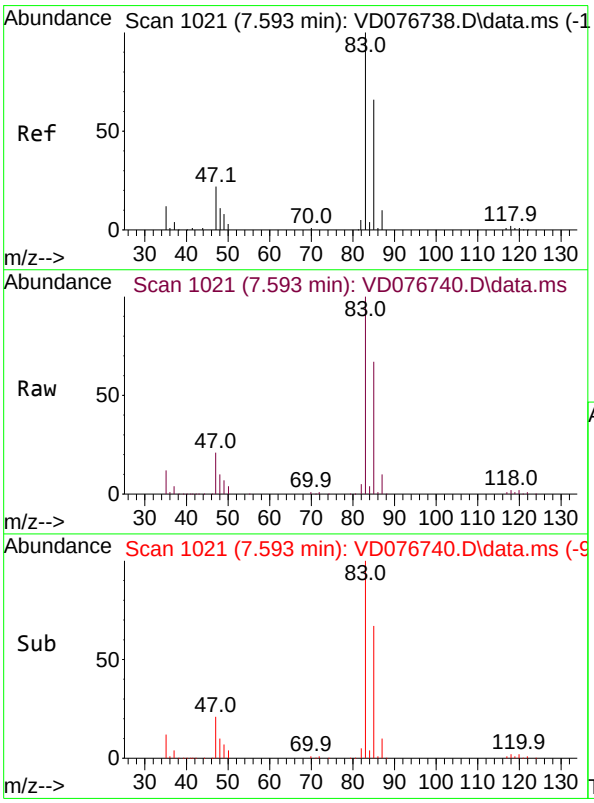
Ion	Ratio	Lower	Upper
42	100		
72	54.5	46.5	69.7
71	50.8	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

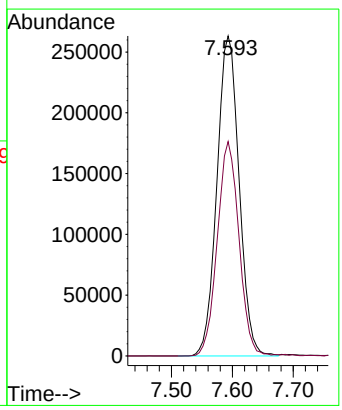


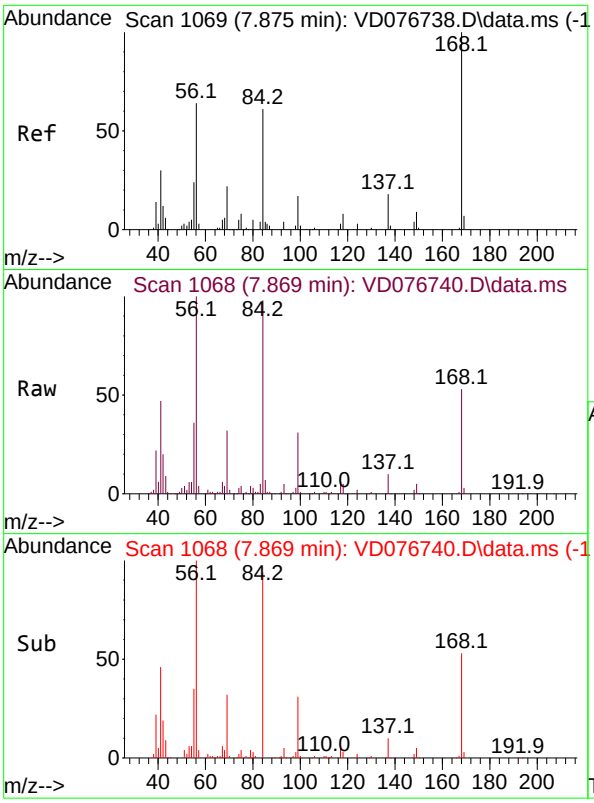


#30
Chloroform
Concen: 138.160 ug/l
RT: 7.593 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 83 Resp: 666236

Ion	Ratio	Lower	Upper
83	100		
85	67.0	53.4	80.2

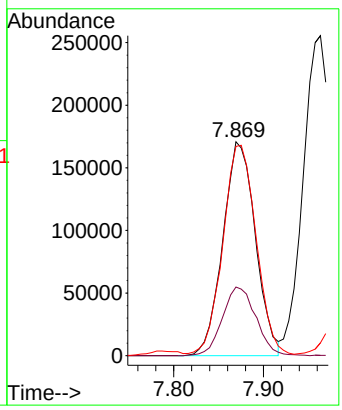




#31
Cyclohexane
Concen: 138.240 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 56 Resp: 43047

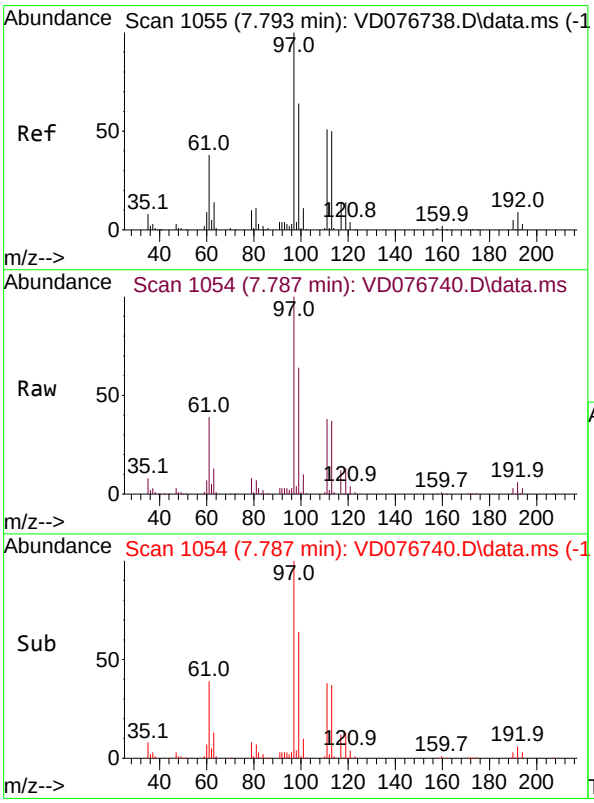
Ion	Ratio	Lower	Upper
56	100		
69	32.1	28.6	43.0
84	96.0	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

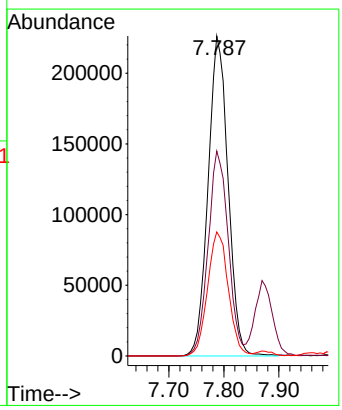
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

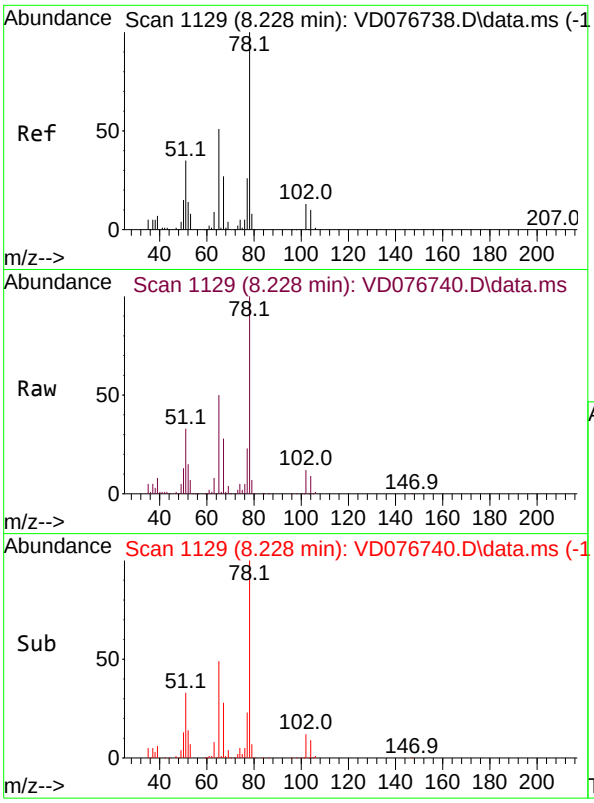


#32
1,1,1-Trichloroethane
Concen: 146.870 ug/l
RT: 7.787 min Scan# 1054
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 97 Resp: 571421

Ion	Ratio	Lower	Upper
97	100		
99	64.4	52.0	78.0
61	40.3	33.8	50.8

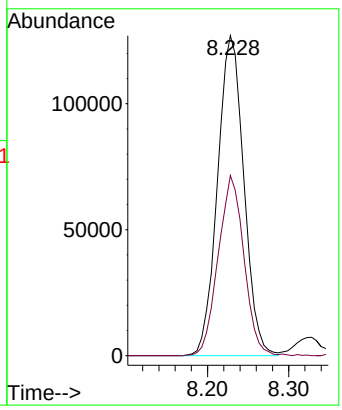




#33
1,2-Dichloroethane-d4
Concen: 135.275 ug/l
RT: 8.228 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 65 Resp: 28623

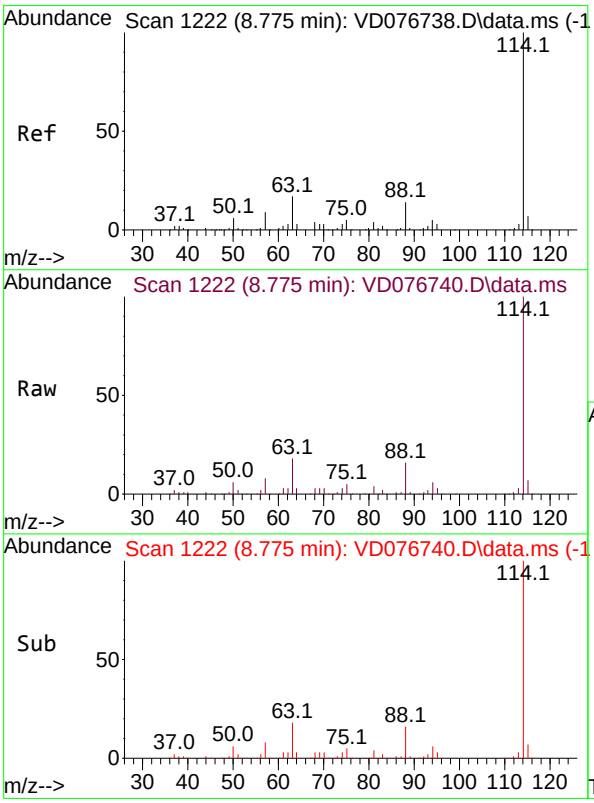
Ion	Ratio	Lower	Upper
65	100		
67	55.1	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

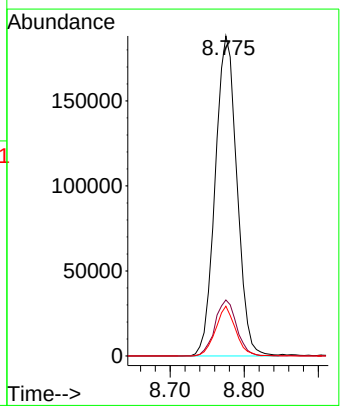
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

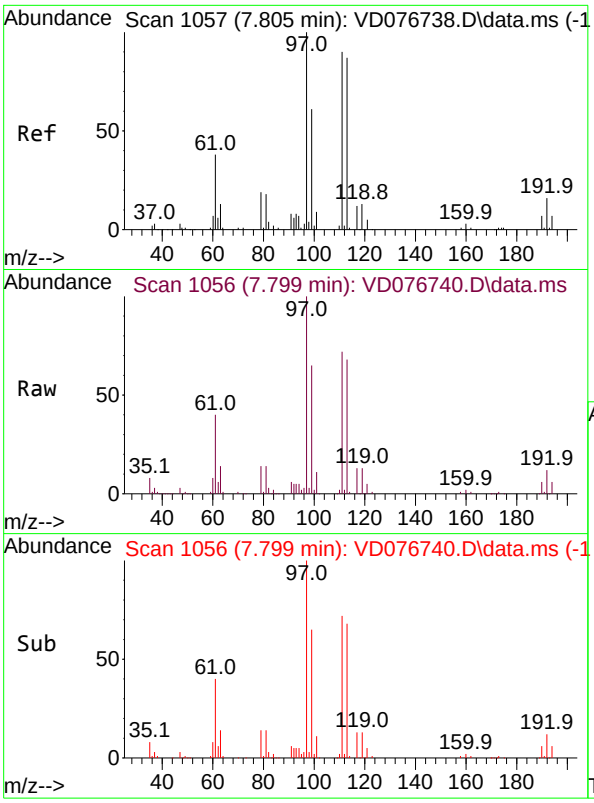


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:114 Resp: 382966

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	33.4
88	15.5	0.0	26.2

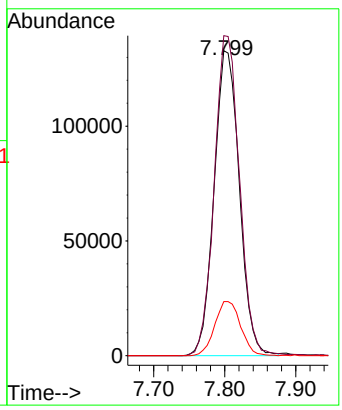




#35
Dibromofluoromethane
Concen: 136.148 ug/l
RT: 7.799 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:113 Resp: 32765

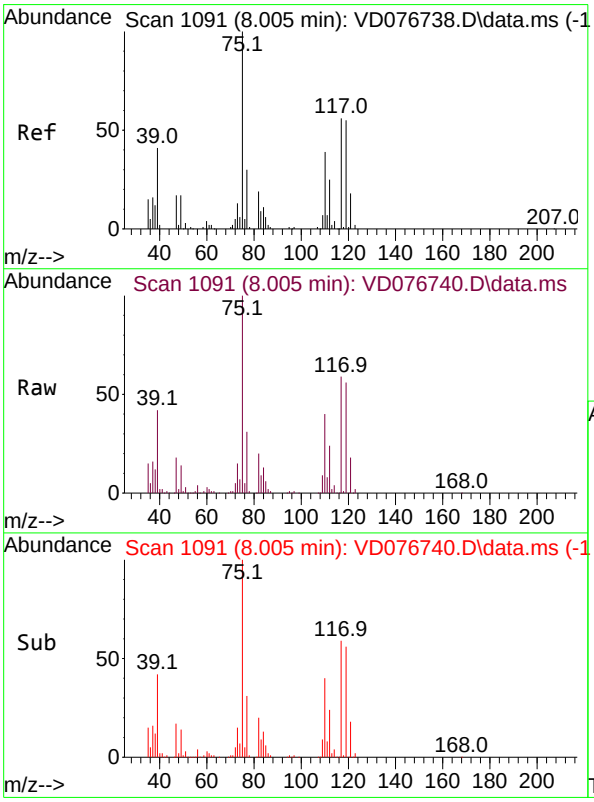
Ion	Ratio	Lower	Upper
113	100		
111	105.0	84.7	127.1
192	18.2	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

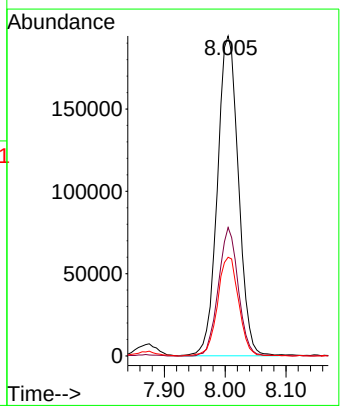
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

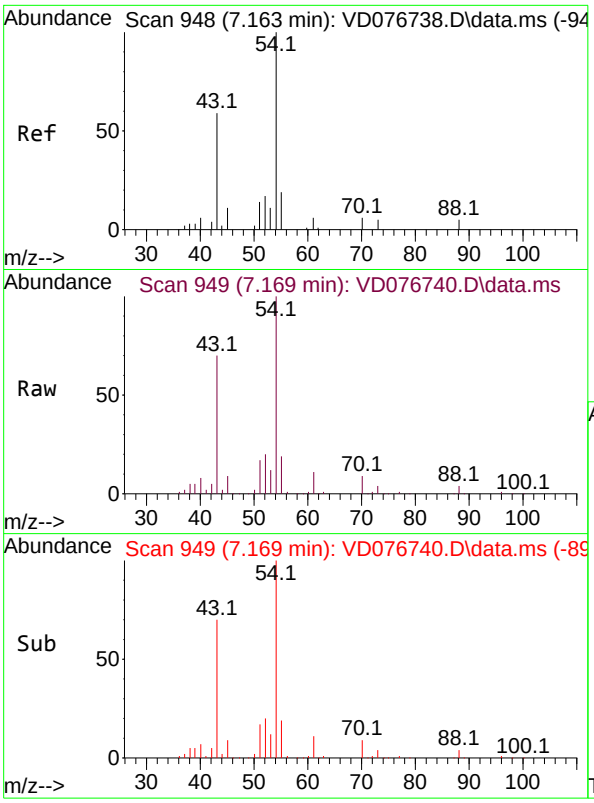


#36
1,1-Dichloropropene
Concen: 148.370 ug/l
RT: 8.005 min Scan# 1091
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 75 Resp: 466585

Ion	Ratio	Lower	Upper
75	100		
110	37.9	19.9	59.6
77	31.0	24.7	37.1

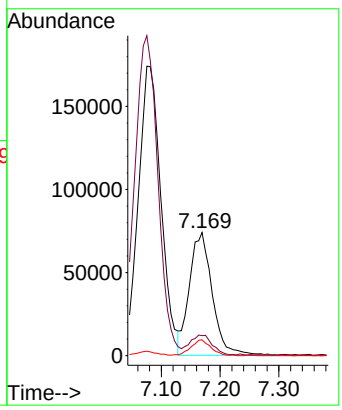




#37
Ethyl Acetate
Concen: 141.505 ug/l
RT: 7.169 min Scan# 94
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 43 Resp: 19900

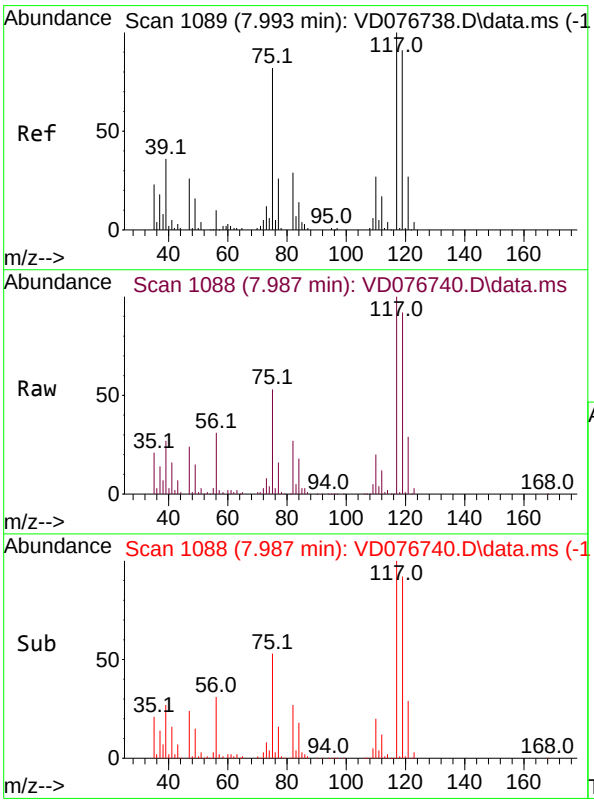
Ion	Ratio	Lower	Upper
43	100		
61	16.0	14.9	22.3
70	11.4	10.0	15.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

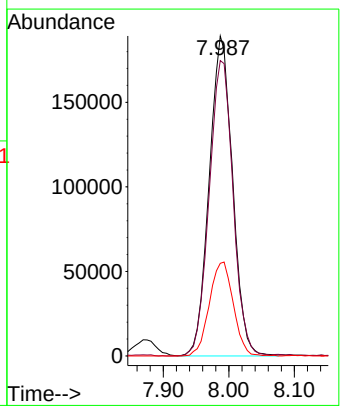
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

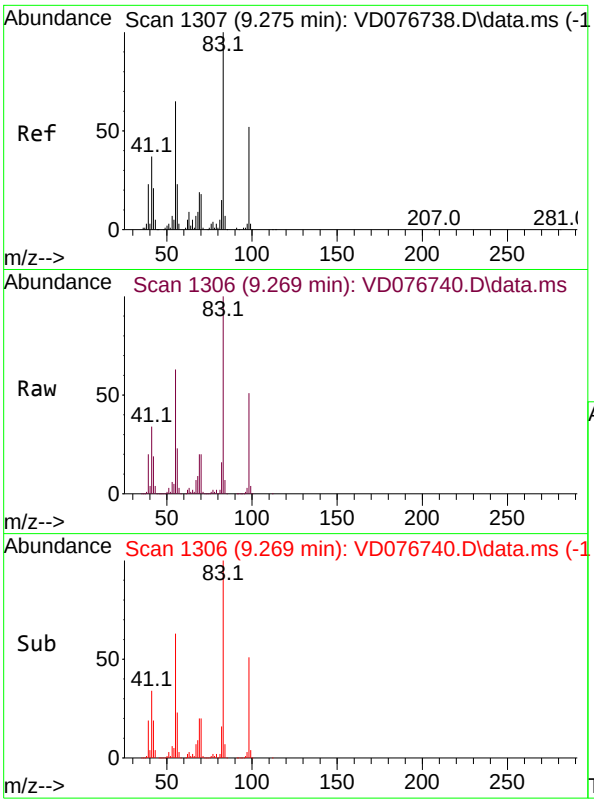


#38
Carbon Tetrachloride
Concen: 155.263 ug/l
RT: 7.987 min Scan# 1088
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:117 Resp: 467522

Ion	Ratio	Lower	Upper
117	100		
119	92.2	78.0	117.0
121	29.0	24.2	36.2

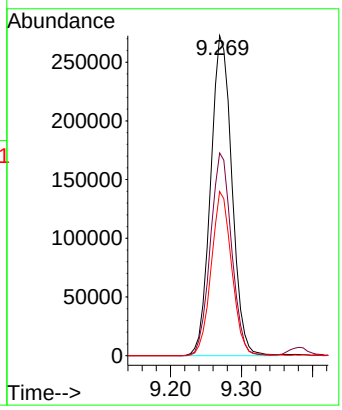




#39
Methylcyclohexane
Concen: 155.770 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 83 Resp: 56562

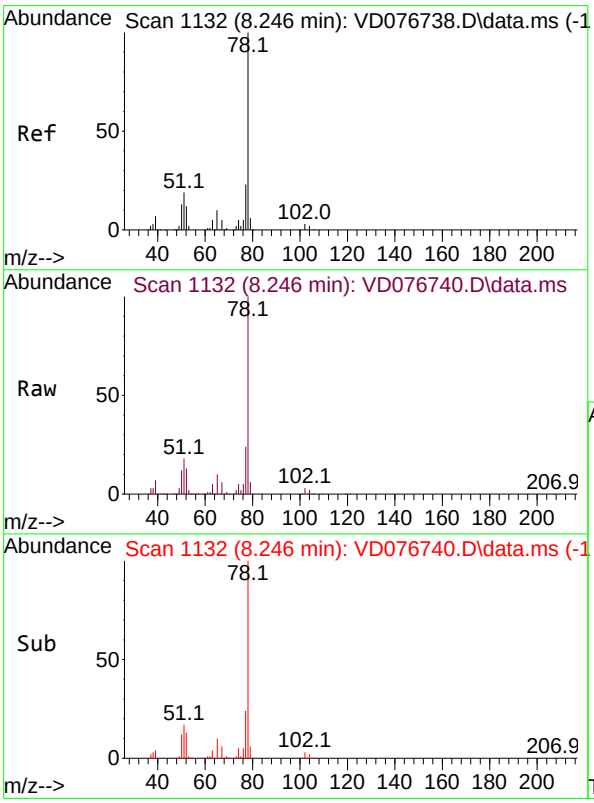
Ion	Ratio	Lower	Upper
83	100		
55	63.3	49.4	74.0
98	51.3	38.4	57.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

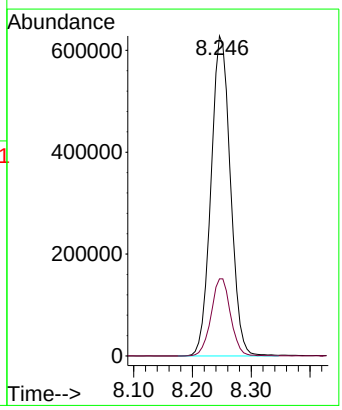
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

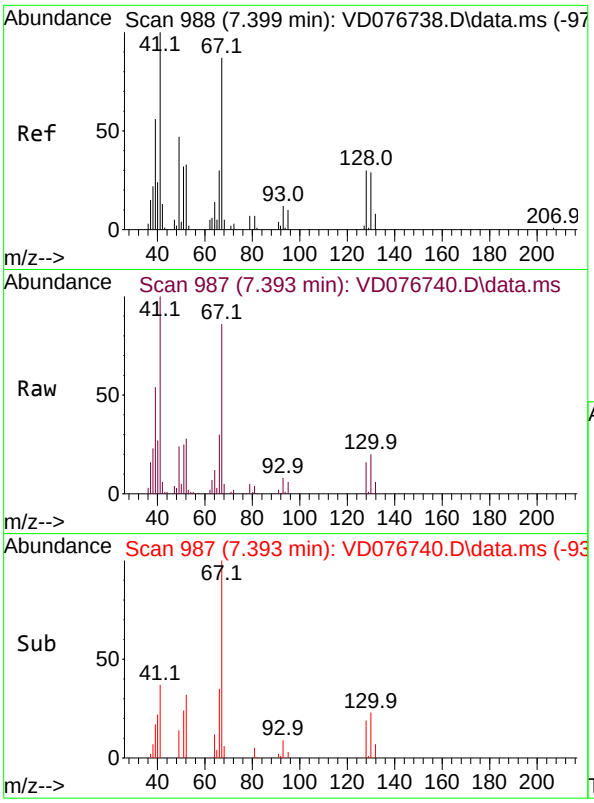


#40
Benzene
Concen: 145.422 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 78 Resp: 1442939

Ion	Ratio	Lower	Upper
78	100		
77	24.1	19.4	29.0

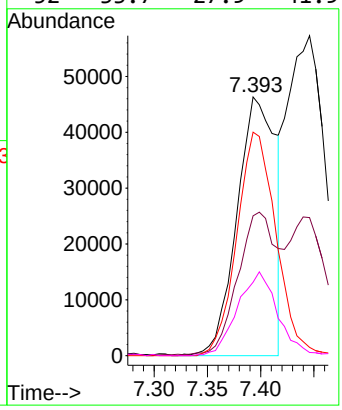




#41
Methacrylonitrile
Concen: 136.660 ug/l
RT: 7.393 min Scan# 9
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 41 Resp: 11736

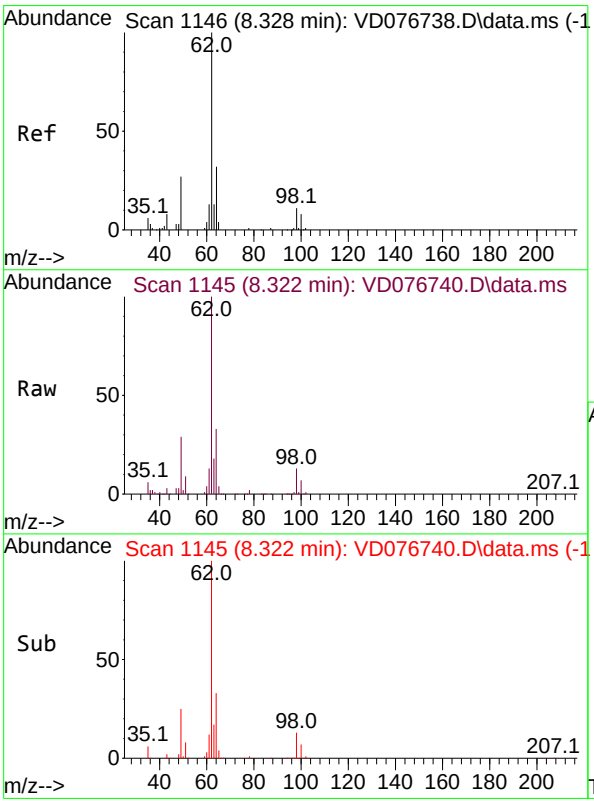
Ion	Ratio	Lower	Upper
41	100		
39	59.7	34.0	51.0#
67	87.3	77.0	115.4
52	33.7	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

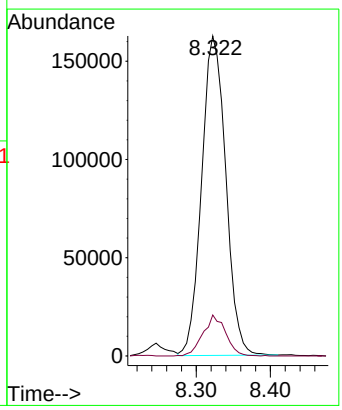
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

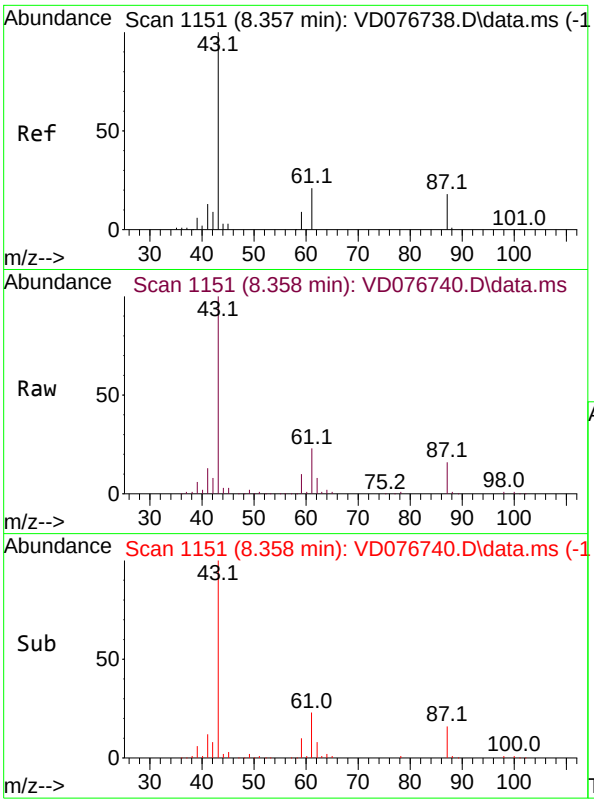


#42
1,2-Dichloroethane
Concen: 142.867 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 62 Resp: 368333

Ion	Ratio	Lower	Upper
62	100		
98	12.0	0.0	25.4





#43
Isopropyl Acetate
Concen: 143.333 ug/l
RT: 8.358 min Scan# 1
Delta R.T. 0.001 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

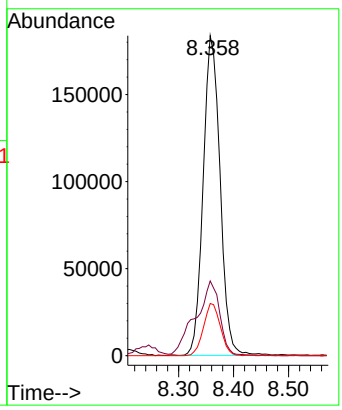
Tgt Ion: 43 Resp: 39340

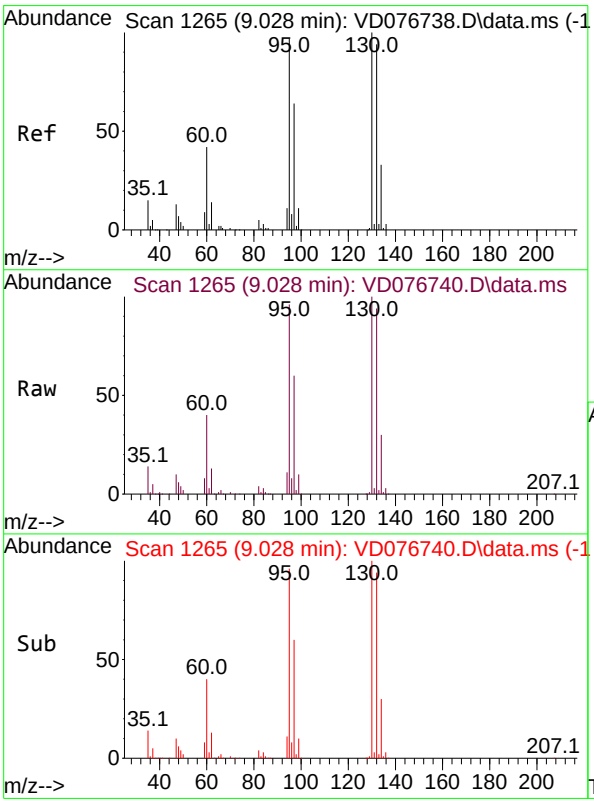
Ion	Ratio	Lower	Upper
43	100		
61	33.1	31.4	47.0
87	16.3	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

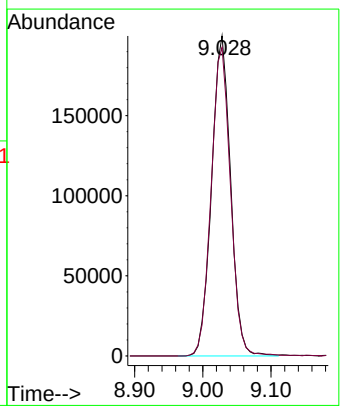


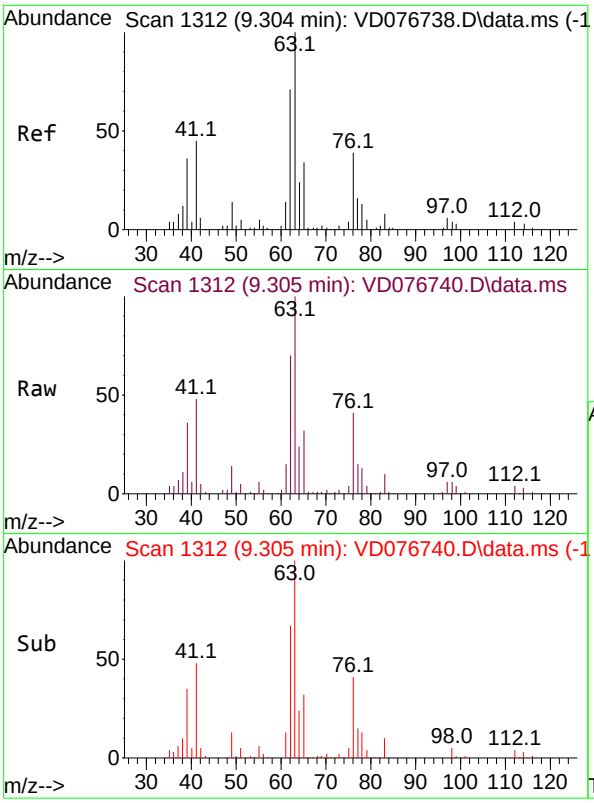


#44
Trichloroethene
Concen: 143.370 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:130 Resp: 387654

Ion	Ratio	Lower	Upper
130	100		
95	96.4	0.0	179.2

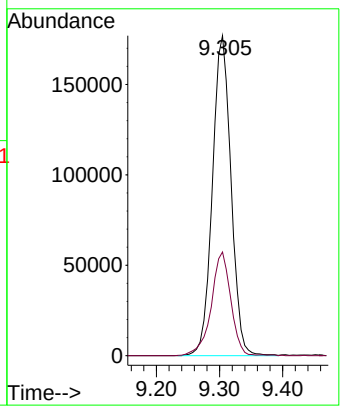




#45
1,2-Dichloropropane
Concen: 141.165 ug/l
RT: 9.305 min Scan# 1
Delta R.T. 0.001 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 63 Resp: 36157

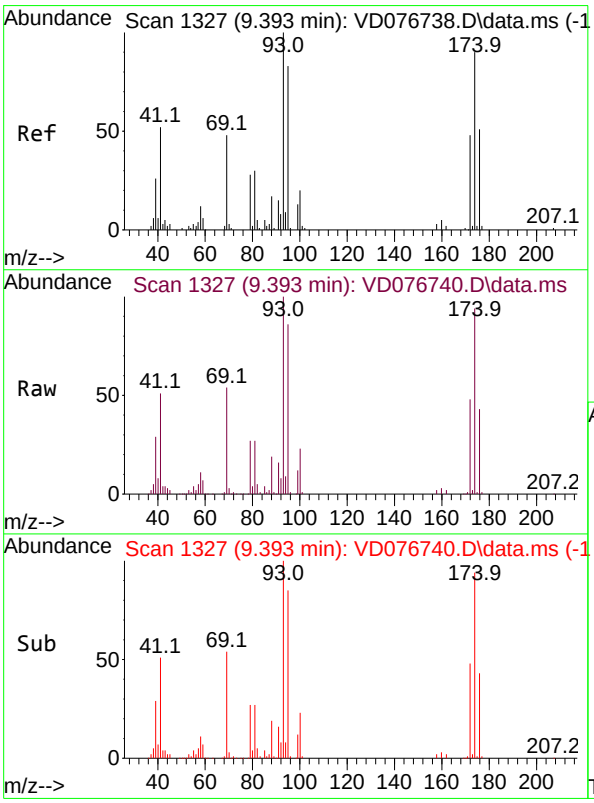
Ion	Ratio	Lower	Upper
63	100		
65	32.4	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

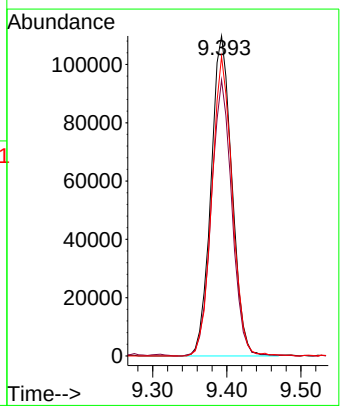
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

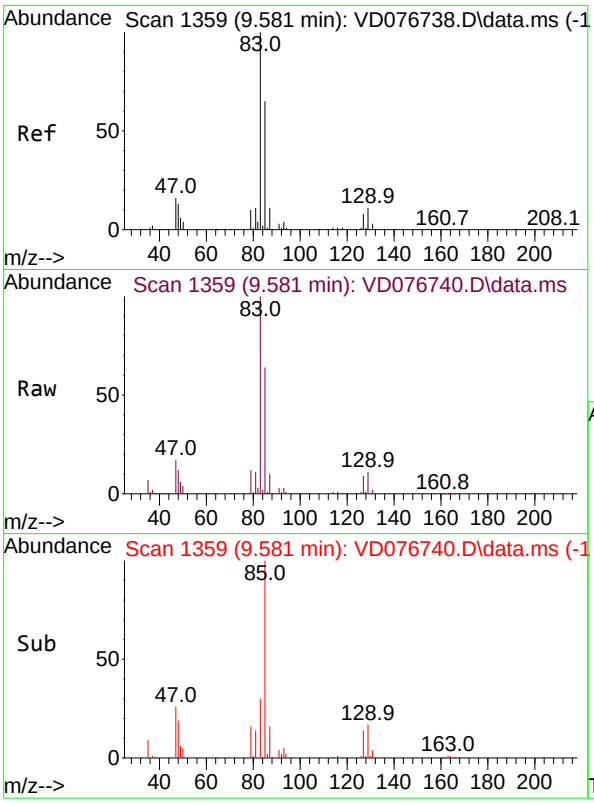


#46
Dibromomethane
Concen: 143.555 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 93 Resp: 215225

Ion	Ratio	Lower	Upper
93	100		
95	84.6	67.7	101.5
174	91.3	85.4	128.2

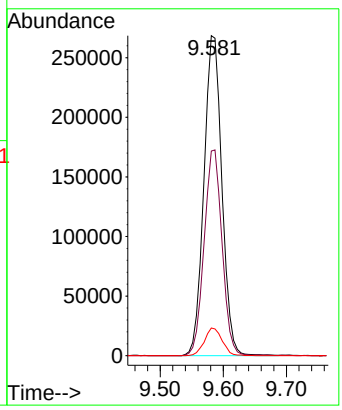




#47
Bromodichloromethane
Concen: 141.297 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 83 Resp: 53160

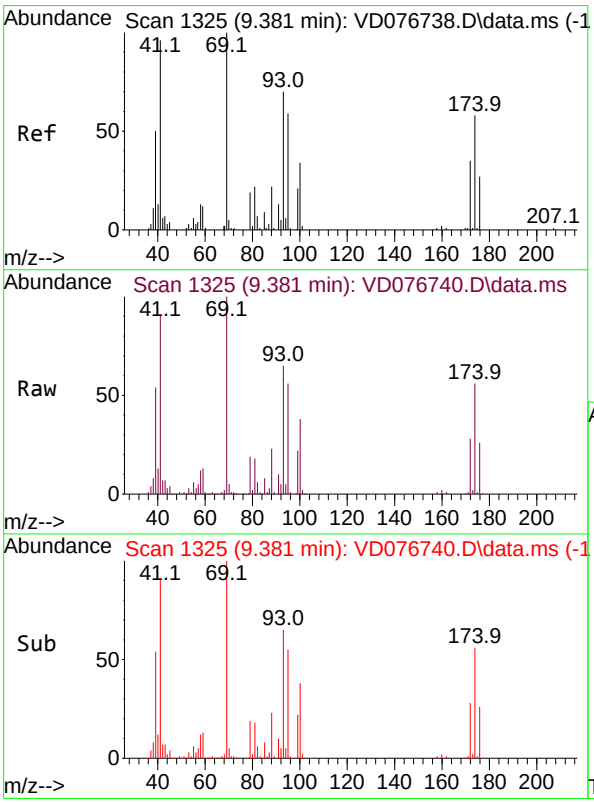
Ion	Ratio	Lower	Upper
83	100		
85	63.9	50.2	75.4
127	8.7	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

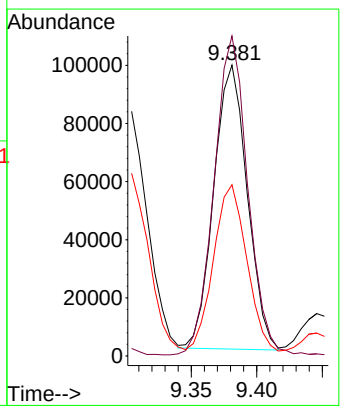
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

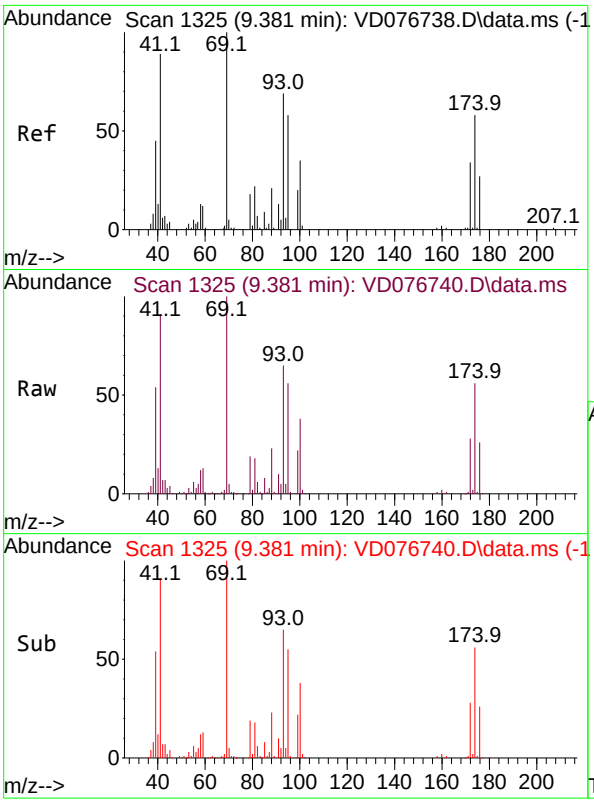


#48
Methyl methacrylate
Concen: 138.687 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 41 Resp: 173247

Ion	Ratio	Lower	Upper
41	100		
69	115.0	102.2	153.2
39	61.1	41.4	62.2

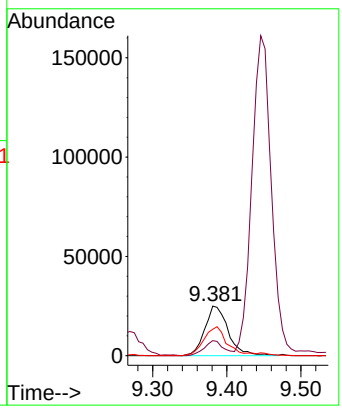




#49
1,4-Dioxane
Concen: 2862.152 ug/l
RT: 9.381 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 88 Resp: 5497

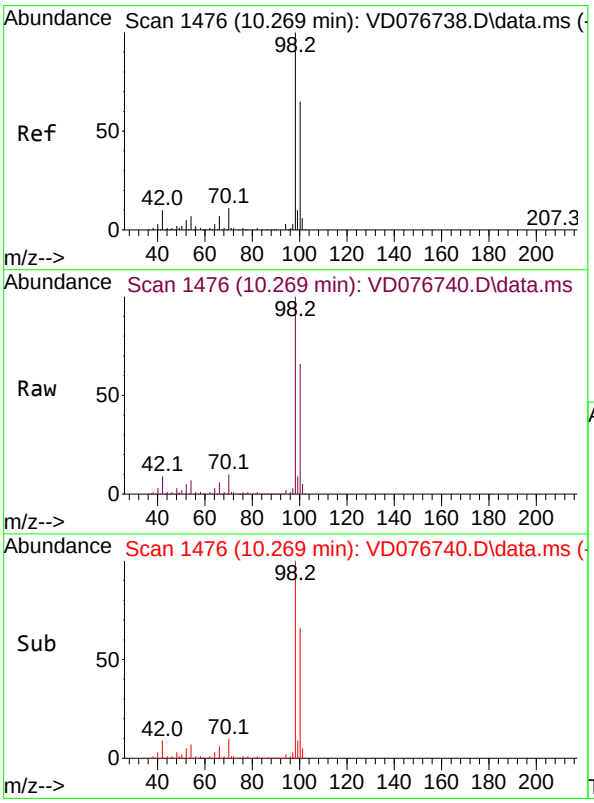
Ion	Ratio	Lower	Upper
88	100		
43	25.7	19.0	28.6
58	57.8	43.5	65.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

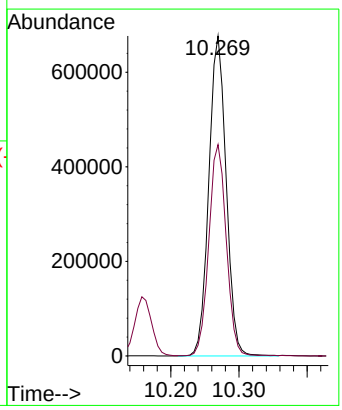
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

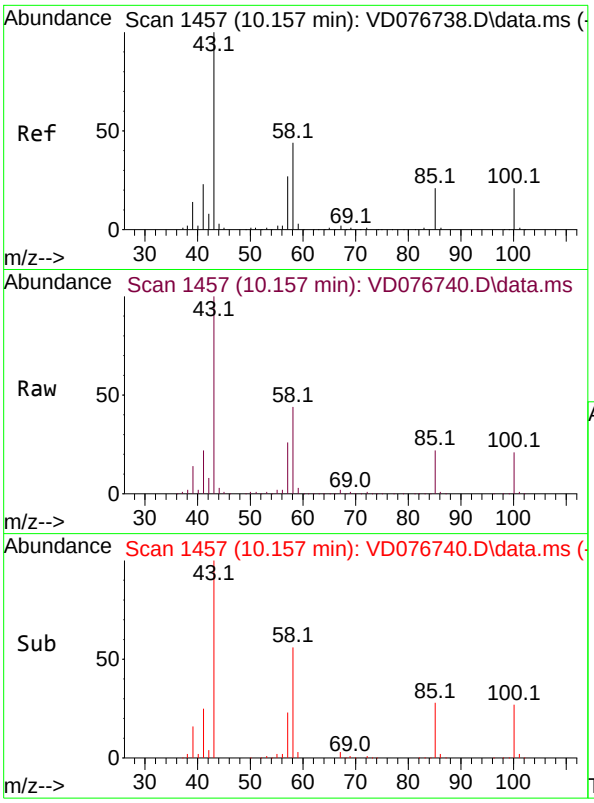


#50
Toluene-d8
Concen: 139.108 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 98 Resp: 1197621

Ion	Ratio	Lower	Upper
98	100		
100	66.3	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 712.497 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

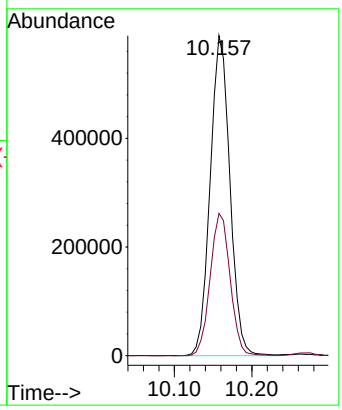
Tgt Ion: 43 Resp: 104120

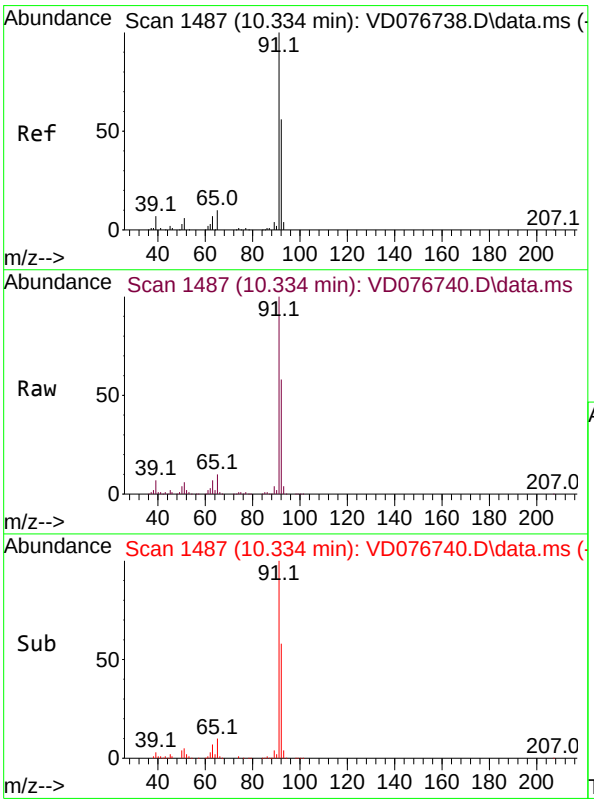
Ion	Ratio	Lower	Upper
43	100		
58	45.0	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

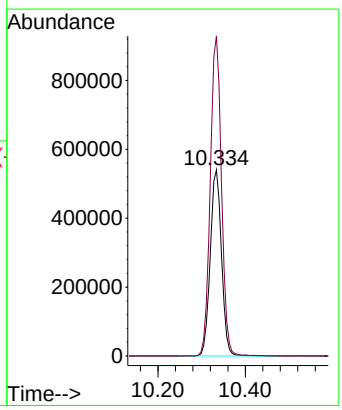


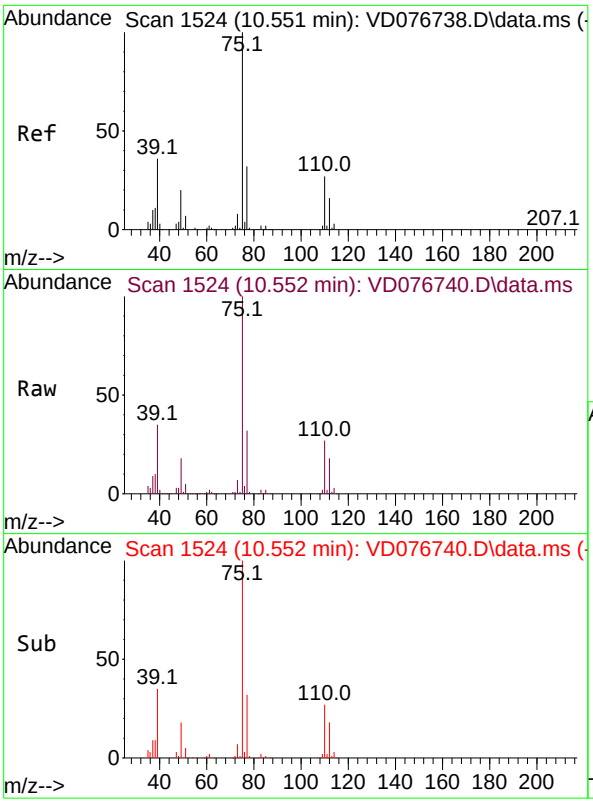


#52
Toluene
Concen: 148.310 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 92 Resp: 966521

Ion	Ratio	Lower	Upper
92	100		
91	171.2	143.0	214.4

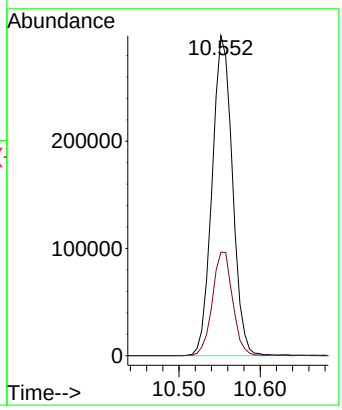




#53
t-1,3-Dichloropropene
Concen: 149.001 ug/l
RT: 10.552 min Scan# 1
Delta R.T. 0.001 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 75 Resp: 52032

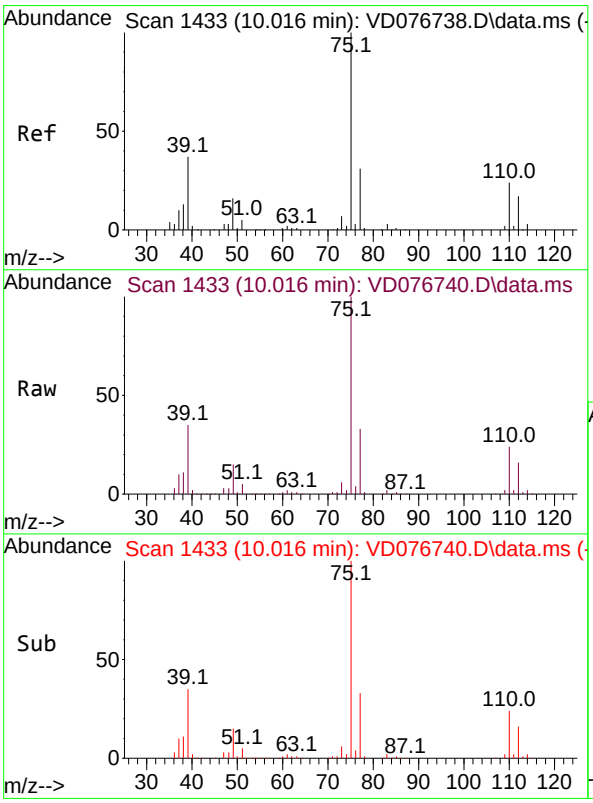
Ion	Ratio	Lower	Upper
75	100		
77	32.3	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

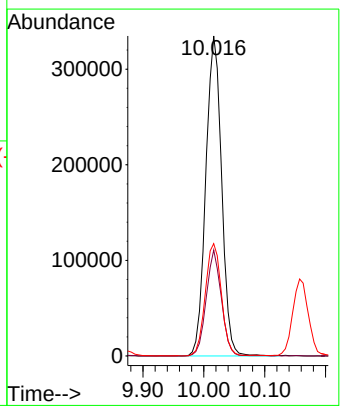
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

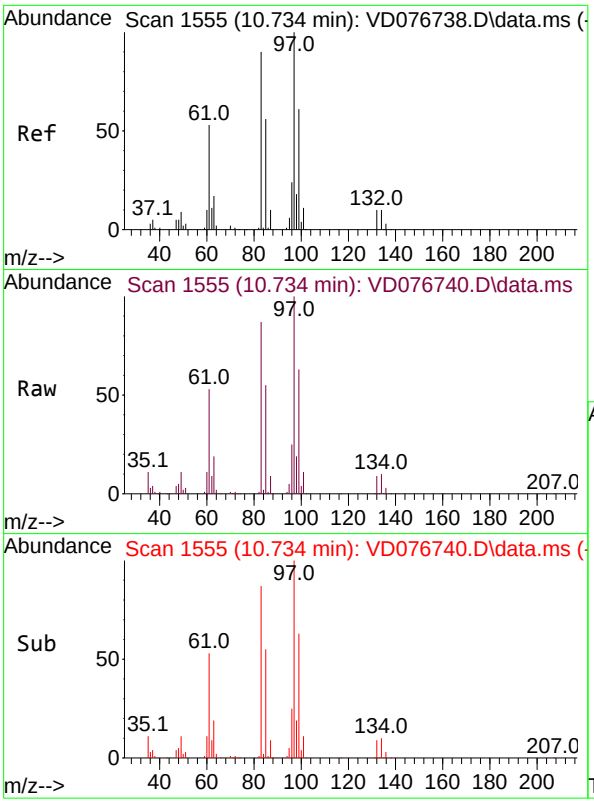


#54
cis-1,3-Dichloropropene
Concen: 146.914 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 75 Resp: 604647

Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.5	38.3
39	35.0	22.1	33.1#

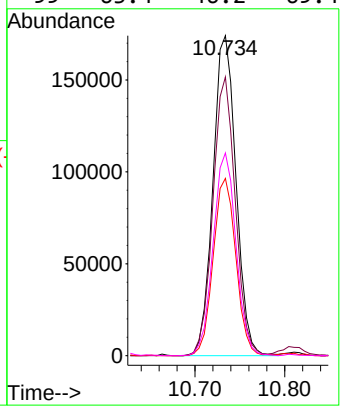




#55
1,1,2-Trichloroethane
Concen: 141.521 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 97 Resp: 30983

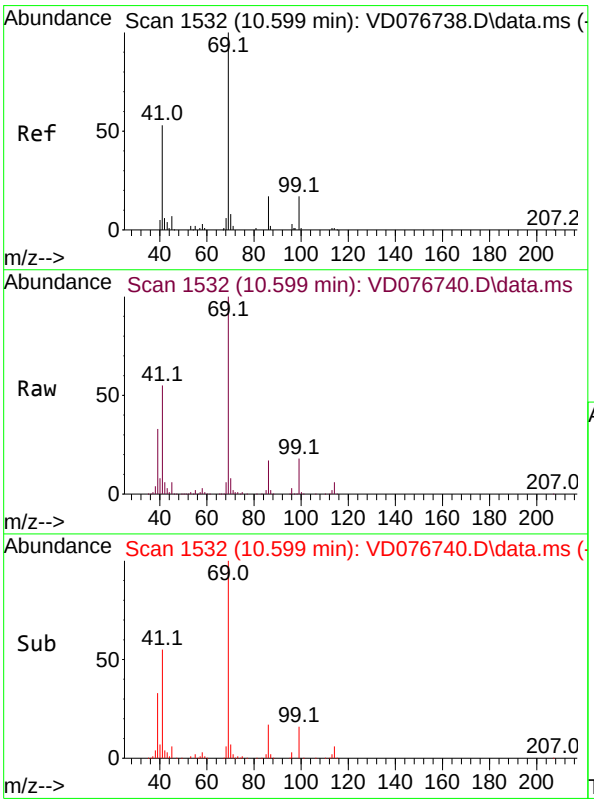
Ion	Ratio	Lower	Upper
97	100		
83	87.1	65.8	98.6
85	55.4	45.7	68.5
99	63.4	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

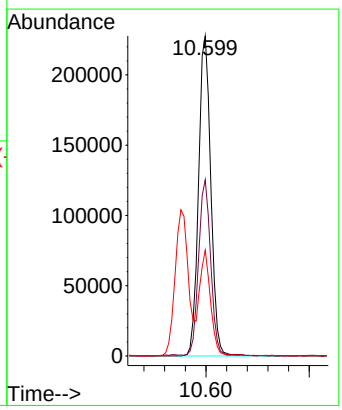
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

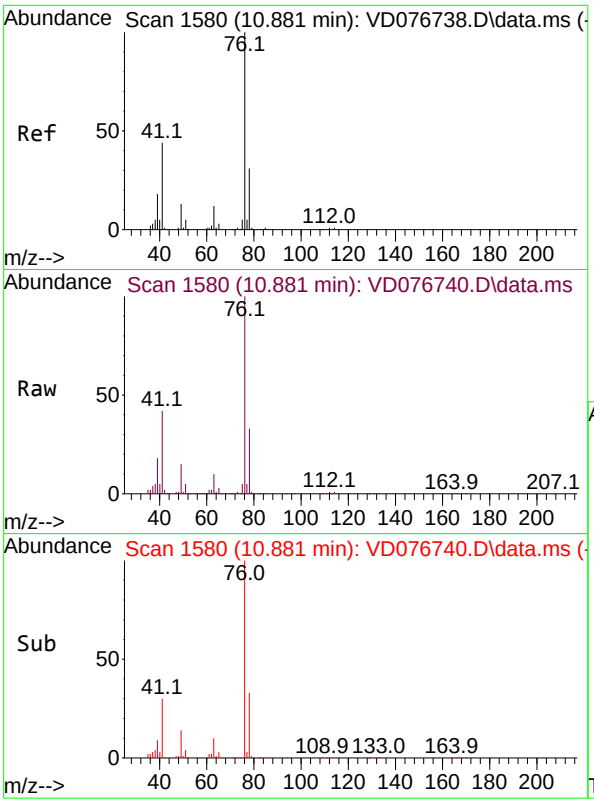


#56
Ethyl methacrylate
Concen: 148.511 ug/l
RT: 10.599 min Scan# 1532
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 69 Resp: 375269

Ion	Ratio	Lower	Upper
69	100		
41	53.6	39.1	58.7
39	28.1	20.0	30.0





#57
1,3-Dichloropropane
Concen: 142.400 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

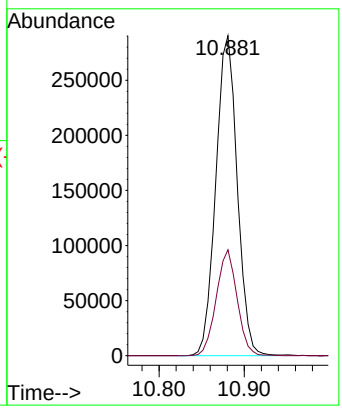
Tgt Ion: 76 Resp: 50770

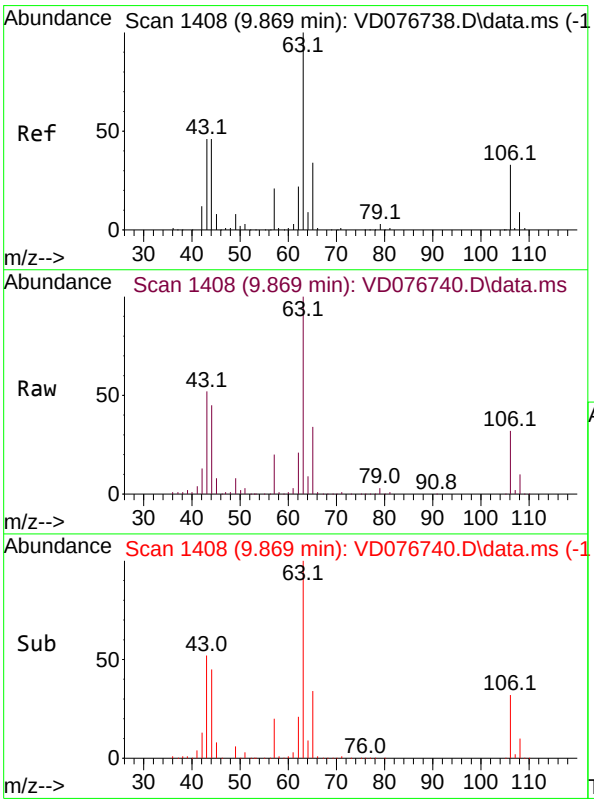
Ion	Ratio	Lower	Upper
76	100		
78	32.1	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

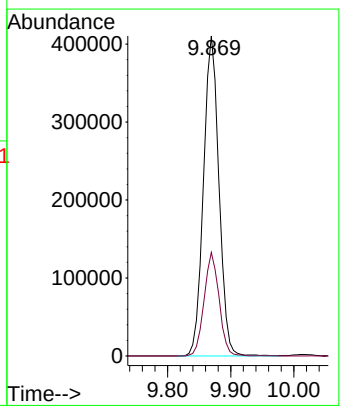


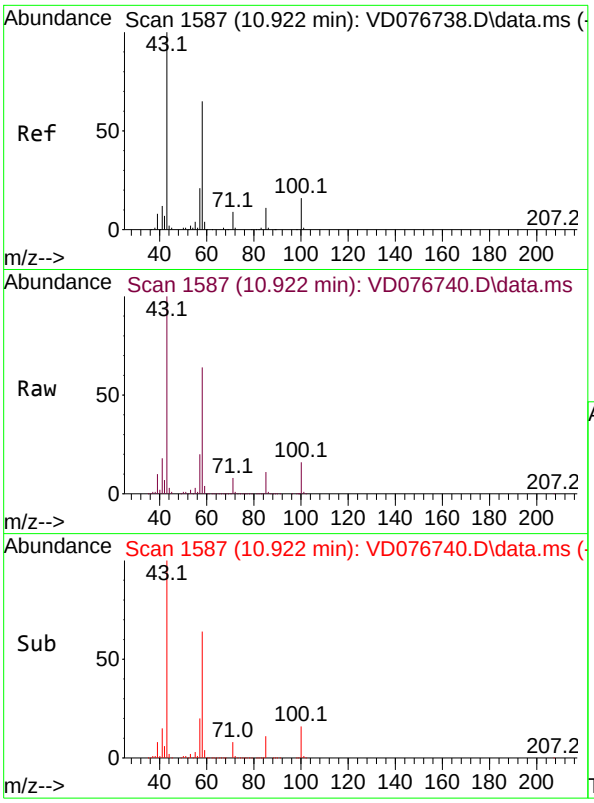


#58
2-Chloroethyl Vinyl ether
Concen: 715.140 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 63 Resp: 699479

Ion	Ratio	Lower	Upper
63	100		
106	31.3	25.3	37.9





#59
2-Hexanone
Concen: 707.429 ug/l
RT: 10.922 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

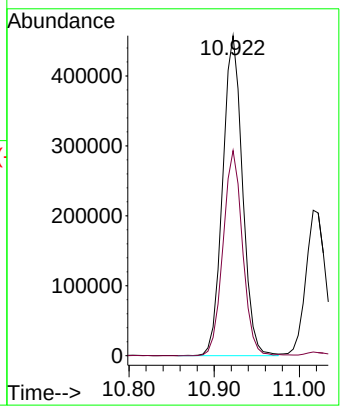
Tgt Ion: 43 Resp: 73765

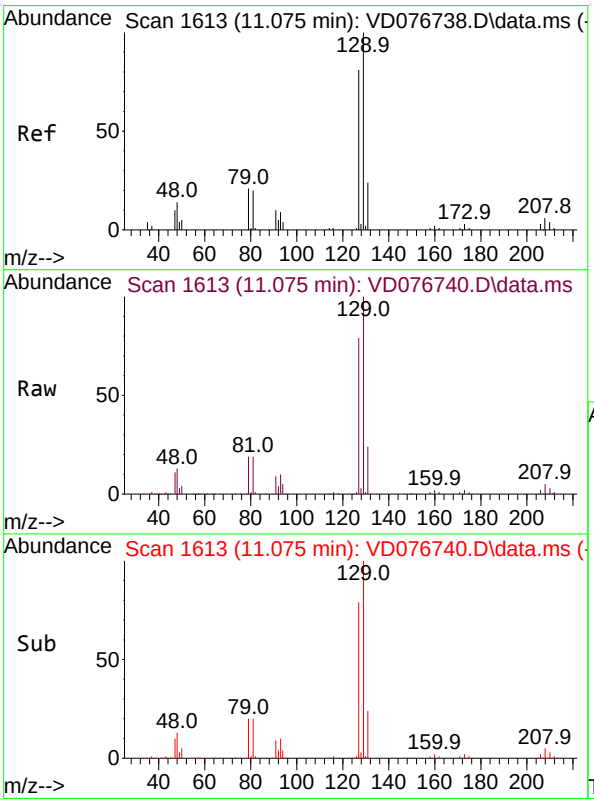
Ion	Ratio	Lower	Upper
43	100		
58	63.1	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

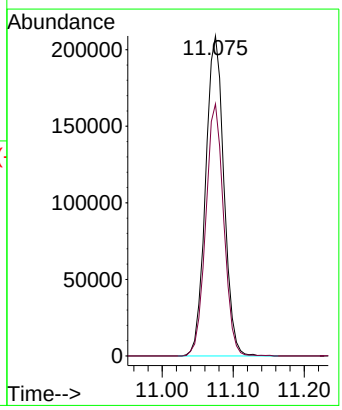


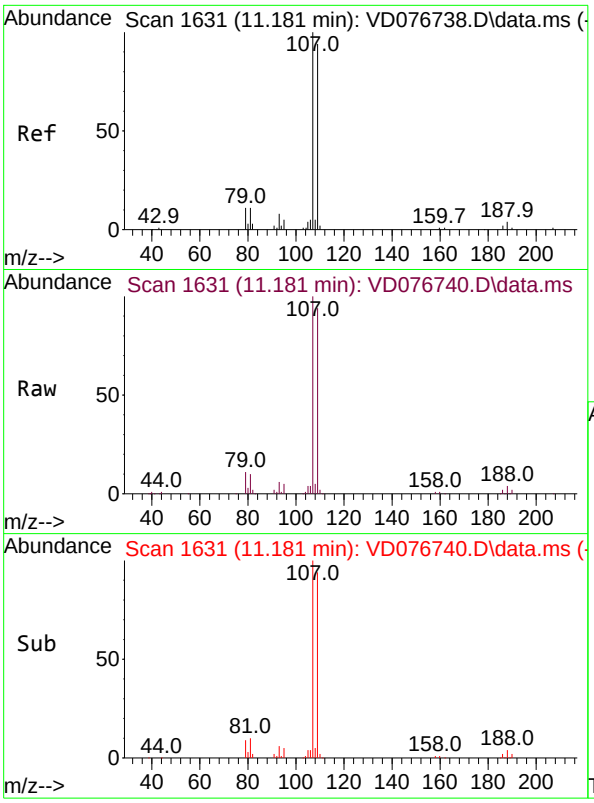


#60
Dibromochloromethane
Concen: 146.831 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:129 Resp: 373437

Ion	Ratio	Lower	Upper
129	100		
127	77.2	37.1	111.5

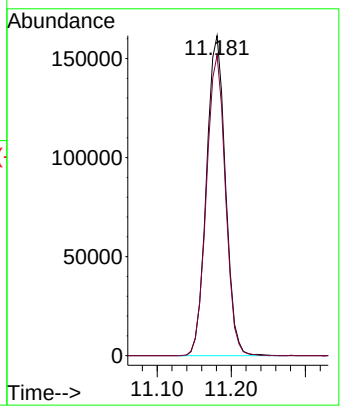




#61
1,2-Dibromoethane
Concen: 141.460 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:107 Resp: 28712

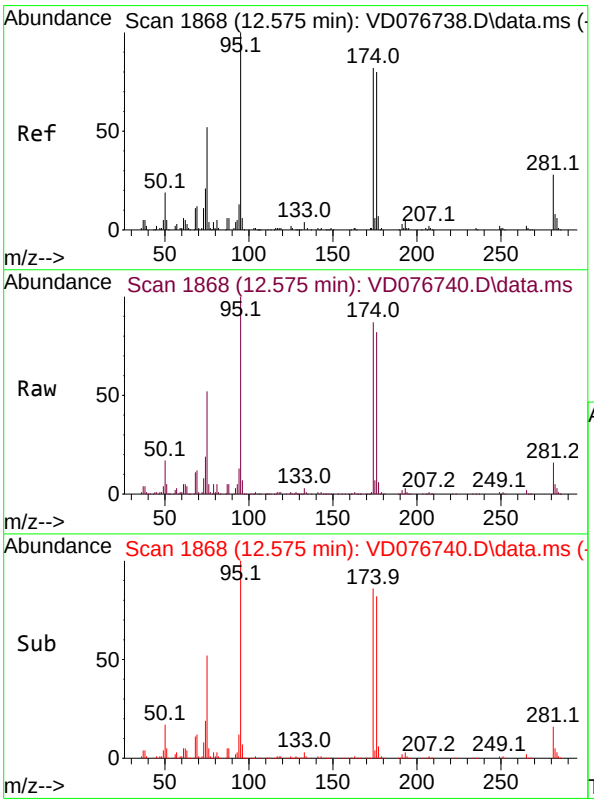
Ion	Ratio	Lower	Upper
107	100		
109	94.2	75.6	113.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

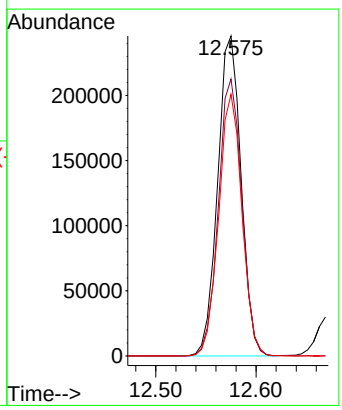
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

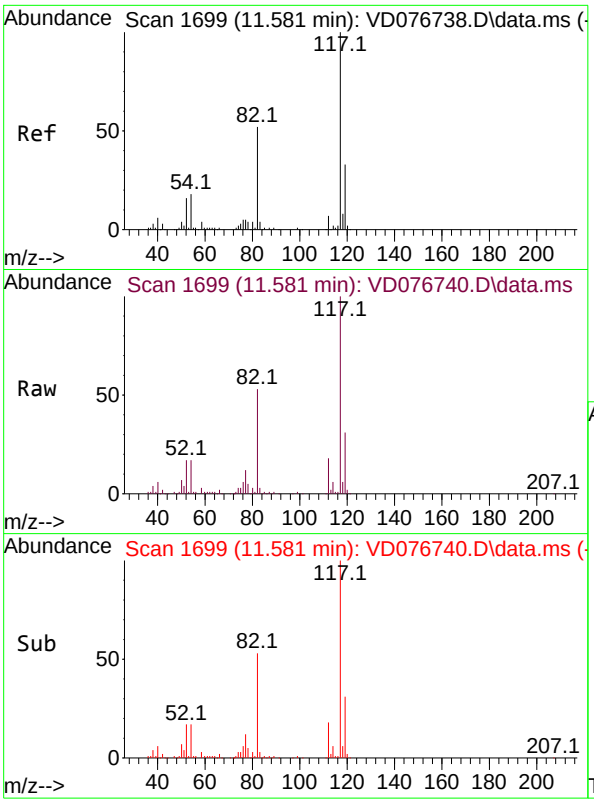


#62
4-Bromofluorobenzene
Concen: 142.790 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 95 Resp: 397686

Ion	Ratio	Lower	Upper
95	100		
174	86.6	0.0	201.8
176	81.2	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

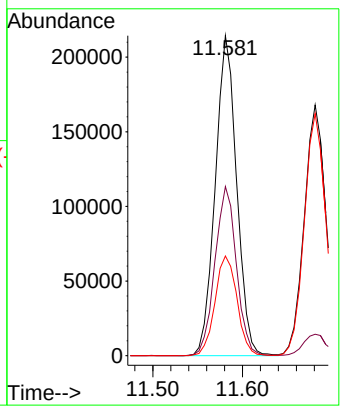
Tgt Ion:117 Resp: 35474

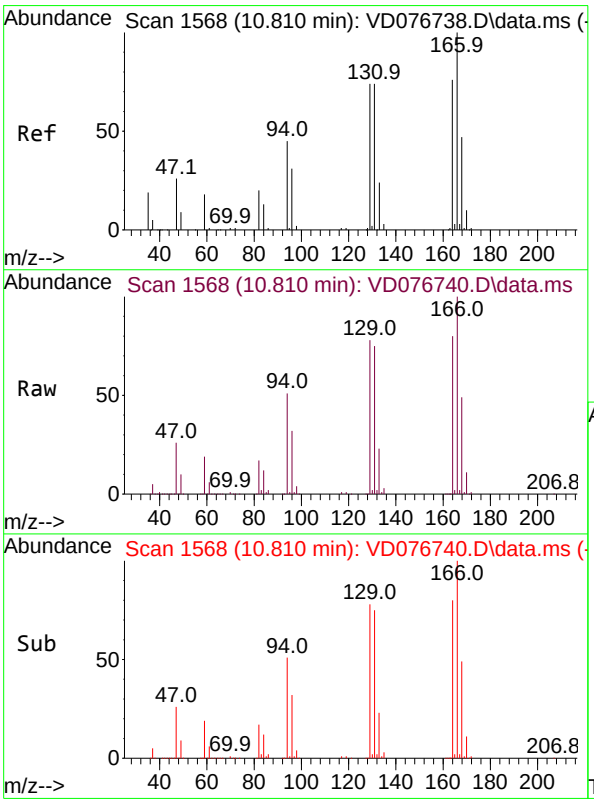
Ion	Ratio	Lower	Upper
117	100		
82	52.9	38.3	57.5
119	31.2	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

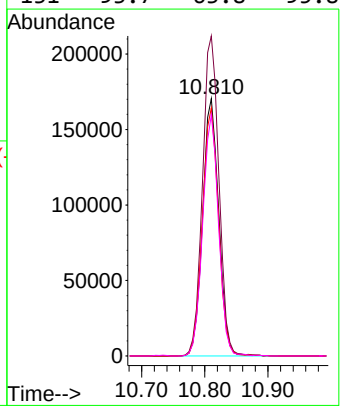


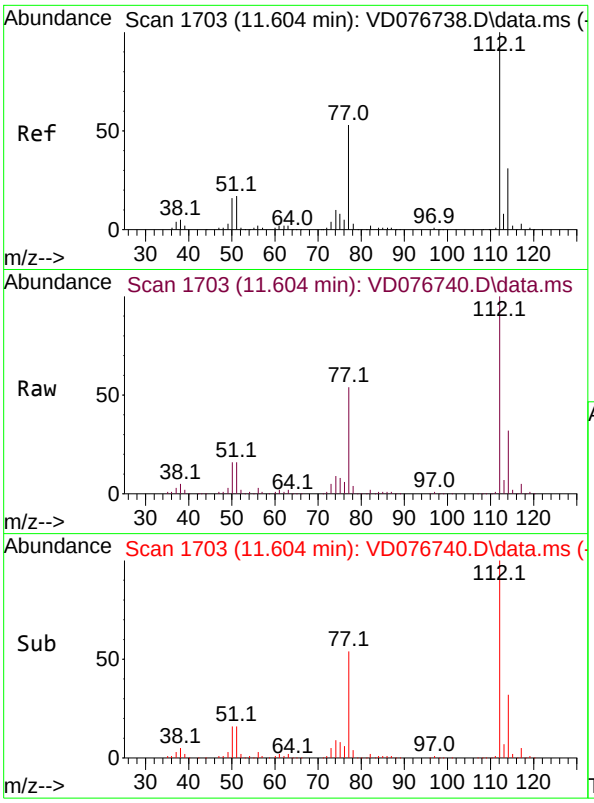


#64
Tetrachloroethene
Concen: 149.169 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:164 Resp: 301744

Ion	Ratio	Lower	Upper
164	100		
166	124.4	99.2	148.8
129	96.4	68.4	102.6
131	93.7	63.8	95.8

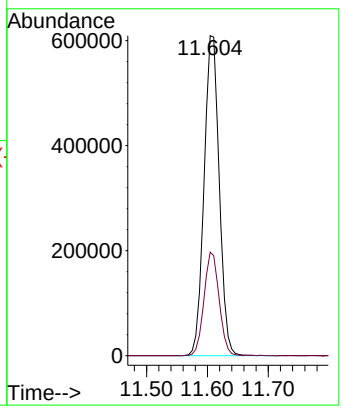




#65
Chlorobenzene
Concen: 147.881 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:112 Resp: 105508

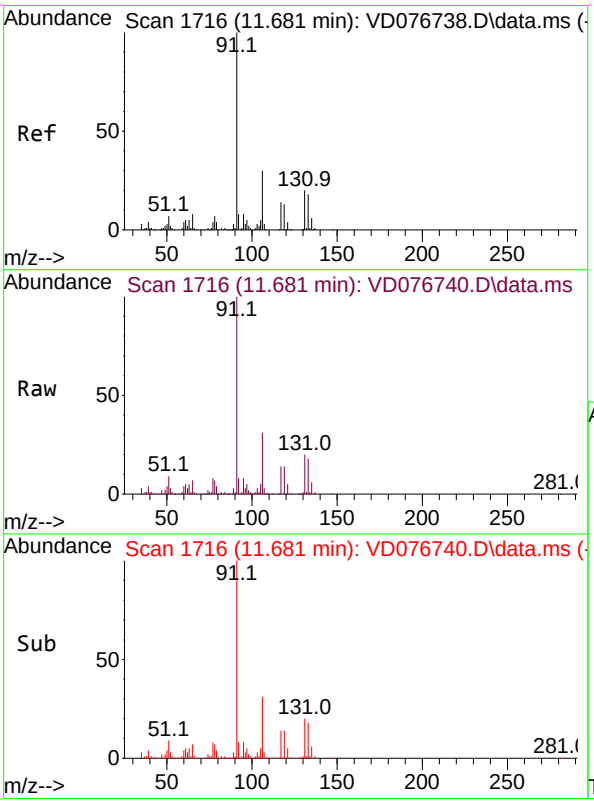
Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

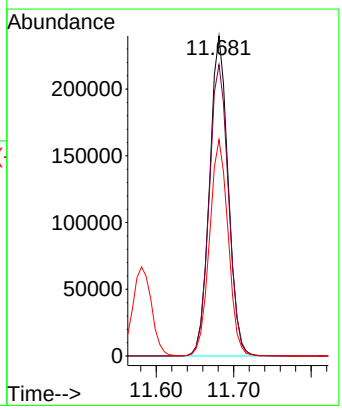
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

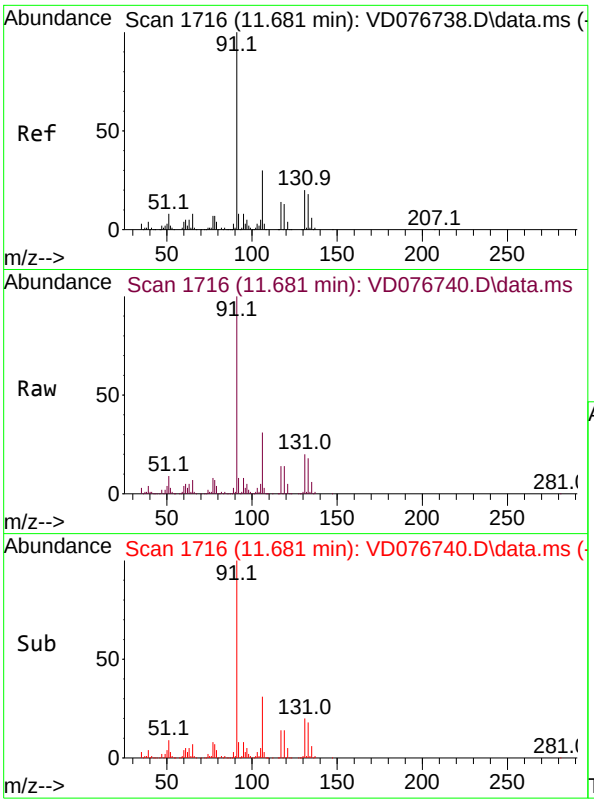


#66
1,1,1,2-Tetrachloroethane
Concen: 150.242 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:131 Resp: 399085

Ion	Ratio	Lower	Upper
131	100		
133	94.7	48.5	145.5
119	67.9	35.6	106.9





#67
Ethyl Benzene
Concen: 154.488 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

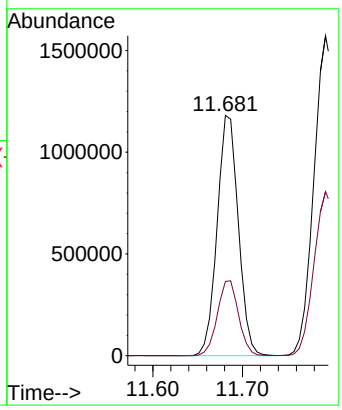
Tgt Ion: 91 Resp: 193573

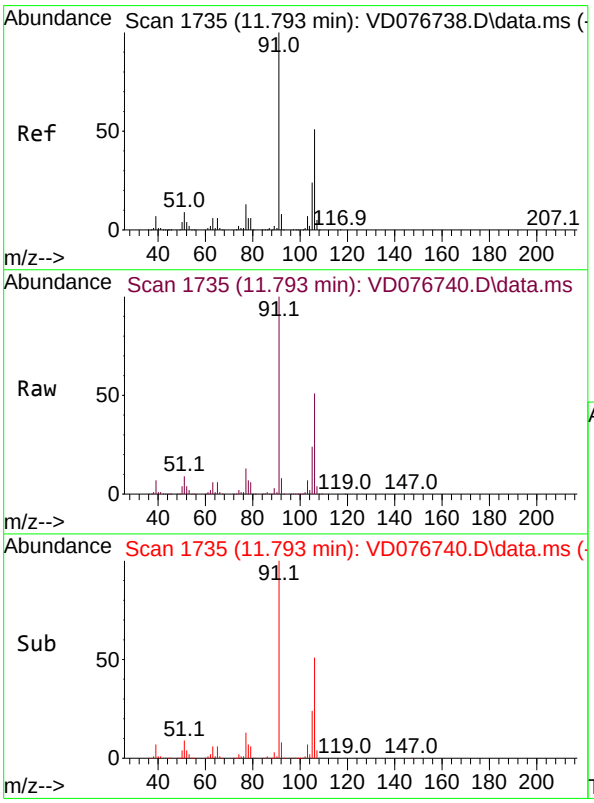
Ion	Ratio	Lower	Upper
91	100		
106	30.9	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

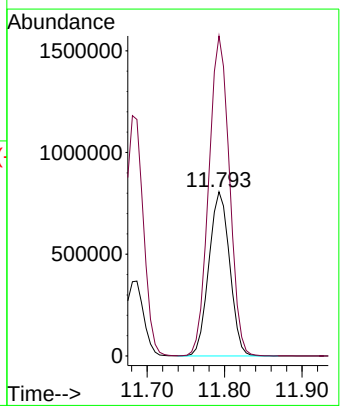


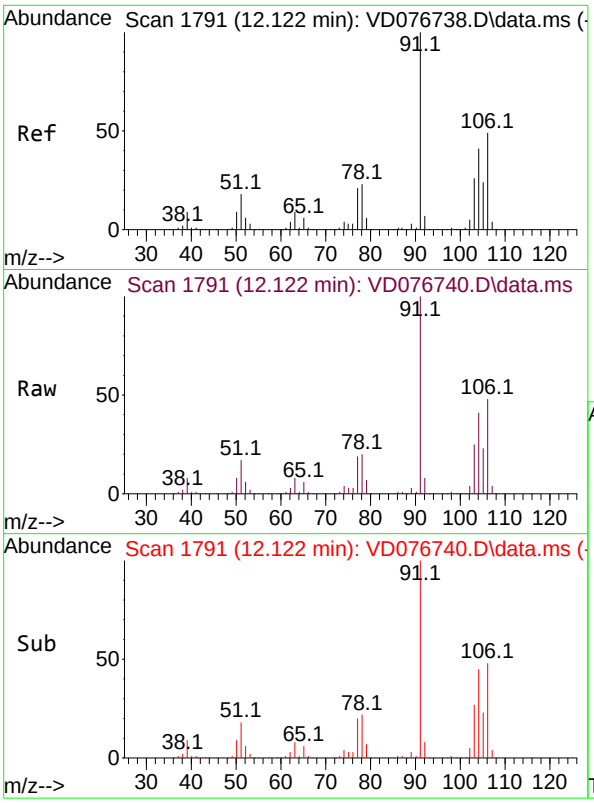


#68
m/p-Xylenes
Concen: 311.985 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:106 Resp: 1501344

Ion	Ratio	Lower	Upper
106	100		
91	194.2	147.0	220.6

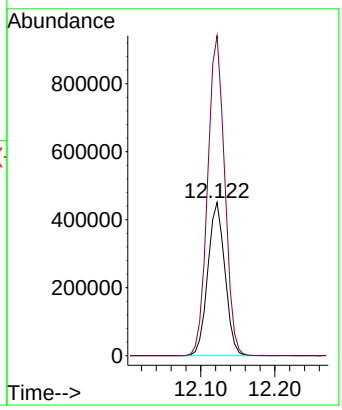




#69
o-Xylene
Concen: 154.947 ug/l
RT: 12.122 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:106 Resp: 72104

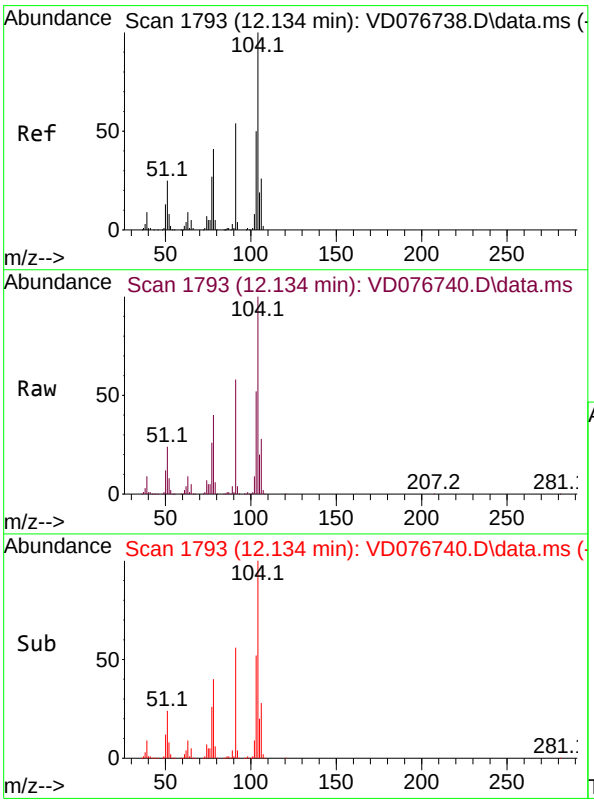
Ion	Ratio	Lower	Upper
106	100		
91	208.5	97.9	293.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

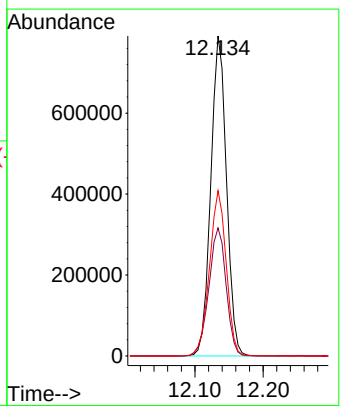
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

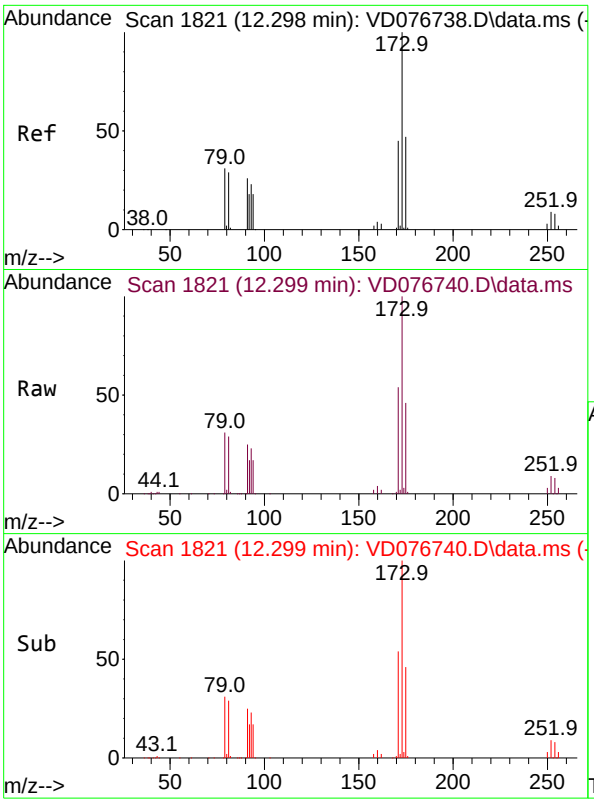


#70
Styrene
Concen: 155.501 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:104 Resp: 1266751

Ion	Ratio	Lower	Upper
104	100		
78	44.1	33.2	49.8
103	54.9	43.6	65.4

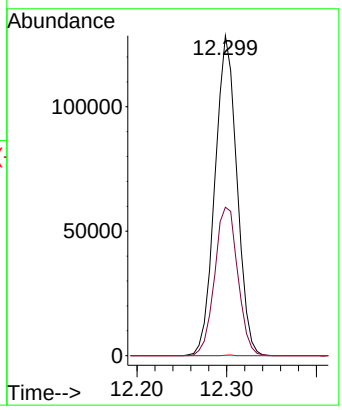




#71
Bromoform
Concen: 150.006 ug/l
RT: 12.299 min Scan# 1
Delta R.T. 0.001 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:173 Resp: 21823

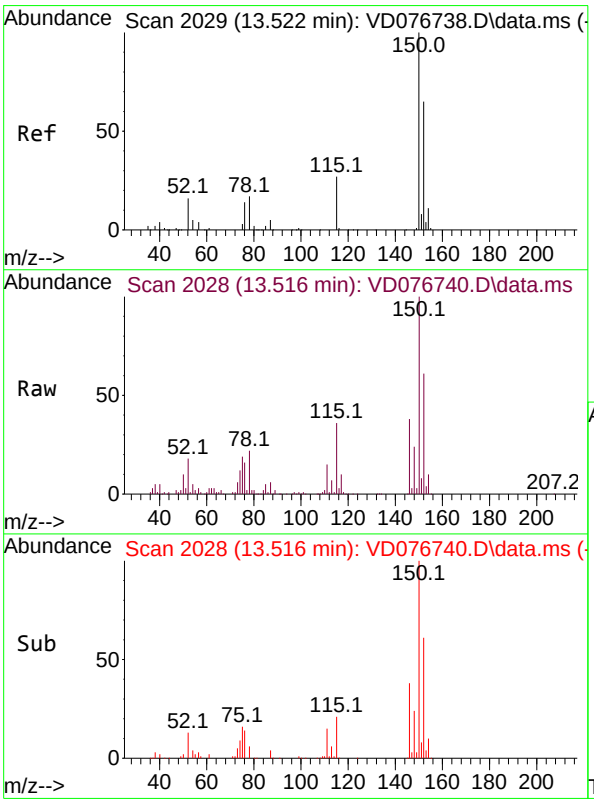
Ion	Ratio	Lower	Upper
173	100		
175	48.9	24.6	73.8
254	0.1	0.0	0.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

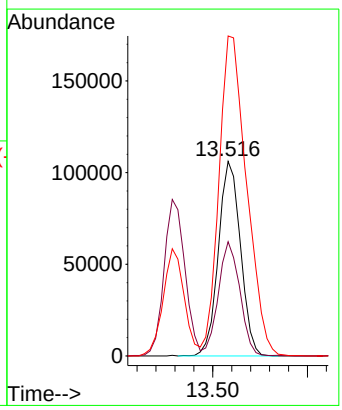
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

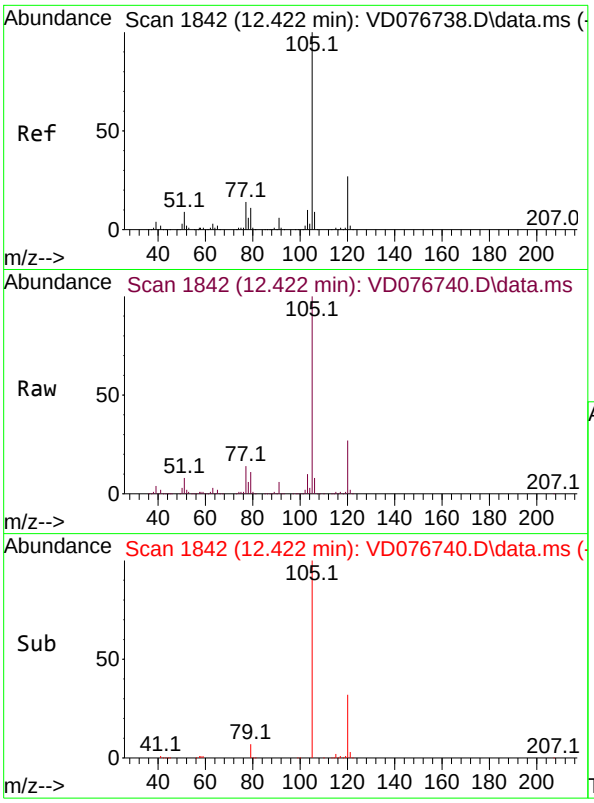


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:152 Resp: 172295

Ion	Ratio	Lower	Upper
152	100		
115	57.4	27.1	81.3
150	205.7	0.0	353.6

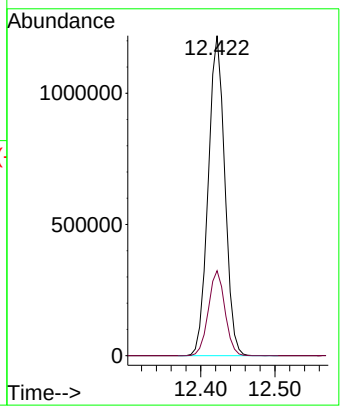




#73
Isopropylbenzene
Concen: 151.235 ug/l
RT: 12.422 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:105 Resp: 189049

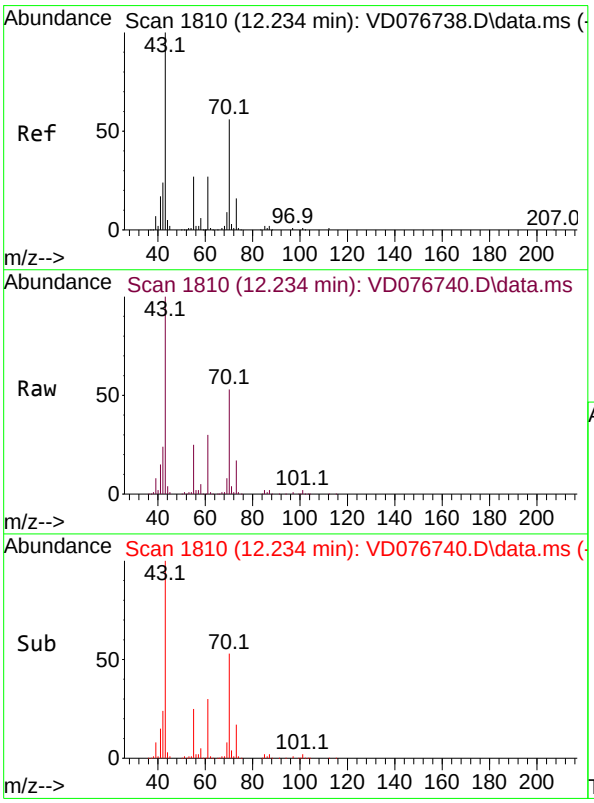
Ion	Ratio	Lower	Upper
105	100		
120	26.5	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

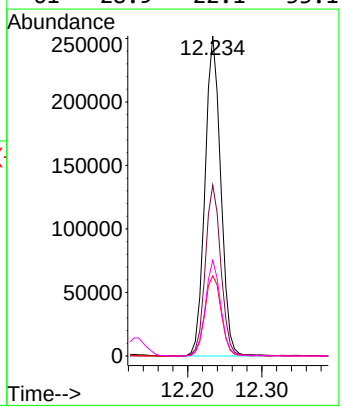
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

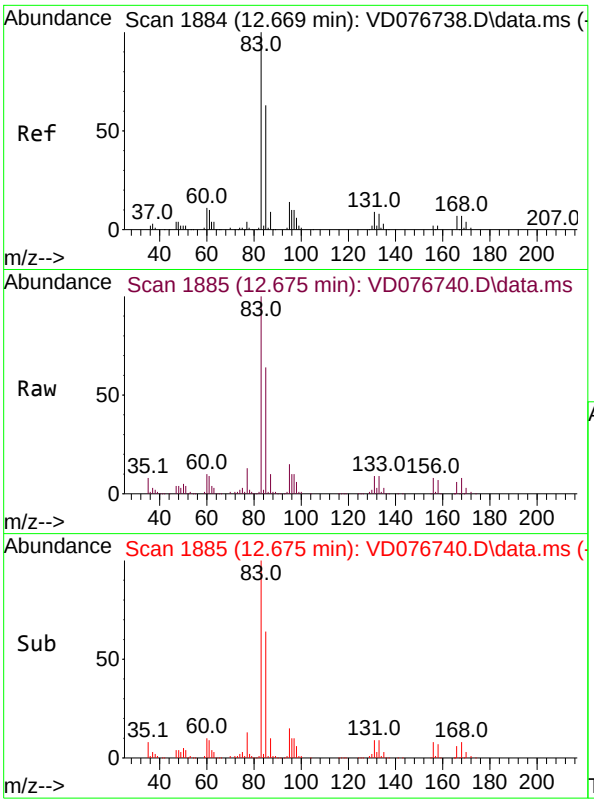


#74
N-amyl acetate
Concen: 141.832 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 43 Resp: 373508

Ion	Ratio	Lower	Upper
43	100		
70	52.2	45.0	67.4
55	25.9	23.8	35.6
61	28.9	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 136.786 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

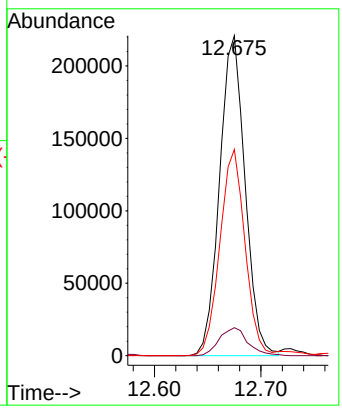
Tgt Ion: 83 Resp: 36712

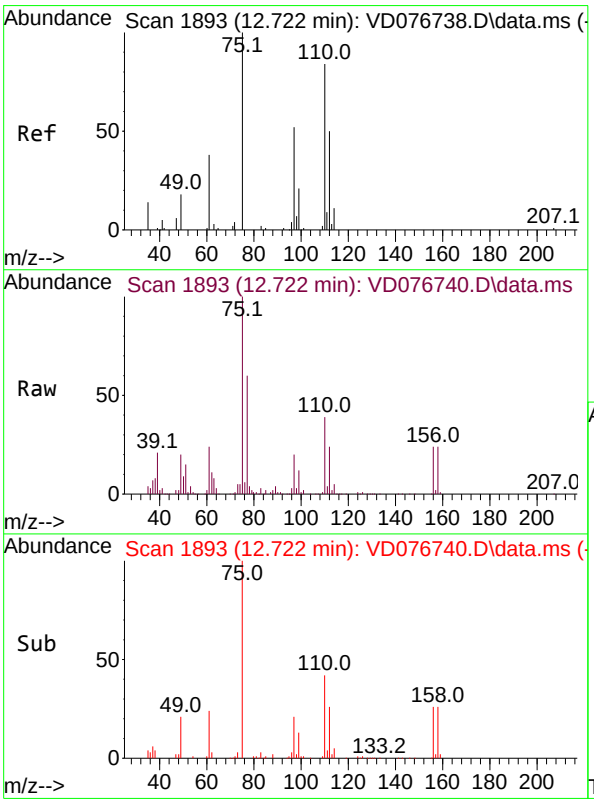
Ion	Ratio	Lower	Upper
83	100		
131	9.8	5.1	15.3
85	63.8	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

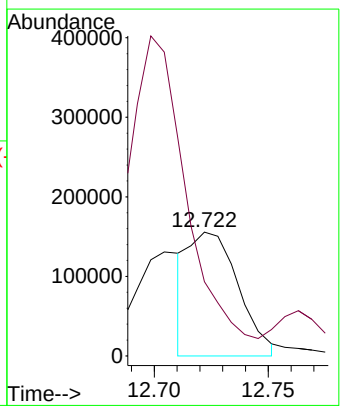


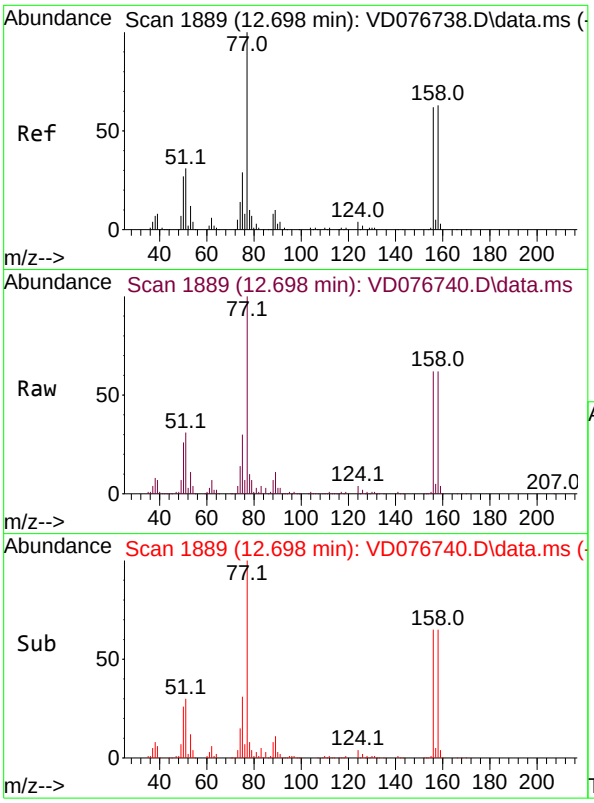


#76
1,2,3-Trichloropropane
Concen: 138.407 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 75 Resp: 236969

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 144.796 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

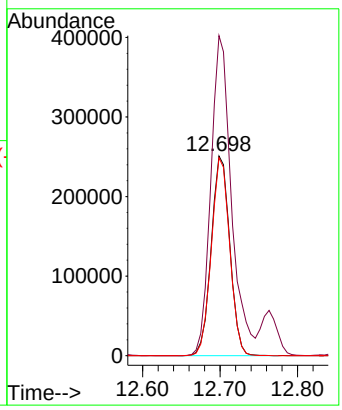
Tgt Ion:156 Resp: 41779

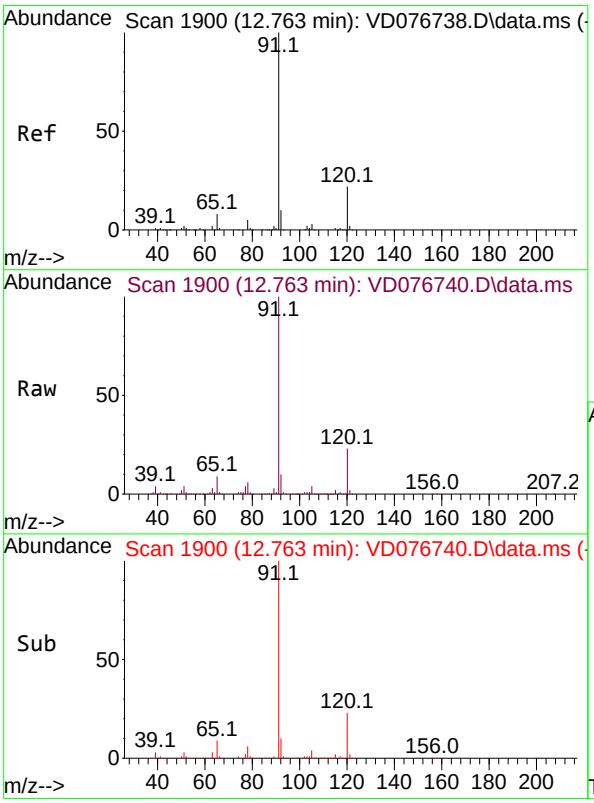
Ion	Ratio	Lower	Upper
156	100		
77	177.9	76.8	230.4
158	97.9	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

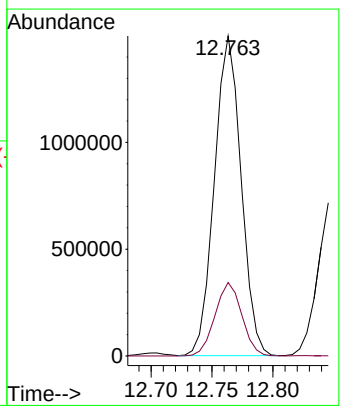


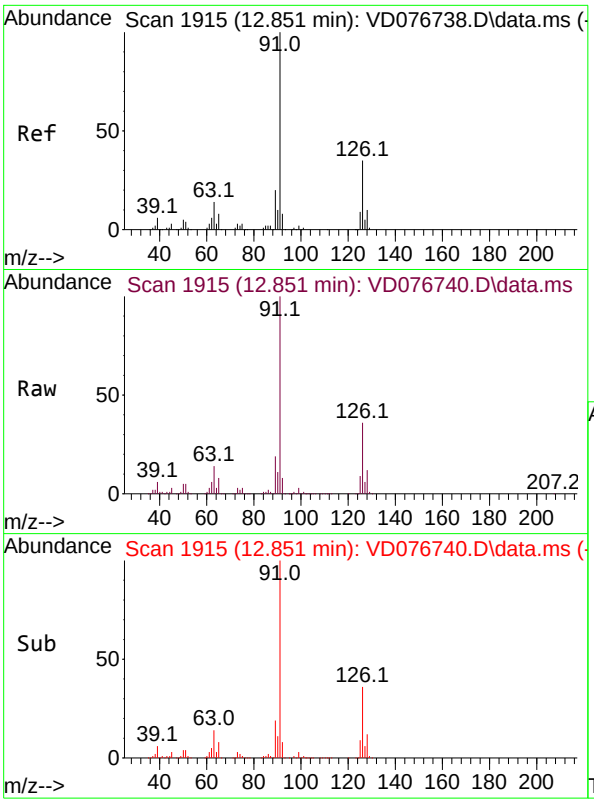


#78
n-propylbenzene
Concen: 150.859 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 91 Resp: 2286180

Ion	Ratio	Lower	Upper
91	100		
120	23.0	12.4	37.2

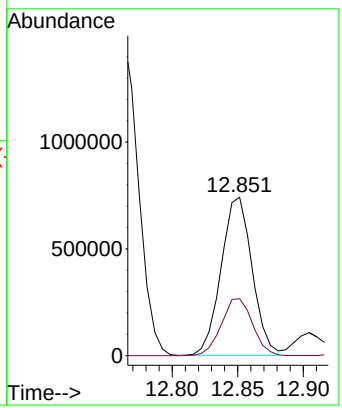




#79
2-Chlorotoluene
Concen: 147.097 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 91 Resp: 122226

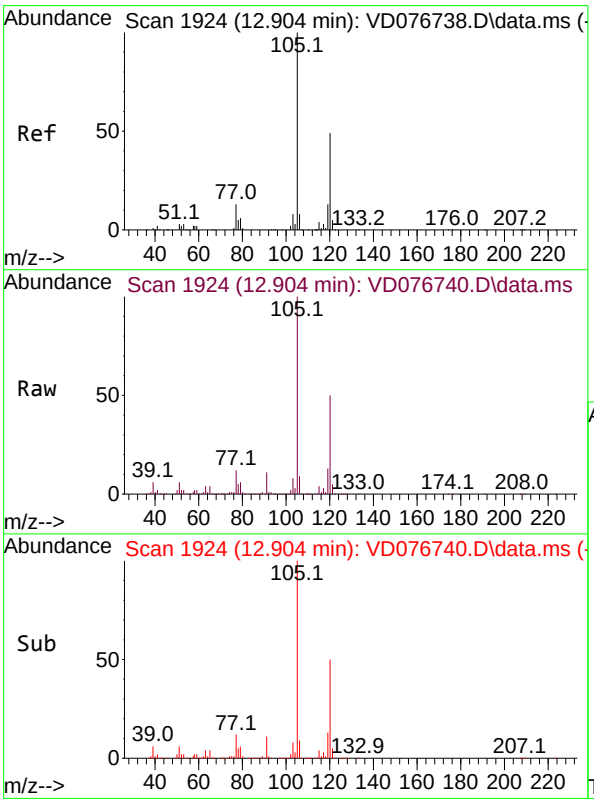
Ion	Ratio	Lower	Upper
91	100		
126	36.3	19.4	58.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

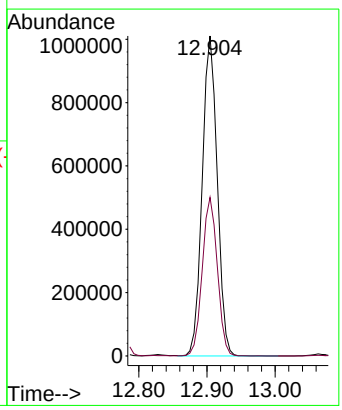
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

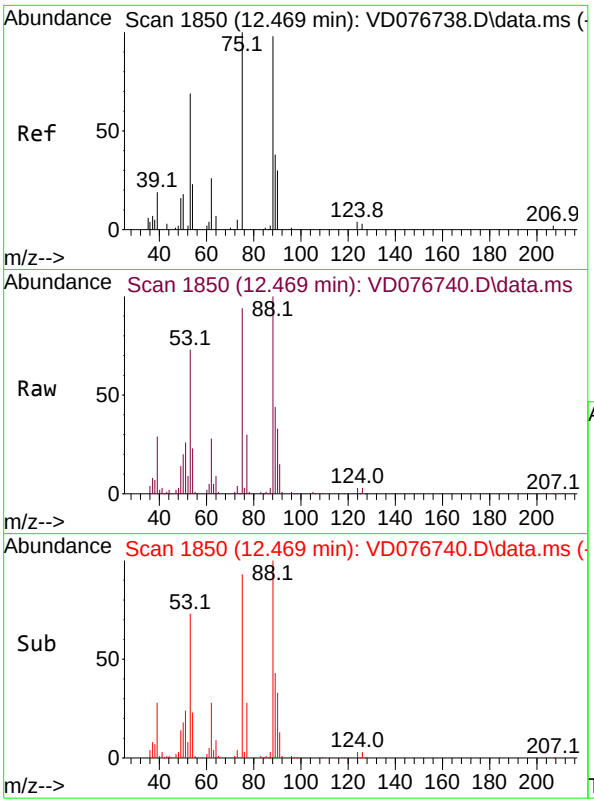


#80
1,3,5-Trimethylbenzene
Concen: 153.280 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:105 Resp: 1549307

Ion	Ratio	Lower	Upper
105	100		
120	49.6	26.4	79.2

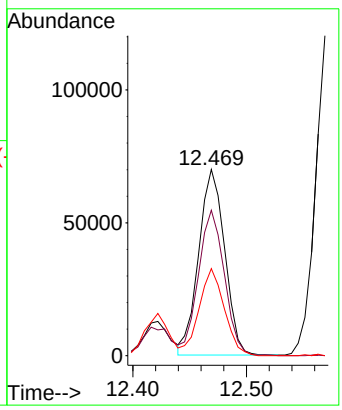




#81
trans-1,4-Dichloro-2-butene
Concen: 144.492 ug/l
RT: 12.469 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 75 Resp: 11124

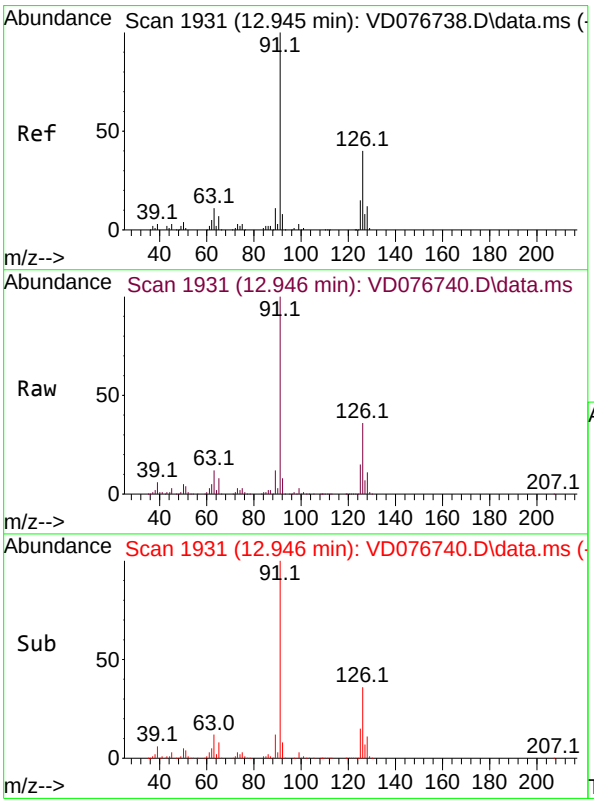
Ion	Ratio	Lower	Upper
75	100		
53	78.6	63.0	94.4
89	45.7	37.9	56.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

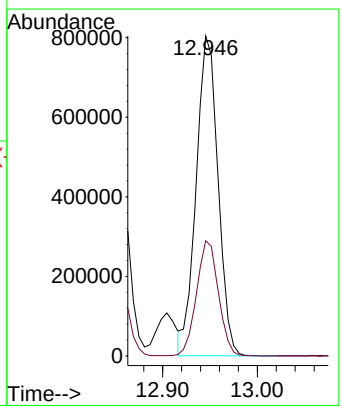
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

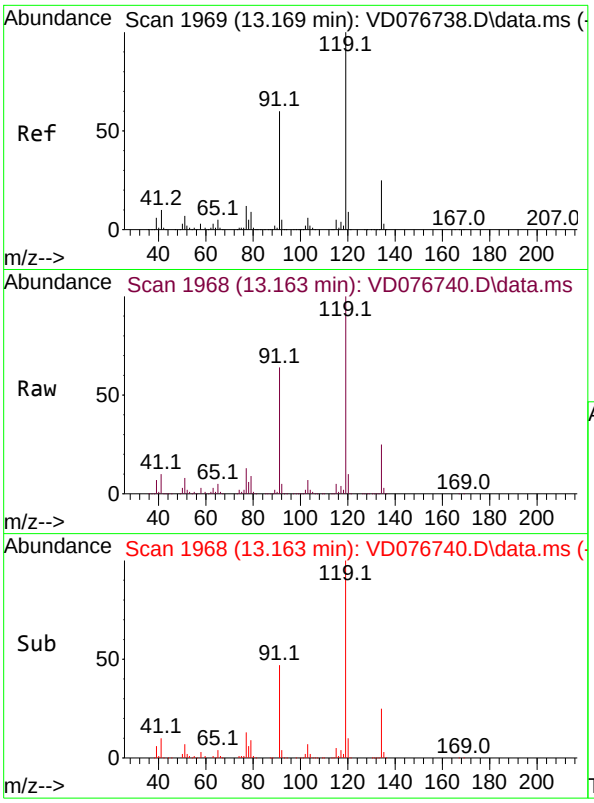


#82
4-Chlorotoluene
Concen: 148.599 ug/l
RT: 12.946 min Scan# 1931
Delta R.T. 0.001 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 91 Resp: 1289917

Ion	Ratio	Lower	Upper
91	100		
126	36.1	19.4	58.4

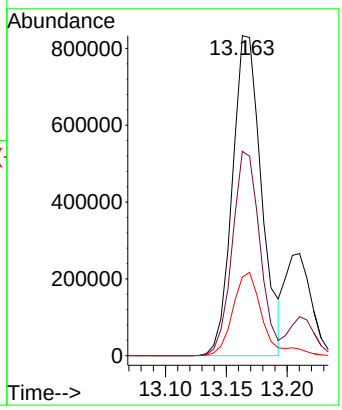




#83
tert-Butylbenzene
Concen: 155.686 ug/l
RT: 13.163 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:119 Resp: 138556

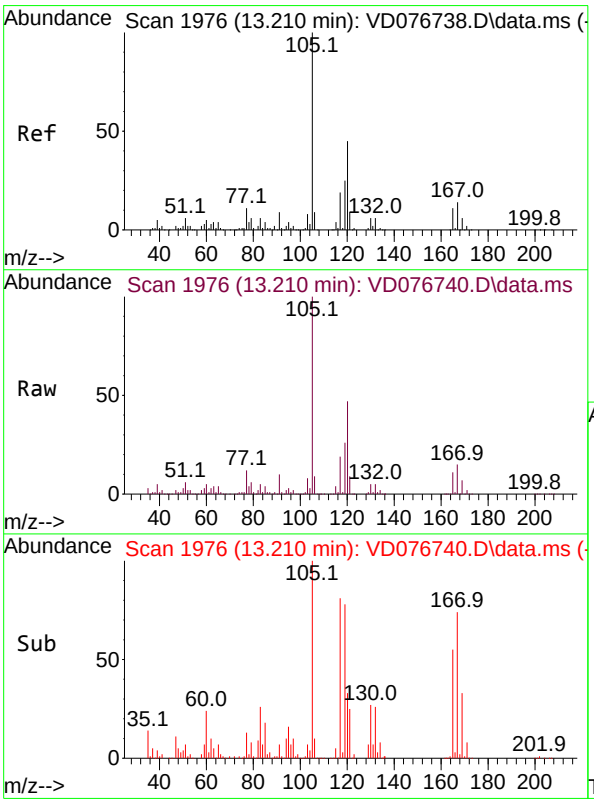
Ion	Ratio	Lower	Upper
119	100		
91	60.7	29.3	87.8
134	26.7	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

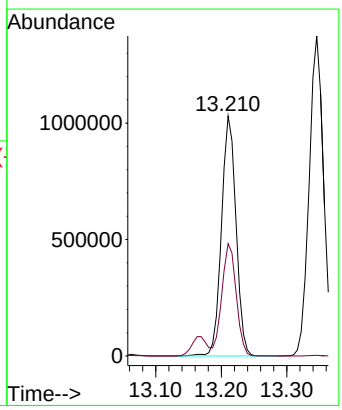
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

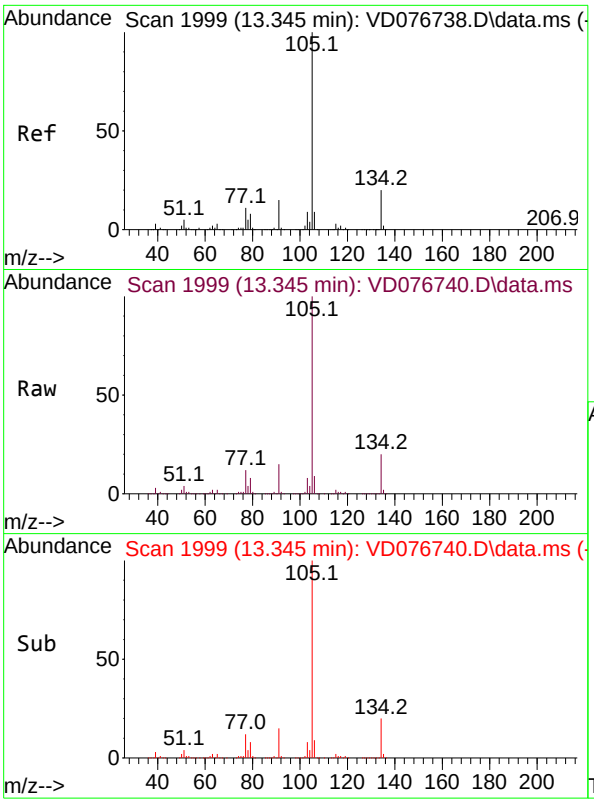


#84
1,2,4-Trimethylbenzene
Concen: 152.959 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:105 Resp: 1579912

Ion	Ratio	Lower	Upper
105	100		
120	45.9	24.3	72.9

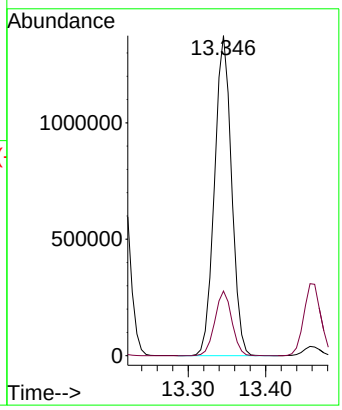




#85
sec-Butylbenzene
Concen: 154.179 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:105 Resp: 209641

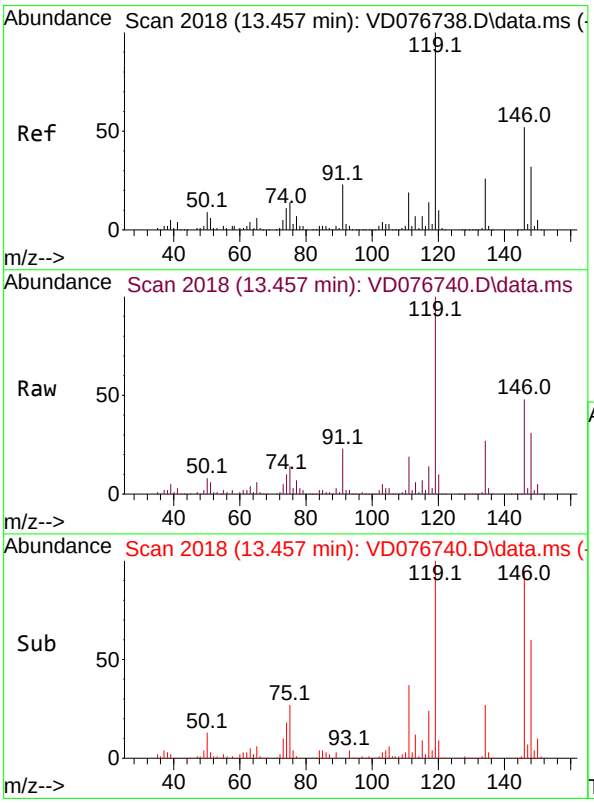
Ion	Ratio	Lower	Upper
105	100		
134	20.1	10.9	32.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

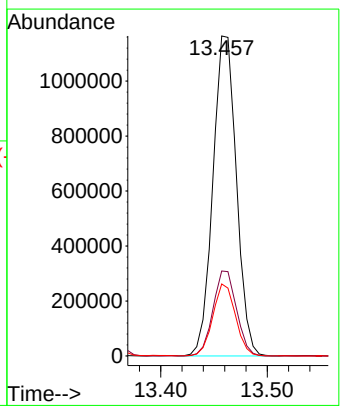
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

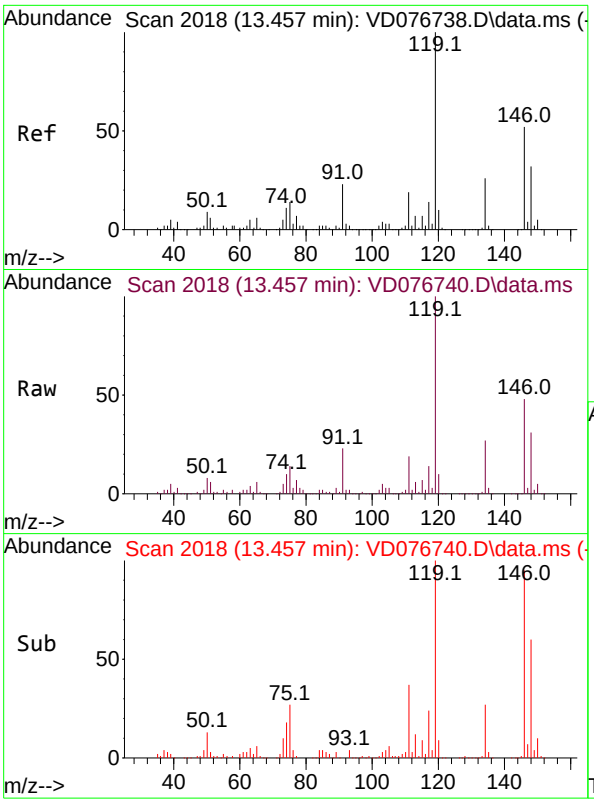


#86
p-Isopropyltoluene
Concen: 158.827 ug/l
RT: 13.457 min Scan# 2018
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:119 Resp: 1783540

Ion	Ratio	Lower	Upper
119	100		
134	26.5	14.2	42.6
91	21.7	10.5	31.5

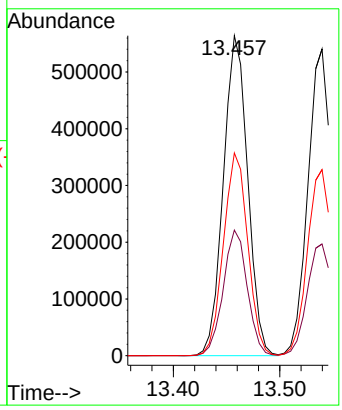




#87
1,3-Dichlorobenzene
Concen: 150.714 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:146 Resp: 89444

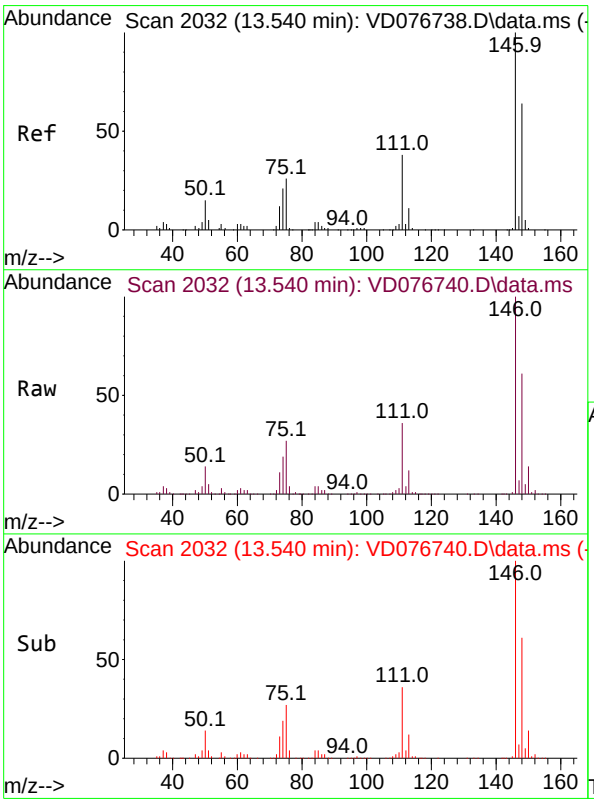
Ion	Ratio	Lower	Upper
146	100		
111	38.8	17.9	53.8
148	63.4	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

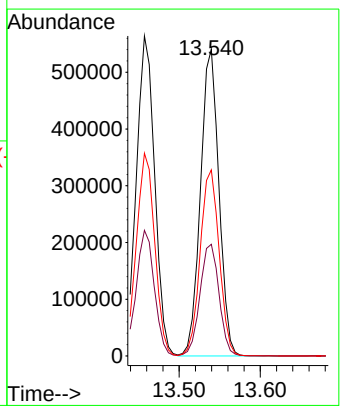
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

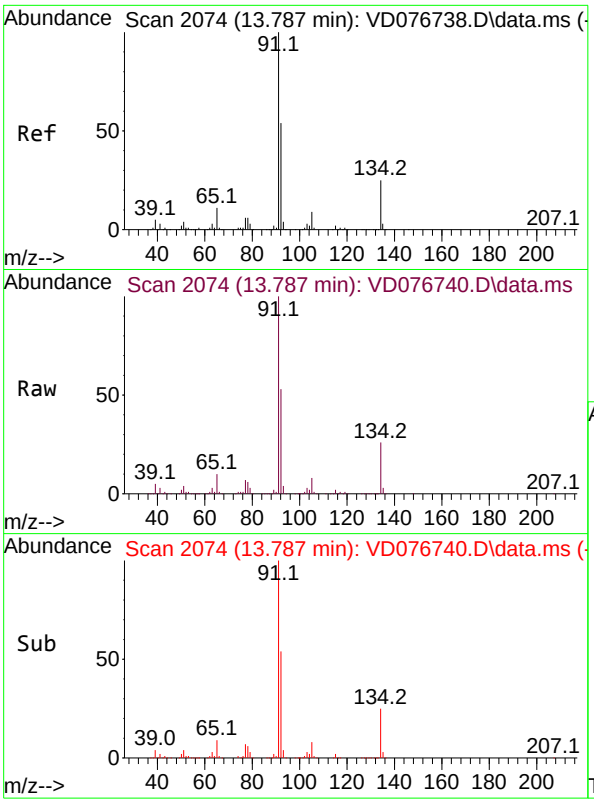


#88
1,4-Dichlorobenzene
Concen: 146.451 ug/l
RT: 13.540 min Scan# 2032
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:146 Resp: 851544

Ion	Ratio	Lower	Upper
146	100		
111	37.6	17.4	52.3
148	62.7	31.7	95.1

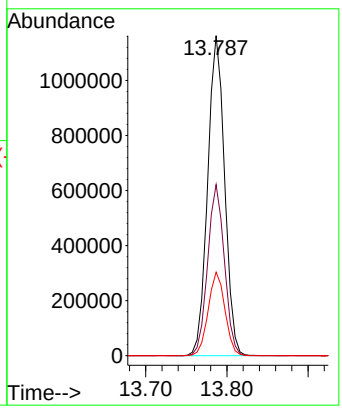




#89
n-Butylbenzene
Concen: 153.048 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 91 Resp: 168177

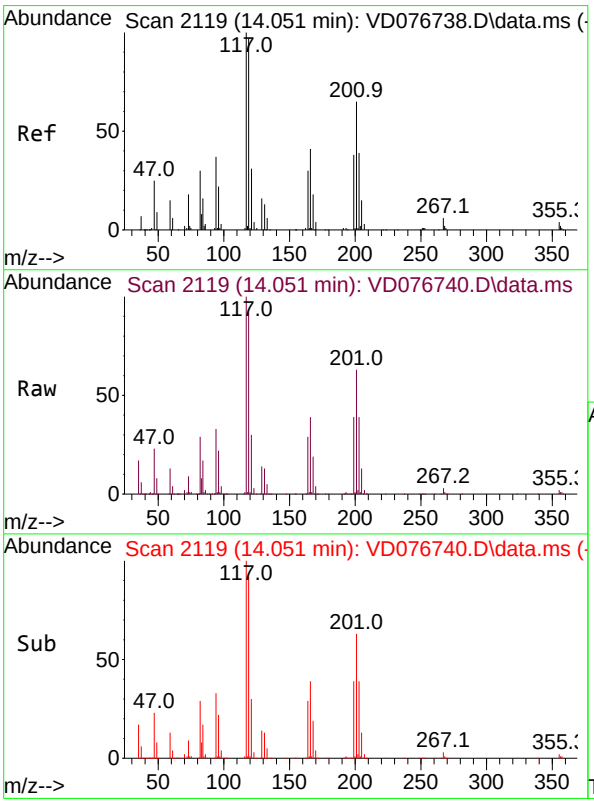
Ion	Ratio	Lower	Upper
91	100		
92	52.9	26.5	79.5
134	25.8	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

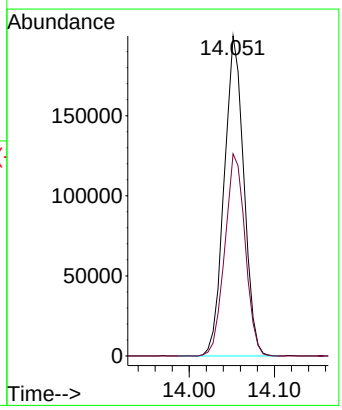
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

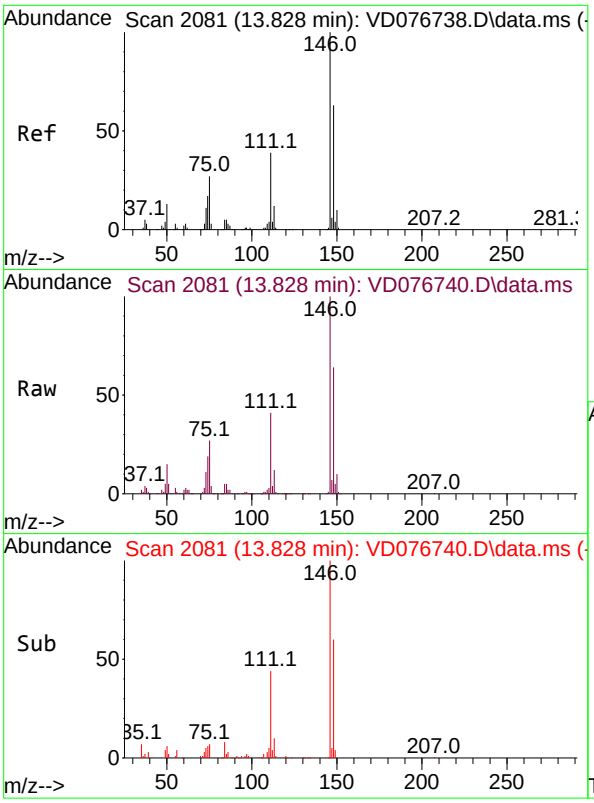


#90
Hexachloroethane
Concen: 154.342 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:117 Resp: 320425

Ion	Ratio	Lower	Upper
117	100		
201	65.5	38.5	115.5

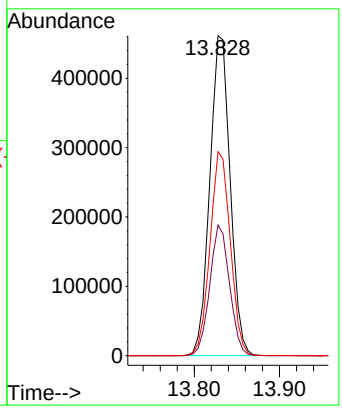




#91
1,2-Dichlorobenzene
Concen: 146.570 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:146 Resp: 76648

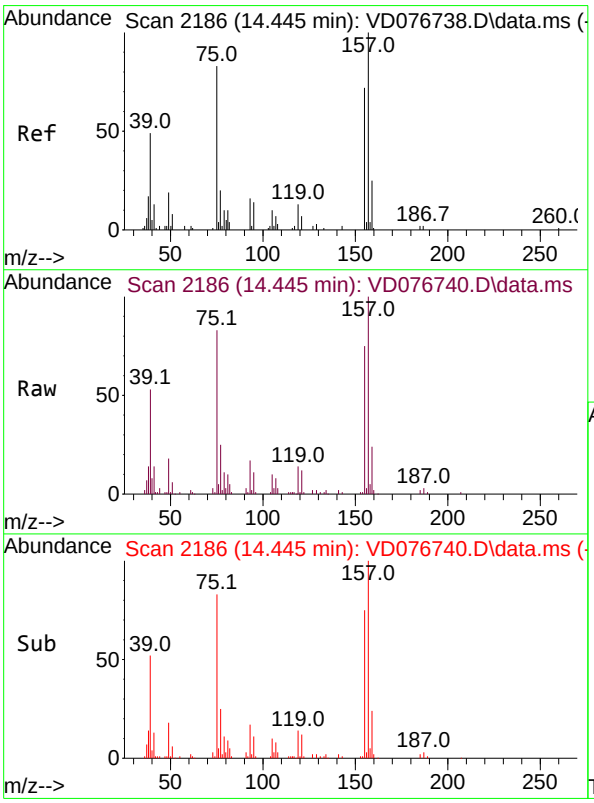
Ion	Ratio	Lower	Upper
146	100		
111	39.7	18.3	54.8
148	63.8	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

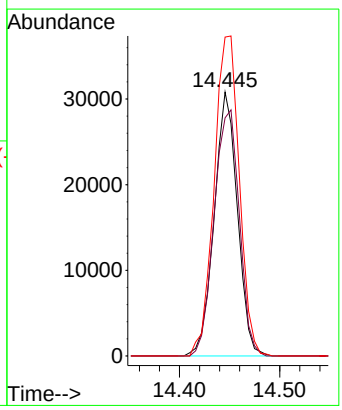
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

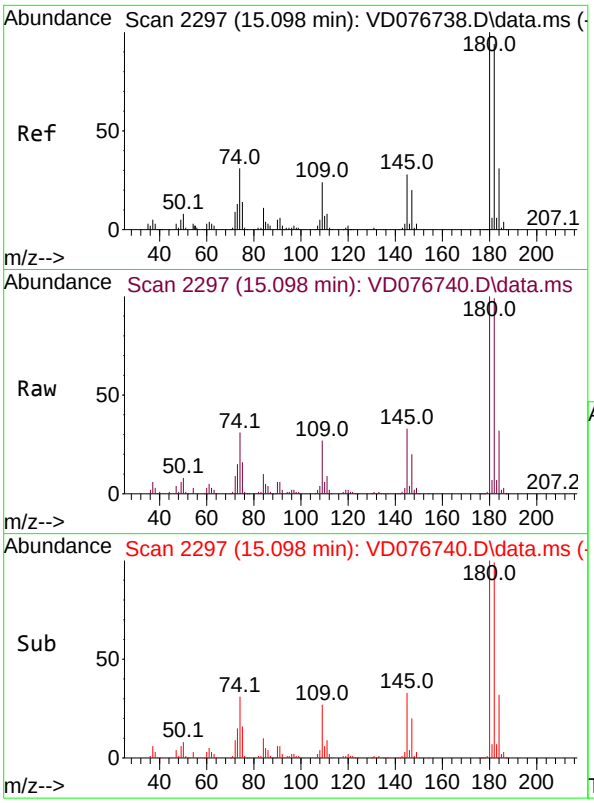


#92
1,2-Dibromo-3-Chloropropane
Concen: 129.239 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion: 75 Resp: 49457

Ion	Ratio	Lower	Upper
75	100		
155	101.4	47.9	143.8
157	131.7	59.9	179.7

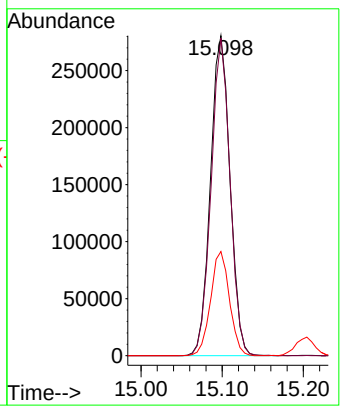




#93
1,2,4-Trichlorobenzene
Concen: 146.860 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:180 Resp: 46887

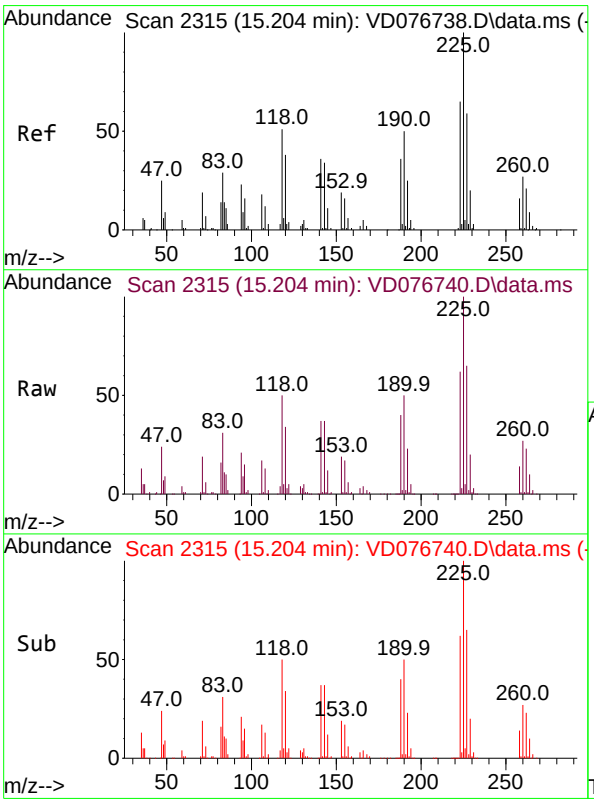
Ion	Ratio	Lower	Upper
180	100		
182	96.2	48.5	145.6
145	31.5	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

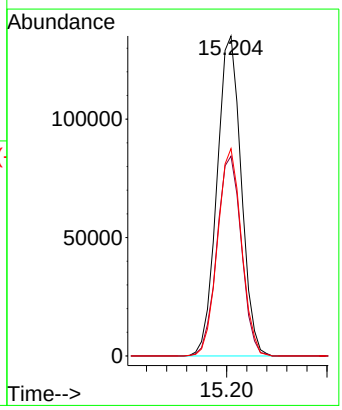
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

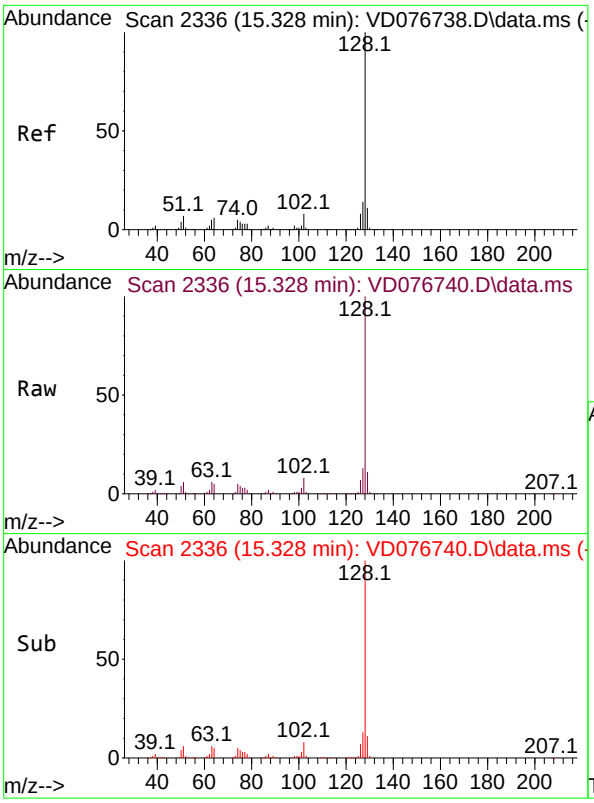


#94
Hexachlorobutadiene
Concen: 147.635 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:225 Resp: 226689

Ion	Ratio	Lower	Upper
225	100		
223	63.1	31.6	94.8
227	64.0	31.7	95.1

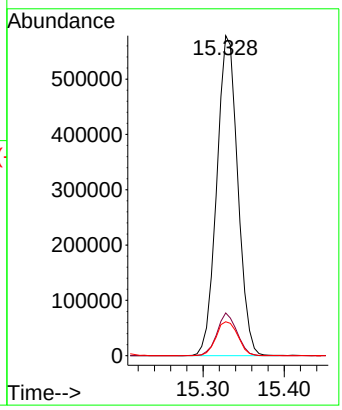




#95
Naphthalene
Concen: 150.438 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:128 Resp: 103994

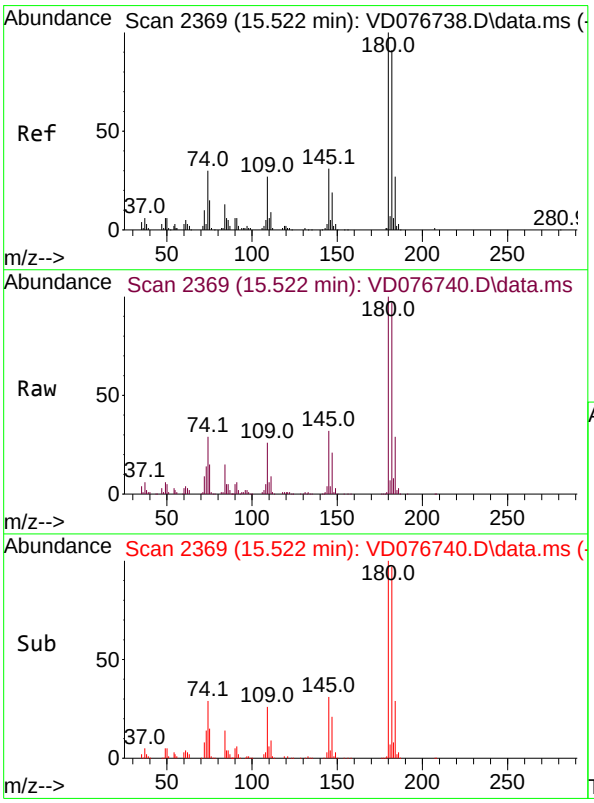
Ion	Ratio	Lower	Upper
128	100		
127	13.4	10.5	15.7
129	10.6	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

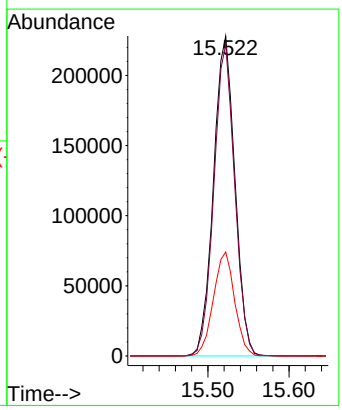
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023



#96
1,2,3-Trichlorobenzene
Concen: 145.668 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076740.D
Acq: 14 Jul 2023 14:17

Tgt Ion:180 Resp: 417343

Ion	Ratio	Lower	Upper
180	100		
182	94.9	47.3	141.9
145	32.3	15.1	45.3



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076742.D
Acq On : 14 Jul 2023 15:57
Operator : KP/SY
Sample : VSTDICC005
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:43:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	7.869	168	164286	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	8.775	114	313383	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.581	117	284998	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	129052	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.234	65	9106	5.565	ug/l		0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 11.120%#				
35) Dibromofluoromethane	7.799	113	10432	5.297	ug/l		0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 10.600%#				
50) Toluene-d8	10.263	98	36113	5.126	ug/l		0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 10.260%#				
62) 4-Bromofluorobenzene	12.575	95	11178	4.905	ug/l		0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 9.800%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.934	85	6104	4.751	ug/l		98
3) Chloromethane	2.146	50	12548	5.662	ug/l		98
4) Vinyl Chloride	2.276	62	15745	5.330	ug/l		89
5) Bromomethane	2.681	94	14235	5.857	ug/l		89
6) Chloroethane	2.828	64	12035	5.396	ug/l		98
7) Trichlorofluoromethane	3.170	101	13260	5.044	ug/l		88
8) Diethyl Ether	3.587	74	4472	4.941	ug/l		74
9) 1,1,2-Trichlorotrifluo...	3.952	101	8560	4.954	ug/l		97
10) Methyl Iodide	4.158	142	7656	3.931	ug/l		91
11) Tert butyl alcohol	5.069	59	2966m	24.290	ug/l		
12) 1,1-Dichloroethene	3.934	96	8341	5.138	ug/l	#	89
13) Acrolein	3.805	56	2181	26.211	ug/l		97
14) Allyl chloride	4.546	41	11262	5.281	ug/l		90
15) Acrylonitrile	5.246	53	11700	26.321	ug/l	#	90
16) Acetone	4.022	43	11548	29.550	ug/l		89
17) Carbon Disulfide	4.264	76	18169	4.792	ug/l		97
18) Methyl Acetate	4.558	43	7737	5.270	ug/l		94
19) Methyl tert-butyl Ether	5.311	73	21409	4.918	ug/l	#	88
20) Methylene Chloride	4.787	84	34872	5.902	ug/l		96
21) trans-1,2-Dichloroethene	5.299	96	9374	4.968	ug/l		96
22) Diisopropyl ether	6.222	45	25240	4.998	ug/l	#	86
23) Vinyl Acetate	6.158	43	62174	24.883	ug/l		93
24) 1,1-Dichloroethane	6.105	63	17580	5.163	ug/l		94
25) 2-Butanone	7.081	43	13290	25.410	ug/l		88
26) 2,2-Dichloropropane	7.075	77	14794	5.040	ug/l		89
27) cis-1,2-Dichloroethene	7.081	96	11552	4.966	ug/l		88
28) Bromochloromethane	7.422	49	4951	5.816	ug/l	#	98
29) Tetrahydrofuran	7.446	42	7981	25.827	ug/l		92
30) Chloroform	7.599	83	19811	5.312	ug/l	#	79
31) Cyclohexane	7.875	56	14232	5.910	ug/l	#	83
32) 1,1,1-Trichloroethane	7.793	97	14282	4.747	ug/l		94
36) 1,1-Dichloropropene	8.011	75	12016	4.669	ug/l		96
37) Ethyl Acetate	7.163	43	5463	4.747	ug/l	#	89
38) Carbon Tetrachloride	7.993	117	10856	4.406	ug/l		85
39) Methylcyclohexane	9.269	83	13312	4.480	ug/l		91
40) Benzene	8.246	78	39797	4.901	ug/l		94

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076742.D
Acq On : 14 Jul 2023 15:57
Operator : KP/SY
Sample : VSTDICC005
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 17 07:43:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.416	41	4208	5.988	ug/l	#	17
42) 1,2-Dichloroethane	8.316	62	10619	5.033	ug/l		97
43) Isopropyl Acetate	8.363	43	11497	5.119	ug/l	#	81
44) Trichloroethene	9.022	130	10675	4.825	ug/l		92
45) 1,2-Dichloropropane	9.299	63	9968	4.756	ug/l		98
46) Dibromomethane	9.393	93	5749	4.686	ug/l		89
47) Bromodichloromethane	9.581	83	15343	4.984	ug/l	#	96
48) Methyl methacrylate	9.375	41	5067	4.957	ug/l	#	82
49) 1,4-Dioxane	9.381	88	1670	106.244	ug/l	#	85
51) 4-Methyl-2-Pentanone	10.157	43	29001	24.252	ug/l		91
52) Toluene	10.334	92	25679	4.815	ug/l		90
53) t-1,3-Dichloropropene	10.557	75	13318	4.661	ug/l		90
54) cis-1,3-Dichloropropene	10.016	75	15486	4.598	ug/l	#	78
55) 1,1,2-Trichloroethane	10.728	97	8716	4.865	ug/l	#	90
56) Ethyl methacrylate	10.599	69	9019	4.362	ug/l	#	75
57) 1,3-Dichloropropane	10.881	76	14463	4.957	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	20596	25.733	ug/l		97
59) 2-Hexanone	10.922	43	21058	24.679	ug/l		90
60) Dibromochloromethane	11.075	129	9764	4.692	ug/l		91
61) 1,2-Dibromoethane	11.175	107	7964	4.795	ug/l		99
64) Tetrachloroethene	10.810	164	7724	4.753	ug/l		95
65) Chlorobenzene	11.610	112	27515	4.800	ug/l		94
66) 1,1,1,2-Tetrachloroethane	11.681	131	10233	4.795	ug/l		95
67) Ethyl Benzene	11.681	91	46160	4.586	ug/l		97
68) m/p-Xylenes	11.793	106	33741	8.727	ug/l		86
69) o-Xylene	12.116	106	16785	4.490	ug/l		87
70) Styrene	12.134	104	28743	4.392	ug/l		96
71) Bromoform	12.304	173	5250	4.492	ug/l	#	98
73) Isopropylbenzene	12.422	105	45433	4.852	ug/l		94
74) N-amyl acetate	12.234	43	10406	5.276	ug/l	#	88
75) 1,1,2,2-Tetrachloroethane	12.669	83	10594	5.270	ug/l		99
76) 1,2,3-Trichloropropane	12.728	75	5545m	4.324	ug/l		
77) Bromobenzene	12.698	156	10636	4.921	ug/l		86
78) n-propylbenzene	12.763	91	53417	4.706	ug/l		95
79) 2-Chlorotoluene	12.851	91	29947	4.812	ug/l		96
80) 1,3,5-Trimethylbenzene	12.904	105	34084	4.502	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.469	75	2596	4.502	ug/l		95
82) 4-Chlorotoluene	12.946	91	30363	4.670	ug/l		99
83) tert-Butylbenzene	13.169	119	28864	4.330	ug/l		95
84) 1,2,4-Trimethylbenzene	13.210	105	34826	4.501	ug/l		94
85) sec-Butylbenzene	13.345	105	45939	4.511	ug/l		97
86) p-Isopropyltoluene	13.463	119	35479	4.218	ug/l		95
87) 1,3-Dichlorobenzene	13.457	146	20611	4.637	ug/l		95
88) 1,4-Dichlorobenzene	13.540	146	21541	4.946	ug/l		87
89) n-Butylbenzene	13.787	91	37378	4.541	ug/l		95
90) Hexachloroethane	14.051	117	6886	4.428	ug/l		97
91) 1,2-Dichlorobenzene	13.834	146	19623	5.010	ug/l		94
92) 1,2-Dibromo-3-Chloropr...	14.445	75	1724	6.015	ug/l		81
93) 1,2,4-Trichlorobenzene	15.092	180	11843	4.952	ug/l		93
94) Hexachlorobutadiene	15.198	225	6041	5.253	ug/l		88
95) Naphthalene	15.328	128	24618	4.755	ug/l		98
96) 1,2,3-Trichlorobenzene	15.516	180	10995	5.124	ug/l		94

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076742.D
Acq On : 14 Jul 2023 15:57
Operator : KP/SY
Sample : VSTDICC005
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 07:43:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

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

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

ICAL Form

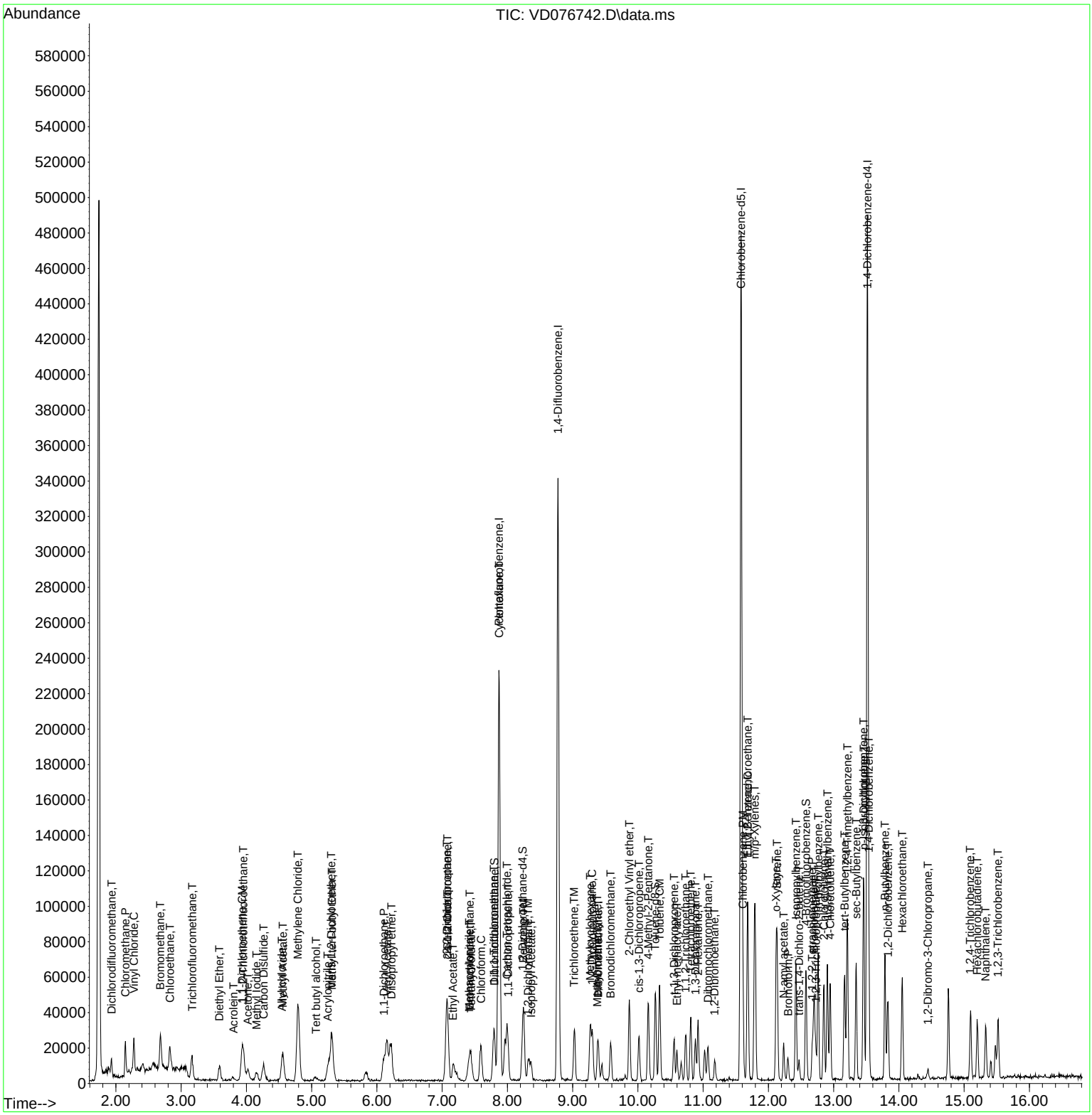
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076742.D
Acq On : 14 Jul 2023 15:57
Operator : KP/SY
Sample : VSTDICC005
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

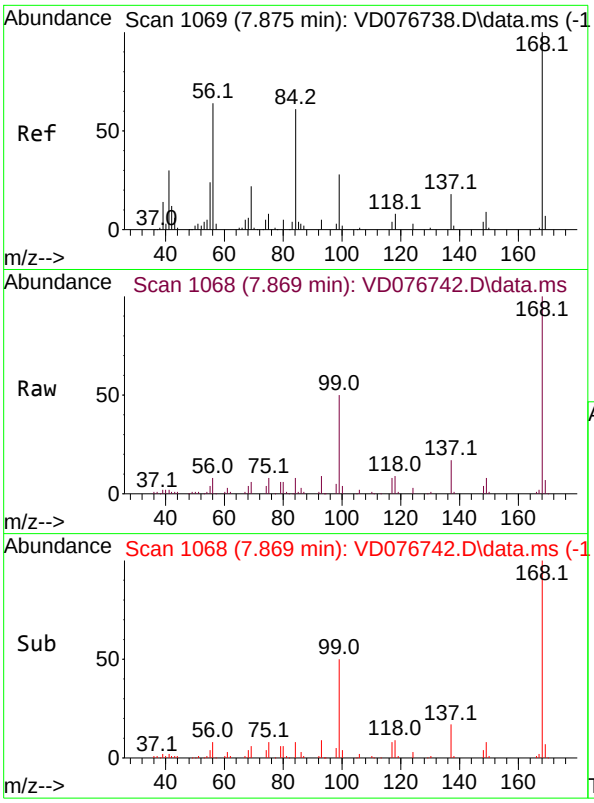
Quant Time: Jul 17 07:43:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 07:40:58 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

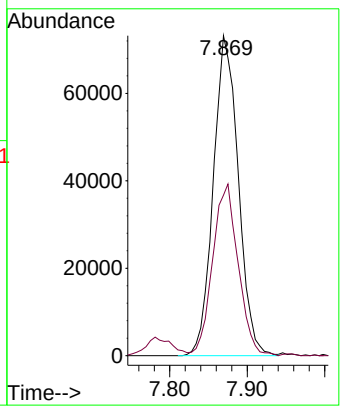




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:168 Resp: 16428

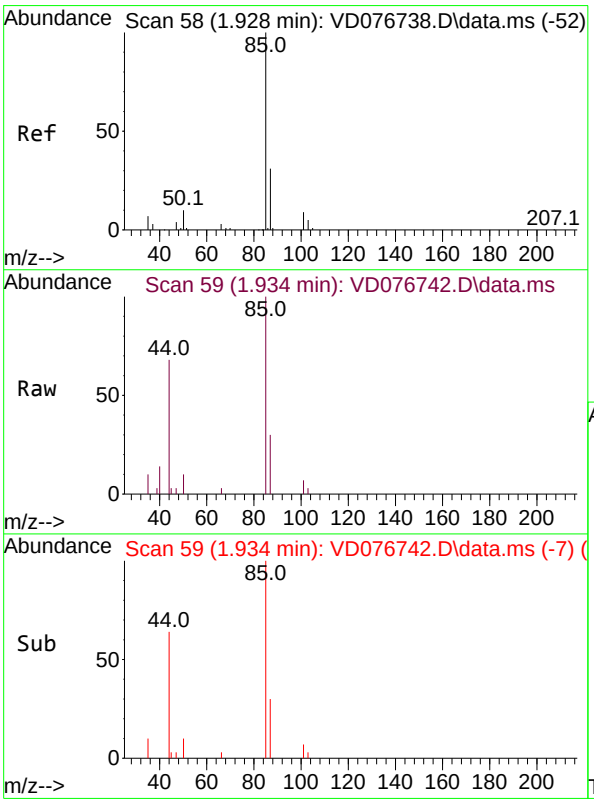
Ion	Ratio	Lower	Upper
168	100		
99	50.1	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

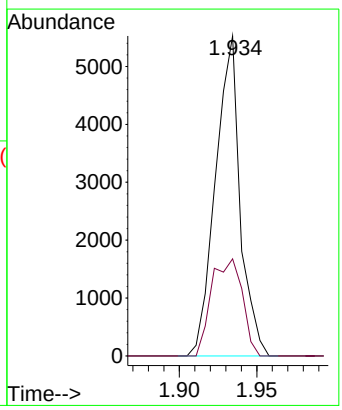
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

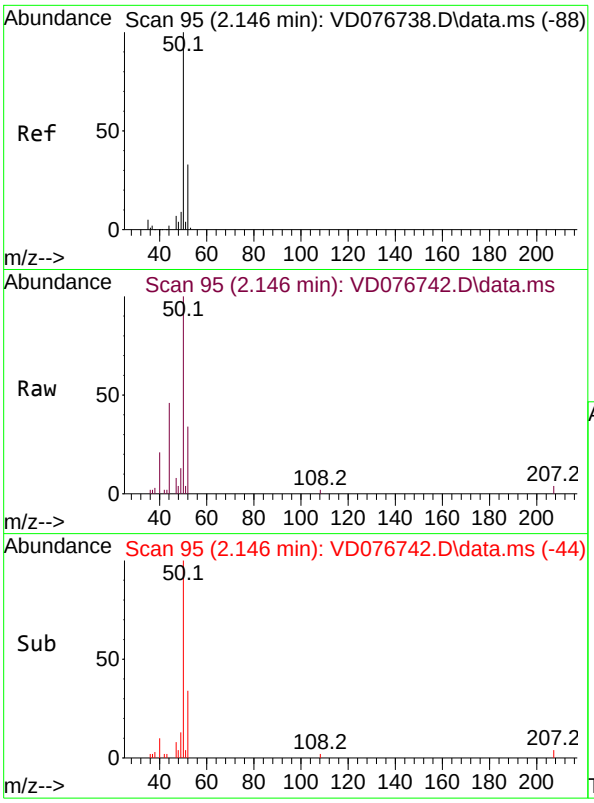


#2
Dichlorodifluoromethane
Concen: 4.751 ug/l
RT: 1.934 min Scan# 59
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 85 Resp: 6104

Ion	Ratio	Lower	Upper
85	100		
87	30.4	15.7	47.0





#3
Chloromethane
Concen: 5.662 ug/l
RT: 2.146 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

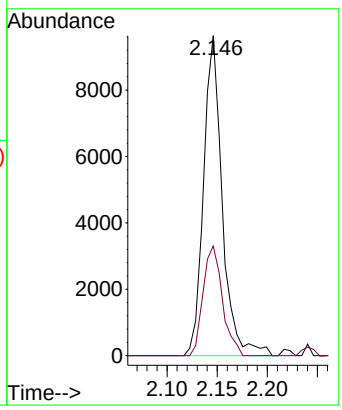
Tgt Ion: 50 Resp: 1254

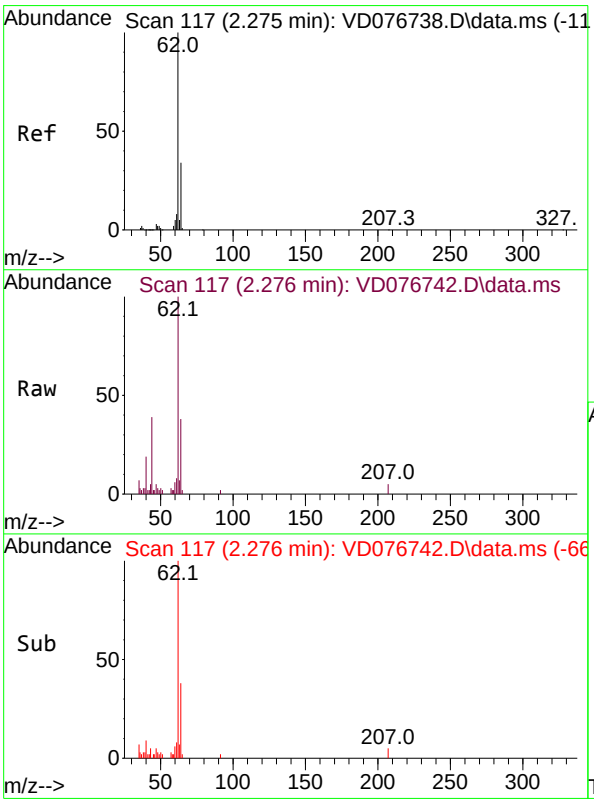
Ion	Ratio	Lower	Upper
50	100		
52	34.3	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

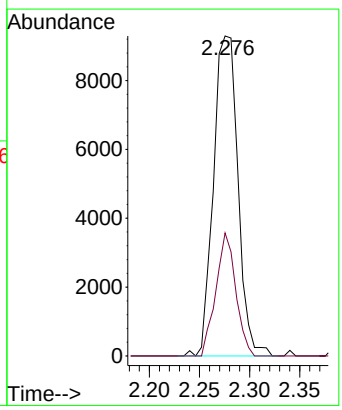


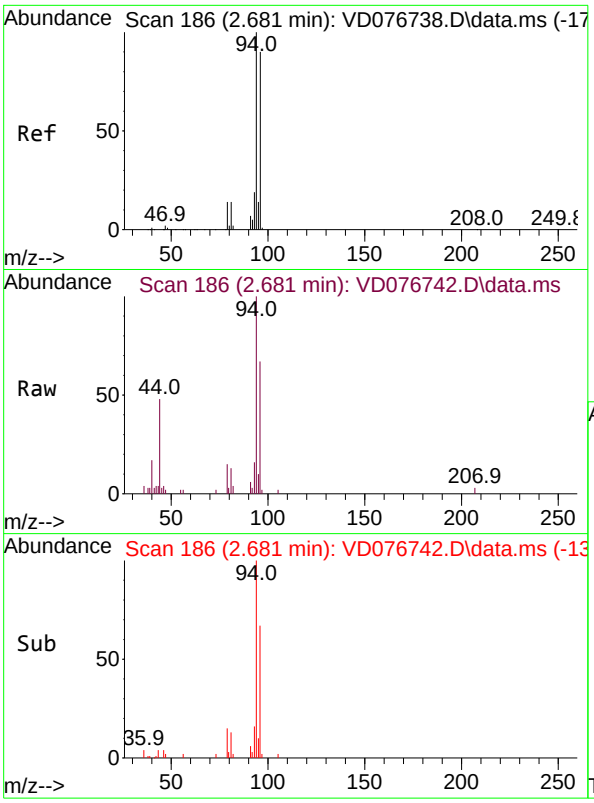


#4
Vinyl Chloride
Concen: 5.330 ug/l
RT: 2.276 min Scan# 117
Delta R.T. 0.001 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 62 Resp: 15745

Ion	Ratio	Lower	Upper
62	100		
64	38.5	26.0	39.0





#5
Bromomethane
Concen: 5.857 ug/l
RT: 2.681 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

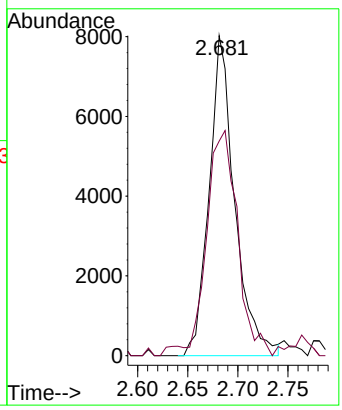
Tgt Ion: 94 Resp: 1423

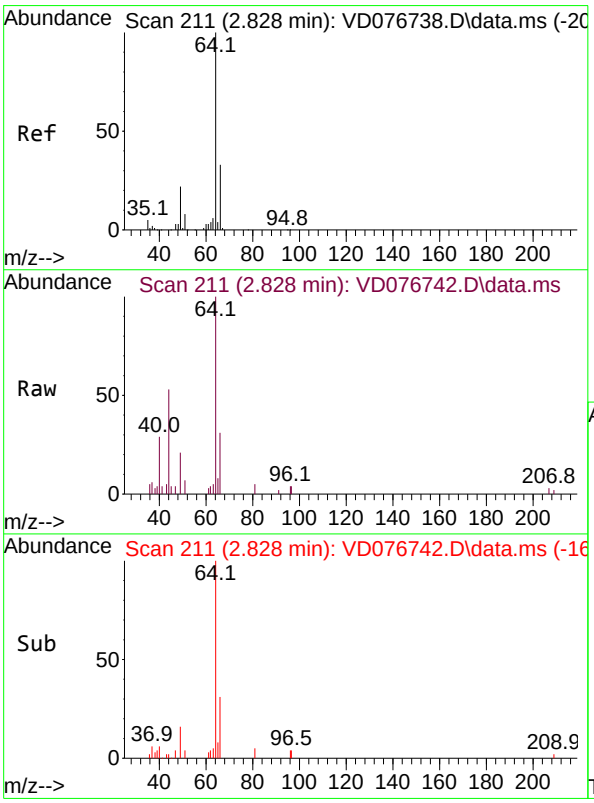
Ion	Ratio	Lower	Upper
94	100		
96	83.8	75.8	113.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

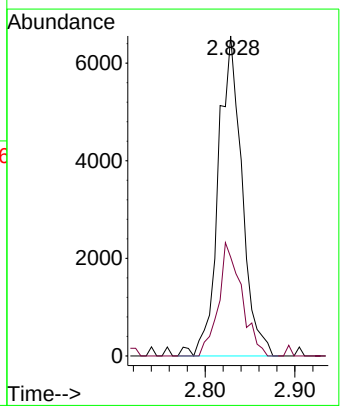


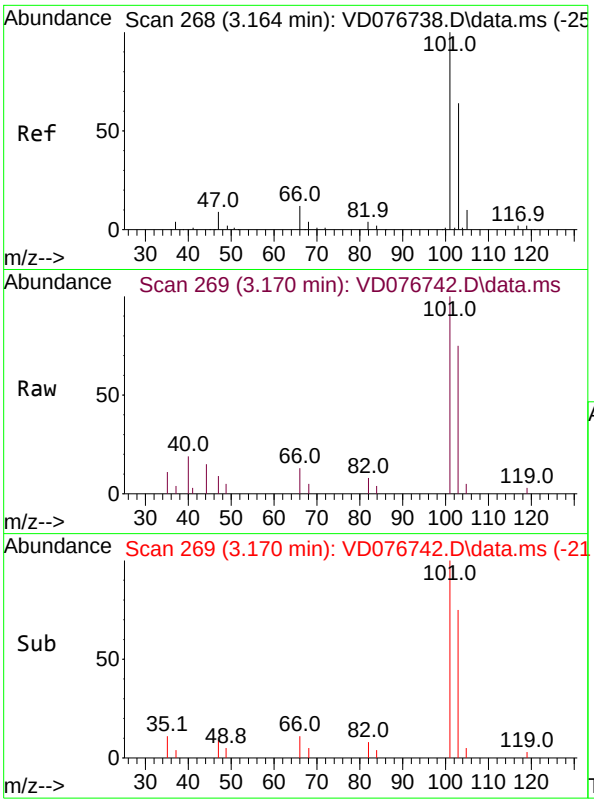


#6
Chloroethane
Concen: 5.396 ug/l
RT: 2.828 min Scan# 211
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 64 Resp: 12035

Ion	Ratio	Lower	Upper
64	100		
66	30.8	25.5	38.3





#7
Trichlorofluoromethane
Concen: 5.044 ug/l
RT: 3.170 min Scan# 2(
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

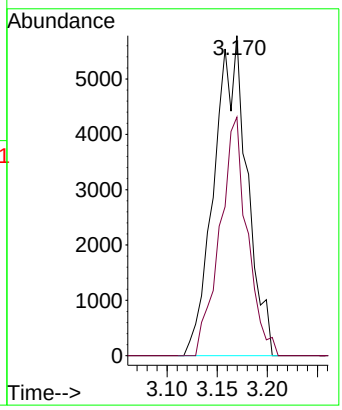
Tgt Ion:101 Resp: 1326(

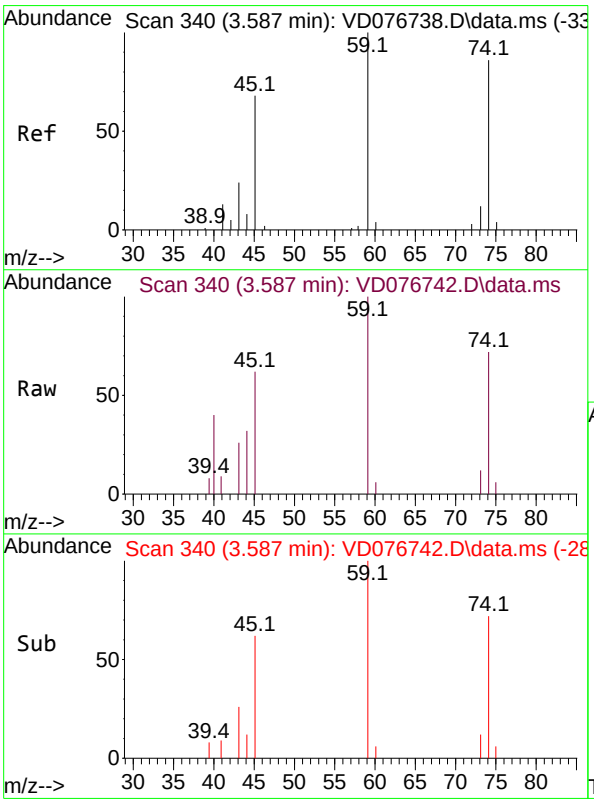
Ion	Ratio	Lower	Upper
101	100		
103	74.5	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

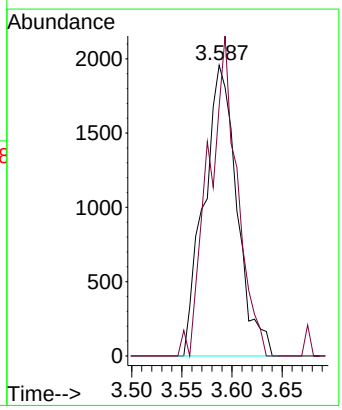


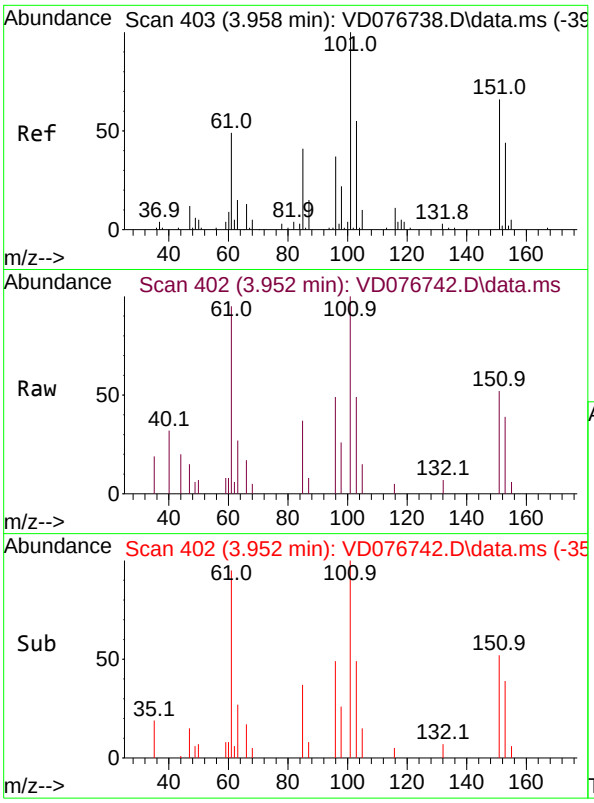


#8
Diethyl Ether
Concen: 4.941 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 74 Resp: 4472

Ion	Ratio	Lower	Upper
74	100		
45	97.1	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 4.954 ug/l
RT: 3.952 min Scan# 4(
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

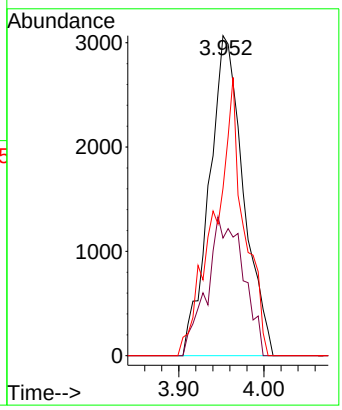
Tgt Ion:101 Resp: 856(

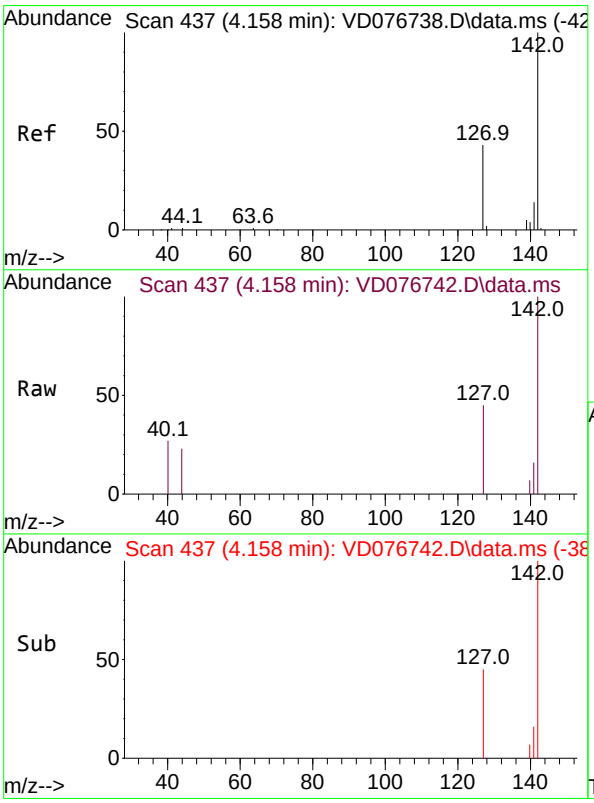
Ion	Ratio	Lower	Upper
101	100		
85	46.1	33.8	50.6
151	75.3	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

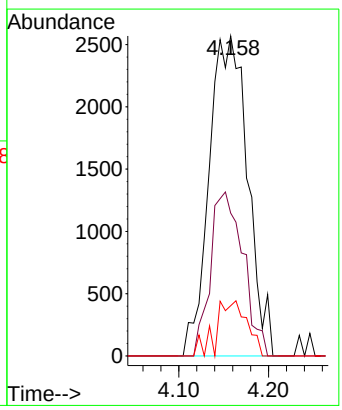


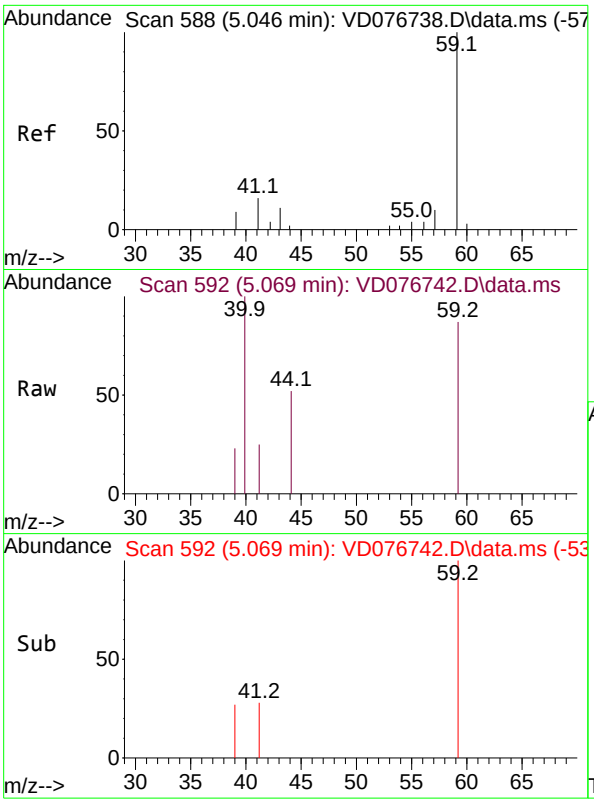


#10
Methyl Iodide
Concen: 3.931 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:142 Resp: 7656

Ion	Ratio	Lower	Upper
142	100		
127	43.5	29.4	44.0
141	13.1	11.1	16.7





#11
Tert butyl alcohol
Concen: 24.290 ug/l m
RT: 5.069 min Scan# 5
Delta R.T. 0.023 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

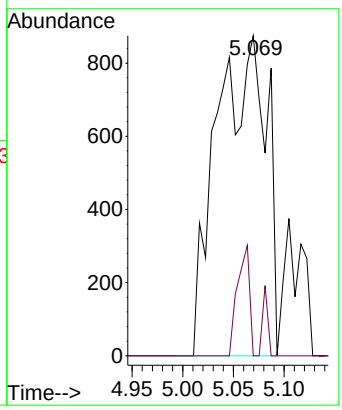
Tgt Ion: 59 Resp: 296

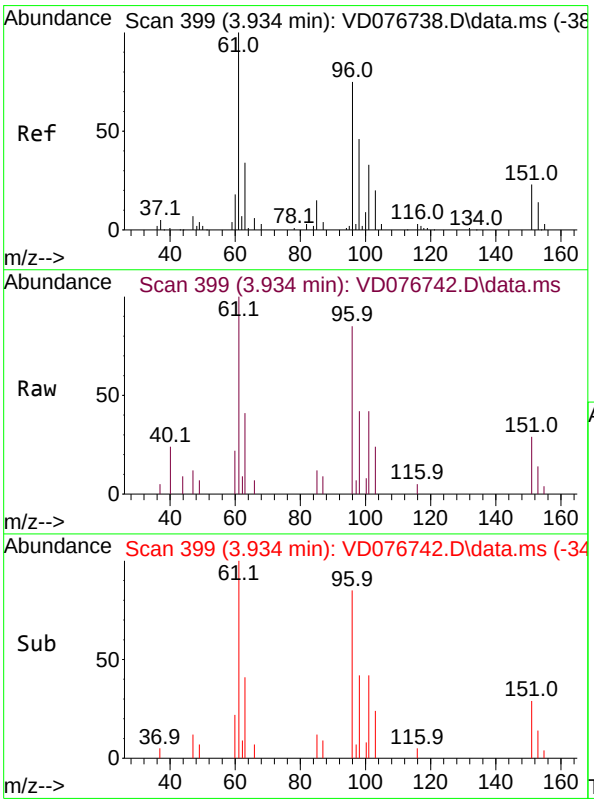
Ion	Ratio	Lower	Upper
59	100		
57	0.0	7.8	11.8#

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

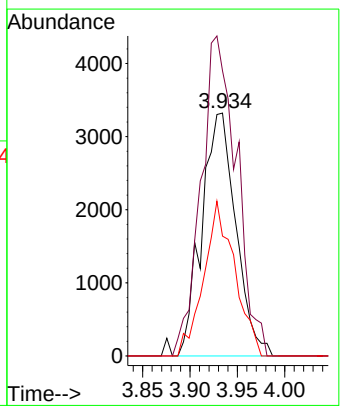


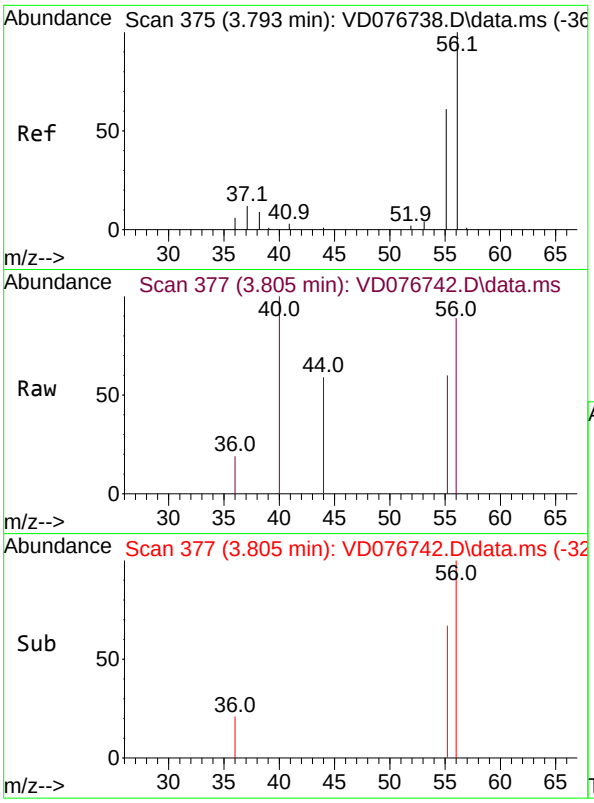


#12
1,1-Dichloroethene
Concen: 5.138 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 96 Resp: 8341

Ion	Ratio	Lower	Upper
96	100		
61	117.4	100.6	150.8
98	49.4	50.2	75.2#

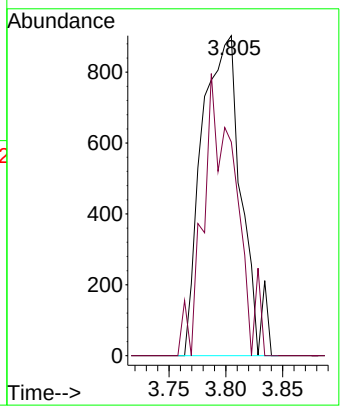




#13
Acrolein
Concen: 26.211 ug/l
RT: 3.805 min Scan# 3
Delta R.T. 0.012 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 56 Resp: 218

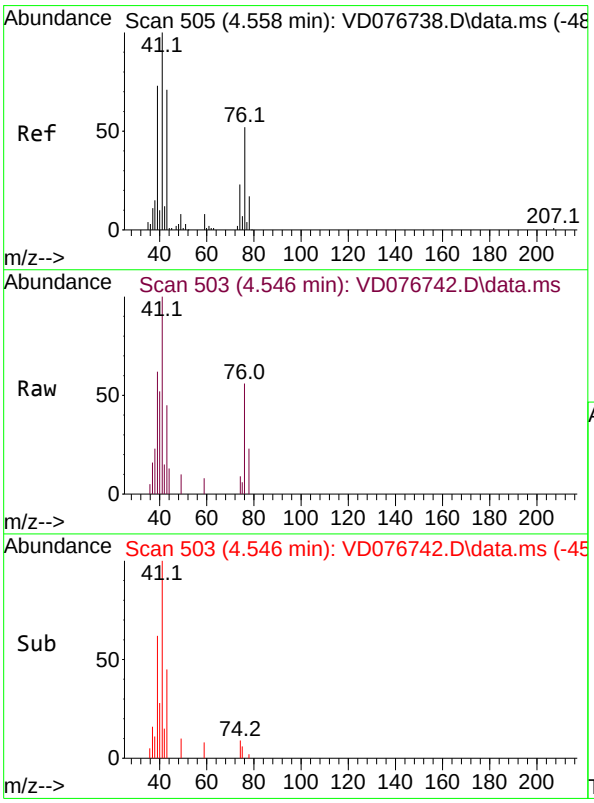
Ion	Ratio	Lower	Upper
56	100		
55	71.3	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

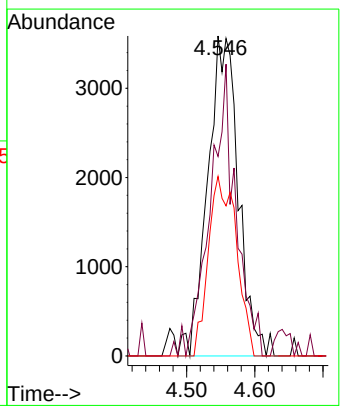
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

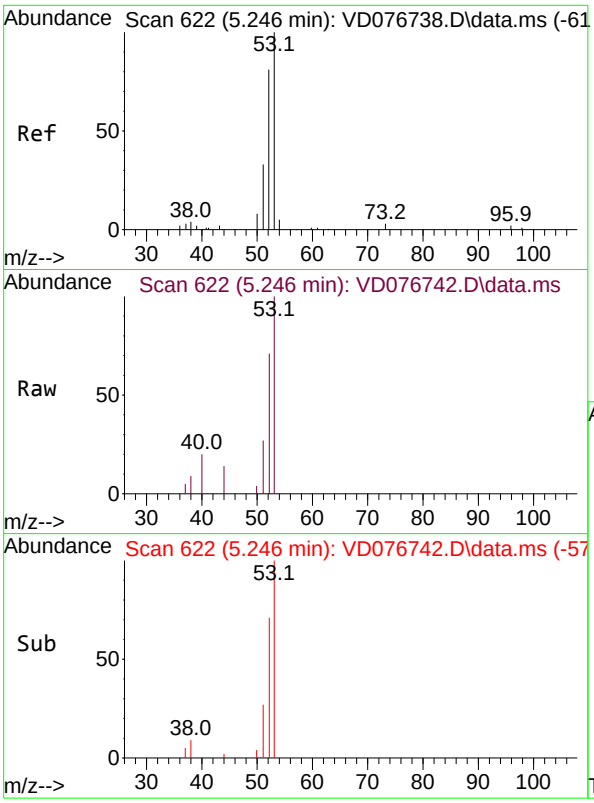


#14
Allyl chloride
Concen: 5.281 ug/l
RT: 4.546 min Scan# 503
Delta R.T. -0.012 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 41 Resp: 11262

Ion	Ratio	Lower	Upper
41	100		
39	76.2	53.8	80.6
76	51.2	45.8	68.8

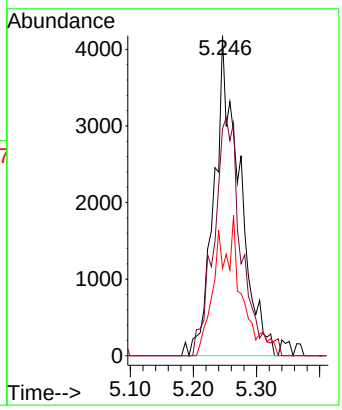




#15
Acrylonitrile
Concen: 26.321 ug/l
RT: 5.246 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 53 Resp: 1170

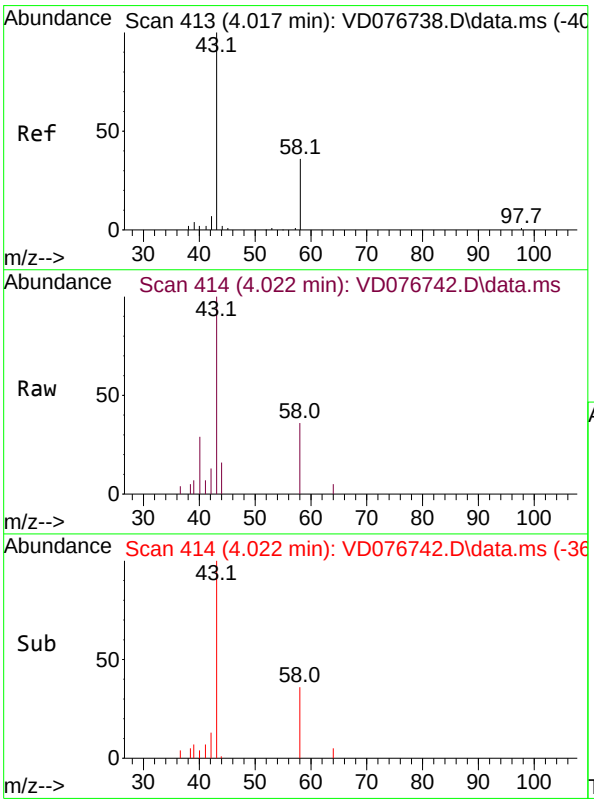
Ion	Ratio	Lower	Upper
53	100		
52	80.3	65.0	97.4
51	16.7	28.3	42.5#



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

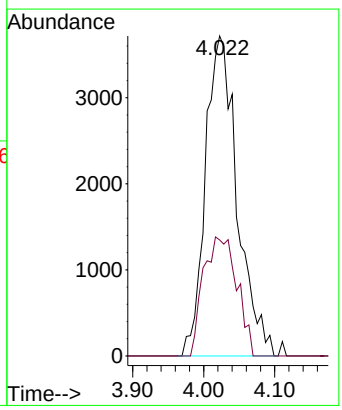
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

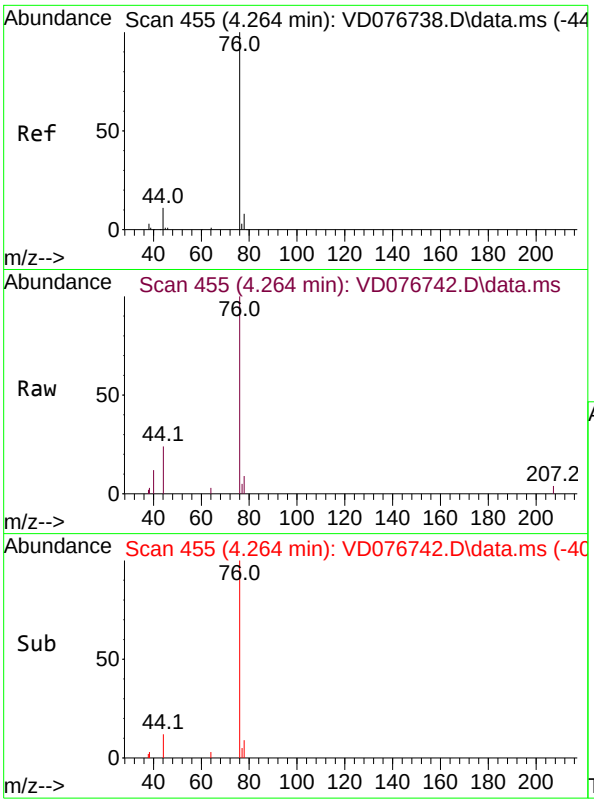


#16
Acetone
Concen: 29.550 ug/l
RT: 4.022 min Scan# 414
Delta R.T. 0.005 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 43 Resp: 11548

Ion	Ratio	Lower	Upper
43	100		
58	36.3	34.7	52.1





#17
Carbon Disulfide
Concen: 4.792 ug/l
RT: 4.264 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

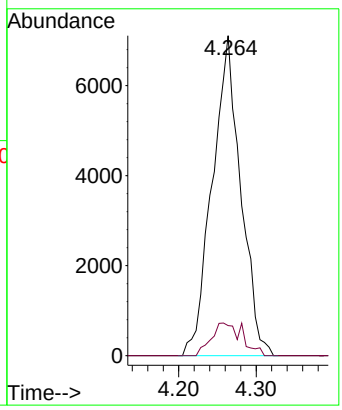
Tgt Ion: 76 Resp: 1816

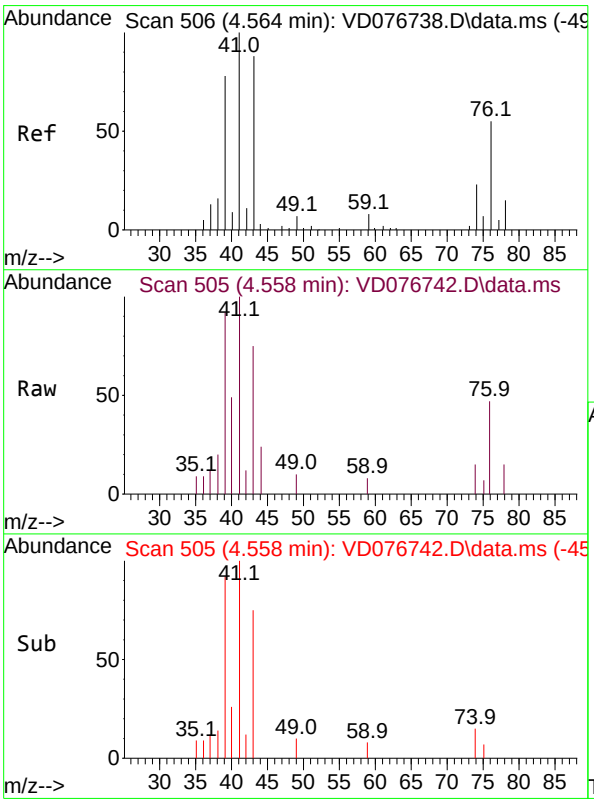
Ion	Ratio	Lower	Upper
76	100		
78	9.4	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

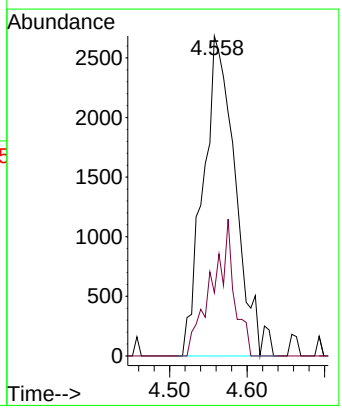


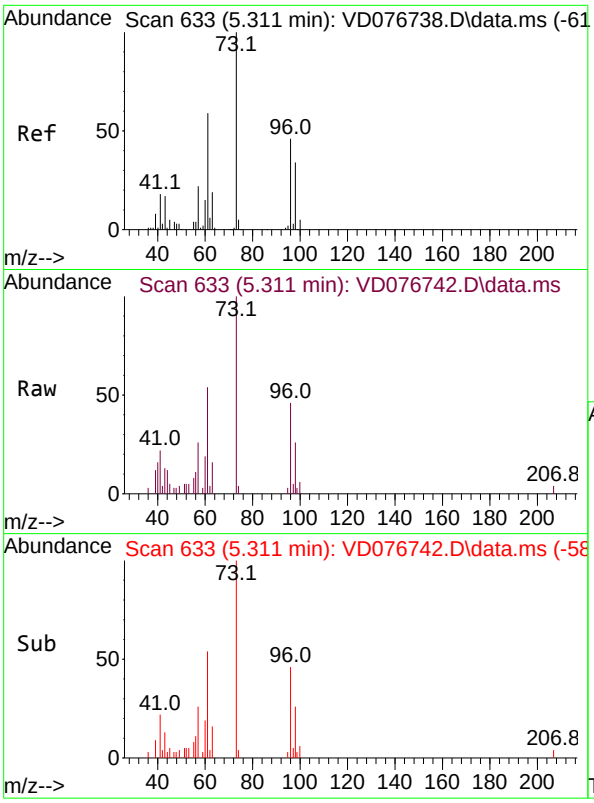


#18
Methyl Acetate
Concen: 5.270 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 43 Resp: 7737

Ion	Ratio	Lower	Upper
43	100		
74	29.5	26.4	39.6

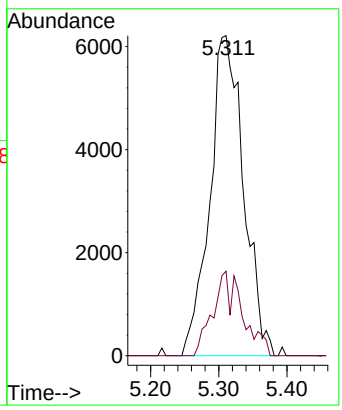




#19
Methyl tert-butyl Ether
Concen: 4.918 ug/l
RT: 5.311 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 73 Resp: 2140

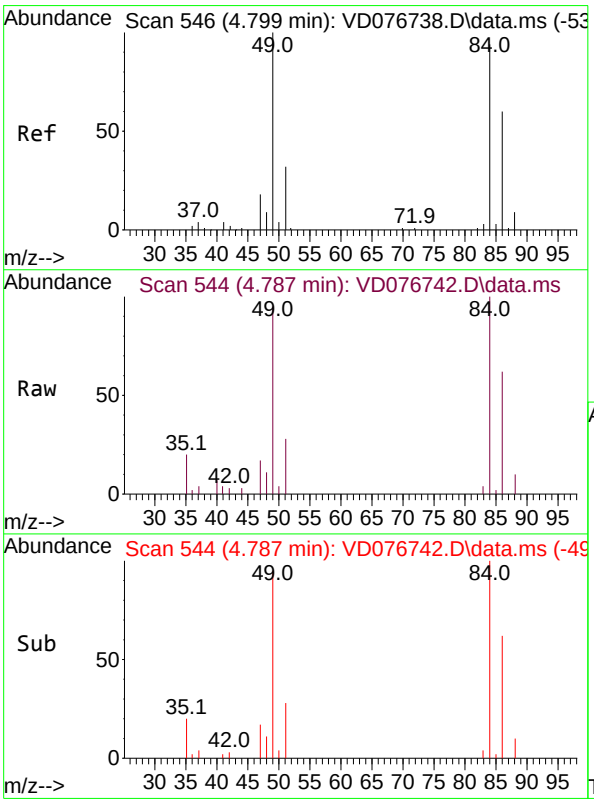
Ion	Ratio	Lower	Upper
73	100		
57	26.4	16.6	25.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

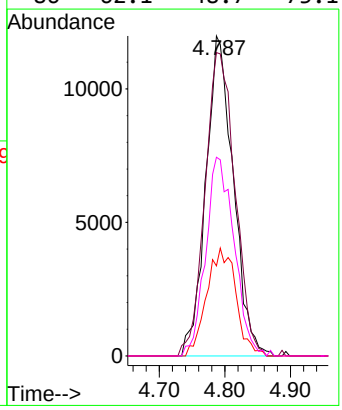
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

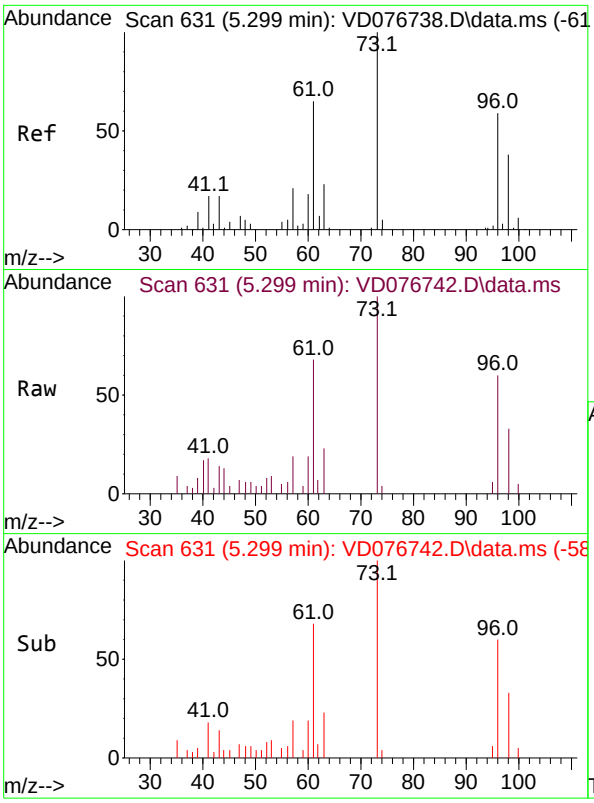


#20
Methylene Chloride
Concen: 5.902 ug/l
RT: 4.787 min Scan# 544
Delta R.T. -0.012 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 84 Resp: 34872

Ion	Ratio	Lower	Upper
84	100		
49	94.8	71.4	107.2
51	28.2	24.5	36.7
86	62.1	48.7	73.1

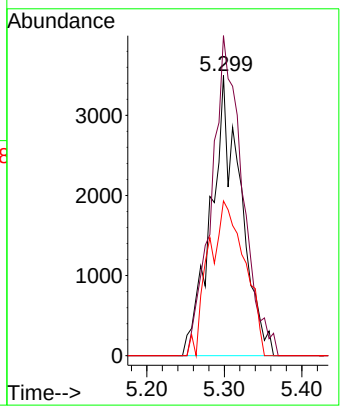




#21
trans-1,2-Dichloroethene
Concen: 4.968 ug/l
RT: 5.299 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 96 Resp: 937

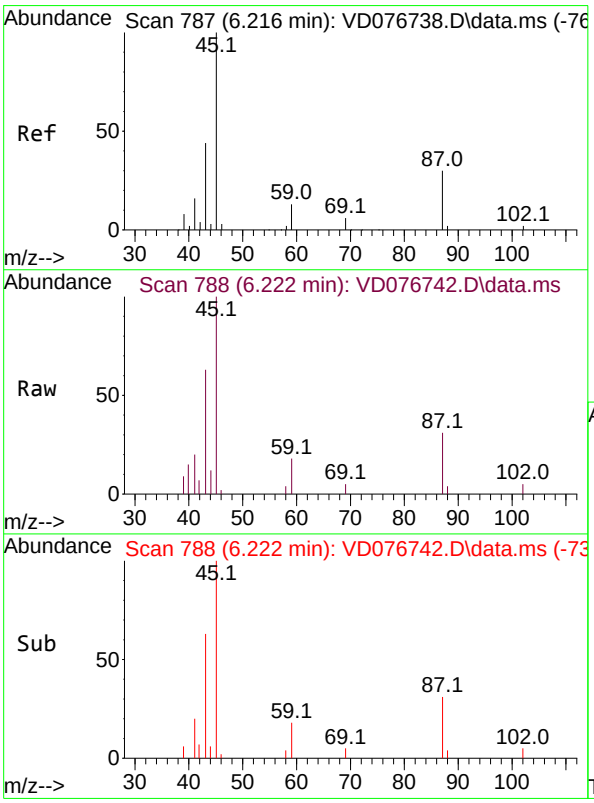
Ion	Ratio	Lower	Upper
96	100		
61	114.2	89.3	133.9
98	55.2	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

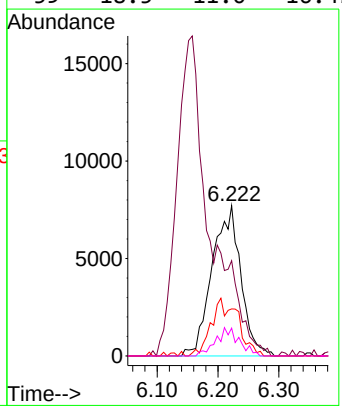
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

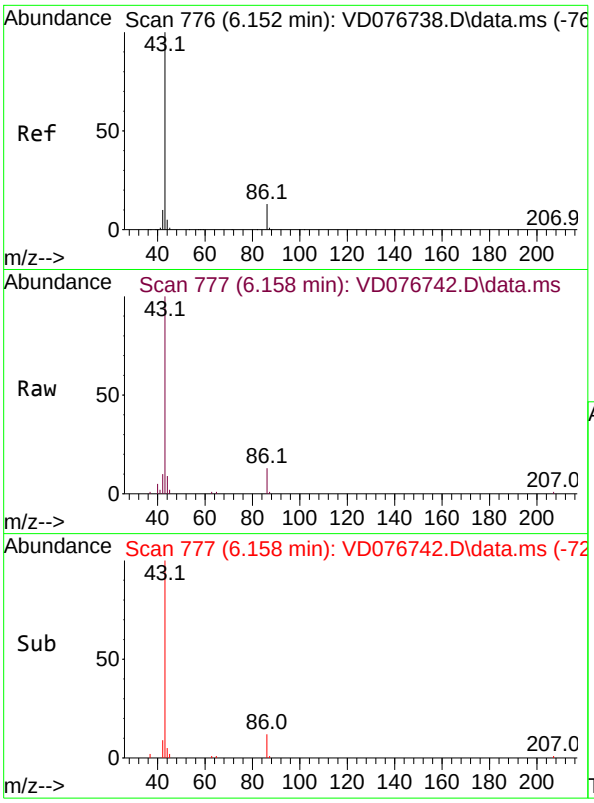


#22
Diisopropyl ether
Concen: 4.998 ug/l
RT: 6.222 min Scan# 788
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 45 Resp: 25240

Ion	Ratio	Lower	Upper
45	100		
43	63.4	40.0	60.0#
87	31.3	28.2	42.4
59	18.5	11.0	16.4#





#23
Vinyl Acetate
Concen: 24.883 ug/l
RT: 6.158 min Scan# 7
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

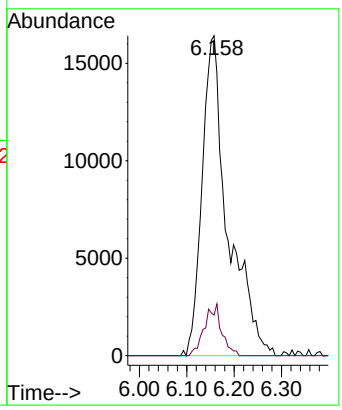
Tgt Ion: 43 Resp: 6217

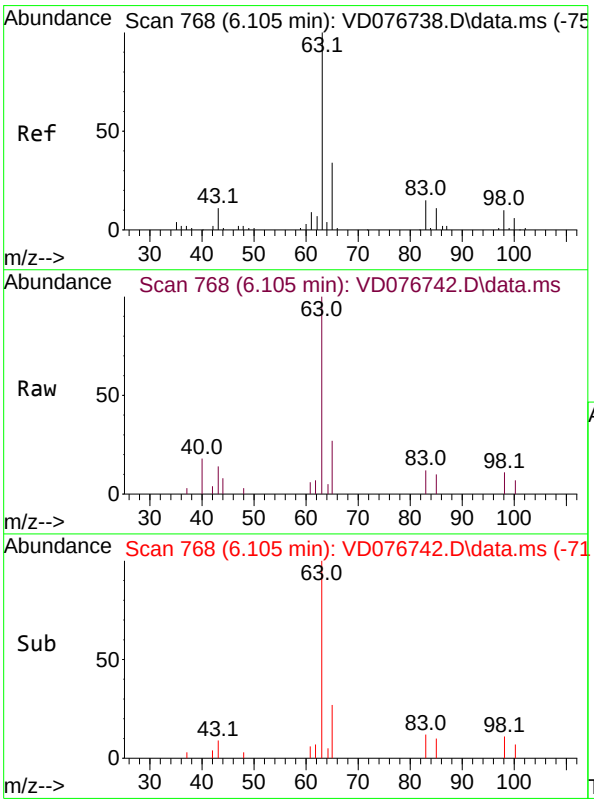
Ion	Ratio	Lower	Upper
43	100		
86	12.7	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

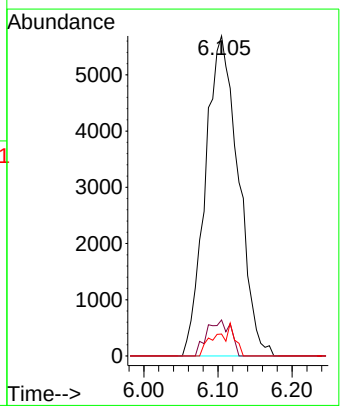


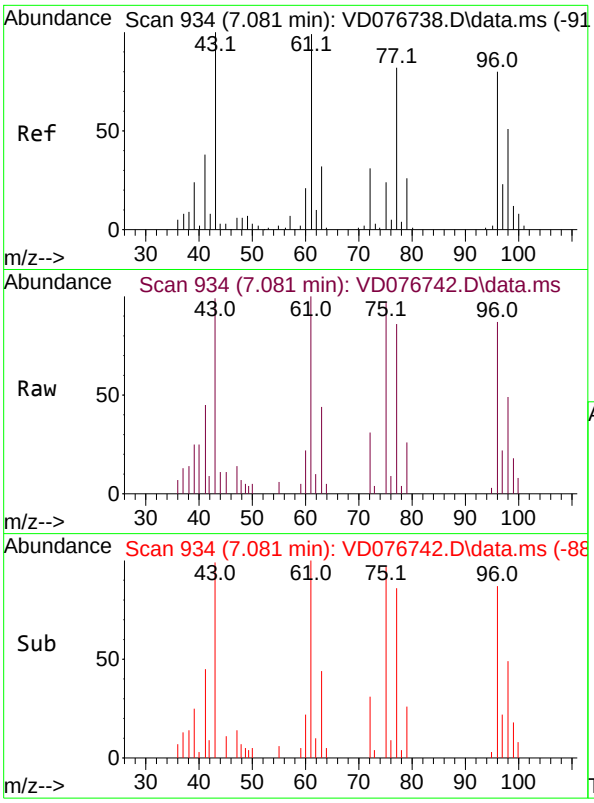


#24
1,1-Dichloroethane
Concen: 5.163 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 63 Resp: 17580

Ion	Ratio	Lower	Upper
63	100		
98	11.3	4.5	13.7
100	6.8	2.5	7.5

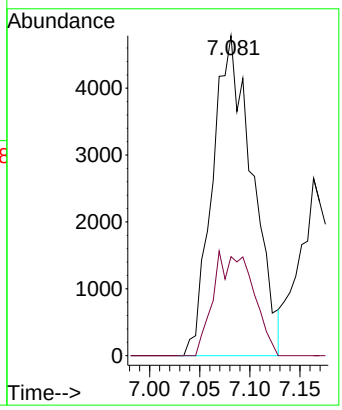




#25
2-Butanone
Concen: 25.410 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 43 Resp: 1329

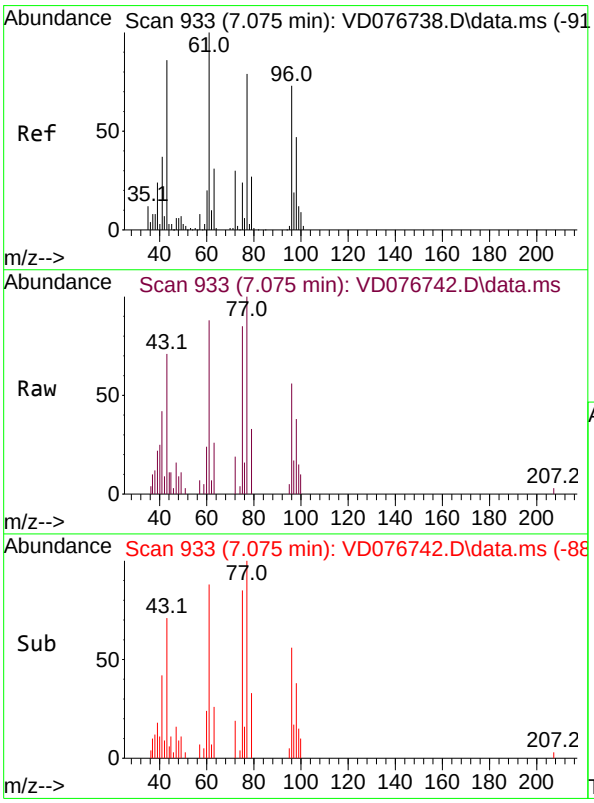
Ion	Ratio	Lower	Upper
43	100		
72	31.0	30.7	46.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

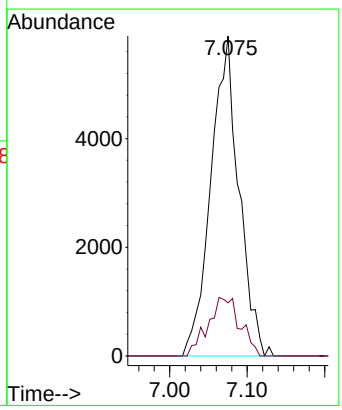
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

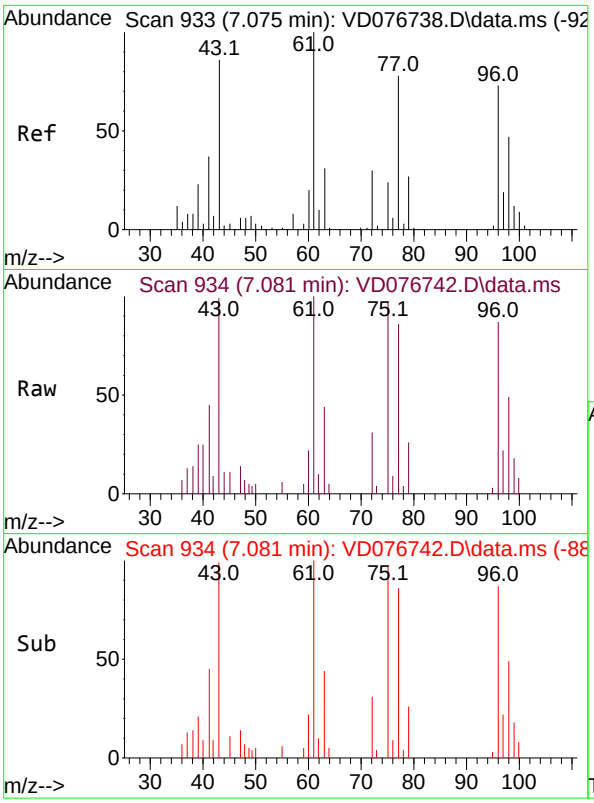


#26
2,2-Dichloropropane
Concen: 5.040 ug/l
RT: 7.075 min Scan# 933
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 77 Resp: 14794

Ion	Ratio	Lower	Upper
77	100		
97	21.0	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 4.966 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

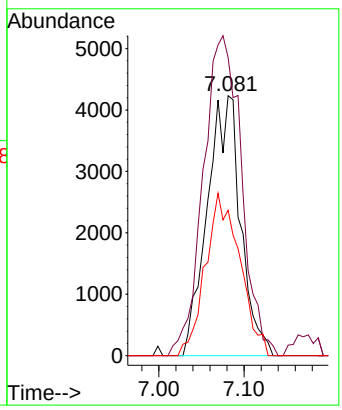
Tgt Ion: 96 Resp: 1155

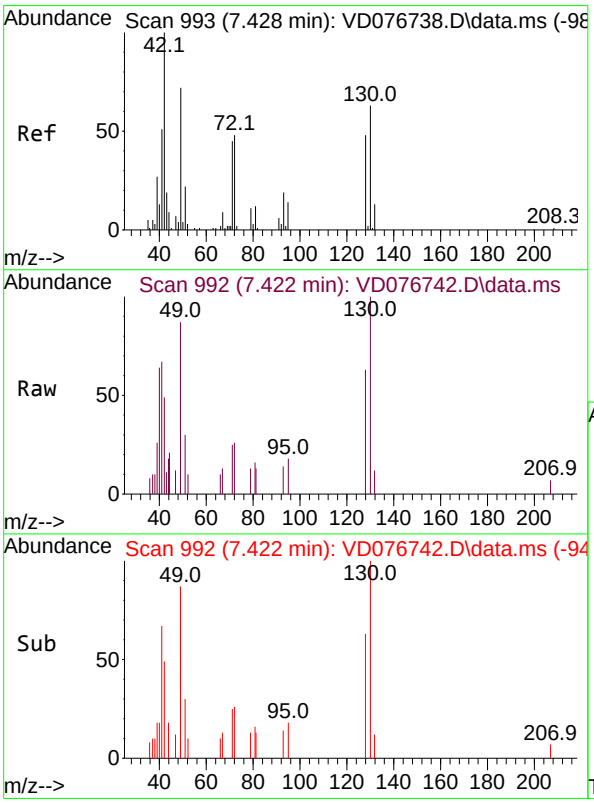
Ion	Ratio	Lower	Upper
96	100		
61	140.3	0.0	239.2
98	64.1	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

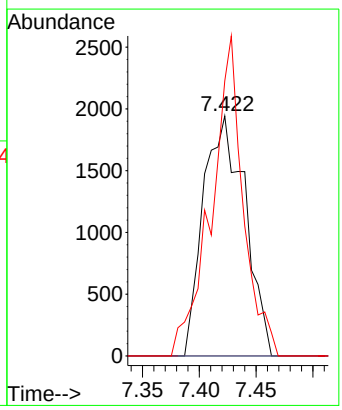


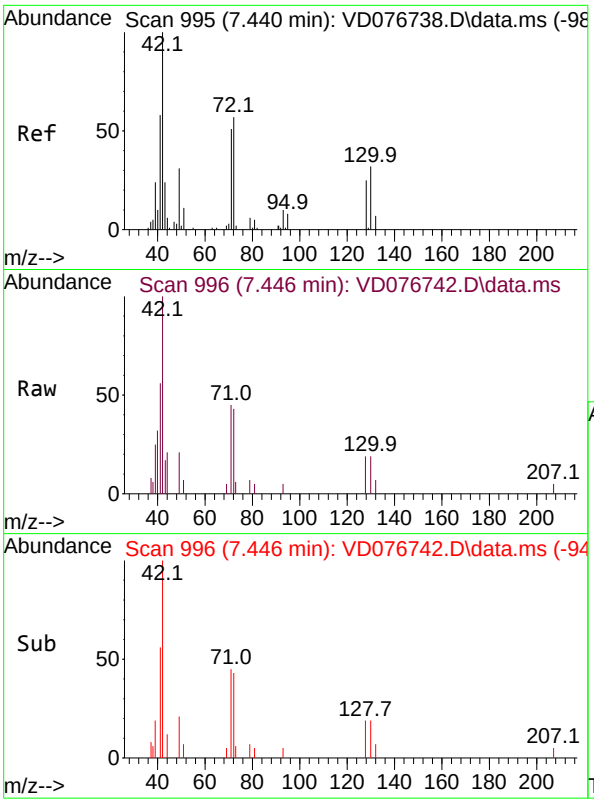


#28
Bromochloromethane
Concen: 5.816 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 49 Resp: 4951

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	6.0
130	101.8	83.2	124.8





#29
Tetrahydrofuran
Concen: 25.827 ug/l
RT: 7.446 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

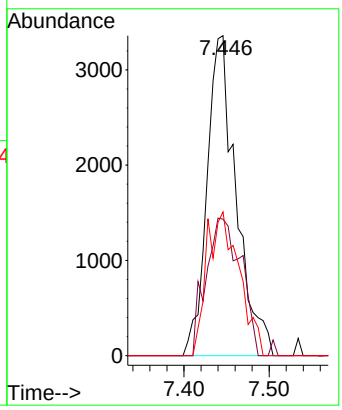
Tgt Ion: 42 Resp: 798

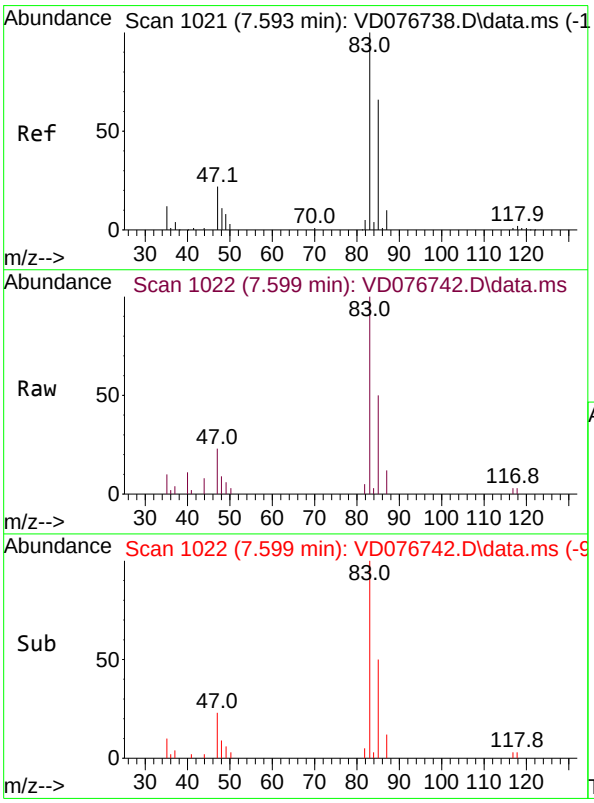
Ion	Ratio	Lower	Upper
42	100		
72	51.7	46.5	69.7
71	49.9	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

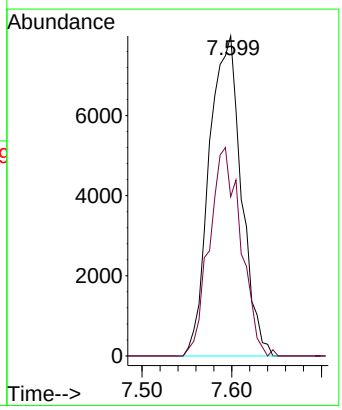


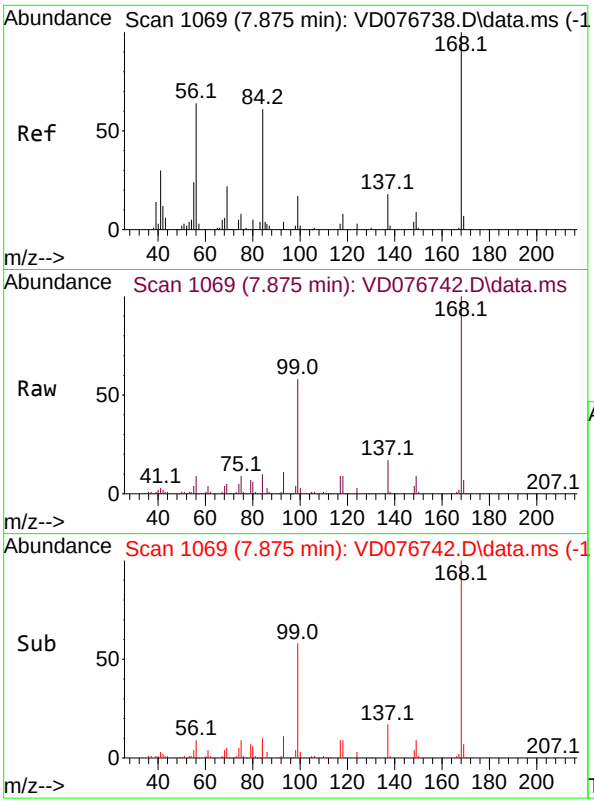


#30
Chloroform
Concen: 5.312 ug/l
RT: 7.599 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 83 Resp: 19811

Ion	Ratio	Lower	Upper
83	100		
85	49.8	53.4	80.2#





#31
Cyclohexane
Concen: 5.910 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

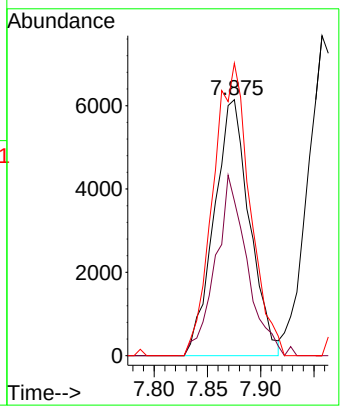
Tgt Ion: 56 Resp: 1423

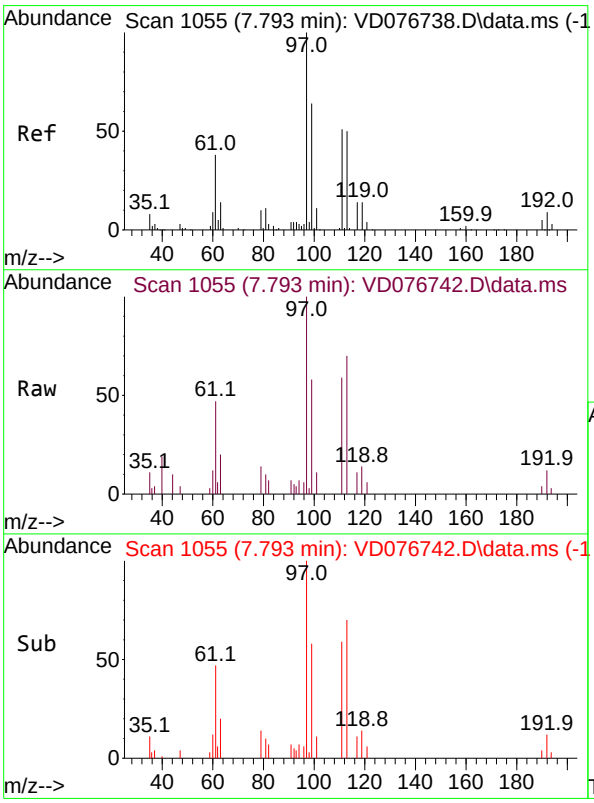
Ion	Ratio	Lower	Upper
56	100		
69	60.5	28.6	43.0#
84	114.2	84.8	127.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

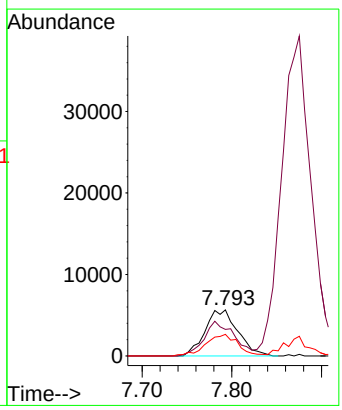


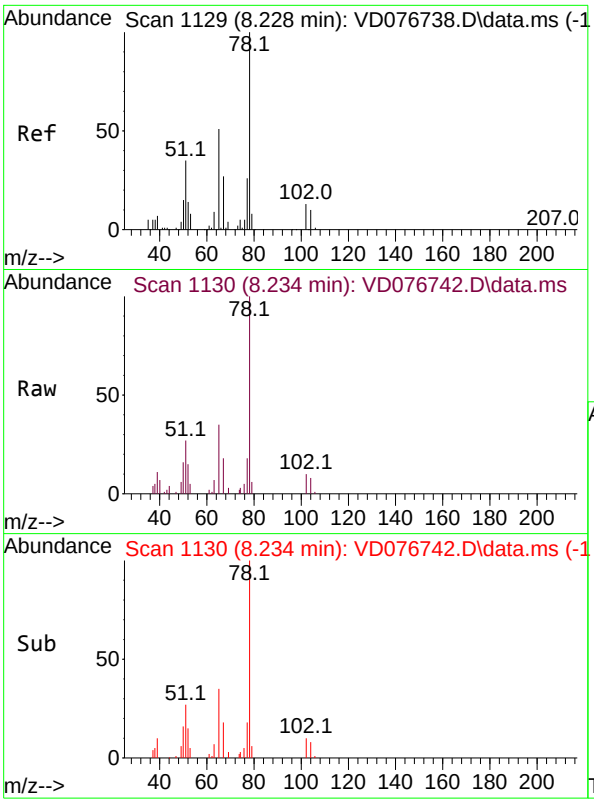


#32
1,1,1-Trichloroethane
Concen: 4.747 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 97 Resp: 14282

Ion	Ratio	Lower	Upper
97	100		
99	69.2	52.0	78.0
61	46.1	33.8	50.8

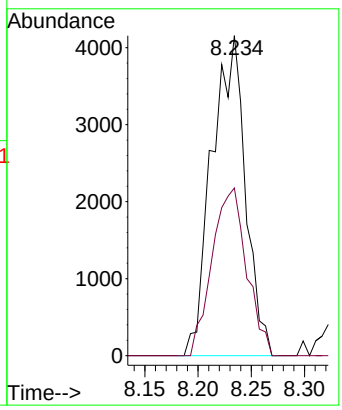




#33
1,2-Dichloroethane-d4
Concen: 5.565 ug/l
RT: 8.234 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 65 Resp: 910

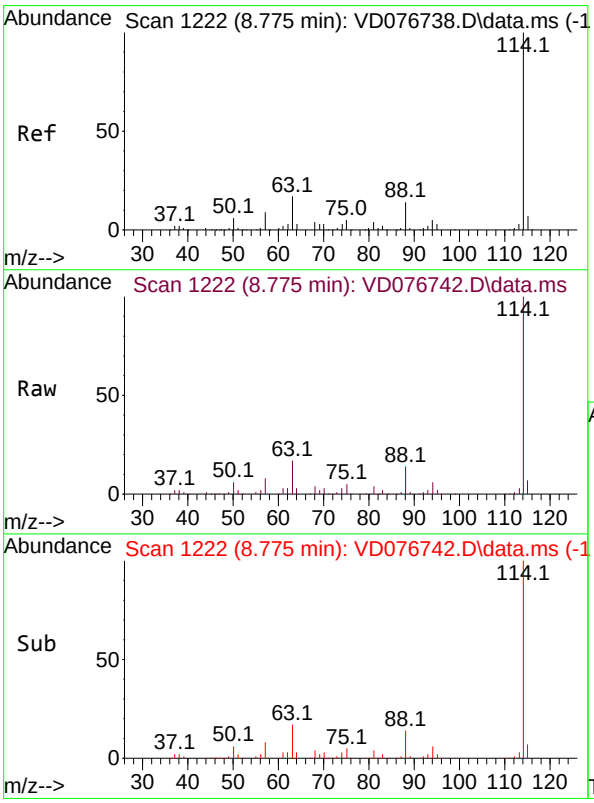
Ion	Ratio	Lower	Upper
65	100		
67	53.9	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

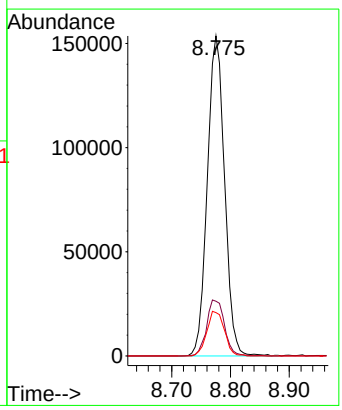
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

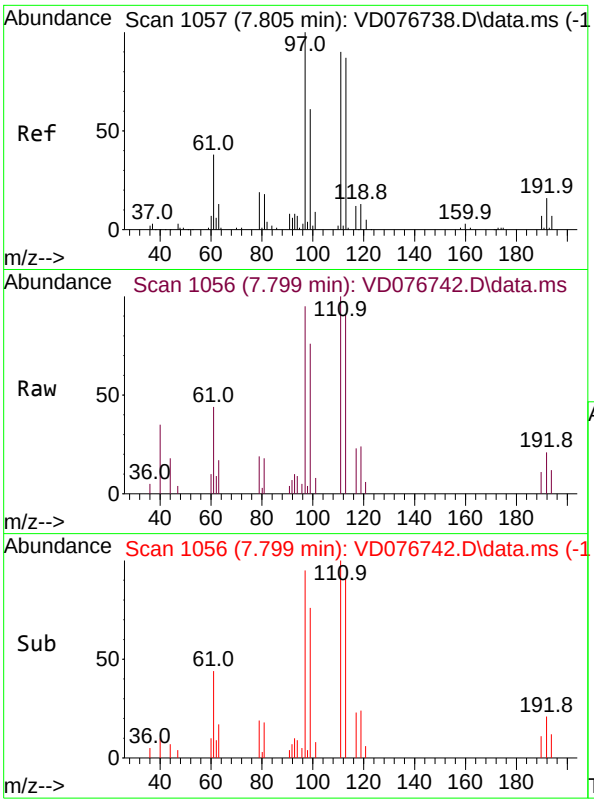


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:114 Resp: 313383

Ion	Ratio	Lower	Upper
114	100		
63	17.1	0.0	33.4
88	13.5	0.0	26.2





#35
Dibromofluoromethane
Concen: 5.297 ug/l
RT: 7.799 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

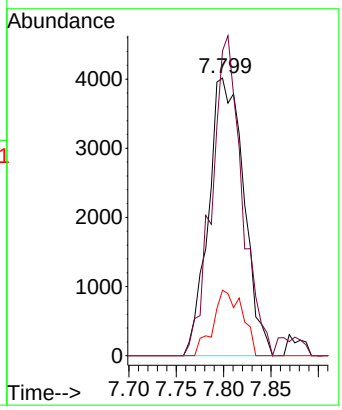
Tgt Ion:113 Resp: 1043

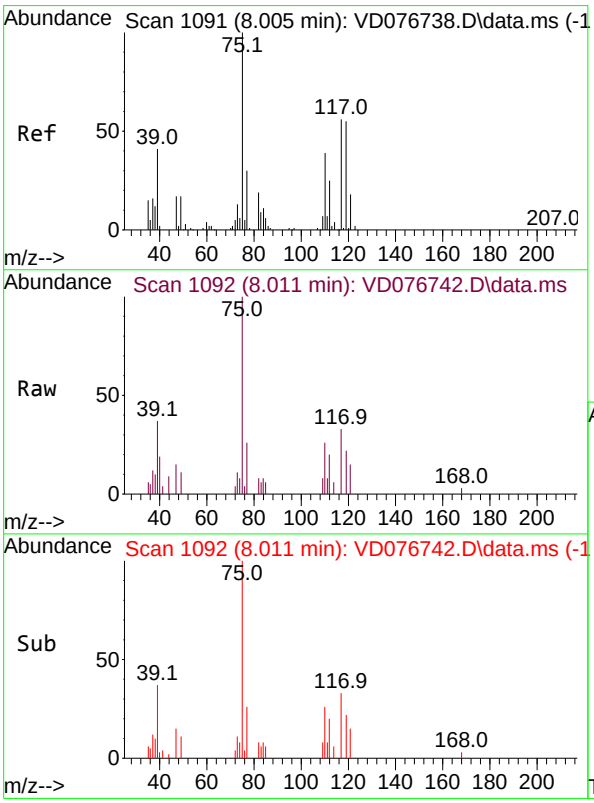
Ion	Ratio	Lower	Upper
113	100		
111	98.5	84.7	127.1
192	19.5	16.8	25.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

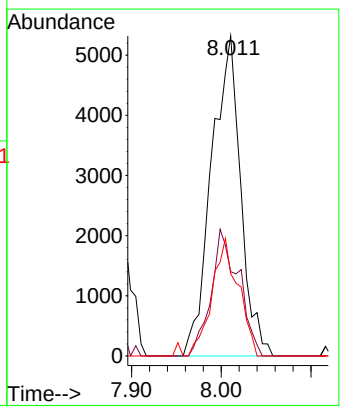


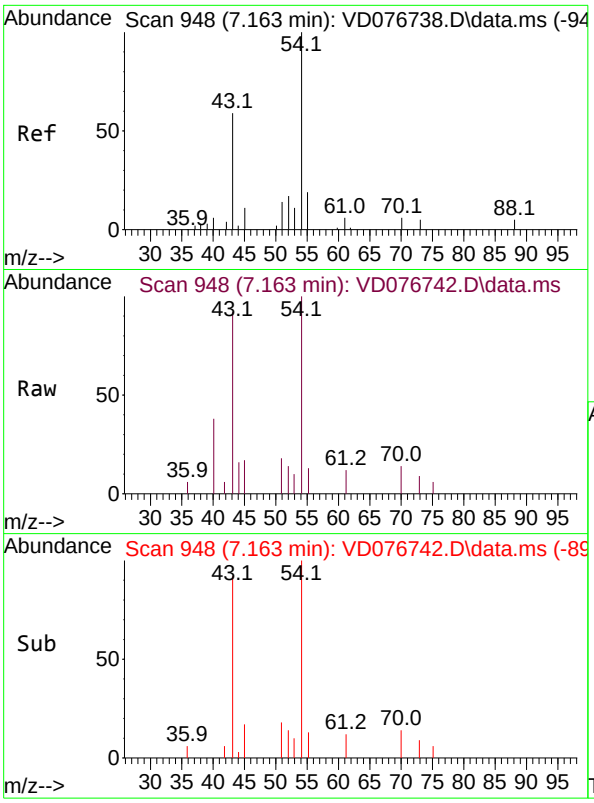


#36
1,1-Dichloropropene
Concen: 4.669 ug/l
RT: 8.011 min Scan# 1092
Delta R.T. 0.005 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 75 Resp: 12016

Ion	Ratio	Lower	Upper
75	100		
110	37.4	19.9	59.6
77	33.2	24.7	37.1





#37
Ethyl Acetate
Concen: 4.747 ug/l
RT: 7.163 min Scan# 94
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

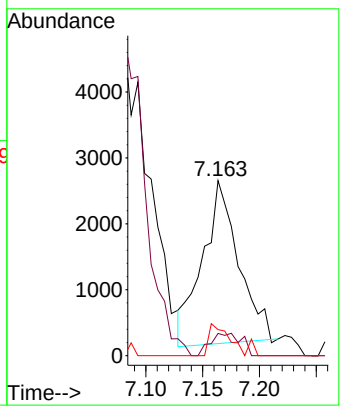
Tgt Ion: 43 Resp: 546

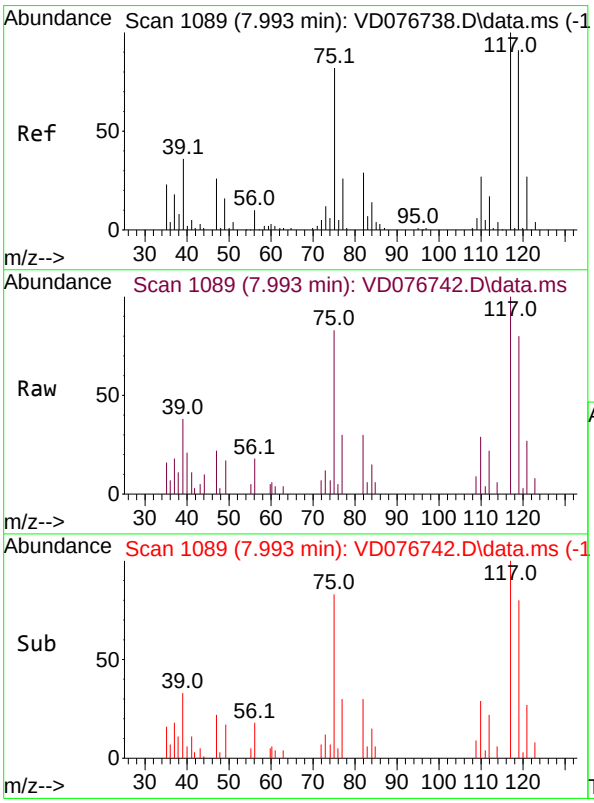
Ion	Ratio	Lower	Upper
43	100		
61	11.8	14.9	22.3#
70	10.7	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

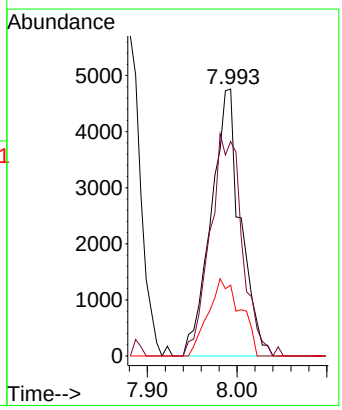


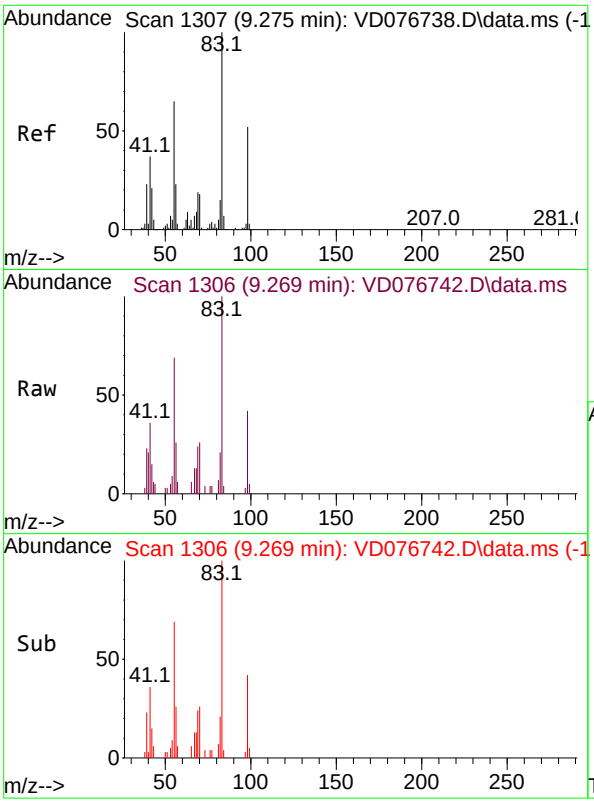


#38
Carbon Tetrachloride
Concen: 4.406 ug/l
RT: 7.993 min Scan# 1089
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:117 Resp: 10856

Ion	Ratio	Lower	Upper
117	100		
119	80.3	78.0	117.0
121	26.6	24.2	36.2

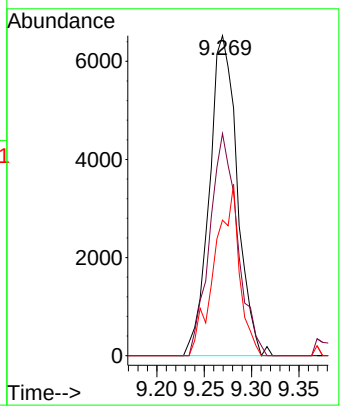




#39
Methylcyclohexane
Concen: 4.480 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 83 Resp: 1331

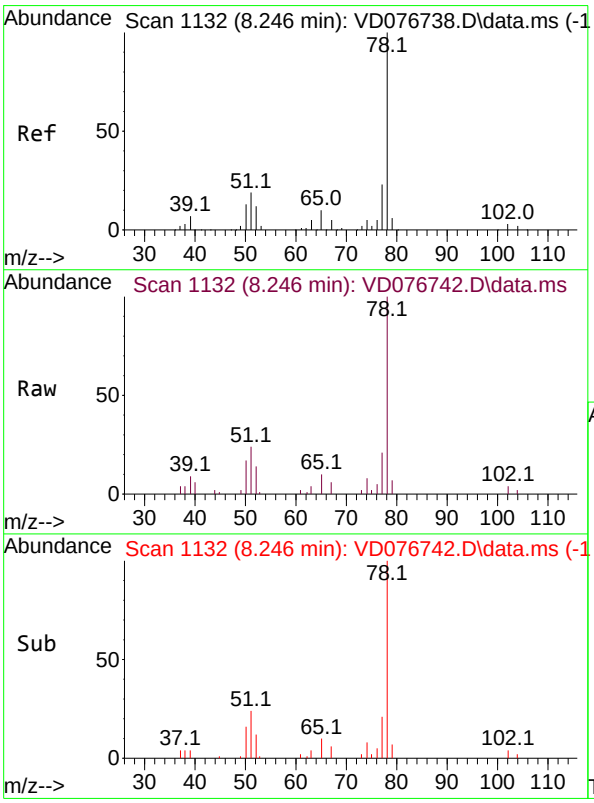
Ion	Ratio	Lower	Upper
83	100		
55	69.4	49.4	74.0
98	42.4	38.4	57.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

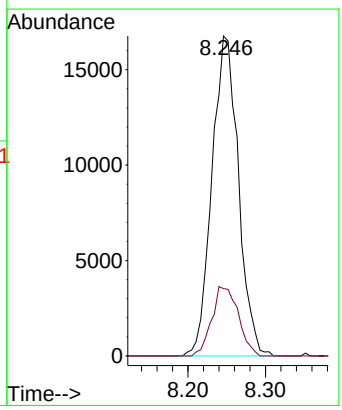
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

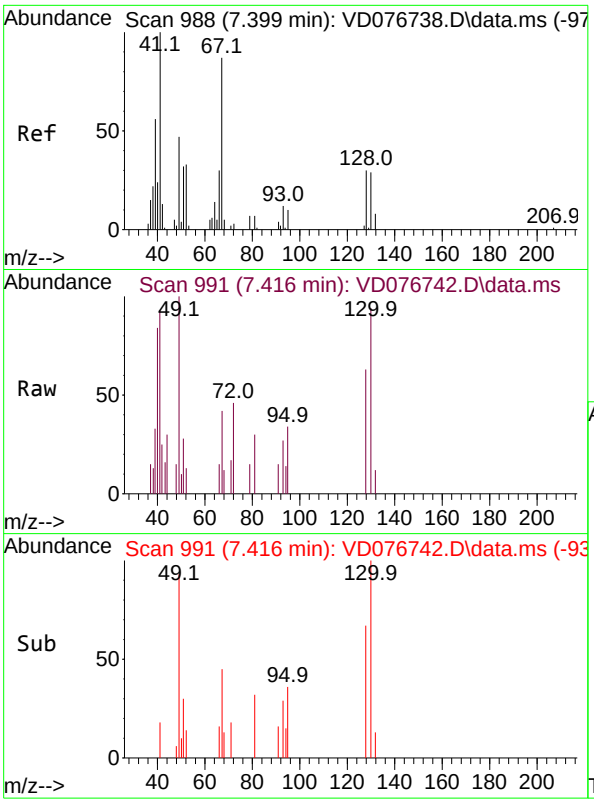


#40
Benzene
Concen: 4.901 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 78 Resp: 39797

Ion	Ratio	Lower	Upper
78	100		
77	21.1	19.4	29.0

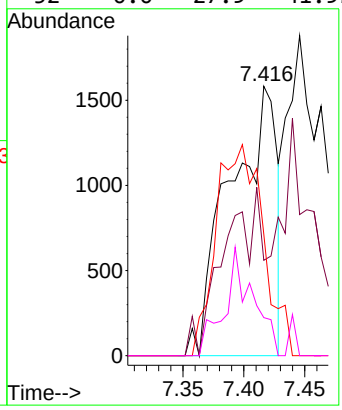




#41
Methacrylonitrile
Concen: 5.988 ug/l
RT: 7.416 min Scan# 9
Delta R.T. 0.017 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 41 Resp: 420

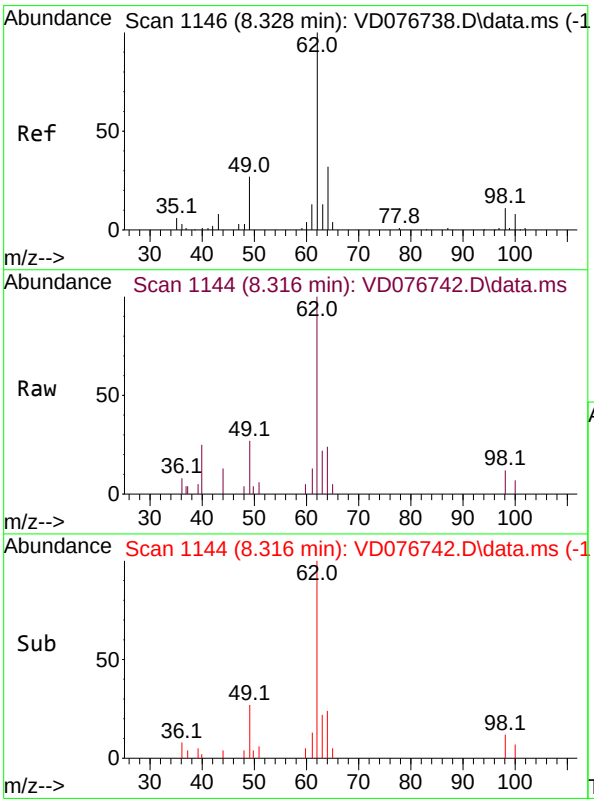
Ion	Ratio	Lower	Upper
41	100		
39	0.0	34.0	51.0#
67	0.0	77.0	115.4#
52	0.0	27.9	41.9#



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

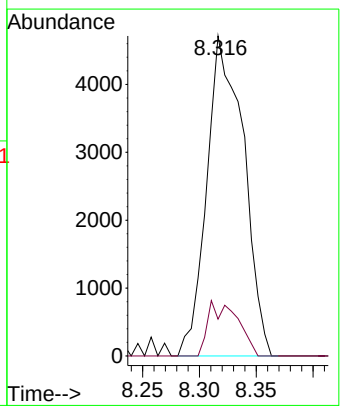
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

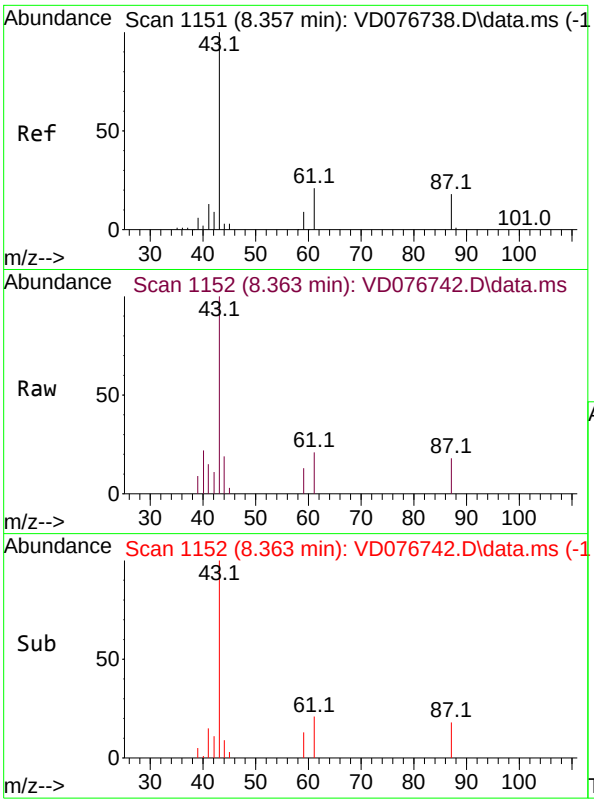


#42
1,2-Dichloroethane
Concen: 5.033 ug/l
RT: 8.316 min Scan# 1144
Delta R.T. -0.012 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 62 Resp: 10619

Ion	Ratio	Lower	Upper
62	100		
98	13.7	0.0	25.4





#43
Isopropyl Acetate
Concen: 5.119 ug/l
RT: 8.363 min Scan# 11
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

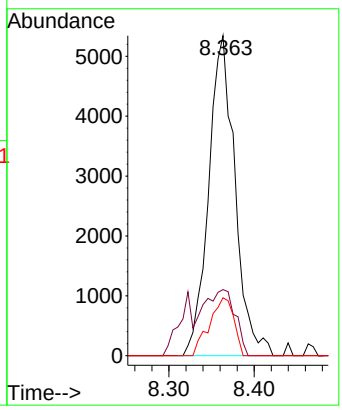
Tgt Ion: 43 Resp: 1149

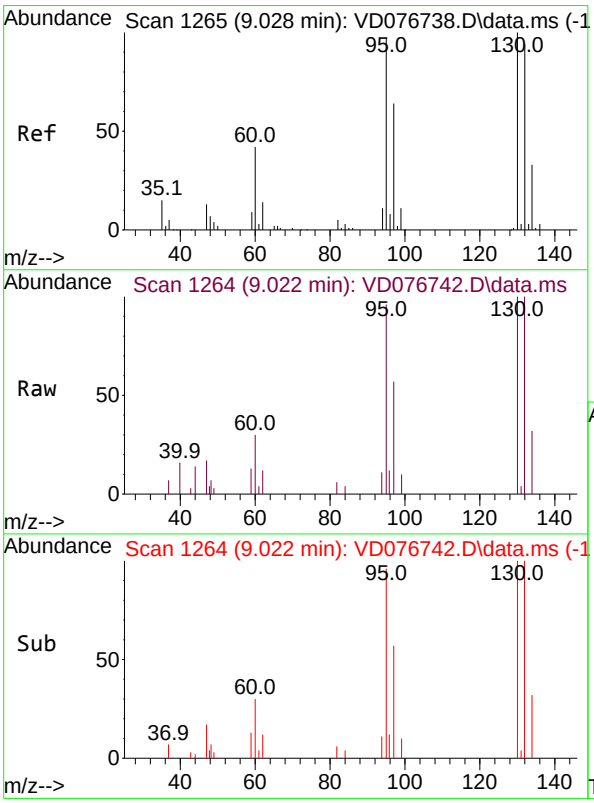
Ion	Ratio	Lower	Upper
43	100		
61	23.1	31.4	47.0#
87	16.7	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

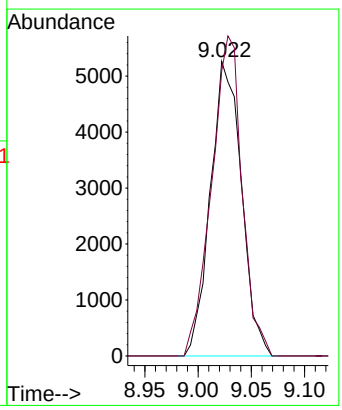


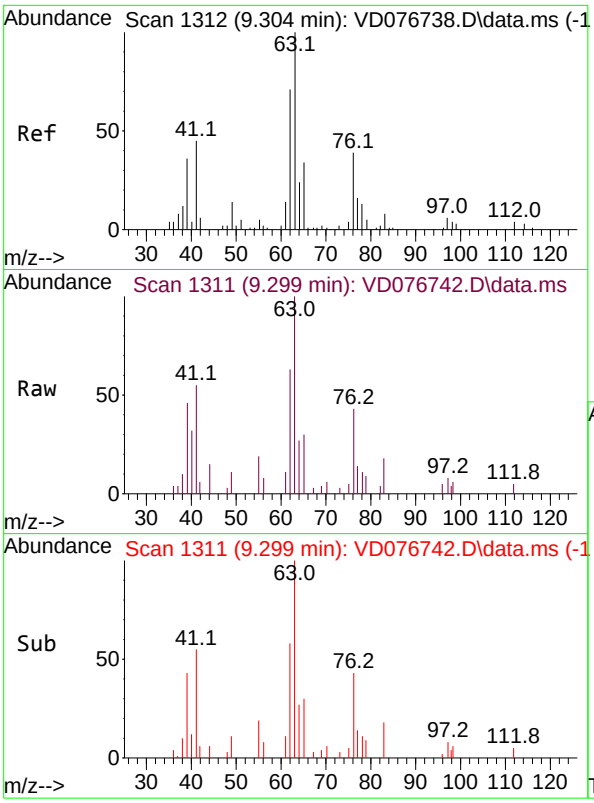


#44
Trichloroethene
Concen: 4.825 ug/l
RT: 9.022 min Scan# 1264
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:130 Resp: 10675

Ion	Ratio	Lower	Upper
130	100		
95	96.8	0.0	179.2

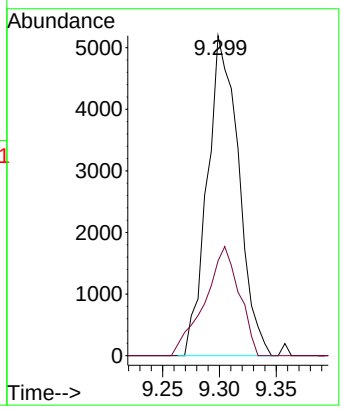




#45
1,2-Dichloropropane
Concen: 4.756 ug/l
RT: 9.299 min Scan# 1
Delta R.T. -0.005 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 63 Resp: 996

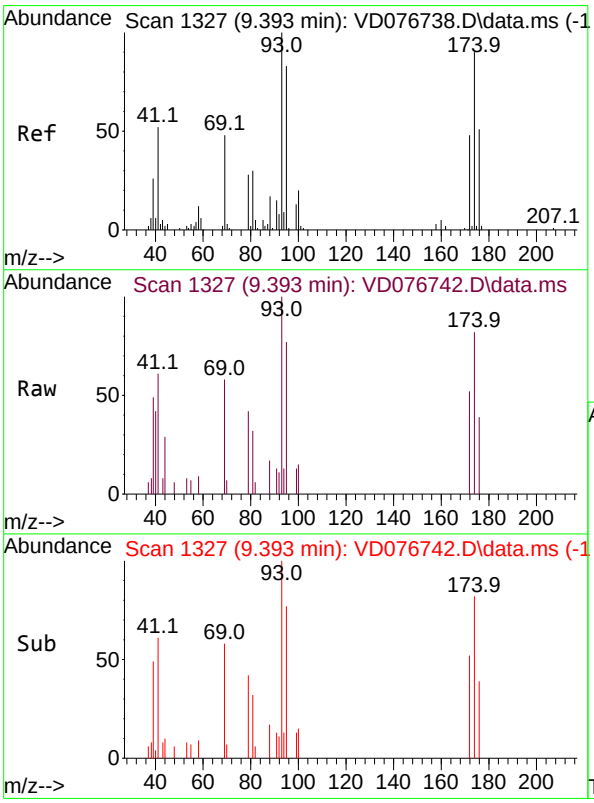
Ion	Ratio	Lower	Upper
63	100		
65	29.6	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

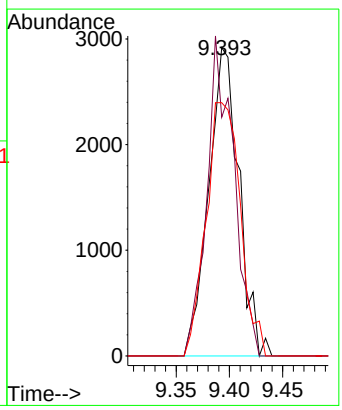
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

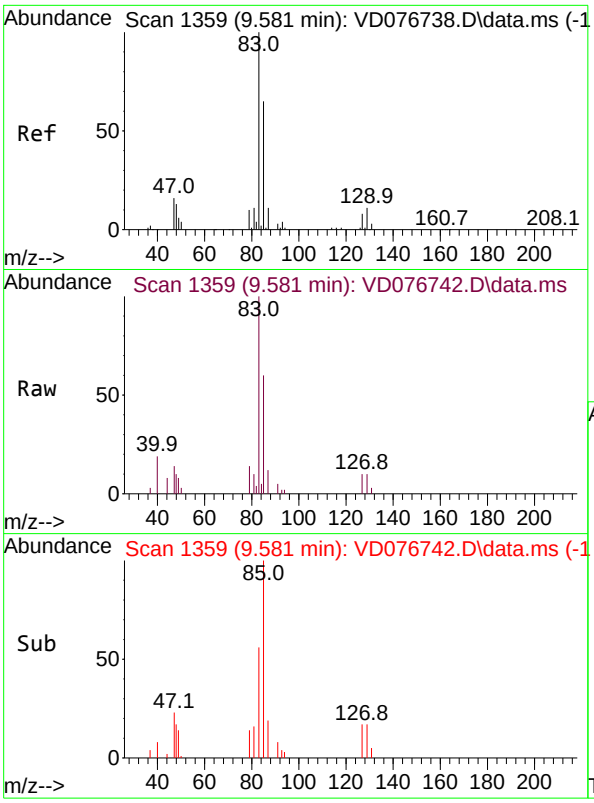


#46
Dibromomethane
Concen: 4.686 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 93 Resp: 5749

Ion	Ratio	Lower	Upper
93	100		
95	92.6	67.7	101.5
174	93.0	85.4	128.2

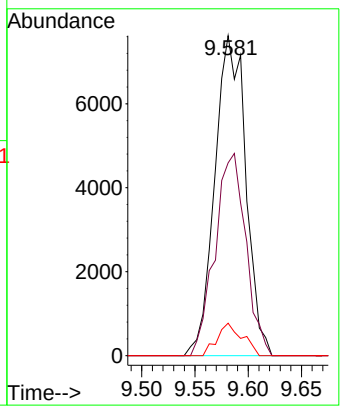




#47
Bromodichloromethane
Concen: 4.984 ug/l
RT: 9.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 83 Resp: 1534

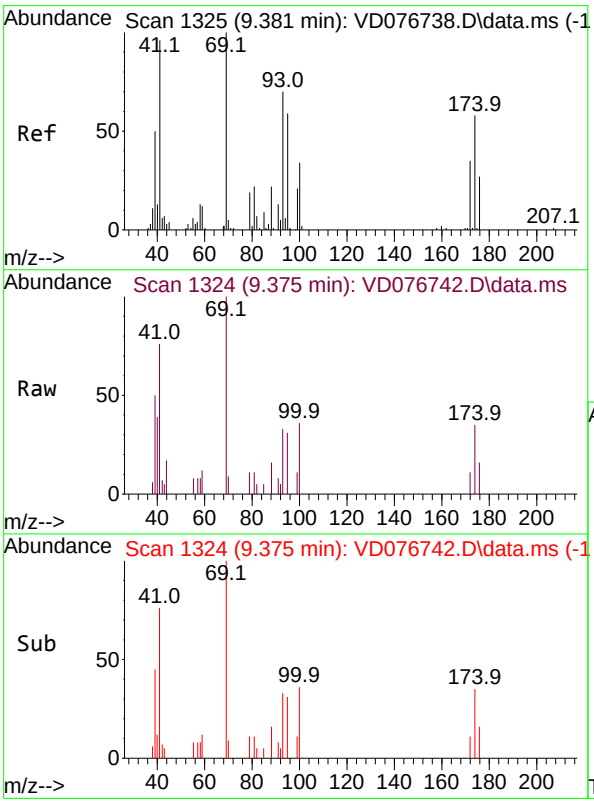
Ion	Ratio	Lower	Upper
83	100		
85	60.2	50.2	75.4
127	10.1	6.3	9.5#



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

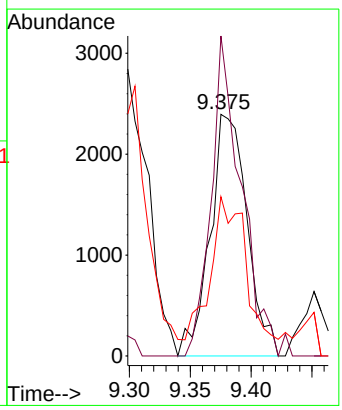
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

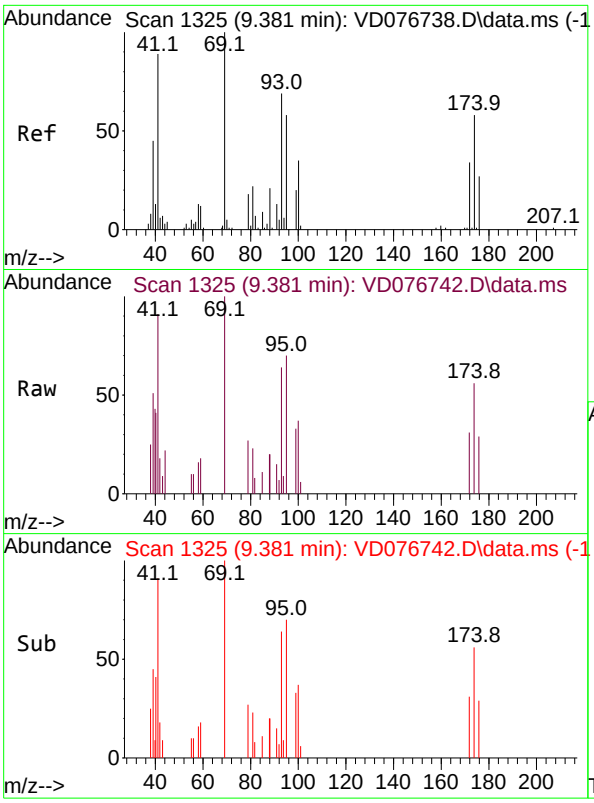


#48
Methyl methacrylate
Concen: 4.957 ug/l
RT: 9.375 min Scan# 1324
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 41 Resp: 5067

Ion	Ratio	Lower	Upper
41	100		
69	108.7	102.2	153.2
39	67.2	41.4	62.2#





#49
1,4-Dioxane
Concen: 106.244 ug/l
RT: 9.381 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

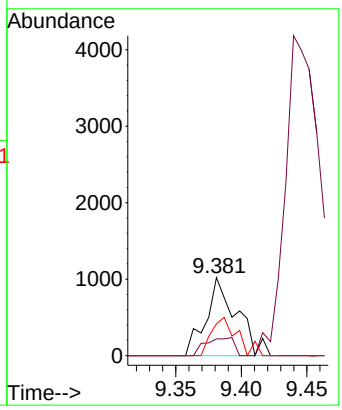
Tgt Ion: 88 Resp: 167

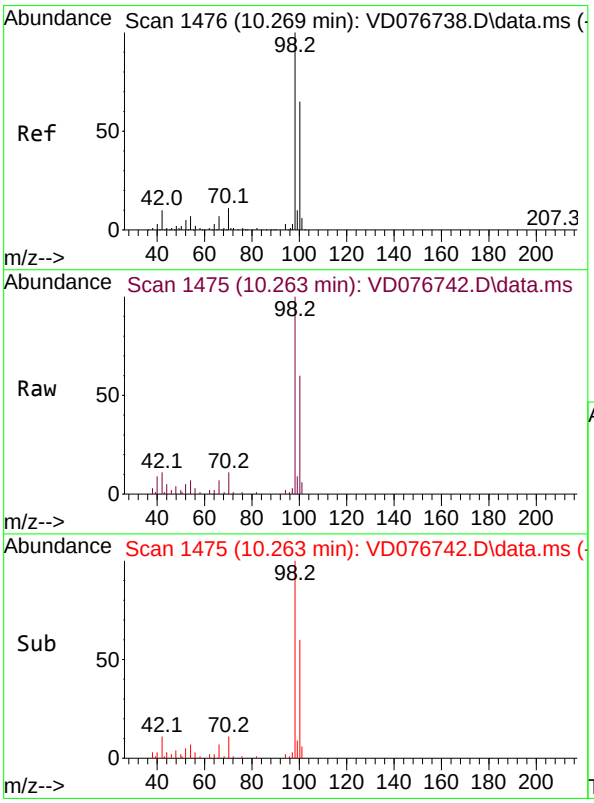
Ion	Ratio	Lower	Upper
88	100		
43	21.2	19.0	28.6
58	41.0	43.5	65.3#

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

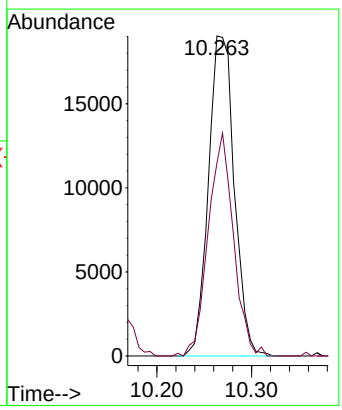


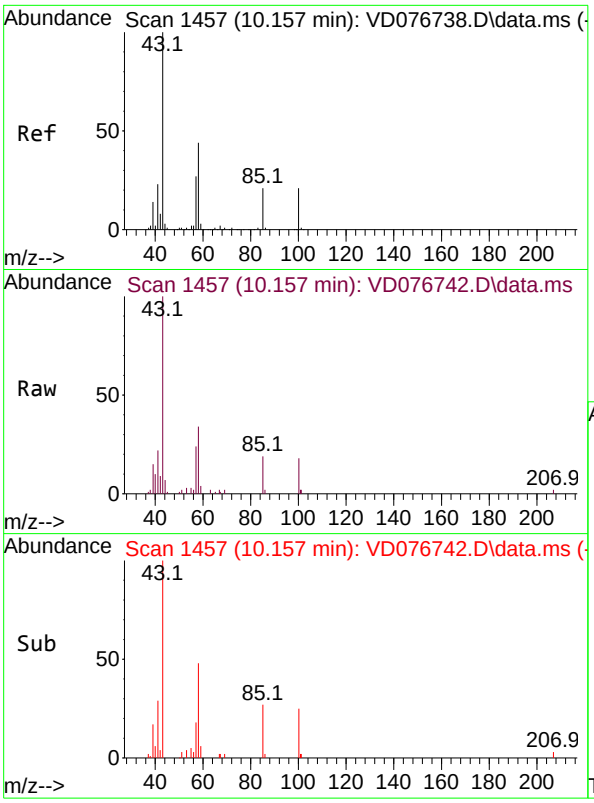


#50
Toluene-d8
Concen: 5.126 ug/l
RT: 10.263 min Scan# 1475
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 98 Resp: 36113

Ion	Ratio	Lower	Upper
98	100		
100	67.6	50.3	75.5

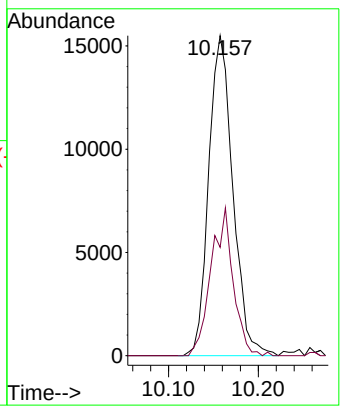




#51
4-Methyl-2-Pentanone
Concen: 24.252 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 43 Resp: 2900

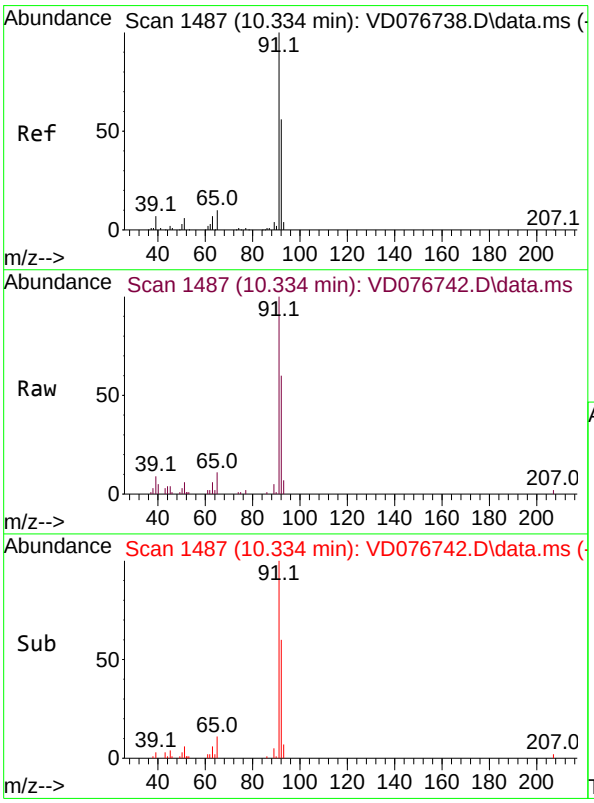
Ion	Ratio	Lower	Upper
43	100		
58	42.5	38.9	58.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

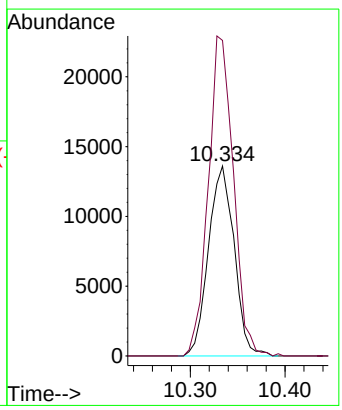
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

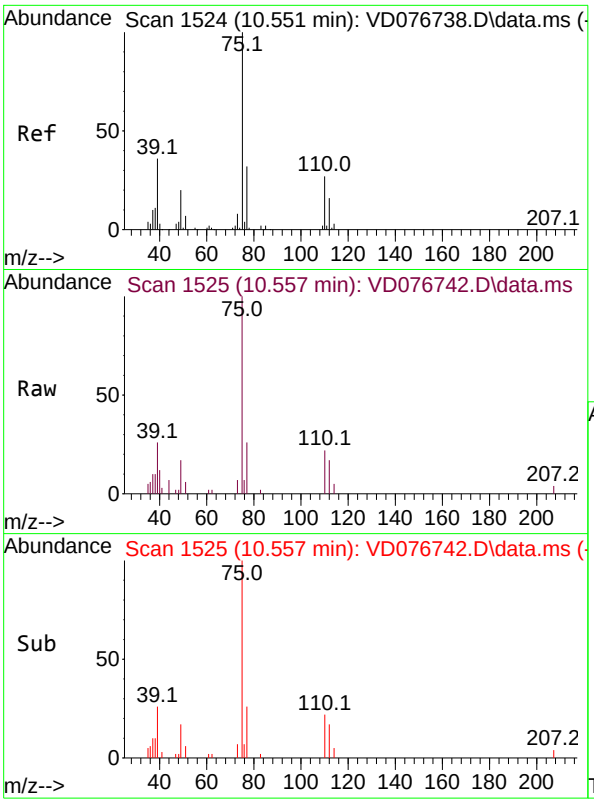


#52
Toluene
Concen: 4.815 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 92 Resp: 25679

Ion	Ratio	Lower	Upper
92	100		
91	164.7	143.0	214.4

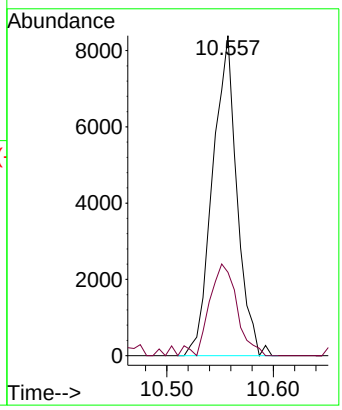




#53
t-1,3-Dichloropropene
Concen: 4.661 ug/l
RT: 10.557 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 75 Resp: 1331

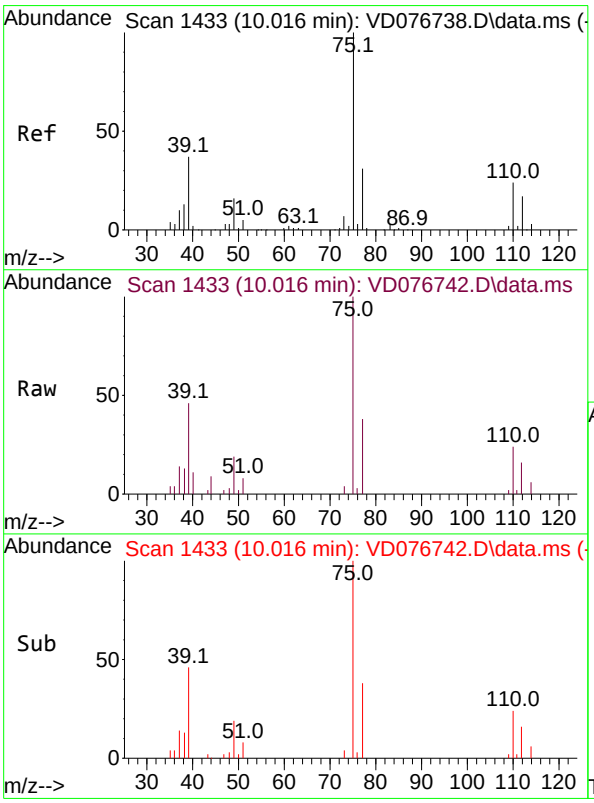
Ion	Ratio	Lower	Upper
75	100		
77	26.0	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

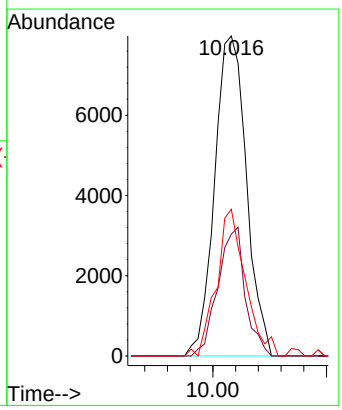
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

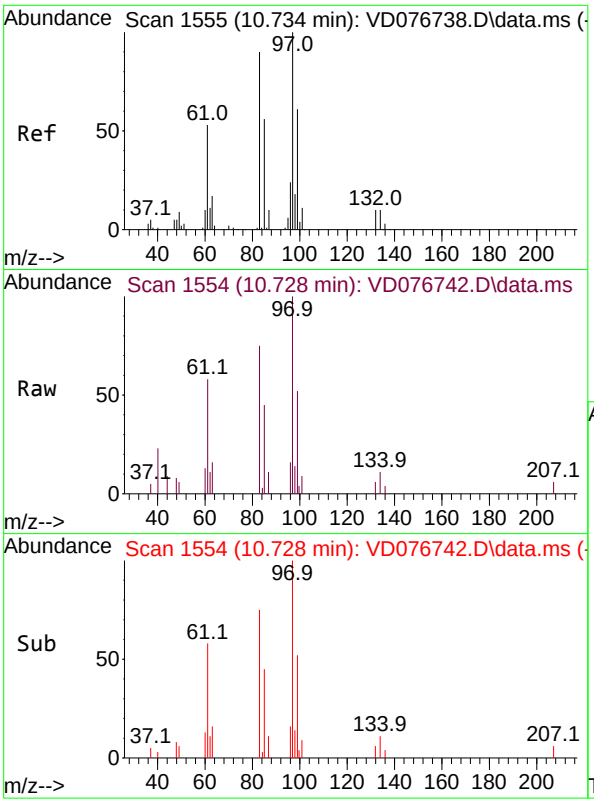


#54
cis-1,3-Dichloropropene
Concen: 4.598 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 75 Resp: 15486

Ion	Ratio	Lower	Upper
75	100		
77	38.0	25.5	38.3
39	45.8	22.1	33.1#

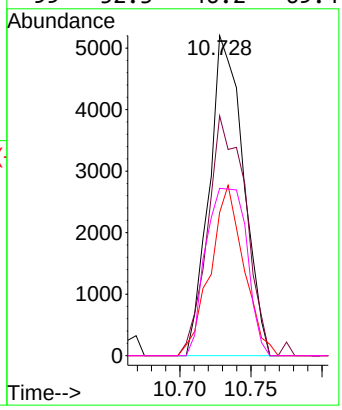




#55
1,1,2-Trichloroethane
Concen: 4.865 ug/l
RT: 10.728 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 97 Resp: 871

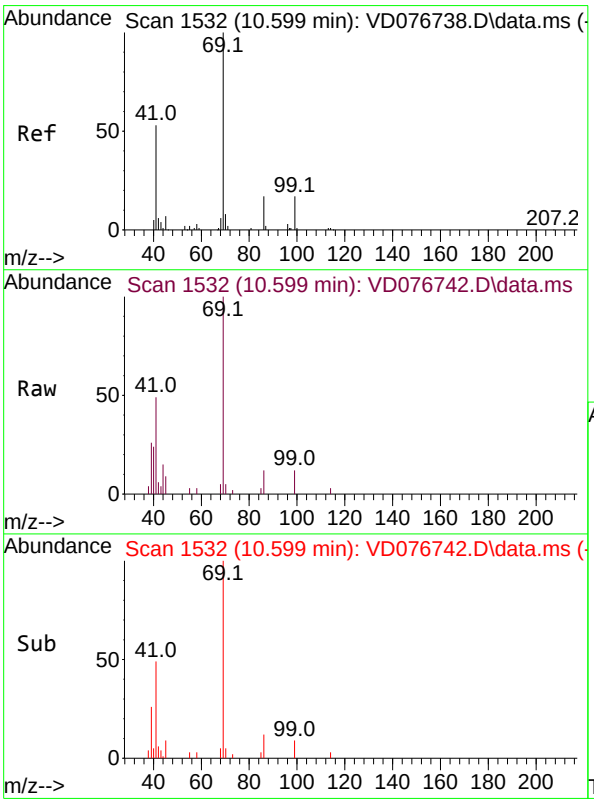
Ion	Ratio	Lower	Upper
97	100		
83	75.0	65.8	98.6
85	44.7	45.7	68.5#
99	52.3	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

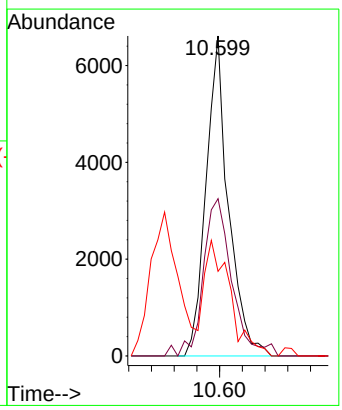
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

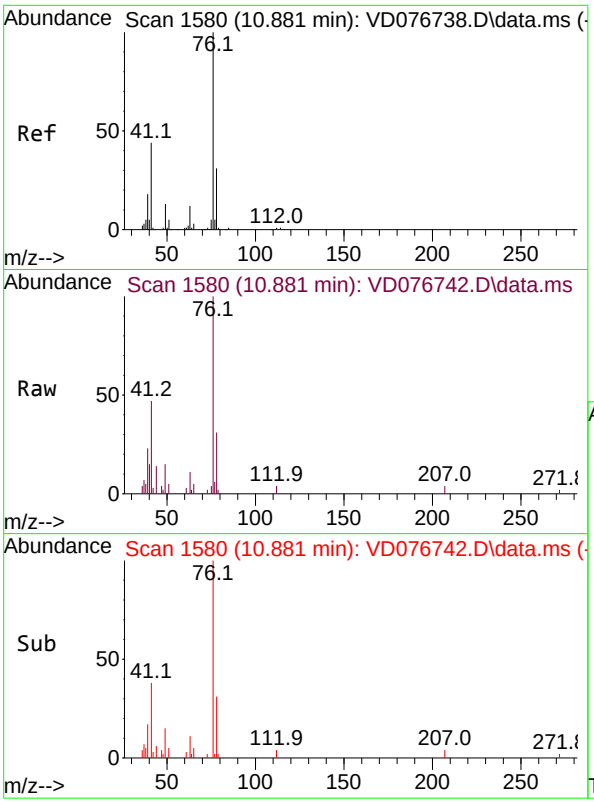


#56
Ethyl methacrylate
Concen: 4.362 ug/l
RT: 10.599 min Scan# 1532
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 69 Resp: 9019

Ion	Ratio	Lower	Upper
69	100		
41	63.0	39.1	58.7#
39	41.5	20.0	30.0#





#57
1,3-Dichloropropane
Concen: 4.957 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

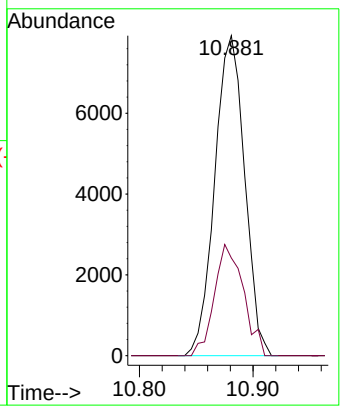
Tgt Ion: 76 Resp: 1446

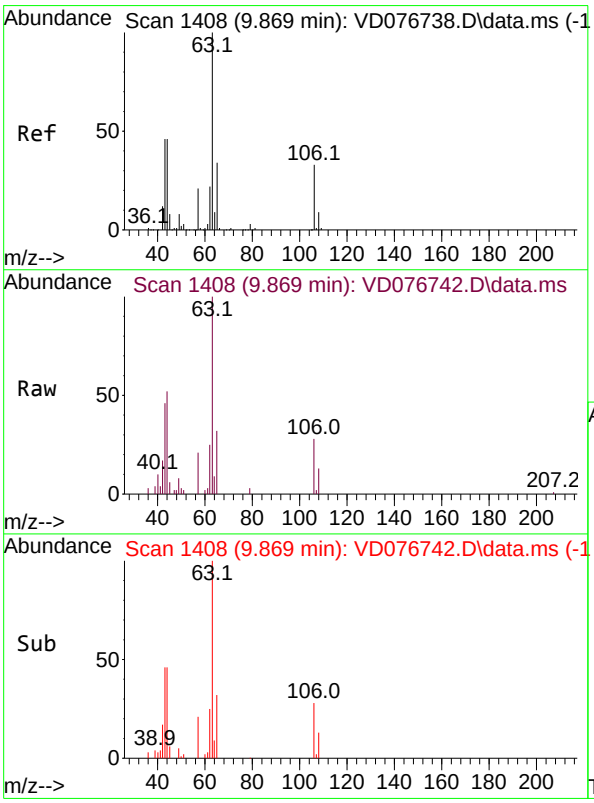
Ion	Ratio	Lower	Upper
76	100		
78	33.7	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

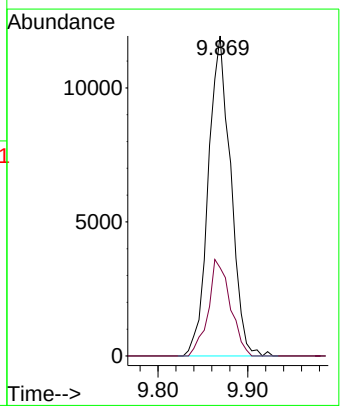


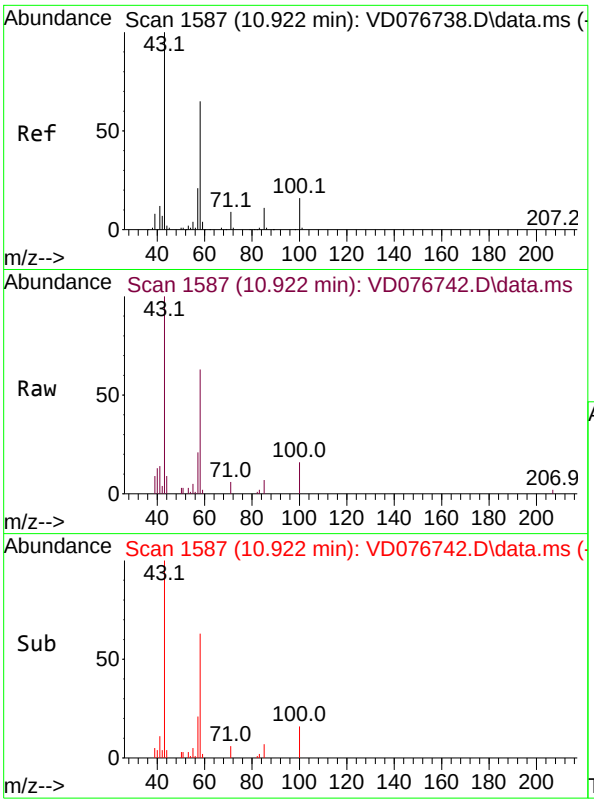


#58
2-Chloroethyl Vinyl ether
Concen: 25.733 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 63 Resp: 20596

Ion	Ratio	Lower	Upper
63	100		
106	29.8	25.3	37.9





#59
2-Hexanone
Concen: 24.679 ug/l
RT: 10.922 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

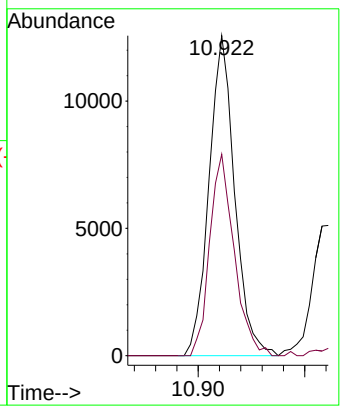
Tgt Ion: 43 Resp: 2105

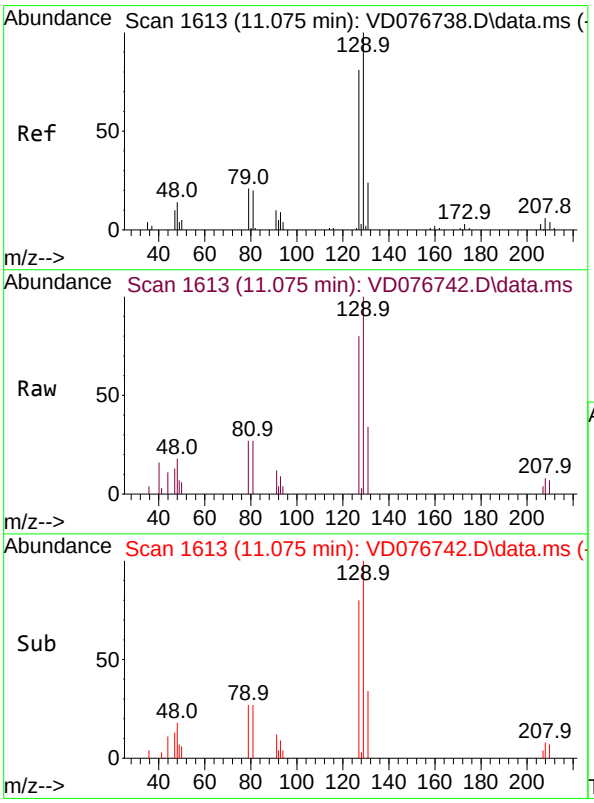
Ion	Ratio	Lower	Upper
43	100		
58	60.1	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

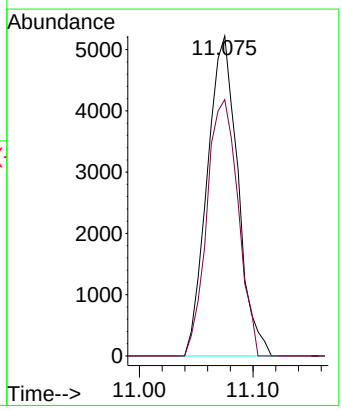


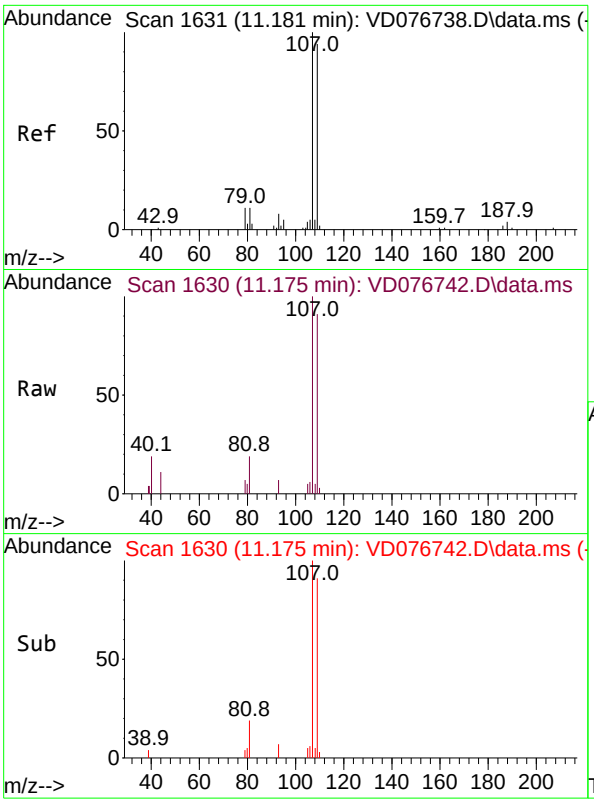


#60
Dibromochloromethane
Concen: 4.692 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:129 Resp: 9764

Ion	Ratio	Lower	Upper
129	100		
127	81.8	37.1	111.5





#61
1,2-Dibromoethane
Concen: 4.795 ug/l
RT: 11.175 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

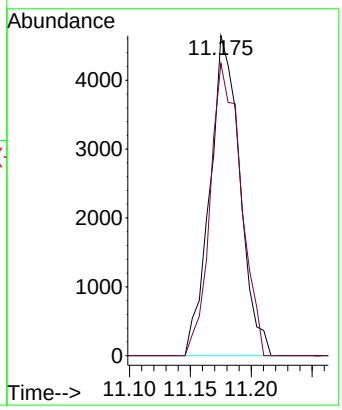
Tgt Ion:107 Resp: 796

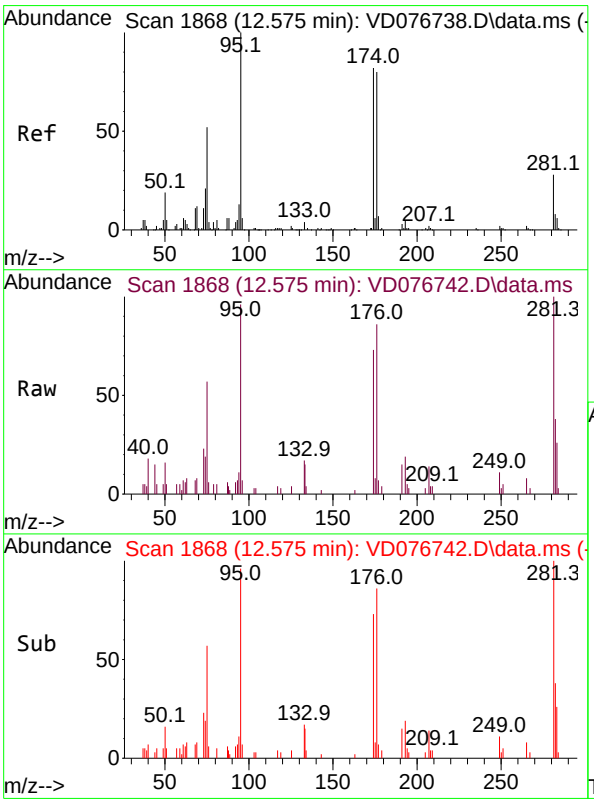
Ion	Ratio	Lower	Upper
107	100		
109	93.3	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

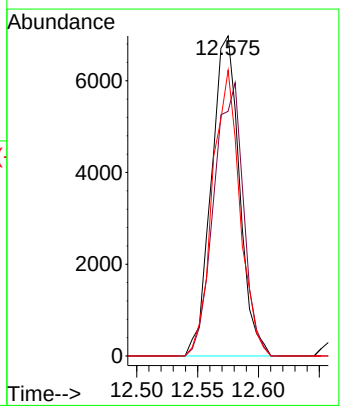


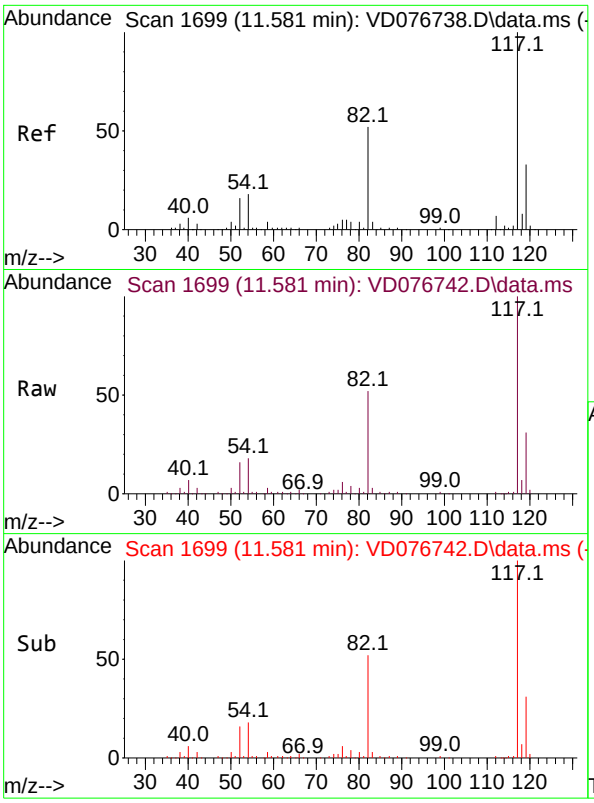


#62
4-Bromofluorobenzene
Concen: 4.905 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 95 Resp: 11178

Ion	Ratio	Lower	Upper
95	100		
174	89.6	0.0	201.8
176	87.2	0.0	191.8

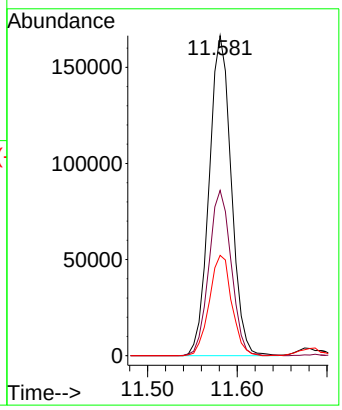




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:117 Resp: 28499

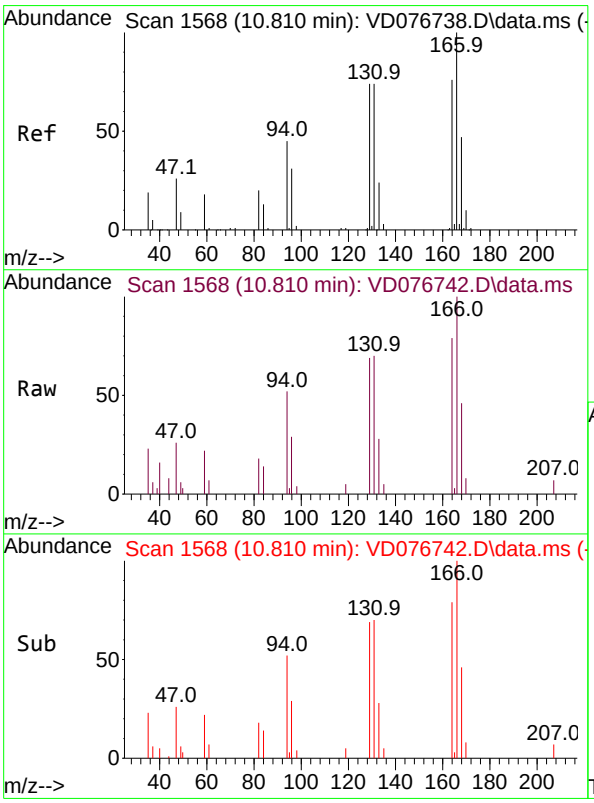
Ion	Ratio	Lower	Upper
117	100		
82	51.7	38.3	57.5
119	31.3	25.0	37.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

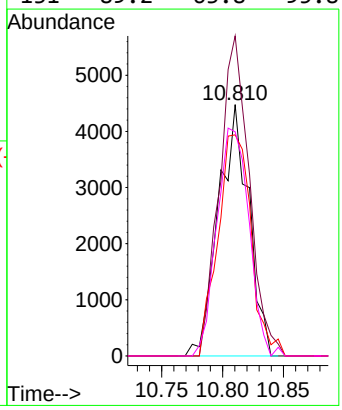
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

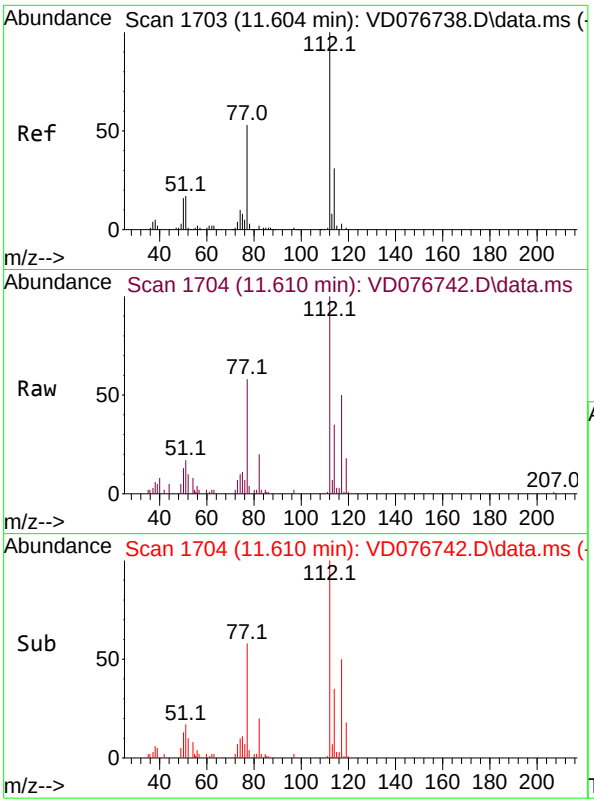


#64
Tetrachloroethene
Concen: 4.753 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:164 Resp: 7724

Ion	Ratio	Lower	Upper
164	100		
166	127.3	99.2	148.8
129	88.0	68.4	102.6
131	89.2	63.8	95.8

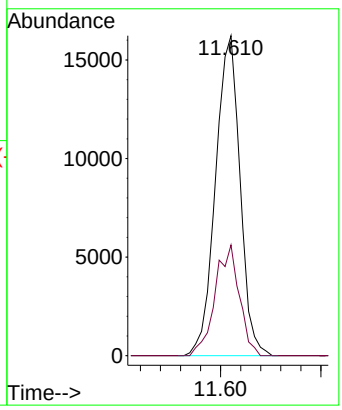




#65
Chlorobenzene
Concen: 4.800 ug/l
RT: 11.610 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:112 Resp: 2751

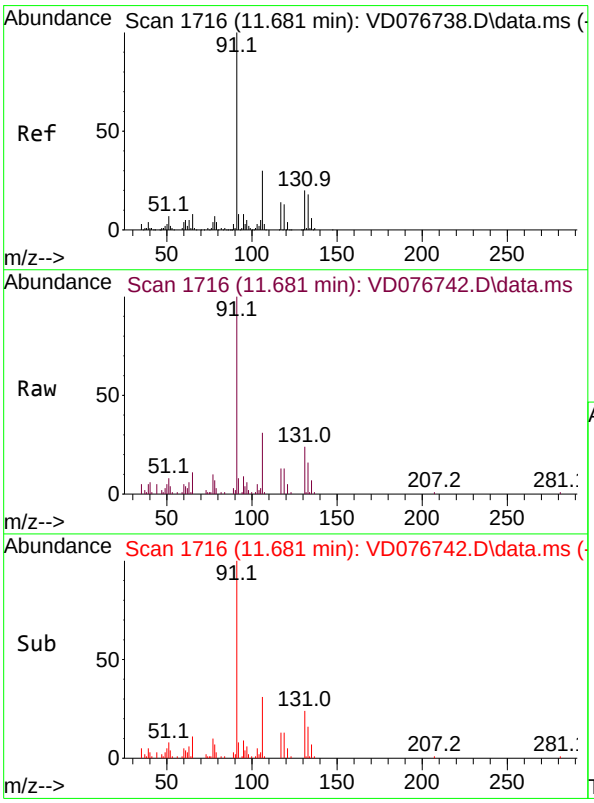
Ion	Ratio	Lower	Upper
112	100		
114	34.6	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

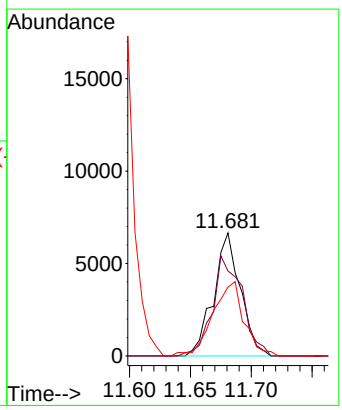
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

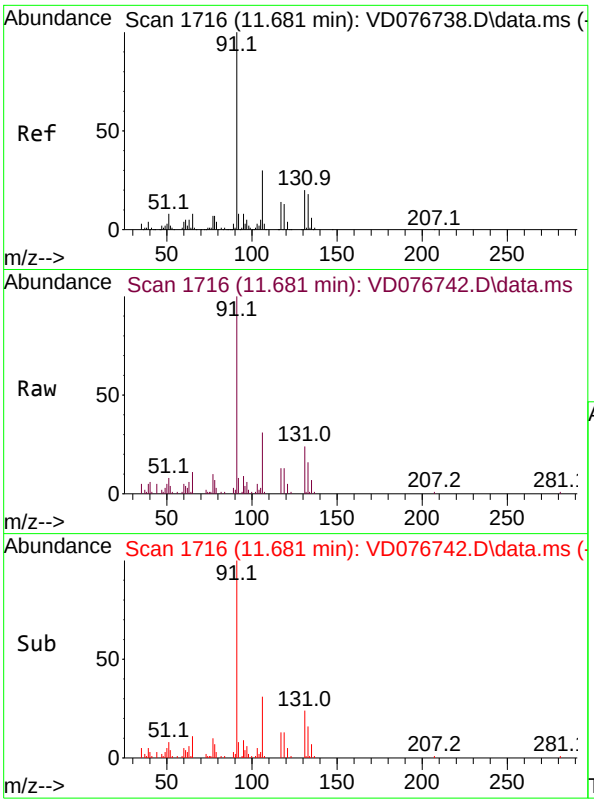


#66
1,1,1,2-Tetrachloroethane
Concen: 4.795 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:131 Resp: 10233

Ion	Ratio	Lower	Upper
131	100		
133	89.3	48.5	145.5
119	70.0	35.6	106.9

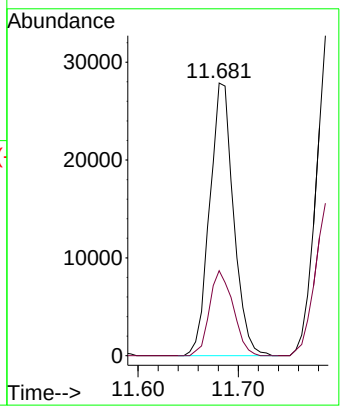




#67
Ethyl Benzene
Concen: 4.586 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 91 Resp: 4616

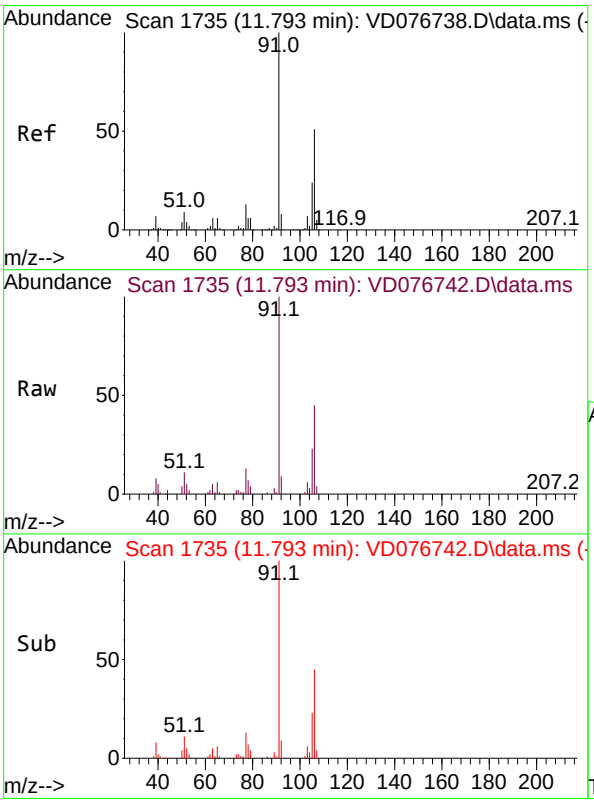
Ion	Ratio	Lower	Upper
91	100		
106	31.1	26.5	39.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

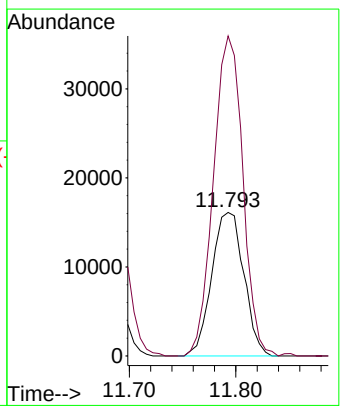
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

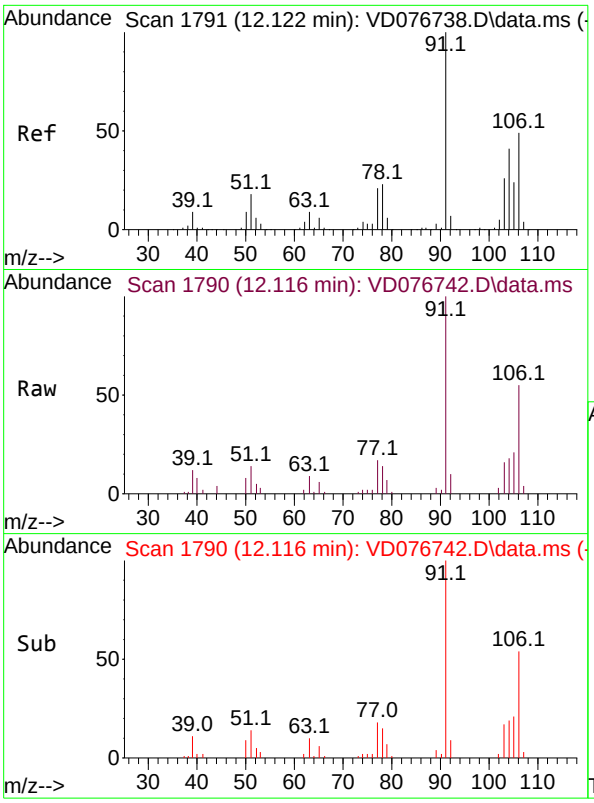


#68
m/p-Xylenes
Concen: 8.727 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:106 Resp: 33741

Ion	Ratio	Lower	Upper
106	100		
91	204.6	147.0	220.6





#69
o-Xylene
Concen: 4.490 ug/l
RT: 12.116 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

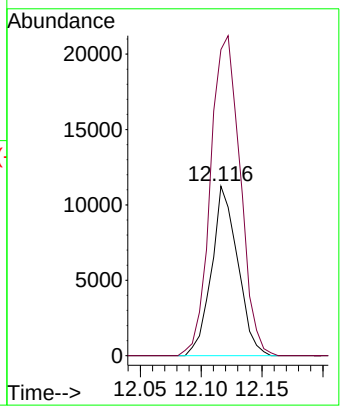
Tgt Ion:106 Resp: 1678

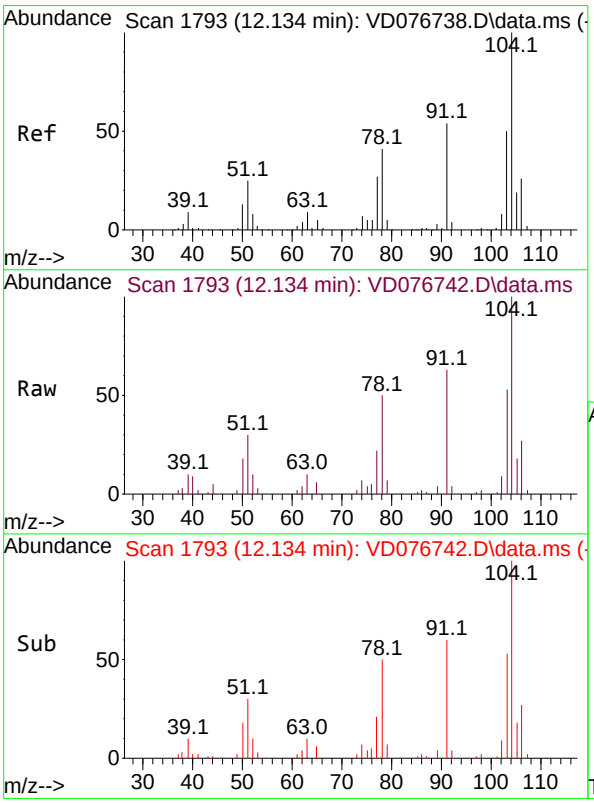
Ion	Ratio	Lower	Upper
106	100		
91	214.5	97.9	293.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

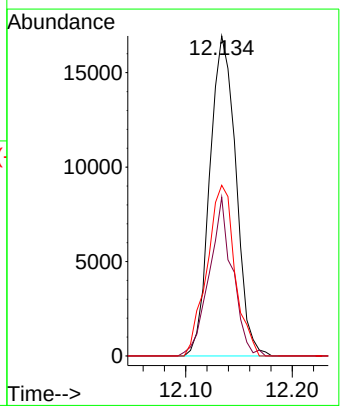


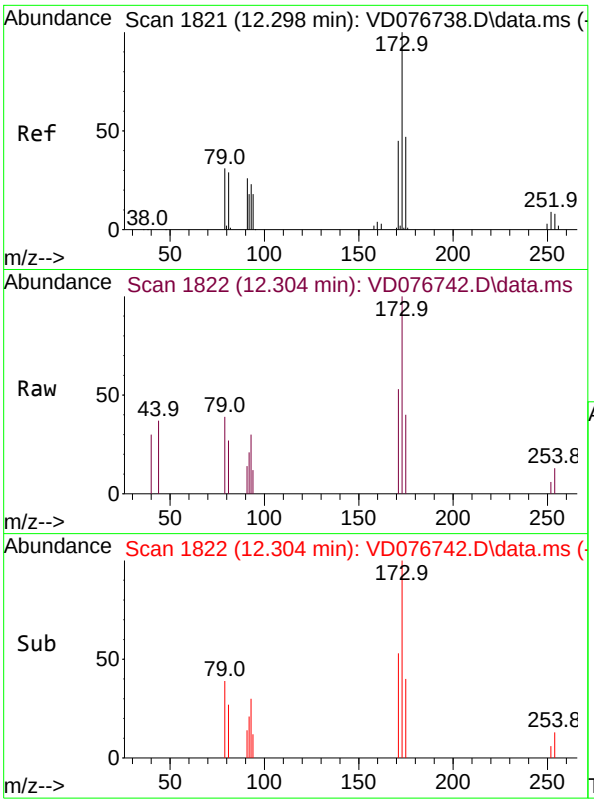


#70
Styrene
Concen: 4.392 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:104 Resp: 28743

Ion	Ratio	Lower	Upper
104	100		
78	44.3	33.2	49.8
103	57.1	43.6	65.4

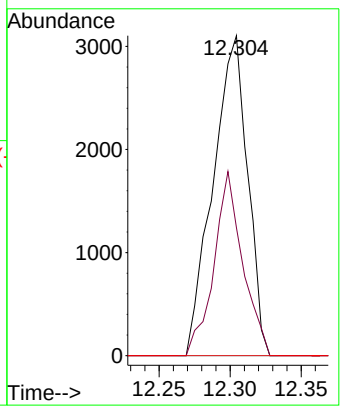




#71
Bromoform
Concen: 4.492 ug/l
RT: 12.304 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:173 Resp: 525

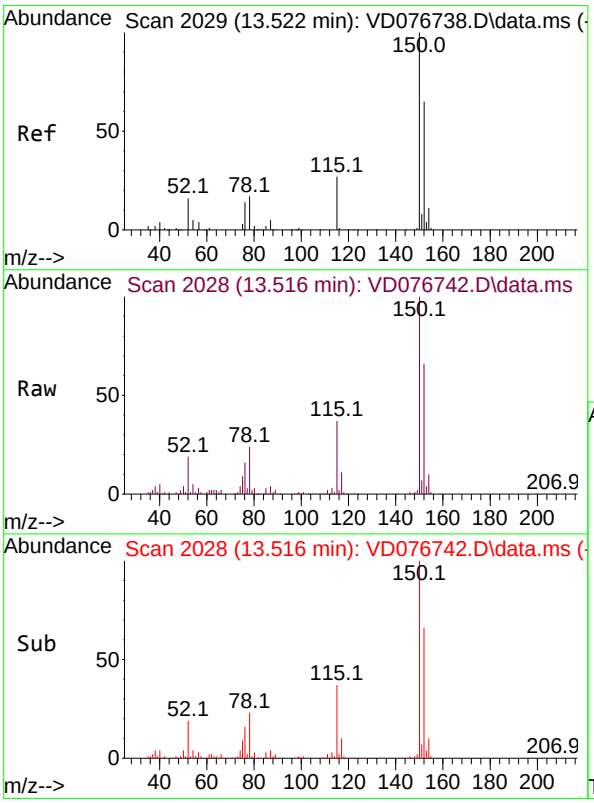
Ion	Ratio	Lower	Upper
173	100		
175	47.8	24.6	73.8
254	0.0	0.0	0.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

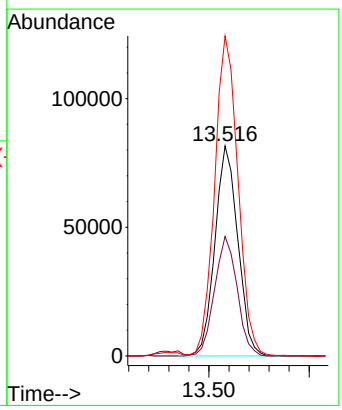
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

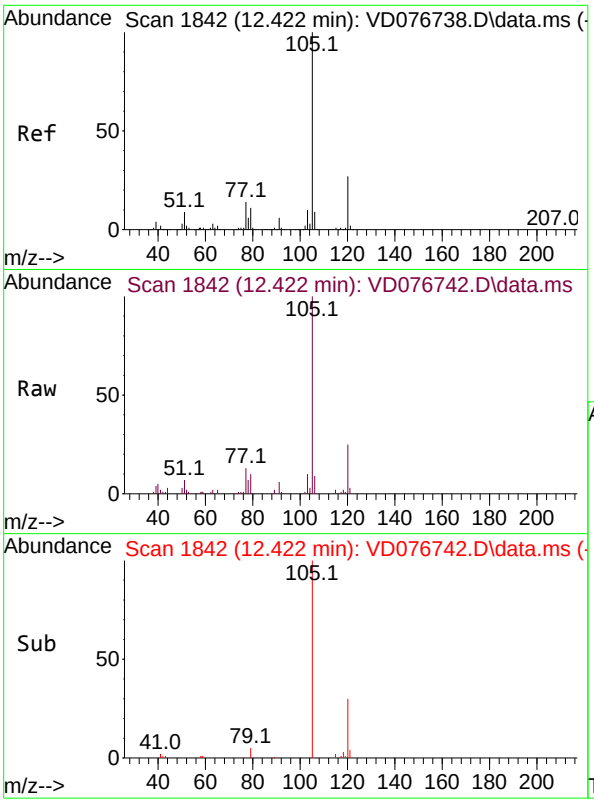


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:152 Resp: 129052

Ion	Ratio	Lower	Upper
152	100		
115	56.2	27.1	81.3
150	155.8	0.0	353.6





#73
Isopropylbenzene
Concen: 4.852 ug/l
RT: 12.422 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

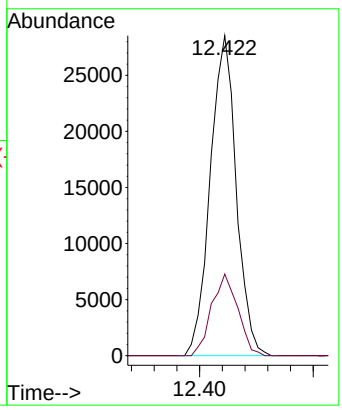
Tgt Ion:105 Resp: 4543

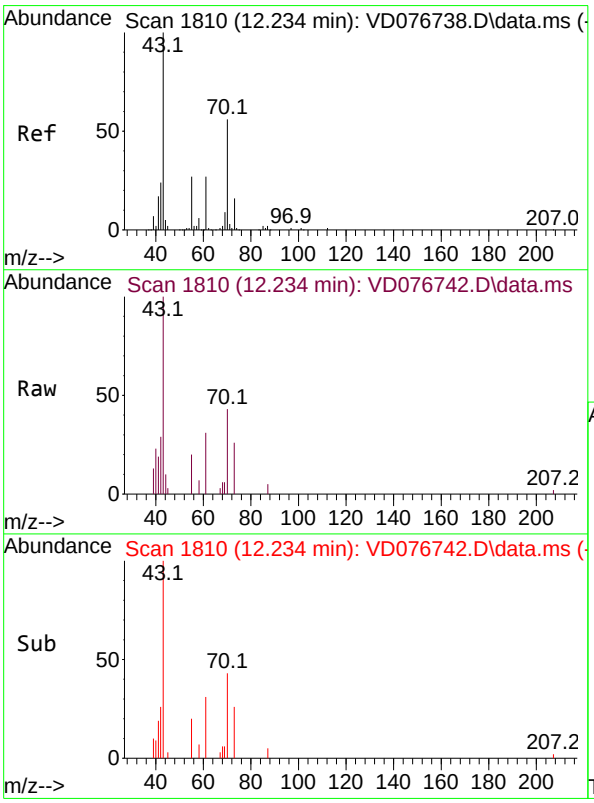
Ion	Ratio	Lower	Upper
105	100		
120	25.7	14.3	42.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

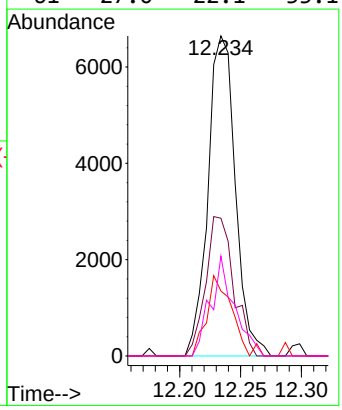


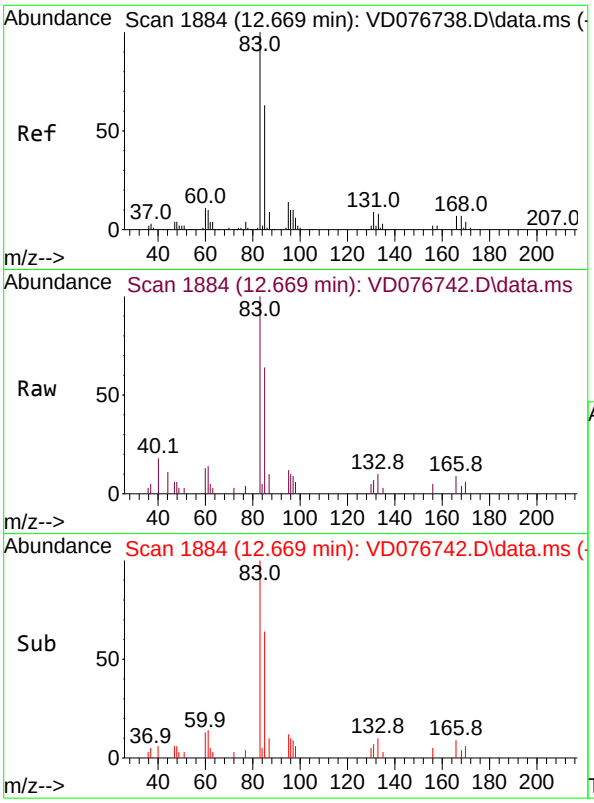


#74
N-amyl acetate
Concen: 5.276 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 43 Resp: 10406

Ion	Ratio	Lower	Upper
43	100		
70	44.2	45.0	67.4#
55	23.1	23.8	35.6#
61	27.0	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 5.270 ug/l
RT: 12.669 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

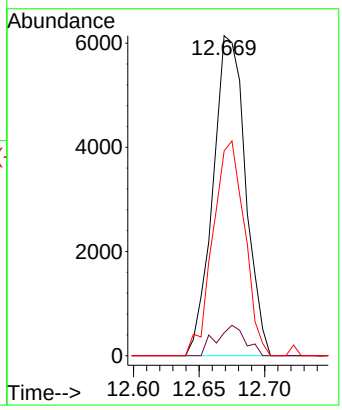
Tgt Ion: 83 Resp: 1059

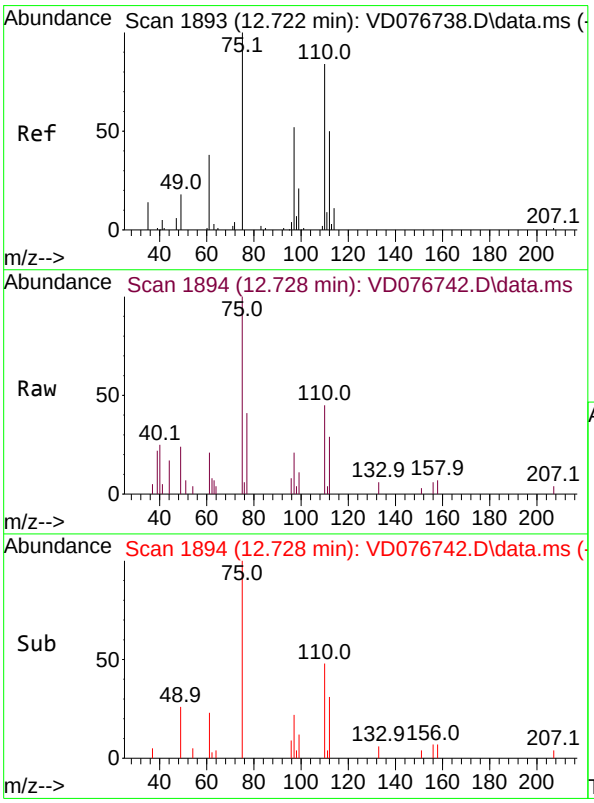
Ion	Ratio	Lower	Upper
83	100		
131	8.6	5.1	15.3
85	65.2	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

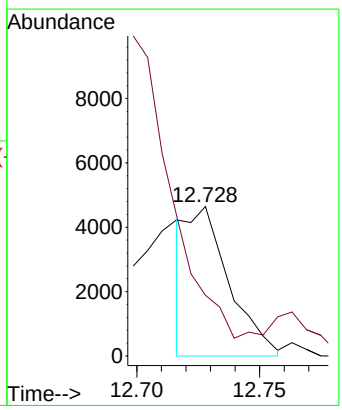


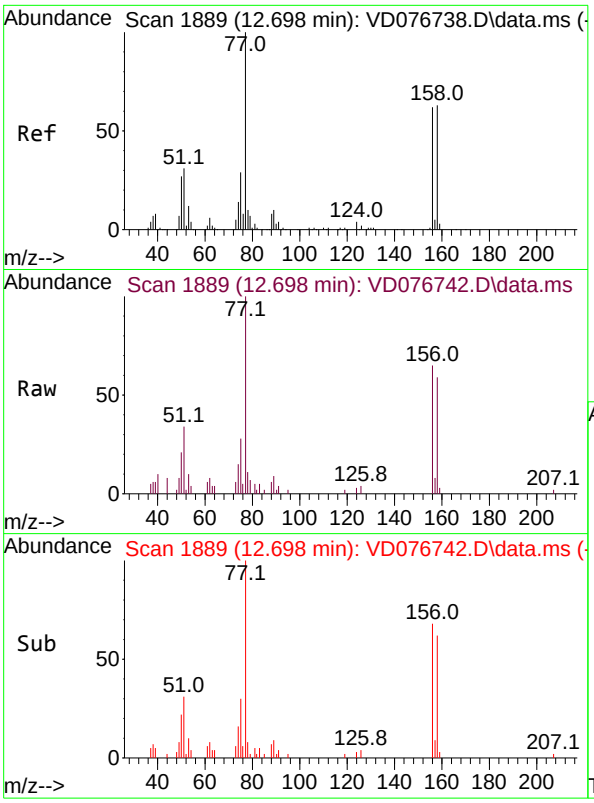


#76
1,2,3-Trichloropropane
Concen: 4.324 ug/l m
RT: 12.728 min Scan# 1894
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 75 Resp: 5545

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 4.921 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

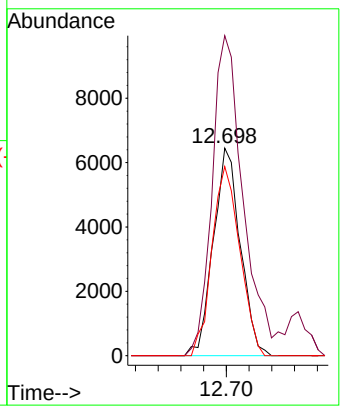
Tgt Ion:156 Resp: 1063

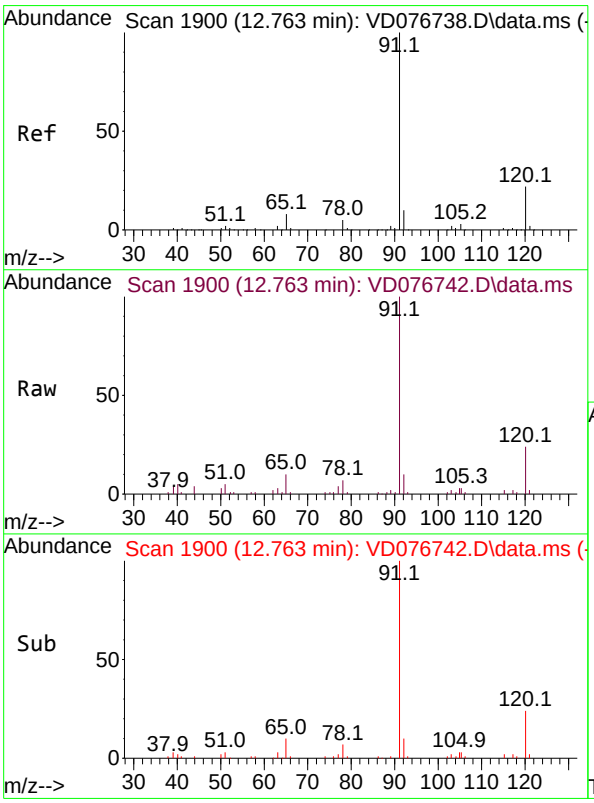
Ion	Ratio	Lower	Upper
156	100		
77	180.8	76.8	230.4
158	94.0	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

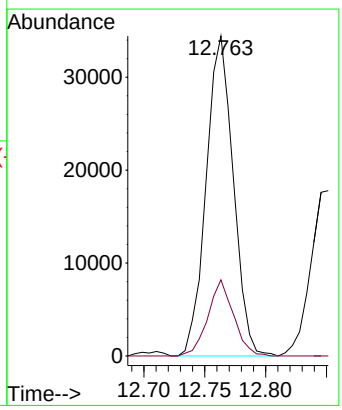


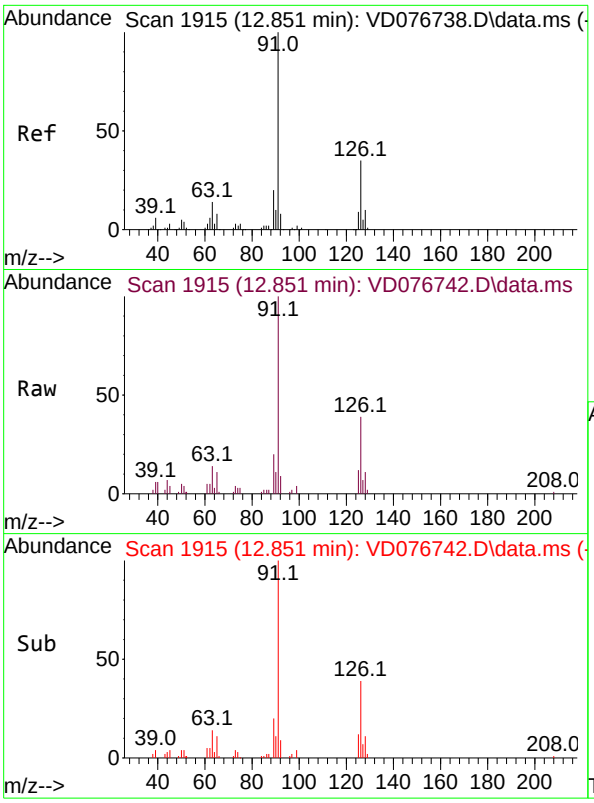


#78
n-propylbenzene
Concen: 4.706 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 91 Resp: 53417

Ion	Ratio	Lower	Upper
91	100		
120	22.4	12.4	37.2

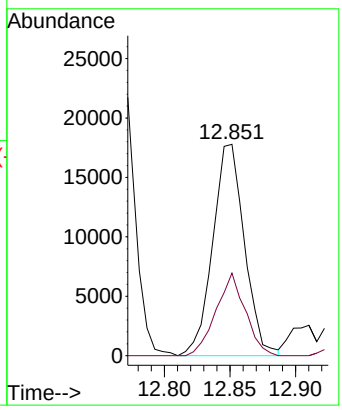




#79
2-Chlorotoluene
Concen: 4.812 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 91 Resp: 2994

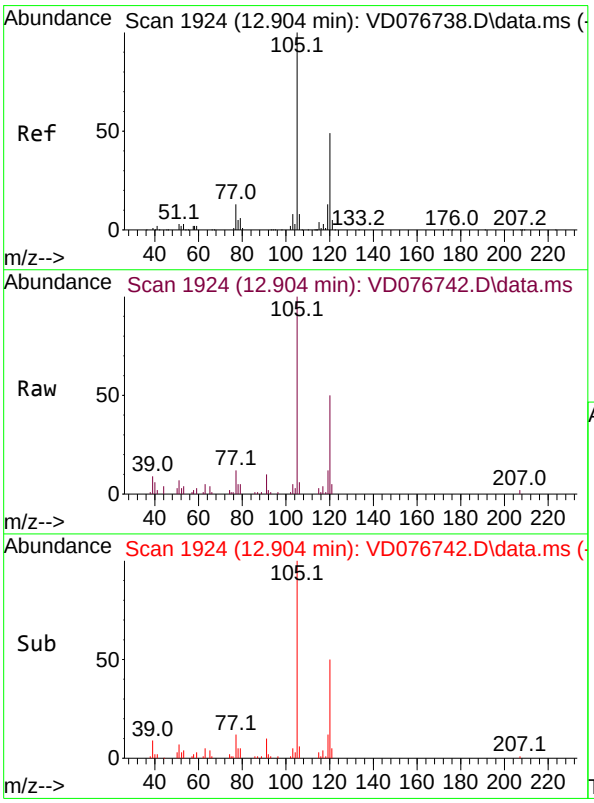
Ion	Ratio	Lower	Upper
91	100		
126	36.0	19.4	58.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

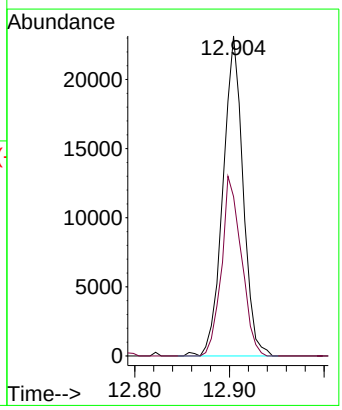
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

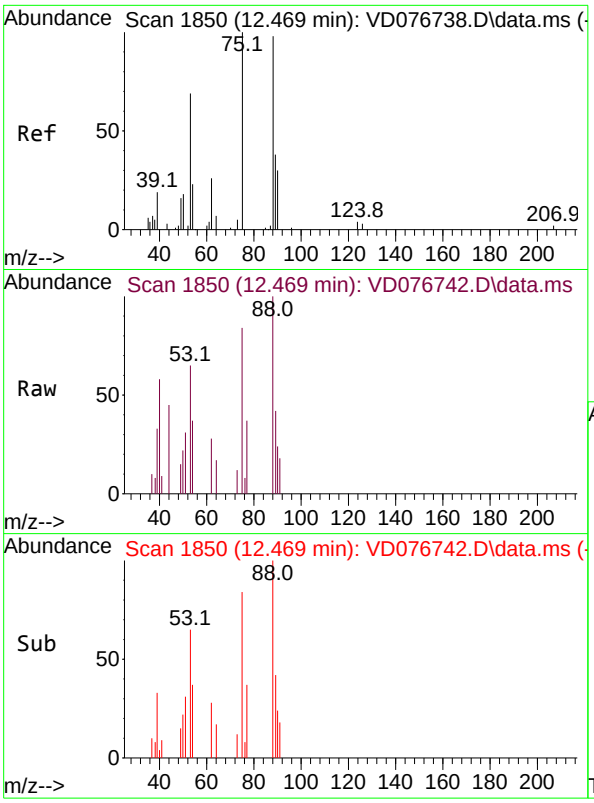


#80
1,3,5-Trimethylbenzene
Concen: 4.502 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:105 Resp: 34084

Ion	Ratio	Lower	Upper
105	100		
120	55.5	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 4.502 ug/l
RT: 12.469 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

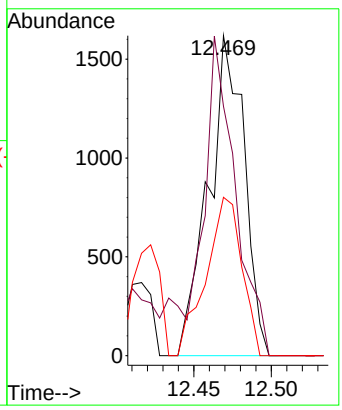
Tgt Ion: 75 Resp: 259

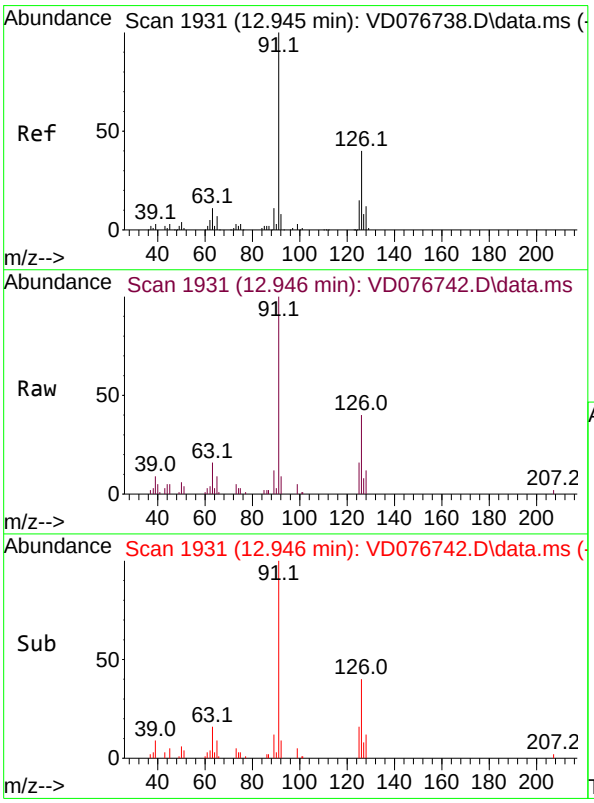
Ion	Ratio	Lower	Upper
75	100		
53	84.6	63.0	94.4
89	49.6	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

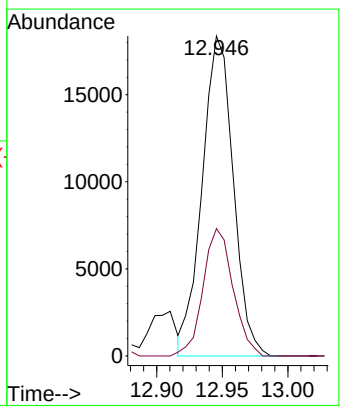


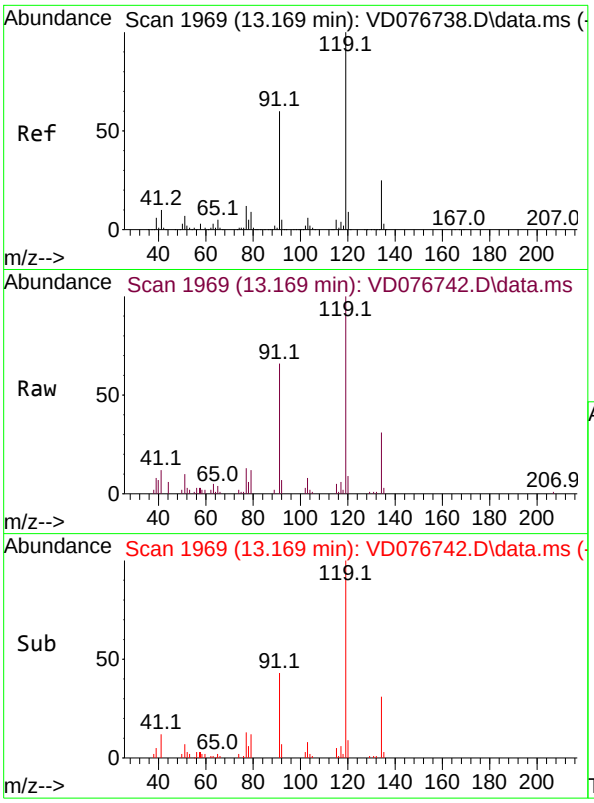


#82
4-Chlorotoluene
Concen: 4.670 ug/l
RT: 12.946 min Scan# 1931
Delta R.T. 0.001 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 91 Resp: 30363

Ion	Ratio	Lower	Upper
91	100		
126	38.3	19.4	58.4

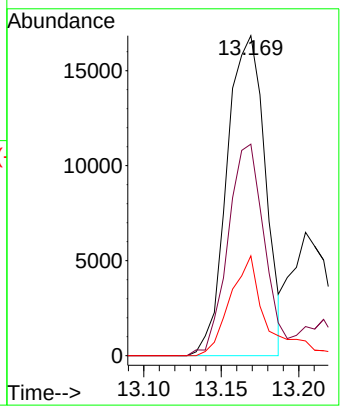




#83
tert-Butylbenzene
Concen: 4.330 ug/l
RT: 13.169 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:119 Resp: 2886

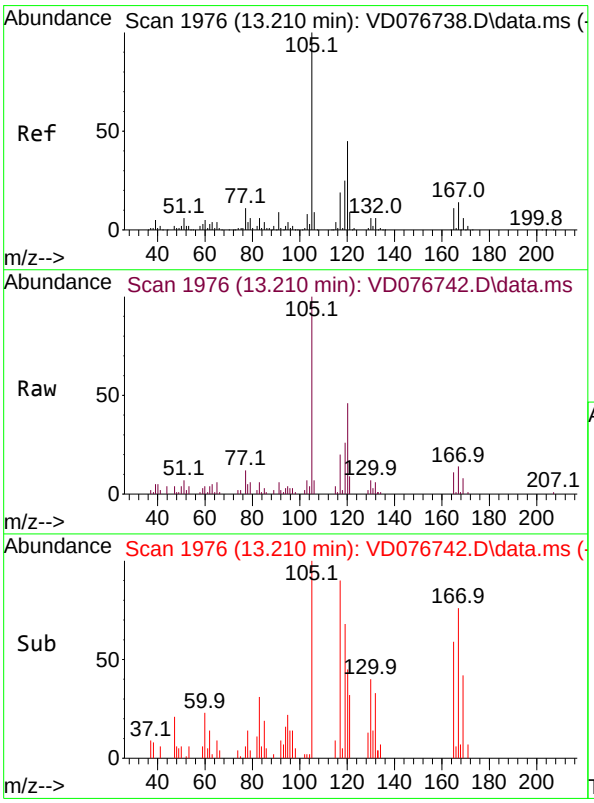
Ion	Ratio	Lower	Upper
119	100		
91	63.2	29.3	87.8
134	29.4	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

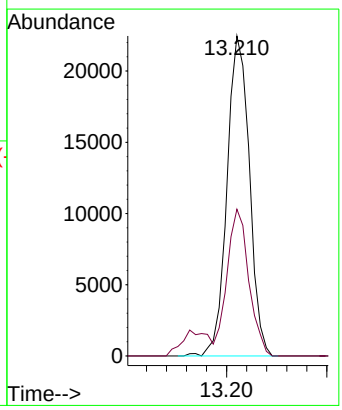
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

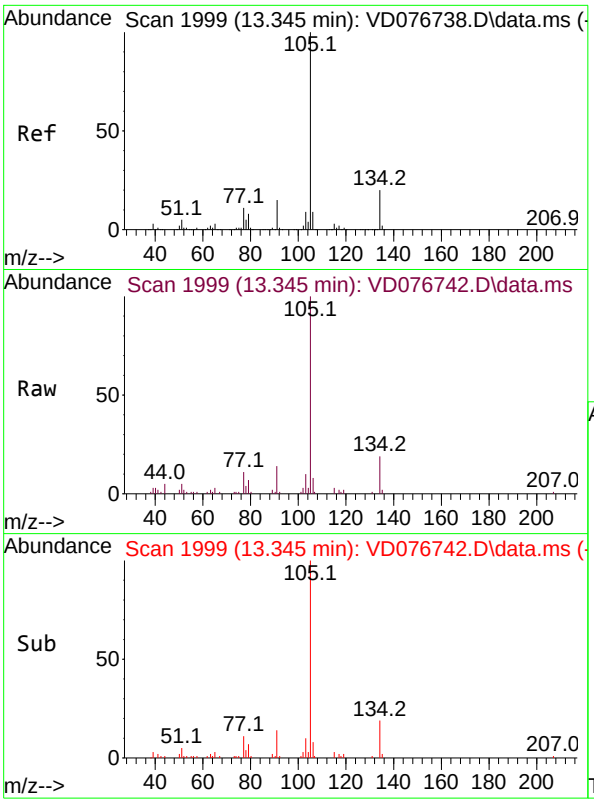


#84
1,2,4-Trimethylbenzene
Concen: 4.501 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:105 Resp: 34826

Ion	Ratio	Lower	Upper
105	100		
120	44.8	24.3	72.9

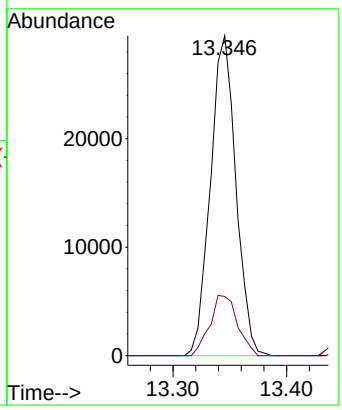




#85
sec-Butylbenzene
Concen: 4.511 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:105 Resp: 4593

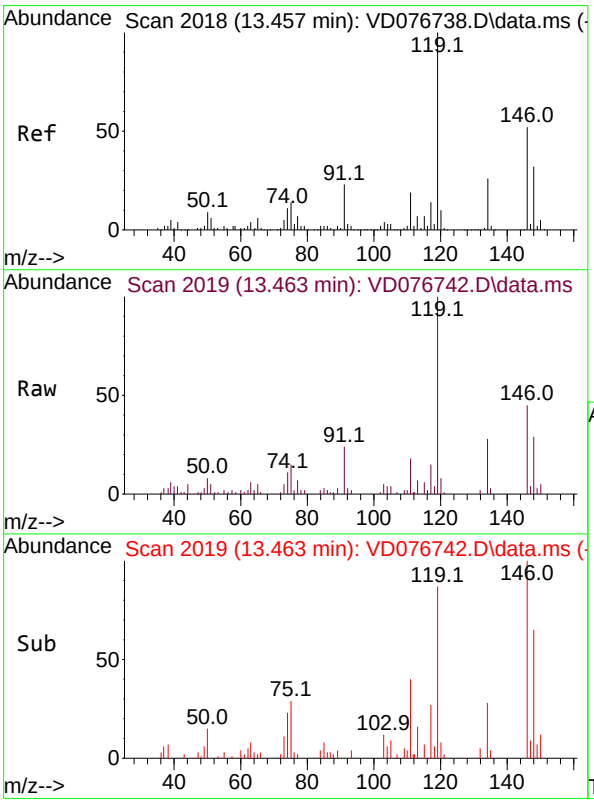
Ion	Ratio	Lower	Upper
105	100		
134	20.4	10.9	32.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

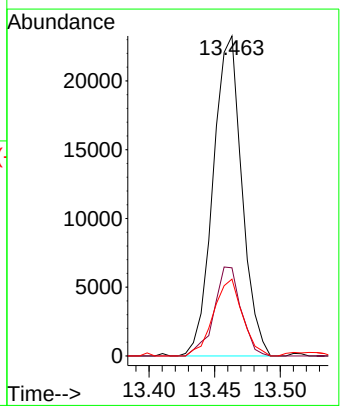
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

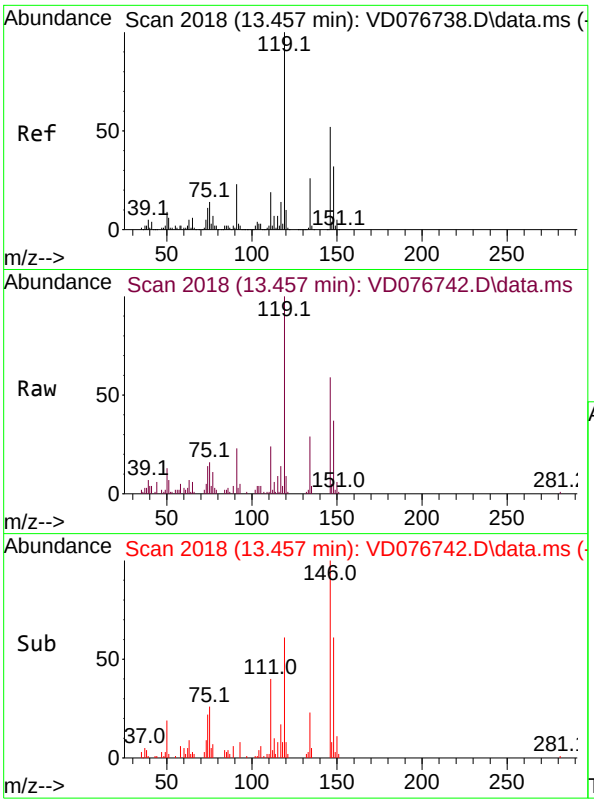


#86
p-Isopropyltoluene
Concen: 4.218 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:119 Resp: 35479

Ion	Ratio	Lower	Upper
119	100		
134	26.0	14.2	42.6
91	24.2	10.5	31.5

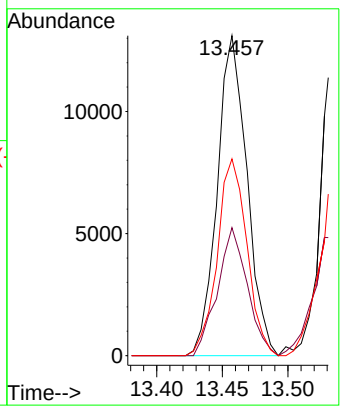




#87
1,3-Dichlorobenzene
Concen: 4.637 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:146 Resp: 2061

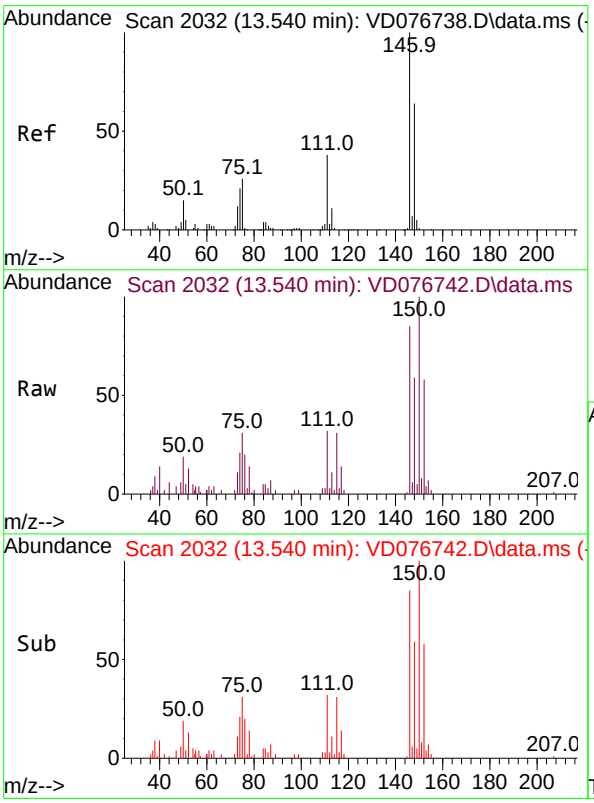
Ion	Ratio	Lower	Upper
146	100		
111	40.3	17.9	53.8
148	61.5	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

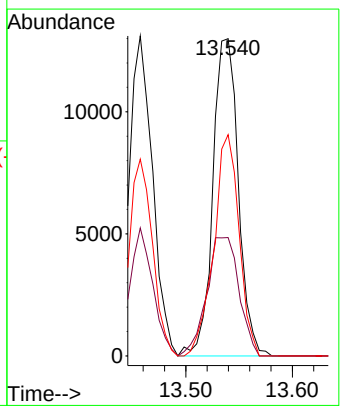
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

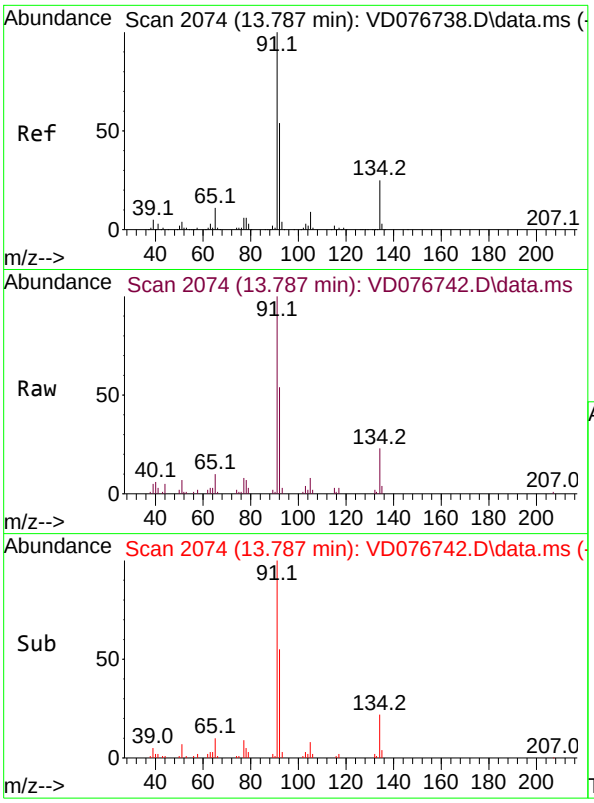


#88
1,4-Dichlorobenzene
Concen: 4.946 ug/l
RT: 13.540 min Scan# 2032
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:146 Resp: 21541

Ion	Ratio	Lower	Upper
146	100		
111	47.4	17.4	52.3
148	69.3	31.7	95.1

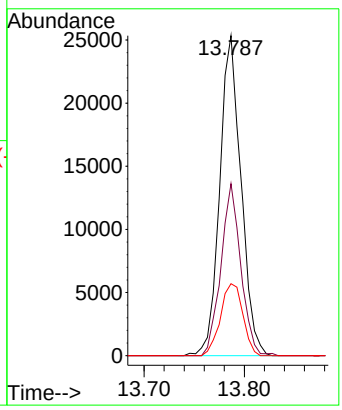




#89
n-Butylbenzene
Concen: 4.541 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 91 Resp: 3737

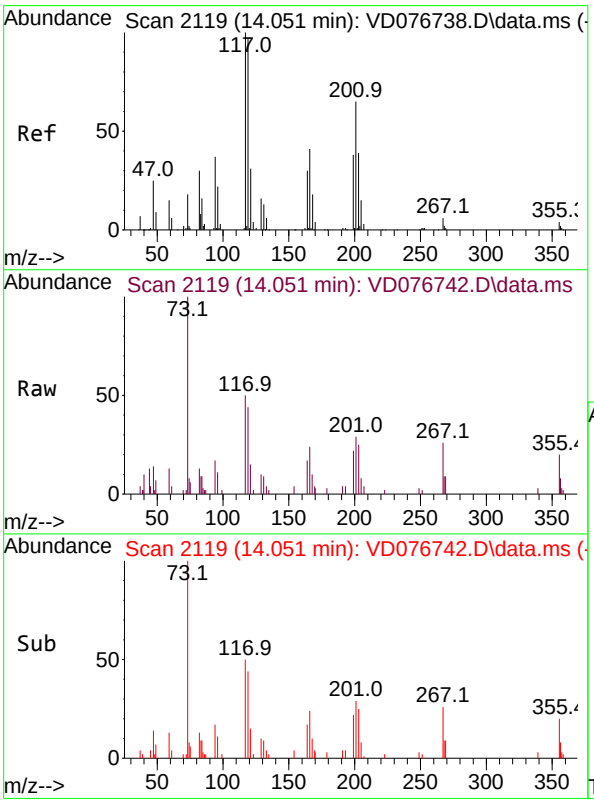
Ion	Ratio	Lower	Upper
91	100		
92	50.1	26.5	79.5
134	23.7	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

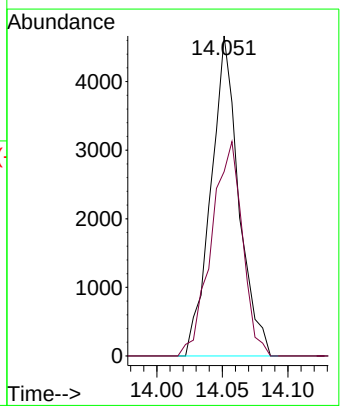
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

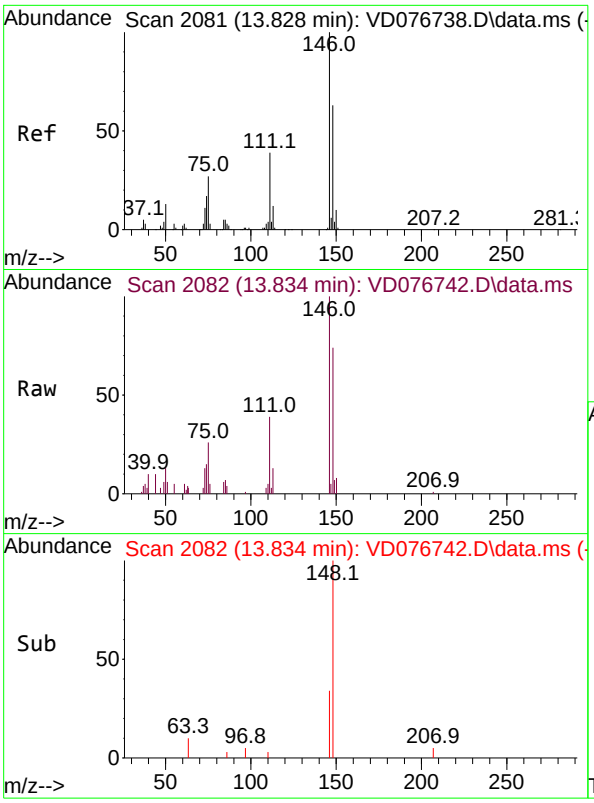


#90
Hexachloroethane
Concen: 4.428 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:117 Resp: 6886

Ion	Ratio	Lower	Upper
117	100		
201	74.8	38.5	115.5

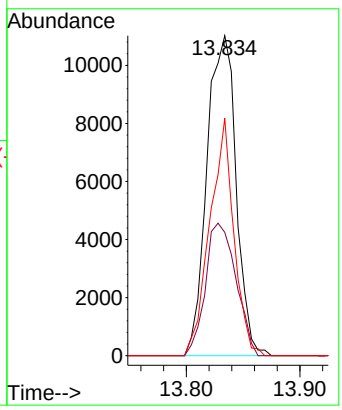




#91
1,2-Dichlorobenzene
Concen: 5.010 ug/l
RT: 13.834 min Scan# 2
Delta R.T. 0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:146 Resp: 1962

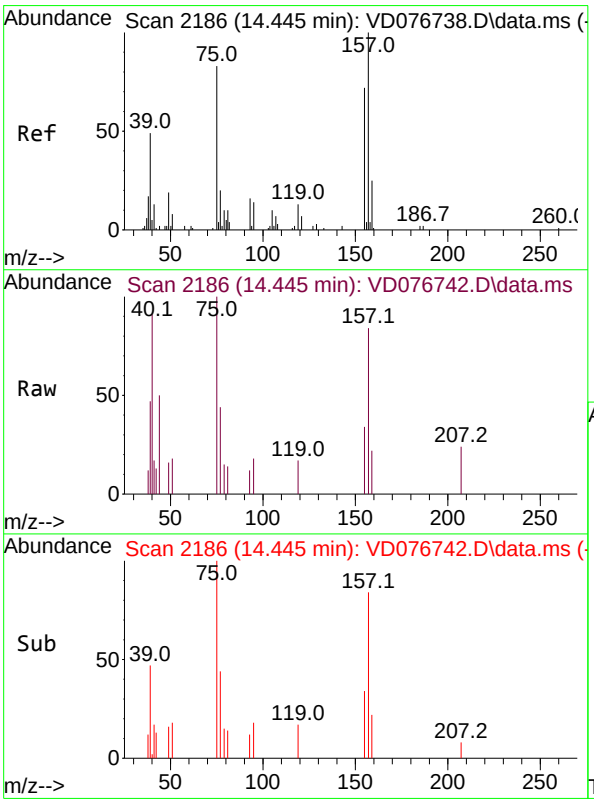
Ion	Ratio	Lower	Upper
146	100		
111	43.4	18.3	54.8
148	61.4	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

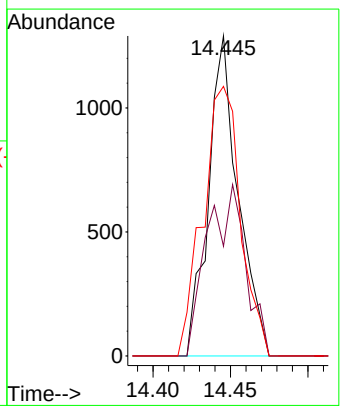
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

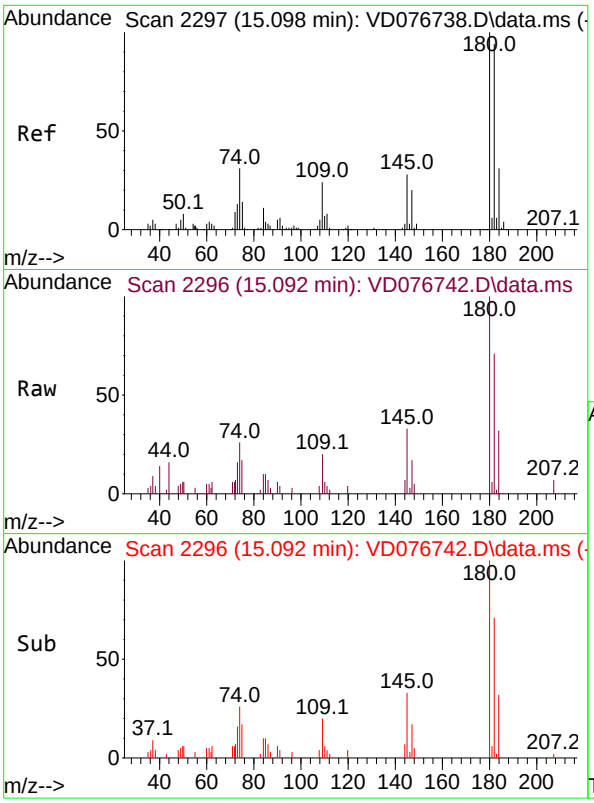


#92
1,2-Dibromo-3-Chloropropane
Concen: 6.015 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion: 75 Resp: 1724

Ion	Ratio	Lower	Upper
75	100		
155	68.9	47.9	143.8
157	106.4	59.9	179.7

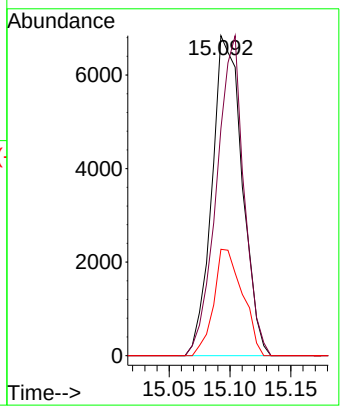




#93
1,2,4-Trichlorobenzene
Concen: 4.952 ug/l
RT: 15.092 min Scan# 2
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:180 Resp: 1184

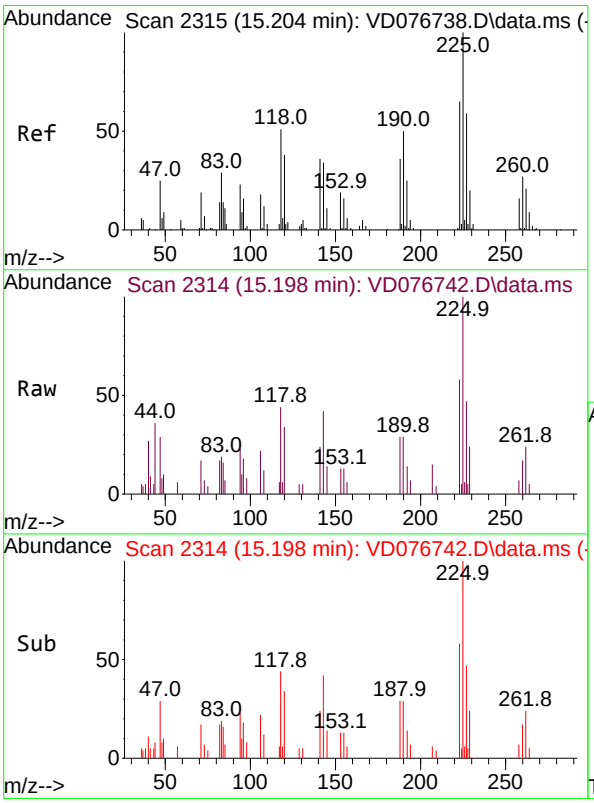
Ion	Ratio	Lower	Upper
180	100		
182	90.5	48.5	145.6
145	31.8	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

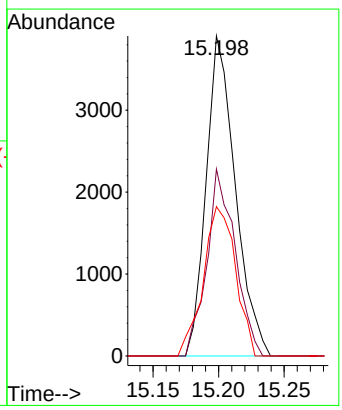
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

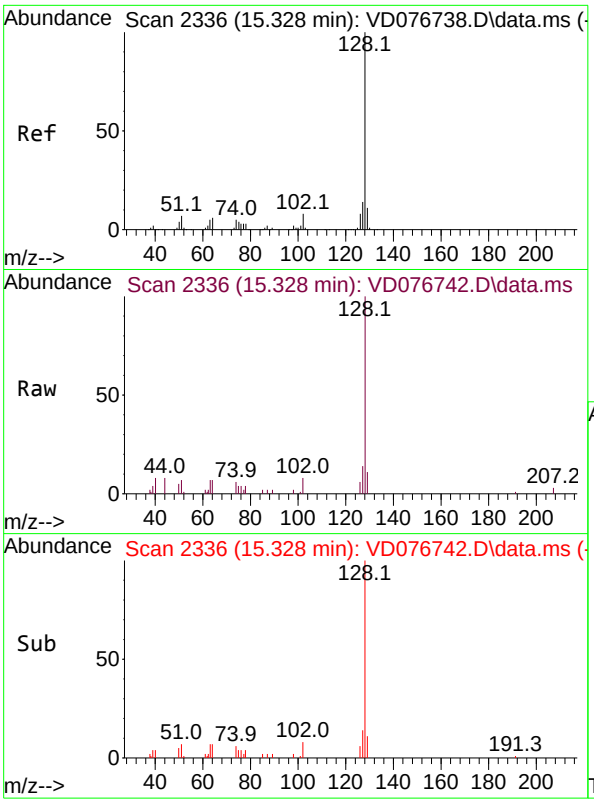


#94
Hexachlorobutadiene
Concen: 5.253 ug/l
RT: 15.198 min Scan# 2314
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:225 Resp: 6041

Ion	Ratio	Lower	Upper
225	100		
223	56.6	31.6	94.8
227	51.6	31.7	95.1

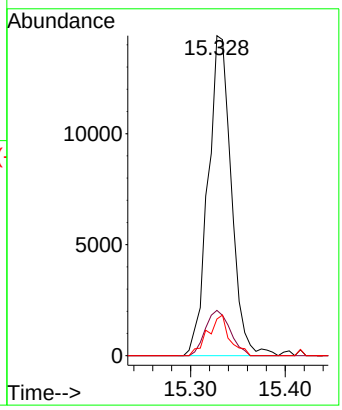




#95
Naphthalene
Concen: 4.755 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:128 Resp: 2461

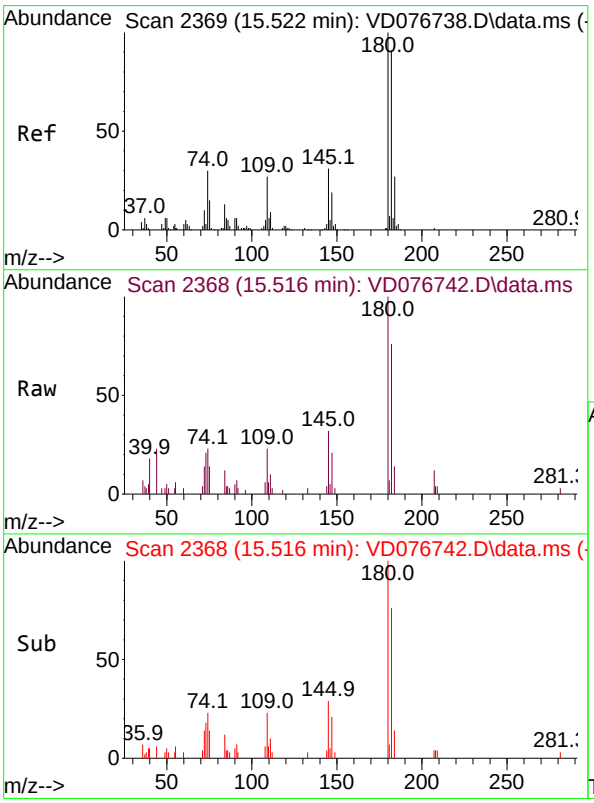
Ion	Ratio	Lower	Upper
128	100		
127	14.1	10.5	15.7
129	11.4	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

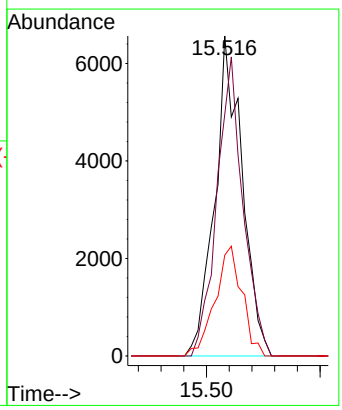
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023



#96
1,2,3-Trichlorobenzene
Concen: 5.124 ug/l
RT: 15.516 min Scan# 2368
Delta R.T. -0.006 min
Lab File: VD076742.D
Acq: 14 Jul 2023 15:57

Tgt Ion:180 Resp: 10995

Ion	Ratio	Lower	Upper
180	100		
182	89.1	47.3	141.9
145	33.9	15.1	45.3



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	184182	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	335070	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	314858	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	151537	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.222	65	91720	49.997	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 100.000%			
35) Dibromofluoromethane	7.799	113	105920	50.304	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 100.600%			
50) Toluene-d8	10.269	98	364811	48.431	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 96.860%			
62) 4-Bromofluorobenzene	12.575	95	121269	49.766	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 99.540%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	73633	51.124	ug/l	99
3) Chloromethane	2.146	50	127626	51.368	ug/l	97
4) Vinyl Chloride	2.275	62	165777	50.054	ug/l	100
5) Bromomethane	2.675	94	115809	42.499	ug/l	100
6) Chloroethane	2.822	64	124110	49.633	ug/l	99
7) Trichlorofluoromethane	3.158	101	149229	50.638	ug/l	95
8) Diethyl Ether	3.587	74	53357	52.587	ug/l	91
9) 1,1,2-Trichlorotrifluo...	3.958	101	100460	51.859	ug/l	96
10) Methyl Iodide	4.152	142	104407	47.812	ug/l	92
11) Tert butyl alcohol	5.058	59	36819	268.961	ug/l #	94
12) 1,1-Dichloroethene	3.928	96	89815	49.349	ug/l	84
13) Acrolein	3.787	56	23485	251.747	ug/l	95
14) Allyl chloride	4.546	41	119538	49.998	ug/l	92
15) Acrylonitrile	5.246	53	128751	258.359	ug/l	99
16) Acetone	4.017	43	112257	256.224	ug/l	94
17) Carbon Disulfide	4.258	76	213383	50.198	ug/l	96
18) Methyl Acetate	4.558	43	85740	52.088	ug/l	97
19) Methyl tert-butyl Ether	5.311	73	256091	52.470	ug/l	97
20) Methylene Chloride	4.793	84	136468	52.910	ug/l	93
21) trans-1,2-Dichloroethene	5.299	96	106390	50.289	ug/l	97
22) Diisopropyl ether	6.211	45	292965	51.747	ug/l	97
23) Vinyl Acetate	6.146	43	739502m	263.991	ug/l	
24) 1,1-Dichloroethane	6.105	63	192916	50.539	ug/l	98
25) 2-Butanone	7.075	43	156969	267.702	ug/l #	81
26) 2,2-Dichloropropane	7.069	77	168599	51.238	ug/l	96
27) cis-1,2-Dichloroethene	7.069	96	135285	51.873	ug/l	97
28) Bromochloromethane	7.416	49	48458	50.776	ug/l	83
29) Tetrahydrofuran	7.446	42	92168	266.042	ug/l	90
30) Chloroform	7.593	83	214040	51.195	ug/l	99
31) Cyclohexane	7.869	56	131787	48.813	ug/l	92
32) 1,1,1-Trichloroethane	7.787	97	174902	51.850	ug/l	98
36) 1,1-Dichloropropene	8.005	75	143663	52.214	ug/l	97
37) Ethyl Acetate	7.163	43	66780	54.272	ug/l	96
38) Carbon Tetrachloride	7.987	117	141475	53.700	ug/l	97
39) Methylcyclohexane	9.269	83	170750	53.746	ug/l	97
40) Benzene	8.246	78	443211	51.052	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.399	41	39424	52.467 ug/l	#	87
42) 1,2-Dichloroethane	8.322	62	120282	53.323 ug/l		98
43) Isopropyl Acetate	8.357	43	128618	53.560 ug/l		92
44) Trichloroethene	9.028	130	116315	49.167 ug/l		87
45) 1,2-Dichloropropane	9.304	63	114192	50.956 ug/l		93
46) Dibromomethane	9.393	93	69407	52.912 ug/l		90
47) Bromodichloromethane	9.581	83	168509	51.191 ug/l		98
48) Methyl methacrylate	9.375	41	56026	51.261 ug/l		84
49) 1,4-Dioxane	9.381	88	17032	1013.431 ug/l		92
51) 4-Methyl-2-Pentanone	10.157	43	345728	270.400 ug/l		93
52) Toluene	10.334	92	293836	51.533 ug/l		95
53) t-1,3-Dichloropropene	10.551	75	162286	53.115 ug/l		99
54) cis-1,3-Dichloropropene	10.016	75	188144	52.249 ug/l	#	90
55) 1,1,2-Trichloroethane	10.734	97	100246	52.334 ug/l		98
56) Ethyl methacrylate	10.599	69	118686	53.683 ug/l		92
57) 1,3-Dichloropropane	10.875	76	159906	51.261 ug/l		100
58) 2-Chloroethyl Vinyl ether	9.869	63	215418	251.723 ug/l		97
59) 2-Hexanone	10.922	43	246844	270.567 ug/l		92
60) Dibromochloromethane	11.075	129	116216	52.227 ug/l		96
61) 1,2-Dibromoethane	11.175	107	92591	52.138 ug/l		98
64) Tetrachloroethene	10.810	164	91766	51.112 ug/l		89
65) Chlorobenzene	11.604	112	326760	51.601 ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.681	131	120484	51.104 ug/l		98
67) Ethyl Benzene	11.681	91	568167	51.089 ug/l		97
68) m/p-Xylenes	11.793	106	440666	103.173 ug/l		92
69) o-Xylene	12.122	106	212228	51.384 ug/l		92
70) Styrene	12.134	104	375643	51.954 ug/l		97
71) Bromoform	12.298	173	67403	52.201 ug/l	#	99
73) Isopropylbenzene	12.422	105	551823	50.192 ug/l		97
74) N-amyl acetate	12.234	43	119541	51.611 ug/l		96
75) 1,1,2,2-Tetrachloroethane	12.675	83	118953	50.392 ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	76429m	53.035 ug/l		
77) Bromobenzene	12.698	156	123777	48.774 ug/l		84
78) n-propylbenzene	12.763	91	681024	51.095 ug/l		95
79) 2-Chlorotoluene	12.851	91	373533	51.112 ug/l		94
80) 1,3,5-Trimethylbenzene	12.904	105	456230	51.320 ug/l		95
81) trans-1,4-Dichloro-2-b...	12.469	75	35251	52.060 ug/l		97
82) 4-Chlorotoluene	12.945	91	388242	50.852 ug/l		96
83) tert-Butylbenzene	13.163	119	399219	51.002 ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	460375	50.677 ug/l		96
85) sec-Butylbenzene	13.345	105	605482	50.630 ug/l		95
86) p-Isopropyltoluene	13.457	119	501199	50.746 ug/l		95
87) 1,3-Dichlorobenzene	13.457	146	264230	50.621 ug/l		97
88) 1,4-Dichlorobenzene	13.540	146	257954	50.441 ug/l		97
89) n-Butylbenzene	13.787	91	492006	50.908 ug/l		98
90) Hexachloroethane	14.051	117	98222	53.792 ug/l		83
91) 1,2-Dichlorobenzene	13.828	146	228866	49.759 ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.445	75	16253	48.289 ug/l		96
93) 1,2,4-Trichlorobenzene	15.098	180	142290	50.673 ug/l		98
94) Hexachlorobutadiene	15.198	225	64343	47.645 ug/l		98
95) Naphthalene	15.328	128	308931	50.811 ug/l		98
96) 1,2,3-Trichlorobenzene	15.522	180	130076	51.621 ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

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

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

ICAL Form

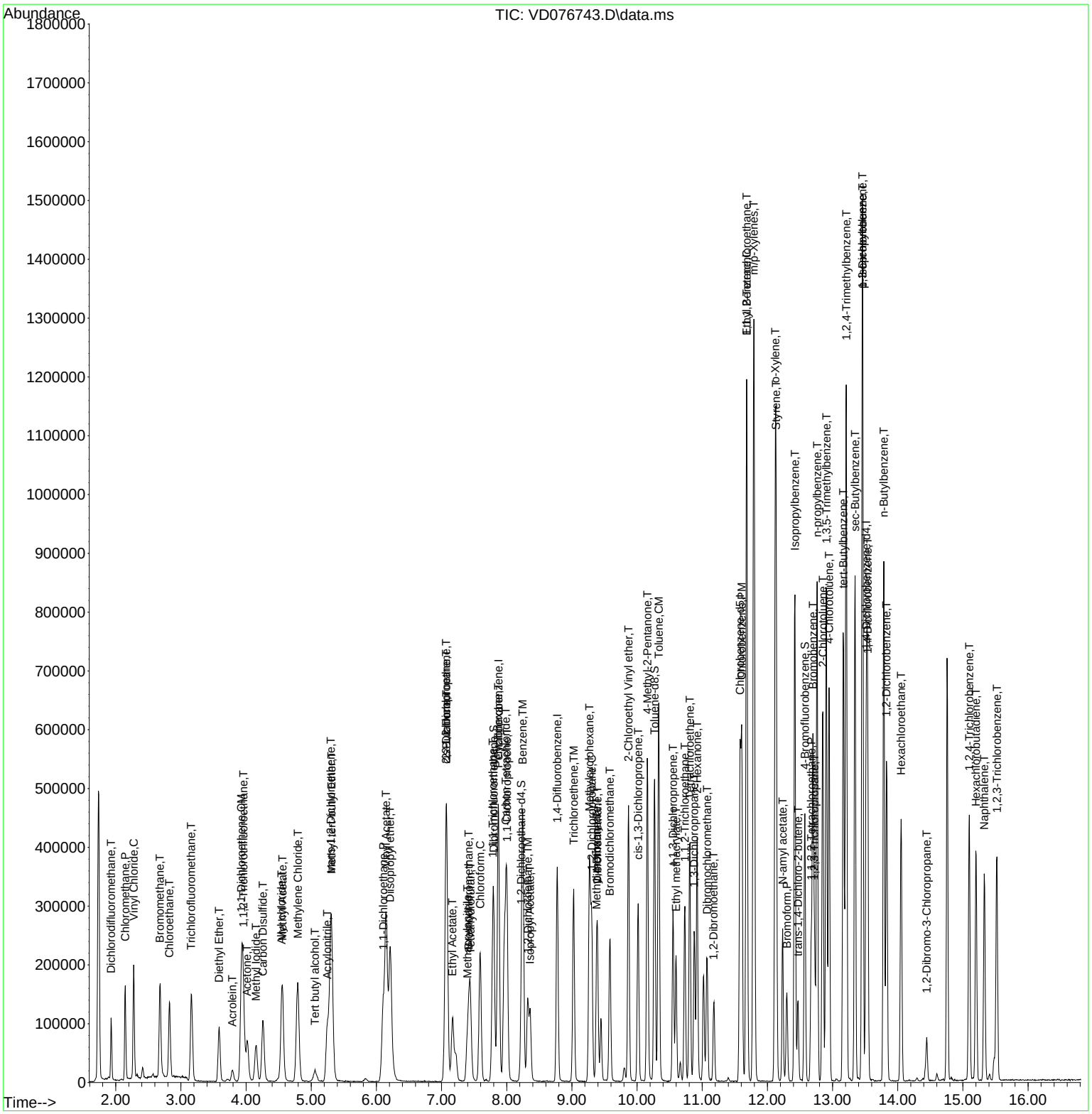
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

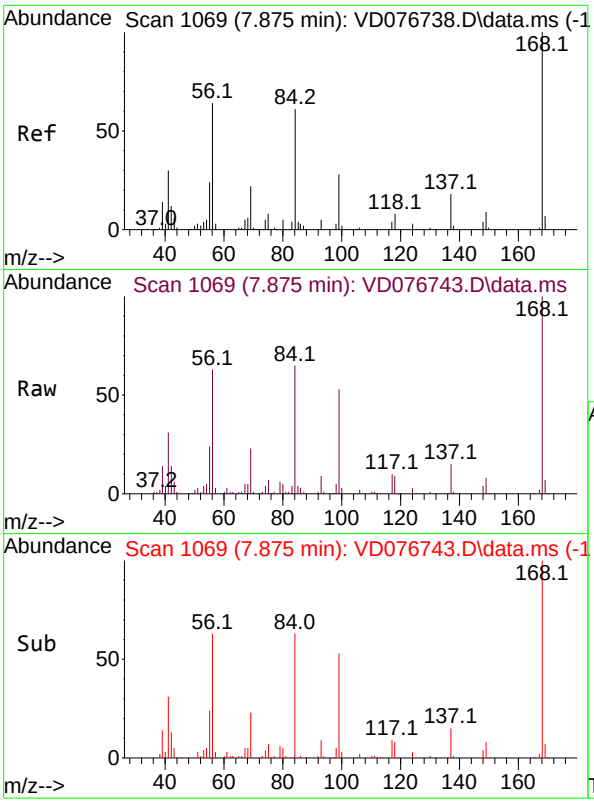
Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

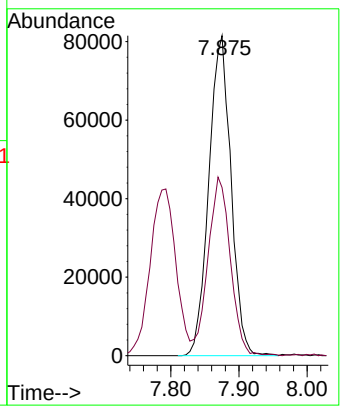




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:168 Resp: 18418

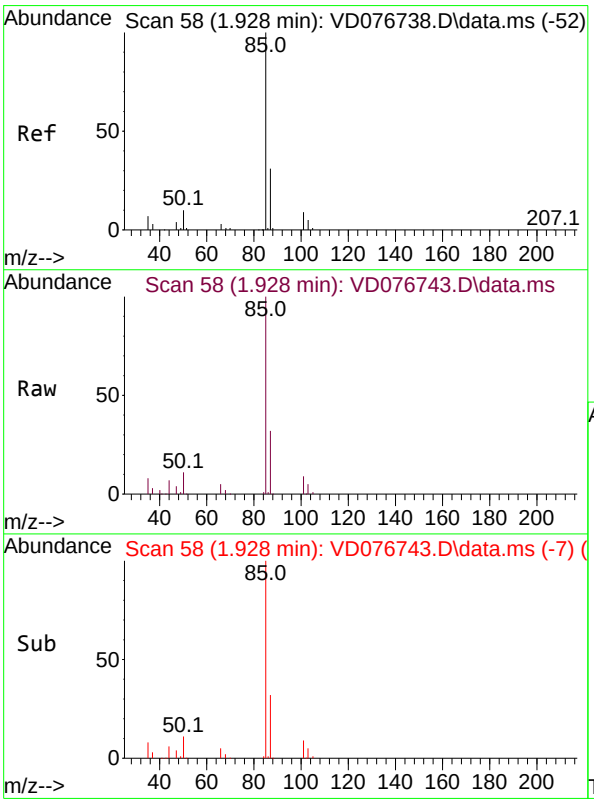
Ion	Ratio	Lower	Upper
168	100		
99	52.3	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

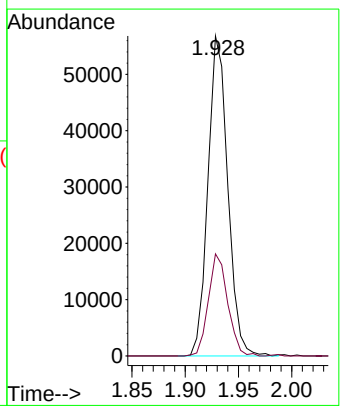
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

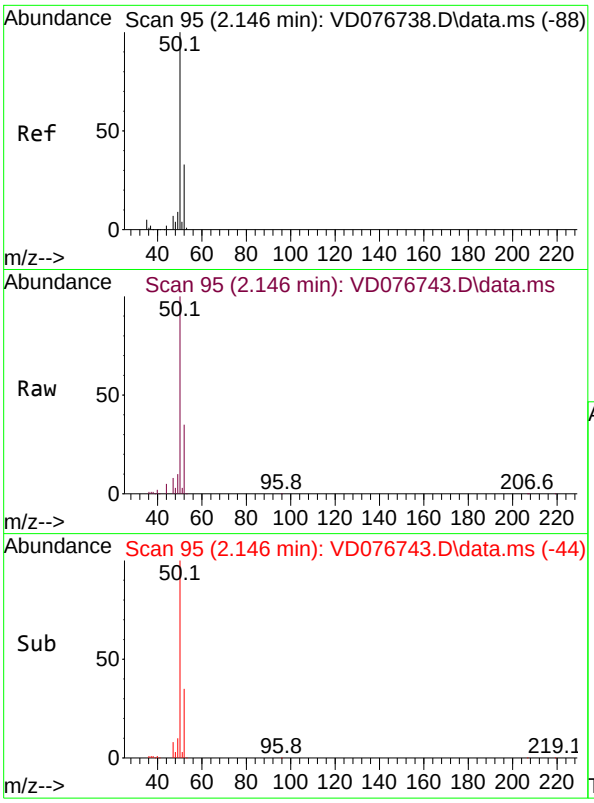


#2
Dichlorodifluoromethane
Concen: 51.124 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 85 Resp: 73633

Ion	Ratio	Lower	Upper
85	100		
87	31.9	15.7	47.0





#3
Chloromethane
Concen: 51.368 ug/l
RT: 2.146 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

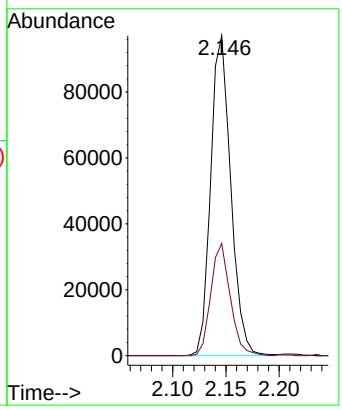
Tgt Ion: 50 Resp: 12762

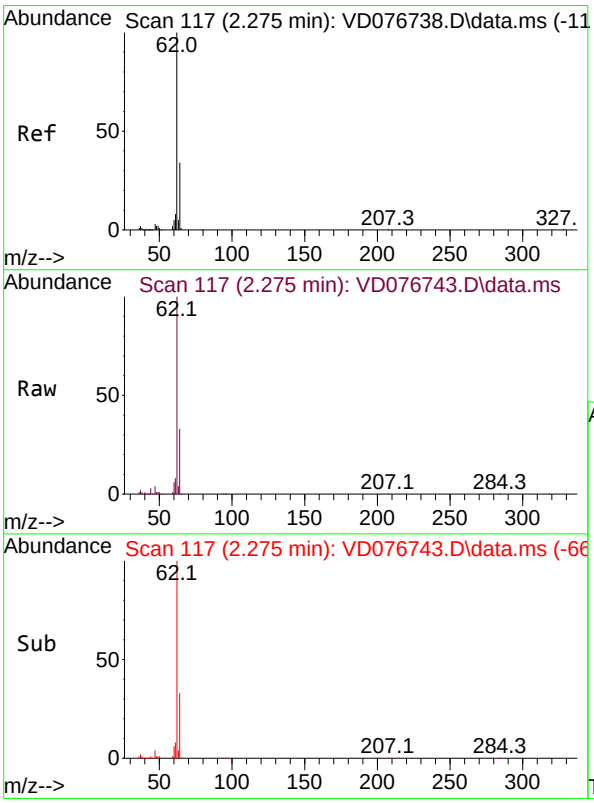
Ion	Ratio	Lower	Upper
50	100		
52	35.1	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

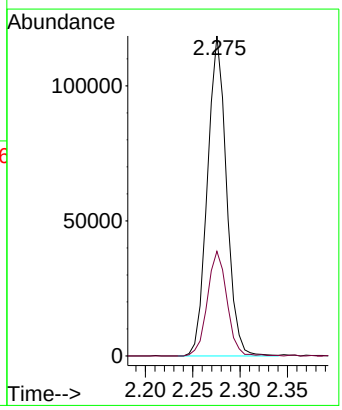


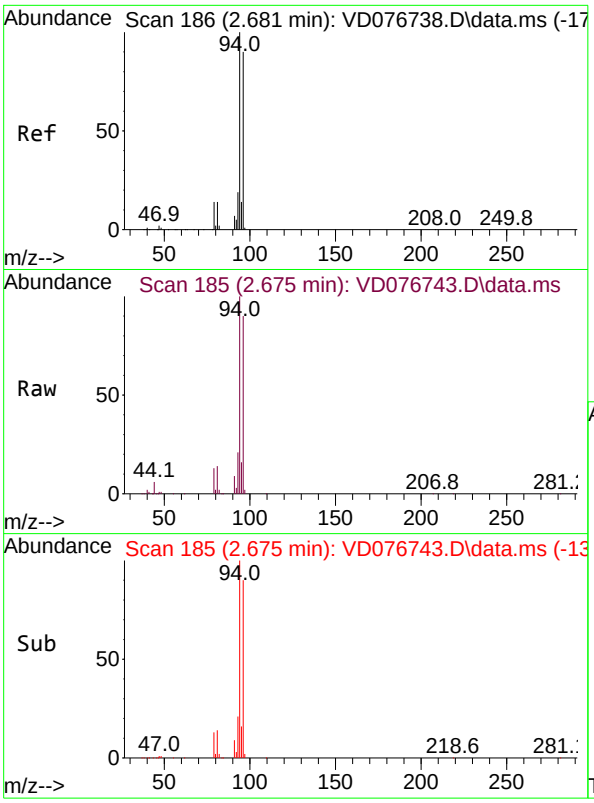


#4
Vinyl Chloride
Concen: 50.054 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 62 Resp: 165777

Ion	Ratio	Lower	Upper
62	100		
64	32.7	26.0	39.0





#5
Bromomethane
Concen: 42.499 ug/l
RT: 2.675 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

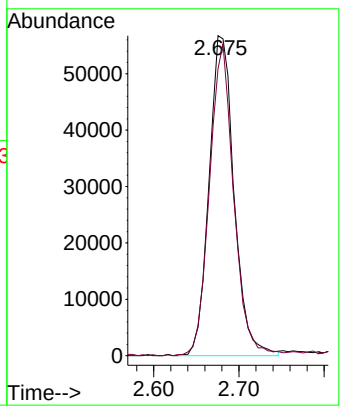
Tgt Ion: 94 Resp: 11580

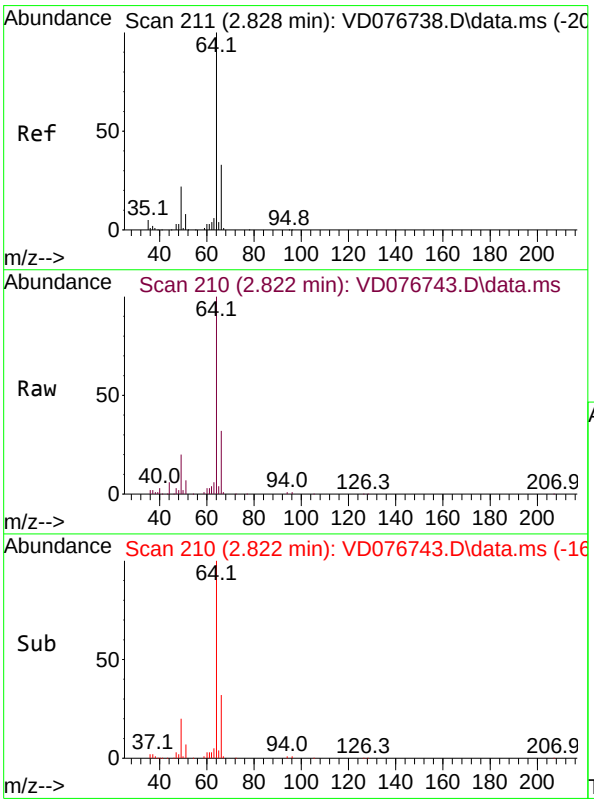
Ion	Ratio	Lower	Upper
94	100		
96	94.3	75.8	113.8

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

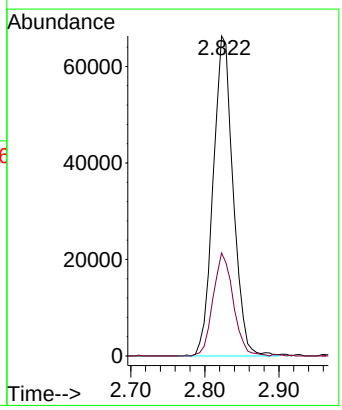


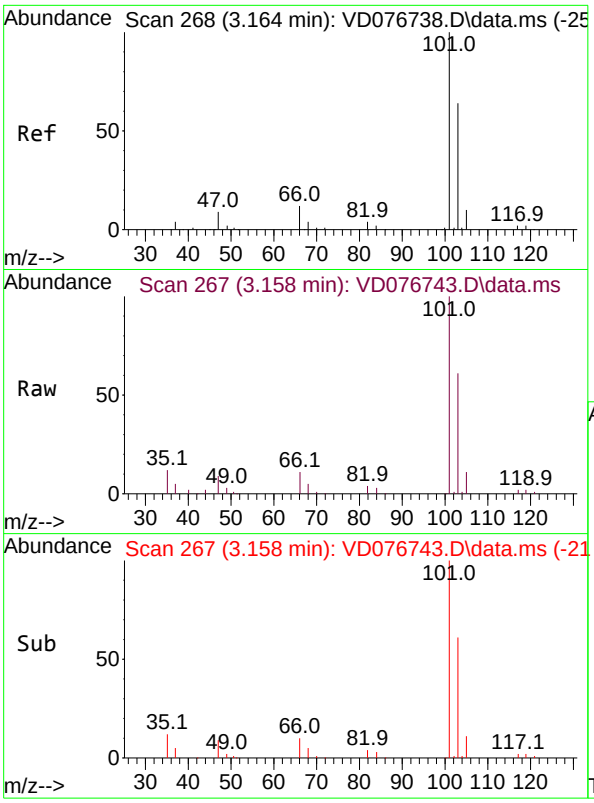


#6
Chloroethane
Concen: 49.633 ug/l
RT: 2.822 min Scan# 210
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 64 Resp: 124110

Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.5	38.3

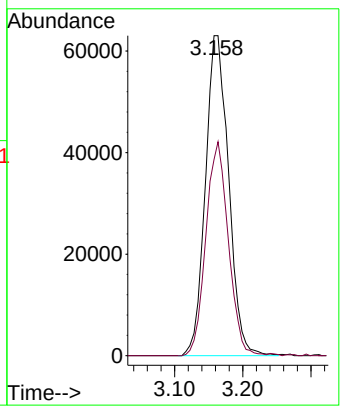




#7
Trichlorofluoromethane
Concen: 50.638 ug/l
RT: 3.158 min Scan# 2
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:101 Resp: 14922

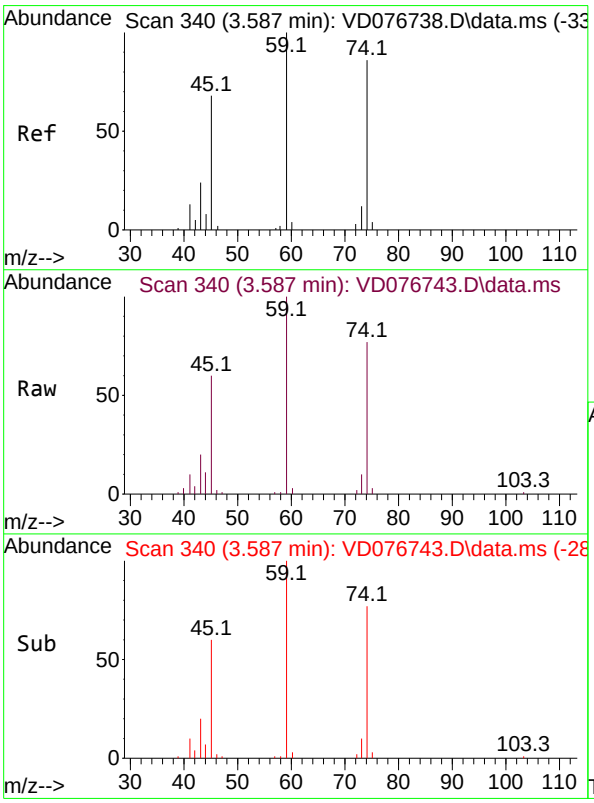
Ion	Ratio	Lower	Upper
101	100		
103	61.3	52.3	78.5



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

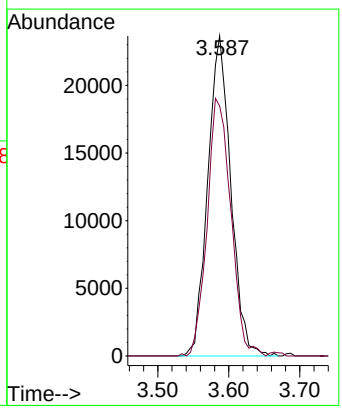
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

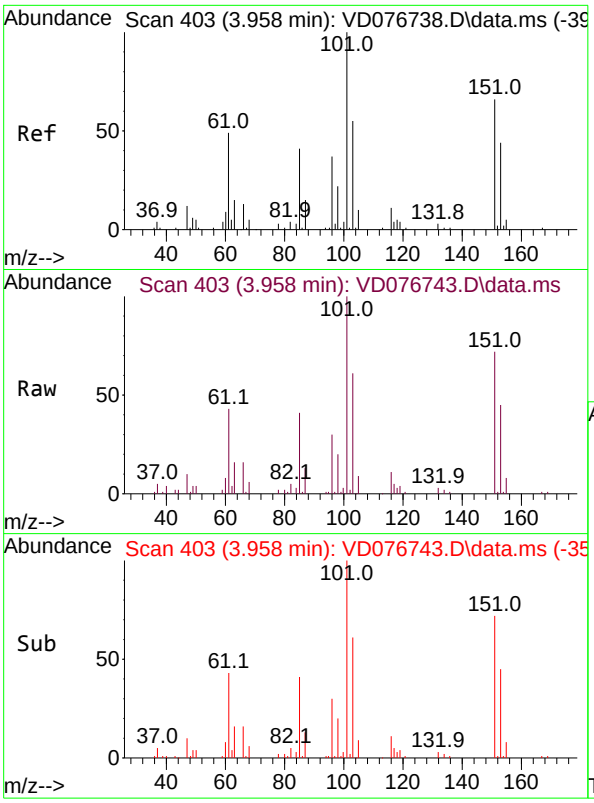


#8
Diethyl Ether
Concen: 52.587 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 74 Resp: 53357

Ion	Ratio	Lower	Upper
74	100		
45	82.7	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 51.859 ug/l
RT: 3.958 min Scan# 4(
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

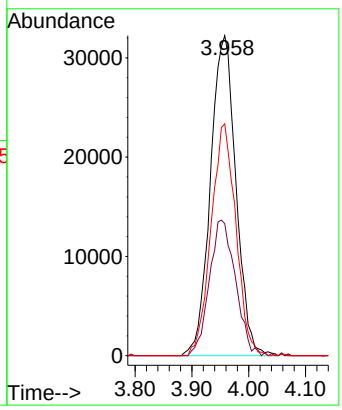
Tgt Ion:101 Resp: 10046(

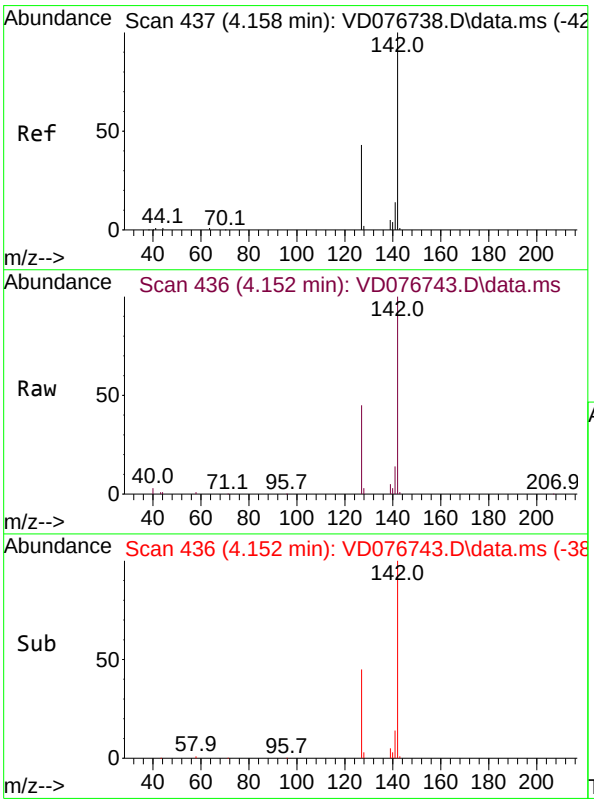
Ion	Ratio	Lower	Upper
101	100		
85	43.4	33.8	50.6
151	70.5	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

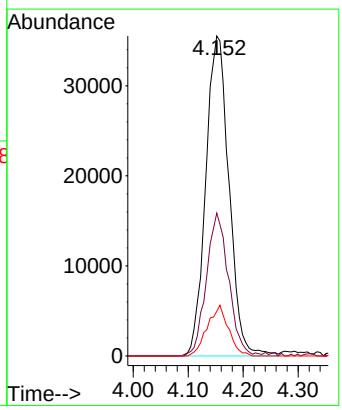


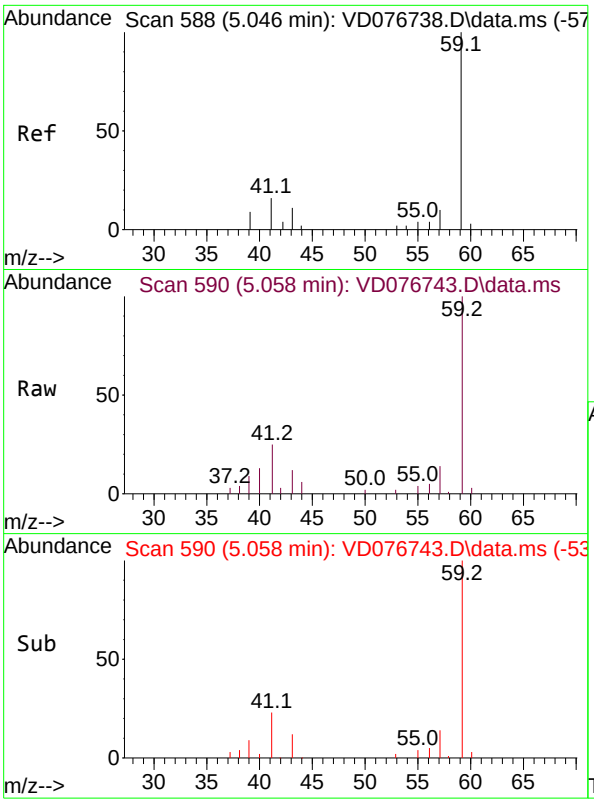


#10
Methyl Iodide
Concen: 47.812 ug/l
RT: 4.152 min Scan# 436
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:142 Resp: 104407

Ion	Ratio	Lower	Upper
142	100		
127	42.6	29.4	44.0
141	14.5	11.1	16.7

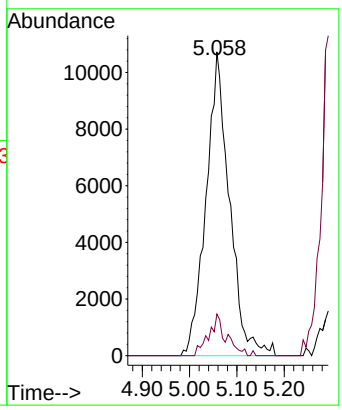




#11
Tert butyl alcohol
Concen: 268.961 ug/l
RT: 5.058 min Scan# 5
Delta R.T. 0.012 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 59 Resp: 3681

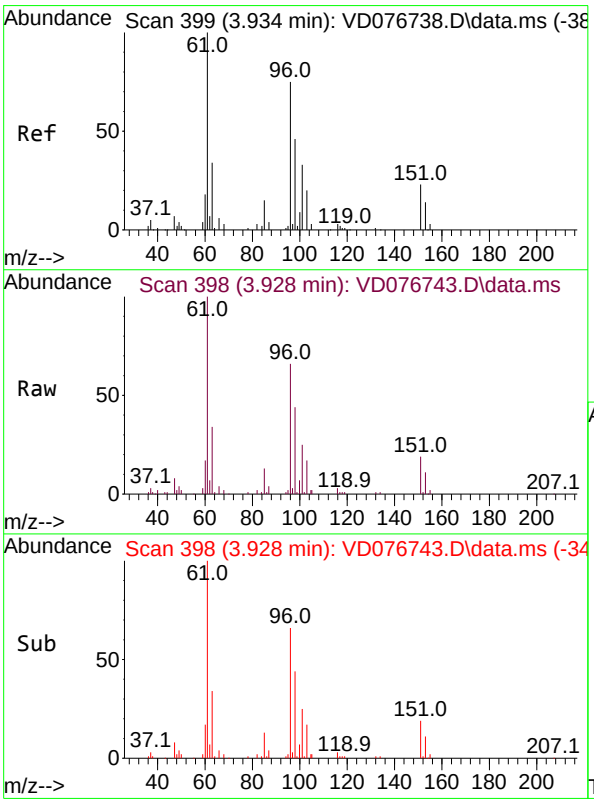
Ion	Ratio	Lower	Upper
59	100		
57	7.7	7.8	11.8



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

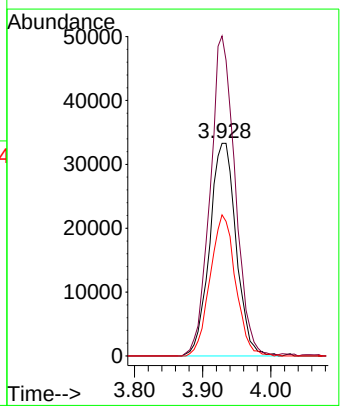
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

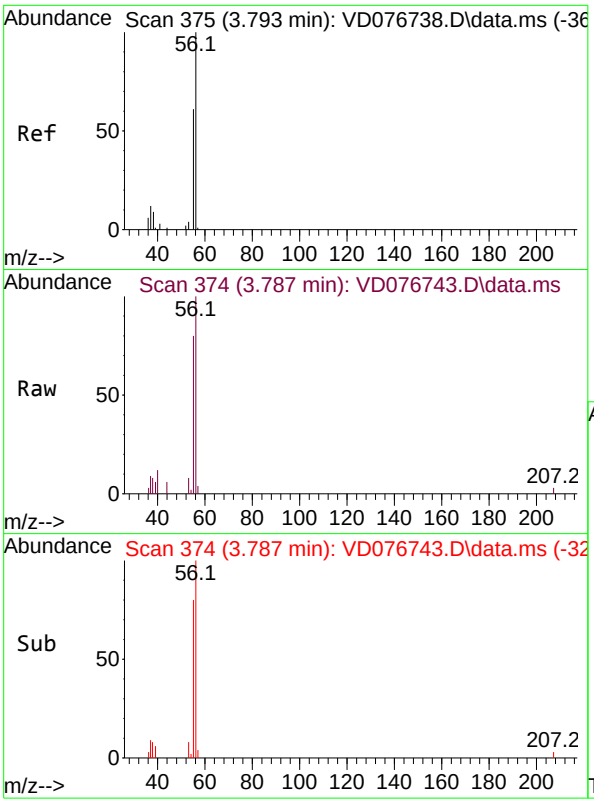


#12
1,1-Dichloroethene
Concen: 49.349 ug/l
RT: 3.928 min Scan# 398
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 96 Resp: 89815

Ion	Ratio	Lower	Upper
96	100		
61	150.4	100.6	150.8
98	66.3	50.2	75.2

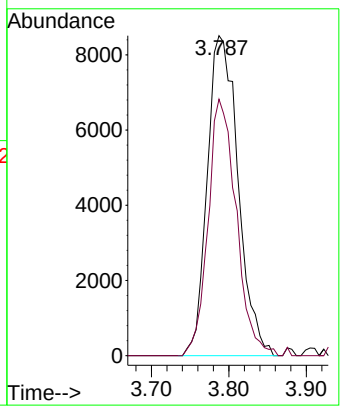




#13
Acrolein
Concen: 251.747 ug/l
RT: 3.787 min Scan# 3
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 56 Resp: 2348

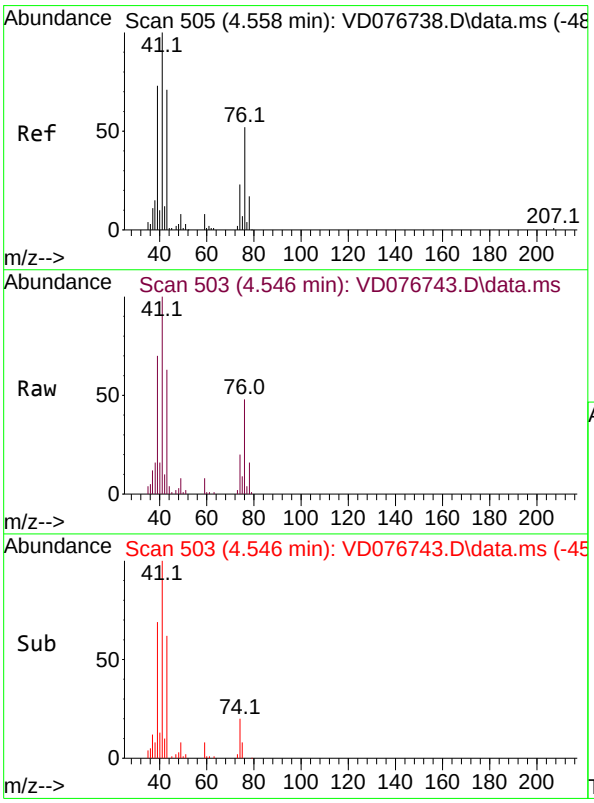
Ion	Ratio	Lower	Upper
56	100		
55	73.3	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

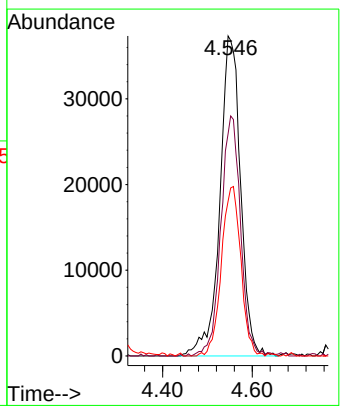
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

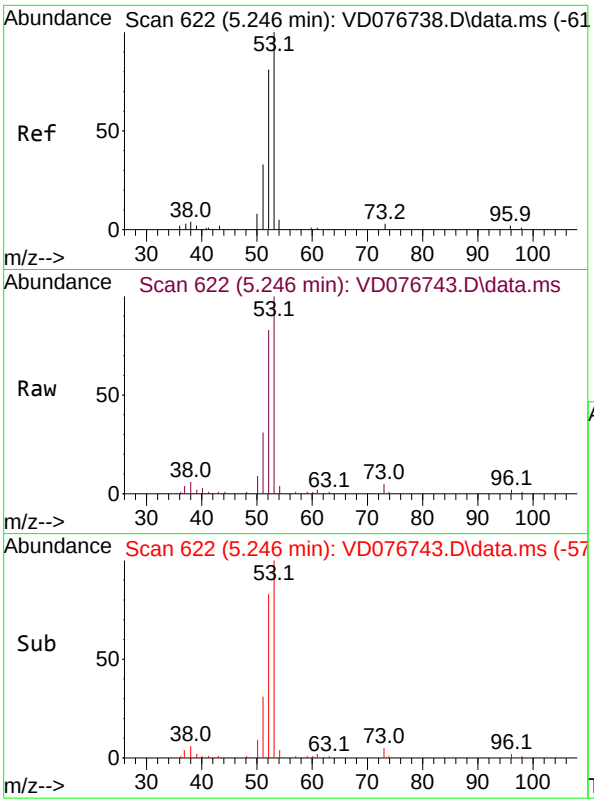


#14
Allyl chloride
Concen: 49.998 ug/l
RT: 4.546 min Scan# 503
Delta R.T. -0.012 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 41 Resp: 119538

Ion	Ratio	Lower	Upper
41	100		
39	71.5	53.8	80.6
76	49.7	45.8	68.8

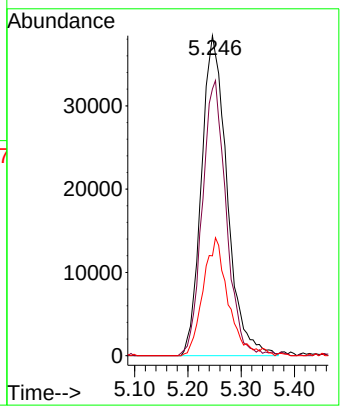




#15
Acrylonitrile
Concen: 258.359 ug/l
RT: 5.246 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 53 Resp: 12875

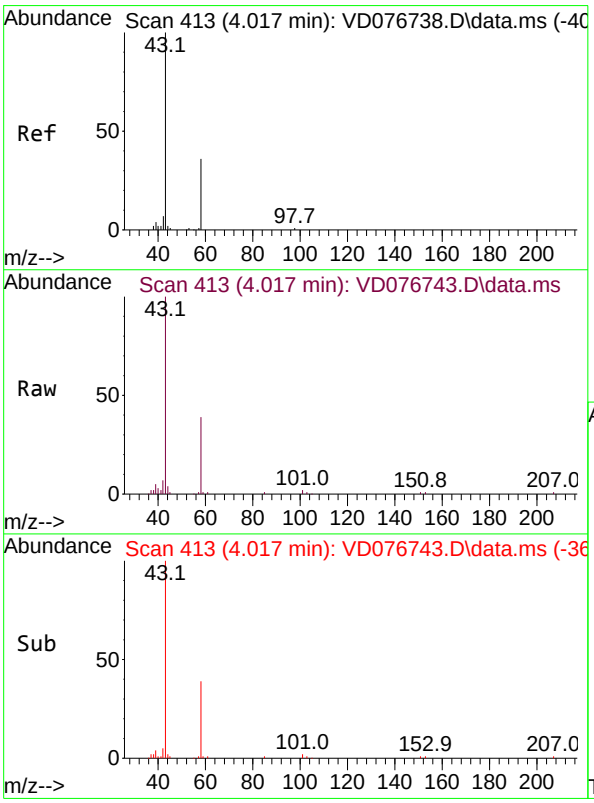
Ion	Ratio	Lower	Upper
53	100		
52	80.1	65.0	97.4
51	35.5	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

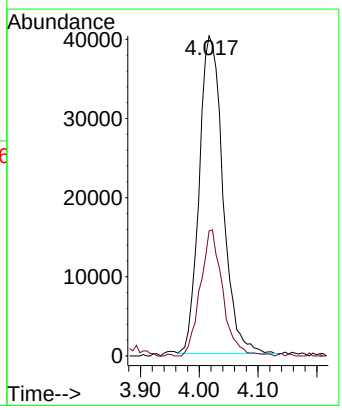
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

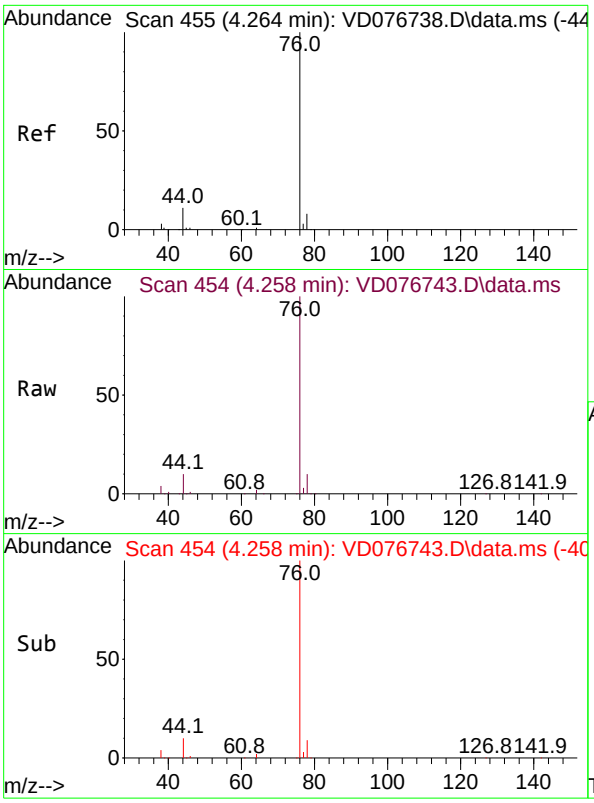


#16
Acetone
Concen: 256.224 ug/l
RT: 4.017 min Scan# 413
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 43 Resp: 112257

Ion	Ratio	Lower	Upper
43	100		
58	39.3	34.7	52.1





#17
Carbon Disulfide
Concen: 50.198 ug/l
RT: 4.258 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

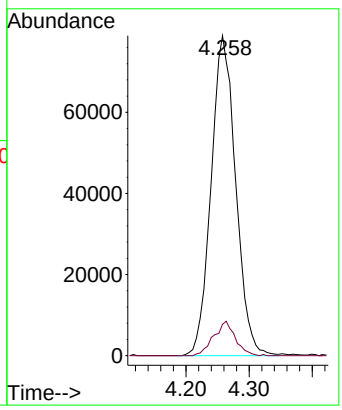
Tgt Ion: 76 Resp: 21338

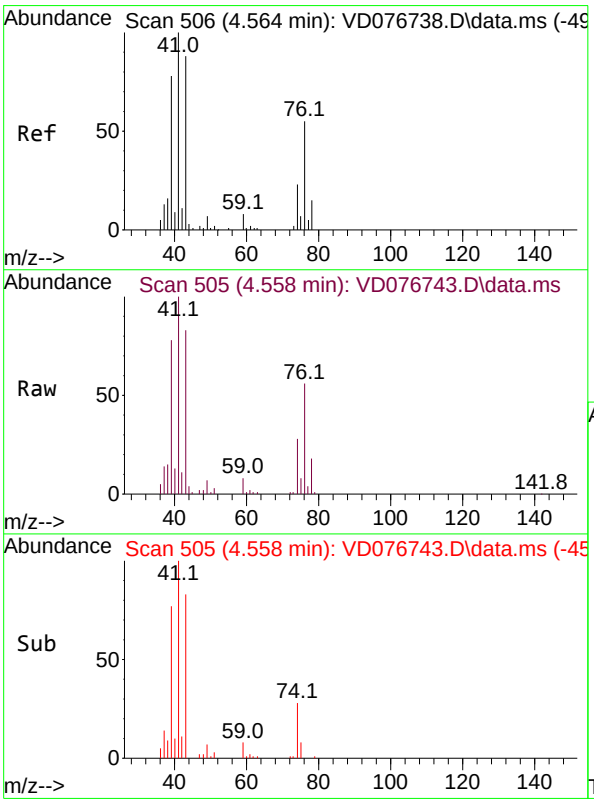
Ion	Ratio	Lower	Upper
76	100		
78	9.8	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

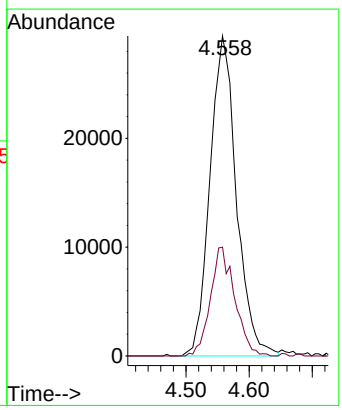


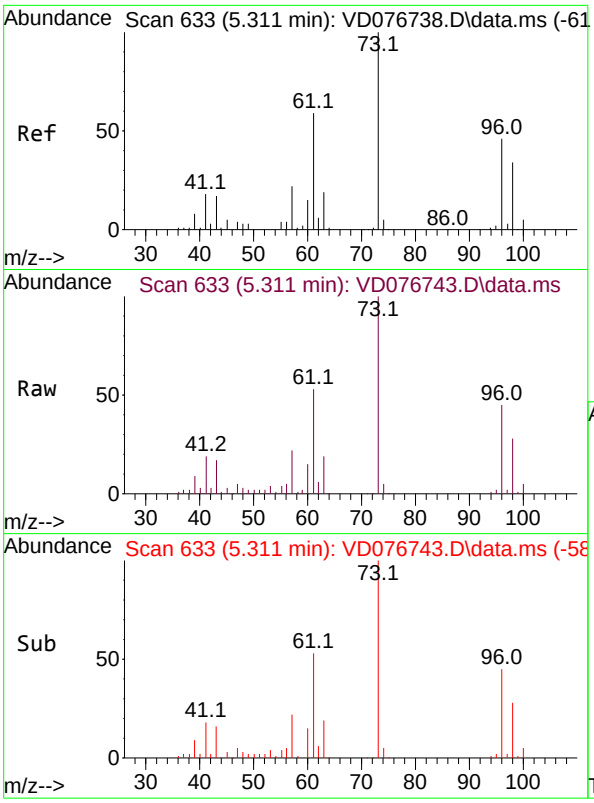


#18
Methyl Acetate
Concen: 52.088 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 43 Resp: 85740

Ion	Ratio	Lower	Upper
43	100		
74	31.3	26.4	39.6

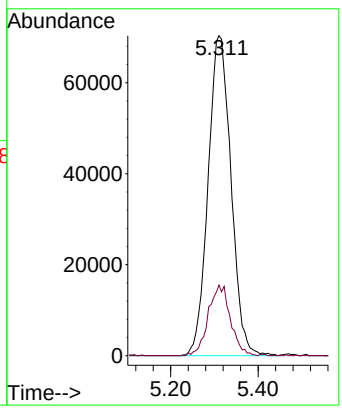




#19
Methyl tert-butyl Ether
Concen: 52.470 ug/l
RT: 5.311 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 73 Resp: 25609

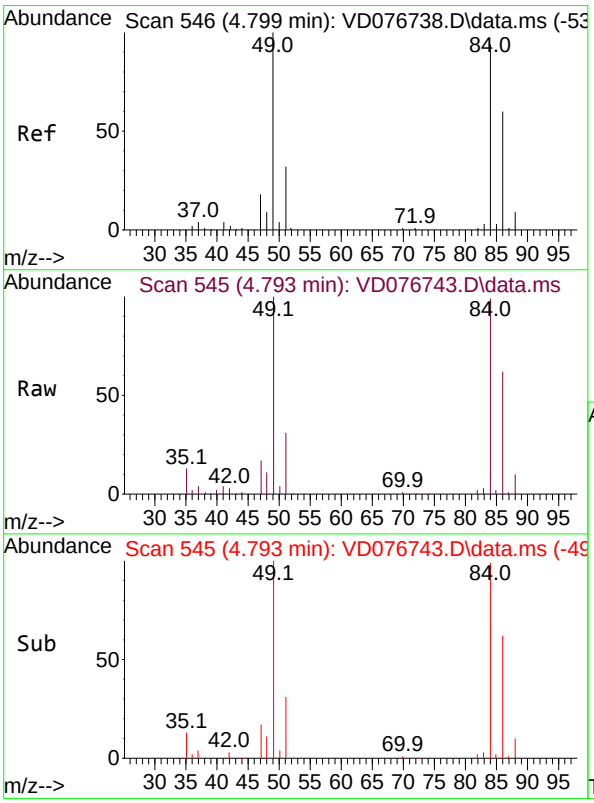
Ion	Ratio	Lower	Upper
73	100		
57	22.1	16.6	25.0



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

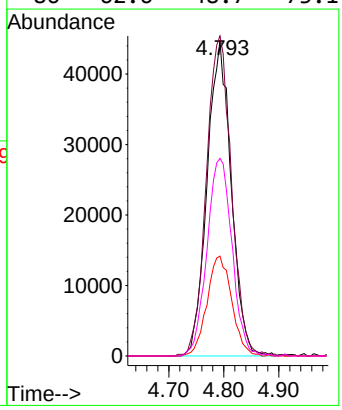
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

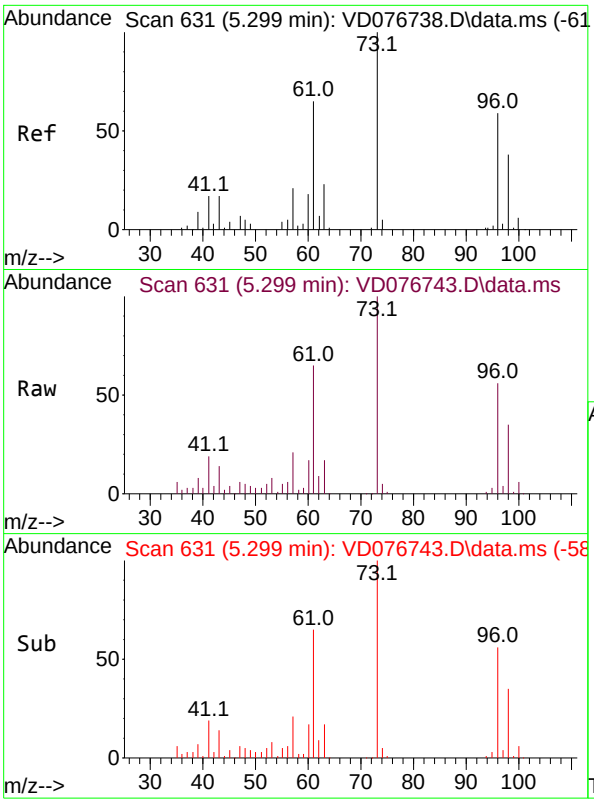


#20
Methylene Chloride
Concen: 52.910 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 84 Resp: 136468

Ion	Ratio	Lower	Upper
84	100		
49	101.4	71.4	107.2
51	31.7	24.5	36.7
86	62.6	48.7	73.1

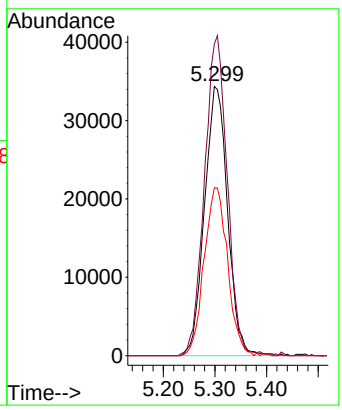




#21
trans-1,2-Dichloroethene
Concen: 50.289 ug/l
RT: 5.299 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 96 Resp: 10639

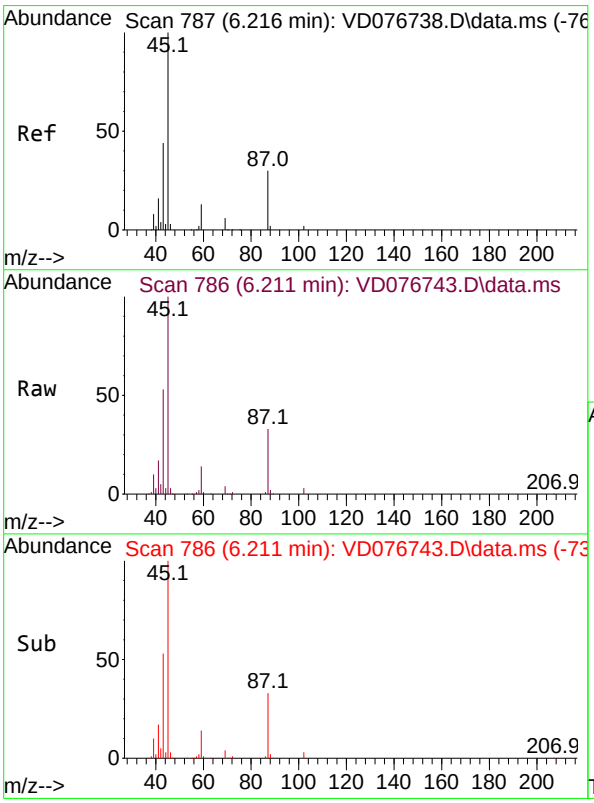
Ion	Ratio	Lower	Upper
96	100		
61	115.8	89.3	133.9
98	62.4	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

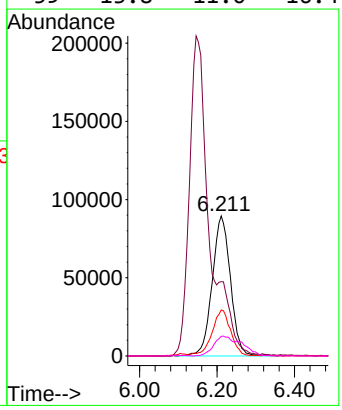
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

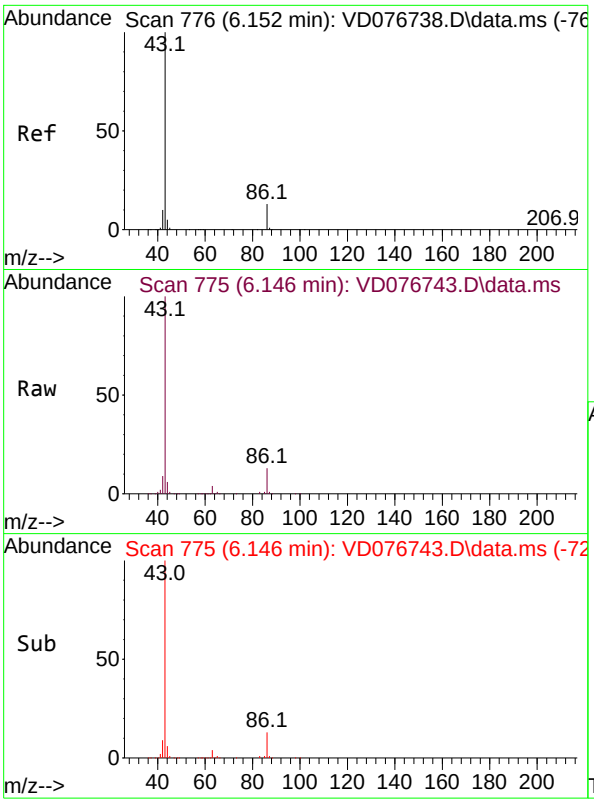


#22
Diisopropyl ether
Concen: 51.747 ug/l
RT: 6.211 min Scan# 786
Delta R.T. -0.005 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 45 Resp: 292965

Ion	Ratio	Lower	Upper
45	100		
43	52.5	40.0	60.0
87	32.9	28.2	42.4
59	13.8	11.0	16.4

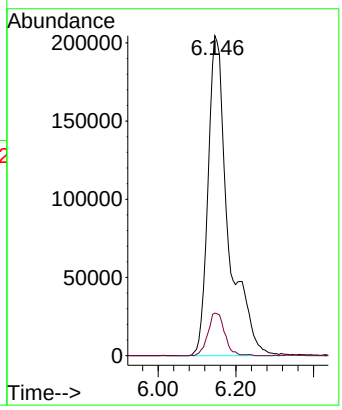




#23
Vinyl Acetate
Concen: 263.991 ug/l m
RT: 6.146 min Scan# 7
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 43 Resp: 73950

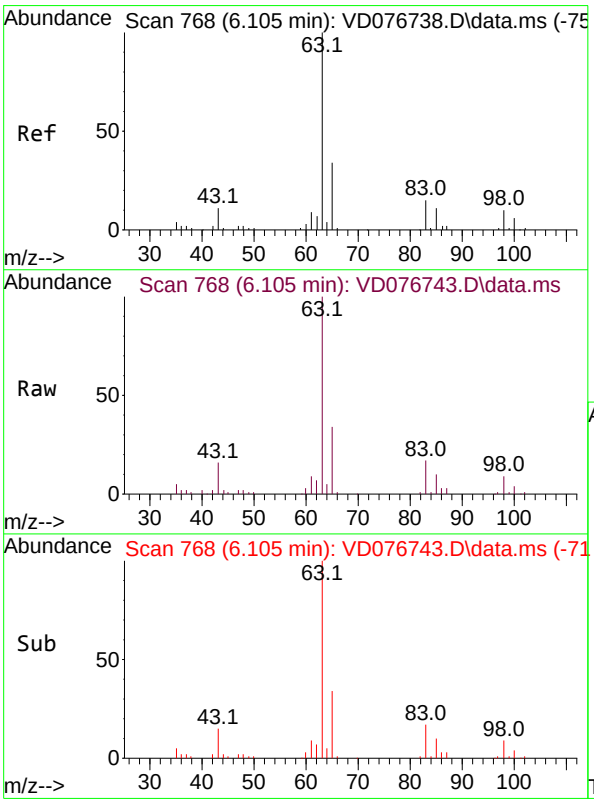
Ion	Ratio	Lower	Upper
43	100		
86	13.3	12.5	18.7



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

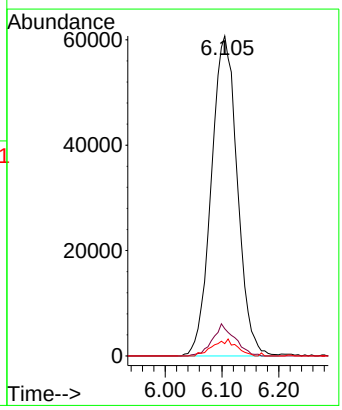
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

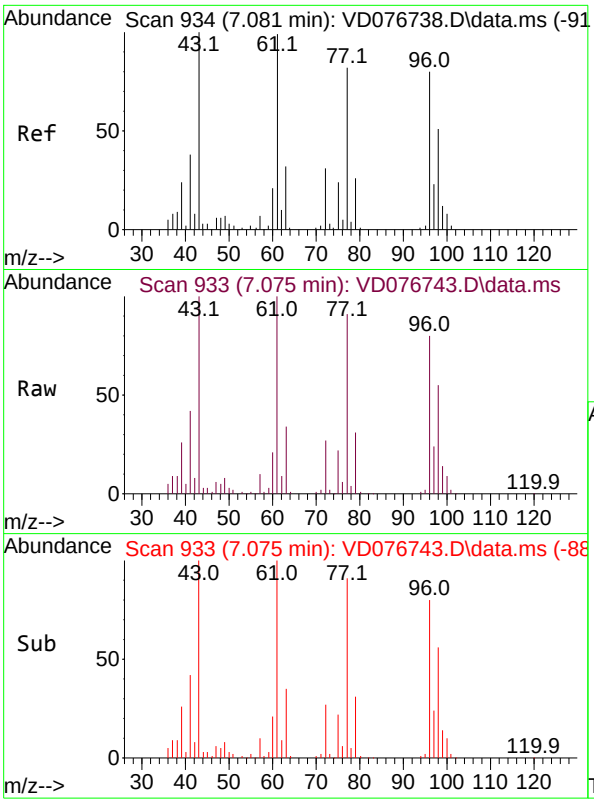


#24
1,1-Dichloroethane
Concen: 50.539 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 63 Resp: 192916

Ion	Ratio	Lower	Upper
63	100		
98	8.5	4.5	13.7
100	3.9	2.5	7.5

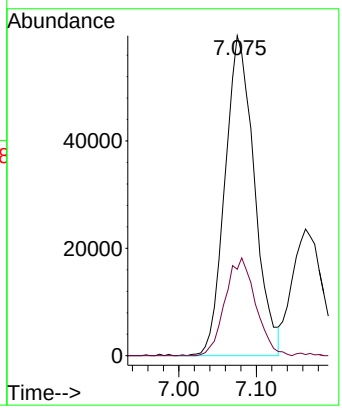




#25
2-Butanone
Concen: 267.702 ug/l
RT: 7.075 min Scan# 9
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 43 Resp: 15696

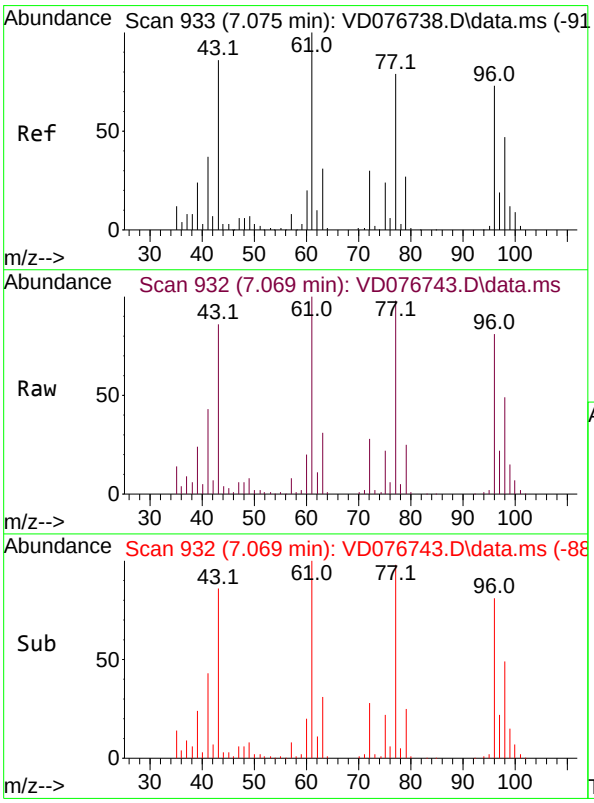
Ion	Ratio	Lower	Upper
43	100		
72	27.0	30.7	46.1



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

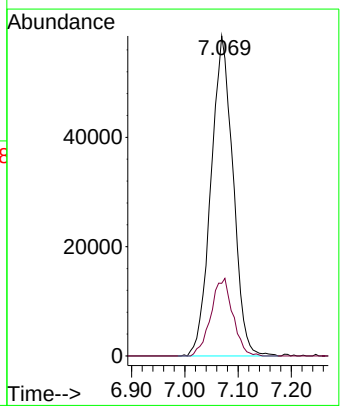
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

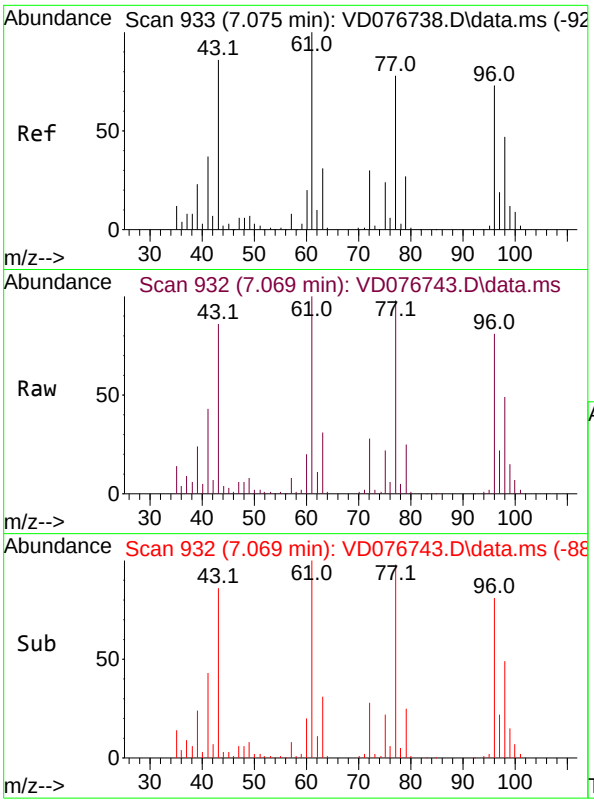


#26
2,2-Dichloropropane
Concen: 51.238 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 77 Resp: 168599

Ion	Ratio	Lower	Upper
77	100		
97	24.2	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 51.873 ug/l
RT: 7.069 min Scan# 9
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

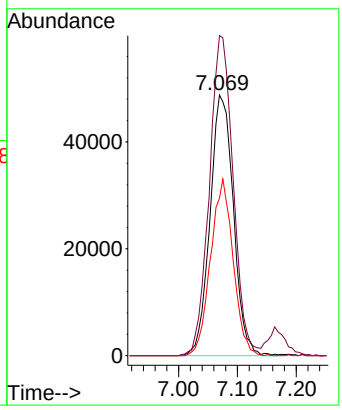
Tgt Ion: 96 Resp: 13528

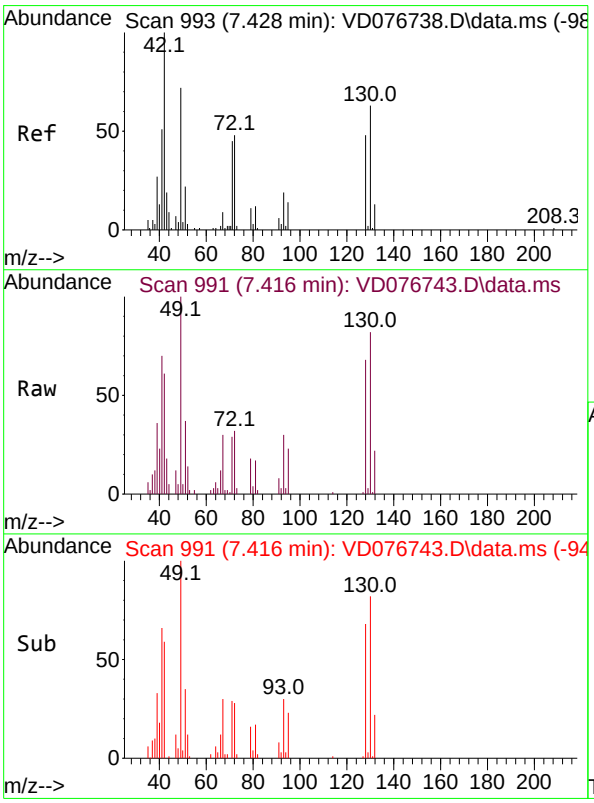
Ion	Ratio	Lower	Upper
96	100		
61	124.7	0.0	239.2
98	64.9	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

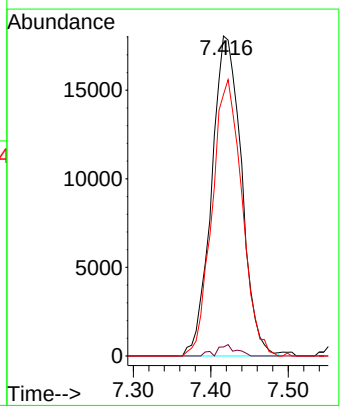


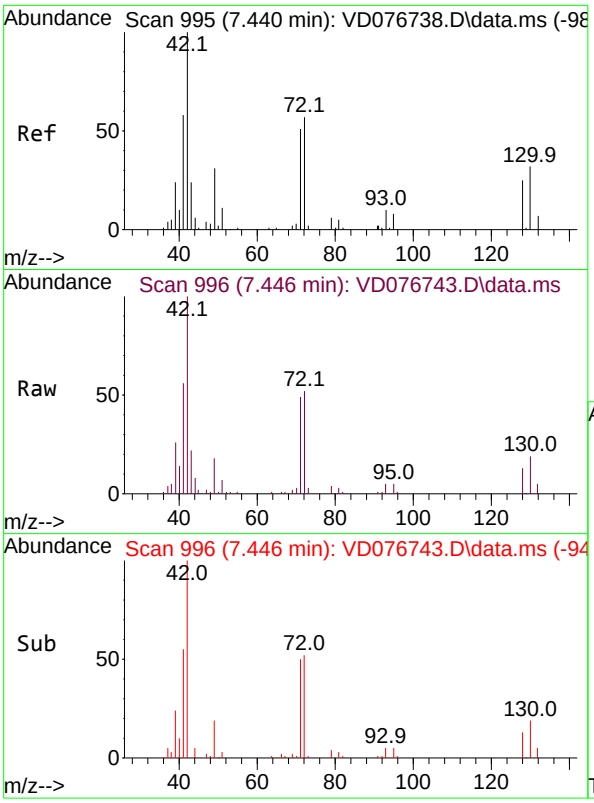


#28
Bromochloromethane
Concen: 50.776 ug/l
RT: 7.416 min Scan# 991
Delta R.T. -0.012 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 49 Resp: 48458

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	6.0
130	86.1	83.2	124.8





#29
Tetrahydrofuran
Concen: 266.042 ug/l
RT: 7.446 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

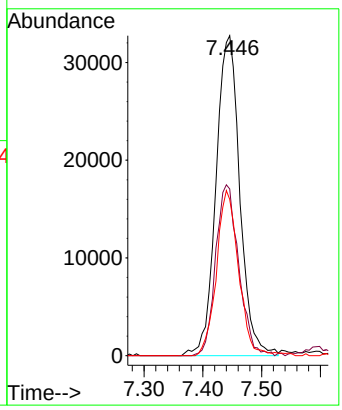
Tgt Ion: 42 Resp: 9216

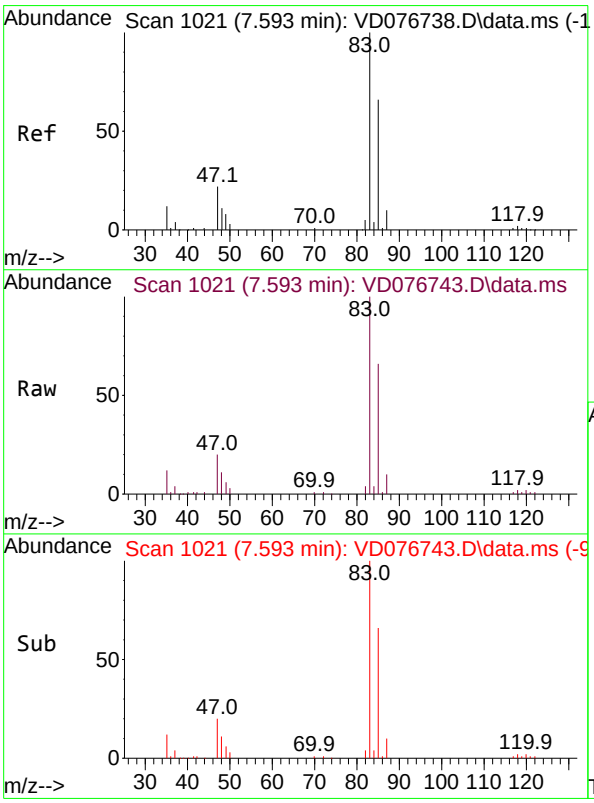
Ion	Ratio	Lower	Upper
42	100		
72	51.7	46.5	69.7
71	47.6	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

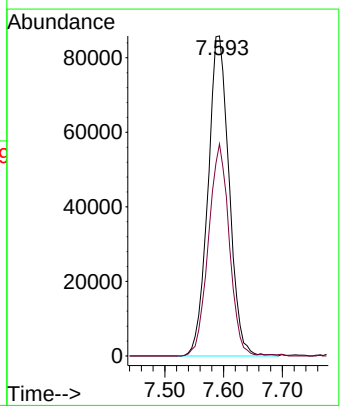


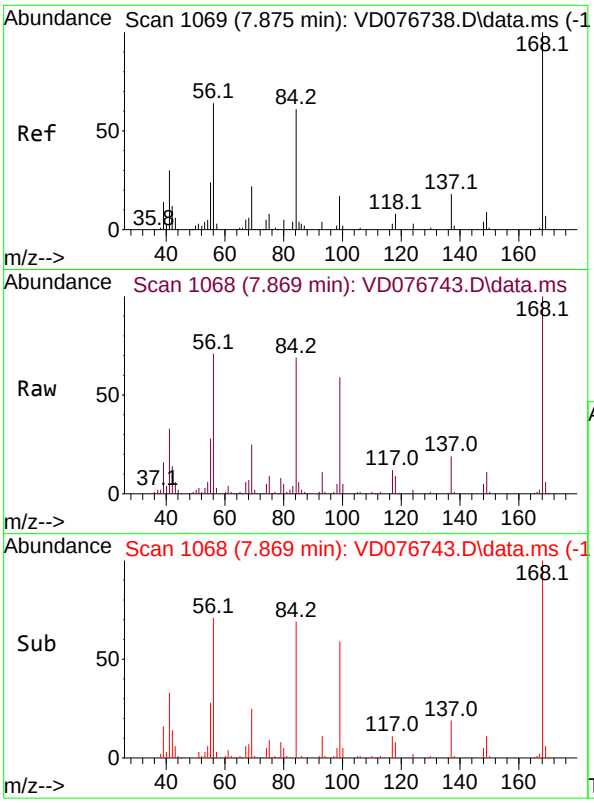


#30
Chloroform
Concen: 51.195 ug/l
RT: 7.593 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 83 Resp: 214040

Ion	Ratio	Lower	Upper
83	100		
85	66.3	53.4	80.2

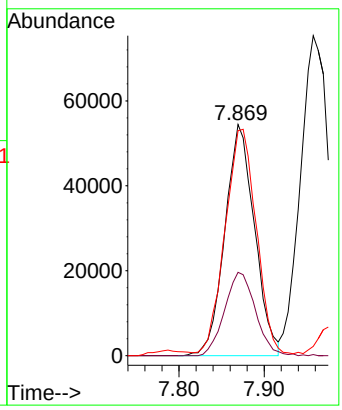




#31
Cyclohexane
Concen: 48.813 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 56 Resp: 13178

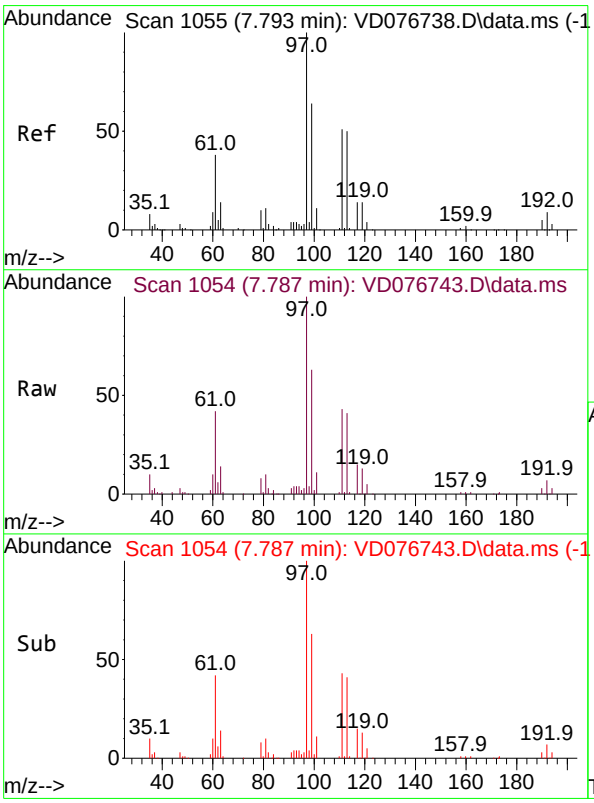
Ion	Ratio	Lower	Upper
56	100		
69	36.1	28.6	43.0
84	95.5	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

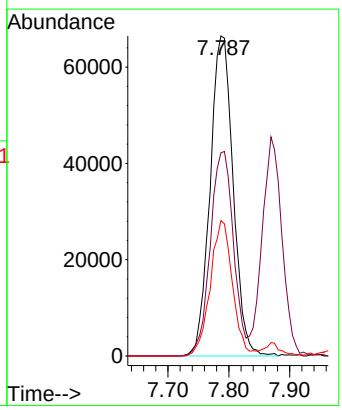
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

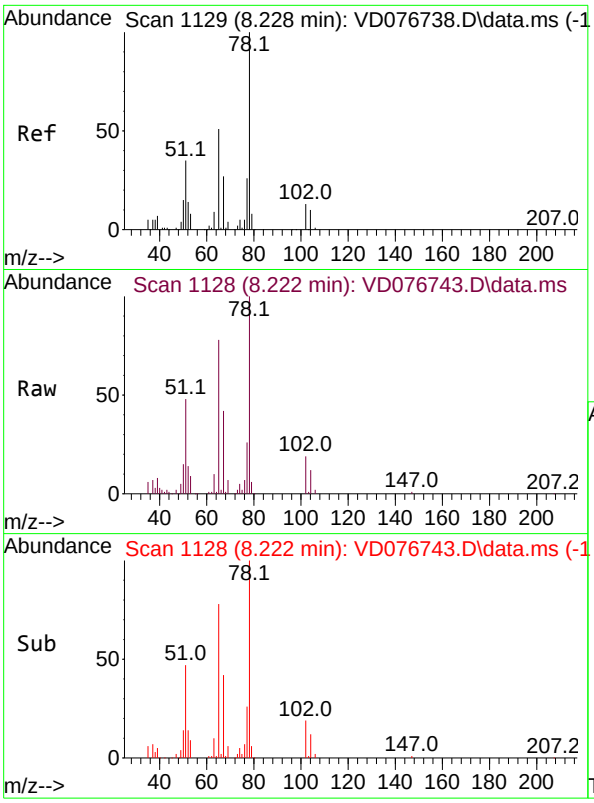


#32
1,1,1-Trichloroethane
Concen: 51.850 ug/l
RT: 7.787 min Scan# 1054
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 97 Resp: 174902

Ion	Ratio	Lower	Upper
97	100		
99	64.0	52.0	78.0
61	40.8	33.8	50.8

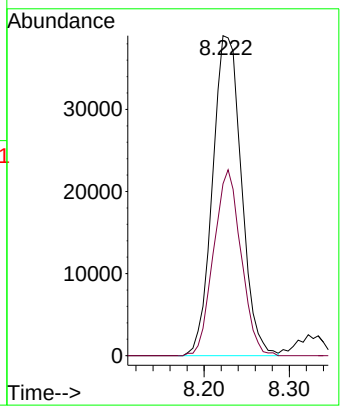




#33
1,2-Dichloroethane-d4
Concen: 49.997 ug/l
RT: 8.222 min Scan# 11
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 65 Resp: 9172

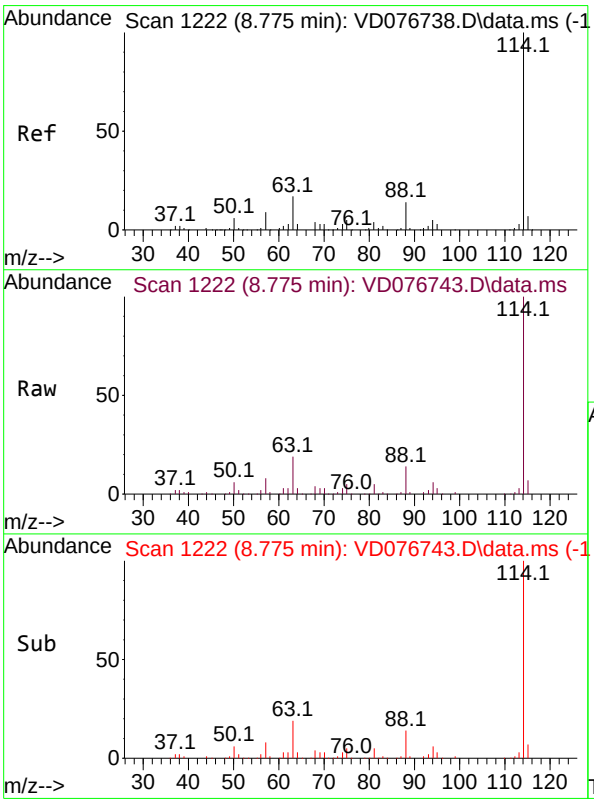
Ion	Ratio	Lower	Upper
65	100		
67	55.2	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

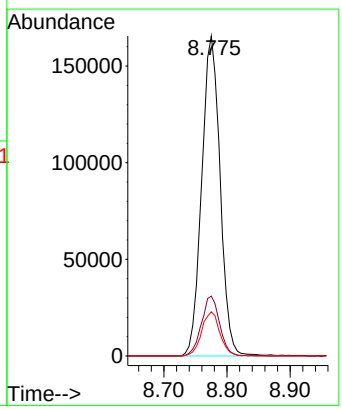
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

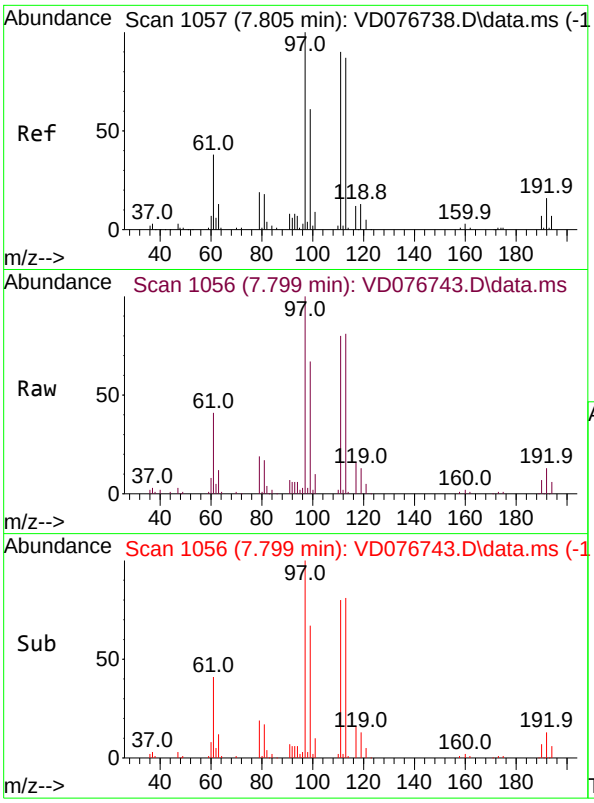


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:114 Resp: 335070

Ion	Ratio	Lower	Upper
114	100		
63	18.7	0.0	33.4
88	13.8	0.0	26.2

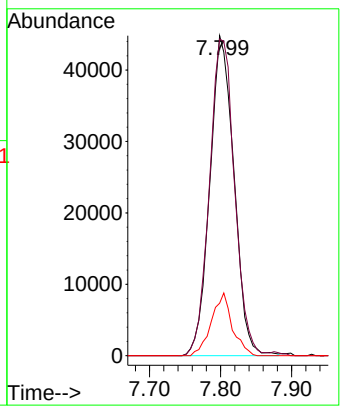




#35
Dibromofluoromethane
Concen: 50.304 ug/l
RT: 7.799 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:113 Resp: 10592

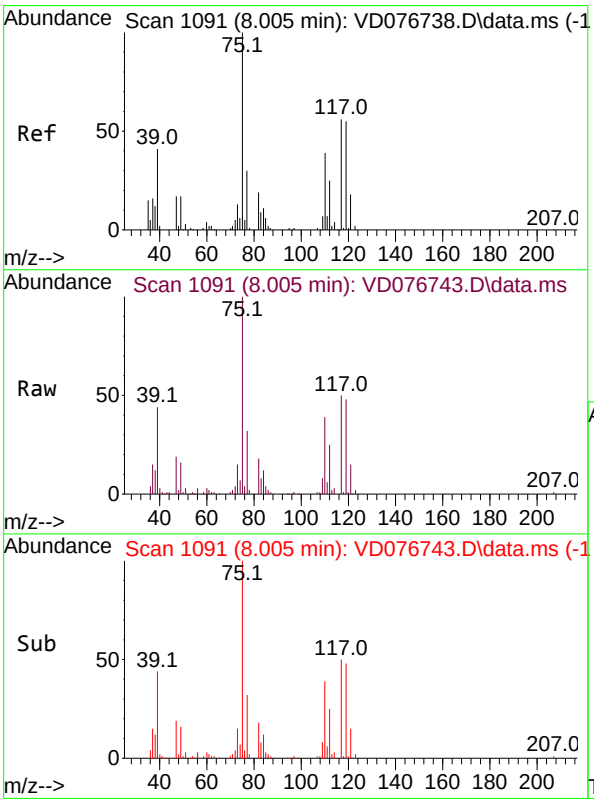
Ion	Ratio	Lower	Upper
113	100		
111	102.8	84.7	127.1
192	16.9	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

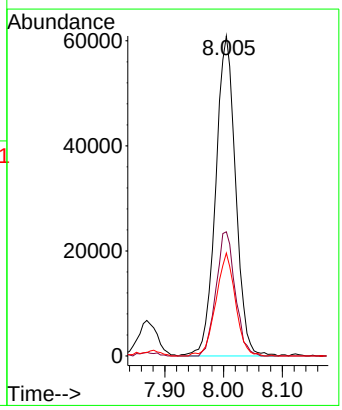
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

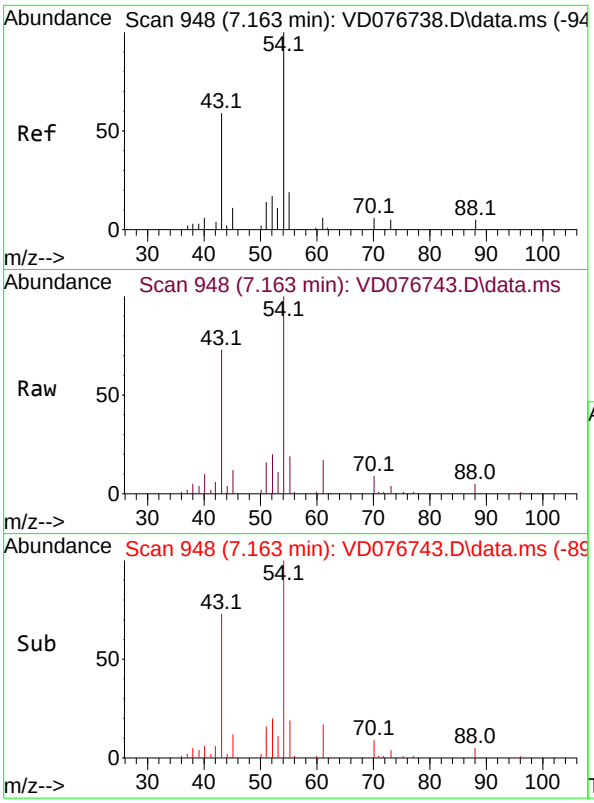


#36
1,1-Dichloropropene
Concen: 52.214 ug/l
RT: 8.005 min Scan# 1091
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 75 Resp: 143663

Ion	Ratio	Lower	Upper
75	100		
110	37.3	19.9	59.6
77	31.4	24.7	37.1





#37
Ethyl Acetate
Concen: 54.272 ug/l
RT: 7.163 min Scan# 94
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

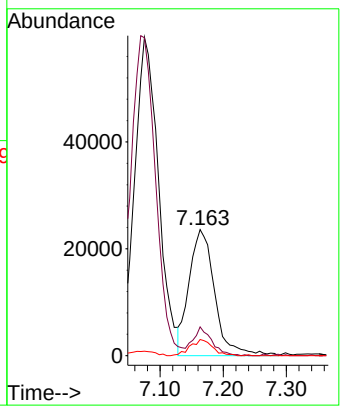
Tgt Ion: 43 Resp: 6678

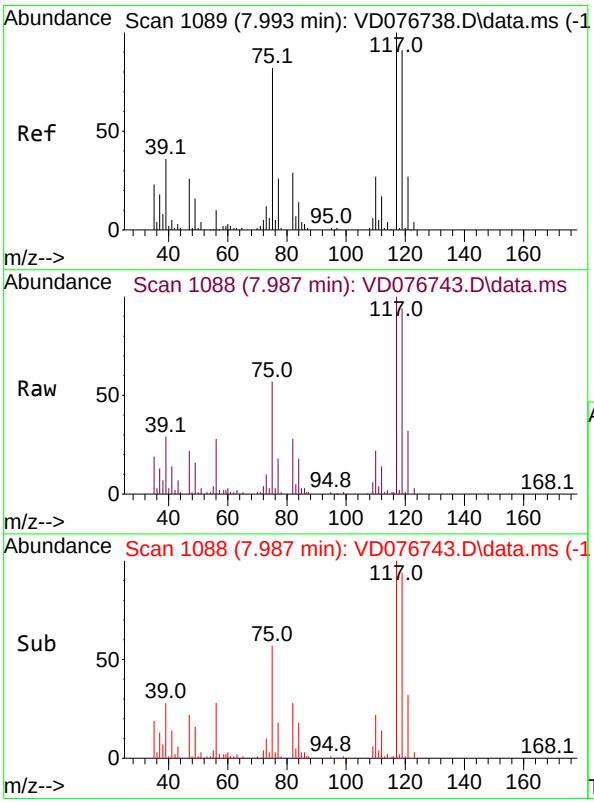
Ion	Ratio	Lower	Upper
43	100		
61	16.5	14.9	22.3
70	11.1	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

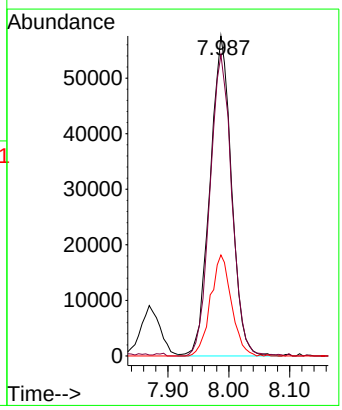


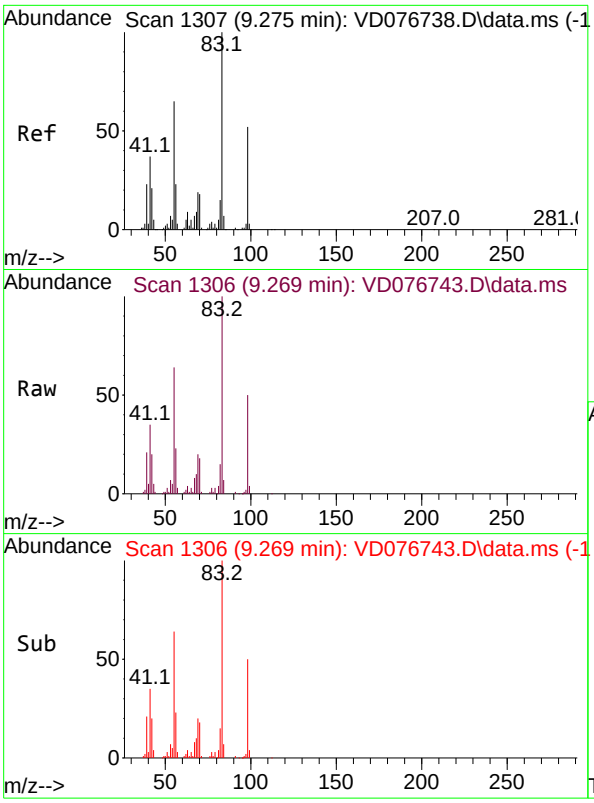


#38
Carbon Tetrachloride
Concen: 53.700 ug/l
RT: 7.987 min Scan# 1088
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:117 Resp: 141475

Ion	Ratio	Lower	Upper
117	100		
119	94.1	78.0	117.0
121	31.6	24.2	36.2





#39
Methylcyclohexane
Concen: 53.746 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

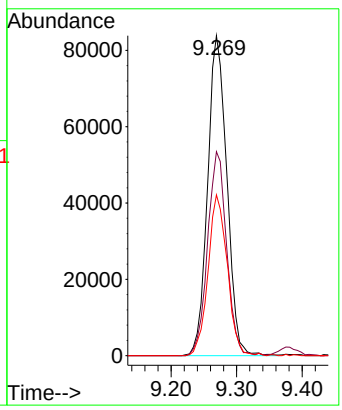
Tgt Ion: 83 Resp: 17075

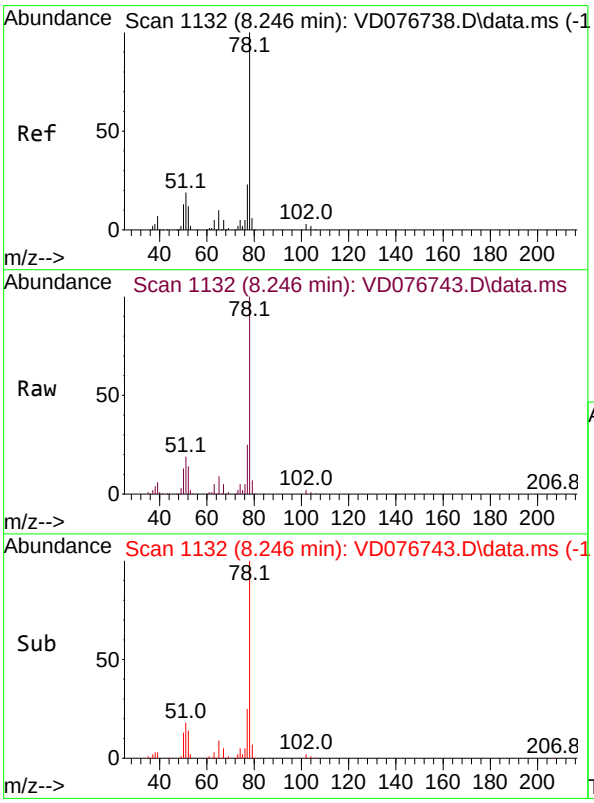
Ion	Ratio	Lower	Upper
83	100		
55	63.8	49.4	74.0
98	50.3	38.4	57.6

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

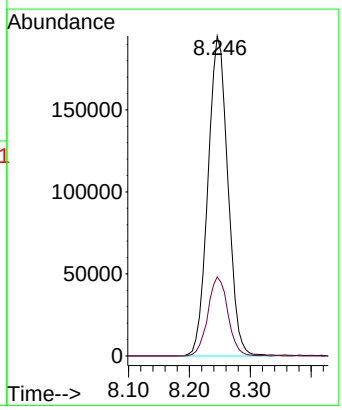


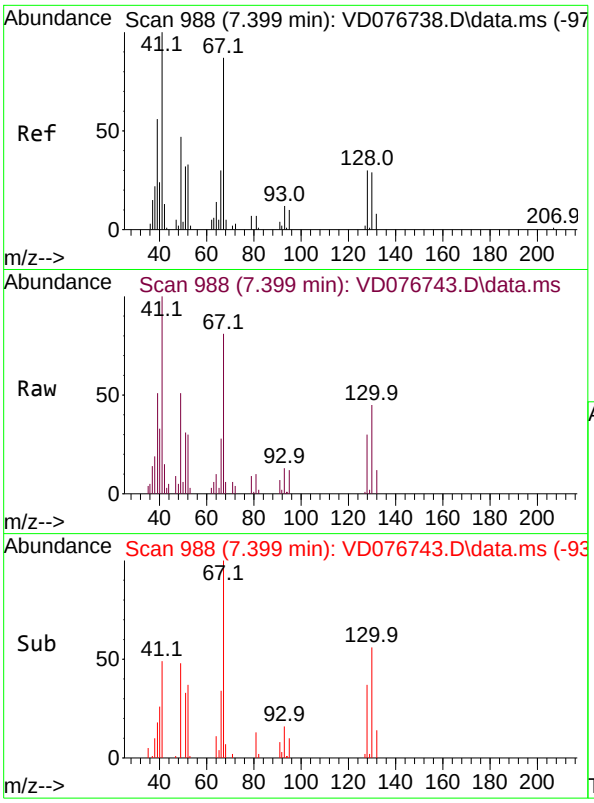


#40
Benzene
Concen: 51.052 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 78 Resp: 443211

Ion	Ratio	Lower	Upper
78	100		
77	24.7	19.4	29.0

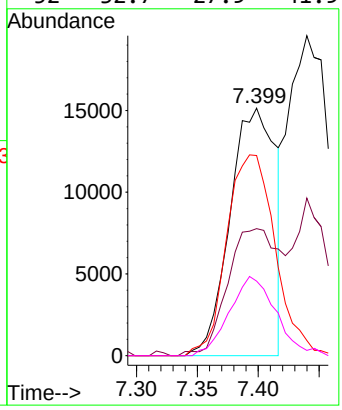




#41
Methacrylonitrile
Concen: 52.467 ug/l
RT: 7.399 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 41 Resp: 3942

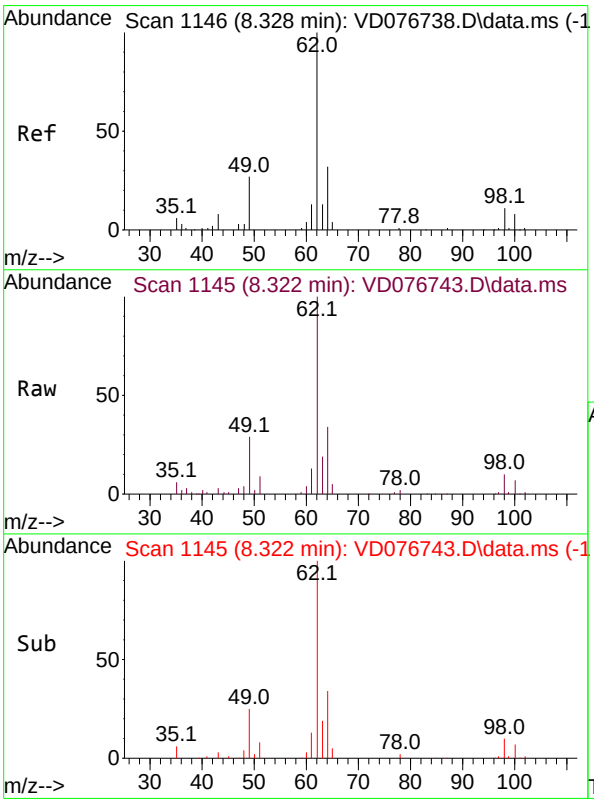
Ion	Ratio	Lower	Upper
41	100		
39	59.6	34.0	51.0
67	86.3	77.0	115.4
52	32.7	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

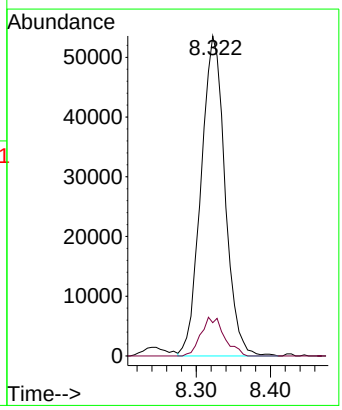
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

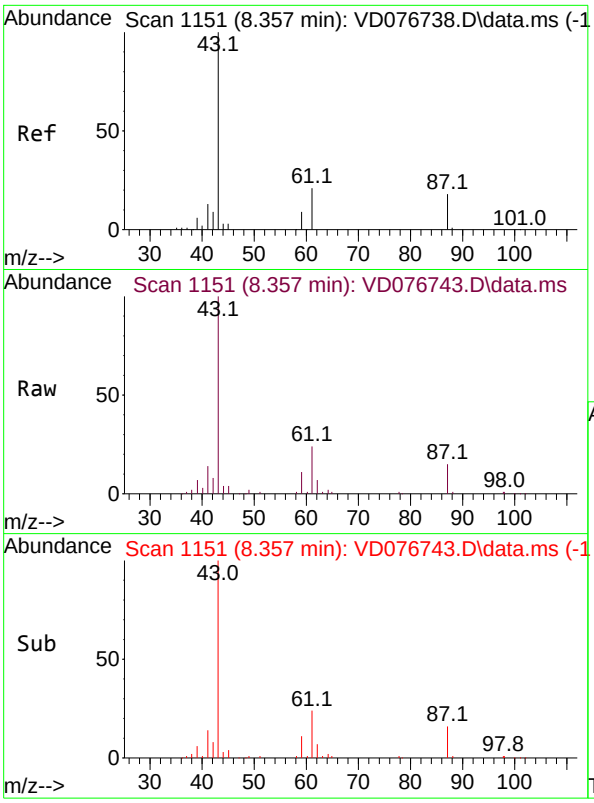


#42
1,2-Dichloroethane
Concen: 53.323 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 62 Resp: 120282

Ion	Ratio	Lower	Upper
62	100		
98	11.8	0.0	25.4





#43
Isopropyl Acetate
Concen: 53.560 ug/l
RT: 8.357 min Scan# 11
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

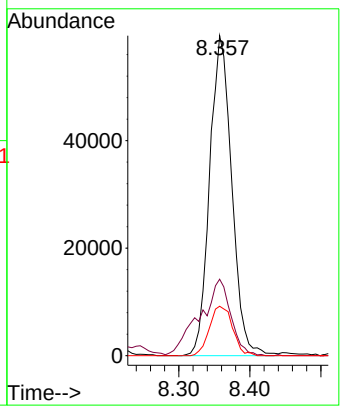
Tgt Ion: 43 Resp: 12861

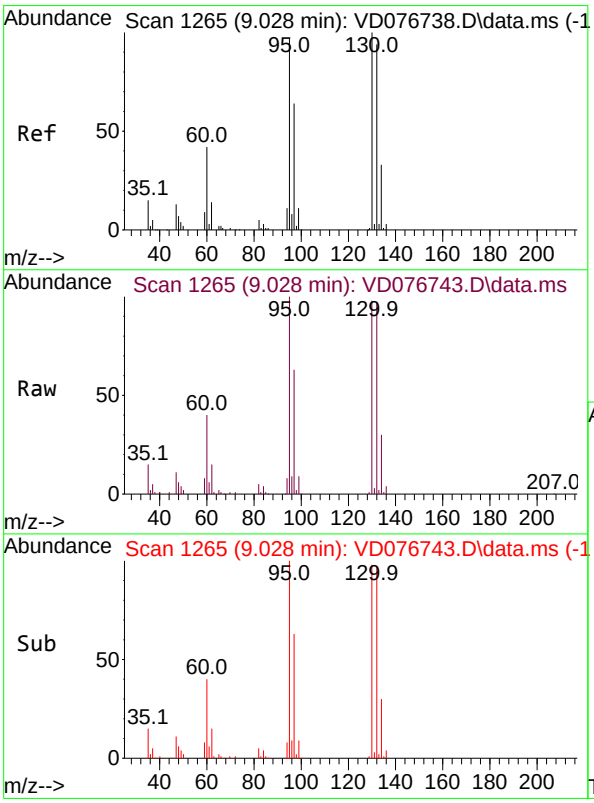
Ion	Ratio	Lower	Upper
43	100		
61	33.4	31.4	47.0
87	16.2	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

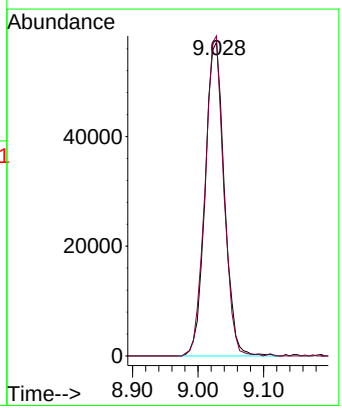


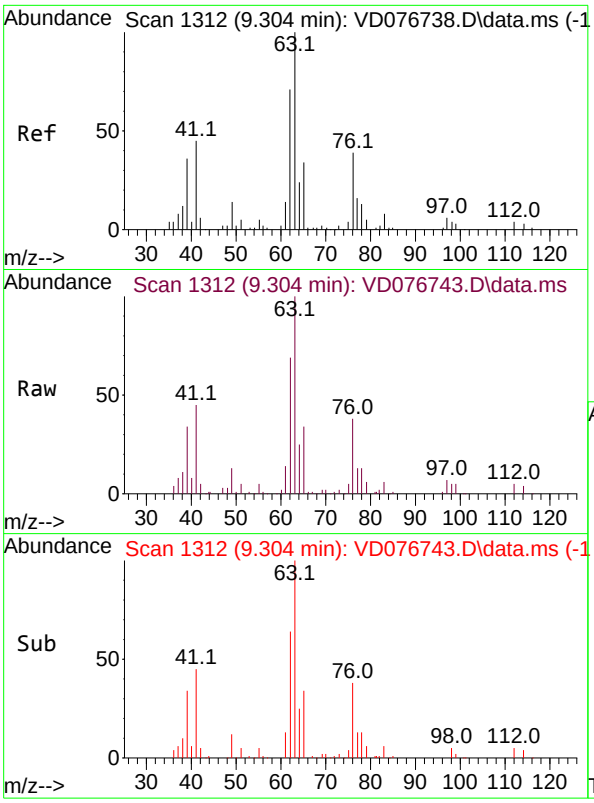


#44
Trichloroethene
Concen: 49.167 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:130 Resp: 116315

Ion	Ratio	Lower	Upper
130	100		
95	102.0	0.0	179.2

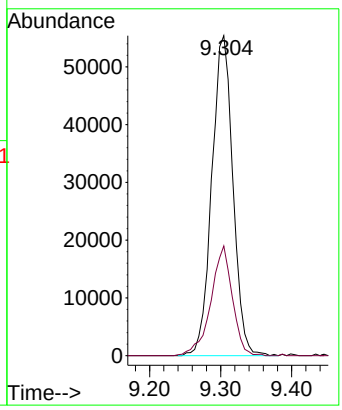




#45
1,2-Dichloropropane
Concen: 50.956 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 63 Resp: 11419

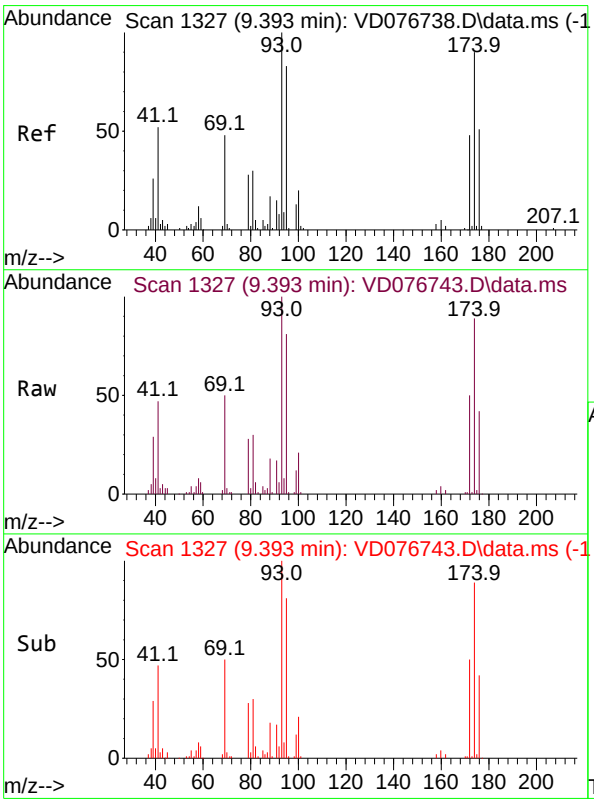
Ion	Ratio	Lower	Upper
63	100		
65	34.3	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

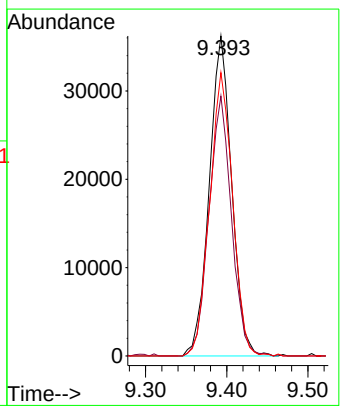
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

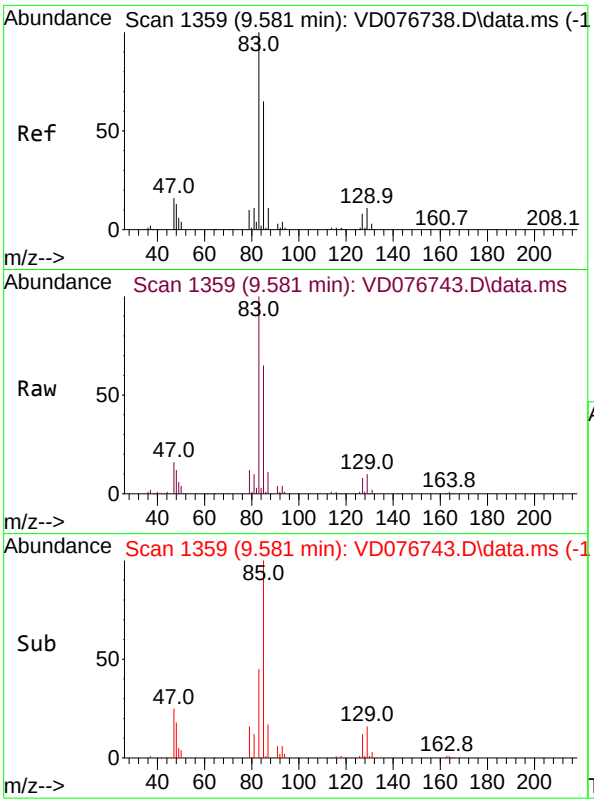


#46
Dibromomethane
Concen: 52.912 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 93 Resp: 69407

Ion	Ratio	Lower	Upper
93	100		
95	81.7	67.7	101.5
174	90.6	85.4	128.2

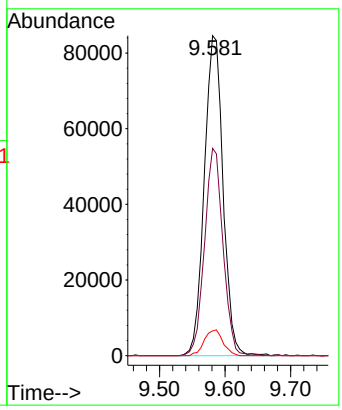




#47
Bromodichloromethane
Concen: 51.191 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 83 Resp: 16850

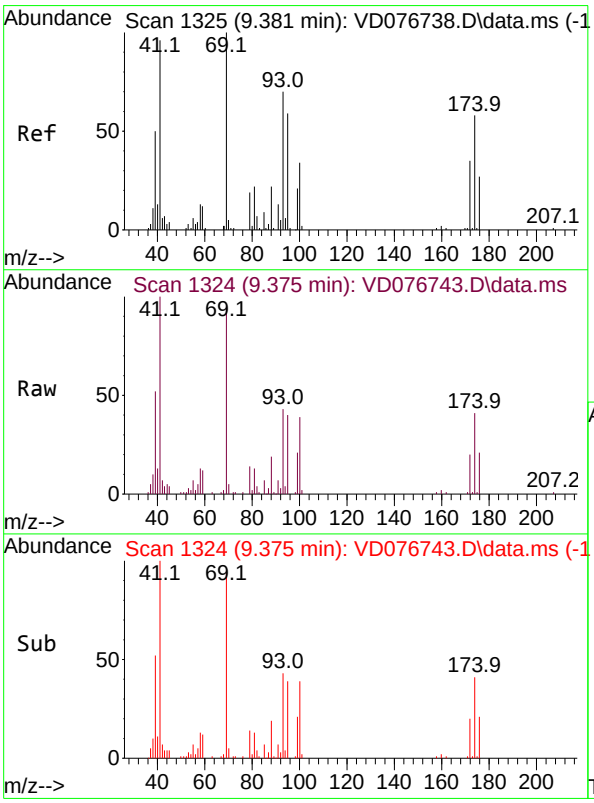
Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.2	75.4
127	7.7	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

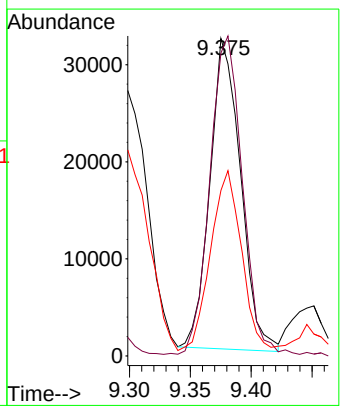
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

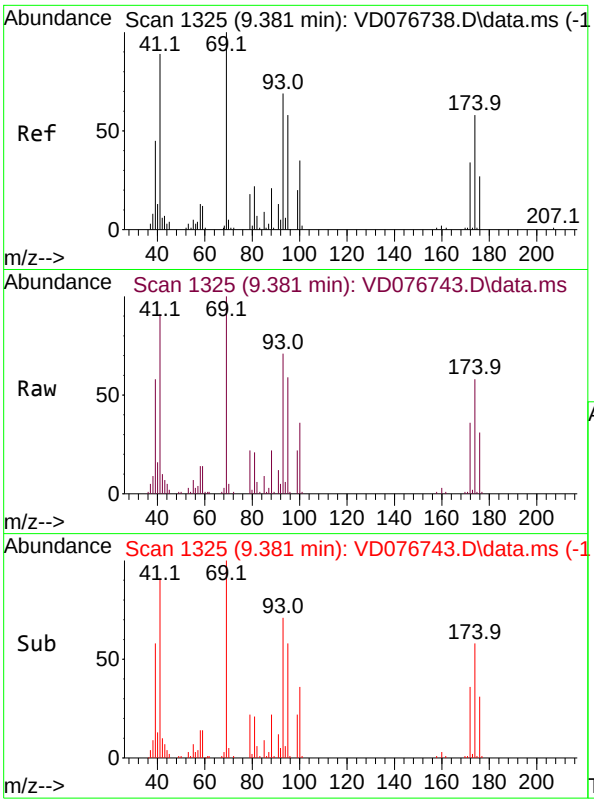


#48
Methyl methacrylate
Concen: 51.261 ug/l
RT: 9.375 min Scan# 1324
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 41 Resp: 56026

Ion	Ratio	Lower	Upper
41	100		
69	108.7	102.2	153.2
39	61.8	41.4	62.2





#49
1,4-Dioxane
Concen: 1013.431 ug/l
RT: 9.381 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

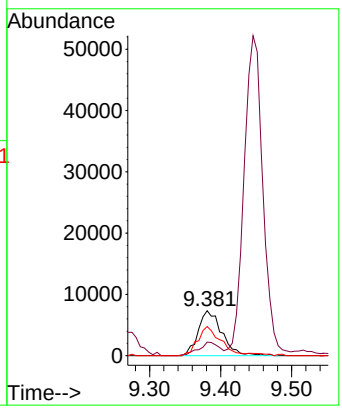
Tgt Ion: 88 Resp: 1703

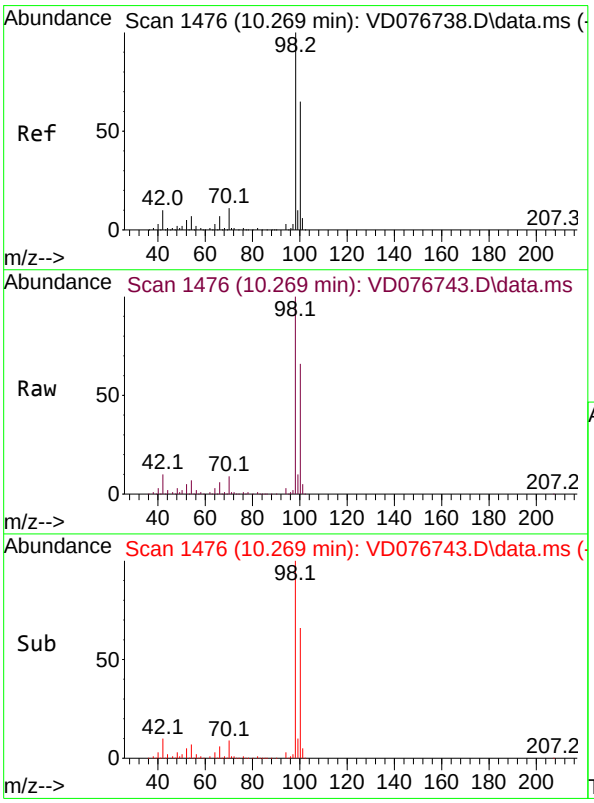
Ion	Ratio	Lower	Upper
88	100		
43	25.9	19.0	28.6
58	61.7	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

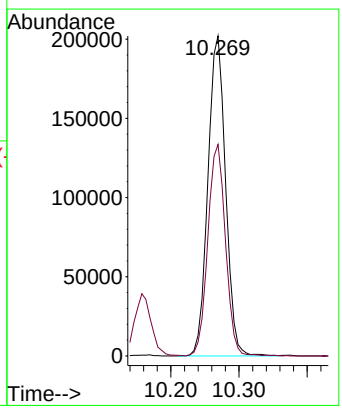


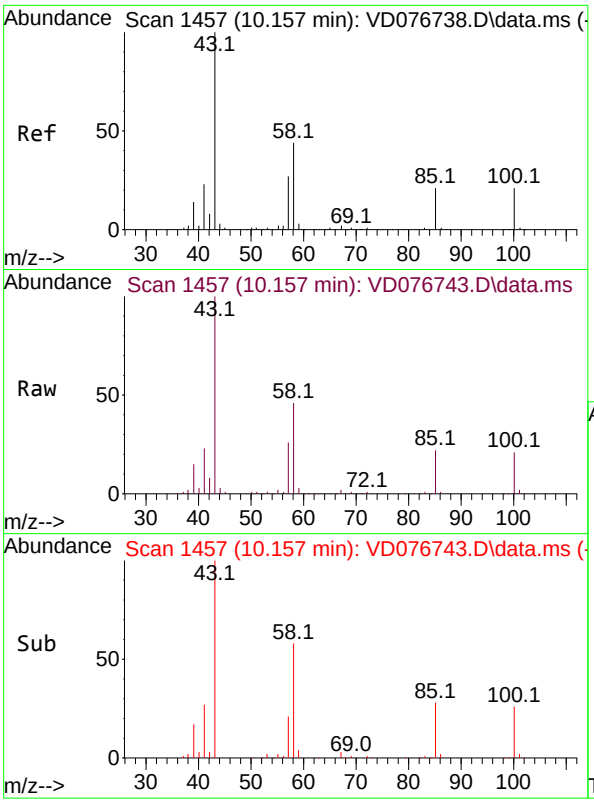


#50
Toluene-d8
Concen: 48.431 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 98 Resp: 364811

Ion	Ratio	Lower	Upper
98	100		
100	66.0	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 270.400 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

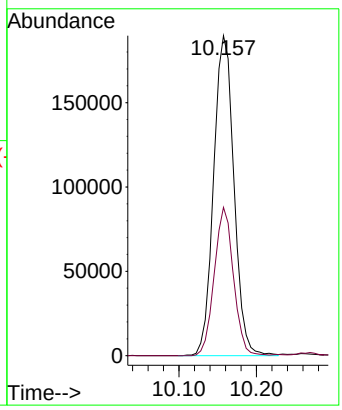
Tgt Ion: 43 Resp: 34572

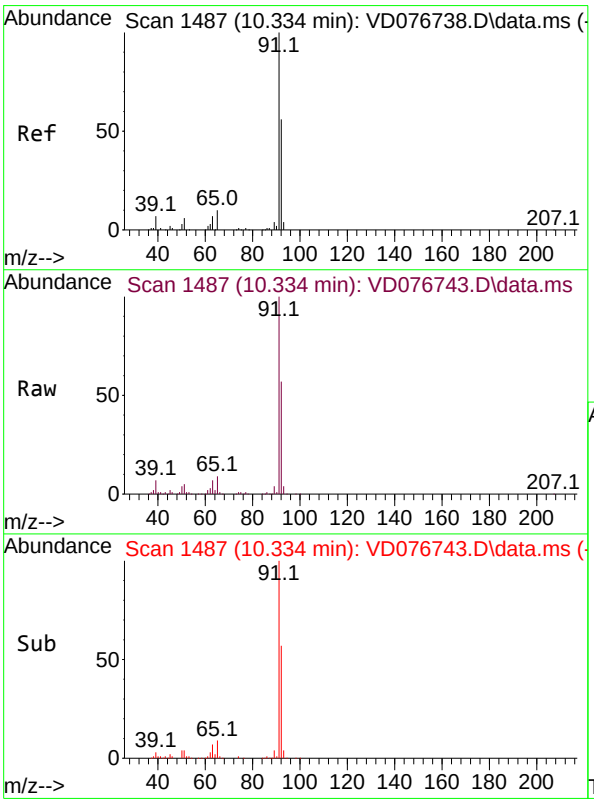
Ion	Ratio	Lower	Upper
43	100		
58	43.8	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

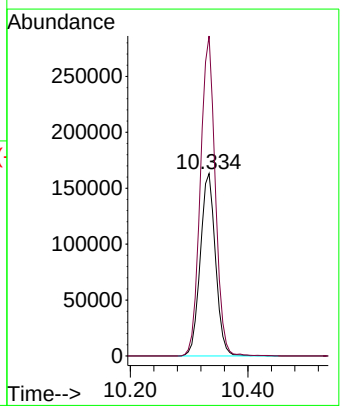


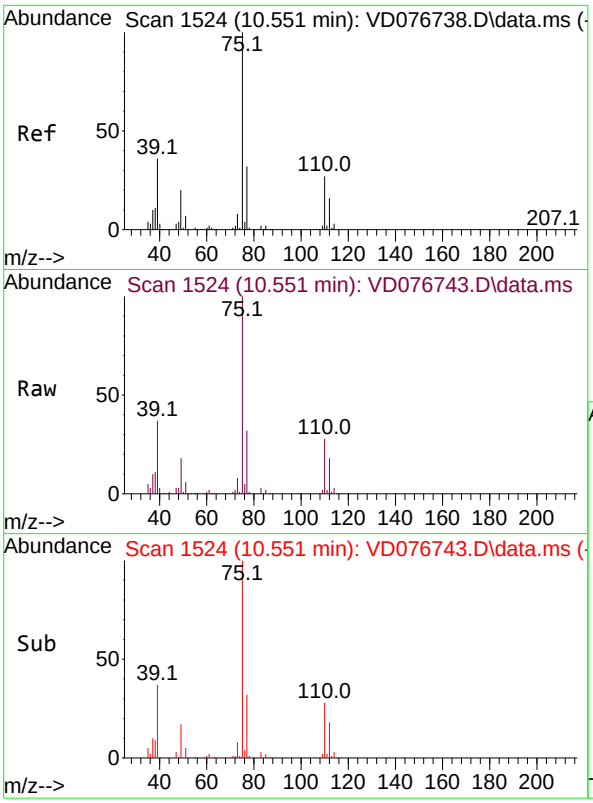


#52
Toluene
Concen: 51.533 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 92 Resp: 293836

Ion	Ratio	Lower	Upper
92	100		
91	172.1	143.0	214.4

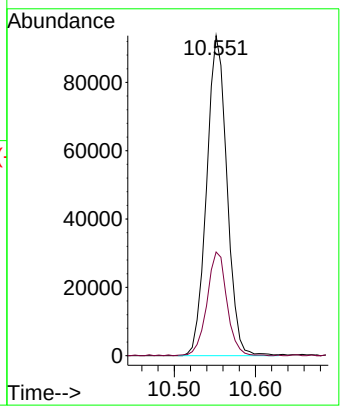




#53
t-1,3-Dichloropropene
Concen: 53.115 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 75 Resp: 16228

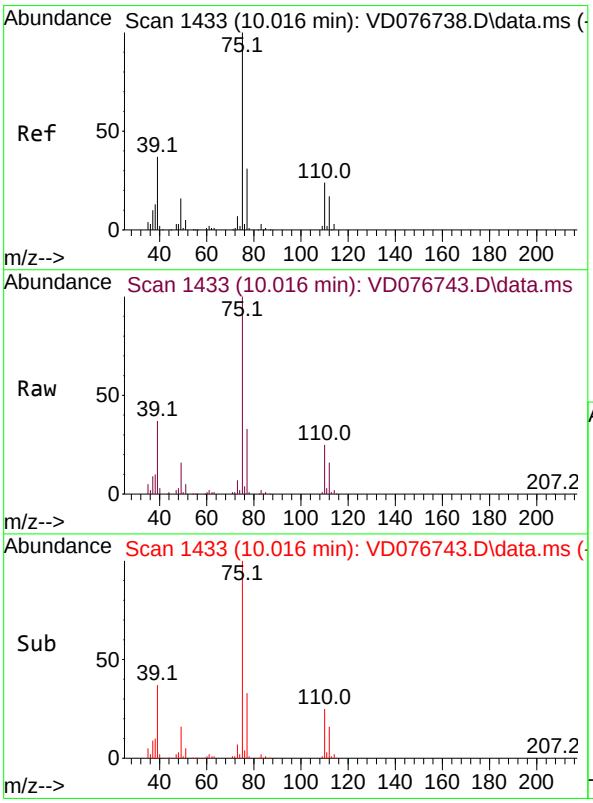
Ion	Ratio	Lower	Upper
75	100		
77	32.3	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

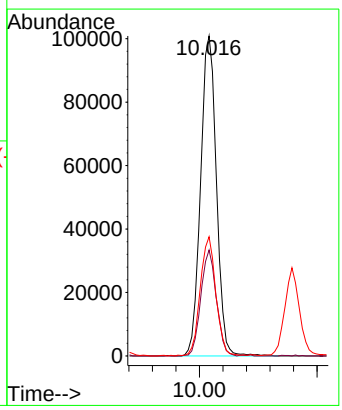
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

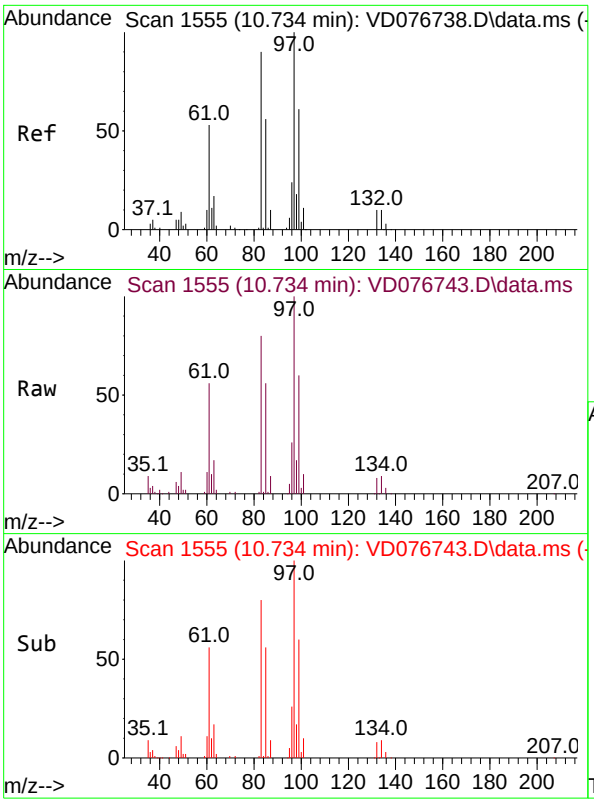


#54
cis-1,3-Dichloropropene
Concen: 52.249 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 75 Resp: 188144

Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.5	38.3
39	37.0	22.1	33.1#

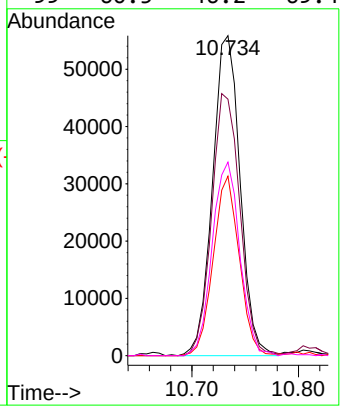




#55
1,1,2-Trichloroethane
Concen: 52.334 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 97 Resp: 10024

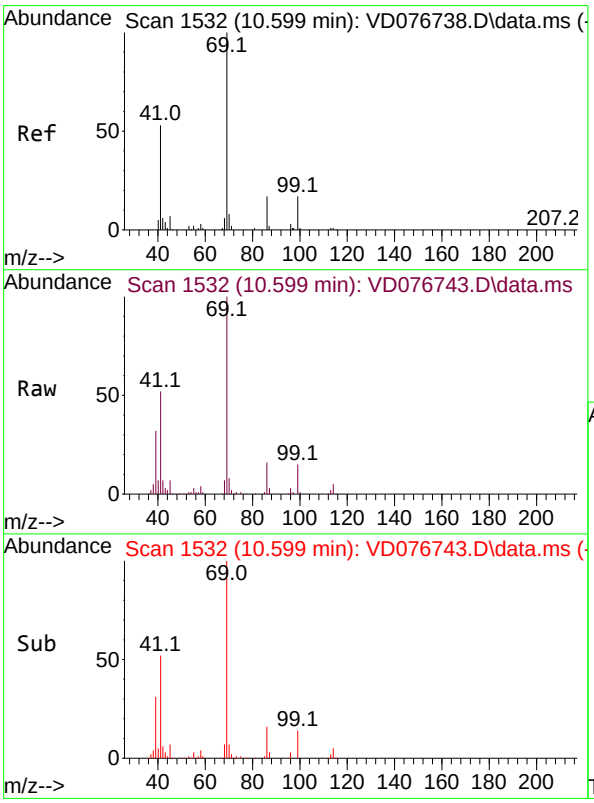
Ion	Ratio	Lower	Upper
97	100		
83	80.1	65.8	98.6
85	56.1	45.7	68.5
99	60.5	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

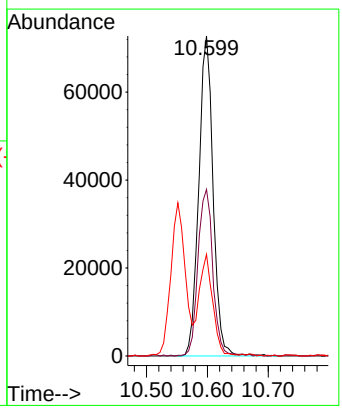
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

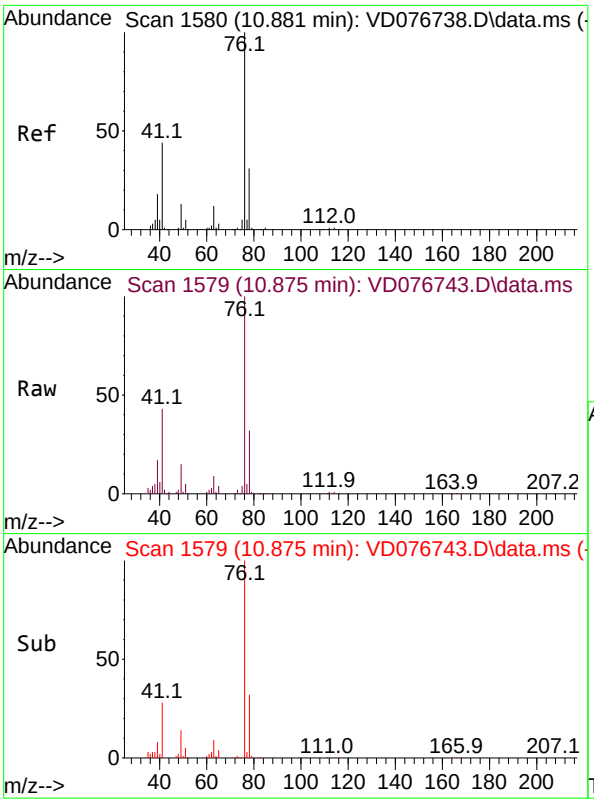


#56
Ethyl methacrylate
Concen: 53.683 ug/l
RT: 10.599 min Scan# 1532
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 69 Resp: 118686

Ion	Ratio	Lower	Upper
69	100		
41	54.2	39.1	58.7
39	29.8	20.0	30.0





#57
1,3-Dichloropropane
Concen: 51.261 ug/l
RT: 10.875 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

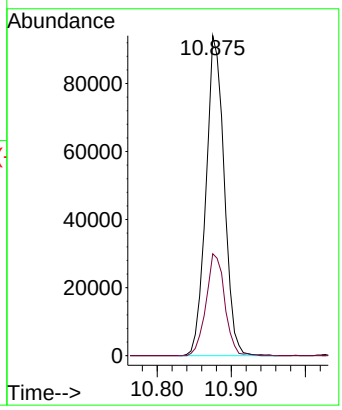
Tgt Ion: 76 Resp: 15990

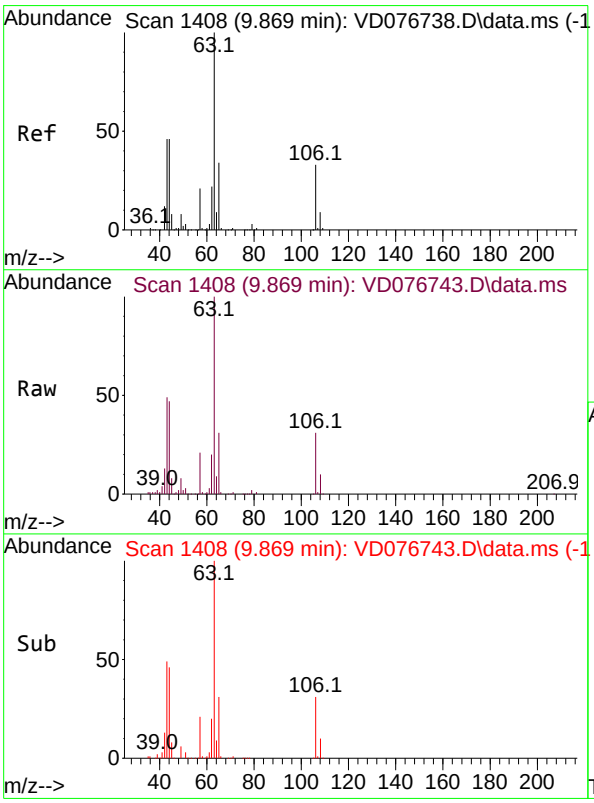
Ion	Ratio	Lower	Upper
76	100		
78	32.8	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

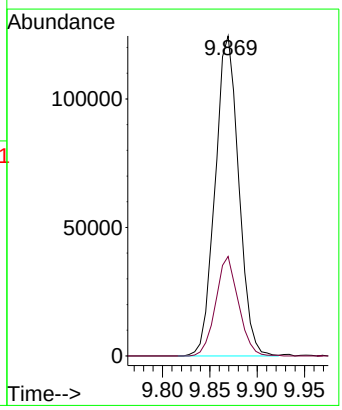


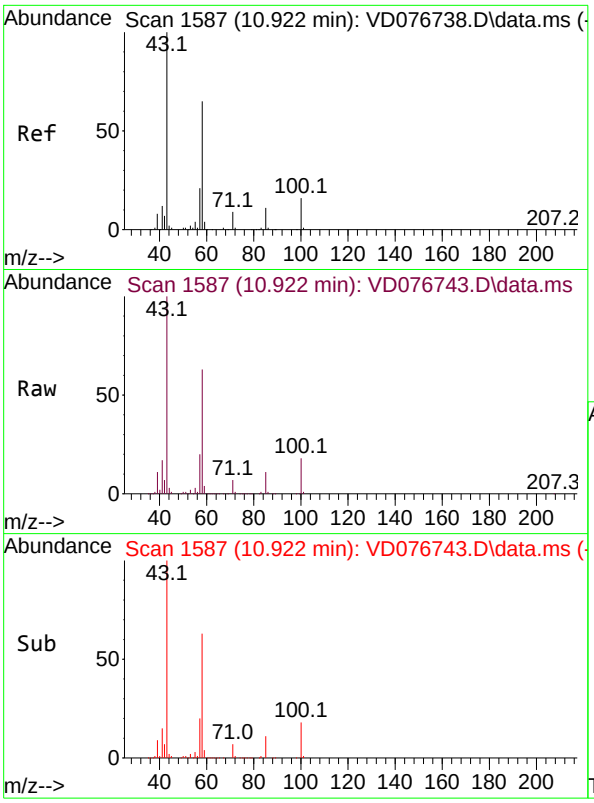


#58
2-Chloroethyl Vinyl ether
Concen: 251.723 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 63 Resp: 215418

Ion	Ratio	Lower	Upper
63	100		
106	30.1	25.3	37.9





#59
2-Hexanone
Concen: 270.567 ug/l
RT: 10.922 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

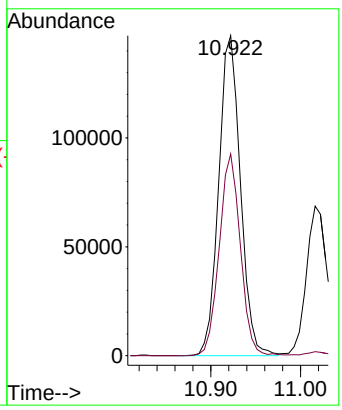
Tgt Ion: 43 Resp: 24684

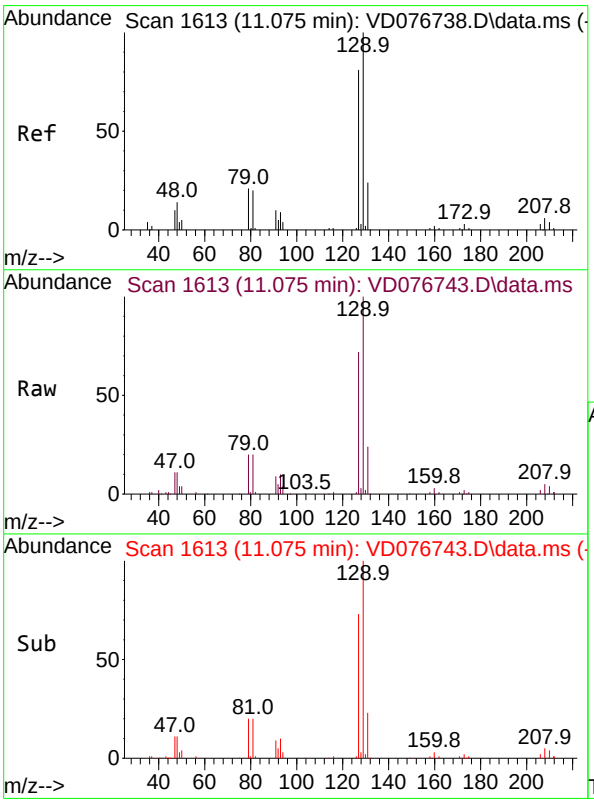
Ion	Ratio	Lower	Upper
43	100		
58	61.3	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

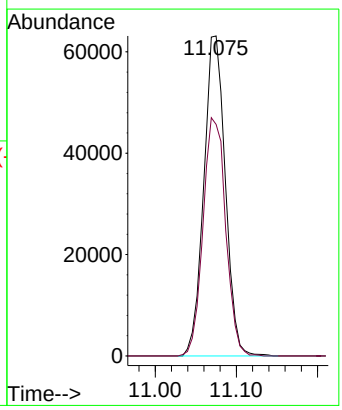


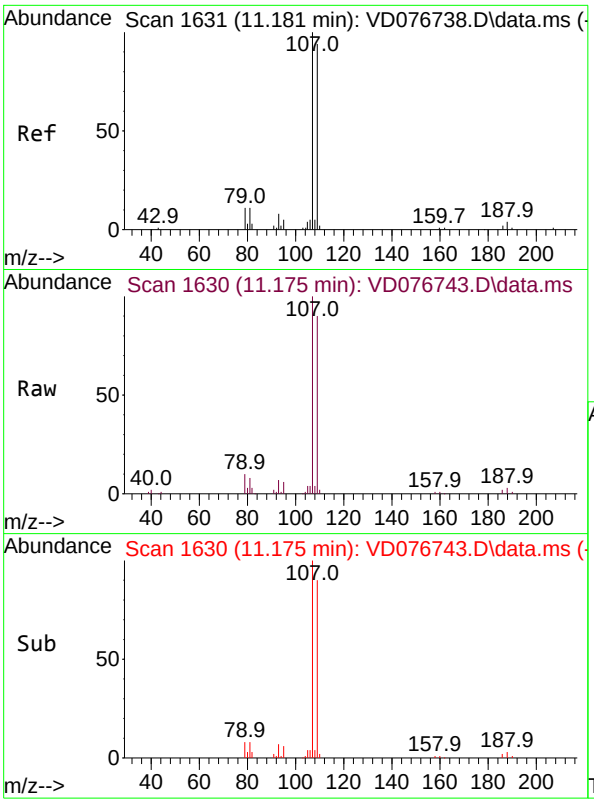


#60
Dibromochloromethane
Concen: 52.227 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:129 Resp: 116216

Ion	Ratio	Lower	Upper
129	100		
127	78.1	37.1	111.5





#61
1,2-Dibromoethane
Concen: 52.138 ug/l
RT: 11.175 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

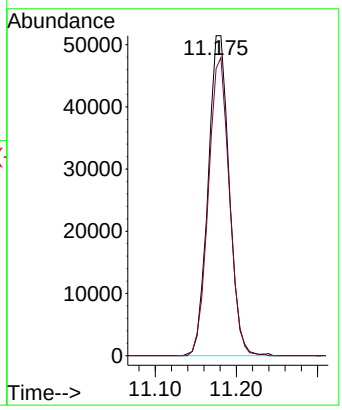
Tgt Ion:107 Resp: 9259

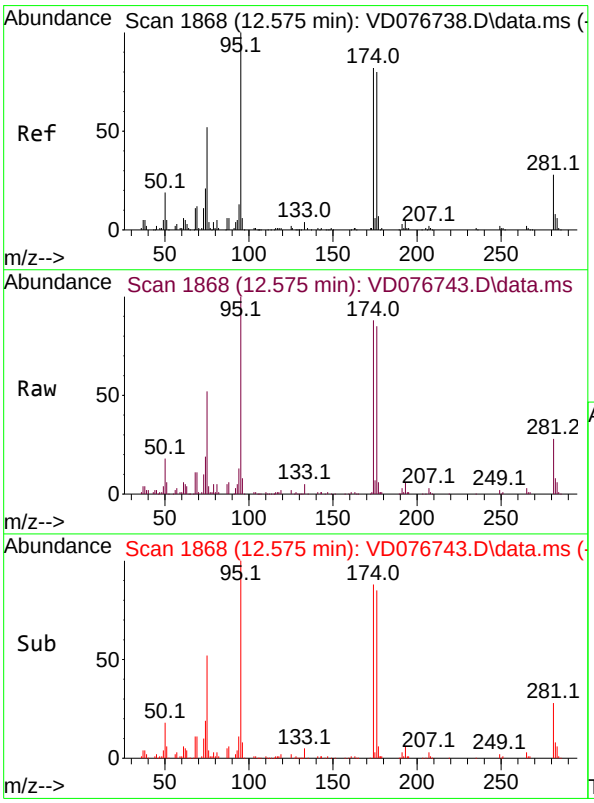
Ion	Ratio	Lower	Upper
107	100		
109	92.7	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

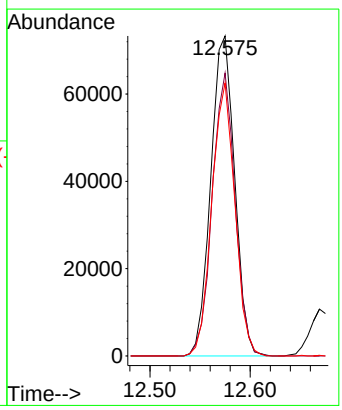


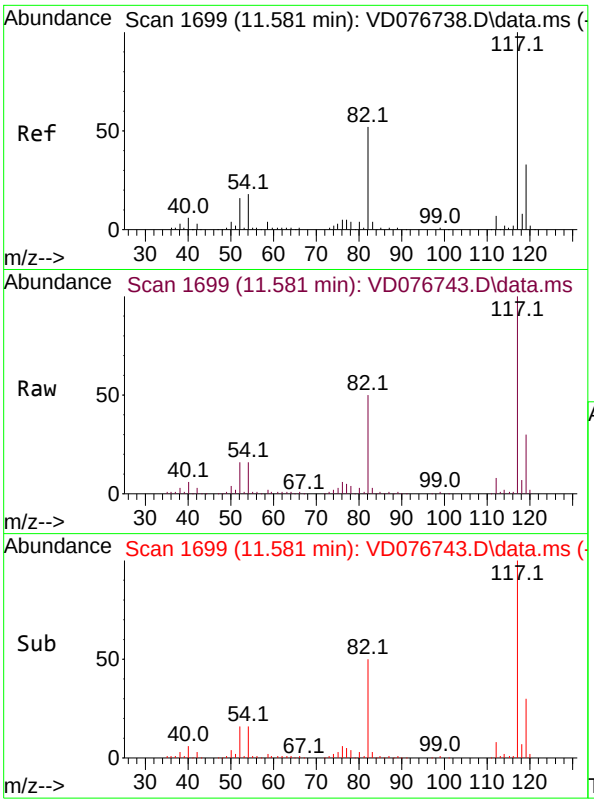


#62
4-Bromofluorobenzene
Concen: 49.766 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 95 Resp: 121269

Ion	Ratio	Lower	Upper
95	100		
174	84.6	0.0	201.8
176	82.1	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

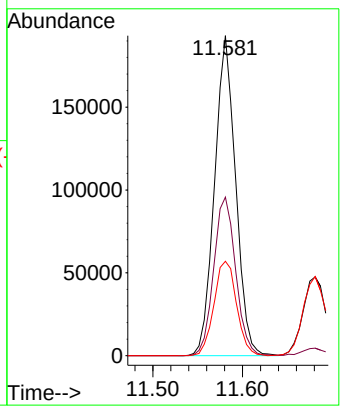
Tgt Ion:117 Resp: 31485

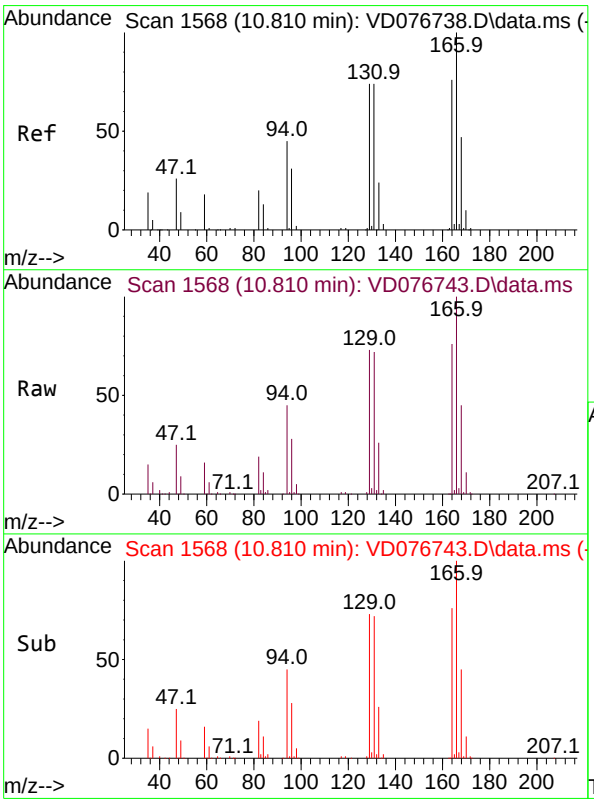
Ion	Ratio	Lower	Upper
117	100		
82	49.6	38.3	57.5
119	29.5	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

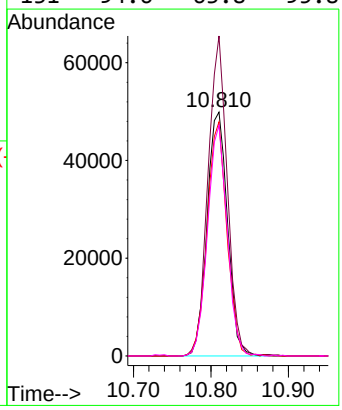


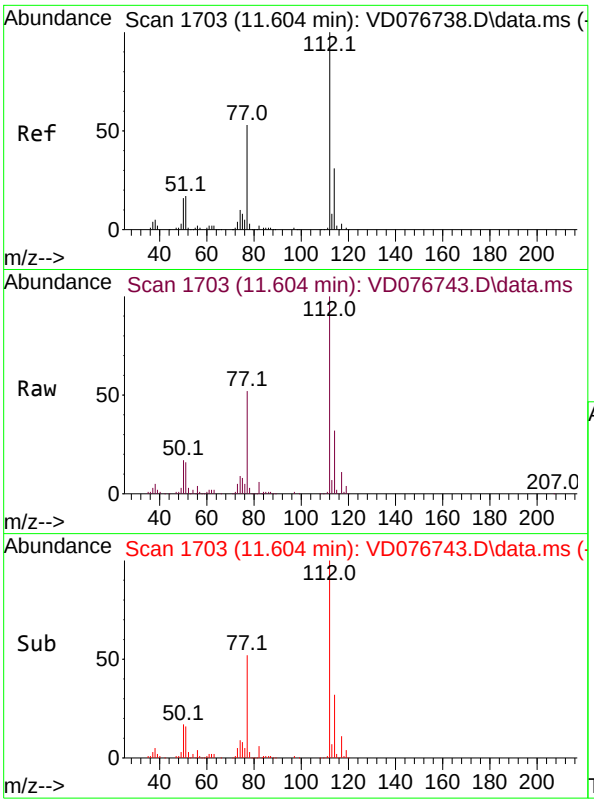


#64
Tetrachloroethene
Concen: 51.112 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:164 Resp: 91766

Ion	Ratio	Lower	Upper
164	100		
166	131.2	99.2	148.8
129	96.0	68.4	102.6
131	94.6	63.8	95.8

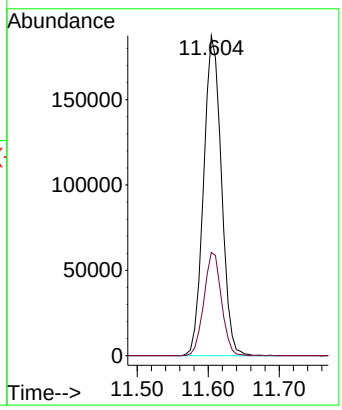




#65
Chlorobenzene
Concen: 51.601 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:112 Resp: 32676

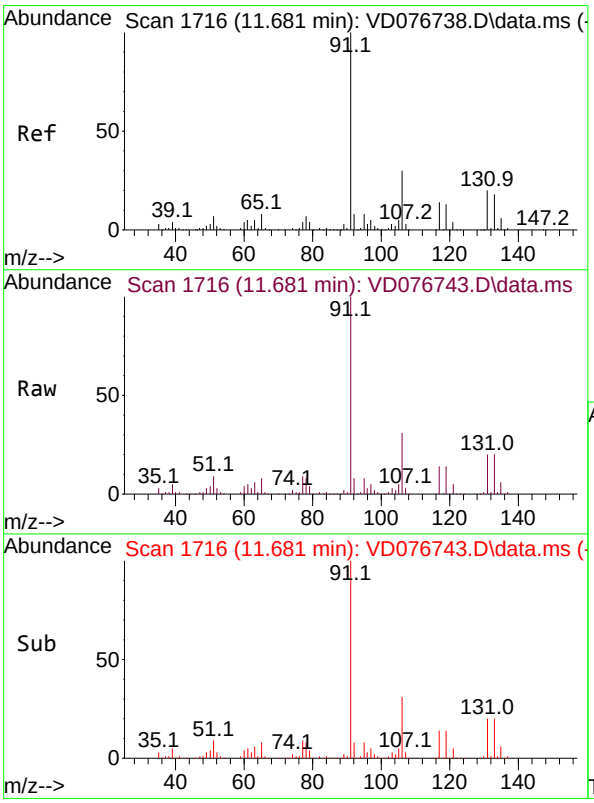
Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

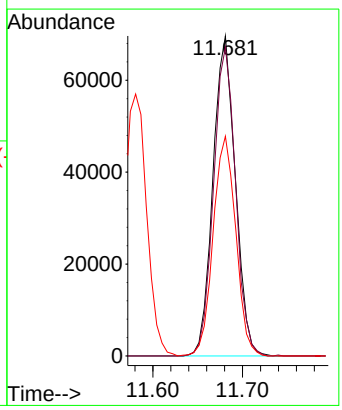
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

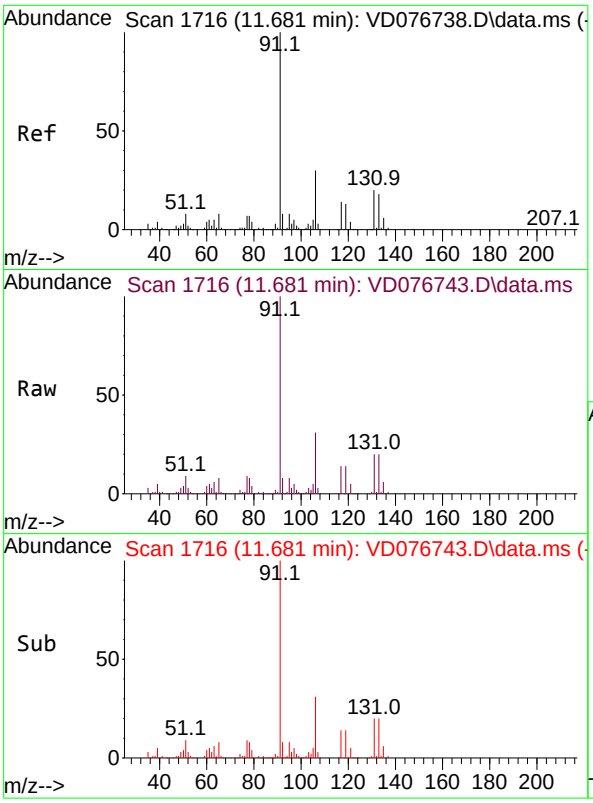


#66
1,1,1,2-Tetrachloroethane
Concen: 51.104 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:131 Resp: 120484

Ion	Ratio	Lower	Upper
131	100		
133	95.1	48.5	145.5
119	69.4	35.6	106.9





#67
Ethyl Benzene
Concen: 51.089 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

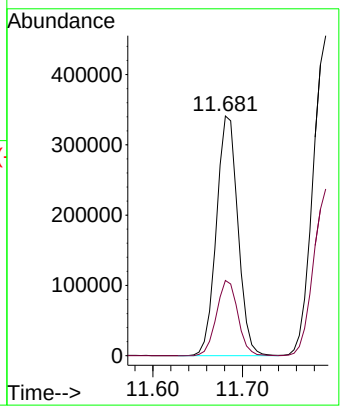
Tgt Ion: 91 Resp: 56816

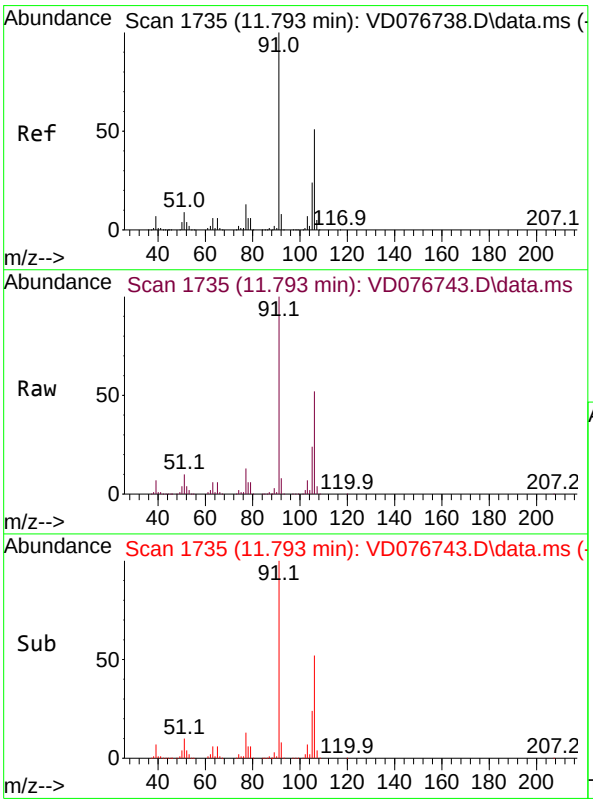
Ion	Ratio	Lower	Upper
91	100		
106	31.4	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

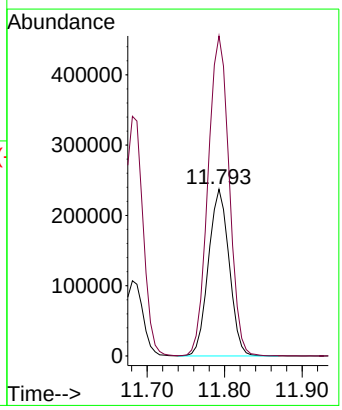


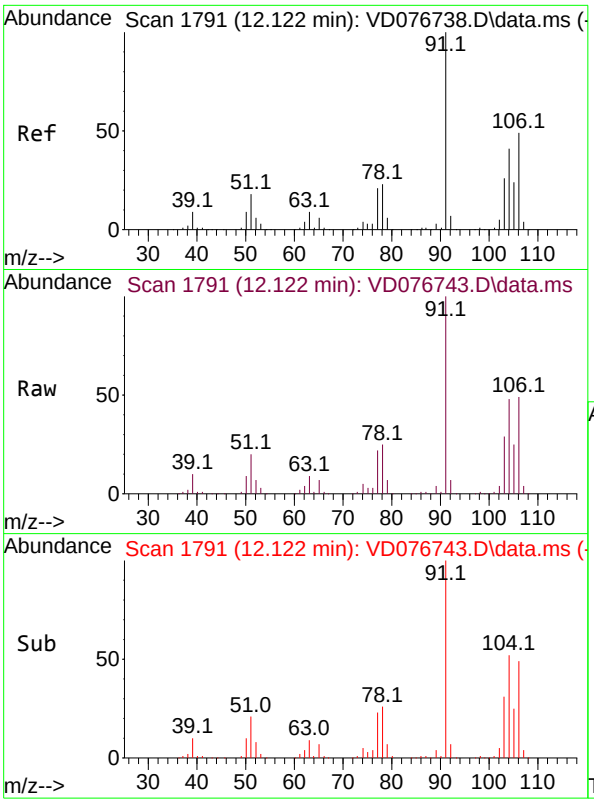


#68
m/p-Xylenes
Concen: 103.173 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:106 Resp: 440666

Ion	Ratio	Lower	Upper
106	100		
91	195.8	147.0	220.6





#69
o-Xylene
Concen: 51.384 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

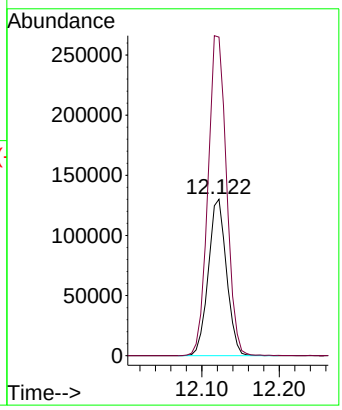
Tgt Ion:106 Resp: 21222

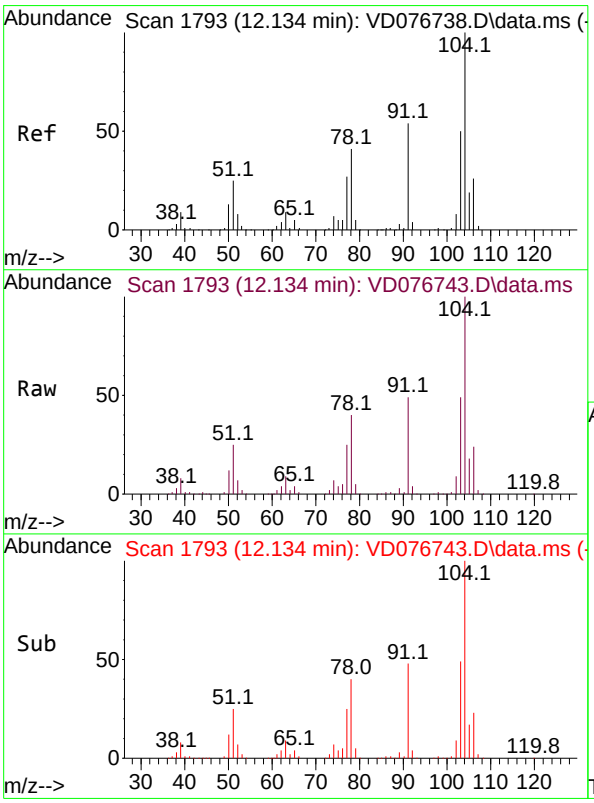
Ion	Ratio	Lower	Upper
106	100		
91	208.3	97.9	293.6

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

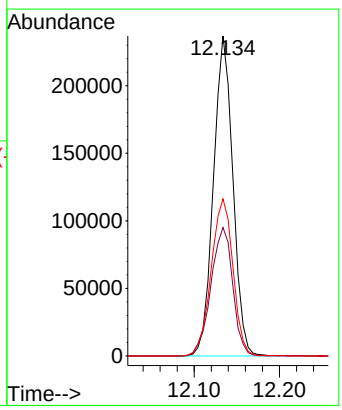


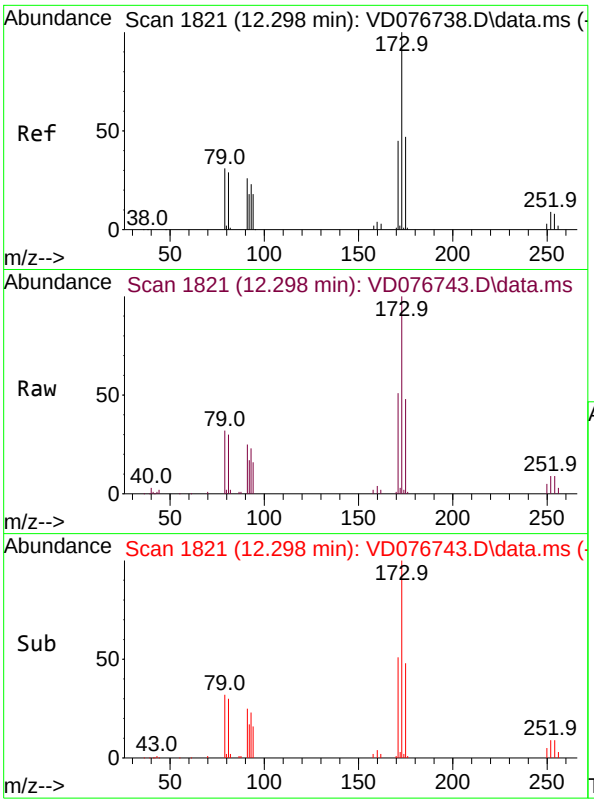


#70
Styrene
Concen: 51.954 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:104 Resp: 375643

Ion	Ratio	Lower	Upper
104	100		
78	44.9	33.2	49.8
103	54.9	43.6	65.4





#71
Bromoform
Concen: 52.201 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

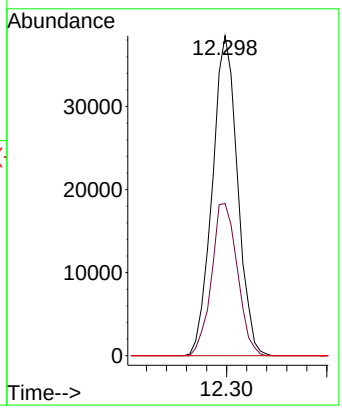
Tgt Ion:173 Resp: 6740

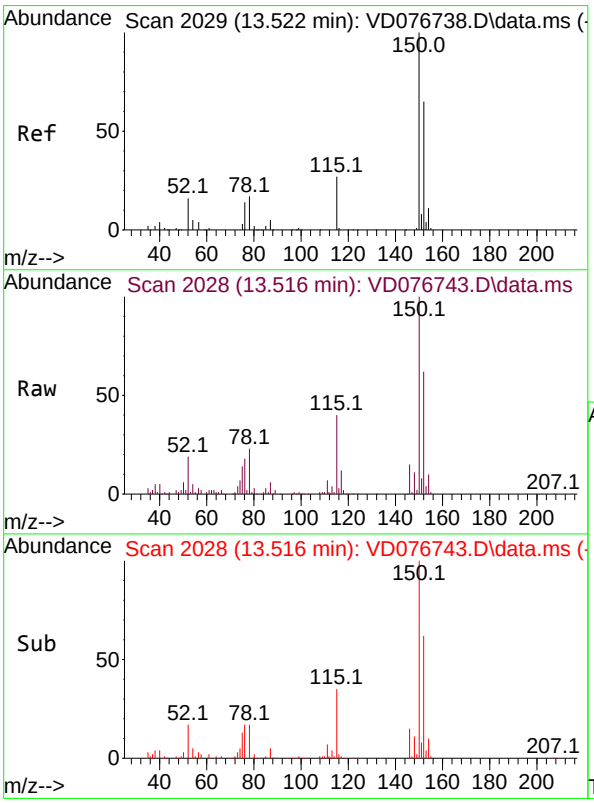
Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

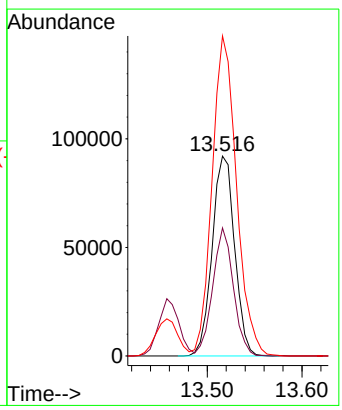


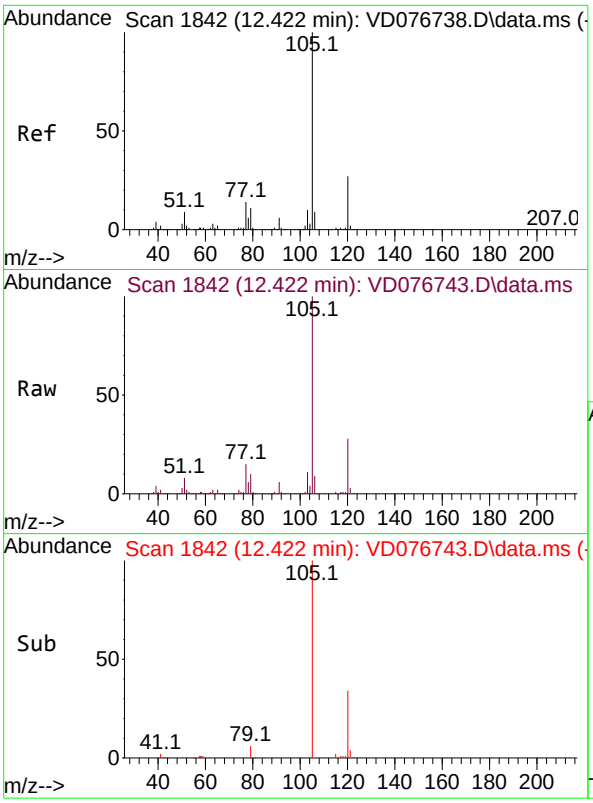


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:152 Resp: 151537

Ion	Ratio	Lower	Upper
152	100		
115	59.0	27.1	81.3
150	174.3	0.0	353.6





#73
Isopropylbenzene
Concen: 50.192 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

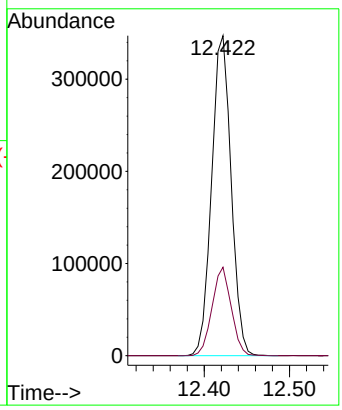
Tgt Ion:105 Resp: 55182

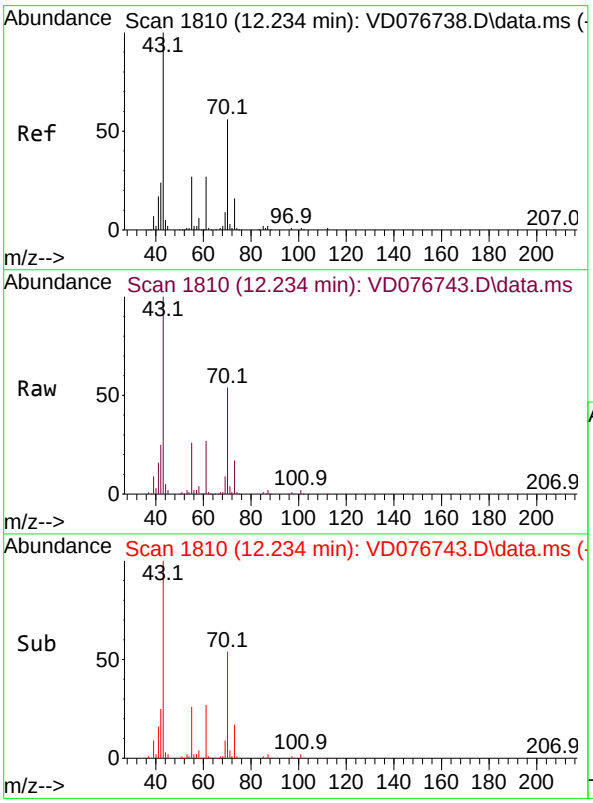
Ion	Ratio	Lower	Upper
105	100		
120	27.1	14.3	42.9

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

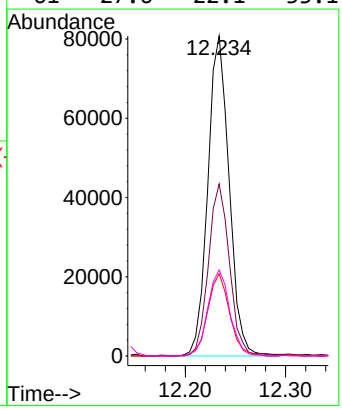


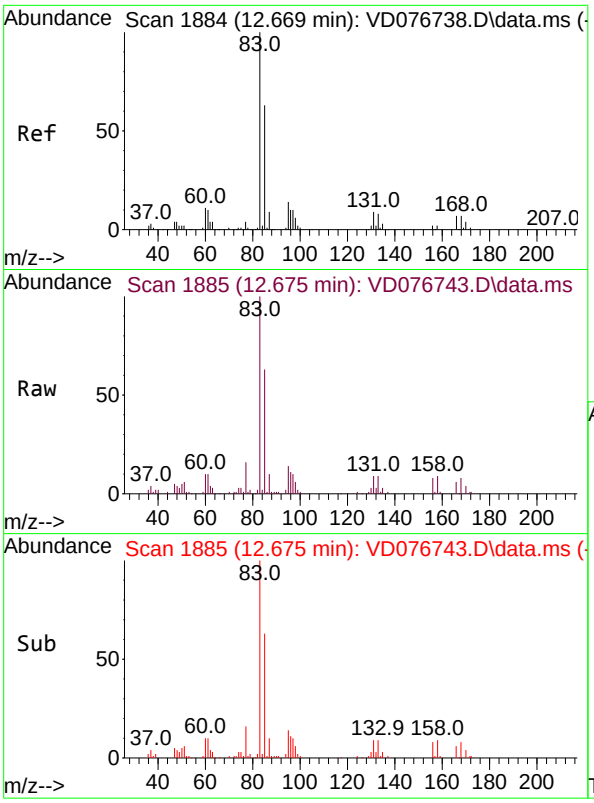


#74
N-amyl acetate
Concen: 51.611 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 43 Resp: 119541

Ion	Ratio	Lower	Upper
43	100		
70	53.0	45.0	67.4
55	26.2	23.8	35.6
61	27.6	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 50.392 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

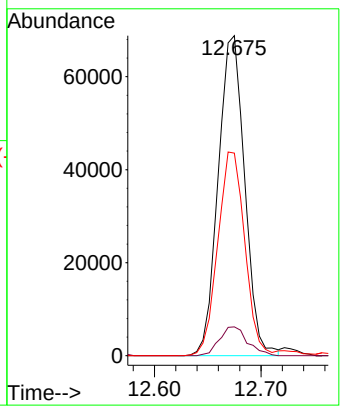
Tgt Ion: 83 Resp: 11895

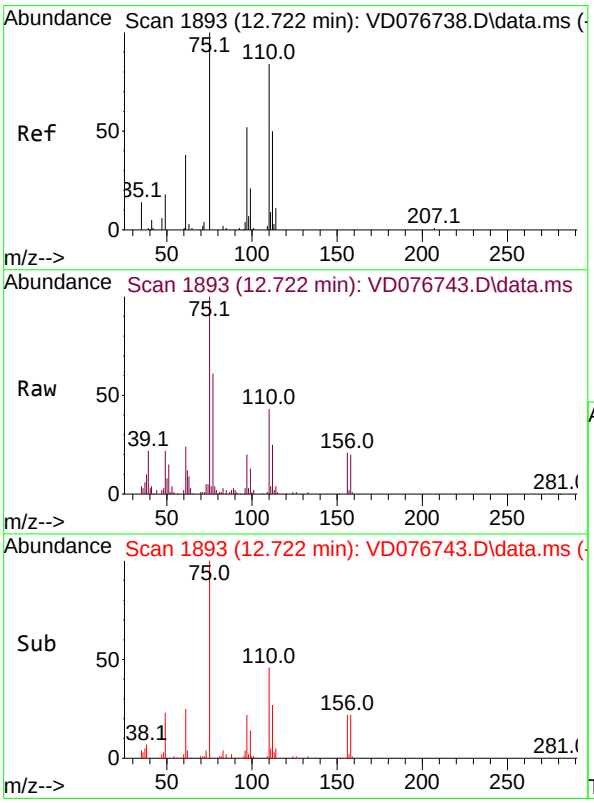
Ion	Ratio	Lower	Upper
83	100		
131	9.6	5.1	15.3
85	64.8	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

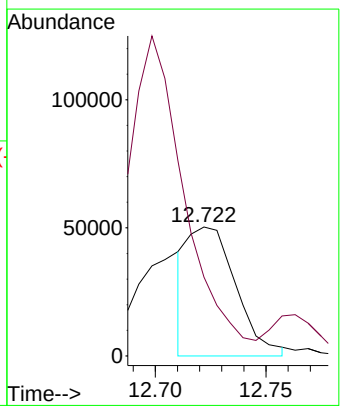


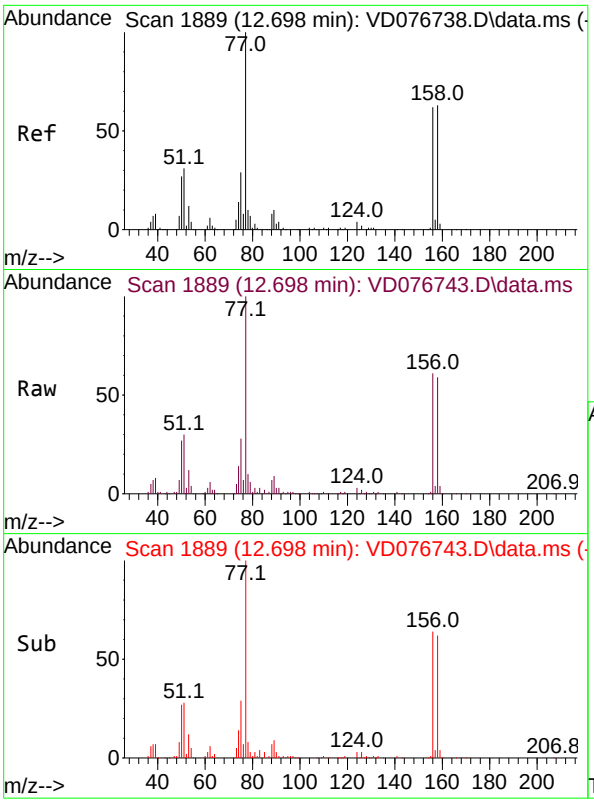


#76
1,2,3-Trichloropropane
Concen: 53.035 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 75 Resp: 76429

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 48.774 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

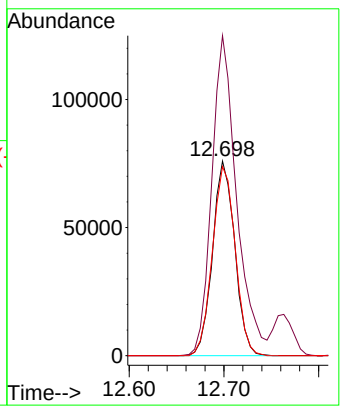
Tgt Ion:156 Resp: 12377

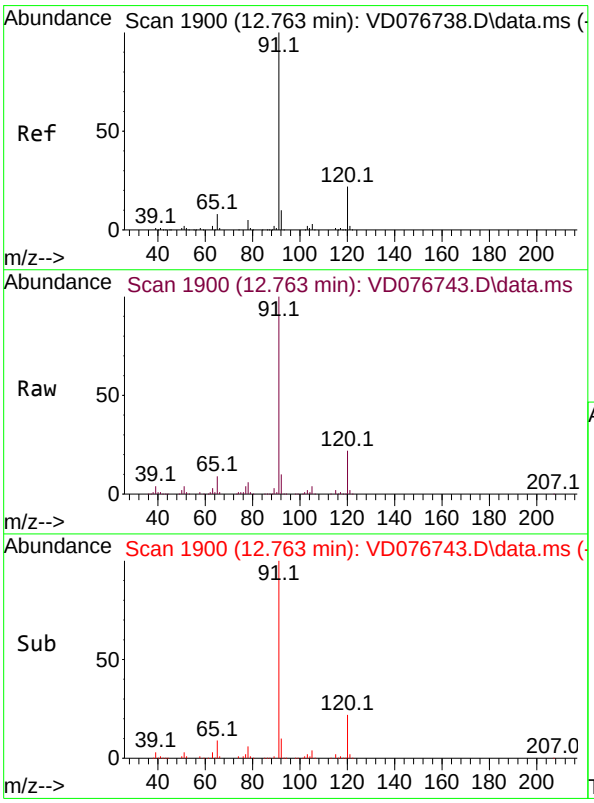
Ion	Ratio	Lower	Upper
156	100		
77	184.2	76.8	230.4
158	100.4	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

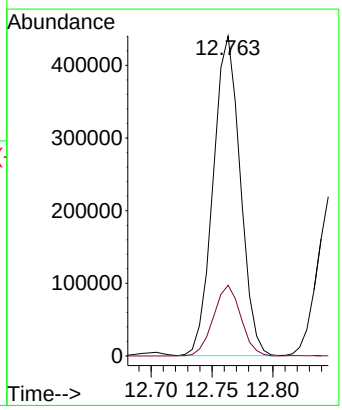


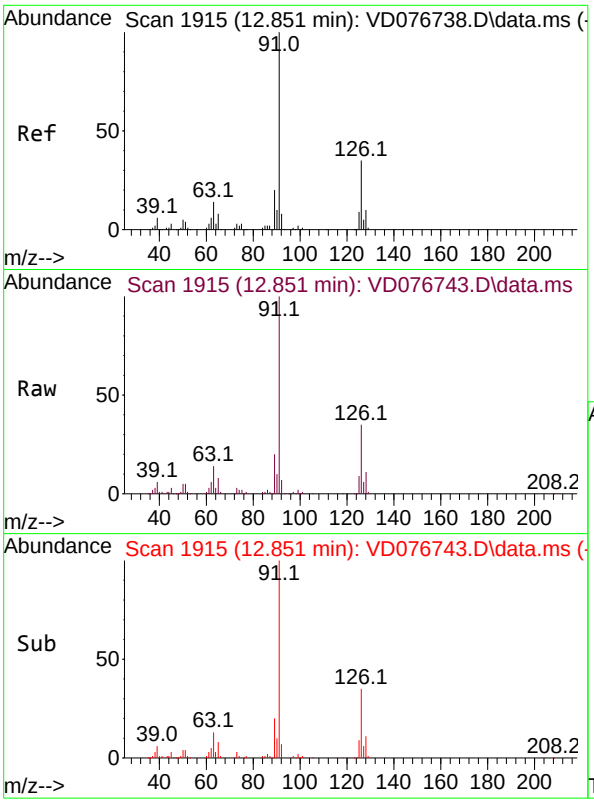


#78
n-propylbenzene
Concen: 51.095 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 91 Resp: 681024

Ion	Ratio	Lower	Upper
91	100		
120	22.3	12.4	37.2





#79
2-Chlorotoluene
Concen: 51.112 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

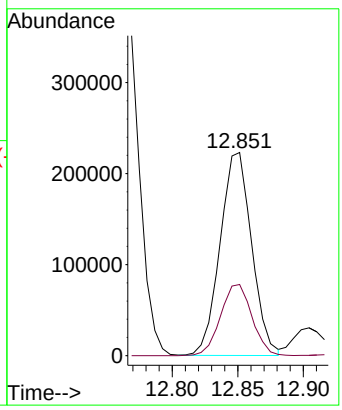
Tgt Ion: 91 Resp: 37353

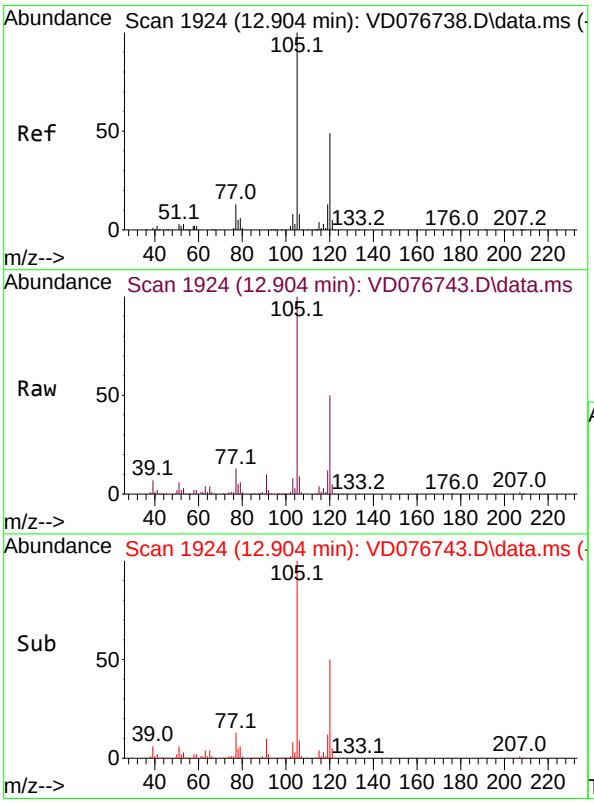
Ion	Ratio	Lower	Upper
91	100		
126	34.9	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

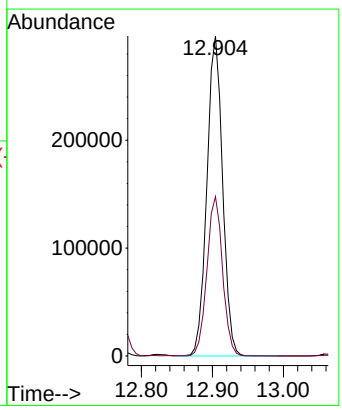


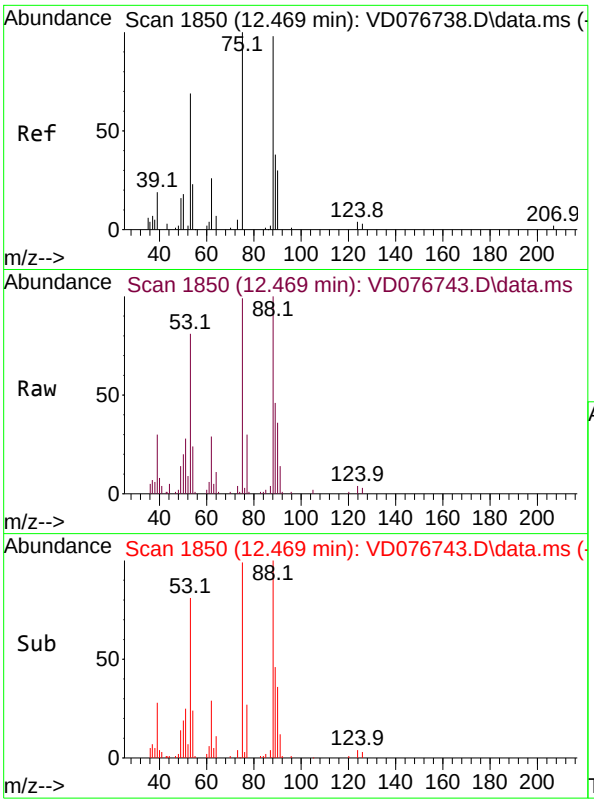


#80
1,3,5-Trimethylbenzene
Concen: 51.320 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:105 Resp: 456230

Ion	Ratio	Lower	Upper
105	100		
120	49.6	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 52.060 ug/l
RT: 12.469 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

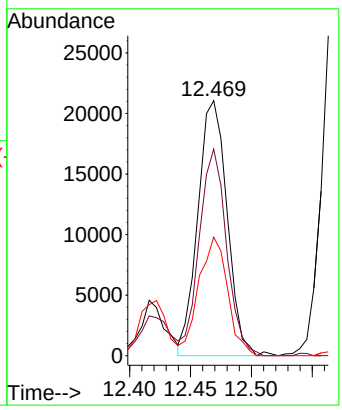
Tgt Ion: 75 Resp: 3525

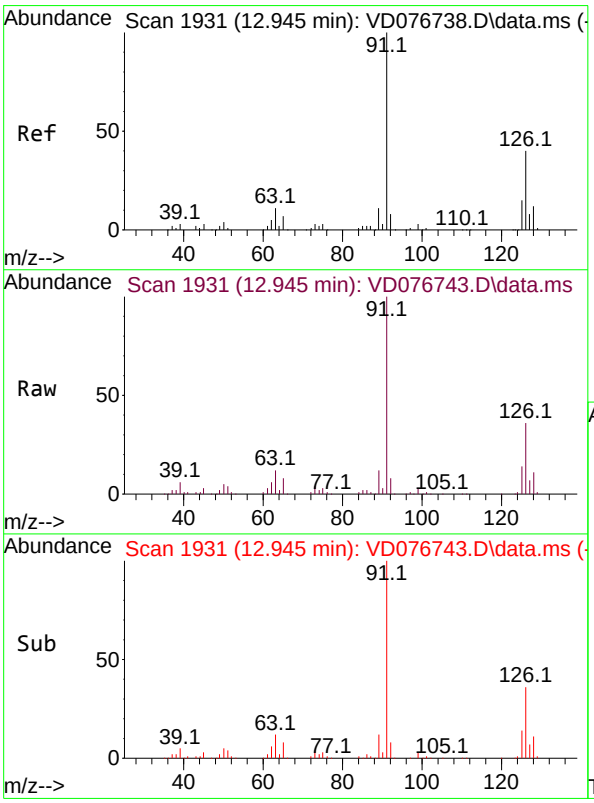
Ion	Ratio	Lower	Upper
75	100		
53	76.0	63.0	94.4
89	45.9	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

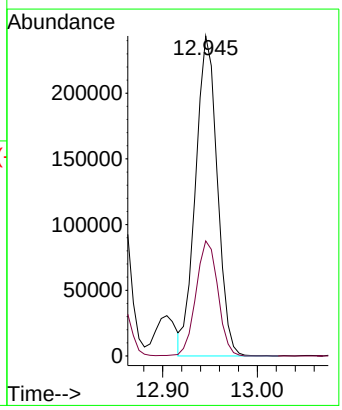


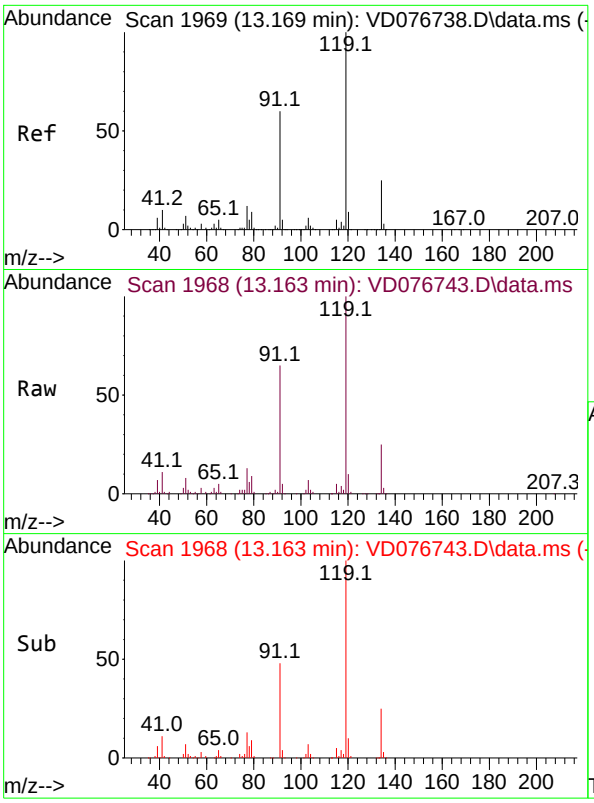


#82
4-Chlorotoluene
Concen: 50.852 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 91 Resp: 388242

Ion	Ratio	Lower	Upper
91	100		
126	36.2	19.4	58.4

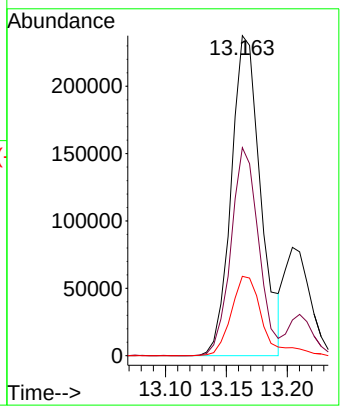




#83
tert-Butylbenzene
Concen: 51.002 ug/l
RT: 13.163 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:119 Resp: 39921

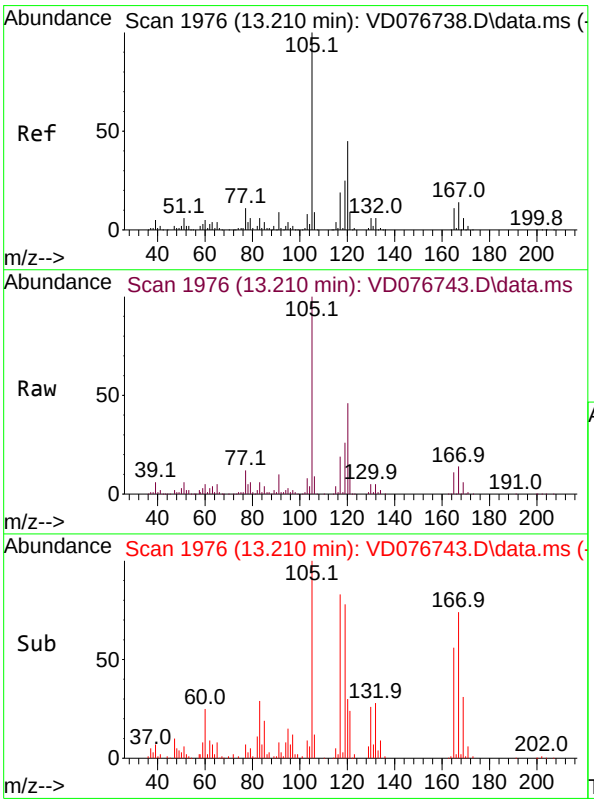
Ion	Ratio	Lower	Upper
119	100		
91	61.4	29.3	87.8
134	26.6	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

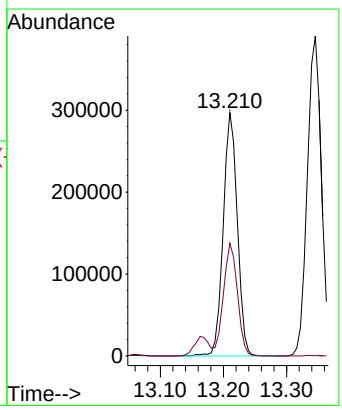
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

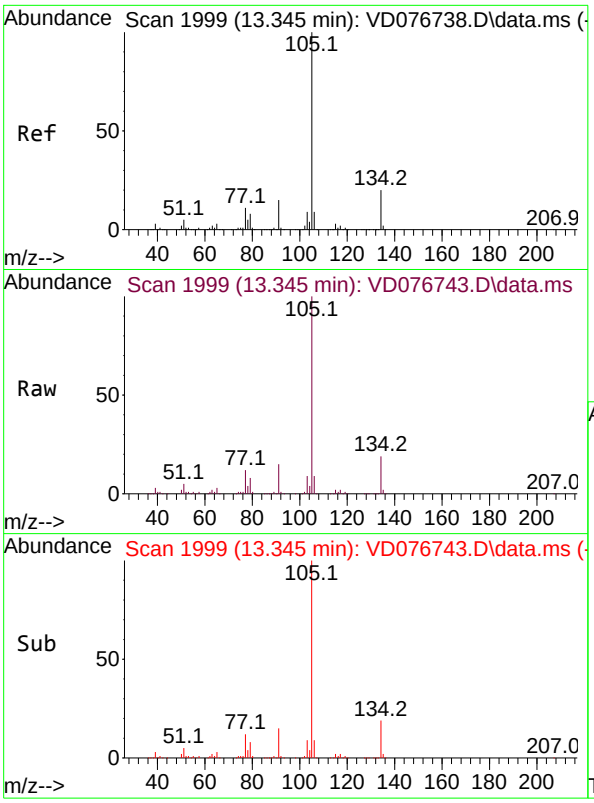


#84
1,2,4-Trimethylbenzene
Concen: 50.677 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:105 Resp: 460375

Ion	Ratio	Lower	Upper
105	100		
120	46.1	24.3	72.9





#85
sec-Butylbenzene
Concen: 50.630 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

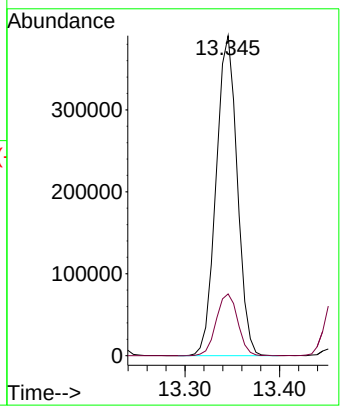
Tgt Ion:105 Resp: 60548

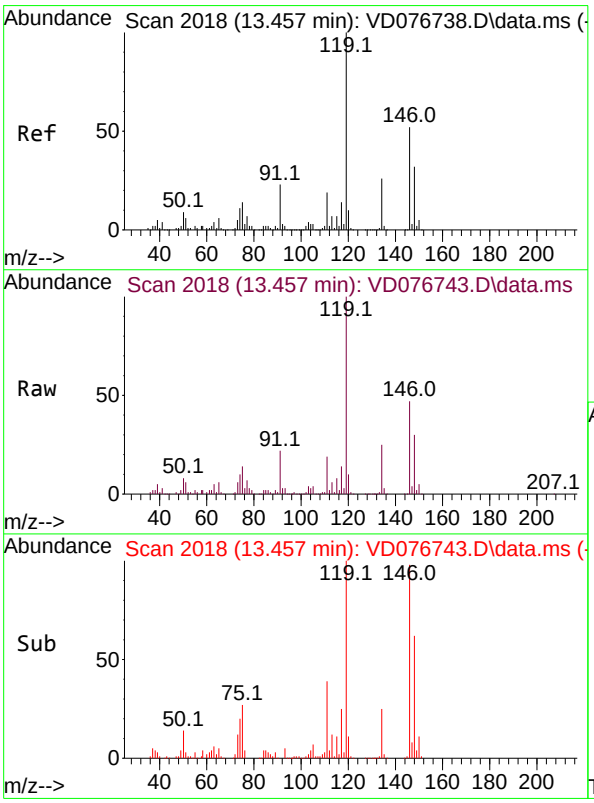
Ion	Ratio	Lower	Upper
105	100		
134	19.6	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

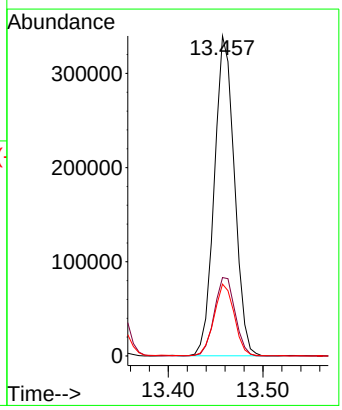


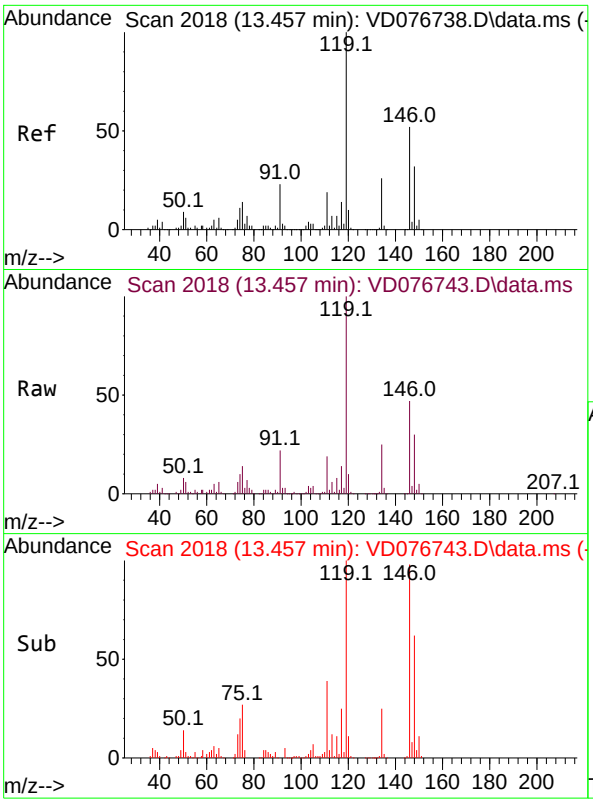


#86
p-Isopropyltoluene
Concen: 50.746 ug/l
RT: 13.457 min Scan# 2018
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:119 Resp: 501199

Ion	Ratio	Lower	Upper
119	100		
134	25.4	14.2	42.6
91	22.5	10.5	31.5

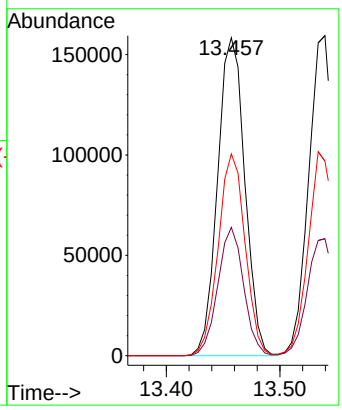




#87
1,3-Dichlorobenzene
Concen: 50.621 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:146 Resp: 26423

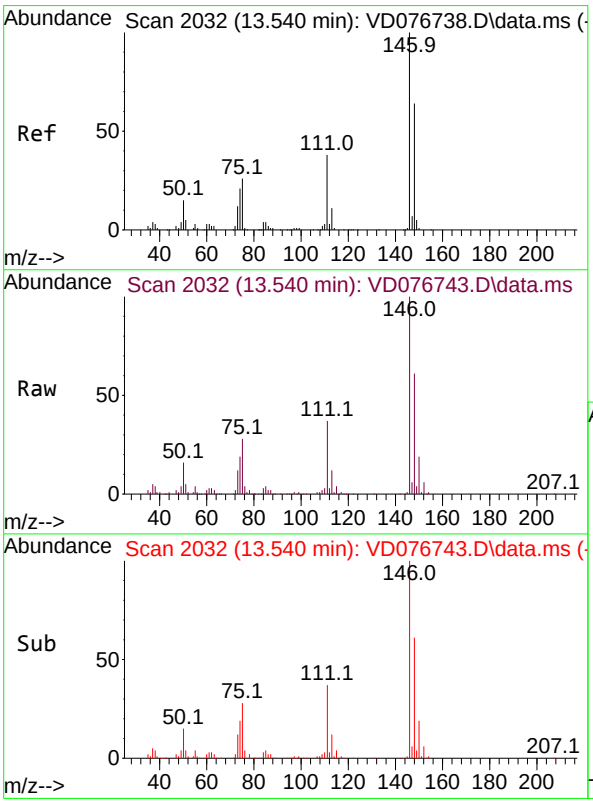
Ion	Ratio	Lower	Upper
146	100		
111	38.2	17.9	53.8
148	62.6	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

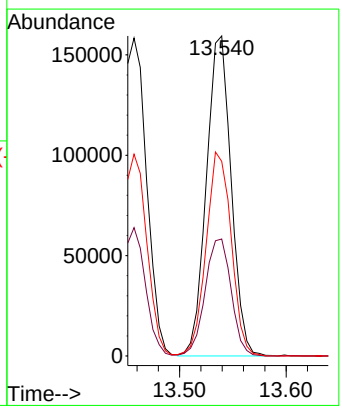
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

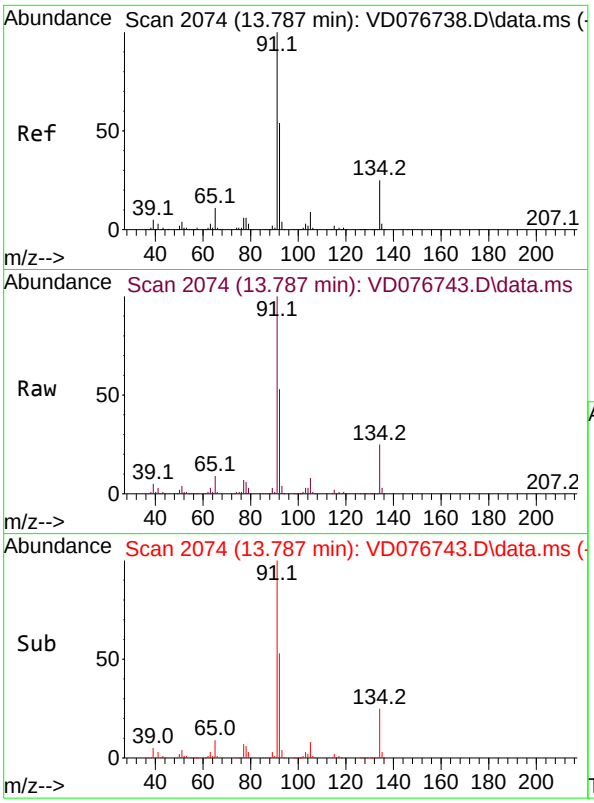


#88
1,4-Dichlorobenzene
Concen: 50.441 ug/l
RT: 13.540 min Scan# 2032
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:146 Resp: 257954

Ion	Ratio	Lower	Upper
146	100		
111	38.5	17.4	52.3
148	64.8	31.7	95.1

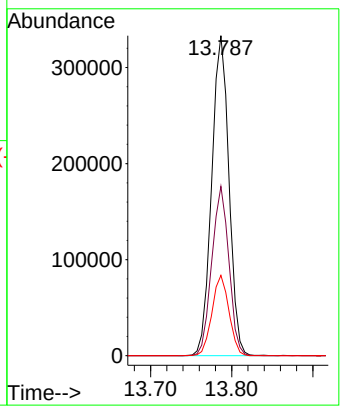




#89
n-Butylbenzene
Concen: 50.908 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 91 Resp: 49200

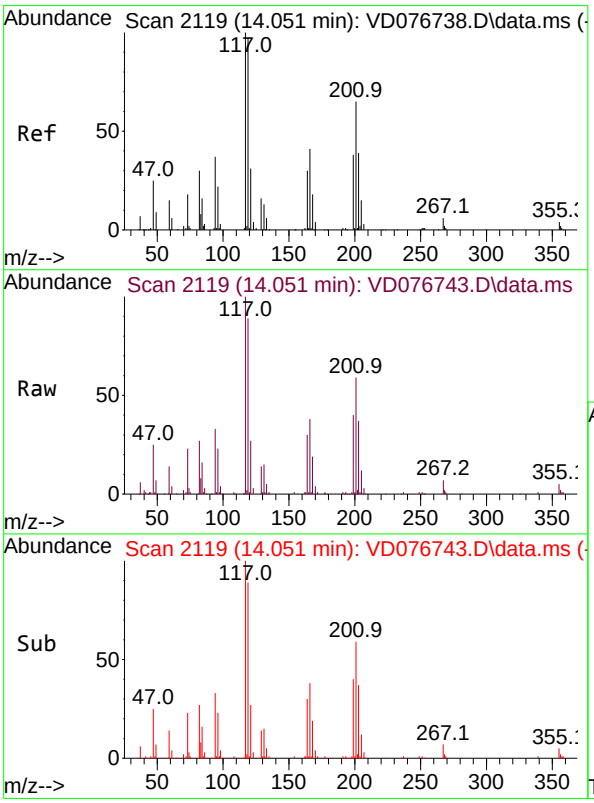
Ion	Ratio	Lower	Upper
91	100		
92	52.3	26.5	79.5
134	24.7	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

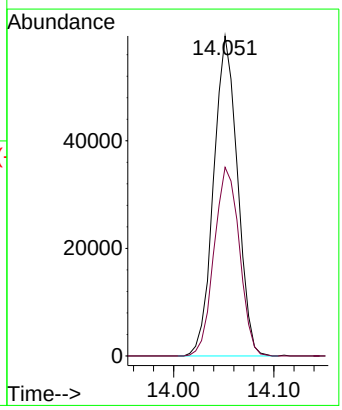
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

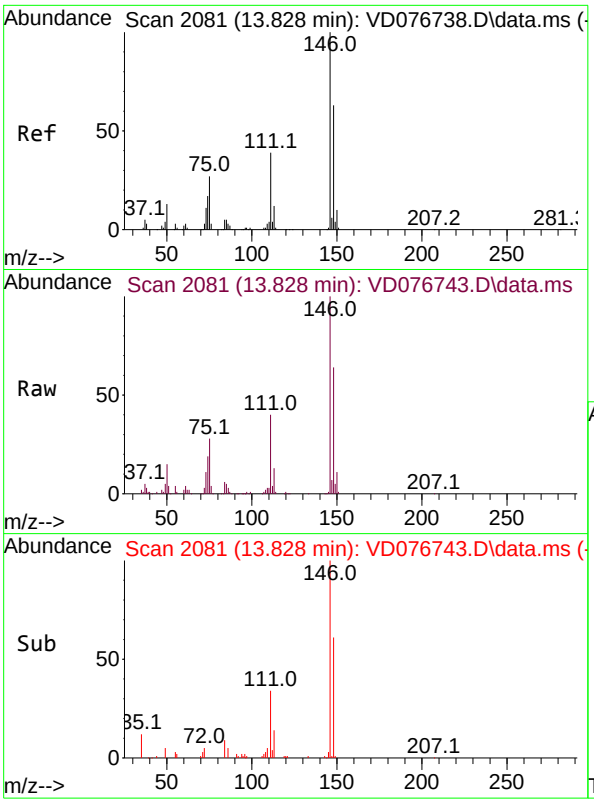


#90
Hexachloroethane
Concen: 53.792 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:117 Resp: 98222

Ion	Ratio	Lower	Upper
117	100		
201	62.5	38.5	115.5

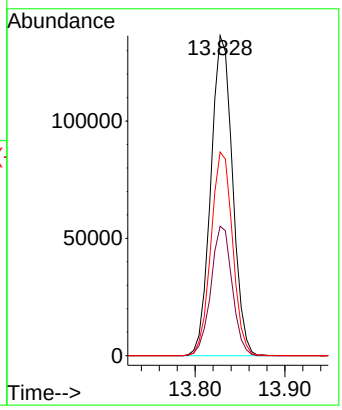




#91
1,2-Dichlorobenzene
Concen: 49.759 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:146 Resp: 22886

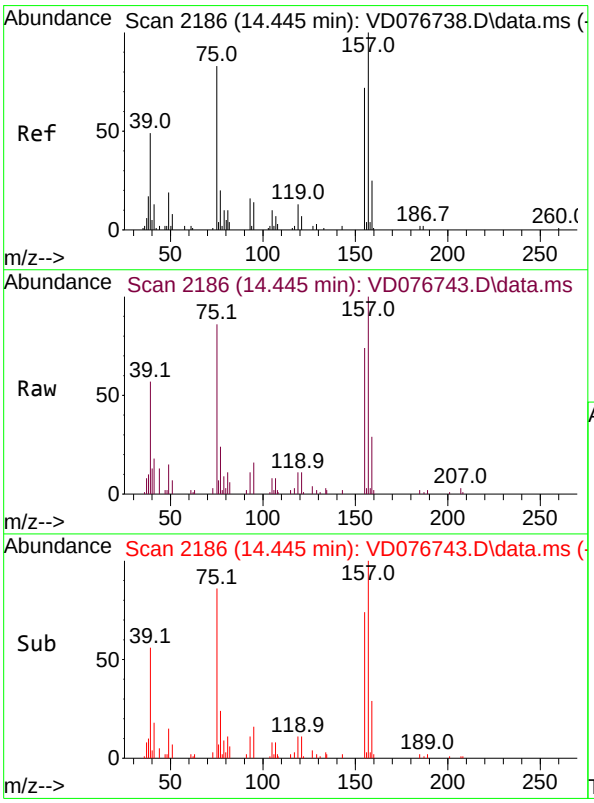
Ion	Ratio	Lower	Upper
146	100		
111	39.6	18.3	54.8
148	63.6	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

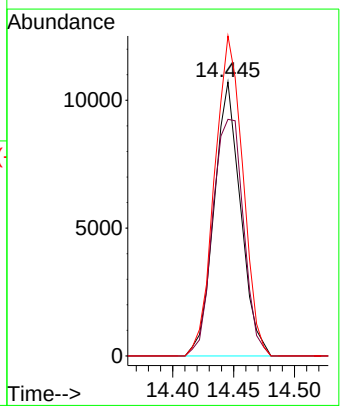
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

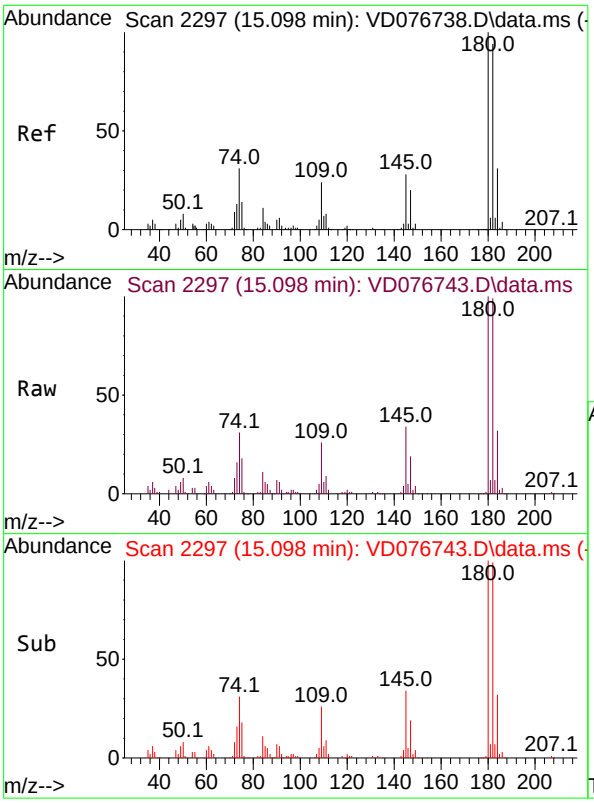


#92
1,2-Dibromo-3-Chloropropane
Concen: 48.289 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion: 75 Resp: 16253

Ion	Ratio	Lower	Upper
75	100		
155	99.8	47.9	143.8
157	124.4	59.9	179.7





#93
1,2,4-Trichlorobenzene
Concen: 50.673 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

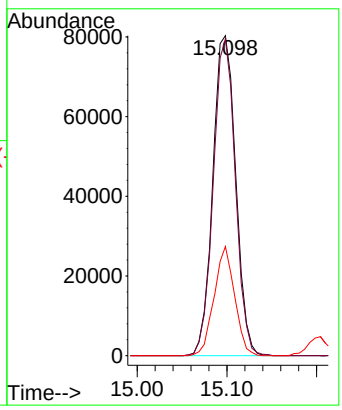
Tgt Ion:180 Resp: 14229

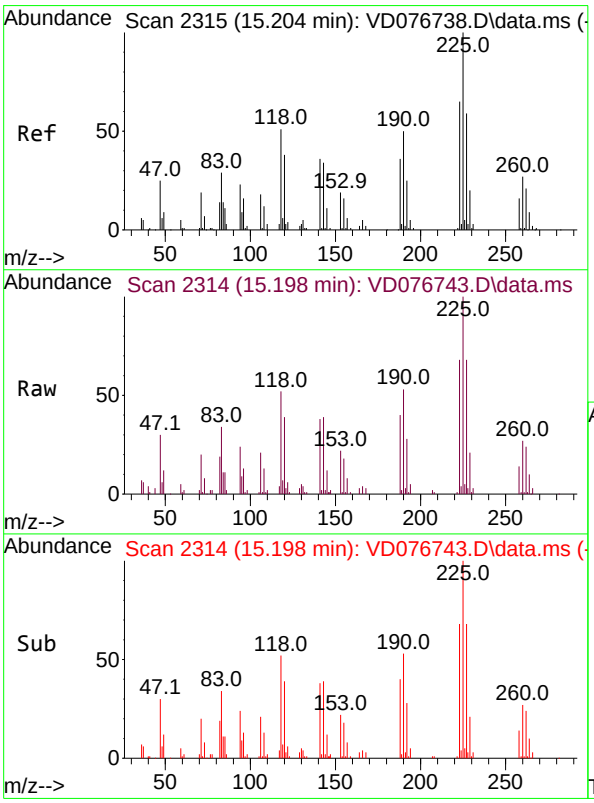
Ion	Ratio	Lower	Upper
180	100		
182	95.2	48.5	145.6
145	30.5	14.2	42.6

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023

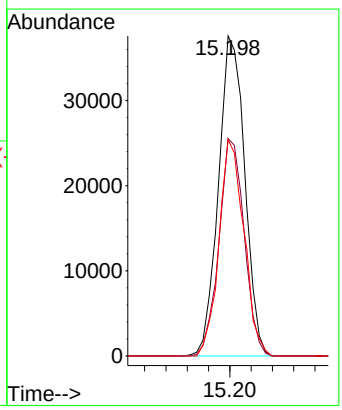


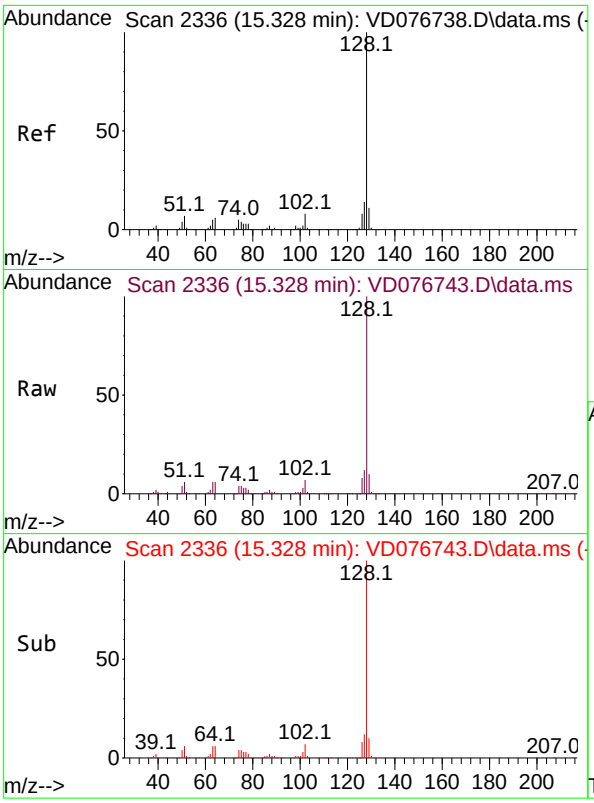


#94
Hexachlorobutadiene
Concen: 47.645 ug/l
RT: 15.198 min Scan# 2314
Delta R.T. -0.006 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:225 Resp: 64343

Ion	Ratio	Lower	Upper
225	100		
223	65.2	31.6	94.8
227	64.2	31.7	95.1

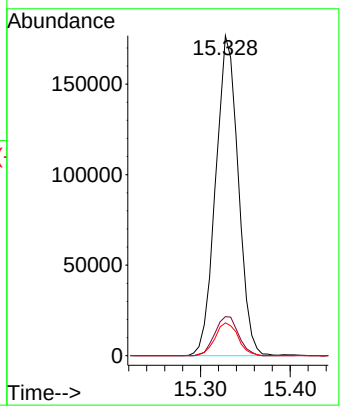




#95
Naphthalene
Concen: 50.811 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:128 Resp: 30893

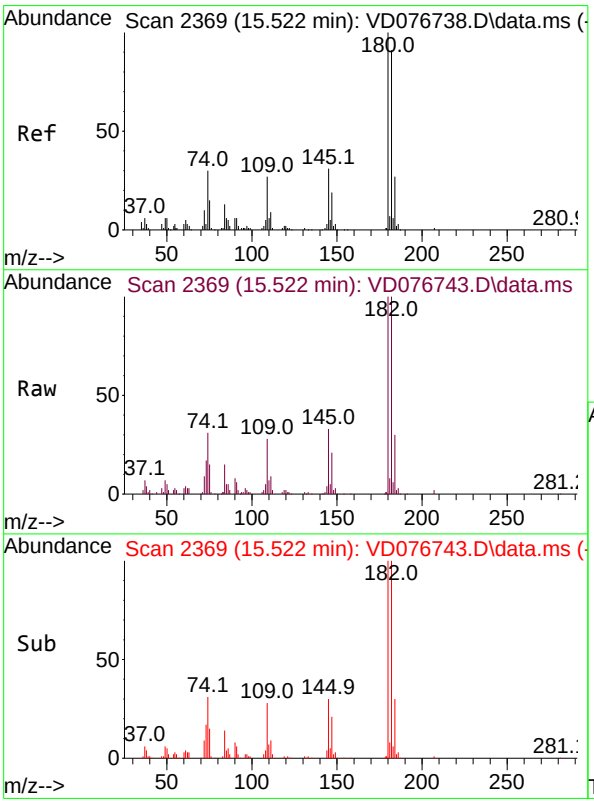
Ion	Ratio	Lower	Upper
128	100		
127	12.2	10.5	15.7
129	10.3	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Manual Integrations
APPROVED

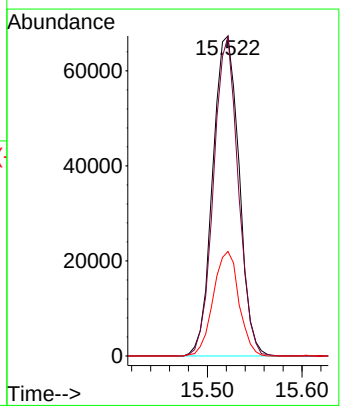
Reviewed By :John Carlone 07/17/2023
Supervised By :Mahesh Dadoda 07/17/2023



#96
1,2,3-Trichlorobenzene
Concen: 51.621 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076743.D
Acq: 14 Jul 2023 16:35

Tgt Ion:180 Resp: 130076

Ion	Ratio	Lower	Upper
180	100		
182	93.4	47.3	141.9
145	31.8	15.1	45.3



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.391	0.400	-2.3	105	0.00
3	P	Chloromethane	0.674	0.693	-2.8	104	0.00
4	C	Vinyl Chloride	0.899	0.900	-0.1#	102	0.00
5	T	Bromomethane	0.740	0.629	15.0	92	0.00
6	T	Chloroethane	0.679	0.674	0.7	101	0.00
7	T	Trichlorofluoromethane	0.800	0.810	-1.3	108	0.00
8	T	Diethyl Ether	0.275	0.290	-5.5	99	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.526	0.545	-3.6	108	0.00
10	T	Methyl Iodide	0.593	0.567	4.4	92	0.00
11	T	Tert butyl alcohol	0.037	0.040	-8.1	109	0.01
12	CM	1,1-Dichloroethene	0.494	0.488	1.2#	102	0.00
13	T	Acrolein	0.025	0.026	-4.0	114	0.00
14	T	Allyl chloride	0.649	0.649	0.0	99	-0.01
15	T	Acrylonitrile	0.135	0.140	-3.7	101	0.00
16	T	Acetone	0.119	0.122	-2.5	102	0.00
17	T	Carbon Disulfide	1.154	1.159	-0.4	99	0.00
18	T	Methyl Acetate	0.447	0.466	-4.3	103	0.00
19	T	Methyl tert-butyl Ether	1.325	1.390	-4.9	102	0.00
20	T	Methylene Chloride	0.984	0.741	24.7	104	0.00
21	T	trans-1,2-Dichloroethene	0.574	0.578	-0.7	99	0.00
22	T	Diisopropyl ether	1.537	1.591	-3.5	101	0.00
23	T	Vinyl Acetate	0.760	0.803	-5.7	102	0.00
24	P	1,1-Dichloroethane	1.036	1.047	-1.1	100	0.00
25	T	2-Butanone	0.159	0.170	-6.9	103	0.00
26	T	2,2-Dichloropropane	0.893	0.915	-2.5	105	0.00
27	T	cis-1,2-Dichloroethene	0.708	0.735	-3.8	104	0.00
28	T	Bromochloromethane	0.259	0.263	-1.5	110	-0.01
29	T	Tetrahydrofuran	0.094	0.100	-6.4	106	0.00
30	C	Chloroform	1.135	1.162	-2.4#	106	0.00
31	T	Cyclohexane	0.733	0.716	2.3	108	0.00
32	T	1,1,1-Trichloroethane	0.916	0.950	-3.7	105	0.00
33	S	1,2-Dichloroethane-d4	0.498	0.498	0.0	110	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
35	S	Dibromofluoromethane	0.314	0.316	-0.6	111	0.00
36	T	1,1-Dichloropropene	0.411	0.429	-4.4	106	0.00
37	T	Ethyl Acetate	0.184	0.199	-8.2	102	0.00
38	T	Carbon Tetrachloride	0.393	0.422	-7.4	109	0.00
39	T	Methylcyclohexane	0.474	0.510	-7.6	109	0.00
40	TM	Benzene	1.295	1.323	-2.2	104	0.00
41	T	Methacrylonitrile	0.112	0.118	-5.4	107	0.00
42	TM	1,2-Dichloroethane	0.337	0.359	-6.5	106	0.00
43	T	Isopropyl Acetate	0.358	0.384	-7.3	105	0.00
44	TM	Trichloroethene	0.353	0.347	1.7	99	0.00
45	C	1,2-Dichloropropane	0.334	0.341	-2.1#	96	0.00
46	T	Dibromomethane	0.196	0.207	-5.6	100	0.00
47	T	Bromodichloromethane	0.491	0.503	-2.4	99	0.00
48	T	Methyl methacrylate	0.163	0.167	-2.5	97	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.003	0.003	0.0	103	0.00
50	S	Toluene-d8	1.124	1.089	3.1	105	0.00
51	T	4-Methyl-2-Pentanone	0.191	0.206	-7.9	101	0.00
52	CM	Toluene	0.851	0.877	-3.1#	101	0.00
53	T	t-1,3-Dichloropropene	0.456	0.484	-6.1	100	0.00
54	T	cis-1,3-Dichloropropene	0.537	0.562	-4.7	100	0.00
55	T	1,1,2-Trichloroethane	0.286	0.299	-4.5	100	0.00
56	T	Ethyl methacrylate	0.330	0.354	-7.3	99	0.00
57	T	1,3-Dichloropropane	0.465	0.477	-2.6	100	0.00
58	T	2-Chloroethyl Vinyl ether	0.128	0.129	-0.8	102	0.00
59	T	2-Hexanone	0.136	0.147	-8.1	101	0.00
60	T	Dibromochloromethane	0.332	0.347	-4.5	100	0.00
61	T	1,2-Dibromoethane	0.265	0.276	-4.2	98	0.00
62	S	4-Bromofluorobenzene	0.364	0.362	0.5	105	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
64	T	Tetrachloroethene	0.285	0.291	-2.1	101	0.00
65	PM	Chlorobenzene	1.006	1.038	-3.2	101	0.00
66	T	1,1,1,2-Tetrachloroethane	0.374	0.383	-2.4	100	0.00
67	C	Ethyl Benzene	1.766	1.805	-2.2#	99	0.00
68	T	m/p-Xylenes	0.678	0.700	-3.2	100	0.00
69	T	o-Xylene	0.656	0.674	-2.7	99	0.00
70	T	Styrene	1.148	1.193	-3.9	99	0.00
71	P	Bromoform	0.205	0.214	-4.4	98	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
73	T	Isopropylbenzene	3.628	3.642	-0.4	99	0.00
74	T	N-amyl acetate	0.764	0.789	-3.3	102	0.00
75	P	1,1,2,2-Tetrachloroethane	0.779	0.785	-0.8	98	0.00
76	T	1,2,3-Trichloropropane	0.475	0.504	-6.1	102	0.00
77	T	Bromobenzene	0.837	0.817	2.4	95	0.00
78	T	n-propylbenzene	4.398	4.494	-2.2	101	0.00
79	T	2-Chlorotoluene	2.411	2.465	-2.2	100	0.00
80	T	1,3,5-Trimethylbenzene	2.933	3.011	-2.7	100	0.00
81	T	trans-1,4-Dichloro-2-butene	0.223	0.233	-4.5	98	0.00
82	T	4-Chlorotoluene	2.519	2.562	-1.7	99	0.00
83	T	tert-Butylbenzene	2.583	2.634	-2.0	99	0.00
84	T	1,2,4-Trimethylbenzene	2.997	3.038	-1.4	98	0.00
85	T	sec-Butylbenzene	3.946	3.996	-1.3	100	0.00
86	T	p-Isopropyltoluene	3.259	3.307	-1.5	99	0.00
87	T	1,3-Dichlorobenzene	1.722	1.744	-1.3	99	0.00
88	T	1,4-Dichlorobenzene	1.687	1.702	-0.9	100	0.00
89	T	n-Butylbenzene	3.189	3.247	-1.8	101	0.00
90	T	Hexachloroethane	0.602	0.648	-7.6	104	0.00
91	T	1,2-Dichlorobenzene	1.518	1.510	0.5	97	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.111	0.107	3.6	100	0.00
93	T	1,2,4-Trichlorobenzene	0.927	0.939	-1.3	100	0.00
94	T	Hexachlorobutadiene	0.446	0.425	4.7	95	0.00
95	T	Naphthalene	2.006	2.039	-1.6	98	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.831	0.858	-3.2	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	51.124	-2.2	105	0.00
3	P	Chloromethane	50.000	51.368	-2.7	104	0.00
4	C	Vinyl Chloride	50.000	50.054	-0.1#	102	0.00
5	T	Bromomethane	50.000	42.499	15.0	92	0.00
6	T	Chloroethane	50.000	49.633	0.7	101	0.00
7	T	Trichlorofluoromethane	50.000	50.638	-1.3	108	0.00
8	T	Diethyl Ether	50.000	52.587	-5.2	99	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	51.859	-3.7	108	0.00
10	T	Methyl Iodide	50.000	47.812	4.4	92	0.00
11	T	Tert butyl alcohol	250.000	268.961	-7.6	109	0.01
12	CM	1,1-Dichloroethene	50.000	49.349	1.3#	102	0.00
13	T	Acrolein	250.000	251.747	-0.7	114	0.00
14	T	Allyl chloride	50.000	49.998	0.0	99	-0.01
15	T	Acrylonitrile	250.000	258.359	-3.3	101	0.00
16	T	Acetone	250.000	256.224	-2.5	102	0.00
17	T	Carbon Disulfide	50.000	50.198	-0.4	99	0.00
18	T	Methyl Acetate	50.000	52.088	-4.2	103	0.00
19	T	Methyl tert-butyl Ether	50.000	52.470	-4.9	102	0.00
20	T	Methylene Chloride	50.000	52.910	-5.8	104	0.00
21	T	trans-1,2-Dichloroethene	50.000	50.289	-0.6	99	0.00
22	T	Diisopropyl ether	50.000	51.747	-3.5	101	0.00
23	T	Vinyl Acetate	250.000	263.991	-5.6	102	0.00
24	P	1,1-Dichloroethane	50.000	50.539	-1.1	100	0.00
25	T	2-Butanone	250.000	267.702	-7.1	103	0.00
26	T	2,2-Dichloropropane	50.000	51.238	-2.5	105	0.00
27	T	cis-1,2-Dichloroethene	50.000	51.873	-3.7	104	0.00
28	T	Bromochloromethane	50.000	50.776	-1.6	110	-0.01
29	T	Tetrahydrofuran	250.000	266.042	-6.4	106	0.00
30	C	Chloroform	50.000	51.195	-2.4#	106	0.00
31	T	Cyclohexane	50.000	48.813	2.4	108	0.00
32	T	1,1,1-Trichloroethane	50.000	51.850	-3.7	105	0.00
33	S	1,2-Dichloroethane-d4	50.000	49.997	0.0	110	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	102	0.00
35	S	Dibromofluoromethane	50.000	50.304	-0.6	111	0.00
36	T	1,1-Dichloropropene	50.000	52.214	-4.4	106	0.00
37	T	Ethyl Acetate	50.000	54.272	-8.5	102	0.00
38	T	Carbon Tetrachloride	50.000	53.700	-7.4	109	0.00
39	T	Methylcyclohexane	50.000	53.746	-7.5	109	0.00
40	TM	Benzene	50.000	51.052	-2.1	104	0.00
41	T	Methacrylonitrile	50.000	52.467	-4.9	107	0.00
42	TM	1,2-Dichloroethane	50.000	53.323	-6.6	106	0.00
43	T	Isopropyl Acetate	50.000	53.560	-7.1	105	0.00
44	TM	Trichloroethene	50.000	49.167	1.7	99	0.00
45	C	1,2-Dichloropropane	50.000	50.956	-1.9#	96	0.00
46	T	Dibromomethane	50.000	52.912	-5.8	100	0.00
47	T	Bromodichloromethane	50.000	51.191	-2.4	99	0.00
48	T	Methyl methacrylate	50.000	51.261	-2.5	97	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	1013.431	-1.3	103	0.00
50	S	Toluene-d8	50.000	48.431	3.1	105	0.00
51	T	4-Methyl-2-Pentanone	250.000	270.400	-8.2	101	0.00
52	CM	Toluene	50.000	51.533	-3.1#	101	0.00
53	T	t-1,3-Dichloropropene	50.000	53.115	-6.2	100	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.249	-4.5	100	0.00
55	T	1,1,2-Trichloroethane	50.000	52.334	-4.7	100	0.00
56	T	Ethyl methacrylate	50.000	53.683	-7.4	99	0.00
57	T	1,3-Dichloropropane	50.000	51.261	-2.5	100	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	251.723	-0.7	102	0.00
59	T	2-Hexanone	250.000	270.567	-8.2	101	0.00
60	T	Dibromochloromethane	50.000	52.227	-4.5	100	0.00
61	T	1,2-Dibromoethane	50.000	52.138	-4.3	98	0.00
62	S	4-Bromofluorobenzene	50.000	49.766	0.5	105	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	97	0.00
64	T	Tetrachloroethene	50.000	51.112	-2.2	101	0.00
65	PM	Chlorobenzene	50.000	51.601	-3.2	101	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.104	-2.2	100	0.00
67	C	Ethyl Benzene	50.000	51.089	-2.2#	99	0.00
68	T	m/p-Xylenes	100.000	103.173	-3.2	100	0.00
69	T	o-Xylene	50.000	51.384	-2.8	99	0.00
70	T	Styrene	50.000	51.954	-3.9	99	0.00
71	P	Bromoform	50.000	52.201	-4.4	98	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	98	0.00
73	T	Isopropylbenzene	50.000	50.192	-0.4	99	0.00
74	T	N-amyl acetate	50.000	51.611	-3.2	102	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	50.392	-0.8	98	0.00
76	T	1,2,3-Trichloropropane	50.000	53.035	-6.1	102	0.00
77	T	Bromobenzene	50.000	48.774	2.5	95	0.00
78	T	n-propylbenzene	50.000	51.095	-2.2	101	0.00
79	T	2-Chlorotoluene	50.000	51.112	-2.2	100	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.320	-2.6	100	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	52.060	-4.1	98	0.00
82	T	4-Chlorotoluene	50.000	50.852	-1.7	99	0.00
83	T	tert-Butylbenzene	50.000	51.002	-2.0	99	0.00
84	T	1,2,4-Trimethylbenzene	50.000	50.677	-1.4	98	0.00
85	T	sec-Butylbenzene	50.000	50.630	-1.3	100	0.00
86	T	p-Isopropyltoluene	50.000	50.746	-1.5	99	0.00
87	T	1,3-Dichlorobenzene	50.000	50.621	-1.2	99	0.00
88	T	1,4-Dichlorobenzene	50.000	50.441	-0.9	100	0.00
89	T	n-Butylbenzene	50.000	50.908	-1.8	101	0.00
90	T	Hexachloroethane	50.000	53.792	-7.6	104	0.00
91	T	1,2-Dichlorobenzene	50.000	49.759	0.5	97	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	48.289	3.4	100	0.00
93	T	1,2,4-Trichlorobenzene	50.000	50.673	-1.3	100	0.00
94	T	Hexachlorobutadiene	50.000	47.645	4.7	95	0.00
95	T	Naphthalene	50.000	50.811	-1.6	98	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076743.D
Acq On : 14 Jul 2023 16:35
Operator : KP/SY
Sample : VSTDICV050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD071423

Quant Time: Jul 17 08:08:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	51.621	-3.2	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG No.: O3645

Instrument ID: MSVOA_N Calibration Date(s): 07/10/2023 07/10/2023

Heated Purge: (Y/N) N Calibration Time(s): 12:21 14:46

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

LAB FILE ID: RRF100 = VN078449.D RRF050 = VN078450.D RRF040 = VN078451.D
RRF020 = VN078452.D RRF005 = VN078453.D RRF001 = VN078454.D

COMPOUND	RRF100	RRF050	RRF040	RRF020	RRF005	RRF001	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.565	0.586	0.609	0.576	0.691	0.650	0.613	7.9
Chloromethane	0.566	0.614	0.651	0.617	0.733	0.818	0.666	13.9
Vinyl Chloride	0.802	0.813	0.805	0.842	0.936	0.974	0.862	8.7
Bromomethane	0.509	0.569	0.586	0.620	0.795		0.616	17.5
Chloroethane	0.500	0.570	0.523	0.560	0.592	0.751	0.583	15.2
Trichlorofluoromethane	0.945	0.983	0.993	1.010	1.108	1.143	1.030	7.5
1,1,2-Trichlorotrifluoroethane	0.513	0.537	0.542	0.533	0.577	0.569	0.545	4.4
1,1-Dichloroethene	0.502	0.519	0.523	0.509	0.567	0.545	0.528	4.6
Acetone	0.187	0.198	0.207	0.200	0.224	0.237	0.209	8.8
Carbon Disulfide	1.407	1.440	1.438	1.443	1.615	1.810	1.526	10.3
Methyl tert-butyl Ether	1.689	1.768	1.788	1.704	1.781	1.701	1.738	2.6
Methyl Acetate	0.796	0.865	0.866	0.829	0.933	1.015	0.884	8.9
Methylene Chloride	0.585	0.615	0.625	0.603	0.676	0.941	0.674	20
trans-1,2-Dichloroethene	0.562	0.592	0.591	0.581	0.631	0.610	0.595	4
1,1-Dichloroethane	1.032	1.076	1.062	1.056	1.156	1.144	1.088	4.6
Cyclohexane	0.825	0.830	0.882	0.876	1.117		0.906	13.3
2-Butanone	0.314	0.330	0.341	0.326	0.329	0.332	0.329	2.7
Carbon Tetrachloride	0.537	0.526	0.545	0.531	0.518	0.539	0.533	1.8
cis-1,2-Dichloroethene	0.673	0.688	0.696	0.681	0.711	0.678	0.688	2
Bromochloromethane	0.493	0.513	0.504	0.504	0.492	0.567	0.512	5.5
Chloroform	1.098	1.146	1.155	1.118	1.157	1.122	1.132	2.1
1,1,1-Trichloroethane	0.993	1.033	1.043	1.017	1.058	0.948	1.015	3.9
Methylcyclohexane	0.464	0.446	0.453	0.442	0.423	0.455	0.447	3.1
Benzene	1.458	1.443	1.478	1.463	1.450	1.420	1.452	1.4
1,2-Dichloroethane	0.485	0.475	0.487	0.497	0.497	0.522	0.494	3.3
Trichloroethene	0.382	0.371	0.387	0.376	0.373	0.458	0.391	8.5
1,2-Dichloropropane	0.372	0.358	0.368	0.374	0.367	0.367	0.368	1.5
Bromodichloromethane	0.526	0.518	0.522	0.526	0.503	0.518	0.519	1.7
4-Methyl-2-Pentanone	0.410	0.410	0.427	0.420	0.388	0.346	0.400	7.4
Toluene	0.930	0.902	0.936	0.878	0.869	0.885	0.900	3.1
t-1,3-Dichloropropene	0.570	0.543	0.557	0.531	0.513	0.476	0.532	6.3
cis-1,3-Dichloropropene	0.611	0.591	0.601	0.578	0.551	0.467	0.567	9.3
1,1,2-Trichloroethane	0.356	0.351	0.360	0.359	0.348	0.353	0.355	1.3

* 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.

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG No.: O3645

Instrument ID: MSVOA_N Calibration Date(s): 07/10/2023 07/10/2023

Heated Purge: (Y/N) N Calibration Time(s): 12:21 14:46

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

LAB FILE ID: RRF100 = VN078449.D RRF050 = VN078450.D RRF040 = VN078451.D
RRF020 = VN078452.D RRF005 = VN078453.D RRF001 = VN078454.D

COMPOUND	RRF100	RRF050	RRF040	RRF020	RRF005	RRF001	$\overline{RRF}$	% RSD
2-Hexanone	0.293	0.298	0.306	0.291	0.282	0.237	0.284	8.7
Dibromochloromethane	0.412	0.401	0.406	0.393	0.377	0.360	0.391	5
1,2-Dibromoethane	0.373	0.368	0.381	0.366	0.368	0.335	0.365	4.3
Tetrachloroethene	0.366	0.373	0.389	0.396	0.391	0.340	0.376	5.5
Chlorobenzene	1.094	1.095	1.124	1.112	1.139	1.142	1.118	1.9
Ethyl Benzene	1.974	1.945	1.965	1.929	1.860	1.662	1.889	6.3
m/p-Xylenes	0.747	0.737	0.745	0.721	0.704	0.536	0.698	11.7
o-Xylene	0.736	0.718	0.725	0.713	0.686	0.654	0.705	4.3
Styrene	1.222	1.170	1.190	1.117	1.056	0.867	1.104	11.8
Bromoform	0.304	0.306	0.311	0.294	0.297	0.236	0.291	9.5
Isopropylbenzene	4.223	4.339	4.344	4.665	5.480	5.138	4.698	10.8
1,1,2,2-Tetrachloroethane	1.245	1.370	1.396	1.498	1.856	2.152	1.586	21.8
n-propylbenzene	4.818	4.824	4.885	5.017	5.527	5.076	5.024	5.3
1,3,5-Trimethylbenzene	3.386	3.486	3.562	3.773	4.124	3.941	3.712	7.7
tert-Butylbenzene	2.856	2.928	2.931	3.159	3.620	3.415	3.152	9.8
1,2,4-Trimethylbenzene	3.353	3.440	3.566	3.649	4.067	3.560	3.606	6.9
sec-Butylbenzene	3.700	3.733	3.741	3.923	4.614	4.191	3.984	9
p-Isopropyltoluene	3.051	3.079	3.135	3.204	3.565	3.159	3.199	5.9
1,3-Dichlorobenzene	1.729	1.746	1.758	1.767	1.968	1.855	1.804	5.1
1,4-Dichlorobenzene	1.688	1.723	1.710	1.775	1.939	2.064	1.817	8.3
n-Butylbenzene	2.310	2.322	2.343	2.296	2.555	1.906	2.289	9.2
1,2-Dichlorobenzene	1.673	1.724	1.730	1.808	1.985	1.849	1.795	6.3
1,2-Dibromo-3-Chloropropane	0.218	0.227	0.236	0.246	0.277	0.365	0.262	20.8
1,2,4-Trichlorobenzene	0.630	0.609	0.586	0.555	0.512	0.545	0.573	7.6
1,2,3-Trichlorobenzene	0.668	0.660	0.658	0.646	0.627	0.694	0.659	3.4
1,2-Dichloroethane-d4	0.652	0.662	0.657	0.675	0.706		0.670	3.2
Dibromofluoromethane	0.338	0.331	0.330	0.347	0.351		0.339	2.8
Toluene-d8	1.319	1.251	1.247	1.281	1.313		1.282	2.6
4-Bromofluorobenzene	0.430	0.397	0.392	0.388	0.368		0.395	5.7

* 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.

Response Factor Report MSVOA_N_NEW

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N071023W.M
Title : SW846 8260
Last Update : Mon Jul 10 16:13:53 2023
Response Via : Initial Calibration

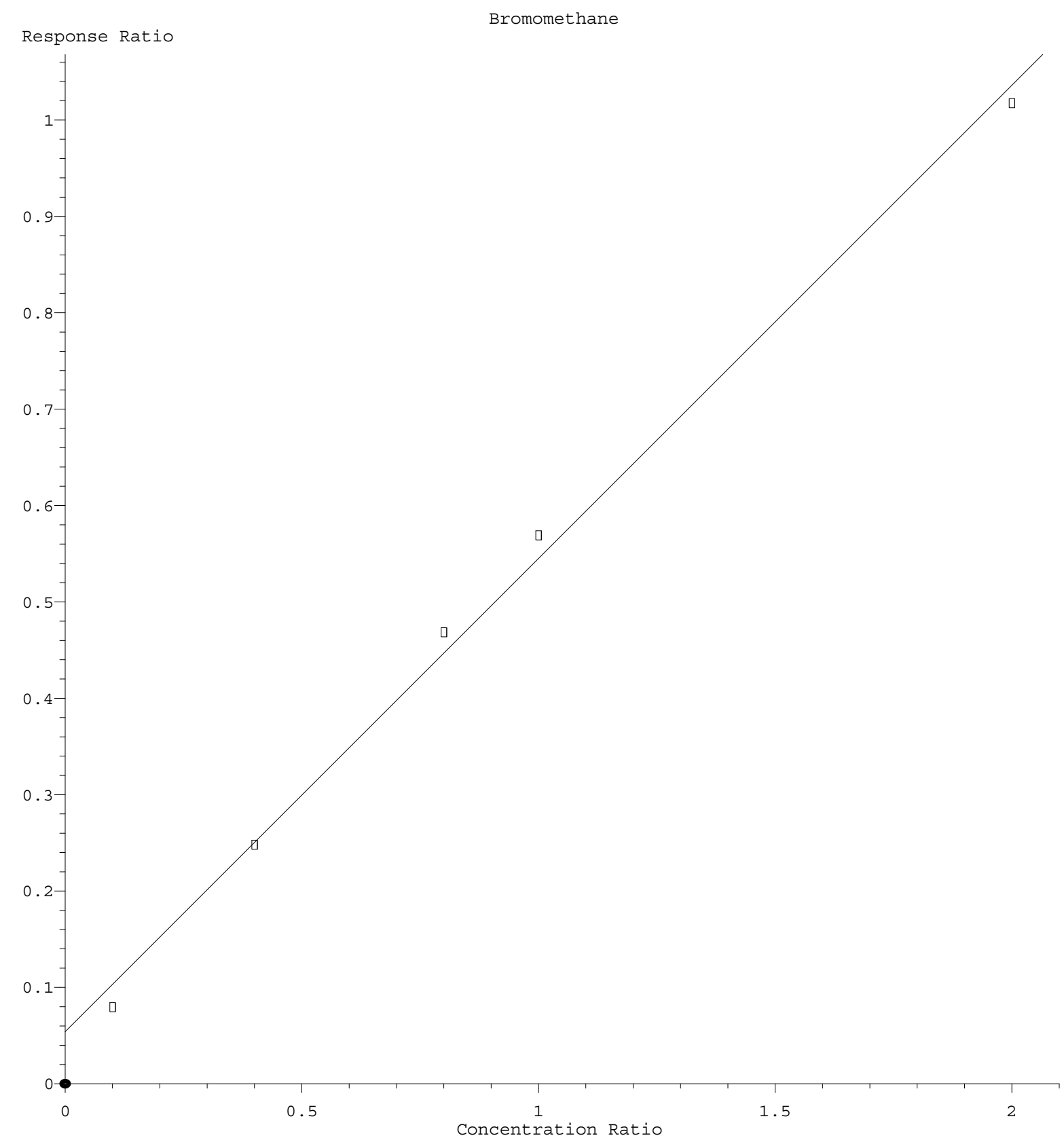
Calibration Files
1 =VN078454.D 5 =VN078453.D 40 =VN078451.D 20 =VN078452.D 50 =VN078450.D 100 =VN078449.D

		Compound	1	5	40	20	50	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluo...	0.650	0.691	0.609	0.576	0.586	0.565	0.613	7.94
3)	P	Chloromethane	0.818	0.733	0.651	0.617	0.614	0.566	0.666	13.89
4)	C	Vinyl Chloride	0.974	0.936	0.805	0.842	0.813	0.802	0.862	8.66#
5)	T	Bromomethane		0.795	0.586	0.620	0.569	0.509	0.616	17.53
6)	T	Chloroethane	0.751	0.592	0.523	0.560	0.570	0.500	0.583	15.25
7)	T	Trichlorofluor...	1.143	1.108	0.993	1.010	0.983	0.945	1.030	7.53
8)	T	Diethyl Ether	0.373	0.345	0.344	0.323	0.345	0.330	0.343	5.03
9)	T	1,1,2-Trichlor...	0.569	0.577	0.542	0.533	0.537	0.513	0.545	4.40
10)	T	Methyl Iodide		0.751	0.765	0.733	0.751	0.747	0.749	1.55
11)	T	Tert butyl alc...		0.113	0.104	0.103	0.102	0.095	0.103	6.46
12)	CM	1,1-Dichloroet...	0.545	0.567	0.523	0.509	0.519	0.502	0.528	4.60#
13)	T	Acrolein		0.108	0.107	0.101	0.103	0.089	0.102	7.36
14)	T	Allyl chloride	0.700	0.743	0.766	0.681	0.701	0.734	0.721	4.45
15)	T	Acrylonitrile	0.252	0.272	0.272	0.261	0.263	0.246	0.261	3.96
16)	T	Acetone	0.237	0.224	0.207	0.200	0.198	0.187	0.209	8.84
17)	T	Carbon Disulfide	1.810	1.615	1.438	1.443	1.440	1.407	1.526	10.34
18)	T	Methyl Acetate	1.015	0.933	0.866	0.829	0.865	0.796	0.884	8.90
19)	T	Methyl tert-bu...	1.701	1.781	1.788	1.704	1.768	1.689	1.738	2.59
20)	T	Methylene Chlo...	0.941	0.676	0.625	0.603	0.615	0.585	0.674	19.95
21)	T	trans-1,2-Dich...	0.610	0.631	0.591	0.581	0.592	0.562	0.595	4.00
22)	T	Diisopropyl ether	1.472	1.652	1.676	1.613	1.653	1.620	1.614	4.57
23)	T	Vinyl Acetate	0.878	1.023	1.089	1.039	1.081	1.048	1.026	7.49
24)	P	1,1-Dichloroet...	1.144	1.156	1.062	1.056	1.076	1.032	1.088	4.63
25)	T	2-Butanone	0.332	0.329	0.341	0.326	0.330	0.314	0.329	2.71
26)	T	2,2-Dichloropr...	0.964	0.917	0.896	0.835	0.885	0.839	0.890	5.49
27)	T	cis-1,2-Dichlo...	0.678	0.711	0.696	0.681	0.688	0.673	0.688	2.02
28)	T	Bromochloromet...	0.567	0.492	0.504	0.504	0.513	0.493	0.512	5.49
29)	T	Tetrahydrofuran	0.214	0.218	0.224	0.210	0.221	0.206	0.216	3.15
30)	C	Chloroform	1.122	1.157	1.155	1.118	1.146	1.098	1.132	2.10#
31)	T	Cyclohexane		1.117	0.882	0.876	0.830	0.825	0.906	13.34
32)	T	1,1,1-Trichlor...	0.948	1.058	1.043	1.017	1.033	0.993	1.015	3.93
33)	S	1,2-Dichloroet...		0.706	0.657	0.675	0.662	0.652	0.670	3.25
34)	I	1,4-Difluorobenzene	----------ISTD----------							
35)	S	Dibromofluorom...		0.351	0.330	0.347	0.331	0.338	0.339	2.83
36)	T	1,1-Dichloropr...	0.515	0.482	0.492	0.479	0.477	0.495	0.490	2.86
37)	T	Ethyl Acetate	0.394	0.393	0.427	0.425	0.409	0.403	0.409	3.62
38)	T	Carbon Tetrach...	0.539	0.518	0.545	0.531	0.526	0.537	0.533	1.83
39)	T	Methylcyclohexane	0.455	0.423	0.453	0.442	0.446	0.464	0.447	3.13
40)	TM	Benzene	1.420	1.450	1.478	1.463	1.443	1.458	1.452	1.37
41)	T	Methacrylonitrile	0.197	0.229	0.210	0.202	0.205	0.207	0.208	5.29
42)	TM	1,2-Dichloroet...	0.522	0.497	0.487	0.497	0.475	0.485	0.494	3.27
43)	T	Isopropyl Acetate	0.564	0.706	0.709	0.703	0.675	0.679	0.673	8.20
44)	TM	Trichloroethene	0.458	0.373	0.387	0.376	0.371	0.382	0.391	8.53
45)	C	1,2-Dichloropr...	0.367	0.367	0.368	0.374	0.358	0.372	0.368	1.48#
46)	T	Dibromomethane	0.244	0.263	0.266	0.261	0.260	0.259	0.259	2.99
47)	T	Bromodichlorom...	0.518	0.503	0.522	0.526	0.518	0.526	0.519	1.69
48)	T	Methyl methacr...	0.286	0.309	0.323	0.312	0.320	0.319	0.312	4.38
49)	T	1,4-Dioxane	0.007	0.006	0.007	0.007	0.007	0.007	0.007	4.41
50)	S	Toluene-d8		1.313	1.247	1.281	1.251	1.319	1.282	2.61
51)	T	4-Methyl-2-Pen...	0.346	0.388	0.427	0.420	0.410	0.410	0.400	7.41
52)	CM	Toluene	0.885	0.869	0.936	0.878	0.902	0.930	0.900	3.09#
53)	T	t-1,3-Dichloro...	0.476	0.513	0.557	0.531	0.543	0.570	0.532	6.34
54)	T	cis-1,3-Dichlo...	0.467	0.551	0.601	0.578	0.591	0.611	0.567	9.35
55)	T	1,1,2-Trichlor...	0.353	0.348	0.360	0.359	0.351	0.356	0.355	1.34
56)	T	Ethyl methacry...	0.432	0.441	0.523	0.503	0.527	0.548	0.496	9.72

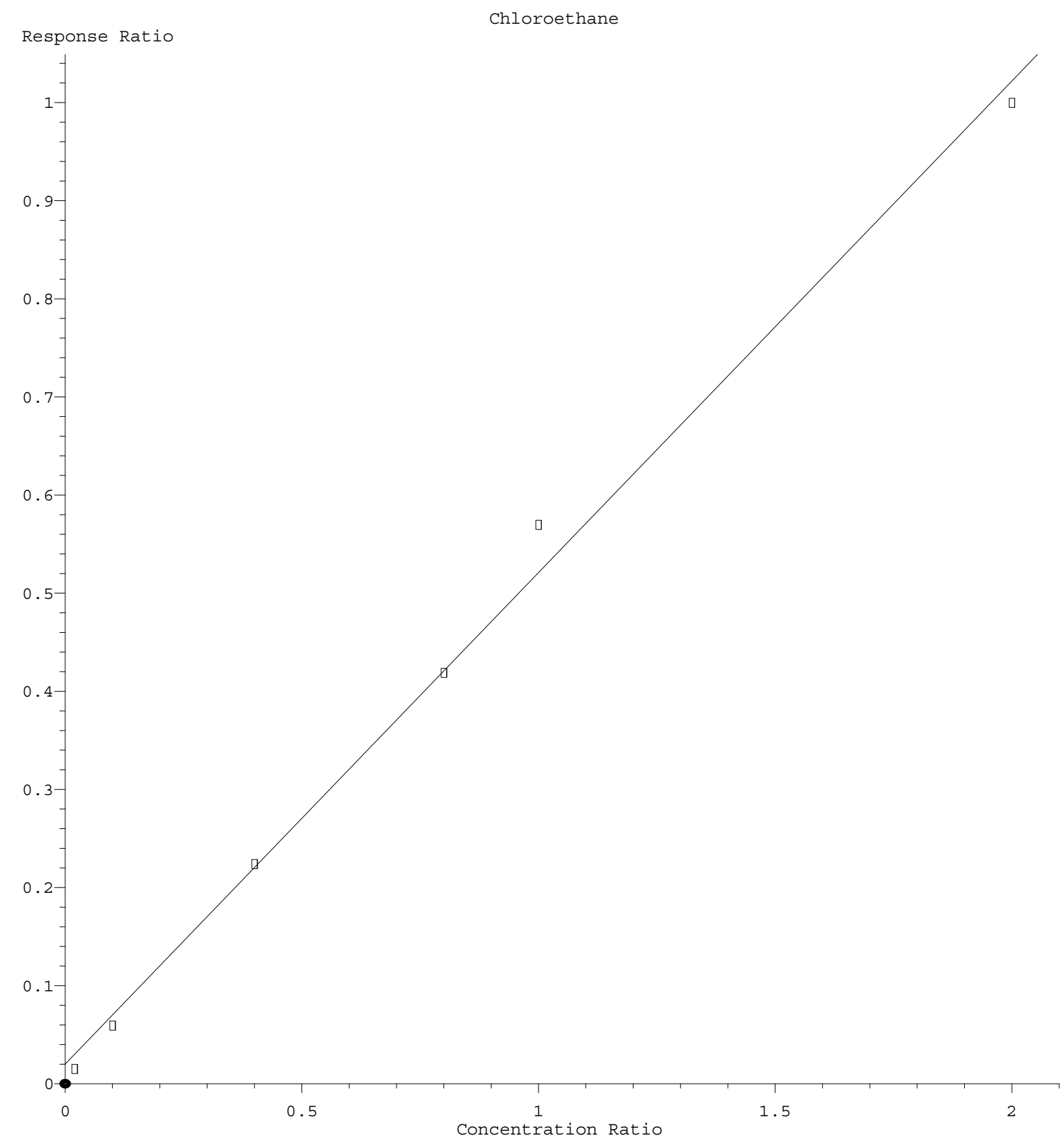
Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N071023W.M

57)	T	1,3-Dichloropr...	0.598	0.595	0.608	0.613	0.601	0.601	0.603	1.09
58)	T	2-Chloroethyl ...	0.148	0.177	0.186	0.171	0.185	0.192	0.177	8.97
59)	T	2-Hexanone	0.237	0.282	0.306	0.291	0.298	0.293	0.284	8.65
60)	T	Dibromochlorom...	0.360	0.377	0.406	0.393	0.401	0.412	0.391	5.02
61)	T	1,2-Dibromoethane	0.335	0.368	0.381	0.366	0.368	0.373	0.365	4.28
62)	S	4-Bromofluorob...		0.368	0.392	0.388	0.397	0.430	0.395	5.74
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.340	0.391	0.389	0.396	0.373	0.366	0.376	5.55
65)	PM	Chlorobenzene	1.142	1.139	1.124	1.112	1.095	1.094	1.118	1.86
66)	T	1,1,1,2-Tetrac...	0.436	0.432	0.435	0.429	0.428	0.419	0.430	1.40
67)	C	Ethyl Benzene	1.662	1.860	1.965	1.929	1.945	1.974	1.889	6.28#
68)	T	m/p-Xylenes	0.536	0.704	0.745	0.721	0.737	0.747	0.698	11.66
69)	T	o-Xylene	0.654	0.686	0.725	0.713	0.718	0.736	0.705	4.28
70)	T	Styrene	0.867	1.056	1.190	1.117	1.170	1.222	1.104	11.76
71)	P	Bromoform	0.236	0.297	0.311	0.294	0.306	0.304	0.291	9.51
72)	I	1,4-Dichlorobenzen...	----------ISTD----------							
73)	T	Isopropylbenzene	5.138	5.480	4.344	4.665	4.339	4.223	4.698	10.79
74)	T	N-amyl acetate	1.695	1.919	1.527	1.611	1.523	1.439	1.619	10.56
75)	P	1,1,2,2-Tetrac...	2.152	1.856	1.396	1.498	1.370	1.245	1.586	21.84
76)	T	1,2,3-Trichlor...	1.222	1.517	1.143	1.230	1.114	1.025	1.209	13.98
77)	T	Bromobenzene	1.475	1.272	1.054	1.089	1.035	0.998	1.154	15.97
78)	T	n-propylbenzene	5.076	5.527	4.885	5.017	4.824	4.818	5.024	5.32
79)	T	2-Chlorotoluene	3.915	3.547	3.048	3.283	3.017	2.937	3.291	11.49
80)	T	1,3,5-Trimethy...	3.941	4.124	3.562	3.773	3.486	3.386	3.712	7.67
81)	T	trans-1,4-Dich...		0.578	0.428	0.436	0.430	0.428	0.460	14.41
82)	T	4-Chlorotoluene	3.185	3.518	2.925	3.010	2.889	2.894	3.070	8.00
83)	T	tert-Butylbenzene	3.415	3.620	2.931	3.159	2.928	2.856	3.152	9.78
84)	T	1,2,4-Trimethy...	3.560	4.067	3.566	3.649	3.440	3.353	3.606	6.91
85)	T	sec-Butylbenzene	4.191	4.614	3.741	3.923	3.733	3.700	3.984	9.02
86)	T	p-Isopropyltol...	3.159	3.565	3.135	3.204	3.079	3.051	3.199	5.86
87)	T	1,3-Dichlorobe...	1.855	1.968	1.758	1.767	1.746	1.729	1.804	5.07
88)	T	1,4-Dichlorobe...	2.064	1.939	1.710	1.775	1.723	1.688	1.817	8.34
89)	T	n-Butylbenzene	1.906	2.555	2.343	2.296	2.322	2.310	2.289	9.20
90)	T	Hexachloroethane	0.952	0.746	0.586	0.606	0.580	0.585	0.676	22.10
91)	T	1,2-Dichlorobe...	1.849	1.985	1.730	1.808	1.724	1.673	1.795	6.26
92)	T	1,2-Dibromo-3-...	0.365	0.277	0.236	0.246	0.227	0.218	0.262	20.82
93)	T	1,2,4-Trichlor...	0.545	0.512	0.586	0.555	0.609	0.630	0.573	7.63
94)	T	Hexachlorobuta...	0.498	0.491	0.309	0.353	0.322	0.276	0.375	25.64
95)	T	Naphthalene	2.178	1.784	1.938	1.800	1.984	2.067	1.958	7.80
96)	T	1,2,3-Trichlor...	0.694	0.627	0.658	0.646	0.660	0.668	0.659	3.40

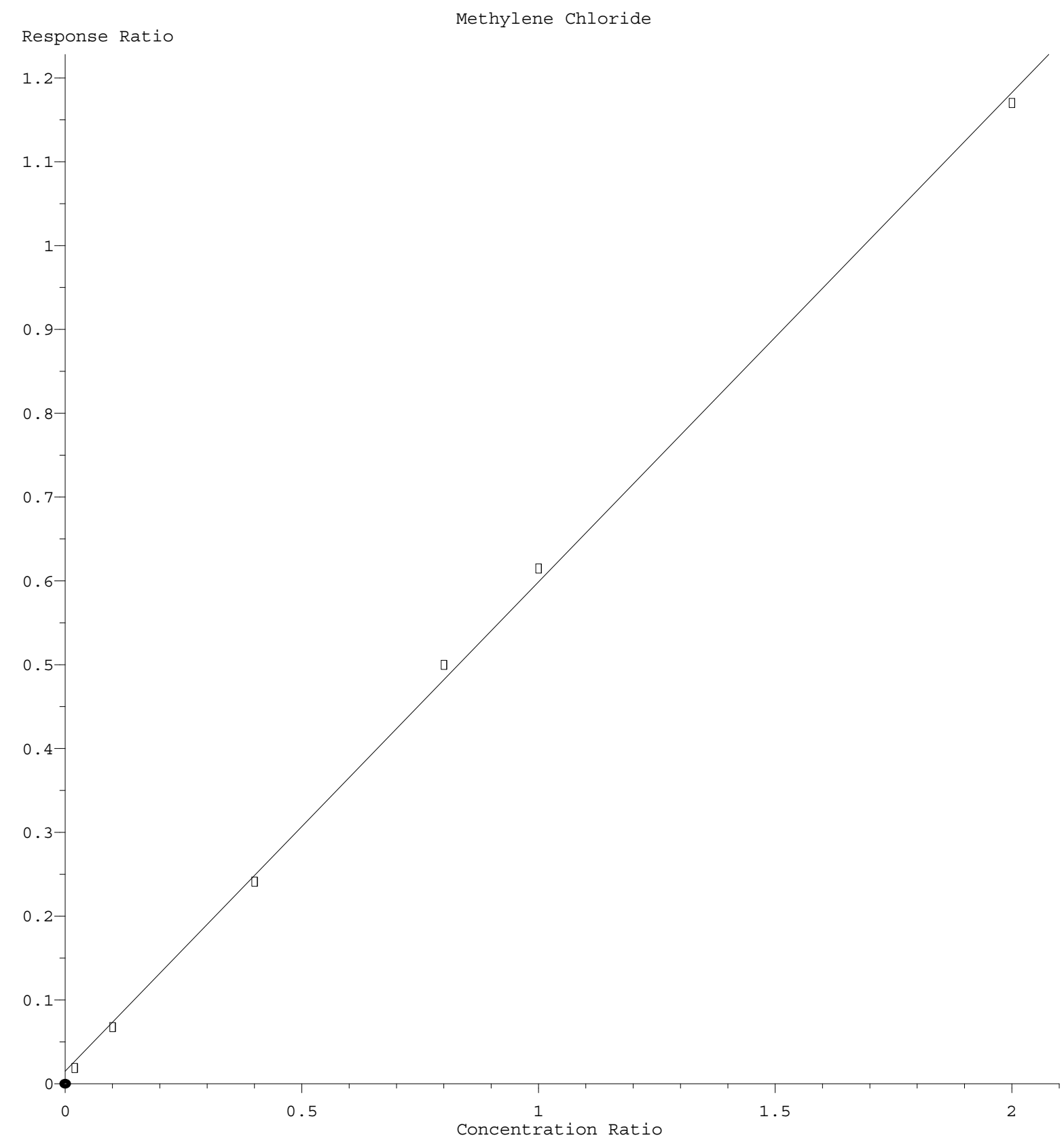
(#) = Out of Range



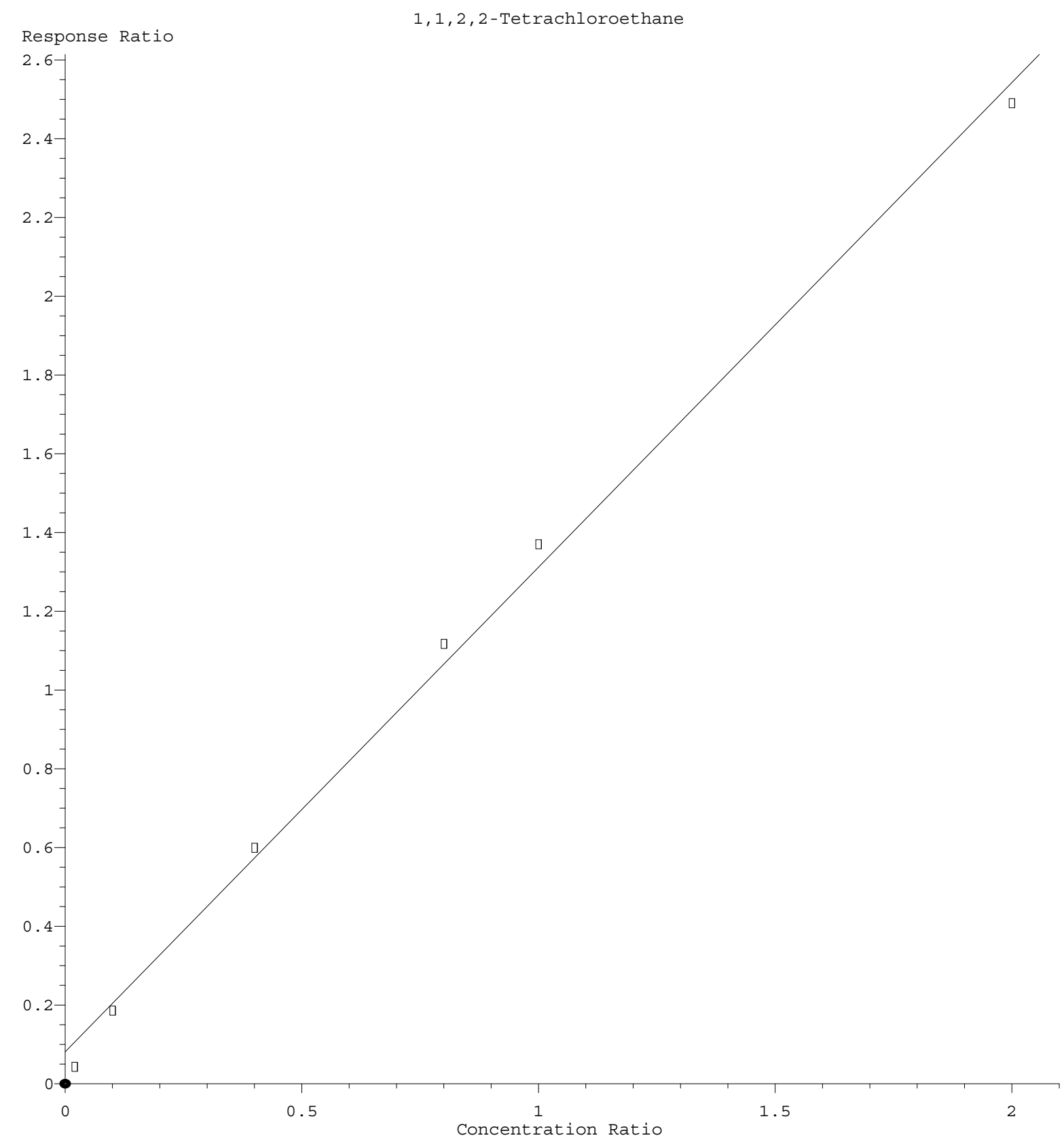
Response = 4.910e-001 * Amt + 5.421e-002
Coef of Det (r^2) = 0.996171 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N071023W.M
Calibration Table Last Updated: Mon Jul 10 16:13:53 2023



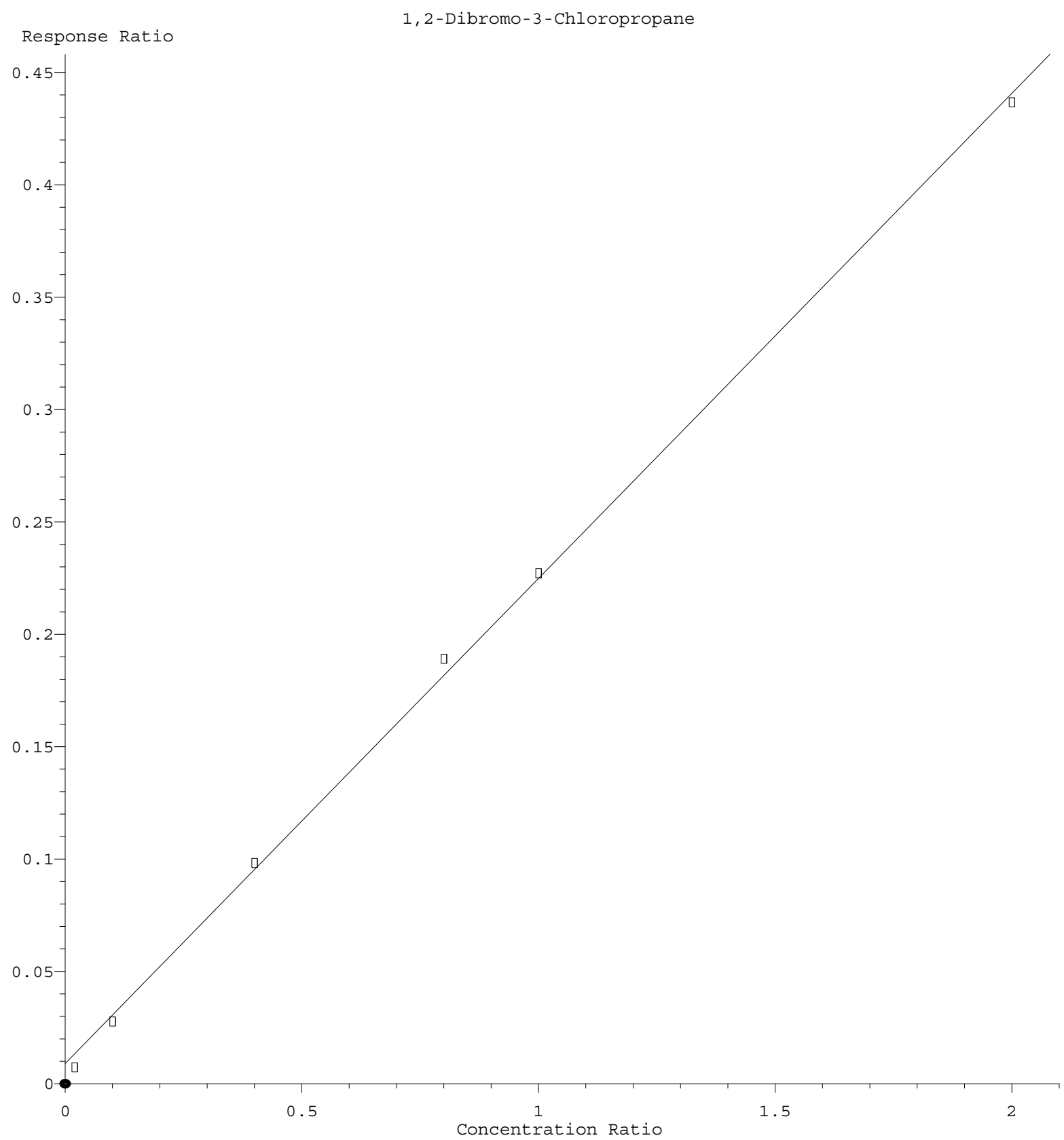
Response = 5.014e-001 * Amt + 2.004e-002
Coef of Det (r^2) = 0.995266 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Calibration Table Last Updated: Mon Jul 10 16:13:53 2023



Response = 5.843e-001 * Amt + 1.465e-002
Coef of Det (r^2) = 0.999057 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N071023W.M
Calibration Table Last Updated: Mon Jul 10 16:13:53 2023



Response = 1.231e+000 * Amt + 8.129e-002
Coef of Det (r^2) = 0.996657 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N071023W.M
Calibration Table Last Updated: Mon Jul 10 16:13:53 2023



Response = 2.163e-001 * Amt + 8.637e-003
Coef of Det (r^2) = 0.998980 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N071023W.M
Calibration Table Last Updated: Mon Jul 10 16:13:53 2023

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078449.D
Acq On : 10 Jul 2023 12:21
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 15:53:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.229	168	529269	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.112	114	884816	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	809369	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	350434	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.588	65	689860	97.226	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 194.460%#			
35) Dibromofluoromethane	8.171	113	598949	99.718	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 199.440%#			
50) Toluene-d8	10.570	98	2333382	102.836	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 205.680%#			
62) 4-Bromofluorobenzene	12.853	95	761303	108.927	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 217.860%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	598287	92.198	ug/l	99
3) Chloromethane	2.371	50	598919	84.916	ug/l	99
4) Vinyl Chloride	2.518	62	848479	92.996	ug/l	99
5) Bromomethane	2.930	94	538464	98.088	ug/l	98
6) Chloroethane	3.112	64	529072	97.693	ug/l	99
7) Trichlorofluoromethane	3.500	101	1000520	91.735	ug/l	98
8) Diethyl Ether	3.971	74	348876	96.009	ug/l	82
9) 1,1,2-Trichlorotrifluo...	4.377	101	543113	94.070	ug/l	96
10) Methyl Iodide	4.600	142	791102	99.715	ug/l	98
11) Tert butyl alcohol	5.535	59	500203	457.168	ug/l	100
12) 1,1-Dichloroethene	4.347	96	531553	95.180	ug/l	93
13) Acrolein	4.189	56	472675	439.093	ug/l	96
14) Allyl chloride	5.030	41	776741	101.785	ug/l	95
15) Acrylonitrile	5.730	53	1304517	471.888	ug/l	98
16) Acetone	4.441	43	989619	447.746	ug/l	95
17) Carbon Disulfide	4.718	76	1489774	92.251	ug/l	100
18) Methyl Acetate	5.036	43	842277	90.022	ug/l	91
19) Methyl tert-butyl Ether	5.806	73	1787957	97.168	ug/l	98
20) Methylene Chloride	5.288	84	619280	99.918	ug/l	94
21) trans-1,2-Dichloroethene	5.788	96	594718	94.500	ug/l	85
22) Diisopropyl ether	6.682	45	1714703	100.349	ug/l	93
23) Vinyl Acetate	6.612	43	5545293	510.470	ug/l #	90
24) 1,1-Dichloroethane	6.577	63	1092661	94.898	ug/l	97
25) 2-Butanone	7.494	43	1660630	477.304	ug/l #	86
26) 2,2-Dichloropropane	7.494	77	888554	94.354	ug/l	97
27) cis-1,2-Dichloroethene	7.494	96	712162	97.820	ug/l	95
28) Bromochloromethane	7.818	49	522124	96.276	ug/l	95
29) Tetrahydrofuran	7.841	42	1091183	477.975	ug/l	85
30) Chloroform	7.971	83	1162056	96.940	ug/l	95
31) Cyclohexane	8.265	56	873121	91.053	ug/l	91
32) 1,1,1-Trichloroethane	8.177	97	1051373	97.825	ug/l	99
36) 1,1-Dichloropropene	8.377	75	876574	101.073	ug/l	97
37) Ethyl Acetate	7.571	43	713961	98.754	ug/l #	93
38) Carbon Tetrachloride	8.371	117	951010	100.894	ug/l	99
39) Methylcyclohexane	9.606	83	821072	103.718	ug/l	93
40) Benzene	8.612	78	2579598	100.399	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078449.D
Acq On : 10 Jul 2023 12:21
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 15:53:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.782	41	366272	99.379	ug/l		93
42) 1,2-Dichloroethane	8.676	62	859129	98.306	ug/l		98
43) Isopropyl Acetate	8.694	43	1200973	100.898	ug/l		95
44) Trichloroethene	9.359	130	676620	97.708	ug/l		96
45) 1,2-Dichloropropane	9.629	63	659180	101.295	ug/l		96
46) Dibromomethane	9.718	93	458394	100.082	ug/l		92
47) Bromodichloromethane	9.894	83	931328	101.438	ug/l		96
48) Methyl methacrylate	9.688	41	565122	102.480	ug/l		89
49) 1,4-Dioxane	9.700	88	235915	1961.710	ug/l		92
51) 4-Methyl-2-Pentanone	10.453	43	3625073	512.021	ug/l		94
52) Toluene	10.635	92	1645878	103.357	ug/l		95
53) t-1,3-Dichloropropene	10.841	75	1008246	107.193	ug/l		97
54) cis-1,3-Dichloropropene	10.318	75	1081769	107.895	ug/l		95
55) 1,1,2-Trichloroethane	11.023	97	630169	100.440	ug/l		96
56) Ethyl methacrylate	10.882	69	969055	110.491	ug/l		91
57) 1,3-Dichloropropane	11.170	76	1063476	99.690	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.165	63	1698978	543.575	ug/l		92
59) 2-Hexanone	11.200	43	2590734	514.873	ug/l		93
60) Dibromochloromethane	11.365	129	729257	105.285	ug/l		100
61) 1,2-Dibromoethane	11.476	107	659683	102.069	ug/l		98
64) Tetrachloroethene	11.112	164	592538	97.376	ug/l		99
65) Chlorobenzene	11.900	112	1771031	97.894	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.964	131	678645	97.511	ug/l		98
67) Ethyl Benzene	11.970	91	3195916	104.509	ug/l		99
68) m/p-Xylenes	12.076	106	2419893	214.028	ug/l		99
69) o-Xylene	12.406	106	1192004	104.378	ug/l		99
70) Styrene	12.417	104	1977678	110.693	ug/l		98
71) Bromoform	12.582	173	491543	104.284	ug/l	#	99
73) Isopropylbenzene	12.700	105	2959536	89.878	ug/l		99
74) N-amyl acetate	12.500	43	1008511	88.874	ug/l		92
75) 1,1,2,2-Tetrachloroethane	12.941	83	872665	97.850	ug/l		99
76) 1,2,3-Trichloropropane	13.000	75	718586m	84.931	ug/l		
77) Bromobenzene	12.988	156	699504	99.206	ug/l		96
78) n-propylbenzene	13.041	91	3376548	95.884	ug/l		100
79) 2-Chlorotoluene	13.129	91	2058460	89.241	ug/l		97
80) 1,3,5-Trimethylbenzene	13.176	105	2373479	91.227	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.741	75	300079	93.095	ug/l		96
82) 4-Chlorotoluene	13.229	91	2028212	94.257	ug/l		98
83) tert-Butylbenzene	13.447	119	2001333	90.603	ug/l		96
84) 1,2,4-Trimethylbenzene	13.488	105	2349919	92.987	ug/l		98
85) sec-Butylbenzene	13.623	105	2593302	92.882	ug/l		99
86) p-Isopropyltoluene	13.735	119	2138276	95.378	ug/l		98
87) 1,3-Dichlorobenzene	13.741	146	1211554	95.843	ug/l		98
88) 1,4-Dichlorobenzene	13.817	146	1183297	92.934	ug/l		98
89) n-Butylbenzene	14.064	91	1619314	100.948	ug/l		97
90) Hexachloroethane	14.341	117	410352	100.408	ug/l		86
91) 1,2-Dichlorobenzene	14.111	146	1172549	93.207	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.723	75	153027	98.955	ug/l		92
93) 1,2,4-Trichlorobenzene	15.400	180	441721	110.019	ug/l		97
94) Hexachlorobutadiene	15.505	225	193432	97.023	ug/l		99
95) Naphthalene	15.647	128	1448721	105.547	ug/l		99
96) 1,2,3-Trichlorobenzene	15.847	180	468039	101.382	ug/l		95

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078449.D
Acq On : 10 Jul 2023 12:21
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:53:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

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

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

ICAL Form

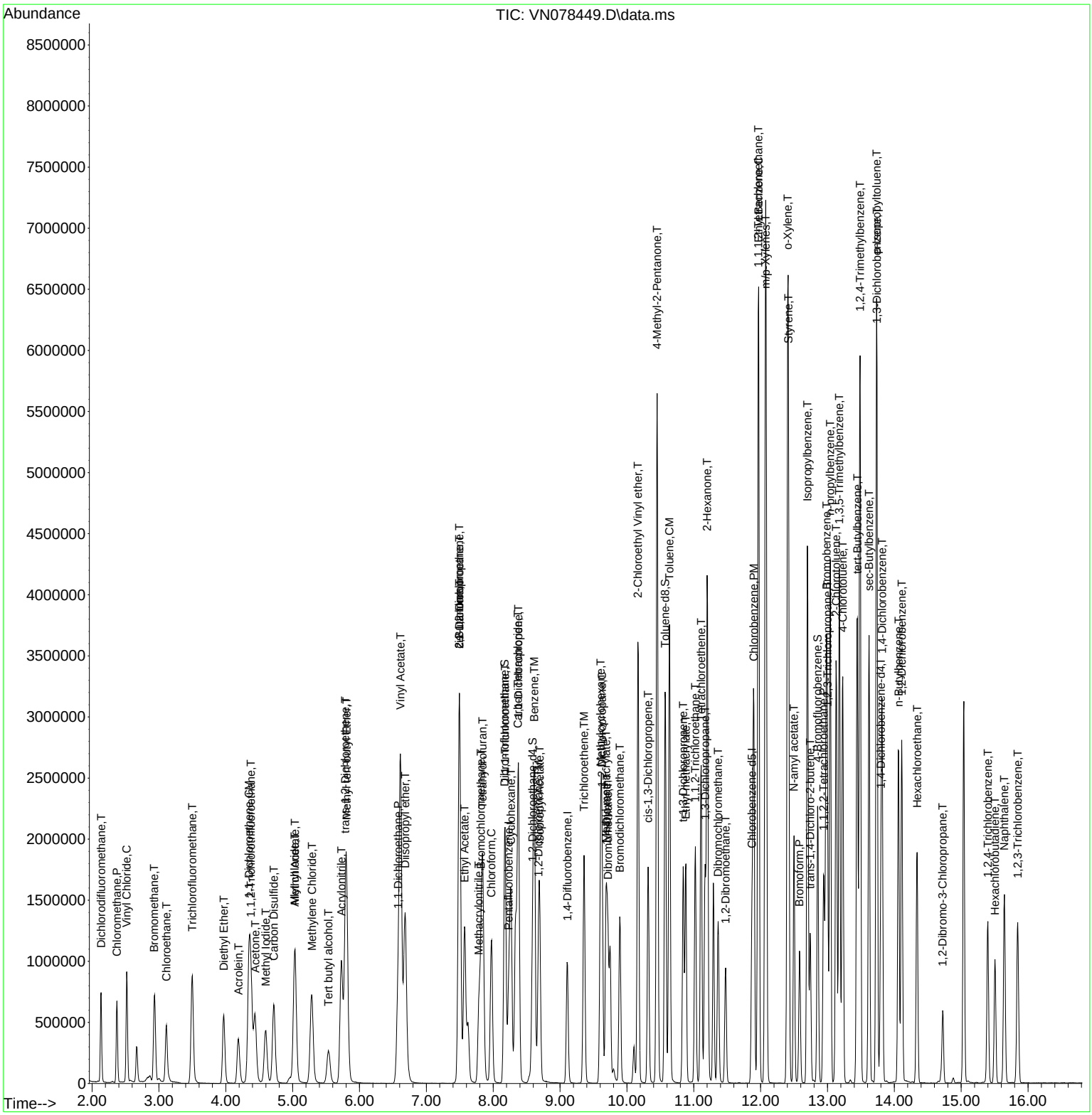
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078449.D
Acq On : 10 Jul 2023 12:21
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

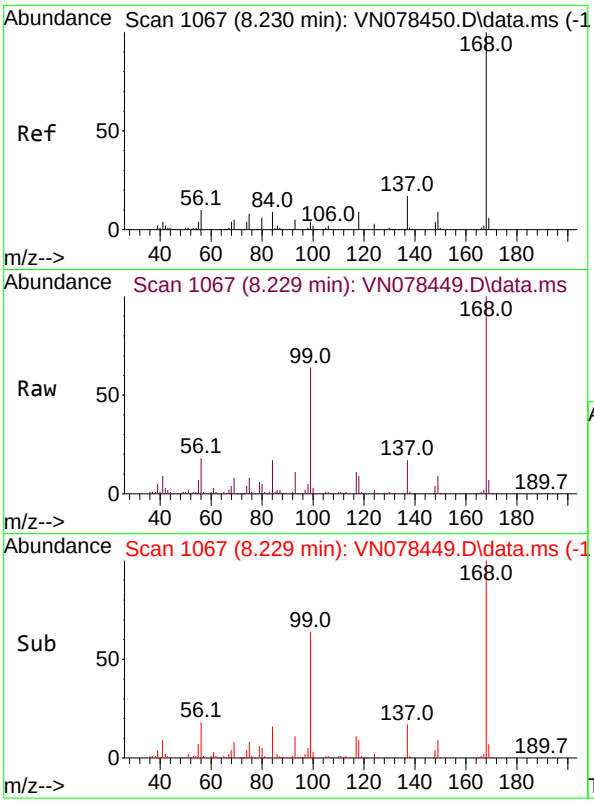
Quant Time: Jul 10 15:53:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

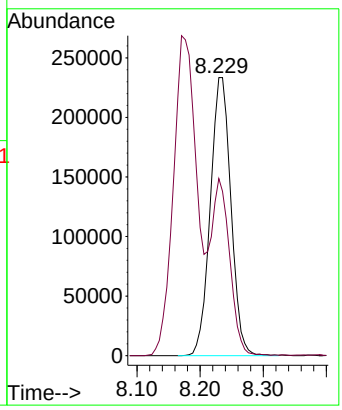




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.229 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:168 Resp: 52926

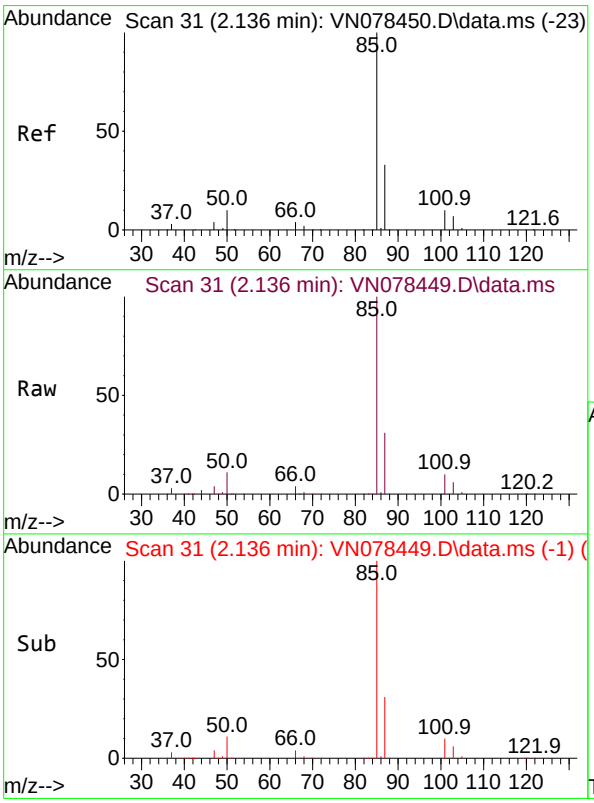
Ion	Ratio	Lower	Upper
168	100		
99	63.6	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

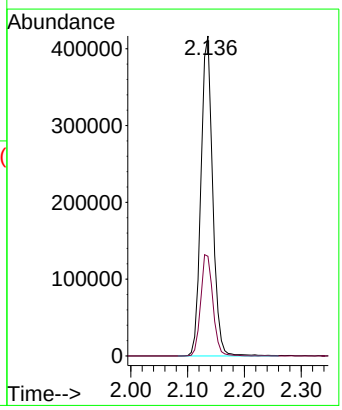
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

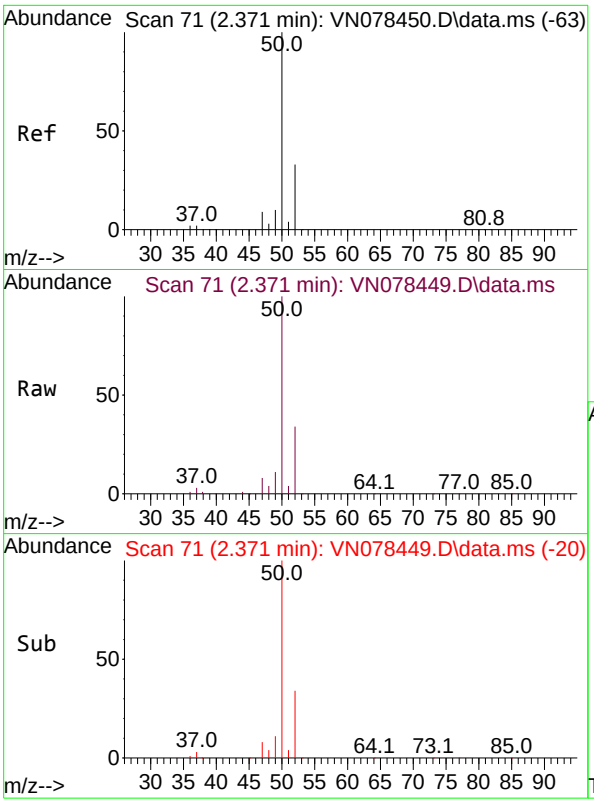


#2
Dichlorodifluoromethane
Concen: 92.198 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 85 Resp: 598287

Ion	Ratio	Lower	Upper
85	100		
87	31.1	15.8	47.4

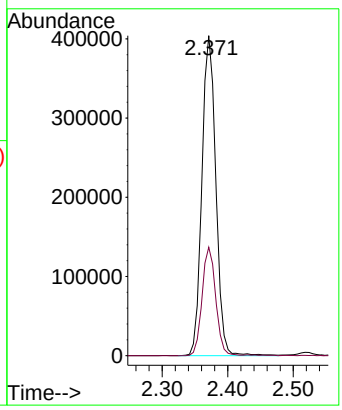




#3
Chloromethane
Concen: 84.916 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 50 Resp: 59891

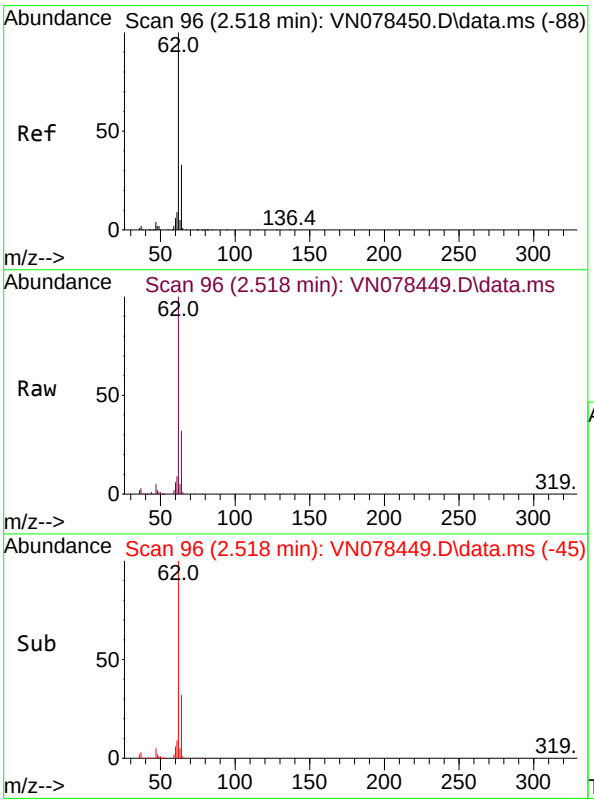
Ion	Ratio	Lower	Upper
50	100		
52	33.9	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

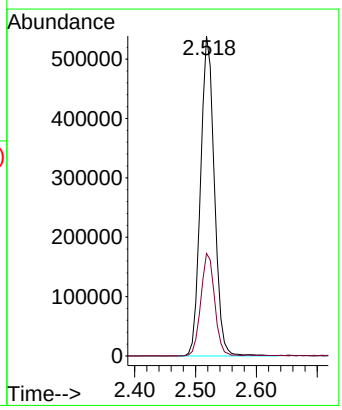
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

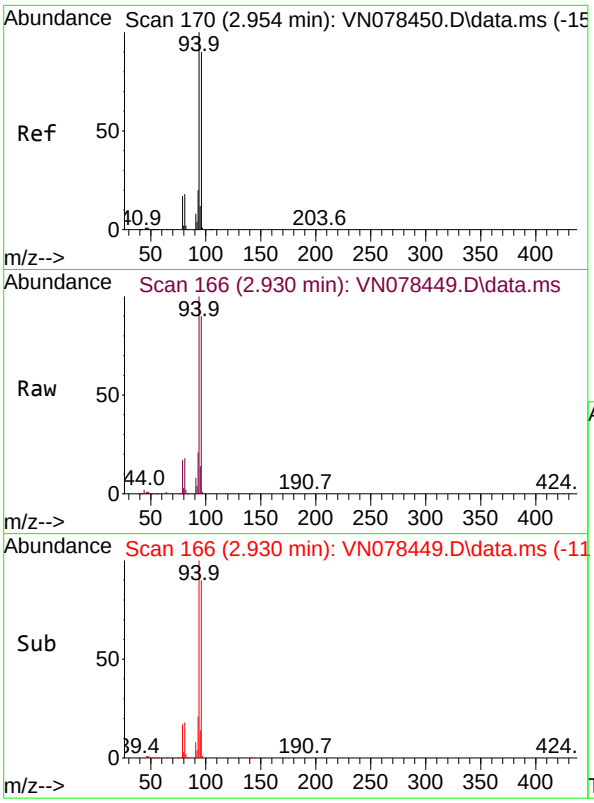


#4
Vinyl Chloride
Concen: 92.996 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 62 Resp: 848479

Ion	Ratio	Lower	Upper
62	100		
64	32.0	26.2	39.2

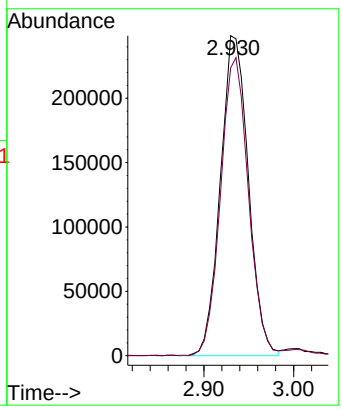




#5
Bromomethane
Concen: 98.088 ug/l
RT: 2.930 min Scan# 1
Delta R.T. -0.024 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 94 Resp: 53846

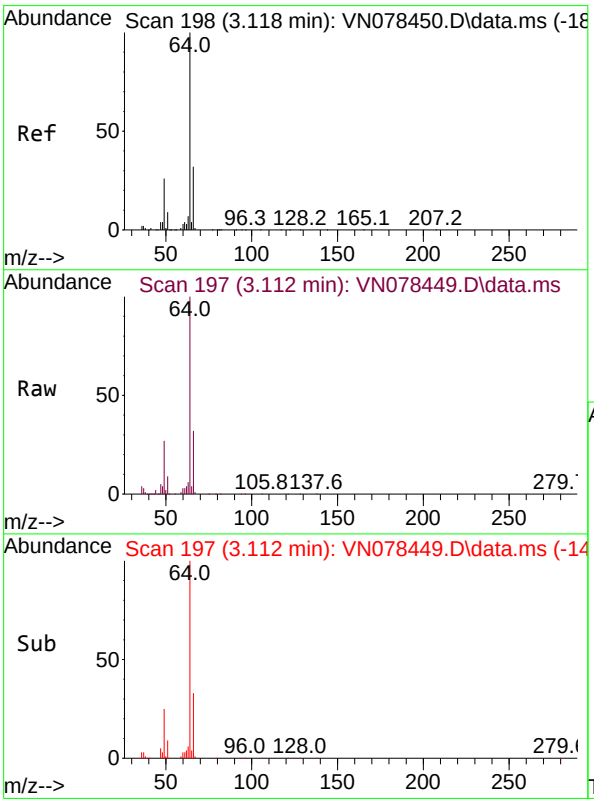
Ion	Ratio	Lower	Upper
94	100		
96	89.9	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

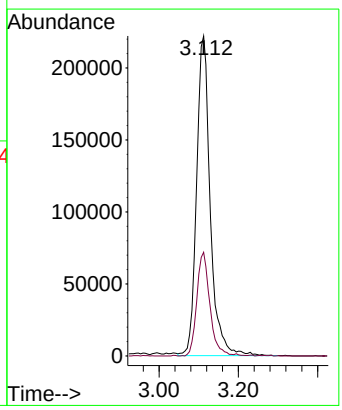
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

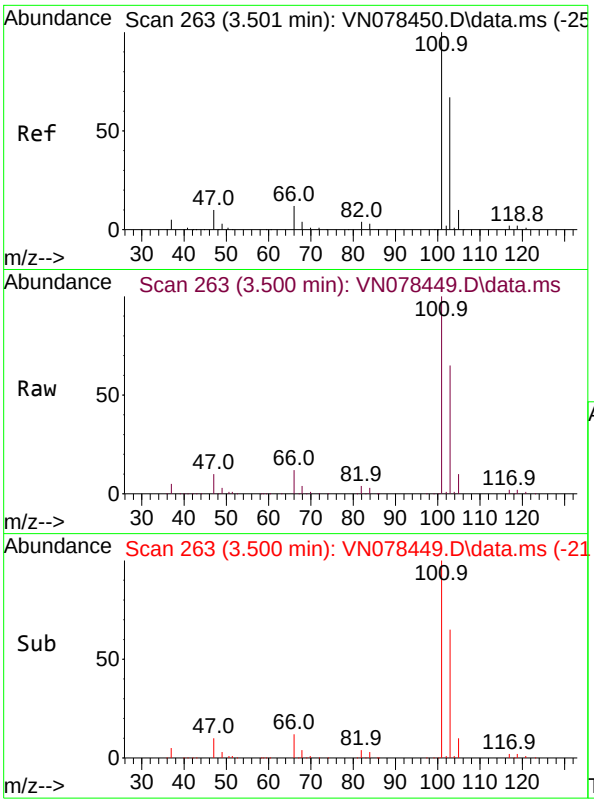


#6
Chloroethane
Concen: 97.693 ug/l
RT: 3.112 min Scan# 197
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 64 Resp: 529072

Ion	Ratio	Lower	Upper
64	100		
66	32.4	25.4	38.2

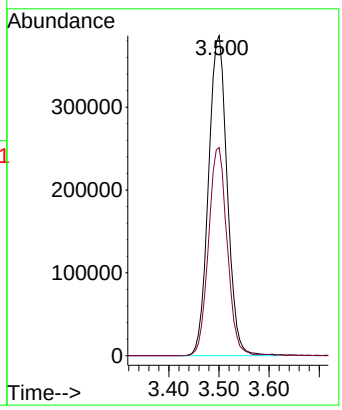




#7
Trichlorofluoromethane
Concen: 91.735 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:101 Resp: 100052

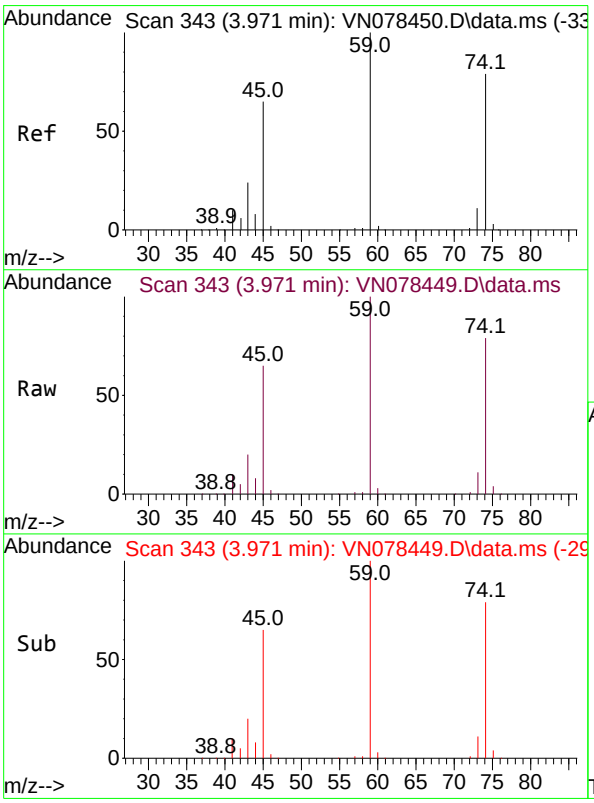
Ion	Ratio	Lower	Upper
101	100		
103	65.1	50.7	76.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

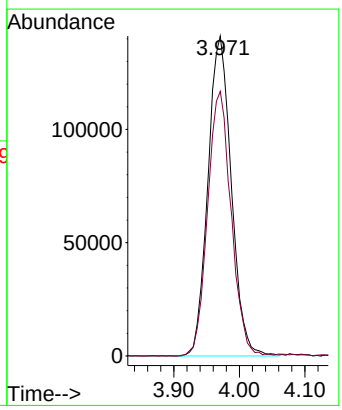
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

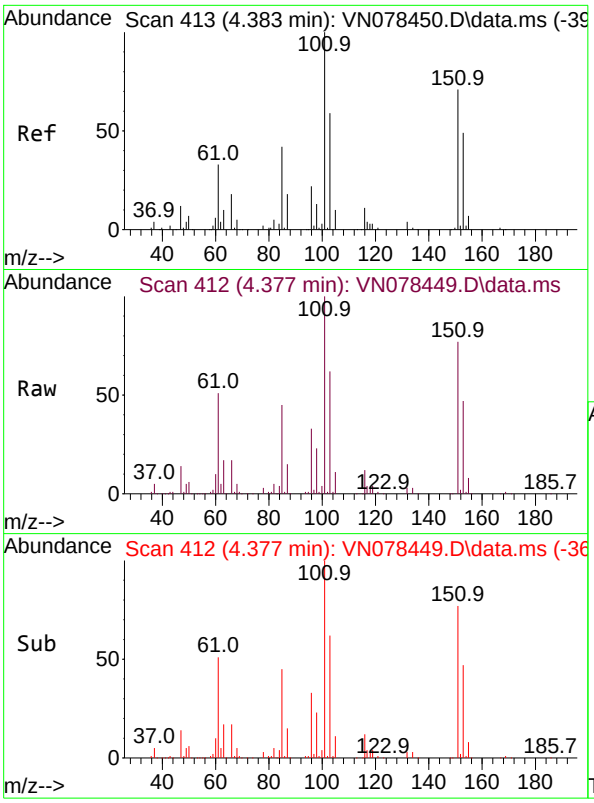


#8
Diethyl Ether
Concen: 96.009 ug/l
RT: 3.971 min Scan# 343
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 74 Resp: 348876

Ion	Ratio	Lower	Upper
74	100		
45	83.5	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 94.070 ug/l
RT: 4.377 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

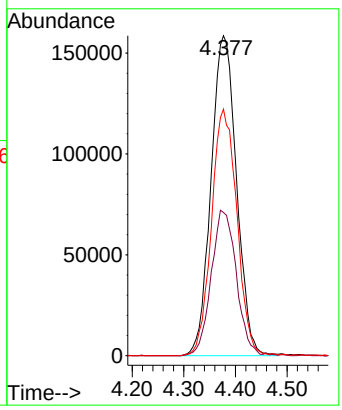
Tgt Ion:101 Resp: 54311

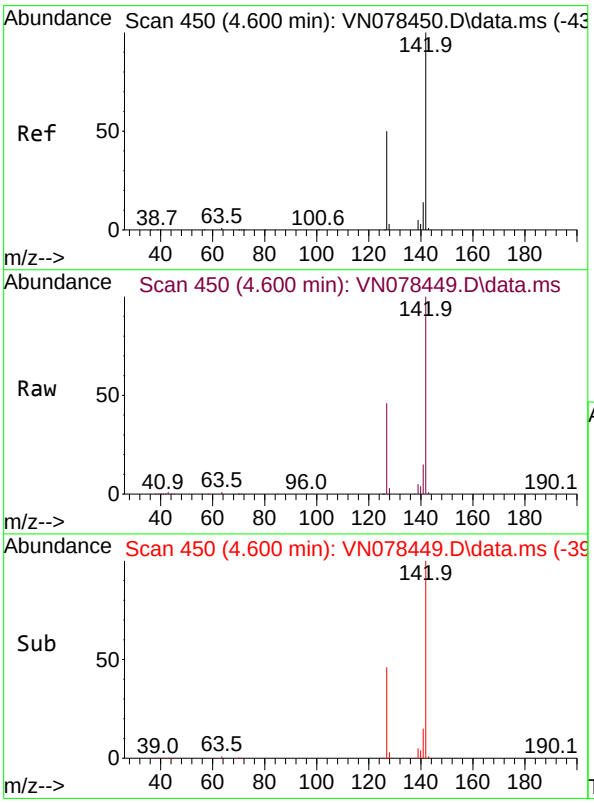
Ion	Ratio	Lower	Upper
101	100		
85	44.7	36.6	55.0
151	76.6	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

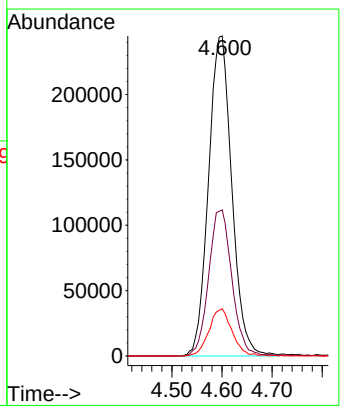


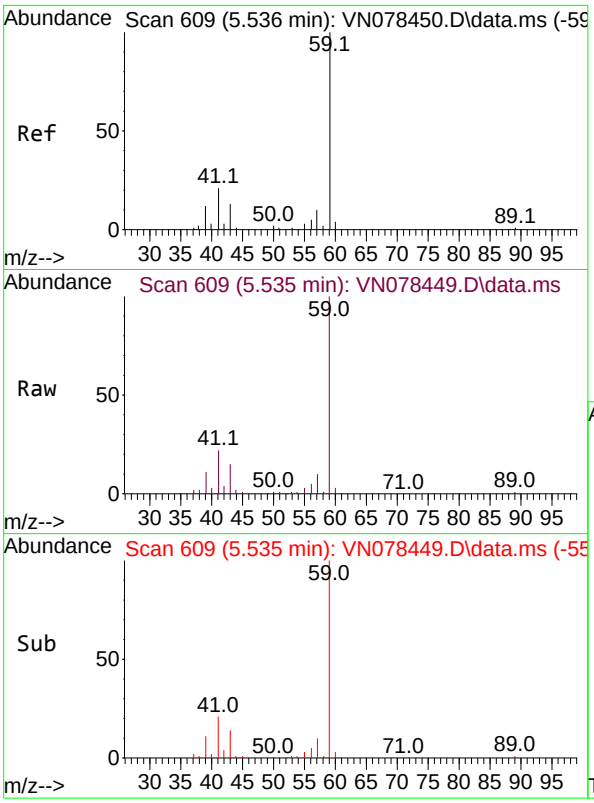


#10
Methyl Iodide
Concen: 99.715 ug/l
RT: 4.600 min Scan# 450
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:142 Resp: 791102

Ion	Ratio	Lower	Upper
142	100		
127	45.6	37.6	56.4
141	14.8	11.4	17.0

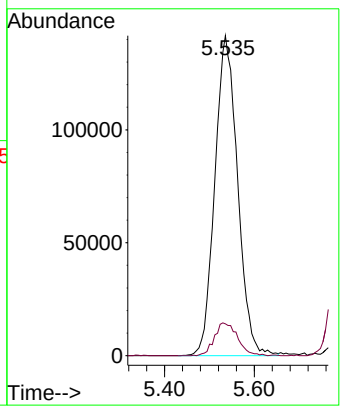




#11
Tert butyl alcohol
Concen: 457.168 ug/l
RT: 5.535 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 59 Resp: 50020

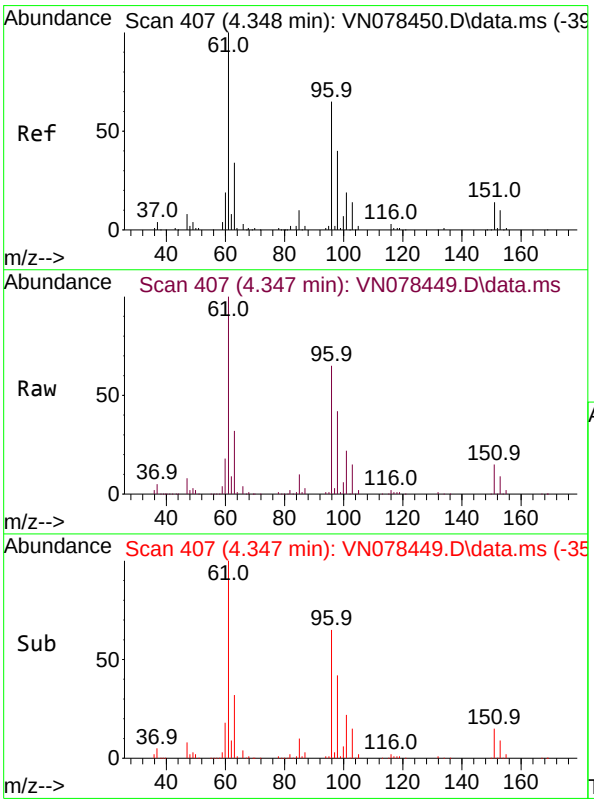
Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.2	12.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

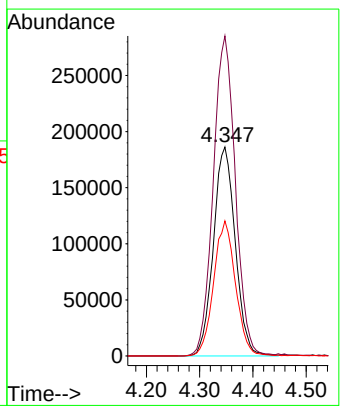
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

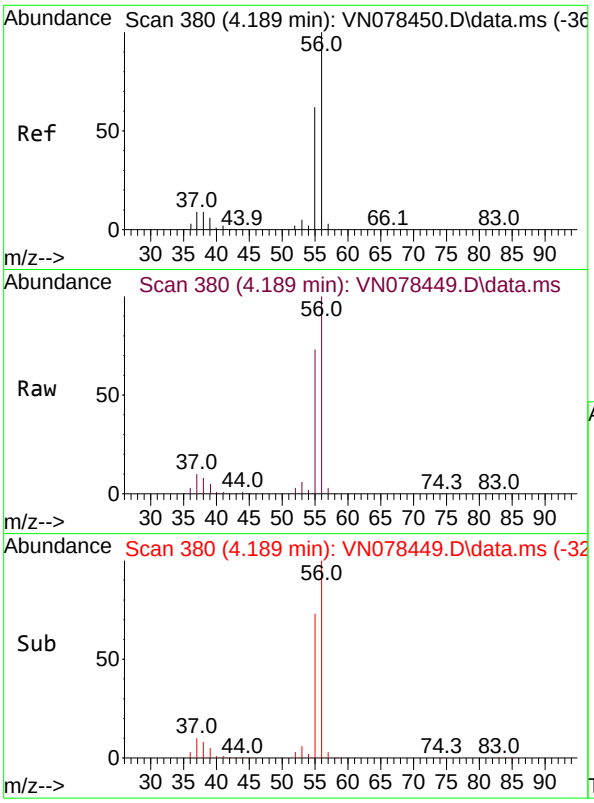


#12
1,1-Dichloroethene
Concen: 95.180 ug/l
RT: 4.347 min Scan# 407
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 96 Resp: 531553

Ion	Ratio	Lower	Upper
96	100		
61	153.2	112.7	169.1
98	64.6	51.2	76.8

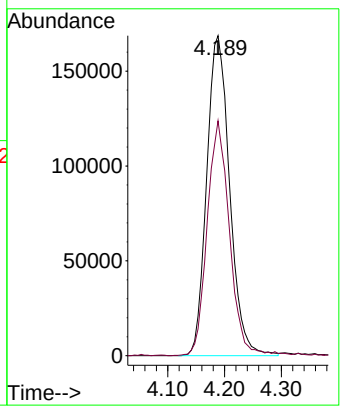




#13
Acrolein
Concen: 439.093 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 56 Resp: 47267

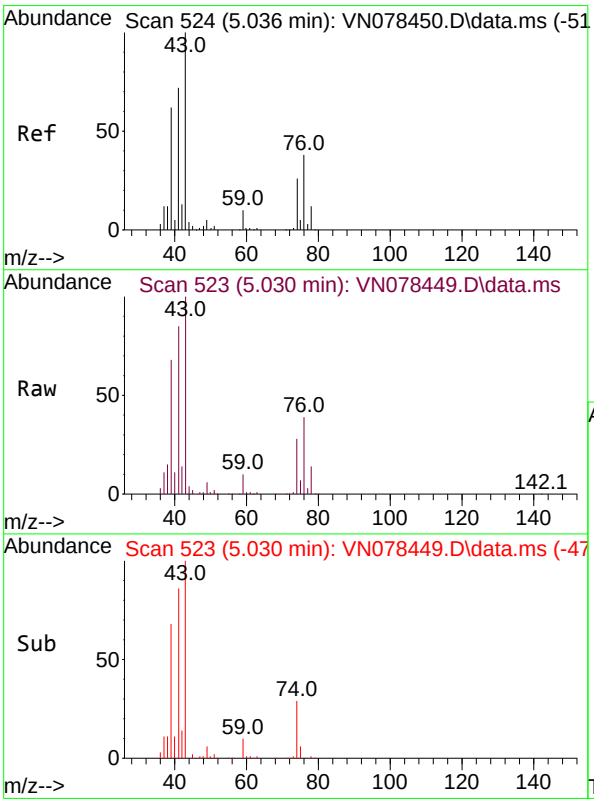
Ion	Ratio	Lower	Upper
56	100		
55	71.0	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

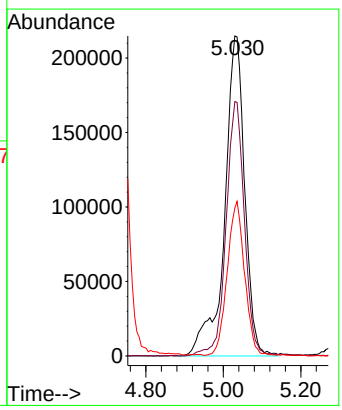
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

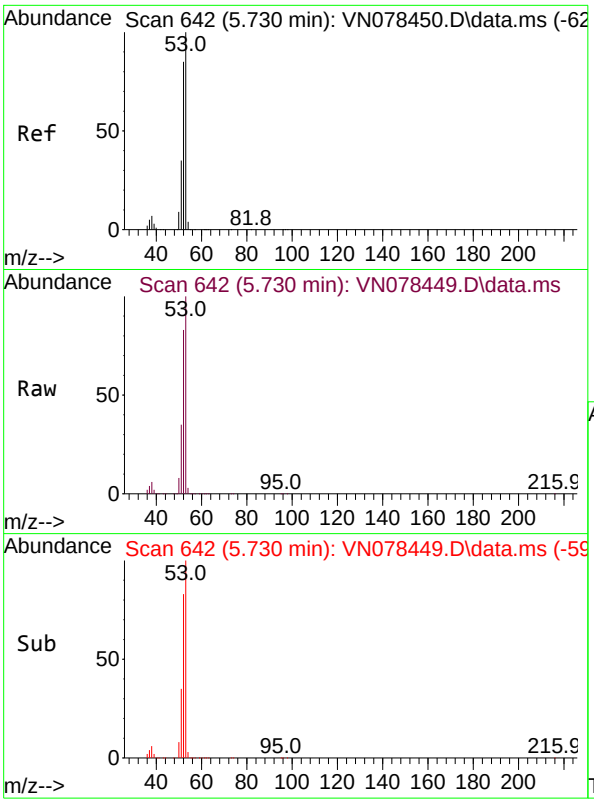


#14
Allyl chloride
Concen: 101.785 ug/l
RT: 5.030 min Scan# 523
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 41 Resp: 776741

Ion	Ratio	Lower	Upper
41	100		
39	72.2	58.8	88.2
76	41.2	39.1	58.7

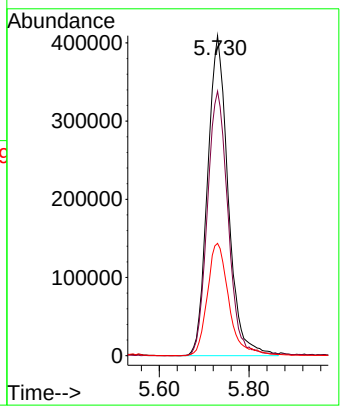




#15
Acrylonitrile
Concen: 471.888 ug/l
RT: 5.730 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 53 Resp: 130451

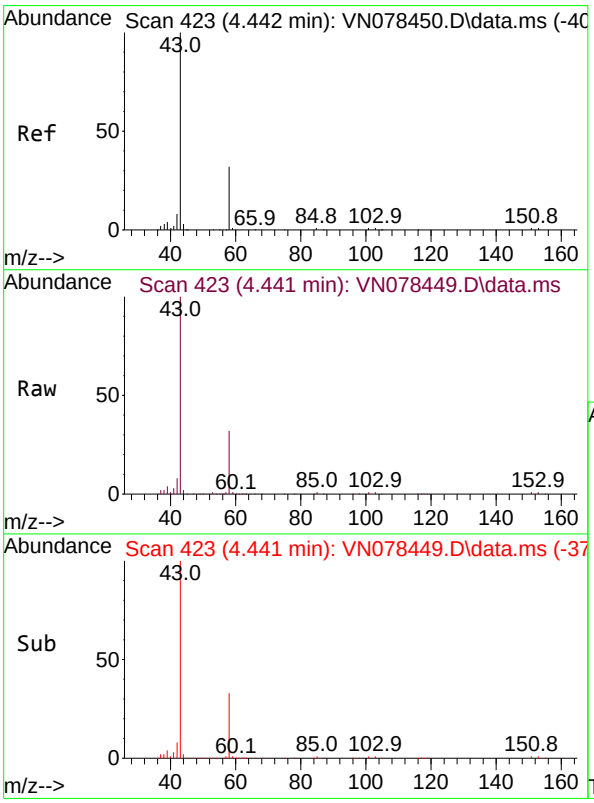
Ion	Ratio	Lower	Upper
53	100		
52	83.2	65.3	97.9
51	37.0	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

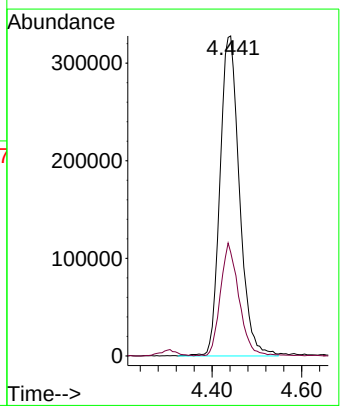
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

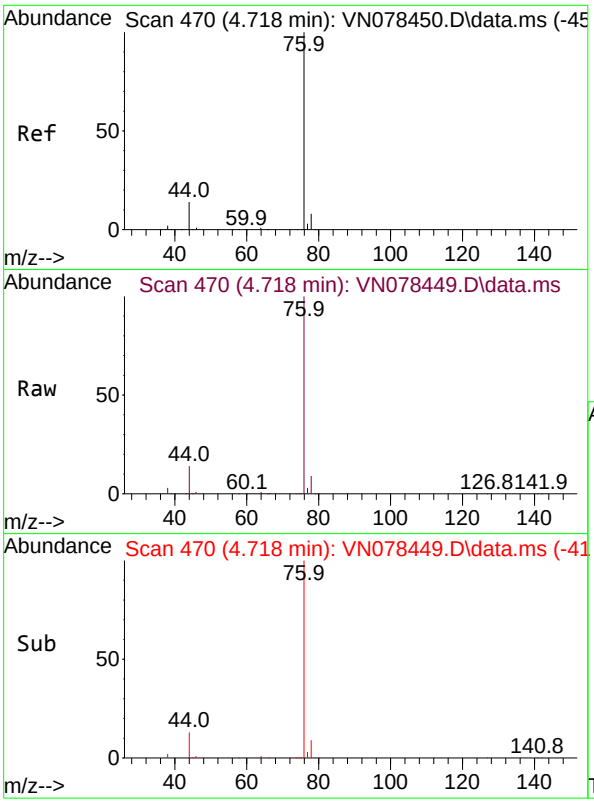


#16
Acetone
Concen: 447.746 ug/l
RT: 4.441 min Scan# 423
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 43 Resp: 989619

Ion	Ratio	Lower	Upper
43	100		
58	32.0	28.0	42.0

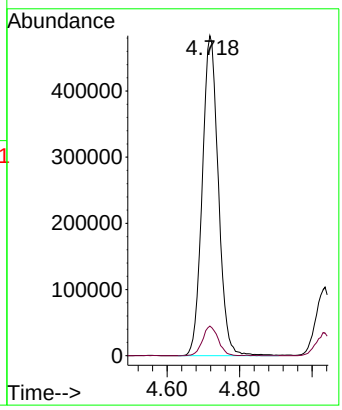




#17
Carbon Disulfide
Concen: 92.251 ug/l
RT: 4.718 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 76 Resp: 148977

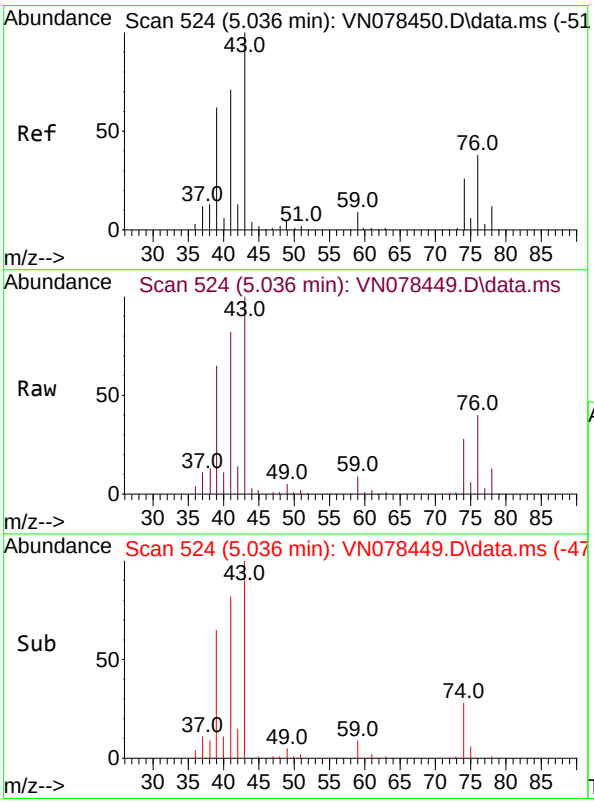
Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

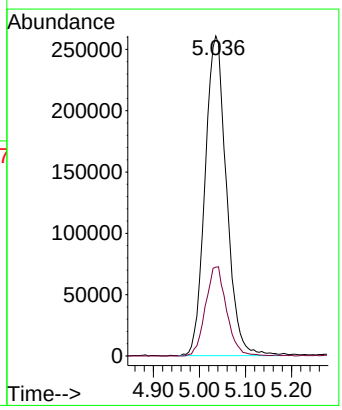
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

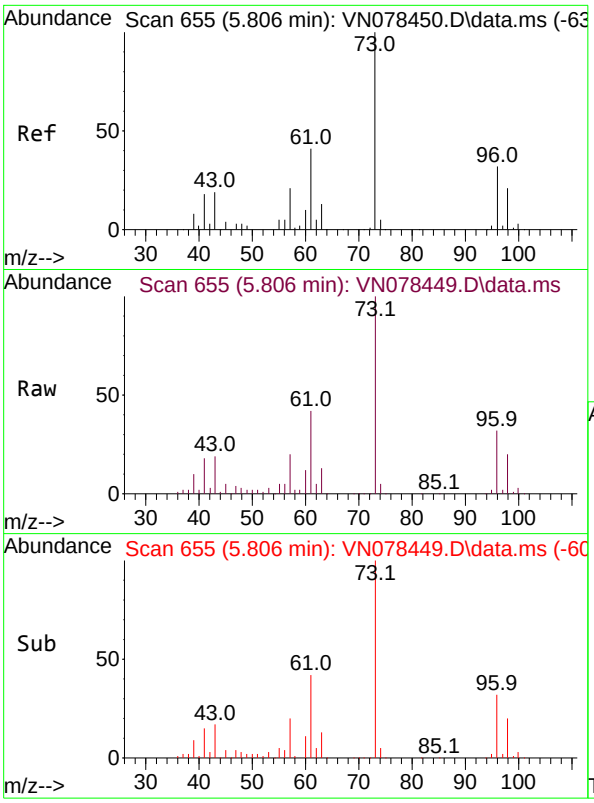


#18
Methyl Acetate
Concen: 90.022 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 43 Resp: 842277

Ion	Ratio	Lower	Upper
43	100		
74	27.6	26.2	39.4

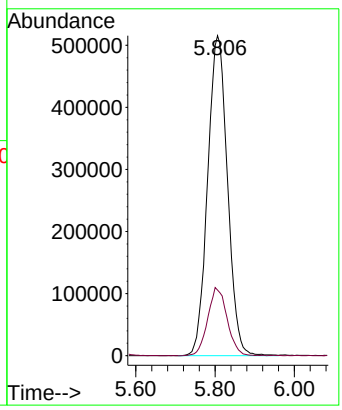




#19
Methyl tert-butyl Ether
Concen: 97.168 ug/l
RT: 5.806 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 73 Resp: 178795

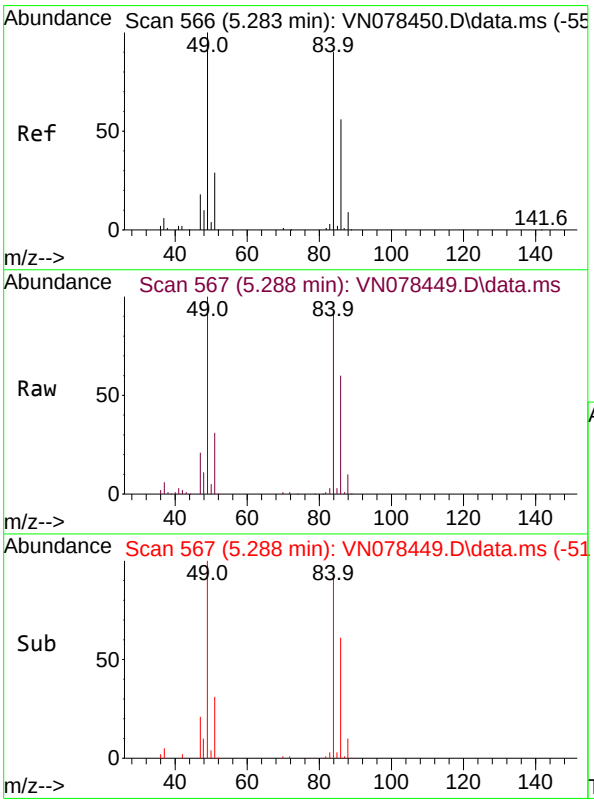
Ion	Ratio	Lower	Upper
73	100		
57	20.5	15.6	23.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

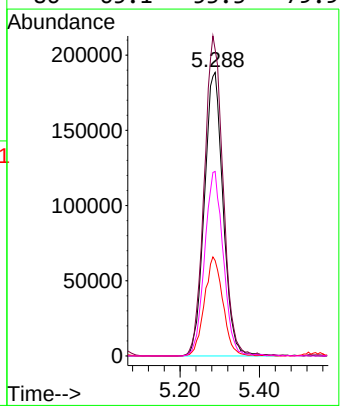
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

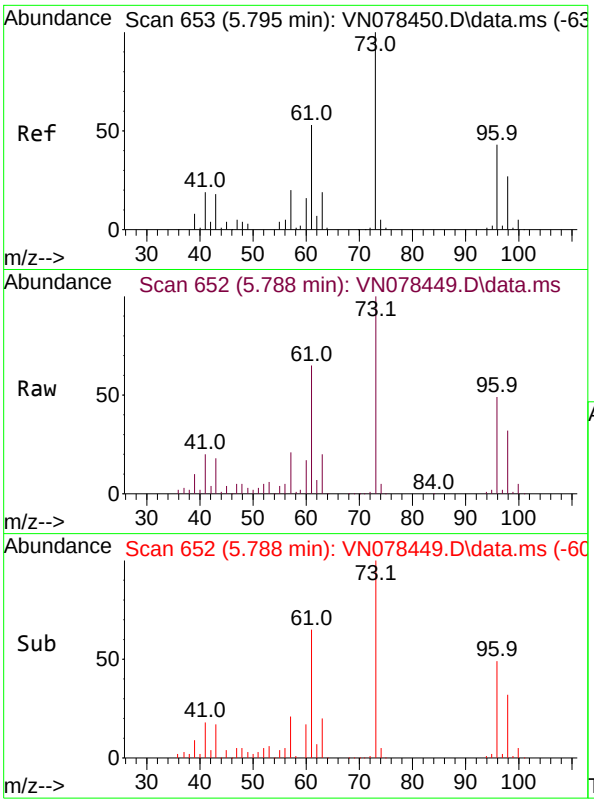


#20
Methylene Chloride
Concen: 99.918 ug/l
RT: 5.288 min Scan# 567
Delta R.T. 0.005 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 84 Resp: 619280

Ion	Ratio	Lower	Upper
84	100		
49	108.0	79.7	119.5
51	33.7	25.2	37.8
86	65.1	53.3	79.9





#21
trans-1,2-Dichloroethene
Concen: 94.500 ug/l
RT: 5.788 min Scan# 6
Delta R.T. -0.007 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

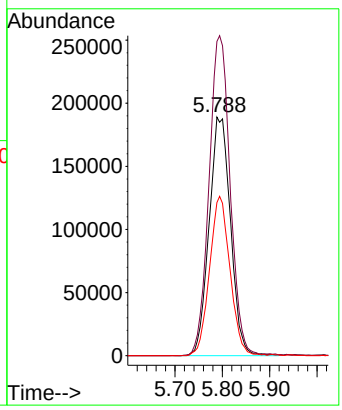
Tgt Ion: 96 Resp: 59471

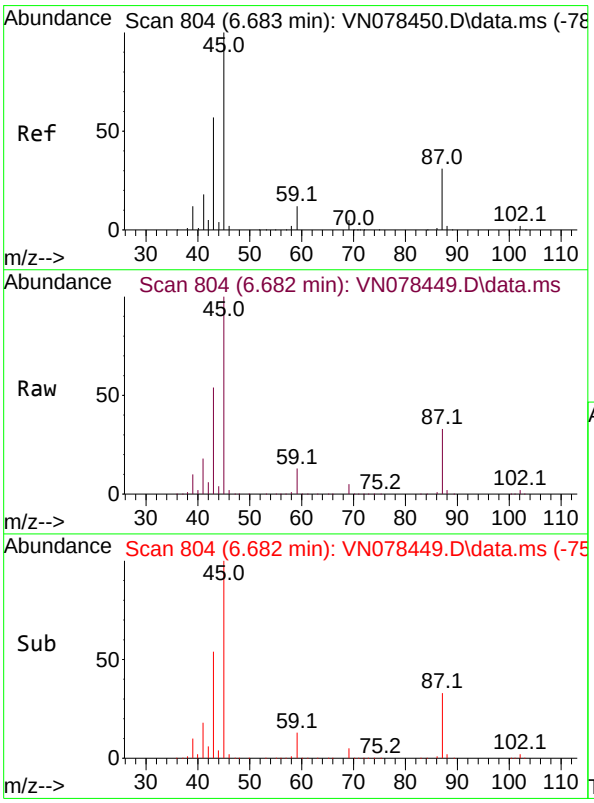
Ion	Ratio	Lower	Upper
96	100		
61	131.7	90.1	135.1
98	64.2	46.4	69.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

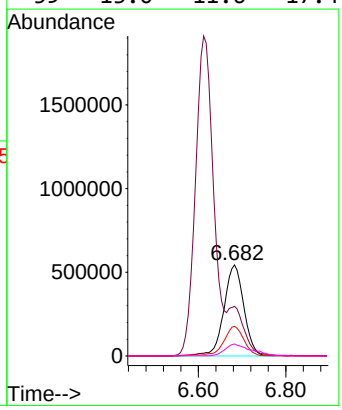


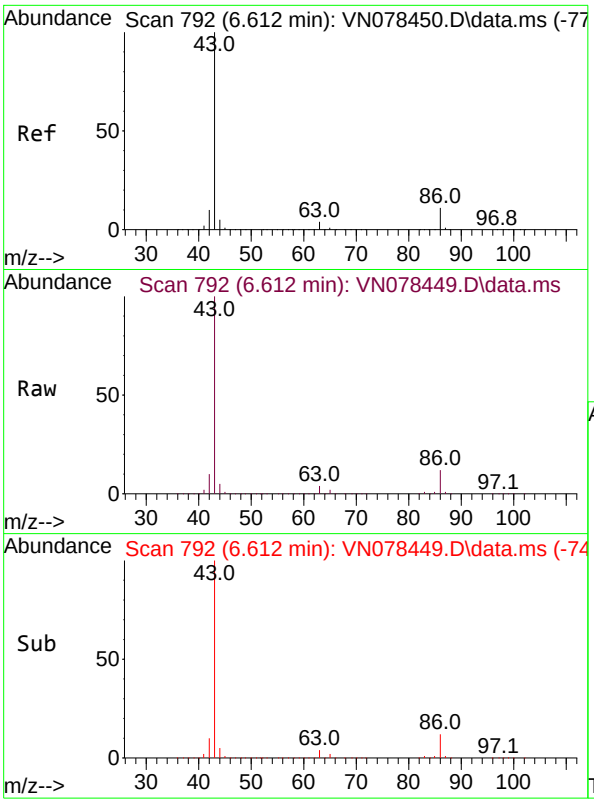


#22
Diisopropyl ether
Concen: 100.349 ug/l
RT: 6.682 min Scan# 804
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 45 Resp: 1714703

Ion	Ratio	Lower	Upper
45	100		
43	53.8	45.5	68.3
87	32.4	31.8	47.8
59	13.0	11.6	17.4





#23
Vinyl Acetate
Concen: 510.470 ug/l
RT: 6.612 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

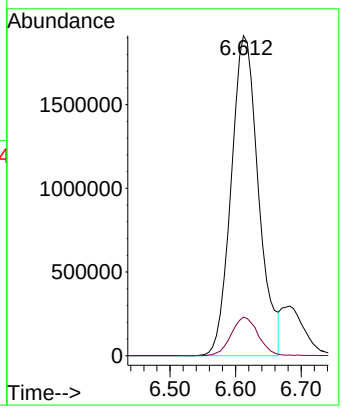
Tgt Ion: 43 Resp: 554529

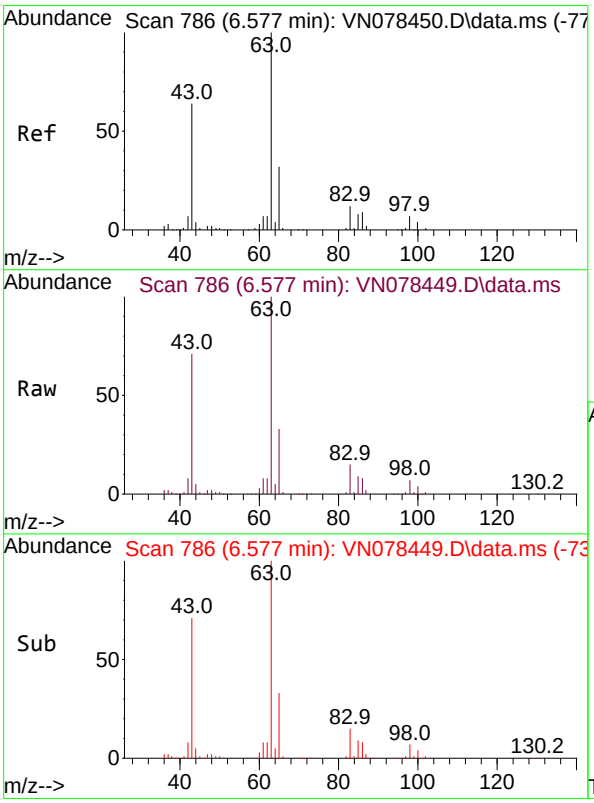
Ion	Ratio	Lower	Upper
43	100		
86	12.0	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

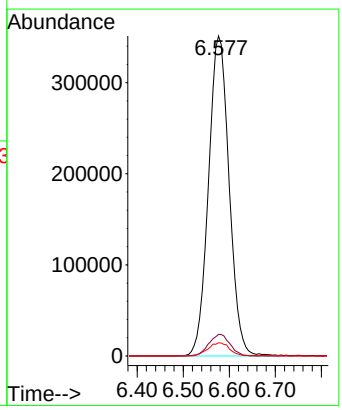


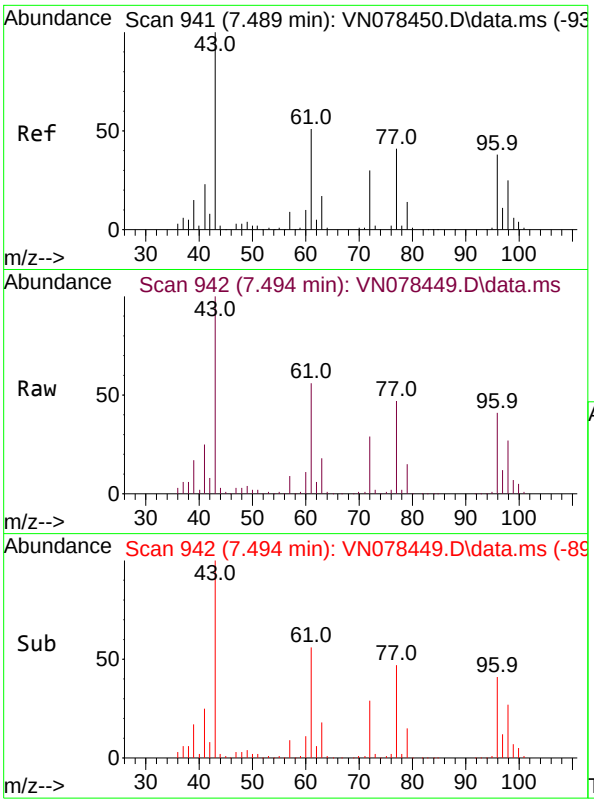


#24
1,1-Dichloroethane
Concen: 94.898 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 63 Resp: 1092661

Ion	Ratio	Lower	Upper
63	100		
98	6.8	3.9	11.7
100	4.1	2.5	7.4





#25
2-Butanone
Concen: 477.304 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.005 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

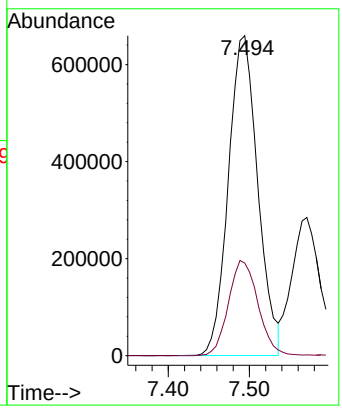
Tgt Ion: 43 Resp: 166063

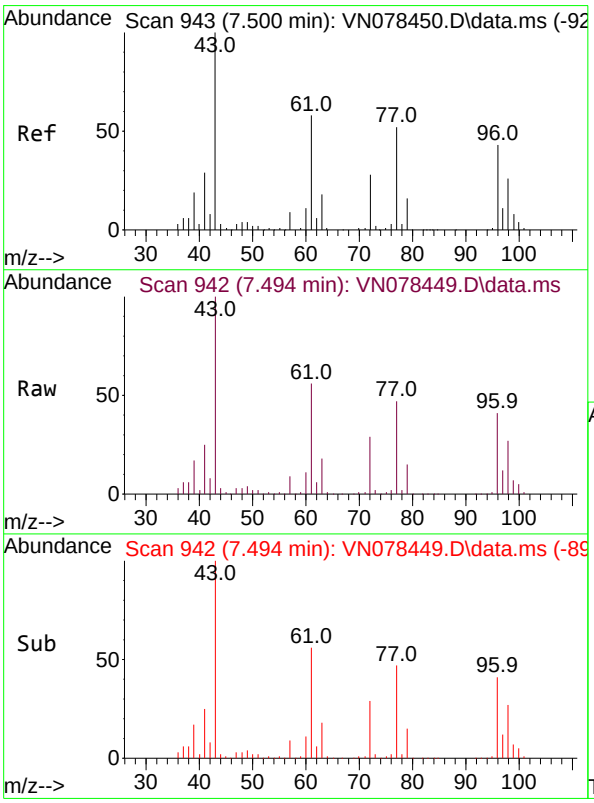
Ion	Ratio	Lower	Upper
43	100		
72	29.0	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

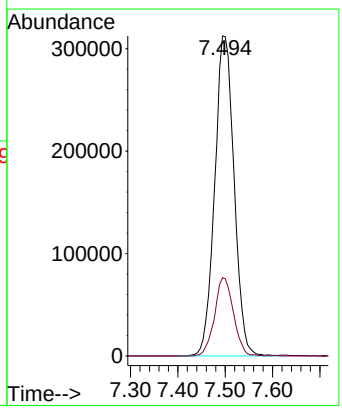


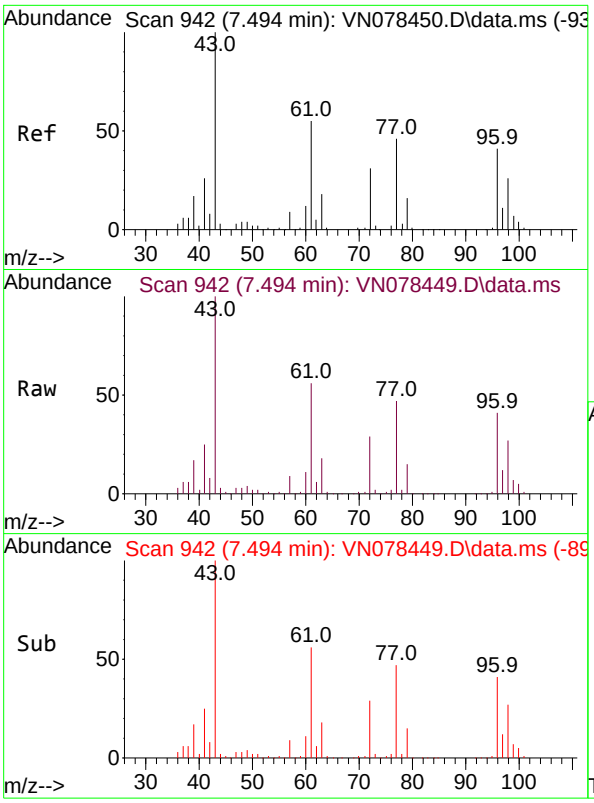


#26
2,2-Dichloropropane
Concen: 94.354 ug/l
RT: 7.494 min Scan# 942
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 77 Resp: 888554

Ion	Ratio	Lower	Upper
77	100		
97	23.9	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 97.820 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

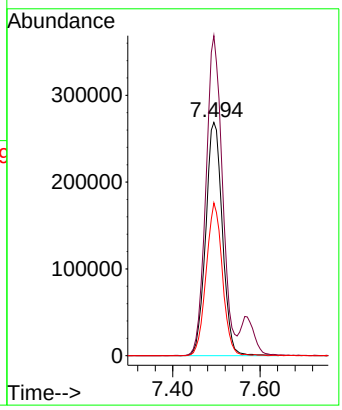
Tgt Ion: 96 Resp: 71216

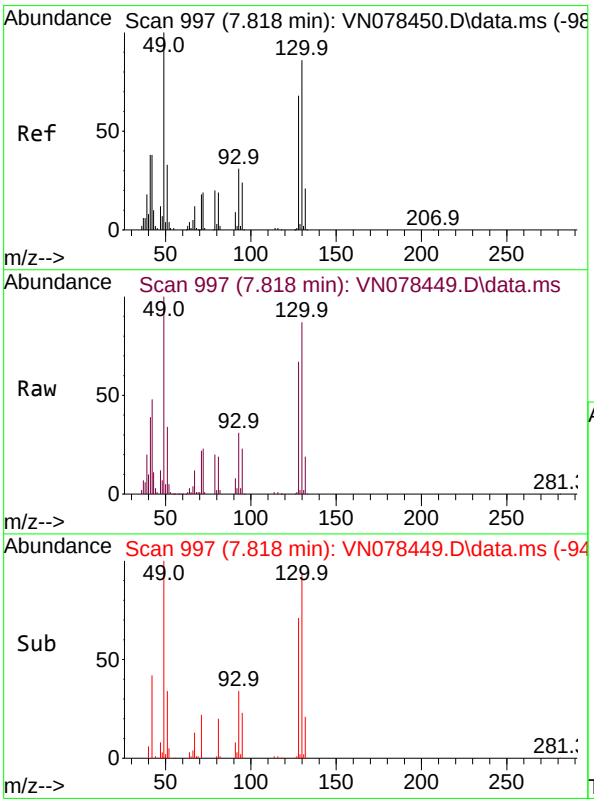
Ion	Ratio	Lower	Upper
96	100		
61	135.5	0.0	255.2
98	63.6	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

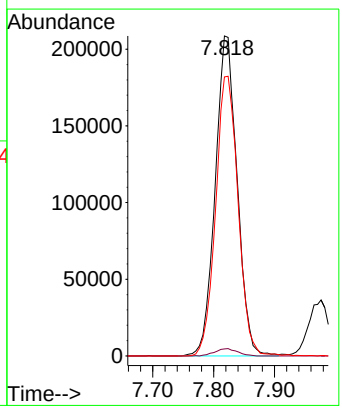


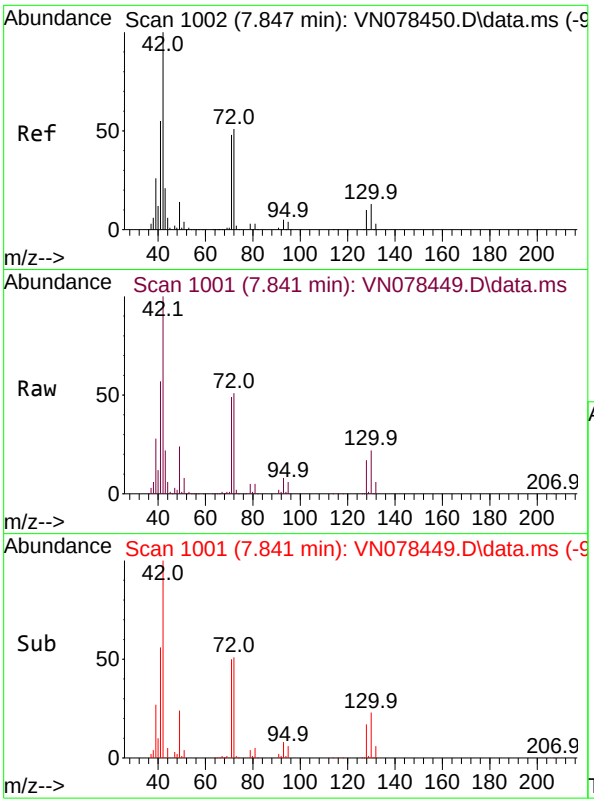


#28
Bromochloromethane
Concen: 96.276 ug/l
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 49 Resp: 522124

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	4.8
130	89.5	75.3	112.9

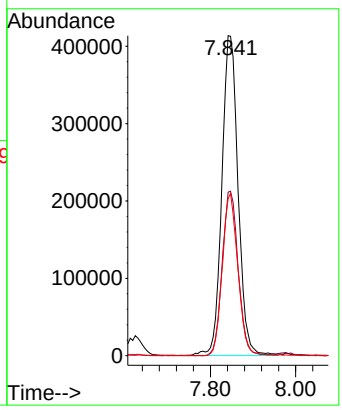




#29
Tetrahydrofuran
Concen: 477.975 ug/l
RT: 7.841 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 42 Resp: 109118

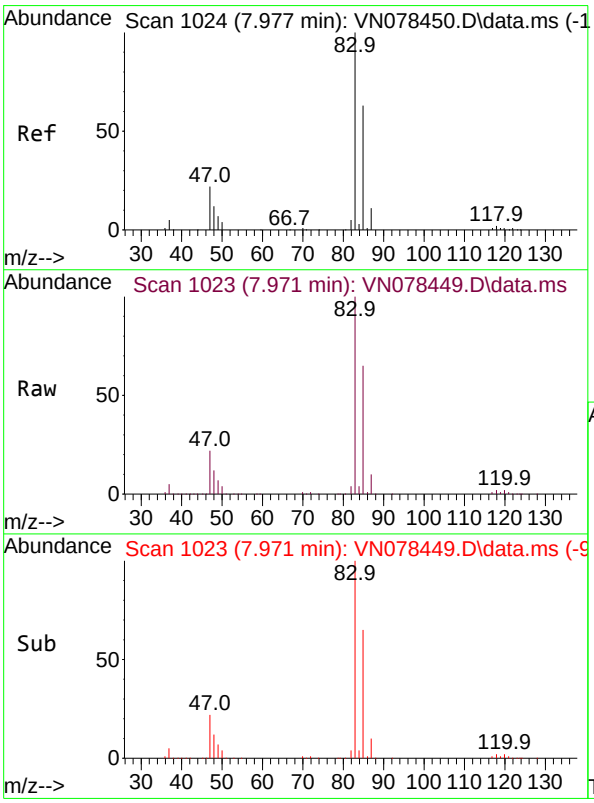
Ion	Ratio	Lower	Upper
42	100		
72	50.5	49.8	74.6
71	48.8	47.4	71.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

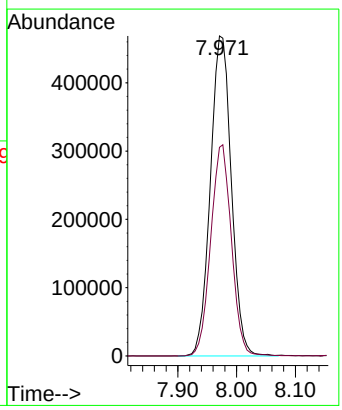
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

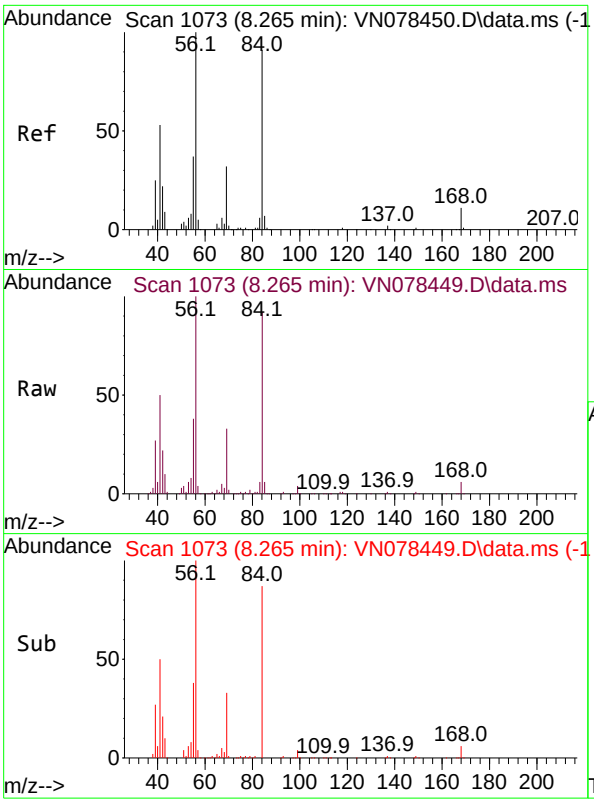


#30
Chloroform
Concen: 96.940 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 83 Resp: 1162056

Ion	Ratio	Lower	Upper
83	100		
85	65.2	55.4	83.0

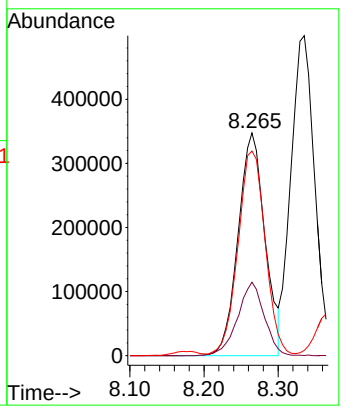




#31
Cyclohexane
Concen: 91.053 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 56 Resp: 87312

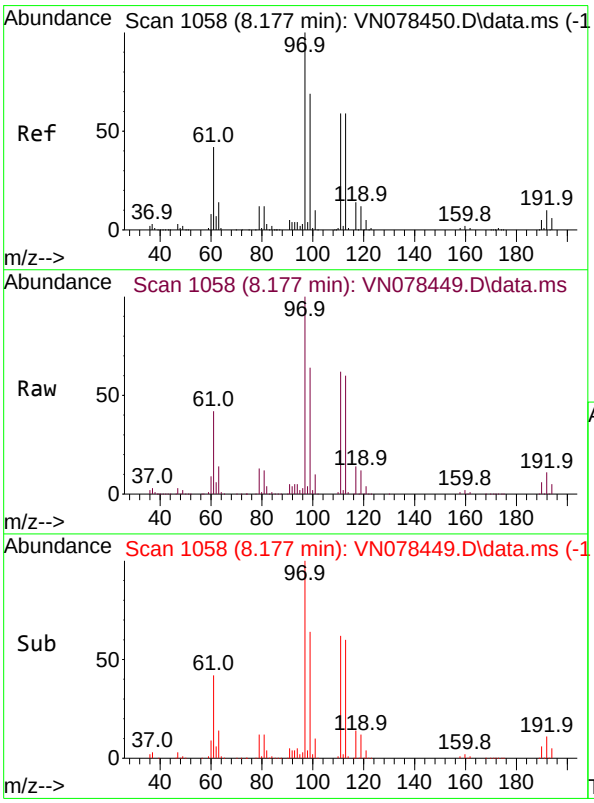
Ion	Ratio	Lower	Upper
56	100		
69	32.9	26.8	40.2
84	90.2	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

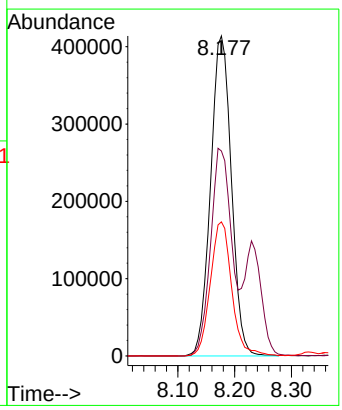
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

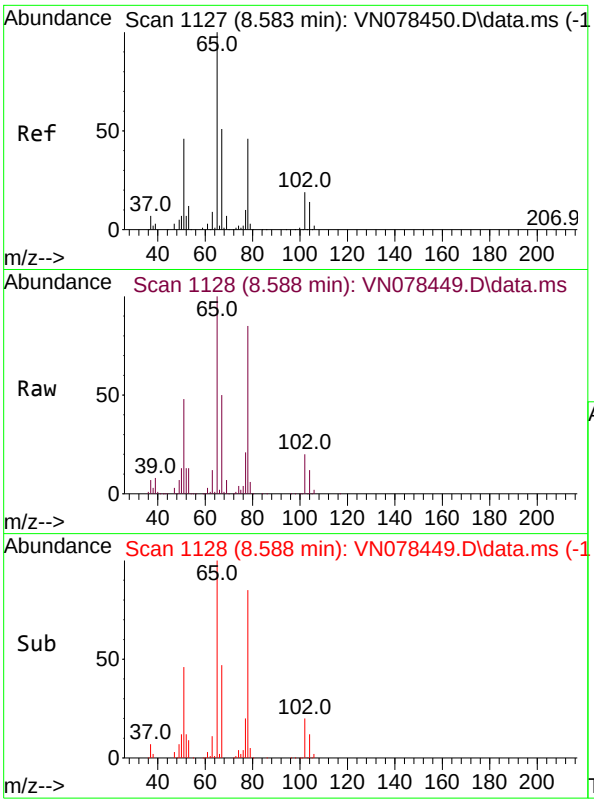


#32
1,1,1-Trichloroethane
Concen: 97.825 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 97 Resp: 1051373

Ion	Ratio	Lower	Upper
97	100		
99	64.6	50.3	75.5
61	43.1	34.7	52.1

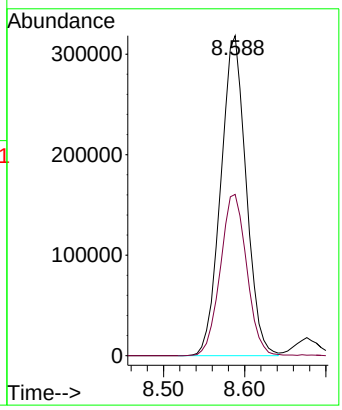




#33
1,2-Dichloroethane-d4
Concen: 97.226 ug/l
RT: 8.588 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 65 Resp: 68986

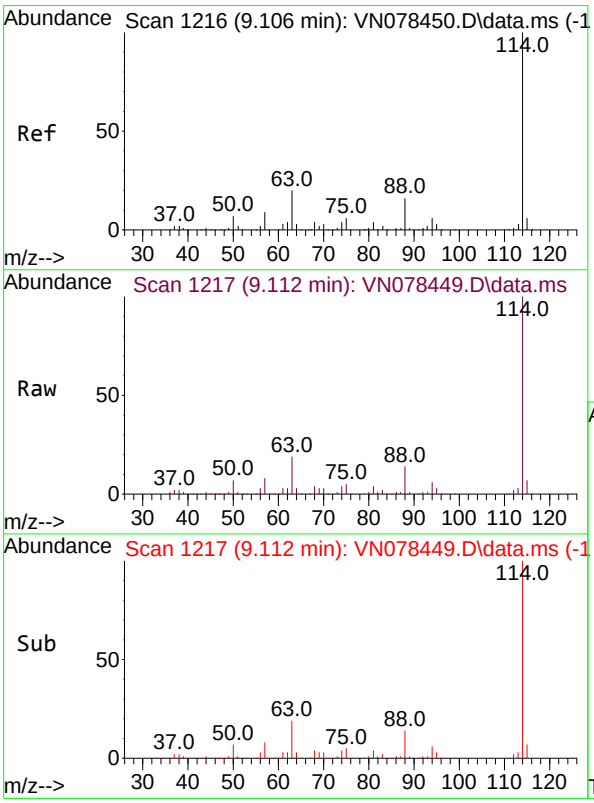
Ion	Ratio	Lower	Upper
65	100		
67	52.5	0.0	106.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

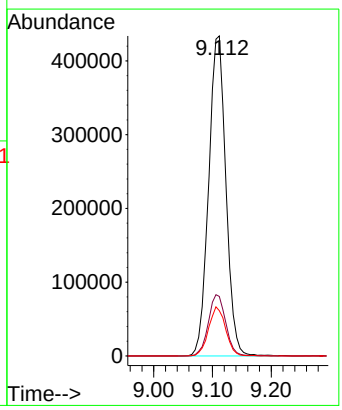
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

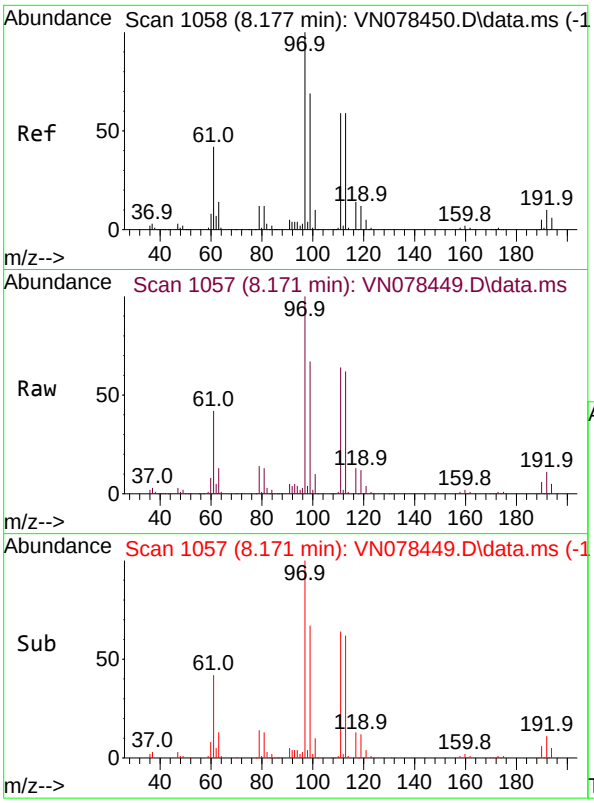


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.112 min Scan# 1217
Delta R.T. 0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:114 Resp: 884816

Ion	Ratio	Lower	Upper
114	100		
63	18.6	0.0	36.4
88	14.2	0.0	30.6

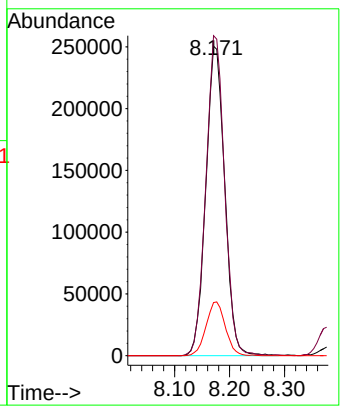




#35
Dibromofluoromethane
Concen: 99.718 ug/l
RT: 8.171 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:113 Resp: 59894

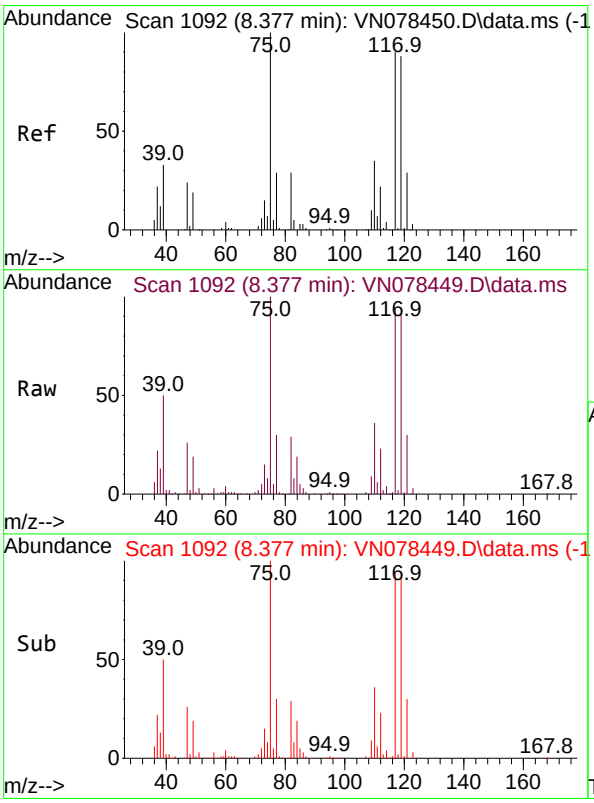
Ion	Ratio	Lower	Upper
113	100		
111	102.4	82.6	123.8
192	17.7	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

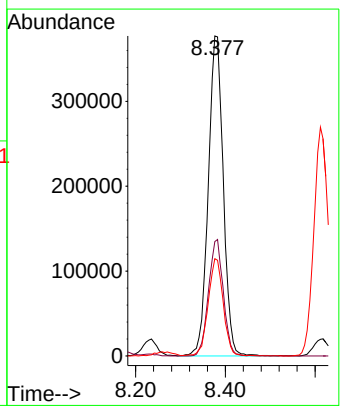
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

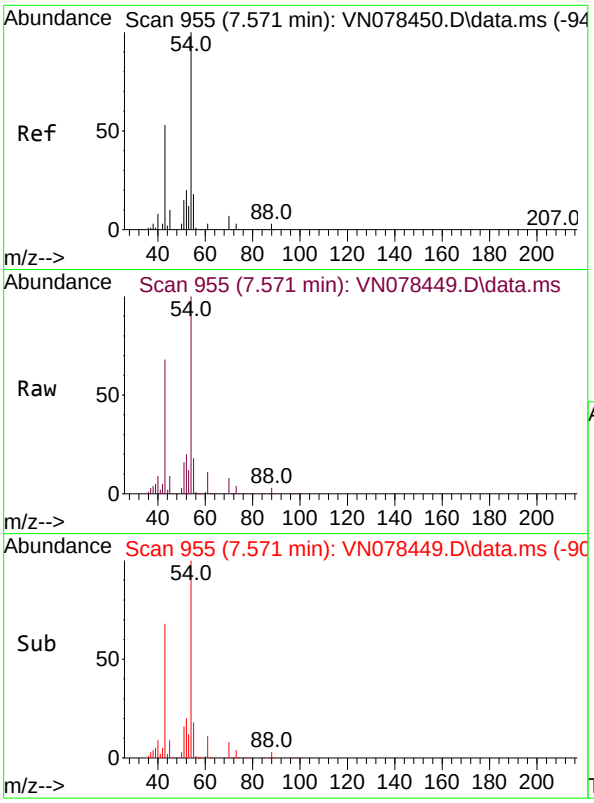


#36
1,1-Dichloropropene
Concen: 101.073 ug/l
RT: 8.377 min Scan# 1092
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 75 Resp: 876574

Ion	Ratio	Lower	Upper
75	100		
110	35.8	19.1	57.3
77	30.1	25.0	37.4





#37
Ethyl Acetate
Concen: 98.754 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

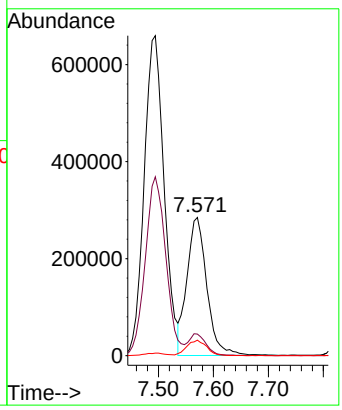
Tgt Ion: 43 Resp: 71396

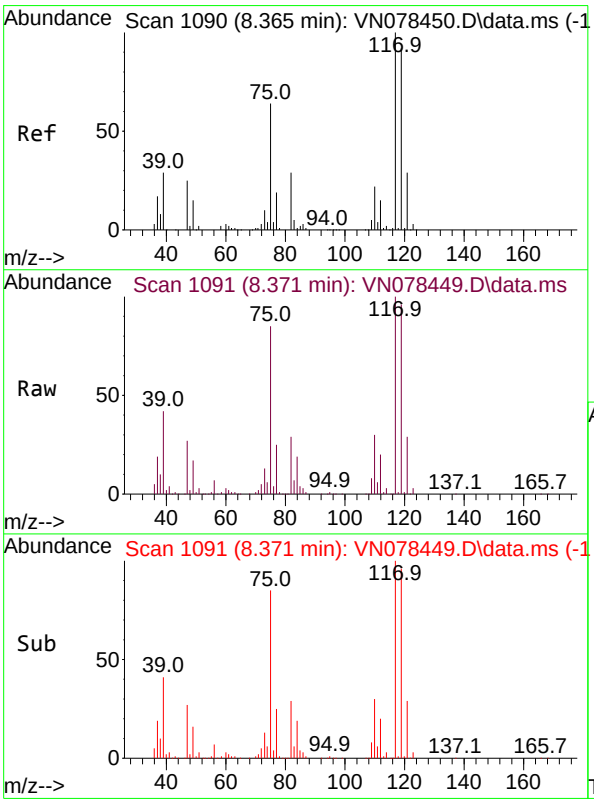
Ion	Ratio	Lower	Upper
43	100		
61	13.7	13.2	19.8
70	11.1	11.3	16.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

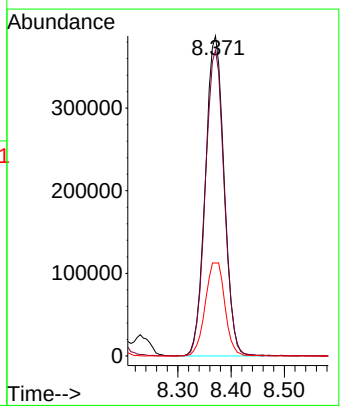


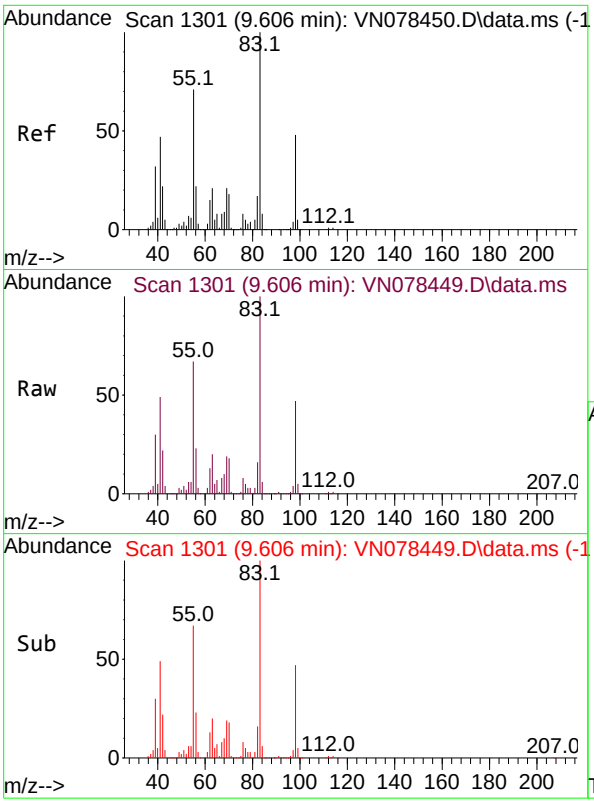


#38
Carbon Tetrachloride
Concen: 100.894 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:117 Resp: 951010

Ion	Ratio	Lower	Upper
117	100		
119	95.5	77.3	115.9
121	29.1	23.3	34.9





#39
Methylcyclohexane
Concen: 103.718 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

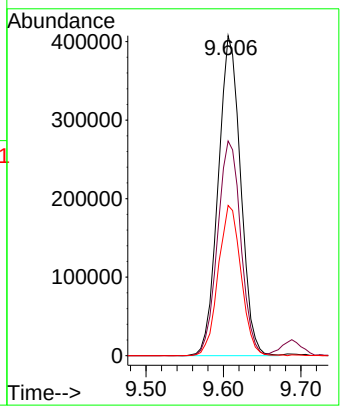
Tgt Ion: 83 Resp: 82107

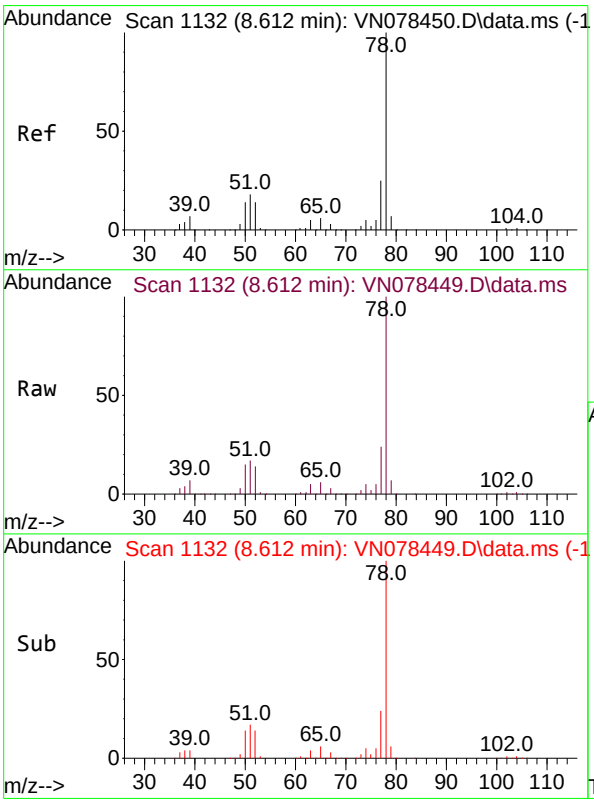
Ion	Ratio	Lower	Upper
83	100		
55	67.0	49.1	73.7
98	47.0	40.6	61.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

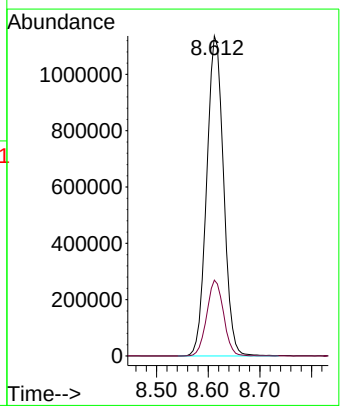


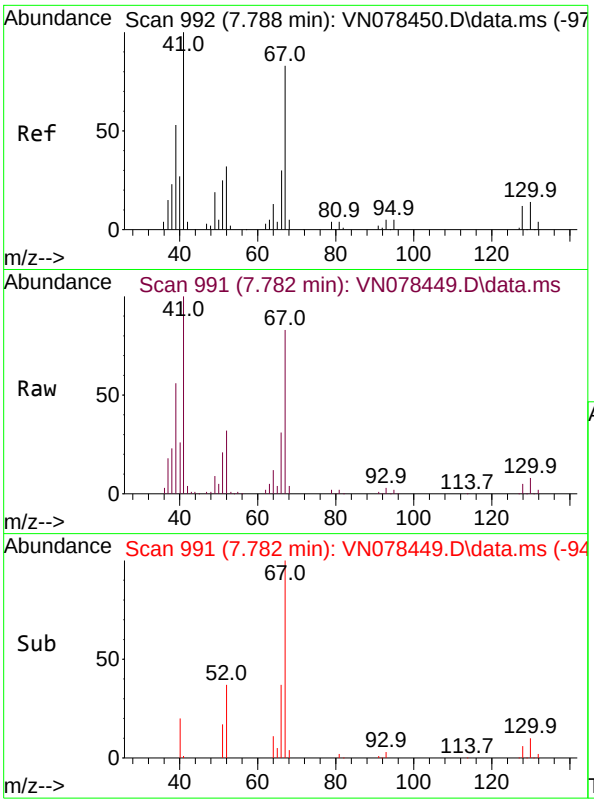


#40
Benzene
Concen: 100.399 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 78 Resp: 2579598

Ion	Ratio	Lower	Upper
78	100		
77	23.7	19.0	28.6

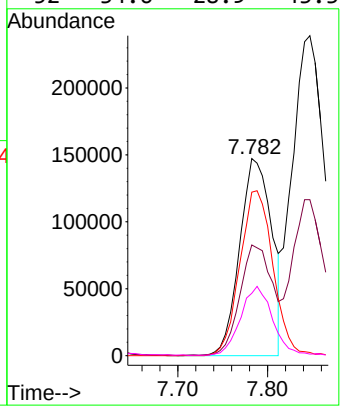




#41
Methacrylonitrile
Concen: 99.379 ug/l
RT: 7.782 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 41 Resp: 36627

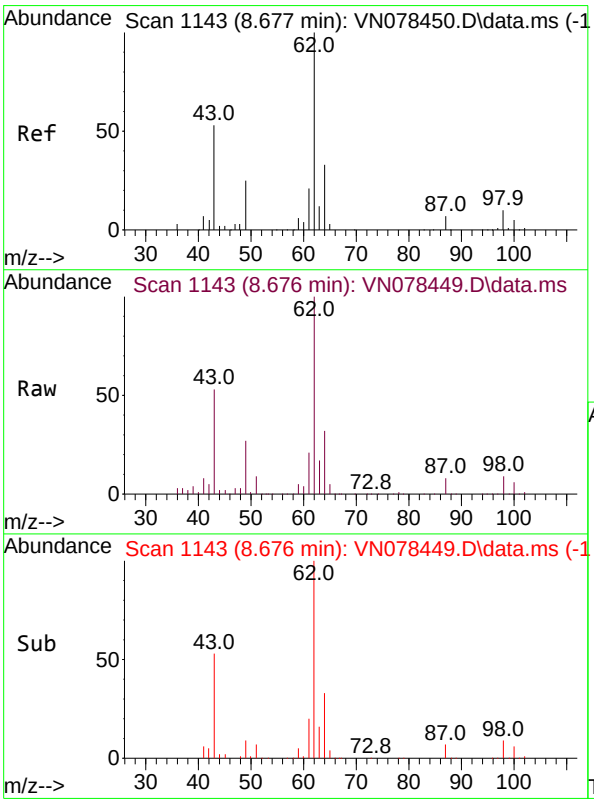
Ion	Ratio	Lower	Upper
41	100		
39	56.2	42.6	64.0
67	86.5	77.5	116.3
52	34.6	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

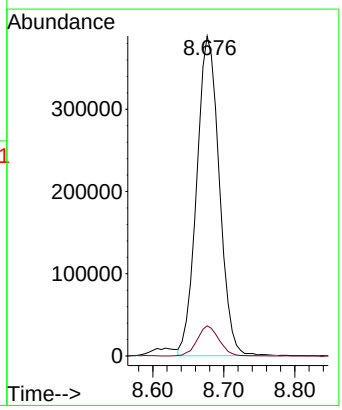
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

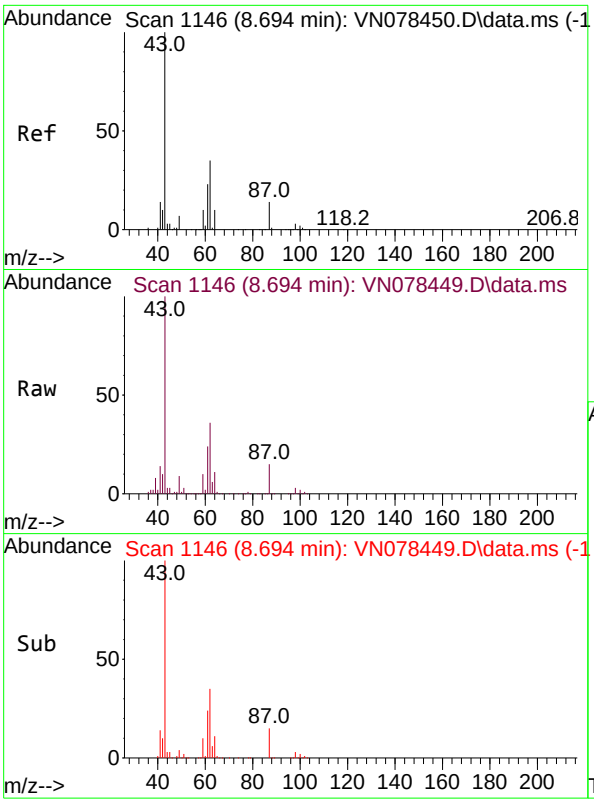


#42
1,2-Dichloroethane
Concen: 98.306 ug/l
RT: 8.676 min Scan# 1143
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 62 Resp: 859129

Ion	Ratio	Lower	Upper
62	100		
98	9.1	0.0	19.8





#43
Isopropyl Acetate
Concen: 100.898 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

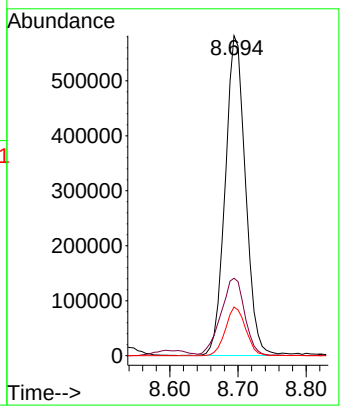
Tgt Ion: 43 Resp: 120097

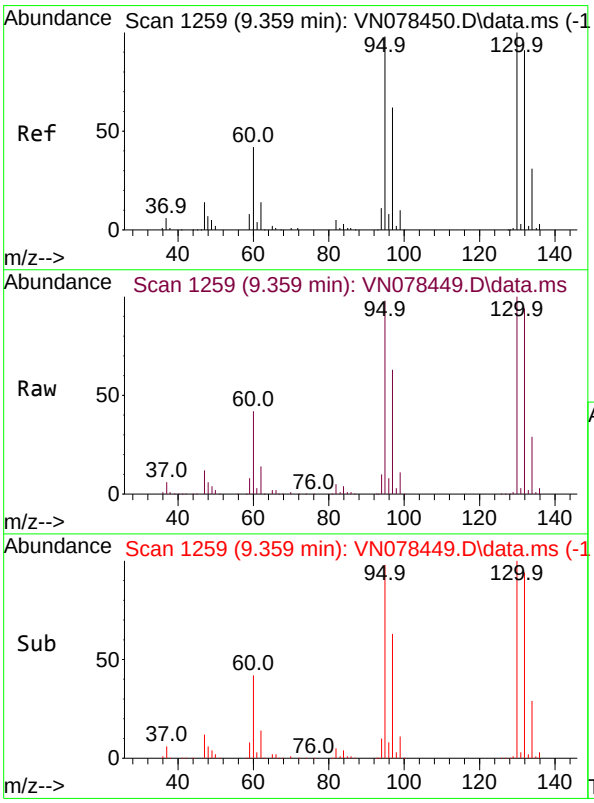
Ion	Ratio	Lower	Upper
43	100		
61	28.6	24.7	37.1
87	15.3	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

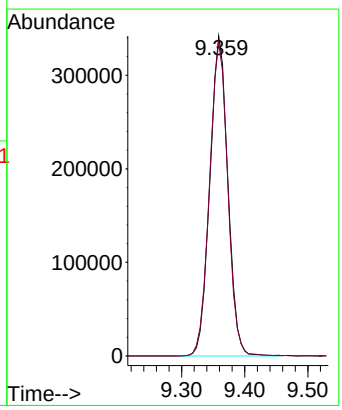


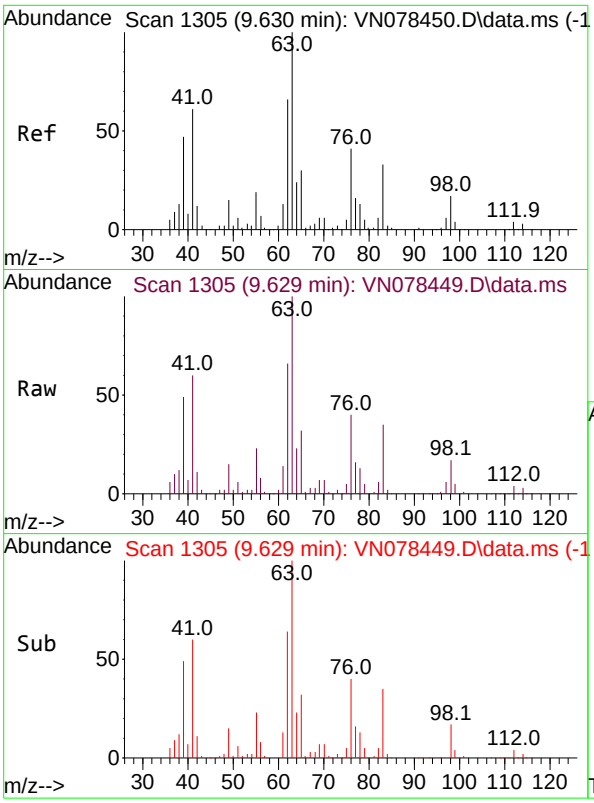


#44
Trichloroethene
Concen: 97.708 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:130 Resp: 676620

Ion	Ratio	Lower	Upper
130	100		
95	97.9	0.0	204.6

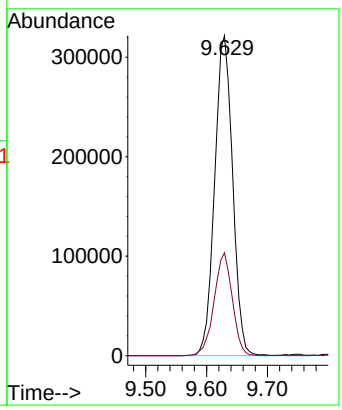




#45
1,2-Dichloropropane
Concen: 101.295 ug/l
RT: 9.629 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 63 Resp: 65918

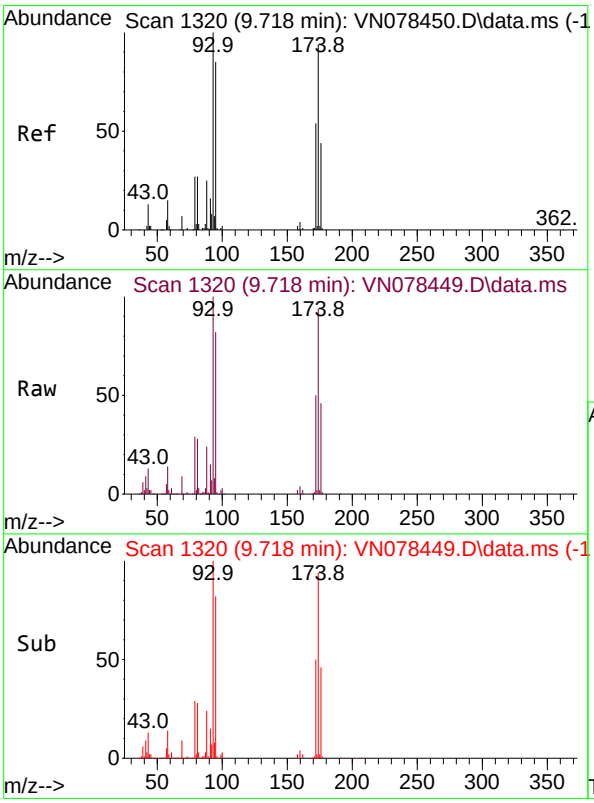
Ion	Ratio	Lower	Upper
63	100		
65	32.2	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

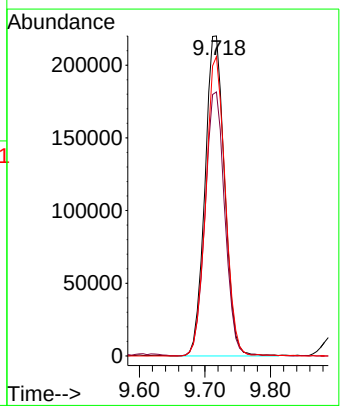
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

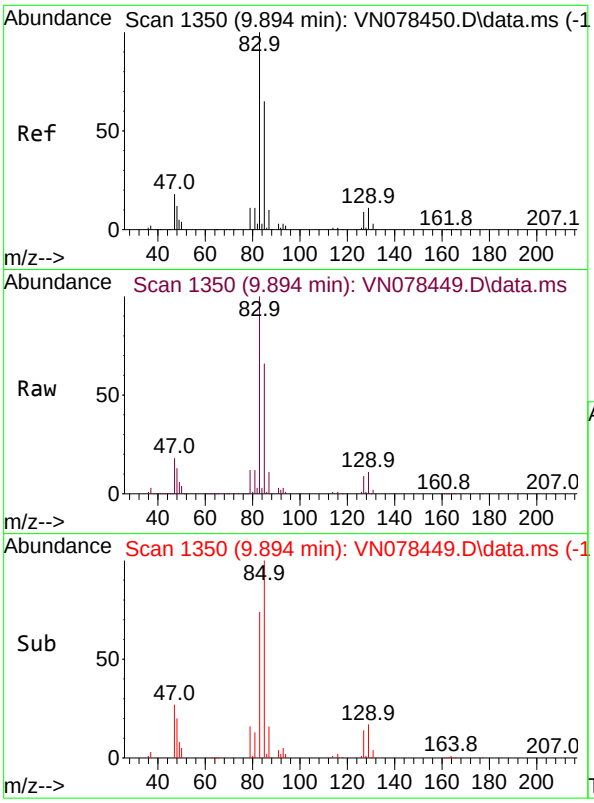


#46
Dibromomethane
Concen: 100.082 ug/l
RT: 9.718 min Scan# 1320
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 93 Resp: 458394

Ion	Ratio	Lower	Upper
93	100		
95	83.0	63.8	95.8
174	92.2	65.6	98.4

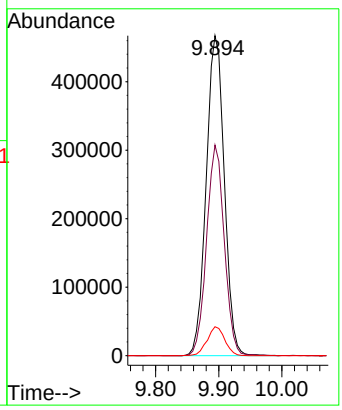




#47
Bromodichloromethane
Concen: 101.438 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 83 Resp: 93132

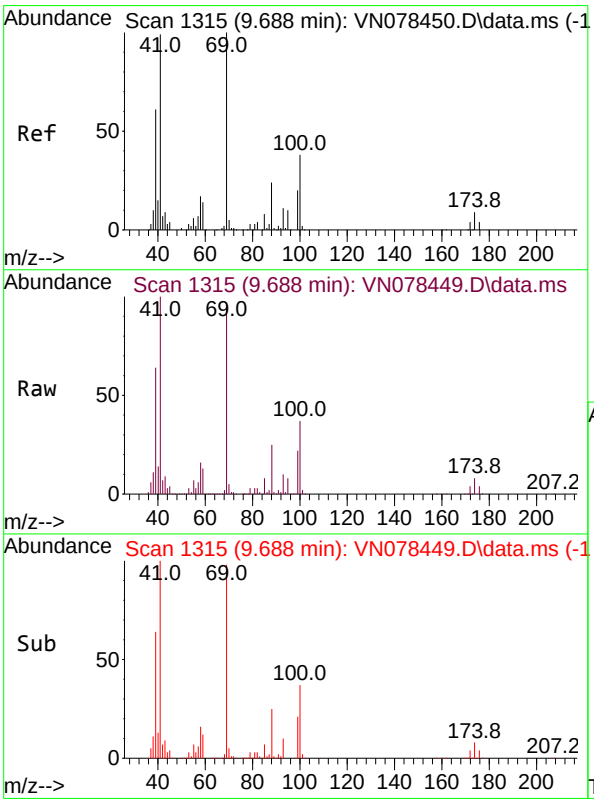
Ion	Ratio	Lower	Upper
83	100		
85	65.8	49.6	74.4
127	9.1	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

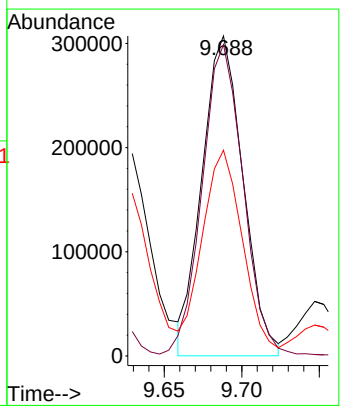
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

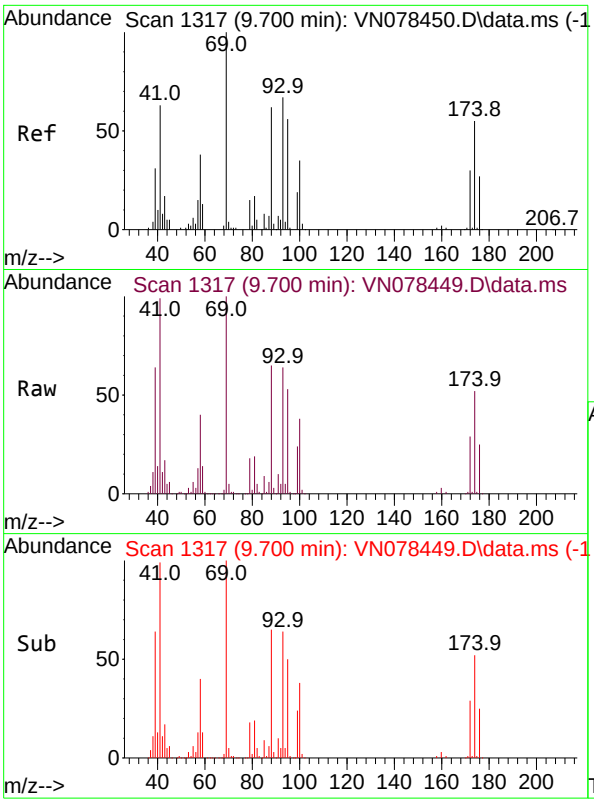


#48
Methyl methacrylate
Concen: 102.480 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 41 Resp: 565122

Ion	Ratio	Lower	Upper
41	100		
69	98.0	90.4	135.6
39	63.9	54.6	81.8

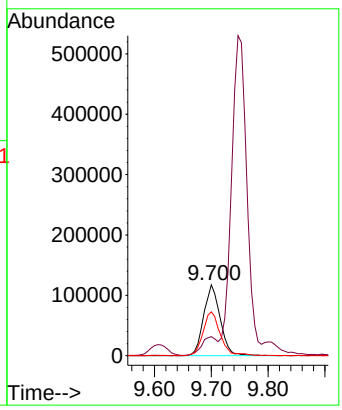




#49
1,4-Dioxane
Concen: 1961.710 ug/l
RT: 9.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 88 Resp: 23591

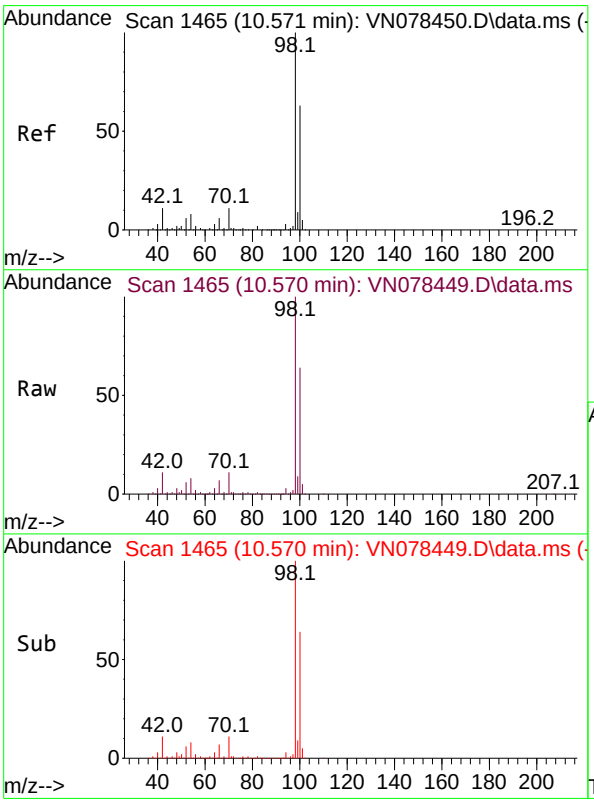
Ion	Ratio	Lower	Upper
88	100		
43	25.2	17.0	25.6
58	64.8	47.0	70.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

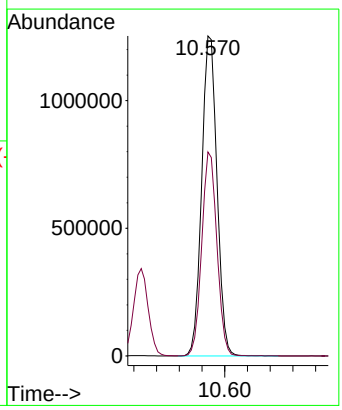
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

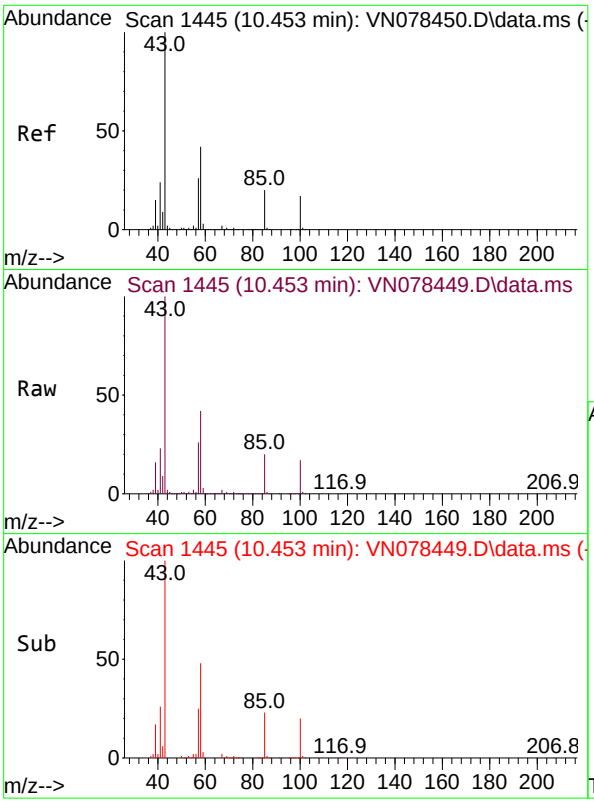


#50
Toluene-d8
Concen: 102.836 ug/l
RT: 10.570 min Scan# 1465
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 98 Resp: 2333382

Ion	Ratio	Lower	Upper
98	100		
100	63.1	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 512.021 ug/l
RT: 10.453 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

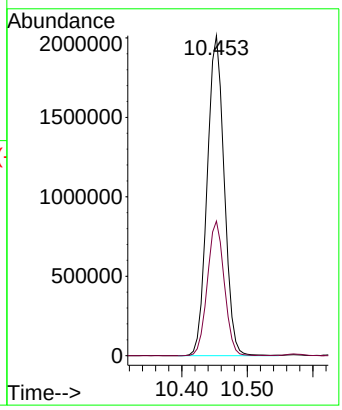
Tgt Ion: 43 Resp: 362507

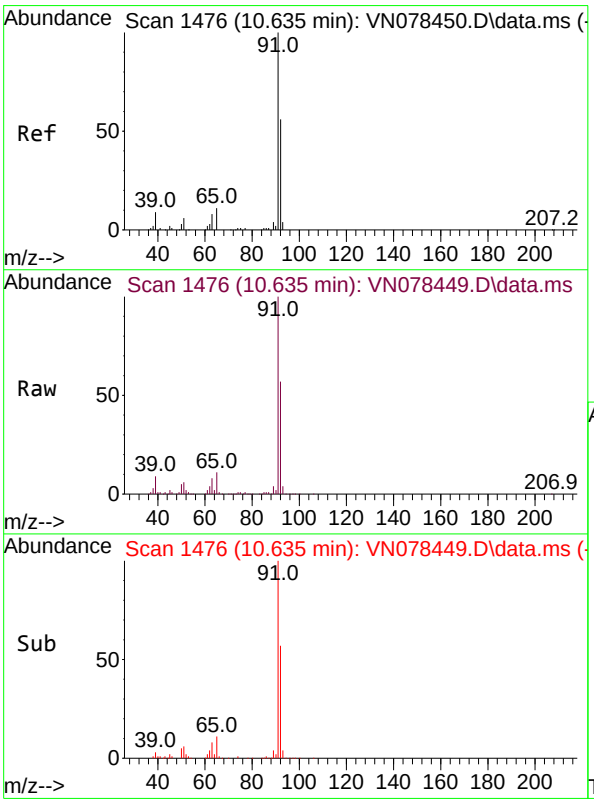
Ion	Ratio	Lower	Upper
43	100		
58	41.7	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

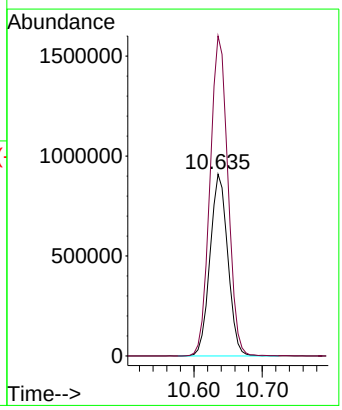


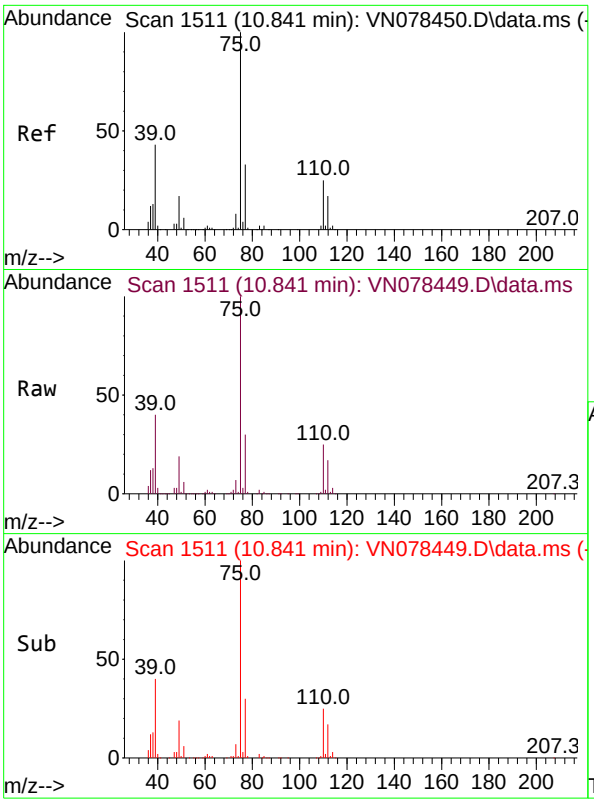


#52
Toluene
Concen: 103.357 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 92 Resp: 1645878

Ion	Ratio	Lower	Upper
92	100		
91	178.1	137.4	206.0

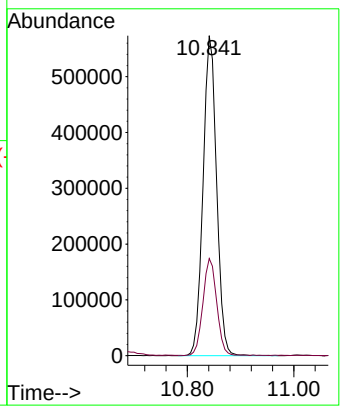




#53
t-1,3-Dichloropropene
Concen: 107.193 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 75 Resp: 100824

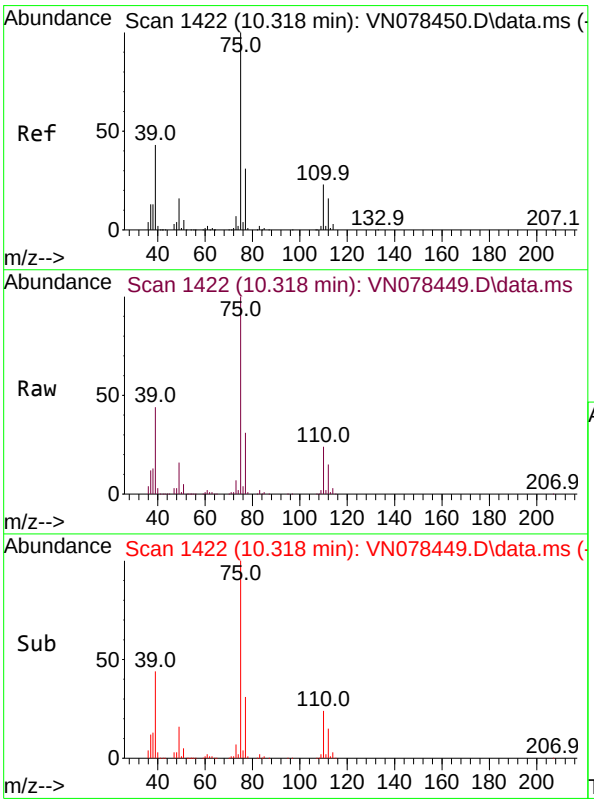
Ion	Ratio	Lower	Upper
75	100		
77	30.2	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

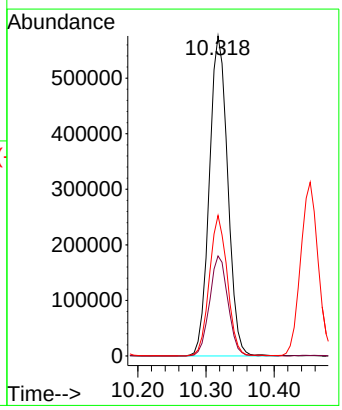
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

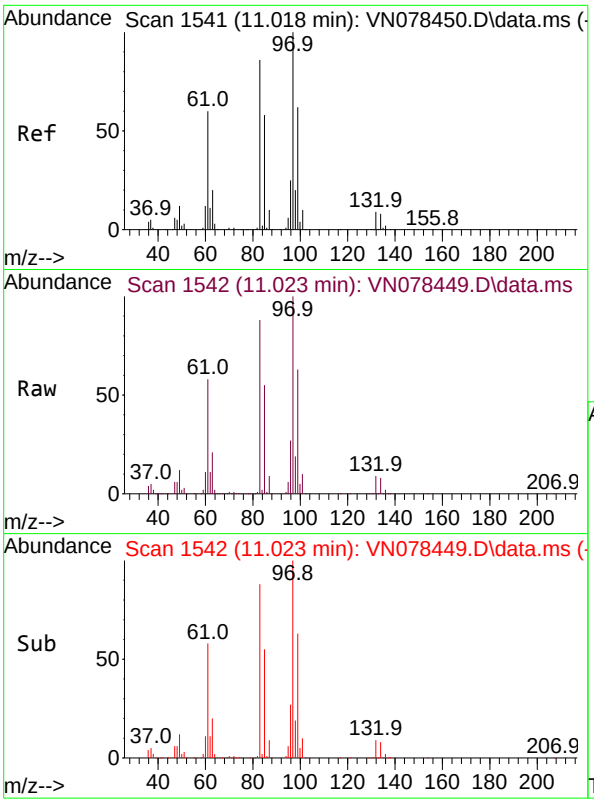


#54
cis-1,3-Dichloropropene
Concen: 107.895 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 75 Resp: 1081769

Ion	Ratio	Lower	Upper
75	100		
77	31.3	26.1	39.1
39	43.9	31.6	47.4

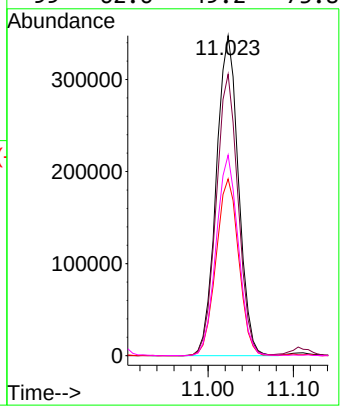




#55
1,1,2-Trichloroethane
Concen: 100.440 ug/l
RT: 11.023 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 97 Resp: 63016

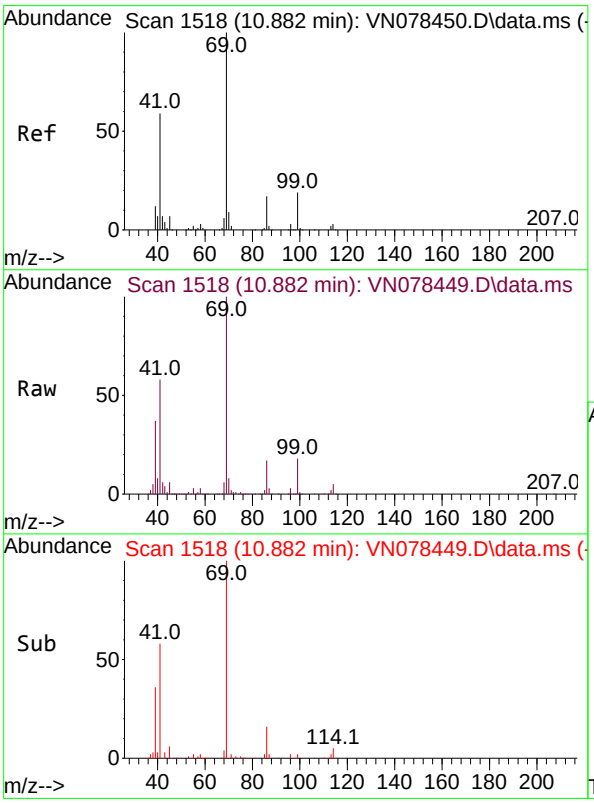
Ion	Ratio	Lower	Upper
97	100		
83	87.9	65.1	97.7
85	55.2	43.4	65.2
99	62.6	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

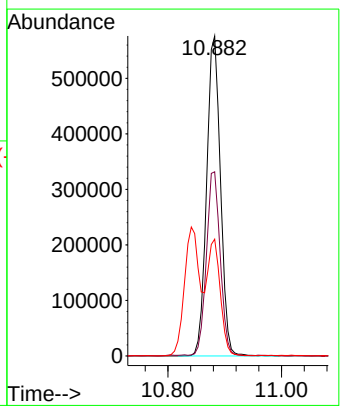
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

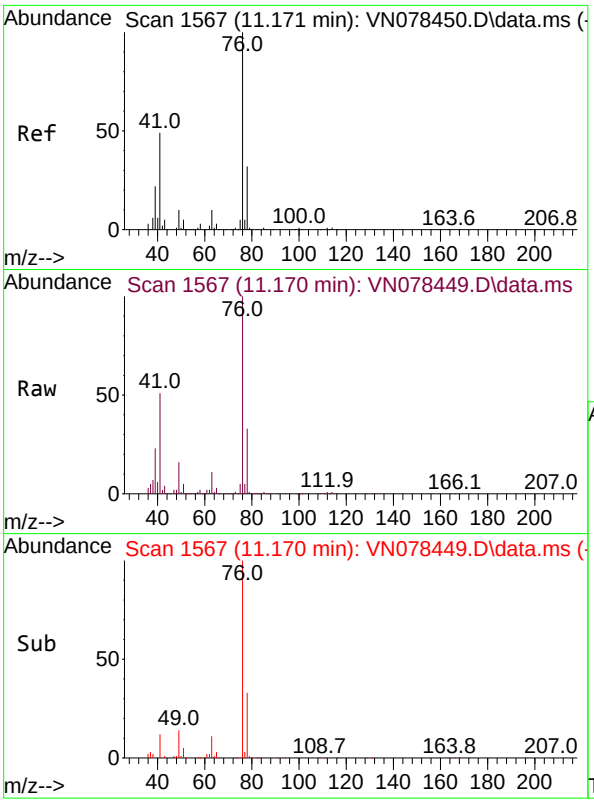


#56
Ethyl methacrylate
Concen: 110.491 ug/l
RT: 10.882 min Scan# 1518
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 69 Resp: 969055

Ion	Ratio	Lower	Upper
69	100		
41	57.5	39.6	59.4
39	32.4	28.6	43.0

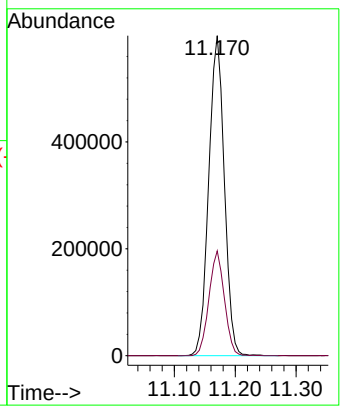




#57
1,3-Dichloropropane
Concen: 99.690 ug/l
RT: 11.170 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 76 Resp: 106347

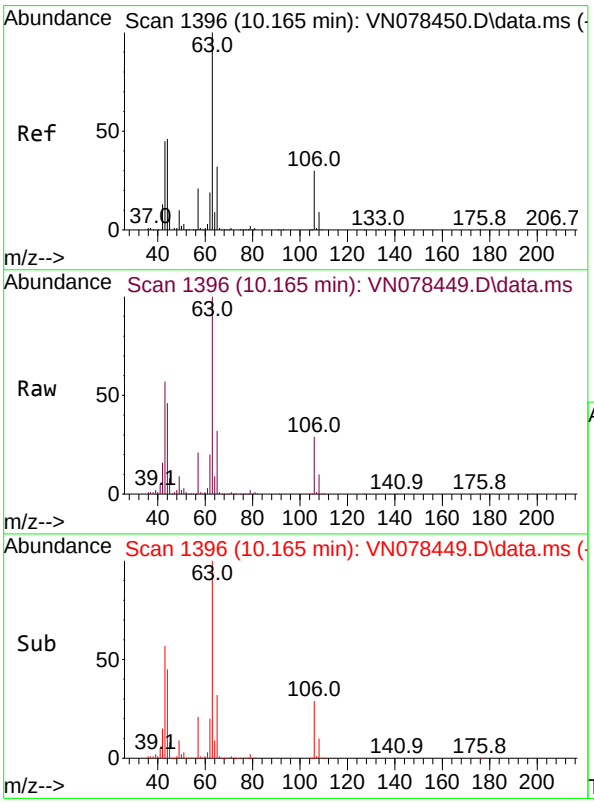
Ion	Ratio	Lower	Upper
76	100		
78	32.3	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

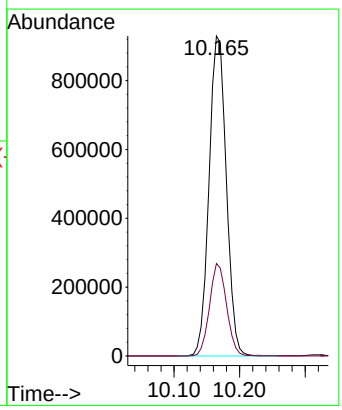
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

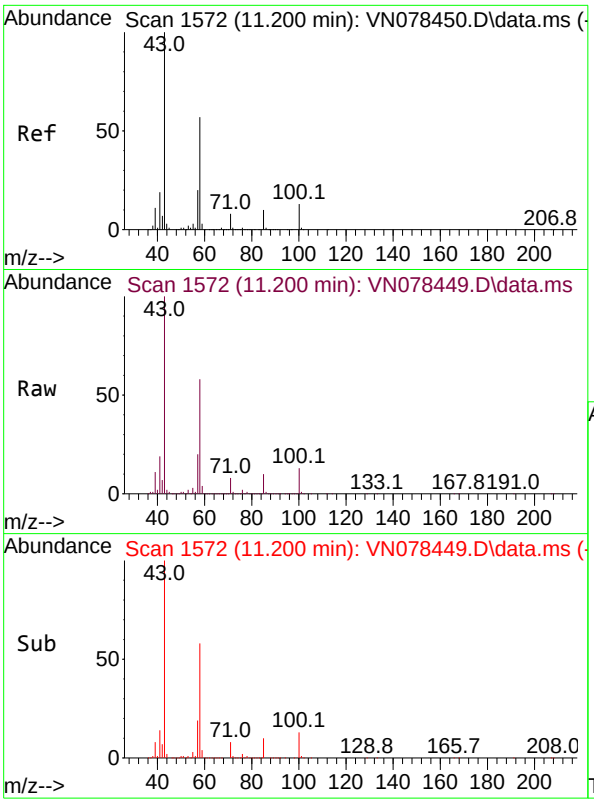


#58
2-Chloroethyl Vinyl ether
Concen: 543.575 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 63 Resp: 1698978

Ion	Ratio	Lower	Upper
63	100		
106	28.4	26.2	39.4





#59
2-Hexanone
Concen: 514.873 ug/l
RT: 11.200 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

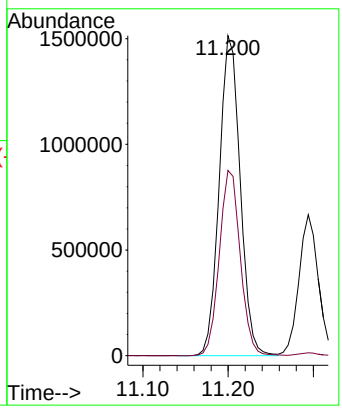
Tgt Ion: 43 Resp: 259073

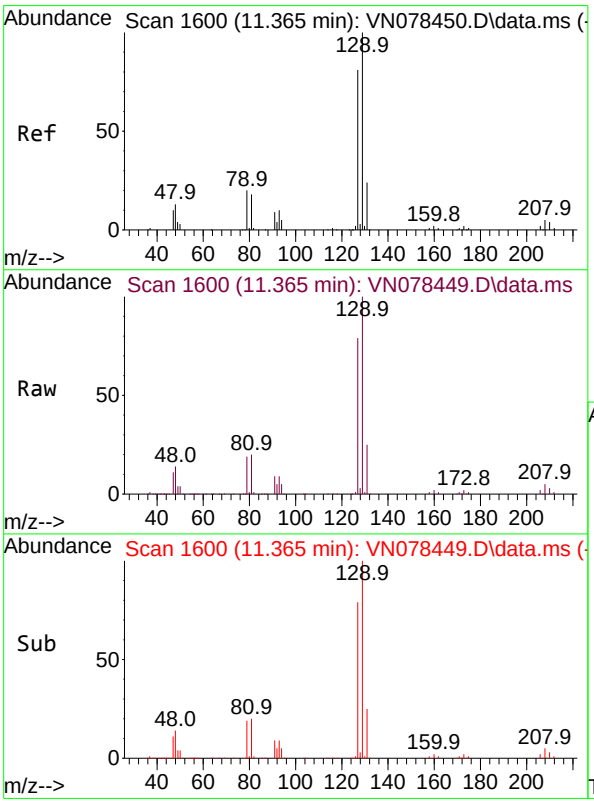
Ion	Ratio	Lower	Upper
43	100		
58	57.9	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

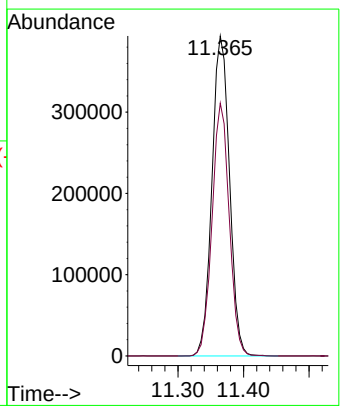


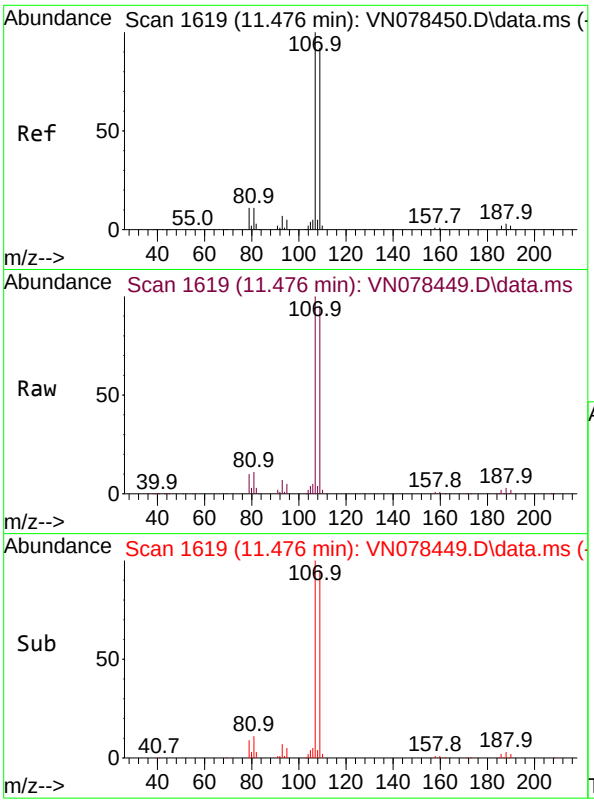


#60
Dibromochloromethane
Concen: 105.285 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:129 Resp: 729257

Ion	Ratio	Lower	Upper
129	100		
127	77.5	38.6	116.0





#61
1,2-Dibromoethane
Concen: 102.069 ug/l
RT: 11.476 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

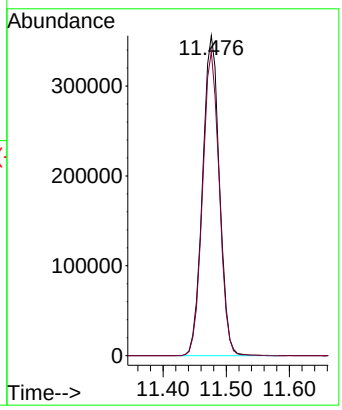
Tgt Ion:107 Resp: 65968

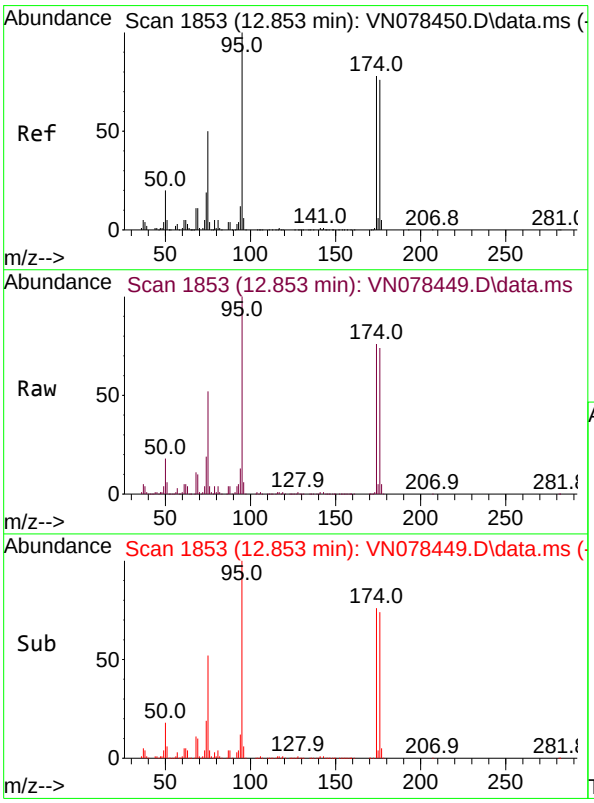
Ion	Ratio	Lower	Upper
107	100		
109	94.0	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

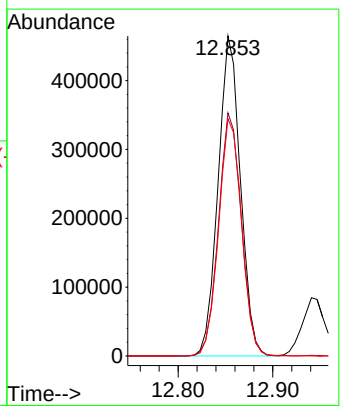


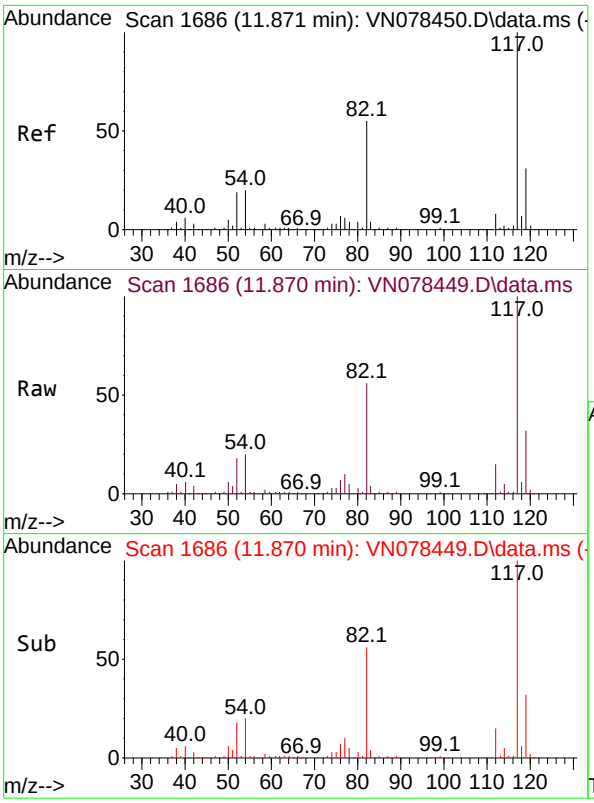


#62
4-Bromofluorobenzene
Concen: 108.927 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 95 Resp: 761303

Ion	Ratio	Lower	Upper
95	100		
174	77.7	0.0	143.8
176	76.2	0.0	135.8

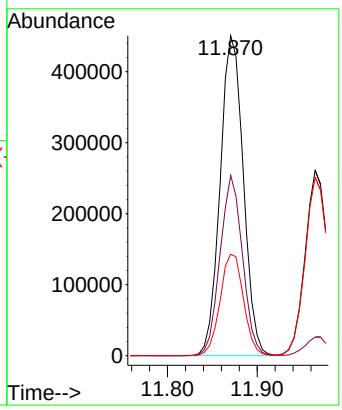




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:117 Resp: 80936

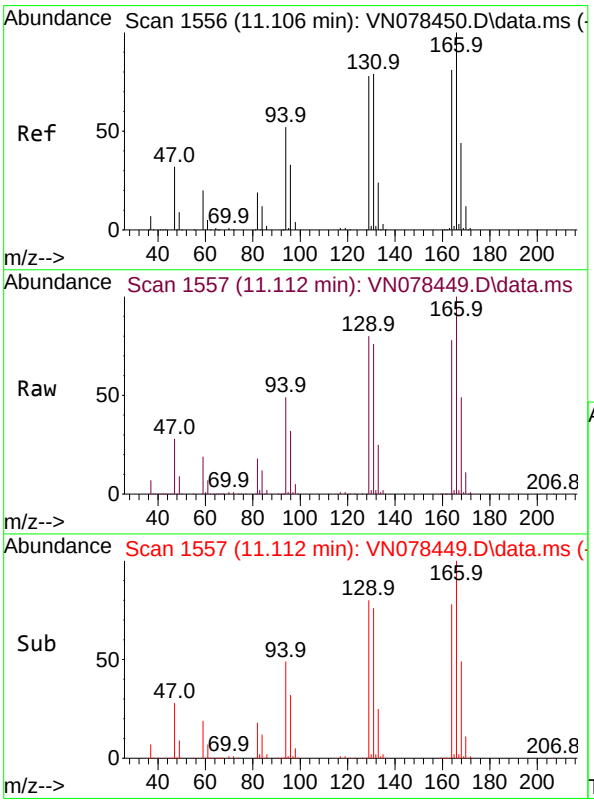
Ion	Ratio	Lower	Upper
117	100		
82	56.3	44.0	66.0
119	31.7	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

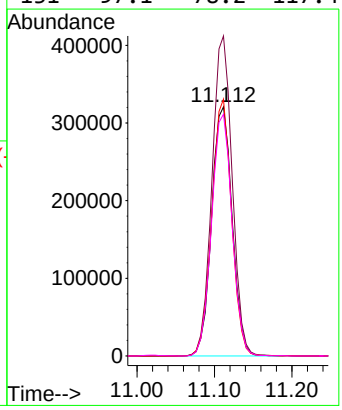
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

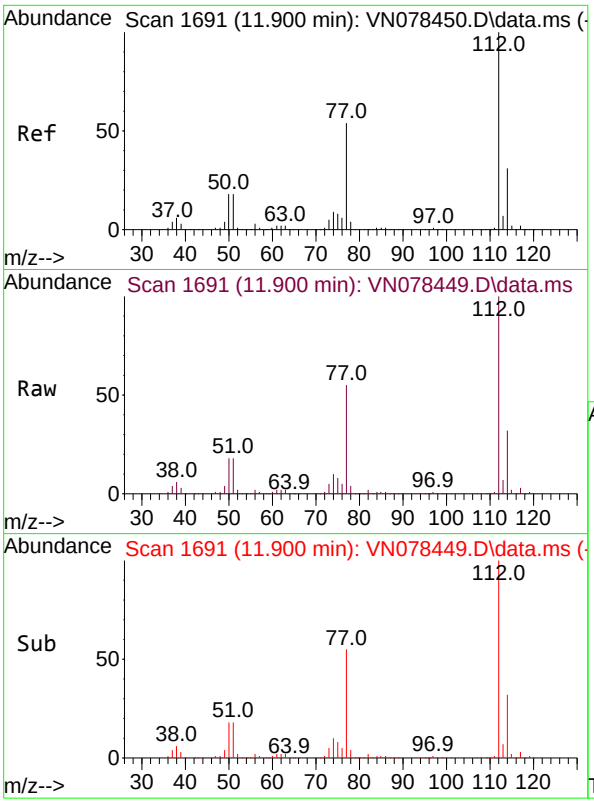


#64
Tetrachloroethene
Concen: 97.376 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:164 Resp: 592538

Ion	Ratio	Lower	Upper
164	100		
166	128.5	101.4	152.0
129	103.1	82.4	123.6
131	97.1	78.2	117.4

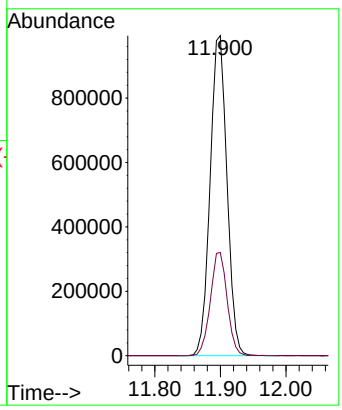




#65
Chlorobenzene
Concen: 97.894 ug/l
RT: 11.900 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:112 Resp: 177103

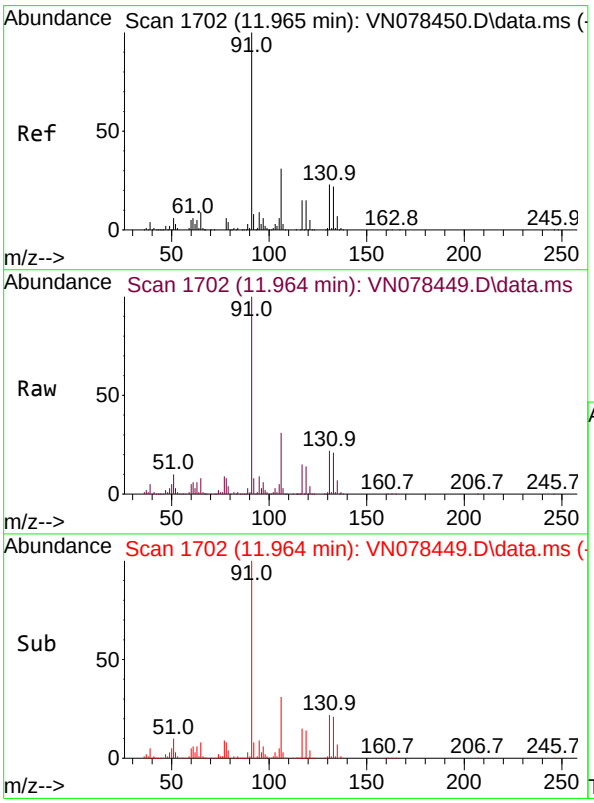
Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.0	37.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

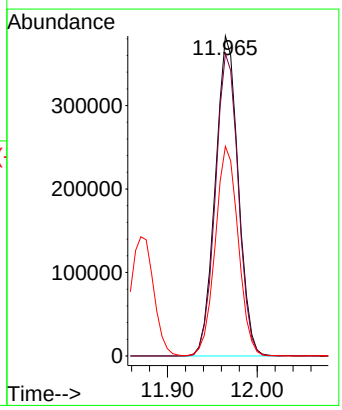
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

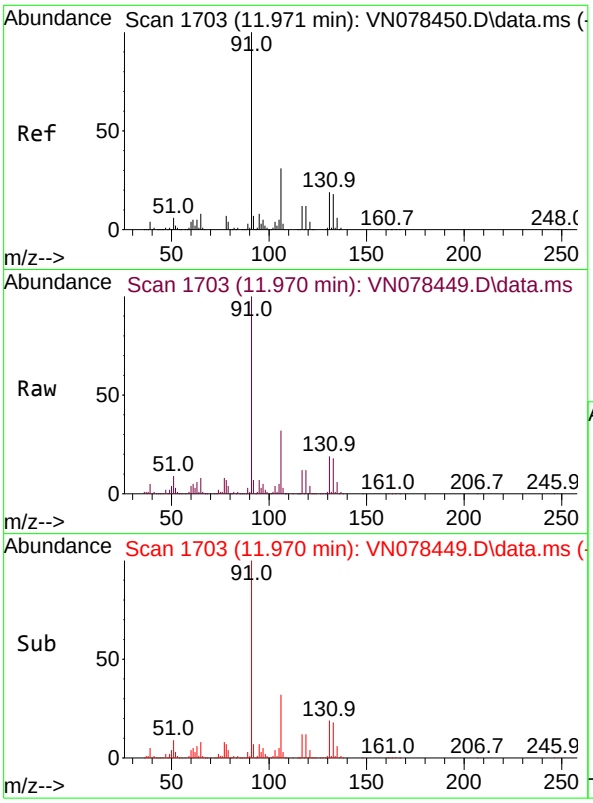


#66
1,1,1,2-Tetrachloroethane
Concen: 97.511 ug/l
RT: 11.964 min Scan# 1702
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:131 Resp: 678645

Ion	Ratio	Lower	Upper
131	100		
133	94.6	46.4	139.1
119	65.8	34.1	102.2





#67
Ethyl Benzene
Concen: 104.509 ug/l
RT: 11.970 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

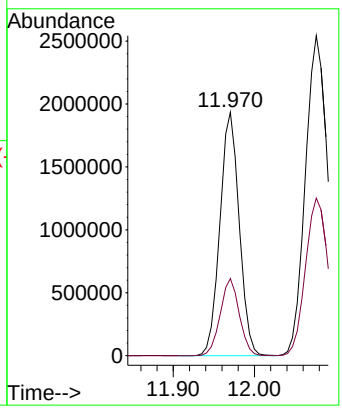
Tgt Ion: 91 Resp: 319591(

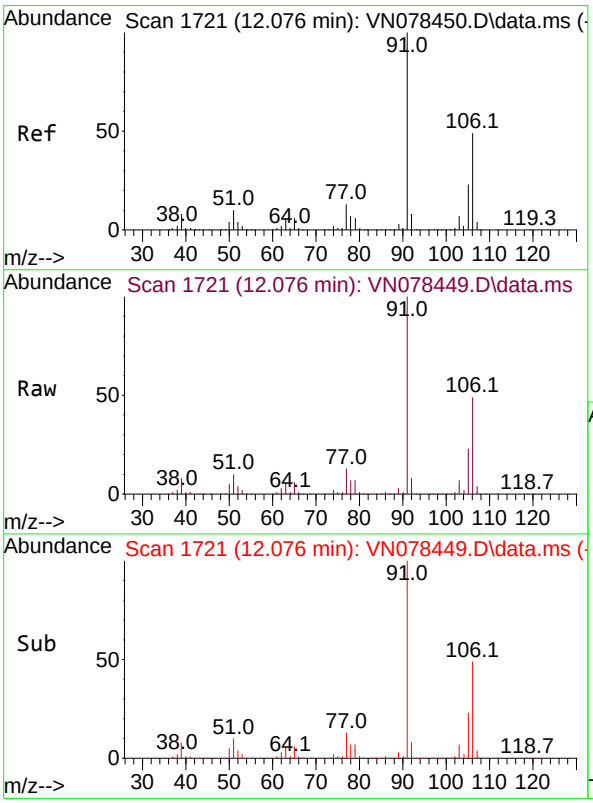
Ion	Ratio	Lower	Upper
91	100		
106	31.6	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

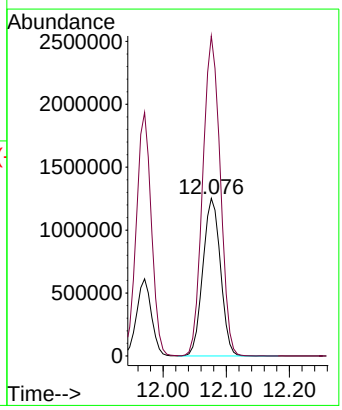


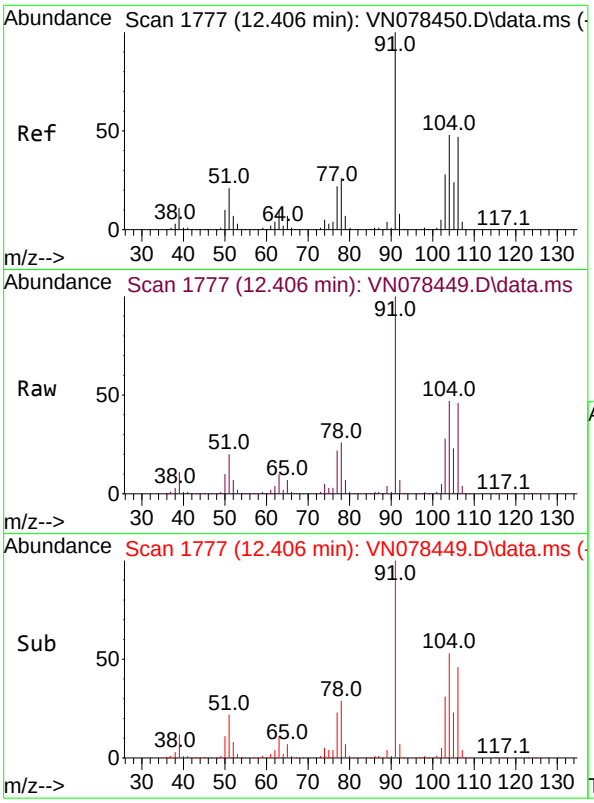


#68
m/p-Xylenes
Concen: 214.028 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:106 Resp: 2419893

Ion	Ratio	Lower	Upper
106	100		
91	201.5	159.6	239.4





#69
o-Xylene
Concen: 104.378 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

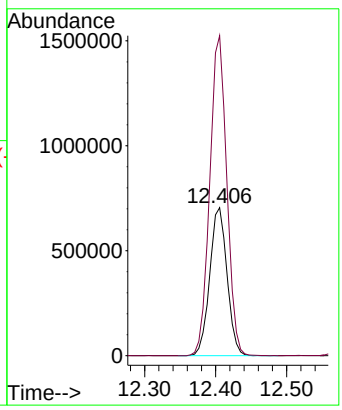
Tgt Ion:106 Resp: 119200

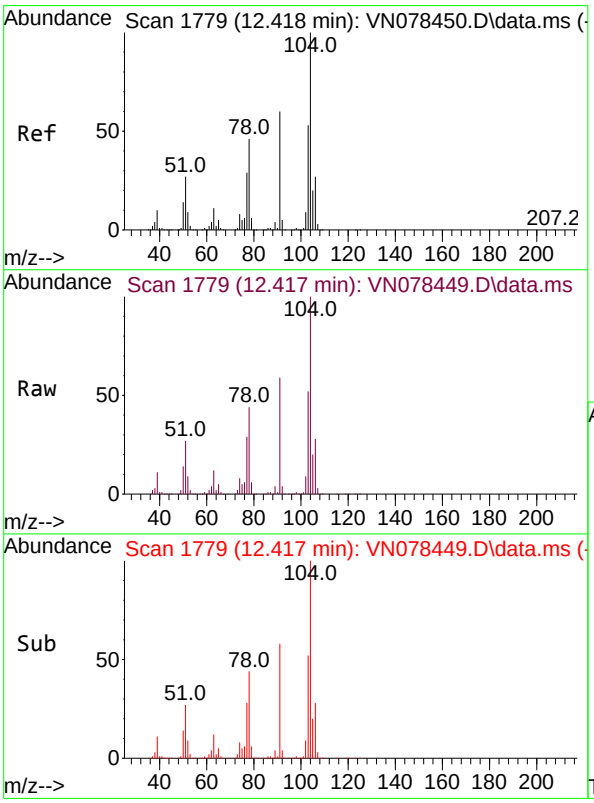
Ion	Ratio	Lower	Upper
106	100		
91	212.5	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

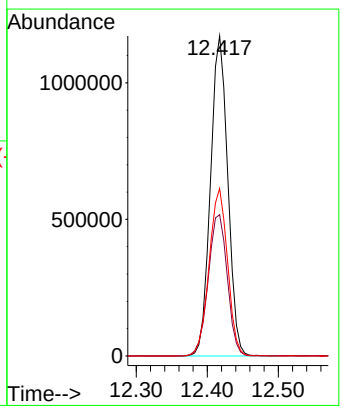


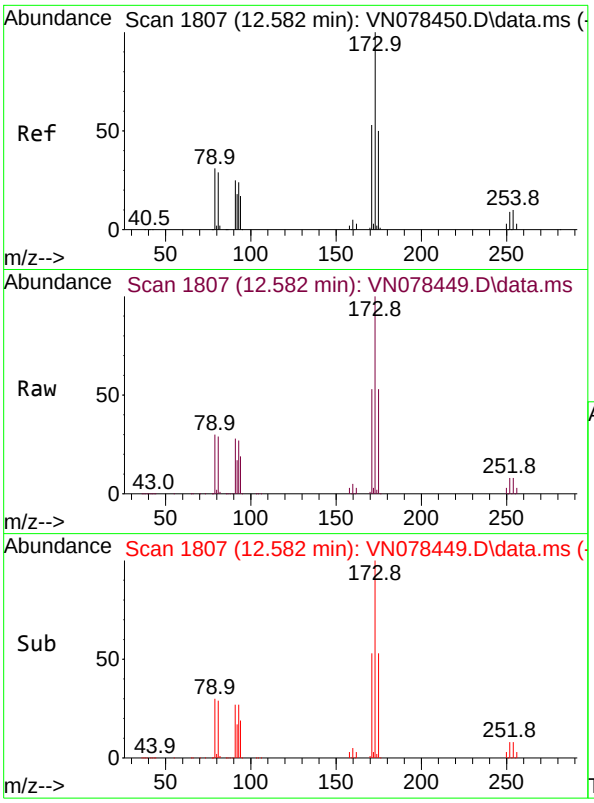


#70
Styrene
Concen: 110.693 ug/l
RT: 12.417 min Scan# 1779
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:104 Resp: 1977678

Ion	Ratio	Lower	Upper
104	100		
78	48.7	39.5	59.3
103	55.8	43.2	64.8

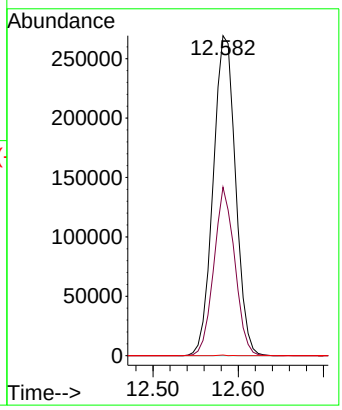




#71
Bromoform
Concen: 104.284 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:173 Resp: 49154

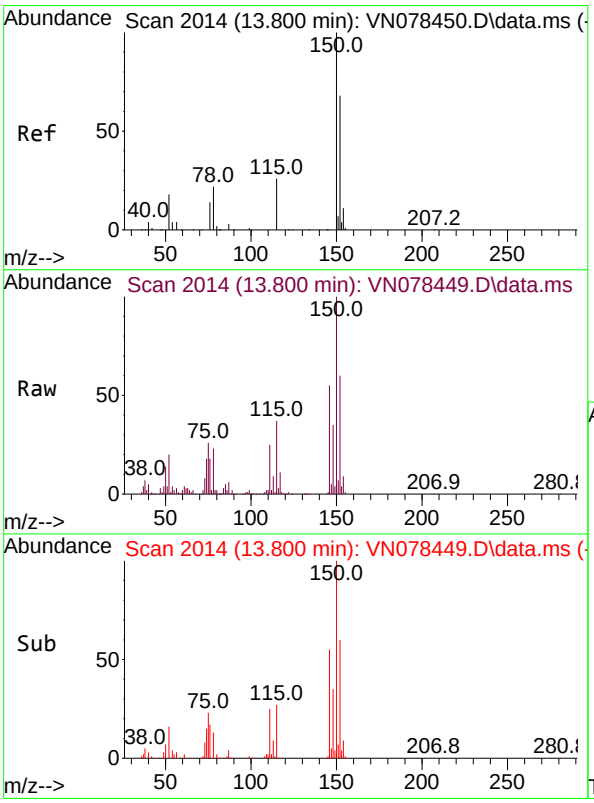
Ion	Ratio	Lower	Upper
173	100		
175	49.2	24.3	73.0
254	0.1	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

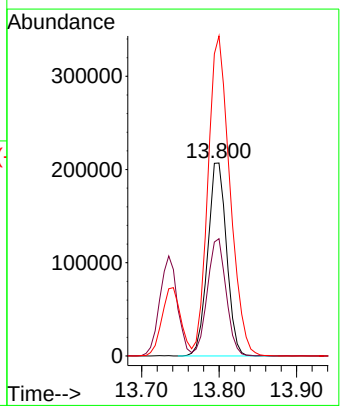
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

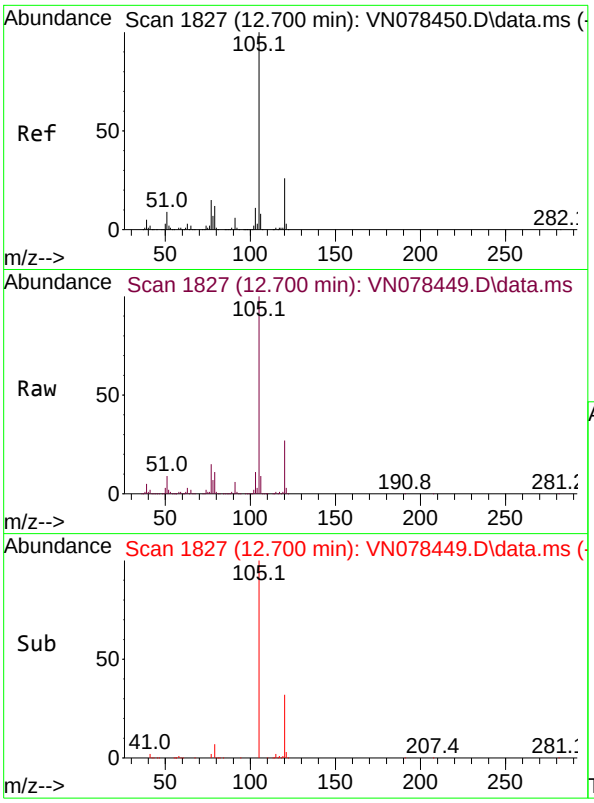


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:152 Resp: 350434

Ion	Ratio	Lower	Upper
152	100		
115	60.4	32.3	96.8
150	192.0	0.0	355.8

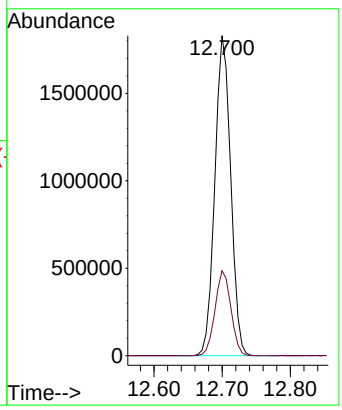




#73
Isopropylbenzene
Concen: 89.878 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:105 Resp: 295953

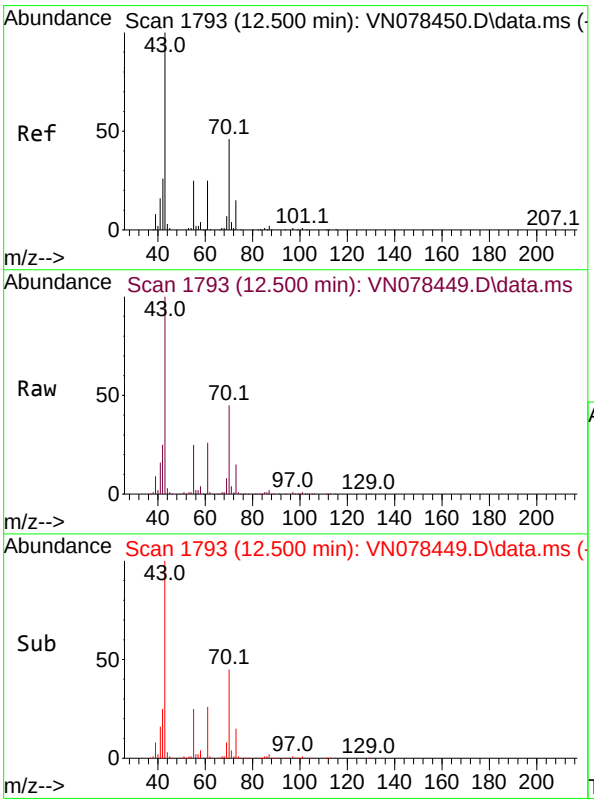
Ion	Ratio	Lower	Upper
105	100		
120	26.6	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

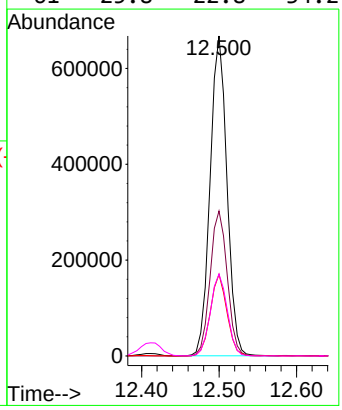
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

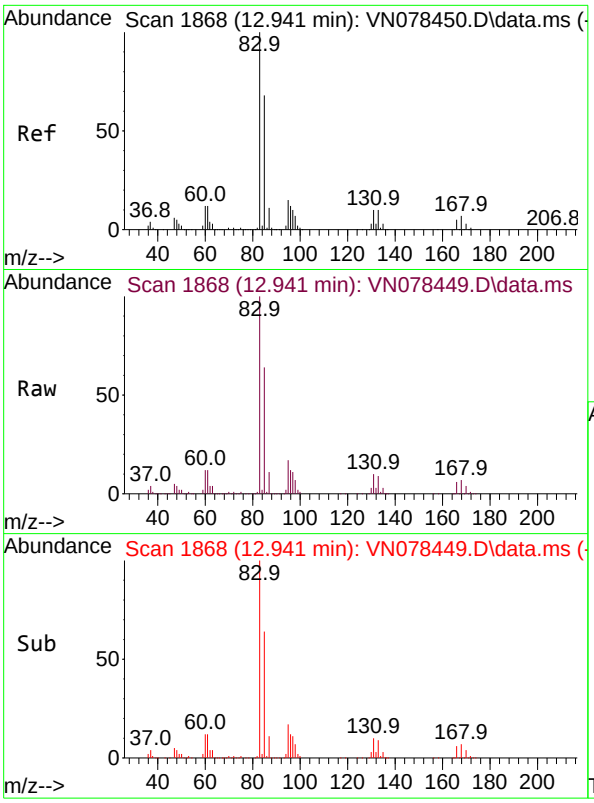


#74
N-amyl acetate
Concen: 88.874 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 43 Resp: 1008511

Ion	Ratio	Lower	Upper
43	100		
70	46.1	43.4	65.2
55	25.1	21.4	32.0
61	25.8	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 97.850 ug/l
RT: 12.941 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

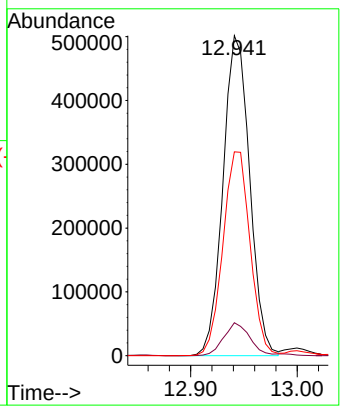
Tgt Ion: 83 Resp: 87266

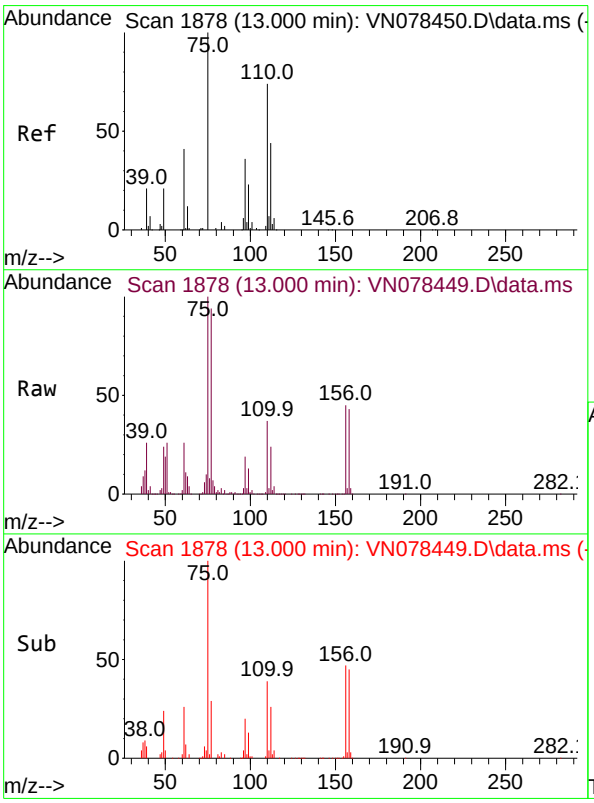
Ion	Ratio	Lower	Upper
83	100		
131	10.4	5.0	15.0
85	64.8	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

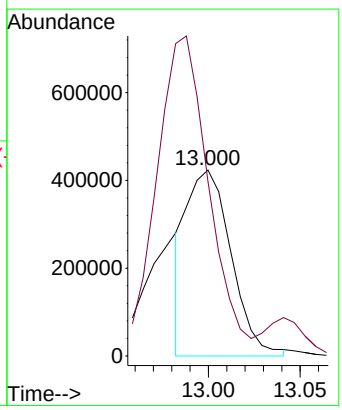


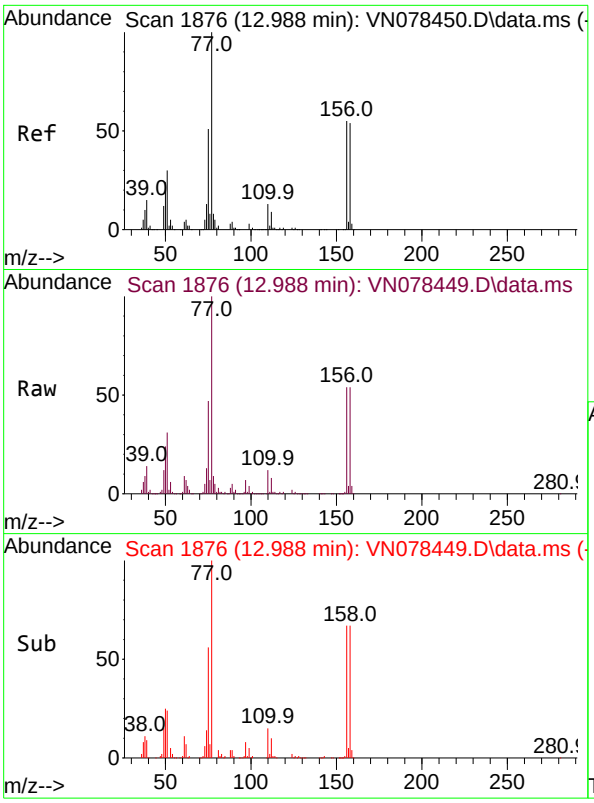


#76
1,2,3-Trichloropropane
Concen: 84.931 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 75 Resp: 718586

Ion	Ratio	Lower	Upper
75	100		
77	201.5	84.5	253.5

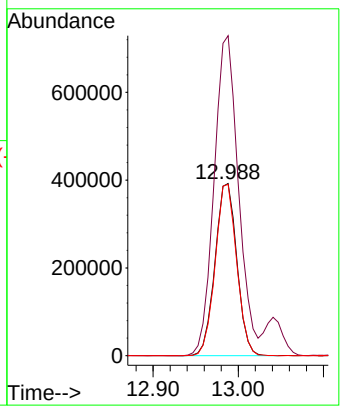




#77
Bromobenzene
Concen: 99.206 ug/l
RT: 12.988 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:156 Resp: 69950

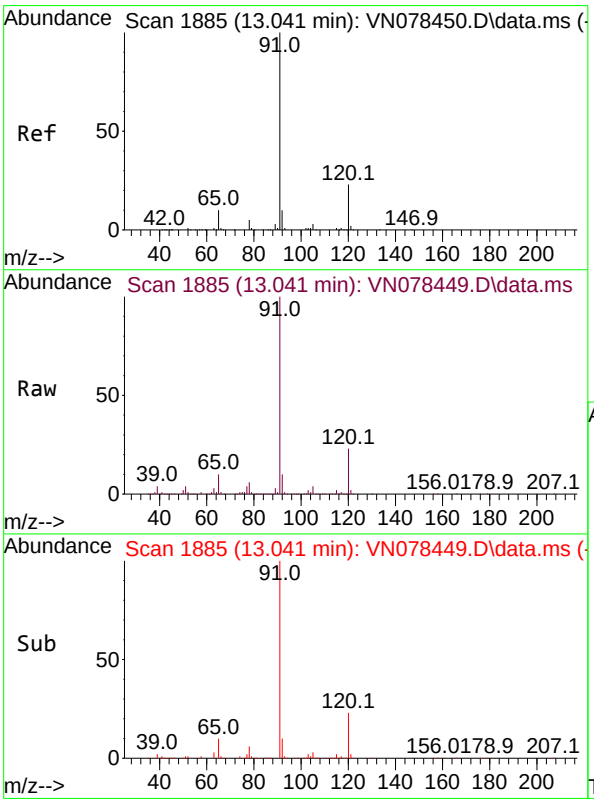
Ion	Ratio	Lower	Upper
156	100		
77	207.0	107.7	323.3
158	97.8	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

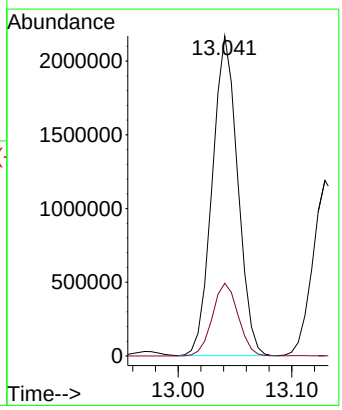
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

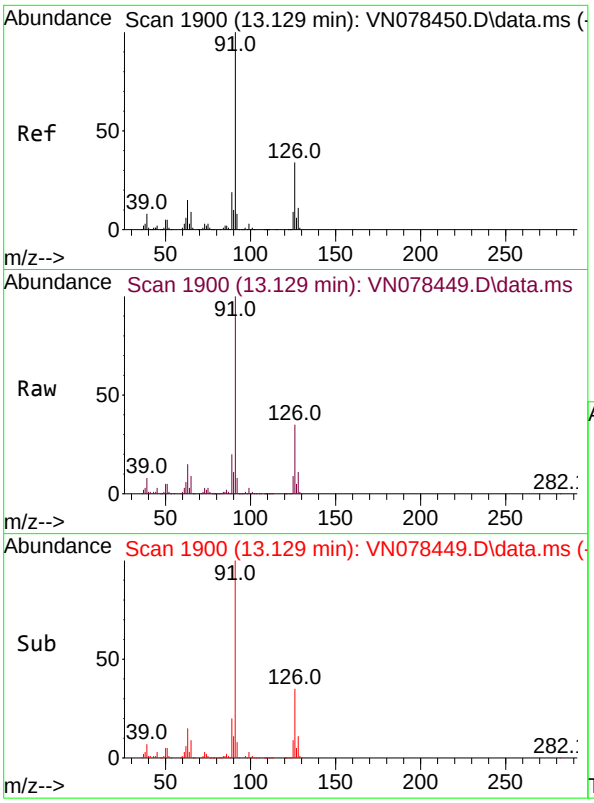


#78
n-propylbenzene
Concen: 95.884 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 91 Resp: 3376548

Ion	Ratio	Lower	Upper
91	100		
120	23.0	11.5	34.4

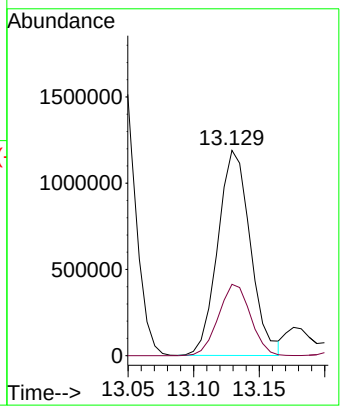




#79
2-Chlorotoluene
Concen: 89.241 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 91 Resp: 205846

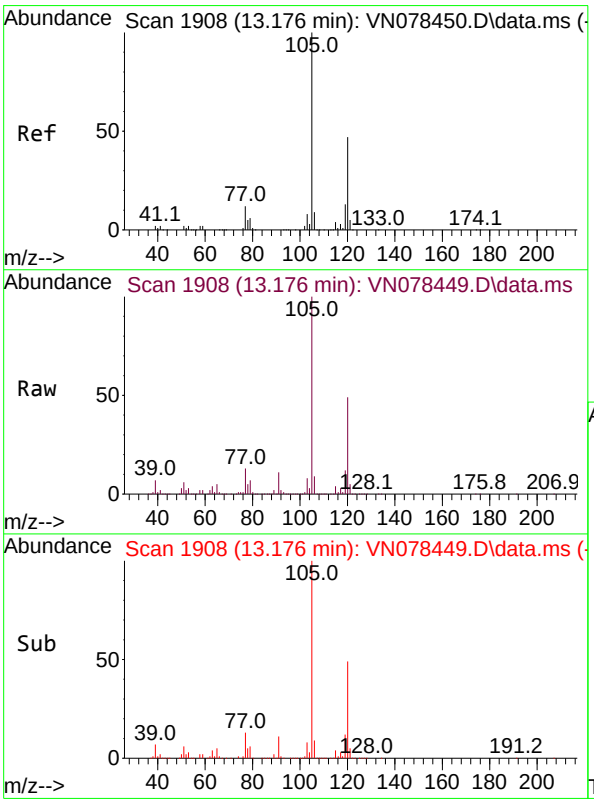
Ion	Ratio	Lower	Upper
91	100		
126	34.3	16.3	48.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

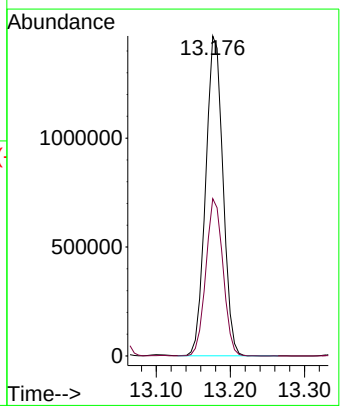
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

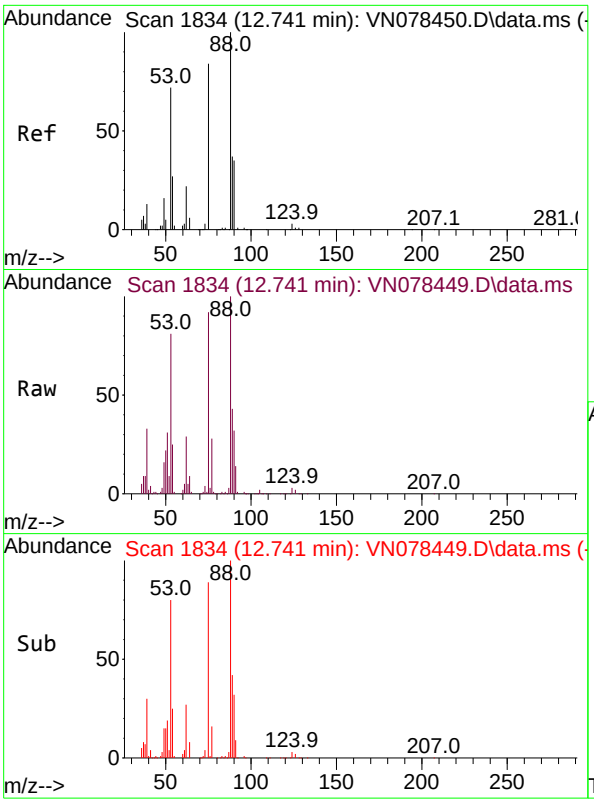


#80
1,3,5-Trimethylbenzene
Concen: 91.227 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:105 Resp: 2373479

Ion	Ratio	Lower	Upper
105	100		
120	48.9	24.1	72.3





#81
trans-1,4-Dichloro-2-butene
Concen: 93.095 ug/l
RT: 12.741 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

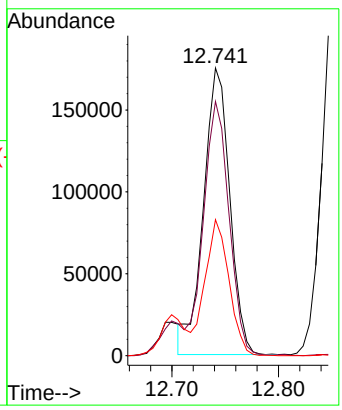
Tgt Ion: 75 Resp: 30007

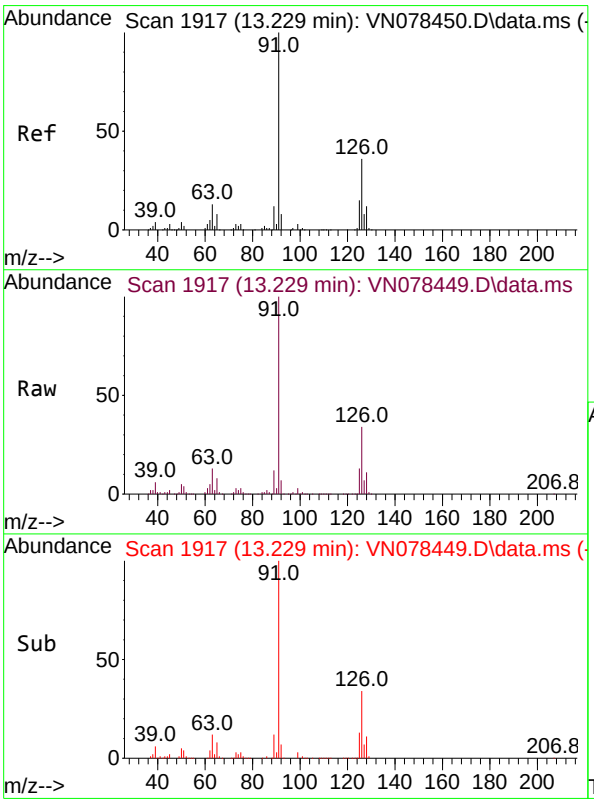
Ion	Ratio	Lower	Upper
75	100		
53	86.0	67.4	101.2
89	43.3	38.8	58.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

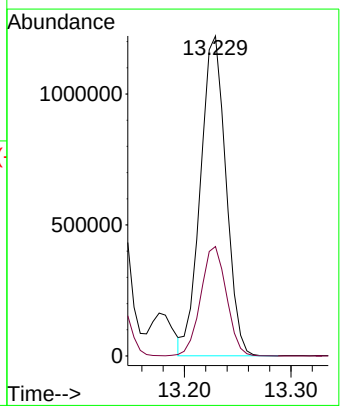


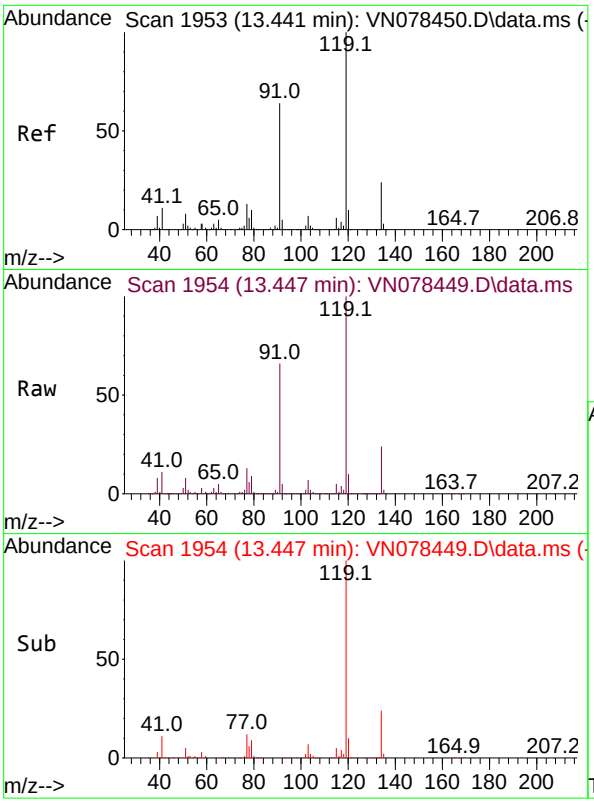


#82
4-Chlorotoluene
Concen: 94.257 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 91 Resp: 2028212

Ion	Ratio	Lower	Upper
91	100		
126	34.6	16.7	50.0





#83
tert-Butylbenzene
Concen: 90.603 ug/l
RT: 13.447 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

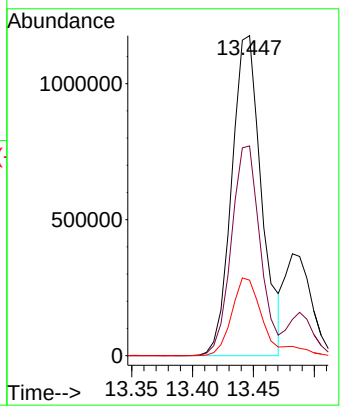
Tgt Ion:119 Resp: 200133

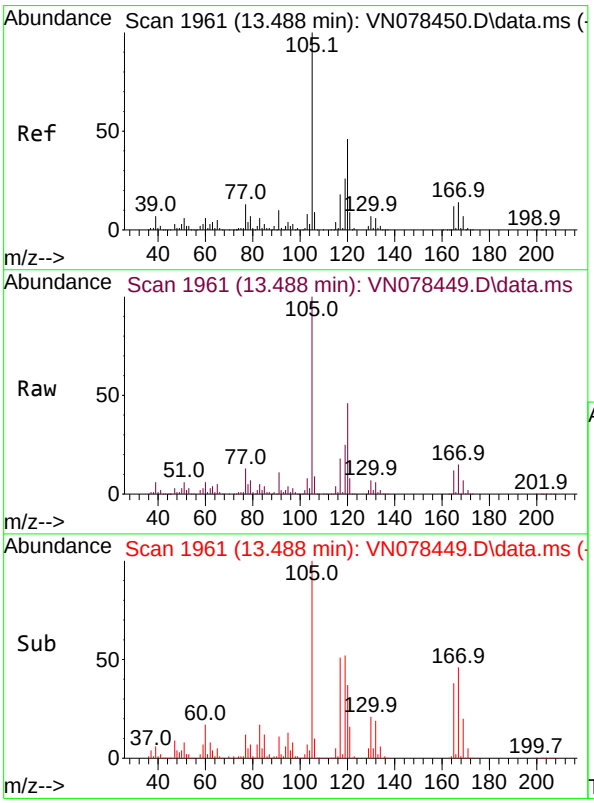
Ion	Ratio	Lower	Upper
119	100		
91	63.6	33.9	101.7
134	26.0	13.2	39.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

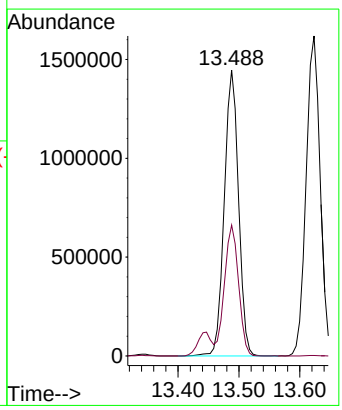


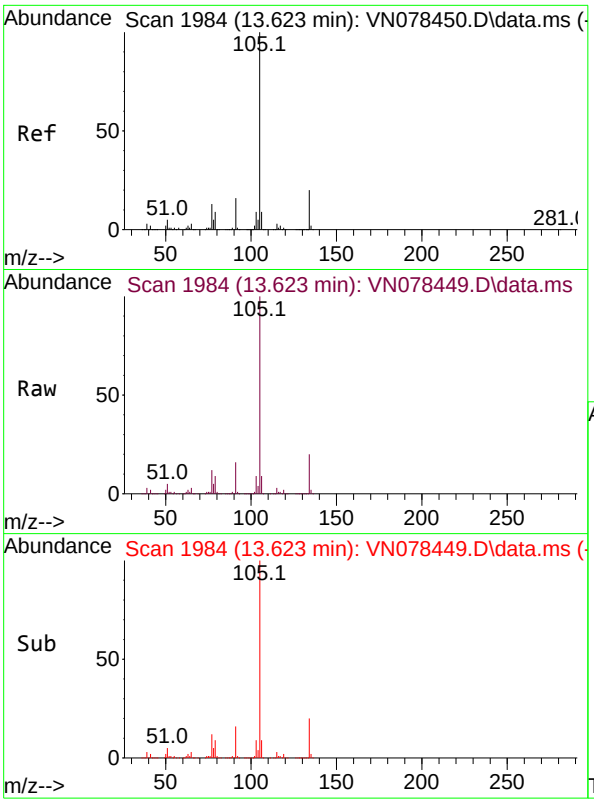


#84
1,2,4-Trimethylbenzene
Concen: 92.987 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:105 Resp: 2349919

Ion	Ratio	Lower	Upper
105	100		
120	45.4	22.0	66.0

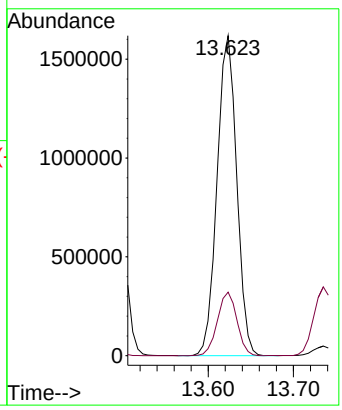




#85
sec-Butylbenzene
Concen: 92.882 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:105 Resp: 259330

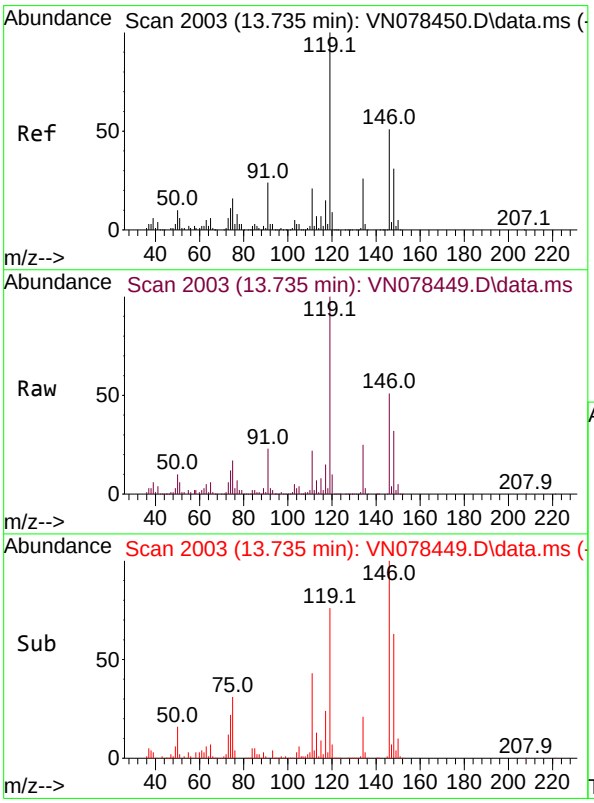
Ion	Ratio	Lower	Upper
105	100		
134	19.8	9.8	29.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

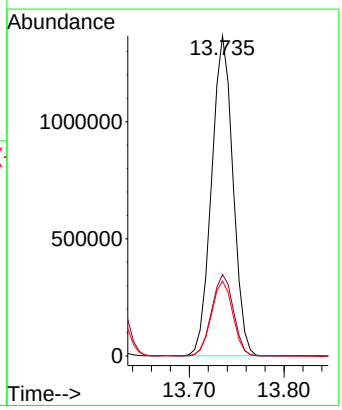
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

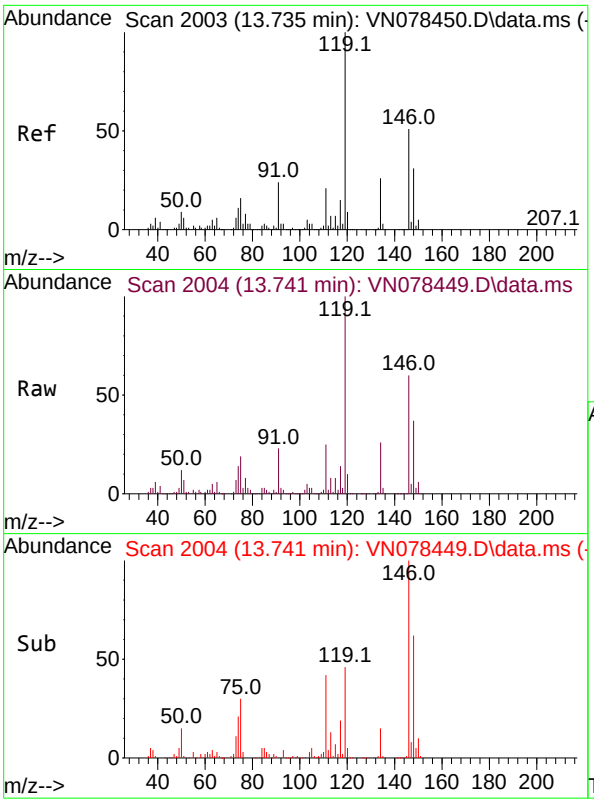


#86
p-Isopropyltoluene
Concen: 95.378 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:119 Resp: 2138276

Ion	Ratio	Lower	Upper
119	100		
134	25.7	12.6	37.8
91	23.4	12.4	37.2

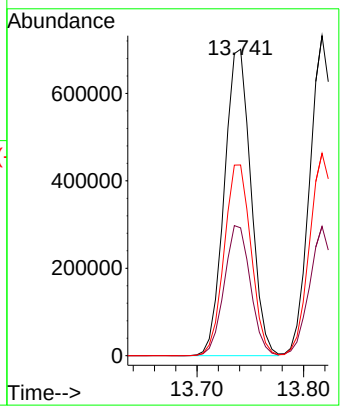




#87
1,3-Dichlorobenzene
Concen: 95.843 ug/l
RT: 13.741 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:146 Resp: 121155

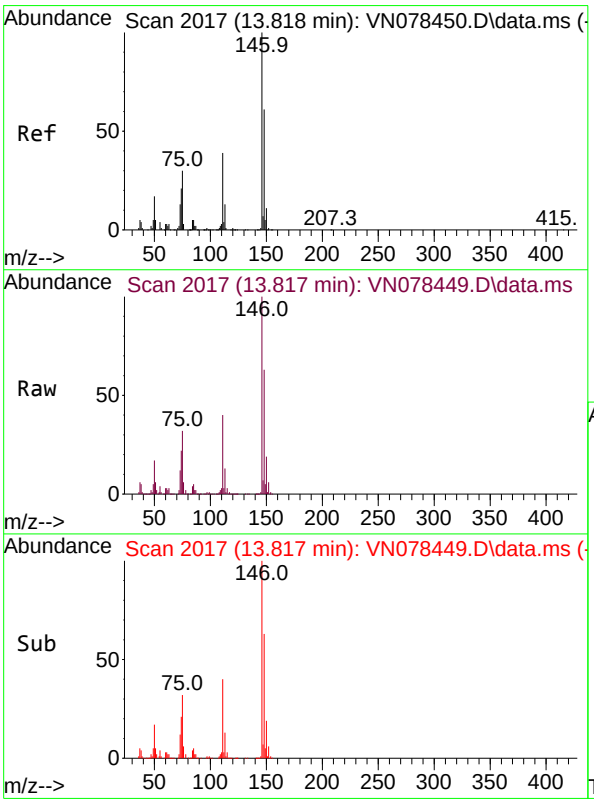
Ion	Ratio	Lower	Upper
146	100		
111	42.0	22.1	66.3
148	62.9	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

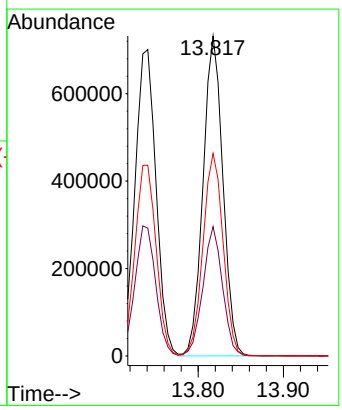
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

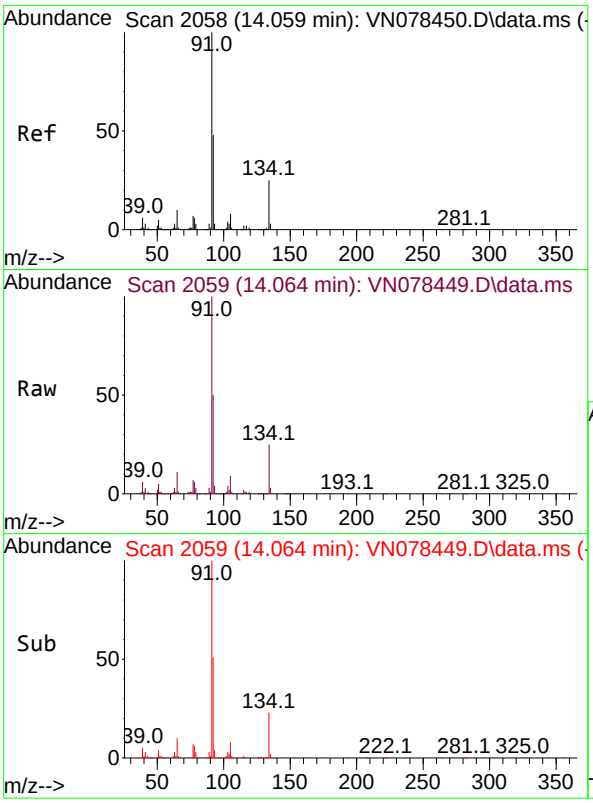


#88
1,4-Dichlorobenzene
Concen: 92.934 ug/l
RT: 13.817 min Scan# 2017
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:146 Resp: 1183297

Ion	Ratio	Lower	Upper
146	100		
111	39.7	20.6	61.8
148	64.2	31.6	94.8

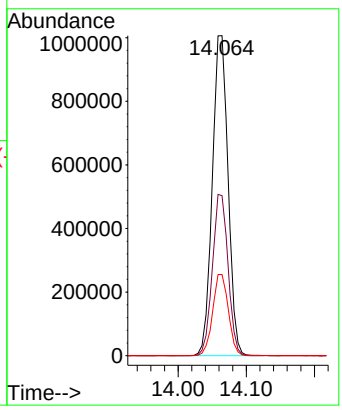




#89
n-Butylbenzene
Concen: 100.948 ug/l
RT: 14.064 min Scan# 2
Delta R.T. 0.005 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 91 Resp: 161931

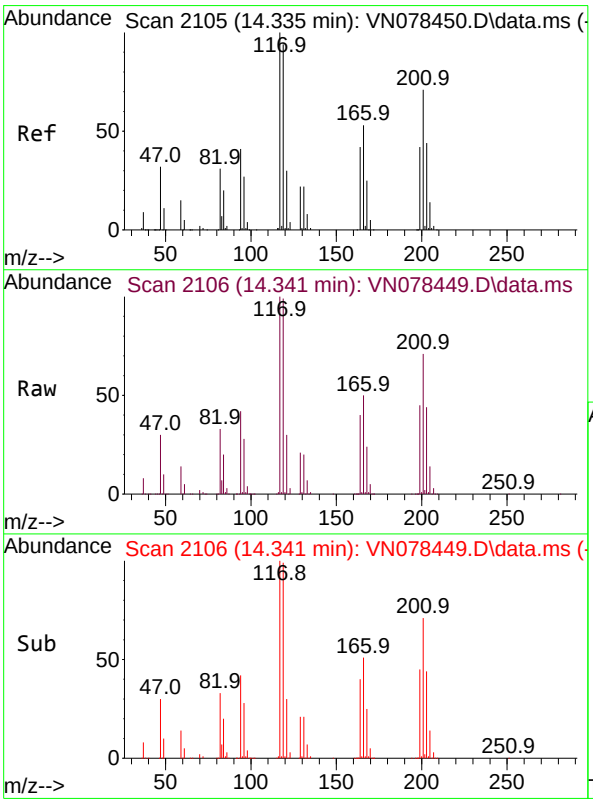
Ion	Ratio	Lower	Upper
91	100		
92	50.1	26.4	79.0
134	25.3	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

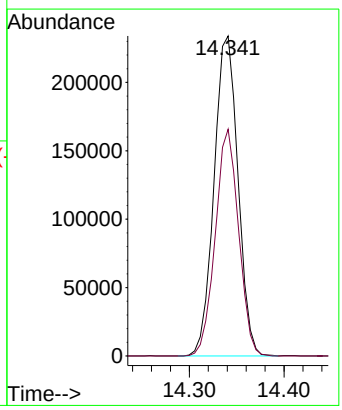
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

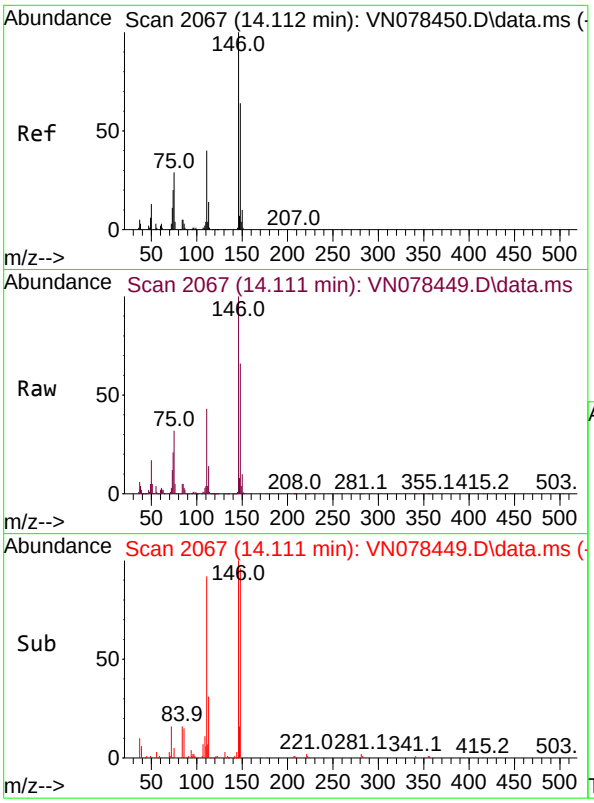


#90
Hexachloroethane
Concen: 100.408 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:117 Resp: 410352

Ion	Ratio	Lower	Upper
117	100		
201	69.0	29.3	88.0

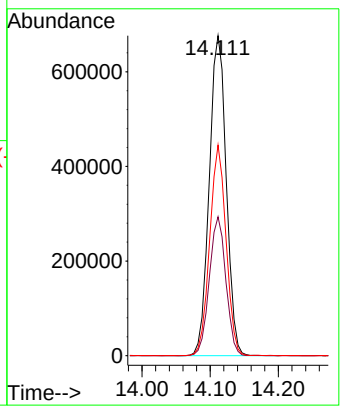




#91
1,2-Dichlorobenzene
Concen: 93.207 ug/l
RT: 14.111 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:146 Resp: 117254

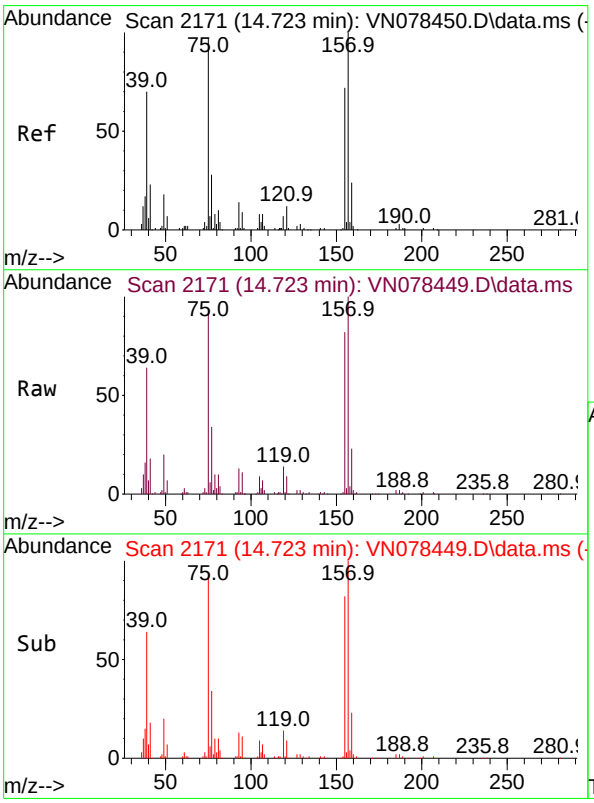
Ion	Ratio	Lower	Upper
146	100		
111	42.3	22.0	66.0
148	63.4	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

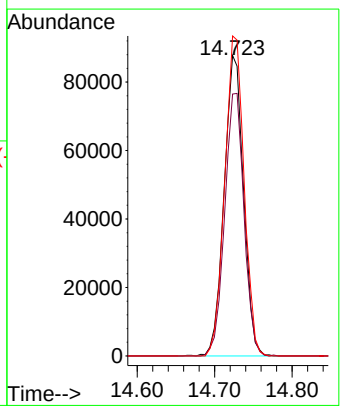
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

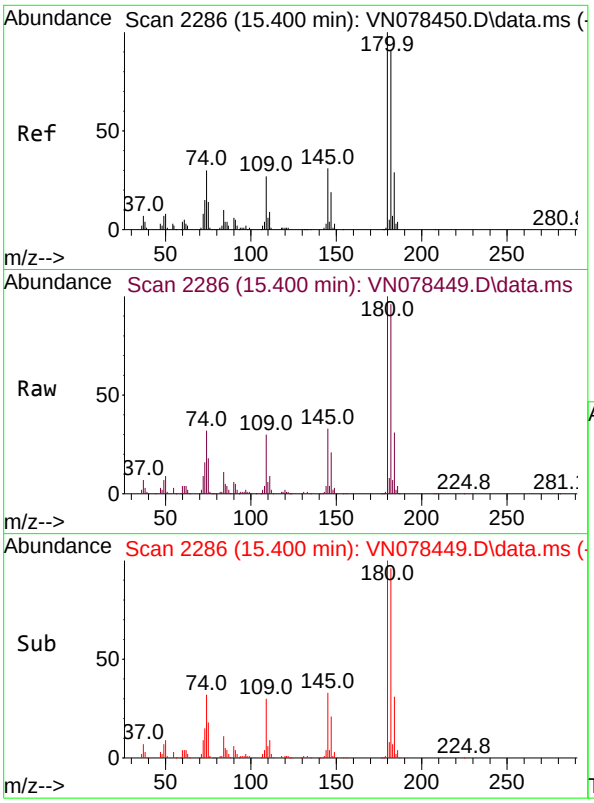


#92
1,2-Dibromo-3-Chloropropane
Concen: 98.955 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion: 75 Resp: 153027

Ion	Ratio	Lower	Upper
75	100		
155	86.9	39.1	117.2
157	106.2	50.3	150.9





#93
1,2,4-Trichlorobenzene
Concen: 110.019 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

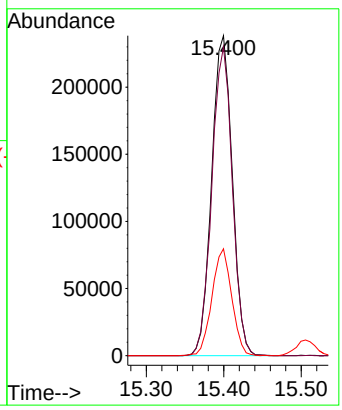
Tgt Ion:180 Resp: 44172

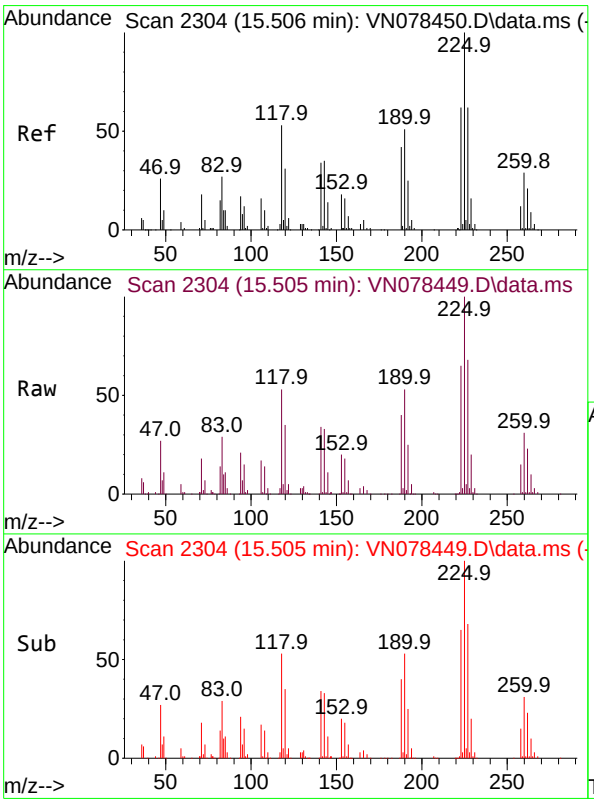
Ion	Ratio	Lower	Upper
180	100		
182	95.7	46.1	138.2
145	32.1	16.6	49.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

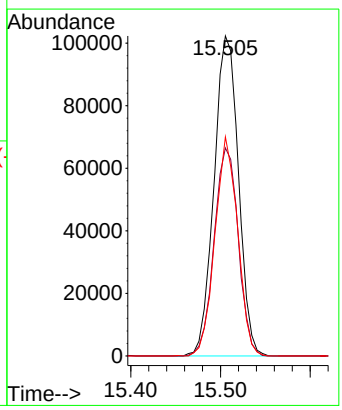


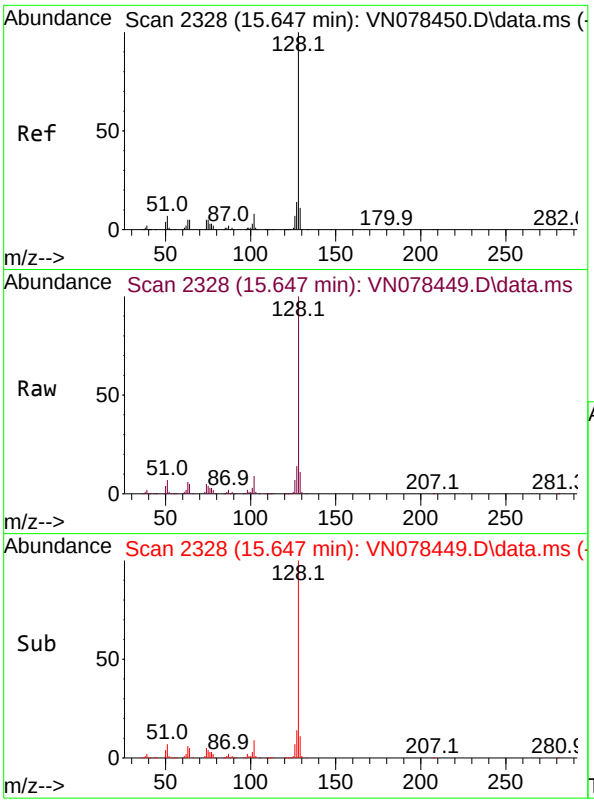


#94
Hexachlorobutadiene
Concen: 97.023 ug/l
RT: 15.505 min Scan# 2304
Delta R.T. -0.001 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:225 Resp: 193432

Ion	Ratio	Lower	Upper
225	100		
223	64.4	31.3	93.8
227	63.6	31.9	95.9

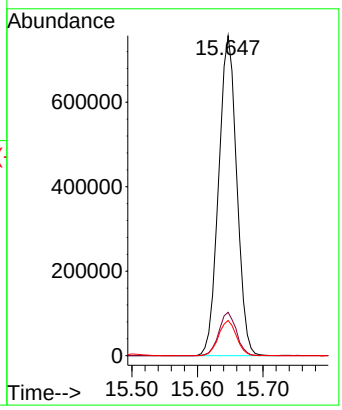




#95
Naphthalene
Concen: 105.547 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:128 Resp: 144872

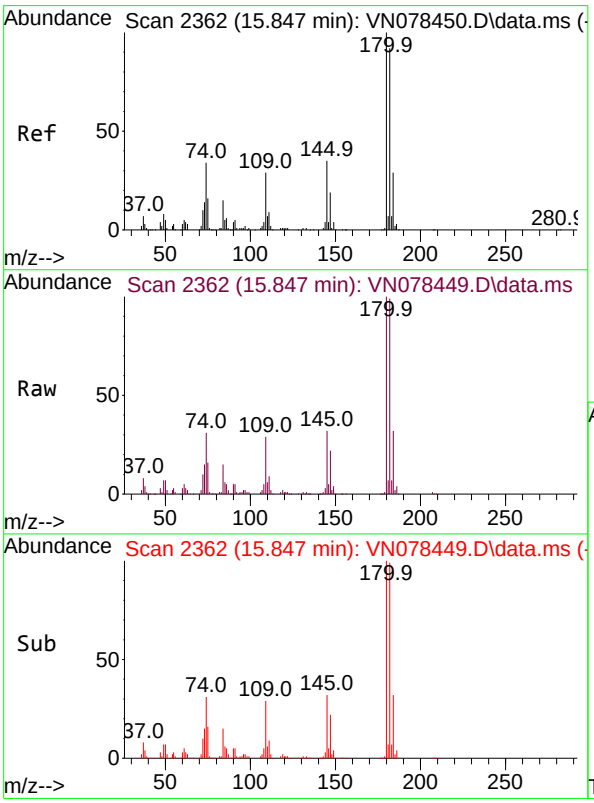
Ion	Ratio	Lower	Upper
128	100		
127	13.2	10.0	15.0
129	10.9	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

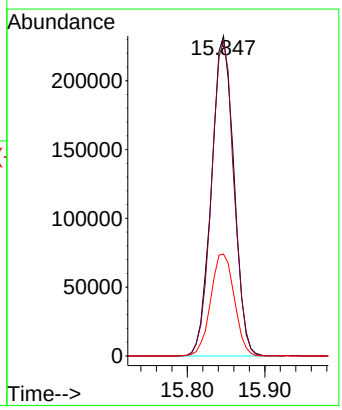
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 101.382 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078449.D
Acq: 10 Jul 2023 12:21

Tgt Ion:180 Resp: 468039

Ion	Ratio	Lower	Upper
180	100		
182	98.2	46.2	138.6
145	33.5	17.5	52.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078450.D
Acq On : 10 Jul 2023 12:46
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 15:53:48 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	511467	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	903394	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	791641	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	329469	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	338670	49.392	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 98.780%			
35) Dibromofluoromethane	8.177	113	298691	48.706	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 97.420%			
50) Toluene-d8	10.571	98	1130269	48.788	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 97.580%			
62) 4-Bromofluorobenzene	12.853	95	358906	50.296	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 100.600%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	299933	47.830	ug/l	97
3) Chloromethane	2.371	50	313827	46.044	ug/l	100
4) Vinyl Chloride	2.518	62	415635	47.140	ug/l	99
5) Bromomethane	2.954	94	291038	52.428	ug/l	99
6) Chloroethane	3.118	64	291365	54.814	ug/l	99
7) Trichlorofluoromethane	3.501	101	502650	47.691	ug/l	96
8) Diethyl Ether	3.971	74	176460	50.251	ug/l	82
9) 1,1,2-Trichlorotrifluo...	4.383	101	274815	49.256	ug/l	96
10) Methyl Iodide	4.600	142	384209	50.113	ug/l	96
11) Tert butyl alcohol	5.536	59	261821	247.624	ug/l	99
12) 1,1-Dichloroethene	4.348	96	265593	49.212	ug/l	92
13) Acrolein	4.189	56	263797	253.584	ug/l	98
14) Allyl chloride	5.036	41	358576	48.623	ug/l	95
15) Acrylonitrile	5.730	53	672900	251.883	ug/l	99
16) Acetone	4.442	43	506777	237.268	ug/l	97
17) Carbon Disulfide	4.718	76	736661	47.204	ug/l	97
18) Methyl Acetate	5.036	43	442186	48.906	ug/l	89
19) Methyl tert-butyl Ether	5.806	73	904029	50.840	ug/l	97
20) Methylene Chloride	5.283	84	314383	50.182	ug/l	92
21) trans-1,2-Dichloroethene	5.795	96	302992	49.821	ug/l	91
22) Diisopropyl ether	6.683	45	845665	51.213	ug/l #	94
23) Vinyl Acetate	6.612	43	2765637	263.451	ug/l #	89
24) 1,1-Dichloroethane	6.577	63	550375	49.464	ug/l	98
25) 2-Butanone	7.489	43	844994	251.324	ug/l	88
26) 2,2-Dichloropropane	7.500	77	452793	49.755	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	351806	50.005	ug/l	94
28) Bromochloromethane	7.818	49	262465	50.081	ug/l	92
29) Tetrahydrofuran	7.847	42	565312	256.244	ug/l #	84
30) Chloroform	7.977	83	585983	50.585	ug/l	93
31) Cyclohexane	8.265	56	424317	45.790	ug/l	91
32) 1,1,1-Trichloroethane	8.177	97	528160	50.853	ug/l	97
36) 1,1-Dichloropropene	8.377	75	430695	48.640	ug/l	97
37) Ethyl Acetate	7.571	43	369467	50.053	ug/l #	94
38) Carbon Tetrachloride	8.365	117	474963	49.353	ug/l	96
39) Methylcyclohexane	9.606	83	402713	49.825	ug/l	91
40) Benzene	8.612	78	1303523	49.690	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078450.D
Acq On : 10 Jul 2023 12:46
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 15:53:48 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.788	41	184972	49.156	ug/l		92
42) 1,2-Dichloroethane	8.677	62	428689	48.044	ug/l		98
43) Isopropyl Acetate	8.694	43	609663	50.167	ug/l		94
44) Trichloroethene	9.359	130	335140	47.401	ug/l		96
45) 1,2-Dichloropropane	9.630	63	323797	48.734	ug/l		99
46) Dibromomethane	9.718	93	234496	50.145	ug/l		93
47) Bromodichloromethane	9.894	83	467677	49.891	ug/l		97
48) Methyl methacrylate	9.688	41	289338	51.390	ug/l		88
49) 1,4-Dioxane	9.700	88	121954	993.233	ug/l		96
51) 4-Methyl-2-Pentanone	10.453	43	1852478	256.271	ug/l		94
52) Toluene	10.635	92	814804	50.115	ug/l		96
53) t-1,3-Dichloropropene	10.841	75	490353	51.060	ug/l		98
54) cis-1,3-Dichloropropene	10.318	75	533674	52.134	ug/l		96
55) 1,1,2-Trichloroethane	11.018	97	316794	49.454	ug/l		96
56) Ethyl methacrylate	10.882	69	476305	53.191	ug/l		93
57) 1,3-Dichloropropane	11.171	76	542990	49.853	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	835934	261.951	ug/l		94
59) 2-Hexanone	11.200	43	1344833	261.771	ug/l		92
60) Dibromochloromethane	11.365	129	361937	51.179	ug/l		99
61) 1,2-Dibromoethane	11.476	107	332161	50.336	ug/l		97
64) Tetrachloroethene	11.106	164	295482	49.646	ug/l		97
65) Chlorobenzene	11.900	112	866971	48.995	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.965	131	339102	49.815	ug/l		98
67) Ethyl Benzene	11.971	91	1539468	51.469	ug/l		98
68) m/p-Xylenes	12.076	106	1167599	105.581	ug/l		98
69) o-Xylene	12.406	106	568790	50.921	ug/l		97
70) Styrene	12.418	104	926334	53.009	ug/l		98
71) Bromoform	12.582	173	241874	52.464	ug/l	#	98
73) Isopropylbenzene	12.700	105	1429692	46.181	ug/l		99
74) N-amyl acetate	12.500	43	501898	47.043	ug/l		92
75) 1,1,2,2-Tetrachloroethane	12.941	83	451410	52.351	ug/l		99
76) 1,2,3-Trichloropropane	13.000	75	366977m	46.134	ug/l		
77) Bromobenzene	12.988	156	340936	50.662	ug/l		97
78) n-propylbenzene	13.041	91	1589295	48.003	ug/l		99
79) 2-Chlorotoluene	13.129	91	993931	45.832	ug/l		96
80) 1,3,5-Trimethylbenzene	13.176	105	1148553	46.955	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.741	75	141562	46.712	ug/l		87
82) 4-Chlorotoluene	13.229	91	951921	47.054	ug/l		98
83) tert-Butylbenzene	13.441	119	964839	46.459	ug/l		96
84) 1,2,4-Trimethylbenzene	13.488	105	1133229	47.696	ug/l		98
85) sec-Butylbenzene	13.623	105	1229885	46.853	ug/l		98
86) p-Isopropyltoluene	13.735	119	1014504	48.131	ug/l		98
87) 1,3-Dichlorobenzene	13.735	146	575254	48.403	ug/l		98
88) 1,4-Dichlorobenzene	13.818	146	567782	47.430	ug/l		98
89) n-Butylbenzene	14.059	91	764971	50.723	ug/l		97
90) Hexachloroethane	14.335	117	190986	49.287	ug/l		83
91) 1,2-Dichlorobenzene	14.112	146	568034	48.027	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.723	75	74837	50.514	ug/l		94
93) 1,2,4-Trichlorobenzene	15.400	180	200731	53.177	ug/l		98
94) Hexachlorobutadiene	15.506	225	106143	54.749	ug/l		98
95) Naphthalene	15.647	128	653821	50.666	ug/l		98
96) 1,2,3-Trichlorobenzene	15.847	180	217418	50.092	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078450.D
Acq On : 10 Jul 2023 12:46
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:53:48 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

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

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

ICAL Form

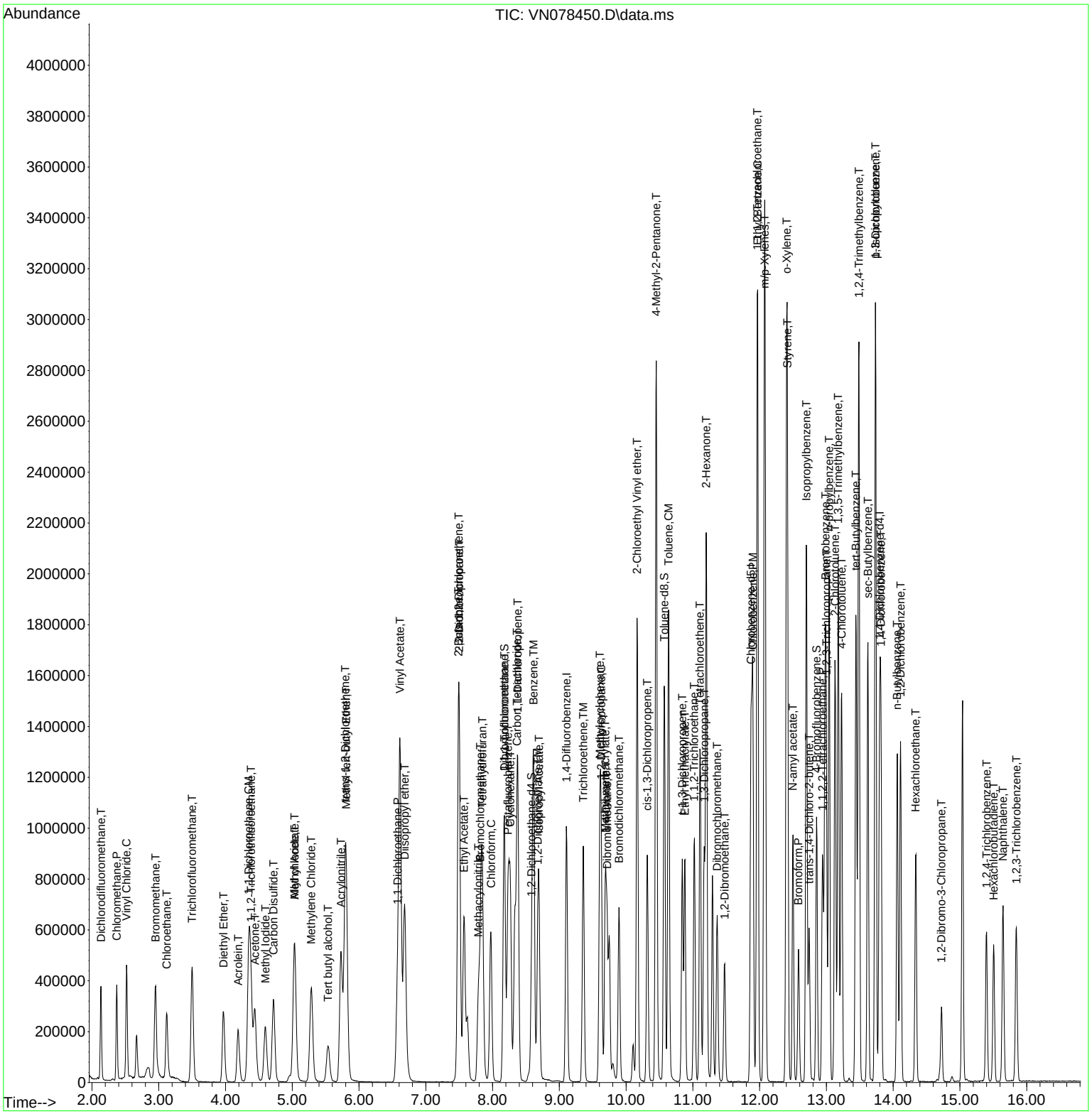
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078450.D
Acq On : 10 Jul 2023 12:46
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

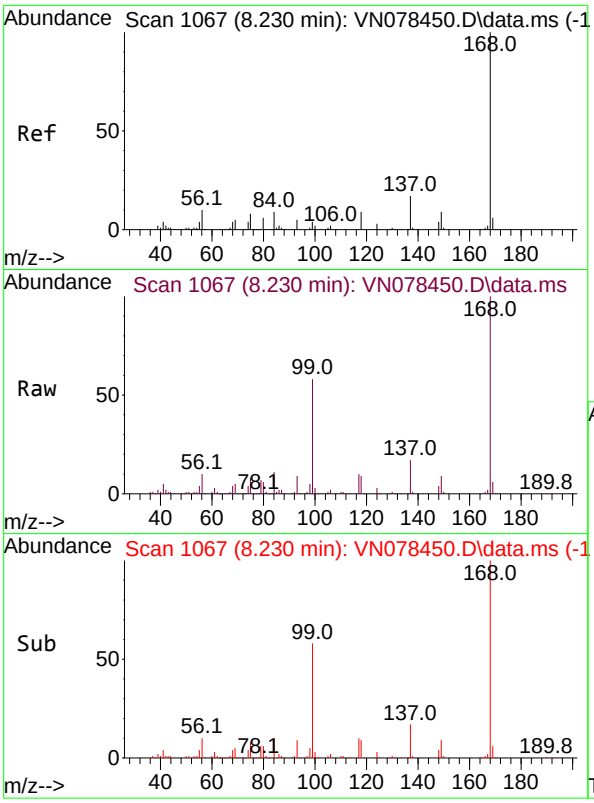
Quant Time: Jul 10 15:53:48 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

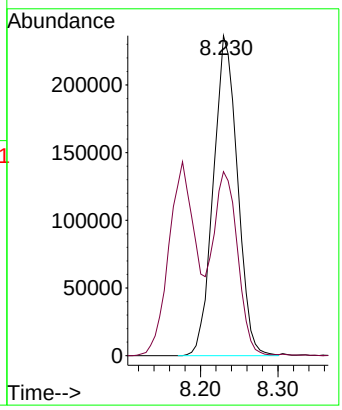




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:168 Resp: 51146

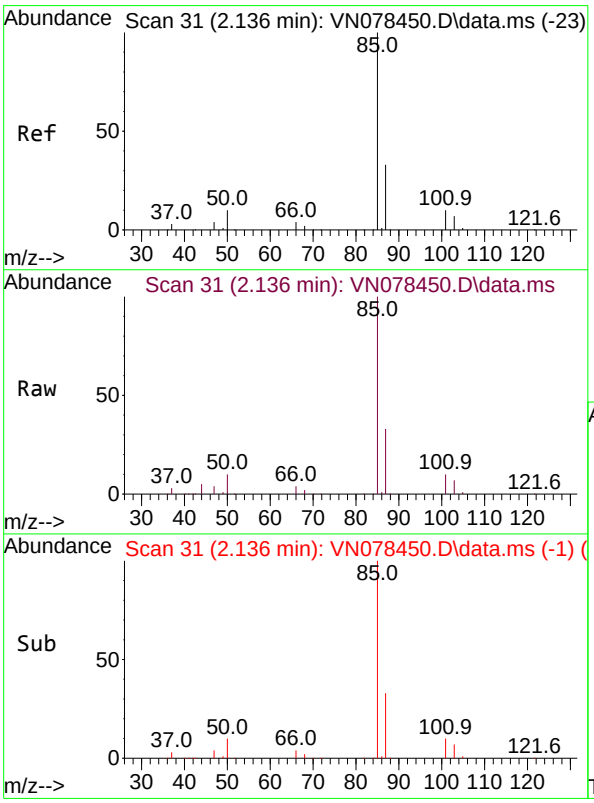
Ion	Ratio	Lower	Upper
168	100		
99	57.2	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

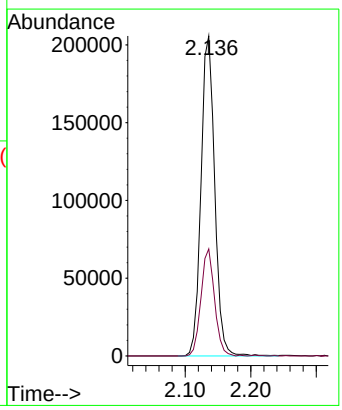
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

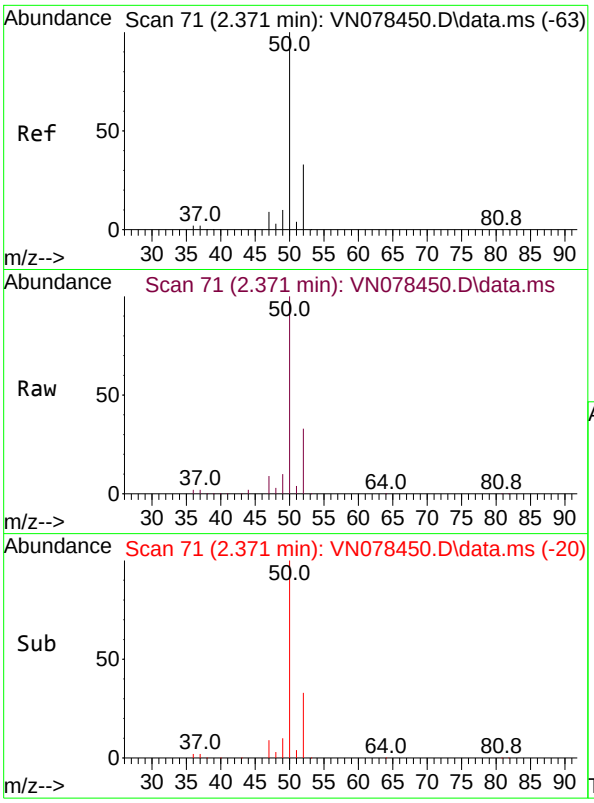


#2
Dichlorodifluoromethane
Concen: 47.830 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 85 Resp: 299933

Ion	Ratio	Lower	Upper
85	100		
87	33.4	15.8	47.4

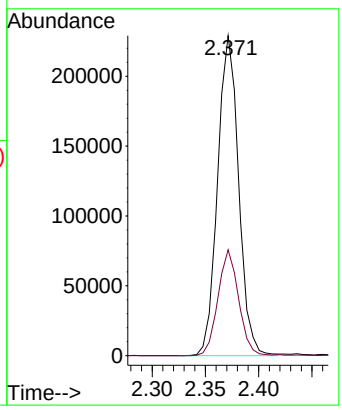




#3
Chloromethane
Concen: 46.044 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 50 Resp: 31382

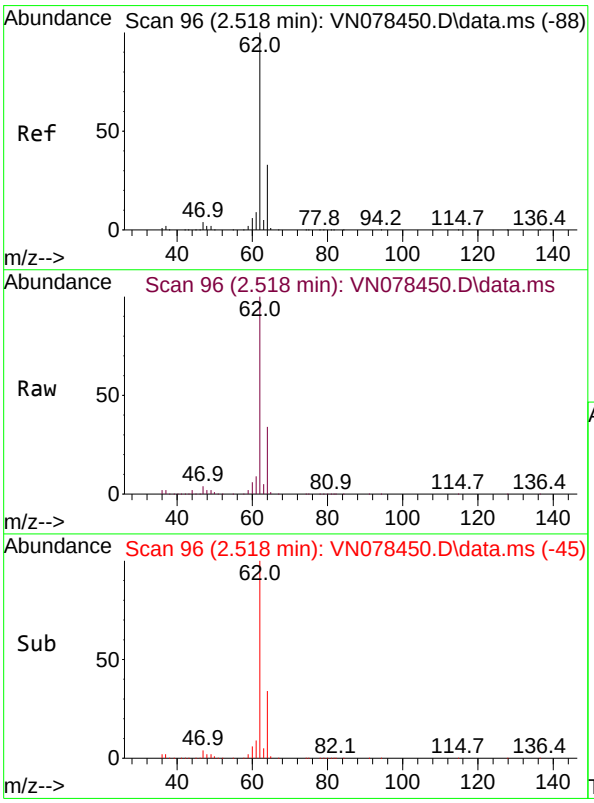
Ion	Ratio	Lower	Upper
50	100		
52	33.1	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

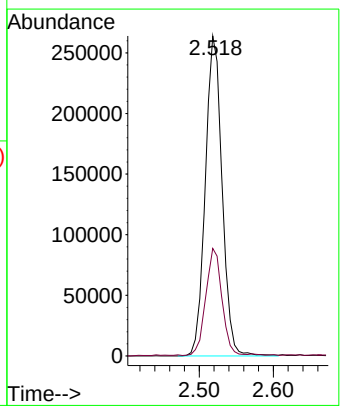
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

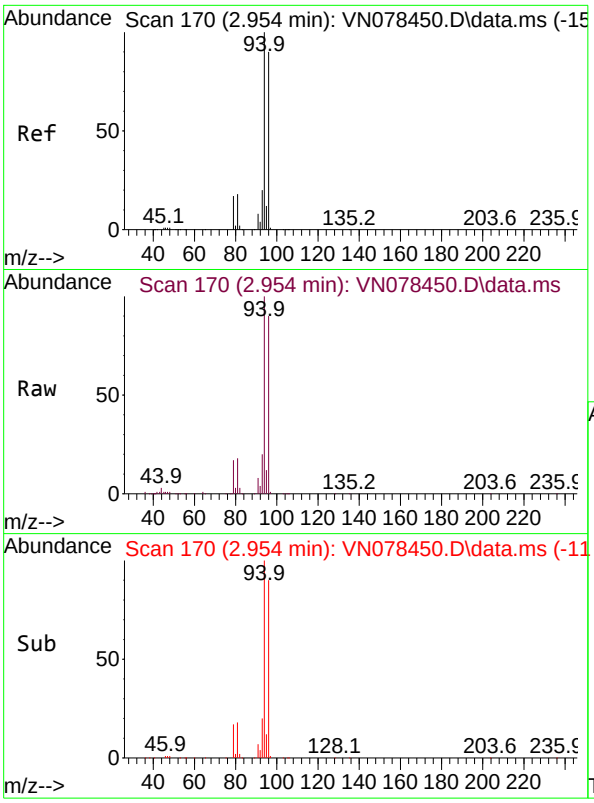


#4
Vinyl Chloride
Concen: 47.140 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 62 Resp: 415635

Ion	Ratio	Lower	Upper
62	100		
64	33.4	26.2	39.2

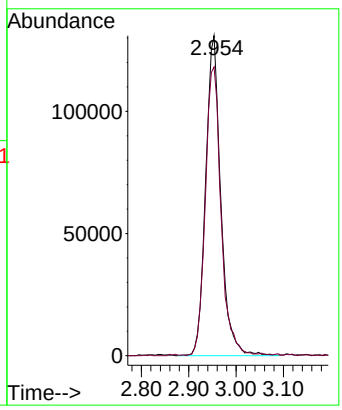




#5
Bromomethane
Concen: 52.428 ug/l
RT: 2.954 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 94 Resp: 29103

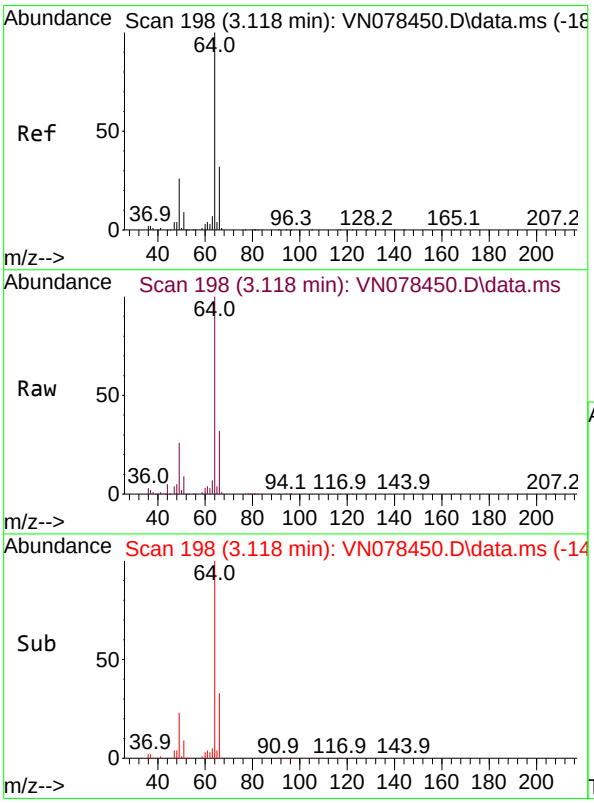
Ion	Ratio	Lower	Upper
94	100		
96	90.0	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

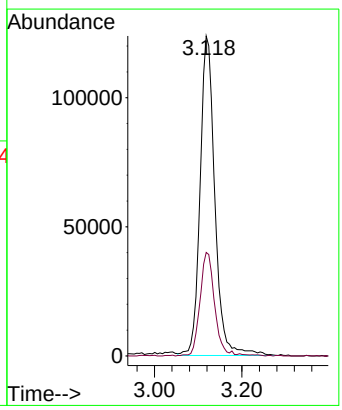
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

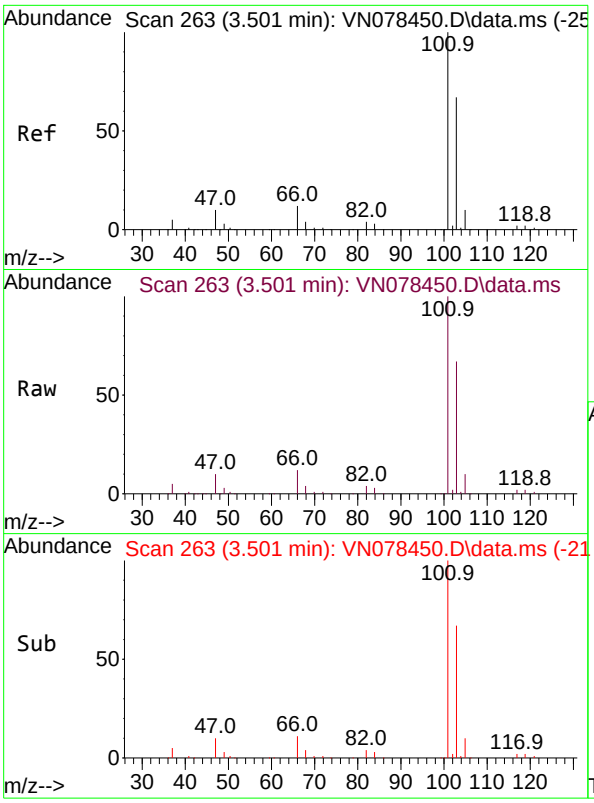


#6
Chloroethane
Concen: 54.814 ug/l
RT: 3.118 min Scan# 198
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 64 Resp: 291365

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.4	38.2





#7
Trichlorofluoromethane
Concen: 47.691 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

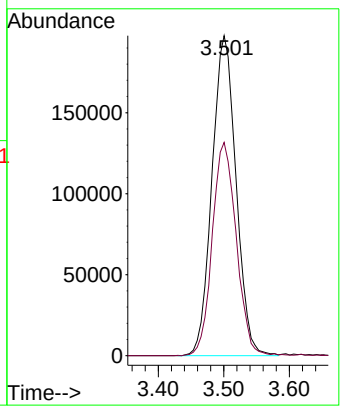
Tgt Ion:101 Resp: 50265

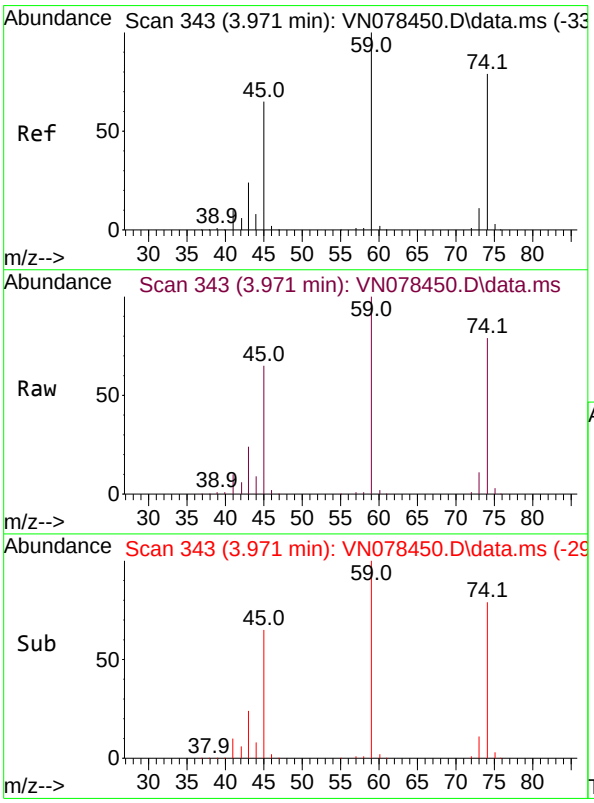
Ion	Ratio	Lower	Upper
101	100		
103	66.6	50.7	76.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

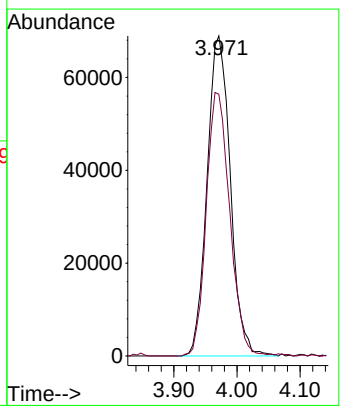


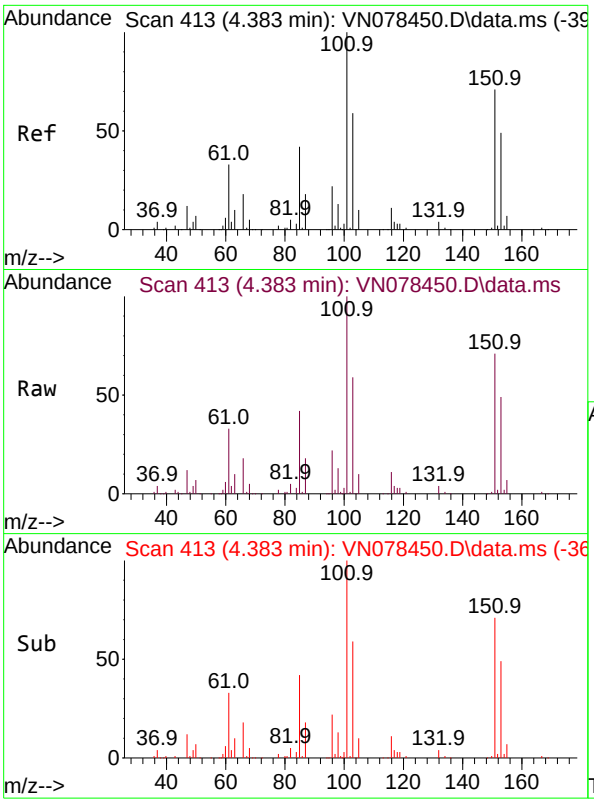


#8
Diethyl Ether
Concen: 50.251 ug/l
RT: 3.971 min Scan# 343
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 74 Resp: 176460

Ion	Ratio	Lower	Upper
74	100		
45	83.3	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.256 ug/l
RT: 4.383 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

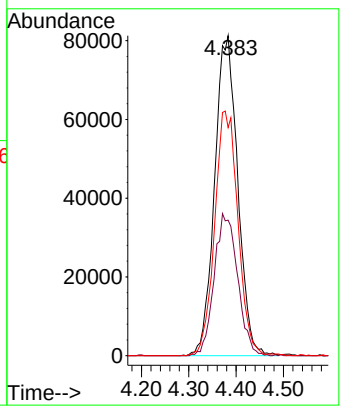
Tgt Ion:101 Resp: 27481

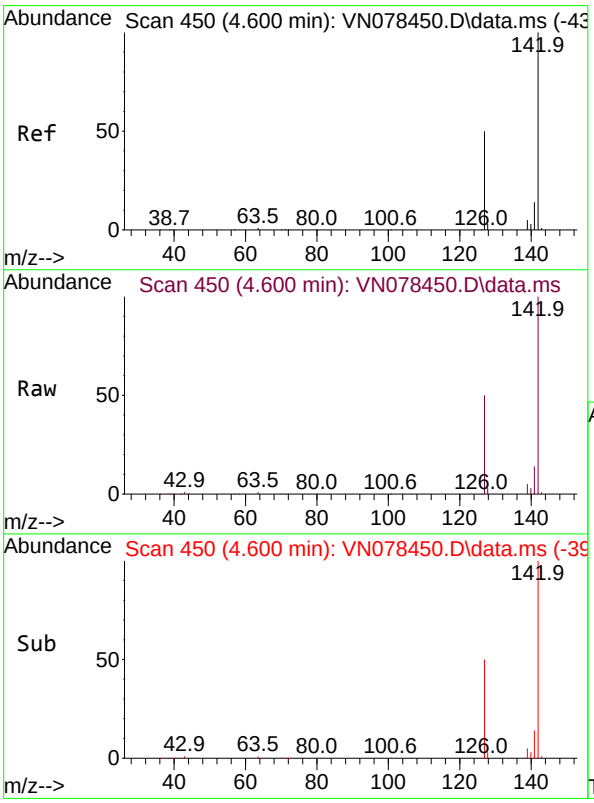
Ion	Ratio	Lower	Upper
101	100		
85	45.0	36.6	55.0
151	77.2	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

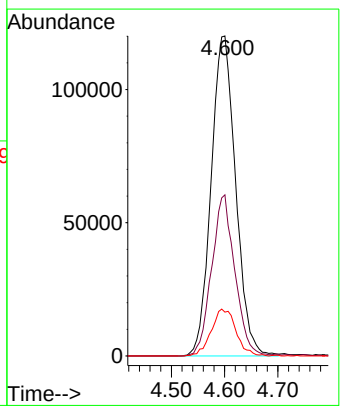


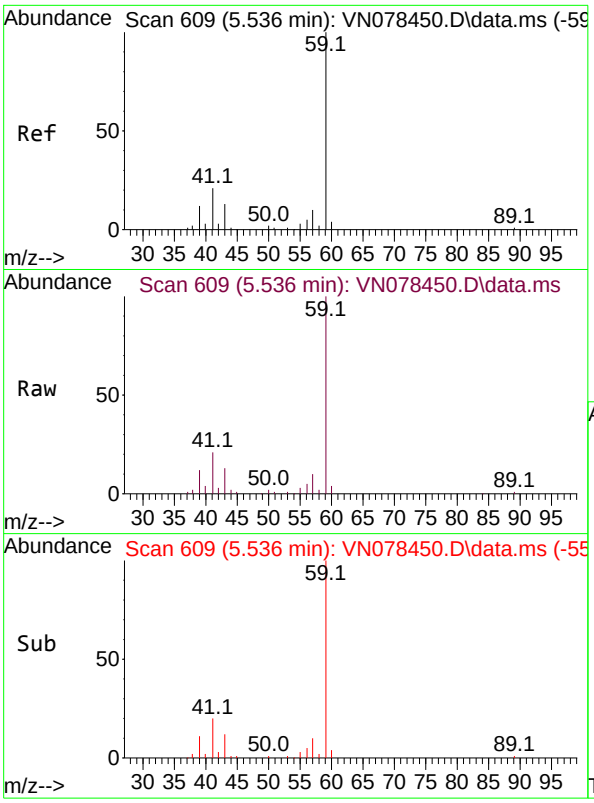


#10
Methyl Iodide
Concen: 50.113 ug/l
RT: 4.600 min Scan# 450
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:142 Resp: 384209

Ion	Ratio	Lower	Upper
142	100		
127	50.4	37.6	56.4
141	13.7	11.4	17.0

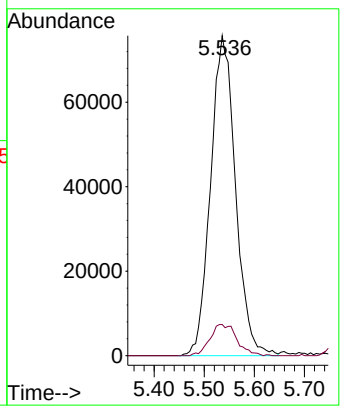




#11
Tert butyl alcohol
Concen: 247.624 ug/l
RT: 5.536 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 59 Resp: 26182

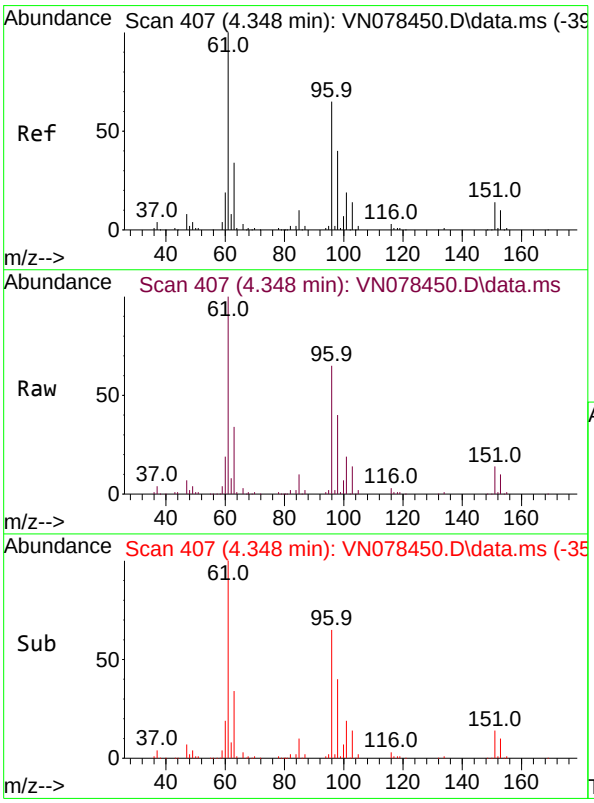
Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.2	12.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

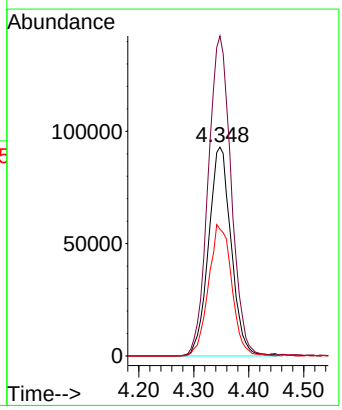
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

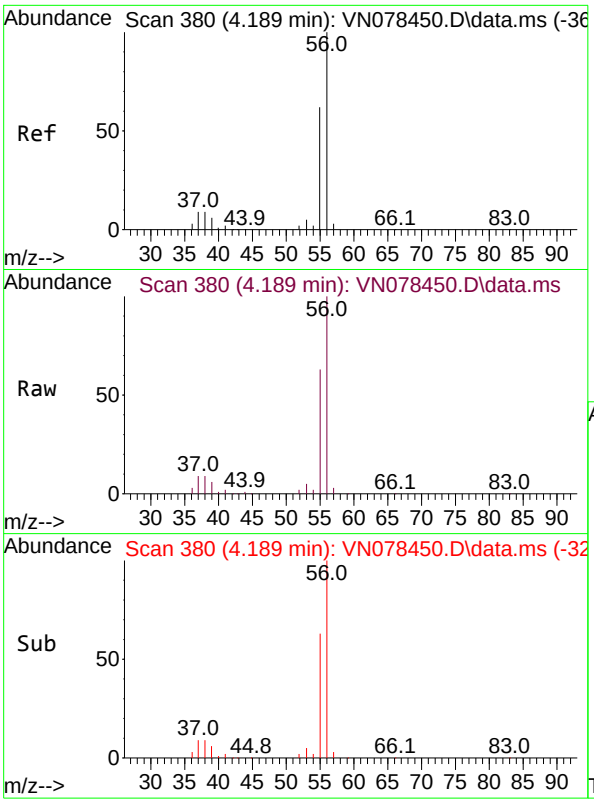


#12
1,1-Dichloroethene
Concen: 49.212 ug/l
RT: 4.348 min Scan# 407
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 96 Resp: 265593

Ion	Ratio	Lower	Upper
96	100		
61	153.3	112.7	169.1
98	60.7	51.2	76.8

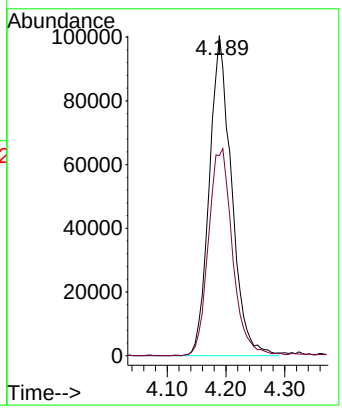




#13
Acrolein
Concen: 253.584 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 56 Resp: 26379

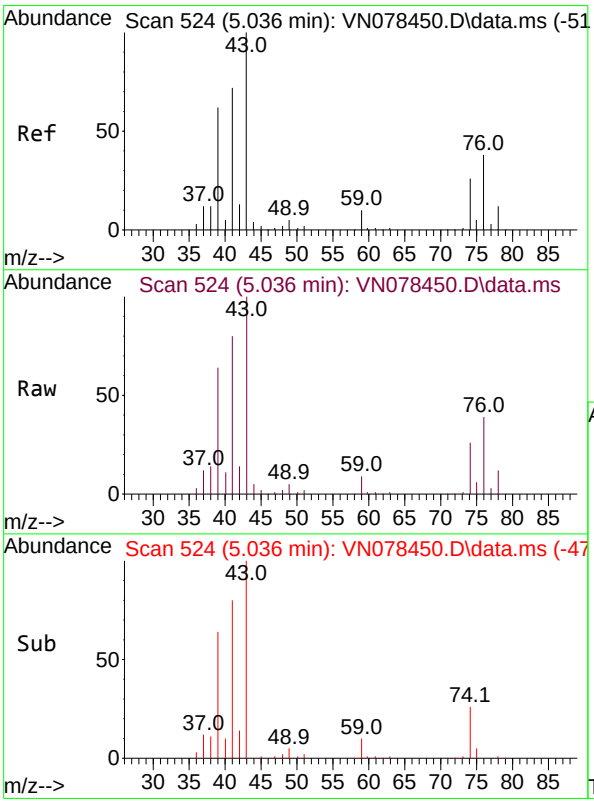
Ion	Ratio	Lower	Upper
56	100		
55	69.8	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

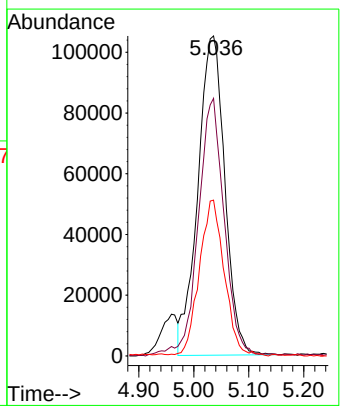
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

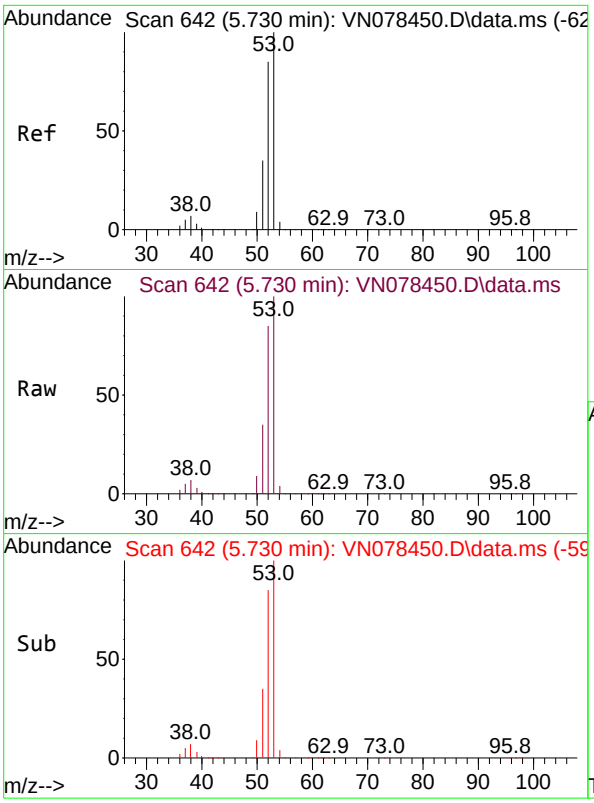


#14
Allyl chloride
Concen: 48.623 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 41 Resp: 358576

Ion	Ratio	Lower	Upper
41	100		
39	77.5	58.8	88.2
76	45.4	39.1	58.7

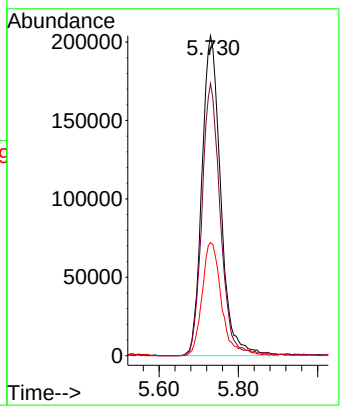




#15
Acrylonitrile
Concen: 251.883 ug/l
RT: 5.730 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 53 Resp: 67290

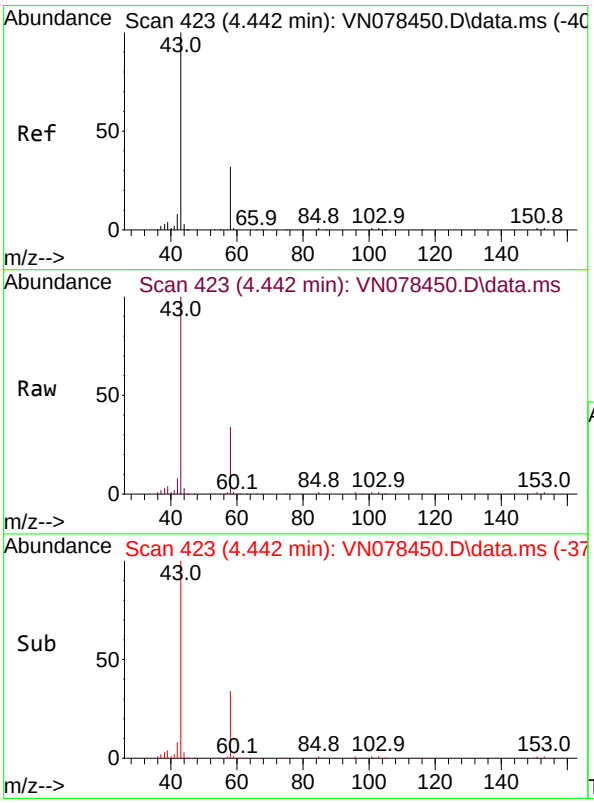
Ion	Ratio	Lower	Upper
53	100		
52	82.7	65.3	97.9
51	36.8	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

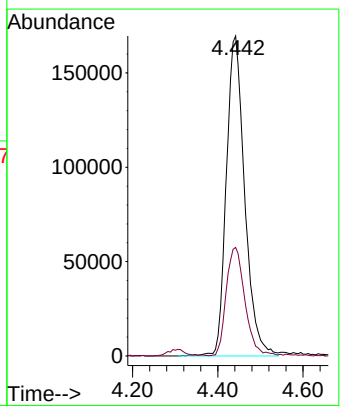
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

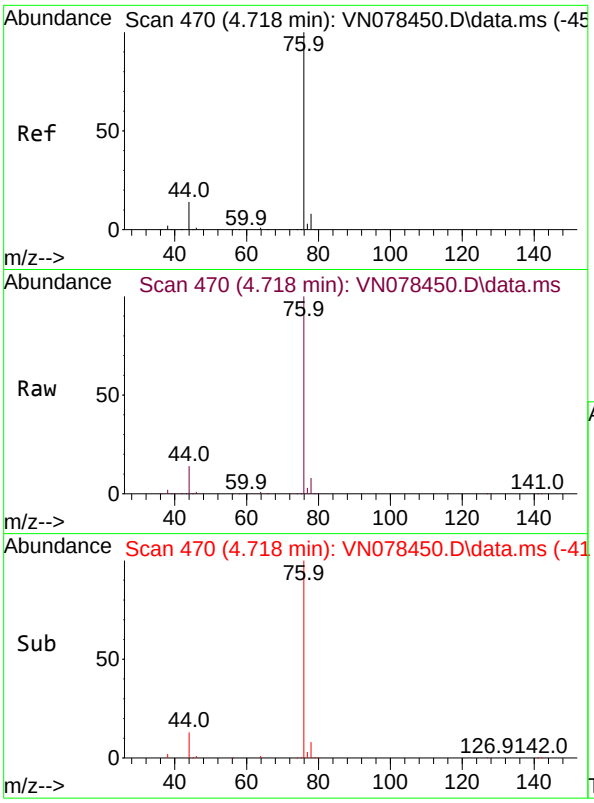


#16
Acetone
Concen: 237.268 ug/l
RT: 4.442 min Scan# 423
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 43 Resp: 506777

Ion	Ratio	Lower	Upper
43	100		
58	33.5	28.0	42.0





#17
Carbon Disulfide
Concen: 47.204 ug/l
RT: 4.718 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

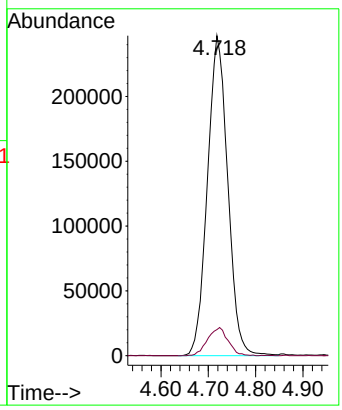
Tgt Ion: 76 Resp: 73666

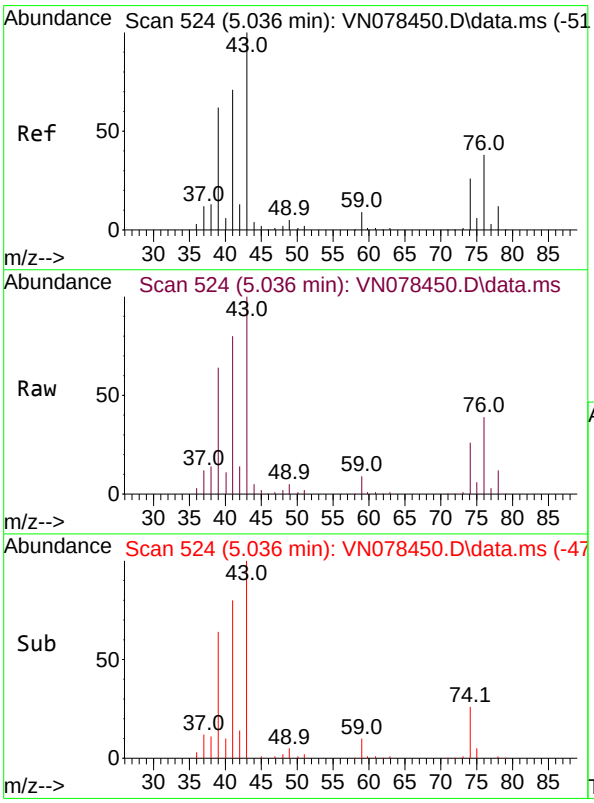
Ion	Ratio	Lower	Upper
76	100		
78	8.2	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

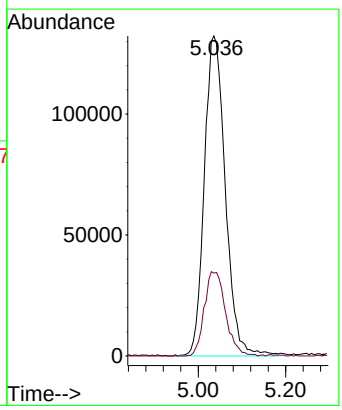


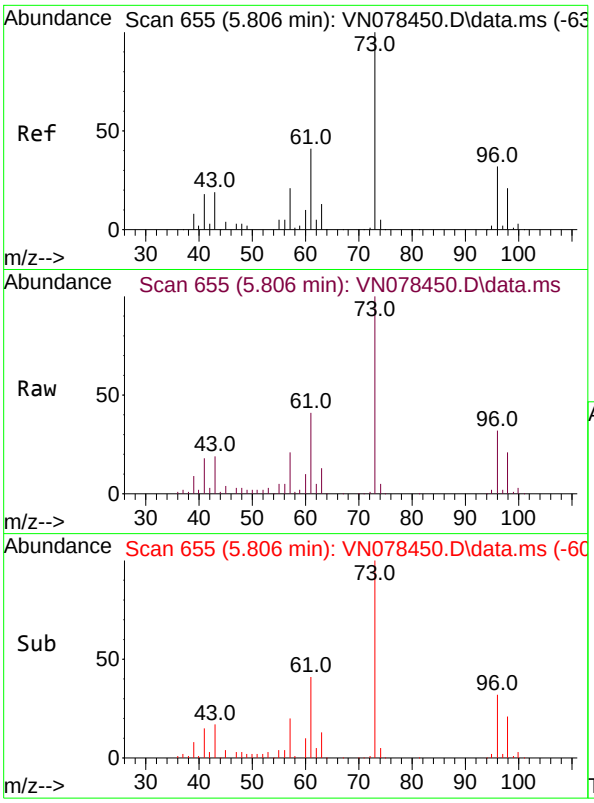


#18
Methyl Acetate
Concen: 48.906 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 43 Resp: 442186

Ion	Ratio	Lower	Upper
43	100		
74	26.5	26.2	39.4

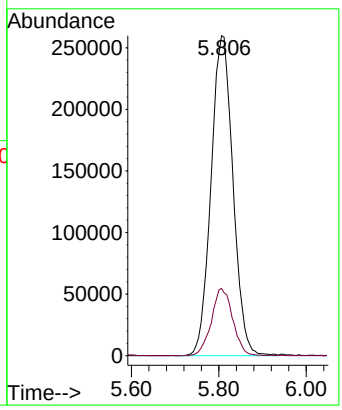




#19
Methyl tert-butyl Ether
Concen: 50.840 ug/l
RT: 5.806 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 73 Resp: 90402

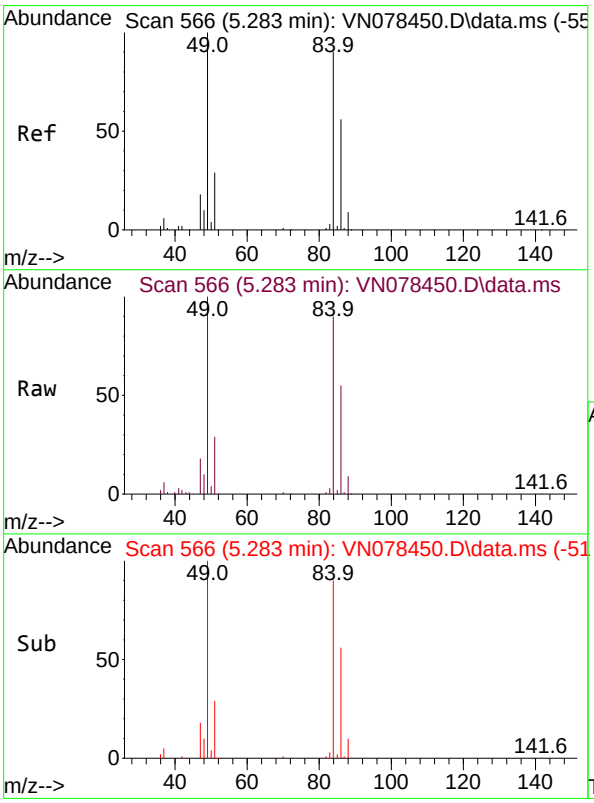
Ion	Ratio	Lower	Upper
73	100		
57	21.0	15.6	23.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

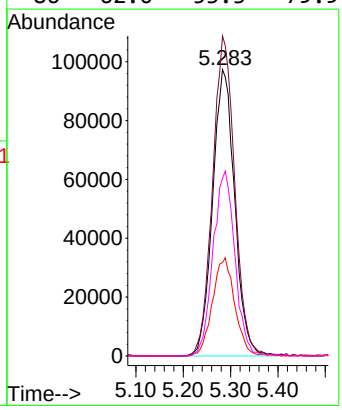
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

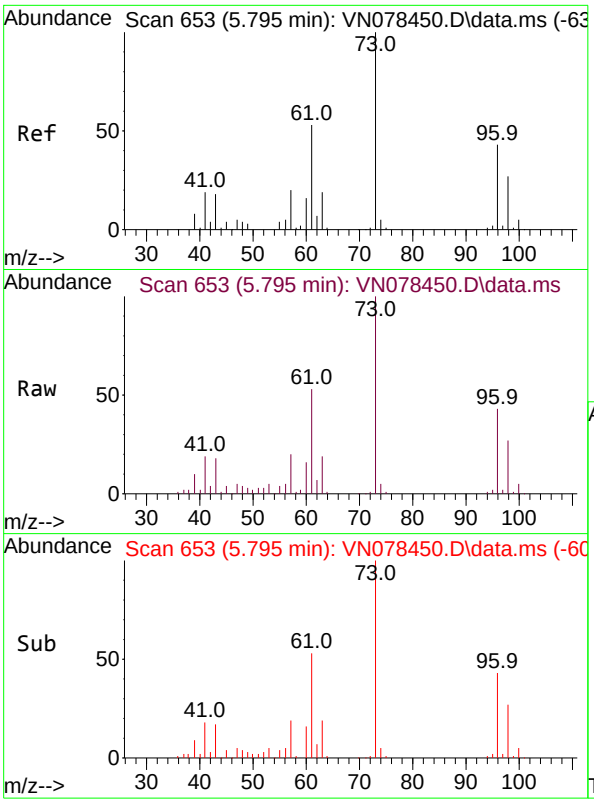


#20
Methylene Chloride
Concen: 50.182 ug/l
RT: 5.283 min Scan# 566
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 84 Resp: 314383

Ion	Ratio	Lower	Upper
84	100		
49	111.7	79.7	119.5
51	32.6	25.2	37.8
86	62.0	53.3	79.9

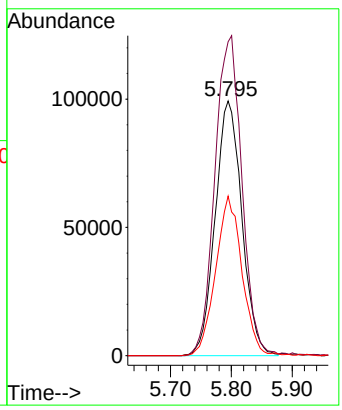




#21
trans-1,2-Dichloroethene
Concen: 49.821 ug/l
RT: 5.795 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 96 Resp: 30299

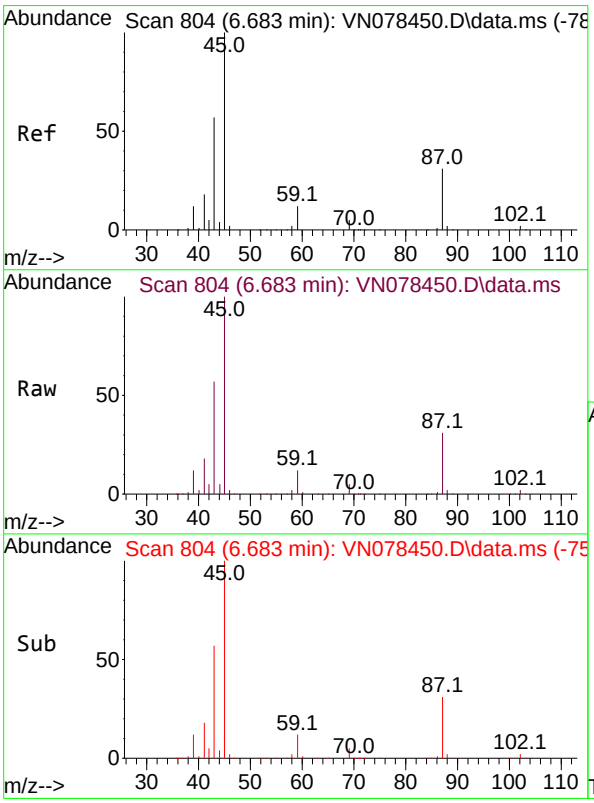
Ion	Ratio	Lower	Upper
96	100		
61	123.2	90.1	135.1
98	62.7	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

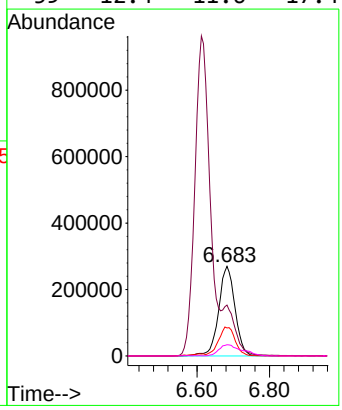
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

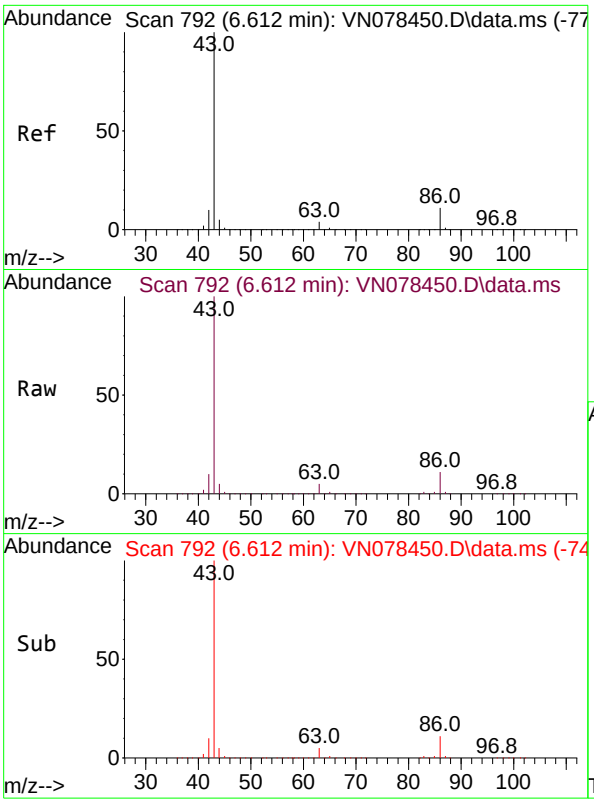


#22
Diisopropyl ether
Concen: 51.213 ug/l
RT: 6.683 min Scan# 804
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 45 Resp: 845665

Ion	Ratio	Lower	Upper
45	100		
43	56.5	45.5	68.3
87	31.3	31.8	47.8#
59	12.4	11.6	17.4

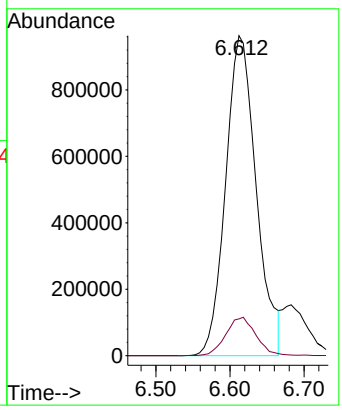




#23
Vinyl Acetate
Concen: 263.451 ug/l
RT: 6.612 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 43 Resp: 276563

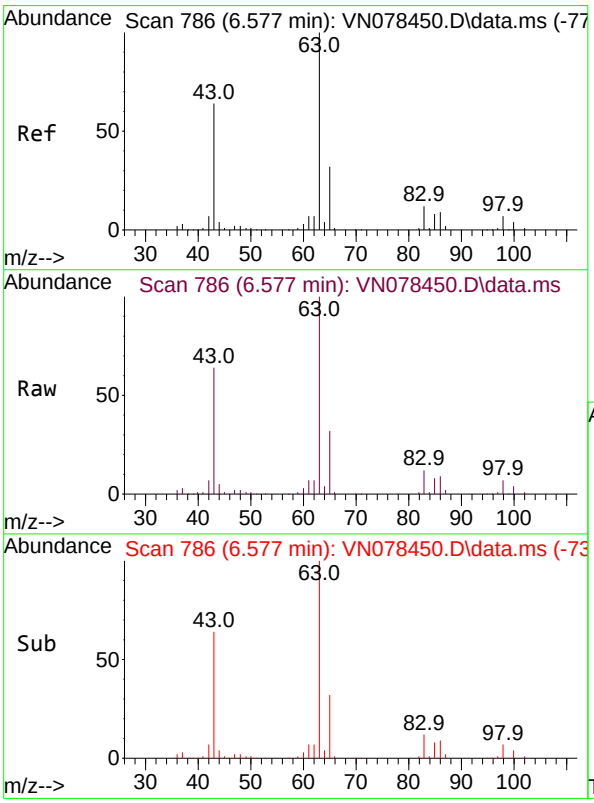
Ion	Ratio	Lower	Upper
43	100		
86	11.5	13.0	19.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

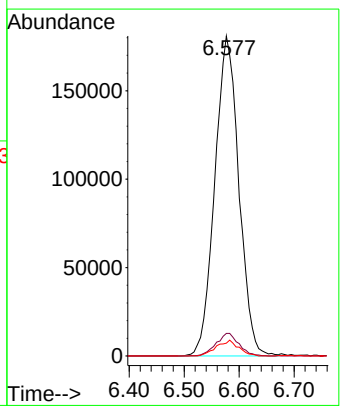
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

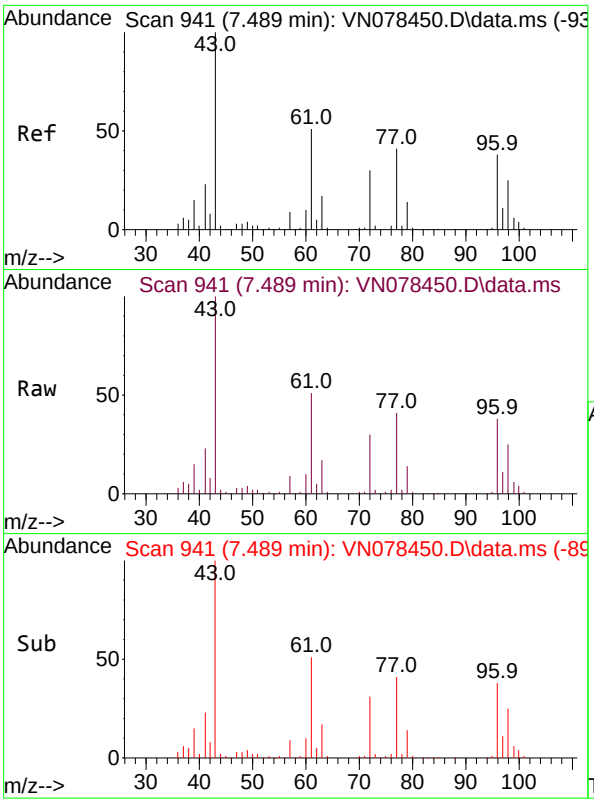


#24
1,1-Dichloroethane
Concen: 49.464 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 63 Resp: 550375

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.9	11.7
100	4.0	2.5	7.4





#25
2-Butanone
Concen: 251.324 ug/l
RT: 7.489 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

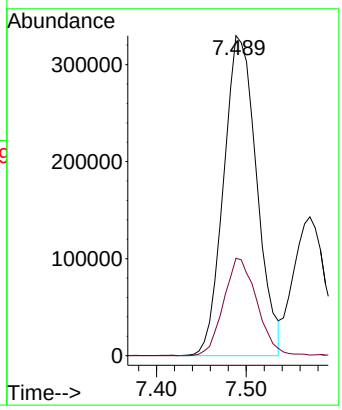
Tgt Ion: 43 Resp: 84499

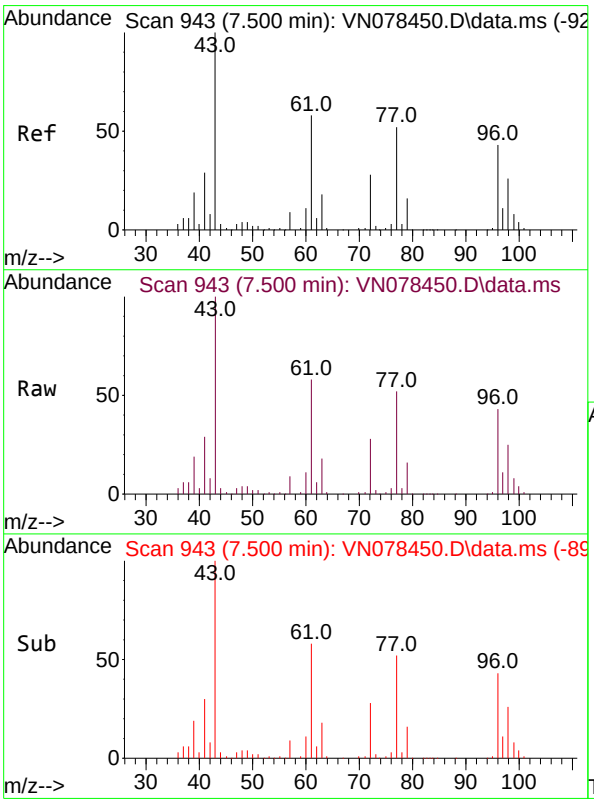
Ion	Ratio	Lower	Upper
43	100		
72	30.5	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

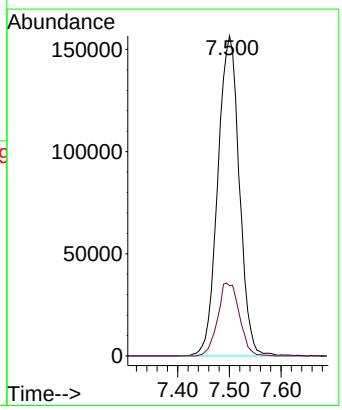


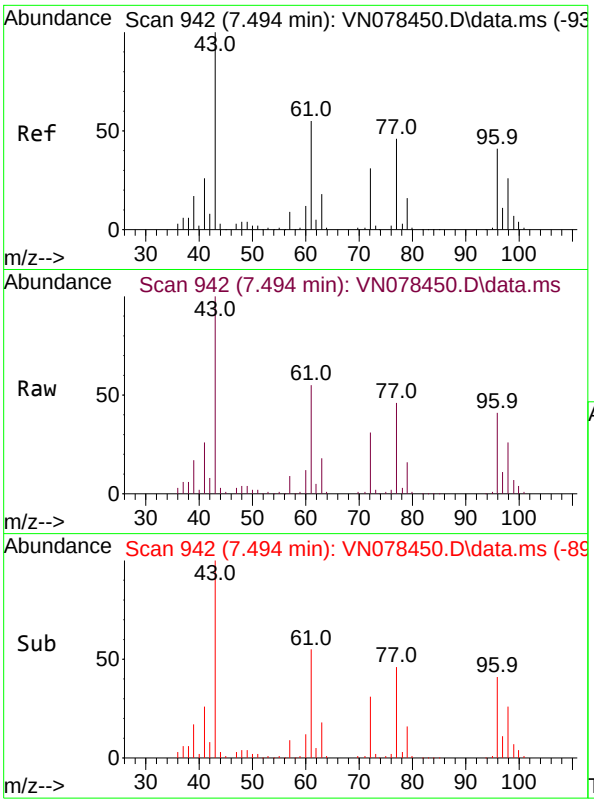


#26
2,2-Dichloropropane
Concen: 49.755 ug/l
RT: 7.500 min Scan# 943
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 77 Resp: 452793

Ion	Ratio	Lower	Upper
77	100		
97	23.1	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 50.005 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

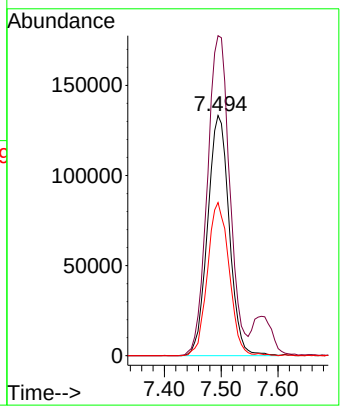
Tgt Ion: 96 Resp: 35180

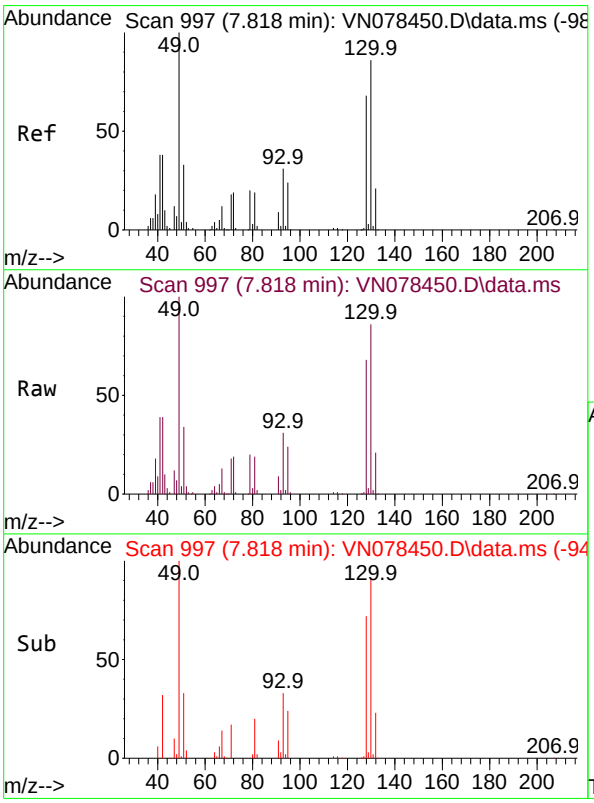
Ion	Ratio	Lower	Upper
96	100		
61	138.1	0.0	255.2
98	63.8	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

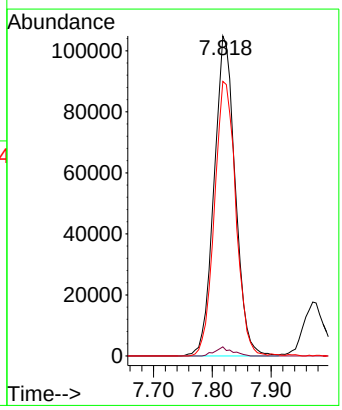


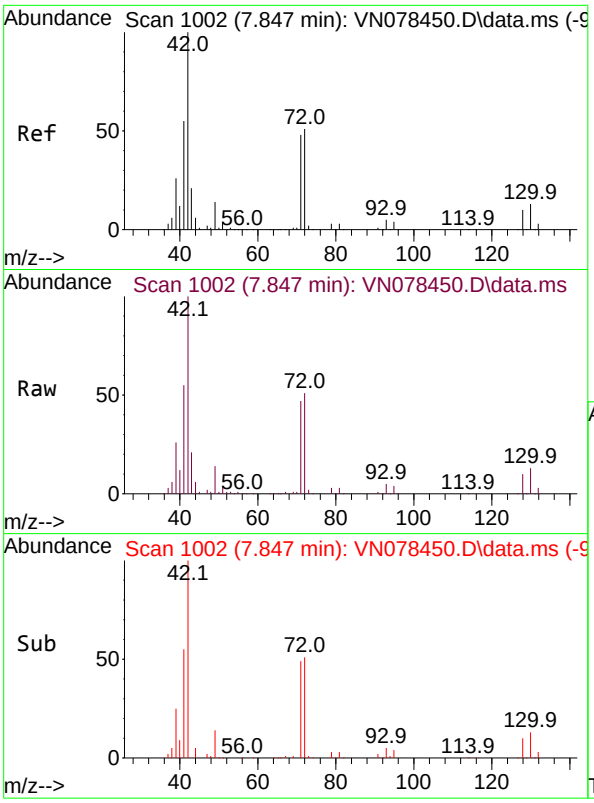


#28
Bromochloromethane
Concen: 50.081 ug/l
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 49 Resp: 262465

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	4.8
130	86.4	75.3	112.9





#29
Tetrahydrofuran
Concen: 256.244 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

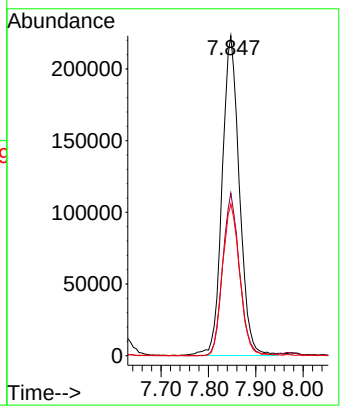
Tgt Ion: 42 Resp: 56531

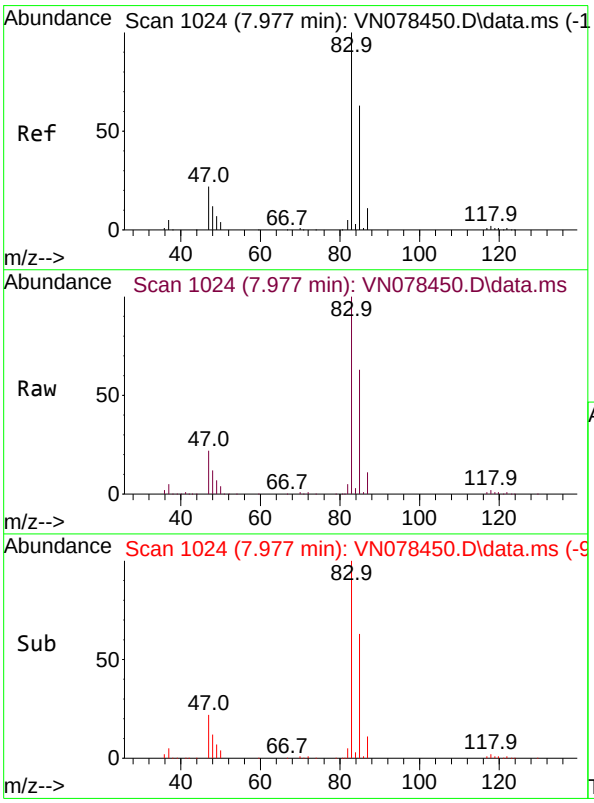
Ion	Ratio	Lower	Upper
42	100		
72	49.5	49.8	74.6
71	47.5	47.4	71.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

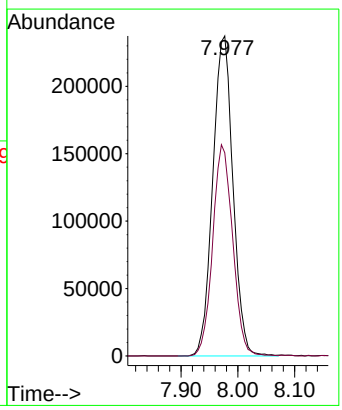


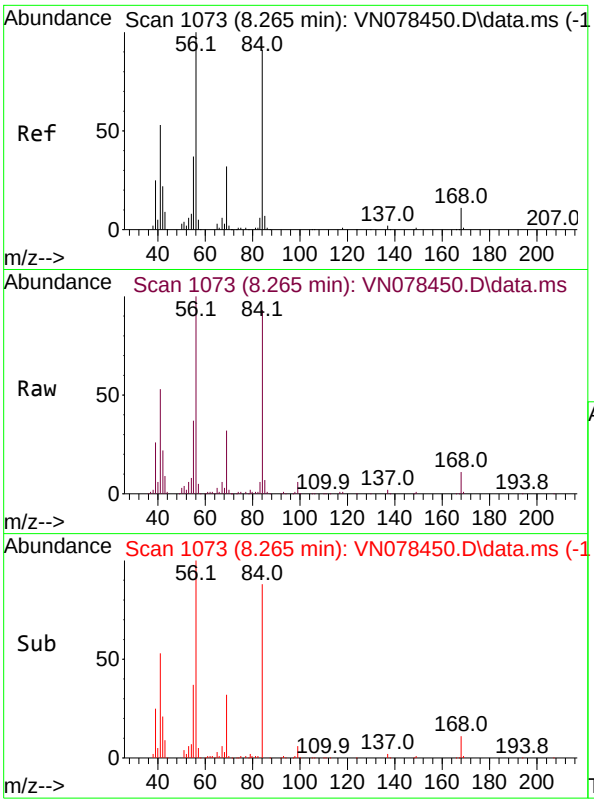


#30
Chloroform
Concen: 50.585 ug/l
RT: 7.977 min Scan# 1024
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 83 Resp: 585983

Ion	Ratio	Lower	Upper
83	100		
85	63.5	55.4	83.0

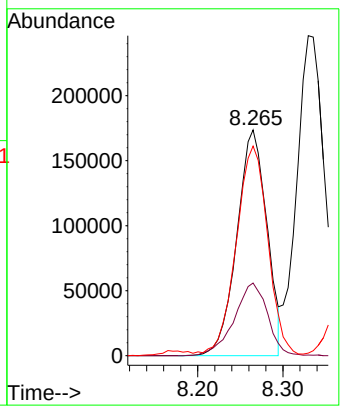




#31
Cyclohexane
Concen: 45.790 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 56 Resp: 42431

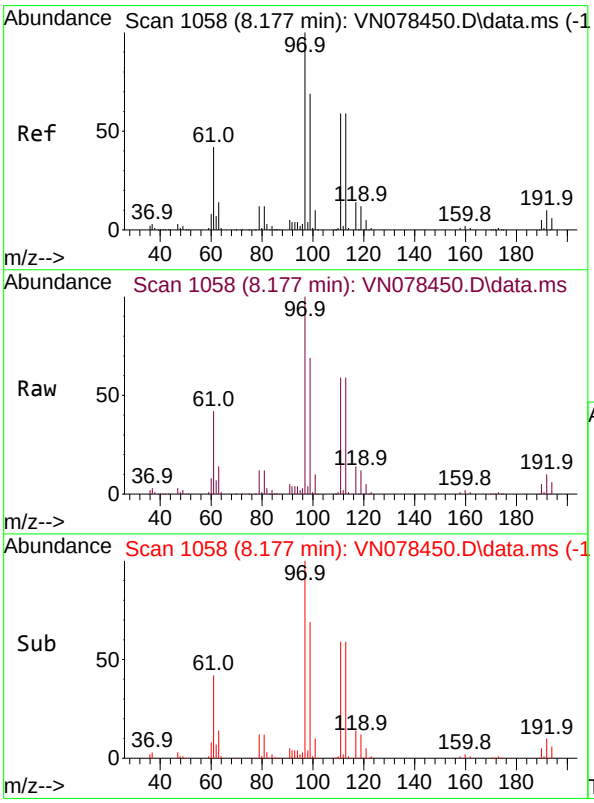
Ion	Ratio	Lower	Upper
56	100		
69	32.2	26.8	40.2
84	90.6	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

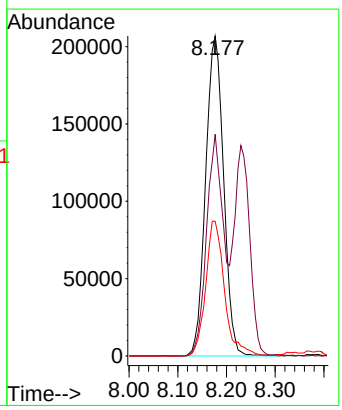
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

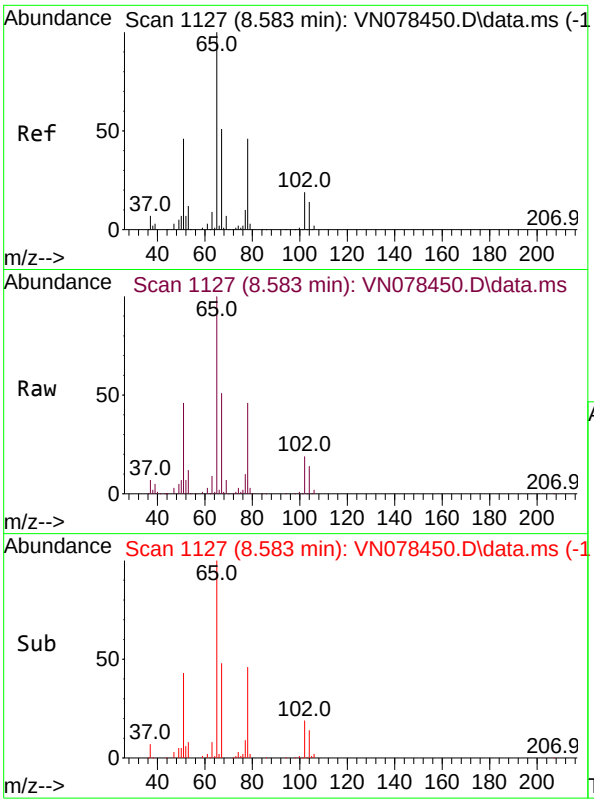


#32
1,1,1-Trichloroethane
Concen: 50.853 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 97 Resp: 528160

Ion	Ratio	Lower	Upper
97	100		
99	66.2	50.3	75.5
61	44.3	34.7	52.1

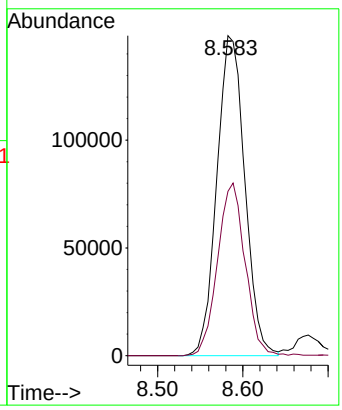




#33
1,2-Dichloroethane-d4
Concen: 49.392 ug/l
RT: 8.583 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 65 Resp: 33867

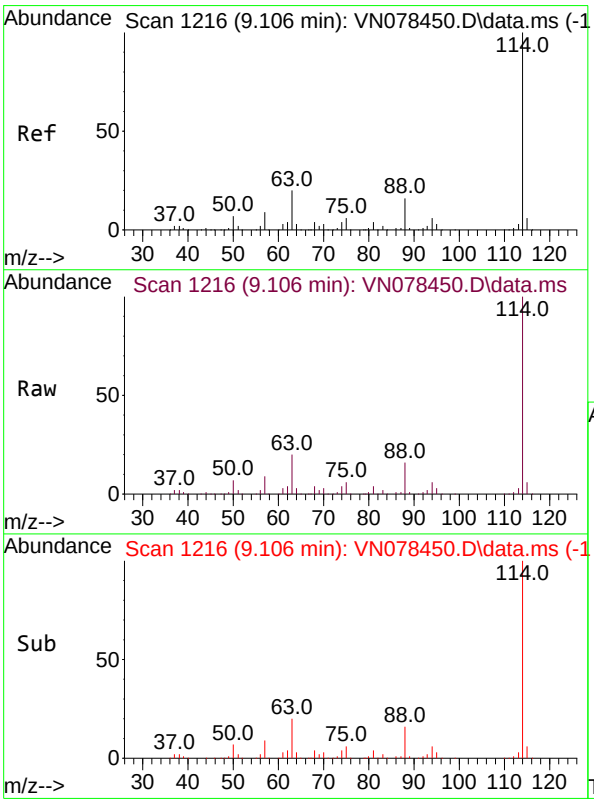
Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	106.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

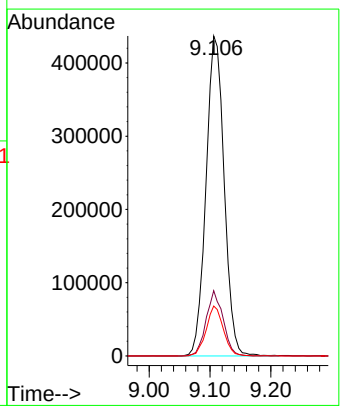
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

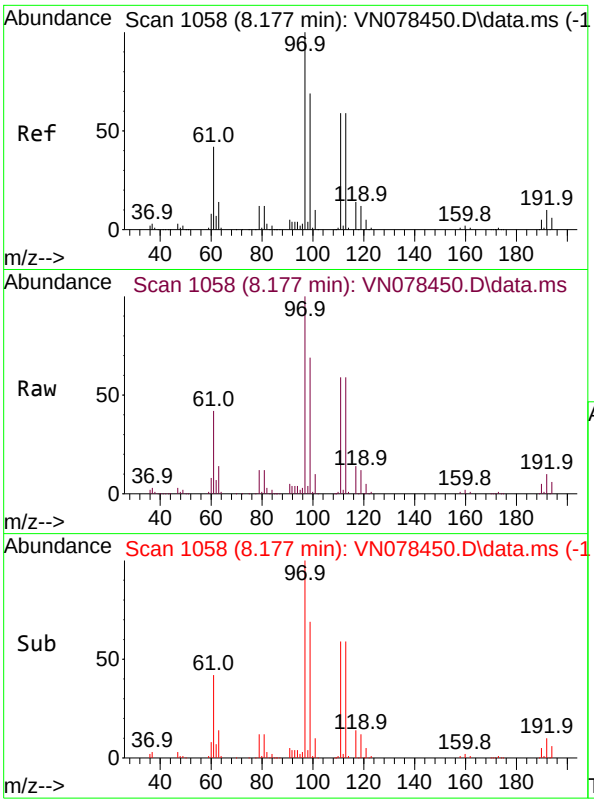


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:114 Resp: 903394

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	36.4
88	15.6	0.0	30.6

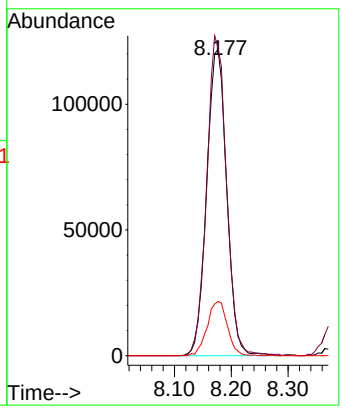




#35
Dibromofluoromethane
Concen: 48.706 ug/l
RT: 8.177 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:113 Resp: 29869

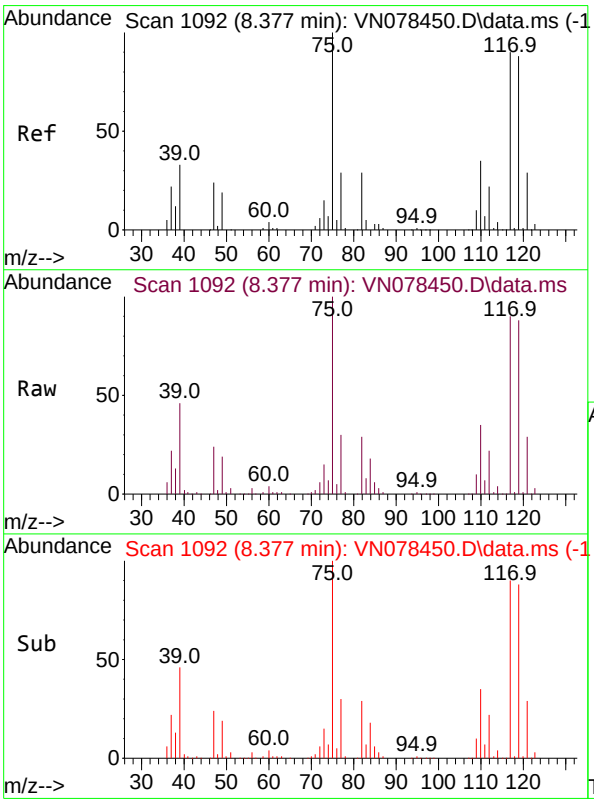
Ion	Ratio	Lower	Upper
113	100		
111	102.4	82.6	123.8
192	17.8	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

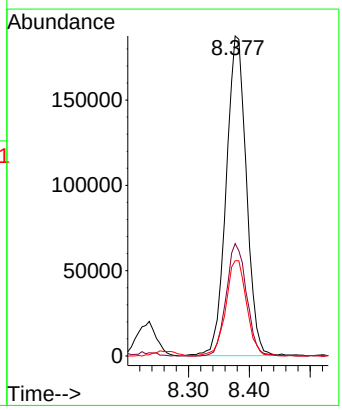
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

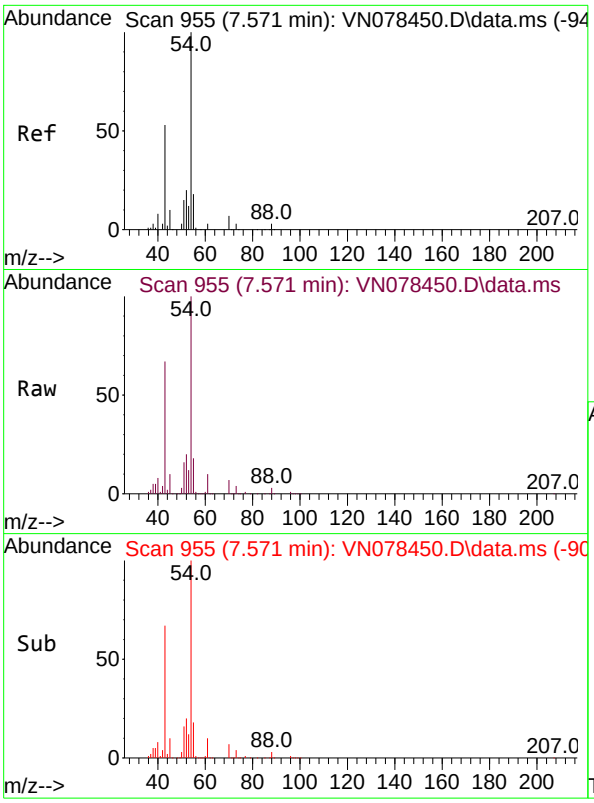


#36
1,1-Dichloropropene
Concen: 48.640 ug/l
RT: 8.377 min Scan# 1092
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 75 Resp: 430695

Ion	Ratio	Lower	Upper
75	100		
110	35.5	19.1	57.3
77	30.9	25.0	37.4

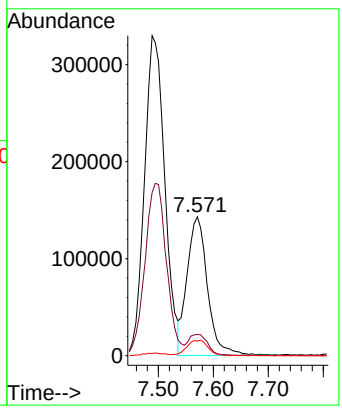




#37
Ethyl Acetate
Concen: 50.053 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 43 Resp: 36946

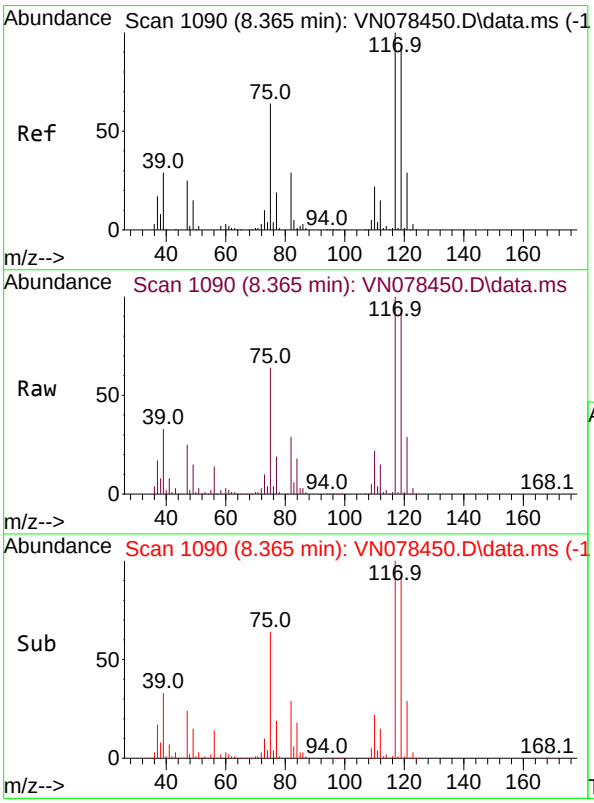
Ion	Ratio	Lower	Upper
43	100		
61	14.0	13.2	19.8
70	11.2	11.3	16.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

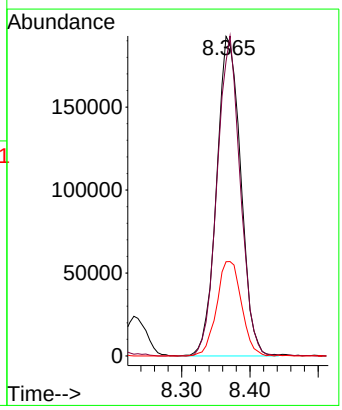
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

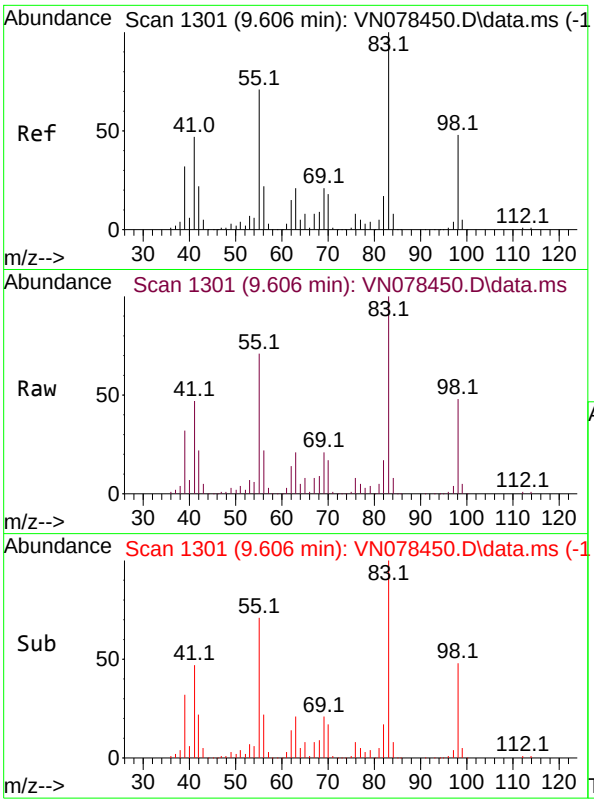


#38
Carbon Tetrachloride
Concen: 49.353 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:117 Resp: 474963

Ion	Ratio	Lower	Upper
117	100		
119	92.2	77.3	115.9
121	29.5	23.3	34.9





#39
Methylcyclohexane
Concen: 49.825 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

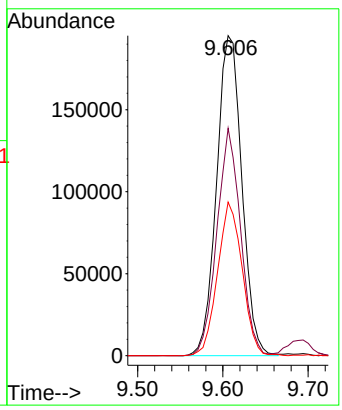
Tgt Ion: 83 Resp: 40271

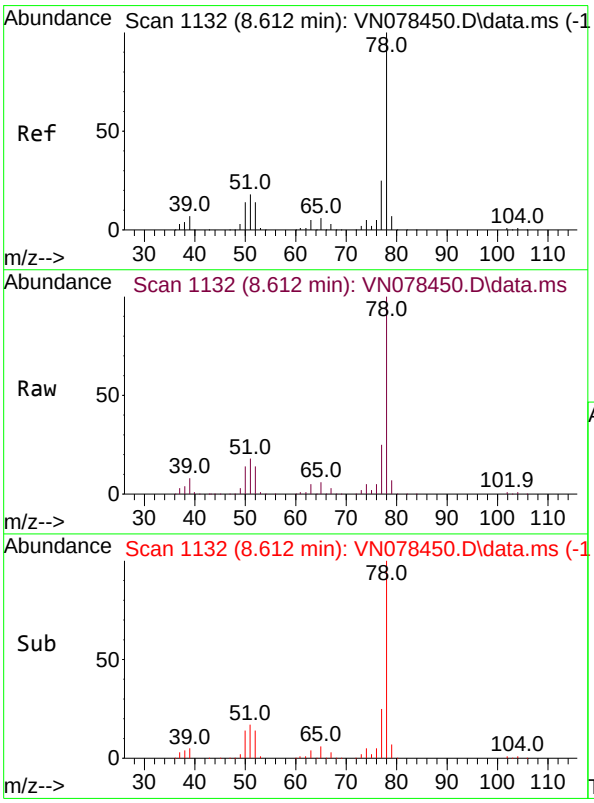
Ion	Ratio	Lower	Upper
83	100		
55	71.0	49.1	73.7
98	48.0	40.6	61.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

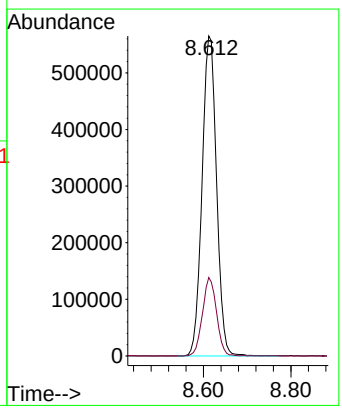


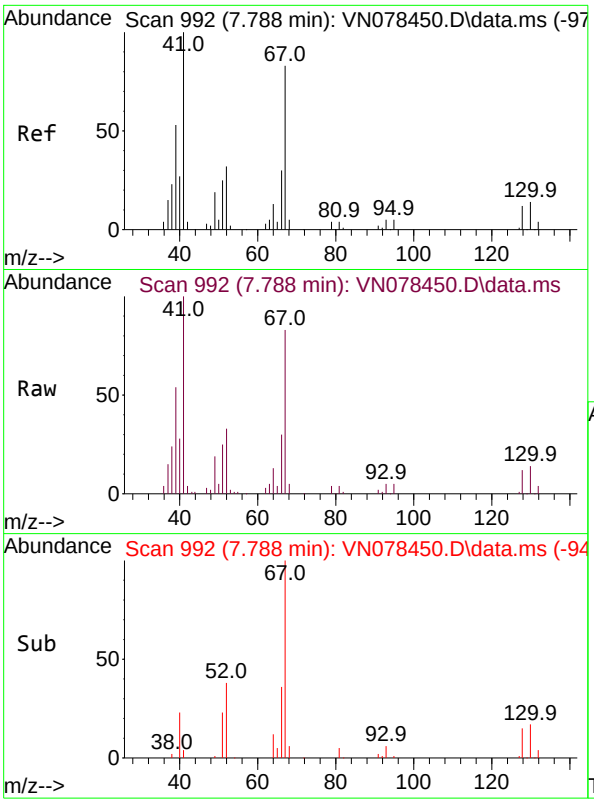


#40
Benzene
Concen: 49.690 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 78 Resp: 1303523

Ion	Ratio	Lower	Upper
78	100		
77	24.5	19.0	28.6

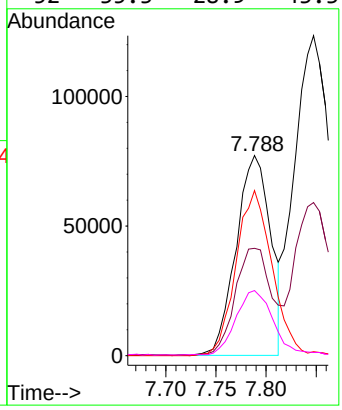




#41
Methacrylonitrile
Concen: 49.156 ug/l
RT: 7.788 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 41 Resp: 18497

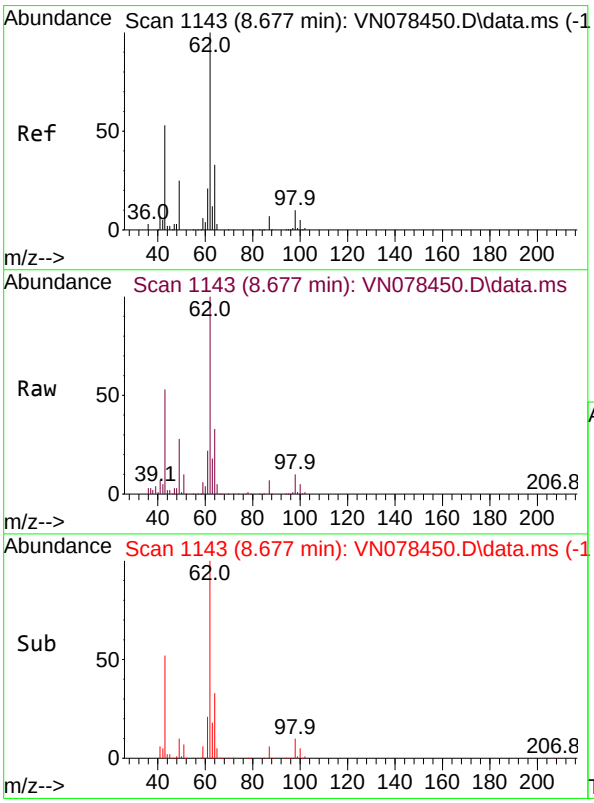
Ion	Ratio	Lower	Upper
41	100		
39	59.1	42.6	64.0
67	86.7	77.5	116.3
52	35.3	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

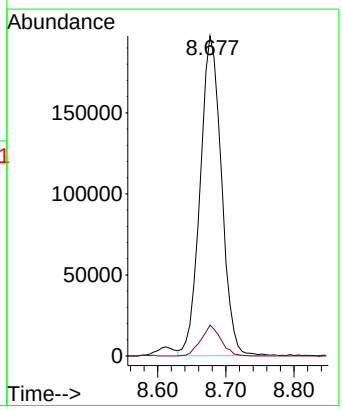
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

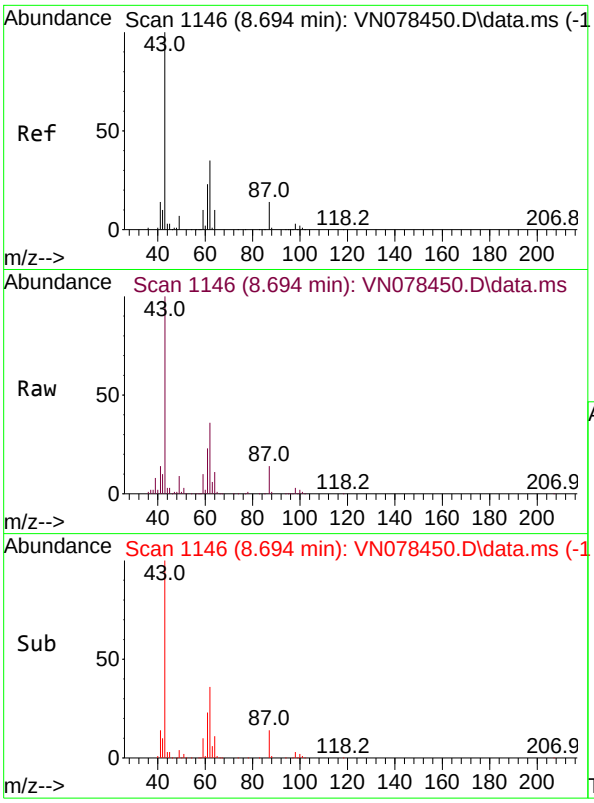


#42
1,2-Dichloroethane
Concen: 48.044 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 62 Resp: 428689

Ion	Ratio	Lower	Upper
62	100		
98	9.0	0.0	19.8





#43
Isopropyl Acetate
Concen: 50.167 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

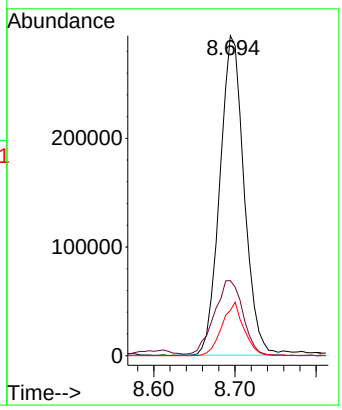
Tgt Ion: 43 Resp: 60966

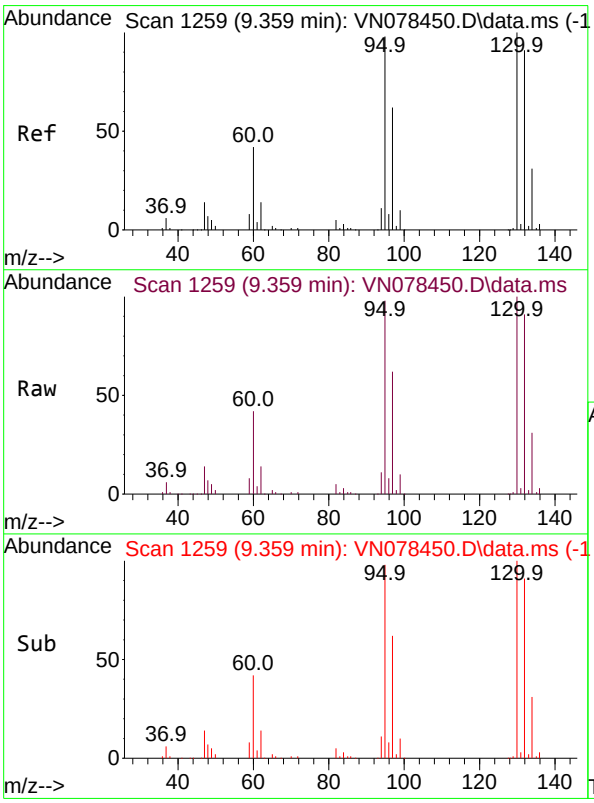
Ion	Ratio	Lower	Upper
43	100		
61	28.0	24.7	37.1
87	15.1	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

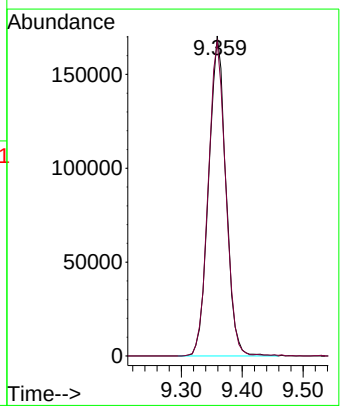


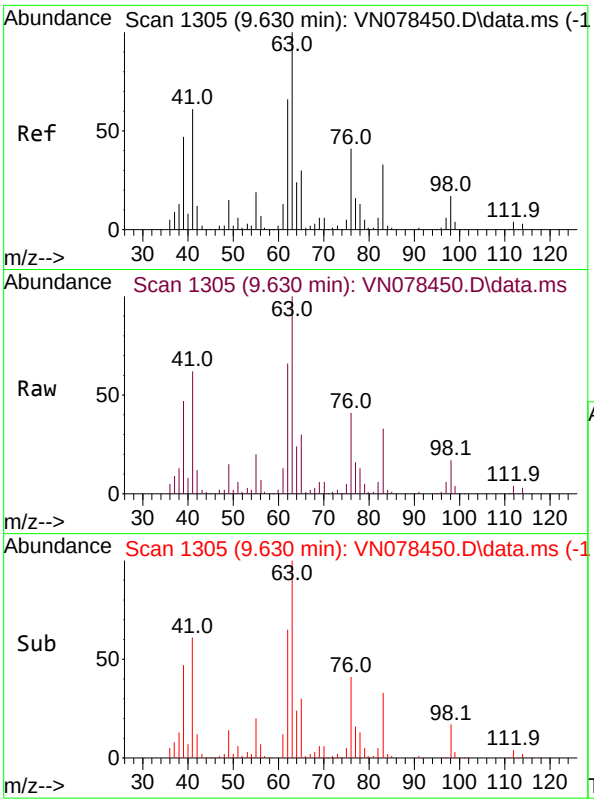


#44
Trichloroethene
Concen: 47.401 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:130 Resp: 335140

Ion	Ratio	Lower	Upper
130	100		
95	98.1	0.0	204.6

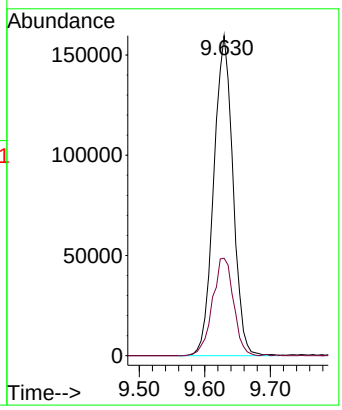




#45
1,2-Dichloropropane
Concen: 48.734 ug/l
RT: 9.630 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 63 Resp: 32379

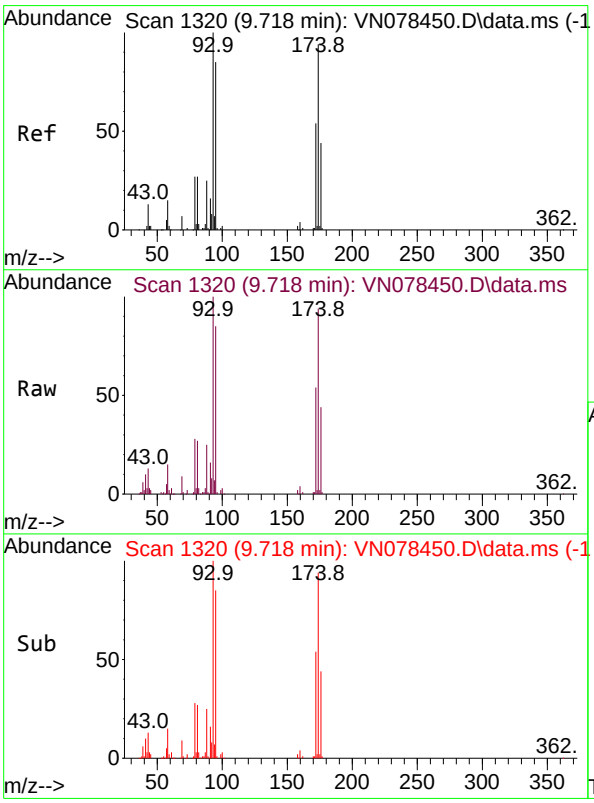
Ion	Ratio	Lower	Upper
63	100		
65	30.5	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

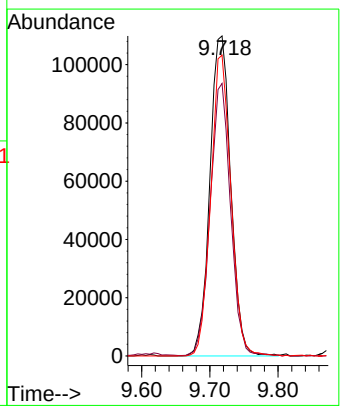
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

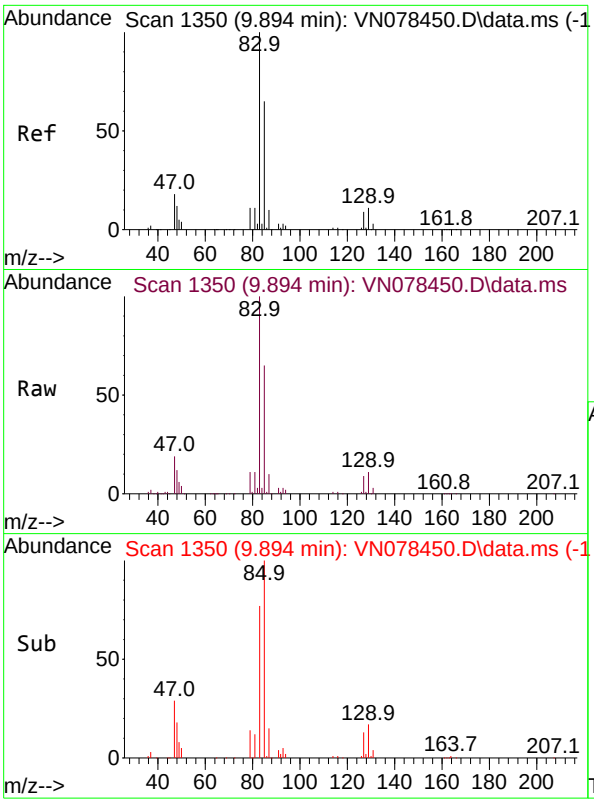


#46
Dibromomethane
Concen: 50.145 ug/l
RT: 9.718 min Scan# 1320
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 93 Resp: 234496

Ion	Ratio	Lower	Upper
93	100		
95	83.4	63.8	95.8
174	90.7	65.6	98.4

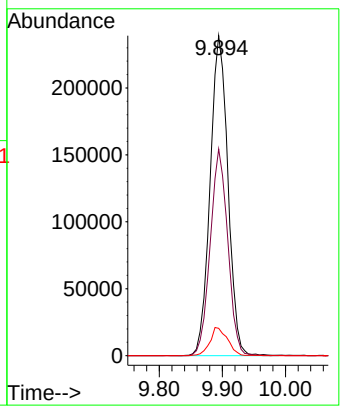




#47
Bromodichloromethane
Concen: 49.891 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 83 Resp: 46767

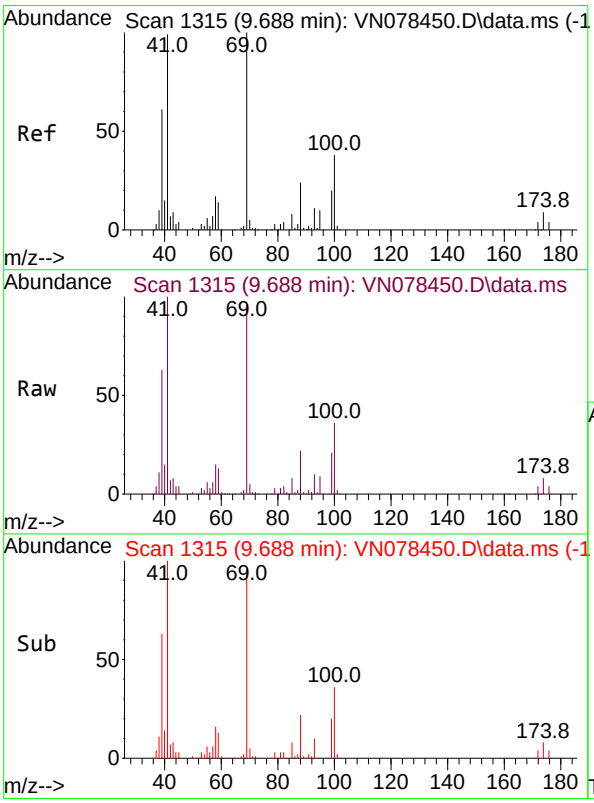
Ion	Ratio	Lower	Upper
83	100		
85	64.6	49.6	74.4
127	8.5	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

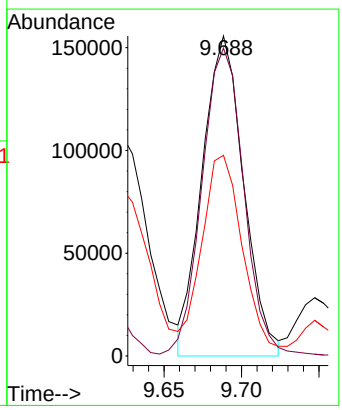
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

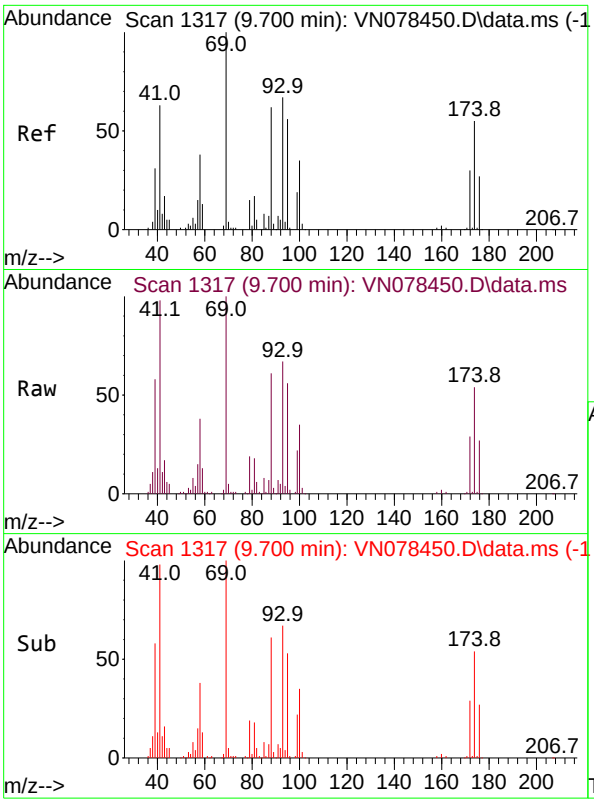


#48
Methyl methacrylate
Concen: 51.390 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 41 Resp: 289338

Ion	Ratio	Lower	Upper
41	100		
69	96.9	90.4	135.6
39	62.5	54.6	81.8





#49
1,4-Dioxane
Concen: 993.233 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

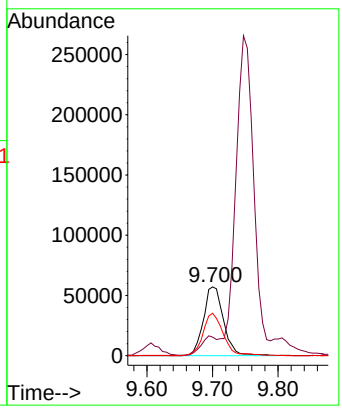
Tgt Ion: 88 Resp: 12195

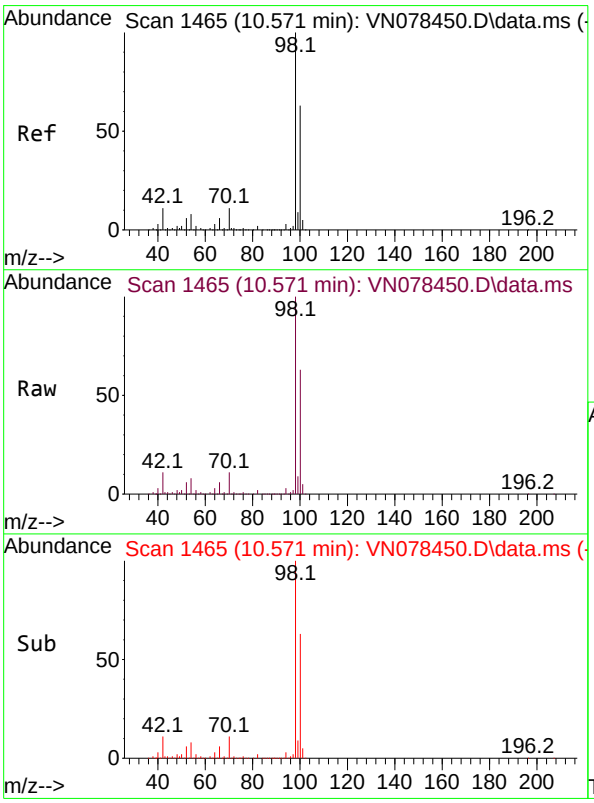
Ion	Ratio	Lower	Upper
88	100		
43	21.0	17.0	25.6
58	62.4	47.0	70.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

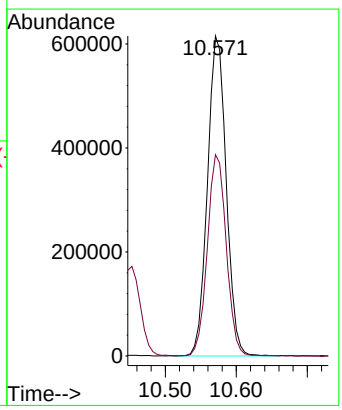


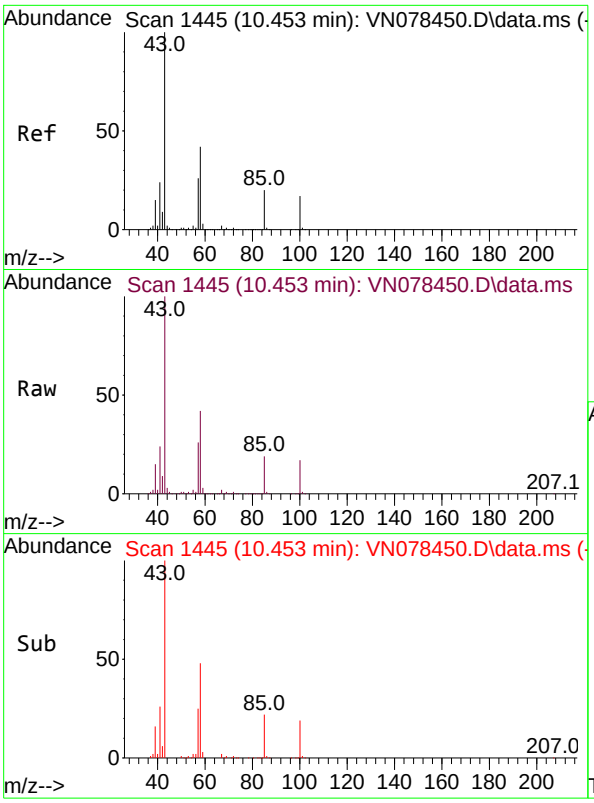


#50
Toluene-d8
Concen: 48.788 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 98 Resp: 1130269

Ion	Ratio	Lower	Upper
98	100		
100	63.5	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 256.271 ug/l
RT: 10.453 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

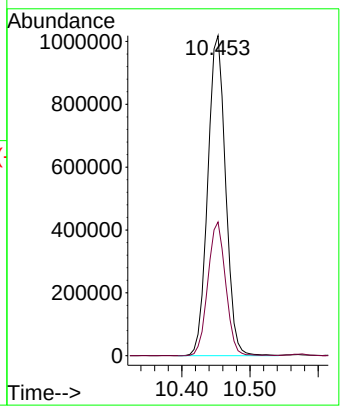
Tgt Ion: 43 Resp: 185247

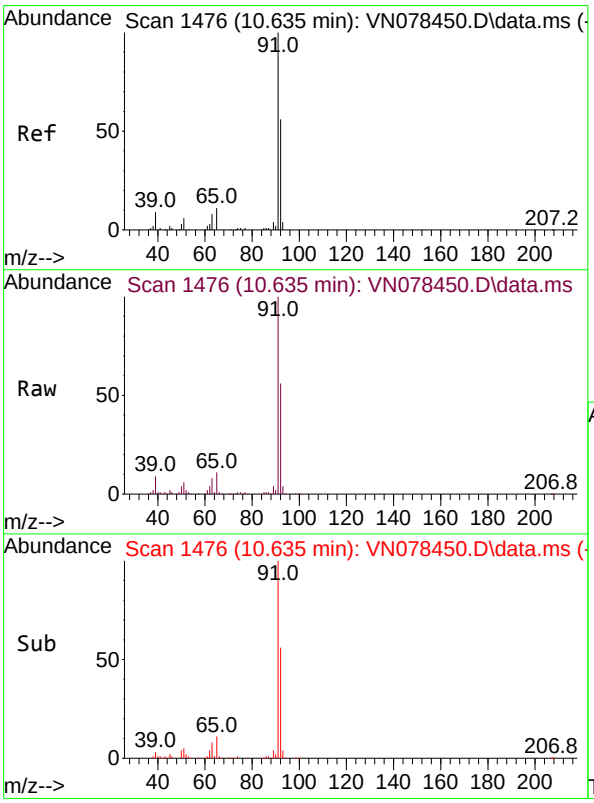
Ion	Ratio	Lower	Upper
43	100		
58	41.7	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

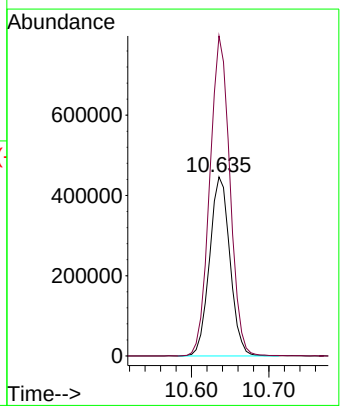


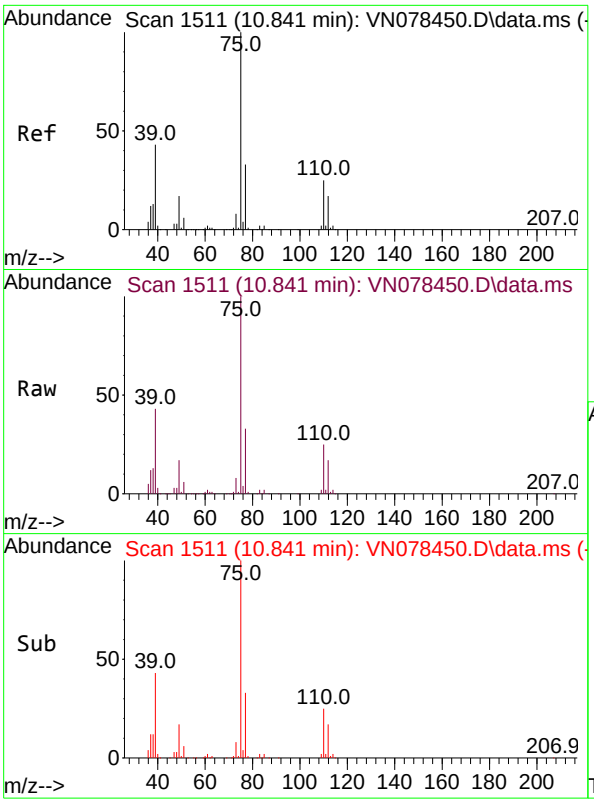


#52
Toluene
Concen: 50.115 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 92 Resp: 814804

Ion	Ratio	Lower	Upper
92	100		
91	177.2	137.4	206.0

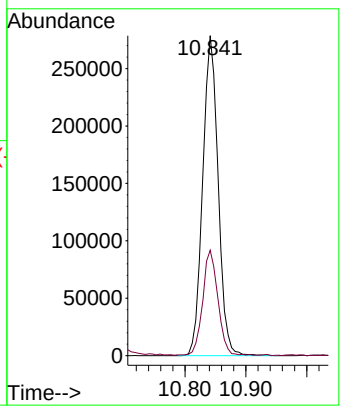




#53
t-1,3-Dichloropropene
Concen: 51.060 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 75 Resp: 49035

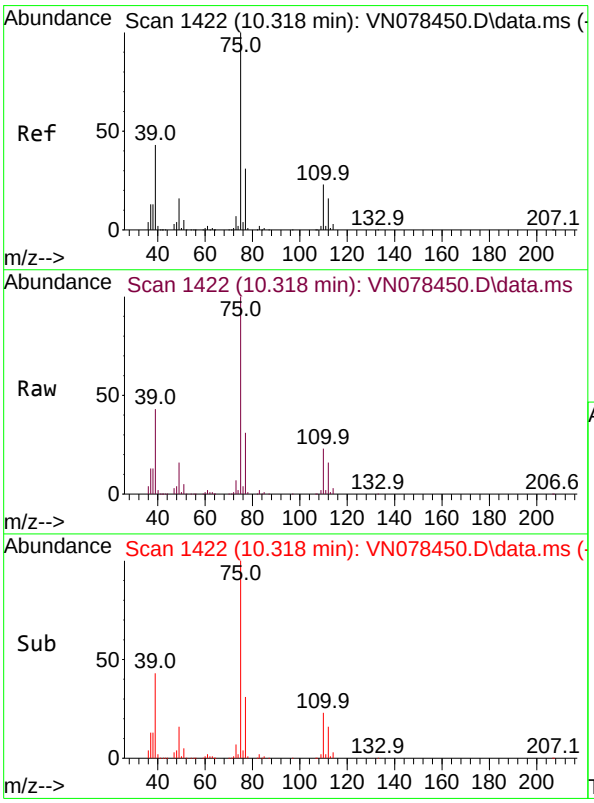
Ion	Ratio	Lower	Upper
75	100		
77	32.8	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

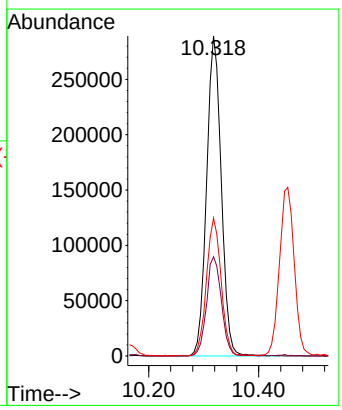
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

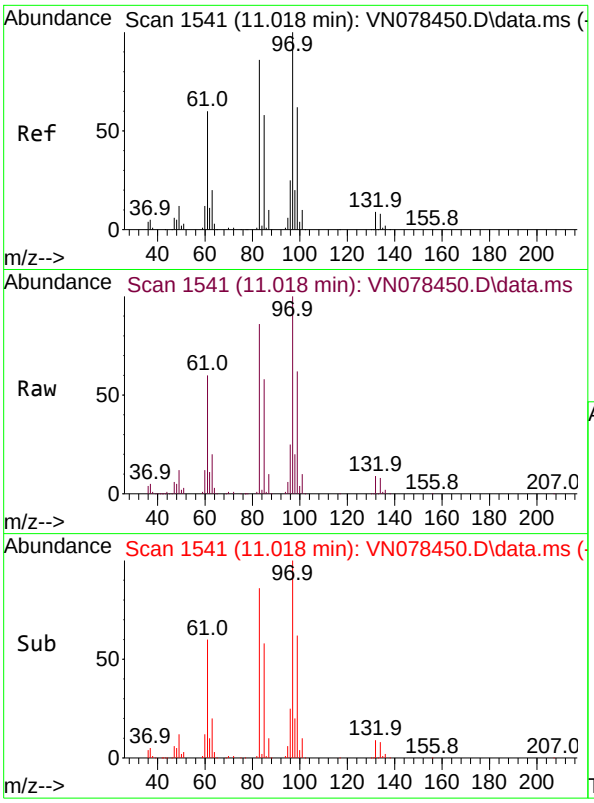


#54
cis-1,3-Dichloropropene
Concen: 52.134 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 75 Resp: 533674

Ion	Ratio	Lower	Upper
75	100		
77	31.0	26.1	39.1
39	43.0	31.6	47.4

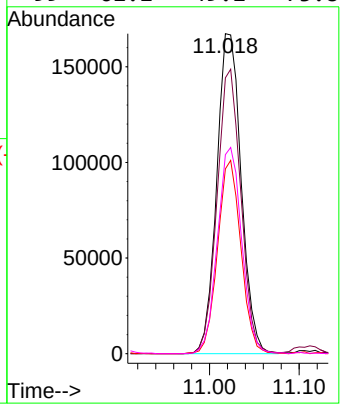




#55
1,1,2-Trichloroethane
Concen: 49.454 ug/l
RT: 11.018 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 97 Resp: 31679

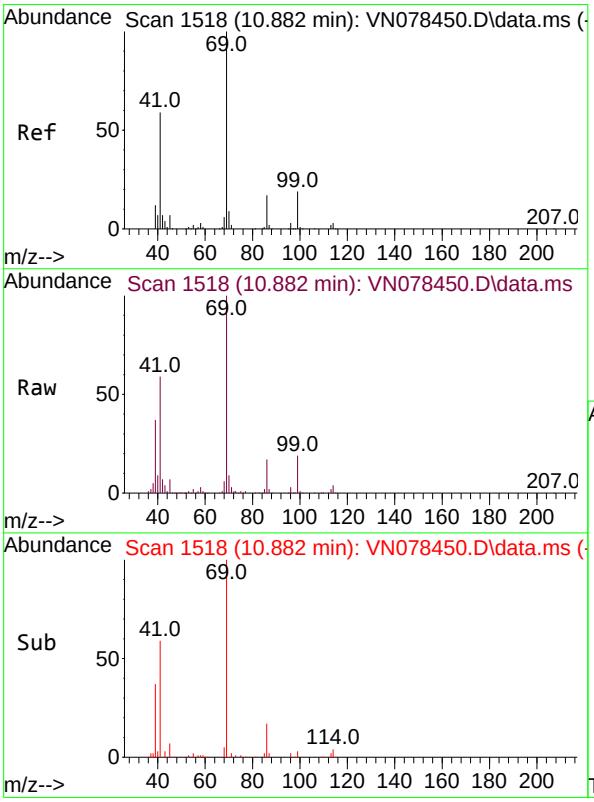
Ion	Ratio	Lower	Upper
97	100		
83	86.2	65.1	97.7
85	57.7	43.4	65.2
99	62.2	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

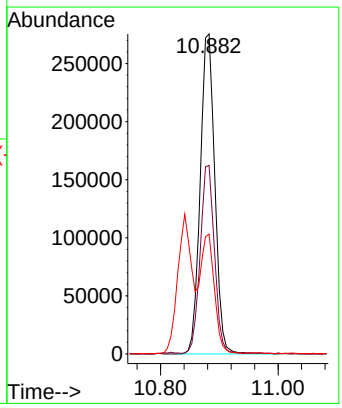
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

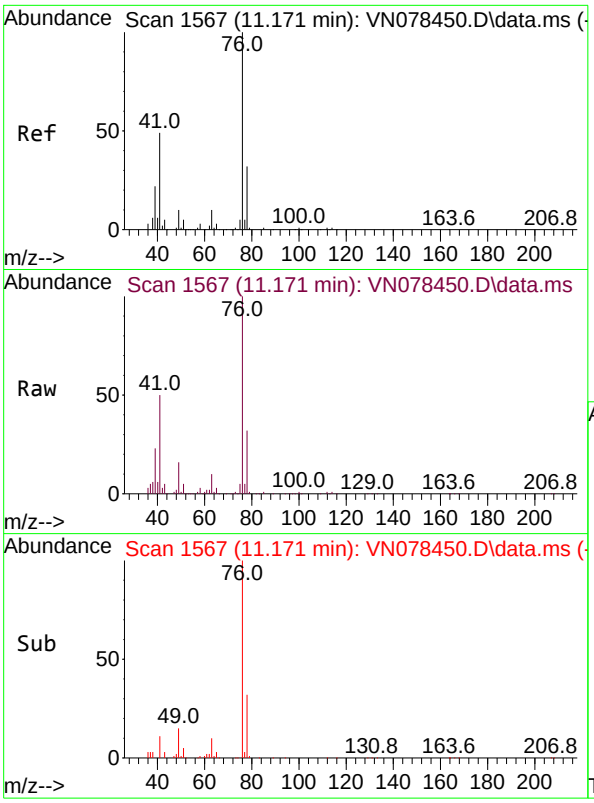


#56
Ethyl methacrylate
Concen: 53.191 ug/l
RT: 10.882 min Scan# 1518
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 69 Resp: 476305

Ion	Ratio	Lower	Upper
69	100		
41	57.4	39.6	59.4
39	36.4	28.6	43.0

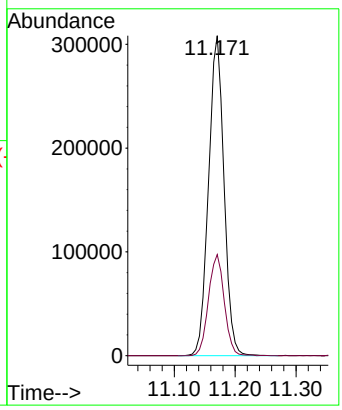




#57
1,3-Dichloropropane
Concen: 49.853 ug/l
RT: 11.171 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 76 Resp: 54299

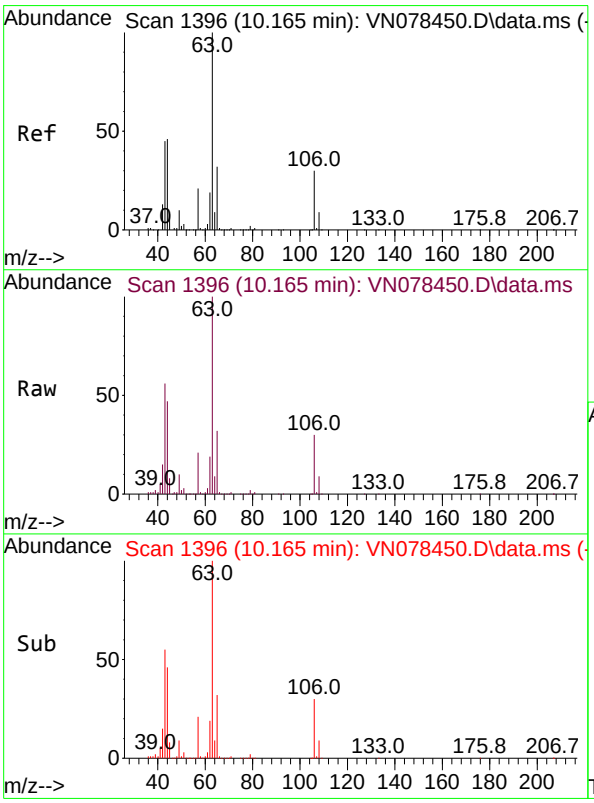
Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

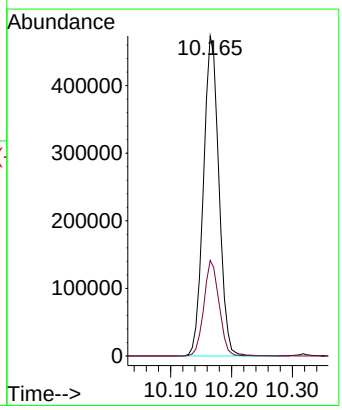
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

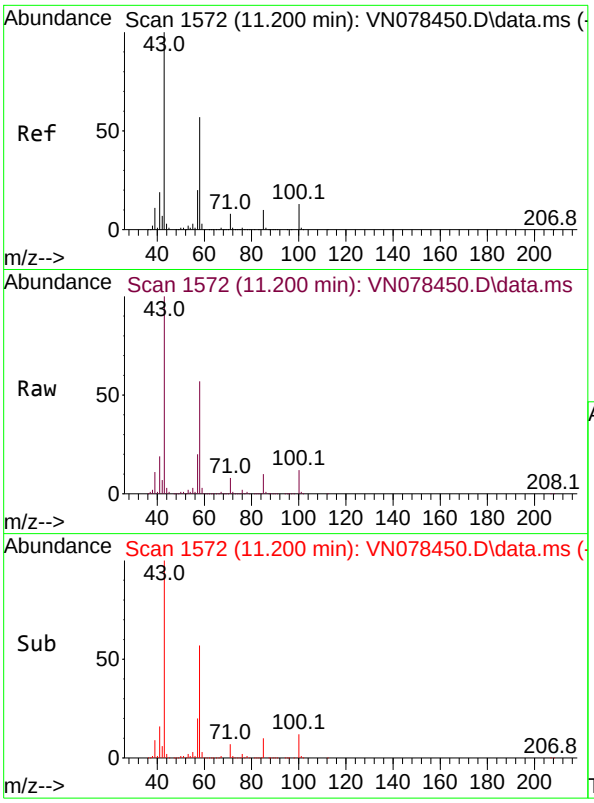


#58
2-Chloroethyl Vinyl ether
Concen: 261.951 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 63 Resp: 835934

Ion	Ratio	Lower	Upper
63	100		
106	29.2	26.2	39.4





#59
2-Hexanone
Concen: 261.771 ug/l
RT: 11.200 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

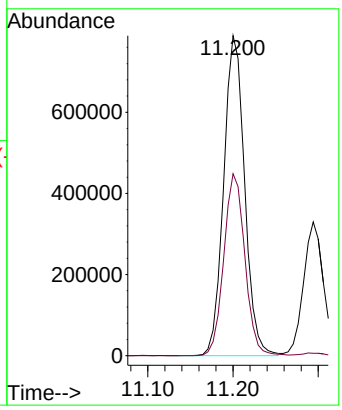
Tgt Ion: 43 Resp: 134483

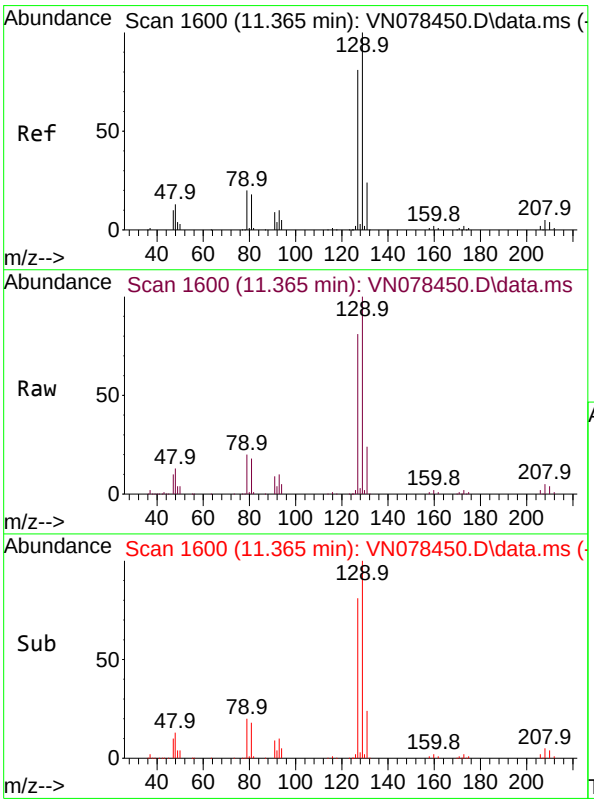
Ion	Ratio	Lower	Upper
43	100		
58	57.3	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

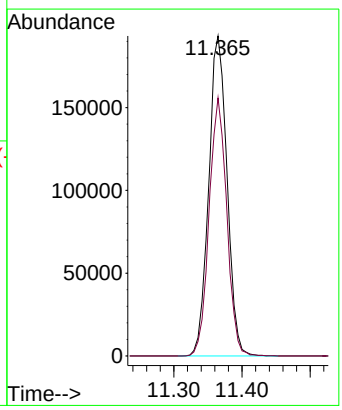


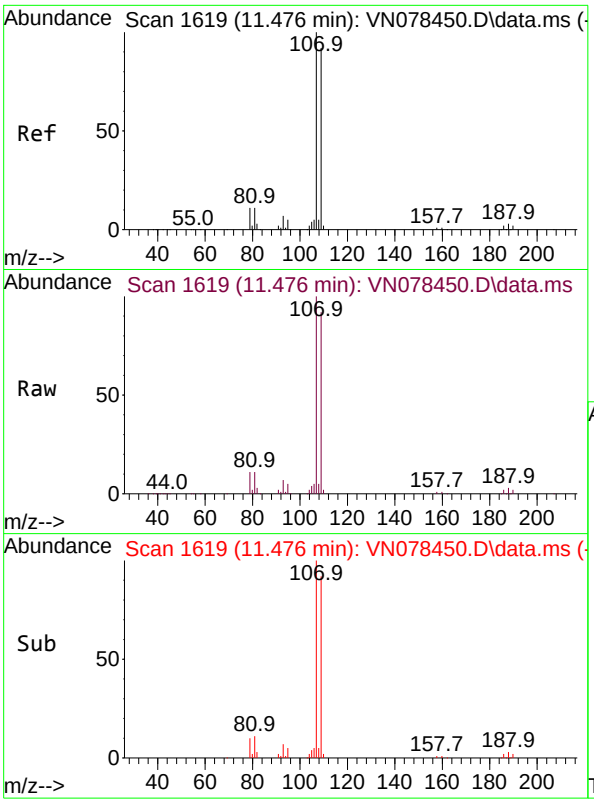


#60
Dibromochloromethane
Concen: 51.179 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:129 Resp: 361937

Ion	Ratio	Lower	Upper
129	100		
127	77.8	38.6	116.0





#61
1,2-Dibromoethane
Concen: 50.336 ug/l
RT: 11.476 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

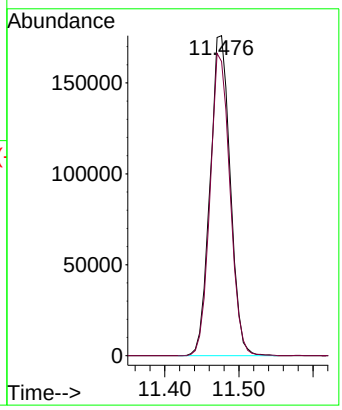
Tgt Ion:107 Resp: 33216

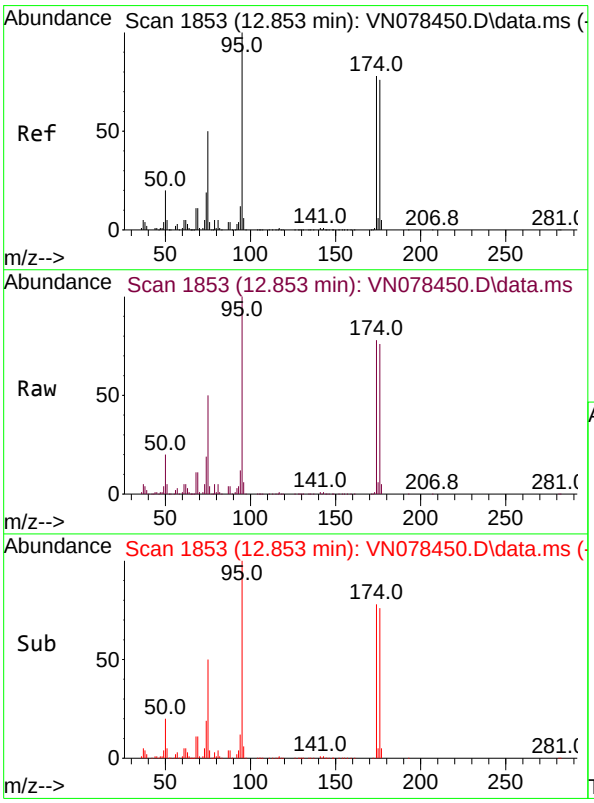
Ion	Ratio	Lower	Upper
107	100		
109	93.1	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

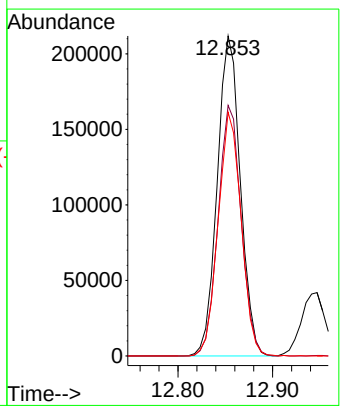


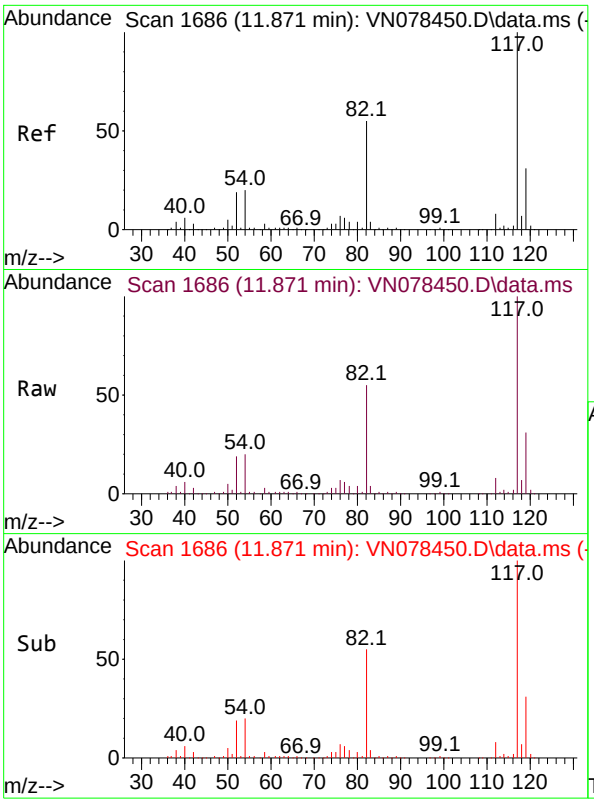


#62
4-Bromofluorobenzene
Concen: 50.296 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 95 Resp: 358906

Ion	Ratio	Lower	Upper
95	100		
174	78.2	0.0	143.8
176	75.9	0.0	135.8

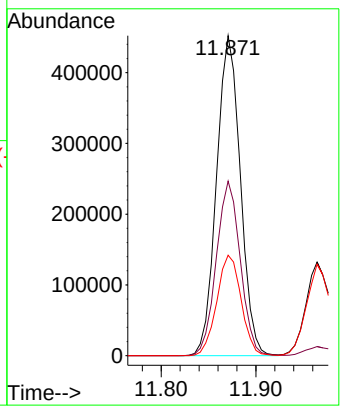




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:117 Resp: 79164

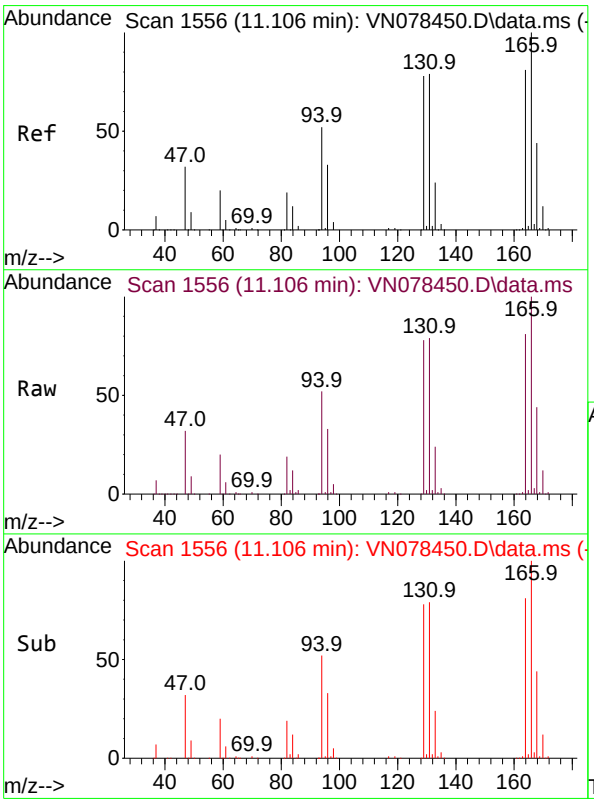
Ion	Ratio	Lower	Upper
117	100		
82	54.5	44.0	66.0
119	31.4	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

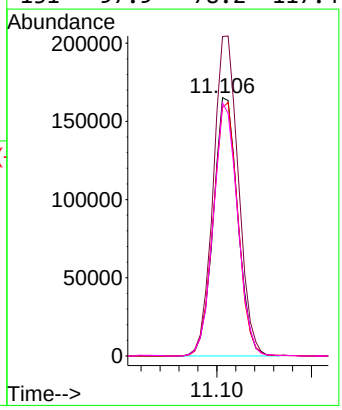
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

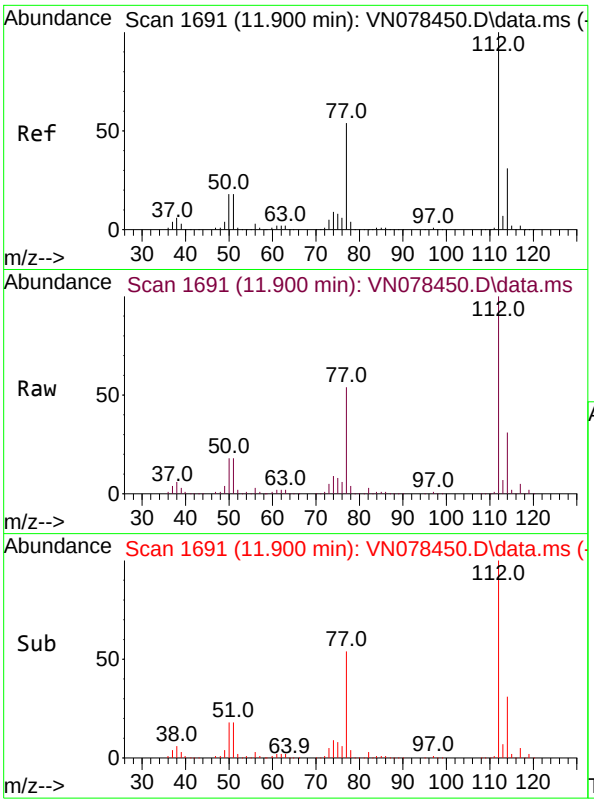


#64
Tetrachloroethene
Concen: 49.646 ug/l
RT: 11.106 min Scan# 1556
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:164 Resp: 295482

Ion	Ratio	Lower	Upper
164	100		
166	123.6	101.4	152.0
129	96.2	82.4	123.6
131	97.9	78.2	117.4

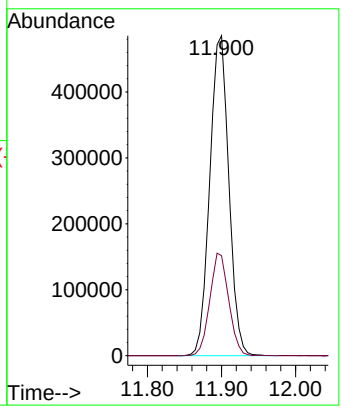




#65
Chlorobenzene
Concen: 48.995 ug/l
RT: 11.900 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:112 Resp: 86697

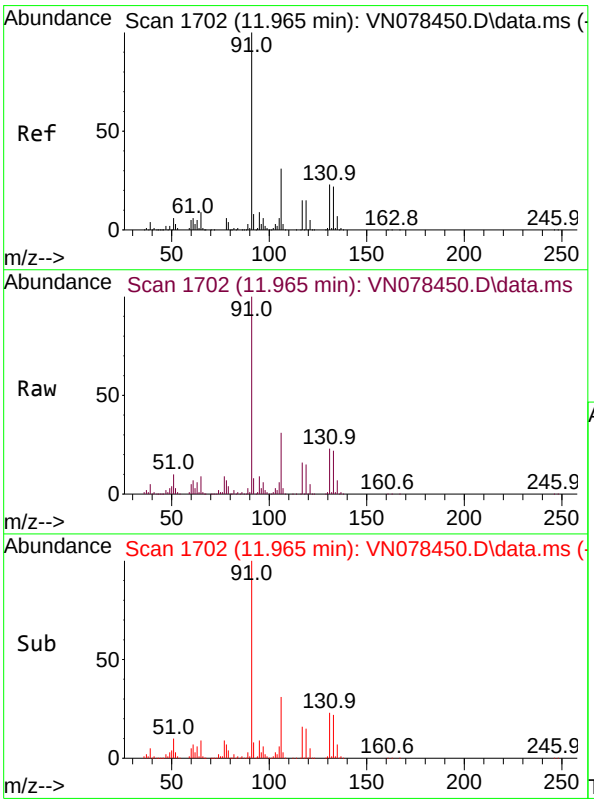
Ion	Ratio	Lower	Upper
112	100		
114	31.2	25.0	37.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

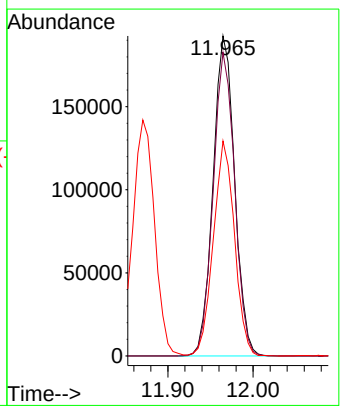
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

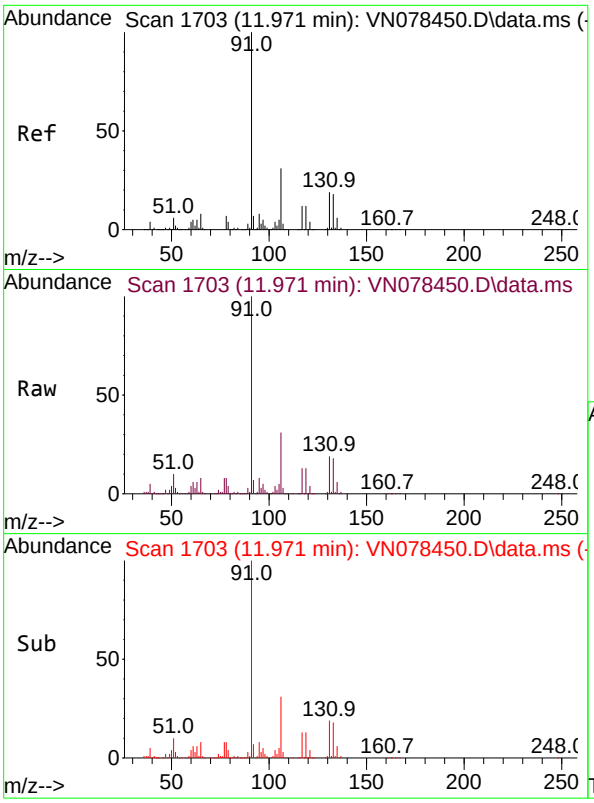


#66
1,1,1,2-Tetrachloroethane
Concen: 49.815 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:131 Resp: 339102

Ion	Ratio	Lower	Upper
131	100		
133	94.4	46.4	139.1
119	65.8	34.1	102.2

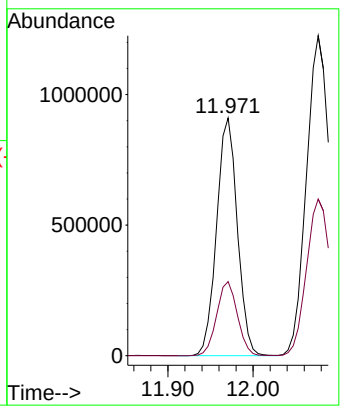




#67
Ethyl Benzene
Concen: 51.469 ug/l
RT: 11.971 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 91 Resp: 153946

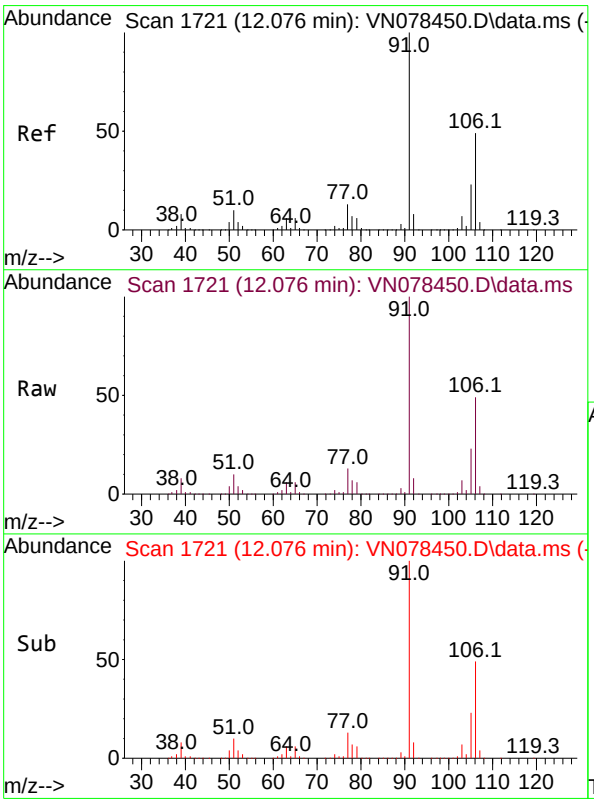
Ion	Ratio	Lower	Upper
91	100		
106	31.1	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

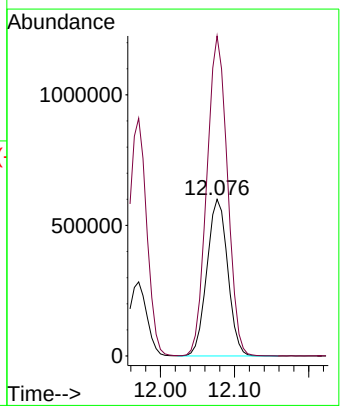
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

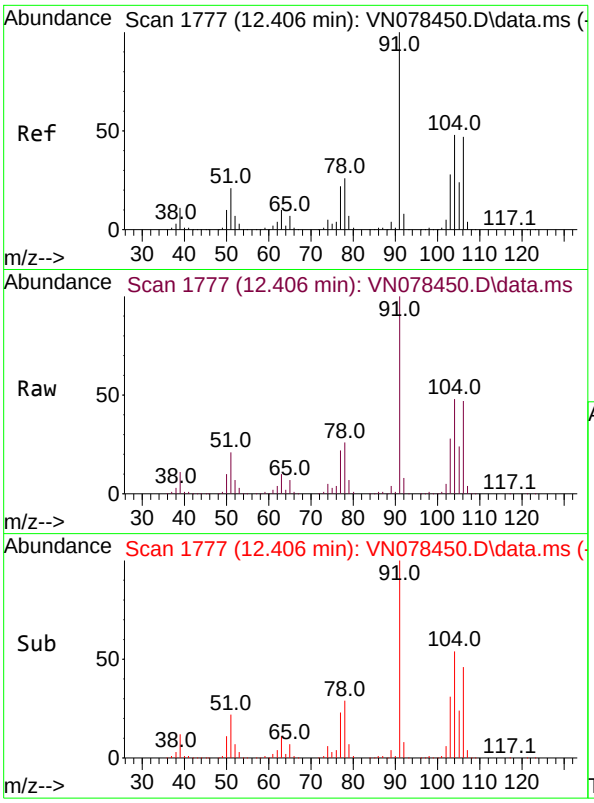


#68
m/p-Xylenes
Concen: 105.581 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:106 Resp: 1167599

Ion	Ratio	Lower	Upper
106	100		
91	202.7	159.6	239.4





#69
o-Xylene
Concen: 50.921 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

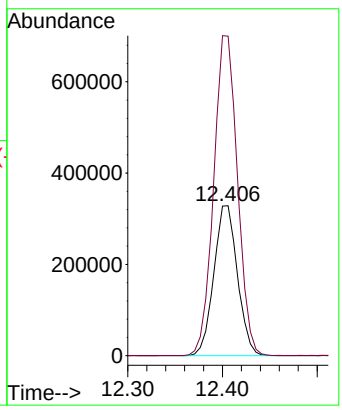
Tgt Ion:106 Resp: 56879

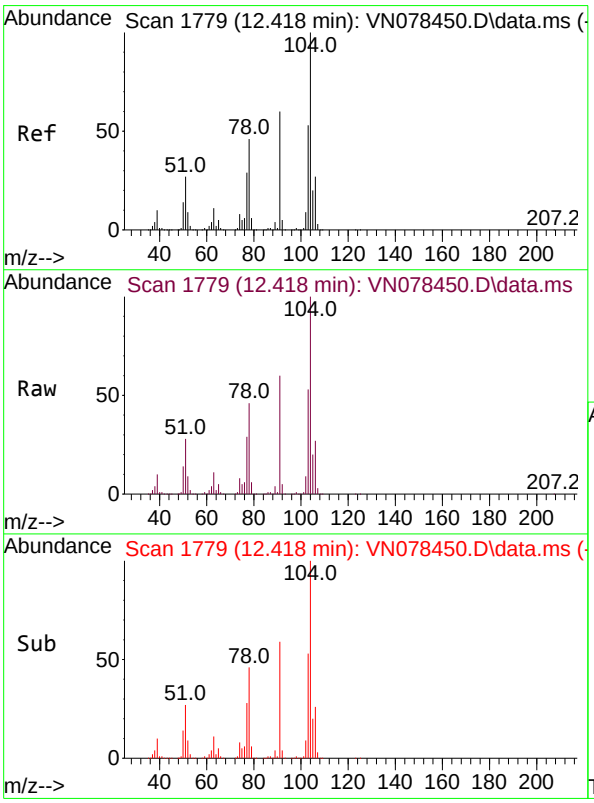
Ion	Ratio	Lower	Upper
106	100		
91	215.7	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

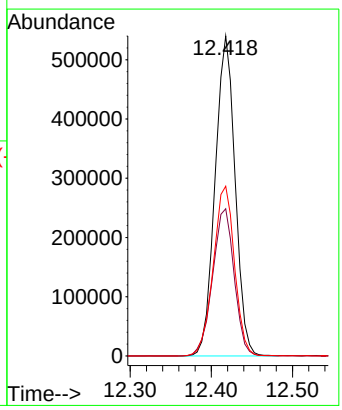


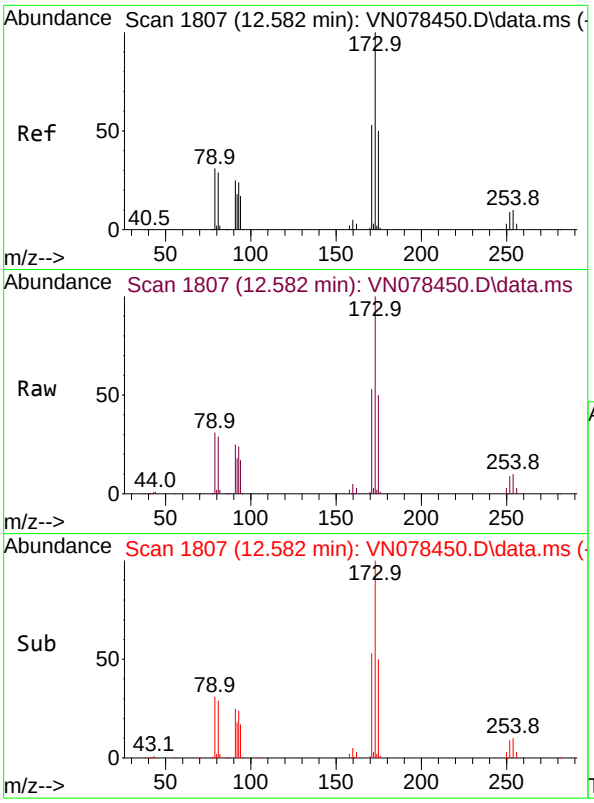


#70
Styrene
Concen: 53.009 ug/l
RT: 12.418 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:104 Resp: 926334

Ion	Ratio	Lower	Upper
104	100		
78	49.6	39.5	59.3
103	56.4	43.2	64.8

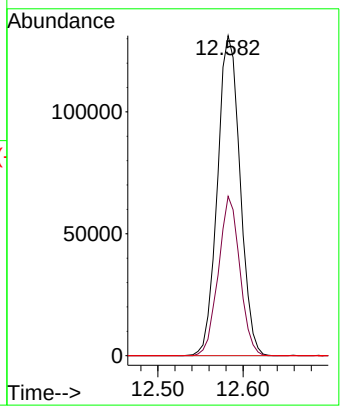




#71
Bromoform
Concen: 52.464 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:173 Resp: 24187

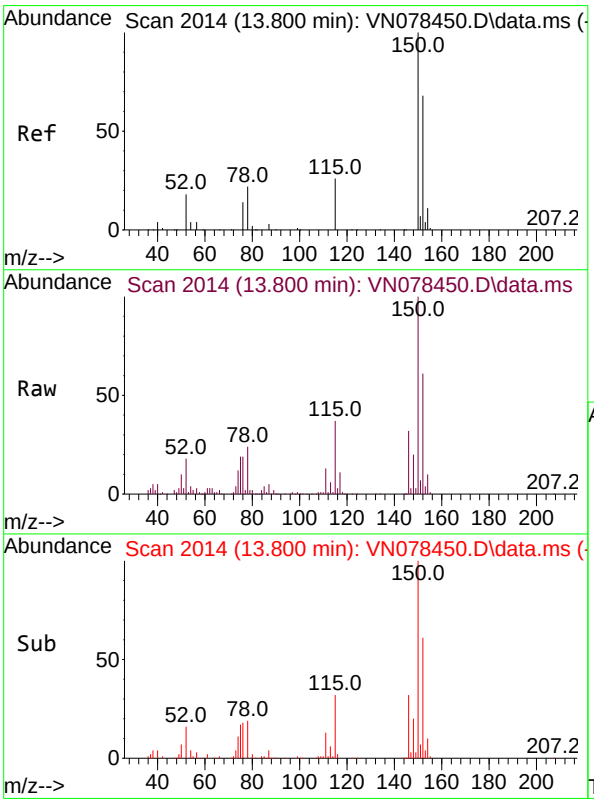
Ion	Ratio	Lower	Upper
173	100		
175	47.2	24.3	73.0
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

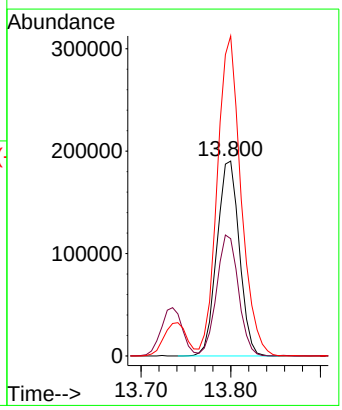
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

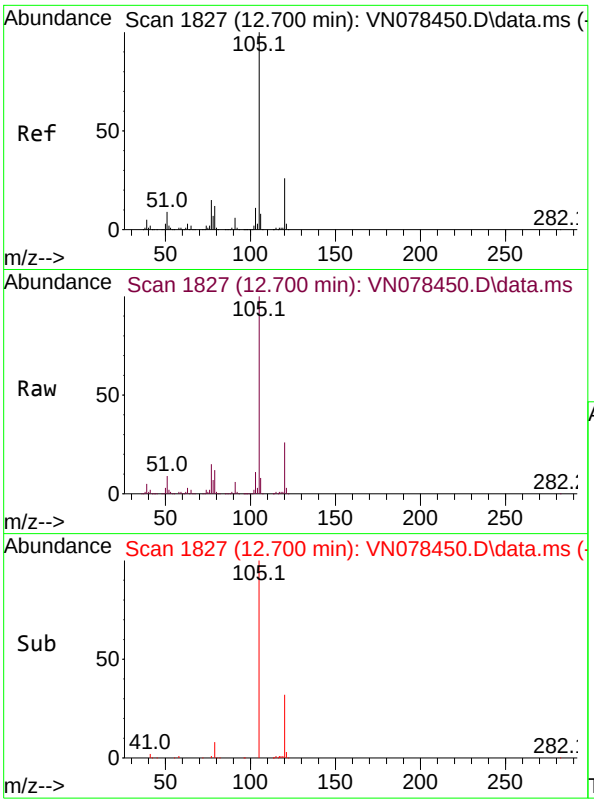


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:152 Resp: 329469

Ion	Ratio	Lower	Upper
152	100		
115	60.4	32.3	96.8
150	173.4	0.0	355.8





#73
Isopropylbenzene
Concen: 46.181 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

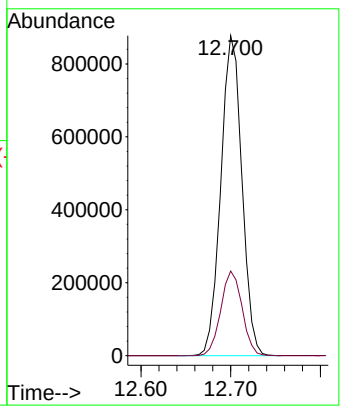
Tgt Ion:105 Resp: 142969

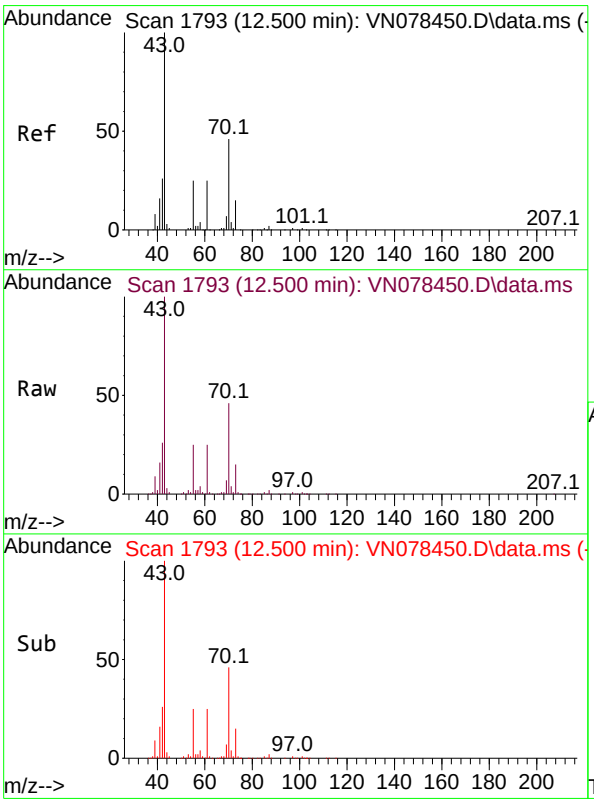
Ion	Ratio	Lower	Upper
105	100		
120	26.7	13.1	39.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

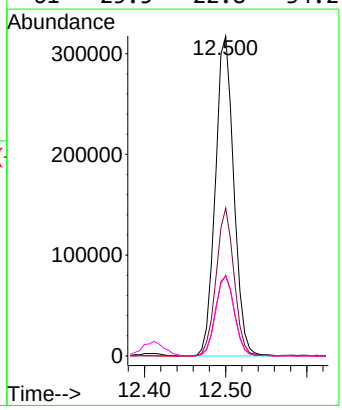


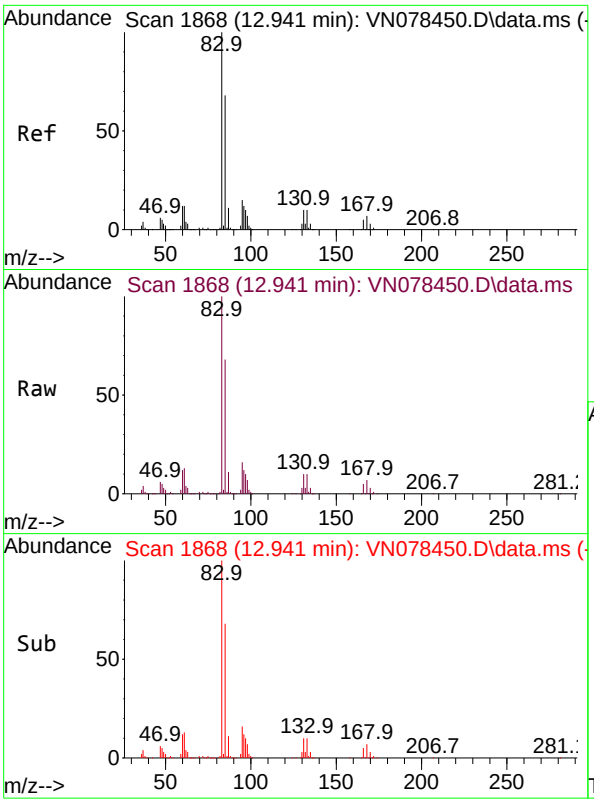


#74
N-amyl acetate
Concen: 47.043 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 43 Resp: 501898

Ion	Ratio	Lower	Upper
43	100		
70	45.0	43.4	65.2
55	25.8	21.4	32.0
61	25.5	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 52.351 ug/l
RT: 12.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

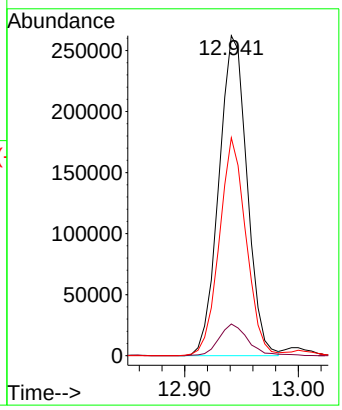
Tgt Ion: 83 Resp: 45141

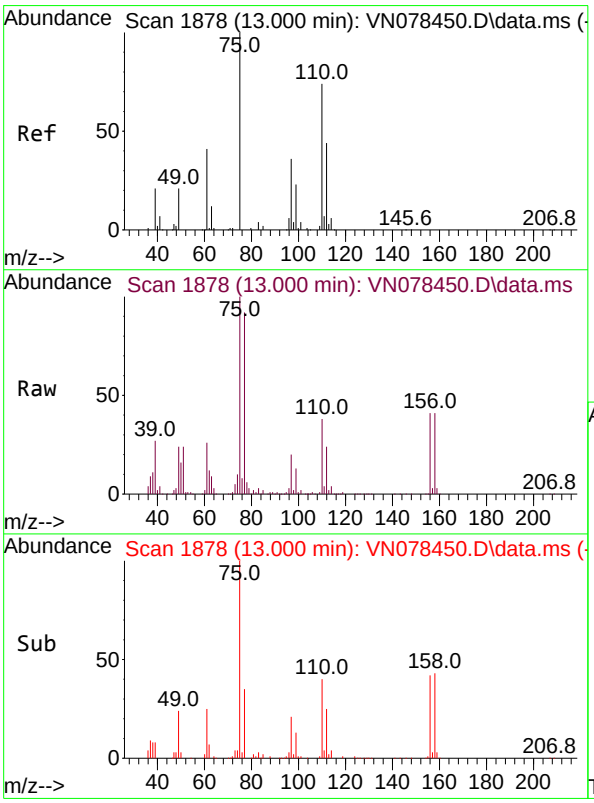
Ion	Ratio	Lower	Upper
83	100		
131	10.2	5.0	15.0
85	64.7	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

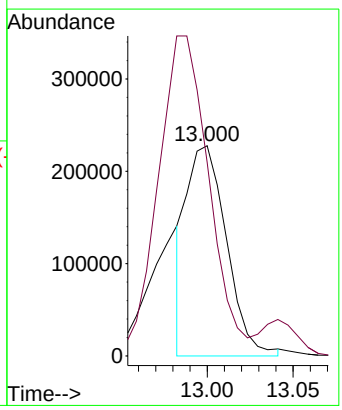


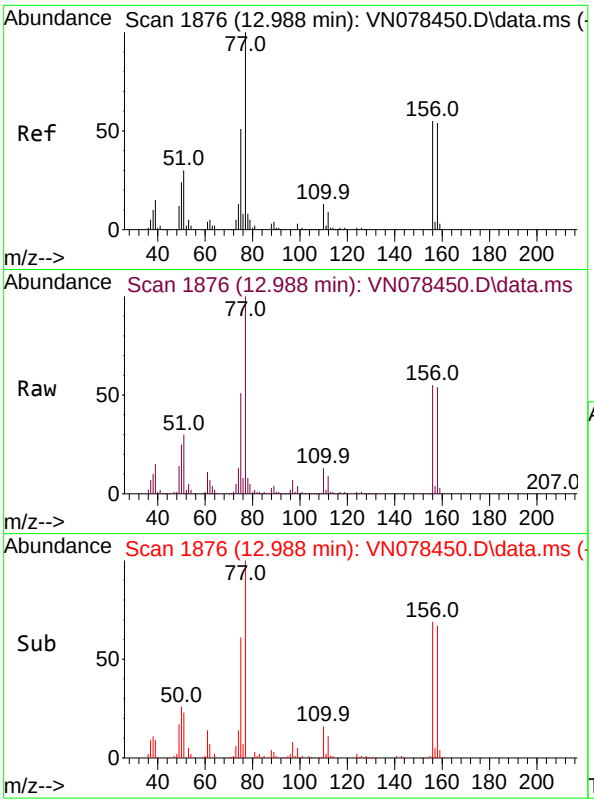


#76
1,2,3-Trichloropropane
Concen: 46.134 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 75 Resp: 366977

Ion	Ratio	Lower	Upper
75	100		
77	193.8	84.5	253.5





#77
Bromobenzene
Concen: 50.662 ug/l
RT: 12.988 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

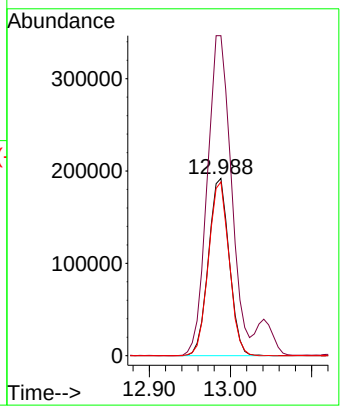
Tgt Ion:156 Resp: 34093

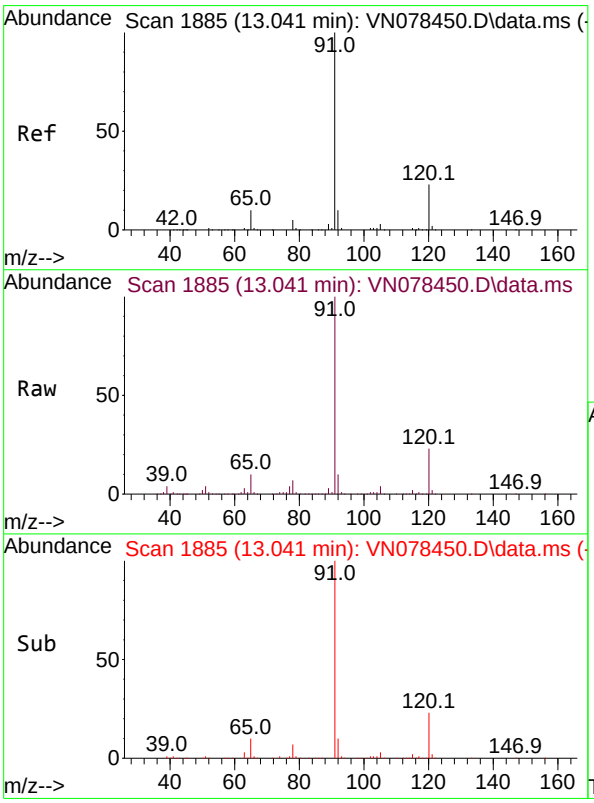
Ion	Ratio	Lower	Upper
156	100		
77	208.6	107.7	323.3
158	97.3	48.4	145.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

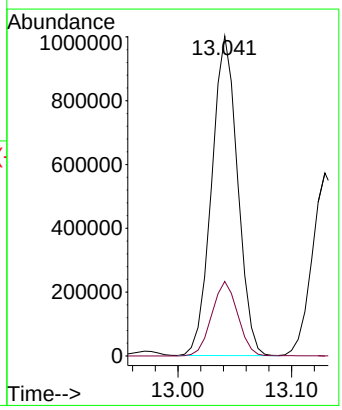


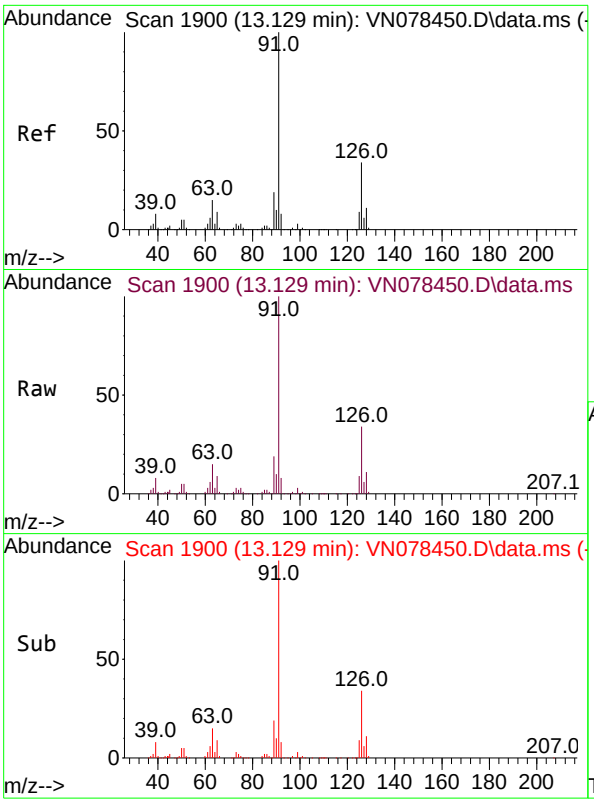


#78
n-propylbenzene
Concen: 48.003 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 91 Resp: 1589295

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.5	34.4





#79
2-Chlorotoluene
Concen: 45.832 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

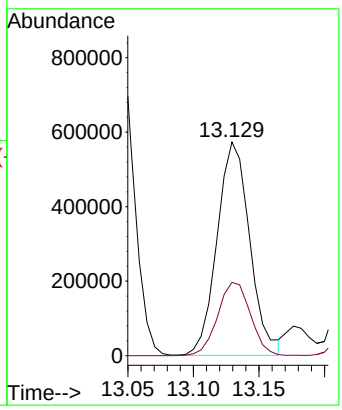
Tgt Ion: 91 Resp: 99393

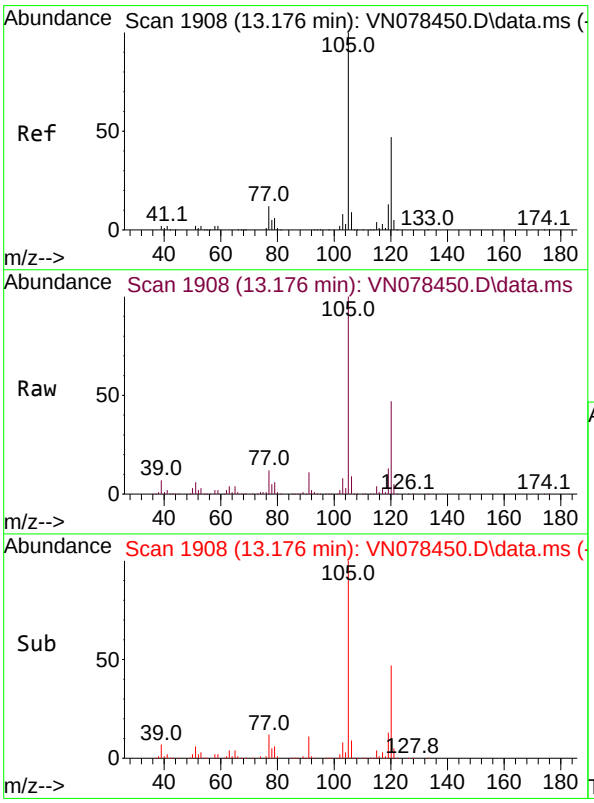
Ion	Ratio	Lower	Upper
91	100		
126	34.6	16.3	48.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

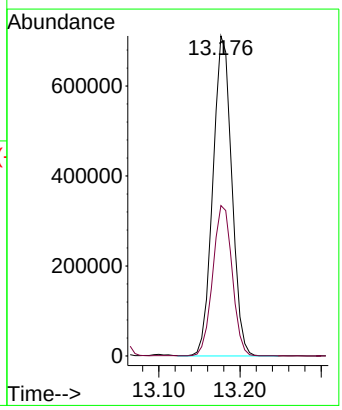


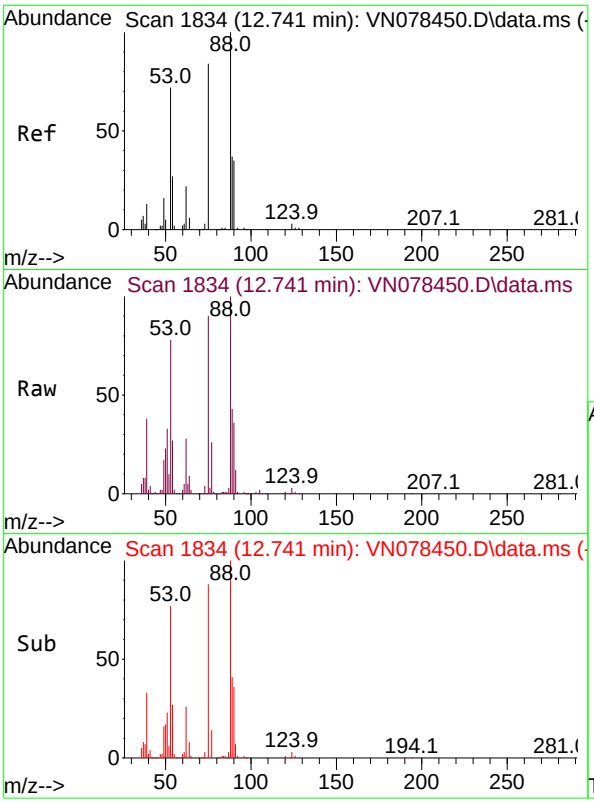


#80
1,3,5-Trimethylbenzene
Concen: 46.955 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:105 Resp: 1148553

Ion	Ratio	Lower	Upper
105	100		
120	48.4	24.1	72.3

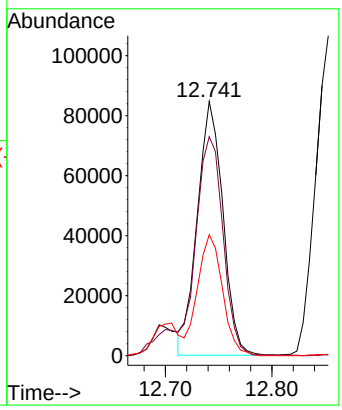




#81
trans-1,4-Dichloro-2-butene
Concen: 46.712 ug/l
RT: 12.741 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 75 Resp: 14156

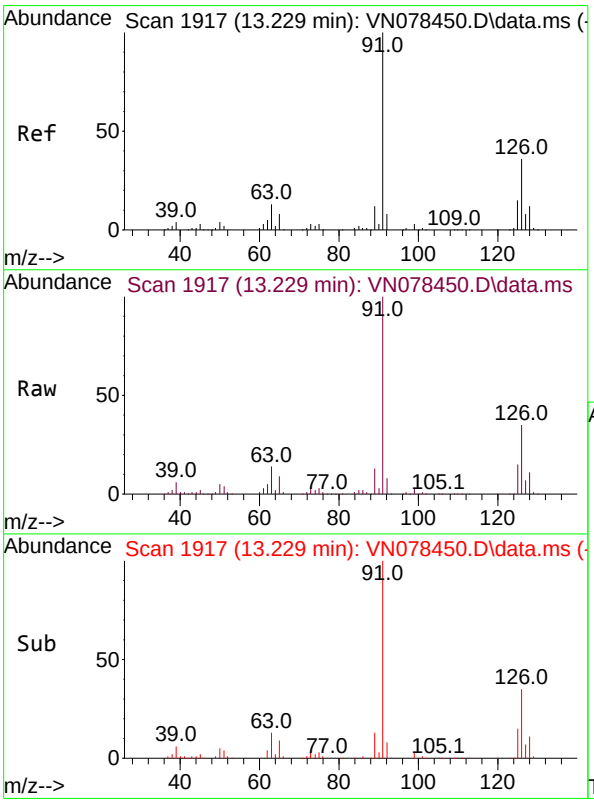
Ion	Ratio	Lower	Upper
75	100		
53	101.1	67.4	101.2
89	46.1	38.8	58.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

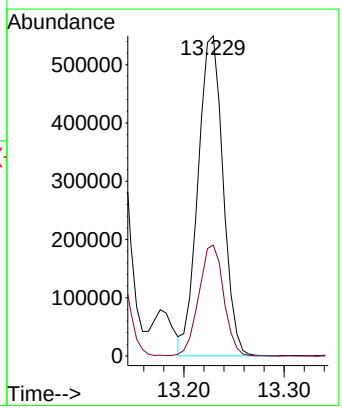
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

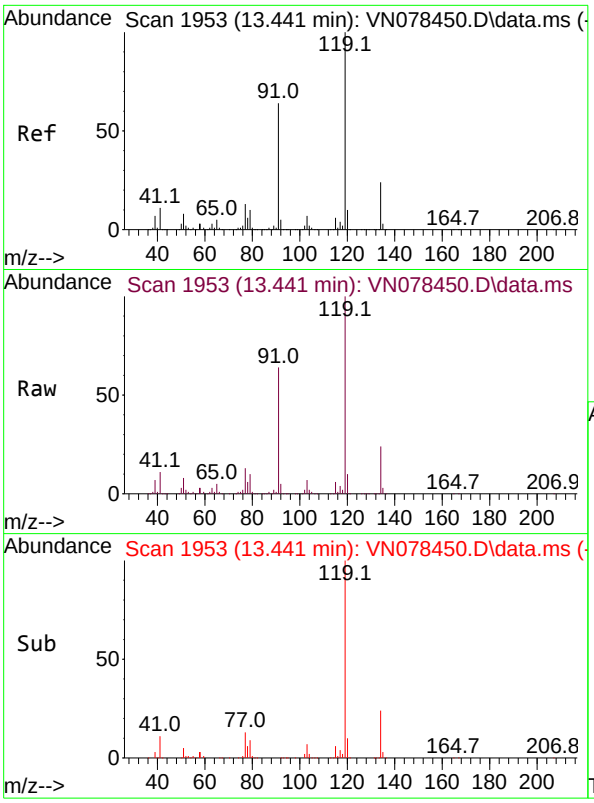


#82
4-Chlorotoluene
Concen: 47.054 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 91 Resp: 951921

Ion	Ratio	Lower	Upper
91	100		
126	34.5	16.7	50.0

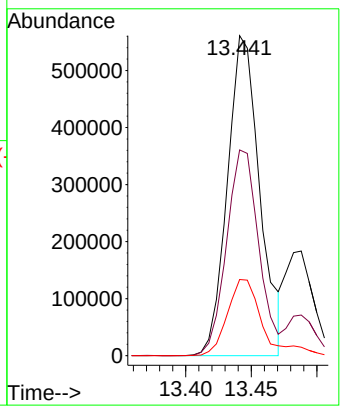




#83
tert-Butylbenzene
Concen: 46.459 ug/l
RT: 13.441 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:119 Resp: 96483

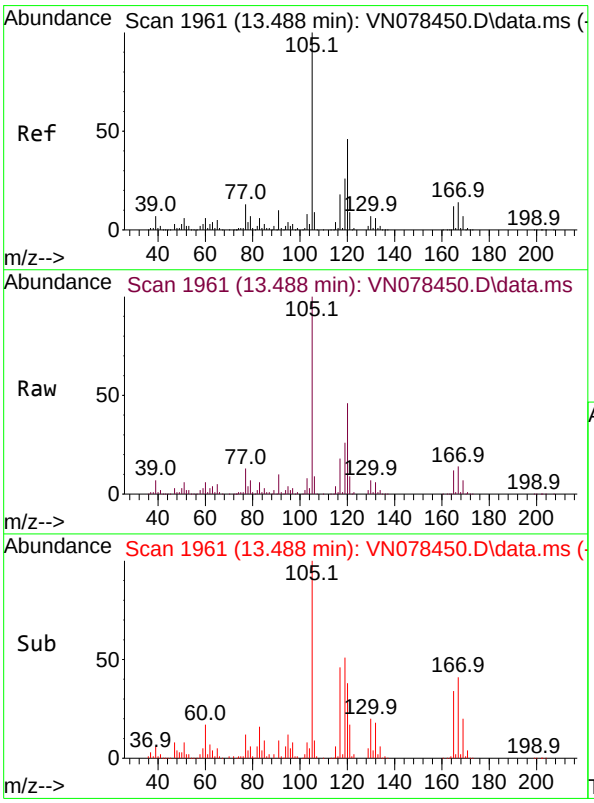
Ion	Ratio	Lower	Upper
119	100		
91	64.0	33.9	101.7
134	25.8	13.2	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

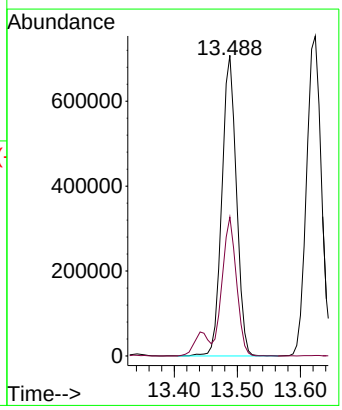
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

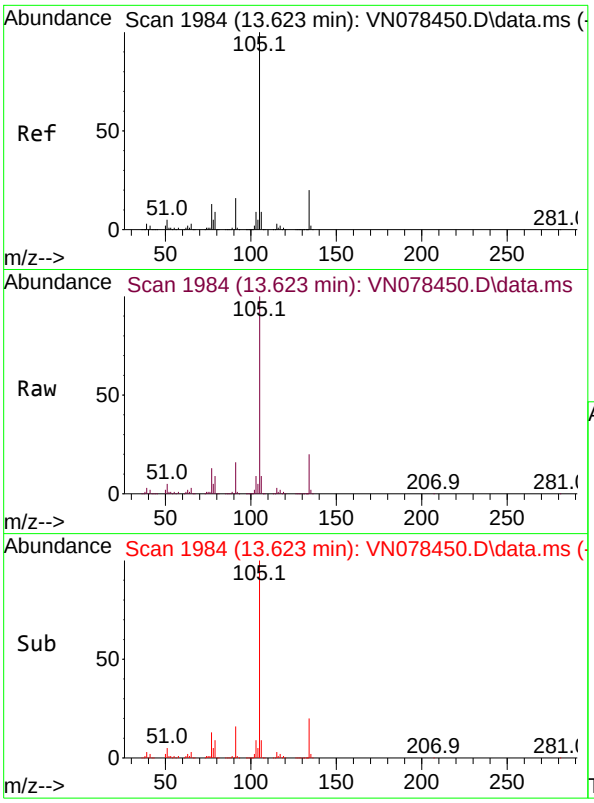


#84
1,2,4-Trimethylbenzene
Concen: 47.696 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:105 Resp: 1133229

Ion	Ratio	Lower	Upper
105	100		
120	45.2	22.0	66.0

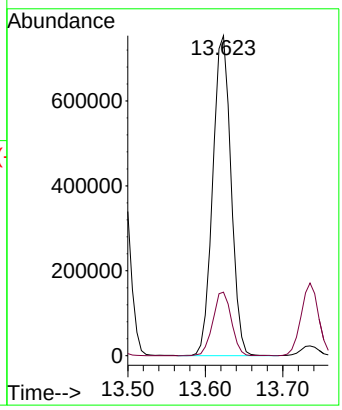




#85
sec-Butylbenzene
Concen: 46.853 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:105 Resp: 122988

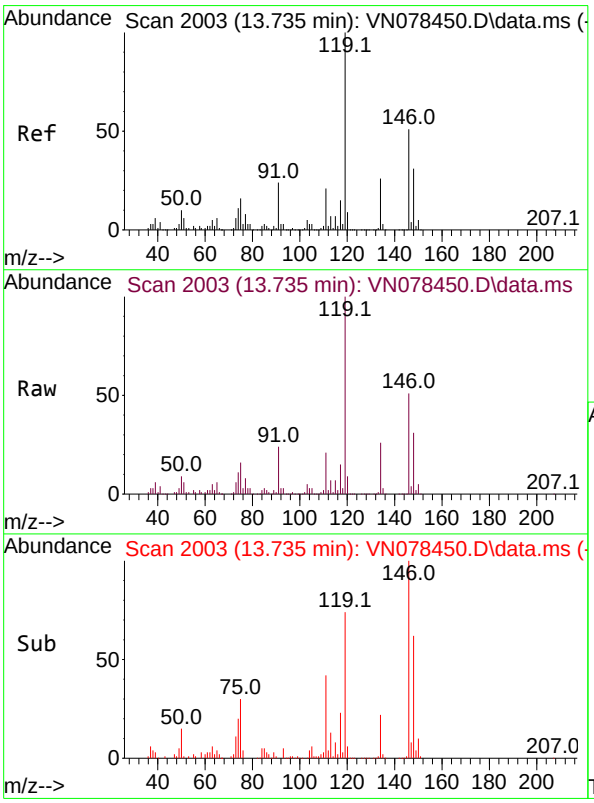
Ion	Ratio	Lower	Upper
105	100		
134	20.3	9.8	29.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

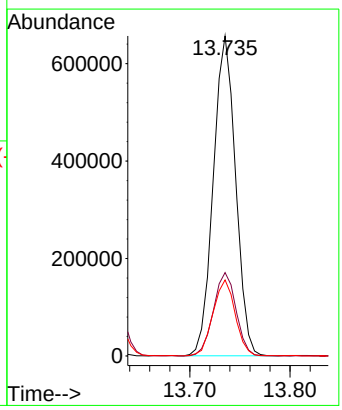
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

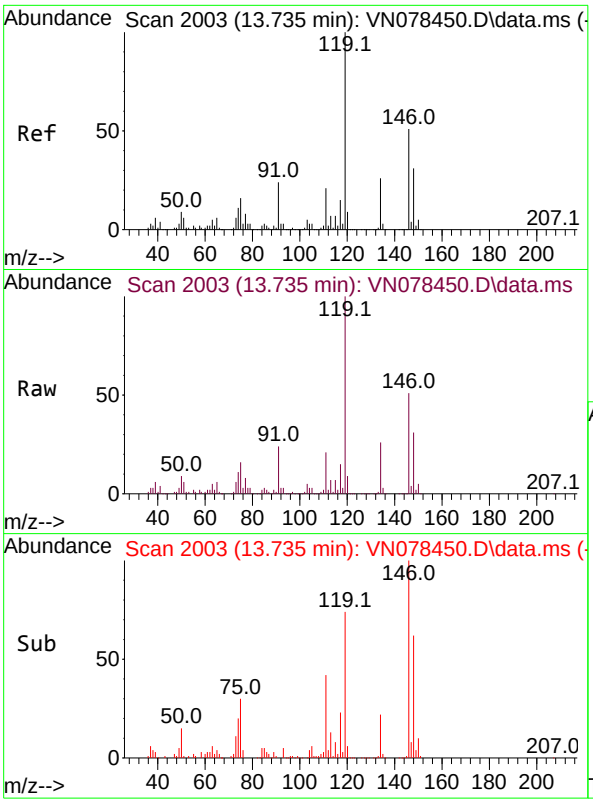


#86
p-Isopropyltoluene
Concen: 48.131 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:119 Resp: 1014504

Ion	Ratio	Lower	Upper
119	100		
134	26.4	12.6	37.8
91	23.6	12.4	37.2

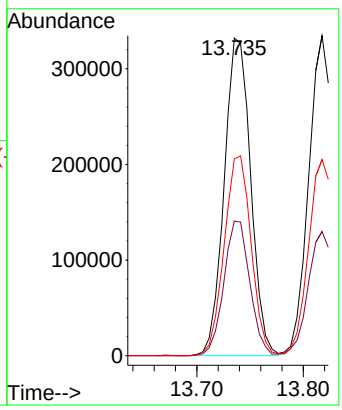




#87
1,3-Dichlorobenzene
Concen: 48.403 ug/l
RT: 13.735 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:146 Resp: 57525

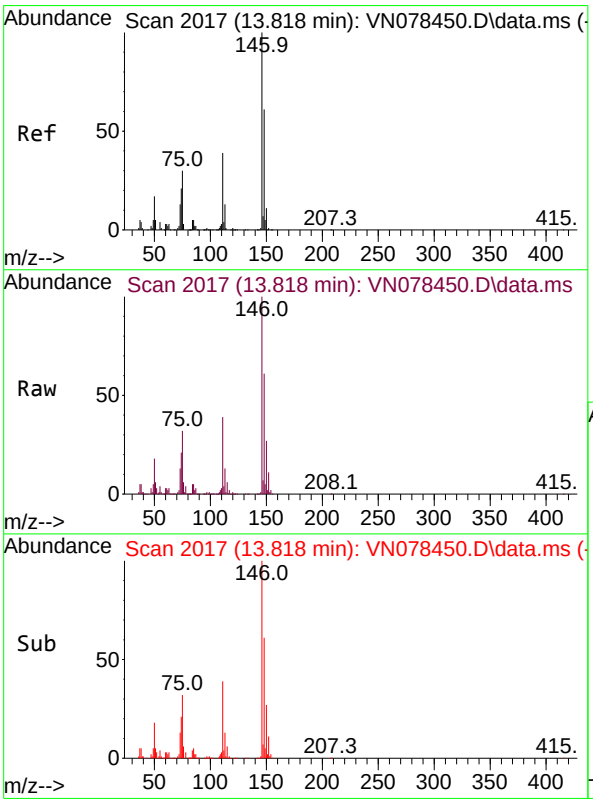
Ion	Ratio	Lower	Upper
146	100		
111	41.6	22.1	66.3
148	64.1	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

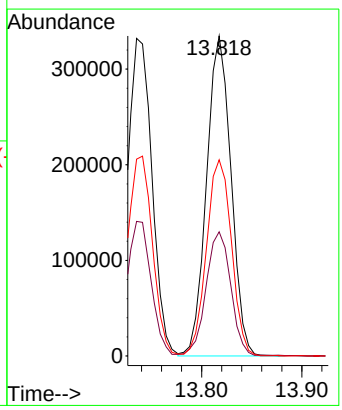
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

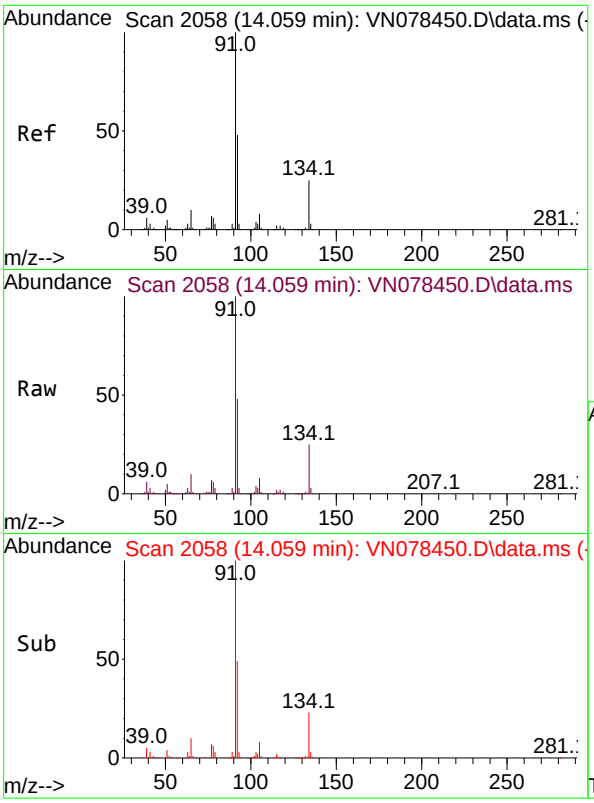


#88
1,4-Dichlorobenzene
Concen: 47.430 ug/l
RT: 13.818 min Scan# 2017
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:146 Resp: 567782

Ion	Ratio	Lower	Upper
146	100		
111	39.5	20.6	61.8
148	62.6	31.6	94.8

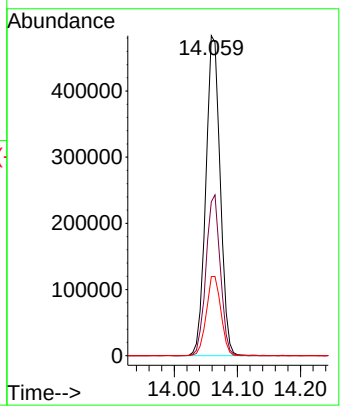




#89
n-Butylbenzene
Concen: 50.723 ug/l
RT: 14.059 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 91 Resp: 7649

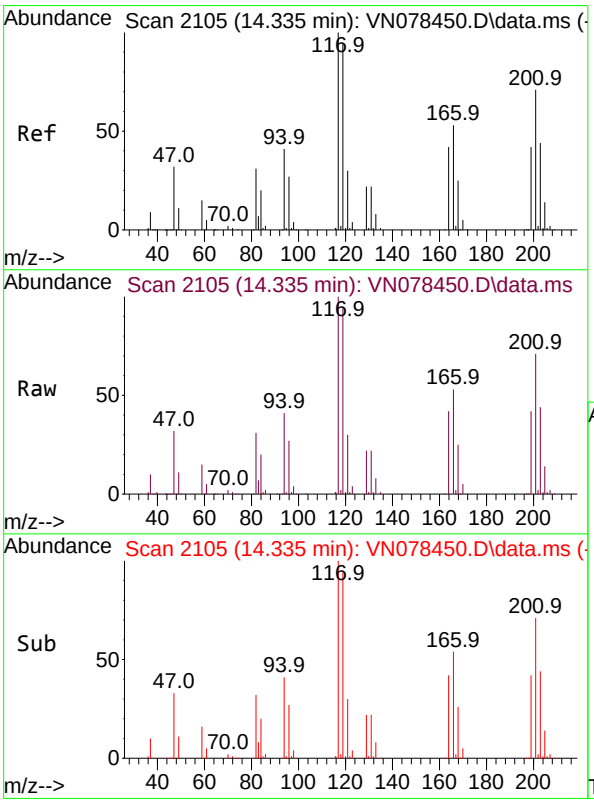
Ion	Ratio	Lower	Upper
91	100		
92	50.1	26.4	79.0
134	25.2	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

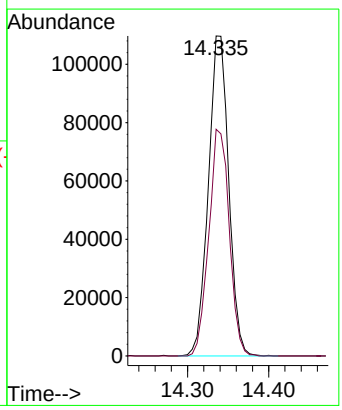
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

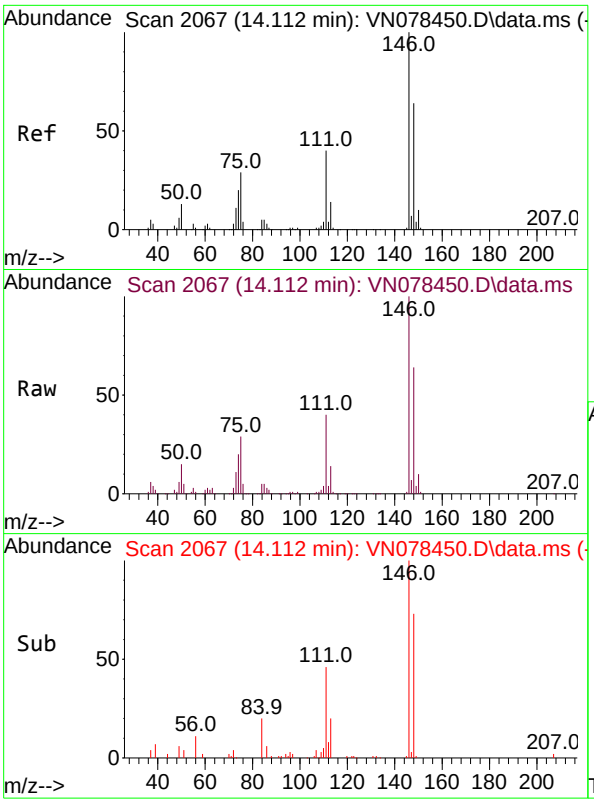


#90
Hexachloroethane
Concen: 49.287 ug/l
RT: 14.335 min Scan# 2105
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:117 Resp: 190986

Ion	Ratio	Lower	Upper
117	100		
201	71.2	29.3	88.0

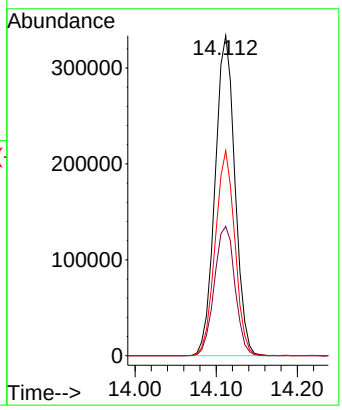




#91
1,2-Dichlorobenzene
Concen: 48.027 ug/l
RT: 14.112 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:146 Resp: 56803

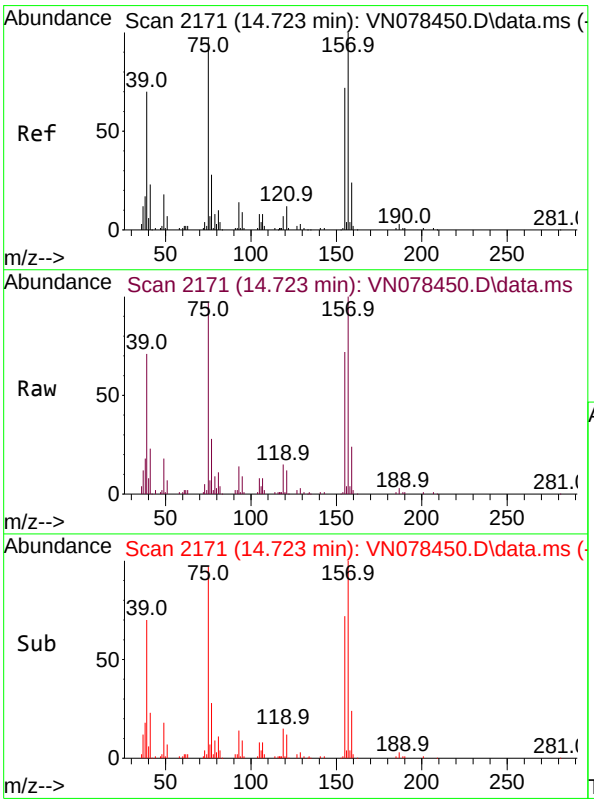
Ion	Ratio	Lower	Upper
146	100		
111	42.0	22.0	66.0
148	63.2	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

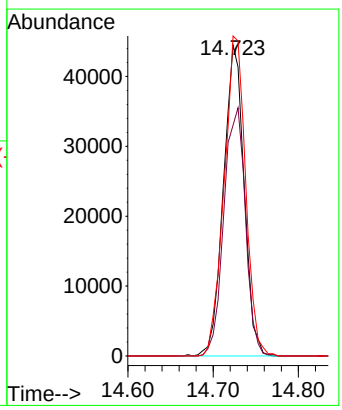
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

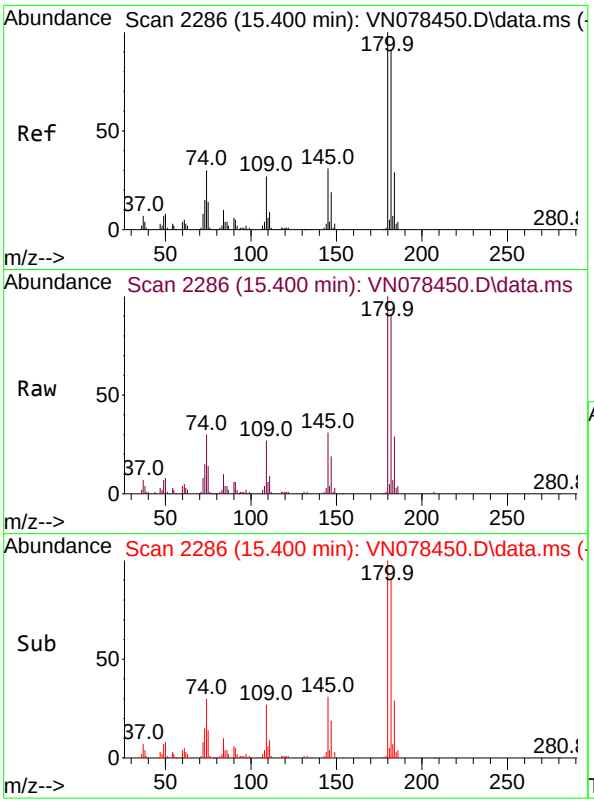


#92
1,2-Dibromo-3-Chloropropane
Concen: 50.514 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion: 75 Resp: 74837

Ion	Ratio	Lower	Upper
75	100		
155	83.5	39.1	117.2
157	107.3	50.3	150.9

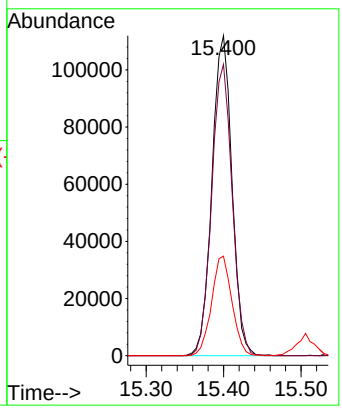




#93
1,2,4-Trichlorobenzene
Concen: 53.177 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:180 Resp: 20073

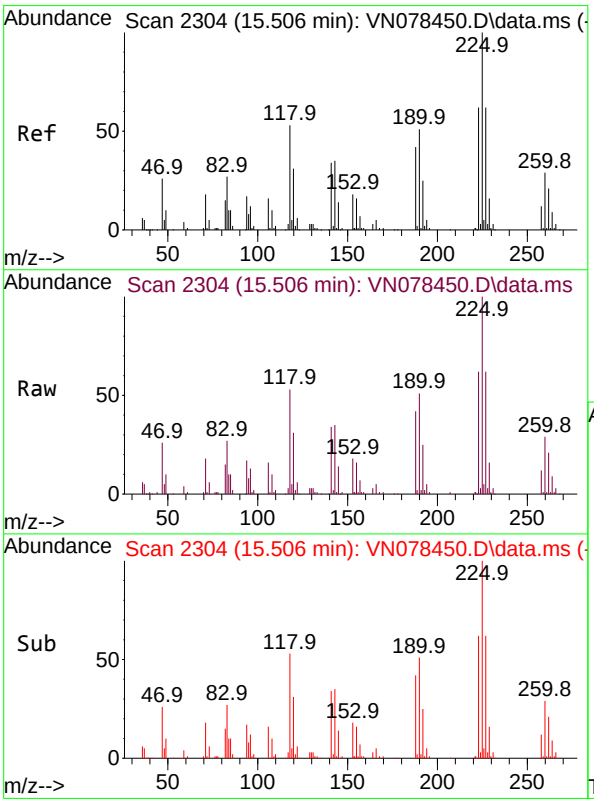
Ion	Ratio	Lower	Upper
180	100		
182	93.3	46.1	138.2
145	31.8	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

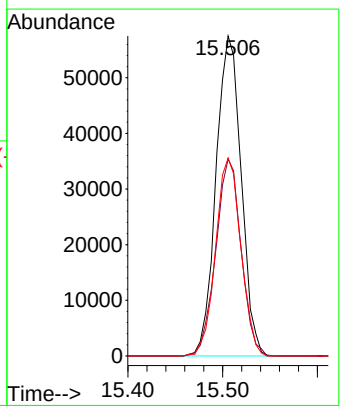
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

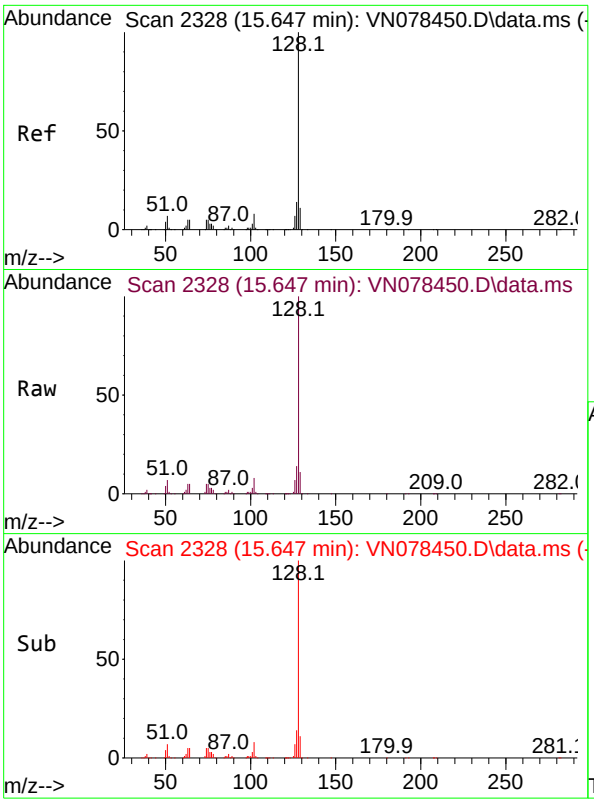


#94
Hexachlorobutadiene
Concen: 54.749 ug/l
RT: 15.506 min Scan# 2304
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:225 Resp: 106143

Ion	Ratio	Lower	Upper
225	100		
223	61.8	31.3	93.8
227	62.0	31.9	95.9

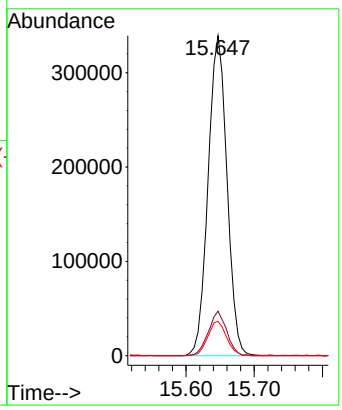




#95
Naphthalene
Concen: 50.666 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:128 Resp: 65382

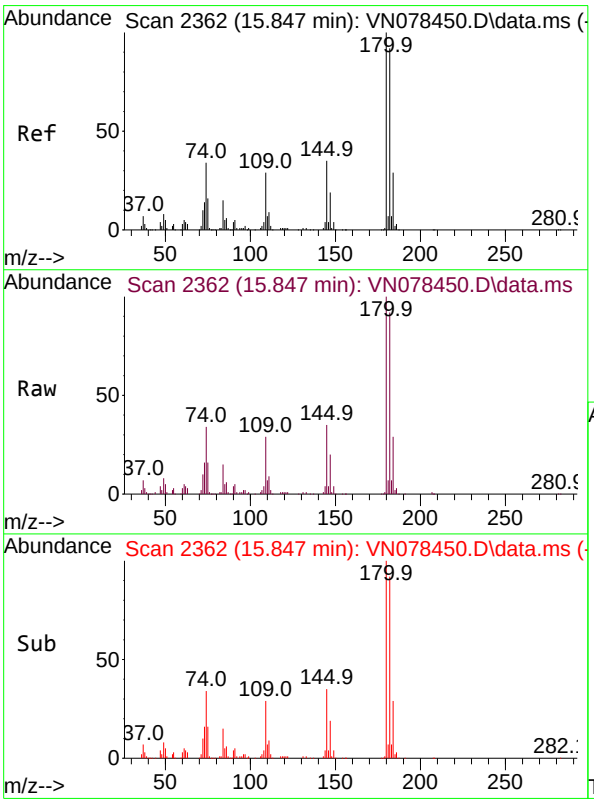
Ion	Ratio	Lower	Upper
128	100		
127	13.5	10.0	15.0
129	10.7	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

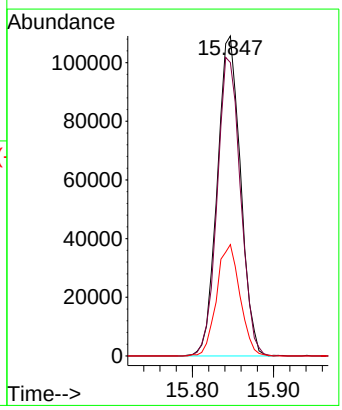
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 50.092 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078450.D
Acq: 10 Jul 2023 12:46

Tgt Ion:180 Resp: 217418

Ion	Ratio	Lower	Upper
180	100		
182	93.7	46.2	138.6
145	34.9	17.5	52.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078451.D
Acq On : 10 Jul 2023 13:10
Operator : JC\MD
Sample : VSTDICC040
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 10 15:54:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.229	168	497495	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	863649	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	759512	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	317914	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.582	65	261346	39.186	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 78.380%			
35) Dibromofluoromethane	8.171	113	227856	38.865	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 77.740%			
50) Toluene-d8	10.571	98	861588	38.902	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 77.800%#			
62) 4-Bromofluorobenzene	12.853	95	270837	39.701	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 79.400%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	242491	39.755	ug/l	97
3) Chloromethane	2.371	50	259063	39.076	ug/l	95
4) Vinyl Chloride	2.518	62	320248	37.342	ug/l	98
5) Bromomethane	2.953	94	233040	42.183	ug/l	93
6) Chloroethane	3.124	64	208323	39.762	ug/l	96
7) Trichlorofluoromethane	3.500	101	395288	38.558	ug/l	99
8) Diethyl Ether	3.971	74	136958	40.097	ug/l	82
9) 1,1,2-Trichlorotrifluo...	4.377	101	215685	39.744	ug/l	97
10) Methyl Iodide	4.600	142	304539	40.837	ug/l	97
11) Tert butyl alcohol	5.530	59	207094	201.365	ug/l	100
12) 1,1-Dichloroethene	4.347	96	208230	39.667	ug/l	88
13) Acrolein	4.189	56	212550	210.060	ug/l	96
14) Allyl chloride	5.036	41	304925	42.510	ug/l	93
15) Acrylonitrile	5.736	53	541707	208.469	ug/l	99
16) Acetone	4.442	43	411220	197.936	ug/l	95
17) Carbon Disulfide	4.718	76	572457	37.712	ug/l	97
18) Methyl Acetate	5.036	43	344844	39.211	ug/l	91
19) Methyl tert-butyl Ether	5.800	73	711459	41.134	ug/l	100
20) Methylene Chloride	5.289	84	248597	40.424	ug/l	93
21) trans-1,2-Dichloroethene	5.794	96	235367	39.788	ug/l #	80
22) Diisopropyl ether	6.683	45	667069	41.532	ug/l	96
23) Vinyl Acetate	6.618	43	2166439	212.168	ug/l #	91
24) 1,1-Dichloroethane	6.583	63	422735	39.060	ug/l	98
25) 2-Butanone	7.494	43	678391	207.439	ug/l	89
26) 2,2-Dichloropropane	7.500	77	356772	40.304	ug/l	99
27) cis-1,2-Dichloroethene	7.494	96	277094	40.492	ug/l	95
28) Bromochloromethane	7.818	49	200732	39.378	ug/l	93
29) Tetrahydrofuran	7.847	42	446049	207.863	ug/l	86
30) Chloroform	7.971	83	459616	40.791	ug/l	94
31) Cyclohexane	8.265	56	350878	38.928	ug/l	92
32) 1,1,1-Trichloroethane	8.177	97	415202	41.100	ug/l	96
36) 1,1-Dichloropropene	8.377	75	339938	40.157	ug/l	98
37) Ethyl Acetate	7.571	43	294938	41.795	ug/l	95
38) Carbon Tetrachloride	8.371	117	376705	40.945	ug/l	97
39) Methylcyclohexane	9.612	83	313223	40.536	ug/l	93
40) Benzene	8.612	78	1021262	40.722	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078451.D
Acq On : 10 Jul 2023 13:10
Operator : JC\MD
Sample : VSTDICC040
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 10 15:54:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.788	41	145128	40.342	ug/l		93
42) 1,2-Dichloroethane	8.677	62	336345	39.429	ug/l		99
43) Isopropyl Acetate	8.694	43	489622	42.143	ug/l		94
44) Trichloroethene	9.359	130	267689	39.603	ug/l		95
45) 1,2-Dichloropropane	9.629	63	254219	40.023	ug/l		96
46) Dibromomethane	9.712	93	183848	41.124	ug/l		92
47) Bromodichloromethane	9.894	83	360787	40.259	ug/l		95
48) Methyl methacrylate	9.688	41	223368	41.499	ug/l		92
49) 1,4-Dioxane	9.700	88	95194	810.969	ug/l		92
51) 4-Methyl-2-Pentanone	10.453	43	1474393	213.353	ug/l		94
52) Toluene	10.635	92	646394	41.587	ug/l		97
53) t-1,3-Dichloropropene	10.841	75	384861	41.920	ug/l		98
54) cis-1,3-Dichloropropene	10.318	75	415396	42.447	ug/l		95
55) 1,1,2-Trichloroethane	11.023	97	248775	40.623	ug/l		96
56) Ethyl methacrylate	10.882	69	361395	42.216	ug/l	#	89
57) 1,3-Dichloropropane	11.170	76	420094	40.345	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	644098	211.125	ug/l		93
59) 2-Hexanone	11.200	43	1057107	215.235	ug/l		92
60) Dibromochloromethane	11.365	129	280365	41.469	ug/l		99
61) 1,2-Dibromoethane	11.476	107	263350	41.745	ug/l		97
64) Tetrachloroethene	11.112	164	236578	41.431	ug/l		96
65) Chlorobenzene	11.900	112	682832	40.221	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.965	131	264094	40.437	ug/l		97
67) Ethyl Benzene	11.970	91	1193910	41.605	ug/l		100
68) m/p-Xylenes	12.076	106	905406	85.335	ug/l		97
69) o-Xylene	12.406	106	440325	41.088	ug/l		96
70) Styrene	12.417	104	723105	43.130	ug/l		99
71) Bromoform	12.582	173	188750	42.673	ug/l	#	100
73) Isopropylbenzene	12.700	105	1104817	36.984	ug/l		99
74) N-amyl acetate	12.500	43	388381	37.727	ug/l		92
75) 1,1,2,2-Tetrachloroethane	12.941	83	355158	42.076	ug/l		98
76) 1,2,3-Trichloropropane	12.994	75	290690m	37.872	ug/l		
77) Bromobenzene	12.988	156	268189	41.006	ug/l		95
78) n-propylbenzene	13.041	91	1242491	38.892	ug/l		100
79) 2-Chlorotoluene	13.129	91	775129	37.042	ug/l		96
80) 1,3,5-Trimethylbenzene	13.176	105	905907	38.381	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.741	75	108755	37.191	ug/l		95
82) 4-Chlorotoluene	13.229	91	743995	38.113	ug/l		97
83) tert-Butylbenzene	13.447	119	745533	37.204	ug/l		98
84) 1,2,4-Trimethylbenzene	13.488	105	906971	39.560	ug/l		99
85) sec-Butylbenzene	13.623	105	951488	37.565	ug/l		98
86) p-Isopropyltoluene	13.735	119	797311	39.202	ug/l		97
87) 1,3-Dichlorobenzene	13.741	146	447101	38.987	ug/l		98
88) 1,4-Dichlorobenzene	13.817	146	434810	37.642	ug/l		99
89) n-Butylbenzene	14.064	91	595980	40.954	ug/l		98
90) Hexachloroethane	14.341	117	149143	39.729	ug/l		84
91) 1,2-Dichlorobenzene	14.111	146	440096	38.562	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.723	75	60119	41.720	ug/l		93
93) 1,2,4-Trichlorobenzene	15.400	180	148938	40.890	ug/l		97
94) Hexachlorobutadiene	15.506	225	78543	40.933	ug/l		98
95) Naphthalene	15.647	128	492797	39.576	ug/l		99
96) 1,2,3-Trichlorobenzene	15.847	180	167339	39.955	ug/l		97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078451.D
Acq On : 10 Jul 2023 13:10
Operator : JC\MD
Sample : VSTDICC040
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:54:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

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

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

ICAL Form

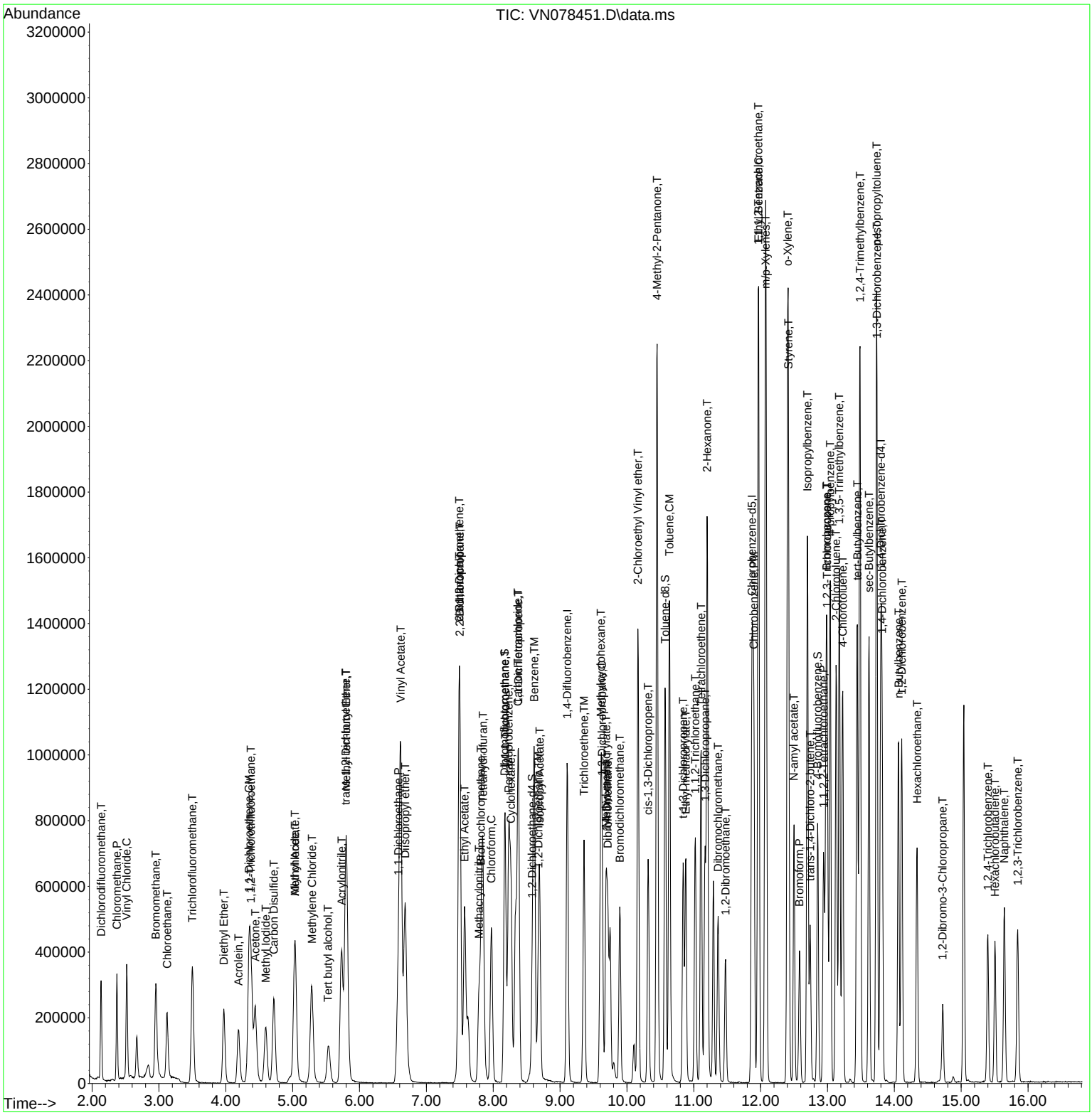
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078451.D
Acq On : 10 Jul 2023 13:10
Operator : JC\MD
Sample : VSTDICC040
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

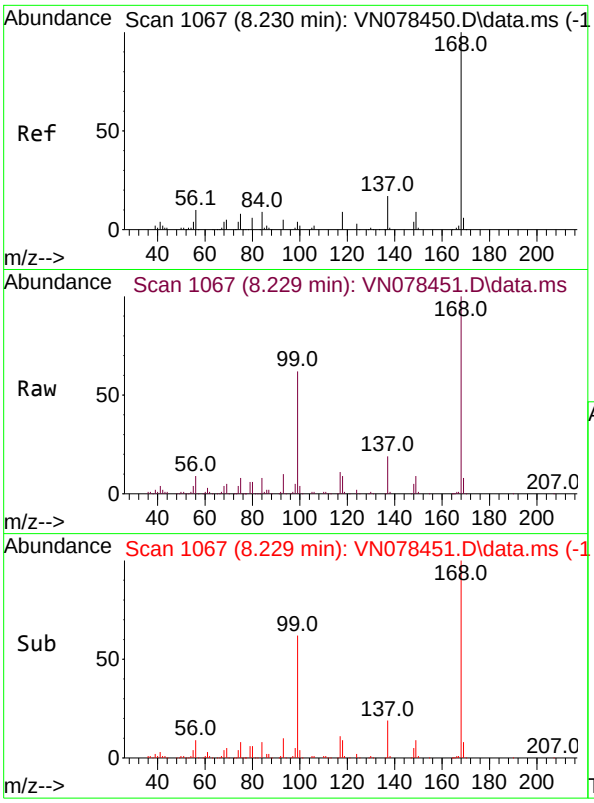
Quant Time: Jul 10 15:54:07 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

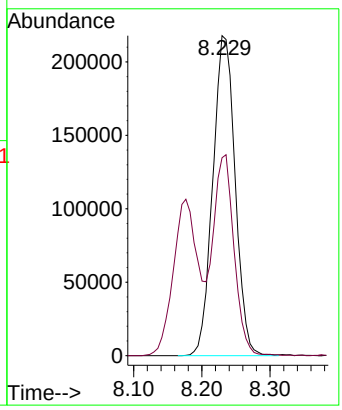




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.229 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:168 Resp: 49749

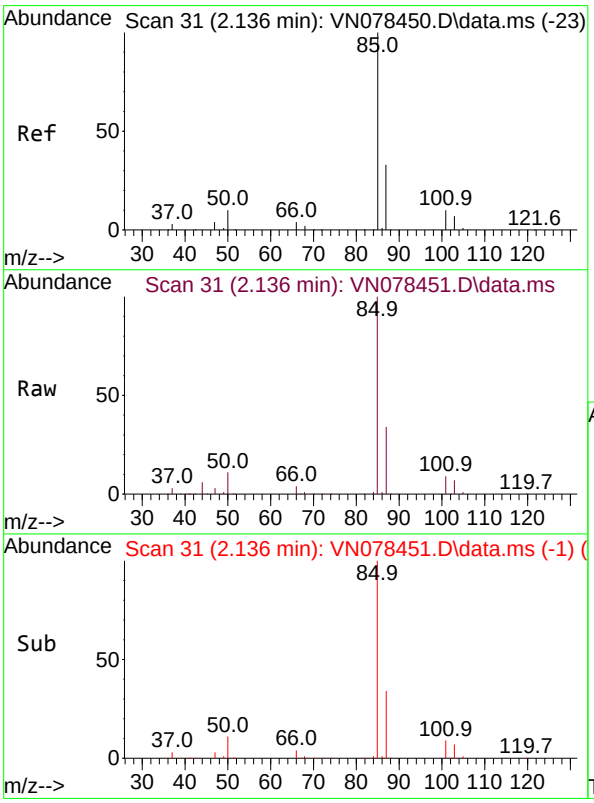
Ion	Ratio	Lower	Upper
168	100		
99	61.6	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

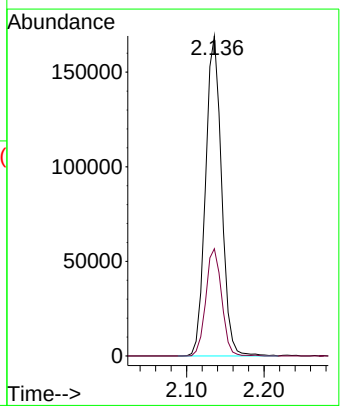
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

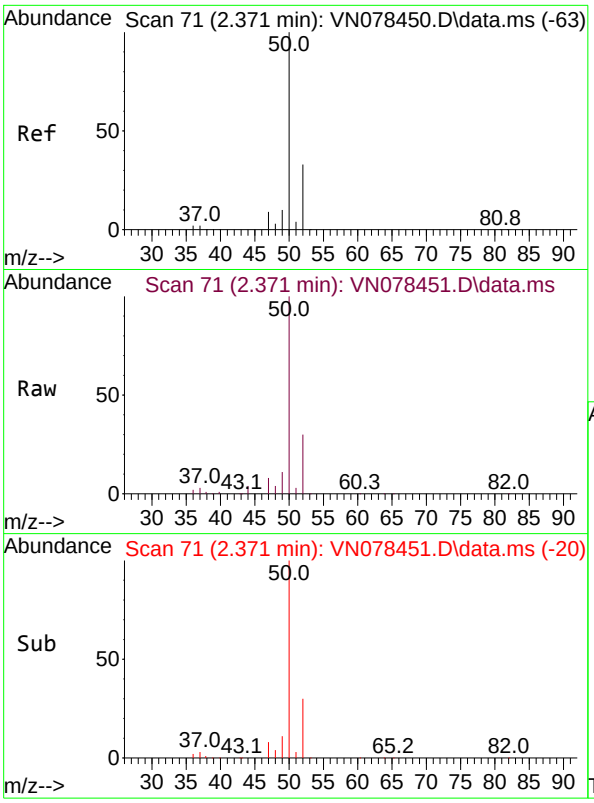


#2
Dichlorodifluoromethane
Concen: 39.755 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 85 Resp: 242491

Ion	Ratio	Lower	Upper
85	100		
87	33.5	15.8	47.4

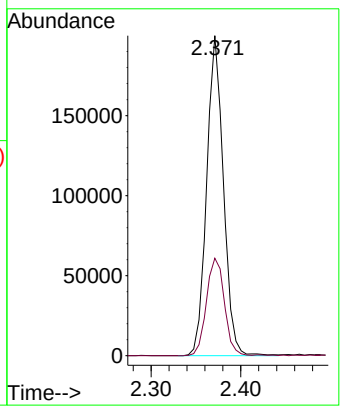




#3
Chloromethane
Concen: 39.076 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 50 Resp: 25906

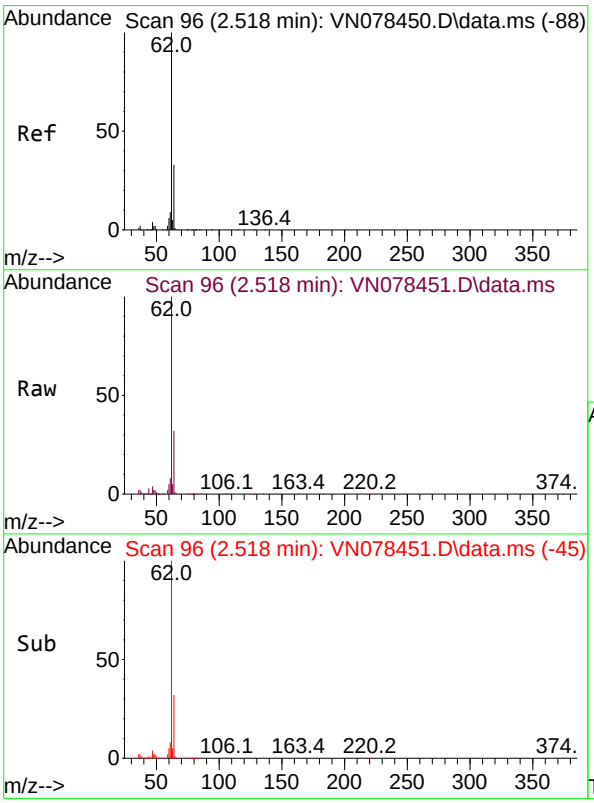
Ion	Ratio	Lower	Upper
50	100		
52	30.5	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

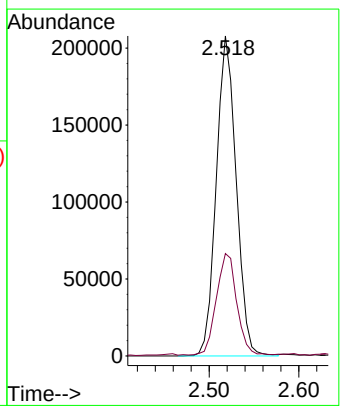
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

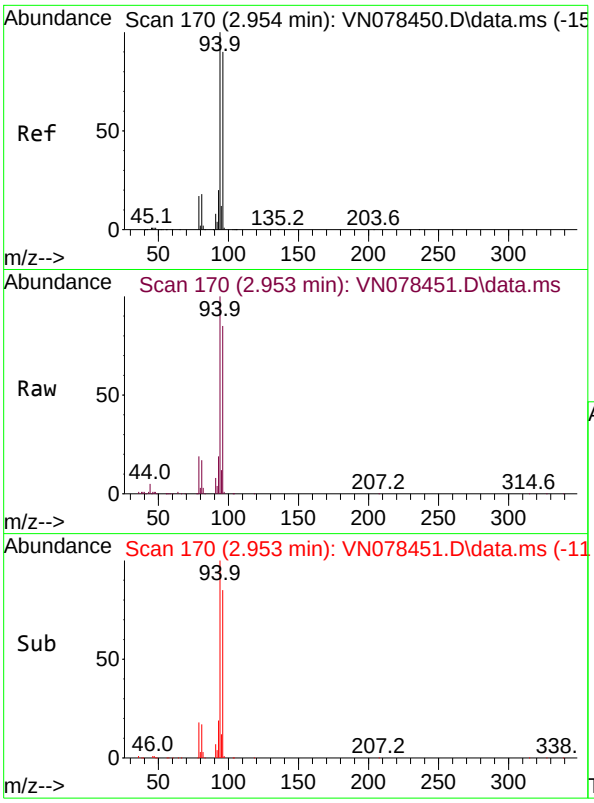


#4
Vinyl Chloride
Concen: 37.342 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 62 Resp: 320248

Ion	Ratio	Lower	Upper
62	100		
64	31.8	26.2	39.2

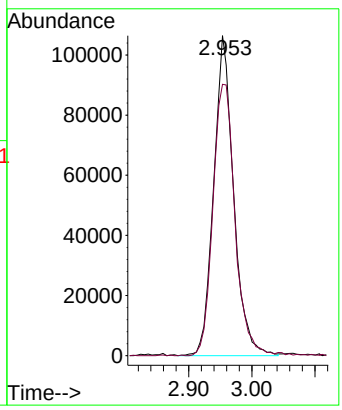




#5
Bromomethane
Concen: 42.183 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 94 Resp: 23304

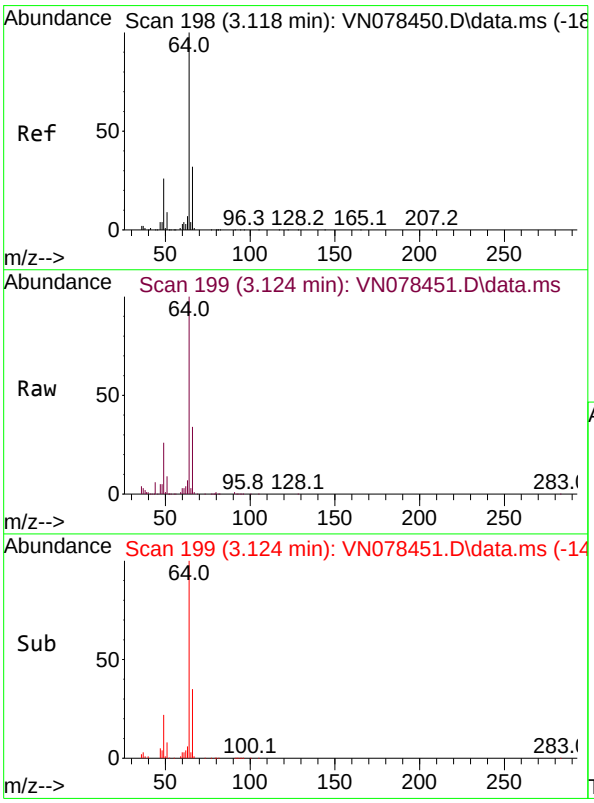
Ion	Ratio	Lower	Upper
94	100		
96	84.8	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

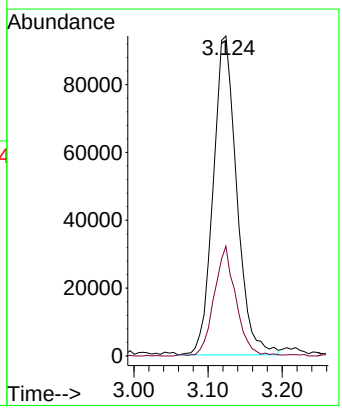
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

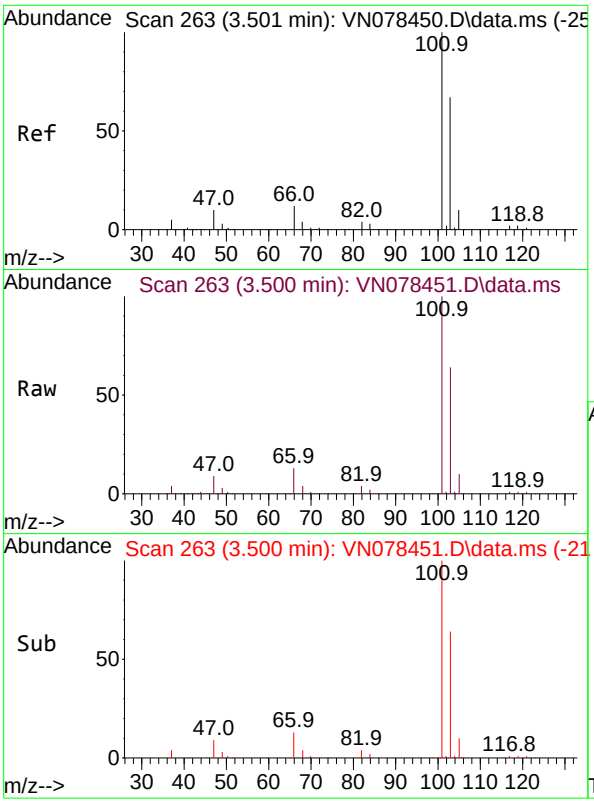


#6
Chloroethane
Concen: 39.762 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 64 Resp: 208323

Ion	Ratio	Lower	Upper
64	100		
66	34.0	25.4	38.2





#7
Trichlorofluoromethane
Concen: 38.558 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

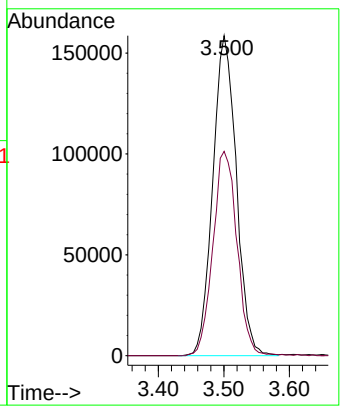
Tgt Ion:101 Resp: 39528

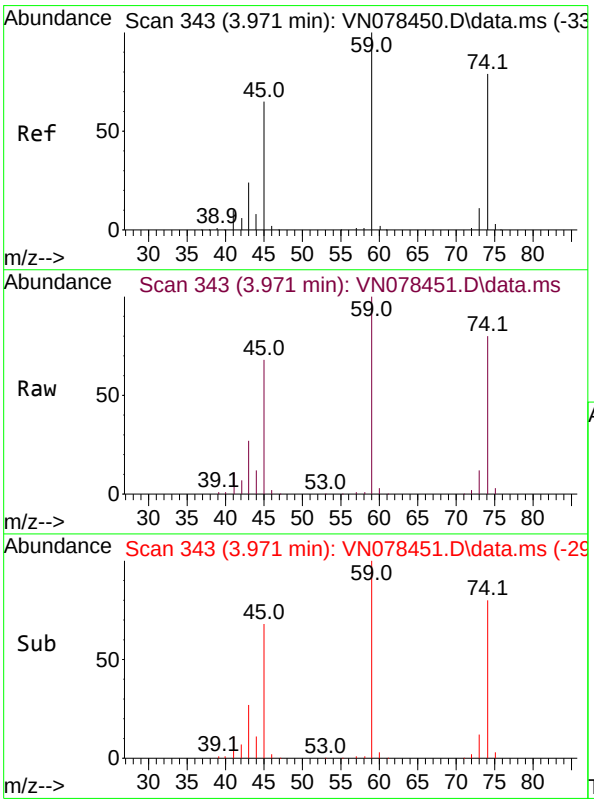
Ion	Ratio	Lower	Upper
101	100		
103	63.8	50.7	76.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

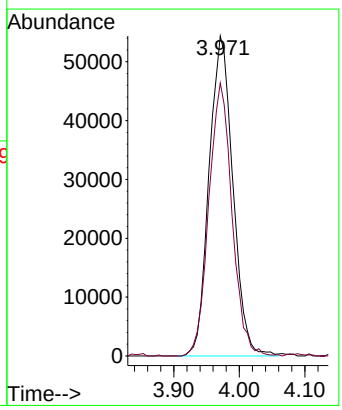


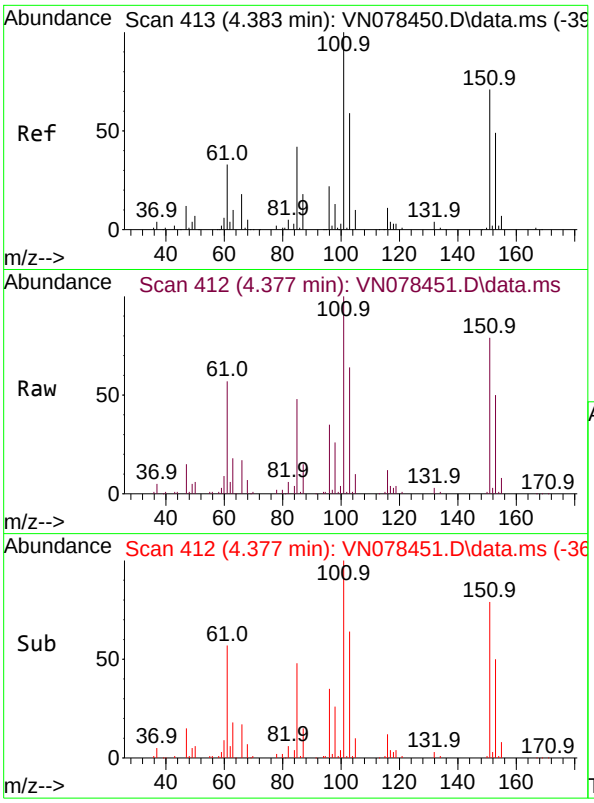


#8
Diethyl Ether
Concen: 40.097 ug/l
RT: 3.971 min Scan# 343
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 74 Resp: 136958

Ion	Ratio	Lower	Upper
74	100		
45	83.2	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 39.744 ug/l
RT: 4.377 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

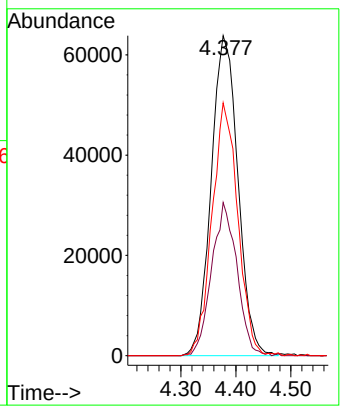
Tgt Ion:101 Resp: 21568

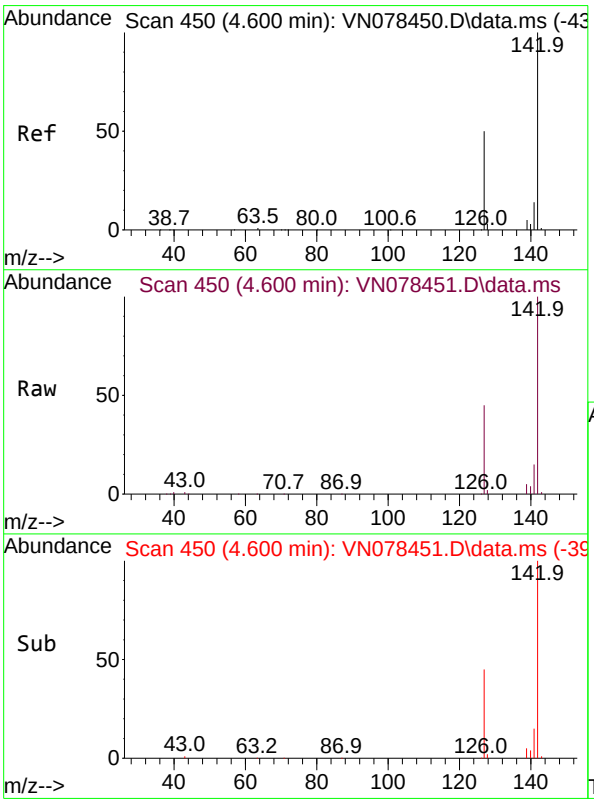
Ion	Ratio	Lower	Upper
101	100		
85	45.3	36.6	55.0
151	76.0	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

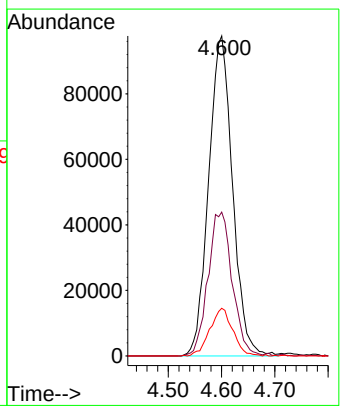


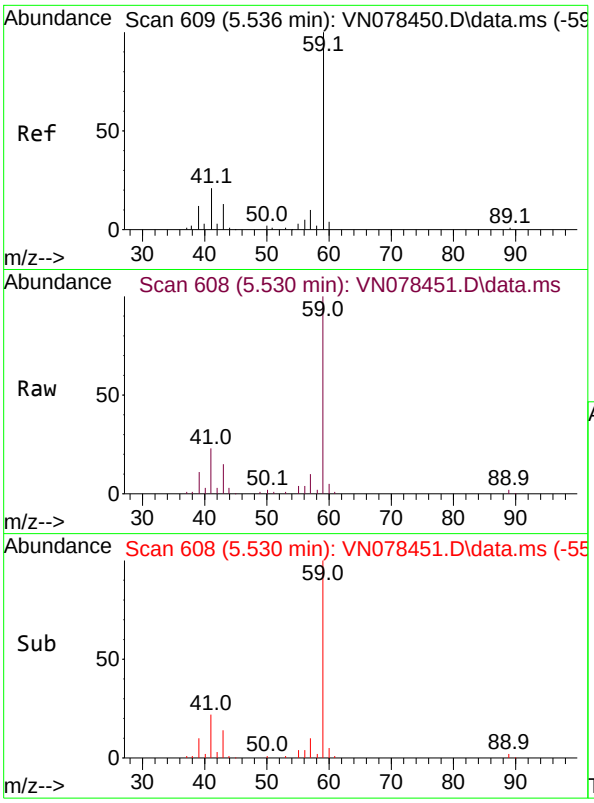


#10
Methyl Iodide
Concen: 40.837 ug/l
RT: 4.600 min Scan# 450
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:142 Resp: 304539

Ion	Ratio	Lower	Upper
142	100		
127	45.0	37.6	56.4
141	14.9	11.4	17.0





#11
Tert butyl alcohol
Concen: 201.365 ug/l
RT: 5.530 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

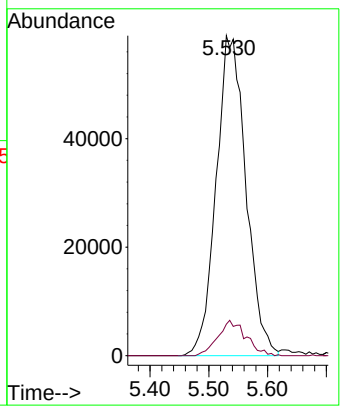
Tgt Ion: 59 Resp: 20709

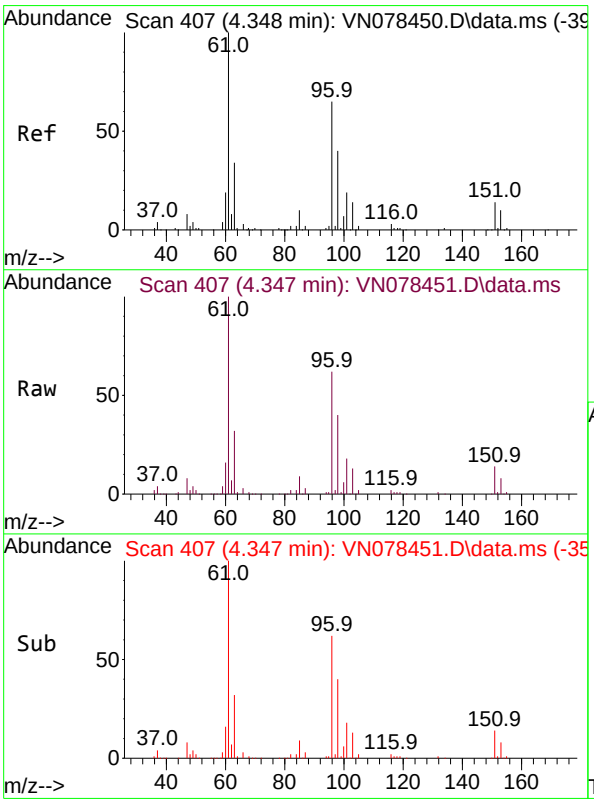
Ion	Ratio	Lower	Upper
59	100		
57	10.4	8.2	12.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

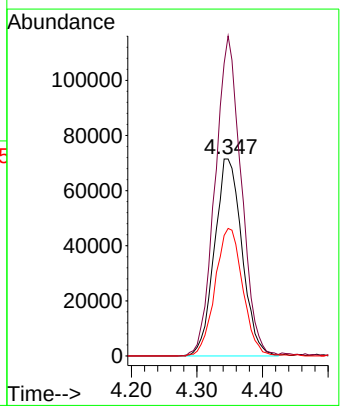


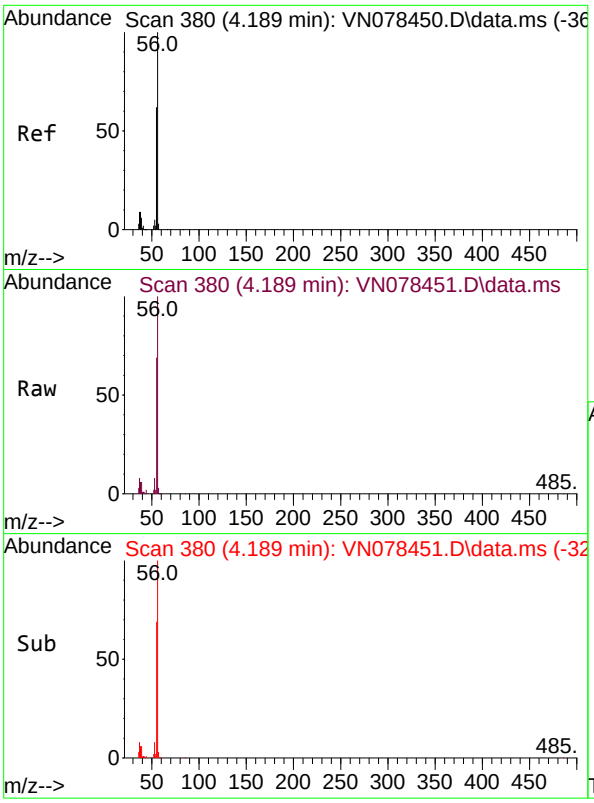


#12
1,1-Dichloroethene
Concen: 39.667 ug/l
RT: 4.347 min Scan# 407
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 96 Resp: 208230

Ion	Ratio	Lower	Upper
96	100		
61	162.5	112.7	169.1
98	64.8	51.2	76.8

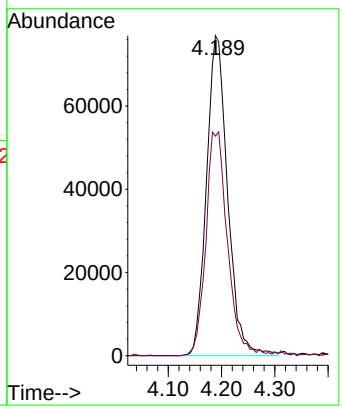




#13
Acrolein
Concen: 210.060 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 56 Resp: 21255

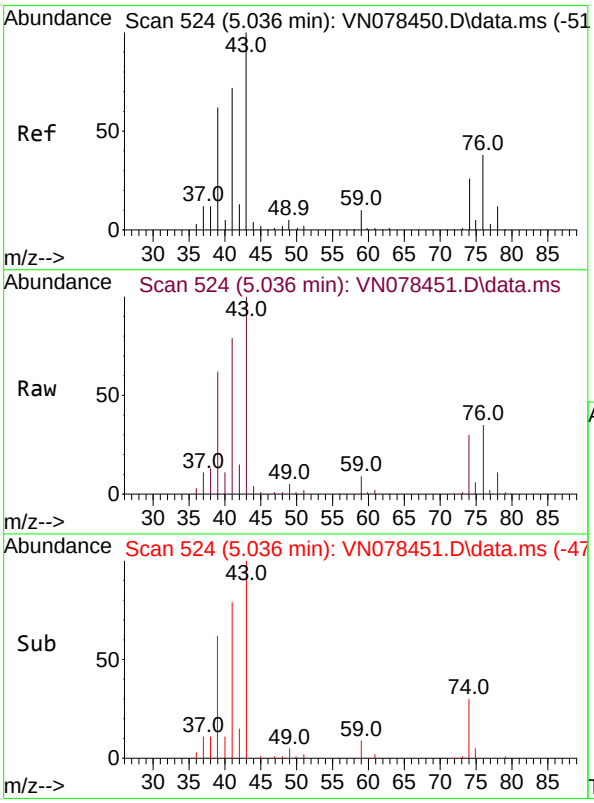
Ion	Ratio	Lower	Upper
56	100		
55	71.3	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

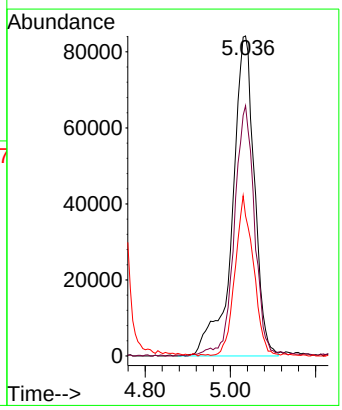
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

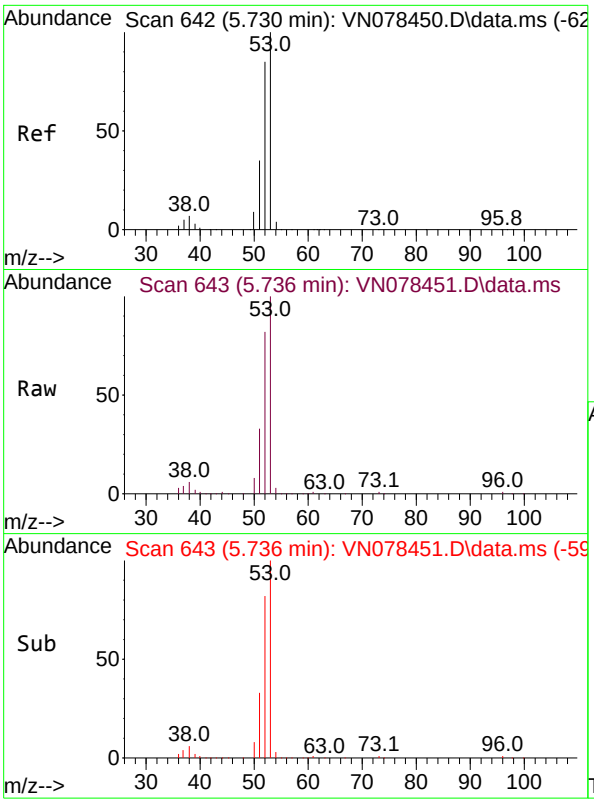


#14
Allyl chloride
Concen: 42.510 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 41 Resp: 304925

Ion	Ratio	Lower	Upper
41	100		
39	69.6	58.8	88.2
76	41.0	39.1	58.7

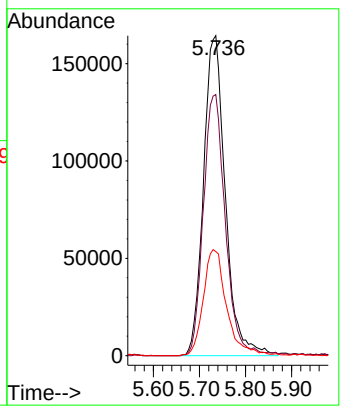




#15
Acrylonitrile
Concen: 208.469 ug/l
RT: 5.736 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 53 Resp: 54170

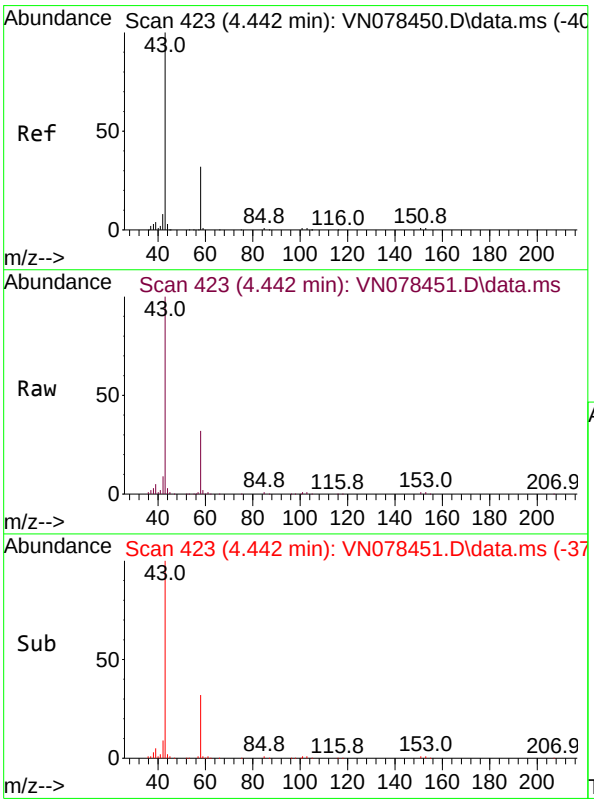
Ion	Ratio	Lower	Upper
53	100		
52	82.7	65.3	97.9
51	35.3	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

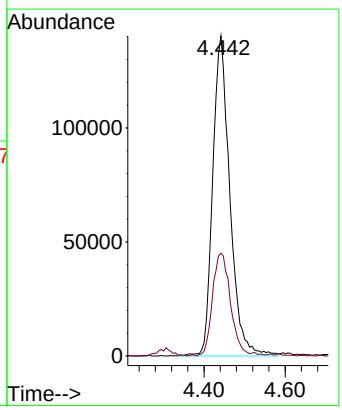
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

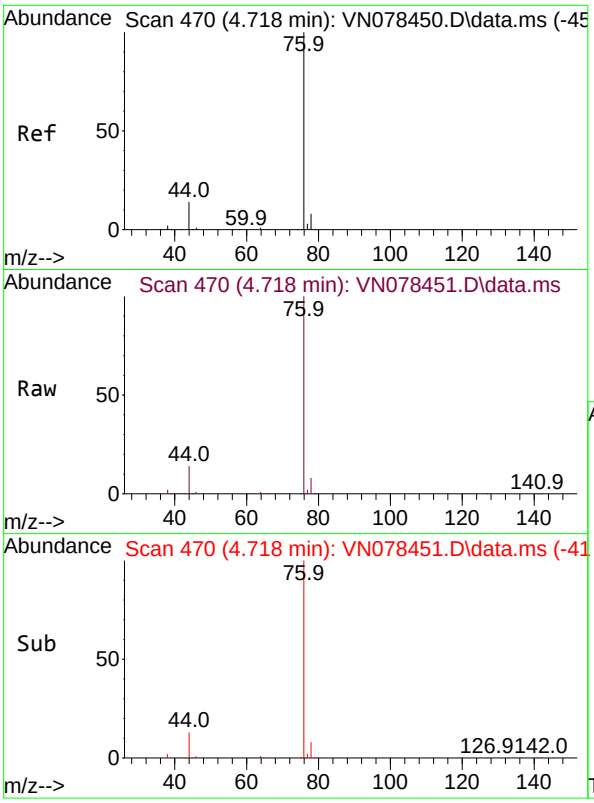


#16
Acetone
Concen: 197.936 ug/l
RT: 4.442 min Scan# 423
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 43 Resp: 411220

Ion	Ratio	Lower	Upper
43	100		
58	31.8	28.0	42.0





#17
Carbon Disulfide
Concen: 37.712 ug/l
RT: 4.718 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

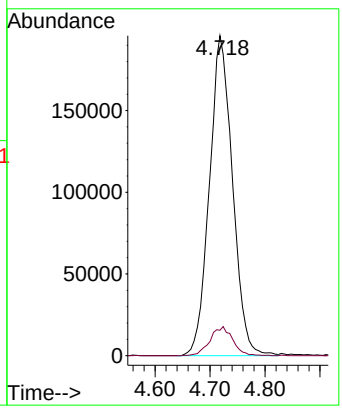
Tgt Ion: 76 Resp: 57245

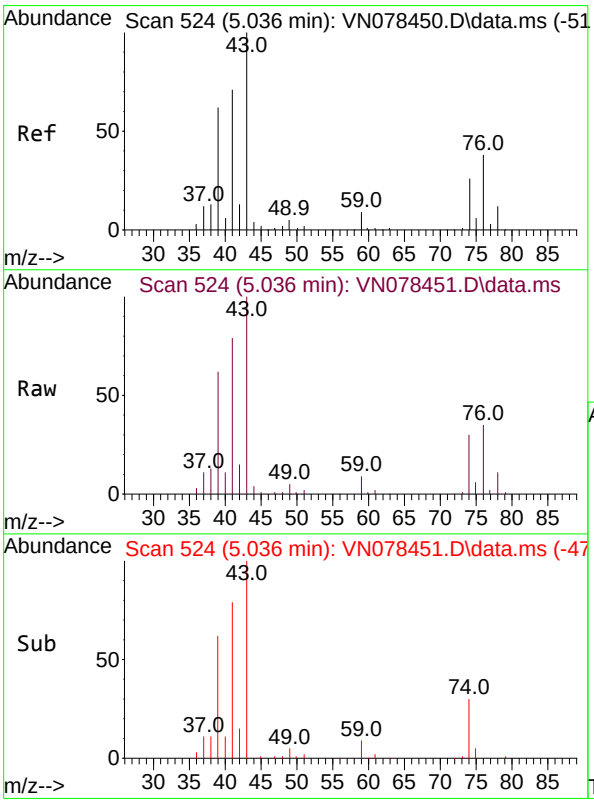
Ion	Ratio	Lower	Upper
76	100		
78	7.9	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

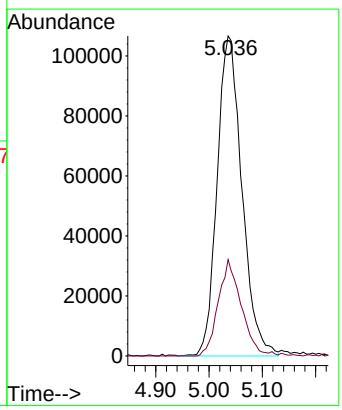


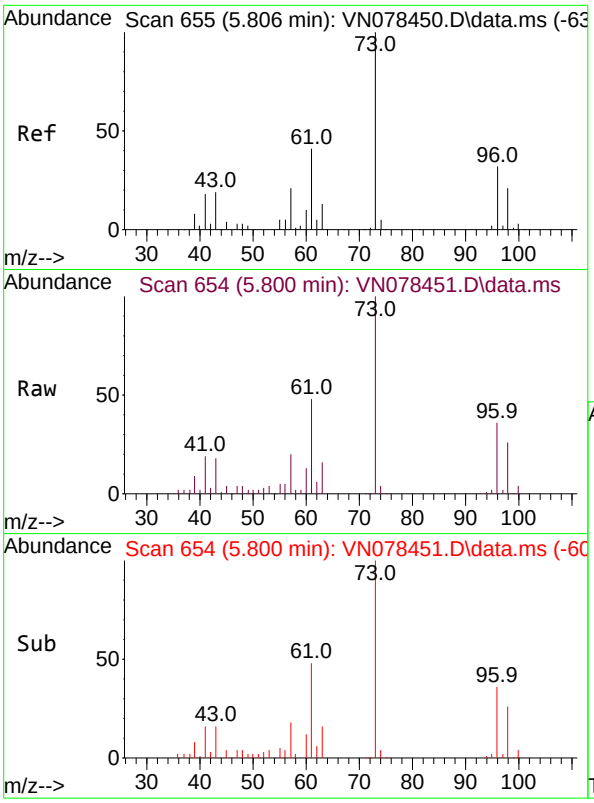


#18
Methyl Acetate
Concen: 39.211 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 43 Resp: 344844

Ion	Ratio	Lower	Upper
43	100		
74	27.9	26.2	39.4

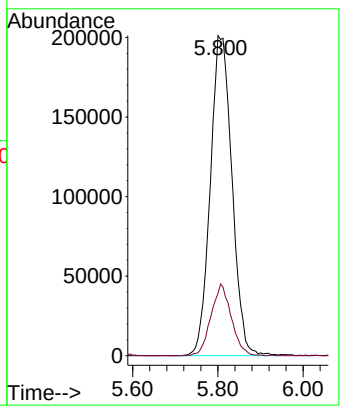




#19
Methyl tert-butyl Ether
Concen: 41.134 ug/l
RT: 5.800 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 73 Resp: 71145

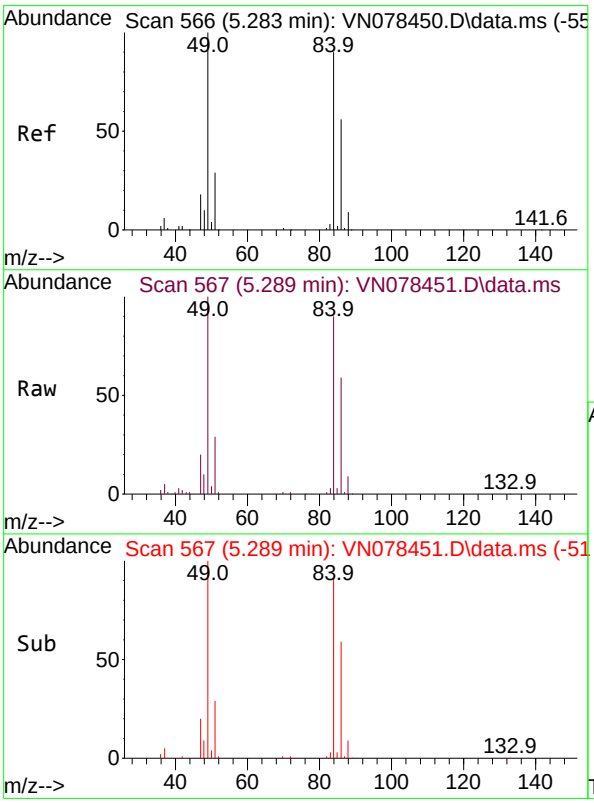
Ion	Ratio	Lower	Upper
73	100		
57	19.5	15.6	23.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

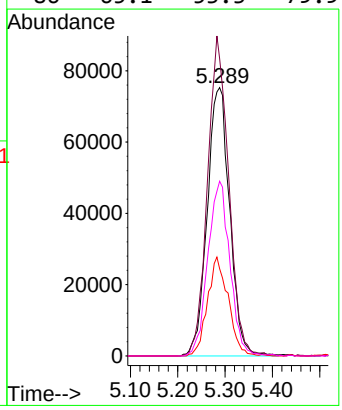
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

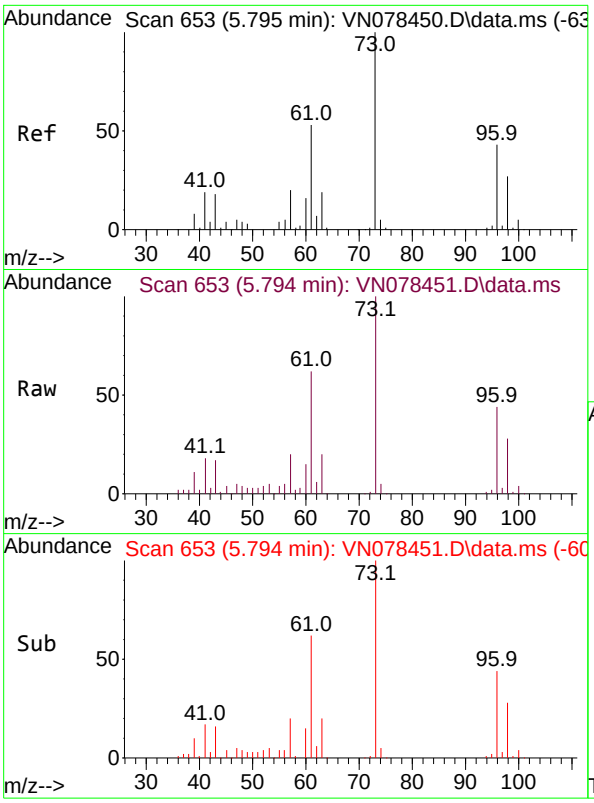


#20
Methylene Chloride
Concen: 40.424 ug/l
RT: 5.289 min Scan# 567
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 84 Resp: 248597

Ion	Ratio	Lower	Upper
84	100		
49	110.8	79.7	119.5
51	32.5	25.2	37.8
86	65.1	53.3	79.9

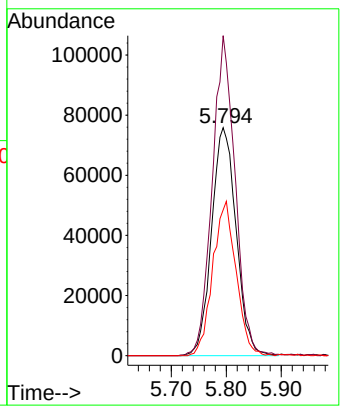




#21
trans-1,2-Dichloroethene
Concen: 39.788 ug/l
RT: 5.794 min Scan# 6
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 96 Resp: 23536

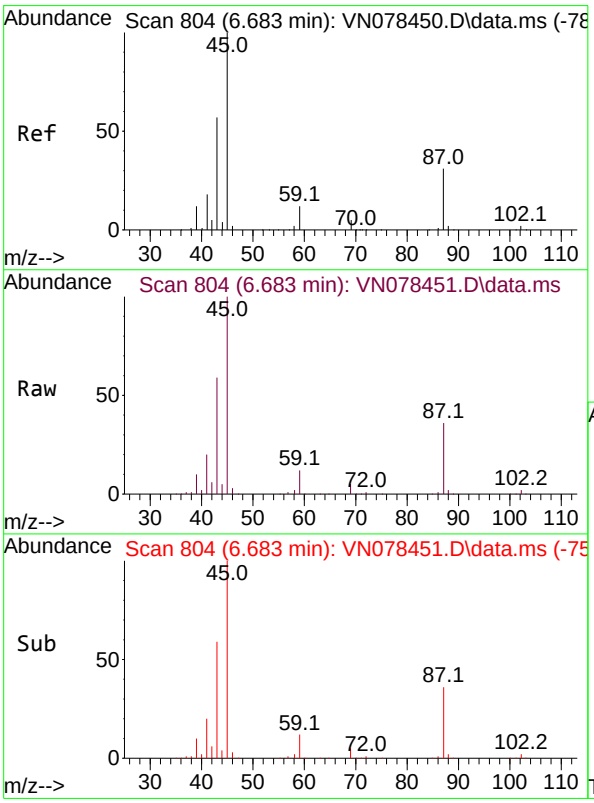
Ion	Ratio	Lower	Upper
96	100		
61	140.3	90.1	135.1
98	63.9	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

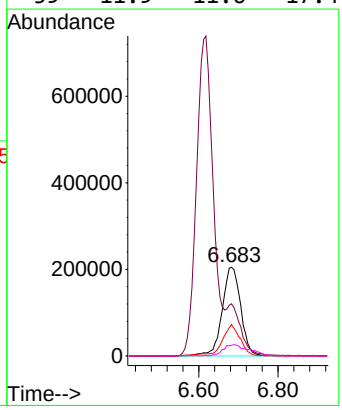
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

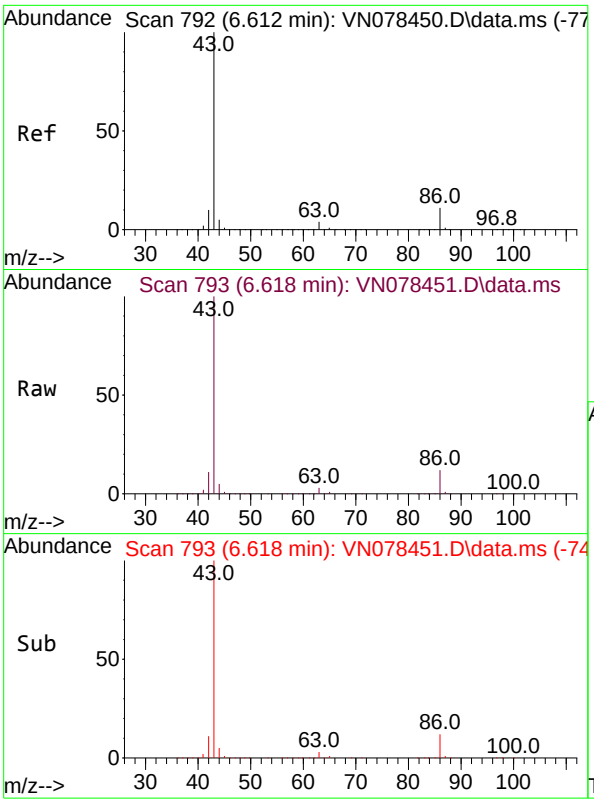


#22
Diisopropyl ether
Concen: 41.532 ug/l
RT: 6.683 min Scan# 804
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 45 Resp: 667069

Ion	Ratio	Lower	Upper
45	100		
43	58.5	45.5	68.3
87	35.4	31.8	47.8
59	11.9	11.6	17.4





#23
Vinyl Acetate
Concen: 212.168 ug/l
RT: 6.618 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

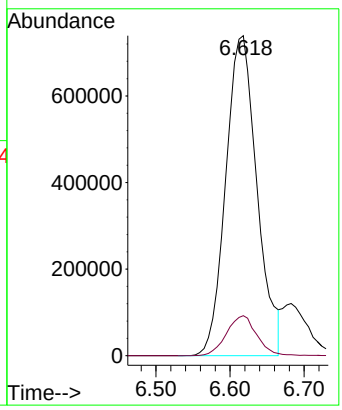
Tgt Ion: 43 Resp: 216643

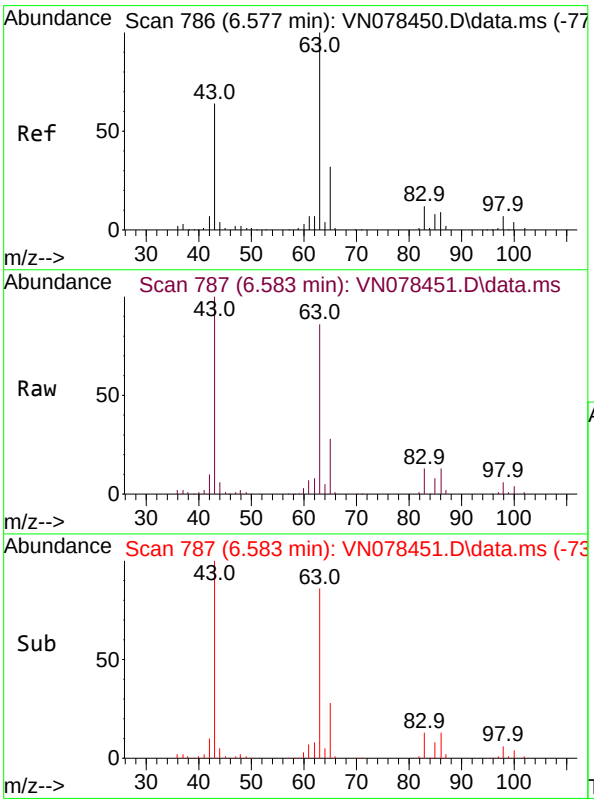
Ion	Ratio	Lower	Upper
43	100		
86	12.5	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

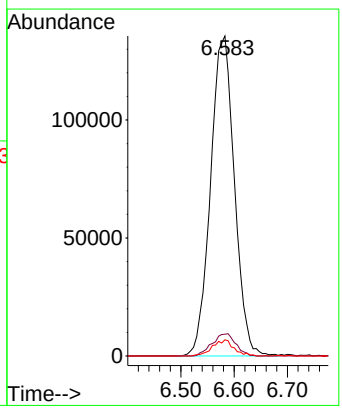


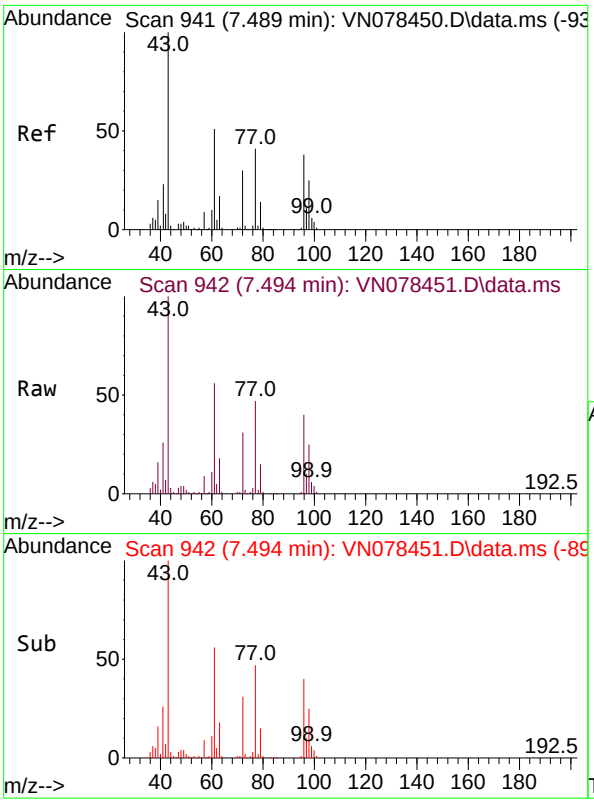


#24
1,1-Dichloroethane
Concen: 39.060 ug/l
RT: 6.583 min Scan# 787
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 63 Resp: 422735

Ion	Ratio	Lower	Upper
63	100		
98	6.8	3.9	11.7
100	5.1	2.5	7.4





#25
2-Butanone
Concen: 207.439 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.005 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

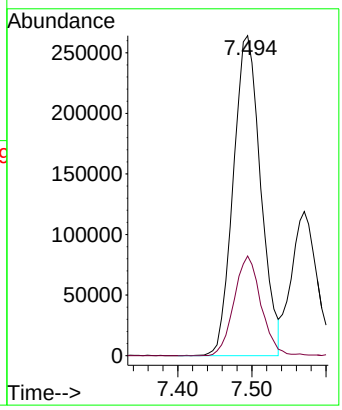
Tgt Ion: 43 Resp: 67839

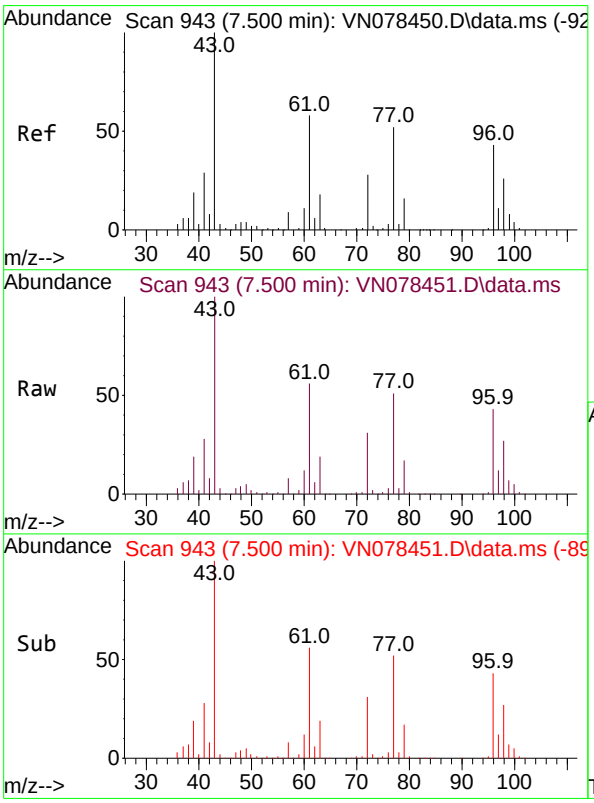
Ion	Ratio	Lower	Upper
43	100		
72	31.2	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

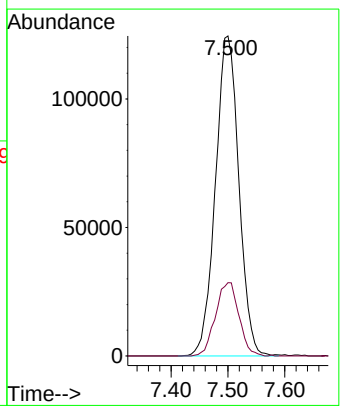


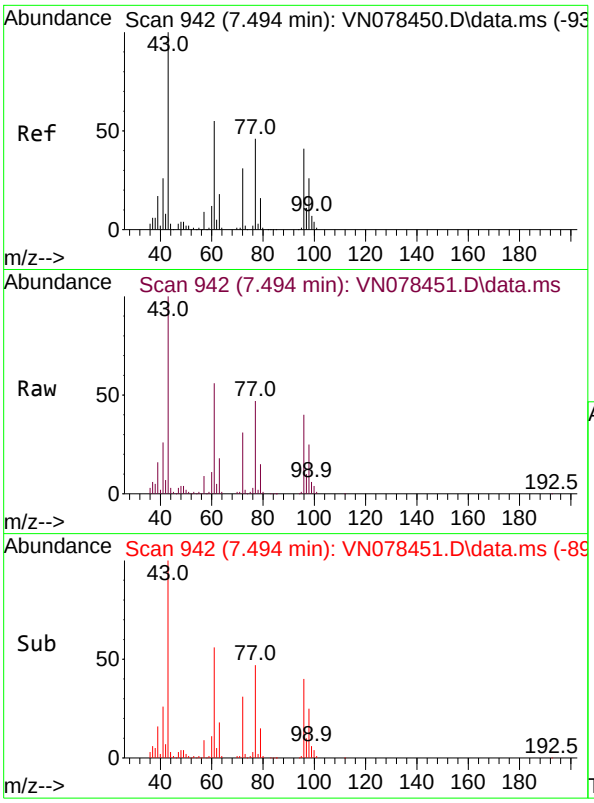


#26
2,2-Dichloropropane
Concen: 40.304 ug/l
RT: 7.500 min Scan# 943
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 77 Resp: 356772

Ion	Ratio	Lower	Upper
77	100		
97	22.9	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 40.492 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

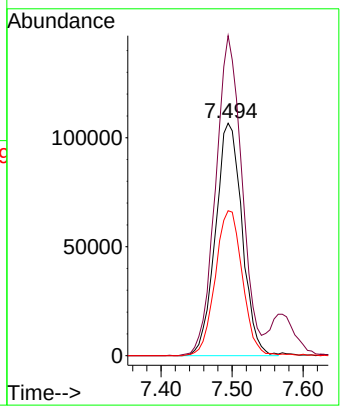
Tgt Ion: 96 Resp: 27709

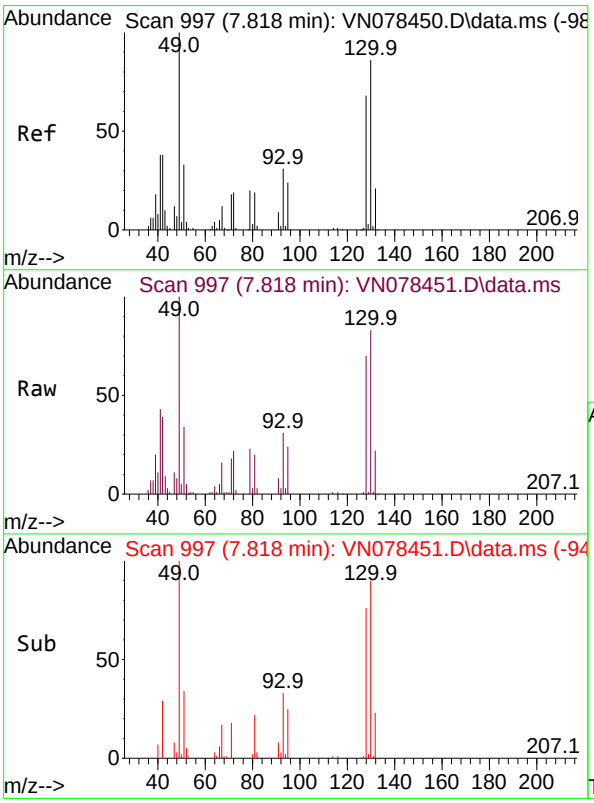
Ion	Ratio	Lower	Upper
96	100		
61	136.1	0.0	255.2
98	63.4	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

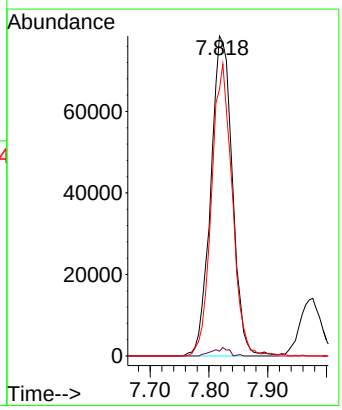


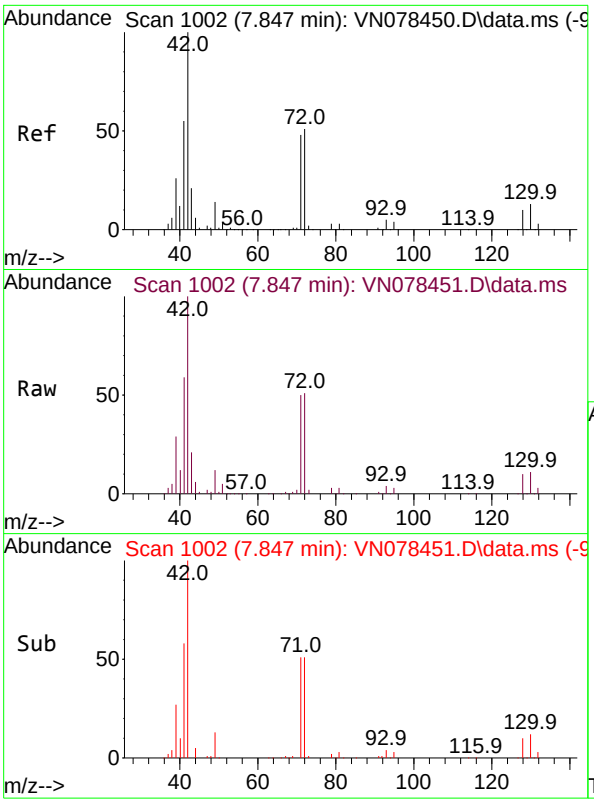


#28
Bromochloromethane
Concen: 39.378 ug/l
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 49 Resp: 200732

Ion	Ratio	Lower	Upper
49	100		
129	1.9	0.0	4.8
130	87.4	75.3	112.9

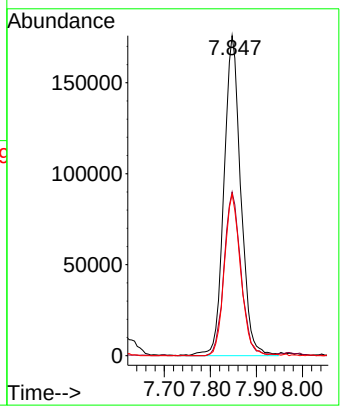




#29
Tetrahydrofuran
Concen: 207.863 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 42 Resp: 44604

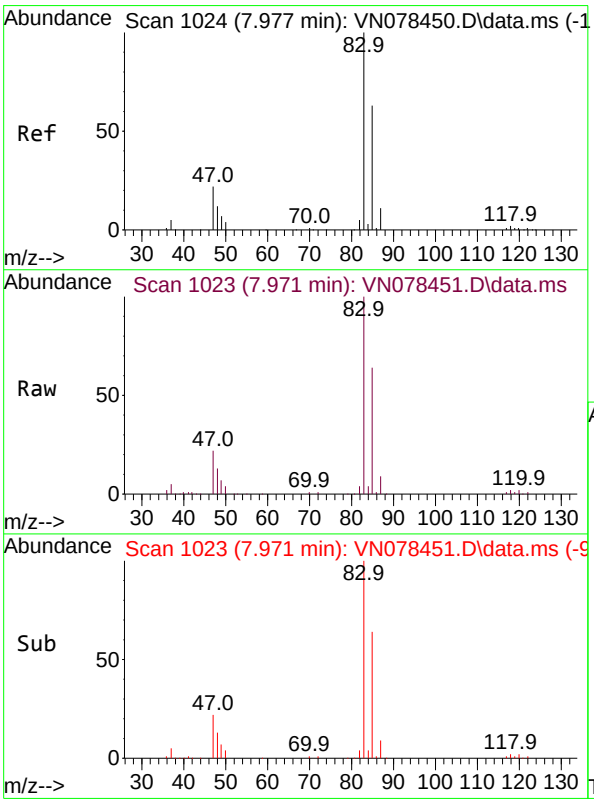
Ion	Ratio	Lower	Upper
42	100		
72	51.0	49.8	74.6
71	48.8	47.4	71.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

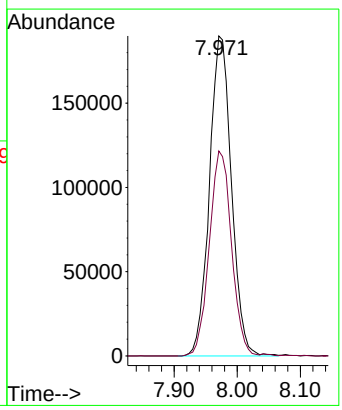
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

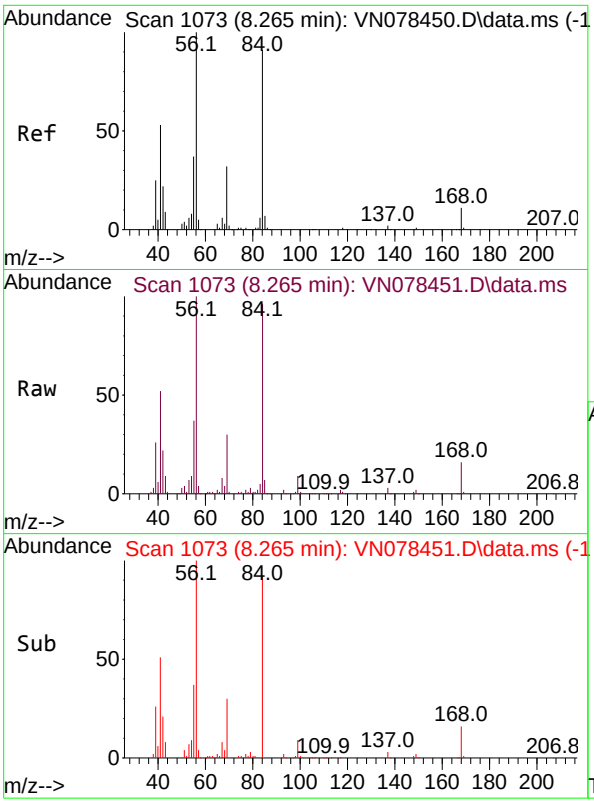


#30
Chloroform
Concen: 40.791 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 83 Resp: 459616

Ion	Ratio	Lower	Upper
83	100		
85	64.1	55.4	83.0

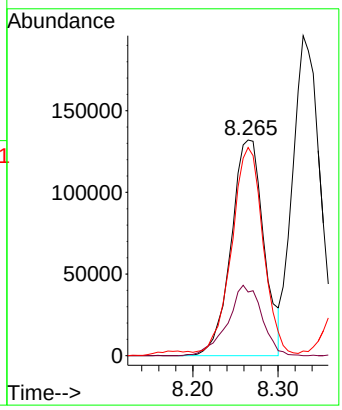




#31
Cyclohexane
Concen: 38.928 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 56 Resp: 35087

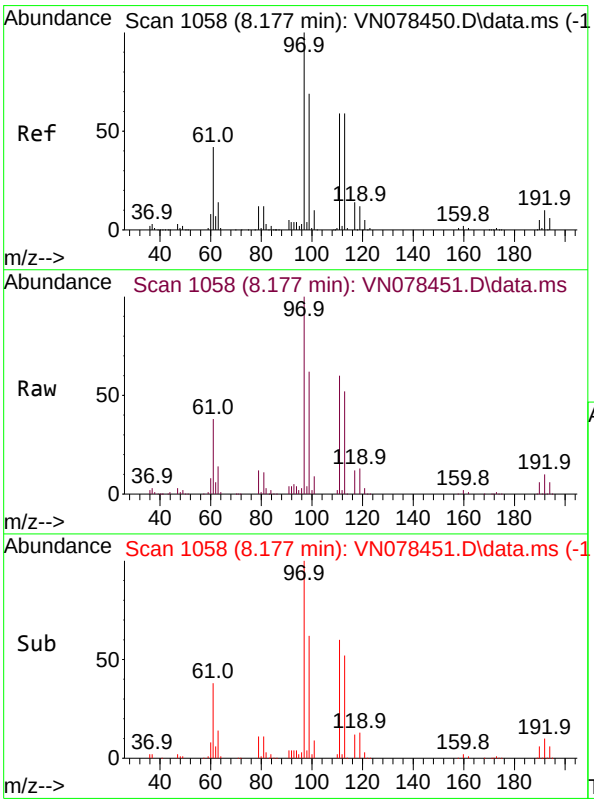
Ion	Ratio	Lower	Upper
56	100		
69	29.6	26.8	40.2
84	94.3	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

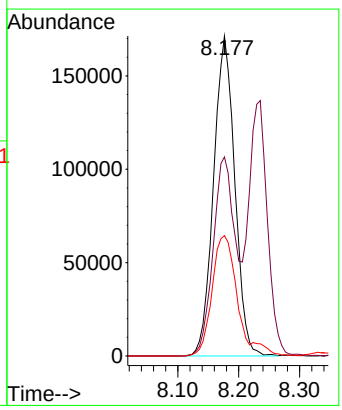
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

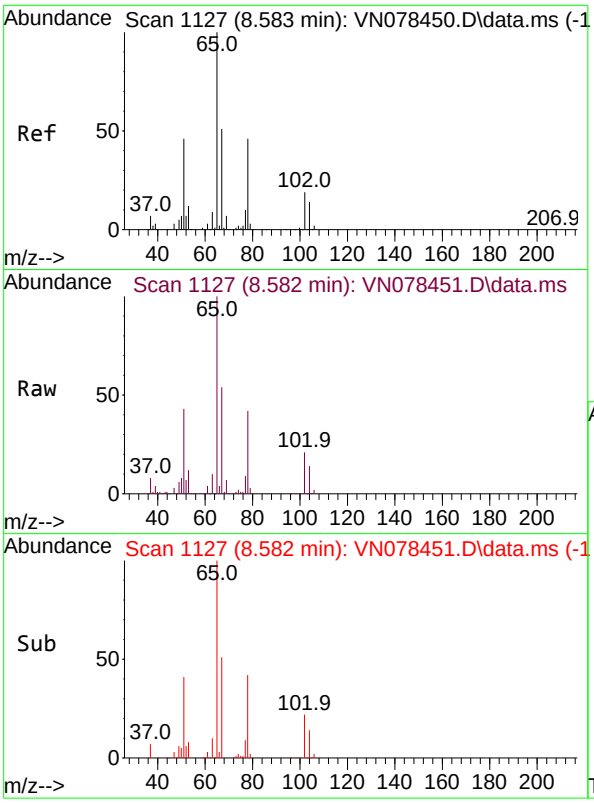


#32
1,1,1-Trichloroethane
Concen: 41.100 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 97 Resp: 415202

Ion	Ratio	Lower	Upper
97	100		
99	66.3	50.3	75.5
61	45.1	34.7	52.1

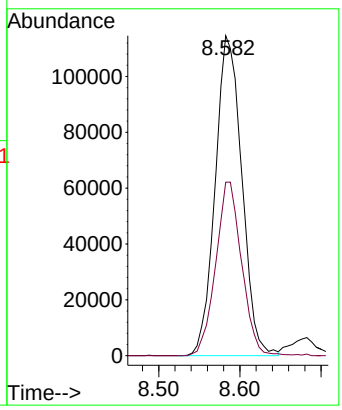




#33
1,2-Dichloroethane-d4
Concen: 39.186 ug/l
RT: 8.582 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 65 Resp: 26134

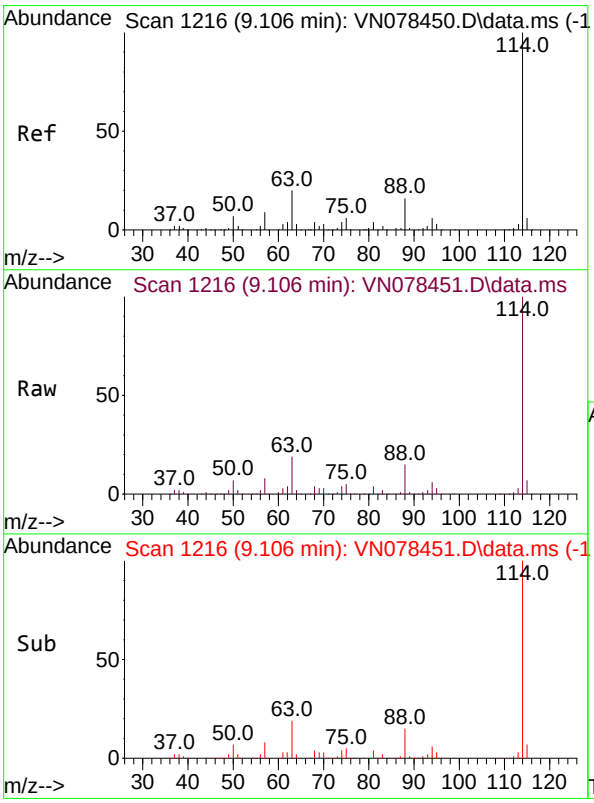
Ion	Ratio	Lower	Upper
65	100		
67	52.8	0.0	106.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

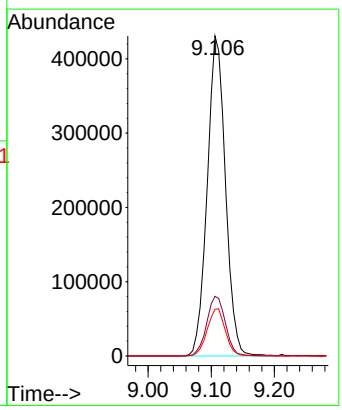
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

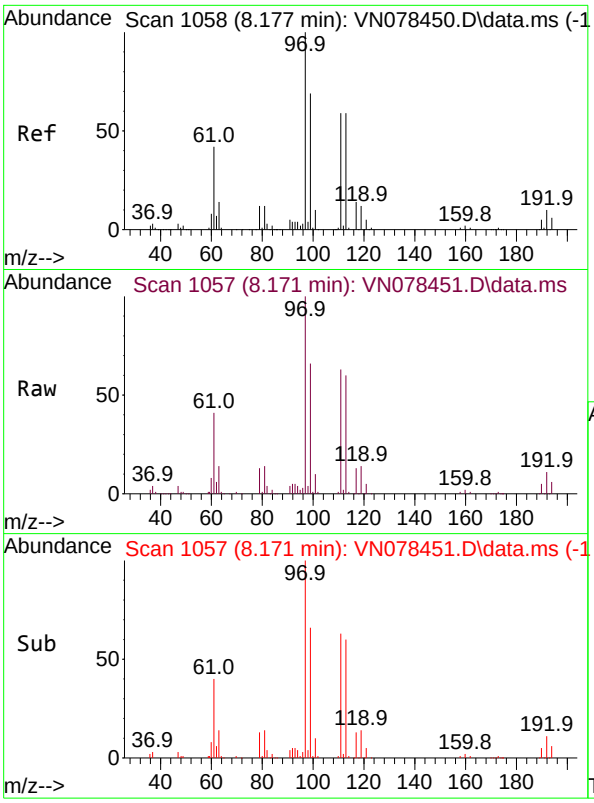


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:114 Resp: 863649

Ion	Ratio	Lower	Upper
114	100		
63	18.7	0.0	36.4
88	14.6	0.0	30.6

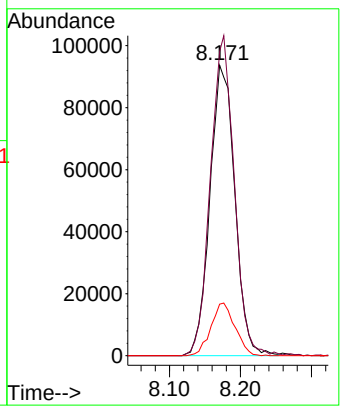




#35
Dibromofluoromethane
Concen: 38.865 ug/l
RT: 8.171 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:113 Resp: 22785

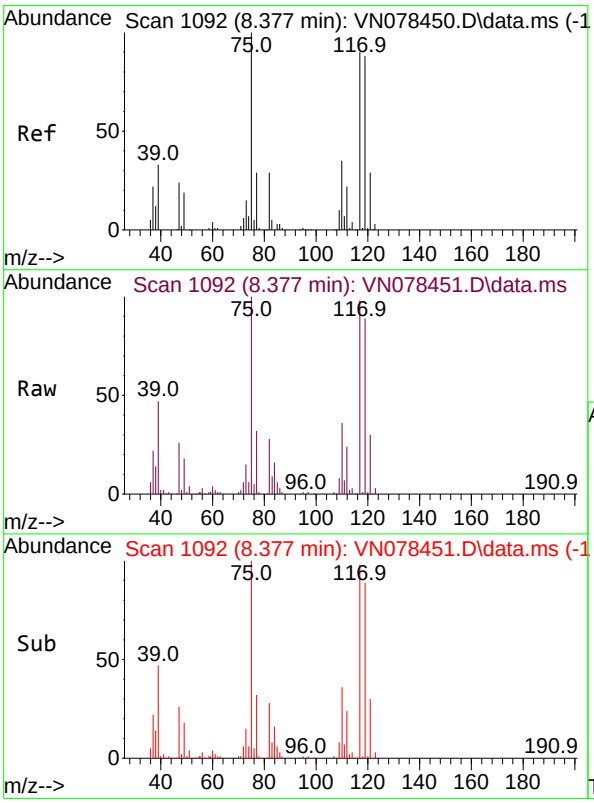
Ion	Ratio	Lower	Upper
113	100		
111	105.2	82.6	123.8
192	17.5	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

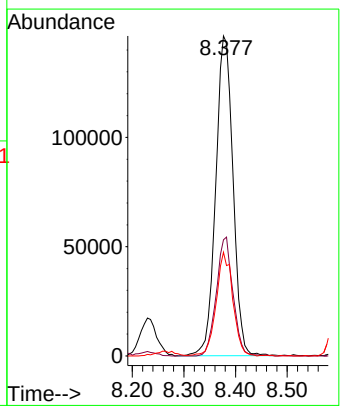
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

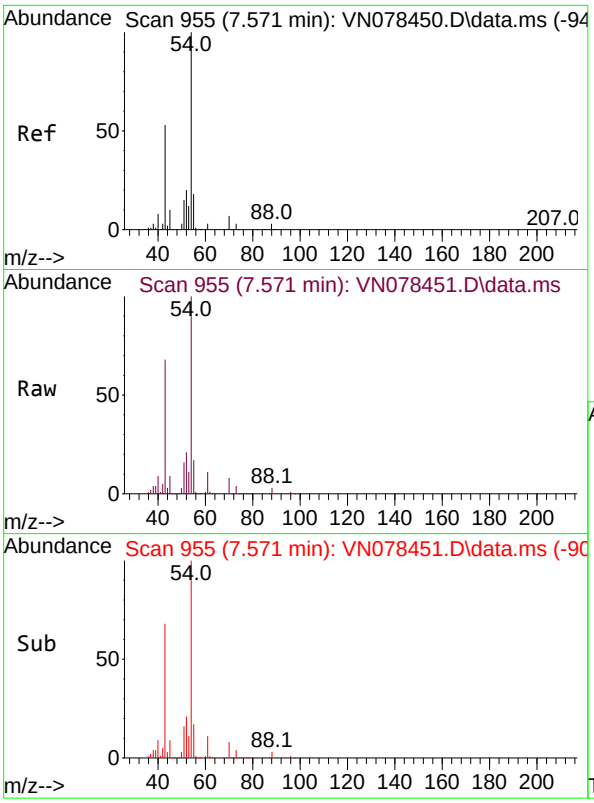


#36
1,1-Dichloropropene
Concen: 40.157 ug/l
RT: 8.377 min Scan# 1092
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 75 Resp: 339938

Ion	Ratio	Lower	Upper
75	100		
110	35.7	19.1	57.3
77	31.3	25.0	37.4





#37
Ethyl Acetate
Concen: 41.795 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

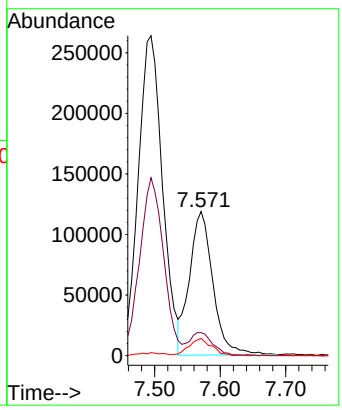
Tgt Ion: 43 Resp: 29493

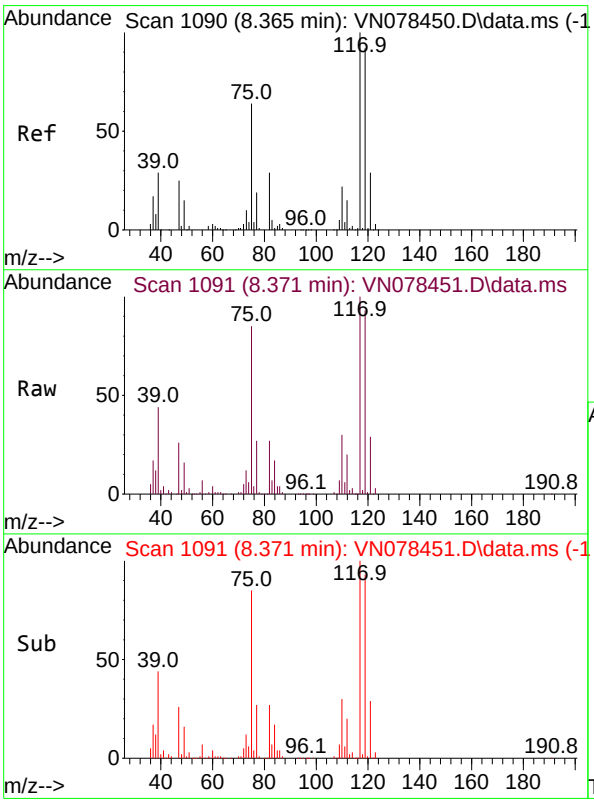
Ion	Ratio	Lower	Upper
43	100		
61	14.7	13.2	19.8
70	11.7	11.3	16.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

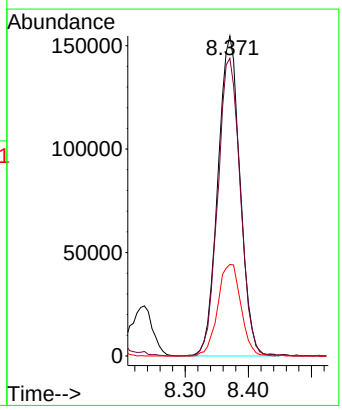


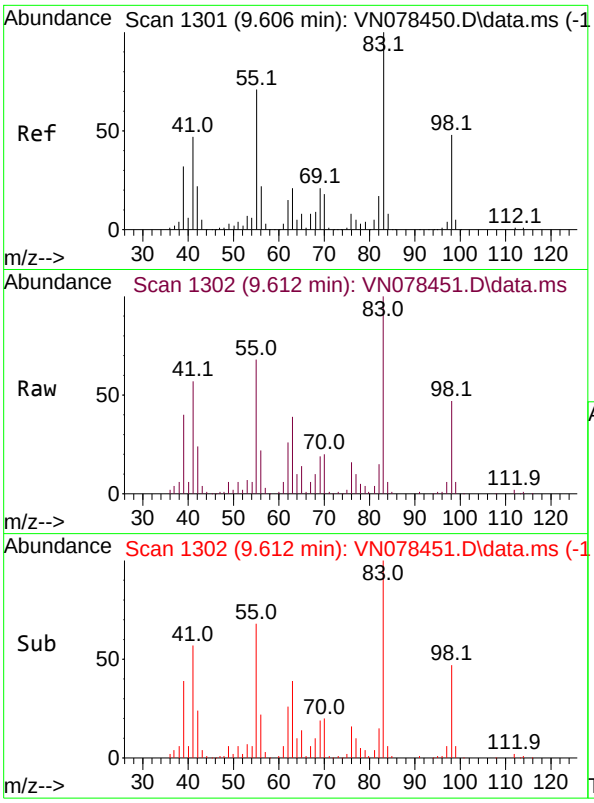


#38
Carbon Tetrachloride
Concen: 40.945 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:117 Resp: 376705

Ion	Ratio	Lower	Upper
117	100		
119	93.0	77.3	115.9
121	28.6	23.3	34.9





#39
Methylcyclohexane
Concen: 40.536 ug/l
RT: 9.612 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

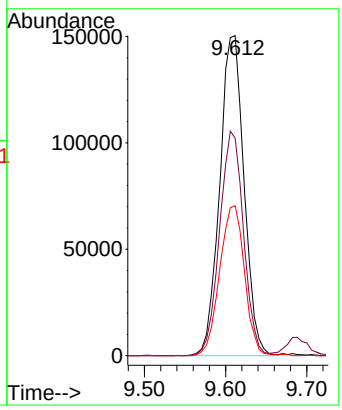
Tgt Ion: 83 Resp: 31322

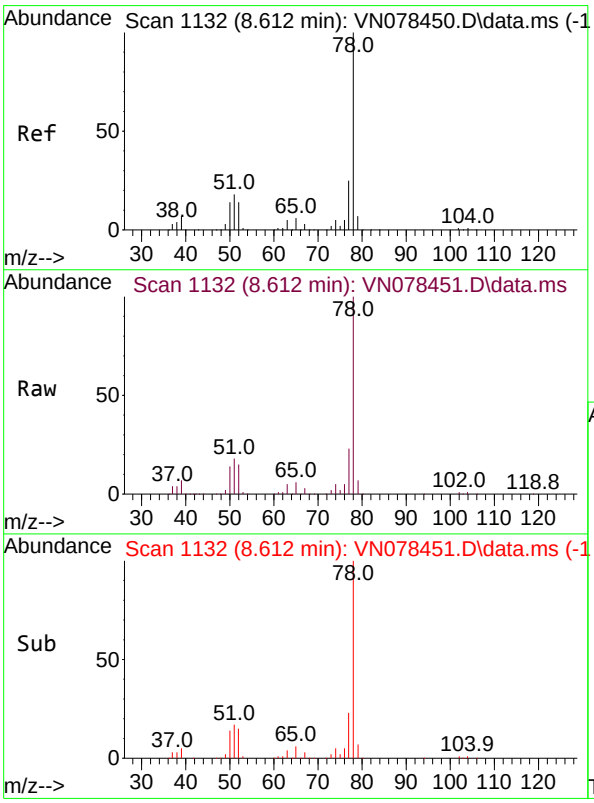
Ion	Ratio	Lower	Upper
83	100		
55	67.8	49.1	73.7
98	46.9	40.6	61.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

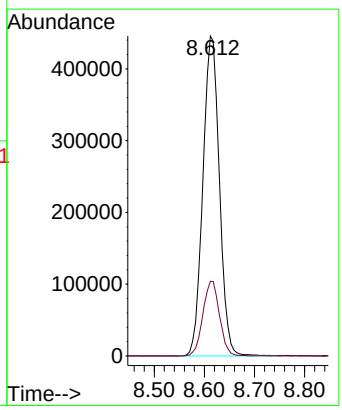


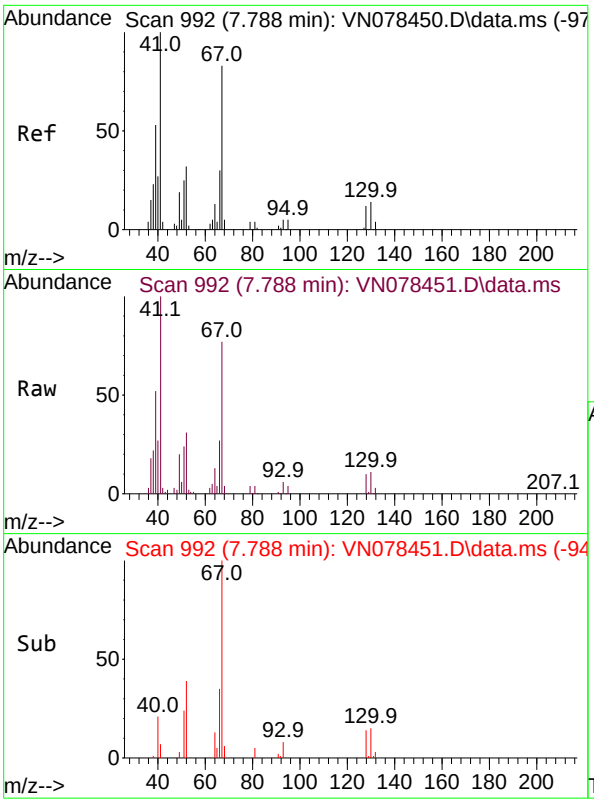


#40
Benzene
Concen: 40.722 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 78 Resp: 1021262

Ion	Ratio	Lower	Upper
78	100		
77	23.4	19.0	28.6

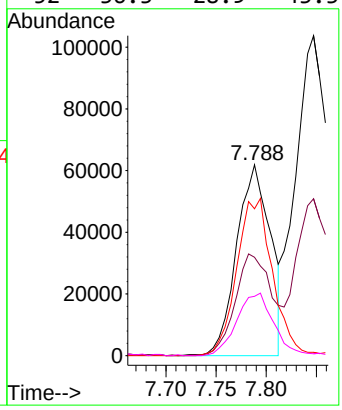




#41
Methacrylonitrile
Concen: 40.342 ug/l
RT: 7.788 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 41 Resp: 14512

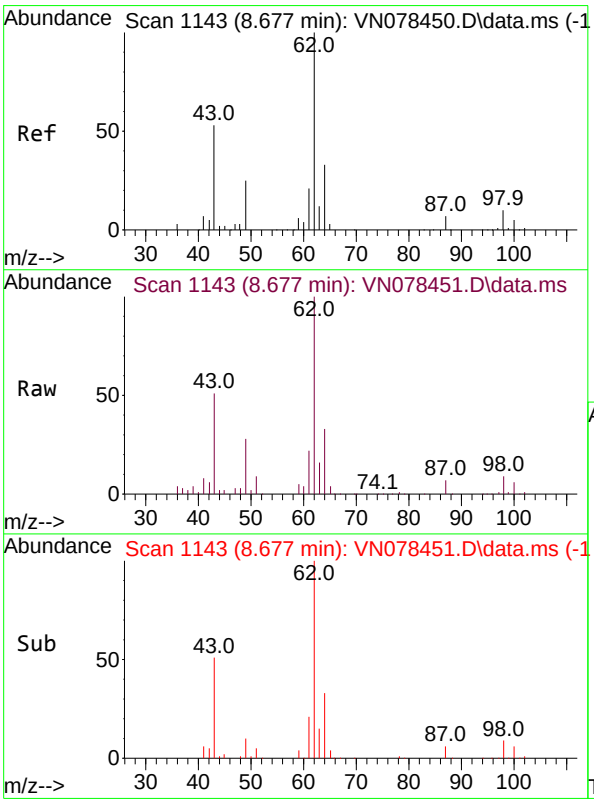
Ion	Ratio	Lower	Upper
41	100		
39	59.8	42.6	64.0
67	87.8	77.5	116.3
52	36.3	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

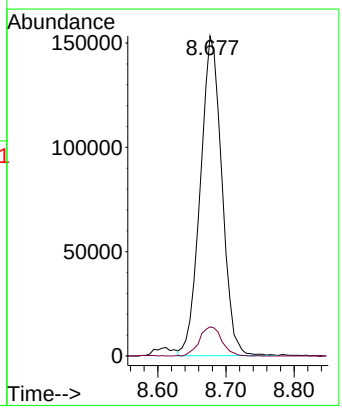
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

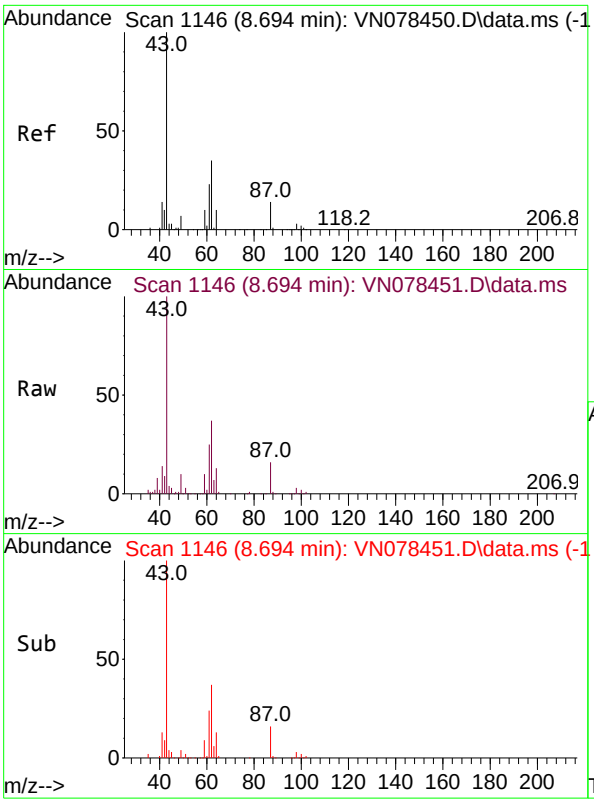


#42
1,2-Dichloroethane
Concen: 39.429 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 62 Resp: 336345

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.8





#43
Isopropyl Acetate
Concen: 42.143 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

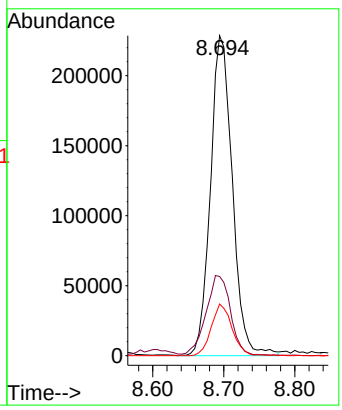
Tgt Ion: 43 Resp: 48962

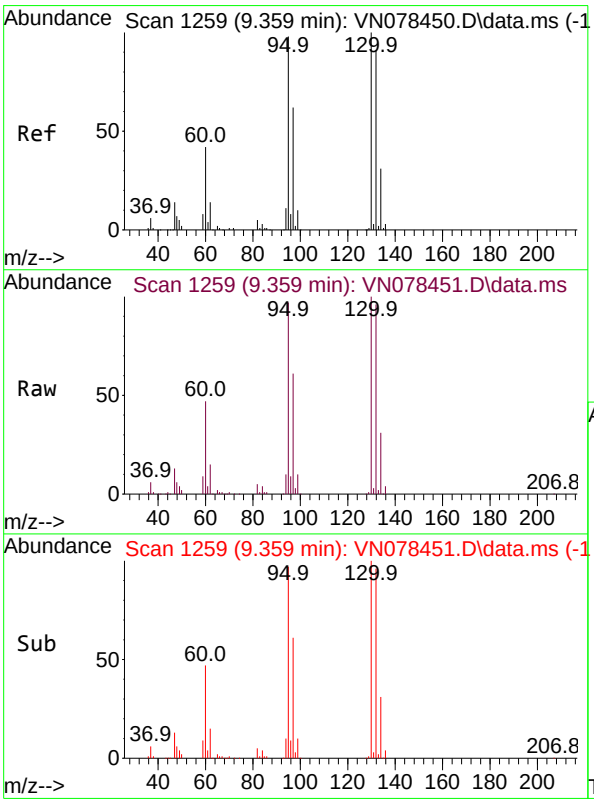
Ion	Ratio	Lower	Upper
43	100		
61	28.0	24.7	37.1
87	15.3	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

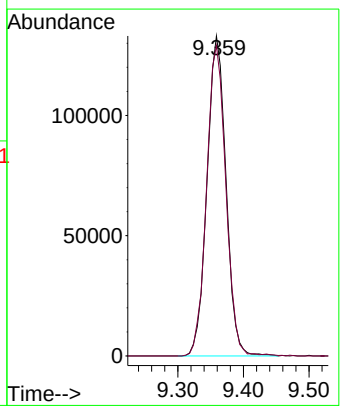


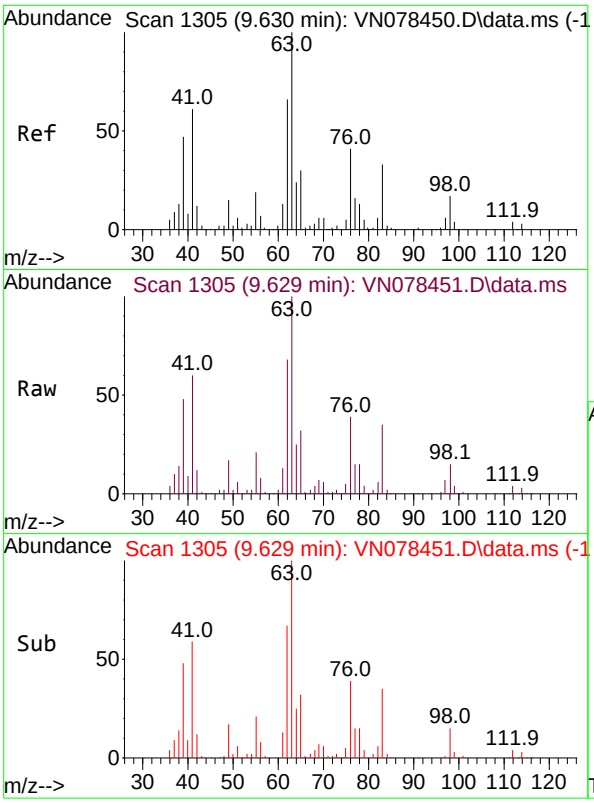


#44
Trichloroethene
Concen: 39.603 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:130 Resp: 267689

Ion	Ratio	Lower	Upper
130	100		
95	97.0	0.0	204.6

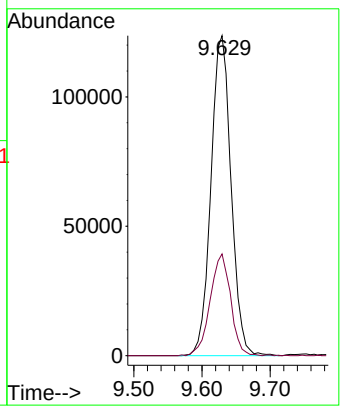




#45
1,2-Dichloropropane
Concen: 40.023 ug/l
RT: 9.629 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 63 Resp: 25421

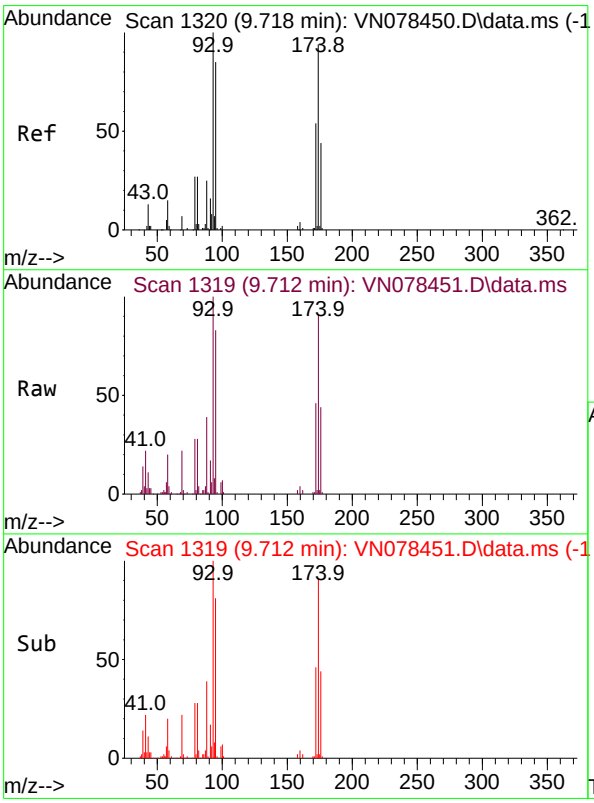
Ion	Ratio	Lower	Upper
63	100		
65	31.8	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

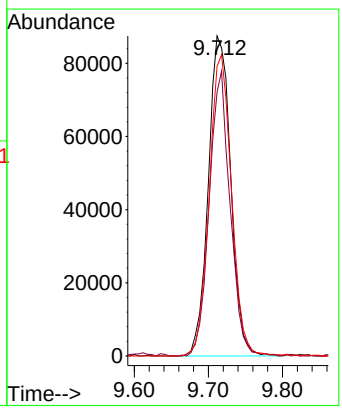
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

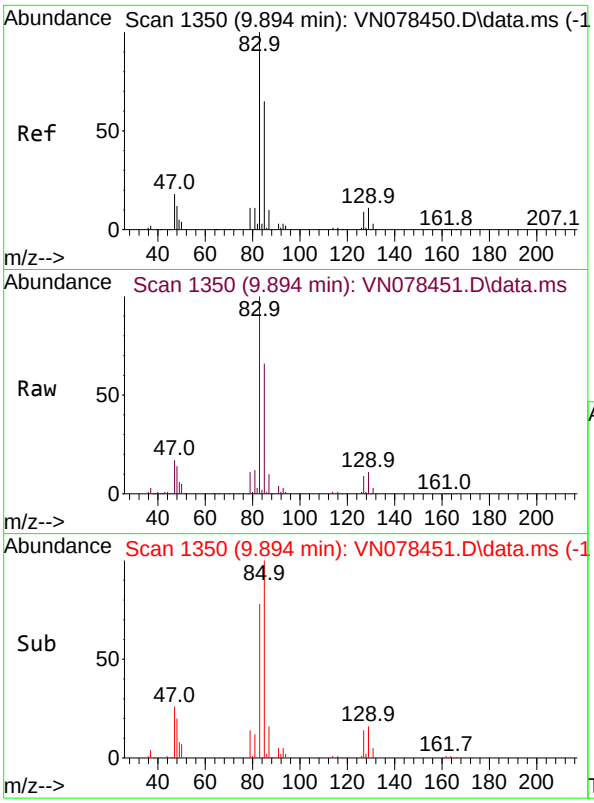


#46
Dibromomethane
Concen: 41.124 ug/l
RT: 9.712 min Scan# 1319
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 93 Resp: 183848

Ion	Ratio	Lower	Upper
93	100		
95	82.7	63.8	95.8
174	93.3	65.6	98.4

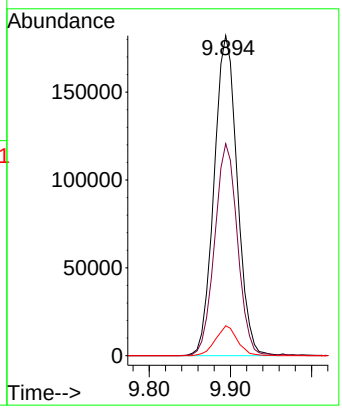




#47
Bromodichloromethane
Concen: 40.259 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 83 Resp: 36078

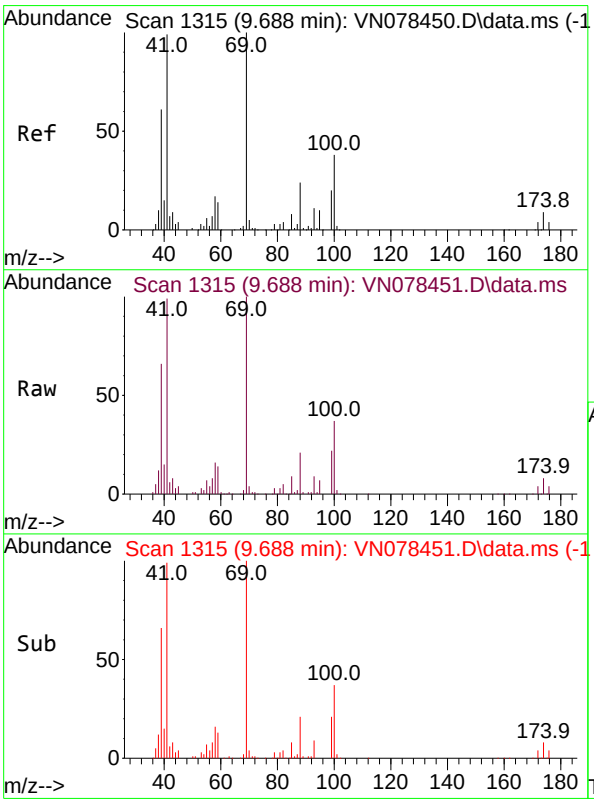
Ion	Ratio	Lower	Upper
83	100		
85	66.2	49.6	74.4
127	9.3	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

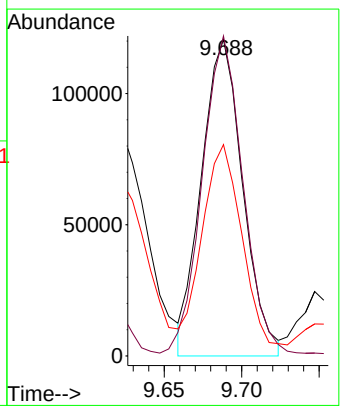
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

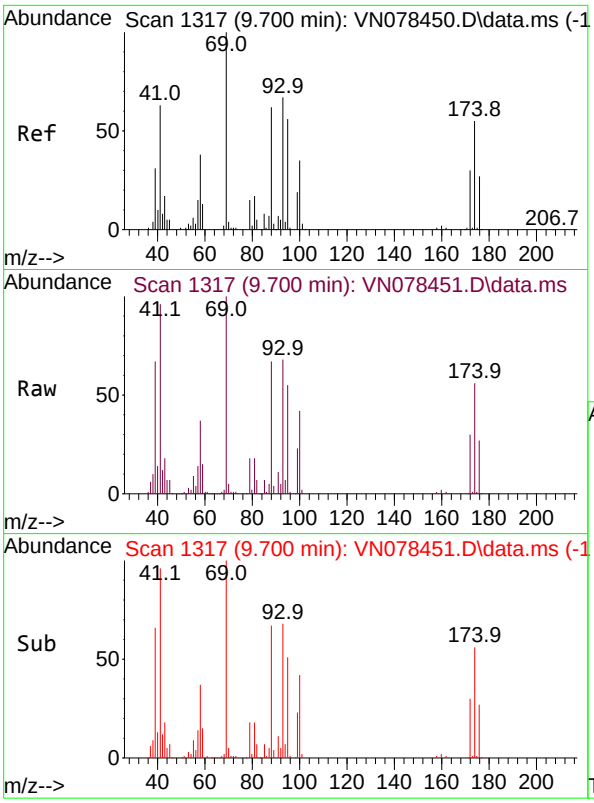


#48
Methyl methacrylate
Concen: 41.499 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 41 Resp: 223368

Ion	Ratio	Lower	Upper
41	100		
69	100.6	90.4	135.6
39	66.4	54.6	81.8

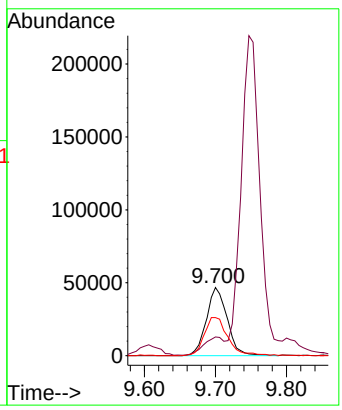




#49
1,4-Dioxane
Concen: 810.969 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 88 Resp: 9519

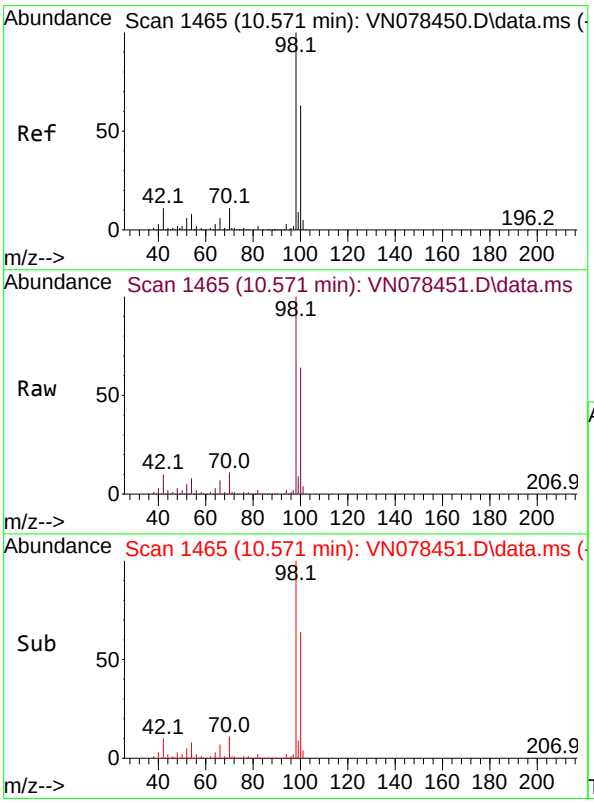
Ion	Ratio	Lower	Upper
88	100		
43	25.2	17.0	25.6
58	64.2	47.0	70.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

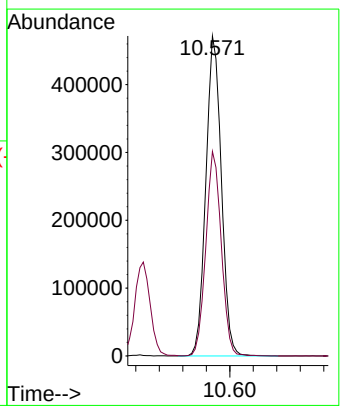
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

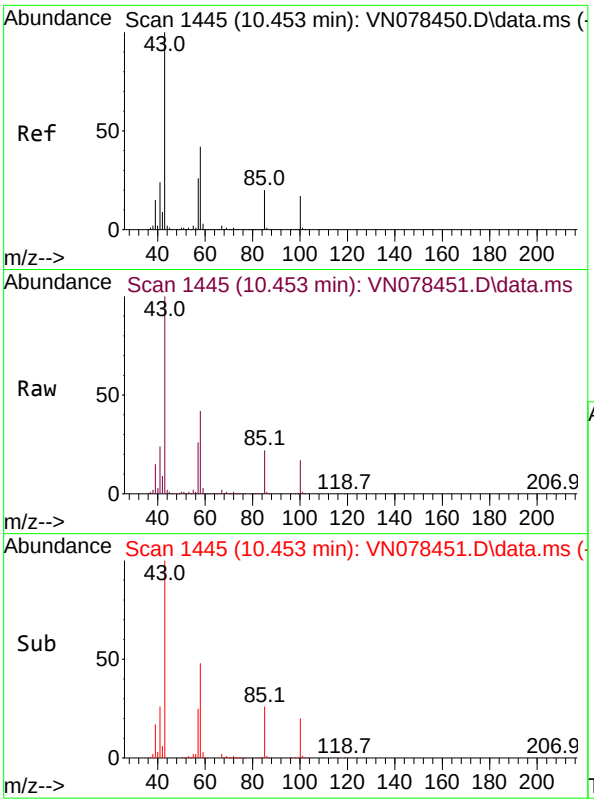


#50
Toluene-d8
Concen: 38.902 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 98 Resp: 861588

Ion	Ratio	Lower	Upper
98	100		
100	63.8	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 213.353 ug/l
RT: 10.453 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

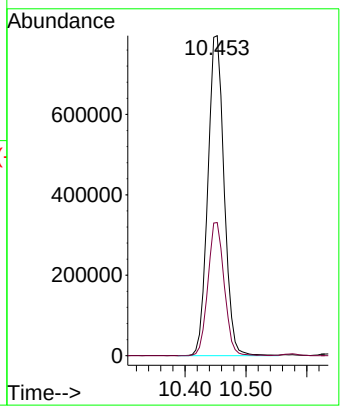
Tgt Ion: 43 Resp: 147439

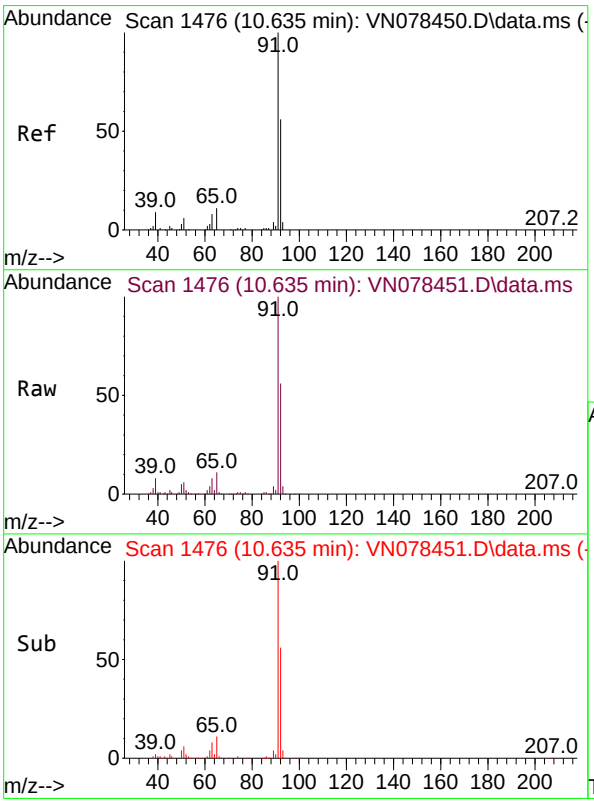
Ion	Ratio	Lower	Upper
43	100		
58	41.8	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

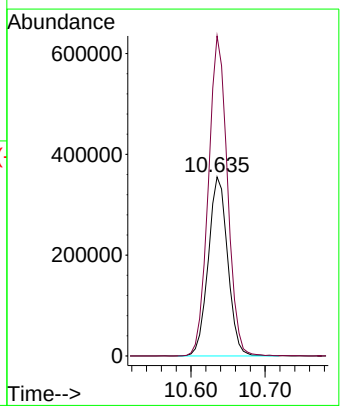


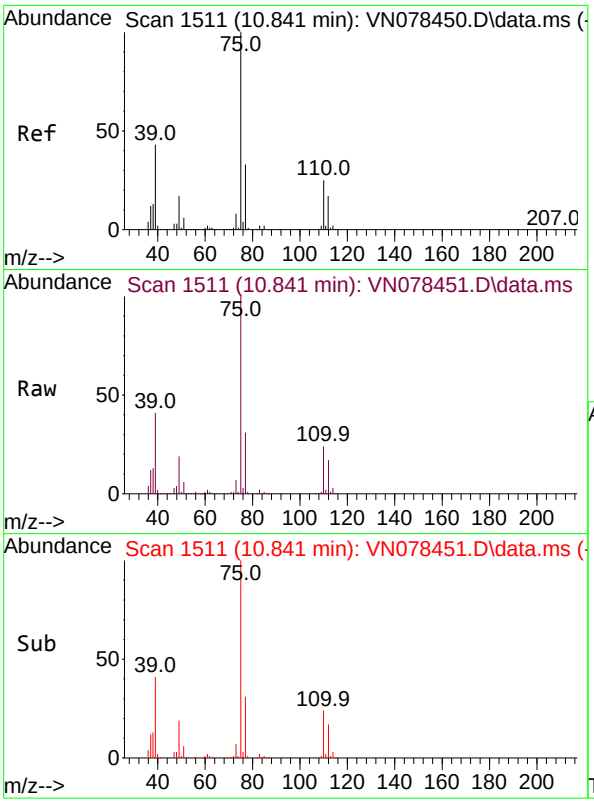


#52
Toluene
Concen: 41.587 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 92 Resp: 646394

Ion	Ratio	Lower	Upper
92	100		
91	175.6	137.4	206.0

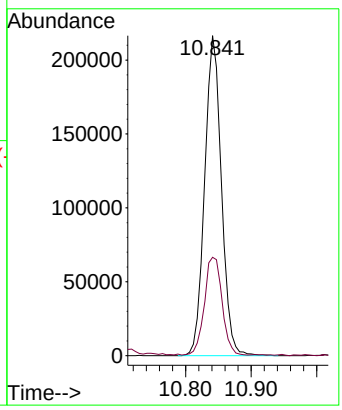




#53
t-1,3-Dichloropropene
Concen: 41.920 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 75 Resp: 38486

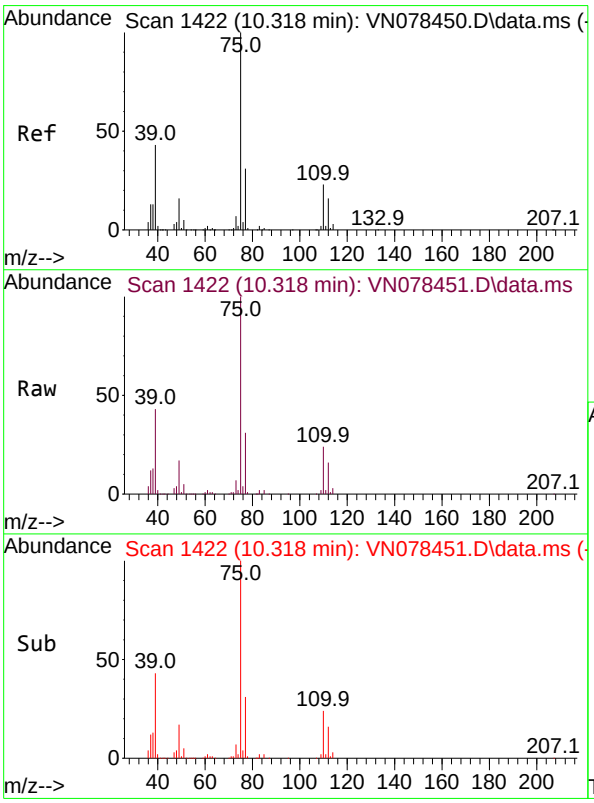
Ion	Ratio	Lower	Upper
75	100		
77	30.5	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

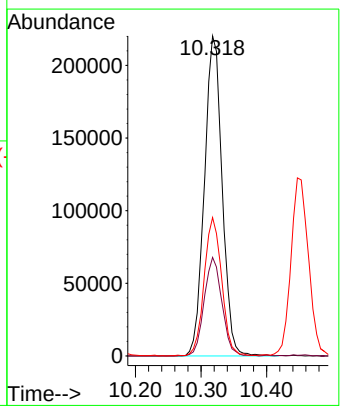
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

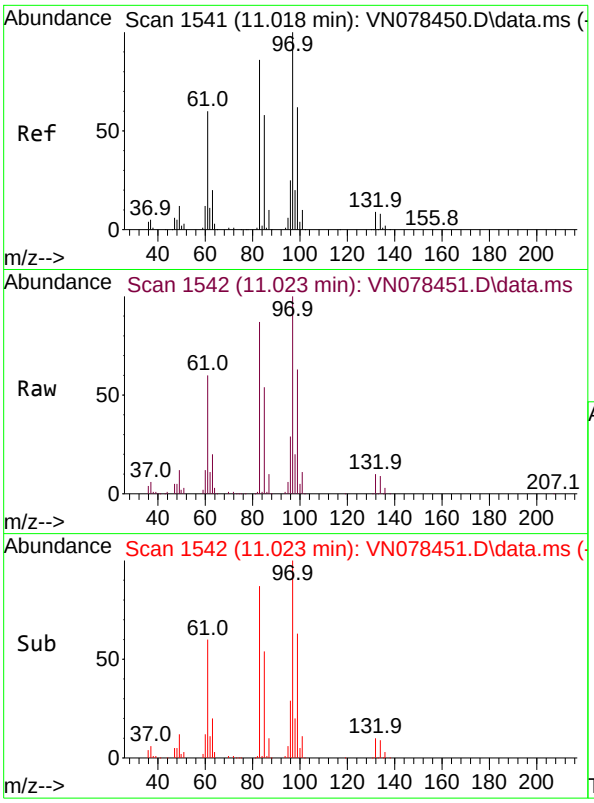


#54
cis-1,3-Dichloropropene
Concen: 42.447 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 75 Resp: 415396

Ion	Ratio	Lower	Upper
75	100		
77	30.7	26.1	39.1
39	43.0	31.6	47.4

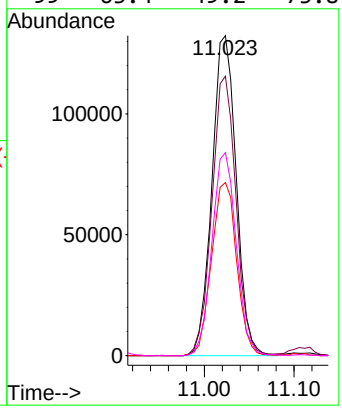




#55
1,1,2-Trichloroethane
Concen: 40.623 ug/l
RT: 11.023 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 97 Resp: 24877

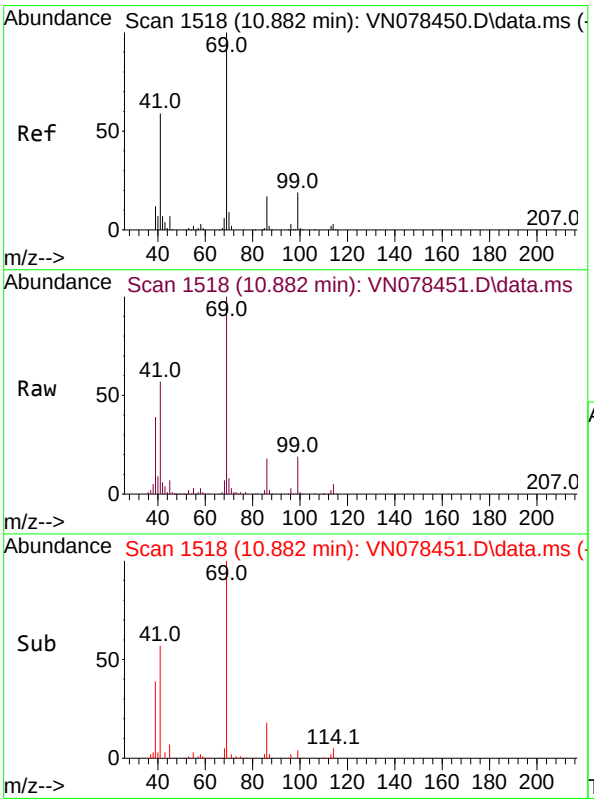
Ion	Ratio	Lower	Upper
97	100		
83	87.4	65.1	97.7
85	54.1	43.4	65.2
99	63.4	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

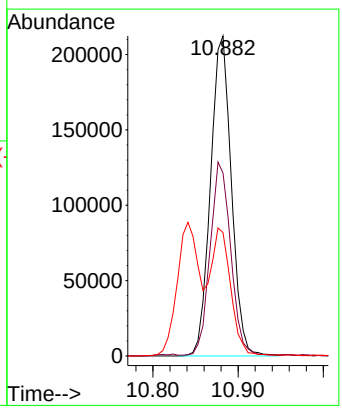
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

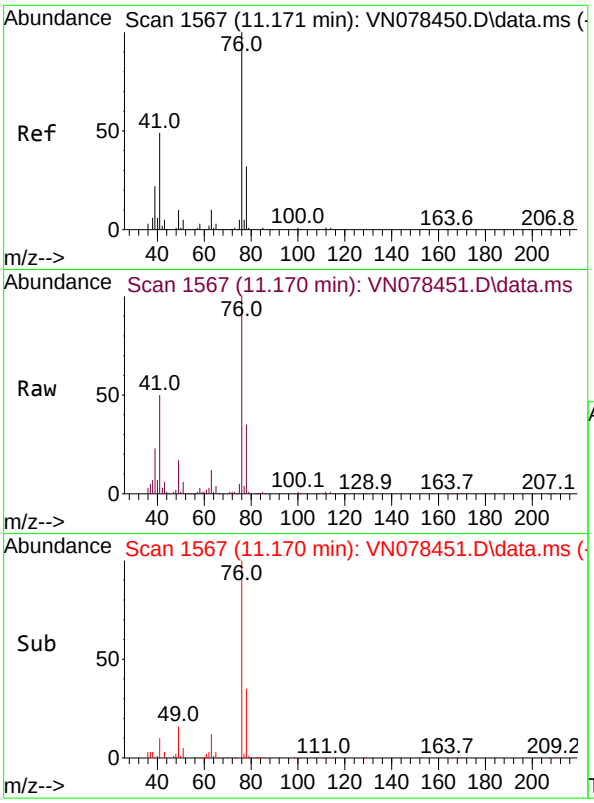


#56
Ethyl methacrylate
Concen: 42.216 ug/l
RT: 10.882 min Scan# 1518
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 69 Resp: 361395

Ion	Ratio	Lower	Upper
69	100		
41	59.5	39.6	59.4#
39	38.8	28.6	43.0

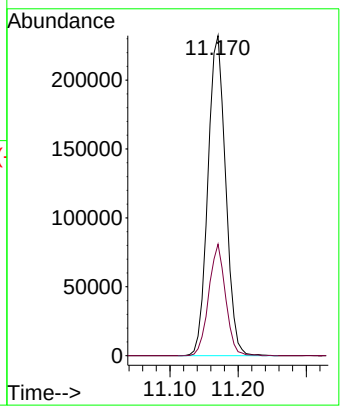




#57
1,3-Dichloropropane
Concen: 40.345 ug/l
RT: 11.170 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 76 Resp: 42009

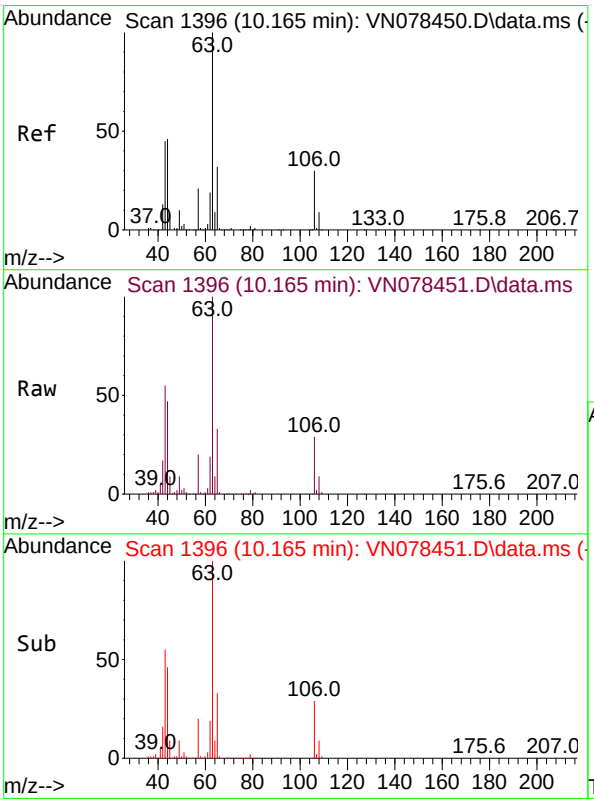
Ion	Ratio	Lower	Upper
76	100		
78	33.1	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

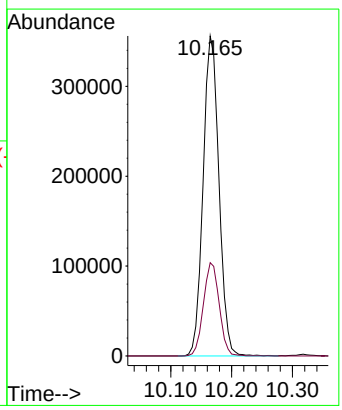
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

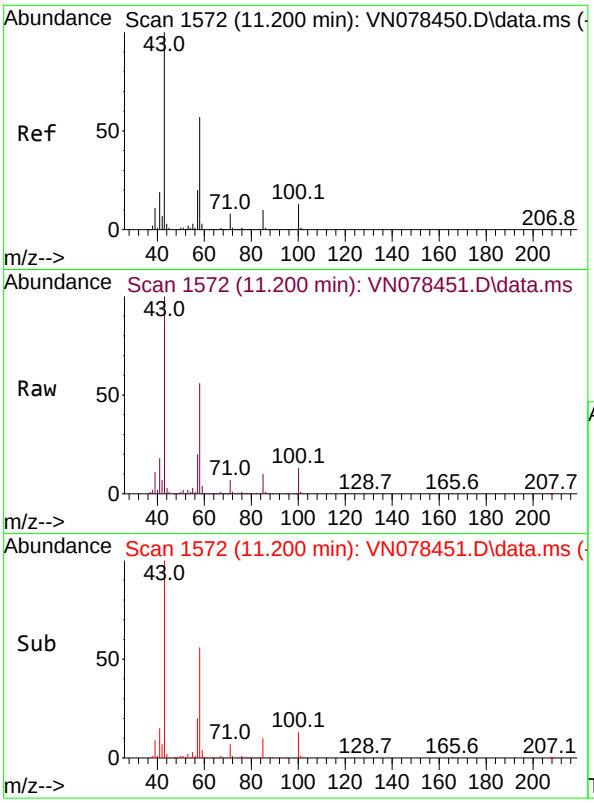


#58
2-Chloroethyl Vinyl ether
Concen: 211.125 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 63 Resp: 644098

Ion	Ratio	Lower	Upper
63	100		
106	29.1	26.2	39.4





#59
2-Hexanone
Concen: 215.235 ug/l
RT: 11.200 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

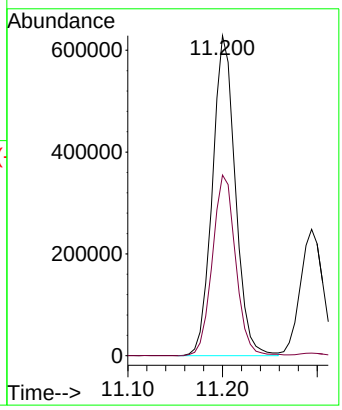
Tgt Ion: 43 Resp: 105710

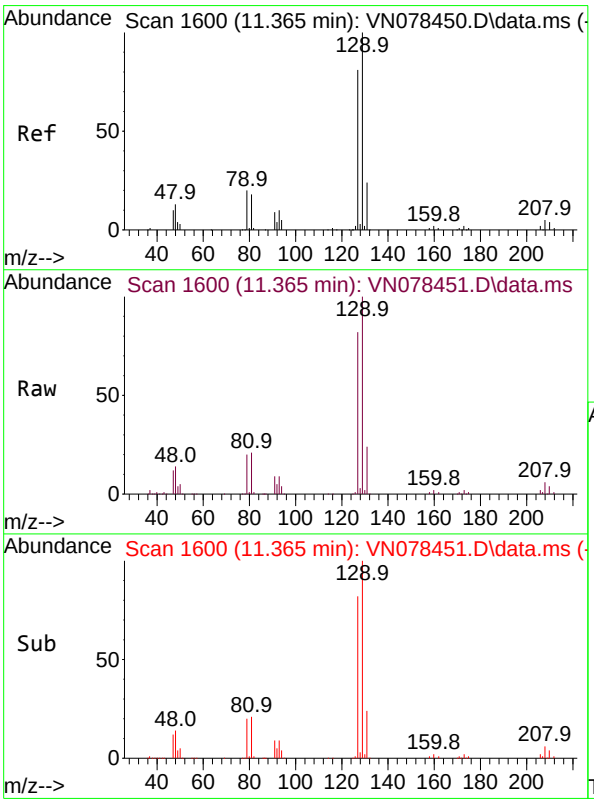
Ion	Ratio	Lower	Upper
43	100		
58	57.2	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

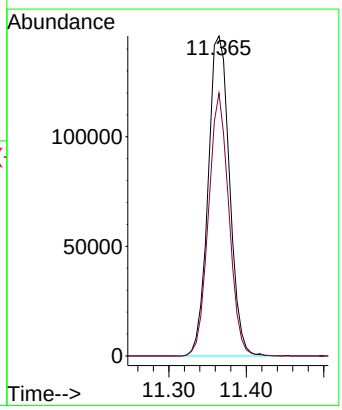


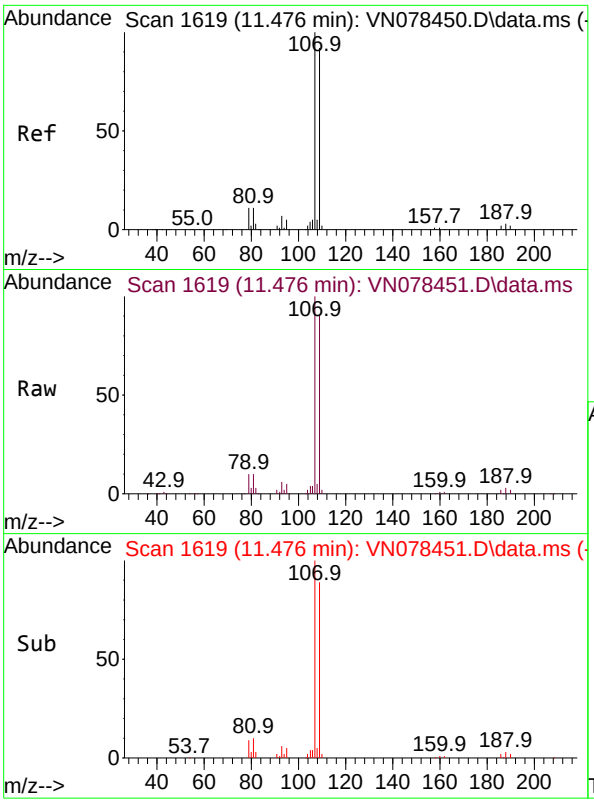


#60
Dibromochloromethane
Concen: 41.469 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:129 Resp: 280365

Ion	Ratio	Lower	Upper
129	100		
127	78.0	38.6	116.0





#61
1,2-Dibromoethane
Concen: 41.745 ug/l
RT: 11.476 min Scan# 1(
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

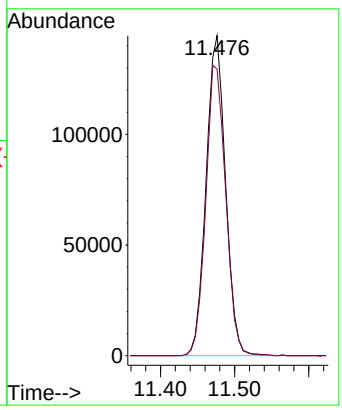
Tgt Ion:107 Resp: 26335(

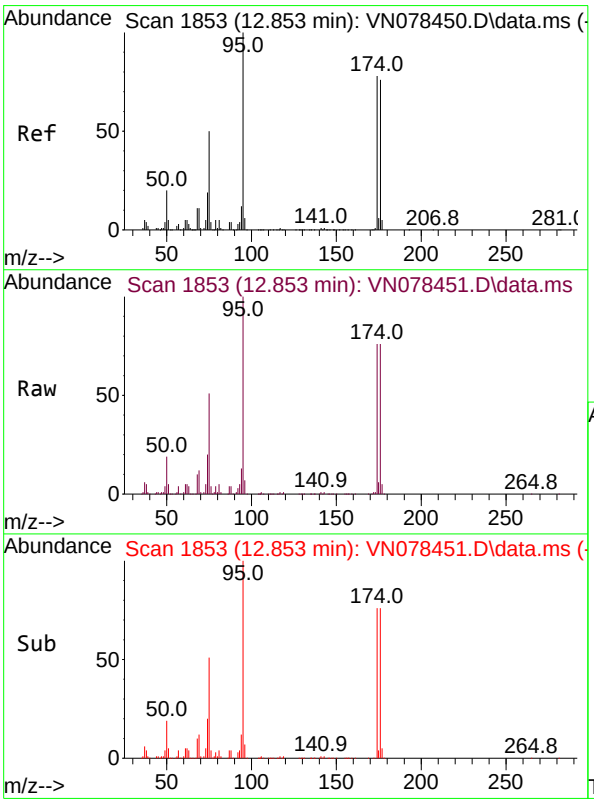
Ion	Ratio	Lower	Upper
107	100		
109	93.1	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

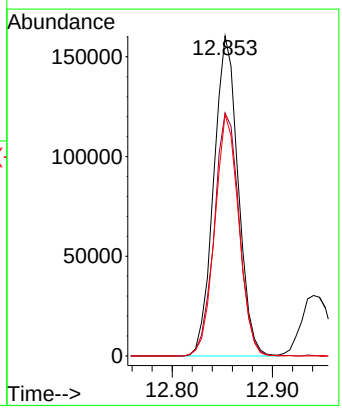


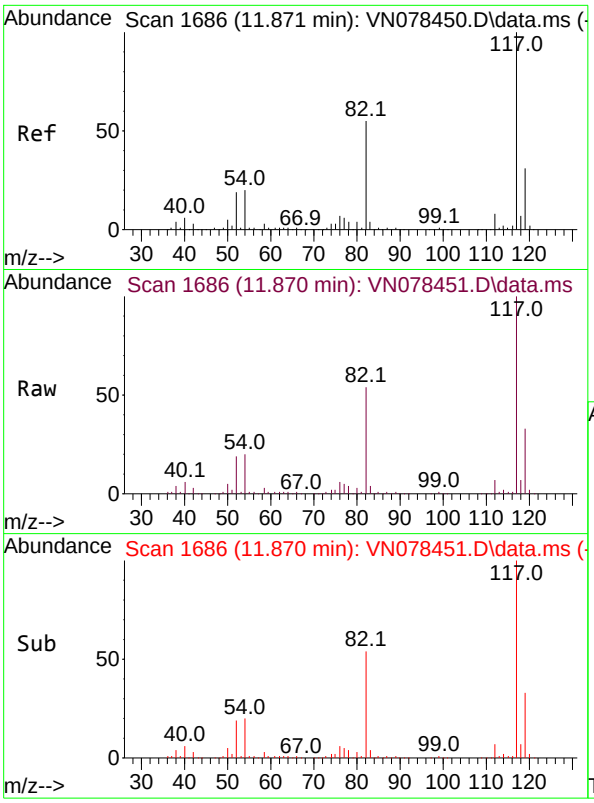


#62
4-Bromofluorobenzene
Concen: 39.701 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 95 Resp: 270837

Ion	Ratio	Lower	Upper
95	100		
174	77.4	0.0	143.8
176	74.3	0.0	135.8

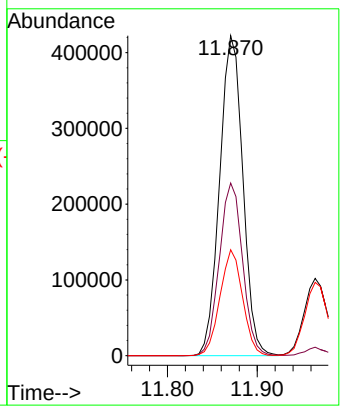




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:117 Resp: 75951

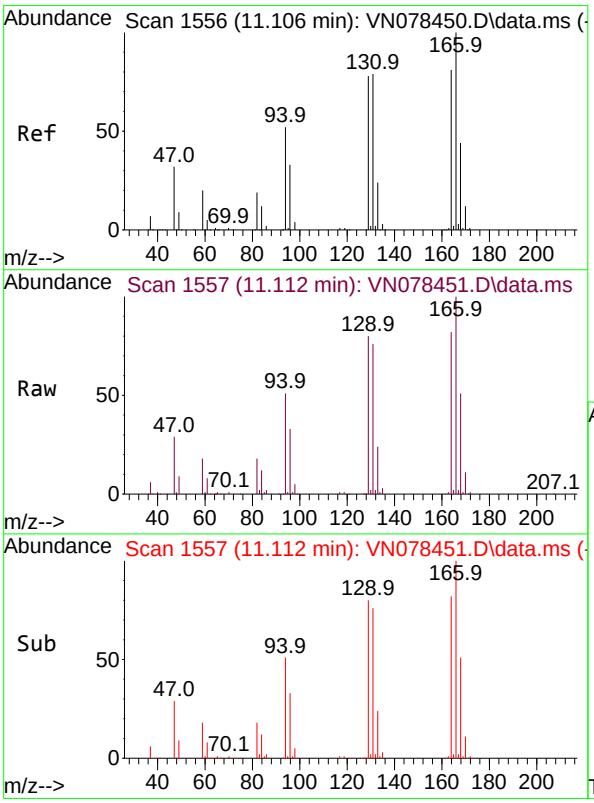
Ion	Ratio	Lower	Upper
117	100		
82	53.9	44.0	66.0
119	33.1	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

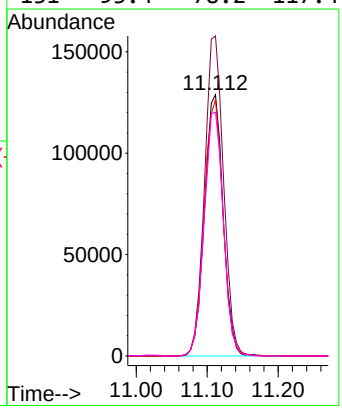
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

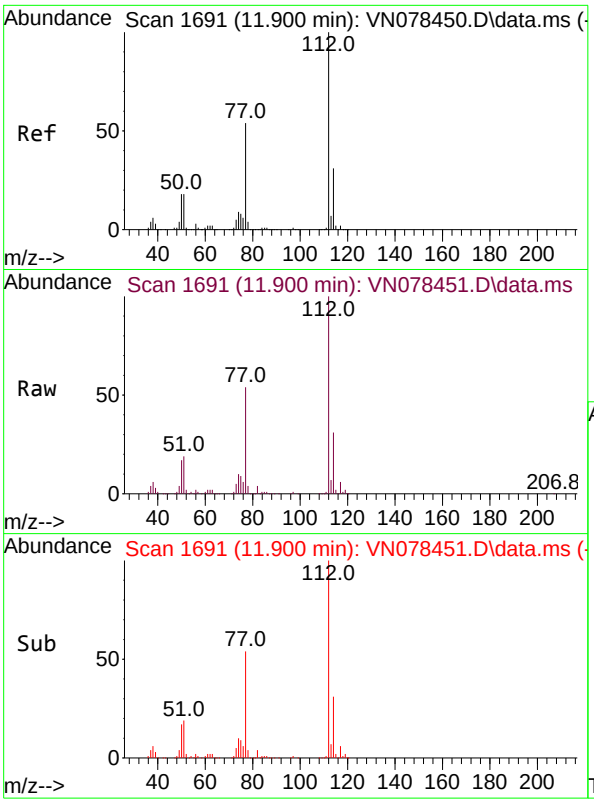


#64
Tetrachloroethene
Concen: 41.431 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:164 Resp: 236578

Ion	Ratio	Lower	Upper
164	100		
166	122.5	101.4	152.0
129	98.2	82.4	123.6
131	93.4	78.2	117.4

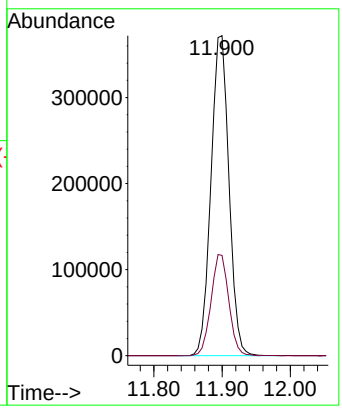




#65
Chlorobenzene
Concen: 40.221 ug/l
RT: 11.900 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:112 Resp: 68283

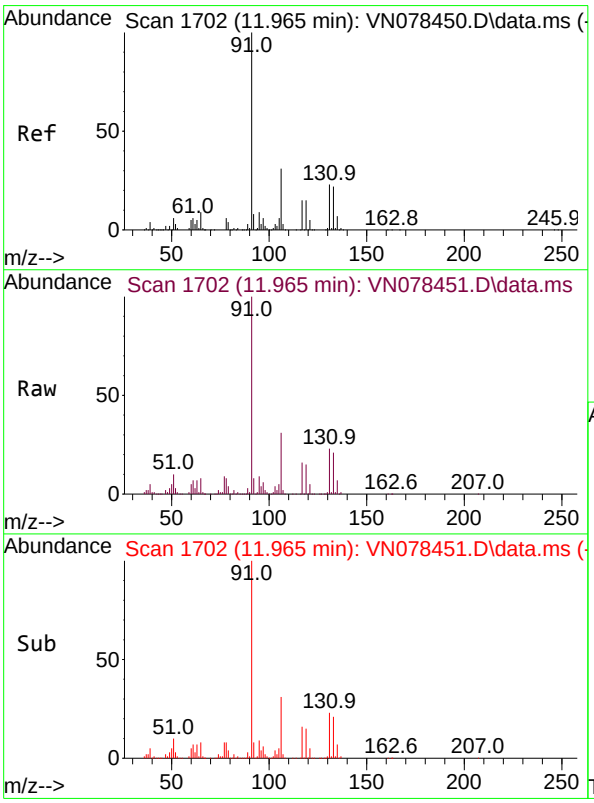
Ion	Ratio	Lower	Upper
112	100		
114	31.3	25.0	37.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

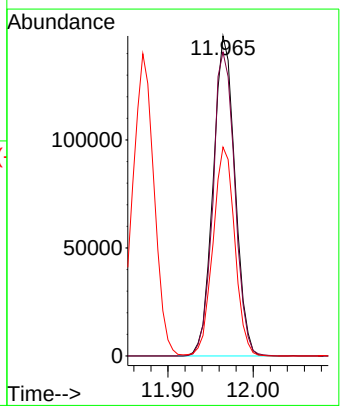
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

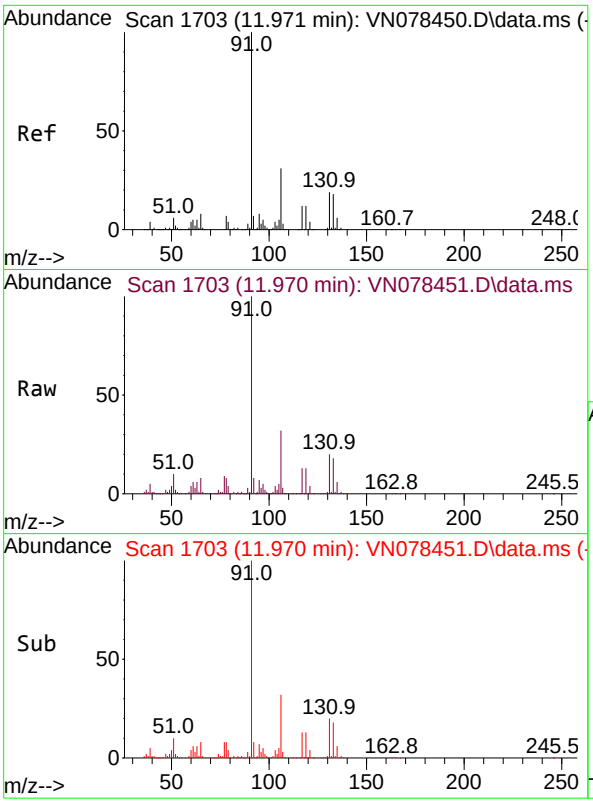


#66
1,1,1,2-Tetrachloroethane
Concen: 40.437 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:131 Resp: 264094

Ion	Ratio	Lower	Upper
131	100		
133	95.3	46.4	139.1
119	65.0	34.1	102.2

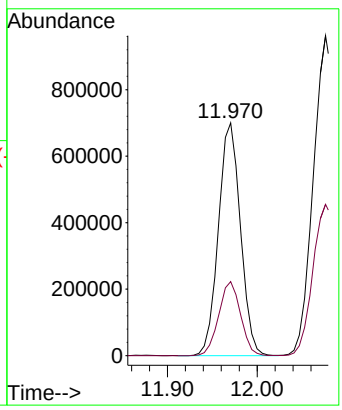




#67
Ethyl Benzene
Concen: 41.605 ug/l
RT: 11.970 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 91 Resp: 119391

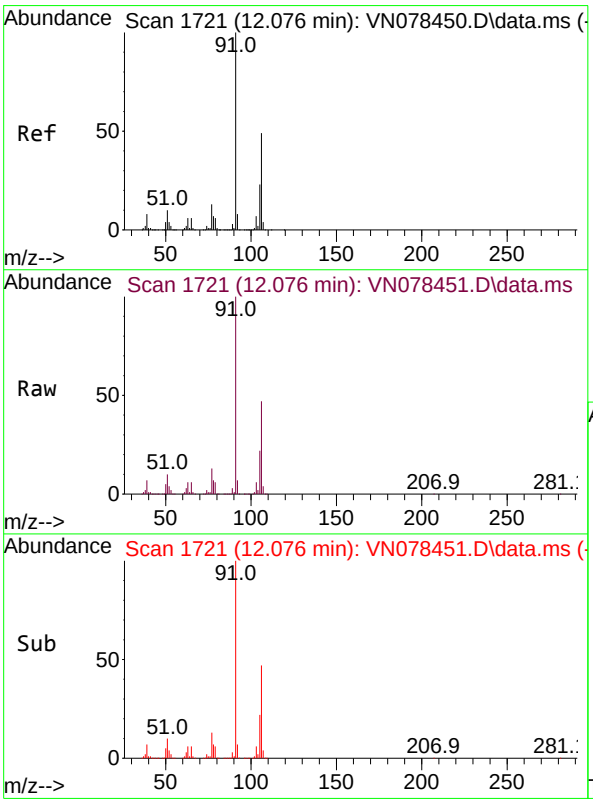
Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

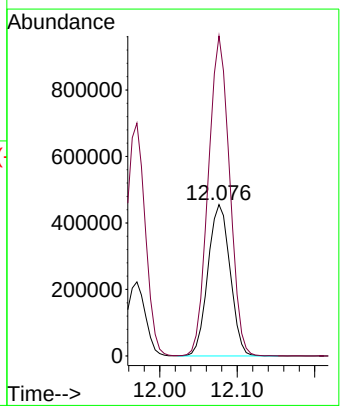
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

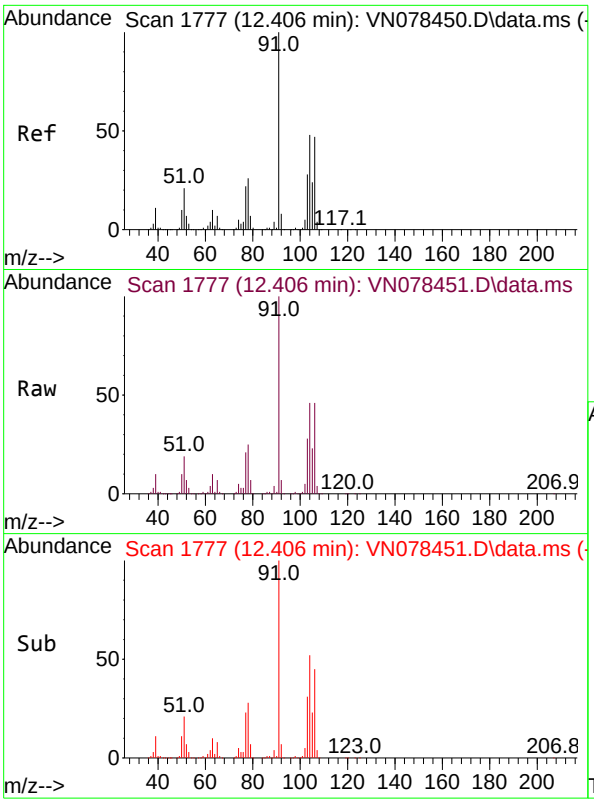


#68
m/p-Xylenes
Concen: 85.335 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:106 Resp: 905406

Ion	Ratio	Lower	Upper
106	100		
91	204.1	159.6	239.4





#69
o-Xylene
Concen: 41.088 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

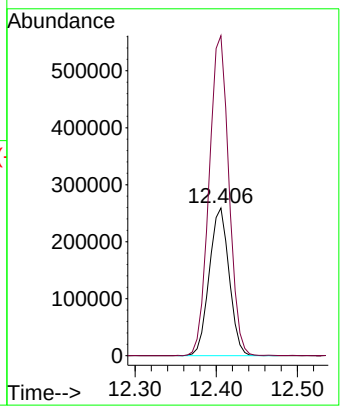
Tgt Ion:106 Resp: 44032

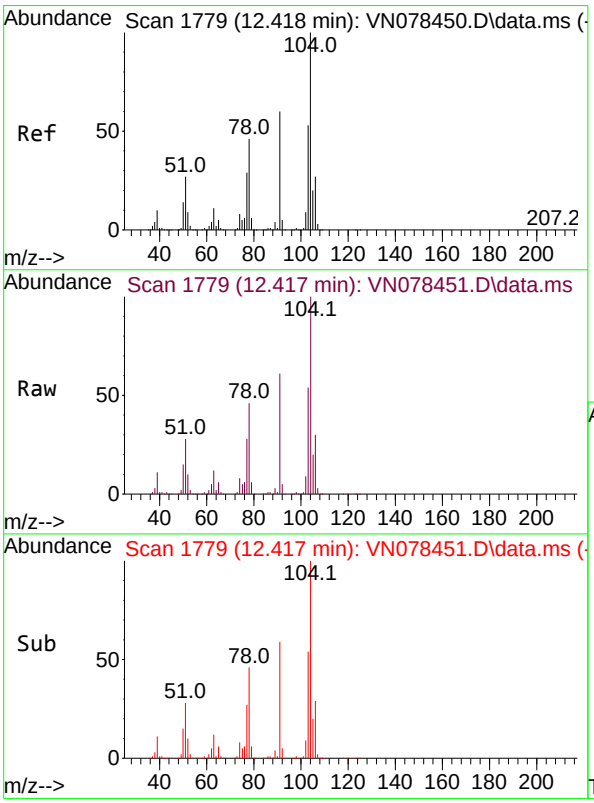
Ion	Ratio	Lower	Upper
106	100		
91	216.1	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

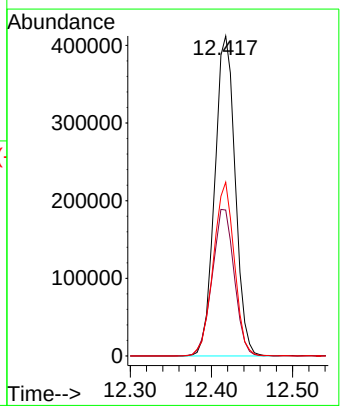


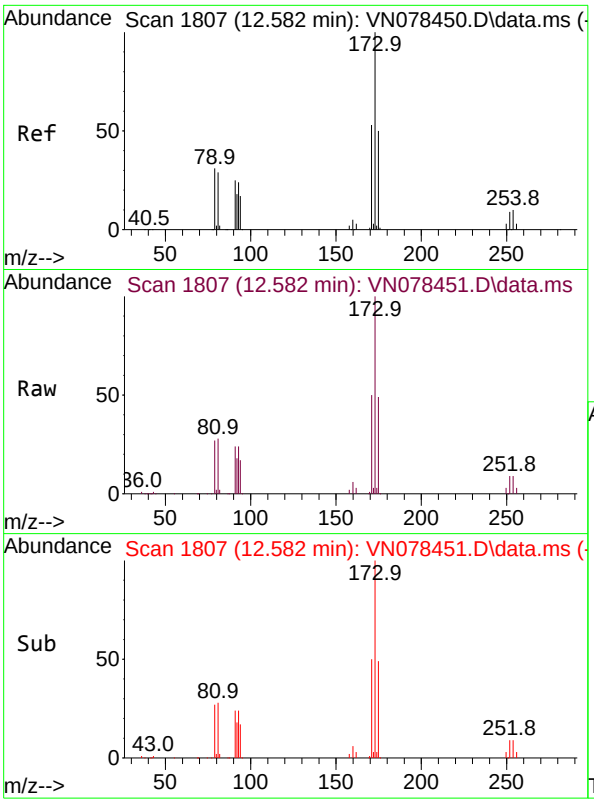


#70
Styrene
Concen: 43.130 ug/l
RT: 12.417 min Scan# 1779
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:104 Resp: 723105

Ion	Ratio	Lower	Upper
104	100		
78	49.4	39.5	59.3
103	55.7	43.2	64.8

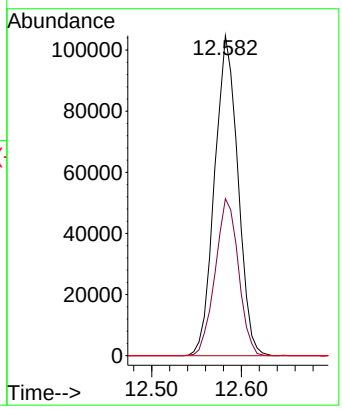




#71
Bromoform
Concen: 42.673 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:173 Resp: 18875

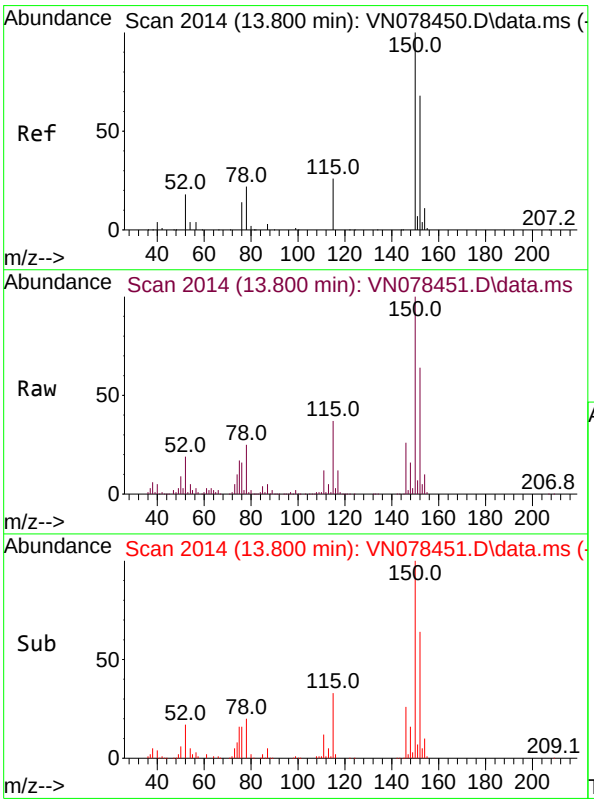
Ion	Ratio	Lower	Upper
173	100		
175	49.0	24.3	73.0
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

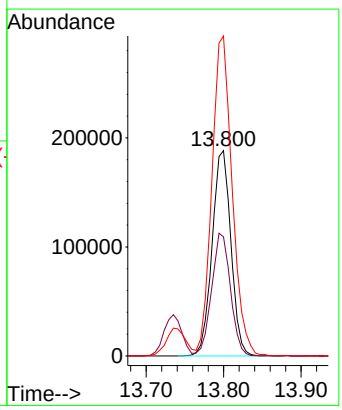
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

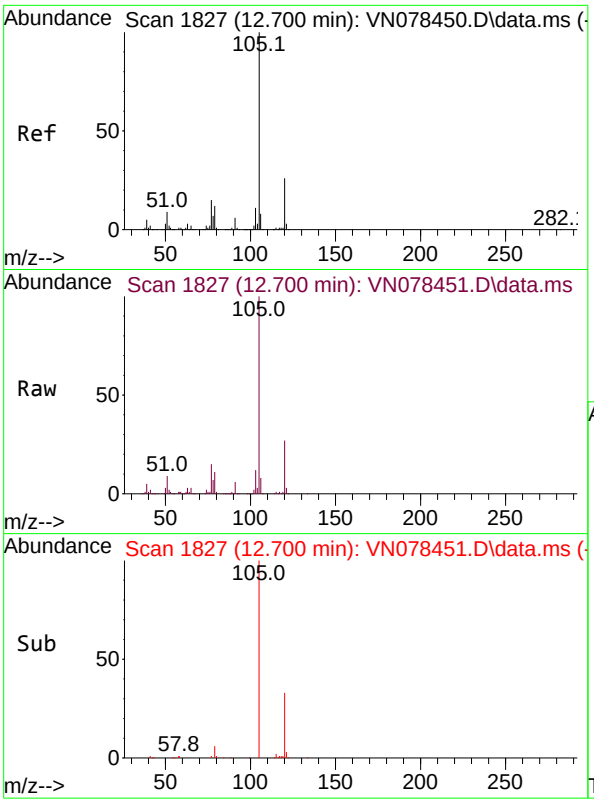


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:152 Resp: 317914

Ion	Ratio	Lower	Upper
152	100		
115	59.7	32.3	96.8
150	167.6	0.0	355.8

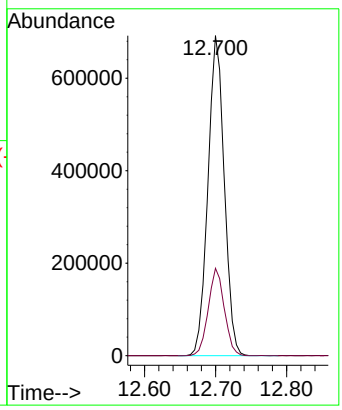




#73
Isopropylbenzene
Concen: 36.984 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:105 Resp: 110481

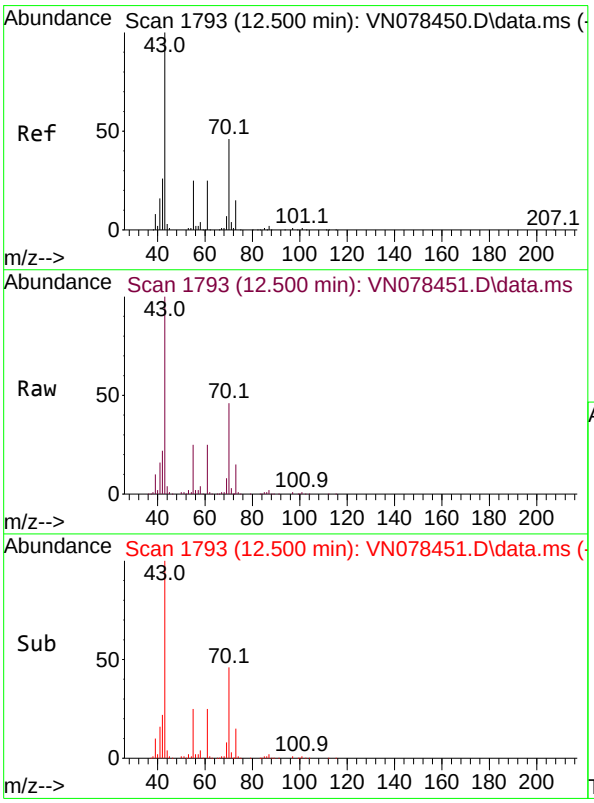
Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

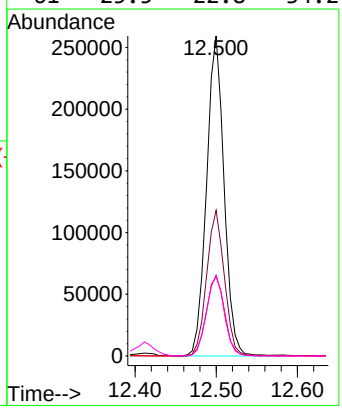
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

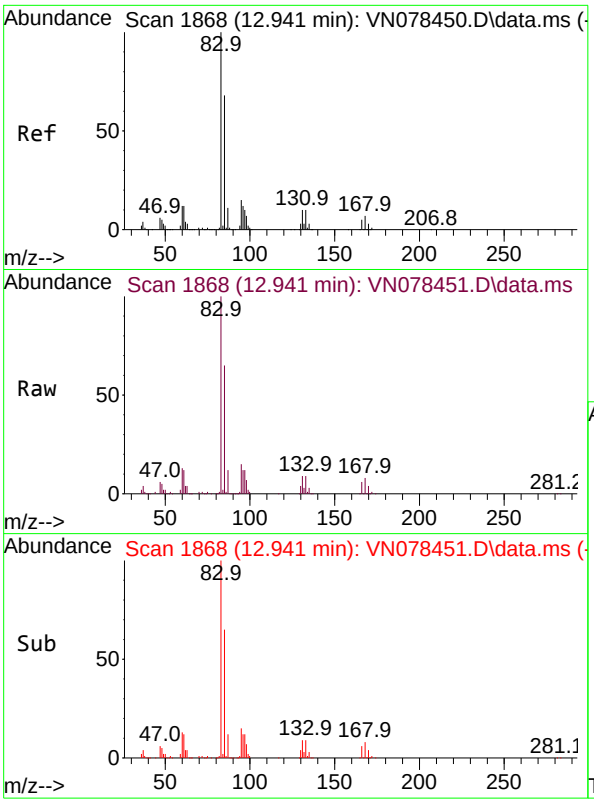


#74
N-amyl acetate
Concen: 37.727 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 43 Resp: 388381

Ion	Ratio	Lower	Upper
43	100		
70	45.9	43.4	65.2
55	26.1	21.4	32.0
61	25.5	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 42.076 ug/l
RT: 12.941 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

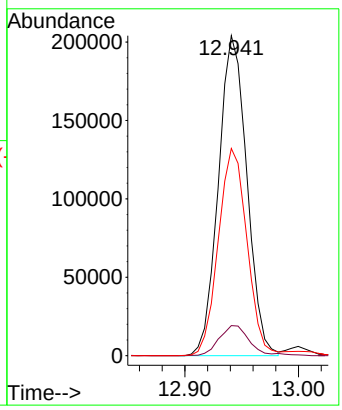
Tgt Ion: 83 Resp: 35515

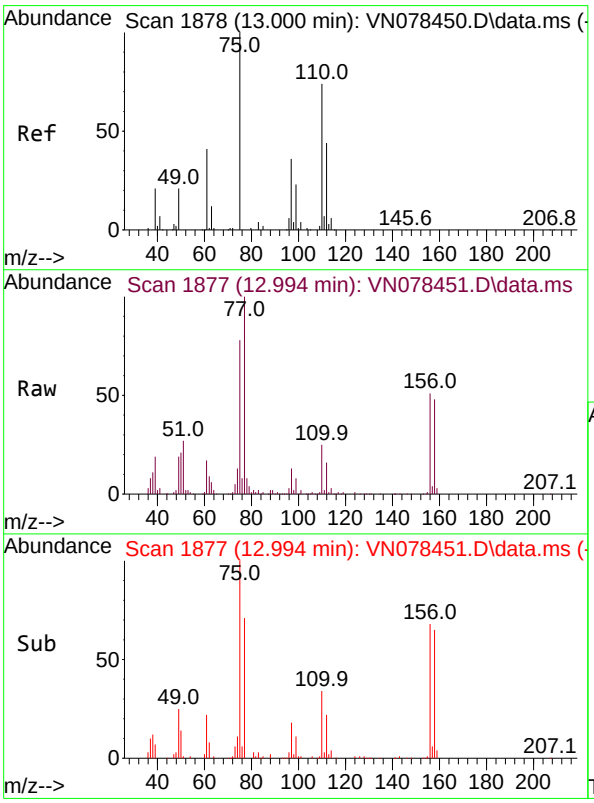
Ion	Ratio	Lower	Upper
83	100		
131	10.1	5.0	15.0
85	65.4	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

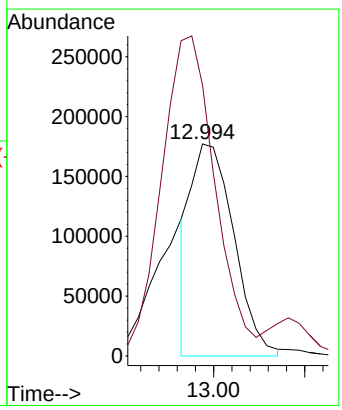


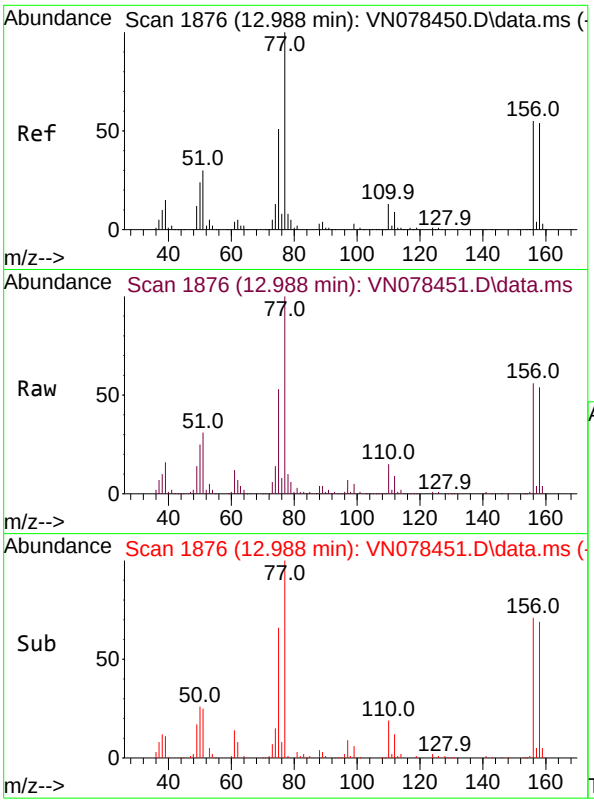


#76
1,2,3-Trichloropropane
Concen: 37.872 ug/l m
RT: 12.994 min Scan# 1877
Delta R.T. -0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 75 Resp: 290690

Ion	Ratio	Lower	Upper
75	100		
77	188.3	84.5	253.5

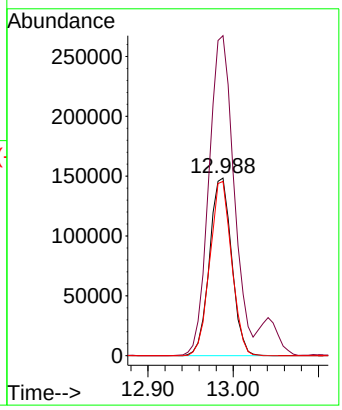




#77
Bromobenzene
Concen: 41.006 ug/l
RT: 12.988 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:156 Resp: 26818

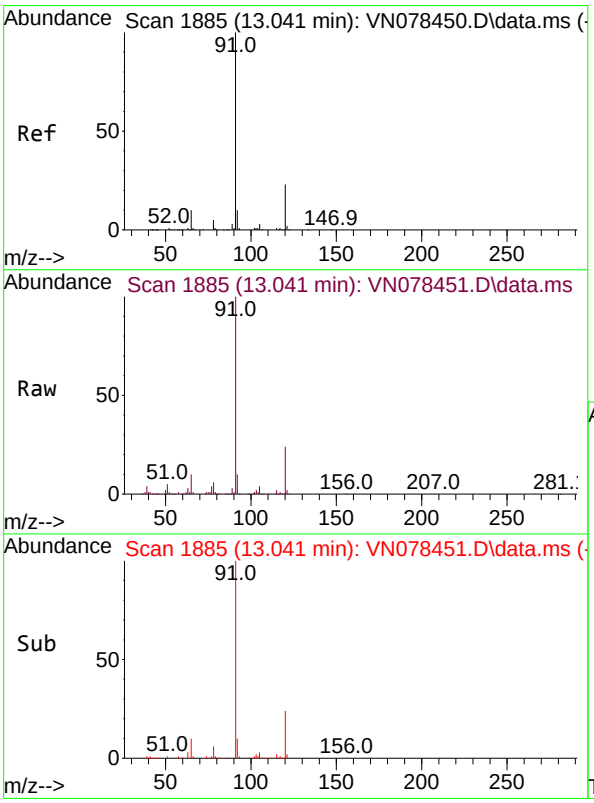
Ion	Ratio	Lower	Upper
156	100		
77	204.1	107.7	323.3
158	96.2	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

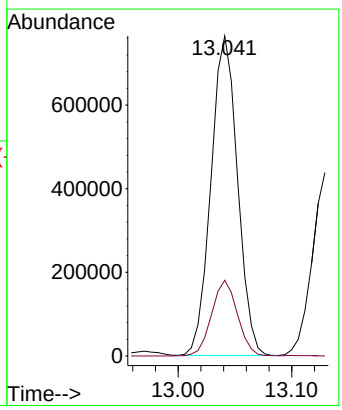
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

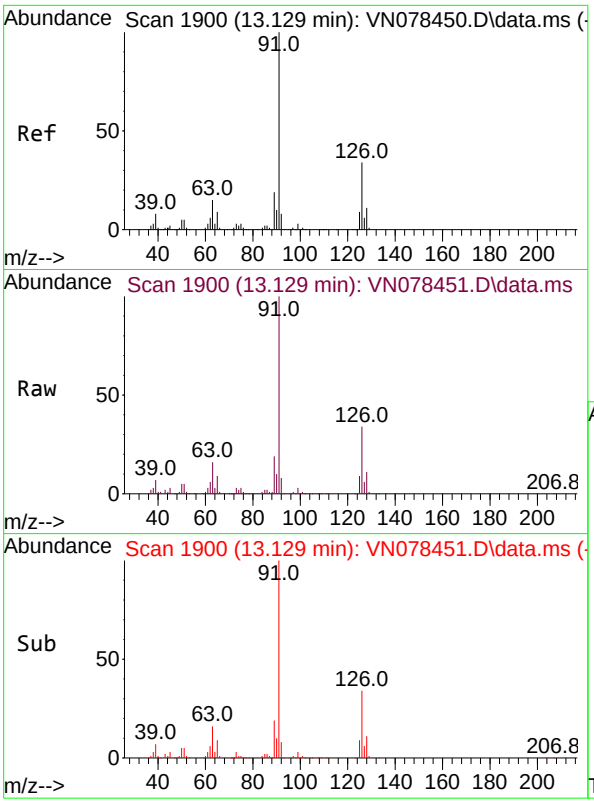


#78
n-propylbenzene
Concen: 38.892 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 91 Resp: 1242491

Ion	Ratio	Lower	Upper
91	100		
120	23.0	11.5	34.4





#79
2-Chlorotoluene
Concen: 37.042 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

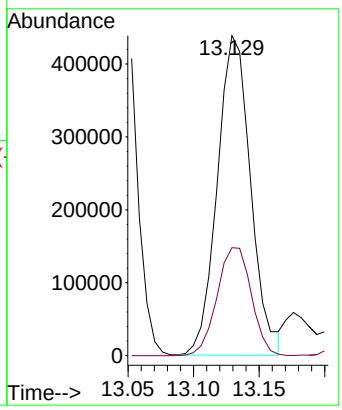
Tgt Ion: 91 Resp: 77512

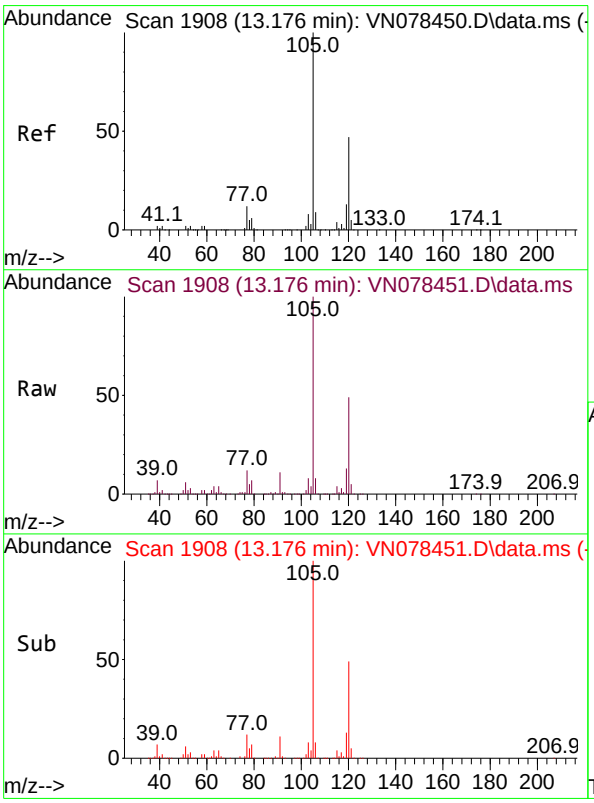
Ion	Ratio	Lower	Upper
91	100		
126	34.7	16.3	48.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

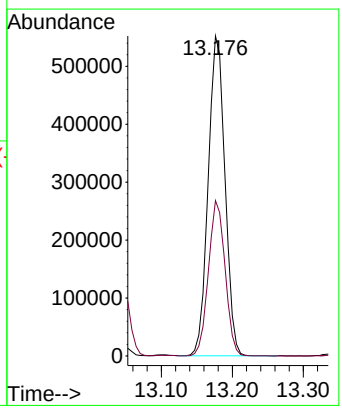


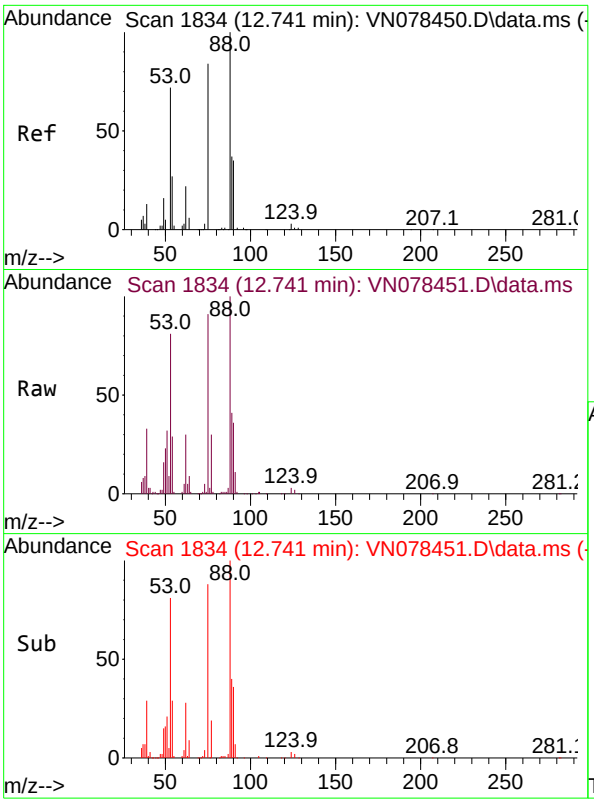


#80
1,3,5-Trimethylbenzene
Concen: 38.381 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:105 Resp: 905907

Ion	Ratio	Lower	Upper
105	100		
120	48.2	24.1	72.3





#81
trans-1,4-Dichloro-2-butene
Concen: 37.191 ug/l
RT: 12.741 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

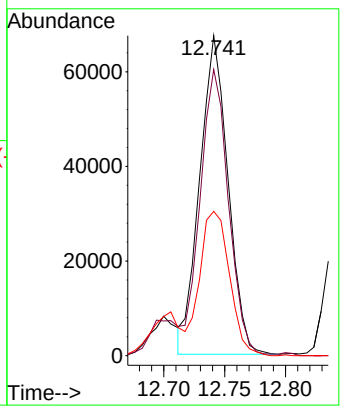
Tgt Ion: 75 Resp: 10875

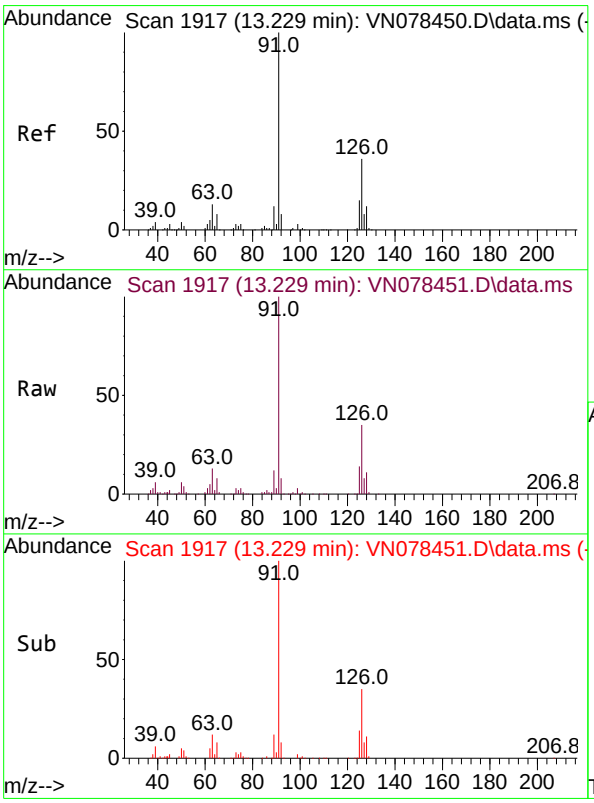
Ion	Ratio	Lower	Upper
75	100		
53	90.1	67.4	101.2
89	47.7	38.8	58.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

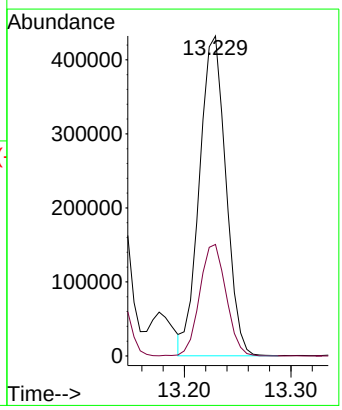


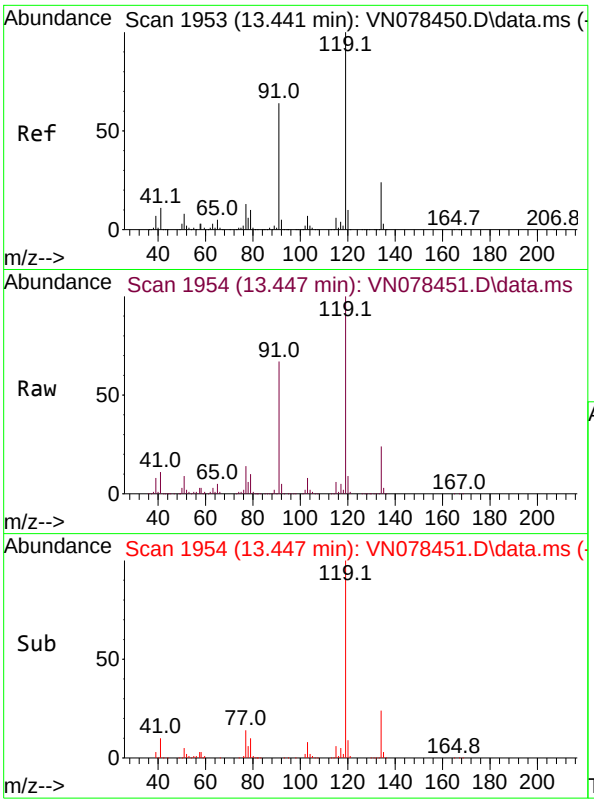


#82
4-Chlorotoluene
Concen: 38.113 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 91 Resp: 743995

Ion	Ratio	Lower	Upper
91	100		
126	34.9	16.7	50.0





#83
tert-Butylbenzene
Concen: 37.204 ug/l
RT: 13.447 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

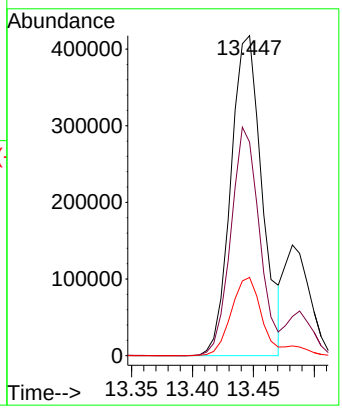
Tgt Ion:119 Resp: 74553

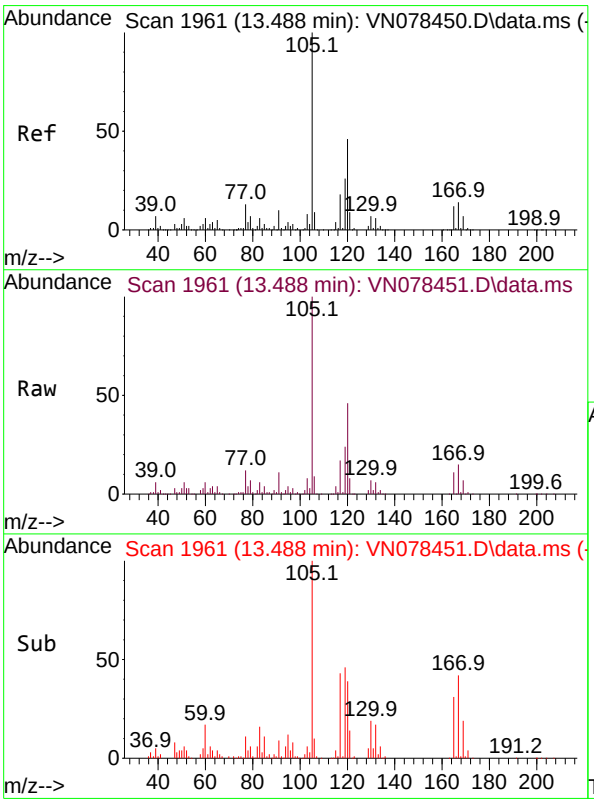
Ion	Ratio	Lower	Upper
119	100		
91	65.5	33.9	101.7
134	25.7	13.2	39.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

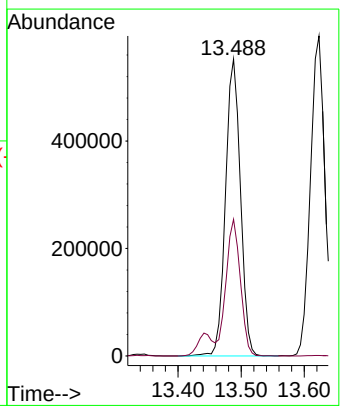


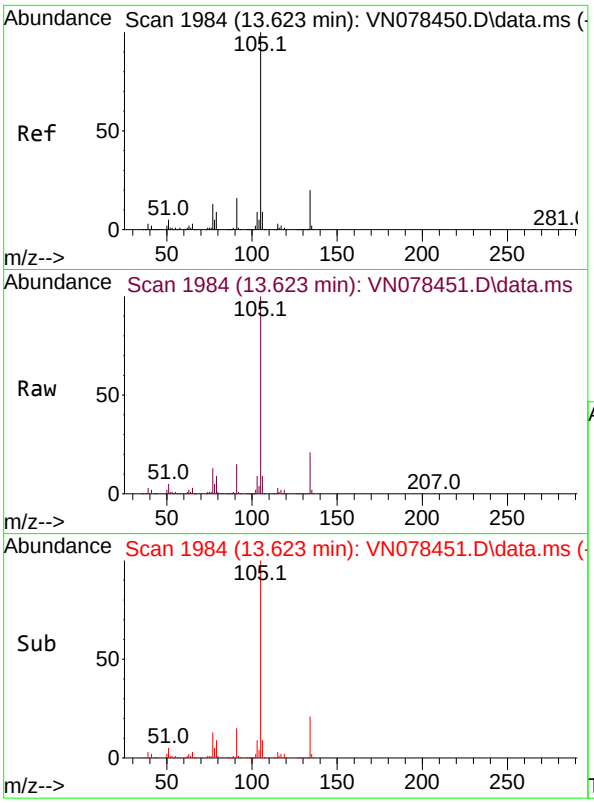


#84
1,2,4-Trimethylbenzene
Concen: 39.560 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:105 Resp: 906971

Ion	Ratio	Lower	Upper
105	100		
120	44.4	22.0	66.0

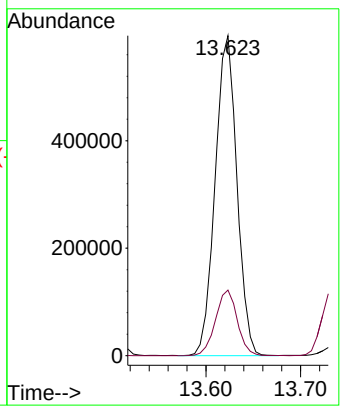




#85
sec-Butylbenzene
Concen: 37.565 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:105 Resp: 95148

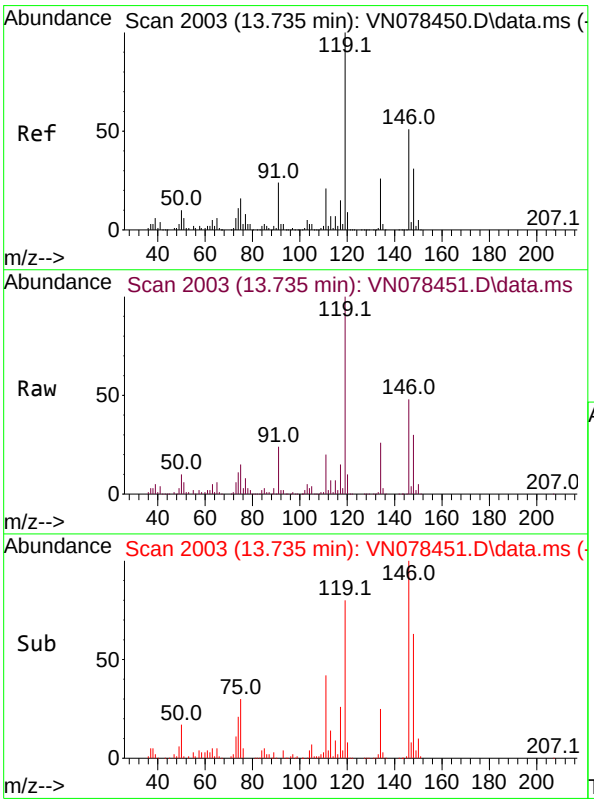
Ion	Ratio	Lower	Upper
105	100		
134	20.5	9.8	29.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

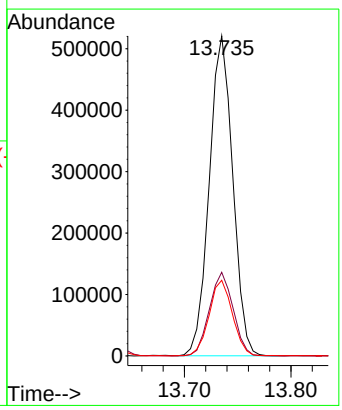
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

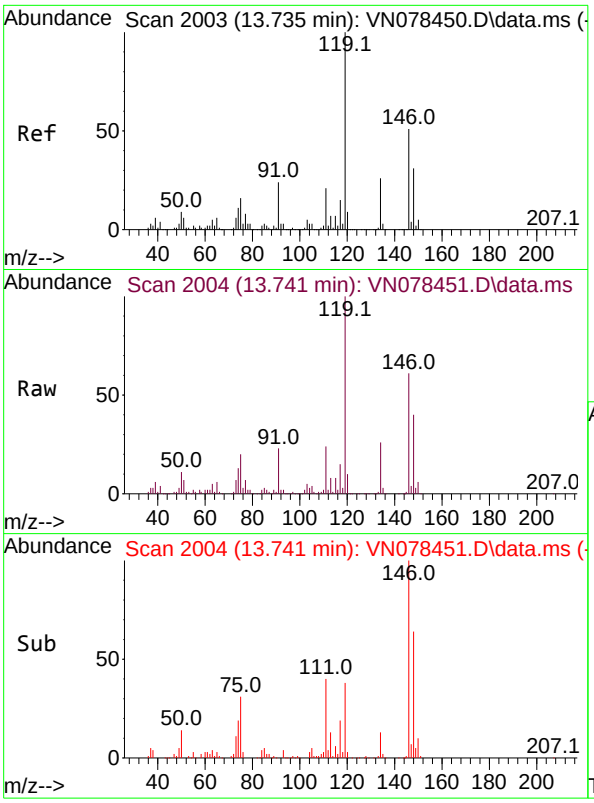


#86
p-Isopropyltoluene
Concen: 39.202 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:119 Resp: 797311

Ion	Ratio	Lower	Upper
119	100		
134	26.4	12.6	37.8
91	23.4	12.4	37.2





#87
1,3-Dichlorobenzene
Concen: 38.987 ug/l
RT: 13.741 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

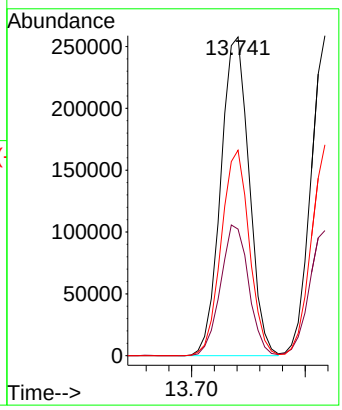
Tgt Ion:146 Resp: 44710

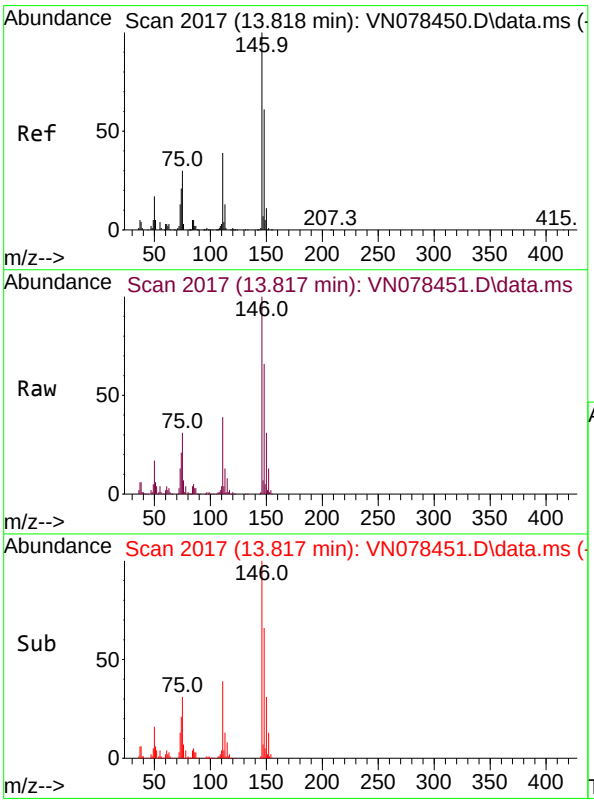
Ion	Ratio	Lower	Upper
146	100		
111	40.6	22.1	66.3
148	63.8	32.0	96.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

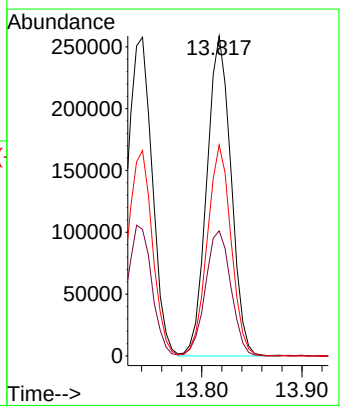


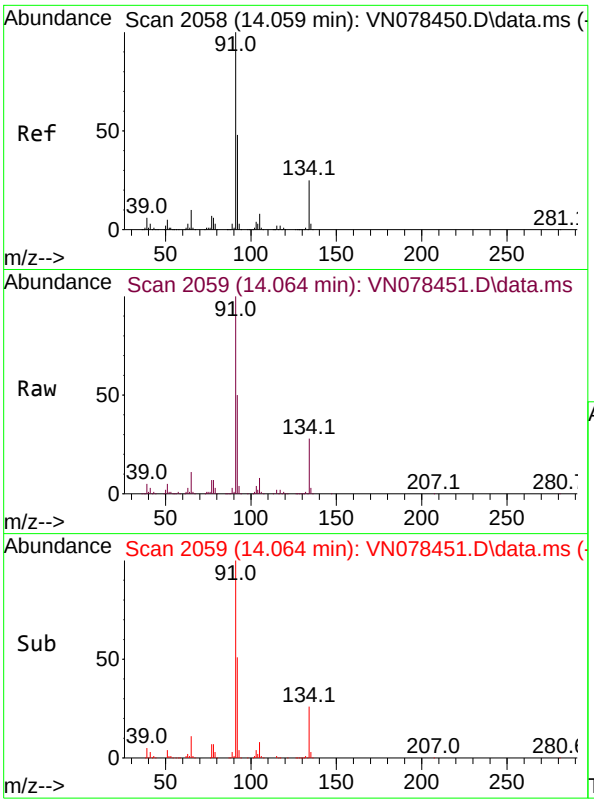


#88
1,4-Dichlorobenzene
Concen: 37.642 ug/l
RT: 13.817 min Scan# 2017
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:146 Resp: 434810

Ion	Ratio	Lower	Upper
146	100		
111	41.0	20.6	61.8
148	64.9	31.6	94.8

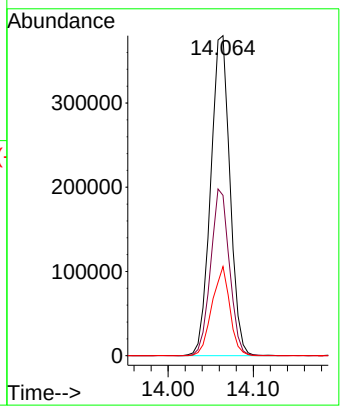




#89
n-Butylbenzene
Concen: 40.954 ug/l
RT: 14.064 min Scan# 2
Delta R.T. 0.005 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 91 Resp: 59598

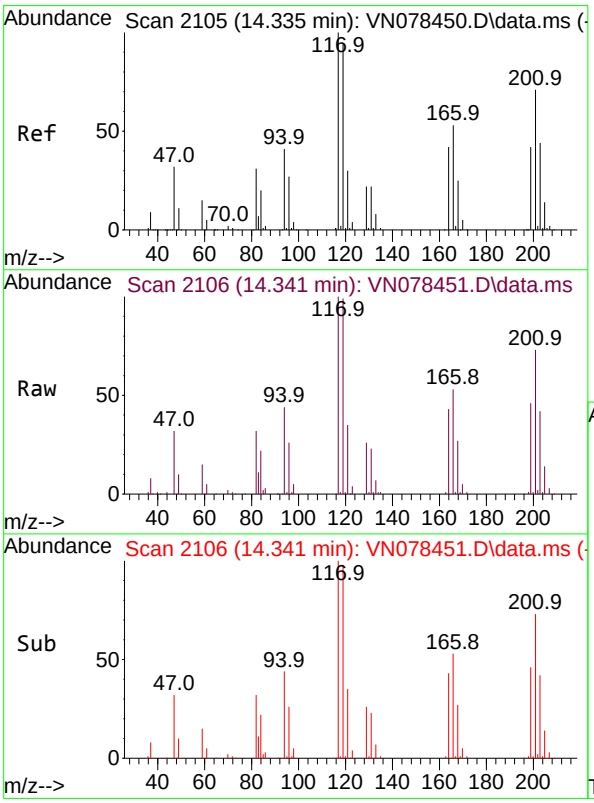
Ion	Ratio	Lower	Upper
91	100		
92	50.8	26.4	79.0
134	25.8	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

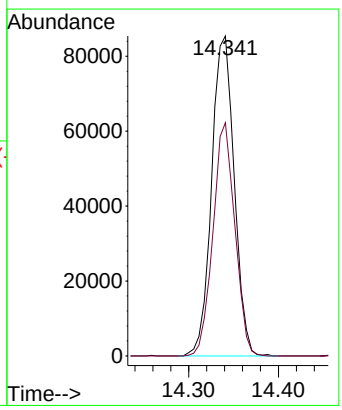
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

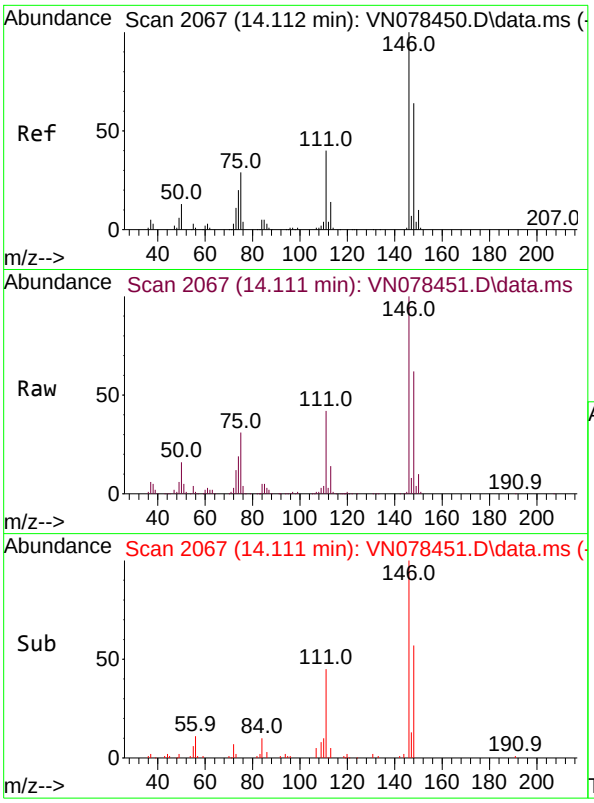


#90
Hexachloroethane
Concen: 39.729 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:117 Resp: 149143

Ion	Ratio	Lower	Upper
117	100		
201	70.6	29.3	88.0

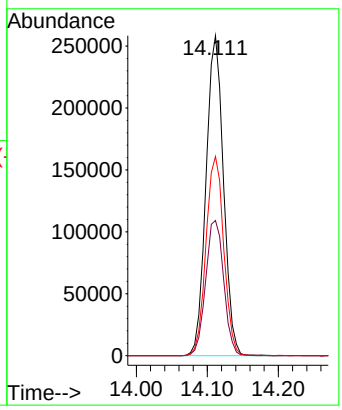




#91
1,2-Dichlorobenzene
Concen: 38.562 ug/l
RT: 14.111 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:146 Resp: 44009

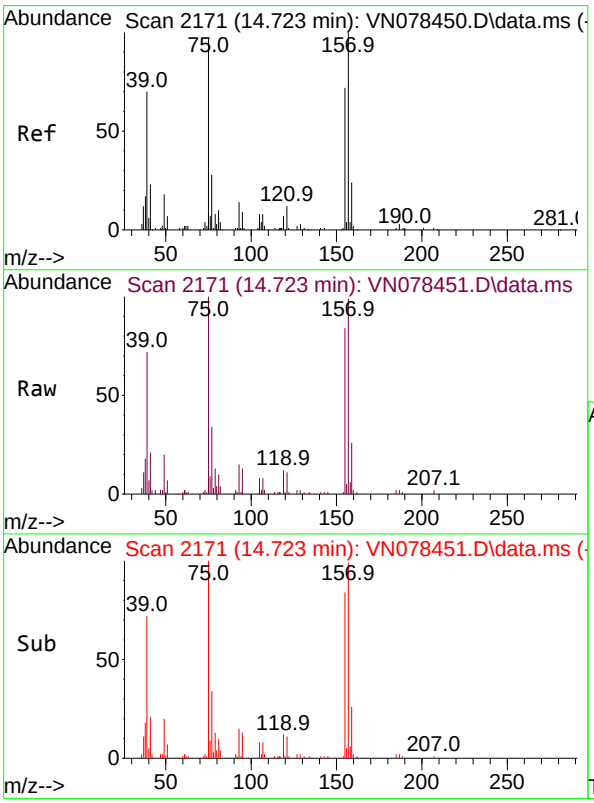
Ion	Ratio	Lower	Upper
146	100		
111	43.9	22.0	66.0
148	63.5	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

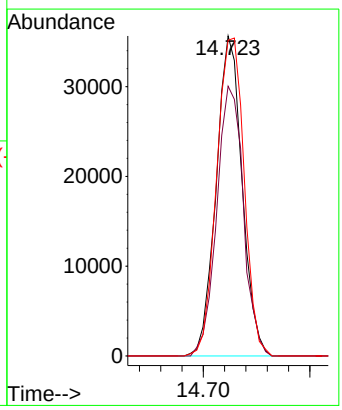
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

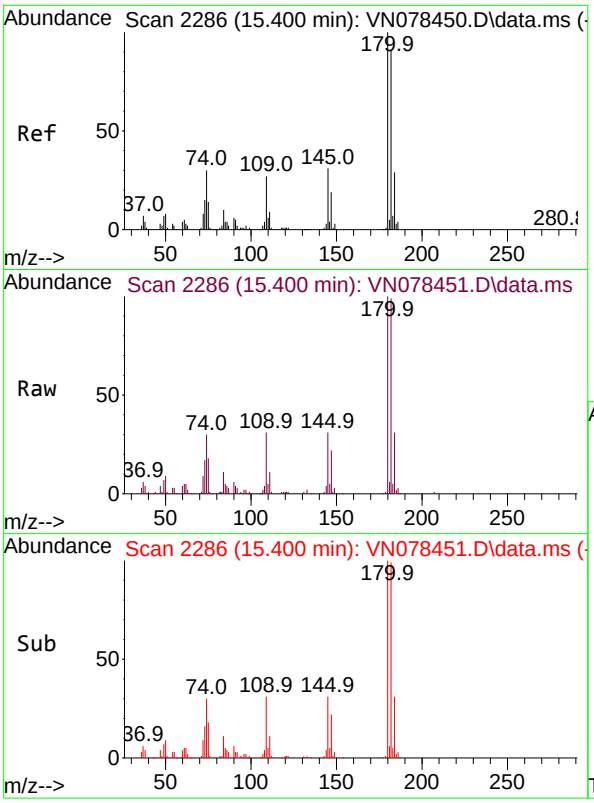


#92
1,2-Dibromo-3-Chloropropane
Concen: 41.720 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion: 75 Resp: 60119

Ion	Ratio	Lower	Upper
75	100		
155	86.4	39.1	117.2
157	105.3	50.3	150.9

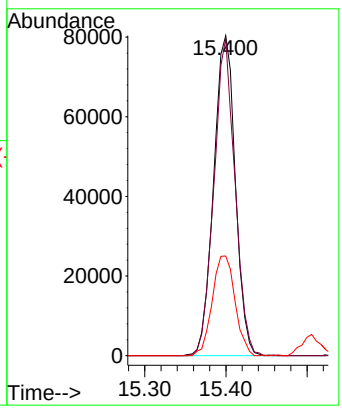




#93
1,2,4-Trichlorobenzene
Concen: 40.890 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:180 Resp: 14893

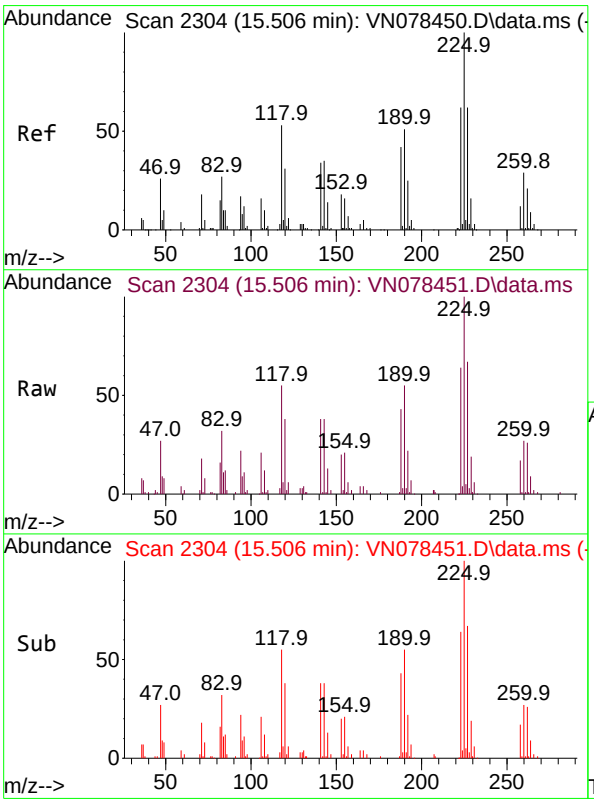
Ion	Ratio	Lower	Upper
180	100		
182	96.0	46.1	138.2
145	32.7	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

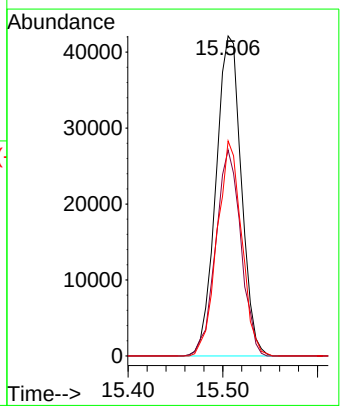
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

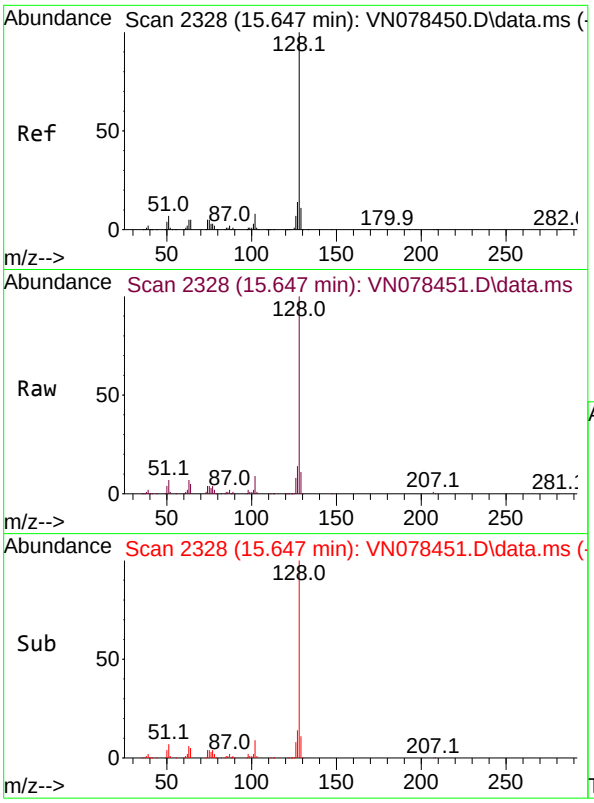


#94
Hexachlorobutadiene
Concen: 40.933 ug/l
RT: 15.506 min Scan# 2304
Delta R.T. -0.001 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:225 Resp: 78543

Ion	Ratio	Lower	Upper
225	100		
223	63.8	31.3	93.8
227	64.9	31.9	95.9

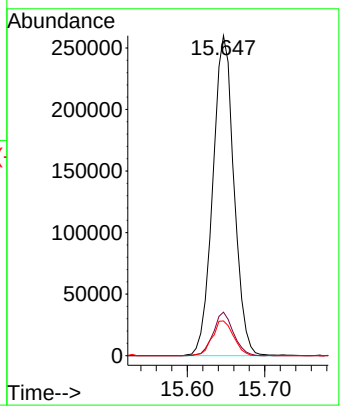




#95
Naphthalene
Concen: 39.576 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:128 Resp: 49279

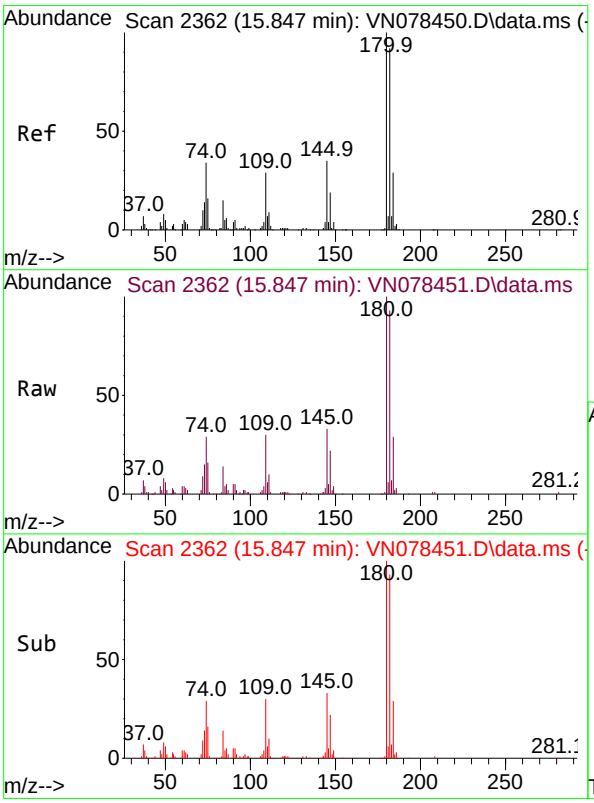
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.0	15.0
129	10.9	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC040

Manual Integrations
APPROVED

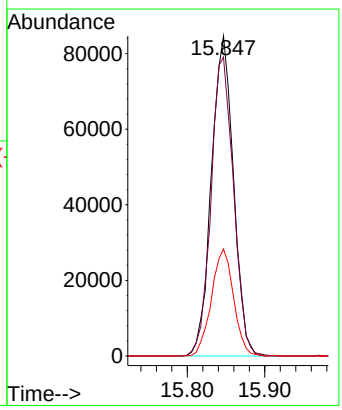
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 39.955 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078451.D
Acq: 10 Jul 2023 13:10

Tgt Ion:180 Resp: 167339

Ion	Ratio	Lower	Upper
180	100		
182	95.2	46.2	138.6
145	33.5	17.5	52.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078452.D
Acq On : 10 Jul 2023 13:34
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:54:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	506490	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	868065	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	751724	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	282655	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	136740	20.138	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	40.280%#		
35) Dibromofluoromethane	8.177	113	120405	20.433	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	40.860%#		
50) Toluene-d8	10.571	98	444912	19.986	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	39.980%#		
62) 4-Bromofluorobenzene	12.853	95	134584	19.628	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery =	39.260%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	116678	18.789	ug/l	95
3) Chloromethane	2.371	50	125042	18.526	ug/l	100
4) Vinyl Chloride	2.518	62	170651	19.545	ug/l	100
5) Bromomethane	2.965	94	125578	19.729	ug/l	98
6) Chloroethane	3.124	64	113376	20.326	ug/l	95
7) Trichlorofluoromethane	3.501	101	204564	19.600	ug/l	100
8) Diethyl Ether	3.977	74	65418	18.812	ug/l	75
9) 1,1,2-Trichlorotrifluo...	4.383	101	108045	19.556	ug/l	96
10) Methyl Iodide	4.600	142	148429	19.550	ug/l	97
11) Tert butyl alcohol	5.536	59	103940	99.270	ug/l	99
12) 1,1-Dichloroethene	4.348	96	103072	19.286	ug/l #	78
13) Acrolein	4.189	56	102329	99.334	ug/l	99
14) Allyl chloride	5.030	41	137963	18.892	ug/l	96
15) Acrylonitrile	5.730	53	264143	99.847	ug/l	98
16) Acetone	4.436	43	202621	95.797	ug/l	93
17) Carbon Disulfide	4.718	76	292314	18.915	ug/l	98
18) Methyl Acetate	5.042	43	168020	18.766	ug/l	95
19) Methyl tert-butyl Ether	5.812	73	345173	19.602	ug/l	96
20) Methylene Chloride	5.289	84	122115	19.056	ug/l	94
21) trans-1,2-Dichloroethene	5.795	96	117630	19.532	ug/l #	84
22) Diisopropyl ether	6.677	45	326748	19.982	ug/l #	93
23) Vinyl Acetate	6.618	43	1052338	101.229	ug/l #	90
24) 1,1-Dichloroethane	6.577	63	213961	19.418	ug/l	98
25) 2-Butanone	7.494	43	330113	99.149	ug/l	92
26) 2,2-Dichloropropane	7.500	77	169178	18.773	ug/l	97
27) cis-1,2-Dichloroethene	7.494	96	137922	19.797	ug/l	95
28) Bromochloromethane	7.818	49	102041	19.662	ug/l	88
29) Tetrahydrofuran	7.847	42	212833	97.421	ug/l	87
30) Chloroform	7.971	83	226403	19.736	ug/l	87
31) Cyclohexane	8.259	56	177544	19.348	ug/l	92
32) 1,1,1-Trichloroethane	8.177	97	206056	20.035	ug/l	96
36) 1,1-Dichloropropene	8.383	75	166479	19.566	ug/l	97
37) Ethyl Acetate	7.571	43	147608	20.811	ug/l #	95
38) Carbon Tetrachloride	8.365	117	184232	19.923	ug/l	96
39) Methylcyclohexane	9.606	83	153535	19.769	ug/l	91
40) Benzene	8.612	78	508110	20.157	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078452.D
Acq On : 10 Jul 2023 13:34
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:54:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	7.789	41	70224	19.421 ug/l	95
42) 1,2-Dichloroethane	8.677	62	172703	20.143 ug/l	99
43) Isopropyl Acetate	8.694	43	244233	20.915 ug/l	93
44) Trichloroethene	9.359	130	130391	19.193 ug/l	97
45) 1,2-Dichloropropane	9.630	63	129772	20.327 ug/l	95
46) Dibromomethane	9.712	93	90702	20.185 ug/l	92
47) Bromodichloromethane	9.894	83	182702	20.283 ug/l	98
48) Methyl methacrylate	9.688	41	108172	19.995 ug/l	90
49) 1,4-Dioxane	9.700	88	48946	414.856 ug/l	95
51) 4-Methyl-2-Pentanone	10.453	43	729296	104.997 ug/l	92
52) Toluene	10.635	92	304938	19.519 ug/l	92
53) t-1,3-Dichloropropene	10.841	75	184312	19.973 ug/l	100
54) cis-1,3-Dichloropropene	10.318	75	200793	20.413 ug/l	93
55) 1,1,2-Trichloroethane	11.024	97	124764	20.269 ug/l	96
56) Ethyl methacrylate	10.877	69	174763	20.311 ug/l	91
57) 1,3-Dichloropropane	11.171	76	212899	20.342 ug/l	99
58) 2-Chloroethyl Vinyl ether	10.165	63	297509	97.023 ug/l	93
59) 2-Hexanone	11.200	43	504899	102.278 ug/l	92
60) Dibromochloromethane	11.365	129	136492	20.086 ug/l	99
61) 1,2-Dibromoethane	11.471	107	127160	20.054 ug/l	100
64) Tetrachloroethene	11.112	164	118973	21.051 ug/l	95
65) Chlorobenzene	11.894	112	334361	19.899 ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.965	131	129045	19.964 ug/l	96
67) Ethyl Benzene	11.971	91	580064	20.423 ug/l	99
68) m/p-Xylenes	12.076	106	433823	41.312 ug/l	98
69) o-Xylene	12.406	106	214478	20.221 ug/l	98
70) Styrene	12.418	104	335885	20.241 ug/l	98
71) Bromoform	12.582	173	88446	20.203 ug/l #	98
73) Isopropylbenzene	12.700	105	527441	19.859 ug/l	99
74) N-amyl acetate	12.500	43	182096	19.895 ug/l	93
75) 1,1,2,2-Tetrachloroethane	12.941	83	169381	21.039 ug/l	99
76) 1,2,3-Trichloropropane	12.994	75	139097m	20.382 ug/l	
77) Bromobenzene	12.982	156	123131	20.404 ug/l	97
78) n-propylbenzene	13.041	91	567216	19.970 ug/l	100
79) 2-Chlorotoluene	13.129	91	371193	19.951 ug/l	97
80) 1,3,5-Trimethylbenzene	13.176	105	426565	20.327 ug/l	99
81) trans-1,4-Dichloro-2-b...	12.741	75	49271	18.951 ug/l	97
82) 4-Chlorotoluene	13.229	91	340292	19.607 ug/l	98
83) tert-Butylbenzene	13.447	119	357194	20.048 ug/l	97
84) 1,2,4-Trimethylbenzene	13.488	105	412523	20.238 ug/l	97
85) sec-Butylbenzene	13.623	105	443554	19.696 ug/l	98
86) p-Isopropyltoluene	13.735	119	362229	20.032 ug/l	99
87) 1,3-Dichlorobenzene	13.735	146	199778	19.594 ug/l	97
88) 1,4-Dichlorobenzene	13.818	146	200731	19.545 ug/l	99
89) n-Butylbenzene	14.059	91	259625	20.066 ug/l	96
90) Hexachloroethane	14.341	117	68556	20.140 ug/l	86
91) 1,2-Dichlorobenzene	14.112	146	204434	20.147 ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.723	75	27767	20.714 ug/l	92
93) 1,2,4-Trichlorobenzene	15.400	180	62758	19.379 ug/l	98
94) Hexachlorobutadiene	15.500	225	39894	21.450 ug/l	98
95) Naphthalene	15.647	128	203476	18.379 ug/l	99
96) 1,2,3-Trichlorobenzene	15.847	180	73056	19.619 ug/l	97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078452.D
Acq On : 10 Jul 2023 13:34
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:54:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

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

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

ICAL Form

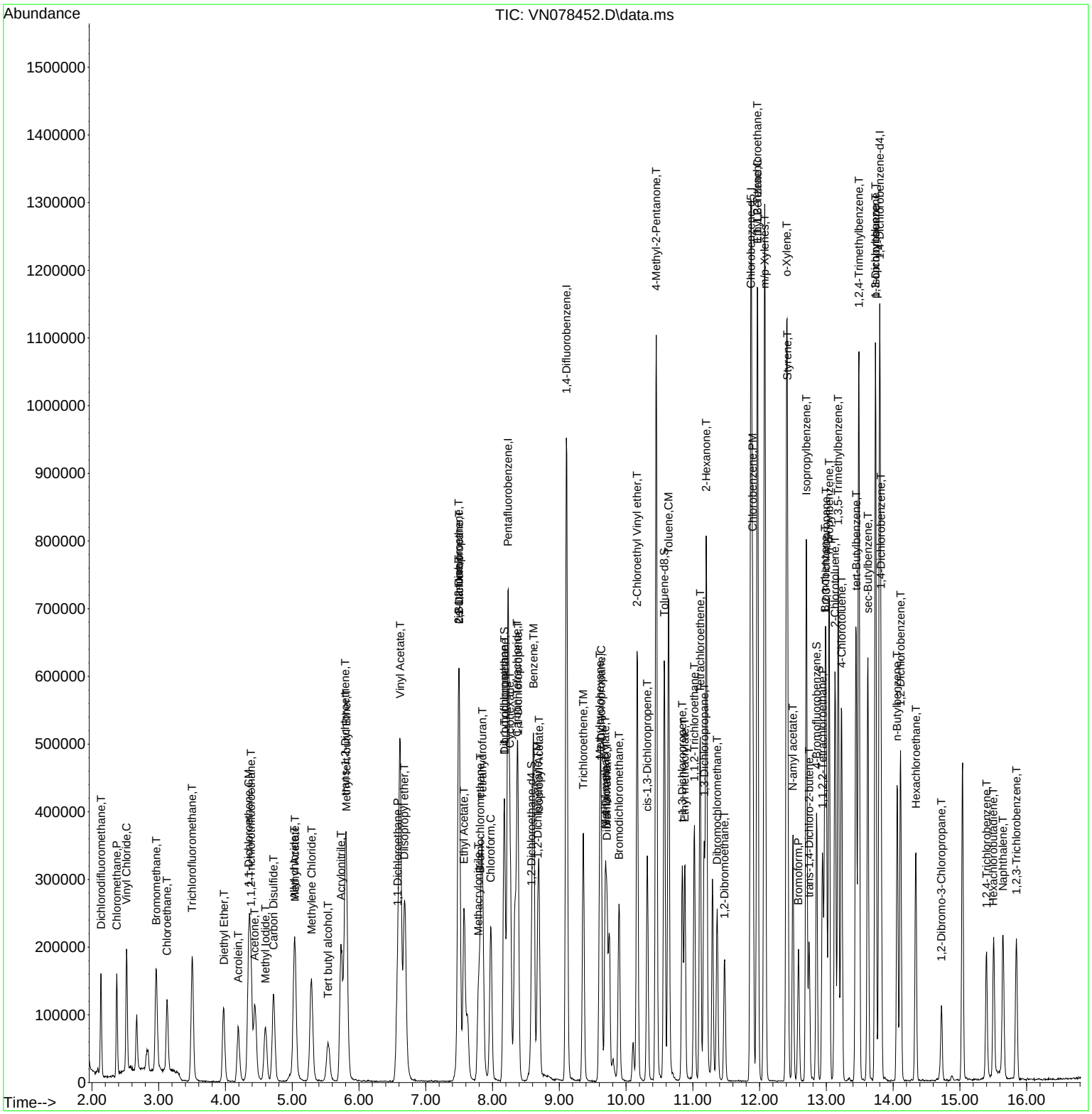
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078452.D
Acq On : 10 Jul 2023 13:34
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

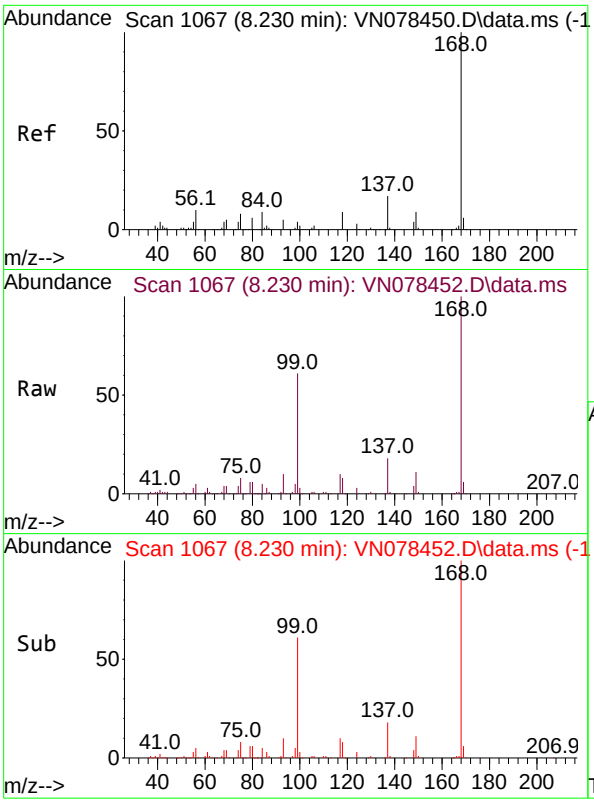
Quant Time: Jul 10 15:54:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:52:56 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

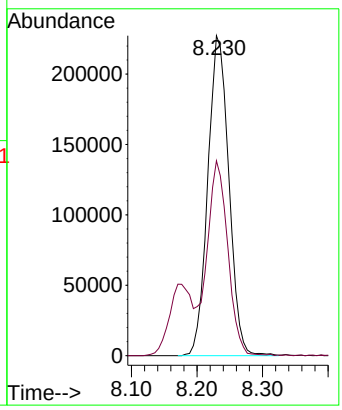




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:168 Resp: 50649

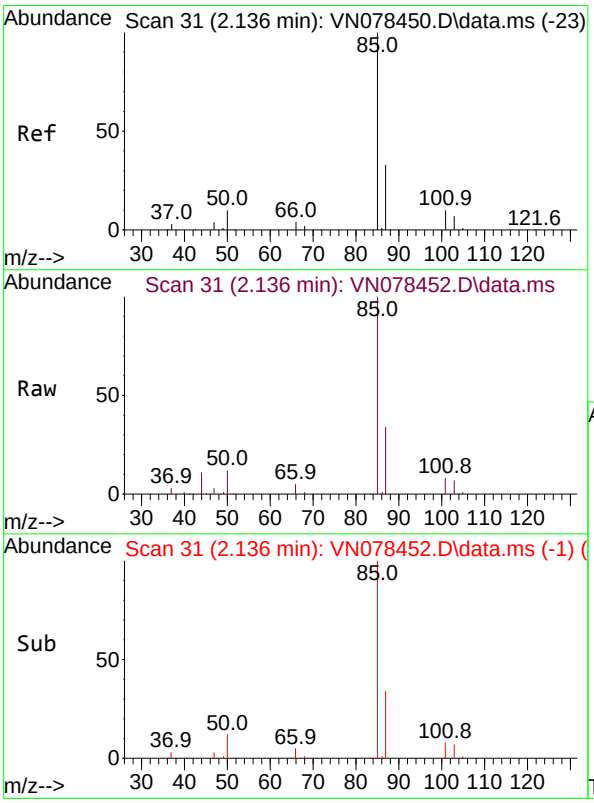
Ion	Ratio	Lower	Upper
168	100		
99	60.7	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

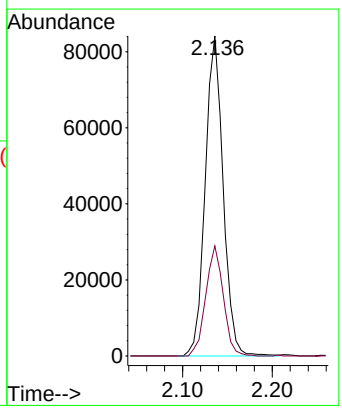
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

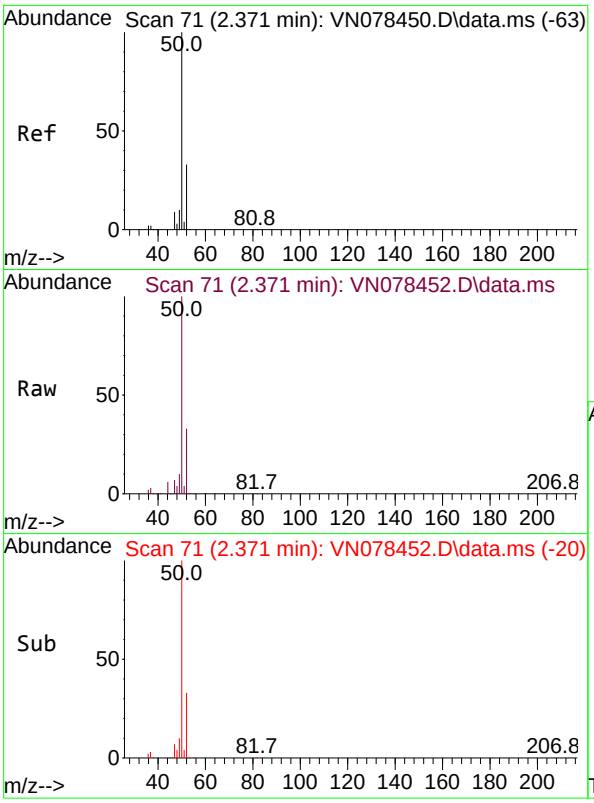


#2
Dichlorodifluoromethane
Concen: 18.789 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 85 Resp: 116678

Ion	Ratio	Lower	Upper
85	100		
87	34.4	15.8	47.4

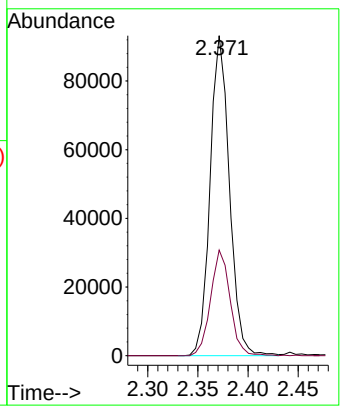




#3
Chloromethane
Concen: 18.526 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 50 Resp: 12504

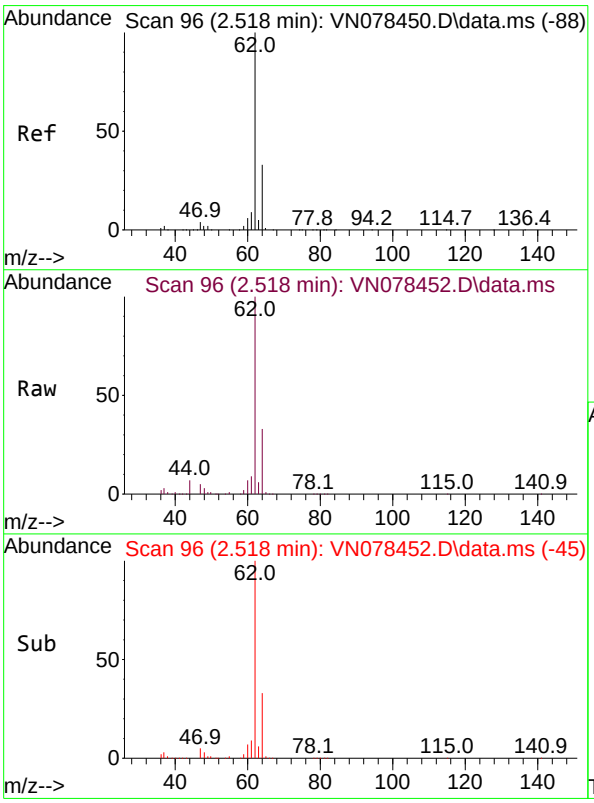
Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

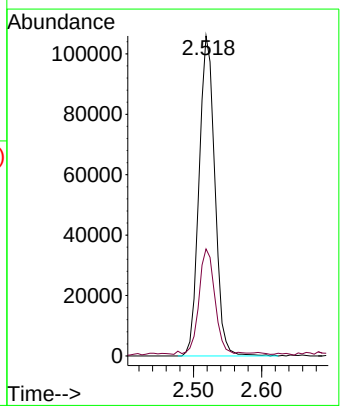
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

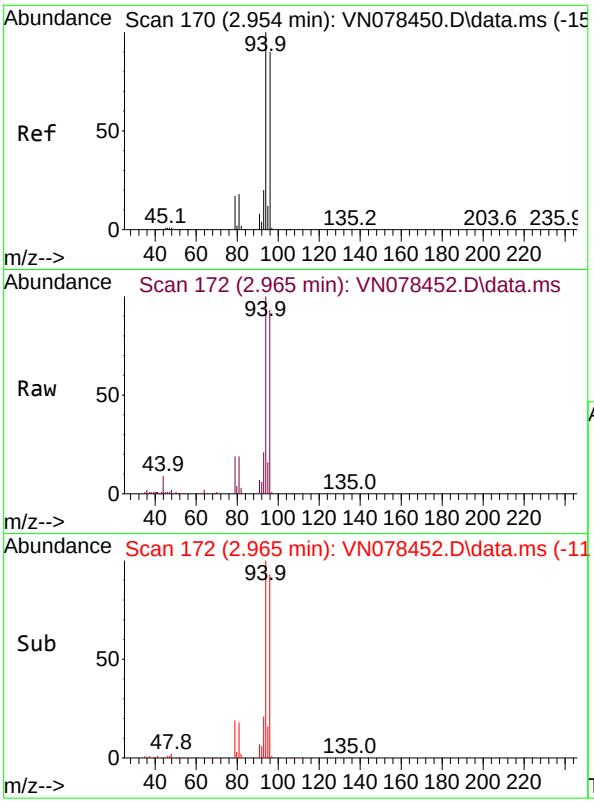


#4
Vinyl Chloride
Concen: 19.545 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 62 Resp: 170651

Ion	Ratio	Lower	Upper
62	100		
64	32.6	26.2	39.2

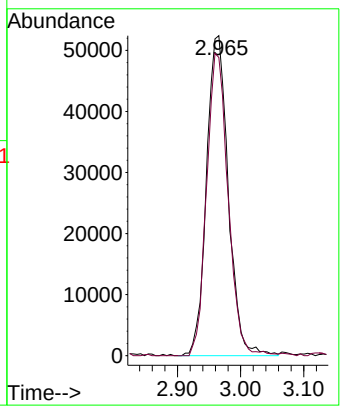




#5
Bromomethane
Concen: 19.729 ug/l
RT: 2.965 min Scan# 1
Delta R.T. 0.011 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 94 Resp: 12557

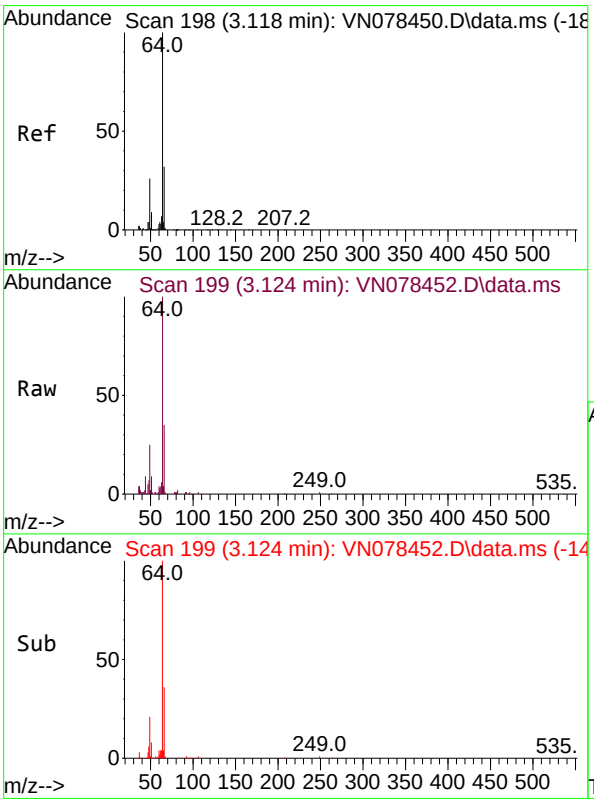
Ion	Ratio	Lower	Upper
94	100		
96	93.2	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

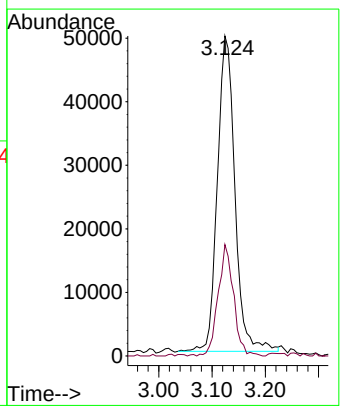
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

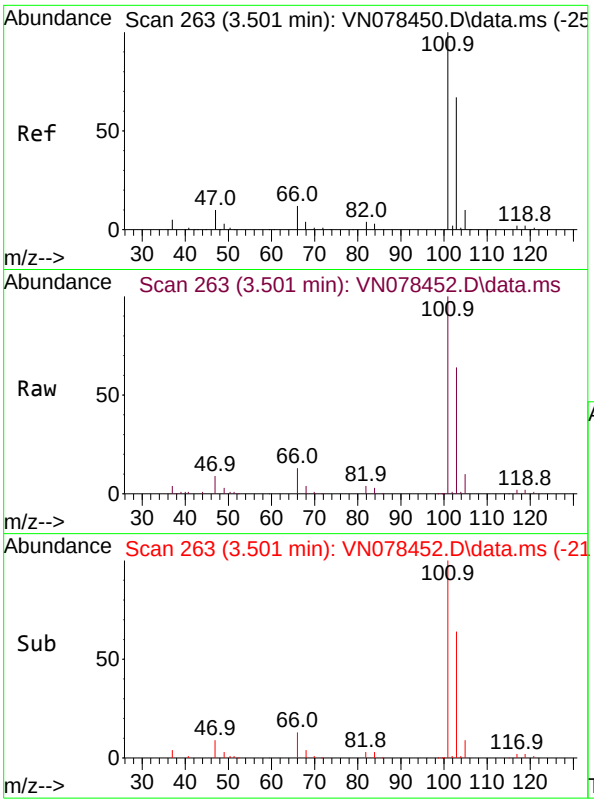


#6
Chloroethane
Concen: 20.326 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 64 Resp: 113376

Ion	Ratio	Lower	Upper
64	100		
66	34.8	25.4	38.2





#7
Trichlorofluoromethane
Concen: 19.600 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

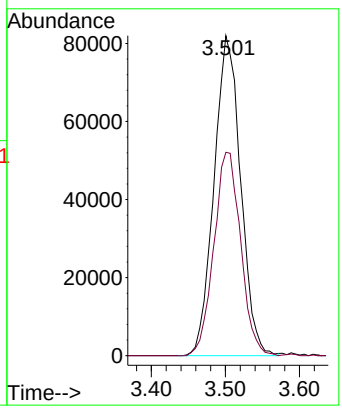
Tgt Ion:101 Resp: 20456

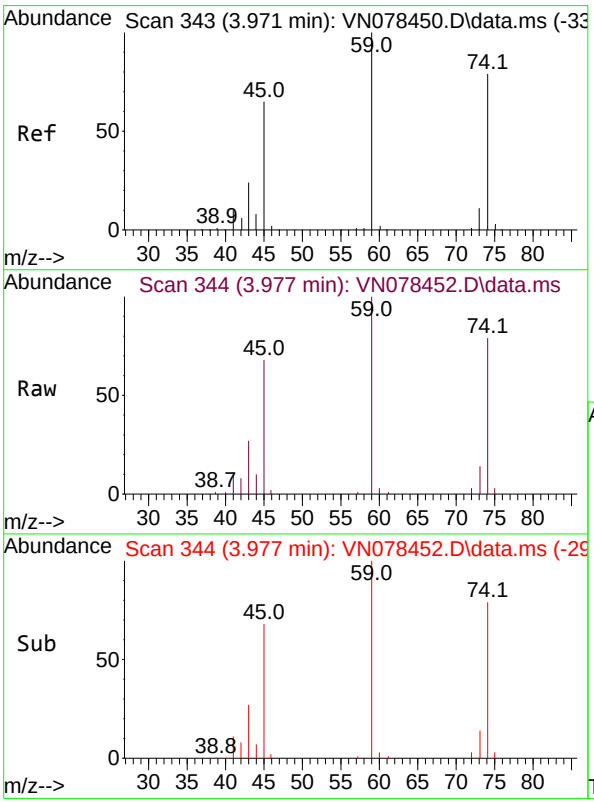
Ion	Ratio	Lower	Upper
101	100		
103	63.5	50.7	76.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

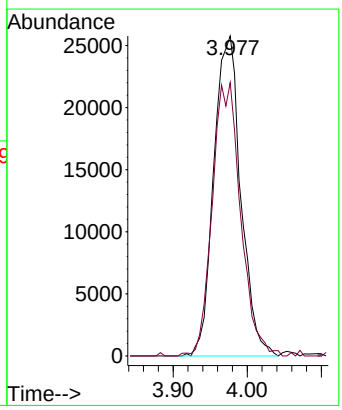


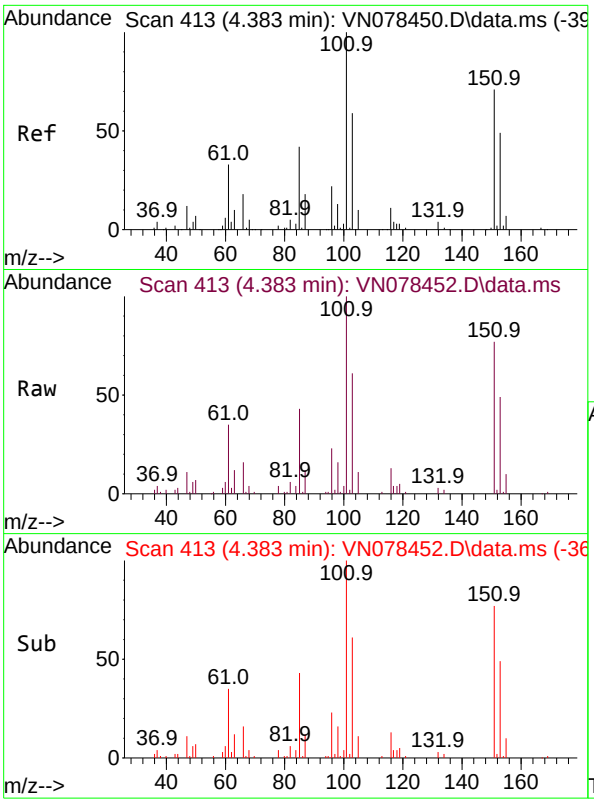


#8
Diethyl Ether
Concen: 18.812 ug/l
RT: 3.977 min Scan# 344
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 74 Resp: 65418

Ion	Ratio	Lower	Upper
74	100		
45	89.3	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.556 ug/l
RT: 4.383 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

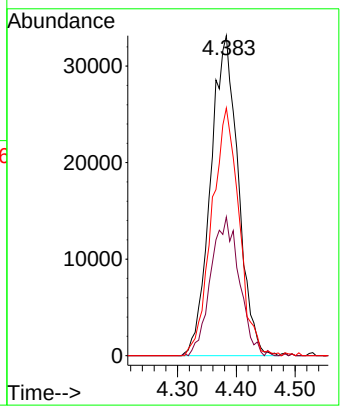
Tgt Ion:101 Resp: 10804

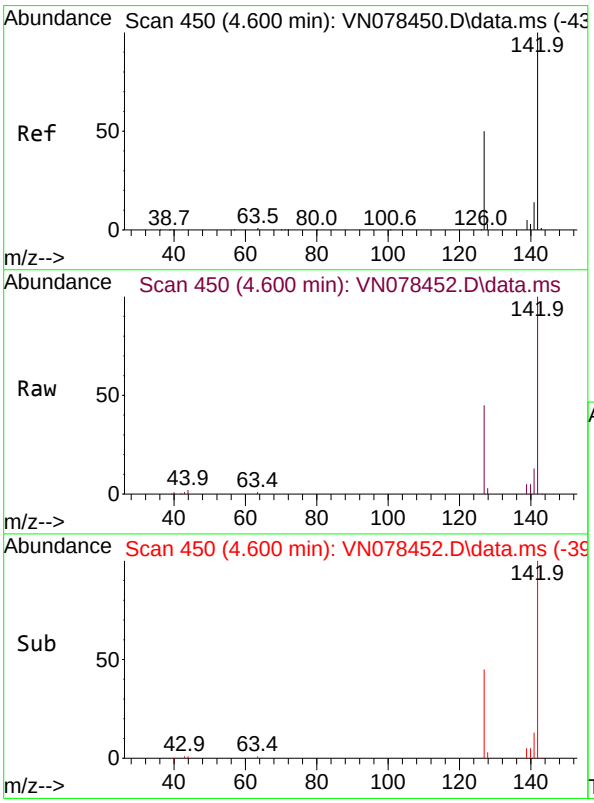
Ion	Ratio	Lower	Upper
101	100		
85	44.6	36.6	55.0
151	76.4	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

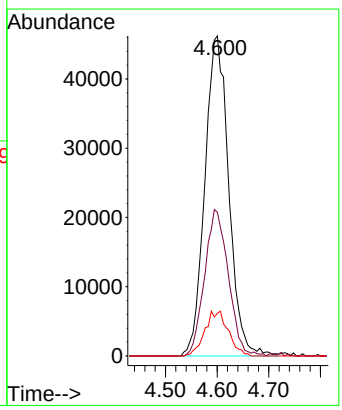


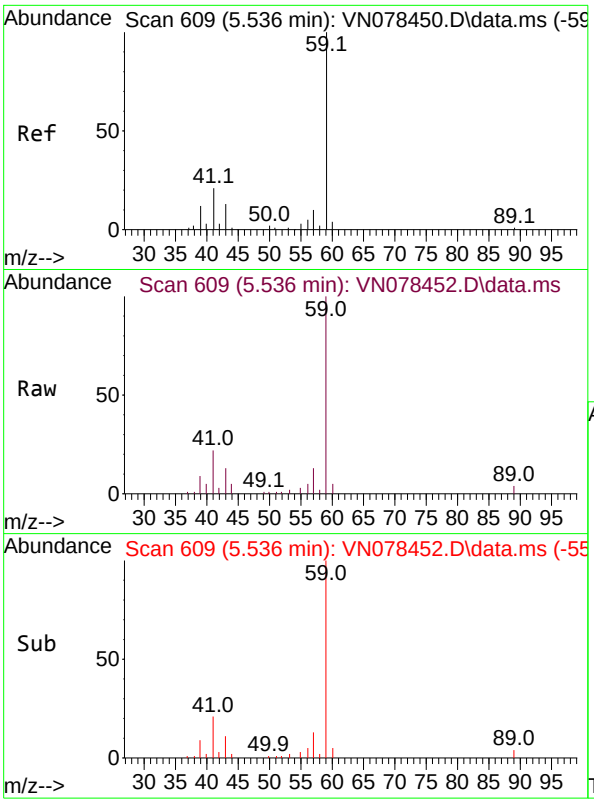


#10
Methyl Iodide
Concen: 19.550 ug/l
RT: 4.600 min Scan# 450
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:142 Resp: 148429

Ion	Ratio	Lower	Upper
142	100		
127	44.9	37.6	56.4
141	13.3	11.4	17.0

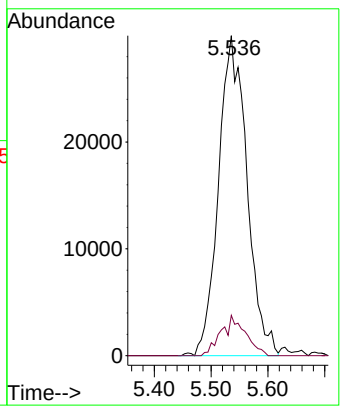




#11
Tert butyl alcohol
Concen: 99.270 ug/l
RT: 5.536 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 59 Resp: 10394

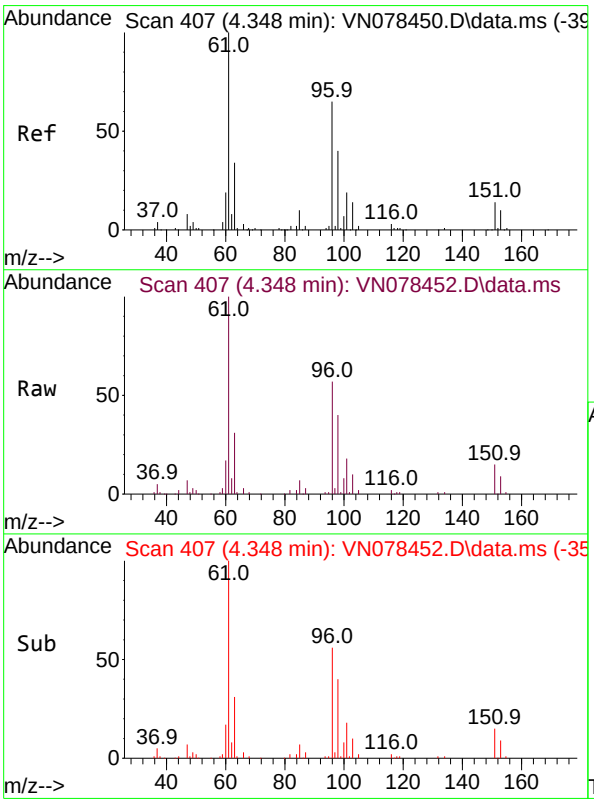
Ion	Ratio	Lower	Upper
59	100		
57	10.8	8.2	12.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

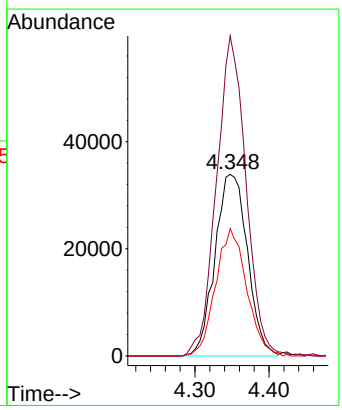
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

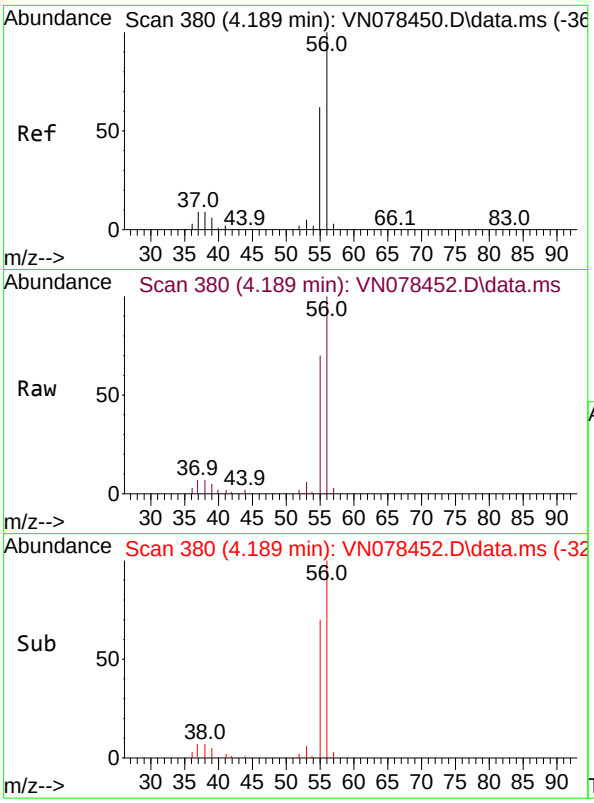


#12
1,1-Dichloroethene
Concen: 19.286 ug/l
RT: 4.348 min Scan# 407
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 96 Resp: 103072

Ion	Ratio	Lower	Upper
96	100		
61	176.2	112.7	169.1#
98	70.1	51.2	76.8

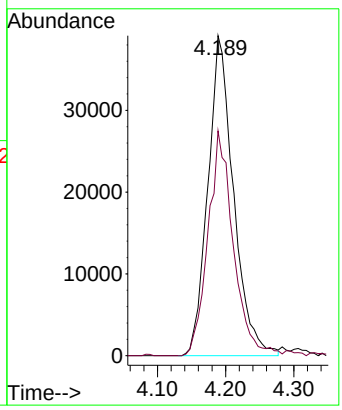




#13
Acrolein
Concen: 99.334 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 56 Resp: 10232

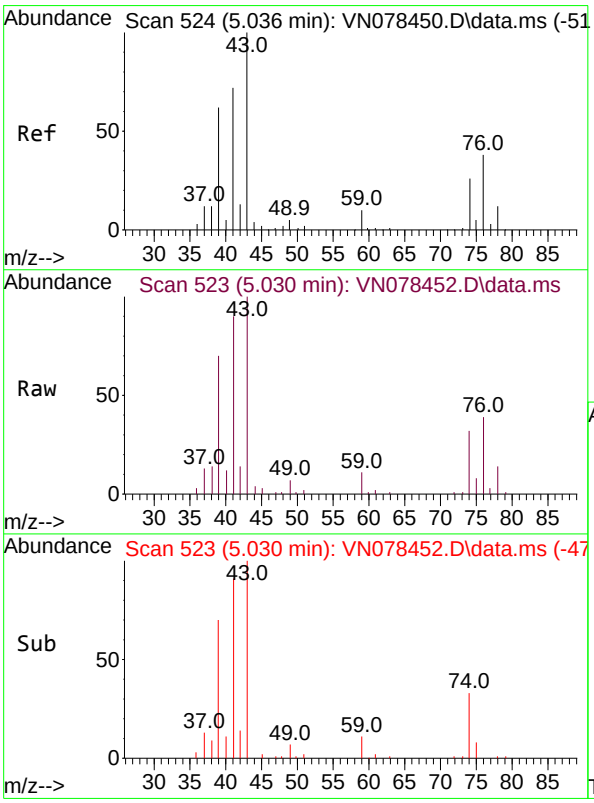
Ion	Ratio	Lower	Upper
56	100		
55	69.2	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

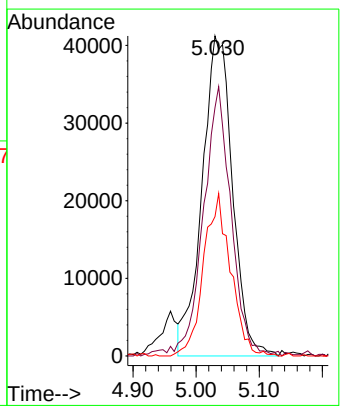
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

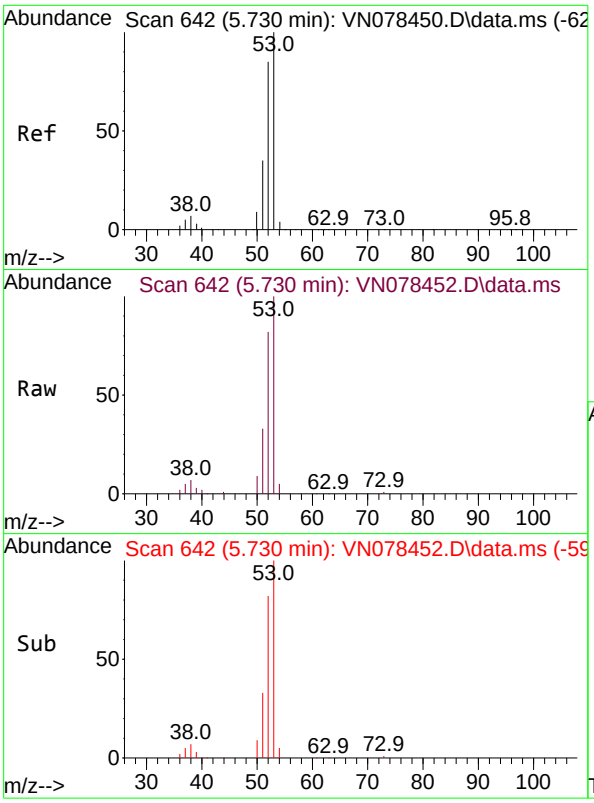


#14
Allyl chloride
Concen: 18.892 ug/l
RT: 5.030 min Scan# 523
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 41 Resp: 137963

Ion	Ratio	Lower	Upper
41	100		
39	76.5	58.8	88.2
76	45.2	39.1	58.7

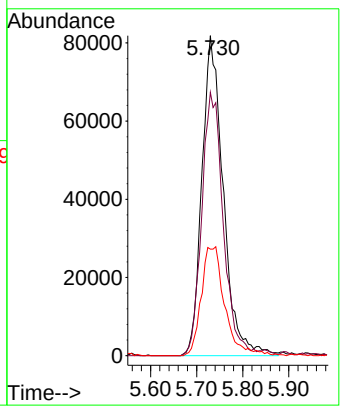




#15
Acrylonitrile
Concen: 99.847 ug/l
RT: 5.730 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 53 Resp: 26414

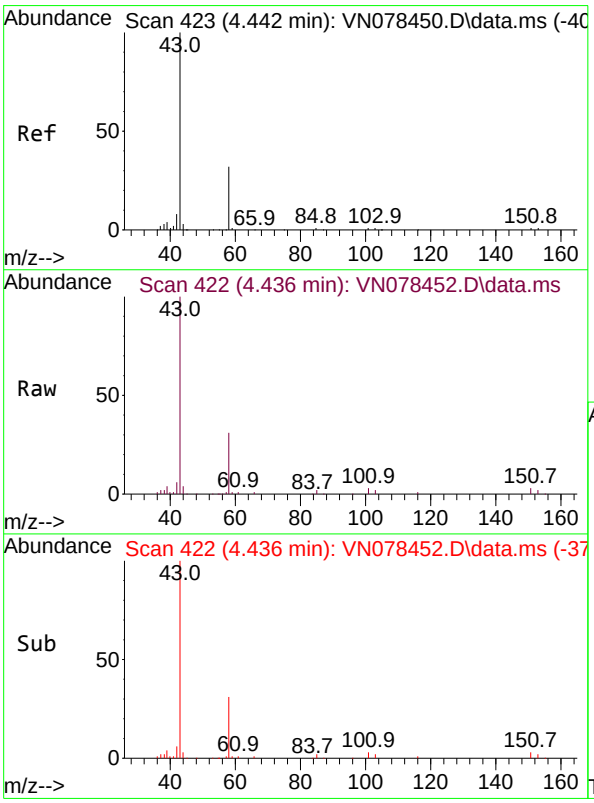
Ion	Ratio	Lower	Upper
53	100		
52	83.1	65.3	97.9
51	37.3	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

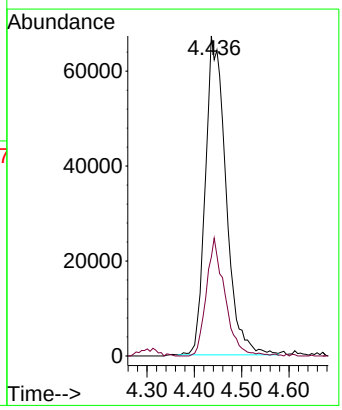
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

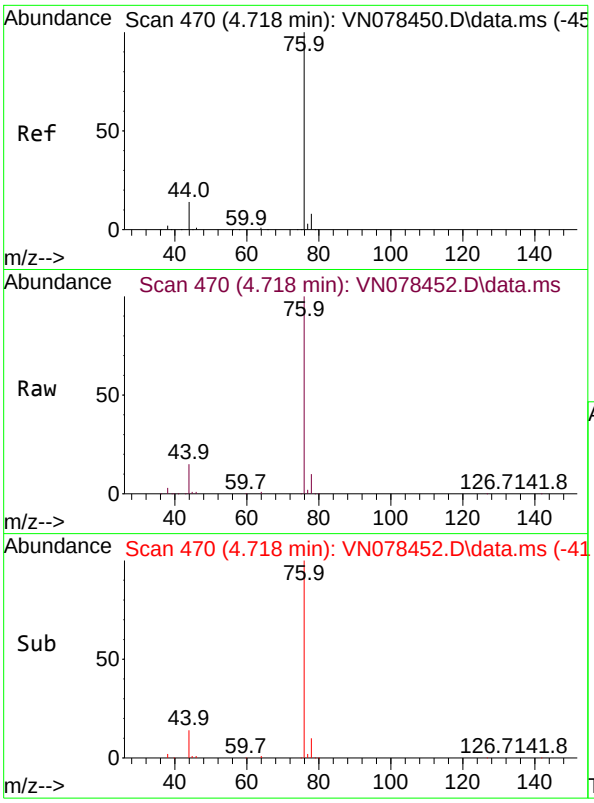


#16
Acetone
Concen: 95.797 ug/l
RT: 4.436 min Scan# 422
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 43 Resp: 202621

Ion	Ratio	Lower	Upper
43	100		
58	31.0	28.0	42.0

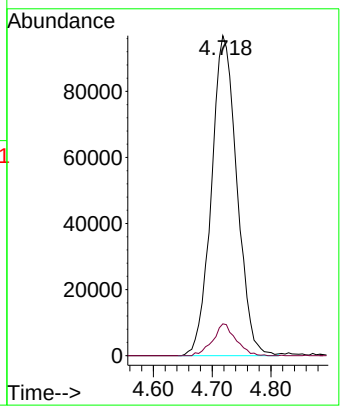




#17
Carbon Disulfide
Concen: 18.915 ug/l
RT: 4.718 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 76 Resp: 29231

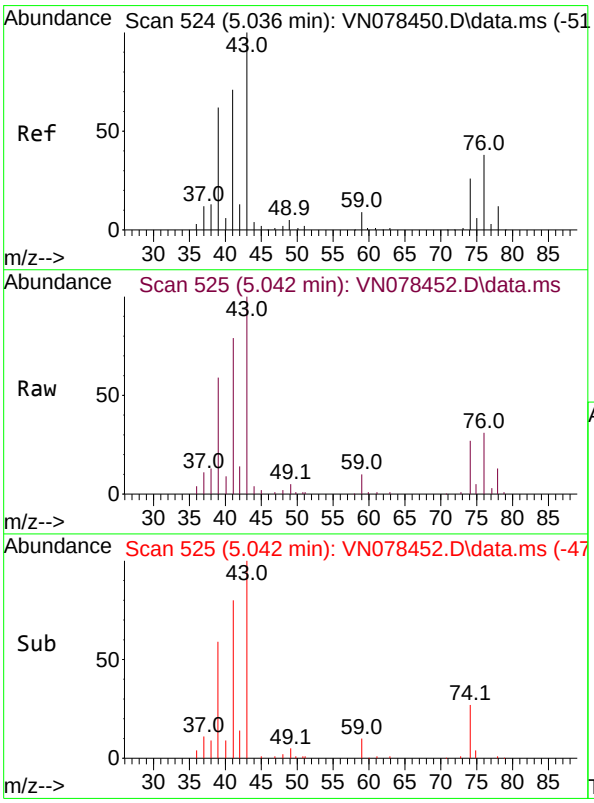
Ion	Ratio	Lower	Upper
76	100		
78	10.0	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

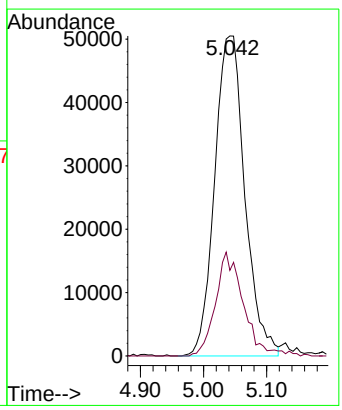
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

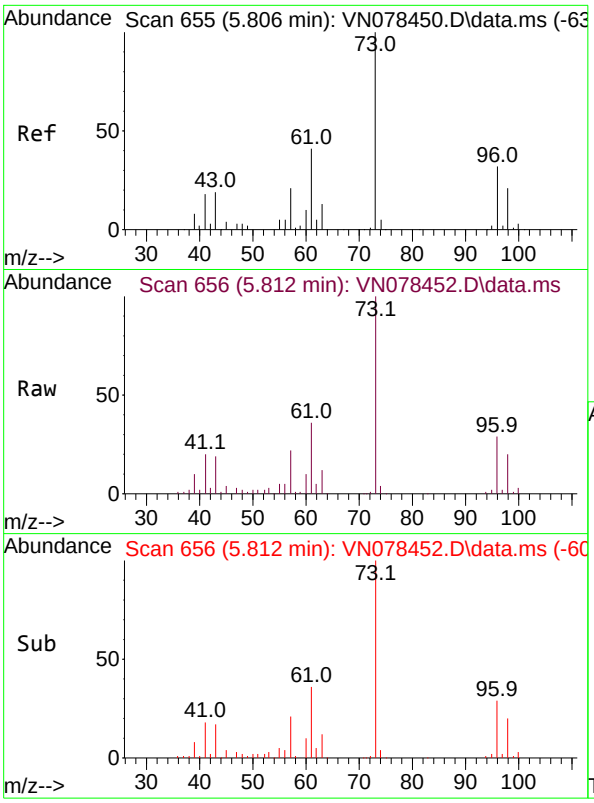


#18
Methyl Acetate
Concen: 18.766 ug/l
RT: 5.042 min Scan# 525
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 43 Resp: 168020

Ion	Ratio	Lower	Upper
43	100		
74	29.9	26.2	39.4

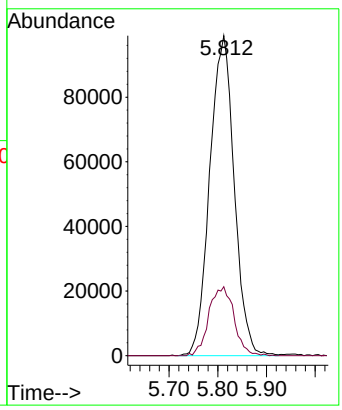




#19
Methyl tert-butyl Ether
Concen: 19.602 ug/l
RT: 5.812 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 73 Resp: 34517

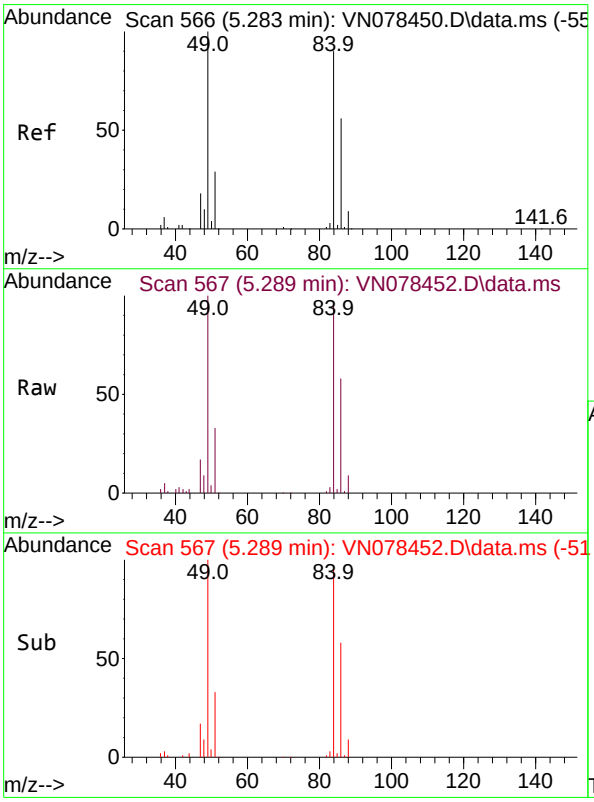
Ion	Ratio	Lower	Upper
73	100		
57	21.5	15.6	23.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

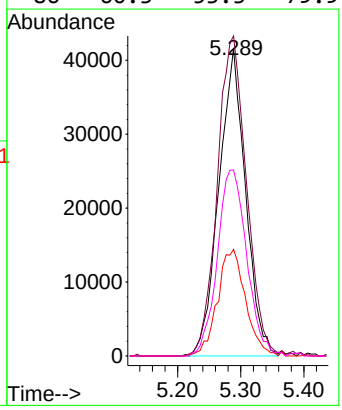
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

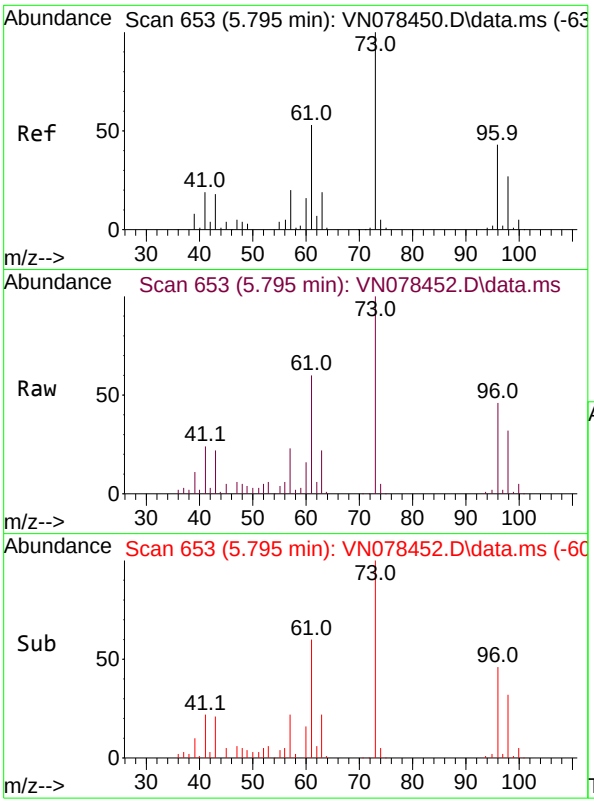


#20
Methylene Chloride
Concen: 19.056 ug/l
RT: 5.289 min Scan# 567
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 84 Resp: 122115

Ion	Ratio	Lower	Upper
84	100		
49	103.9	79.7	119.5
51	34.6	25.2	37.8
86	60.3	53.3	79.9

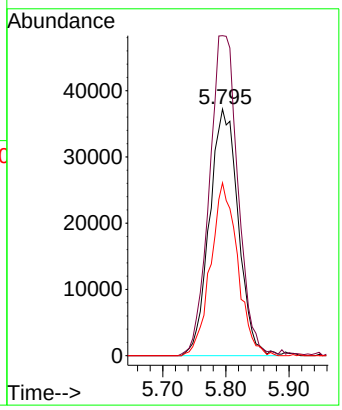




#21
trans-1,2-Dichloroethene
Concen: 19.532 ug/l
RT: 5.795 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 96 Resp: 11763

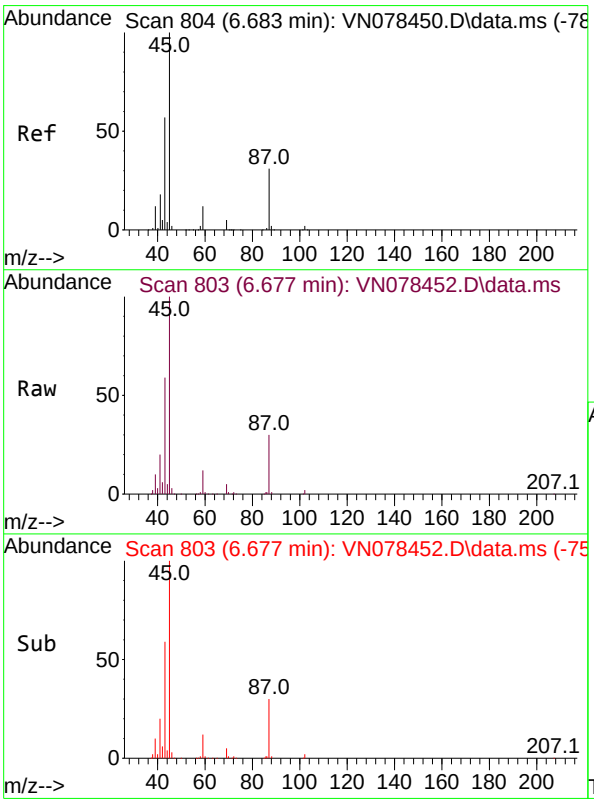
Ion	Ratio	Lower	Upper
96	100		
61	129.8	90.1	135.1
98	70.1	46.4	69.6#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

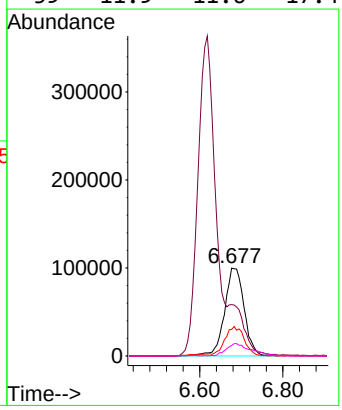
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

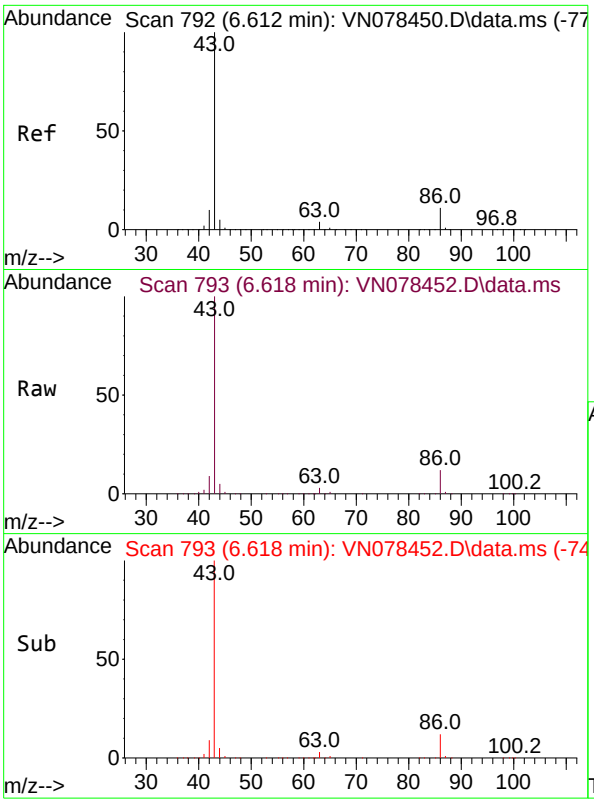


#22
Diisopropyl ether
Concen: 19.982 ug/l
RT: 6.677 min Scan# 803
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 45 Resp: 326748

Ion	Ratio	Lower	Upper
45	100		
43	58.3	45.5	68.3
87	30.3	31.8	47.8#
59	11.9	11.6	17.4





#23
Vinyl Acetate
Concen: 101.229 ug/l
RT: 6.618 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

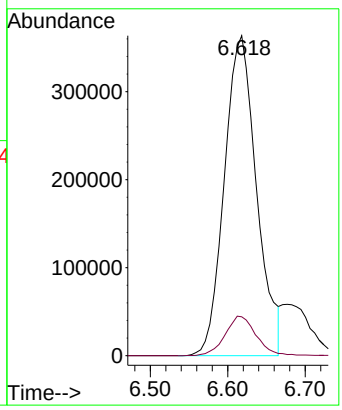
Tgt Ion: 43 Resp: 105233

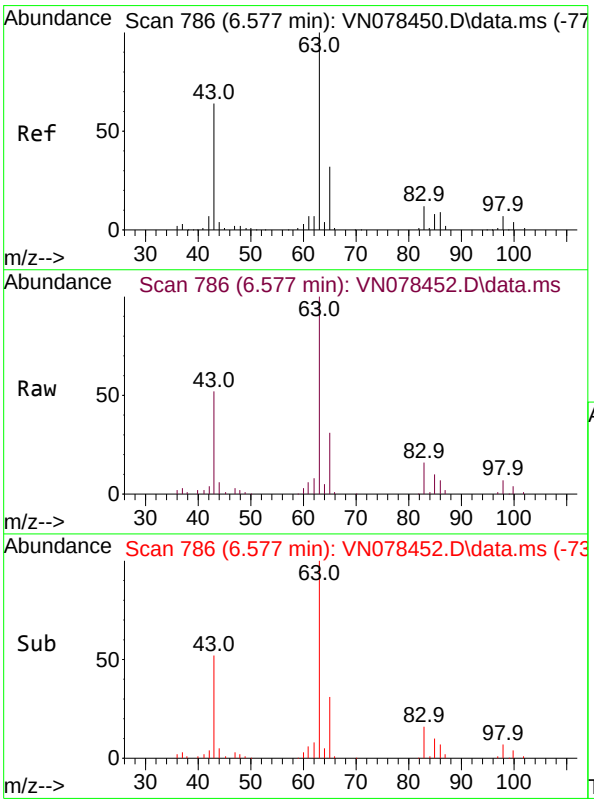
Ion	Ratio	Lower	Upper
43	100		
86	12.2	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

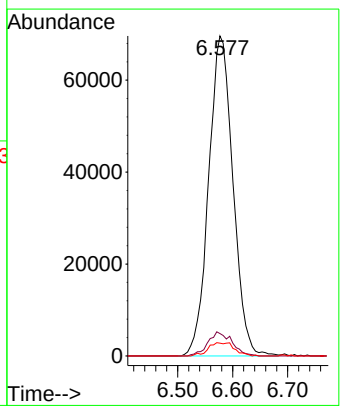


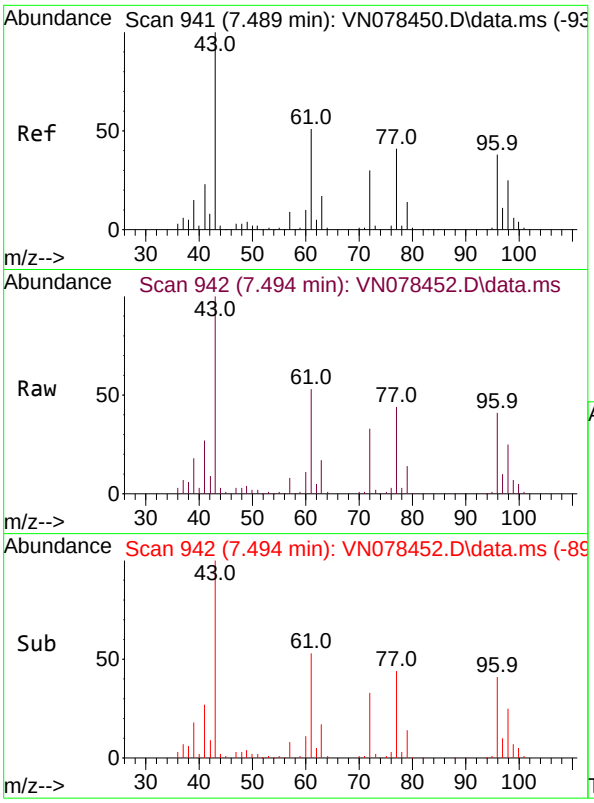


#24
1,1-Dichloroethane
Concen: 19.418 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 63 Resp: 213961

Ion	Ratio	Lower	Upper
63	100		
98	7.0	3.9	11.7
100	4.0	2.5	7.4





#25
2-Butanone
Concen: 99.149 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.005 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

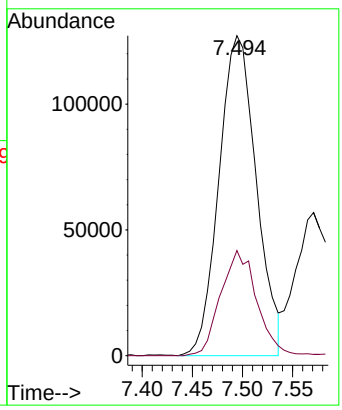
Tgt Ion: 43 Resp: 33011

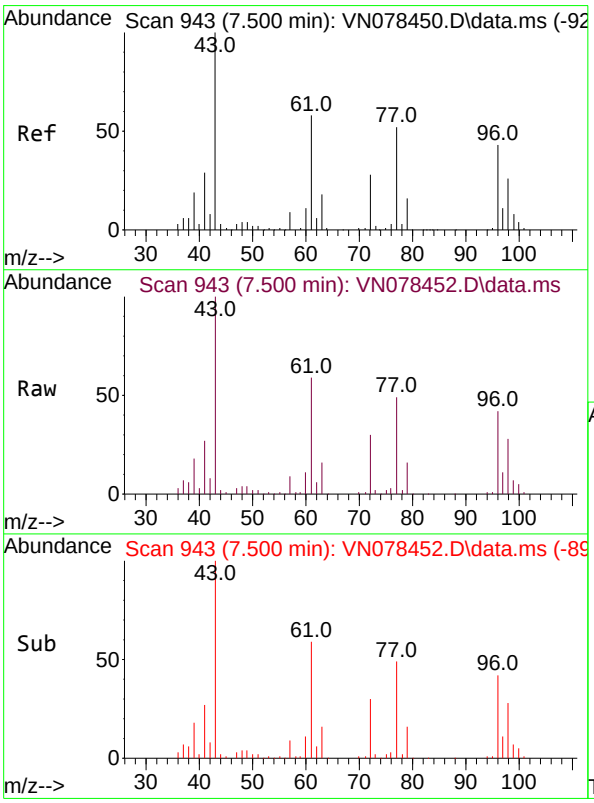
Ion	Ratio	Lower	Upper
43	100		
72	33.0	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

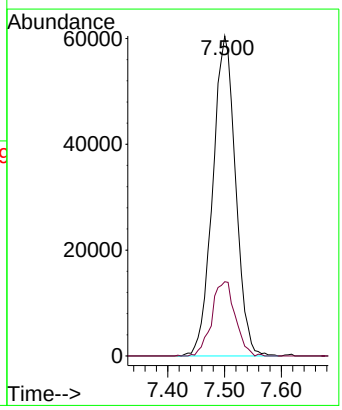


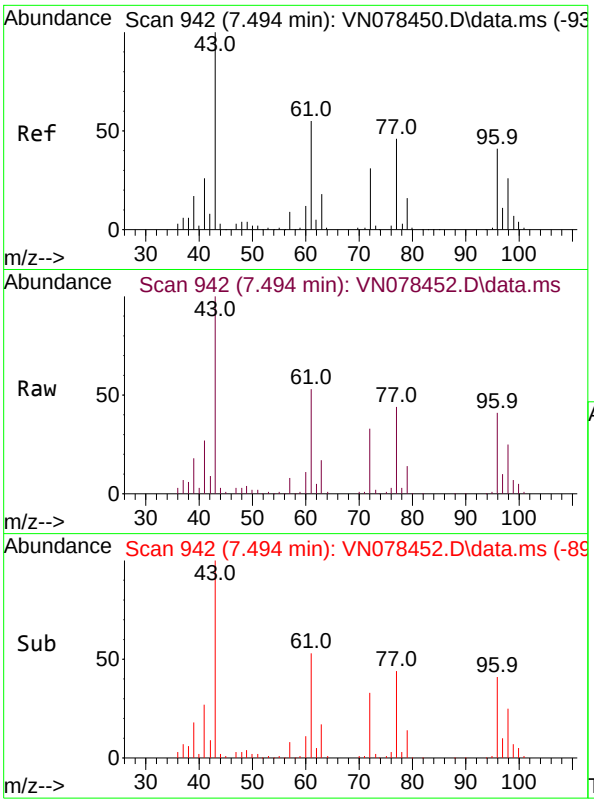


#26
2,2-Dichloropropane
Concen: 18.773 ug/l
RT: 7.500 min Scan# 943
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 77 Resp: 169178

Ion	Ratio	Lower	Upper
77	100		
97	23.8	11.2	33.6

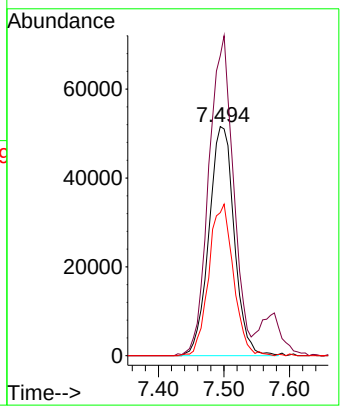




#27
cis-1,2-Dichloroethene
Concen: 19.797 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 96 Resp: 13792

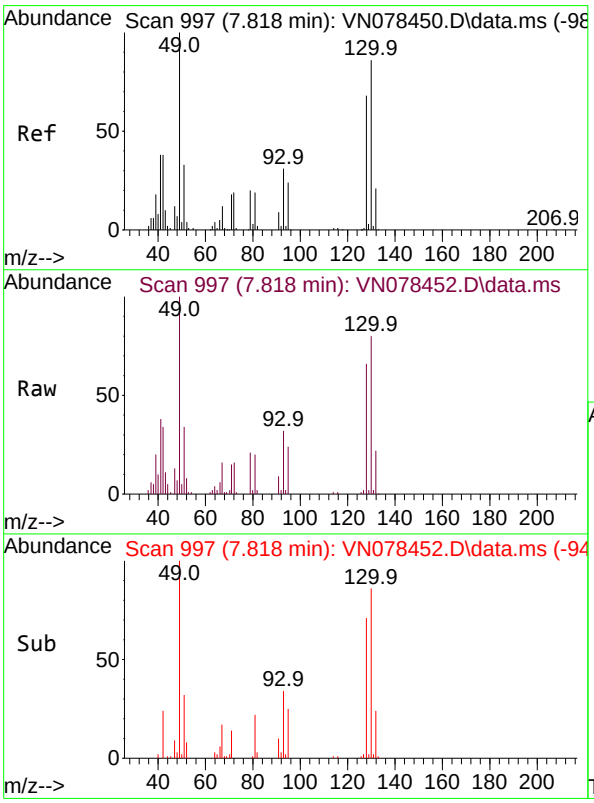
Ion	Ratio	Lower	Upper
96	100		
61	135.9	0.0	255.2
98	64.4	0.0	128.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

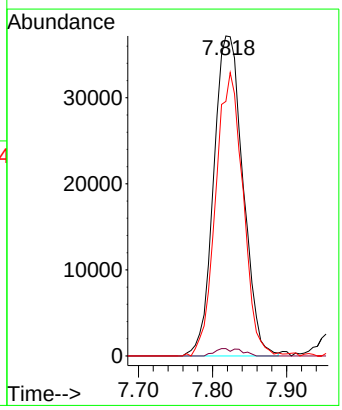
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

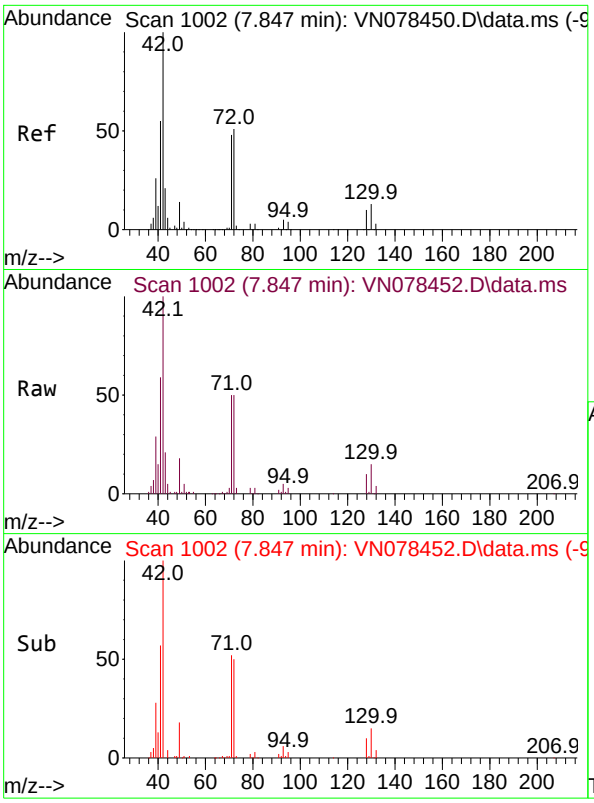


#28
Bromochloromethane
Concen: 19.662 ug/l
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 49 Resp: 102041

Ion	Ratio	Lower	Upper
49	100		
129	1.2	0.0	4.8
130	82.8	75.3	112.9

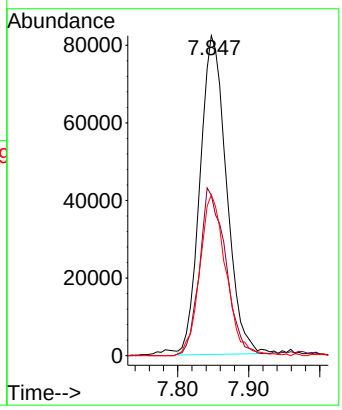




#29
Tetrahydrofuran
Concen: 97.421 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 42 Resp: 21283

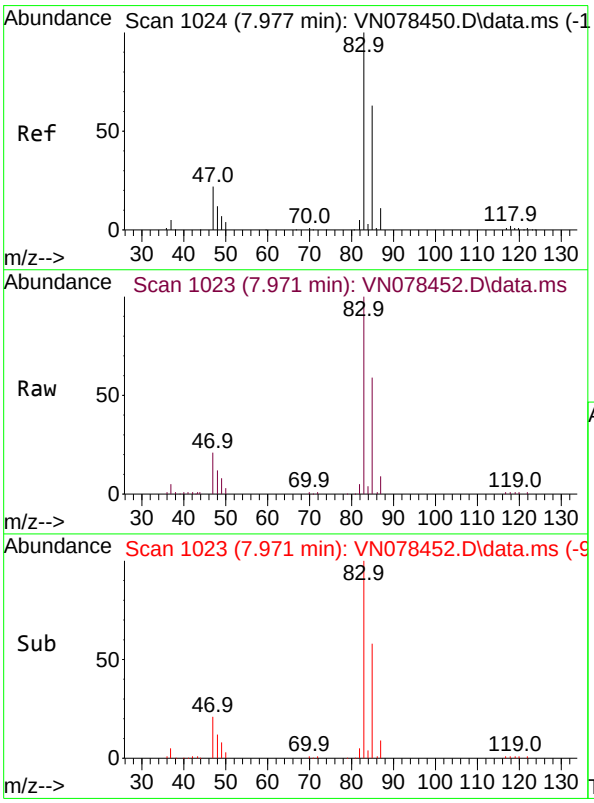
Ion	Ratio	Lower	Upper
42	100		
72	51.9	49.8	74.6
71	50.1	47.4	71.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

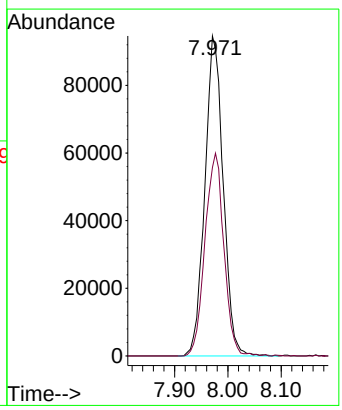
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

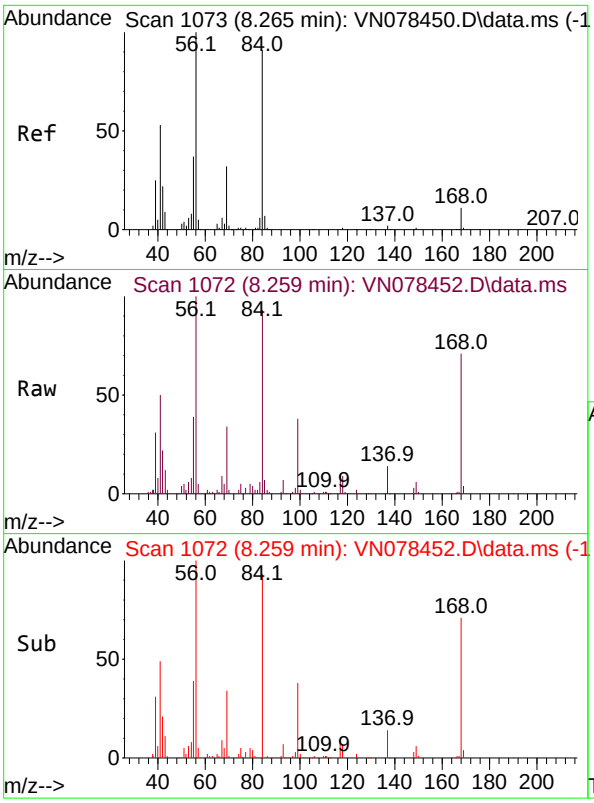


#30
Chloroform
Concen: 19.736 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 83 Resp: 226403

Ion	Ratio	Lower	Upper
83	100		
85	58.9	55.4	83.0

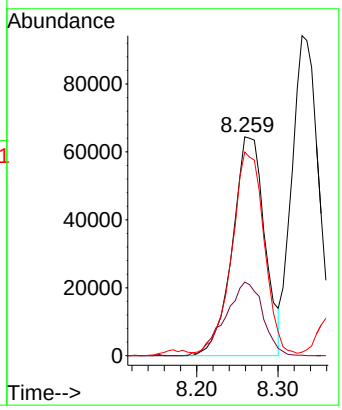




#31
Cyclohexane
Concen: 19.348 ug/l
RT: 8.259 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 56 Resp: 17754

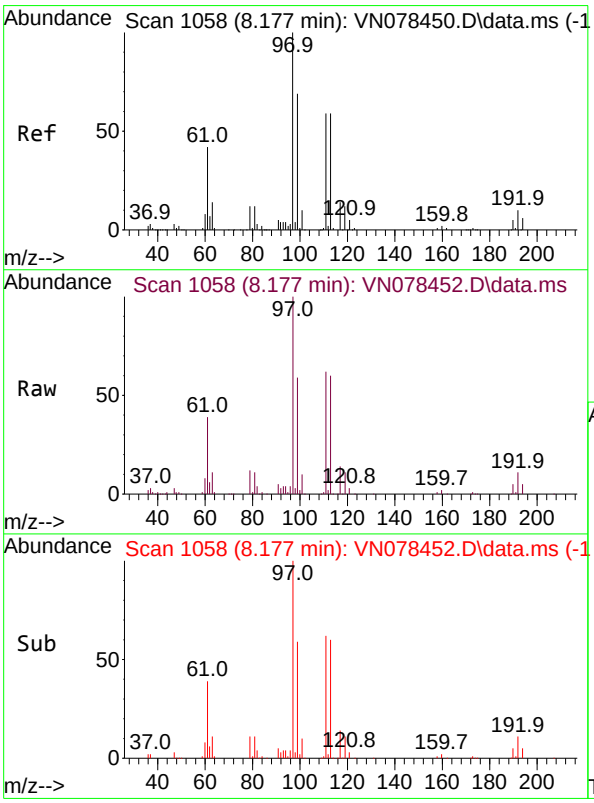
Ion	Ratio	Lower	Upper
56	100		
69	33.6	26.8	40.2
84	91.2	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

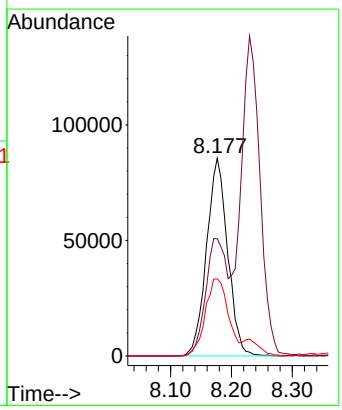
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

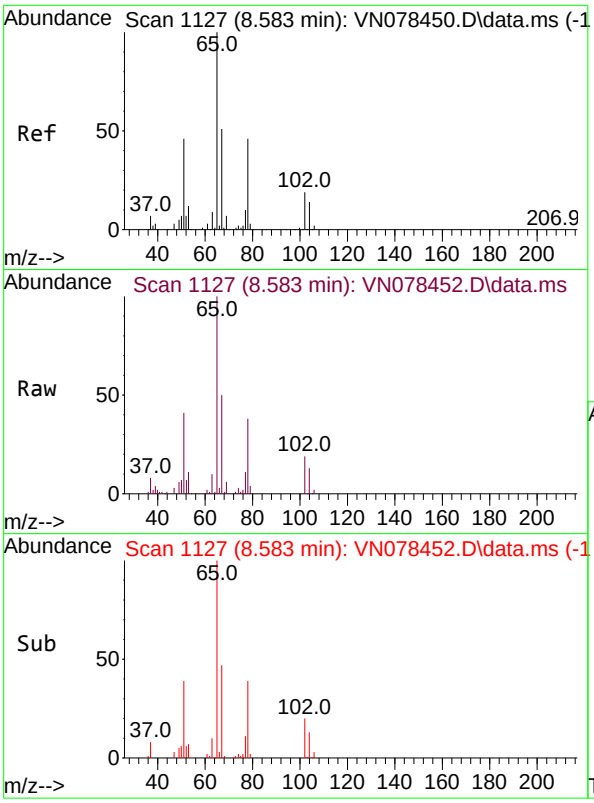


#32
1,1,1-Trichloroethane
Concen: 20.035 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 97 Resp: 206056

Ion	Ratio	Lower	Upper
97	100		
99	57.8	50.3	75.5
61	43.4	34.7	52.1





#33
1,2-Dichloroethane-d4
Concen: 20.138 ug/l
RT: 8.583 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

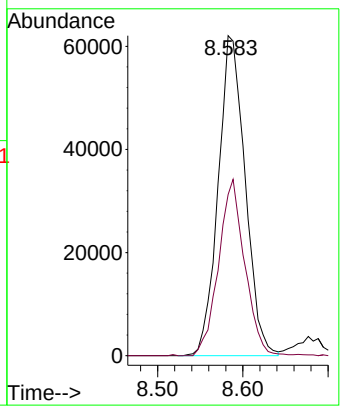
Tgt Ion: 65 Resp: 13674

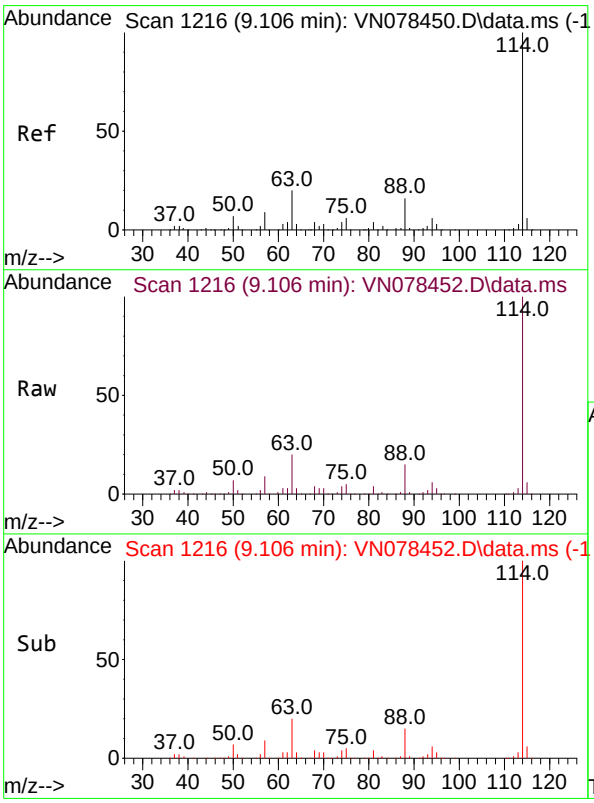
Ion	Ratio	Lower	Upper
65	100		
67	53.3	0.0	106.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

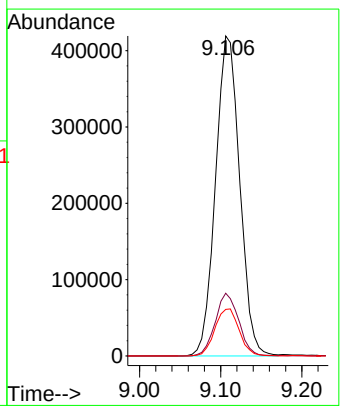


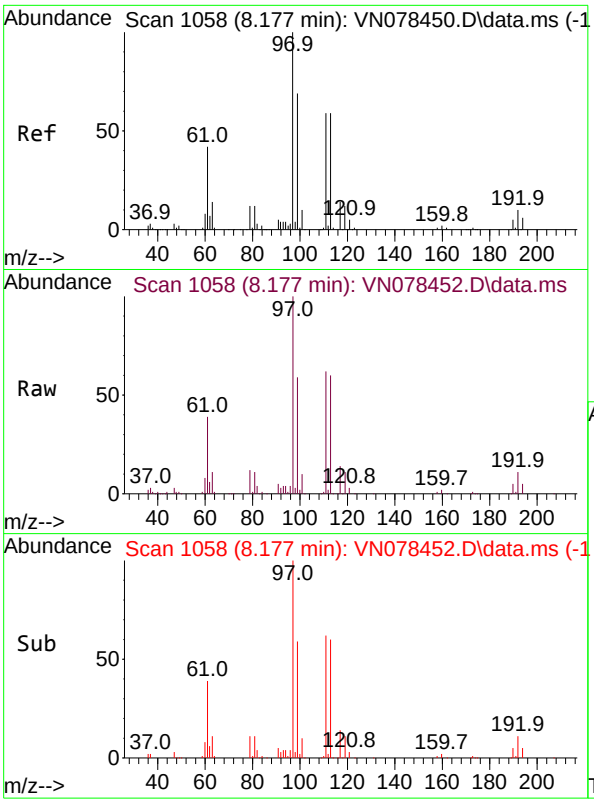


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:114 Resp: 868065

Ion	Ratio	Lower	Upper
114	100		
63	19.6	0.0	36.4
88	14.5	0.0	30.6

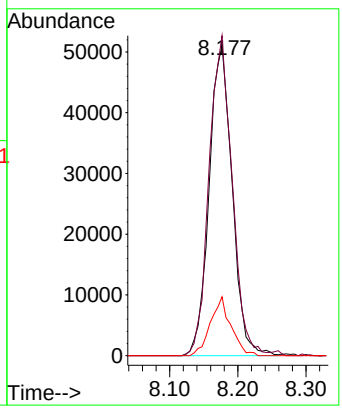




#35
Dibromofluoromethane
Concen: 20.433 ug/l
RT: 8.177 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:113 Resp: 12040

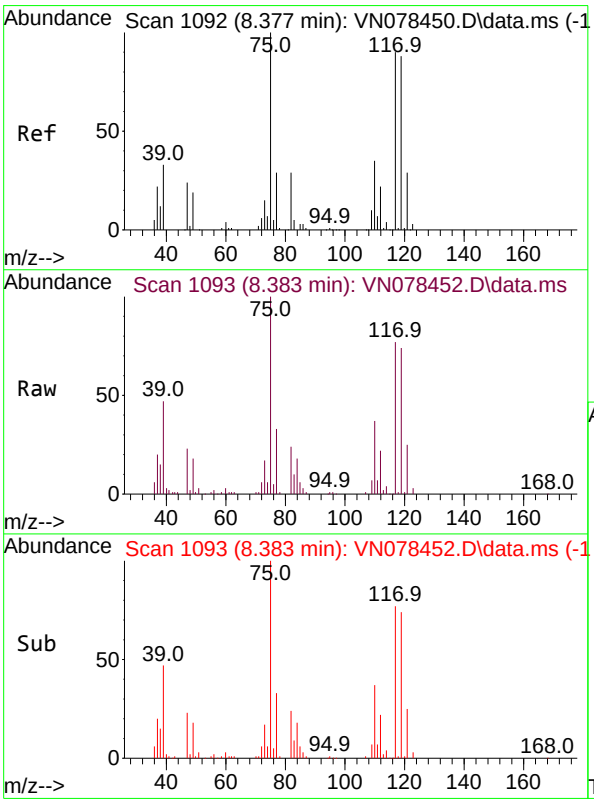
Ion	Ratio	Lower	Upper
113	100		
111	103.1	82.6	123.8
192	16.8	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

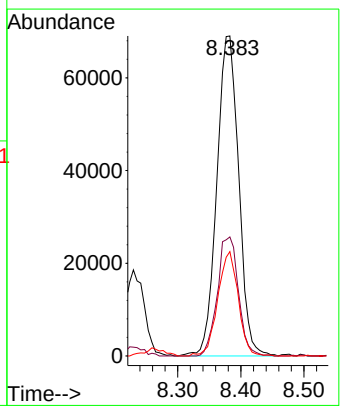
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

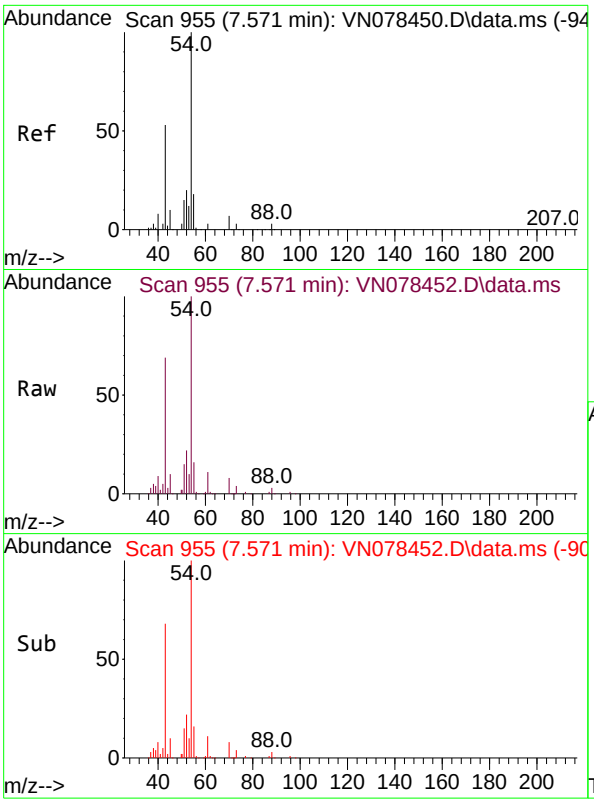


#36
1,1-Dichloropropene
Concen: 19.566 ug/l
RT: 8.383 min Scan# 1093
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 75 Resp: 166479

Ion	Ratio	Lower	Upper
75	100		
110	35.9	19.1	57.3
77	30.5	25.0	37.4





#37
Ethyl Acetate
Concen: 20.811 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

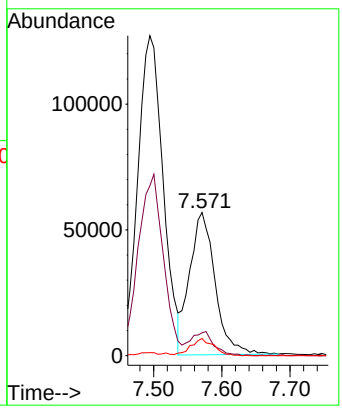
Tgt Ion: 43 Resp: 14760

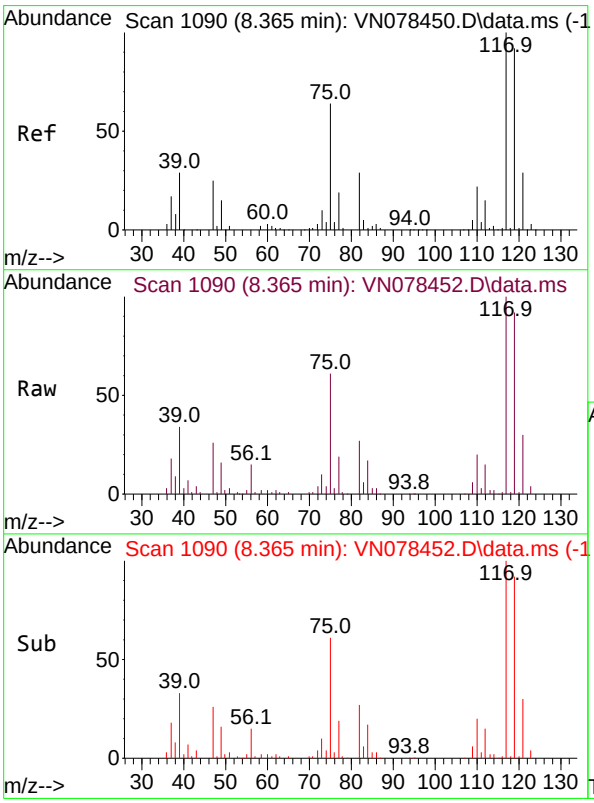
Ion	Ratio	Lower	Upper
43	100		
61	15.6	13.2	19.8
70	10.7	11.3	16.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

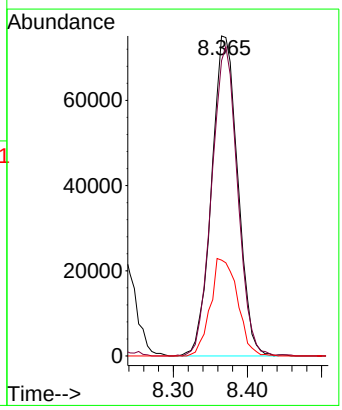


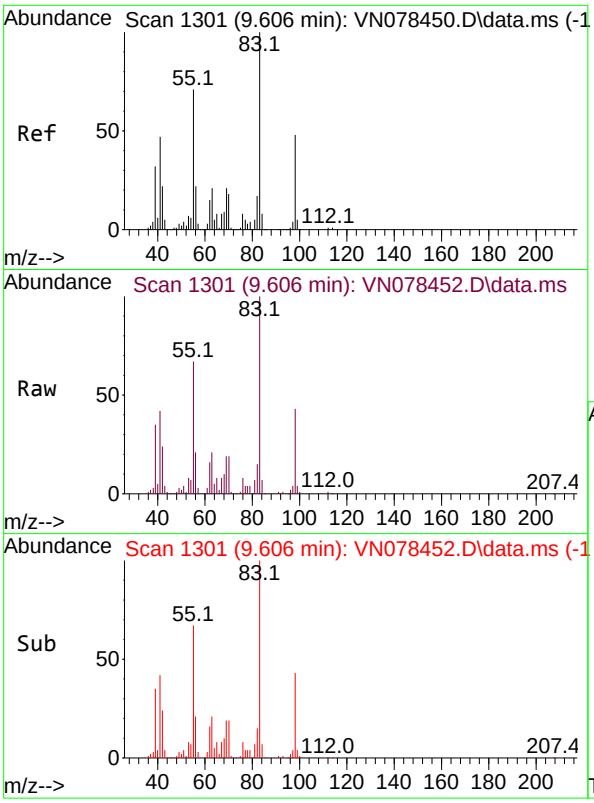


#38
Carbon Tetrachloride
Concen: 19.923 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:117 Resp: 184232

Ion	Ratio	Lower	Upper
117	100		
119	92.0	77.3	115.9
121	29.9	23.3	34.9

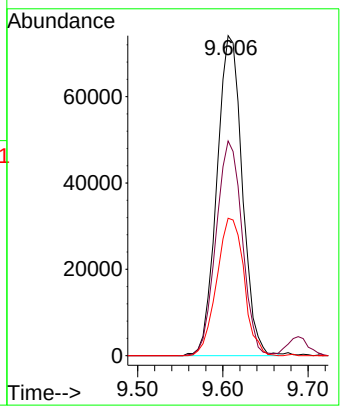




#39
Methylcyclohexane
Concen: 19.769 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 83 Resp: 15353

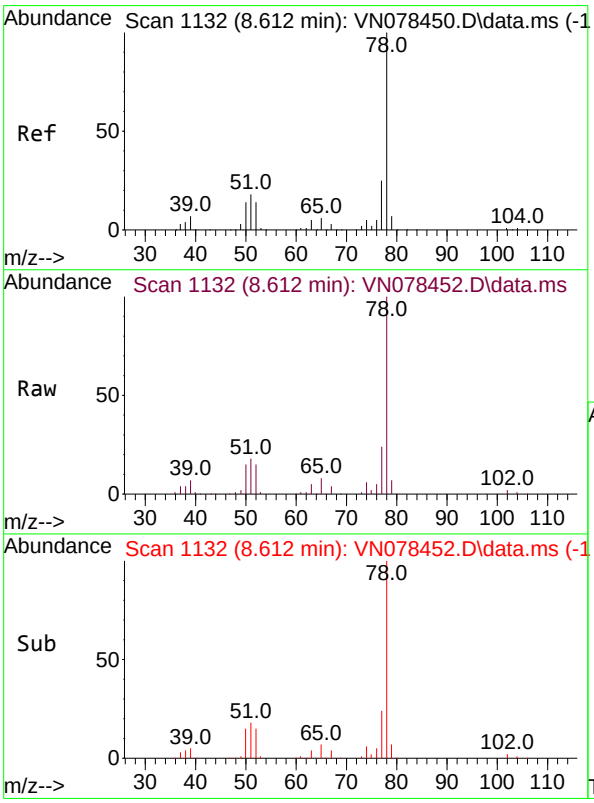
Ion	Ratio	Lower	Upper
83	100		
55	67.1	49.1	73.7
98	42.9	40.6	61.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

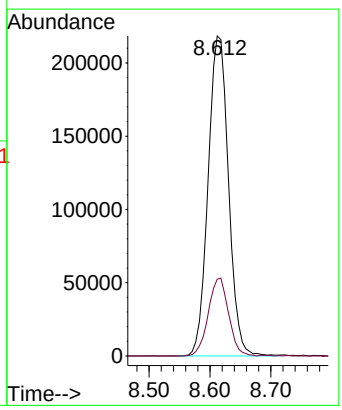
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

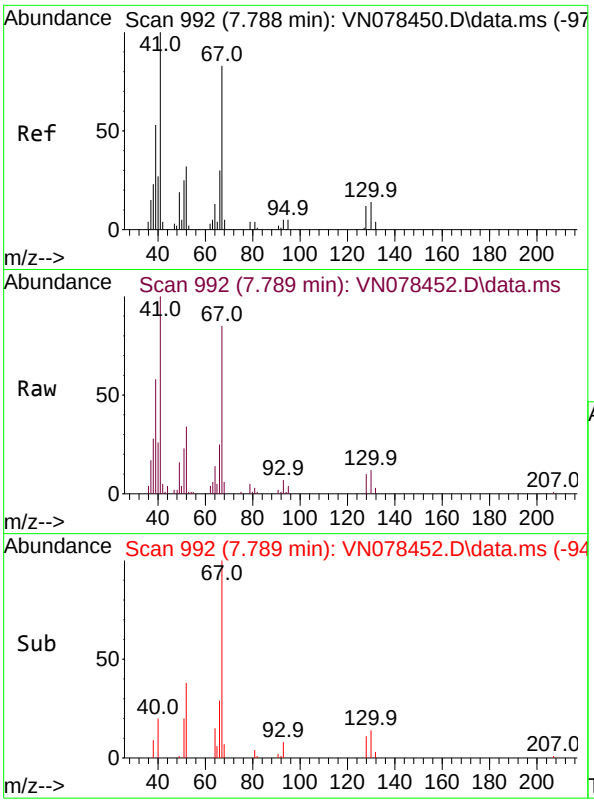


#40
Benzene
Concen: 20.157 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 78 Resp: 508110

Ion	Ratio	Lower	Upper
78	100		
77	24.0	19.0	28.6

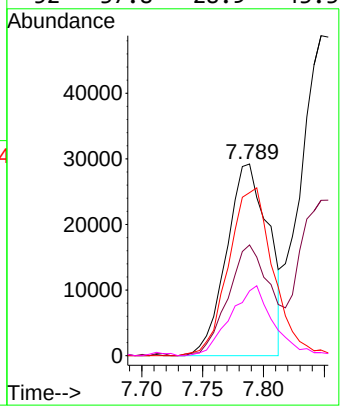




#41
Methacrylonitrile
Concen: 19.421 ug/l
RT: 7.789 min Scan# 9
Delta R.T. 0.001 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 41 Resp: 7022

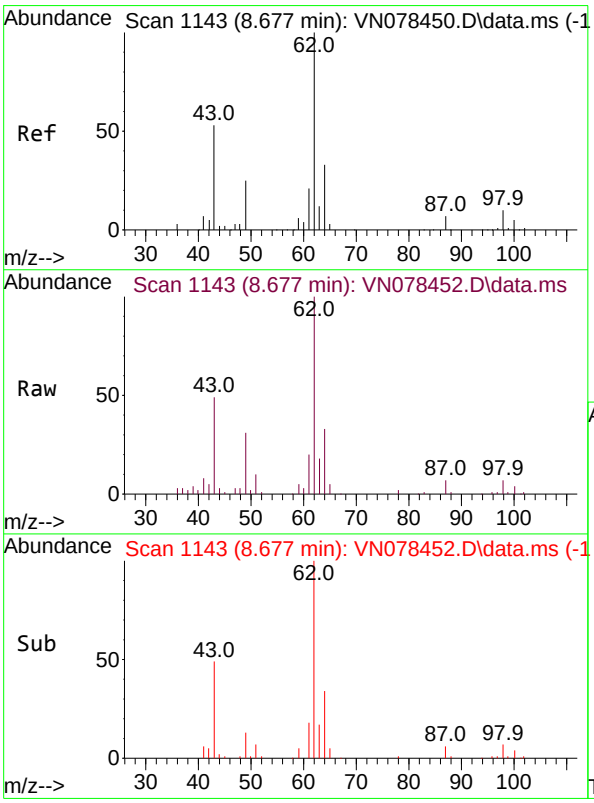
Ion	Ratio	Lower	Upper
41	100		
39	60.2	42.6	64.0
67	93.2	77.5	116.3
52	37.8	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

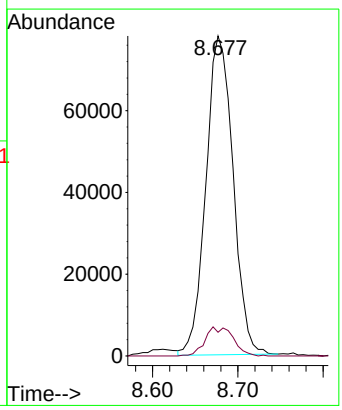
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

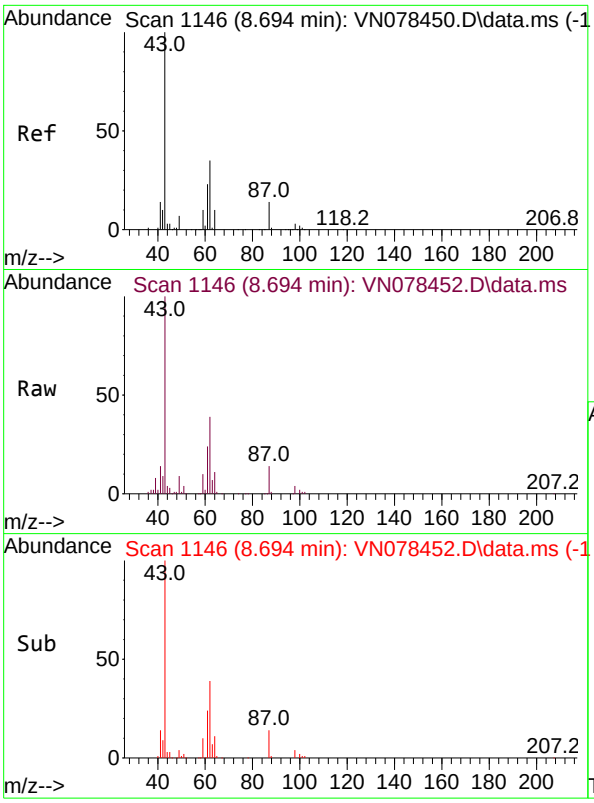


#42
1,2-Dichloroethane
Concen: 20.143 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 62 Resp: 172703

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.8





#43
Isopropyl Acetate
Concen: 20.915 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

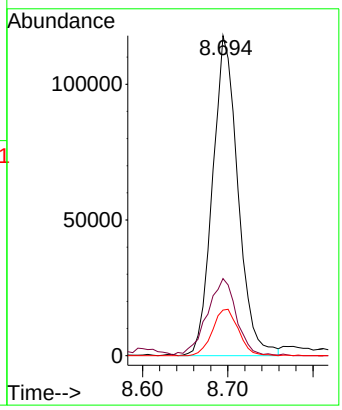
Tgt Ion: 43 Resp: 24423

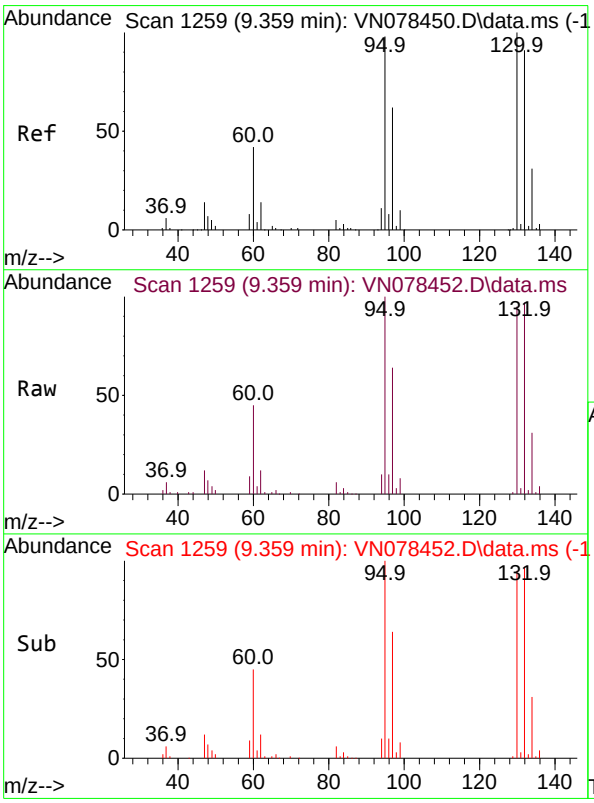
Ion	Ratio	Lower	Upper
43	100		
61	27.2	24.7	37.1
87	14.9	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

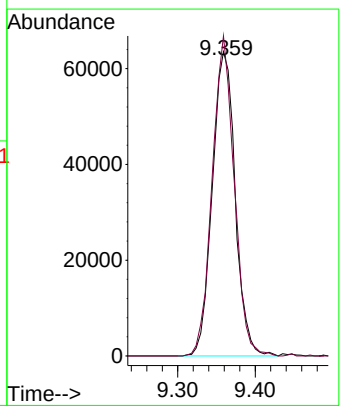


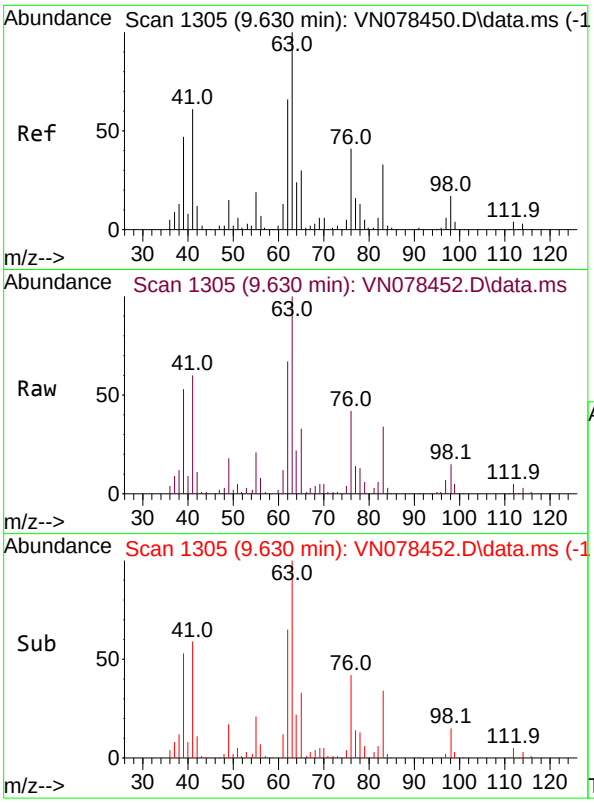


#44
Trichloroethene
Concen: 19.193 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:130 Resp: 130391

Ion	Ratio	Lower	Upper
130	100		
95	105.1	0.0	204.6

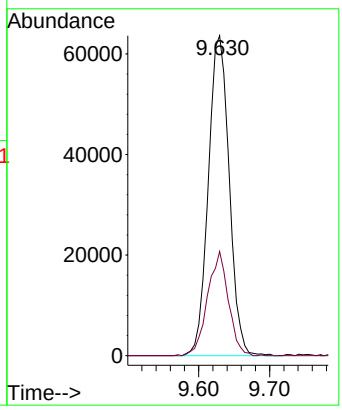




#45
1,2-Dichloropropane
Concen: 20.327 ug/l
RT: 9.630 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 63 Resp: 12977

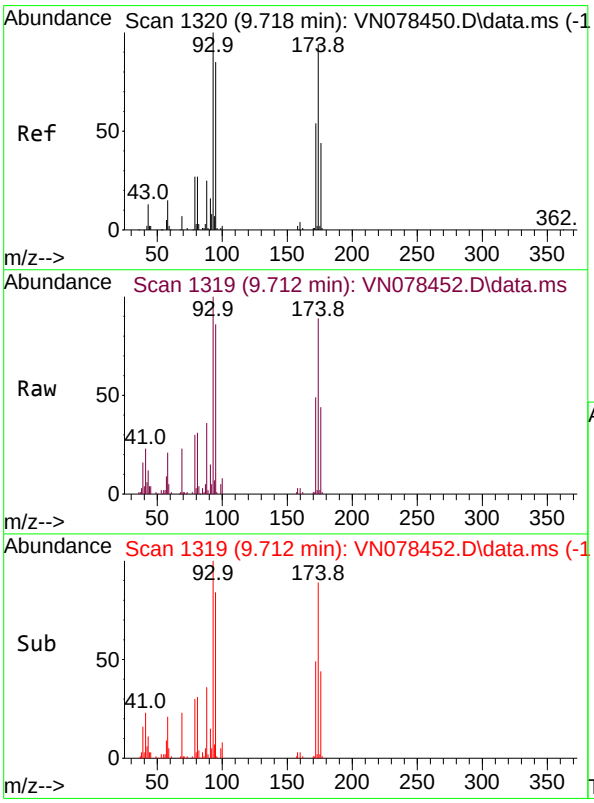
Ion	Ratio	Lower	Upper
63	100		
65	32.5	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

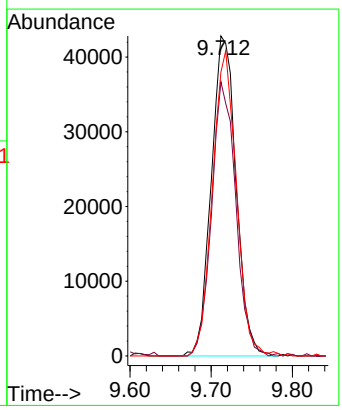
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

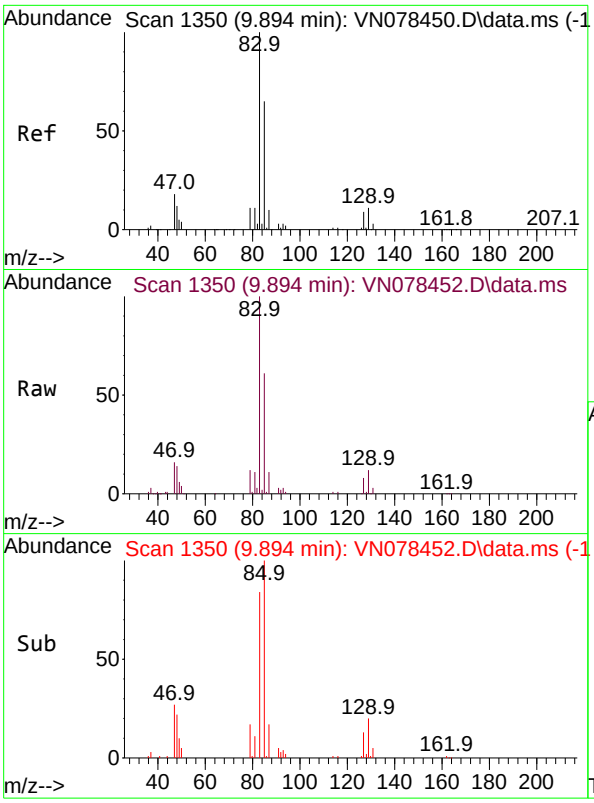


#46
Dibromomethane
Concen: 20.185 ug/l
RT: 9.712 min Scan# 1319
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 93 Resp: 90702

Ion	Ratio	Lower	Upper
93	100		
95	83.3	63.8	95.8
174	92.5	65.6	98.4

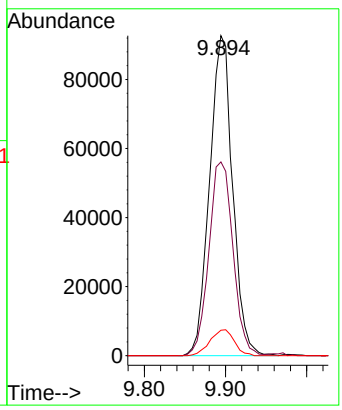




#47
Bromodichloromethane
Concen: 20.283 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 83 Resp: 18270

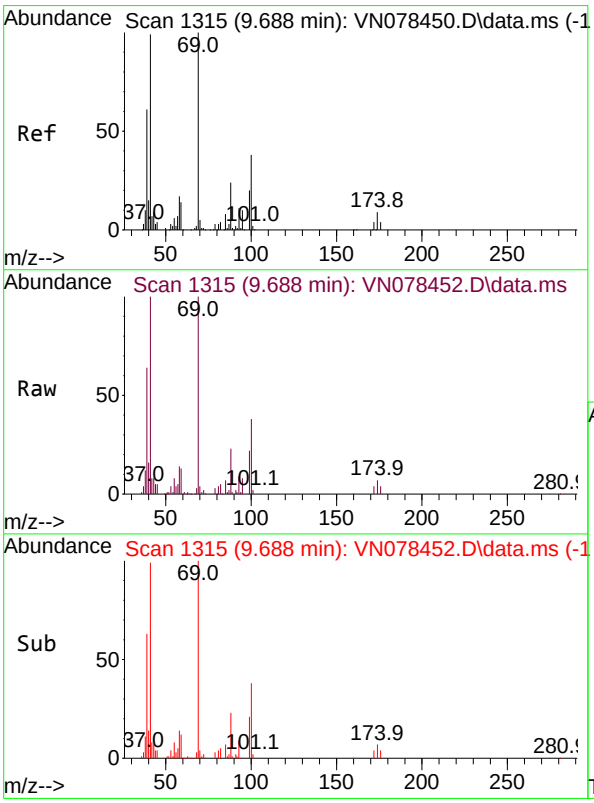
Ion	Ratio	Lower	Upper
83	100		
85	60.5	49.6	74.4
127	8.0	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

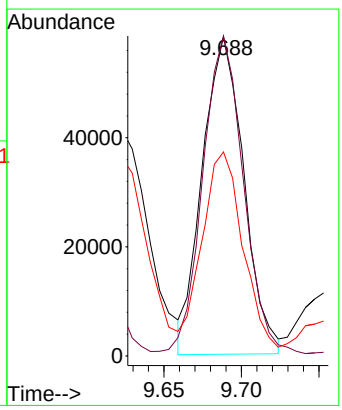
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

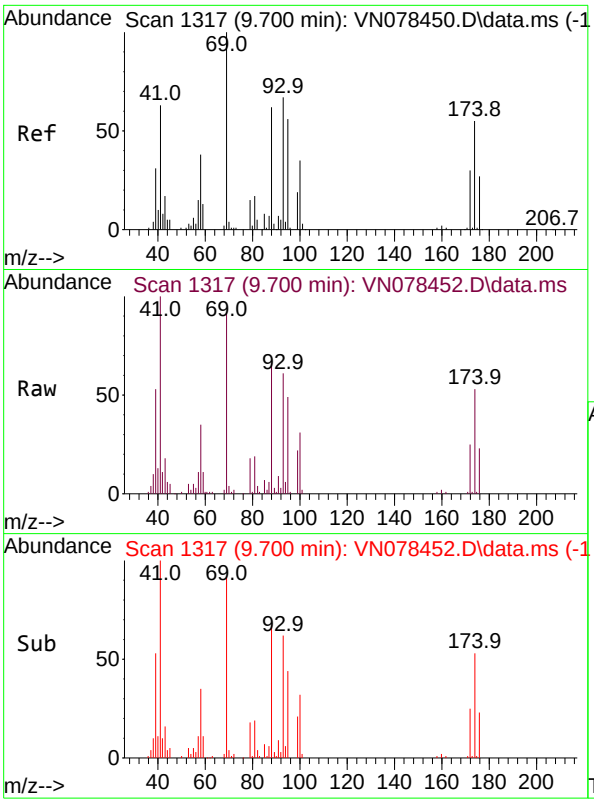


#48
Methyl methacrylate
Concen: 19.995 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 41 Resp: 108172

Ion	Ratio	Lower	Upper
41	100		
69	98.2	90.4	135.6
39	64.4	54.6	81.8

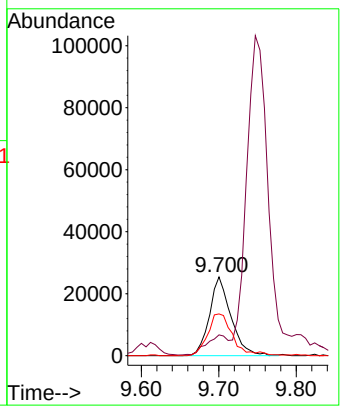




#49
1,4-Dioxane
Concen: 414.856 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 88 Resp: 4894

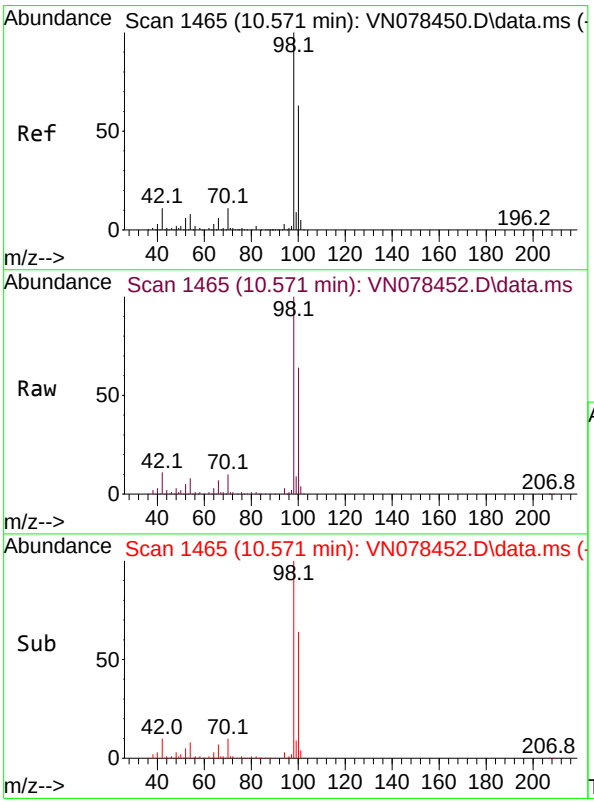
Ion	Ratio	Lower	Upper
88	100		
43	24.4	17.0	25.6
58	61.7	47.0	70.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

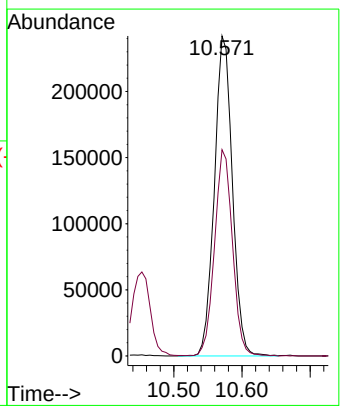
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

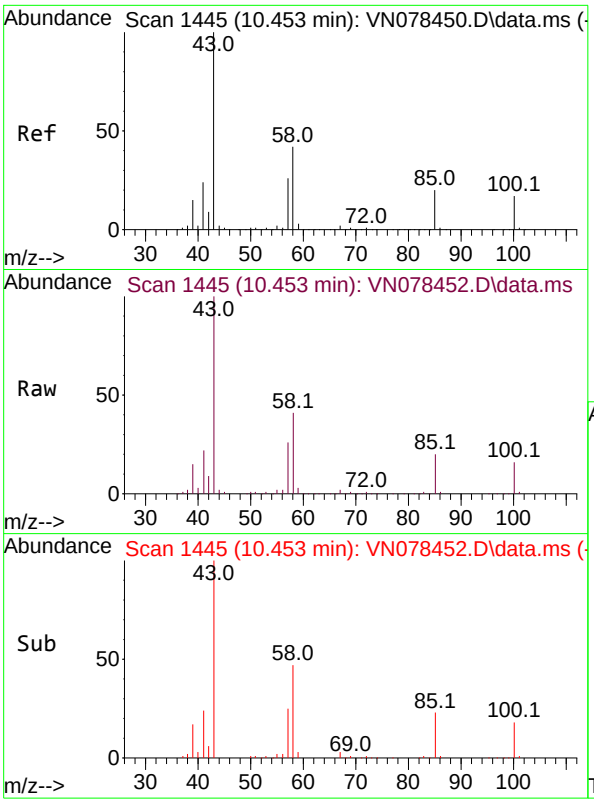


#50
Toluene-d8
Concen: 19.986 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 98 Resp: 444912

Ion	Ratio	Lower	Upper
98	100		
100	64.1	52.0	78.0

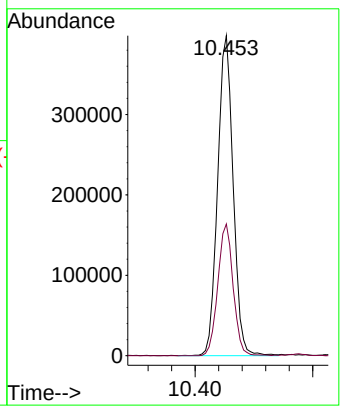




#51
4-Methyl-2-Pentanone
Concen: 104.997 ug/l
RT: 10.453 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 43 Resp: 72929

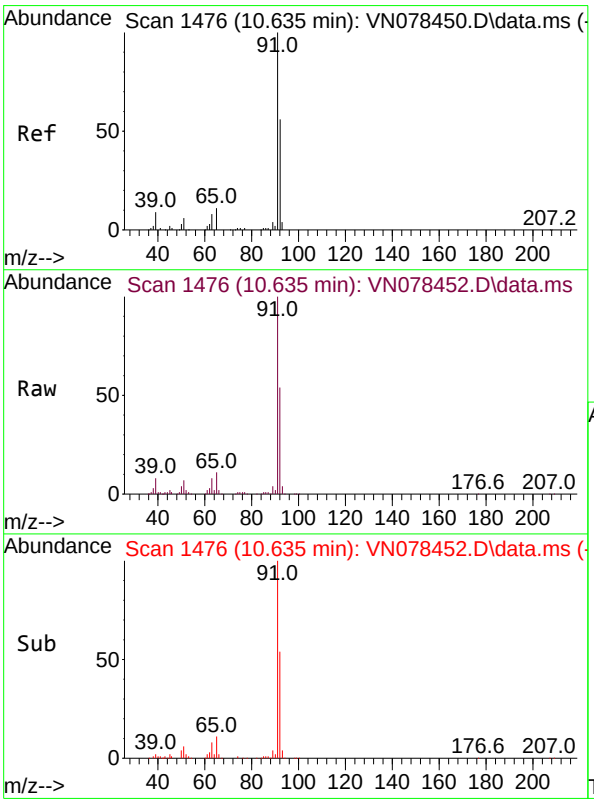
Ion	Ratio	Lower	Upper
43	100		
58	40.6	36.6	54.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

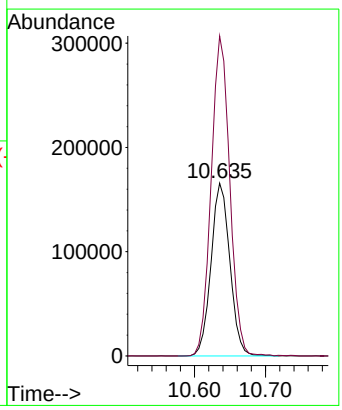
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

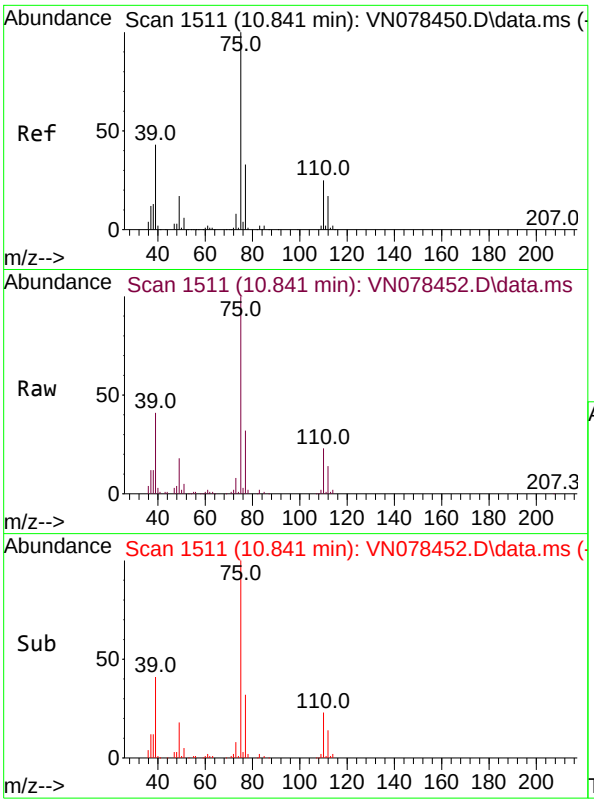


#52
Toluene
Concen: 19.519 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 92 Resp: 304938

Ion	Ratio	Lower	Upper
92	100		
91	183.3	137.4	206.0





#53
t-1,3-Dichloropropene
Concen: 19.973 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

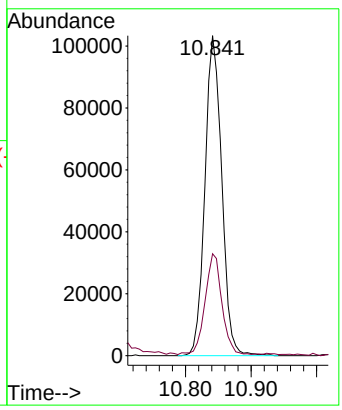
Tgt Ion: 75 Resp: 18431

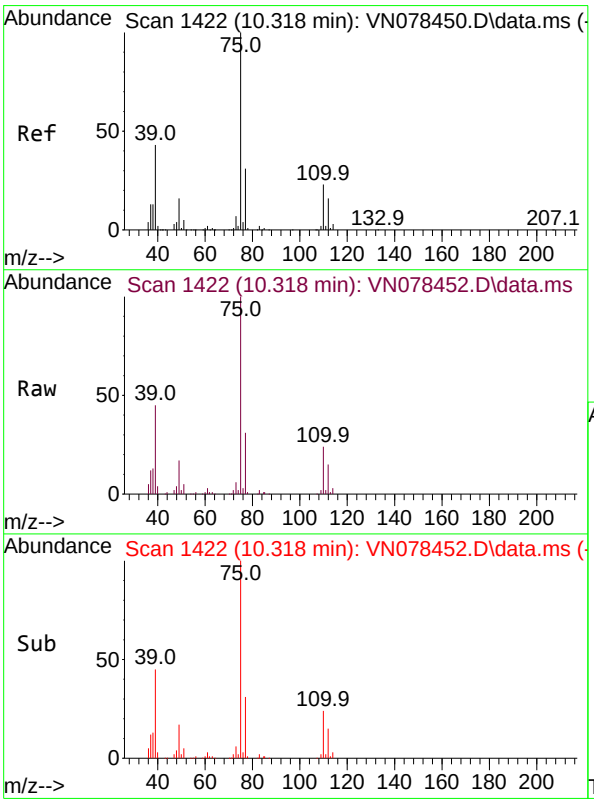
Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.4	38.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

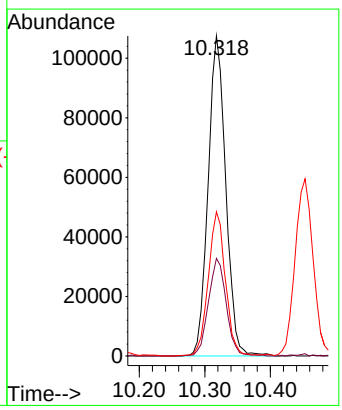


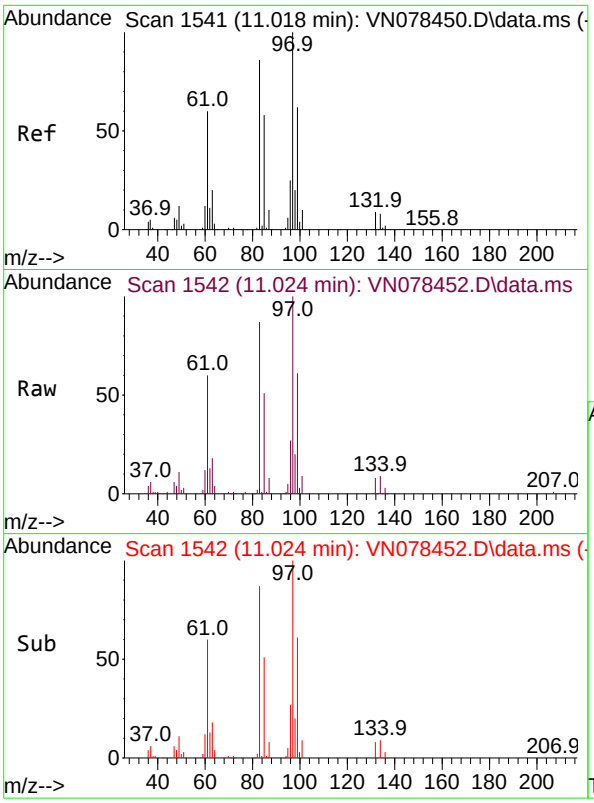


#54
cis-1,3-Dichloropropene
Concen: 20.413 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 75 Resp: 200793

Ion	Ratio	Lower	Upper
75	100		
77	30.5	26.1	39.1
39	44.9	31.6	47.4

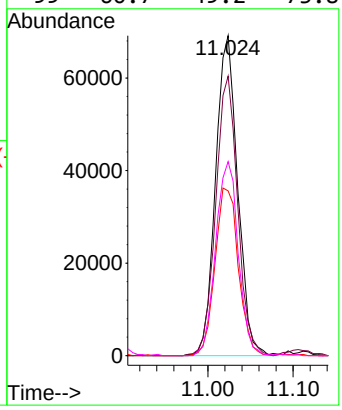




#55
1,1,2-Trichloroethane
Concen: 20.269 ug/l
RT: 11.024 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 97 Resp: 12476

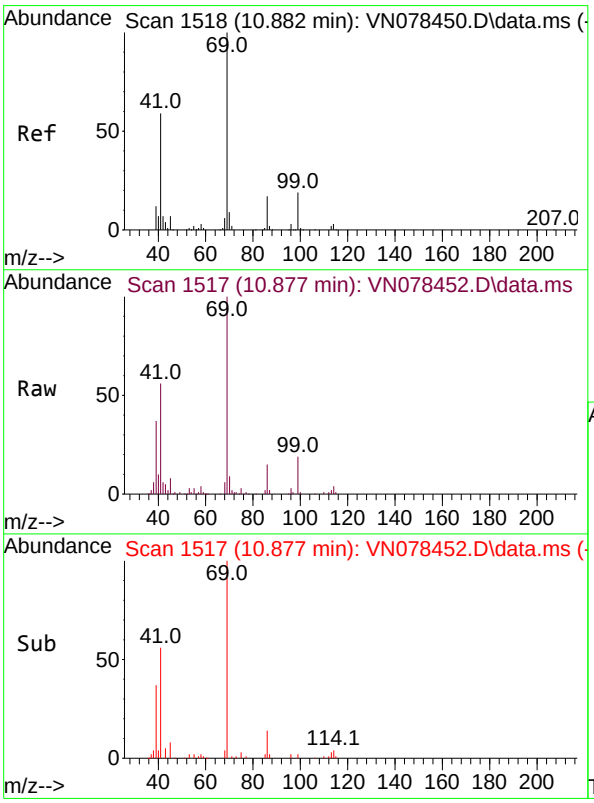
Ion	Ratio	Lower	Upper
97	100		
83	87.3	65.1	97.7
85	51.5	43.4	65.2
99	60.7	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

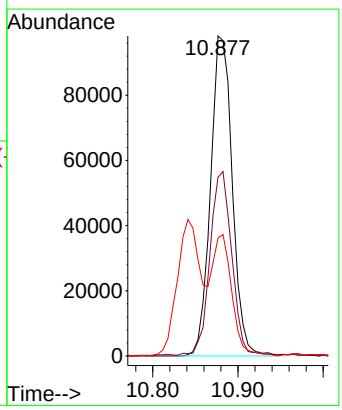
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

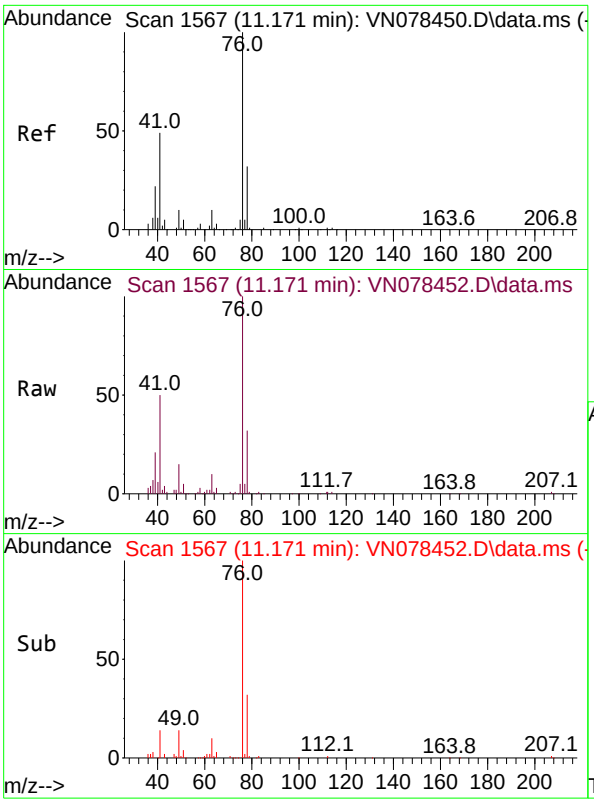


#56
Ethyl methacrylate
Concen: 20.311 ug/l
RT: 10.877 min Scan# 1517
Delta R.T. -0.005 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 69 Resp: 174763

Ion	Ratio	Lower	Upper
69	100		
41	57.2	39.6	59.4
39	33.0	28.6	43.0

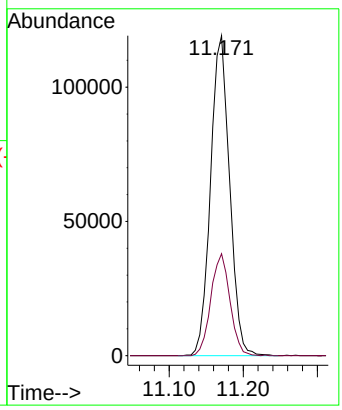




#57
1,3-Dichloropropane
Concen: 20.342 ug/l
RT: 11.171 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 76 Resp: 21289

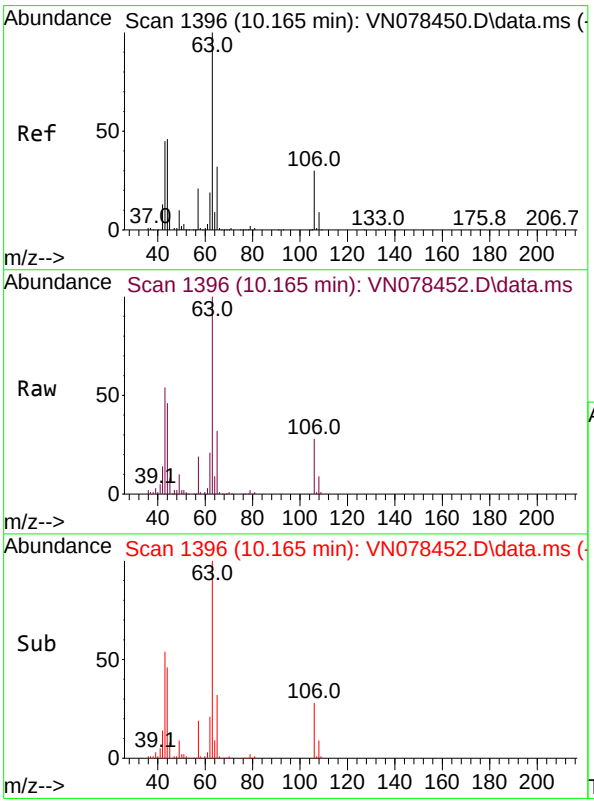
Ion	Ratio	Lower	Upper
76	100		
78	31.8	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

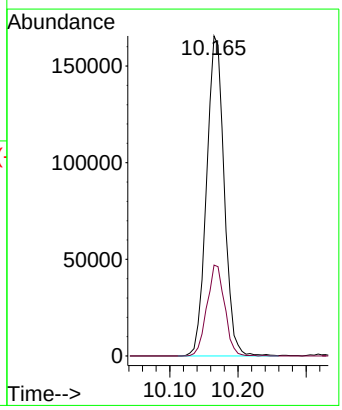
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

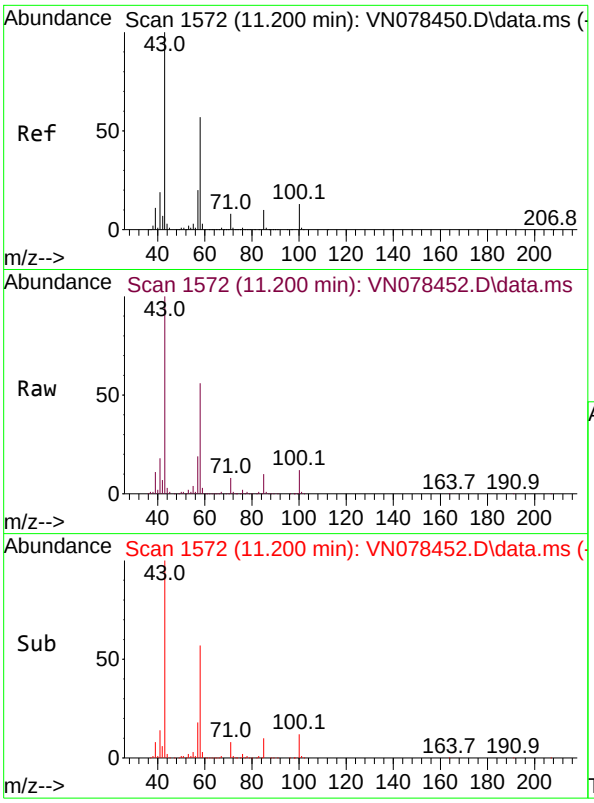


#58
2-Chloroethyl Vinyl ether
Concen: 97.023 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 63 Resp: 297509

Ion	Ratio	Lower	Upper
63	100		
106	28.6	26.2	39.4

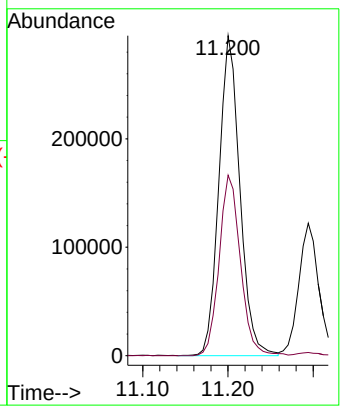




#59
2-Hexanone
Concen: 102.278 ug/l
RT: 11.200 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 43 Resp: 50489

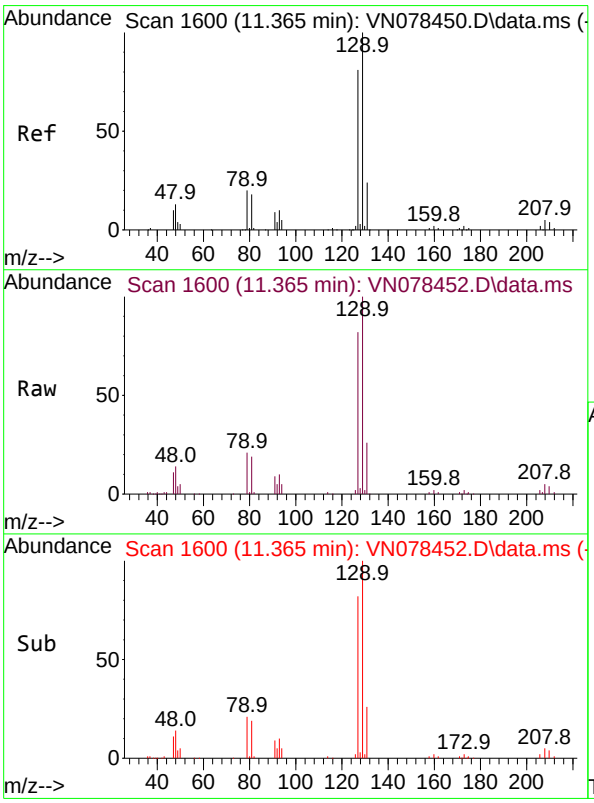
Ion	Ratio	Lower	Upper
43	100		
58	57.2	31.7	95.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

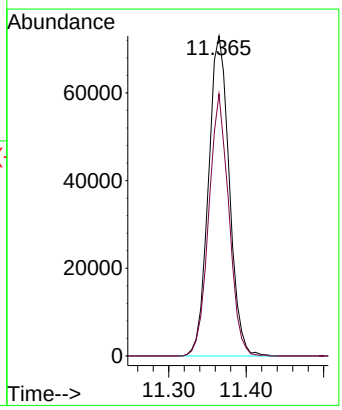
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

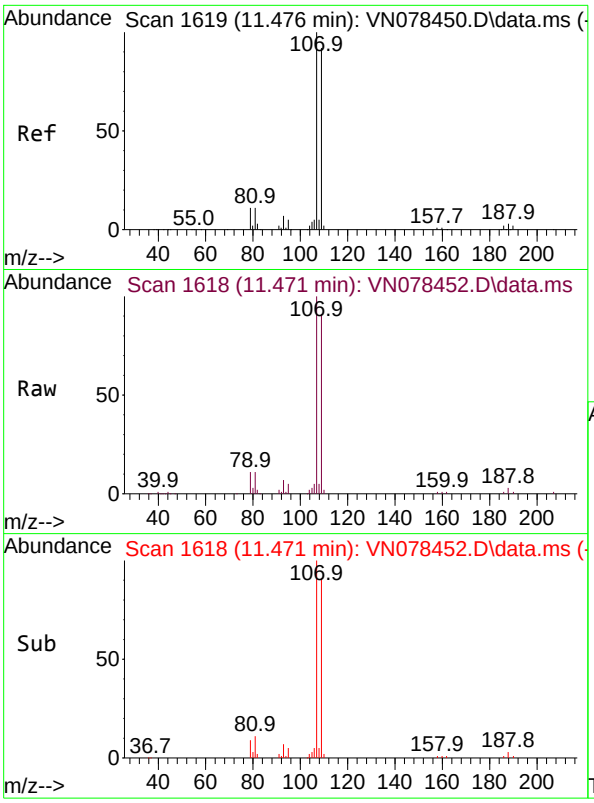


#60
Dibromochloromethane
Concen: 20.086 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:129 Resp: 136492

Ion	Ratio	Lower	Upper
129	100		
127	78.5	38.6	116.0





#61
1,2-Dibromoethane
Concen: 20.054 ug/l
RT: 11.471 min Scan# 1
Delta R.T. -0.005 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

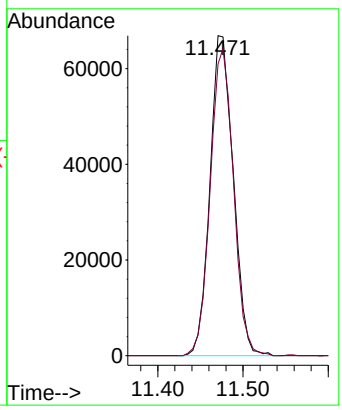
Tgt Ion:107 Resp: 12716

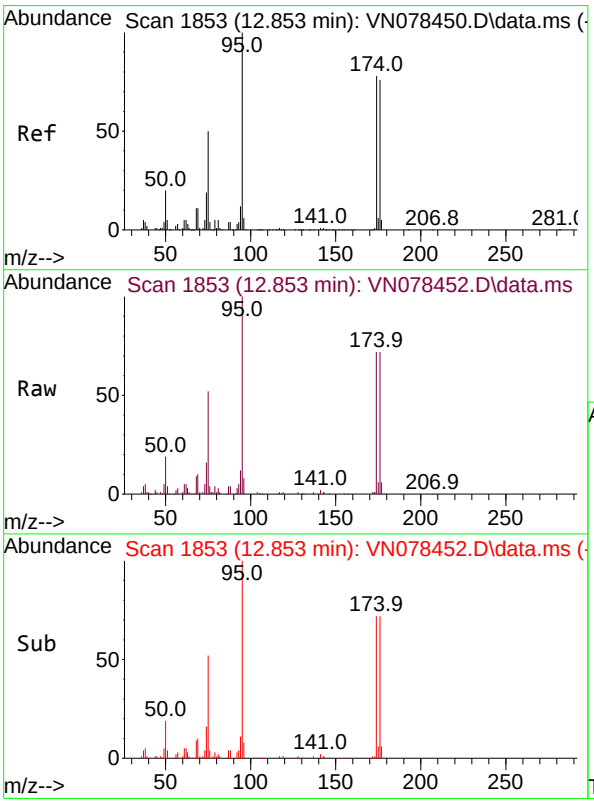
Ion	Ratio	Lower	Upper
107	100		
109	95.5	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

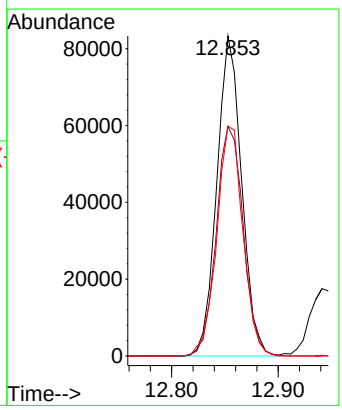


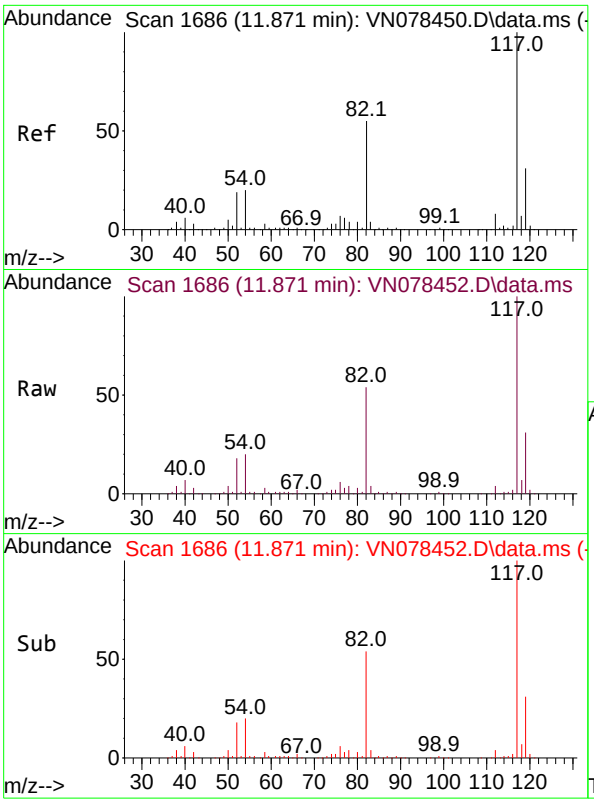


#62
4-Bromofluorobenzene
Concen: 19.628 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 95 Resp: 134584

Ion	Ratio	Lower	Upper
95	100		
174	78.0	0.0	143.8
176	75.7	0.0	135.8

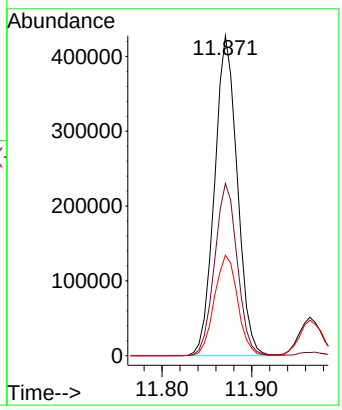




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:117 Resp: 75172

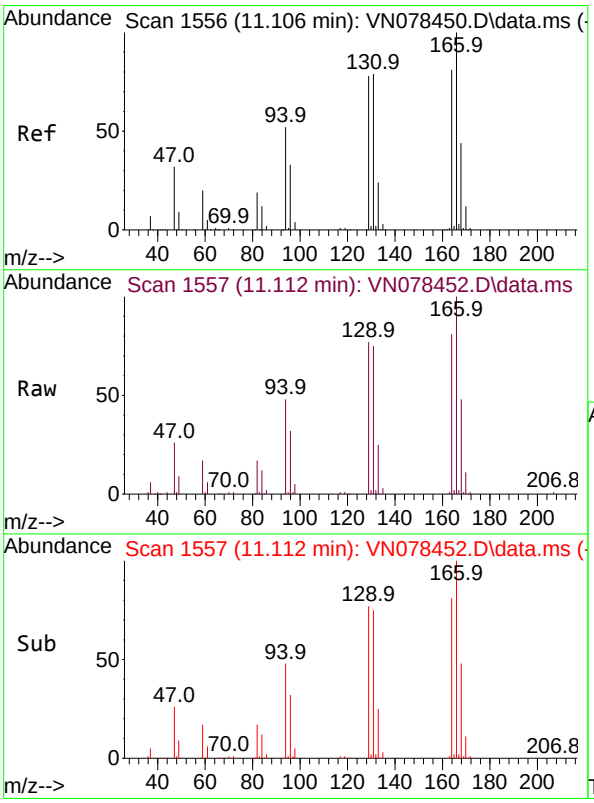
Ion	Ratio	Lower	Upper
117	100		
82	53.8	44.0	66.0
119	31.4	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

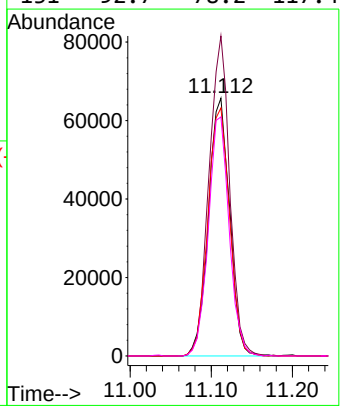
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

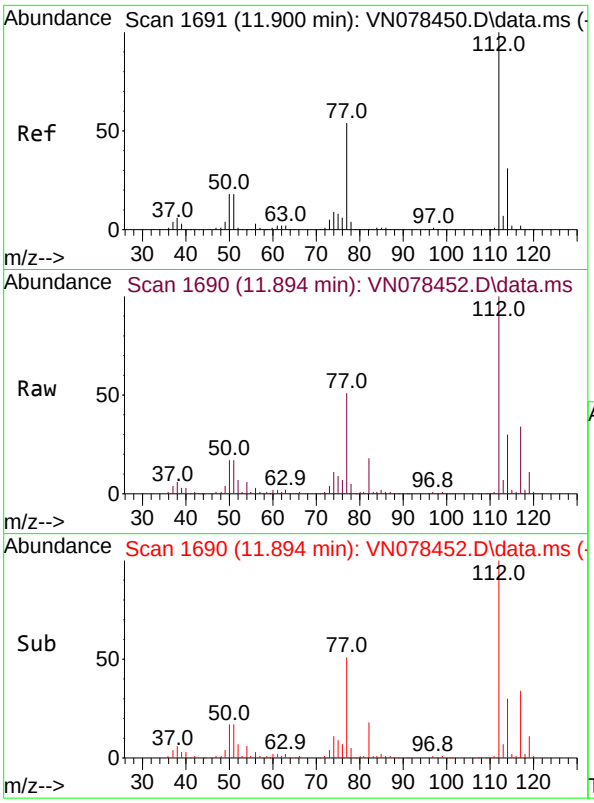


#64
Tetrachloroethene
Concen: 21.051 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:164 Resp: 118973

Ion	Ratio	Lower	Upper
164	100		
166	124.1	101.4	152.0
129	96.2	82.4	123.6
131	92.7	78.2	117.4

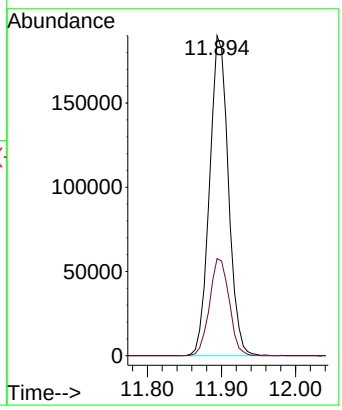




#65
Chlorobenzene
Concen: 19.899 ug/l
RT: 11.894 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:112 Resp: 33436

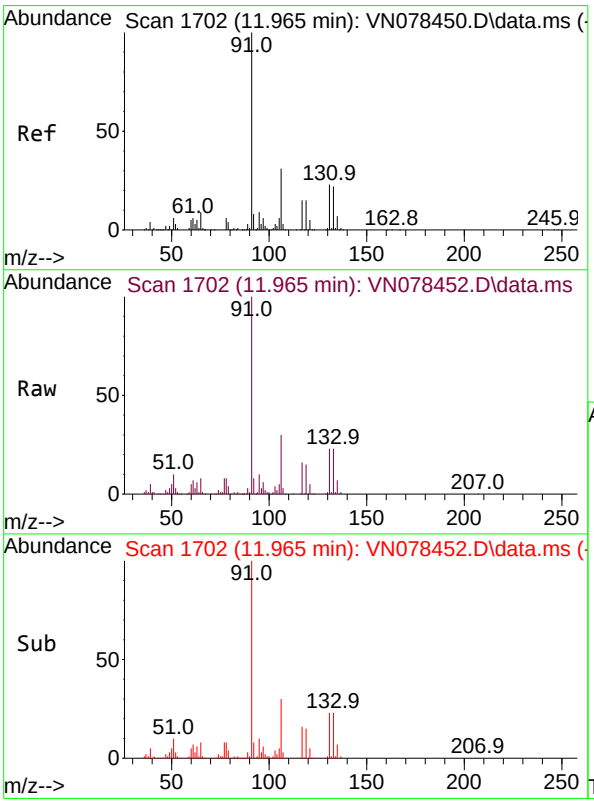
Ion	Ratio	Lower	Upper
112	100		
114	30.4	25.0	37.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

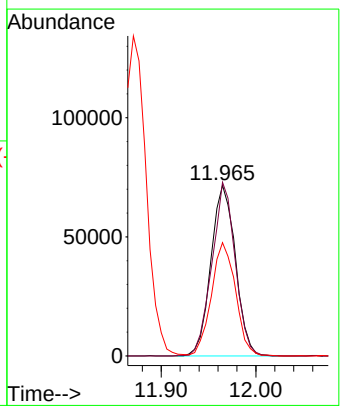
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

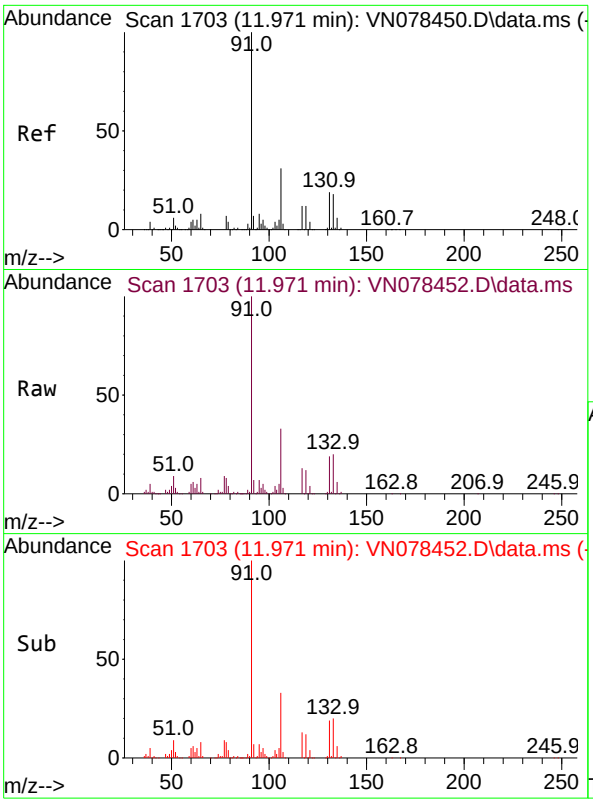


#66
1,1,1,2-Tetrachloroethane
Concen: 19.964 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:131 Resp: 129045

Ion	Ratio	Lower	Upper
131	100		
133	96.9	46.4	139.1
119	65.5	34.1	102.2





#67
Ethyl Benzene
Concen: 20.423 ug/l
RT: 11.971 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

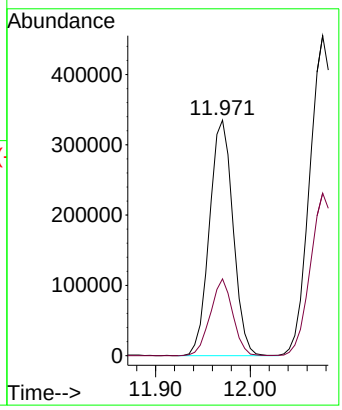
Tgt Ion: 91 Resp: 58006

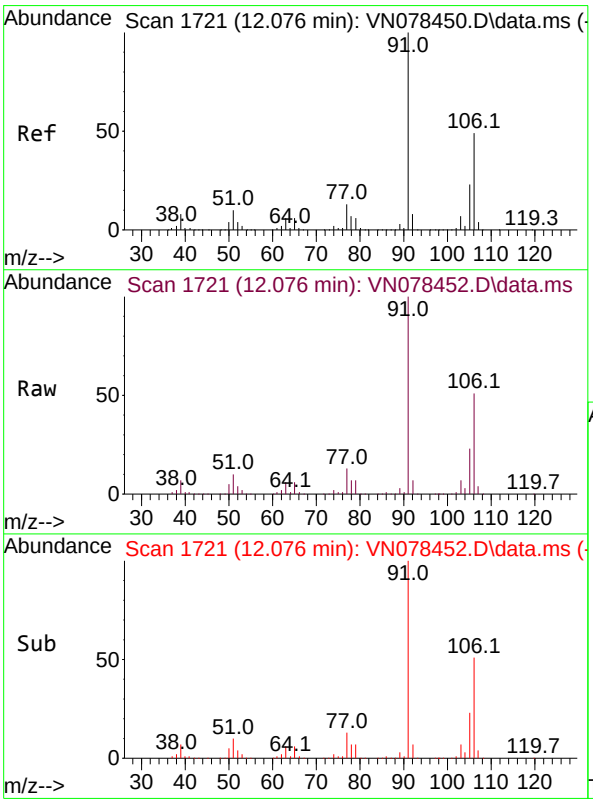
Ion	Ratio	Lower	Upper
91	100		
106	32.6	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

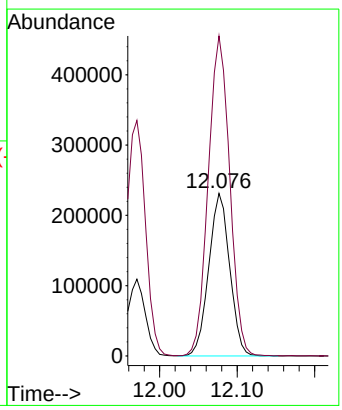


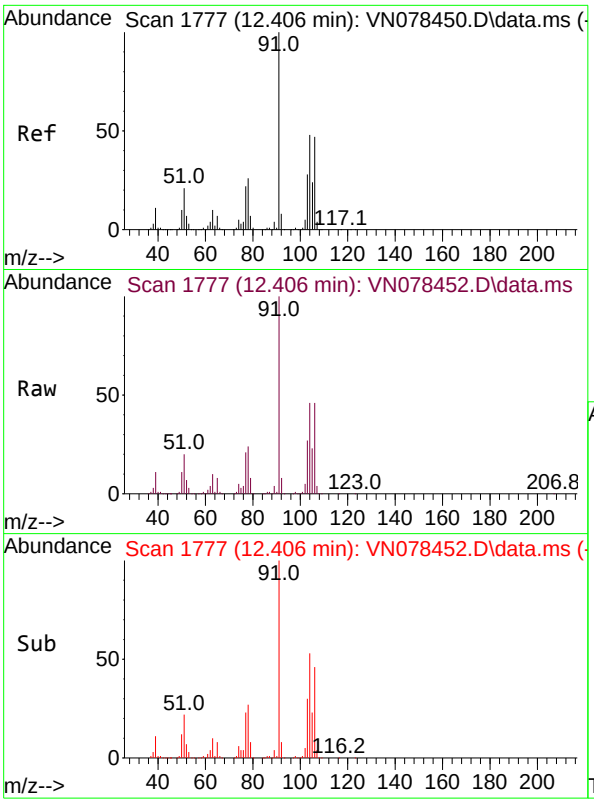


#68
m/p-Xylenes
Concen: 41.312 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:106 Resp: 433823

Ion	Ratio	Lower	Upper
106	100		
91	202.0	159.6	239.4





#69
o-Xylene
Concen: 20.221 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

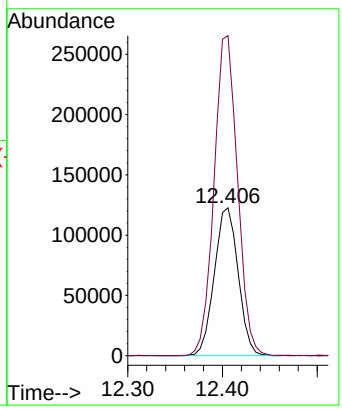
Tgt Ion:106 Resp: 21447

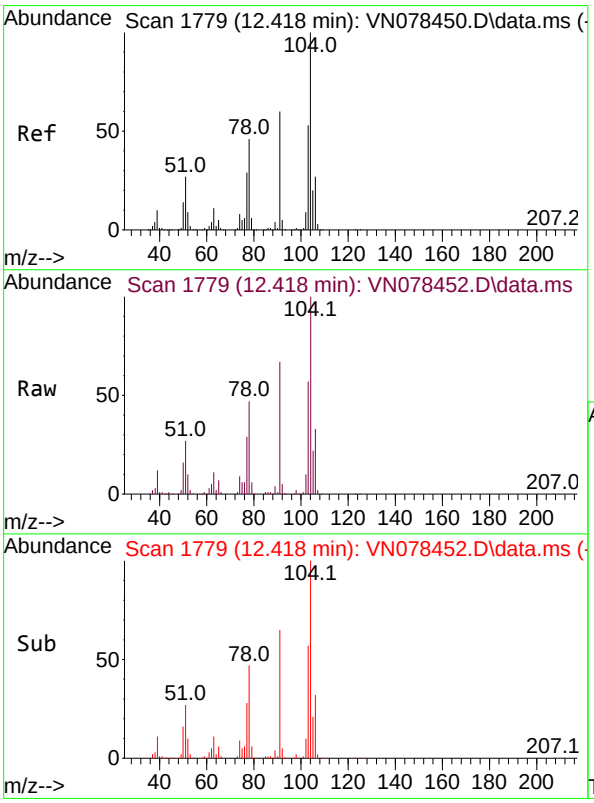
Ion	Ratio	Lower	Upper
106	100		
91	213.6	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

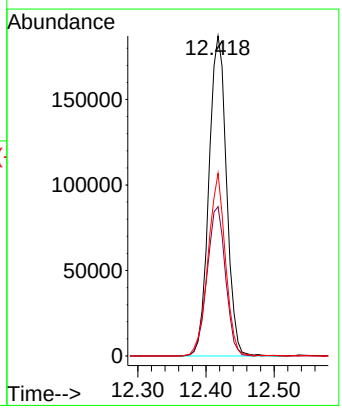


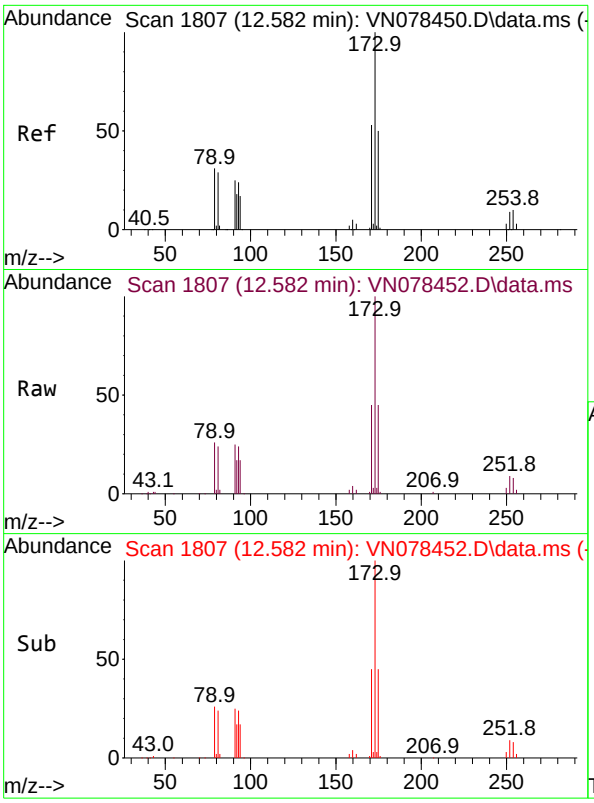


#70
Styrene
Concen: 20.241 ug/l
RT: 12.418 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:104 Resp: 335885

Ion	Ratio	Lower	Upper
104	100		
78	48.7	39.5	59.3
103	56.4	43.2	64.8

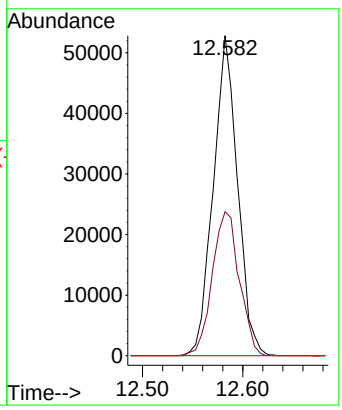




#71
Bromoform
Concen: 20.203 ug/l
RT: 12.582 min Scan# 18
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:173 Resp: 8844

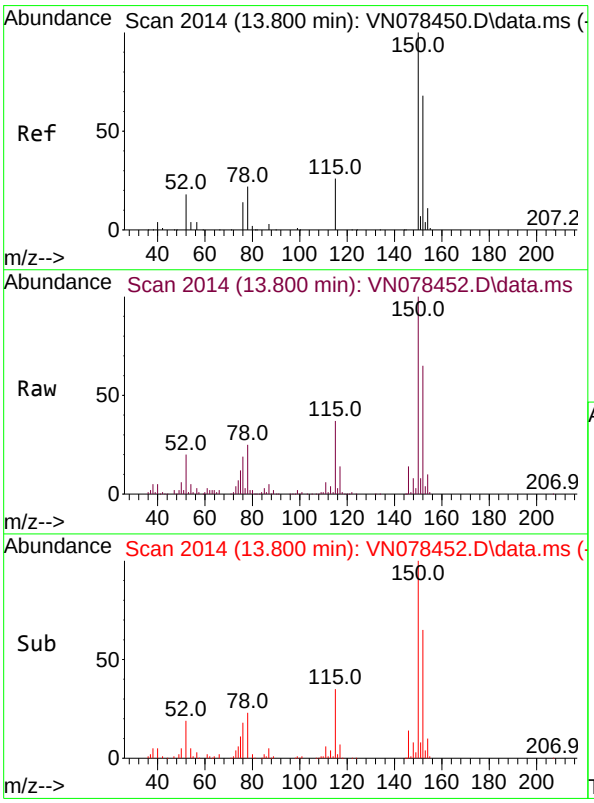
Ion	Ratio	Lower	Upper
173	100		
175	50.2	24.3	73.0
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

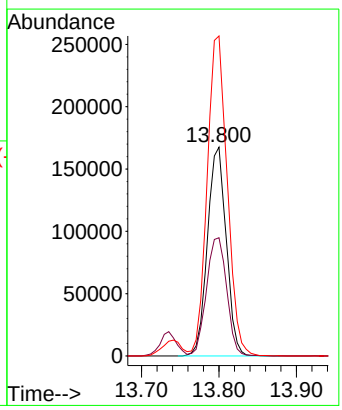
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

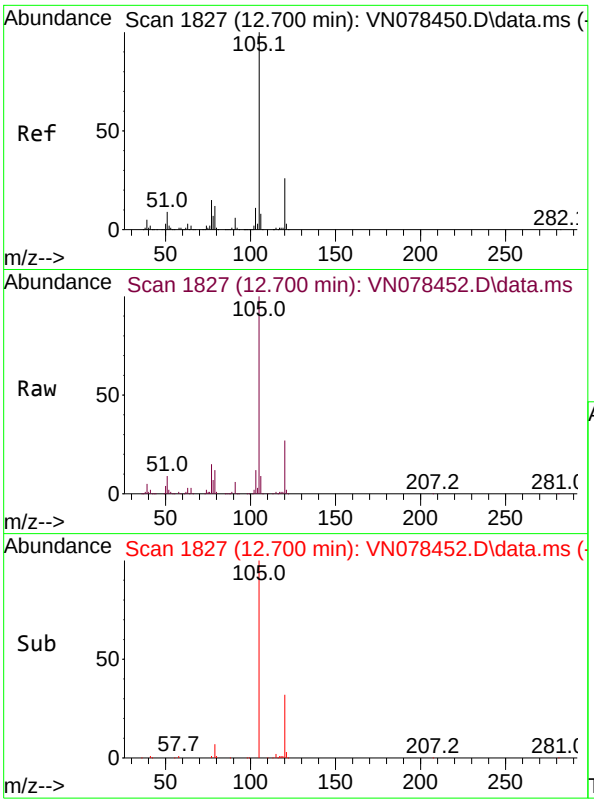


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:152 Resp: 282655

Ion	Ratio	Lower	Upper
152	100		
115	61.1	32.3	96.8
150	163.6	0.0	355.8

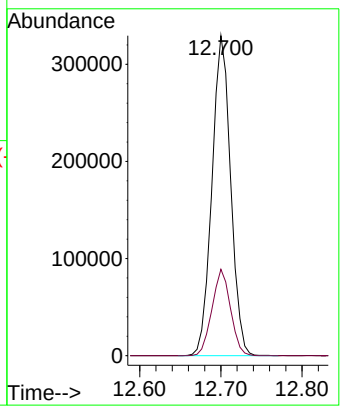




#73
Isopropylbenzene
Concen: 19.859 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:105 Resp: 52744

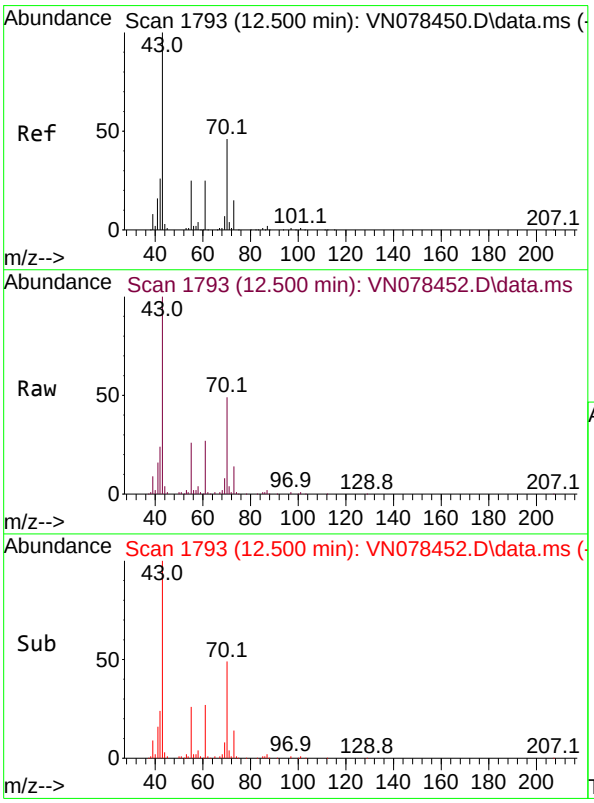
Ion	Ratio	Lower	Upper
105	100		
120	26.6	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

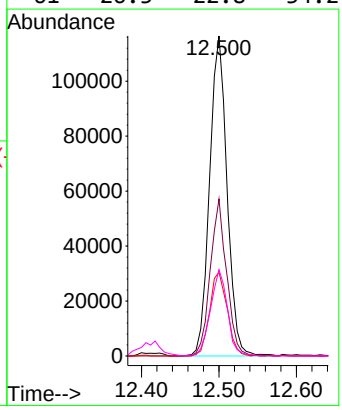
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

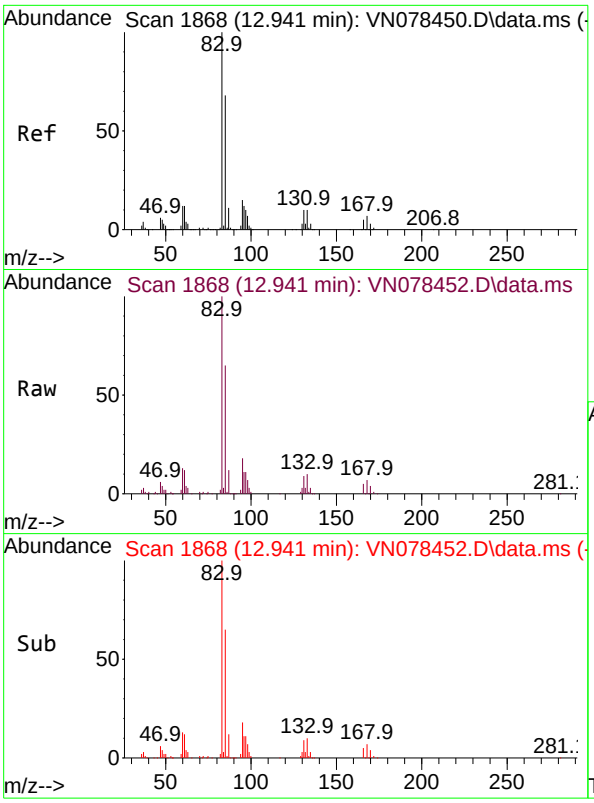


#74
N-amyl acetate
Concen: 19.895 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 43 Resp: 182096

Ion	Ratio	Lower	Upper
43	100		
70	45.9	43.4	65.2
55	26.3	21.4	32.0
61	26.3	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 21.039 ug/l
RT: 12.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

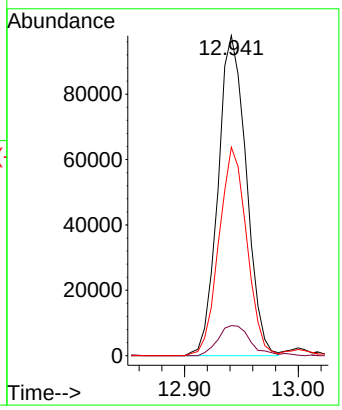
Tgt Ion: 83 Resp: 16938

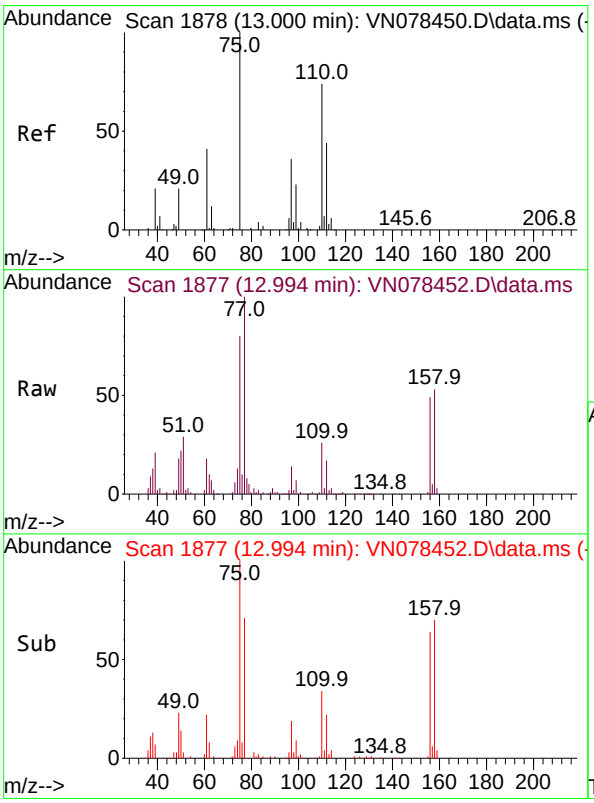
Ion	Ratio	Lower	Upper
83	100		
131	10.8	5.0	15.0
85	64.0	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

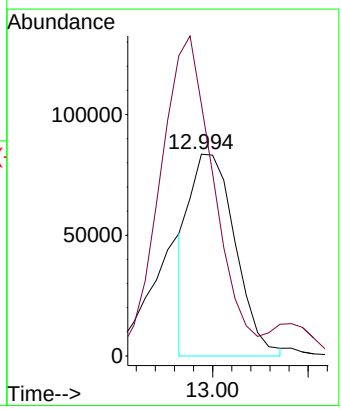


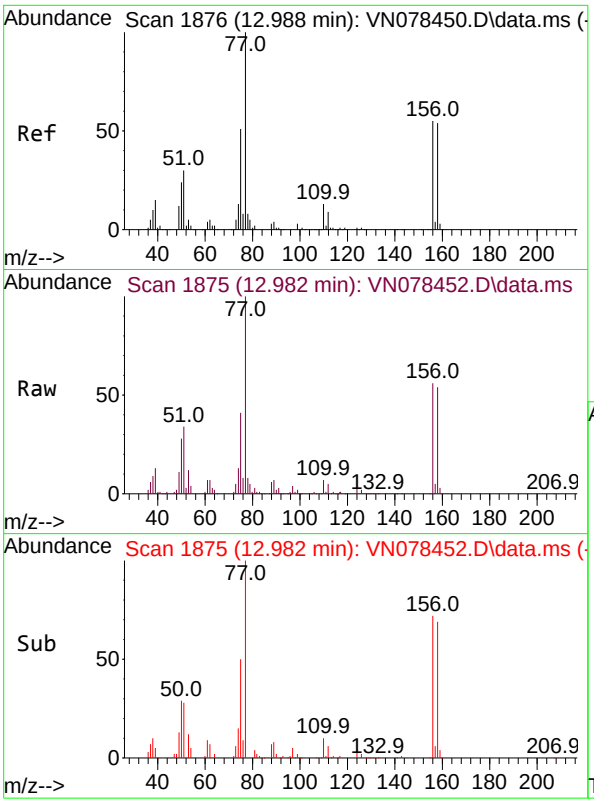


#76
1,2,3-Trichloropropane
Concen: 20.382 ug/l m
RT: 12.994 min Scan# 1877
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 75 Resp: 139097

Ion	Ratio	Lower	Upper
75	100		
77	186.9	84.5	253.5

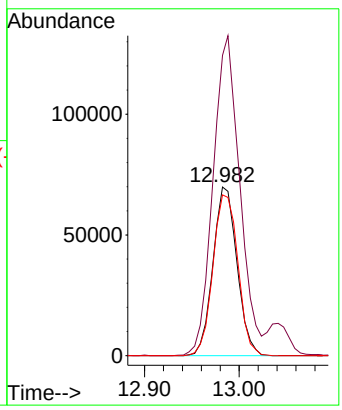




#77
Bromobenzene
Concen: 20.404 ug/l
RT: 12.982 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:156 Resp: 12313

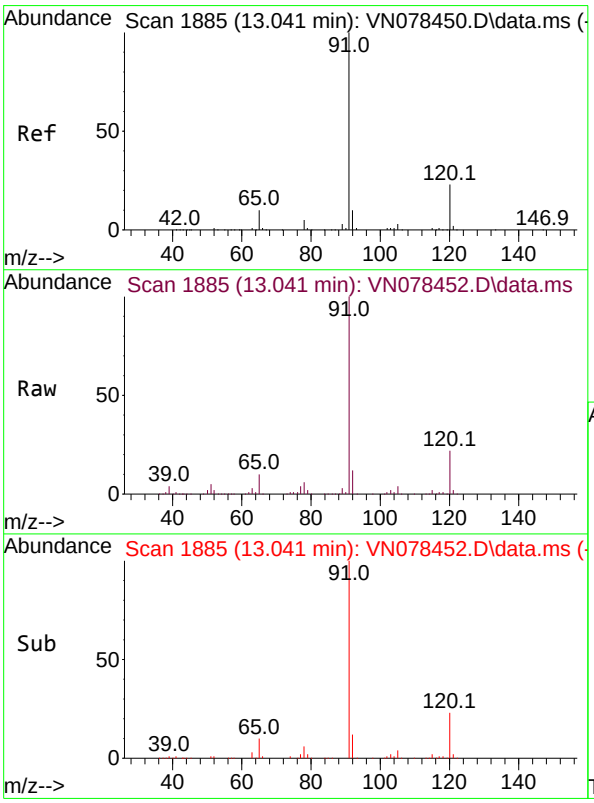
Ion	Ratio	Lower	Upper
156	100		
77	211.2	107.7	323.3
158	99.2	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

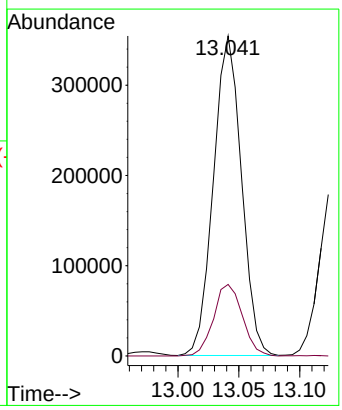
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

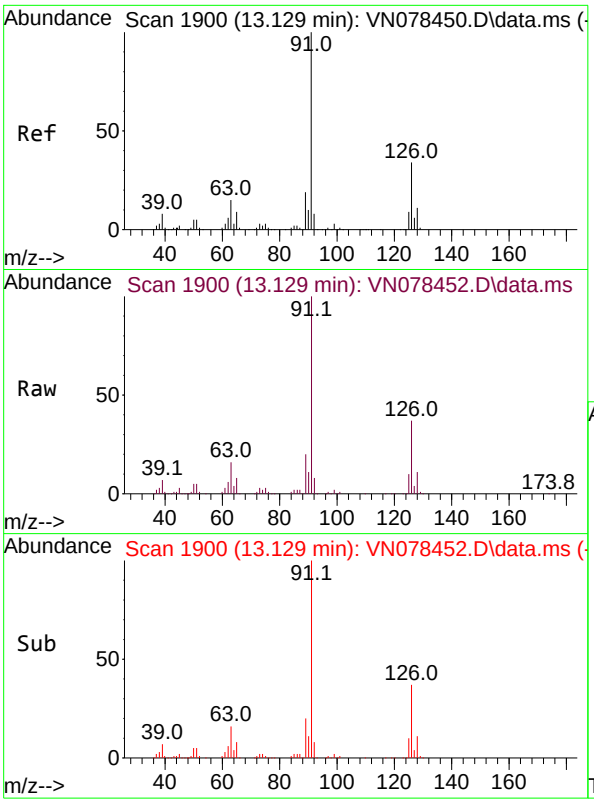


#78
n-propylbenzene
Concen: 19.970 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 91 Resp: 567216

Ion	Ratio	Lower	Upper
91	100		
120	23.0	11.5	34.4

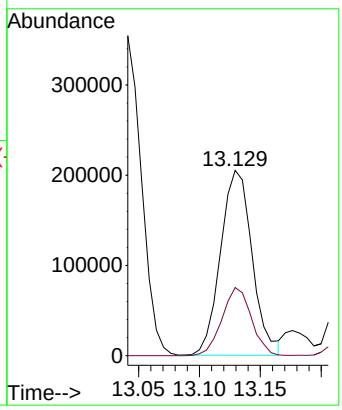




#79
2-Chlorotoluene
Concen: 19.951 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 91 Resp: 37119

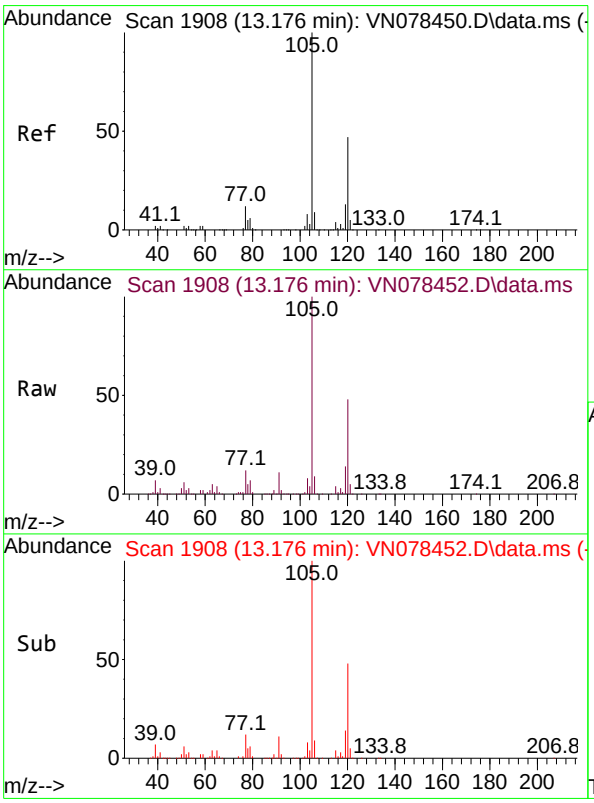
Ion	Ratio	Lower	Upper
91	100		
126	34.2	16.3	48.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

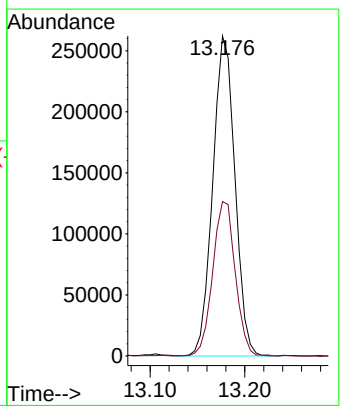
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

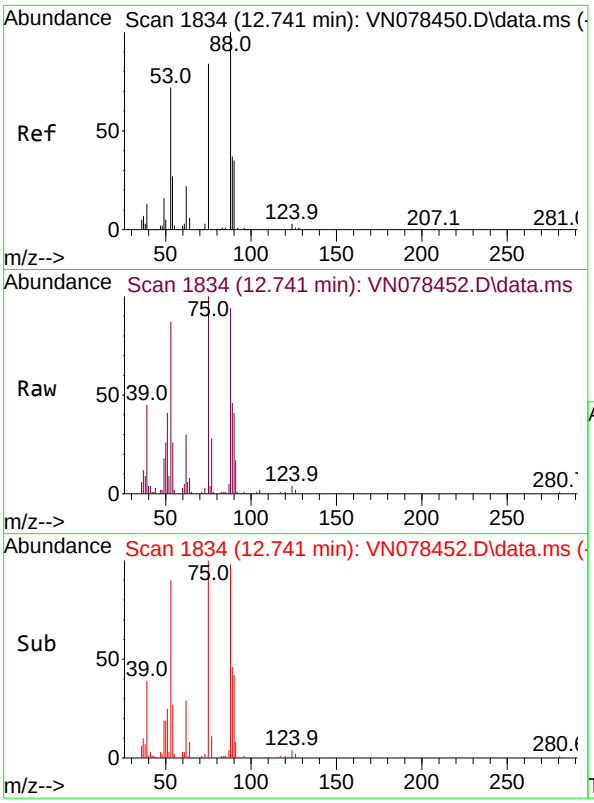


#80
1,3,5-Trimethylbenzene
Concen: 20.327 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:105 Resp: 426565

Ion	Ratio	Lower	Upper
105	100		
120	49.0	24.1	72.3

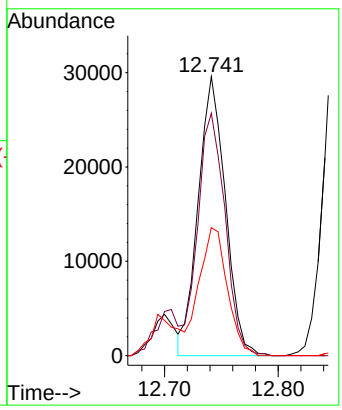




#81
trans-1,4-Dichloro-2-butene
Concen: 18.951 ug/l
RT: 12.741 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 75 Resp: 4927

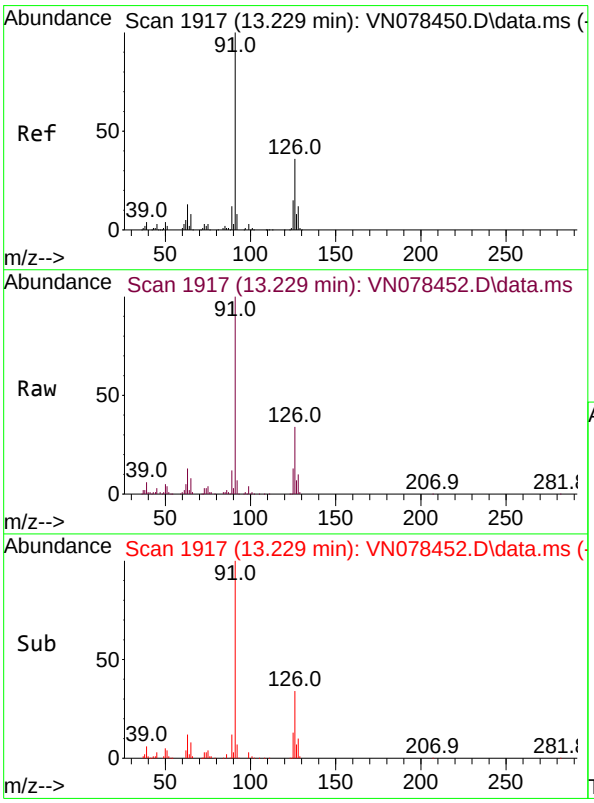
Ion	Ratio	Lower	Upper
75	100		
53	87.9	67.4	101.2
89	47.2	38.8	58.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

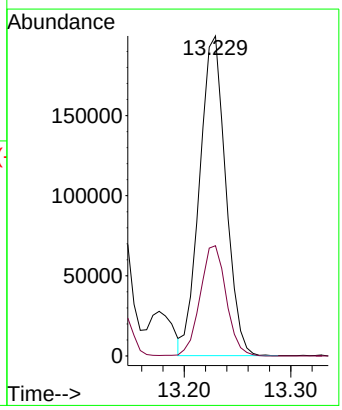
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

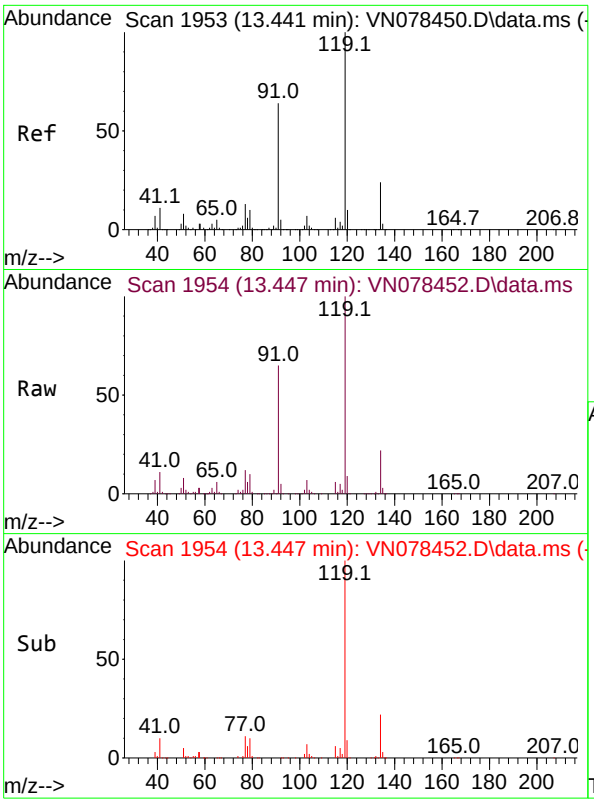


#82
4-Chlorotoluene
Concen: 19.607 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 91 Resp: 340292

Ion	Ratio	Lower	Upper
91	100		
126	34.4	16.7	50.0





#83
tert-Butylbenzene
Concen: 20.048 ug/l
RT: 13.447 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

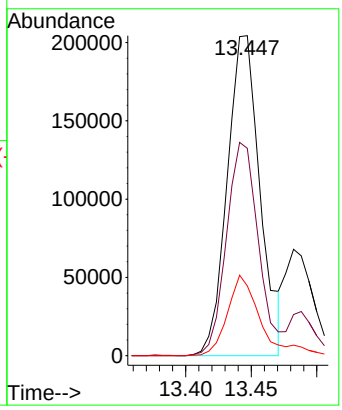
Tgt Ion:119 Resp: 35719

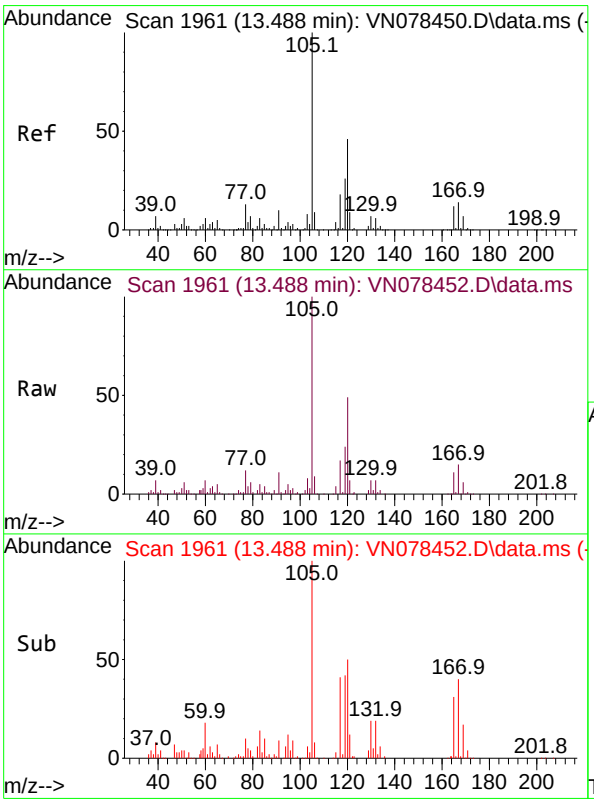
Ion	Ratio	Lower	Upper
119	100		
91	64.6	33.9	101.7
134	25.4	13.2	39.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

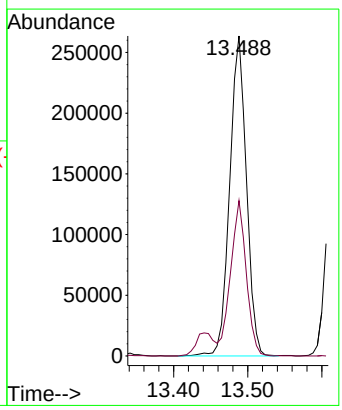


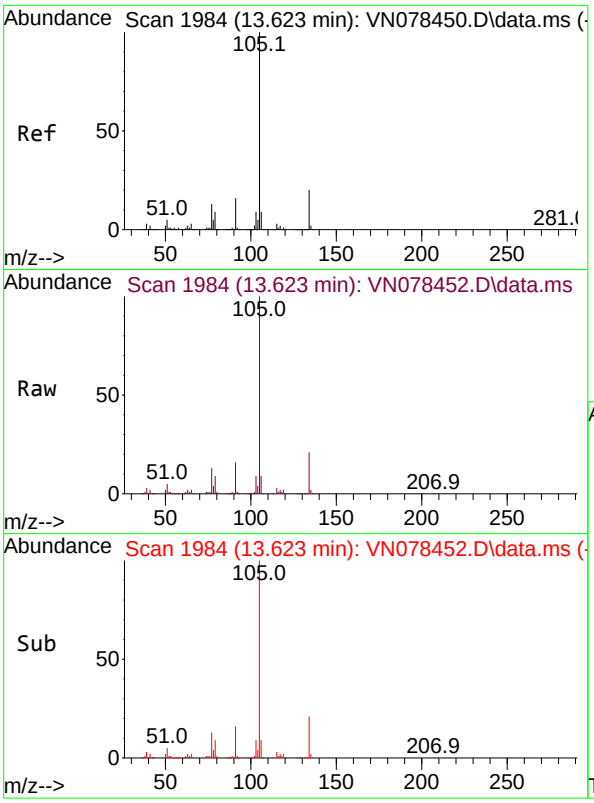


#84
1,2,4-Trimethylbenzene
Concen: 20.238 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:105 Resp: 412523

Ion	Ratio	Lower	Upper
105	100		
120	45.8	22.0	66.0

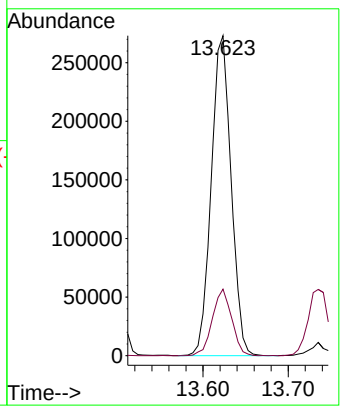




#85
sec-Butylbenzene
Concen: 19.696 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:105 Resp: 44355

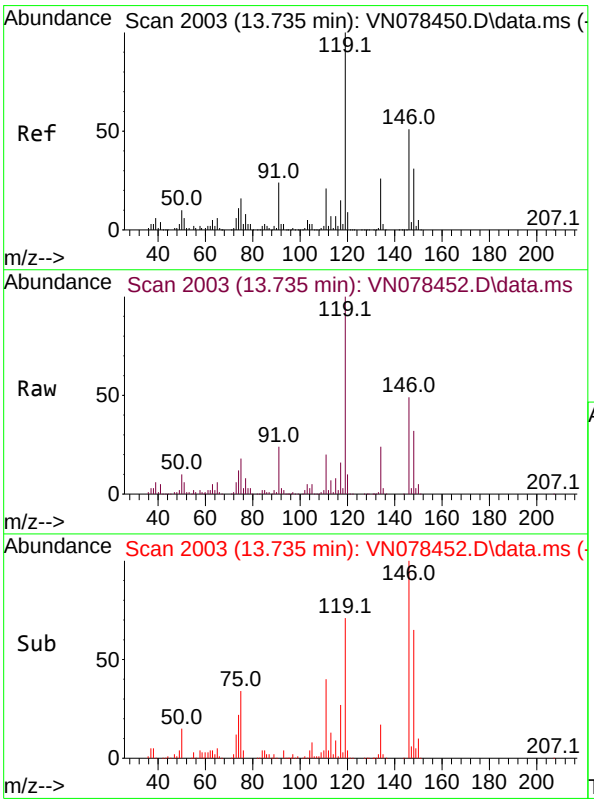
Ion	Ratio	Lower	Upper
105	100		
134	20.2	9.8	29.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

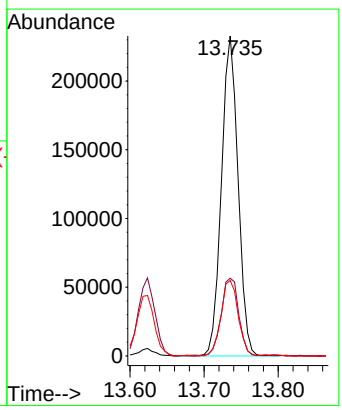
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

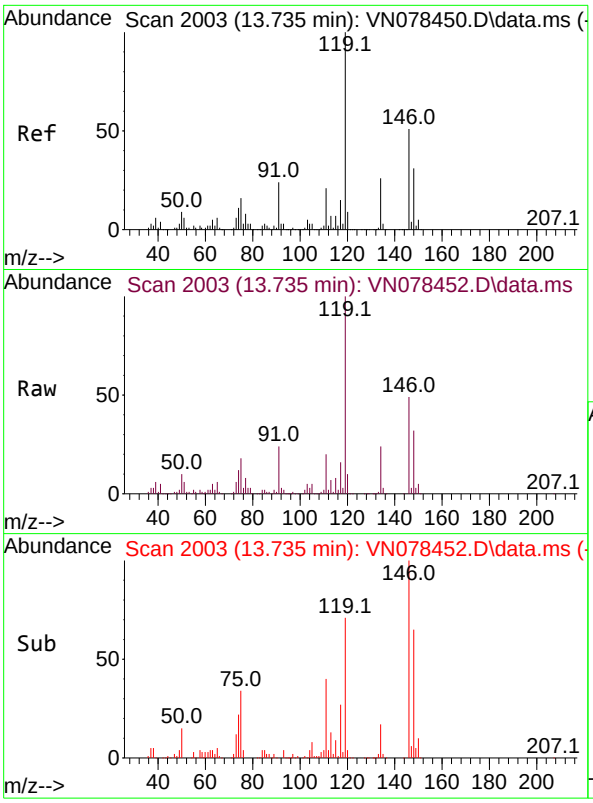


#86
p-Isopropyltoluene
Concen: 20.032 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:119 Resp: 362229

Ion	Ratio	Lower	Upper
119	100		
134	25.7	12.6	37.8
91	24.6	12.4	37.2

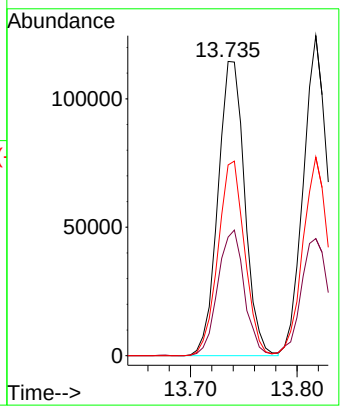




#87
1,3-Dichlorobenzene
Concen: 19.594 ug/l
RT: 13.735 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:146 Resp: 19977

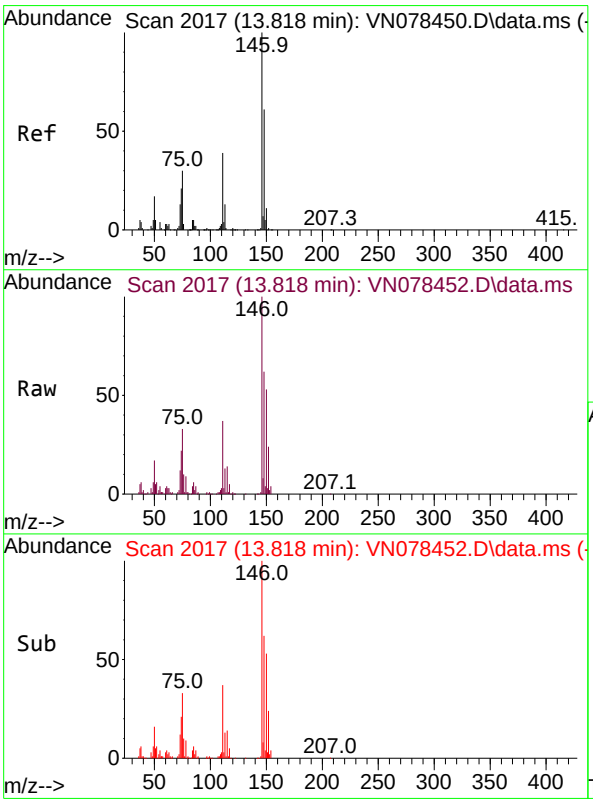
Ion	Ratio	Lower	Upper
146	100		
111	42.2	22.1	66.3
148	65.7	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

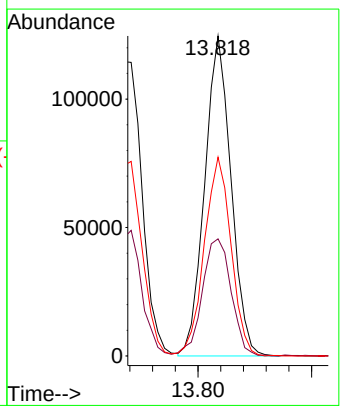
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

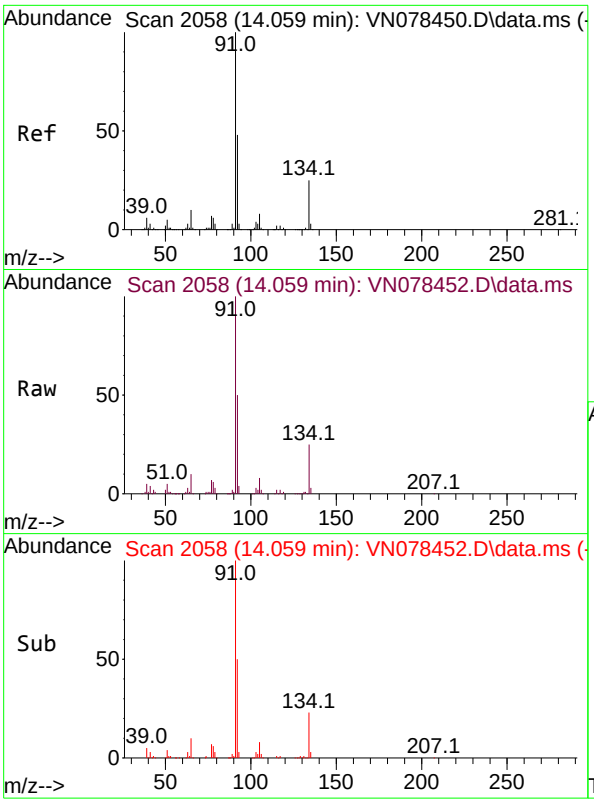


#88
1,4-Dichlorobenzene
Concen: 19.545 ug/l
RT: 13.818 min Scan# 2017
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:146 Resp: 200731

Ion	Ratio	Lower	Upper
146	100		
111	40.2	20.6	61.8
148	63.3	31.6	94.8

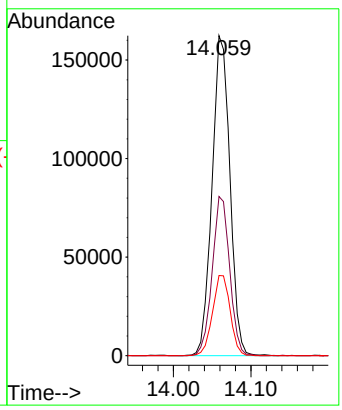




#89
n-Butylbenzene
Concen: 20.066 ug/l
RT: 14.059 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 91 Resp: 25962

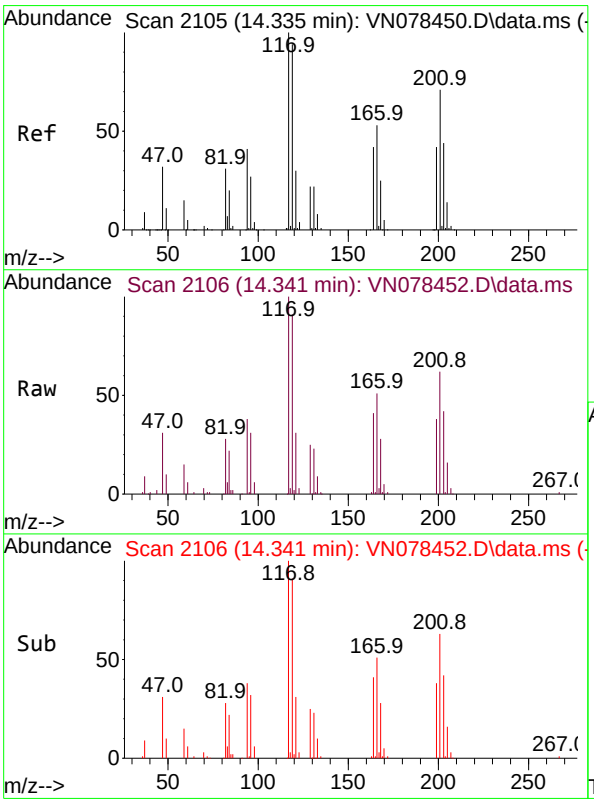
Ion	Ratio	Lower	Upper
91	100		
92	48.7	26.4	79.0
134	24.8	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

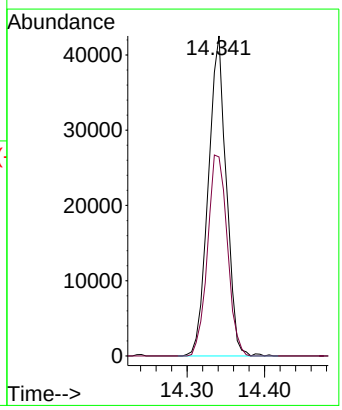
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

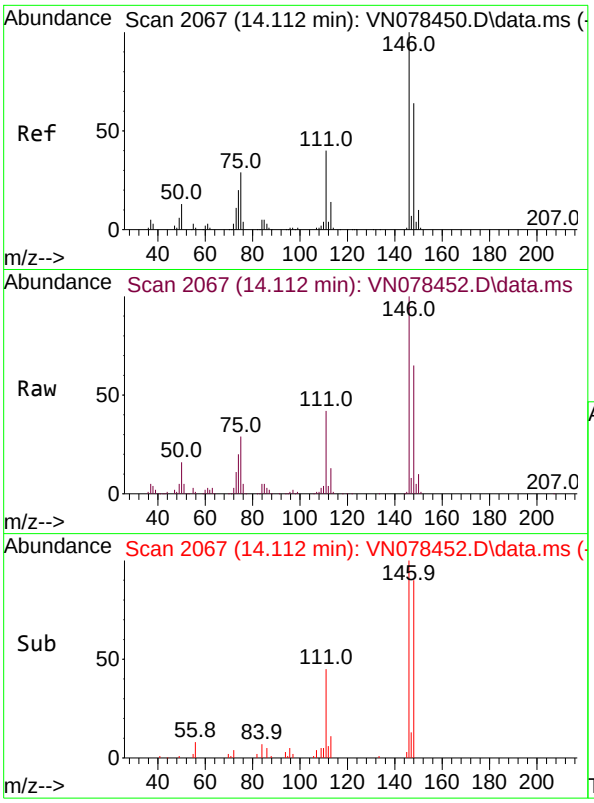


#90
Hexachloroethane
Concen: 20.140 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:117 Resp: 68556

Ion	Ratio	Lower	Upper
117	100		
201	69.0	29.3	88.0

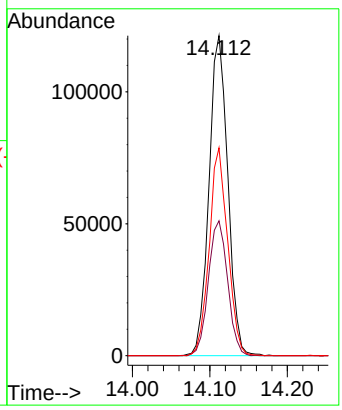




#91
1,2-Dichlorobenzene
Concen: 20.147 ug/l
RT: 14.112 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:146 Resp: 20443

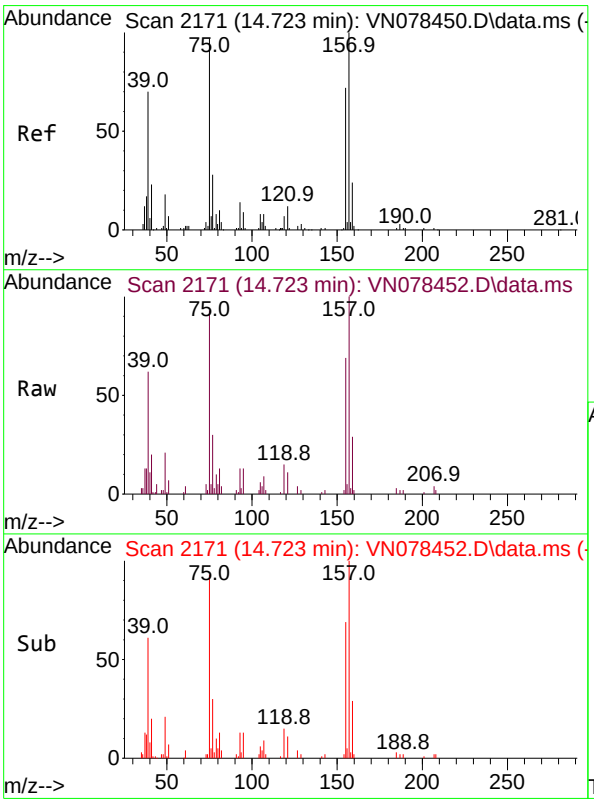
Ion	Ratio	Lower	Upper
146	100		
111	43.2	22.0	66.0
148	63.8	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

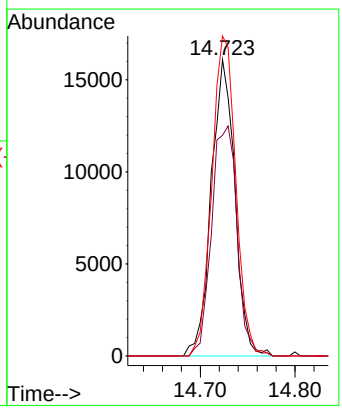
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

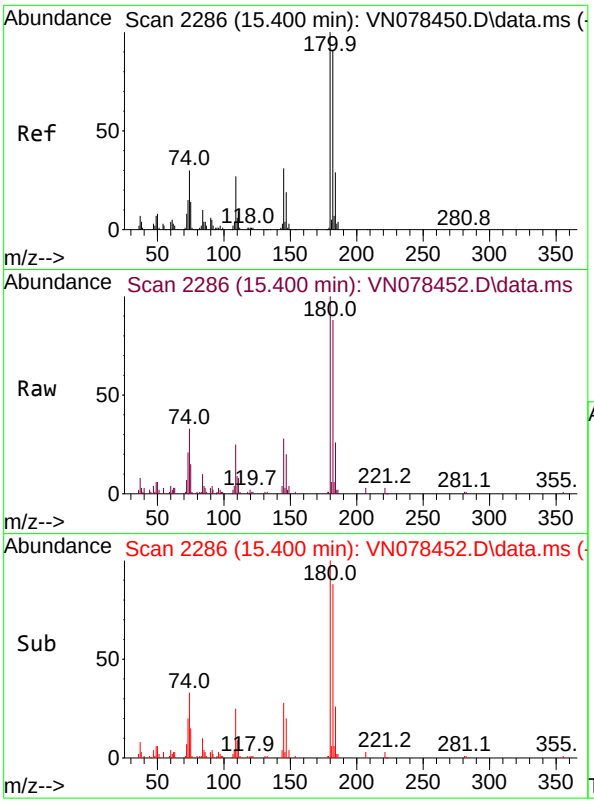


#92
1,2-Dibromo-3-Chloropropane
Concen: 20.714 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion: 75 Resp: 27767

Ion	Ratio	Lower	Upper
75	100		
155	83.8	39.1	117.2
157	110.1	50.3	150.9

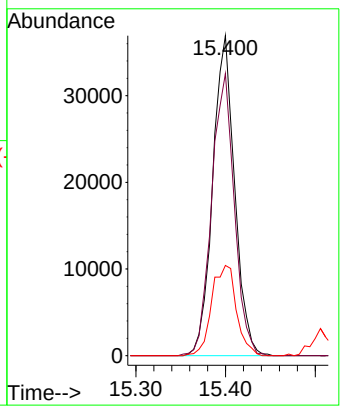




#93
1,2,4-Trichlorobenzene
Concen: 19.379 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:180 Resp: 6275

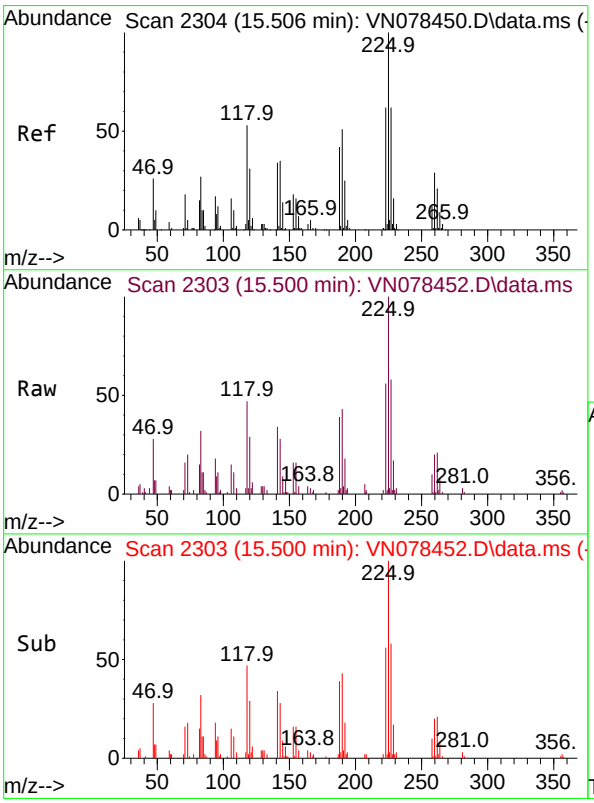
Ion	Ratio	Lower	Upper
180	100		
182	91.0	46.1	138.2
145	31.8	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

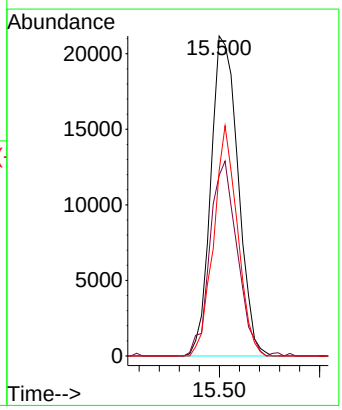
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

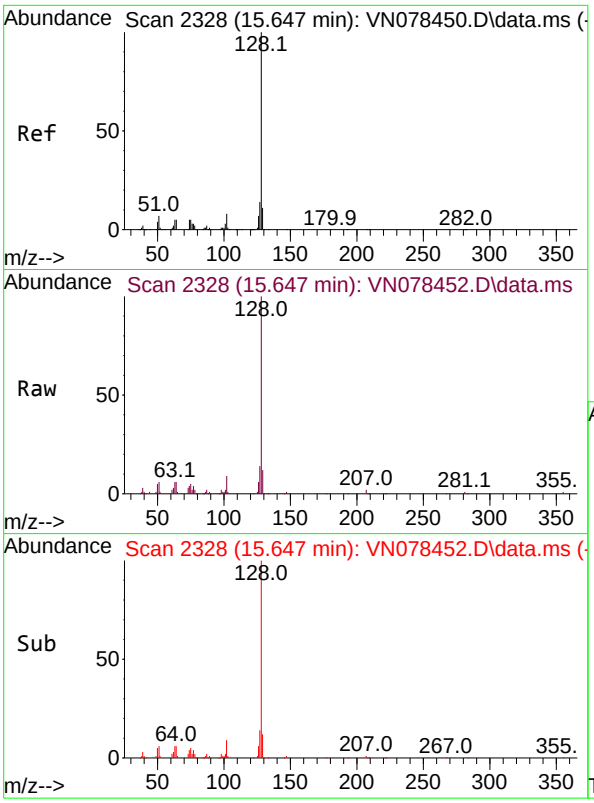


#94
Hexachlorobutadiene
Concen: 21.450 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. -0.006 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:225 Resp: 39894

Ion	Ratio	Lower	Upper
225	100		
223	60.6	31.3	93.8
227	62.8	31.9	95.9

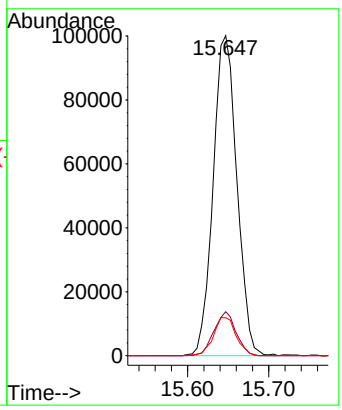




#95
Naphthalene
Concen: 18.379 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:128 Resp: 20347

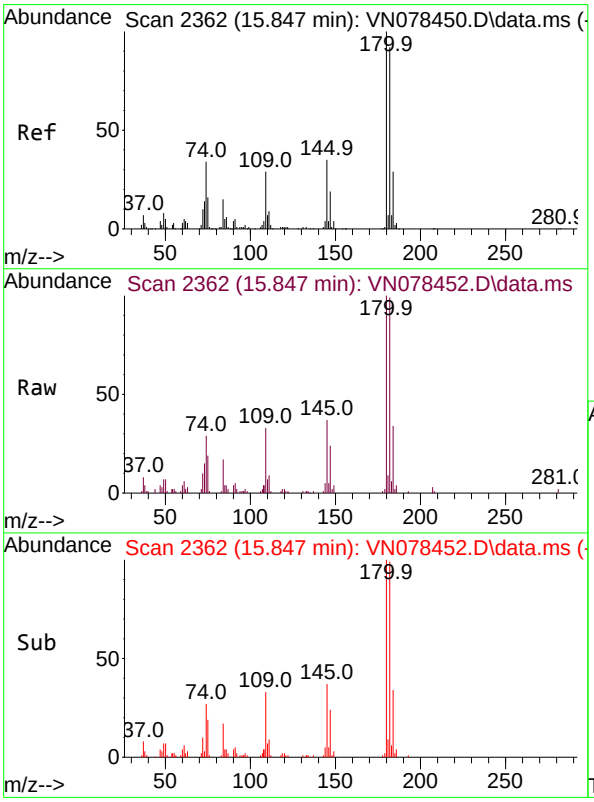
Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.0	15.0
129	11.4	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

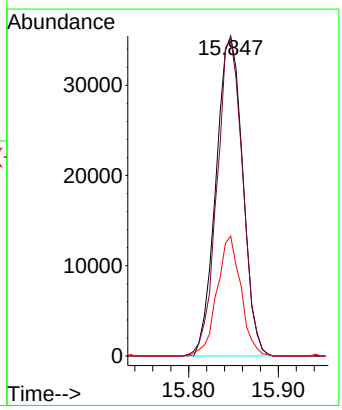
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 19.619 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078452.D
Acq: 10 Jul 2023 13:34

Tgt Ion:180 Resp: 73056

Ion	Ratio	Lower	Upper
180	100		
182	95.7	46.2	138.6
145	33.6	17.5	52.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078453.D
Acq On : 10 Jul 2023 13:58
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 10 15:59:00 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:58:12 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	482850	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	855204	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	716143	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	221100	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.588	65	34092	5.267	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 10.540%#			
35) Dibromofluoromethane	8.177	113	30055	5.177	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 10.360%#			
50) Toluene-d8	10.571	98	112288	5.120	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 10.240%#			
62) 4-Bromofluorobenzene	12.853	95	31442	4.654	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 9.300%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	33359	5.635	ug/l	92
3) Chloromethane	2.371	50	35383	5.499	ug/l	93
4) Vinyl Chloride	2.518	62	45218	5.432	ug/l	97
5) Bromomethane	2.942	94	38368	6.455	ug/l	96
6) Chloroethane	3.118	64	28585	3.906	ug/l	96
7) Trichlorofluoromethane	3.495	101	53518	5.379	ug/l	98
8) Diethyl Ether	3.971	74	16667	5.028	ug/l	75
9) 1,1,2-Trichlorotrifluo...	4.383	101	27884	5.294	ug/l #	20
10) Methyl Iodide	4.589	142	36267	5.011	ug/l	98
11) Tert butyl alcohol	5.547	59	27341	27.391	ug/l #	85
12) 1,1-Dichloroethene	4.342	96	27368	5.372	ug/l	85
13) Acrolein	4.189	56	26119	26.596	ug/l	97
14) Allyl chloride	5.030	41	35895	5.156	ug/l	95
15) Acrylonitrile	5.730	53	65649	26.030	ug/l	99
16) Acetone	4.447	43	54025	26.793	ug/l #	86
17) Carbon Disulfide	4.718	76	77971	5.292	ug/l	99
18) Methyl Acetate	5.042	43	45027	5.275	ug/l	92
19) Methyl tert-butyl Ether	5.812	73	85988	5.122	ug/l	96
20) Methylene Chloride	5.294	84	32630	5.137	ug/l	93
21) trans-1,2-Dichloroethene	5.789	96	30448	5.303	ug/l	87
22) Diisopropyl ether	6.677	45	79756	5.116	ug/l	95
23) Vinyl Acetate	6.618	43	246885	24.912	ug/l #	91
24) 1,1-Dichloroethane	6.571	63	55830	5.315	ug/l	96
25) 2-Butanone	7.500	43	79408	25.018	ug/l #	87
26) 2,2-Dichloropropane	7.488	77	44289	5.155	ug/l	100
27) cis-1,2-Dichloroethene	7.494	96	34321	5.167	ug/l	95
28) Bromochloromethane	7.824	49	23758	4.802	ug/l	99
29) Tetrahydrofuran	7.853	42	52700	25.304	ug/l	85
30) Chloroform	7.971	83	55875	5.109	ug/l	100
31) Cyclohexane	8.259	56	53935	6.165	ug/l #	83
32) 1,1,1-Trichloroethane	8.177	97	51084	5.210	ug/l	92
36) 1,1-Dichloropropene	8.382	75	41253	4.921	ug/l	96
37) Ethyl Acetate	7.571	43	33596	4.808	ug/l #	91
38) Carbon Tetrachloride	8.371	117	44321	4.865	ug/l #	90
39) Methylcyclohexane	9.606	83	36208	4.732	ug/l #	85
40) Benzene	8.612	78	123988	4.993	ug/l	97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078453.D
Acq On : 10 Jul 2023 13:58
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 10 15:59:00 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:58:12 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.794	41	19568	5.493	ug/l		89
42) 1,2-Dichloroethane	8.682	62	42498	5.031	ug/l		99
43) Isopropyl Acetate	8.700	43	60389	5.249	ug/l		97
44) Trichloroethene	9.359	130	31928	4.770	ug/l		96
45) 1,2-Dichloropropane	9.629	63	31348	4.984	ug/l		98
46) Dibromomethane	9.718	93	22501	5.083	ug/l		94
47) Bromodichloromethane	9.894	83	42984	4.844	ug/l		95
48) Methyl methacrylate	9.688	41	26441	4.961	ug/l		89
49) 1,4-Dioxane	9.700	88	10769	92.648	ug/l		94
51) 4-Methyl-2-Pentanone	10.447	43	165871	24.240	ug/l		91
52) Toluene	10.635	92	74304	4.828	ug/l		92
53) t-1,3-Dichloropropene	10.841	75	43858	4.824	ug/l		98
54) cis-1,3-Dichloropropene	10.318	75	47081	4.858	ug/l		94
55) 1,1,2-Trichloroethane	11.018	97	29781	4.911	ug/l		88
56) Ethyl methacrylate	10.876	69	37681	4.445	ug/l	#	90
57) 1,3-Dichloropropane	11.165	76	50927	4.939	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	75642	25.039	ug/l		91
59) 2-Hexanone	11.200	43	120539	24.785	ug/l		87
60) Dibromochloromethane	11.365	129	32246	4.817	ug/l		99
61) 1,2-Dibromoethane	11.476	107	31487	5.040	ug/l		96
64) Tetrachloroethene	11.106	164	27995	5.200	ug/l		92
65) Chlorobenzene	11.894	112	81538	5.094	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.965	131	30954	5.027	ug/l		97
67) Ethyl Benzene	11.970	91	133219	4.923	ug/l		100
68) m/p-Xylenes	12.076	106	100821	10.078	ug/l		97
69) o-Xylene	12.400	106	49105	4.860	ug/l		99
70) Styrene	12.418	104	75656	4.786	ug/l		98
71) Bromoform	12.582	173	21282	5.103	ug/l	#	96
73) Isopropylbenzene	12.700	105	121156	5.832	ug/l		99
74) N-amyl acetate	12.500	43	42438	5.927	ug/l	#	89
75) 1,1,2,2-Tetrachloroethane	12.941	83	41037	4.237	ug/l		96
76) 1,2,3-Trichloropropane	13.000	75	33547m	6.284	ug/l		
77) Bromobenzene	12.982	156	28118	4.828	ug/l		99
78) n-propylbenzene	13.041	91	122199	5.500	ug/l		96
79) 2-Chlorotoluene	13.129	91	78431	5.389	ug/l		97
80) 1,3,5-Trimethylbenzene	13.176	105	91188	5.555	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.741	75	12787	6.287	ug/l	#	93
82) 4-Chlorotoluene	13.223	91	77772	5.729	ug/l		97
83) tert-Butylbenzene	13.441	119	80039	5.743	ug/l		97
84) 1,2,4-Trimethylbenzene	13.488	105	89931	5.640	ug/l		98
85) sec-Butylbenzene	13.623	105	102011	5.791	ug/l		99
86) p-Isopropyltoluene	13.735	119	78812	5.572	ug/l		98
87) 1,3-Dichlorobenzene	13.741	146	43504	5.455	ug/l		96
88) 1,4-Dichlorobenzene	13.817	146	42873	5.337	ug/l		94
89) n-Butylbenzene	14.059	91	56482	5.581	ug/l		97
90) Hexachloroethane	14.341	117	16493	5.620	ug/l		92
91) 1,2-Dichlorobenzene	14.112	146	43882	5.529	ug/l		95
92) 1,2-Dibromo-3-Chloropr...	14.717	75	6125	4.407	ug/l		91
93) 1,2,4-Trichlorobenzene	15.400	180	11329	4.472	ug/l		94
94) Hexachlorobutadiene	15.511	225	10864	4.526	ug/l		97
95) Naphthalene	15.647	128	39443	4.555	ug/l		96
96) 1,2,3-Trichlorobenzene	15.847	180	13854	4.756	ug/l		97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078453.D
Acq On : 10 Jul 2023 13:58
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 15:59:00 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:58:12 2023
Response via : Initial Calibration

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

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

ICAL Form

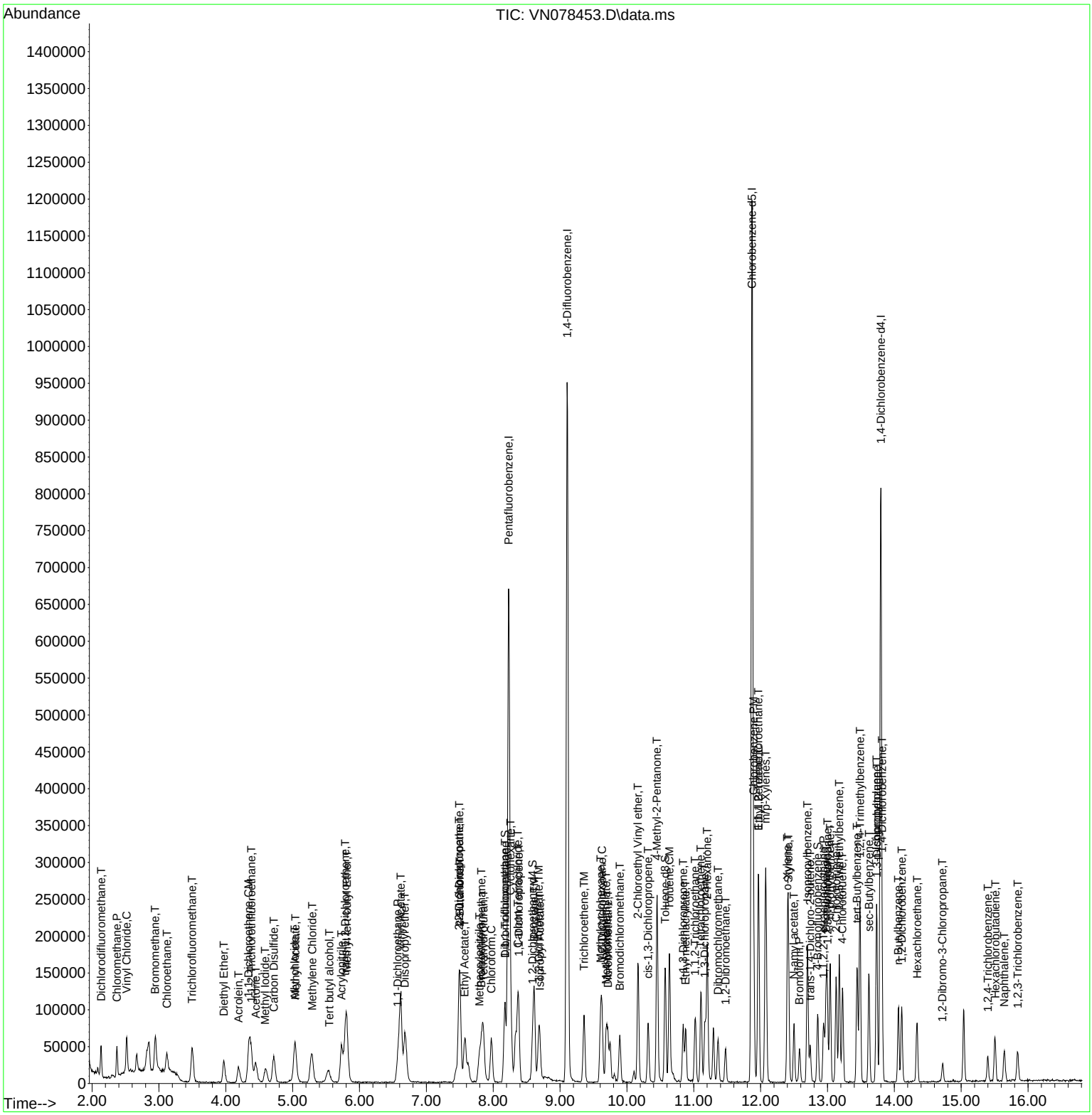
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078453.D
Acq On : 10 Jul 2023 13:58
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

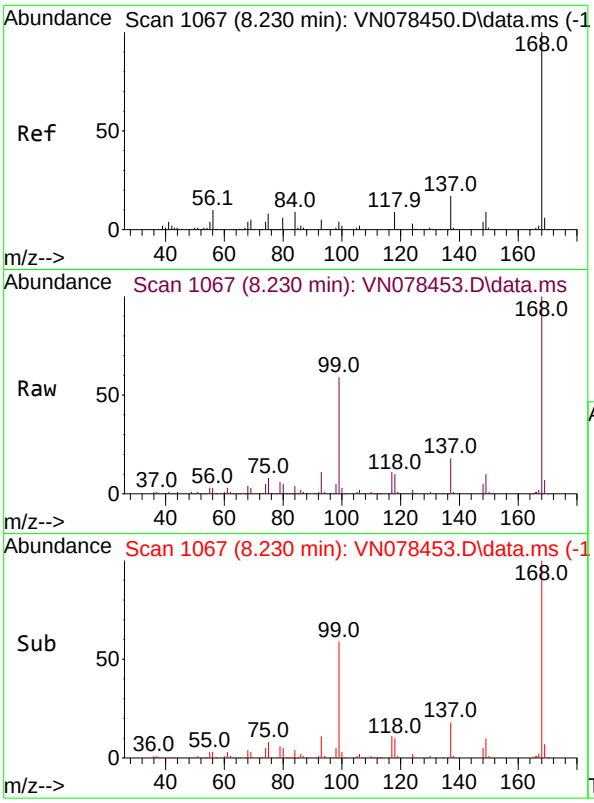
Quant Time: Jul 10 15:59:00 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 15:58:12 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

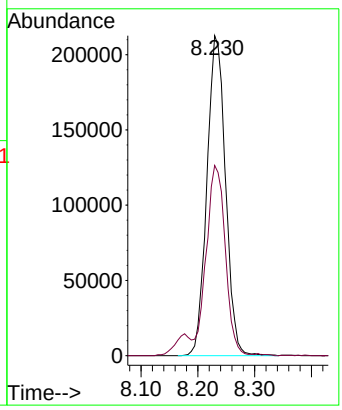




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:168 Resp: 48285

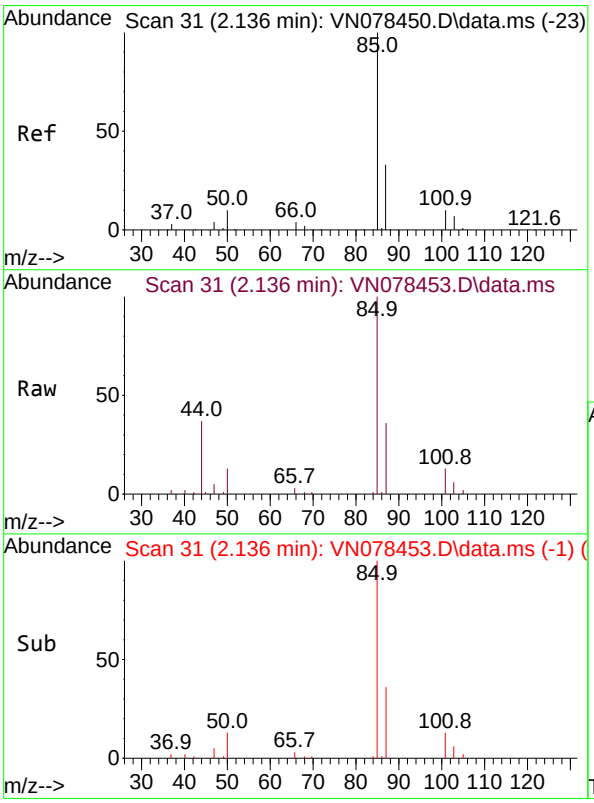
Ion	Ratio	Lower	Upper
168	100		
99	59.5	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

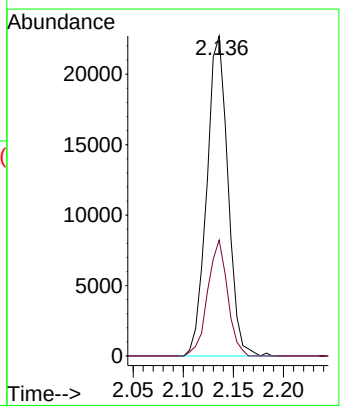
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

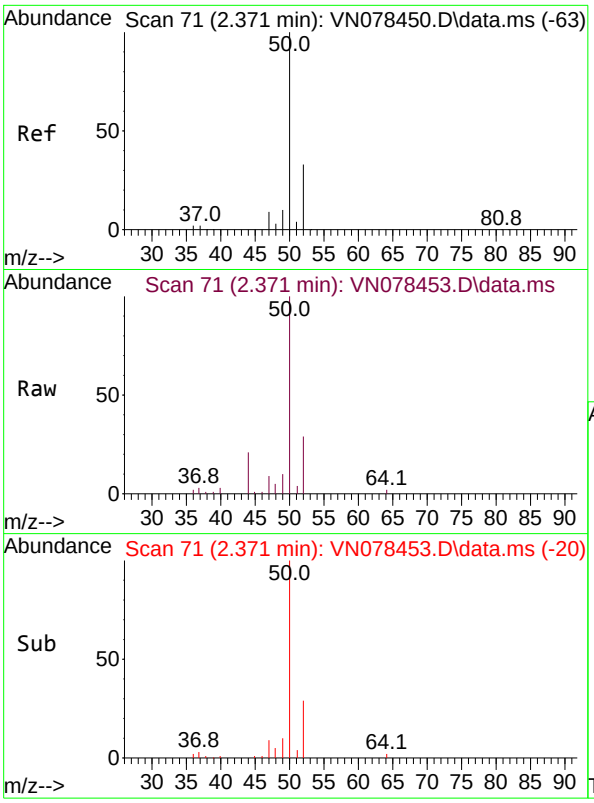


#2
Dichlorodifluoromethane
Concen: 5.635 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 85 Resp: 33359

Ion	Ratio	Lower	Upper
85	100		
87	36.2	15.8	47.4

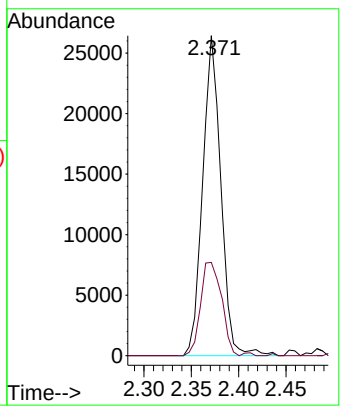




#3
Chloromethane
Concen: 5.499 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 50 Resp: 3538

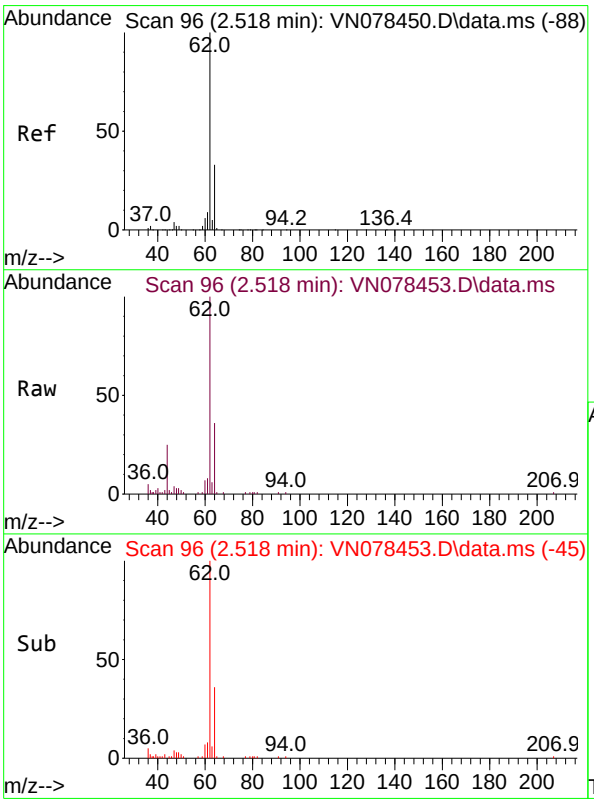
Ion	Ratio	Lower	Upper
50	100		
52	29.1	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

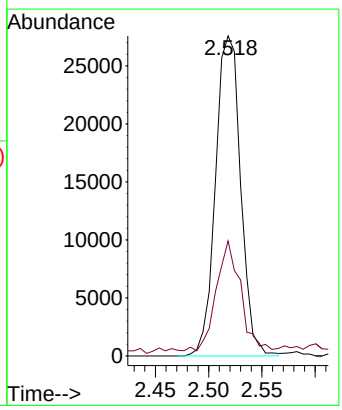
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

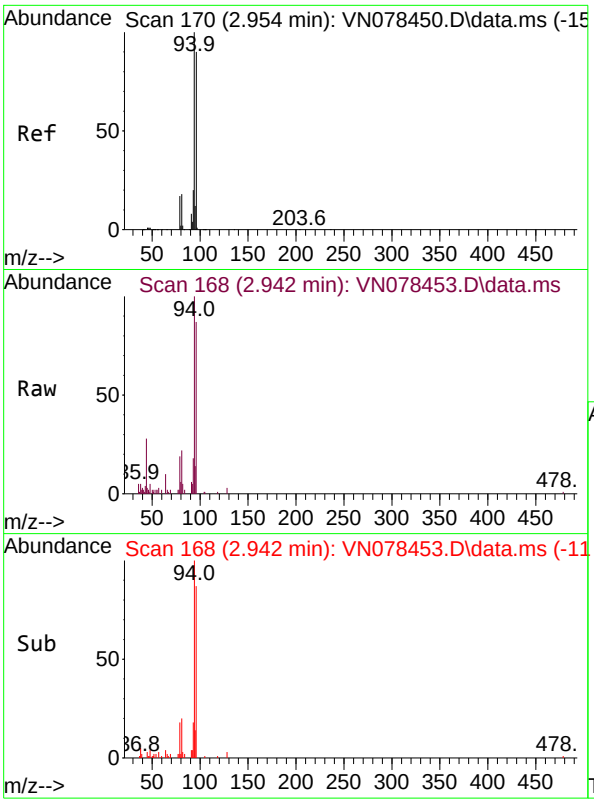


#4
Vinyl Chloride
Concen: 5.432 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 62 Resp: 45218

Ion	Ratio	Lower	Upper
62	100		
64	34.2	26.2	39.2

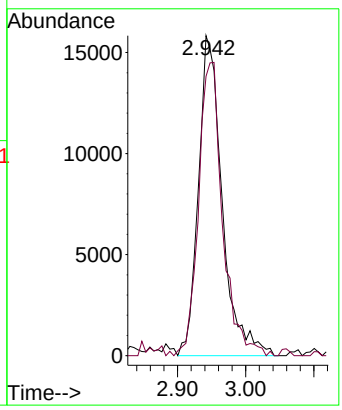




#5
Bromomethane
Concen: 6.455 ug/l
RT: 2.942 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 94 Resp: 3836

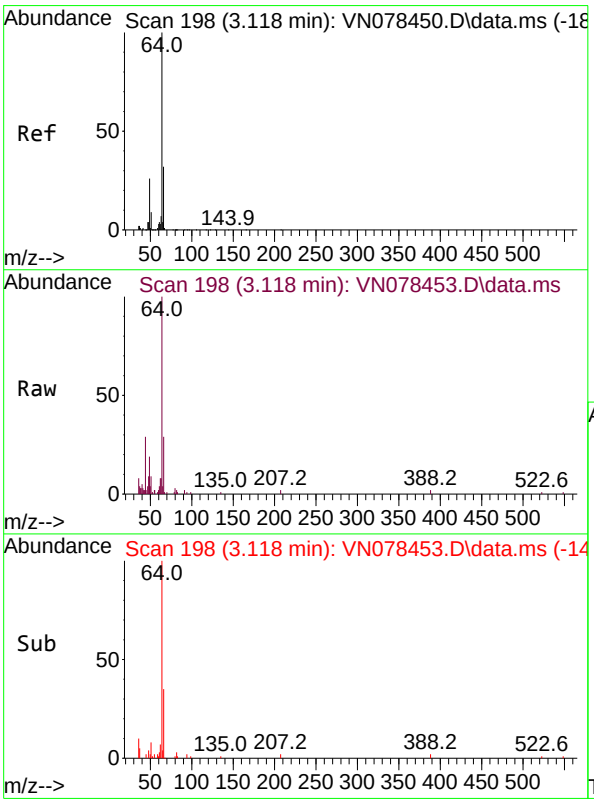
Ion	Ratio	Lower	Upper
94	100		
96	87.3	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

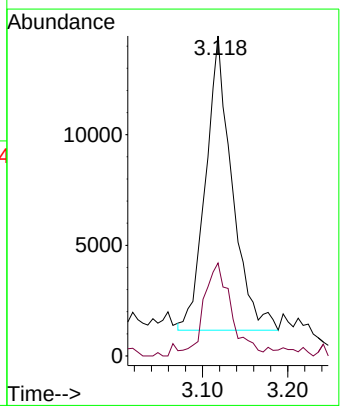
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

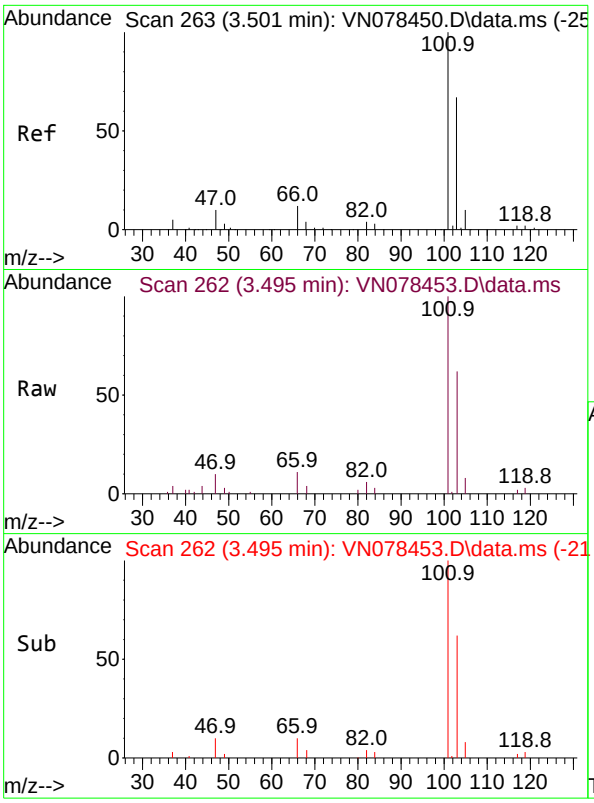


#6
Chloroethane
Concen: 3.906 ug/l
RT: 3.118 min Scan# 198
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 64 Resp: 28585

Ion	Ratio	Lower	Upper
64	100		
66	29.8	25.4	38.2





#7
Trichlorofluoromethane
Concen: 5.379 ug/l
RT: 3.495 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

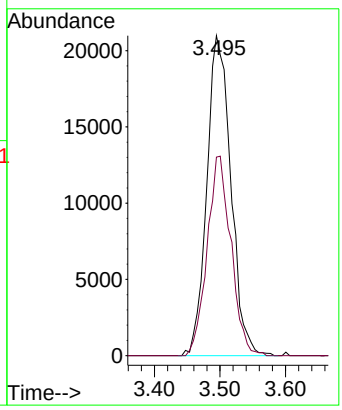
Tgt Ion:101 Resp: 5351

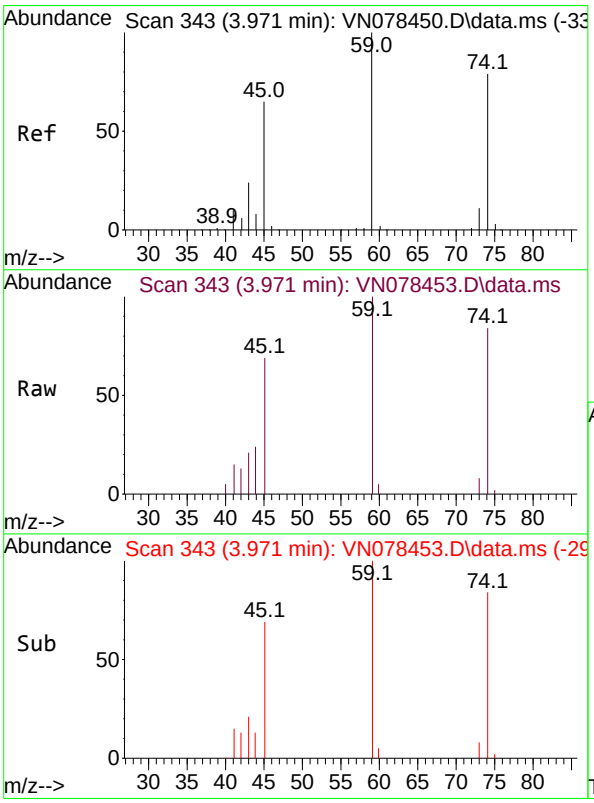
Ion	Ratio	Lower	Upper
101	100		
103	62.1	50.7	76.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

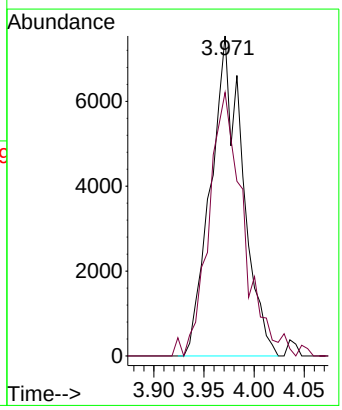


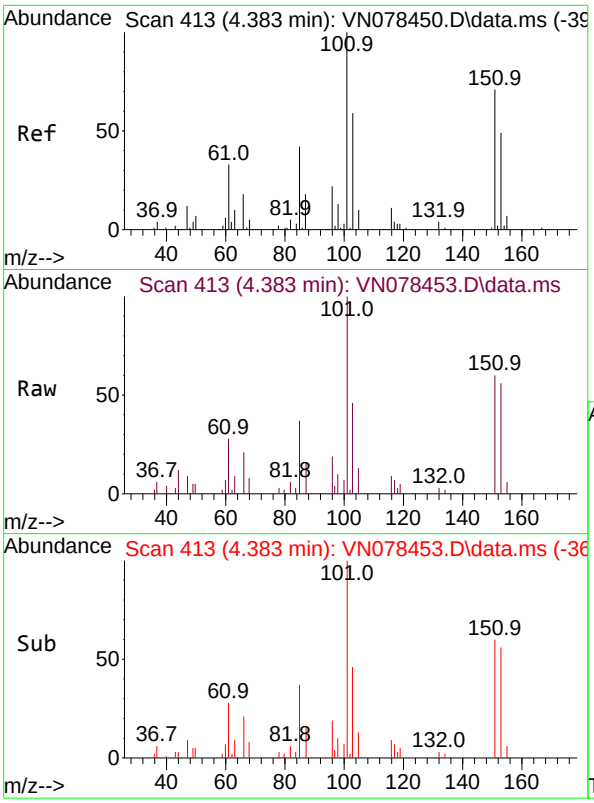


#8
Diethyl Ether
Concen: 5.028 ug/l
RT: 3.971 min Scan# 343
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 74 Resp: 16667

Ion	Ratio	Lower	Upper
74	100		
45	89.5	34.4	103.3

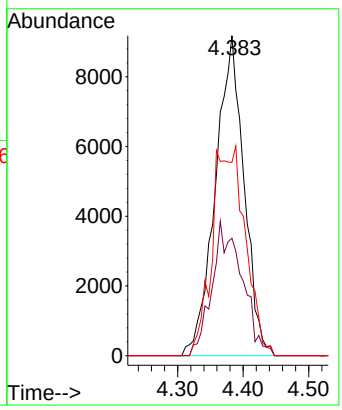




#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.294 ug/l
RT: 4.383 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:101 Resp: 2788

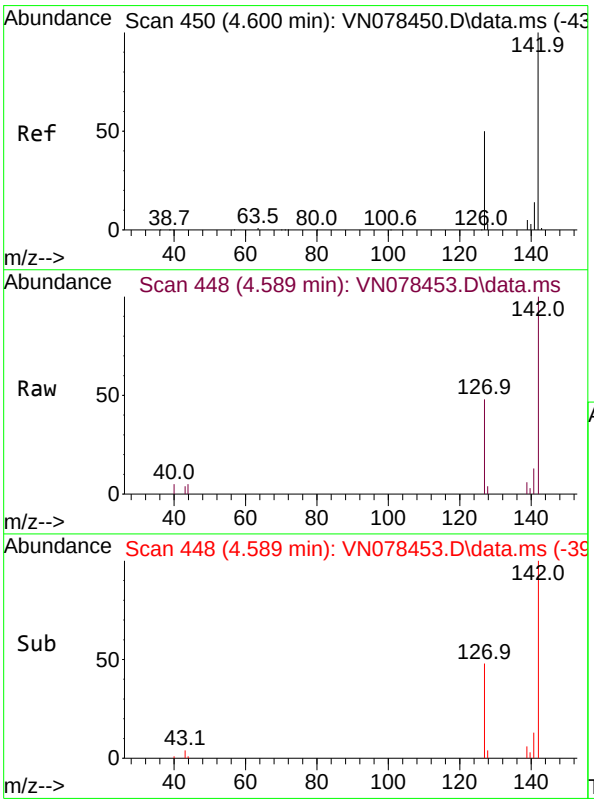
Ion	Ratio	Lower	Upper
101	100		
85	0.0	36.6	55.0#
151	0.0	57.6	86.4#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

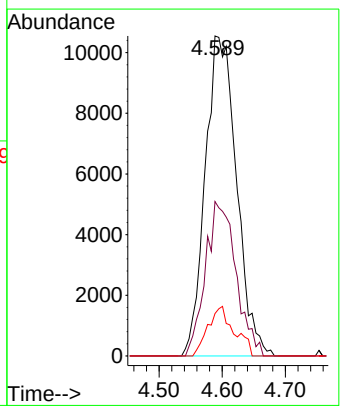
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

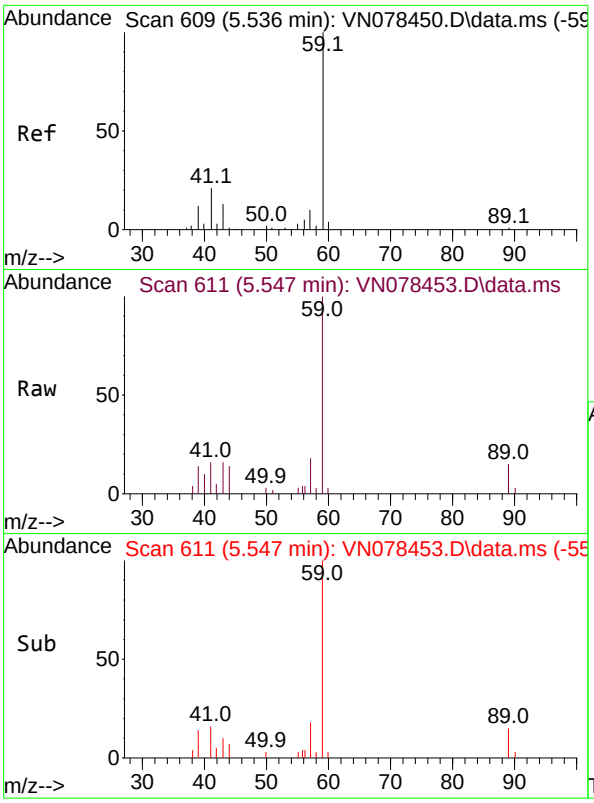


#10
Methyl Iodide
Concen: 5.011 ug/l
RT: 4.589 min Scan# 448
Delta R.T. -0.011 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:142 Resp: 36267

Ion	Ratio	Lower	Upper
142	100		
127	48.2	37.6	56.4
141	13.3	11.4	17.0

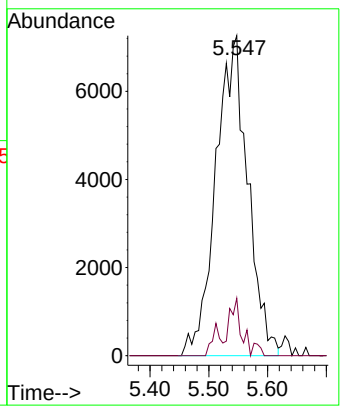




#11
Tert butyl alcohol
Concen: 27.391 ug/l
RT: 5.547 min Scan# 61
Delta R.T. 0.011 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 59 Resp: 2734

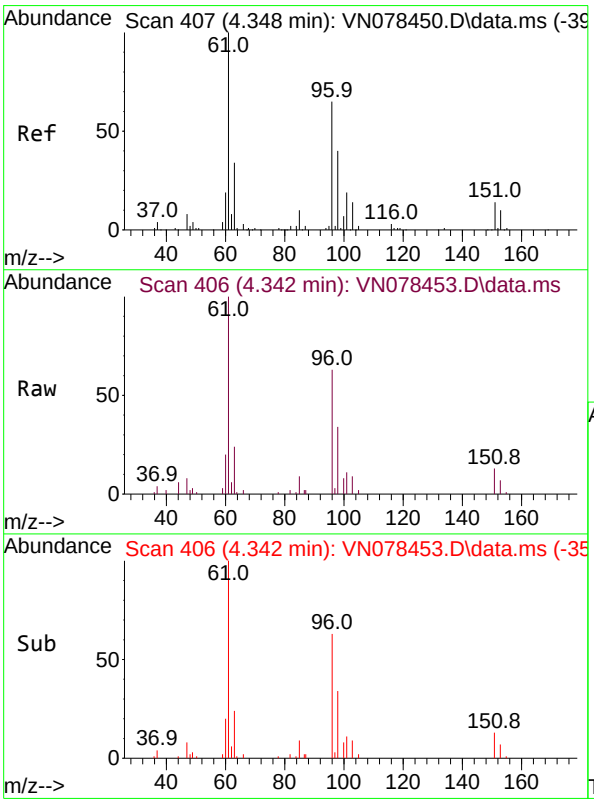
Ion	Ratio	Lower	Upper
59	100		
57	4.8	8.2	12.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

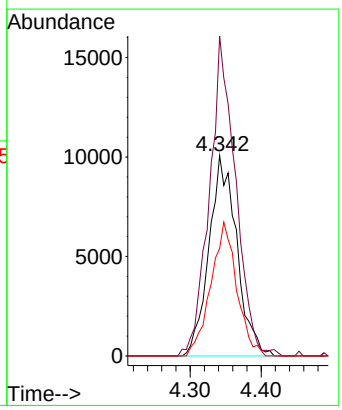
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

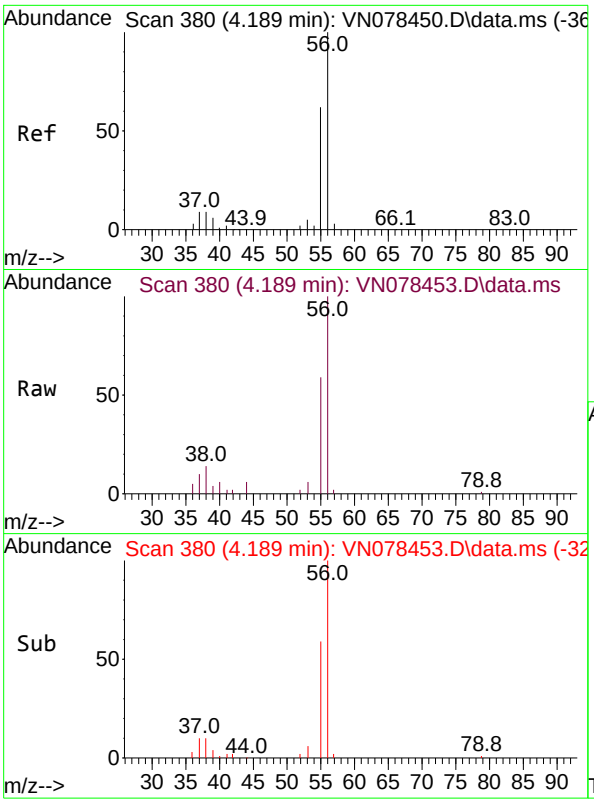


#12
1,1-Dichloroethene
Concen: 5.372 ug/l
RT: 4.342 min Scan# 406
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 96 Resp: 27368

Ion	Ratio	Lower	Upper
96	100		
61	159.7	112.7	169.1
98	53.6	51.2	76.8

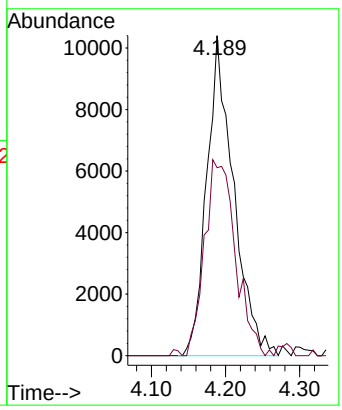




#13
Acrolein
Concen: 26.596 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 56 Resp: 2611

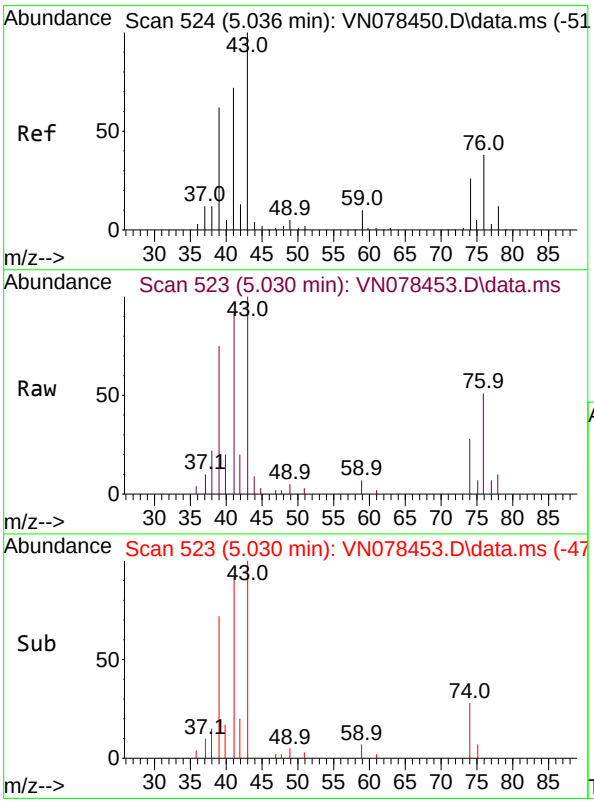
Ion	Ratio	Lower	Upper
56	100		
55	70.4	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

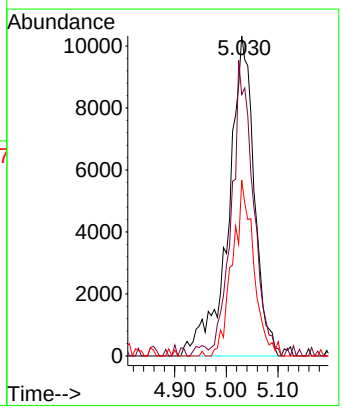
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

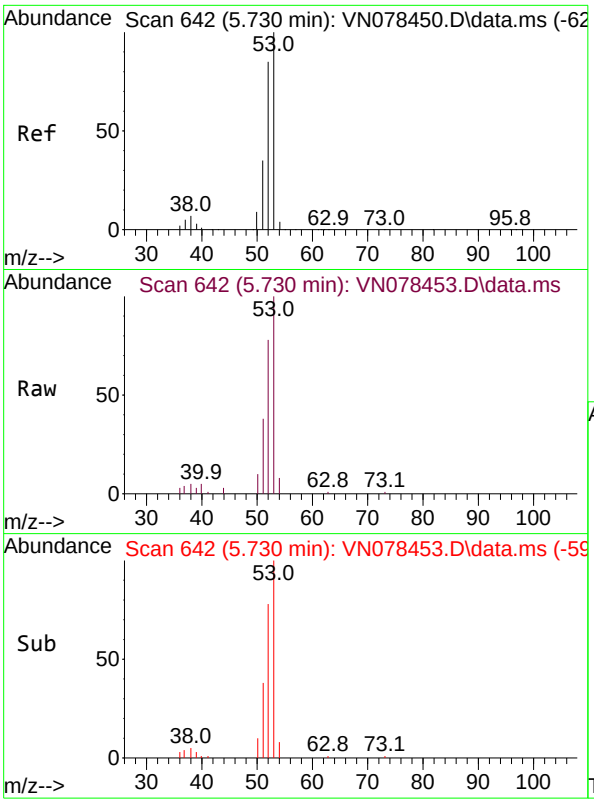


#14
Allyl chloride
Concen: 5.156 ug/l
RT: 5.030 min Scan# 523
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 41 Resp: 35895

Ion	Ratio	Lower	Upper
41	100		
39	77.5	58.8	88.2
76	45.1	39.1	58.7

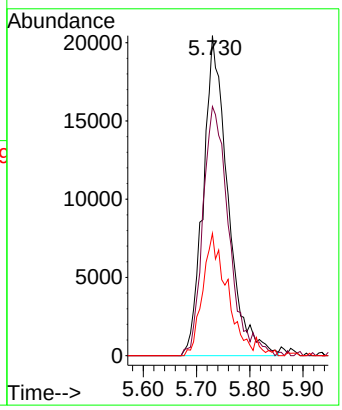




#15
Acrylonitrile
Concen: 26.030 ug/l
RT: 5.730 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 53 Resp: 6564

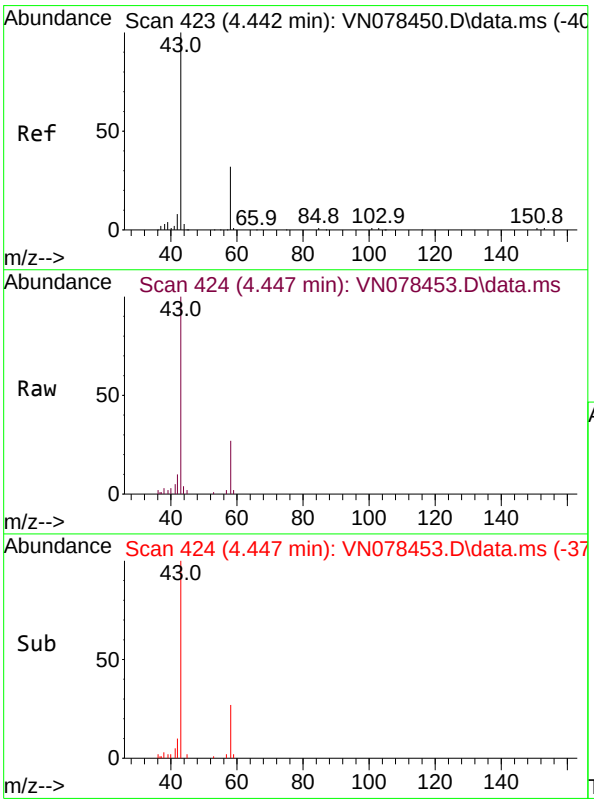
Ion	Ratio	Lower	Upper
53	100		
52	81.9	65.3	97.9
51	37.9	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

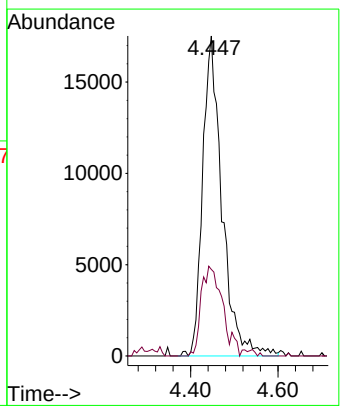
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

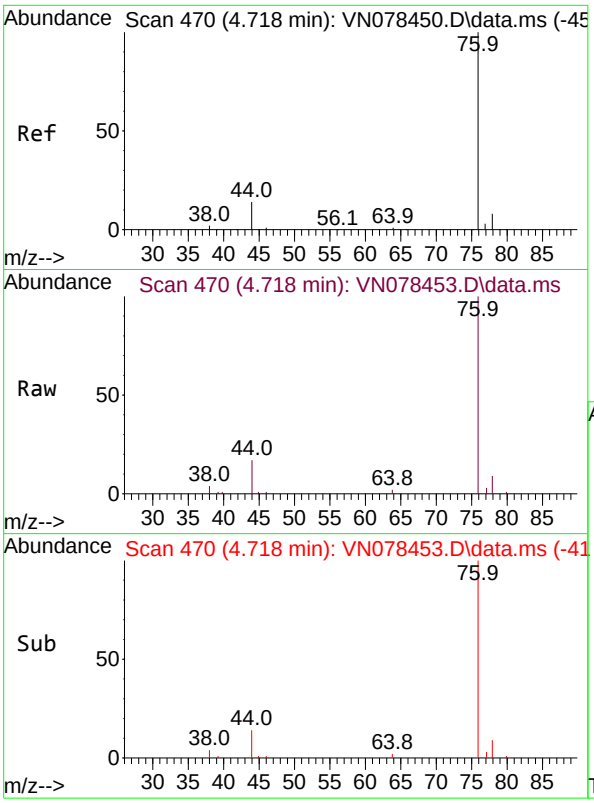


#16
Acetone
Concen: 26.793 ug/l
RT: 4.447 min Scan# 424
Delta R.T. 0.005 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 43 Resp: 54025

Ion	Ratio	Lower	Upper
43	100		
58	27.0	28.0	42.0#





#17
Carbon Disulfide
Concen: 5.292 ug/l
RT: 4.718 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

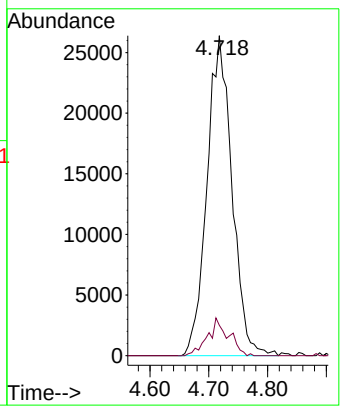
Tgt Ion: 76 Resp: 7797

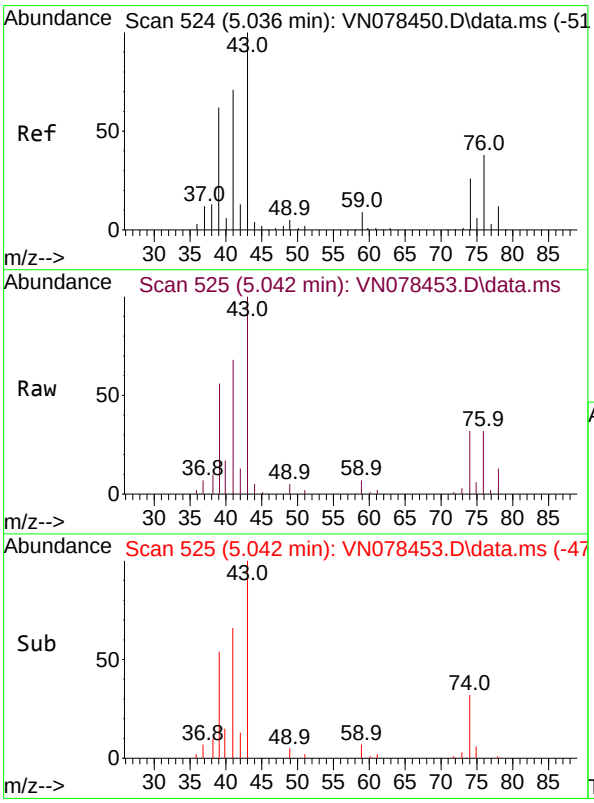
Ion	Ratio	Lower	Upper
76	100		
78	9.5	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

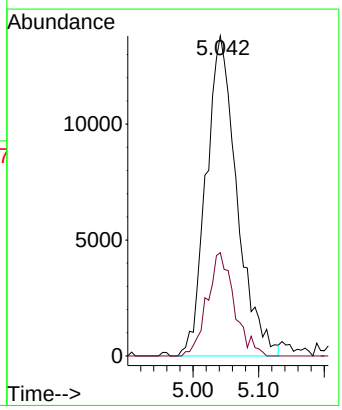


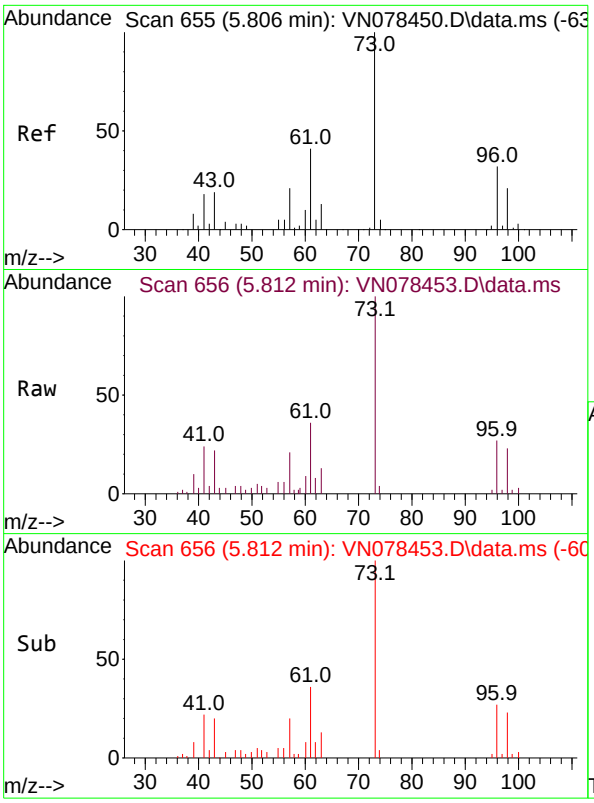


#18
Methyl Acetate
Concen: 5.275 ug/l
RT: 5.042 min Scan# 525
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 43 Resp: 45027

Ion	Ratio	Lower	Upper
43	100		
74	28.3	26.2	39.4

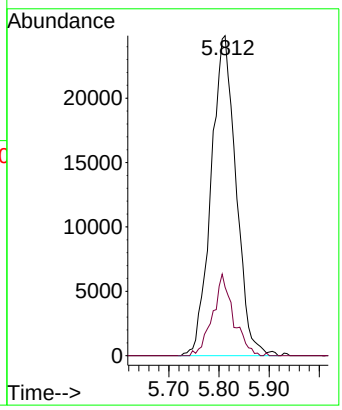




#19
Methyl tert-butyl Ether
Concen: 5.122 ug/l
RT: 5.812 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 73 Resp: 8598

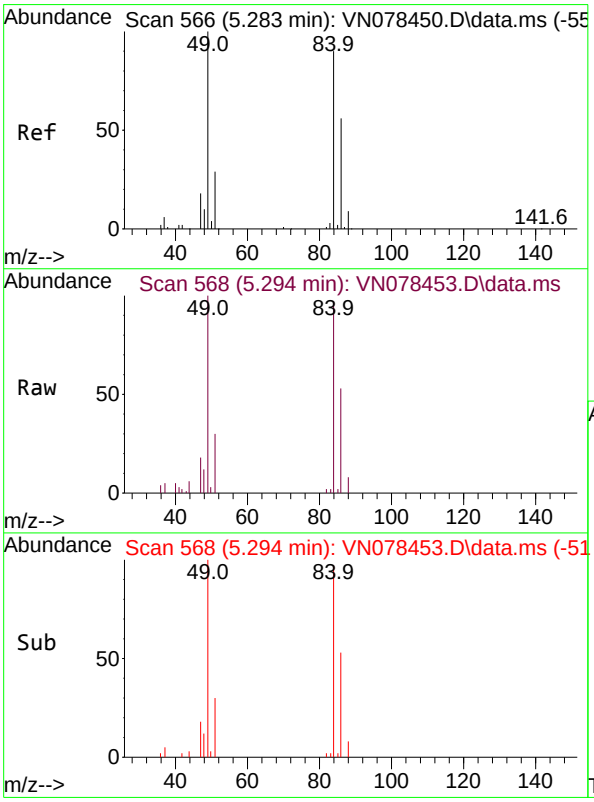
Ion	Ratio	Lower	Upper
73	100		
57	21.4	15.6	23.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

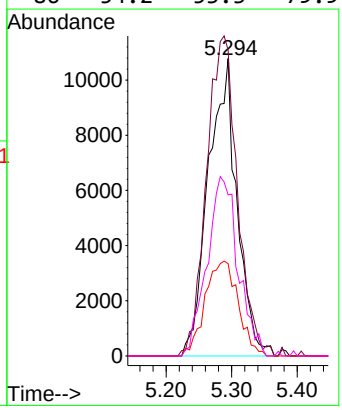
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

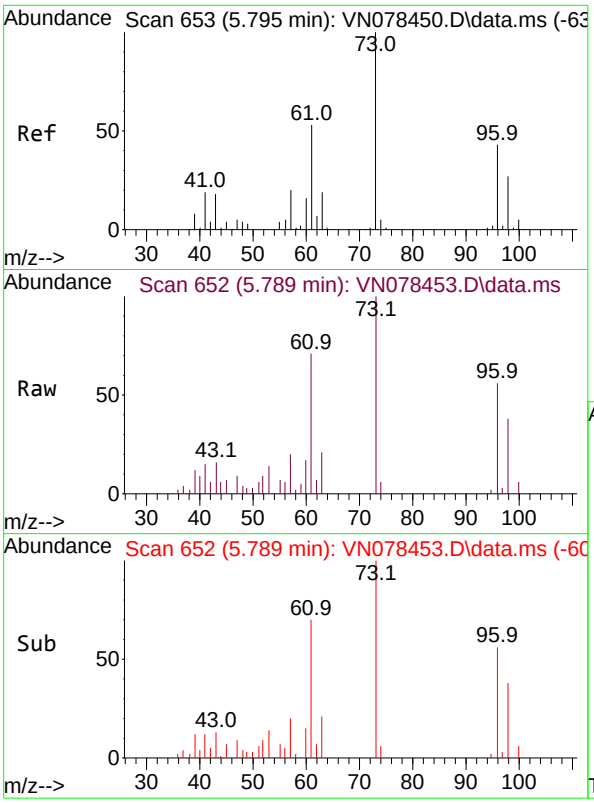


#20
Methylene Chloride
Concen: 5.137 ug/l
RT: 5.294 min Scan# 568
Delta R.T. 0.011 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 84 Resp: 32630

Ion	Ratio	Lower	Upper
84	100		
49	102.8	79.7	119.5
51	31.0	25.2	37.8
86	54.2	53.3	79.9

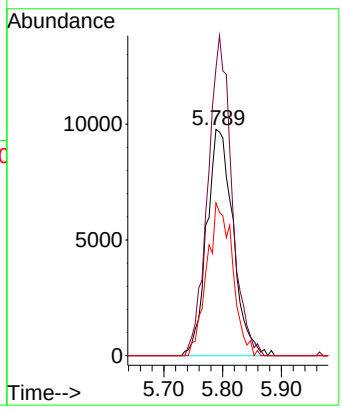




#21
trans-1,2-Dichloroethene
Concen: 5.303 ug/l
RT: 5.789 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 96 Resp: 3044

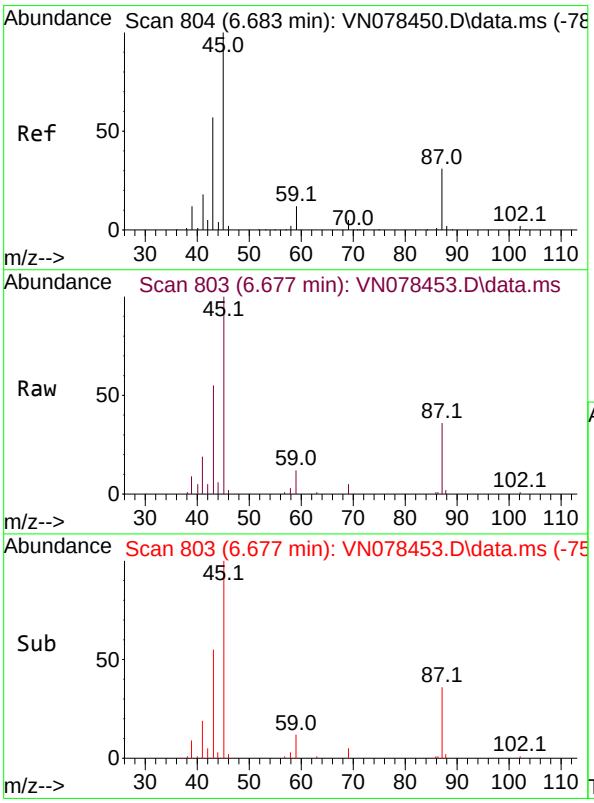
Ion	Ratio	Lower	Upper
96	100		
61	127.1	90.1	135.1
98	67.5	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

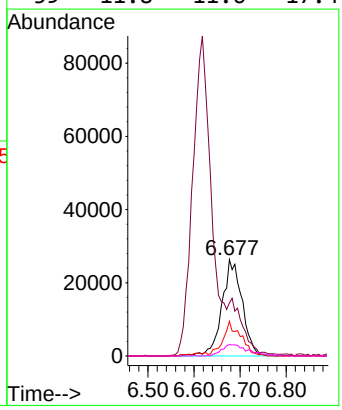
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

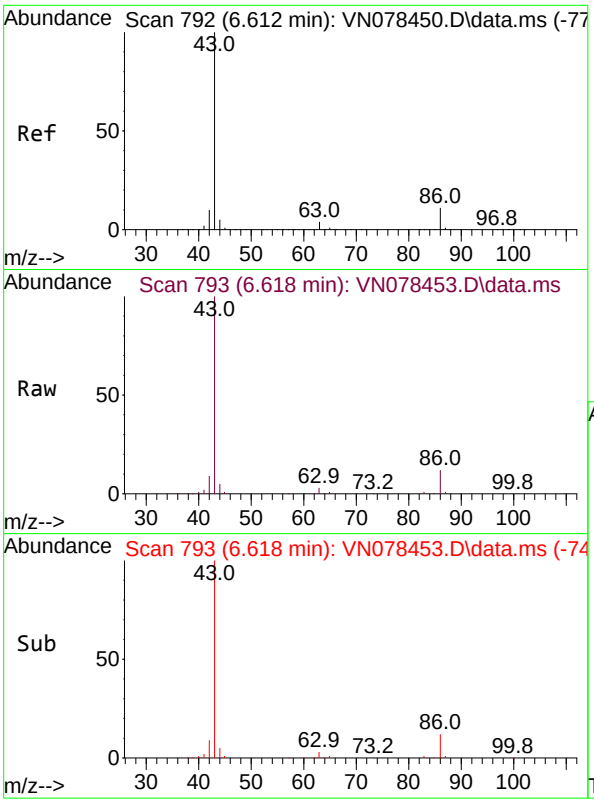


#22
Diisopropyl ether
Concen: 5.116 ug/l
RT: 6.677 min Scan# 803
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 45 Resp: 79756

Ion	Ratio	Lower	Upper
45	100		
43	53.4	45.5	68.3
87	36.0	31.8	47.8
59	11.8	11.6	17.4





#23
Vinyl Acetate
Concen: 24.912 ug/l
RT: 6.618 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

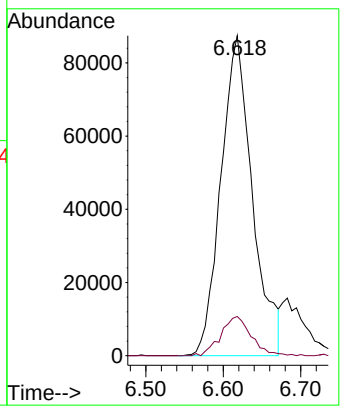
Tgt Ion: 43 Resp: 24688

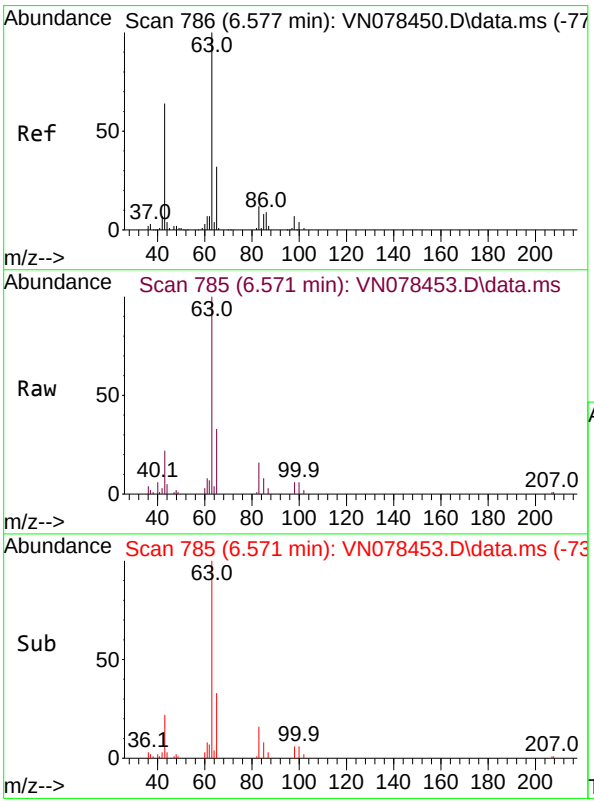
Ion	Ratio	Lower	Upper
43	100		
86	12.2	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

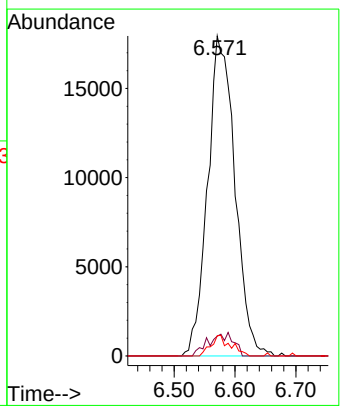


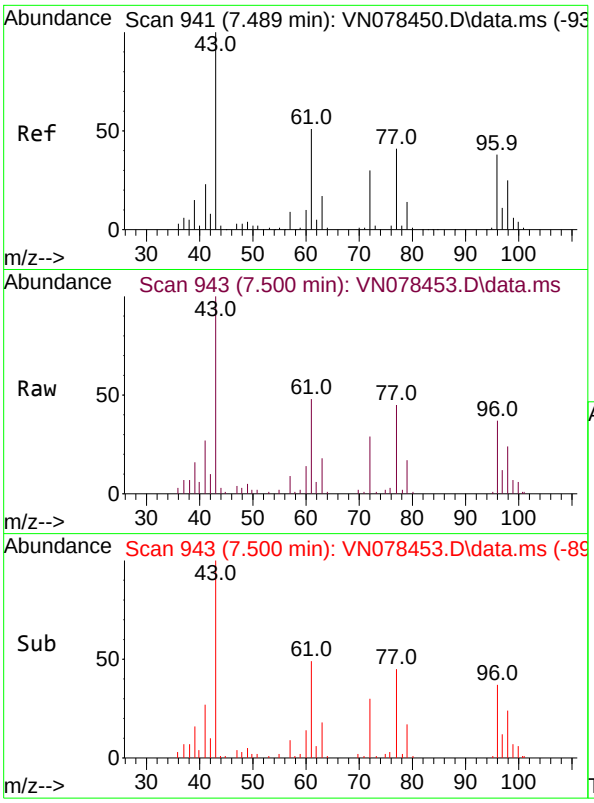


#24
1,1-Dichloroethane
Concen: 5.315 ug/l
RT: 6.571 min Scan# 785
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 63 Resp: 55830

Ion	Ratio	Lower	Upper
63	100		
98	6.2	3.9	11.7
100	6.3	2.5	7.4





#25
2-Butanone
Concen: 25.018 ug/l
RT: 7.500 min Scan# 94
Delta R.T. 0.011 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

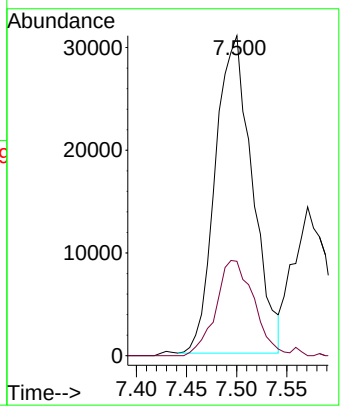
Tgt Ion: 43 Resp: 7940

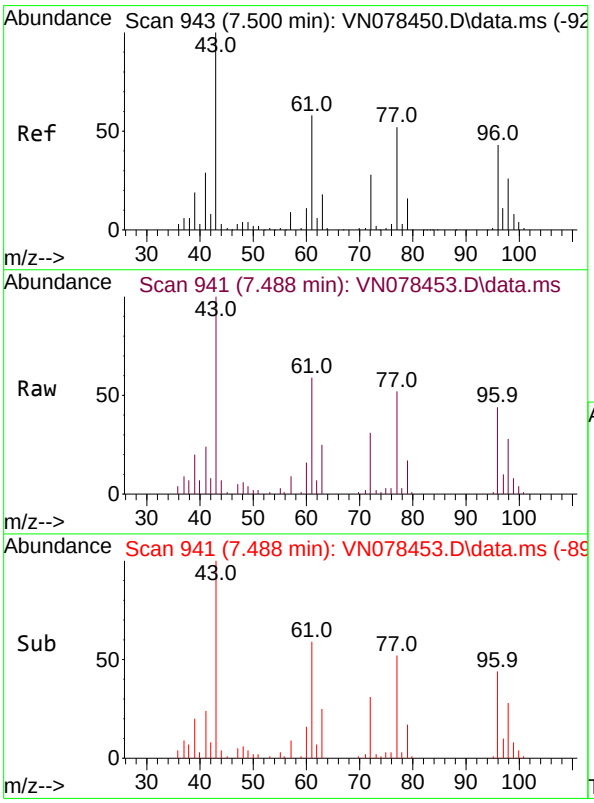
Ion	Ratio	Lower	Upper
43	100		
72	29.7	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

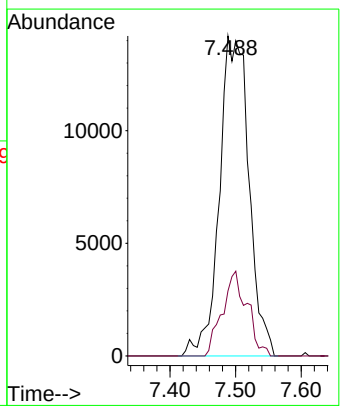


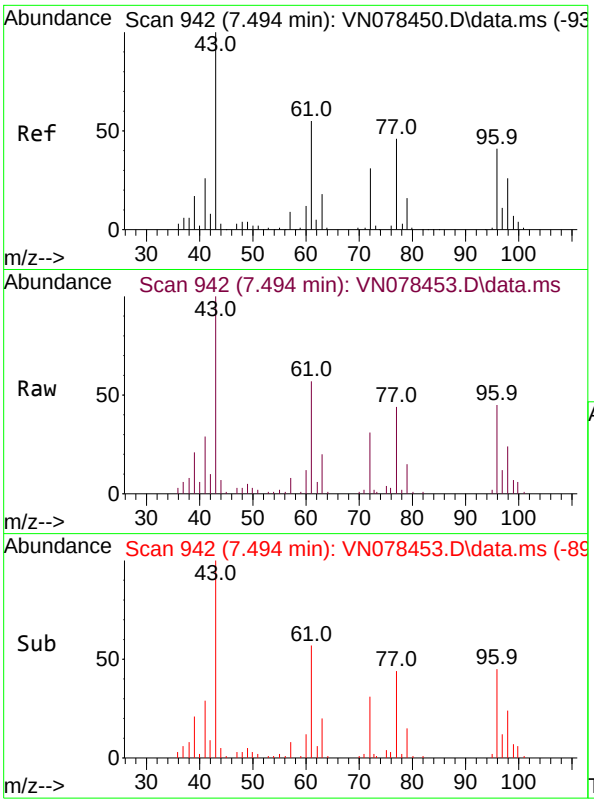


#26
2,2-Dichloropropane
Concen: 5.155 ug/l
RT: 7.488 min Scan# 941
Delta R.T. -0.012 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 77 Resp: 44289

Ion	Ratio	Lower	Upper
77	100		
97	22.3	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 5.167 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

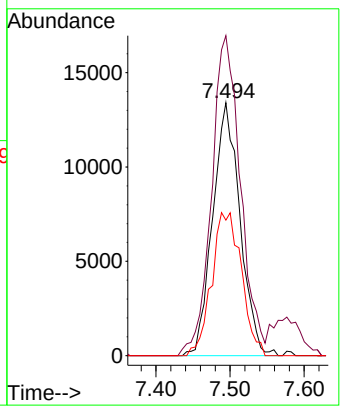
Tgt Ion: 96 Resp: 3432

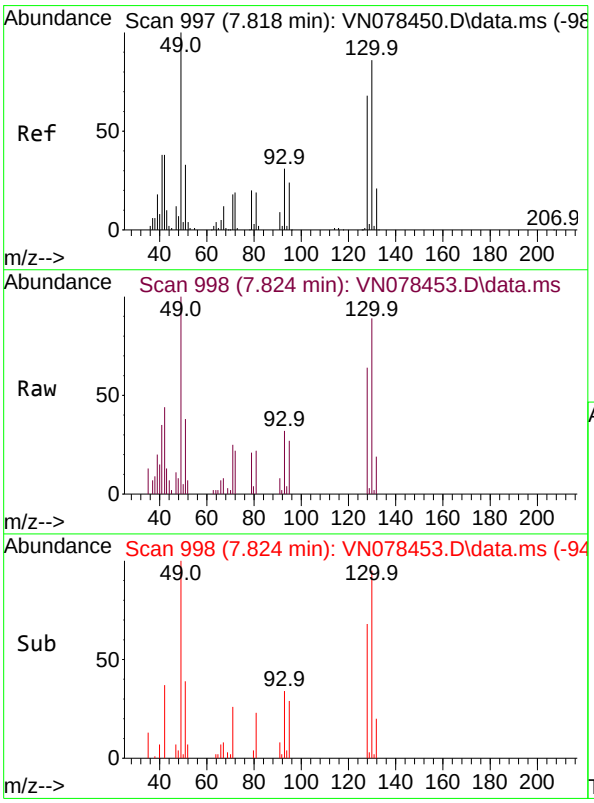
Ion	Ratio	Lower	Upper
96	100		
61	133.6	0.0	255.2
98	61.7	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

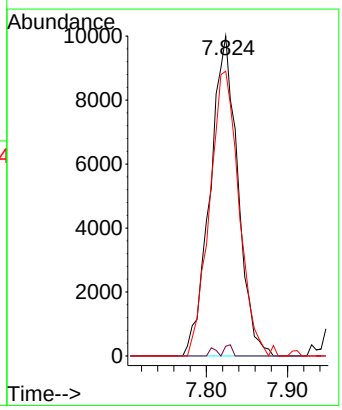


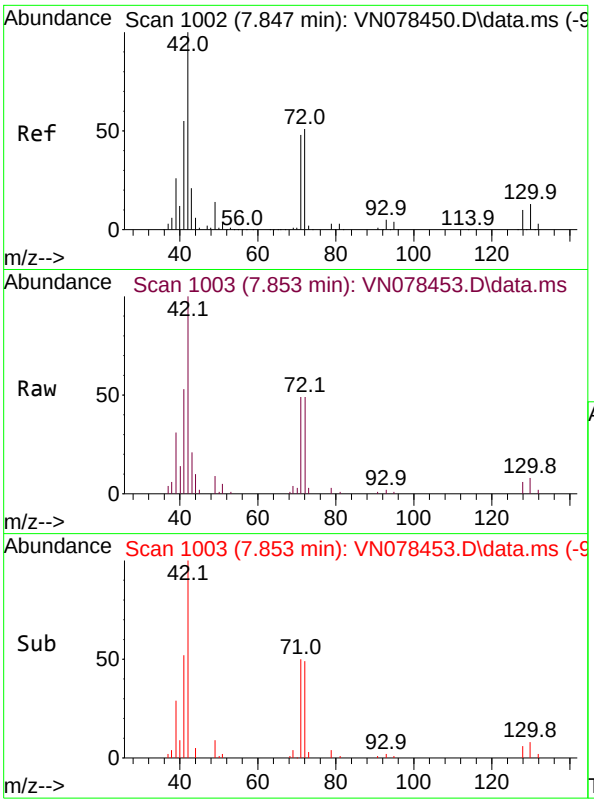


#28
Bromochloromethane
Concen: 4.802 ug/l
RT: 7.824 min Scan# 998
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 49 Resp: 23758

Ion	Ratio	Lower	Upper
49	100		
129	1.0	0.0	4.8
130	93.5	75.3	112.9





#29
Tetrahydrofuran
Concen: 25.304 ug/l
RT: 7.853 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

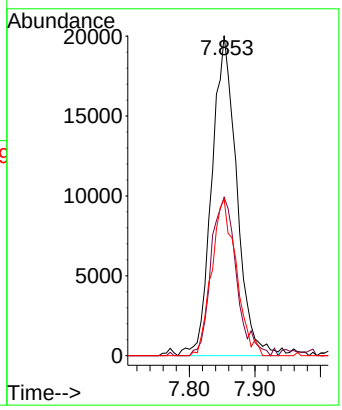
Tgt Ion: 42 Resp: 5270

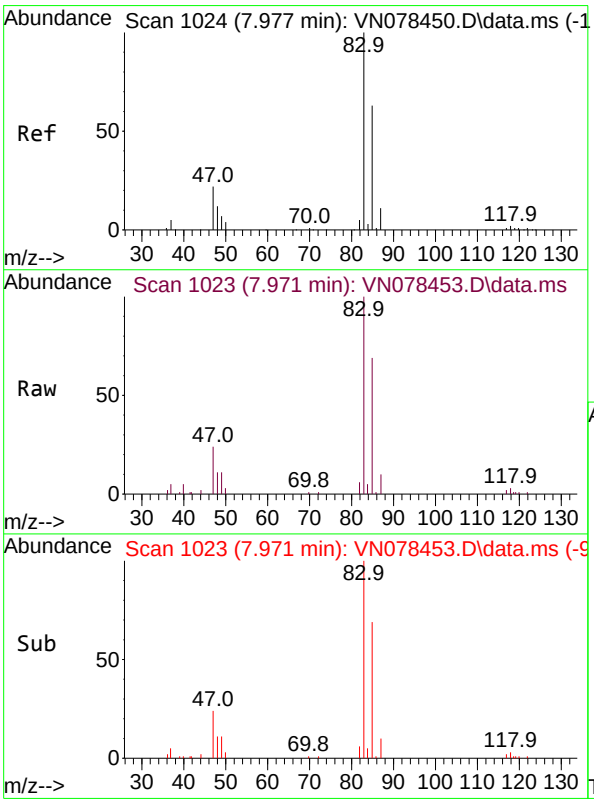
Ion	Ratio	Lower	Upper
42	100		
72	50.5	49.8	74.6
71	48.2	47.4	71.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

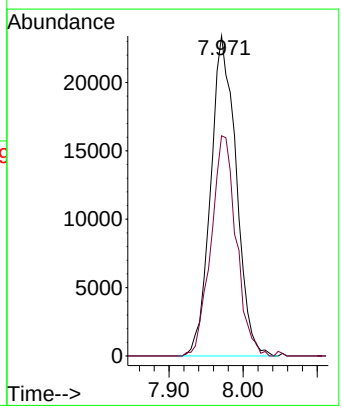


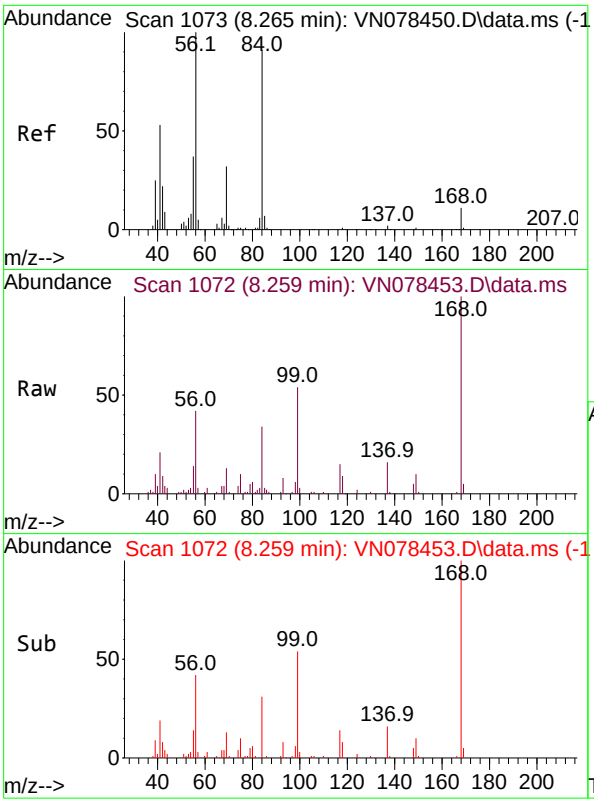


#30
Chloroform
Concen: 5.109 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 83 Resp: 55875

Ion	Ratio	Lower	Upper
83	100		
85	68.8	55.4	83.0

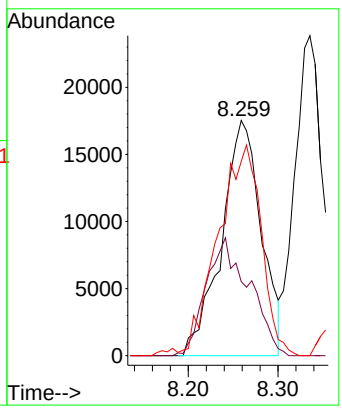




#31
Cyclohexane
Concen: 6.165 ug/l
RT: 8.259 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 56 Resp: 5393

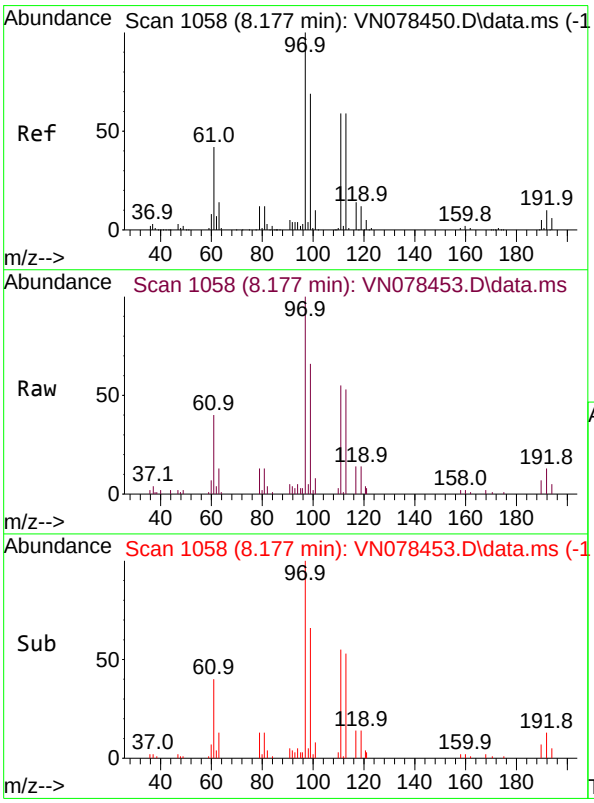
Ion	Ratio	Lower	Upper
56	100		
69	30.4	26.8	40.2
84	81.2	81.8	122.6#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

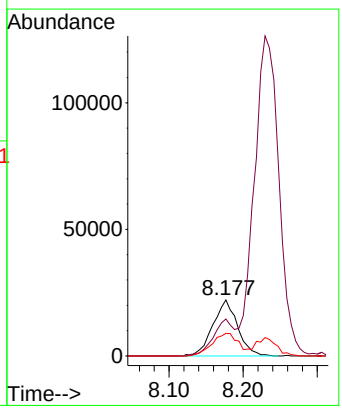
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

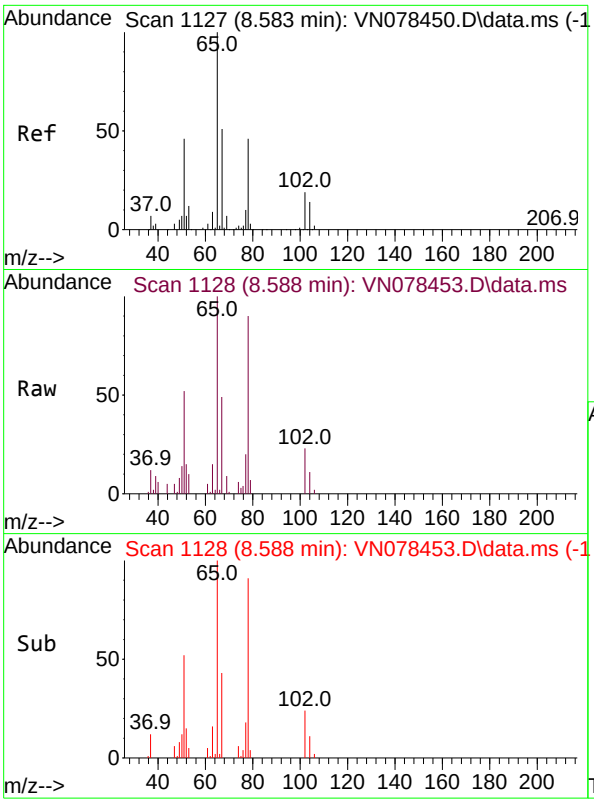


#32
1,1,1-Trichloroethane
Concen: 5.210 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 97 Resp: 51084

Ion	Ratio	Lower	Upper
97	100		
99	53.8	50.3	75.5
61	45.4	34.7	52.1

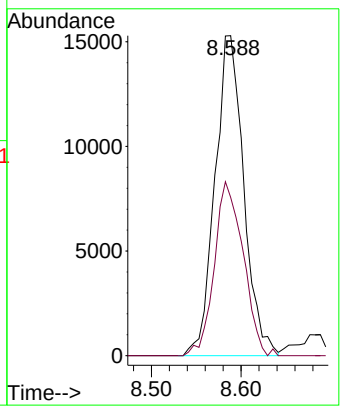




#33
1,2-Dichloroethane-d4
Concen: 5.267 ug/l
RT: 8.588 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 65 Resp: 3409

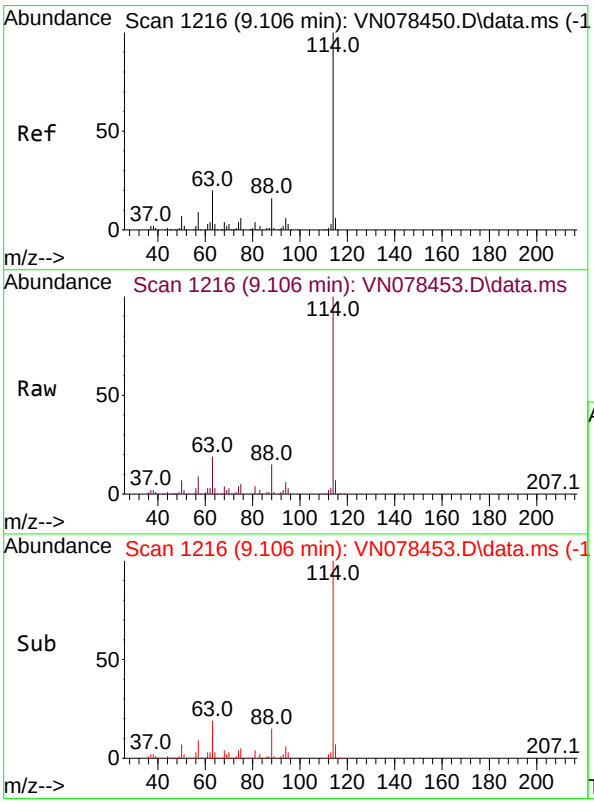
Ion	Ratio	Lower	Upper
65	100		
67	54.3	0.0	106.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

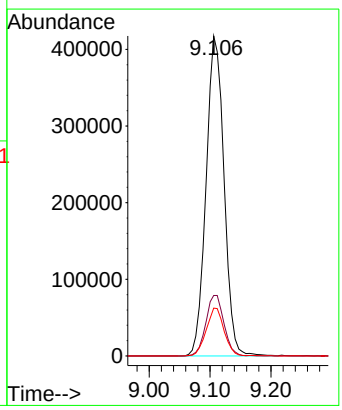
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

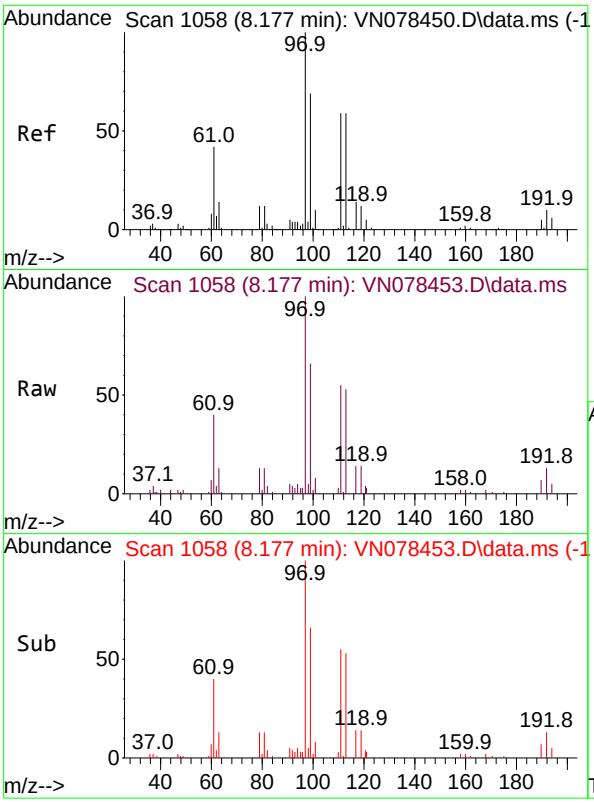


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:114 Resp: 855204

Ion	Ratio	Lower	Upper
114	100		
63	18.9	0.0	36.4
88	15.0	0.0	30.6

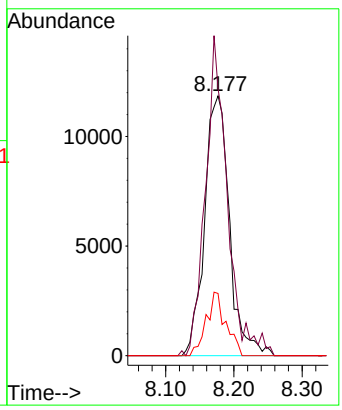




#35
Dibromofluoromethane
Concen: 5.177 ug/l
RT: 8.177 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:113 Resp: 3005

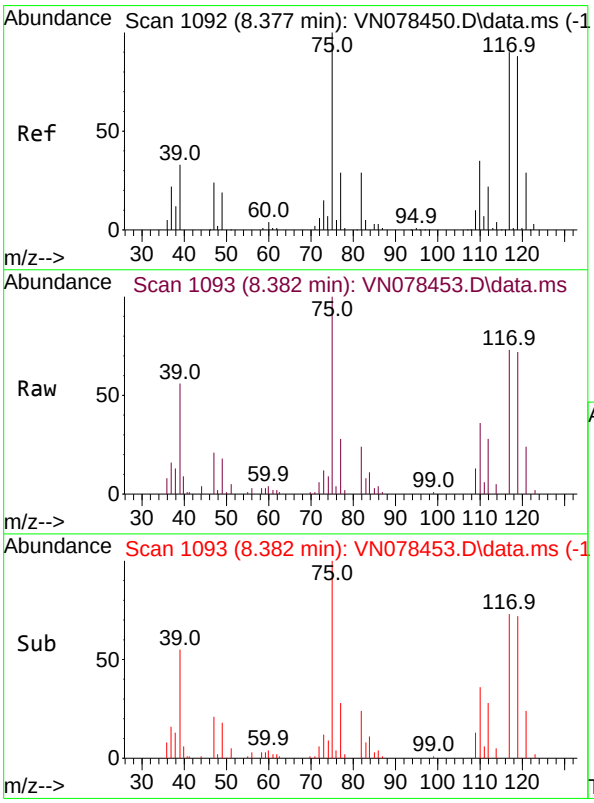
Ion	Ratio	Lower	Upper
113	100		
111	108.4	82.6	123.8
192	19.2	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

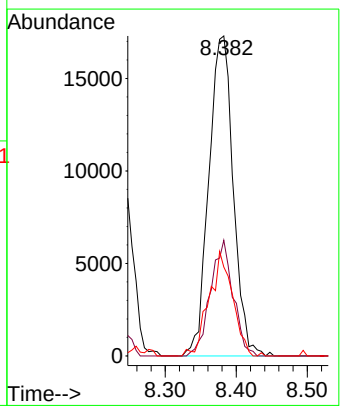
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

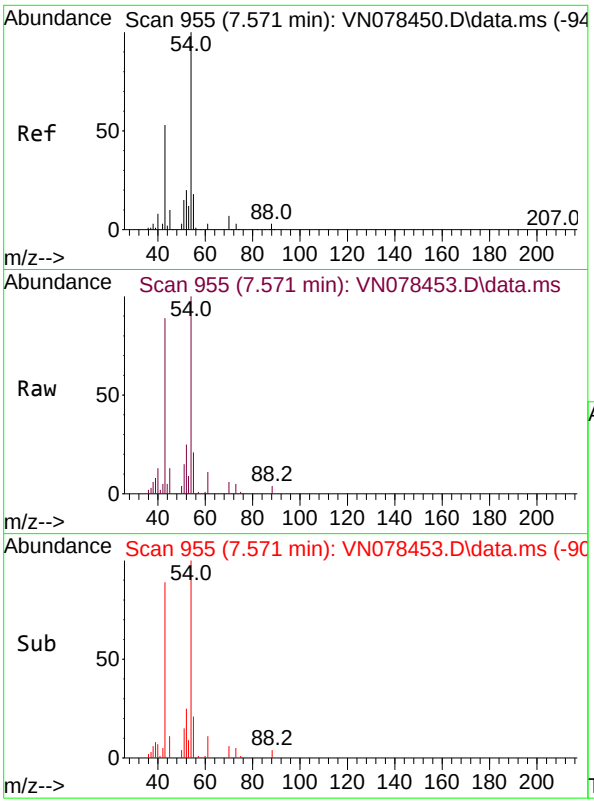


#36
1,1-Dichloropropene
Concen: 4.921 ug/l
RT: 8.382 min Scan# 1093
Delta R.T. 0.005 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 75 Resp: 41253

Ion	Ratio	Lower	Upper
75	100		
110	33.6	19.1	57.3
77	31.4	25.0	37.4

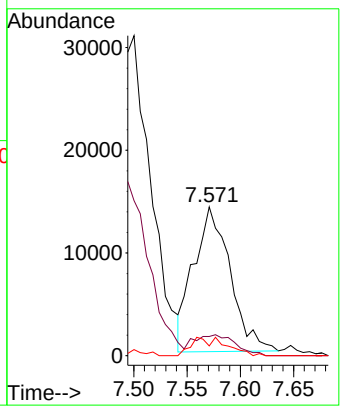




#37
Ethyl Acetate
Concen: 4.808 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 43 Resp: 3359

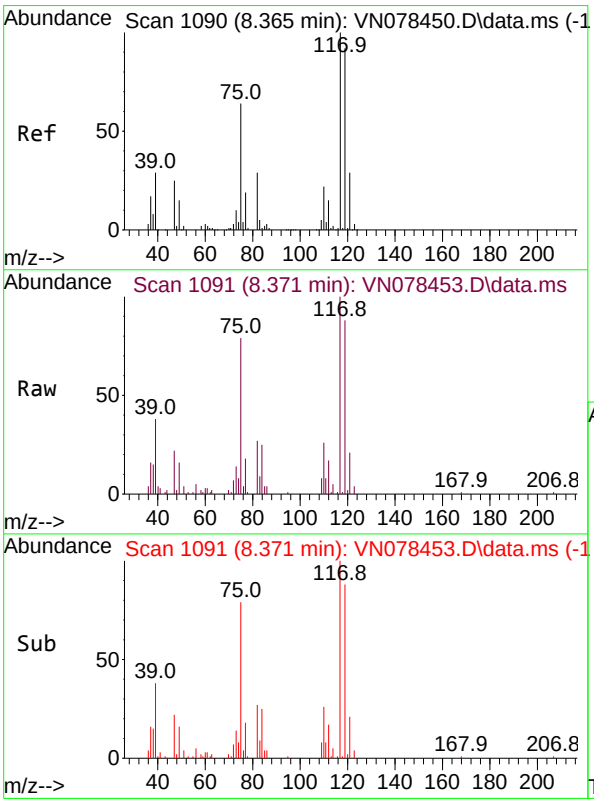
Ion	Ratio	Lower	Upper
43	100		
61	16.4	13.2	19.8
70	6.1	11.3	16.9#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

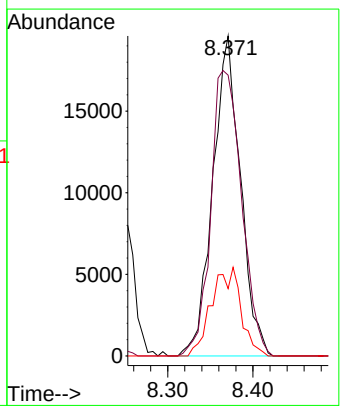
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

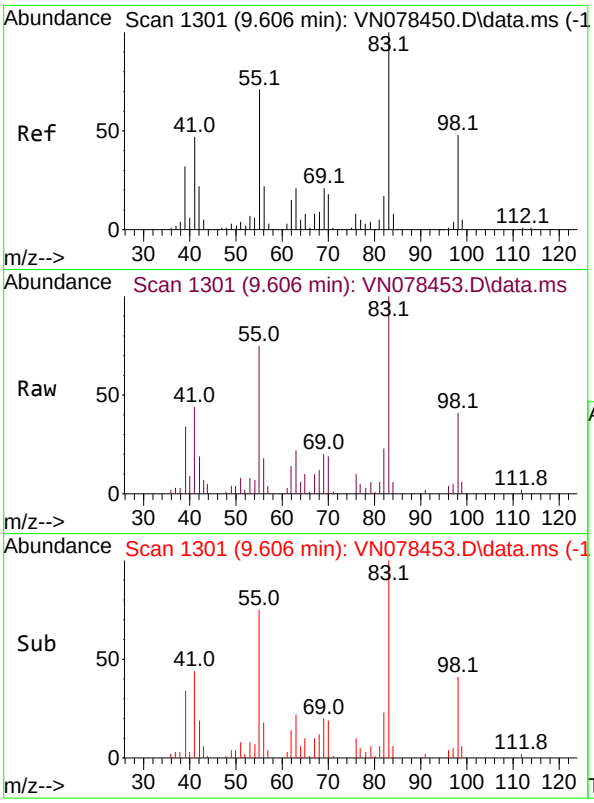


#38
Carbon Tetrachloride
Concen: 4.865 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:117 Resp: 44321

Ion	Ratio	Lower	Upper
117	100		
119	87.8	77.3	115.9
121	21.1	23.3	34.9#

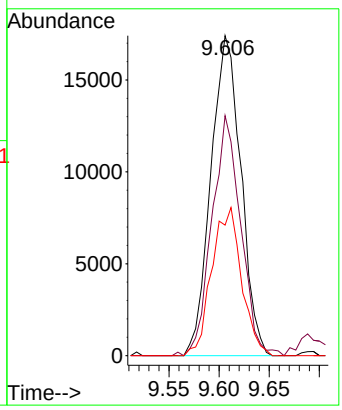




#39
Methylcyclohexane
Concen: 4.732 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 83 Resp: 3620

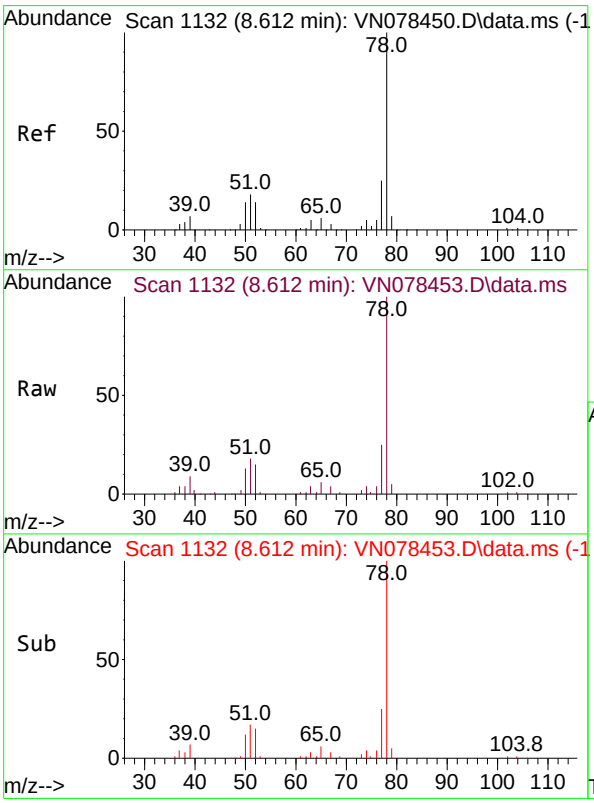
Ion	Ratio	Lower	Upper
83	100		
55	73.9	49.1	73.7
98	40.8	40.6	61.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

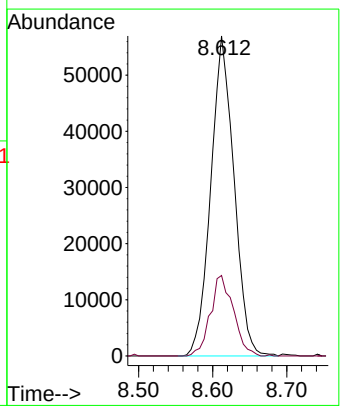
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

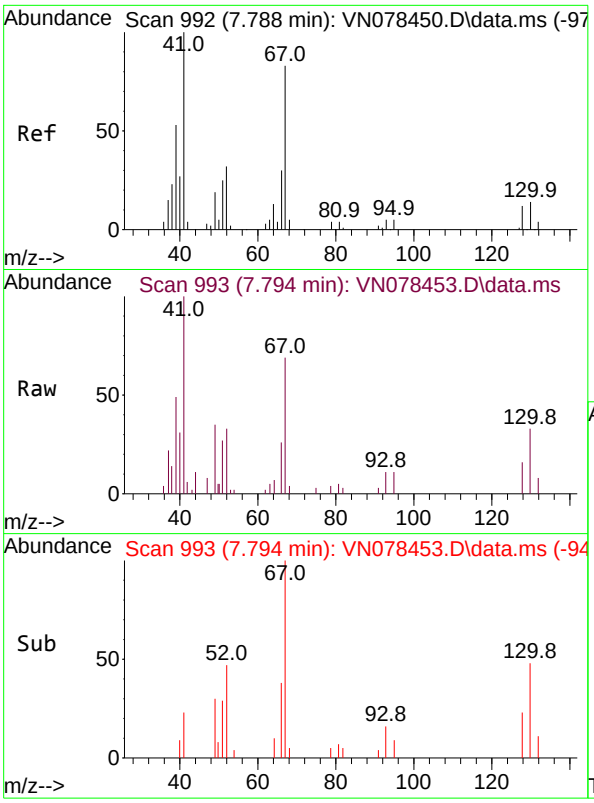


#40
Benzene
Concen: 4.993 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 78 Resp: 123988

Ion	Ratio	Lower	Upper
78	100		
77	25.1	19.0	28.6

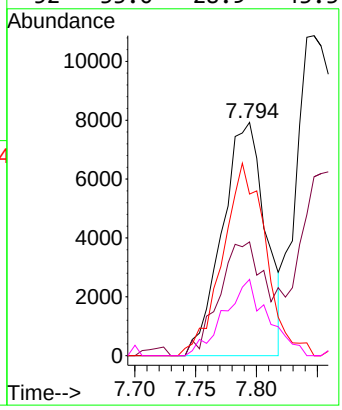




#41
Methacrylonitrile
Concen: 5.493 ug/l
RT: 7.794 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 41 Resp: 1956

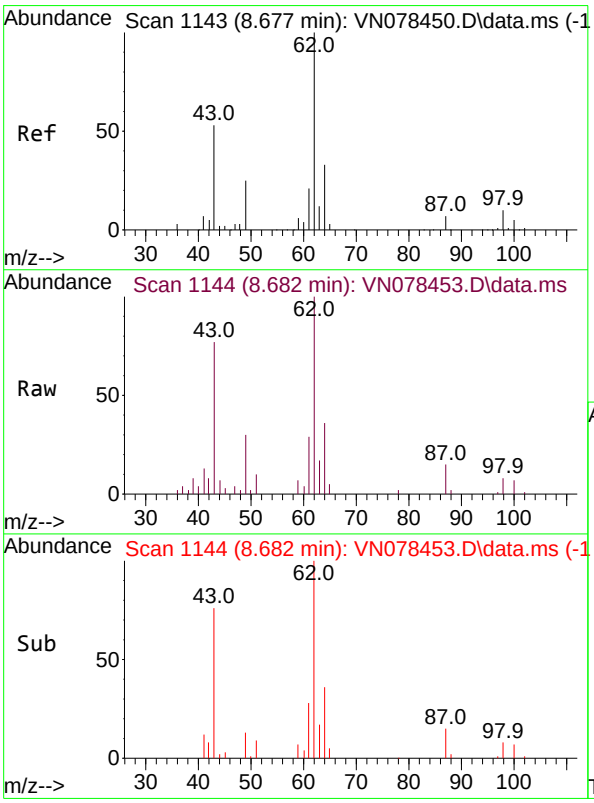
Ion	Ratio	Lower	Upper
41	100		
39	57.6	42.6	64.0
67	82.2	77.5	116.3
52	33.0	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

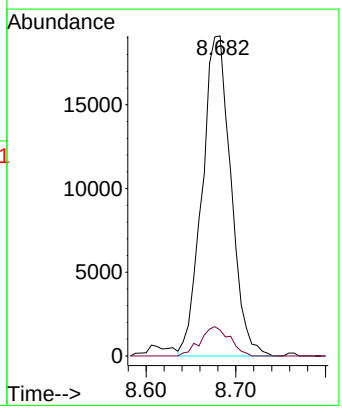
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

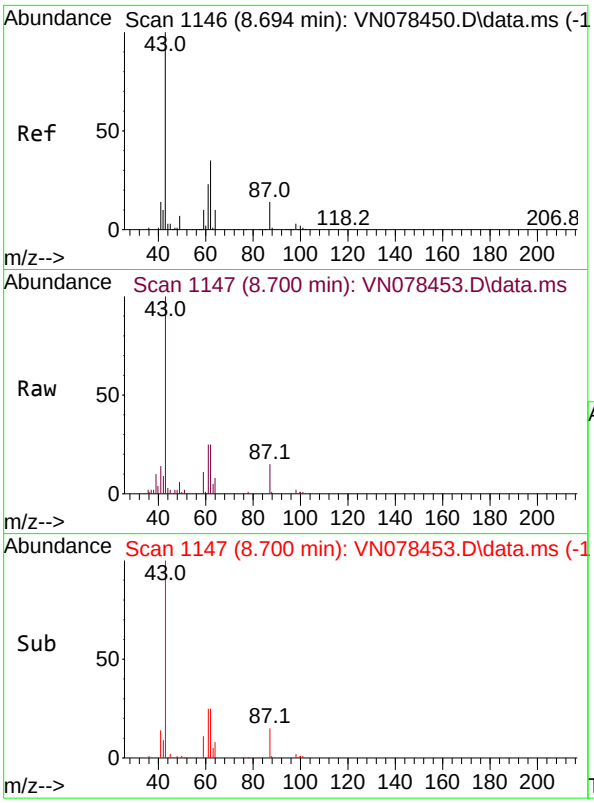


#42
1,2-Dichloroethane
Concen: 5.031 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. 0.005 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 62 Resp: 42498

Ion	Ratio	Lower	Upper
62	100		
98	9.4	0.0	19.8





#43
Isopropyl Acetate
Concen: 5.249 ug/l
RT: 8.700 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

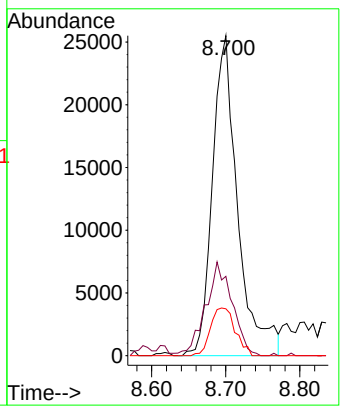
Tgt Ion: 43 Resp: 6038

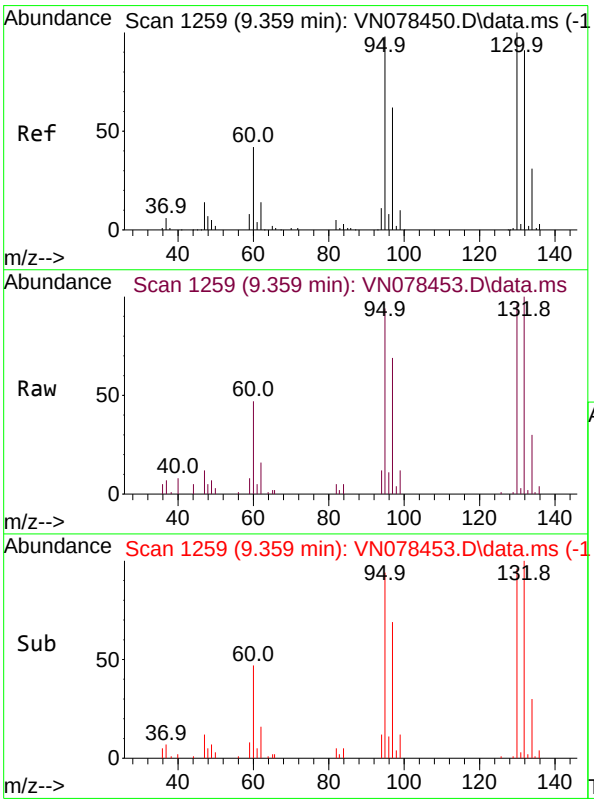
Ion	Ratio	Lower	Upper
43	100		
61	30.8	24.7	37.1
87	14.6	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

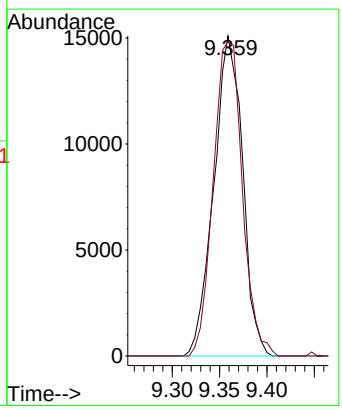


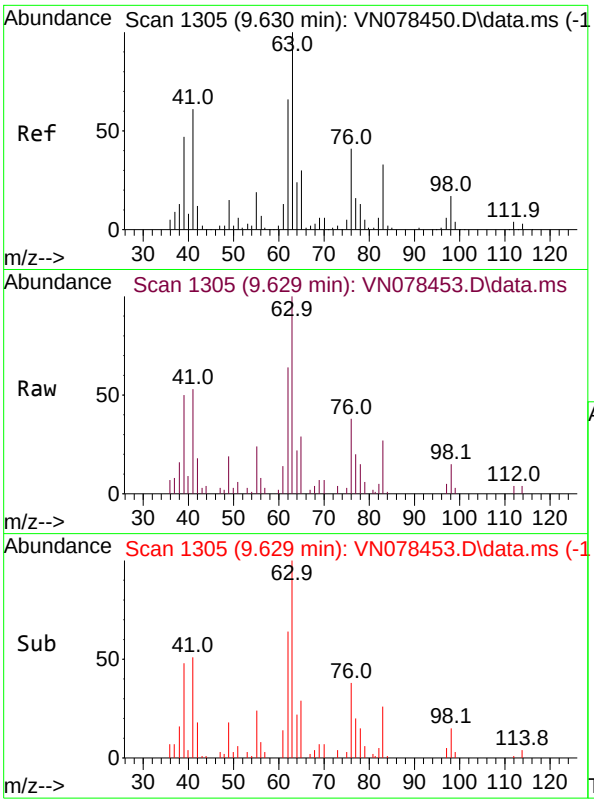


#44
Trichloroethene
Concen: 4.770 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:130 Resp: 31928

Ion	Ratio	Lower	Upper
130	100		
95	98.3	0.0	204.6

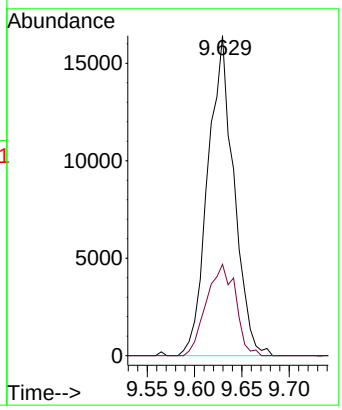




#45
1,2-Dichloropropane
Concen: 4.984 ug/l
RT: 9.629 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 63 Resp: 3134

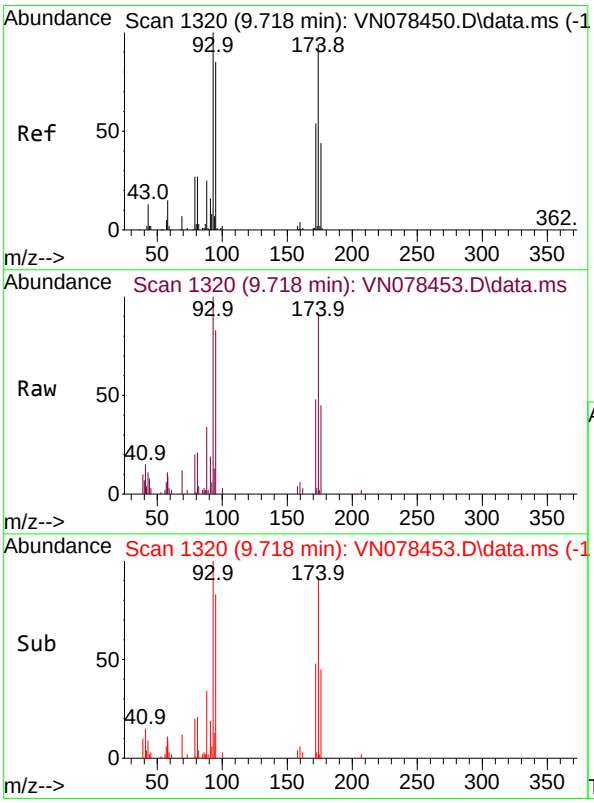
Ion	Ratio	Lower	Upper
63	100		
65	28.6	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

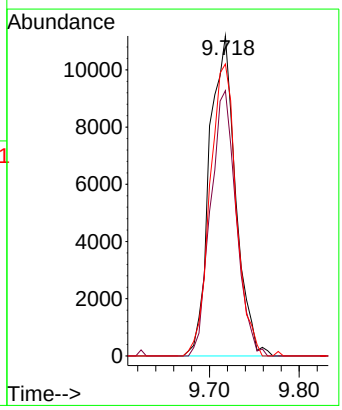
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

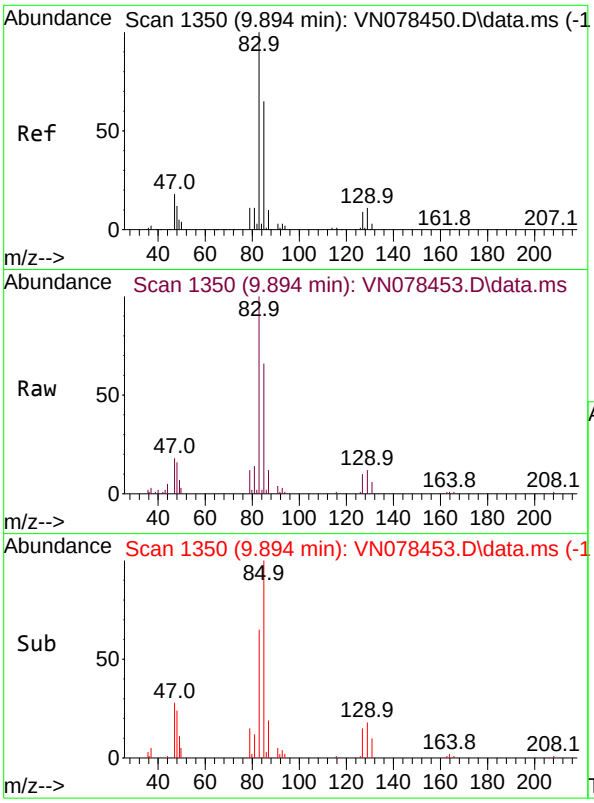


#46
Dibromomethane
Concen: 5.083 ug/l
RT: 9.718 min Scan# 1320
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 93 Resp: 22501

Ion	Ratio	Lower	Upper
93	100		
95	81.2	63.8	95.8
174	91.6	65.6	98.4

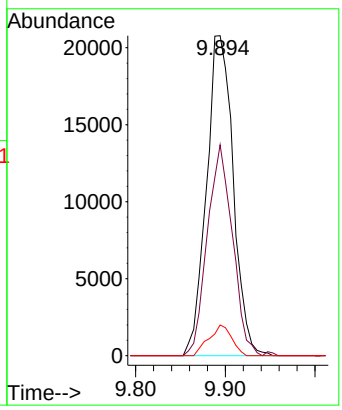




#47
Bromodichloromethane
Concen: 4.844 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 83 Resp: 4298

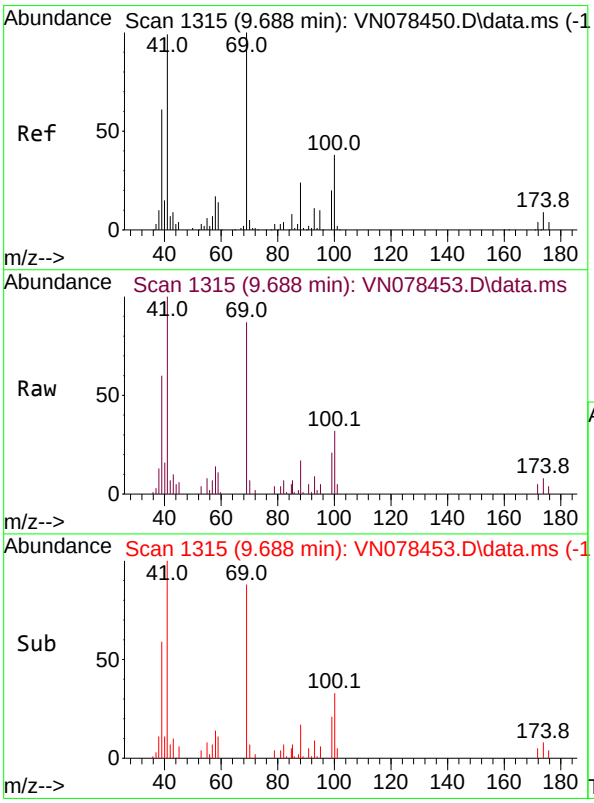
Ion	Ratio	Lower	Upper
83	100		
85	65.9	49.6	74.4
127	9.6	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

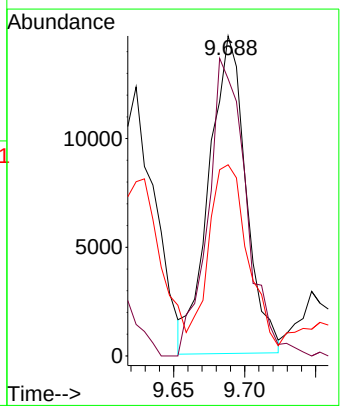
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

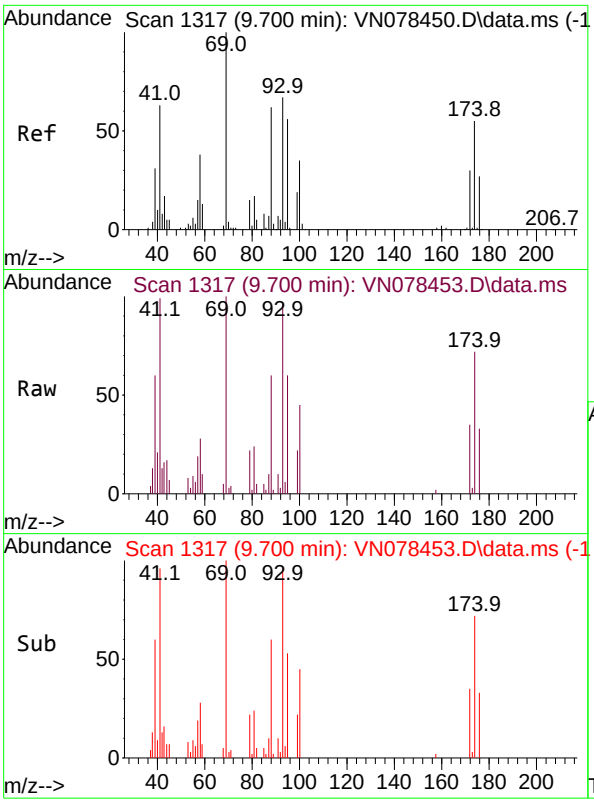


#48
Methyl methacrylate
Concen: 4.961 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 41 Resp: 26441

Ion	Ratio	Lower	Upper
41	100		
69	97.1	90.4	135.6
39	64.4	54.6	81.8

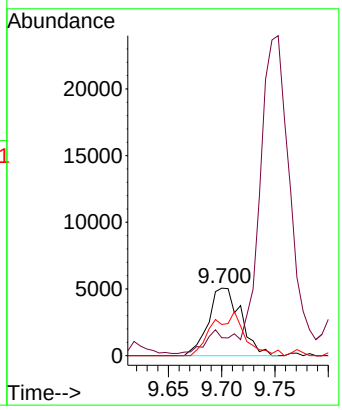




#49
1,4-Dioxane
Concen: 92.648 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 88 Resp: 1076

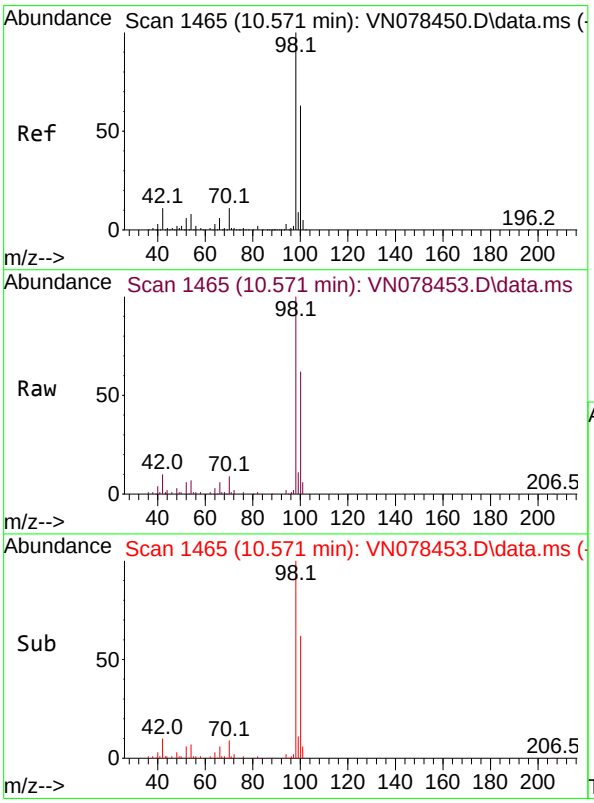
Ion	Ratio	Lower	Upper
88	100		
43	21.5	17.0	25.6
58	64.4	47.0	70.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

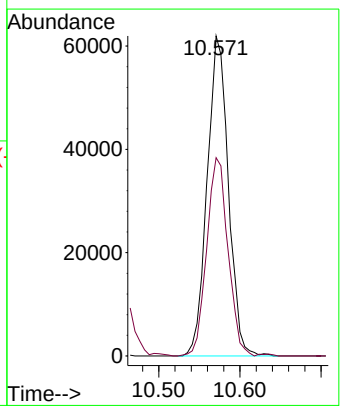
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

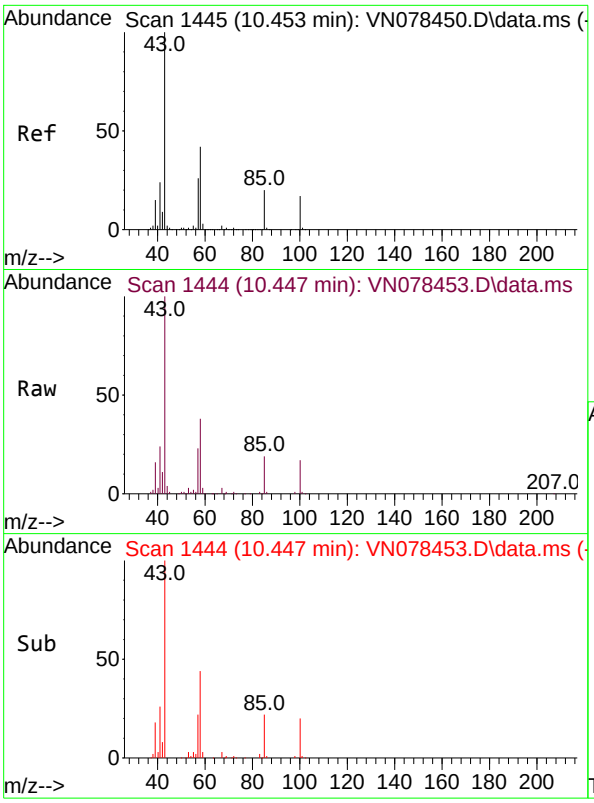


#50
Toluene-d8
Concen: 5.120 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 98 Resp: 112288

Ion	Ratio	Lower	Upper
98	100		
100	62.1	52.0	78.0

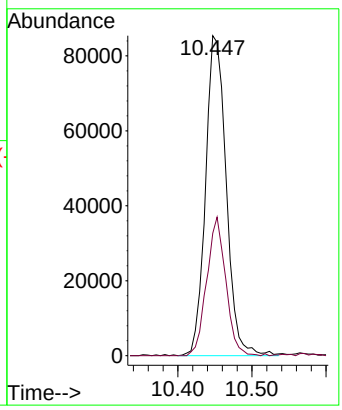




#51
4-Methyl-2-Pentanone
Concen: 24.240 ug/l
RT: 10.447 min Scan# 14
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 43 Resp: 16587

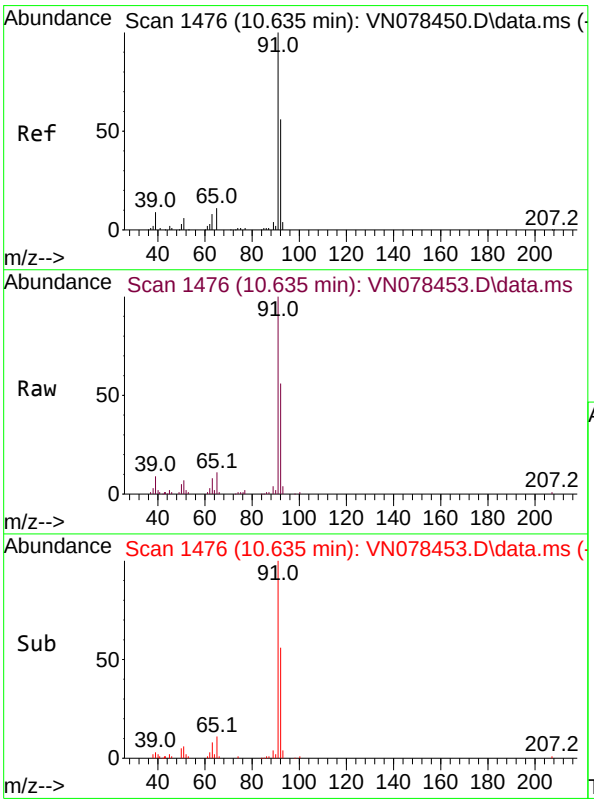
Ion	Ratio	Lower	Upper
43	100		
58	39.8	36.6	54.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

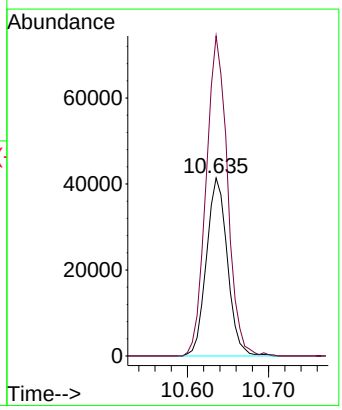
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

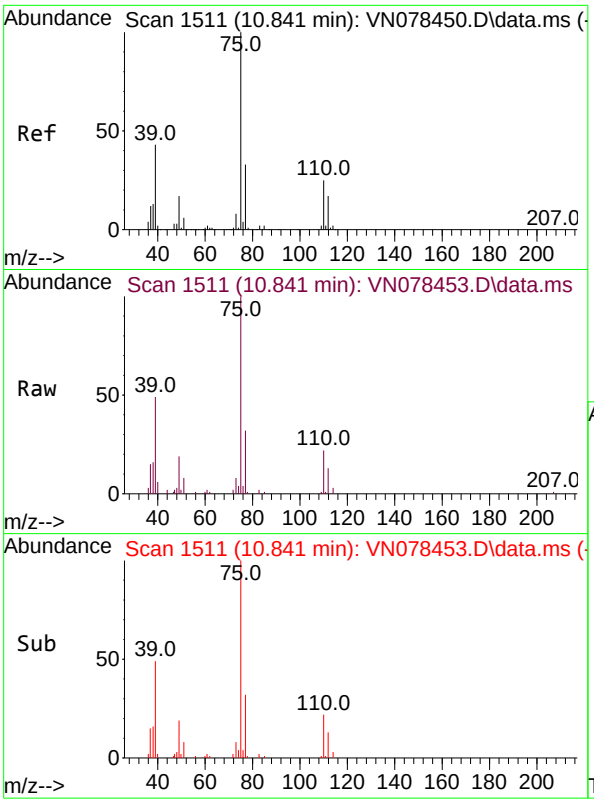


#52
Toluene
Concen: 4.828 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 92 Resp: 74304

Ion	Ratio	Lower	Upper
92	100		
91	183.2	137.4	206.0

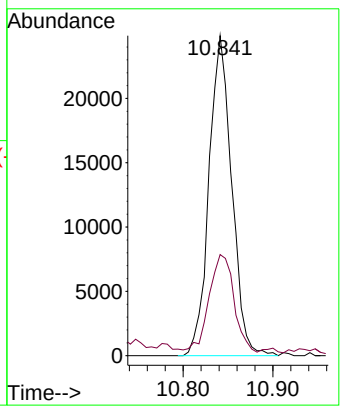




#53
t-1,3-Dichloropropene
Concen: 4.824 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 75 Resp: 4385

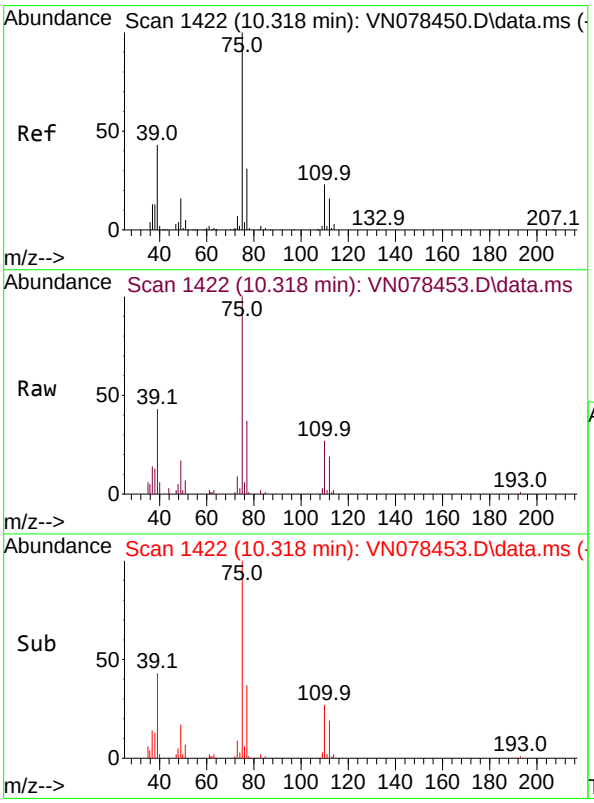
Ion	Ratio	Lower	Upper
75	100		
77	30.4	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

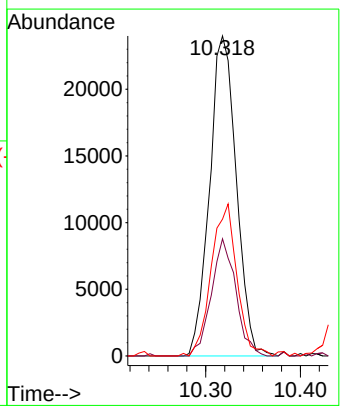
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

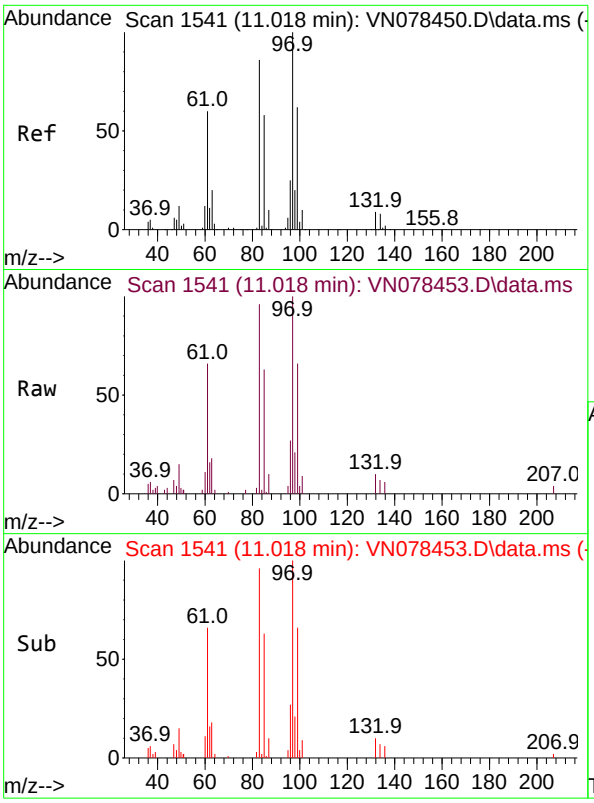


#54
cis-1,3-Dichloropropene
Concen: 4.858 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 75 Resp: 47081

Ion	Ratio	Lower	Upper
75	100		
77	36.6	26.1	39.1
39	42.8	31.6	47.4

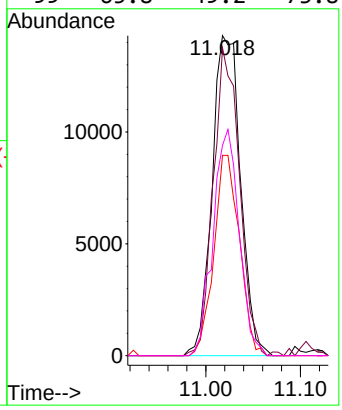




#55
1,1,2-Trichloroethane
Concen: 4.911 ug/l
RT: 11.018 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 97 Resp: 2978

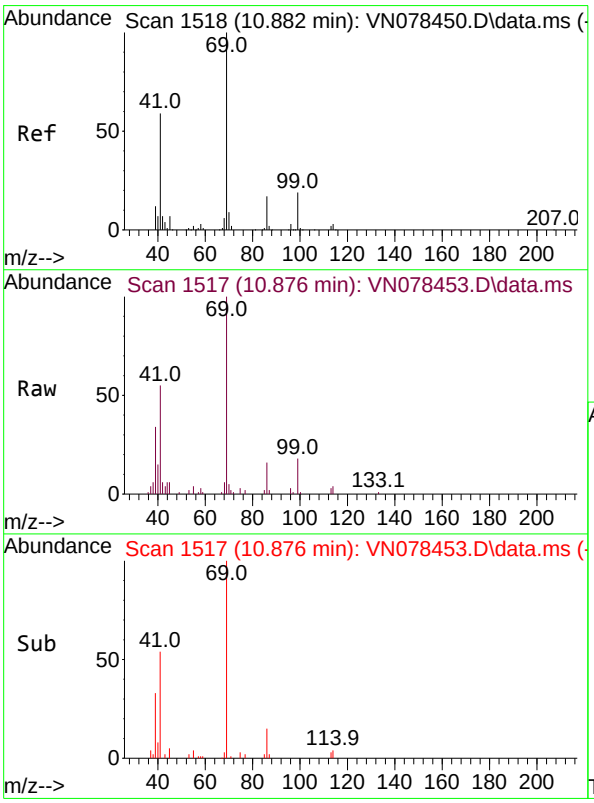
Ion	Ratio	Lower	Upper
97	100		
83	96.2	65.1	97.7
85	62.6	43.4	65.2
99	65.8	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

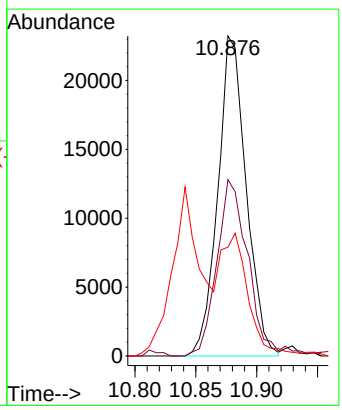
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

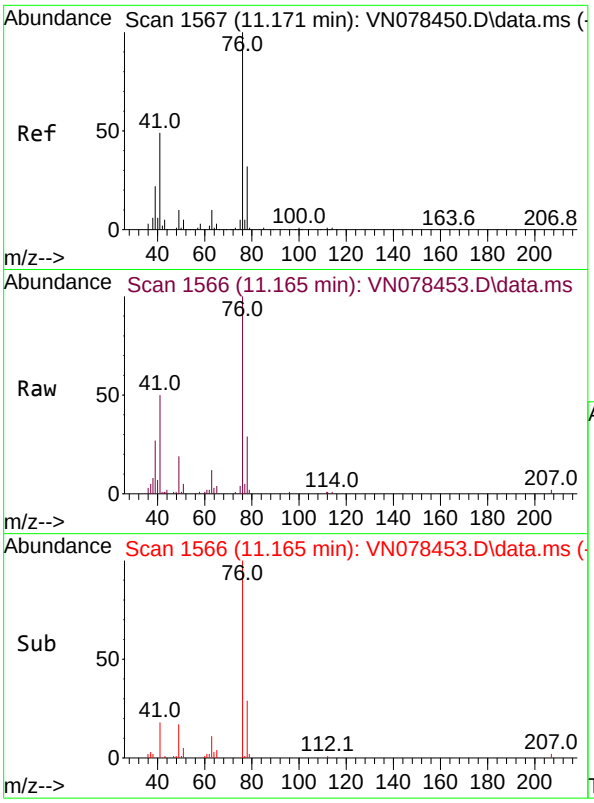


#56
Ethyl methacrylate
Concen: 4.445 ug/l
RT: 10.876 min Scan# 1517
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 69 Resp: 37681

Ion	Ratio	Lower	Upper
69	100		
41	61.1	39.6	59.4#
39	35.6	28.6	43.0

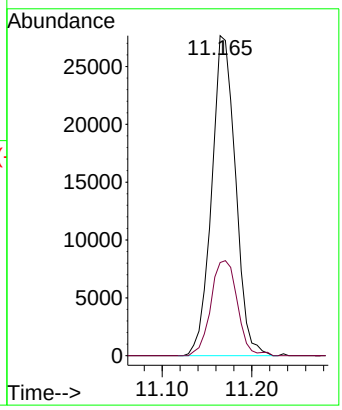




#57
1,3-Dichloropropane
Concen: 4.939 ug/l
RT: 11.165 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 76 Resp: 5092

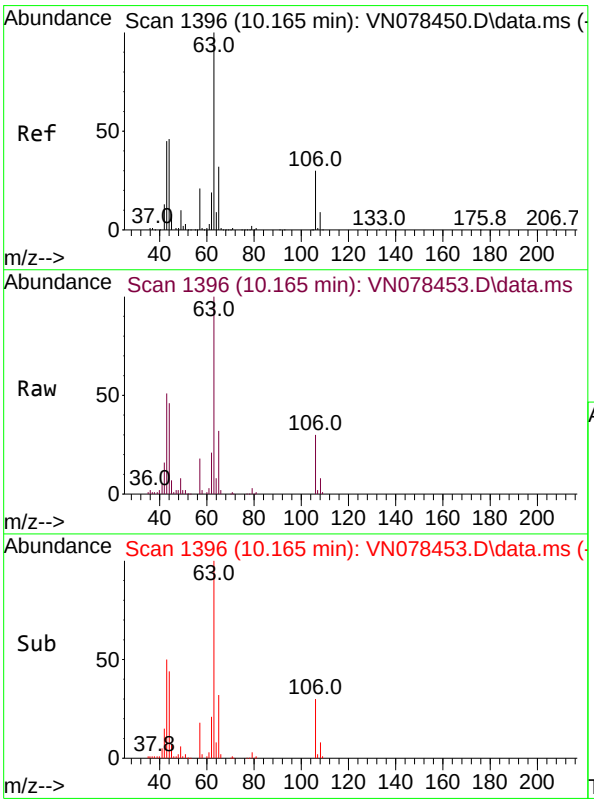
Ion	Ratio	Lower	Upper
76	100		
78	33.0	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

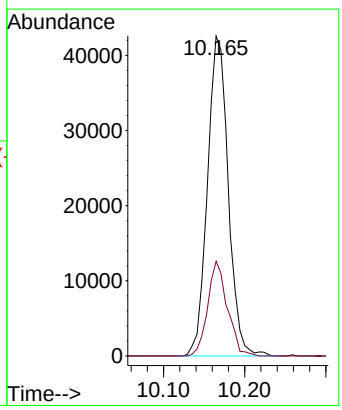
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

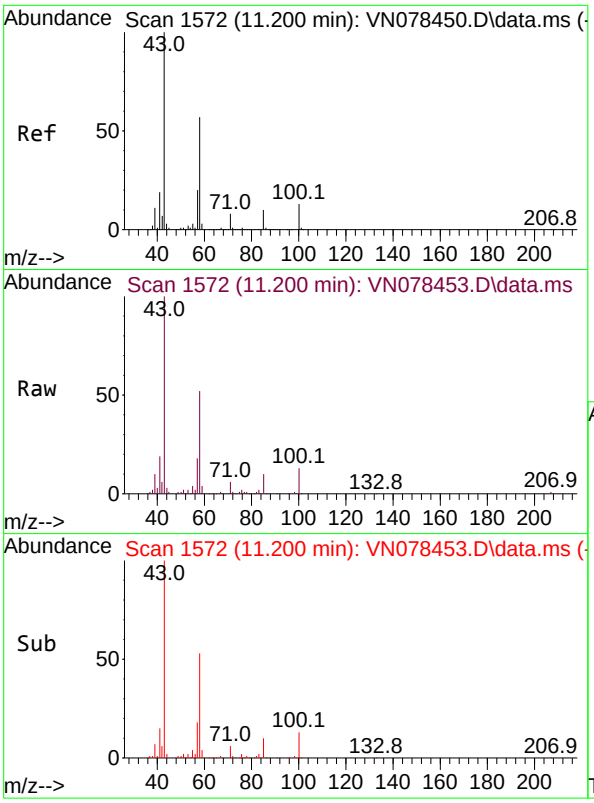


#58
2-Chloroethyl Vinyl ether
Concen: 25.039 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 63 Resp: 75642

Ion	Ratio	Lower	Upper
63	100		
106	28.0	26.2	39.4

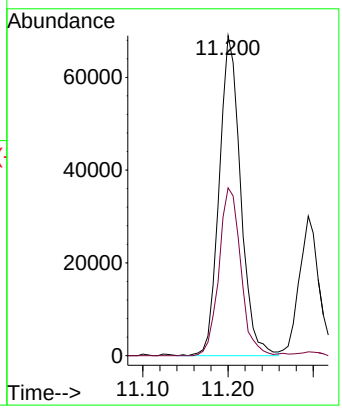




#59
2-Hexanone
Concen: 24.785 ug/l
RT: 11.200 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 43 Resp: 12053

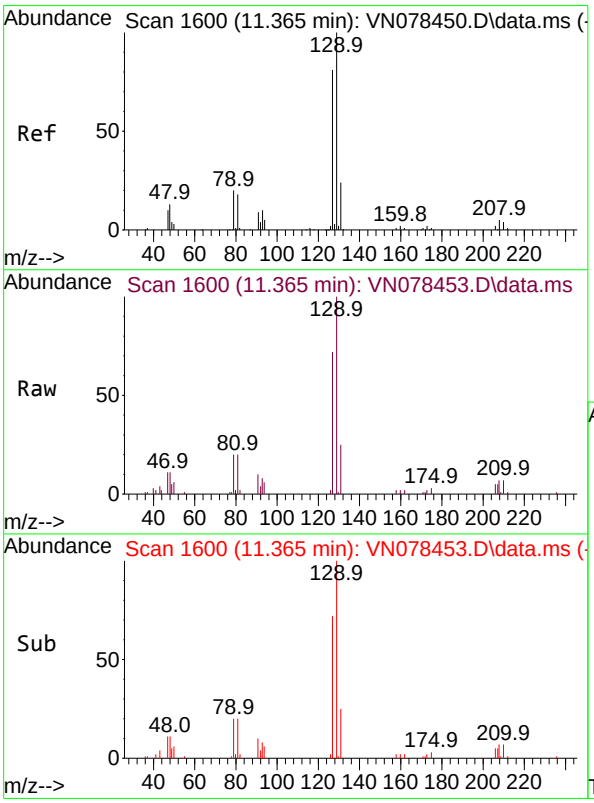
Ion	Ratio	Lower	Upper
43	100		
58	53.3	31.7	95.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

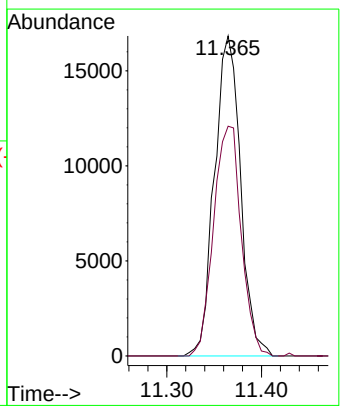
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

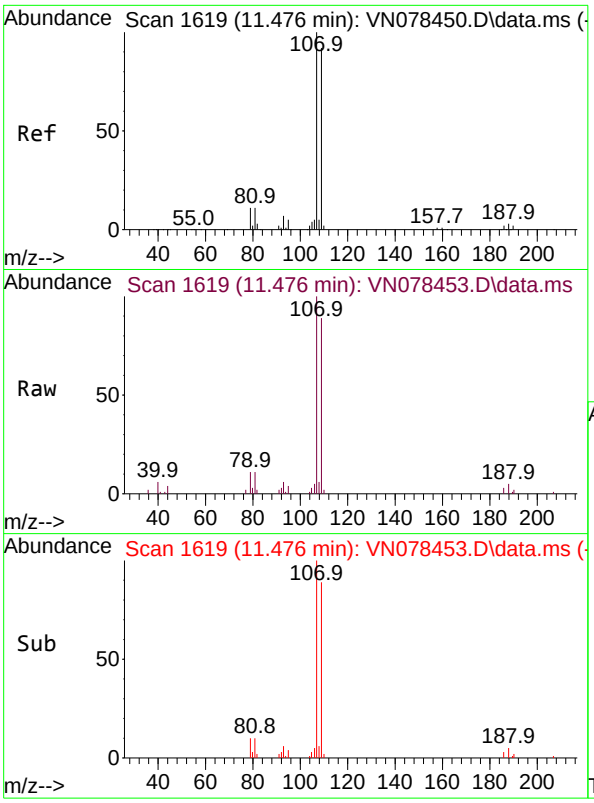


#60
Dibromochloromethane
Concen: 4.817 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:129 Resp: 32246

Ion	Ratio	Lower	Upper
129	100		
127	76.1	38.6	116.0





#61
1,2-Dibromoethane
Concen: 5.040 ug/l
RT: 11.476 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

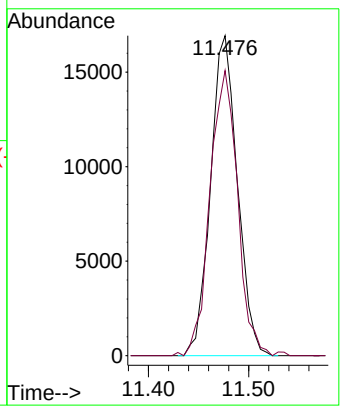
Tgt Ion:107 Resp: 3148

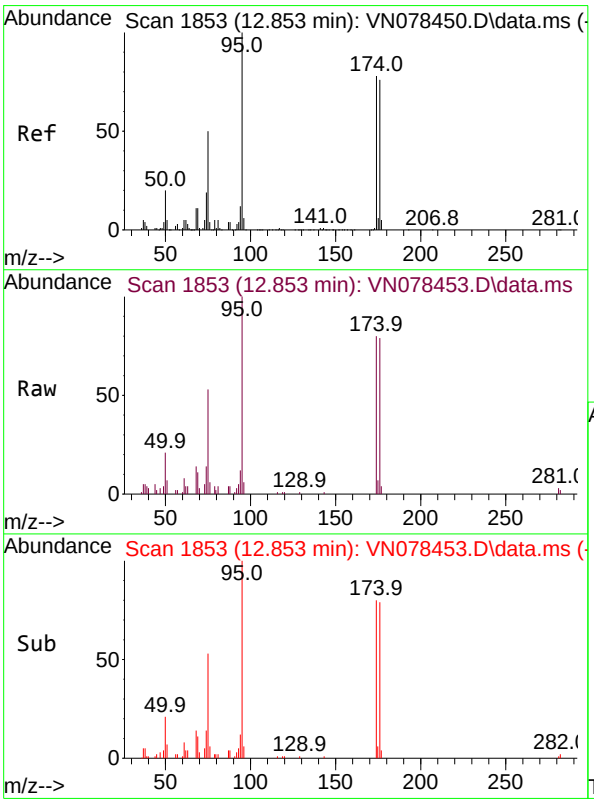
Ion	Ratio	Lower	Upper
107	100		
109	91.4	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

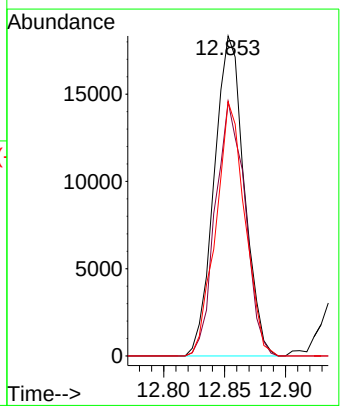


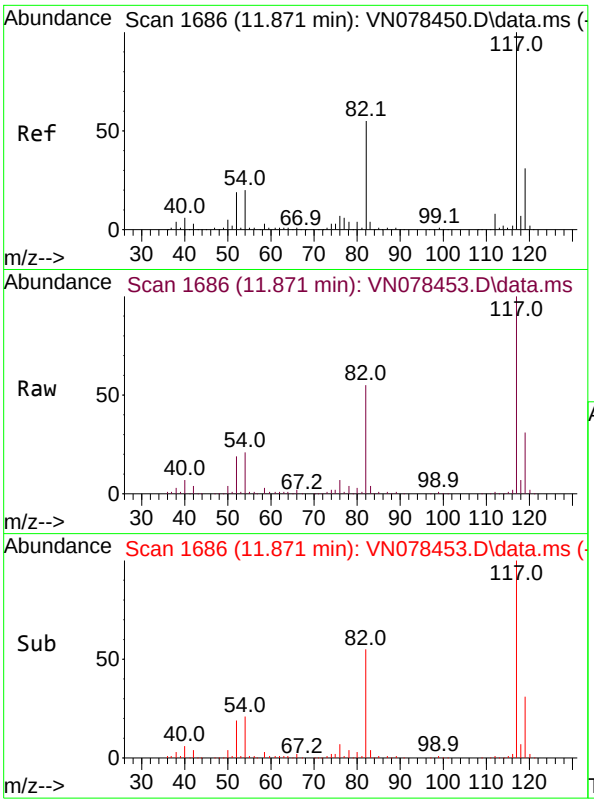


#62
4-Bromofluorobenzene
Concen: 4.654 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 95 Resp: 31442

Ion	Ratio	Lower	Upper
95	100		
174	78.3	0.0	143.8
176	76.6	0.0	135.8

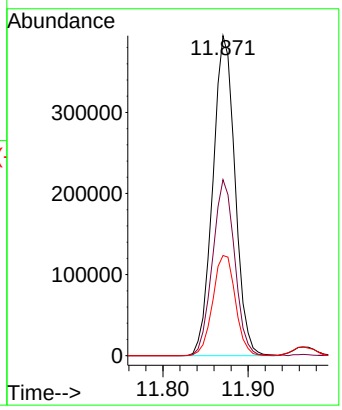




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:117 Resp: 71614

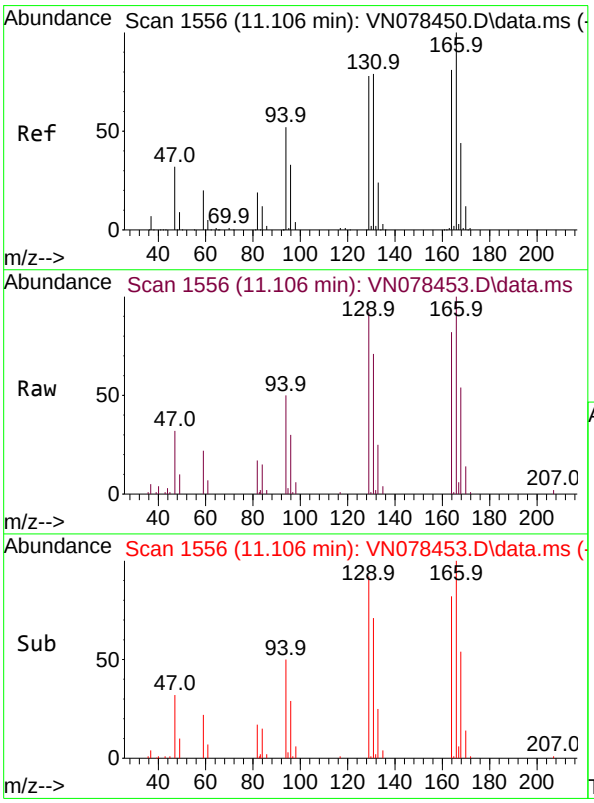
Ion	Ratio	Lower	Upper
117	100		
82	55.0	44.0	66.0
119	31.3	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

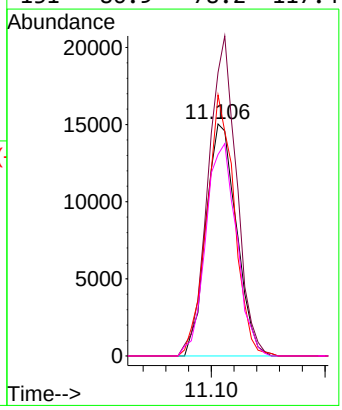
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

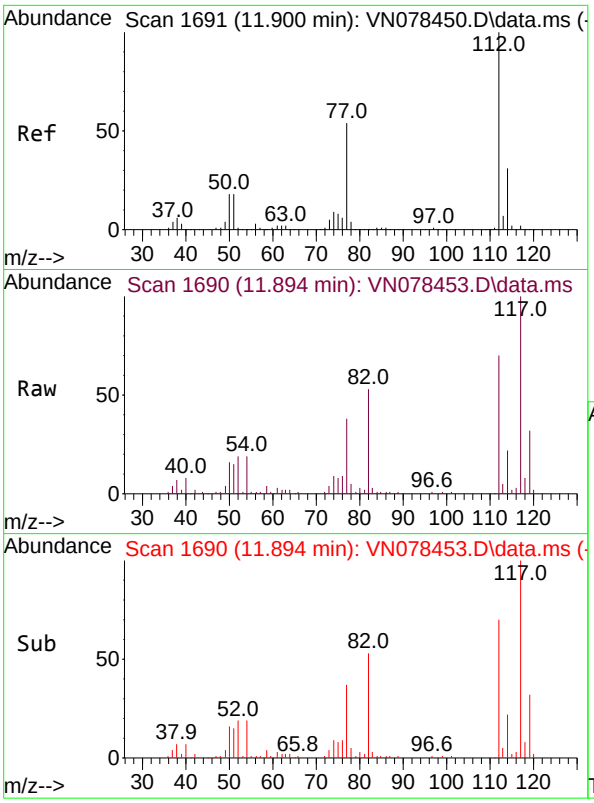


#64
Tetrachloroethene
Concen: 5.200 ug/l
RT: 11.106 min Scan# 1556
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:164 Resp: 27995

Ion	Ratio	Lower	Upper
164	100		
166	122.3	101.4	152.0
129	112.5	82.4	123.6
131	86.9	78.2	117.4

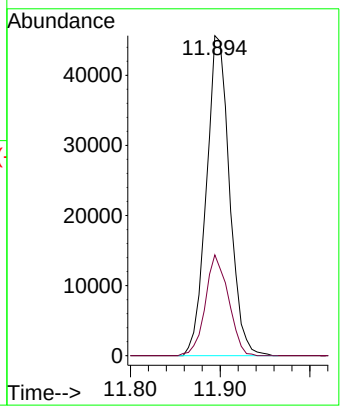




#65
Chlorobenzene
Concen: 5.094 ug/l
RT: 11.894 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:112 Resp: 8153

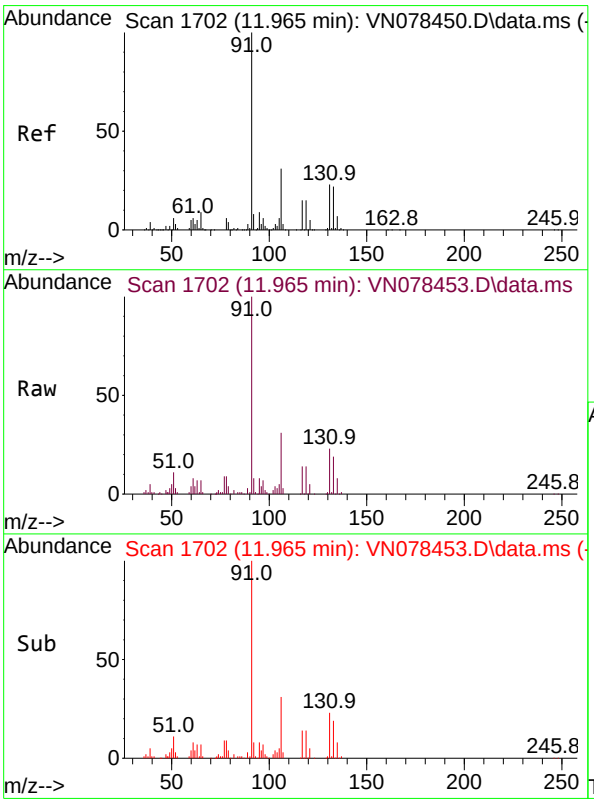
Ion	Ratio	Lower	Upper
112	100		
114	31.5	25.0	37.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

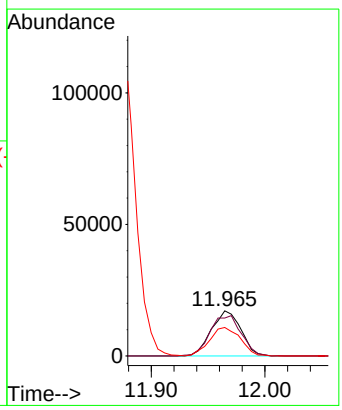
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

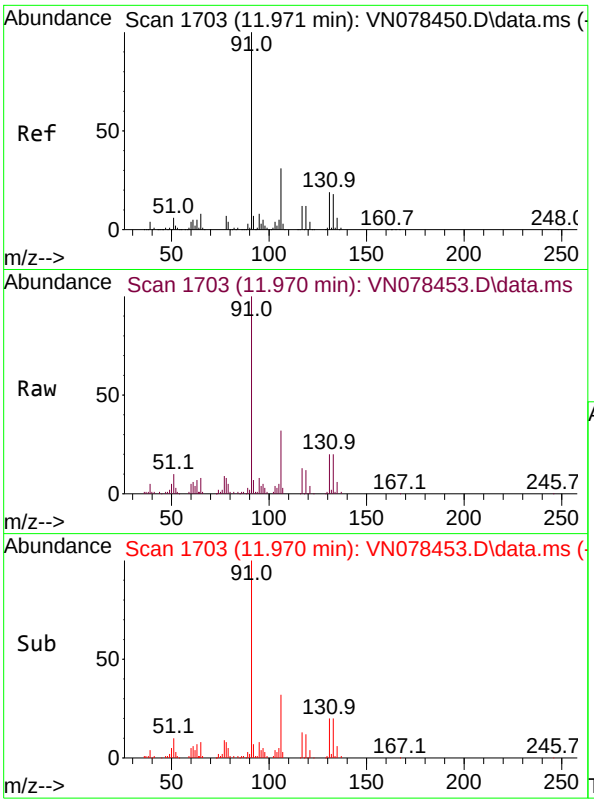


#66
1,1,1,2-Tetrachloroethane
Concen: 5.027 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:131 Resp: 30954

Ion	Ratio	Lower	Upper
131	100		
133	95.3	46.4	139.1
119	66.1	34.1	102.2

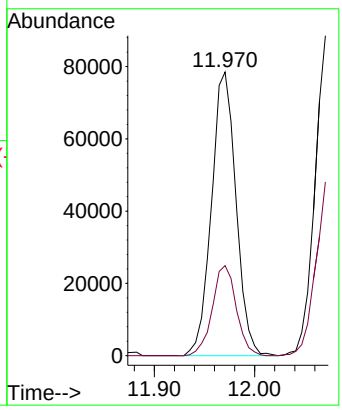




#67
Ethyl Benzene
Concen: 4.923 ug/l
RT: 11.970 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 91 Resp: 13321

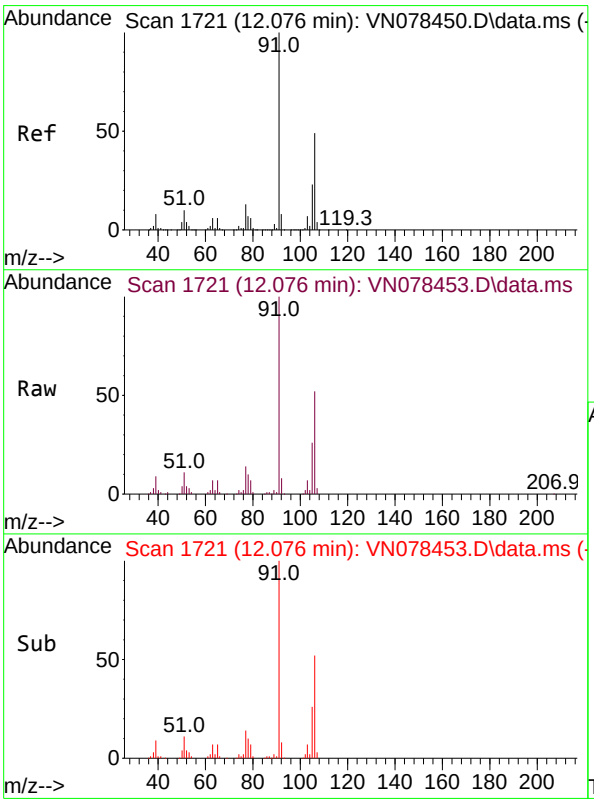
Ion	Ratio	Lower	Upper
91	100		
106	31.7	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

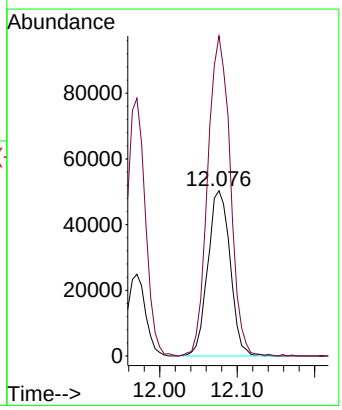
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

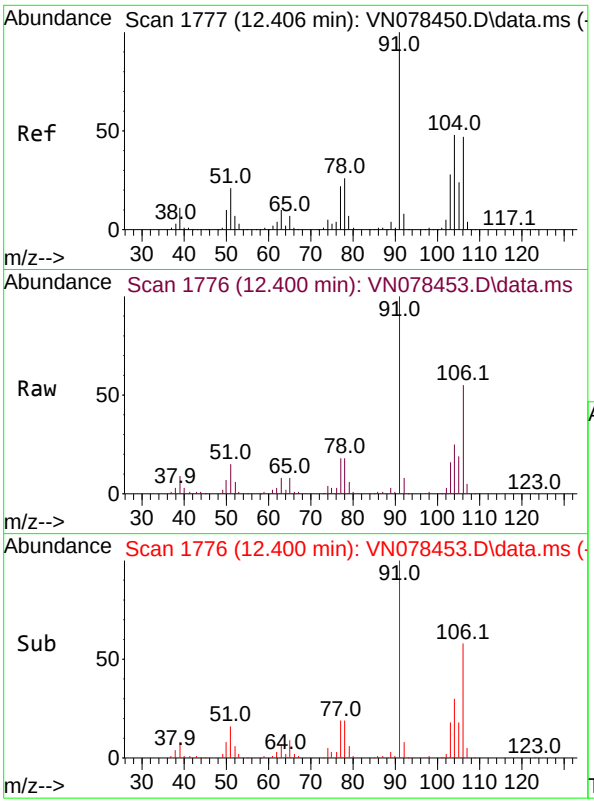


#68
m/p-Xylenes
Concen: 10.078 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:106 Resp: 100821

Ion	Ratio	Lower	Upper
106	100		
91	195.3	159.6	239.4

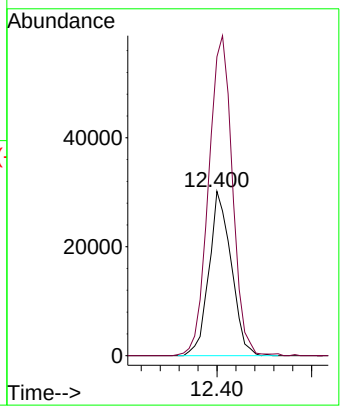




#69
o-Xylene
Concen: 4.860 ug/l
RT: 12.400 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:106 Resp: 4910

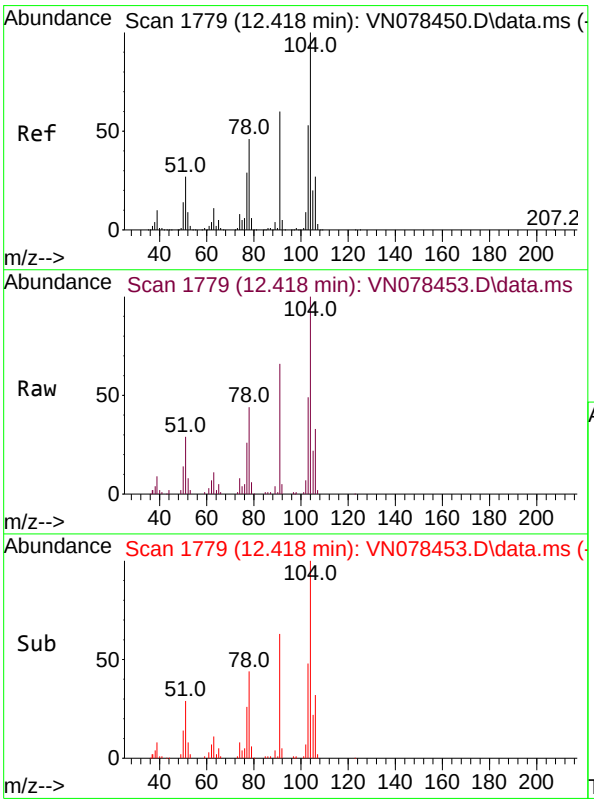
Ion	Ratio	Lower	Upper
106	100		
91	208.8	105.2	315.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

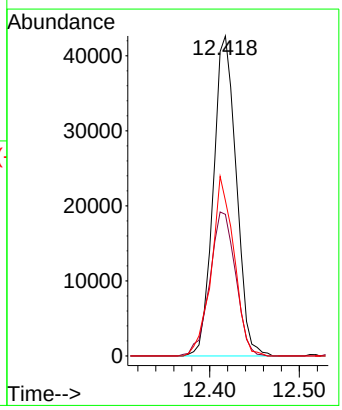
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

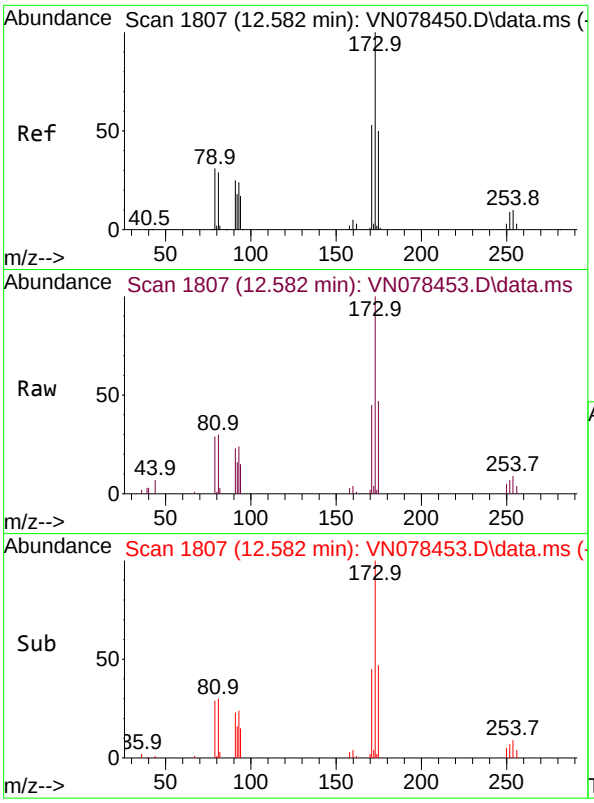


#70
Styrene
Concen: 4.786 ug/l
RT: 12.418 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:104 Resp: 75656

Ion	Ratio	Lower	Upper
104	100		
78	50.5	39.5	59.3
103	55.2	43.2	64.8

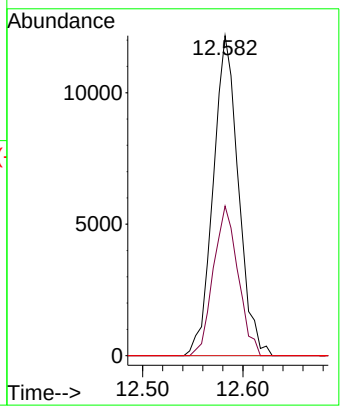




#71
Bromoform
Concen: 5.103 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:173 Resp: 2128

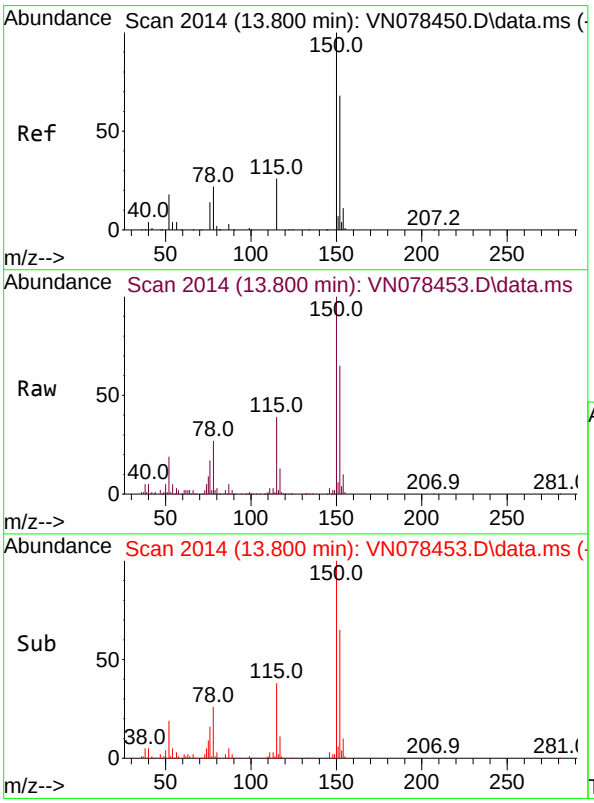
Ion	Ratio	Lower	Upper
173	100		
175	45.8	24.3	73.0
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

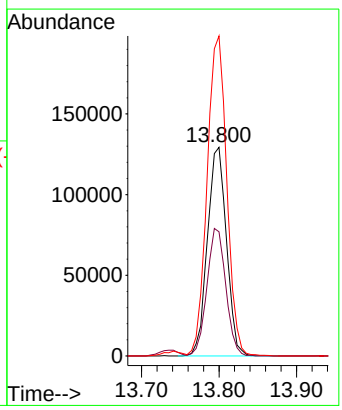
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

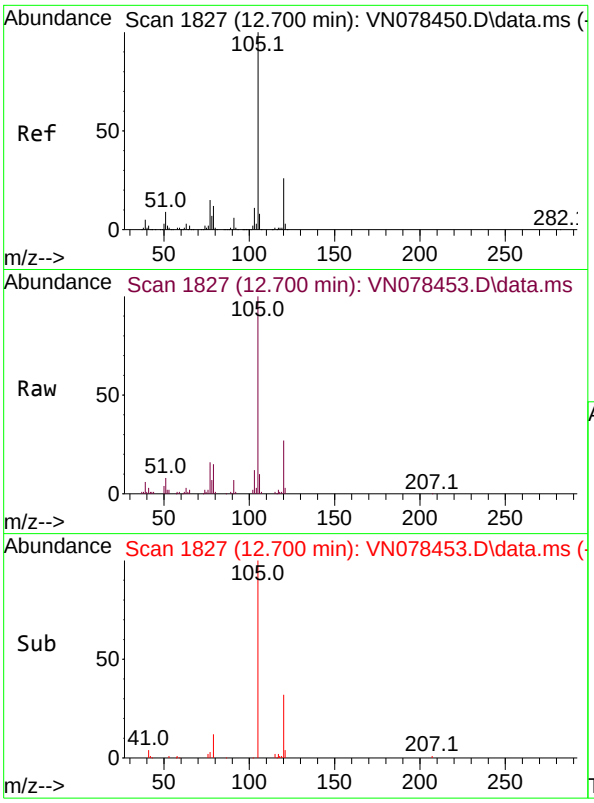


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:152 Resp: 221100

Ion	Ratio	Lower	Upper
152	100		
115	60.5	32.3	96.8
150	158.3	0.0	355.8

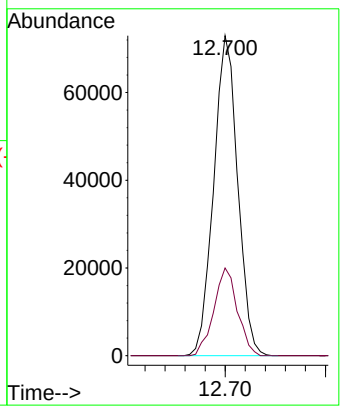




#73
Isopropylbenzene
Concen: 5.832 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:105 Resp: 12115

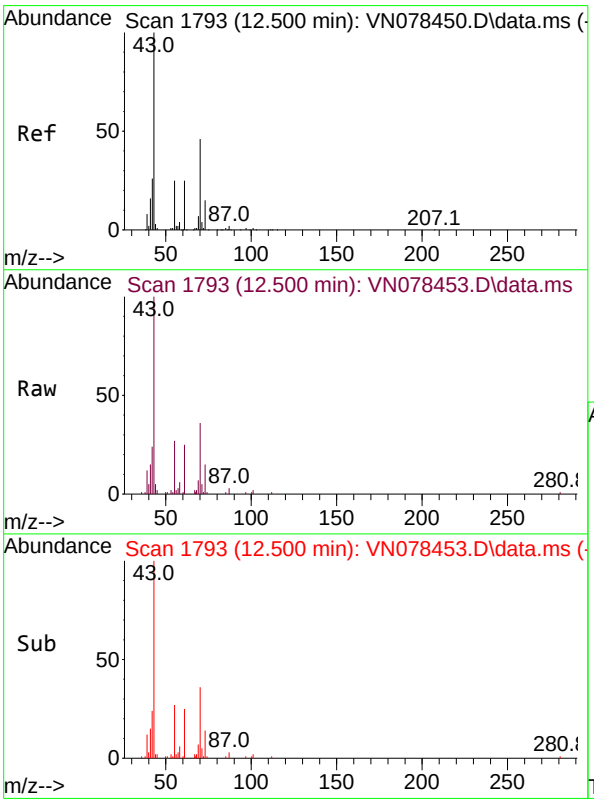
Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

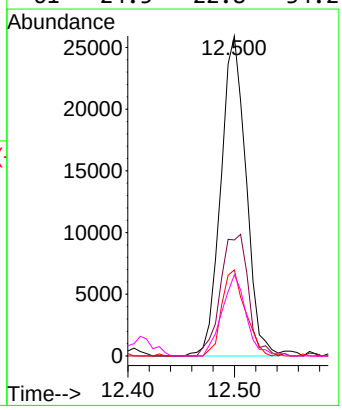
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

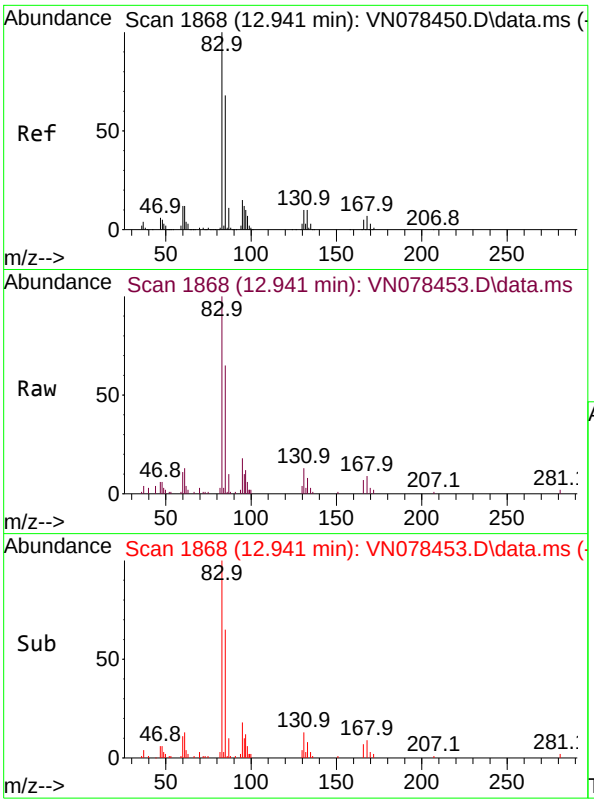


#74
N-amyl acetate
Concen: 5.927 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 43 Resp: 42438

Ion	Ratio	Lower	Upper
43	100		
70	42.1	43.4	65.2#
55	25.3	21.4	32.0
61	24.5	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 4.237 ug/l
RT: 12.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

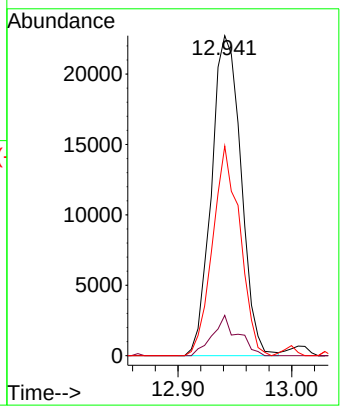
Tgt Ion: 83 Resp: 4103

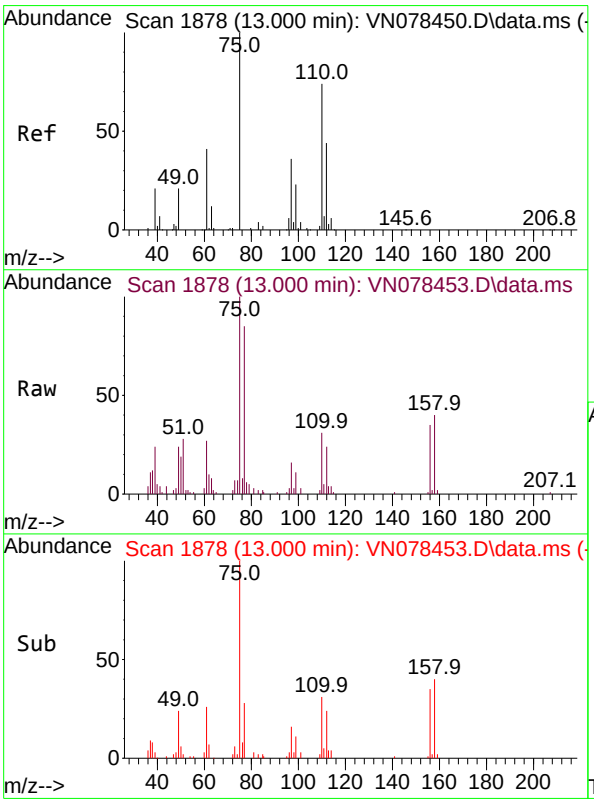
Ion	Ratio	Lower	Upper
83	100		
131	10.8	5.0	15.0
85	60.7	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

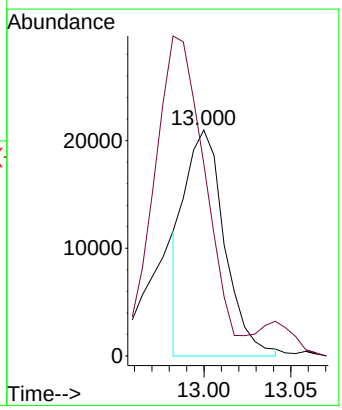


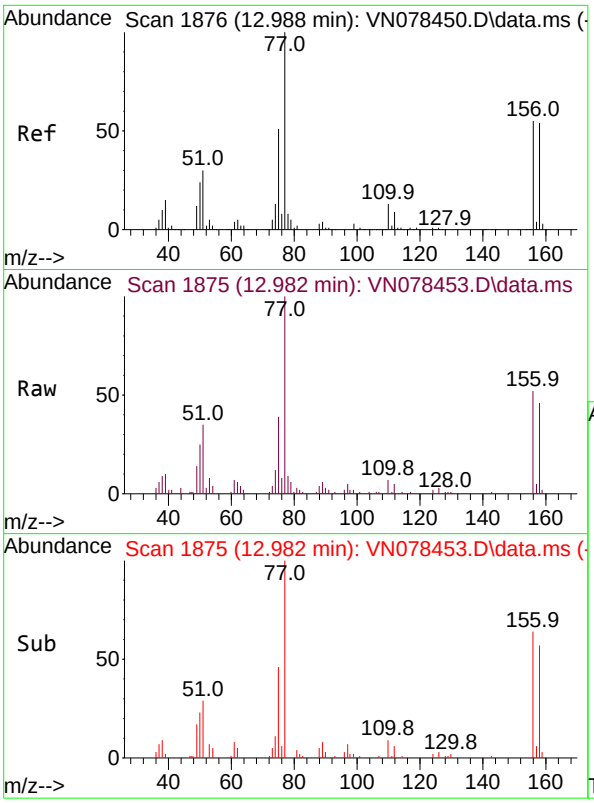


#76
1,2,3-Trichloropropane
Concen: 6.284 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 75 Resp: 33547

Ion	Ratio	Lower	Upper
75	100		
77	181.7	84.5	253.5

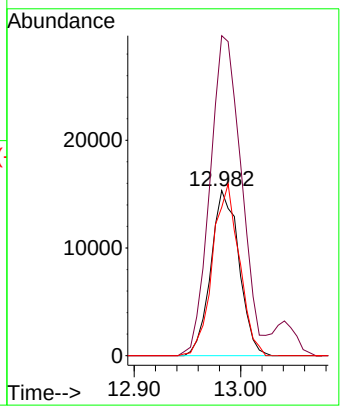




#77
Bromobenzene
Concen: 4.828 ug/l
RT: 12.982 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:156 Resp: 2811

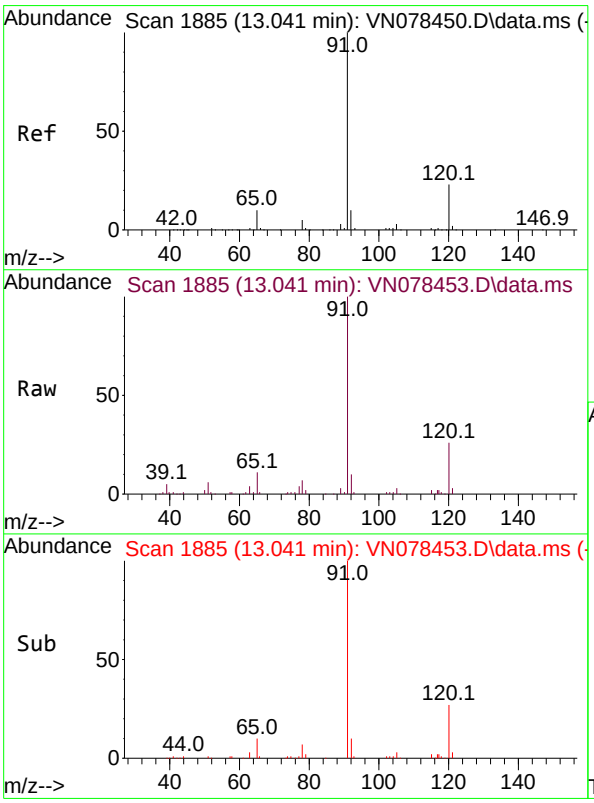
Ion	Ratio	Lower	Upper
156	100		
77	216.8	107.7	323.3
158	99.3	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

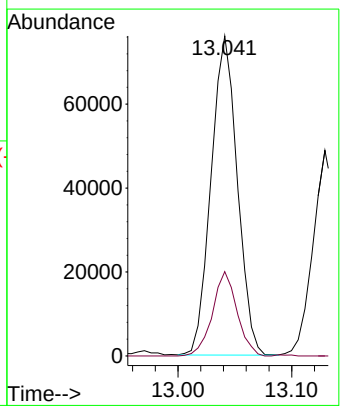
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

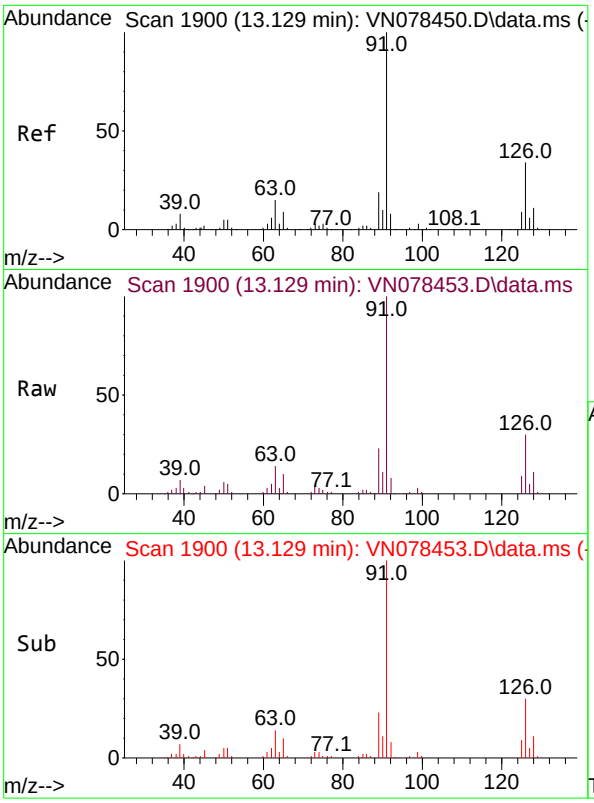


#78
n-propylbenzene
Concen: 5.500 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 91 Resp: 122199

Ion	Ratio	Lower	Upper
91	100		
120	24.7	11.5	34.4

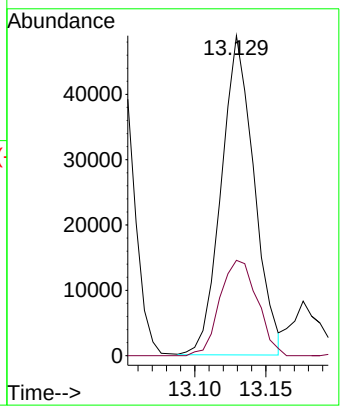




#79
2-Chlorotoluene
Concen: 5.389 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 91 Resp: 7843

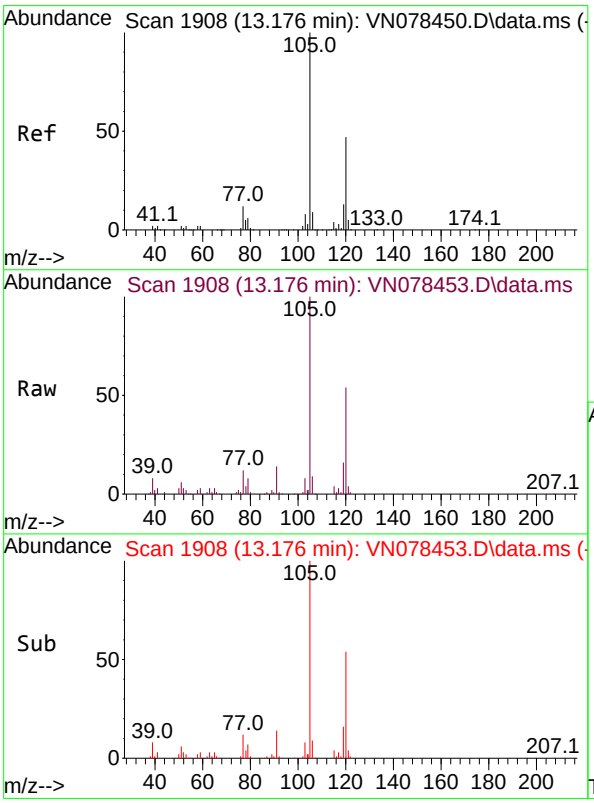
Ion	Ratio	Lower	Upper
91	100		
126	34.1	16.3	48.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

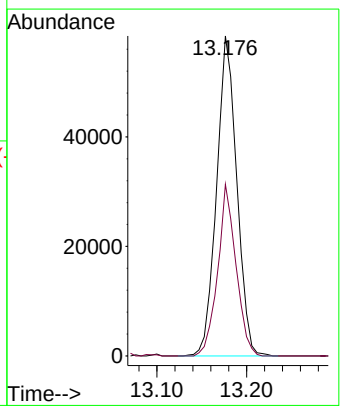
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

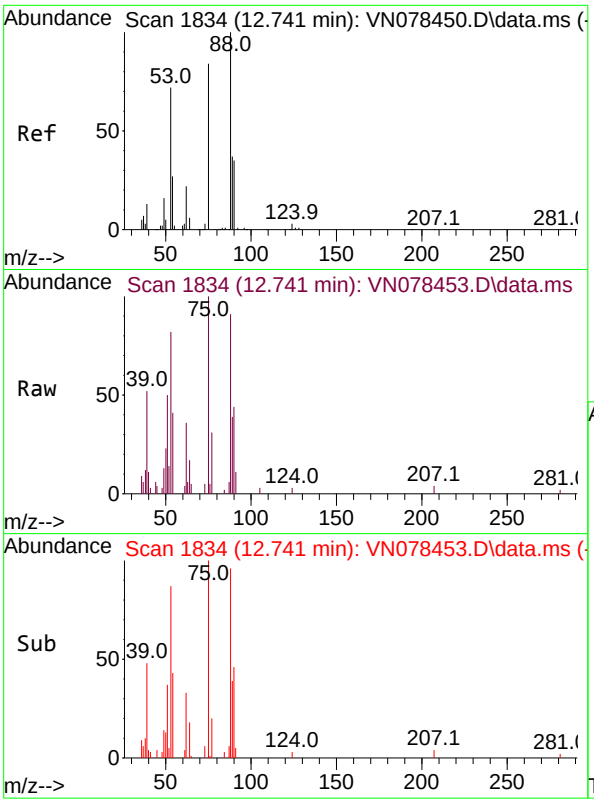


#80
1,3,5-Trimethylbenzene
Concen: 5.555 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:105 Resp: 91188

Ion	Ratio	Lower	Upper
105	100		
120	48.6	24.1	72.3

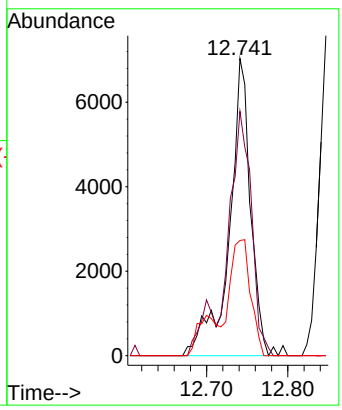




#81
trans-1,4-Dichloro-2-butene
Concen: 6.287 ug/l
RT: 12.741 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 75 Resp: 1278

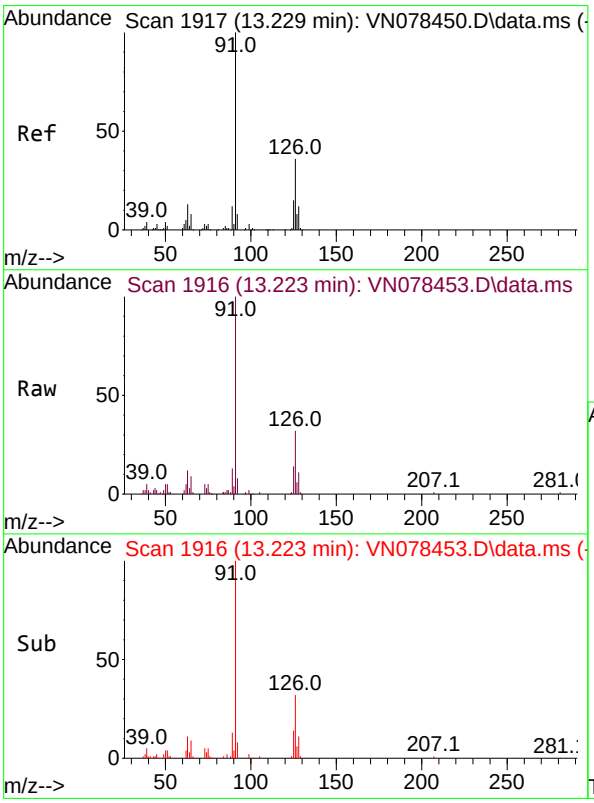
Ion	Ratio	Lower	Upper
75	100		
53	82.0	67.4	101.2
89	37.7	38.8	58.2#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

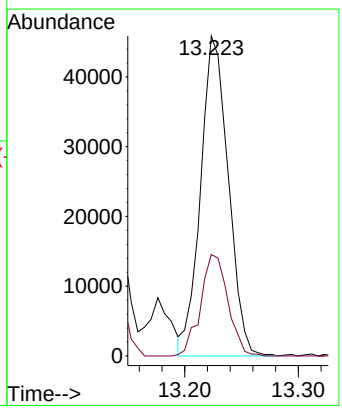
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

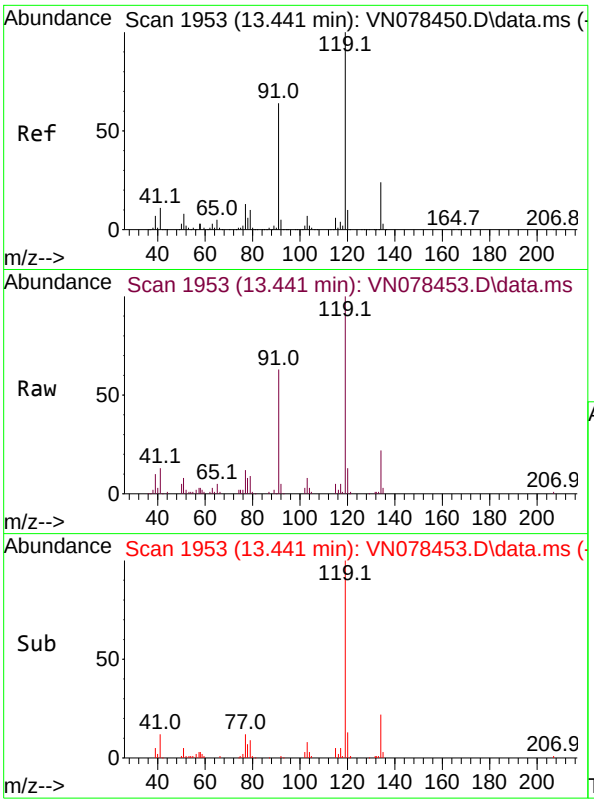


#82
4-Chlorotoluene
Concen: 5.729 ug/l
RT: 13.223 min Scan# 1916
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 91 Resp: 77772

Ion	Ratio	Lower	Upper
91	100		
126	31.3	16.7	50.0

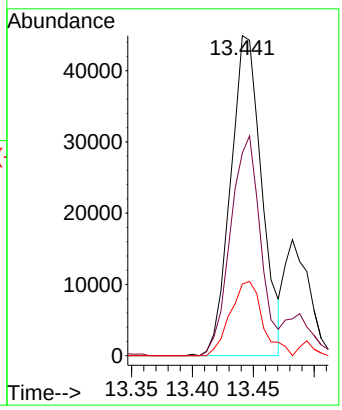




#83
tert-Butylbenzene
Concen: 5.743 ug/l
RT: 13.441 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:119 Resp: 8003

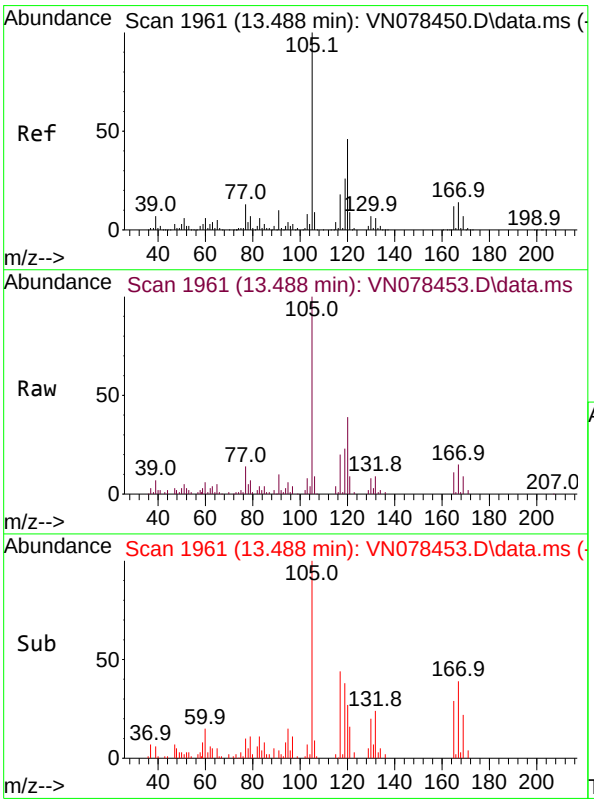
Ion	Ratio	Lower	Upper
119	100		
91	66.0	33.9	101.7
134	23.9	13.2	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

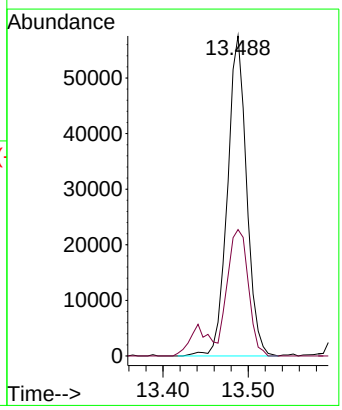
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

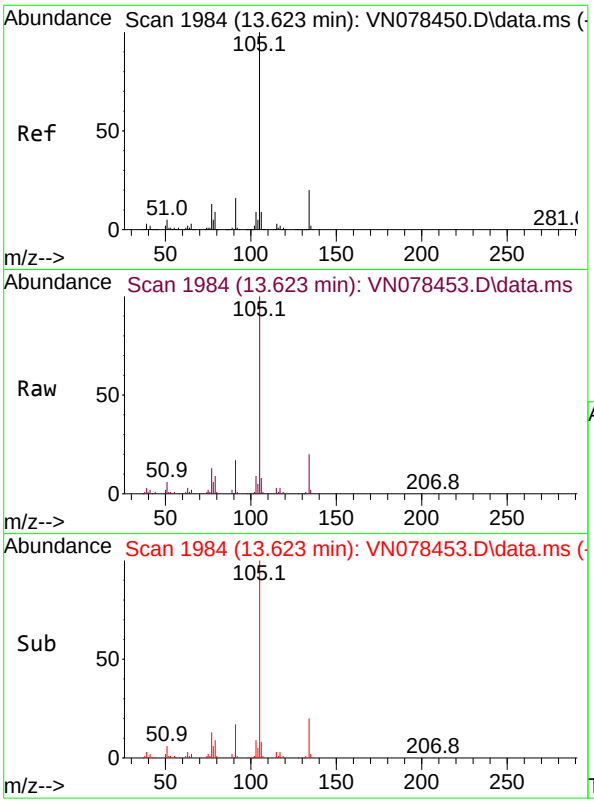


#84
1,2,4-Trimethylbenzene
Concen: 5.640 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:105 Resp: 89931

Ion	Ratio	Lower	Upper
105	100		
120	42.8	22.0	66.0





#85
sec-Butylbenzene
Concen: 5.791 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

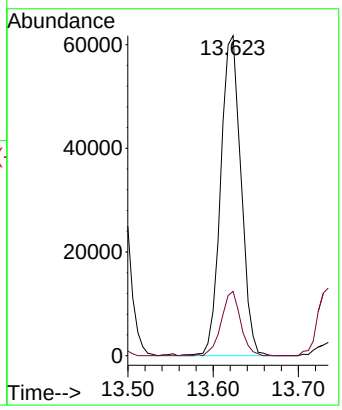
Tgt Ion:105 Resp: 10201

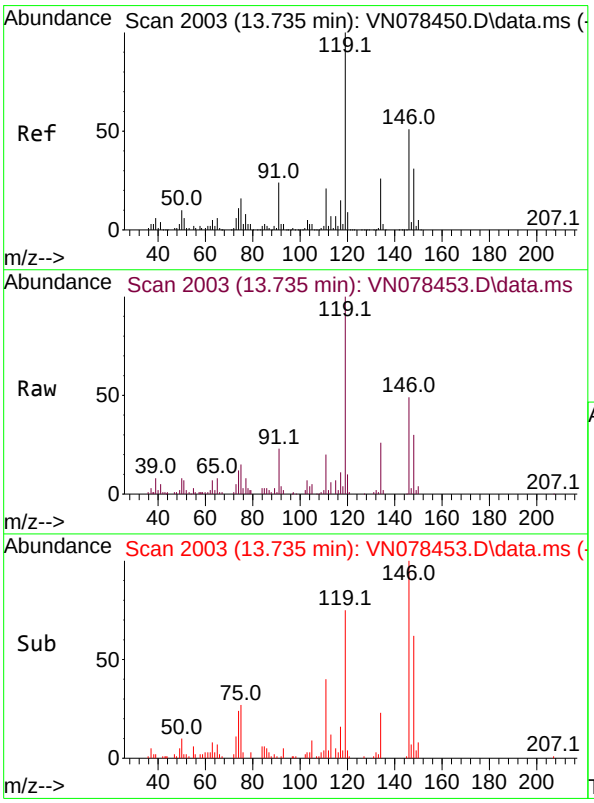
Ion	Ratio	Lower	Upper
105	100		
134	19.1	9.8	29.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

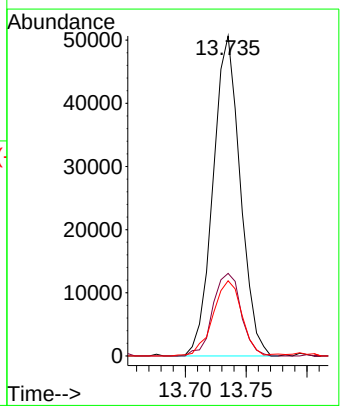


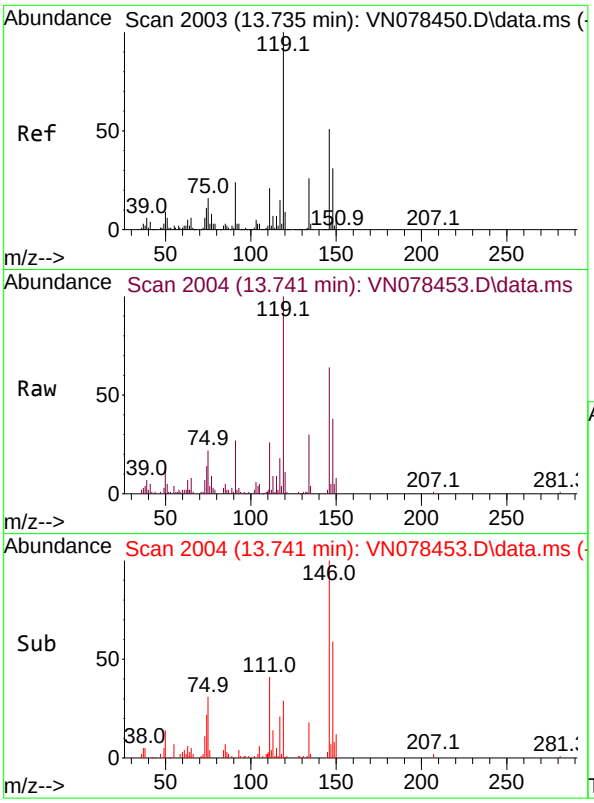


#86
p-Isopropyltoluene
Concen: 5.572 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:119 Resp: 78812

Ion	Ratio	Lower	Upper
119	100		
134	26.8	12.6	37.8
91	25.0	12.4	37.2

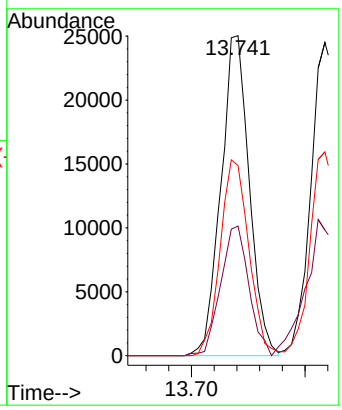




#87
1,3-Dichlorobenzene
Concen: 5.455 ug/l
RT: 13.741 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:146 Resp: 4350

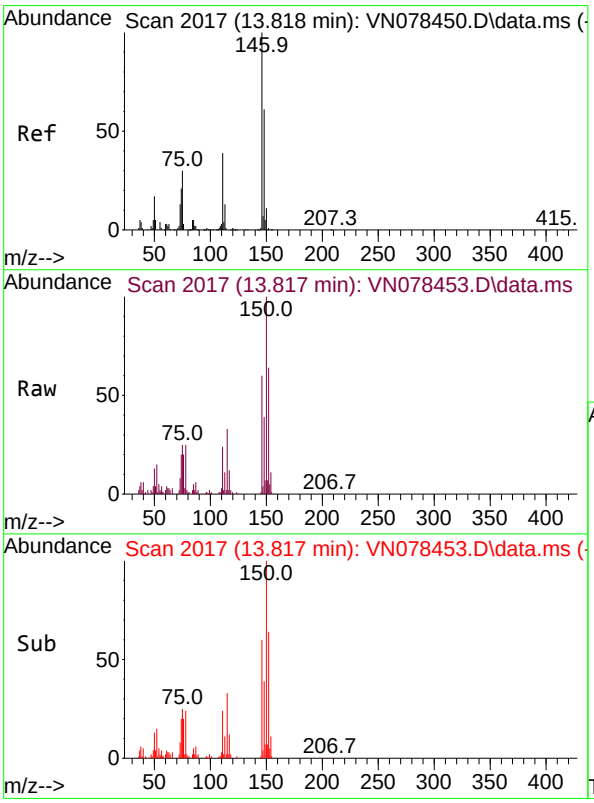
Ion	Ratio	Lower	Upper
146	100		
111	40.3	22.1	66.3
148	62.1	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

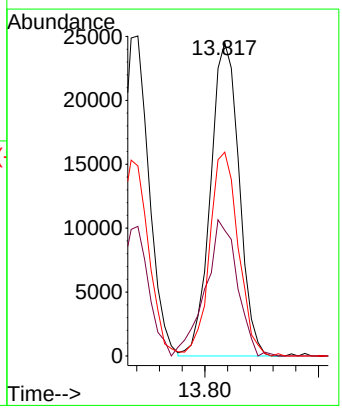
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

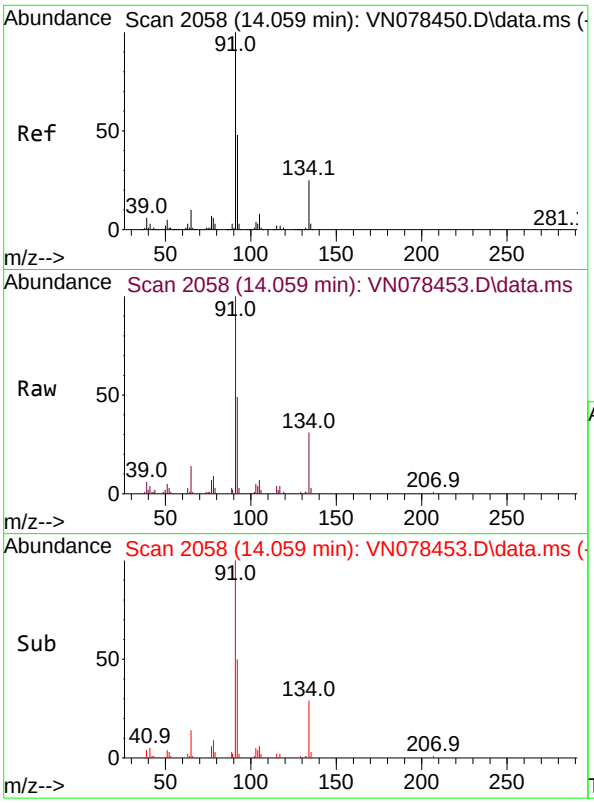


#88
1,4-Dichlorobenzene
Concen: 5.337 ug/l
RT: 13.817 min Scan# 2017
Delta R.T. -0.001 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:146 Resp: 42873

Ion	Ratio	Lower	Upper
146	100		
111	48.5	20.6	61.8
148	65.1	31.6	94.8





#89
n-Butylbenzene
Concen: 5.581 ug/l
RT: 14.059 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

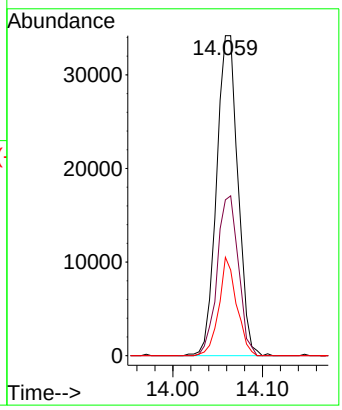
Tgt Ion: 91 Resp: 5648

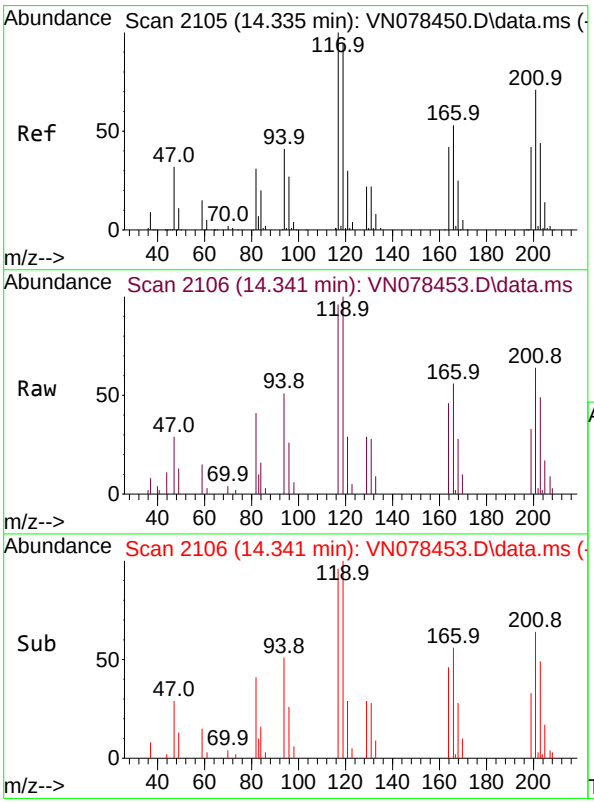
Ion	Ratio	Lower	Upper
91	100		
92	49.6	26.4	79.0
134	25.6	12.6	37.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

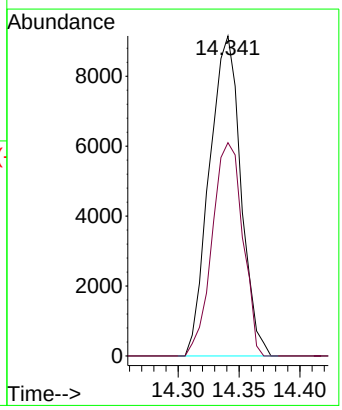


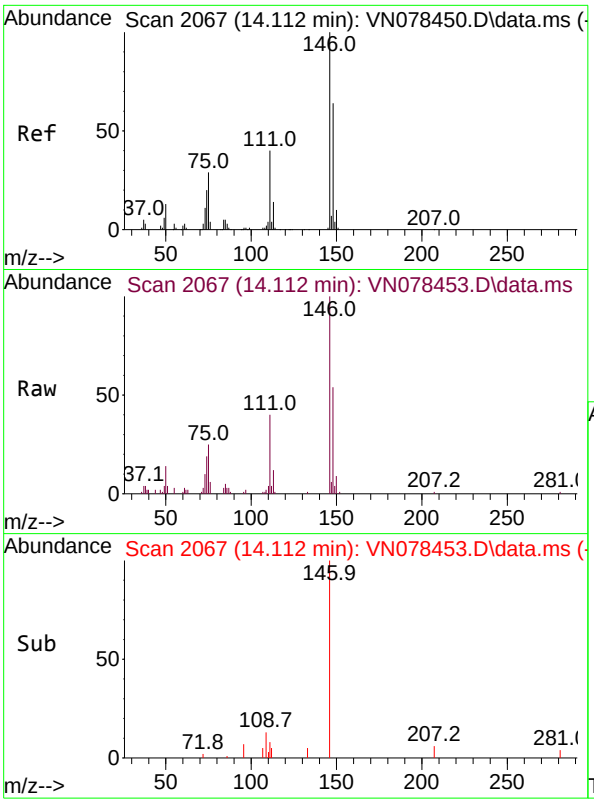


#90
Hexachloroethane
Concen: 5.620 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:117 Resp: 16493

Ion	Ratio	Lower	Upper
117	100		
201	64.8	29.3	88.0

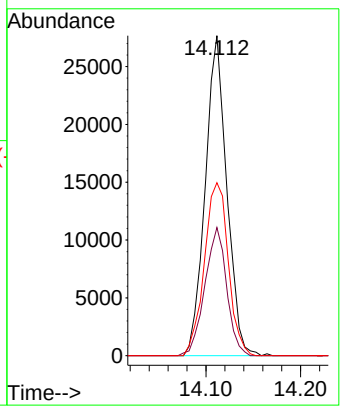




#91
1,2-Dichlorobenzene
Concen: 5.529 ug/l
RT: 14.112 min Scan# 2(
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:146 Resp: 4388

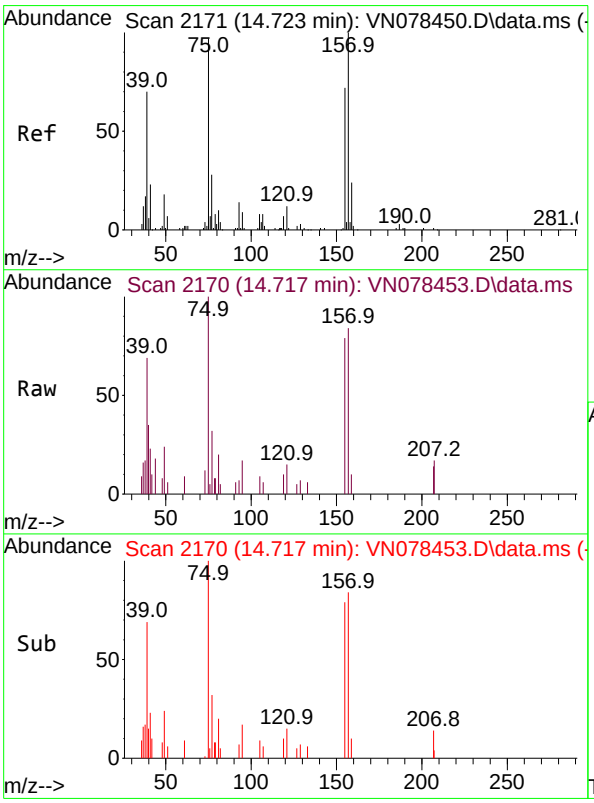
Ion	Ratio	Lower	Upper
146	100		
111	40.4	22.0	66.0
148	60.0	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

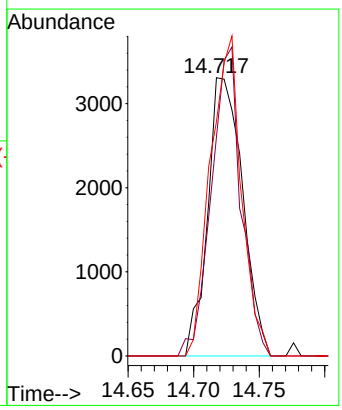
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

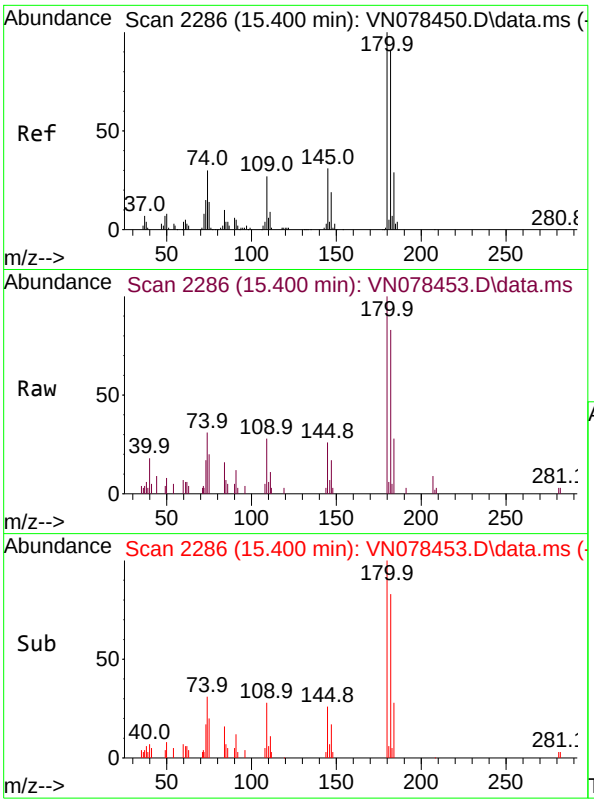


#92
1,2-Dibromo-3-Chloropropane
Concen: 4.407 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.006 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion: 75 Resp: 6125

Ion	Ratio	Lower	Upper
75	100		
155	94.5	39.1	117.2
157	102.0	50.3	150.9

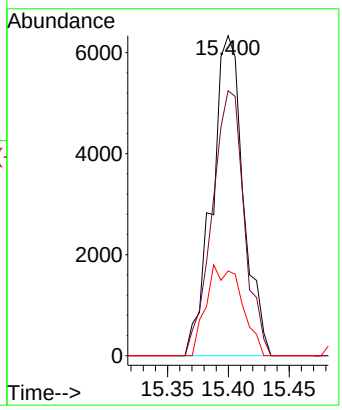




#93
1,2,4-Trichlorobenzene
Concen: 4.472 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:180 Resp: 1132

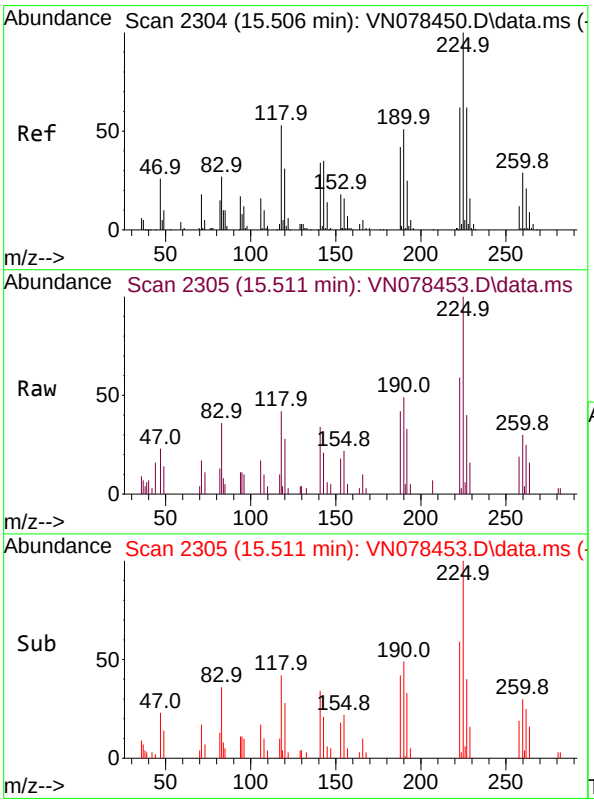
Ion	Ratio	Lower	Upper
180	100		
182	85.1	46.1	138.2
145	31.9	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

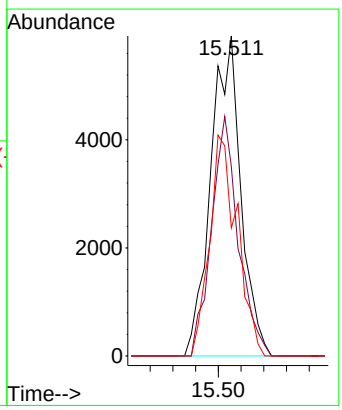
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

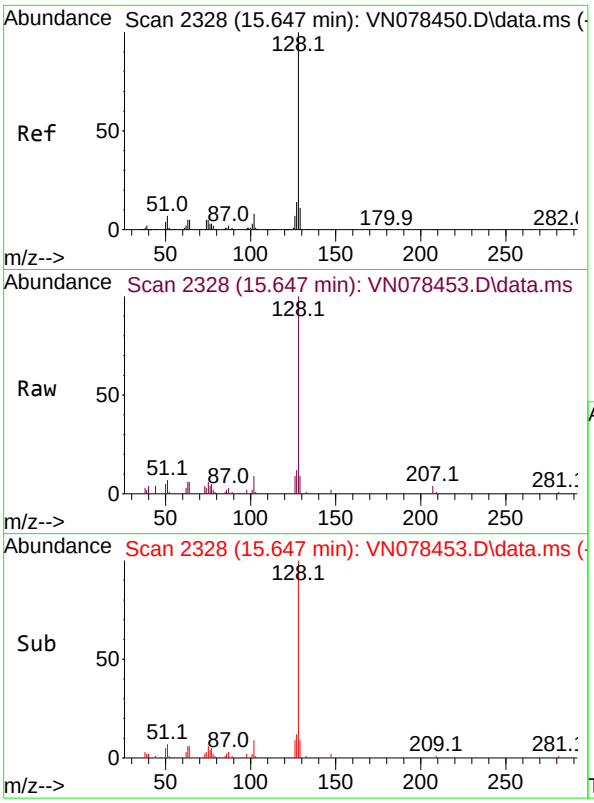


#94
Hexachlorobutadiene
Concen: 4.526 ug/l
RT: 15.511 min Scan# 2305
Delta R.T. 0.005 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:225 Resp: 10864

Ion	Ratio	Lower	Upper
225	100		
223	66.9	31.3	93.8
227	63.5	31.9	95.9

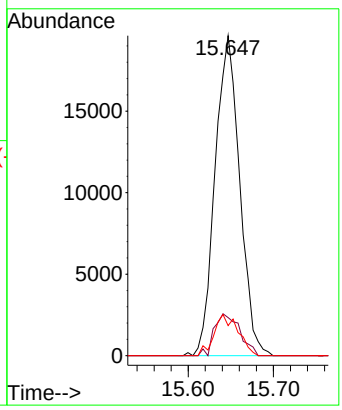




#95
Naphthalene
Concen: 4.555 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:128 Resp: 3944

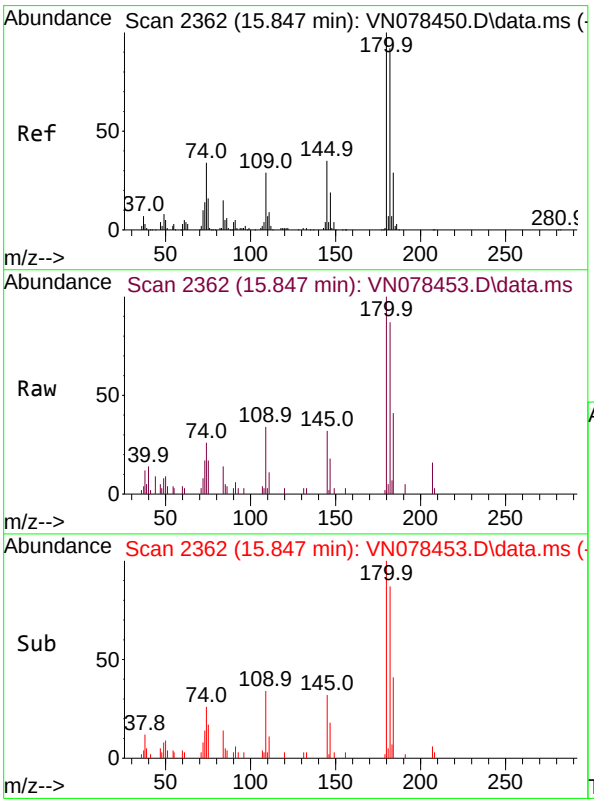
Ion	Ratio	Lower	Upper
128	100		
127	13.6	10.0	15.0
129	12.6	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

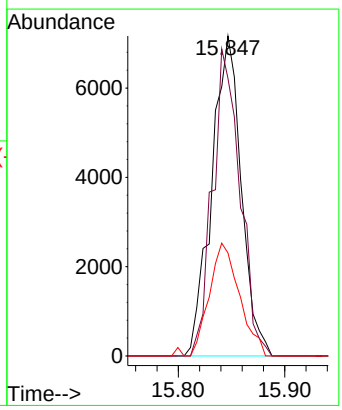
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 4.756 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078453.D
Acq: 10 Jul 2023 13:58

Tgt Ion:180 Resp: 13854

Ion	Ratio	Lower	Upper
180	100		
182	88.7	46.2	138.6
145	35.8	17.5	52.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078454.D
Acq On : 10 Jul 2023 14:46
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 10 16:08:20 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:08:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.229	168	465120	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.112	114	818145	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.870	117	672181	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	177944	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	6051	1.061	ug/l		98
3) Chloromethane	2.371	50	7605	1.227	ug/l		90
4) Vinyl Chloride	2.518	62	9060	1.130	ug/l	#	79
6) Chloroethane	3.136	64	6985	1.289	ug/l		89
7) Trichlorofluoromethane	3.506	101	10631	1.109	ug/l	#	76
8) Diethyl Ether	3.965	74	3469	1.086	ug/l		88
9) 1,1,2-Trichlorotrifluo...	4.383	101	5297m	1.044	ug/l		
12) 1,1-Dichloroethene	4.353	96	5073	1.034	ug/l		88
14) Allyl chloride	5.036	41	6513	0.971	ug/l	#	32
15) Acrylonitrile	5.735	53	11742	4.833	ug/l	#	84
16) Acetone	4.453	43	11033	5.680	ug/l		98
17) Carbon Disulfide	4.724	76	16837	1.186	ug/l	#	89
18) Methyl Acetate	5.053	43	9440	1.148	ug/l	#	83
19) Methyl tert-butyl Ether	5.812	73	15824	0.979	ug/l		99
20) Methylene Chloride	5.288	84	8757	1.284	ug/l		89
21) trans-1,2-Dichloroethene	5.794	96	5678	1.027	ug/l	#	82
22) Diisopropyl ether	6.694	45	13689	0.912	ug/l	#	90
23) Vinyl Acetate	6.612	43	40842	4.278	ug/l		100
24) 1,1-Dichloroethane	6.588	63	10638	1.051	ug/l	#	93
25) 2-Butanone	7.500	43	15451	5.053	ug/l	#	82
26) 2,2-Dichloropropane	7.512	77	8972m	1.084	ug/l		
27) cis-1,2-Dichloroethene	7.494	96	6309	0.986	ug/l		91
28) Bromochloromethane	7.812	49	5279	1.108	ug/l	#	74
29) Tetrahydrofuran	7.853	42	9965	4.967	ug/l	#	81
30) Chloroform	7.982	83	10434	0.990	ug/l		90
32) 1,1,1-Trichloroethane	8.177	97	8816	0.933	ug/l	#	51
36) 1,1-Dichloropropene	8.376	75	8420	1.050	ug/l		93
37) Ethyl Acetate	7.571	43	6447	0.964	ug/l	#	76
38) Carbon Tetrachloride	8.365	117	8814	1.011	ug/l	#	76
39) Methylcyclohexane	9.600	83	7452	1.018	ug/l	#	74
40) Benzene	8.618	78	23229	0.978	ug/l		96
41) Methacrylonitrile	7.800	41	3220	0.945	ug/l	#	73
42) 1,2-Dichloroethane	8.688	62	8541	1.057	ug/l		97
43) Isopropyl Acetate	8.694	43	9229	0.839	ug/l		91
44) Trichloroethene	9.359	130	7499	1.171	ug/l		70
45) 1,2-Dichloropropane	9.623	63	6009	0.999	ug/l		94

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078454.D
Acq On : 10 Jul 2023 14:46
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 10 16:08:20 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:08:18 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Dibromomethane	9.718	93	3991	0.942	ug/l	#	84
47) Bromodichloromethane	9.888	83	8476	0.998	ug/l	#	77
48) Methyl methacrylate	9.700	41	4681	0.918	ug/l	#	59
49) 1,4-Dioxane	9.700	88	2332	20.972	ug/l	#	90
51) 4-Methyl-2-Pentanone	10.453	43	28299	4.323	ug/l		90
52) Toluene	10.647	92	14474	0.983	ug/l		92
53) t-1,3-Dichloropropene	10.841	75	7787	0.895	ug/l	#	81
54) cis-1,3-Dichloropropene	10.318	75	7647	0.825	ug/l	#	87
55) 1,1,2-Trichloroethane	11.023	97	5774	0.995	ug/l	#	82
56) Ethyl methacrylate	10.876	69	7066	0.871	ug/l	#	87
57) 1,3-Dichloropropane	11.170	76	9790	0.992	ug/l		96
58) 2-Chloroethyl Vinyl ether	10.170	63	12104	4.188	ug/l		99
59) 2-Hexanone	11.200	43	19374	4.164	ug/l		93
60) Dibromochloromethane	11.370	129	5887	0.919	ug/l		98
61) 1,2-Dibromoethane	11.476	107	5487	0.918	ug/l		99
64) Tetrachloroethene	11.112	164	4574	0.905	ug/l		95
65) Chlorobenzene	11.894	112	15354	1.022	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.964	131	5862	1.014	ug/l	#	60
67) Ethyl Benzene	11.970	91	22338	0.880	ug/l		89
68) m/p-Xylenes	12.076	106	14400	1.534	ug/l		78
69) o-Xylene	12.406	106	8798	0.928	ug/l		89
70) Styrene	12.417	104	11654	0.785	ug/l		94
71) Bromoform	12.576	173	3172	0.810	ug/l	#	81
73) Isopropylbenzene	12.700	105	18287	1.094	ug/l		100
74) N-amyl acetate	12.500	43	6033	1.047	ug/l		90
75) 1,1,2,2-Tetrachloroethane	12.935	83	7660	1.357	ug/l		97
76) 1,2,3-Trichloropropane	13.000	75	4348m	1.012	ug/l		
77) Bromobenzene	12.988	156	5251	1.279	ug/l		99
78) n-propylbenzene	13.041	91	18066	1.010	ug/l		91
79) 2-Chlorotoluene	13.129	91	13932	1.189	ug/l		100
80) 1,3,5-Trimethylbenzene	13.176	105	14027	1.062	ug/l		96
82) 4-Chlorotoluene	13.229	91	11336	1.037	ug/l		94
83) tert-Butylbenzene	13.441	119	12155	1.084	ug/l		87
84) 1,2,4-Trimethylbenzene	13.488	105	12669	0.987	ug/l		93
85) sec-Butylbenzene	13.623	105	14915	1.052	ug/l		94
86) p-Isopropyltoluene	13.729	119	11243	0.988	ug/l		90
87) 1,3-Dichlorobenzene	13.741	146	6600	1.028	ug/l		98
88) 1,4-Dichlorobenzene	13.811	146	7347m	1.136	ug/l		
89) n-Butylbenzene	14.064	91	6783	0.833	ug/l		92
90) Hexachloroethane	14.341	117	3389	0.817	ug/l		92
91) 1,2-Dichlorobenzene	14.111	146	6581	1.030	ug/l		89
92) 1,2-Dibromo-3-Chloropr...	14.735	75	1298	1.395	ug/l		92
93) 1,2,4-Trichlorobenzene	15.394	180	1938	0.951	ug/l		96
94) Hexachlorobutadiene	15.505	225	1773	1.329	ug/l		87
95) Naphthalene	15.647	128	7750	1.112	ug/l	#	92
96) 1,2,3-Trichlorobenzene	15.852	180	2469	1.053	ug/l		97

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

ICAL Form

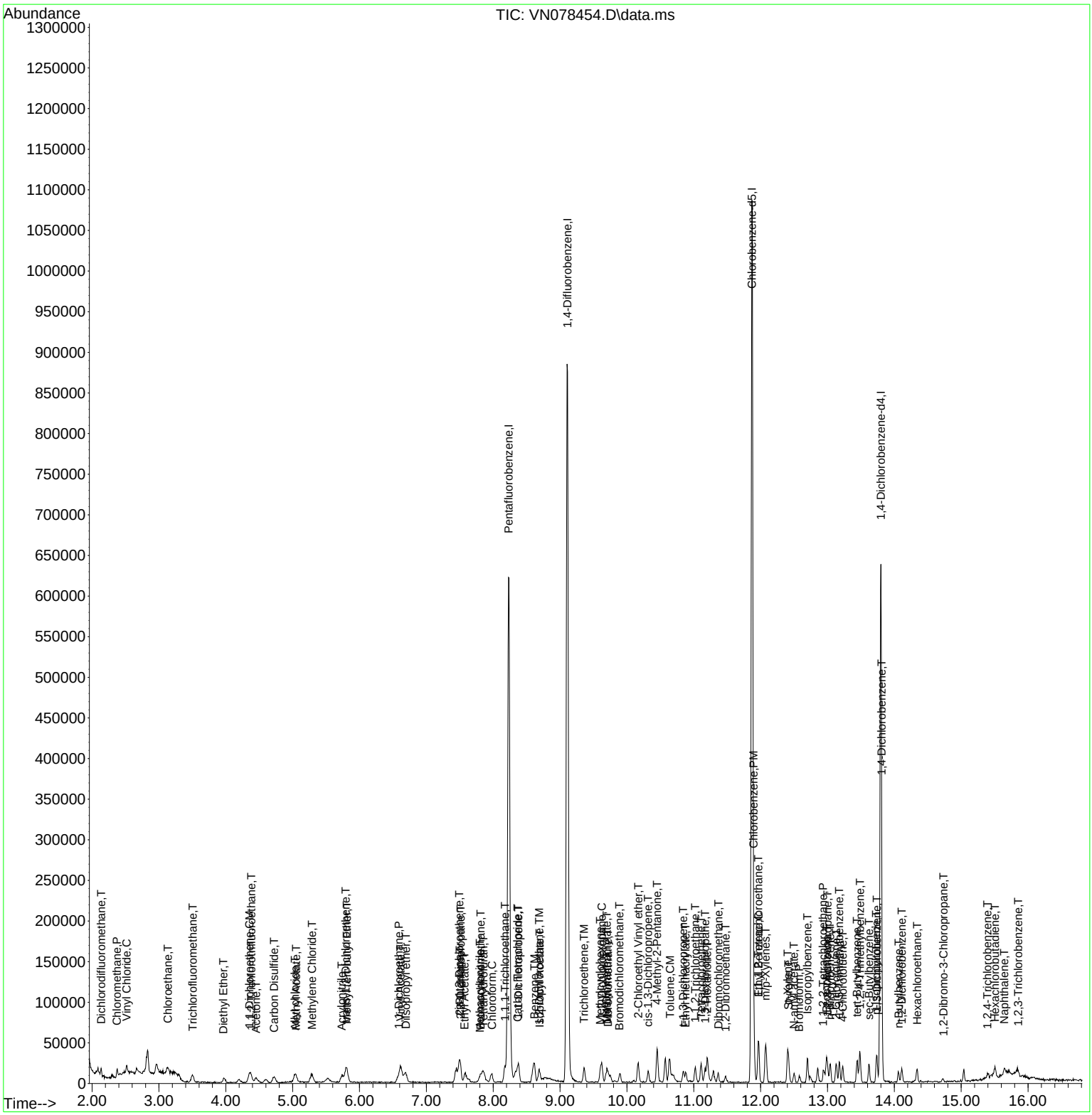
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078454.D
Acq On : 10 Jul 2023 14:46
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

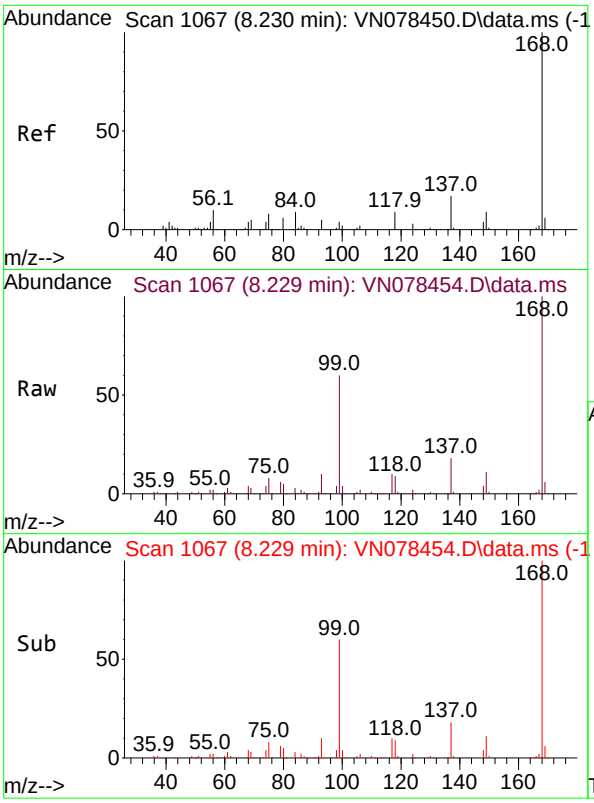
Quant Time: Jul 10 16:08:20 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:08:18 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

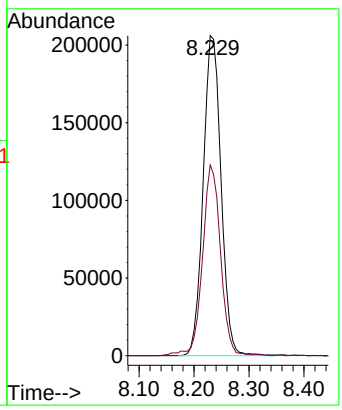




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.229 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:168 Resp: 46512

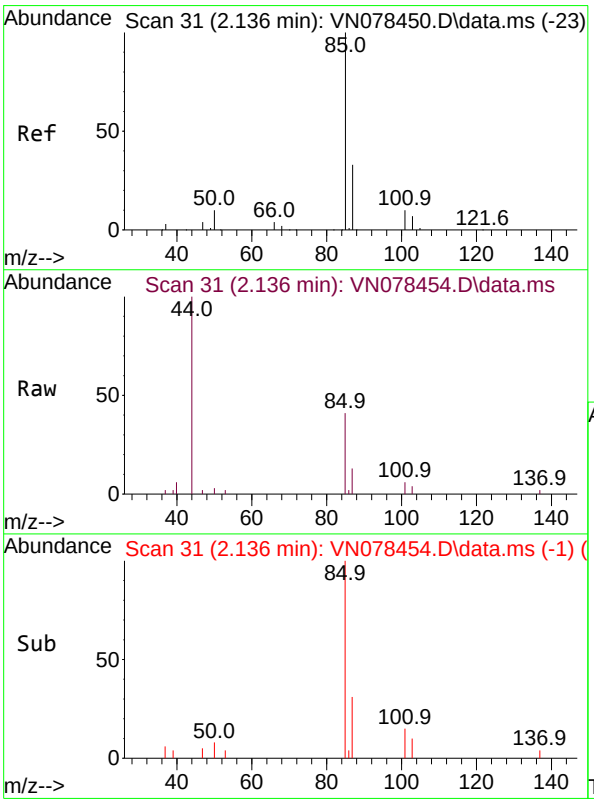
Ion	Ratio	Lower	Upper
168	100		
99	59.4	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

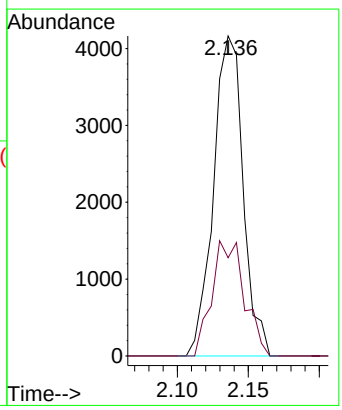
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

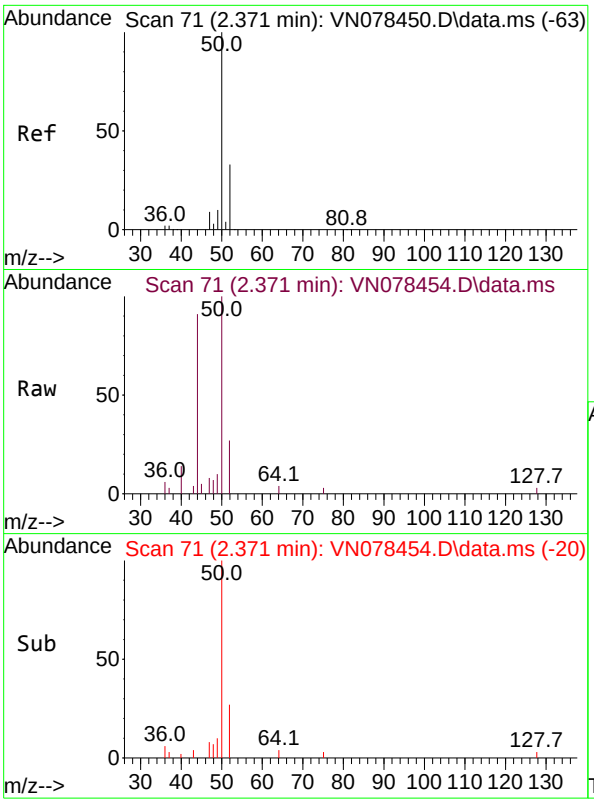


#2
Dichlorodifluoromethane
Concen: 1.061 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 85 Resp: 6051

Ion	Ratio	Lower	Upper
85	100		
87	30.7	15.8	47.4

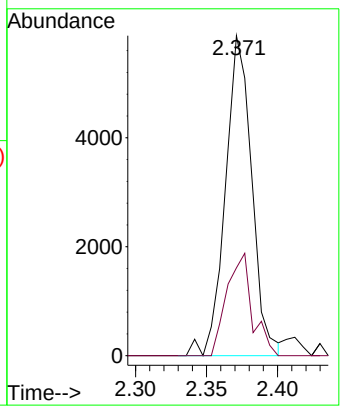




#3
Chloromethane
Concen: 1.227 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 50 Resp: 760

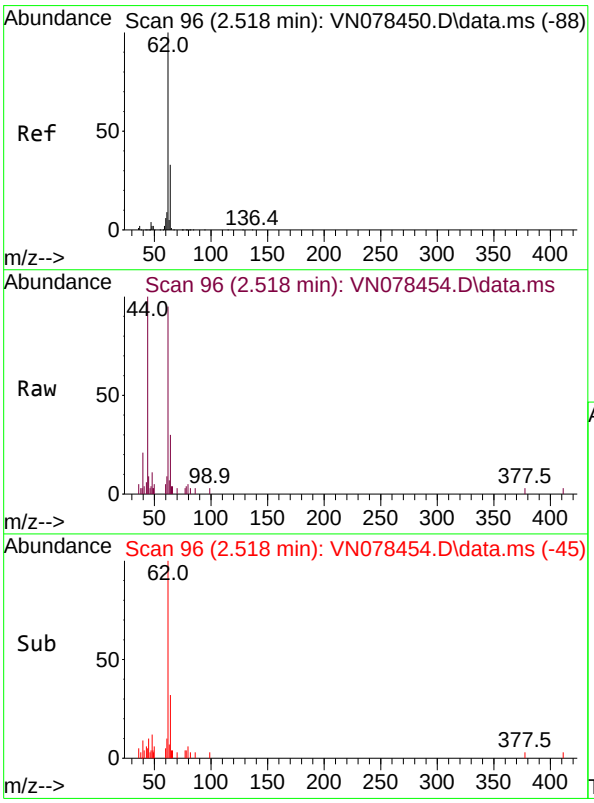
Ion	Ratio	Lower	Upper
50	100		
52	27.4	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

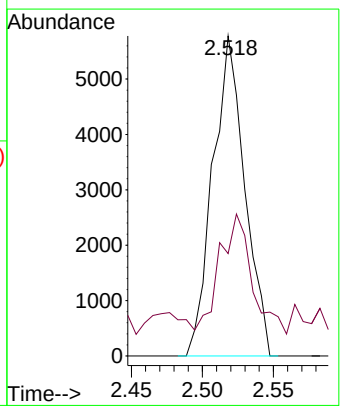
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

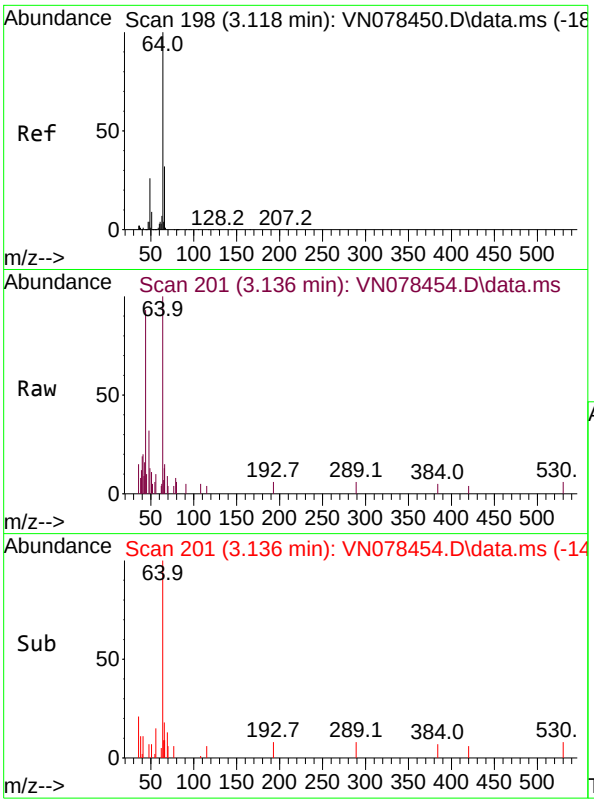


#4
Vinyl Chloride
Concen: 1.130 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 62 Resp: 9060

Ion	Ratio	Lower	Upper
62	100		
64	20.7	26.2	39.2#

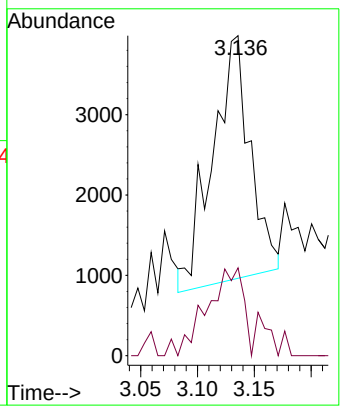




#6
Chloroethane
Concen: 1.289 ug/l
RT: 3.136 min Scan# 2
Delta R.T. 0.018 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 64 Resp: 698

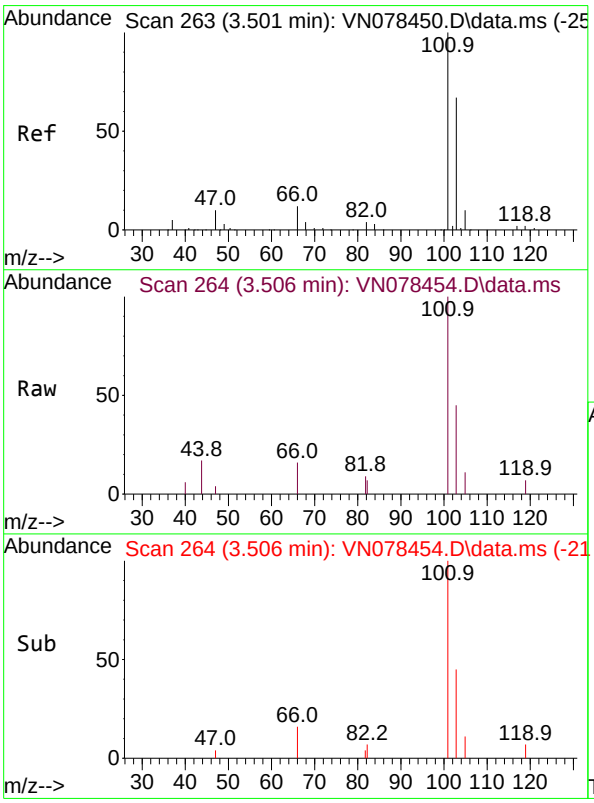
Ion	Ratio	Lower	Upper
64	100		
66	37.7	25.4	38.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

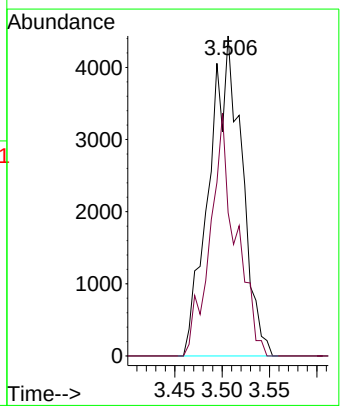
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

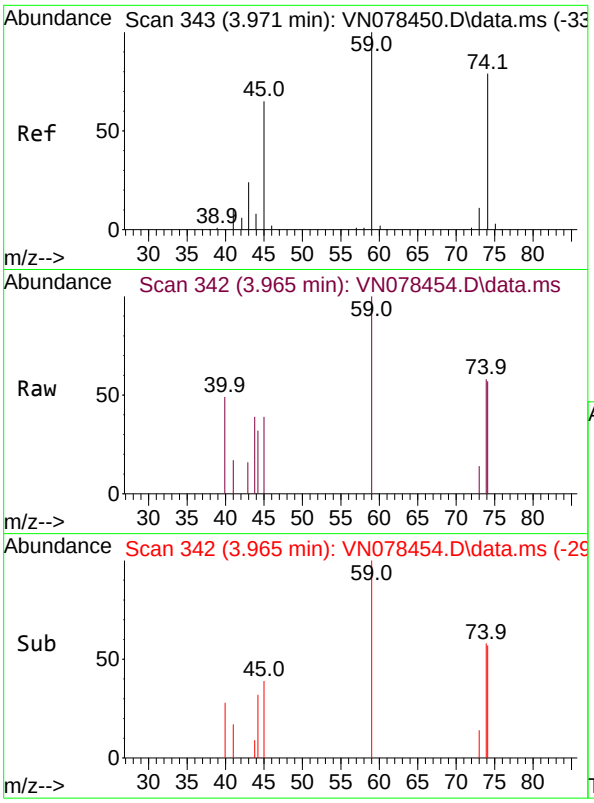


#7
Trichlorofluoromethane
Concen: 1.109 ug/l
RT: 3.506 min Scan# 264
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:101 Resp: 10631

Ion	Ratio	Lower	Upper
101	100		
103	44.8	50.7	76.1#





#8
Diethyl Ether
Concen: 1.086 ug/l
RT: 3.965 min Scan# 34
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

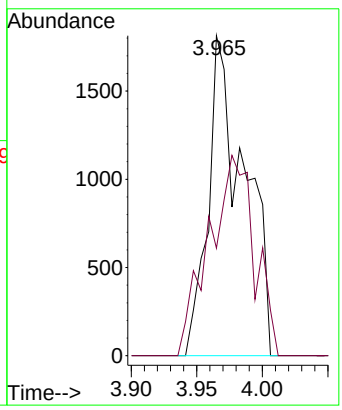
Tgt Ion: 74 Resp: 346

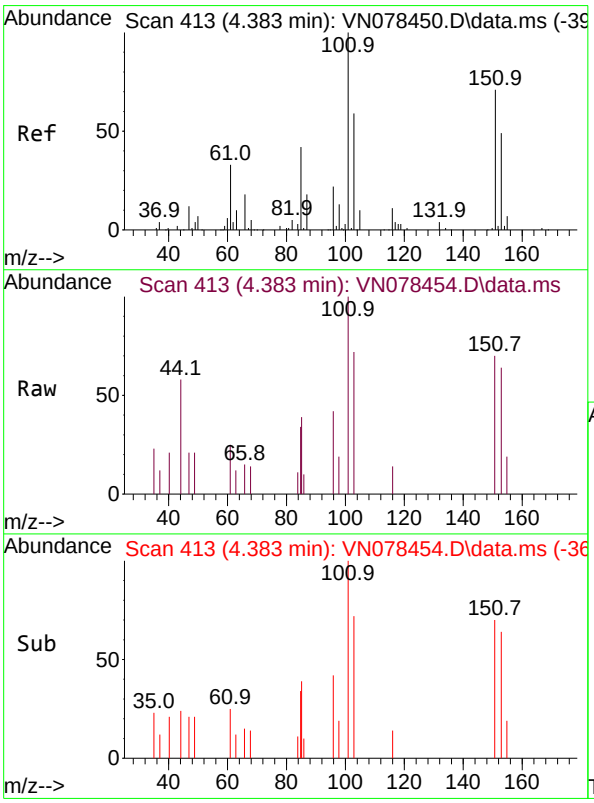
Ion	Ratio	Lower	Upper
74	100		
45	78.5	34.4	103.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

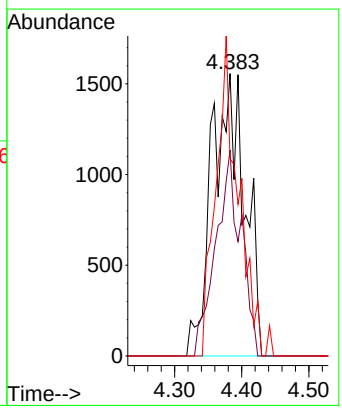


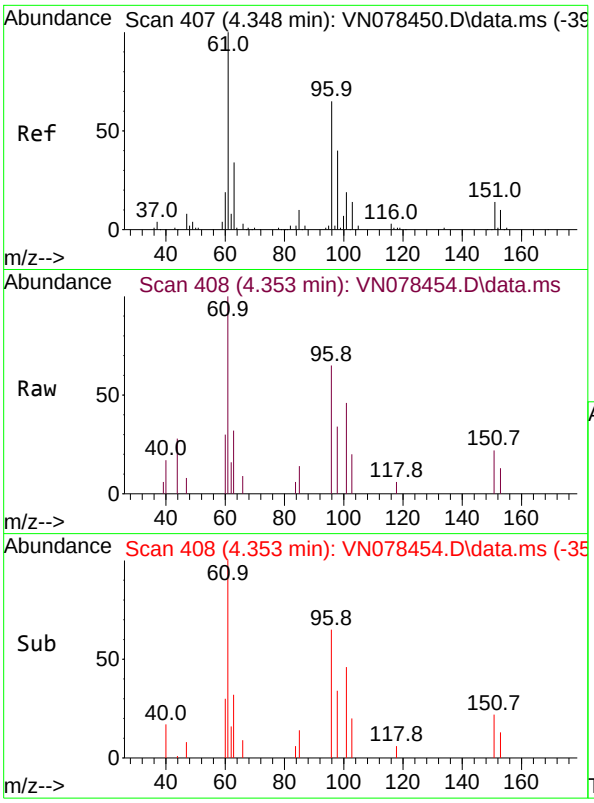


#9
1,1,2-Trichlorotrifluoroethane
Concen: 1.044 ug/l m
RT: 4.383 min Scan# 413
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:101 Resp: 5297

Ion	Ratio	Lower	Upper
101	100		
85	55.9	36.6	55.0#
151	76.5	57.6	86.4





#12
1,1-Dichloroethene
Concen: 1.034 ug/l
RT: 4.353 min Scan# 4(
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

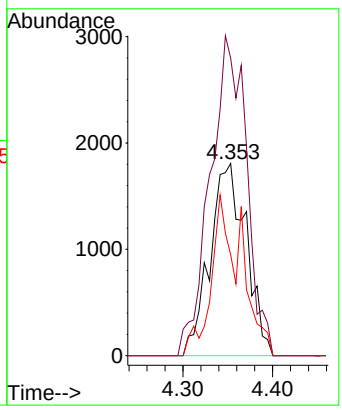
Tgt Ion: 96 Resp: 507

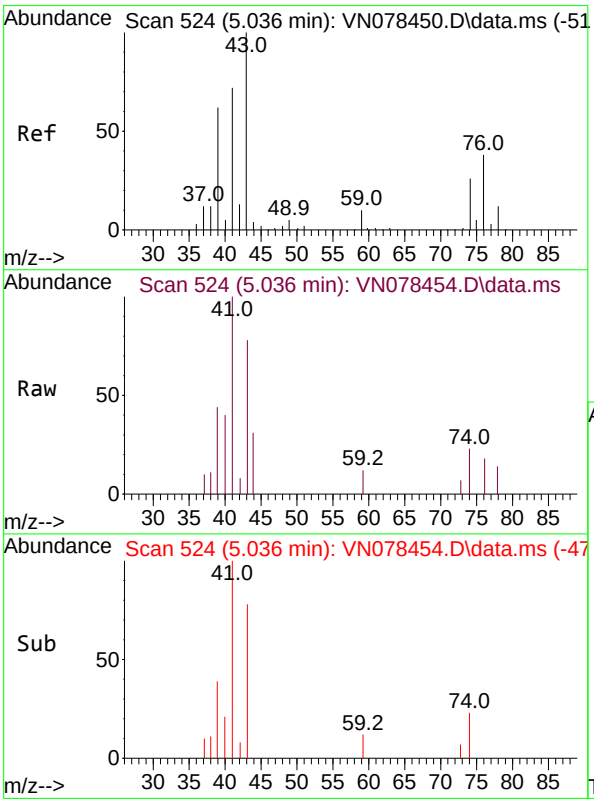
Ion	Ratio	Lower	Upper
96	100		
61	154.8	112.7	169.1
98	52.6	51.2	76.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

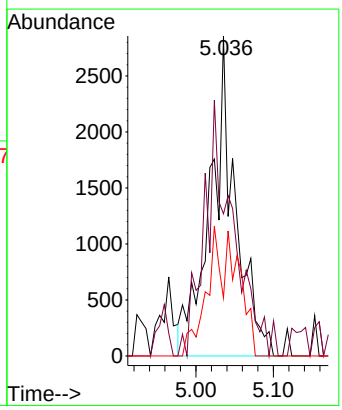


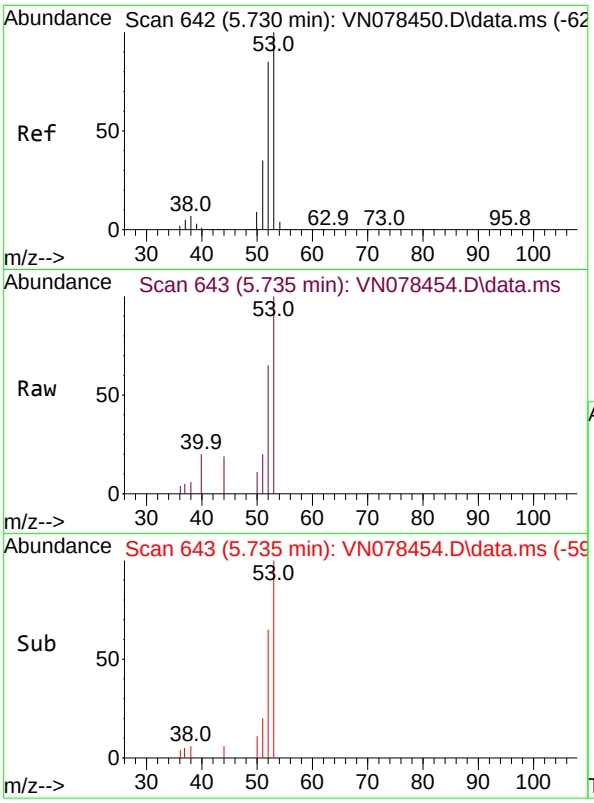


#14
Allyl chloride
Concen: 0.971 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 41 Resp: 6513

Ion	Ratio	Lower	Upper
41	100		
39	0.0	58.8	88.2#
76	22.8	39.1	58.7#

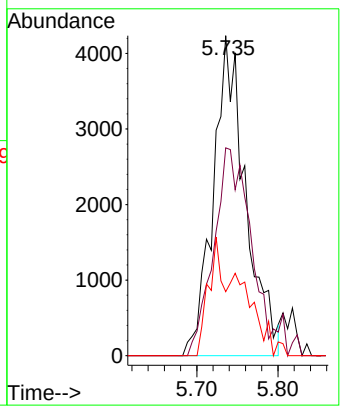




#15
Acrylonitrile
Concen: 4.833 ug/l
RT: 5.735 min Scan# 64
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 53 Resp: 1174

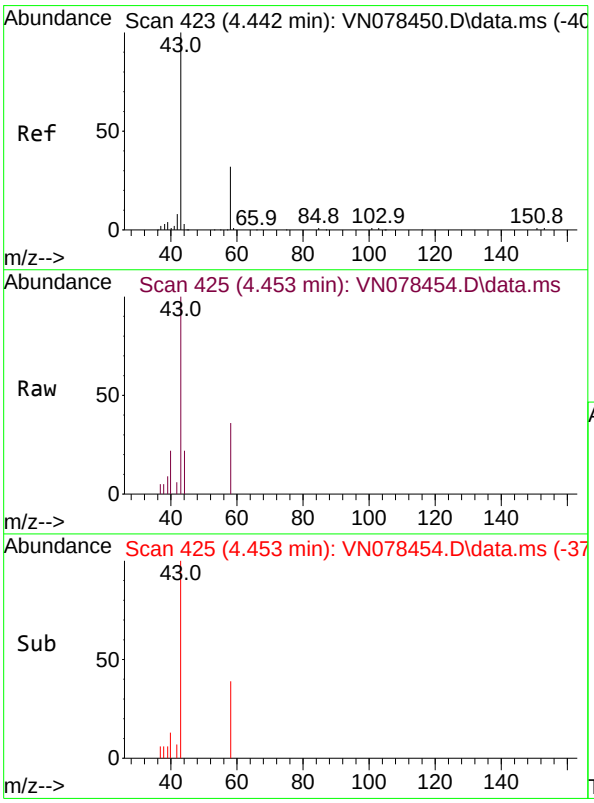
Ion	Ratio	Lower	Upper
53	100		
52	74.2	65.3	97.9
51	16.9	28.9	43.3#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

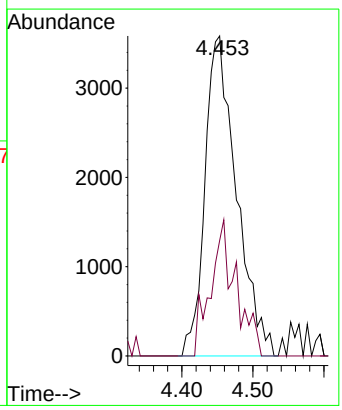
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

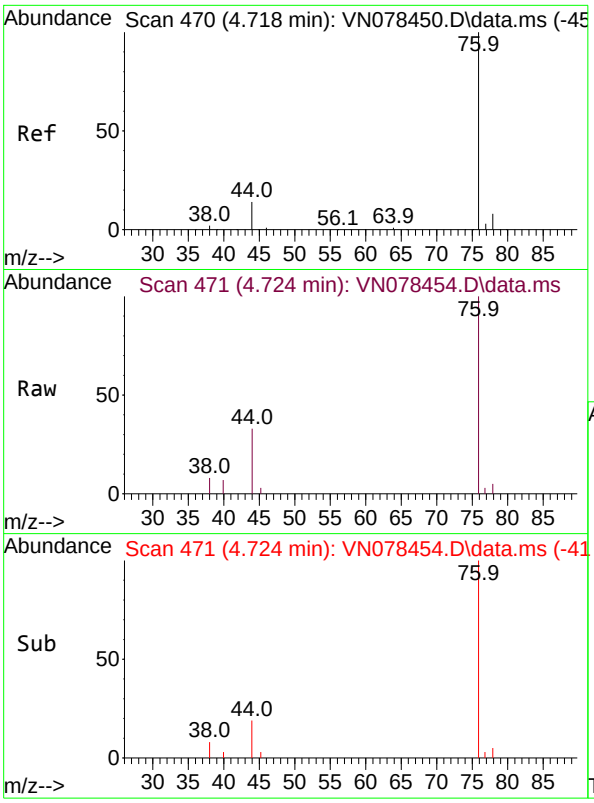


#16
Acetone
Concen: 5.680 ug/l
RT: 4.453 min Scan# 425
Delta R.T. 0.011 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 43 Resp: 11033

Ion	Ratio	Lower	Upper
43	100		
58	36.1	28.0	42.0





#17
Carbon Disulfide
Concen: 1.186 ug/l
RT: 4.724 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

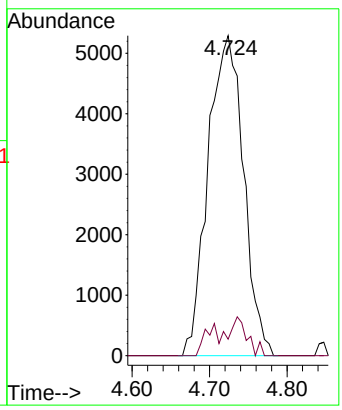
Tgt Ion: 76 Resp: 1683

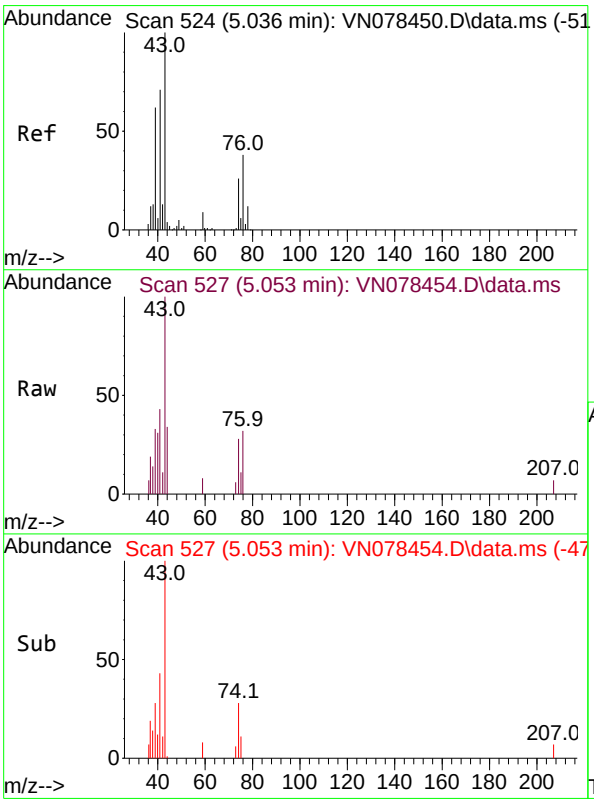
Ion	Ratio	Lower	Upper
76	100		
78	5.2	7.4	11.0#

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

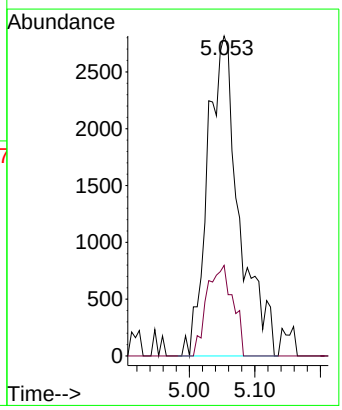


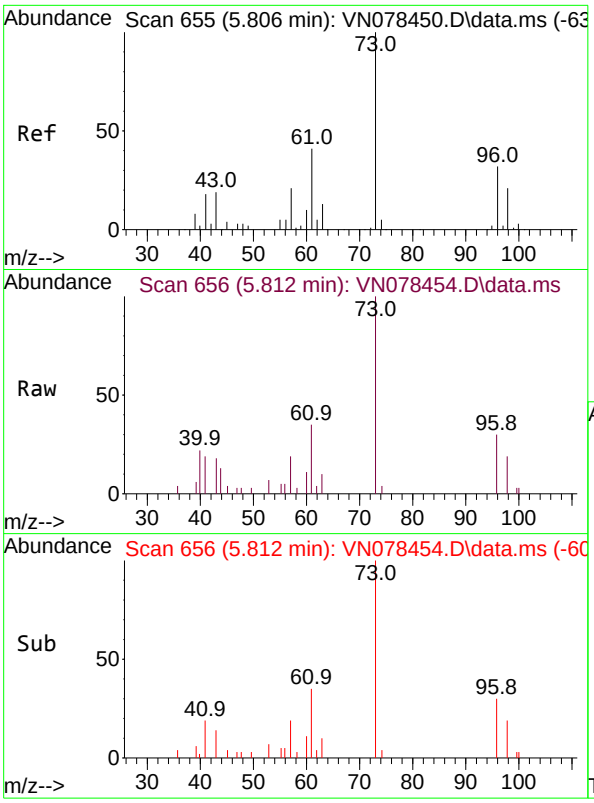


#18
Methyl Acetate
Concen: 1.148 ug/l
RT: 5.053 min Scan# 527
Delta R.T. 0.017 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 43 Resp: 9440

Ion	Ratio	Lower	Upper
43	100		
74	23.3	26.2	39.4#

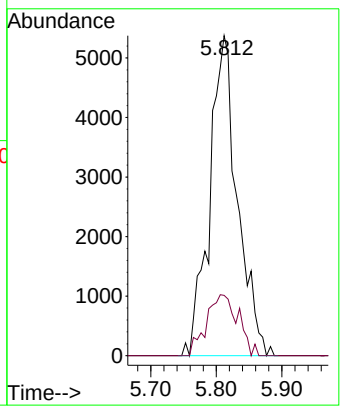




#19
Methyl tert-butyl Ether
Concen: 0.979 ug/l
RT: 5.812 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 73 Resp: 1582

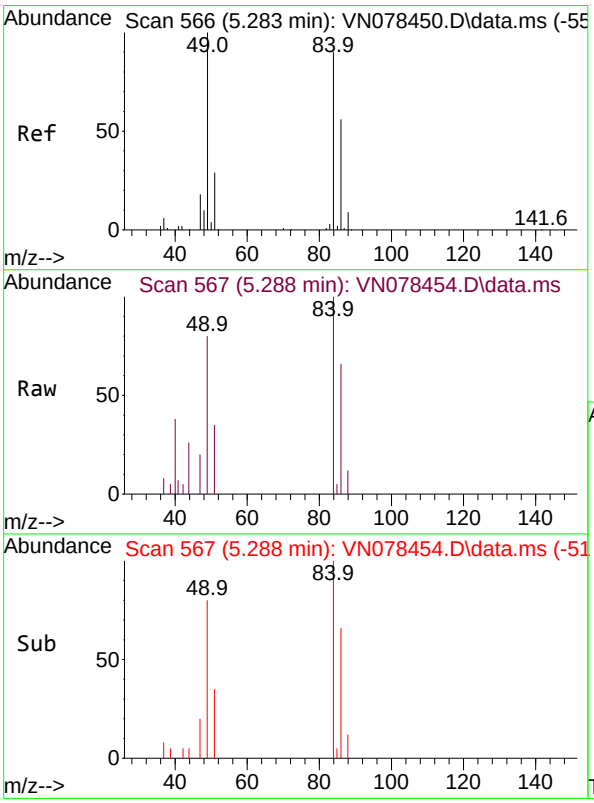
Ion	Ratio	Lower	Upper
73	100		
57	18.9	15.6	23.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

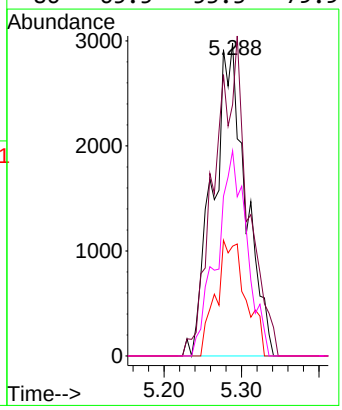
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

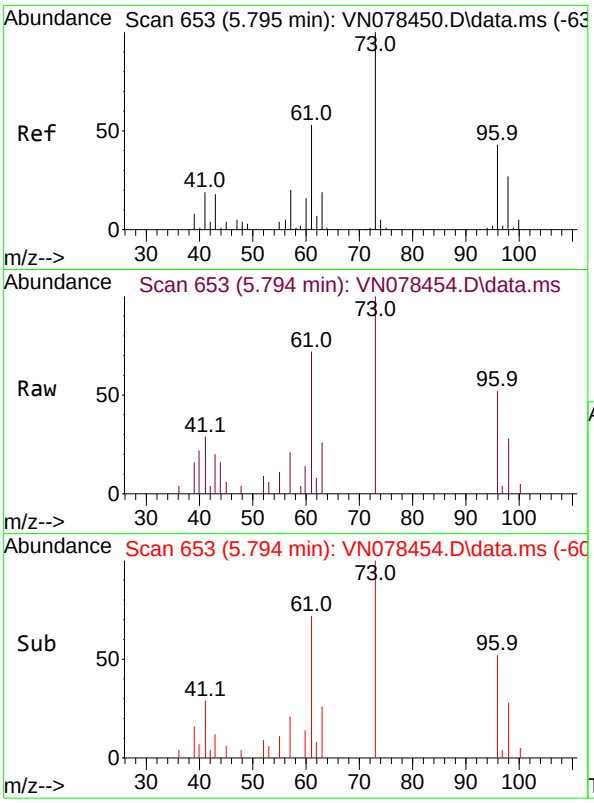


#20
Methylene Chloride
Concen: 1.284 ug/l
RT: 5.288 min Scan# 567
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 84 Resp: 8757

Ion	Ratio	Lower	Upper
84	100		
49	80.3	79.7	119.5
51	35.1	25.2	37.8
86	65.5	53.3	79.9

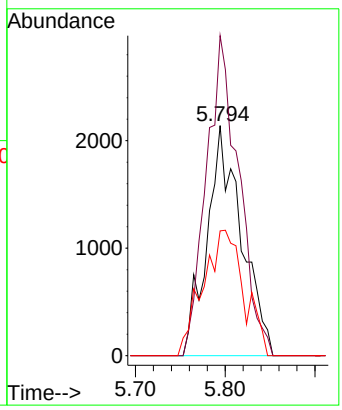




#21
trans-1,2-Dichloroethene
Concen: 1.027 ug/l
RT: 5.794 min Scan# 6
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 96 Resp: 567

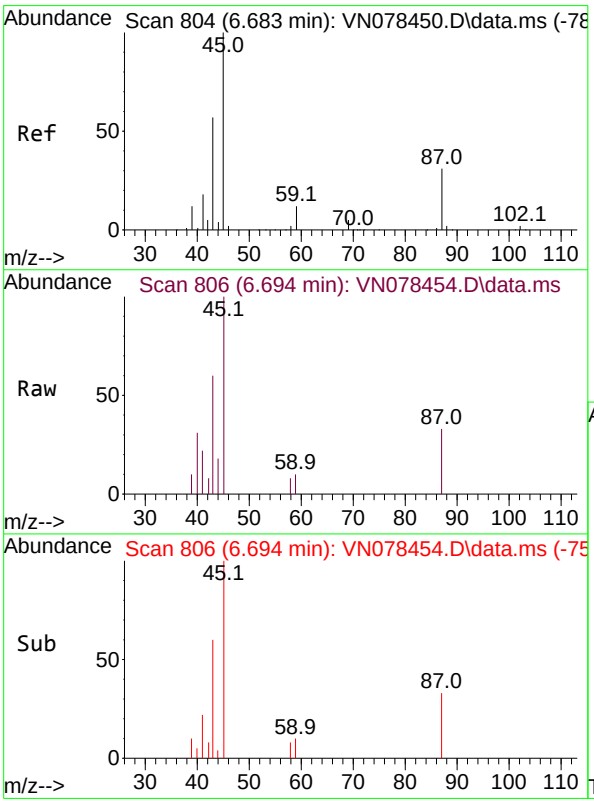
Ion	Ratio	Lower	Upper
96	100		
61	139.0	90.1	135.1#
98	54.2	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

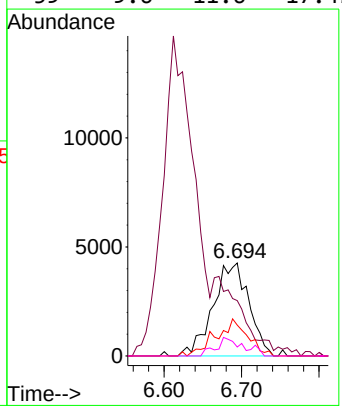
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

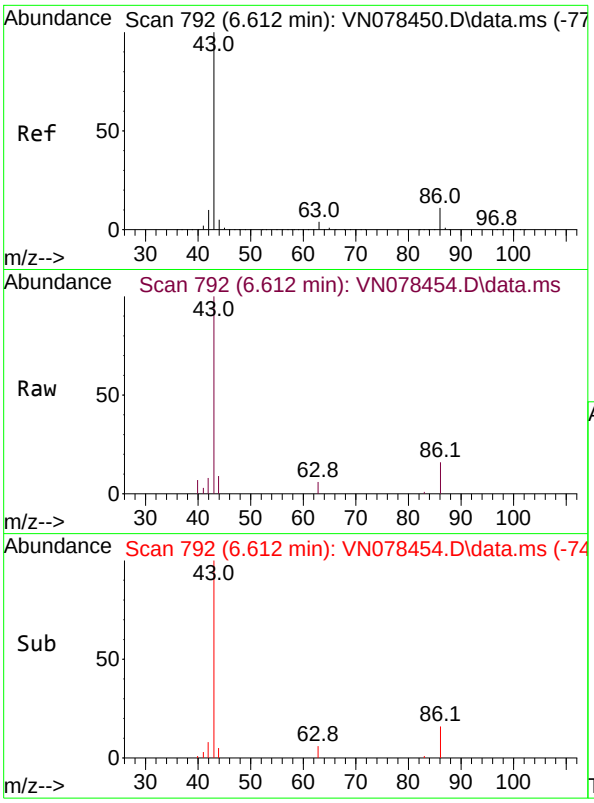


#22
Diisopropyl ether
Concen: 0.912 ug/l
RT: 6.694 min Scan# 806
Delta R.T. 0.011 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 45 Resp: 13689

Ion	Ratio	Lower	Upper
45	100		
43	50.0	45.5	68.3
87	33.2	31.8	47.8
59	9.6	11.6	17.4#





#23
Vinyl Acetate
Concen: 4.278 ug/l
RT: 6.612 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

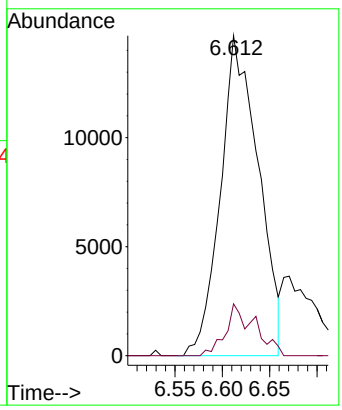
Tgt Ion: 43 Resp: 4084

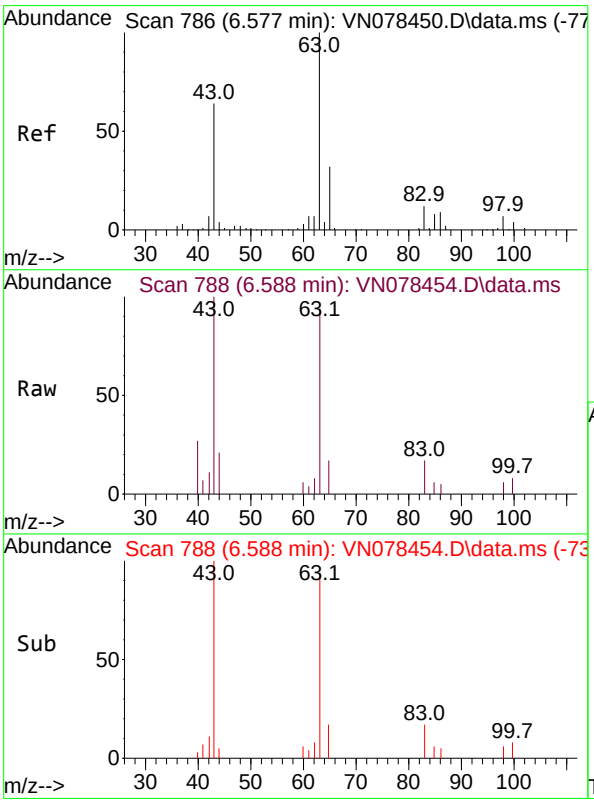
Ion	Ratio	Lower	Upper
43	100		
86	16.2	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

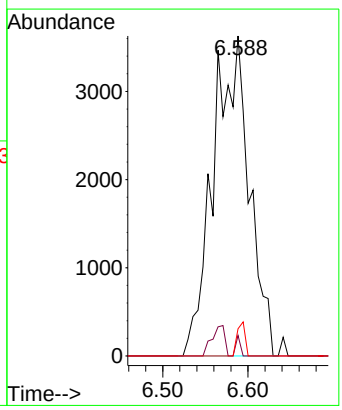


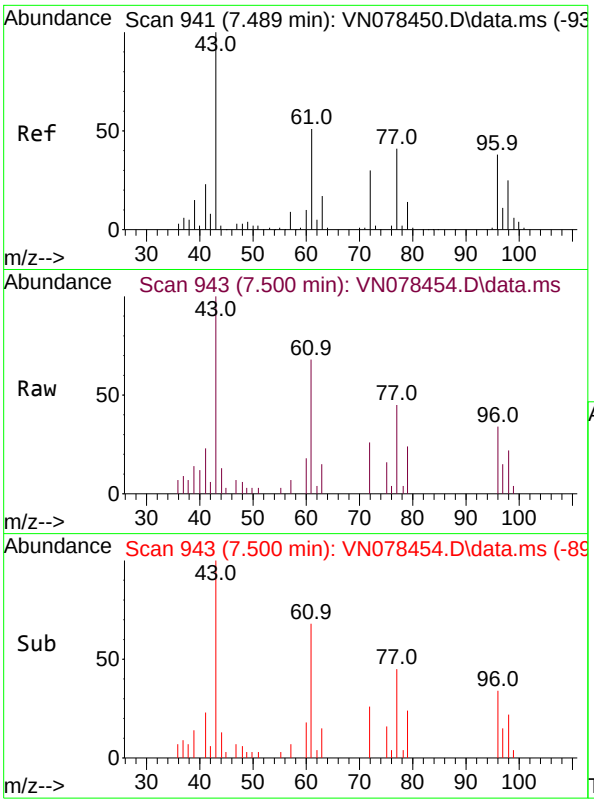


#24
1,1-Dichloroethane
Concen: 1.051 ug/l
RT: 6.588 min Scan# 788
Delta R.T. 0.011 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 63 Resp: 10638

Ion	Ratio	Lower	Upper
63	100		
98	6.4	3.9	11.7
100	8.5	2.5	7.4#





#25
2-Butanone
Concen: 5.053 ug/l
RT: 7.500 min Scan# 94
Delta R.T. 0.011 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

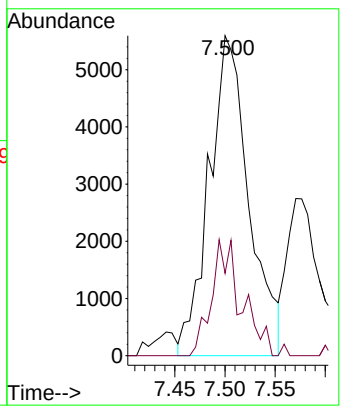
Tgt Ion: 43 Resp: 1545

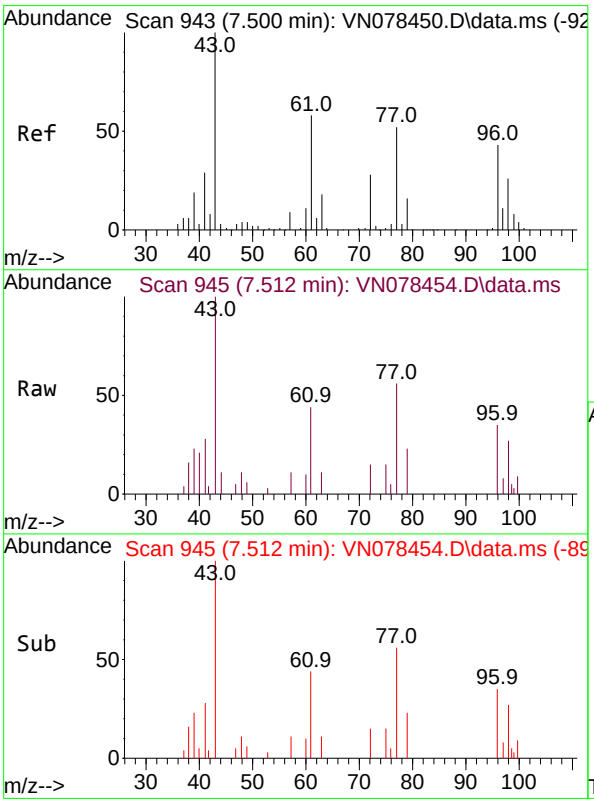
Ion	Ratio	Lower	Upper
43	100		
72	26.7	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

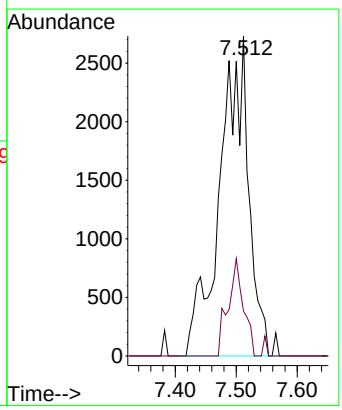


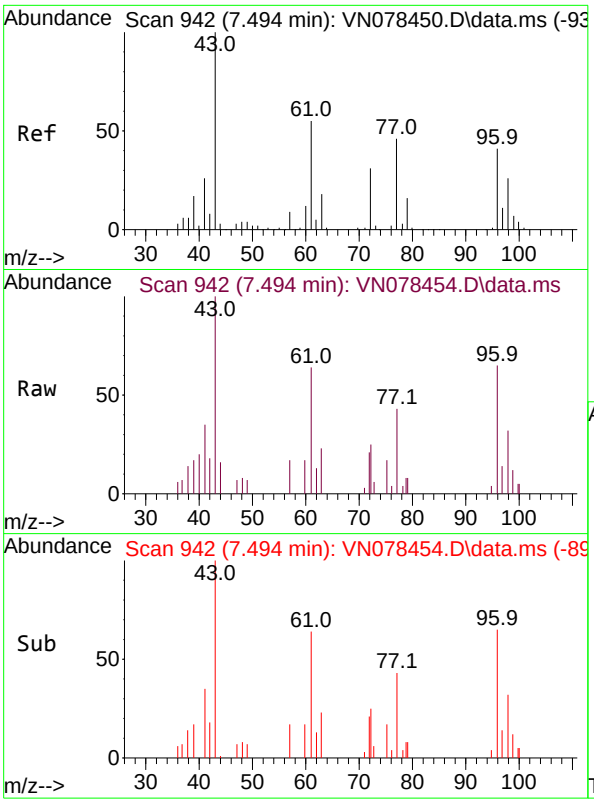


#26
2,2-Dichloropropane
Concen: 1.084 ug/l m
RT: 7.512 min Scan# 945
Delta R.T. 0.012 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 77 Resp: 8972

Ion	Ratio	Lower	Upper
77	100		
97	16.3	11.2	33.6

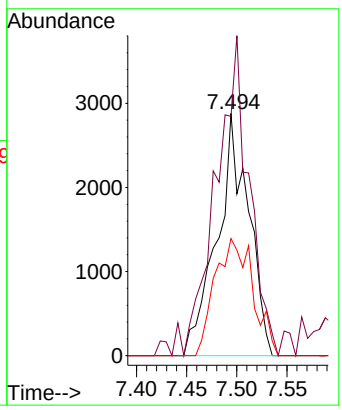




#27
cis-1,2-Dichloroethene
Concen: 0.986 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 96 Resp: 630

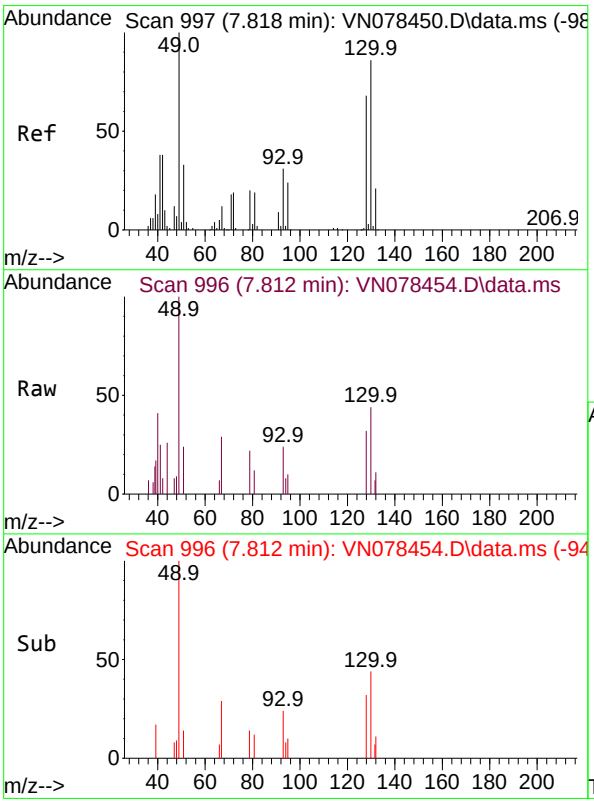
Ion	Ratio	Lower	Upper
96	100		
61	138.9	0.0	255.2
98	58.2	0.0	128.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

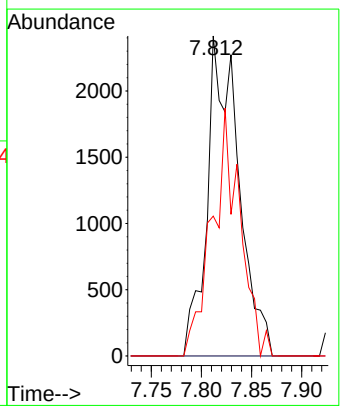
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

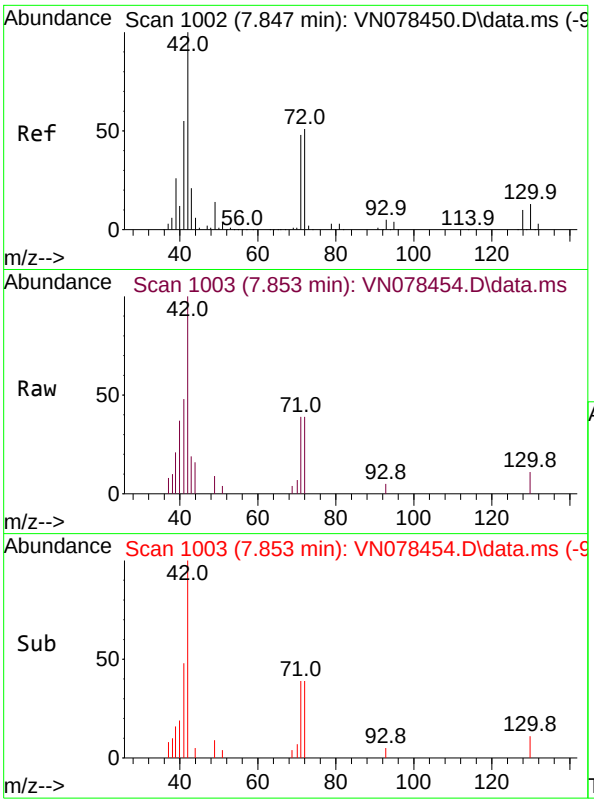


#28
Bromochloromethane
Concen: 1.108 ug/l
RT: 7.812 min Scan# 996
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 49 Resp: 5279

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	4.8
130	68.6	75.3	112.9#

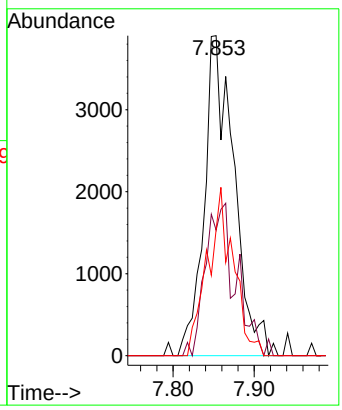




#29
Tetrahydrofuran
Concen: 4.967 ug/l
RT: 7.853 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 42 Resp: 996

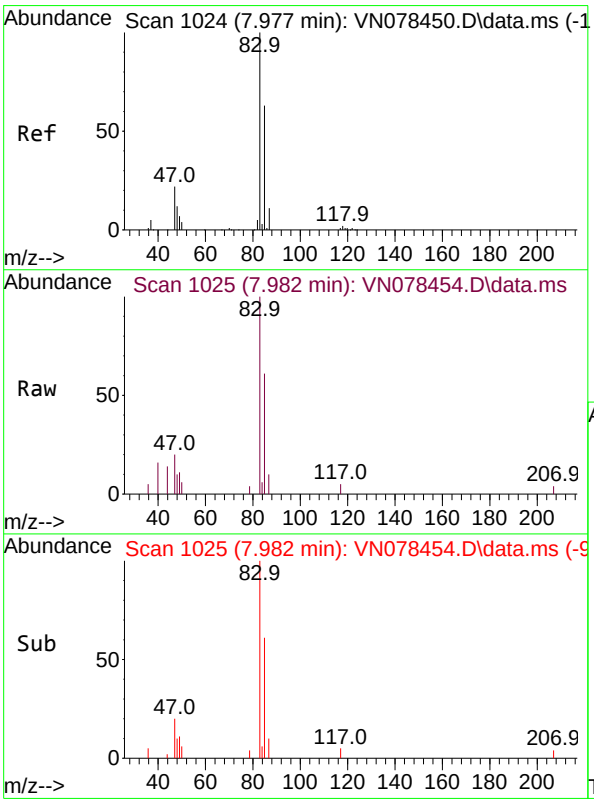
Ion	Ratio	Lower	Upper
42	100		
72	47.7	49.8	74.6#
71	45.5	47.4	71.2#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

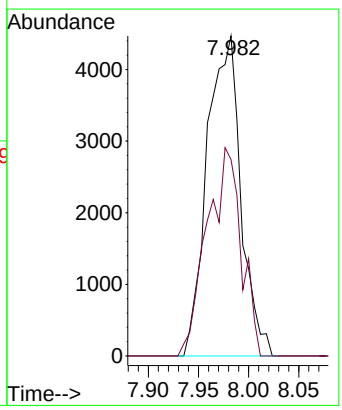
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

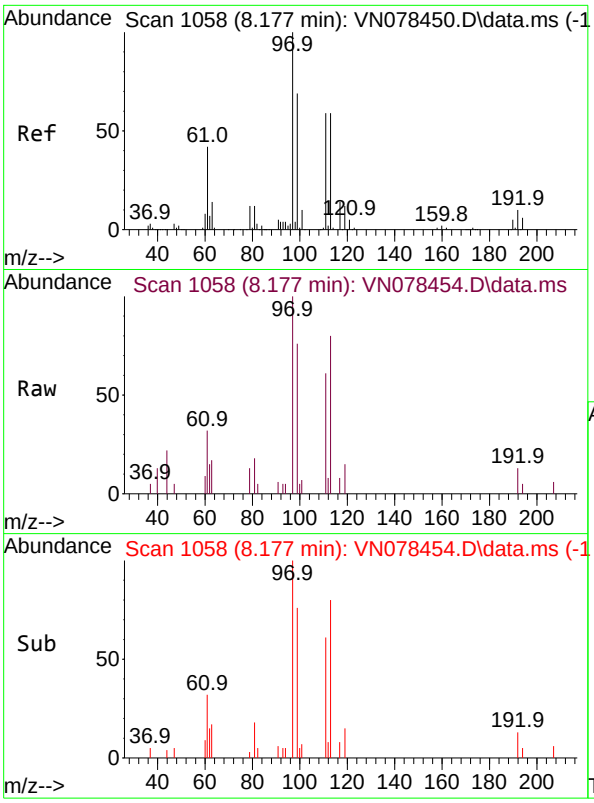


#30
Chloroform
Concen: 0.990 ug/l
RT: 7.982 min Scan# 1025
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 83 Resp: 10434

Ion	Ratio	Lower	Upper
83	100		
85	61.4	55.4	83.0





#32
1,1,1-Trichloroethane
Concen: 0.933 ug/l
RT: 8.177 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

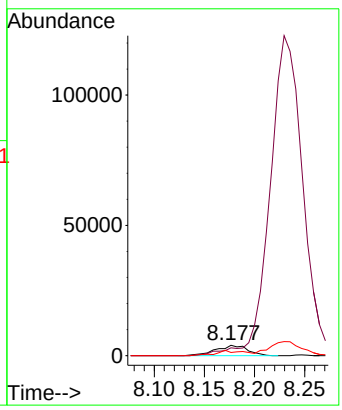
Tgt Ion: 97 Resp: 881

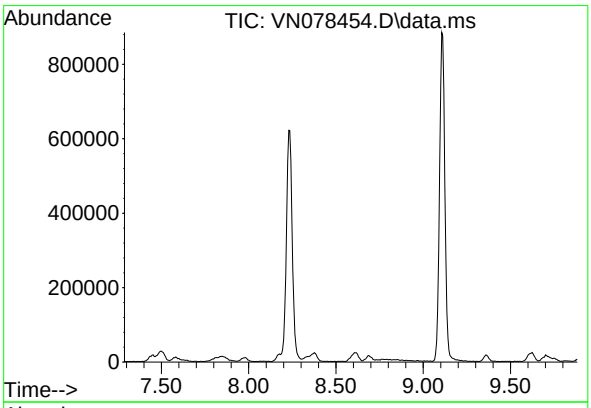
Ion	Ratio	Lower	Upper
97	100		
99	0.0	50.3	75.5
61	45.7	34.7	52.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



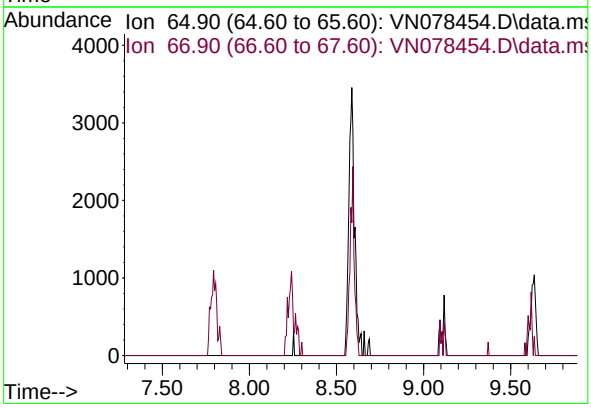


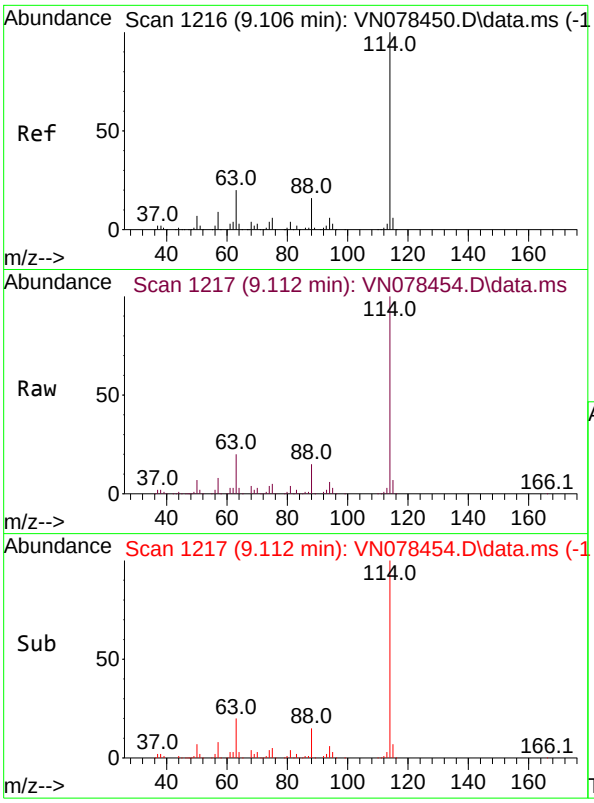
#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 8.58 min

Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 65

Sig	Exp Ratio
65	100
67	53.3





#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.112 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

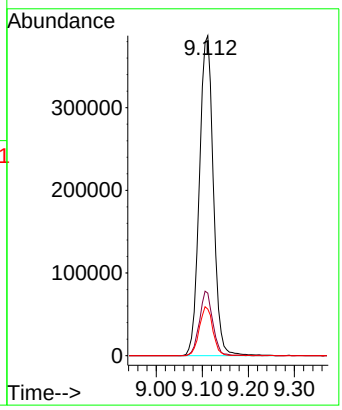
Tgt Ion:114 Resp: 81814

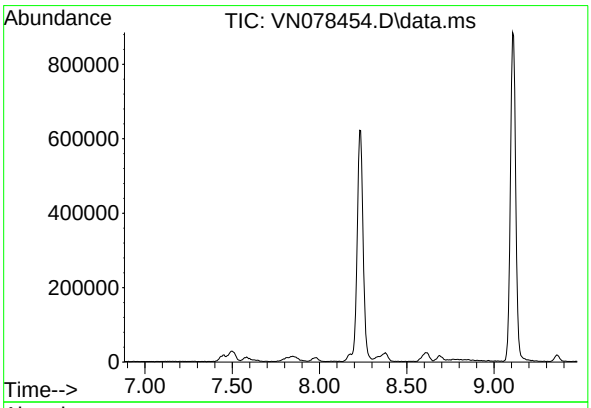
Ion	Ratio	Lower	Upper
114	100		
63	19.5	0.0	36.4
88	14.5	0.0	30.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



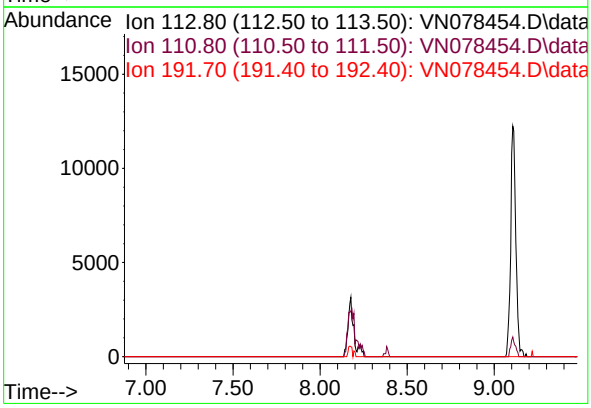


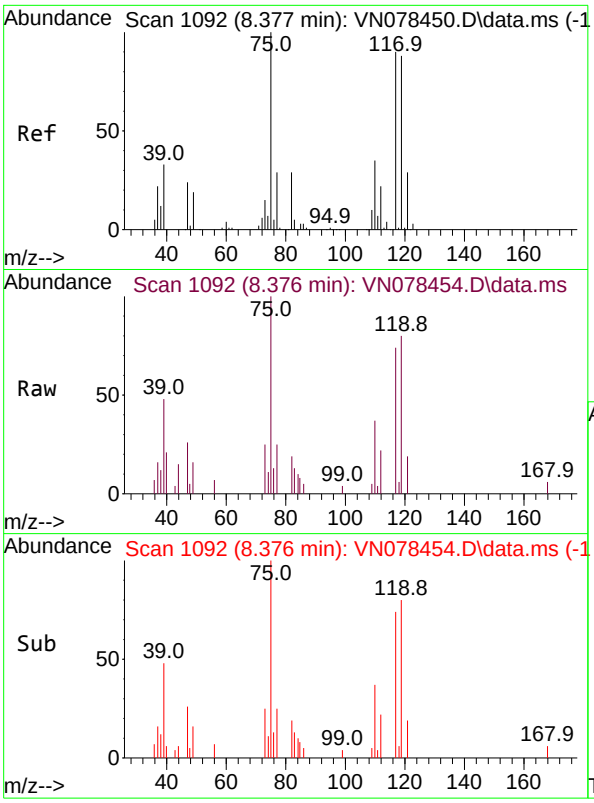
#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 8.18 min

Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 113

Sig	Exp Ratio
113	100
111	103.2
192	15.9





#36
1,1-Dichloropropene
Concen: 1.050 ug/l
RT: 8.376 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

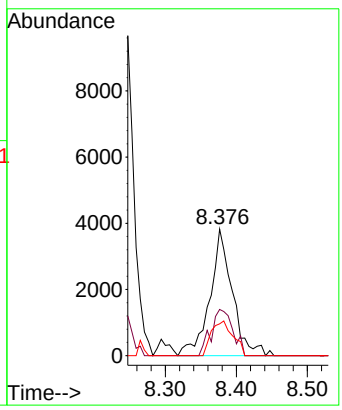
Tgt Ion: 75 Resp: 842

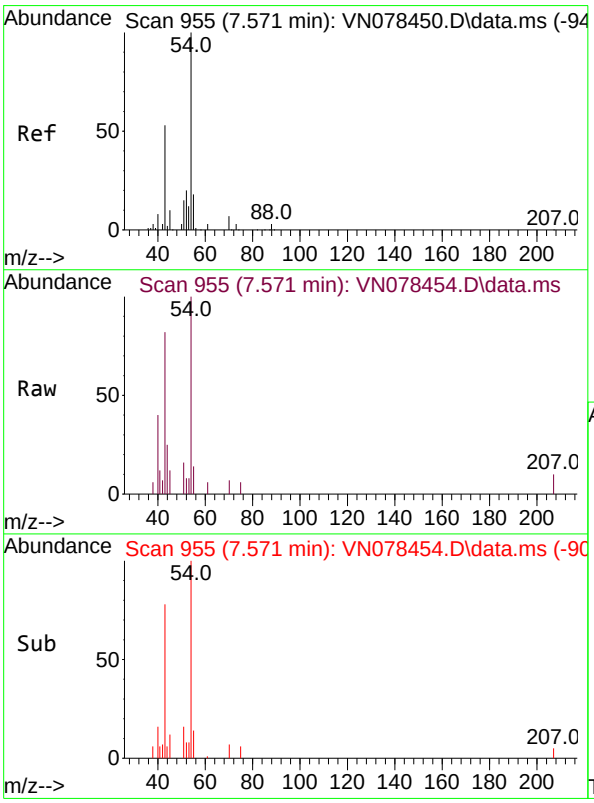
Ion	Ratio	Lower	Upper
75	100		
110	35.2	19.1	57.3
77	26.5	25.0	37.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

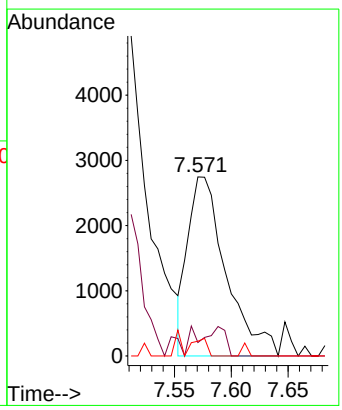


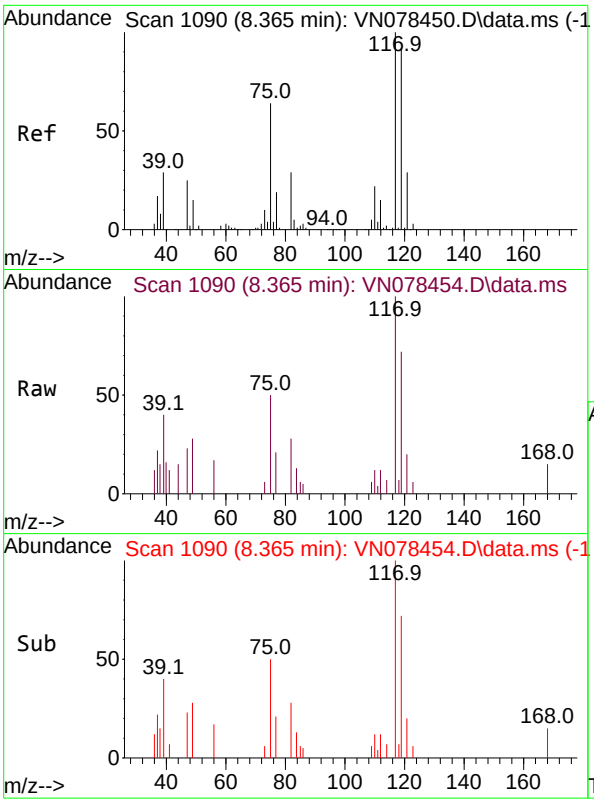


#37
Ethyl Acetate
Concen: 0.964 ug/l
RT: 7.571 min Scan# 955
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 43 Resp: 6447

Ion	Ratio	Lower	Upper
43	100		
61	6.3	13.2	19.8#
70	3.8	11.3	16.9#

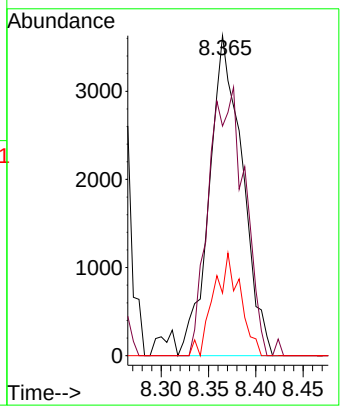




#38
Carbon Tetrachloride
Concen: 1.011 ug/l
RT: 8.365 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:117 Resp: 881

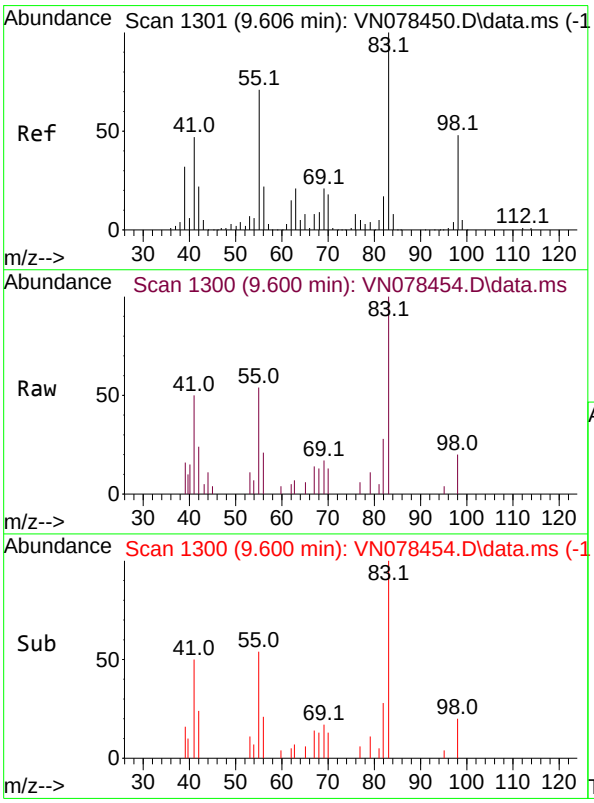
Ion	Ratio	Lower	Upper
117	100		
119	71.8	77.3	115.9#
121	19.6	23.3	34.9#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

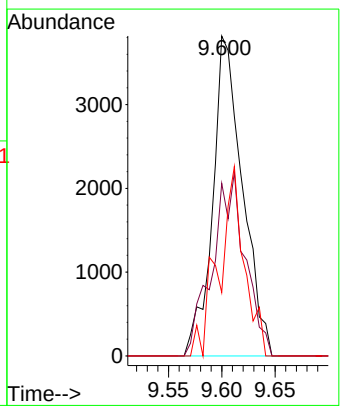
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

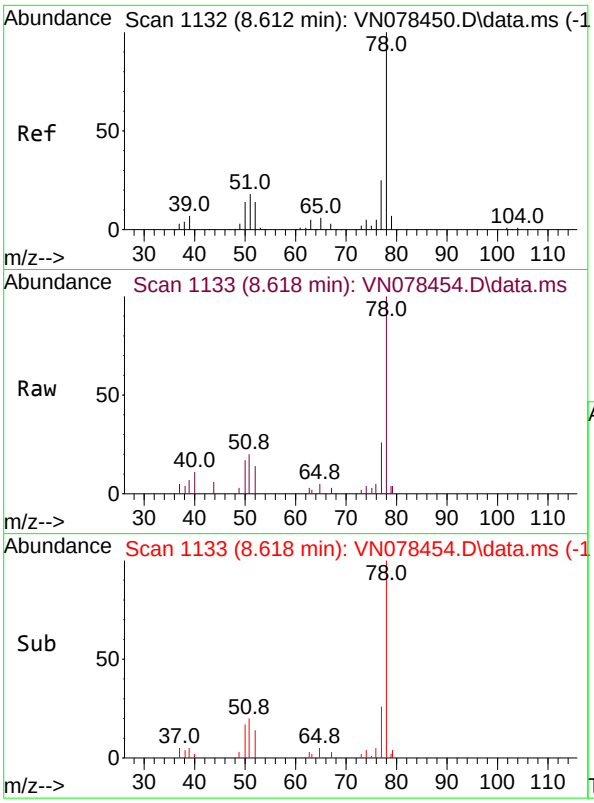


#39
Methylcyclohexane
Concen: 1.018 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 83 Resp: 7452

Ion	Ratio	Lower	Upper
83	100		
55	53.9	49.1	73.7
98	19.8	40.6	61.0#





#40
Benzene
Concen: 0.978 ug/l
RT: 8.618 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

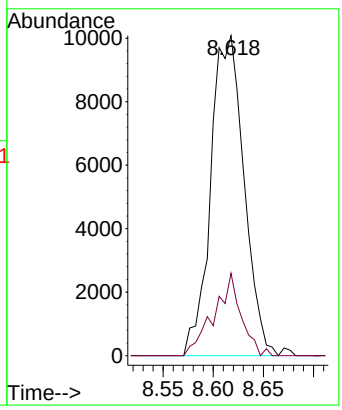
Tgt Ion: 78 Resp: 2322

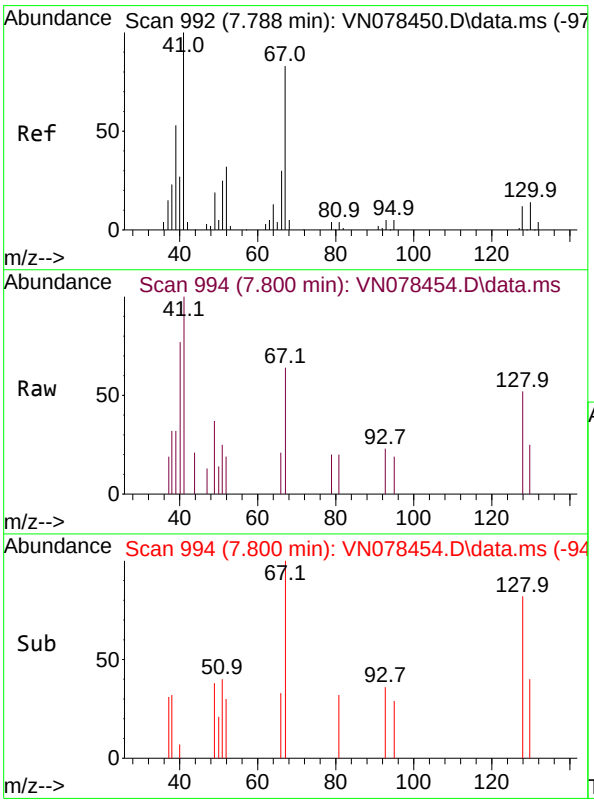
Ion	Ratio	Lower	Upper
78	100		
77	25.7	19.0	28.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

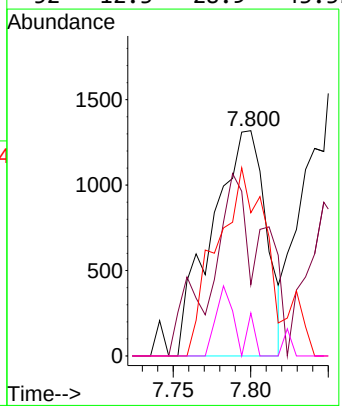


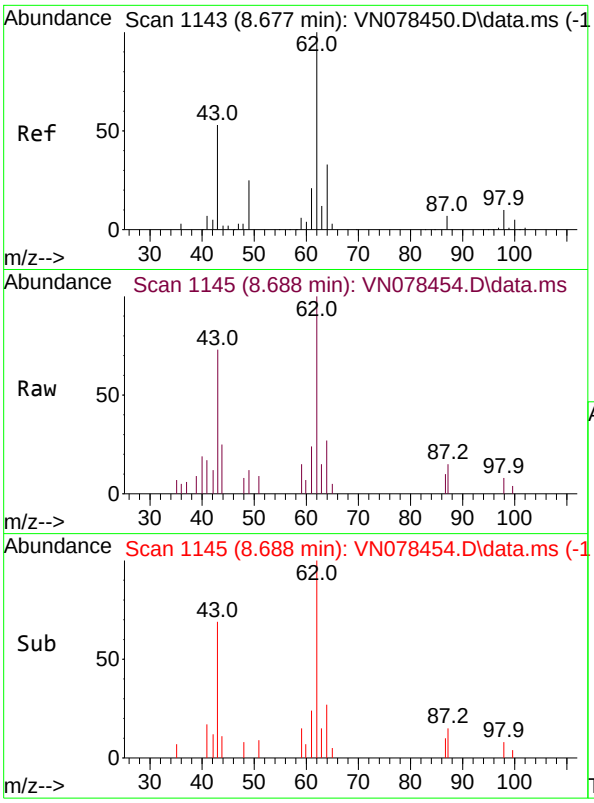


#41
Methacrylonitrile
Concen: 0.945 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.012 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 41 Resp: 3220

Ion	Ratio	Lower	Upper
41	100		
39	33.1	42.6	64.0#
67	76.1	77.5	116.3#
52	12.3	28.9	43.3#

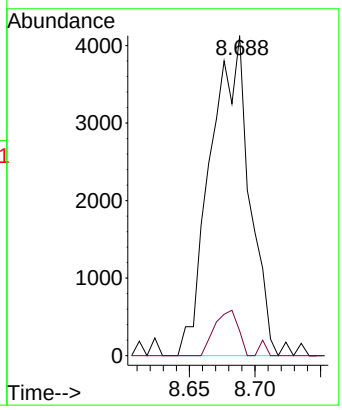




#42
1,2-Dichloroethane
Concen: 1.057 ug/l
RT: 8.688 min Scan# 1
Delta R.T. 0.011 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 62 Resp: 854

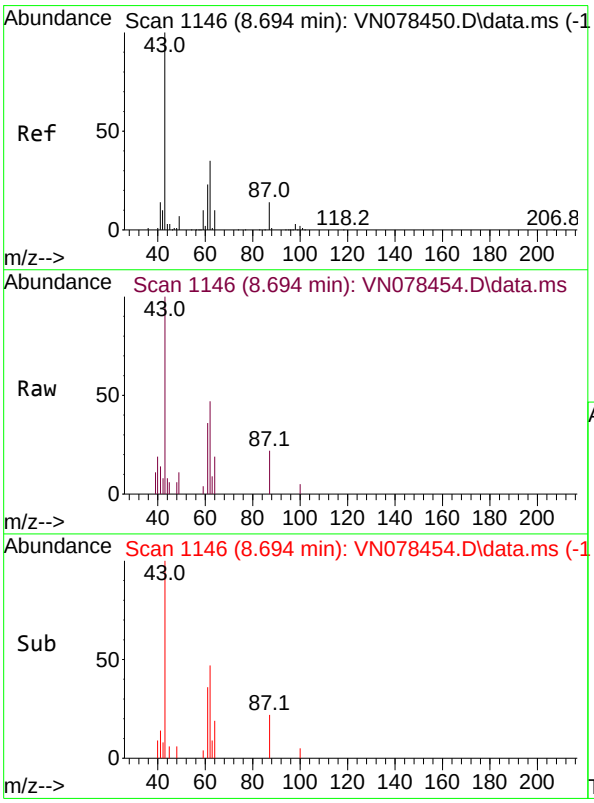
Ion	Ratio	Lower	Upper
62	100		
98	8.6	0.0	19.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

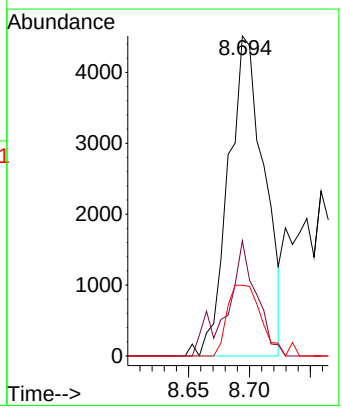
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

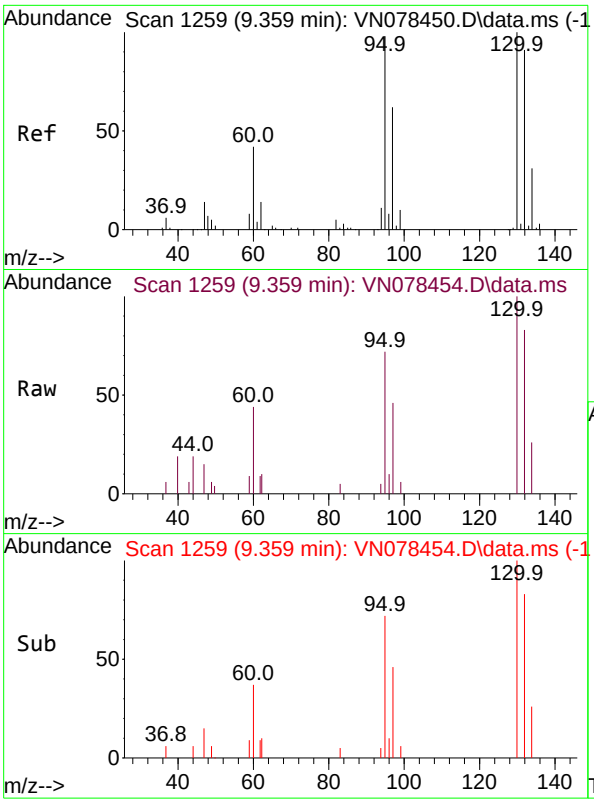


#43
Isopropyl Acetate
Concen: 0.839 ug/l
RT: 8.694 min Scan# 1146
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 43 Resp: 9229

Ion	Ratio	Lower	Upper
43	100		
61	25.4	24.7	37.1
87	21.5	14.6	21.8

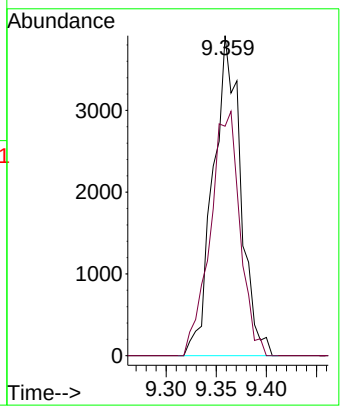




#44
Trichloroethene
Concen: 1.171 ug/l
RT: 9.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:130 Resp: 749

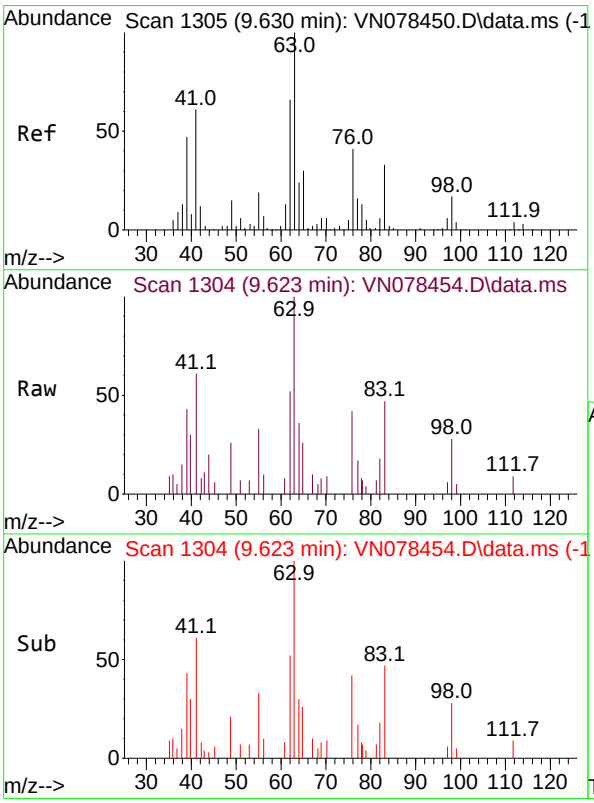
Ion	Ratio	Lower	Upper
130	100		
95	71.7	0.0	204.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

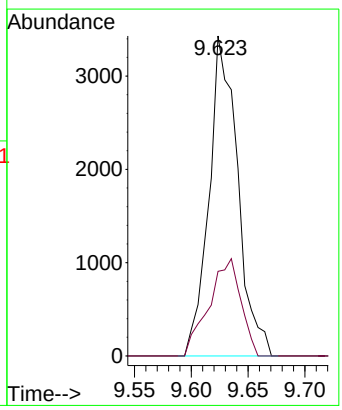
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

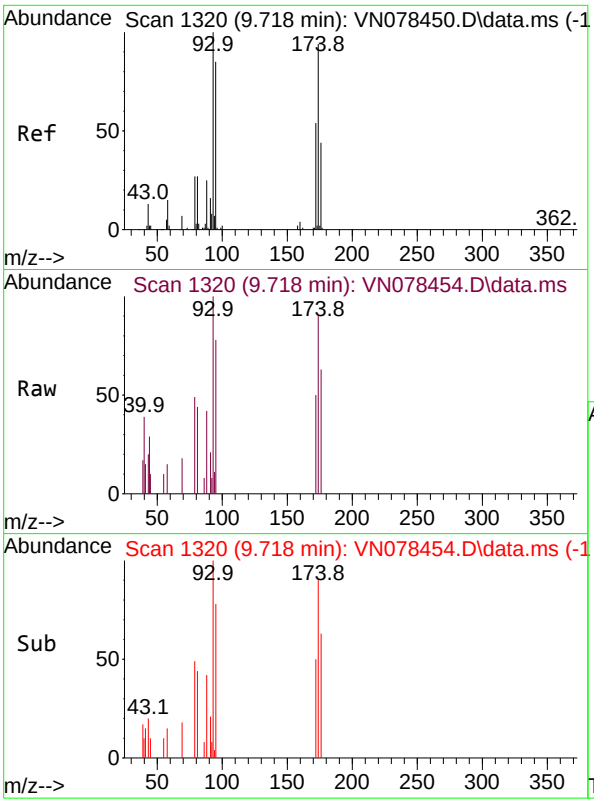


#45
1,2-Dichloropropane
Concen: 0.999 ug/l
RT: 9.623 min Scan# 1304
Delta R.T. -0.007 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 63 Resp: 6009

Ion	Ratio	Lower	Upper
63	100		
65	26.4	23.9	35.9

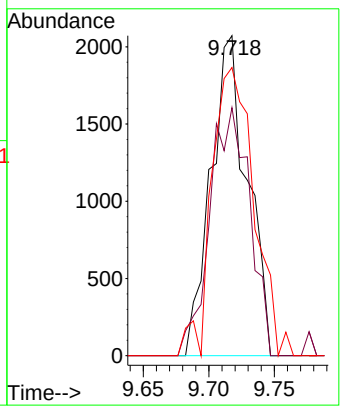




#46
Dibromomethane
Concen: 0.942 ug/l
RT: 9.718 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 93 Resp: 399

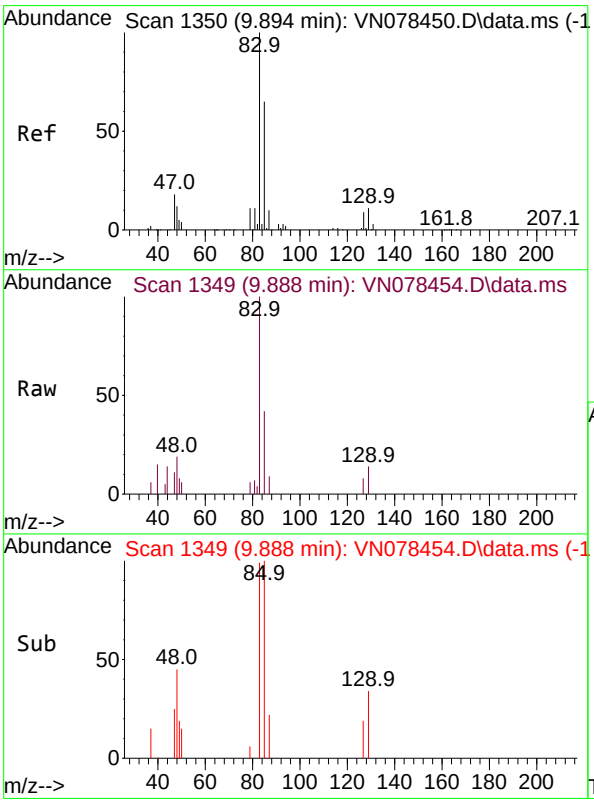
Ion	Ratio	Lower	Upper
93	100		
95	85.4	63.8	95.8
174	104.8	65.6	98.4#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

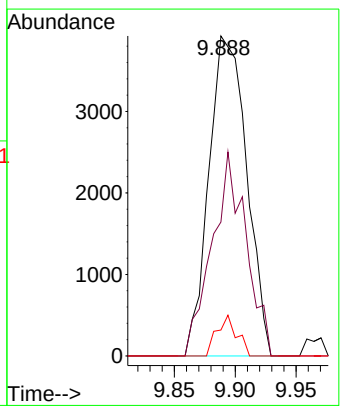
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

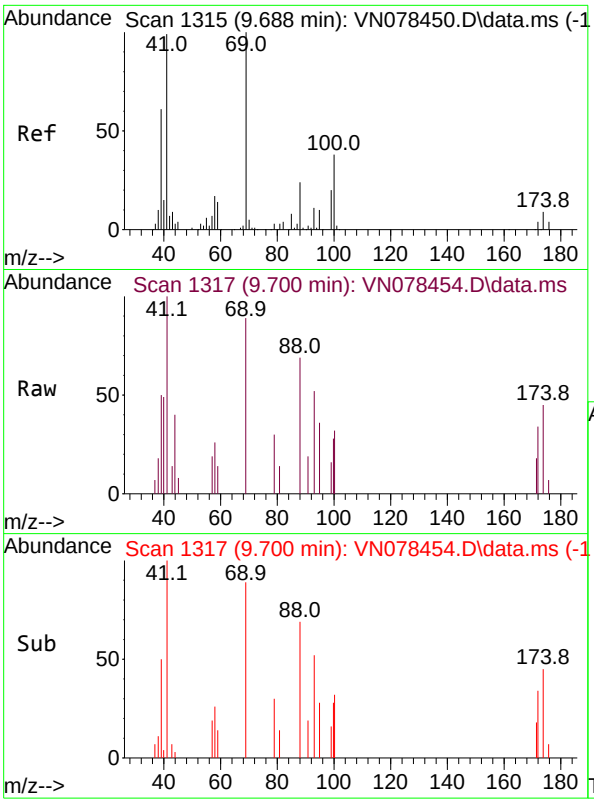


#47
Bromodichloromethane
Concen: 0.998 ug/l
RT: 9.888 min Scan# 1349
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 83 Resp: 8476

Ion	Ratio	Lower	Upper
83	100		
85	41.8	49.6	74.4#
127	8.1	7.0	10.6

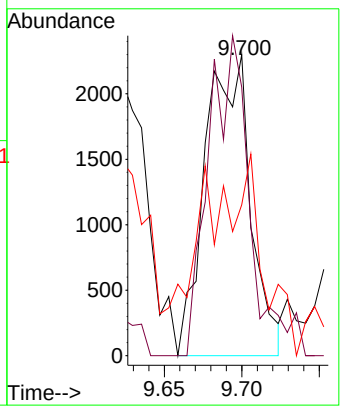




#48
Methyl methacrylate
Concen: 0.918 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 41 Resp: 468

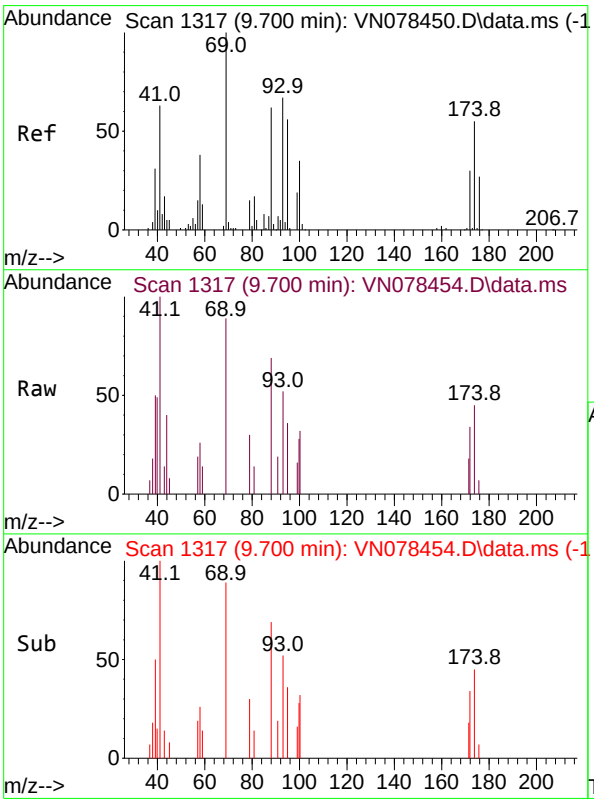
Ion	Ratio	Lower	Upper
41	100		
69	96.9	90.4	135.6
39	0.0	54.6	81.8#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

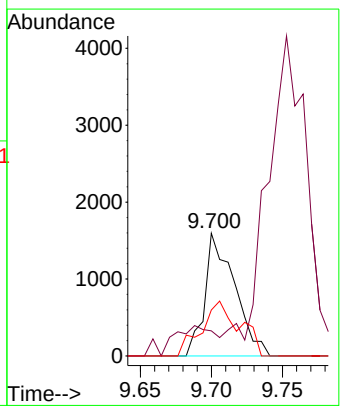
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

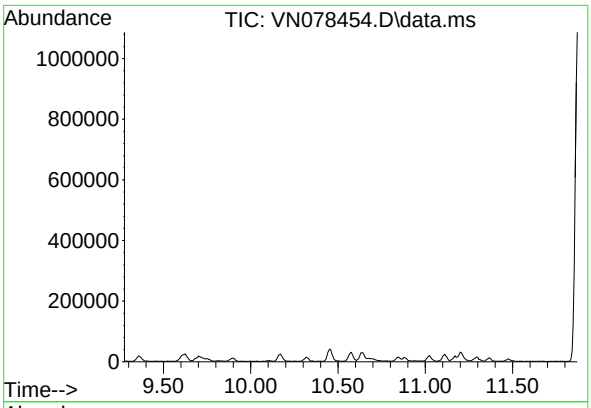


#49
1,4-Dioxane
Concen: 20.972 ug/l
RT: 9.700 min Scan# 1317
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 88 Resp: 2332

Ion	Ratio	Lower	Upper
88	100		
43	35.9	17.0	25.6#
58	56.7	47.0	70.4





#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 10.57 min

Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

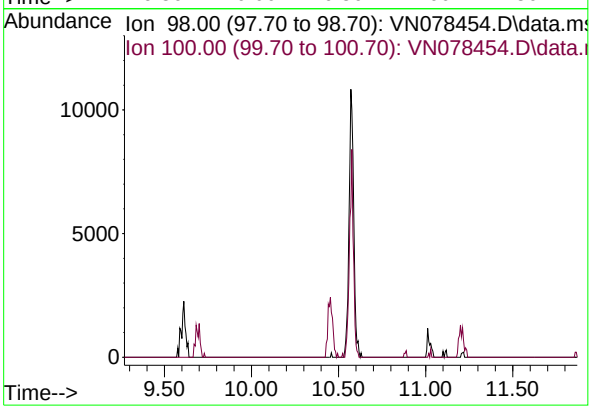
Tgt Ion: 98

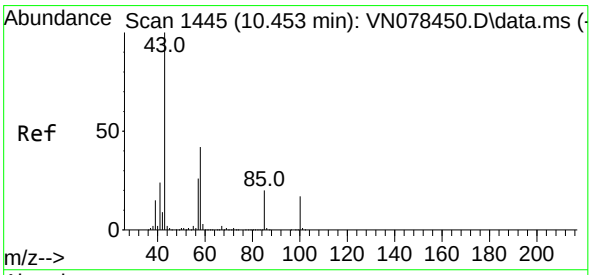
Sig	Exp Ratio
98	100
100	65.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

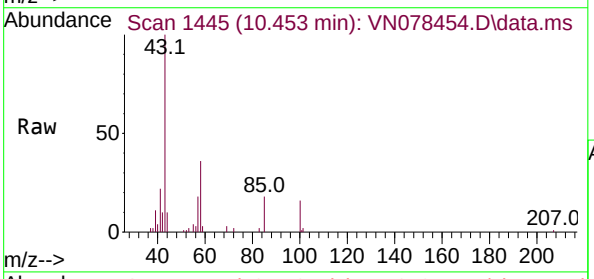


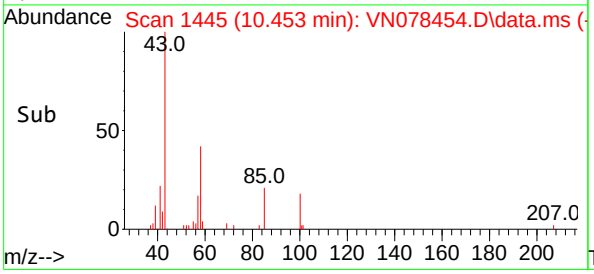


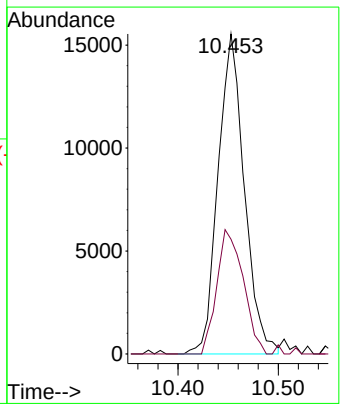
#51
4-Methyl-2-Pentanone
Concen: 4.323 ug/l
RT: 10.453 min Scan# 1445
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

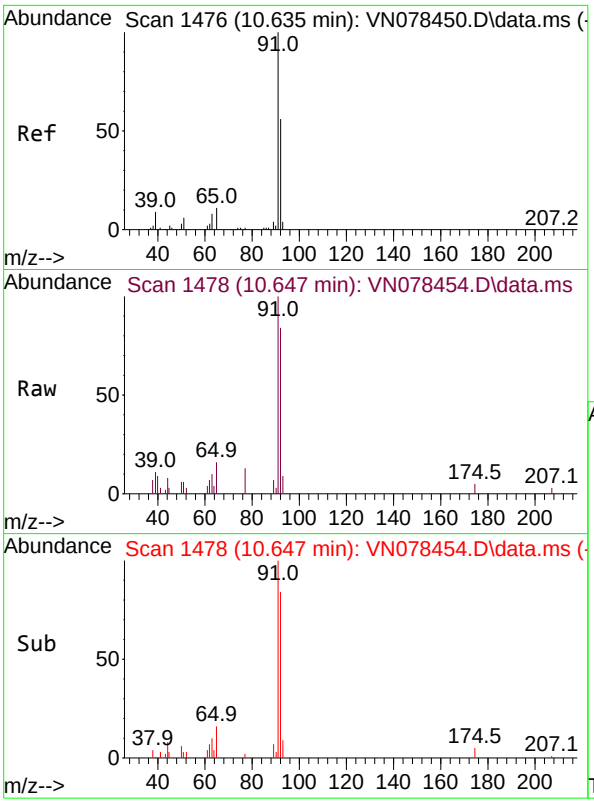
Tgt Ion: 43 Resp: 28299

Ion	Ratio	Lower	Upper
43	100		
58	39.1	36.6	54.8









#52
Toluene
Concen: 0.983 ug/l
RT: 10.647 min Scan# 14
Delta R.T. 0.012 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

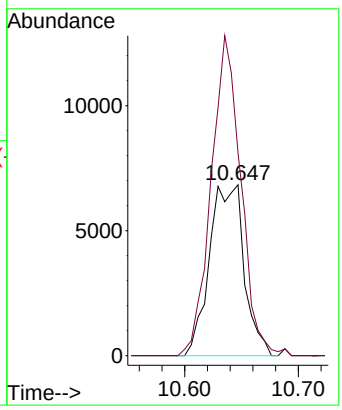
Tgt Ion: 92 Resp: 1447

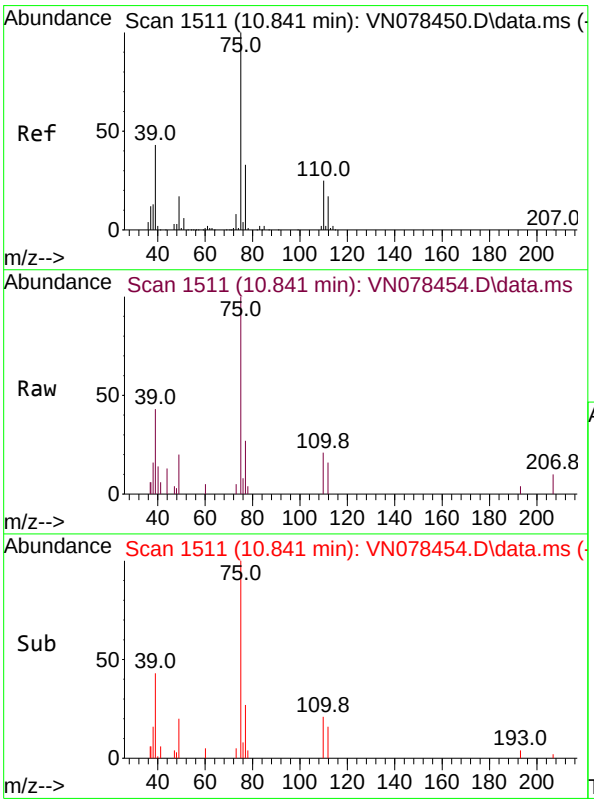
Ion	Ratio	Lower	Upper
92	100		
91	160.9	137.4	206.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

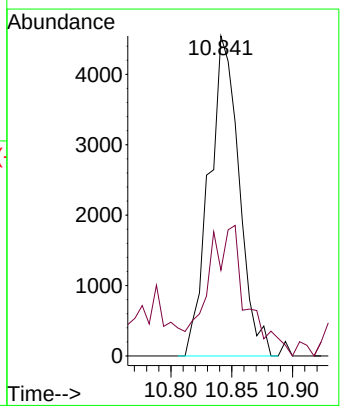


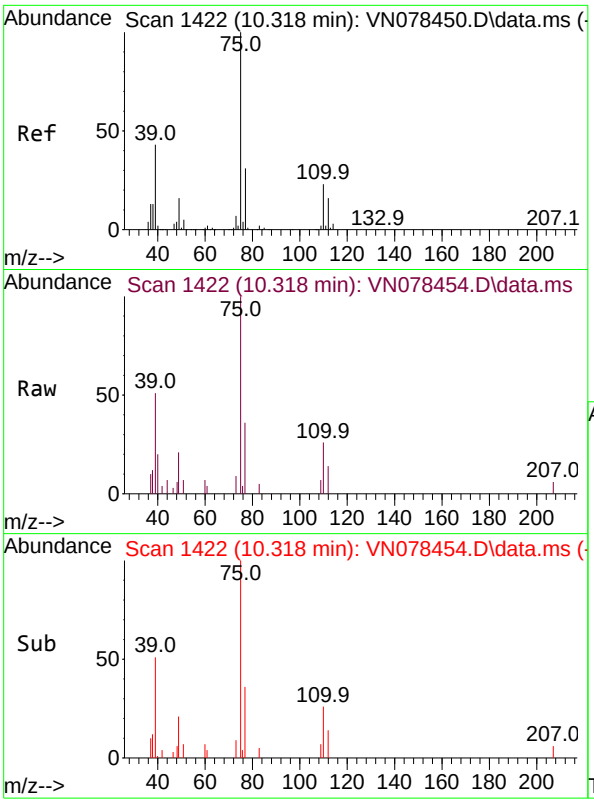


#53
t-1,3-Dichloropropene
Concen: 0.895 ug/l
RT: 10.841 min Scan# 1511
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 75 Resp: 7787

Ion	Ratio	Lower	Upper
75	100		
77	21.3	25.4	38.0#

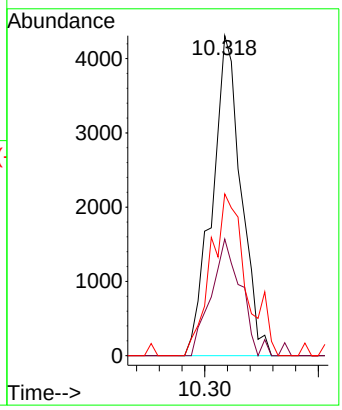




#54
cis-1,3-Dichloropropene
Concen: 0.825 ug/l
RT: 10.318 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 75 Resp: 764

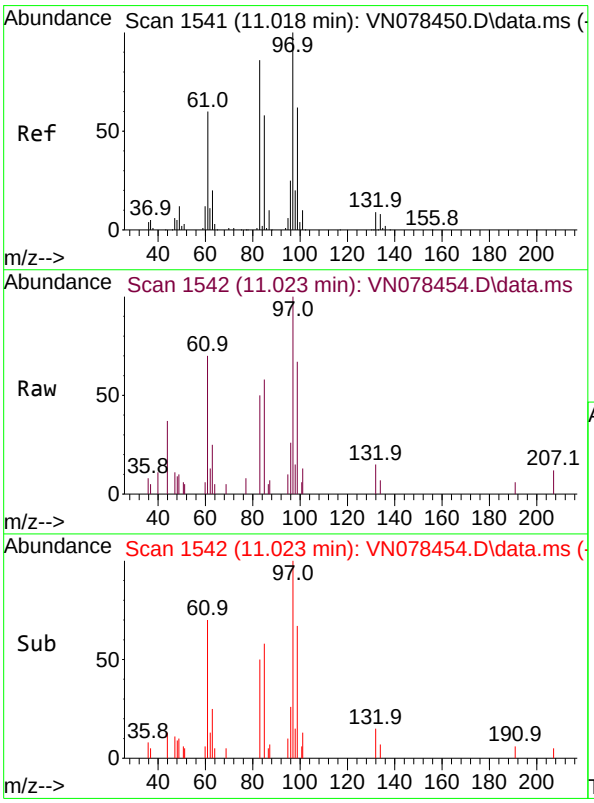
Ion	Ratio	Lower	Upper
75	100		
77	36.5	26.1	39.1
39	50.5	31.6	47.4#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

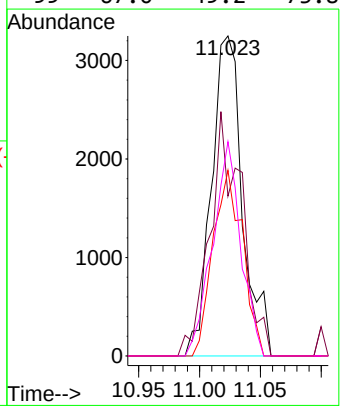
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

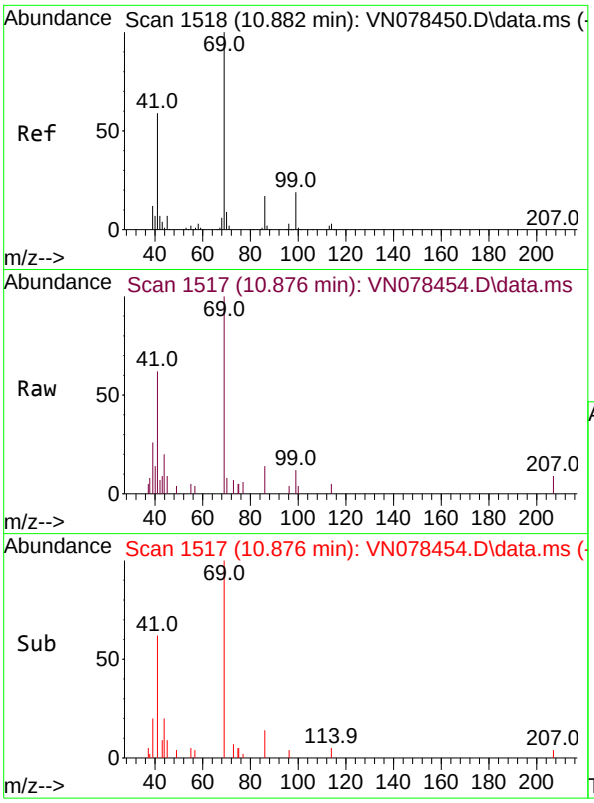


#55
1,1,2-Trichloroethane
Concen: 0.995 ug/l
RT: 11.023 min Scan# 1542
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 97 Resp: 5774

Ion	Ratio	Lower	Upper
97	100		
83	50.0	65.1	97.7#
85	58.0	43.4	65.2
99	67.0	49.2	73.8





#56
Ethyl methacrylate
Concen: 0.871 ug/l
RT: 10.876 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

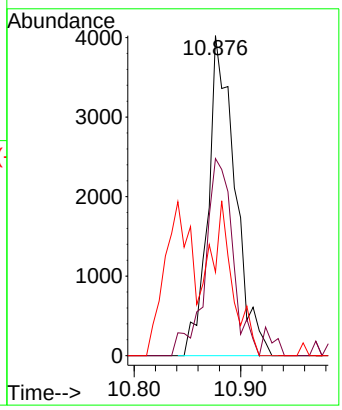
Tgt Ion: 69 Resp: 706

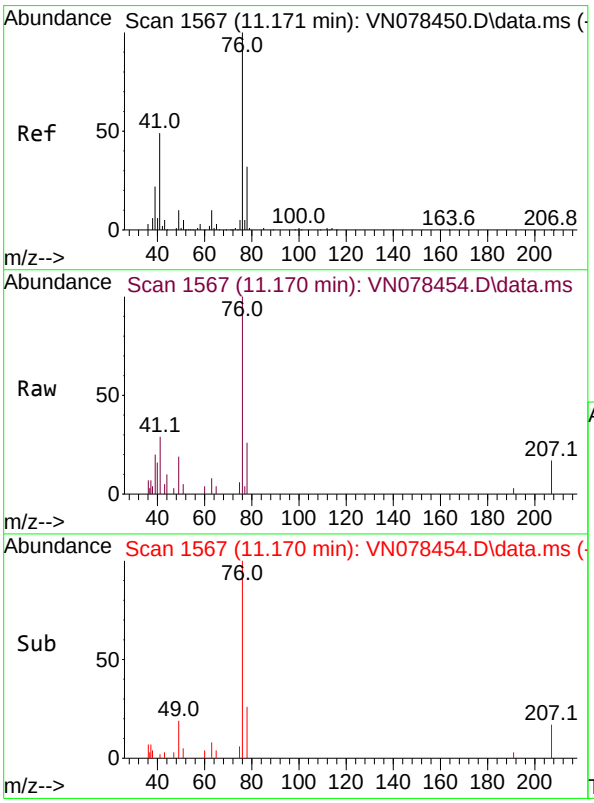
Ion	Ratio	Lower	Upper
69	100		
41	63.1	39.6	59.4
39	37.7	28.6	43.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

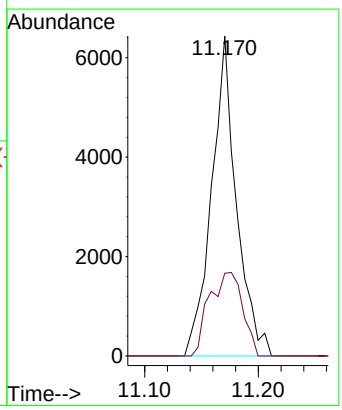


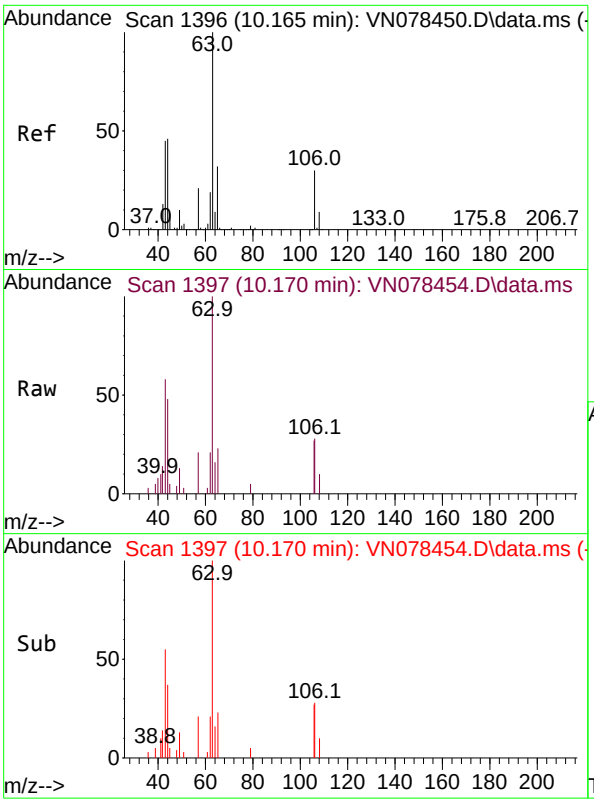


#57
1,3-Dichloropropane
Concen: 0.992 ug/l
RT: 11.170 min Scan# 1567
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 76 Resp: 9790

Ion	Ratio	Lower	Upper
76	100		
78	35.0	26.1	39.1

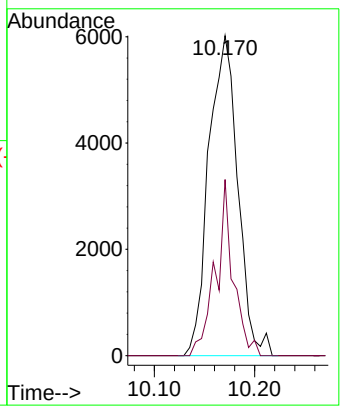




#58
2-Chloroethyl Vinyl ether
Concen: 4.188 ug/l
RT: 10.170 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 63 Resp: 1210

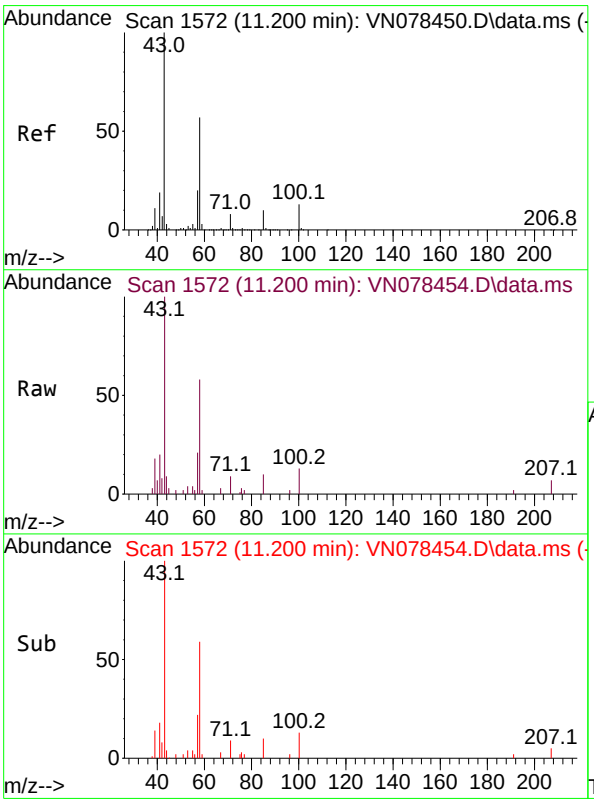
Ion	Ratio	Lower	Upper
63	100		
106	33.3	26.2	39.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

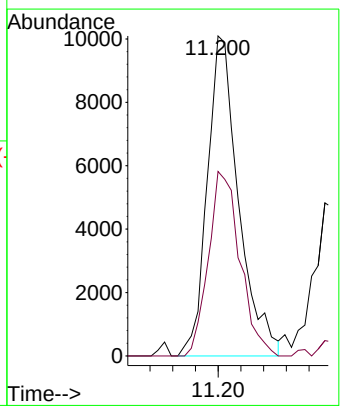
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

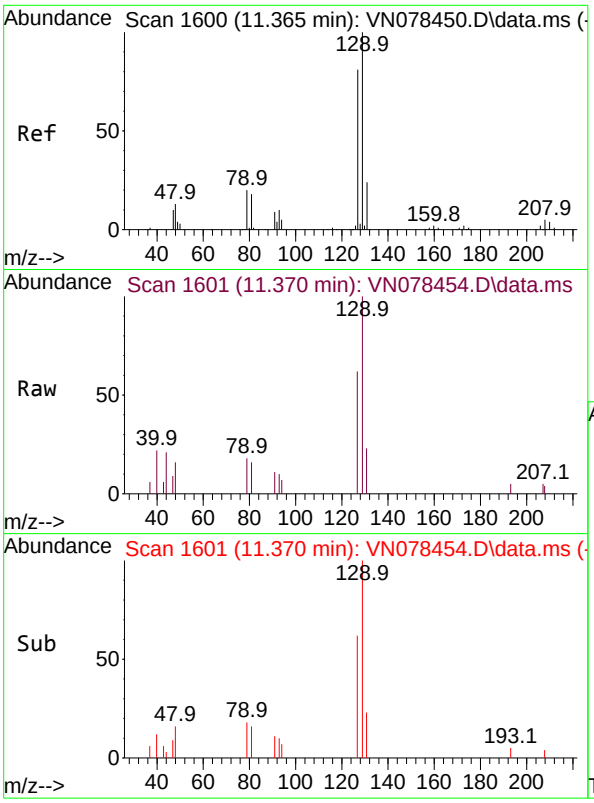


#59
2-Hexanone
Concen: 4.164 ug/l
RT: 11.200 min Scan# 1572
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 43 Resp: 19374

Ion	Ratio	Lower	Upper
43	100		
58	57.9	31.7	95.1

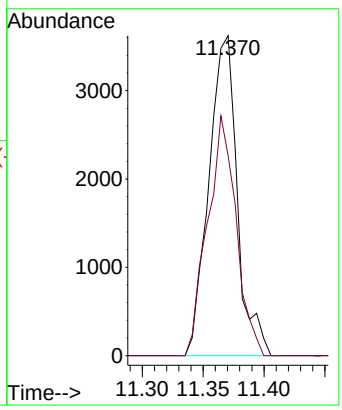




#60
Dibromochloromethane
Concen: 0.919 ug/l
RT: 11.370 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:129 Resp: 588

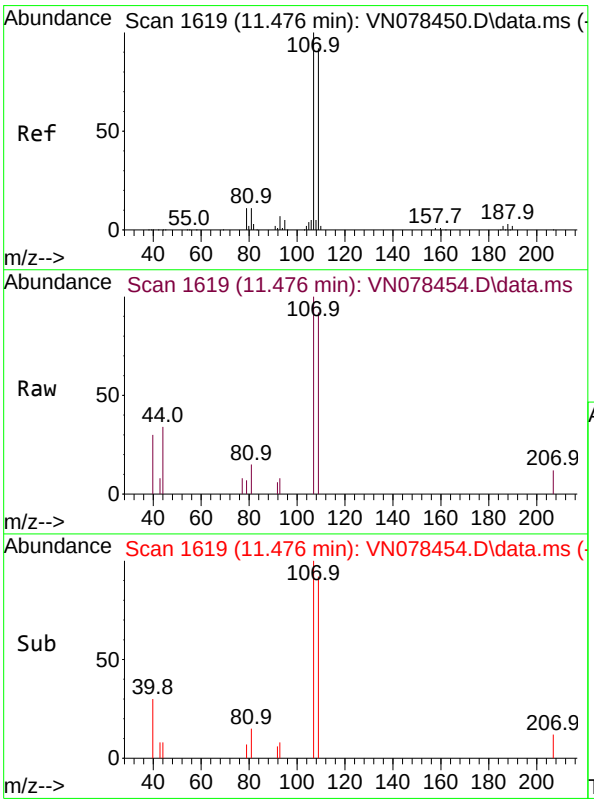
Ion	Ratio	Lower	Upper
129	100		
127	75.4	38.6	116.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

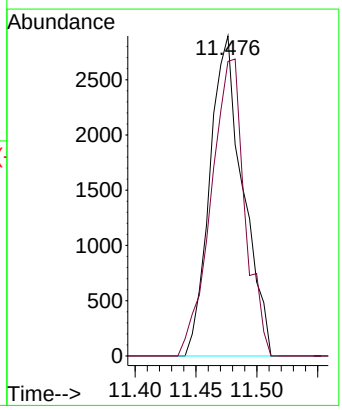
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

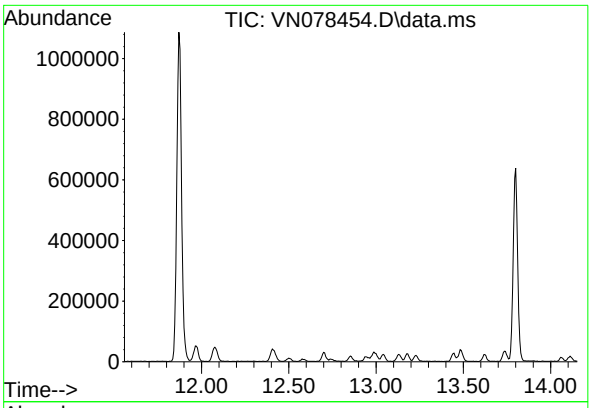


#61
1,2-Dibromoethane
Concen: 0.918 ug/l
RT: 11.476 min Scan# 1619
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:107 Resp: 5487

Ion	Ratio	Lower	Upper
107	100		
109	94.5	76.6	114.8





#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 12.85 min

Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

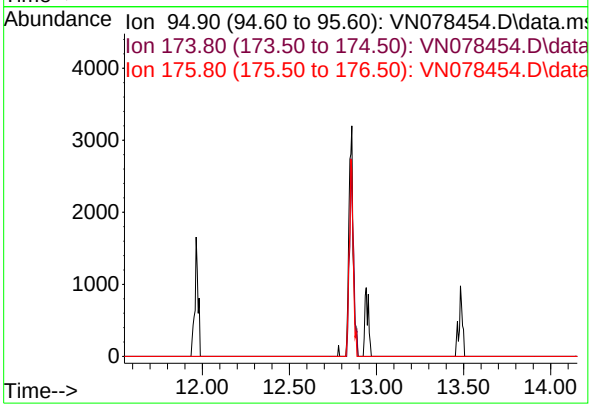
Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

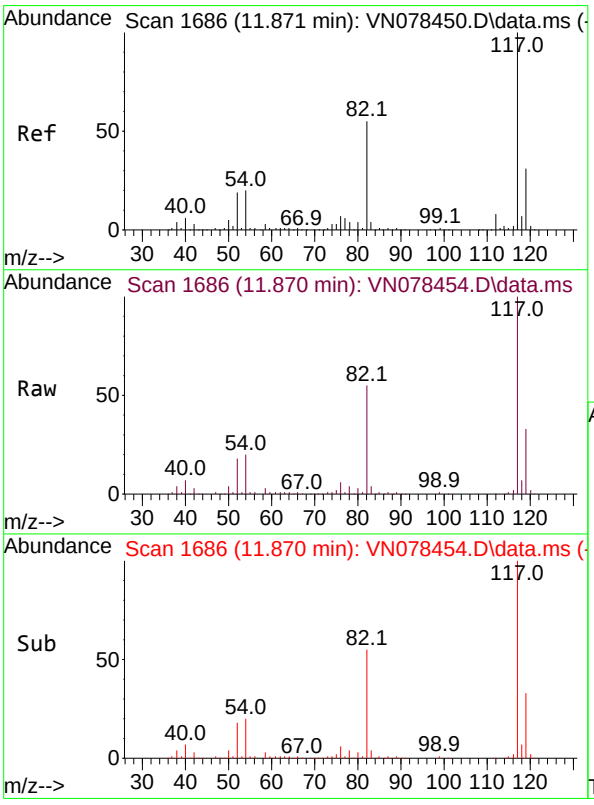
Tgt Ion: 95

Sig	Exp Ratio
95	100
174	71.9
176	67.9

Manual Integrations APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

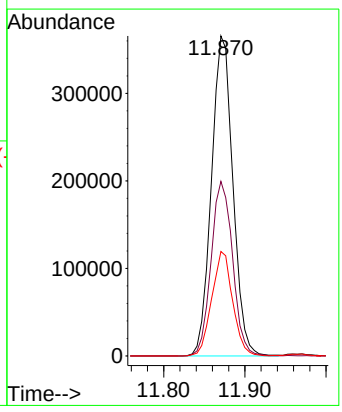


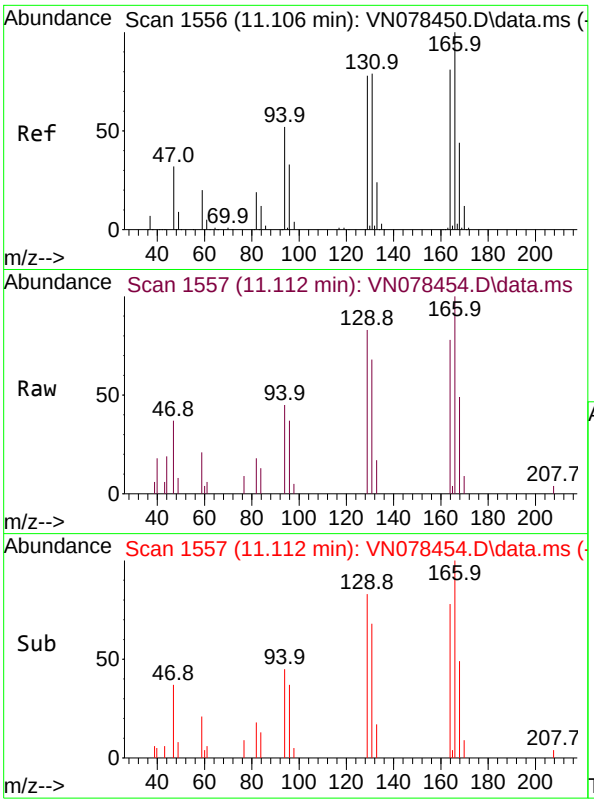


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 1686
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:117 Resp: 672181

Ion	Ratio	Lower	Upper
117	100		
82	54.5	44.0	66.0
119	32.6	25.6	38.4

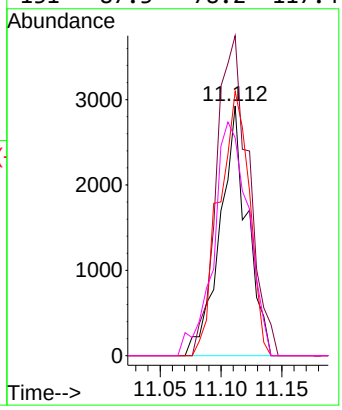




#64
Tetrachloroethene
Concen: 0.905 ug/l
RT: 11.112 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:164 Resp: 457

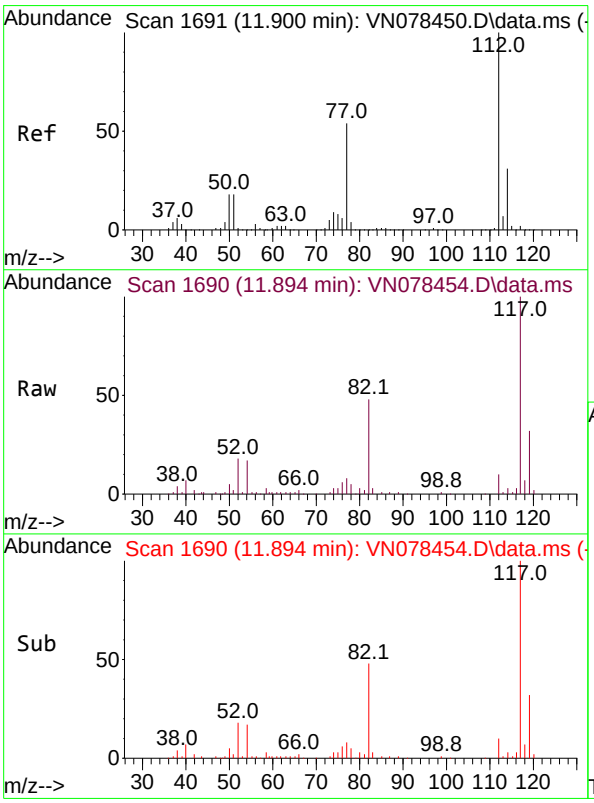
Ion	Ratio	Lower	Upper
164	100		
166	128.1	101.4	152.0
129	105.8	82.4	123.6
131	87.3	78.2	117.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

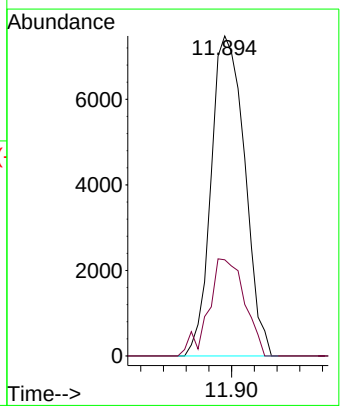
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

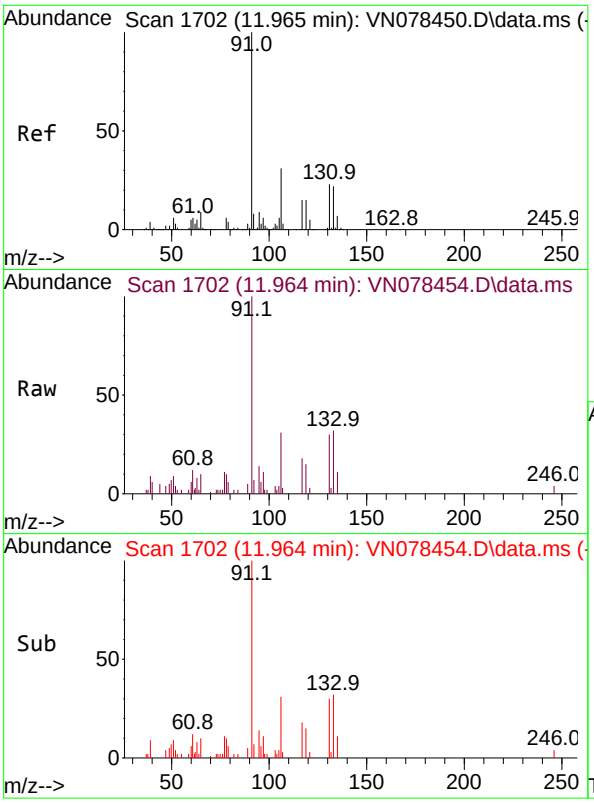


#65
Chlorobenzene
Concen: 1.022 ug/l
RT: 11.894 min Scan# 1690
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:112 Resp: 15354

Ion	Ratio	Lower	Upper
112	100		
114	30.1	25.0	37.4





#66
1,1,1,2-Tetrachloroethane
Concen: 1.014 ug/l
RT: 11.964 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

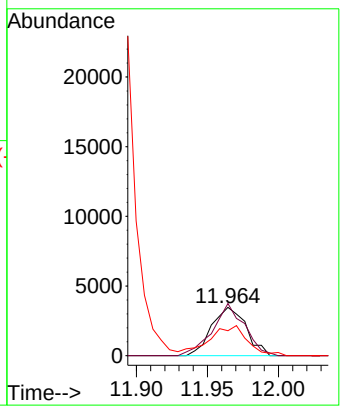
Tgt Ion:131 Resp: 586

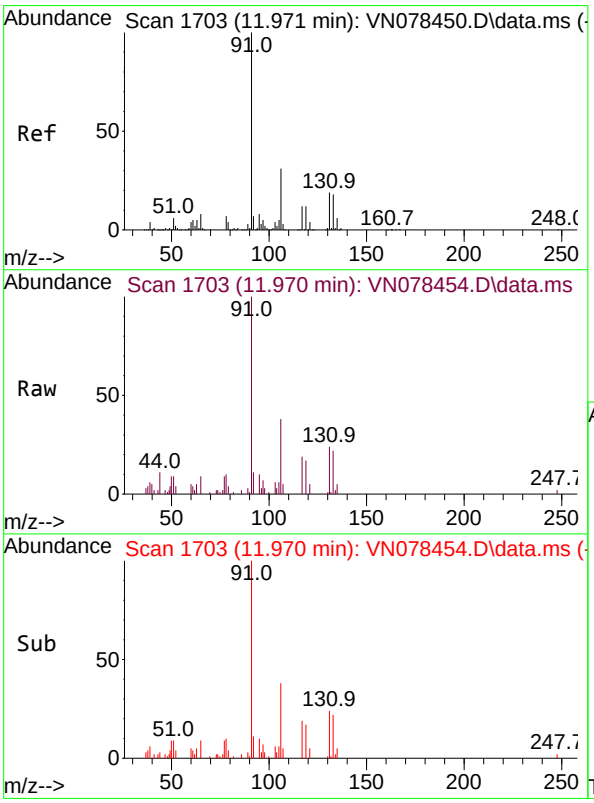
Ion	Ratio	Lower	Upper
131	100		
133	100.2	46.4	139.1
119	0.0	34.1	102.2#

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

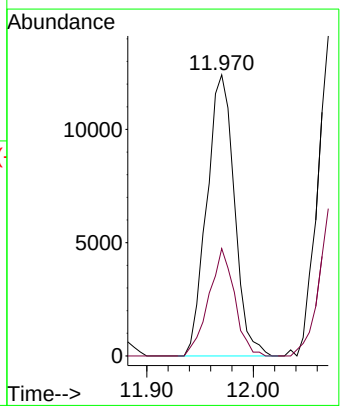


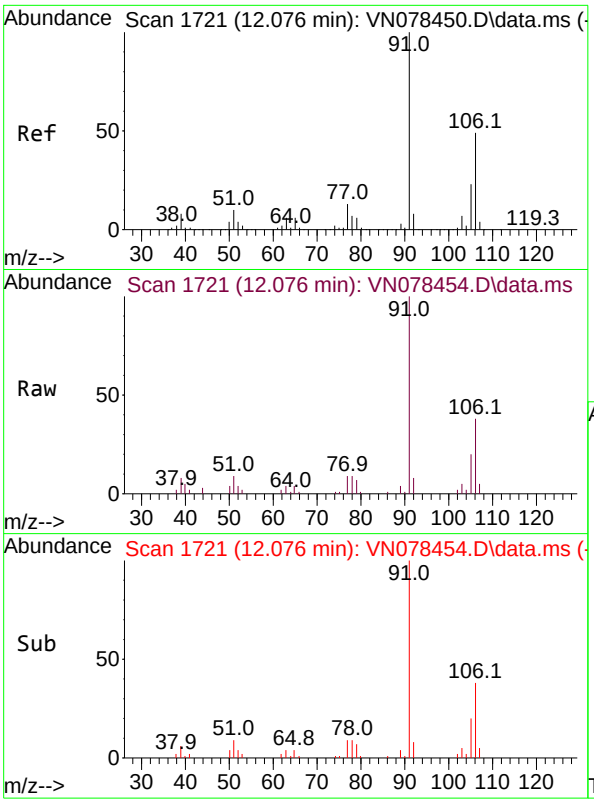


#67
Ethyl Benzene
Concen: 0.880 ug/l
RT: 11.970 min Scan# 1703
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 91 Resp: 22338

Ion	Ratio	Lower	Upper
91	100		
106	38.2	25.6	38.4





#68
m/p-Xylenes
Concen: 1.534 ug/l
RT: 12.076 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

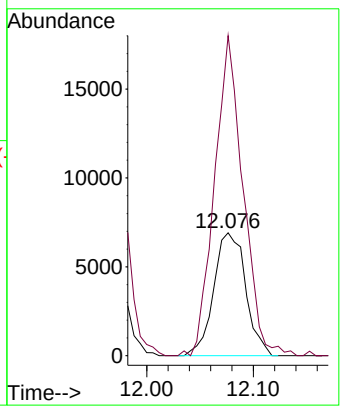
Tgt Ion:106 Resp: 1440

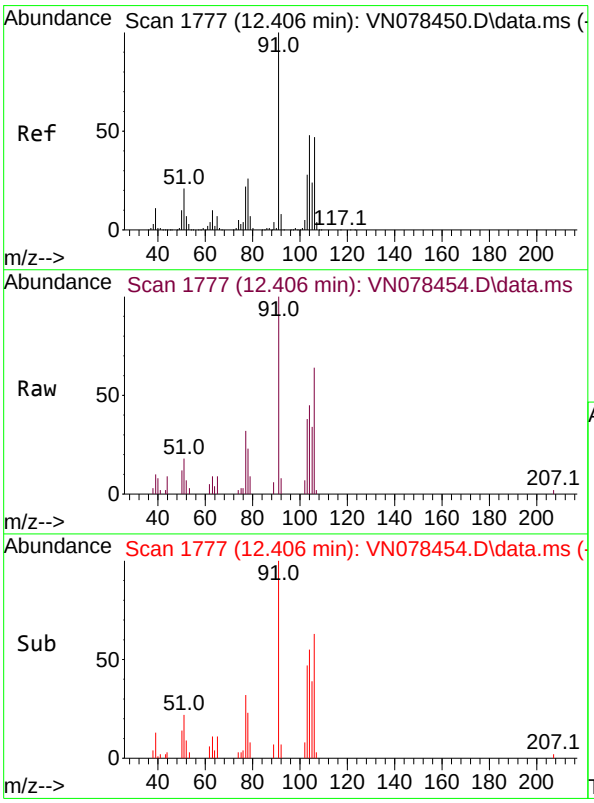
Ion	Ratio	Lower	Upper
106	100		
91	232.9	159.6	239.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

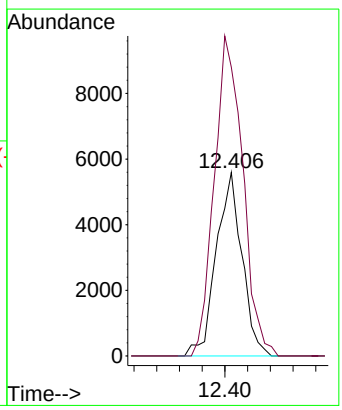


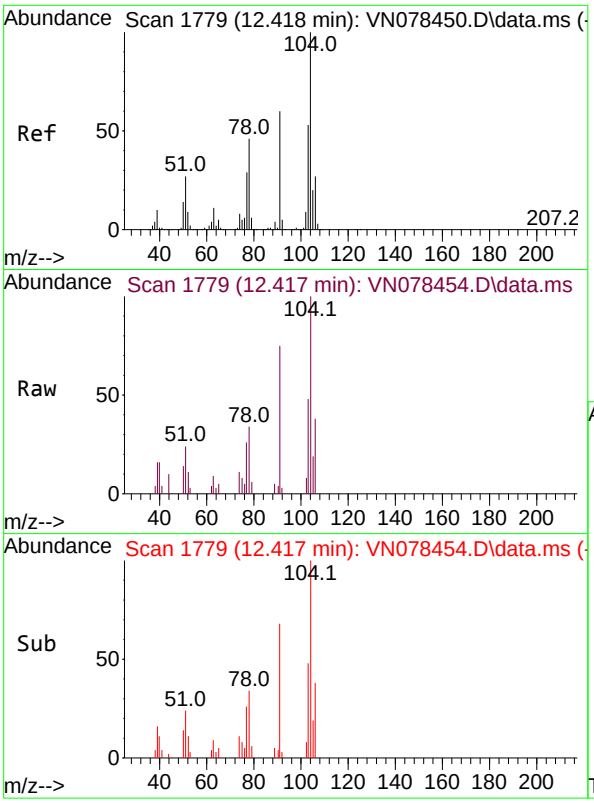


#69
o-Xylene
Concen: 0.928 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:106 Resp: 8798

Ion	Ratio	Lower	Upper
106	100		
91	193.1	105.2	315.5

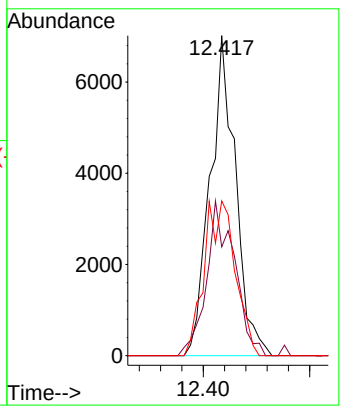




#70
Styrene
Concen: 0.785 ug/l
RT: 12.417 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:104 Resp: 1165

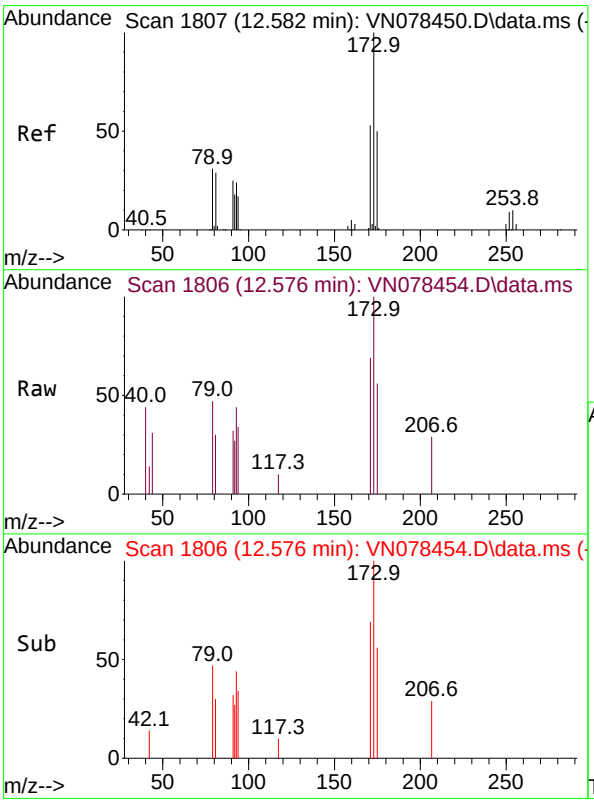
Ion	Ratio	Lower	Upper
104	100		
78	52.9	39.5	59.3
103	58.8	43.2	64.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

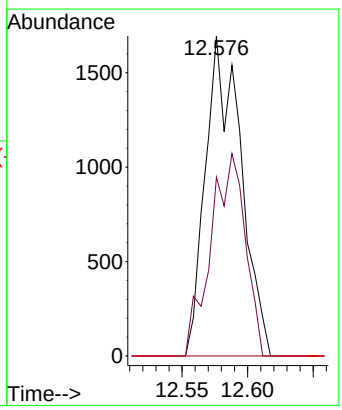
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

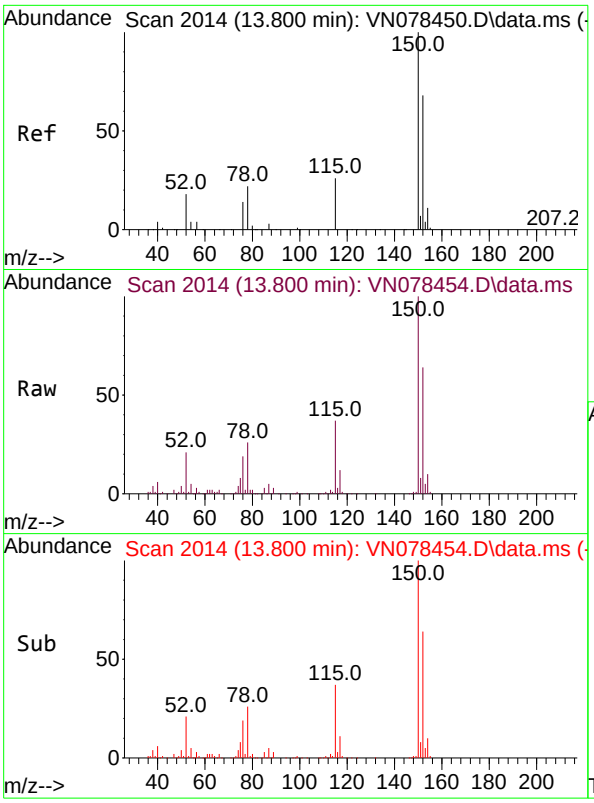


#71
Bromoform
Concen: 0.810 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:173 Resp: 3172

Ion	Ratio	Lower	Upper
173	100		
175	61.9	24.3	73.0
254	0.0	0.0	0.0

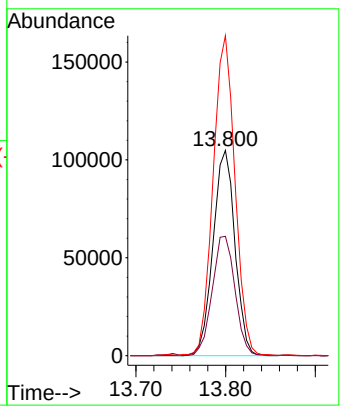




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:152 Resp: 17794

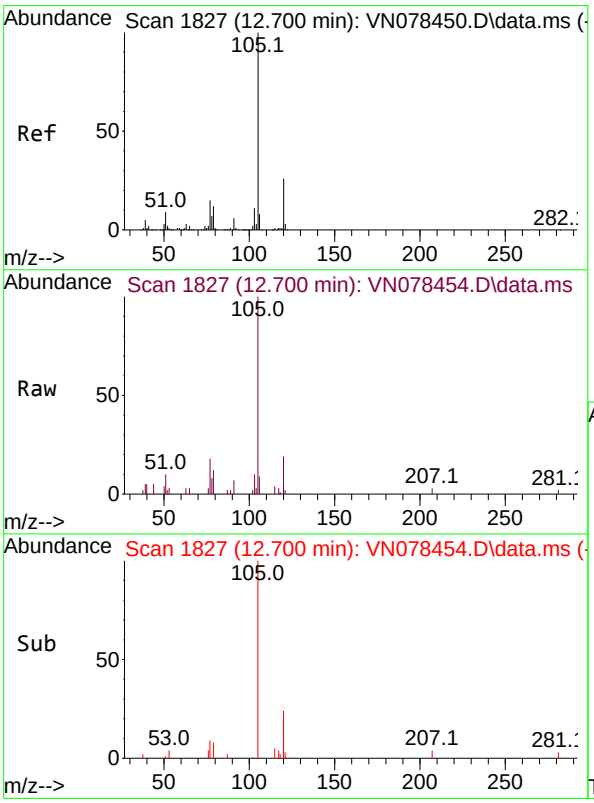
Ion	Ratio	Lower	Upper
152	100		
115	60.4	32.3	96.8
150	154.8	0.0	355.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

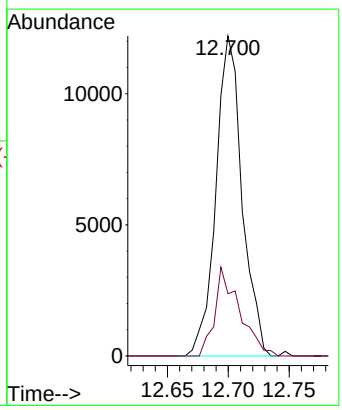
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

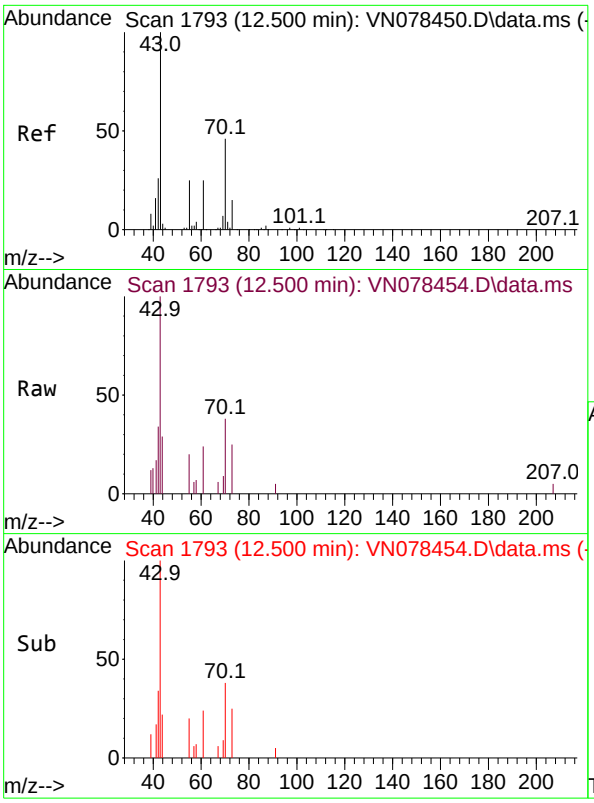


#73
Isopropylbenzene
Concen: 1.094 ug/l
RT: 12.700 min Scan# 1827
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:105 Resp: 18287

Ion	Ratio	Lower	Upper
105	100		
120	26.2	13.1	39.1

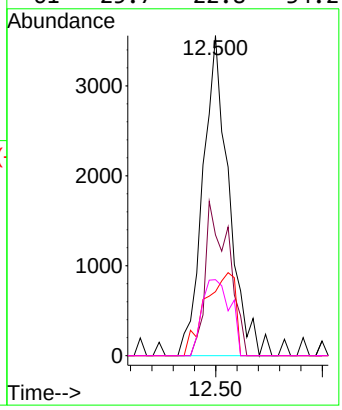




#74
N-amyl acetate
Concen: 1.047 ug/l
RT: 12.500 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 43 Resp: 603

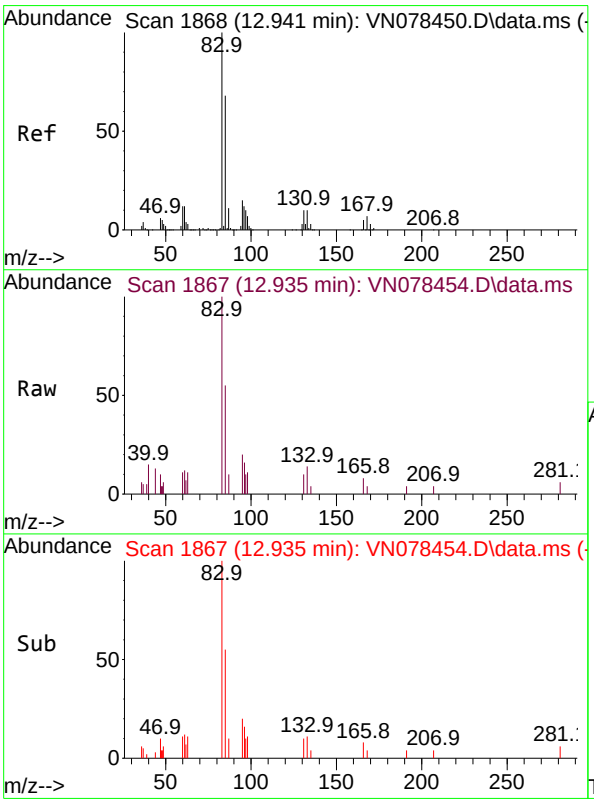
Ion	Ratio	Lower	Upper
43	100		
70	43.4	43.4	65.2
55	29.9	21.4	32.0
61	25.7	22.8	34.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

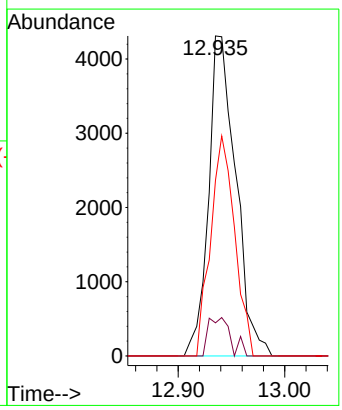
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

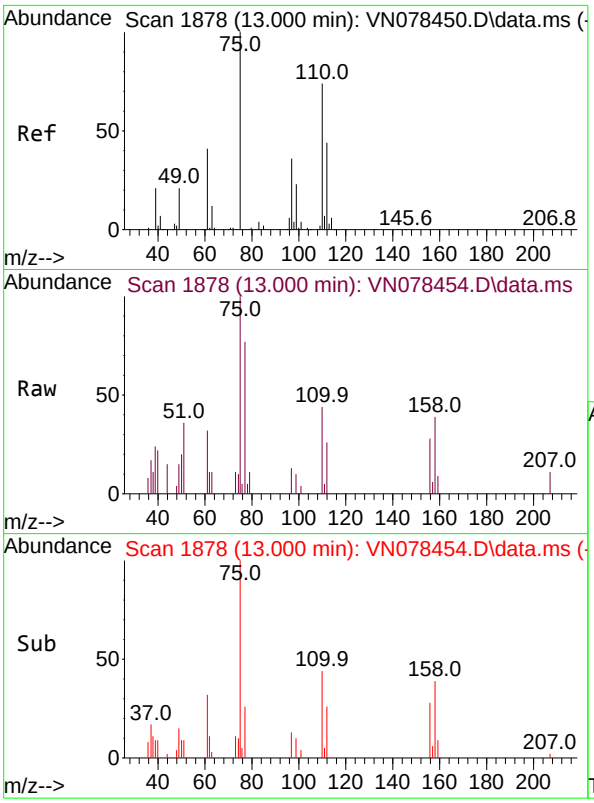


#75
1,1,2,2-Tetrachloroethane
Concen: 1.357 ug/l
RT: 12.935 min Scan# 1867
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 83 Resp: 7660

Ion	Ratio	Lower	Upper
83	100		
131	9.8	5.0	15.0
85	60.7	31.9	95.7





#76
1,2,3-Trichloropropane
Concen: 1.012 ug/l m
RT: 13.000 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

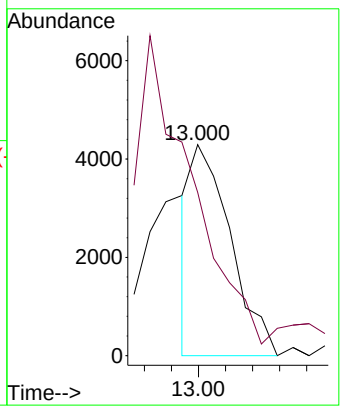
Tgt Ion: 75 Resp: 434

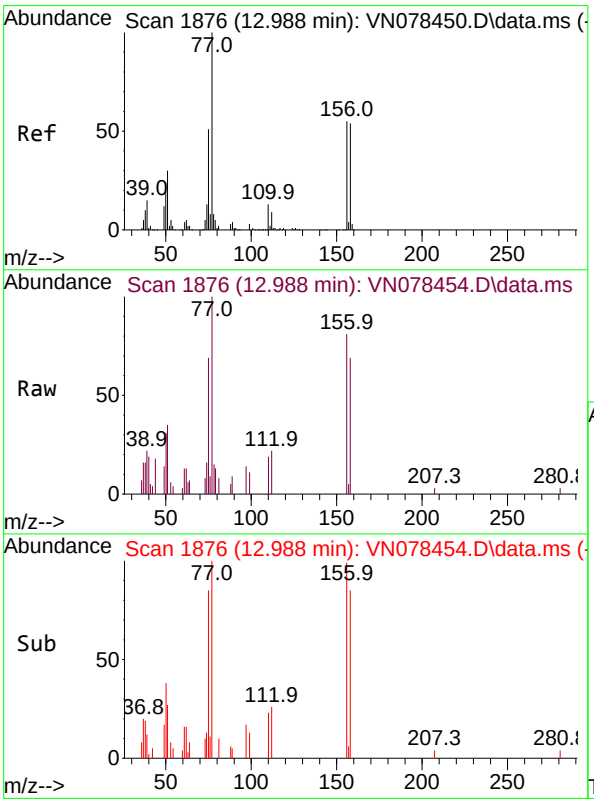
Ion	Ratio	Lower	Upper
75	100		
77	260.4	84.5	253.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

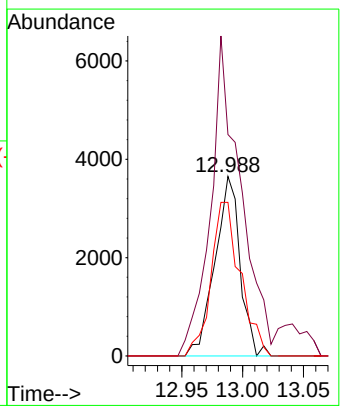


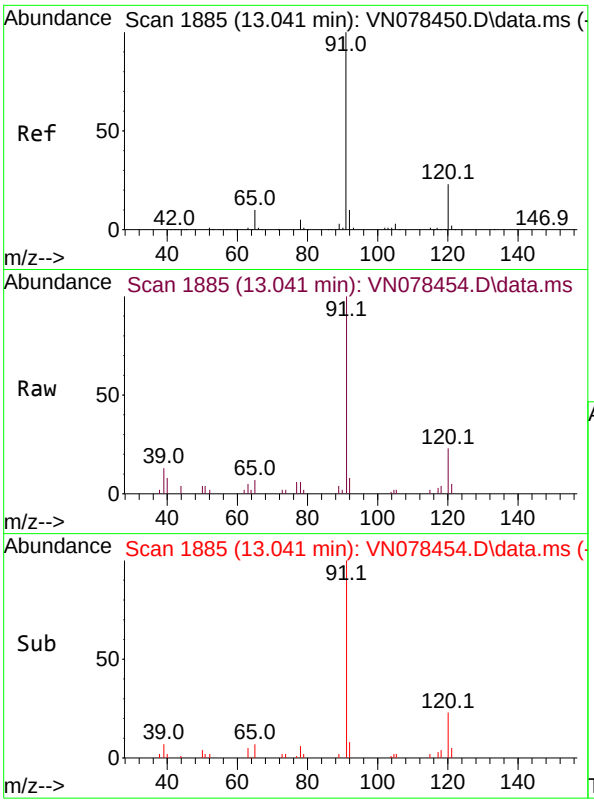


#77
Bromobenzene
Concen: 1.279 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:156 Resp: 5251

Ion	Ratio	Lower	Upper
156	100		
77	215.6	107.7	323.3
158	99.9	48.4	145.3

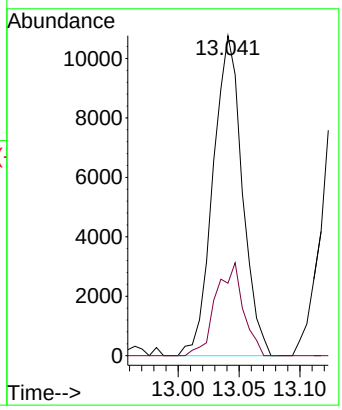




#78
n-propylbenzene
Concen: 1.010 ug/l
RT: 13.041 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 91 Resp: 1806

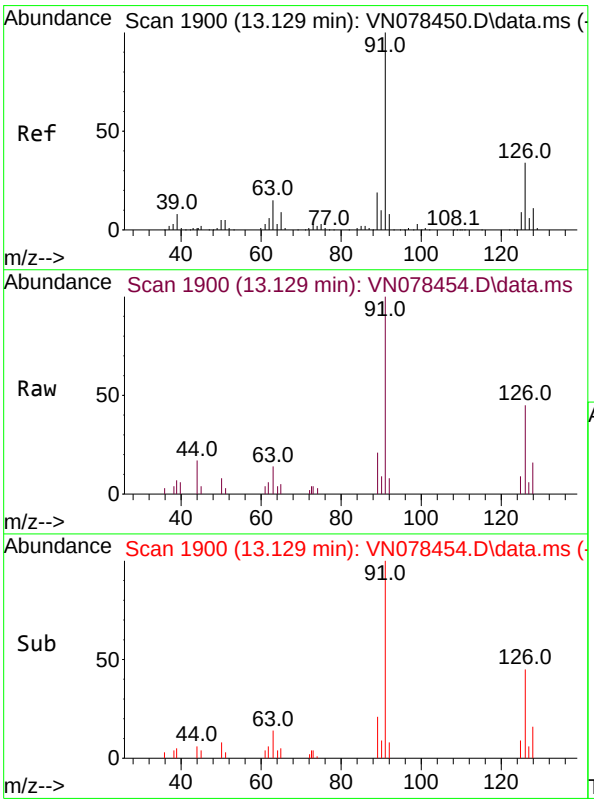
Ion	Ratio	Lower	Upper
91	100		
120	27.1	11.5	34.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

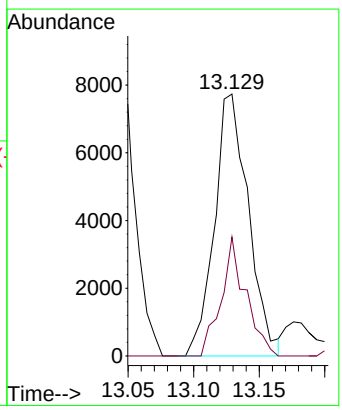
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

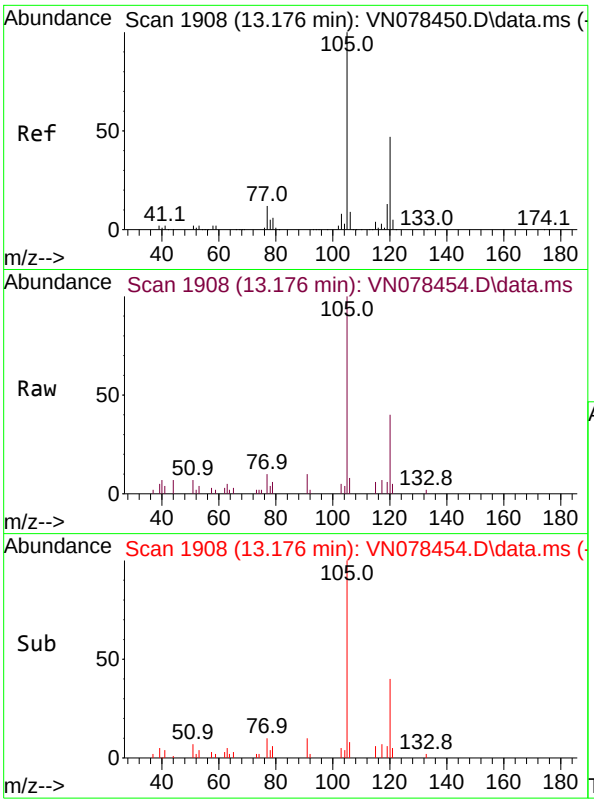


#79
2-Chlorotoluene
Concen: 1.189 ug/l
RT: 13.129 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 91 Resp: 13932

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.3	48.8





#80
1,3,5-Trimethylbenzene
Concen: 1.062 ug/l
RT: 13.176 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

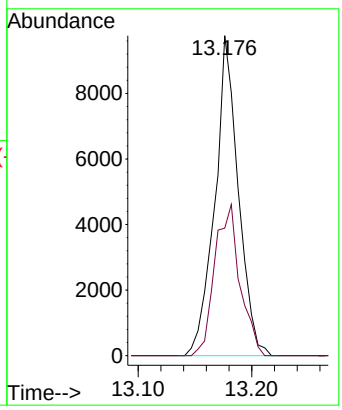
Tgt Ion:105 Resp: 1402

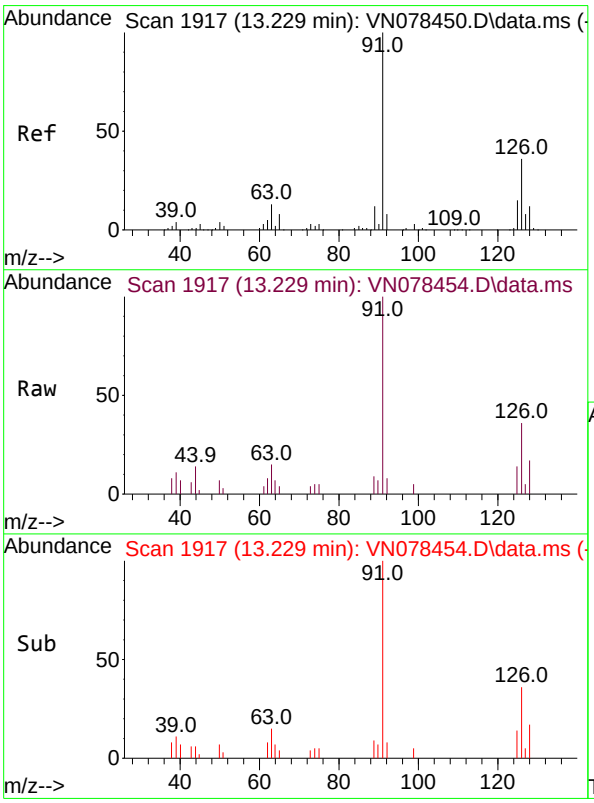
Ion	Ratio	Lower	Upper
105	100		
120	50.6	24.1	72.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

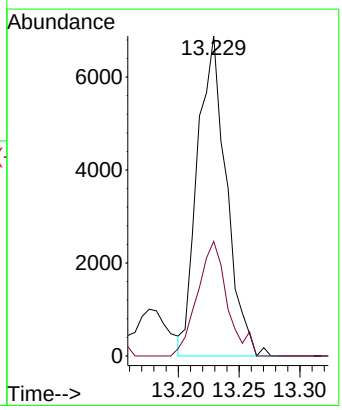


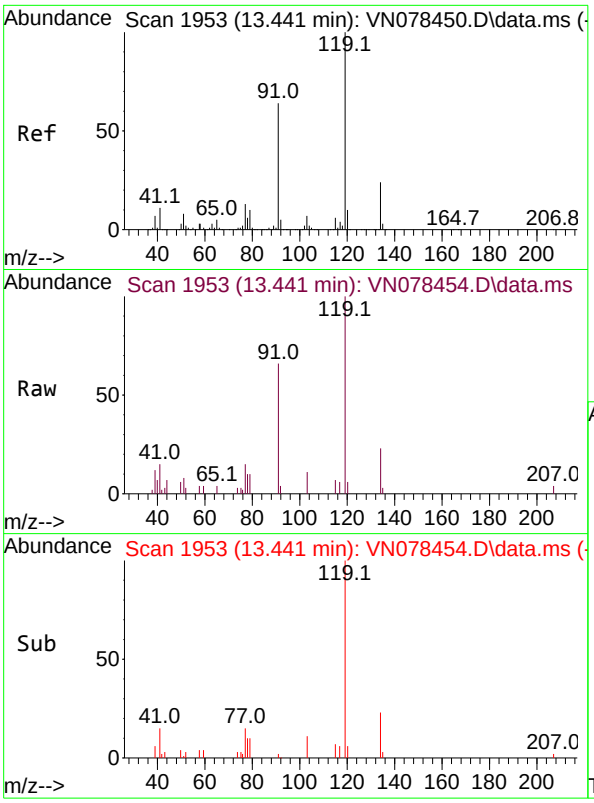


#82
4-Chlorotoluene
Concen: 1.037 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 91 Resp: 11336

Ion	Ratio	Lower	Upper
91	100		
126	37.0	16.7	50.0

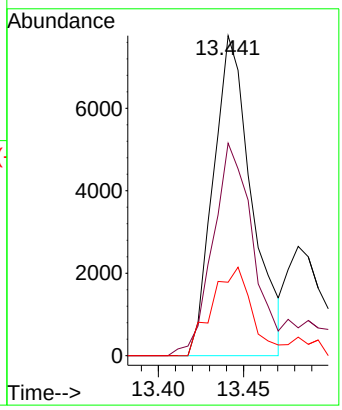




#83
tert-Butylbenzene
Concen: 1.084 ug/l
RT: 13.441 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:119 Resp: 1215

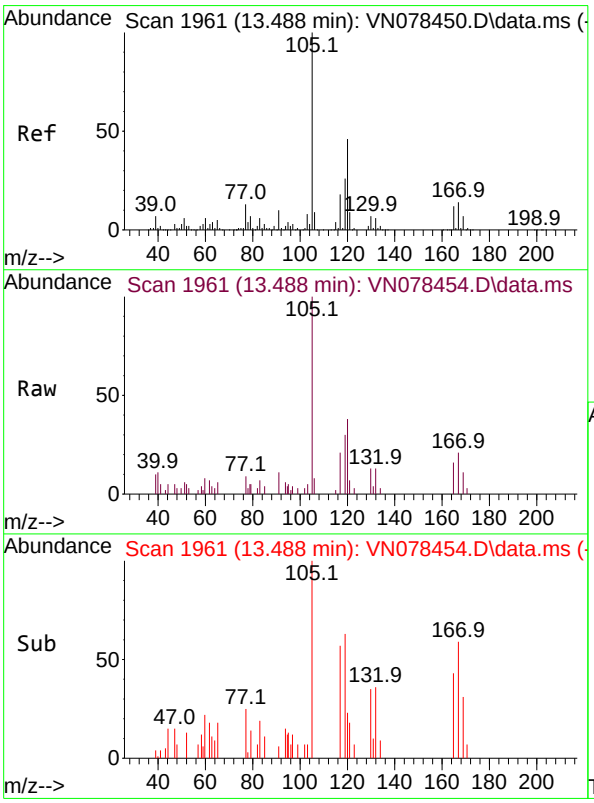
Ion	Ratio	Lower	Upper
119	100		
91	81.1	33.9	101.7
134	28.8	13.2	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

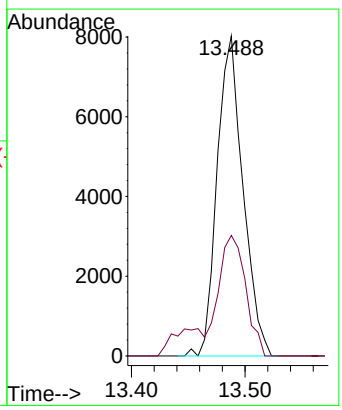
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

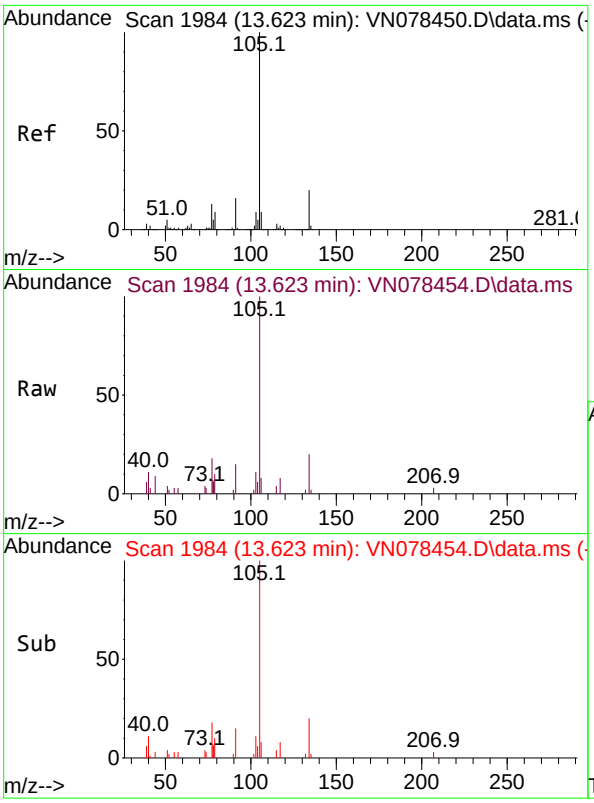


#84
1,2,4-Trimethylbenzene
Concen: 0.987 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:105 Resp: 12669

Ion	Ratio	Lower	Upper
105	100		
120	39.4	22.0	66.0





#85
sec-Butylbenzene
Concen: 1.052 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

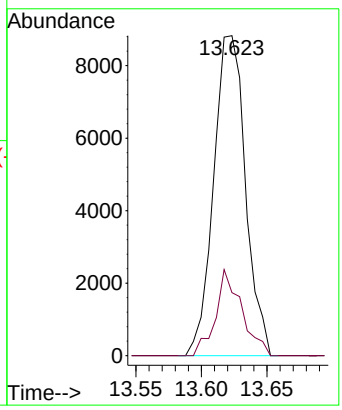
Tgt Ion:105 Resp: 1491

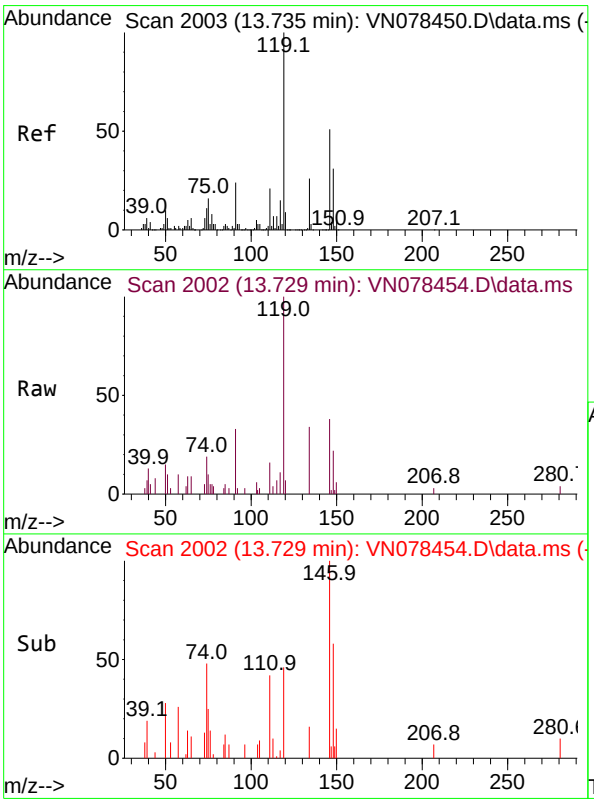
Ion	Ratio	Lower	Upper
105	100		
134	22.1	9.8	29.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

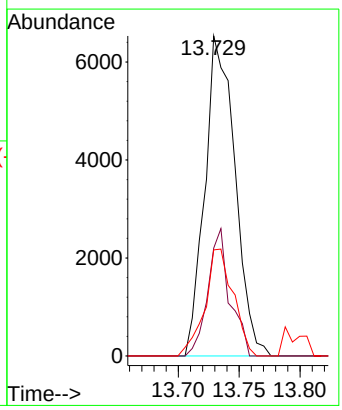


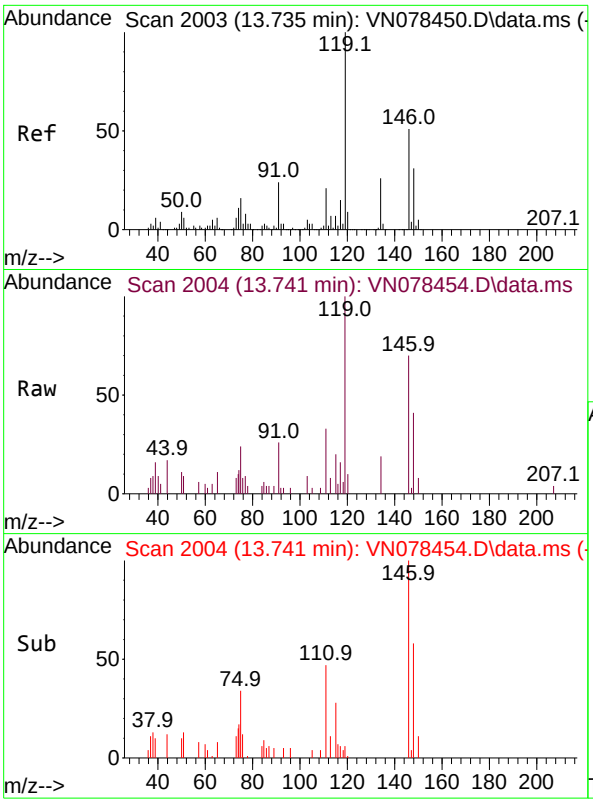


#86
p-Isopropyltoluene
Concen: 0.988 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:119 Resp: 11243

Ion	Ratio	Lower	Upper
119	100		
134	28.8	12.6	37.8
91	31.3	12.4	37.2

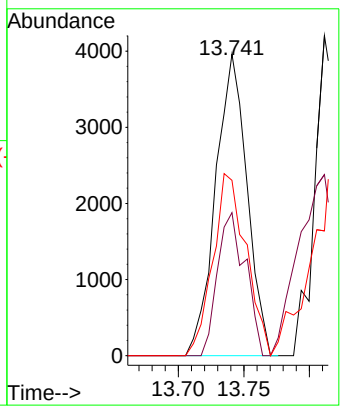




#87
1,3-Dichlorobenzene
Concen: 1.028 ug/l
RT: 13.741 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:146 Resp: 660

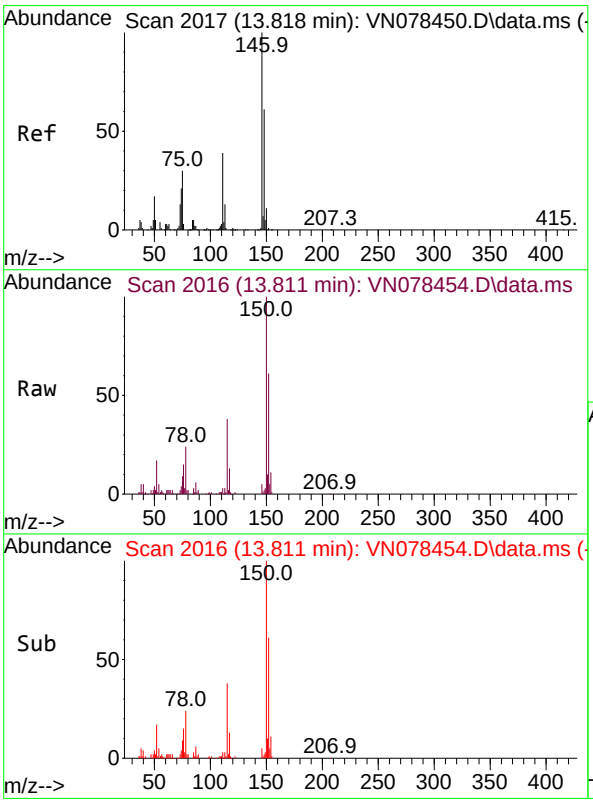
Ion	Ratio	Lower	Upper
146	100		
111	42.1	22.1	66.3
148	63.7	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

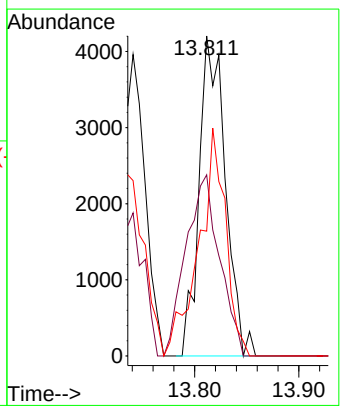
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

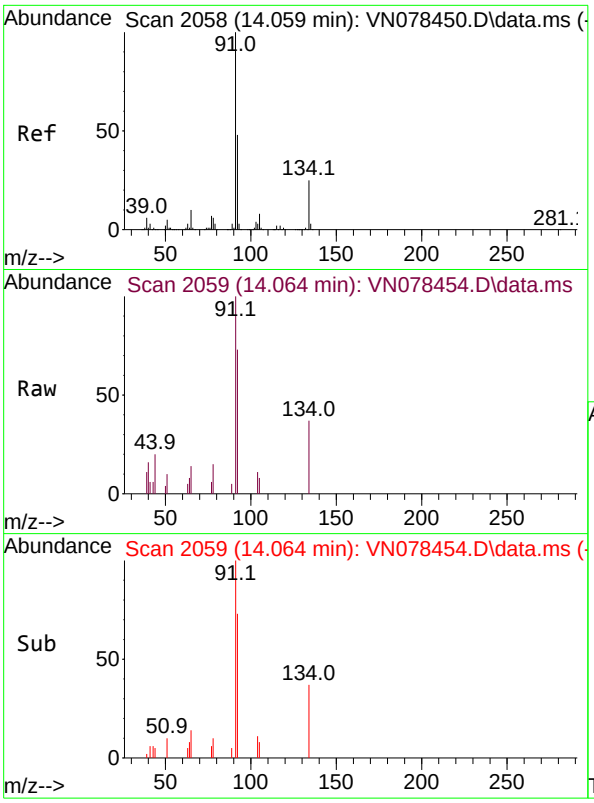


#88
1,4-Dichlorobenzene
Concen: 1.136 ug/l m
RT: 13.811 min Scan# 2016
Delta R.T. -0.007 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:146 Resp: 7347

Ion	Ratio	Lower	Upper
146	100		
111	37.8	20.6	61.8
148	57.2	31.6	94.8

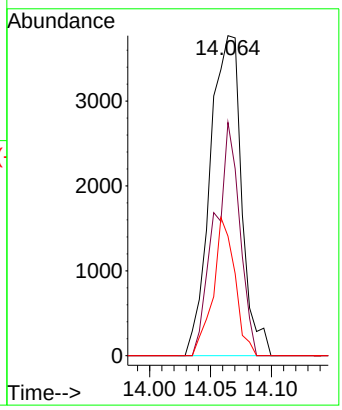




#89
n-Butylbenzene
Concen: 0.833 ug/l
RT: 14.064 min Scan# 2
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 91 Resp: 678

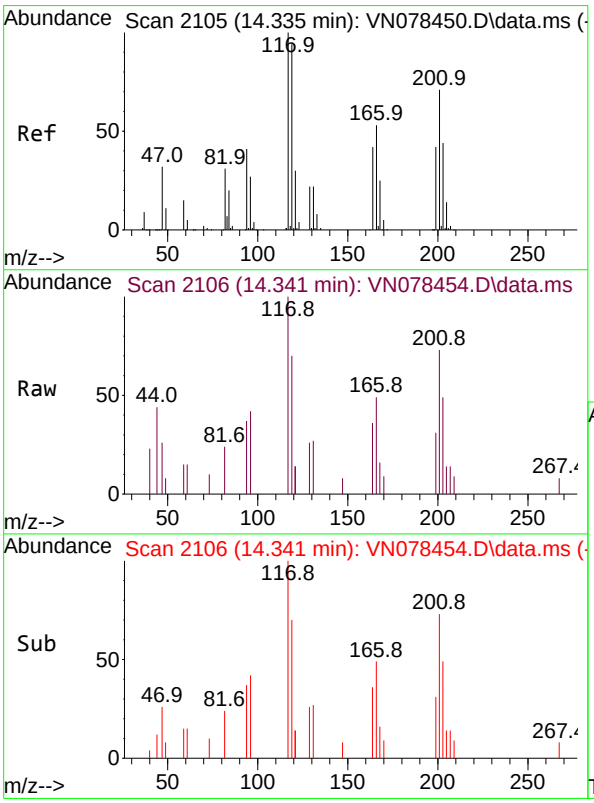
Ion	Ratio	Lower	Upper
91	100		
92	57.6	26.4	79.0
134	29.9	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

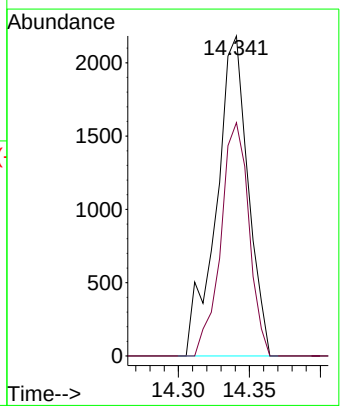
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

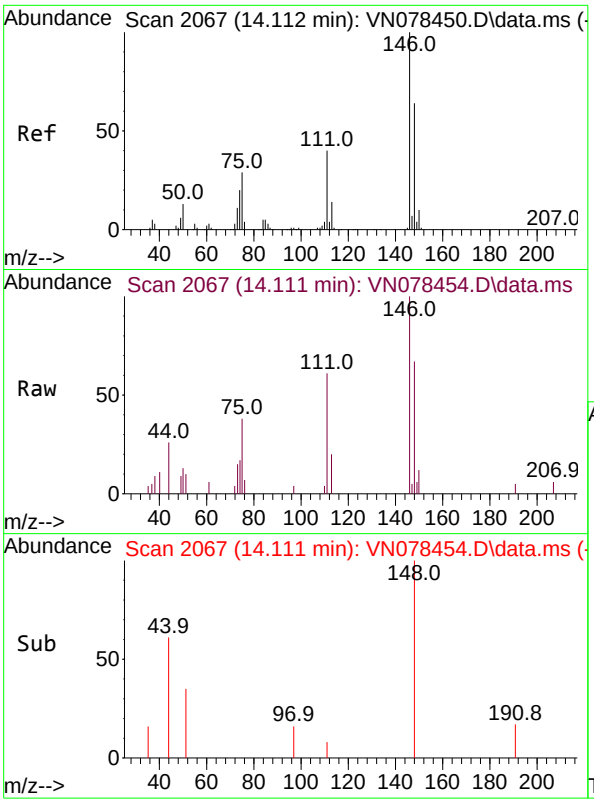


#90
Hexachloroethane
Concen: 0.817 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:117 Resp: 3389

Ion	Ratio	Lower	Upper
117	100		
201	64.5	29.3	88.0

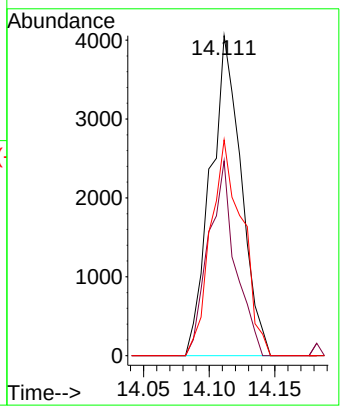




#91
1,2-Dichlorobenzene
Concen: 1.030 ug/l
RT: 14.111 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:146 Resp: 658

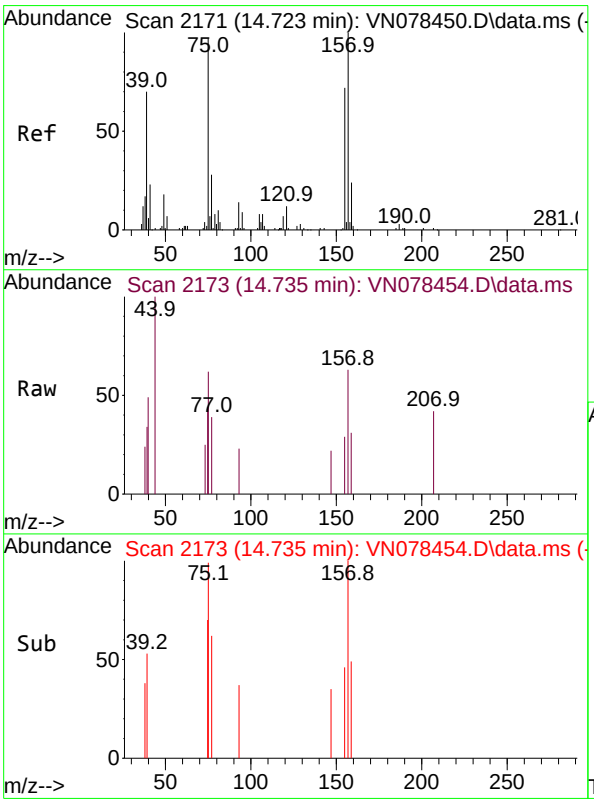
Ion	Ratio	Lower	Upper
146	100		
111	53.7	22.0	66.0
148	70.1	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

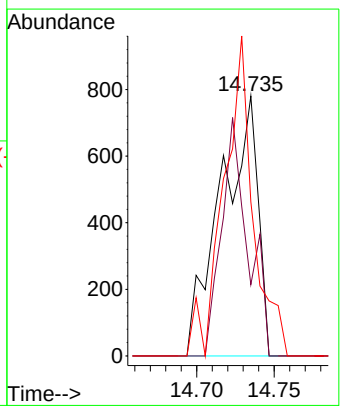
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

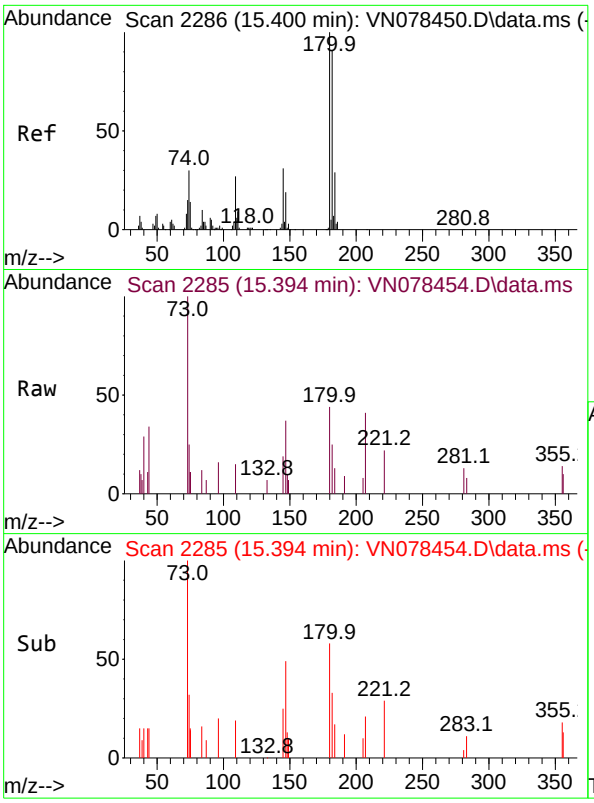


#92
1,2-Dibromo-3-Chloropropane
Concen: 1.395 ug/l
RT: 14.735 min Scan# 2173
Delta R.T. 0.012 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion: 75 Resp: 1298

Ion	Ratio	Lower	Upper
75	100		
155	65.1	39.1	117.2
157	98.0	50.3	150.9





#93
1,2,4-Trichlorobenzene
Concen: 0.951 ug/l
RT: 15.394 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

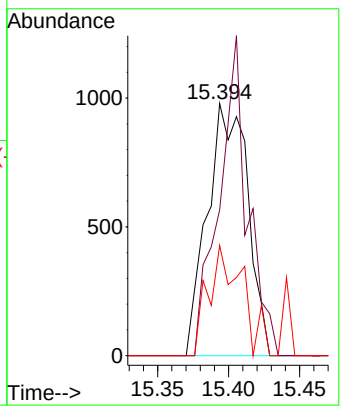
Tgt Ion:180 Resp: 193

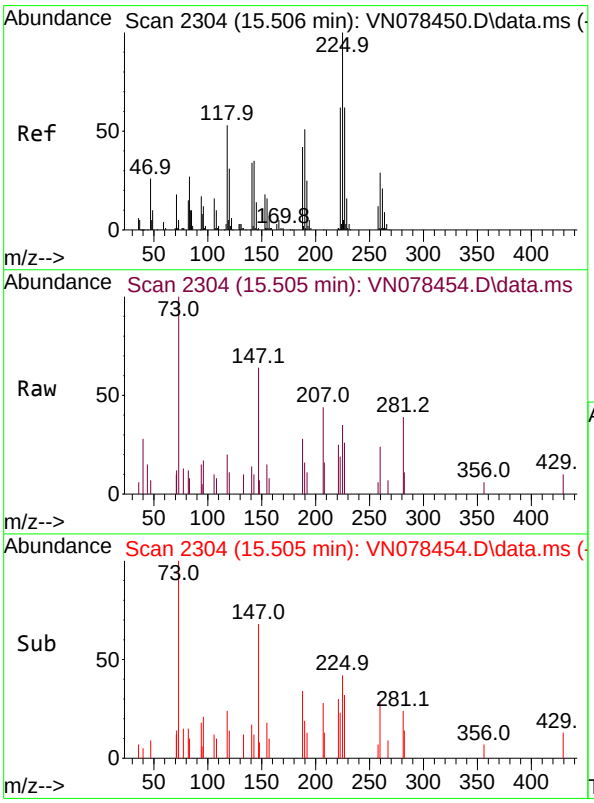
Ion	Ratio	Lower	Upper
180	100		
182	89.2	46.1	138.2
145	37.1	16.6	49.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023

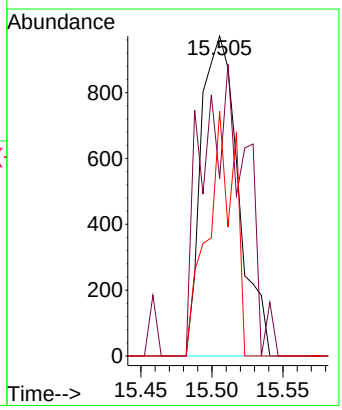


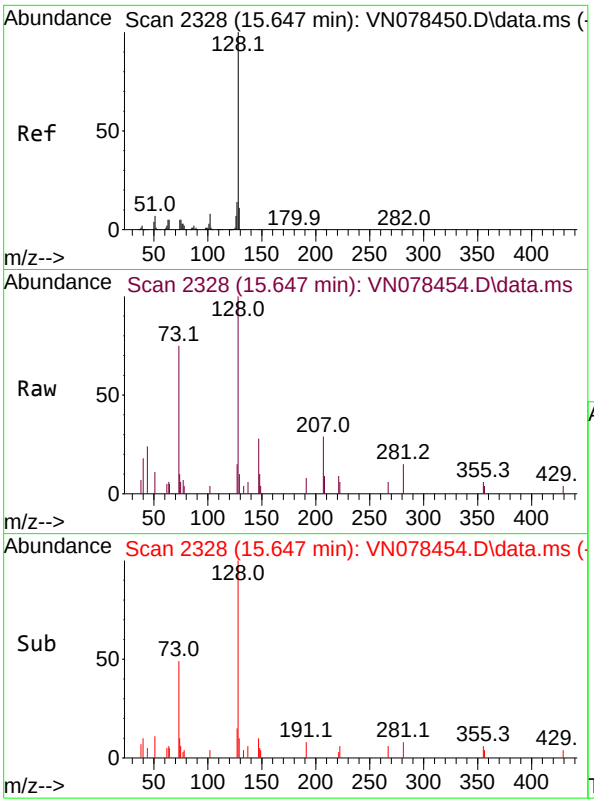


#94
Hexachlorobutadiene
Concen: 1.329 ug/l
RT: 15.505 min Scan# 2304
Delta R.T. -0.001 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:225 Resp: 1773

Ion	Ratio	Lower	Upper
225	100		
223	51.2	31.3	93.8
227	55.2	31.9	95.9

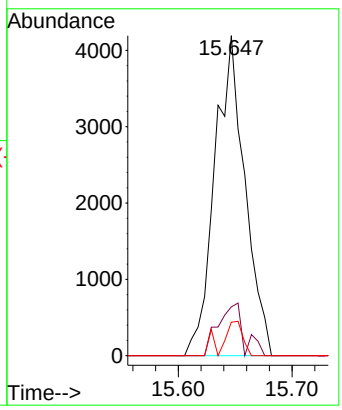




#95
Naphthalene
Concen: 1.112 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:128 Resp: 775

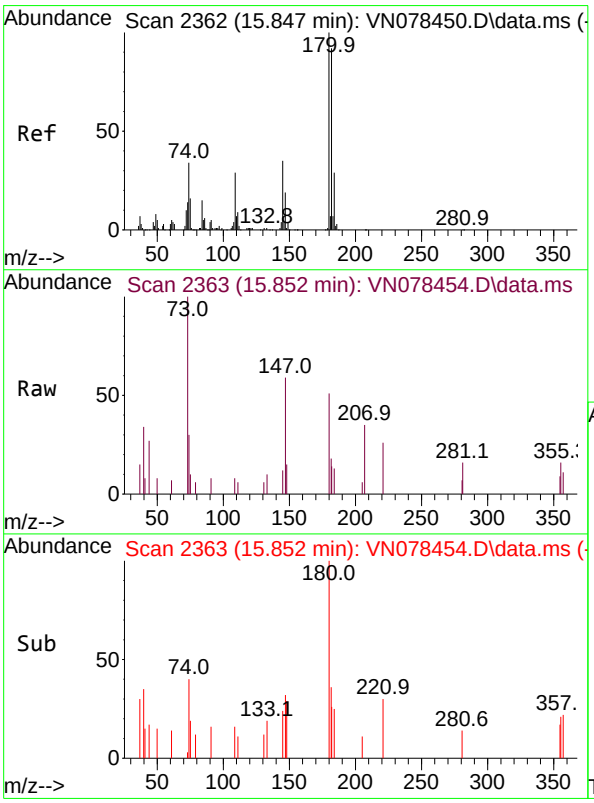
Ion	Ratio	Lower	Upper
128	100		
127	14.0	10.0	15.0
129	5.7	8.7	13.1#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

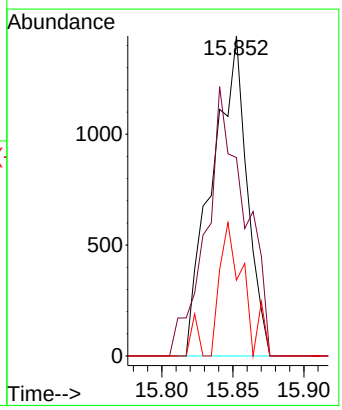
Reviewed By :John Carlone 07/10/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 1.053 ug/l
RT: 15.852 min Scan# 2363
Delta R.T. 0.005 min
Lab File: VN078454.D
Acq: 10 Jul 2023 14:46

Tgt Ion:180 Resp: 2469

Ion	Ratio	Lower	Upper
180	100		
182	92.5	46.2	138.6
145	28.5	17.5	52.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	528809	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	894994	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	798638	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	333955	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	345961	48.801	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 97.600%			
35) Dibromofluoromethane	8.177	113	307254	50.573	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.140%			
50) Toluene-d8	10.571	98	1169443	50.953	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.900%			
62) 4-Bromofluorobenzene	12.853	95	368551	52.132	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 104.260%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	279928	43.175	ug/l	96
3) Chloromethane	2.371	50	321424	45.612	ug/l	99
4) Vinyl Chloride	2.518	62	425744	46.703	ug/l	97
5) Bromomethane	2.942	94	269307	46.343	ug/l	96
6) Chloroethane	3.118	64	259254	46.895	ug/l	100
7) Trichlorofluoromethane	3.495	101	498754	45.769	ug/l	98
8) Diethyl Ether	3.971	74	168828	46.501	ug/l	84
9) 1,1,2-Trichlorotrifluo...	4.371	101	266861	46.262	ug/l	97
10) Methyl Iodide	4.595	142	373684	47.142	ug/l	96
11) Tert butyl alcohol	5.536	59	247395	226.307	ug/l	99
12) 1,1-Dichloroethene	4.342	96	256230	45.920	ug/l	93
13) Acrolein	4.189	56	235428	218.892	ug/l	95
14) Allyl chloride	5.036	41	372034	48.794	ug/l	96
15) Acrylonitrile	5.730	53	644377	233.296	ug/l	99
16) Acetone	4.436	43	608092	275.366	ug/l	98
17) Carbon Disulfide	4.712	76	720224	44.637	ug/l	96
18) Methyl Acetate	5.036	43	414097	44.297	ug/l	90
19) Methyl tert-butyl Ether	5.806	73	871414	47.399	ug/l	97
20) Methylene Chloride	5.283	84	306926	48.416	ug/l	91
21) trans-1,2-Dichloroethene	5.800	96	289530	46.046	ug/l	87
22) Diisopropyl ether	6.683	45	834818	48.898	ug/l	95
23) Vinyl Acetate	6.612	43	2687024	247.568	ug/l #	90
24) 1,1-Dichloroethane	6.577	63	527638	45.865	ug/l	98
25) 2-Butanone	7.488	43	868947	249.973	ug/l #	86
26) 2,2-Dichloropropane	7.500	77	477212	50.718	ug/l	98
27) cis-1,2-Dichloroethene	7.494	96	345014	47.431	ug/l	93
28) Bromochloromethane	7.818	49	232983	42.998	ug/l	92
29) Tetrahydrofuran	7.847	42	530795	232.708	ug/l	86
30) Chloroform	7.971	83	575675	48.065	ug/l	97
31) Cyclohexane	8.265	56	430606	44.945	ug/l	90
32) 1,1,1-Trichloroethane	8.177	97	508638	47.368	ug/l	95
36) 1,1-Dichloropropene	8.377	75	431213	49.155	ug/l	97
37) Ethyl Acetate	7.571	43	354553	48.483	ug/l #	95
38) Carbon Tetrachloride	8.371	117	459176	48.160	ug/l	100
39) Methylcyclohexane	9.606	83	406419	50.755	ug/l	92
40) Benzene	8.612	78	1262934	48.595	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.788	41	175098	46.968	ug/l		93
42) 1,2-Dichloroethane	8.677	62	419227	47.424	ug/l		99
43) Isopropyl Acetate	8.694	43	595909	49.495	ug/l		94
44) Trichloroethene	9.359	130	331665	47.350	ug/l		93
45) 1,2-Dichloropropane	9.630	63	320943	48.758	ug/l		97
46) Dibromomethane	9.718	93	225919	48.764	ug/l		93
47) Bromodichloromethane	9.894	83	455420	49.039	ug/l		100
48) Methyl methacrylate	9.688	41	276133	49.505	ug/l		88
49) 1,4-Dioxane	9.700	88	121014	994.827	ug/l		94
51) 4-Methyl-2-Pentanone	10.453	43	1765834	246.578	ug/l		94
52) Toluene	10.635	92	803101	49.859	ug/l		97
53) t-1,3-Dichloropropene	10.841	75	482793	50.745	ug/l		100
54) cis-1,3-Dichloropropene	10.318	75	523230	51.593	ug/l		98
55) 1,1,2-Trichloroethane	11.024	97	312419	49.229	ug/l		96
56) Ethyl methacrylate	10.882	69	458888	51.727	ug/l		93
57) 1,3-Dichloropropane	11.171	76	522939	48.463	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.165	63	819605	259.244	ug/l		93
59) 2-Hexanone	11.200	43	1317798	258.916	ug/l		93
60) Dibromochloromethane	11.365	129	346514	49.458	ug/l		98
61) 1,2-Dibromoethane	11.476	107	321543	49.185	ug/l		98
64) Tetrachloroethene	11.112	164	291480	48.545	ug/l		99
65) Chlorobenzene	11.894	112	860680	48.214	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.965	131	327131	47.635	ug/l		98
67) Ethyl Benzene	11.971	91	1520856	50.401	ug/l		100
68) m/p-Xylenes	12.076	106	1158045	103.800	ug/l		98
69) o-Xylene	12.406	106	564591	50.103	ug/l		98
70) Styrene	12.418	104	929871	52.745	ug/l		99
71) Bromoform	12.582	173	233386	50.180	ug/l	#	98
73) Isopropylbenzene	12.700	105	1398310	44.561	ug/l		99
74) N-amyl acetate	12.500	43	468909	43.361	ug/l		93
75) 1,1,2,2-Tetrachloroethane	12.941	83	431310	49.159	ug/l		99
76) 1,2,3-Trichloropropane	13.000	75	348837m	43.215	ug/l		
77) Bromobenzene	12.988	156	335515	49.140	ug/l		95
78) n-propylbenzene	13.041	91	1609138	47.950	ug/l		99
79) 2-Chlorotoluene	13.129	91	979494	44.560	ug/l		97
80) 1,3,5-Trimethylbenzene	13.176	105	1137852	45.892	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.741	75	156117	50.823	ug/l		93
82) 4-Chlorotoluene	13.229	91	958209	46.728	ug/l		98
83) tert-Butylbenzene	13.441	119	945504	44.916	ug/l		97
84) 1,2,4-Trimethylbenzene	13.488	105	1119919	46.502	ug/l		98
85) sec-Butylbenzene	13.623	105	1238077	46.531	ug/l		100
86) p-Isopropyltoluene	13.735	119	1027718	48.103	ug/l		98
87) 1,3-Dichlorobenzene	13.741	146	562840	46.722	ug/l		98
88) 1,4-Dichlorobenzene	13.817	146	562080	46.323	ug/l		99
89) n-Butylbenzene	14.065	91	768508	50.273	ug/l		98
90) Hexachloroethane	14.341	117	189853	48.320	ug/l		85
91) 1,2-Dichlorobenzene	14.112	146	549428	45.830	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.723	75	69349	46.010	ug/l		91
93) 1,2,4-Trichlorobenzene	15.400	180	185986	48.609	ug/l		98
94) Hexachlorobutadiene	15.506	225	100103	50.626	ug/l		98
95) Naphthalene	15.647	128	552670	42.252	ug/l		99
96) 1,2,3-Trichlorobenzene	15.847	180	196132	44.581	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

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

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

ICAL Form

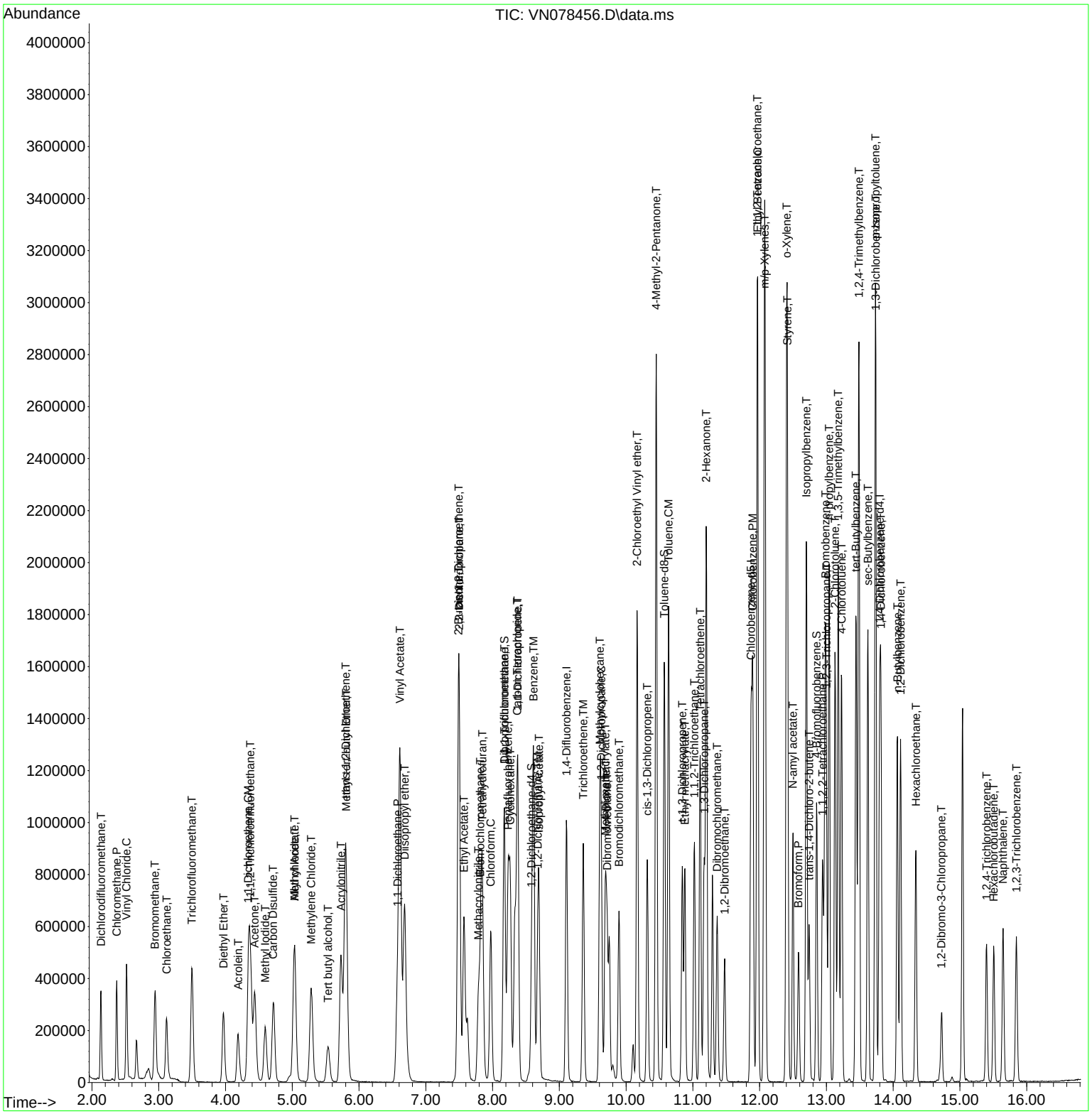
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

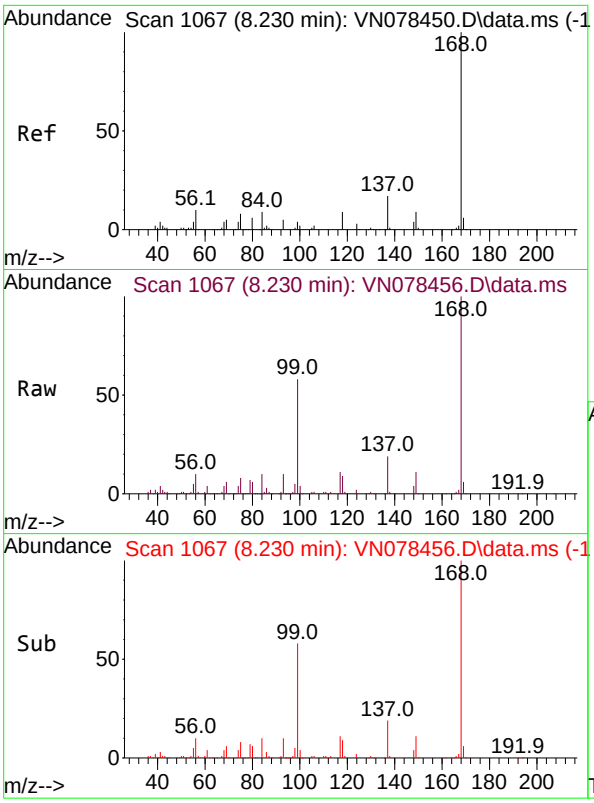
Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

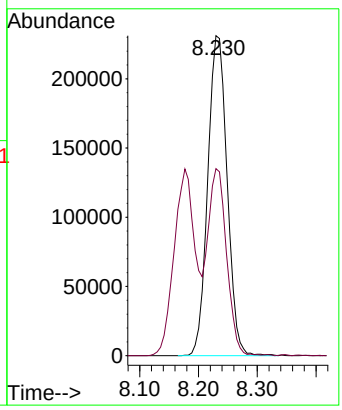




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:168 Resp: 52880

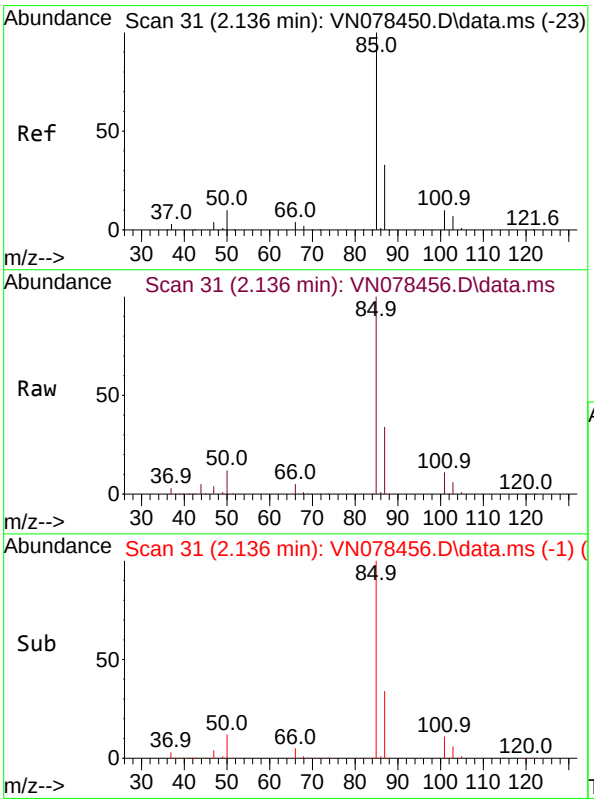
Ion	Ratio	Lower	Upper
168	100		
99	58.3	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

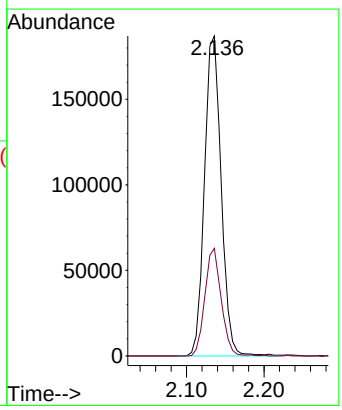
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

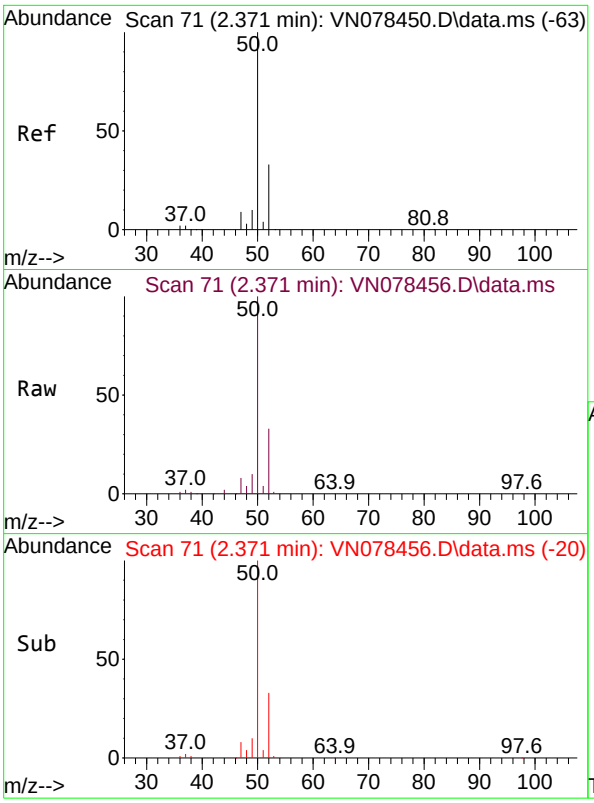


#2
Dichlorodifluoromethane
Concen: 43.175 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 85 Resp: 279928

Ion	Ratio	Lower	Upper
85	100		
87	33.7	15.8	47.4

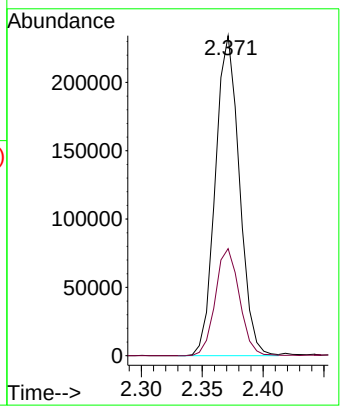




#3
Chloromethane
Concen: 45.612 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 50 Resp: 32142

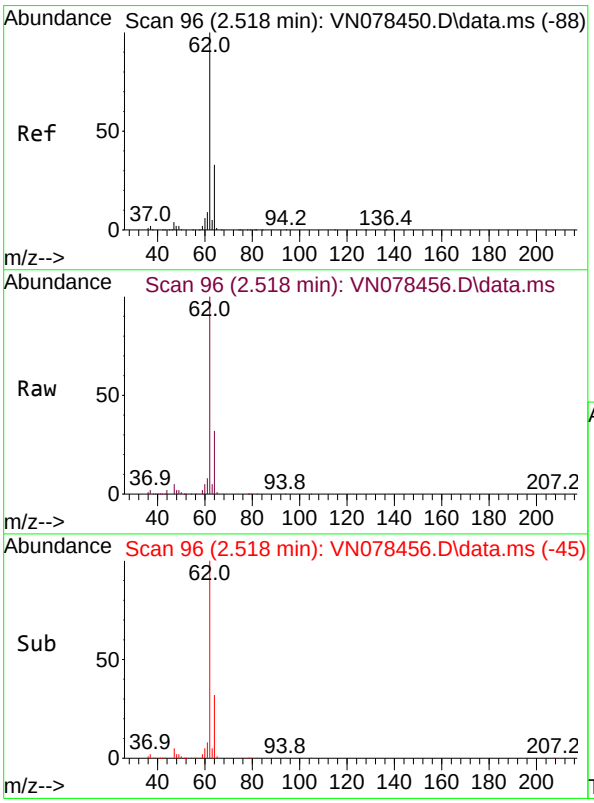
Ion	Ratio	Lower	Upper
50	100		
52	33.5	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

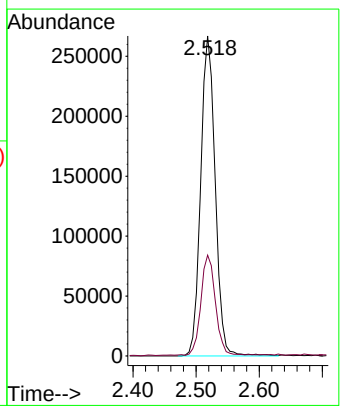
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

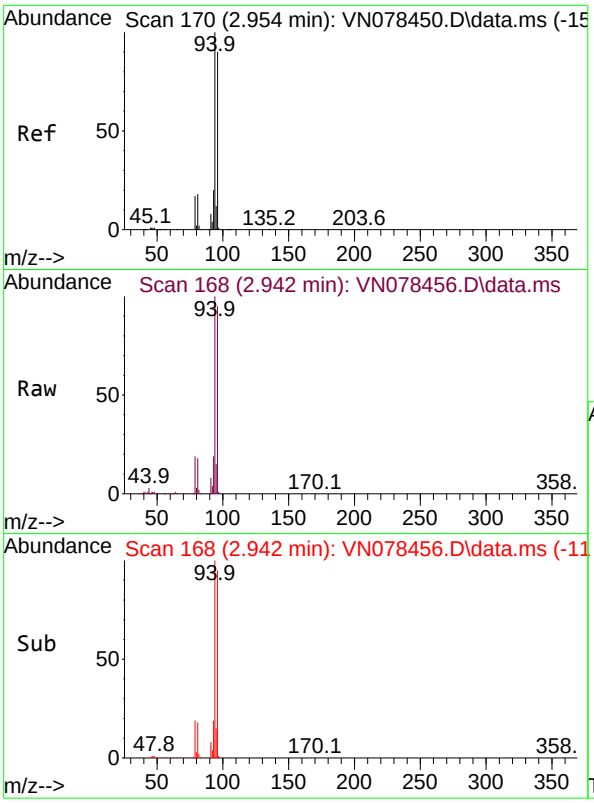


#4
Vinyl Chloride
Concen: 46.703 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 62 Resp: 425744

Ion	Ratio	Lower	Upper
62	100		
64	31.2	26.2	39.2

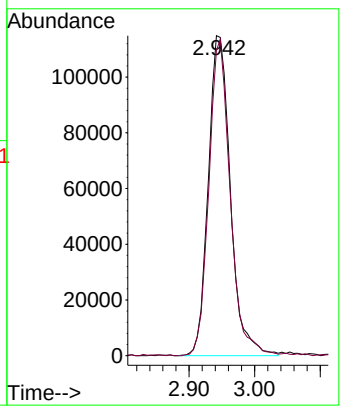




#5
Bromomethane
Concen: 46.343 ug/l
RT: 2.942 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 94 Resp: 26930

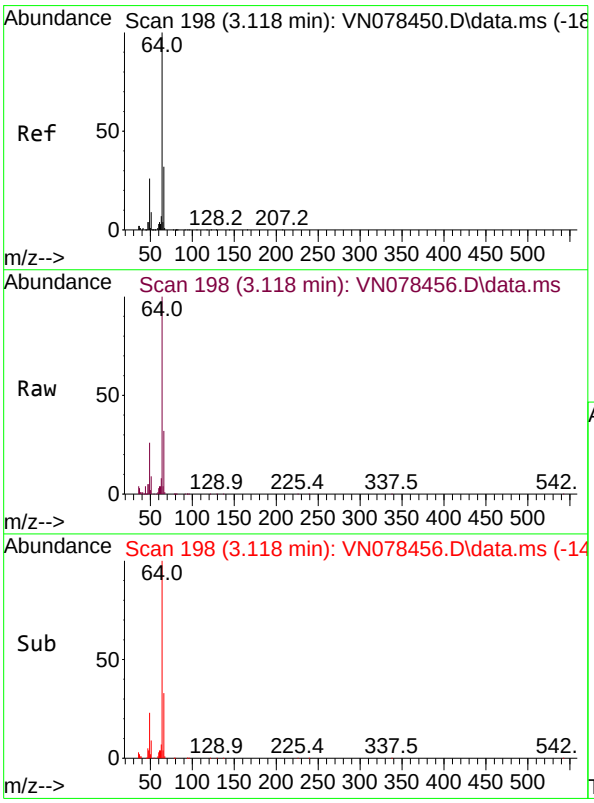
Ion	Ratio	Lower	Upper
94	100		
96	95.4	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

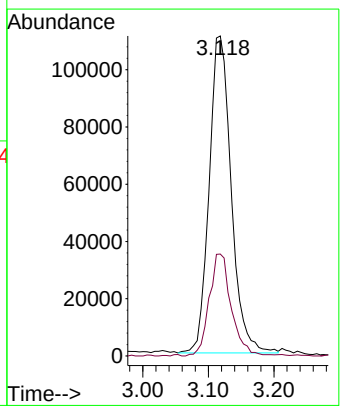
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

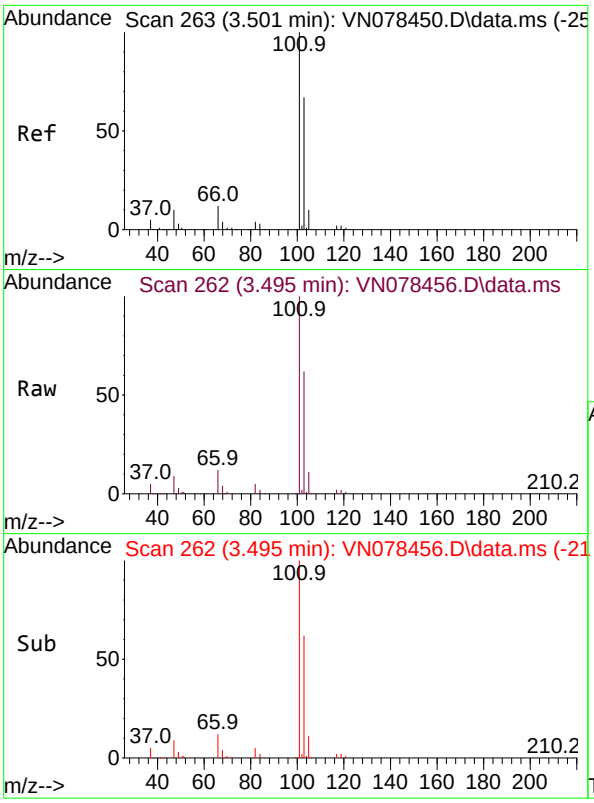


#6
Chloroethane
Concen: 46.895 ug/l
RT: 3.118 min Scan# 198
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 64 Resp: 259254

Ion	Ratio	Lower	Upper
64	100		
66	31.7	25.4	38.2

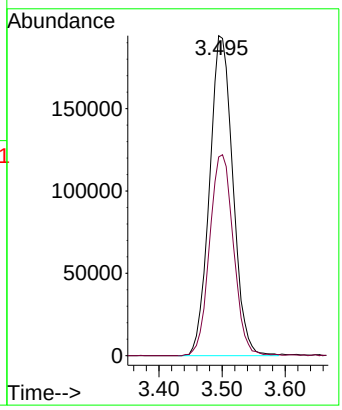




#7
Trichlorofluoromethane
Concen: 45.769 ug/l
RT: 3.495 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:101 Resp: 49875

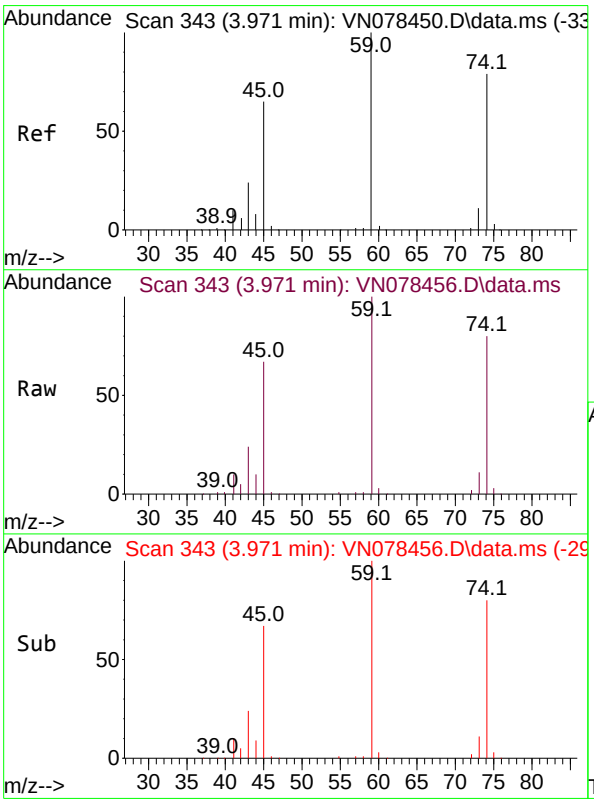
Ion	Ratio	Lower	Upper
101	100		
103	62.1	50.7	76.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

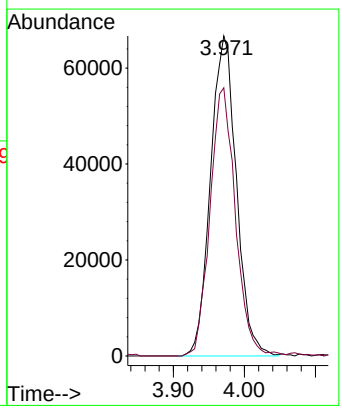
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

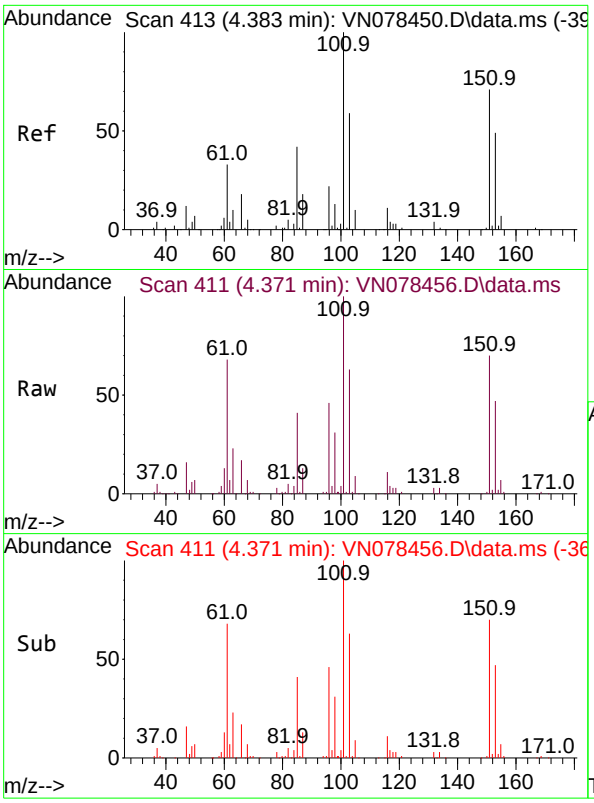


#8
Diethyl Ether
Concen: 46.501 ug/l
RT: 3.971 min Scan# 343
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 74 Resp: 168828

Ion	Ratio	Lower	Upper
74	100		
45	82.1	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 46.262 ug/l
RT: 4.371 min Scan# 41
Delta R.T. -0.012 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

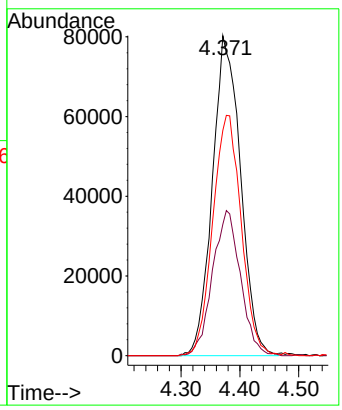
Tgt Ion:101 Resp: 26686

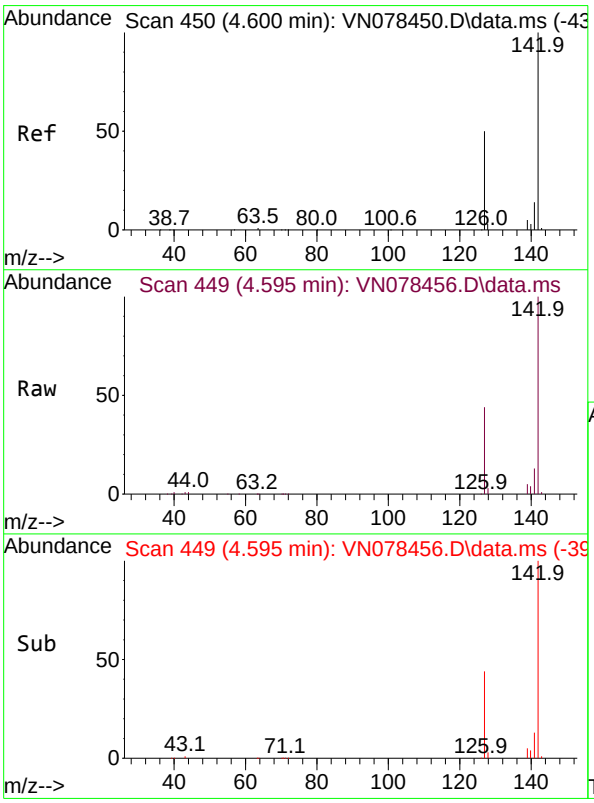
Ion	Ratio	Lower	Upper
101	100		
85	45.1	36.6	55.0
151	76.1	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

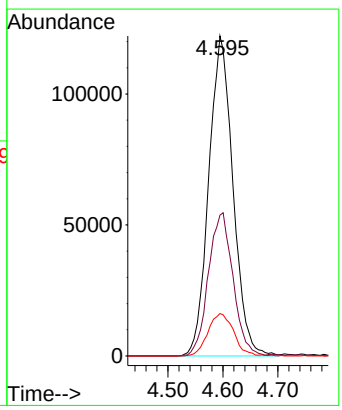


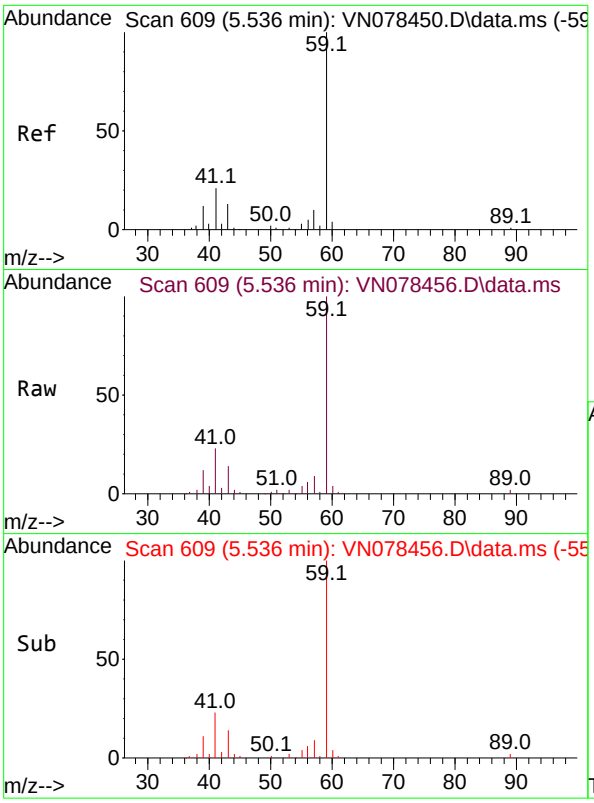


#10
Methyl Iodide
Concen: 47.142 ug/l
RT: 4.595 min Scan# 449
Delta R.T. -0.005 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:142 Resp: 373684

Ion	Ratio	Lower	Upper
142	100		
127	44.0	37.6	56.4
141	13.2	11.4	17.0

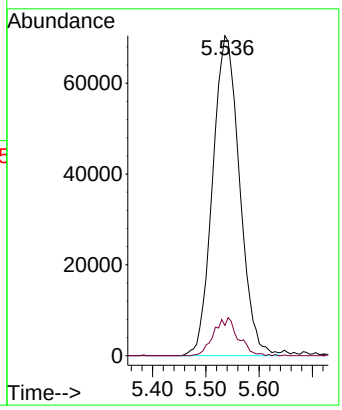




#11
Tert butyl alcohol
Concen: 226.307 ug/l
RT: 5.536 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 59 Resp: 24739

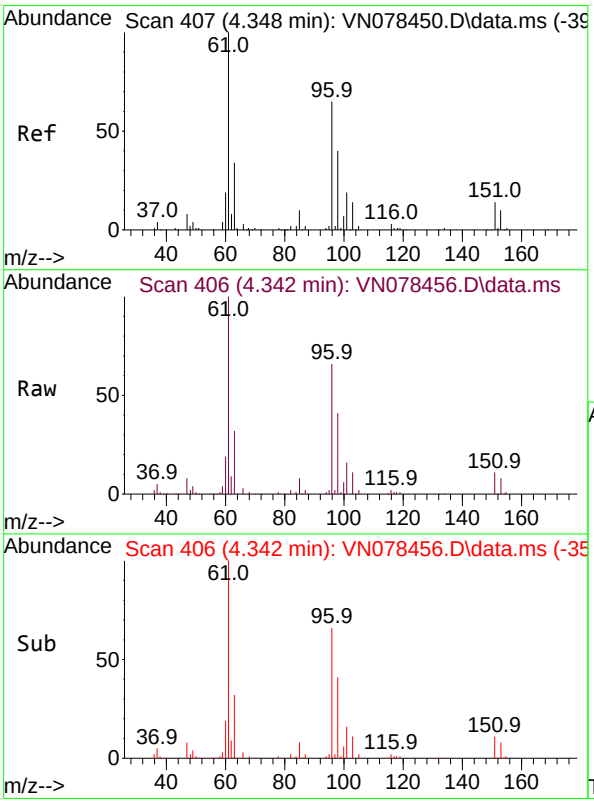
Ion	Ratio	Lower	Upper
59	100		
57	10.8	8.2	12.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

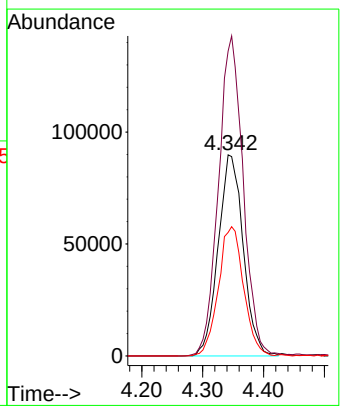
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

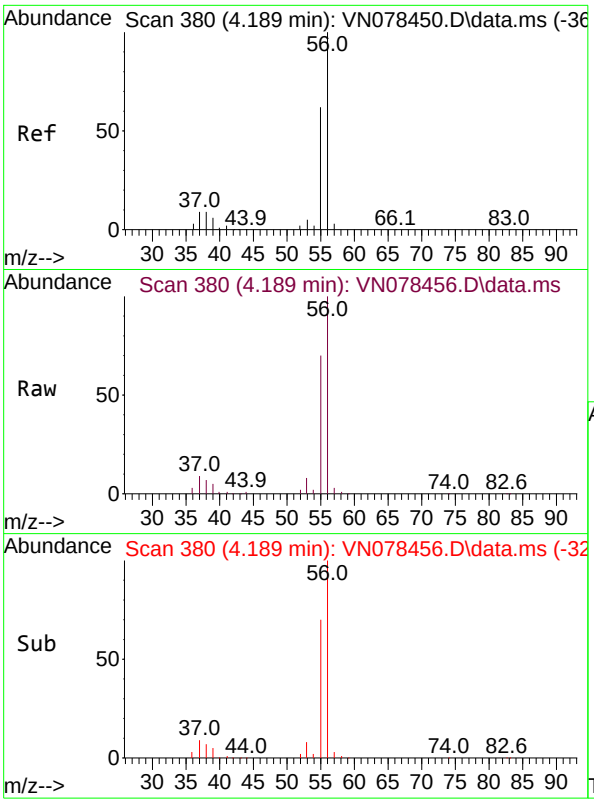


#12
1,1-Dichloroethene
Concen: 45.920 ug/l
RT: 4.342 min Scan# 406
Delta R.T. -0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 96 Resp: 256230

Ion	Ratio	Lower	Upper
96	100		
61	151.6	112.7	169.1
98	61.4	51.2	76.8

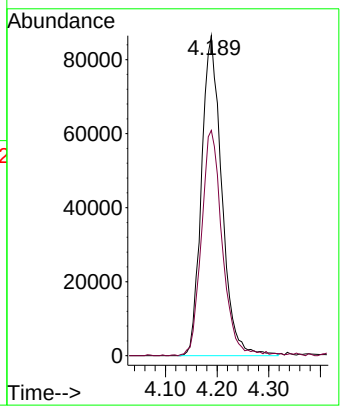




#13
Acrolein
Concen: 218.892 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 56 Resp: 23542

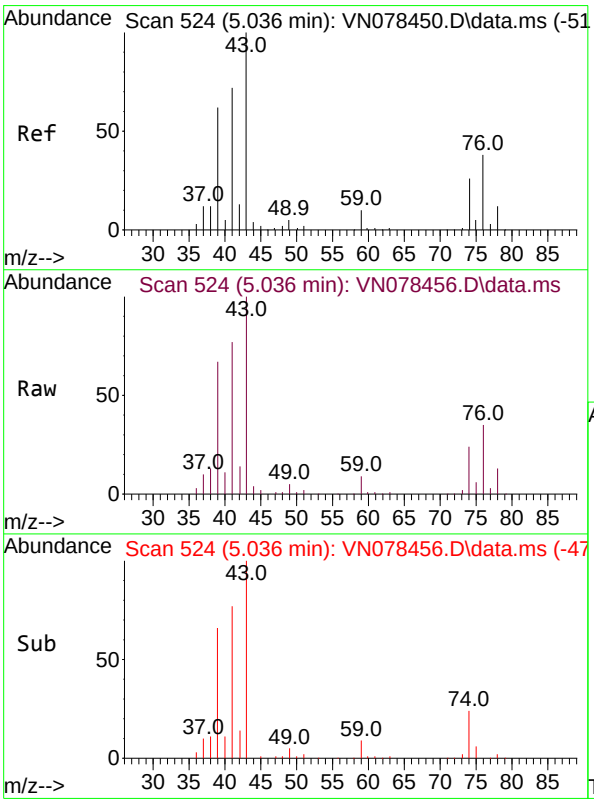
Ion	Ratio	Lower	Upper
56	100		
55	72.1	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

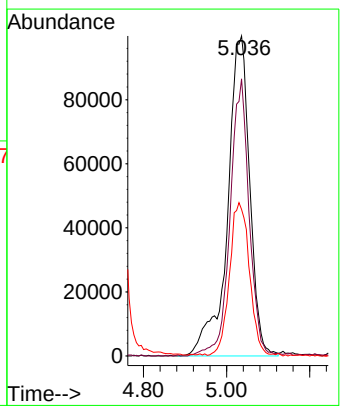
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

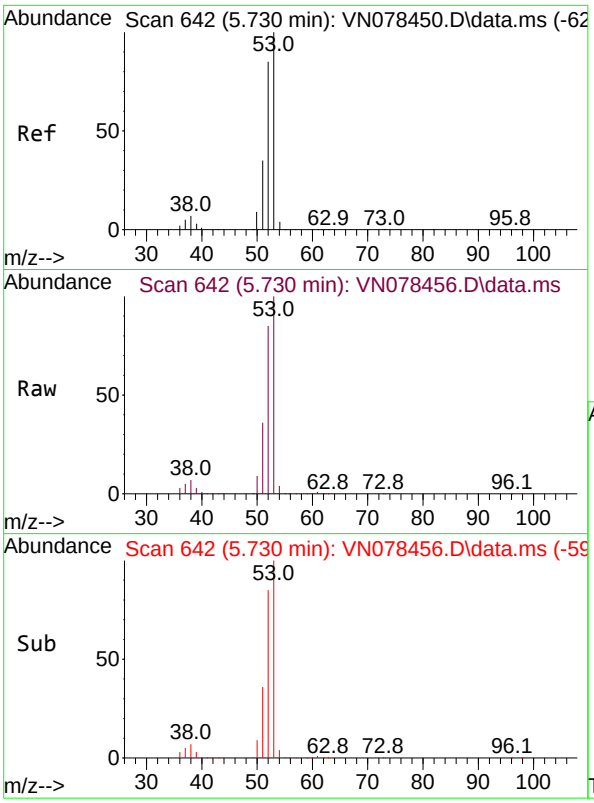


#14
Allyl chloride
Concen: 48.794 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 41 Resp: 372034

Ion	Ratio	Lower	Upper
41	100		
39	73.9	58.8	88.2
76	43.0	39.1	58.7

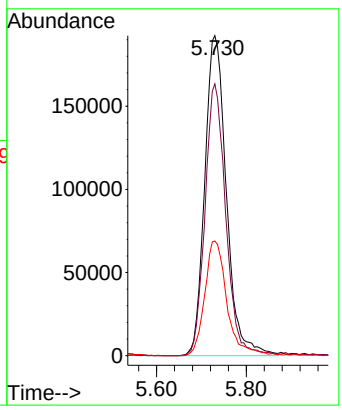




#15
Acrylonitrile
Concen: 233.296 ug/l
RT: 5.730 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 53 Resp: 64437

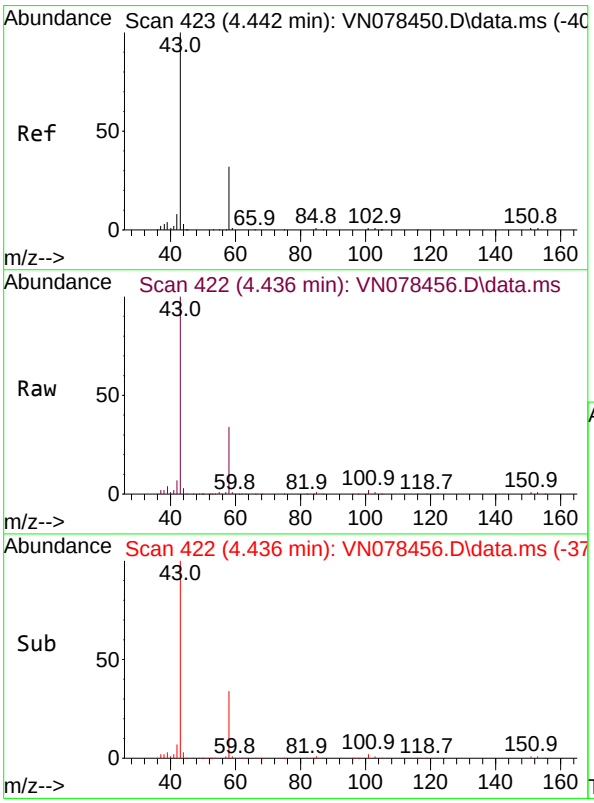
Ion	Ratio	Lower	Upper
53	100		
52	81.7	65.3	97.9
51	36.9	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

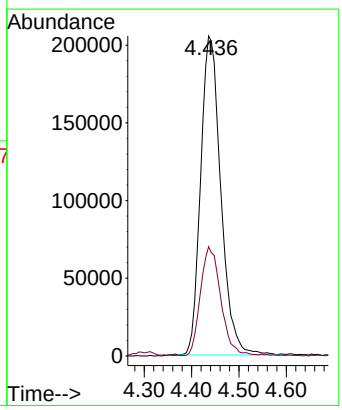
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

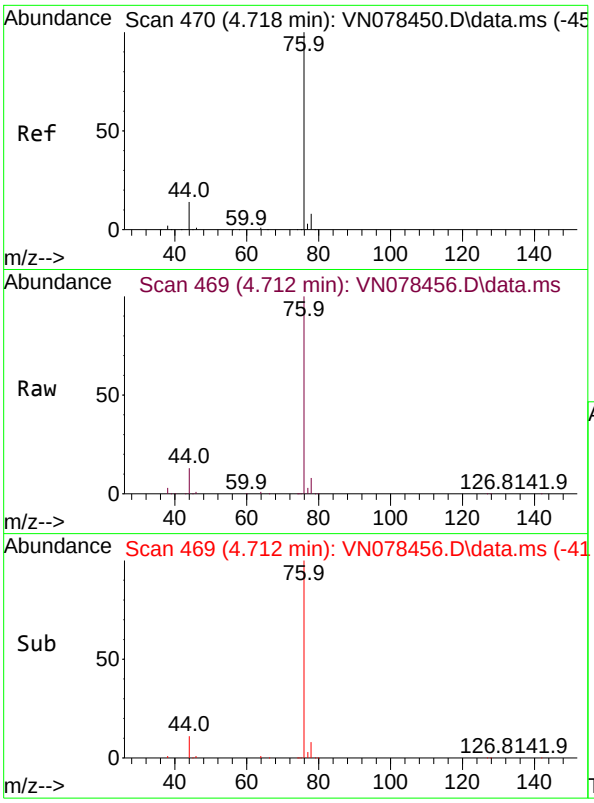


#16
Acetone
Concen: 275.366 ug/l
RT: 4.436 min Scan# 422
Delta R.T. -0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 43 Resp: 608092

Ion	Ratio	Lower	Upper
43	100		
58	34.1	28.0	42.0

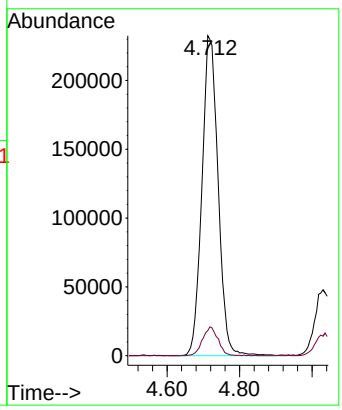




#17
Carbon Disulfide
Concen: 44.637 ug/l
RT: 4.712 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 76 Resp: 72022

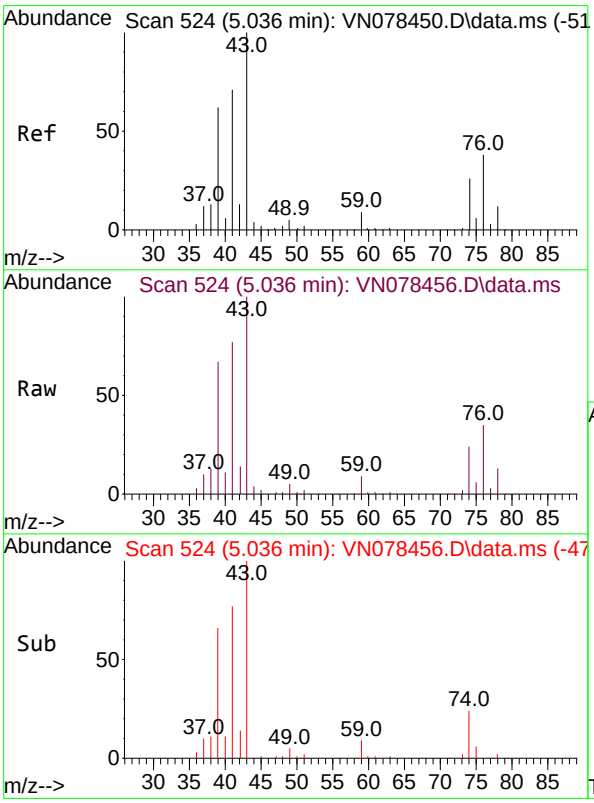
Ion	Ratio	Lower	Upper
76	100		
78	7.9	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

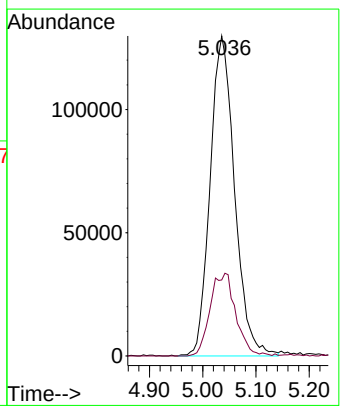
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

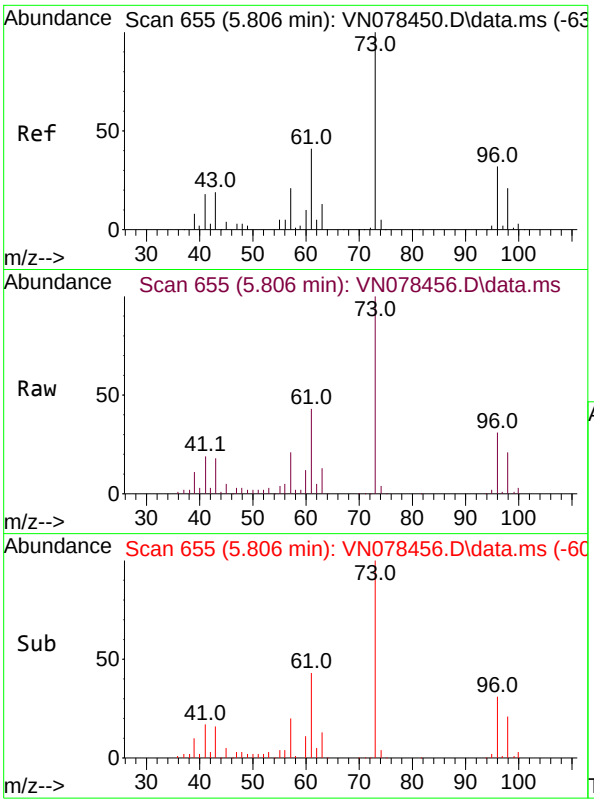


#18
Methyl Acetate
Concen: 44.297 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 43 Resp: 414097

Ion	Ratio	Lower	Upper
43	100		
74	27.0	26.2	39.4





#19
Methyl tert-butyl Ether
Concen: 47.399 ug/l
RT: 5.806 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

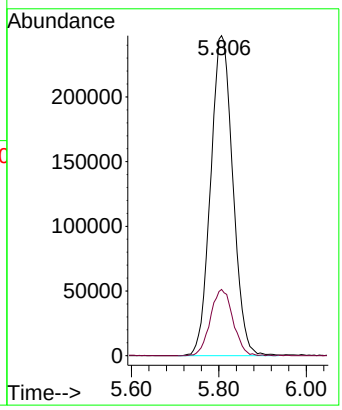
Tgt Ion: 73 Resp: 87141

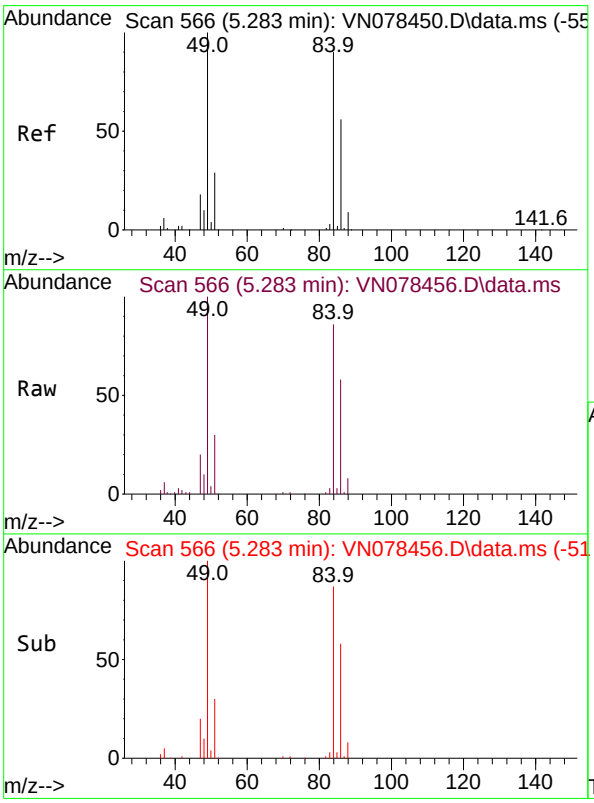
Ion	Ratio	Lower	Upper
73	100		
57	20.7	15.6	23.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

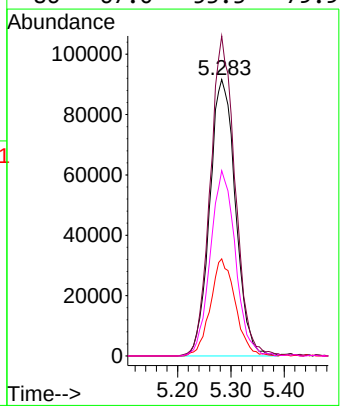


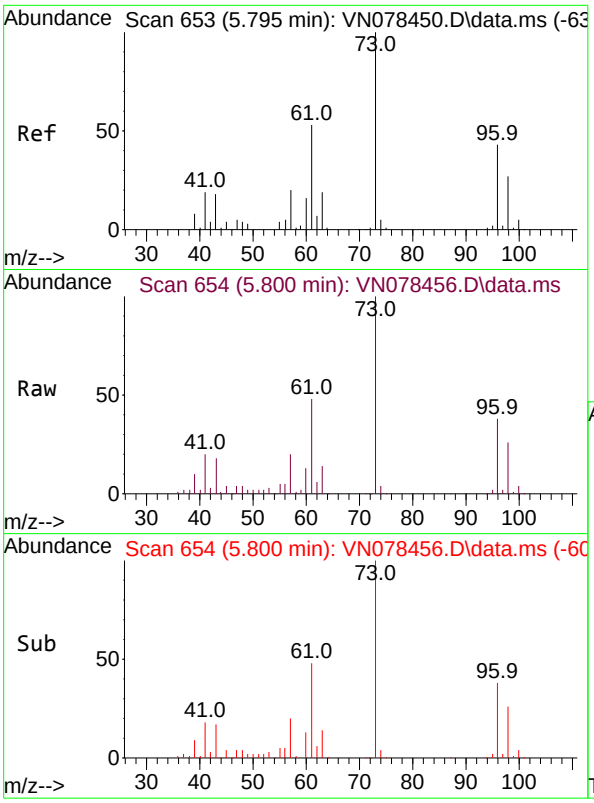


#20
Methylene Chloride
Concen: 48.416 ug/l
RT: 5.283 min Scan# 566
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 84 Resp: 306926

Ion	Ratio	Lower	Upper
84	100		
49	115.7	79.7	119.5
51	35.1	25.2	37.8
86	67.0	53.3	79.9

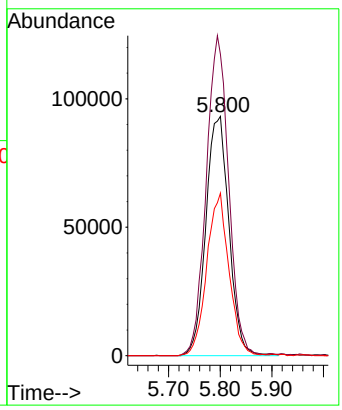




#21
trans-1,2-Dichloroethene
Concen: 46.046 ug/l
RT: 5.800 min Scan# 6
Delta R.T. 0.005 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 96 Resp: 28953

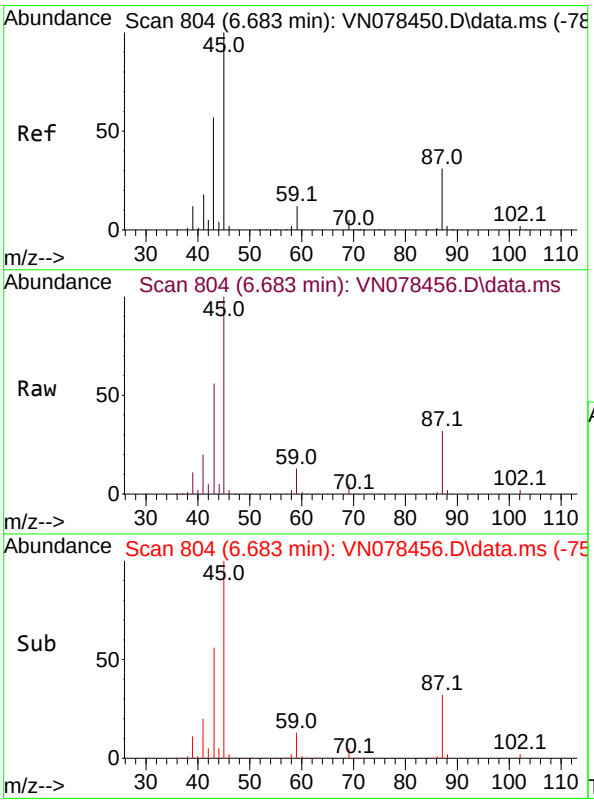
Ion	Ratio	Lower	Upper
96	100		
61	125.9	90.1	135.1
98	67.9	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

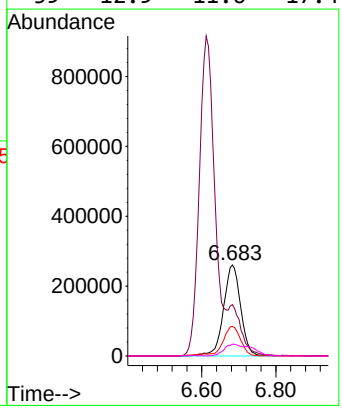
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

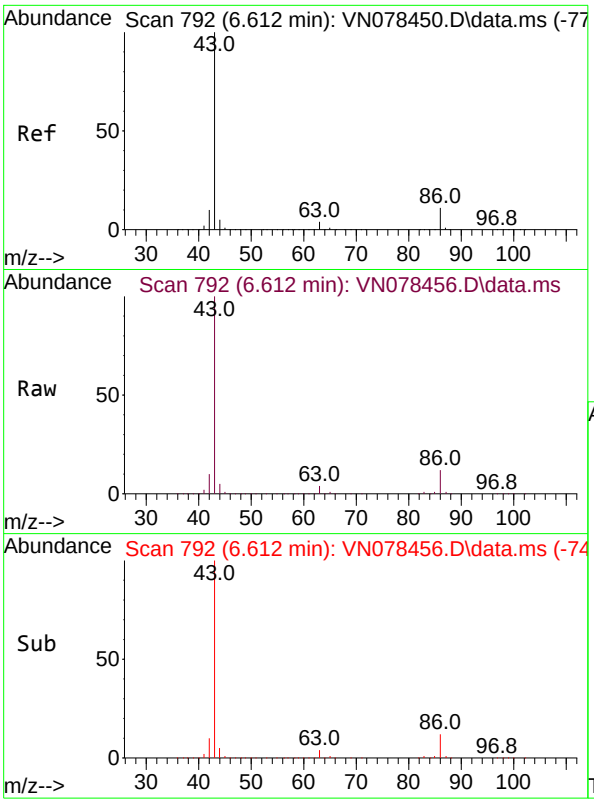


#22
Diisopropyl ether
Concen: 48.898 ug/l
RT: 6.683 min Scan# 804
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 45 Resp: 834818

Ion	Ratio	Lower	Upper
45	100		
43	56.4	45.5	68.3
87	32.2	31.8	47.8
59	12.9	11.6	17.4





#23
Vinyl Acetate
Concen: 247.568 ug/l
RT: 6.612 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

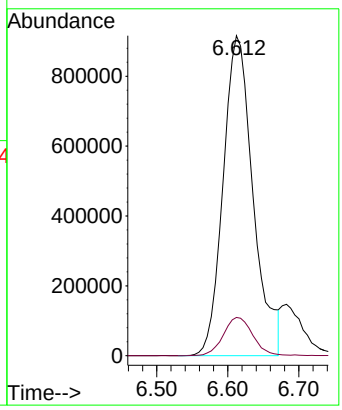
Tgt Ion: 43 Resp: 268702

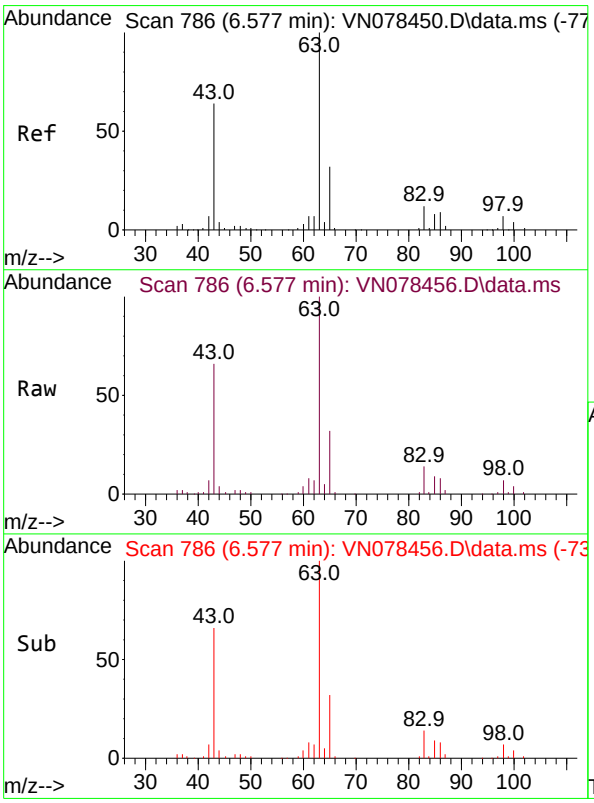
Ion	Ratio	Lower	Upper
43	100		
86	11.9	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

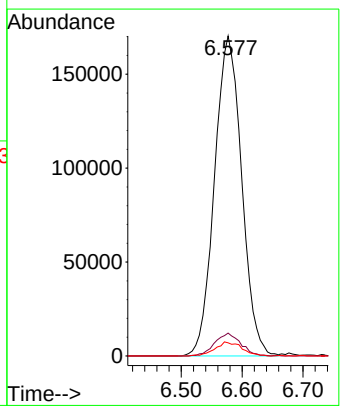


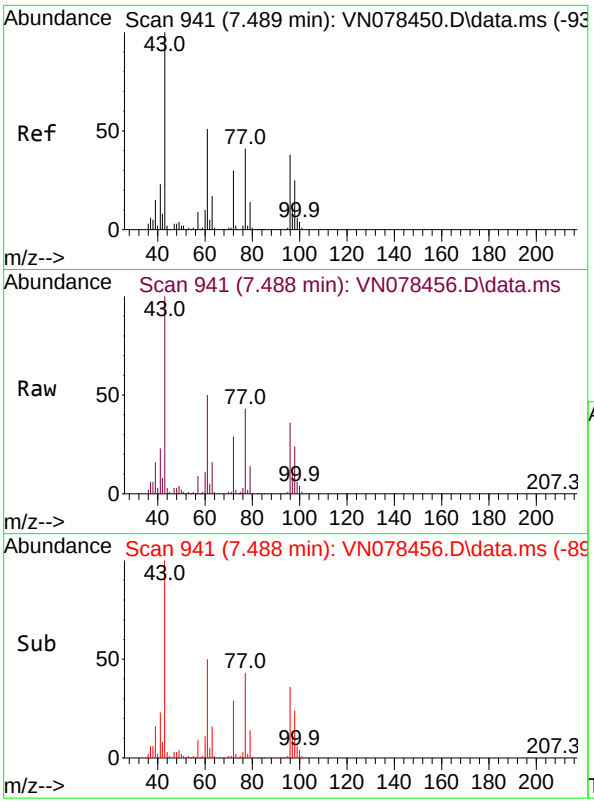


#24
1,1-Dichloroethane
Concen: 45.865 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 63 Resp: 527638

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.9	11.7
100	4.1	2.5	7.4





#25
2-Butanone
Concen: 249.973 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.001 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

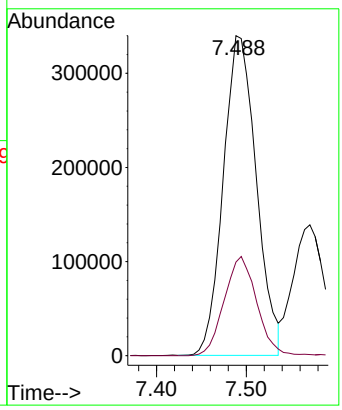
Tgt Ion: 43 Resp: 86894

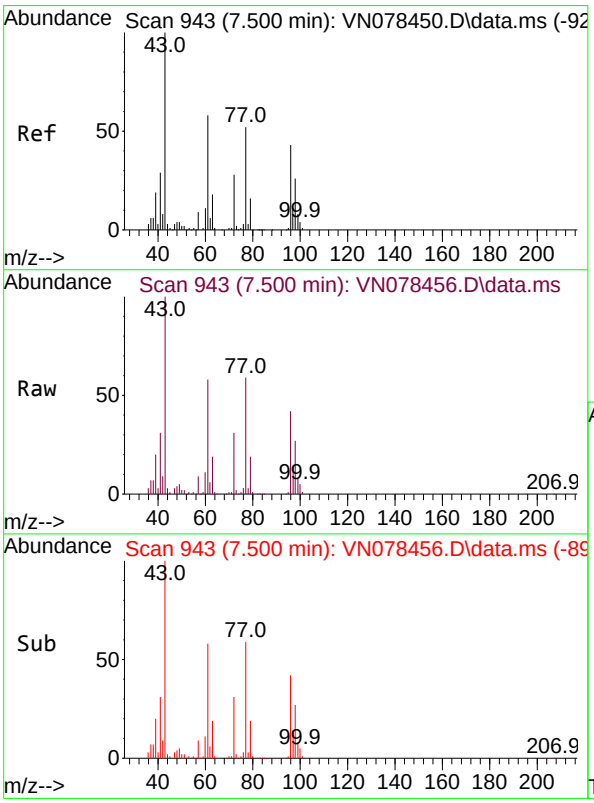
Ion	Ratio	Lower	Upper
43	100		
72	29.2	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

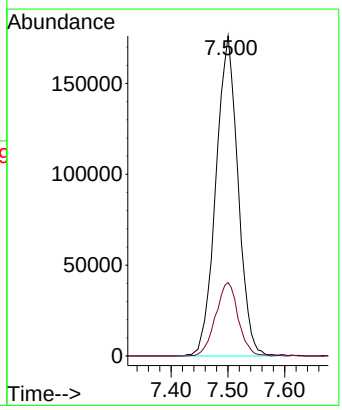


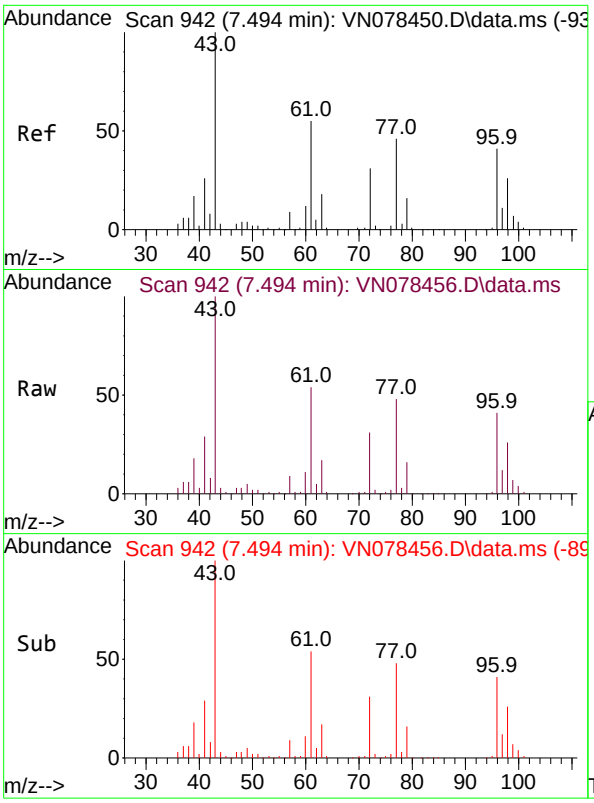


#26
2,2-Dichloropropane
Concen: 50.718 ug/l
RT: 7.500 min Scan# 943
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 77 Resp: 477212

Ion	Ratio	Lower	Upper
77	100		
97	23.4	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 47.431 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

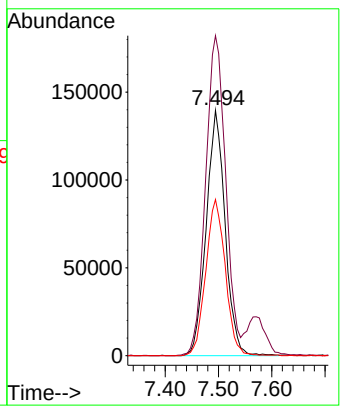
Tgt Ion: 96 Resp: 34501

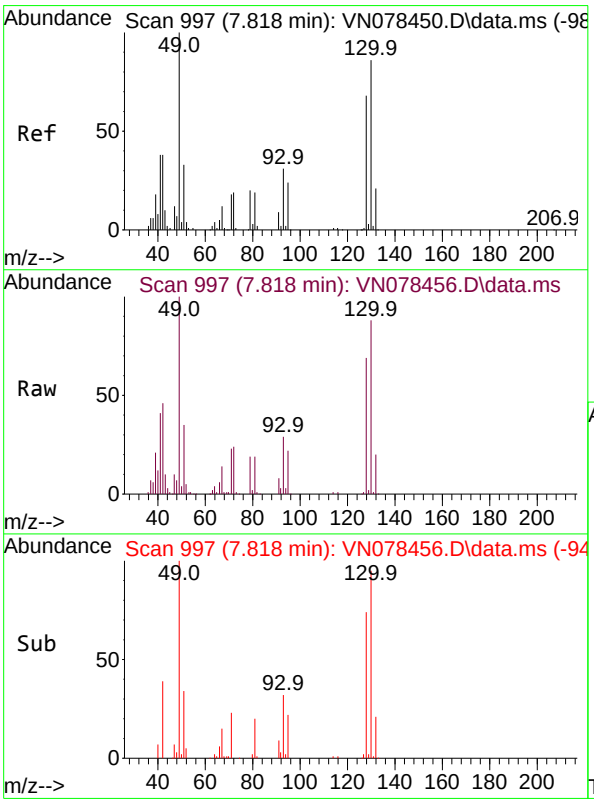
Ion	Ratio	Lower	Upper
96	100		
61	138.0	0.0	255.2
98	65.9	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

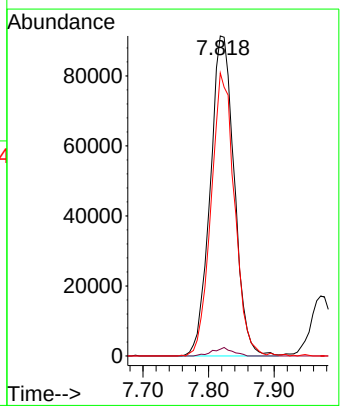


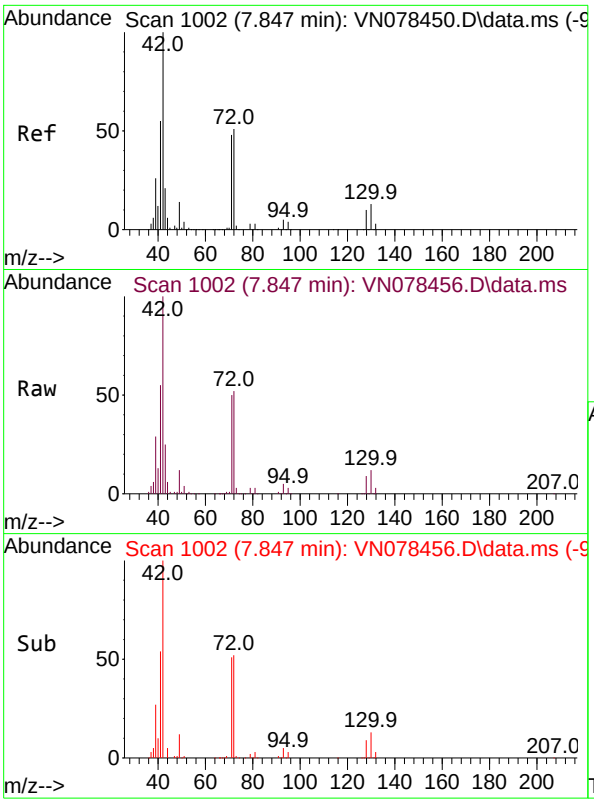


#28
Bromochloromethane
Concen: 42.998 ug/l
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 49 Resp: 232983

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	4.8
130	85.9	75.3	112.9

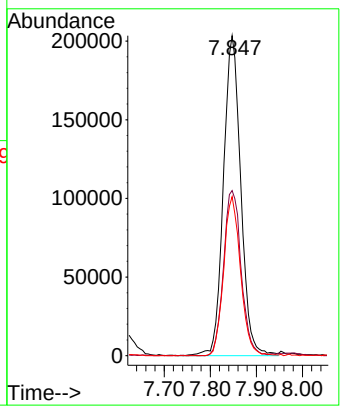




#29
Tetrahydrofuran
Concen: 232.708 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 42 Resp: 53079

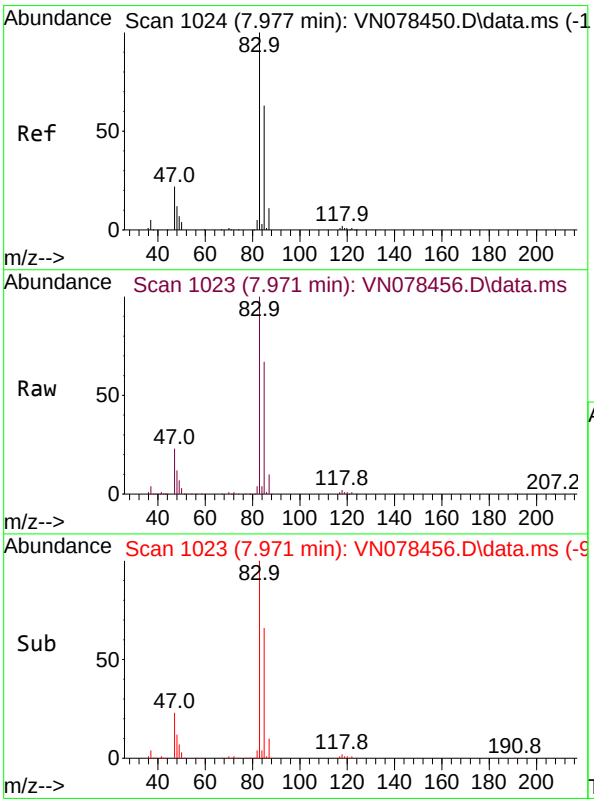
Ion	Ratio	Lower	Upper
42	100		
72	52.4	49.8	74.6
71	48.5	47.4	71.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

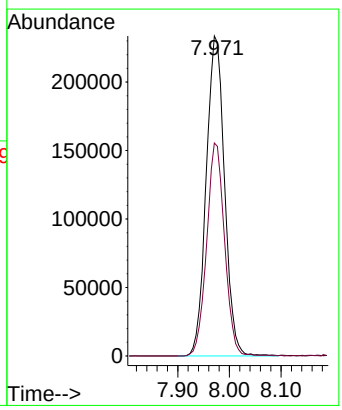
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

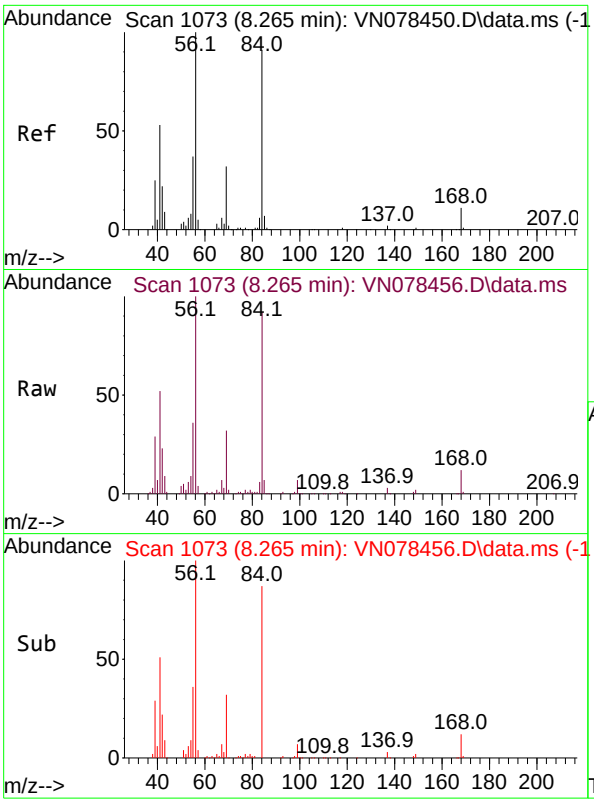


#30
Chloroform
Concen: 48.065 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. -0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 83 Resp: 575675

Ion	Ratio	Lower	Upper
83	100		
85	66.5	55.4	83.0

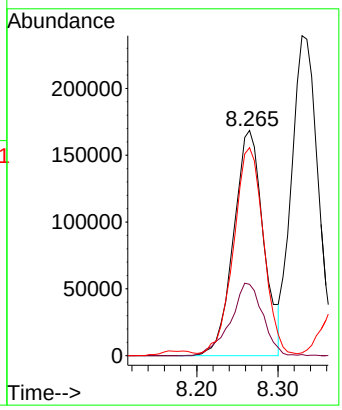




#31
Cyclohexane
Concen: 44.945 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 56 Resp: 43060

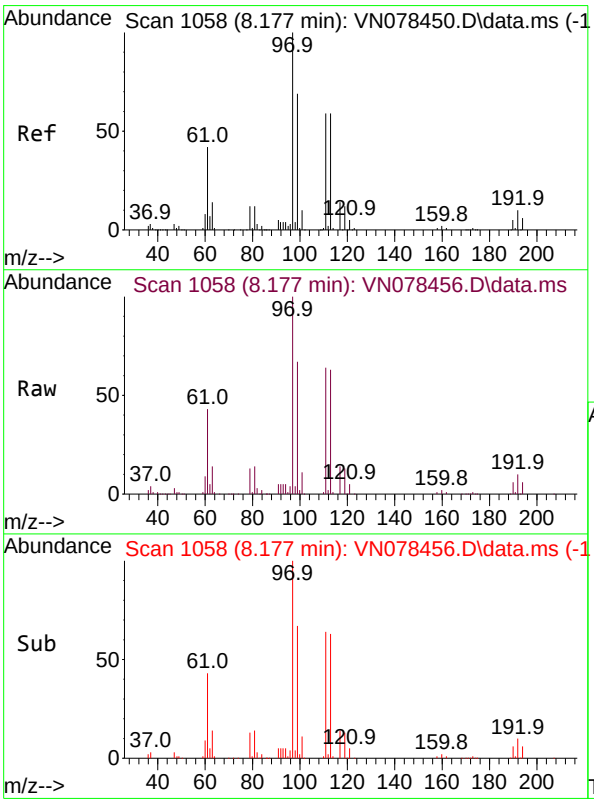
Ion	Ratio	Lower	Upper
56	100		
69	31.7	26.8	40.2
84	90.4	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

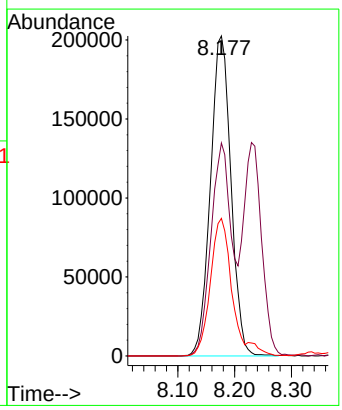
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

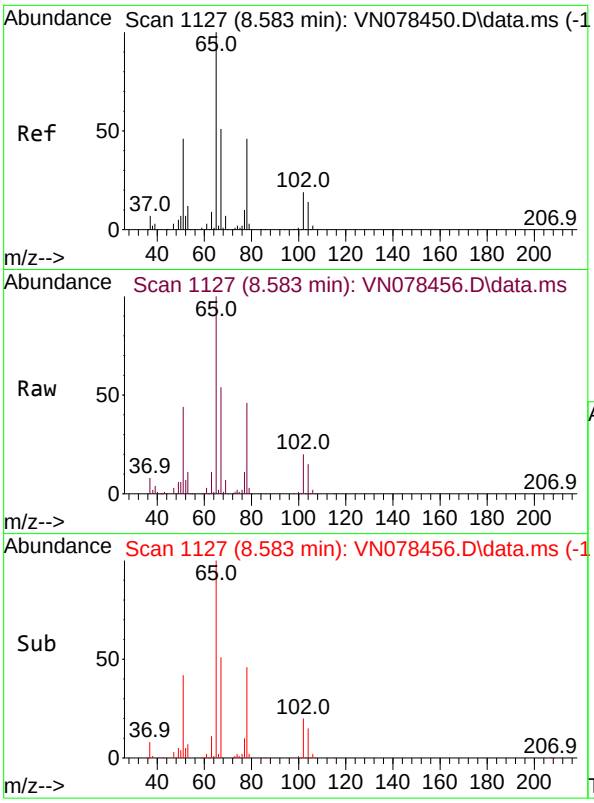


#32
1,1,1-Trichloroethane
Concen: 47.368 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 97 Resp: 508638

Ion	Ratio	Lower	Upper
97	100		
99	67.4	50.3	75.5
61	45.8	34.7	52.1





#33
1,2-Dichloroethane-d4
Concen: 48.801 ug/l
RT: 8.583 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

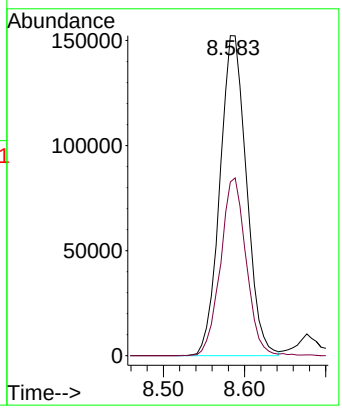
Tgt Ion: 65 Resp: 34596

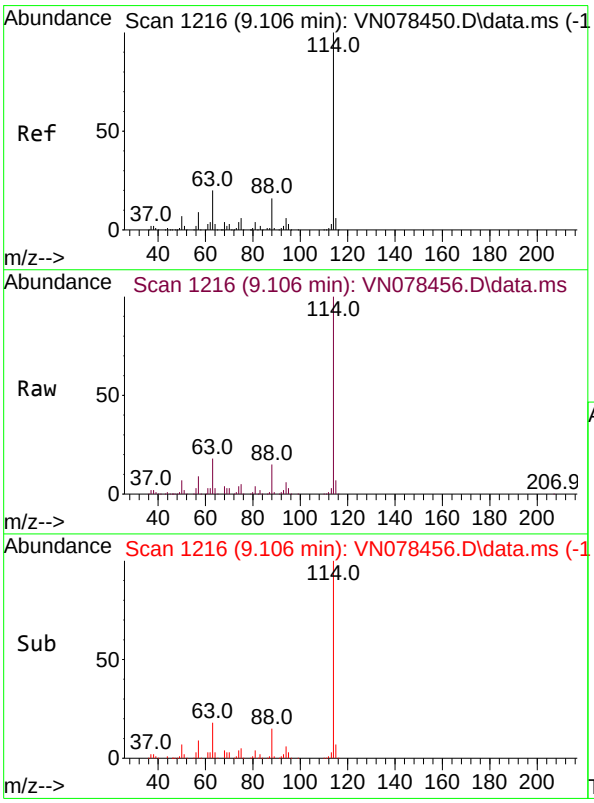
Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	106.6

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

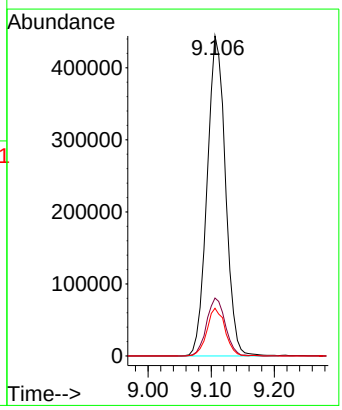


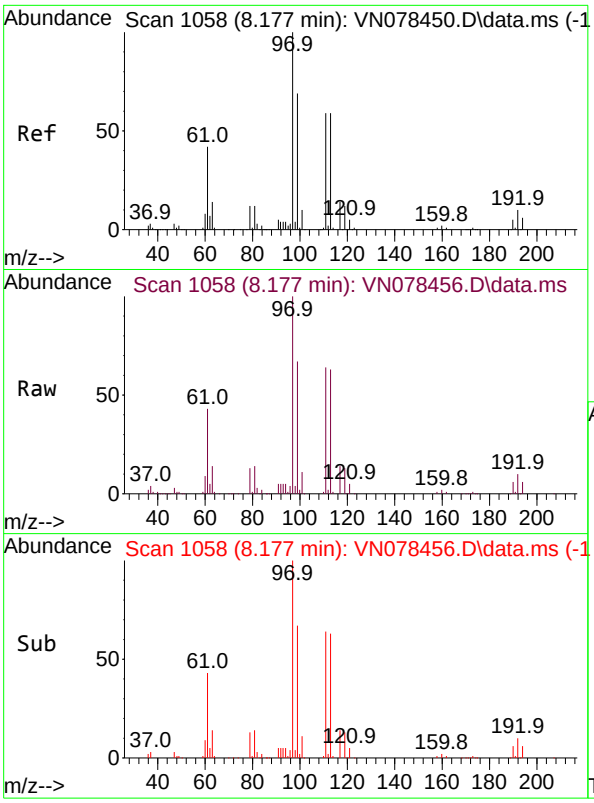


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:114 Resp: 894994

Ion	Ratio	Lower	Upper
114	100		
63	18.1	0.0	36.4
88	14.9	0.0	30.6

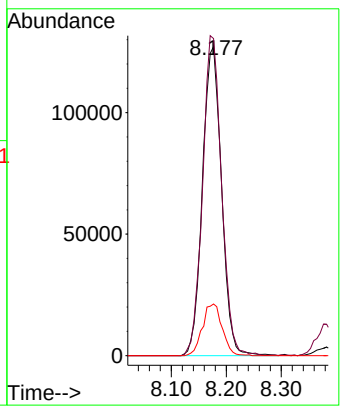




#35
Dibromofluoromethane
Concen: 50.573 ug/l
RT: 8.177 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:113 Resp: 30725

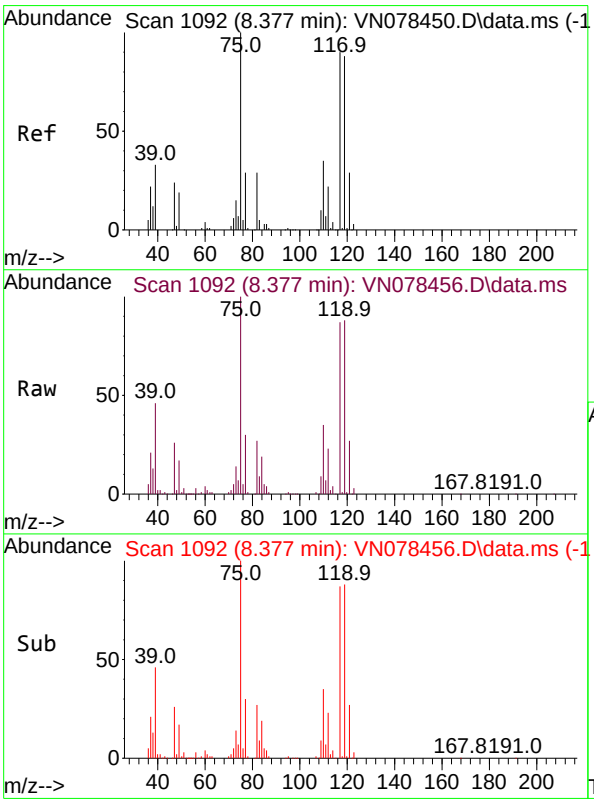
Ion	Ratio	Lower	Upper
113	100		
111	102.9	82.6	123.8
192	17.3	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

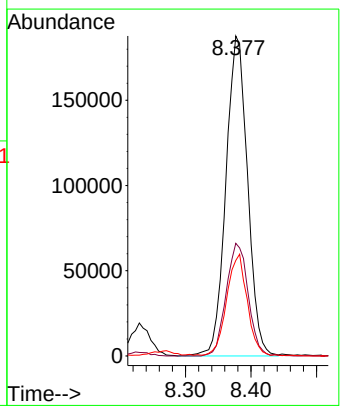
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

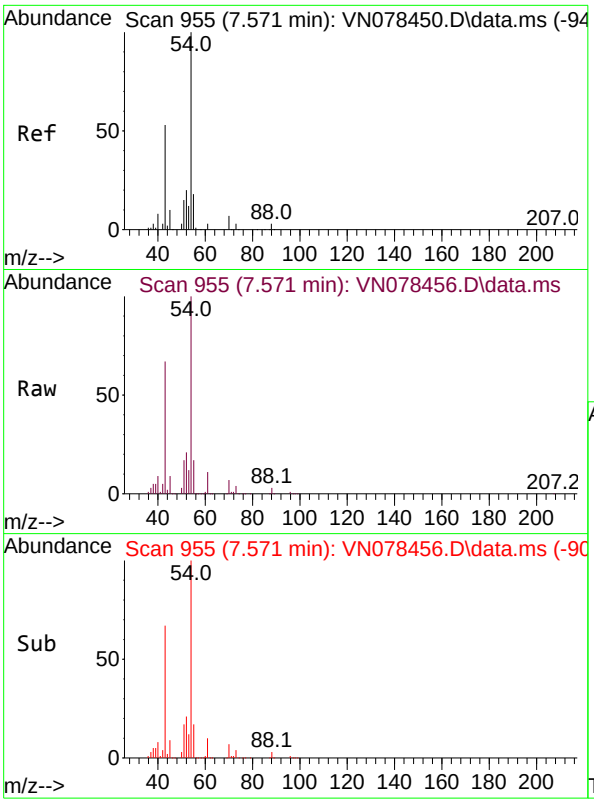


#36
1,1-Dichloropropene
Concen: 49.155 ug/l
RT: 8.377 min Scan# 1092
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 75 Resp: 431213

Ion	Ratio	Lower	Upper
75	100		
110	35.7	19.1	57.3
77	30.1	25.0	37.4

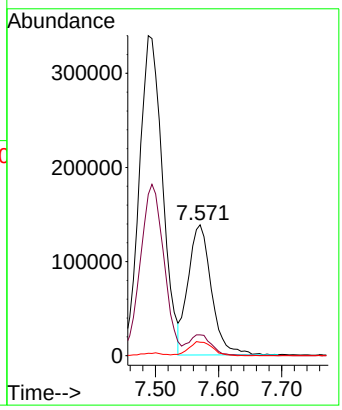




#37
Ethyl Acetate
Concen: 48.483 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 43 Resp: 35455

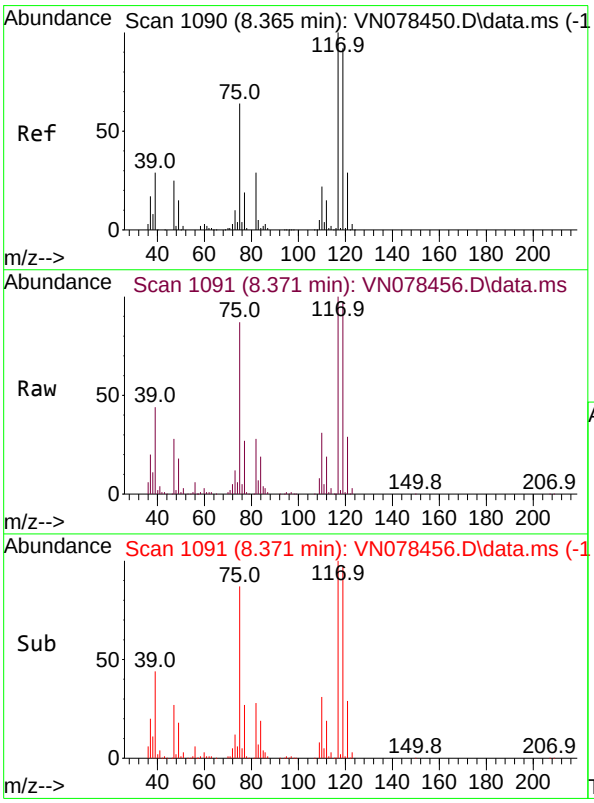
Ion	Ratio	Lower	Upper
43	100		
61	15.7	13.2	19.8
70	10.9	11.3	16.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

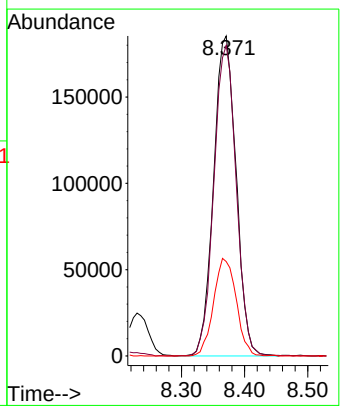
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

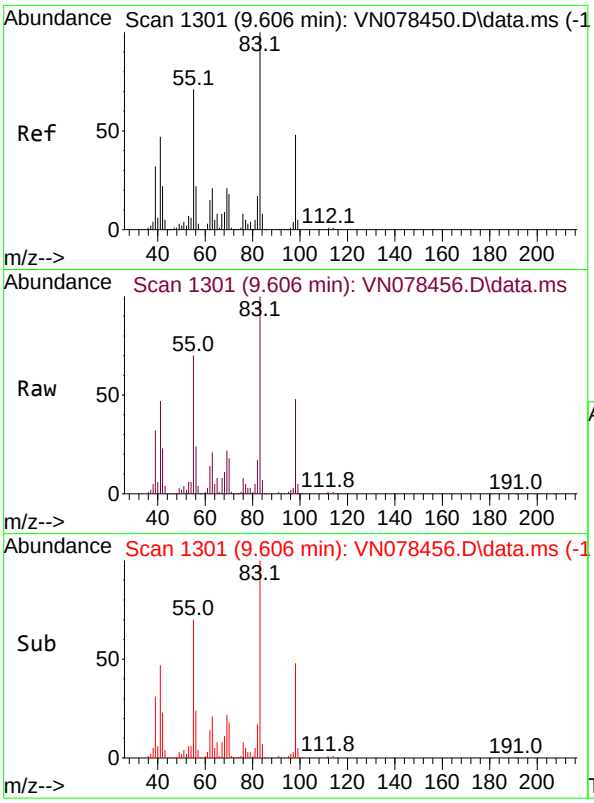


#38
Carbon Tetrachloride
Concen: 48.160 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:117 Resp: 459176

Ion	Ratio	Lower	Upper
117	100		
119	97.0	77.3	115.9
121	29.5	23.3	34.9





#39
Methylcyclohexane
Concen: 50.755 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

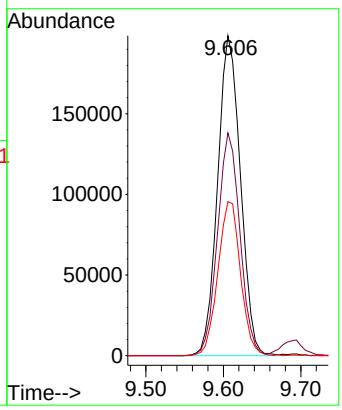
Tgt Ion: 83 Resp: 40641

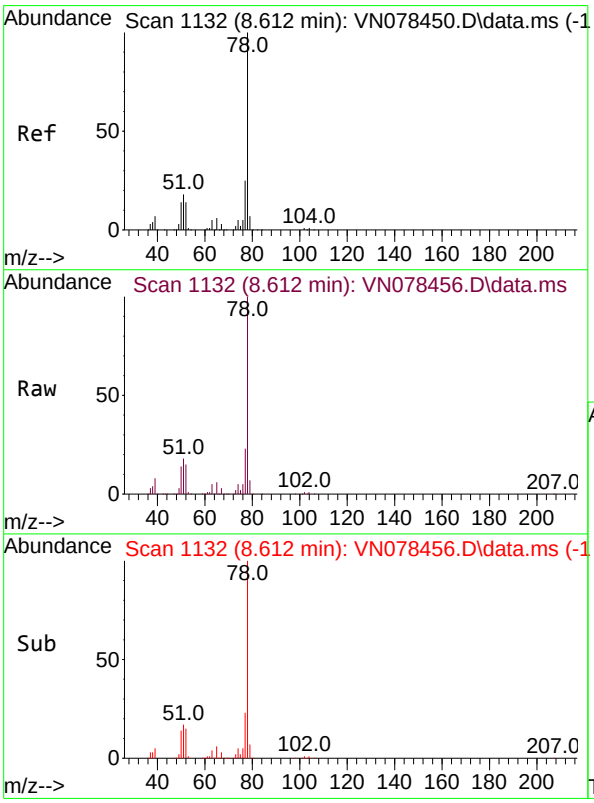
Ion	Ratio	Lower	Upper
83	100		
55	69.6	49.1	73.7
98	48.2	40.6	61.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

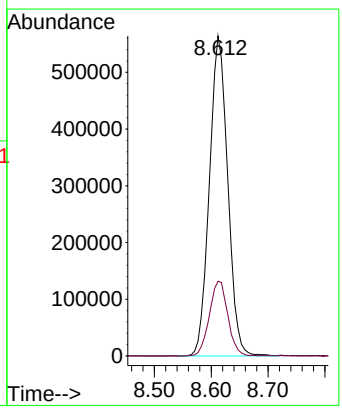


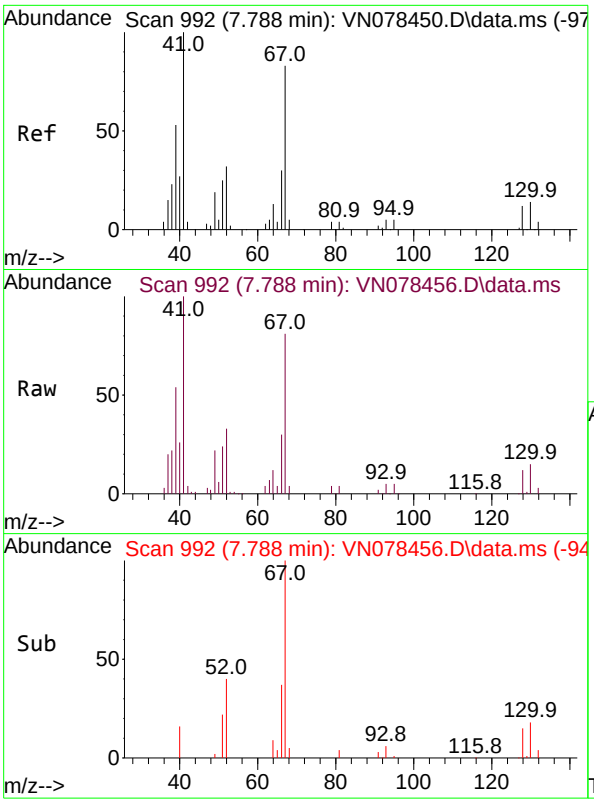


#40
Benzene
Concen: 48.595 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 78 Resp: 1262934

Ion	Ratio	Lower	Upper
78	100		
77	23.4	19.0	28.6

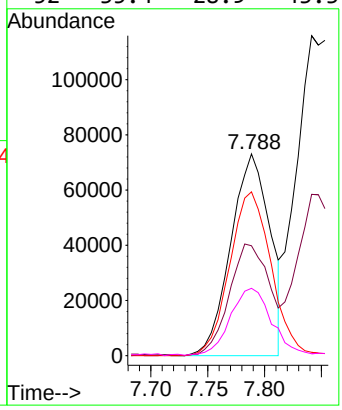




#41
Methacrylonitrile
Concen: 46.968 ug/l
RT: 7.788 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 41 Resp: 17509

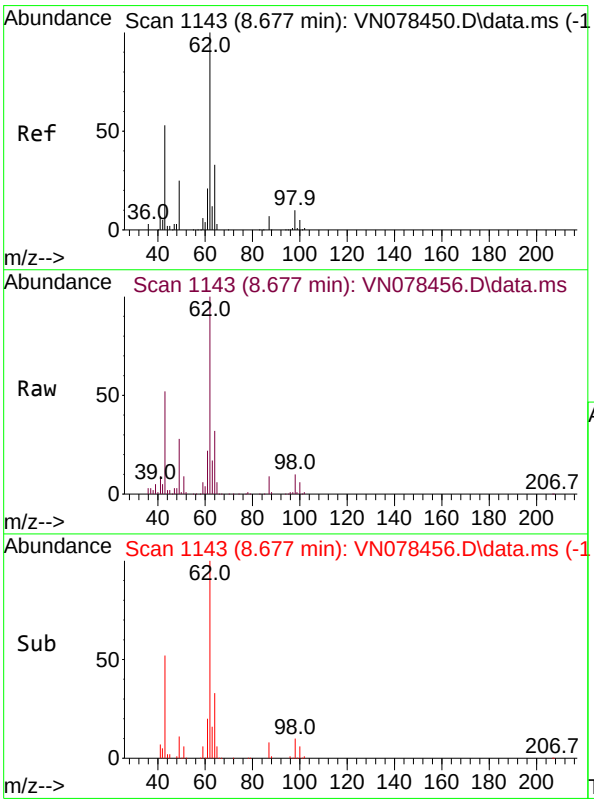
Ion	Ratio	Lower	Upper
41	100		
39	56.6	42.6	64.0
67	86.5	77.5	116.3
52	35.4	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

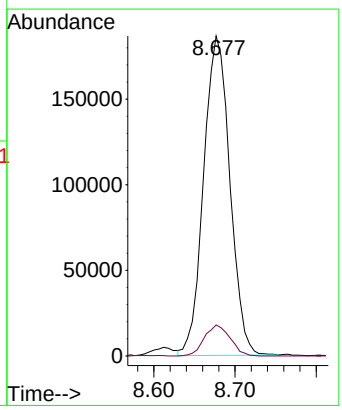
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

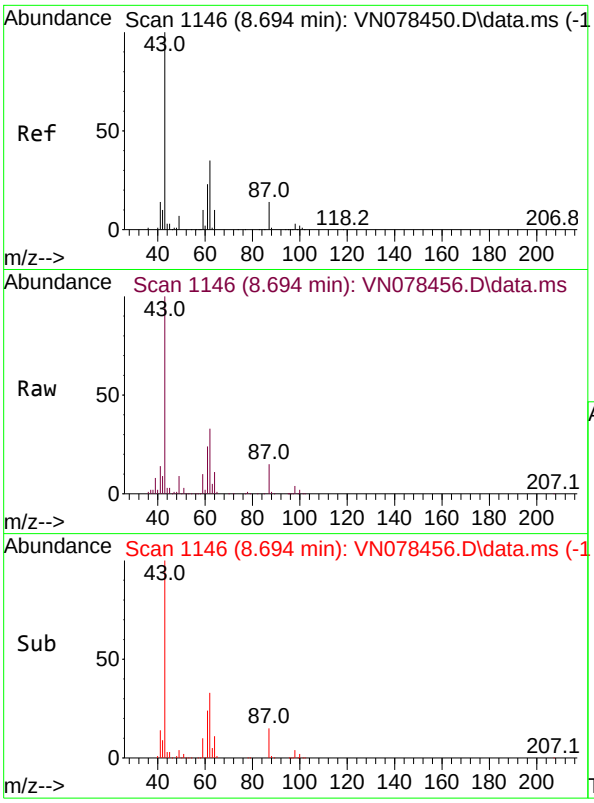


#42
1,2-Dichloroethane
Concen: 47.424 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 62 Resp: 419227

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.8





#43
Isopropyl Acetate
Concen: 49.495 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

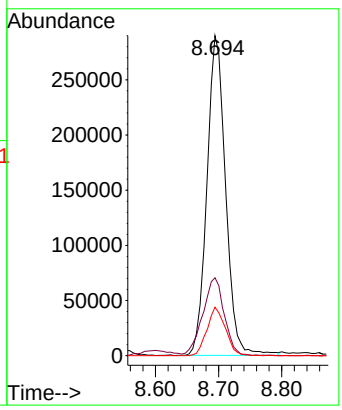
Tgt Ion: 43 Resp: 595909

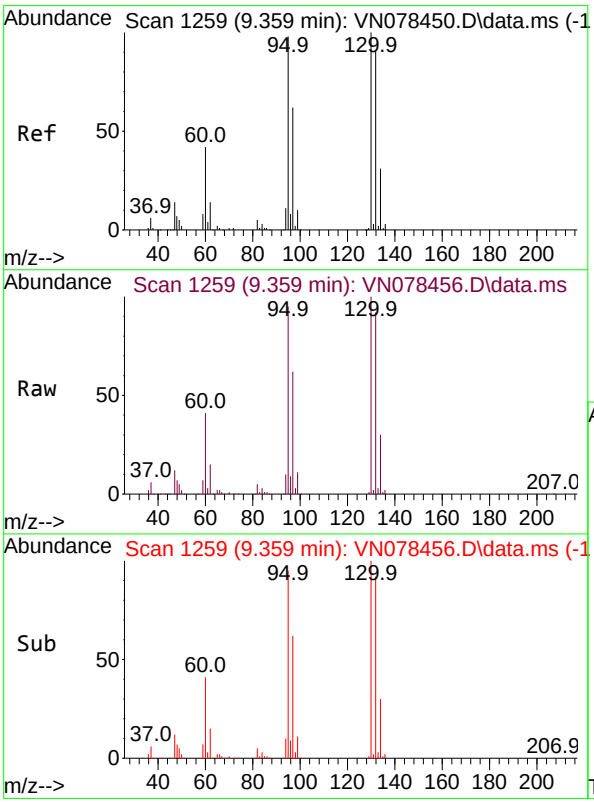
Ion	Ratio	Lower	Upper
43	100		
61	27.8	24.7	37.1
87	15.0	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

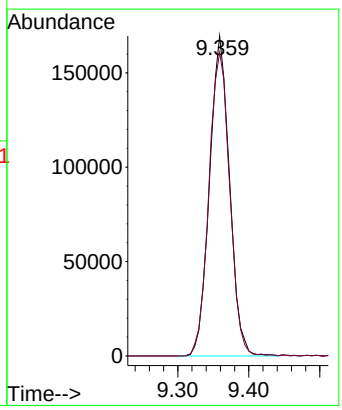


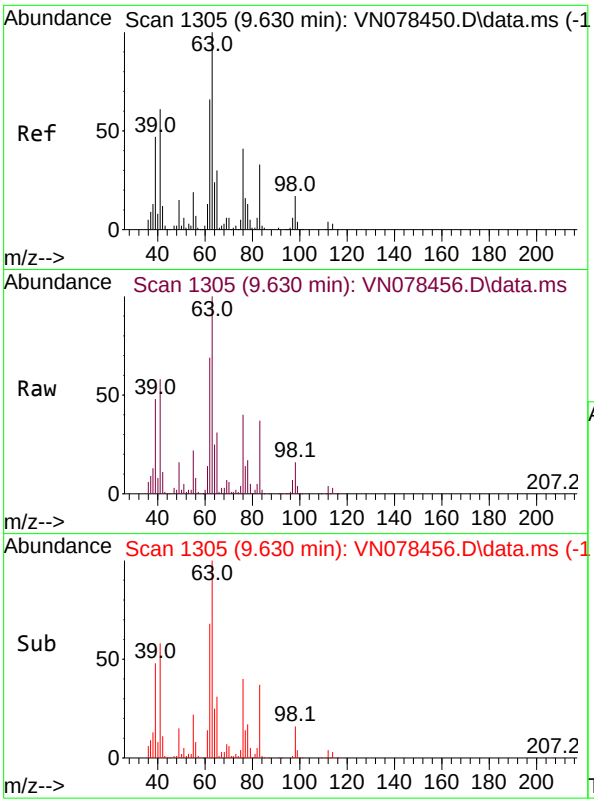


#44
Trichloroethene
Concen: 47.350 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:130 Resp: 331665

Ion	Ratio	Lower	Upper
130	100		
95	94.8	0.0	204.6

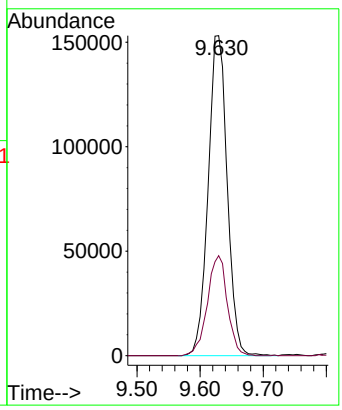




#45
1,2-Dichloropropane
Concen: 48.758 ug/l
RT: 9.630 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 63 Resp: 32094

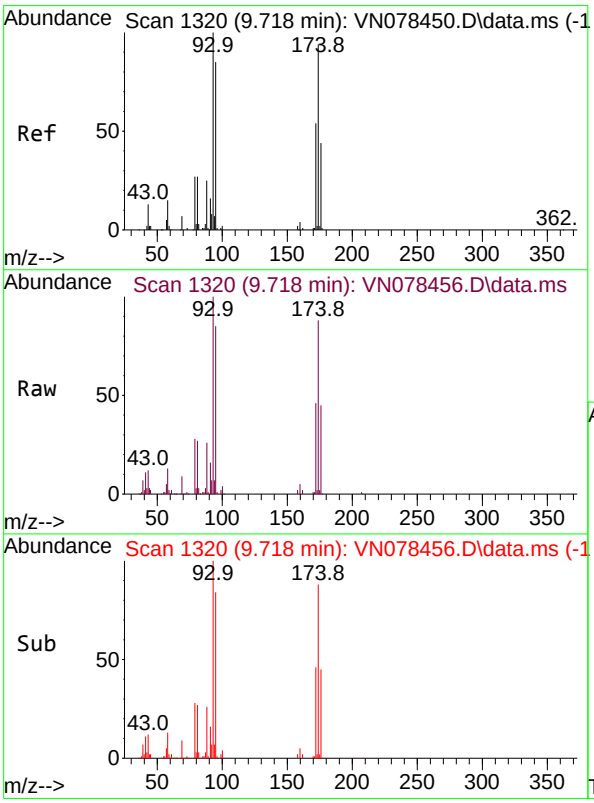
Ion	Ratio	Lower	Upper
63	100		
65	31.3	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

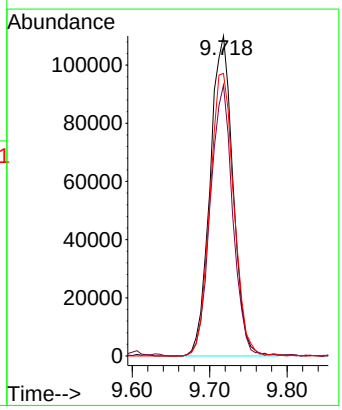
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

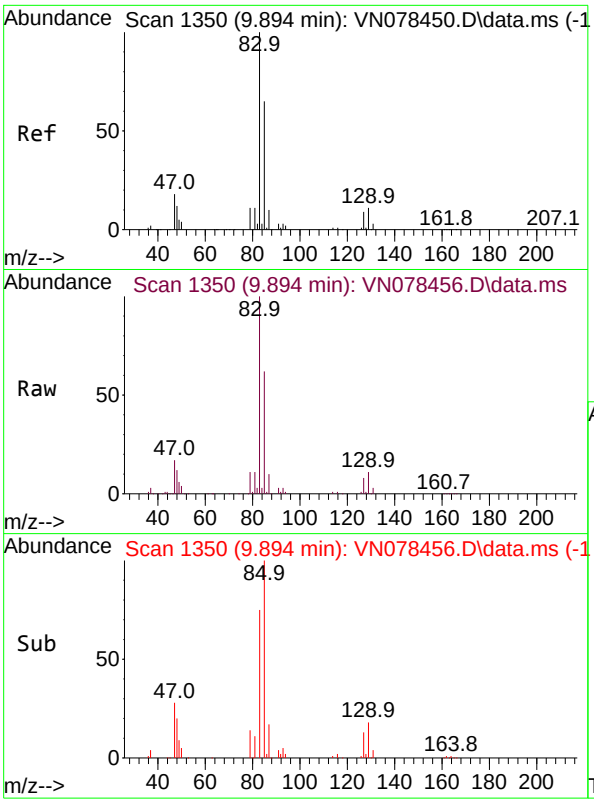


#46
Dibromomethane
Concen: 48.764 ug/l
RT: 9.718 min Scan# 1320
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 93 Resp: 225919

Ion	Ratio	Lower	Upper
93	100		
95	82.7	63.8	95.8
174	91.9	65.6	98.4

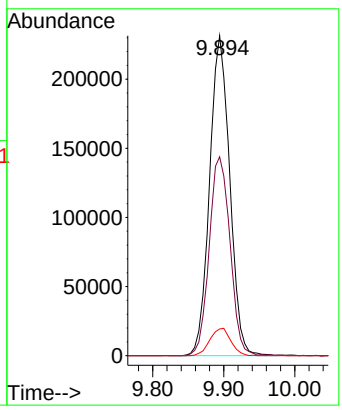




#47
Bromodichloromethane
Concen: 49.039 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 83 Resp: 45542

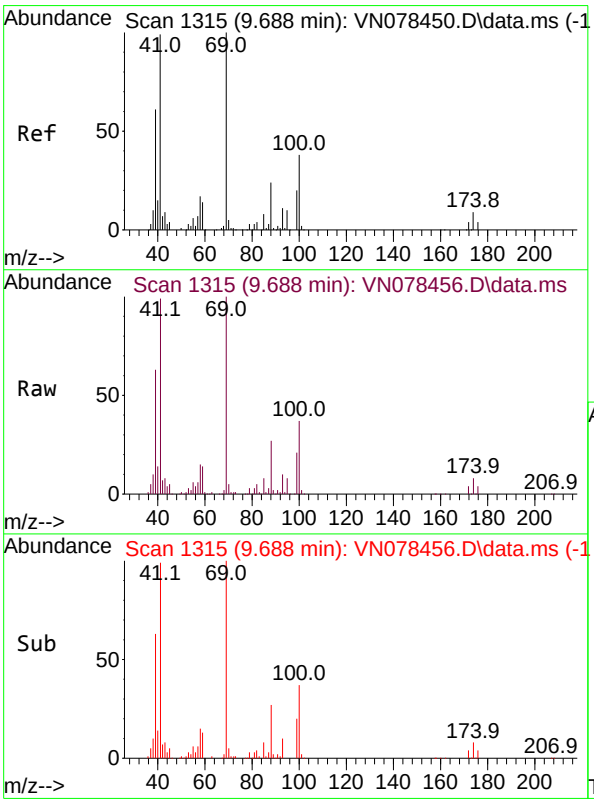
Ion	Ratio	Lower	Upper
83	100		
85	62.2	49.6	74.4
127	8.3	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

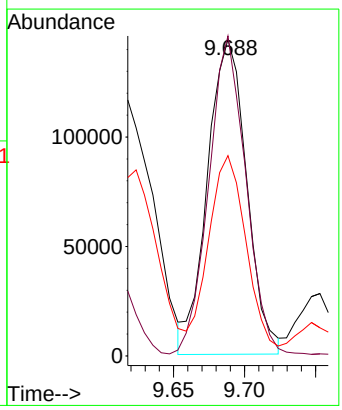
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

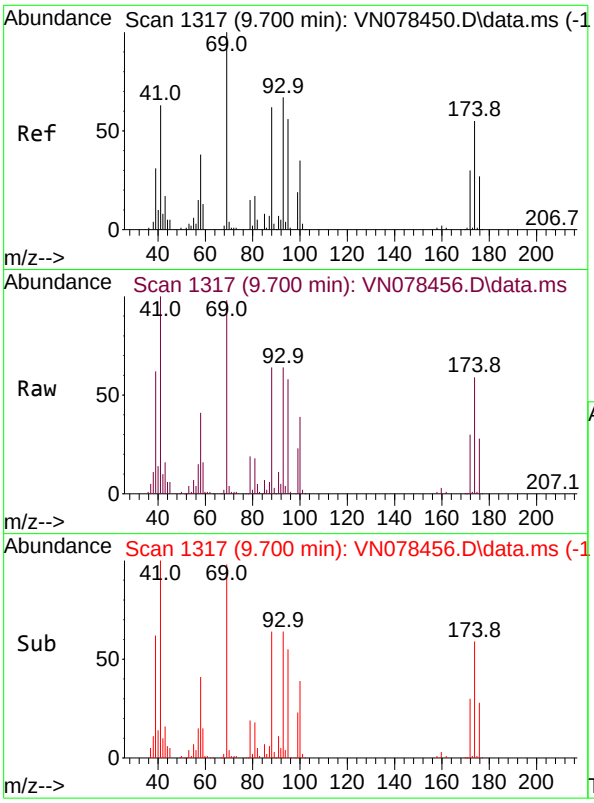


#48
Methyl methacrylate
Concen: 49.505 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 41 Resp: 276133

Ion	Ratio	Lower	Upper
41	100		
69	97.3	90.4	135.6
39	61.5	54.6	81.8

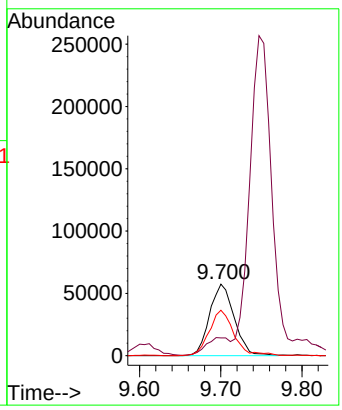




#49
1,4-Dioxane
Concen: 994.827 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 88 Resp: 12101

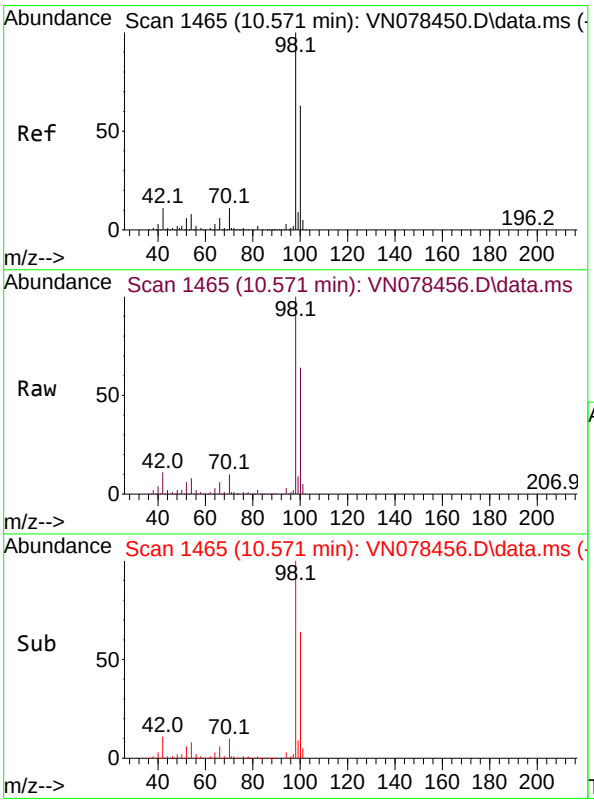
Ion	Ratio	Lower	Upper
88	100		
43	23.8	17.0	25.6
58	63.7	47.0	70.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

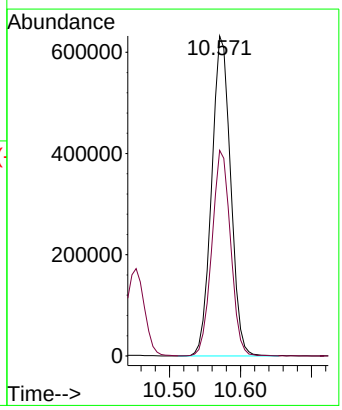
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

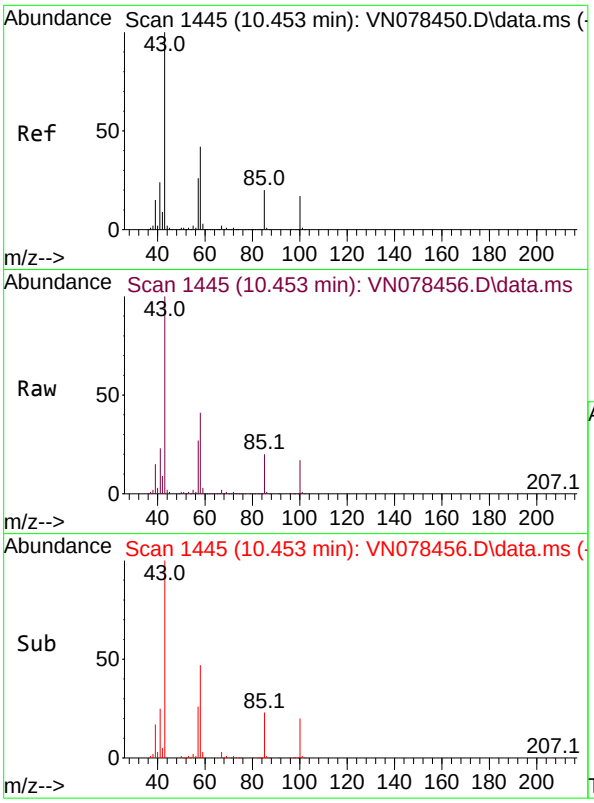


#50
Toluene-d8
Concen: 50.953 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 98 Resp: 1169443

Ion	Ratio	Lower	Upper
98	100		
100	63.4	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 246.578 ug/l
RT: 10.453 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

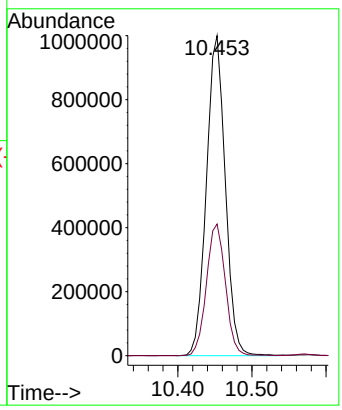
Tgt Ion: 43 Resp: 176583

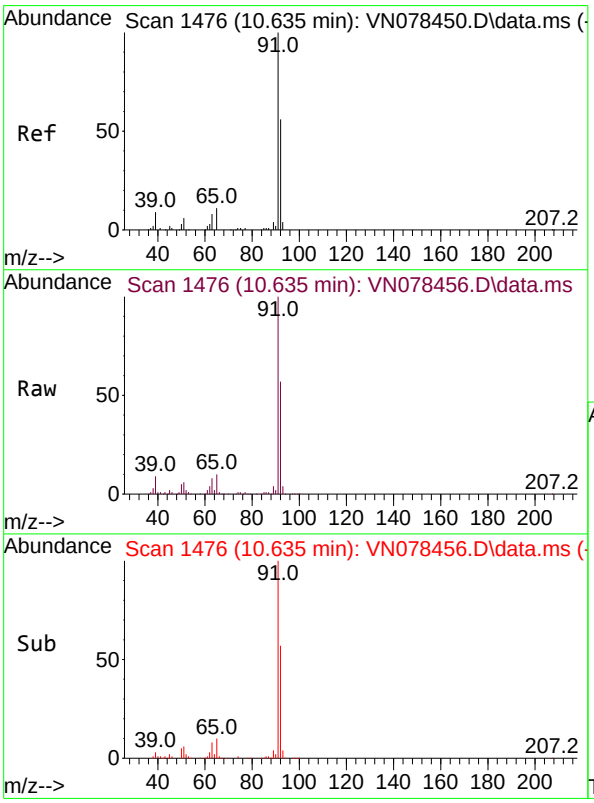
Ion	Ratio	Lower	Upper
43	100		
58	41.5	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

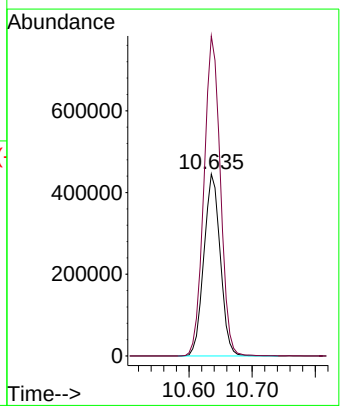


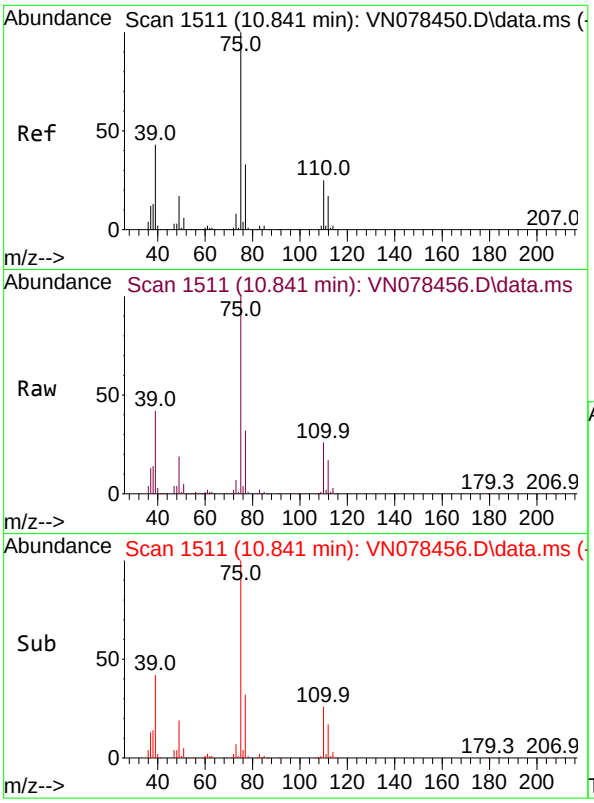


#52
Toluene
Concen: 49.859 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 92 Resp: 803101

Ion	Ratio	Lower	Upper
92	100		
91	176.2	137.4	206.0





#53
t-1,3-Dichloropropene
Concen: 50.745 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

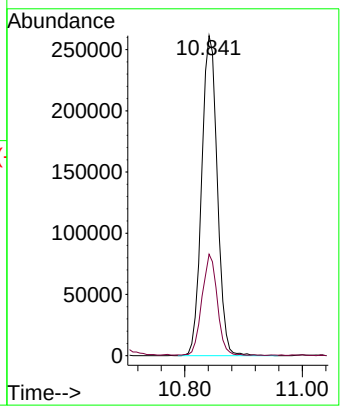
Tgt Ion: 75 Resp: 48279

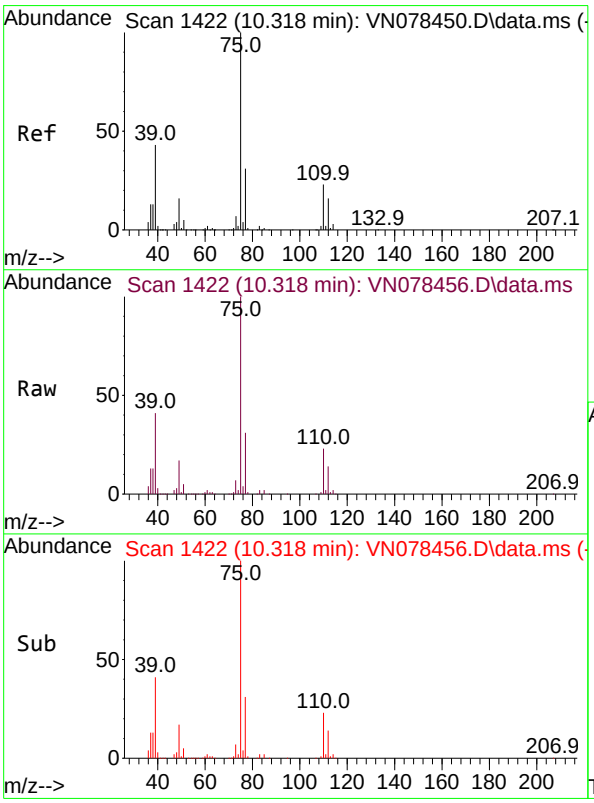
Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.4	38.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

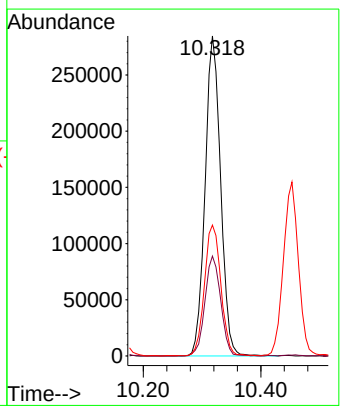


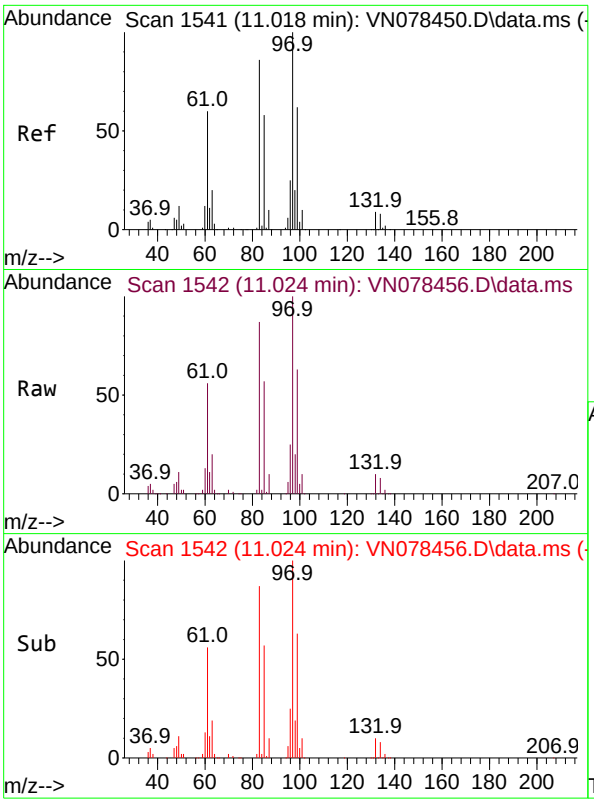


#54
cis-1,3-Dichloropropene
Concen: 51.593 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 75 Resp: 523230

Ion	Ratio	Lower	Upper
75	100		
77	31.2	26.1	39.1
39	40.8	31.6	47.4

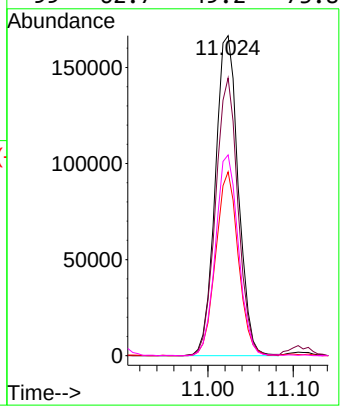




#55
1,1,2-Trichloroethane
Concen: 49.229 ug/l
RT: 11.024 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 97 Resp: 31241

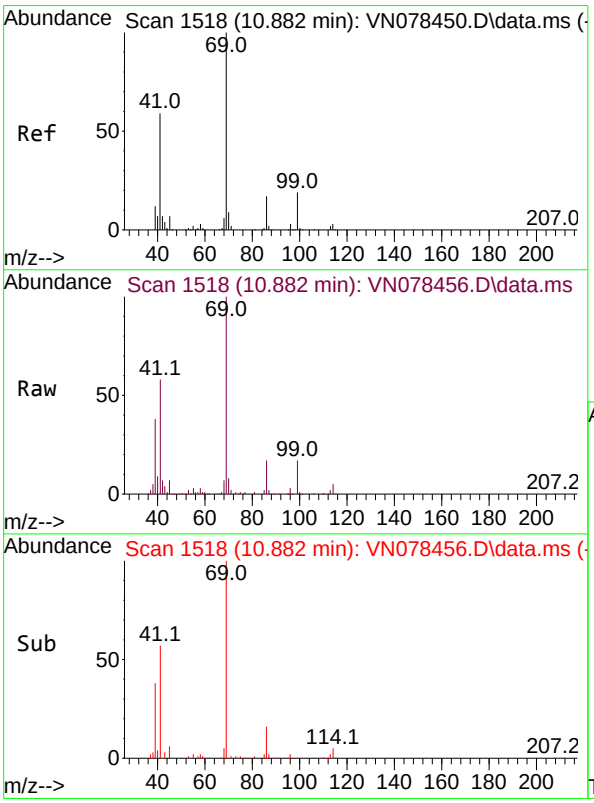
Ion	Ratio	Lower	Upper
97	100		
83	86.8	65.1	97.7
85	57.5	43.4	65.2
99	62.7	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

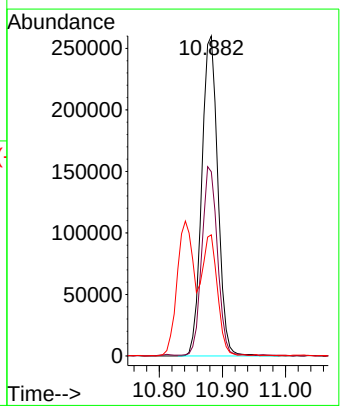
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

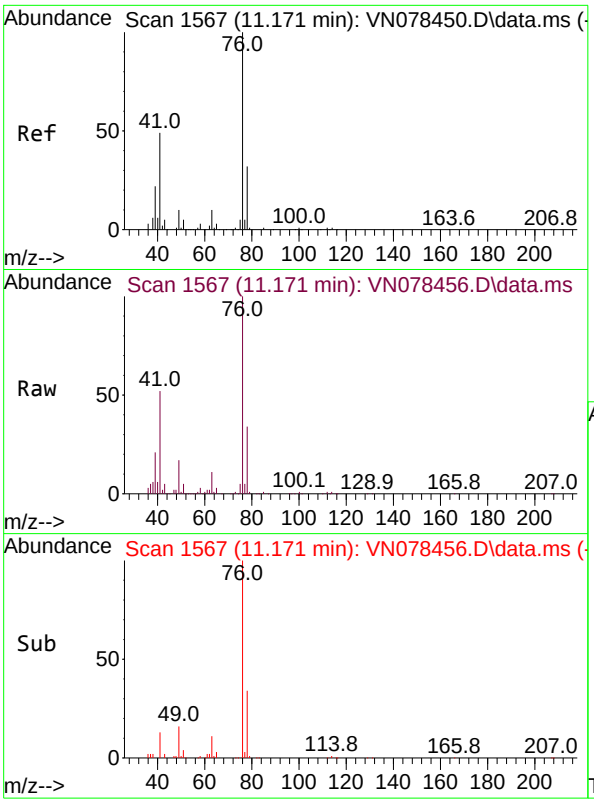


#56
Ethyl methacrylate
Concen: 51.727 ug/l
RT: 10.882 min Scan# 1518
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 69 Resp: 458888

Ion	Ratio	Lower	Upper
69	100		
41	57.2	39.6	59.4
39	36.6	28.6	43.0

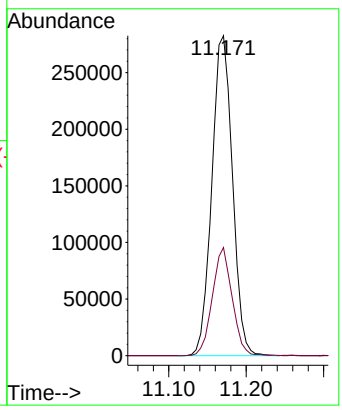




#57
1,3-Dichloropropane
Concen: 48.463 ug/l
RT: 11.171 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 76 Resp: 52293

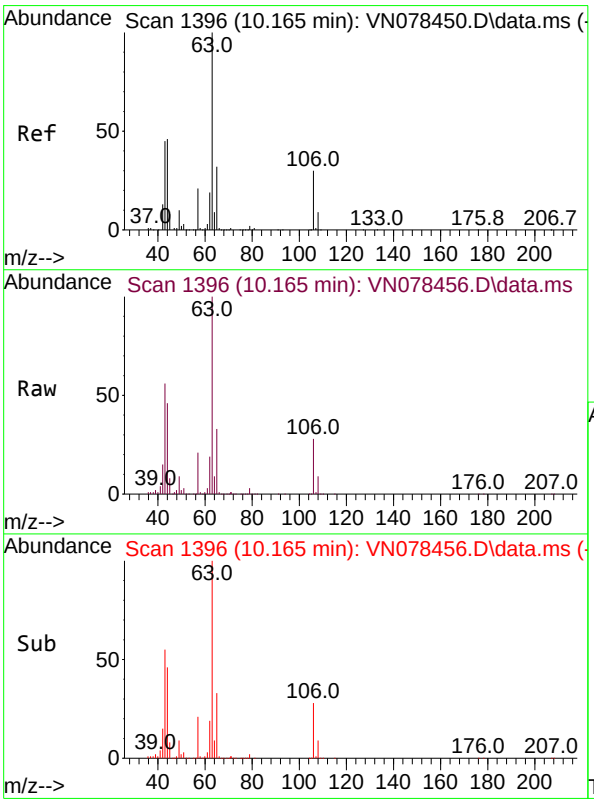
Ion	Ratio	Lower	Upper
76	100		
78	32.4	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

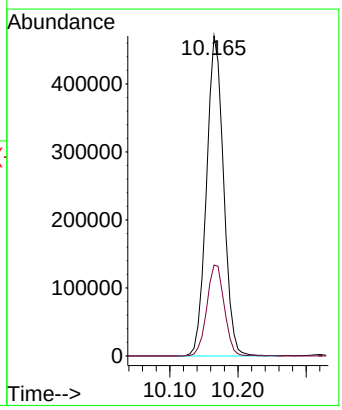
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

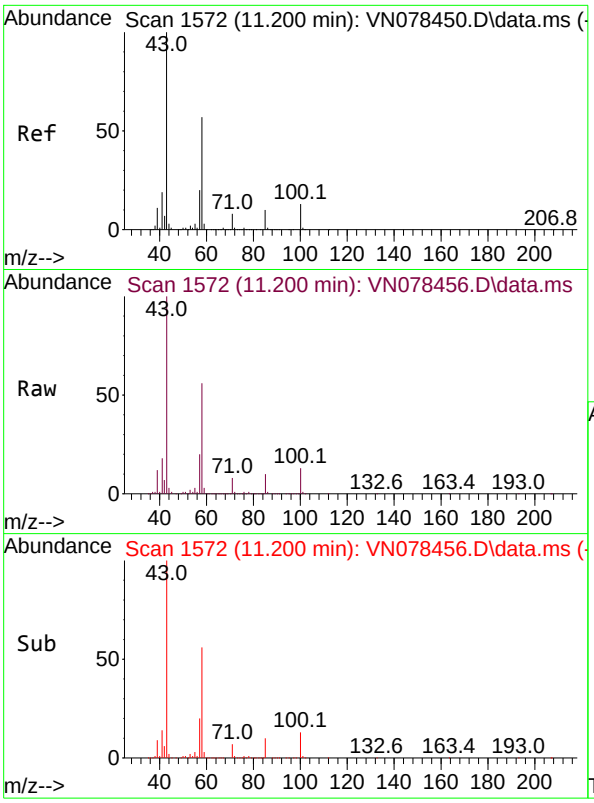


#58
2-Chloroethyl Vinyl ether
Concen: 259.244 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 63 Resp: 819605

Ion	Ratio	Lower	Upper
63	100		
106	29.1	26.2	39.4





#59
2-Hexanone
Concen: 258.916 ug/l
RT: 11.200 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

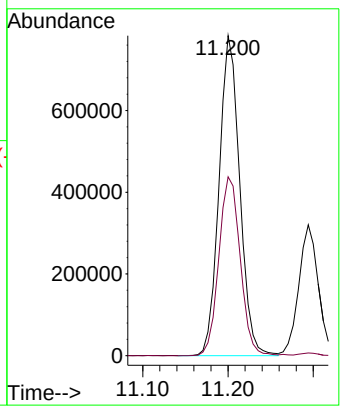
Tgt Ion: 43 Resp: 131779

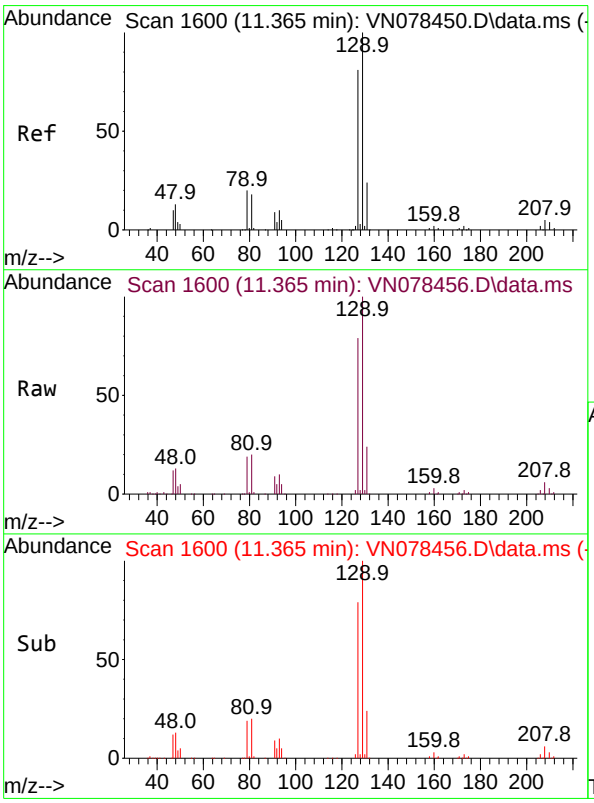
Ion	Ratio	Lower	Upper
43	100		
58	57.8	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

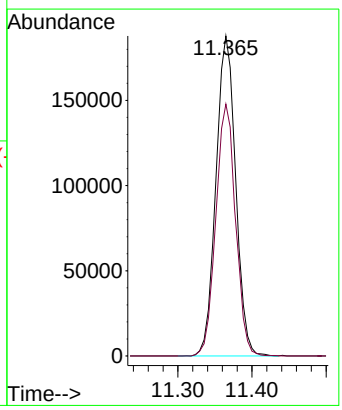


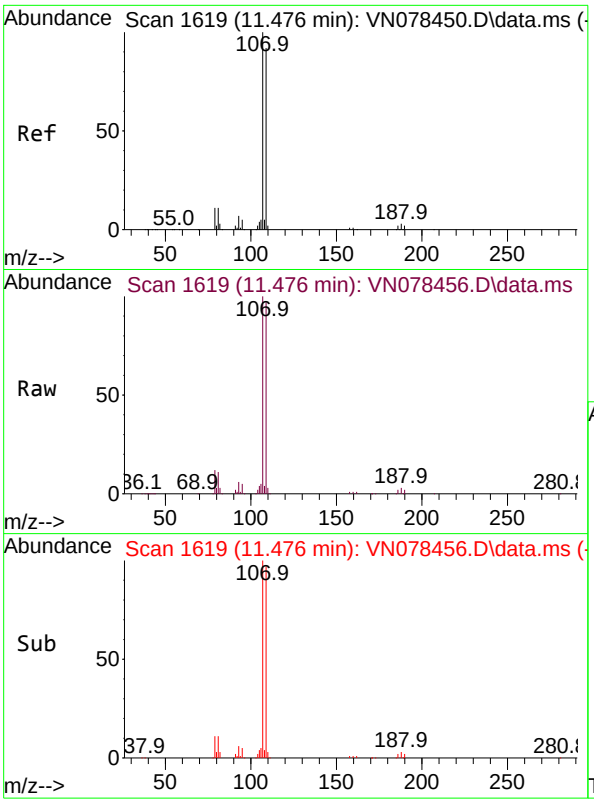


#60
Dibromochloromethane
Concen: 49.458 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:129 Resp: 346514

Ion	Ratio	Lower	Upper
129	100		
127	78.8	38.6	116.0





#61
1,2-Dibromoethane
Concen: 49.185 ug/l
RT: 11.476 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

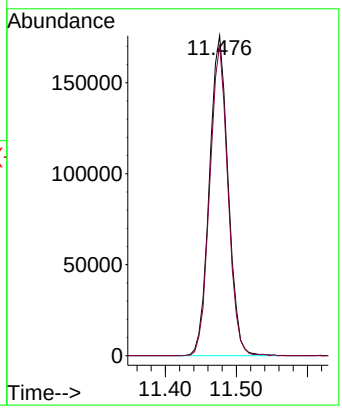
Tgt Ion:107 Resp: 32154

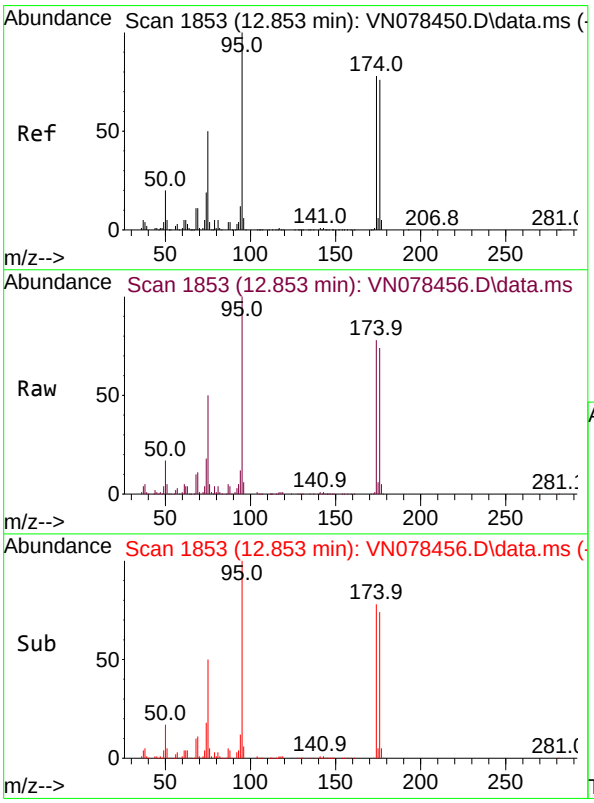
Ion	Ratio	Lower	Upper
107	100		
109	94.2	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

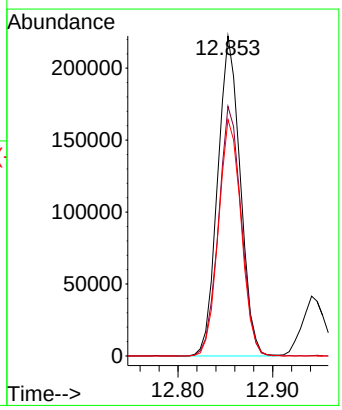


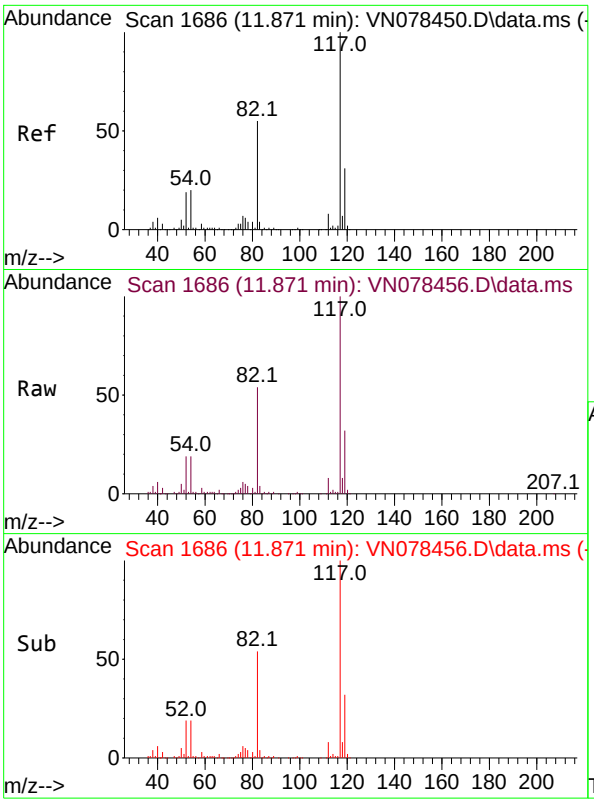


#62
4-Bromofluorobenzene
Concen: 52.132 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 95 Resp: 368551

Ion	Ratio	Lower	Upper
95	100		
174	78.5	0.0	143.8
176	74.3	0.0	135.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

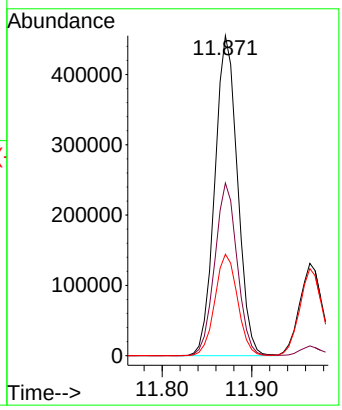
Tgt Ion:117 Resp: 79863

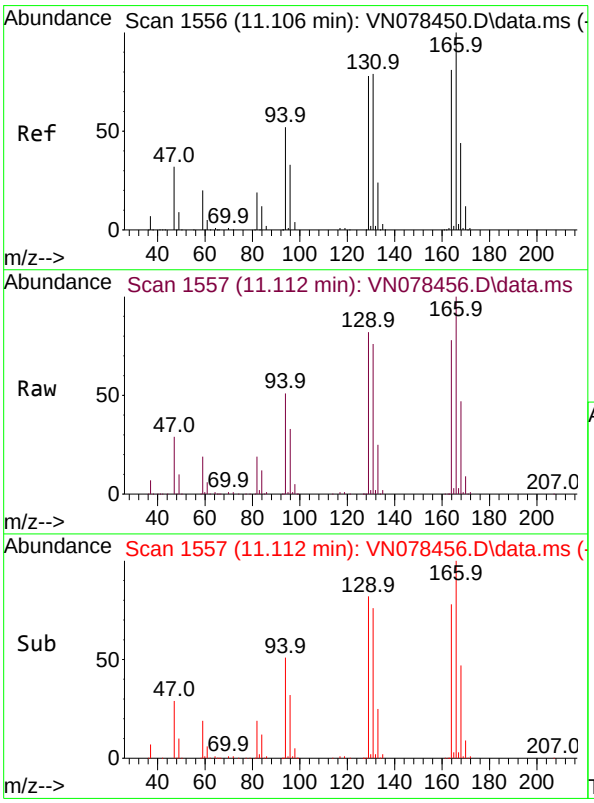
Ion	Ratio	Lower	Upper
117	100		
82	54.0	44.0	66.0
119	31.7	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

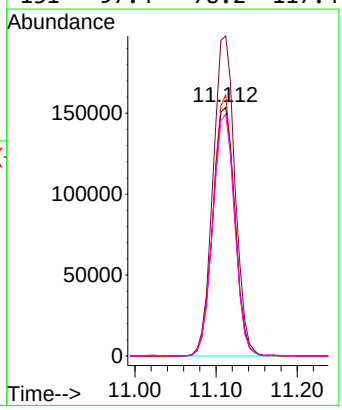


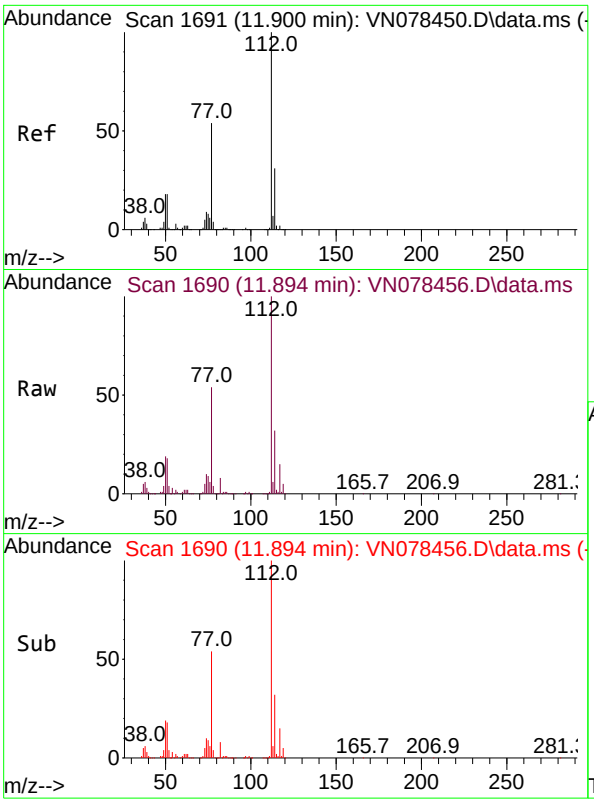


#64
Tetrachloroethene
Concen: 48.545 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:164 Resp: 291480

Ion	Ratio	Lower	Upper
164	100		
166	128.7	101.4	152.0
129	105.0	82.4	123.6
131	97.4	78.2	117.4





#65
Chlorobenzene
Concen: 48.214 ug/l
RT: 11.894 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

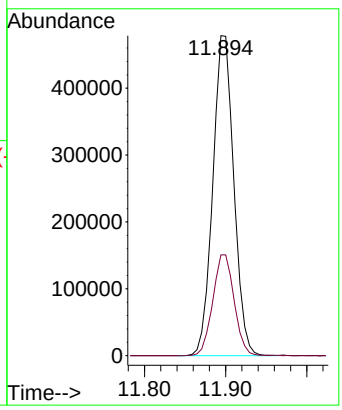
Tgt Ion:112 Resp: 86068

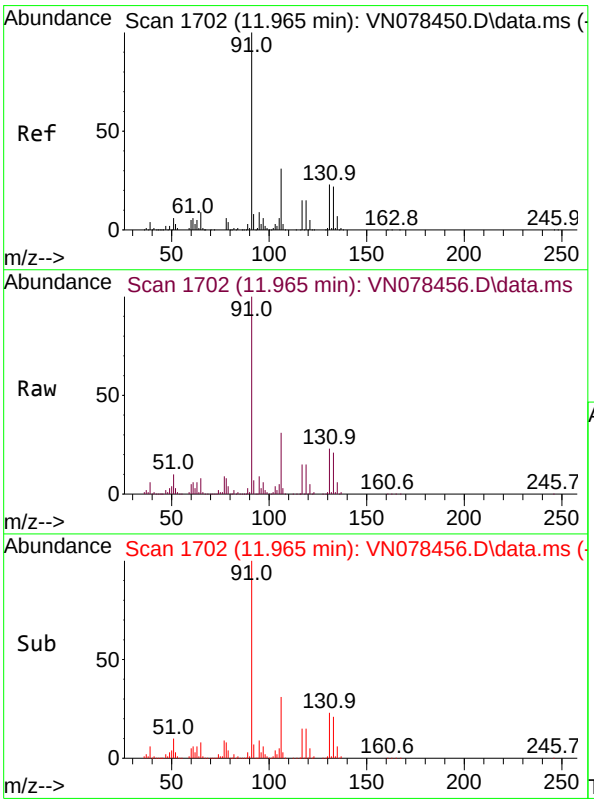
Ion	Ratio	Lower	Upper
112	100		
114	31.5	25.0	37.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

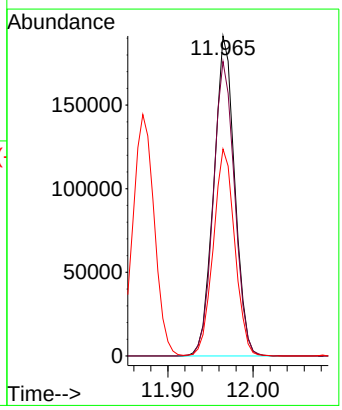


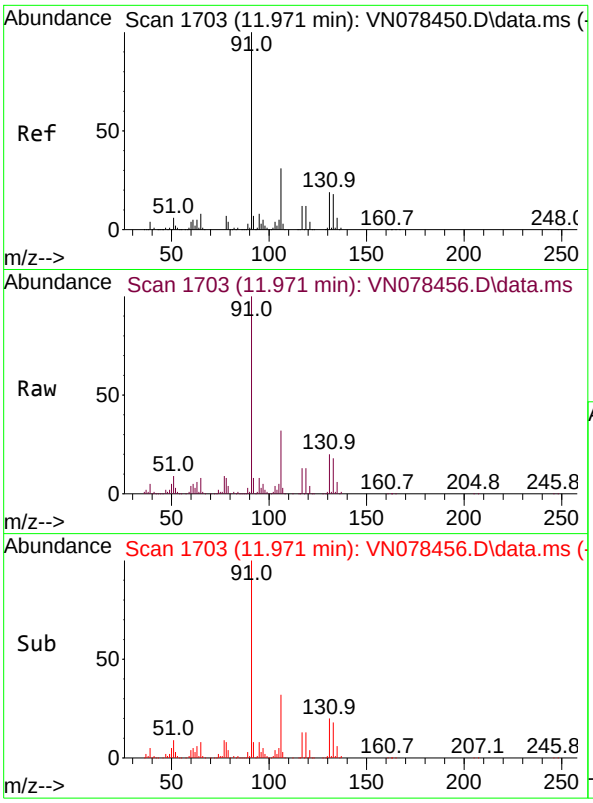


#66
1,1,1,2-Tetrachloroethane
Concen: 47.635 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:131 Resp: 327131

Ion	Ratio	Lower	Upper
131	100		
133	93.8	46.4	139.1
119	66.2	34.1	102.2





#67
Ethyl Benzene
Concen: 50.401 ug/l
RT: 11.971 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

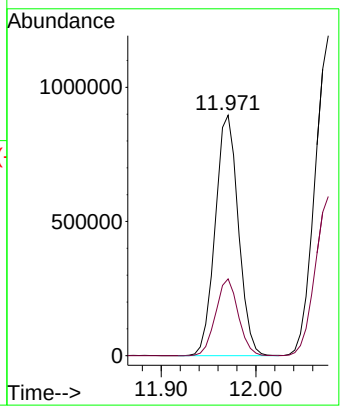
Tgt Ion: 91 Resp: 152085

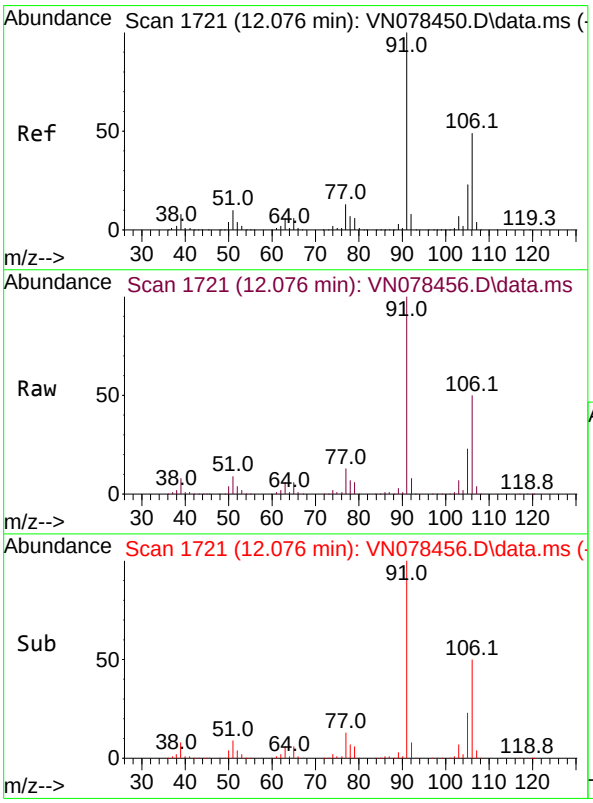
Ion	Ratio	Lower	Upper
91	100		
106	31.9	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

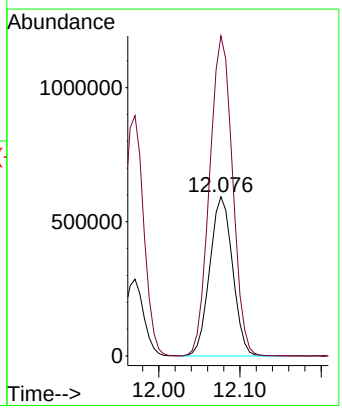


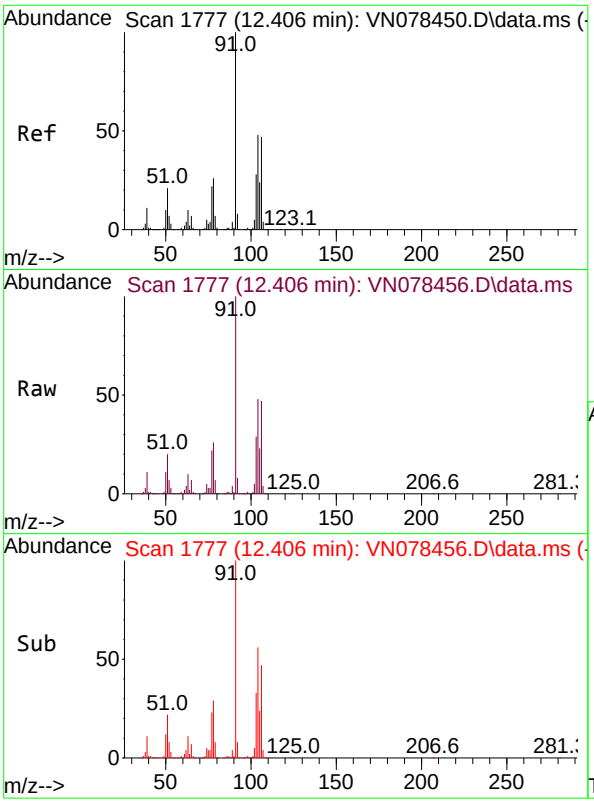


#68
m/p-Xylenes
Concen: 103.800 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:106 Resp: 1158045

Ion	Ratio	Lower	Upper
106	100		
91	202.8	159.6	239.4





#69
o-Xylene
Concen: 50.103 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

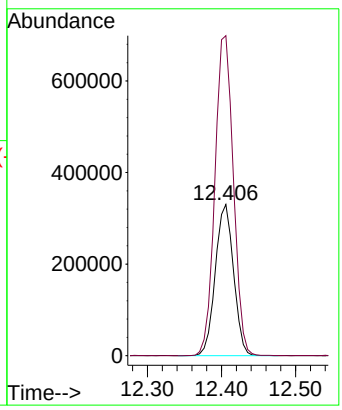
Tgt Ion:106 Resp: 56459

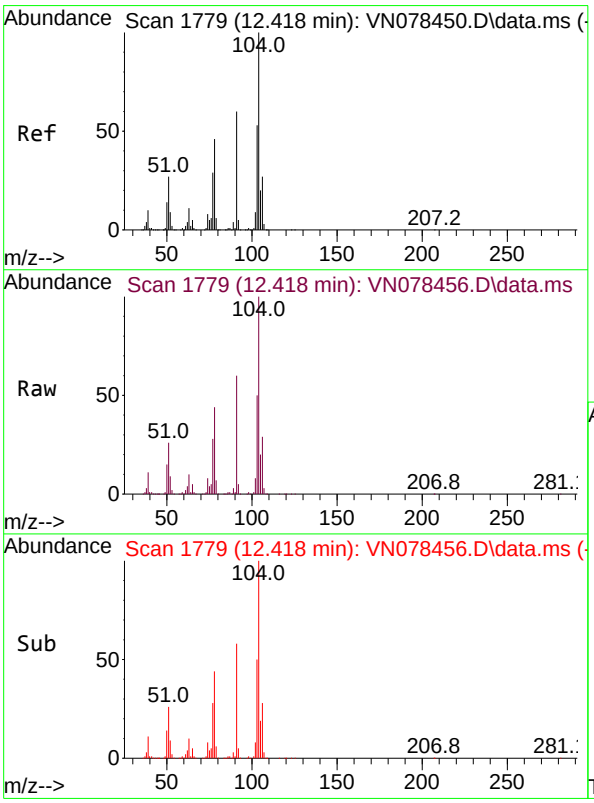
Ion	Ratio	Lower	Upper
106	100		
91	214.1	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

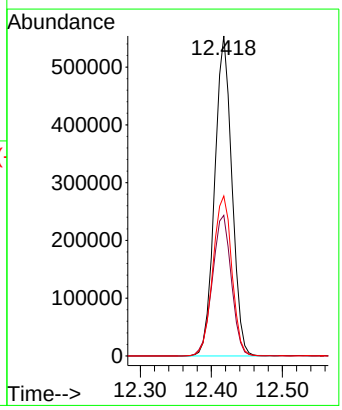


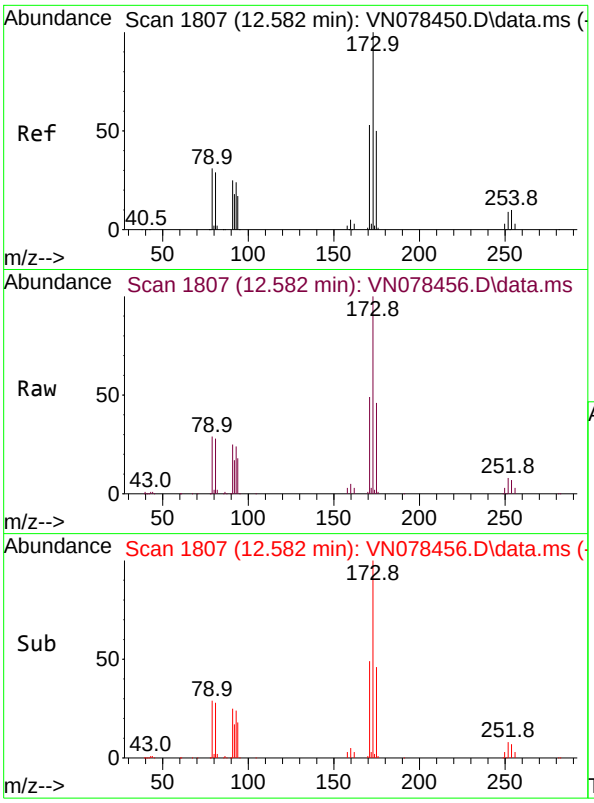


#70
Styrene
Concen: 52.745 ug/l
RT: 12.418 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:104 Resp: 929871

Ion	Ratio	Lower	Upper
104	100		
78	48.4	39.5	59.3
103	54.9	43.2	64.8

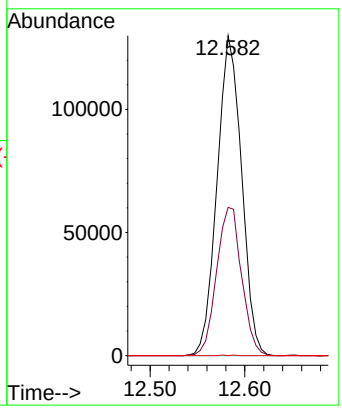




#71
Bromoform
Concen: 50.180 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:173 Resp: 23338

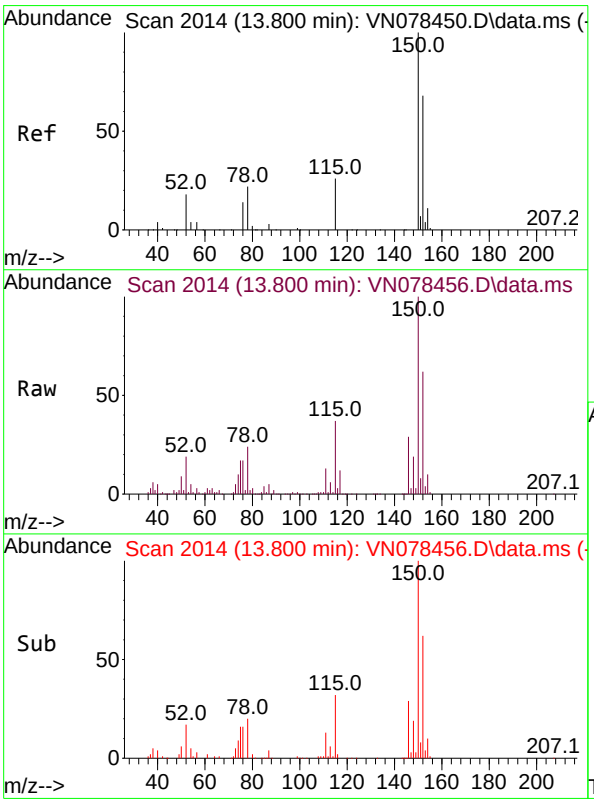
Ion	Ratio	Lower	Upper
173	100		
175	47.4	24.3	73.0
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

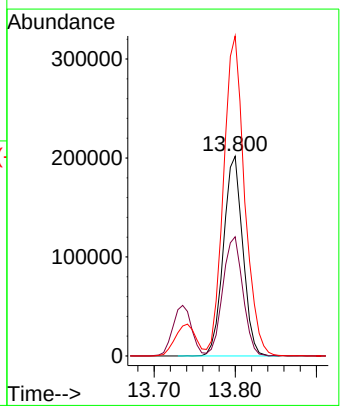
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

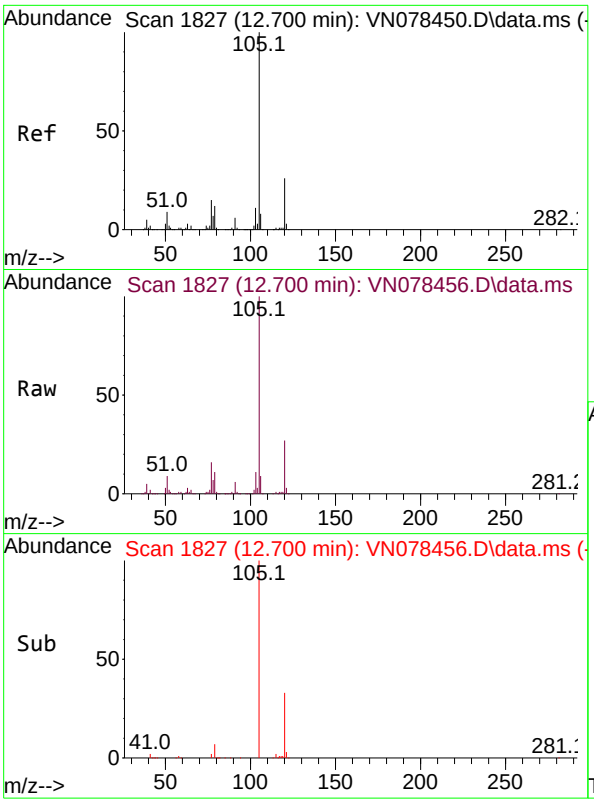


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:152 Resp: 333955

Ion	Ratio	Lower	Upper
152	100		
115	61.9	32.3	96.8
150	173.8	0.0	355.8

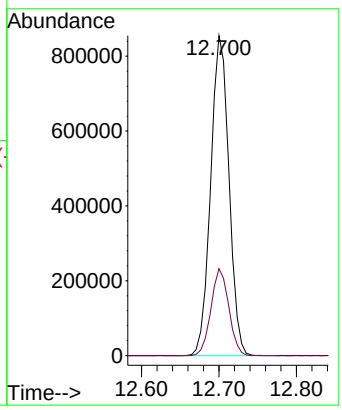




#73
Isopropylbenzene
Concen: 44.561 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:105 Resp: 139831

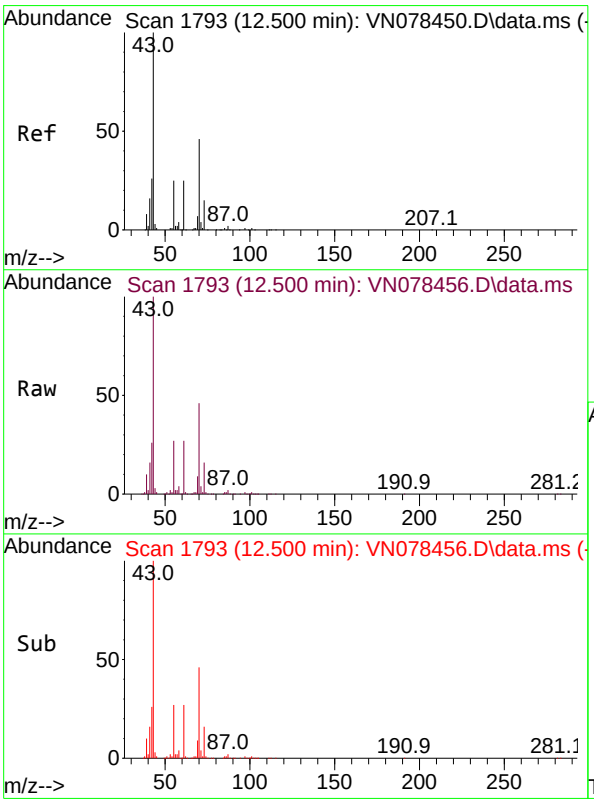
Ion	Ratio	Lower	Upper
105	100		
120	26.5	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

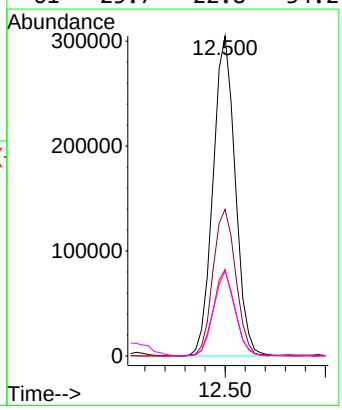
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

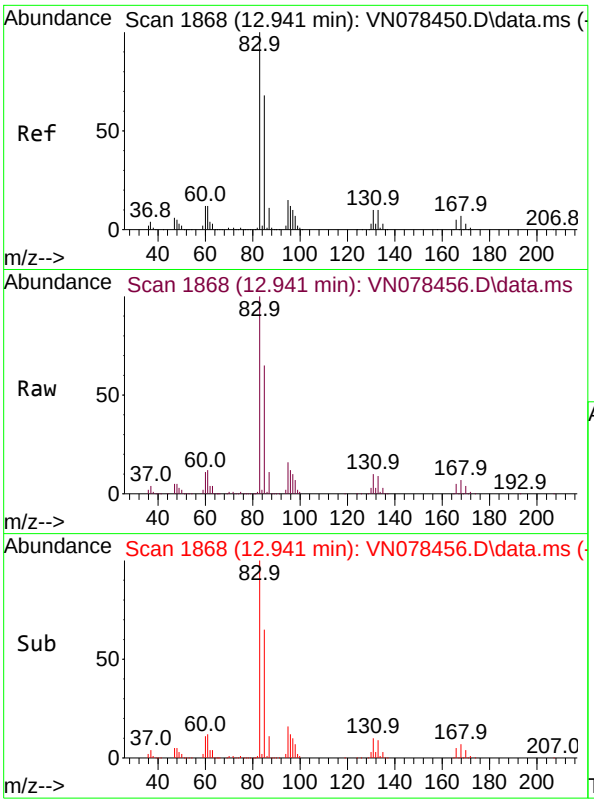


#74
N-amyl acetate
Concen: 43.361 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 43 Resp: 468909

Ion	Ratio	Lower	Upper
43	100		
70	47.0	43.4	65.2
55	26.4	21.4	32.0
61	25.7	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 49.159 ug/l
RT: 12.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

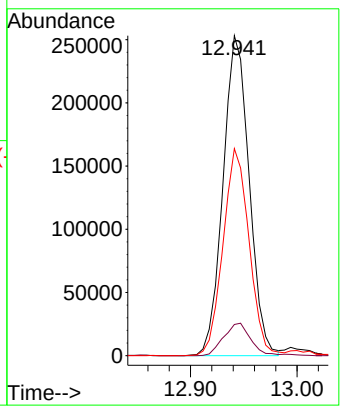
Tgt Ion: 83 Resp: 43131

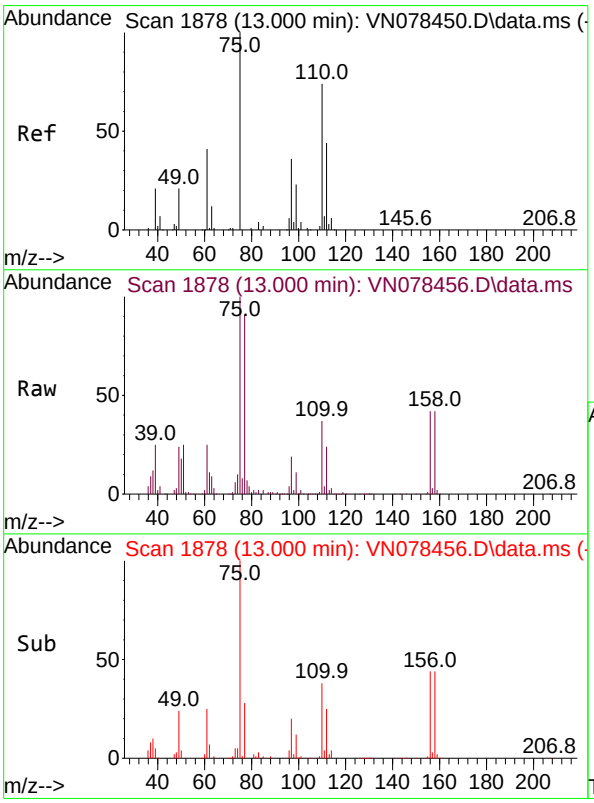
Ion	Ratio	Lower	Upper
83	100		
131	10.7	5.0	15.0
85	64.6	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

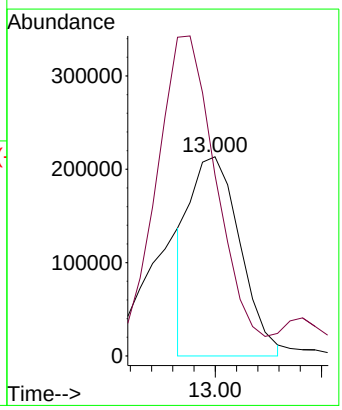


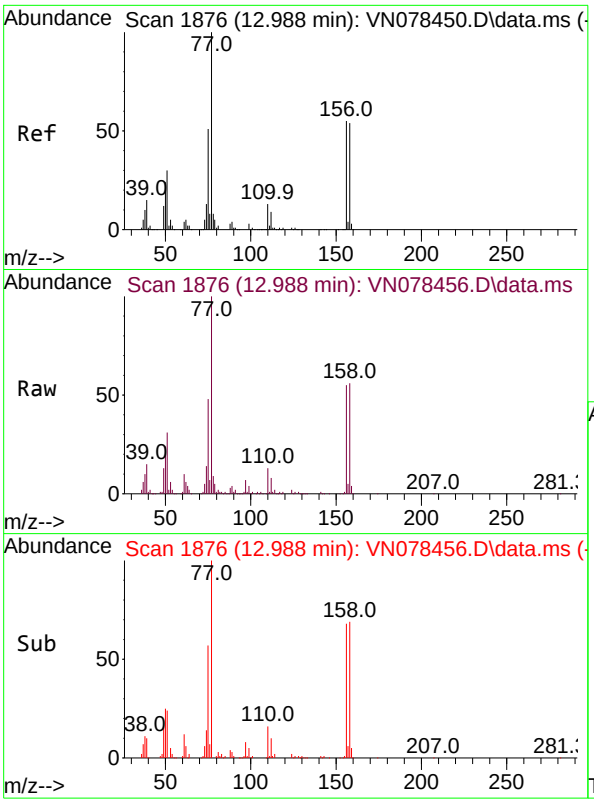


#76
1,2,3-Trichloropropane
Concen: 43.215 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 75 Resp: 348837

Ion	Ratio	Lower	Upper
75	100		
77	196.8	84.5	253.5

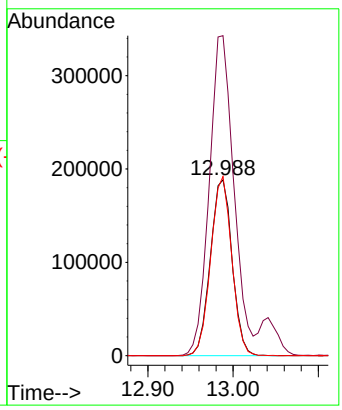




#77
Bromobenzene
Concen: 49.140 ug/l
RT: 12.988 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:156 Resp: 33551

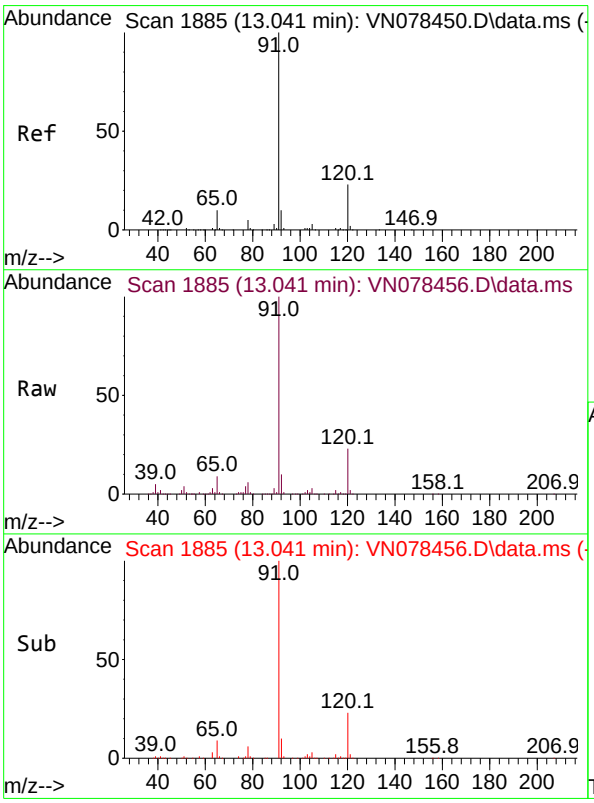
Ion	Ratio	Lower	Upper
156	100		
77	204.6	107.7	323.3
158	98.2	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

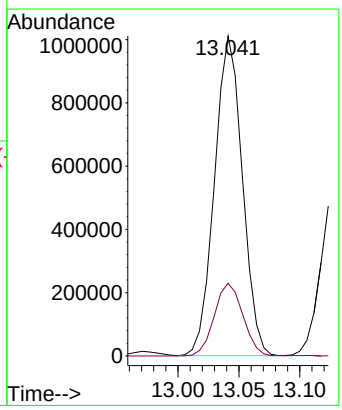
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

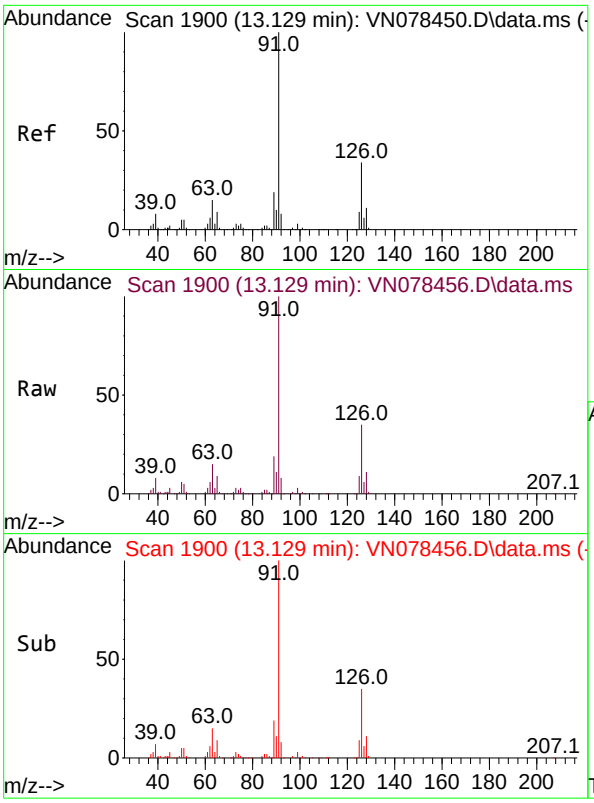


#78
n-propylbenzene
Concen: 47.950 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 91 Resp: 1609138

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.5	34.4





#79
2-Chlorotoluene
Concen: 44.560 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

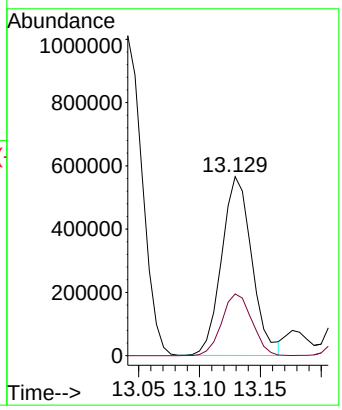
Tgt Ion: 91 Resp: 97949

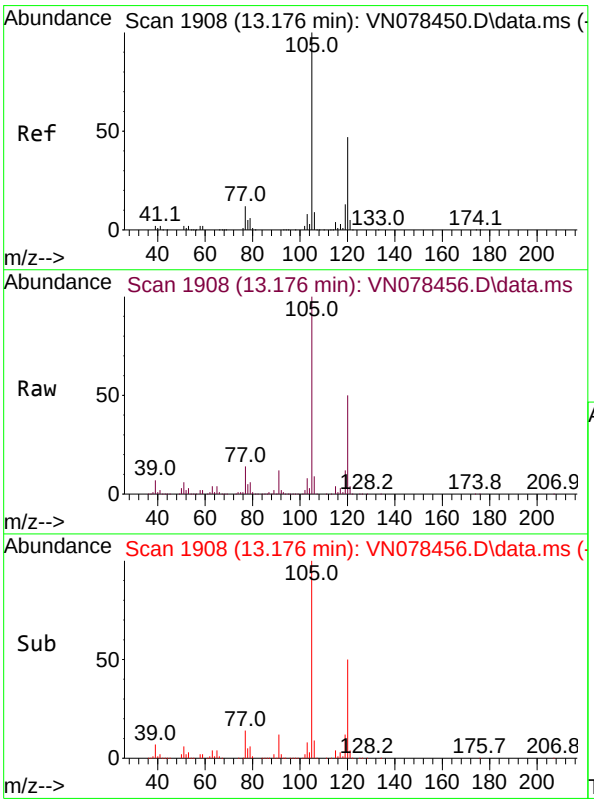
Ion	Ratio	Lower	Upper
91	100		
126	34.4	16.3	48.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

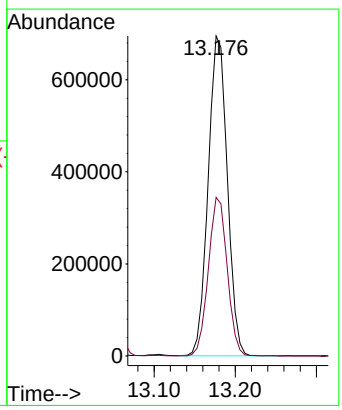


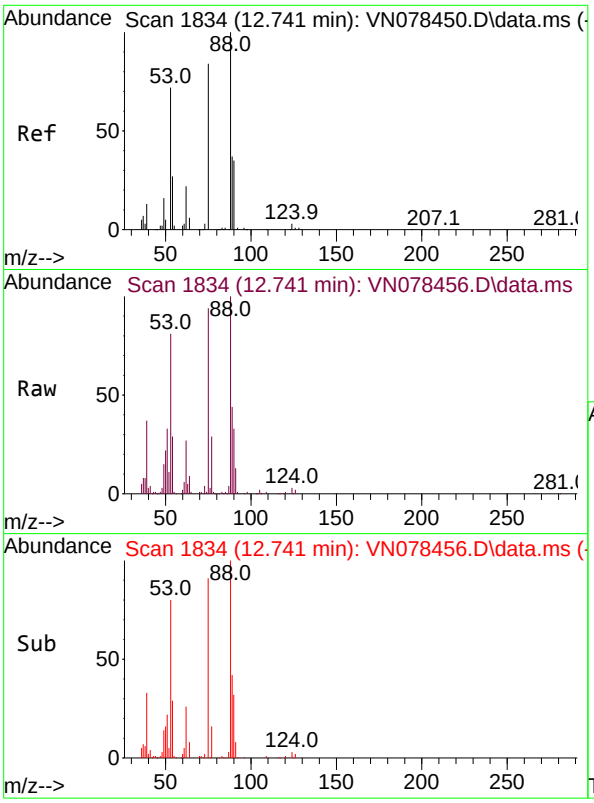


#80
1,3,5-Trimethylbenzene
Concen: 45.892 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:105 Resp: 1137852

Ion	Ratio	Lower	Upper
105	100		
120	48.7	24.1	72.3





#81
trans-1,4-Dichloro-2-butene
Concen: 50.823 ug/l
RT: 12.741 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

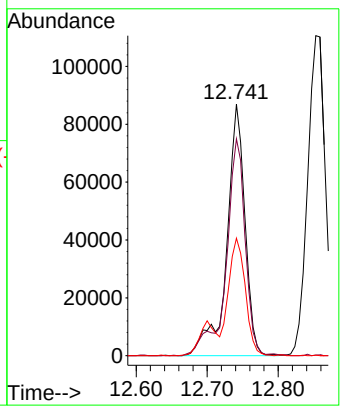
Tgt Ion: 75 Resp: 15611

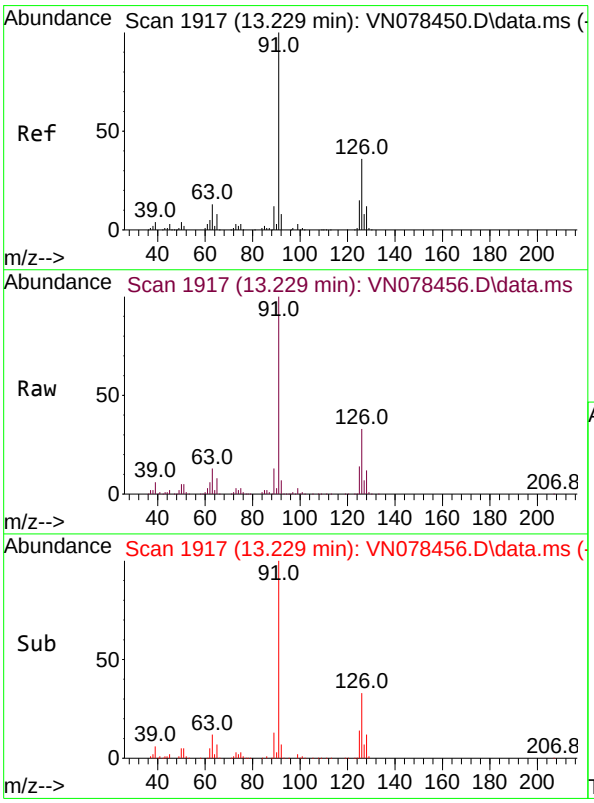
Ion	Ratio	Lower	Upper
75	100		
53	89.5	67.4	101.2
89	42.8	38.8	58.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

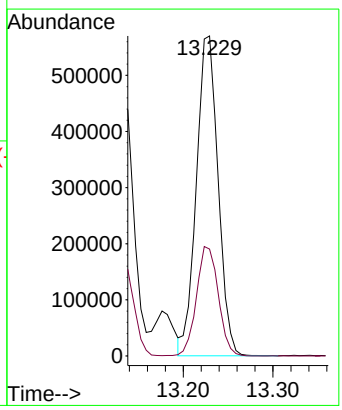


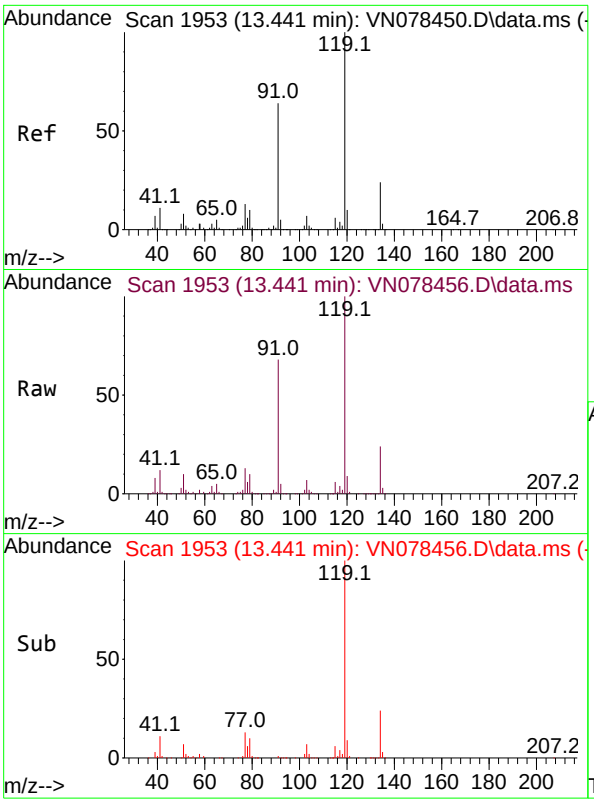


#82
4-Chlorotoluene
Concen: 46.728 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 91 Resp: 958209

Ion	Ratio	Lower	Upper
91	100		
126	34.4	16.7	50.0

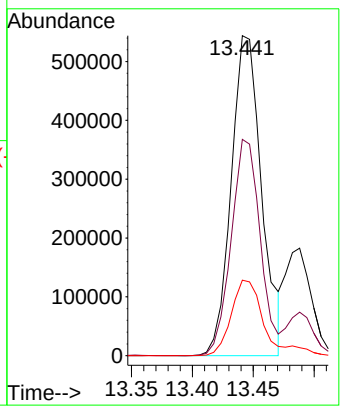




#83
tert-Butylbenzene
Concen: 44.916 ug/l
RT: 13.441 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:119 Resp: 94550

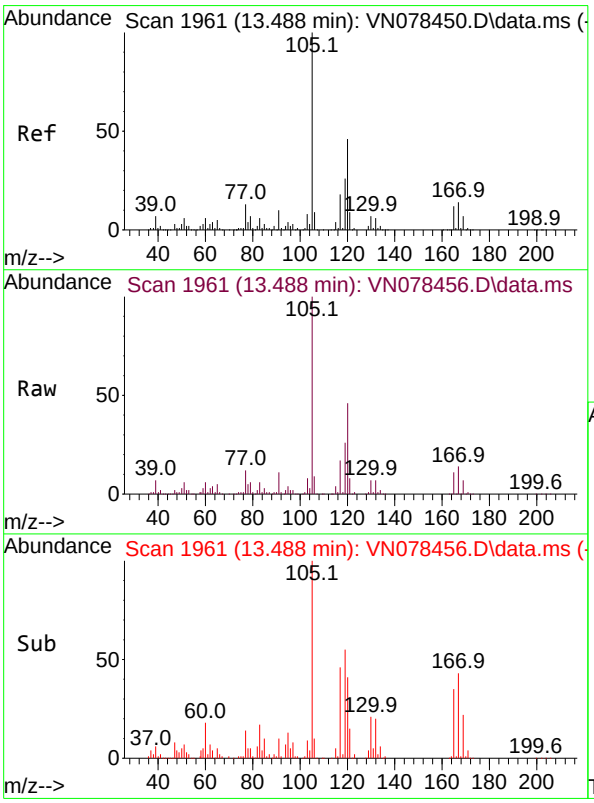
Ion	Ratio	Lower	Upper
119	100		
91	64.7	33.9	101.7
134	25.6	13.2	39.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

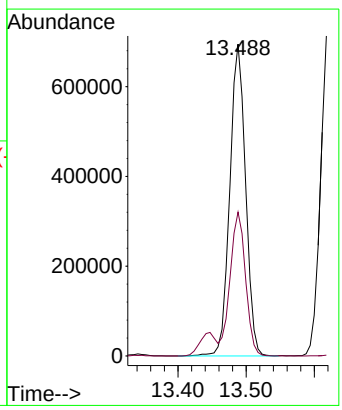
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

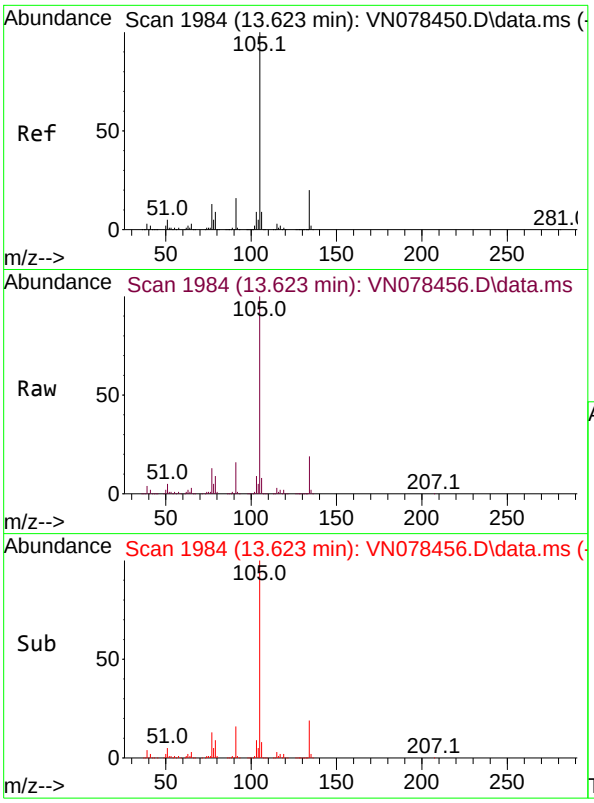


#84
1,2,4-Trimethylbenzene
Concen: 46.502 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:105 Resp: 1119919

Ion	Ratio	Lower	Upper
105	100		
120	45.3	22.0	66.0





#85
sec-Butylbenzene
Concen: 46.531 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

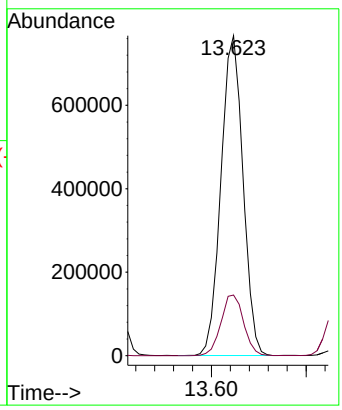
Tgt Ion:105 Resp: 123807

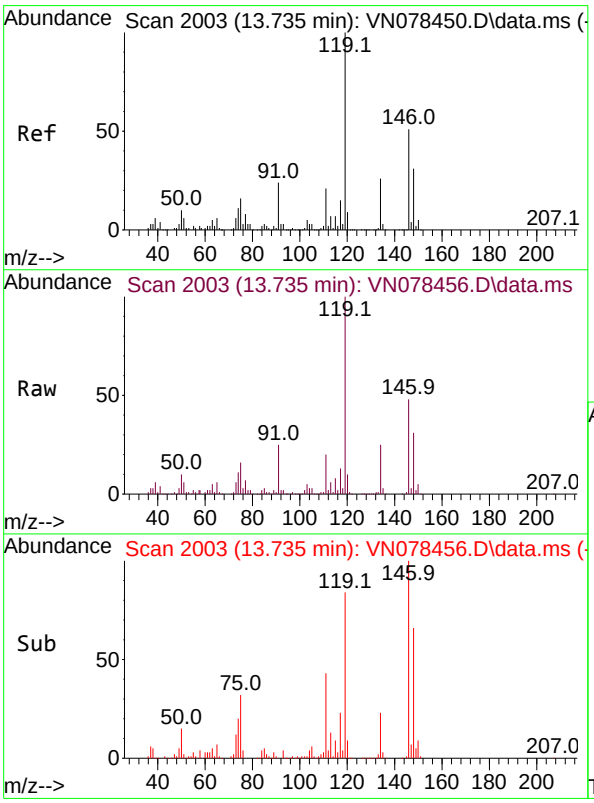
Ion	Ratio	Lower	Upper
105	100		
134	19.6	9.8	29.3

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

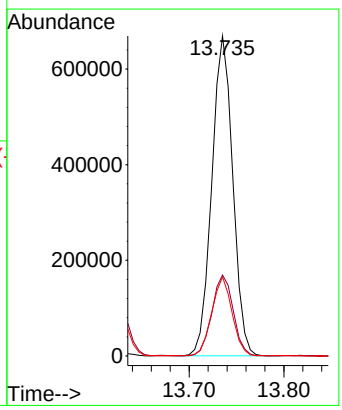


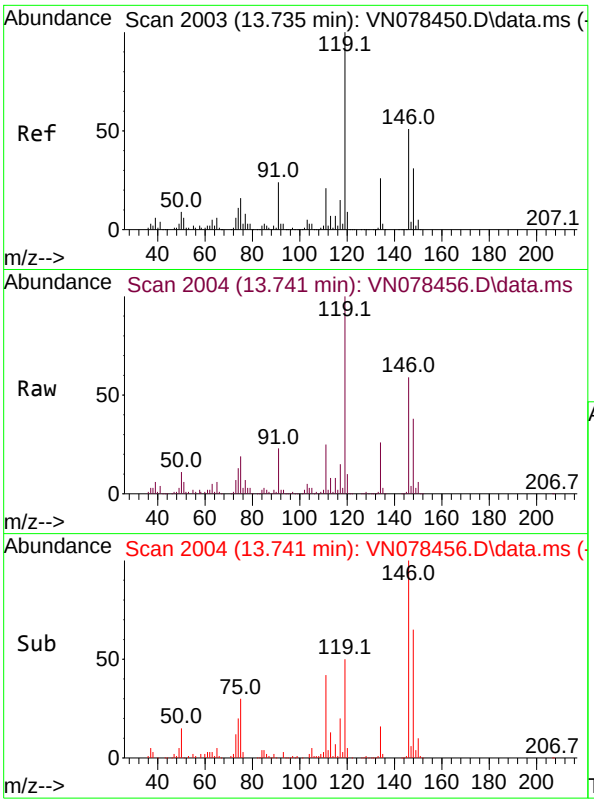


#86
p-Isopropyltoluene
Concen: 48.103 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:119 Resp: 1027718

Ion	Ratio	Lower	Upper
119	100		
134	25.8	12.6	37.8
91	23.8	12.4	37.2

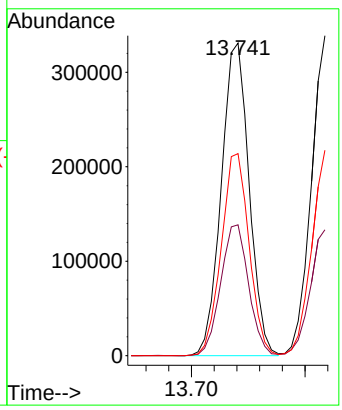




#87
1,3-Dichlorobenzene
Concen: 46.722 ug/l
RT: 13.741 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:146 Resp: 5628

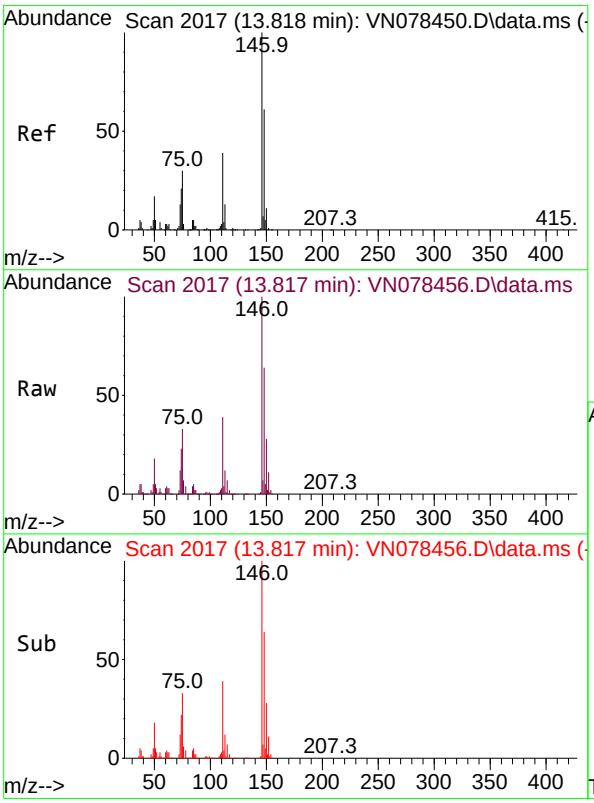
Ion	Ratio	Lower	Upper
146	100		
111	42.1	22.1	66.3
148	64.5	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

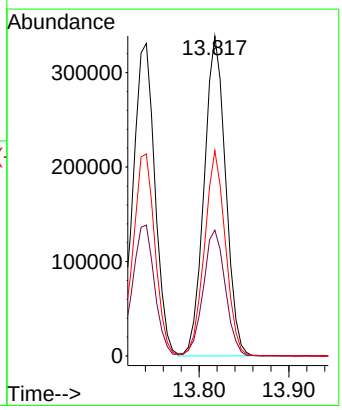
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

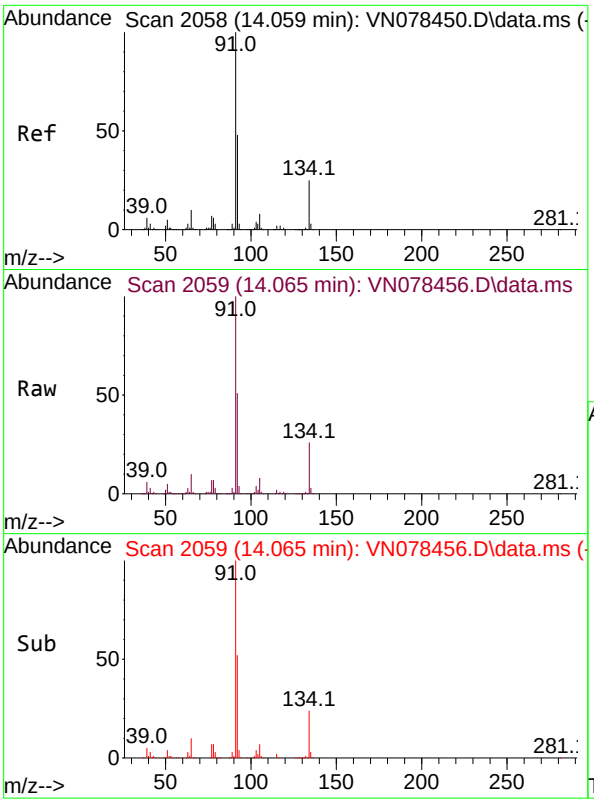


#88
1,4-Dichlorobenzene
Concen: 46.323 ug/l
RT: 13.817 min Scan# 2017
Delta R.T. -0.001 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:146 Resp: 562080

Ion	Ratio	Lower	Upper
146	100		
111	40.1	20.6	61.8
148	62.6	31.6	94.8

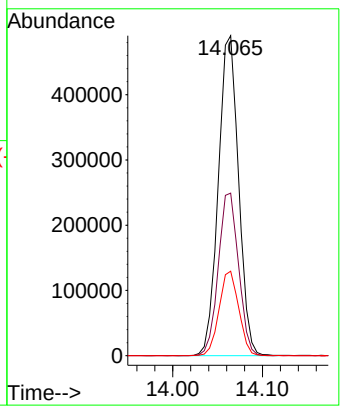




#89
n-Butylbenzene
Concen: 50.273 ug/l
RT: 14.065 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 91 Resp: 76850

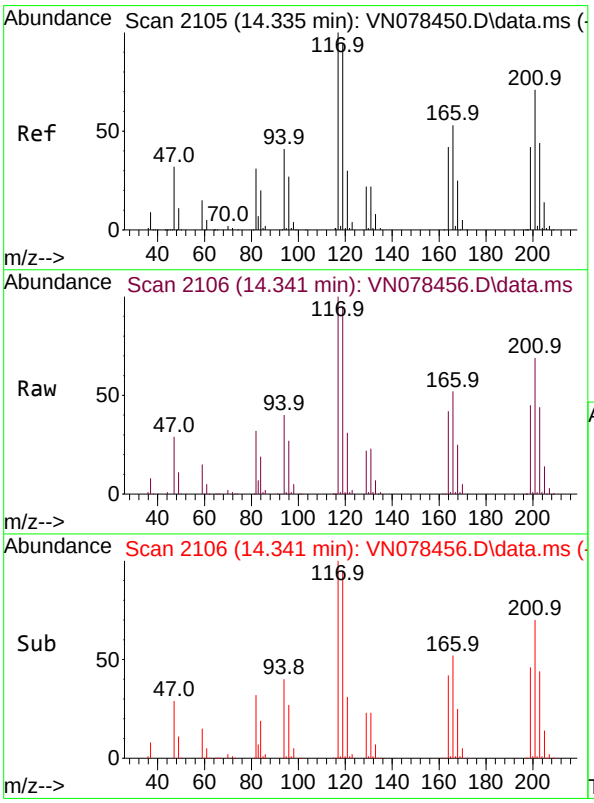
Ion	Ratio	Lower	Upper
91	100		
92	50.9	26.4	79.0
134	25.7	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

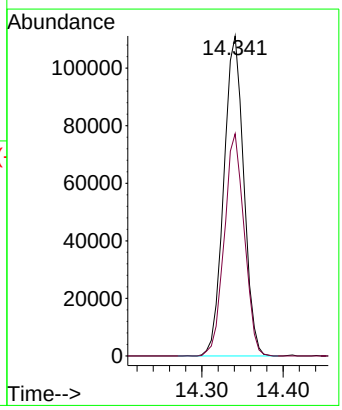
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

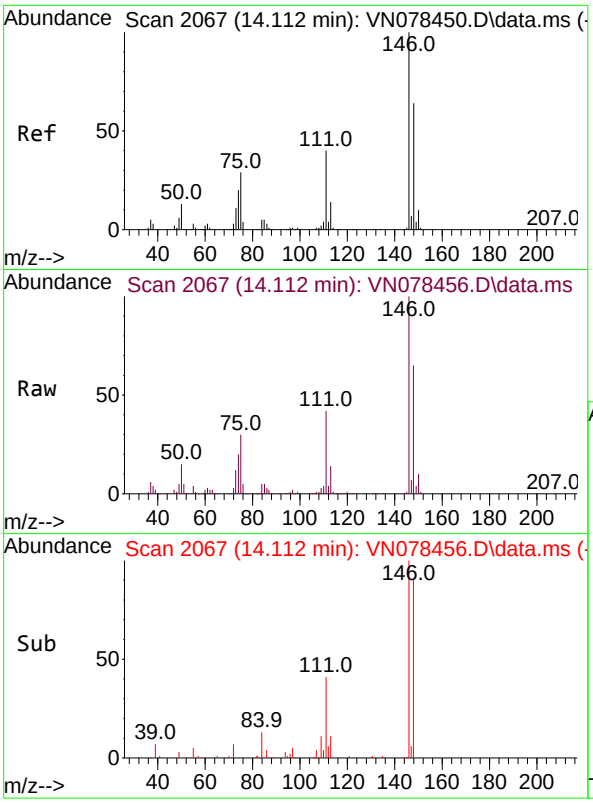


#90
Hexachloroethane
Concen: 48.320 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:117 Resp: 189853

Ion	Ratio	Lower	Upper
117	100		
201	69.6	29.3	88.0





#91
1,2-Dichlorobenzene
Concen: 45.830 ug/l
RT: 14.112 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

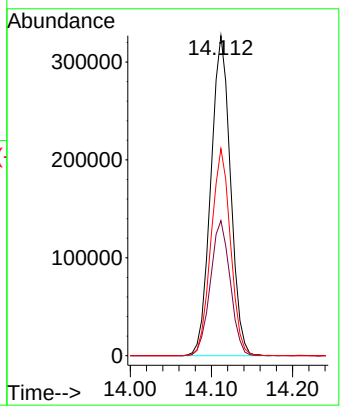
Tgt Ion:146 Resp: 54942

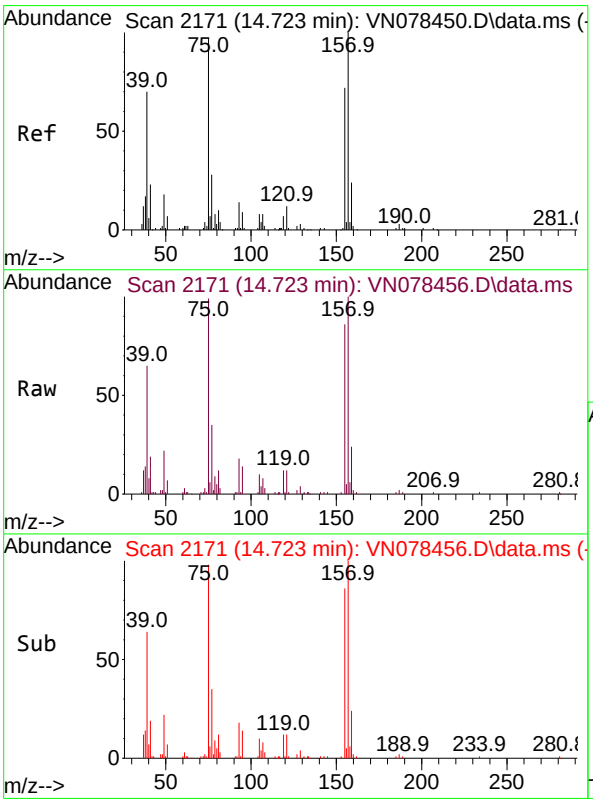
Ion	Ratio	Lower	Upper
146	100		
111	42.6	22.0	66.0
148	64.0	31.8	95.3

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

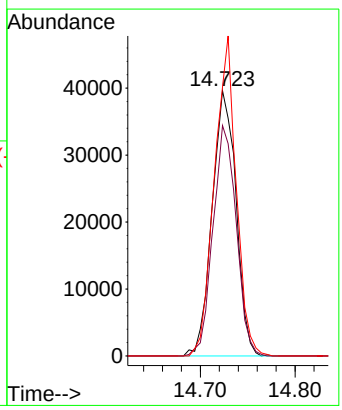


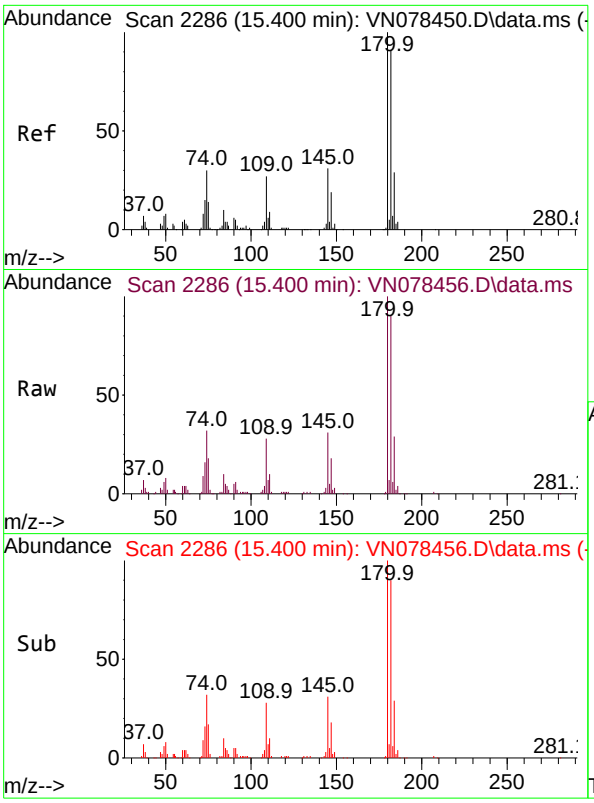


#92
1,2-Dibromo-3-Chloropropane
Concen: 46.010 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion: 75 Resp: 69349

Ion	Ratio	Lower	Upper
75	100		
155	84.6	39.1	117.2
157	110.1	50.3	150.9





#93
1,2,4-Trichlorobenzene
Concen: 48.609 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

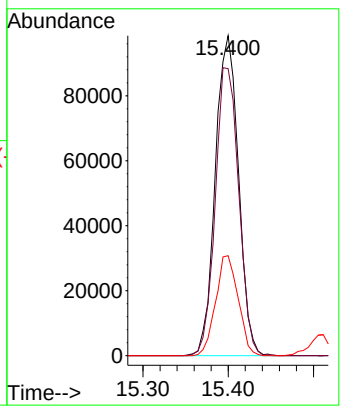
Tgt Ion:180 Resp: 18598

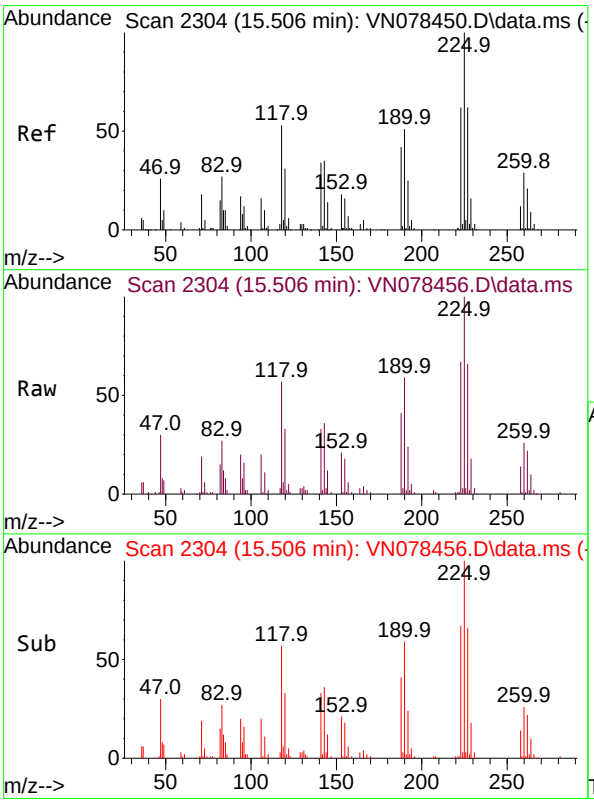
Ion	Ratio	Lower	Upper
180	100		
182	91.3	46.1	138.2
145	30.4	16.6	49.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023

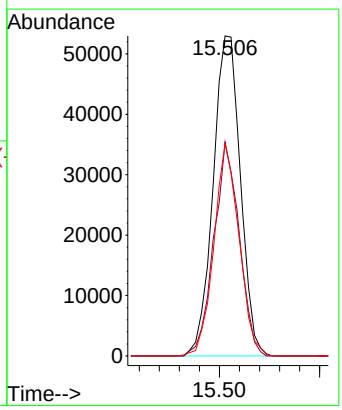


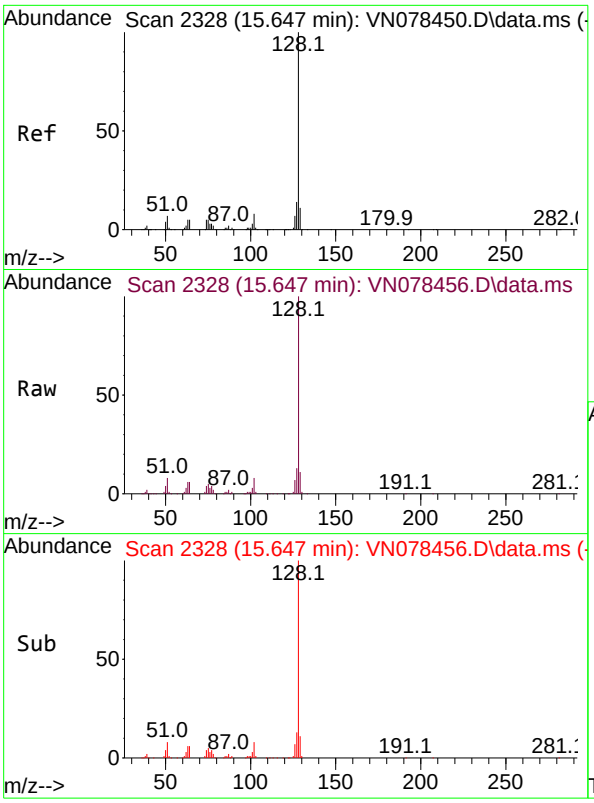


#94
Hexachlorobutadiene
Concen: 50.626 ug/l
RT: 15.506 min Scan# 2304
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:225 Resp: 100103

Ion	Ratio	Lower	Upper
225	100		
223	62.1	31.3	93.8
227	61.1	31.9	95.9

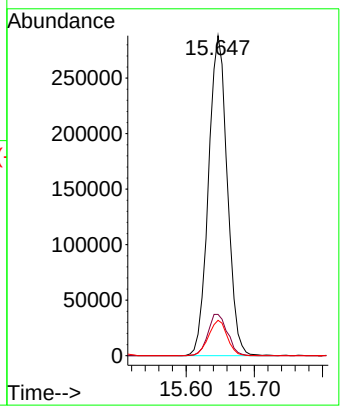




#95
Naphthalene
Concen: 42.252 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:128 Resp: 55267

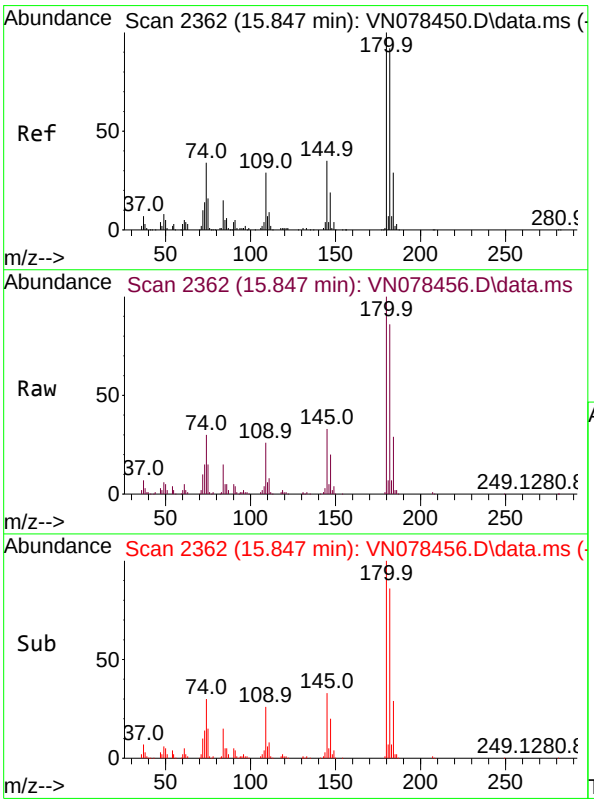
Ion	Ratio	Lower	Upper
128	100		
127	13.4	10.0	15.0
129	11.0	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Manual Integrations
APPROVED

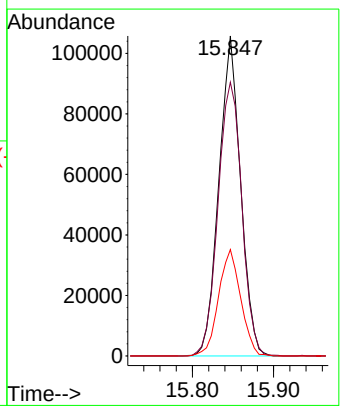
Reviewed By :John Carlone 07/11/2023
Supervised By :Mahesh Dadoda 07/11/2023



#96
1,2,3-Trichlorobenzene
Concen: 44.581 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078456.D
Acq: 10 Jul 2023 16:03

Tgt Ion:180 Resp: 196132

Ion	Ratio	Lower	Upper
180	100		
182	93.9	46.2	138.6
145	34.1	17.5	52.6



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	103	0.00
2	T	Dichlorodifluoromethane	0.613	0.529	13.7	93	0.00
3	P	Chloromethane	0.666	0.608	8.7	102	0.00
4	C	Vinyl Chloride	0.862	0.805	6.6#	102	0.00
5	T	Bromomethane	0.616	0.509	17.4	93	-0.01
6	T	Chloroethane	0.583	0.490	16.0	89	0.00
7	T	Trichlorofluoromethane	1.030	0.943	8.4	99	0.00
8	T	Diethyl Ether	0.343	0.319	7.0	96	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.545	0.505	7.3	97	-0.01
10	T	Methyl Iodide	0.749	0.707	5.6	97	0.00
11	T	Tert butyl alcohol	0.103	0.094	8.7	94	0.00
12	CM	1,1-Dichloroethene	0.528	0.485	8.1#	96	0.00
13	T	Acrolein	0.102	0.089	12.7	89	0.00
14	T	Allyl chloride	0.721	0.704	2.4	104	0.00
15	T	Acrylonitrile	0.261	0.244	6.5	96	0.00
16	T	Acetone	0.209	0.230	-10.0	120	0.00
17	T	Carbon Disulfide	1.526	1.362	10.7	98	0.00
18	T	Methyl Acetate	0.884	0.783	11.4	94	0.00
19	T	Methyl tert-butyl Ether	1.738	1.648	5.2	96	0.00
20	T	Methylene Chloride	0.674	0.580	13.9	98	0.00
21	T	trans-1,2-Dichloroethene	0.595	0.548	7.9	96	0.00
22	T	Diisopropyl ether	1.614	1.579	2.2	99	0.00
23	T	Vinyl Acetate	1.026	1.016	1.0	97	0.00
24	P	1,1-Dichloroethane	1.088	0.998	8.3	96	0.00
25	T	2-Butanone	0.329	0.329	0.0	103	0.00
26	T	2,2-Dichloropropane	0.890	0.902	-1.3	105	0.00
27	T	cis-1,2-Dichloroethene	0.688	0.652	5.2	98	0.00
28	T	Bromochloromethane	0.512	0.441	13.9	89	0.00
29	T	Tetrahydrofuran	0.216	0.201	6.9	94	0.00
30	C	Chloroform	1.132	1.089	3.8#	98	0.00
31	T	Cyclohexane	0.906	0.814	10.2	101	0.00
32	T	1,1,1-Trichloroethane	1.015	0.962	5.2	96	0.00
33	S	1,2-Dichloroethane-d4	0.670	0.654	2.4	102	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
35	S	Dibromofluoromethane	0.339	0.343	-1.2	103	0.00
36	T	1,1-Dichloropropene	0.490	0.482	1.6	100	0.00
37	T	Ethyl Acetate	0.409	0.396	3.2	96	0.00
38	T	Carbon Tetrachloride	0.533	0.513	3.8	97	0.00
39	T	Methylcyclohexane	0.447	0.454	-1.6	101	0.00
40	TM	Benzene	1.452	1.411	2.8	97	0.00
41	T	Methacrylonitrile	0.208	0.196	5.8	95	0.00
42	TM	1,2-Dichloroethane	0.494	0.468	5.3	98	0.00
43	T	Isopropyl Acetate	0.673	0.666	1.0	98	0.00
44	TM	Trichloroethene	0.391	0.371	5.1	99	0.00
45	C	1,2-Dichloropropane	0.368	0.359	2.4#	99	0.00
46	T	Dibromomethane	0.259	0.252	2.7	96	0.00
47	T	Bromodichloromethane	0.519	0.509	1.9	97	0.00
48	T	Methyl methacrylate	0.312	0.309	1.0	95	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	0.007	0.007	0.0	99	0.00
50	S	Toluene-d8	1.282	1.307	-2.0	103	0.00
51	T	4-Methyl-2-Pentanone	0.400	0.395	1.3	95	0.00
52	CM	Toluene	0.900	0.897	0.3#	99	0.00
53	T	t-1,3-Dichloropropene	0.532	0.539	-1.3	98	0.00
54	T	cis-1,3-Dichloropropene	0.567	0.585	-3.2	98	0.00
55	T	1,1,2-Trichloroethane	0.355	0.349	1.7	99	0.00
56	T	Ethyl methacrylate	0.496	0.513	-3.4	96	0.00
57	T	1,3-Dichloropropane	0.603	0.584	3.2	96	0.00
58	T	2-Chloroethyl Vinyl ether	0.177	0.183	-3.4	98	0.00
59	T	2-Hexanone	0.284	0.294	-3.5	98	0.00
60	T	Dibromochloromethane	0.391	0.387	1.0	96	0.00
61	T	1,2-Dibromoethane	0.365	0.359	1.6	97	0.00
62	S	4-Bromofluorobenzene	0.395	0.412	-4.3	103	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
64	T	Tetrachloroethene	0.376	0.365	2.9	99	0.00
65	PM	Chlorobenzene	1.118	1.078	3.6	99	0.00
66	T	1,1,1,2-Tetrachloroethane	0.430	0.410	4.7	96	0.00
67	C	Ethyl Benzene	1.889	1.904	-0.8#	99	0.00
68	T	m/p-Xylenes	0.698	0.725	-3.9	99	0.00
69	T	o-Xylene	0.705	0.707	-0.3	99	0.00
70	T	Styrene	1.104	1.164	-5.4	100	0.00
71	P	Bromoform	0.291	0.292	-0.3	96	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
73	T	Isopropylbenzene	4.698	4.187	10.9	98	0.00
74	T	N-amyl acetate	1.619	1.404	13.3	93	0.00
75	P	1,1,2,2-Tetrachloroethane	1.586	1.292	18.5	96	0.00
76	T	1,2,3-Trichloropropane	1.209	1.045	13.6	95	0.00
77	T	Bromobenzene	1.154	1.005	12.9	98	0.00
78	T	n-propylbenzene	5.024	4.818	4.1	101	0.00
79	T	2-Chlorotoluene	3.291	2.933	10.9	99	0.00
80	T	1,3,5-Trimethylbenzene	3.712	3.407	8.2	99	0.00
81	T	trans-1,4-Dichloro-2-butene	0.460	0.467	-1.5	110	0.00
82	T	4-Chlorotoluene	3.070	2.869	6.5	101	0.00
83	T	tert-Butylbenzene	3.152	2.831	10.2	98	0.00
84	T	1,2,4-Trimethylbenzene	3.606	3.354	7.0	99	0.00
85	T	sec-Butylbenzene	3.984	3.707	7.0	101	0.00
86	T	p-Isopropyltoluene	3.199	3.077	3.8	101	0.00
87	T	1,3-Dichlorobenzene	1.804	1.685	6.6	98	0.00
88	T	1,4-Dichlorobenzene	1.817	1.683	7.4	99	0.00
89	T	n-Butylbenzene	2.289	2.301	-0.5	100	0.00
90	T	Hexachloroethane	0.676	0.568	16.0	99	0.00
91	T	1,2-Dichlorobenzene	1.795	1.645	8.4	97	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.262	0.208	20.6	93	0.00
93	T	1,2,4-Trichlorobenzene	0.573	0.557	2.8	93	0.00
94	T	Hexachlorobutadiene	0.375	0.300	20.0	94	0.00
95	T	Naphthalene	1.958	1.655	15.5	85	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	0.659	0.587	10.9	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	103	0.00
2	T	Dichlorodifluoromethane	50.000	43.175	13.7	93	0.00
3	P	Chloromethane	50.000	45.612	8.8	102	0.00
4	C	Vinyl Chloride	50.000	46.703	6.6#	102	0.00
5	T	Bromomethane	50.000	46.343	7.3	93	-0.01
6	T	Chloroethane	50.000	46.895	6.2	89	0.00
7	T	Trichlorofluoromethane	50.000	45.769	8.5	99	0.00
8	T	Diethyl Ether	50.000	46.501	7.0	96	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	46.262	7.5	97	-0.01
10	T	Methyl Iodide	50.000	47.142	5.7	97	0.00
11	T	Tert butyl alcohol	250.000	226.307	9.5	94	0.00
12	CM	1,1-Dichloroethene	50.000	45.920	8.2#	96	0.00
13	T	Acrolein	250.000	218.892	12.4	89	0.00
14	T	Allyl chloride	50.000	48.794	2.4	104	0.00
15	T	Acrylonitrile	250.000	233.296	6.7	96	0.00
16	T	Acetone	250.000	275.366	-10.1	120	0.00
17	T	Carbon Disulfide	50.000	44.637	10.7	98	0.00
18	T	Methyl Acetate	50.000	44.297	11.4	94	0.00
19	T	Methyl tert-butyl Ether	50.000	47.399	5.2	96	0.00
20	T	Methylene Chloride	50.000	48.416	3.2	98	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.046	7.9	96	0.00
22	T	Diisopropyl ether	50.000	48.898	2.2	99	0.00
23	T	Vinyl Acetate	250.000	247.568	1.0	97	0.00
24	P	1,1-Dichloroethane	50.000	45.865	8.3	96	0.00
25	T	2-Butanone	250.000	249.973	0.0	103	0.00
26	T	2,2-Dichloropropane	50.000	50.718	-1.4	105	0.00
27	T	cis-1,2-Dichloroethene	50.000	47.431	5.1	98	0.00
28	T	Bromochloromethane	50.000	42.998	14.0	89	0.00
29	T	Tetrahydrofuran	250.000	232.708	6.9	94	0.00
30	C	Chloroform	50.000	48.065	3.9#	98	0.00
31	T	Cyclohexane	50.000	44.945	10.1	101	0.00
32	T	1,1,1-Trichloroethane	50.000	47.368	5.3	96	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.801	2.4	102	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	99	0.00
35	S	Dibromofluoromethane	50.000	50.573	-1.1	103	0.00
36	T	1,1-Dichloropropene	50.000	49.155	1.7	100	0.00
37	T	Ethyl Acetate	50.000	48.483	3.0	96	0.00
38	T	Carbon Tetrachloride	50.000	48.160	3.7	97	0.00
39	T	Methylcyclohexane	50.000	50.755	-1.5	101	0.00
40	TM	Benzene	50.000	48.595	2.8	97	0.00
41	T	Methacrylonitrile	50.000	46.968	6.1	95	0.00
42	TM	1,2-Dichloroethane	50.000	47.424	5.2	98	0.00
43	T	Isopropyl Acetate	50.000	49.495	1.0	98	0.00
44	TM	Trichloroethene	50.000	47.350	5.3	99	0.00
45	C	1,2-Dichloropropane	50.000	48.758	2.5#	99	0.00
46	T	Dibromomethane	50.000	48.764	2.5	96	0.00
47	T	Bromodichloromethane	50.000	49.039	1.9	97	0.00
48	T	Methyl methacrylate	50.000	49.505	1.0	95	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	994.827	0.5	99	0.00
50	S	Toluene-d8	50.000	50.953	-1.9	103	0.00
51	T	4-Methyl-2-Pentanone	250.000	246.578	1.4	95	0.00
52	CM	Toluene	50.000	49.859	0.3#	99	0.00
53	T	t-1,3-Dichloropropene	50.000	50.745	-1.5	98	0.00
54	T	cis-1,3-Dichloropropene	50.000	51.593	-3.2	98	0.00
55	T	1,1,2-Trichloroethane	50.000	49.229	1.5	99	0.00
56	T	Ethyl methacrylate	50.000	51.727	-3.5	96	0.00
57	T	1,3-Dichloropropane	50.000	48.463	3.1	96	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	259.244	-3.7	98	0.00
59	T	2-Hexanone	250.000	258.916	-3.6	98	0.00
60	T	Dibromochloromethane	50.000	49.458	1.1	96	0.00
61	T	1,2-Dibromoethane	50.000	49.185	1.6	97	0.00
62	S	4-Bromofluorobenzene	50.000	52.132	-4.3	103	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	101	0.00
64	T	Tetrachloroethene	50.000	48.545	2.9	99	0.00
65	PM	Chlorobenzene	50.000	48.214	3.6	99	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	47.635	4.7	96	0.00
67	C	Ethyl Benzene	50.000	50.401	-0.8#	99	0.00
68	T	m/p-Xylenes	100.000	103.800	-3.8	99	0.00
69	T	o-Xylene	50.000	50.103	-0.2	99	0.00
70	T	Styrene	50.000	52.745	-5.5	100	0.00
71	P	Bromoform	50.000	50.180	-0.4	96	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	101	0.00
73	T	Isopropylbenzene	50.000	44.561	10.9	98	0.00
74	T	N-amyl acetate	50.000	43.361	13.3	93	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.159	1.7	96	0.00
76	T	1,2,3-Trichloropropane	50.000	43.215	13.6	95	0.00
77	T	Bromobenzene	50.000	49.140	1.7	98	0.00
78	T	n-propylbenzene	50.000	47.950	4.1	101	0.00
79	T	2-Chlorotoluene	50.000	44.560	10.9	99	0.00
80	T	1,3,5-Trimethylbenzene	50.000	45.892	8.2	99	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	50.823	-1.6	110	0.00
82	T	4-Chlorotoluene	50.000	46.728	6.5	101	0.00
83	T	tert-Butylbenzene	50.000	44.916	10.2	98	0.00
84	T	1,2,4-Trimethylbenzene	50.000	46.502	7.0	99	0.00
85	T	sec-Butylbenzene	50.000	46.531	6.9	101	0.00
86	T	p-Isopropyltoluene	50.000	48.103	3.8	101	0.00
87	T	1,3-Dichlorobenzene	50.000	46.722	6.6	98	0.00
88	T	1,4-Dichlorobenzene	50.000	46.323	7.4	99	0.00
89	T	n-Butylbenzene	50.000	50.273	-0.5	100	0.00
90	T	Hexachloroethane	50.000	48.320	3.4	99	0.00
91	T	1,2-Dichlorobenzene	50.000	45.830	8.3	97	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	46.010	8.0	93	0.00
93	T	1,2,4-Trichlorobenzene	50.000	48.609	2.8	93	0.00
94	T	Hexachlorobutadiene	50.000	50.626	-1.3	94	0.00
95	T	Naphthalene	50.000	42.252	15.5	85	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078456.D
Acq On : 10 Jul 2023 16:03
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071023

Quant Time: Jul 11 01:31:22 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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)
96 T	1,2,3-Trichlorobenzene	50.000	44.581	10.8	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG No.: 03645

Instrument ID: MSVOA_D Calibration Date/Time: 07/17/2023 10:19

Lab File ID: VD076745.D Init. Calib. Date(s): 07/14/2023 07/14/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:50 15:57

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.391	0.373		-4.6	20
Chloromethane	0.674	0.574	0.1	-14.84	20
Vinyl Chloride	0.899	0.842		-6.34	20
Bromomethane	0.740	0.658		-11.08	20
Chloroethane	0.679	0.629		-7.36	20
Trichlorofluoromethane	0.800	0.777		-2.88	20
1,1,2-Trichlorotrifluoroethane	0.526	0.518		-1.52	20
1,1-Dichloroethene	0.494	0.477		-3.44	20
Acetone	0.119	0.126		5.88	20
Carbon Disulfide	1.154	1.116		-3.29	20
Methyl tert-butyl Ether	1.325	1.256		-5.21	20
Methyl Acetate	0.447	0.393		-12.08	20
Methylene Chloride	0.984	0.616		-37.4	20
trans-1,2-Dichloroethene	0.574	0.533		-7.14	20
1,1-Dichloroethane	1.036	1.012	0.1	-2.32	20
Cyclohexane	0.733	0.730		-0.41	20
2-Butanone	0.159	0.161		1.26	20
Carbon Tetrachloride	0.393	0.465		18.32	20
cis-1,2-Dichloroethene	0.708	0.703		-0.71	20
Bromochloromethane	0.259	0.225		-13.13	20
Chloroform	1.135	1.155		1.76	20
1,1,1-Trichloroethane	0.916	0.967		5.57	20
Methylcyclohexane	0.474	0.532		12.24	20
Benzene	1.295	1.388		7.18	20
1,2-Dichloroethane	0.337	0.353		4.75	20
Trichloroethene	0.353	0.390		10.48	20
1,2-Dichloropropane	0.334	0.356		6.59	20
Bromodichloromethane	0.491	0.525		6.93	20
4-Methyl-2-Pentanone	0.191	0.193		1.05	20
Toluene	0.851	0.918		7.87	20
t-1,3-Dichloropropene	0.456	0.488		7.02	20
cis-1,3-Dichloropropene	0.537	0.575		7.08	20
1,1,2-Trichloroethane	0.286	0.301		5.24	20
2-Hexanone	0.136	0.145		6.62	20
Dibromochloromethane	0.332	0.357		7.53	20
1,2-Dibromoethane	0.265	0.276		4.15	20
Tetrachloroethene	0.285	0.326		14.39	20
Chlorobenzene	1.006	1.084	0.3	7.75	20
Ethyl Benzene	1.766	1.924		8.95	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG No.: O3645

Instrument ID: MSVOA_D Calibration Date/Time: 07/17/2023 10:19

Lab File ID: VD076745.D Init. Calib. Date(s): 07/14/2023 07/14/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:50 15:57

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.678	0.753		11.06	20
o-Xylene	0.656	0.716		9.15	20
Styrene	1.148	1.250		8.89	20
Bromoform	0.205	0.229	0.1	11.71	20
Isopropylbenzene	3.628	4.115		13.42	20
1,1,2,2-Tetrachloroethane	0.779	0.814	0.3	4.49	20
n-propylbenzene	4.398	5.048		14.78	20
1,3,5-Trimethylbenzene	2.933	3.385		15.41	20
tert-Butylbenzene	2.583	3.005		16.34	20
1,2,4-Trimethylbenzene	2.997	3.399		13.41	20
sec-Butylbenzene	3.946	4.528		14.75	20
p-Isopropyltoluene	3.259	3.759		15.34	20
1,3-Dichlorobenzene	1.722	1.937		12.48	20
1,4-Dichlorobenzene	1.687	1.884		11.68	20
n-Butylbenzene	3.189	3.576		12.14	20
1,2-Dichlorobenzene	1.518	1.672		10.15	20
1,2-Dibromo-3-Chloropropane	0.111	0.111		0	20
1,2,4-Trichlorobenzene	0.927	1.051		13.38	20
1,2,3-Trichlorobenzene	0.831	0.934		12.4	20
1,2-Dichloroethane-d4	0.498	0.431		-13.45	20
Dibromofluoromethane	0.314	0.296		-5.73	20
Toluene-d8	1.124	1.028		-8.54	20
4-Bromofluorobenzene	0.364	0.336		-7.69	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\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	218354	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.775	114	378281	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	349288	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	160211	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.222	65	94061	43.249	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 86.500%			
35) Dibromofluoromethane	7.804	113	112034	47.130	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 94.260%			
50) Toluene-d8	10.269	98	388749	45.714	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 91.420%			
62) 4-Bromofluorobenzene	12.575	95	126950	46.146	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 92.300%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	81408	47.677	ug/l	97
3) Chloromethane	2.146	50	125286	42.535	ug/l	98
4) Vinyl Chloride	2.281	62	183785	46.807	ug/l	98
5) Bromomethane	2.687	94	143619	44.456	ug/l	99
6) Chloroethane	2.834	64	137431	46.359	ug/l	99
7) Trichlorofluoromethane	3.169	101	169565	48.534	ug/l	90
8) Diethyl Ether	3.587	74	58875	48.944	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.963	101	113010	49.208	ug/l	97
10) Methyl Iodide	4.157	142	128185	49.514	ug/l	92
11) Tert butyl alcohol	5.051	59	37901	233.536	ug/l	100
12) 1,1-Dichloroethene	3.934	96	104093	48.243	ug/l	94
13) Acrolein	3.793	56	24383	220.469	ug/l	98
14) Allyl chloride	4.551	41	132728	46.827	ug/l	92
15) Acrylonitrile	5.246	53	133288	225.606	ug/l	99
16) Acetone	4.016	43	137463	264.654	ug/l	91
17) Carbon Disulfide	4.263	76	243607	48.339	ug/l	97
18) Methyl Acetate	4.557	43	85921	44.029	ug/l	94
19) Methyl tert-butyl Ether	5.310	73	274234	47.394	ug/l	98
20) Methylene Chloride	4.793	84	134482	41.791	ug/l	93
21) trans-1,2-Dichloroethene	5.304	96	116314	46.376	ug/l	97
22) Diisopropyl ether	6.210	45	327116	48.736	ug/l	95
23) Vinyl Acetate	6.151	43	788965m	237.571	ug/l	
24) 1,1-Dichloroethane	6.104	63	220922	48.818	ug/l	96
25) 2-Butanone	7.081	43	175747	252.820	ug/l #	87
26) 2,2-Dichloropropane	7.069	77	201477	51.647	ug/l	96
27) cis-1,2-Dichloroethene	7.075	96	153611	49.683	ug/l	96
28) Bromochloromethane	7.416	49	49140	43.433	ug/l	90
29) Tetrahydrofuran	7.440	42	98581	240.021	ug/l	93
30) Chloroform	7.592	83	252234	50.889	ug/l	96
31) Cyclohexane	7.875	56	159414	49.805	ug/l	94
32) 1,1,1-Trichloroethane	7.787	97	211107	52.789	ug/l	97
36) 1,1-Dichloropropene	8.004	75	171849	55.323	ug/l	98
37) Ethyl Acetate	7.163	43	67541	48.620	ug/l	97
38) Carbon Tetrachloride	7.992	117	175861	59.126	ug/l	97
39) Methylcyclohexane	9.275	83	201284	56.120	ug/l	98
40) Benzene	8.245	78	525017	53.567	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.387	41	43716m	51.533	ug/l		
42) 1,2-Dichloroethane	8.322	62	133588	52.457	ug/l		100
43) Isopropyl Acetate	8.357	43	138331	51.024	ug/l		93
44) Trichloroethene	9.028	130	147359	55.174	ug/l		96
45) 1,2-Dichloropropane	9.304	63	134799	53.280	ug/l		100
46) Dibromomethane	9.392	93	79423	53.631	ug/l		92
47) Bromodichloromethane	9.581	83	198737	53.477	ug/l		99
48) Methyl methacrylate	9.381	41	60268	48.843	ug/l		87
49) 1,4-Dioxane	9.381	88	18804	991.059	ug/l		92
51) 4-Methyl-2-Pentanone	10.157	43	364741	252.684	ug/l		94
52) Toluene	10.334	92	347087	53.919	ug/l		94
53) t-1,3-Dichloropropene	10.551	75	184753	53.561	ug/l		98
54) cis-1,3-Dichloropropene	10.016	75	217439	53.486	ug/l	#	91
55) 1,1,2-Trichloroethane	10.733	97	113714	52.584	ug/l		92
56) Ethyl methacrylate	10.598	69	130678	52.356	ug/l		93
57) 1,3-Dichloropropane	10.881	76	182643	51.862	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.869	63	227154	235.116	ug/l		99
59) 2-Hexanone	10.922	43	274778	266.781	ug/l		93
60) Dibromochloromethane	11.075	129	134997	53.737	ug/l		95
61) 1,2-Dibromoethane	11.181	107	104335	52.040	ug/l		99
64) Tetrachloroethene	10.810	164	113752	57.113	ug/l		90
65) Chlorobenzene	11.604	112	378462	53.874	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.681	131	142900	54.638	ug/l		96
67) Ethyl Benzene	11.681	91	672164	54.483	ug/l		97
68) m/p-Xylenes	11.792	106	525979	111.009	ug/l		92
69) o-Xylene	12.122	106	249925	54.546	ug/l		91
70) Styrene	12.133	104	436478	54.418	ug/l		97
71) Bromoform	12.298	173	80105	55.923	ug/l	#	97
73) Isopropylbenzene	12.422	105	659237	56.715	ug/l		97
74) N-amyl acetate	12.233	43	131194	53.576	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.675	83	130373	52.239	ug/l		99
76) 1,2,3-Trichloropropane	12.728	75	69506m	45.620	ug/l		
77) Bromobenzene	12.704	156	149349	55.665	ug/l		89
78) n-propylbenzene	12.763	91	808722	57.391	ug/l		95
79) 2-Chlorotoluene	12.851	91	434440	56.227	ug/l		95
80) 1,3,5-Trimethylbenzene	12.904	105	542377	57.707	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.469	75	39790	55.582	ug/l		98
82) 4-Chlorotoluene	12.945	91	460263	57.022	ug/l		95
83) tert-Butylbenzene	13.169	119	481435	58.176	ug/l		97
84) 1,2,4-Trimethylbenzene	13.210	105	544496	56.691	ug/l		95
85) sec-Butylbenzene	13.345	105	725510	57.382	ug/l		96
86) p-Isopropyltoluene	13.463	119	602270	57.678	ug/l		97
87) 1,3-Dichlorobenzene	13.457	146	310312	56.231	ug/l		98
88) 1,4-Dichlorobenzene	13.539	146	301895	55.837	ug/l		97
89) n-Butylbenzene	13.786	91	572839	56.063	ug/l		99
90) Hexachloroethane	14.051	117	113757	58.927	ug/l		89
91) 1,2-Dichlorobenzene	13.833	146	267899	55.092	ug/l		96
92) 1,2-Dibromo-3-Chloropr...	14.445	75	17707	49.761	ug/l		96
93) 1,2,4-Trichlorobenzene	15.098	180	168304	56.692	ug/l		99
94) Hexachlorobutadiene	15.204	225	80204	56.174	ug/l		99
95) Naphthalene	15.333	128	349991	54.448	ug/l		99
96) 1,2,3-Trichlorobenzene	15.521	180	149618	56.161	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

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

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

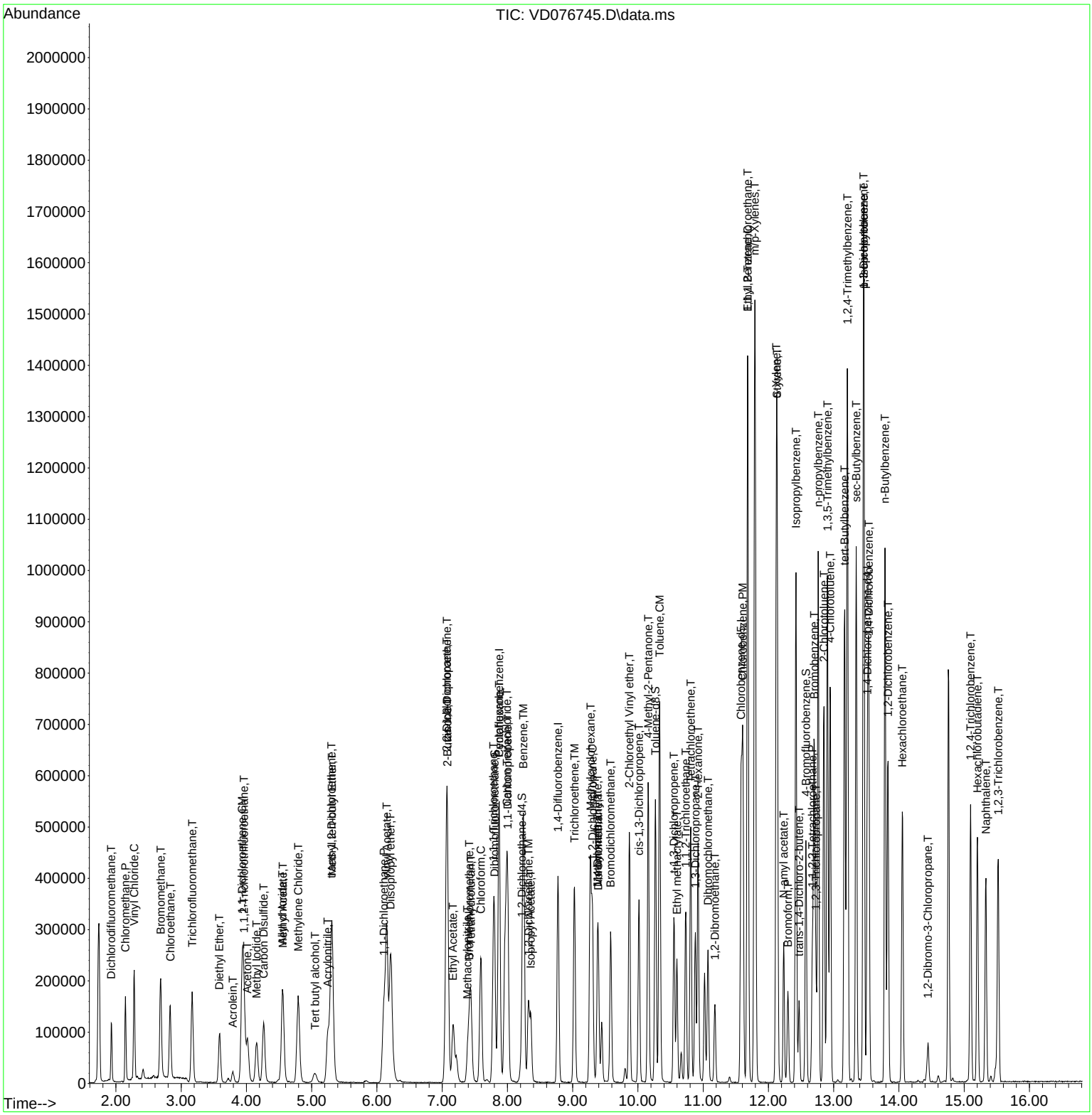
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

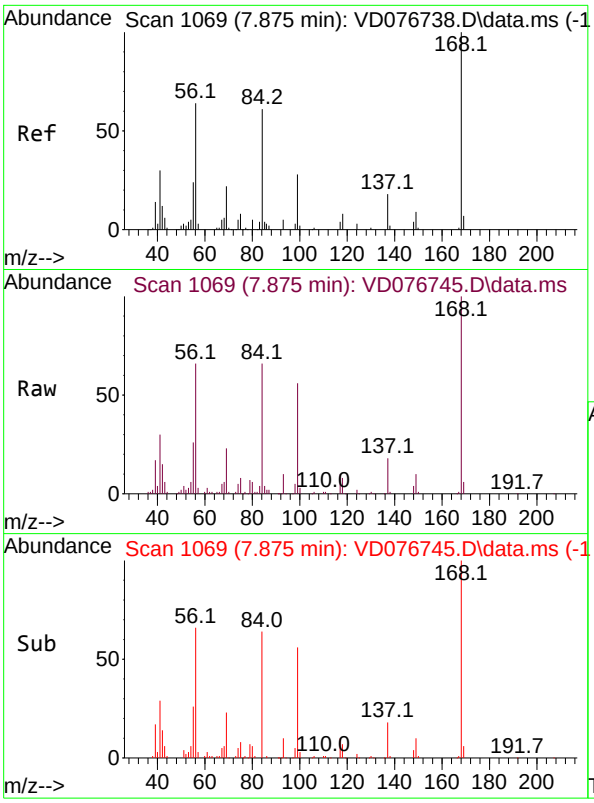
Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

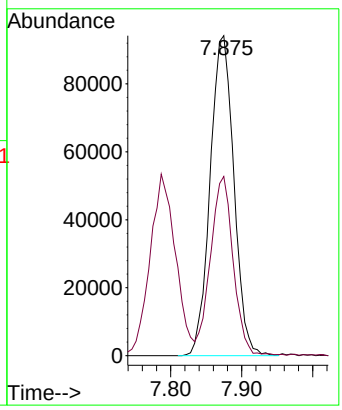
Tgt Ion:168 Resp: 21835

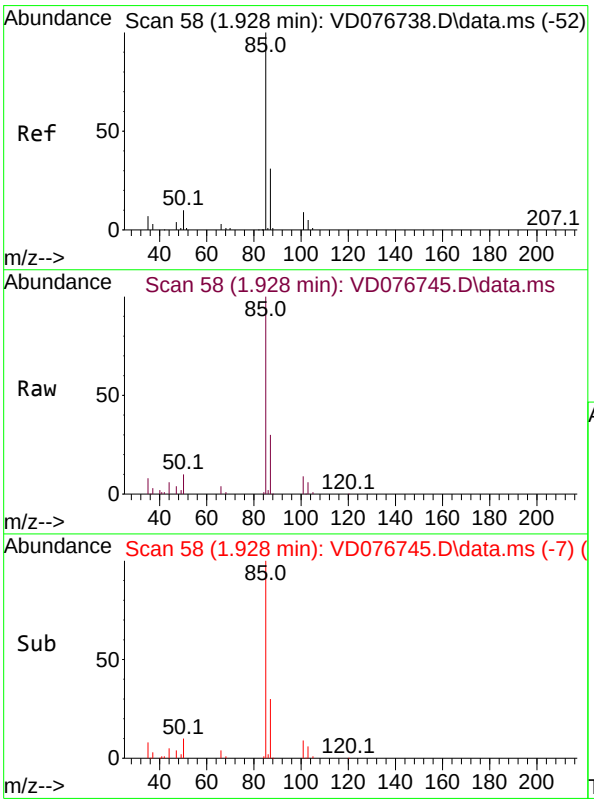
Ion	Ratio	Lower	Upper
168	100		
99	55.6	36.7	55.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

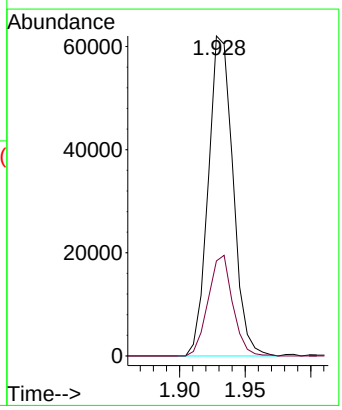


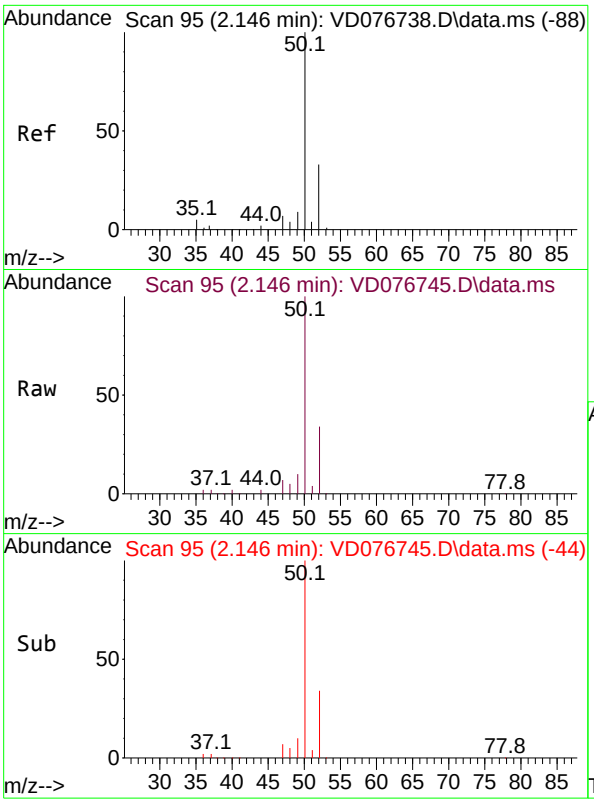


#2
Dichlorodifluoromethane
Concen: 47.677 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 85 Resp: 81408

Ion	Ratio	Lower	Upper
85	100		
87	29.7	15.7	47.0





#3
Chloromethane
Concen: 42.535 ug/l
RT: 2.146 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

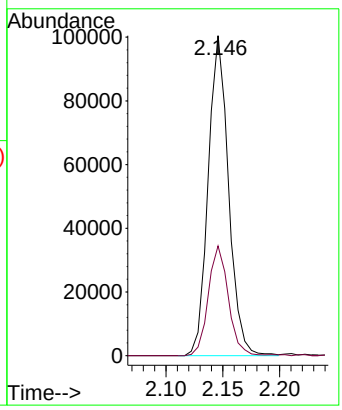
Tgt Ion: 50 Resp: 12528

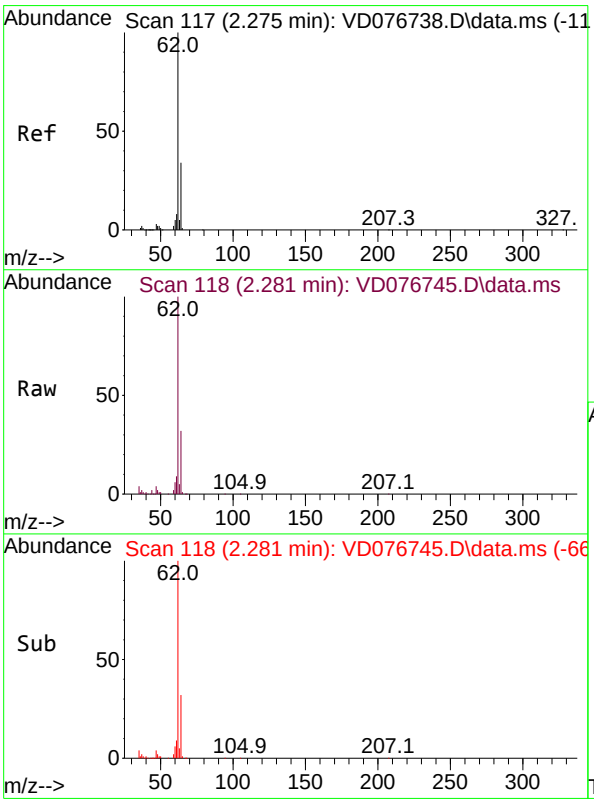
Ion	Ratio	Lower	Upper
50	100		
52	34.3	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

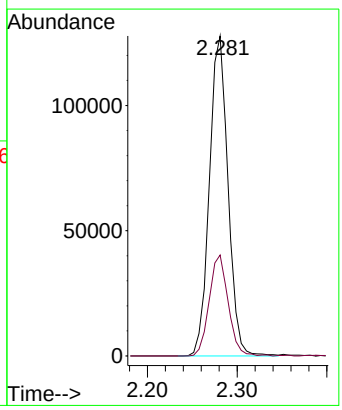


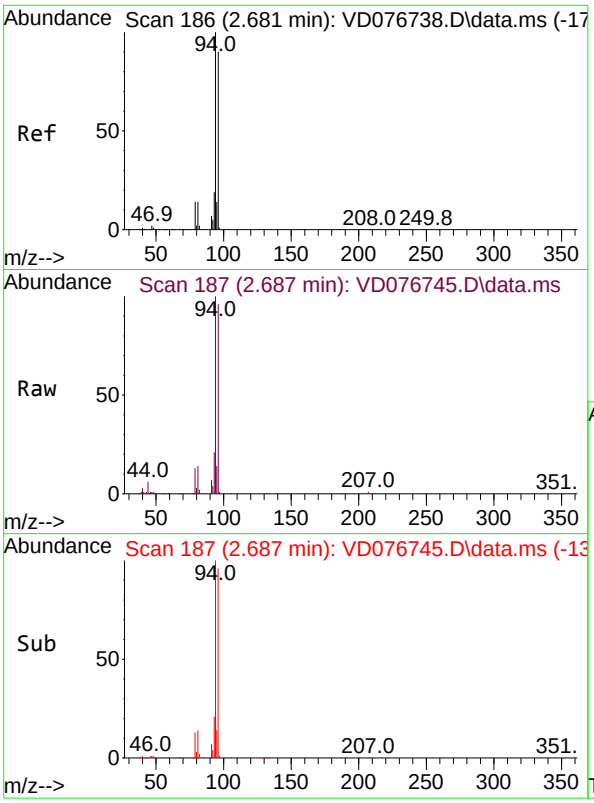


#4
Vinyl Chloride
Concen: 46.807 ug/l
RT: 2.281 min Scan# 118
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 62 Resp: 183785

Ion	Ratio	Lower	Upper
62	100		
64	31.5	26.0	39.0

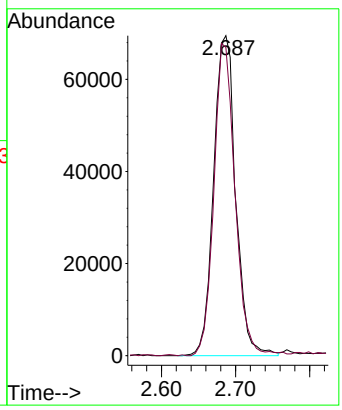




#5
Bromomethane
Concen: 44.456 ug/l
RT: 2.687 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 94 Resp: 14361

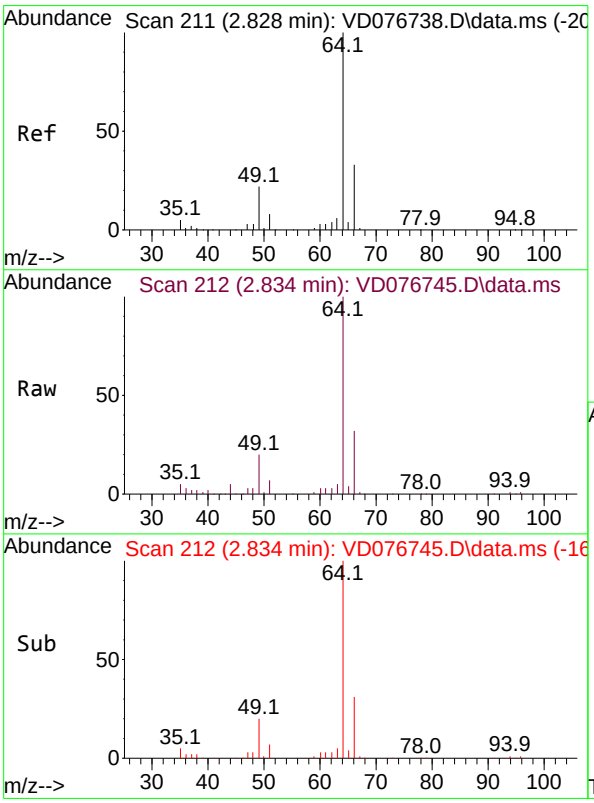
Ion	Ratio	Lower	Upper
94	100		
96	93.9	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

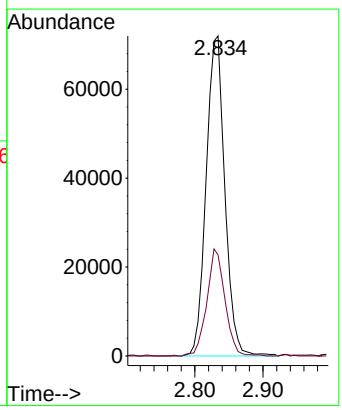
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

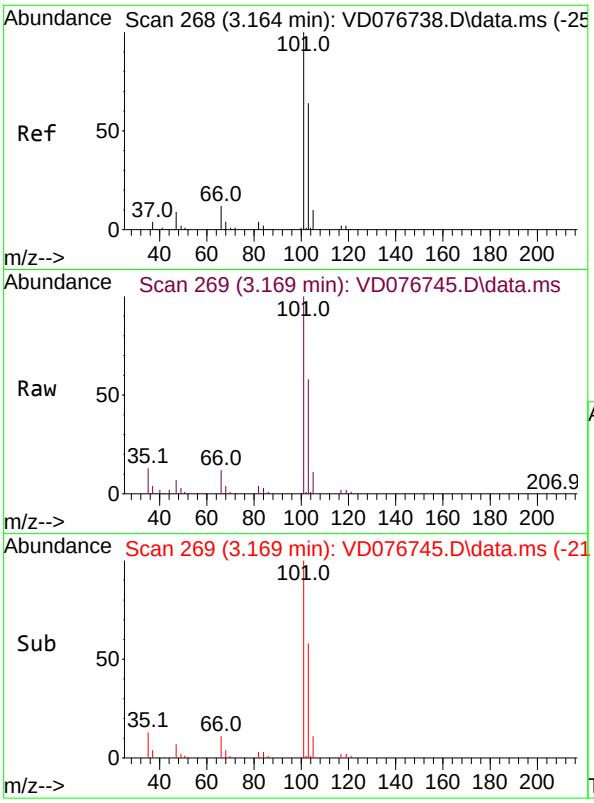


#6
Chloroethane
Concen: 46.359 ug/l
RT: 2.834 min Scan# 212
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 64 Resp: 137431

Ion	Ratio	Lower	Upper
64	100		
66	31.6	25.5	38.3





#7
Trichlorofluoromethane
Concen: 48.534 ug/l
RT: 3.169 min Scan# 2
Delta R.T. 0.005 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

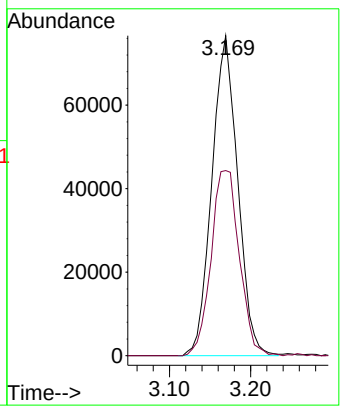
Tgt Ion:101 Resp: 16956

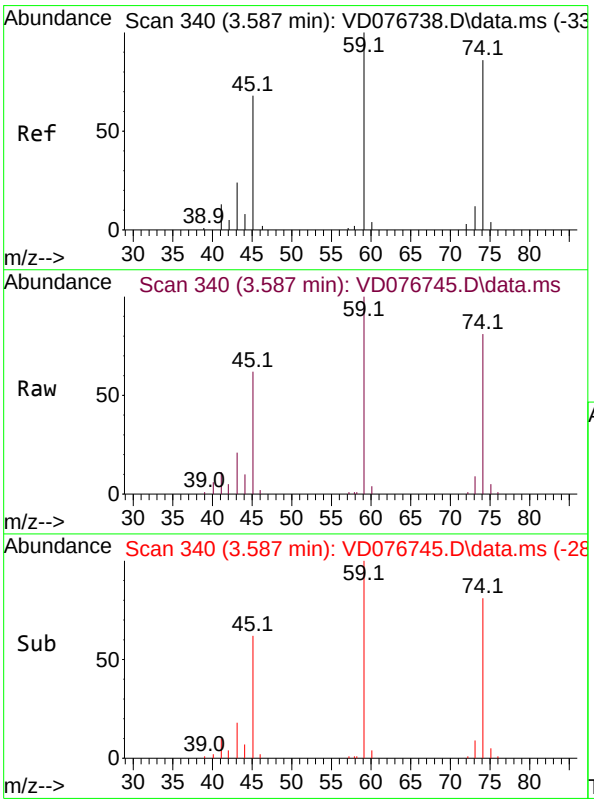
Ion	Ratio	Lower	Upper
101	100		
103	57.9	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

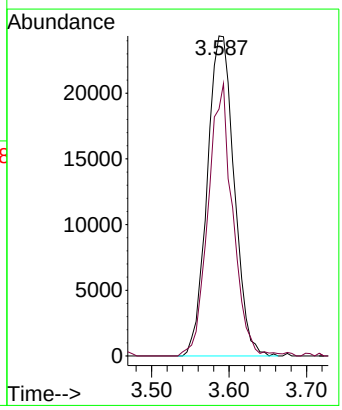


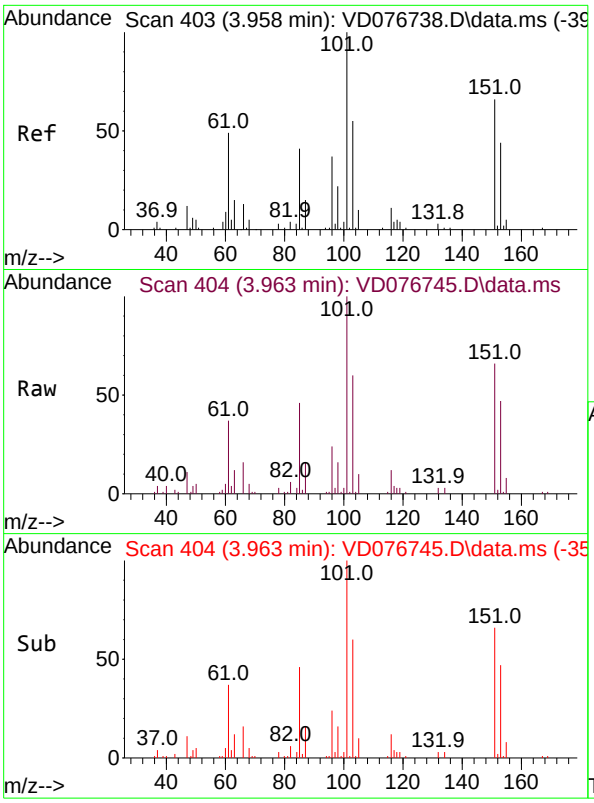


#8
Diethyl Ether
Concen: 48.944 ug/l
RT: 3.587 min Scan# 340
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 74 Resp: 58875

Ion	Ratio	Lower	Upper
74	100		
45	77.5	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.208 ug/l
RT: 3.963 min Scan# 4(
Delta R.T. 0.005 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

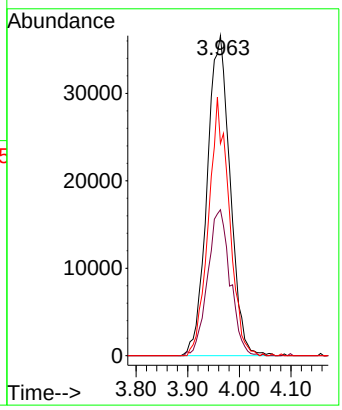
Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

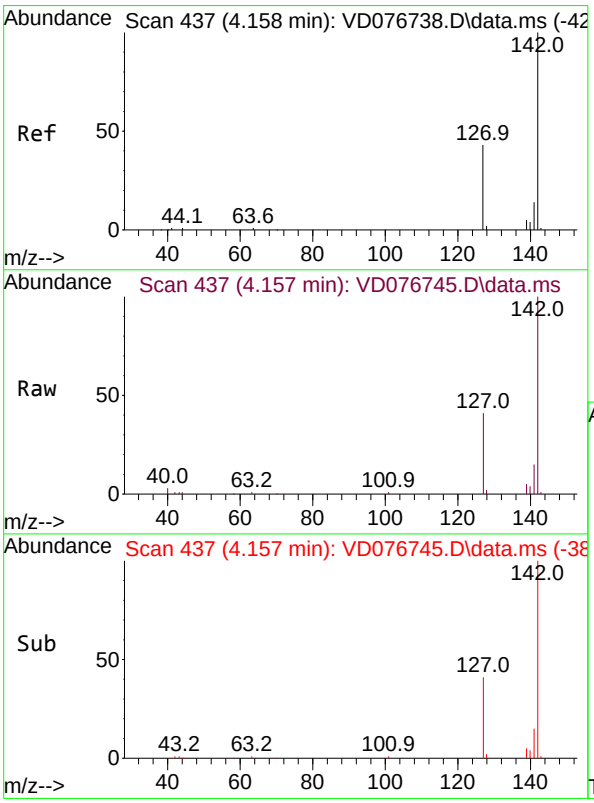
Tgt Ion:101 Resp: 11301(

Ion	Ratio	Lower	Upper
101	100		
85	44.7	33.8	50.6
151	73.1	59.8	89.6

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

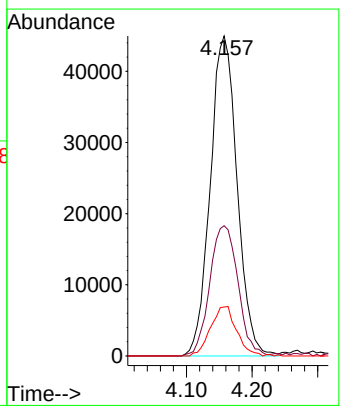


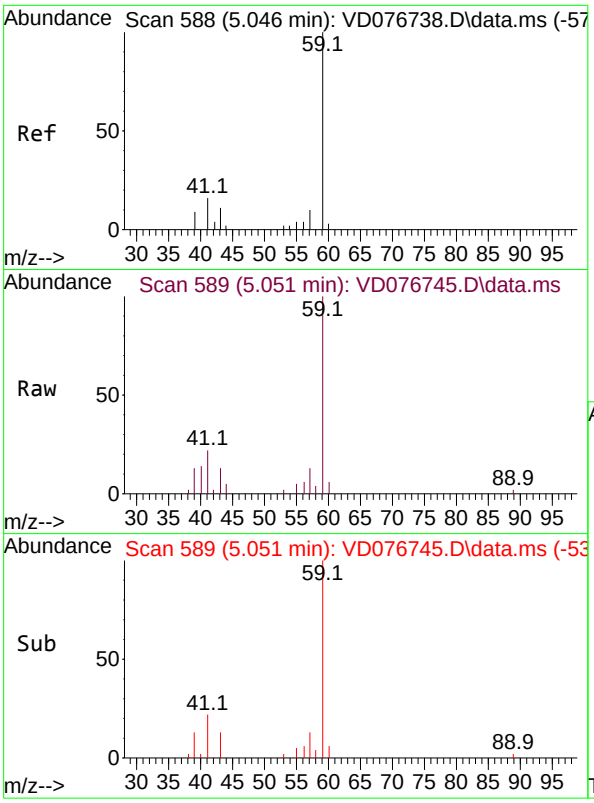


#10
Methyl Iodide
Concen: 49.514 ug/l
RT: 4.157 min Scan# 437
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:142 Resp: 128185

Ion	Ratio	Lower	Upper
142	100		
127	42.7	29.4	44.0
141	15.0	11.1	16.7

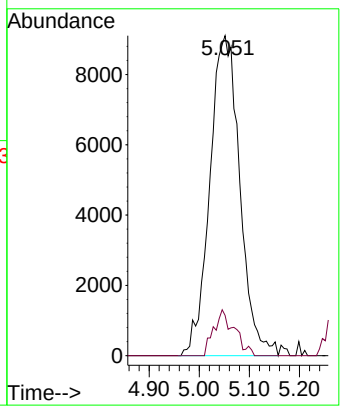




#11
Tert butyl alcohol
Concen: 233.536 ug/l
RT: 5.051 min Scan# 5
Delta R.T. 0.005 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 59 Resp: 3790

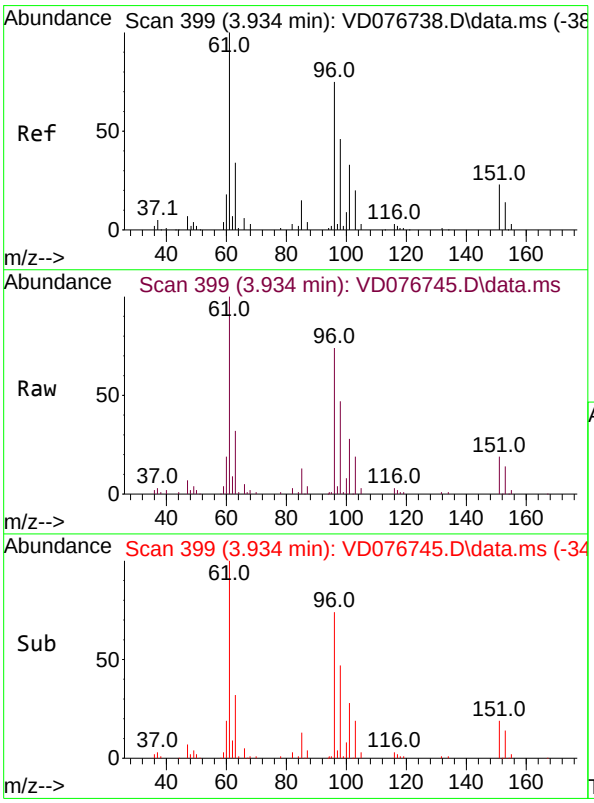
Ion	Ratio	Lower	Upper
59	100		
57	9.9	7.8	11.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

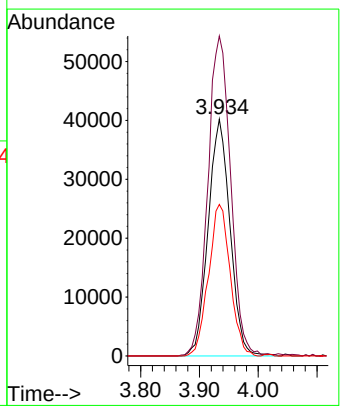
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

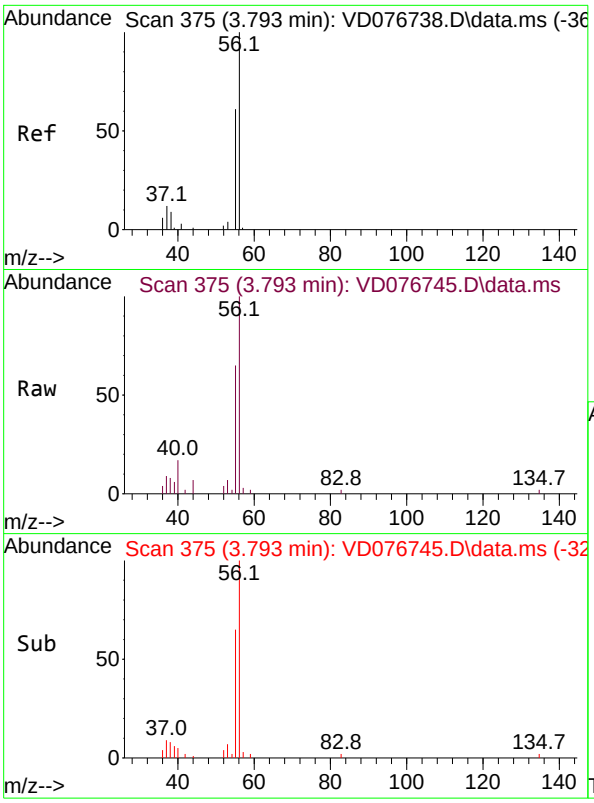


#12
1,1-Dichloroethene
Concen: 48.243 ug/l
RT: 3.934 min Scan# 399
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 96 Resp: 104093

Ion	Ratio	Lower	Upper
96	100		
61	135.1	100.6	150.8
98	63.9	50.2	75.2

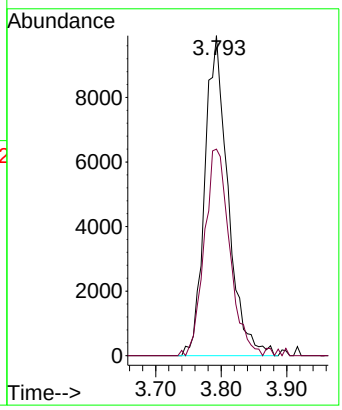




#13
Acrolein
Concen: 220.469 ug/l
RT: 3.793 min Scan# 3
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 56 Resp: 2438

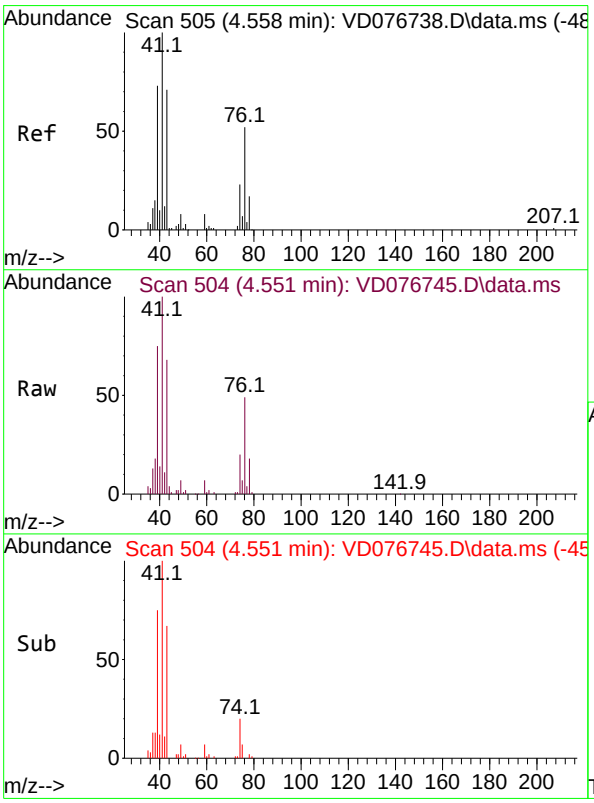
Ion	Ratio	Lower	Upper
56	100		
55	70.5	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

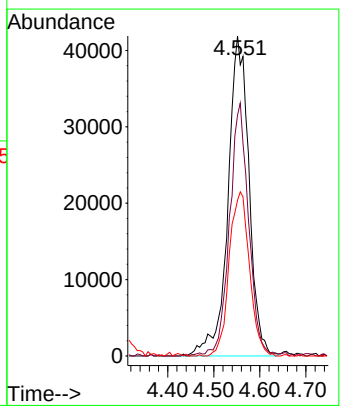
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

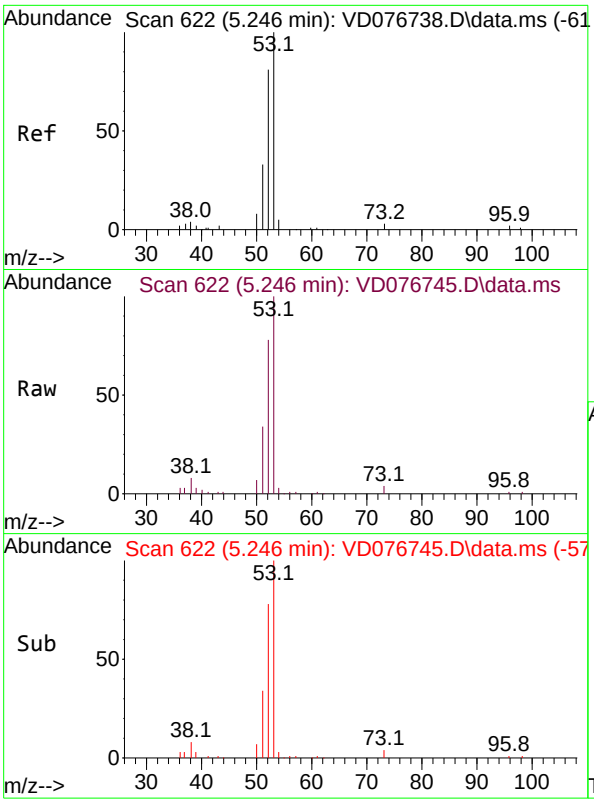


#14
Allyl chloride
Concen: 46.827 ug/l
RT: 4.551 min Scan# 504
Delta R.T. -0.007 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 41 Resp: 132728

Ion	Ratio	Lower	Upper
41	100		
39	72.0	53.8	80.6
76	49.6	45.8	68.8

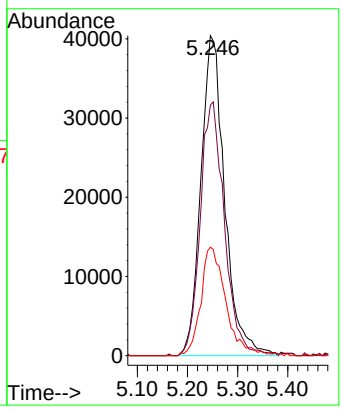




#15
Acrylonitrile
Concen: 225.606 ug/l
RT: 5.246 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 53 Resp: 13328

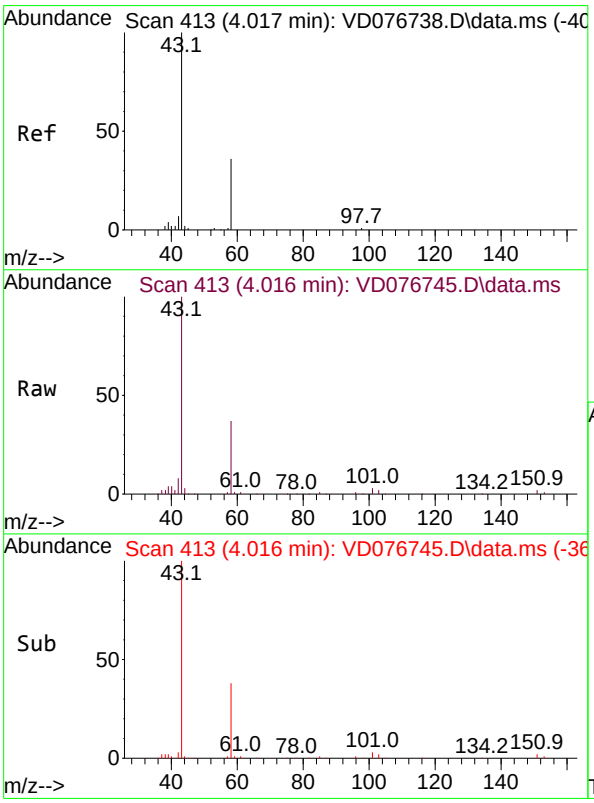
Ion	Ratio	Lower	Upper
53	100		
52	80.6	65.0	97.4
51	35.6	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

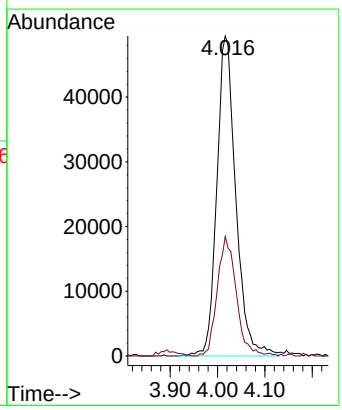
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

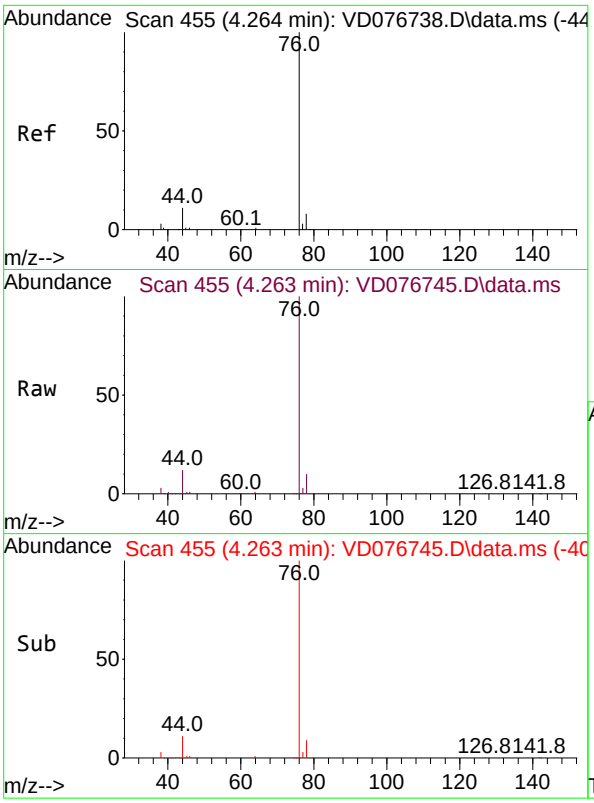


#16
Acetone
Concen: 264.654 ug/l
RT: 4.016 min Scan# 413
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 43 Resp: 137463

Ion	Ratio	Lower	Upper
43	100		
58	37.3	34.7	52.1





#17
Carbon Disulfide
Concen: 48.339 ug/l
RT: 4.263 min Scan# 4
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

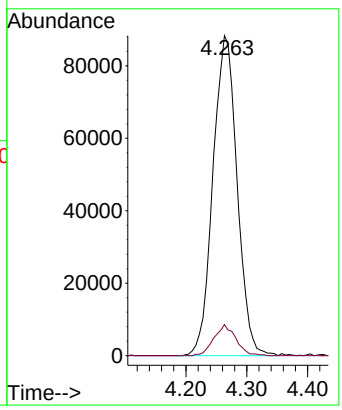
Tgt Ion: 76 Resp: 24360

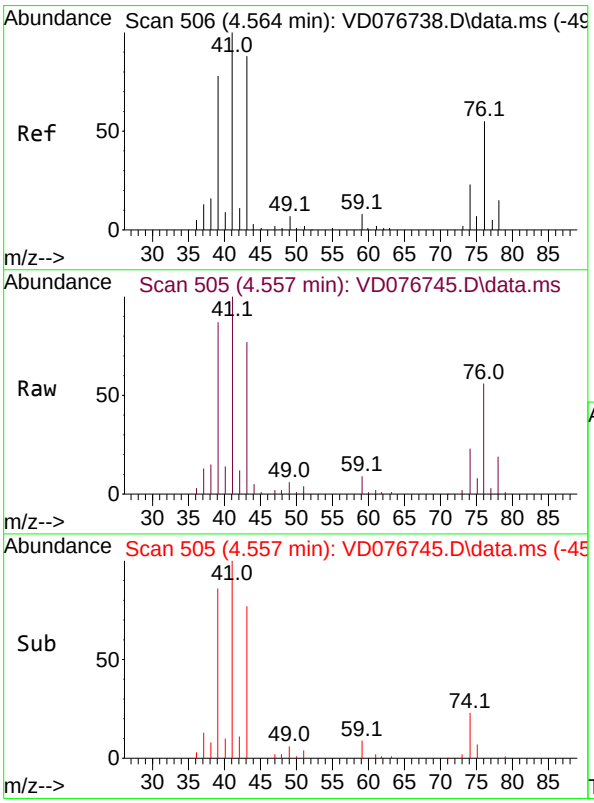
Ion	Ratio	Lower	Upper
76	100		
78	9.7	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

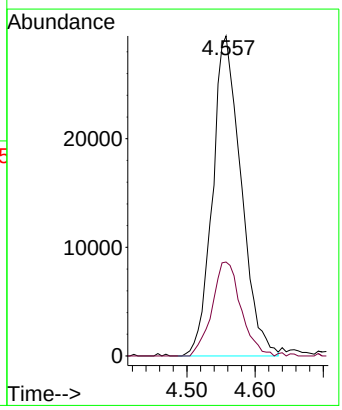


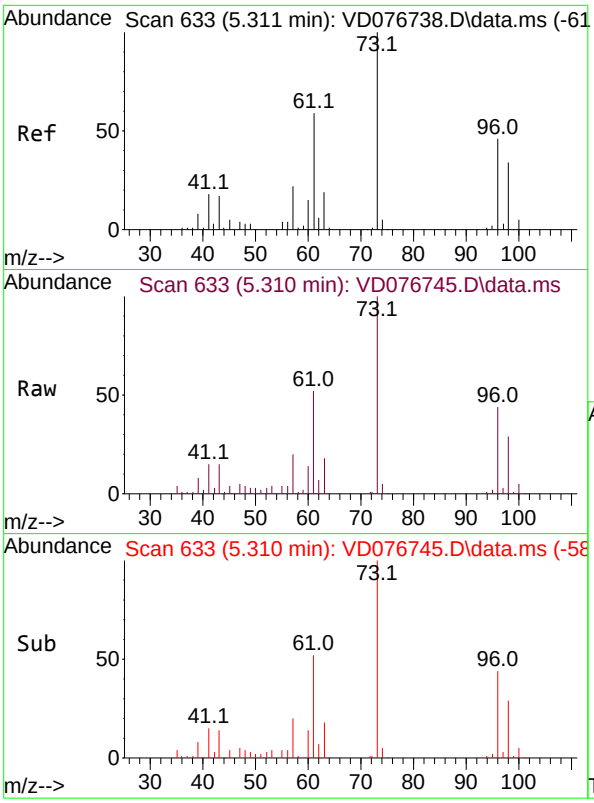


#18
Methyl Acetate
Concen: 44.029 ug/l
RT: 4.557 min Scan# 505
Delta R.T. -0.007 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 43 Resp: 85921

Ion	Ratio	Lower	Upper
43	100		
74	29.6	26.4	39.6





#19
Methyl tert-butyl Ether
Concen: 47.394 ug/l
RT: 5.310 min Scan# 6
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

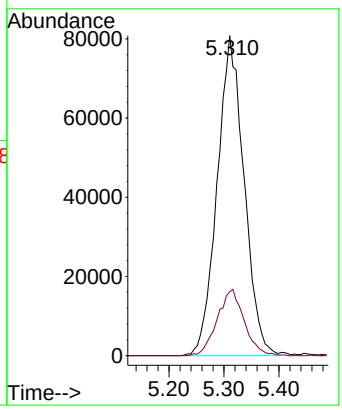
Tgt Ion: 73 Resp: 27423

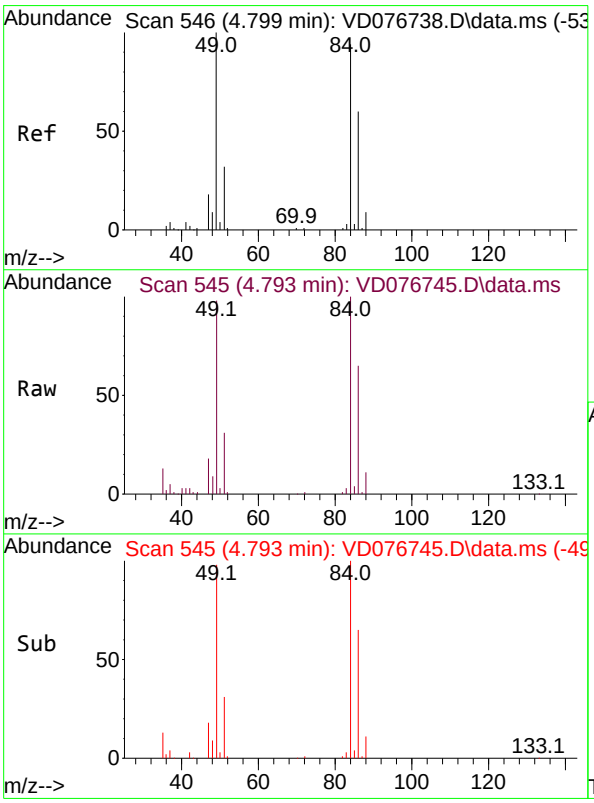
Ion	Ratio	Lower	Upper
73	100		
57	19.9	16.6	25.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

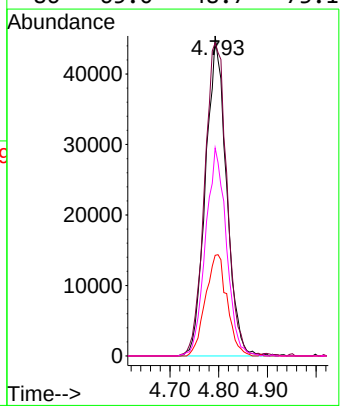


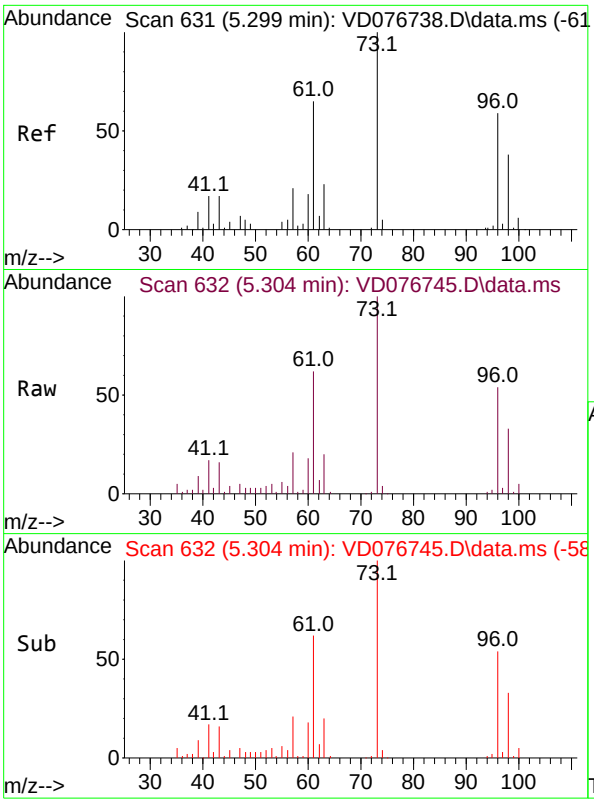


#20
Methylene Chloride
Concen: 41.791 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 84 Resp: 134482

Ion	Ratio	Lower	Upper
84	100		
49	97.9	71.4	107.2
51	31.4	24.5	36.7
86	65.0	48.7	73.1

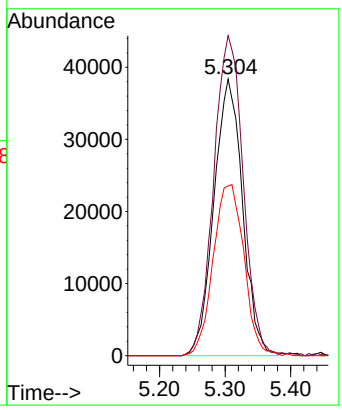




#21
trans-1,2-Dichloroethene
Concen: 46.376 ug/l
RT: 5.304 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 96 Resp: 11631

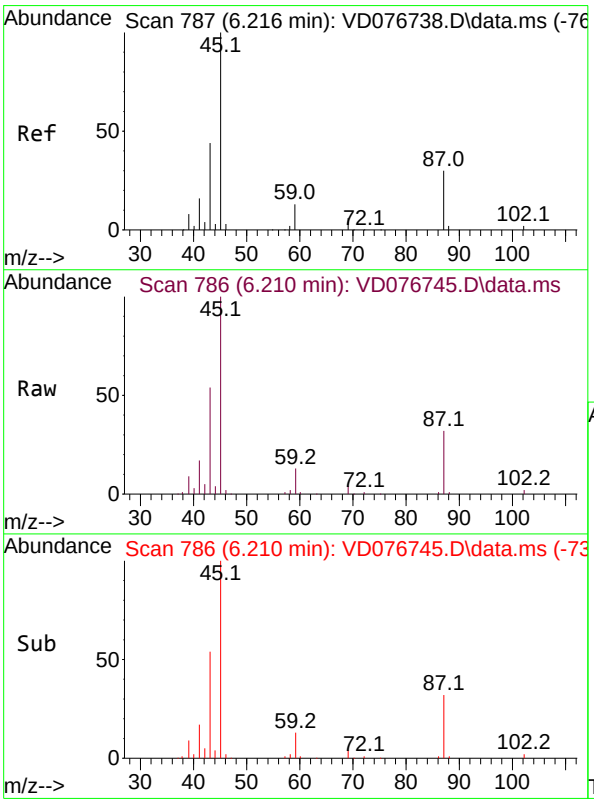
Ion	Ratio	Lower	Upper
96	100		
61	115.7	89.3	133.9
98	61.4	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

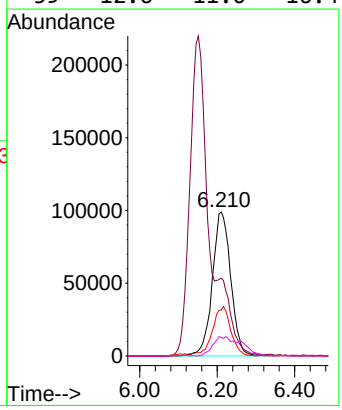
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

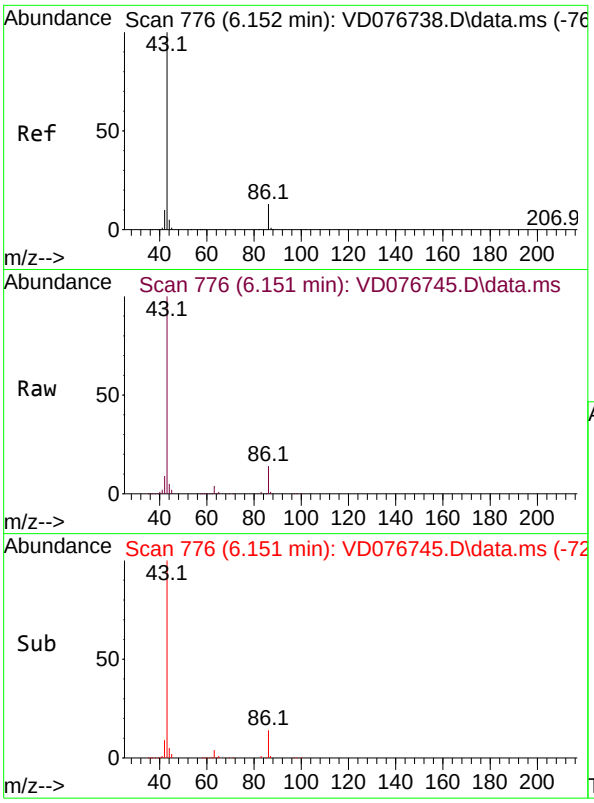


#22
Diisopropyl ether
Concen: 48.736 ug/l
RT: 6.210 min Scan# 786
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 45 Resp: 327116

Ion	Ratio	Lower	Upper
45	100		
43	53.2	40.0	60.0
87	32.1	28.2	42.4
59	12.6	11.0	16.4

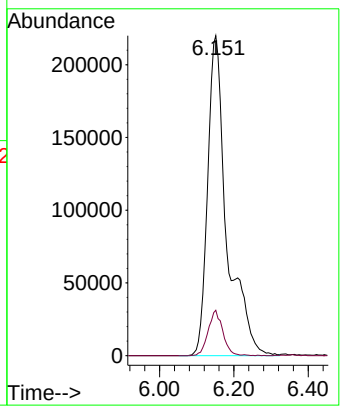




#23
Vinyl Acetate
Concen: 237.571 ug/l m
RT: 6.151 min Scan# 7
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 43 Resp: 78896

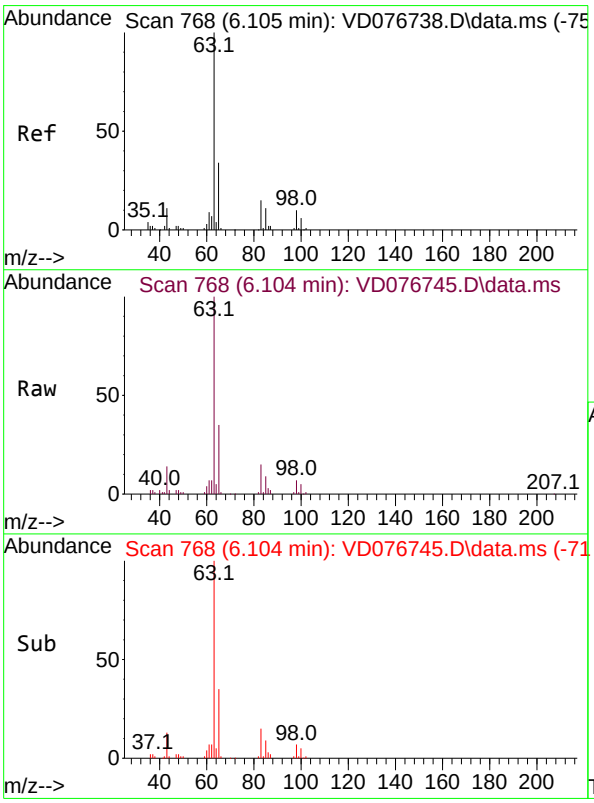
Ion	Ratio	Lower	Upper
43	100		
86	14.2	12.5	18.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

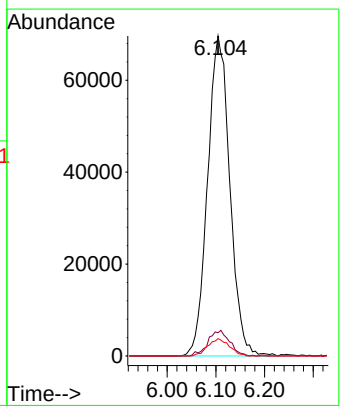
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

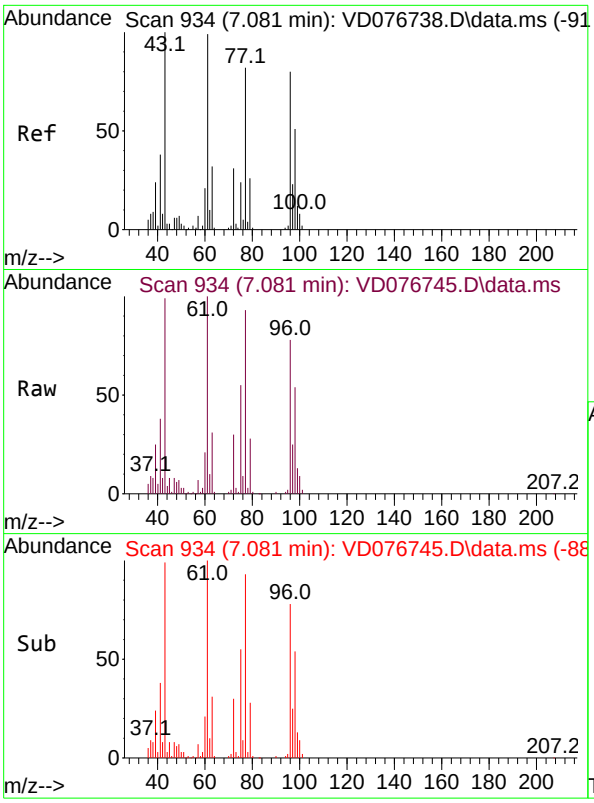


#24
1,1-Dichloroethane
Concen: 48.818 ug/l
RT: 6.104 min Scan# 768
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 63 Resp: 220922

Ion	Ratio	Lower	Upper
63	100		
98	7.3	4.5	13.7
100	5.4	2.5	7.5





#25
2-Butanone
Concen: 252.820 ug/l
RT: 7.081 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

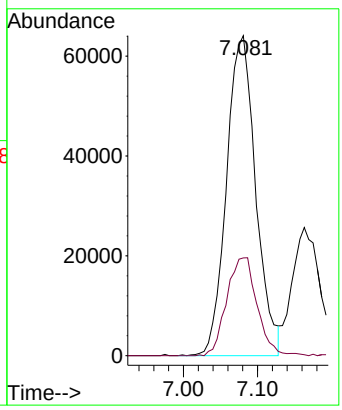
Tgt Ion: 43 Resp: 17574

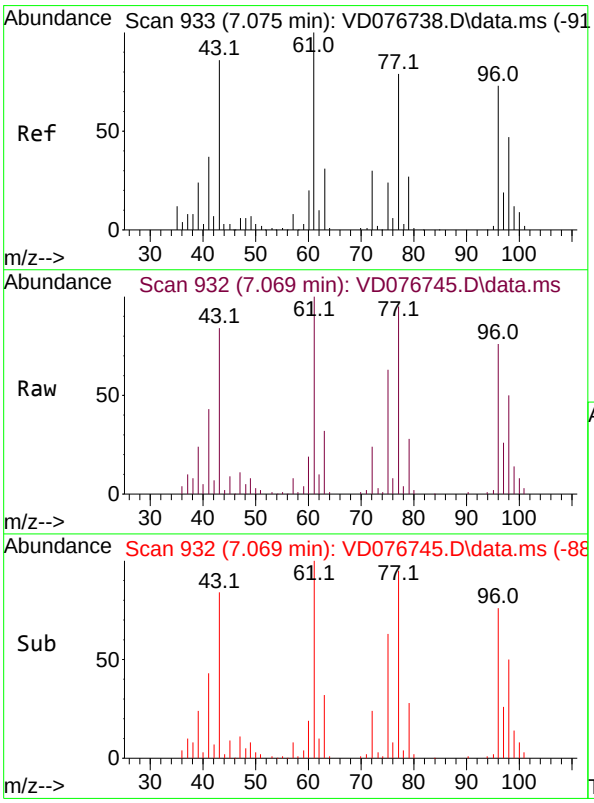
Ion	Ratio	Lower	Upper
43	100		
72	30.5	30.7	46.1#

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

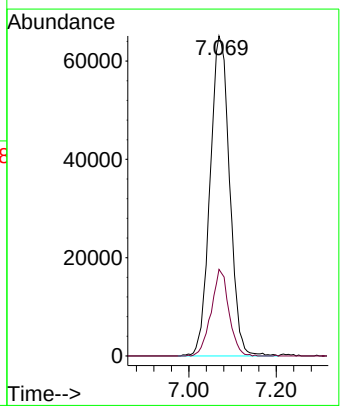


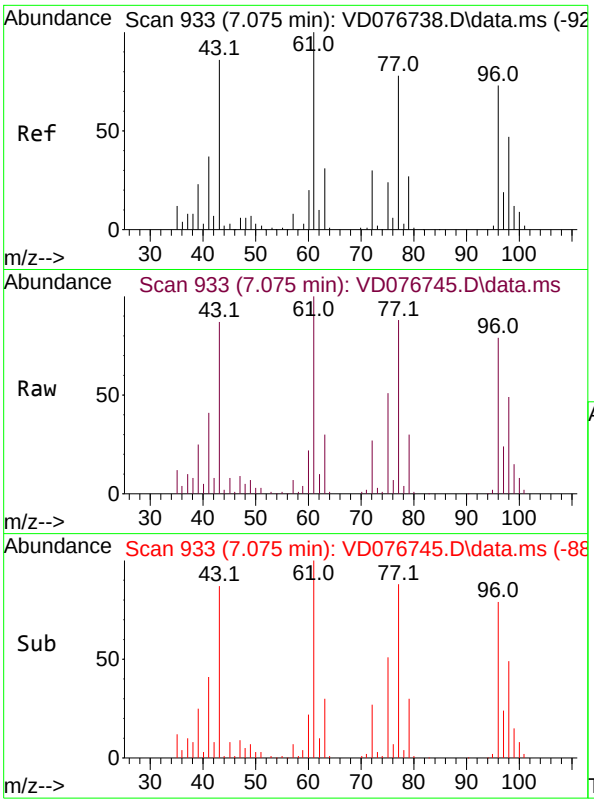


#26
2,2-Dichloropropane
Concen: 51.647 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 77 Resp: 201477

Ion	Ratio	Lower	Upper
77	100		
97	24.6	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 49.683 ug/l
RT: 7.075 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

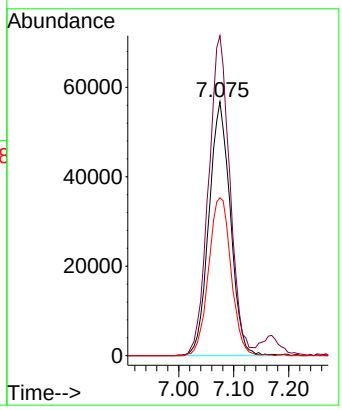
Tgt Ion: 96 Resp: 15361

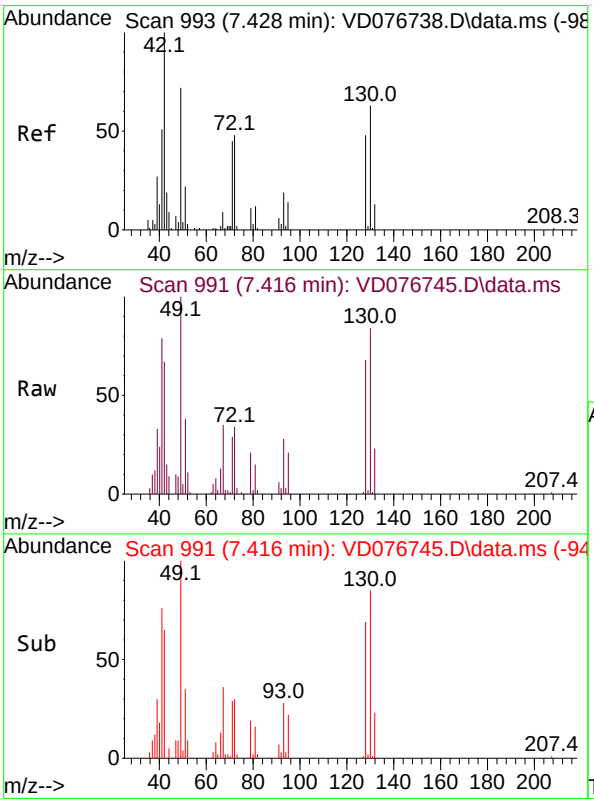
Ion	Ratio	Lower	Upper
96	100		
61	126.0	0.0	239.2
98	65.3	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

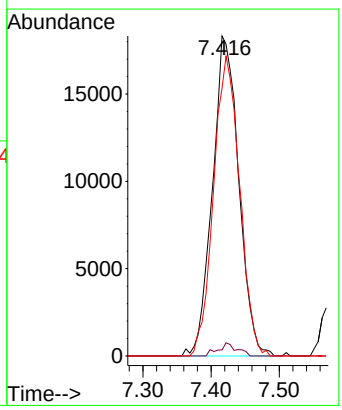


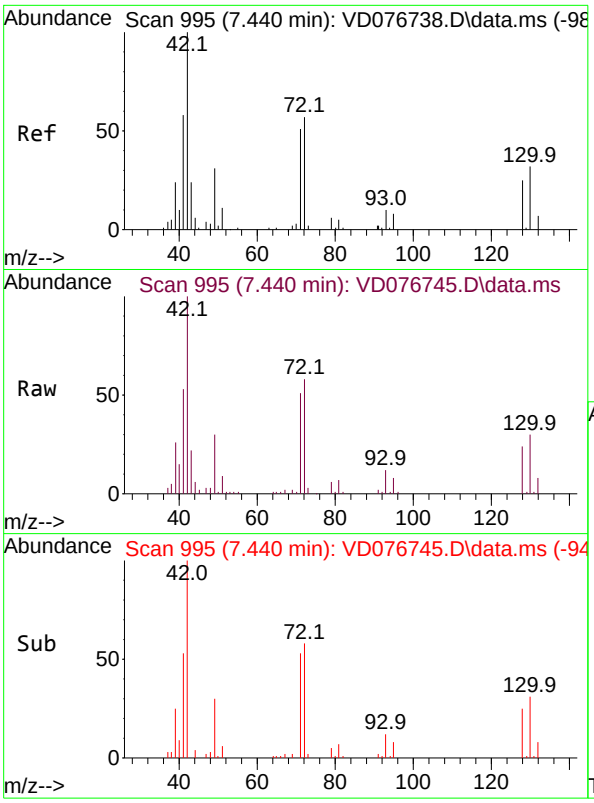


#28
Bromochloromethane
Concen: 43.433 ug/l
RT: 7.416 min Scan# 991
Delta R.T. -0.012 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 49 Resp: 49140

Ion	Ratio	Lower	Upper
49	100		
129	2.9	0.0	6.0
130	93.0	83.2	124.8





#29
Tetrahydrofuran
Concen: 240.021 ug/l
RT: 7.440 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

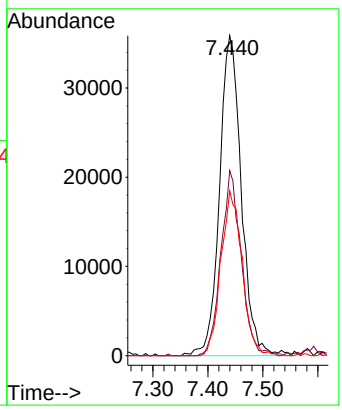
Tgt Ion: 42 Resp: 9858

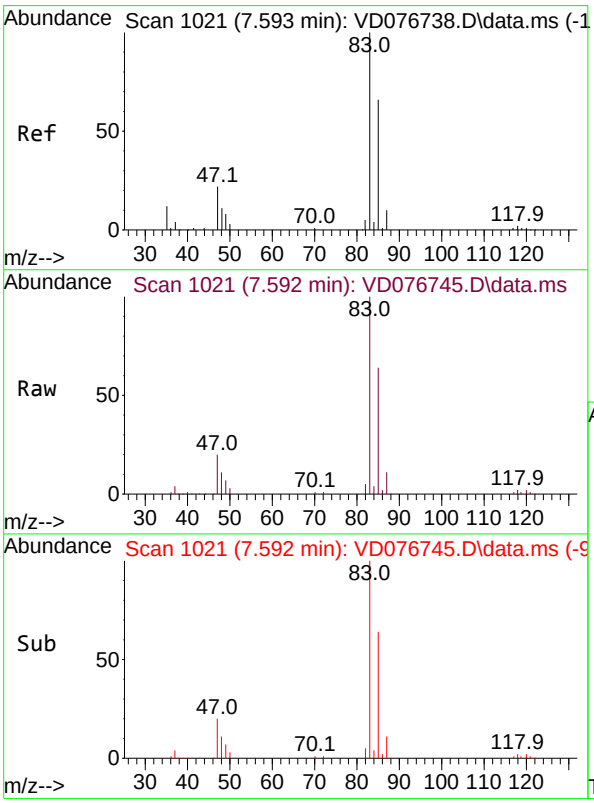
Ion	Ratio	Lower	Upper
42	100		
72	53.5	46.5	69.7
71	50.4	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

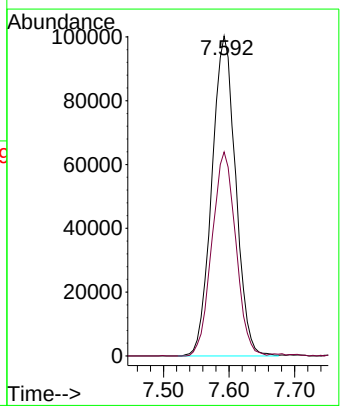


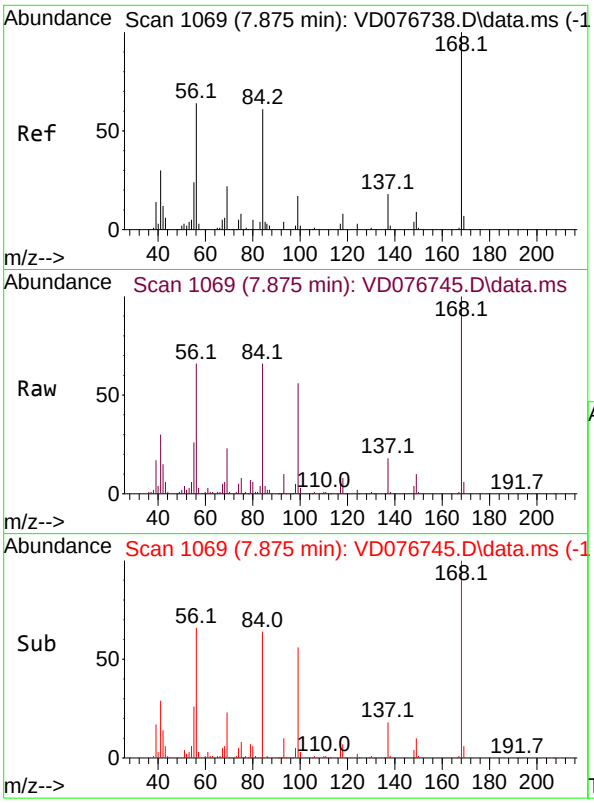


#30
Chloroform
Concen: 50.889 ug/l
RT: 7.592 min Scan# 1021
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 83 Resp: 252234

Ion	Ratio	Lower	Upper
83	100		
85	63.8	53.4	80.2





#31
Cyclohexane
Concen: 49.805 ug/l
RT: 7.875 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

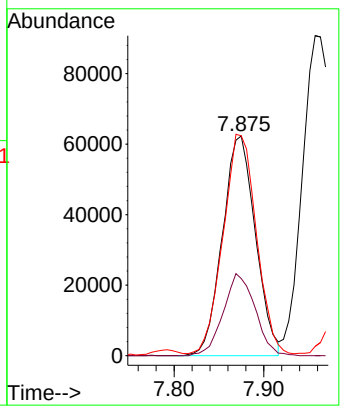
Tgt Ion: 56 Resp: 15941

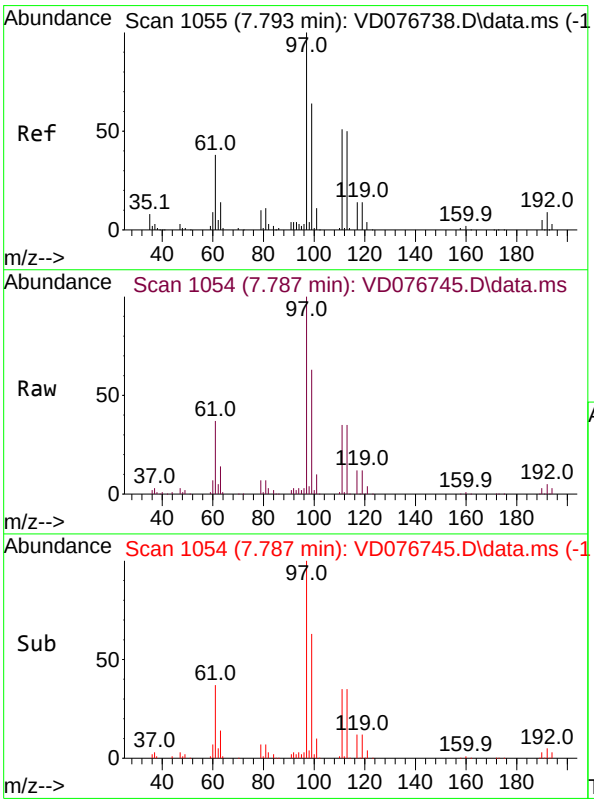
Ion	Ratio	Lower	Upper
56	100		
69	34.6	28.6	43.0
84	98.4	84.8	127.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

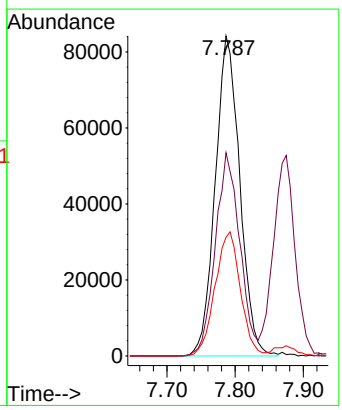


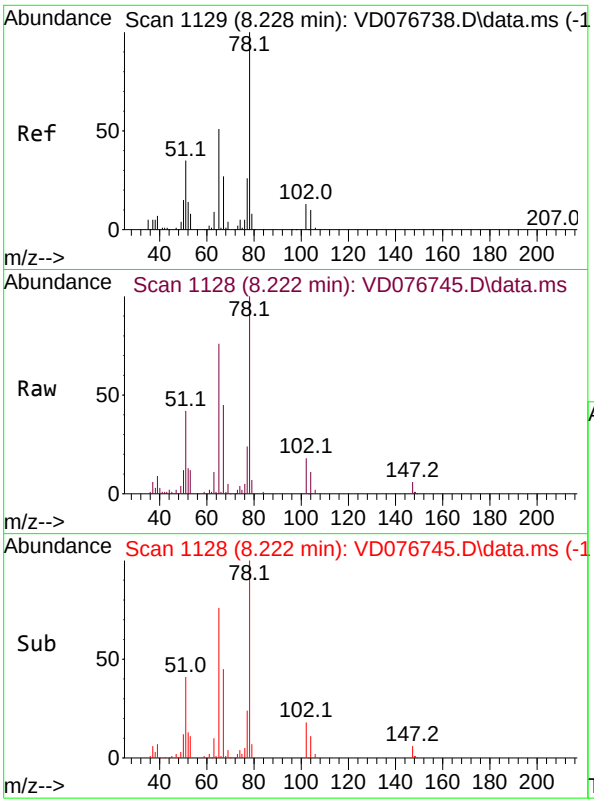


#32
1,1,1-Trichloroethane
Concen: 52.789 ug/l
RT: 7.787 min Scan# 1054
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 97 Resp: 211107

Ion	Ratio	Lower	Upper
97	100		
99	63.5	52.0	78.0
61	40.1	33.8	50.8





#33
1,2-Dichloroethane-d4
Concen: 43.249 ug/l
RT: 8.222 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

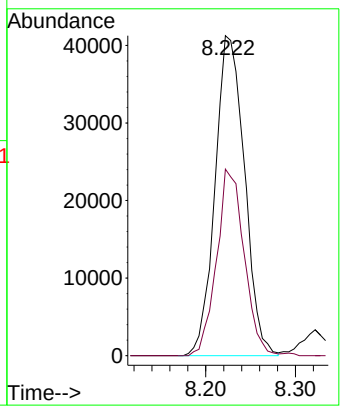
Tgt Ion: 65 Resp: 9406

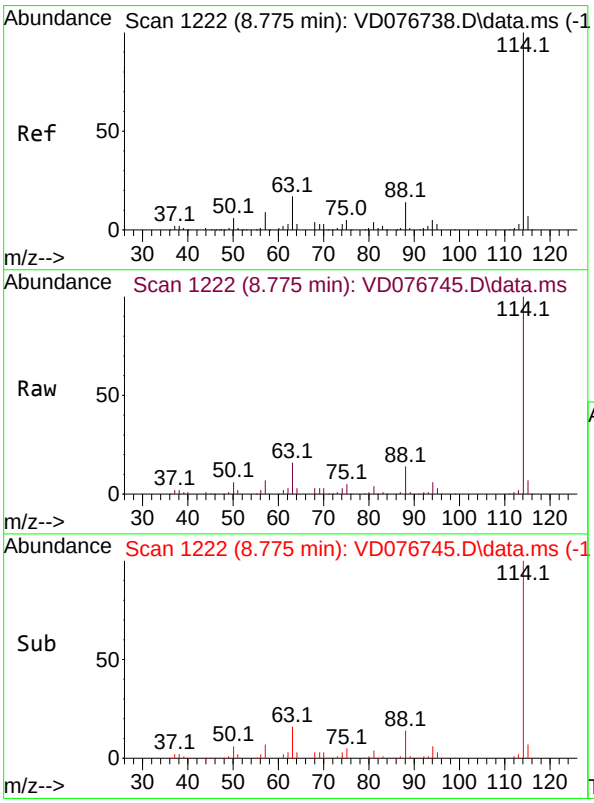
Ion	Ratio	Lower	Upper
65	100		
67	54.7	0.0	115.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

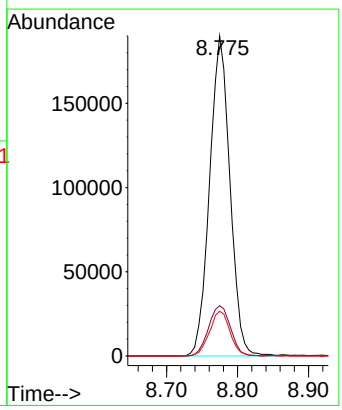


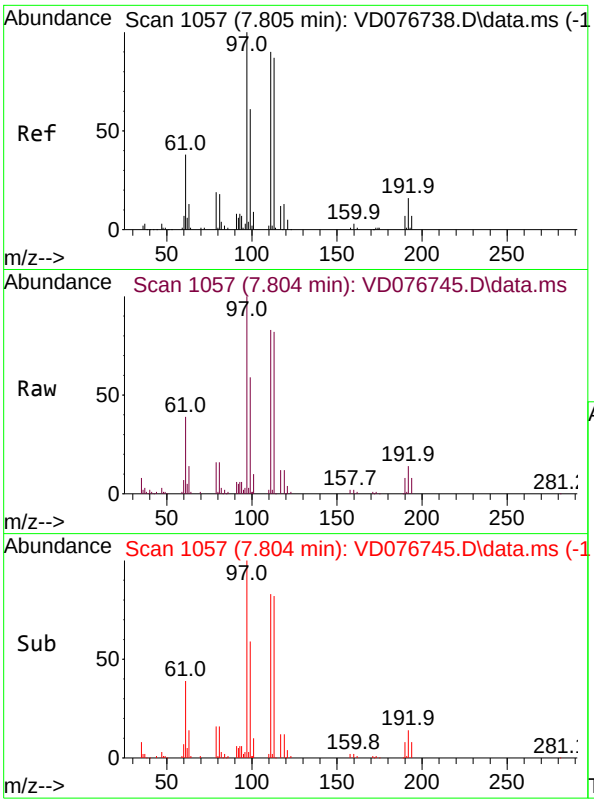


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:114 Resp: 378281

Ion	Ratio	Lower	Upper
114	100		
63	15.7	0.0	33.4
88	14.0	0.0	26.2





#35
Dibromofluoromethane
Concen: 47.130 ug/l
RT: 7.804 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

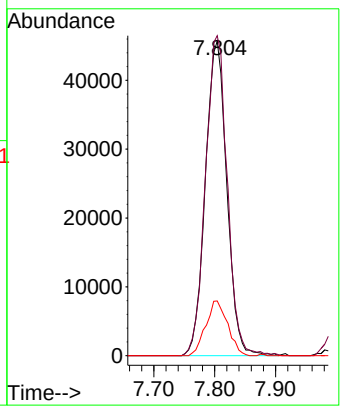
Tgt Ion:113 Resp: 11203

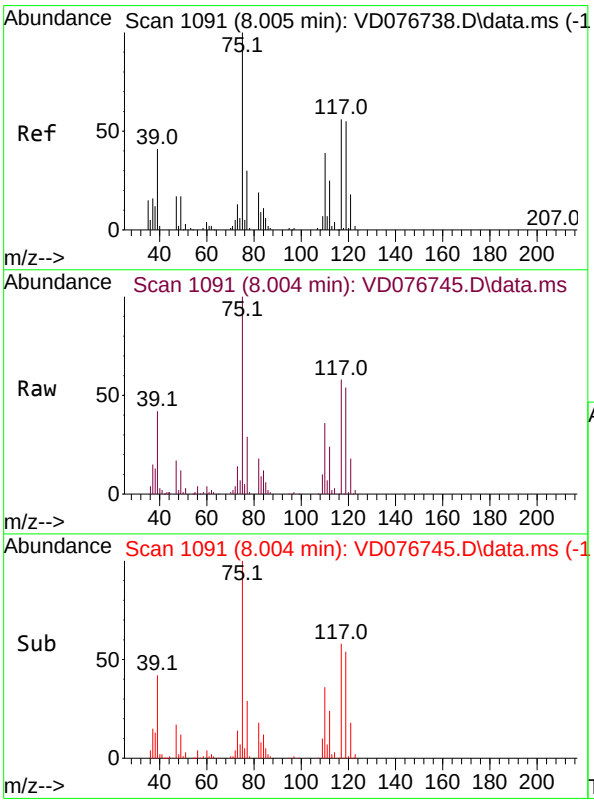
Ion	Ratio	Lower	Upper
113	100		
111	103.3	84.7	127.1
192	17.8	16.8	25.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

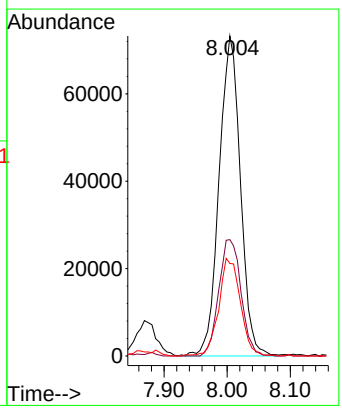


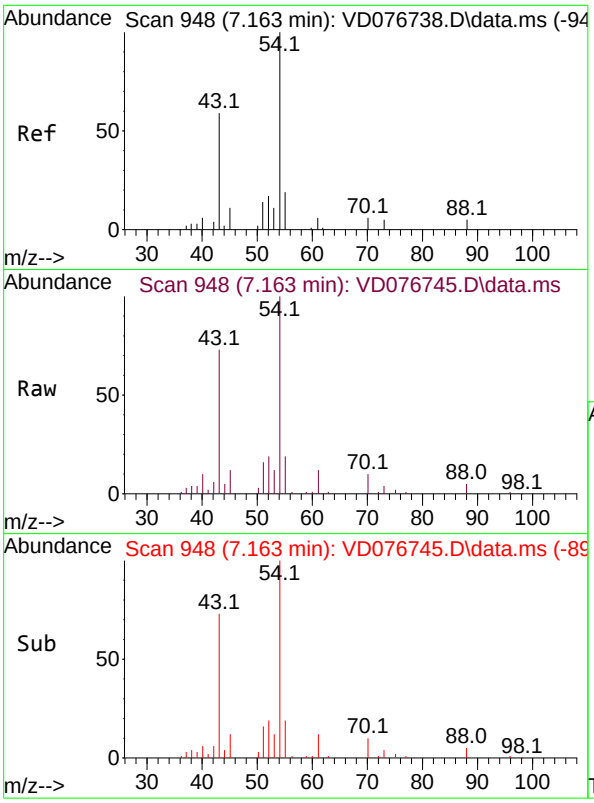


#36
1,1-Dichloropropene
Concen: 55.323 ug/l
RT: 8.004 min Scan# 1091
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 75 Resp: 171849

Ion	Ratio	Lower	Upper
75	100		
110	37.9	19.9	59.6
77	31.0	24.7	37.1





#37
Ethyl Acetate
Concen: 48.620 ug/l
RT: 7.163 min Scan# 94
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

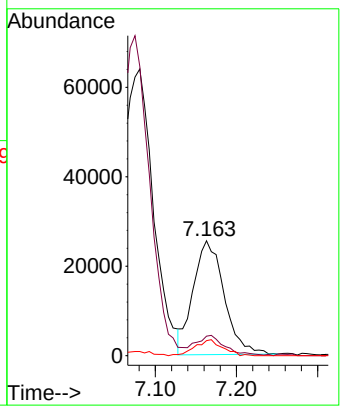
Tgt Ion: 43 Resp: 6754

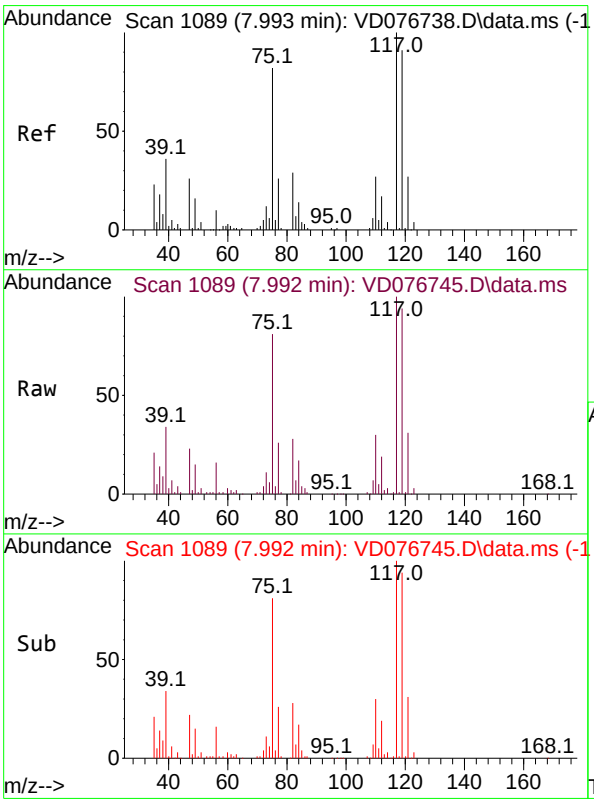
Ion	Ratio	Lower	Upper
43	100		
61	16.5	14.9	22.3
70	12.4	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

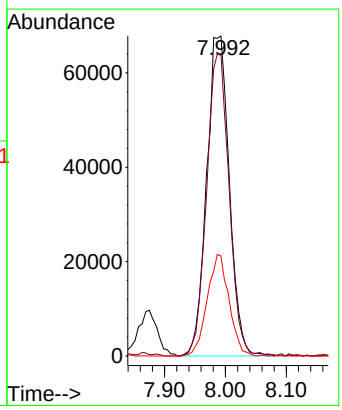


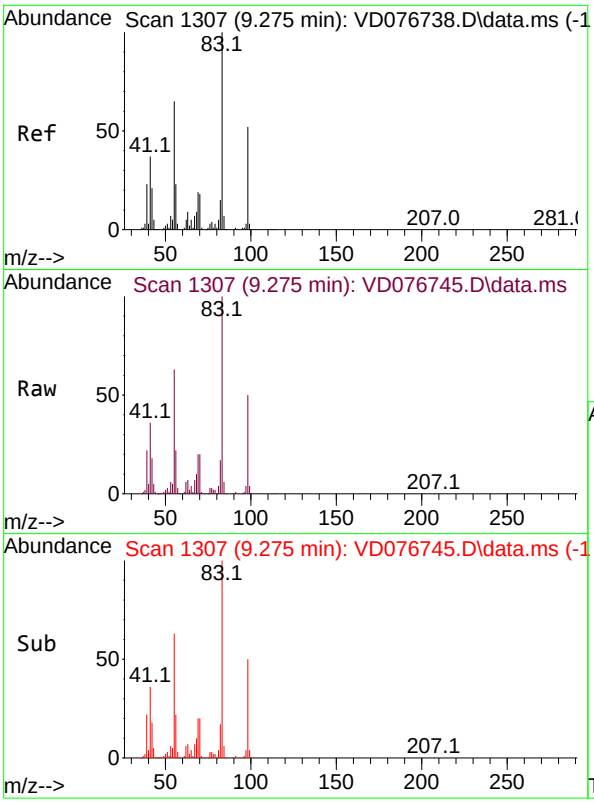


#38
Carbon Tetrachloride
Concen: 59.126 ug/l
RT: 7.992 min Scan# 1089
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:117 Resp: 175861

Ion	Ratio	Lower	Upper
117	100		
119	94.4	78.0	117.0
121	31.3	24.2	36.2





#39
Methylcyclohexane
Concen: 56.120 ug/l
RT: 9.275 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

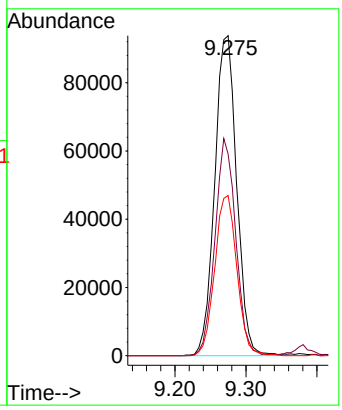
Tgt Ion: 83 Resp: 20128

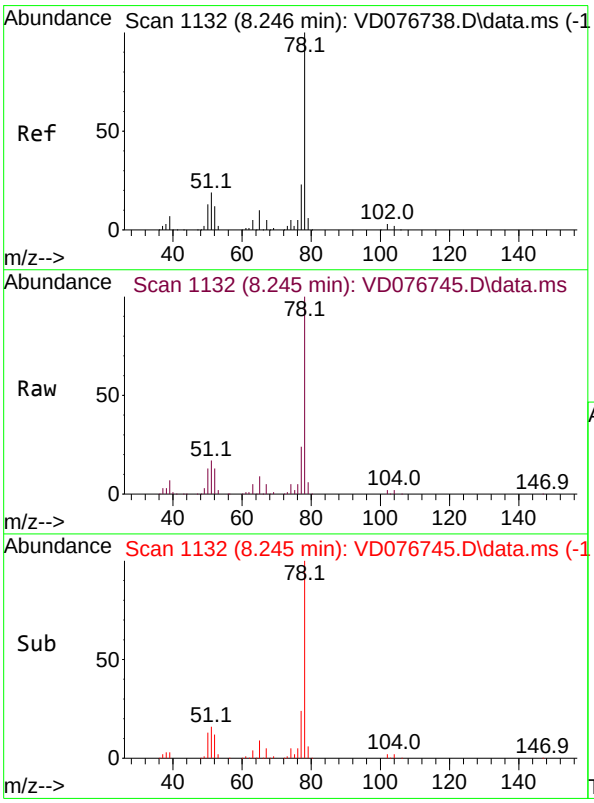
Ion	Ratio	Lower	Upper
83	100		
55	63.0	49.4	74.0
98	50.1	38.4	57.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

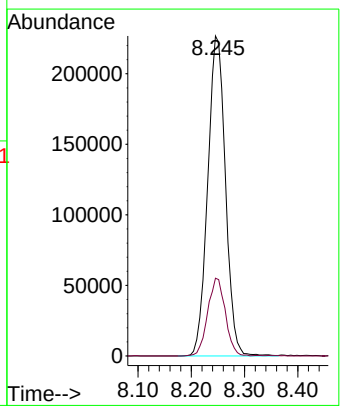


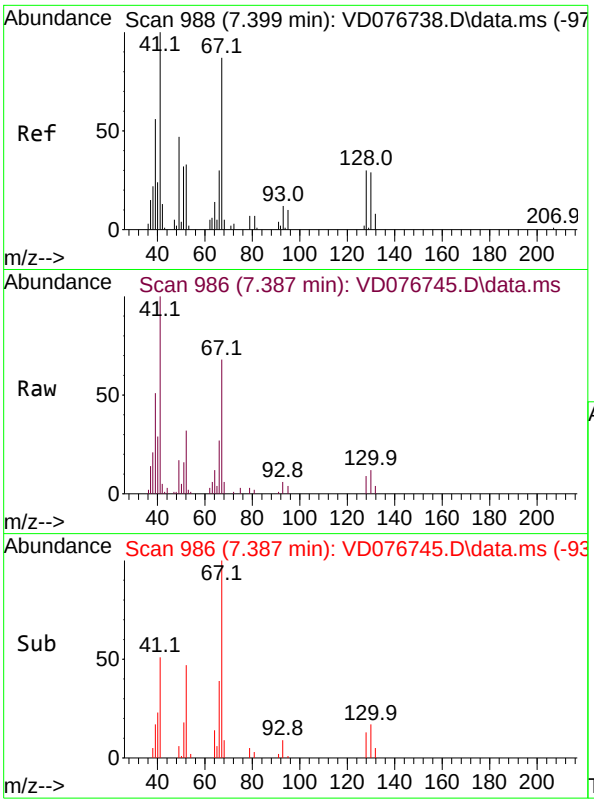


#40
Benzene
Concen: 53.567 ug/l
RT: 8.245 min Scan# 1132
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 78 Resp: 525017

Ion	Ratio	Lower	Upper
78	100		
77	24.3	19.4	29.0

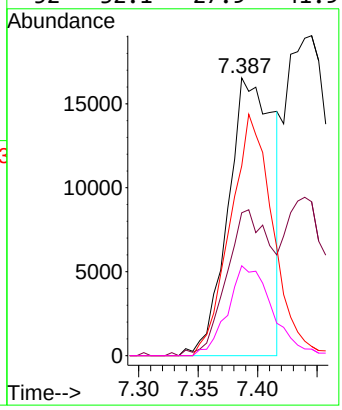




#41
Methacrylonitrile
Concen: 51.533 ug/l m
RT: 7.387 min Scan# 9
Delta R.T. -0.012 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 41 Resp: 4371

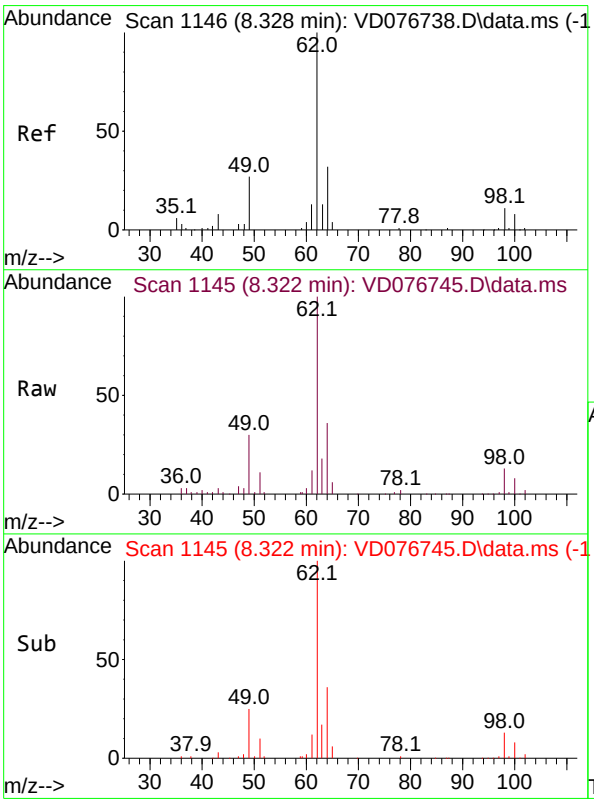
Ion	Ratio	Lower	Upper
41	100		
39	51.6	34.0	51.0#
67	82.4	77.0	115.4
52	32.1	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

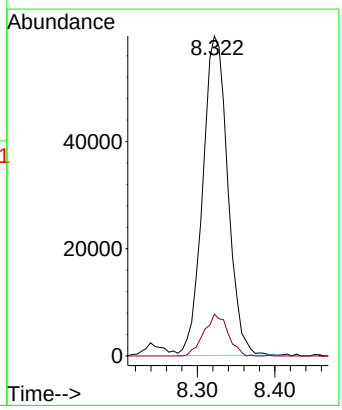
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

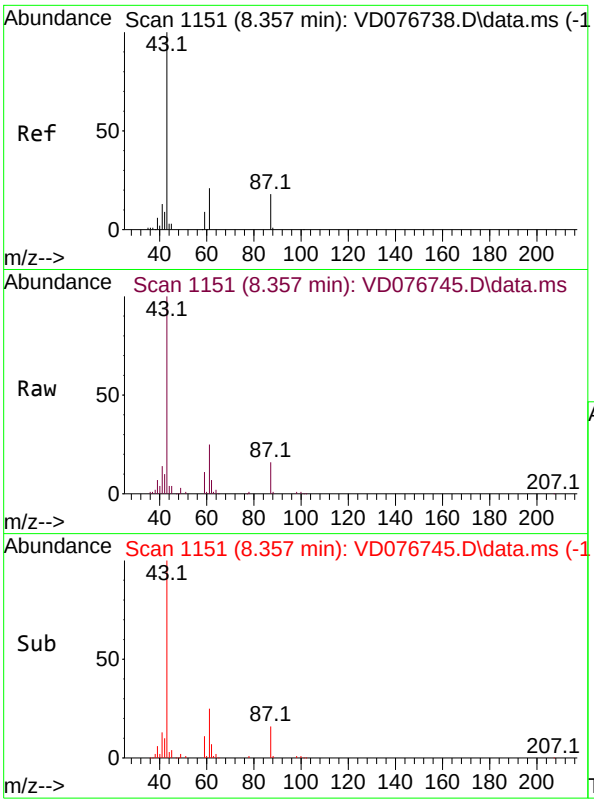


#42
1,2-Dichloroethane
Concen: 52.457 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 62 Resp: 133588

Ion	Ratio	Lower	Upper
62	100		
98	12.6	0.0	25.4





#43
Isopropyl Acetate
Concen: 51.024 ug/l
RT: 8.357 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

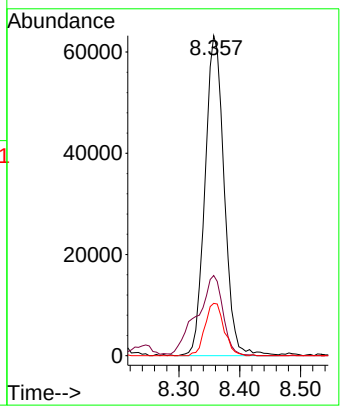
Tgt Ion: 43 Resp: 13833

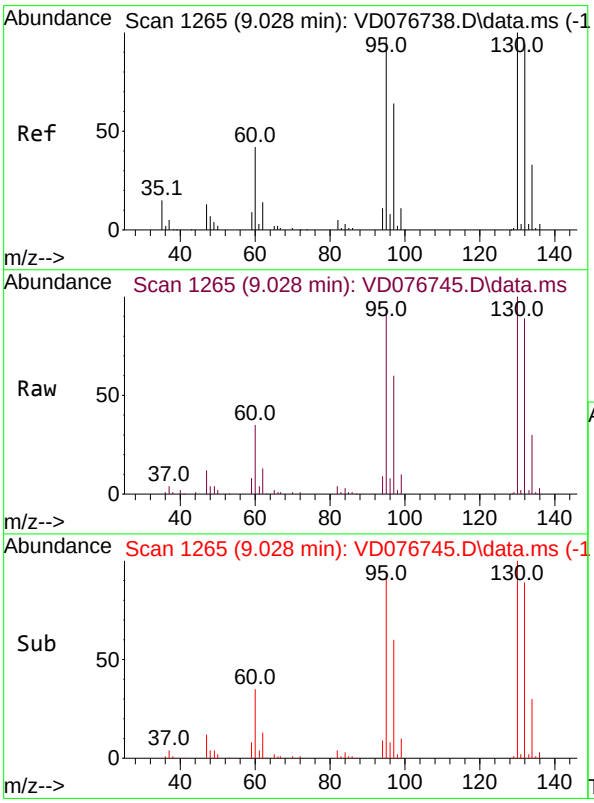
Ion	Ratio	Lower	Upper
43	100		
61	34.1	31.4	47.0
87	16.2	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

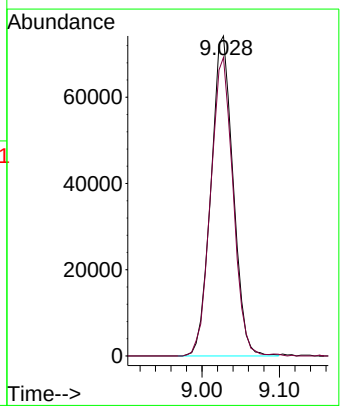


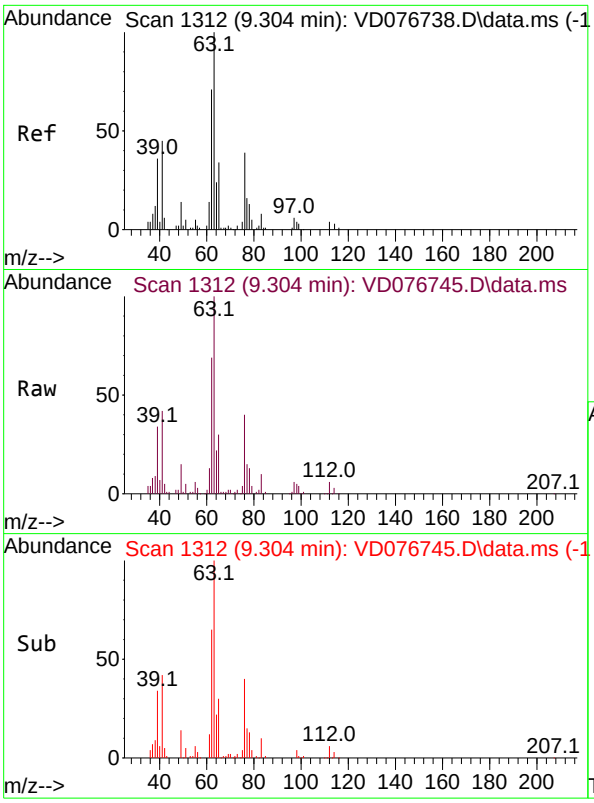


#44
Trichloroethene
Concen: 55.174 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:130 Resp: 147359

Ion	Ratio	Lower	Upper
130	100		
95	93.3	0.0	179.2





#45
1,2-Dichloropropane
Concen: 53.280 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

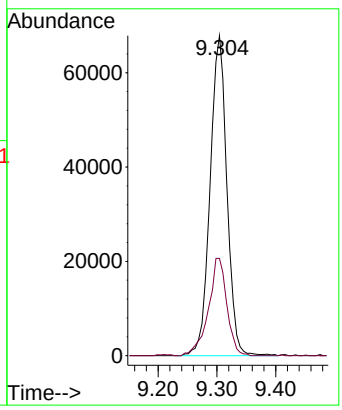
Tgt Ion: 63 Resp: 13479

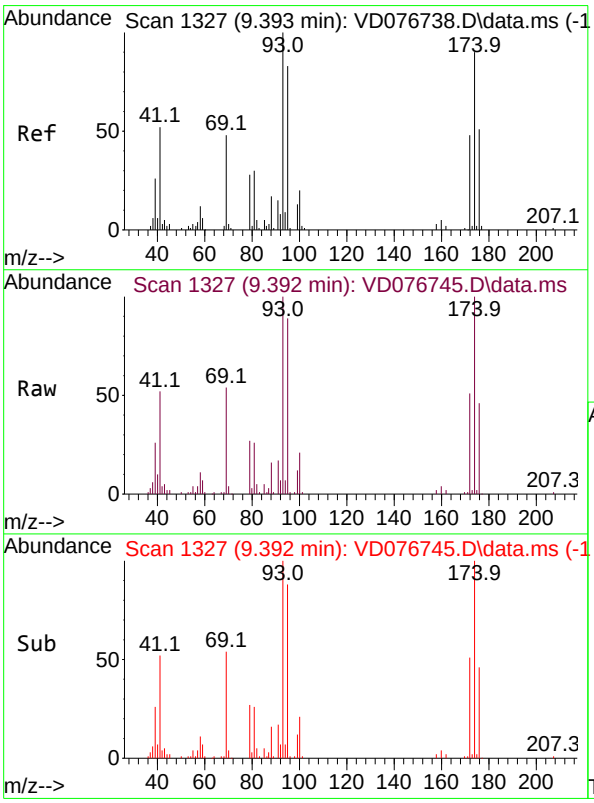
Ion	Ratio	Lower	Upper
63	100		
65	30.4	24.5	36.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

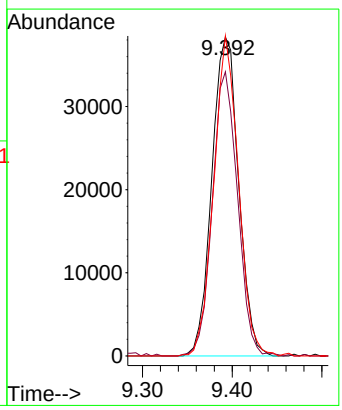


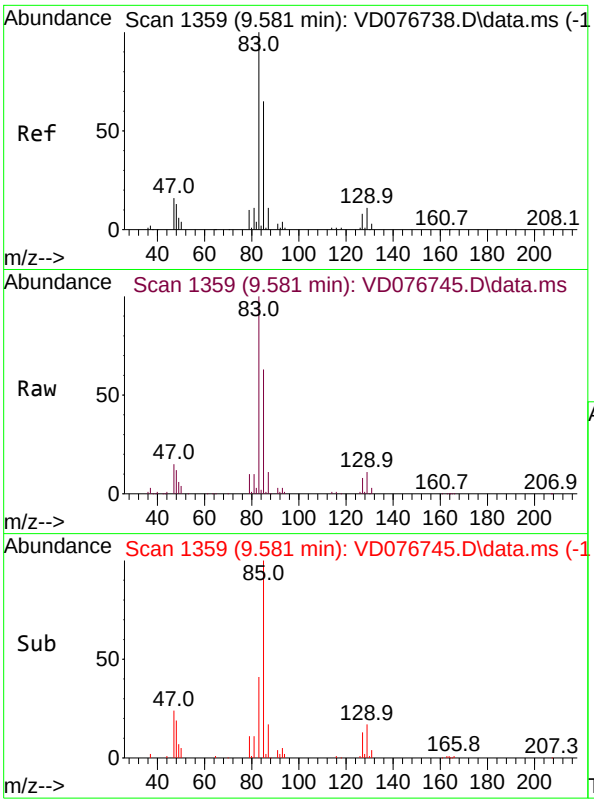


#46
Dibromomethane
Concen: 53.631 ug/l
RT: 9.392 min Scan# 1327
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 93 Resp: 79423

Ion	Ratio	Lower	Upper
93	100		
95	83.9	67.7	101.5
174	92.8	85.4	128.2

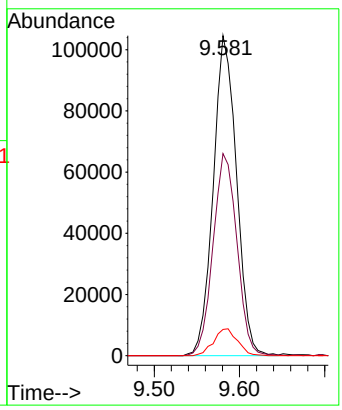




#47
Bromodichloromethane
Concen: 53.477 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 83 Resp: 19873

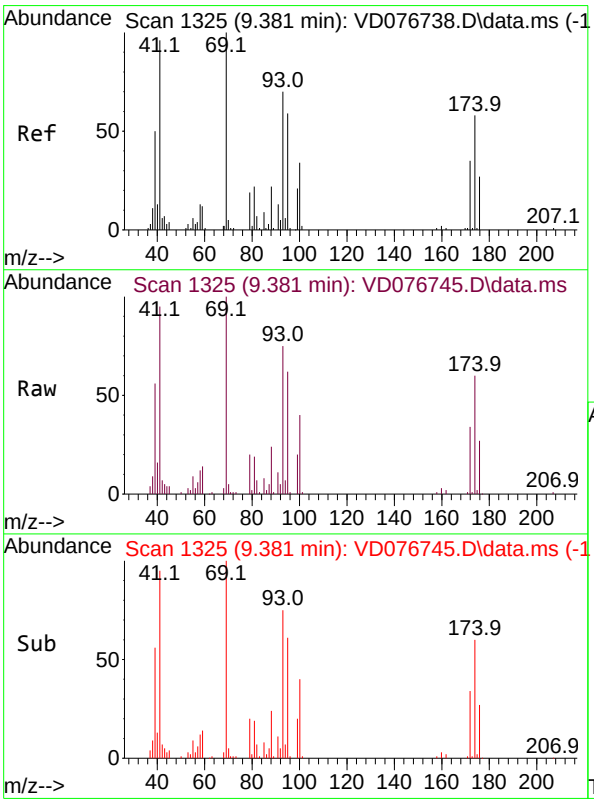
Ion	Ratio	Lower	Upper
83	100		
85	63.2	50.2	75.4
127	8.2	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

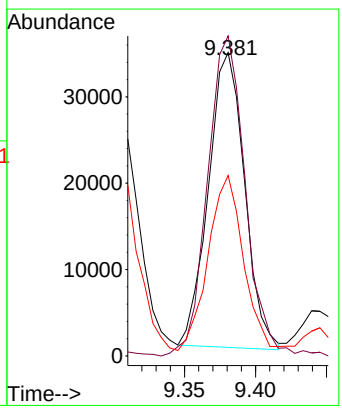
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

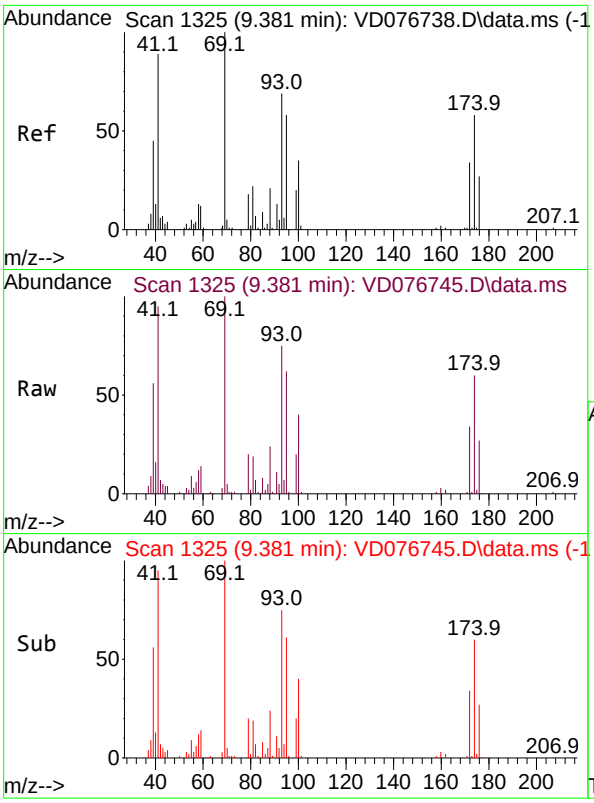


#48
Methyl methacrylate
Concen: 48.843 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 41 Resp: 60268

Ion	Ratio	Lower	Upper
41	100		
69	113.7	102.2	153.2
39	61.3	41.4	62.2





#49
1,4-Dioxane
Concen: 991.059 ug/l
RT: 9.381 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

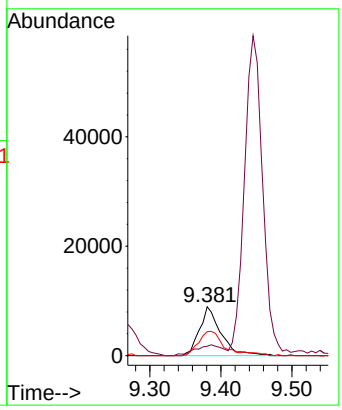
Tgt Ion: 88 Resp: 1880

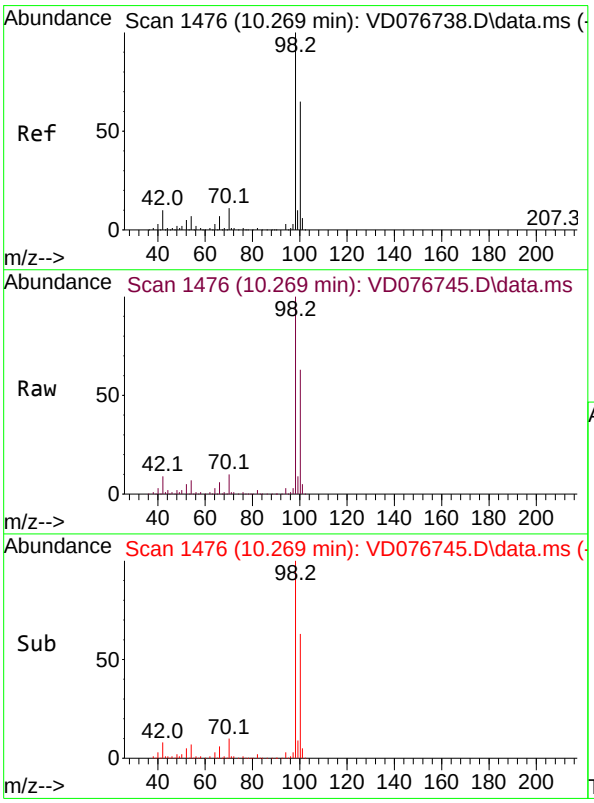
Ion	Ratio	Lower	Upper
88	100		
43	28.2	19.0	28.6
58	60.2	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

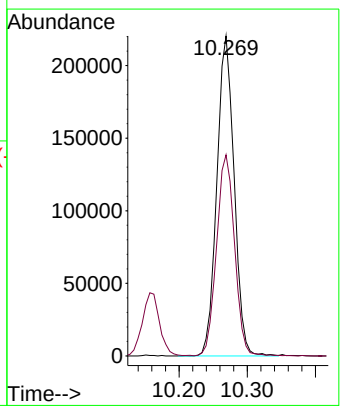


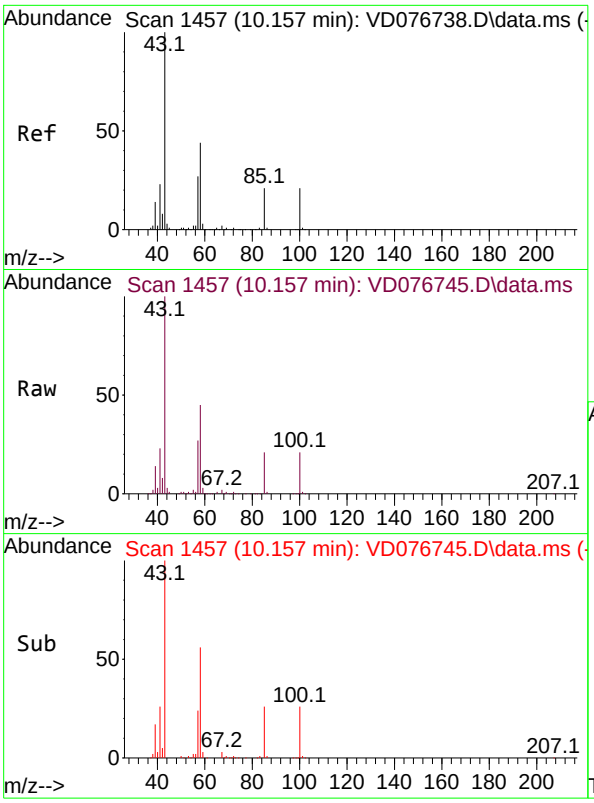


#50
Toluene-d8
Concen: 45.714 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 98 Resp: 388749

Ion	Ratio	Lower	Upper
98	100		
100	65.6	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 252.684 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

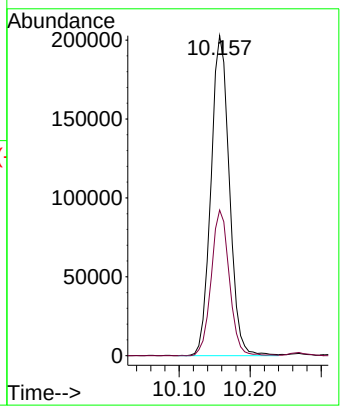
Tgt Ion: 43 Resp: 36474

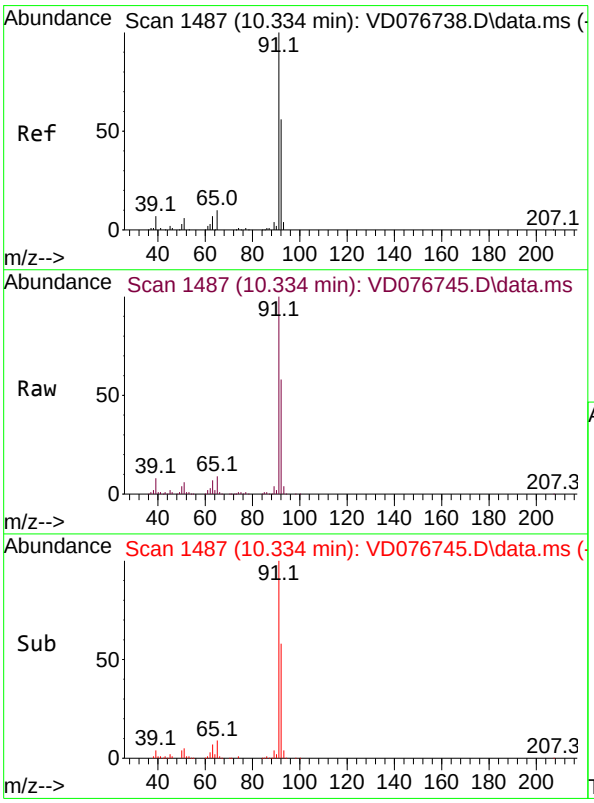
Ion	Ratio	Lower	Upper
43	100		
58	44.7	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

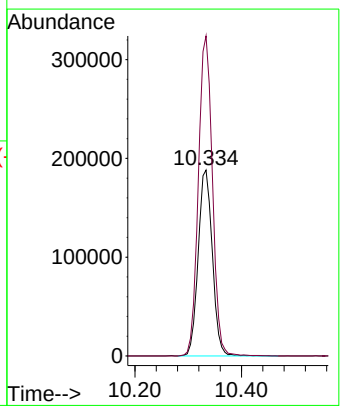


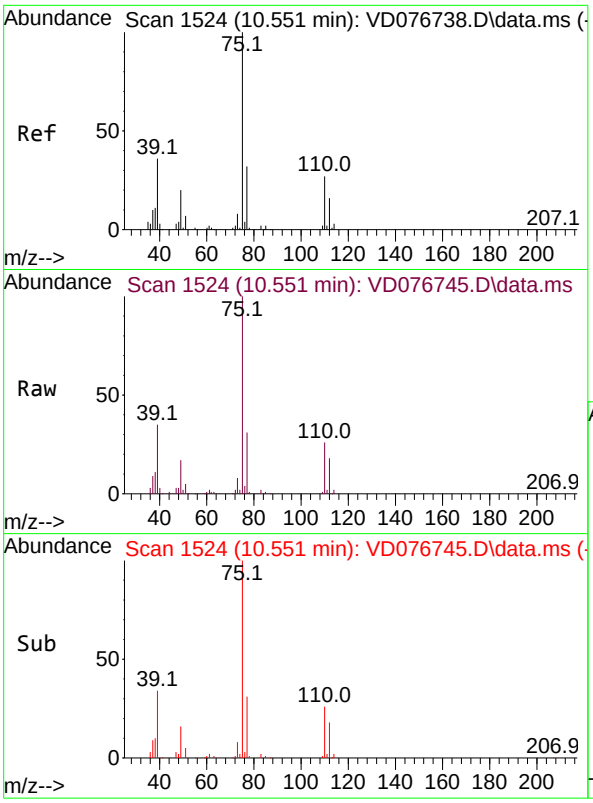


#52
Toluene
Concen: 53.919 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 92 Resp: 347087

Ion	Ratio	Lower	Upper
92	100		
91	170.9	143.0	214.4

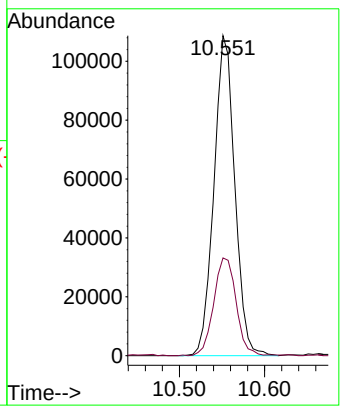




#53
t-1,3-Dichloropropene
Concen: 53.561 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 75 Resp: 18475

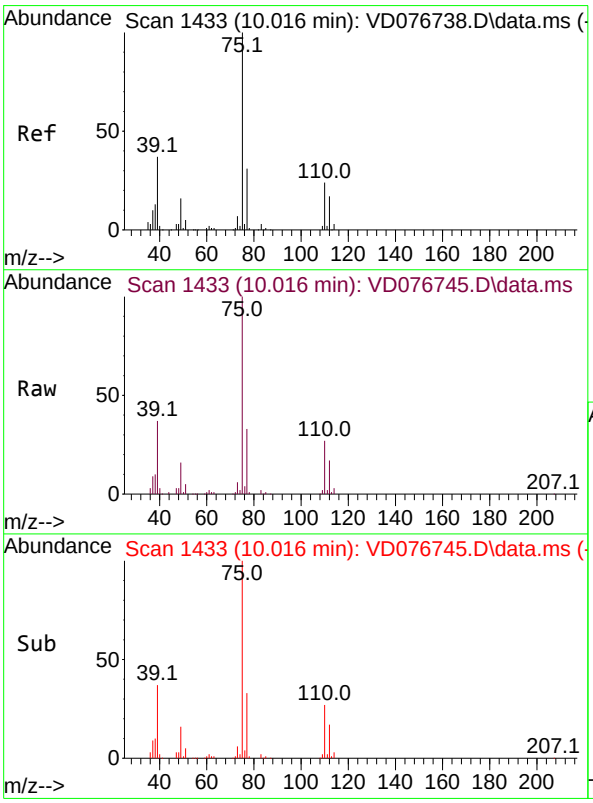
Ion	Ratio	Lower	Upper
75	100		
77	30.5	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

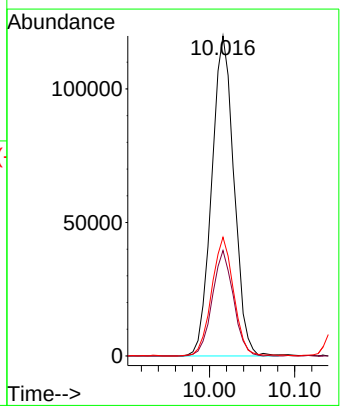
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

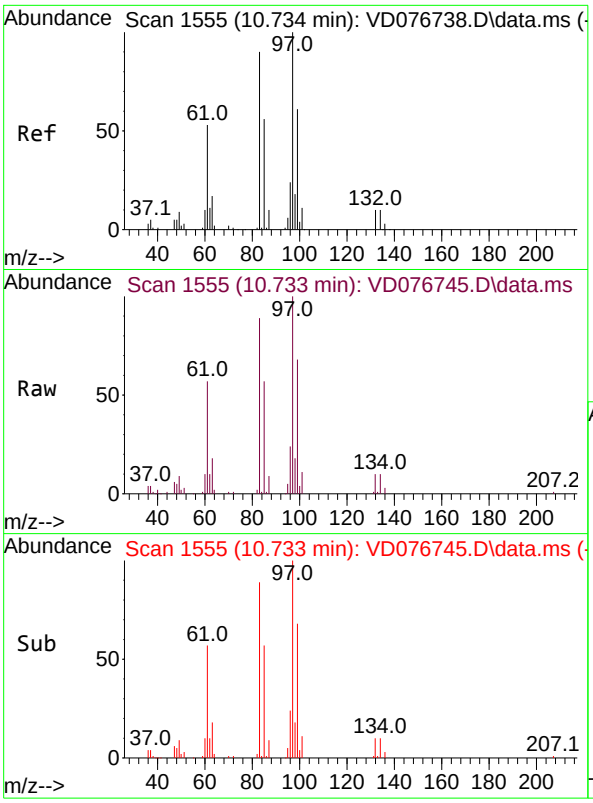


#54
cis-1,3-Dichloropropene
Concen: 53.486 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 75 Resp: 217439

Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.5	38.3
39	37.1	22.1	33.1#

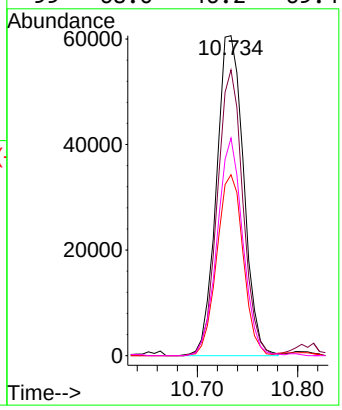




#55
1,1,2-Trichloroethane
Concen: 52.584 ug/l
RT: 10.733 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 97 Resp: 11371

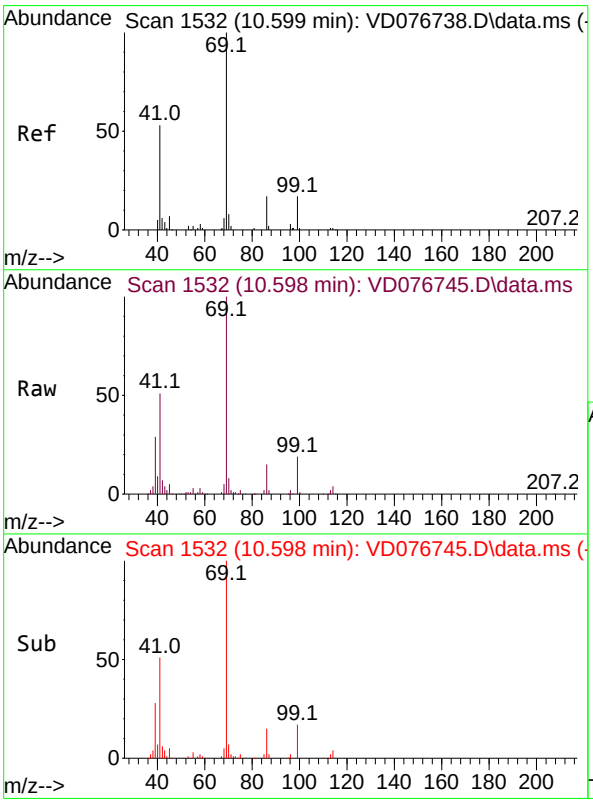
Ion	Ratio	Lower	Upper
97	100		
83	89.3	65.8	98.6
85	56.5	45.7	68.5
99	68.0	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

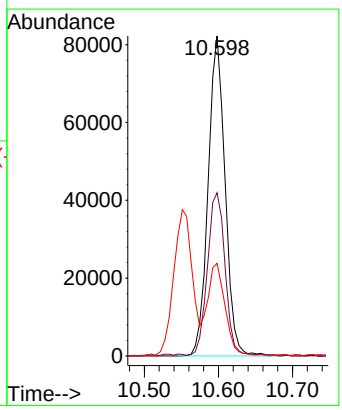
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

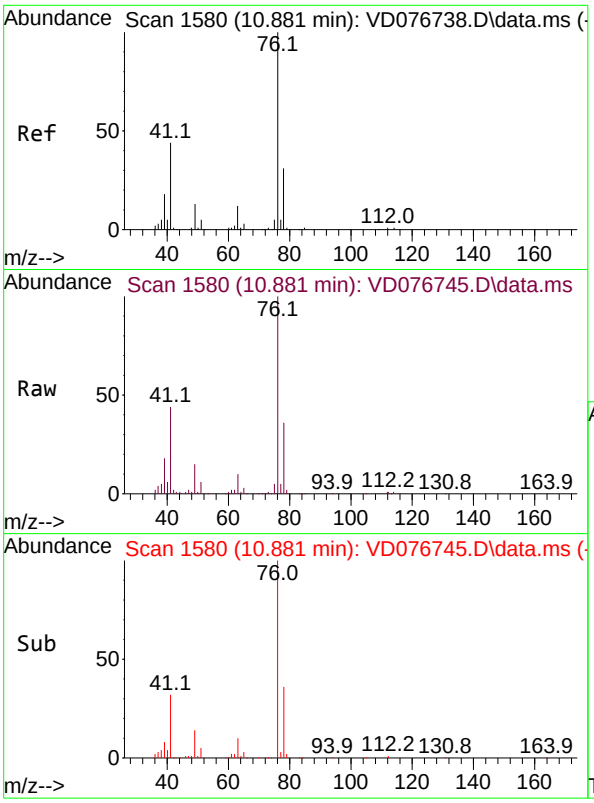


#56
Ethyl methacrylate
Concen: 52.356 ug/l
RT: 10.598 min Scan# 1532
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 69 Resp: 130678

Ion	Ratio	Lower	Upper
69	100		
41	52.7	39.1	58.7
39	29.8	20.0	30.0





#57
1,3-Dichloropropane
Concen: 51.862 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

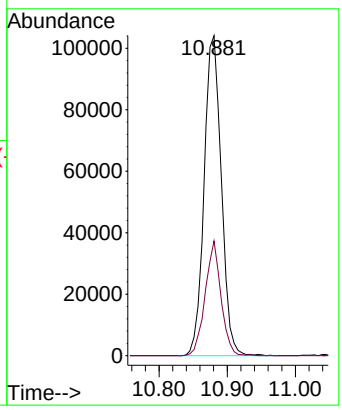
Tgt Ion: 76 Resp: 18264

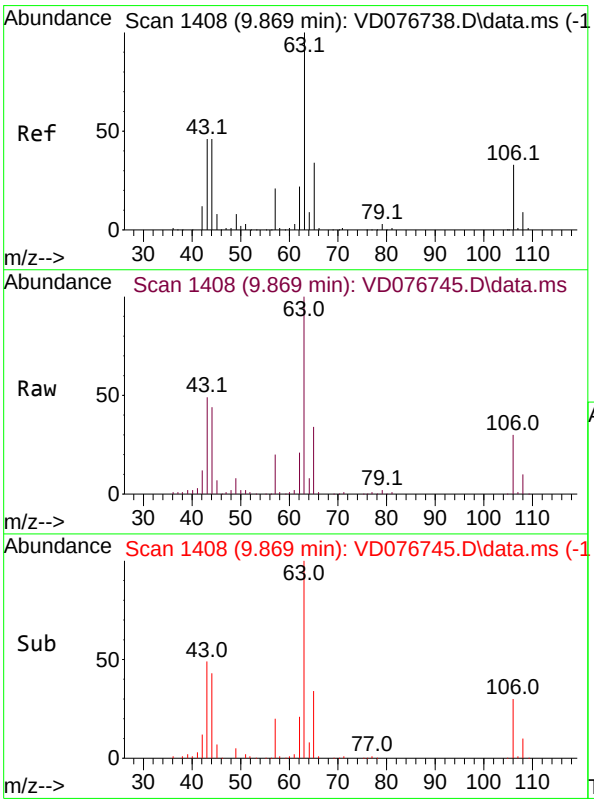
Ion	Ratio	Lower	Upper
76	100		
78	33.0	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

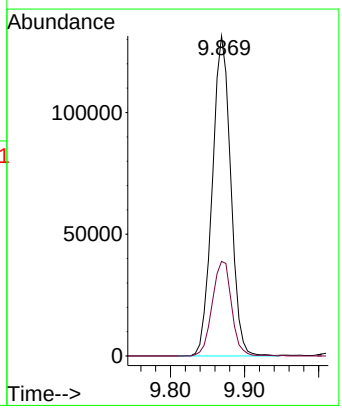


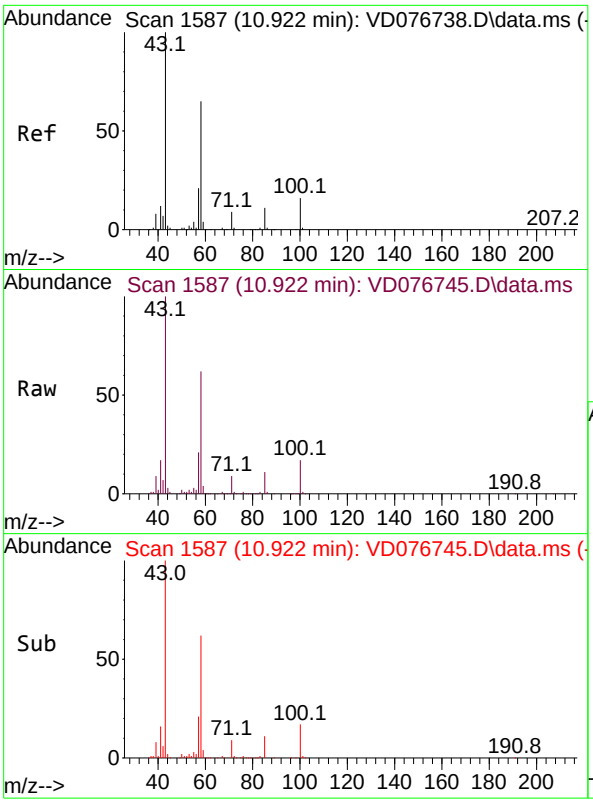


#58
2-Chloroethyl Vinyl ether
Concen: 235.116 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 63 Resp: 227154

Ion	Ratio	Lower	Upper
63	100		
106	31.0	25.3	37.9





#59
2-Hexanone
Concen: 266.781 ug/l
RT: 10.922 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

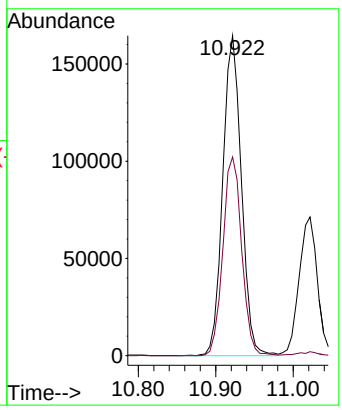
Tgt Ion: 43 Resp: 27477

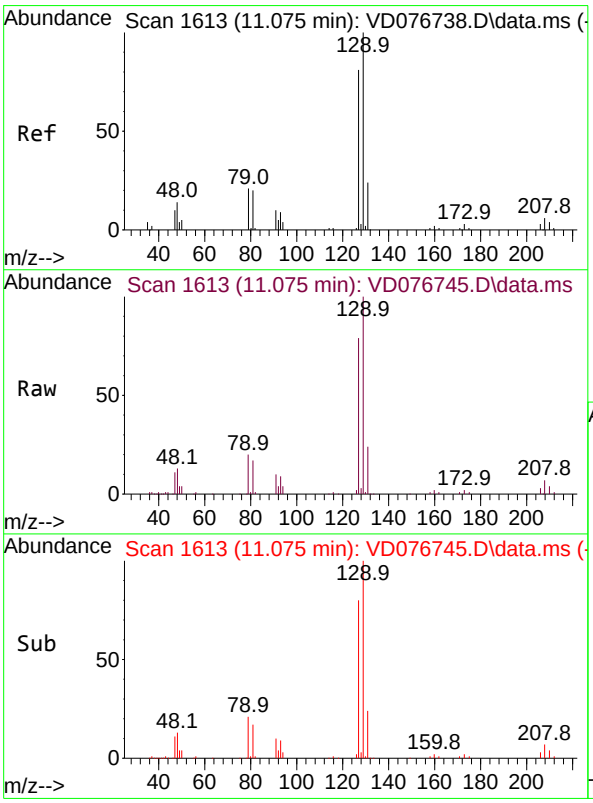
Ion	Ratio	Lower	Upper
43	100		
58	62.8	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

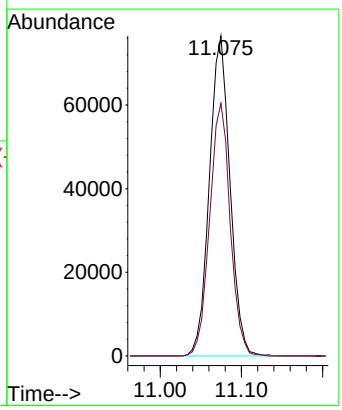


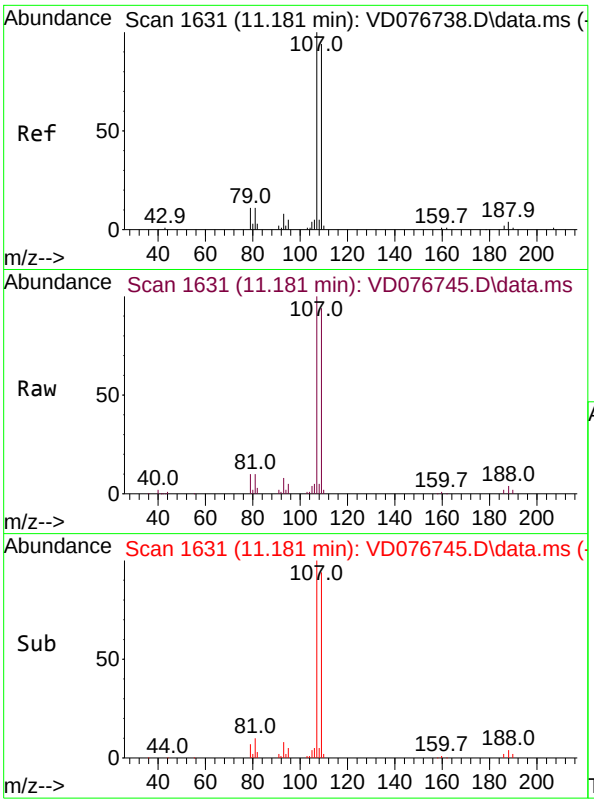


#60
Dibromochloromethane
Concen: 53.737 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:129 Resp: 134997

Ion	Ratio	Lower	Upper
129	100		
127	78.5	37.1	111.5





#61
1,2-Dibromoethane
Concen: 52.040 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

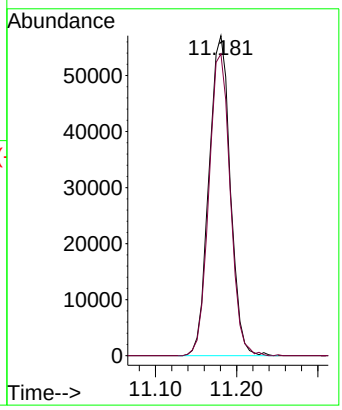
Tgt Ion:107 Resp: 10433

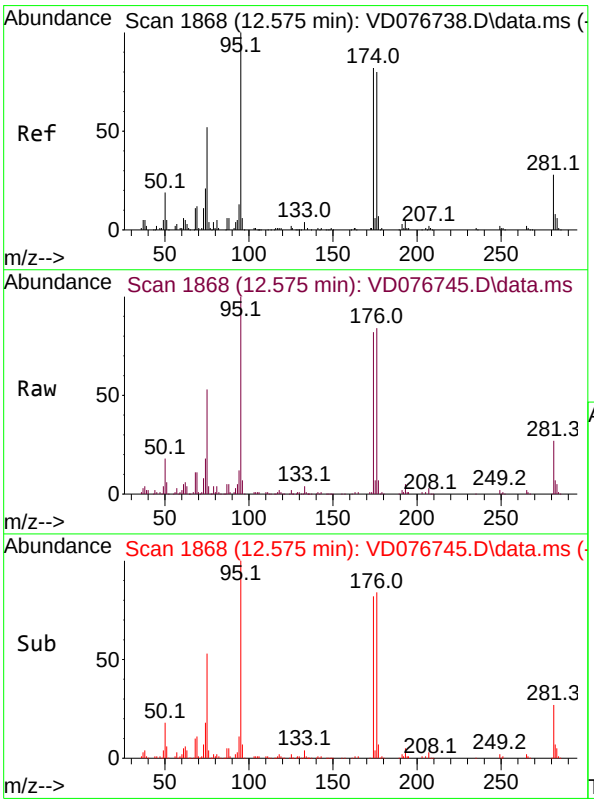
Ion	Ratio	Lower	Upper
107	100		
109	94.0	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

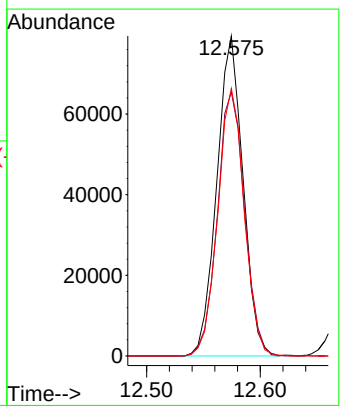


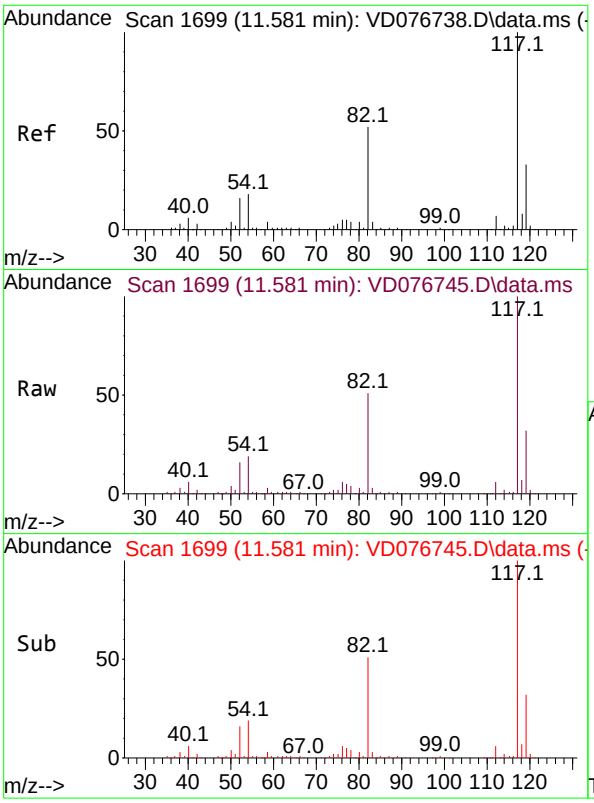


#62
4-Bromofluorobenzene
Concen: 46.146 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 95 Resp: 126950

Ion	Ratio	Lower	Upper
95	100		
174	85.8	0.0	201.8
176	84.5	0.0	191.8

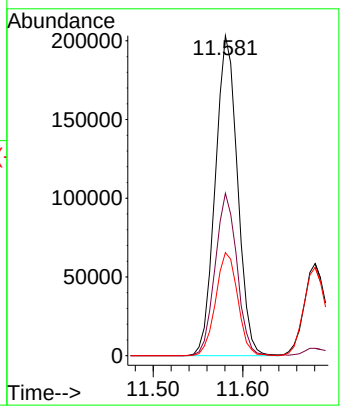




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:117 Resp: 34928

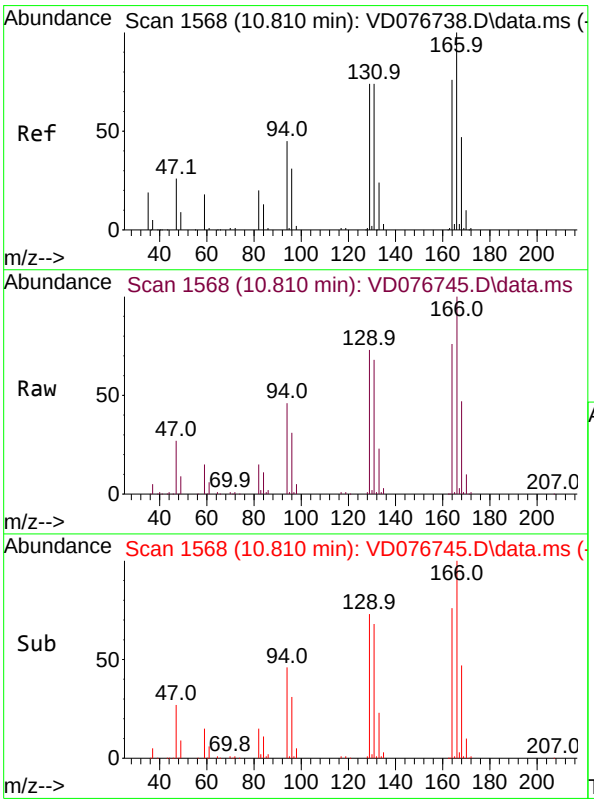
Ion	Ratio	Lower	Upper
117	100		
82	50.7	38.3	57.5
119	32.2	25.0	37.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

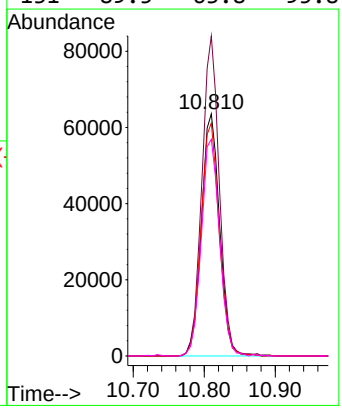
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

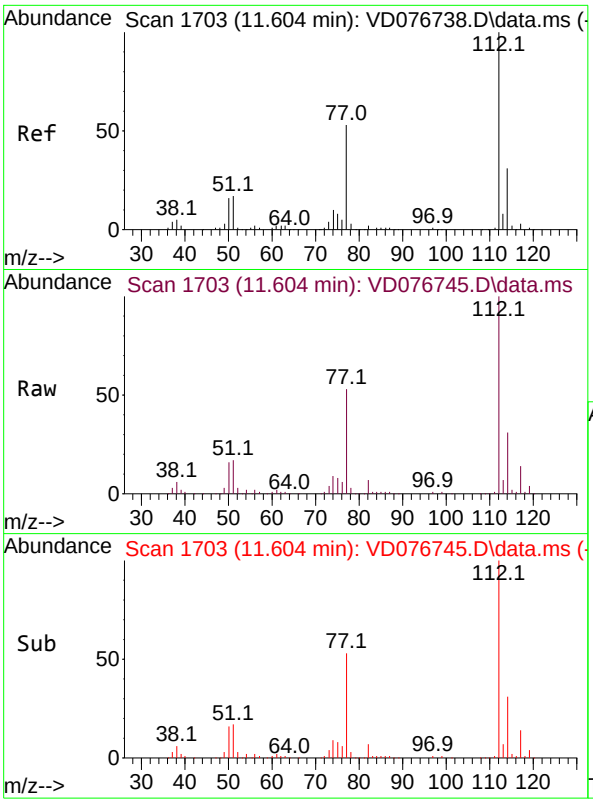


#64
Tetrachloroethene
Concen: 57.113 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:164 Resp: 113752

Ion	Ratio	Lower	Upper
164	100		
166	132.2	99.2	148.8
129	96.2	68.4	102.6
131	89.5	63.8	95.8

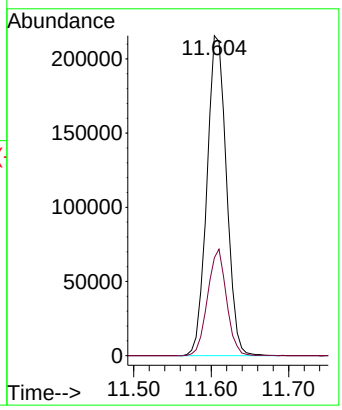




#65
Chlorobenzene
Concen: 53.874 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:112 Resp: 37846

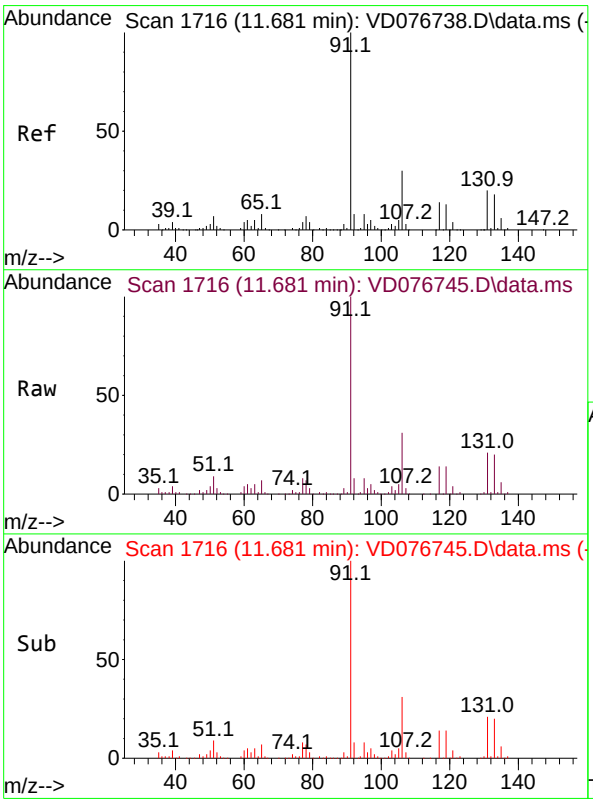
Ion	Ratio	Lower	Upper
112	100		
114	30.6	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

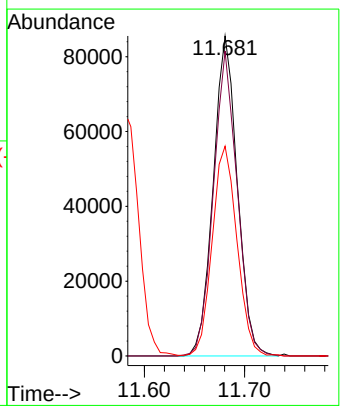
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

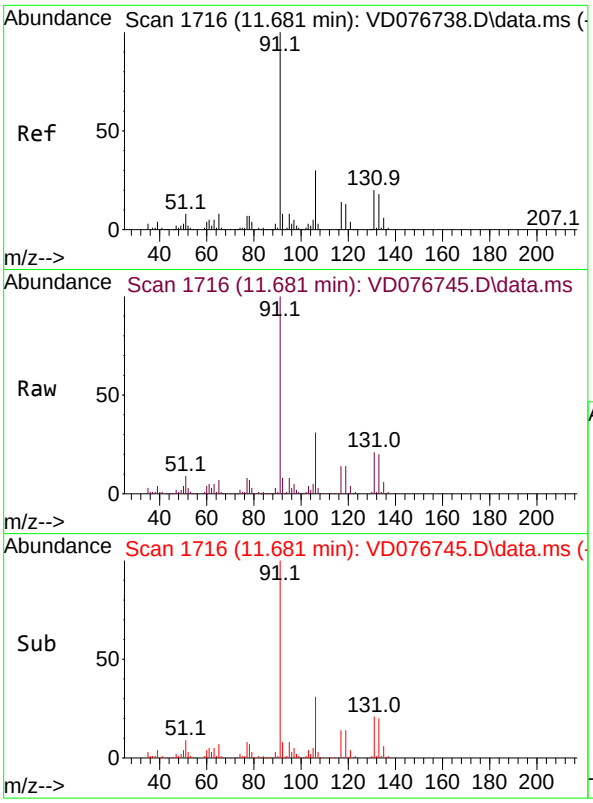


#66
1,1,1,2-Tetrachloroethane
Concen: 54.638 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:131 Resp: 142900

Ion	Ratio	Lower	Upper
131	100		
133	93.9	48.5	145.5
119	67.4	35.6	106.9





#67
Ethyl Benzene
Concen: 54.483 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

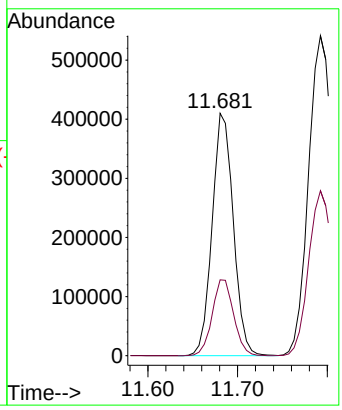
Tgt Ion: 91 Resp: 67216

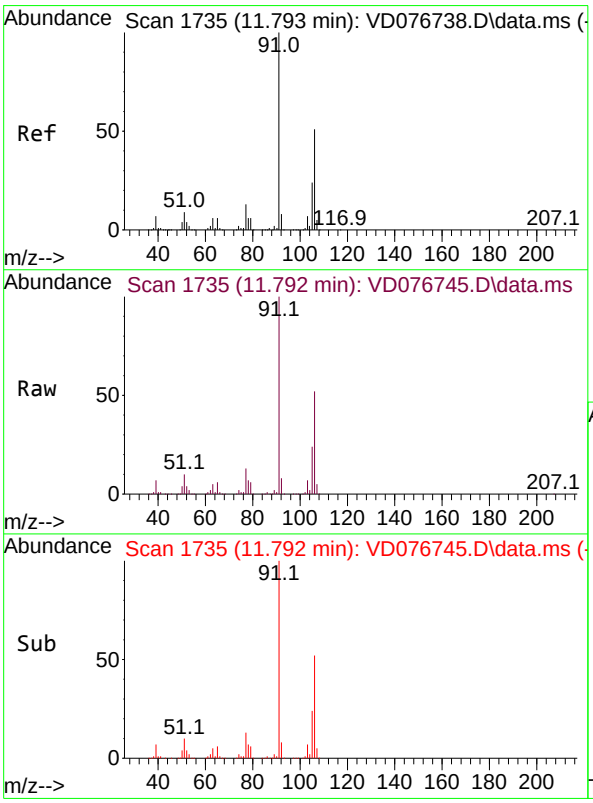
Ion	Ratio	Lower	Upper
91	100		
106	31.3	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

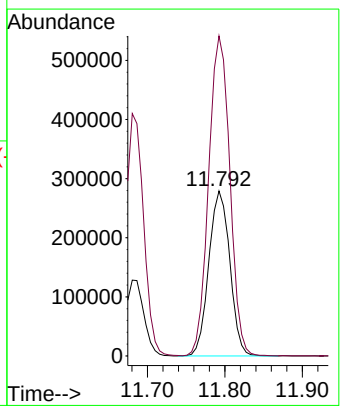


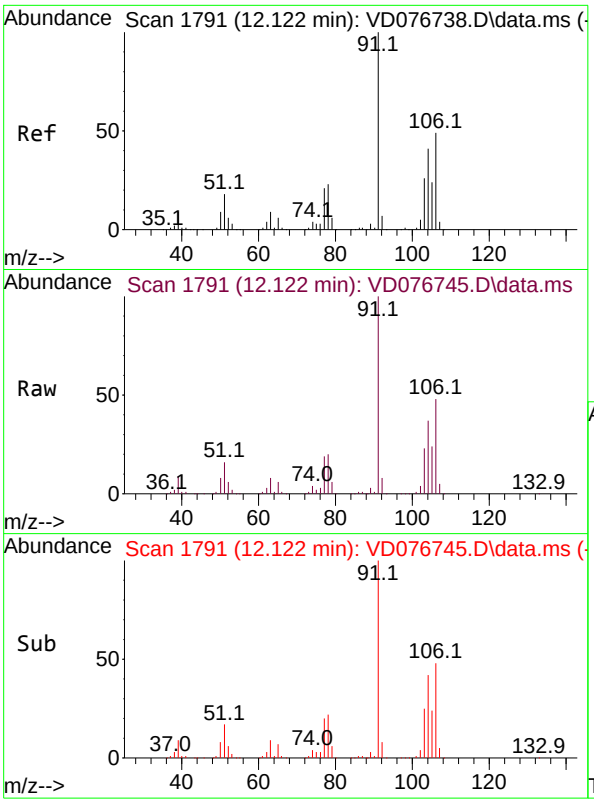


#68
m/p-Xylenes
Concen: 111.009 ug/l
RT: 11.792 min Scan# 1735
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:106 Resp: 525979

Ion	Ratio	Lower	Upper
106	100		
91	195.7	147.0	220.6

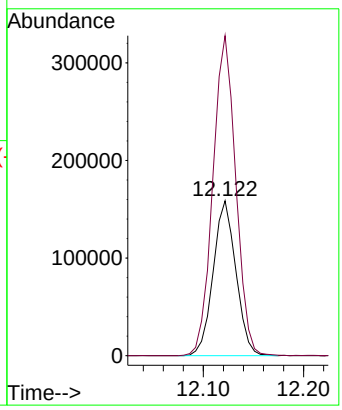




#69
o-Xylene
Concen: 54.546 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:106 Resp: 24992

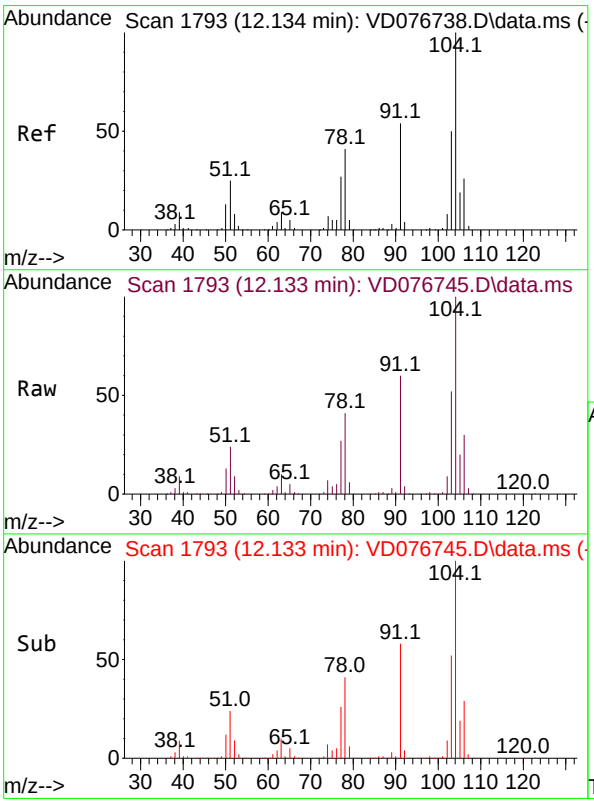
Ion	Ratio	Lower	Upper
106	100		
91	208.6	97.9	293.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

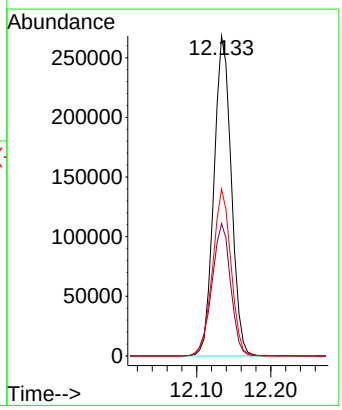
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

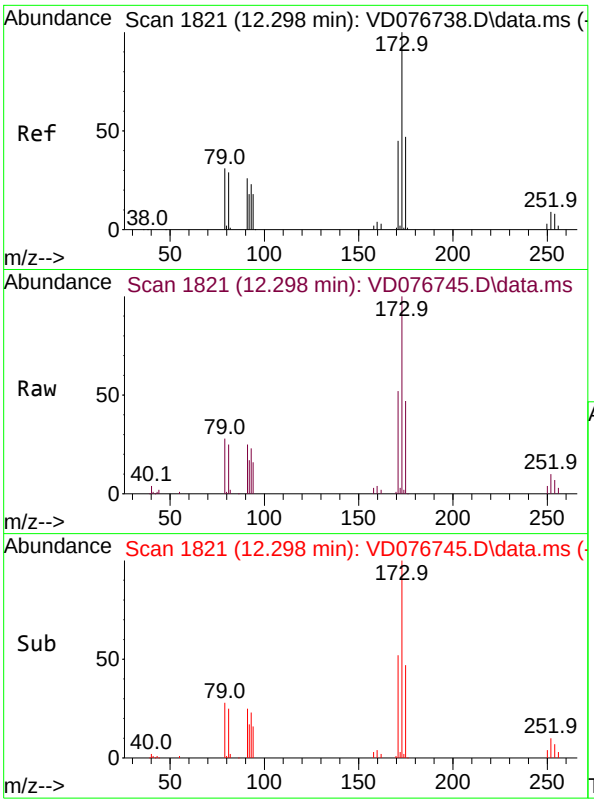


#70
Styrene
Concen: 54.418 ug/l
RT: 12.133 min Scan# 1793
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:104 Resp: 436478

Ion	Ratio	Lower	Upper
104	100		
78	44.6	33.2	49.8
103	55.0	43.6	65.4





#71
Bromoform
Concen: 55.923 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

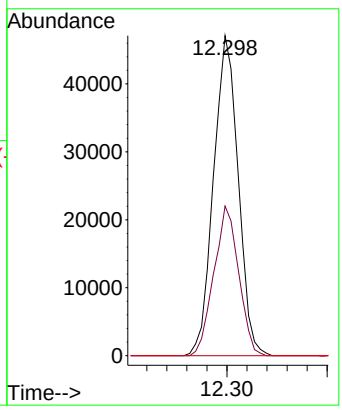
Tgt Ion:173 Resp: 8010

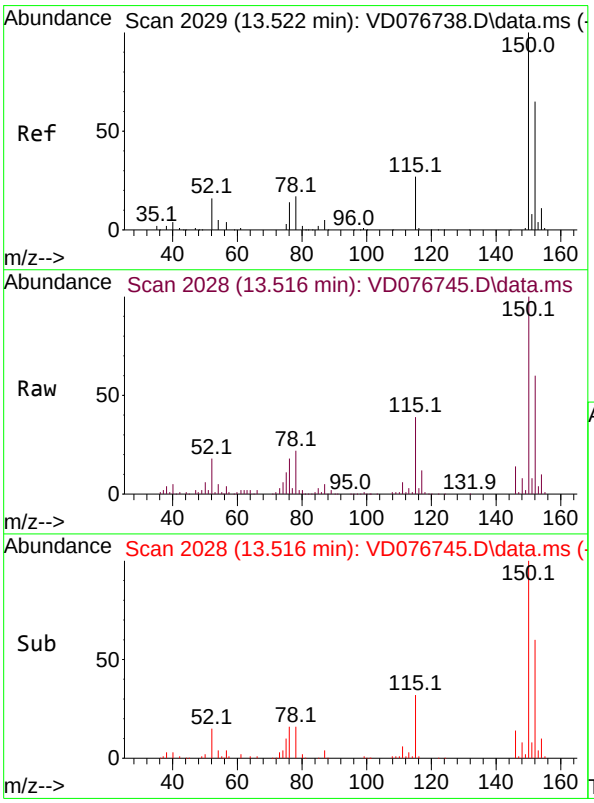
Ion	Ratio	Lower	Upper
173	100		
175	47.1	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

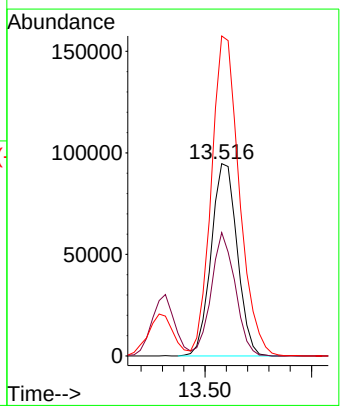


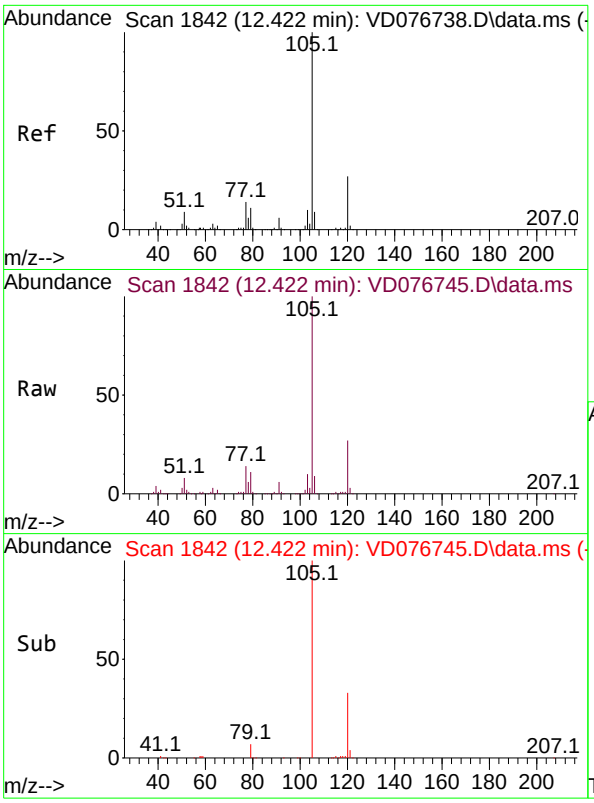


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:152 Resp: 160211

Ion	Ratio	Lower	Upper
152	100		
115	59.1	27.1	81.3
150	178.7	0.0	353.6

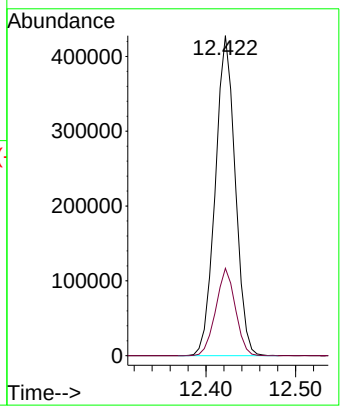




#73
Isopropylbenzene
Concen: 56.715 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:105 Resp: 65923

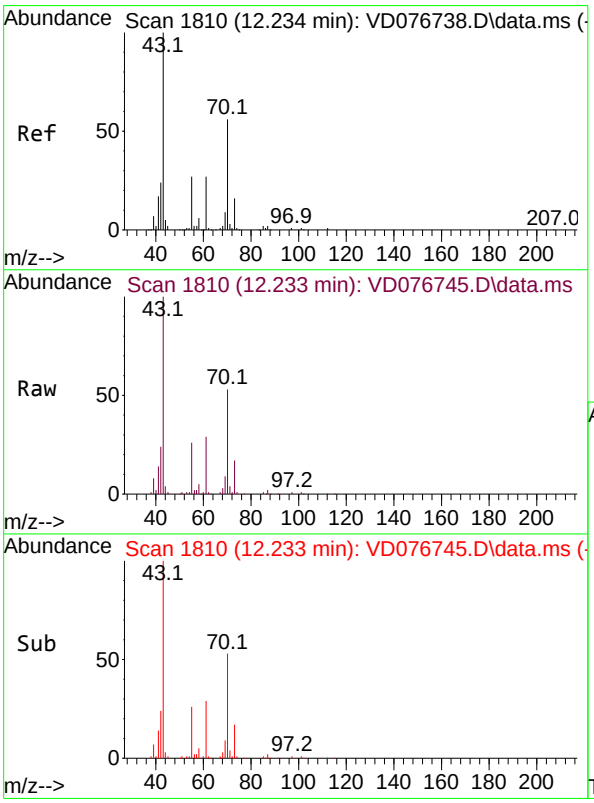
Ion	Ratio	Lower	Upper
105	100		
120	26.7	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

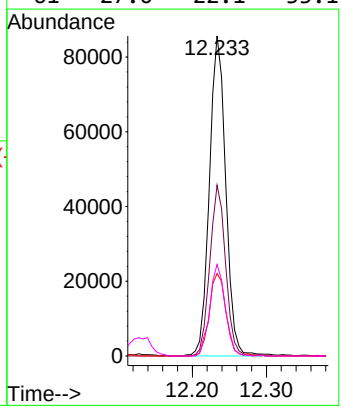
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

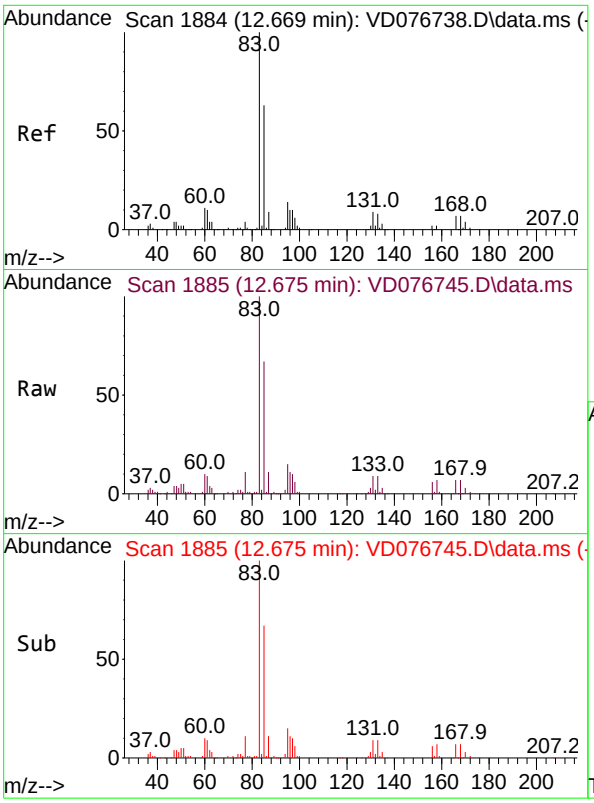


#74
N-amyl acetate
Concen: 53.576 ug/l
RT: 12.233 min Scan# 1810
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 43 Resp: 131194

Ion	Ratio	Lower	Upper
43	100		
70	51.6	45.0	67.4
55	26.1	23.8	35.6
61	27.0	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 52.239 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

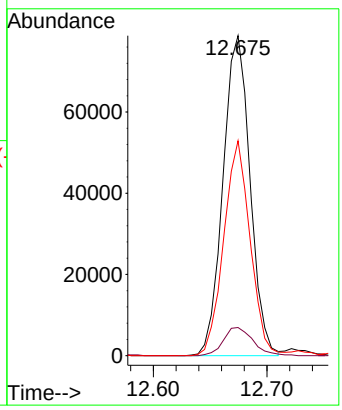
Tgt Ion: 83 Resp: 13037

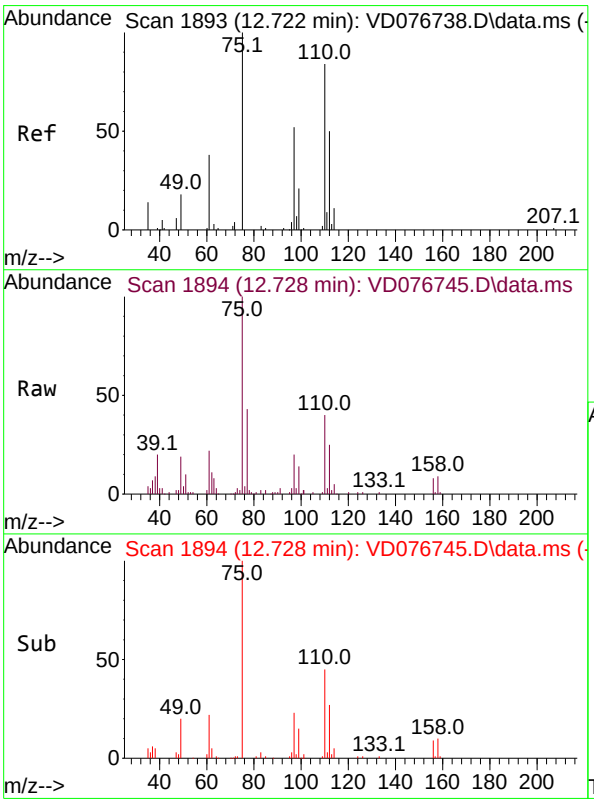
Ion	Ratio	Lower	Upper
83	100		
131	9.7	5.1	15.3
85	65.5	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

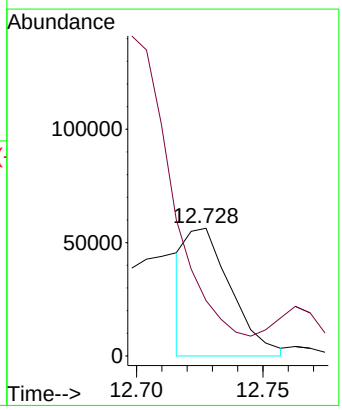


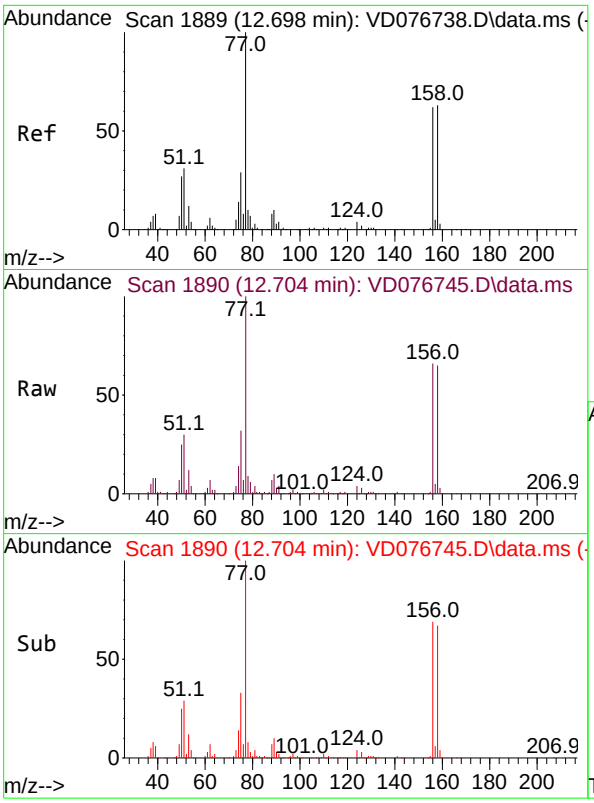


#76
1,2,3-Trichloropropane
Concen: 45.620 ug/l m
RT: 12.728 min Scan# 1894
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 75 Resp: 69506

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 55.665 ug/l
RT: 12.704 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

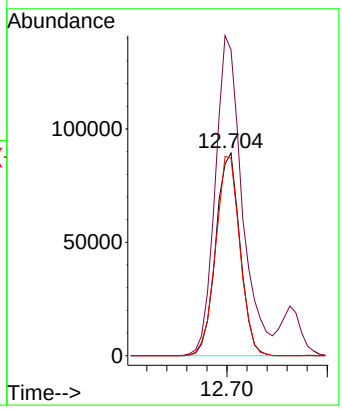
Tgt Ion:156 Resp: 14934

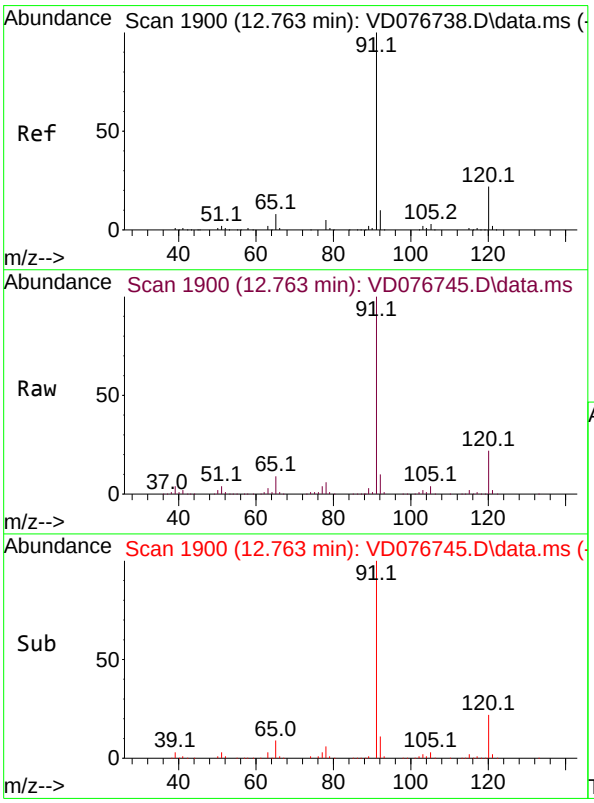
Ion	Ratio	Lower	Upper
156	100		
77	175.9	76.8	230.4
158	99.0	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

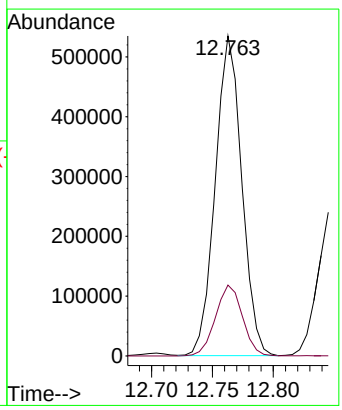


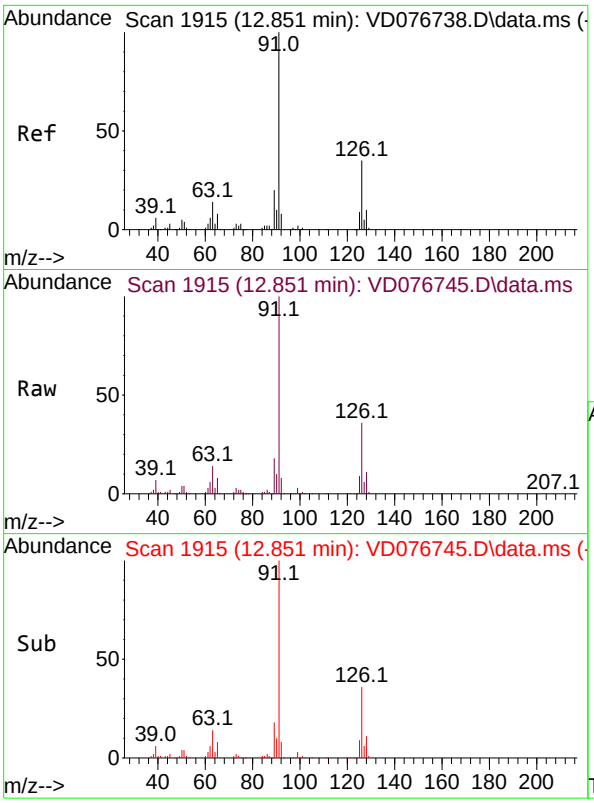


#78
n-propylbenzene
Concen: 57.391 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 91 Resp: 808722

Ion	Ratio	Lower	Upper
91	100		
120	22.5	12.4	37.2





#79
2-Chlorotoluene
Concen: 56.227 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

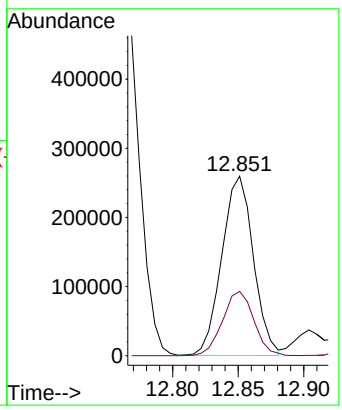
Tgt Ion: 91 Resp: 43444

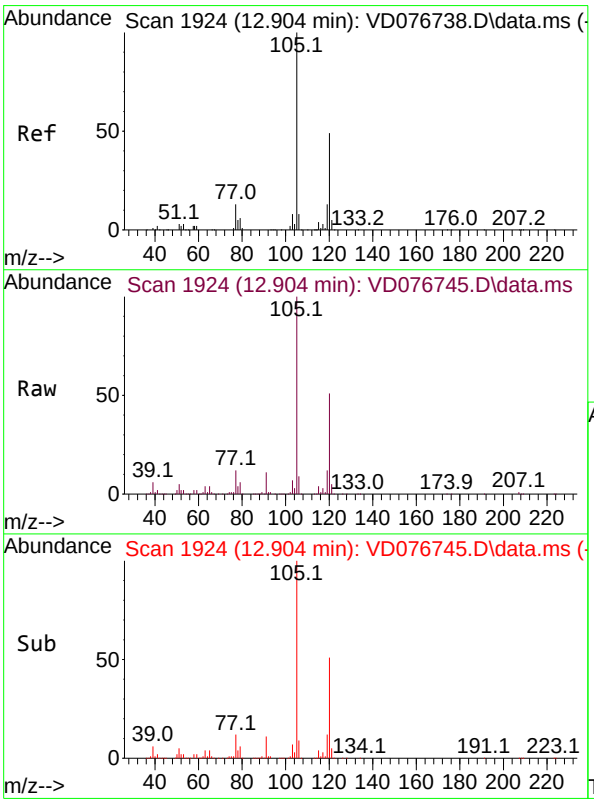
Ion	Ratio	Lower	Upper
91	100		
126	35.6	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

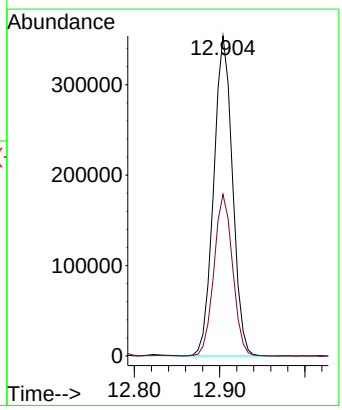


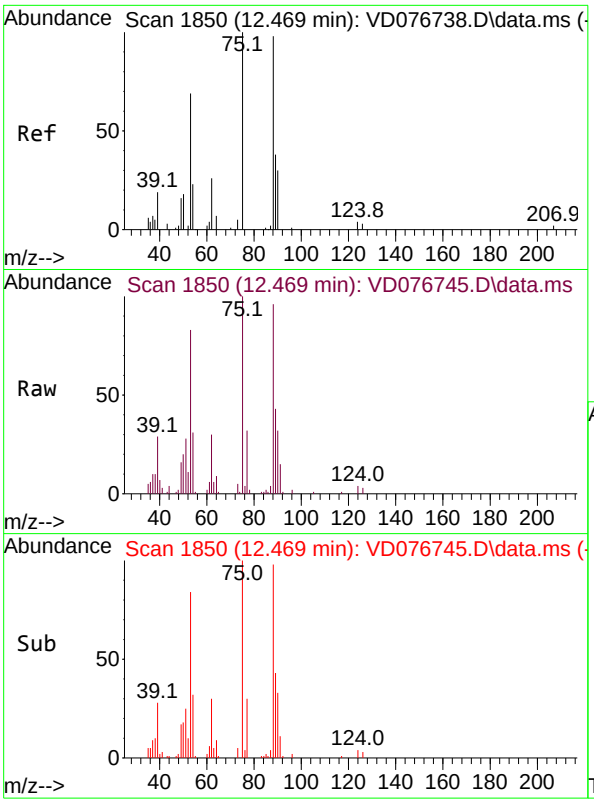


#80
1,3,5-Trimethylbenzene
Concen: 57.707 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:105 Resp: 542377

Ion	Ratio	Lower	Upper
105	100		
120	50.0	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 55.582 ug/l
RT: 12.469 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

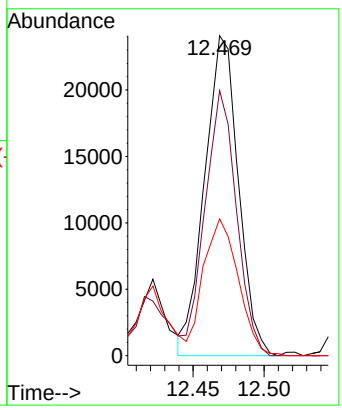
Tgt Ion: 75 Resp: 3979

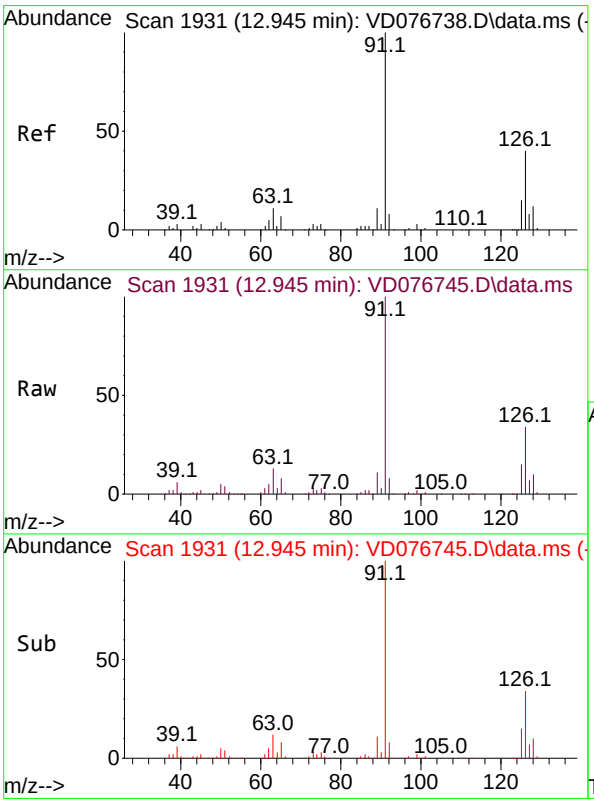
Ion	Ratio	Lower	Upper
75	100		
53	77.8	63.0	94.4
89	44.1	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

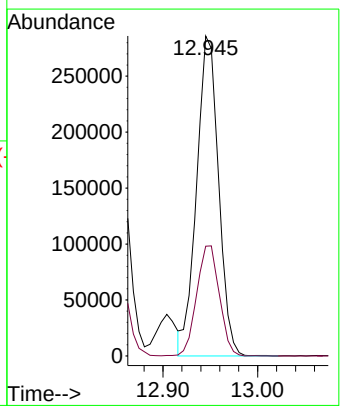


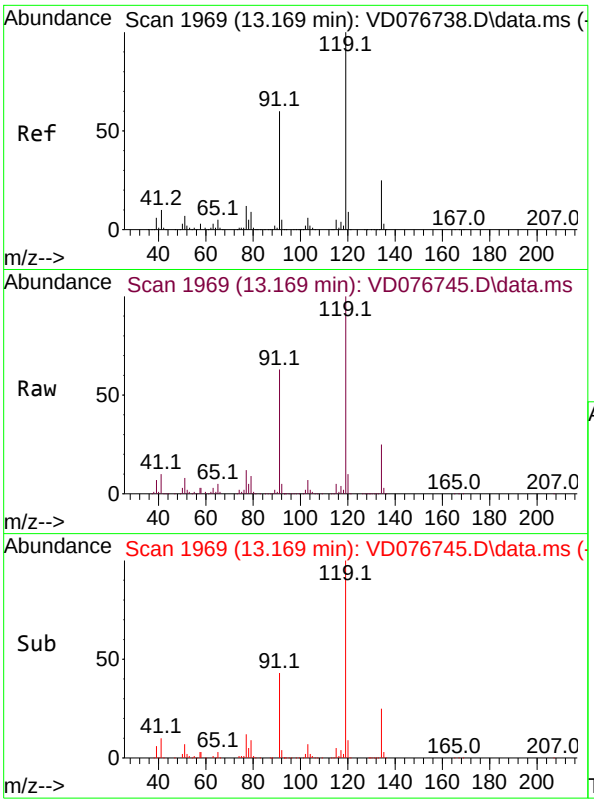


#82
4-Chlorotoluene
Concen: 57.022 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 91 Resp: 460263

Ion	Ratio	Lower	Upper
91	100		
126	35.6	19.4	58.4

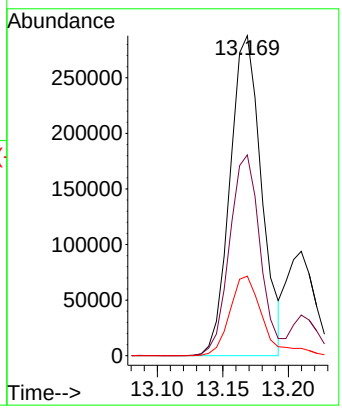




#83
tert-Butylbenzene
Concen: 58.176 ug/l
RT: 13.169 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:119 Resp: 48143

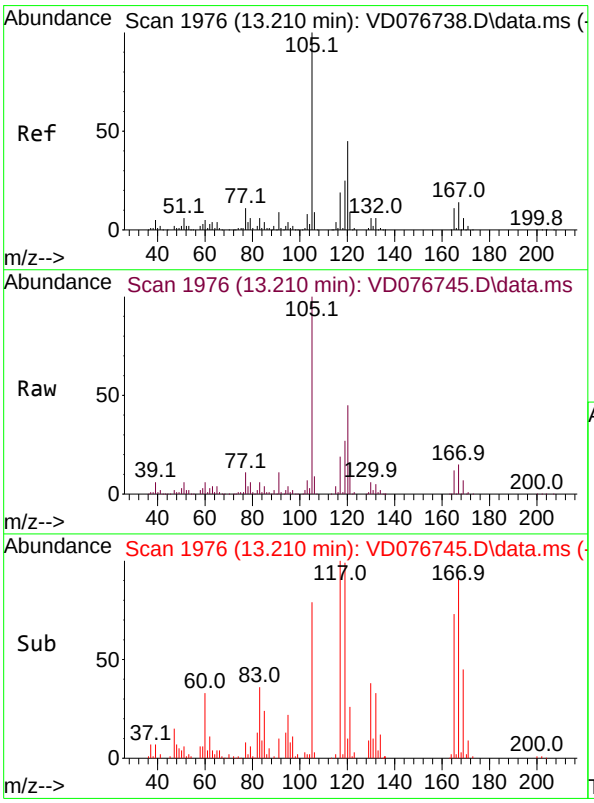
Ion	Ratio	Lower	Upper
119	100		
91	60.6	29.3	87.8
134	26.3	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

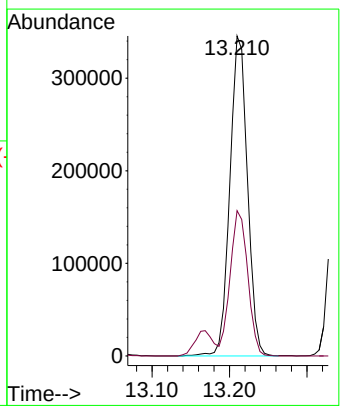
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

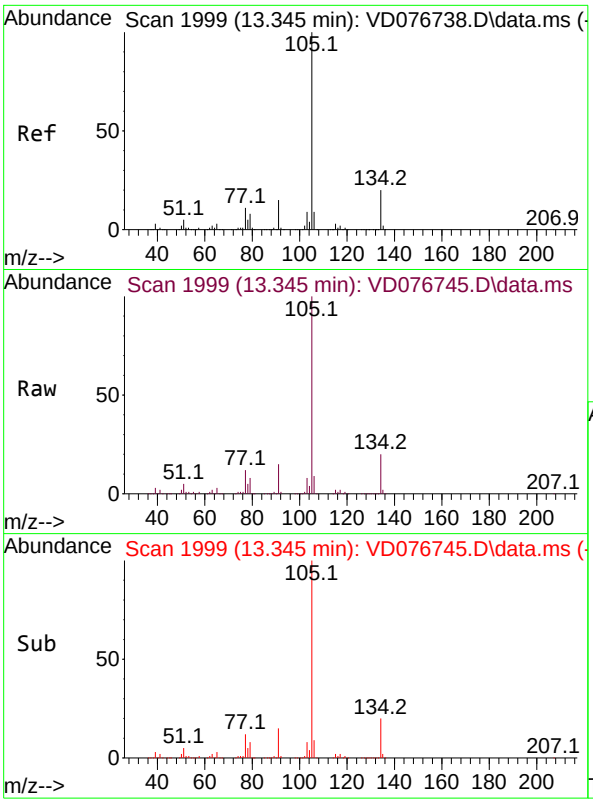


#84
1,2,4-Trimethylbenzene
Concen: 56.691 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:105 Resp: 544496

Ion	Ratio	Lower	Upper
105	100		
120	45.3	24.3	72.9





#85
sec-Butylbenzene
Concen: 57.382 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

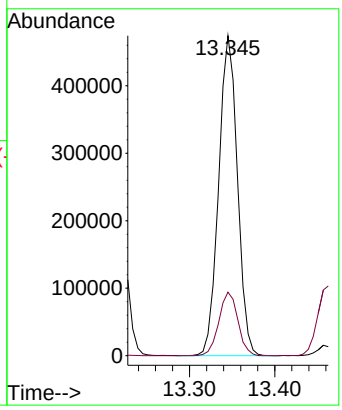
Tgt Ion:105 Resp: 72551

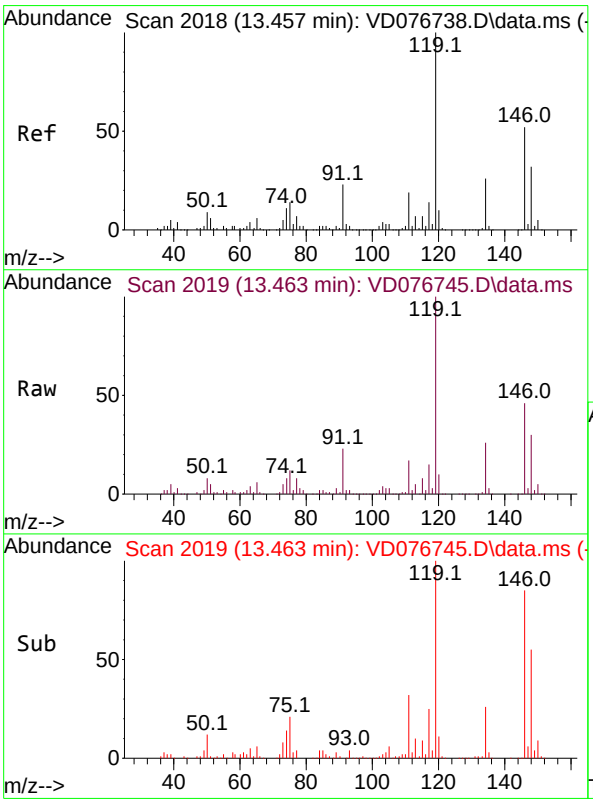
Ion	Ratio	Lower	Upper
105	100		
134	20.1	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

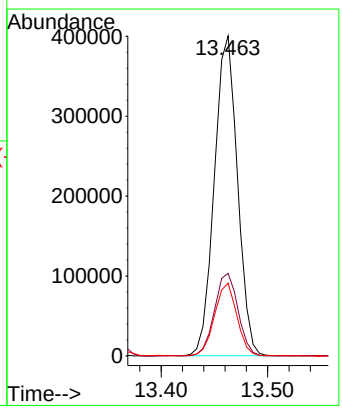


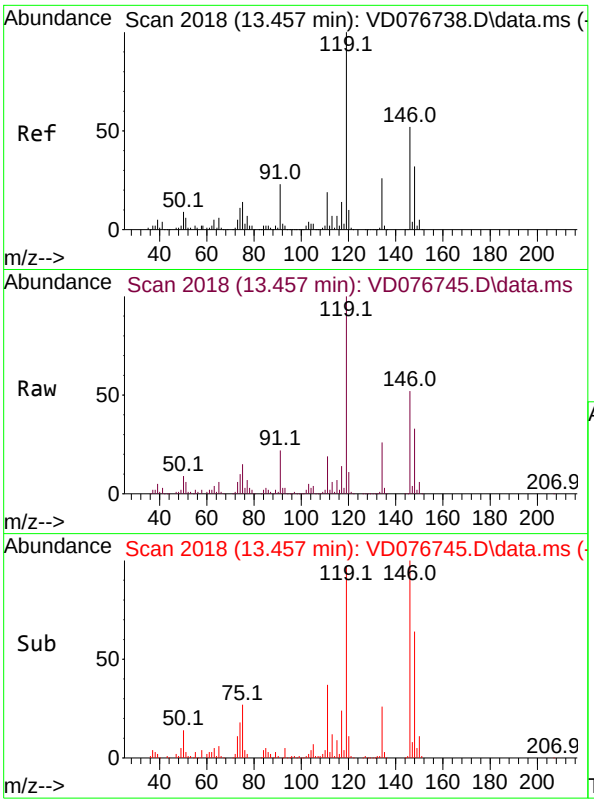


#86
p-Isopropyltoluene
Concen: 57.678 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:119 Resp: 602270

Ion	Ratio	Lower	Upper
119	100		
134	26.4	14.2	42.6
91	22.2	10.5	31.5

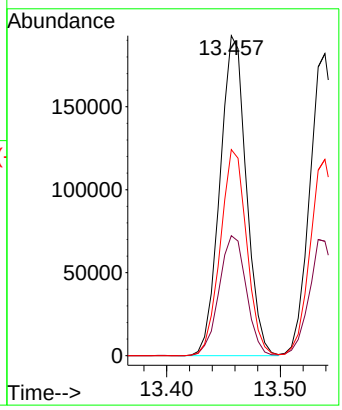




#87
1,3-Dichlorobenzene
Concen: 56.231 ug/l
RT: 13.457 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:146 Resp: 31031

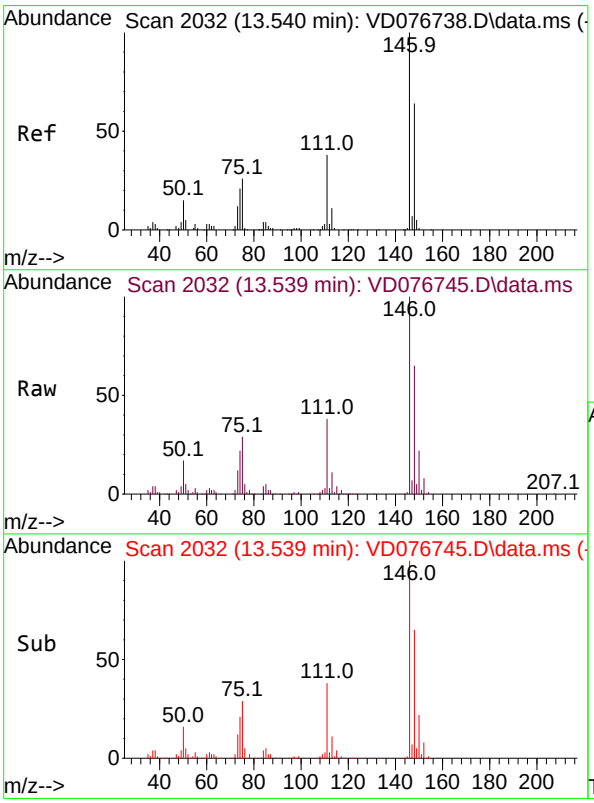
Ion	Ratio	Lower	Upper
146	100		
111	38.7	17.9	53.8
148	64.5	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

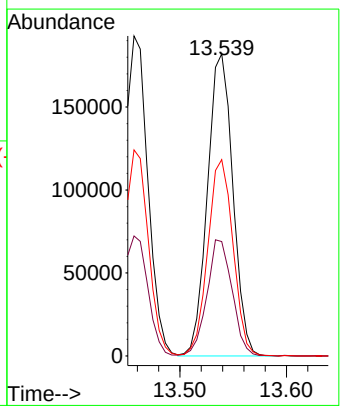
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

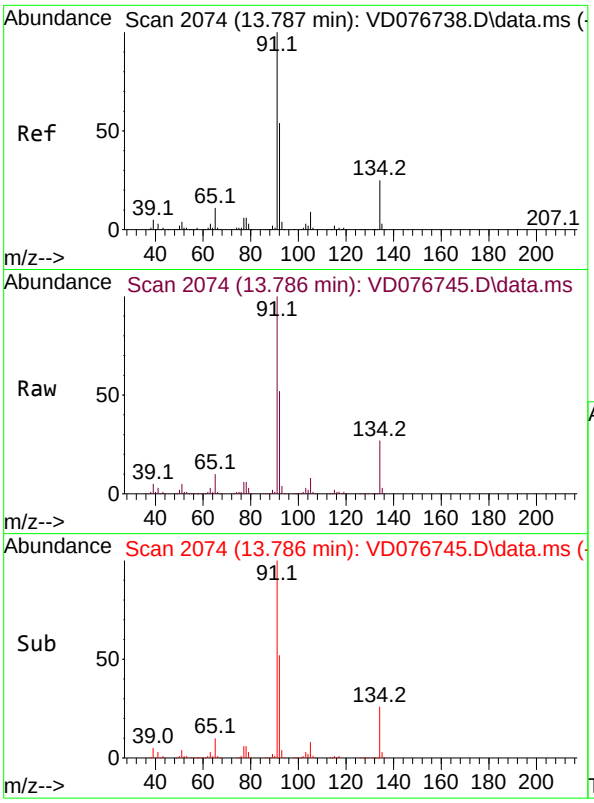


#88
1,4-Dichlorobenzene
Concen: 55.837 ug/l
RT: 13.539 min Scan# 2032
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:146 Resp: 301895

Ion	Ratio	Lower	Upper
146	100		
111	38.1	17.4	52.3
148	64.6	31.7	95.1





#89
n-Butylbenzene
Concen: 56.063 ug/l
RT: 13.786 min Scan# 2
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

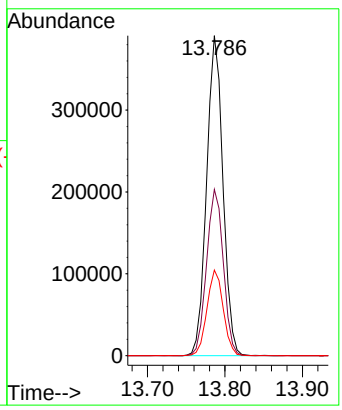
Tgt Ion: 91 Resp: 57283

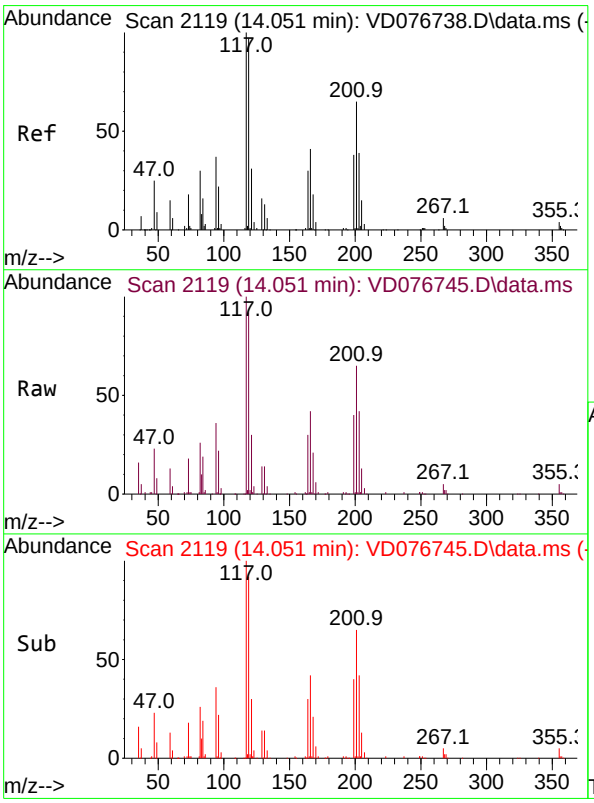
Ion	Ratio	Lower	Upper
91	100		
92	53.3	26.5	79.5
134	26.7	13.8	41.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

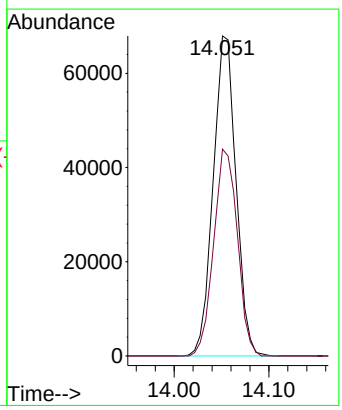


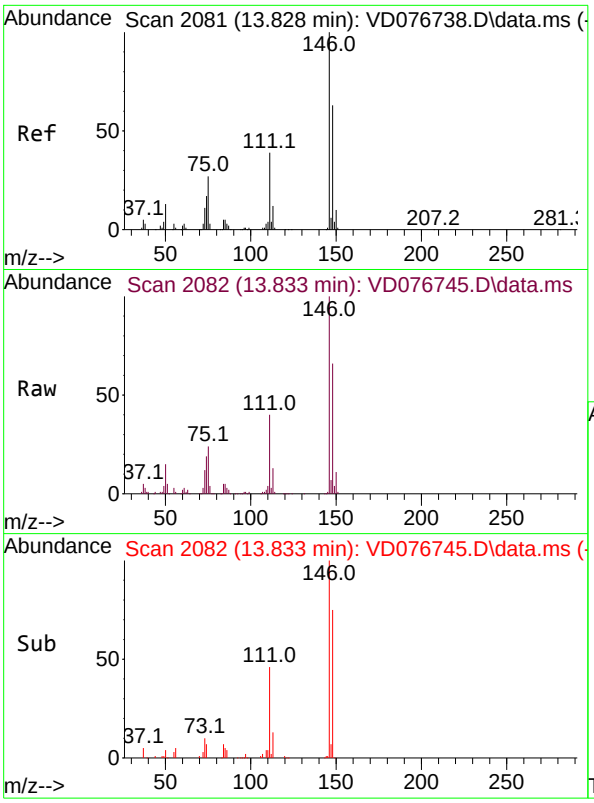


#90
Hexachloroethane
Concen: 58.927 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:117 Resp: 113757

Ion	Ratio	Lower	Upper
117	100		
201	67.2	38.5	115.5

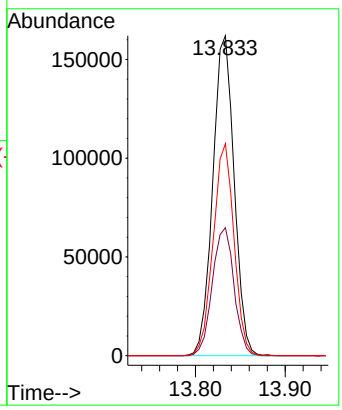




#91
1,2-Dichlorobenzene
Concen: 55.092 ug/l
RT: 13.833 min Scan# 2
Delta R.T. 0.005 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:146 Resp: 26789

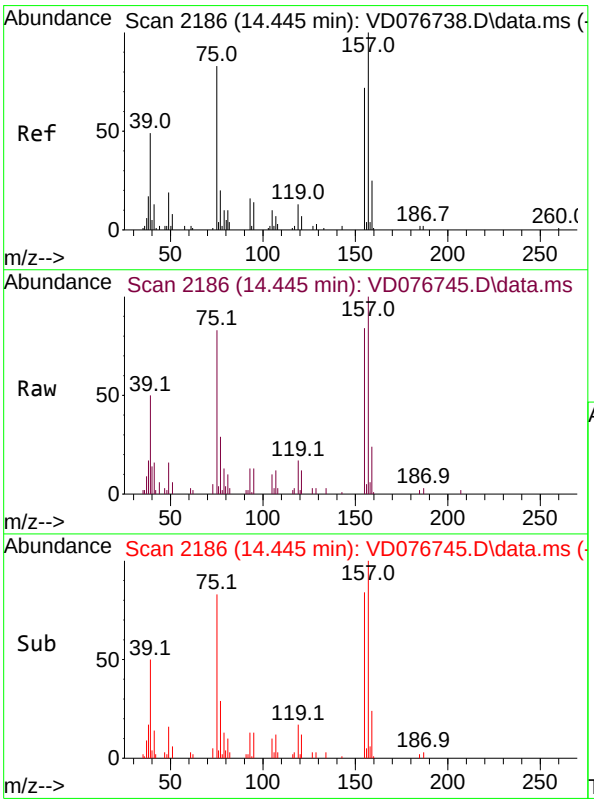
Ion	Ratio	Lower	Upper
146	100		
111	40.7	18.3	54.8
148	64.6	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

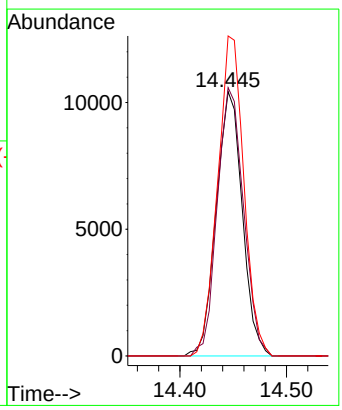
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

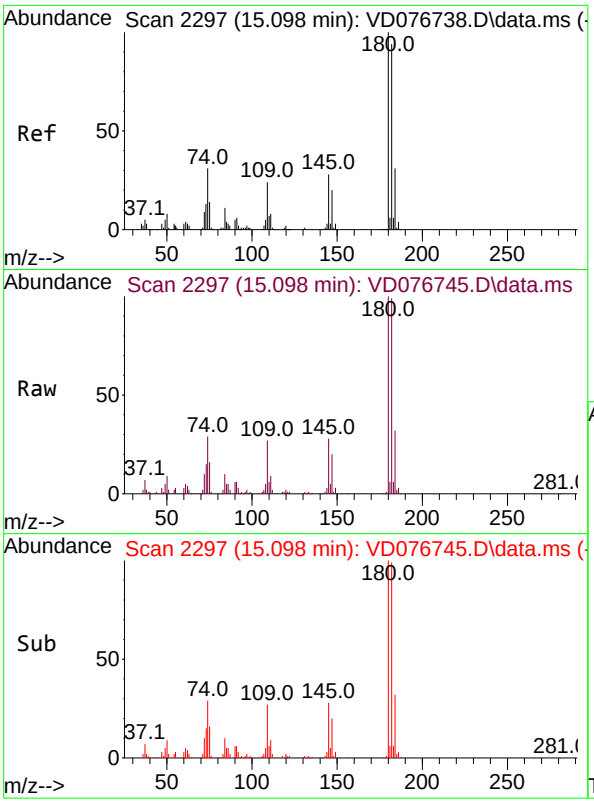


#92
1,2-Dibromo-3-Chloropropane
Concen: 49.761 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion: 75 Resp: 17707

Ion	Ratio	Lower	Upper
75	100		
155	102.4	47.9	143.8
157	121.7	59.9	179.7

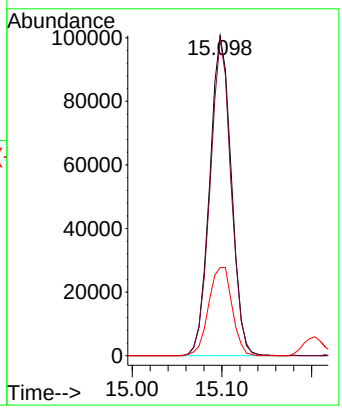




#93
1,2,4-Trichlorobenzene
Concen: 56.692 ug/l
RT: 15.098 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:180 Resp: 16830

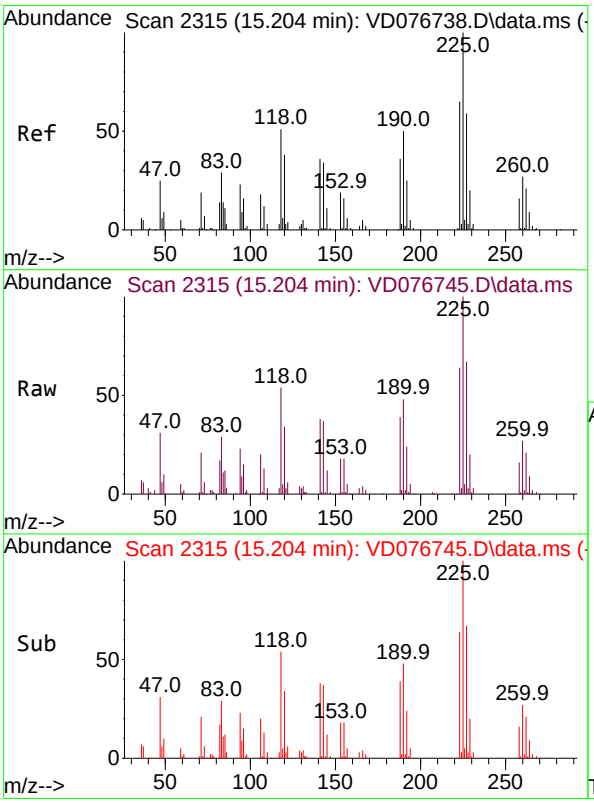
Ion	Ratio	Lower	Upper
180	100		
182	96.1	48.5	145.6
145	30.0	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

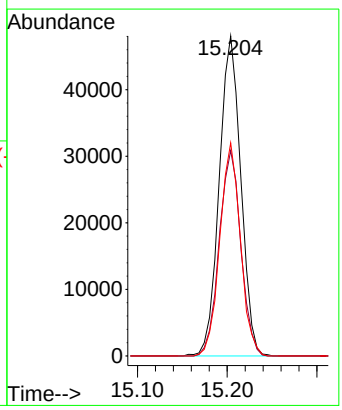
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

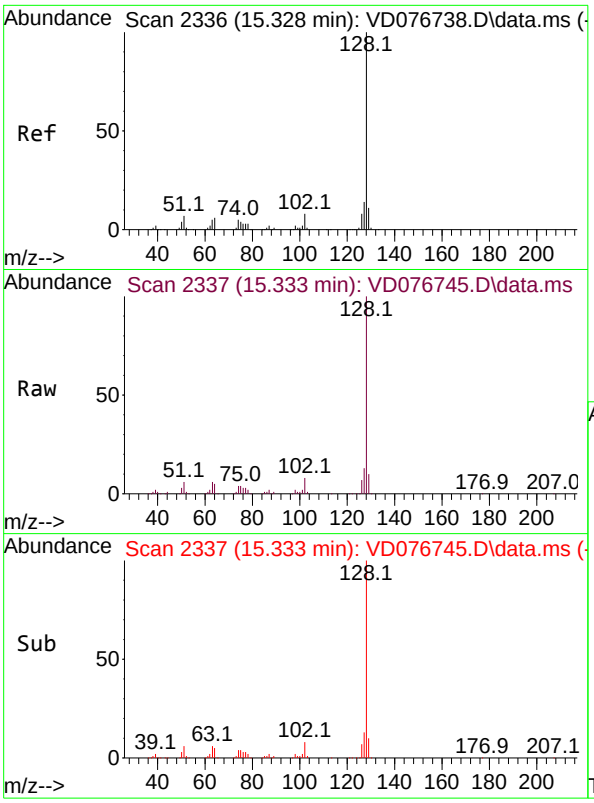


#94
Hexachlorobutadiene
Concen: 56.174 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. -0.000 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:225 Resp: 80204

Ion	Ratio	Lower	Upper
225	100		
223	64.1	31.6	94.8
227	63.3	31.7	95.1

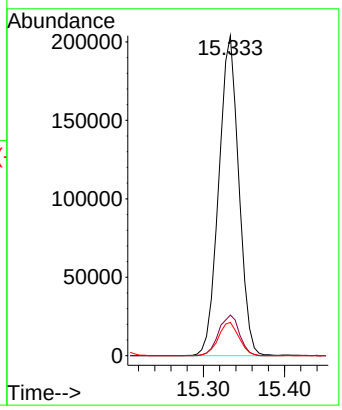




#95
Naphthalene
Concen: 54.448 ug/l
RT: 15.333 min Scan# 2
Delta R.T. 0.005 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:128 Resp: 34999

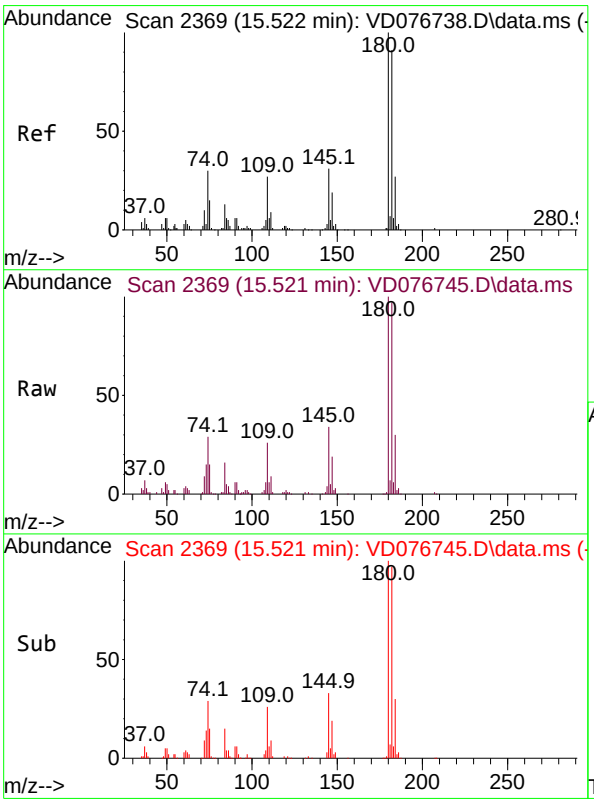
Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.5	15.7
129	10.4	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

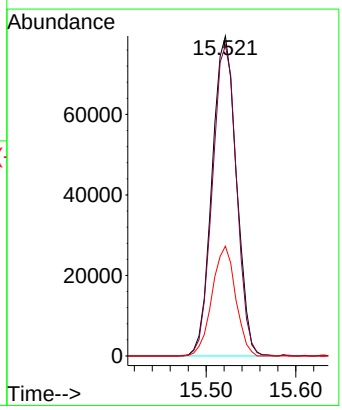
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023



#96
1,2,3-Trichlorobenzene
Concen: 56.161 ug/l
RT: 15.521 min Scan# 2369
Delta R.T. -0.001 min
Lab File: VD076745.D
Acq: 17 Jul 2023 10:19

Tgt Ion:180 Resp: 149618

Ion	Ratio	Lower	Upper
180	100		
182	96.1	47.3	141.9
145	33.2	15.1	45.3



Evaluate Continuing Calibration Report

Sample Results: **VD076745.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	122	0.00
2	T	Dichlorodifluoromethane	0.391	0.373	4.6	116	0.00
3	P	Chloromethane	0.674	0.574	14.8	102	0.00
4	C	Vinyl Chloride	0.899	0.842	6.3#	113	0.00
5	T	Bromomethane	0.740	0.658	11.1	114	0.00
6	T	Chloroethane	0.679	0.629	7.4	112	0.00
7	T	Trichlorofluoromethane	0.800	0.777	2.9	122	0.00
8	T	Diethyl Ether	0.275	0.270	1.8	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.526	0.518	1.5	122	0.00
10	T	Methyl Iodide	0.593	0.587	1.0	112	0.00
11	T	Tert butyl alcohol	0.037	0.035	5.4	113	0.00
12	CM	1,1-Dichloroethene	0.494	0.477	3.4#	118	0.00
13	T	Acrolein	0.025	0.022	12.0	118	0.00
14	T	Allyl chloride	0.649	0.608	6.3	110	0.00
15	T	Acrylonitrile	0.135	0.122	9.6	105	0.00
16	T	Acetone	0.119	0.126	-5.9	125	0.00
17	T	Carbon Disulfide	1.154	1.116	3.3	113	0.00
18	T	Methyl Acetate	0.447	0.393	12.1	103	0.00
19	T	Methyl tert-butyl Ether	1.325	1.256	5.2	109	0.00
20	T	Methylene Chloride	0.984	0.616	37.4#	102	0.00
21	T	trans-1,2-Dichloroethene	0.574	0.533	7.1	108	0.00
22	T	Diisopropyl ether	1.537	1.498	2.5	113	0.00
23	T	Vinyl Acetate	0.760	0.723	4.9	108	0.00
24	P	1,1-Dichloroethane	1.036	1.012	2.3	115	0.00
25	T	2-Butanone	0.159	0.161	-1.3	115	0.00
26	T	2,2-Dichloropropane	0.893	0.923	-3.4	126	0.00
27	T	cis-1,2-Dichloroethene	0.708	0.703	0.7	118	0.00
28	T	Bromochloromethane	0.259	0.225	13.1	112	-0.01
29	T	Tetrahydrofuran	0.094	0.090	4.3	114	0.00
30	C	Chloroform	1.135	1.155	-1.8#	125	0.00
31	T	Cyclohexane	0.733	0.730	0.4	131	0.00
32	T	1,1,1-Trichloroethane	0.916	0.967	-5.6	126	0.00
33	S	1,2-Dichloroethane-d4	0.498	0.431	13.5	112	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	115	0.00
35	S	Dibromofluoromethane	0.314	0.296	5.7	117	0.00
36	T	1,1-Dichloropropene	0.411	0.454	-10.5	127	0.00
37	T	Ethyl Acetate	0.184	0.179	2.7	103	0.00
38	T	Carbon Tetrachloride	0.393	0.465	-18.3	136	0.00
39	T	Methylcyclohexane	0.474	0.532	-12.2	128	0.00
40	TM	Benzene	1.295	1.388	-7.2	123	0.00
41	T	Methacrylonitrile	0.112	0.116	-3.6	119	-0.01
42	TM	1,2-Dichloroethane	0.337	0.353	-4.7	117	0.00
43	T	Isopropyl Acetate	0.358	0.366	-2.2	113	0.00
44	TM	Trichloroethene	0.353	0.390	-10.5	125	0.00
45	C	1,2-Dichloropropane	0.334	0.356	-6.6#	114	0.00
46	T	Dibromomethane	0.196	0.210	-7.1	115	0.00
47	T	Bromodichloromethane	0.491	0.525	-6.9	117	0.00
48	T	Methyl methacrylate	0.163	0.159	2.5	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.003	0.002	33.3#	113	0.00
50	S	Toluene-d8	1.124	1.028	8.5	112	0.00
51	T	4-Methyl-2-Pentanone	0.191	0.193	-1.0	107	0.00
52	CM	Toluene	0.851	0.918	-7.9#	119	0.00
53	T	t-1,3-Dichloropropene	0.456	0.488	-7.0	114	0.00
54	T	cis-1,3-Dichloropropene	0.537	0.575	-7.1	116	0.00
55	T	1,1,2-Trichloroethane	0.286	0.301	-5.2	114	0.00
56	T	Ethyl methacrylate	0.330	0.345	-4.5	109	0.00
57	T	1,3-Dichloropropane	0.465	0.483	-3.9	115	0.00
58	T	2-Chloroethyl Vinyl ether	0.128	0.120	6.3	107	0.00
59	T	2-Hexanone	0.136	0.145	-6.6	113	0.00
60	T	Dibromochloromethane	0.332	0.357	-7.5	116	0.00
61	T	1,2-Dibromoethane	0.265	0.276	-4.2	110	0.00
62	S	4-Bromofluorobenzene	0.364	0.336	7.7	110	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	107	0.00
64	T	Tetrachloroethene	0.285	0.326	-14.4	125	0.00
65	PM	Chlorobenzene	1.006	1.084	-7.8	116	0.00
66	T	1,1,1,2-Tetrachloroethane	0.374	0.409	-9.4	119	0.00
67	C	Ethyl Benzene	1.766	1.924	-8.9#	117	0.00
68	T	m/p-Xylenes	0.678	0.753	-11.1	119	0.00
69	T	o-Xylene	0.656	0.716	-9.1	116	0.00
70	T	Styrene	1.148	1.250	-8.9	115	0.00
71	P	Bromoform	0.205	0.229	-11.7	117	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
73	T	Isopropylbenzene	3.628	4.115	-13.4	119	0.00
74	T	N-amyl acetate	0.764	0.819	-7.2	112	0.00
75	P	1,1,2,2-Tetrachloroethane	0.779	0.814	-4.5	108	0.00
76	T	1,2,3-Trichloropropane	0.475	0.434	8.6	93	0.00
77	T	Bromobenzene	0.837	0.932	-11.4	115	0.00
78	T	n-propylbenzene	4.398	5.048	-14.8	120	0.00
79	T	2-Chlorotoluene	2.411	2.712	-12.5	117	0.00
80	T	1,3,5-Trimethylbenzene	2.933	3.385	-15.4	119	0.00
81	T	trans-1,4-Dichloro-2-butene	0.223	0.248	-11.2	110	0.00
82	T	4-Chlorotoluene	2.519	2.873	-14.1	117	0.00
83	T	tert-Butylbenzene	2.583	3.005	-16.3	119	0.00
84	T	1,2,4-Trimethylbenzene	2.997	3.399	-13.4	116	0.00
85	T	sec-Butylbenzene	3.946	4.528	-14.7	120	0.00
86	T	p-Isopropyltoluene	3.259	3.759	-15.3	119	0.00
87	T	1,3-Dichlorobenzene	1.722	1.937	-12.5	116	0.00
88	T	1,4-Dichlorobenzene	1.687	1.884	-11.7	117	0.00
89	T	n-Butylbenzene	3.189	3.576	-12.1	118	0.00
90	T	Hexachloroethane	0.602	0.710	-17.9	121	0.00
91	T	1,2-Dichlorobenzene	1.518	1.672	-10.1	114	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.111	0.111	0.0	109	0.00
93	T	1,2,4-Trichlorobenzene	0.927	1.051	-13.4	118	0.00
94	T	Hexachlorobutadiene	0.446	0.501	-12.3	119	0.00
95	T	Naphthalene	2.006	2.185	-8.9	110	0.00

Sample Results: **VD076745.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.831	0.934	-12.4	118	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Sample Results: **VD076745.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	122	0.00
2	T	Dichlorodifluoromethane	50.000	47.677	4.6	116	0.00
3	P	Chloromethane	50.000	42.535	14.9	102	0.00
4	C	Vinyl Chloride	50.000	46.807	6.4#	113	0.00
5	T	Bromomethane	50.000	44.456	11.1	114	0.00
6	T	Chloroethane	50.000	46.359	7.3	112	0.00
7	T	Trichlorofluoromethane	50.000	48.534	2.9	122	0.00
8	T	Diethyl Ether	50.000	48.944	2.1	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.208	1.6	122	0.00
10	T	Methyl Iodide	50.000	49.514	1.0	112	0.00
11	T	Tert butyl alcohol	250.000	233.536	6.6	113	0.00
12	CM	1,1-Dichloroethene	50.000	48.243	3.5#	118	0.00
13	T	Acrolein	250.000	220.469	11.8	118	0.00
14	T	Allyl chloride	50.000	46.827	6.3	110	0.00
15	T	Acrylonitrile	250.000	225.606	9.8	105	0.00
16	T	Acetone	250.000	264.654	-5.9	125	0.00
17	T	Carbon Disulfide	50.000	48.339	3.3	113	0.00
18	T	Methyl Acetate	50.000	44.029	11.9	103	0.00
19	T	Methyl tert-butyl Ether	50.000	47.394	5.2	109	0.00
20	T	Methylene Chloride	50.000	41.791	16.4	102	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.376	7.2	108	0.00
22	T	Diisopropyl ether	50.000	48.736	2.5	113	0.00
23	T	Vinyl Acetate	250.000	237.571	5.0	108	0.00
24	P	1,1-Dichloroethane	50.000	48.818	2.4	115	0.00
25	T	2-Butanone	250.000	252.820	-1.1	115	0.00
26	T	2,2-Dichloropropane	50.000	51.647	-3.3	126	0.00
27	T	cis-1,2-Dichloroethene	50.000	49.683	0.6	118	0.00
28	T	Bromochloromethane	50.000	43.433	13.1	112	-0.01
29	T	Tetrahydrofuran	250.000	240.021	4.0	114	0.00
30	C	Chloroform	50.000	50.889	-1.8#	125	0.00
31	T	Cyclohexane	50.000	49.805	0.4	131	0.00
32	T	1,1,1-Trichloroethane	50.000	52.789	-5.6	126	0.00
33	S	1,2-Dichloroethane-d4	50.000	43.249	13.5	112	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	115	0.00
35	S	Dibromofluoromethane	50.000	47.130	5.7	117	0.00
36	T	1,1-Dichloropropene	50.000	55.323	-10.6	127	0.00
37	T	Ethyl Acetate	50.000	48.620	2.8	103	0.00
38	T	Carbon Tetrachloride	50.000	59.126	-18.3	136	0.00
39	T	Methylcyclohexane	50.000	56.120	-12.2	128	0.00
40	TM	Benzene	50.000	53.567	-7.1	123	0.00
41	T	Methacrylonitrile	50.000	51.533	-3.1	119	-0.01
42	TM	1,2-Dichloroethane	50.000	52.457	-4.9	117	0.00
43	T	Isopropyl Acetate	50.000	51.024	-2.0	113	0.00
44	TM	Trichloroethene	50.000	55.174	-10.3	125	0.00
45	C	1,2-Dichloropropane	50.000	53.280	-6.6#	114	0.00
46	T	Dibromomethane	50.000	53.631	-7.3	115	0.00
47	T	Bromodichloromethane	50.000	53.477	-7.0	117	0.00
48	T	Methyl methacrylate	50.000	48.843	2.3	104	0.00

Sample Results: **VD076745.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	991.059	0.9	113	0.00
50	S	Toluene-d8	50.000	45.714	8.6	112	0.00
51	T	4-Methyl-2-Pentanone	250.000	252.684	-1.1	107	0.00
52	CM	Toluene	50.000	53.919	-7.8#	119	0.00
53	T	t-1,3-Dichloropropene	50.000	53.561	-7.1	114	0.00
54	T	cis-1,3-Dichloropropene	50.000	53.486	-7.0	116	0.00
55	T	1,1,2-Trichloroethane	50.000	52.584	-5.2	114	0.00
56	T	Ethyl methacrylate	50.000	52.356	-4.7	109	0.00
57	T	1,3-Dichloropropane	50.000	51.862	-3.7	115	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	235.116	6.0	107	0.00
59	T	2-Hexanone	250.000	266.781	-6.7	113	0.00
60	T	Dibromochloromethane	50.000	53.737	-7.5	116	0.00
61	T	1,2-Dibromoethane	50.000	52.040	-4.1	110	0.00
62	S	4-Bromofluorobenzene	50.000	46.146	7.7	110	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	107	0.00
64	T	Tetrachloroethene	50.000	57.113	-14.2	125	0.00
65	PM	Chlorobenzene	50.000	53.874	-7.7	116	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	54.638	-9.3	119	0.00
67	C	Ethyl Benzene	50.000	54.483	-9.0#	117	0.00
68	T	m/p-Xylenes	100.000	111.009	-11.0	119	0.00
69	T	o-Xylene	50.000	54.546	-9.1	116	0.00
70	T	Styrene	50.000	54.418	-8.8	115	0.00
71	P	Bromoform	50.000	55.923	-11.8	117	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	104	0.00
73	T	Isopropylbenzene	50.000	56.715	-13.4	119	0.00
74	T	N-amyl acetate	50.000	53.576	-7.2	112	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	52.239	-4.5	108	0.00
76	T	1,2,3-Trichloropropane	50.000	45.620	8.8	93	0.00
77	T	Bromobenzene	50.000	55.665	-11.3	115	0.00
78	T	n-propylbenzene	50.000	57.391	-14.8	120	0.00
79	T	2-Chlorotoluene	50.000	56.227	-12.5	117	0.00
80	T	1,3,5-Trimethylbenzene	50.000	57.707	-15.4	119	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	55.582	-11.2	110	0.00
82	T	4-Chlorotoluene	50.000	57.022	-14.0	117	0.00
83	T	tert-Butylbenzene	50.000	58.176	-16.4	119	0.00
84	T	1,2,4-Trimethylbenzene	50.000	56.691	-13.4	116	0.00
85	T	sec-Butylbenzene	50.000	57.382	-14.8	120	0.00
86	T	p-Isopropyltoluene	50.000	57.678	-15.4	119	0.00
87	T	1,3-Dichlorobenzene	50.000	56.231	-12.5	116	0.00
88	T	1,4-Dichlorobenzene	50.000	55.837	-11.7	117	0.00
89	T	n-Butylbenzene	50.000	56.063	-12.1	118	0.00
90	T	Hexachloroethane	50.000	58.927	-17.9	121	0.00
91	T	1,2-Dichlorobenzene	50.000	55.092	-10.2	114	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	49.761	0.5	109	0.00
93	T	1,2,4-Trichlorobenzene	50.000	56.692	-13.4	118	0.00
94	T	Hexachlorobutadiene	50.000	56.174	-12.3	119	0.00
95	T	Naphthalene	50.000	54.448	-8.9	110	0.00

Sample Results: **VD076745.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076745.D
Acq On : 17 Jul 2023 10:19
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 18 01:21:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	56.161	-12.3	118	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG No.: 03645

Instrument ID: MSVOA_D Calibration Date/Time: 07/18/2023 09:13

Lab File ID: VD076766.D Init. Calib. Date(s): 07/14/2023 07/14/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:50 15:57

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.391	0.378		-3.33	20
Chloromethane	0.674	0.569	0.1	-15.58	20
Vinyl Chloride	0.899	0.834		-7.23	20
Bromomethane	0.740	0.625		-15.54	20
Chloroethane	0.679	0.599		-11.78	20
Trichlorofluoromethane	0.800	0.786		-1.75	20
1,1,2-Trichlorotrifluoroethane	0.526	0.527		0.19	20
1,1-Dichloroethene	0.494	0.459		-7.09	20
Acetone	0.119	0.120		0.84	20
Carbon Disulfide	1.154	1.037		-10.14	20
Methyl tert-butyl Ether	1.325	1.139		-14.04	20
Methyl Acetate	0.447	0.386		-13.65	20
Methylene Chloride	0.984	0.628		-36.18	20
trans-1,2-Dichloroethene	0.574	0.510		-11.15	20
1,1-Dichloroethane	1.036	0.936	0.1	-9.65	20
Cyclohexane	0.733	0.685		-6.55	20
2-Butanone	0.159	0.148		-6.92	20
Carbon Tetrachloride	0.393	0.415		5.6	20
cis-1,2-Dichloroethene	0.708	0.643		-9.18	20
Bromochloromethane	0.259	0.215		-16.99	20
Chloroform	1.135	1.047		-7.75	20
1,1,1-Trichloroethane	0.916	0.900		-1.75	20
Methylcyclohexane	0.474	0.487		2.74	20
Benzene	1.295	1.232		-4.86	20
1,2-Dichloroethane	0.337	0.322		-4.45	20
Trichloroethene	0.353	0.338		-4.25	20
1,2-Dichloropropane	0.334	0.318		-4.79	20
Bromodichloromethane	0.491	0.458		-6.72	20
4-Methyl-2-Pentanone	0.191	0.176		-7.85	20
Toluene	0.851	0.806		-5.29	20
t-1,3-Dichloropropene	0.456	0.425		-6.8	20
cis-1,3-Dichloropropene	0.537	0.492		-8.38	20
1,1,2-Trichloroethane	0.286	0.264		-7.69	20
2-Hexanone	0.136	0.129		-5.15	20
Dibromochloromethane	0.332	0.328		-1.21	20
1,2-Dibromoethane	0.265	0.239		-9.81	20
Tetrachloroethene	0.285	0.304		6.67	20
Chlorobenzene	1.006	0.990	0.3	-1.59	20
Ethyl Benzene	1.766	1.786		1.13	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG No.: 03645

Instrument ID: MSVOA_D Calibration Date/Time: 07/18/2023 09:13

Lab File ID: VD076766.D Init. Calib. Date(s): 07/14/2023 07/14/2023

Heated Purge: (Y/N) Y Init. Calib. Time(s): 12:50 15:57

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.678	0.693		2.21	20
o-Xylene	0.656	0.661		0.76	20
Styrene	1.148	1.153		0.44	20
Bromoform	0.205	0.208	0.1	1.46	20
Isopropylbenzene	3.628	3.709		2.23	20
1,1,2,2-Tetrachloroethane	0.779	0.744	0.3	-4.49	20
n-propylbenzene	4.398	4.586		4.28	20
1,3,5-Trimethylbenzene	2.933	3.010		2.63	20
tert-Butylbenzene	2.583	2.727		5.57	20
1,2,4-Trimethylbenzene	2.997	3.007		0.33	20
sec-Butylbenzene	3.946	4.229		7.17	20
p-Isopropyltoluene	3.259	3.439		5.52	20
1,3-Dichlorobenzene	1.722	1.726		0.23	20
1,4-Dichlorobenzene	1.687	1.656		-1.84	20
n-Butylbenzene	3.189	3.329		4.39	20
1,2-Dichlorobenzene	1.518	1.470		-3.16	20
1,2-Dibromo-3-Chloropropane	0.111	0.096		-13.51	20
1,2,4-Trichlorobenzene	0.927	0.894		-3.56	20
1,2,3-Trichlorobenzene	0.831	0.800		-3.73	20
1,2-Dichloroethane-d4	0.498	0.417		-16.26	20
Dibromofluoromethane	0.314	0.285		-9.24	20
Toluene-d8	1.124	1.015		-9.7	20
4-Bromofluorobenzene	0.364	0.329		-9.61	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\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	206994	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	357390	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	317730	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	151547	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	86314	41.865	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 83.720%			
35) Dibromofluoromethane	7.799	113	101723	45.293	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 90.580%			
50) Toluene-d8	10.269	98	362809	45.157	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 90.320%			
62) 4-Bromofluorobenzene	12.575	95	117661	45.270	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 90.540%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	78298	48.372	ug/l	97
3) Chloromethane	2.146	50	117704	42.154	ug/l	98
4) Vinyl Chloride	2.275	62	172622	46.377	ug/l	99
5) Bromomethane	2.681	94	129352	42.238	ug/l	98
6) Chloroethane	2.828	64	123956	44.108	ug/l	99
7) Trichlorofluoromethane	3.163	101	162660	49.112	ug/l	97
8) Diethyl Ether	3.593	74	49669	43.557	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.963	101	109164	50.142	ug/l	97
10) Methyl Iodide	4.158	142	113705	46.332	ug/l	91
11) Tert butyl alcohol	5.058	59	33429	217.285	ug/l	95
12) 1,1-Dichloroethene	3.934	96	95079	46.484	ug/l	87
13) Acrolein	3.793	56	22776	217.241	ug/l	94
14) Allyl chloride	4.558	41	117358	43.677	ug/l	93
15) Acrylonitrile	5.252	53	115829	206.814	ug/l	97
16) Acetone	4.022	43	124515	252.882	ug/l #	85
17) Carbon Disulfide	4.263	76	214753	44.952	ug/l	96
18) Methyl Acetate	4.558	43	79950	43.217	ug/l	96
19) Methyl tert-butyl Ether	5.316	73	235770	42.983	ug/l	99
20) Methylene Chloride	4.799	84	129924	42.838	ug/l	94
21) trans-1,2-Dichloroethene	5.299	96	105624	44.425	ug/l	97
22) Diisopropyl ether	6.210	45	275982	43.375	ug/l	98
23) Vinyl Acetate	6.152	43	657248	208.770	ug/l	95
24) 1,1-Dichloroethane	6.110	63	193763	45.166	ug/l	96
25) 2-Butanone	7.081	43	153029	232.220	ug/l #	86
26) 2,2-Dichloropropane	7.069	77	175551	47.471	ug/l	95
27) cis-1,2-Dichloroethene	7.081	96	133115	45.416	ug/l	96
28) Bromochloromethane	7.428	49	44424	41.419	ug/l	88
29) Tetrahydrofuran	7.446	42	82403	211.642	ug/l	92
30) Chloroform	7.593	83	216645	46.107	ug/l	97
31) Cyclohexane	7.875	56	141776	46.726	ug/l	96
32) 1,1,1-Trichloroethane	7.793	97	186326	49.149	ug/l	98
36) 1,1-Dichloropropene	8.004	75	147530	50.270	ug/l	98
37) Ethyl Acetate	7.169	43	58584	44.637	ug/l #	74
38) Carbon Tetrachloride	7.987	117	148479	52.838	ug/l	99
39) Methylcyclohexane	9.269	83	173962	51.337	ug/l	93
40) Benzene	8.251	78	440177	47.536	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	35111	43.809	ug/l	#	90
42) 1,2-Dichloroethane	8.322	62	114911	47.761	ug/l		99
43) Isopropyl Acetate	8.357	43	114825	44.830	ug/l		93
44) Trichloroethene	9.022	130	120854	47.895	ug/l		93
45) 1,2-Dichloropropane	9.304	63	113629	47.538	ug/l		97
46) Dibromomethane	9.393	93	65194	46.596	ug/l		90
47) Bromodichloromethane	9.587	83	163562	46.585	ug/l		96
48) Methyl methacrylate	9.381	41	51113	43.845	ug/l		88
49) 1,4-Dioxane	9.393	88	16250	906.515	ug/l		91
51) 4-Methyl-2-Pentanone	10.157	43	314543	230.646	ug/l		91
52) Toluene	10.334	92	287911	47.341	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	151771	46.571	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	175663	45.736	ug/l	#	87
55) 1,1,2-Trichloroethane	10.734	97	94451	46.230	ug/l		97
56) Ethyl methacrylate	10.598	69	106701	45.248	ug/l	#	90
57) 1,3-Dichloropropane	10.881	76	151776	45.616	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	183978	201.558	ug/l		98
59) 2-Hexanone	10.922	43	229648	235.998	ug/l		95
60) Dibromochloromethane	11.075	129	117059	49.320	ug/l		99
61) 1,2-Dibromoethane	11.181	107	85487	45.131	ug/l		98
64) Tetrachloroethene	10.810	164	96706	53.377	ug/l		92
65) Chlorobenzene	11.604	112	314409	49.202	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.681	131	117679	49.463	ug/l		95
67) Ethyl Benzene	11.681	91	567577	50.575	ug/l		95
68) m/p-Xylenes	11.792	106	440686	102.245	ug/l		93
69) o-Xylene	12.122	106	210041	50.394	ug/l		94
70) Styrene	12.134	104	366407	50.219	ug/l		98
71) Bromoform	12.298	173	66142	50.761	ug/l	#	97
73) Isopropylbenzene	12.422	105	562077	51.121	ug/l		95
74) N-amyl acetate	12.234	43	106604	46.023	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.675	83	112823	47.792	ug/l		97
76) 1,2,3-Trichloropropane	12.728	75	72397m	50.234	ug/l		
77) Bromobenzene	12.698	156	123742	48.757	ug/l		90
78) n-propylbenzene	12.763	91	694977	52.138	ug/l		95
79) 2-Chlorotoluene	12.845	91	369231	50.520	ug/l		94
80) 1,3,5-Trimethylbenzene	12.904	105	456191	51.312	ug/l		95
81) trans-1,4-Dichloro-2-b...	12.469	75	32212	47.568	ug/l		96
82) 4-Chlorotoluene	12.945	91	383404	50.215	ug/l		94
83) tert-Butylbenzene	13.169	119	413203	52.785	ug/l		98
84) 1,2,4-Trimethylbenzene	13.210	105	455738	50.163	ug/l		96
85) sec-Butylbenzene	13.345	105	640965	53.593	ug/l		95
86) p-Isopropyltoluene	13.463	119	521228	52.771	ug/l		96
87) 1,3-Dichlorobenzene	13.457	146	261515	50.098	ug/l		98
88) 1,4-Dichlorobenzene	13.534	146	250890	49.056	ug/l		98
89) n-Butylbenzene	13.786	91	504562	52.204	ug/l		97
90) Hexachloroethane	14.051	117	100782	55.191	ug/l		83
91) 1,2-Dichlorobenzene	13.828	146	222753	48.427	ug/l		96
92) 1,2-Dibromo-3-Chloropr...	14.445	75	14543	43.206	ug/l		93
93) 1,2,4-Trichlorobenzene	15.098	180	135551	48.270	ug/l		99
94) Hexachlorobutadiene	15.204	225	70538	52.229	ug/l		97
95) Naphthalene	15.333	128	283742	46.665	ug/l		99
96) 1,2,3-Trichlorobenzene	15.522	180	121217	48.102	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

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

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

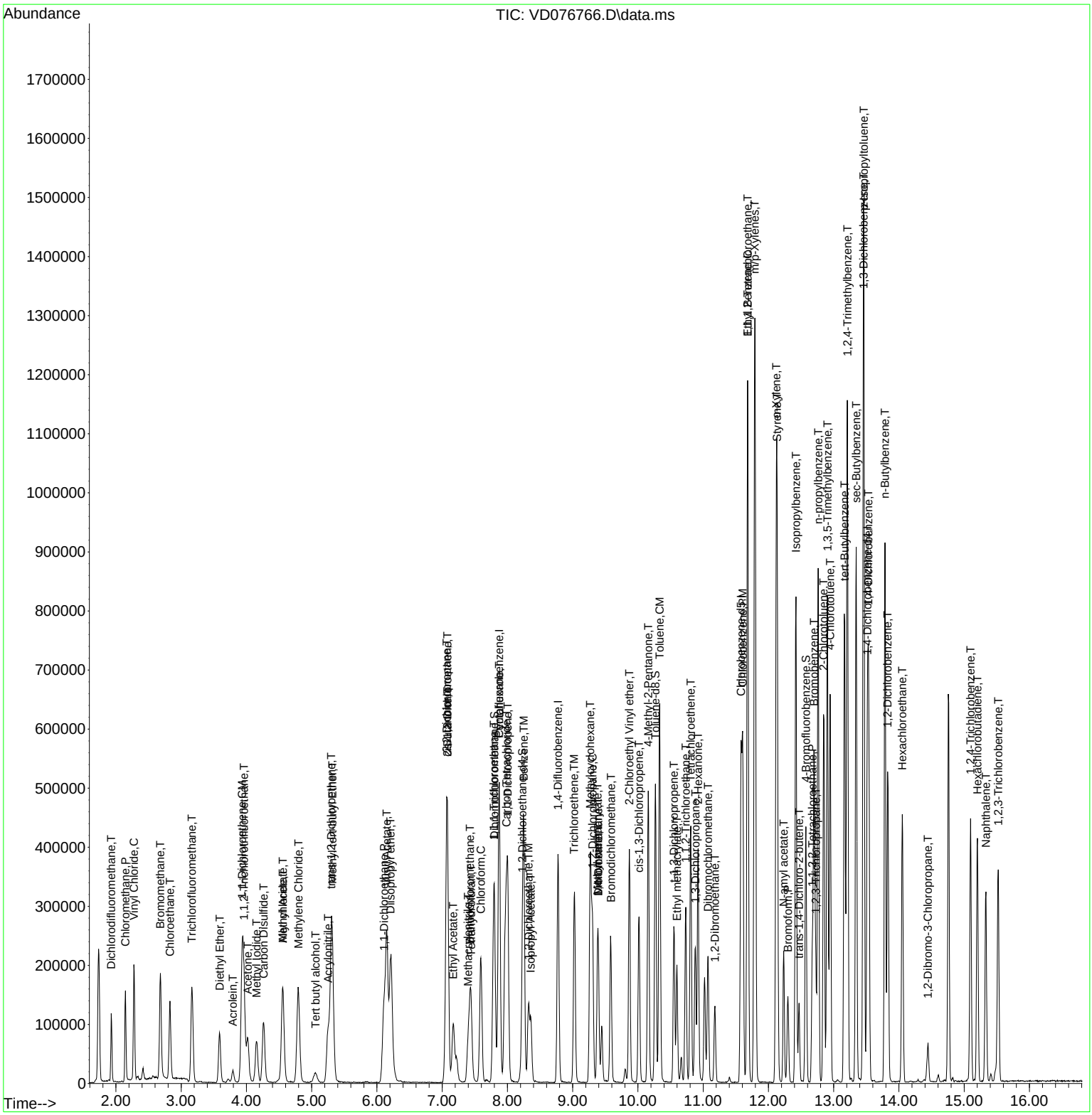
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

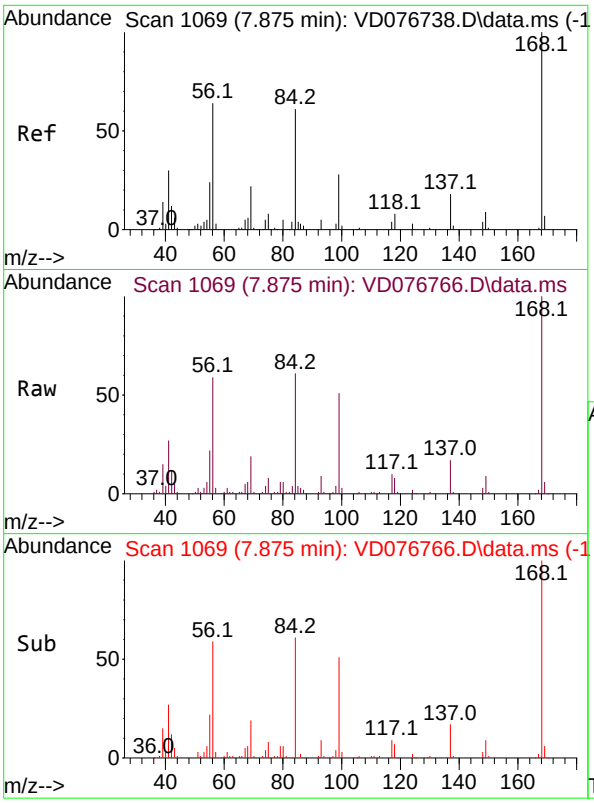
Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

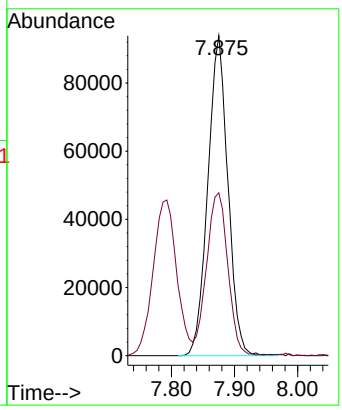




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:168 Resp: 20699

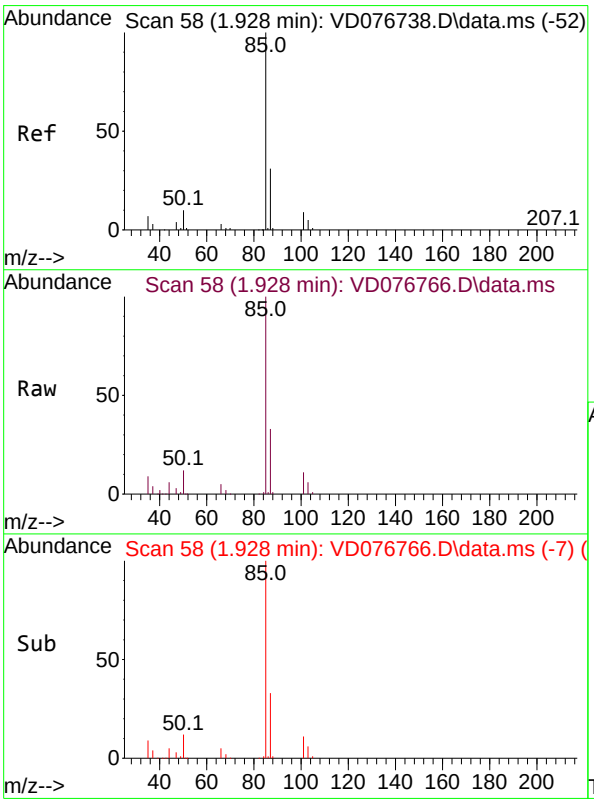
Ion	Ratio	Lower	Upper
168	100		
99	50.5	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

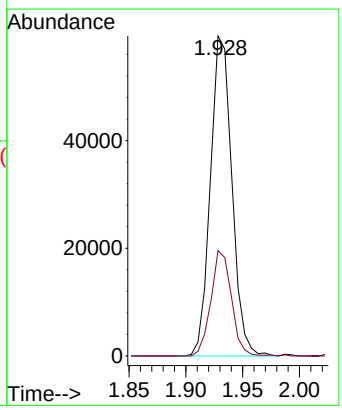
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

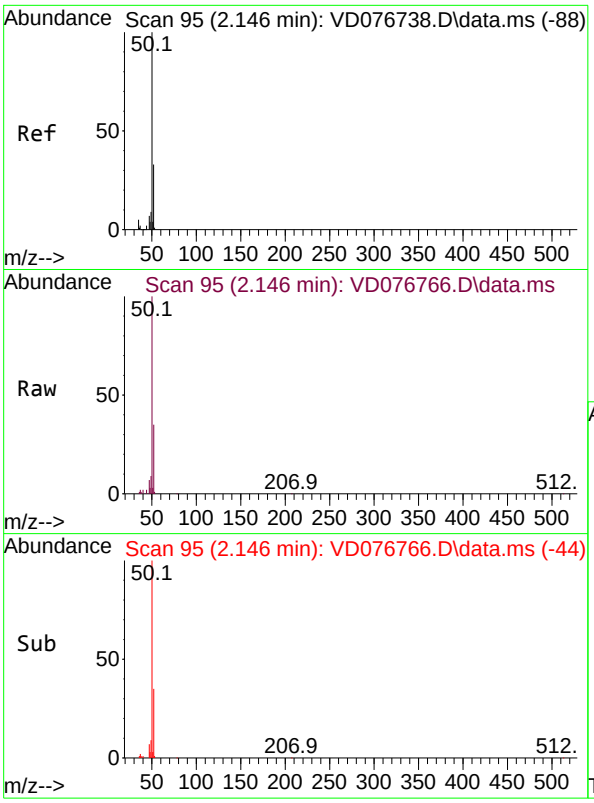


#2
Dichlorodifluoromethane
Concen: 48.372 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 85 Resp: 78298

Ion	Ratio	Lower	Upper
85	100		
87	32.9	15.7	47.0





#3
Chloromethane
Concen: 42.154 ug/l
RT: 2.146 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

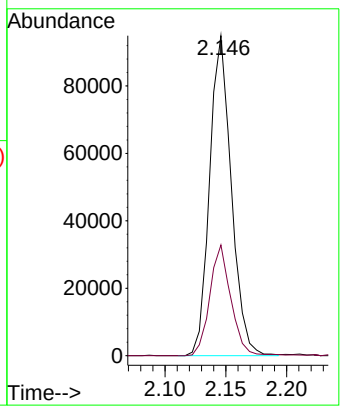
Tgt Ion: 50 Resp: 11770

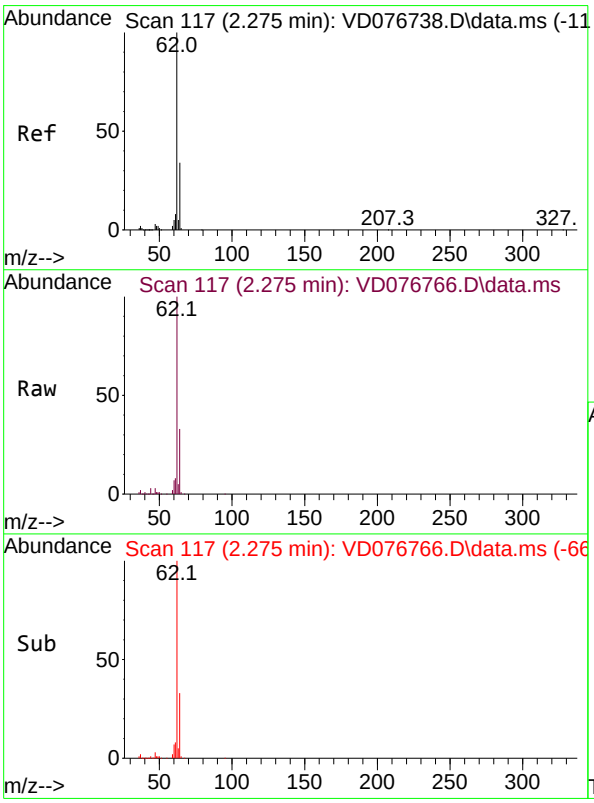
Ion	Ratio	Lower	Upper
50	100		
52	34.6	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

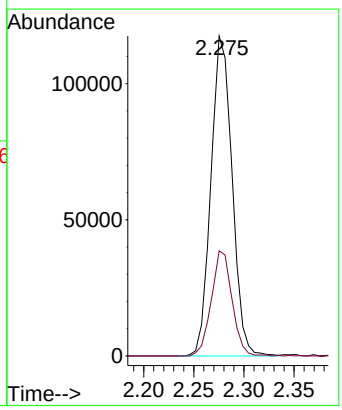


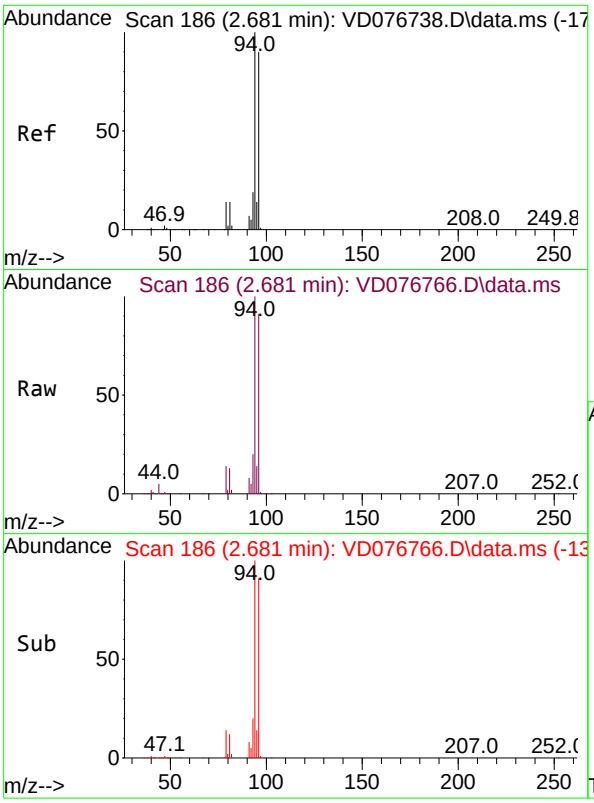


#4
Vinyl Chloride
Concen: 46.377 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 62 Resp: 172622

Ion	Ratio	Lower	Upper
62	100		
64	32.9	26.0	39.0

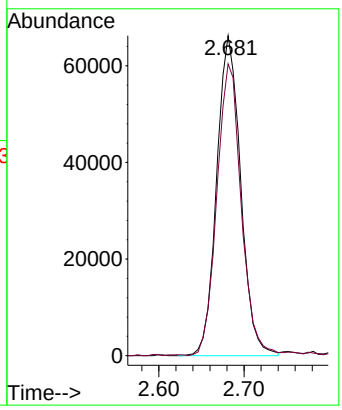




#5
Bromomethane
Concen: 42.238 ug/l
RT: 2.681 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 94 Resp: 12935

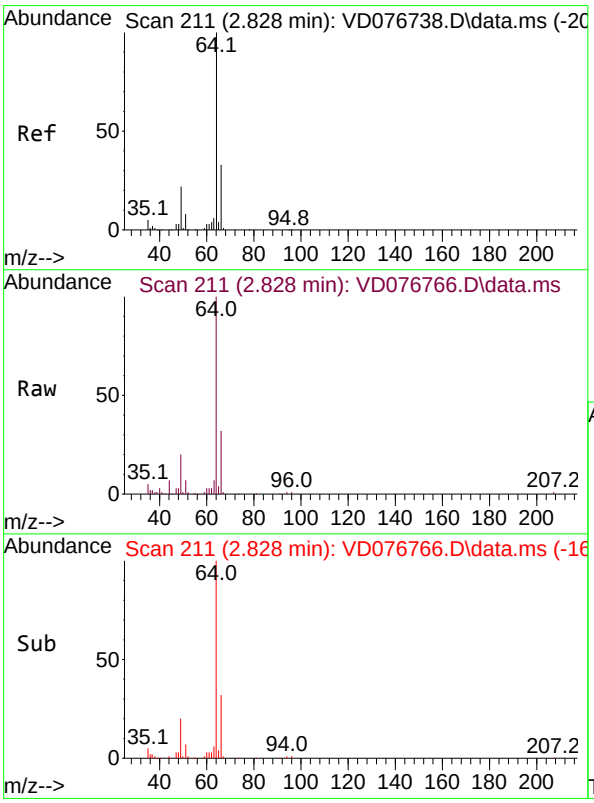
Ion	Ratio	Lower	Upper
94	100		
96	92.8	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

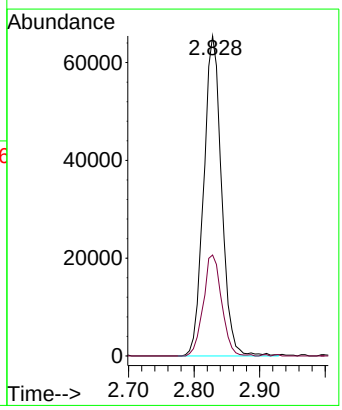
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

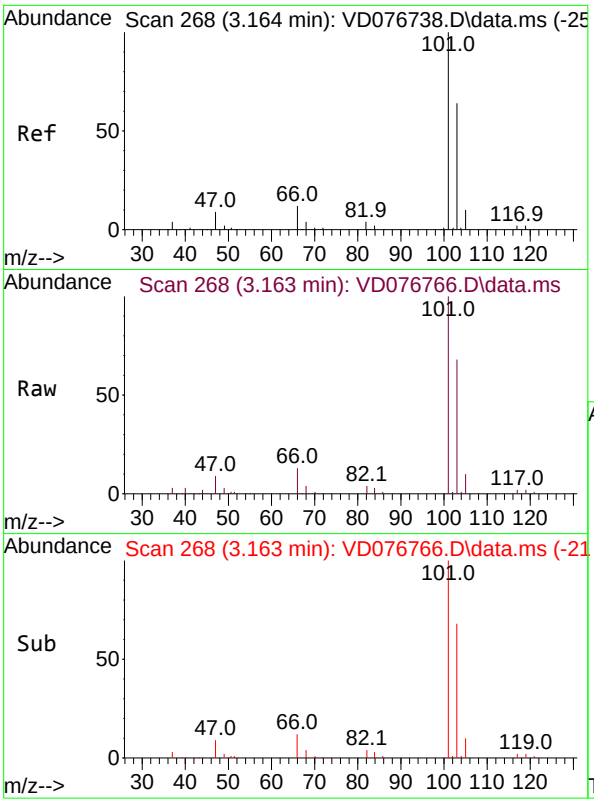


#6
Chloroethane
Concen: 44.108 ug/l
RT: 2.828 min Scan# 211
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 64 Resp: 123956

Ion	Ratio	Lower	Upper
64	100		
66	31.6	25.5	38.3





#7
Trichlorofluoromethane
Concen: 49.112 ug/l
RT: 3.163 min Scan# 2(
Delta R.T. -0.001 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

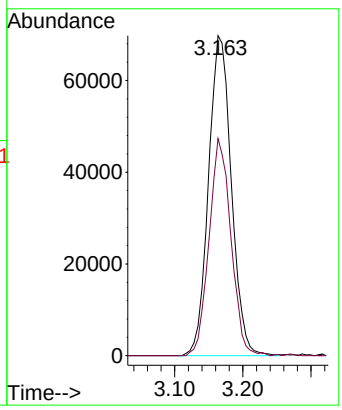
Tgt Ion:101 Resp: 16266(

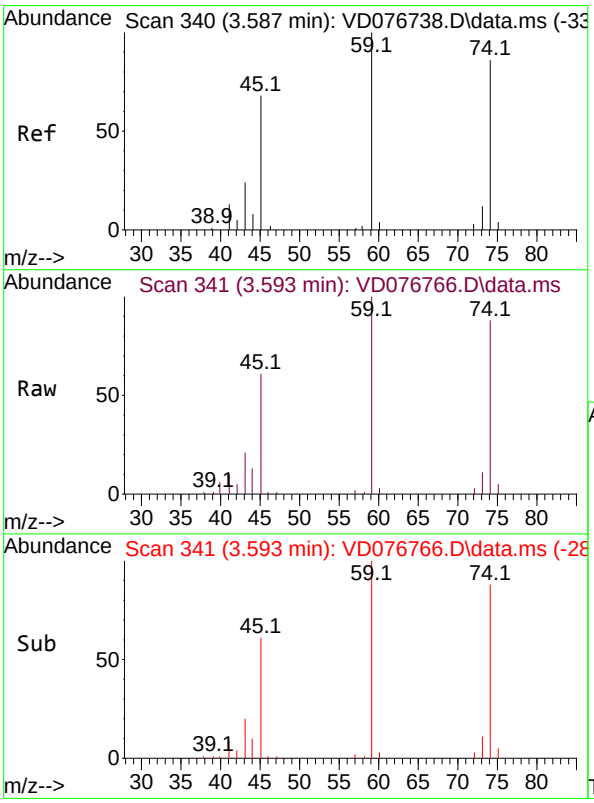
Ion	Ratio	Lower	Upper
101	100		
103	67.8	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

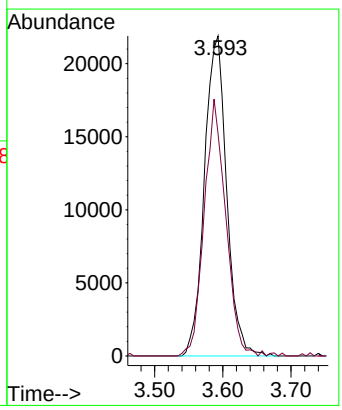


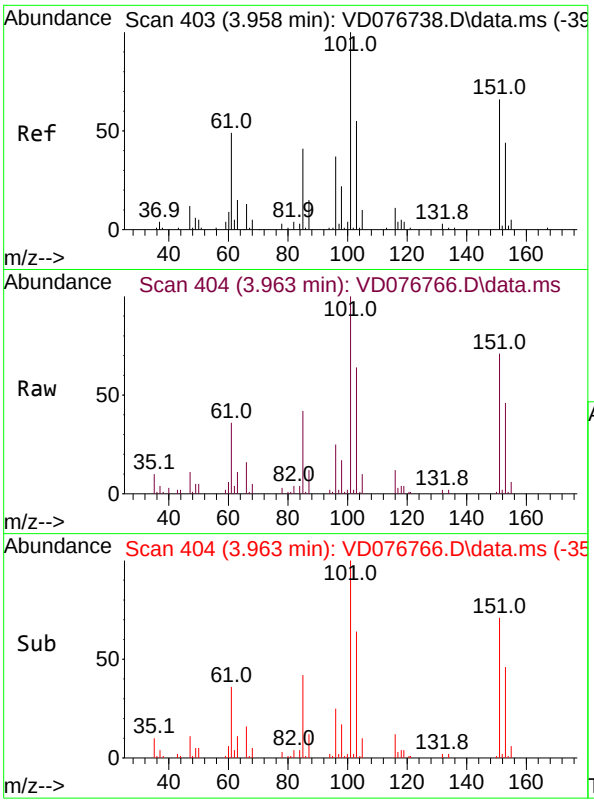


#8
Diethyl Ether
Concen: 43.557 ug/l
RT: 3.593 min Scan# 341
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 74 Resp: 49669

Ion	Ratio	Lower	Upper
74	100		
45	77.6	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 50.142 ug/l
RT: 3.963 min Scan# 4
Delta R.T. 0.005 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

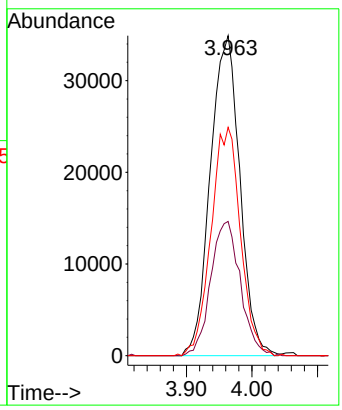
Tgt Ion:101 Resp: 10916

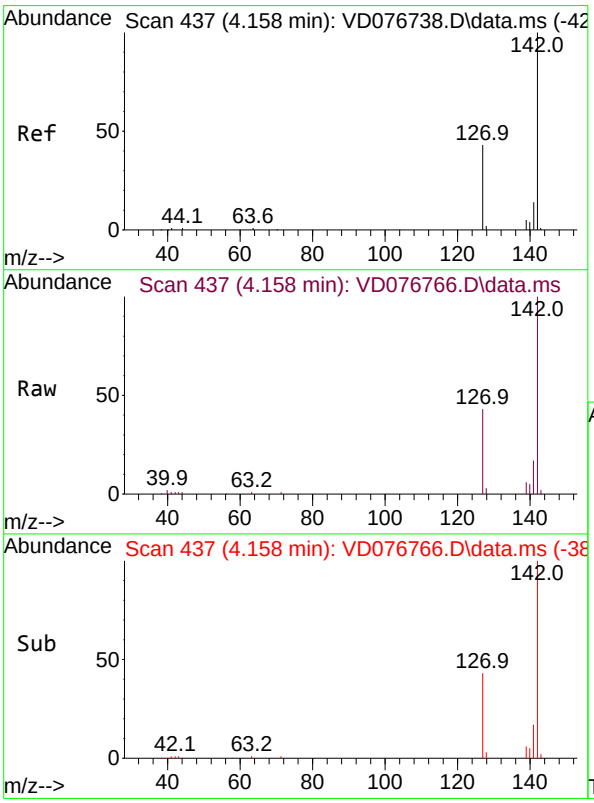
Ion	Ratio	Lower	Upper
101	100		
85	42.1	33.8	50.6
151	71.0	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

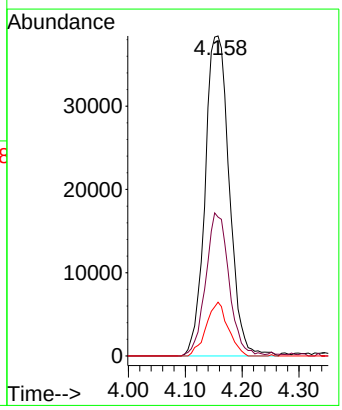


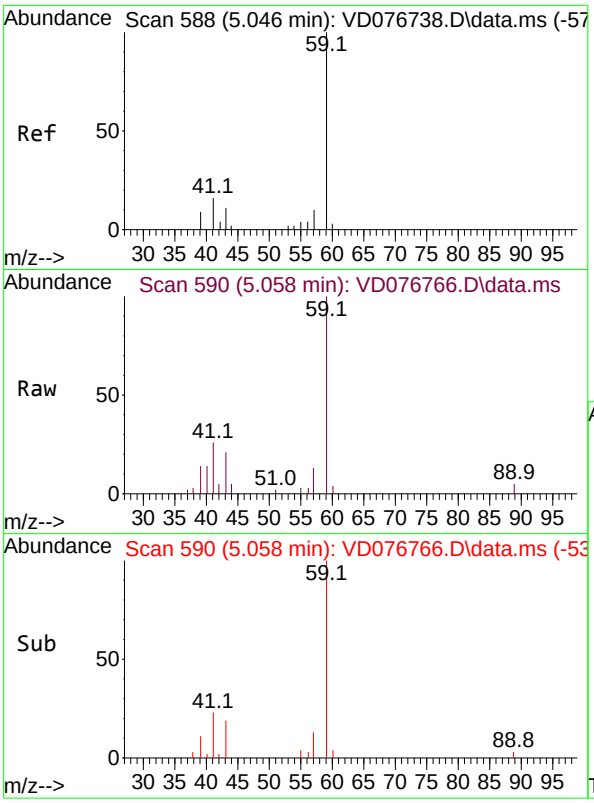


#10
Methyl Iodide
Concen: 46.332 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:142 Resp: 113705

Ion	Ratio	Lower	Upper
142	100		
127	43.2	29.4	44.0
141	15.2	11.1	16.7





#11
Tert butyl alcohol
Concen: 217.285 ug/l
RT: 5.058 min Scan# 5
Delta R.T. 0.011 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

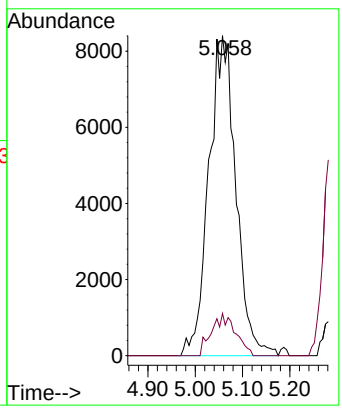
Tgt Ion: 59 Resp: 3342

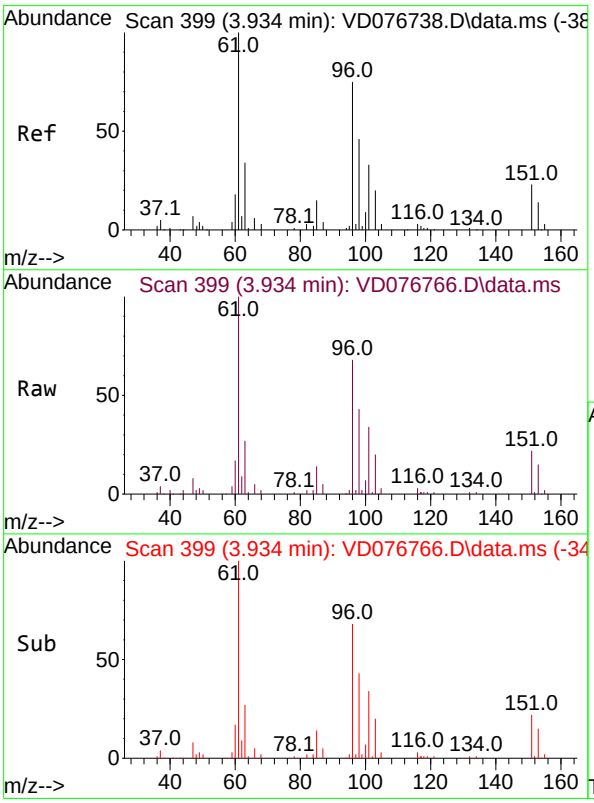
Ion	Ratio	Lower	Upper
59	100		
57	11.5	7.8	11.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

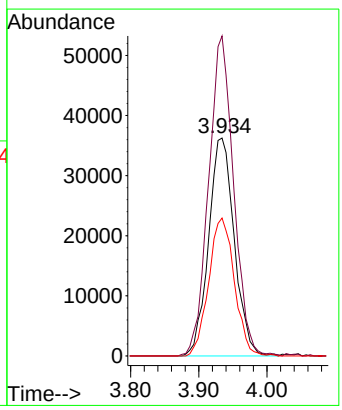


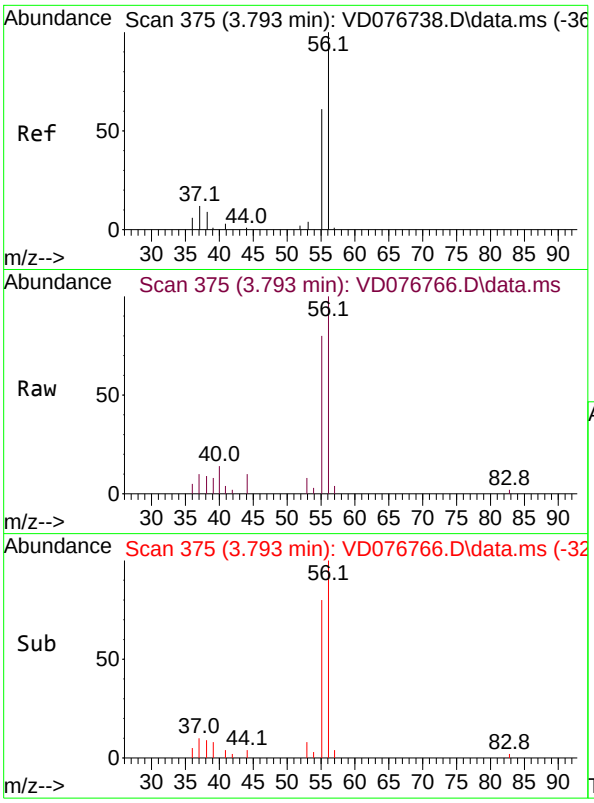


#12
1,1-Dichloroethene
Concen: 46.484 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 96 Resp: 95079

Ion	Ratio	Lower	Upper
96	100		
61	146.9	100.6	150.8
98	63.3	50.2	75.2

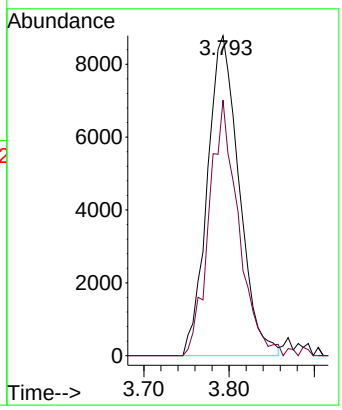




#13
Acrolein
Concen: 217.241 ug/l
RT: 3.793 min Scan# 3
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 56 Resp: 2277

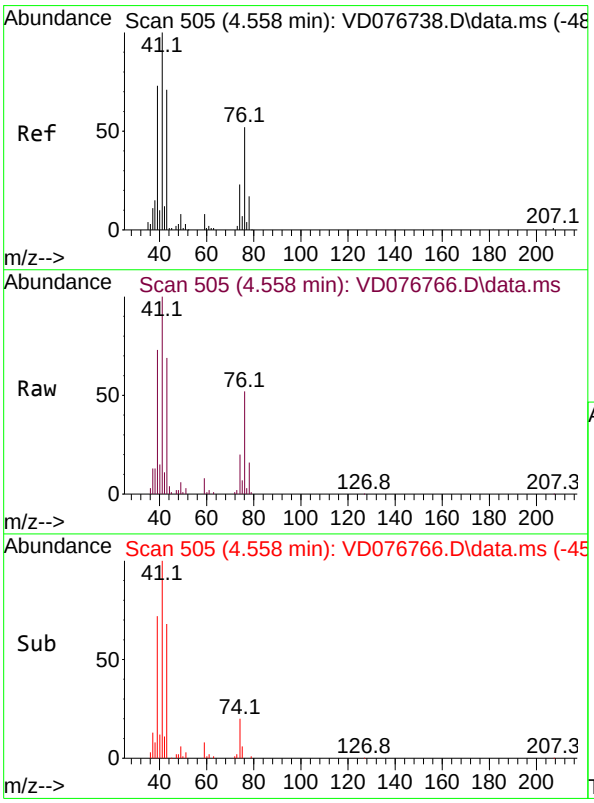
Ion	Ratio	Lower	Upper
56	100		
55	73.5	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

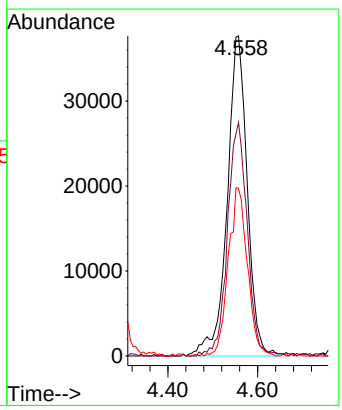
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

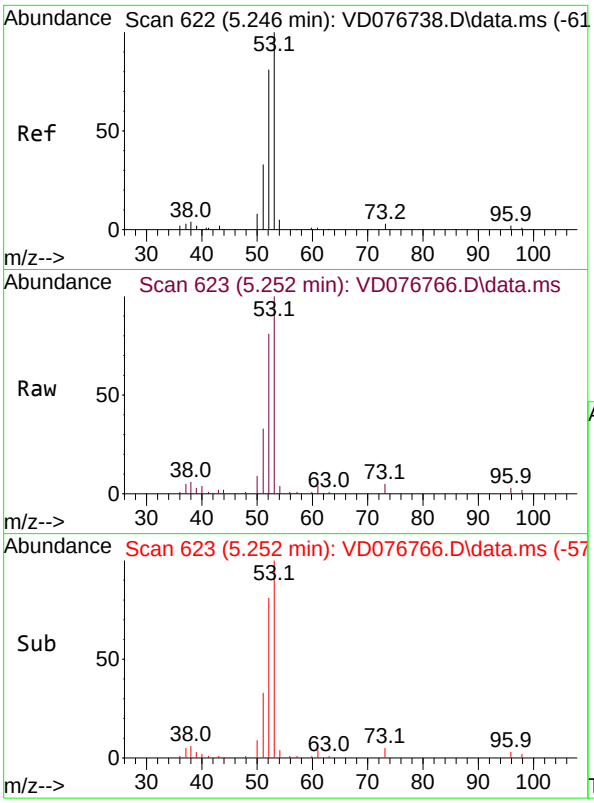


#14
Allyl chloride
Concen: 43.677 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 41 Resp: 117358

Ion	Ratio	Lower	Upper
41	100		
39	71.6	53.8	80.6
76	50.1	45.8	68.8





#15
Acrylonitrile
Concen: 206.814 ug/l
RT: 5.252 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

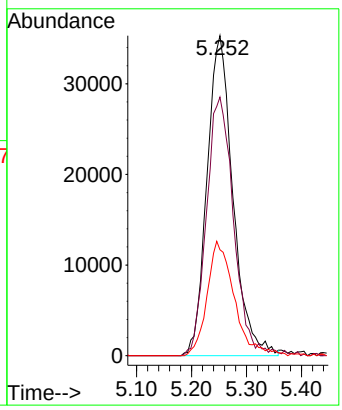
Tgt Ion: 53 Resp: 11582

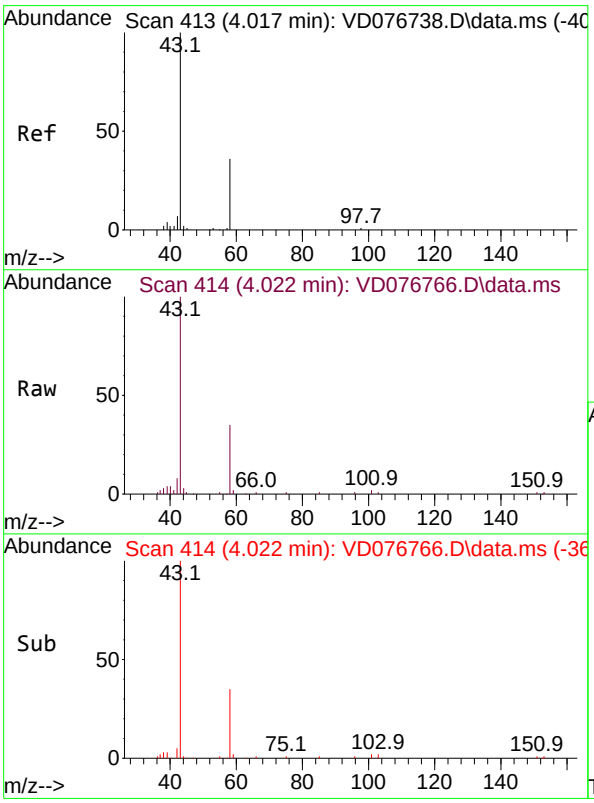
Ion	Ratio	Lower	Upper
53	100		
52	83.7	65.0	97.4
51	37.3	28.3	42.5

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

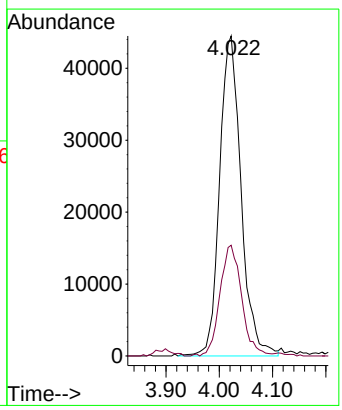


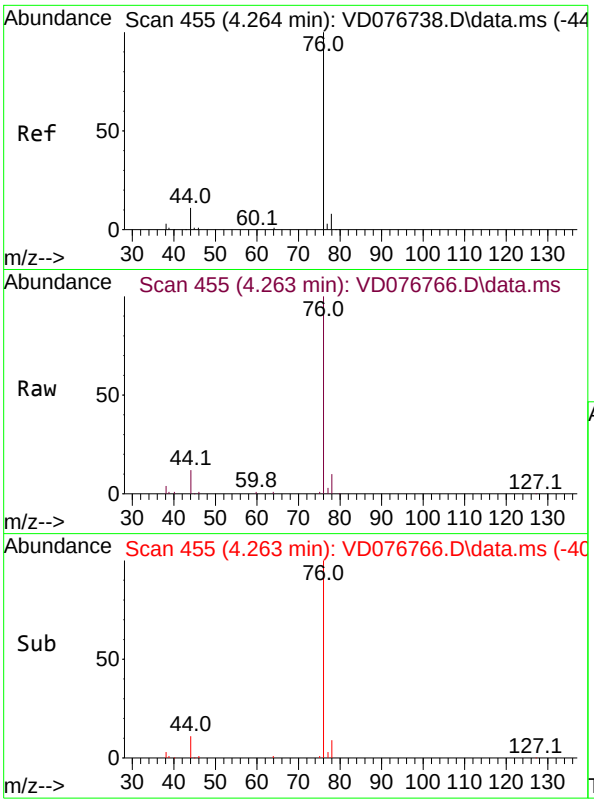


#16
Acetone
Concen: 252.882 ug/l
RT: 4.022 min Scan# 414
Delta R.T. 0.005 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 43 Resp: 124515

Ion	Ratio	Lower	Upper
43	100		
58	33.8	34.7	52.1#





#17
Carbon Disulfide
Concen: 44.952 ug/l
RT: 4.263 min Scan# 4
Delta R.T. -0.001 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

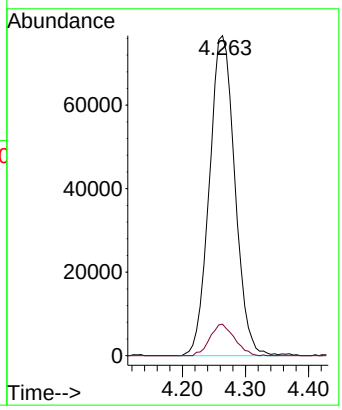
Tgt Ion: 76 Resp: 21475

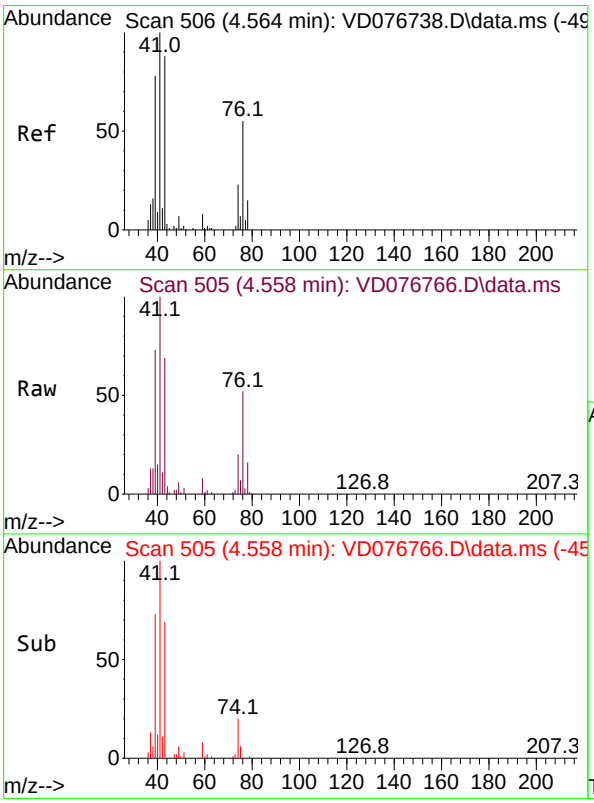
Ion	Ratio	Lower	Upper
76	100		
78	9.9	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

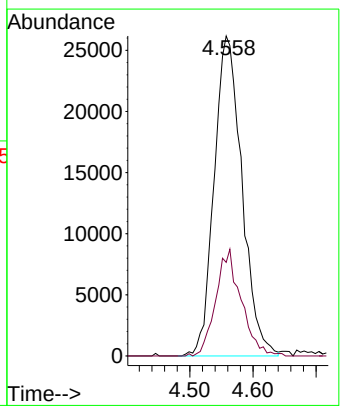


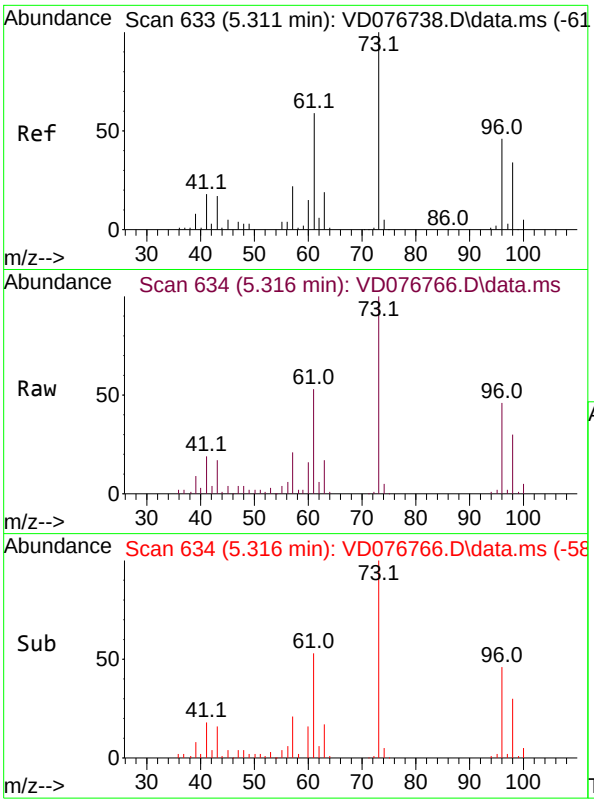


#18
Methyl Acetate
Concen: 43.217 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 43 Resp: 79950

Ion	Ratio	Lower	Upper
43	100		
74	30.6	26.4	39.6





#19
Methyl tert-butyl Ether
Concen: 42.983 ug/l
RT: 5.316 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

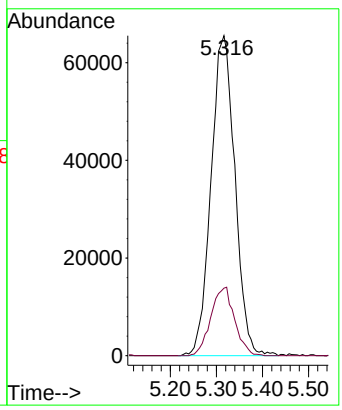
Tgt Ion: 73 Resp: 23577

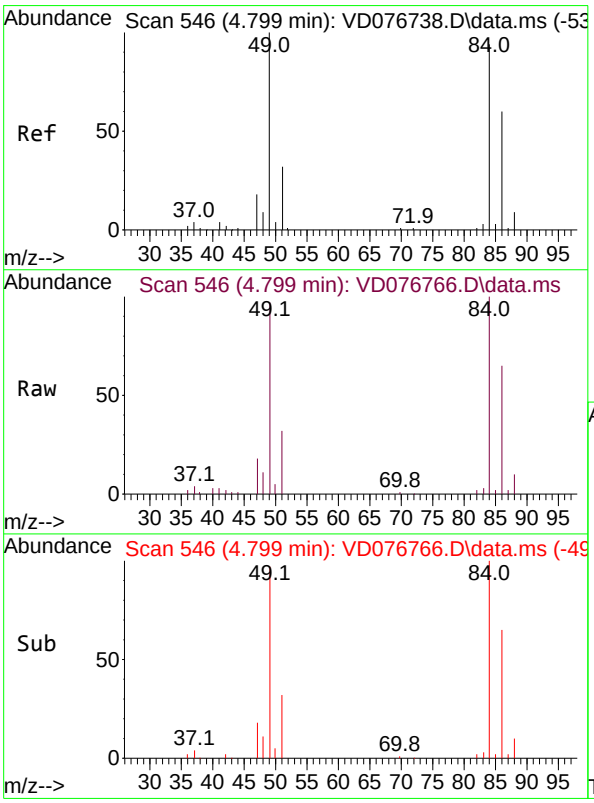
Ion	Ratio	Lower	Upper
73	100		
57	21.1	16.6	25.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

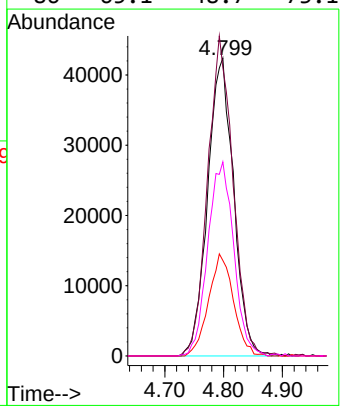


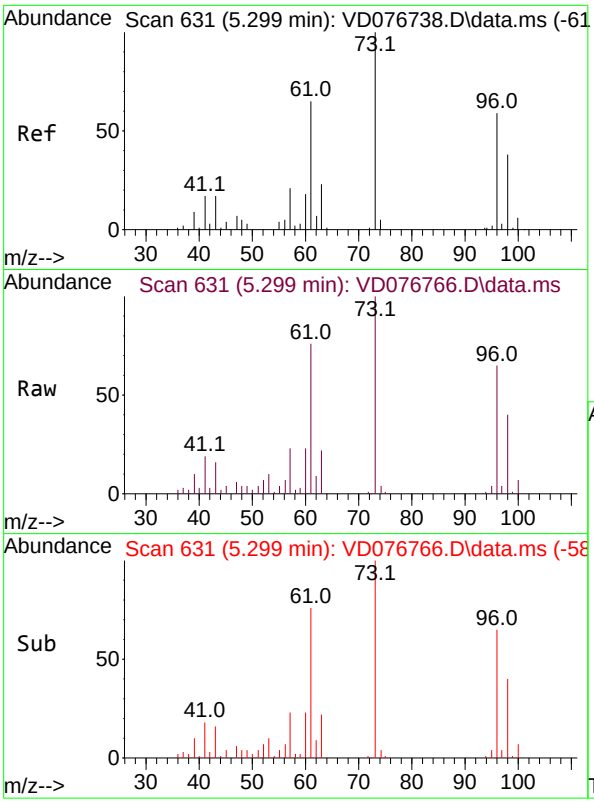


#20
Methylene Chloride
Concen: 42.838 ug/l
RT: 4.799 min Scan# 546
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 84 Resp: 129924

Ion	Ratio	Lower	Upper
84	100		
49	96.9	71.4	107.2
51	32.1	24.5	36.7
86	65.1	48.7	73.1





#21
trans-1,2-Dichloroethene
Concen: 44.425 ug/l
RT: 5.299 min Scan# 6
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

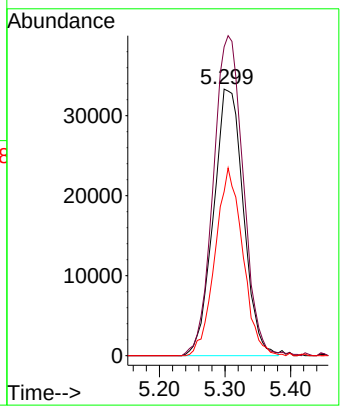
Tgt Ion: 96 Resp: 10562

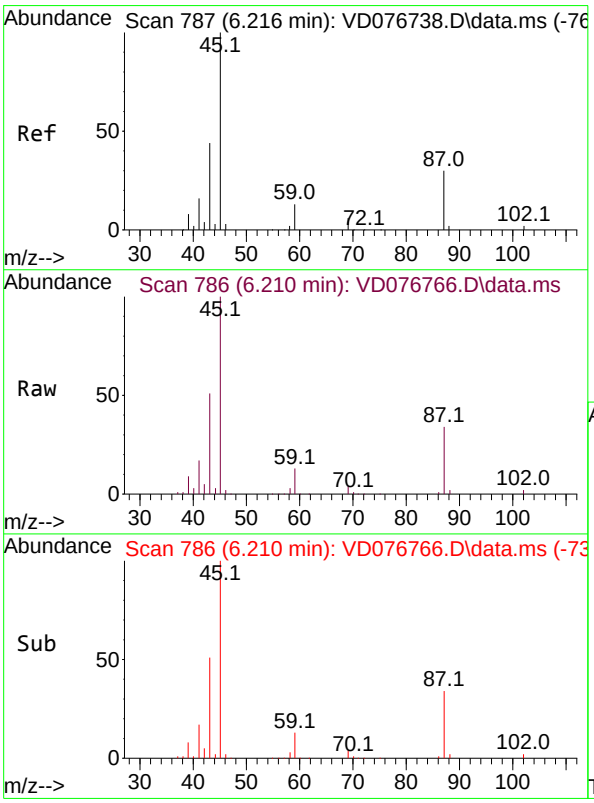
Ion	Ratio	Lower	Upper
96	100		
61	115.8	89.3	133.9
98	61.5	48.6	73.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

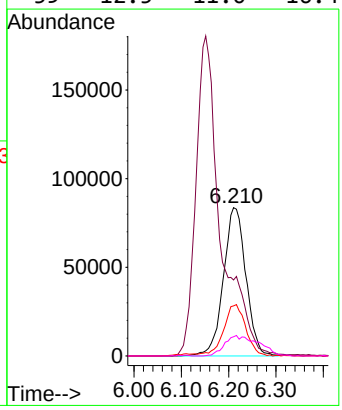


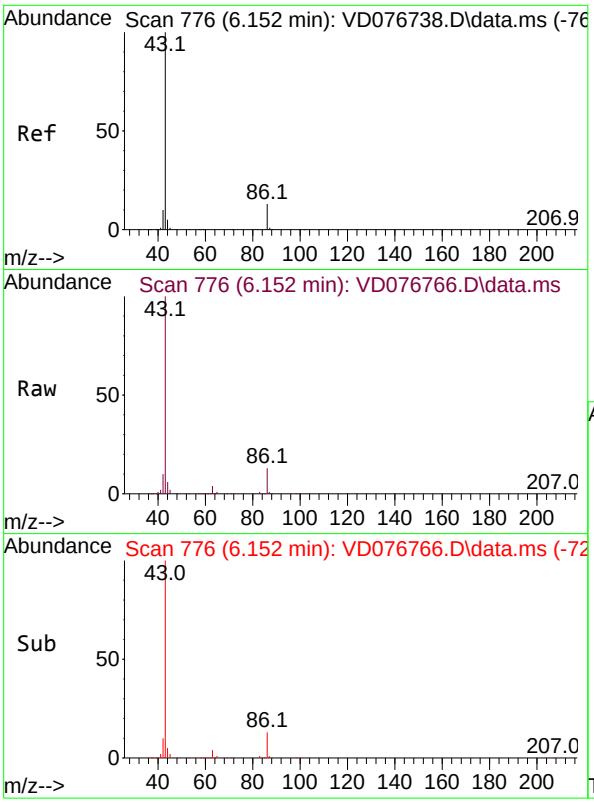


#22
Diisopropyl ether
Concen: 43.375 ug/l
RT: 6.210 min Scan# 786
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 45 Resp: 275982

Ion	Ratio	Lower	Upper
45	100		
43	50.2	40.0	60.0
87	33.4	28.2	42.4
59	12.5	11.0	16.4





#23
Vinyl Acetate
Concen: 208.770 ug/l
RT: 6.152 min Scan# 7
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

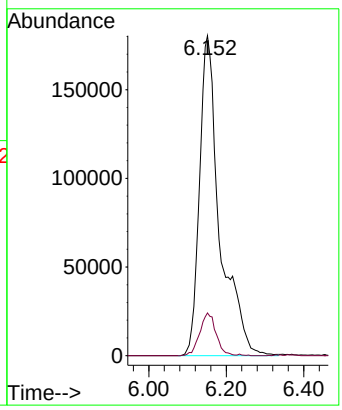
Tgt Ion: 43 Resp: 65724

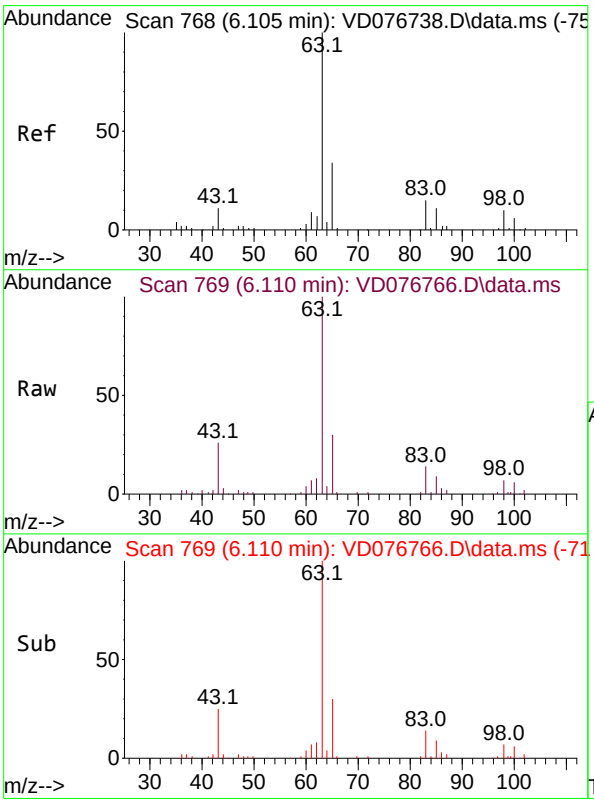
Ion	Ratio	Lower	Upper
43	100		
86	13.3	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

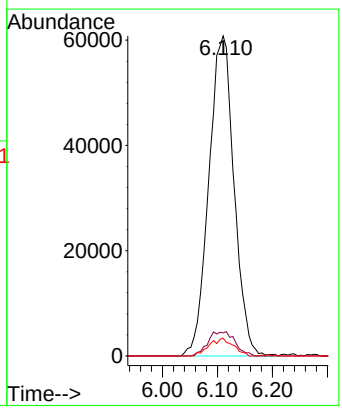


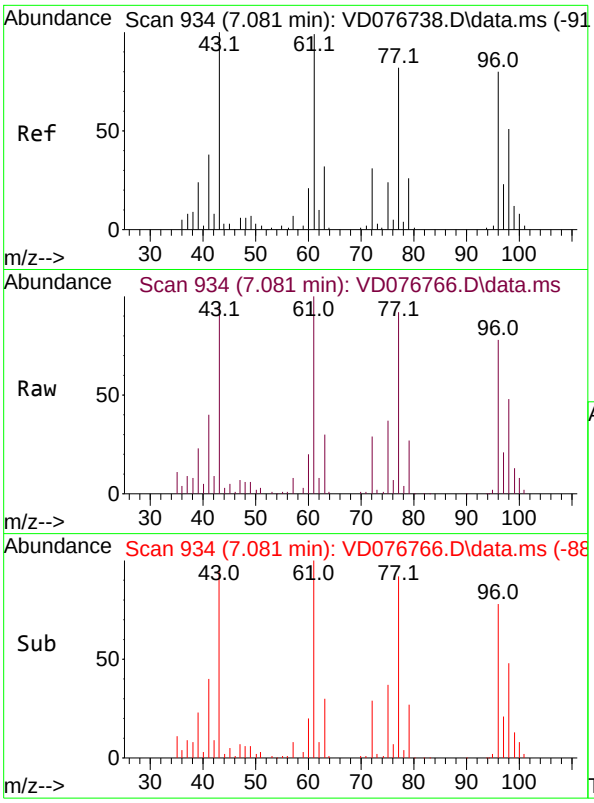


#24
1,1-Dichloroethane
Concen: 45.166 ug/l
RT: 6.110 min Scan# 769
Delta R.T. 0.005 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 63 Resp: 193763

Ion	Ratio	Lower	Upper
63	100		
98	7.2	4.5	13.7
100	5.5	2.5	7.5





#25
2-Butanone
Concen: 232.220 ug/l
RT: 7.081 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

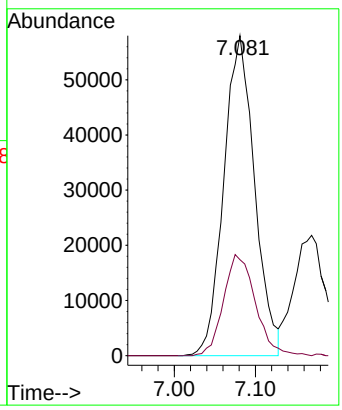
Tgt Ion: 43 Resp: 15302

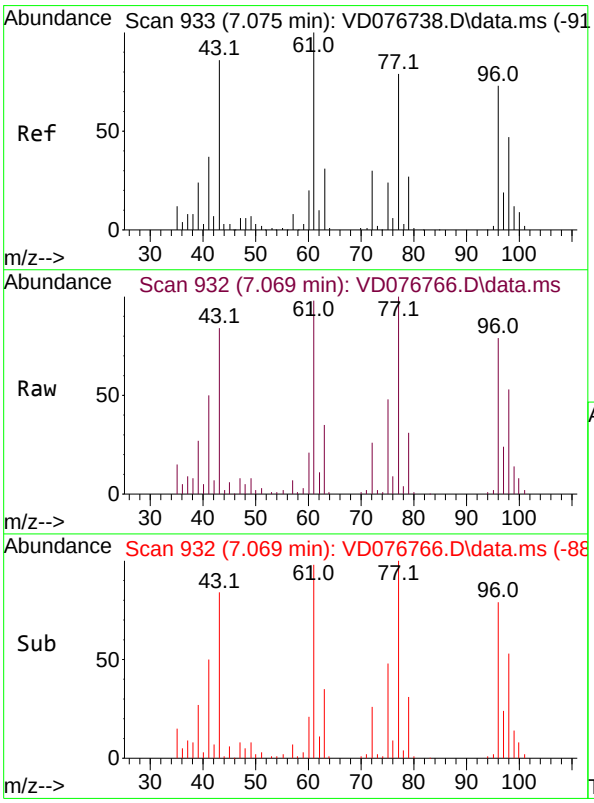
Ion	Ratio	Lower	Upper
43	100		
72	30.1	30.7	46.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

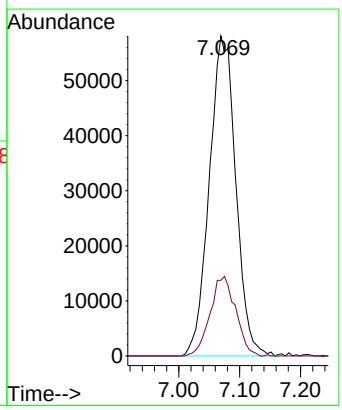


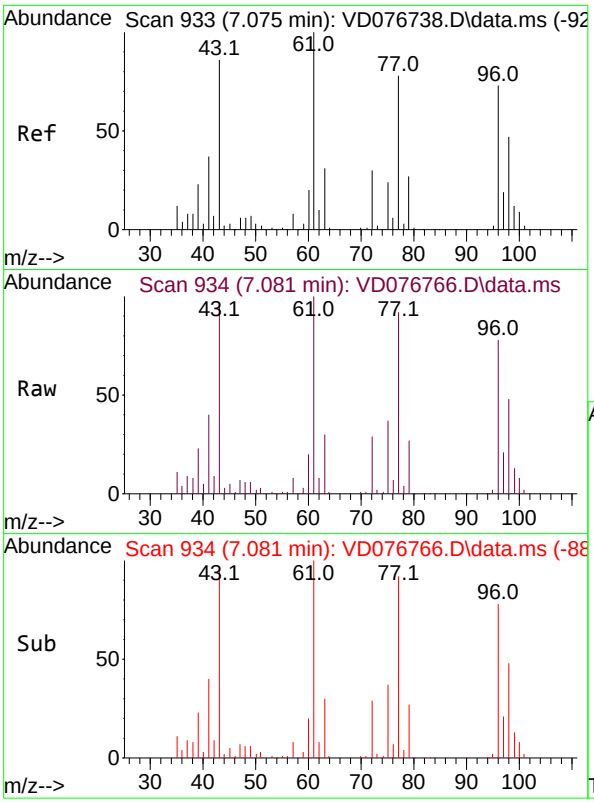


#26
2,2-Dichloropropane
Concen: 47.471 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 77 Resp: 175551

Ion	Ratio	Lower	Upper
77	100		
97	24.0	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 45.416 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

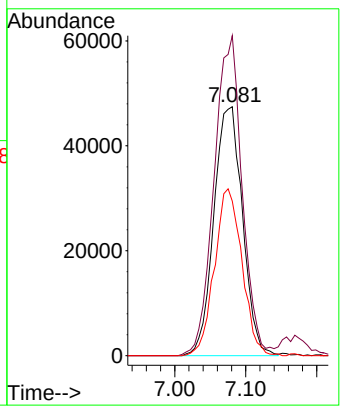
Tgt Ion: 96 Resp: 13311

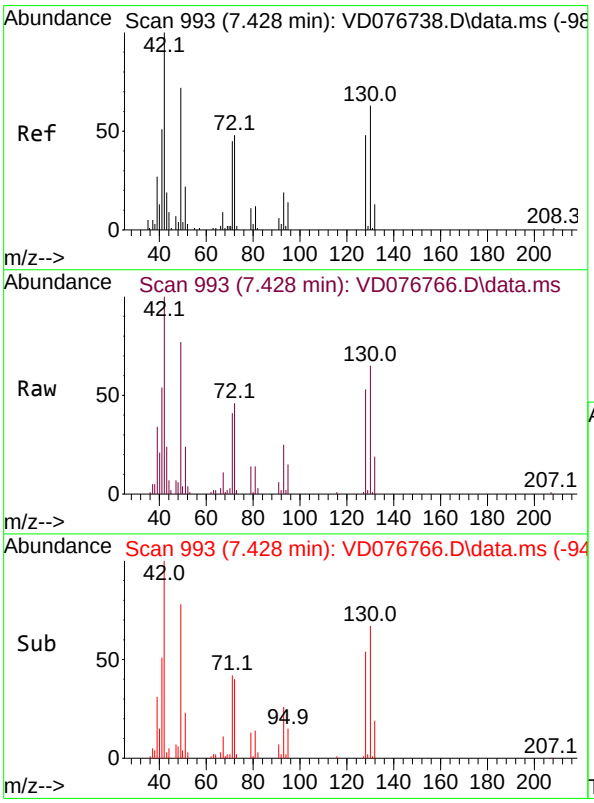
Ion	Ratio	Lower	Upper
96	100		
61	125.7	0.0	239.2
98	64.3	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

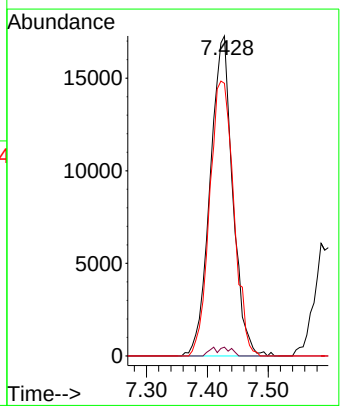


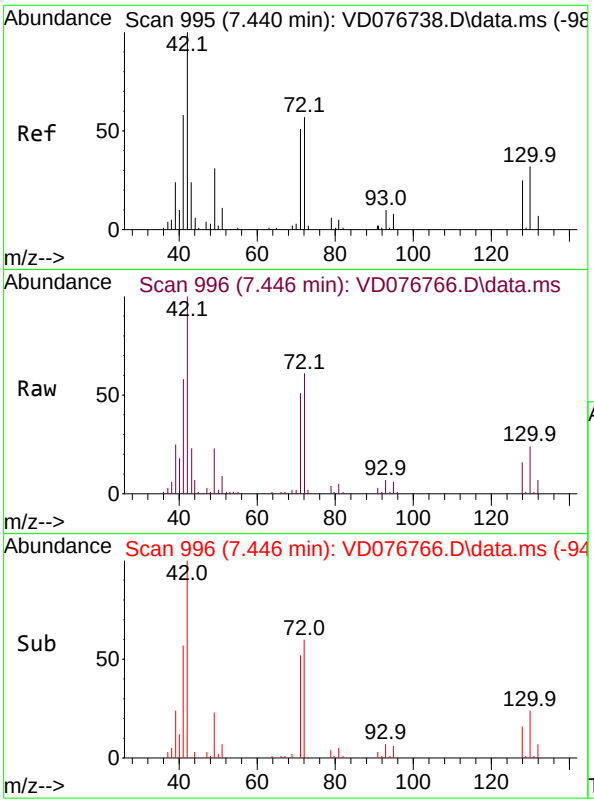


#28
Bromochloromethane
Concen: 41.419 ug/l
RT: 7.428 min Scan# 993
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 49 Resp: 44424

Ion	Ratio	Lower	Upper
49	100		
129	1.4	0.0	6.0
130	91.8	83.2	124.8





#29
Tetrahydrofuran
Concen: 211.642 ug/l
RT: 7.446 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

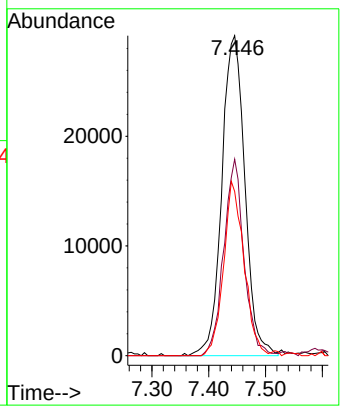
Tgt Ion: 42 Resp: 8240

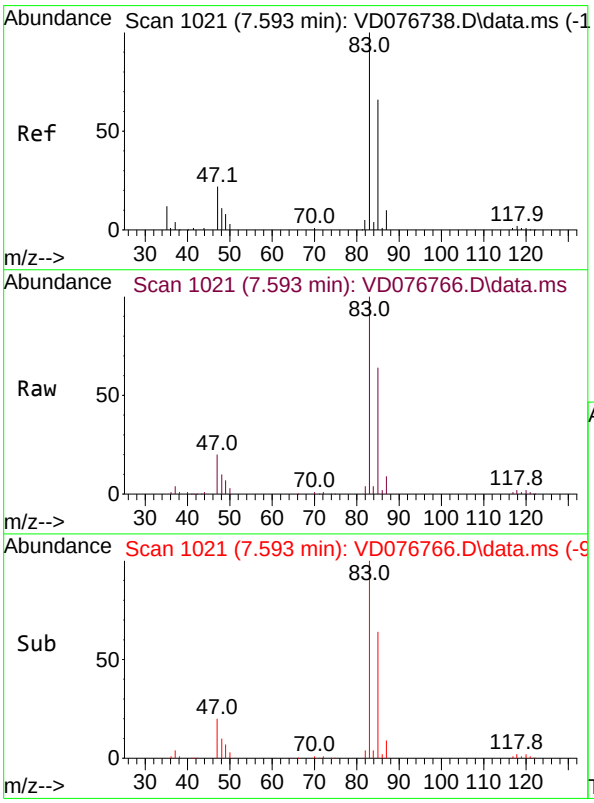
Ion	Ratio	Lower	Upper
42	100		
72	53.9	46.5	69.7
71	48.2	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

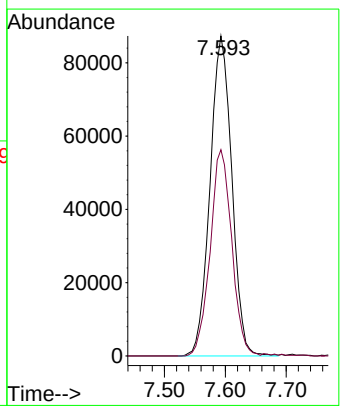


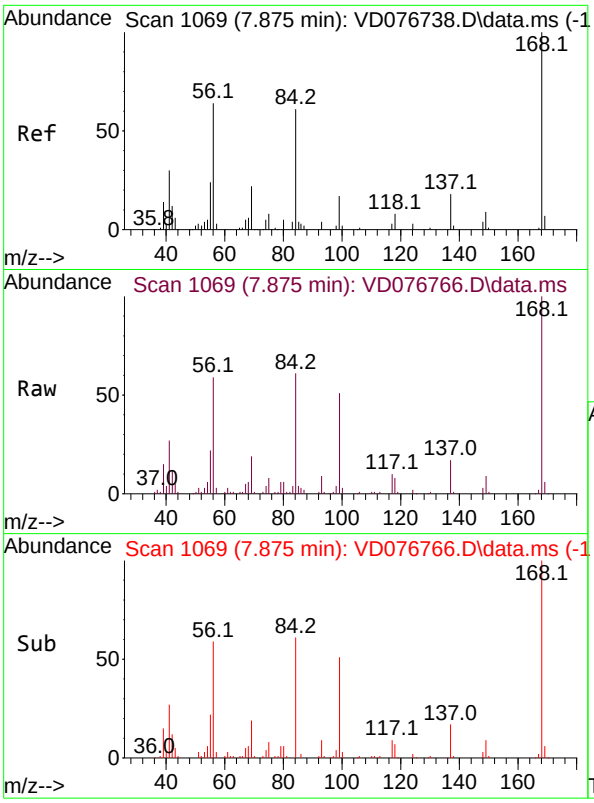


#30
Chloroform
Concen: 46.107 ug/l
RT: 7.593 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 83 Resp: 216645

Ion	Ratio	Lower	Upper
83	100		
85	64.4	53.4	80.2





#31
Cyclohexane
Concen: 46.726 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

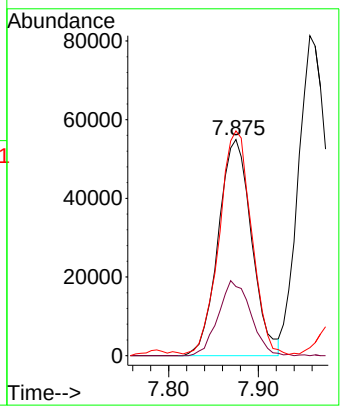
Tgt Ion: 56 Resp: 14177

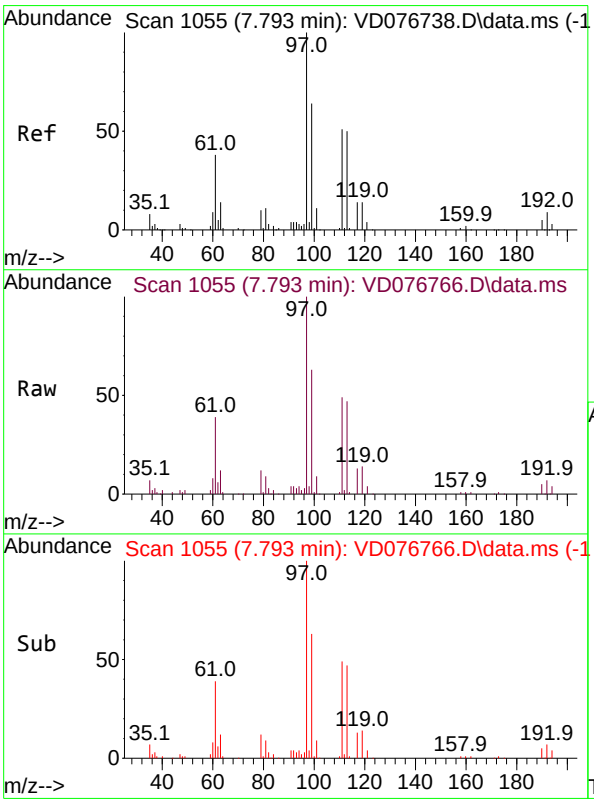
Ion	Ratio	Lower	Upper
56	100		
69	32.0	28.6	43.0
84	102.5	84.8	127.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

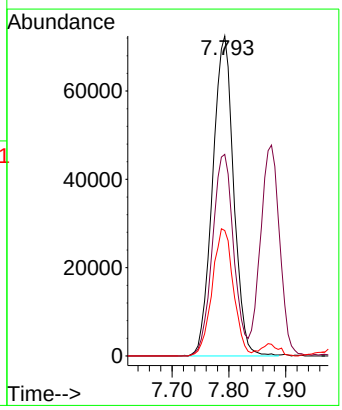


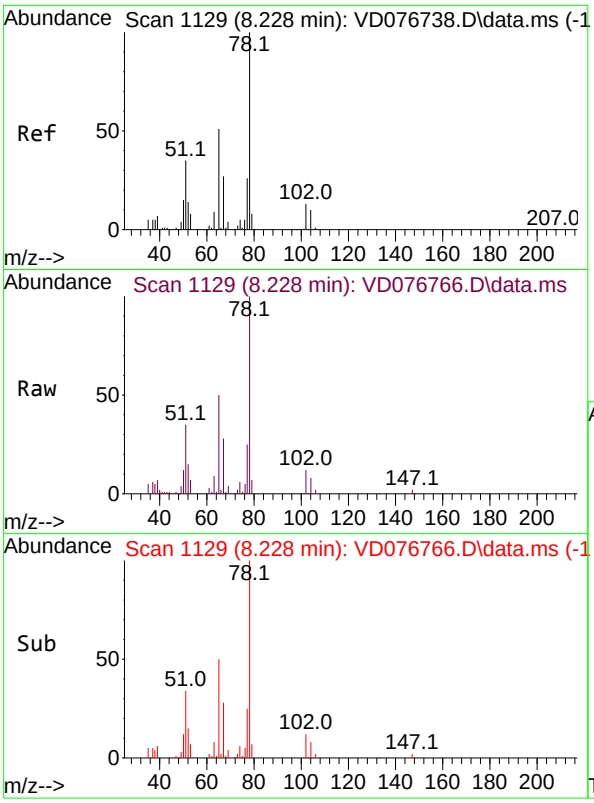


#32
1,1,1-Trichloroethane
Concen: 49.149 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 97 Resp: 186326

Ion	Ratio	Lower	Upper
97	100		
99	63.9	52.0	78.0
61	40.1	33.8	50.8

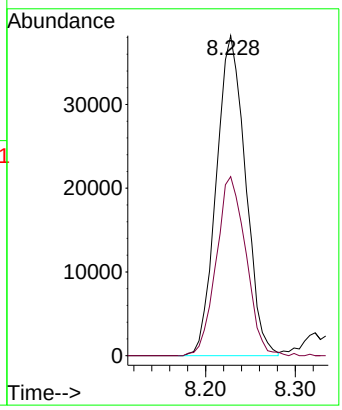




#33
1,2-Dichloroethane-d4
Concen: 41.865 ug/l
RT: 8.228 min Scan# 11
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 65 Resp: 8631

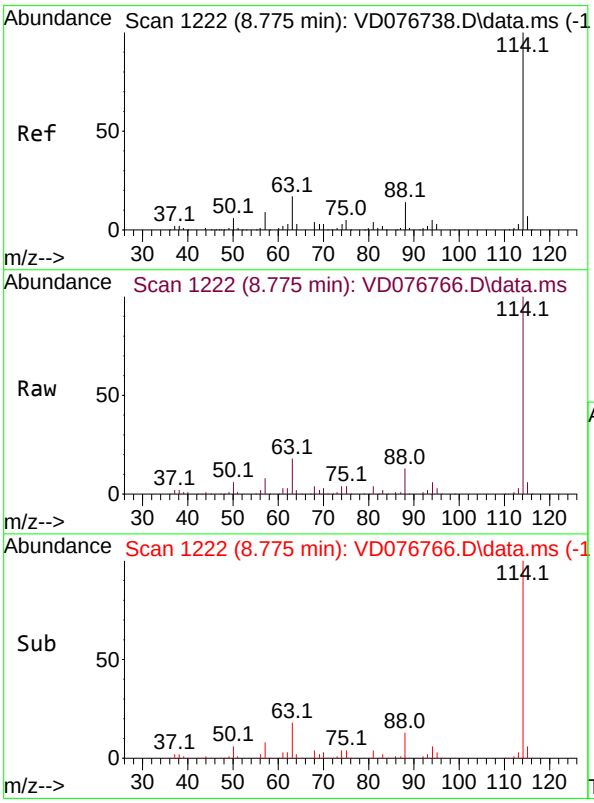
Ion	Ratio	Lower	Upper
65	100		
67	56.7	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

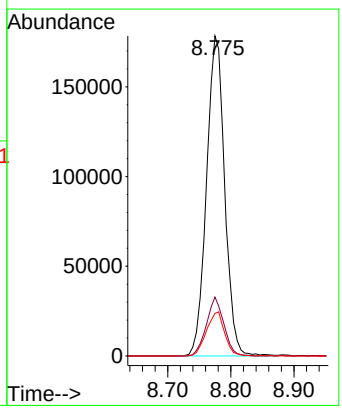
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

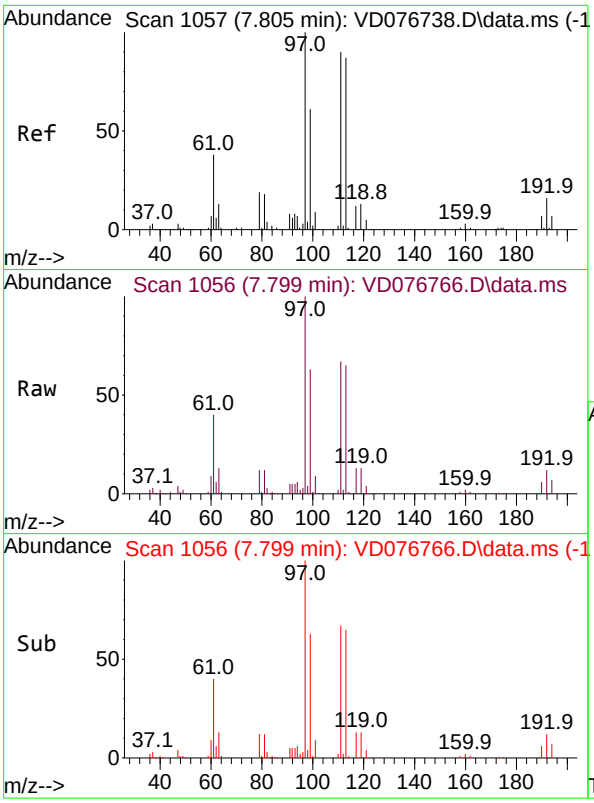


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:114 Resp: 357390

Ion	Ratio	Lower	Upper
114	100		
63	18.4	0.0	33.4
88	13.3	0.0	26.2





#35
Dibromofluoromethane
Concen: 45.293 ug/l
RT: 7.799 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

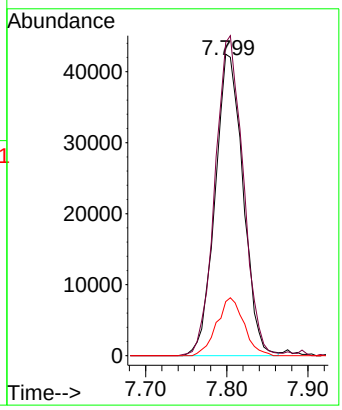
Tgt Ion:113 Resp: 10172

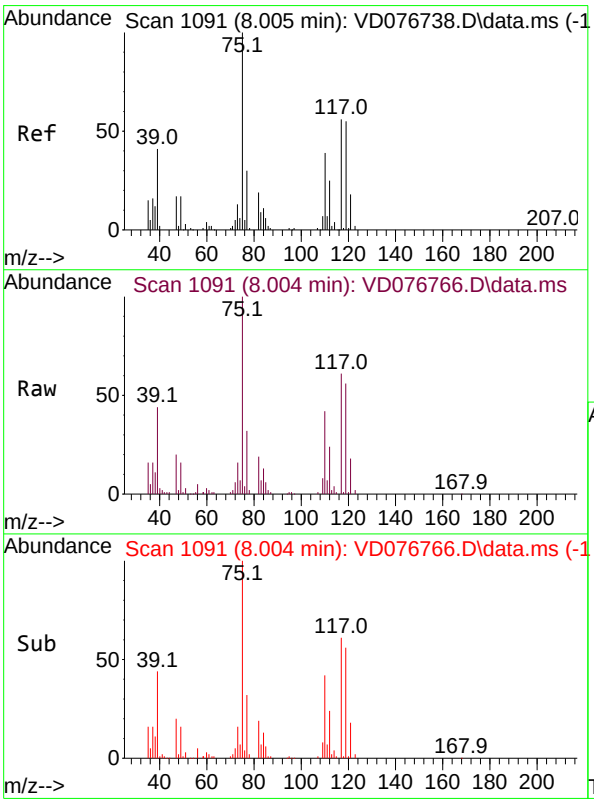
Ion	Ratio	Lower	Upper
113	100		
111	106.5	84.7	127.1
192	18.6	16.8	25.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

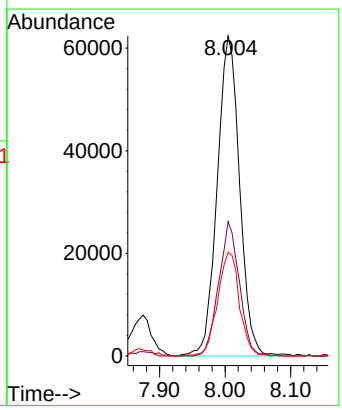


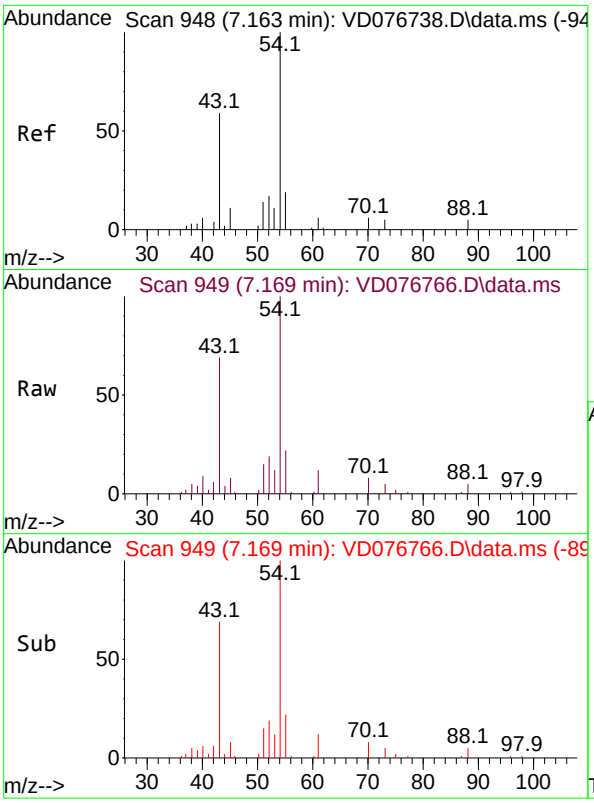


#36
1,1-Dichloropropene
Concen: 50.270 ug/l
RT: 8.004 min Scan# 1091
Delta R.T. -0.001 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 75 Resp: 147530

Ion	Ratio	Lower	Upper
75	100		
110	38.7	19.9	59.6
77	31.7	24.7	37.1





#37
Ethyl Acetate
Concen: 44.637 ug/l
RT: 7.169 min Scan# 94
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

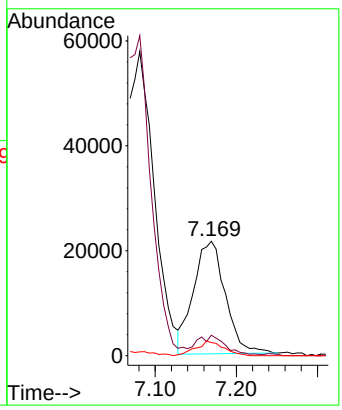
Tgt Ion: 43 Resp: 5858

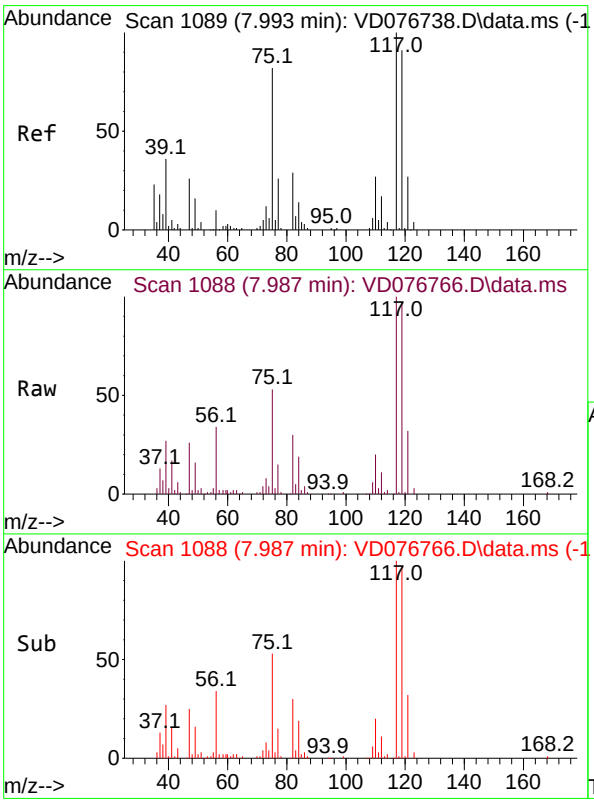
Ion	Ratio	Lower	Upper
43	100		
61	0.0	14.9	22.3#
70	11.2	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

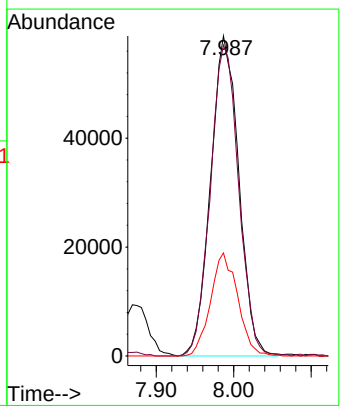


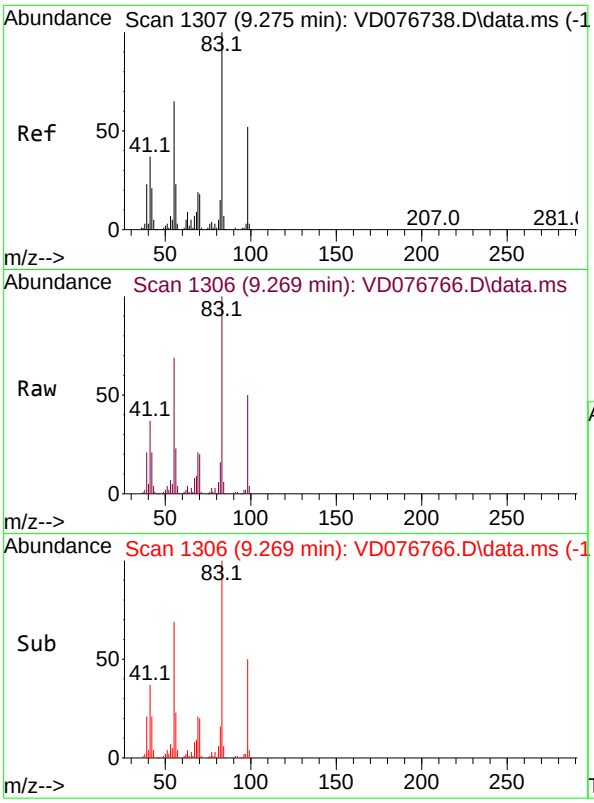


#38
Carbon Tetrachloride
Concen: 52.838 ug/l
RT: 7.987 min Scan# 1088
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:117 Resp: 148479

Ion	Ratio	Lower	Upper
117	100		
119	97.1	78.0	117.0
121	32.2	24.2	36.2





#39
Methylcyclohexane
Concen: 51.337 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

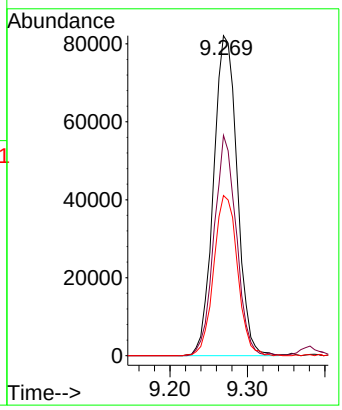
Tgt Ion: 83 Resp: 17396

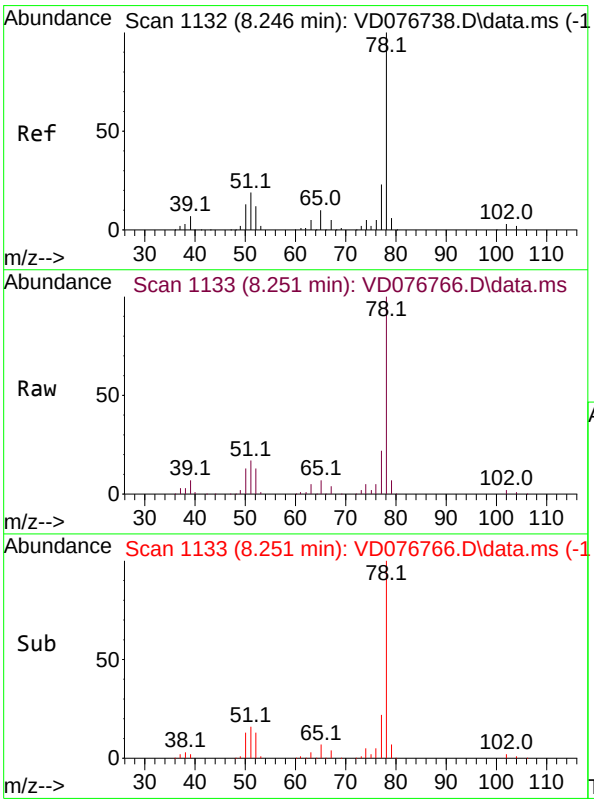
Ion	Ratio	Lower	Upper
83	100		
55	68.9	49.4	74.0
98	50.1	38.4	57.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

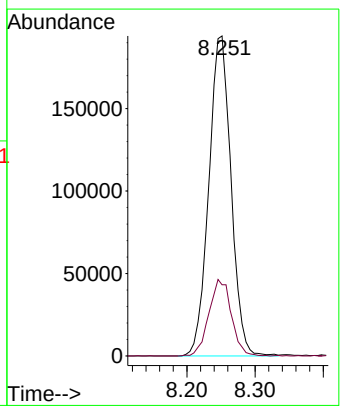


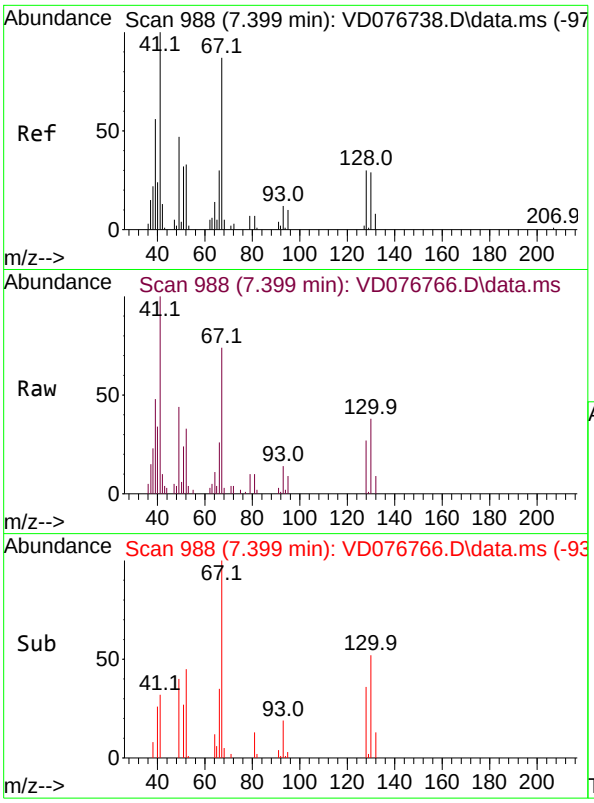


#40
Benzene
Concen: 47.536 ug/l
RT: 8.251 min Scan# 1133
Delta R.T. 0.005 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 78 Resp: 440177

Ion	Ratio	Lower	Upper
78	100		
77	22.3	19.4	29.0

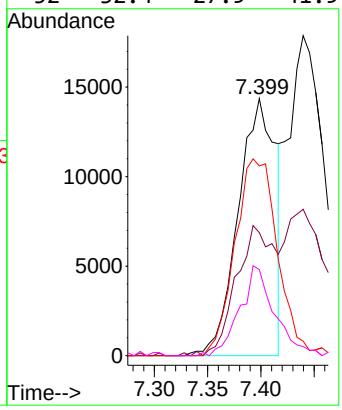




#41
Methacrylonitrile
Concen: 43.809 ug/l
RT: 7.399 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 41 Resp: 3511

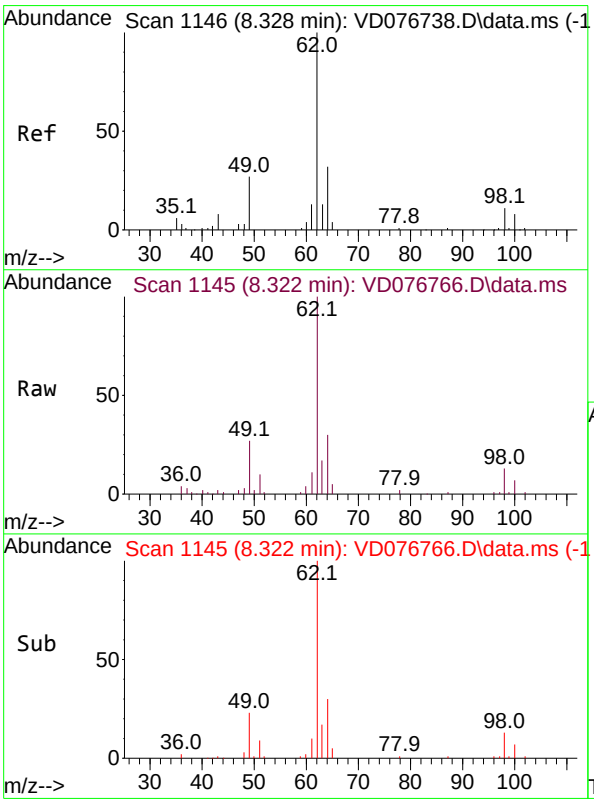
Ion	Ratio	Lower	Upper
41	100		
39	51.8	34.0	51.0
67	87.2	77.0	115.4
52	32.4	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

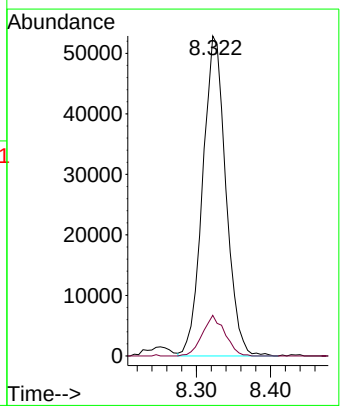
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

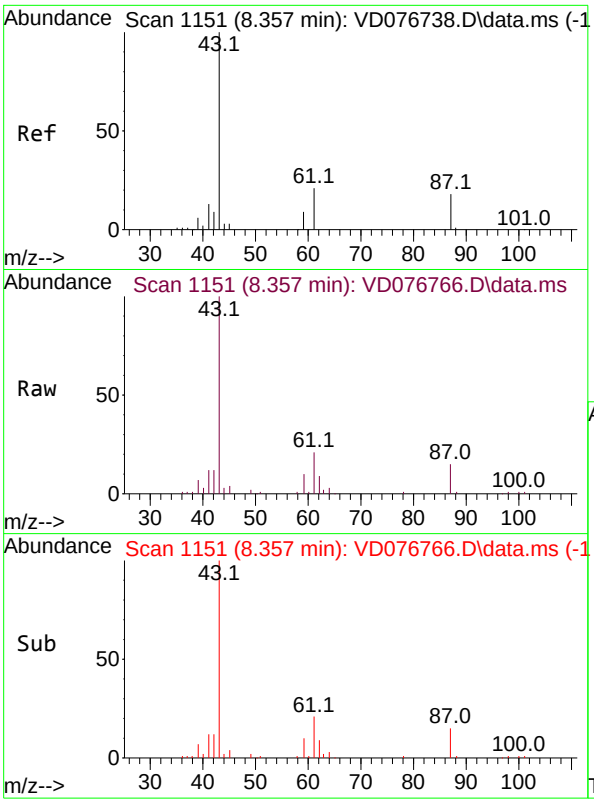


#42
1,2-Dichloroethane
Concen: 47.761 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 62 Resp: 114911

Ion	Ratio	Lower	Upper
62	100		
98	12.3	0.0	25.4





#43
Isopropyl Acetate
Concen: 44.830 ug/l
RT: 8.357 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

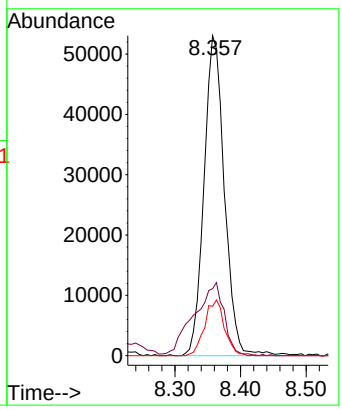
Tgt Ion: 43 Resp: 11482

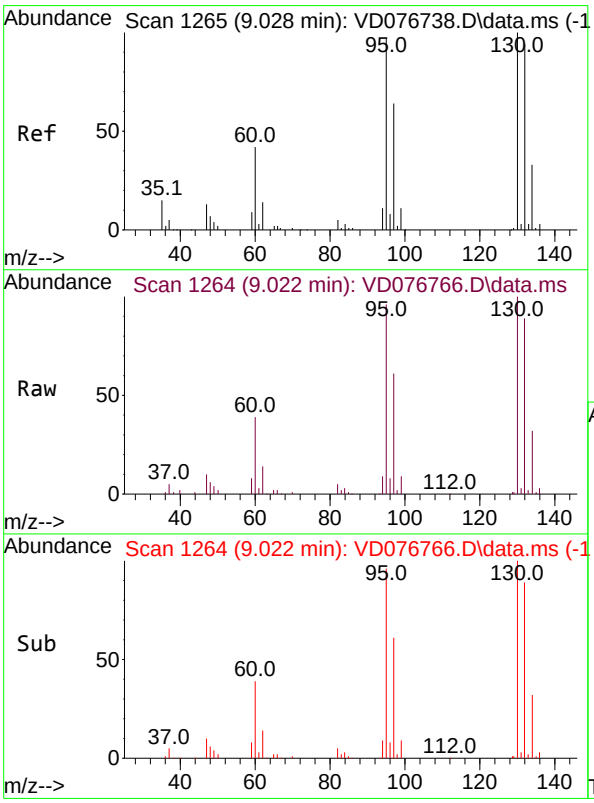
Ion	Ratio	Lower	Upper
43	100		
61	33.5	31.4	47.0
87	16.9	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

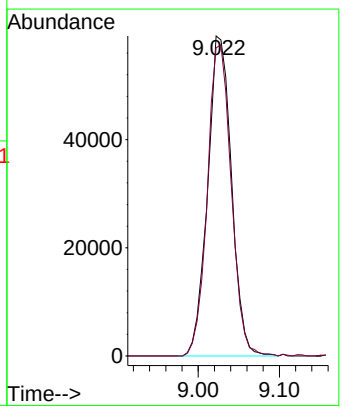


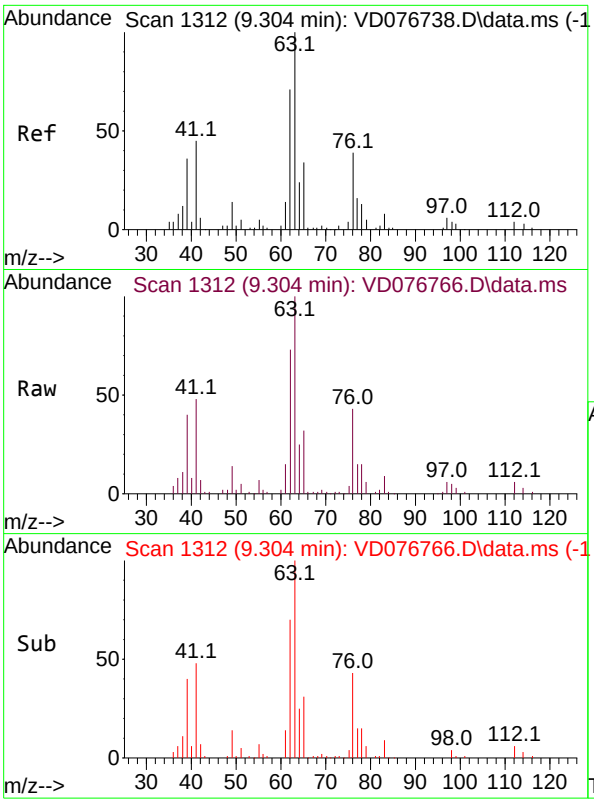


#44
Trichloroethene
Concen: 47.895 ug/l
RT: 9.022 min Scan# 1264
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:130 Resp: 120854

Ion	Ratio	Lower	Upper
130	100		
95	96.3	0.0	179.2





#45
1,2-Dichloropropane
Concen: 47.538 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

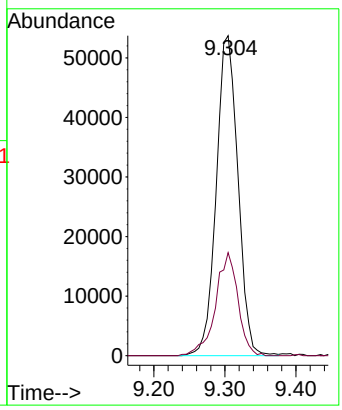
Tgt Ion: 63 Resp: 11362

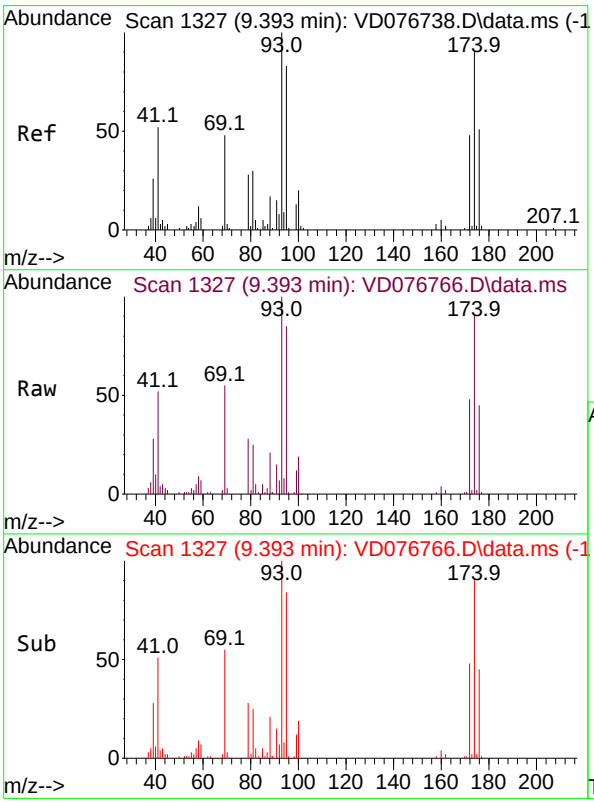
Ion	Ratio	Lower	Upper
63	100		
65	32.2	24.5	36.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

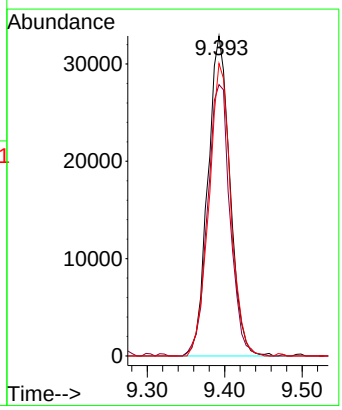


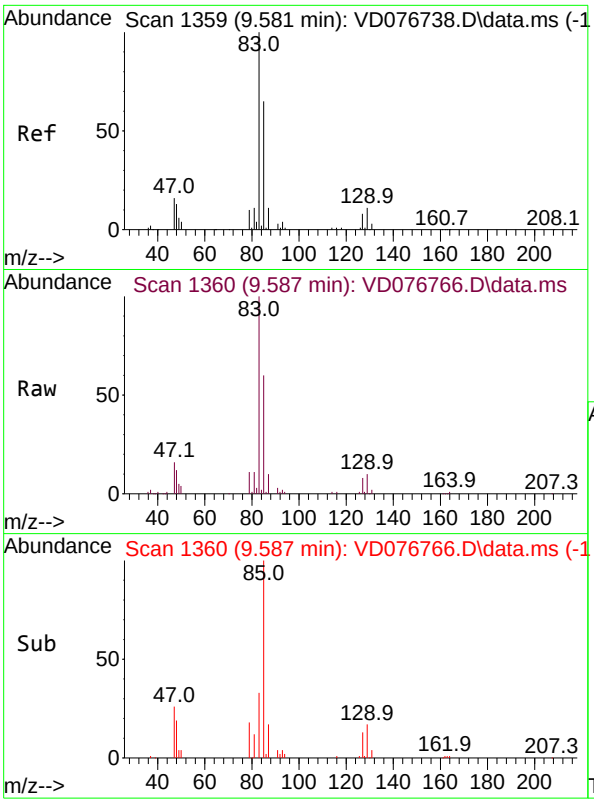


#46
Dibromomethane
Concen: 46.596 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 93 Resp: 65194

Ion	Ratio	Lower	Upper
93	100		
95	86.3	67.7	101.5
174	90.1	85.4	128.2

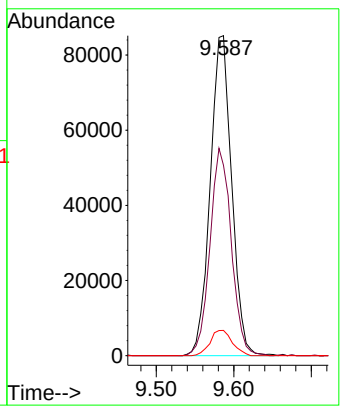




#47
Bromodichloromethane
Concen: 46.585 ug/l
RT: 9.587 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 83 Resp: 16356

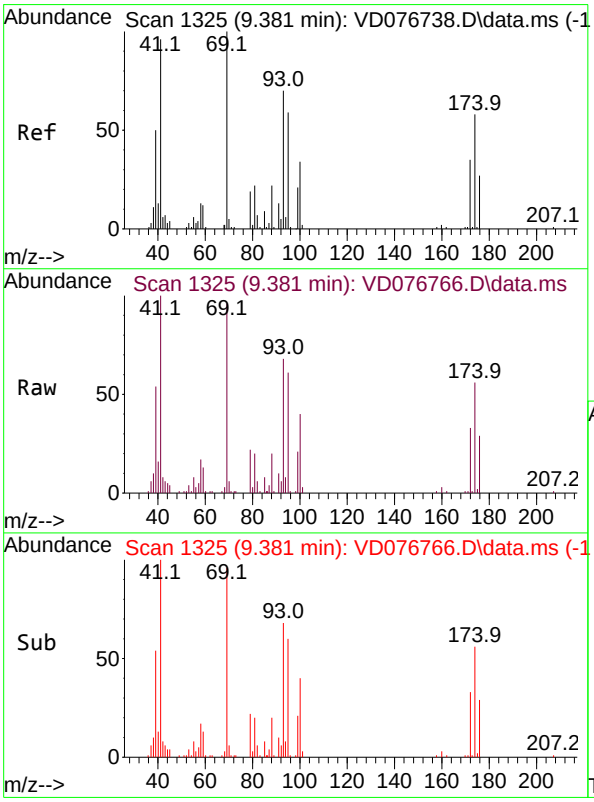
Ion	Ratio	Lower	Upper
83	100		
85	59.5	50.2	75.4
127	7.9	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

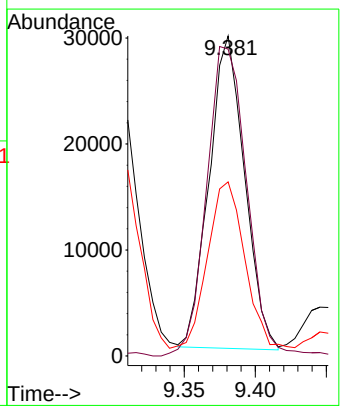
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

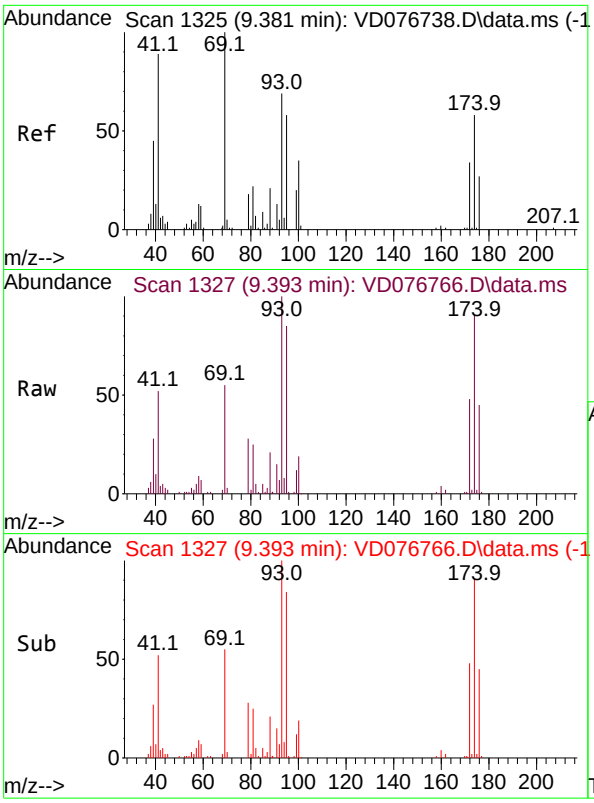


#48
Methyl methacrylate
Concen: 43.845 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 41 Resp: 51113

Ion	Ratio	Lower	Upper
41	100		
69	112.7	102.2	153.2
39	57.4	41.4	62.2





#49
1,4-Dioxane
Concen: 906.515 ug/l
RT: 9.393 min Scan# 1
Delta R.T. 0.012 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

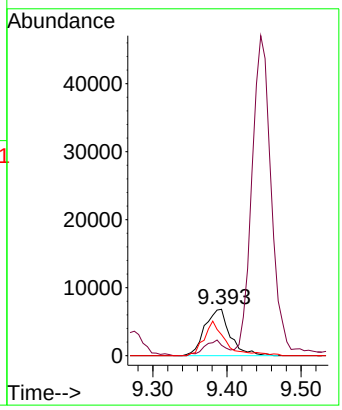
Tgt Ion: 88 Resp: 1625

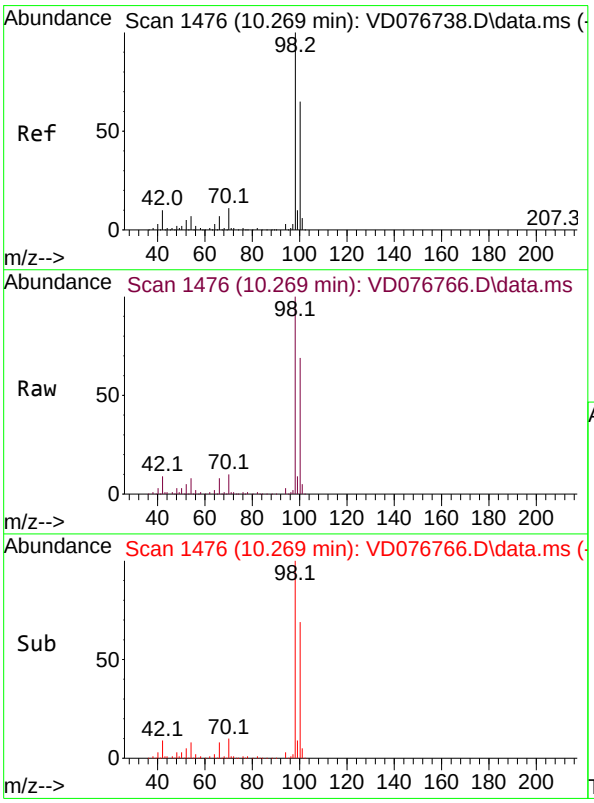
Ion	Ratio	Lower	Upper
88	100		
43	26.2	19.0	28.6
58	62.6	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

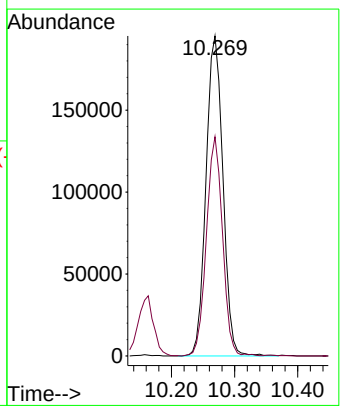


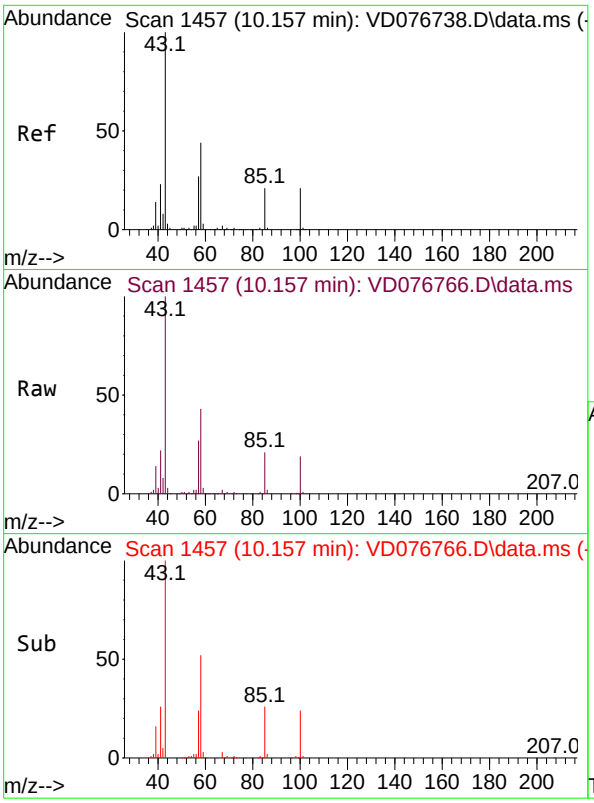


#50
Toluene-d8
Concen: 45.157 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 98 Resp: 362809

Ion	Ratio	Lower	Upper
98	100		
100	65.5	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 230.646 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

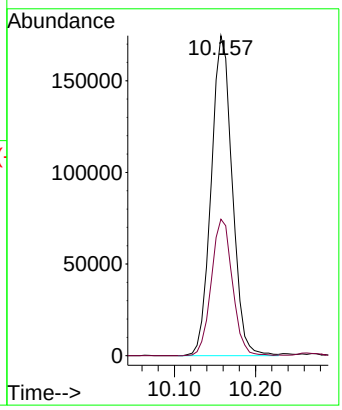
Tgt Ion: 43 Resp: 31454

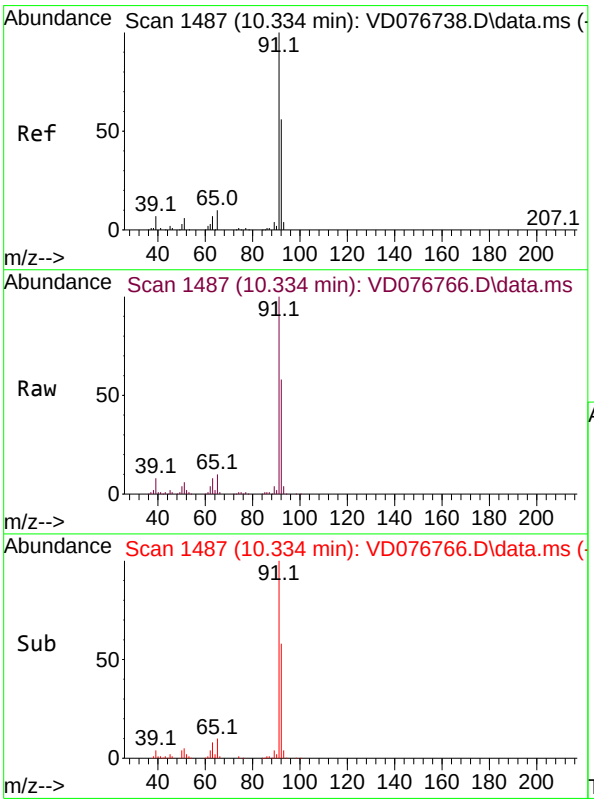
Ion	Ratio	Lower	Upper
43	100		
58	42.8	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

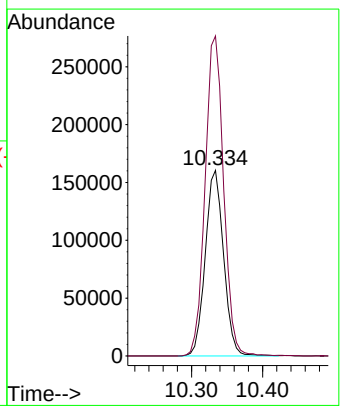


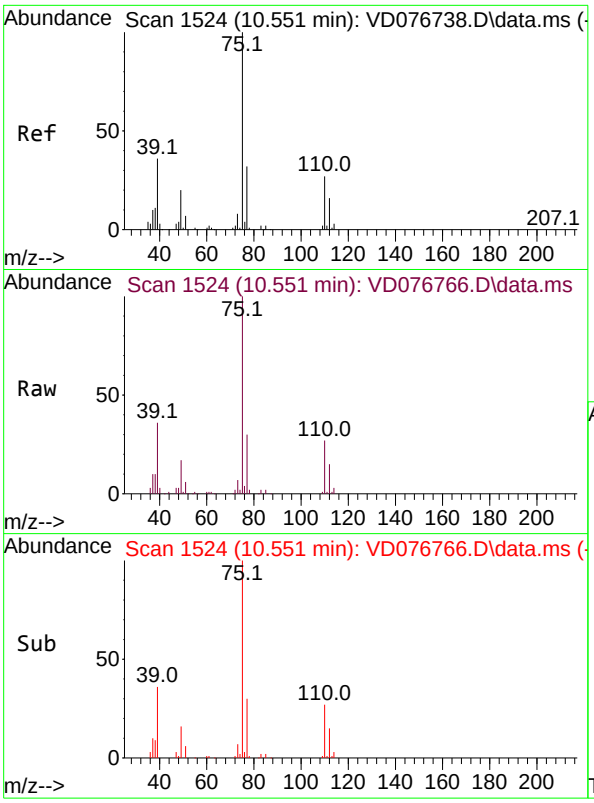


#52
Toluene
Concen: 47.341 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 92 Resp: 287911

Ion	Ratio	Lower	Upper
92	100		
91	174.3	143.0	214.4





#53
t-1,3-Dichloropropene
Concen: 46.571 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

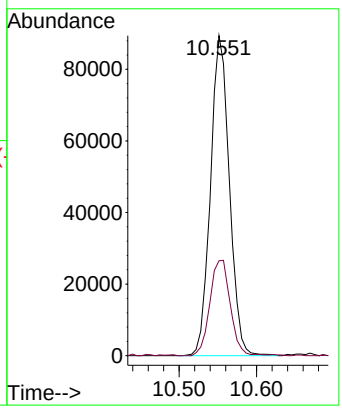
Tgt Ion: 75 Resp: 15177

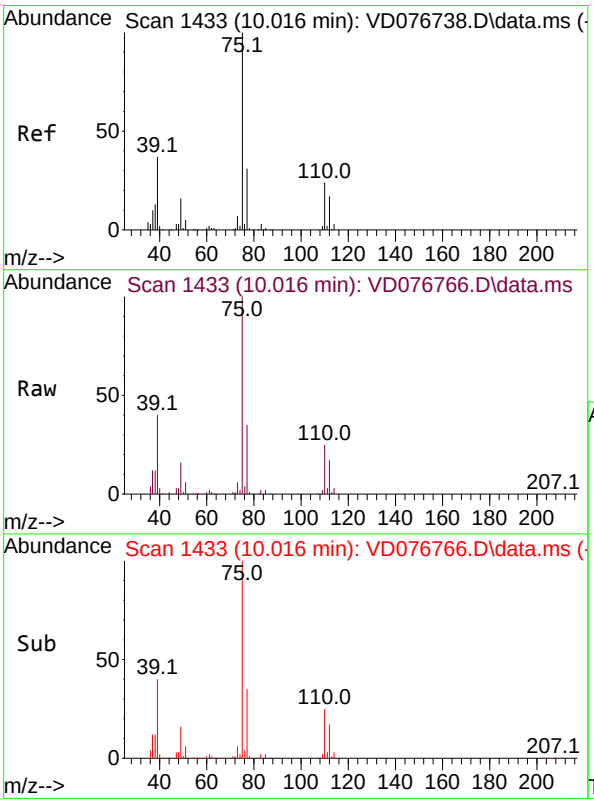
Ion	Ratio	Lower	Upper
75	100		
77	29.6	25.3	37.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

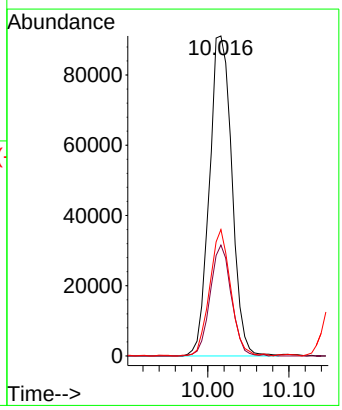


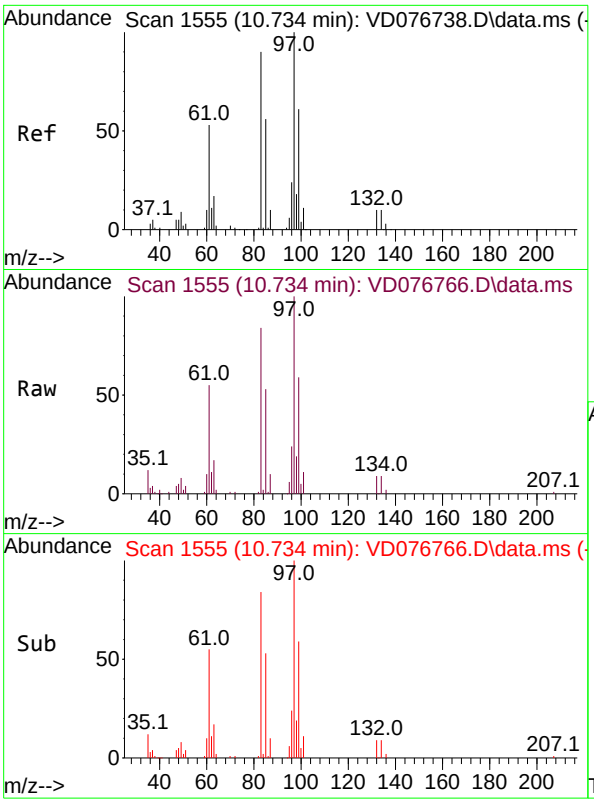


#54
cis-1,3-Dichloropropene
Concen: 45.736 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 75 Resp: 175663

Ion	Ratio	Lower	Upper
75	100		
77	34.7	25.5	38.3
39	39.5	22.1	33.1#

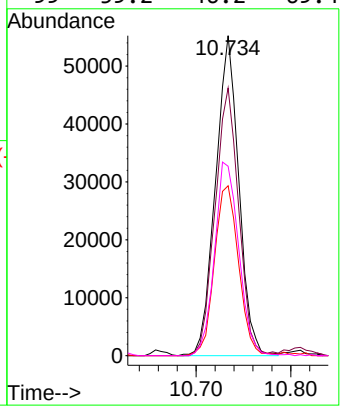




#55
1,1,2-Trichloroethane
Concen: 46.230 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 97 Resp: 9445

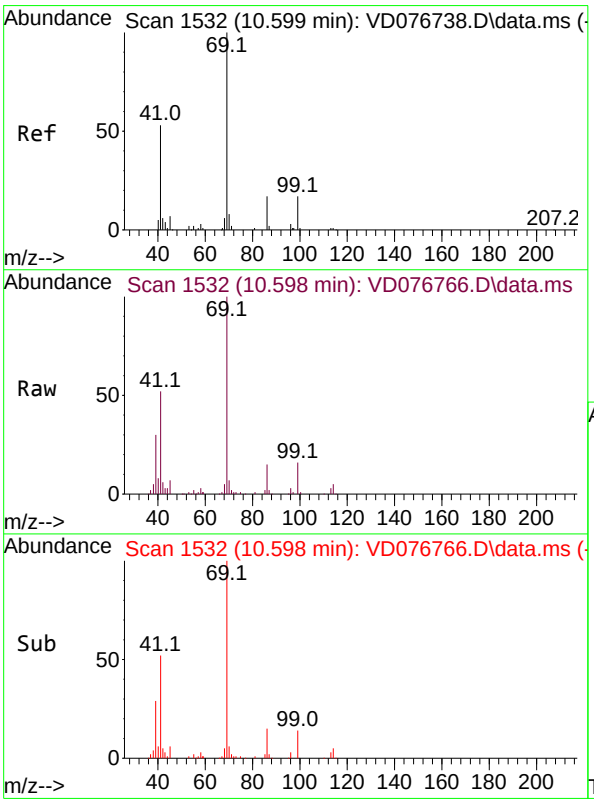
Ion	Ratio	Lower	Upper
97	100		
83	83.7	65.8	98.6
85	53.1	45.7	68.5
99	59.2	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

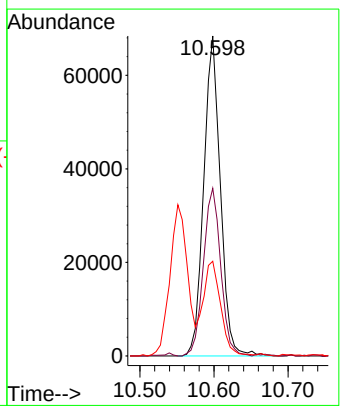
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

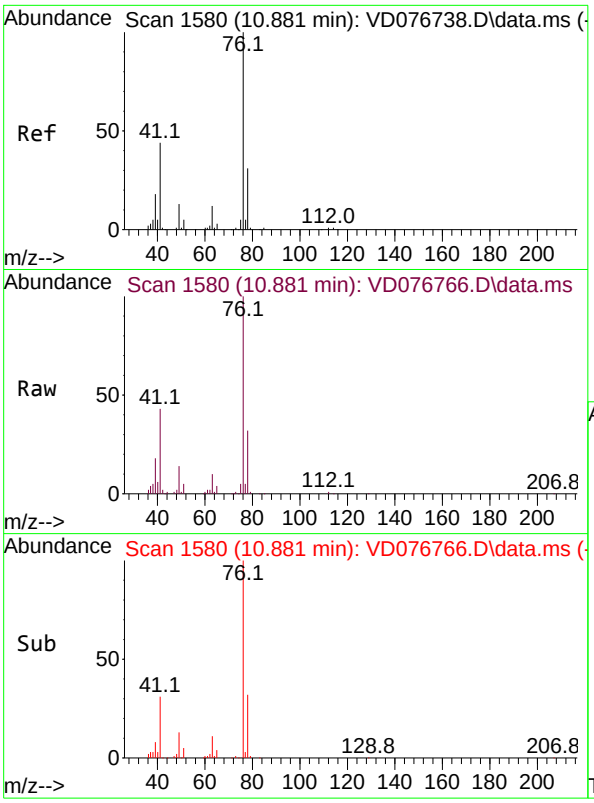


#56
Ethyl methacrylate
Concen: 45.248 ug/l
RT: 10.598 min Scan# 1532
Delta R.T. -0.001 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 69 Resp: 106701

Ion	Ratio	Lower	Upper
69	100		
41	54.7	39.1	58.7
39	30.8	20.0	30.0#





#57
1,3-Dichloropropane
Concen: 45.616 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

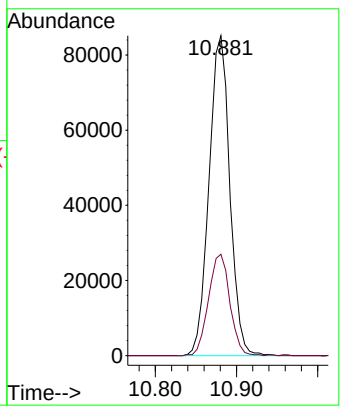
Tgt Ion: 76 Resp: 15177

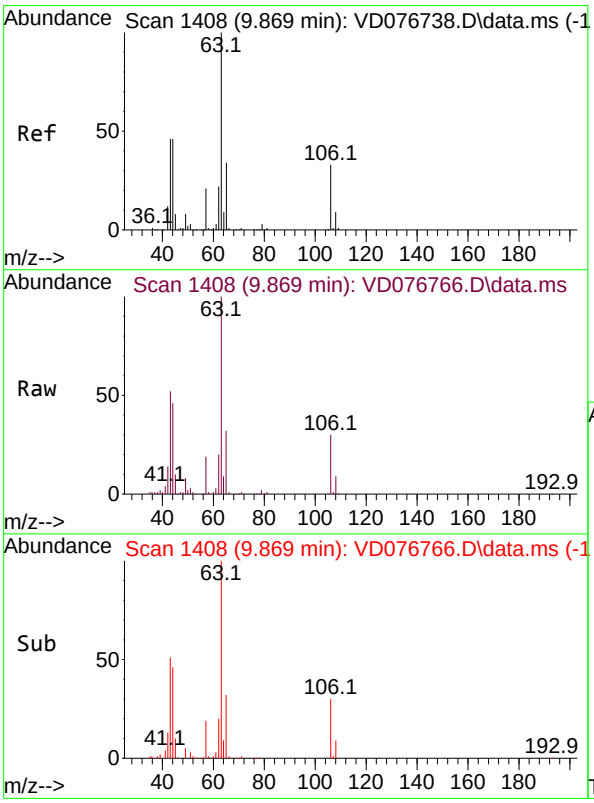
Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

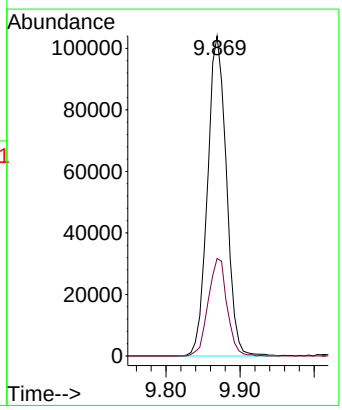


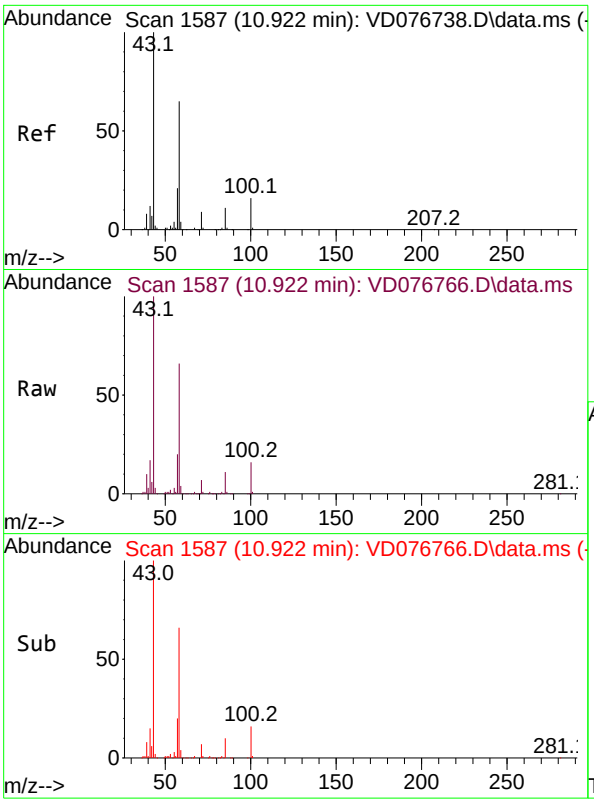


#58
2-Chloroethyl Vinyl ether
Concen: 201.558 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 63 Resp: 183978

Ion	Ratio	Lower	Upper
63	100		
106	30.3	25.3	37.9





#59
2-Hexanone
Concen: 235.998 ug/l
RT: 10.922 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

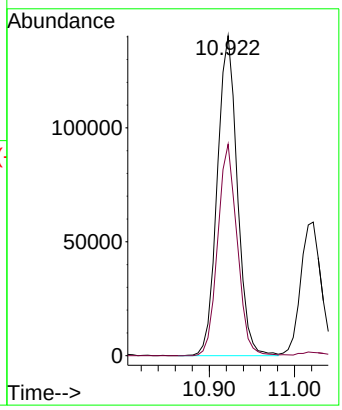
Tgt Ion: 43 Resp: 22964

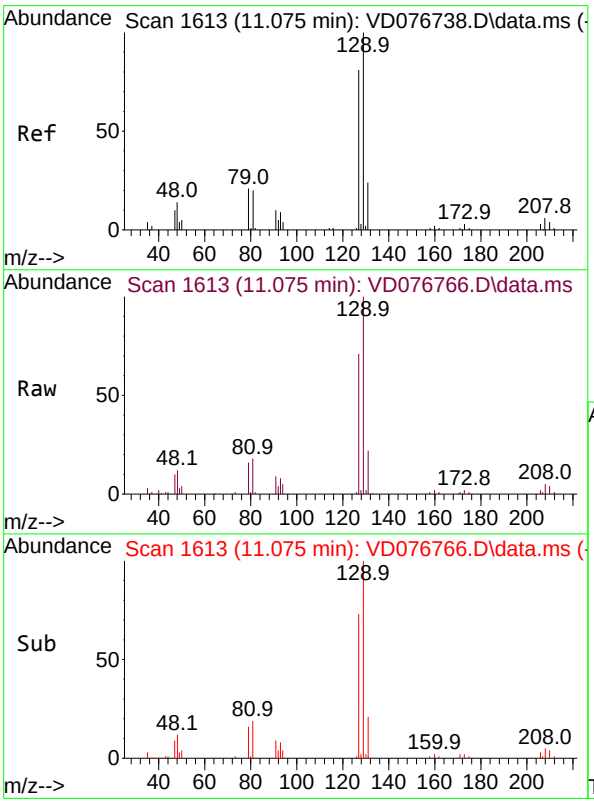
Ion	Ratio	Lower	Upper
43	100		
58	64.3	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

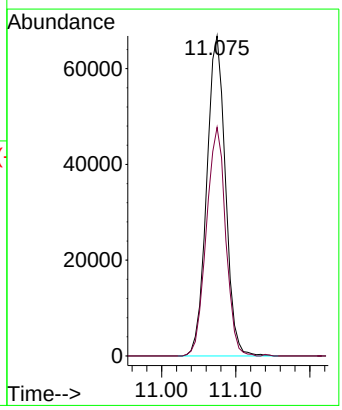


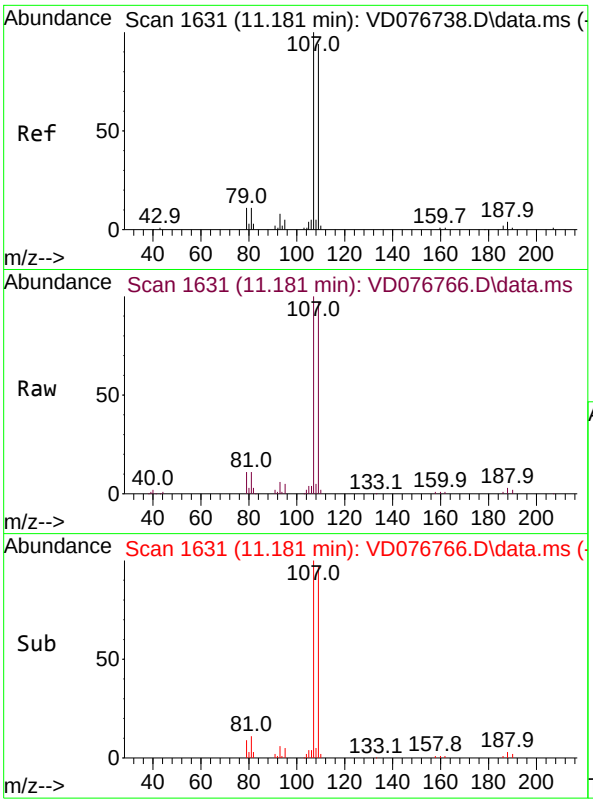


#60
Dibromochloromethane
Concen: 49.320 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:129 Resp: 117059

Ion	Ratio	Lower	Upper
129	100		
127	73.6	37.1	111.5





#61
1,2-Dibromoethane
Concen: 45.131 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

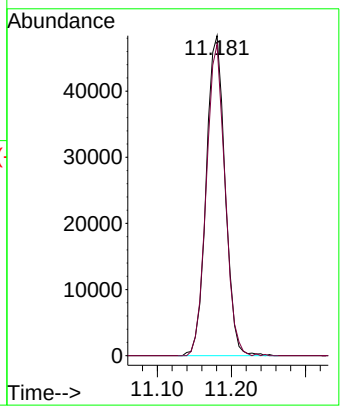
Tgt Ion:107 Resp: 8548

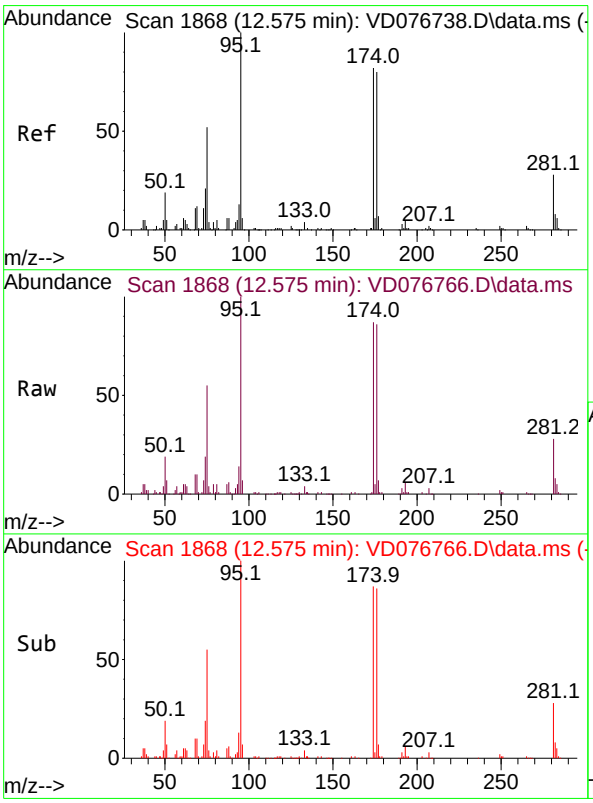
Ion	Ratio	Lower	Upper
107	100		
109	96.5	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

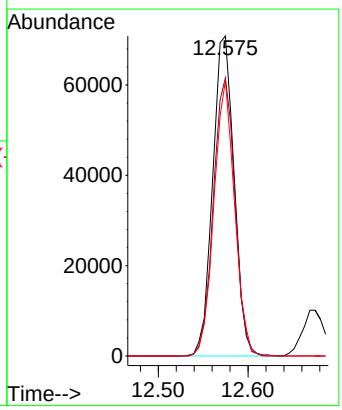


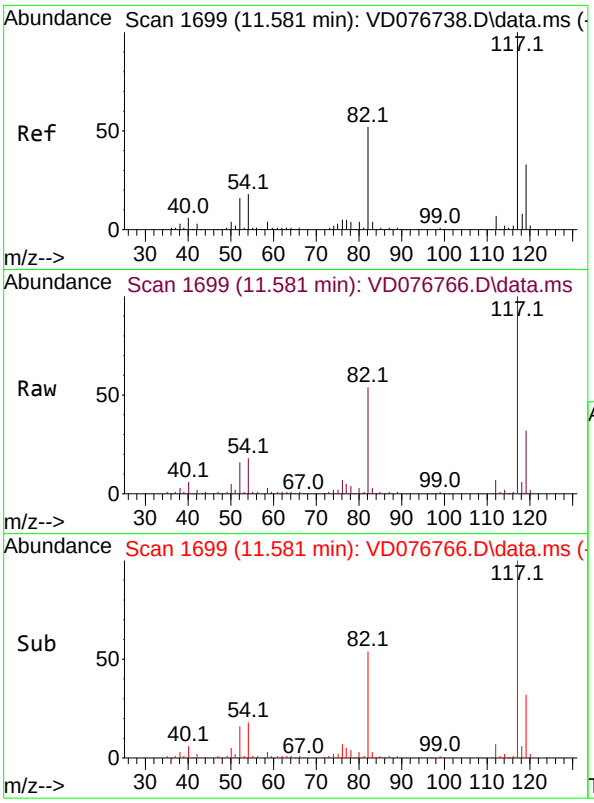


#62
4-Bromofluorobenzene
Concen: 45.270 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 95 Resp: 117661

Ion	Ratio	Lower	Upper
95	100		
174	87.6	0.0	201.8
176	82.6	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

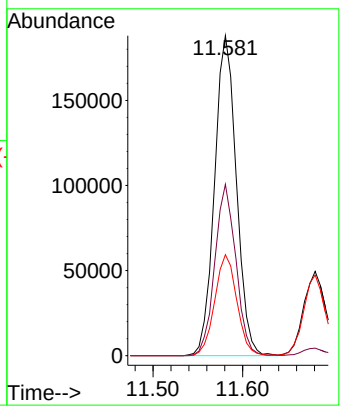
Tgt Ion:117 Resp: 31773

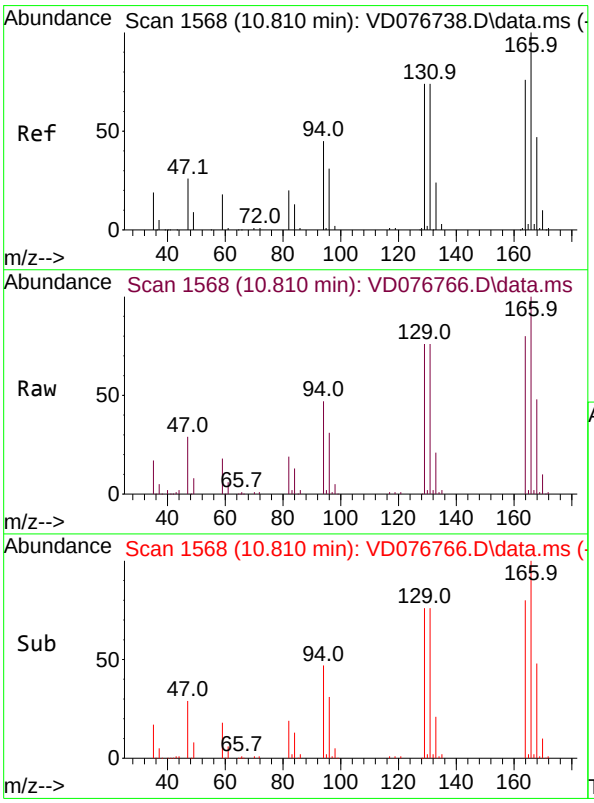
Ion	Ratio	Lower	Upper
117	100		
82	53.5	38.3	57.5
119	31.6	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

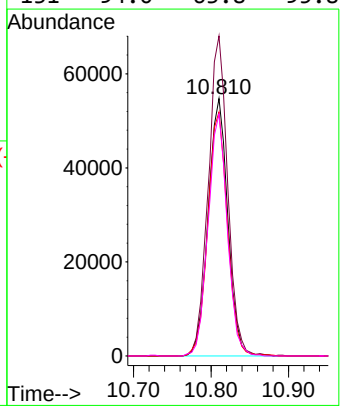


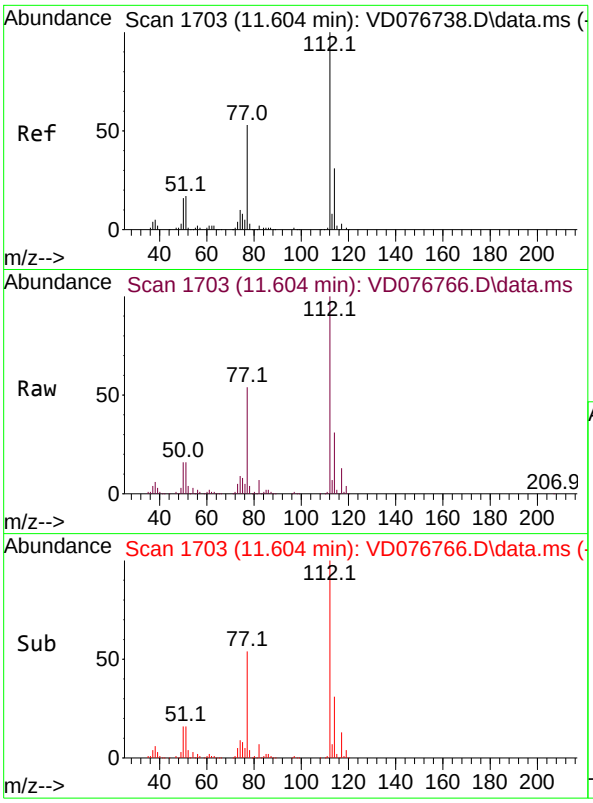


#64
Tetrachloroethene
Concen: 53.377 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:164 Resp: 96706

Ion	Ratio	Lower	Upper
164	100		
166	124.3	99.2	148.8
129	94.8	68.4	102.6
131	94.0	63.8	95.8





#65
Chlorobenzene
Concen: 49.202 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

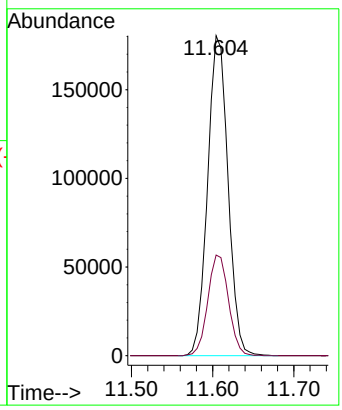
Tgt Ion:112 Resp: 31440

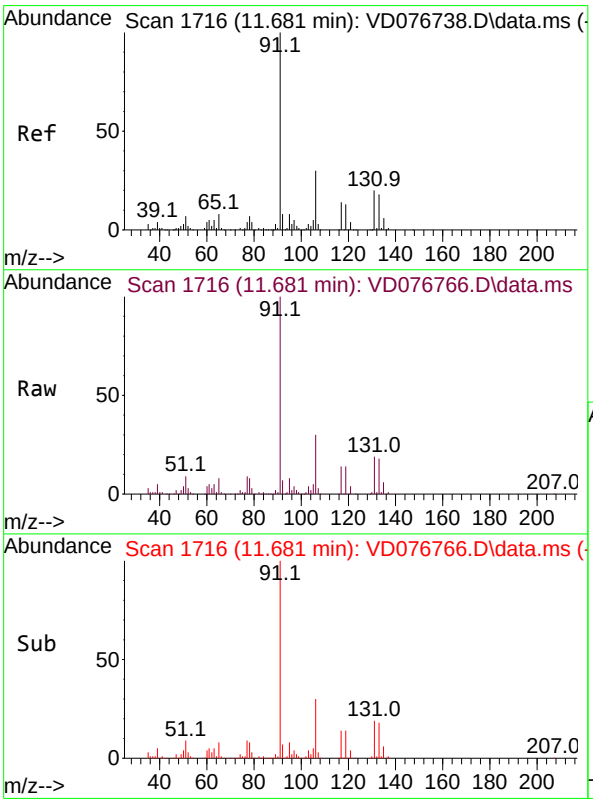
Ion	Ratio	Lower	Upper
112	100		
114	31.4	25.1	37.7

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

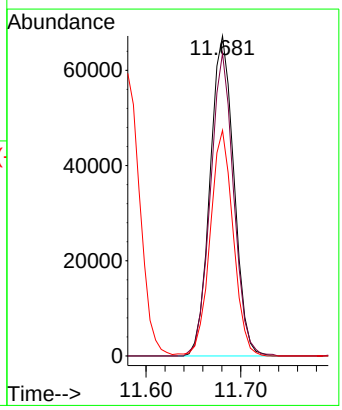


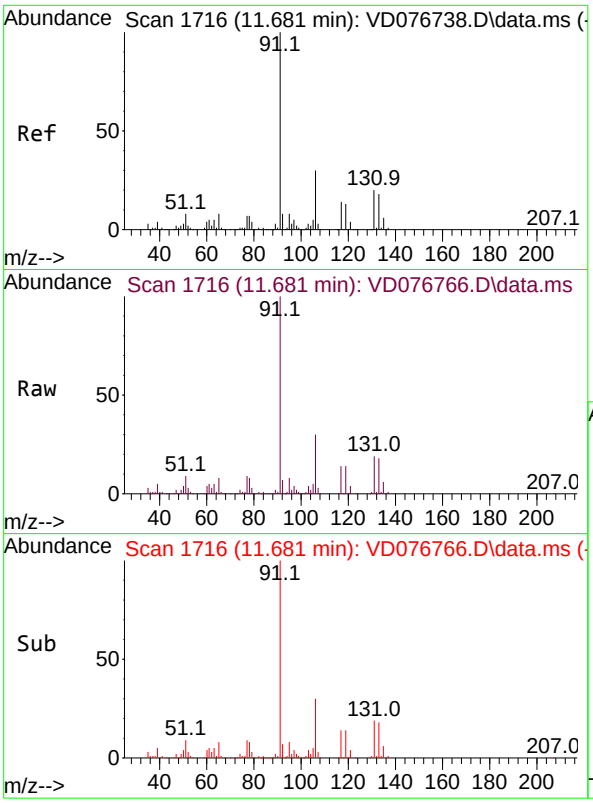


#66
1,1,1,2-Tetrachloroethane
Concen: 49.463 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:131 Resp: 117679

Ion	Ratio	Lower	Upper
131	100		
133	92.1	48.5	145.5
119	67.8	35.6	106.9

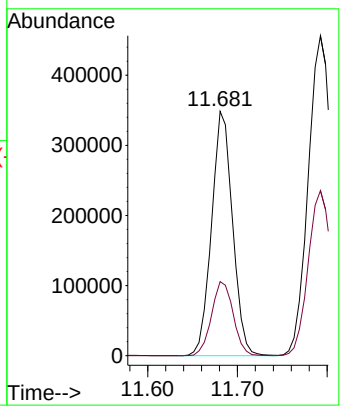




#67
Ethyl Benzene
Concen: 50.575 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 91 Resp: 5675

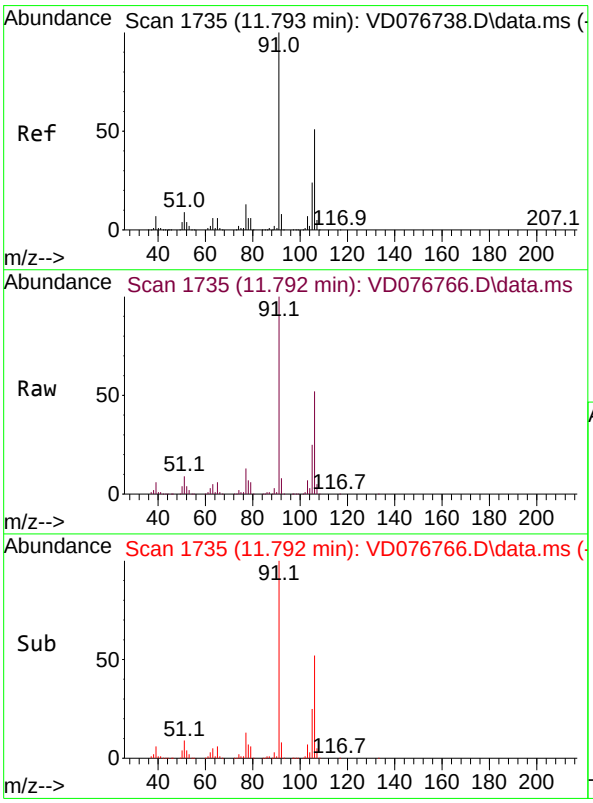
Ion	Ratio	Lower	Upper
91	100		
106	30.3	26.5	39.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

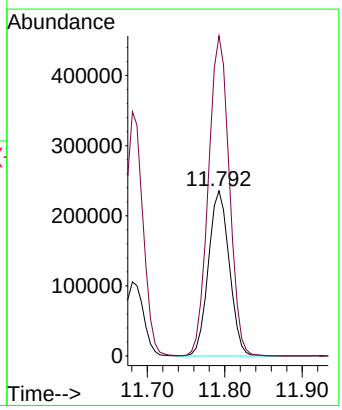
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

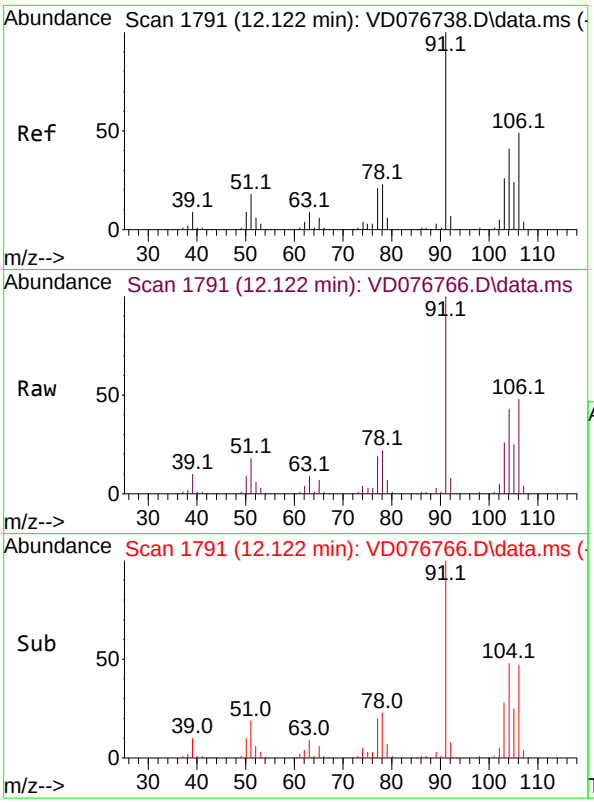


#68
m/p-Xylenes
Concen: 102.245 ug/l
RT: 11.792 min Scan# 1735
Delta R.T. -0.001 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:106 Resp: 440686

Ion	Ratio	Lower	Upper
106	100		
91	193.9	147.0	220.6





#69
o-Xylene
Concen: 50.394 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

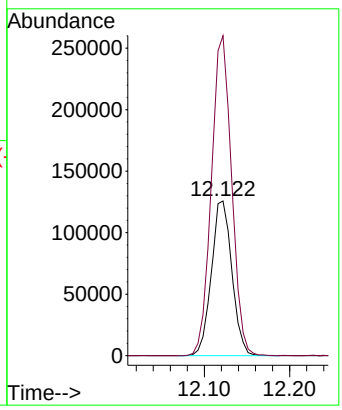
Tgt Ion:106 Resp: 21004

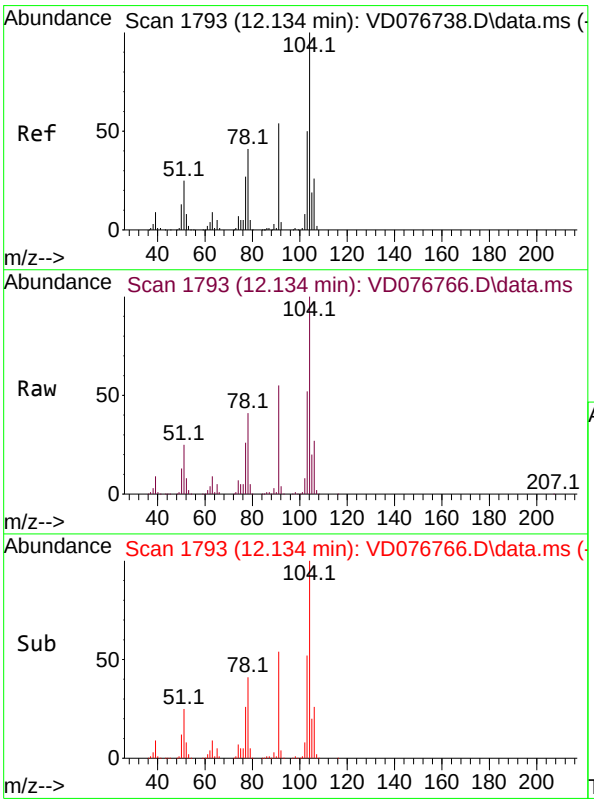
Ion	Ratio	Lower	Upper
106	100		
91	204.4	97.9	293.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

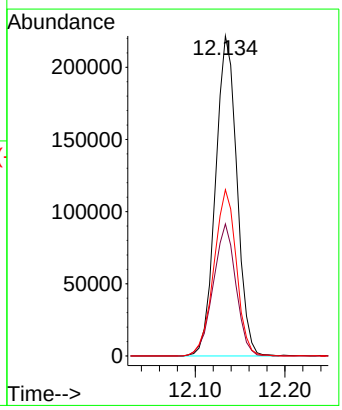


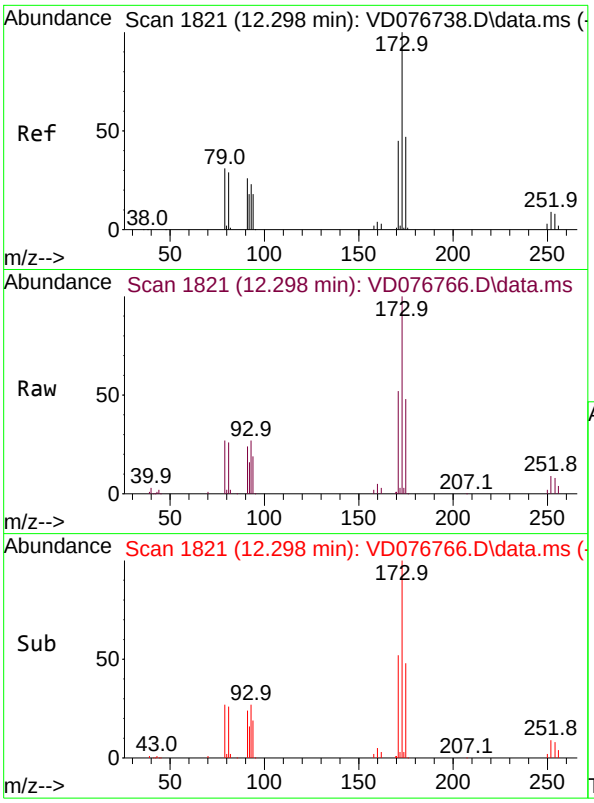


#70
Styrene
Concen: 50.219 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:104 Resp: 366407

Ion	Ratio	Lower	Upper
104	100		
78	43.7	33.2	49.8
103	54.7	43.6	65.4





#71
Bromoform
Concen: 50.761 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

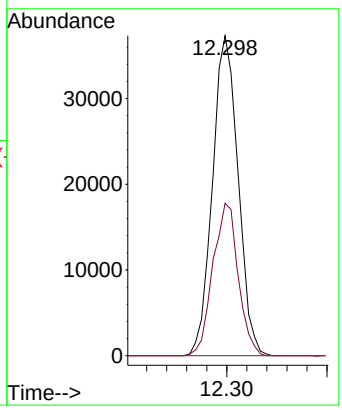
Tgt Ion:173 Resp: 6614

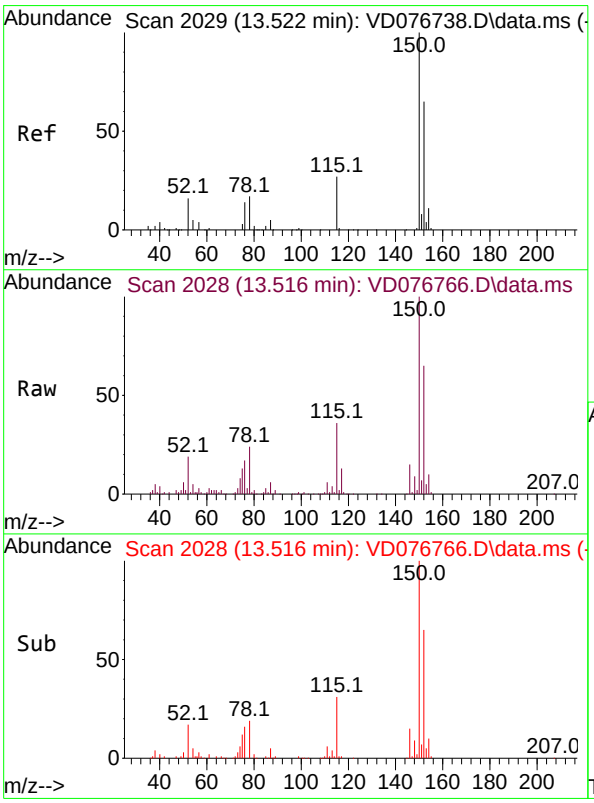
Ion	Ratio	Lower	Upper
173	100		
175	47.2	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

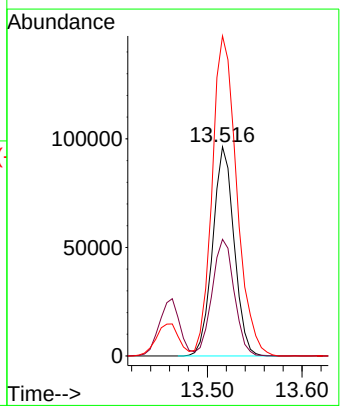


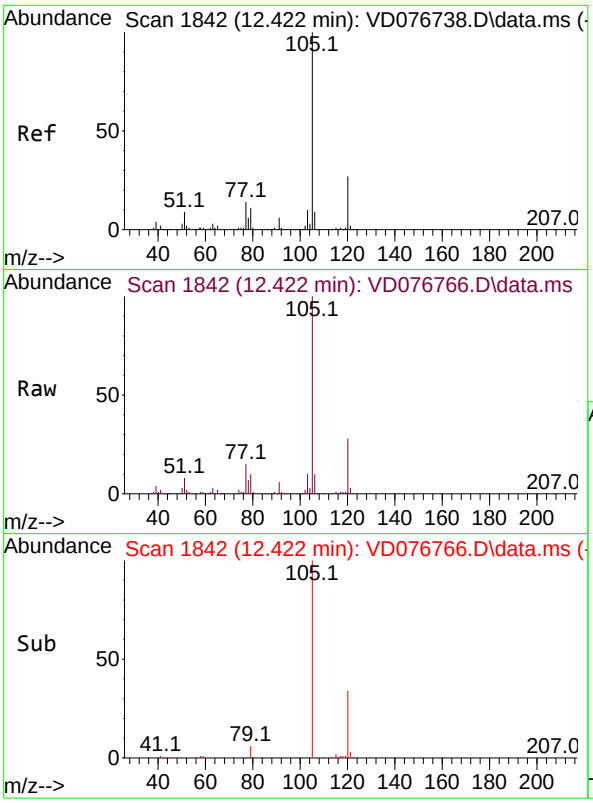


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:152 Resp: 151547

Ion	Ratio	Lower	Upper
152	100		
115	57.6	27.1	81.3
150	175.5	0.0	353.6

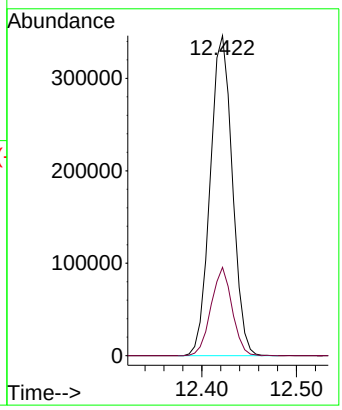




#73
Isopropylbenzene
Concen: 51.121 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:105 Resp: 5620

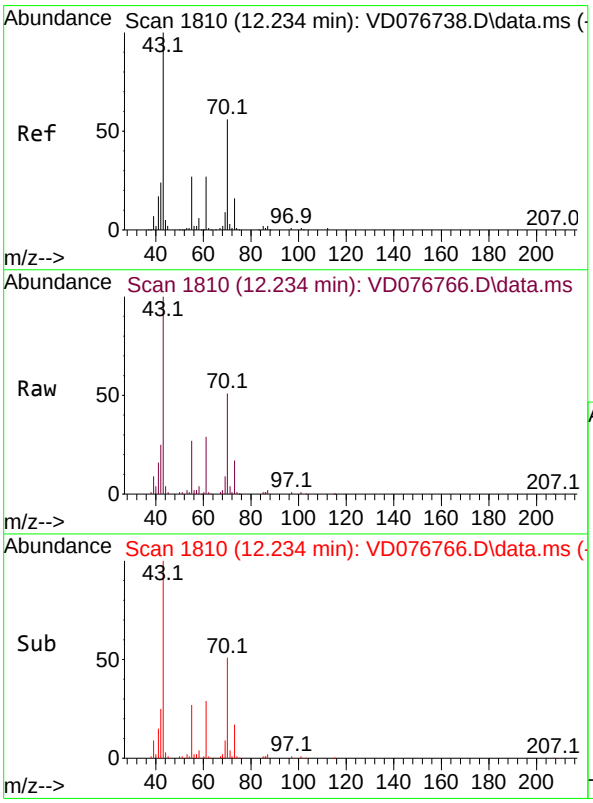
Ion	Ratio	Lower	Upper
105	100		
120	26.2	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

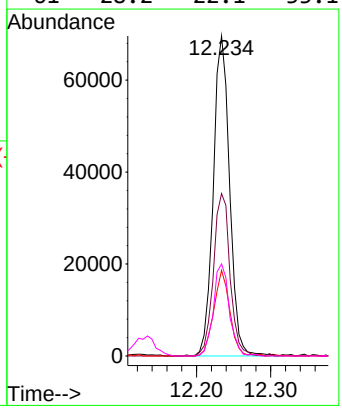
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

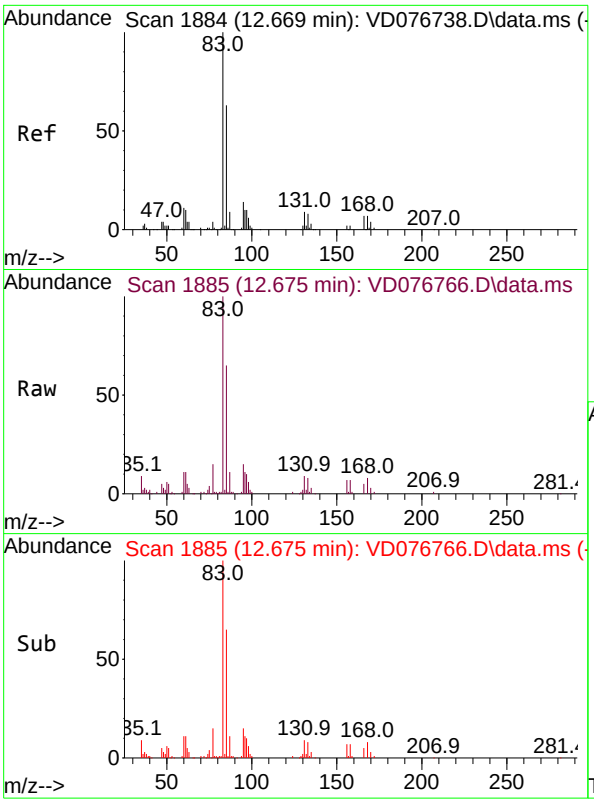


#74
N-amyl acetate
Concen: 46.023 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 43 Resp: 106604

Ion	Ratio	Lower	Upper
43	100		
70	51.5	45.0	67.4
55	26.3	23.8	35.6
61	28.2	22.1	33.1

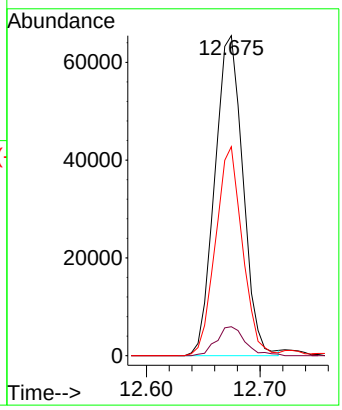




#75
1,1,2,2-Tetrachloroethane
Concen: 47.792 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 83 Resp: 11282

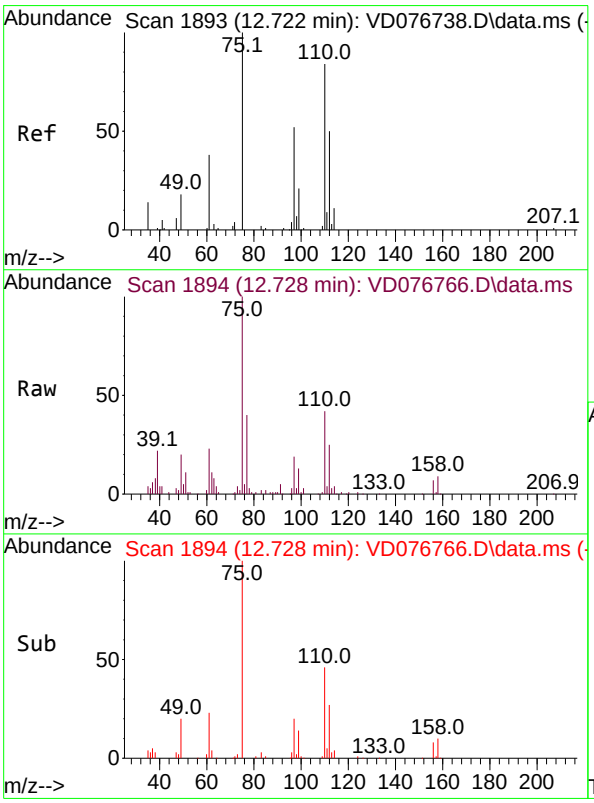
Ion	Ratio	Lower	Upper
83	100		
131	9.2	5.1	15.3
85	62.4	32.6	97.8



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

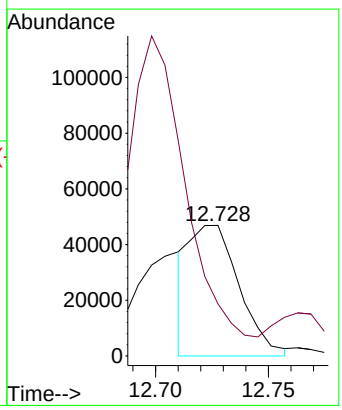
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

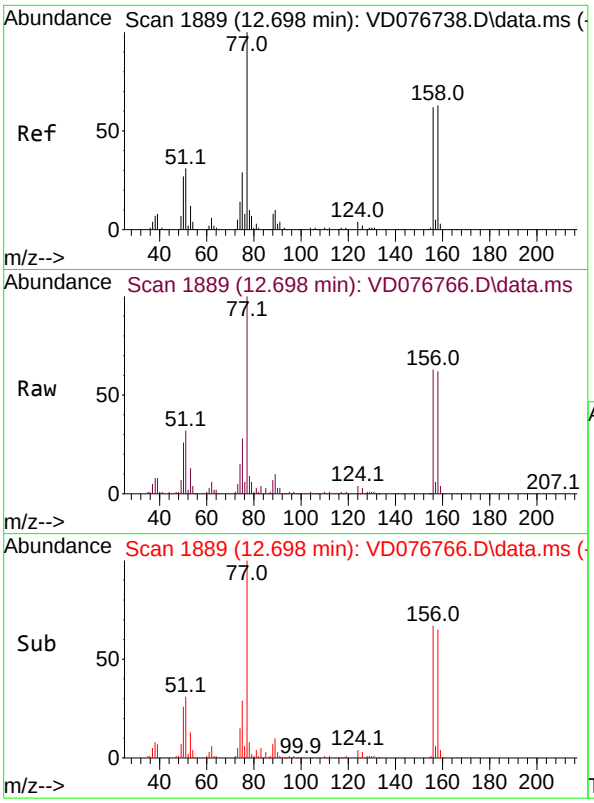


#76
1,2,3-Trichloropropane
Concen: 50.234 ug/l m
RT: 12.728 min Scan# 1894
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 75 Resp: 72397

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 48.757 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

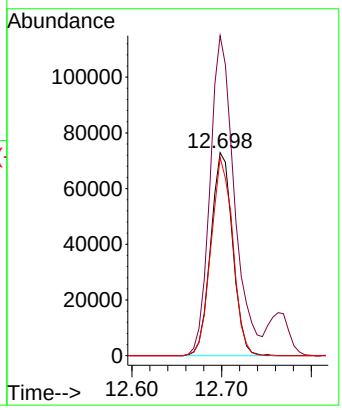
Tgt Ion:156 Resp: 12374

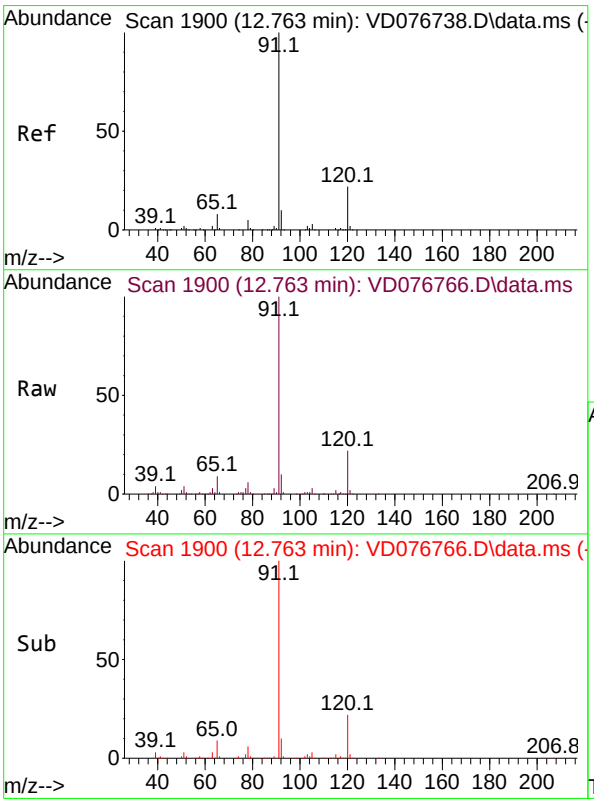
Ion	Ratio	Lower	Upper
156	100		
77	175.3	76.8	230.4
158	97.0	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

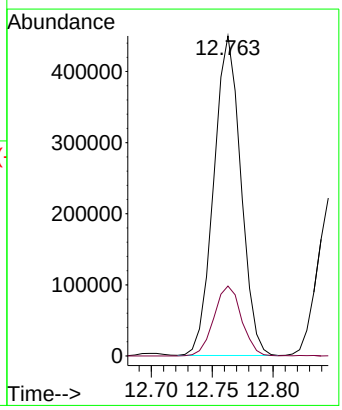


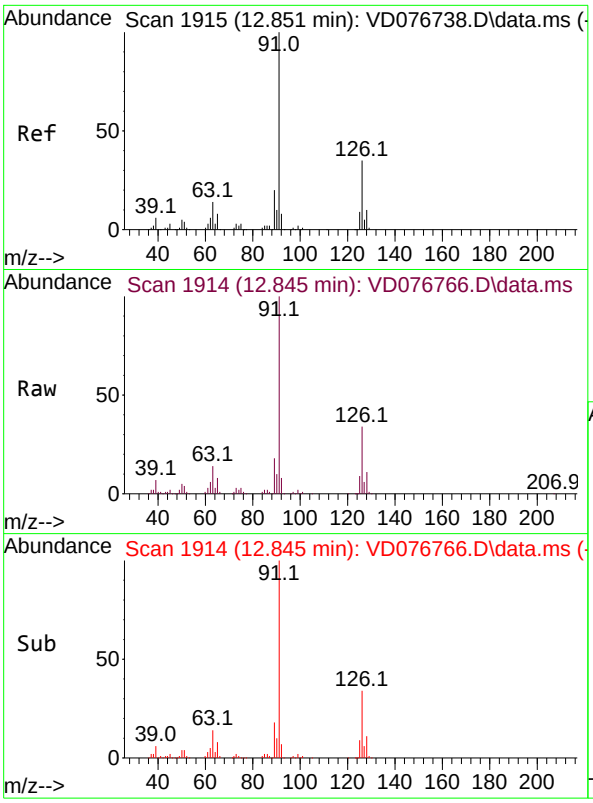


#78
n-propylbenzene
Concen: 52.138 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 91 Resp: 694977

Ion	Ratio	Lower	Upper
91	100		
120	22.3	12.4	37.2





#79
2-Chlorotoluene
Concen: 50.520 ug/l
RT: 12.845 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

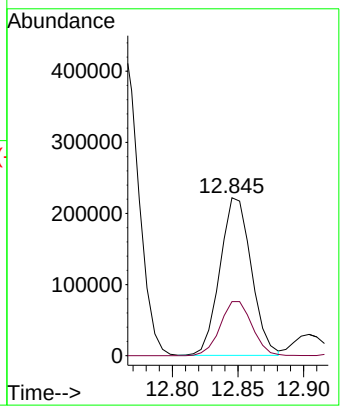
Tgt Ion: 91 Resp: 36923

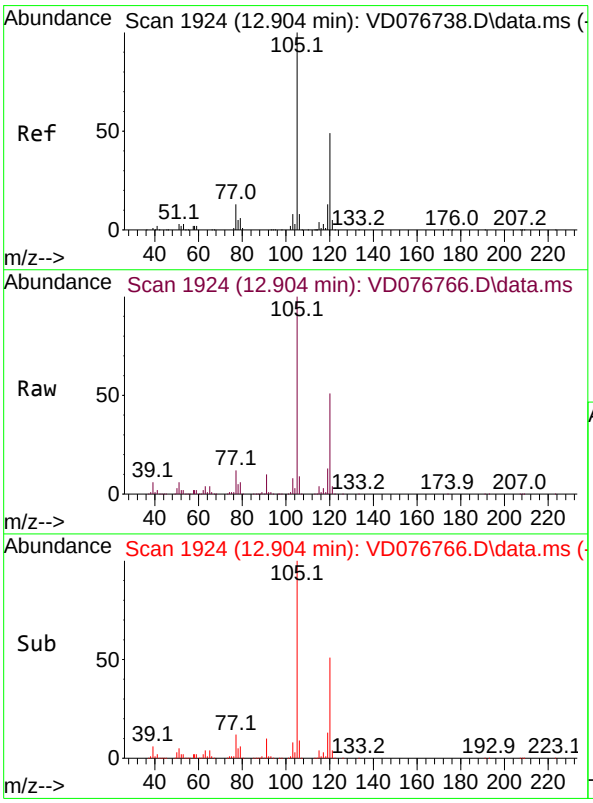
Ion	Ratio	Lower	Upper
91	100		
126	35.0	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

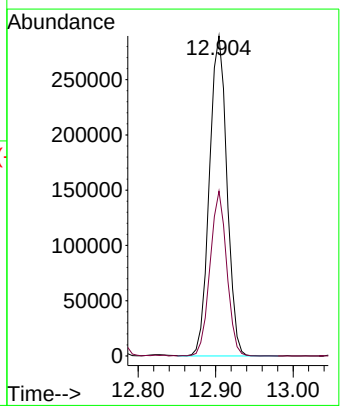


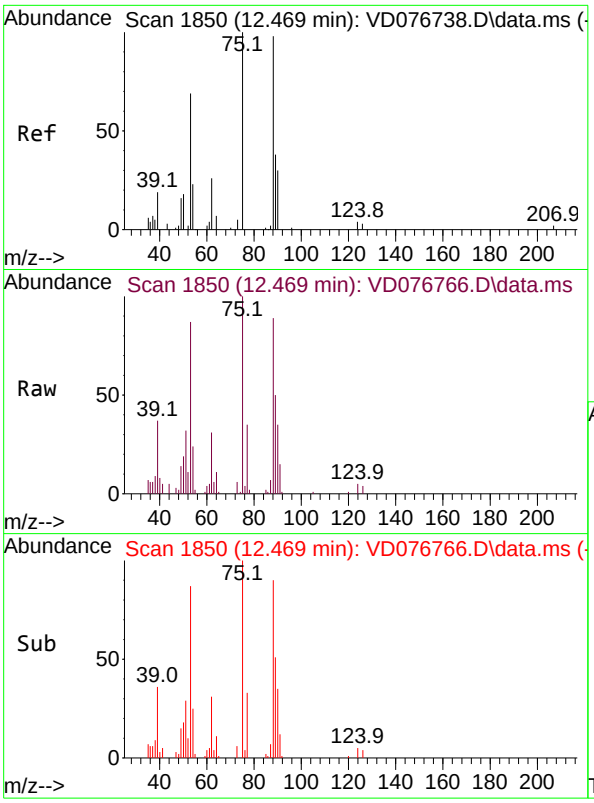


#80
1,3,5-Trimethylbenzene
Concen: 51.312 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:105 Resp: 456191

Ion	Ratio	Lower	Upper
105	100		
120	49.0	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 47.568 ug/l
RT: 12.469 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

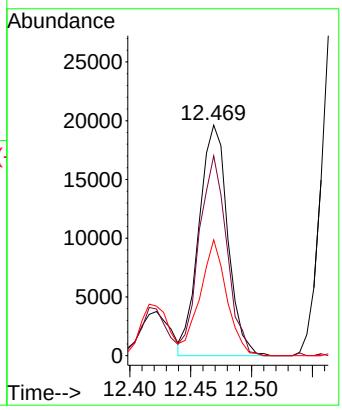
Tgt Ion: 75 Resp: 3221

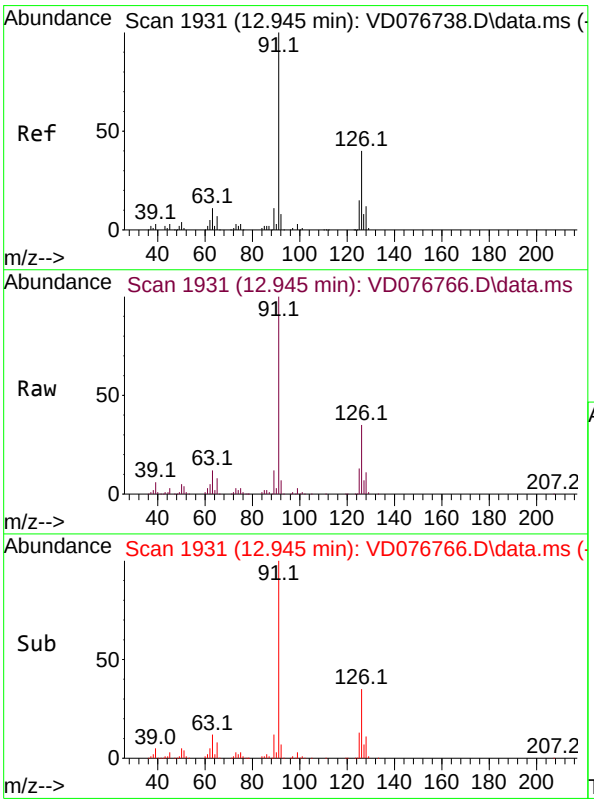
Ion	Ratio	Lower	Upper
75	100		
53	83.7	63.0	94.4
89	46.8	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

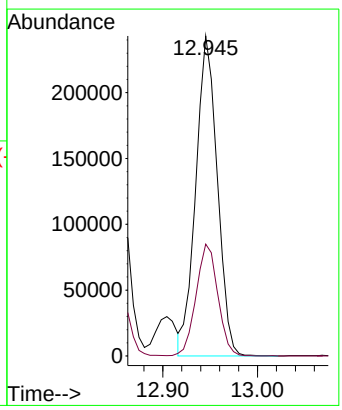


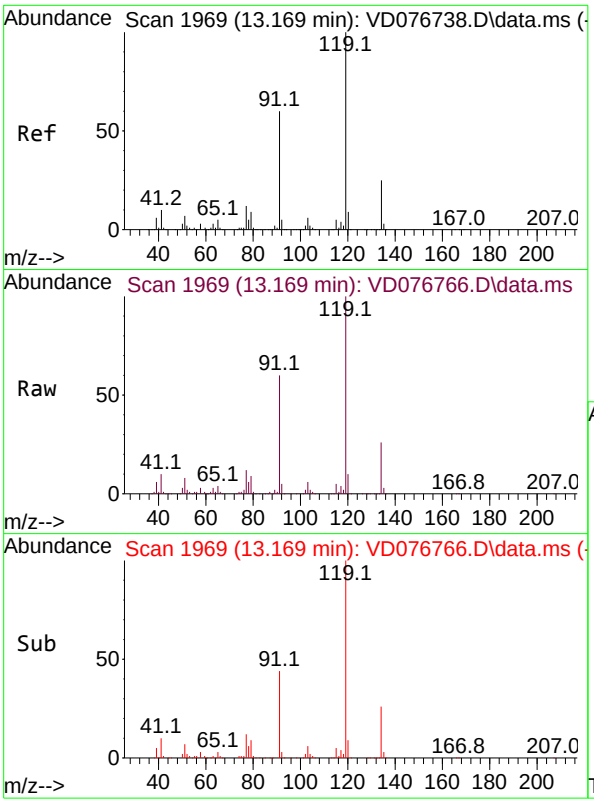


#82
4-Chlorotoluene
Concen: 50.215 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 91 Resp: 383404

Ion	Ratio	Lower	Upper
91	100		
126	35.3	19.4	58.4





#83
tert-Butylbenzene
Concen: 52.785 ug/l
RT: 13.169 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

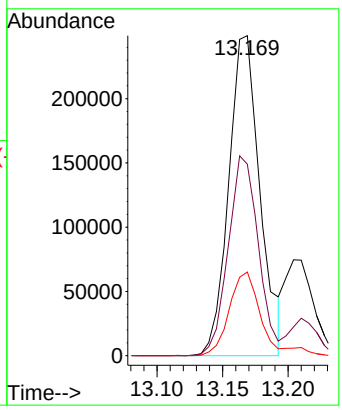
Tgt Ion:119 Resp: 41320

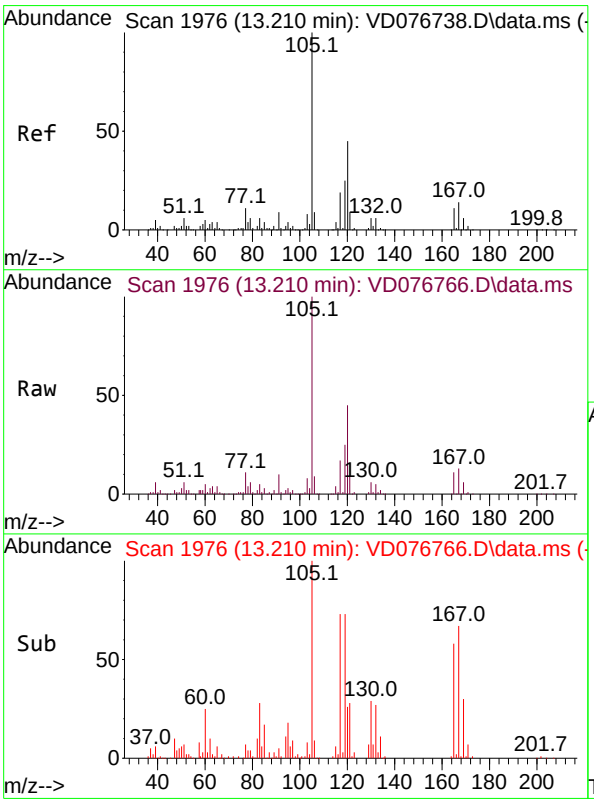
Ion	Ratio	Lower	Upper
119	100		
91	60.2	29.3	87.8
134	26.9	14.1	42.3

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

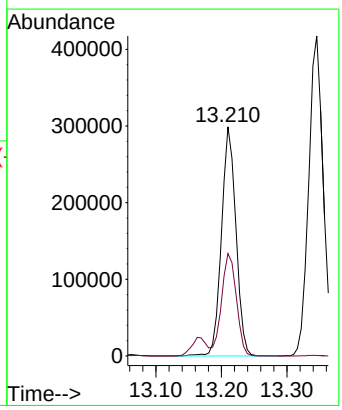


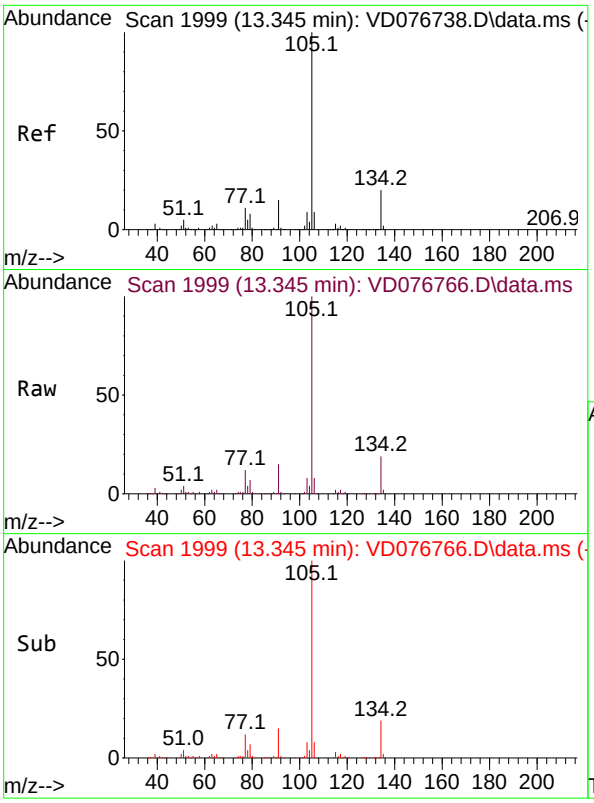


#84
1,2,4-Trimethylbenzene
Concen: 50.163 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:105 Resp: 455738

Ion	Ratio	Lower	Upper
105	100		
120	46.1	24.3	72.9





#85
sec-Butylbenzene
Concen: 53.593 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

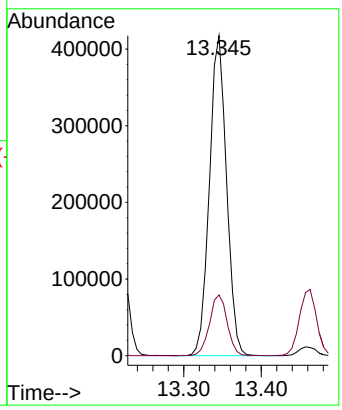
Tgt Ion:105 Resp: 64096

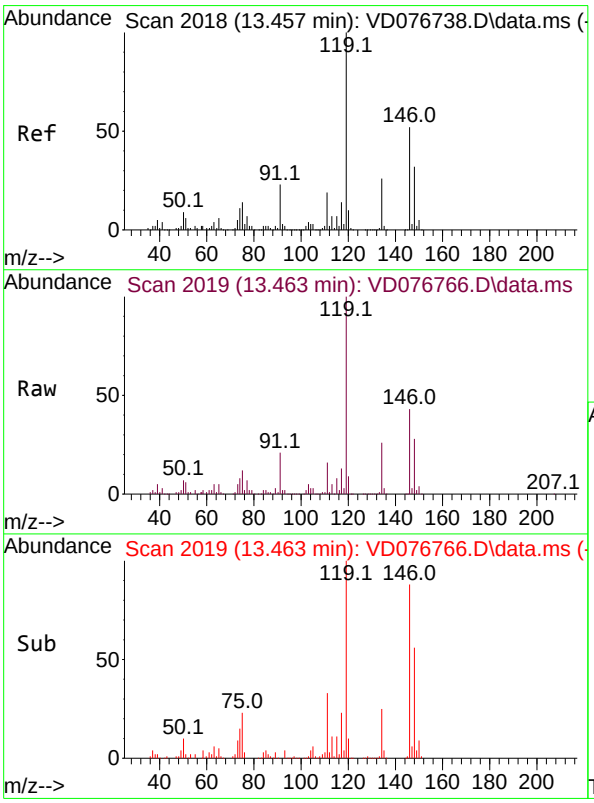
Ion	Ratio	Lower	Upper
105	100		
134	19.6	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

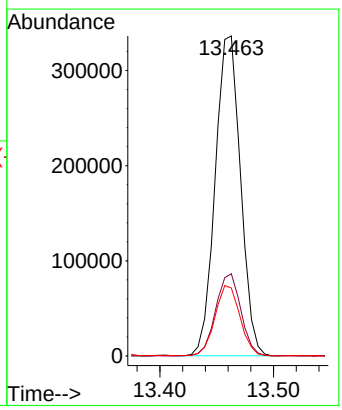


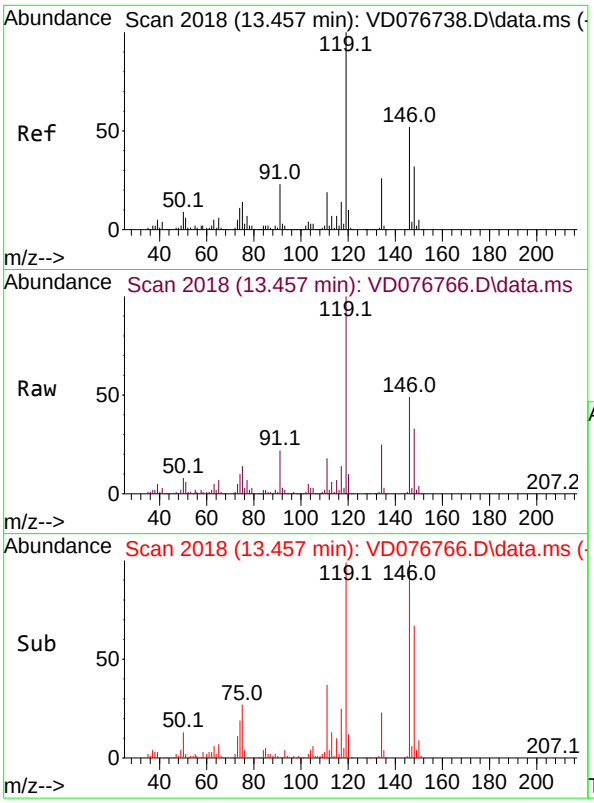


#86
p-Isopropyltoluene
Concen: 52.771 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:119 Resp: 521228

Ion	Ratio	Lower	Upper
119	100		
134	25.6	14.2	42.6
91	21.6	10.5	31.5





#87
1,3-Dichlorobenzene
Concen: 50.098 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

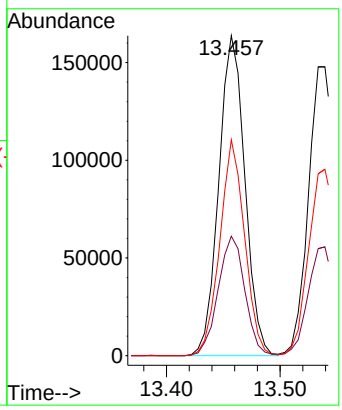
Tgt Ion:146 Resp: 26151

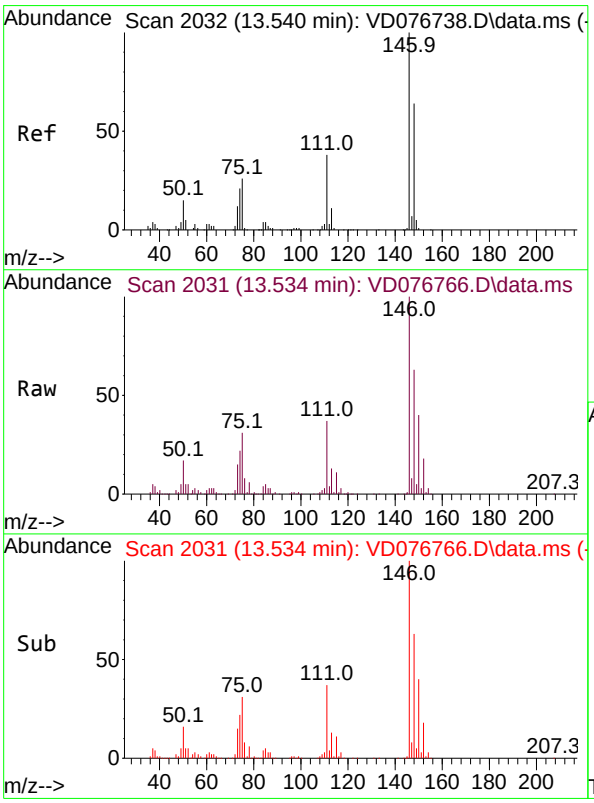
Ion	Ratio	Lower	Upper
146	100		
111	38.2	17.9	53.8
148	64.2	32.3	96.8

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

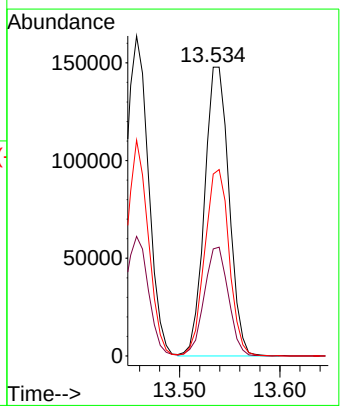


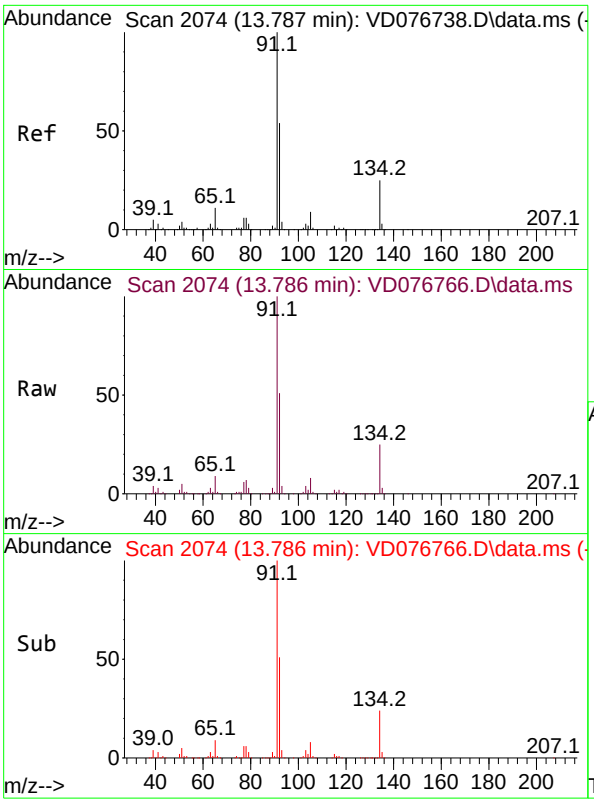


#88
1,4-Dichlorobenzene
Concen: 49.056 ug/l
RT: 13.534 min Scan# 2031
Delta R.T. -0.006 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:146 Resp: 250890

Ion	Ratio	Lower	Upper
146	100		
111	37.3	17.4	52.3
148	64.6	31.7	95.1

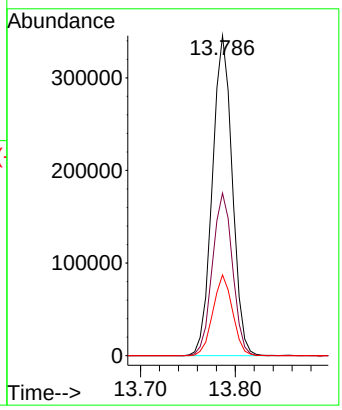




#89
n-Butylbenzene
Concen: 52.204 ug/l
RT: 13.786 min Scan# 2
Delta R.T. -0.001 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 91 Resp: 50456

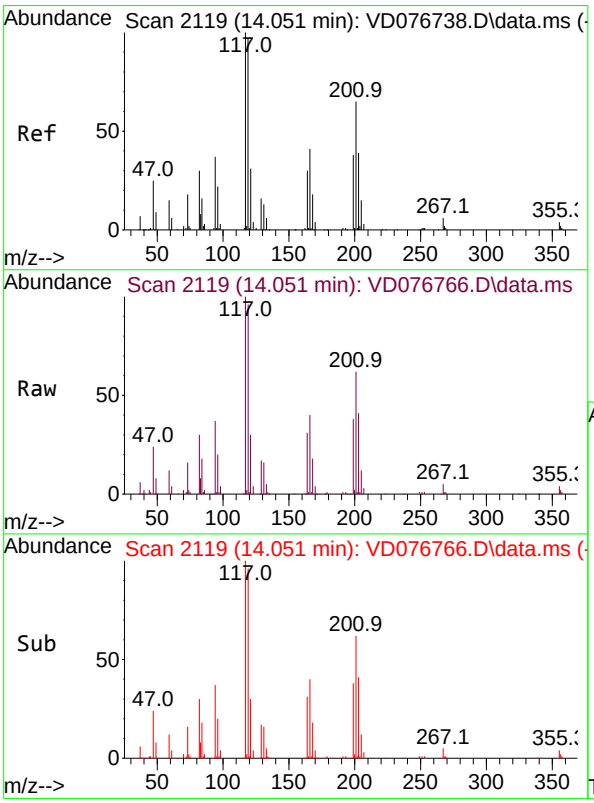
Ion	Ratio	Lower	Upper
91	100		
92	51.3	26.5	79.5
134	24.8	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

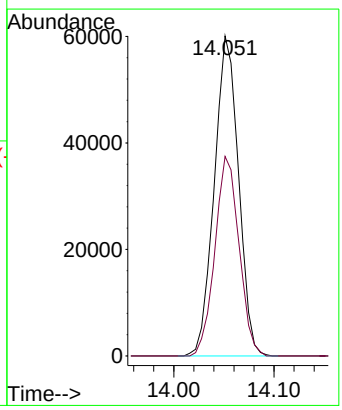
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

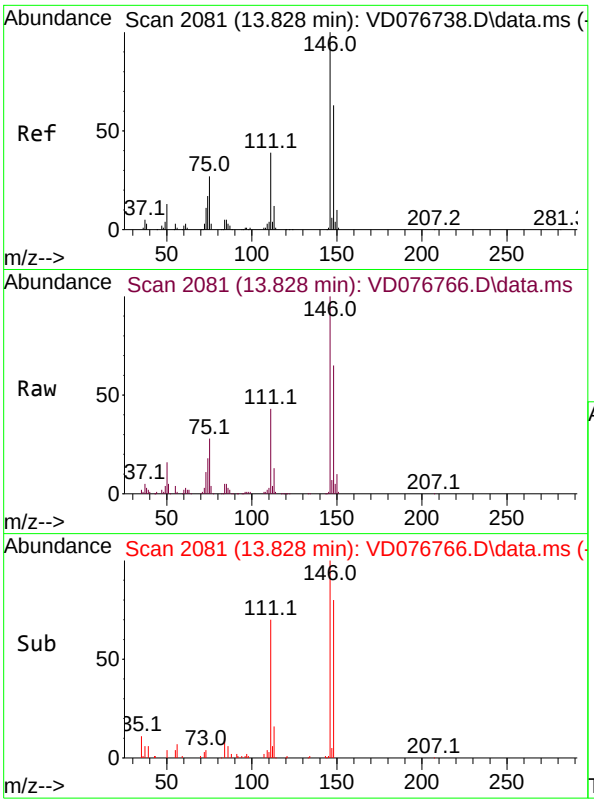


#90
Hexachloroethane
Concen: 55.191 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:117 Resp: 100782

Ion	Ratio	Lower	Upper
117	100		
201	62.1	38.5	115.5

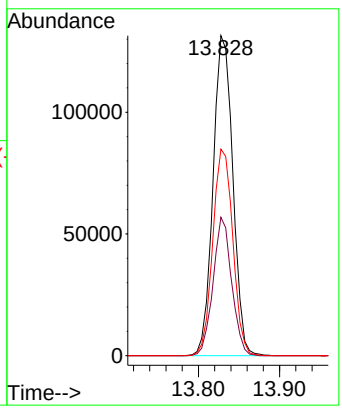




#91
1,2-Dichlorobenzene
Concen: 48.427 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:146 Resp: 22275

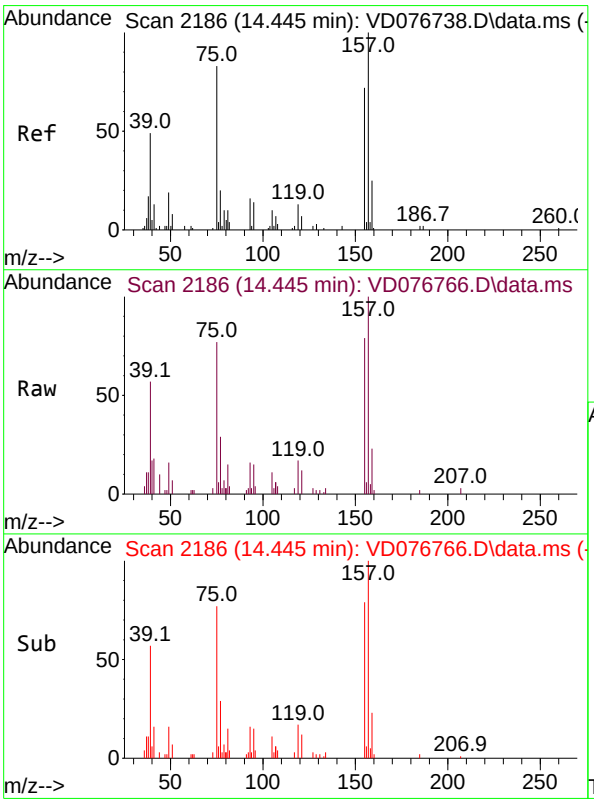
Ion	Ratio	Lower	Upper
146	100		
111	40.6	18.3	54.8
148	65.4	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

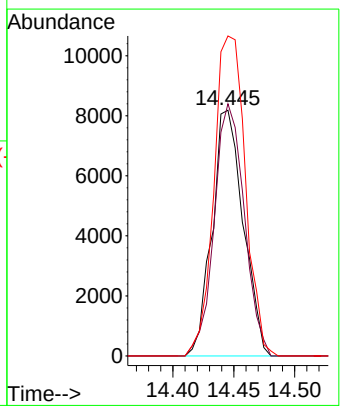
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

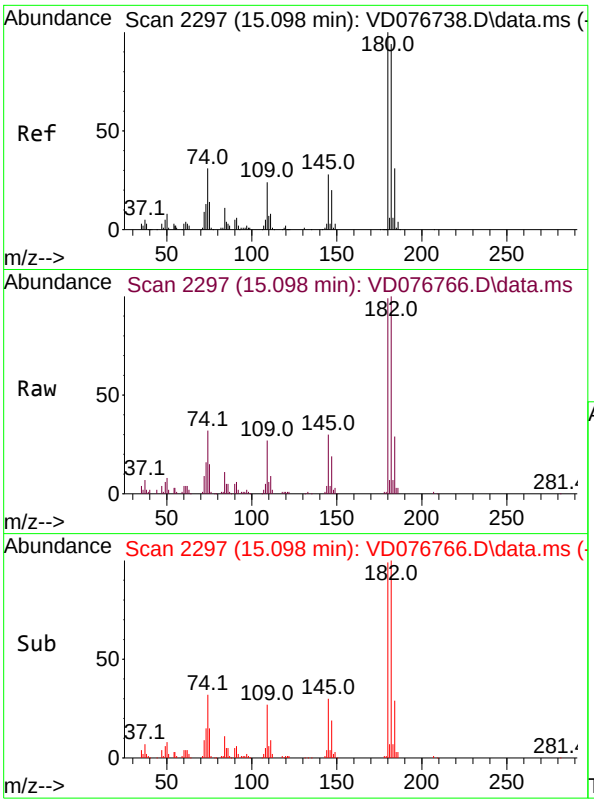


#92
1,2-Dibromo-3-Chloropropane
Concen: 43.206 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion: 75 Resp: 14543

Ion	Ratio	Lower	Upper
75	100		
155	99.2	47.9	143.8
157	131.6	59.9	179.7





#93
1,2,4-Trichlorobenzene
Concen: 48.270 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

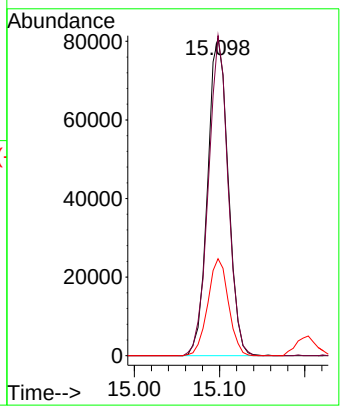
Tgt Ion:180 Resp: 13555

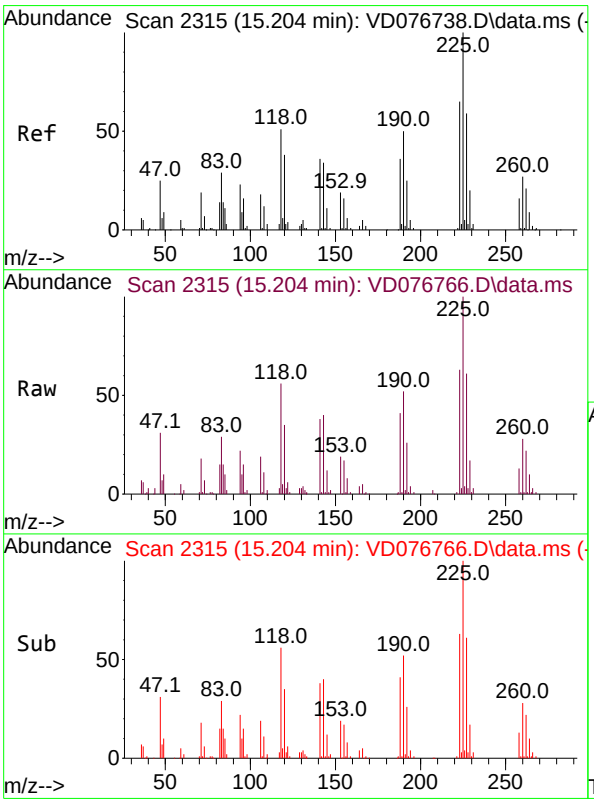
Ion	Ratio	Lower	Upper
180	100		
182	96.6	48.5	145.6
145	30.7	14.2	42.6

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

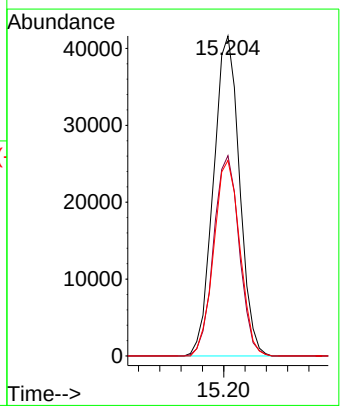


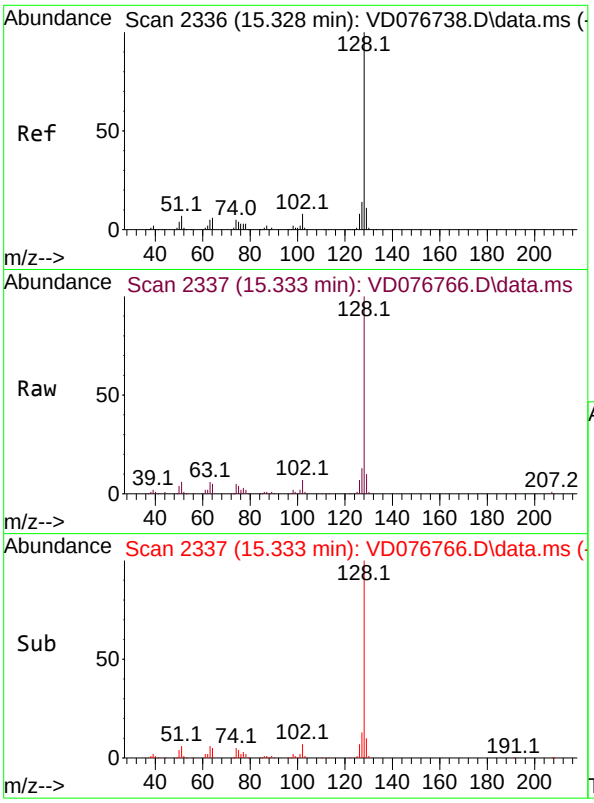


#94
Hexachlorobutadiene
Concen: 52.229 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:225 Resp: 70538

Ion	Ratio	Lower	Upper
225	100		
223	61.4	31.6	94.8
227	61.1	31.7	95.1

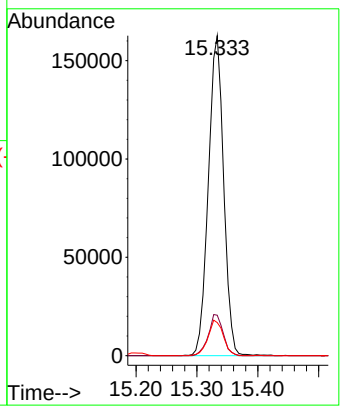




#95
Naphthalene
Concen: 46.665 ug/l
RT: 15.333 min Scan# 2
Delta R.T. 0.005 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:128 Resp: 28374

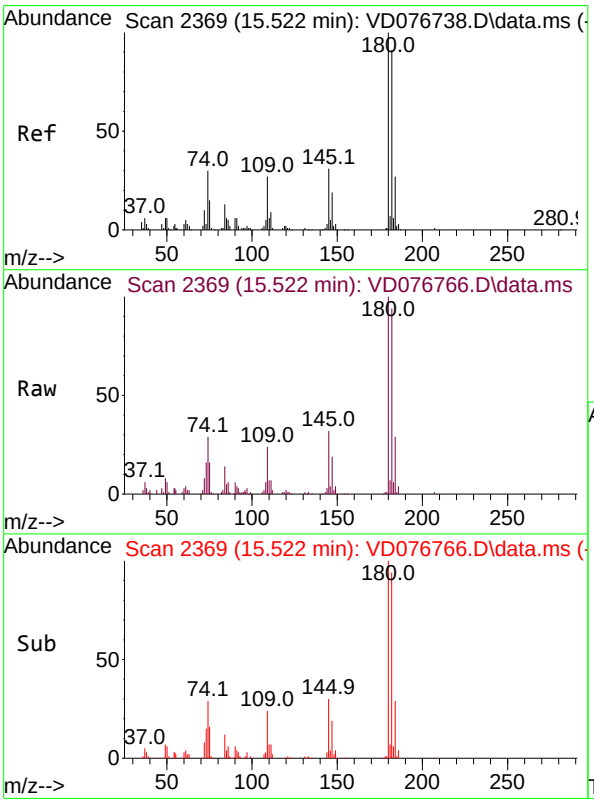
Ion	Ratio	Lower	Upper
128	100		
127	12.6	10.5	15.7
129	10.4	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

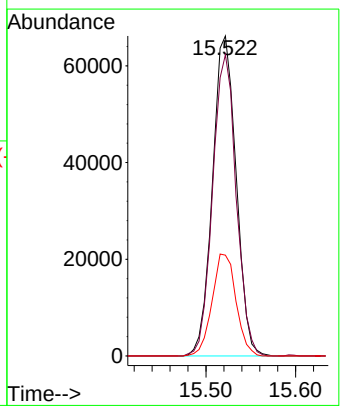
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023



#96
1,2,3-Trichlorobenzene
Concen: 48.102 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076766.D
Acq: 18 Jul 2023 09:13

Tgt Ion:180 Resp: 121217

Ion	Ratio	Lower	Upper
180	100		
182	93.7	47.3	141.9
145	32.2	15.1	45.3



Sample Results: **VD076766.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	116	0.00
2	T	Dichlorodifluoromethane	0.391	0.378	3.3	112	0.00
3	P	Chloromethane	0.674	0.569	15.6	96	0.00
4	C	Vinyl Chloride	0.899	0.834	7.2#	107	0.00
5	T	Bromomethane	0.740	0.625	15.5	103	0.00
6	T	Chloroethane	0.679	0.599	11.8	101	0.00
7	T	Trichlorofluoromethane	0.800	0.786	1.8	117	0.00
8	T	Diethyl Ether	0.275	0.240	12.7	92	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.526	0.527	-0.2	118	0.00
10	T	Methyl Iodide	0.593	0.549	7.4	100	0.00
11	T	Tert butyl alcohol	0.037	0.032	13.5	99	0.01
12	CM	1,1-Dichloroethene	0.494	0.459	7.1#	108	0.00
13	T	Acrolein	0.025	0.022	12.0	110	0.00
14	T	Allyl chloride	0.649	0.567	12.6	97	0.00
15	T	Acrylonitrile	0.135	0.112	17.0	91	0.00
16	T	Acetone	0.119	0.120	-0.8	113	0.00
17	T	Carbon Disulfide	1.154	1.037	10.1	100	0.00
18	T	Methyl Acetate	0.447	0.386	13.6	96	0.00
19	T	Methyl tert-butyl Ether	1.325	1.139	14.0	94	0.00
20	T	Methylene Chloride	0.984	0.628	36.2#	99	0.00
21	T	trans-1,2-Dichloroethene	0.574	0.510	11.1	98	0.00
22	T	Diisopropyl ether	1.537	1.333	13.3	95	0.00
23	T	Vinyl Acetate	0.760	0.635	16.4	90	0.00
24	P	1,1-Dichloroethane	1.036	0.936	9.7	101	0.00
25	T	2-Butanone	0.159	0.148	6.9	101	0.00
26	T	2,2-Dichloropropane	0.893	0.848	5.0	110	0.00
27	T	cis-1,2-Dichloroethene	0.708	0.643	9.2	102	0.00
28	T	Bromochloromethane	0.259	0.215	17.0	101	0.00
29	T	Tetrahydrofuran	0.094	0.080	14.9	95	0.00
30	C	Chloroform	1.135	1.047	7.8#	107	0.00
31	T	Cyclohexane	0.733	0.685	6.5	117	0.00
32	T	1,1,1-Trichloroethane	0.916	0.900	1.7	111	0.00
33	S	1,2-Dichloroethane-d4	0.498	0.417	16.3	103	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
35	S	Dibromofluoromethane	0.314	0.285	9.2	106	0.00
36	T	1,1-Dichloropropene	0.411	0.413	-0.5	109	0.00
37	T	Ethyl Acetate	0.184	0.164	10.9	89	0.00
38	T	Carbon Tetrachloride	0.393	0.415	-5.6	115	0.00
39	T	Methylcyclohexane	0.474	0.487	-2.7	111	0.00
40	TM	Benzene	1.295	1.232	4.9	103	0.00
41	T	Methacrylonitrile	0.112	0.098	12.5	95	0.00
42	TM	1,2-Dichloroethane	0.337	0.322	4.5	101	0.00
43	T	Isopropyl Acetate	0.358	0.321	10.3	94	0.00
44	TM	Trichloroethene	0.353	0.338	4.2	103	0.00
45	C	1,2-Dichloropropane	0.334	0.318	4.8#	96	0.00
46	T	Dibromomethane	0.196	0.182	7.1	94	0.00
47	T	Bromodichloromethane	0.491	0.458	6.7	96	0.00
48	T	Methyl methacrylate	0.163	0.143	12.3	88	0.00

Sample Results: **VD076766.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.003	0.002	33.3#	98	0.01
50	S	Toluene-d8	1.124	1.015	9.7	105	0.00
51	T	4-Methyl-2-Pentanone	0.191	0.176	7.9	92	0.00
52	CM	Toluene	0.851	0.806	5.3#	99	0.00
53	T	t-1,3-Dichloropropene	0.456	0.425	6.8	94	0.00
54	T	cis-1,3-Dichloropropene	0.537	0.492	8.4	94	0.00
55	T	1,1,2-Trichloroethane	0.286	0.264	7.7	95	0.00
56	T	Ethyl methacrylate	0.330	0.299	9.4	89	0.00
57	T	1,3-Dichloropropane	0.465	0.425	8.6	95	0.00
58	T	2-Chloroethyl Vinyl ether	0.128	0.103	19.5	87	0.00
59	T	2-Hexanone	0.136	0.129	5.1	94	0.00
60	T	Dibromochloromethane	0.332	0.328	1.2	100	0.00
61	T	1,2-Dibromoethane	0.265	0.239	9.8	90	0.00
62	S	4-Bromofluorobenzene	0.364	0.329	9.6	102	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
64	T	Tetrachloroethene	0.285	0.304	-6.7	107	0.00
65	PM	Chlorobenzene	1.006	0.990	1.6	97	0.00
66	T	1,1,1,2-Tetrachloroethane	0.374	0.370	1.1	98	0.00
67	C	Ethyl Benzene	1.766	1.786	-1.1#	99	0.00
68	T	m/p-Xylenes	0.678	0.693	-2.2	100	0.00
69	T	o-Xylene	0.656	0.661	-0.8	98	0.00
70	T	Styrene	1.148	1.153	-0.4	97	0.00
71	P	Bromoform	0.205	0.208	-1.5	96	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
73	T	Isopropylbenzene	3.628	3.709	-2.2	101	0.00
74	T	N-amyl acetate	0.764	0.703	8.0	91	0.00
75	P	1,1,2,2-Tetrachloroethane	0.779	0.744	4.5	93	0.00
76	T	1,2,3-Trichloropropane	0.475	0.478	-0.6	96	0.00
77	T	Bromobenzene	0.837	0.817	2.4	95	0.00
78	T	n-propylbenzene	4.398	4.586	-4.3	103	0.00
79	T	2-Chlorotoluene	2.411	2.436	-1.0	99	0.00
80	T	1,3,5-Trimethylbenzene	2.933	3.010	-2.6	100	0.00
81	T	trans-1,4-Dichloro-2-butene	0.223	0.213	4.5	89	0.00
82	T	4-Chlorotoluene	2.519	2.530	-0.4	98	0.00
83	T	tert-Butylbenzene	2.583	2.727	-5.6	102	0.00
84	T	1,2,4-Trimethylbenzene	2.997	3.007	-0.3	97	0.00
85	T	sec-Butylbenzene	3.946	4.229	-7.2	106	0.00
86	T	p-Isopropyltoluene	3.259	3.439	-5.5	103	0.00
87	T	1,3-Dichlorobenzene	1.722	1.726	-0.2	98	0.00
88	T	1,4-Dichlorobenzene	1.687	1.656	1.8	97	0.00
89	T	n-Butylbenzene	3.189	3.329	-4.4	104	0.00
90	T	Hexachloroethane	0.602	0.665	-10.5	107	0.00
91	T	1,2-Dichlorobenzene	1.518	1.470	3.2	95	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.111	0.096	13.5	89	0.00
93	T	1,2,4-Trichlorobenzene	0.927	0.894	3.6	95	0.00
94	T	Hexachlorobutadiene	0.446	0.465	-4.3	104	0.00
95	T	Naphthalene	2.006	1.872	6.7	90	0.00

Sample Results: **VD076766.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	0.831	0.800	3.7	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Sample Results: **VD076766.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	116	0.00
2	T	Dichlorodifluoromethane	50.000	48.372	3.3	112	0.00
3	P	Chloromethane	50.000	42.154	15.7	96	0.00
4	C	Vinyl Chloride	50.000	46.377	7.2#	107	0.00
5	T	Bromomethane	50.000	42.238	15.5	103	0.00
6	T	Chloroethane	50.000	44.108	11.8	101	0.00
7	T	Trichlorofluoromethane	50.000	49.112	1.8	117	0.00
8	T	Diethyl Ether	50.000	43.557	12.9	92	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	50.142	-0.3	118	0.00
10	T	Methyl Iodide	50.000	46.332	7.3	100	0.00
11	T	Tert butyl alcohol	250.000	217.285	13.1	99	0.01
12	CM	1,1-Dichloroethene	50.000	46.484	7.0#	108	0.00
13	T	Acrolein	250.000	217.241	13.1	110	0.00
14	T	Allyl chloride	50.000	43.677	12.6	97	0.00
15	T	Acrylonitrile	250.000	206.814	17.3	91	0.00
16	T	Acetone	250.000	252.882	-1.2	113	0.00
17	T	Carbon Disulfide	50.000	44.952	10.1	100	0.00
18	T	Methyl Acetate	50.000	43.217	13.6	96	0.00
19	T	Methyl tert-butyl Ether	50.000	42.983	14.0	94	0.00
20	T	Methylene Chloride	50.000	42.838	14.3	99	0.00
21	T	trans-1,2-Dichloroethene	50.000	44.425	11.2	98	0.00
22	T	Diisopropyl ether	50.000	43.375	13.3	95	0.00
23	T	Vinyl Acetate	250.000	208.770	16.5	90	0.00
24	P	1,1-Dichloroethane	50.000	45.166	9.7	101	0.00
25	T	2-Butanone	250.000	232.220	7.1	101	0.00
26	T	2,2-Dichloropropane	50.000	47.471	5.1	110	0.00
27	T	cis-1,2-Dichloroethene	50.000	45.416	9.2	102	0.00
28	T	Bromochloromethane	50.000	41.419	17.2	101	0.00
29	T	Tetrahydrofuran	250.000	211.642	15.3	95	0.00
30	C	Chloroform	50.000	46.107	7.8#	107	0.00
31	T	Cyclohexane	50.000	46.726	6.5	117	0.00
32	T	1,1,1-Trichloroethane	50.000	49.149	1.7	111	0.00
33	S	1,2-Dichloroethane-d4	50.000	41.865	16.3	103	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	109	0.00
35	S	Dibromofluoromethane	50.000	45.293	9.4	106	0.00
36	T	1,1-Dichloropropene	50.000	50.270	-0.5	109	0.00
37	T	Ethyl Acetate	50.000	44.637	10.7	89	0.00
38	T	Carbon Tetrachloride	50.000	52.838	-5.7	115	0.00
39	T	Methylcyclohexane	50.000	51.337	-2.7	111	0.00
40	TM	Benzene	50.000	47.536	4.9	103	0.00
41	T	Methacrylonitrile	50.000	43.809	12.4	95	0.00
42	TM	1,2-Dichloroethane	50.000	47.761	4.5	101	0.00
43	T	Isopropyl Acetate	50.000	44.830	10.3	94	0.00
44	TM	Trichloroethene	50.000	47.895	4.2	103	0.00
45	C	1,2-Dichloropropane	50.000	47.538	4.9#	96	0.00
46	T	Dibromomethane	50.000	46.596	6.8	94	0.00
47	T	Bromodichloromethane	50.000	46.585	6.8	96	0.00
48	T	Methyl methacrylate	50.000	43.845	12.3	88	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	906.515	9.3	98	0.01
50	S	Toluene-d8	50.000	45.157	9.7	105	0.00
51	T	4-Methyl-2-Pentanone	250.000	230.646	7.7	92	0.00
52	CM	Toluene	50.000	47.341	5.3#	99	0.00
53	T	t-1,3-Dichloropropene	50.000	46.571	6.9	94	0.00
54	T	cis-1,3-Dichloropropene	50.000	45.736	8.5	94	0.00
55	T	1,1,2-Trichloroethane	50.000	46.230	7.5	95	0.00
56	T	Ethyl methacrylate	50.000	45.248	9.5	89	0.00
57	T	1,3-Dichloropropane	50.000	45.616	8.8	95	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	201.558	19.4	87	0.00
59	T	2-Hexanone	250.000	235.998	5.6	94	0.00
60	T	Dibromochloromethane	50.000	49.320	1.4	100	0.00
61	T	1,2-Dibromoethane	50.000	45.131	9.7	90	0.00
62	S	4-Bromofluorobenzene	50.000	45.270	9.5	102	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	98	0.00
64	T	Tetrachloroethene	50.000	53.377	-6.8	107	0.00
65	PM	Chlorobenzene	50.000	49.202	1.6	97	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	49.463	1.1	98	0.00
67	C	Ethyl Benzene	50.000	50.575	-1.2#	99	0.00
68	T	m/p-Xylenes	100.000	102.245	-2.2	100	0.00
69	T	o-Xylene	50.000	50.394	-0.8	98	0.00
70	T	Styrene	50.000	50.219	-0.4	97	0.00
71	P	Bromoform	50.000	50.761	-1.5	96	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	98	0.00
73	T	Isopropylbenzene	50.000	51.121	-2.2	101	0.00
74	T	N-amyl acetate	50.000	46.023	8.0	91	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	47.792	4.4	93	0.00
76	T	1,2,3-Trichloropropane	50.000	50.234	-0.5	96	0.00
77	T	Bromobenzene	50.000	48.757	2.5	95	0.00
78	T	n-propylbenzene	50.000	52.138	-4.3	103	0.00
79	T	2-Chlorotoluene	50.000	50.520	-1.0	99	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.312	-2.6	100	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	47.568	4.9	89	0.00
82	T	4-Chlorotoluene	50.000	50.215	-0.4	98	0.00
83	T	tert-Butylbenzene	50.000	52.785	-5.6	102	0.00
84	T	1,2,4-Trimethylbenzene	50.000	50.163	-0.3	97	0.00
85	T	sec-Butylbenzene	50.000	53.593	-7.2	106	0.00
86	T	p-Isopropyltoluene	50.000	52.771	-5.5	103	0.00
87	T	1,3-Dichlorobenzene	50.000	50.098	-0.2	98	0.00
88	T	1,4-Dichlorobenzene	50.000	49.056	1.9	97	0.00
89	T	n-Butylbenzene	50.000	52.204	-4.4	104	0.00
90	T	Hexachloroethane	50.000	55.191	-10.4	107	0.00
91	T	1,2-Dichlorobenzene	50.000	48.427	3.1	95	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	43.206	13.6	89	0.00
93	T	1,2,4-Trichlorobenzene	50.000	48.270	3.5	95	0.00
94	T	Hexachlorobutadiene	50.000	52.229	-4.5	104	0.00
95	T	Naphthalene	50.000	46.665	6.7	90	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076766.D
Acq On : 18 Jul 2023 09:13
Operator : KP/SY
Sample : VSTDCCC050
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 06:39:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 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	48.102	3.8	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: 03645 SAS No.: 03645 SDG No.: 03645

Instrument ID: MSVOA_N Calibration Date/Time: 07/18/2023 10:29

Lab File ID: VN078550.D Init. Calib. Date(s): 07/10/2023 07/10/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:21 14:46

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.613	0.516		-15.82	20
Chloromethane	0.666	0.661	0.1	-0.75	20
Vinyl Chloride	0.862	0.831		-3.6	20
Bromomethane	0.616	0.530		-13.96	20
Chloroethane	0.583	0.515		-11.66	20
Trichlorofluoromethane	1.030	0.939		-8.84	20
1,1,2-Trichlorotrifluoroethane	0.545	0.527		-3.3	20
1,1-Dichloroethene	0.528	0.490		-7.2	20
Acetone	0.209	0.196		-6.22	20
Carbon Disulfide	1.526	1.215		-20.38	20
Methyl tert-butyl Ether	1.738	1.647		-5.24	20
Methyl Acetate	0.884	0.773		-12.56	20
Methylene Chloride	0.674	0.573		-14.98	20
trans-1,2-Dichloroethene	0.595	0.552		-7.23	20
1,1-Dichloroethane	1.088	1.005	0.1	-7.63	20
Cyclohexane	0.906	0.757		-16.45	20
2-Butanone	0.329	0.304		-7.6	20
Carbon Tetrachloride	0.533	0.547		2.63	20
cis-1,2-Dichloroethene	0.688	0.671		-2.47	20
Bromochloromethane	0.512	0.496		-3.13	20
Chloroform	1.132	1.120		-1.06	20
1,1,1-Trichloroethane	1.015	0.998		-1.67	20
Methylcyclohexane	0.447	0.455		1.79	20
Benzene	1.452	1.472		1.38	20
1,2-Dichloroethane	0.494	0.513		3.85	20
Trichloroethene	0.391	0.393		0.51	20
1,2-Dichloropropane	0.368	0.379		2.99	20
Bromodichloromethane	0.519	0.552		6.36	20
4-Methyl-2-Pentanone	0.400	0.407		1.75	20
Toluene	0.900	0.945		5	20
t-1,3-Dichloropropene	0.532	0.559		5.07	20
cis-1,3-Dichloropropene	0.567	0.609		7.41	20
1,1,2-Trichloroethane	0.355	0.373		5.07	20
2-Hexanone	0.284	0.285		0.35	20
Dibromochloromethane	0.391	0.425		8.7	20
1,2-Dibromoethane	0.365	0.385		5.48	20
Tetrachloroethene	0.376	0.388		3.19	20
Chlorobenzene	1.118	1.128	0.3	0.89	20
Ethyl Benzene	1.889	1.952		3.34	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LABE01

Lab Code: CHEM Case No.: O3645 SAS No.: O3645 SDG No.: O3645

Instrument ID: MSVOA_N Calibration Date/Time: 07/18/2023 10:29

Lab File ID: VN078550.D Init. Calib. Date(s): 07/10/2023 07/10/2023

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:21 14:46

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.698	0.751		7.59	20
o-Xylene	0.705	0.728		3.26	20
Styrene	1.104	1.212		9.78	20
Bromoform	0.291	0.318	0.1	9.28	20
Isopropylbenzene	4.698	4.460		-5.07	20
1,1,2,2-Tetrachloroethane	1.586	1.371	0.3	-13.56	20
n-propylbenzene	5.024	5.004		-0.4	20
1,3,5-Trimethylbenzene	3.712	3.663		-1.32	20
tert-Butylbenzene	3.152	3.070		-2.6	20
1,2,4-Trimethylbenzene	3.606	3.589		-0.47	20
sec-Butylbenzene	3.984	3.958		-0.65	20
p-Isopropyltoluene	3.199	3.249		1.56	20
1,3-Dichlorobenzene	1.804	1.838		1.88	20
1,4-Dichlorobenzene	1.817	1.768		-2.7	20
n-Butylbenzene	2.289	2.369		3.49	20
1,2-Dichlorobenzene	1.795	1.784		-0.61	20
1,2-Dibromo-3-Chloropropane	0.262	0.215		-17.94	20
1,2,4-Trichlorobenzene	0.573	0.572		-0.17	20
1,2,3-Trichlorobenzene	0.659	0.623		-5.46	20
1,2-Dichloroethane-d4	0.670	0.659		-1.64	20
Dibromofluoromethane	0.339	0.373		10.03	20
Toluene-d8	1.282	1.384		7.96	20
4-Bromofluorobenzene	0.395	0.439		11.14	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\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.235	168	483266	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	784393	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.870	117	713959	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.800	152	297857	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.588	65	318326	49.134	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 98.260%			
35) Dibromofluoromethane	8.171	113	292460	54.925	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 109.860%			
50) Toluene-d8	10.570	98	1085292	53.954	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 107.900%			
62) 4-Bromofluorobenzene	12.853	95	344269	55.564	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 111.120%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	249258	42.068	ug/l	99
3) Chloromethane	2.371	50	319591	49.626	ug/l	99
4) Vinyl Chloride	2.524	62	401756	48.225	ug/l	97
5) Bromomethane	2.947	94	255948	48.415	ug/l	96
6) Chloroethane	3.118	64	249114	49.410	ug/l	96
7) Trichlorofluoromethane	3.500	101	453931	45.582	ug/l	96
8) Diethyl Ether	3.971	74	146445	44.137	ug/l	80
9) 1,1,2-Trichlorotrifluo...	4.383	101	254864	48.346	ug/l	95
10) Methyl Iodide	4.600	142	346572	47.842	ug/l	97
11) Tert butyl alcohol	5.536	59	218959	219.171	ug/l	99
12) 1,1-Dichloroethene	4.347	96	236930	46.463	ug/l	93
13) Acrolein	4.189	56	214092	217.813	ug/l	95
14) Allyl chloride	5.036	41	327055	46.937	ug/l	94
15) Acrylonitrile	5.736	53	575617	228.041	ug/l	100
16) Acetone	4.441	43	473421	234.586	ug/l	96
17) Carbon Disulfide	4.724	76	587254	39.826	ug/l	99
18) Methyl Acetate	5.036	43	373798	43.754	ug/l	91
19) Methyl tert-butyl Ether	5.806	73	796078	47.382	ug/l	97
20) Methylene Chloride	5.288	84	277000	47.798	ug/l	91
21) trans-1,2-Dichloroethene	5.794	96	266784	46.427	ug/l	90
22) Diisopropyl ether	6.683	45	747081	47.883	ug/l	97
23) Vinyl Acetate	6.612	43	2311363	233.026	ug/l #	91
24) 1,1-Dichloroethane	6.577	63	485912	46.219	ug/l	98
25) 2-Butanone	7.494	43	733979	231.045	ug/l #	87
26) 2,2-Dichloropropane	7.494	77	422491	49.134	ug/l	97
27) cis-1,2-Dichloroethene	7.494	96	324249	48.777	ug/l	97
28) Bromochloromethane	7.818	49	239549	48.376	ug/l	96
29) Tetrahydrofuran	7.847	42	466745	223.912	ug/l	87
30) Chloroform	7.977	83	541057	49.432	ug/l	94
31) Cyclohexane	8.265	56	365781	41.777	ug/l	94
32) 1,1,1-Trichloroethane	8.177	97	482484	49.166	ug/l	98
36) 1,1-Dichloropropene	8.377	75	374993	48.774	ug/l	100
37) Ethyl Acetate	7.571	43	302176	47.148	ug/l	95
38) Carbon Tetrachloride	8.371	117	429081	51.350	ug/l	96
39) Methylcyclohexane	9.606	83	357201	50.898	ug/l	94
40) Benzene	8.612	78	1154557	50.689	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.782	41	162094	49.611	ug/l		94
42) 1,2-Dichloroethane	8.676	62	402401	51.940	ug/l		98
43) Isopropyl Acetate	8.694	43	521067	49.381	ug/l		96
44) Trichloroethene	9.359	130	308030	50.176	ug/l		100
45) 1,2-Dichloropropane	9.629	63	296947	51.474	ug/l		100
46) Dibromomethane	9.712	93	211572	52.107	ug/l		90
47) Bromodichloromethane	9.894	83	433050	53.205	ug/l		98
48) Methyl methacrylate	9.688	41	241511	49.403	ug/l		90
49) 1,4-Dioxane	9.700	88	104509	980.285	ug/l		93
51) 4-Methyl-2-Pentanone	10.453	43	1595269	254.170	ug/l		94
52) Toluene	10.635	92	741320	52.513	ug/l		96
53) t-1,3-Dichloropropene	10.841	75	438659	52.607	ug/l		99
54) cis-1,3-Dichloropropene	10.318	75	477353	53.706	ug/l		96
55) 1,1,2-Trichloroethane	11.023	97	292203	52.535	ug/l		94
56) Ethyl methacrylate	10.876	69	411537	52.930	ug/l		93
57) 1,3-Dichloropropane	11.170	76	484012	51.180	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.165	63	730799	263.748	ug/l		93
59) 2-Hexanone	11.200	43	1117256	250.466	ug/l		92
60) Dibromochloromethane	11.365	129	333053	54.240	ug/l		98
61) 1,2-Dibromoethane	11.476	107	302218	52.747	ug/l		98
64) Tetrachloroethene	11.112	164	277182	51.639	ug/l		94
65) Chlorobenzene	11.894	112	805162	50.453	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.965	131	317545	51.723	ug/l		97
67) Ethyl Benzene	11.970	91	1393402	51.655	ug/l		100
68) m/p-Xylenes	12.076	106	1071974	107.481	ug/l		98
69) o-Xylene	12.400	106	519628	51.582	ug/l		97
70) Styrene	12.417	104	865578	54.922	ug/l		98
71) Bromoform	12.582	173	226819	54.552	ug/l	#	99
73) Isopropylbenzene	12.700	105	1328412	47.464	ug/l		98
74) N-amyl acetate	12.500	43	410888	42.600	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.941	83	408219	52.368	ug/l		100
76) 1,2,3-Trichloropropane	13.000	75	328629m	45.646	ug/l		
77) Bromobenzene	12.982	156	321285	52.876	ug/l		93
78) n-propylbenzene	13.041	91	1490384	49.793	ug/l		99
79) 2-Chlorotoluene	13.129	91	906886	46.257	ug/l		95
80) 1,3,5-Trimethylbenzene	13.176	105	1091097	49.340	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.741	75	124149	45.314	ug/l		95
82) 4-Chlorotoluene	13.229	91	887968	48.551	ug/l		97
83) tert-Butylbenzene	13.441	119	914375	48.702	ug/l		95
84) 1,2,4-Trimethylbenzene	13.488	105	1069143	49.774	ug/l		97
85) sec-Butylbenzene	13.623	105	1178828	49.674	ug/l		99
86) p-Isopropyltoluene	13.735	119	967865	50.792	ug/l		97
87) 1,3-Dichlorobenzene	13.735	146	547603	50.966	ug/l		97
88) 1,4-Dichlorobenzene	13.817	146	526549	48.654	ug/l		97
89) n-Butylbenzene	14.058	91	705508	51.745	ug/l		98
90) Hexachloroethane	14.341	117	189491	54.172	ug/l		85
91) 1,2-Dichlorobenzene	14.111	146	531275	49.686	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.723	75	63963	47.648	ug/l		91
93) 1,2,4-Trichlorobenzene	15.400	180	170335	49.914	ug/l		95
94) Hexachlorobutadiene	15.505	225	100054	57.278	ug/l		99
95) Naphthalene	15.647	128	487735	41.807	ug/l		99
96) 1,2,3-Trichlorobenzene	15.847	180	185539	47.284	ug/l		96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

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

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

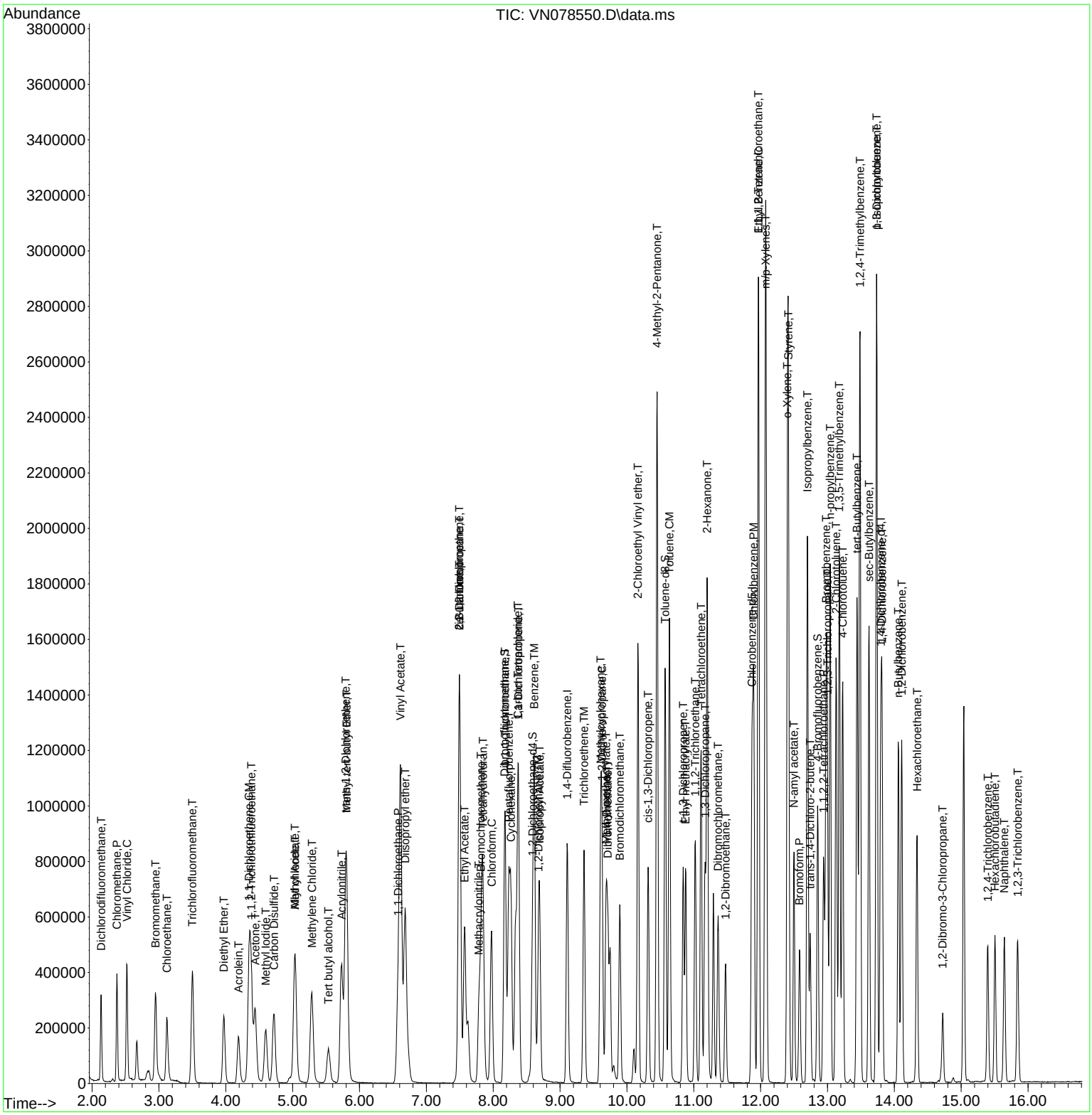
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

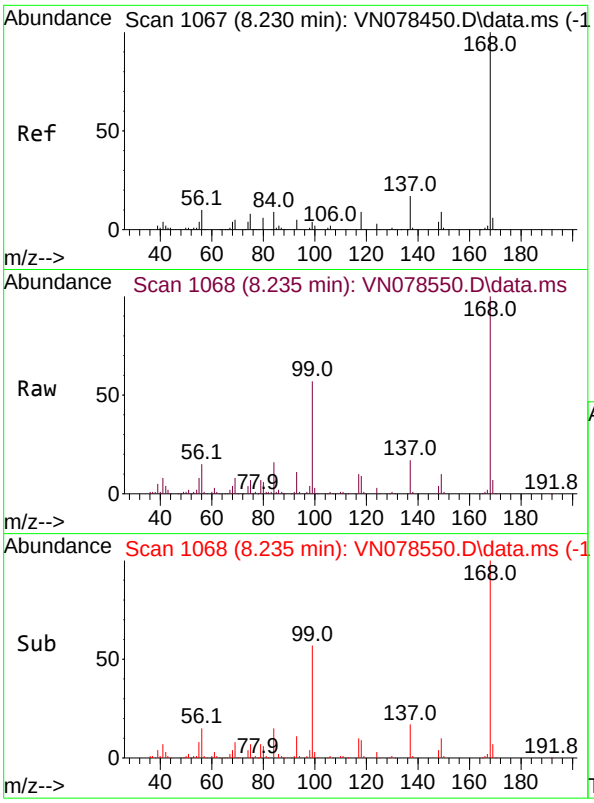
Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

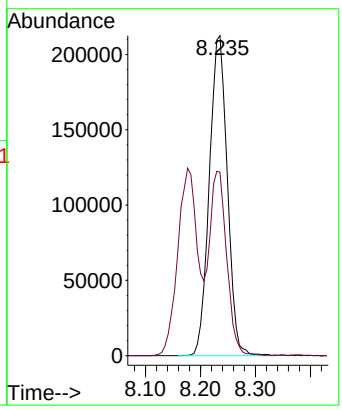




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.235 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:168 Resp: 48326

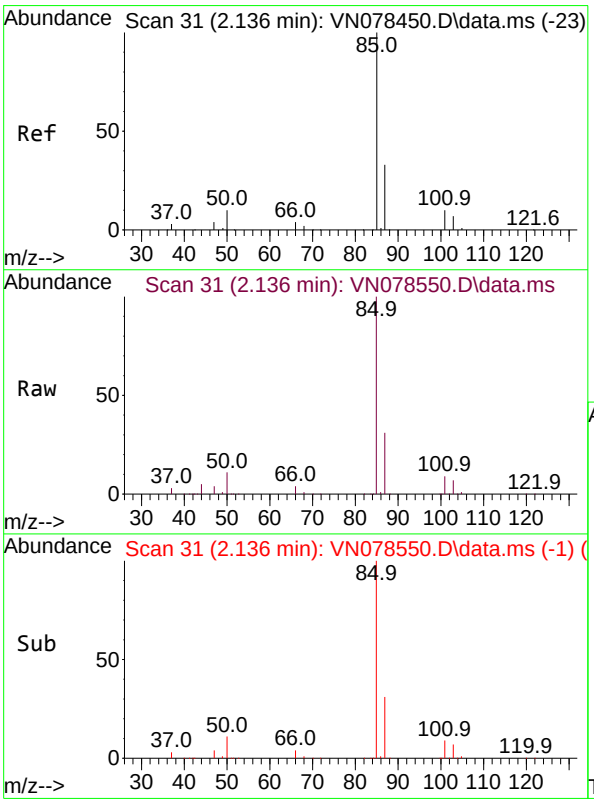
Ion	Ratio	Lower	Upper
168	100		
99	57.2	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

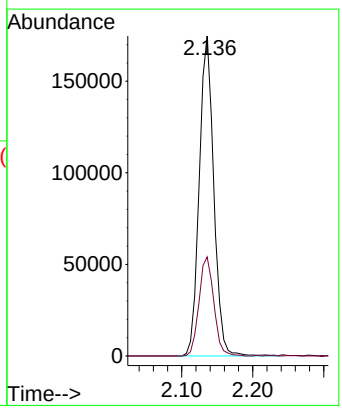
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

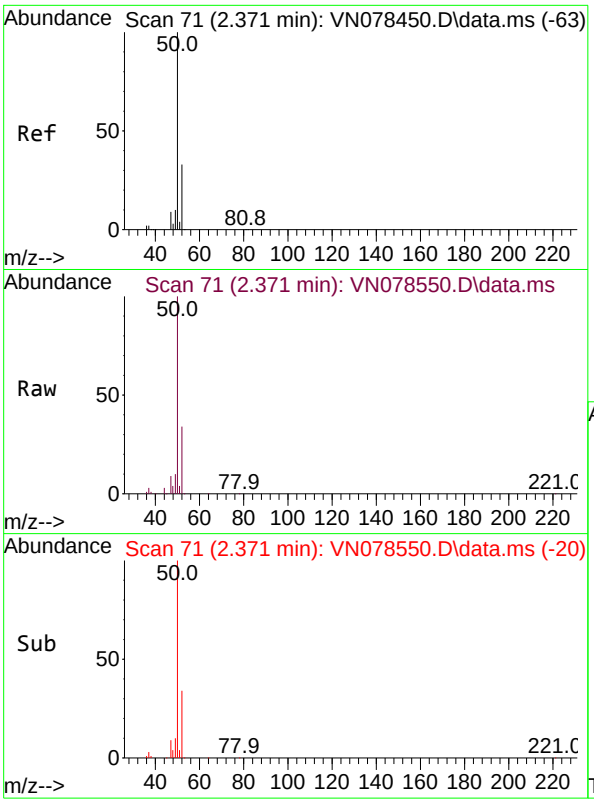


#2
Dichlorodifluoromethane
Concen: 42.068 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 85 Resp: 249258

Ion	Ratio	Lower	Upper
85	100		
87	30.9	15.8	47.4





#3
Chloromethane
Concen: 49.626 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

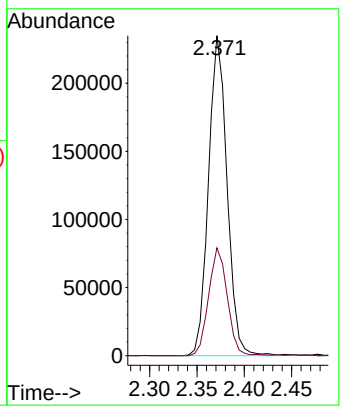
Tgt Ion: 50 Resp: 31959

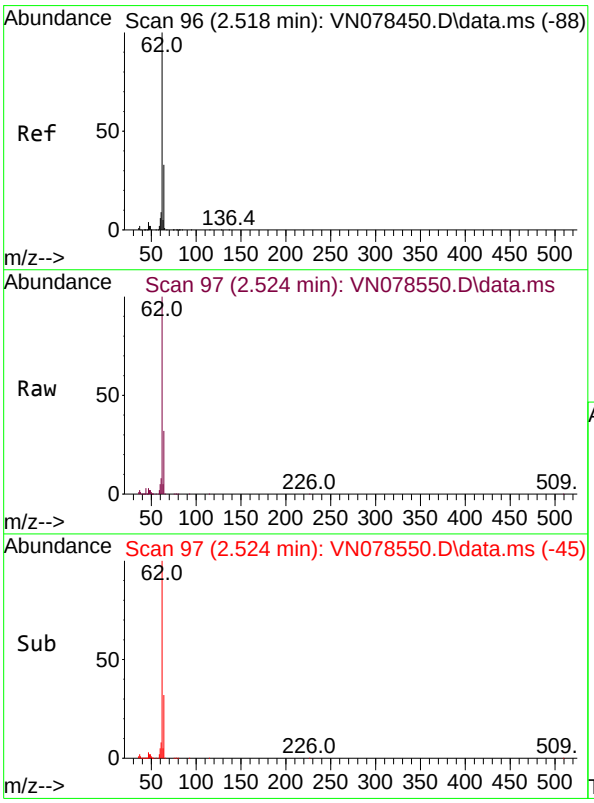
Ion	Ratio	Lower	Upper
50	100		
52	33.7	26.5	39.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

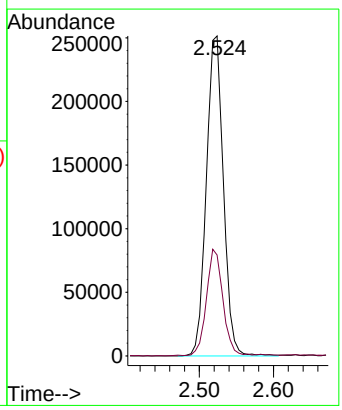


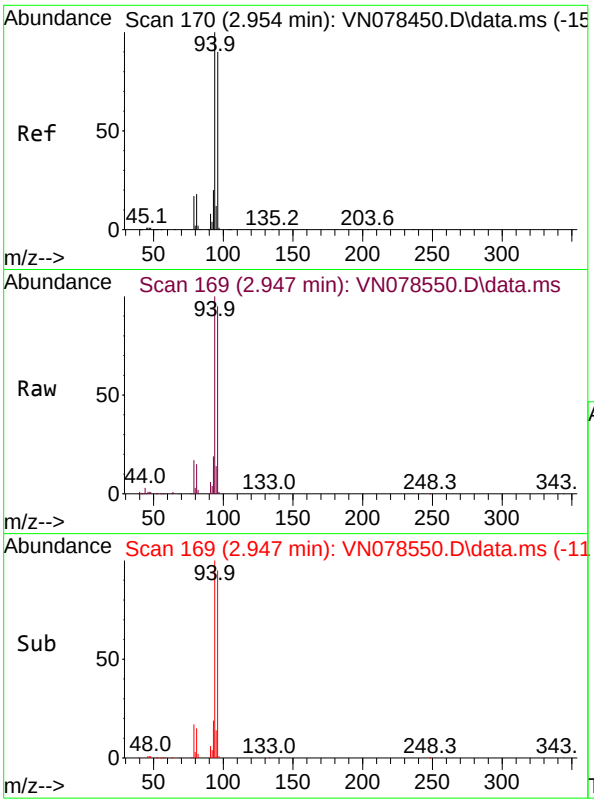


#4
Vinyl Chloride
Concen: 48.225 ug/l
RT: 2.524 min Scan# 97
Delta R.T. 0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 62 Resp: 401756

Ion	Ratio	Lower	Upper
62	100		
64	31.3	26.2	39.2

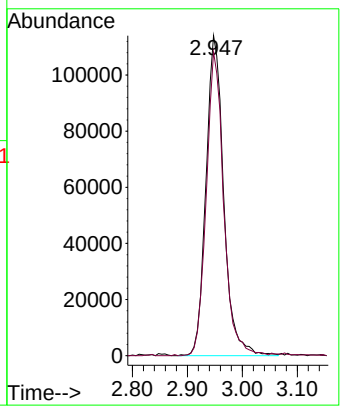




#5
Bromomethane
Concen: 48.415 ug/l
RT: 2.947 min Scan# 1
Delta R.T. -0.007 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 94 Resp: 25594

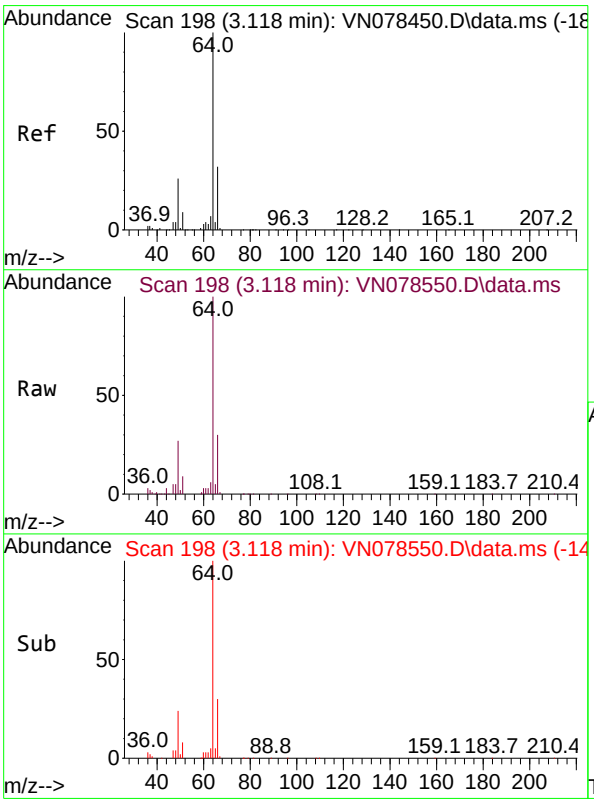
Ion	Ratio	Lower	Upper
94	100		
96	94.9	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

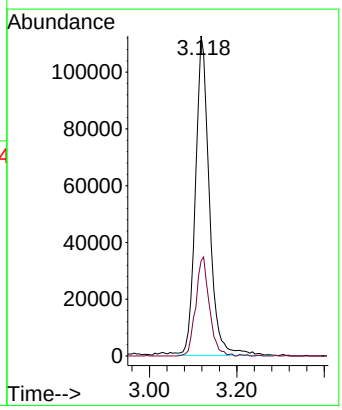
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

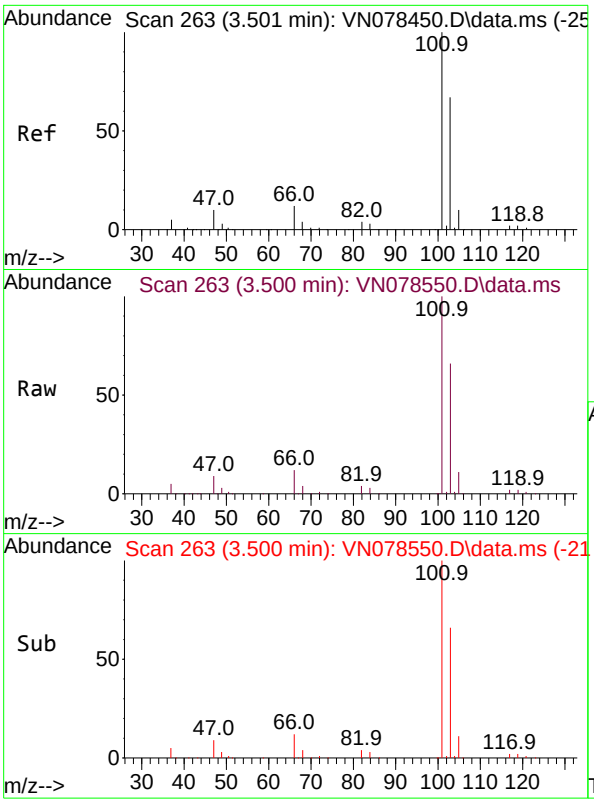


#6
Chloroethane
Concen: 49.410 ug/l
RT: 3.118 min Scan# 198
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 64 Resp: 249114

Ion	Ratio	Lower	Upper
64	100		
66	29.8	25.4	38.2

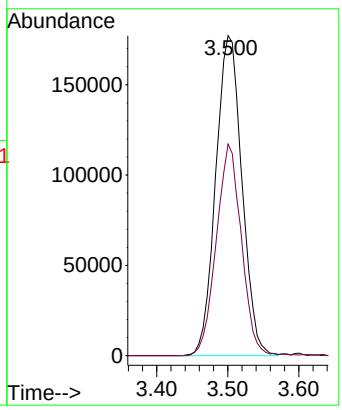




#7
Trichlorofluoromethane
Concen: 45.582 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:101 Resp: 45393

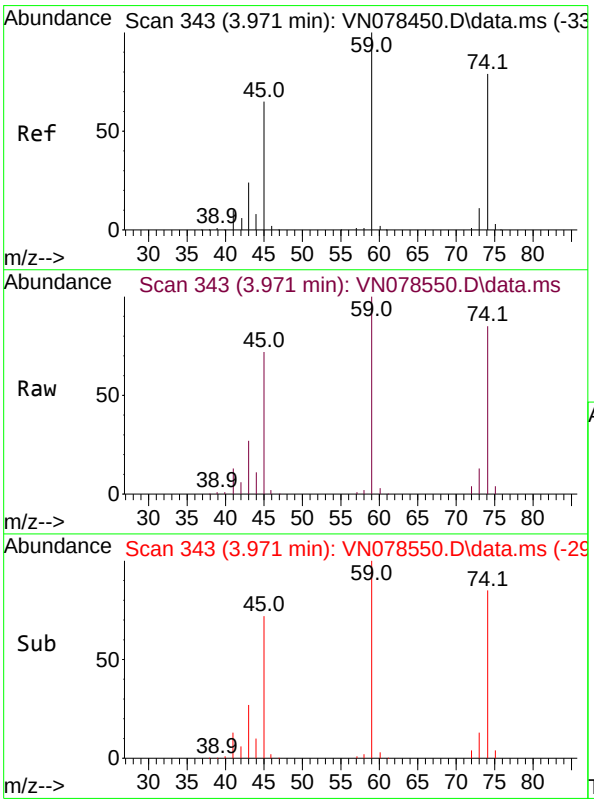
Ion	Ratio	Lower	Upper
101	100		
103	66.2	50.7	76.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

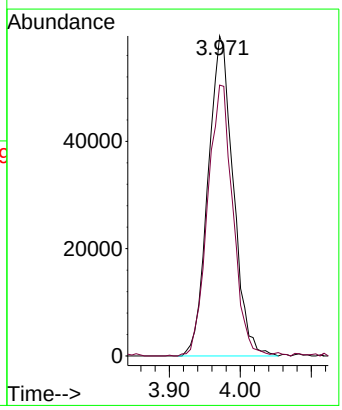
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

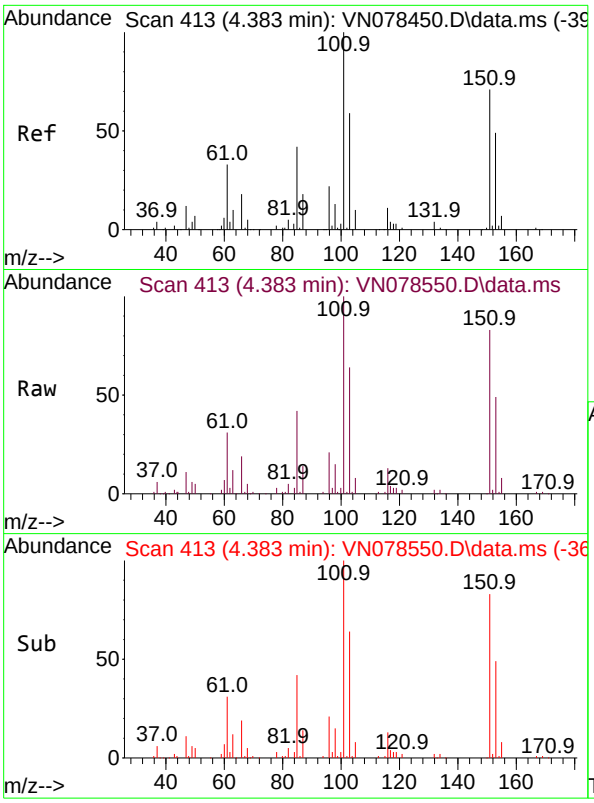


#8
Diethyl Ether
Concen: 44.137 ug/l
RT: 3.971 min Scan# 343
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 74 Resp: 146445

Ion	Ratio	Lower	Upper
74	100		
45	84.8	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 48.346 ug/l
RT: 4.383 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

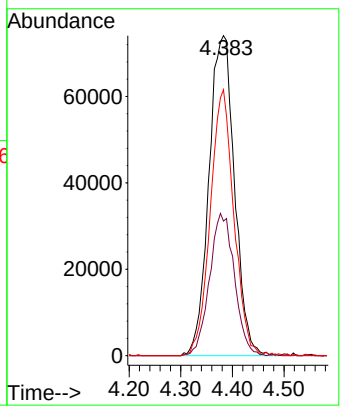
Tgt Ion:101 Resp: 25486

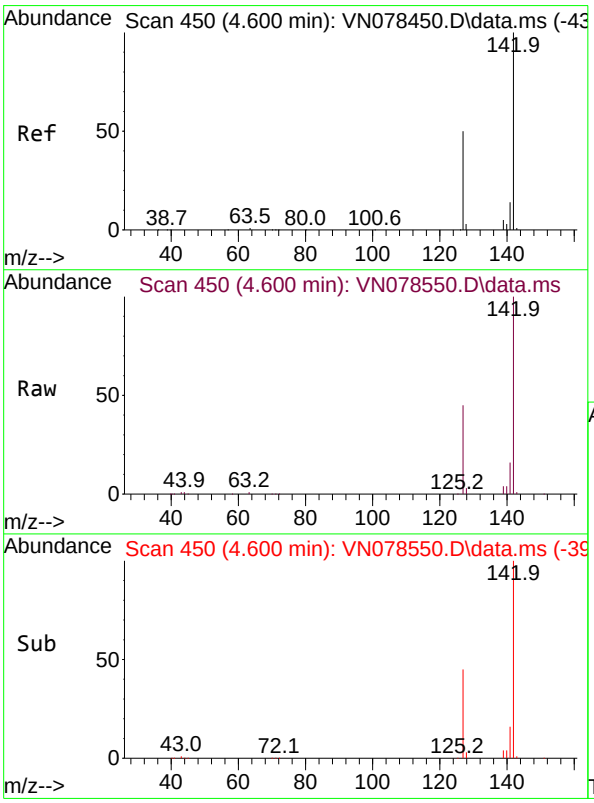
Ion	Ratio	Lower	Upper
101	100		
85	43.2	36.6	55.0
151	76.5	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

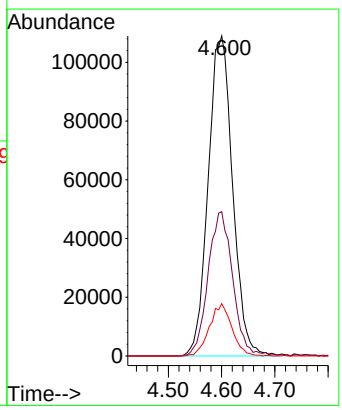


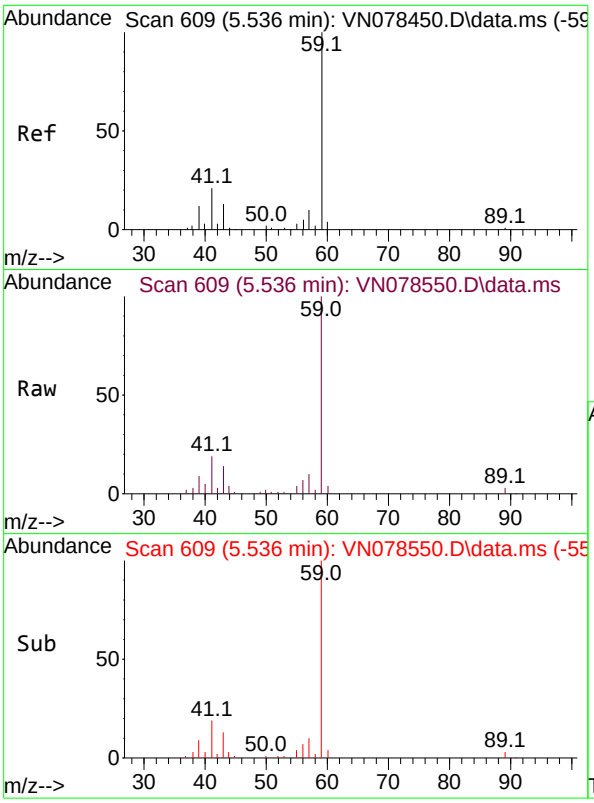


#10
Methyl Iodide
Concen: 47.842 ug/l
RT: 4.600 min Scan# 450
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:142 Resp: 346572

Ion	Ratio	Lower	Upper
142	100		
127	45.1	37.6	56.4
141	16.4	11.4	17.0





#11
Tert butyl alcohol
Concen: 219.171 ug/l
RT: 5.536 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

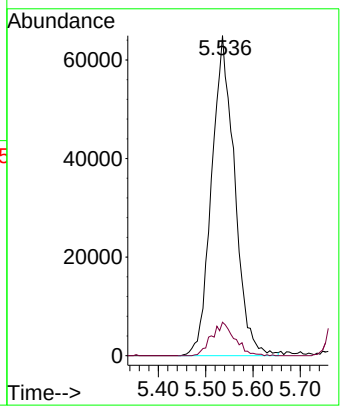
Tgt Ion: 59 Resp: 21895

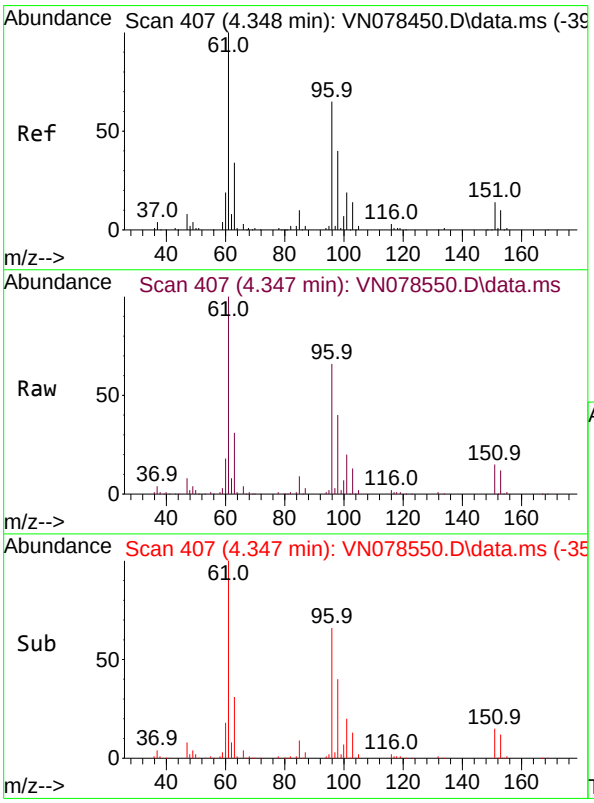
Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.2	12.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

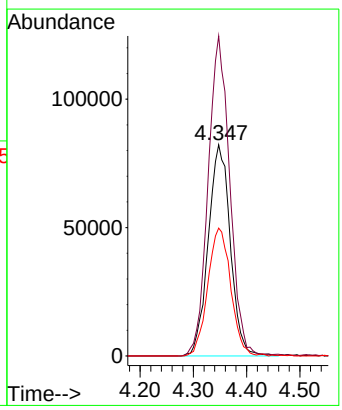


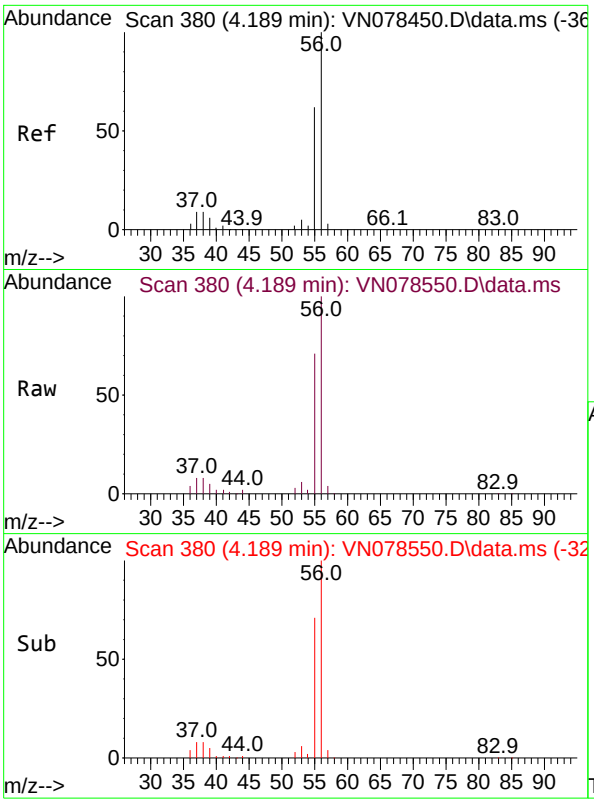


#12
1,1-Dichloroethene
Concen: 46.463 ug/l
RT: 4.347 min Scan# 407
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 96 Resp: 236930

Ion	Ratio	Lower	Upper
96	100		
61	151.5	112.7	169.1
98	60.5	51.2	76.8





#13
Acrolein
Concen: 217.813 ug/l
RT: 4.189 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

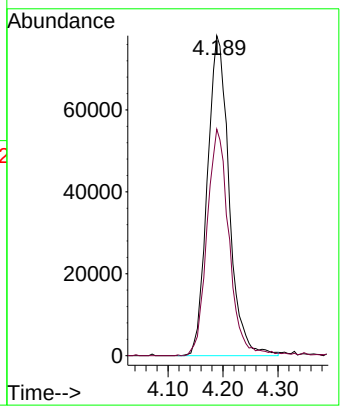
Tgt Ion: 56 Resp: 21409

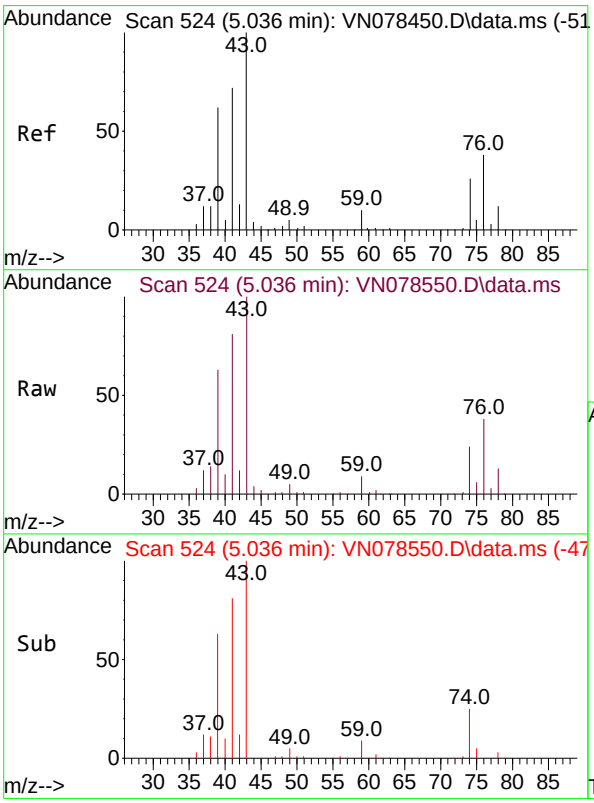
Ion	Ratio	Lower	Upper
56	100		
55	71.9	54.5	81.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

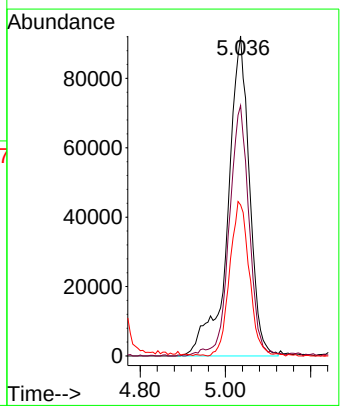


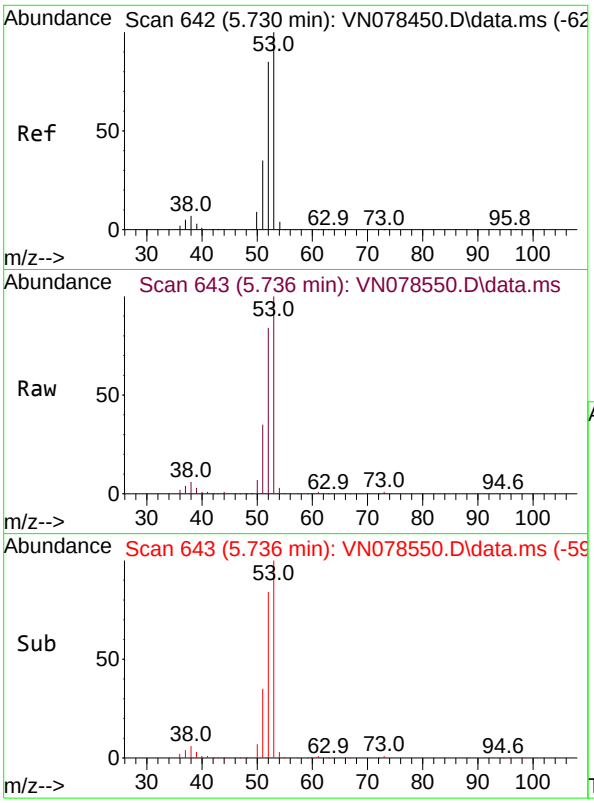


#14
Allyl chloride
Concen: 46.937 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 41 Resp: 327055

Ion	Ratio	Lower	Upper
41	100		
39	69.6	58.8	88.2
76	43.3	39.1	58.7





#15
Acrylonitrile
Concen: 228.041 ug/l
RT: 5.736 min Scan# 64
Delta R.T. 0.005 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

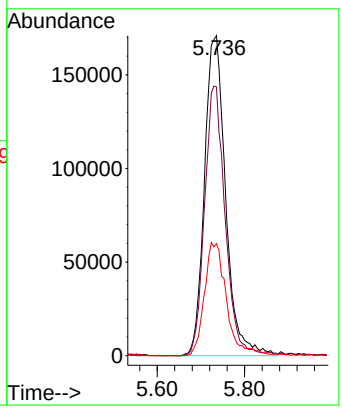
Tgt Ion: 53 Resp: 57561

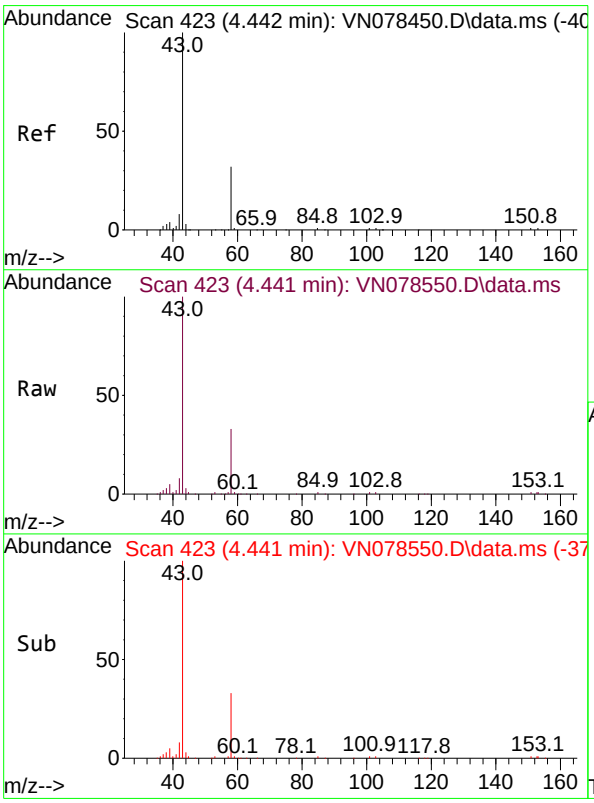
Ion	Ratio	Lower	Upper
53	100		
52	81.4	65.3	97.9
51	36.7	28.9	43.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

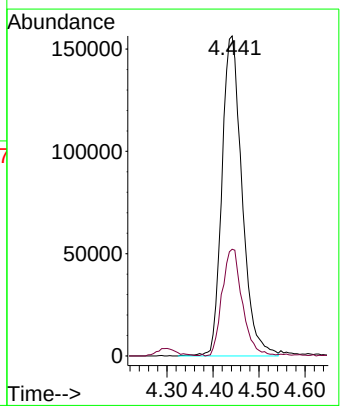


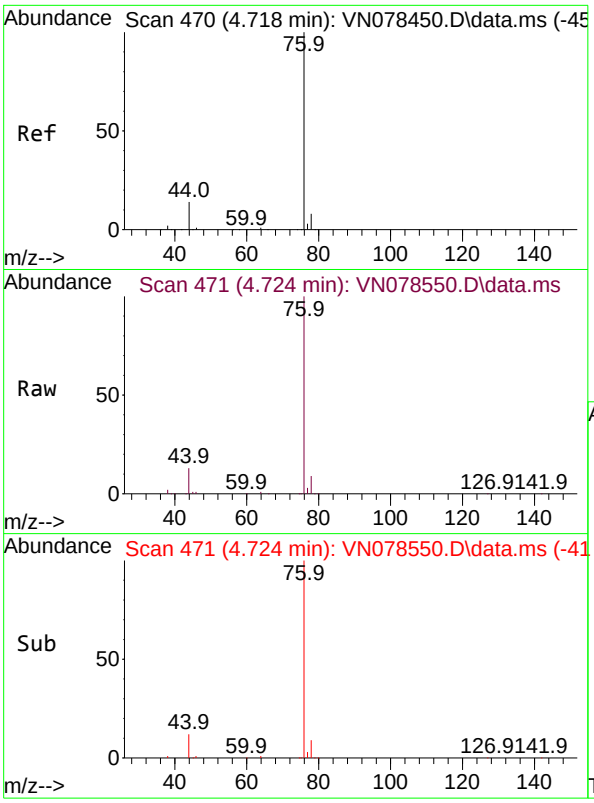


#16
Acetone
Concen: 234.586 ug/l
RT: 4.441 min Scan# 423
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 43 Resp: 473421

Ion	Ratio	Lower	Upper
43	100		
58	32.9	28.0	42.0

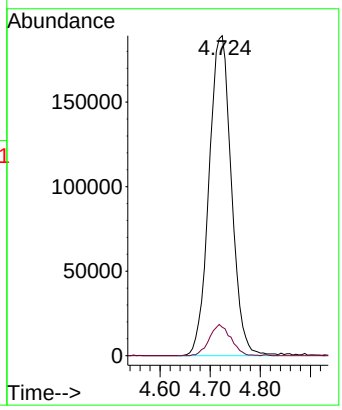




#17
Carbon Disulfide
Concen: 39.826 ug/l
RT: 4.724 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 76 Resp: 58725

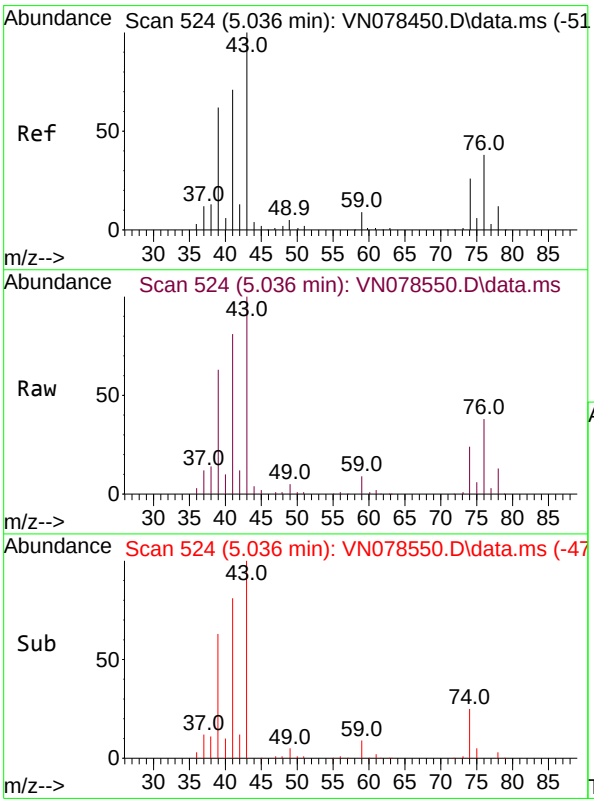
Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

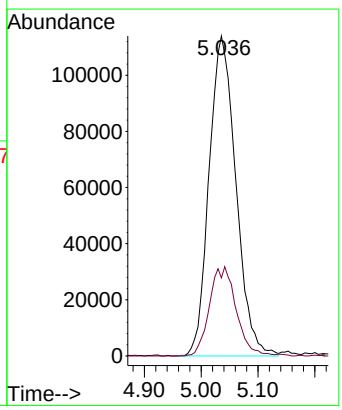
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

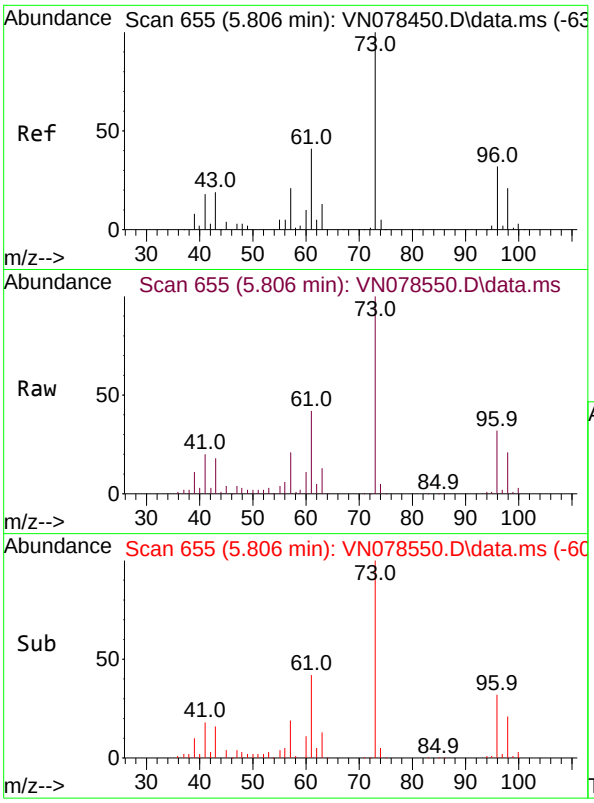


#18
Methyl Acetate
Concen: 43.754 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 43 Resp: 373798

Ion	Ratio	Lower	Upper
43	100		
74	27.7	26.2	39.4





#19
Methyl tert-butyl Ether
Concen: 47.382 ug/l
RT: 5.806 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

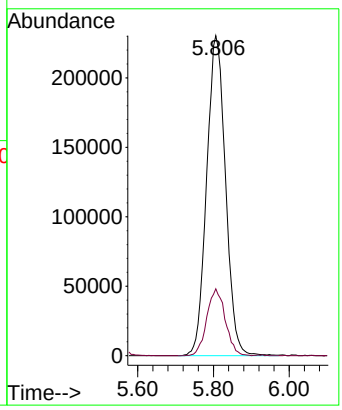
Tgt Ion: 73 Resp: 79607

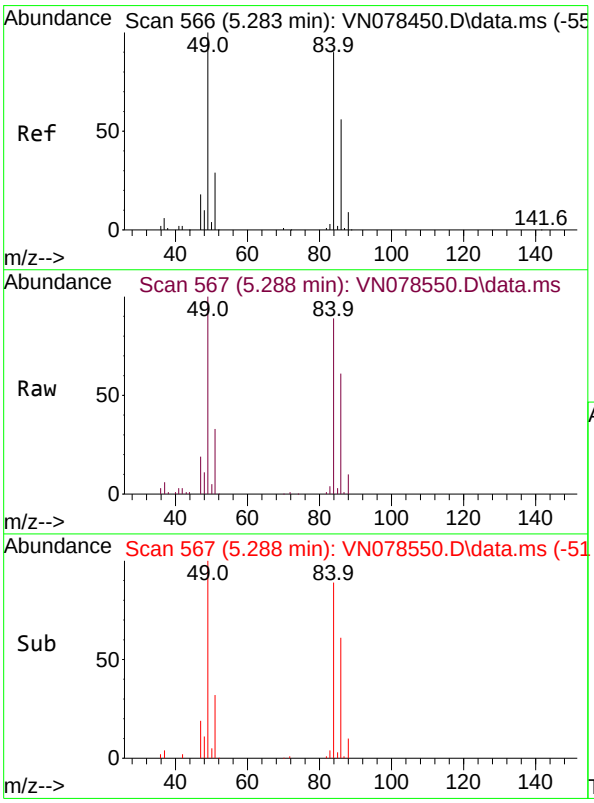
Ion	Ratio	Lower	Upper
73	100		
57	20.9	15.6	23.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

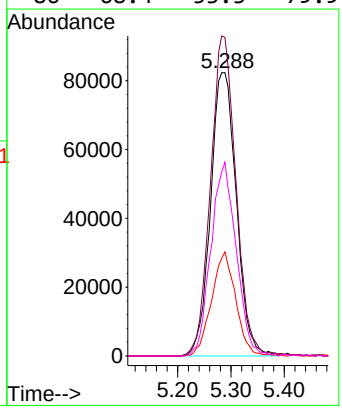


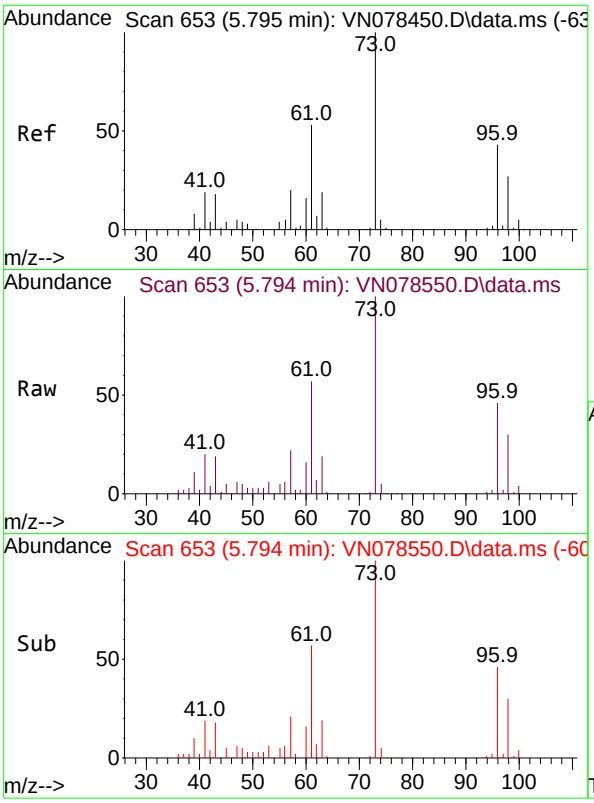


#20
Methylene Chloride
Concen: 47.798 ug/l
RT: 5.288 min Scan# 567
Delta R.T. 0.005 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 84 Resp: 277000

Ion	Ratio	Lower	Upper
84	100		
49	112.4	79.7	119.5
51	36.7	25.2	37.8
86	68.4	53.3	79.9

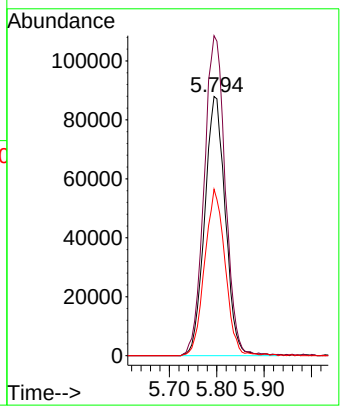




#21
trans-1,2-Dichloroethene
Concen: 46.427 ug/l
RT: 5.794 min Scan# 6
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 96 Resp: 26678

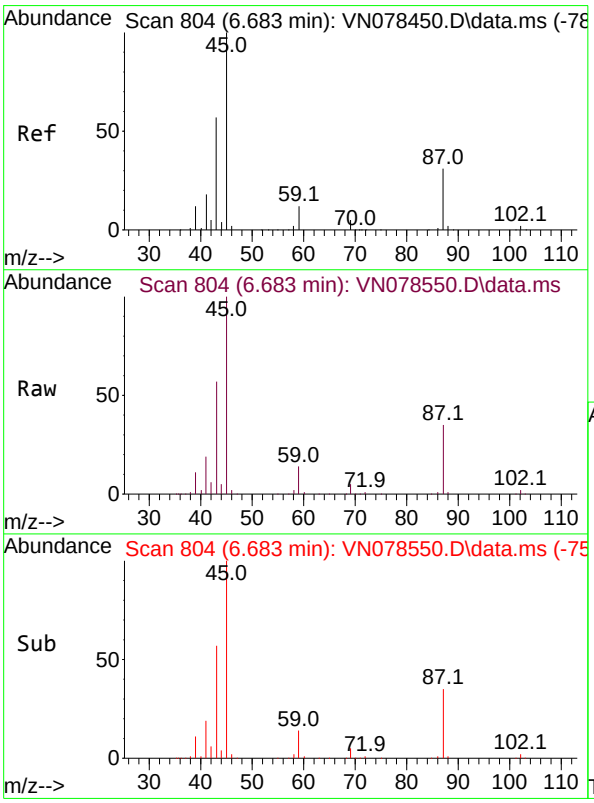
Ion	Ratio	Lower	Upper
96	100		
61	123.5	90.1	135.1
98	64.2	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

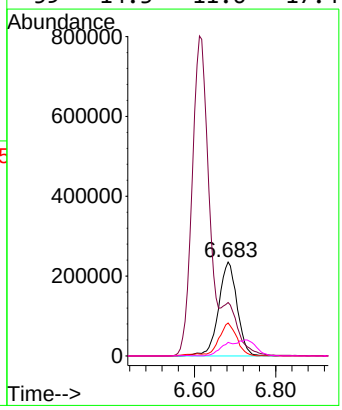
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

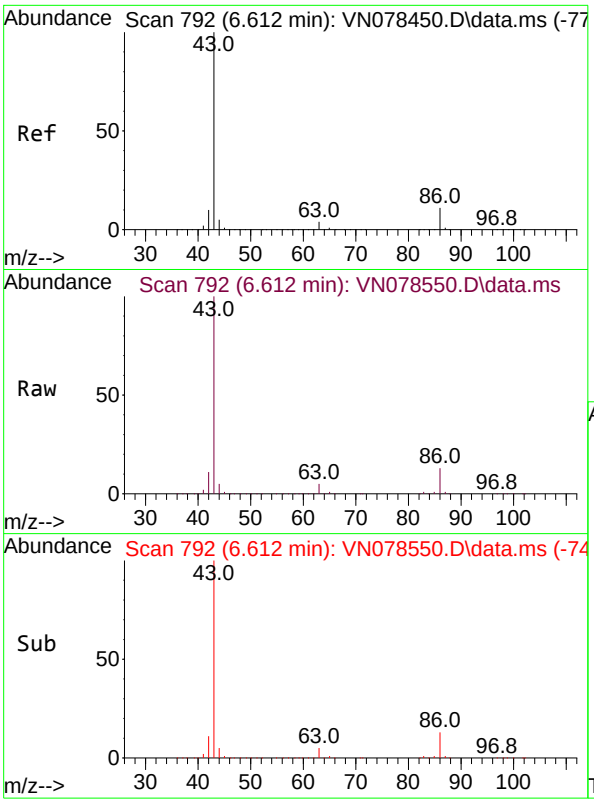


#22
Diisopropyl ether
Concen: 47.883 ug/l
RT: 6.683 min Scan# 804
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 45 Resp: 747081

Ion	Ratio	Lower	Upper
45	100		
43	56.1	45.5	68.3
87	34.9	31.8	47.8
59	14.3	11.6	17.4

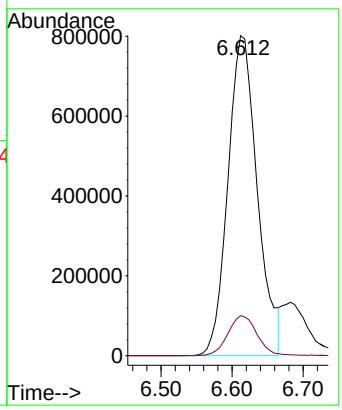




#23
Vinyl Acetate
Concen: 233.026 ug/l
RT: 6.612 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 43 Resp: 231136

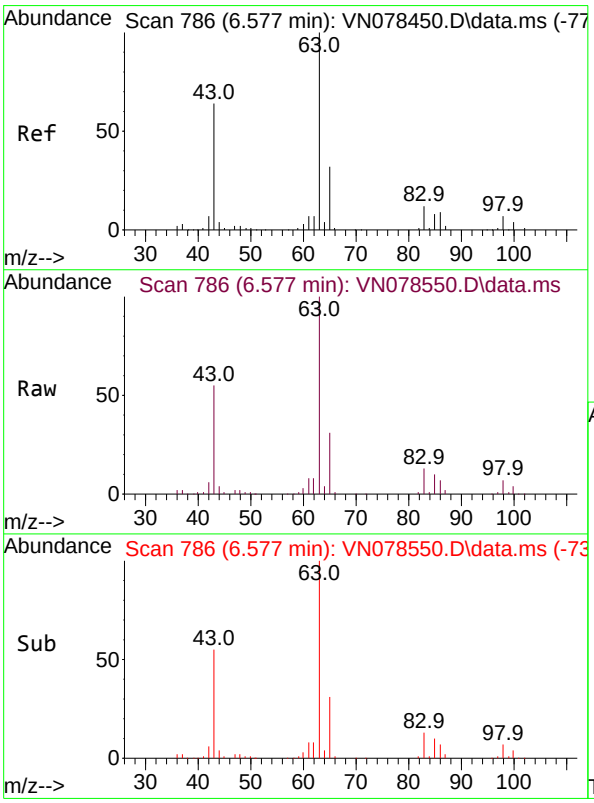
Ion	Ratio	Lower	Upper
43	100		
86	12.5	13.0	19.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

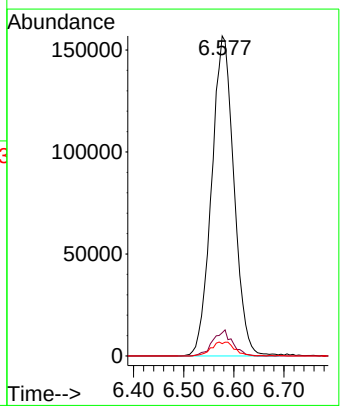
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

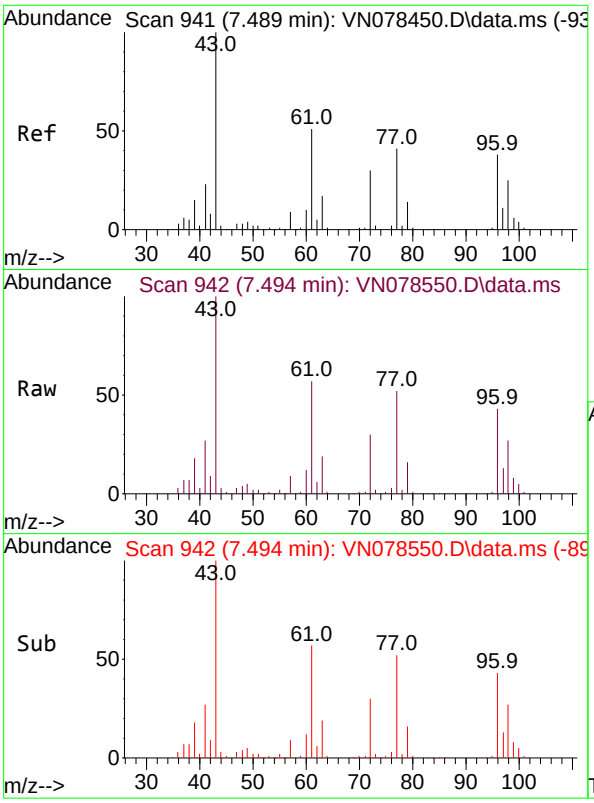


#24
1,1-Dichloroethane
Concen: 46.219 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 63 Resp: 485912

Ion	Ratio	Lower	Upper
63	100		
98	7.3	3.9	11.7
100	3.8	2.5	7.4





#25
2-Butanone
Concen: 231.045 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.005 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

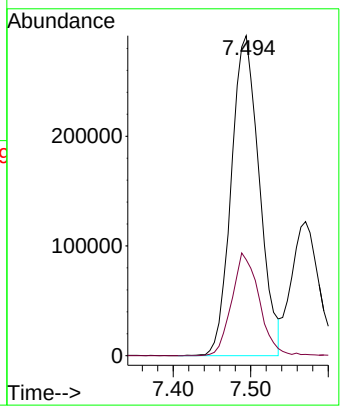
Tgt Ion: 43 Resp: 73397

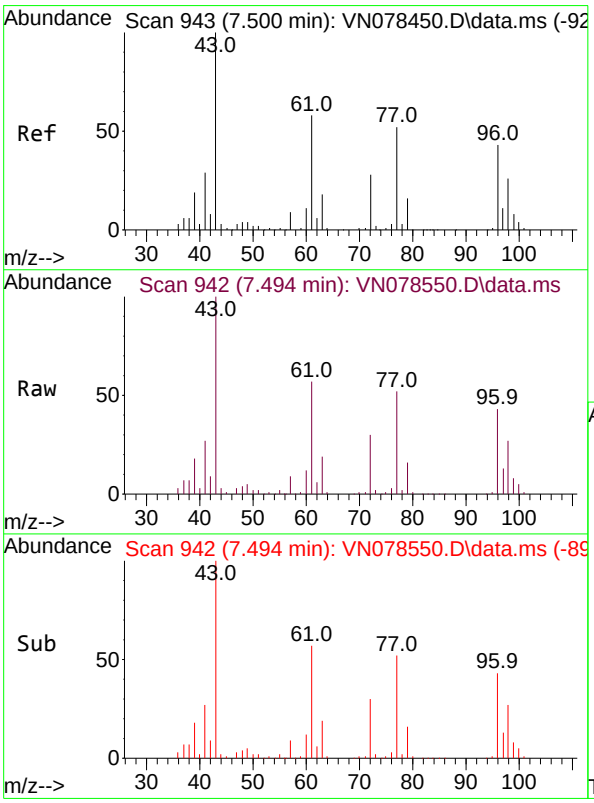
Ion	Ratio	Lower	Upper
43	100		
72	30.0	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

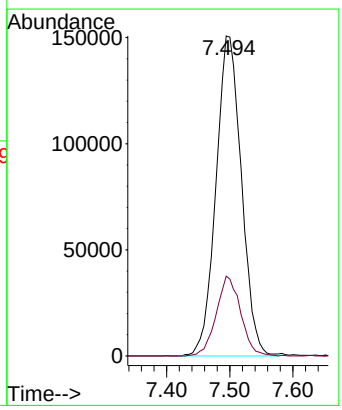


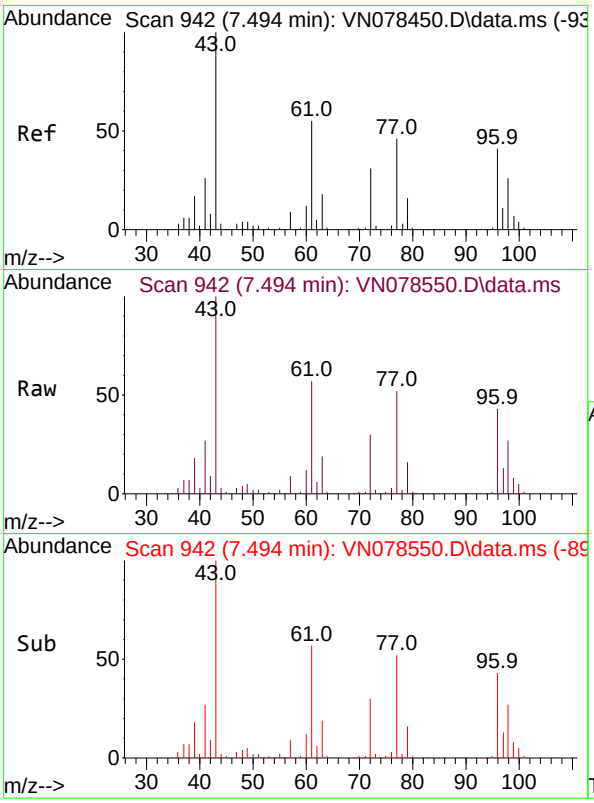


#26
2,2-Dichloropropane
Concen: 49.134 ug/l
RT: 7.494 min Scan# 942
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 77 Resp: 422491

Ion	Ratio	Lower	Upper
77	100		
97	23.9	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 48.777 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

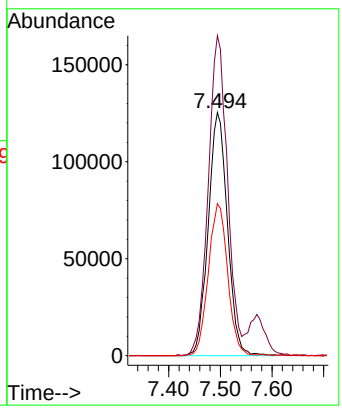
Tgt Ion: 96 Resp: 32424

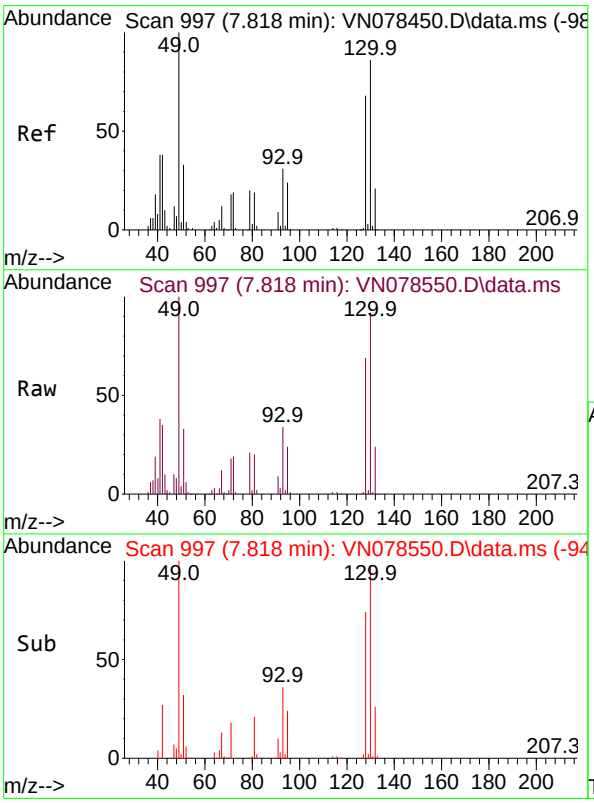
Ion	Ratio	Lower	Upper
96	100		
61	131.3	0.0	255.2
98	62.7	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

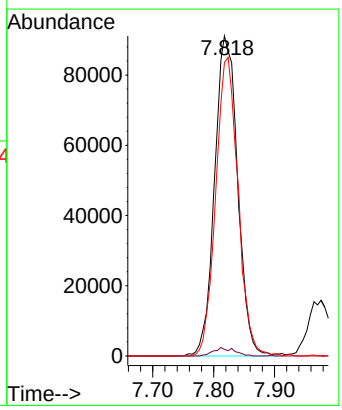


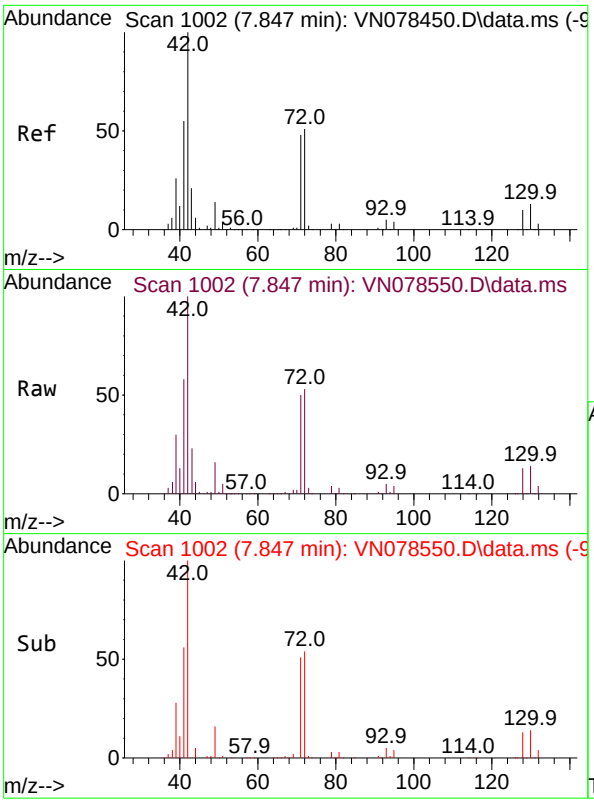


#28
Bromochloromethane
Concen: 48.376 ug/l
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 49 Resp: 239549

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	4.8
130	90.6	75.3	112.9





#29
Tetrahydrofuran
Concen: 223.912 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

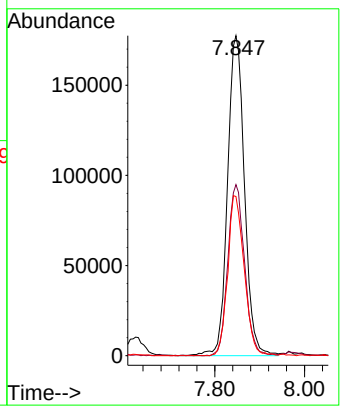
Tgt Ion: 42 Resp: 46674

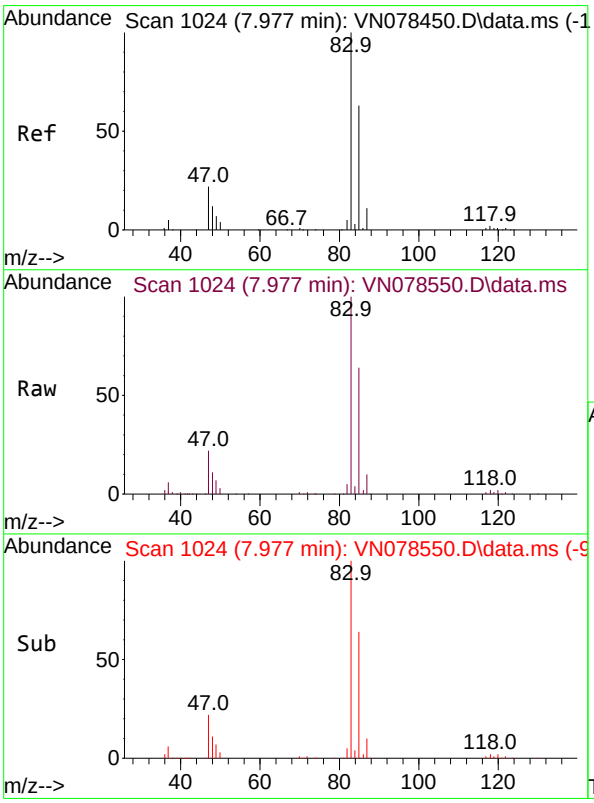
Ion	Ratio	Lower	Upper
42	100		
72	52.7	49.8	74.6
71	48.9	47.4	71.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

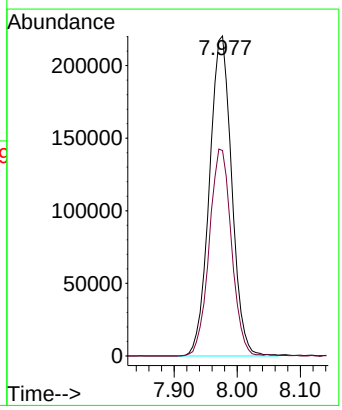


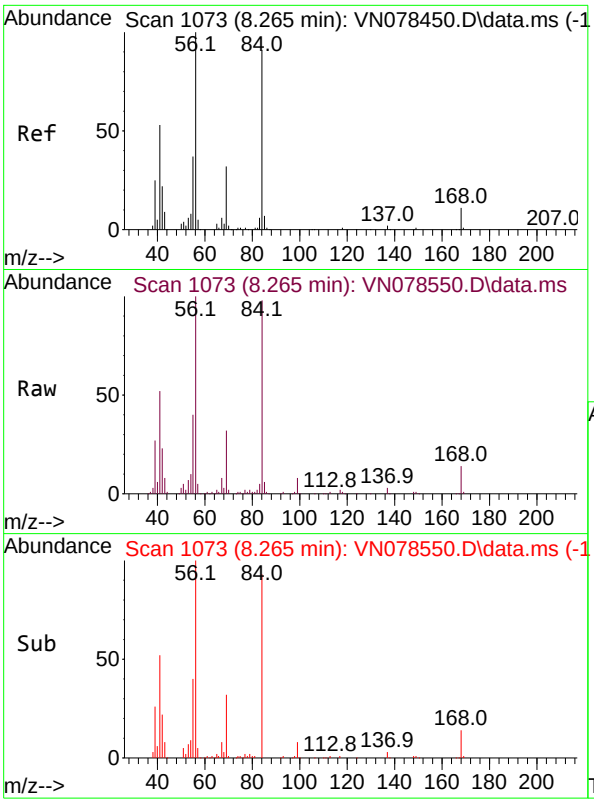


#30
Chloroform
Concen: 49.432 ug/l
RT: 7.977 min Scan# 1024
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 83 Resp: 541057

Ion	Ratio	Lower	Upper
83	100		
85	64.2	55.4	83.0

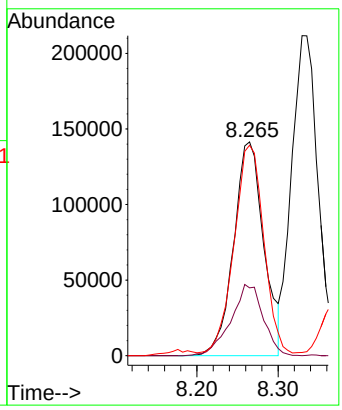




#31
Cyclohexane
Concen: 41.777 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 56 Resp: 36578

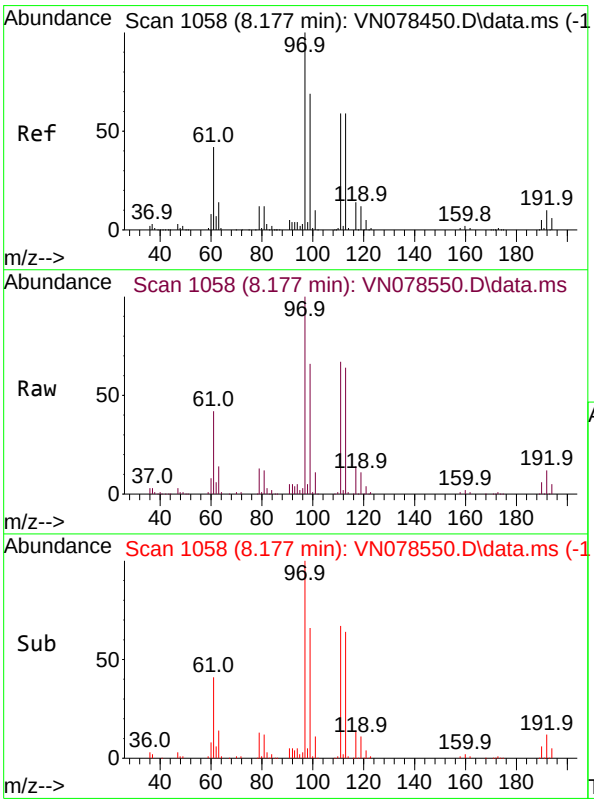
Ion	Ratio	Lower	Upper
56	100		
69	31.8	26.8	40.2
84	95.5	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

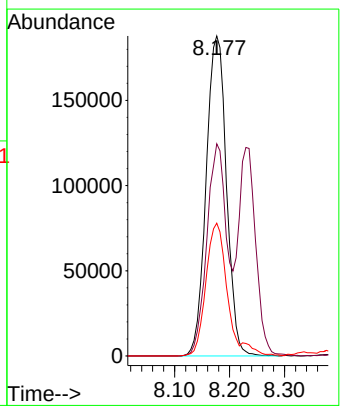
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

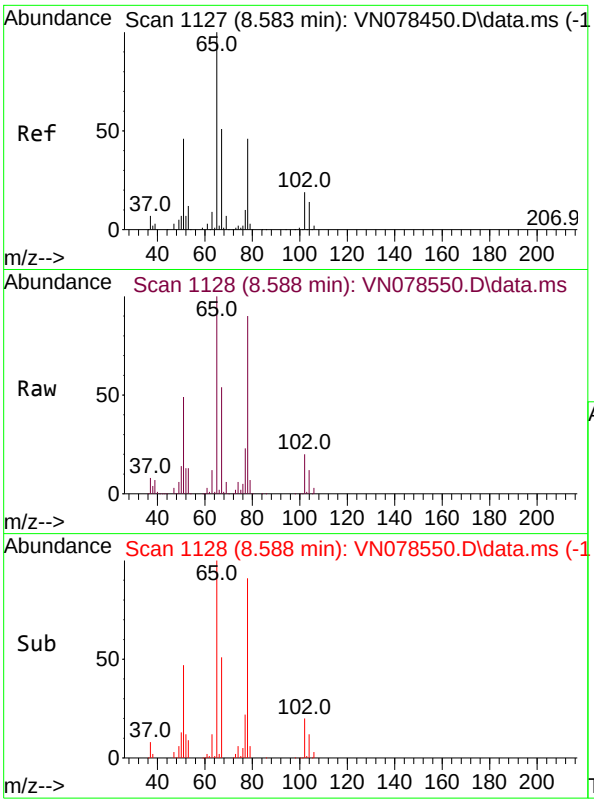


#32
1,1,1-Trichloroethane
Concen: 49.166 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 97 Resp: 482484

Ion	Ratio	Lower	Upper
97	100		
99	65.5	50.3	75.5
61	44.2	34.7	52.1





#33
1,2-Dichloroethane-d4
Concen: 49.134 ug/l
RT: 8.588 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

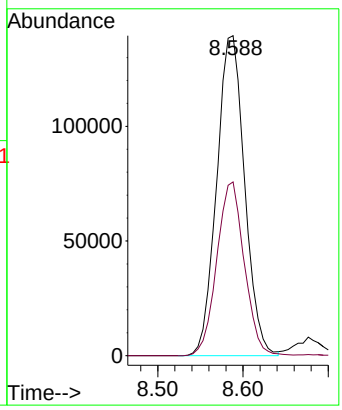
Tgt Ion: 65 Resp: 31832

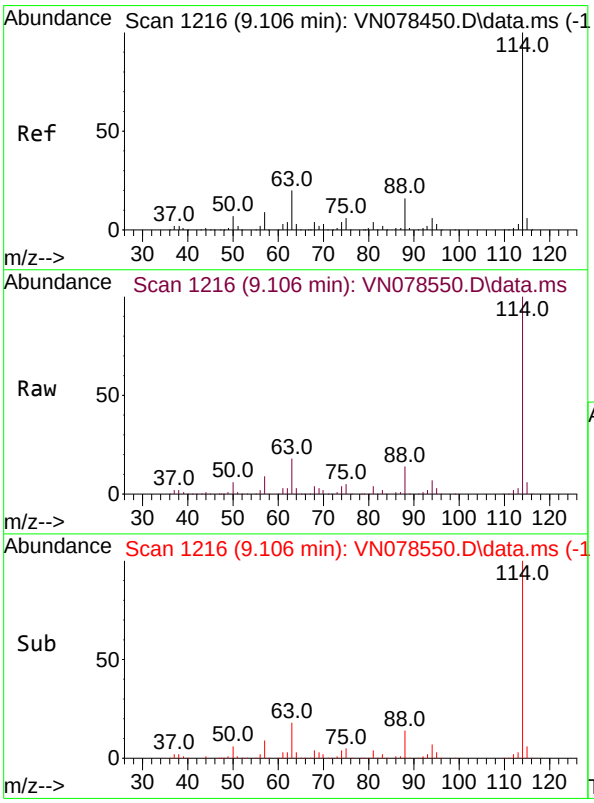
Ion	Ratio	Lower	Upper
65	100		
67	53.5	0.0	106.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

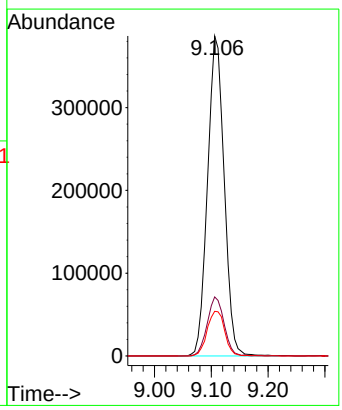


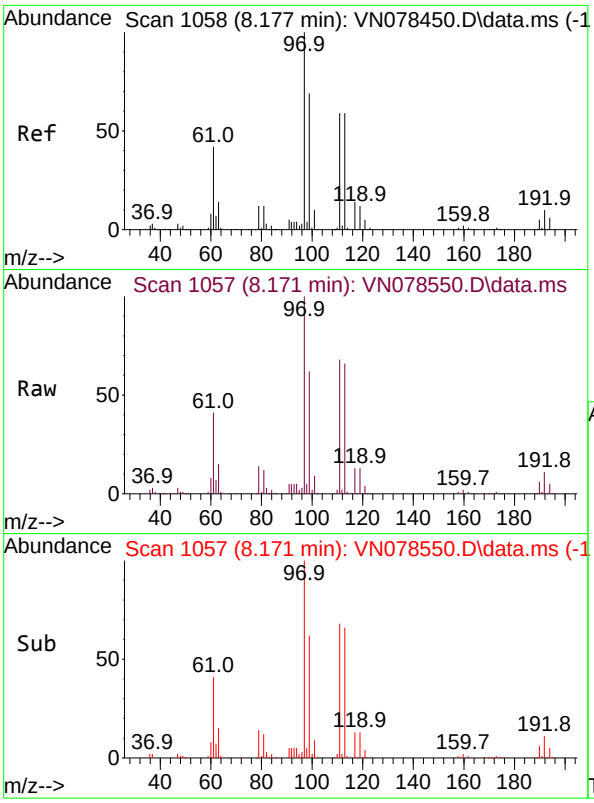


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:114 Resp: 784393

Ion	Ratio	Lower	Upper
114	100		
63	18.5	0.0	36.4
88	14.0	0.0	30.6

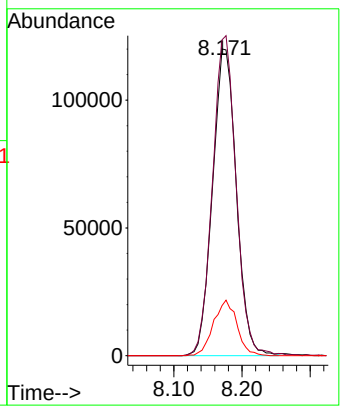




#35
Dibromofluoromethane
Concen: 54.925 ug/l
RT: 8.171 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:113 Resp: 29246

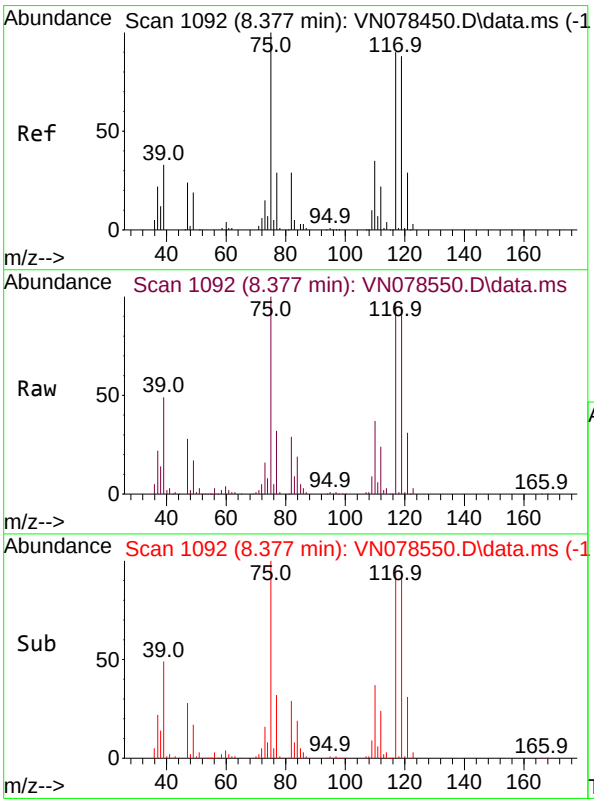
Ion	Ratio	Lower	Upper
113	100		
111	103.3	82.6	123.8
192	17.8	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

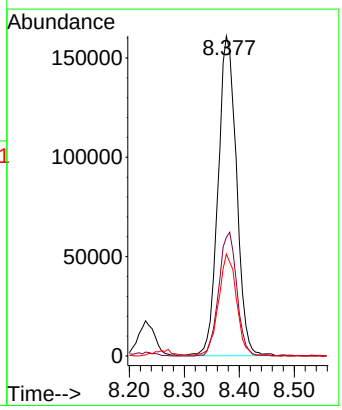
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

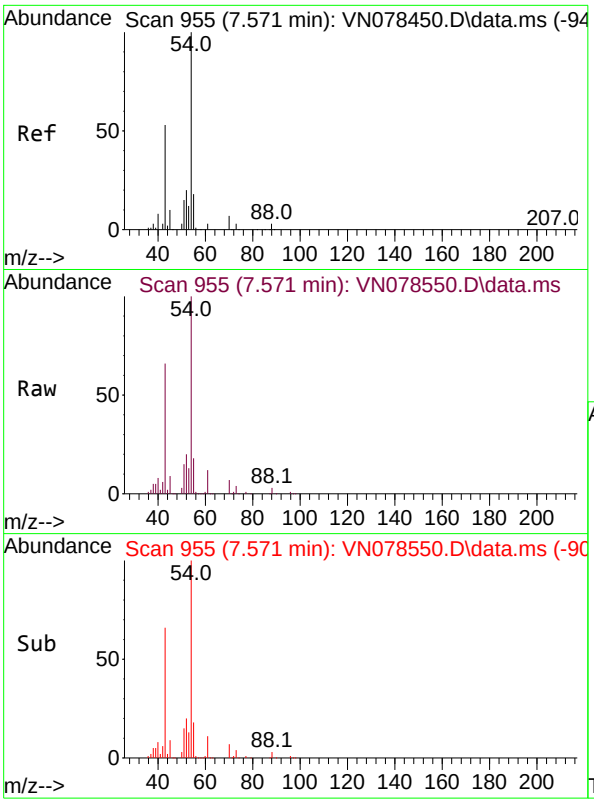


#36
1,1-Dichloropropene
Concen: 48.774 ug/l
RT: 8.377 min Scan# 1092
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 75 Resp: 374993

Ion	Ratio	Lower	Upper
75	100		
110	37.9	19.1	57.3
77	31.3	25.0	37.4





#37
Ethyl Acetate
Concen: 47.148 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

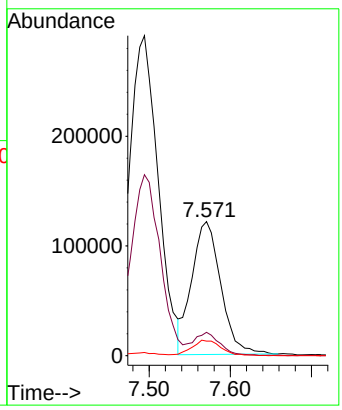
Tgt Ion: 43 Resp: 30217

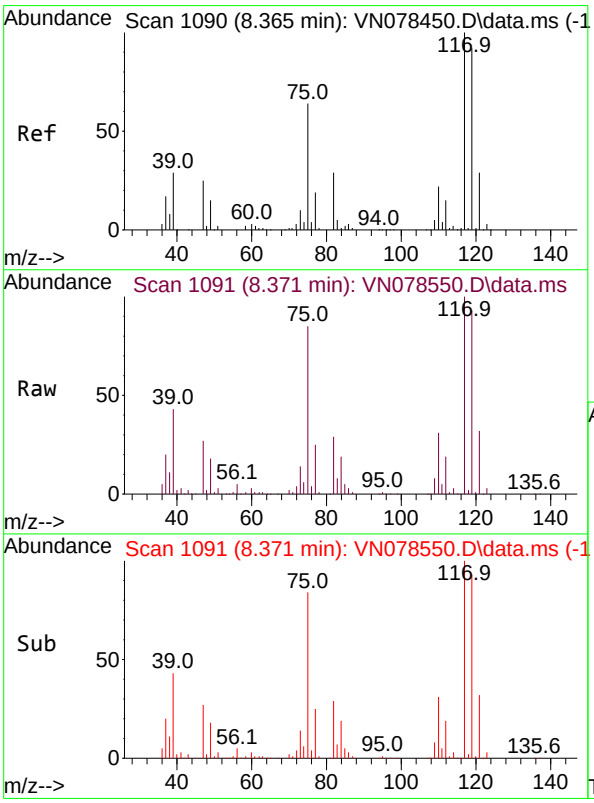
Ion	Ratio	Lower	Upper
43	100		
61	14.6	13.2	19.8
70	11.8	11.3	16.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

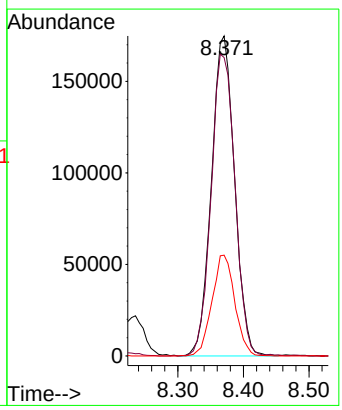


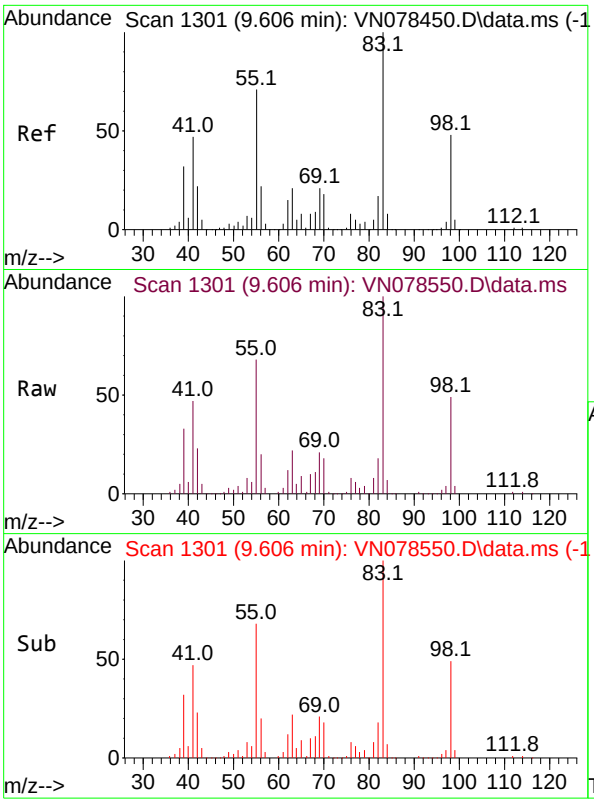


#38
Carbon Tetrachloride
Concen: 51.350 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:117 Resp: 429081

Ion	Ratio	Lower	Upper
117	100		
119	93.3	77.3	115.9
121	31.5	23.3	34.9

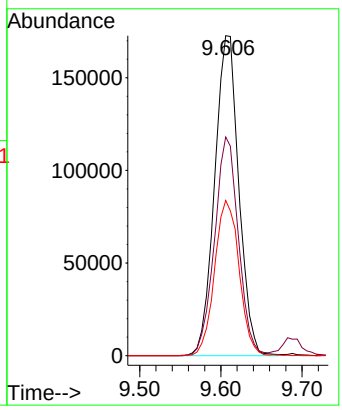




#39
Methylcyclohexane
Concen: 50.898 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 83 Resp: 35720

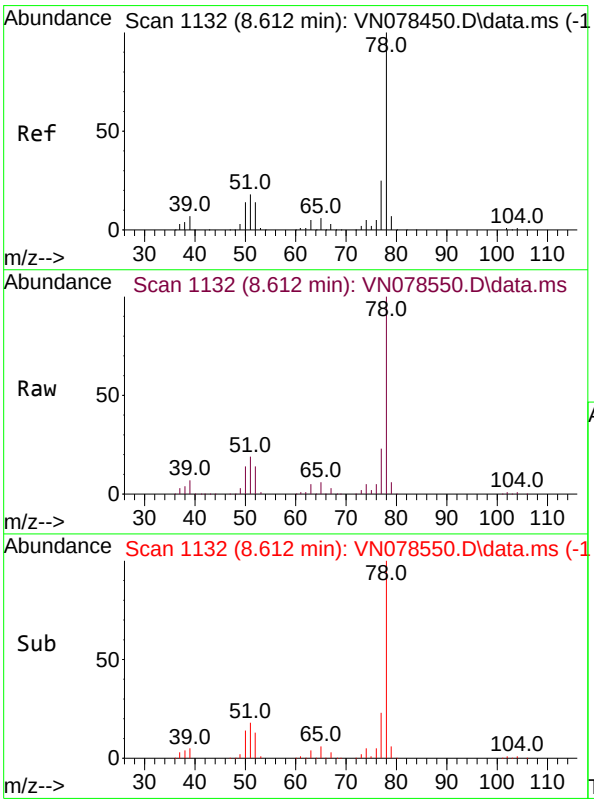
Ion	Ratio	Lower	Upper
83	100		
55	68.3	49.1	73.7
98	48.5	40.6	61.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

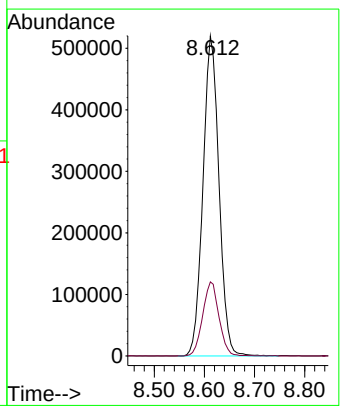
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

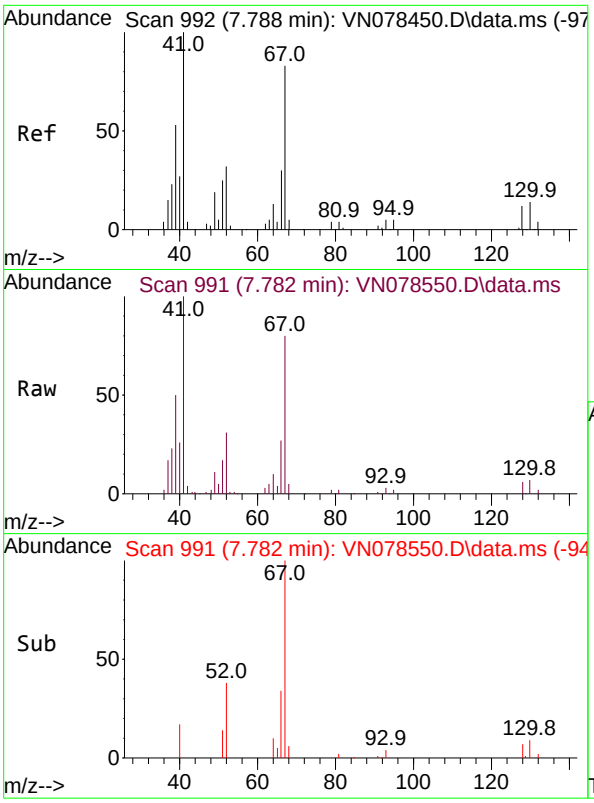


#40
Benzene
Concen: 50.689 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 78 Resp: 1154557

Ion	Ratio	Lower	Upper
78	100		
77	23.1	19.0	28.6

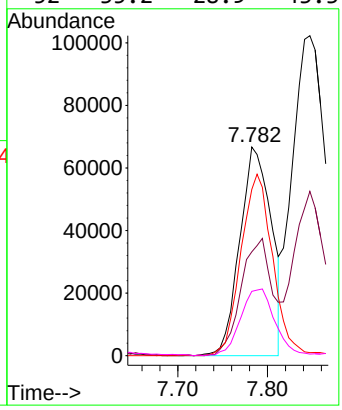




#41
Methacrylonitrile
Concen: 49.611 ug/l
RT: 7.782 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 41 Resp: 16209

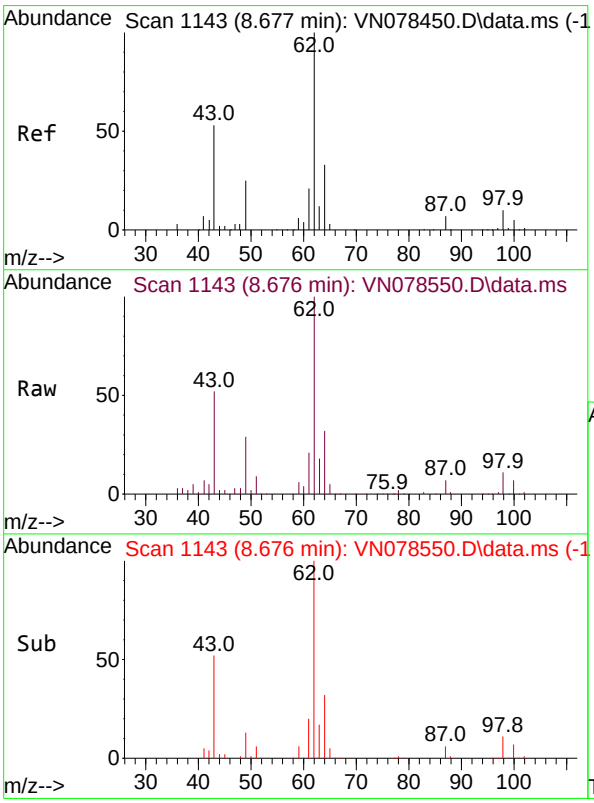
Ion	Ratio	Lower	Upper
41	100		
39	54.7	42.6	64.0
67	88.0	77.5	116.3
52	35.2	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

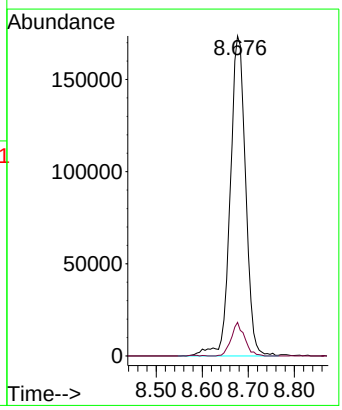
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

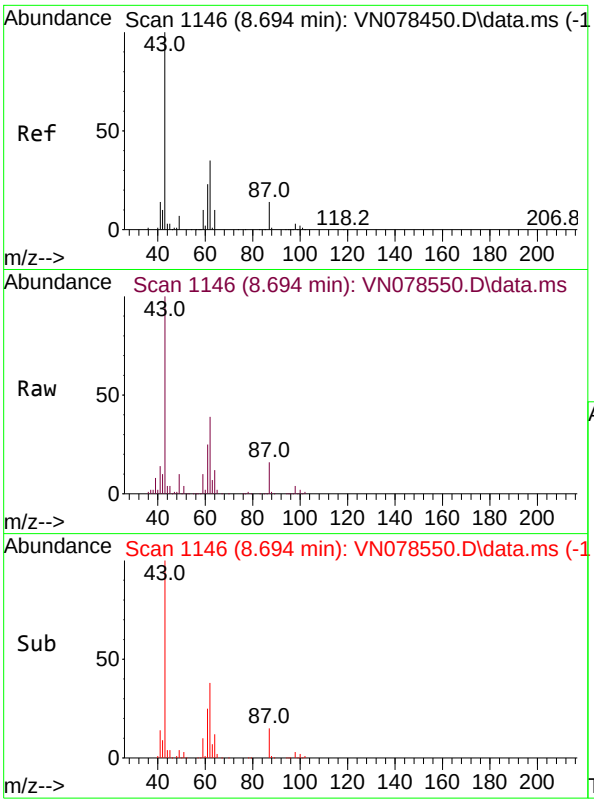


#42
1,2-Dichloroethane
Concen: 51.940 ug/l
RT: 8.676 min Scan# 1143
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 62 Resp: 402401

Ion	Ratio	Lower	Upper
62	100		
98	9.2	0.0	19.8





#43
Isopropyl Acetate
Concen: 49.381 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

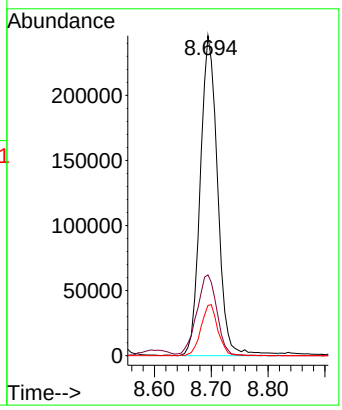
Tgt Ion: 43 Resp: 52106

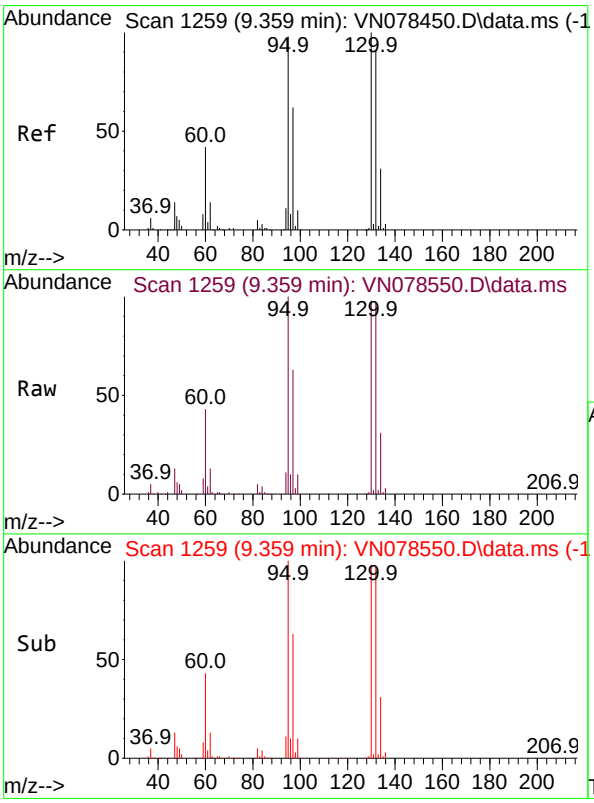
Ion	Ratio	Lower	Upper
43	100		
61	29.4	24.7	37.1
87	15.5	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

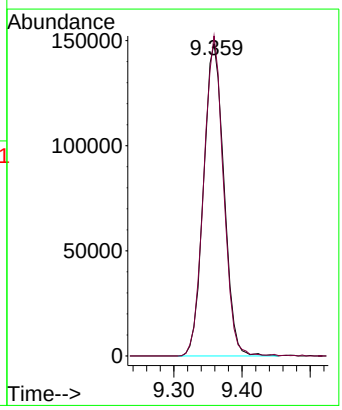


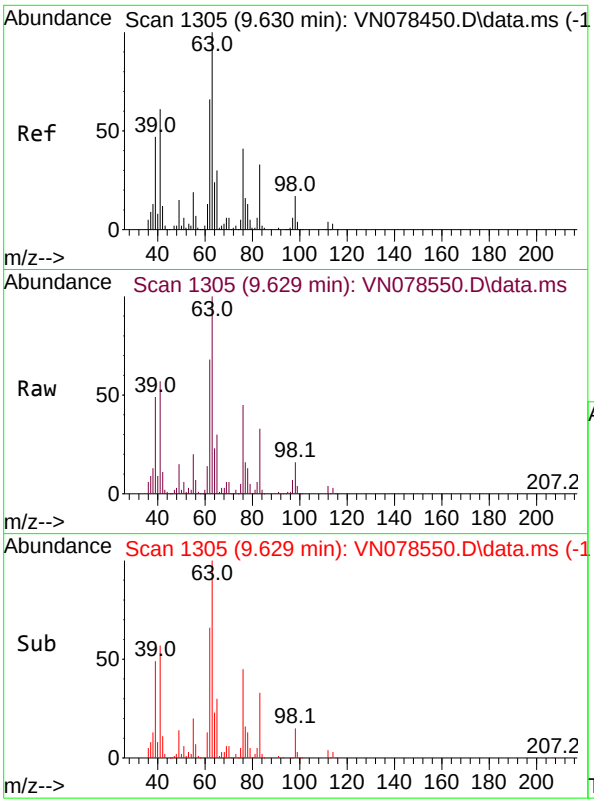


#44
Trichloroethene
Concen: 50.176 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:130 Resp: 308030

Ion	Ratio	Lower	Upper
130	100		
95	102.5	0.0	204.6





#45
1,2-Dichloropropane
Concen: 51.474 ug/l
RT: 9.629 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

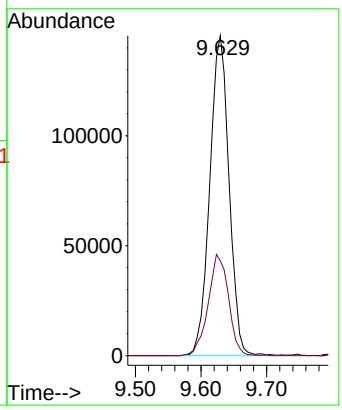
Tgt Ion: 63 Resp: 29694

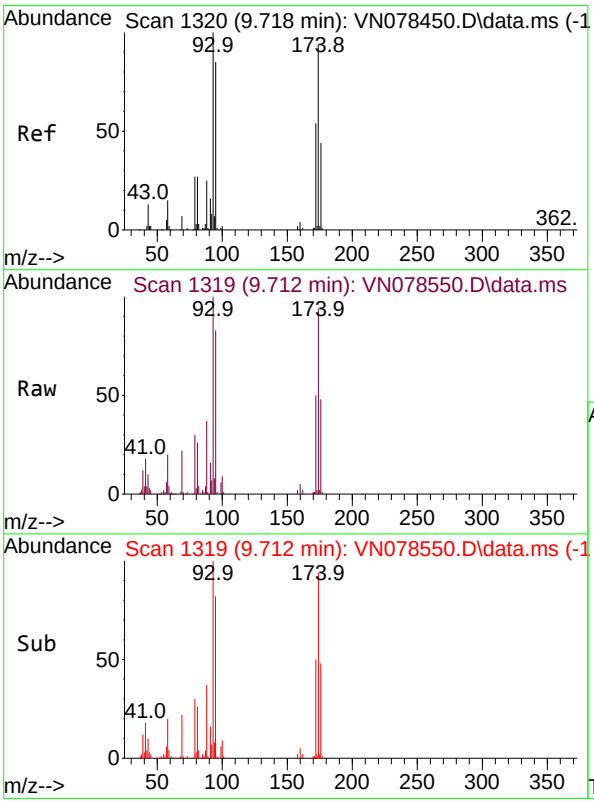
Ion	Ratio	Lower	Upper
63	100		
65	29.7	23.9	35.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

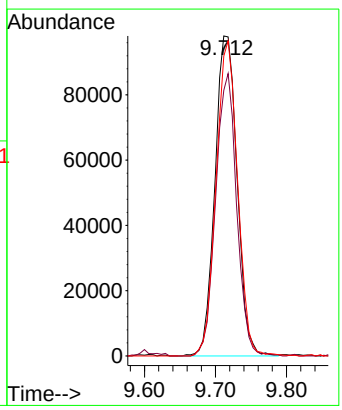


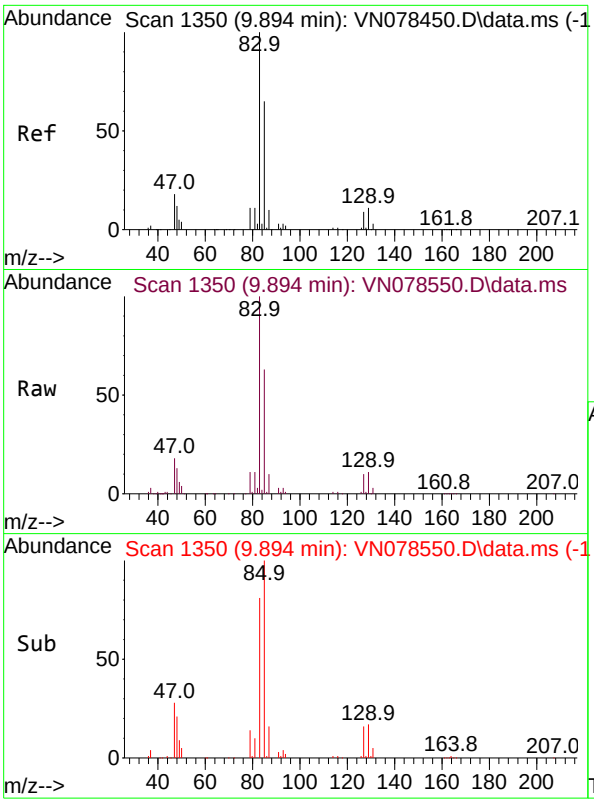


#46
Dibromomethane
Concen: 52.107 ug/l
RT: 9.712 min Scan# 1319
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 93 Resp: 211572

Ion	Ratio	Lower	Upper
93	100		
95	83.9	63.8	95.8
174	95.9	65.6	98.4

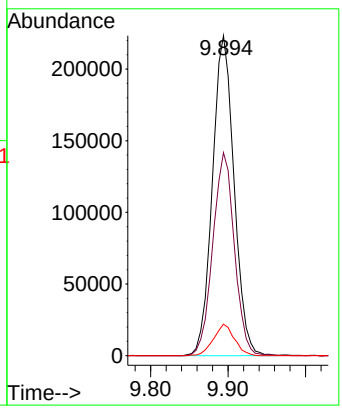




#47
Bromodichloromethane
Concen: 53.205 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 83 Resp: 43305

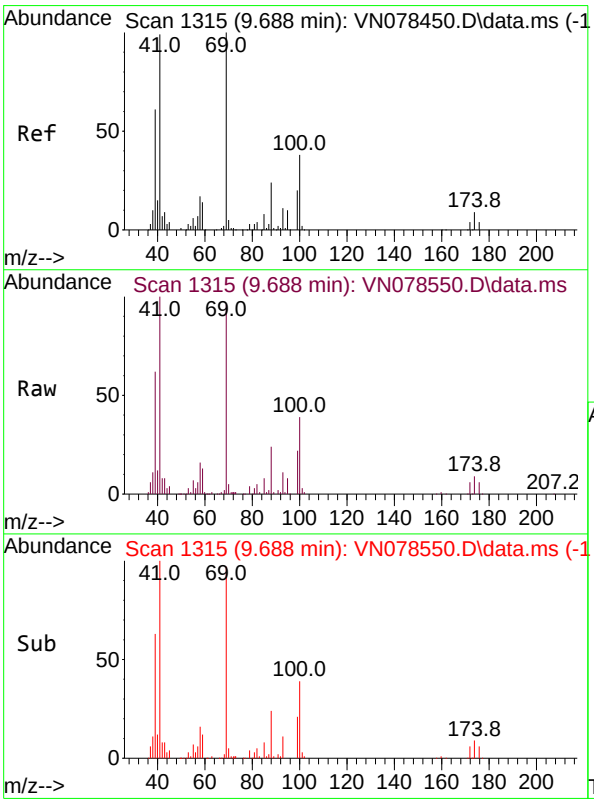
Ion	Ratio	Lower	Upper
83	100		
85	63.5	49.6	74.4
127	9.8	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

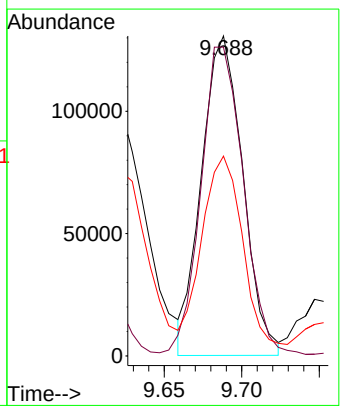
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

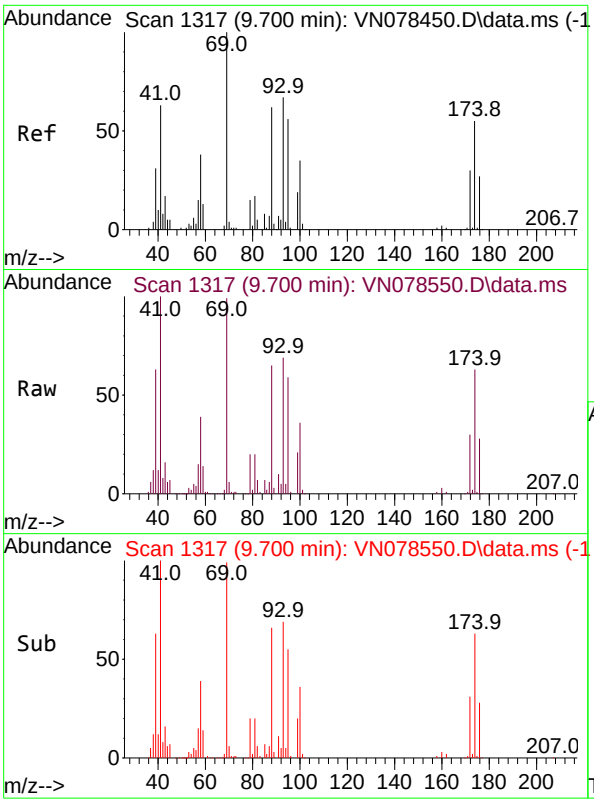


#48
Methyl methacrylate
Concen: 49.403 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 41 Resp: 241511

Ion	Ratio	Lower	Upper
41	100		
69	99.2	90.4	135.6
39	64.5	54.6	81.8





#49
1,4-Dioxane
Concen: 980.285 ug/l
RT: 9.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

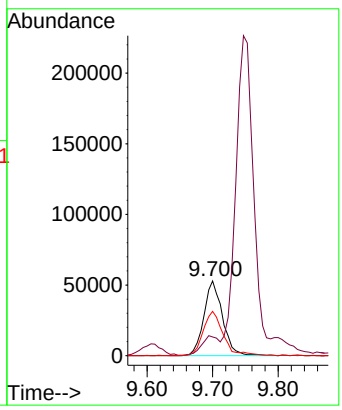
Tgt Ion: 88 Resp: 10450

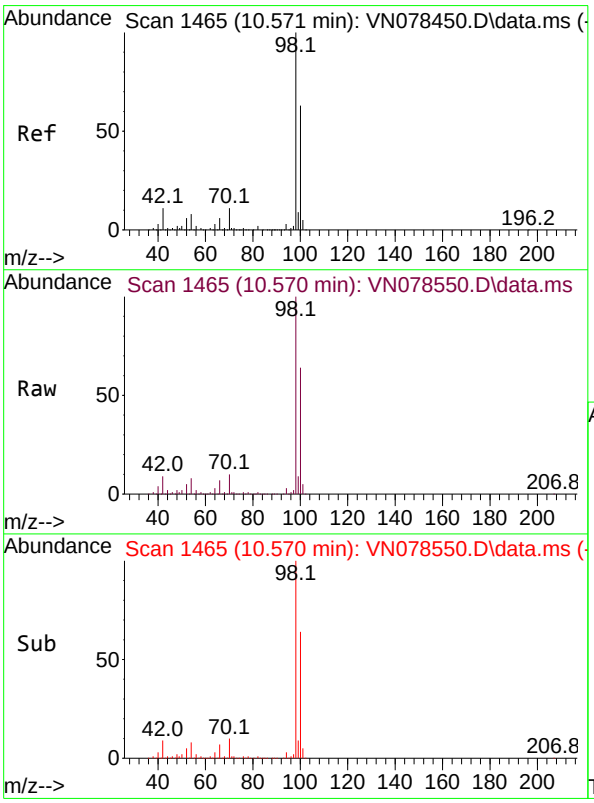
Ion	Ratio	Lower	Upper
88	100		
43	24.1	17.0	25.6
58	63.8	47.0	70.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

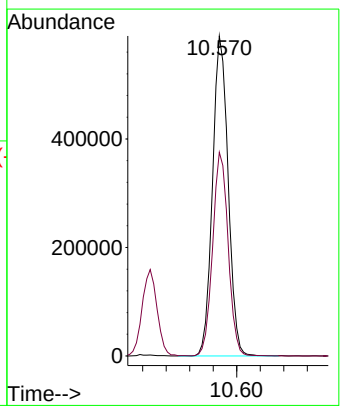


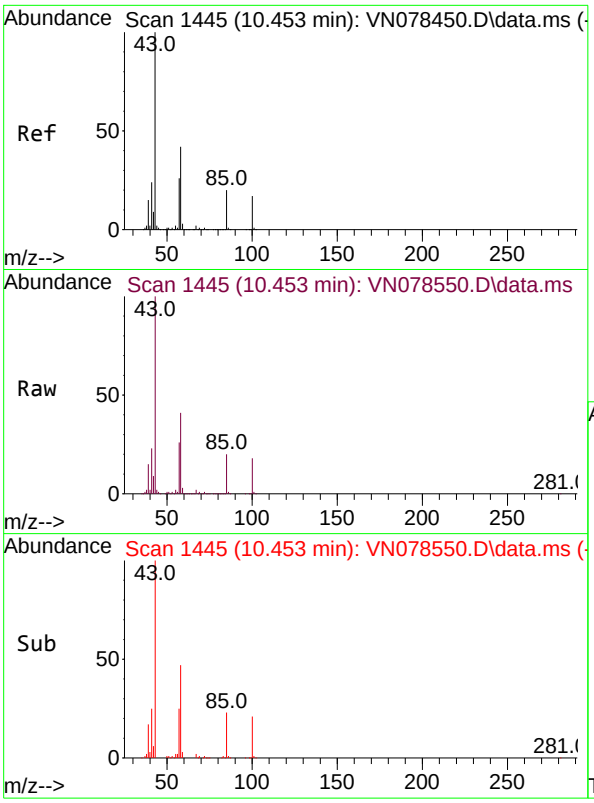


#50
Toluene-d8
Concen: 53.954 ug/l
RT: 10.570 min Scan# 1465
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 98 Resp: 1085292

Ion	Ratio	Lower	Upper
98	100		
100	63.3	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 254.170 ug/l
RT: 10.453 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

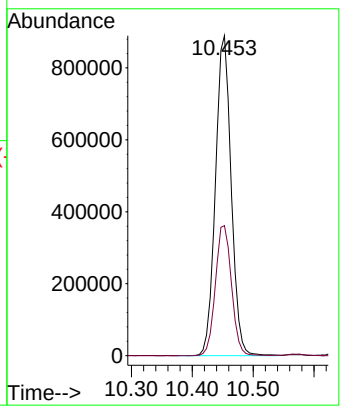
Tgt Ion: 43 Resp: 159526

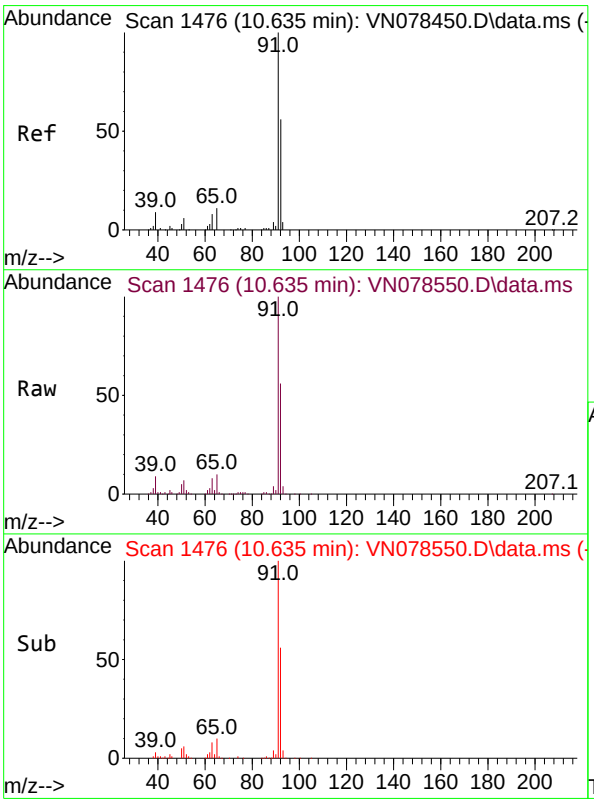
Ion	Ratio	Lower	Upper
43	100		
58	41.6	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

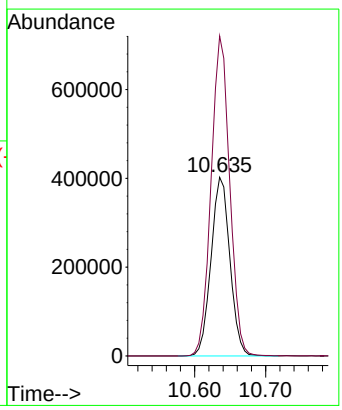


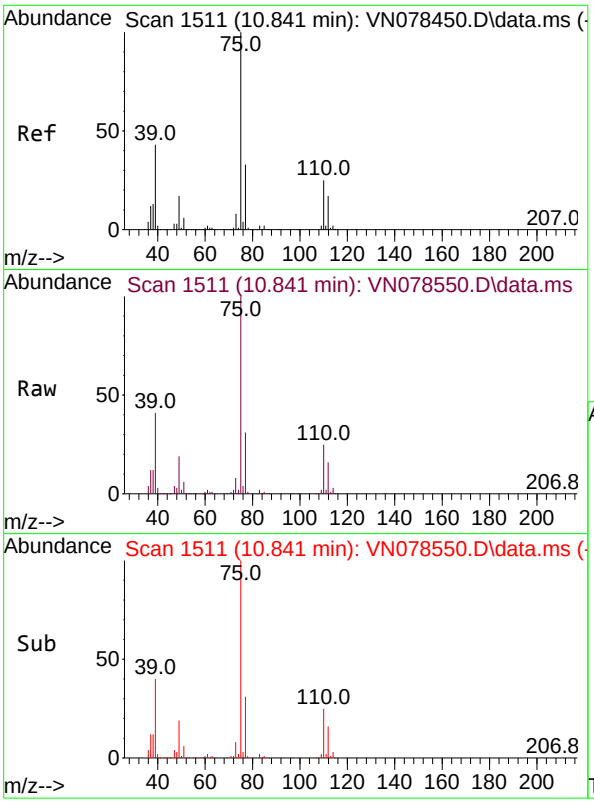


#52
Toluene
Concen: 52.513 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 92 Resp: 741320

Ion	Ratio	Lower	Upper
92	100		
91	176.7	137.4	206.0

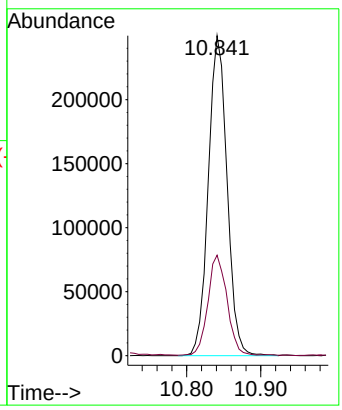




#53
t-1,3-Dichloropropene
Concen: 52.607 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 75 Resp: 43865

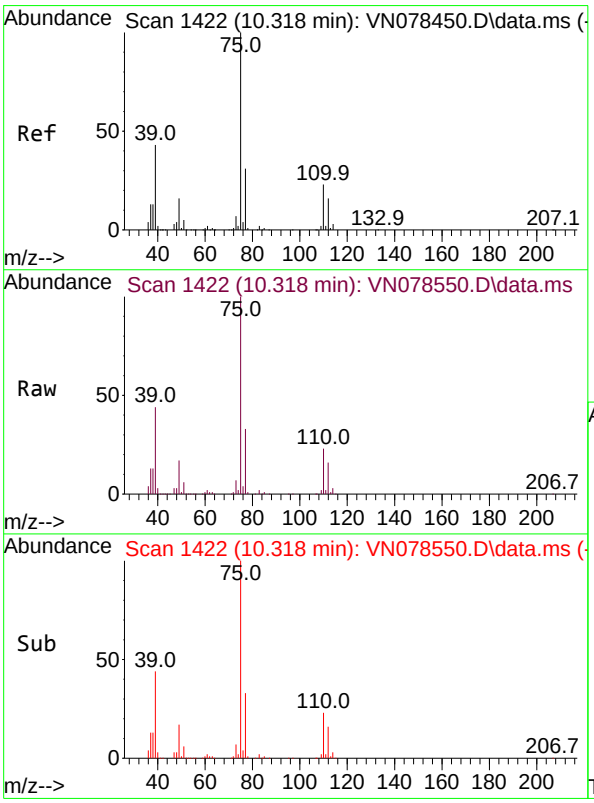
Ion	Ratio	Lower	Upper
75	100		
77	31.3	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

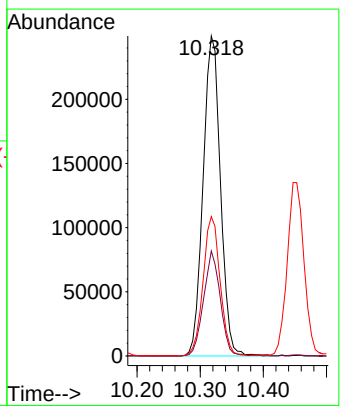
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

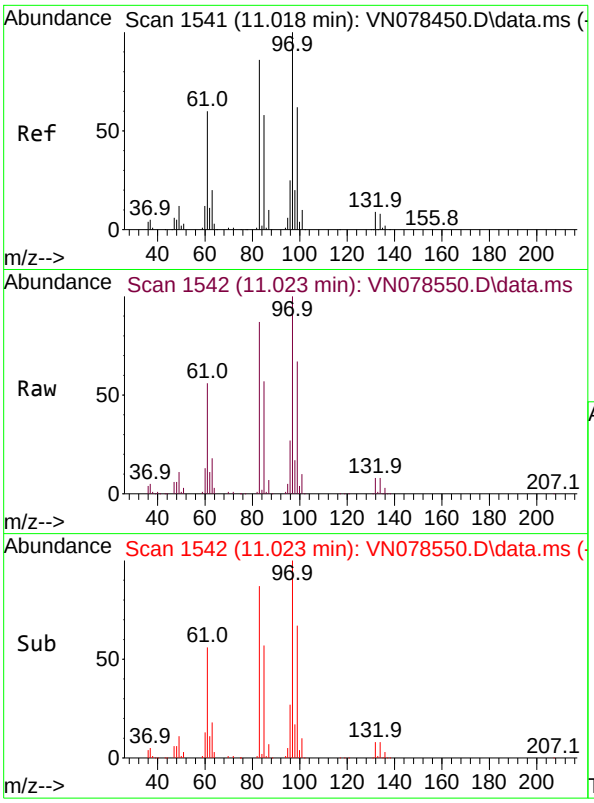


#54
cis-1,3-Dichloropropene
Concen: 53.706 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 75 Resp: 477353

Ion	Ratio	Lower	Upper
75	100		
77	32.8	26.1	39.1
39	43.6	31.6	47.4

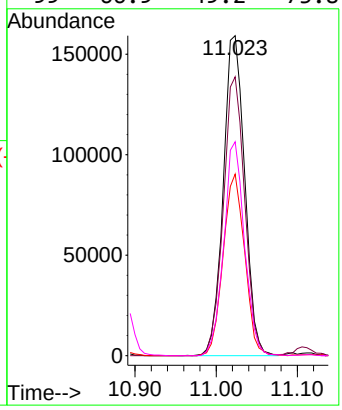




#55
1,1,2-Trichloroethane
Concen: 52.535 ug/l
RT: 11.023 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 97 Resp: 29220

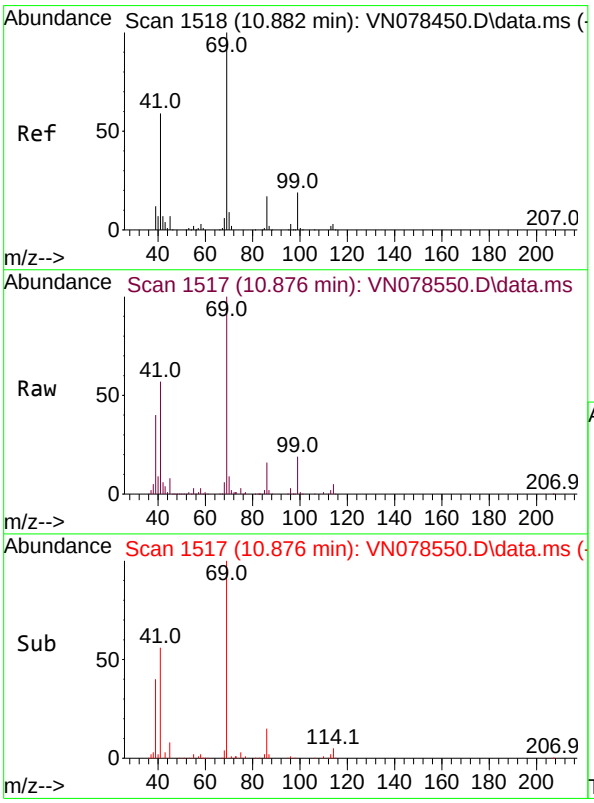
Ion	Ratio	Lower	Upper
97	100		
83	87.1	65.1	97.7
85	56.7	43.4	65.2
99	66.9	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

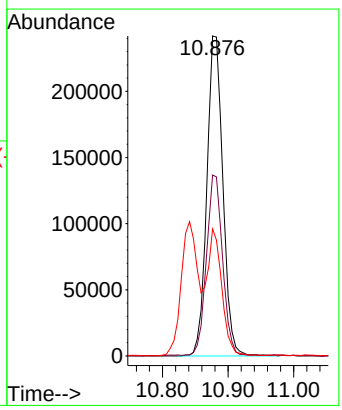
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

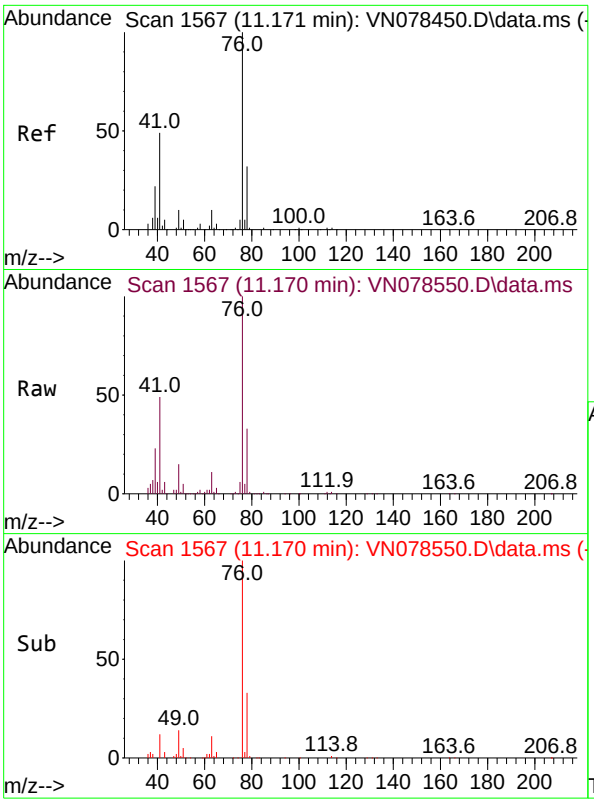


#56
Ethyl methacrylate
Concen: 52.930 ug/l
RT: 10.876 min Scan# 1517
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 69 Resp: 411537

Ion	Ratio	Lower	Upper
69	100		
41	56.4	39.6	59.4
39	36.9	28.6	43.0

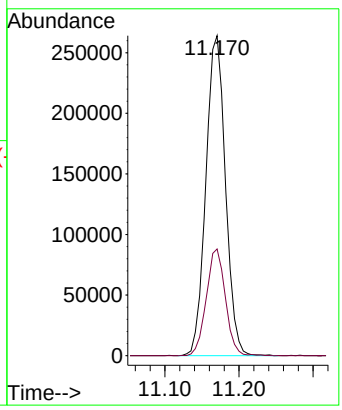




#57
1,3-Dichloropropane
Concen: 51.180 ug/l
RT: 11.170 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 76 Resp: 48401

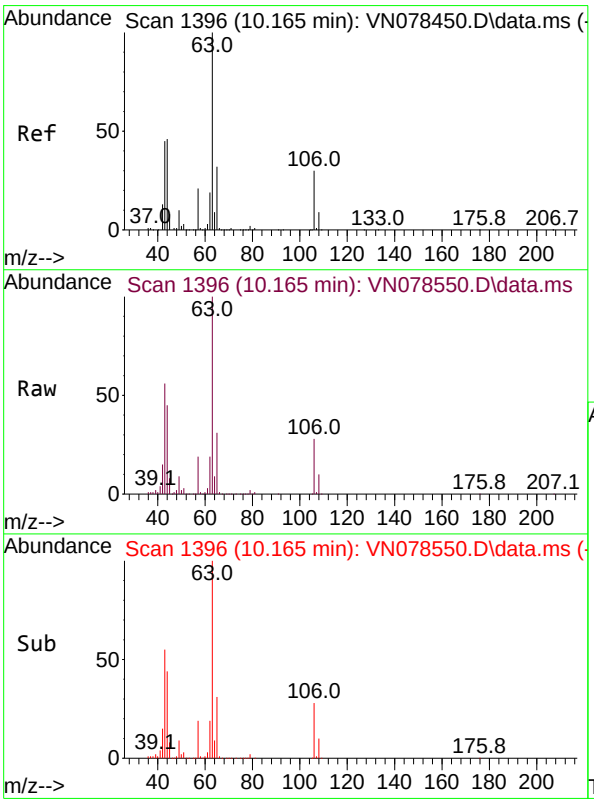
Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

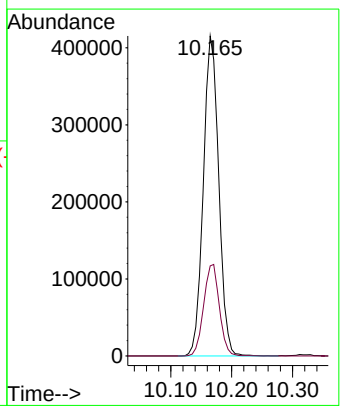
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

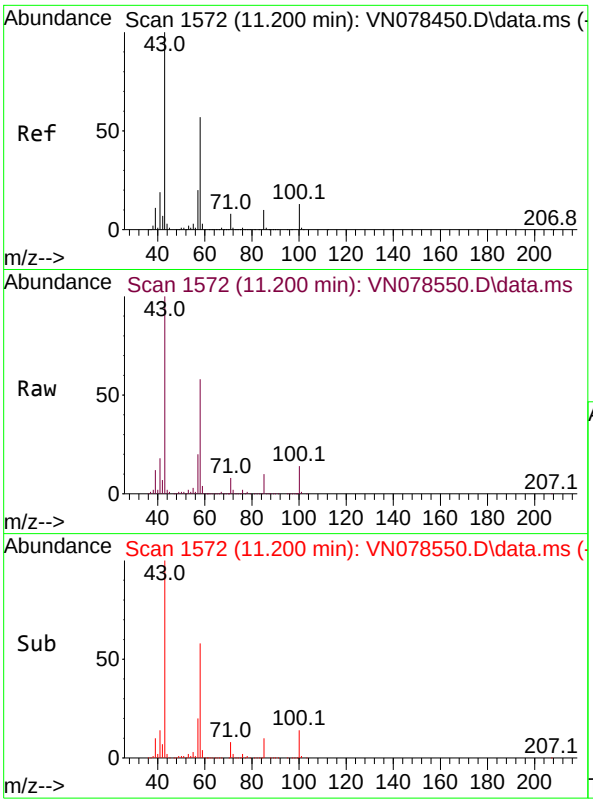


#58
2-Chloroethyl Vinyl ether
Concen: 263.748 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 63 Resp: 730799

Ion	Ratio	Lower	Upper
63	100		
106	29.1	26.2	39.4





#59
2-Hexanone
Concen: 250.466 ug/l
RT: 11.200 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

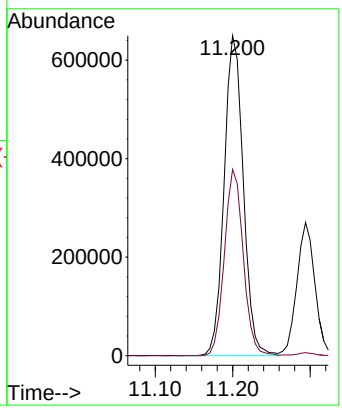
Tgt Ion: 43 Resp: 111725

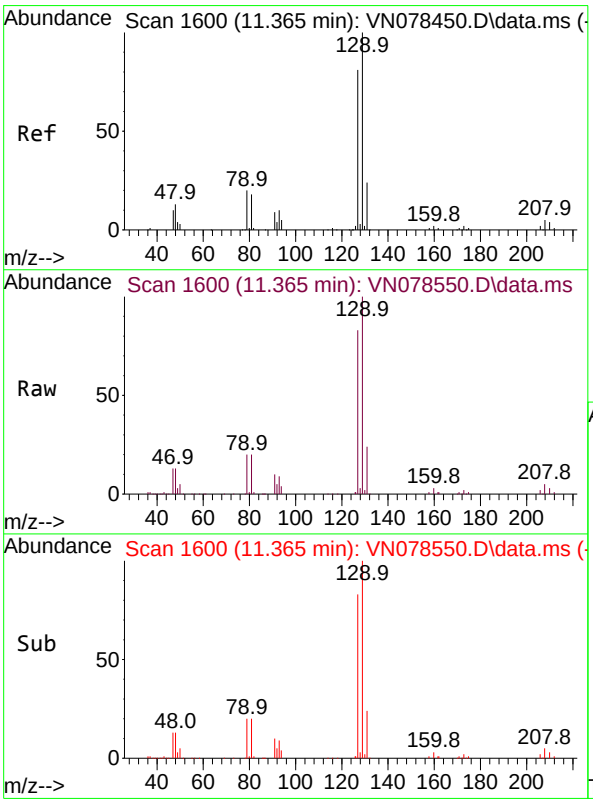
Ion	Ratio	Lower	Upper
43	100		
58	57.4	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

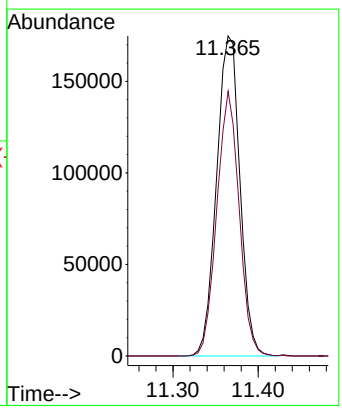


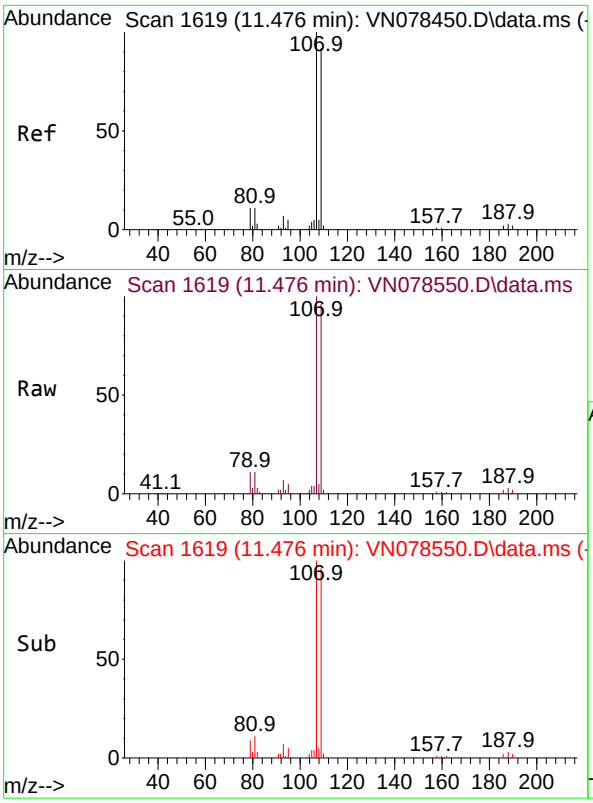


#60
Dibromochloromethane
Concen: 54.240 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:129 Resp: 333053

Ion	Ratio	Lower	Upper
129	100		
127	78.9	38.6	116.0





#61
1,2-Dibromoethane
Concen: 52.747 ug/l
RT: 11.476 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

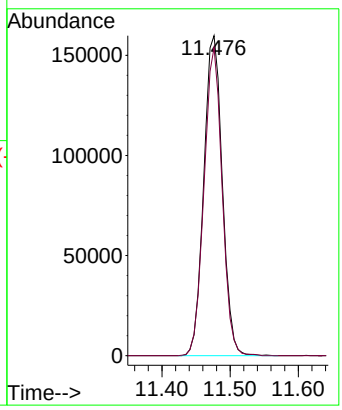
Tgt Ion:107 Resp: 30221

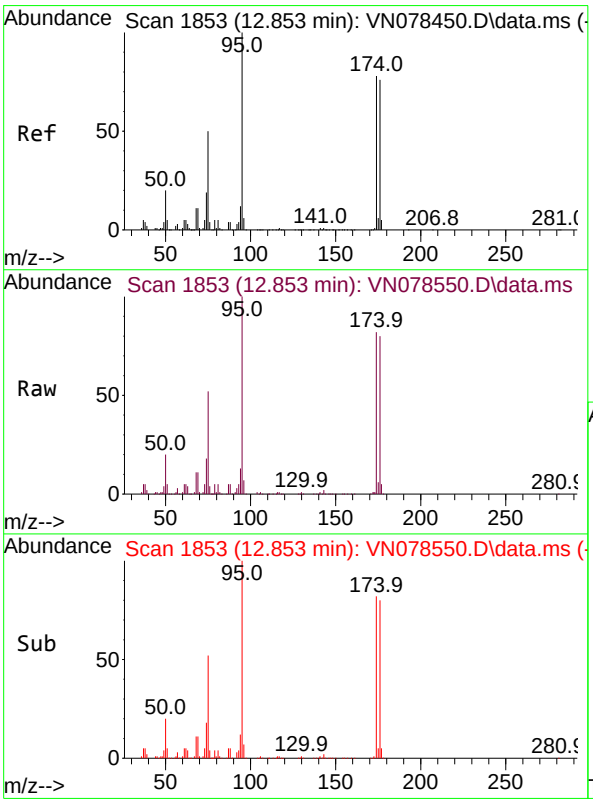
Ion	Ratio	Lower	Upper
107	100		
109	93.8	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

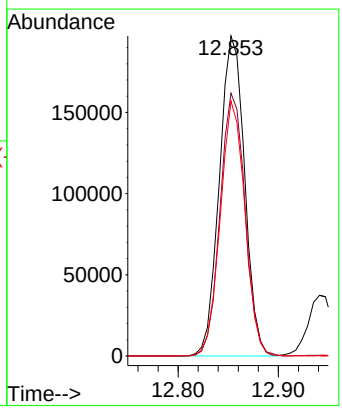


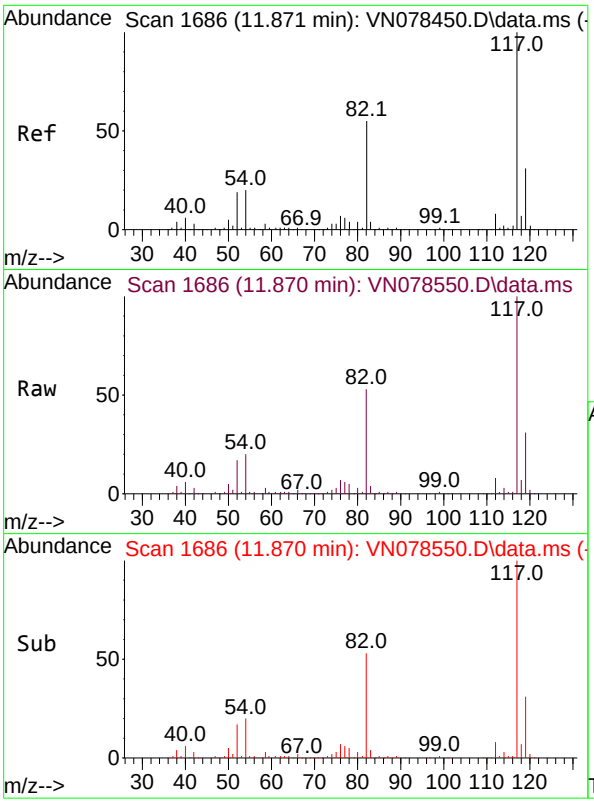


#62
4-Bromofluorobenzene
Concen: 55.564 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 95 Resp: 344269

Ion	Ratio	Lower	Upper
95	100		
174	81.2	0.0	143.8
176	77.9	0.0	135.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

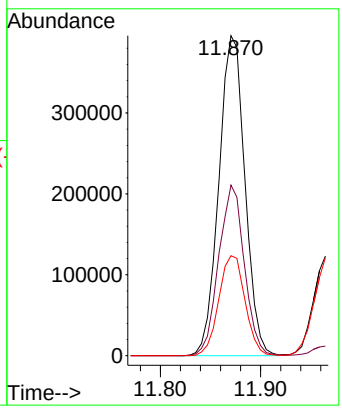
Tgt Ion:117 Resp: 71395

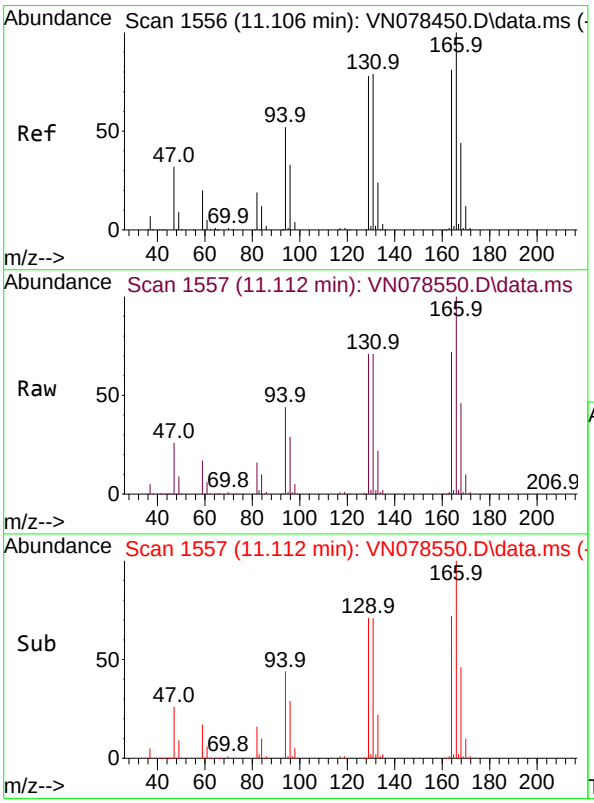
Ion	Ratio	Lower	Upper
117	100		
82	53.3	44.0	66.0
119	31.2	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

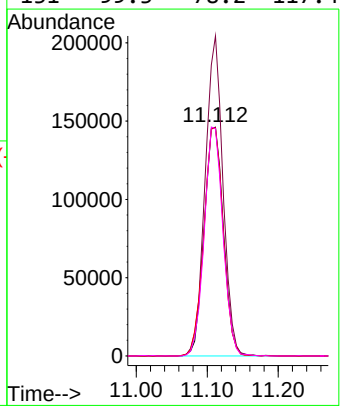


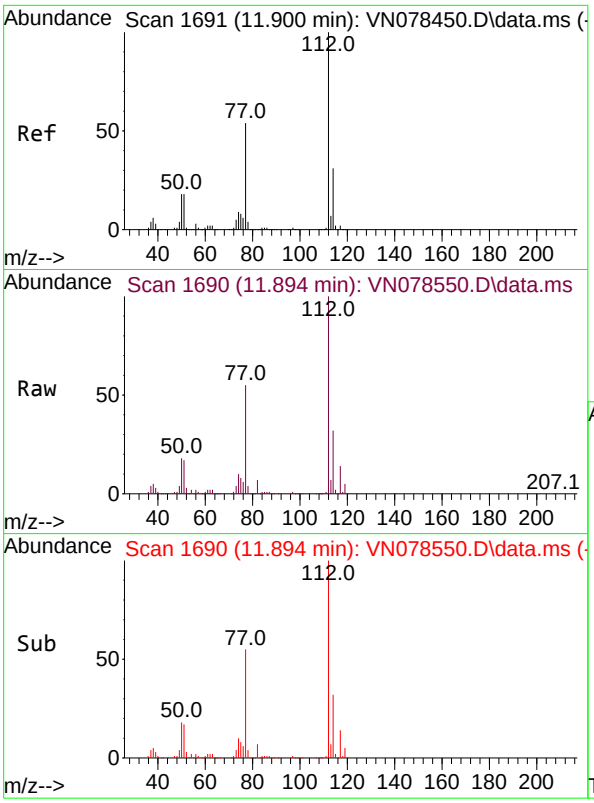


#64
Tetrachloroethene
Concen: 51.639 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:164 Resp: 277182

Ion	Ratio	Lower	Upper
164	100		
166	139.8	101.4	152.0
129	99.7	82.4	123.6
131	99.3	78.2	117.4





#65
Chlorobenzene
Concen: 50.453 ug/l
RT: 11.894 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

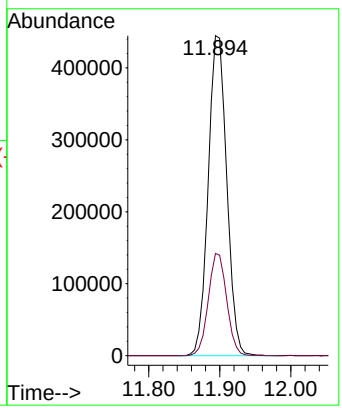
Tgt Ion:112 Resp: 80516

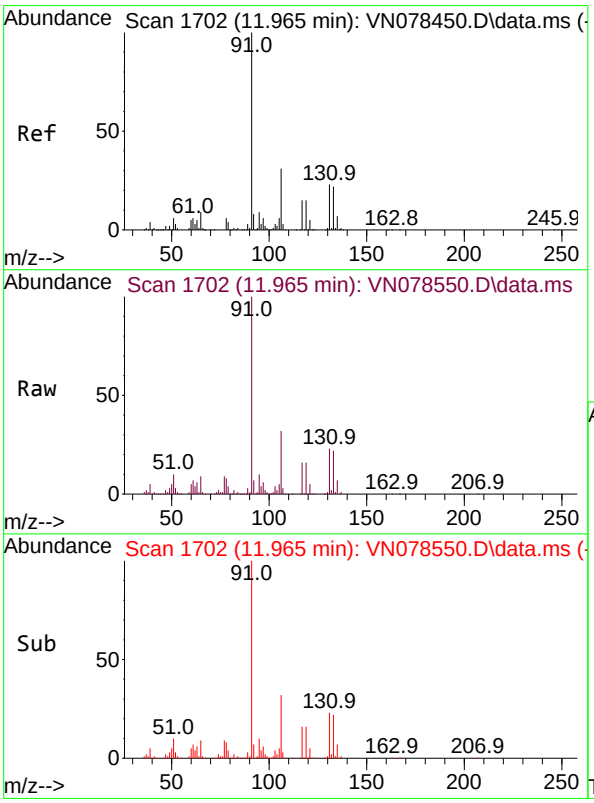
Ion	Ratio	Lower	Upper
112	100		
114	31.9	25.0	37.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

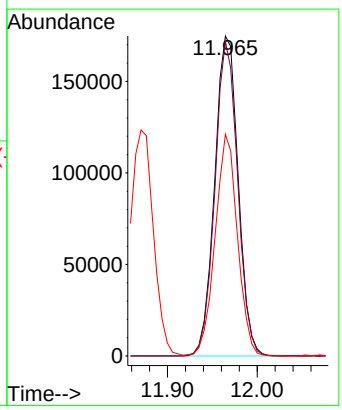


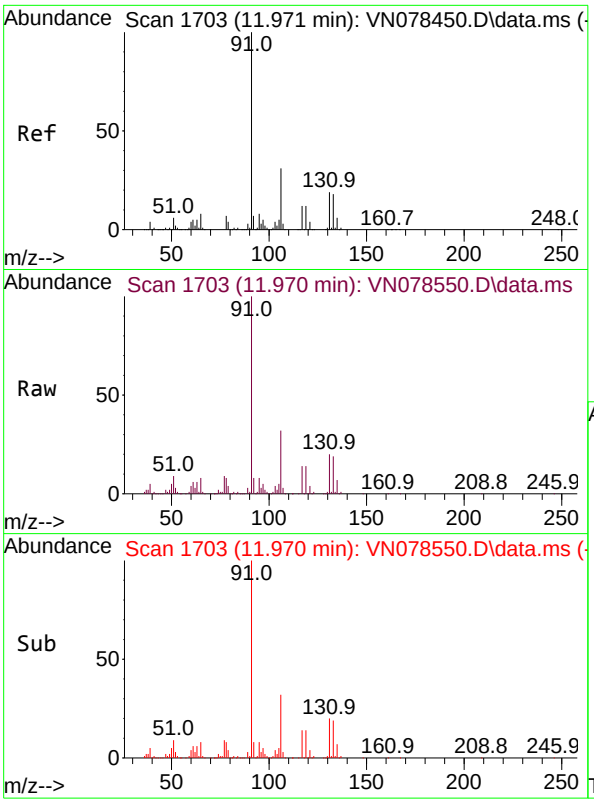


#66
1,1,1,2-Tetrachloroethane
Concen: 51.723 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:131 Resp: 317545

Ion	Ratio	Lower	Upper
131	100		
133	95.1	46.4	139.1
119	65.9	34.1	102.2





#67
Ethyl Benzene
Concen: 51.655 ug/l
RT: 11.970 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

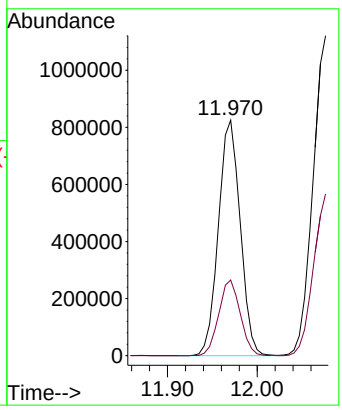
Tgt Ion: 91 Resp: 139340

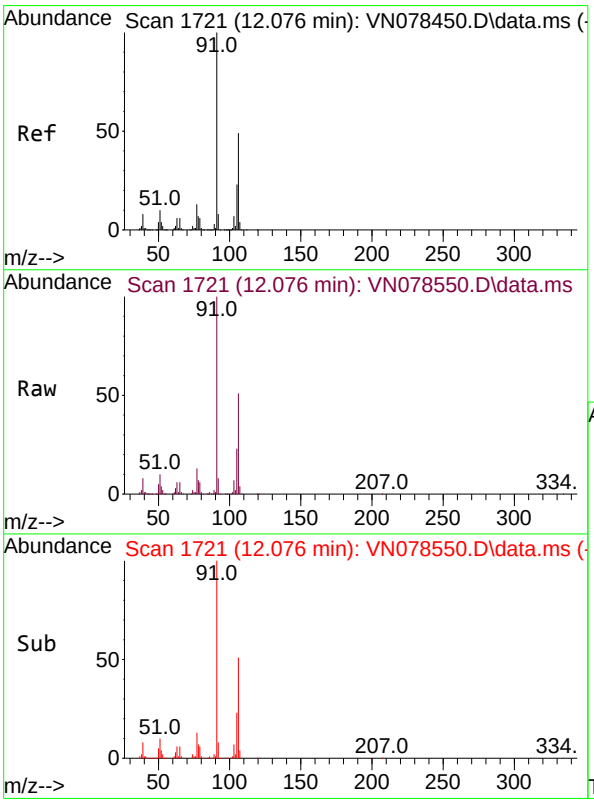
Ion	Ratio	Lower	Upper
91	100		
106	32.2	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

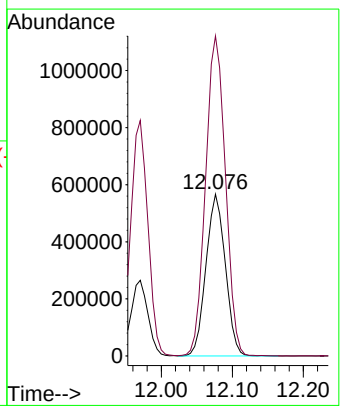


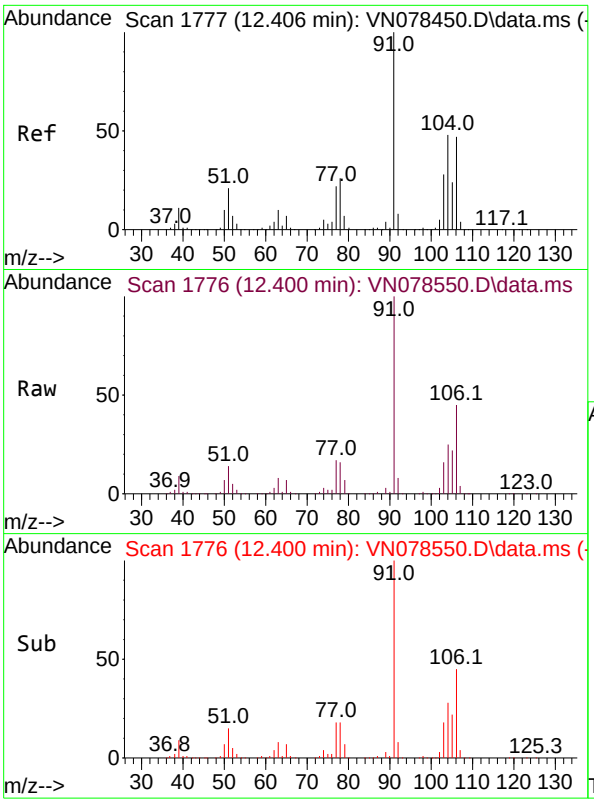


#68
m/p-Xylenes
Concen: 107.481 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:106 Resp: 1071974

Ion	Ratio	Lower	Upper
106	100		
91	203.1	159.6	239.4





#69
o-Xylene
Concen: 51.582 ug/l
RT: 12.400 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

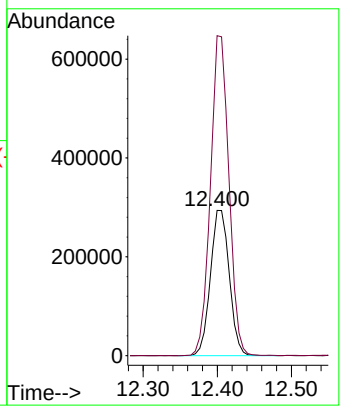
Tgt Ion:106 Resp: 51962

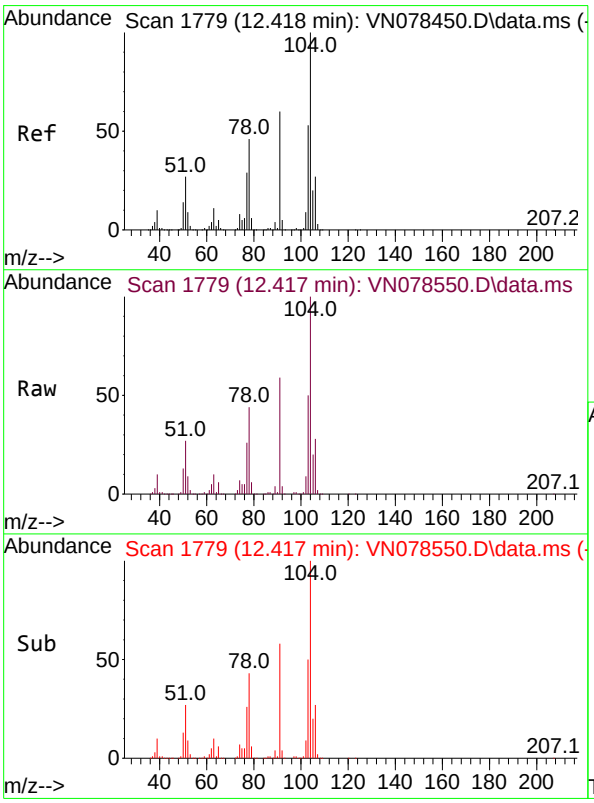
Ion	Ratio	Lower	Upper
106	100		
91	215.6	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

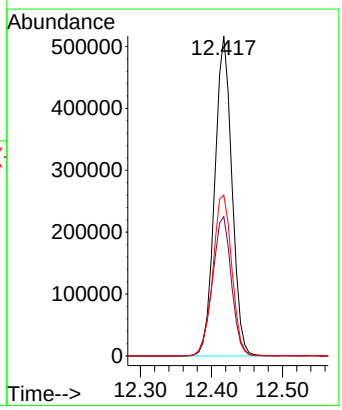


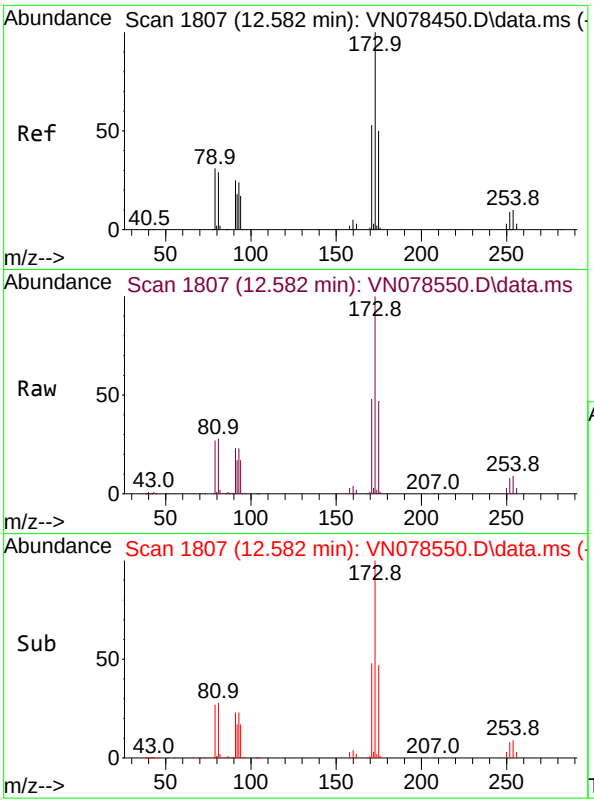


#70
Styrene
Concen: 54.922 ug/l
RT: 12.417 min Scan# 1779
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:104 Resp: 865578

Ion	Ratio	Lower	Upper
104	100		
78	48.1	39.5	59.3
103	55.7	43.2	64.8





#71
Bromoform
Concen: 54.552 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

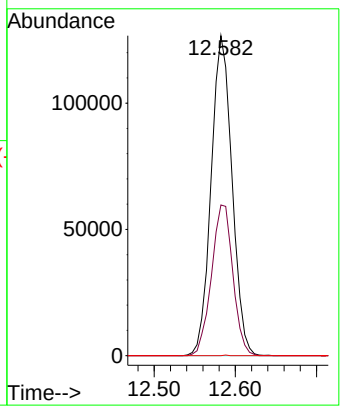
Tgt Ion:173 Resp: 22681

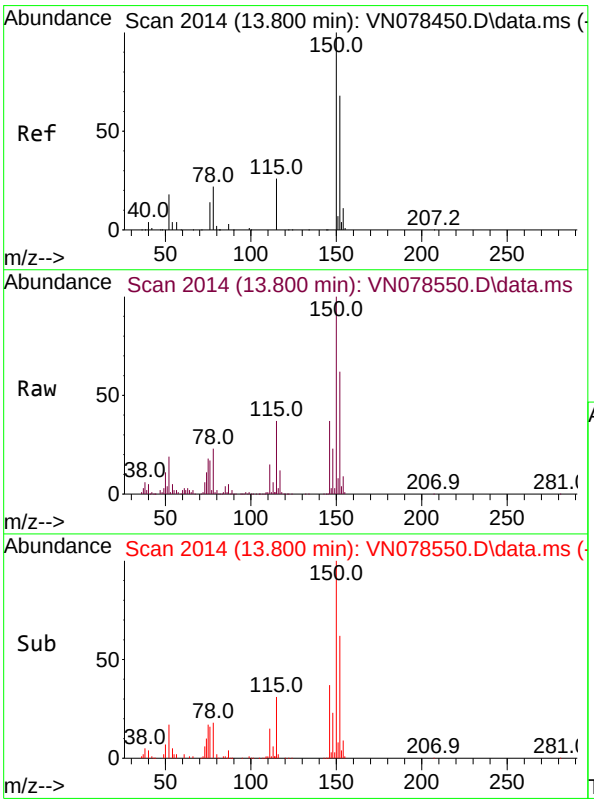
Ion	Ratio	Lower	Upper
173	100		
175	48.2	24.3	73.0
254	0.0	0.0	0.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

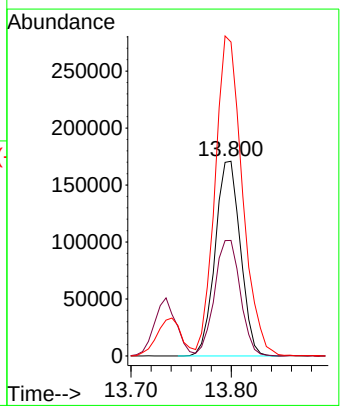


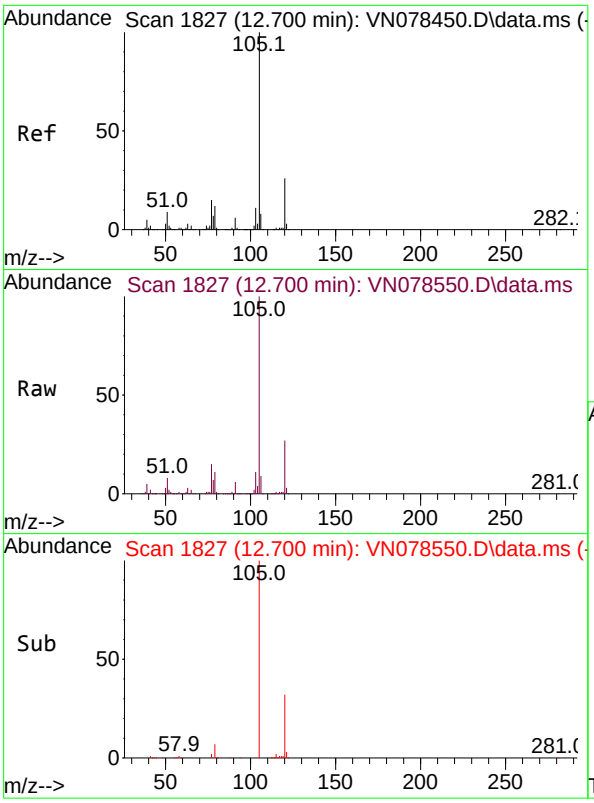


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.800 min Scan# 2014
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:152 Resp: 297857

Ion	Ratio	Lower	Upper
152	100		
115	60.6	32.3	96.8
150	177.3	0.0	355.8

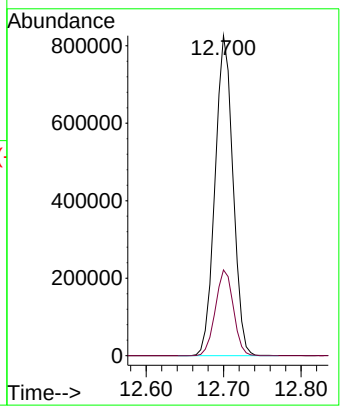




#73
Isopropylbenzene
Concen: 47.464 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:105 Resp: 132841

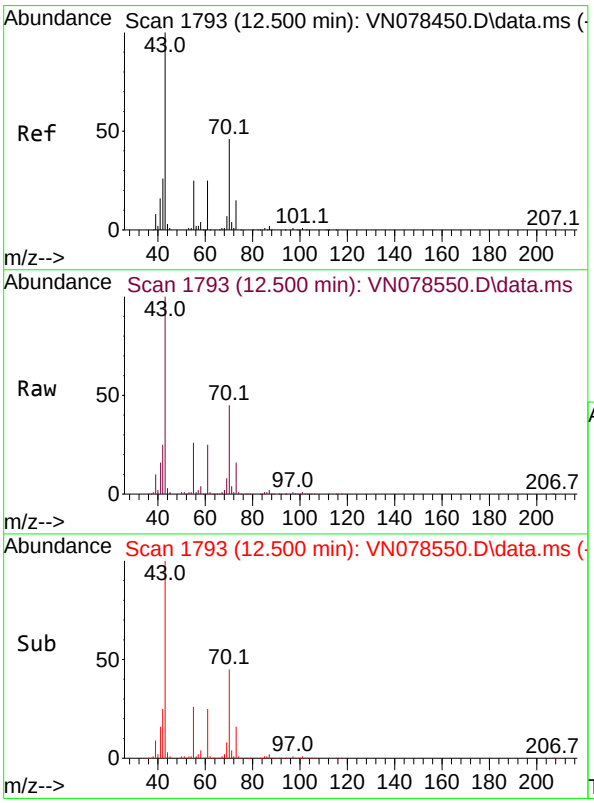
Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

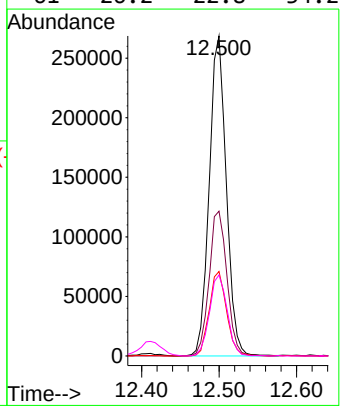
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

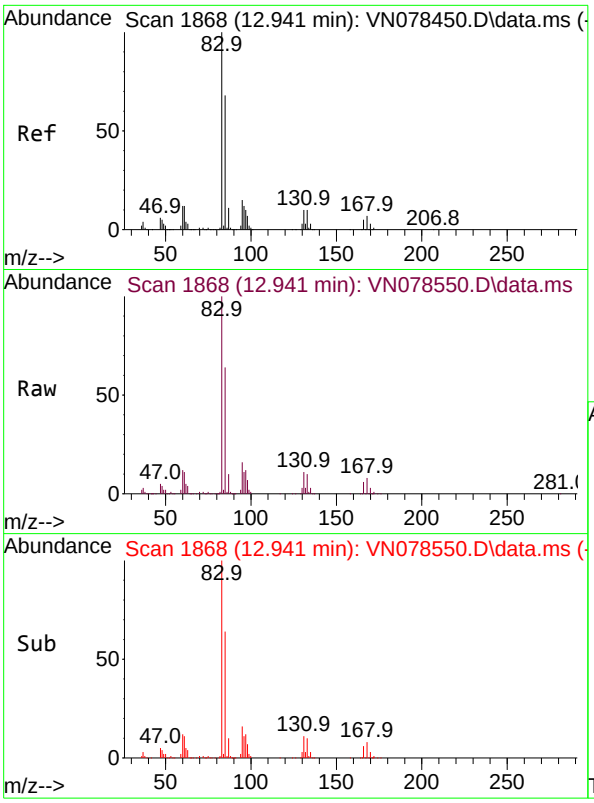


#74
N-amyl acetate
Concen: 42.600 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 43 Resp: 410888

Ion	Ratio	Lower	Upper
43	100		
70	47.4	43.4	65.2
55	26.8	21.4	32.0
61	26.2	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 52.368 ug/l
RT: 12.941 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

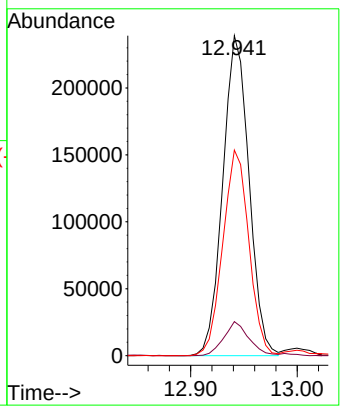
Tgt Ion: 83 Resp: 40821

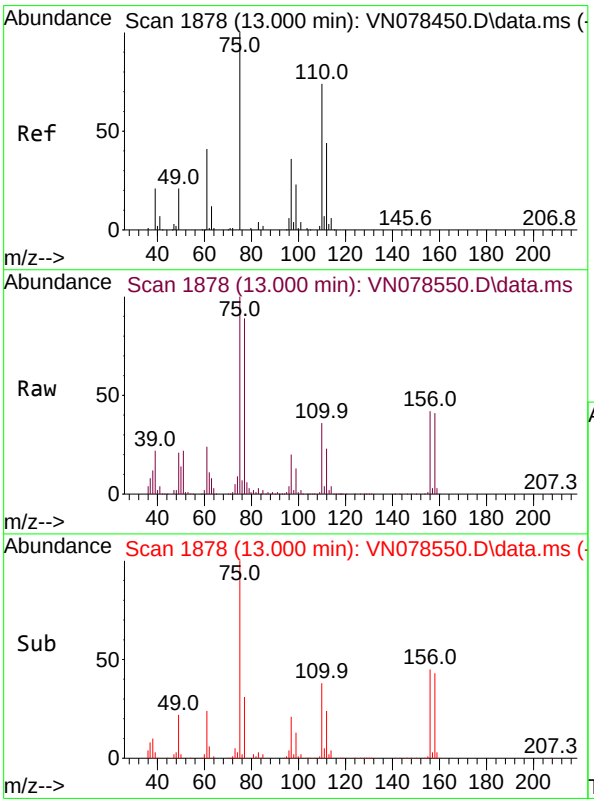
Ion	Ratio	Lower	Upper
83	100		
131	10.3	5.0	15.0
85	64.0	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

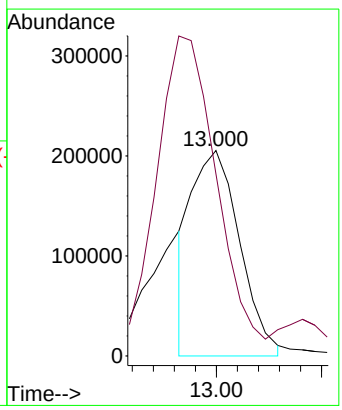


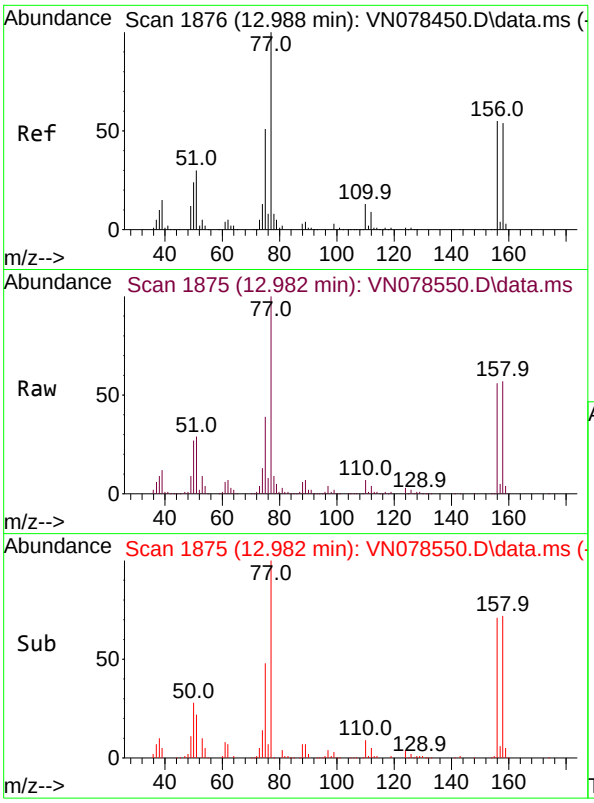


#76
1,2,3-Trichloropropane
Concen: 45.646 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 75 Resp: 328629

Ion	Ratio	Lower	Upper
75	100		
77	196.5	84.5	253.5





#77
Bromobenzene
Concen: 52.876 ug/l
RT: 12.982 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

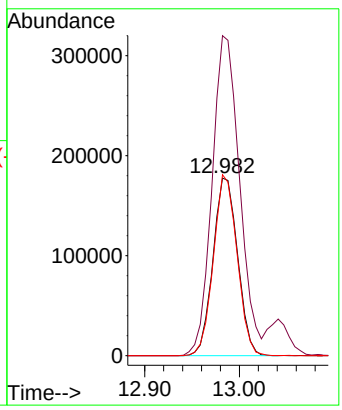
Tgt Ion:156 Resp: 32128

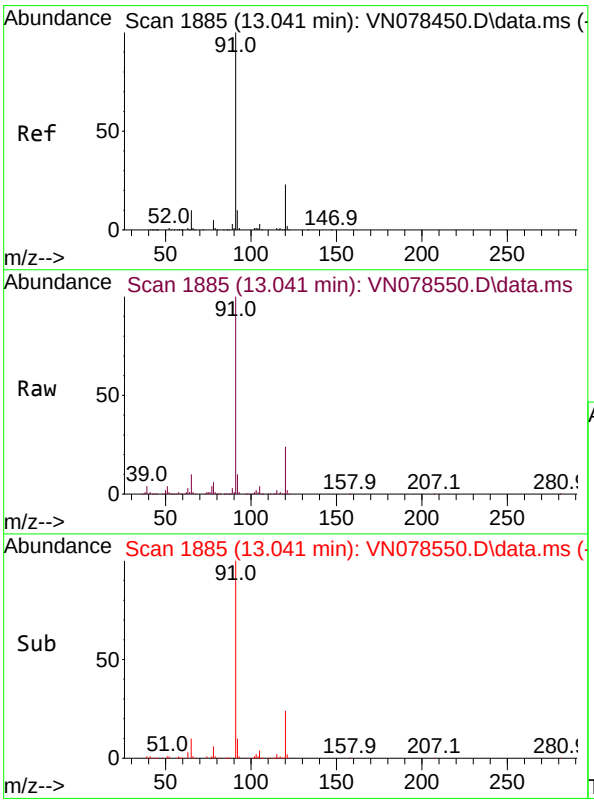
Ion	Ratio	Lower	Upper
156	100		
77	201.0	107.7	323.3
158	97.7	48.4	145.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

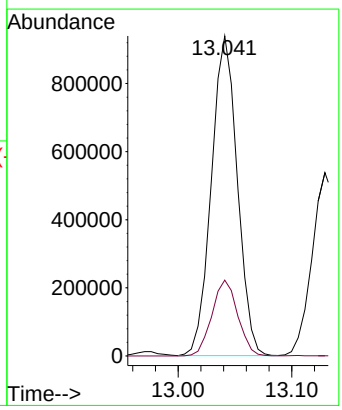


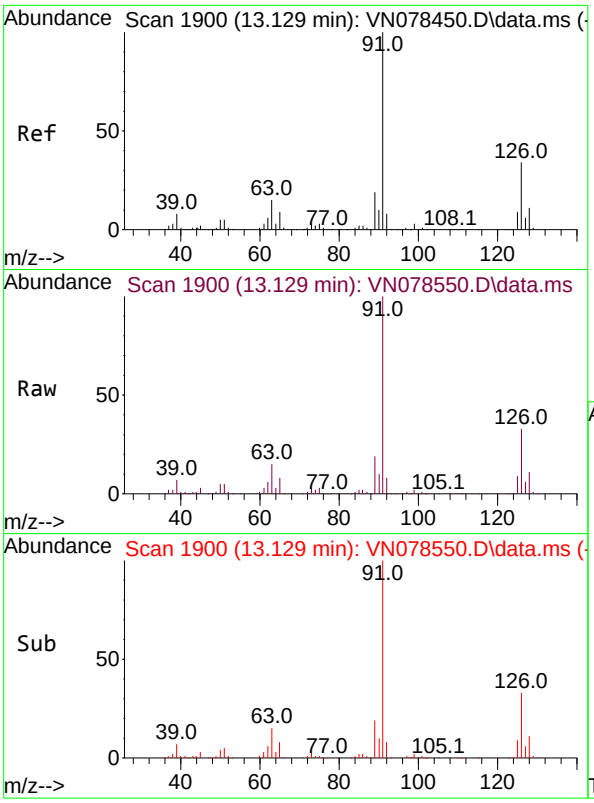


#78
n-propylbenzene
Concen: 49.793 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 91 Resp: 1490384

Ion	Ratio	Lower	Upper
91	100		
120	23.6	11.5	34.4

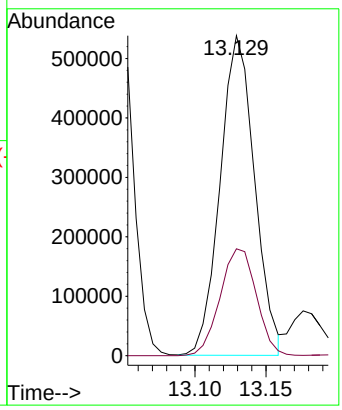




#79
2-Chlorotoluene
Concen: 46.257 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 91 Resp: 90688

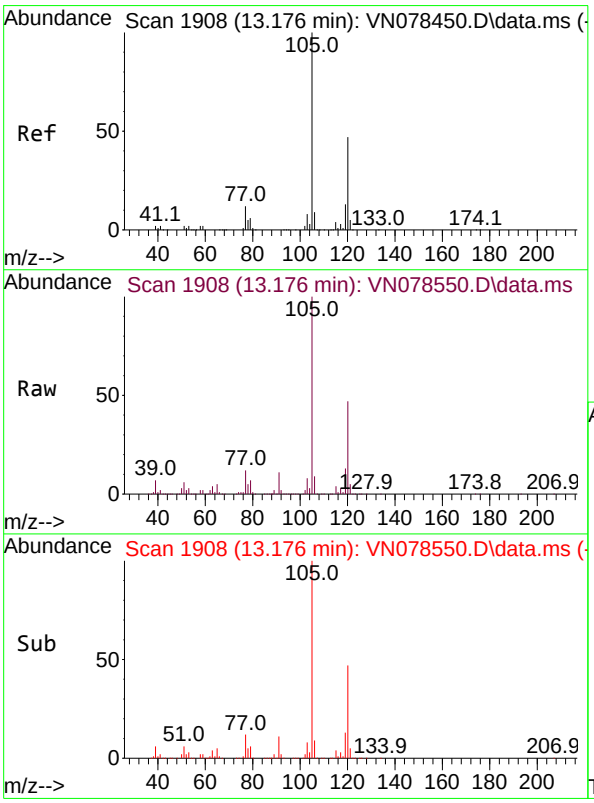
Ion	Ratio	Lower	Upper
91	100		
126	35.2	16.3	48.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

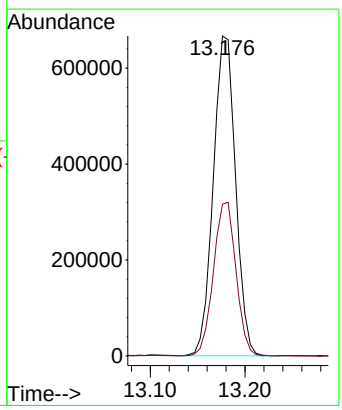
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

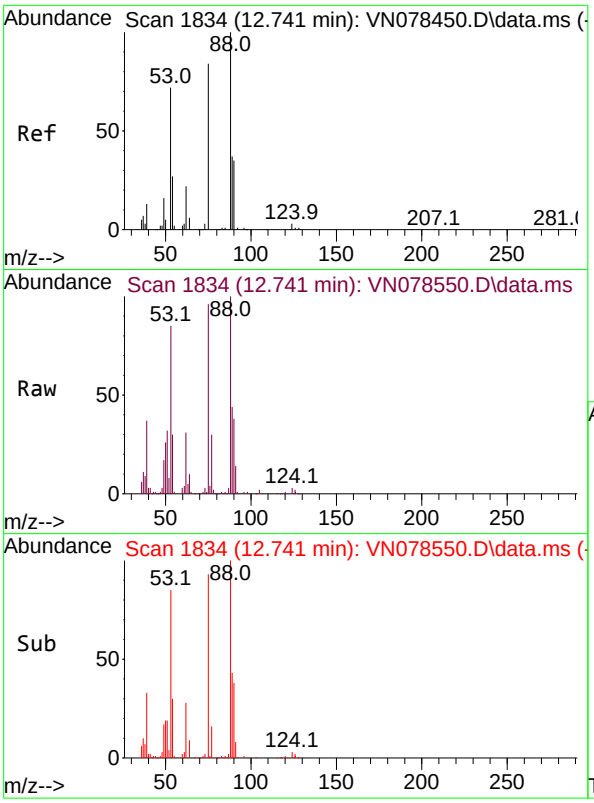


#80
1,3,5-Trimethylbenzene
Concen: 49.340 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:105 Resp: 1091097

Ion	Ratio	Lower	Upper
105	100		
120	48.6	24.1	72.3





#81
trans-1,4-Dichloro-2-butene
Concen: 45.314 ug/l
RT: 12.741 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

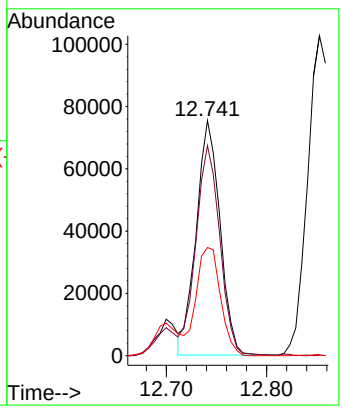
Tgt Ion: 75 Resp: 12414

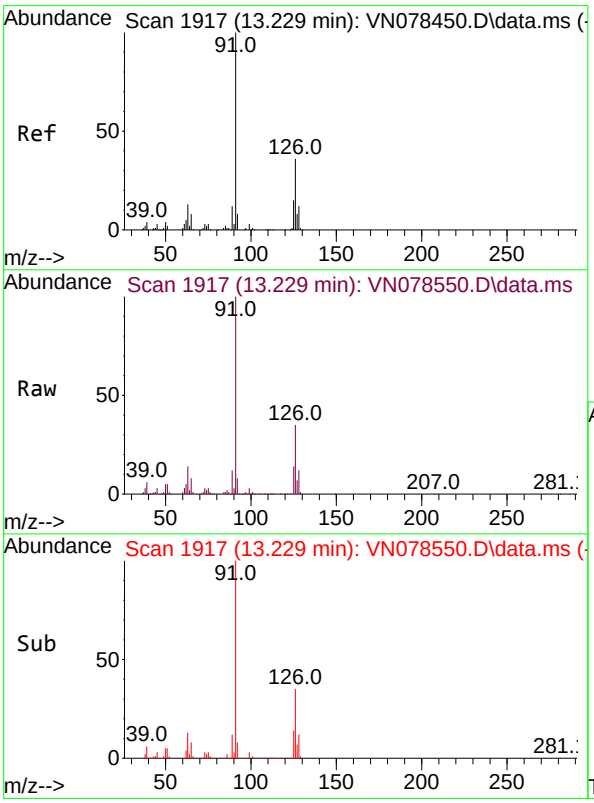
Ion	Ratio	Lower	Upper
75	100		
53	90.3	67.4	101.2
89	47.0	38.8	58.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

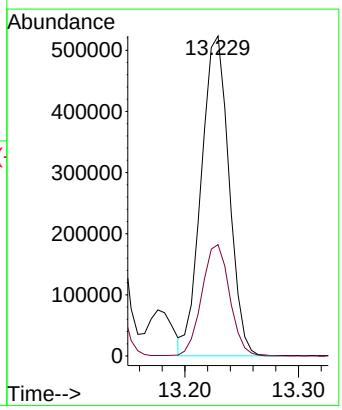


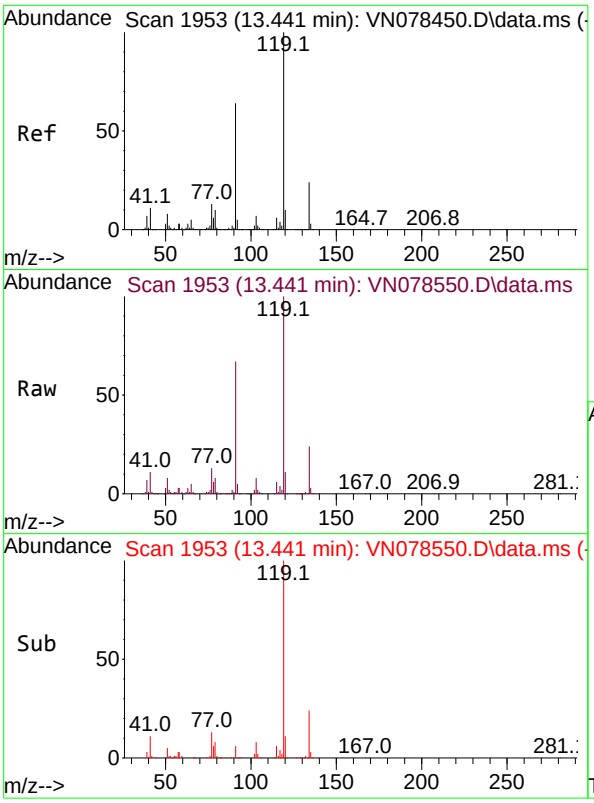


#82
4-Chlorotoluene
Concen: 48.551 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 91 Resp: 887968

Ion	Ratio	Lower	Upper
91	100		
126	35.0	16.7	50.0

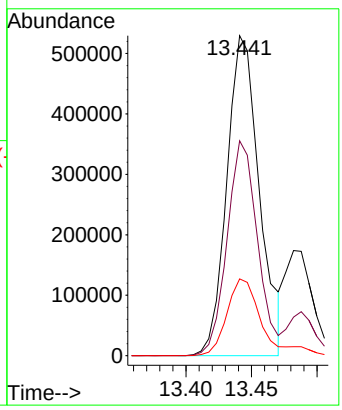




#83
tert-Butylbenzene
Concen: 48.702 ug/l
RT: 13.441 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:119 Resp: 91437

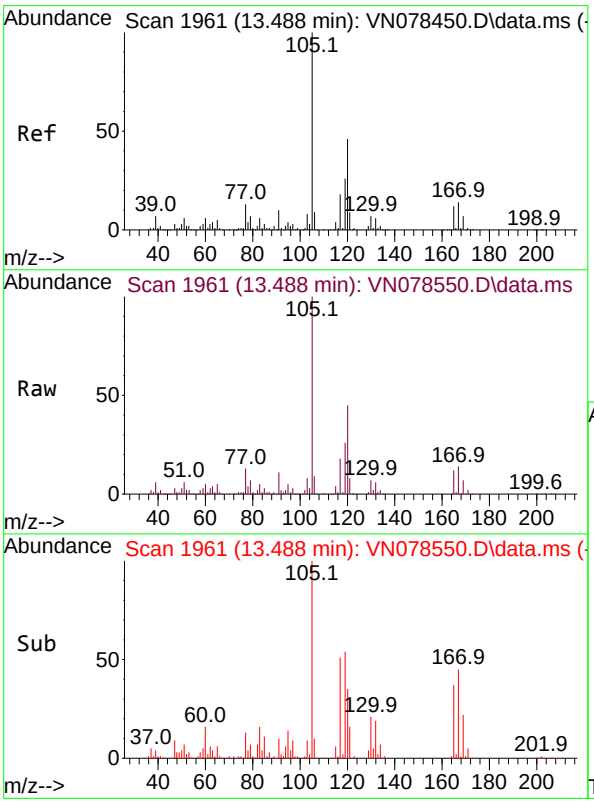
Ion	Ratio	Lower	Upper
119	100		
91	63.0	33.9	101.7
134	25.8	13.2	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

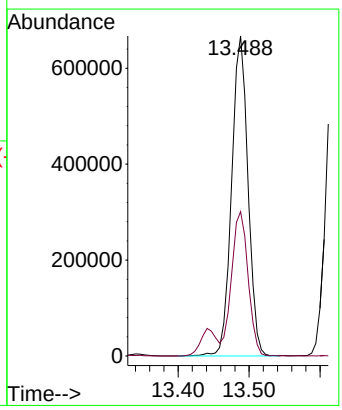
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

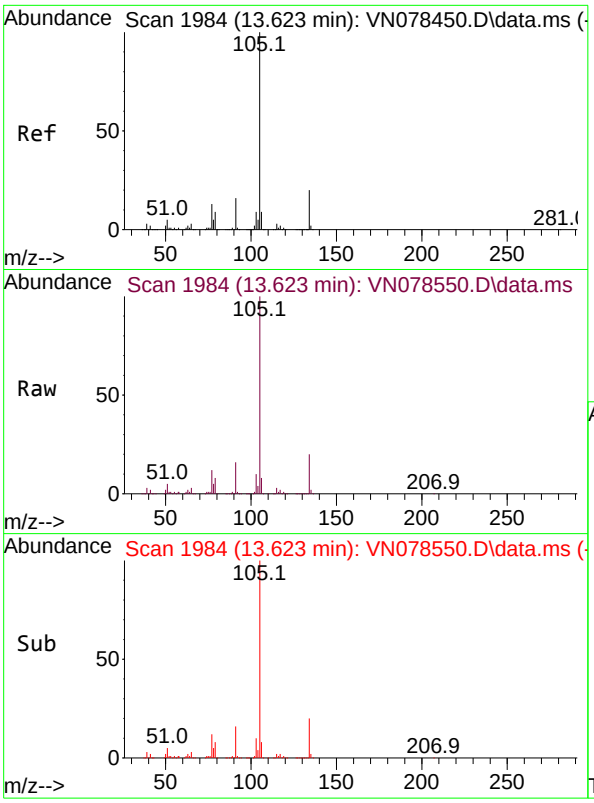


#84
1,2,4-Trimethylbenzene
Concen: 49.774 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:105 Resp: 1069143

Ion	Ratio	Lower	Upper
105	100		
120	45.8	22.0	66.0





#85
sec-Butylbenzene
Concen: 49.674 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

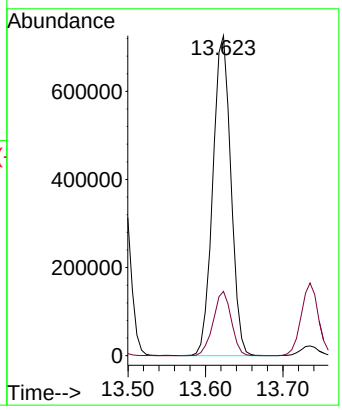
Tgt Ion:105 Resp: 117882

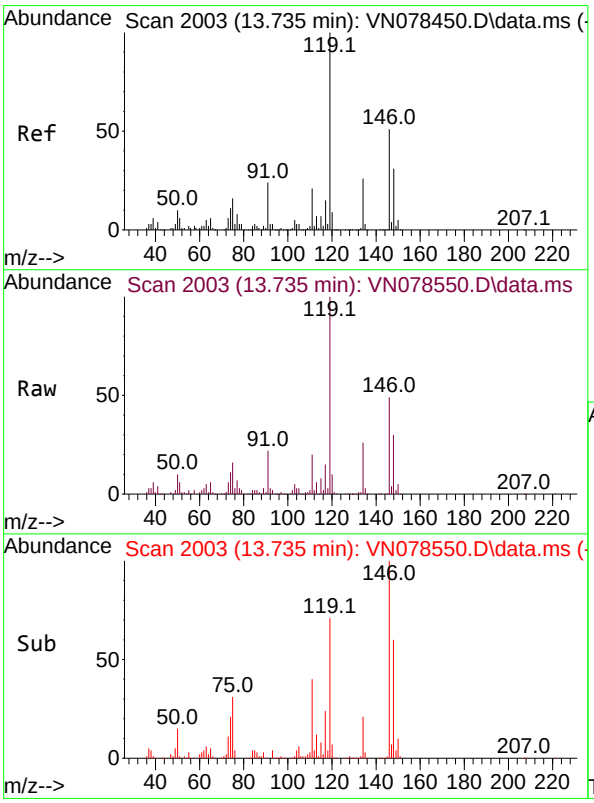
Ion	Ratio	Lower	Upper
105	100		
134	20.1	9.8	29.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

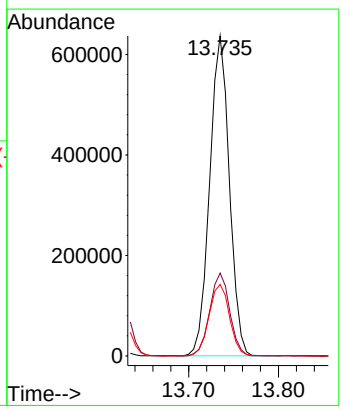


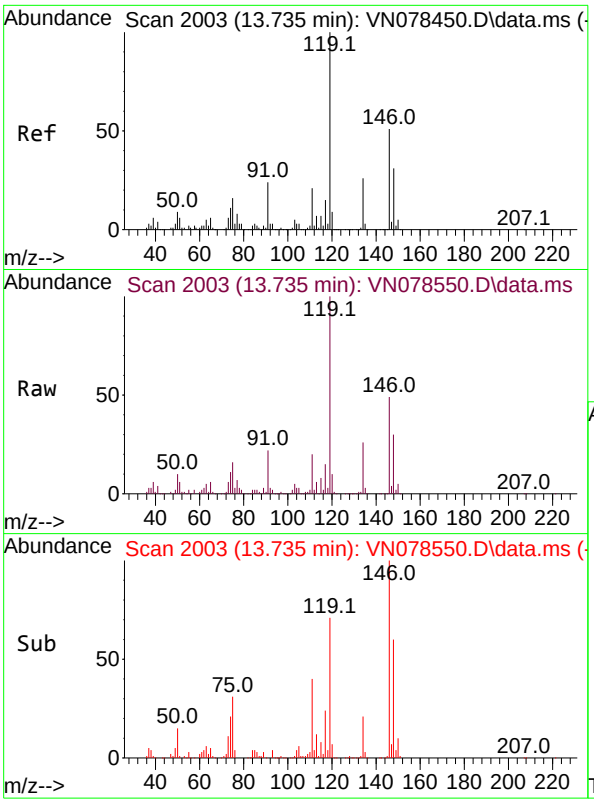


#86
p-Isopropyltoluene
Concen: 50.792 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:119 Resp: 967865

Ion	Ratio	Lower	Upper
119	100		
134	26.3	12.6	37.8
91	23.3	12.4	37.2

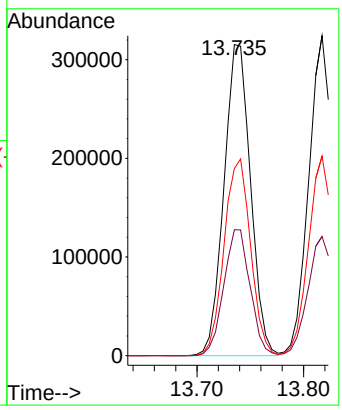




#87
1,3-Dichlorobenzene
Concen: 50.966 ug/l
RT: 13.735 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:146 Resp: 54760

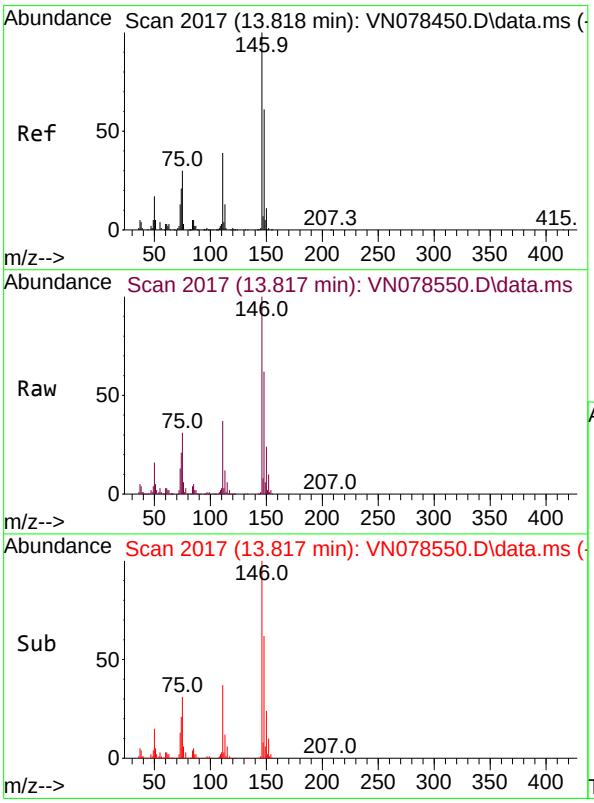
Ion	Ratio	Lower	Upper
146	100		
111	40.1	22.1	66.3
148	63.1	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

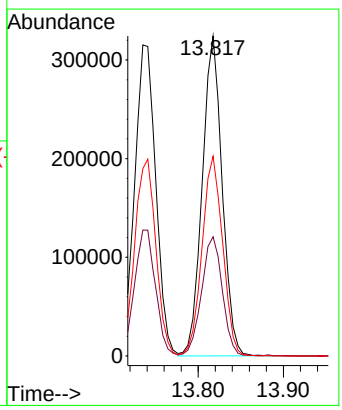
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

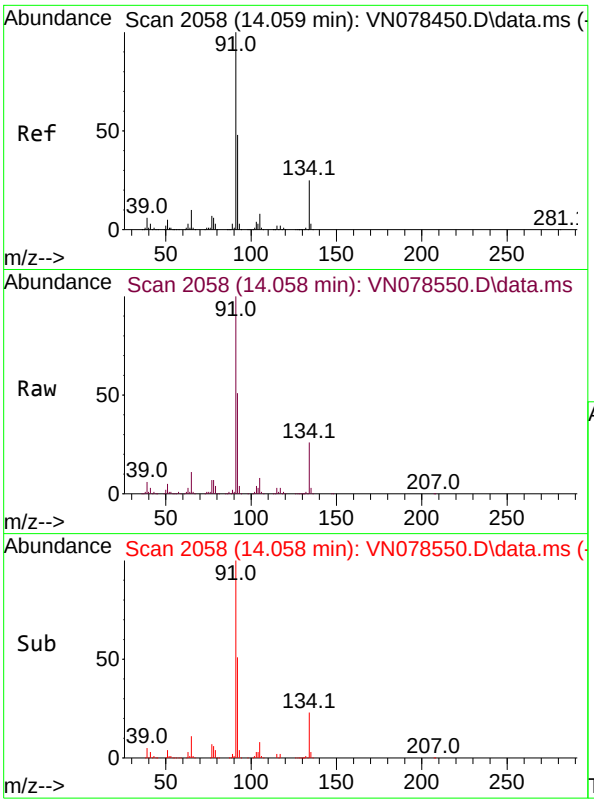


#88
1,4-Dichlorobenzene
Concen: 48.654 ug/l
RT: 13.817 min Scan# 2017
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:146 Resp: 526549

Ion	Ratio	Lower	Upper
146	100		
111	38.7	20.6	61.8
148	64.4	31.6	94.8

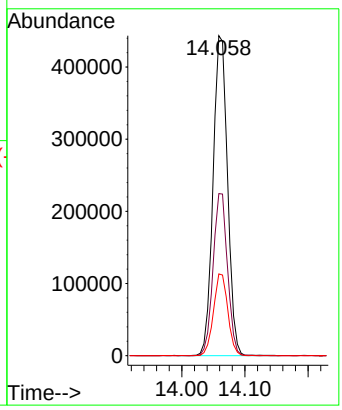




#89
n-Butylbenzene
Concen: 51.745 ug/l
RT: 14.058 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 91 Resp: 70550

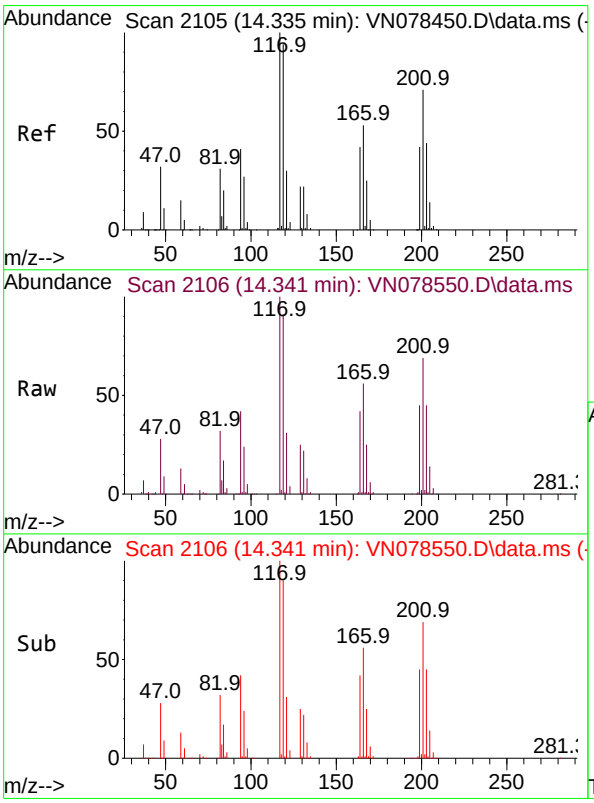
Ion	Ratio	Lower	Upper
91	100		
92	50.5	26.4	79.0
134	25.3	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

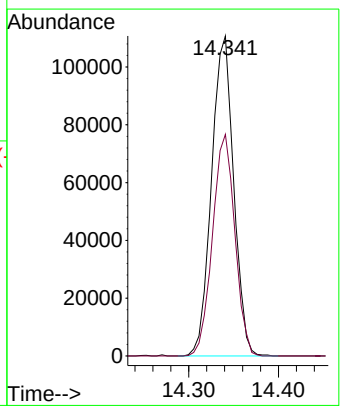
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

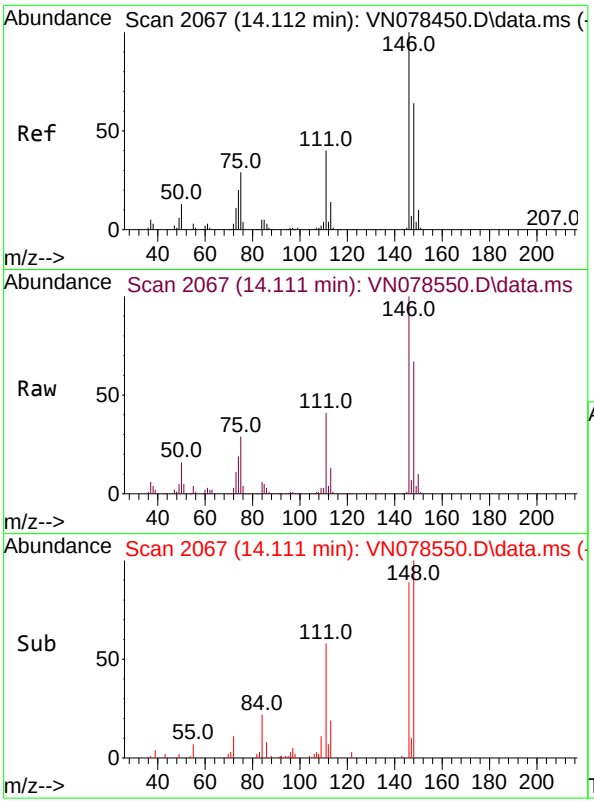


#90
Hexachloroethane
Concen: 54.172 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:117 Resp: 189491

Ion	Ratio	Lower	Upper
117	100		
201	69.9	29.3	88.0

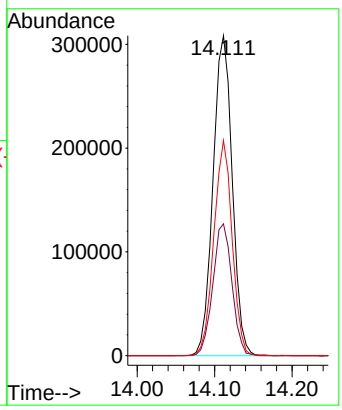




#91
1,2-Dichlorobenzene
Concen: 49.686 ug/l
RT: 14.111 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:146 Resp: 53127

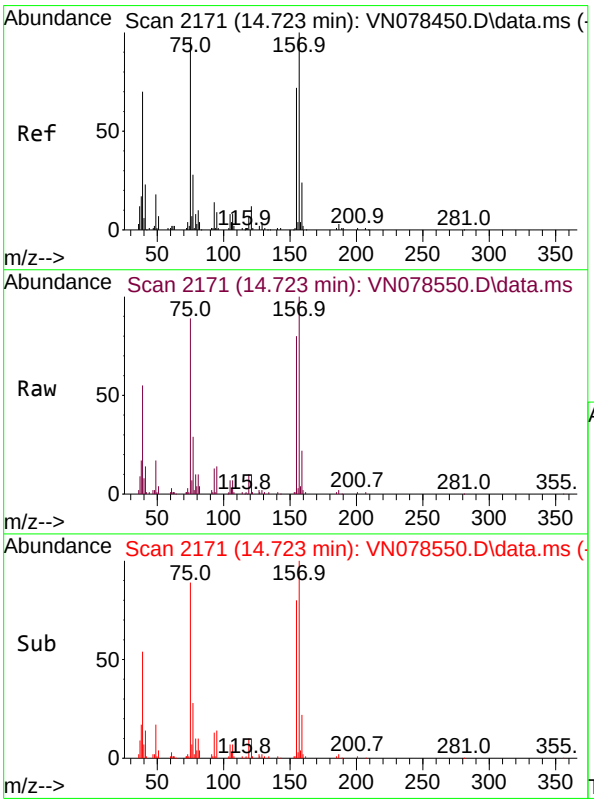
Ion	Ratio	Lower	Upper
146	100		
111	41.0	22.0	66.0
148	64.3	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

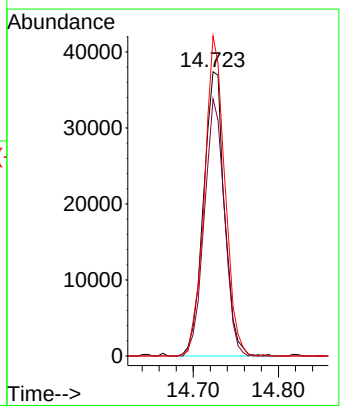
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

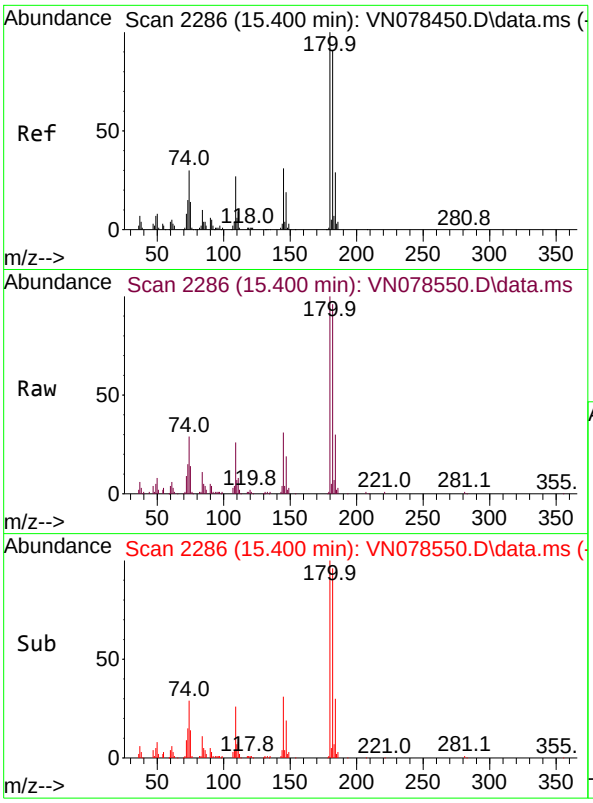


#92
1,2-Dibromo-3-Chloropropane
Concen: 47.648 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion: 75 Resp: 63963

Ion	Ratio	Lower	Upper
75	100		
155	86.8	39.1	117.2
157	109.2	50.3	150.9





#93
1,2,4-Trichlorobenzene
Concen: 49.914 ug/l
RT: 15.400 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

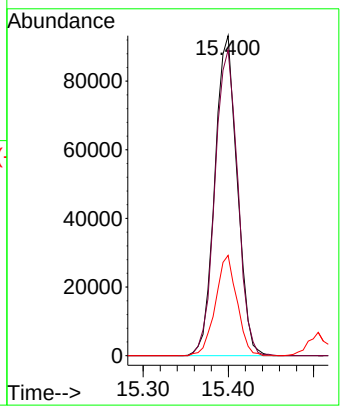
Tgt Ion:180 Resp: 17033

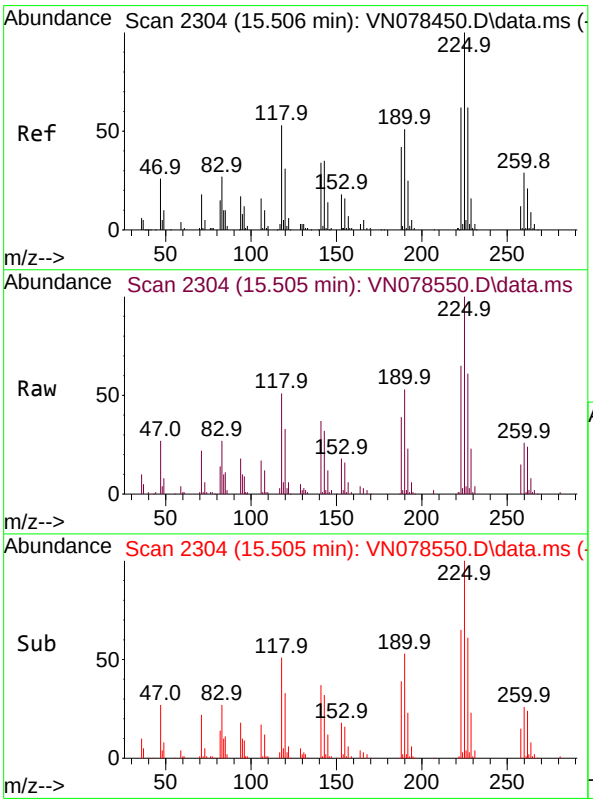
Ion	Ratio	Lower	Upper
180	100		
182	97.3	46.1	138.2
145	30.1	16.6	49.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

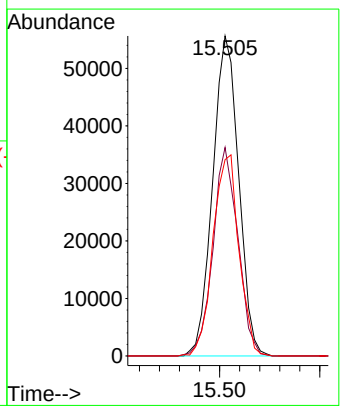


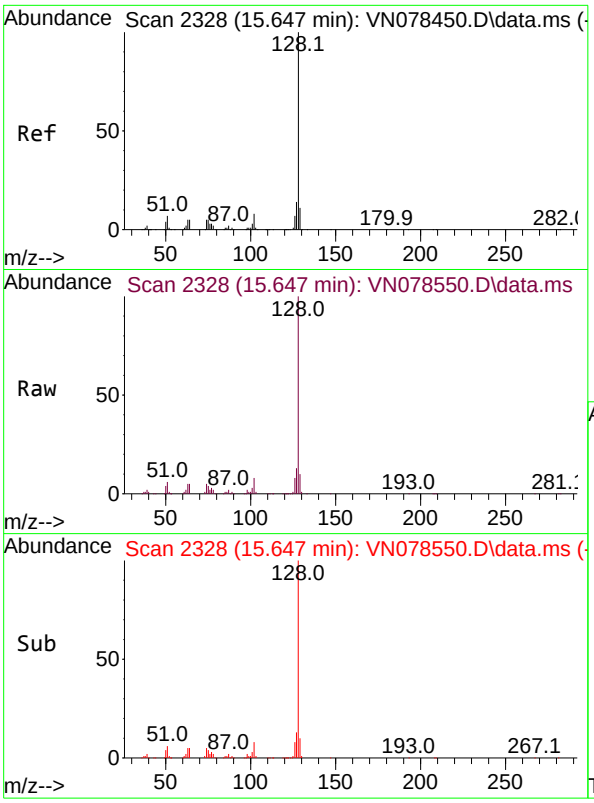


#94
Hexachlorobutadiene
Concen: 57.278 ug/l
RT: 15.505 min Scan# 2304
Delta R.T. -0.001 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:225 Resp: 100054

Ion	Ratio	Lower	Upper
225	100		
223	62.3	31.3	93.8
227	62.9	31.9	95.9

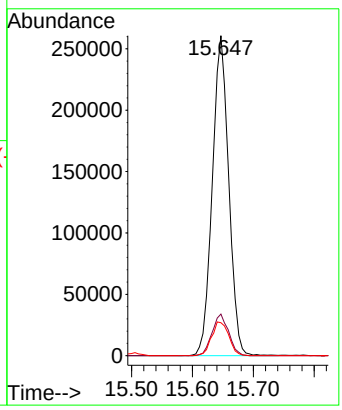




#95
Naphthalene
Concen: 41.807 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:128 Resp: 48773

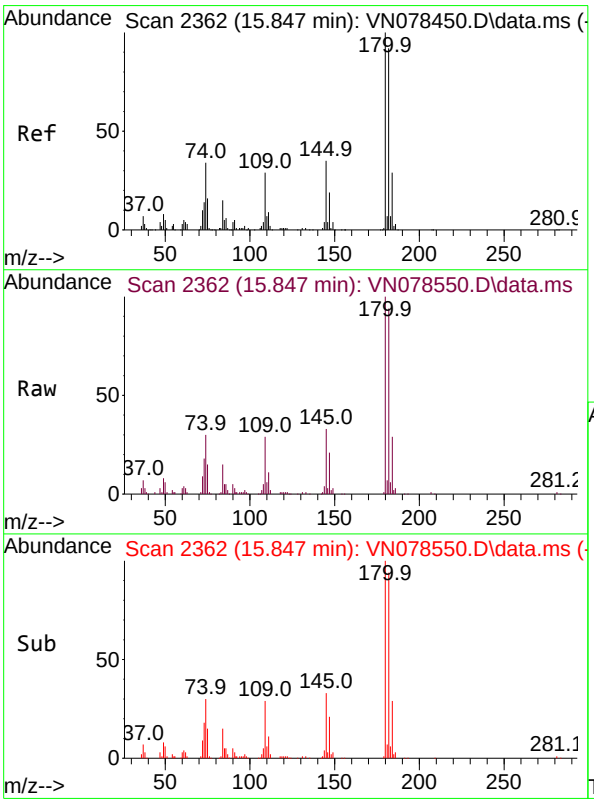
Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.0	15.0
129	11.1	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

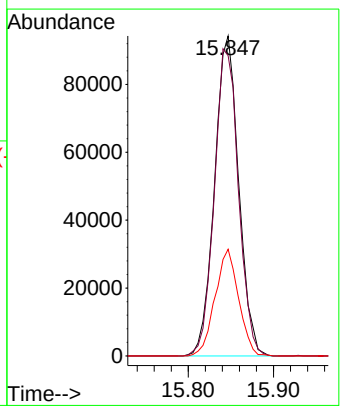
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023



#96
1,2,3-Trichlorobenzene
Concen: 47.284 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078550.D
Acq: 18 Jul 2023 10:29

Tgt Ion:180 Resp: 185539

Ion	Ratio	Lower	Upper
180	100		
182	96.0	46.2	138.6
145	32.5	17.5	52.6



Sample Results: **VN078550.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	94	0.00
2	T	Dichlorodifluoromethane	0.613	0.516	15.8	83	0.00
3	P	Chloromethane	0.666	0.661	0.8	102	0.00
4	C	Vinyl Chloride	0.862	0.831	3.6#	97	0.00
5	T	Bromomethane	0.616	0.530	14.0	88	0.00
6	T	Chloroethane	0.583	0.515	11.7	85	0.00
7	T	Trichlorofluoromethane	1.030	0.939	8.8	90	0.00
8	T	Diethyl Ether	0.343	0.303	11.7	83	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.545	0.527	3.3	93	0.00
10	T	Methyl Iodide	0.749	0.717	4.3	90	0.00
11	T	Tert butyl alcohol	0.103	0.091	11.7	84	0.00
12	CM	1,1-Dichloroethene	0.528	0.490	7.2#	89	0.00
13	T	Acrolein	0.102	0.089	12.7	81	0.00
14	T	Allyl chloride	0.721	0.677	6.1	91	0.00
15	T	Acrylonitrile	0.261	0.238	8.8	86	0.00
16	T	Acetone	0.209	0.196	6.2	93	0.00
17	T	Carbon Disulfide	1.526	1.215	20.4	80	0.00
18	T	Methyl Acetate	0.884	0.773	12.6	85	0.00
19	T	Methyl tert-butyl Ether	1.738	1.647	5.2	88	0.00
20	T	Methylene Chloride	0.674	0.573	15.0	88	0.00
21	T	trans-1,2-Dichloroethene	0.595	0.552	7.2	88	0.00
22	T	Diisopropyl ether	1.614	1.546	4.2	88	0.00
23	T	Vinyl Acetate	1.026	0.957	6.7	84	0.00
24	P	1,1-Dichloroethane	1.088	1.005	7.6	88	0.00
25	T	2-Butanone	0.329	0.304	7.6	87	0.00
26	T	2,2-Dichloropropane	0.890	0.874	1.8	93	0.00
27	T	cis-1,2-Dichloroethene	0.688	0.671	2.5	92	0.00
28	T	Bromochloromethane	0.512	0.496	3.1	91	0.00
29	T	Tetrahydrofuran	0.216	0.193	10.6	83	0.00
30	C	Chloroform	1.132	1.120	1.1#	92	0.00
31	T	Cyclohexane	0.906	0.757	16.4	86	0.00
32	T	1,1,1-Trichloroethane	1.015	0.998	1.7	91	0.00
33	S	1,2-Dichloroethane-d4	0.670	0.659	1.6	94	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	87	0.00
35	S	Dibromofluoromethane	0.339	0.373	-10.0	98	0.00
36	T	1,1-Dichloropropene	0.490	0.478	2.4	87	0.00
37	T	Ethyl Acetate	0.409	0.385	5.9	82	0.00
38	T	Carbon Tetrachloride	0.533	0.547	-2.6	90	0.00
39	T	Methylcyclohexane	0.447	0.455	-1.8	89	0.00
40	TM	Benzene	1.452	1.472	-1.4	89	0.00
41	T	Methacrylonitrile	0.208	0.207	0.5	88	0.00
42	TM	1,2-Dichloroethane	0.494	0.513	-3.8	94	0.00
43	T	Isopropyl Acetate	0.673	0.664	1.3	85	0.00
44	TM	Trichloroethene	0.391	0.393	-0.5	92	0.00
45	C	1,2-Dichloropropane	0.368	0.379	-3.0#	92	0.00
46	T	Dibromomethane	0.259	0.270	-4.2	90	0.00
47	T	Bromodichloromethane	0.519	0.552	-6.4	93	0.00
48	T	Methyl methacrylate	0.312	0.308	1.3	83	0.00

Sample Results: **VN078550.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	0.007	0.007	0.0	86	0.00
50	S	Toluene-d8	1.282	1.384	-8.0	96	0.00
51	T	4-Methyl-2-Pentanone	0.400	0.407	-1.7	86	0.00
52	CM	Toluene	0.900	0.945	-5.0#	91	0.00
53	T	t-1,3-Dichloropropene	0.532	0.559	-5.1	89	0.00
54	T	cis-1,3-Dichloropropene	0.567	0.609	-7.4	89	0.00
55	T	1,1,2-Trichloroethane	0.355	0.373	-5.1	92	0.00
56	T	Ethyl methacrylate	0.496	0.525	-5.8	86	0.00
57	T	1,3-Dichloropropane	0.603	0.617	-2.3	89	0.00
58	T	2-Chloroethyl Vinyl ether	0.177	0.186	-5.1	87	0.00
59	T	2-Hexanone	0.284	0.285	-0.4	83	0.00
60	T	Dibromochloromethane	0.391	0.425	-8.7	92	0.00
61	T	1,2-Dibromoethane	0.365	0.385	-5.5	91	0.00
62	S	4-Bromofluorobenzene	0.395	0.439	-11.1	96	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	90	0.00
64	T	Tetrachloroethene	0.376	0.388	-3.2	94	0.00
65	PM	Chlorobenzene	1.118	1.128	-0.9	93	0.00
66	T	1,1,1,2-Tetrachloroethane	0.430	0.445	-3.5	94	0.00
67	C	Ethyl Benzene	1.889	1.952	-3.3#	91	0.00
68	T	m/p-Xylenes	0.698	0.751	-7.6	92	0.00
69	T	o-Xylene	0.705	0.728	-3.3	91	0.00
70	T	Styrene	1.104	1.212	-9.8	93	0.00
71	P	Bromoform	0.291	0.318	-9.3	94	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
73	T	Isopropylbenzene	4.698	4.460	5.1	93	0.00
74	T	N-amyl acetate	1.619	1.379	14.8	82	0.00
75	P	1,1,2,2-Tetrachloroethane	1.586	1.371	13.6	90	0.00
76	T	1,2,3-Trichloropropane	1.209	1.103	8.8	90	0.00
77	T	Bromobenzene	1.154	1.079	6.5	94	0.00
78	T	n-propylbenzene	5.024	5.004	0.4	94	0.00
79	T	2-Chlorotoluene	3.291	3.045	7.5	91	0.00
80	T	1,3,5-Trimethylbenzene	3.712	3.663	1.3	95	0.00
81	T	trans-1,4-Dichloro-2-butene	0.460	0.417	9.3	88	0.00
82	T	4-Chlorotoluene	3.070	2.981	2.9	93	0.00
83	T	tert-Butylbenzene	3.152	3.070	2.6	95	0.00
84	T	1,2,4-Trimethylbenzene	3.606	3.589	0.5	94	0.00
85	T	sec-Butylbenzene	3.984	3.958	0.7	96	0.00
86	T	p-Isopropyltoluene	3.199	3.249	-1.6	95	0.00
87	T	1,3-Dichlorobenzene	1.804	1.838	-1.9	95	0.00
88	T	1,4-Dichlorobenzene	1.817	1.768	2.7	93	0.00
89	T	n-Butylbenzene	2.289	2.369	-3.5	92	0.00
90	T	Hexachloroethane	0.676	0.636	5.9	99	0.00
91	T	1,2-Dichlorobenzene	1.795	1.784	0.6	94	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.262	0.215	17.9	85	0.00
93	T	1,2,4-Trichlorobenzene	0.573	0.572	0.2	85	0.00
94	T	Hexachlorobutadiene	0.375	0.336	10.4	94	0.00
95	T	Naphthalene	1.958	1.637	16.4	75	0.00

Sample Results: **VN078550.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	0.659	0.623	5.5	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Sample Results: **VN078550.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	94	0.00
2	T	Dichlorodifluoromethane	50.000	42.068	15.9	83	0.00
3	P	Chloromethane	50.000	49.626	0.7	102	0.00
4	C	Vinyl Chloride	50.000	48.225	3.5#	97	0.00
5	T	Bromomethane	50.000	48.415	3.2	88	0.00
6	T	Chloroethane	50.000	49.410	1.2	85	0.00
7	T	Trichlorofluoromethane	50.000	45.582	8.8	90	0.00
8	T	Diethyl Ether	50.000	44.137	11.7	83	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	48.346	3.3	93	0.00
10	T	Methyl Iodide	50.000	47.842	4.3	90	0.00
11	T	Tert butyl alcohol	250.000	219.171	12.3	84	0.00
12	CM	1,1-Dichloroethene	50.000	46.463	7.1#	89	0.00
13	T	Acrolein	250.000	217.813	12.9	81	0.00
14	T	Allyl chloride	50.000	46.937	6.1	91	0.00
15	T	Acrylonitrile	250.000	228.041	8.8	86	0.00
16	T	Acetone	250.000	234.586	6.2	93	0.00
17	T	Carbon Disulfide	50.000	39.826	20.3	80	0.00
18	T	Methyl Acetate	50.000	43.754	12.5	85	0.00
19	T	Methyl tert-butyl Ether	50.000	47.382	5.2	88	0.00
20	T	Methylene Chloride	50.000	47.798	4.4	88	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.427	7.1	88	0.00
22	T	Diisopropyl ether	50.000	47.883	4.2	88	0.00
23	T	Vinyl Acetate	250.000	233.026	6.8	84	0.00
24	P	1,1-Dichloroethane	50.000	46.219	7.6	88	0.00
25	T	2-Butanone	250.000	231.045	7.6	87	0.00
26	T	2,2-Dichloropropane	50.000	49.134	1.7	93	0.00
27	T	cis-1,2-Dichloroethene	50.000	48.777	2.4	92	0.00
28	T	Bromochloromethane	50.000	48.376	3.2	91	0.00
29	T	Tetrahydrofuran	250.000	223.912	10.4	83	0.00
30	C	Chloroform	50.000	49.432	1.1#	92	0.00
31	T	Cyclohexane	50.000	41.777	16.4	86	0.00
32	T	1,1,1-Trichloroethane	50.000	49.166	1.7	91	0.00
33	S	1,2-Dichloroethane-d4	50.000	49.134	1.7	94	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	87	0.00
35	S	Dibromofluoromethane	50.000	54.925	-9.8	98	0.00
36	T	1,1-Dichloropropene	50.000	48.774	2.5	87	0.00
37	T	Ethyl Acetate	50.000	47.148	5.7	82	0.00
38	T	Carbon Tetrachloride	50.000	51.350	-2.7	90	0.00
39	T	Methylcyclohexane	50.000	50.898	-1.8	89	0.00
40	TM	Benzene	50.000	50.689	-1.4	89	0.00
41	T	Methacrylonitrile	50.000	49.611	0.8	88	0.00
42	TM	1,2-Dichloroethane	50.000	51.940	-3.9	94	0.00
43	T	Isopropyl Acetate	50.000	49.381	1.2	85	0.00
44	TM	Trichloroethene	50.000	50.176	-0.4	92	0.00
45	C	1,2-Dichloropropane	50.000	51.474	-2.9#	92	0.00
46	T	Dibromomethane	50.000	52.107	-4.2	90	0.00
47	T	Bromodichloromethane	50.000	53.205	-6.4	93	0.00
48	T	Methyl methacrylate	50.000	49.403	1.2	83	0.00

Sample Results: **VN078550.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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	980.285	2.0	86	0.00
50	S	Toluene-d8	50.000	53.954	-7.9	96	0.00
51	T	4-Methyl-2-Pentanone	250.000	254.170	-1.7	86	0.00
52	CM	Toluene	50.000	52.513	-5.0#	91	0.00
53	T	t-1,3-Dichloropropene	50.000	52.607	-5.2	89	0.00
54	T	cis-1,3-Dichloropropene	50.000	53.706	-7.4	89	0.00
55	T	1,1,2-Trichloroethane	50.000	52.535	-5.1	92	0.00
56	T	Ethyl methacrylate	50.000	52.930	-5.9	86	0.00
57	T	1,3-Dichloropropane	50.000	51.180	-2.4	89	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	263.748	-5.5	87	0.00
59	T	2-Hexanone	250.000	250.466	-0.2	83	0.00
60	T	Dibromochloromethane	50.000	54.240	-8.5	92	0.00
61	T	1,2-Dibromoethane	50.000	52.747	-5.5	91	0.00
62	S	4-Bromofluorobenzene	50.000	55.564	-11.1	96	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	90	0.00
64	T	Tetrachloroethene	50.000	51.639	-3.3	94	0.00
65	PM	Chlorobenzene	50.000	50.453	-0.9	93	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.723	-3.4	94	0.00
67	C	Ethyl Benzene	50.000	51.655	-3.3#	91	0.00
68	T	m/p-Xylenes	100.000	107.481	-7.5	92	0.00
69	T	o-Xylene	50.000	51.582	-3.2	91	0.00
70	T	Styrene	50.000	54.922	-9.8	93	0.00
71	P	Bromoform	50.000	54.552	-9.1	94	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	90	0.00
73	T	Isopropylbenzene	50.000	47.464	5.1	93	0.00
74	T	N-amyl acetate	50.000	42.600	14.8	82	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	52.368	-4.7	90	0.00
76	T	1,2,3-Trichloropropane	50.000	45.646	8.7	90	0.00
77	T	Bromobenzene	50.000	52.876	-5.8	94	0.00
78	T	n-propylbenzene	50.000	49.793	0.4	94	0.00
79	T	2-Chlorotoluene	50.000	46.257	7.5	91	0.00
80	T	1,3,5-Trimethylbenzene	50.000	49.340	1.3	95	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	45.314	9.4	88	0.00
82	T	4-Chlorotoluene	50.000	48.551	2.9	93	0.00
83	T	tert-Butylbenzene	50.000	48.702	2.6	95	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.774	0.5	94	0.00
85	T	sec-Butylbenzene	50.000	49.674	0.7	96	0.00
86	T	p-Isopropyltoluene	50.000	50.792	-1.6	95	0.00
87	T	1,3-Dichlorobenzene	50.000	50.966	-1.9	95	0.00
88	T	1,4-Dichlorobenzene	50.000	48.654	2.7	93	0.00
89	T	n-Butylbenzene	50.000	51.745	-3.5	92	0.00
90	T	Hexachloroethane	50.000	54.172	-8.3	99	0.00
91	T	1,2-Dichlorobenzene	50.000	49.686	0.6	94	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	47.648	4.7	85	0.00
93	T	1,2,4-Trichlorobenzene	50.000	49.914	0.2	85	0.00
94	T	Hexachlorobutadiene	50.000	57.278	-14.6	94	0.00
95	T	Naphthalene	50.000	41.807	16.4	75	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078550.D
Acq On : 18 Jul 2023 10:29
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 19 01:43:46 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 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)
96 T	1,2,3-Trichlorobenzene	50.000	47.284	5.4	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH

QC SAMPLE DATA

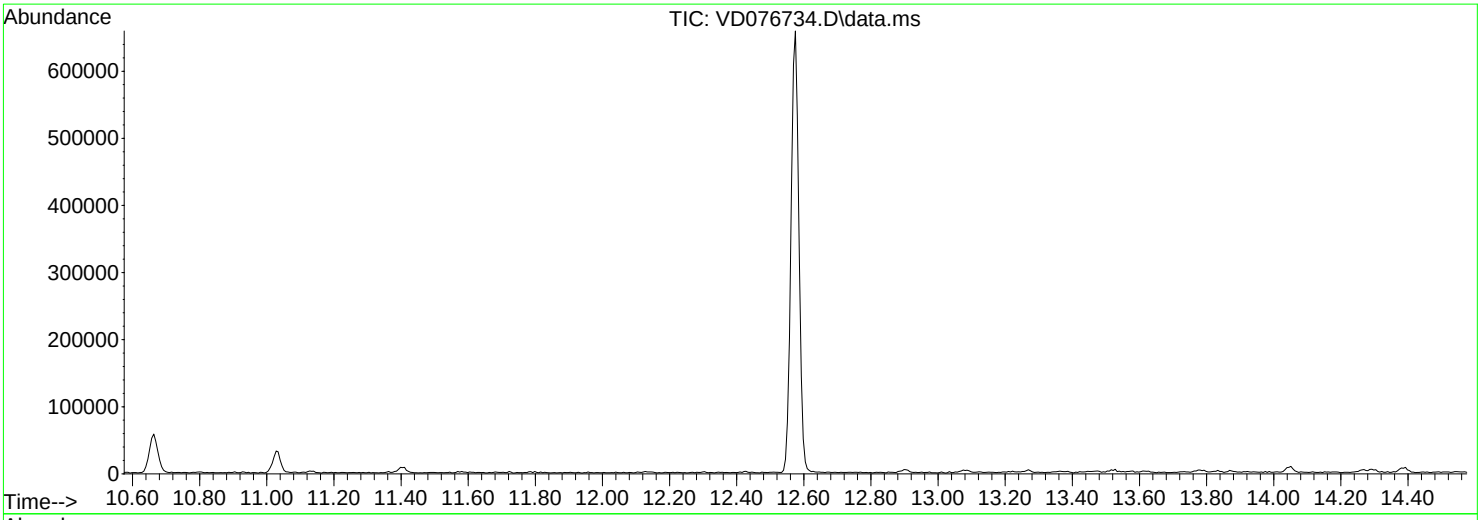
Sample Results: **VD076734.D**

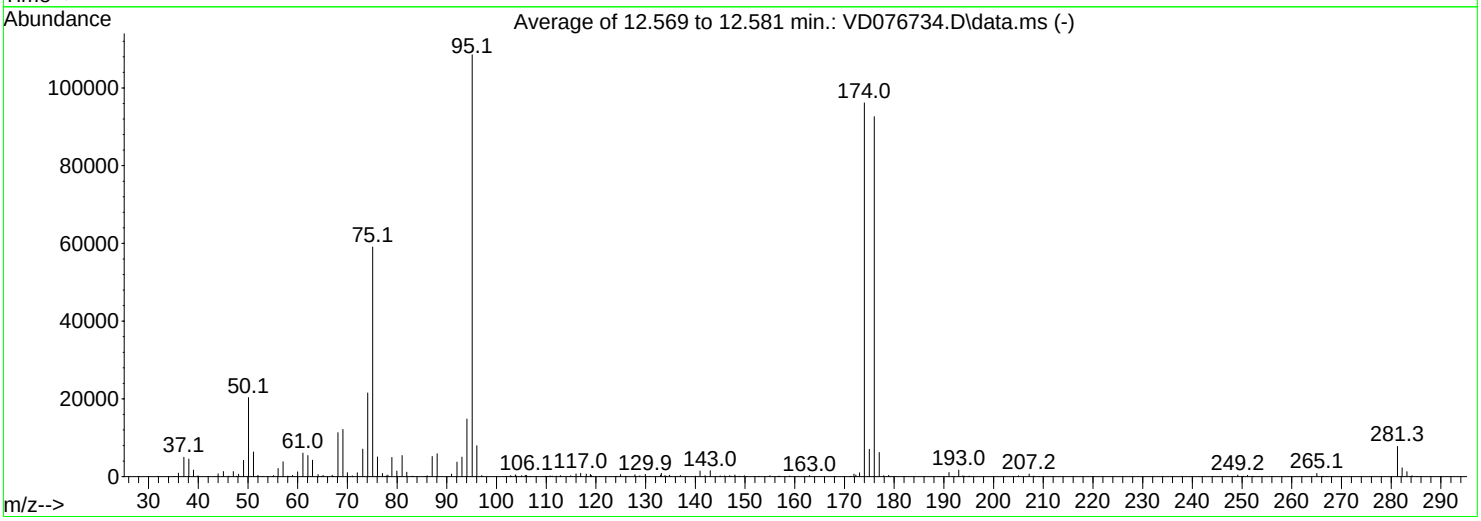
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071423\
Data File : VD076734.D
Acq On : 14 Jul 2023 10:44
Operator : KP/SY
Sample : BFB
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Title : SW846 8260
Last Update : Mon Jul 17 08:07:52 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	18.7	20332	PASS
75	95	30	60	54.4	59080	PASS
95	95	100	100	100.0	108512	PASS
96	95	5	9	7.3	7929	PASS
173	174	0.00	2	1.0	1000	PASS
174	95	50	100	88.6	96152	PASS
175	174	5	9	7.3	7052	PASS
176	174	95	101	96.3	92608	PASS
177	176	5	9	6.7	6208	PASS

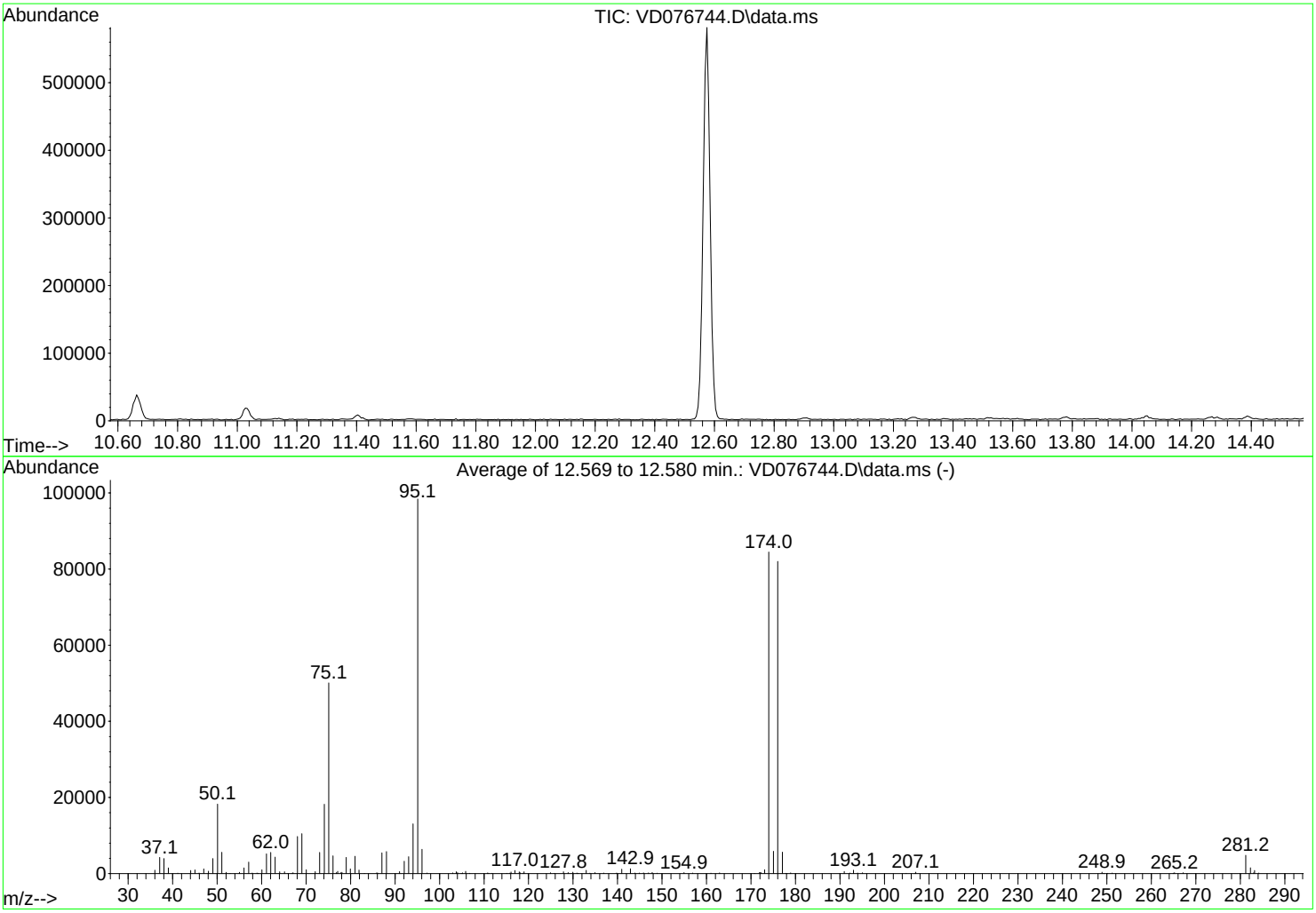
Sample Results: **VD076744.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076744.D
Acq On : 17 Jul 2023 09:08
Operator : KP/SY
Sample : BFB
Misc : 5.00G/5.0ml/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\82D071423S.M
Title : SW846 8260
Last Update : Mon Jul 17 08:07:52 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	18.6	18263	PASS
75	95	30	60	50.9	50085	PASS
95	95	100	100	100.0	98403	PASS
96	95	5	9	6.5	6377	PASS
173	174	0.00	2	1.2	998	PASS
174	95	50	100	85.9	84491	PASS
175	174	5	9	6.9	5850	PASS
176	174	95	101	97.0	81995	PASS
177	176	5	9	6.9	5624	PASS

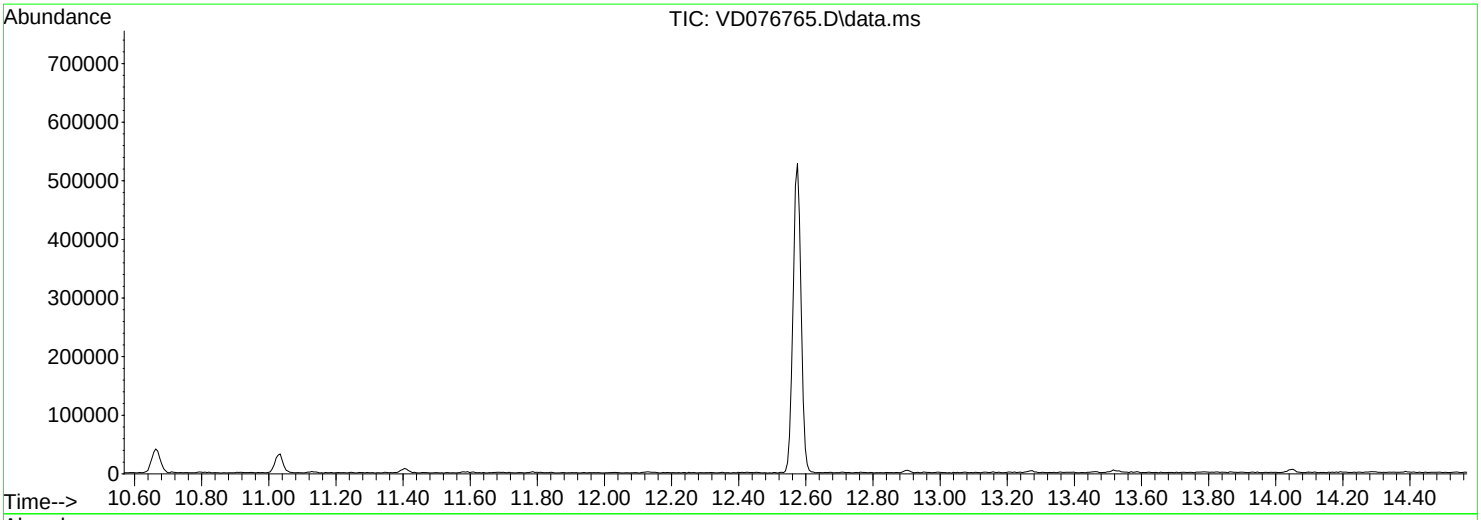
Sample Results: **VD076765.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076765.D
Acq On : 18 Jul 2023 08:41
Operator : KP/SY
Sample : BFB
Misc : 5.00G/5.0ml/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\82D071423S.M
Title : SW846 8260
Last Update : Mon Jul 17 08:07:52 2023



AutoFind: Scans 1866, 1867, 1868; 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	19.7	16391	PASS
75	95	30	60	53.0	44099	PASS
95	95	100	100	100.0	83205	PASS
96	95	5	9	6.6	5523	PASS
173	174	0.00	2	1.2	825	PASS
174	95	50	100	85.3	70944	PASS
175	174	5	9	7.7	5453	PASS
176	174	95	101	97.3	69024	PASS
177	176	5	9	6.6	4568	PASS

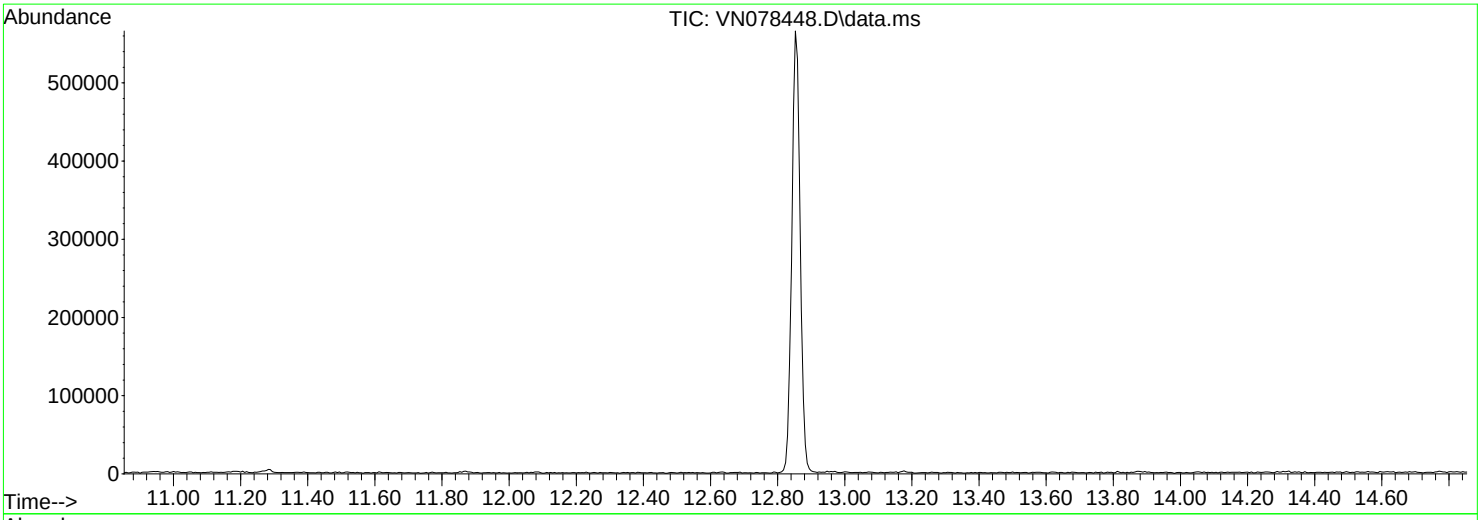
Sample Results: **VN078448.D**

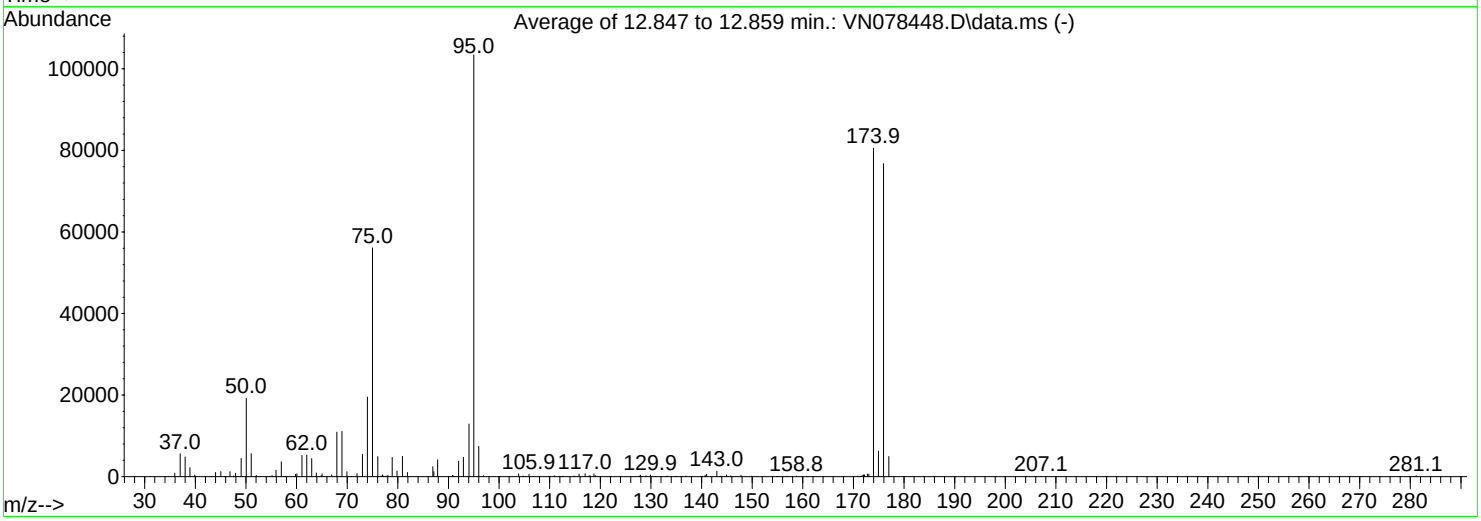
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071023\
Data File : VN078448.D
Acq On : 10 Jul 2023 11:48
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Title : SW846 8260
Last Update : Mon Jul 10 16:13:53 2023





AutoFind: Scans 1852, 1853, 1854; Background Corrected with Scan 1844

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	19208	PASS
75	95	30	60	54.2	56091	PASS
95	95	100	100	100.0	103427	PASS
96	95	5	9	7.2	7423	PASS
173	174	0.00	2	0.8	641	PASS
174	95	50	100	77.9	80544	PASS
175	174	5	9	7.8	6283	PASS
176	174	95	101	95.3	76741	PASS
177	176	5	9	6.5	4951	PASS

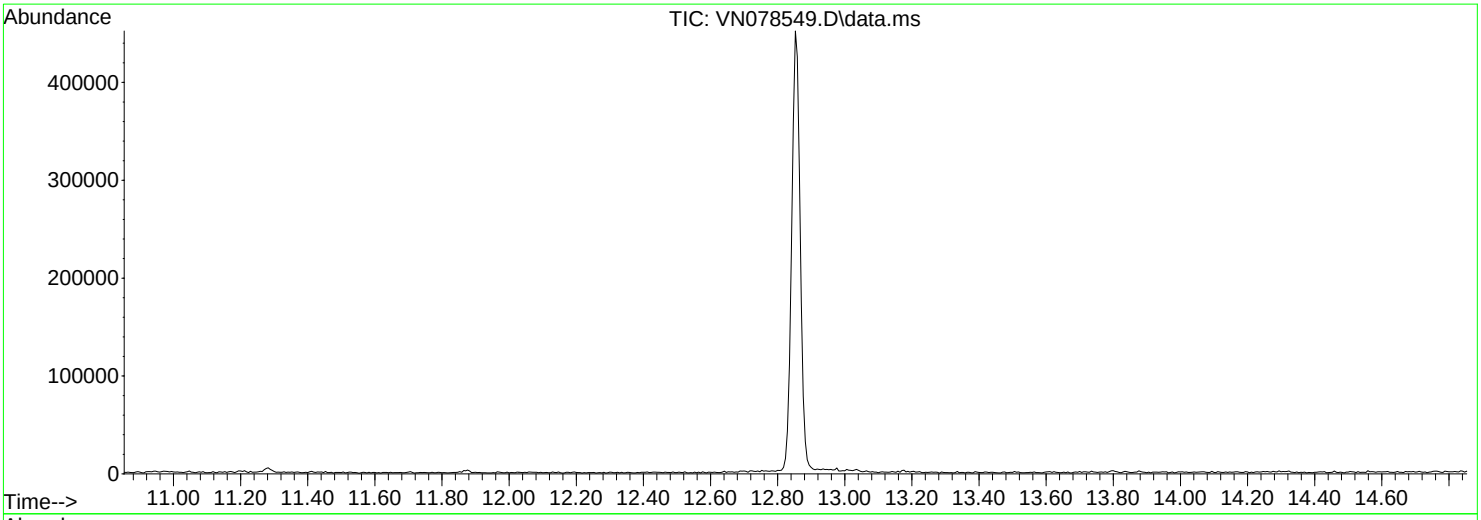
Sample Results: **VN078549.D**

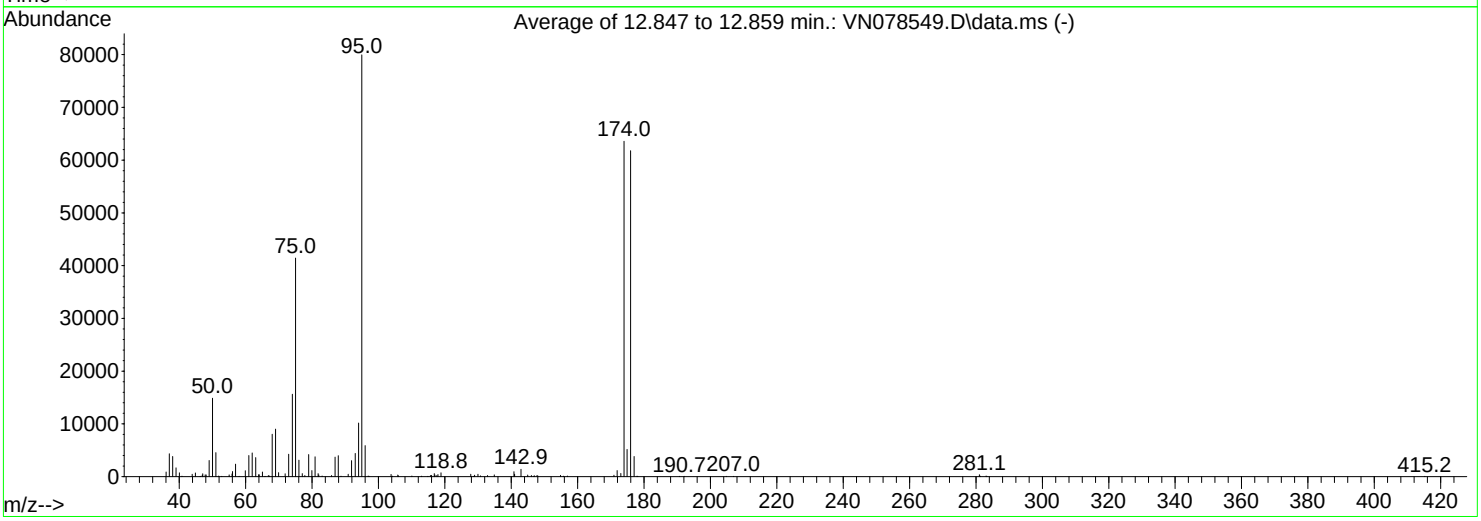
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078549.D
Acq On : 18 Jul 2023 09:55
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Title : SW846 8260
Last Update : Mon Jul 10 16:13:53 2023





AutoFind: Scans 1852, 1853, 1854; Background Corrected with Scan 1844

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	14875	PASS
75	95	30	60	51.8	41448	PASS
95	95	100	100	100.0	79960	PASS
96	95	5	9	7.4	5897	PASS
173	174	0.00	2	0.9	601	PASS
174	95	50	100	79.5	63581	PASS
175	174	5	9	8.1	5145	PASS
176	174	95	101	97.2	61792	PASS
177	176	5	9	6.2	3831	PASS

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0717SBL01	SDG No.:	O3645
Lab Sample ID:	VD0717SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076746.D	1		07/17/23 11:15	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.60	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	0.91	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.93	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	0.88	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	1.10	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.79	5.00	ug/Kg
67-64-1	Acetone	25.0	U	9.40	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	2.20	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.65	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.60	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	6.10	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.73	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.72	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.70	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.78	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.64	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	1.30	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.76	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	3.40	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.72	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.66	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.59	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.50	25.0	ug/Kg
108-88-3	Toluene	5.00	U	0.65	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.77	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.74	5.00	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0717SBL01	SDG No.:	O3645
Lab Sample ID:	VD0717SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076746.D	1		07/17/23 11:15	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	5.00	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	5.30	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.85	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.77	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.63	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
1330-20-7	Total Xylenes	15.0	U	2.17	15.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.77	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.69	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.95	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.71	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
103-65-1	n-propylbenzene	5.00	U	0.70	5.00	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.00	U	0.64	5.00	ug/Kg
98-06-6	tert-Butylbenzene	5.00	U	0.77	5.00	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.00	U	0.67	5.00	ug/Kg
135-98-8	sec-Butylbenzene	5.00	U	0.77	5.00	ug/Kg
99-87-6	p-Isopropyltoluene	5.00	U	0.74	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.68	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.60	5.00	ug/Kg
104-51-8	n-Butylbenzene	5.00	U	0.68	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.60	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.61	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.63	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.7		50 - 163	111%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		54 - 147	104%	SPK: 50
2037-26-5	Toluene-d8	55.0		58 - 134	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.6		30 - 143	109%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076746.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0717SBL01	SDG No.:	O3645
Lab Sample ID:	VD0717SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076746.D	1		07/17/23 11:15	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	187000	7.875			
540-36-3	1,4-Difluorobenzene	400000	8.775			
3114-55-4	Chlorobenzene-d5	394000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	184000	13.516			

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\VD071723\
Data File : VD076746.D
Acq On : 17 Jul 2023 11:15
Operator : KP/SY
Sample : VD0717SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Quant Time: Jul 18 01:22:13 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

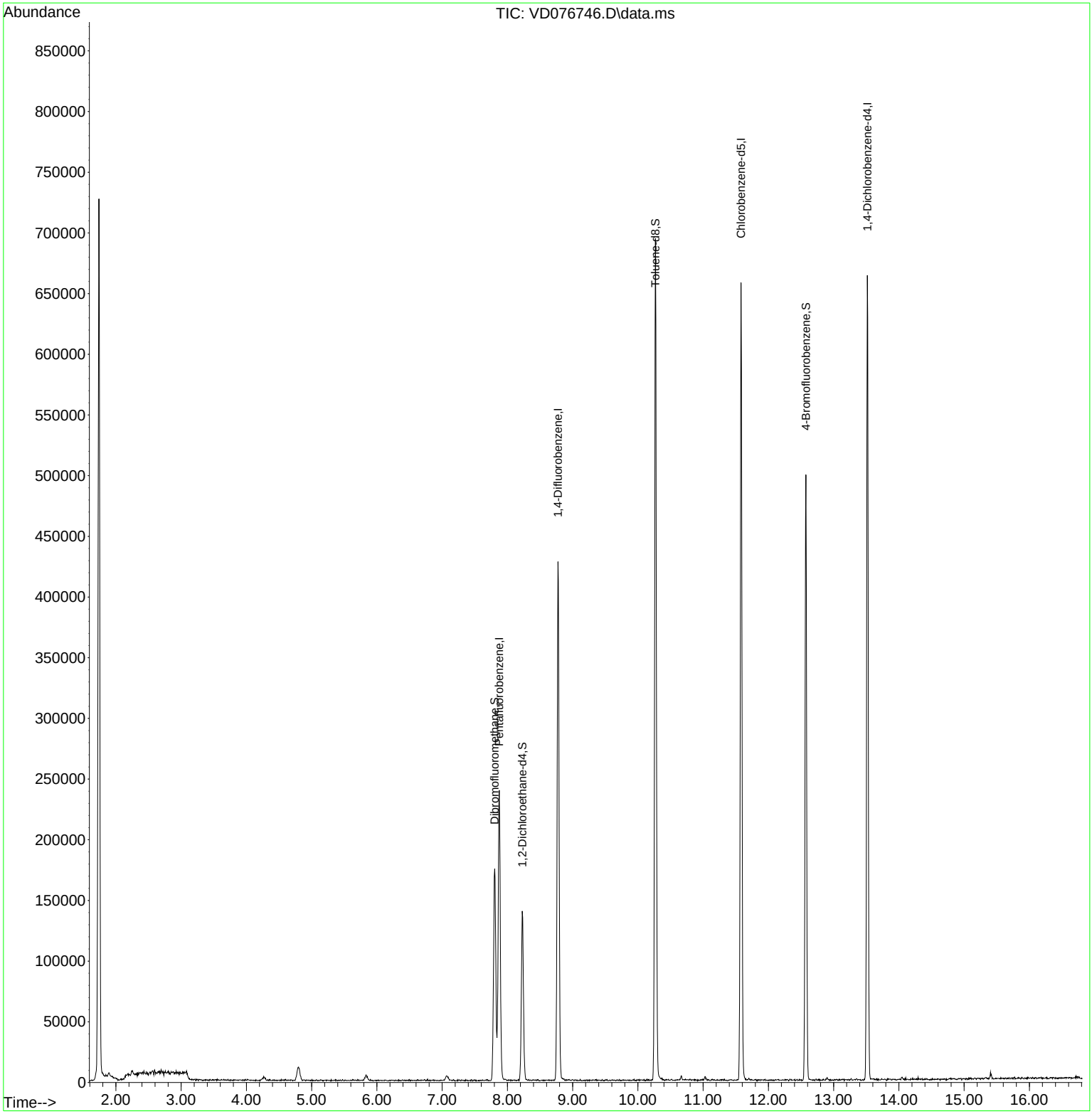
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	186821	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	400093	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	394027	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	184069	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	103621	55.686	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 111.380%			
35) Dibromofluoromethane	7.805	113	130581	51.937	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 103.880%			
50) Toluene-d8	10.269	98	494254	54.952	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 109.900%			
62) 4-Bromofluorobenzene	12.575	95	158903	54.612	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 109.220%			
Target Compounds						Qvalue

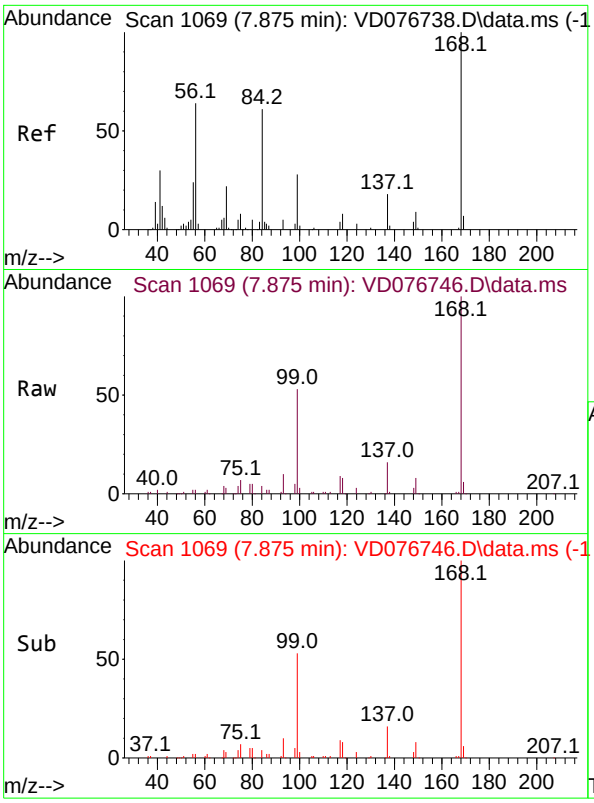
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076746.D
Acq On : 17 Jul 2023 11:15
Operator : KP/SY
Sample : VD0717SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Quant Time: Jul 18 01:22:13 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration



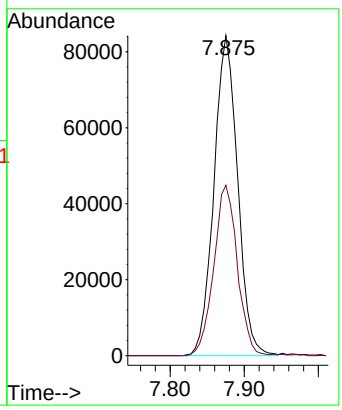


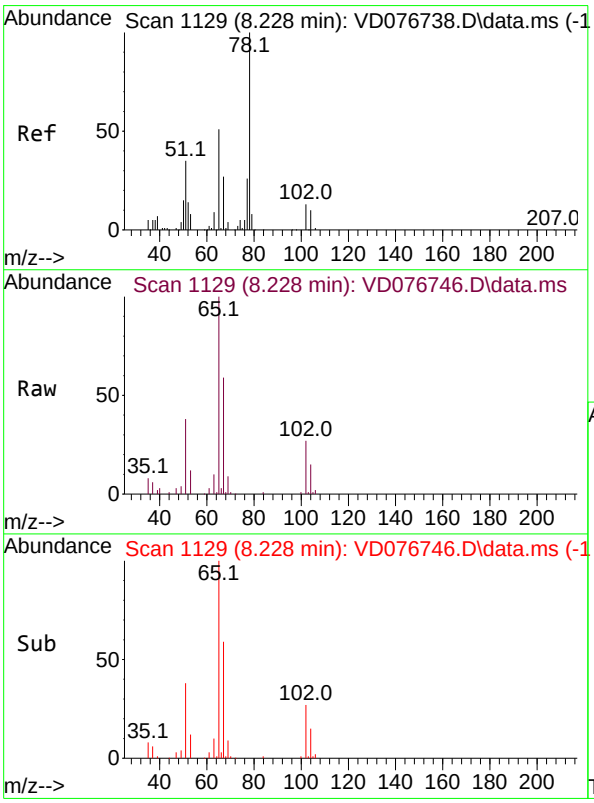
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Tgt Ion:168 Resp: 186821

Ion	Ratio	Lower	Upper
168	100		
99	53.3	36.7	55.1

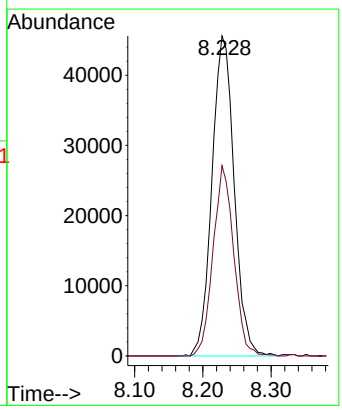


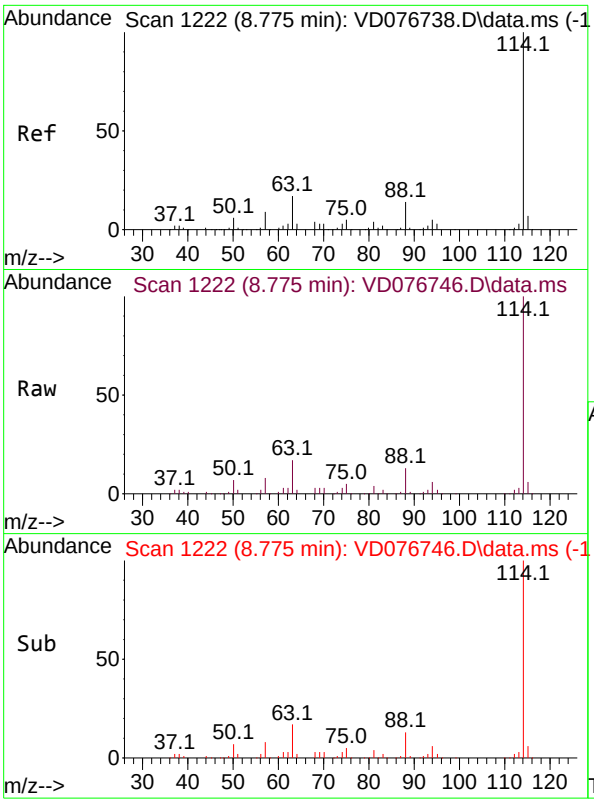


#33
1,2-Dichloroethane-d4
Concen: 55.686 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Tgt Ion: 65 Resp: 103621

Ion	Ratio	Lower	Upper
65	100		
67	55.3	0.0	115.0



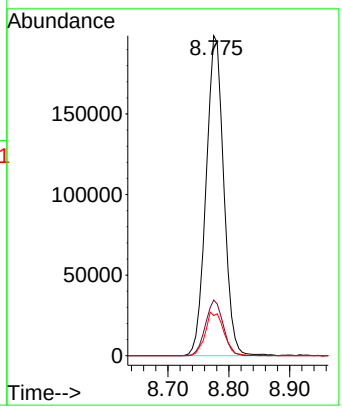


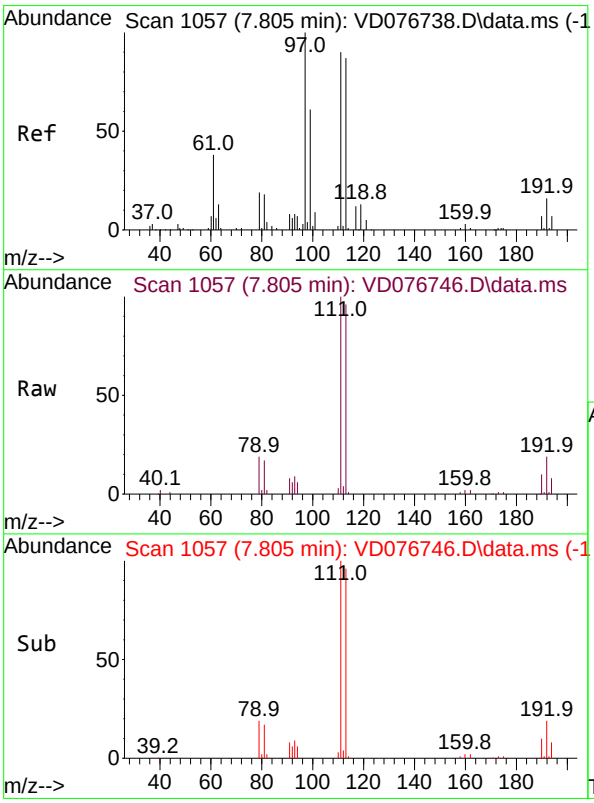
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Tgt Ion:114 Resp: 400093

Ion	Ratio	Lower	Upper
114	100		
63	17.4	0.0	33.4
88	12.6	0.0	26.2

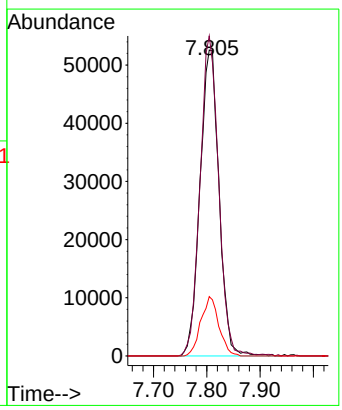


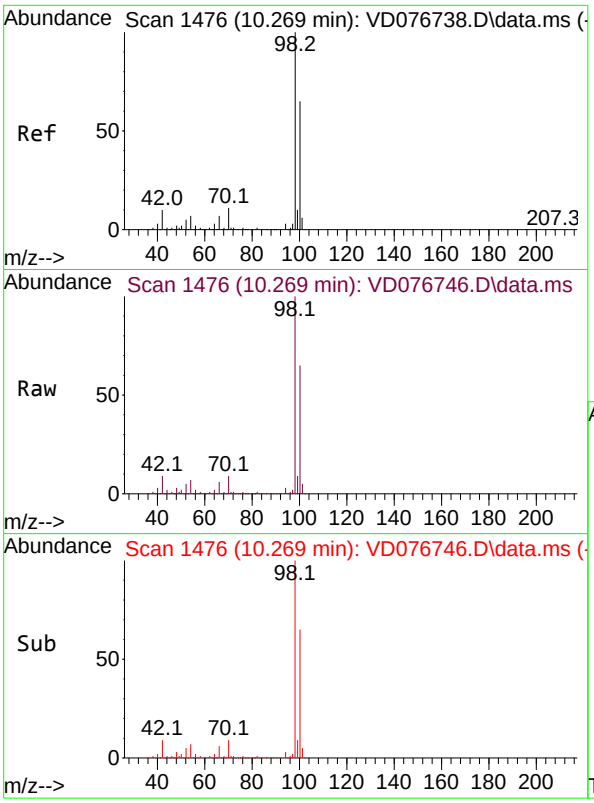


#35
Dibromofluoromethane
Concen: 51.937 ug/l
RT: 7.805 min Scan# 1057
Delta R.T. -0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Tgt Ion:113 Resp: 130581

Ion	Ratio	Lower	Upper
113	100		
111	101.7	84.7	127.1
192	18.3	16.8	25.2



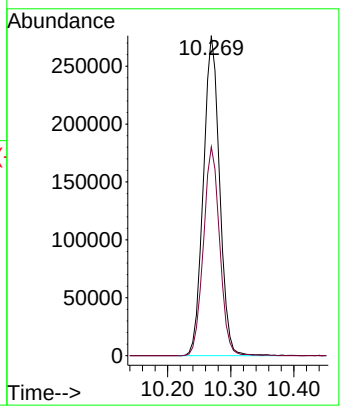


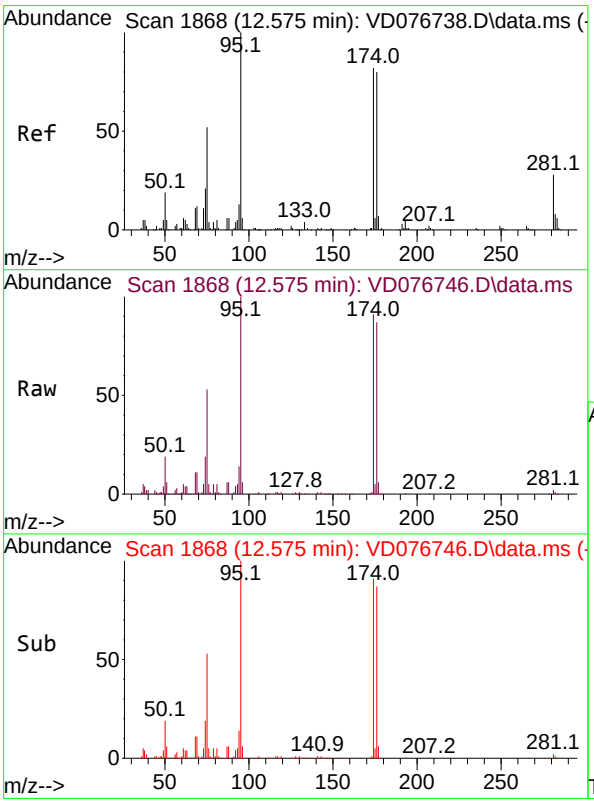
#50
Toluene-d8
Concen: 54.952 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Tgt Ion: 98 Resp: 494254

Ion	Ratio	Lower	Upper
98	100		
100	65.3	50.3	75.5

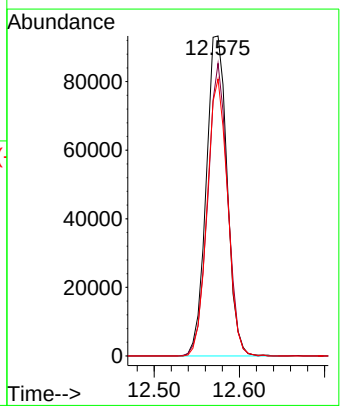


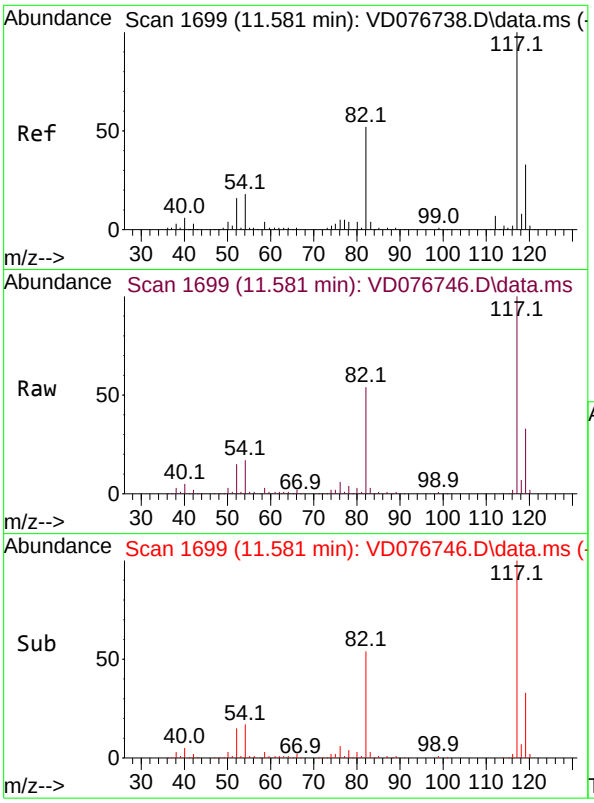


#62
4-Bromofluorobenzene
Concen: 54.612 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Tgt Ion: 95 Resp: 158903

Ion	Ratio	Lower	Upper
95	100		
174	87.0	0.0	201.8
176	84.5	0.0	191.8



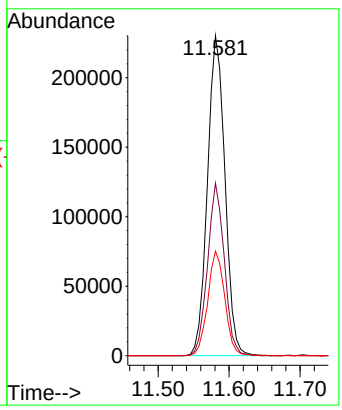


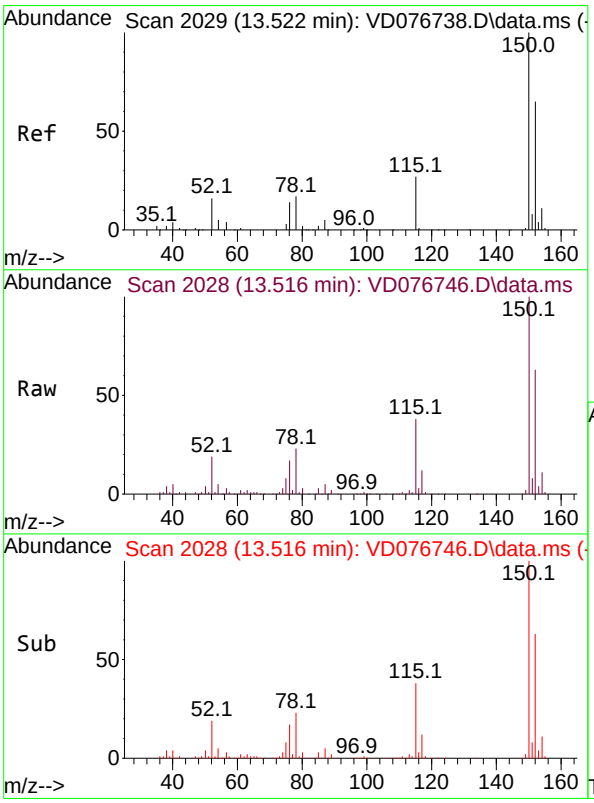
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Tgt Ion:117 Resp: 394027

Ion	Ratio	Lower	Upper
117	100		
82	53.9	38.3	57.5
119	32.7	25.0	37.4

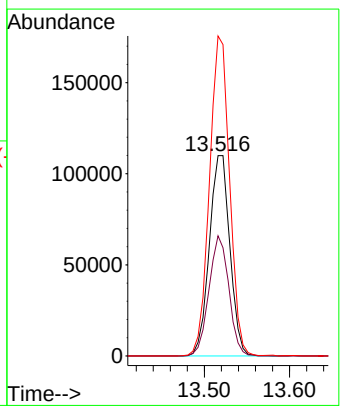




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076746.D
Acq: 17 Jul 2023 11:15

Tgt Ion:152 Resp: 184069

Ion	Ratio	Lower	Upper
152	100		
115	57.9	27.1	81.3
150	155.9	0.0	353.6



Sample Results: **VD076746.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076746.D
Acq On : 17 Jul 2023 11:15
Operator : KP/SY
Sample : VD0717SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076746.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	11	26	39	rBV	726317	1335501	100.00%	17.116%
2	4.799	537	546	555	rBV5	11136	35837	2.68%	0.459%
3	7.805	1047	1057	1063	rBV2	174559	431227	32.29%	5.527%
4	7.875	1063	1069	1081	rVB2	238590	538732	40.34%	6.905%
5	8.228	1120	1129	1138	rBV	139943	310183	23.23%	3.975%
6	8.775	1213	1222	1233	rBV2	427427	870201	65.16%	11.153%
7	10.269	1468	1476	1490	rBV	693384	1253500	93.86%	16.066%
8	11.581	1691	1699	1712	rVB	656949	1120269	83.88%	14.358%
9	12.575	1860	1868	1876	rBV	499059	822162	61.56%	10.537%
10	13.516	2021	2028	2037	rBV	662680	1084812	81.23%	13.904%

Sum of corrected areas: 7802424

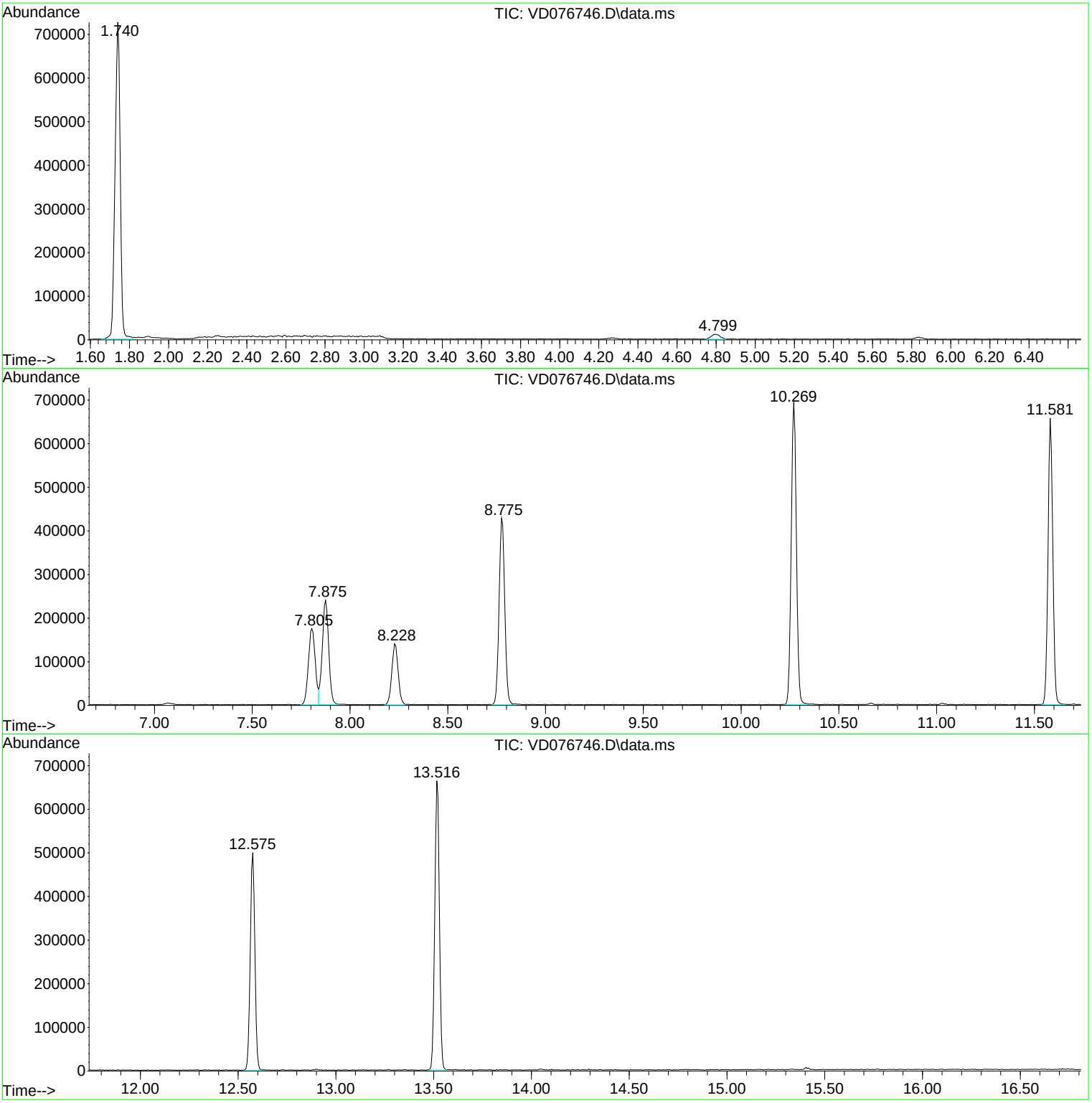
Sample Results: **VD076746.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076746.D
Acq On : 17 Jul 2023 11:15
Operator : KP/SY
Sample : VD0717SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VD076746.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076746.D
Acq On : 17 Jul 2023 11:15
Operator : KP/SY
Sample : VD0717SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.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\VD071723\
Data File : VD076746.D
Acq On : 17 Jul 2023 11:15
Operator : KP/SY
Sample : VD0717SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0718SBL01	SDG No.:	O3645
Lab Sample ID:	VD0718SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076767.D	1		07/18/23 10:09	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.60	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	0.91	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.93	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.20	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	0.88	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	1.10	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.79	5.00	ug/Kg
67-64-1	Acetone	25.0	U	9.40	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	2.20	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.65	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.60	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	6.10	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.73	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.72	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.70	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.78	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.64	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	1.30	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.76	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	3.40	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.72	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.66	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.59	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.50	25.0	ug/Kg
108-88-3	Toluene	5.00	U	0.65	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.77	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.74	5.00	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0718SBL01	SDG No.:	O3645
Lab Sample ID:	VD0718SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076767.D	1		07/18/23 10:09	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	5.00	U	0.86	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	5.30	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.85	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.77	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.63	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
1330-20-7	Total Xylenes	15.0	U	2.17	15.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.77	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.69	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.95	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.71	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
103-65-1	n-propylbenzene	5.00	U	0.70	5.00	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.00	U	0.64	5.00	ug/Kg
98-06-6	tert-Butylbenzene	5.00	U	0.77	5.00	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.00	U	0.67	5.00	ug/Kg
135-98-8	sec-Butylbenzene	5.00	U	0.77	5.00	ug/Kg
99-87-6	p-Isopropyltoluene	5.00	U	0.74	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.68	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.60	5.00	ug/Kg
104-51-8	n-Butylbenzene	5.00	U	0.68	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.60	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.61	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.63	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	63.4		50 - 163	127%	SPK: 50
1868-53-7	Dibromofluoromethane	52.6		54 - 147	105%	SPK: 50
2037-26-5	Toluene-d8	55.2		58 - 134	110%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		30 - 143	98%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076767.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0718SBL01	SDG No.:	O3645
Lab Sample ID:	VD0718SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076767.D	1		07/18/23 10:09	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	164000	7.875			
540-36-3	1,4-Difluorobenzene	390000	8.775			
3114-55-4	Chlorobenzene-d5	374000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	160000	13.516			

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\VD071823\
Data File : VD076767.D
Acq On : 18 Jul 2023 10:09
Operator : KP/SY
Sample : VD0718SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Quant Time: Jul 19 09:16:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Wed Jul 19 08:14:54 2023
Response via : Initial Calibration

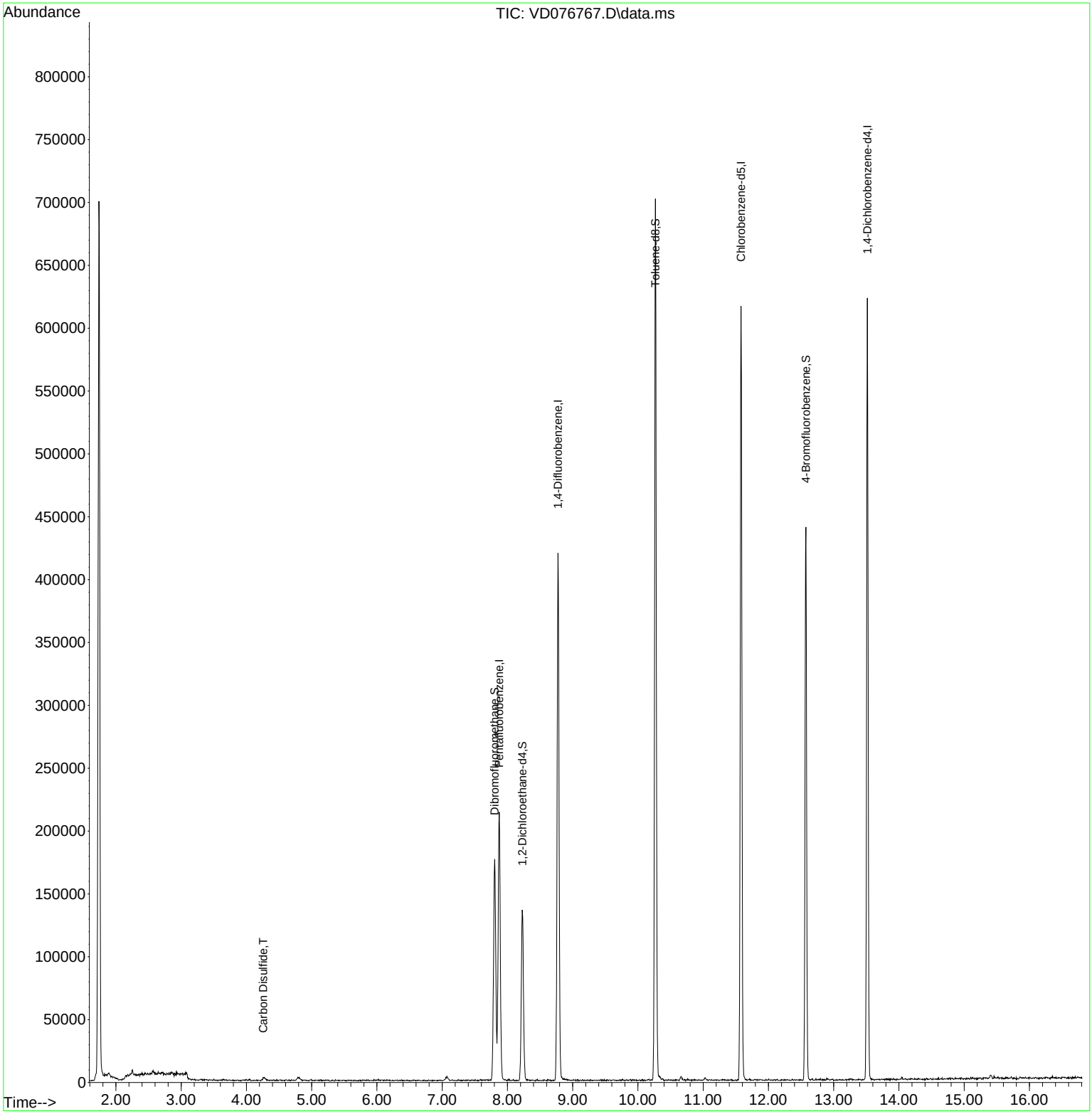
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	163878	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.775	114	390285	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	373979	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	159933	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	103442	63.373	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 126.740%			
35) Dibromofluoromethane	7.804	113	128884	52.550	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 105.100%			
50) Toluene-d8	10.269	98	484204	55.187	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 110.380%			
62) 4-Bromofluorobenzene	12.575	95	139358	49.099	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 98.200%			
Target Compounds						Qvalue
17) Carbon Disulfide	4.258	76	4814	1.273	ug/l	# 90

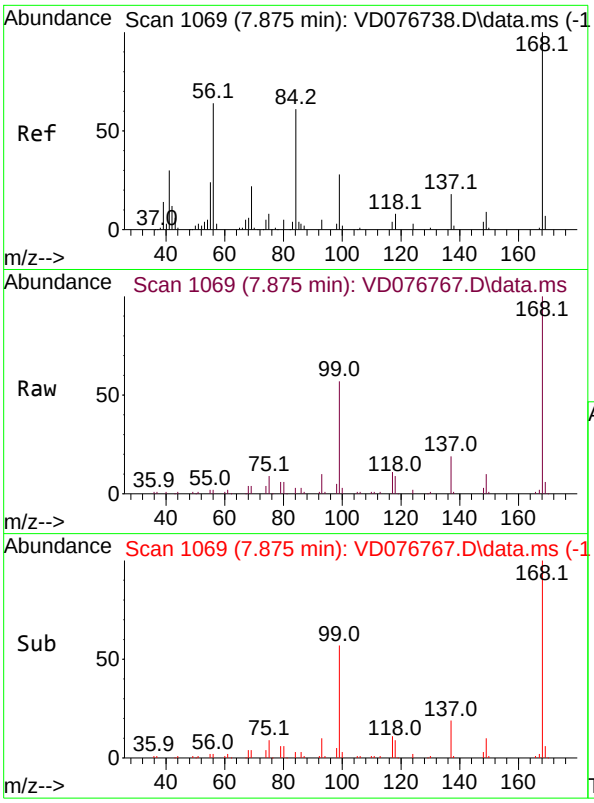
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076767.D
Acq On : 18 Jul 2023 10:09
Operator : KP/SY
Sample : VD0718SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Quant Time: Jul 19 09:16:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Wed Jul 19 08:14:54 2023
Response via : Initial Calibration



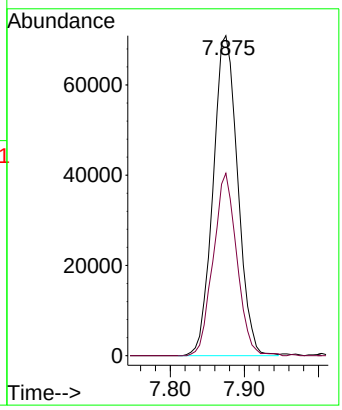


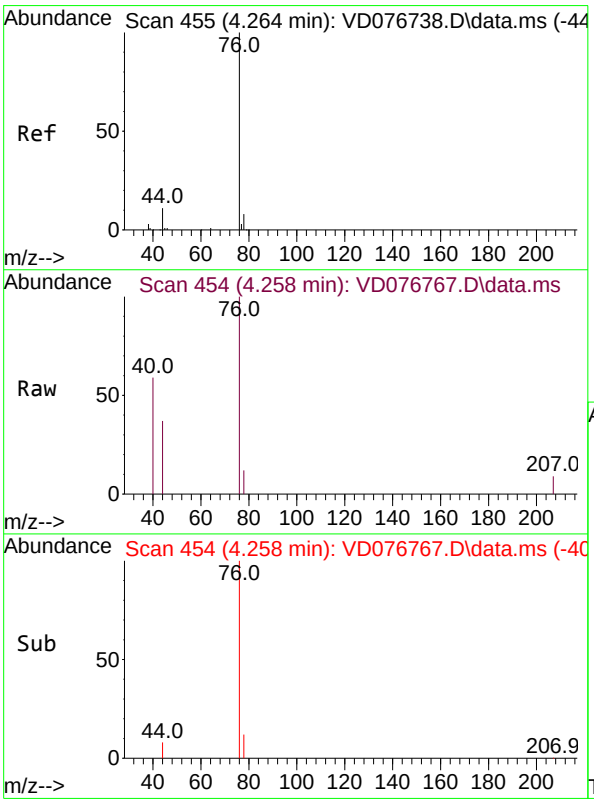
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Tgt Ion:168 Resp: 163878

Ion	Ratio	Lower	Upper
168	100		
99	57.0	36.7	55.1#

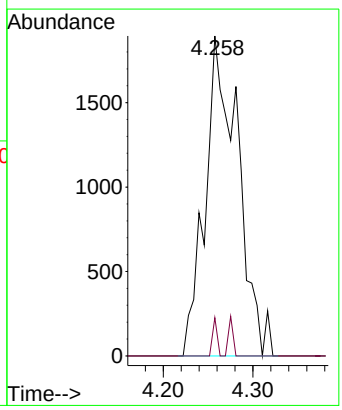


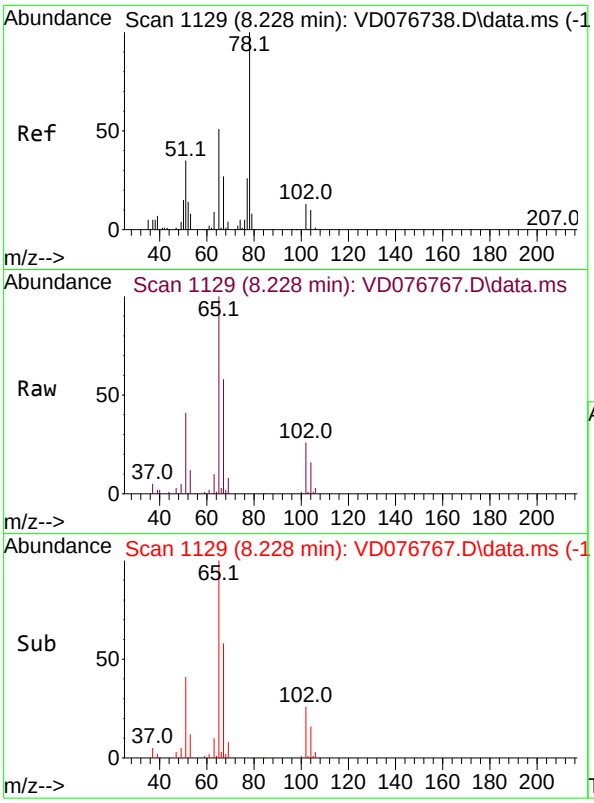


#17
Carbon Disulfide
Concen: 1.273 ug/l
RT: 4.258 min Scan# 454
Delta R.T. -0.006 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Tgt Ion: 76 Resp: 4814

Ion	Ratio	Lower	Upper
76	100		
78	11.9	6.8	10.2#



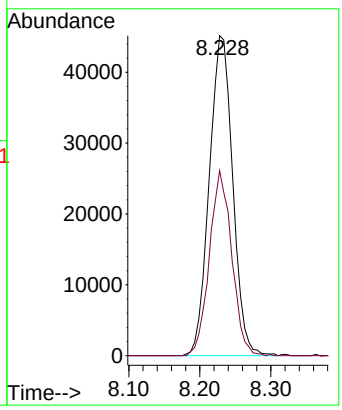


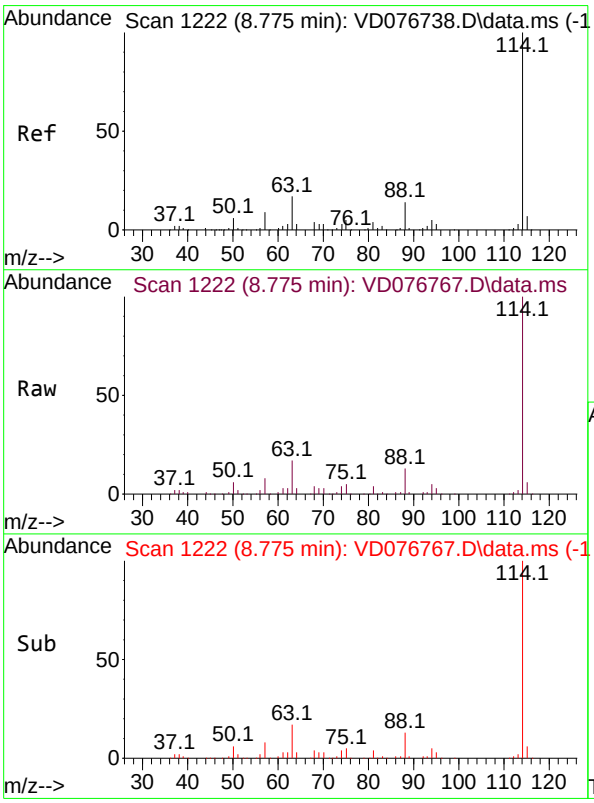
#33
1,2-Dichloroethane-d4
Concen: 63.373 ug/l
RT: 8.228 min Scan# 11
Delta R.T. -0.000 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Tgt Ion: 65 Resp: 103442

Ion	Ratio	Lower	Upper
65	100		
67	55.1	0.0	115.0

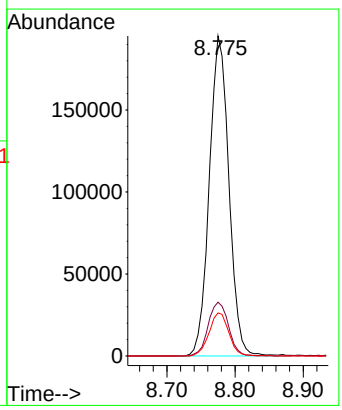


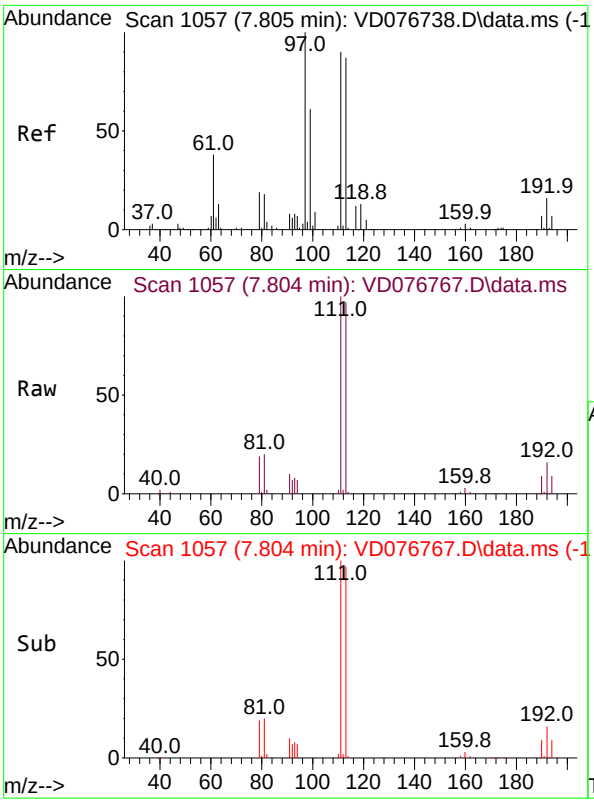


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Tgt Ion:114 Resp: 390285

Ion	Ratio	Lower	Upper
114	100		
63	16.8	0.0	33.4
88	13.5	0.0	26.2



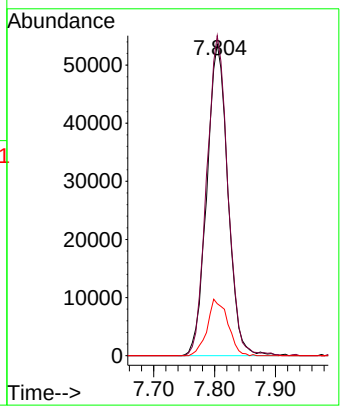


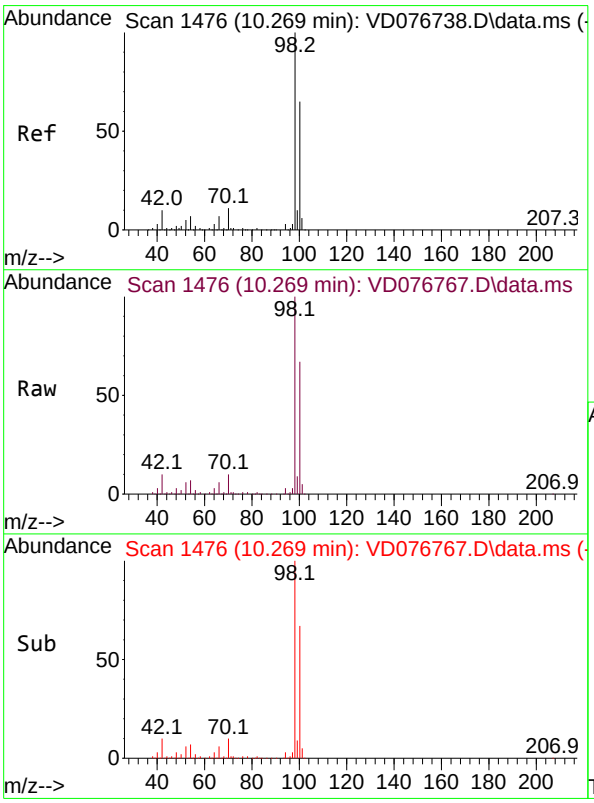
#35
Dibromofluoromethane
Concen: 52.550 ug/l
RT: 7.804 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Tgt Ion:113 Resp: 128884

Ion	Ratio	Lower	Upper
113	100		
111	102.8	84.7	127.1
192	17.8	16.8	25.2

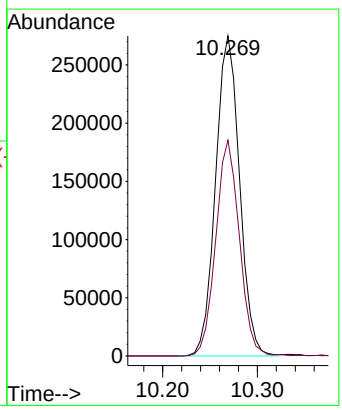


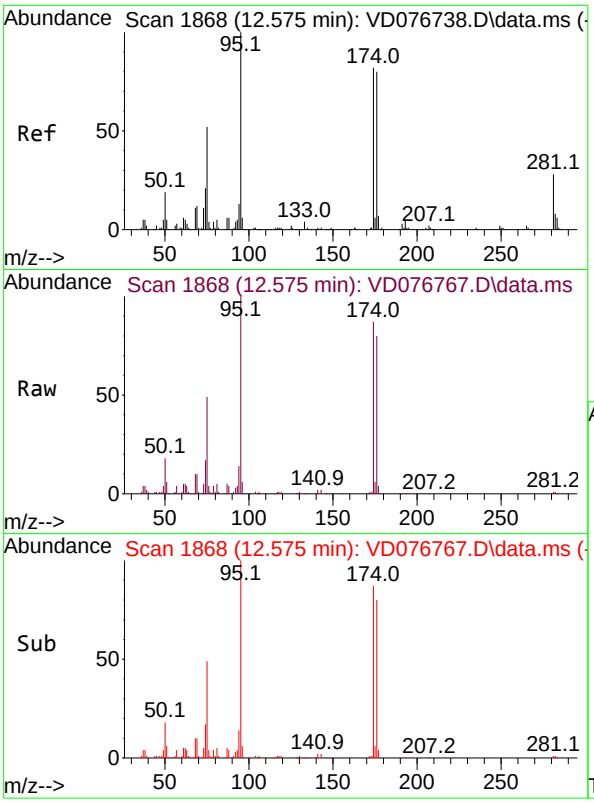


#50
Toluene-d8
Concen: 55.187 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Tgt Ion: 98 Resp: 484204

Ion	Ratio	Lower	Upper
98	100		
100	66.4	50.3	75.5



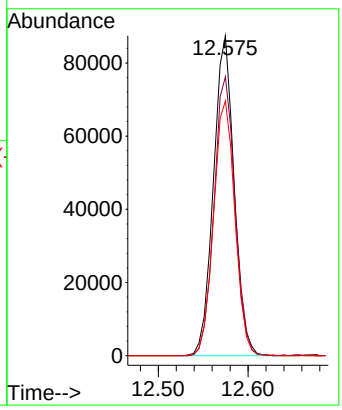


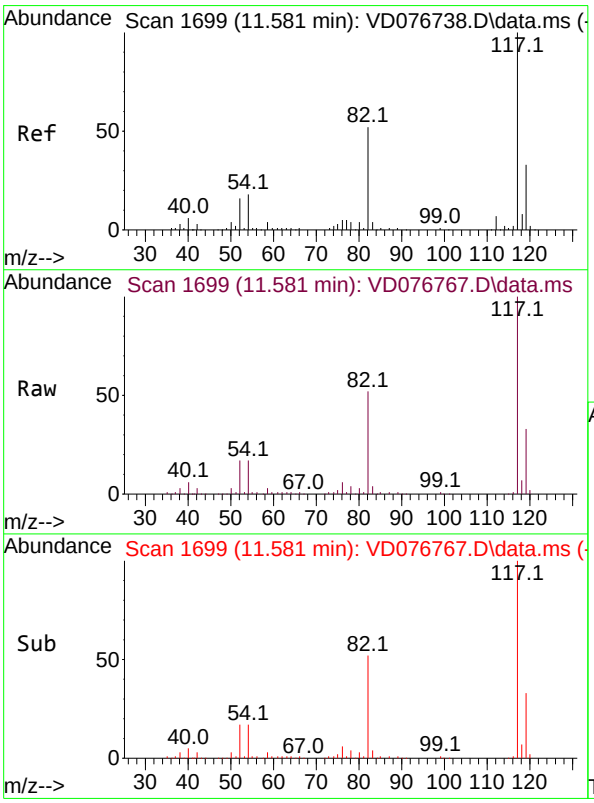
#62
4-Bromofluorobenzene
Concen: 49.099 ug/l
RT: 12.575 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Tgt Ion: 95 Resp: 139358

Ion	Ratio	Lower	Upper
95	100		
174	89.1	0.0	201.8
176	82.2	0.0	191.8

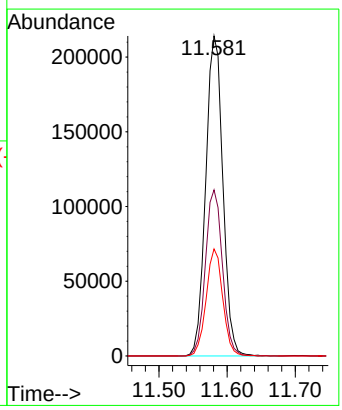


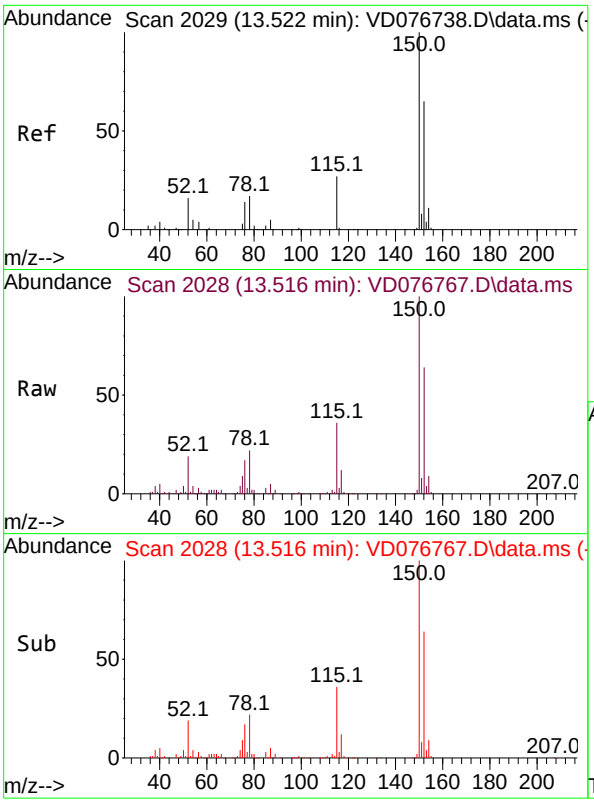


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1699
Delta R.T. -0.000 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Tgt Ion:117 Resp: 373979

Ion	Ratio	Lower	Upper
117	100		
82	51.9	38.3	57.5
119	33.4	25.0	37.4



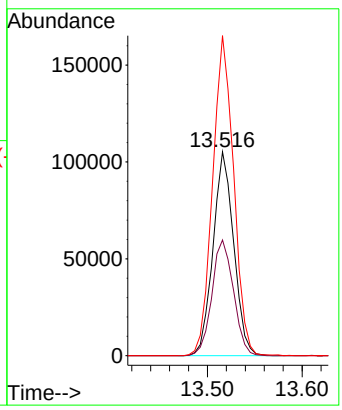


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2
Delta R.T. -0.006 min
Lab File: VD076767.D
Acq: 18 Jul 2023 10:09

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Tgt Ion:152 Resp: 159933

Ion	Ratio	Lower	Upper
152	100		
115	59.1	27.1	81.3
150	159.6	0.0	353.6



Sample Results: **VD076767.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076767.D
Acq On : 18 Jul 2023 10:09
Operator : KP/SY
Sample : VD0718SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

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\82D071423S.M
Title : SW846 8260

Signal : TIC: VD076767.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	12	26	39	rBV	699506	1299763	100.00%	17.576%
2	7.804	1047	1057	1063	rBV2	176065	426061	32.78%	5.761%
3	7.875	1063	1069	1082	rVB	213275	486648	37.44%	6.581%
4	8.228	1119	1129	1140	rBV2	135776	315217	24.25%	4.262%
5	8.775	1214	1222	1234	rBV	419433	852399	65.58%	11.526%
6	10.269	1468	1476	1485	rBV	701082	1241263	95.50%	16.785%
7	11.581	1692	1699	1710	rBV	615564	1067141	82.10%	14.430%
8	12.575	1860	1868	1878	rBV	440209	731296	56.26%	9.889%
9	13.516	2017	2028	2037	rBV	622043	975444	75.05%	13.190%

Sum of corrected areas: 7395232

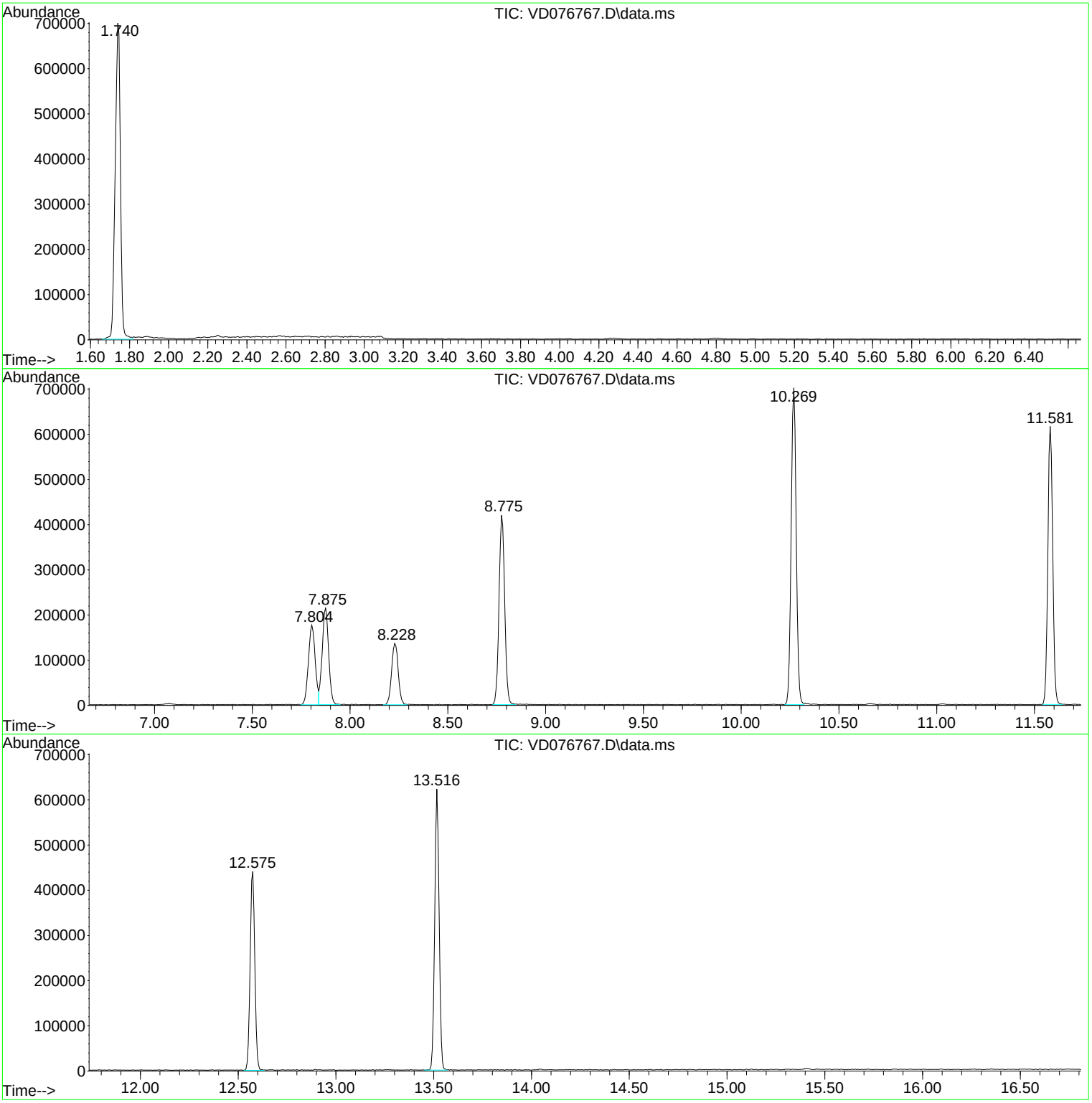
Sample Results: **VD076767.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076767.D
Acq On : 18 Jul 2023 10:09
Operator : KP/SY
Sample : VD0718SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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



Sample Results: **VD076767.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076767.D
Acq On : 18 Jul 2023 10:09
Operator : KP/SY
Sample : VD0718SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.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\VD071823\
Data File : VD076767.D
Acq On : 18 Jul 2023 10:09
Operator : KP/SY
Sample : VD0718SBL01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBL01	SDG No.:	O3645
Lab Sample ID:	VN0718WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078552.D	1		07/18/23 11:27	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.14	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.25	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.25	1.00	ug/L
74-83-9	Bromomethane	5.00	U	1.60	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.28	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.13	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.21	1.00	ug/L
67-64-1	Acetone	5.00	U	1.20	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.27	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.14	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.36	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.17	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.16	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.60	5.00	ug/L
78-93-3	2-Butanone	5.00	U	1.20	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.13	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.20	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.14	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.14	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	1.00	U	0.12	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.16	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.26	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.15	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.15	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.74	5.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.15	1.00	ug/L

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBL01	SDG No.:	O3645
Lab Sample ID:	VN0718WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078552.D	1		07/18/23 11:27	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.13	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	0.98	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.15	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.13	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.17	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.12	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.31	2.00	ug/L
1330-20-7	Total Xylenes	3.00	U	0.46	3.00	ug/L
95-47-6	o-Xylene	1.00	U	0.15	1.00	ug/L
100-42-5	Styrene	1.00	U	0.13	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
103-65-1	n-propylbenzene	1.00	U	0.15	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.17	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.16	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.00	U	0.16	1.00	ug/L
135-98-8	sec-Butylbenzene	1.00	U	0.16	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.16	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.23	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.24	1.00	ug/L
104-51-8	n-Butylbenzene	1.00	U	0.24	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.43	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.43	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.55	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.5		74 - 125	97%	SPK: 50
1868-53-7	Dibromofluoromethane	56.7		75 - 124	113%	SPK: 50
2037-26-5	Toluene-d8	46.5		86 - 113	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.0		64 - 133	106%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VN078552.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBL01	SDG No.:	O3645
Lab Sample ID:	VN0718WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078552.D	1		07/18/23 11:27	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	403000	8.236			
540-36-3	1,4-Difluorobenzene	701000	9.106			
3114-55-4	Chlorobenzene-d5	680000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	244000	13.794			

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\VN071823\
Data File : VN078552.D
Acq On : 18 Jul 2023 11:27
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Time: Jul 19 01:45:11 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.236	168	402785	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	700602	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	679555	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	243985	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.588	65	262153	48.549	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 97.100%			
35) Dibromofluoromethane	8.177	113	269631	56.694	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 113.380%			
50) Toluene-d8	10.571	98	835689	46.514	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 93.020%			
62) 4-Bromofluorobenzene	12.853	95	293471	53.030	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 106.060%			
Target Compounds						Qvalue

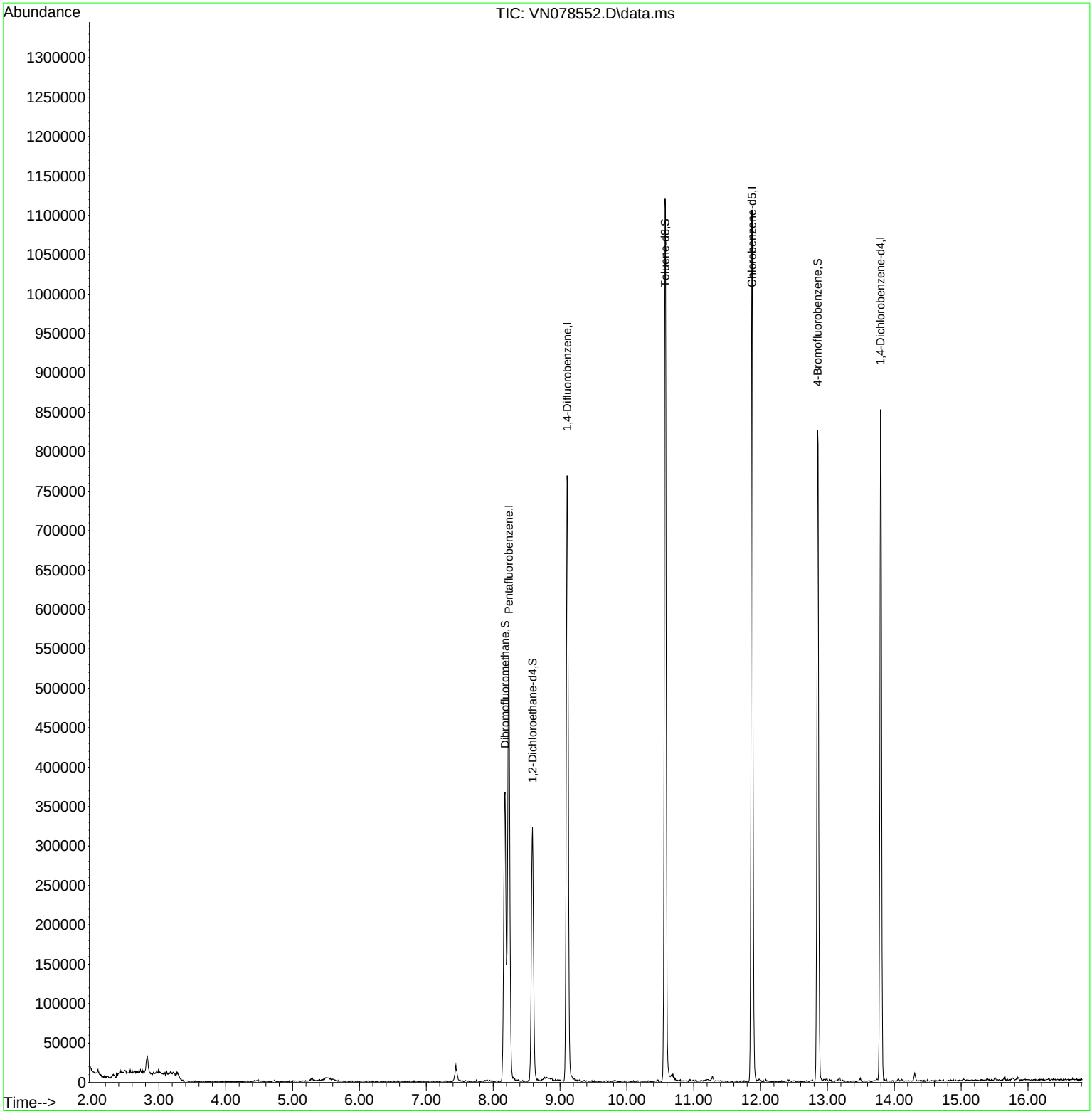
(#) = qualifier out of range (m) = manual integration (+) = signals summed

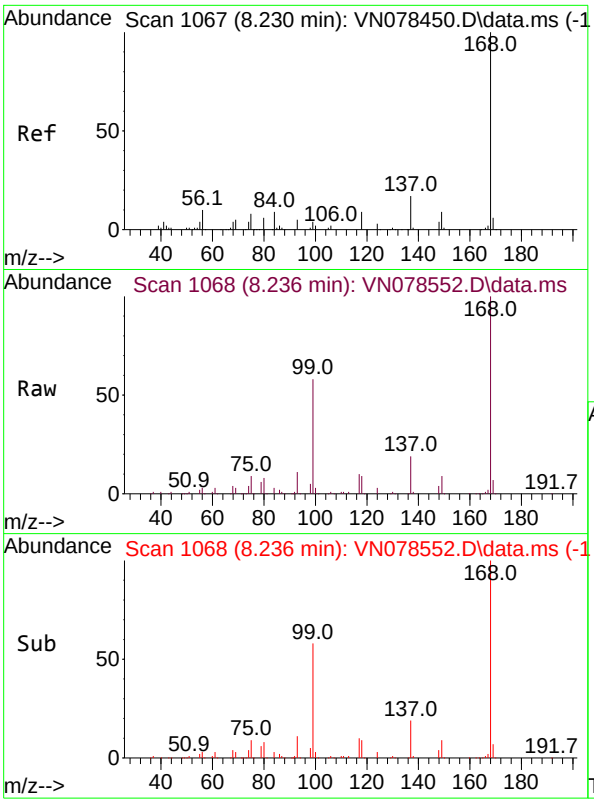
Sample Results: **VN078552.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078552.D
Acq On : 18 Jul 2023 11:27
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Time: Jul 19 01:45:11 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration



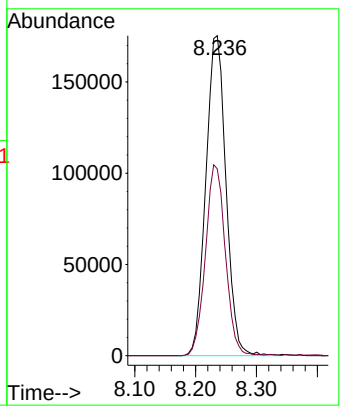


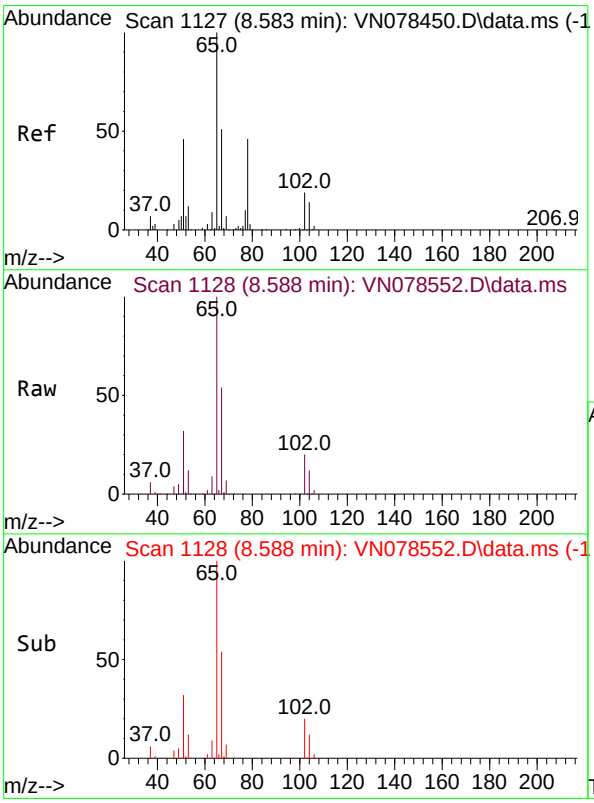
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.236 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Tgt Ion:168 Resp: 402785

Ion	Ratio	Lower	Upper
168	100		
99	58.4	53.0	79.6

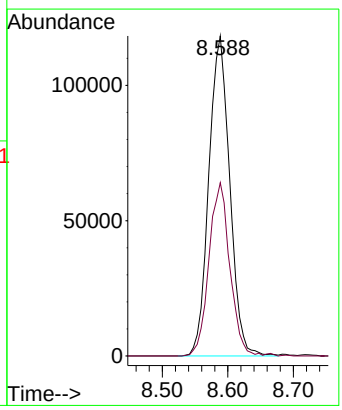


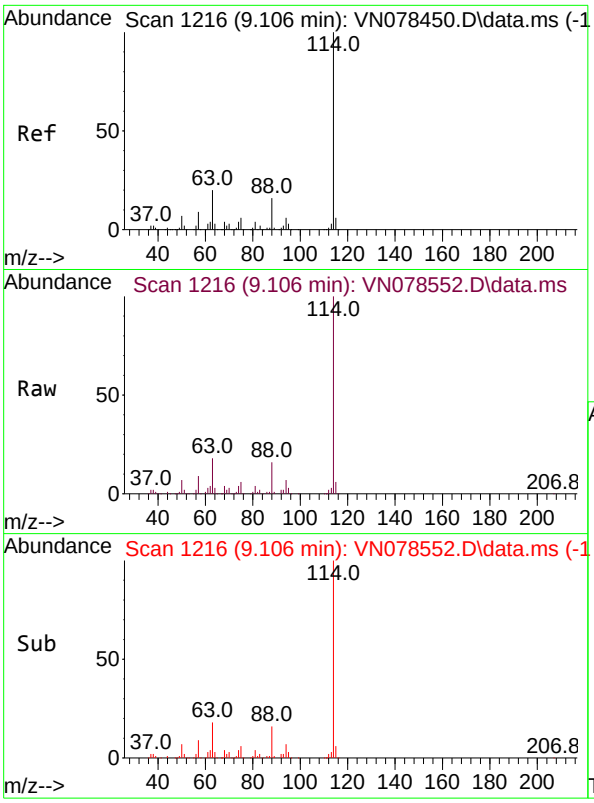


#33
1,2-Dichloroethane-d4
Concen: 48.549 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.005 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Tgt Ion: 65 Resp: 262153

Ion	Ratio	Lower	Upper
65	100		
67	53.9	0.0	106.6



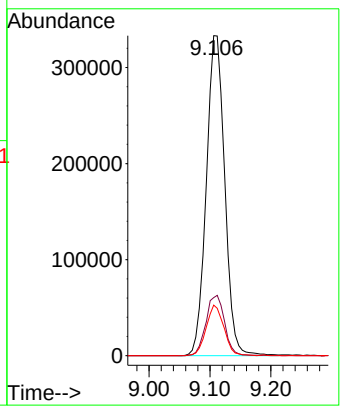


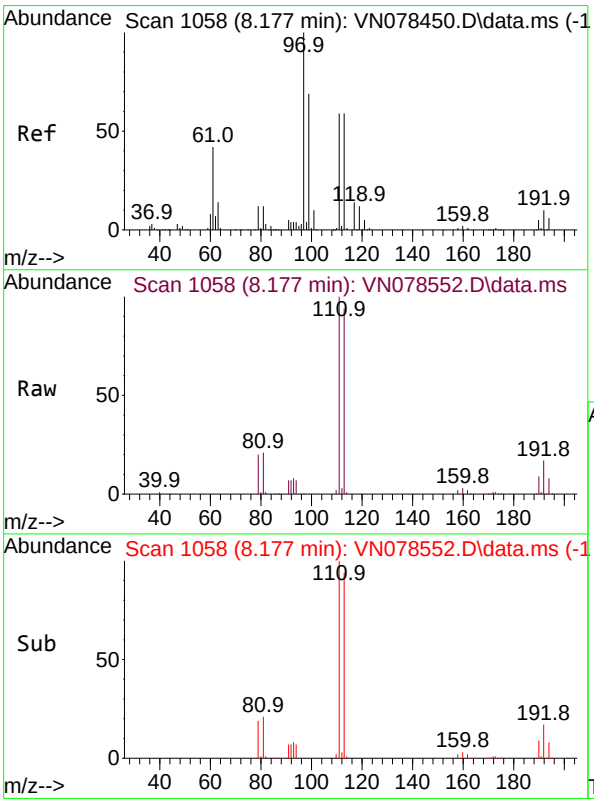
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Tgt Ion:114 Resp: 700602

Ion	Ratio	Lower	Upper
114	100		
63	18.2	0.0	36.4
88	15.8	0.0	30.6

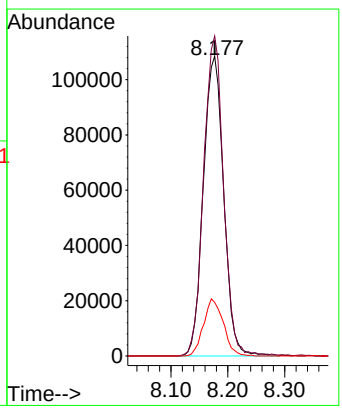


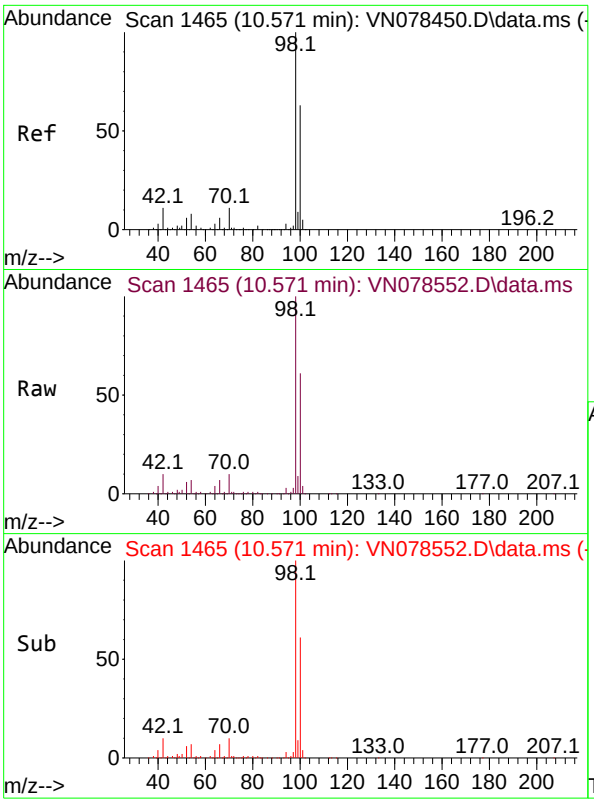


#35
Dibromofluoromethane
Concen: 56.694 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Tgt Ion:113 Resp: 269631

Ion	Ratio	Lower	Upper
113	100		
111	104.2	82.6	123.8
192	18.5	12.7	19.1



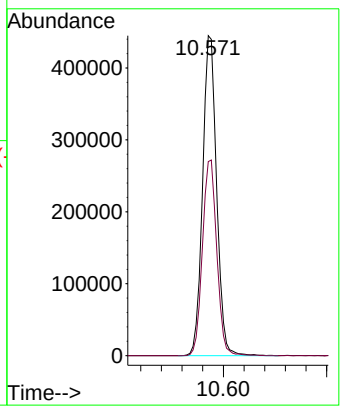


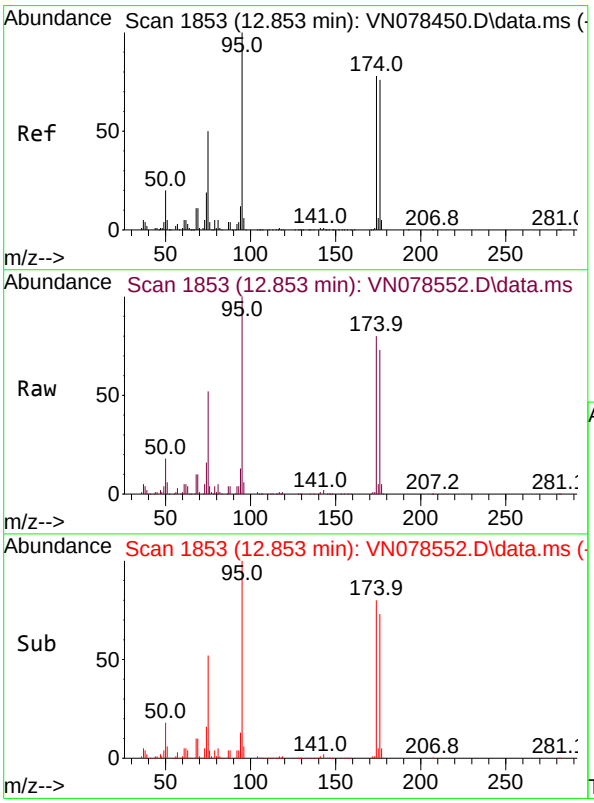
#50
Toluene-d8
Concen: 46.514 ug/l
RT: 10.571 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Tgt Ion: 98 Resp: 835689

Ion	Ratio	Lower	Upper
98	100		
100	62.7	52.0	78.0

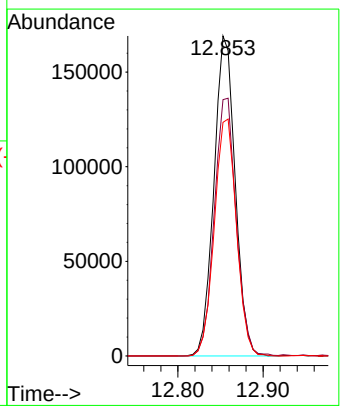


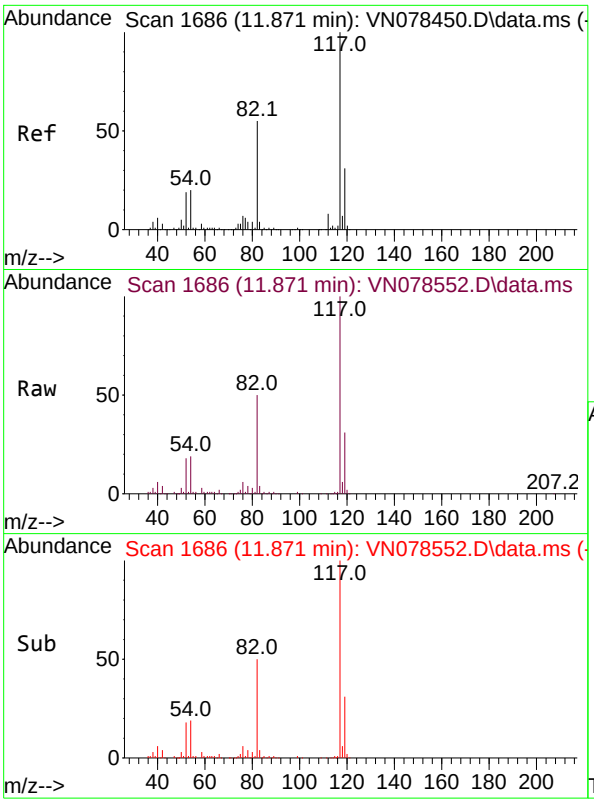


#62
4-Bromofluorobenzene
Concen: 53.030 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Tgt Ion: 95 Resp: 293471

Ion	Ratio	Lower	Upper
95	100		
174	82.9	0.0	143.8
176	77.0	0.0	135.8



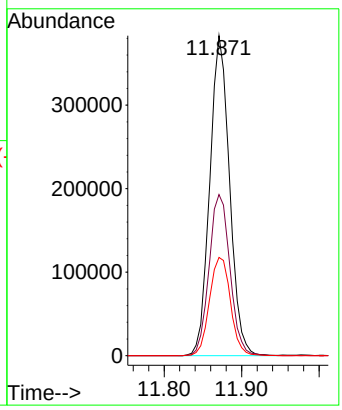


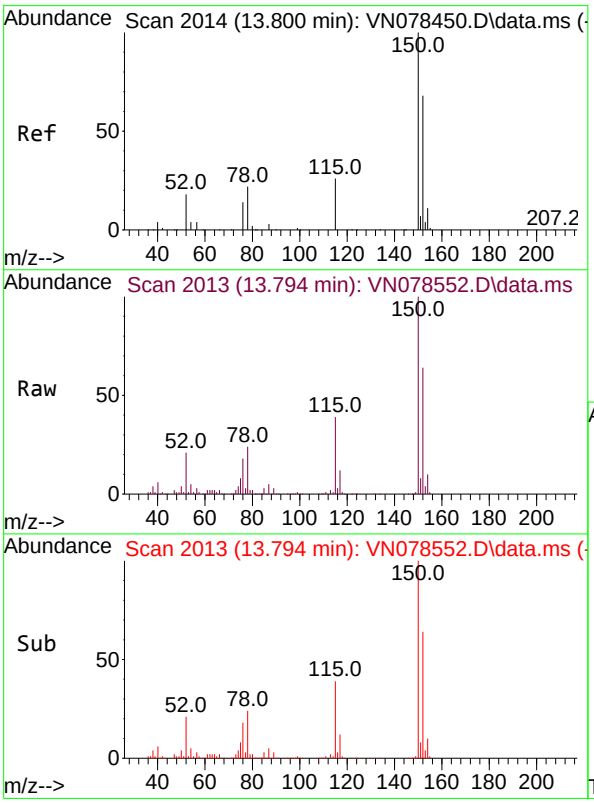
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Tgt Ion:117 Resp: 679555

Ion	Ratio	Lower	Upper
117	100		
82	50.4	44.0	66.0
119	30.7	25.6	38.4

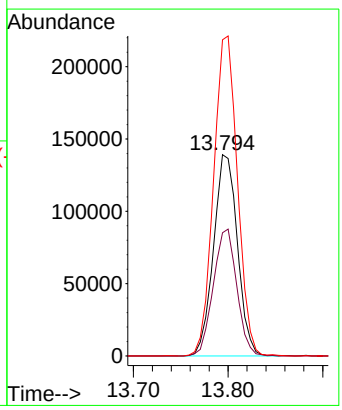




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. -0.006 min
Lab File: VN078552.D
Acq: 18 Jul 2023 11:27

Tgt Ion:152 Resp: 243985

Ion	Ratio	Lower	Upper
152	100		
115	62.0	32.3	96.8
150	158.7	0.0	355.8



Sample Results: **VN078552.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078552.D
Acq On : 18 Jul 2023 11:27
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

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\82N071023W.M
Title : SW846 8260

Signal : TIC: VN078552.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.824	140	148	155	rBV2	22753	52171	2.42%	0.445%
2	3.271	221	224	236	rVB5	11163	28419	1.32%	0.242%
3	7.442	924	933	942	rBV	20864	48978	2.27%	0.418%
4	8.177	1047	1058	1062	rBV	366690	880957	40.91%	7.513%
5	8.236	1062	1068	1082	rVB	535566	1228243	57.04%	10.475%
6	8.588	1119	1128	1139	rBV2	322560	732181	34.00%	6.244%
7	9.106	1207	1216	1231	rBV	768488	1616130	75.05%	13.782%
8	10.571	1456	1465	1478	rBV	1120071	2153288	100.00%	18.363%
9	11.871	1677	1686	1698	rBV	1105356	2010351	93.36%	17.144%
10	12.853	1845	1853	1863	rBV	825467	1477154	68.60%	12.597%
11	13.794	2006	2013	2021	rVB	850529	1498119	69.57%	12.776%

Sum of corrected areas: 11725991

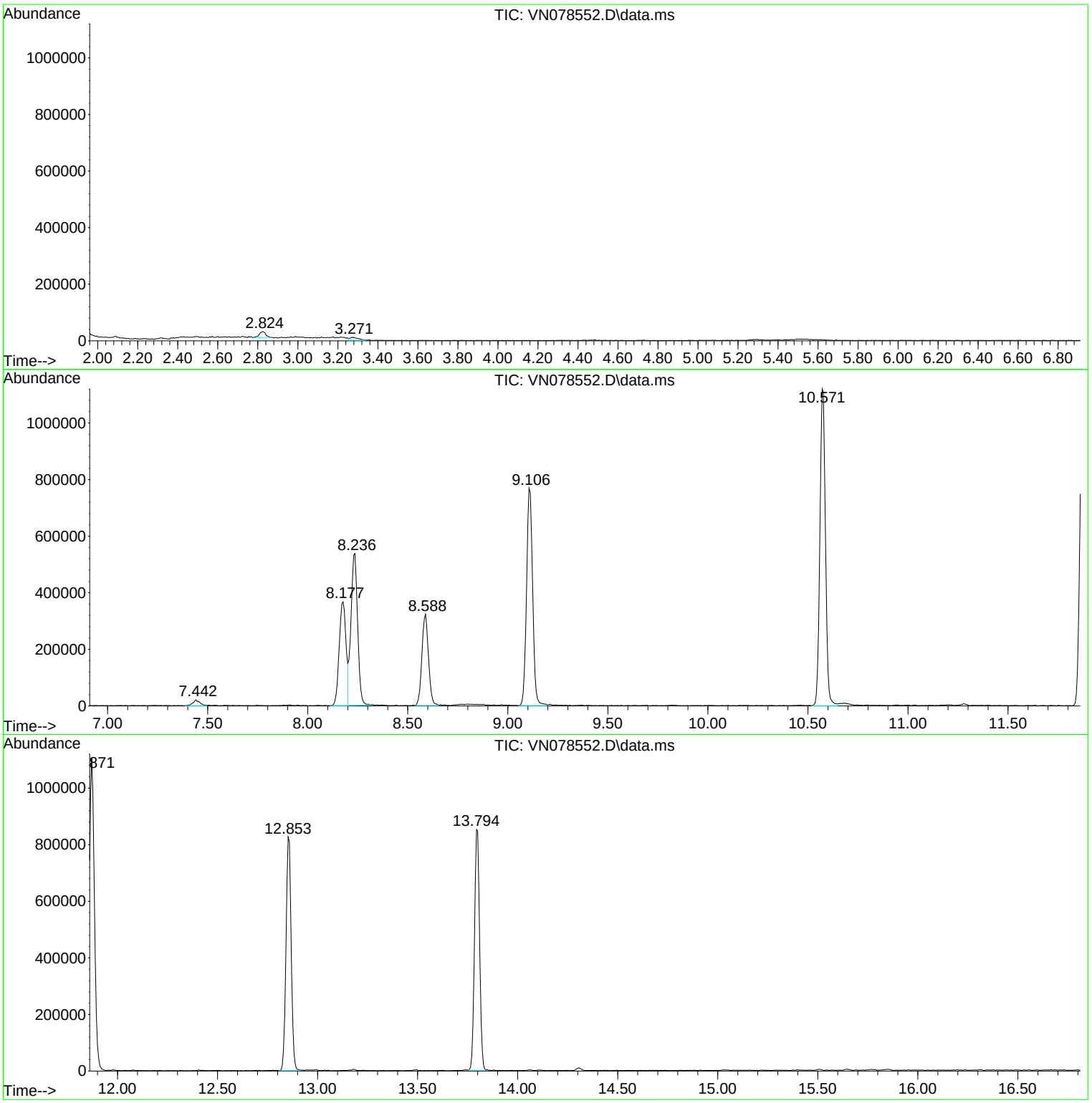
Sample Results: **VN078552.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078552.D
Acq On : 18 Jul 2023 11:27
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260

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



Library Search Compound Report

Sample Results: **VN078552.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078552.D
Acq On : 18 Jul 2023 11:27
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.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\VN071823\
Data File : VN078552.D
Acq On : 18 Jul 2023 11:27
Operator : JC\MD
Sample : VN0718WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260

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

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

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0717SBS01	SDG No.:	O3645
Lab Sample ID:	VD0717SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076747.D	1		07/17/23 11:46	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	22.5		1.60	5.00	ug/Kg
74-87-3	Chloromethane	19.5		0.91	5.00	ug/Kg
75-01-4	Vinyl Chloride	19.7		0.93	5.00	ug/Kg
74-83-9	Bromomethane	19.1		1.20	5.00	ug/Kg
75-00-3	Chloroethane	19.1		0.88	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	21.9		1.10	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	21.9		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.5		0.79	5.00	ug/Kg
67-64-1	Acetone	100		9.40	25.0	ug/Kg
75-15-0	Carbon Disulfide	20.5		2.20	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	20.0		0.65	5.00	ug/Kg
79-20-9	Methyl Acetate	20.5		1.60	5.00	ug/Kg
75-09-2	Methylene Chloride	17.3		6.10	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	20.2		0.73	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.1		0.72	5.00	ug/Kg
110-82-7	Cyclohexane	20.4		0.70	5.00	ug/Kg
78-93-3	2-Butanone	100		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	21.4		0.78	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.8		0.64	5.00	ug/Kg
74-97-5	Bromochloromethane	23.7		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.6		1.30	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	22.5		0.76	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.8		3.40	5.00	ug/Kg
71-43-2	Benzene	20.6		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.4		0.72	5.00	ug/Kg
79-01-6	Trichloroethene	21.1		0.66	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.7		0.59	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.5		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	99.9		4.50	25.0	ug/Kg
108-88-3	Toluene	20.4		0.65	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.8		0.77	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.8		0.74	5.00	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0717SBS01	SDG No.:	O3645
Lab Sample ID:	VD0717SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076747.D	1		07/17/23 11:46	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	21.0		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	99.6		5.30	25.0	ug/Kg
124-48-1	Dibromochloromethane	21.4		0.85	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.6		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	23.3		0.77	5.00	ug/Kg
108-90-7	Chlorobenzene	21.1		0.63	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.7		0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.3		1.40	10.0	ug/Kg
1330-20-7	Total Xylenes	61.8		2.17	15.0	ug/Kg
95-47-6	o-Xylene	20.5		0.77	5.00	ug/Kg
100-42-5	Styrene	20.7		0.69	5.00	ug/Kg
75-25-2	Bromoform	22.4		0.95	5.00	ug/Kg
98-82-8	Isopropylbenzene	21.1		0.71	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.5		1.10	5.00	ug/Kg
103-65-1	n-propylbenzene	21.1		0.70	5.00	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	21.0		0.64	5.00	ug/Kg
98-06-6	tert-Butylbenzene	21.3		0.77	5.00	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	20.3		0.67	5.00	ug/Kg
135-98-8	sec-Butylbenzene	21.4		0.77	5.00	ug/Kg
99-87-6	p-Isopropyltoluene	21.1		0.74	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	21.5		0.68	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	21.3		0.60	5.00	ug/Kg
104-51-8	n-Butylbenzene	21.2		0.68	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	21.6		0.60	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.1		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	20.8		0.61	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	21.3		0.63	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		50 - 163	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.0		54 - 147	98%	SPK: 50
2037-26-5	Toluene-d8	47.3		58 - 134	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		30 - 143	97%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076747.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0717SBS01	SDG No.:	O3645
Lab Sample ID:	VD0717SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076747.D	1		07/17/23 11:46	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	204000	7.875			
540-36-3	1,4-Difluorobenzene	374000	8.775			
3114-55-4	Chlorobenzene-d5	340000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	159000	13.516			

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\VD071723\
Data File : VD076747.D
Acq On : 17 Jul 2023 11:46
Operator : KP/SY
Sample : VD0717SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 18 01:22:23 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	204434	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	373707	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	339998	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	159296	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	99949	49.085	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 98.180%			
35) Dibromofluoromethane	7.804	113	114993	48.966	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 97.940%			
50) Toluene-d8	10.269	98	397213	47.281	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 94.560%			
62) 4-Bromofluorobenzene	12.575	95	131506	48.388	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 96.780%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	35956	22.492	ug/l	95
3) Chloromethane	2.146	50	53900	19.545	ug/l	94
4) Vinyl Chloride	2.275	62	72390	19.692	ug/l	100
5) Bromomethane	2.669	94	57626	19.052	ug/l	99
6) Chloroethane	2.822	64	52934	19.072	ug/l	99
7) Trichlorofluoromethane	3.164	101	71652	21.905	ug/l	96
8) Diethyl Ether	3.593	74	23545	20.906	ug/l	93
9) 1,1,2-Trichlorotrifluo...	3.958	101	47005	21.861	ug/l	98
10) Methyl Iodide	4.158	142	47913	19.768	ug/l	94
11) Tert butyl alcohol	5.069	59	17223	113.350	ug/l #	73
12) 1,1-Dichloroethene	3.934	96	41343	20.466	ug/l	92
13) Acrolein	3.799	56	12714	122.786	ug/l	96
14) Allyl chloride	4.558	41	52234	19.683	ug/l	91
15) Acrylonitrile	5.258	53	55797	100.874	ug/l	96
16) Acetone	4.022	43	48810	100.371	ug/l	90
17) Carbon Disulfide	4.263	76	96913	20.540	ug/l #	95
18) Methyl Acetate	4.558	43	37505	20.527	ug/l	95
19) Methyl tert-butyl Ether	5.316	73	108483	20.025	ug/l	99
20) Methylene Chloride	4.793	84	69658	17.325	ug/l	90
21) trans-1,2-Dichloroethene	5.311	96	47322	20.153	ug/l	95
22) Diisopropyl ether	6.210	45	121659	19.360	ug/l	98
23) Vinyl Acetate	6.152	43	294034	94.567	ug/l	99
24) 1,1-Dichloroethane	6.110	63	85084	20.082	ug/l	95
25) 2-Butanone	7.081	43	67796	104.168	ug/l	96
26) 2,2-Dichloropropane	7.075	77	80096	21.930	ug/l	97
27) cis-1,2-Dichloroethene	7.081	96	60118	20.768	ug/l	95
28) Bromochloromethane	7.428	49	25155	23.747	ug/l	83
29) Tetrahydrofuran	7.440	42	37996	98.810	ug/l	93
30) Chloroform	7.599	83	95671	20.616	ug/l	97
31) Cyclohexane	7.875	56	61194	20.421	ug/l #	96
32) 1,1,1-Trichloroethane	7.793	97	84098	22.461	ug/l	93
36) 1,1-Dichloropropene	8.004	75	64787	21.112	ug/l	98
37) Ethyl Acetate	7.175	43	26062	18.991	ug/l #	74
38) Carbon Tetrachloride	7.987	117	63025	21.449	ug/l	99
39) Methylcyclohexane	9.269	83	73672	20.792	ug/l	96
40) Benzene	8.246	78	199308	20.584	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076747.D
Acq On : 17 Jul 2023 11:46
Operator : KP/SY
Sample : VD0717SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 18 01:22:23 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	7.393	41	15876	18.944 ug/l	95
42) 1,2-Dichloroethane	8.322	62	53918	21.432 ug/l	97
43) Isopropyl Acetate	8.363	43	52214	19.495 ug/l	95
44) Trichloroethene	9.022	130	55747	21.128 ug/l	93
45) 1,2-Dichloropropane	9.304	63	51752	20.706 ug/l	100
46) Dibromomethane	9.393	93	29787	20.360 ug/l	93
47) Bromodichloromethane	9.587	83	75414	20.541 ug/l	95
48) Methyl methacrylate	9.381	41	24691	20.255 ug/l	80
49) 1,4-Dioxane	9.387	88	7229	385.666 ug/l #	91
51) 4-Methyl-2-Pentanone	10.157	43	142507	99.934 ug/l	94
52) Toluene	10.334	92	130018	20.445 ug/l	96
53) t-1,3-Dichloropropene	10.551	75	67484	19.803 ug/l	97
54) cis-1,3-Dichloropropene	10.016	75	79685	19.841 ug/l #	89
55) 1,1,2-Trichloroethane	10.734	97	44854	20.995 ug/l	94
56) Ethyl methacrylate	10.598	69	49168	19.940 ug/l #	89
57) 1,3-Dichloropropane	10.881	76	68564	19.707 ug/l	99
58) 2-Chloroethyl Vinyl ether	9.869	63	99200	103.934 ug/l	100
59) 2-Hexanone	10.922	43	101353	99.608 ug/l	92
60) Dibromochloromethane	11.075	129	53079	21.387 ug/l	99
61) 1,2-Dibromoethane	11.181	107	40745	20.571 ug/l	100
64) Tetrachloroethene	10.810	164	45251	23.341 ug/l	98
65) Chlorobenzene	11.604	112	144561	21.141 ug/l	97
66) 1,1,1,2-Tetrachloroethane	11.681	131	52987	20.813 ug/l	98
67) Ethyl Benzene	11.681	91	249008	20.735 ug/l	95
68) m/p-Xylenes	11.793	106	190617	41.329 ug/l	92
69) o-Xylene	12.122	106	91305	20.472 ug/l	96
70) Styrene	12.134	104	161508	20.686 ug/l	98
71) Bromoform	12.298	173	31182	22.364 ug/l #	99
73) Isopropylbenzene	12.422	105	243607	21.078 ug/l	95
74) N-amyl acetate	12.234	43	49945	20.513 ug/l	93
75) 1,1,2,2-Tetrachloroethane	12.675	83	50786	20.466 ug/l	96
76) 1,2,3-Trichloropropane	12.722	75	32902m	21.719 ug/l	
77) Bromobenzene	12.704	156	55567	20.830 ug/l	88
78) n-propylbenzene	12.763	91	295985	21.125 ug/l	96
79) 2-Chlorotoluene	12.851	91	159765	20.796 ug/l	97
80) 1,3,5-Trimethylbenzene	12.904	105	196613	21.039 ug/l	97
81) trans-1,4-Dichloro-2-b...	12.469	75	14774	20.756 ug/l	98
82) 4-Chlorotoluene	12.945	91	170388	21.230 ug/l	94
83) tert-Butylbenzene	13.169	119	175522	21.332 ug/l	97
84) 1,2,4-Trimethylbenzene	13.210	105	193721	20.285 ug/l	100
85) sec-Butylbenzene	13.345	105	269309	21.422 ug/l	95
86) p-Isopropyltoluene	13.463	119	218681	21.063 ug/l	96
87) 1,3-Dichlorobenzene	13.457	146	117907	21.488 ug/l	98
88) 1,4-Dichlorobenzene	13.539	146	114764	21.348 ug/l	98
89) n-Butylbenzene	13.787	91	214941	21.157 ug/l	98
90) Hexachloroethane	14.051	117	43572	22.700 ug/l	89
91) 1,2-Dichlorobenzene	13.828	146	104238	21.559 ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.445	75	7123	20.132 ug/l	94
93) 1,2,4-Trichlorobenzene	15.098	180	61319	20.774 ug/l	95
94) Hexachlorobutadiene	15.204	225	30496	21.482 ug/l	97
95) Naphthalene	15.334	128	127967	20.022 ug/l	98
96) 1,2,3-Trichlorobenzene	15.522	180	56483	21.323 ug/l	99

Sample Results: **VD076747.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076747.D
Acq On : 17 Jul 2023 11:46
Operator : KP/SY
Sample : VD0717SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 18 01:22:23 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

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

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

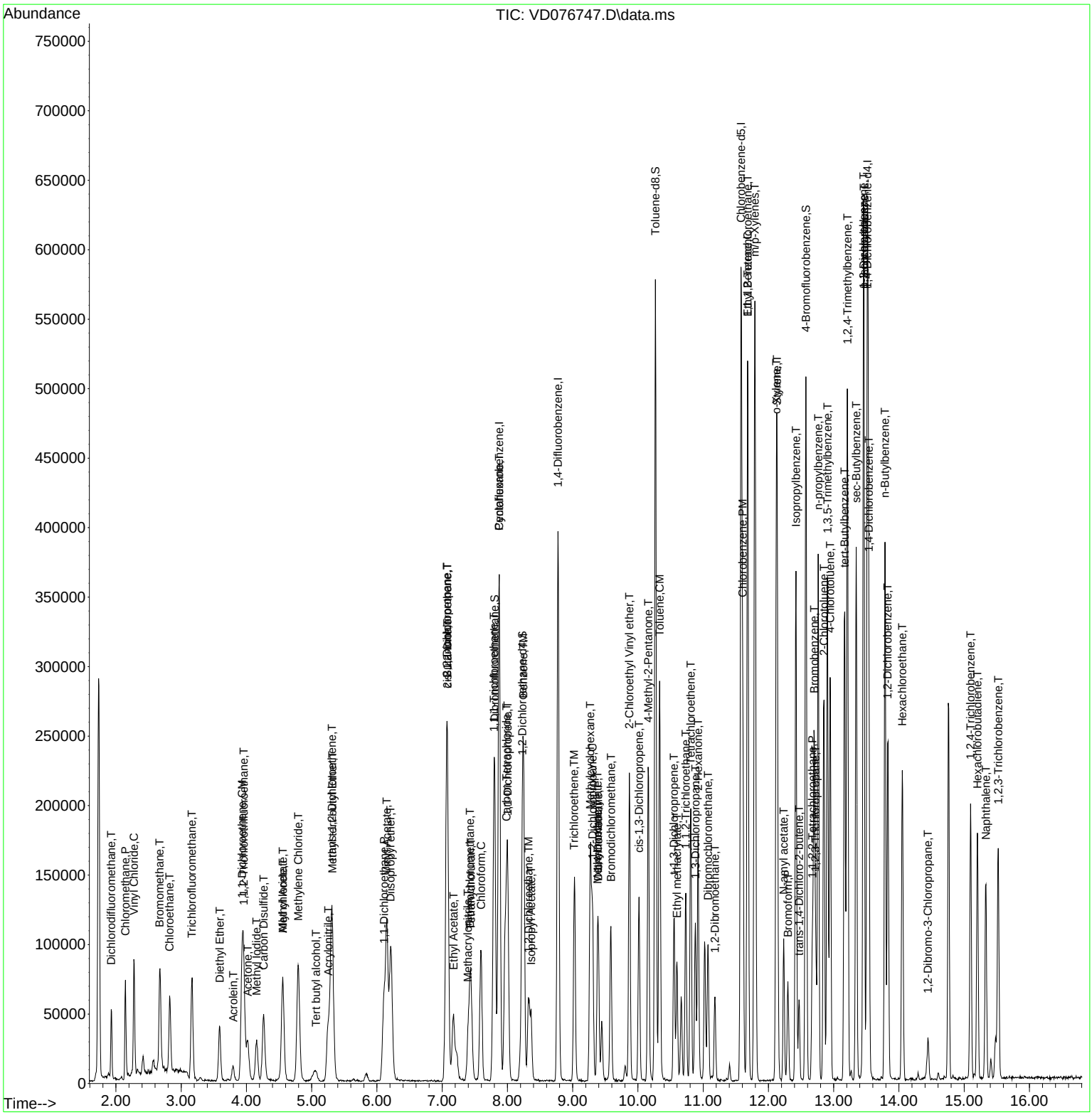
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076747.D
Acq On : 17 Jul 2023 11:46
Operator : KP/SY
Sample : VD0717SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

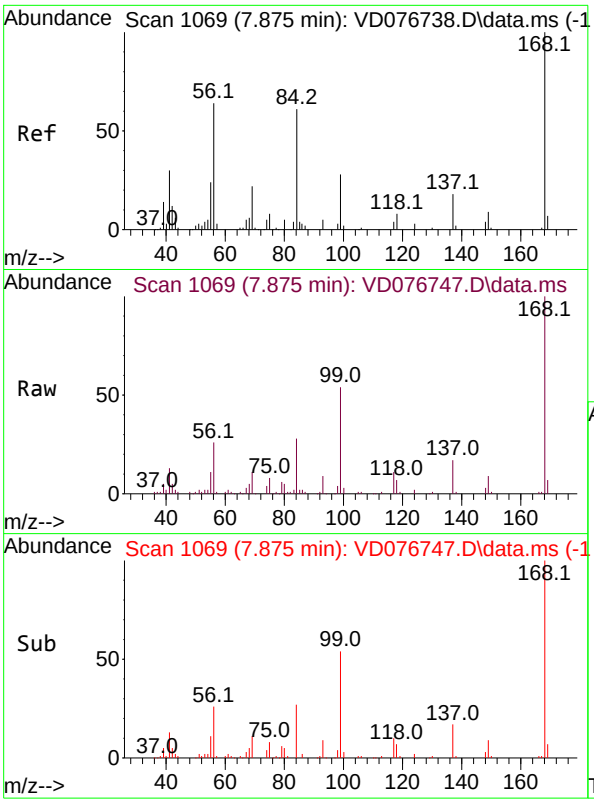
Quant Time: Jul 18 01:22:23 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

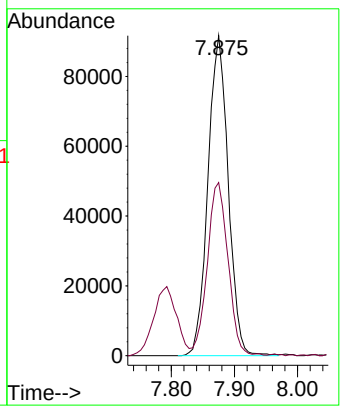




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:168 Resp: 20443

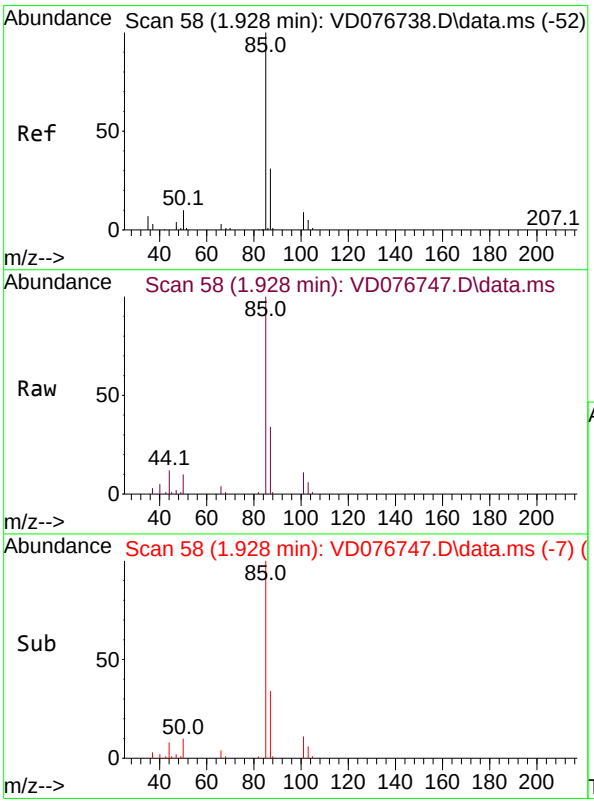
Ion	Ratio	Lower	Upper
168	100		
99	53.8	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

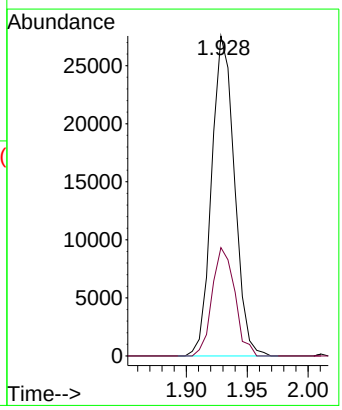
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

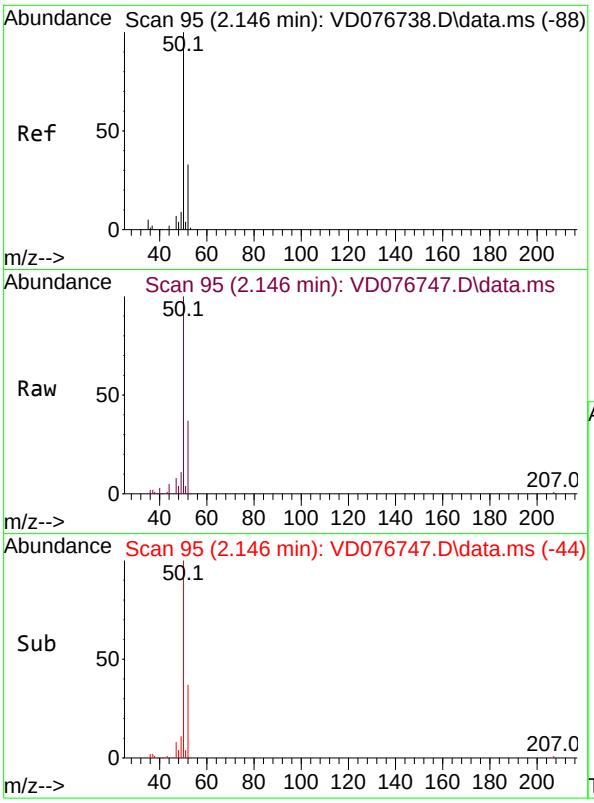


#2
Dichlorodifluoromethane
Concen: 22.492 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 85 Resp: 35956

Ion	Ratio	Lower	Upper
85	100		
87	33.9	15.7	47.0





#3
Chloromethane
Concen: 19.545 ug/l
RT: 2.146 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

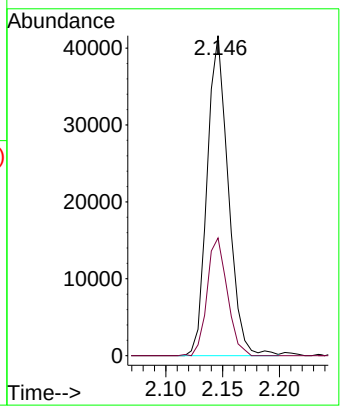
Tgt Ion: 50 Resp: 5390

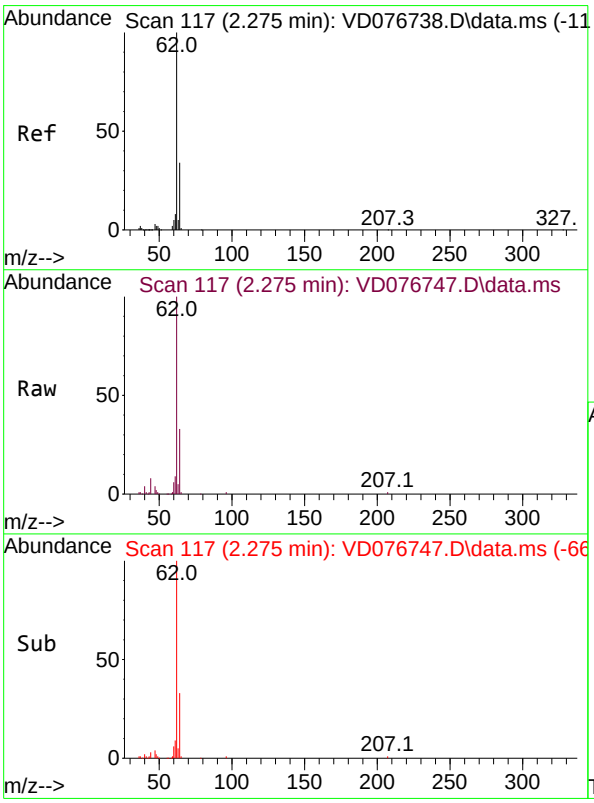
Ion	Ratio	Lower	Upper
50	100		
52	36.8	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

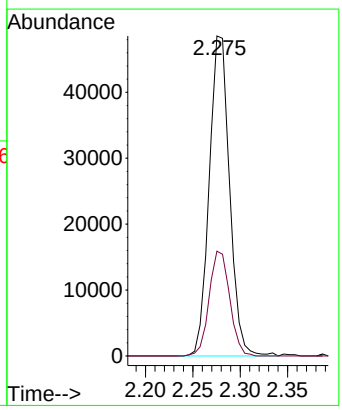


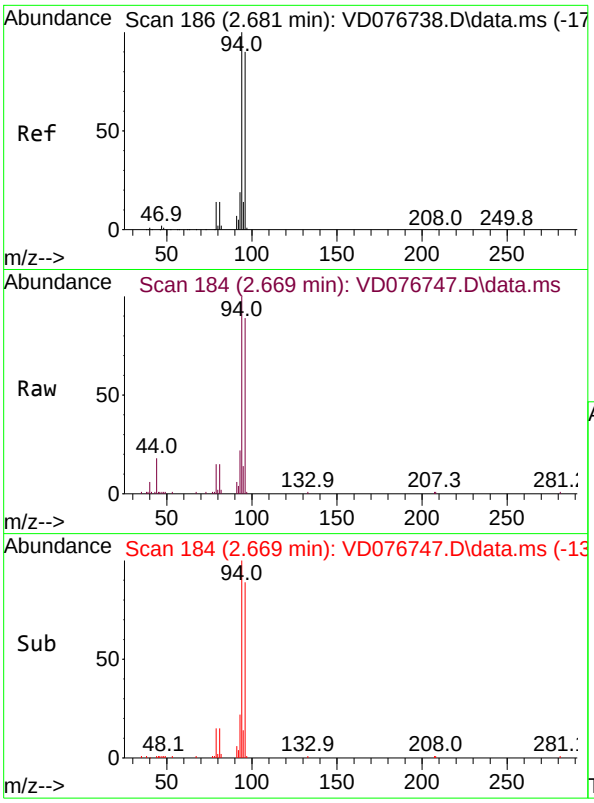


#4
Vinyl Chloride
Concen: 19.692 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 62 Resp: 72390

Ion	Ratio	Lower	Upper
62	100		
64	32.8	26.0	39.0

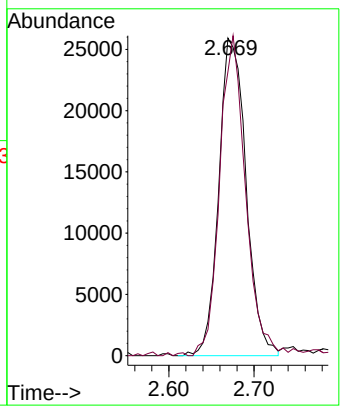




#5
Bromomethane
Concen: 19.052 ug/l
RT: 2.669 min Scan# 1
Delta R.T. -0.012 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 94 Resp: 5762

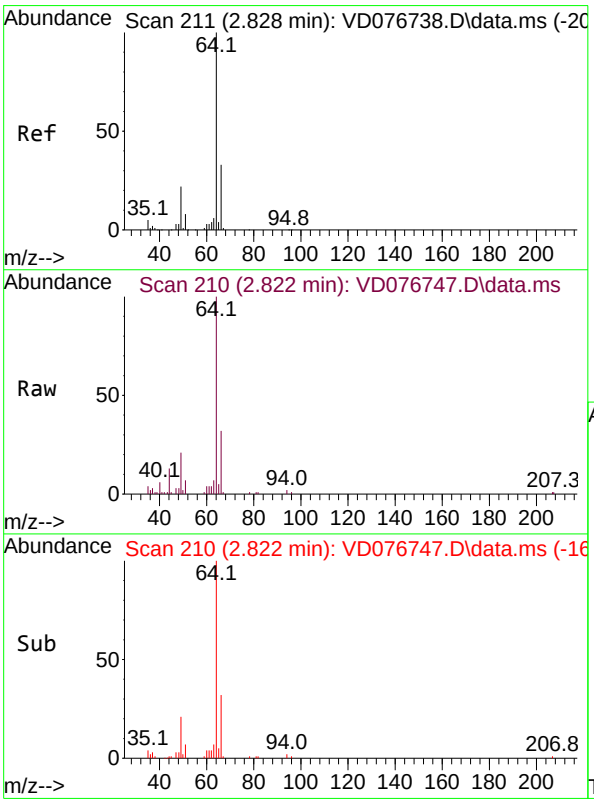
Ion	Ratio	Lower	Upper
94	100		
96	95.7	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

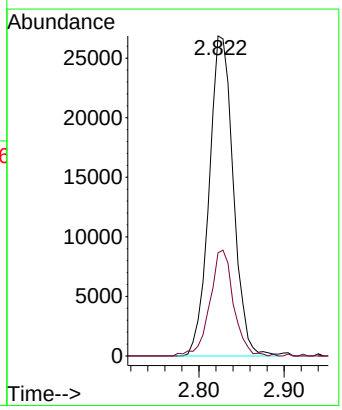
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

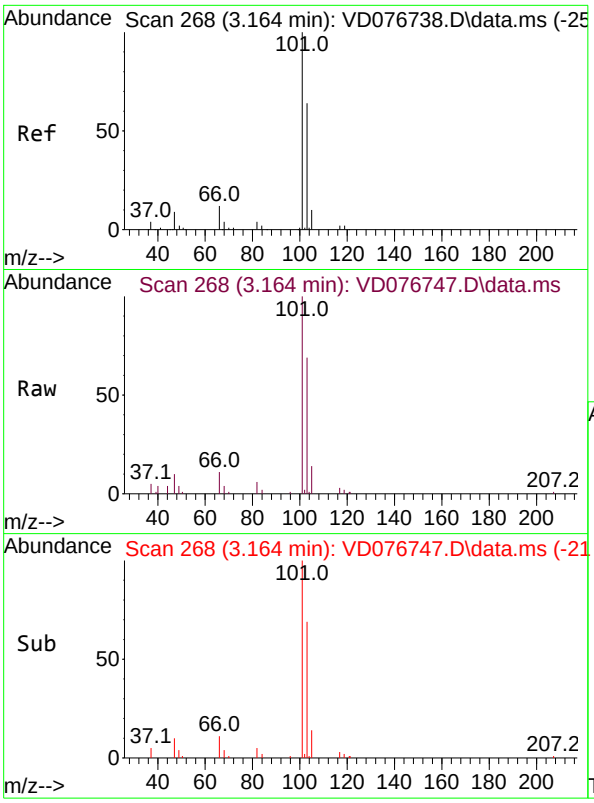


#6
Chloroethane
Concen: 19.072 ug/l
RT: 2.822 min Scan# 210
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 64 Resp: 52934

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.5	38.3





#7
Trichlorofluoromethane
Concen: 21.905 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

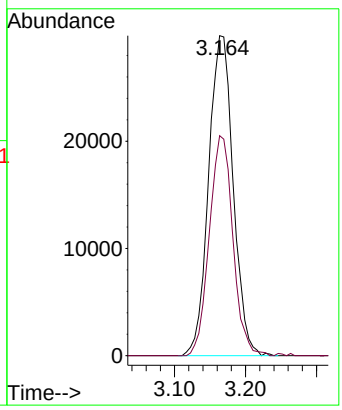
Tgt Ion:101 Resp: 7165

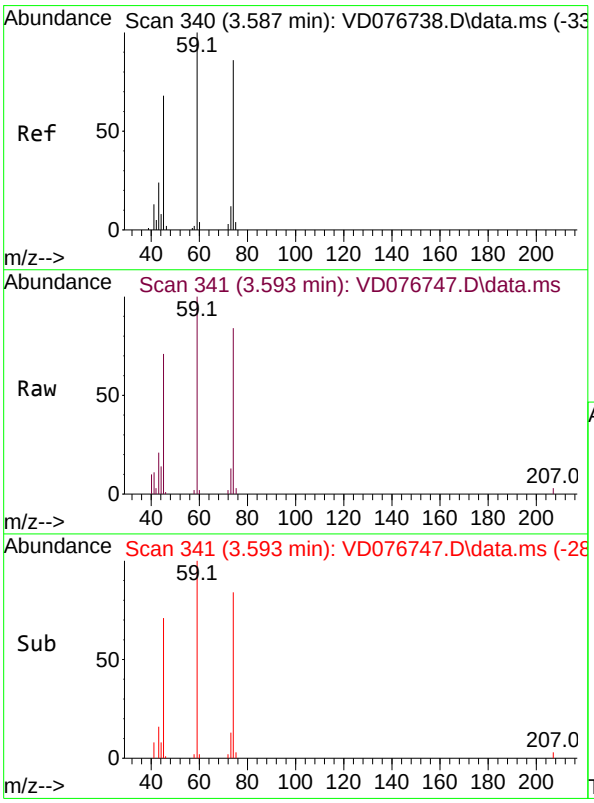
Ion	Ratio	Lower	Upper
101	100		
103	68.8	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

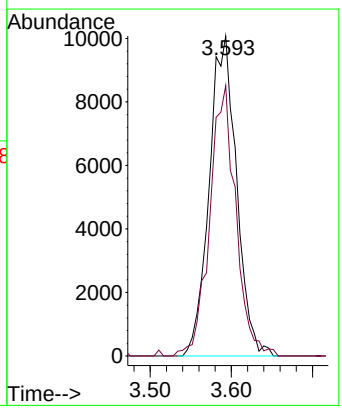


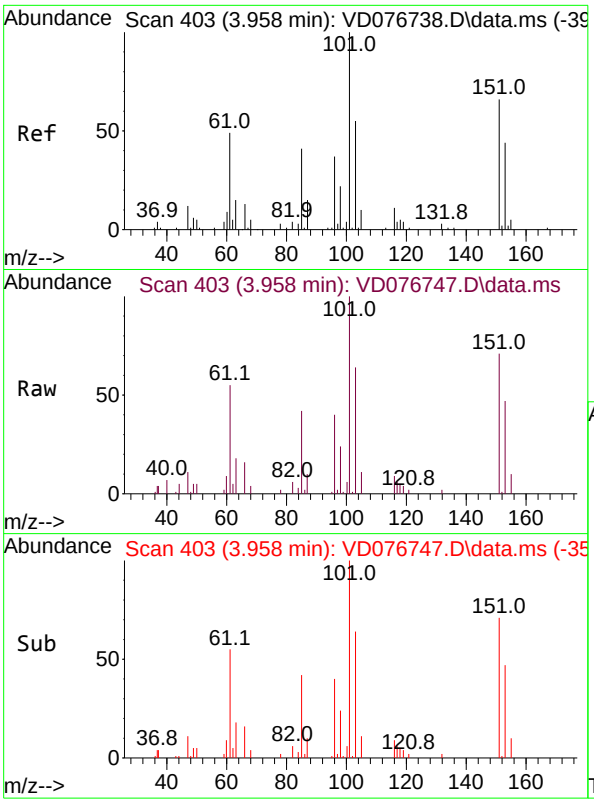


#8
Diethyl Ether
Concen: 20.906 ug/l
RT: 3.593 min Scan# 341
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 74 Resp: 23545

Ion	Ratio	Lower	Upper
74	100		
45	80.7	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.861 ug/l
RT: 3.958 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

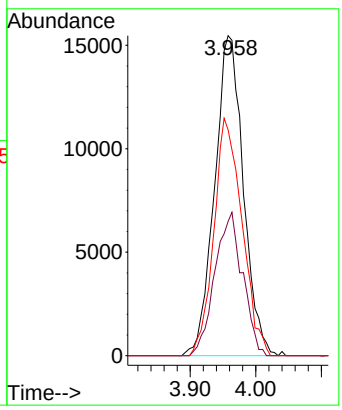
Tgt Ion:101 Resp: 4700

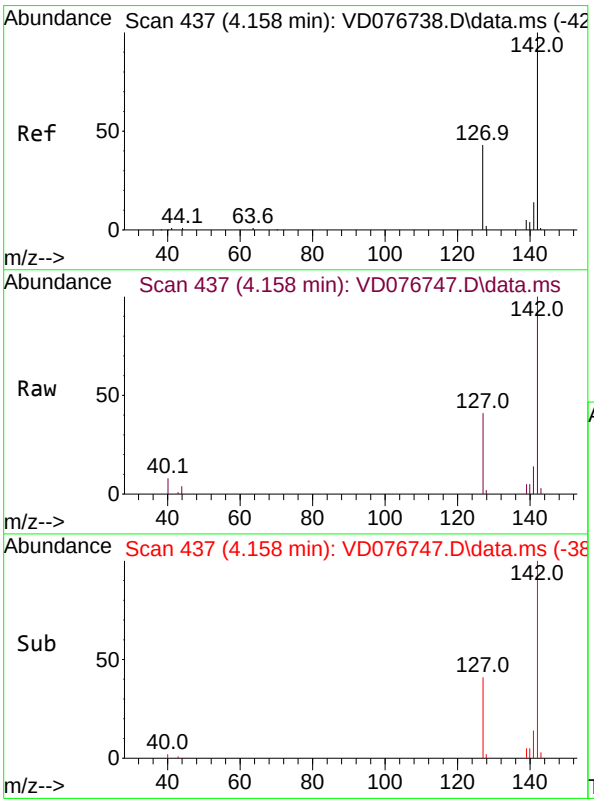
Ion	Ratio	Lower	Upper
101	100		
85	43.4	33.8	50.6
151	72.8	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

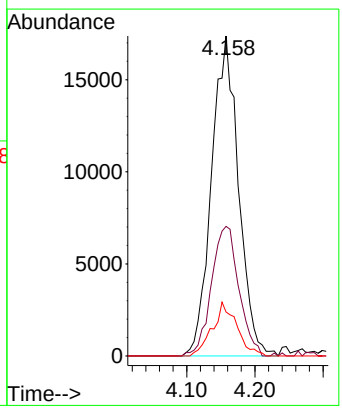


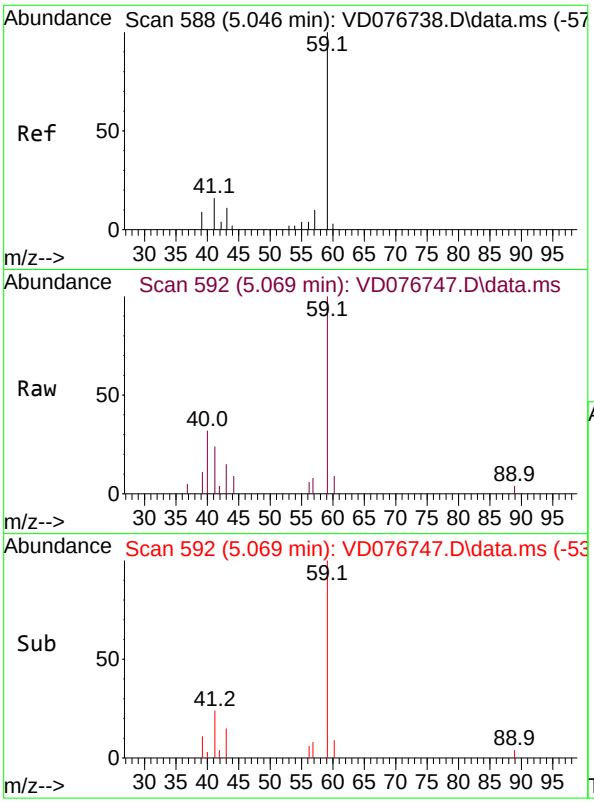


#10
Methyl Iodide
Concen: 19.768 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:142 Resp: 47913

Ion	Ratio	Lower	Upper
142	100		
127	41.1	29.4	44.0
141	15.2	11.1	16.7





#11
Tert butyl alcohol
Concen: 113.350 ug/l
RT: 5.069 min Scan# 5
Delta R.T. 0.023 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

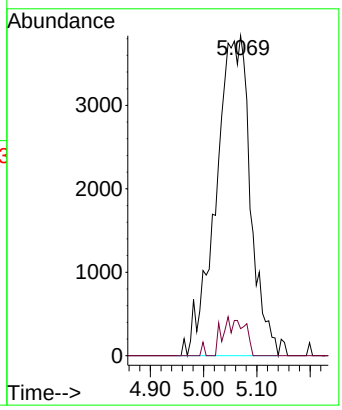
Tgt Ion: 59 Resp: 1722

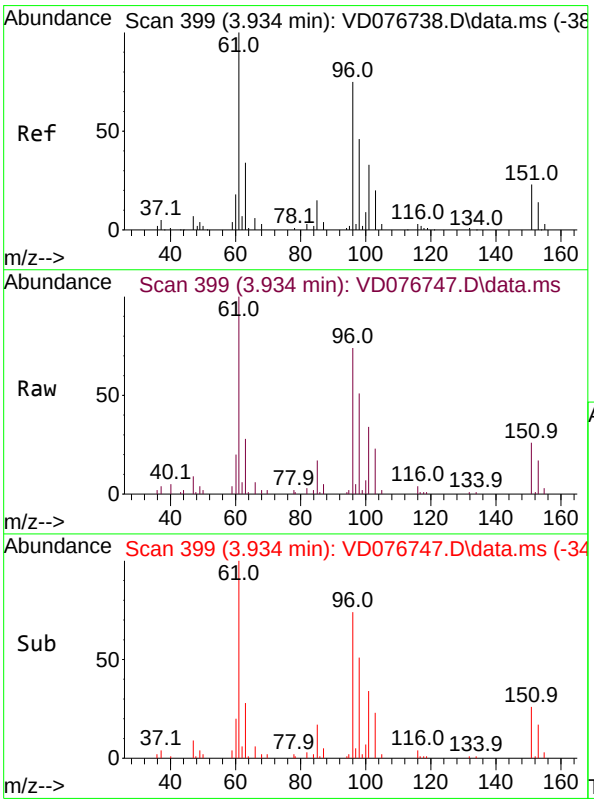
Ion	Ratio	Lower	Upper
59	100		
57	0.0	7.8	11.8

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

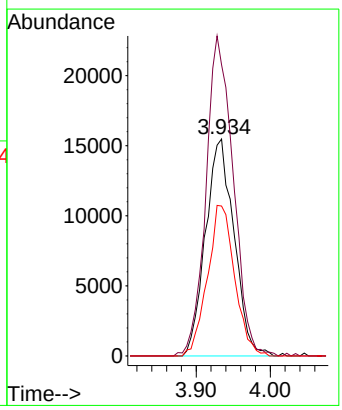


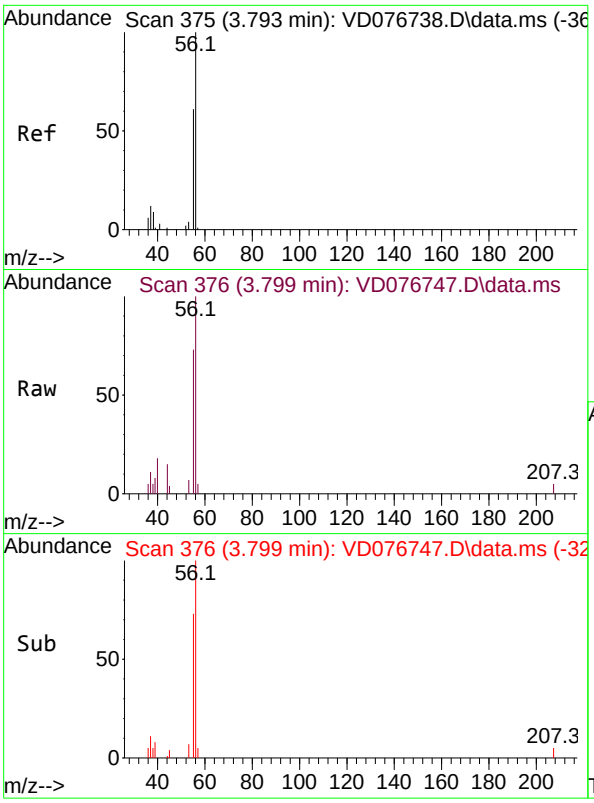


#12
1,1-Dichloroethene
Concen: 20.466 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 96 Resp: 41343

Ion	Ratio	Lower	Upper
96	100		
61	134.2	100.6	150.8
98	69.1	50.2	75.2

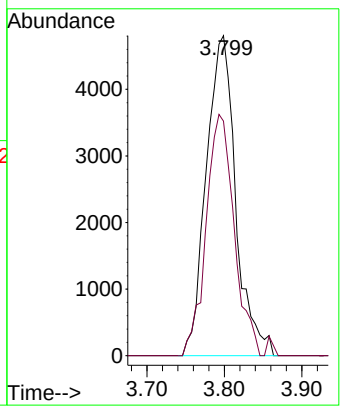




#13
Acrolein
Concen: 122.786 ug/l
RT: 3.799 min Scan# 3
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 56 Resp: 1271

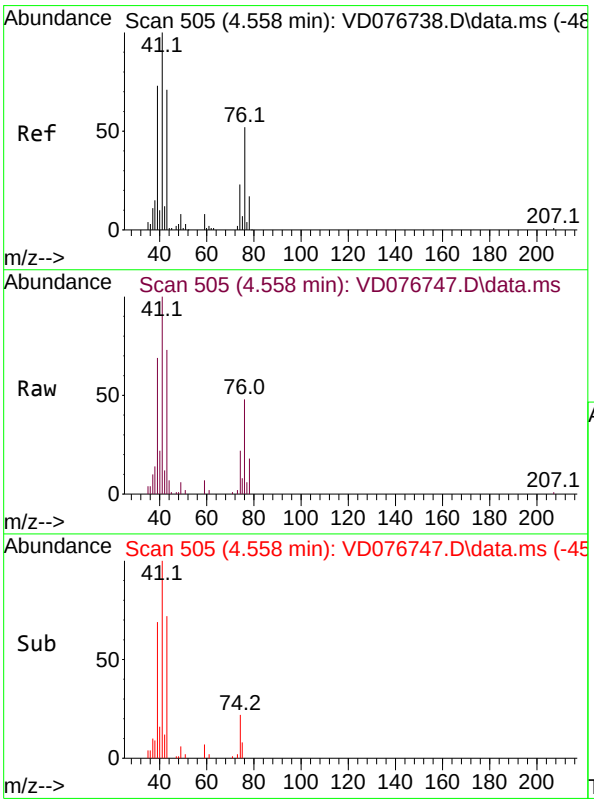
Ion	Ratio	Lower	Upper
56	100		
55	71.8	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

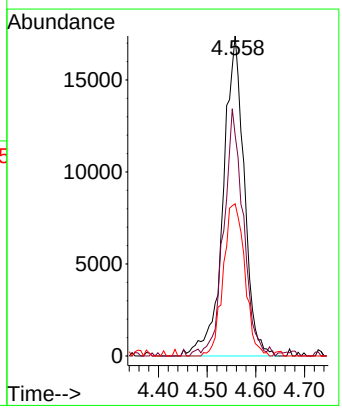
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

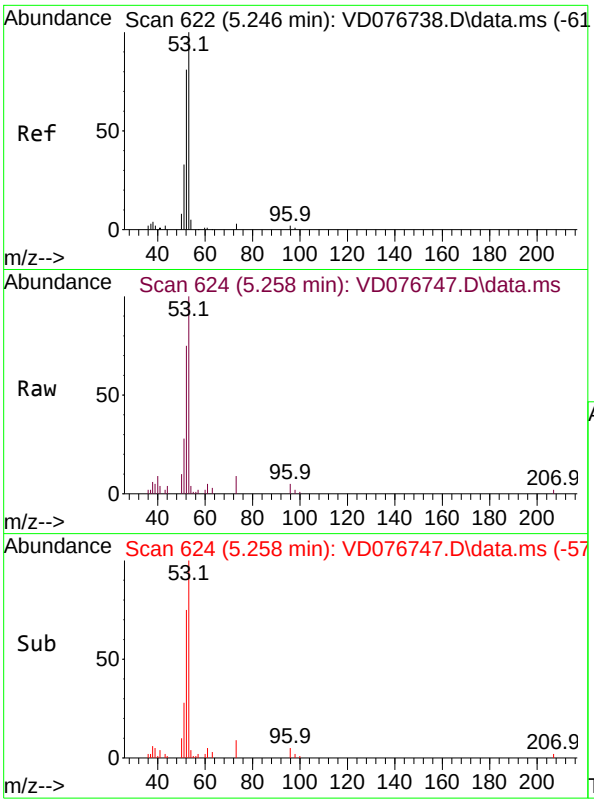


#14
Allyl chloride
Concen: 19.683 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 41 Resp: 52234

Ion	Ratio	Lower	Upper
41	100		
39	72.1	53.8	80.6
76	48.7	45.8	68.8





#15
Acrylonitrile
Concen: 100.874 ug/l
RT: 5.258 min Scan# 6
Delta R.T. 0.012 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

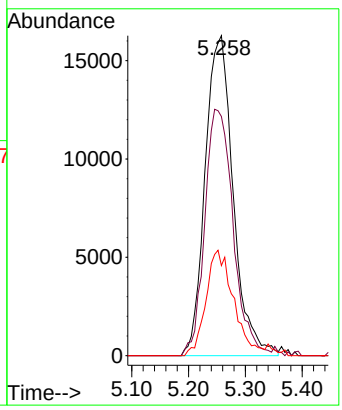
Tgt Ion: 53 Resp: 5579

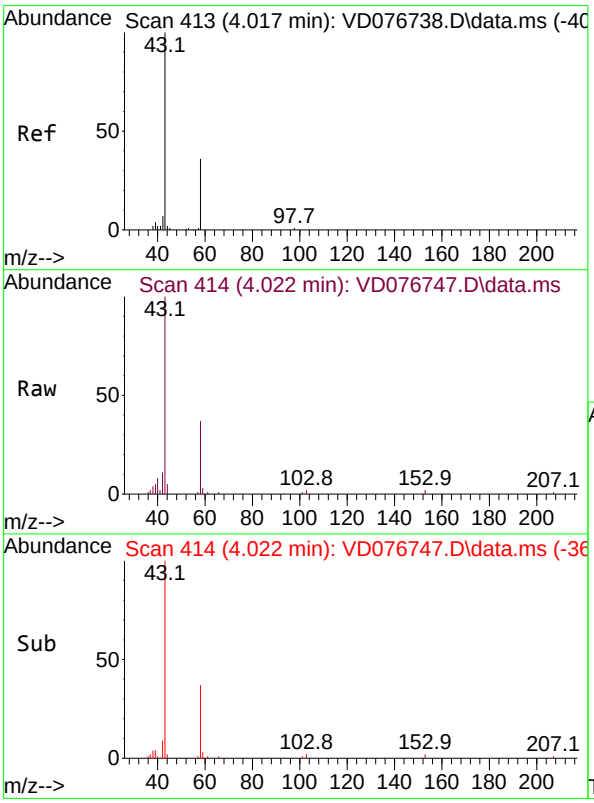
Ion	Ratio	Lower	Upper
53	100		
52	77.9	65.0	97.4
51	32.5	28.3	42.5

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

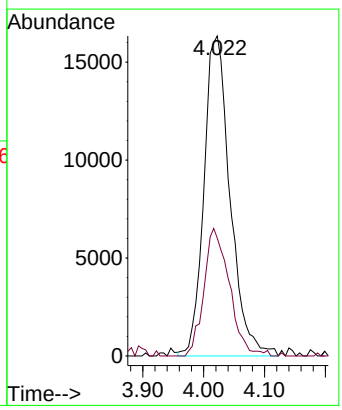


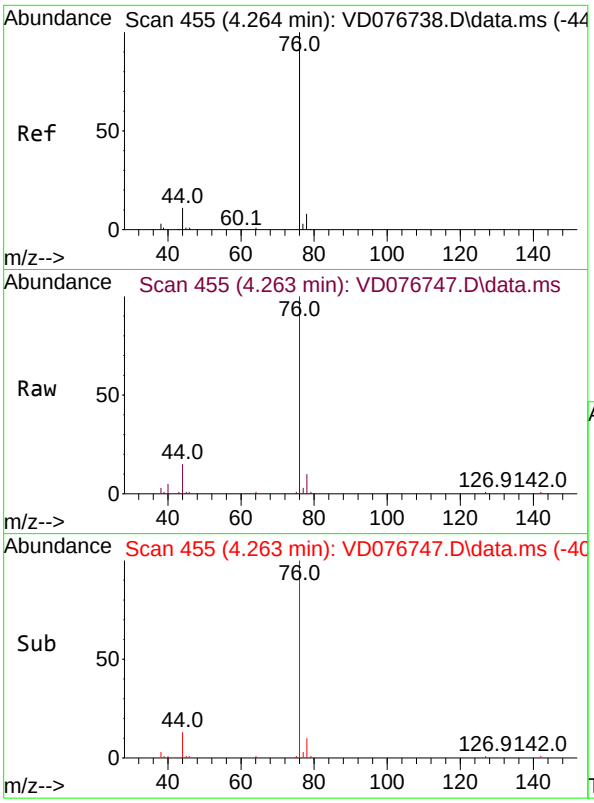


#16
Acetone
Concen: 100.371 ug/l
RT: 4.022 min Scan# 414
Delta R.T. 0.005 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 43 Resp: 48810

Ion	Ratio	Lower	Upper
43	100		
58	36.9	34.7	52.1





#17
Carbon Disulfide
Concen: 20.540 ug/l
RT: 4.263 min Scan# 4
Delta R.T. -0.001 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

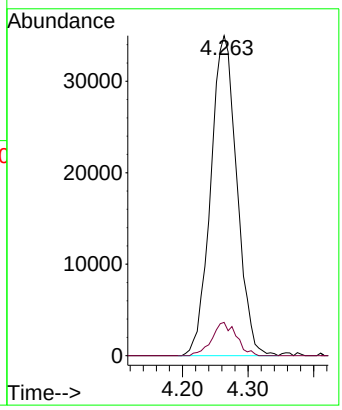
Tgt Ion: 76 Resp: 9691

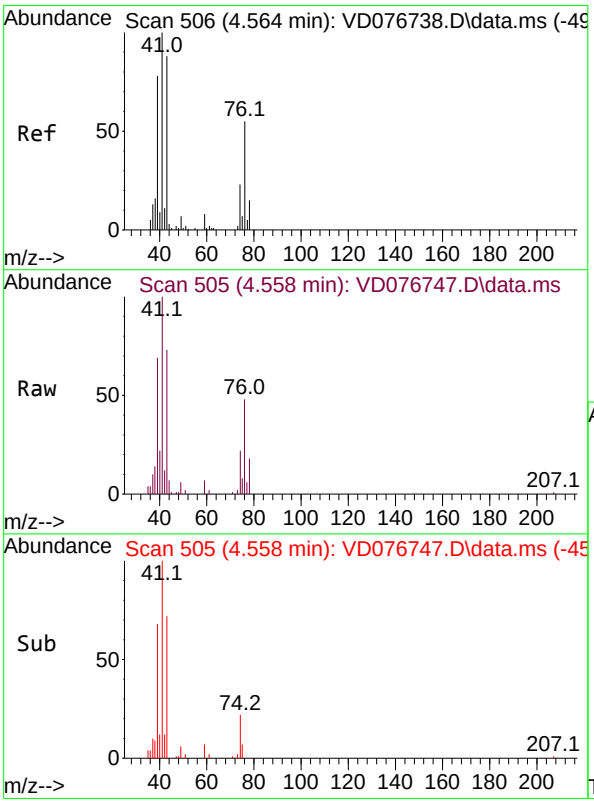
Ion	Ratio	Lower	Upper
76	100		
78	10.4	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

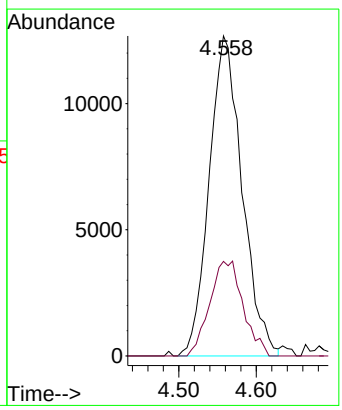


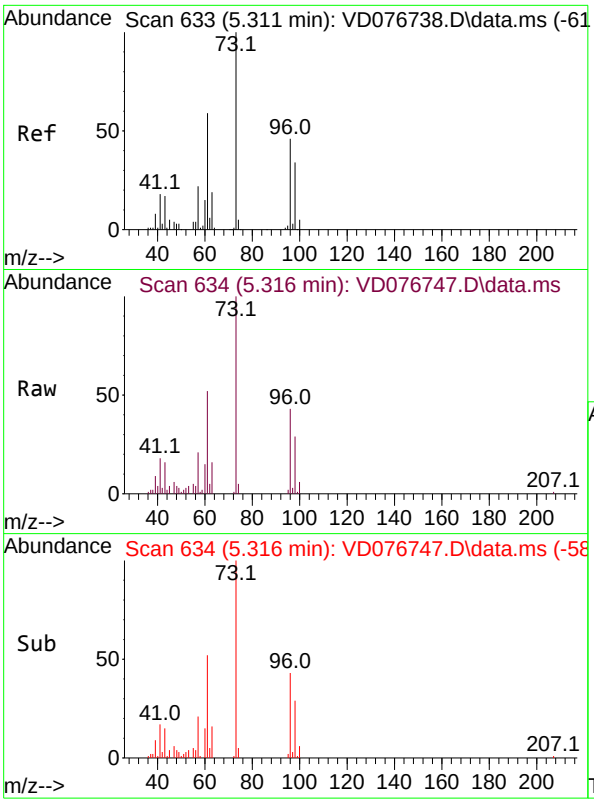


#18
Methyl Acetate
Concen: 20.527 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 43 Resp: 37505

Ion	Ratio	Lower	Upper
43	100		
74	30.0	26.4	39.6





#19
Methyl tert-butyl Ether
Concen: 20.025 ug/l
RT: 5.316 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

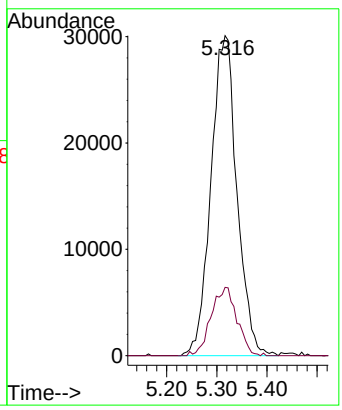
Tgt Ion: 73 Resp: 10848

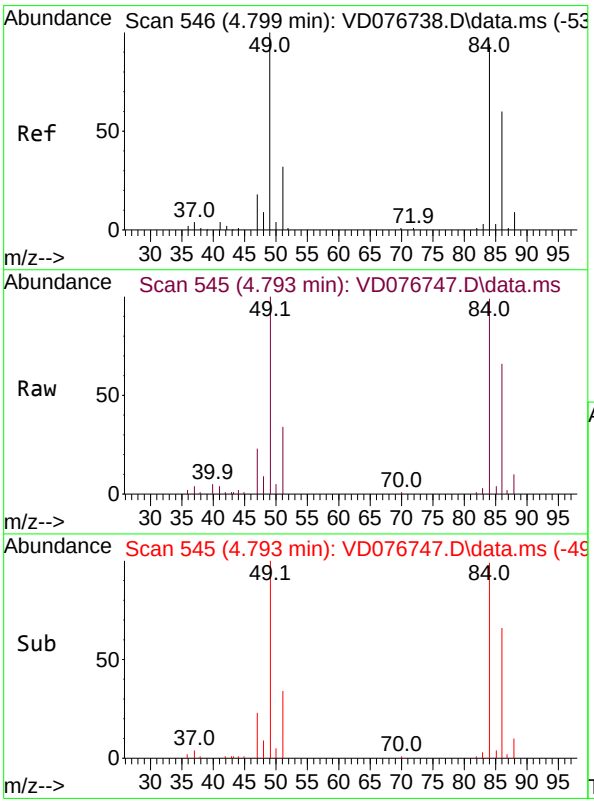
Ion	Ratio	Lower	Upper
73	100		
57	21.3	16.6	25.0

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

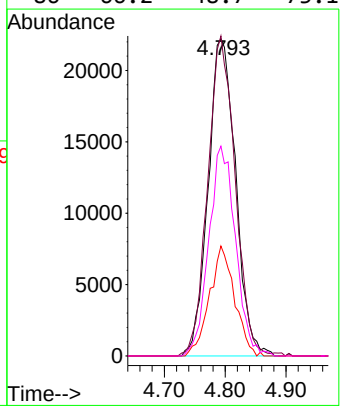


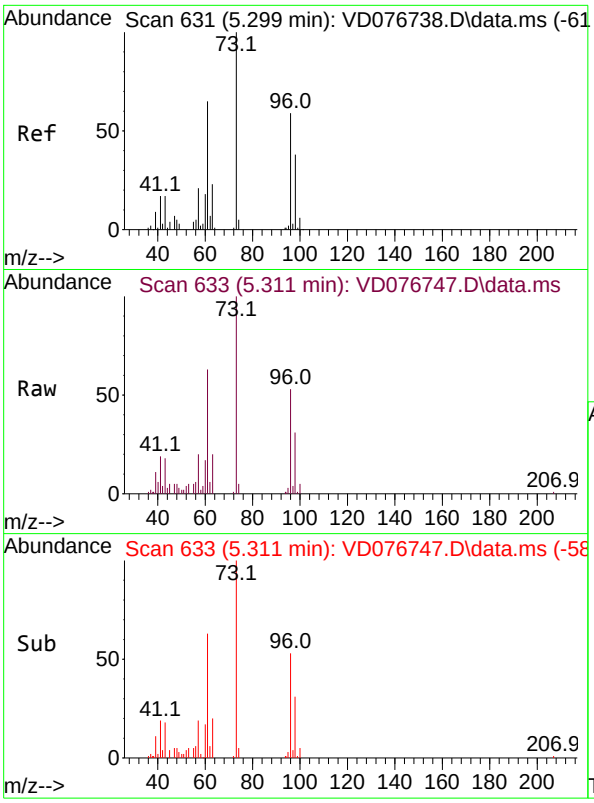


#20
Methylene Chloride
Concen: 17.325 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 84 Resp: 69658

Ion	Ratio	Lower	Upper
84	100		
49	101.0	71.4	107.2
51	34.7	24.5	36.7
86	66.2	48.7	73.1

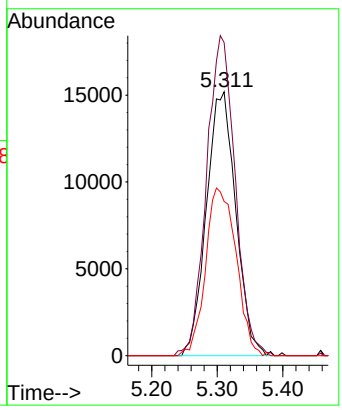




#21
trans-1,2-Dichloroethene
Concen: 20.153 ug/l
RT: 5.311 min Scan# 6
Delta R.T. 0.011 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 96 Resp: 4732

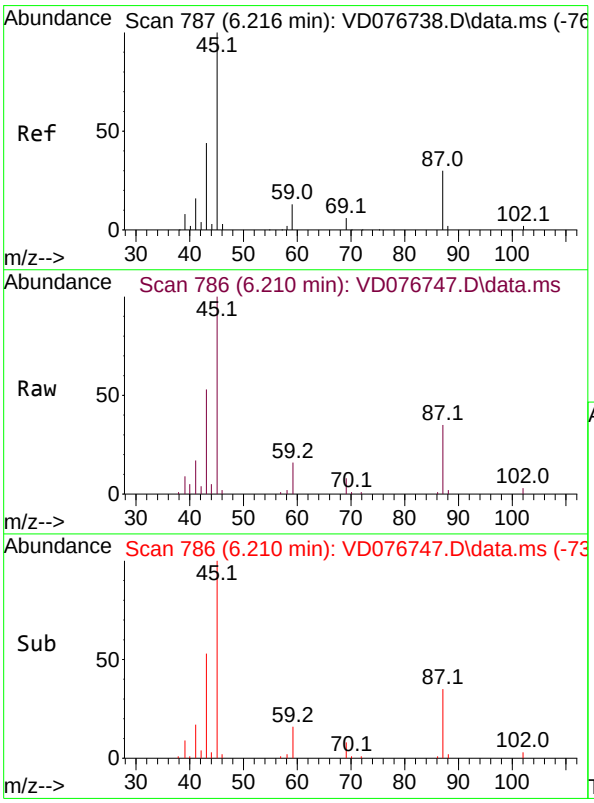
Ion	Ratio	Lower	Upper
96	100		
61	118.7	89.3	133.9
98	58.5	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

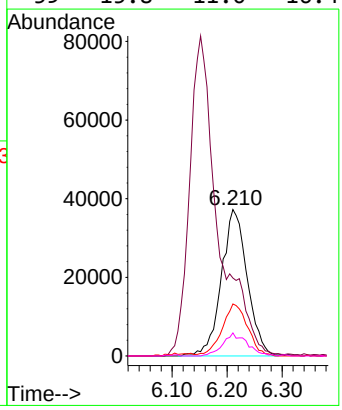
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

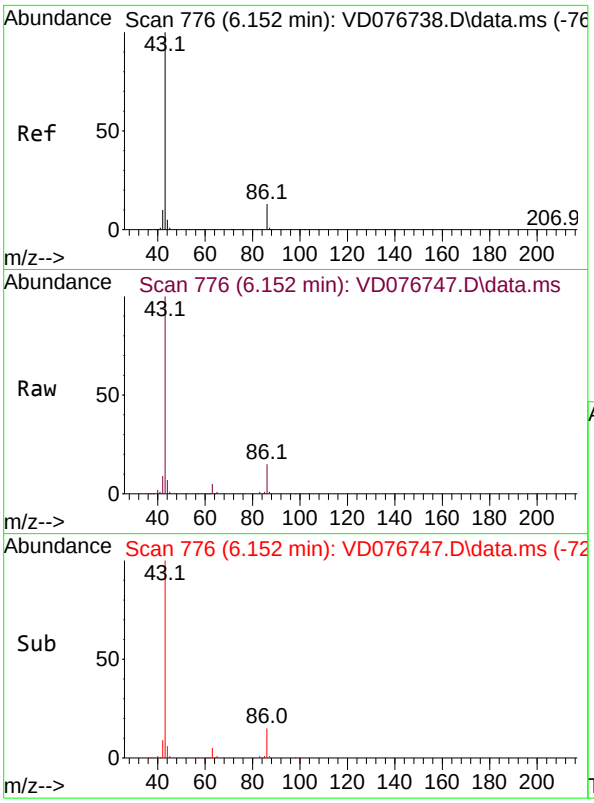


#22
Diisopropyl ether
Concen: 19.360 ug/l
RT: 6.210 min Scan# 786
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 45 Resp: 121659

Ion	Ratio	Lower	Upper
45	100		
43	51.6	40.0	60.0
87	35.5	28.2	42.4
59	15.8	11.0	16.4

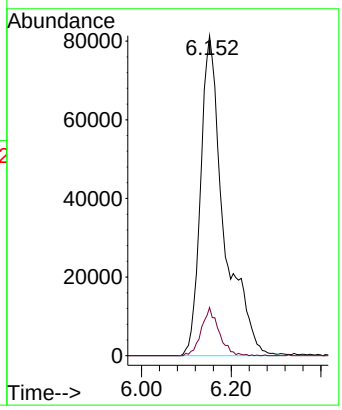




#23
Vinyl Acetate
Concen: 94.567 ug/l
RT: 6.152 min Scan# 7
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 43 Resp: 29403

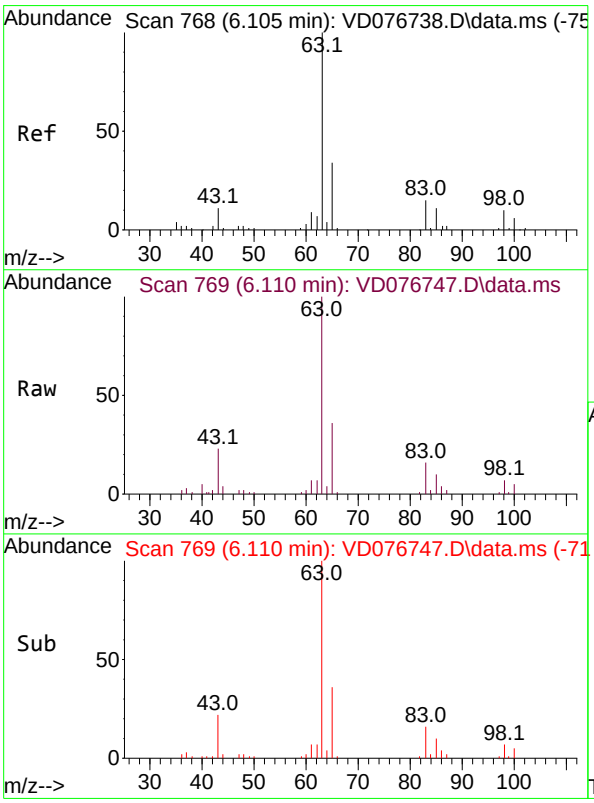
Ion	Ratio	Lower	Upper
43	100		
86	15.0	12.5	18.7



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

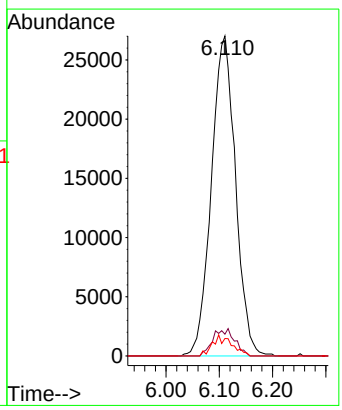
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

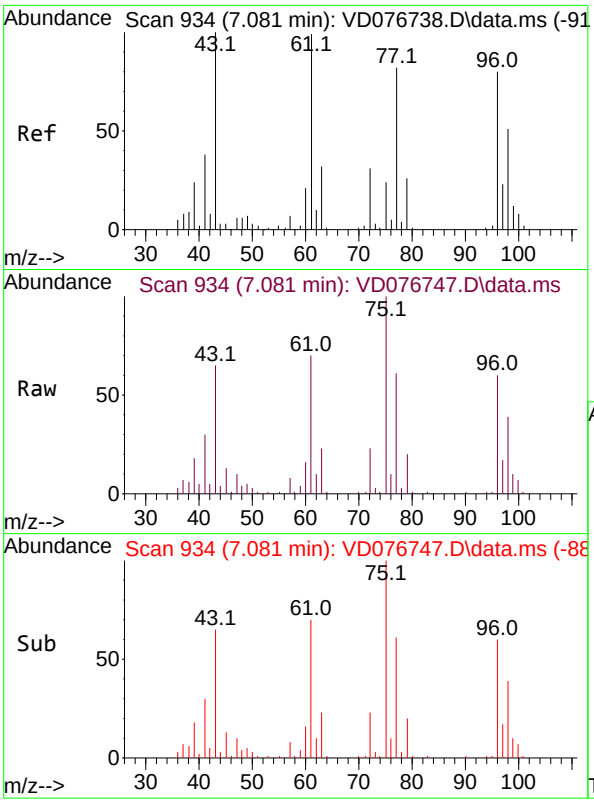


#24
1,1-Dichloroethane
Concen: 20.082 ug/l
RT: 6.110 min Scan# 769
Delta R.T. 0.005 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 63 Resp: 85084

Ion	Ratio	Lower	Upper
63	100		
98	6.8	4.5	13.7
100	5.5	2.5	7.5





#25
2-Butanone
Concen: 104.168 ug/l
RT: 7.081 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

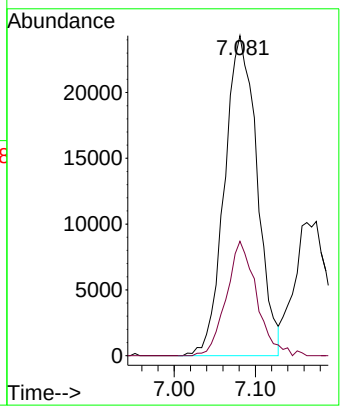
Tgt Ion: 43 Resp: 6779

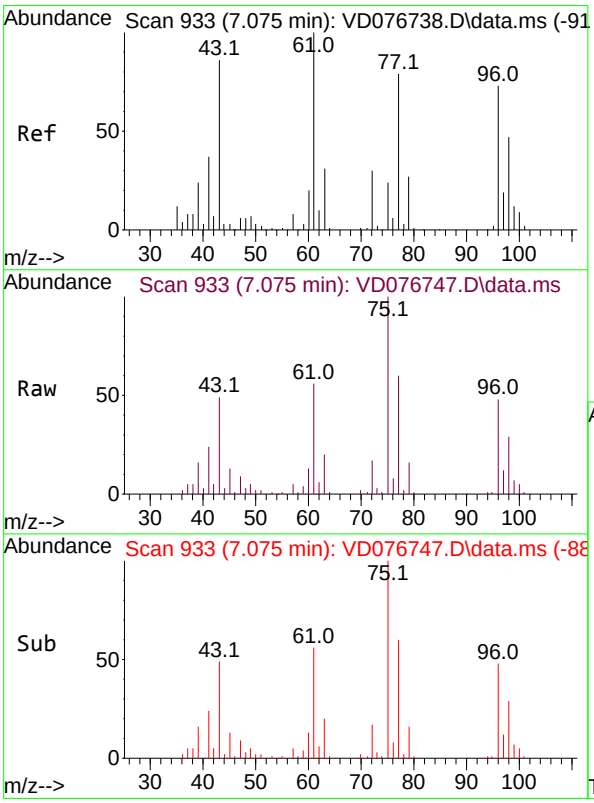
Ion	Ratio	Lower	Upper
43	100		
72	35.7	30.7	46.1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

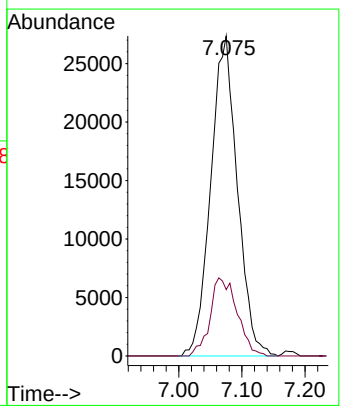


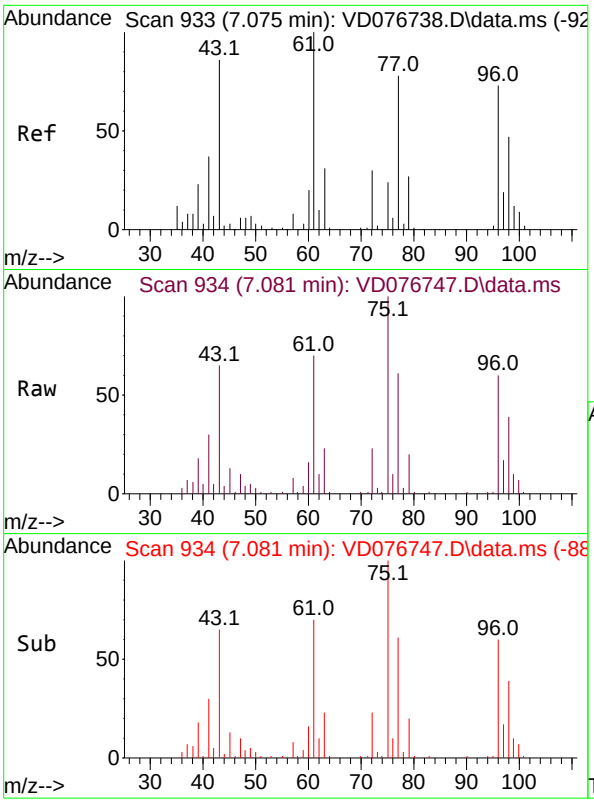


#26
2,2-Dichloropropane
Concen: 21.930 ug/l
RT: 7.075 min Scan# 933
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 77 Resp: 80096

Ion	Ratio	Lower	Upper
77	100		
97	24.8	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 20.768 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

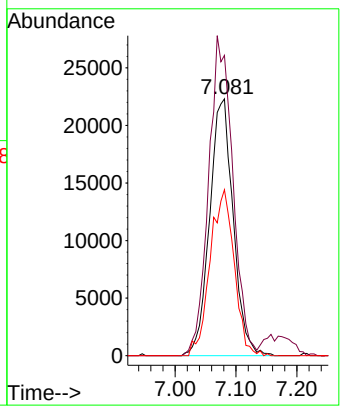
Tgt Ion: 96 Resp: 6011

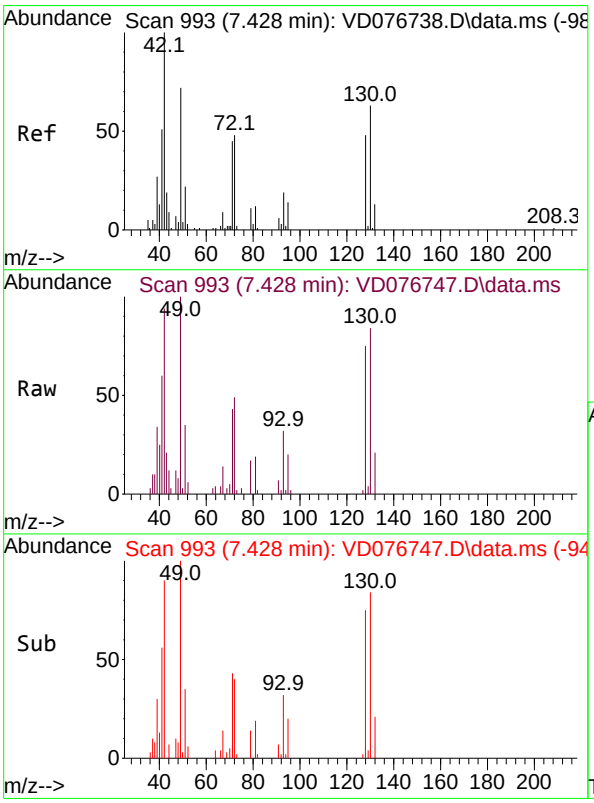
Ion	Ratio	Lower	Upper
96	100		
61	127.6	0.0	239.2
98	66.2	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

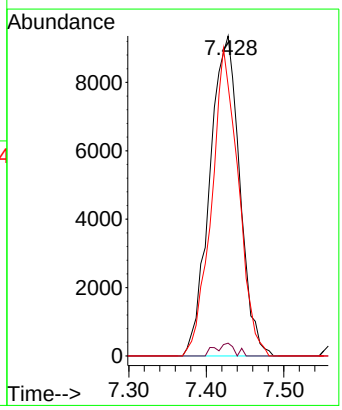


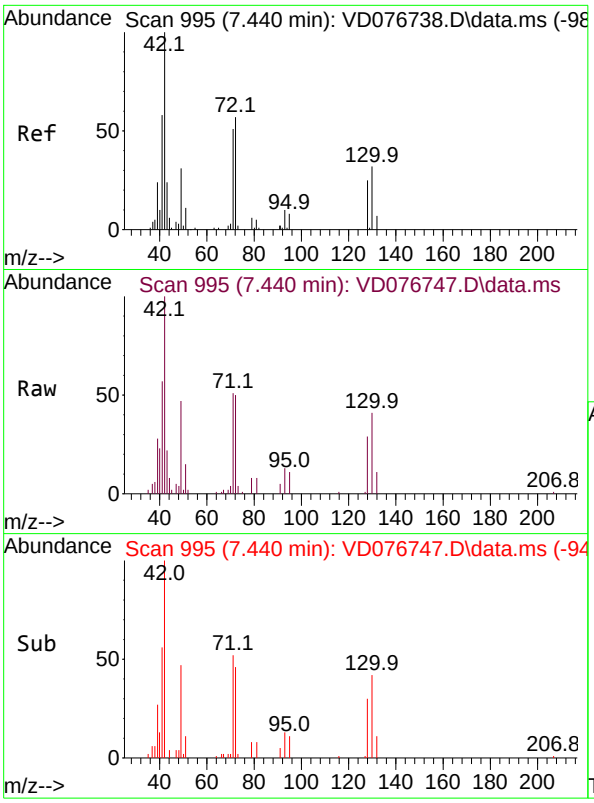


#28
Bromochloromethane
Concen: 23.747 ug/l
RT: 7.428 min Scan# 993
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 49 Resp: 25155

Ion	Ratio	Lower	Upper
49	100		
129	2.6	0.0	6.0
130	86.2	83.2	124.8

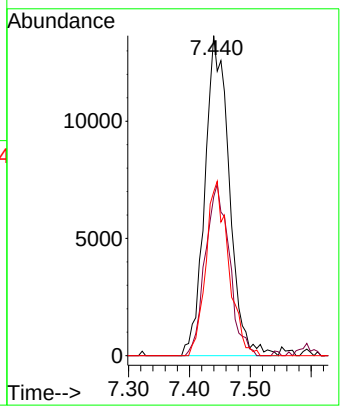




#29
Tetrahydrofuran
Concen: 98.810 ug/l
RT: 7.440 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 42 Resp: 3799

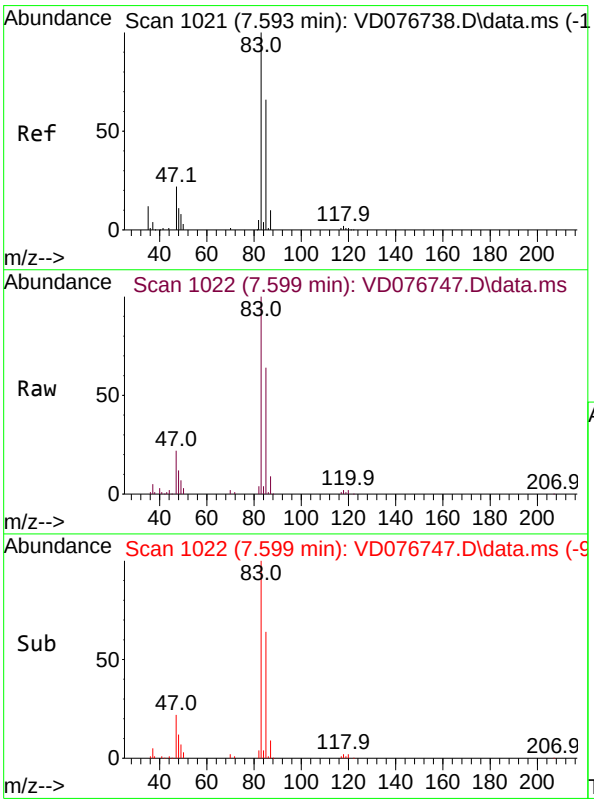
Ion	Ratio	Lower	Upper
42	100		
72	52.8	46.5	69.7
71	51.0	44.5	66.7



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

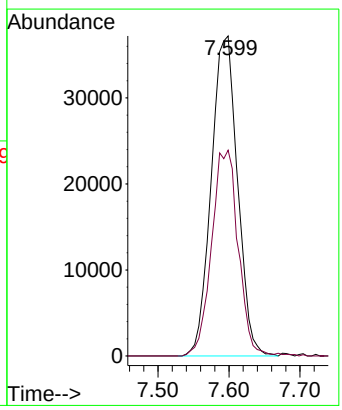
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

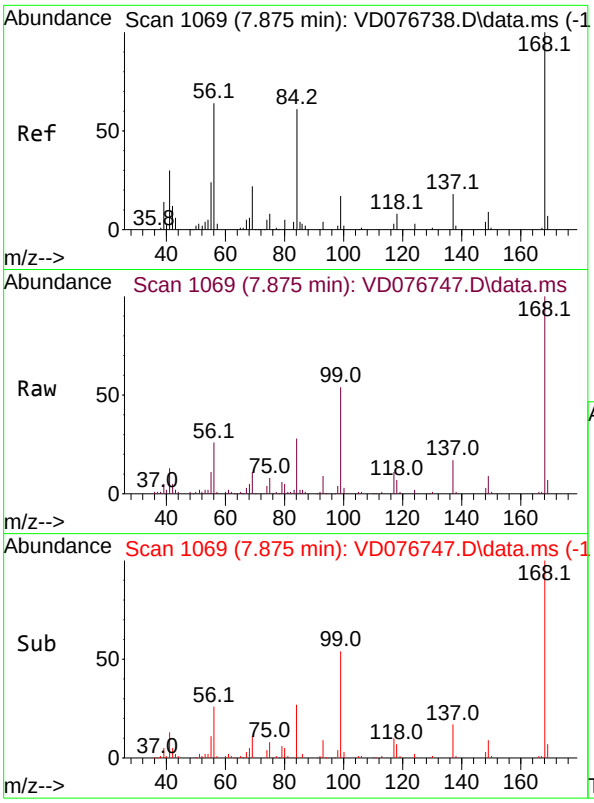


#30
Chloroform
Concen: 20.616 ug/l
RT: 7.599 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 83 Resp: 95671

Ion	Ratio	Lower	Upper
83	100		
85	64.3	53.4	80.2

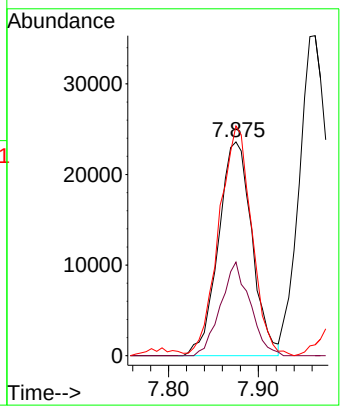




#31
Cyclohexane
Concen: 20.421 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 56 Resp: 6119

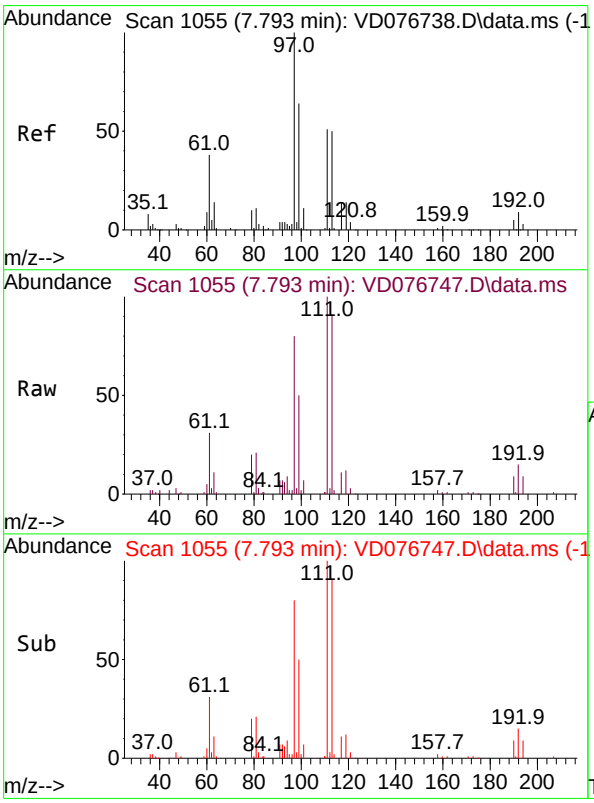
Ion	Ratio	Lower	Upper
56	100		
69	43.8	28.6	43.0
84	105.5	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

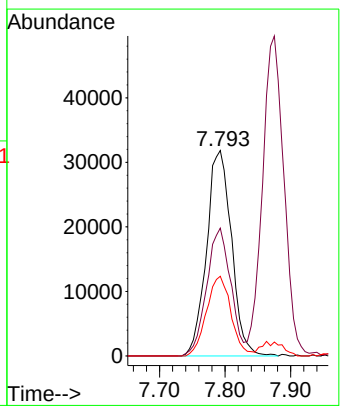
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

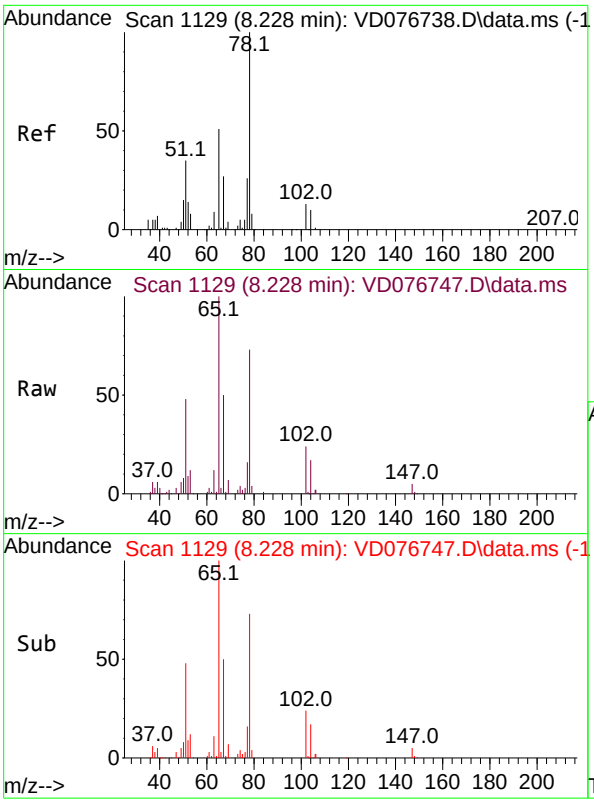


#32
1,1,1-Trichloroethane
Concen: 22.461 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 97 Resp: 84098

Ion	Ratio	Lower	Upper
97	100		
99	59.8	52.0	78.0
61	38.2	33.8	50.8

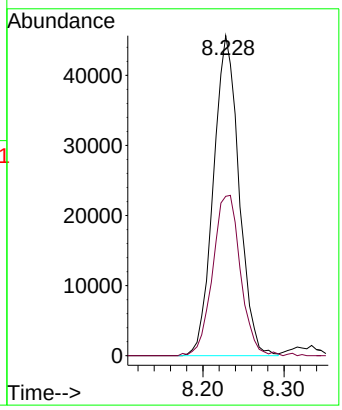




#33
1,2-Dichloroethane-d4
Concen: 49.085 ug/l
RT: 8.228 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 65 Resp: 9994

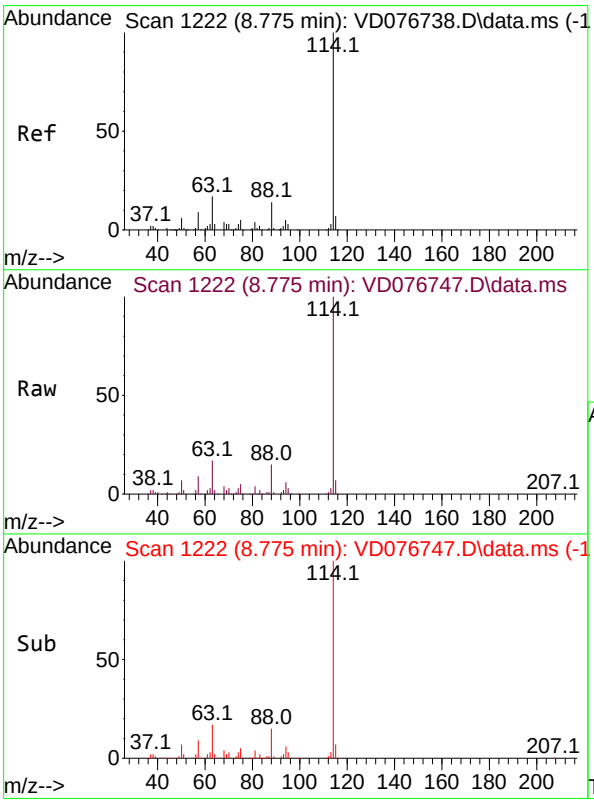
Ion	Ratio	Lower	Upper
65	100		
67	54.4	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

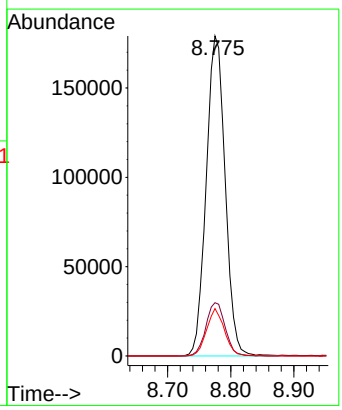
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

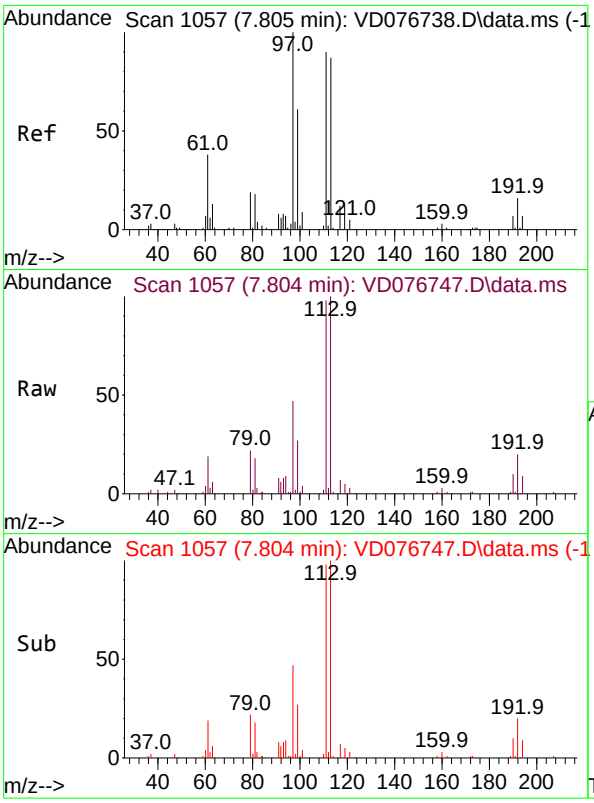


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:114 Resp: 373707

Ion	Ratio	Lower	Upper
114	100		
63	16.7	0.0	33.4
88	14.8	0.0	26.2

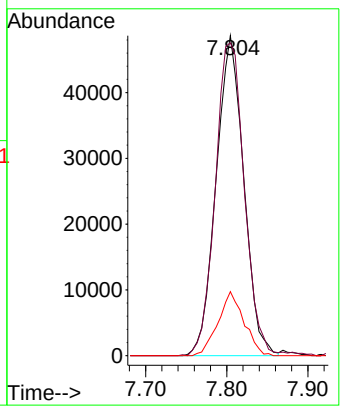




#35
Dibromofluoromethane
Concen: 48.966 ug/l
RT: 7.804 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:113 Resp: 11499

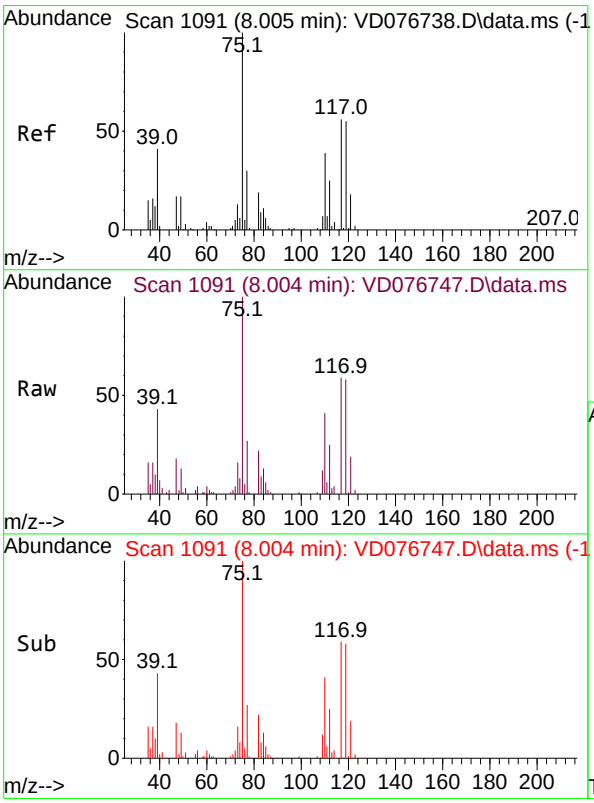
Ion	Ratio	Lower	Upper
113	100		
111	103.3	84.7	127.1
192	18.8	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

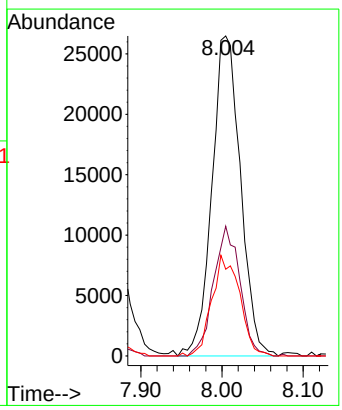
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

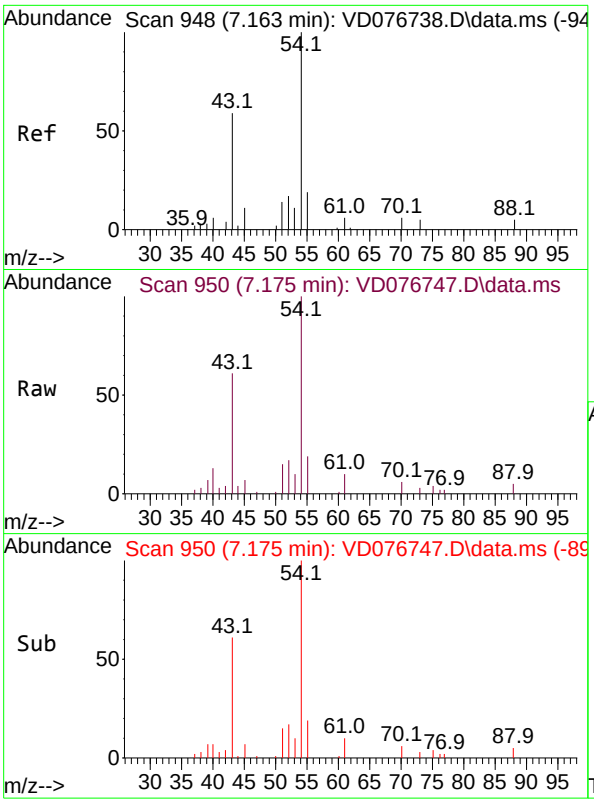


#36
1,1-Dichloropropene
Concen: 21.112 ug/l
RT: 8.004 min Scan# 1091
Delta R.T. -0.001 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 75 Resp: 64787

Ion	Ratio	Lower	Upper
75	100		
110	37.5	19.9	59.6
77	30.5	24.7	37.1





#37
Ethyl Acetate
Concen: 18.991 ug/l
RT: 7.175 min Scan# 9
Delta R.T. 0.012 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

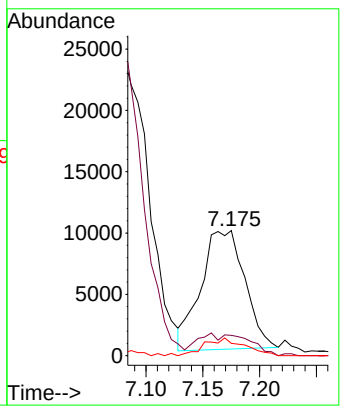
Tgt Ion: 43 Resp: 2606

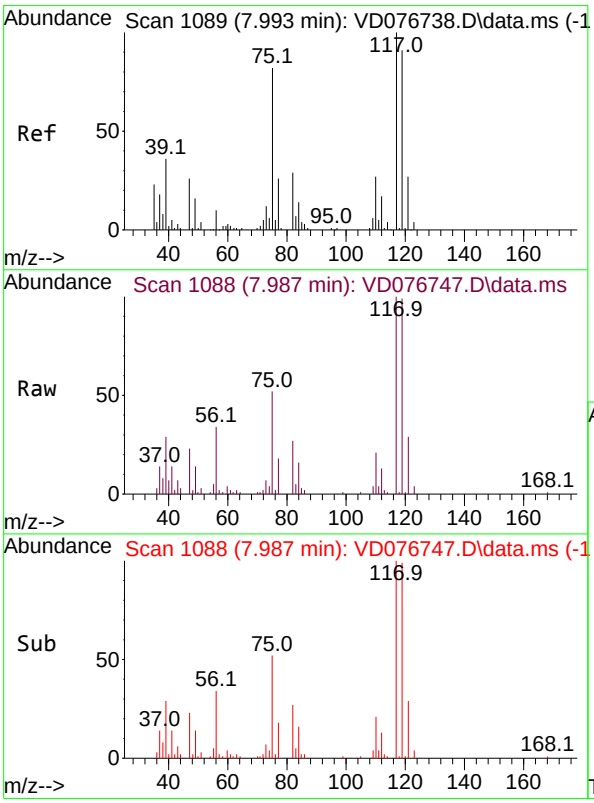
Ion	Ratio	Lower	Upper
43	100		
61	0.0	14.9	22.3#
70	13.6	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

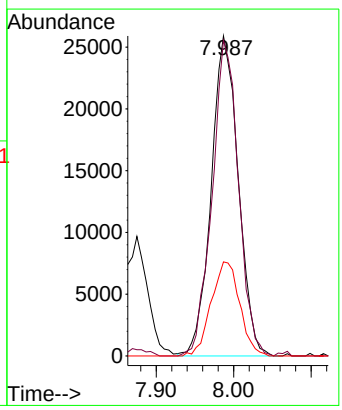


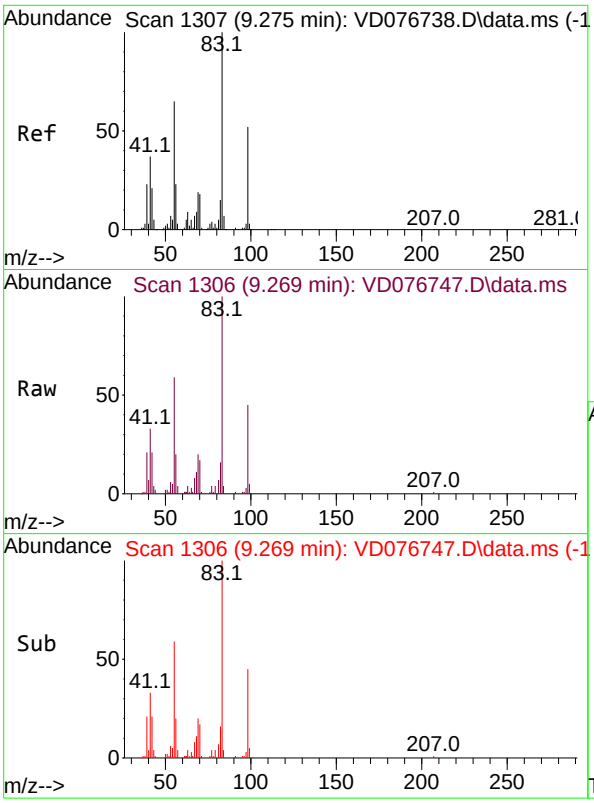


#38
Carbon Tetrachloride
Concen: 21.449 ug/l
RT: 7.987 min Scan# 1088
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:117 Resp: 63025

Ion	Ratio	Lower	Upper
117	100		
119	98.6	78.0	117.0
121	29.4	24.2	36.2

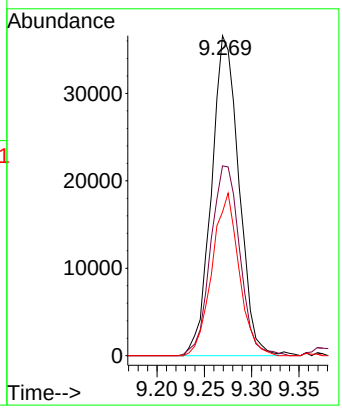




#39
Methylcyclohexane
Concen: 20.792 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 83 Resp: 7367

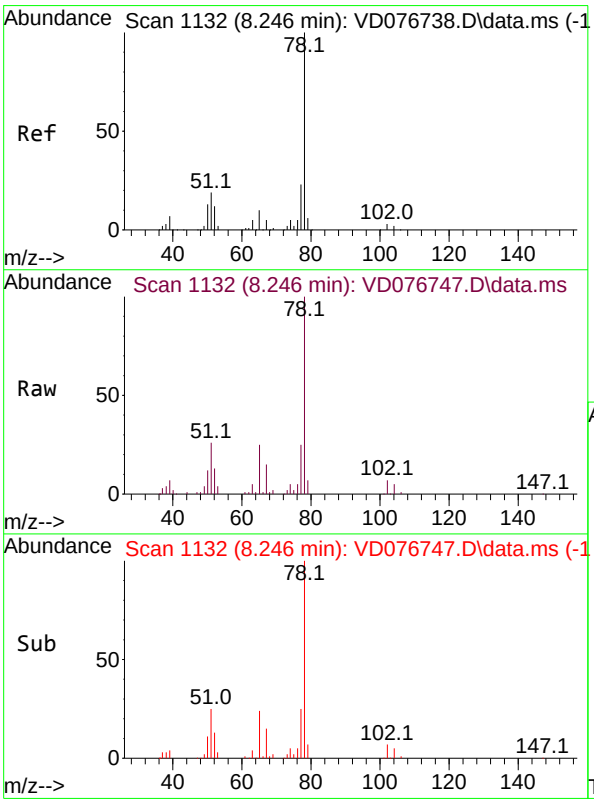
Ion	Ratio	Lower	Upper
83	100		
55	59.3	49.4	74.0
98	44.9	38.4	57.6



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

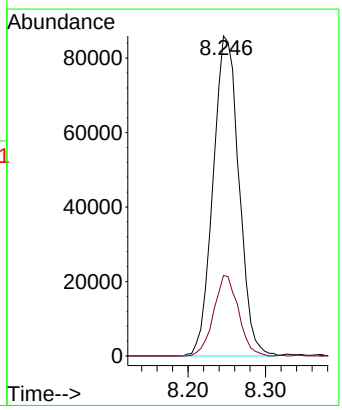
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

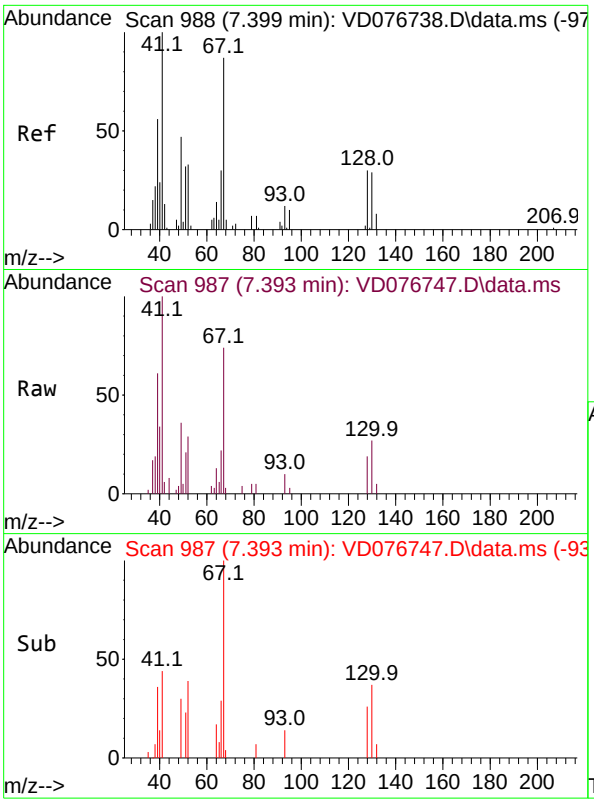


#40
Benzene
Concen: 20.584 ug/l
RT: 8.246 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 78 Resp: 199308

Ion	Ratio	Lower	Upper
78	100		
77	25.1	19.4	29.0

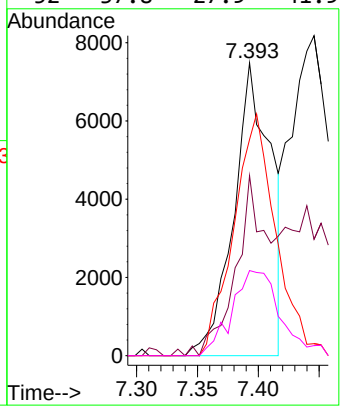




#41
Methacrylonitrile
Concen: 18.944 ug/l
RT: 7.393 min Scan# 9
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 41 Resp: 1587

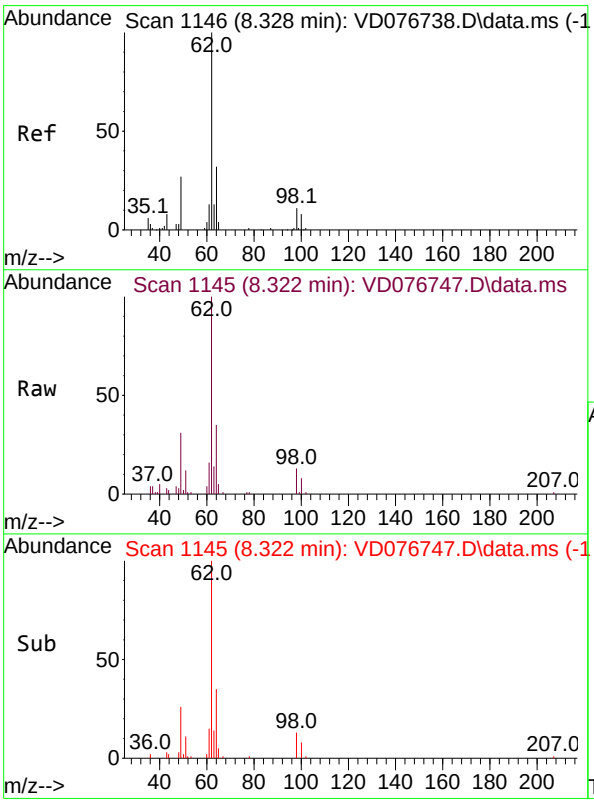
Ion	Ratio	Lower	Upper
41	100		
39	49.2	34.0	51.0
67	93.9	77.0	115.4
52	37.8	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

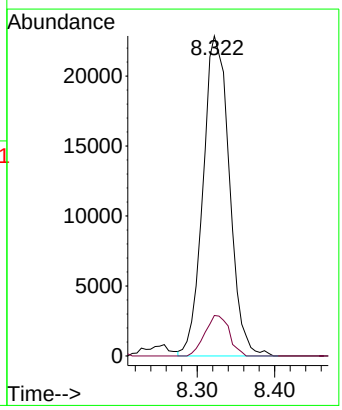
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

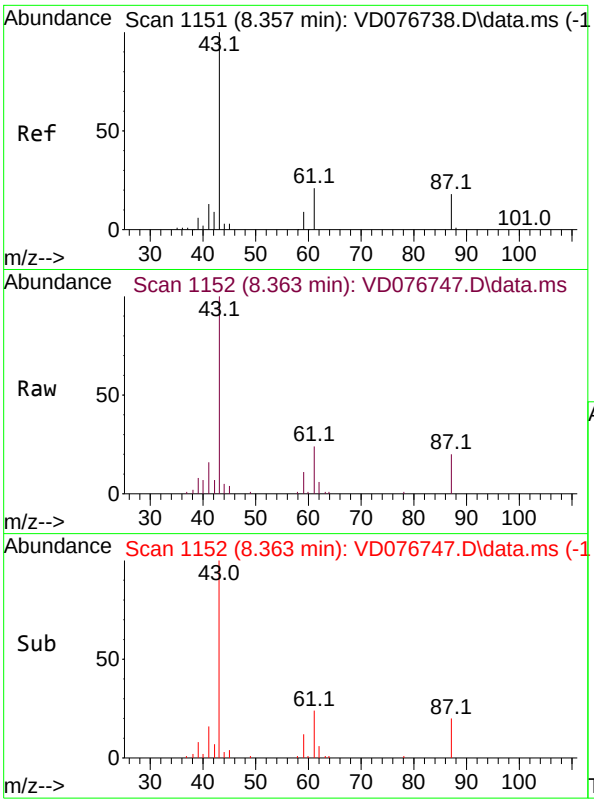


#42
1,2-Dichloroethane
Concen: 21.432 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 62 Resp: 53918

Ion	Ratio	Lower	Upper
62	100		
98	11.7	0.0	25.4





#43
Isopropyl Acetate
Concen: 19.495 ug/l
RT: 8.363 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

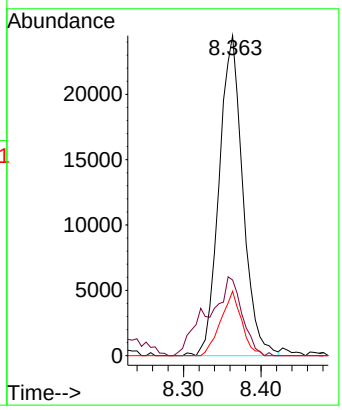
Tgt Ion: 43 Resp: 5221

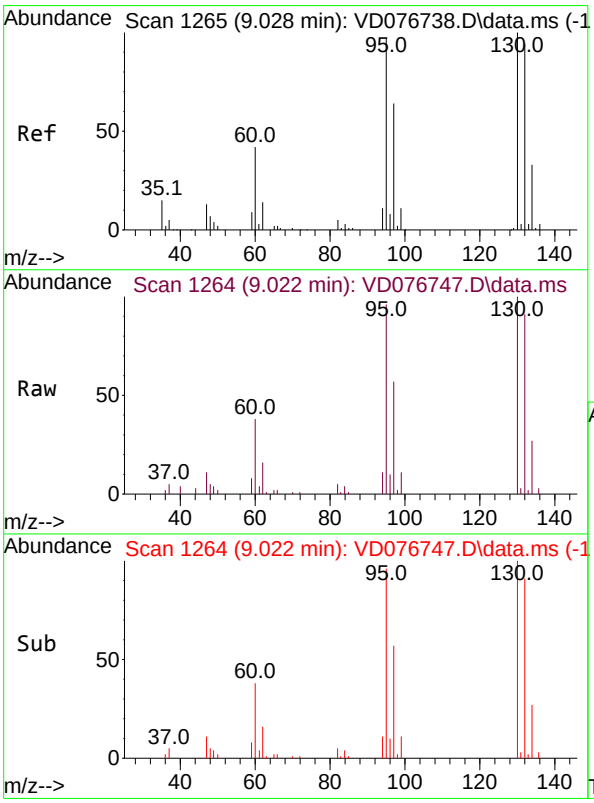
Ion	Ratio	Lower	Upper
43	100		
61	35.5	31.4	47.0
87	17.8	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

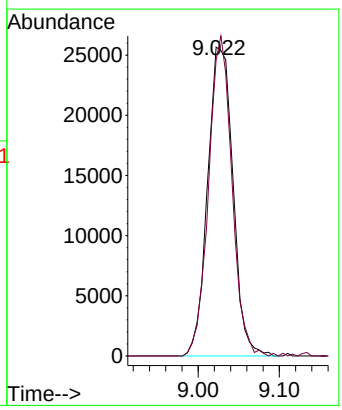


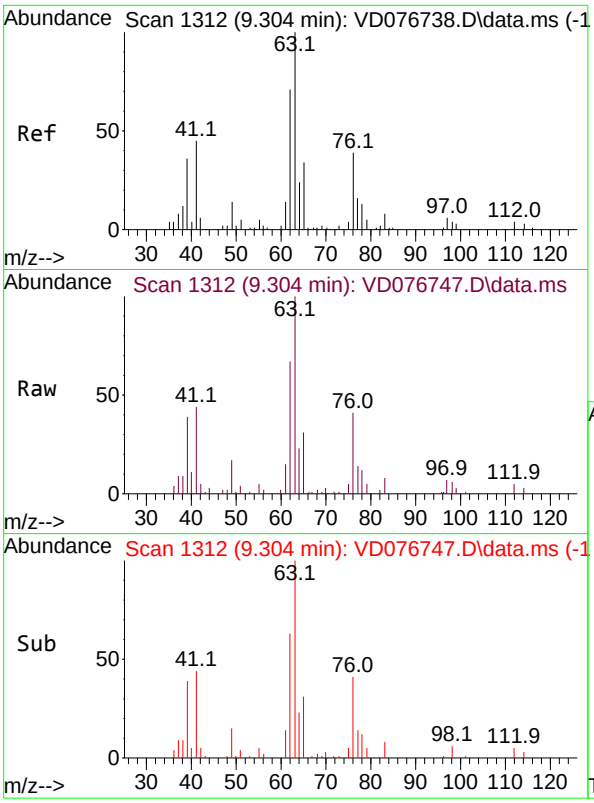


#44
Trichloroethene
Concen: 21.128 ug/l
RT: 9.022 min Scan# 1264
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:130 Resp: 55747

Ion	Ratio	Lower	Upper
130	100		
95	95.9	0.0	179.2

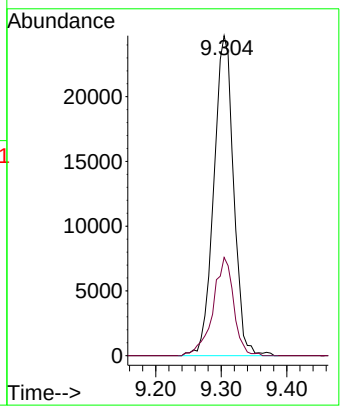




#45
1,2-Dichloropropane
Concen: 20.706 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 63 Resp: 5175

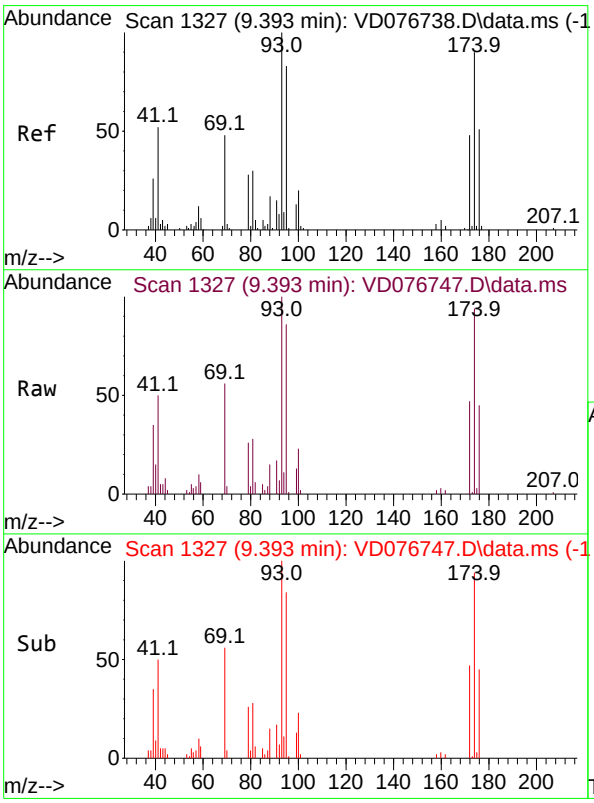
Ion	Ratio	Lower	Upper
63	100		
65	30.7	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

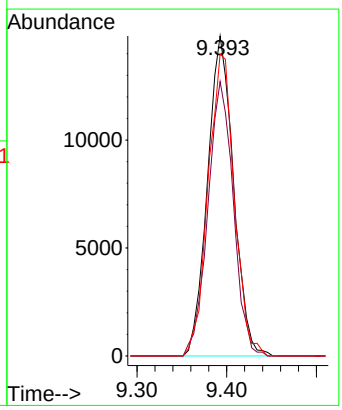
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

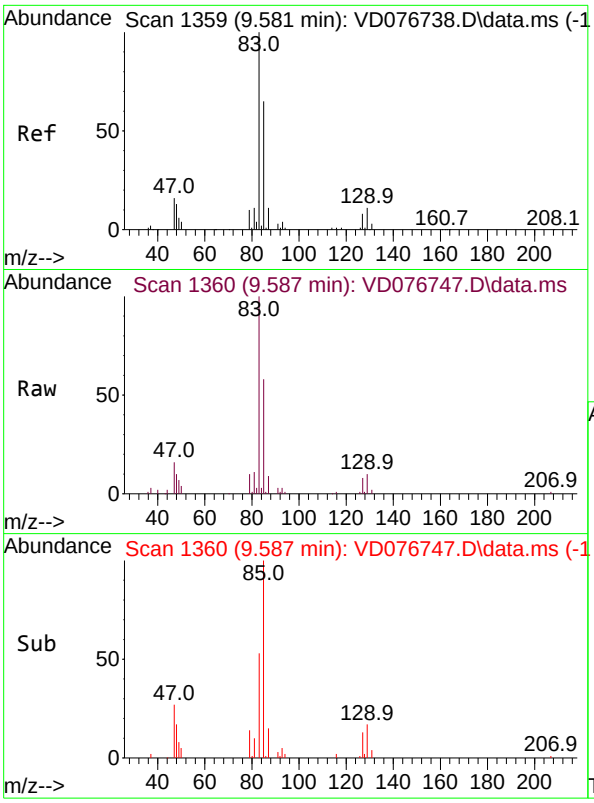


#46
Dibromomethane
Concen: 20.360 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 93 Resp: 29787

Ion	Ratio	Lower	Upper
93	100		
95	83.9	67.7	101.5
174	94.9	85.4	128.2

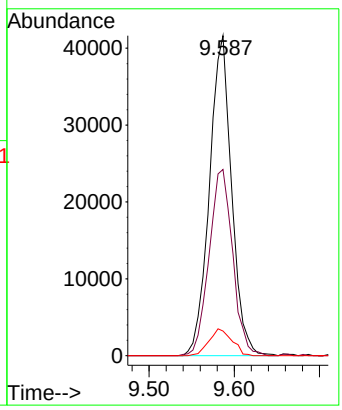




#47
Bromodichloromethane
Concen: 20.541 ug/l
RT: 9.587 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 83 Resp: 7541

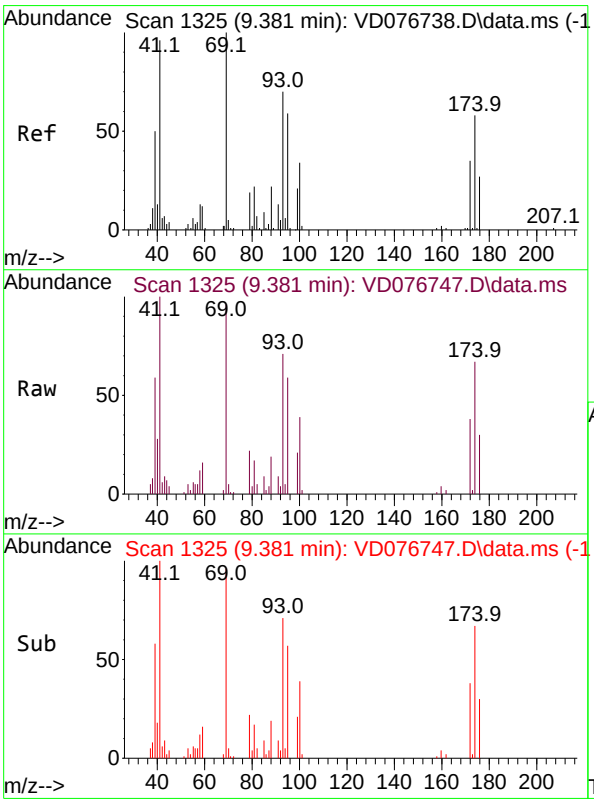
Ion	Ratio	Lower	Upper
83	100		
85	58.2	50.2	75.4
127	7.7	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

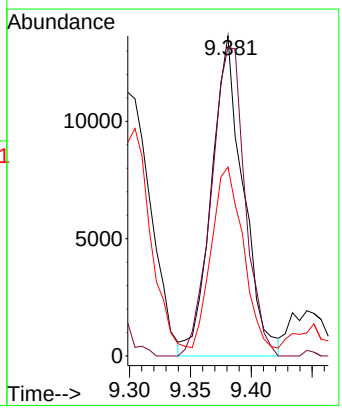
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

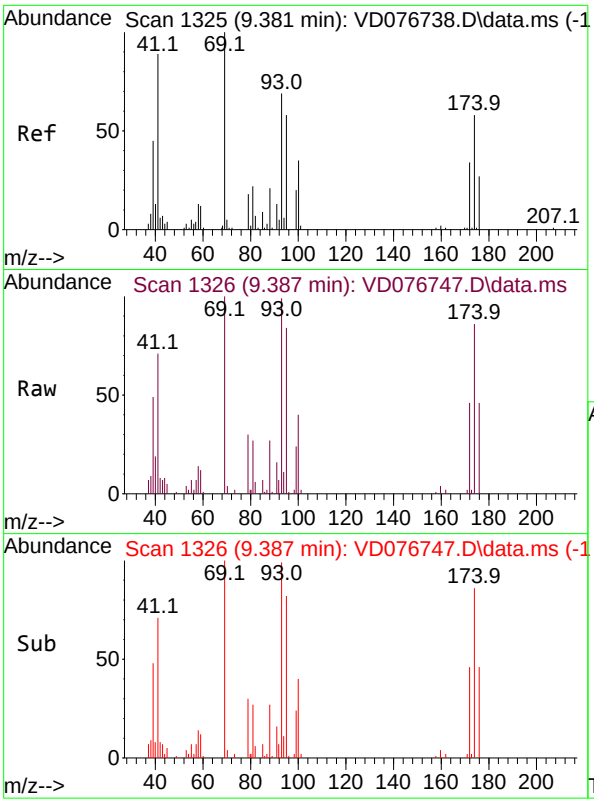


#48
Methyl methacrylate
Concen: 20.255 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 41 Resp: 24691

Ion	Ratio	Lower	Upper
41	100		
69	102.4	102.2	153.2
39	61.5	41.4	62.2





#49
1,4-Dioxane
Concen: 385.666 ug/l
RT: 9.387 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

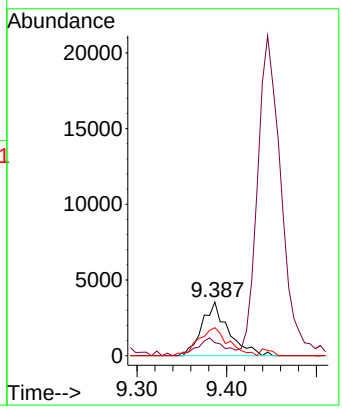
Tgt Ion: 88 Resp: 722

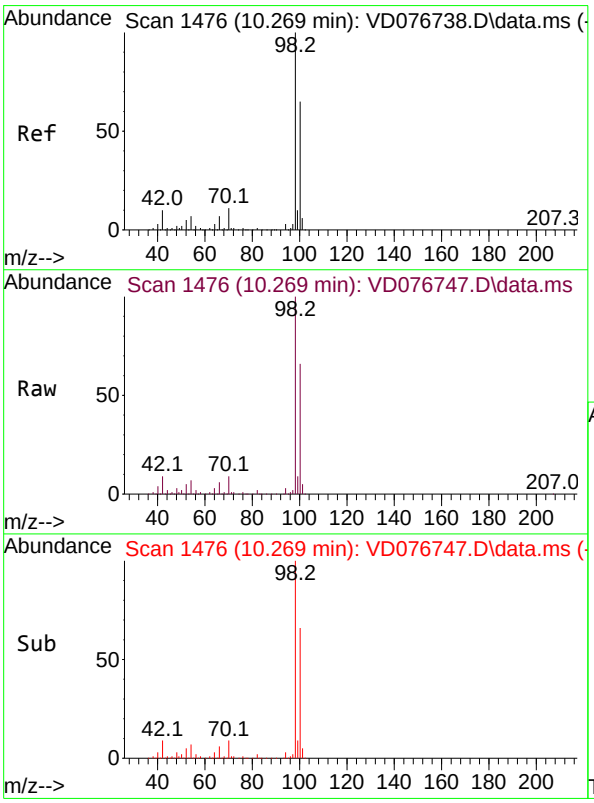
Ion	Ratio	Lower	Upper
88	100		
43	32.6	19.0	28.6
58	58.2	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

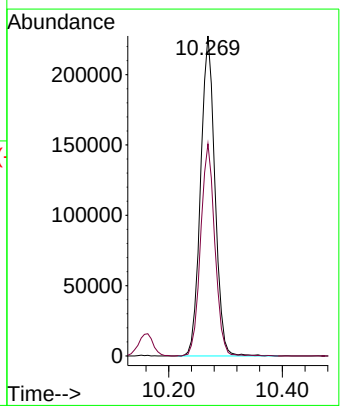


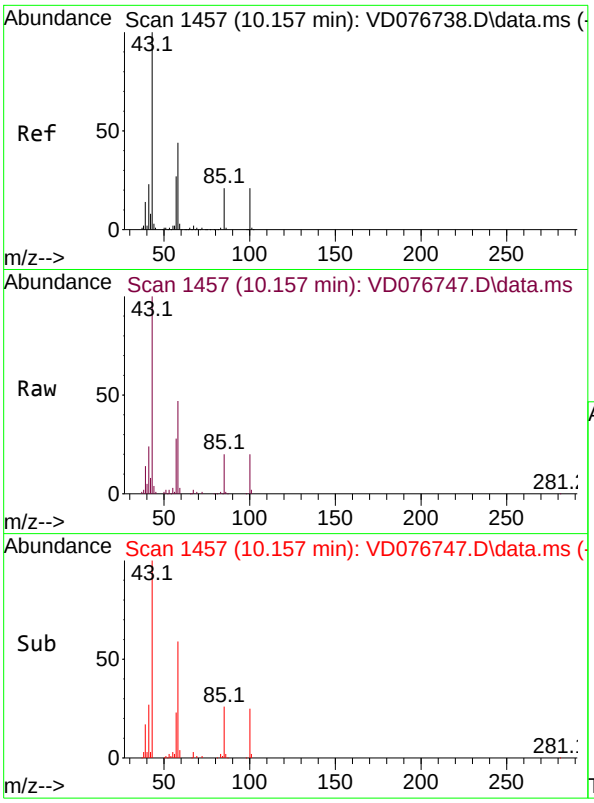


#50
Toluene-d8
Concen: 47.281 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 98 Resp: 397213

Ion	Ratio	Lower	Upper
98	100		
100	65.9	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 99.934 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

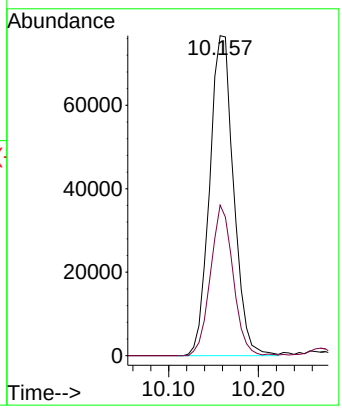
Tgt Ion: 43 Resp: 14250

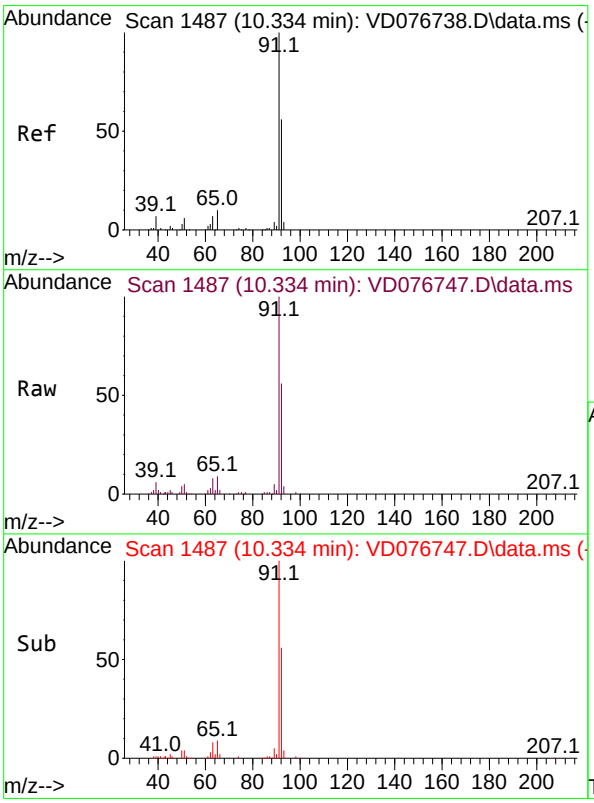
Ion	Ratio	Lower	Upper
43	100		
58	44.2	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

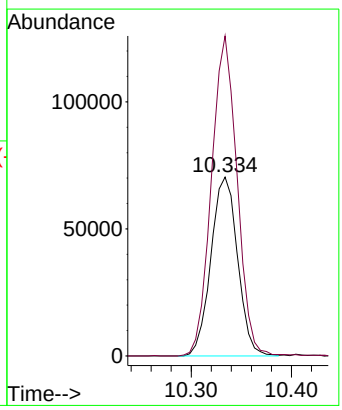


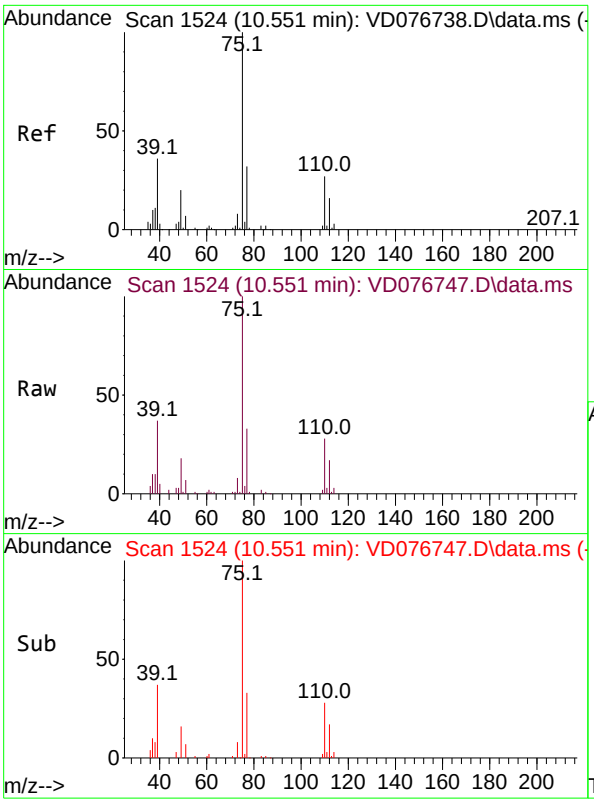


#52
Toluene
Concen: 20.445 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 92 Resp: 130018

Ion	Ratio	Lower	Upper
92	100		
91	172.8	143.0	214.4

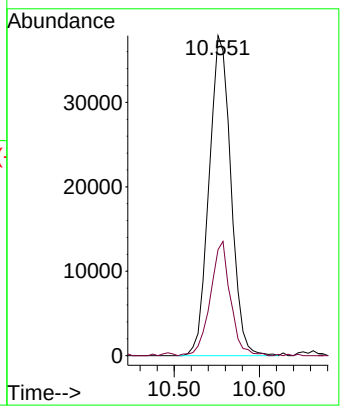




#53
t-1,3-Dichloropropene
Concen: 19.803 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 75 Resp: 6748

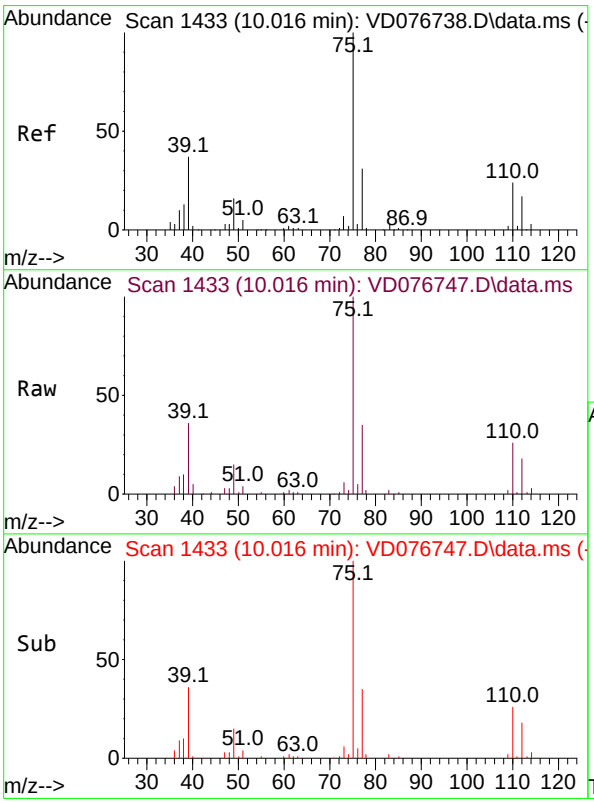
Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

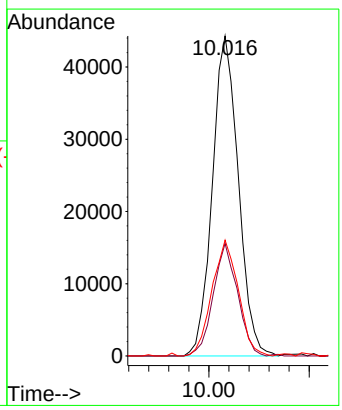
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

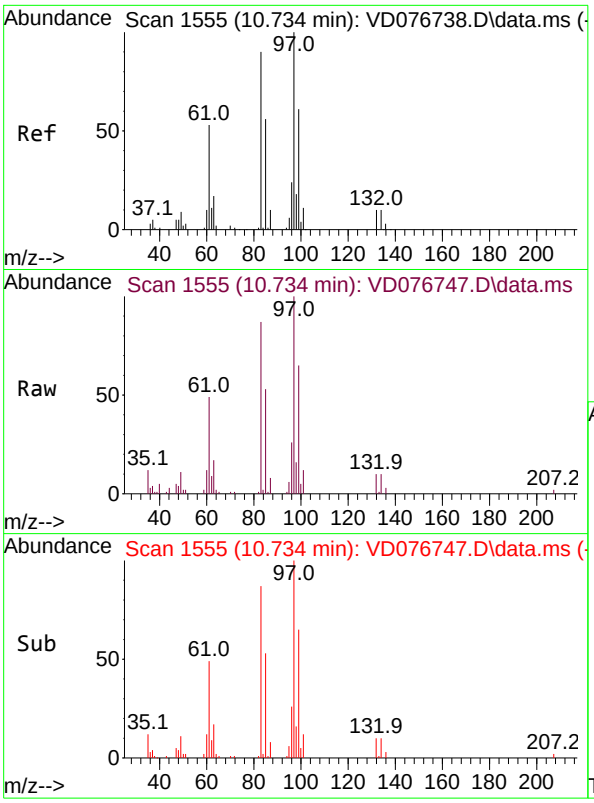


#54
cis-1,3-Dichloropropene
Concen: 19.841 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 75 Resp: 79685

Ion	Ratio	Lower	Upper
75	100		
77	35.1	25.5	38.3
39	36.2	22.1	33.1#

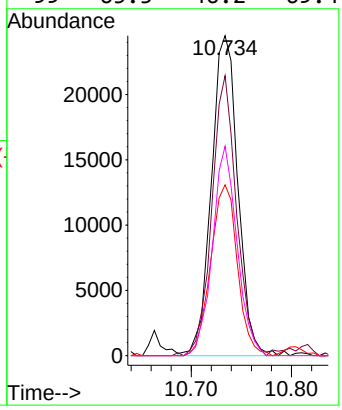




#55
1,1,2-Trichloroethane
Concen: 20.995 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 97 Resp: 4485

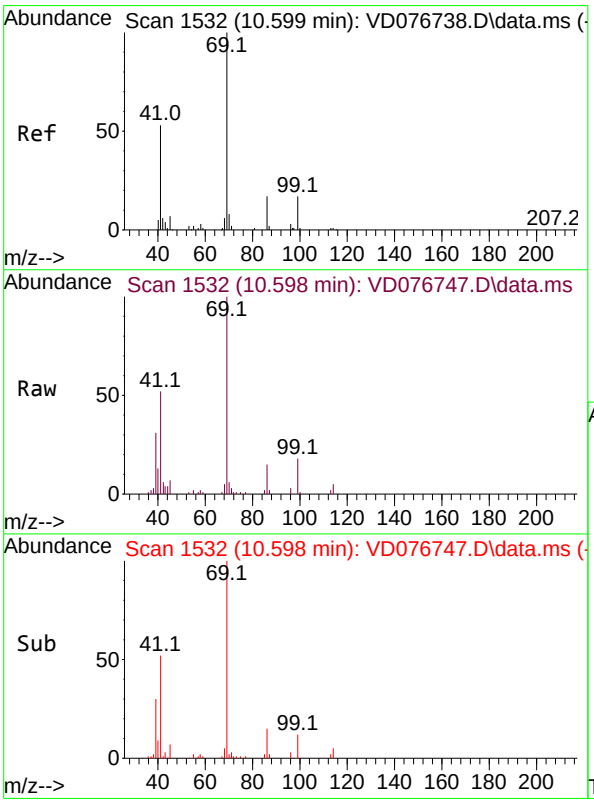
Ion	Ratio	Lower	Upper
97	100		
83	86.5	65.8	98.6
85	53.4	45.7	68.5
99	65.5	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

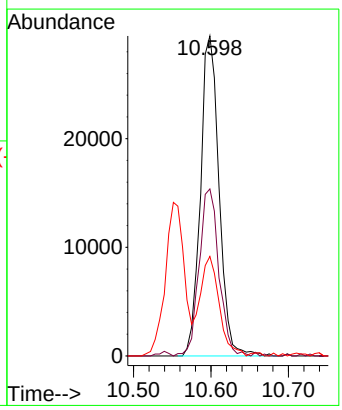
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

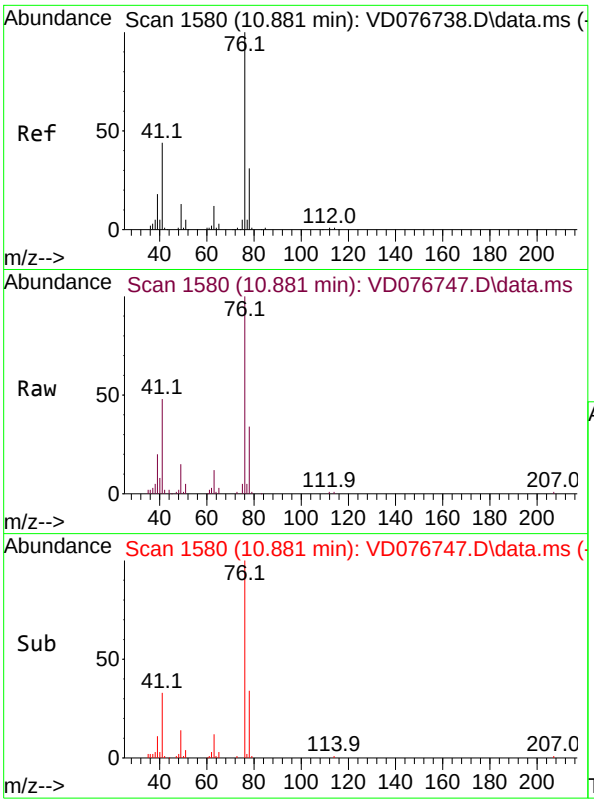


#56
Ethyl methacrylate
Concen: 19.940 ug/l
RT: 10.598 min Scan# 1532
Delta R.T. -0.001 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 69 Resp: 49168

Ion	Ratio	Lower	Upper
69	100		
41	55.4	39.1	58.7
39	32.3	20.0	30.0#





#57
1,3-Dichloropropane
Concen: 19.707 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

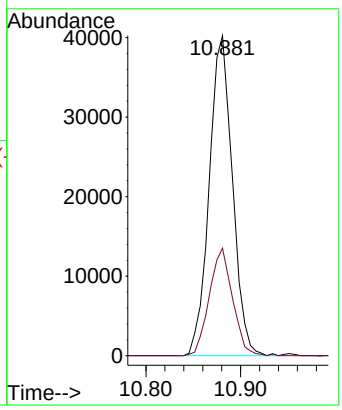
Tgt Ion: 76 Resp: 6856

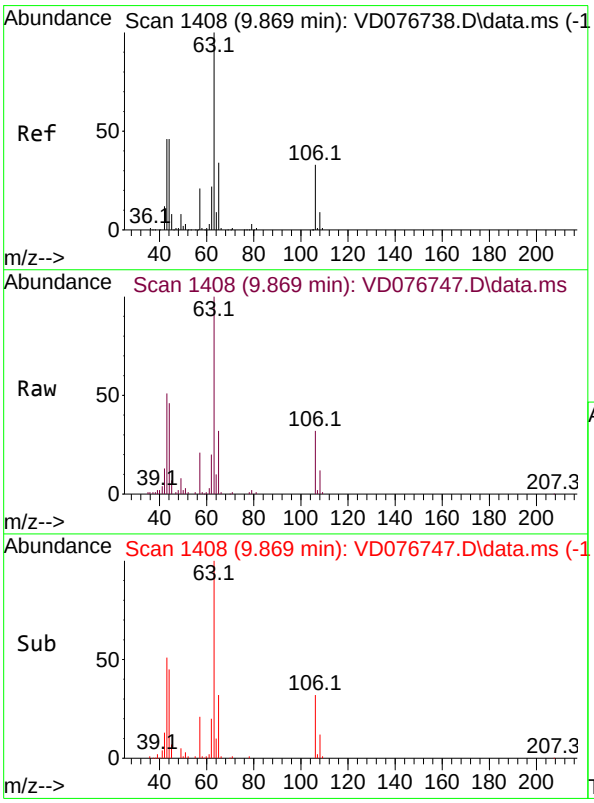
Ion	Ratio	Lower	Upper
76	100		
78	33.7	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

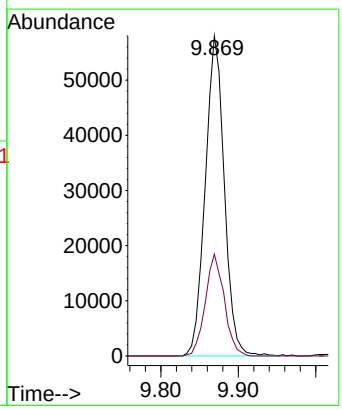


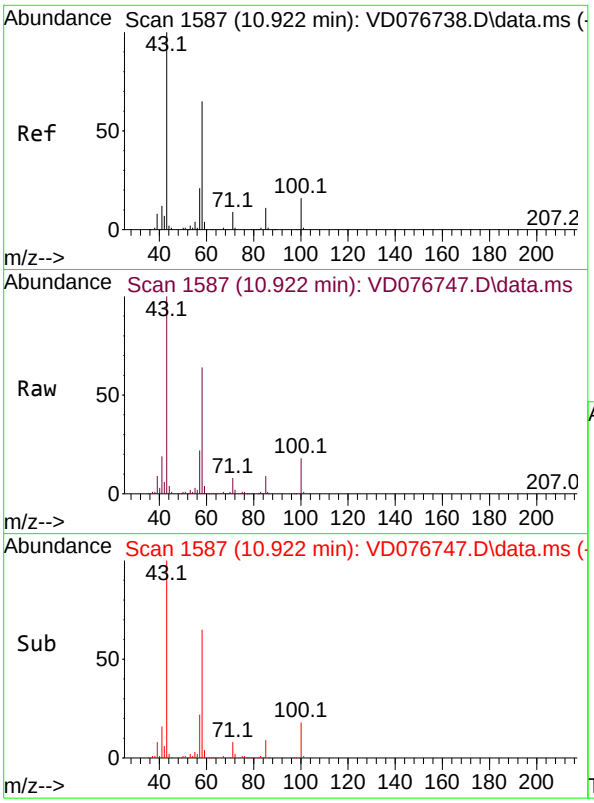


#58
2-Chloroethyl Vinyl ether
Concen: 103.934 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 63 Resp: 99200

Ion	Ratio	Lower	Upper
63	100		
106	31.6	25.3	37.9





#59
2-Hexanone
Concen: 99.608 ug/l
RT: 10.922 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

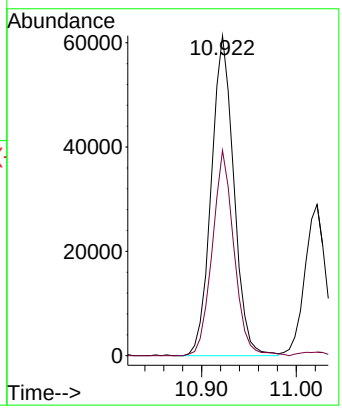
Tgt Ion: 43 Resp: 10135

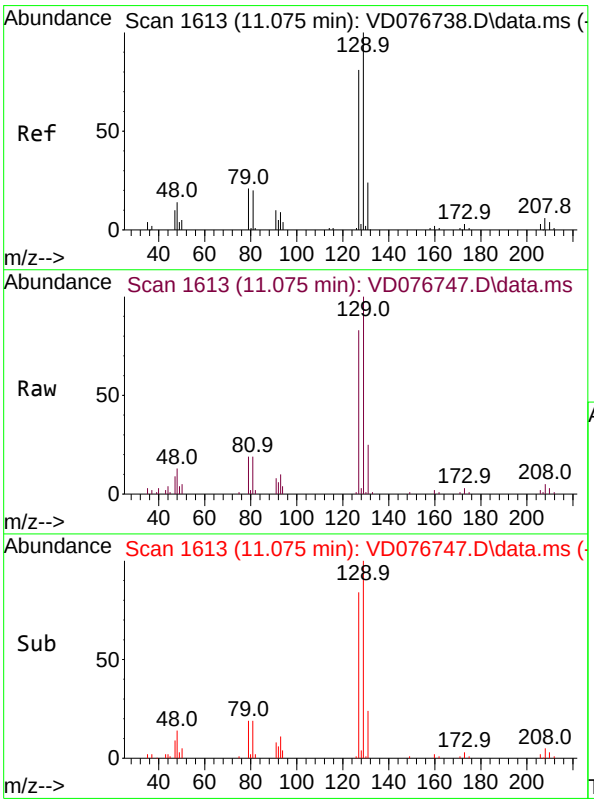
Ion	Ratio	Lower	Upper
43	100		
58	61.8	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

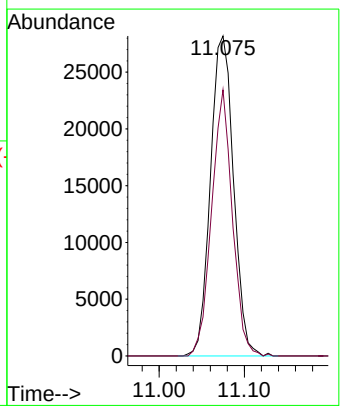


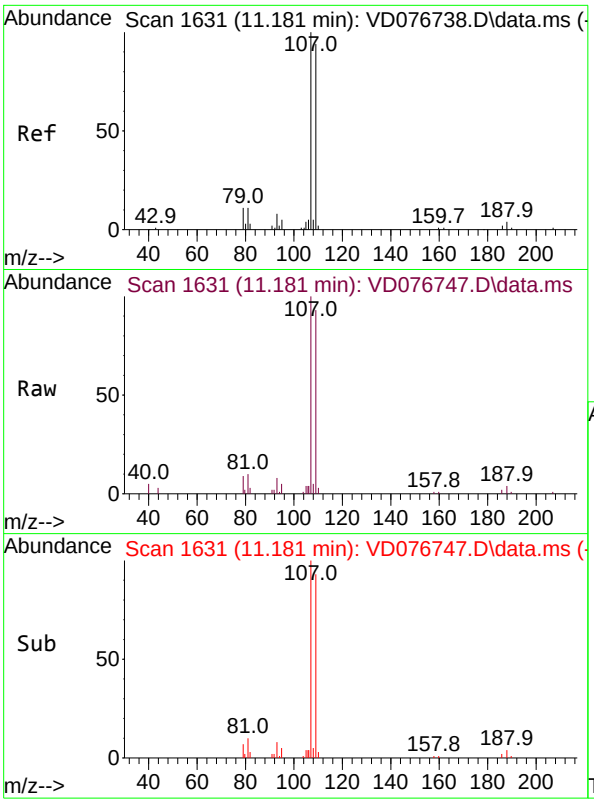


#60
Dibromochloromethane
Concen: 21.387 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:129 Resp: 53079

Ion	Ratio	Lower	Upper
129	100		
127	74.9	37.1	111.5





#61
1,2-Dibromoethane
Concen: 20.571 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

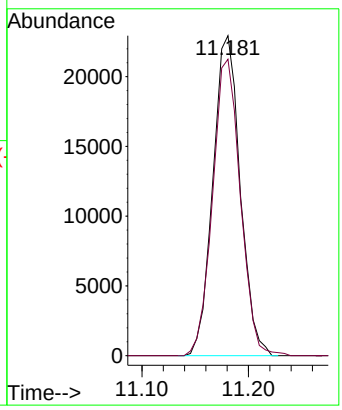
Tgt Ion:107 Resp: 4074

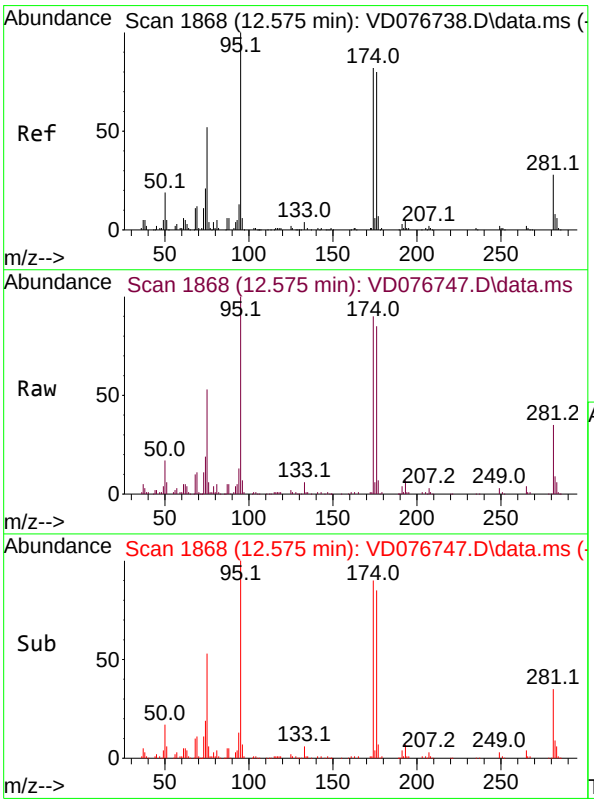
Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

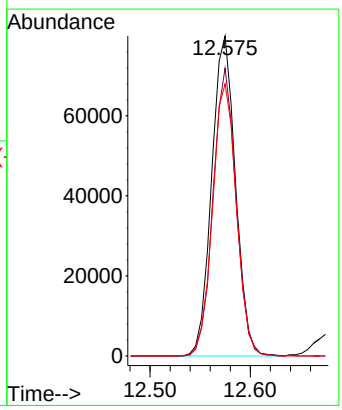


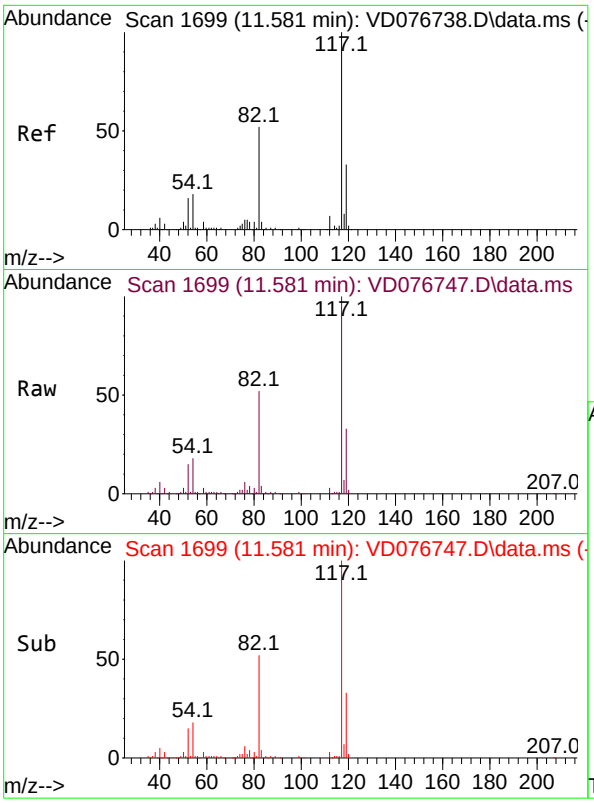


#62
4-Bromofluorobenzene
Concen: 48.388 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 95 Resp: 131506

Ion	Ratio	Lower	Upper
95	100		
174	86.6	0.0	201.8
176	85.1	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

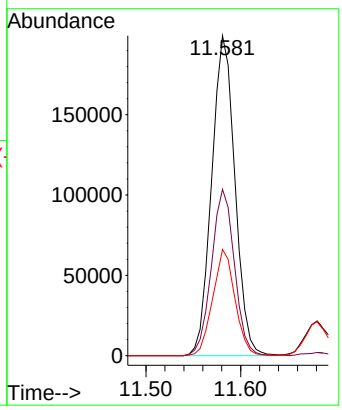
Tgt Ion:117 Resp: 33999

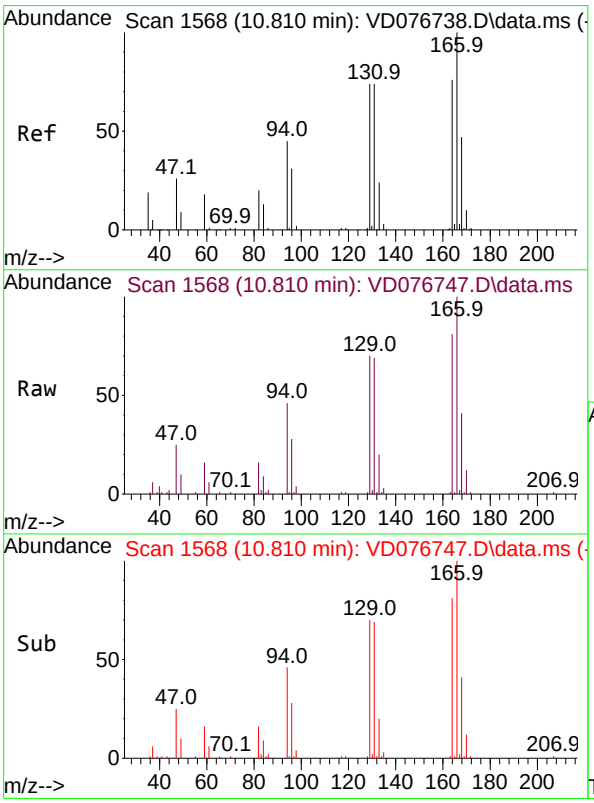
Ion	Ratio	Lower	Upper
117	100		
82	52.0	38.3	57.5
119	33.2	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

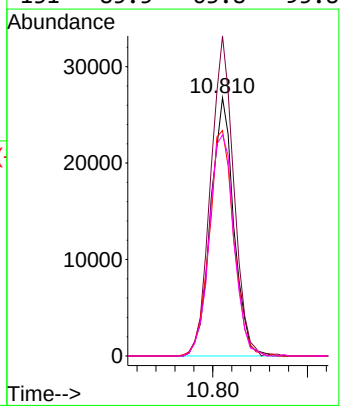


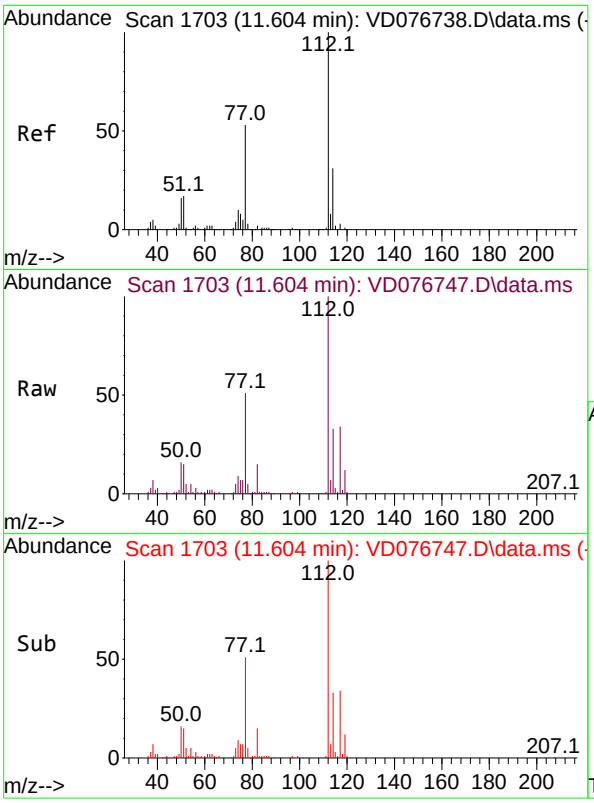


#64
Tetrachloroethene
Concen: 23.341 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:164 Resp: 45251

Ion	Ratio	Lower	Upper
164	100		
166	123.9	99.2	148.8
129	87.3	68.4	102.6
131	85.5	63.8	95.8





#65
Chlorobenzene
Concen: 21.141 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

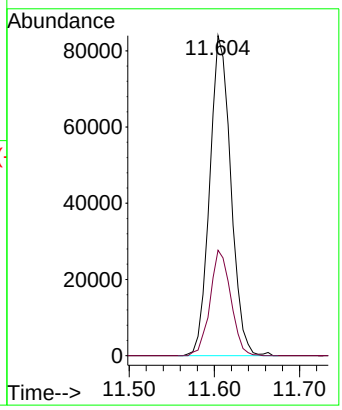
Tgt Ion:112 Resp: 14456

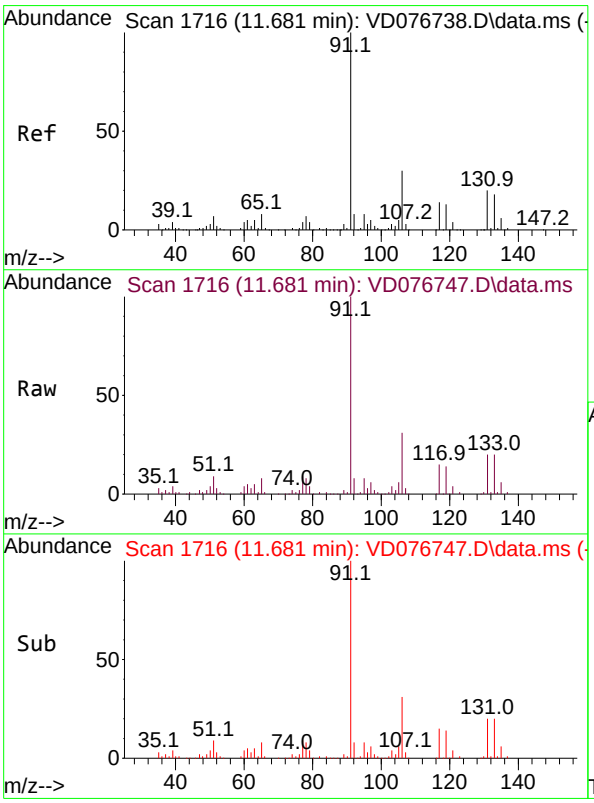
Ion	Ratio	Lower	Upper
112	100		
114	32.9	25.1	37.7

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

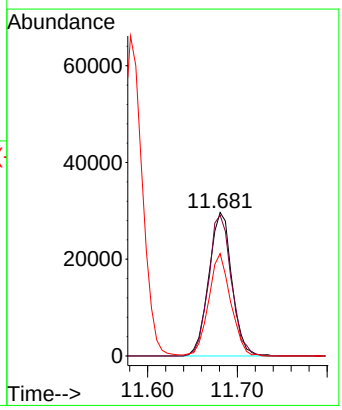


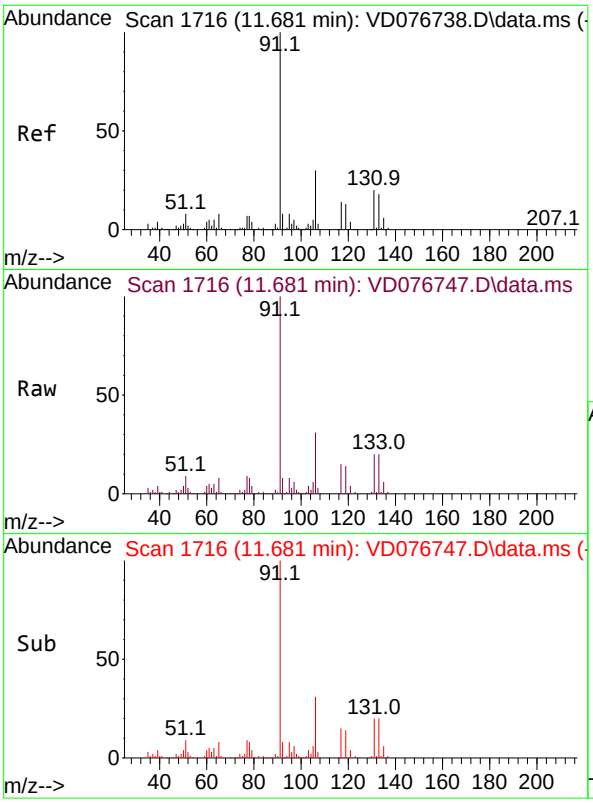


#66
1,1,1,2-Tetrachloroethane
Concen: 20.813 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:131 Resp: 52987

Ion	Ratio	Lower	Upper
131	100		
133	97.3	48.5	145.5
119	68.2	35.6	106.9

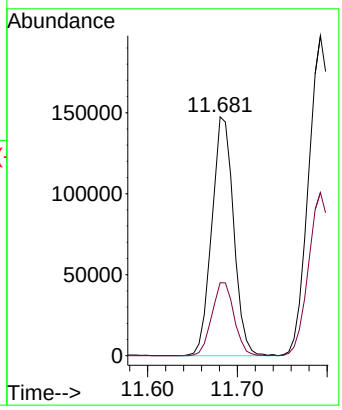




#67
Ethyl Benzene
Concen: 20.735 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 91 Resp: 24900

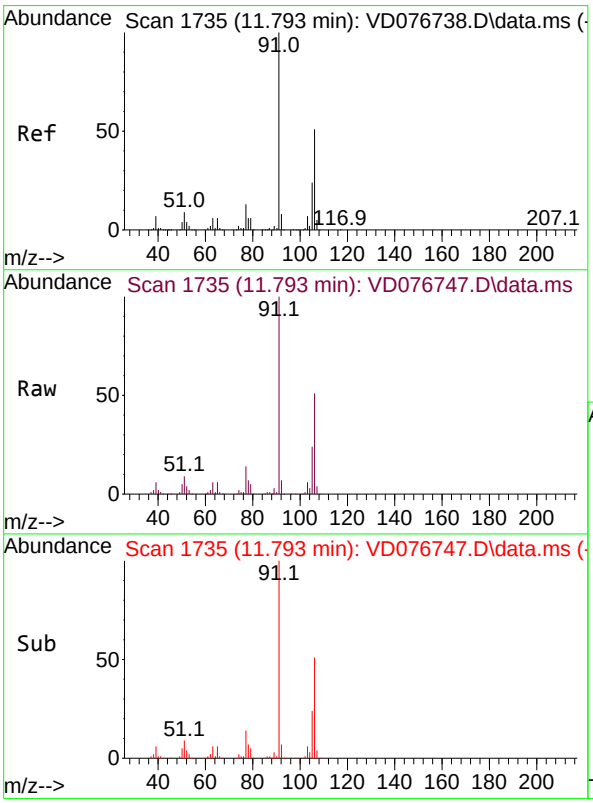
Ion	Ratio	Lower	Upper
91	100		
106	30.5	26.5	39.7



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

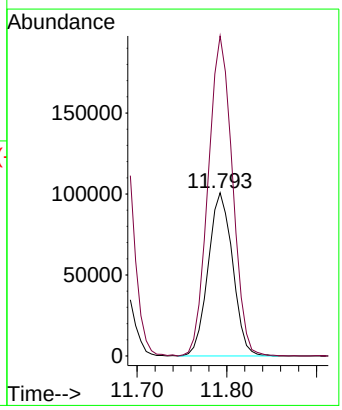
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

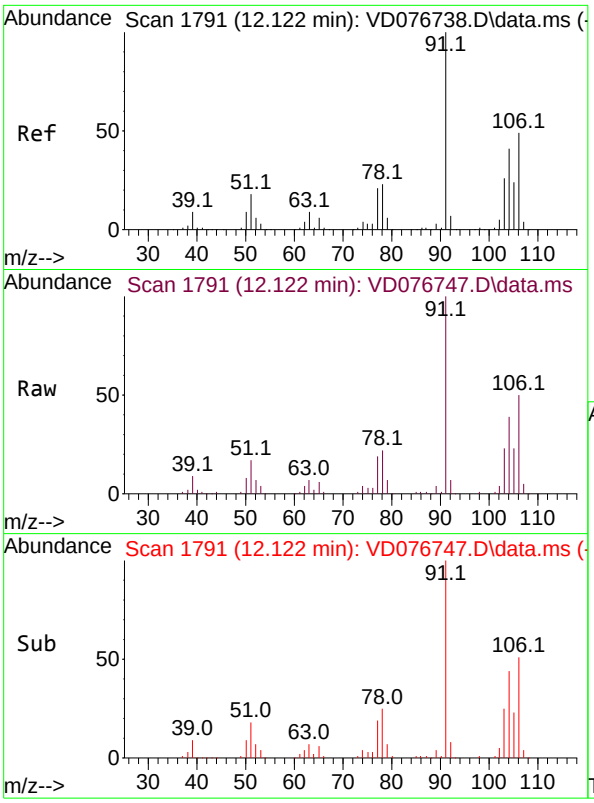


#68
m/p-Xylenes
Concen: 41.329 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:106 Resp: 190617

Ion	Ratio	Lower	Upper
106	100		
91	195.0	147.0	220.6

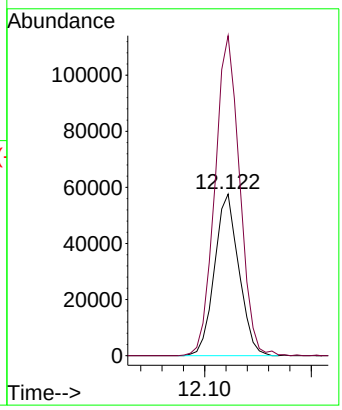




#69
o-Xylene
Concen: 20.472 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:106 Resp: 9130

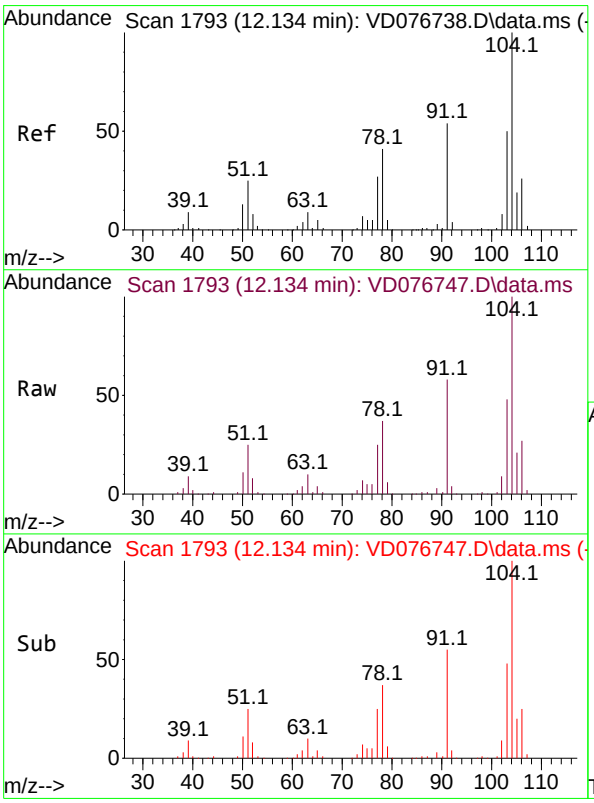
Ion	Ratio	Lower	Upper
106	100		
91	201.4	97.9	293.6



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

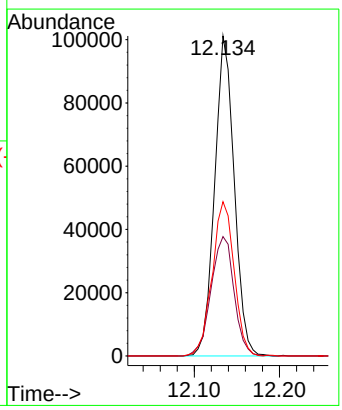
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

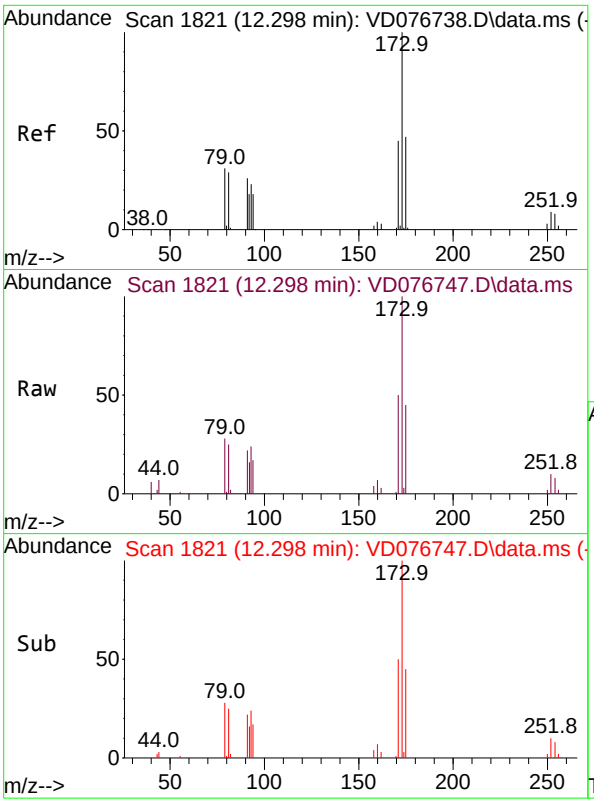


#70
Styrene
Concen: 20.686 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:104 Resp: 161508

Ion	Ratio	Lower	Upper
104	100		
78	43.8	33.2	49.8
103	54.0	43.6	65.4





#71
Bromoform
Concen: 22.364 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

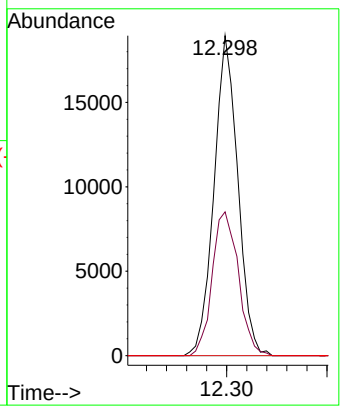
Tgt Ion:173 Resp: 3118

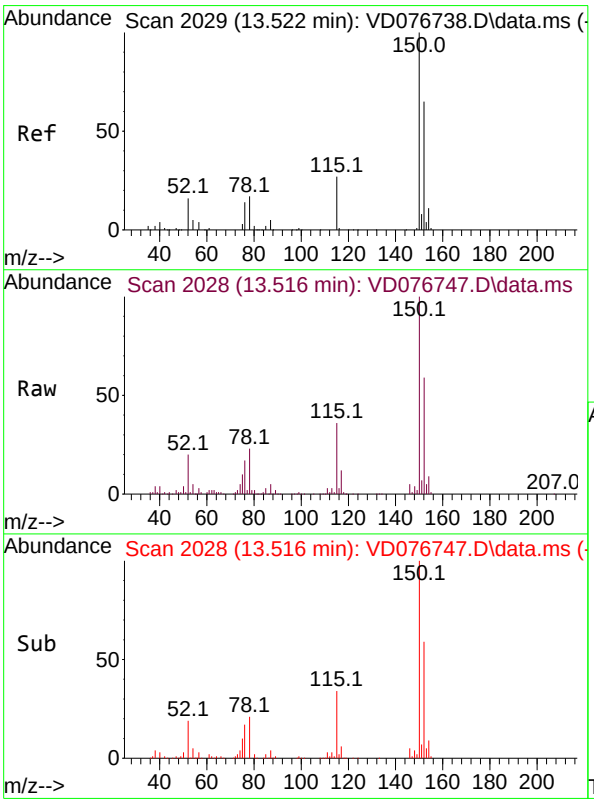
Ion	Ratio	Lower	Upper
173	100		
175	49.5	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

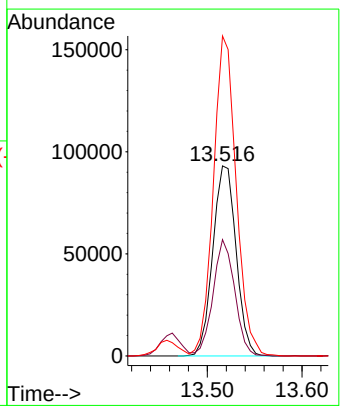


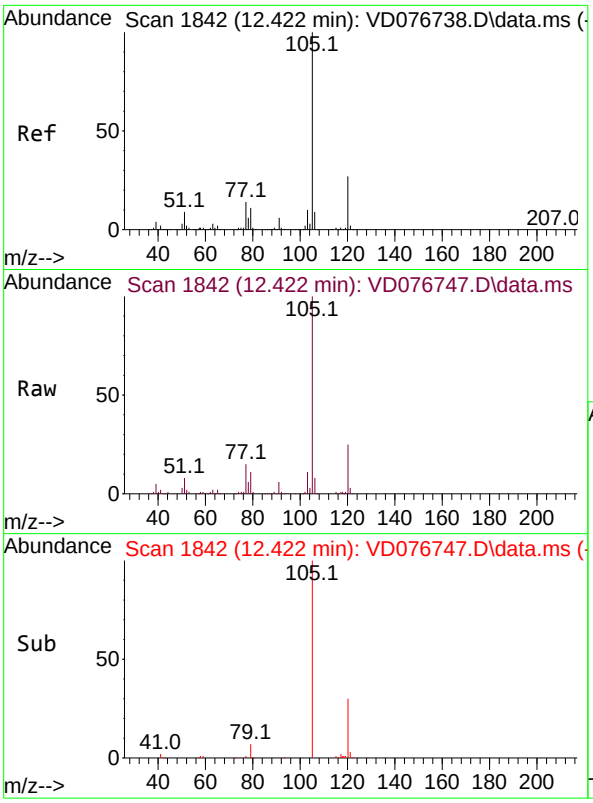


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:152 Resp: 159296

Ion	Ratio	Lower	Upper
152	100		
115	56.7	27.1	81.3
150	164.8	0.0	353.6





#73
Isopropylbenzene
Concen: 21.078 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

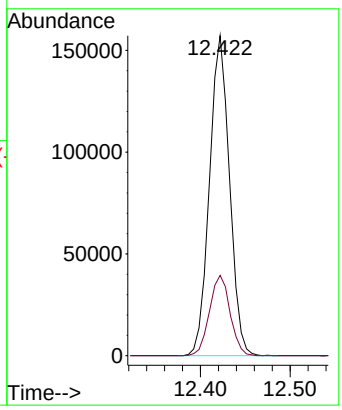
Tgt Ion:105 Resp: 24360

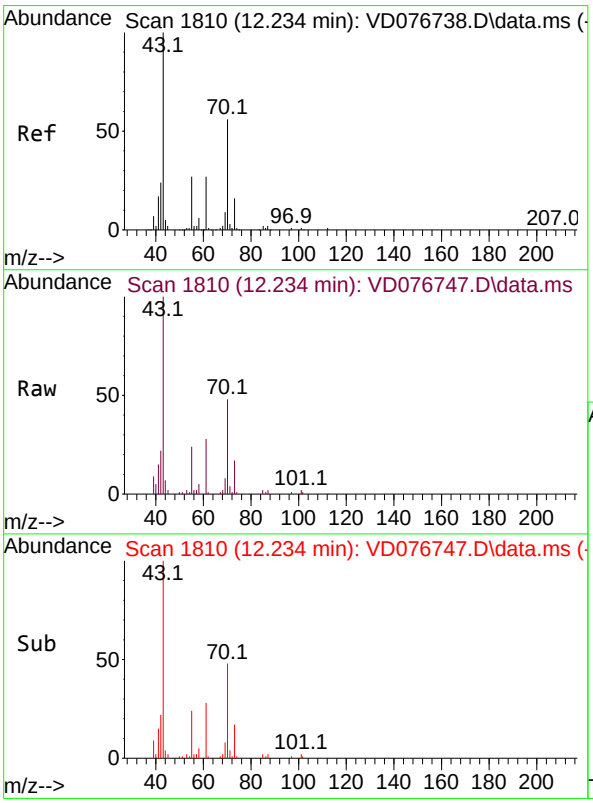
Ion	Ratio	Lower	Upper
105	100		
120	25.8	14.3	42.9

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

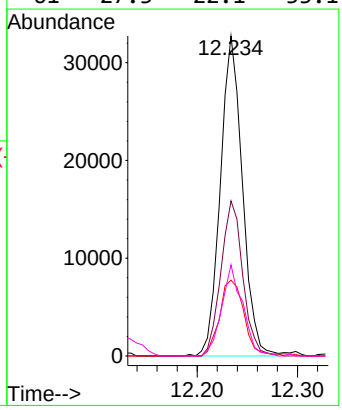


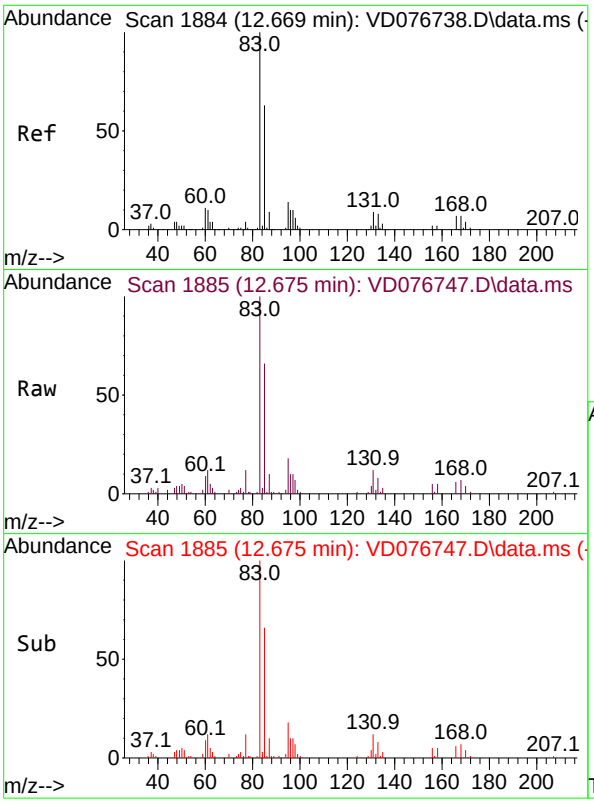


#74
N-amyl acetate
Concen: 20.513 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 43 Resp: 49945

Ion	Ratio	Lower	Upper
43	100		
70	48.2	45.0	67.4
55	26.7	23.8	35.6
61	27.3	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 20.466 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

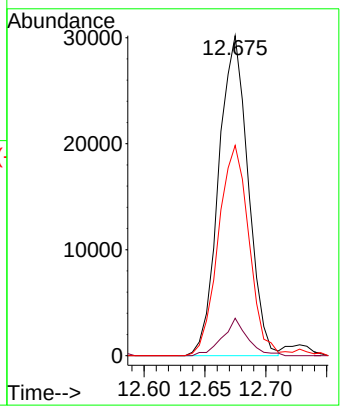
Tgt Ion: 83 Resp: 5078

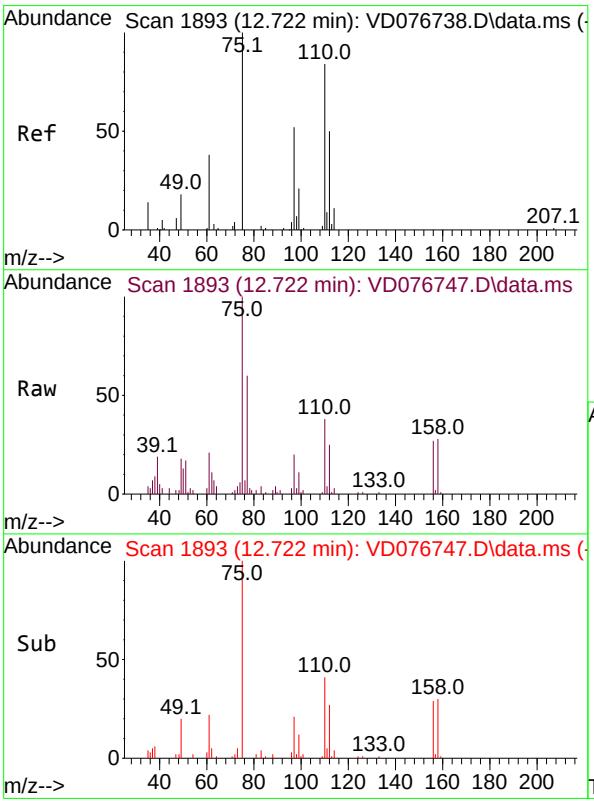
Ion	Ratio	Lower	Upper
83	100		
131	9.9	5.1	15.3
85	68.8	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

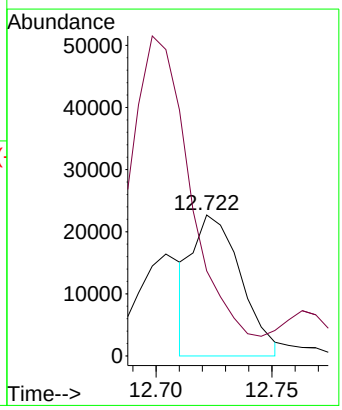


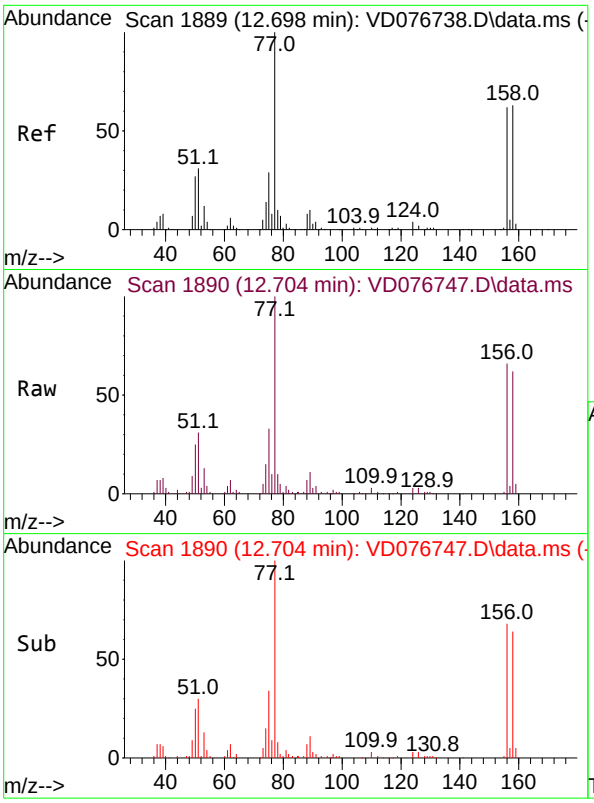


#76
1,2,3-Trichloropropane
Concen: 21.719 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 75 Resp: 32902

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0

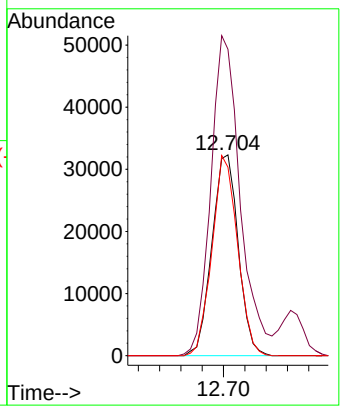




#77
Bromobenzene
Concen: 20.830 ug/l
RT: 12.704 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:156 Resp: 5556

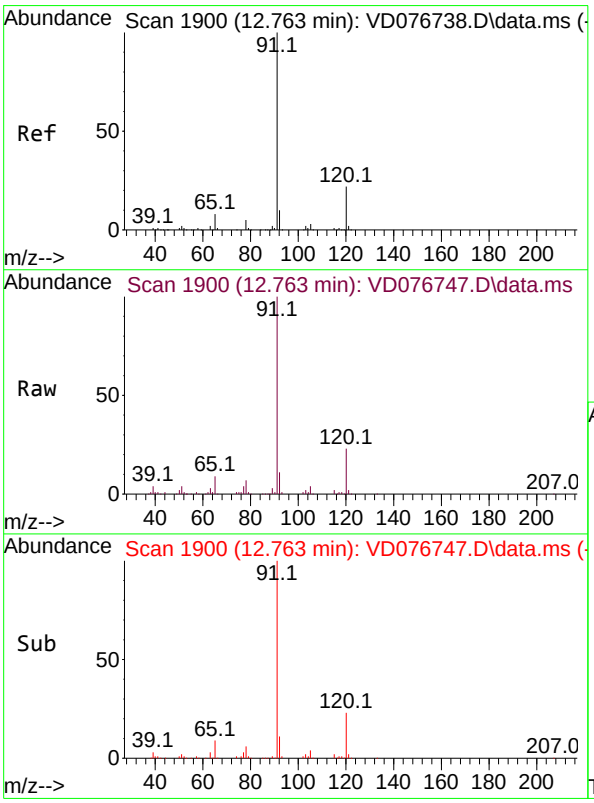
Ion	Ratio	Lower	Upper
156	100		
77	177.8	76.8	230.4
158	96.5	48.6	145.9



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

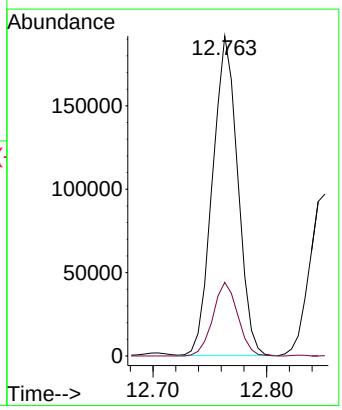
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

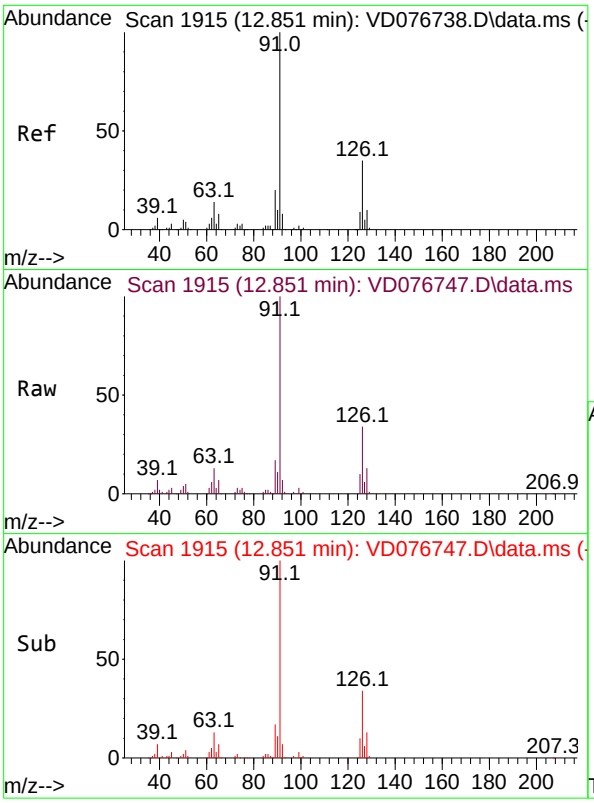


#78
n-propylbenzene
Concen: 21.125 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 91 Resp: 295985

Ion	Ratio	Lower	Upper
91	100		
120	22.6	12.4	37.2





#79
2-Chlorotoluene
Concen: 20.796 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

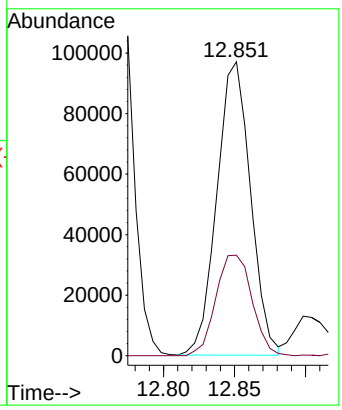
Tgt Ion: 91 Resp: 15976

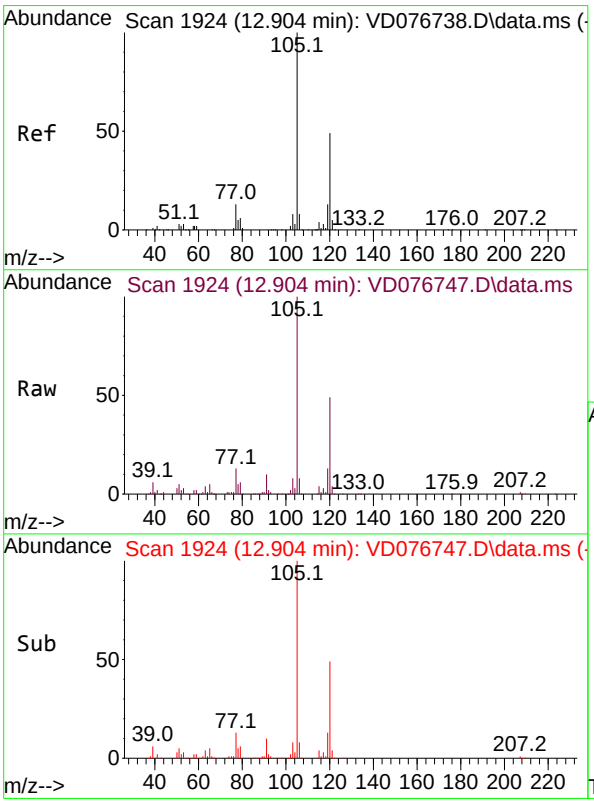
Ion	Ratio	Lower	Upper
91	100		
126	36.8	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

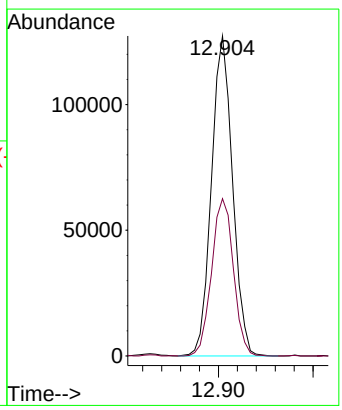


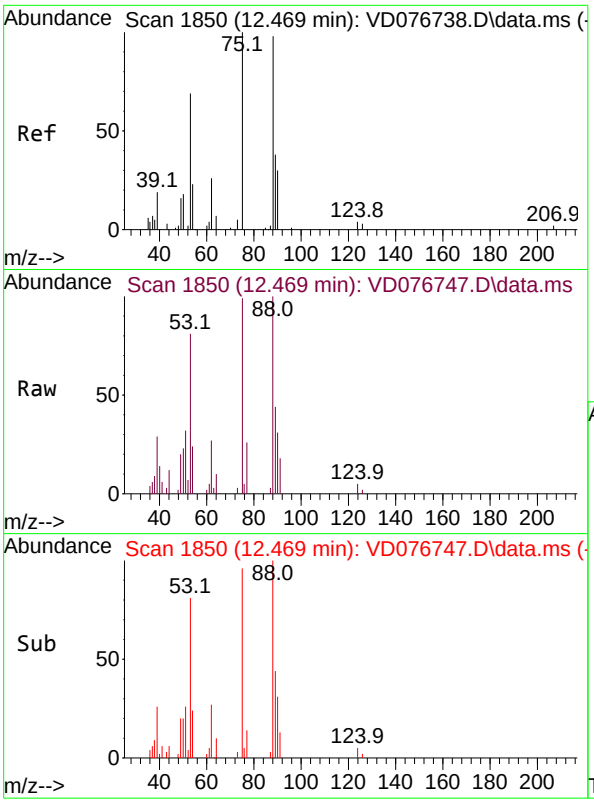


#80
1,3,5-Trimethylbenzene
Concen: 21.039 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:105 Resp: 196613

Ion	Ratio	Lower	Upper
105	100		
120	50.8	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 20.756 ug/l
RT: 12.469 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

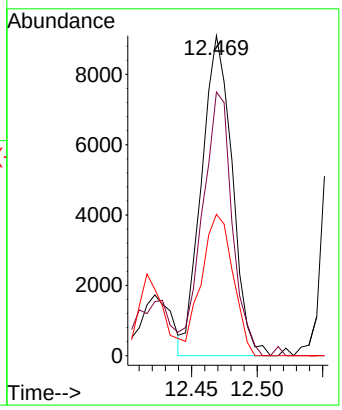
Tgt Ion: 75 Resp: 1477

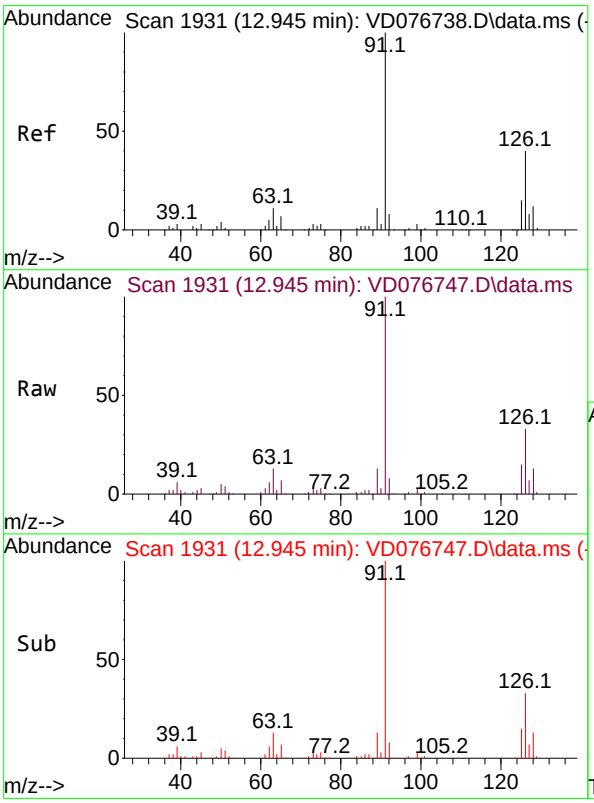
Ion	Ratio	Lower	Upper
75	100		
53	79.9	63.0	94.4
89	45.2	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

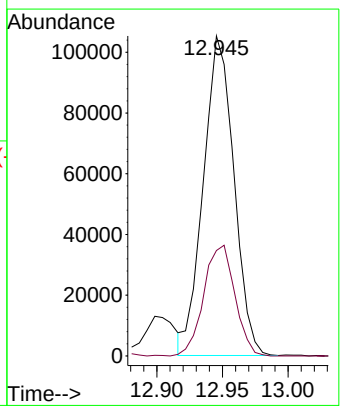


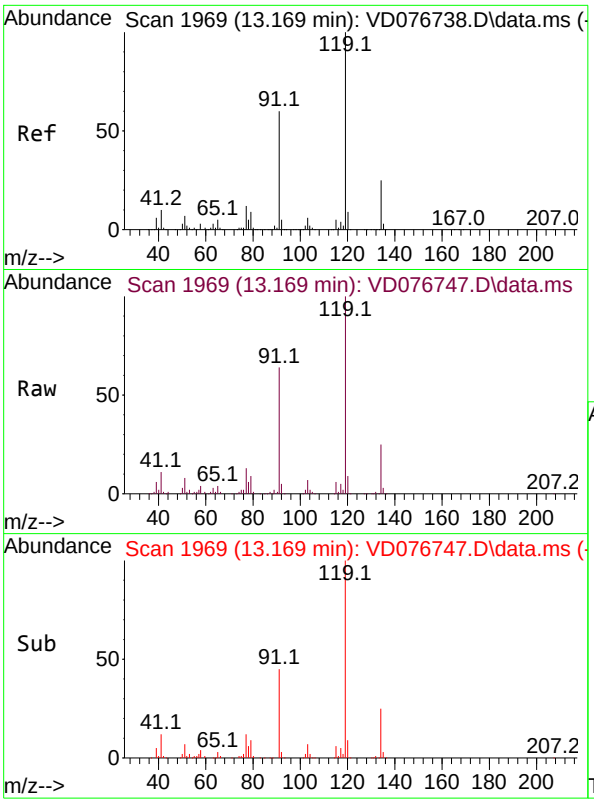


#82
4-Chlorotoluene
Concen: 21.230 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 91 Resp: 170388

Ion	Ratio	Lower	Upper
91	100		
126	35.3	19.4	58.4

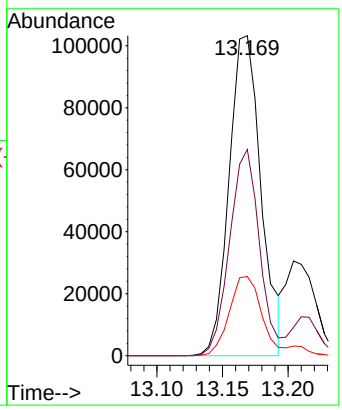




#83
tert-Butylbenzene
Concen: 21.332 ug/l
RT: 13.169 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:119 Resp: 17552

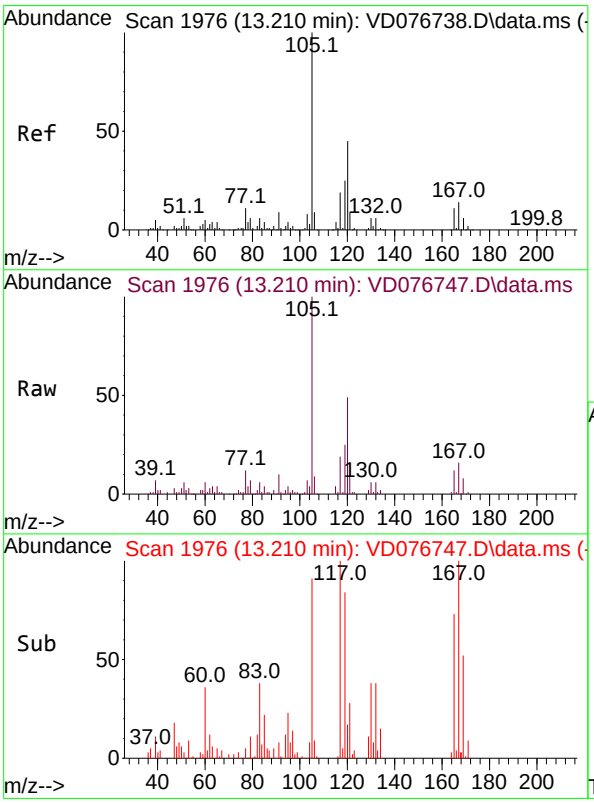
Ion	Ratio	Lower	Upper
119	100		
91	60.0	29.3	87.8
134	25.1	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

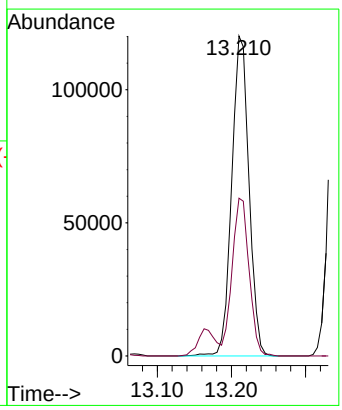
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

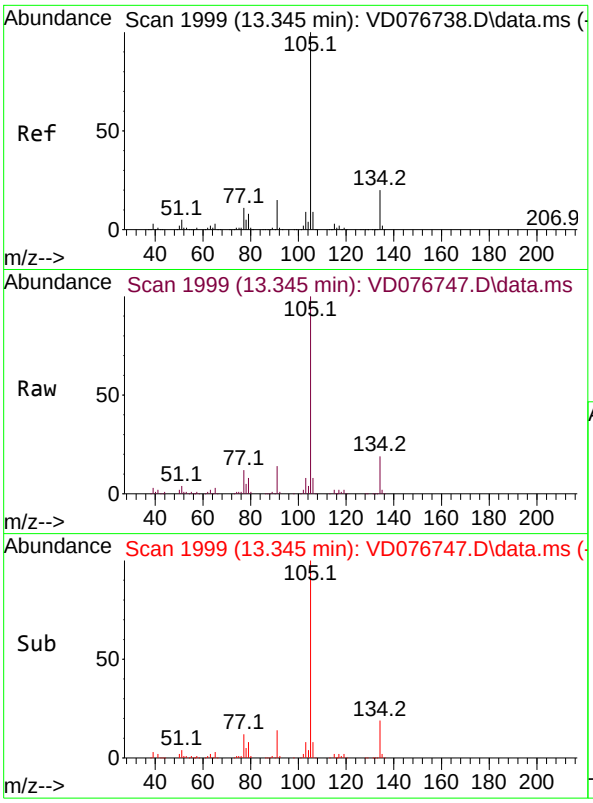


#84
1,2,4-Trimethylbenzene
Concen: 20.285 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:105 Resp: 193721

Ion	Ratio	Lower	Upper
105	100		
120	48.5	24.3	72.9





#85
sec-Butylbenzene
Concen: 21.422 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

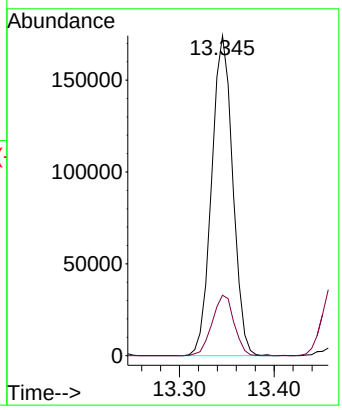
Tgt Ion:105 Resp: 26930

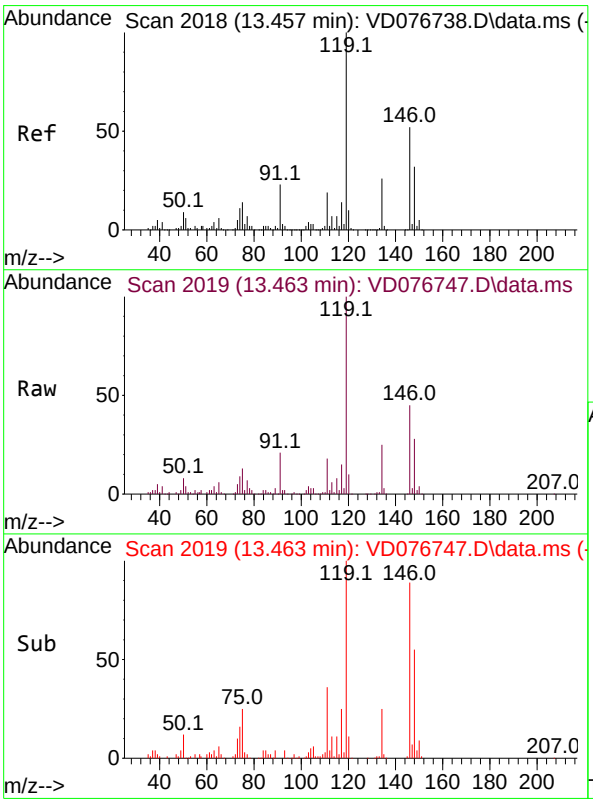
Ion	Ratio	Lower	Upper
105	100		
134	19.6	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

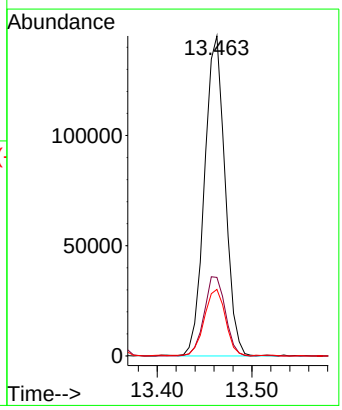


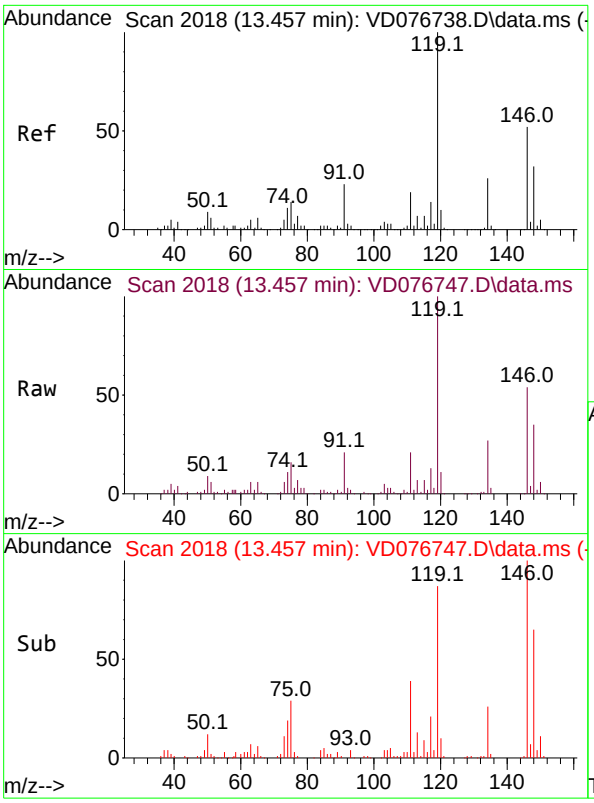


#86
p-Isopropyltoluene
Concen: 21.063 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:119 Resp: 218681

Ion	Ratio	Lower	Upper
119	100		
134	25.5	14.2	42.6
91	21.7	10.5	31.5

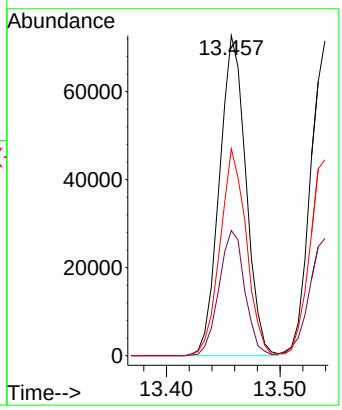




#87
1,3-Dichlorobenzene
Concen: 21.488 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:146 Resp: 11790

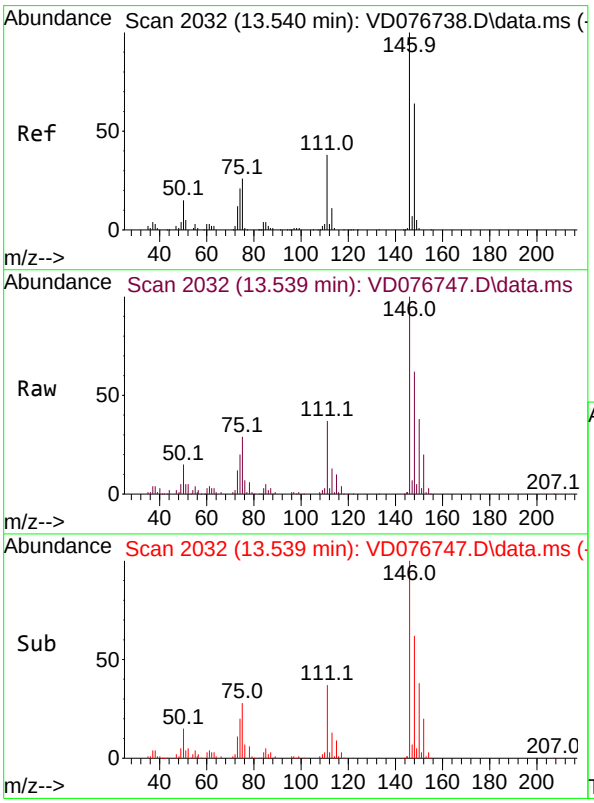
Ion	Ratio	Lower	Upper
146	100		
111	38.1	17.9	53.8
148	64.1	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

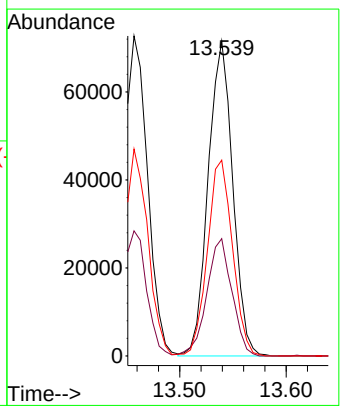
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

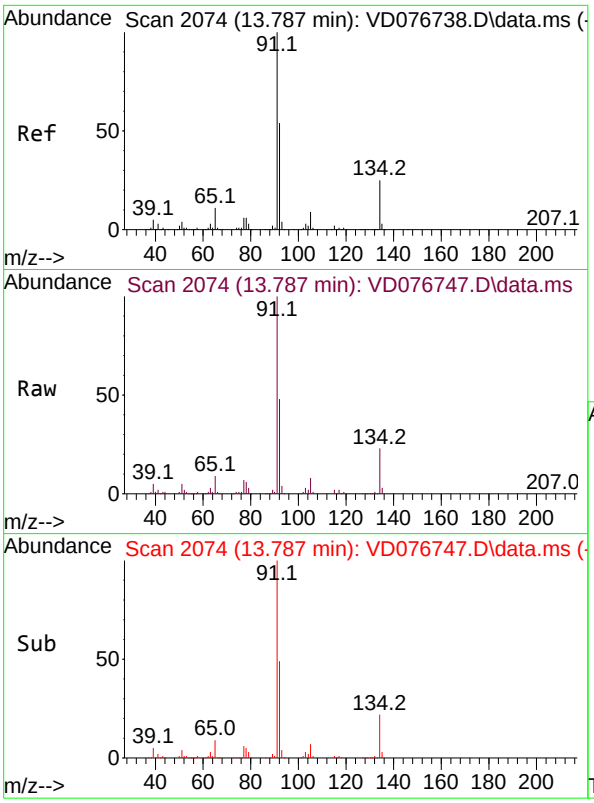


#88
1,4-Dichlorobenzene
Concen: 21.348 ug/l
RT: 13.539 min Scan# 2032
Delta R.T. -0.001 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:146 Resp: 114764

Ion	Ratio	Lower	Upper
146	100		
111	38.1	17.4	52.3
148	63.6	31.7	95.1





#89
n-Butylbenzene
Concen: 21.157 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

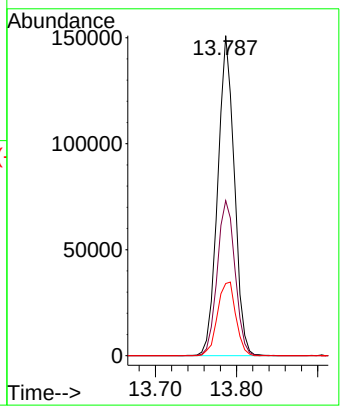
Tgt Ion: 91 Resp: 21494

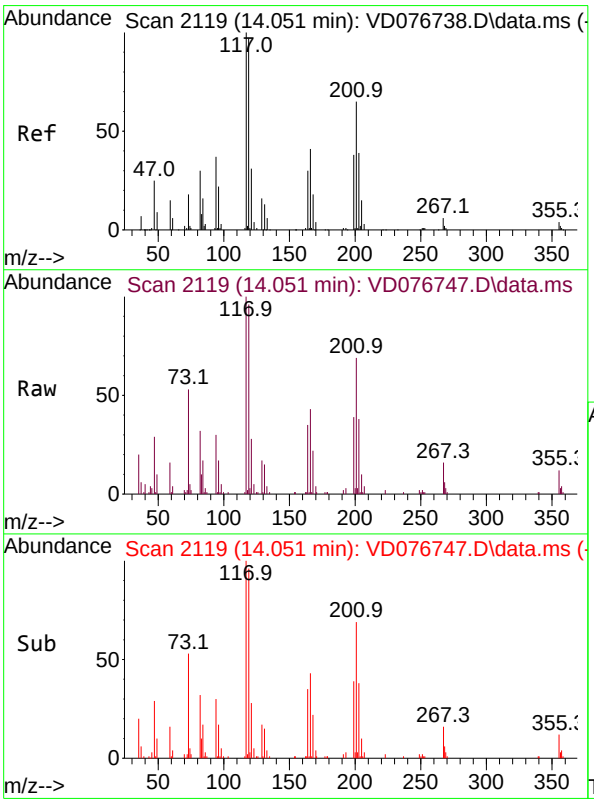
Ion	Ratio	Lower	Upper
91	100		
92	51.9	26.5	79.5
134	25.4	13.8	41.3

Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

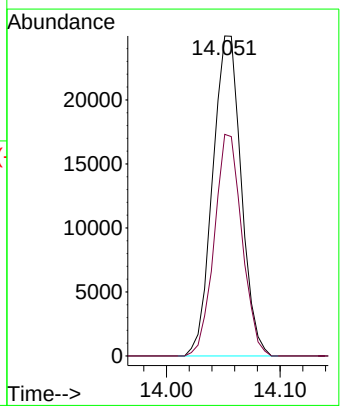


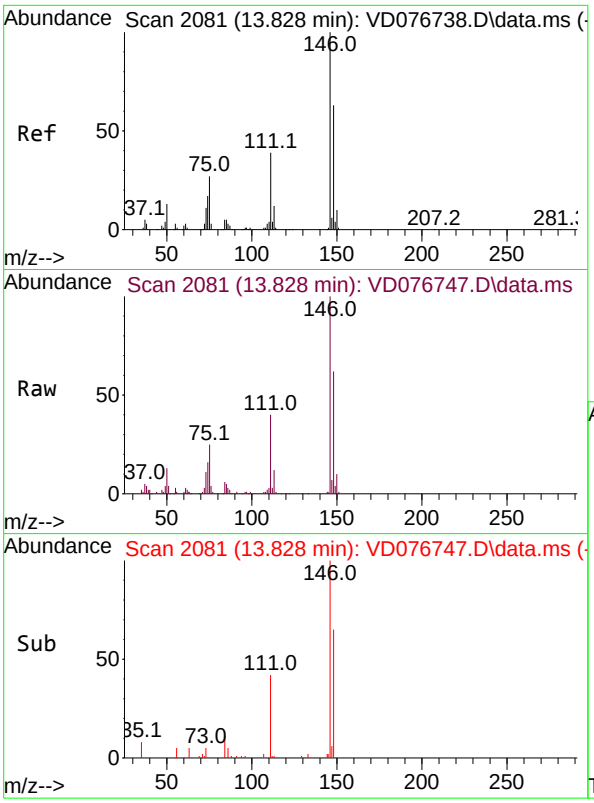


#90
Hexachloroethane
Concen: 22.700 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:117 Resp: 43572

Ion	Ratio	Lower	Upper
117	100		
201	67.1	38.5	115.5

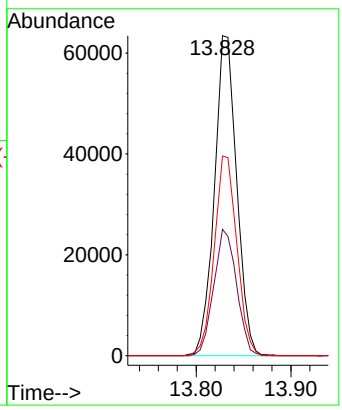




#91
1,2-Dichlorobenzene
Concen: 21.559 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:146 Resp: 10423

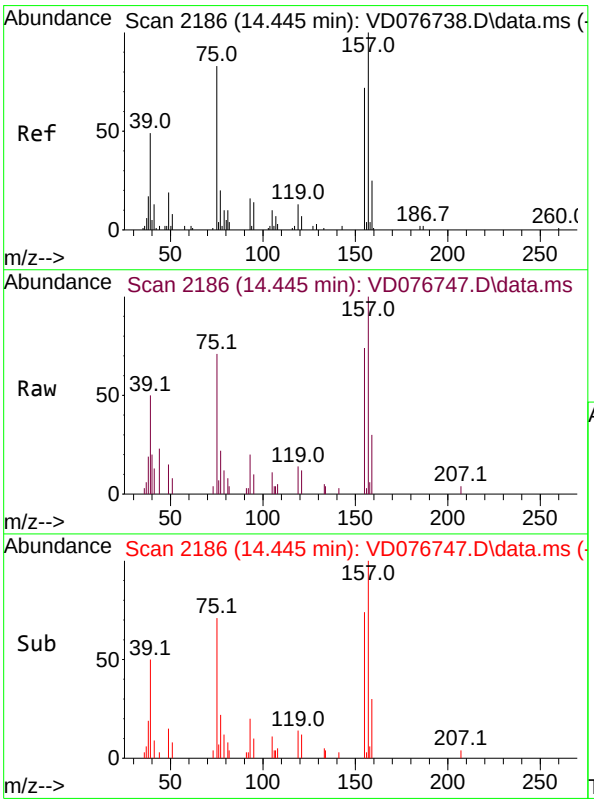
Ion	Ratio	Lower	Upper
146	100		
111	40.4	18.3	54.8
148	63.1	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

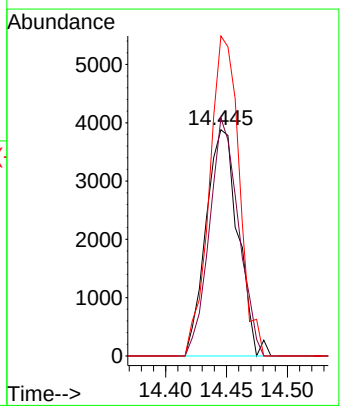
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

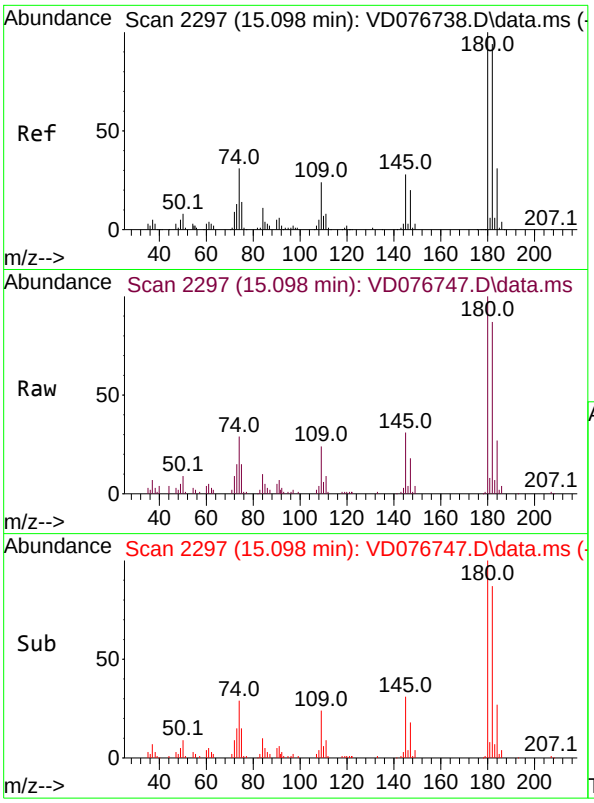


#92
1,2-Dibromo-3-Chloropropane
Concen: 20.132 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion: 75 Resp: 7123

Ion	Ratio	Lower	Upper
75	100		
155	95.3	47.9	143.8
157	131.3	59.9	179.7

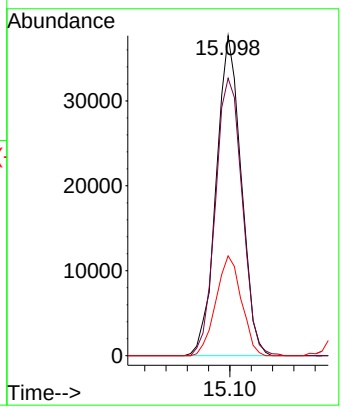




#93
1,2,4-Trichlorobenzene
Concen: 20.774 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:180 Resp: 6131

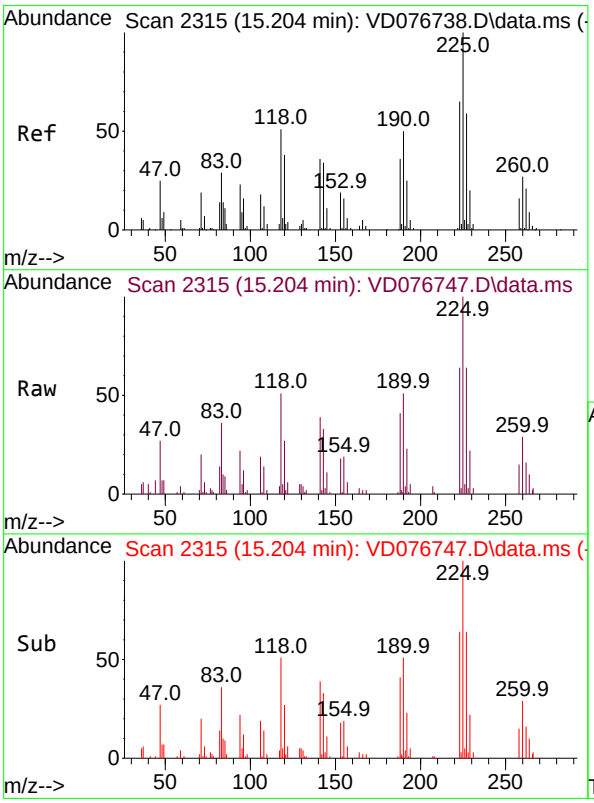
Ion	Ratio	Lower	Upper
180	100		
182	92.7	48.5	145.6
145	31.8	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

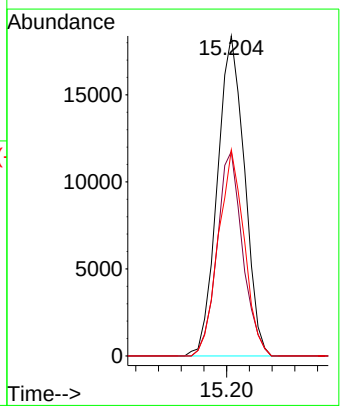
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

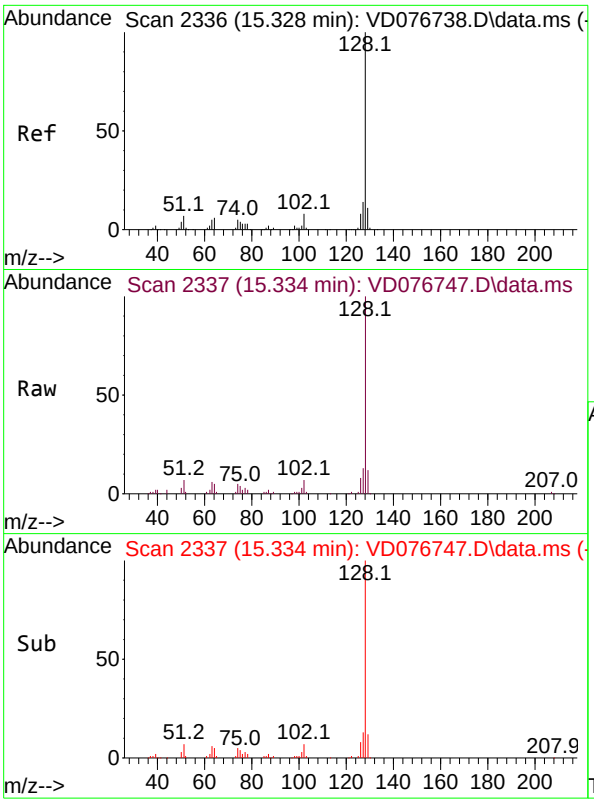


#94
Hexachlorobutadiene
Concen: 21.482 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:225 Resp: 30496

Ion	Ratio	Lower	Upper
225	100		
223	60.2	31.6	94.8
227	61.5	31.7	95.1

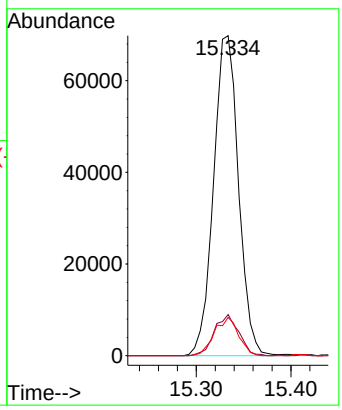




#95
Naphthalene
Concen: 20.022 ug/l
RT: 15.334 min Scan# 2
Delta R.T. 0.006 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:128 Resp: 12796

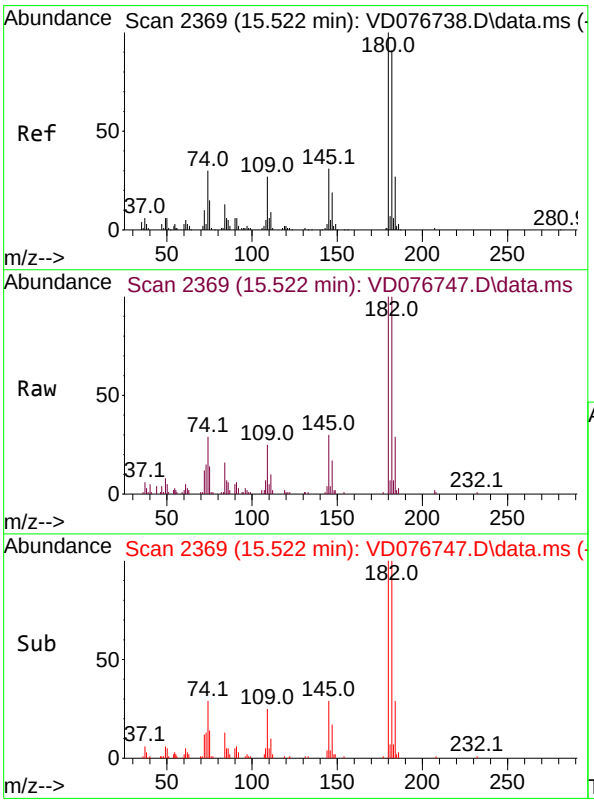
Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.5	15.7
129	12.0	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VD0717SBS01

Manual Integrations
APPROVED

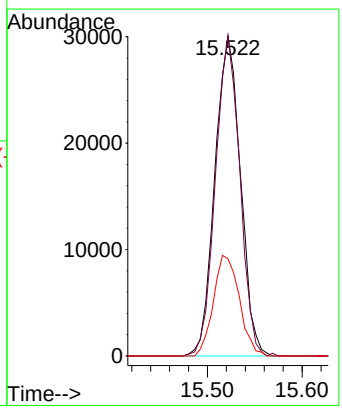
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023



#96
1,2,3-Trichlorobenzene
Concen: 21.323 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076747.D
Acq: 17 Jul 2023 11:46

Tgt Ion:180 Resp: 56483

Ion	Ratio	Lower	Upper
180	100		
182	95.0	47.3	141.9
145	31.8	15.1	45.3



Raw Data: **VD076768.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0718SBS01	SDG No.:	O3645
Lab Sample ID:	VD0718SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076768.D	1		07/18/23 10:36	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	23.8		1.60	5.00	ug/Kg
74-87-3	Chloromethane	19.2		0.91	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.0		0.93	5.00	ug/Kg
74-83-9	Bromomethane	20.5		1.20	5.00	ug/Kg
75-00-3	Chloroethane	20.2		0.88	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	22.6		1.10	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	22.6		0.72	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.8		0.79	5.00	ug/Kg
67-64-1	Acetone	92.4		9.40	25.0	ug/Kg
75-15-0	Carbon Disulfide	19.6		2.20	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	18.5		0.65	5.00	ug/Kg
79-20-9	Methyl Acetate	20.4		1.60	5.00	ug/Kg
75-09-2	Methylene Chloride	21.1		6.10	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.8		0.73	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.4		0.72	5.00	ug/Kg
110-82-7	Cyclohexane	20.8		0.70	5.00	ug/Kg
78-93-3	2-Butanone	98.9		7.30	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	21.9		0.78	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.7		0.64	5.00	ug/Kg
74-97-5	Bromochloromethane	22.2		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.1		1.30	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	21.3		0.76	5.00	ug/Kg
108-87-2	Methylcyclohexane	22.0		3.40	5.00	ug/Kg
71-43-2	Benzene	20.3		0.66	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.8		0.72	5.00	ug/Kg
79-01-6	Trichloroethene	20.0		0.66	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.6		0.59	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.3		0.70	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	94.2		4.50	25.0	ug/Kg
108-88-3	Toluene	20.0		0.65	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.0		0.77	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.3		0.74	5.00	ug/Kg

Raw Data: **VD076768.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0718SBS01	SDG No.:	O3645
Lab Sample ID:	VD0718SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076768.D	1		07/18/23 10:36	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	20.2		0.86	5.00	ug/Kg
591-78-6	2-Hexanone	93.8		5.30	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.1		0.85	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	19.6		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	23.8		0.77	5.00	ug/Kg
108-90-7	Chlorobenzene	20.9		0.63	5.00	ug/Kg
100-41-4	Ethyl Benzene	21.1		0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.7		1.40	10.0	ug/Kg
1330-20-7	Total Xylenes	62.1		2.17	15.0	ug/Kg
95-47-6	o-Xylene	20.4		0.77	5.00	ug/Kg
100-42-5	Styrene	20.9		0.69	5.00	ug/Kg
75-25-2	Bromoform	20.9		0.95	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.7		0.71	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.4		1.10	5.00	ug/Kg
103-65-1	n-propylbenzene	21.1		0.70	5.00	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	20.8		0.64	5.00	ug/Kg
98-06-6	tert-Butylbenzene	21.0		0.77	5.00	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	20.2		0.67	5.00	ug/Kg
135-98-8	sec-Butylbenzene	21.7		0.77	5.00	ug/Kg
99-87-6	p-Isopropyltoluene	21.2		0.74	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.9		0.68	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.5		0.60	5.00	ug/Kg
104-51-8	n-Butylbenzene	21.2		0.68	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.8		0.60	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	19.7		1.20	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	19.3		0.61	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	19.2		0.63	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.4		50 - 163	91%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		54 - 147	94%	SPK: 50
2037-26-5	Toluene-d8	44.8		58 - 134	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		30 - 143	91%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076768.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VD0718SBS01	SDG No.:	O3645
Lab Sample ID:	VD0718SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076768.D	1		07/18/23 10:36	VD071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	188000	7.875			
540-36-3	1,4-Difluorobenzene	339000	8.775			
3114-55-4	Chlorobenzene-d5	302000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	146000	13.516			

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\VD071823\
Data File : VD076768.D
Acq On : 18 Jul 2023 10:36
Operator : KP/SY
Sample : VD0718SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 19 06:40:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	187561	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.775	114	339123	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	301791	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	145517	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	84731	45.355	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 90.720%			
35) Dibromofluoromethane	7.805	113	99788	46.825	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 93.660%			
50) Toluene-d8	10.269	98	341489	44.793	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 89.580%			
62) 4-Bromofluorobenzene	12.575	95	112234	45.508	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 91.020%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	34856	23.765	ug/l	98
3) Chloromethane	2.146	50	48507	19.172	ug/l	95
4) Vinyl Chloride	2.275	62	67414	19.988	ug/l	97
5) Bromomethane	2.675	94	56802	20.469	ug/l	99
6) Chloroethane	2.828	64	51488	20.220	ug/l	99
7) Trichlorofluoromethane	3.164	101	67935	22.637	ug/l	100
8) Diethyl Ether	3.587	74	19307	18.686	ug/l	92
9) 1,1,2-Trichlorotrifluo...	3.952	101	44502	22.559	ug/l	95
10) Methyl Iodide	4.158	142	43846	19.717	ug/l	95
11) Tert butyl alcohol	5.064	59	14026	100.613	ug/l #	92
12) 1,1-Dichloroethene	3.934	96	38522	20.785	ug/l	89
13) Acrolein	3.793	56	9498	99.979	ug/l	95
14) Allyl chloride	4.552	41	48196	19.795	ug/l	92
15) Acrylonitrile	5.252	53	45242	89.150	ug/l	96
16) Acetone	4.017	43	41246	92.447	ug/l #	83
17) Carbon Disulfide	4.264	76	84731	19.574	ug/l #	95
18) Methyl Acetate	4.564	43	34149	20.372	ug/l	94
19) Methyl tert-butyl Ether	5.316	73	92074	18.525	ug/l	97
20) Methylene Chloride	4.793	84	71823	21.077	ug/l	93
21) trans-1,2-Dichloroethene	5.305	96	42555	19.753	ug/l	98
22) Diisopropyl ether	6.216	45	114879	19.926	ug/l	96
23) Vinyl Acetate	6.158	43	247447m	86.743	ug/l	
24) 1,1-Dichloroethane	6.105	63	79421	20.431	ug/l	98
25) 2-Butanone	7.081	43	59031	98.860	ug/l	89
26) 2,2-Dichloropropane	7.075	77	70624	21.076	ug/l	93
27) cis-1,2-Dichloroethene	7.075	96	52279	19.685	ug/l	94
28) Bromochloromethane	7.422	49	21579	22.204	ug/l	87
29) Tetrahydrofuran	7.446	42	32101	90.990	ug/l	93
30) Chloroform	7.587	83	85425	20.064	ug/l	96
31) Cyclohexane	7.875	56	57092	20.766	ug/l #	92
32) 1,1,1-Trichloroethane	7.793	97	73059	21.268	ug/l	98
36) 1,1-Dichloropropene	8.005	75	60097	21.581	ug/l	95
37) Ethyl Acetate	7.169	43	23928	19.214	ug/l	98
38) Carbon Tetrachloride	7.993	117	58522	21.948	ug/l	90
39) Methylcyclohexane	9.269	83	70667	21.978	ug/l	95
40) Benzene	8.252	78	178260	20.288	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076768.D
Acq On : 18 Jul 2023 10:36
Operator : KP/SY
Sample : VD0718SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 19 06:40:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.405	41	14303	18.808	ug/l	#	90
42) 1,2-Dichloroethane	8.328	62	47539	20.823	ug/l		97
43) Isopropyl Acetate	8.357	43	44279	18.218	ug/l		94
44) Trichloroethene	9.034	130	47858	19.988	ug/l		100
45) 1,2-Dichloropropane	9.304	63	46822	20.644	ug/l		97
46) Dibromomethane	9.393	93	27459	20.683	ug/l		87
47) Bromodichloromethane	9.581	83	67568	20.281	ug/l		97
48) Methyl methacrylate	9.381	41	21634	19.557	ug/l	#	81
49) 1,4-Dioxane	9.387	88	5259	309.179	ug/l	#	85
51) 4-Methyl-2-Pentanone	10.157	43	121873	94.180	ug/l		92
52) Toluene	10.334	92	115198	19.962	ug/l		98
53) t-1,3-Dichloropropene	10.551	75	58735	18.994	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	70289	19.286	ug/l	#	88
55) 1,1,2-Trichloroethane	10.734	97	39111	20.174	ug/l		93
56) Ethyl methacrylate	10.599	69	41019	18.332	ug/l	#	90
57) 1,3-Dichloropropane	10.881	76	61812	19.578	ug/l		97
58) 2-Chloroethyl Vinyl ether	9.869	63	86027	99.324	ug/l		99
59) 2-Hexanone	10.922	43	86619	93.809	ug/l		95
60) Dibromochloromethane	11.069	129	45187	20.064	ug/l		99
61) 1,2-Dibromoethane	11.181	107	35312	19.647	ug/l		100
64) Tetrachloroethene	10.810	164	40956	23.800	ug/l		93
65) Chlorobenzene	11.604	112	126989	20.922	ug/l		93
66) 1,1,1,2-Tetrachloroethane	11.681	131	46861	20.737	ug/l		97
67) Ethyl Benzene	11.681	91	224649	21.075	ug/l		96
68) m/p-Xylenes	11.793	106	170820	41.726	ug/l		93
69) o-Xylene	12.122	106	80941	20.446	ug/l		93
70) Styrene	12.134	104	144513	20.853	ug/l		98
71) Bromoform	12.298	173	25818	20.861	ug/l	#	97
73) Isopropylbenzene	12.422	105	218169	20.665	ug/l		95
74) N-amyl acetate	12.234	43	42860	19.270	ug/l		92
75) 1,1,2,2-Tetrachloroethane	12.669	83	46309	20.429	ug/l		98
76) 1,2,3-Trichloropropane	12.722	75	26998m	19.509	ug/l		
77) Bromobenzene	12.698	156	47677	19.564	ug/l		85
78) n-propylbenzene	12.763	91	270467	21.132	ug/l		96
79) 2-Chlorotoluene	12.845	91	142735	20.339	ug/l		97
80) 1,3,5-Trimethylbenzene	12.904	105	177920	20.842	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.469	75	12276	18.880	ug/l		98
82) 4-Chlorotoluene	12.945	91	151219	20.626	ug/l		94
83) tert-Butylbenzene	13.169	119	157811	20.995	ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	176335	20.213	ug/l		97
85) sec-Butylbenzene	13.345	105	249458	21.722	ug/l		94
86) p-Isopropyltoluene	13.463	119	201480	21.244	ug/l		96
87) 1,3-Dichlorobenzene	13.457	146	99642	19.879	ug/l		97
88) 1,4-Dichlorobenzene	13.540	146	100764	20.519	ug/l		96
89) n-Butylbenzene	13.787	91	196447	21.167	ug/l		96
90) Hexachloroethane	14.051	117	40417	23.051	ug/l		86
91) 1,2-Dichlorobenzene	13.834	146	87487	19.808	ug/l		95
92) 1,2-Dibromo-3-Chloropr...	14.451	75	6383	19.749	ug/l		90
93) 1,2,4-Trichlorobenzene	15.098	180	51909	19.251	ug/l		99
94) Hexachlorobutadiene	15.198	225	27207	20.980	ug/l		100
95) Naphthalene	15.328	128	106505	18.242	ug/l		96
96) 1,2,3-Trichlorobenzene	15.516	180	46478	19.208	ug/l		99

Sample Results: **VD076768.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076768.D
Acq On : 18 Jul 2023 10:36
Operator : KP/SY
Sample : VD0718SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 19 06:40:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

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

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

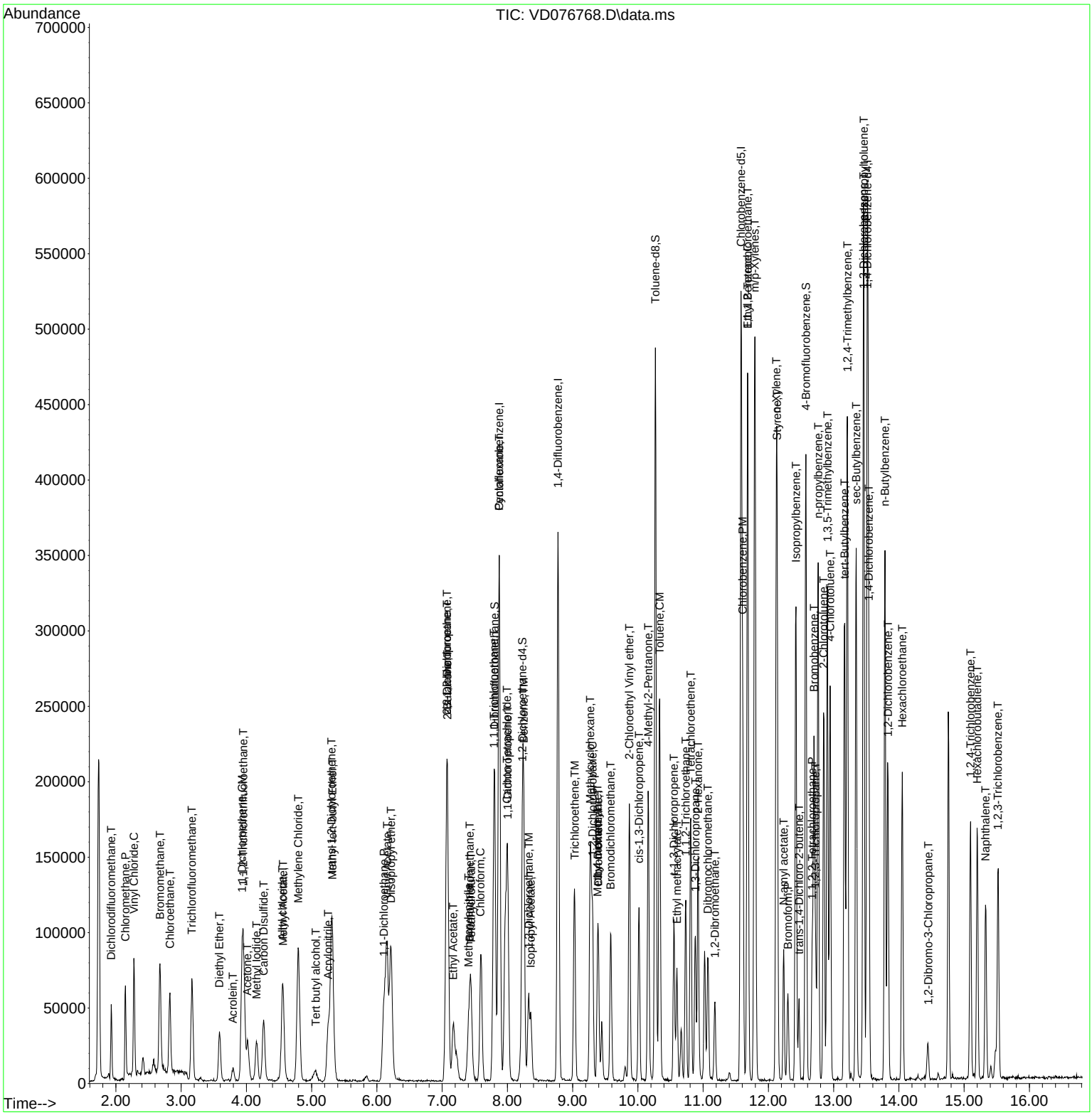
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071823\
Data File : VD076768.D
Acq On : 18 Jul 2023 10:36
Operator : KP/SY
Sample : VD0718SBS01
Misc : 5.00G/5.0ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

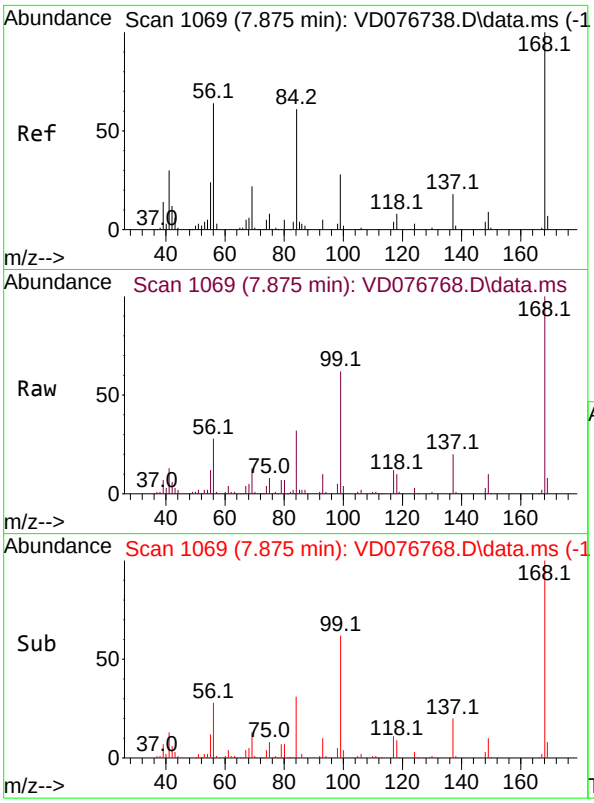
Quant Time: Jul 19 06:40:27 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

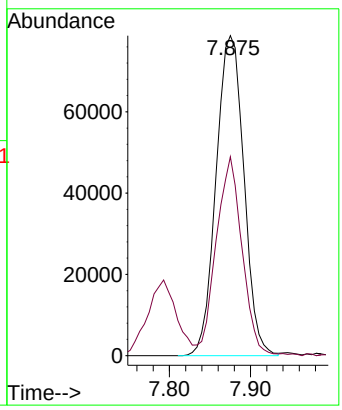




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:168 Resp: 18756

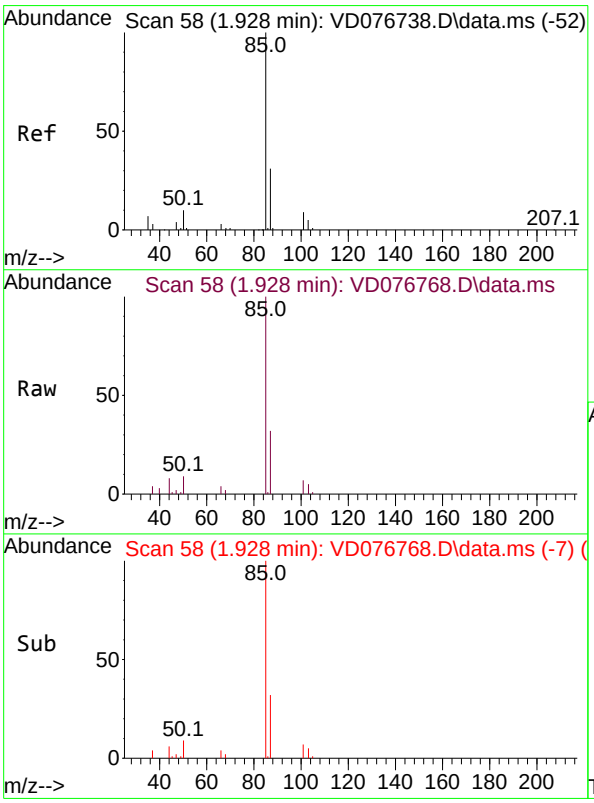
Ion	Ratio	Lower	Upper
168	100		
99	61.6	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

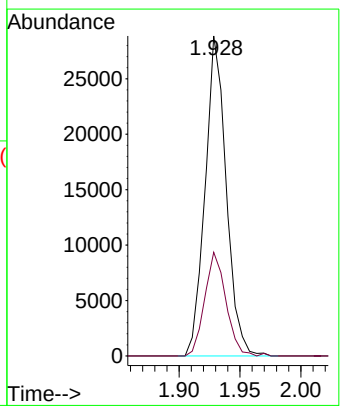
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

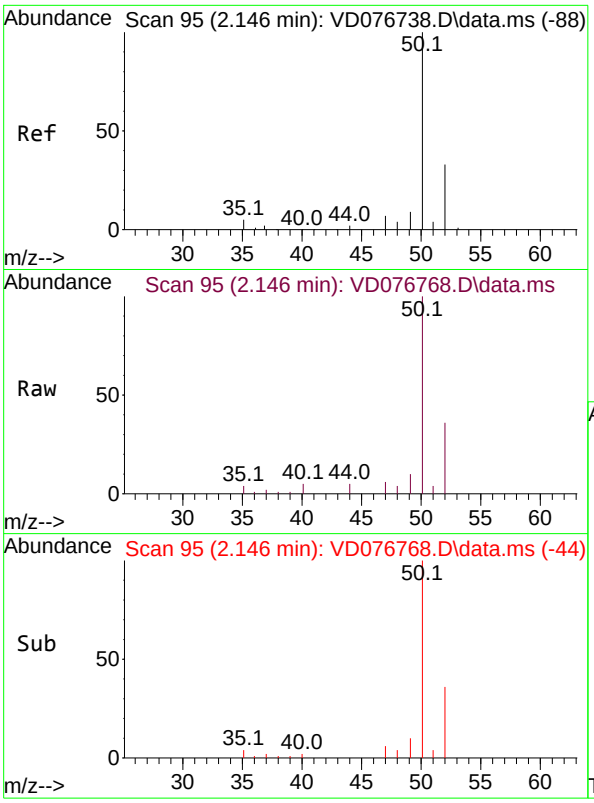


#2
Dichlorodifluoromethane
Concen: 23.765 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 85 Resp: 34856

Ion	Ratio	Lower	Upper
85	100		
87	32.4	15.7	47.0

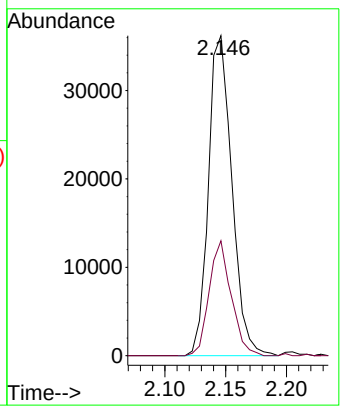




#3
Chloromethane
Concen: 19.172 ug/l
RT: 2.146 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 50 Resp: 4850

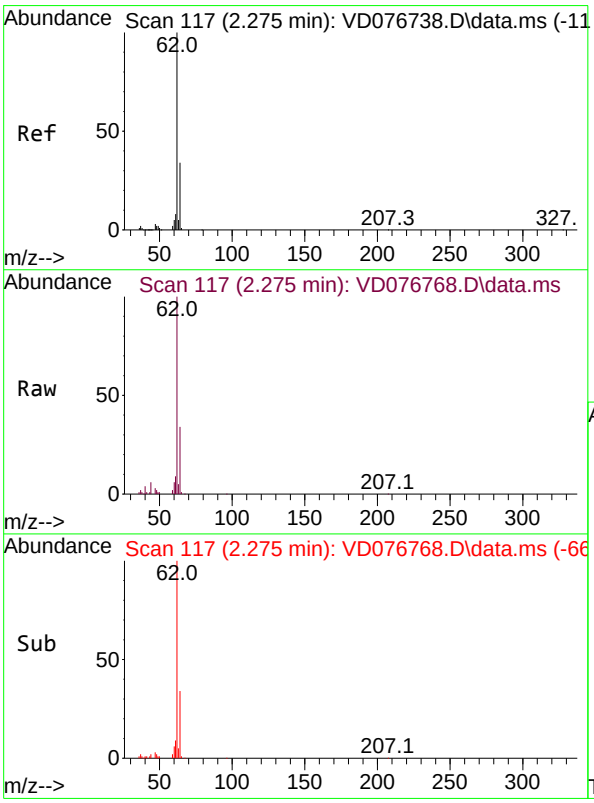
Ion	Ratio	Lower	Upper
50	100		
52	35.9	26.6	40.0



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

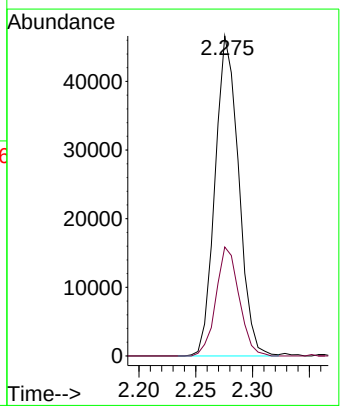
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

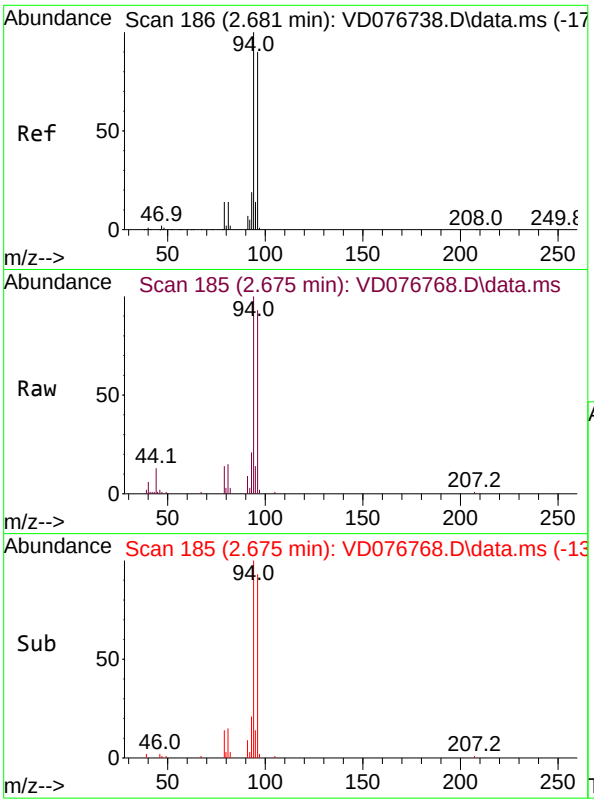


#4
Vinyl Chloride
Concen: 19.988 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 62 Resp: 67414

Ion	Ratio	Lower	Upper
62	100		
64	34.0	26.0	39.0

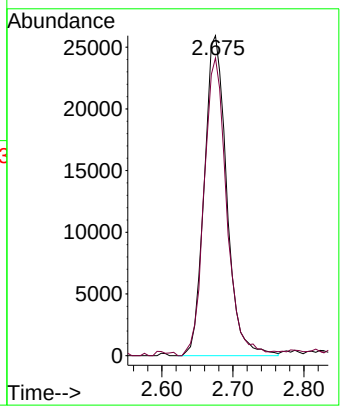




#5
Bromomethane
Concen: 20.469 ug/l
RT: 2.675 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 94 Resp: 5680

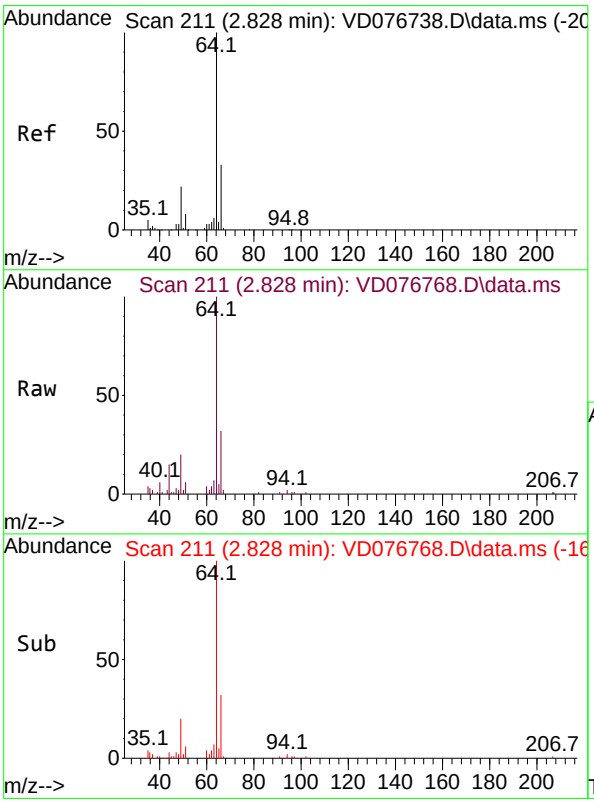
Ion	Ratio	Lower	Upper
94	100		
96	93.8	75.8	113.8



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

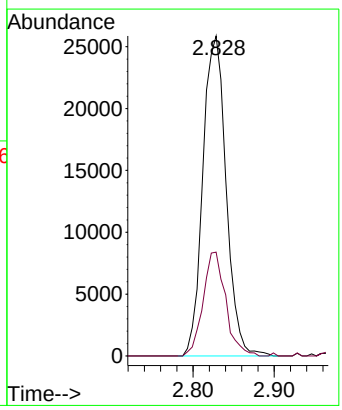
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

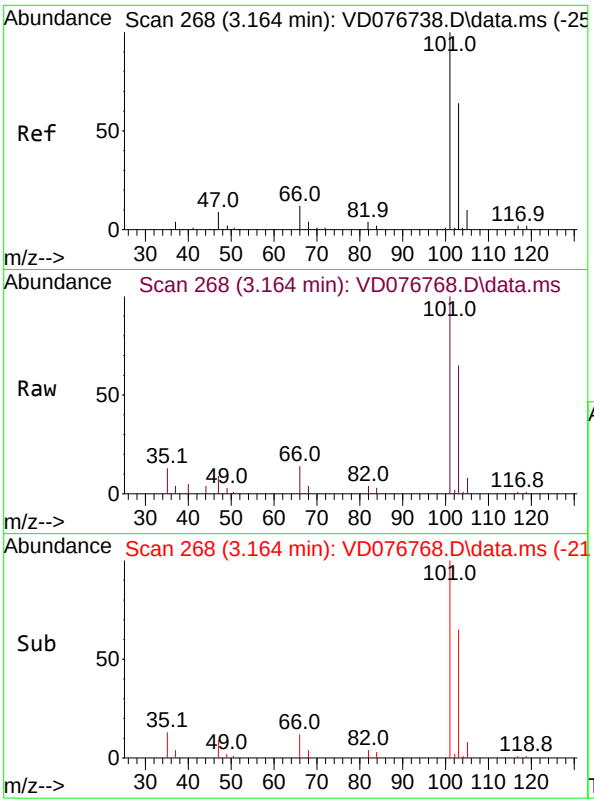


#6
Chloroethane
Concen: 20.220 ug/l
RT: 2.828 min Scan# 211
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 64 Resp: 51488

Ion	Ratio	Lower	Upper
64	100		
66	32.5	25.5	38.3





#7
Trichlorofluoromethane
Concen: 22.637 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

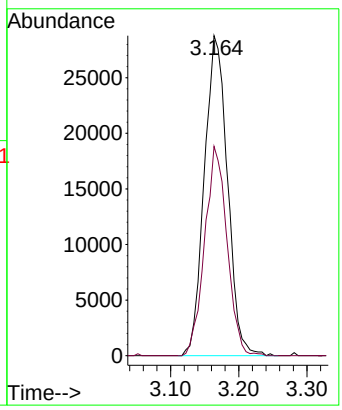
Tgt Ion:101 Resp: 6793

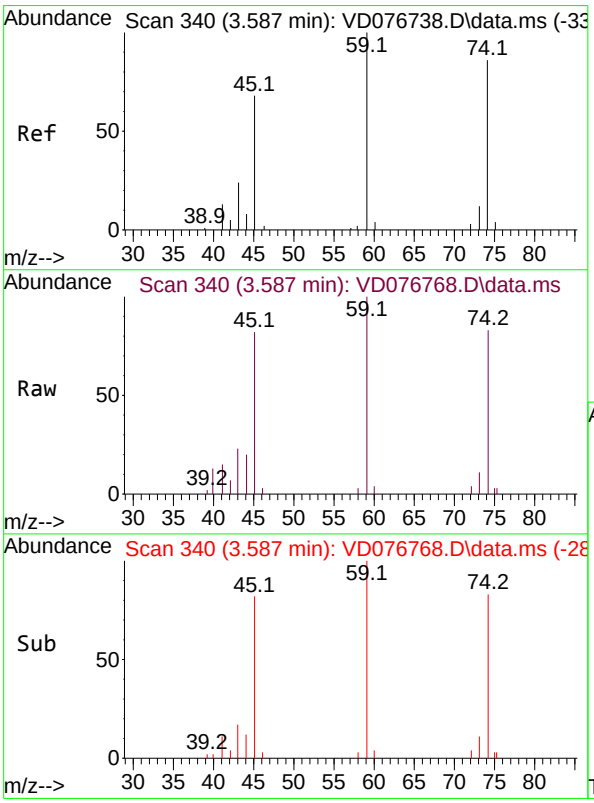
Ion	Ratio	Lower	Upper
101	100		
103	65.4	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

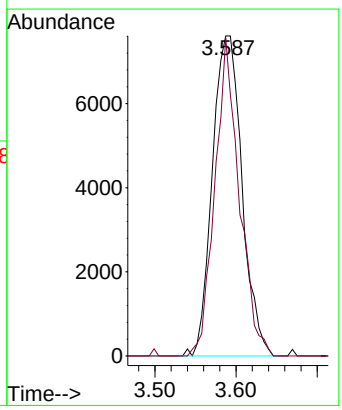


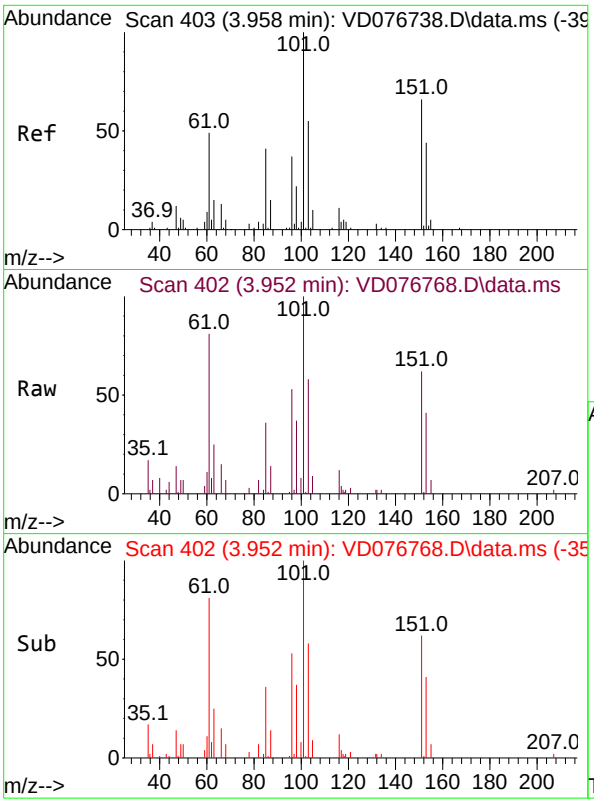


#8
Diethyl Ether
Concen: 18.686 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 74 Resp: 19307

Ion	Ratio	Lower	Upper
74	100		
45	81.9	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 22.559 ug/l
RT: 3.952 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

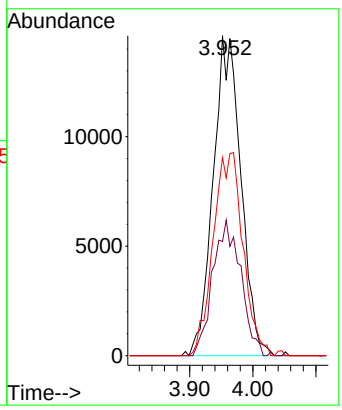
Tgt Ion:101 Resp: 4450

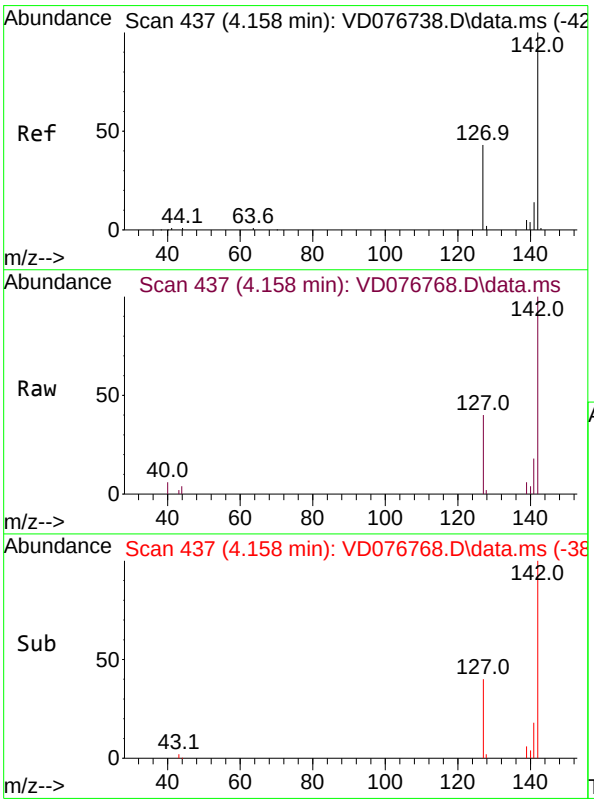
Ion	Ratio	Lower	Upper
101	100		
85	42.8	33.8	50.6
151	68.2	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

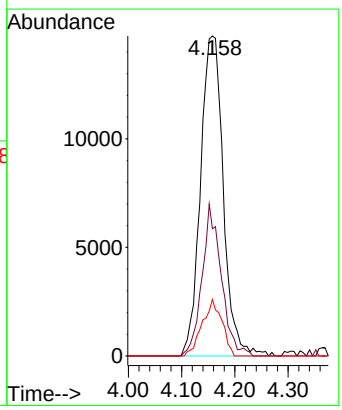


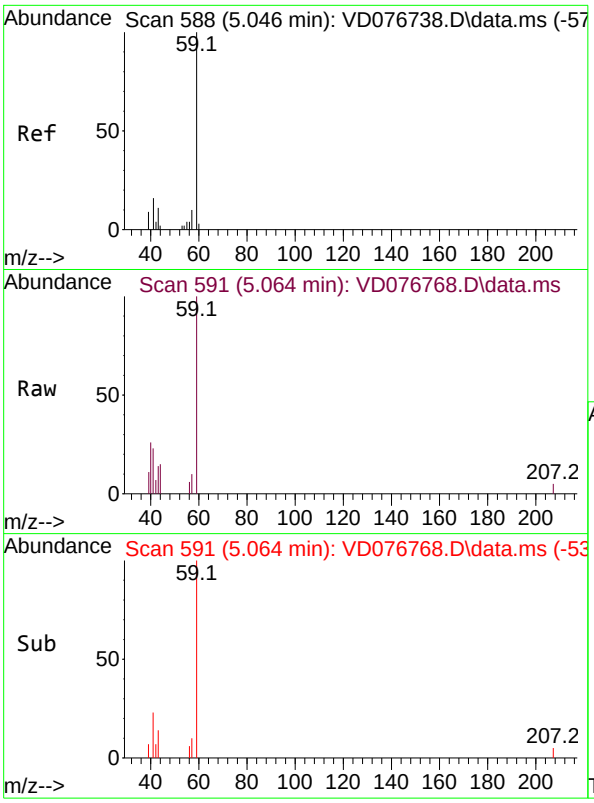


#10
Methyl Iodide
Concen: 19.717 ug/l
RT: 4.158 min Scan# 437
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:142 Resp: 43846

Ion	Ratio	Lower	Upper
142	100		
127	40.1	29.4	44.0
141	15.3	11.1	16.7





#11
Tert butyl alcohol
Concen: 100.613 ug/l
RT: 5.064 min Scan# 5
Delta R.T. 0.018 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

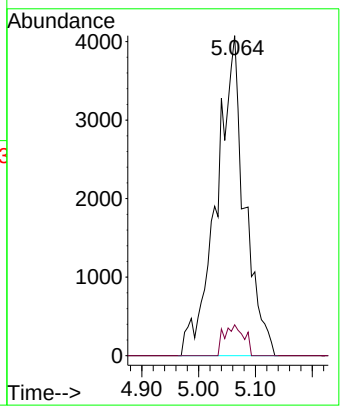
Tgt Ion: 59 Resp: 1402

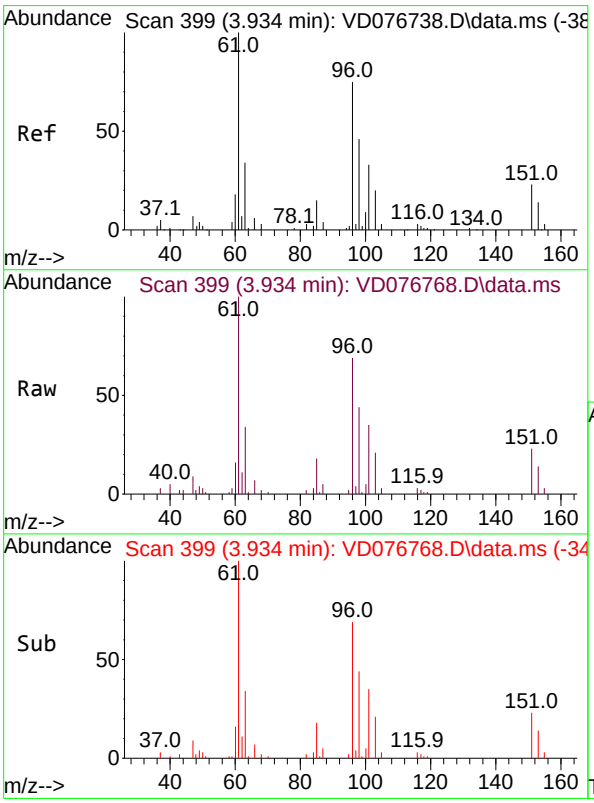
Ion	Ratio	Lower	Upper
59	100		
57	6.9	7.8	11.8#

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

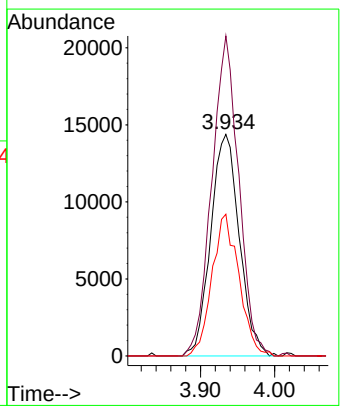


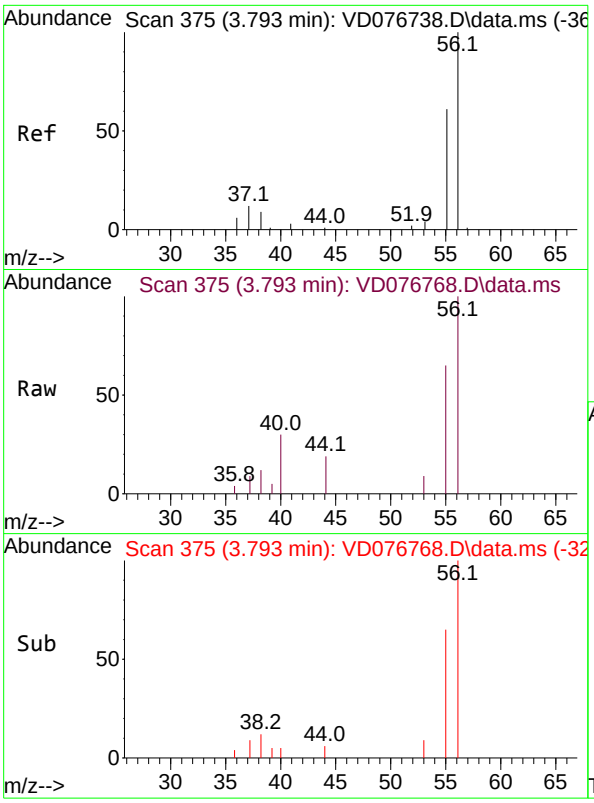


#12
1,1-Dichloroethene
Concen: 20.785 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 96 Resp: 38522

Ion	Ratio	Lower	Upper
96	100		
61	144.4	100.6	150.8
98	64.0	50.2	75.2

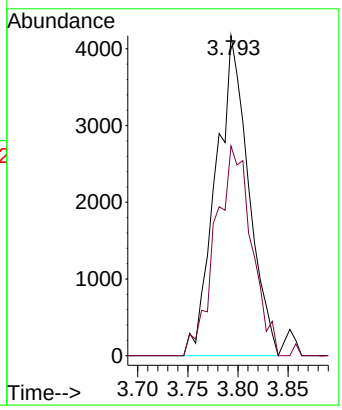




#13
Acrolein
Concen: 99.979 ug/l
RT: 3.793 min Scan# 3
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 56 Resp: 949

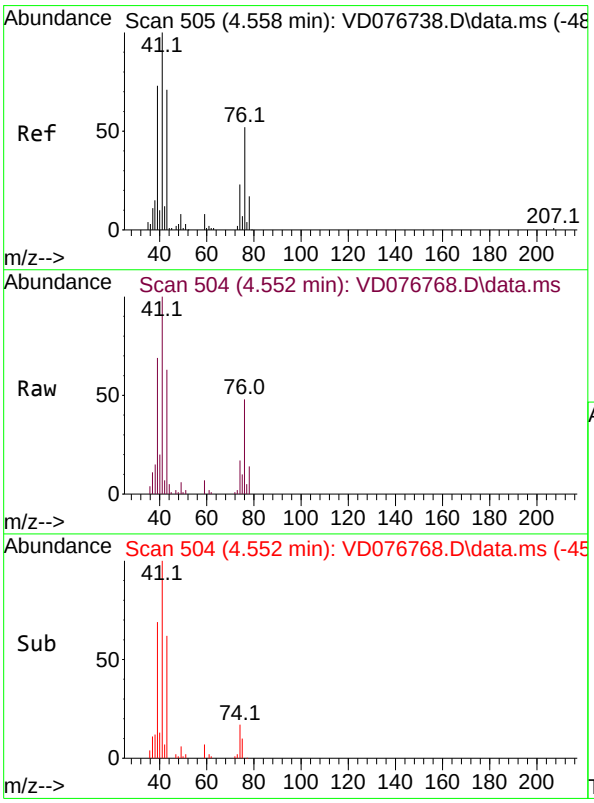
Ion	Ratio	Lower	Upper
56	100		
55	72.6	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

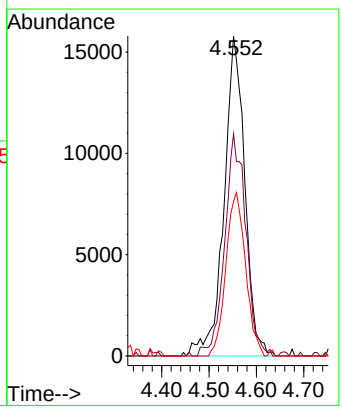
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

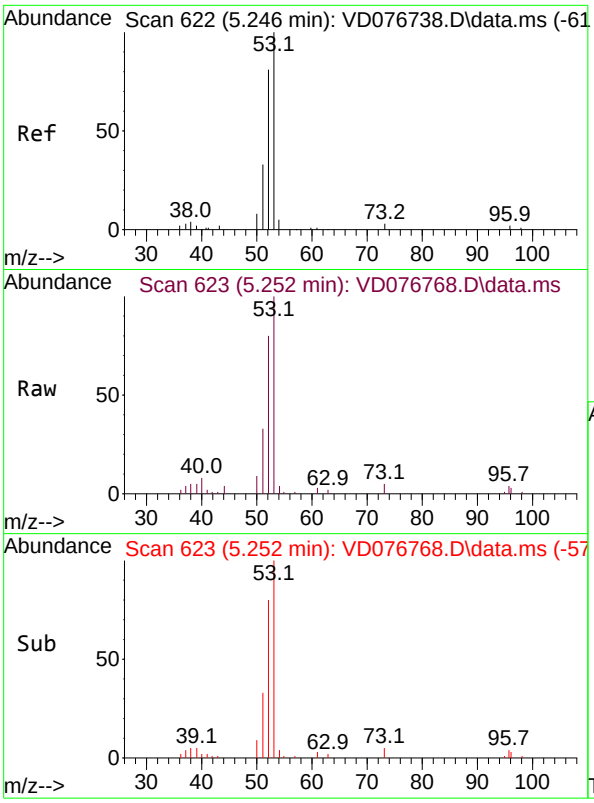


#14
Allyl chloride
Concen: 19.795 ug/l
RT: 4.552 min Scan# 504
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 41 Resp: 48196

Ion	Ratio	Lower	Upper
41	100		
39	70.7	53.8	80.6
76	48.3	45.8	68.8

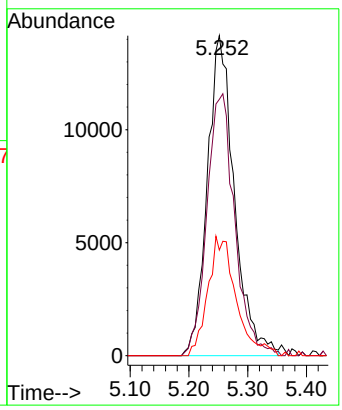




#15
Acrylonitrile
Concen: 89.150 ug/l
RT: 5.252 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 53 Resp: 4524

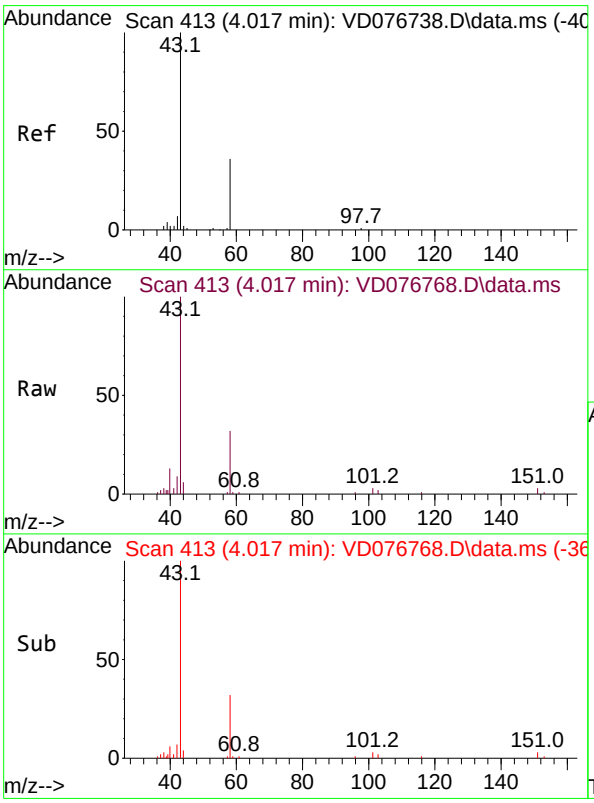
Ion	Ratio	Lower	Upper
53	100		
52	84.2	65.0	97.4
51	38.8	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

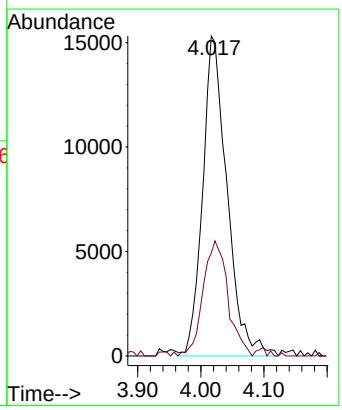
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

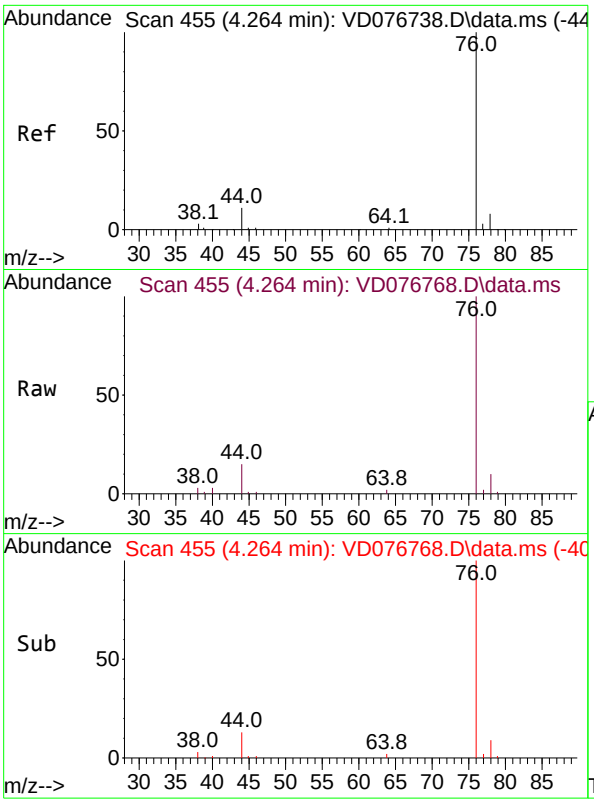


#16
Acetone
Concen: 92.447 ug/l
RT: 4.017 min Scan# 413
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 43 Resp: 41246

Ion	Ratio	Lower	Upper
43	100		
58	32.2	34.7	52.1#





#17
Carbon Disulfide
Concen: 19.574 ug/l
RT: 4.264 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

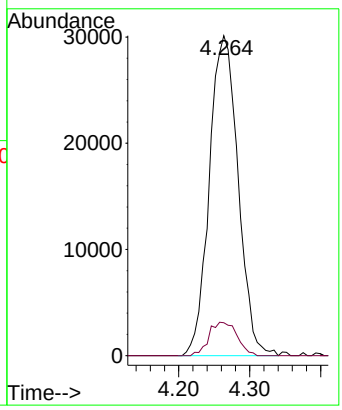
Tgt Ion: 76 Resp: 8473

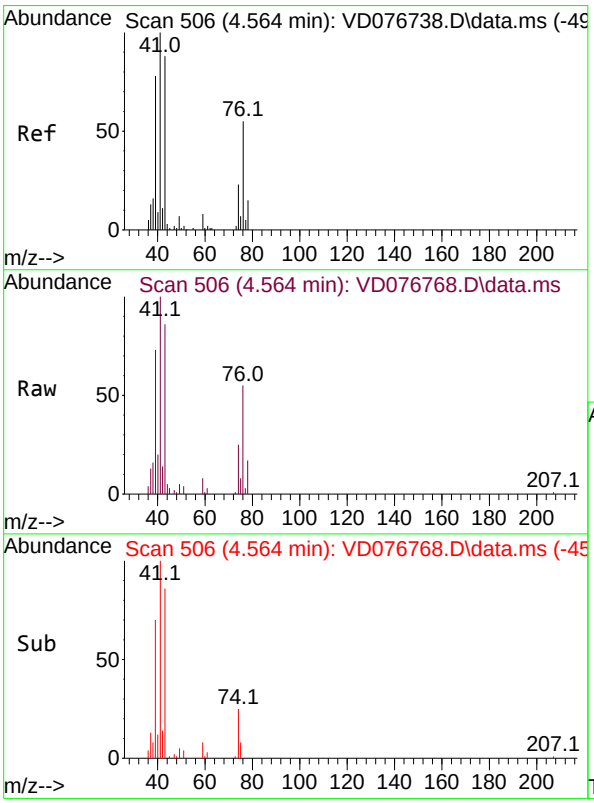
Ion	Ratio	Lower	Upper
76	100		
78	10.3	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

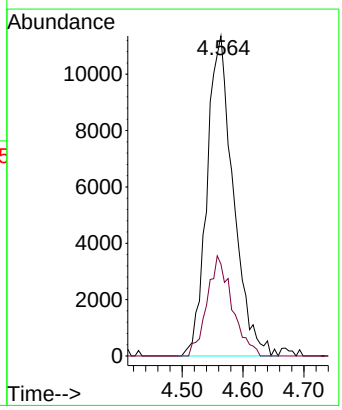


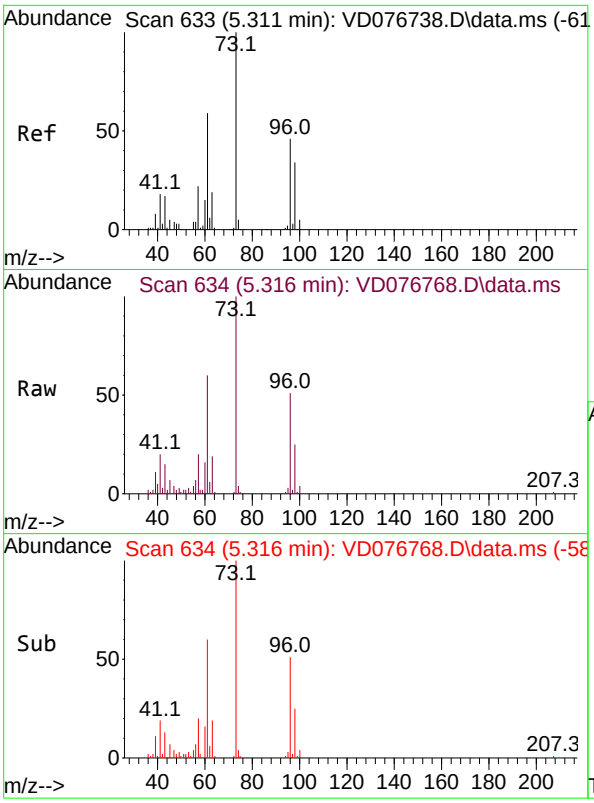


#18
Methyl Acetate
Concen: 20.372 ug/l
RT: 4.564 min Scan# 506
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 43 Resp: 34149

Ion	Ratio	Lower	Upper
43	100		
74	29.8	26.4	39.6





#19
Methyl tert-butyl Ether
Concen: 18.525 ug/l
RT: 5.316 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

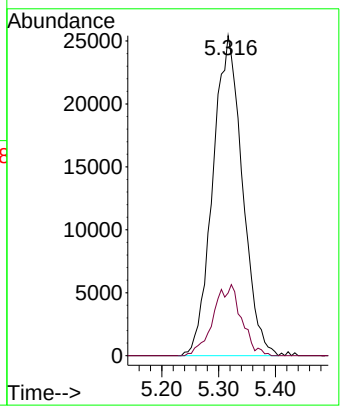
Tgt Ion: 73 Resp: 9207

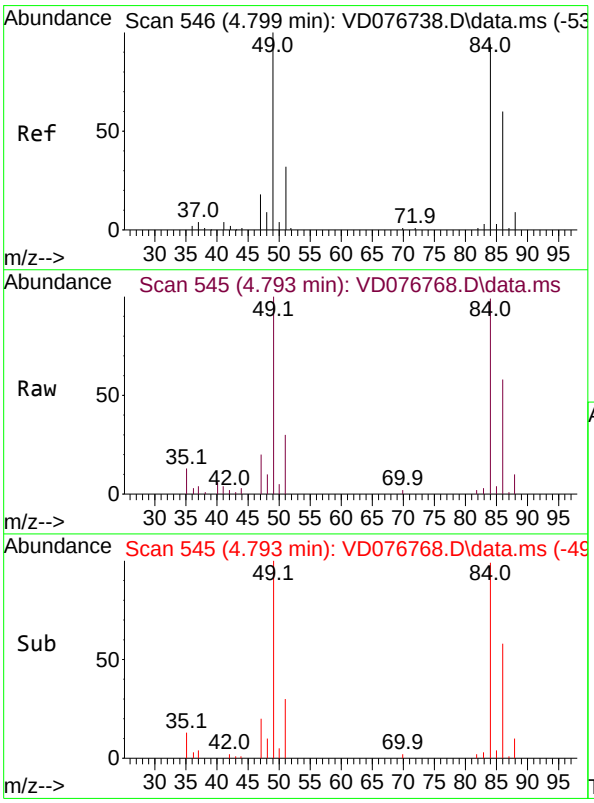
Ion	Ratio	Lower	Upper
73	100		
57	19.6	16.6	25.0

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

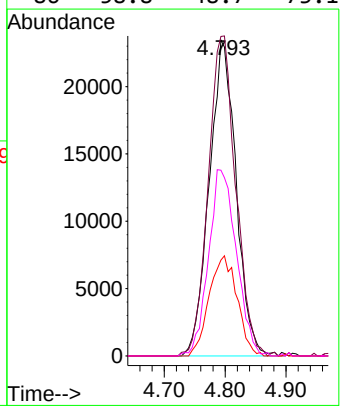


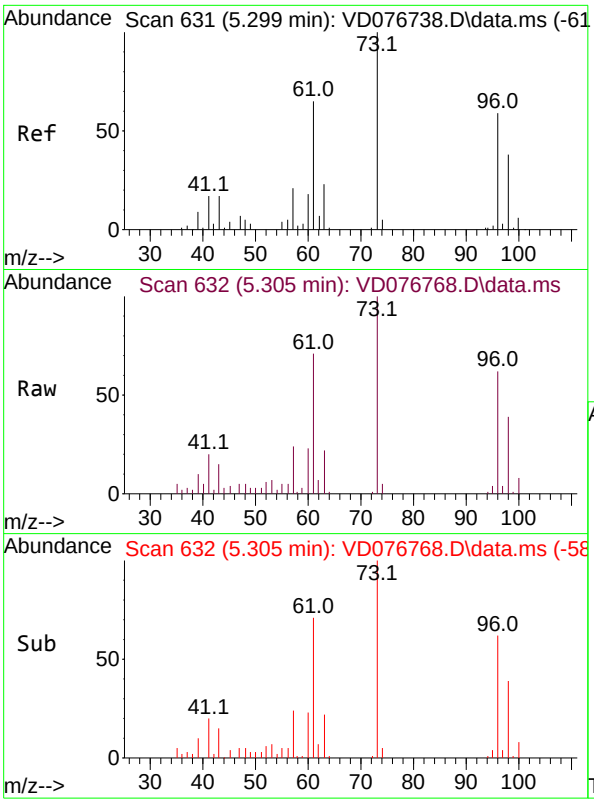


#20
Methylene Chloride
Concen: 21.077 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 84 Resp: 71823

Ion	Ratio	Lower	Upper
84	100		
49	101.1	71.4	107.2
51	30.3	24.5	36.7
86	58.8	48.7	73.1





#21
trans-1,2-Dichloroethene
Concen: 19.753 ug/l
RT: 5.305 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

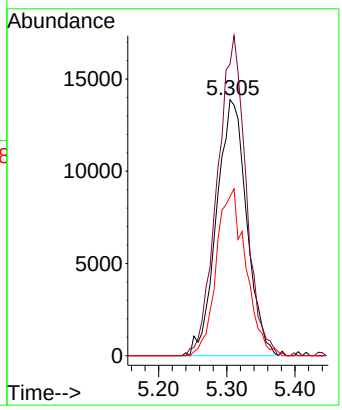
Tgt Ion: 96 Resp: 4255

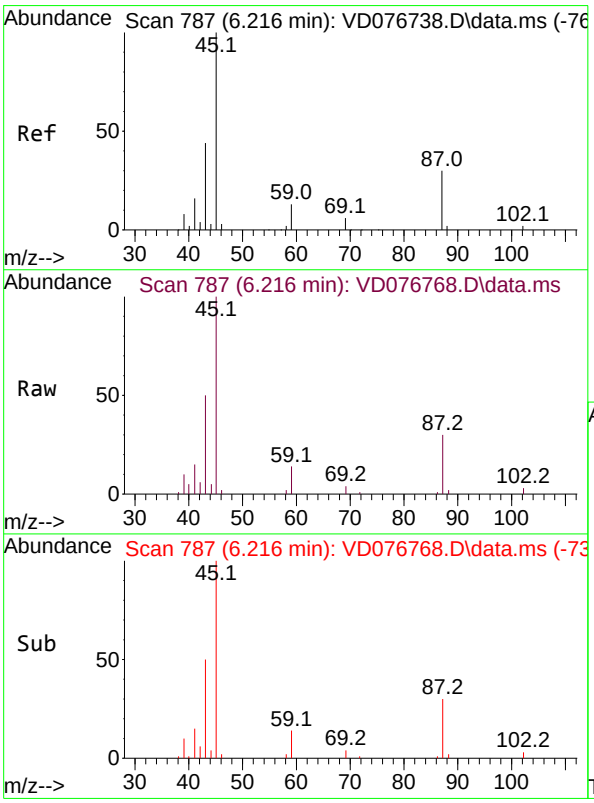
Ion	Ratio	Lower	Upper
96	100		
61	114.0	89.3	133.9
98	62.2	48.6	73.0

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

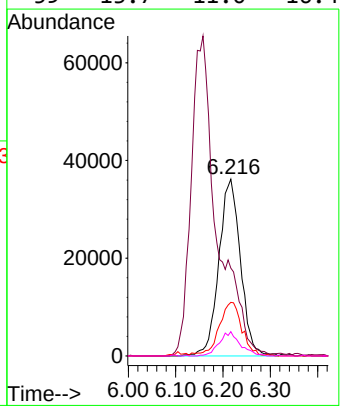


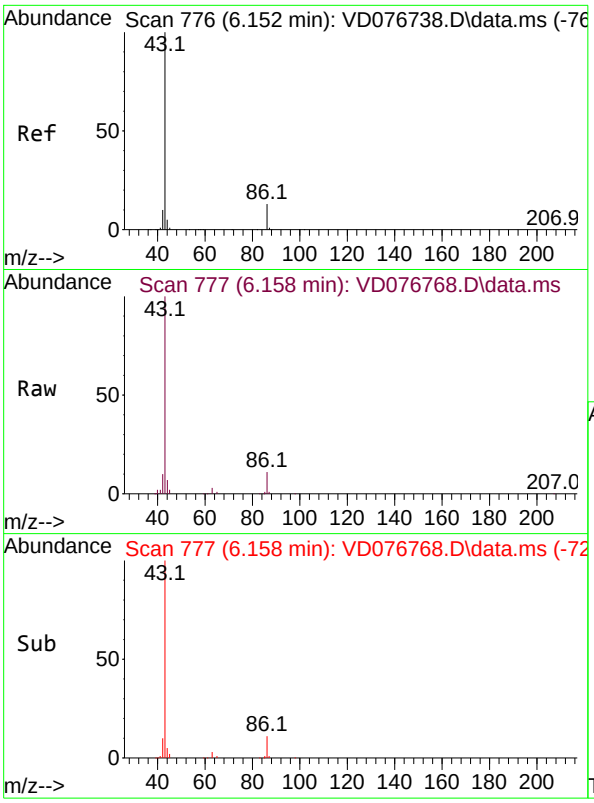


#22
Diisopropyl ether
Concen: 19.926 ug/l
RT: 6.216 min Scan# 787
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 45 Resp: 114879

Ion	Ratio	Lower	Upper
45	100		
43	48.3	40.0	60.0
87	30.4	28.2	42.4
59	13.7	11.0	16.4





#23
Vinyl Acetate
Concen: 86.743 ug/l m
RT: 6.158 min Scan# 7
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

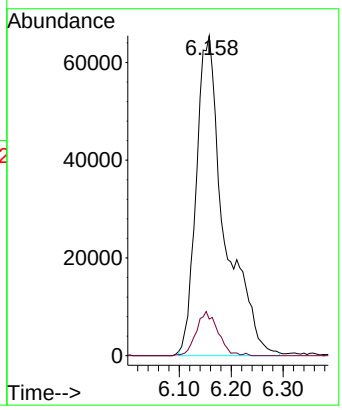
Tgt Ion: 43 Resp: 24744

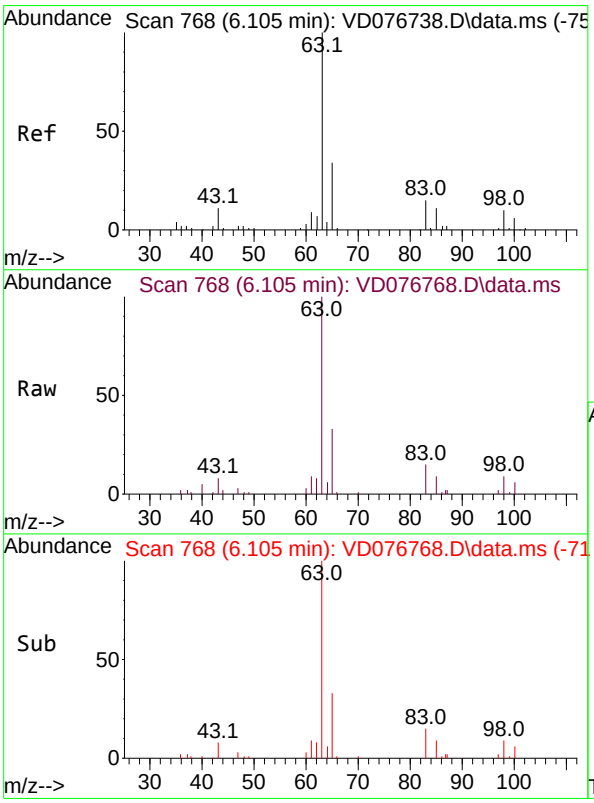
Ion	Ratio	Lower	Upper
43	100		
86	11.4	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

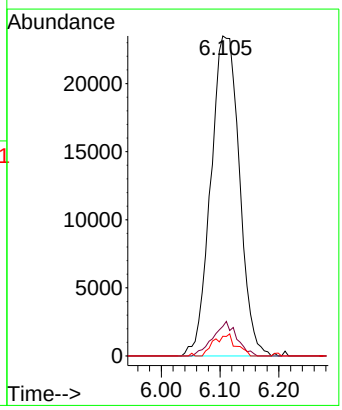


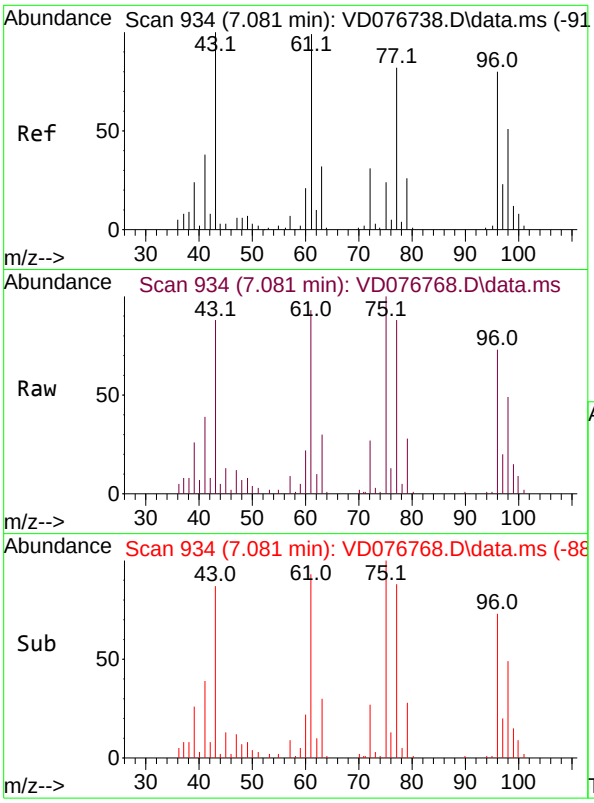


#24
1,1-Dichloroethane
Concen: 20.431 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 63 Resp: 79421

Ion	Ratio	Lower	Upper
63	100		
98	9.3	4.5	13.7
100	6.1	2.5	7.5





#25
2-Butanone
Concen: 98.860 ug/l
RT: 7.081 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

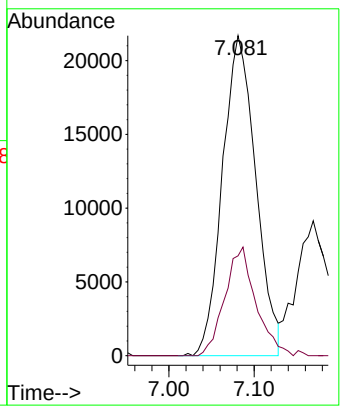
Tgt Ion: 43 Resp: 5903

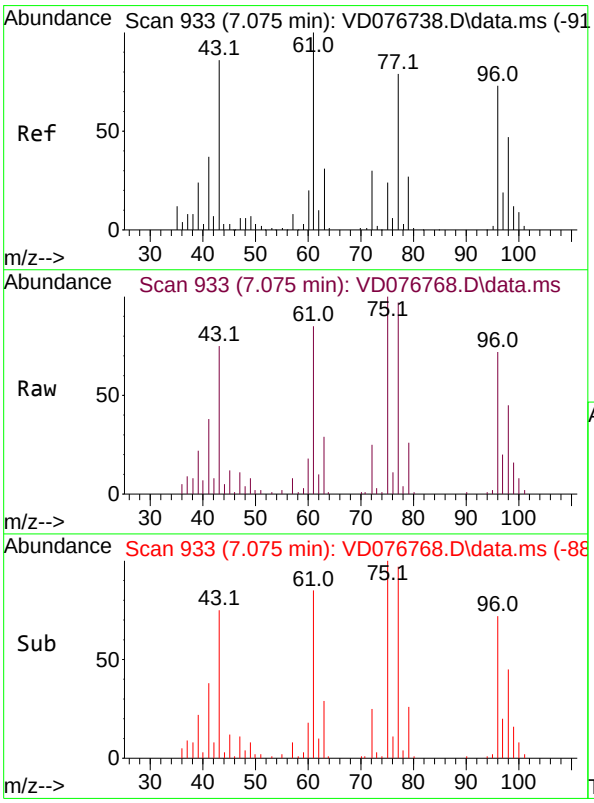
Ion	Ratio	Lower	Upper
43	100		
72	31.6	30.7	46.1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

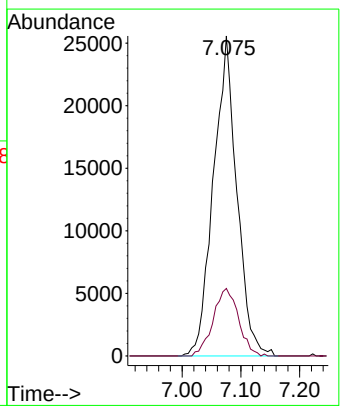


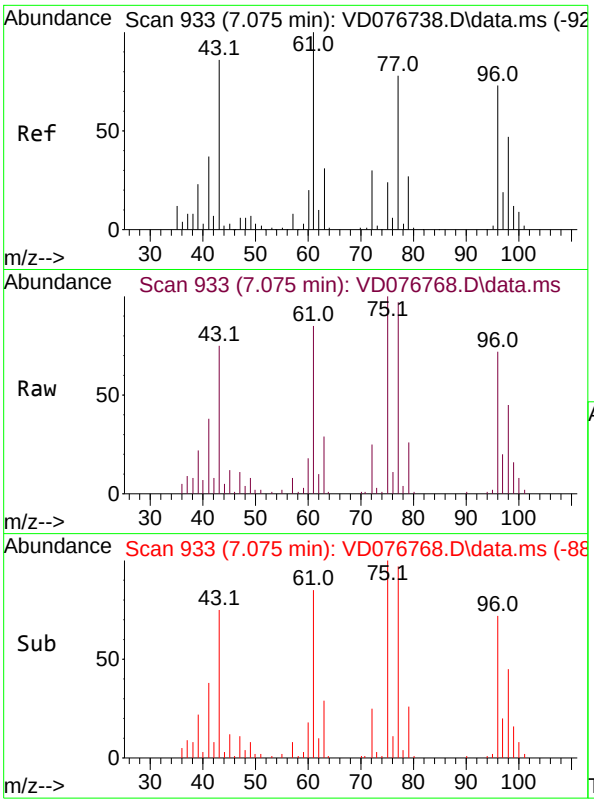


#26
2,2-Dichloropropane
Concen: 21.076 ug/l
RT: 7.075 min Scan# 933
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 77 Resp: 70624

Ion	Ratio	Lower	Upper
77	100		
97	22.9	13.2	39.6

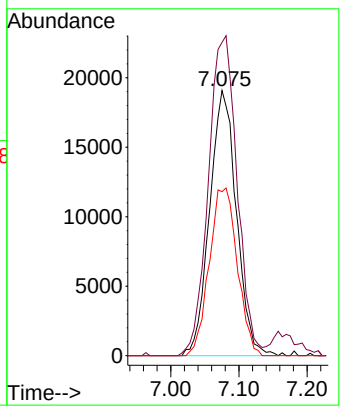




#27
cis-1,2-Dichloroethene
Concen: 19.685 ug/l
RT: 7.075 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 96 Resp: 5227

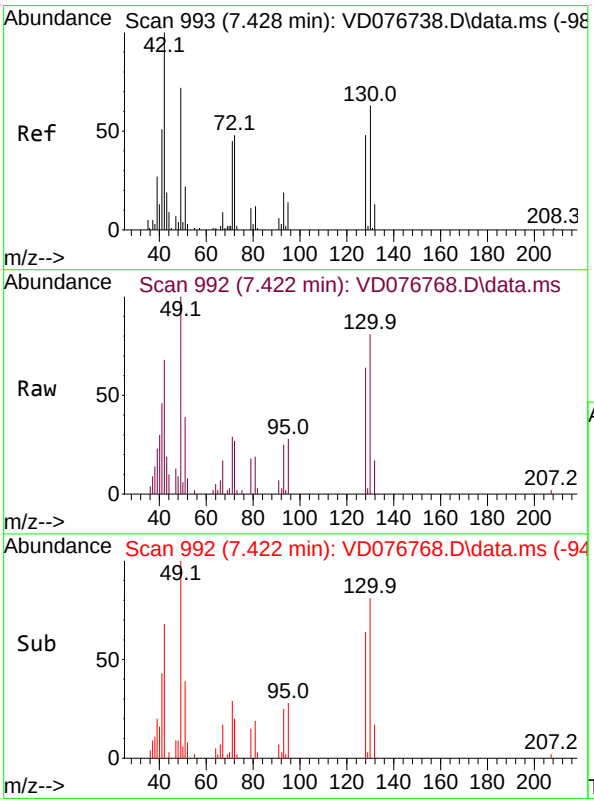
Ion	Ratio	Lower	Upper
96	100		
61	129.2	0.0	239.2
98	66.1	0.0	128.6



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

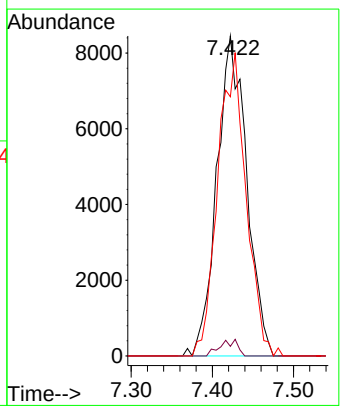
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

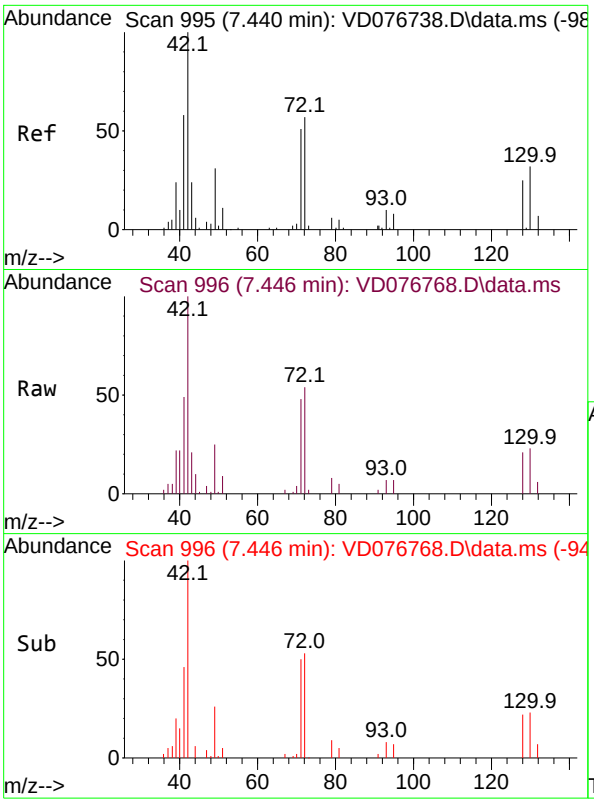


#28
Bromochloromethane
Concen: 22.204 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 49 Resp: 21579

Ion	Ratio	Lower	Upper
49	100		
129	3.0	0.0	6.0
130	90.3	83.2	124.8





#29
Tetrahydrofuran
Concen: 90.990 ug/l
RT: 7.446 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

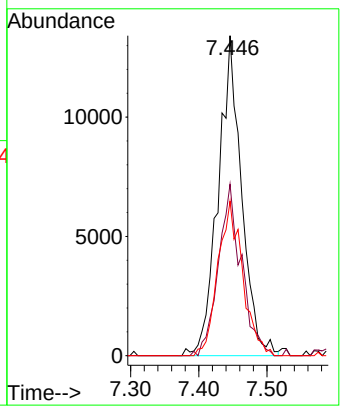
Tgt Ion: 42 Resp: 3210

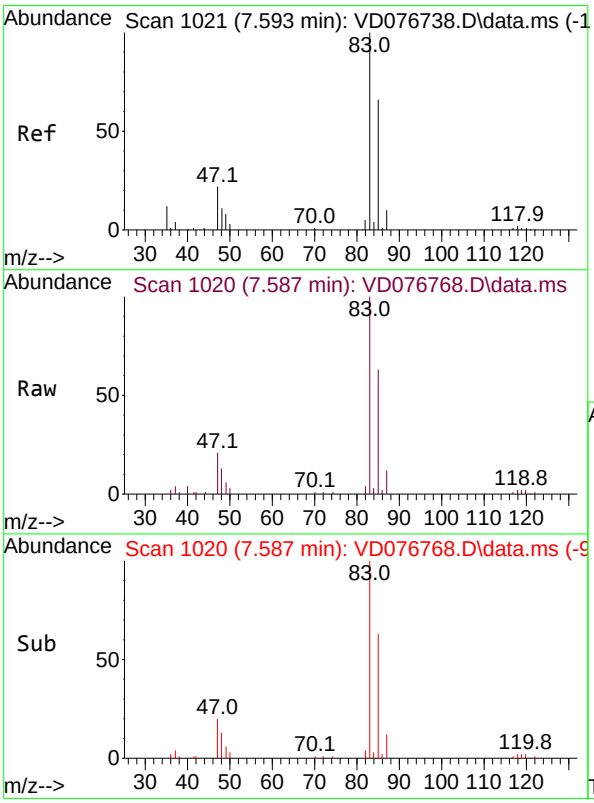
Ion	Ratio	Lower	Upper
42	100		
72	52.6	46.5	69.7
71	50.9	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

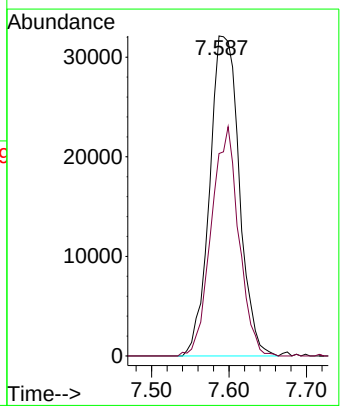


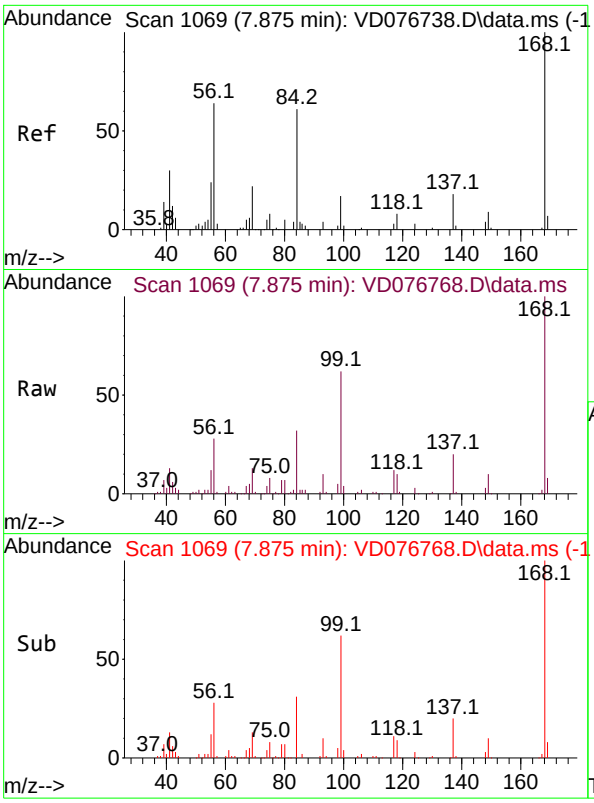


#30
Chloroform
Concen: 20.064 ug/l
RT: 7.587 min Scan# 1020
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 83 Resp: 85425

Ion	Ratio	Lower	Upper
83	100		
85	63.3	53.4	80.2

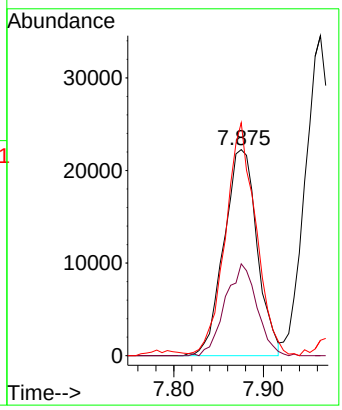




#31
Cyclohexane
Concen: 20.766 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 56 Resp: 5709

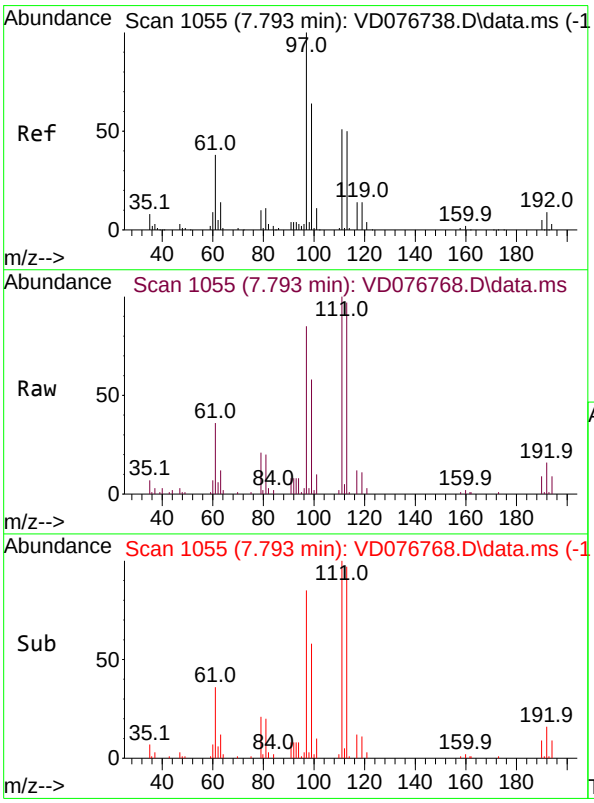
Ion	Ratio	Lower	Upper
56	100		
69	44.5	28.6	43.0#
84	111.4	84.8	127.2



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

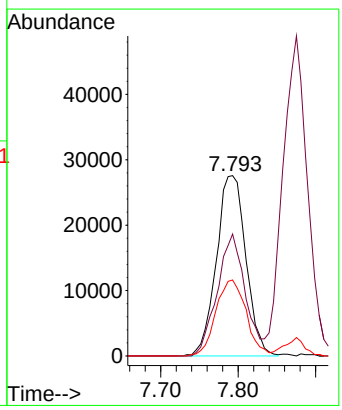
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

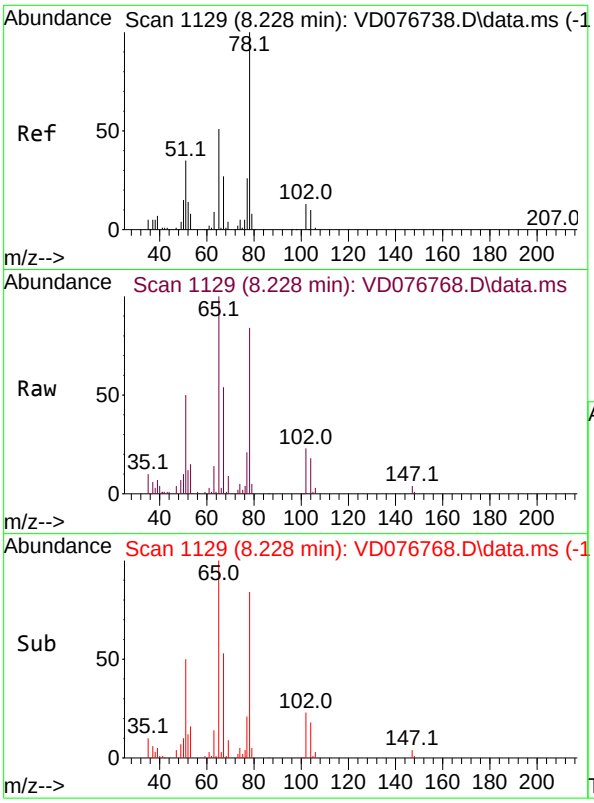


#32
1,1,1-Trichloroethane
Concen: 21.268 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 97 Resp: 73059

Ion	Ratio	Lower	Upper
97	100		
99	63.4	52.0	78.0
61	43.2	33.8	50.8





#33
1,2-Dichloroethane-d4
Concen: 45.355 ug/l
RT: 8.228 min Scan# 11
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

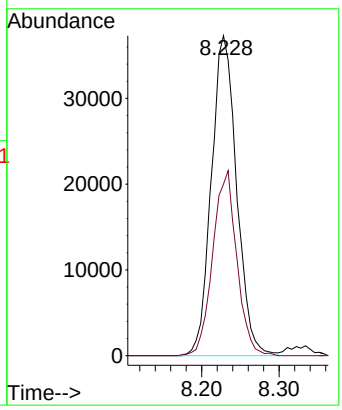
Tgt Ion: 65 Resp: 8473

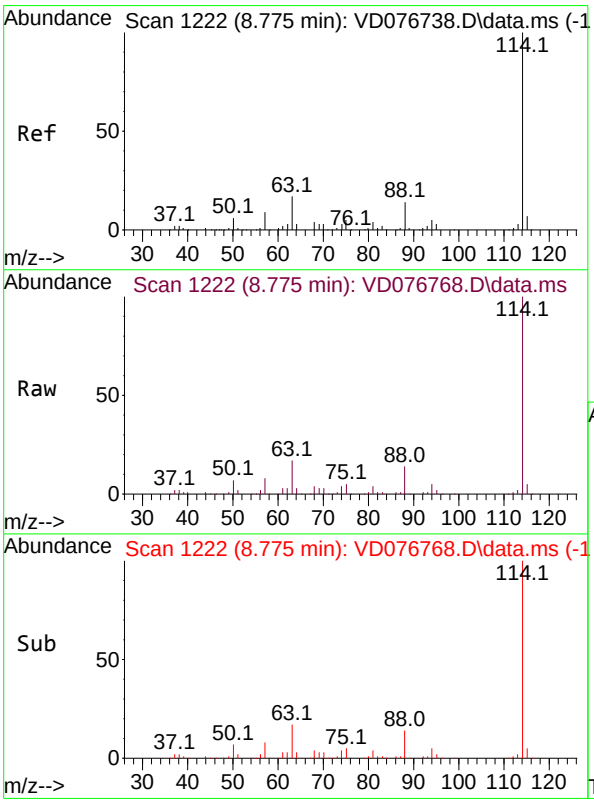
Ion	Ratio	Lower	Upper
65	100		
67	54.9	0.0	115.0

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

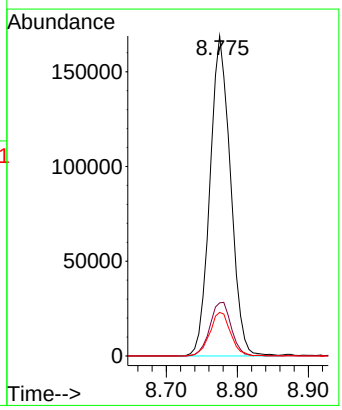


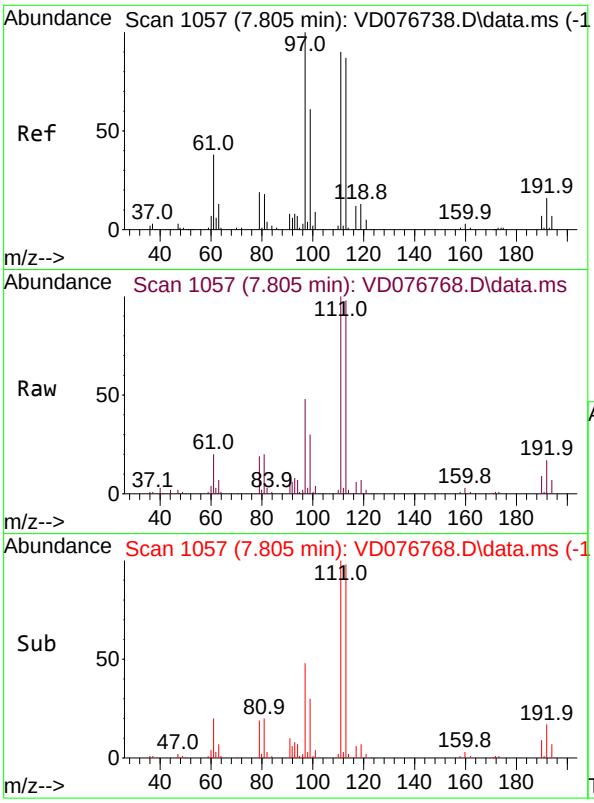


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:114 Resp: 339123

Ion	Ratio	Lower	Upper
114	100		
63	16.6	0.0	33.4
88	13.6	0.0	26.2

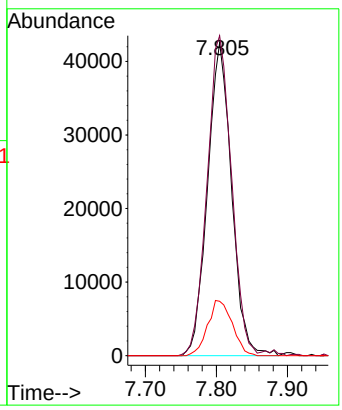




#35
Dibromofluoromethane
Concen: 46.825 ug/l
RT: 7.805 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:113 Resp: 9978

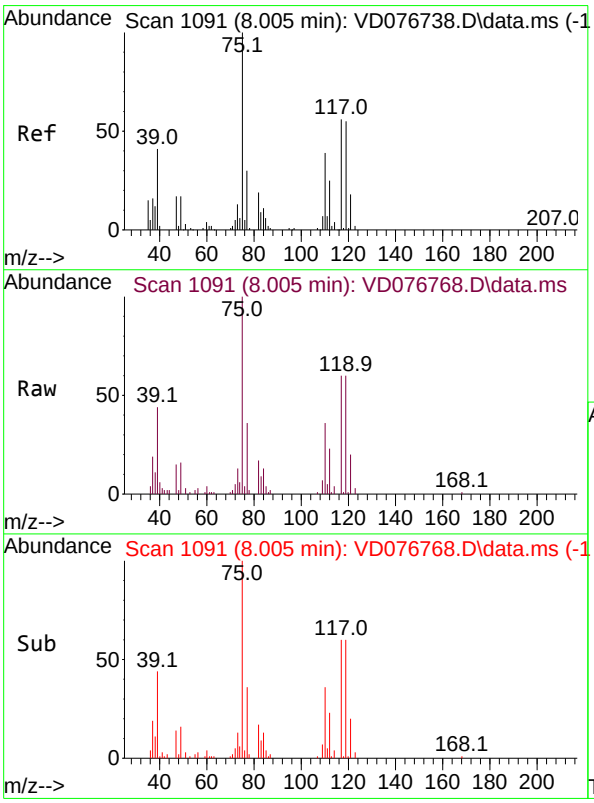
Ion	Ratio	Lower	Upper
113	100		
111	104.3	84.7	127.1
192	18.1	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

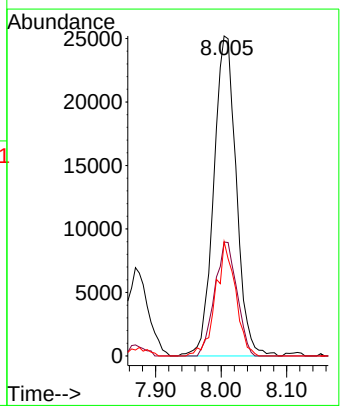
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

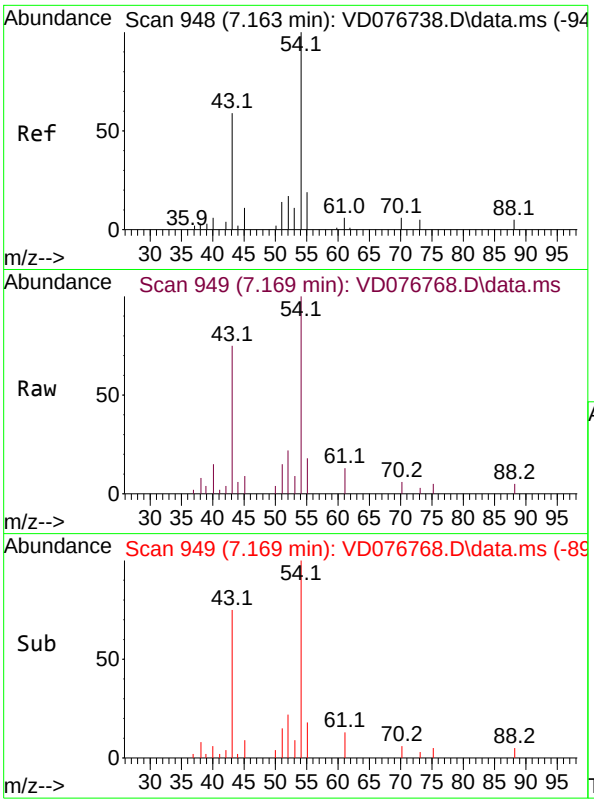


#36
1,1-Dichloropropene
Concen: 21.581 ug/l
RT: 8.005 min Scan# 1091
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 75 Resp: 60097

Ion	Ratio	Lower	Upper
75	100		
110	35.1	19.9	59.6
77	31.7	24.7	37.1





#37
Ethyl Acetate
Concen: 19.214 ug/l
RT: 7.169 min Scan# 94
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

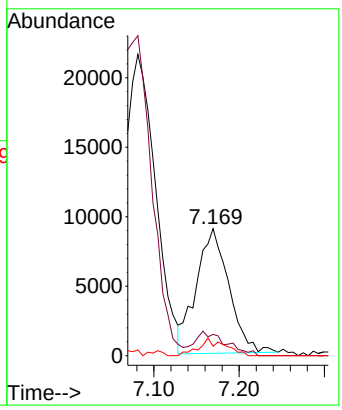
Tgt Ion: 43 Resp: 2392

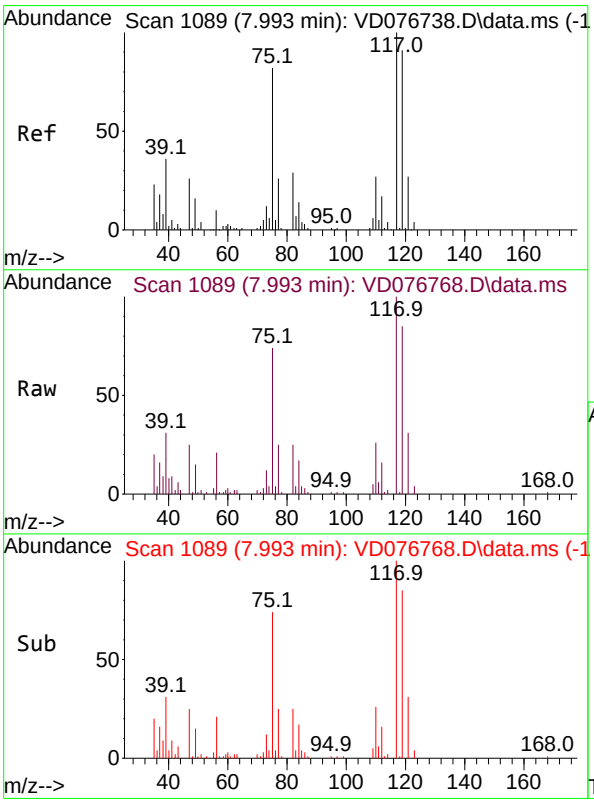
Ion	Ratio	Lower	Upper
43	100		
61	18.9	14.9	22.3
70	11.2	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

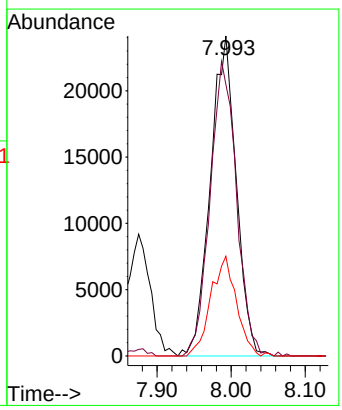


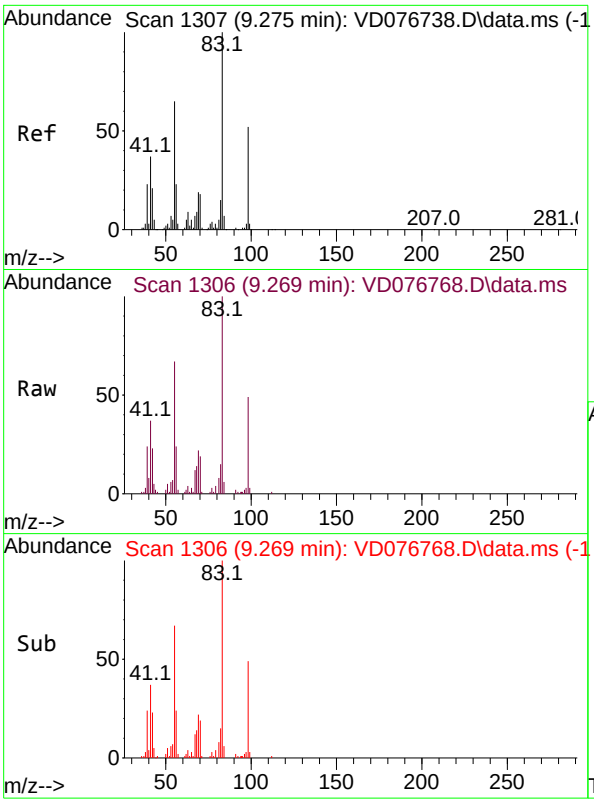


#38
Carbon Tetrachloride
Concen: 21.948 ug/l
RT: 7.993 min Scan# 1089
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:117 Resp: 58522

Ion	Ratio	Lower	Upper
117	100		
119	84.9	78.0	117.0
121	31.1	24.2	36.2





#39
Methylcyclohexane
Concen: 21.978 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

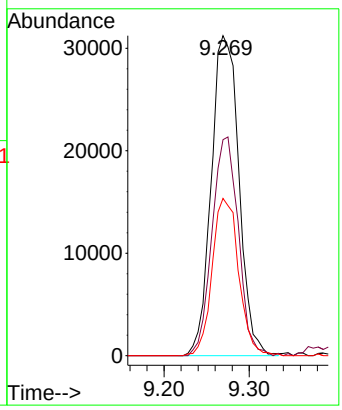
Tgt Ion: 83 Resp: 7066

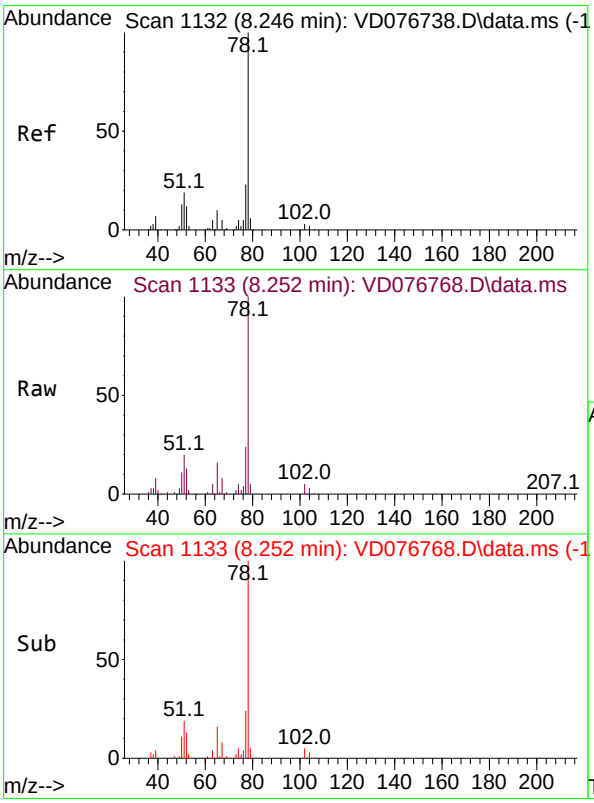
Ion	Ratio	Lower	Upper
83	100		
55	67.5	49.4	74.0
98	49.2	38.4	57.6

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

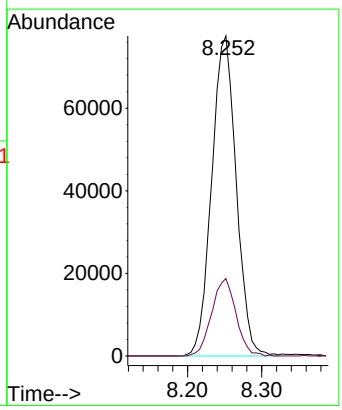


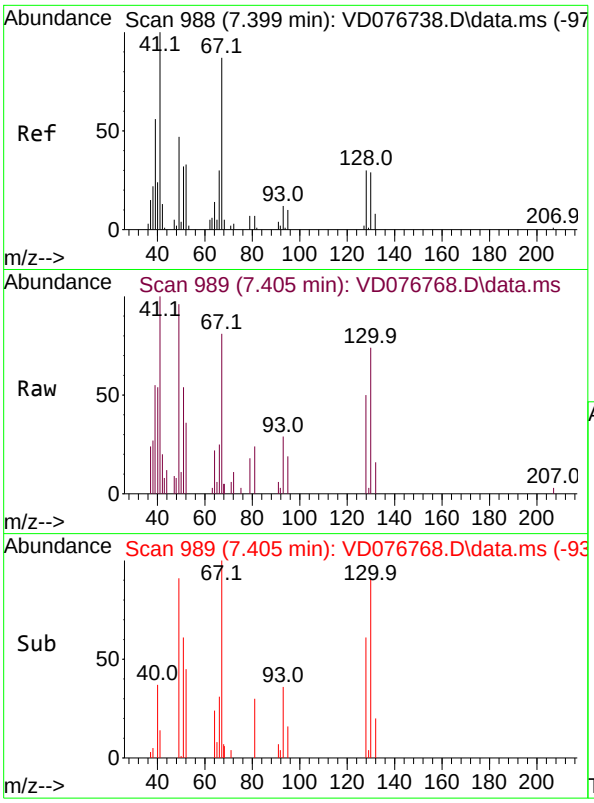


#40
Benzene
Concen: 20.288 ug/l
RT: 8.252 min Scan# 1133
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 78 Resp: 178260

Ion	Ratio	Lower	Upper
78	100		
77	24.2	19.4	29.0

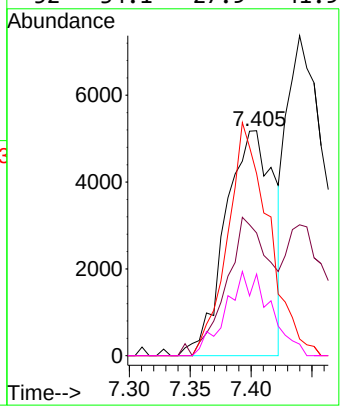




#41
Methacrylonitrile
Concen: 18.808 ug/l
RT: 7.405 min Scan# 9
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 41 Resp: 1430

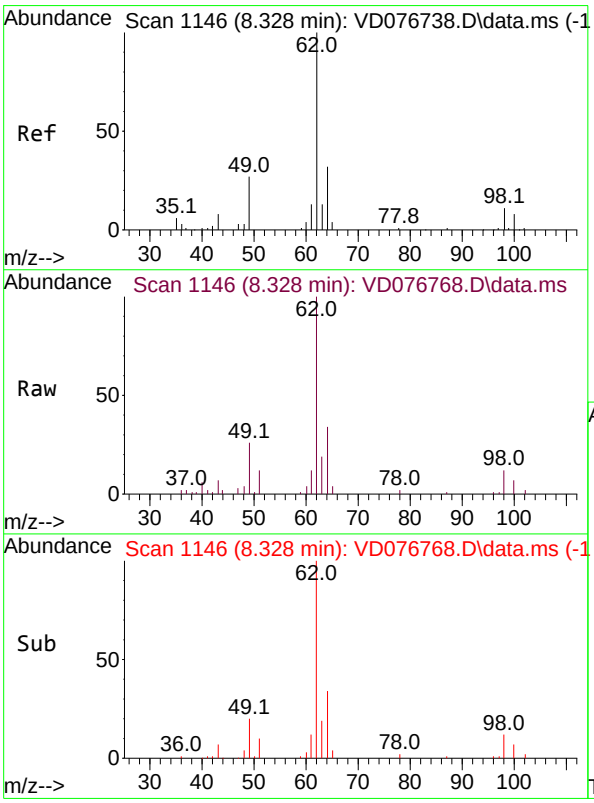
Ion	Ratio	Lower	Upper
41	100		
39	55.6	34.0	51.0
67	88.2	77.0	115.4
52	34.1	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

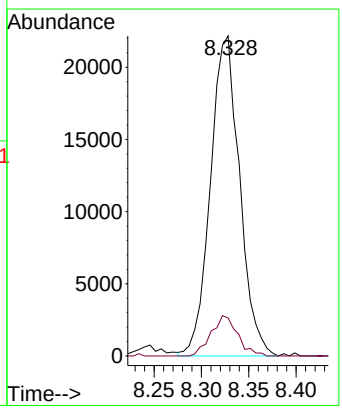
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

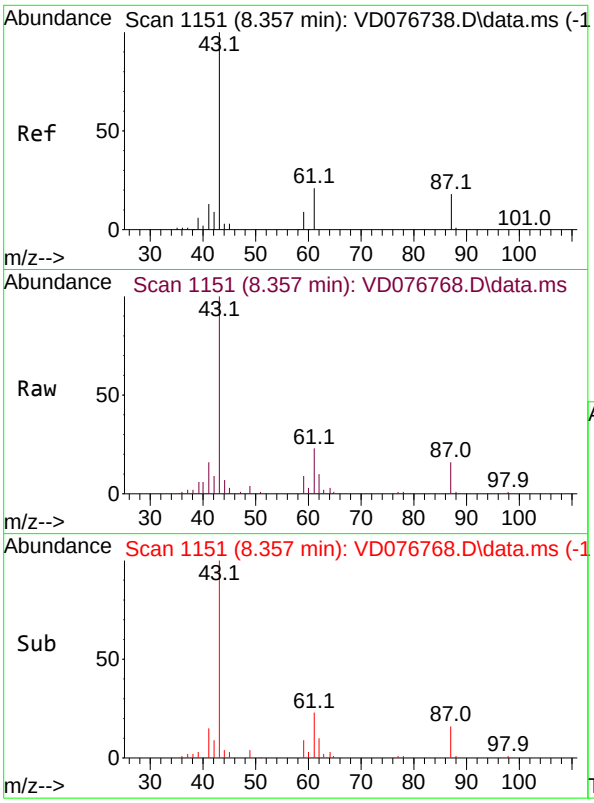


#42
1,2-Dichloroethane
Concen: 20.823 ug/l
RT: 8.328 min Scan# 1146
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 62 Resp: 47539

Ion	Ratio	Lower	Upper
62	100		
98	11.5	0.0	25.4

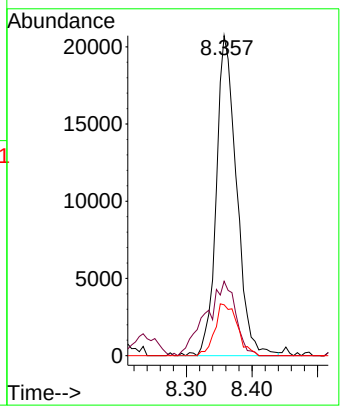




#43
Isopropyl Acetate
Concen: 18.218 ug/l
RT: 8.357 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 43 Resp: 4427

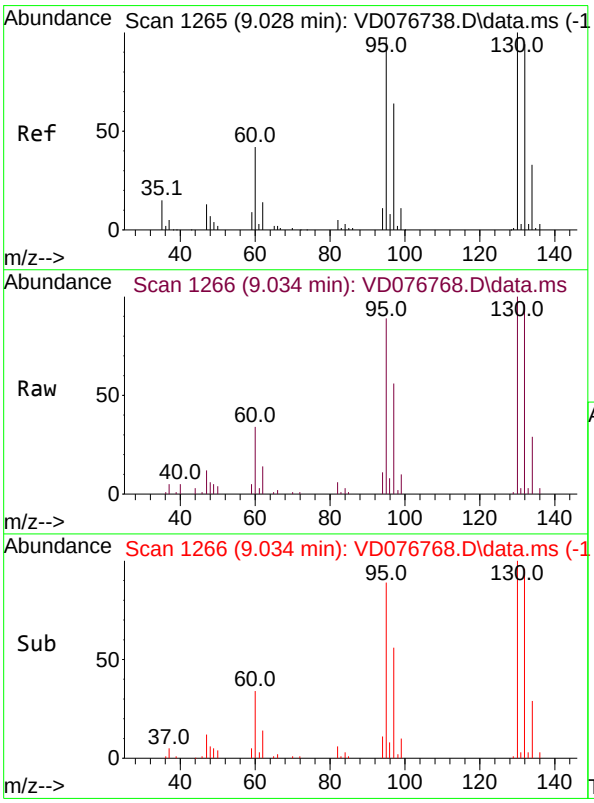
Ion	Ratio	Lower	Upper
43	100		
61	34.3	31.4	47.0
87	18.0	14.9	22.3



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

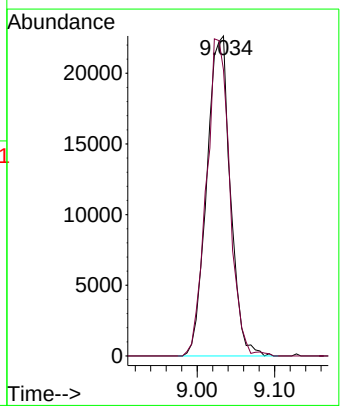
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

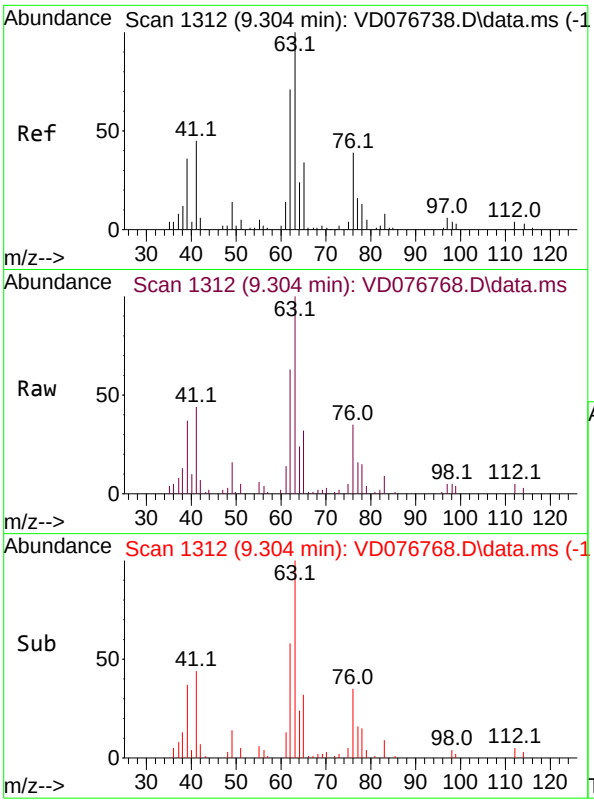


#44
Trichloroethene
Concen: 19.988 ug/l
RT: 9.034 min Scan# 1266
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:130 Resp: 47858

Ion	Ratio	Lower	Upper
130	100		
95	89.4	0.0	179.2





#45
1,2-Dichloropropane
Concen: 20.644 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

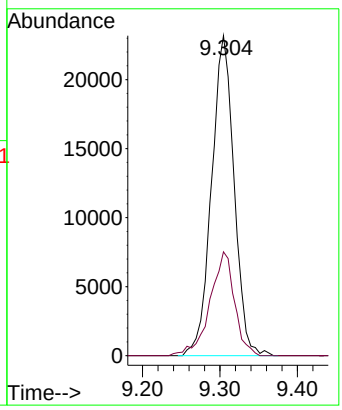
Tgt Ion: 63 Resp: 4682

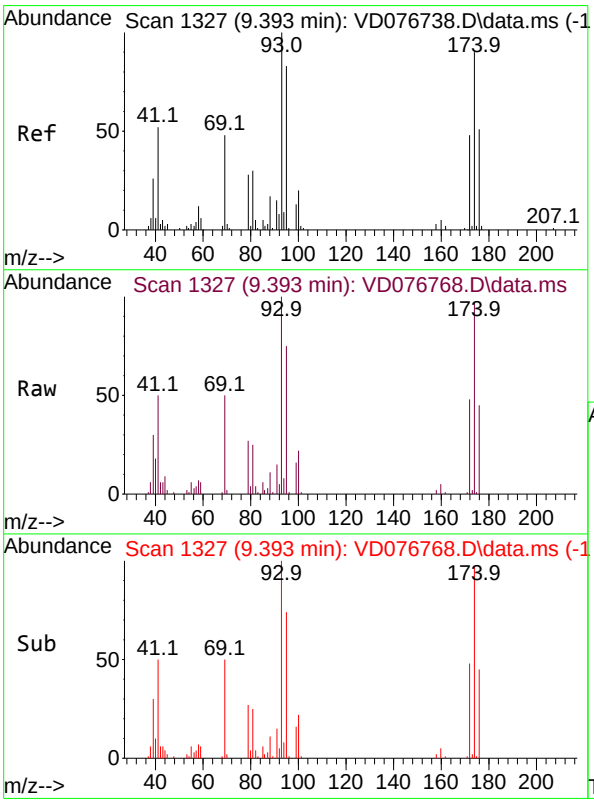
Ion	Ratio	Lower	Upper
63	100		
65	32.4	24.5	36.7

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

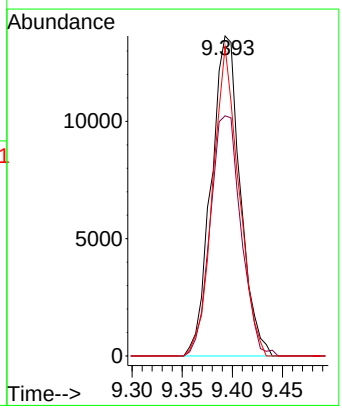


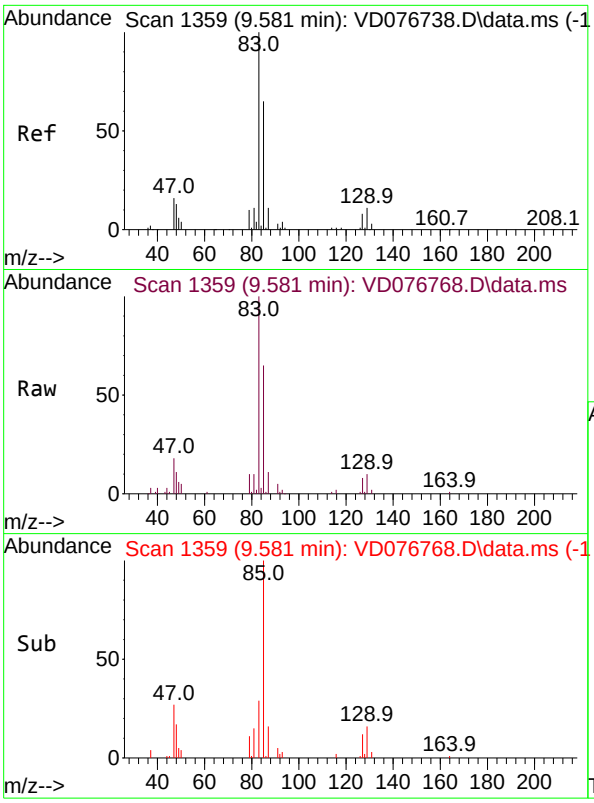


#46
Dibromomethane
Concen: 20.683 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 93 Resp: 27459

Ion	Ratio	Lower	Upper
93	100		
95	79.1	67.7	101.5
174	87.2	85.4	128.2

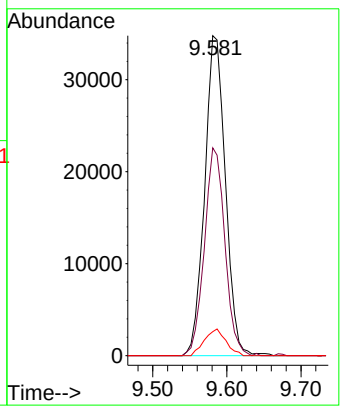




#47
Bromodichloromethane
Concen: 20.281 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 83 Resp: 6756

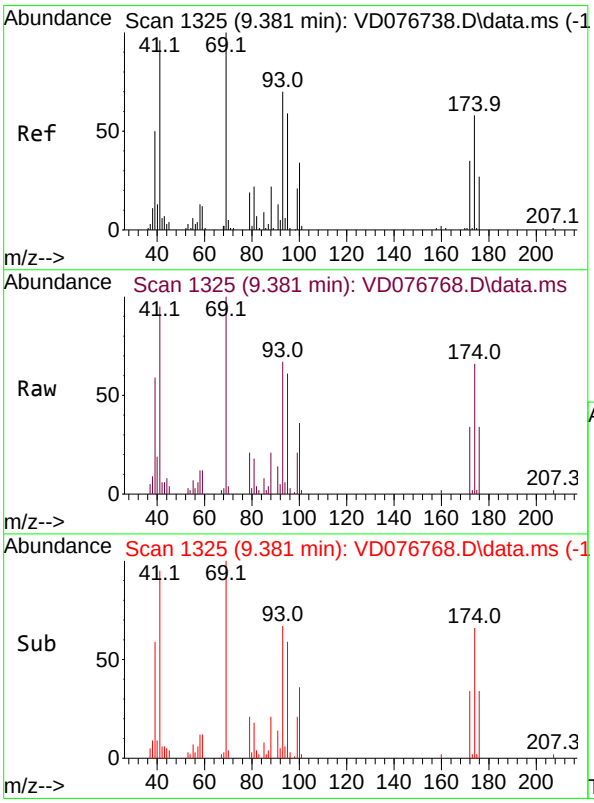
Ion	Ratio	Lower	Upper
83	100		
85	64.9	50.2	75.4
127	7.5	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

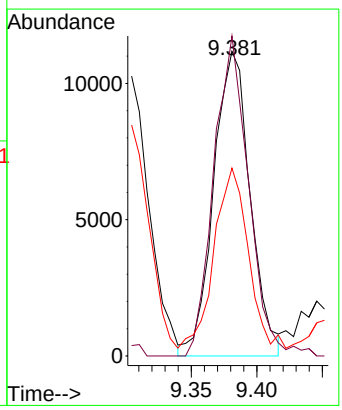
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

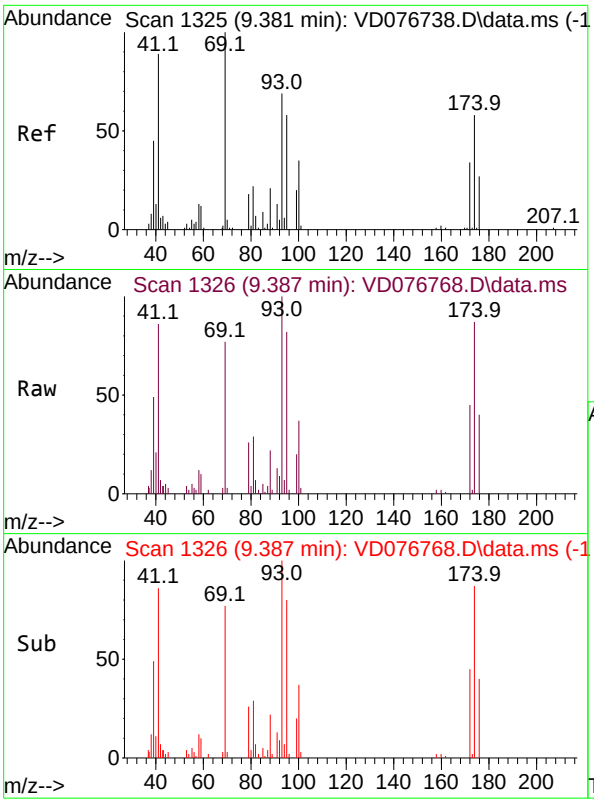


#48
Methyl methacrylate
Concen: 19.557 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 41 Resp: 21634

Ion	Ratio	Lower	Upper
41	100		
69	100.6	102.2	153.2#
39	57.2	41.4	62.2





#49
1,4-Dioxane
Concen: 309.179 ug/l
RT: 9.387 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

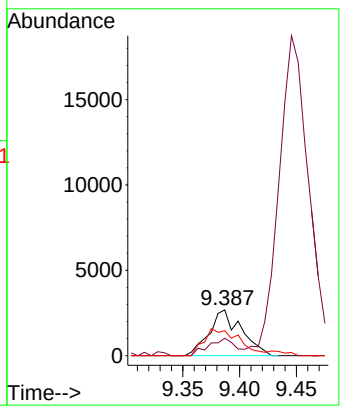
Tgt Ion: 88 Resp: 525

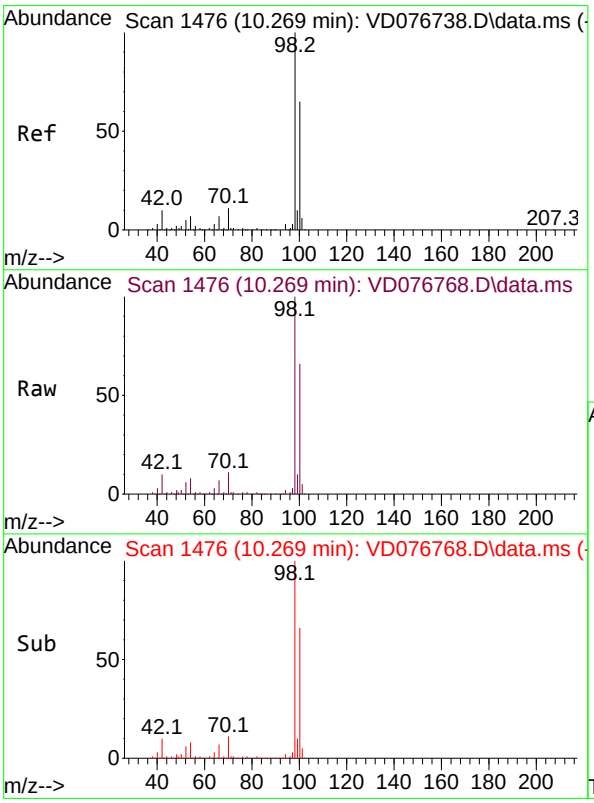
Ion	Ratio	Lower	Upper
88	100		
43	32.5	19.0	28.6
58	64.1	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

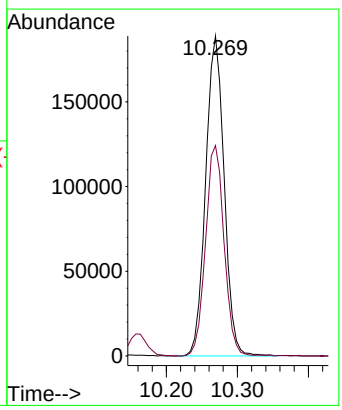


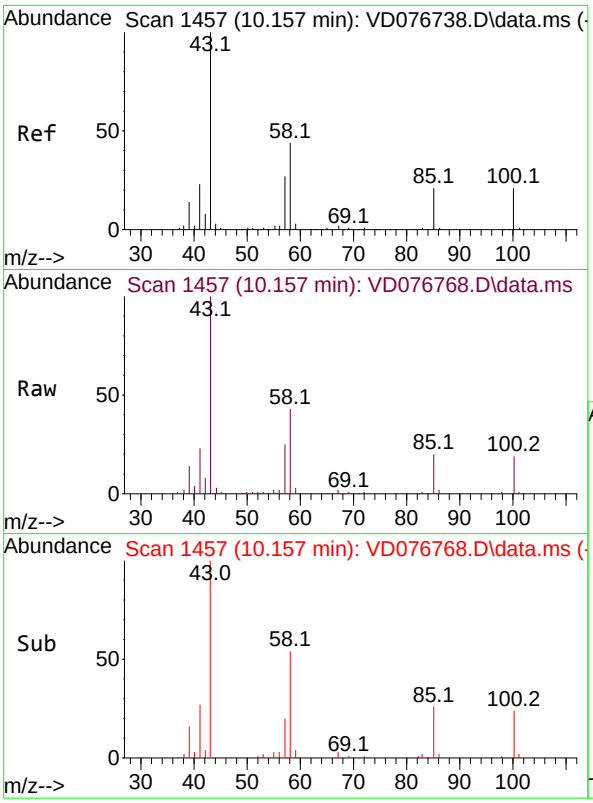


#50
Toluene-d8
Concen: 44.793 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 98 Resp: 341489

Ion	Ratio	Lower	Upper
98	100		
100	66.1	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 94.180 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

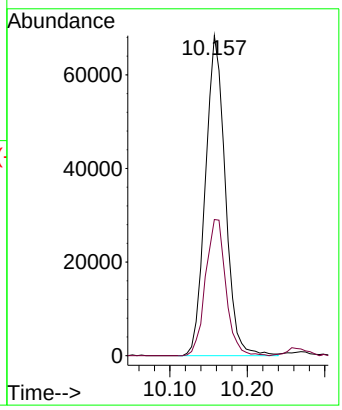
Tgt Ion: 43 Resp: 12187

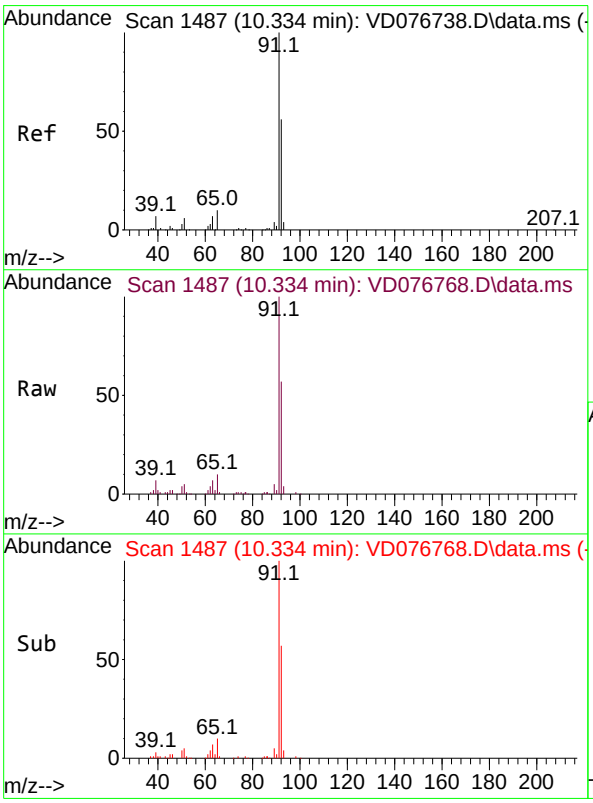
Ion	Ratio	Lower	Upper
43	100		
58	43.5	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

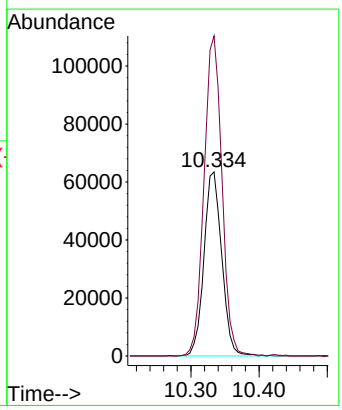


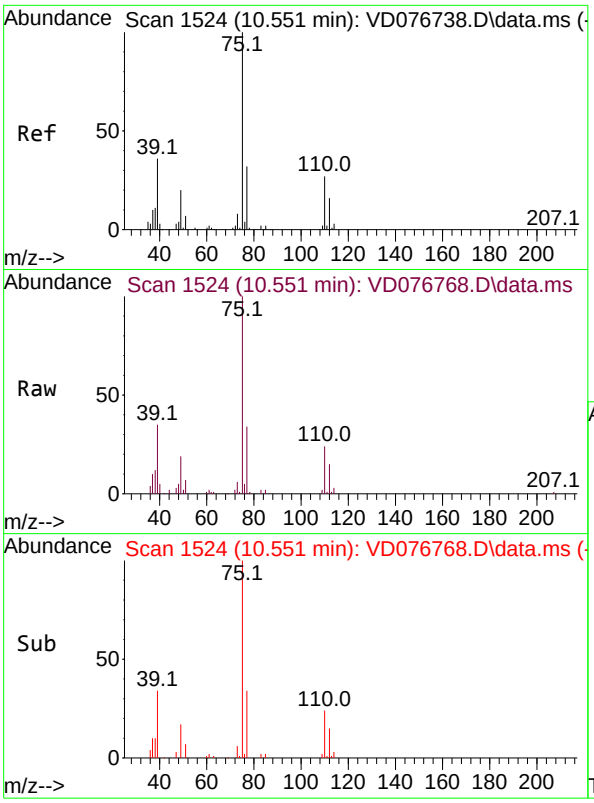


#52
Toluene
Concen: 19.962 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 92 Resp: 115198

Ion	Ratio	Lower	Upper
92	100		
91	175.2	143.0	214.4





#53
t-1,3-Dichloropropene
Concen: 18.994 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

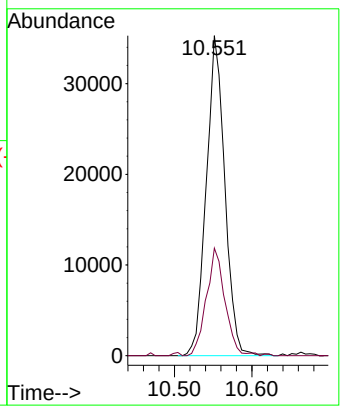
Tgt Ion: 75 Resp: 5873

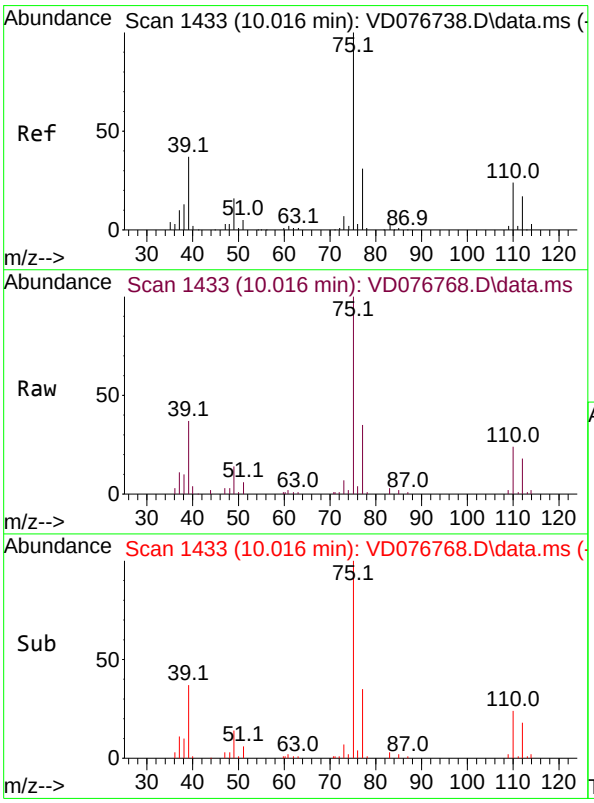
Ion	Ratio	Lower	Upper
75	100		
77	33.6	25.3	37.9

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

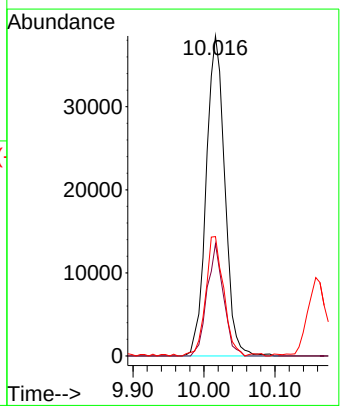


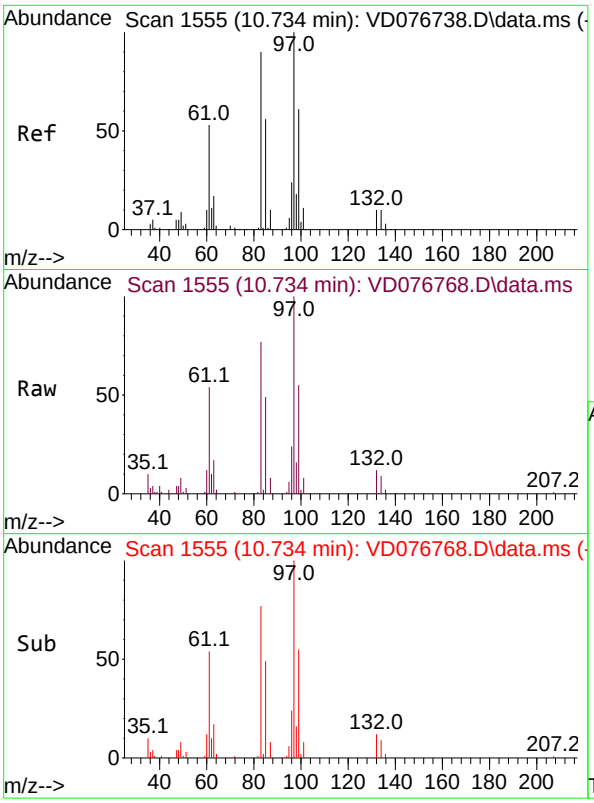


#54
cis-1,3-Dichloropropene
Concen: 19.286 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 75 Resp: 70289

Ion	Ratio	Lower	Upper
75	100		
77	35.1	25.5	38.3
39	37.3	22.1	33.1#

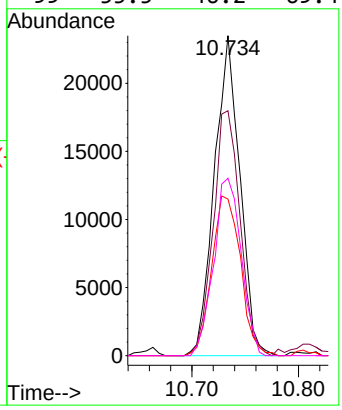




#55
1,1,2-Trichloroethane
Concen: 20.174 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 97 Resp: 3911

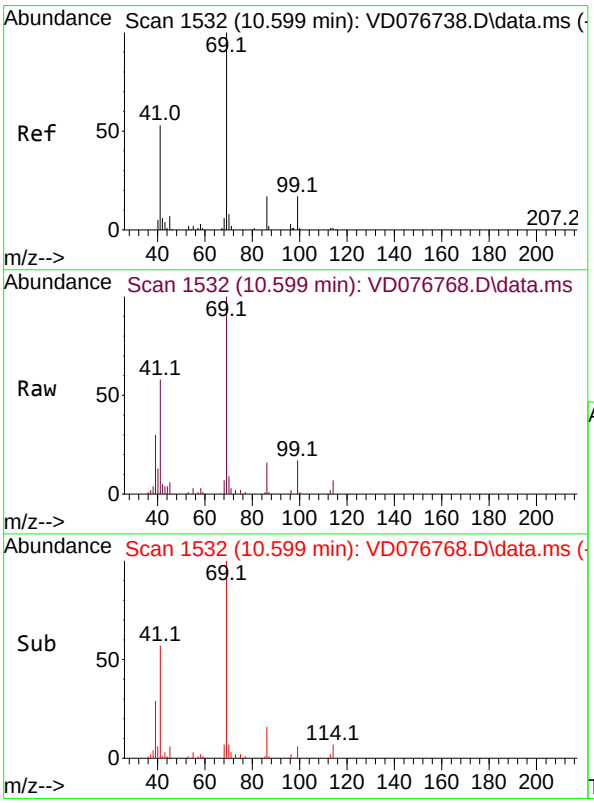
Ion	Ratio	Lower	Upper
97	100		
83	76.6	65.8	98.6
85	49.0	45.7	68.5
99	55.5	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

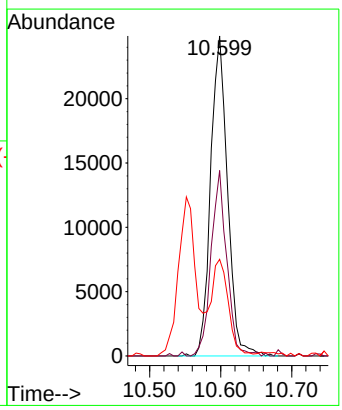
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

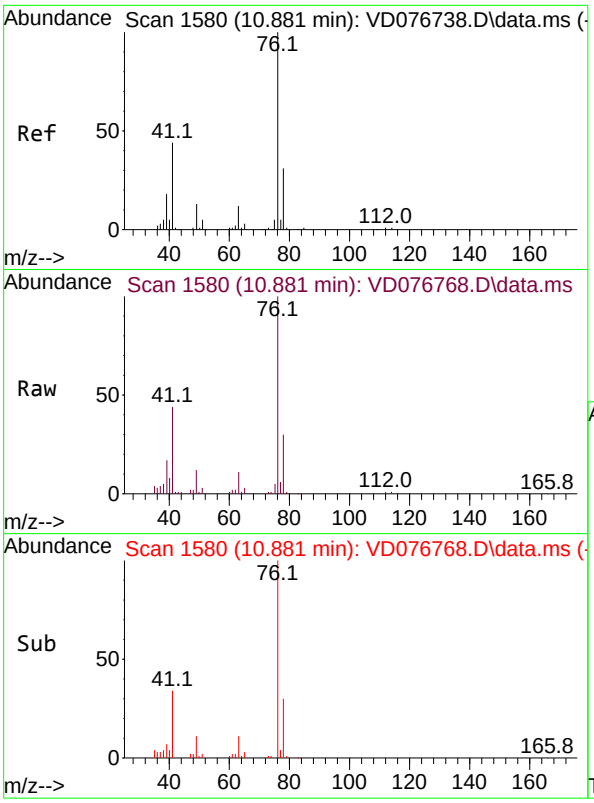


#56
Ethyl methacrylate
Concen: 18.332 ug/l
RT: 10.599 min Scan# 1532
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 69 Resp: 41019

Ion	Ratio	Lower	Upper
69	100		
41	54.3	39.1	58.7
39	31.8	20.0	30.0#





#57
1,3-Dichloropropane
Concen: 19.578 ug/l
RT: 10.881 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

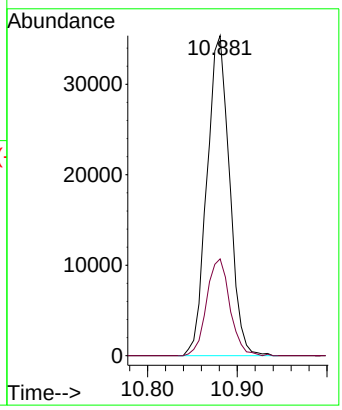
Tgt Ion: 76 Resp: 6181

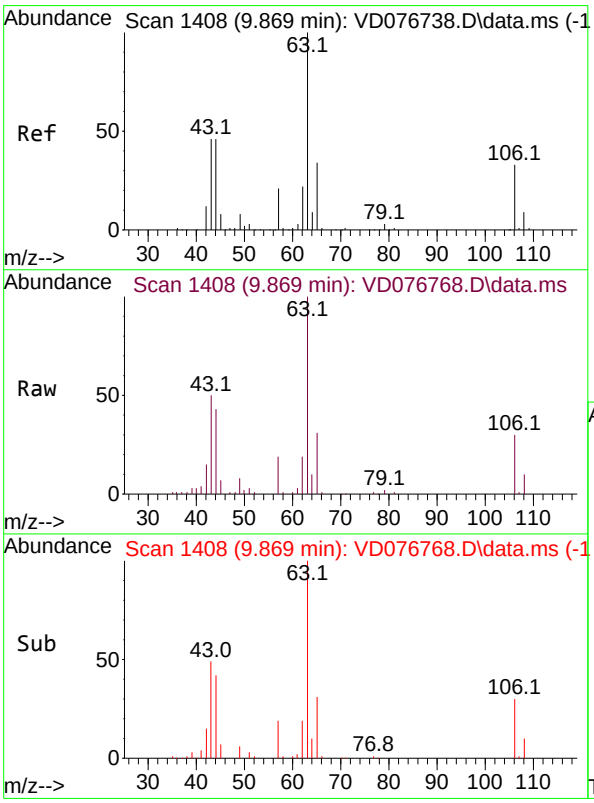
Ion	Ratio	Lower	Upper
76	100		
78	31.2	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

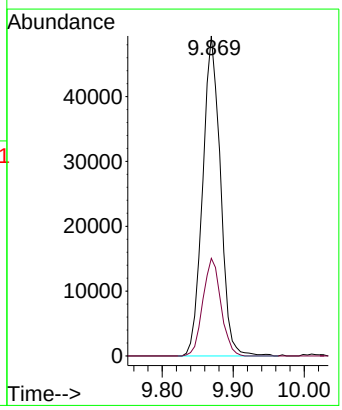


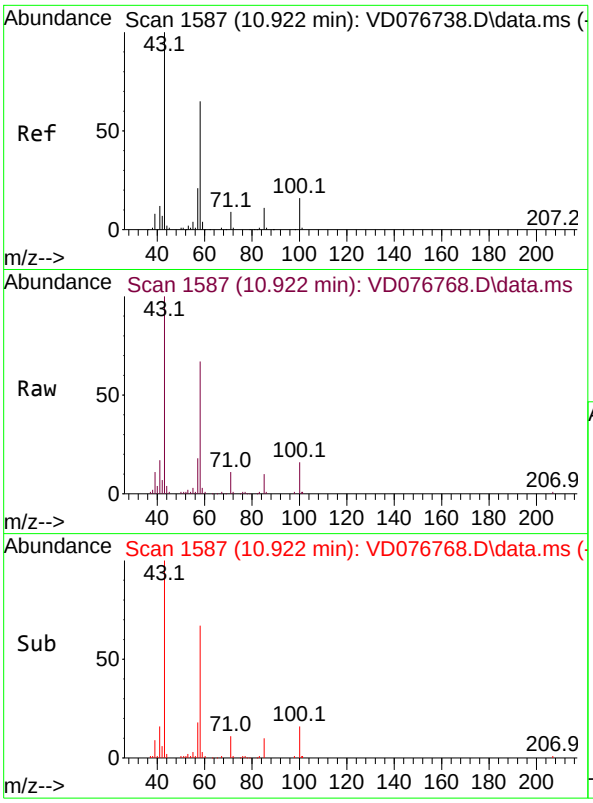


#58
2-Chloroethyl Vinyl ether
Concen: 99.324 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 63 Resp: 86027

Ion	Ratio	Lower	Upper
63	100		
106	30.9	25.3	37.9





#59
2-Hexanone
Concen: 93.809 ug/l
RT: 10.922 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

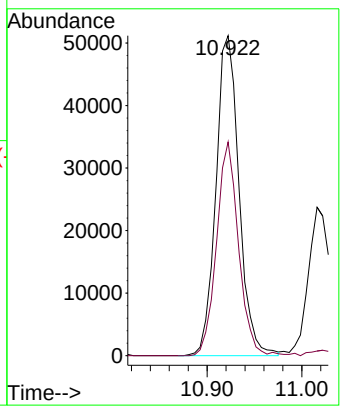
Tgt Ion: 43 Resp: 8661

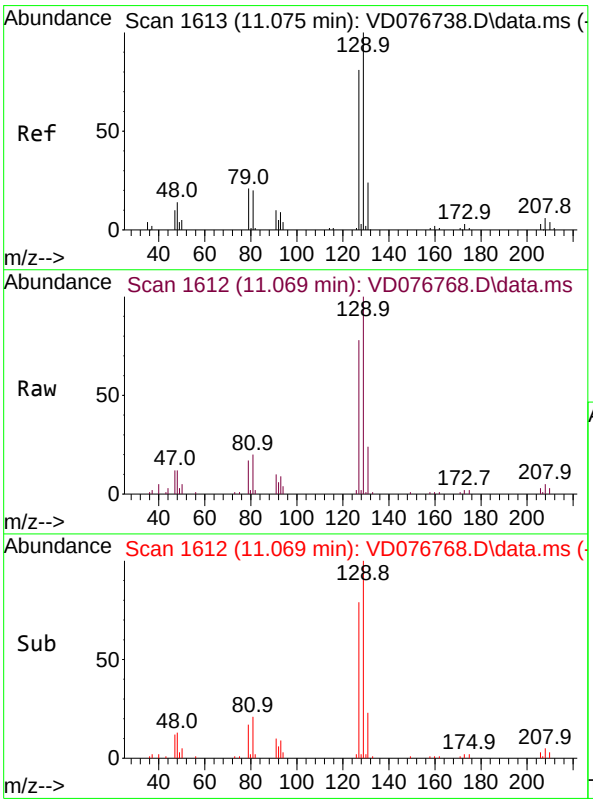
Ion	Ratio	Lower	Upper
43	100		
58	63.7	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

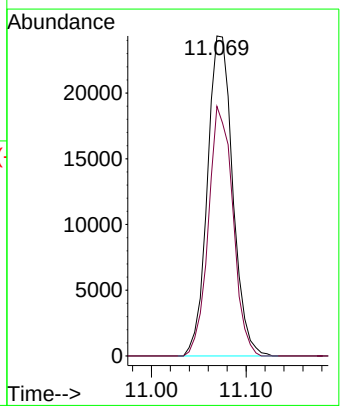


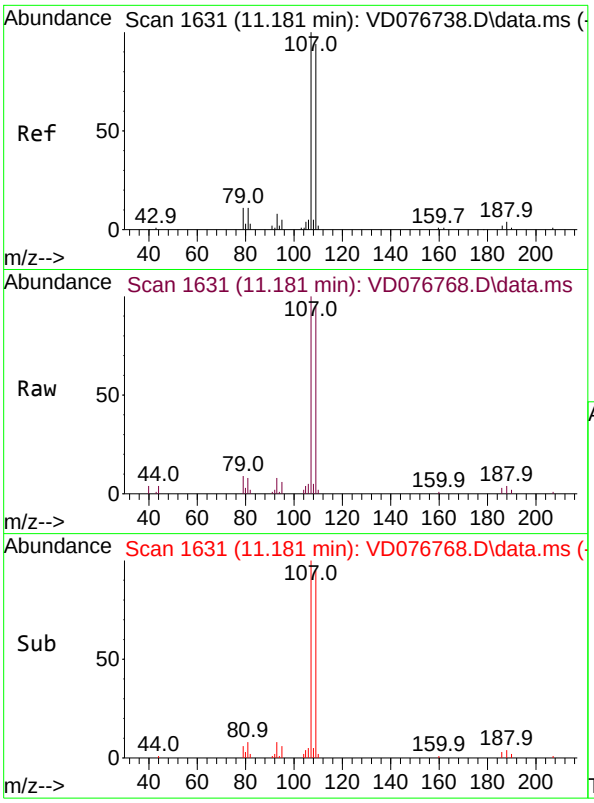


#60
Dibromochloromethane
Concen: 20.064 ug/l
RT: 11.069 min Scan# 1612
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:129 Resp: 45187

Ion	Ratio	Lower	Upper
129	100		
127	75.3	37.1	111.5





#61
1,2-Dibromoethane
Concen: 19.647 ug/l
RT: 11.181 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

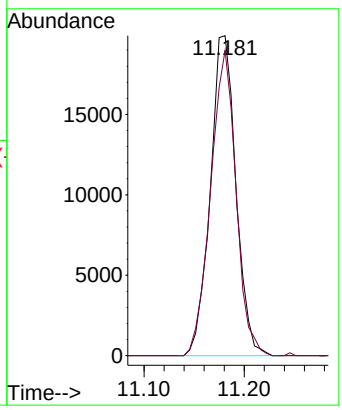
Tgt Ion:107 Resp: 3531

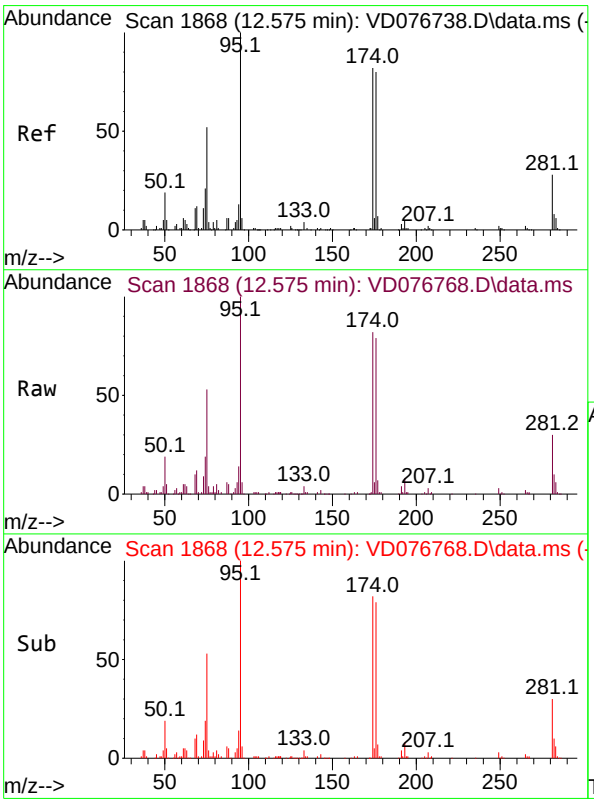
Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

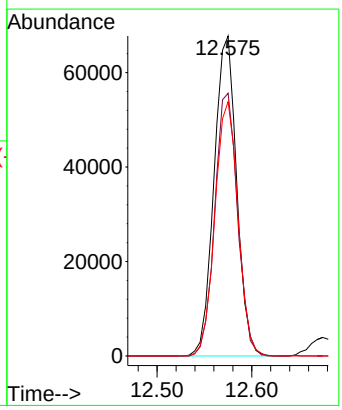


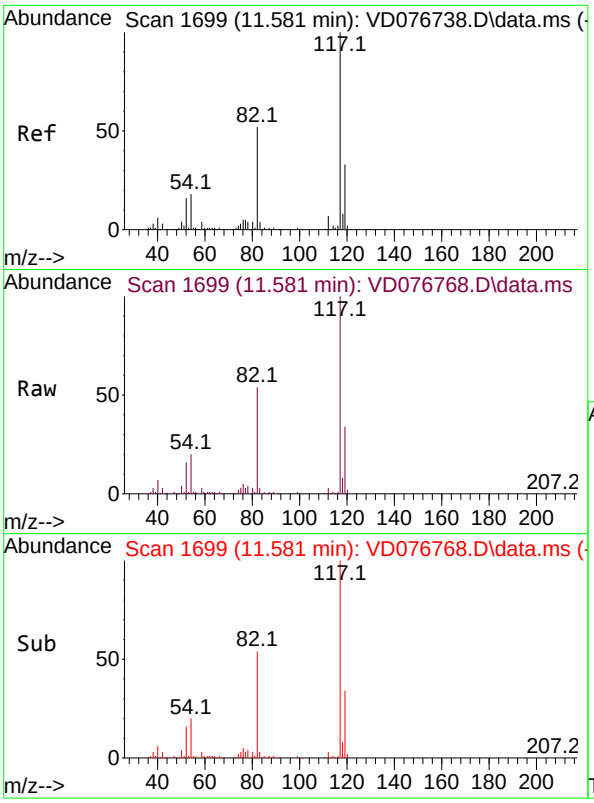


#62
4-Bromofluorobenzene
Concen: 45.508 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 95 Resp: 112234

Ion	Ratio	Lower	Upper
95	100		
174	82.6	0.0	201.8
176	81.0	0.0	191.8

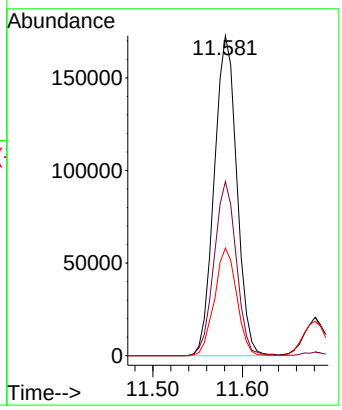




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:117 Resp: 30179

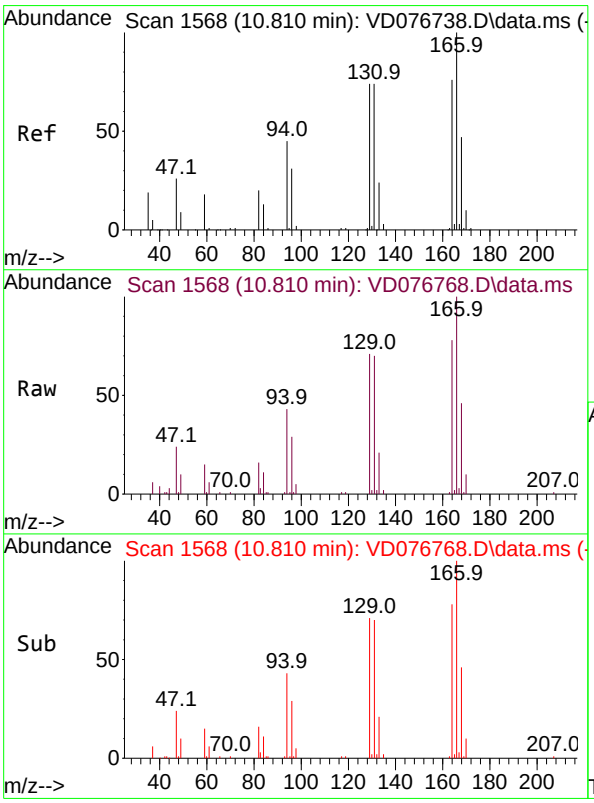
Ion	Ratio	Lower	Upper
117	100		
82	54.5	38.3	57.5
119	33.6	25.0	37.4



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

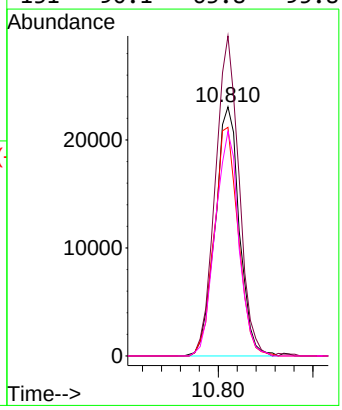
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

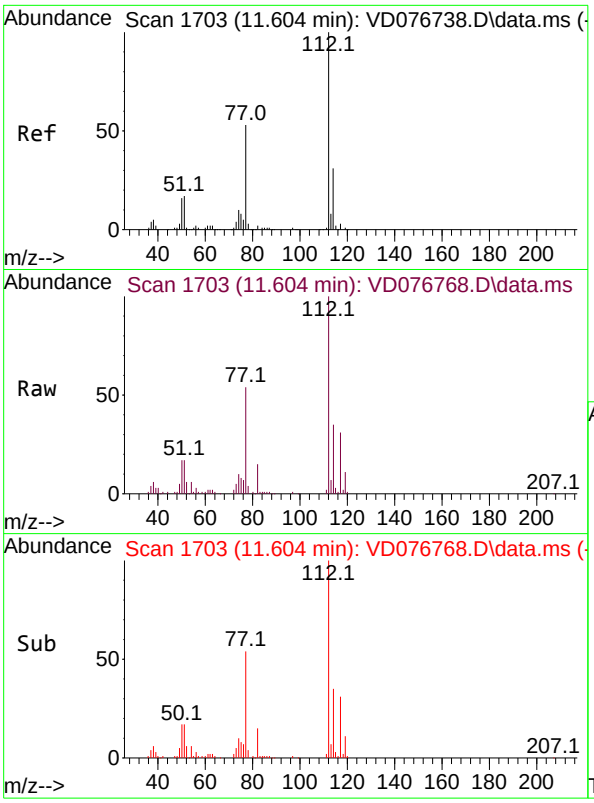


#64
Tetrachloroethene
Concen: 23.800 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:164 Resp: 40956

Ion	Ratio	Lower	Upper
164	100		
166	128.4	99.2	148.8
129	91.8	68.4	102.6
131	90.1	63.8	95.8

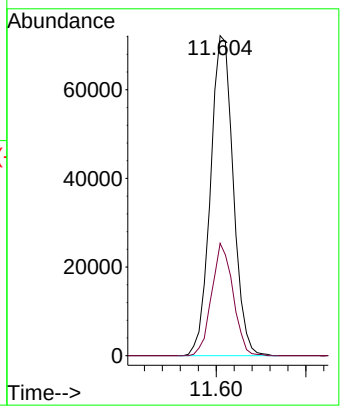




#65
Chlorobenzene
Concen: 20.922 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:112 Resp: 12698

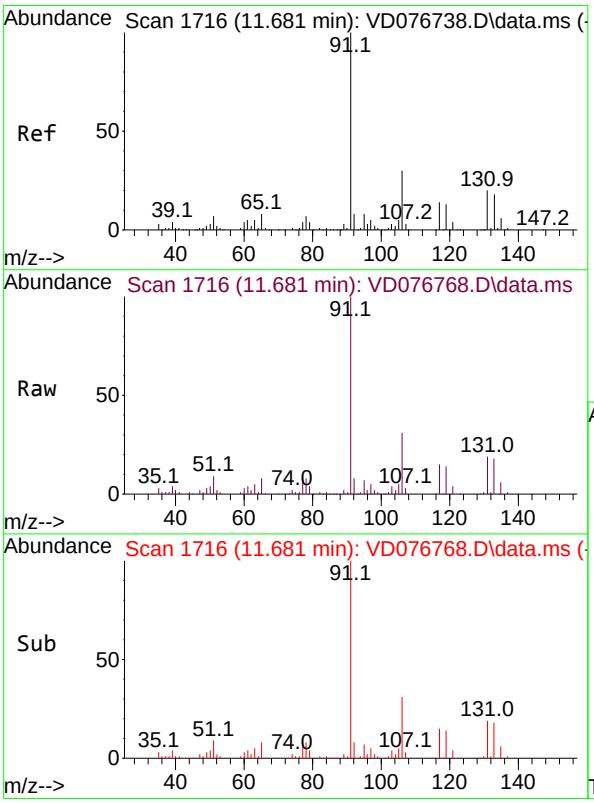
Ion	Ratio	Lower	Upper
112	100		
114	35.1	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

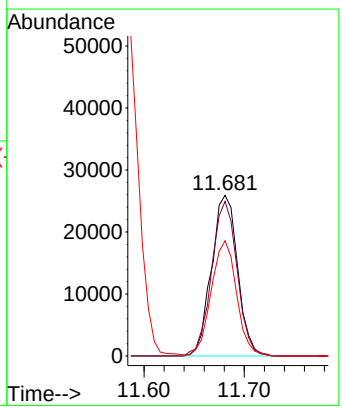
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

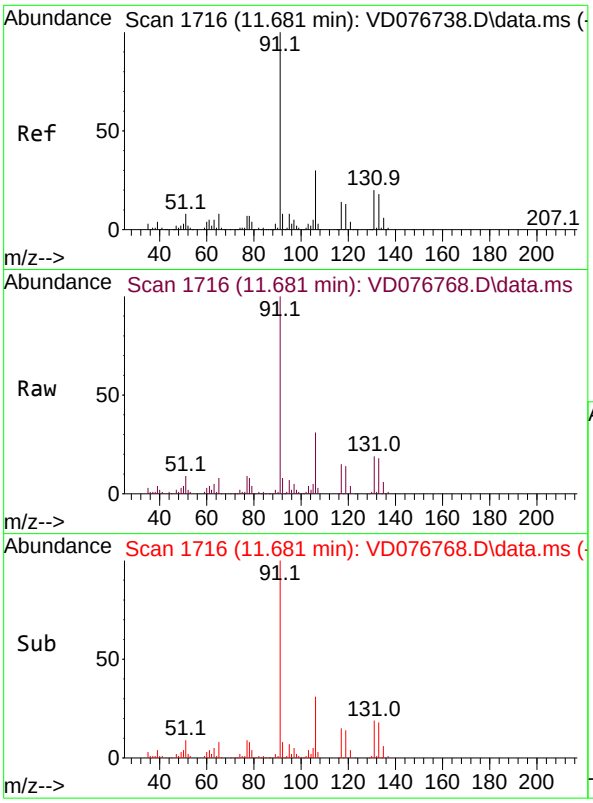


#66
1,1,1,2-Tetrachloroethane
Concen: 20.737 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:131 Resp: 46861

Ion	Ratio	Lower	Upper
131	100		
133	94.4	48.5	145.5
119	69.4	35.6	106.9





#67
Ethyl Benzene
Concen: 21.075 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

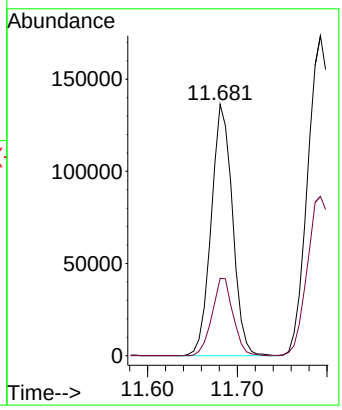
Tgt Ion: 91 Resp: 22464

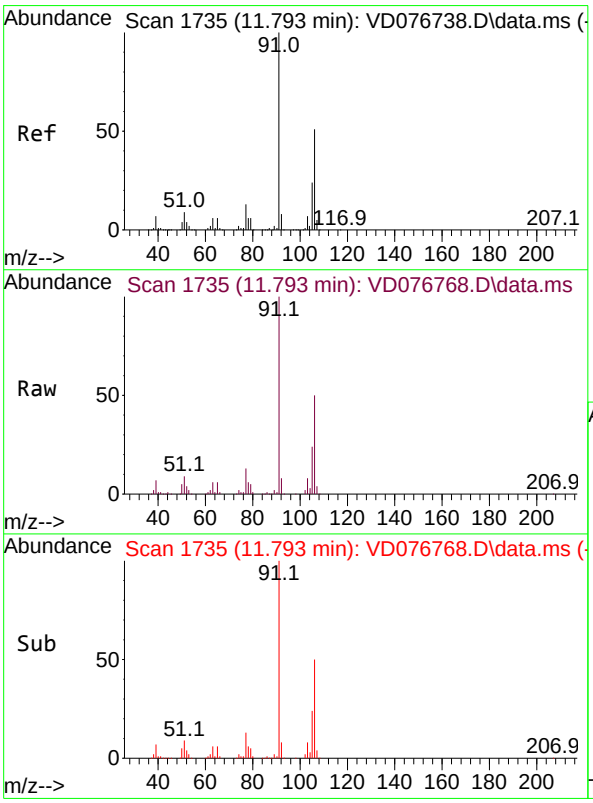
Ion	Ratio	Lower	Upper
91	100		
106	30.7	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

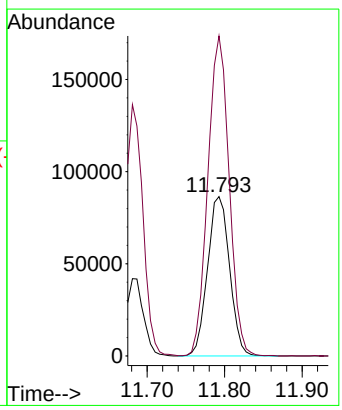


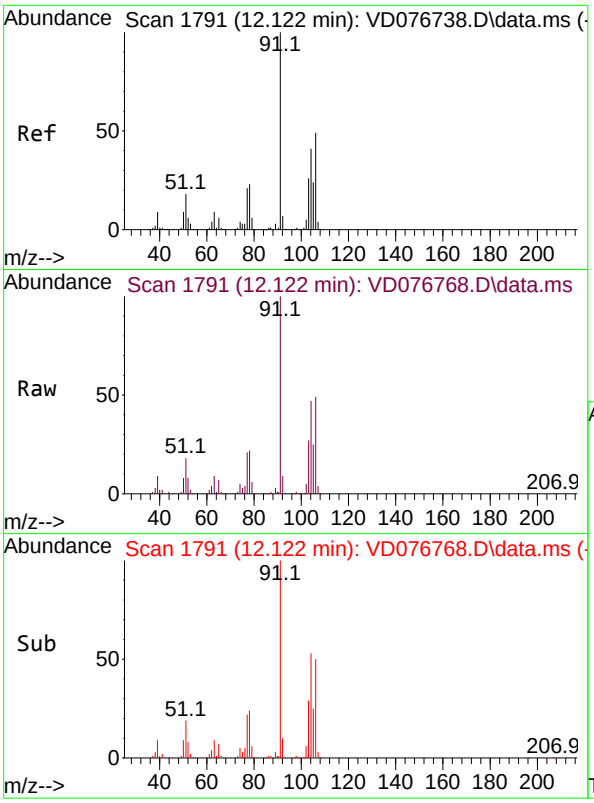


#68
m/p-Xylenes
Concen: 41.726 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:106 Resp: 170820

Ion	Ratio	Lower	Upper
106	100		
91	194.3	147.0	220.6





#69
o-Xylene
Concen: 20.446 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

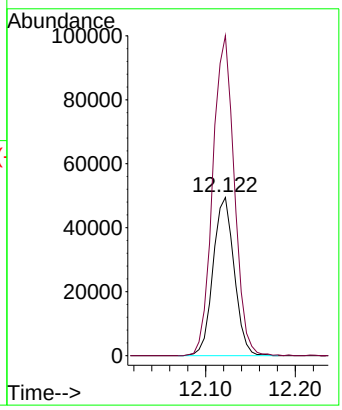
Tgt Ion:106 Resp: 8094

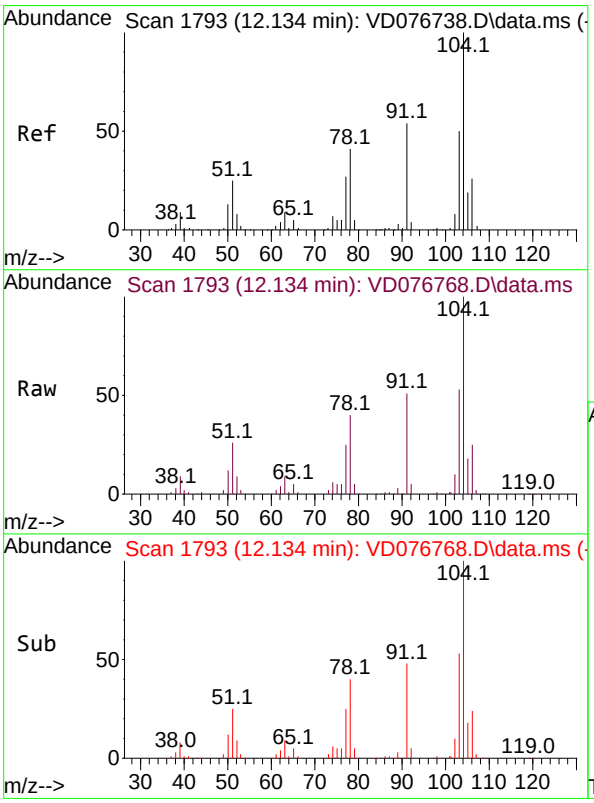
Ion	Ratio	Lower	Upper
106	100		
91	206.0	97.9	293.6

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

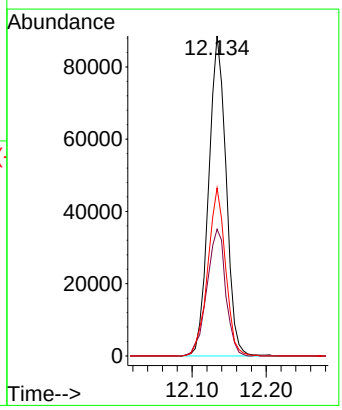


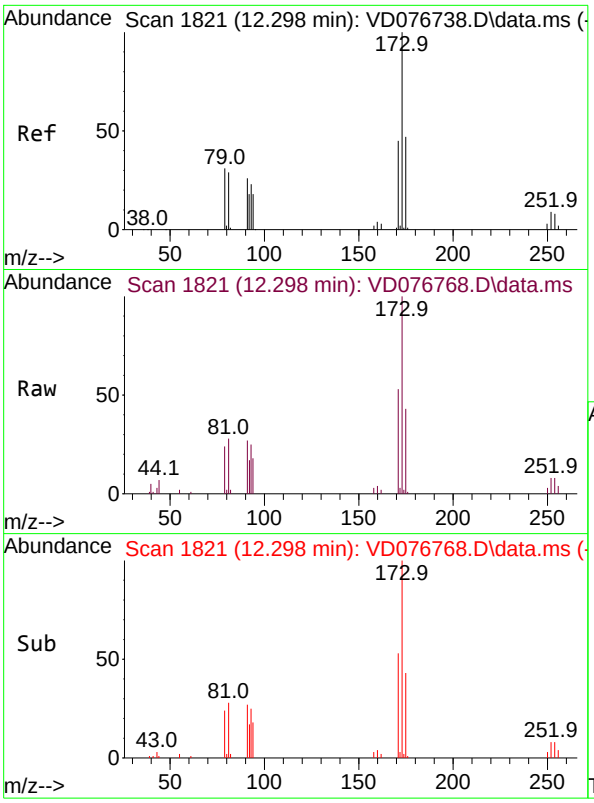


#70
Styrene
Concen: 20.853 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:104 Resp: 144513

Ion	Ratio	Lower	Upper
104	100		
78	42.7	33.2	49.8
103	53.4	43.6	65.4





#71
Bromoform
Concen: 20.861 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

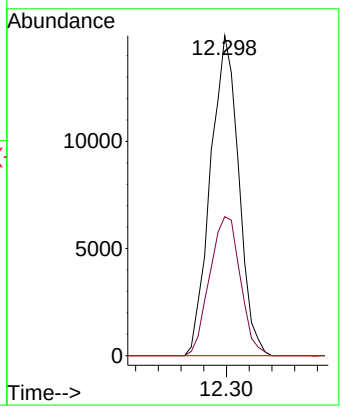
Tgt Ion:173 Resp: 2581

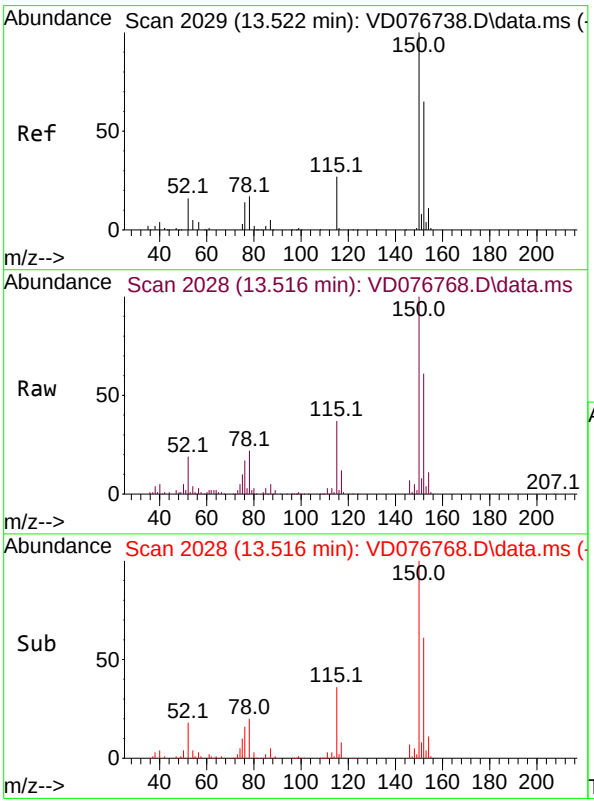
Ion	Ratio	Lower	Upper
173	100		
175	47.1	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

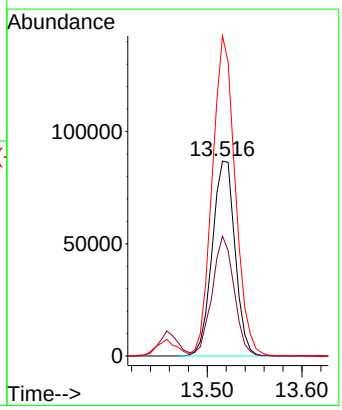


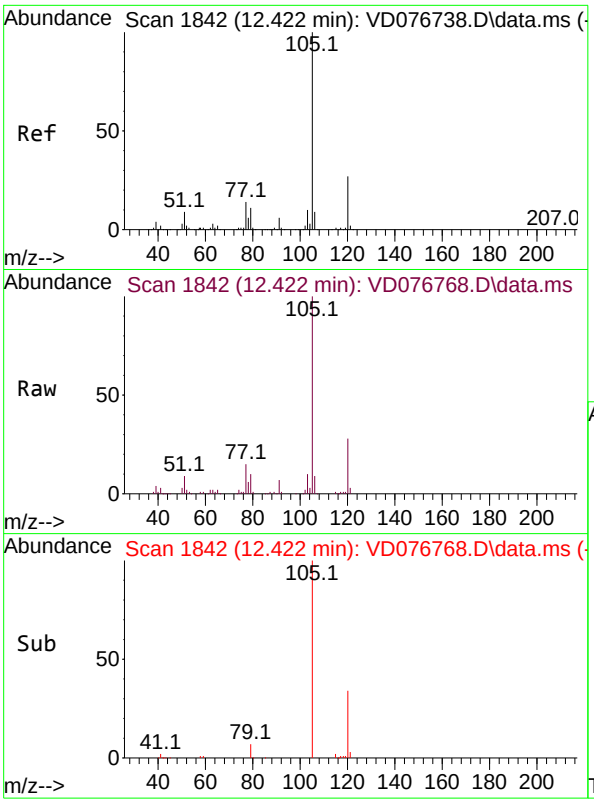


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:152 Resp: 145517

Ion	Ratio	Lower	Upper
152	100		
115	59.3	27.1	81.3
150	165.3	0.0	353.6





#73
Isopropylbenzene
Concen: 20.665 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

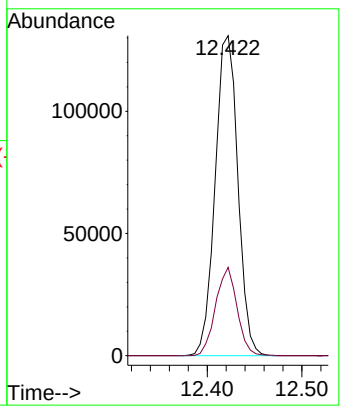
Tgt Ion:105 Resp: 21816

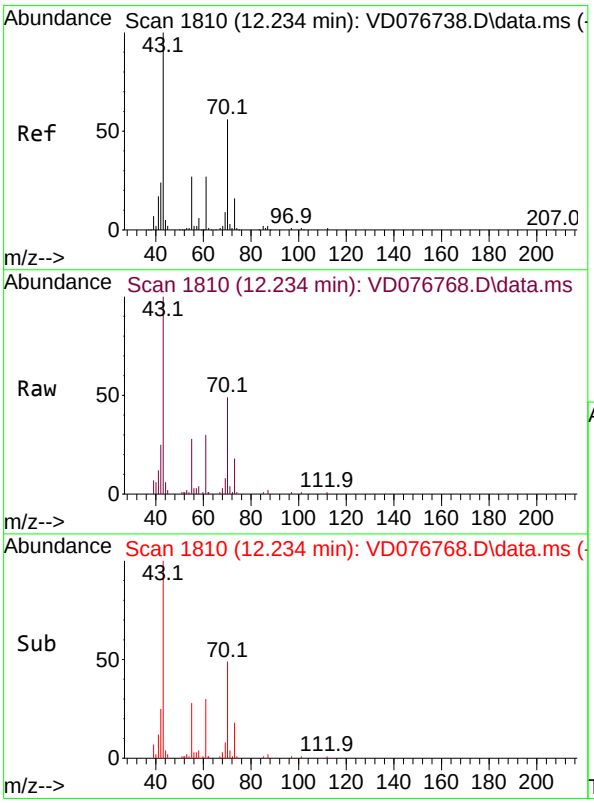
Ion	Ratio	Lower	Upper
105	100		
120	26.1	14.3	42.9

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

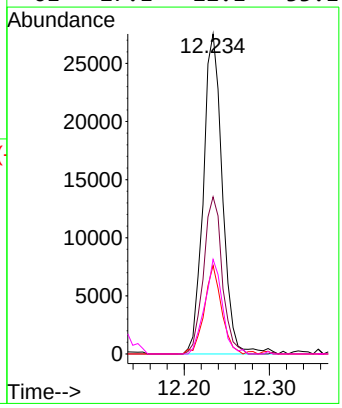


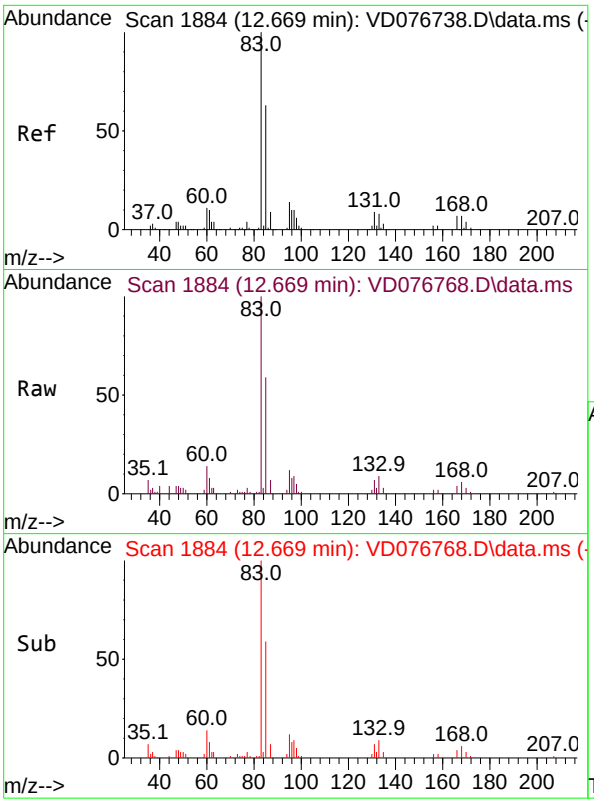


#74
N-amyl acetate
Concen: 19.270 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 43 Resp: 42860

Ion	Ratio	Lower	Upper
43	100		
70	48.1	45.0	67.4
55	24.8	23.8	35.6
61	27.1	22.1	33.1

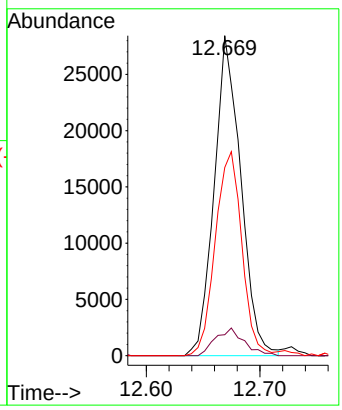




#75
1,1,2,2-Tetrachloroethane
Concen: 20.429 ug/l
RT: 12.669 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 83 Resp: 4630

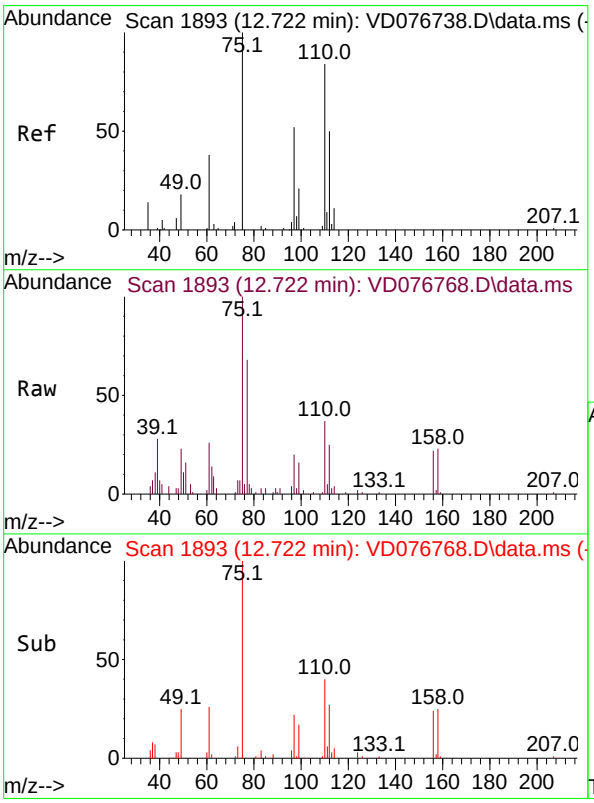
Ion	Ratio	Lower	Upper
83	100		
131	9.3	5.1	15.3
85	63.7	32.6	97.8



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

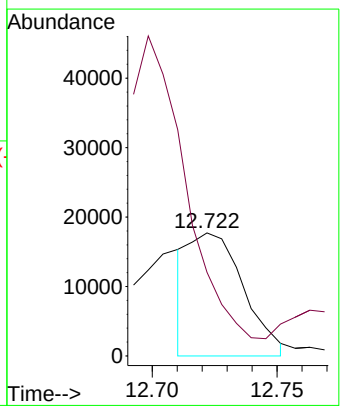
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

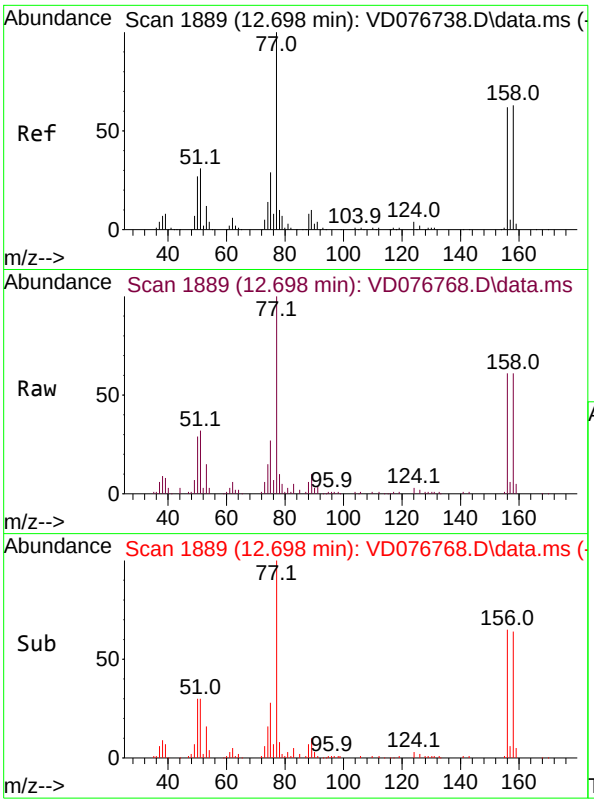


#76
1,2,3-Trichloropropane
Concen: 19.509 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 75 Resp: 26998

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 19.564 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

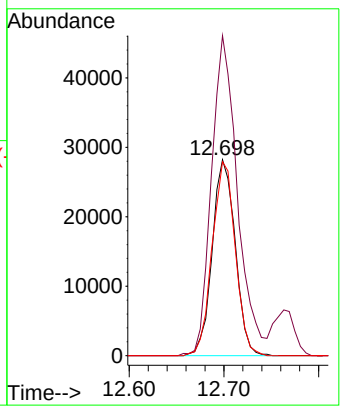
Tgt Ion:156 Resp: 4767

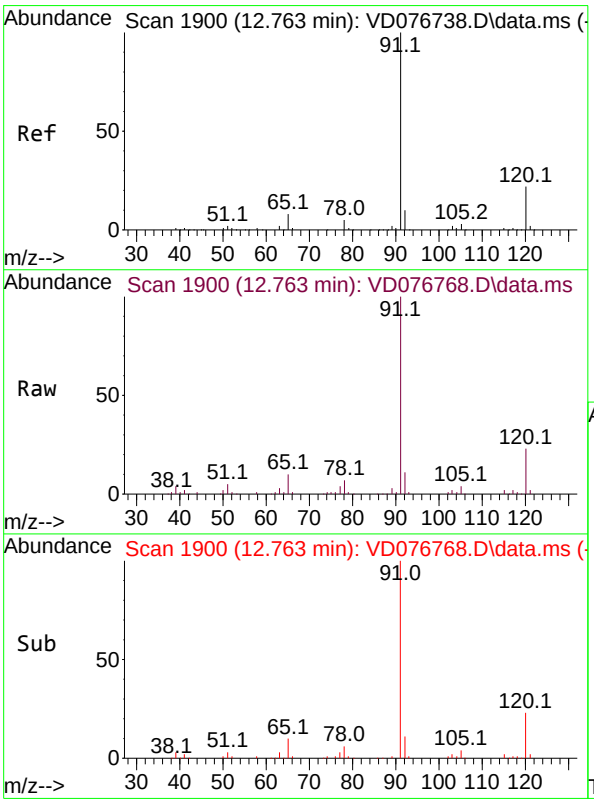
Ion	Ratio	Lower	Upper
156	100		
77	184.3	76.8	230.4
158	99.6	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

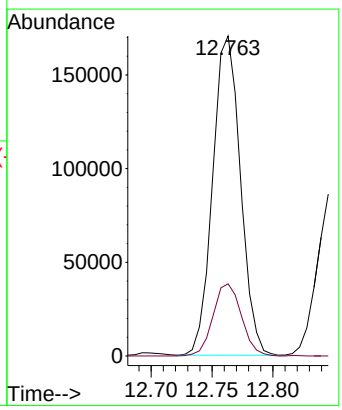


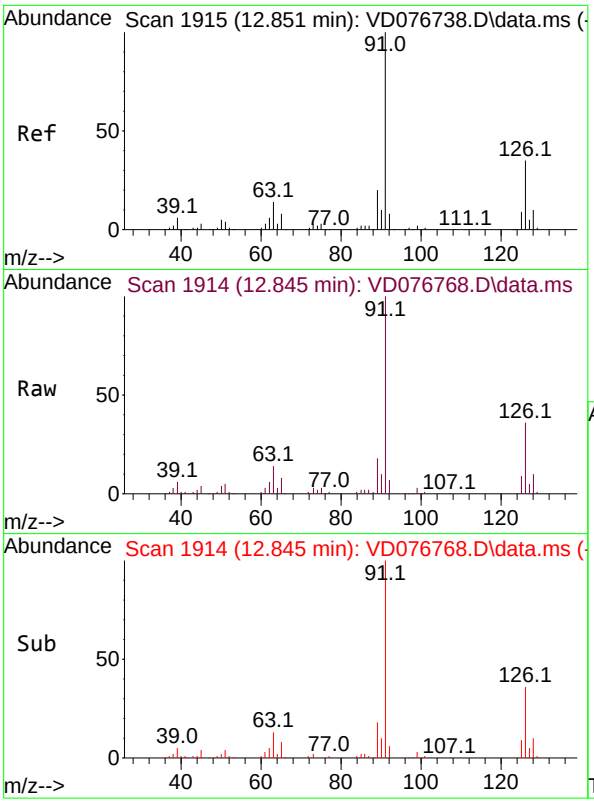


#78
n-propylbenzene
Concen: 21.132 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 91 Resp: 270467

Ion	Ratio	Lower	Upper
91	100		
120	23.0	12.4	37.2





#79
2-Chlorotoluene
Concen: 20.339 ug/l
RT: 12.845 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

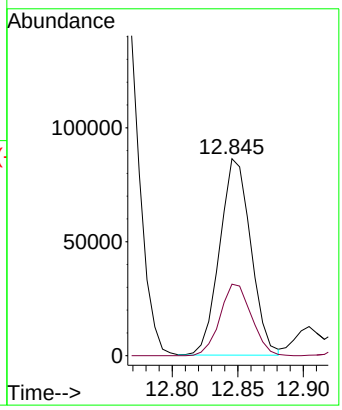
Tgt Ion: 91 Resp: 14273

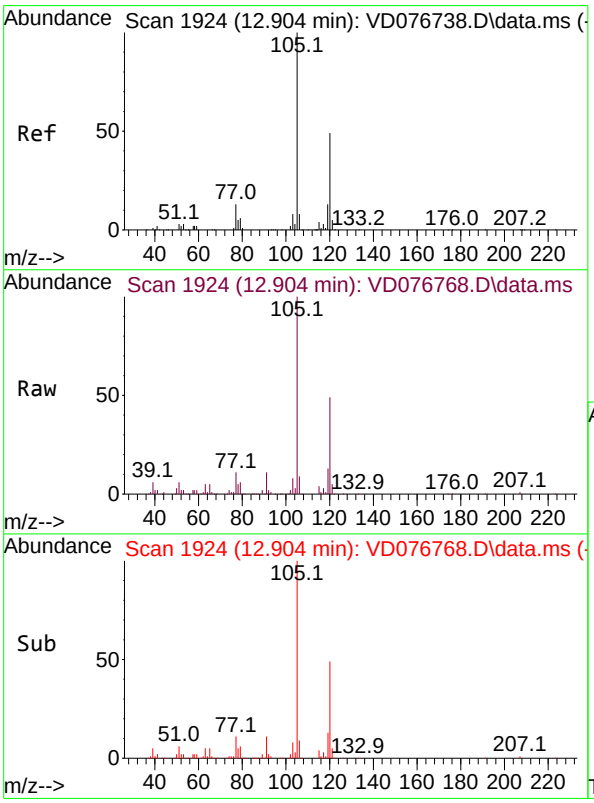
Ion	Ratio	Lower	Upper
91	100		
126	36.7	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

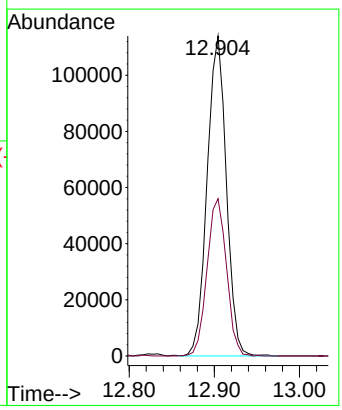


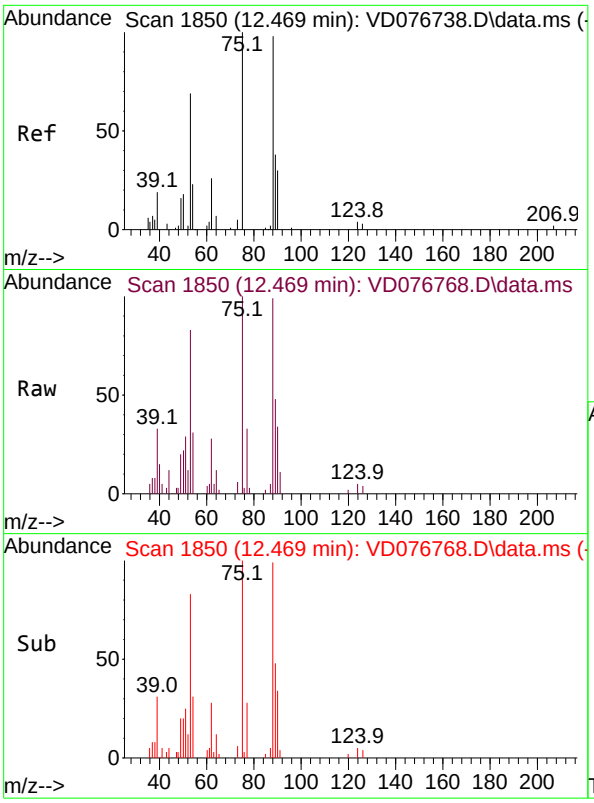


#80
1,3,5-Trimethylbenzene
Concen: 20.842 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:105 Resp: 177920

Ion	Ratio	Lower	Upper
105	100		
120	49.9	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 18.880 ug/l
RT: 12.469 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

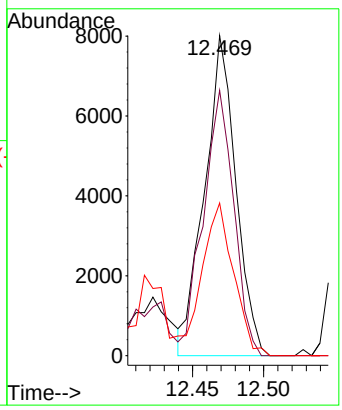
Tgt Ion: 75 Resp: 1227

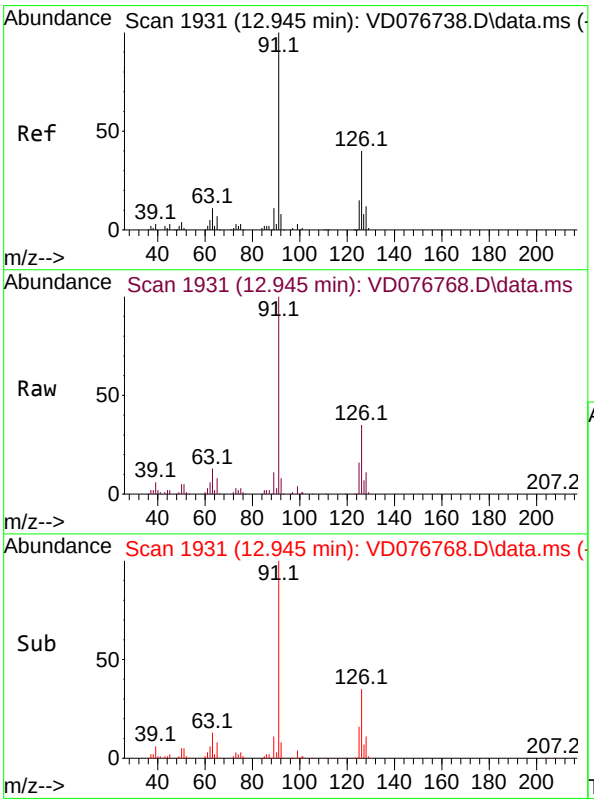
Ion	Ratio	Lower	Upper
75	100		
53	80.7	63.0	94.4
89	48.1	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

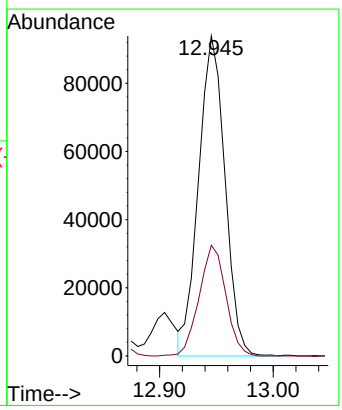


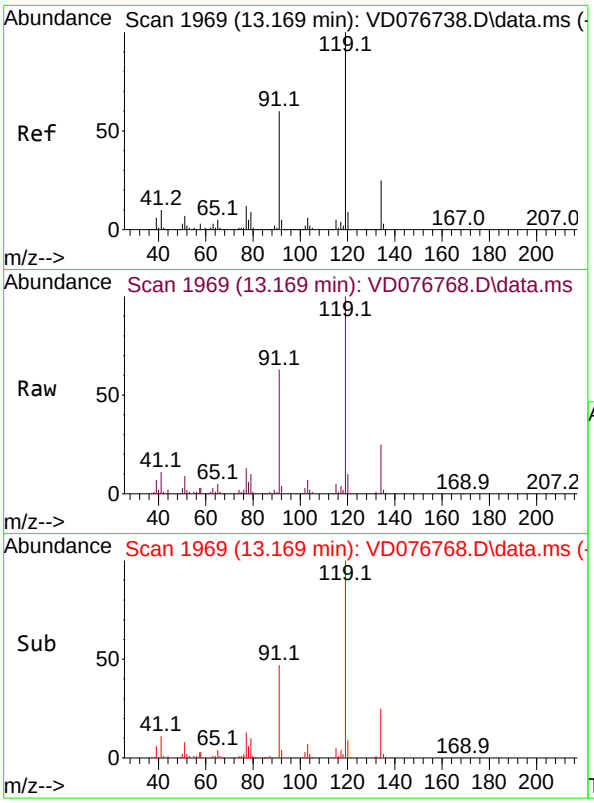


#82
4-Chlorotoluene
Concen: 20.626 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 91 Resp: 151219

Ion	Ratio	Lower	Upper
91	100		
126	35.0	19.4	58.4





#83
tert-Butylbenzene
Concen: 20.995 ug/l
RT: 13.169 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

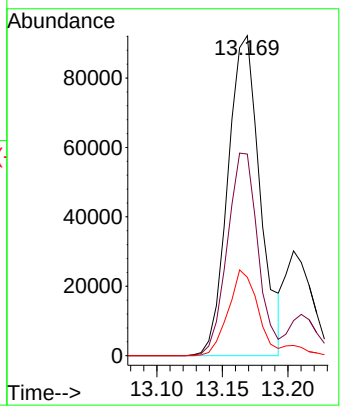
Tgt Ion:119 Resp: 15781

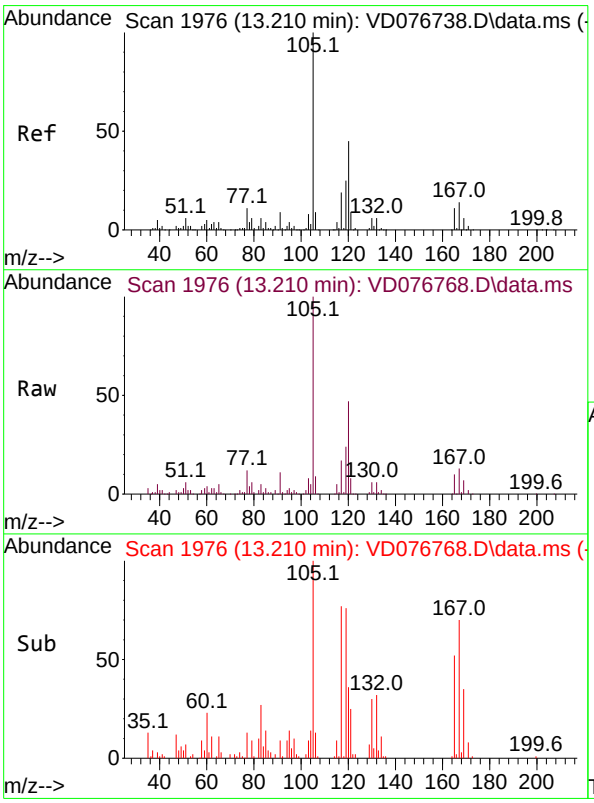
Ion	Ratio	Lower	Upper
119	100		
91	60.3	29.3	87.8
134	24.5	14.1	42.3

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

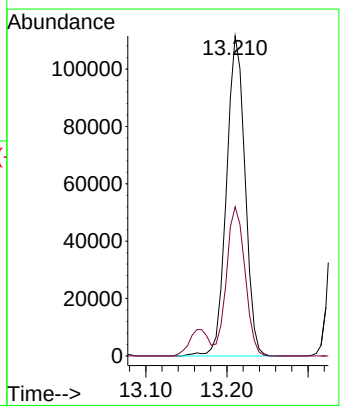


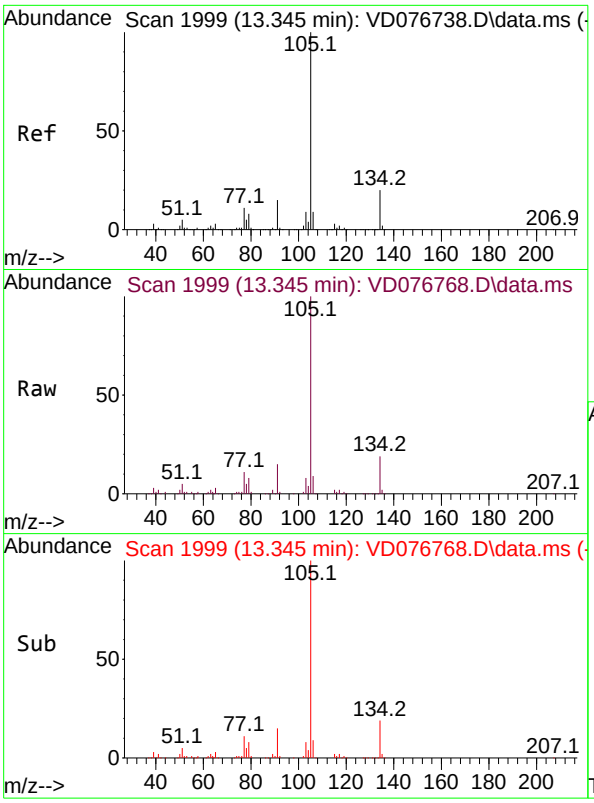


#84
1,2,4-Trimethylbenzene
Concen: 20.213 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:105 Resp: 176335

Ion	Ratio	Lower	Upper
105	100		
120	46.9	24.3	72.9





#85
sec-Butylbenzene
Concen: 21.722 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

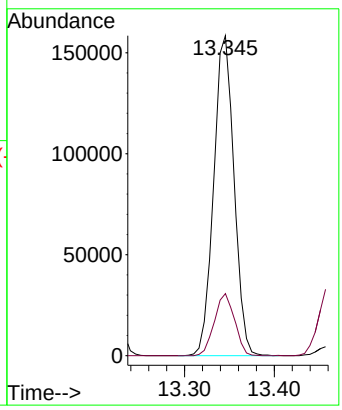
Tgt Ion:105 Resp: 24945

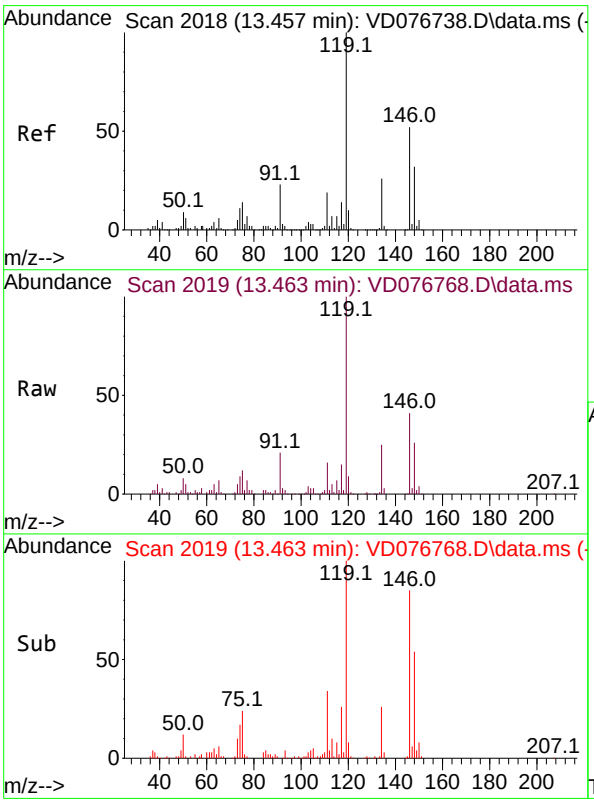
Ion	Ratio	Lower	Upper
105	100		
134	19.2	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

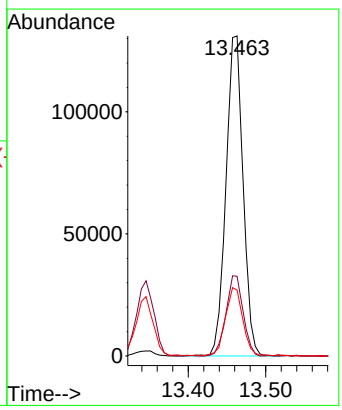


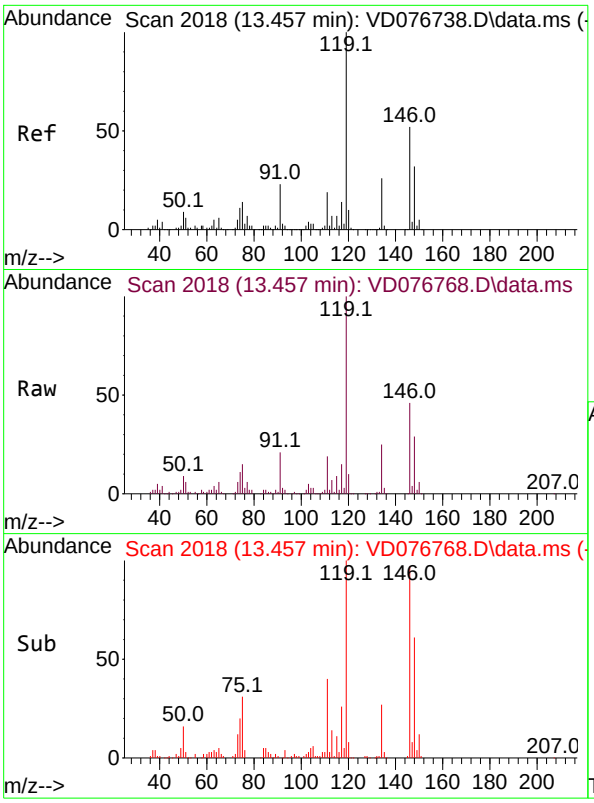


#86
p-Isopropyltoluene
Concen: 21.244 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:119 Resp: 201480

Ion	Ratio	Lower	Upper
119	100		
134	25.1	14.2	42.6
91	21.9	10.5	31.5

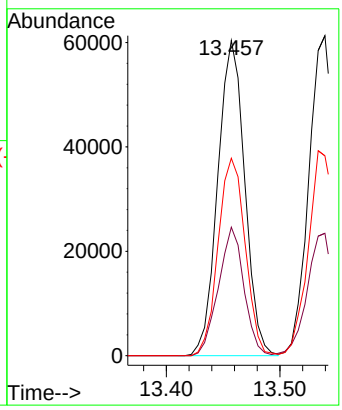




#87
1,3-Dichlorobenzene
Concen: 19.879 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:146 Resp: 9964

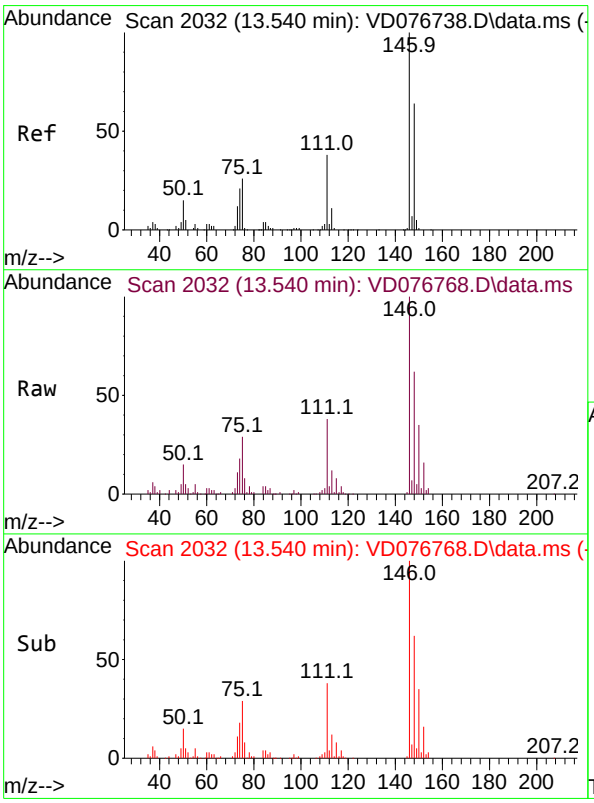
Ion	Ratio	Lower	Upper
146	100		
111	38.5	17.9	53.8
148	63.0	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

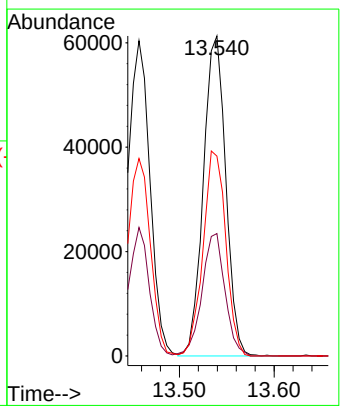
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

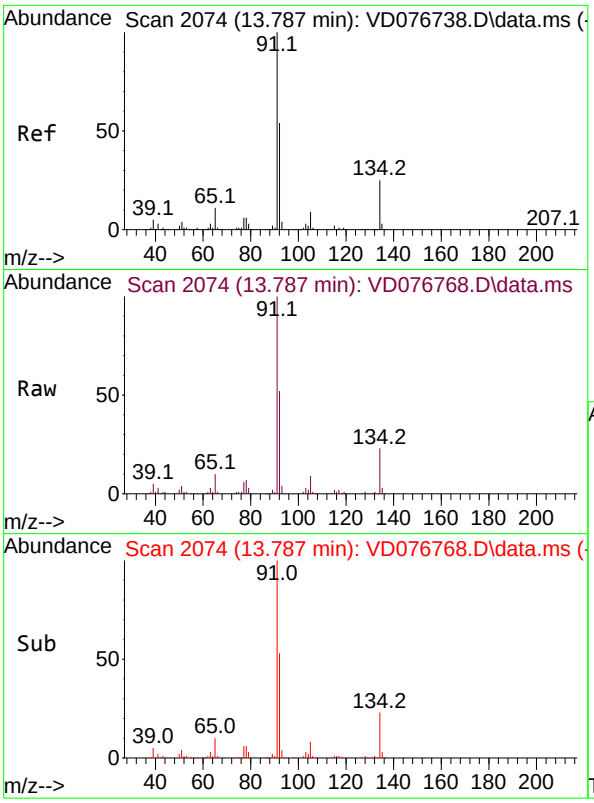


#88
1,4-Dichlorobenzene
Concen: 20.519 ug/l
RT: 13.540 min Scan# 2032
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:146 Resp: 100764

Ion	Ratio	Lower	Upper
146	100		
111	39.3	17.4	52.3
148	65.0	31.7	95.1





#89
n-Butylbenzene
Concen: 21.167 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

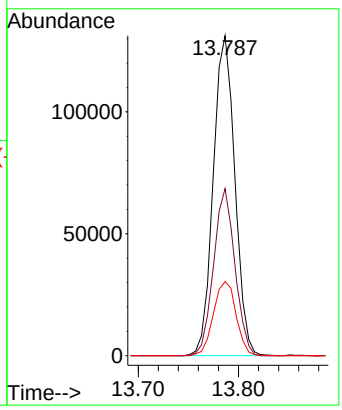
Tgt Ion: 91 Resp: 19644

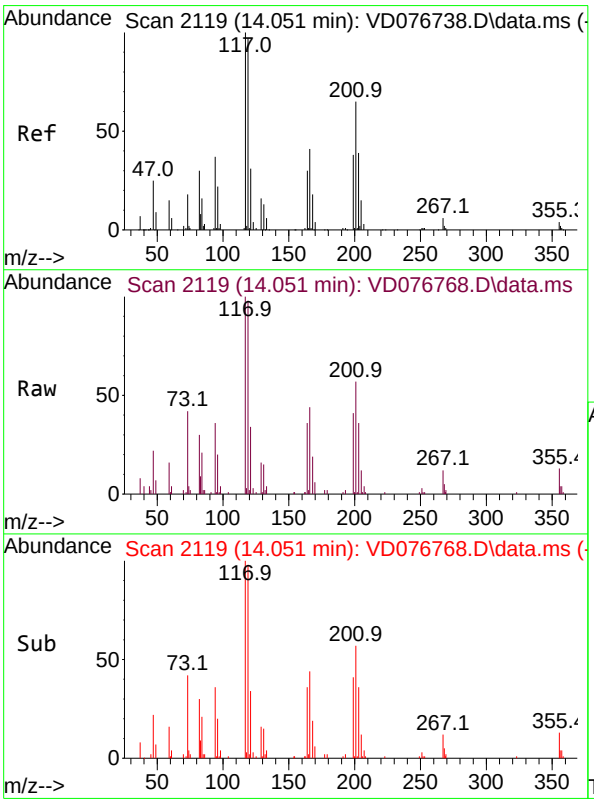
Ion	Ratio	Lower	Upper
91	100		
92	51.5	26.5	79.5
134	24.2	13.8	41.3

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

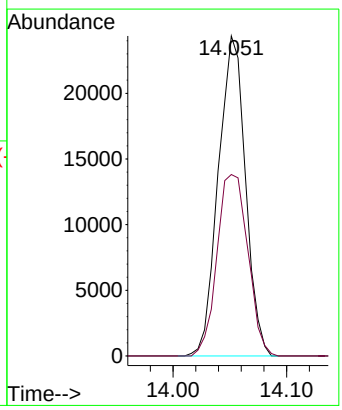


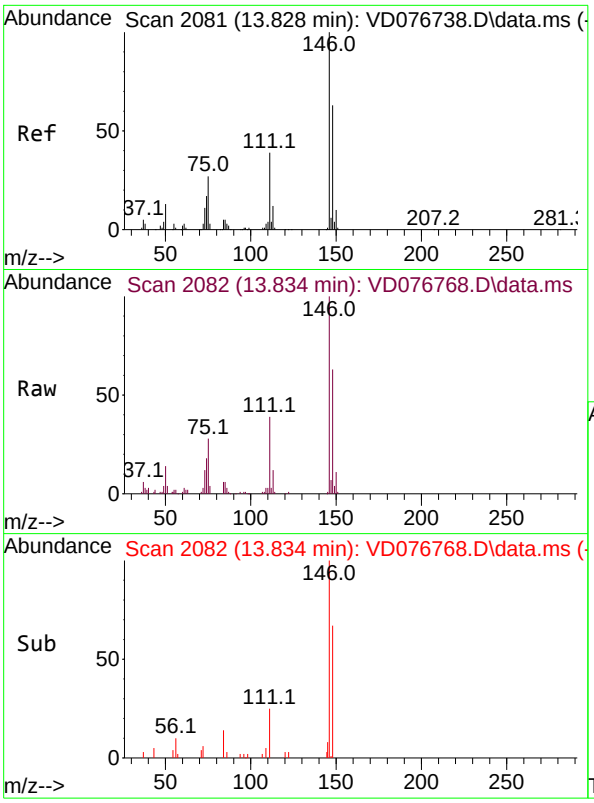


#90
Hexachloroethane
Concen: 23.051 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:117 Resp: 40417

Ion	Ratio	Lower	Upper
117	100		
201	64.5	38.5	115.5

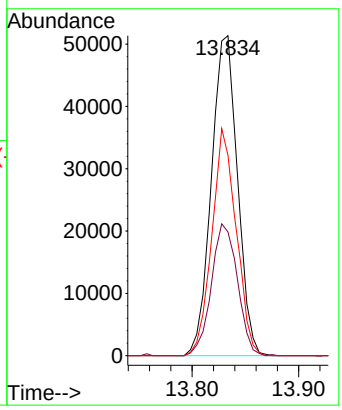




#91
1,2-Dichlorobenzene
Concen: 19.808 ug/l
RT: 13.834 min Scan# 2
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:146 Resp: 8748

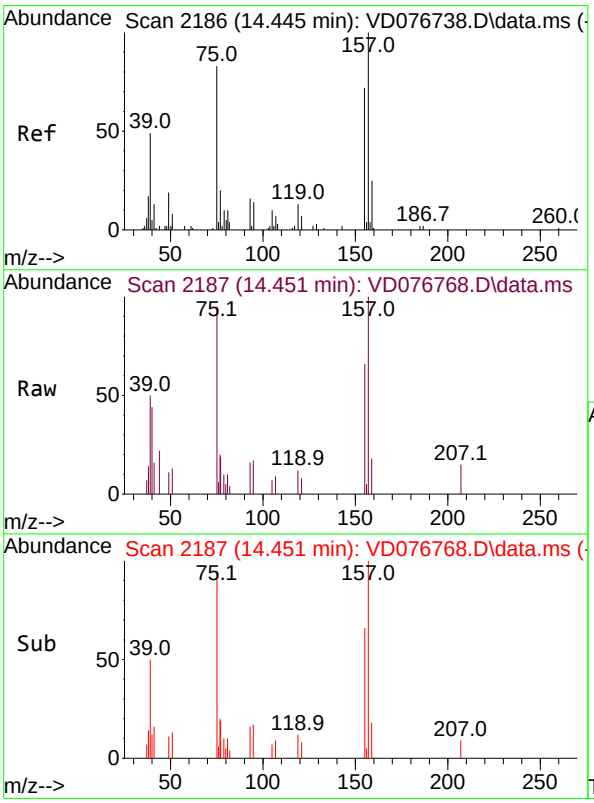
Ion	Ratio	Lower	Upper
146	100		
111	41.2	18.3	54.8
148	66.1	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

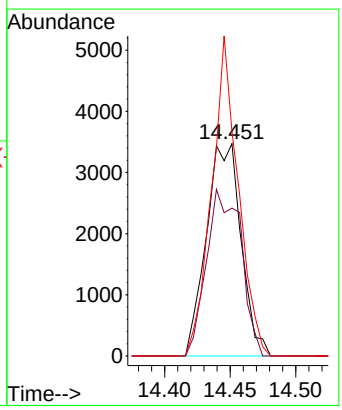
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

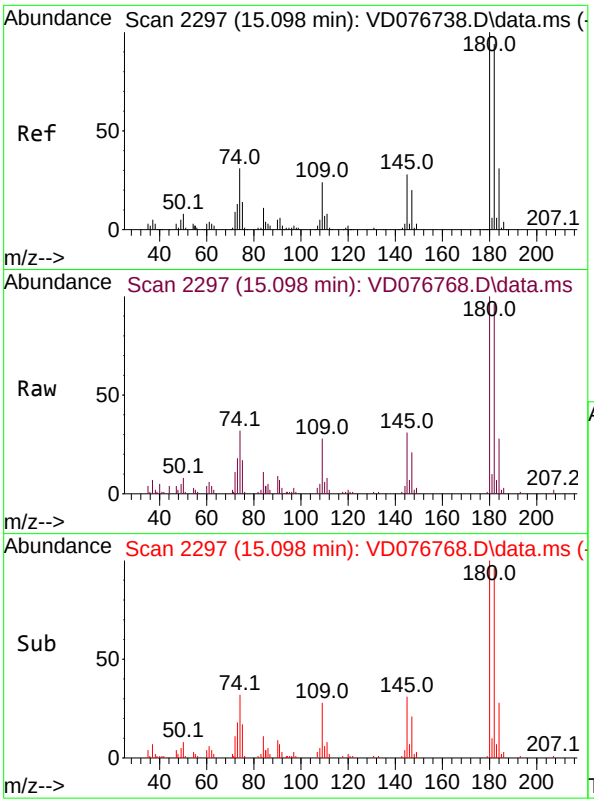


#92
1,2-Dibromo-3-Chloropropane
Concen: 19.749 ug/l
RT: 14.451 min Scan# 2187
Delta R.T. 0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion: 75 Resp: 6383

Ion	Ratio	Lower	Upper
75	100		
155	78.3	47.9	143.8
157	115.4	59.9	179.7





#93
1,2,4-Trichlorobenzene
Concen: 19.251 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

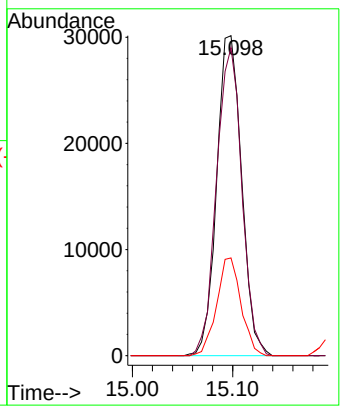
Tgt Ion:180 Resp: 5190

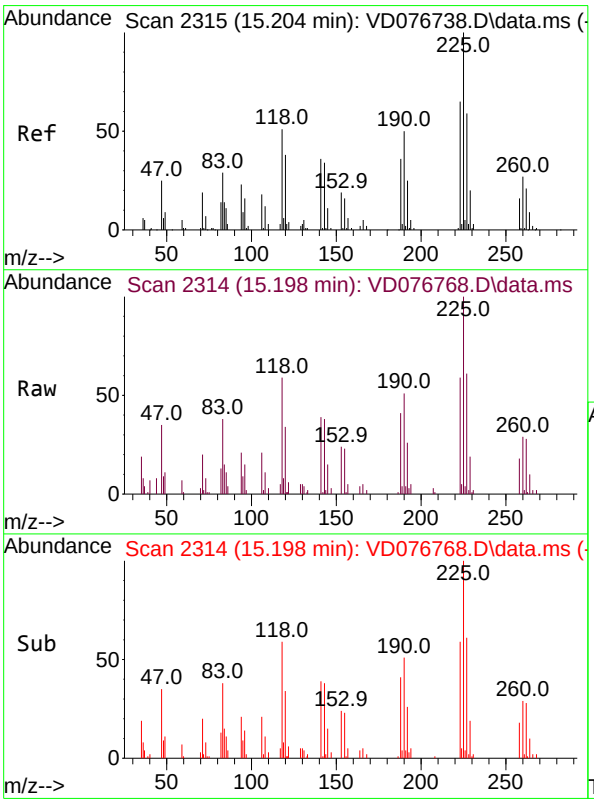
Ion	Ratio	Lower	Upper
180	100		
182	97.9	48.5	145.6
145	29.9	14.2	42.6

Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

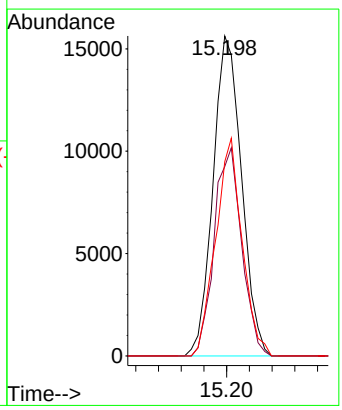


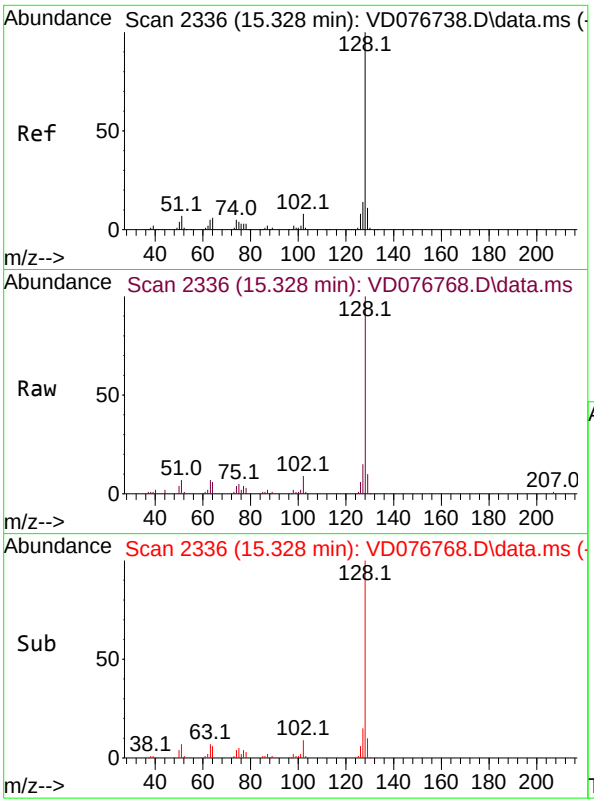


#94
Hexachlorobutadiene
Concen: 20.980 ug/l
RT: 15.198 min Scan# 2314
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:225 Resp: 27207

Ion	Ratio	Lower	Upper
225	100		
223	62.7	31.6	94.8
227	63.5	31.7	95.1

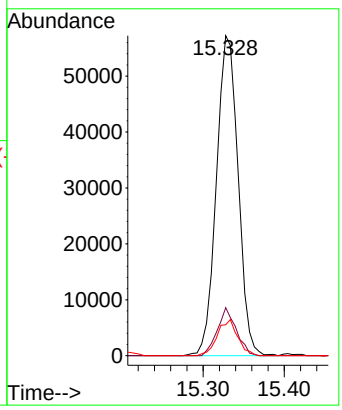




#95
Naphthalene
Concen: 18.242 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:128 Resp: 10650

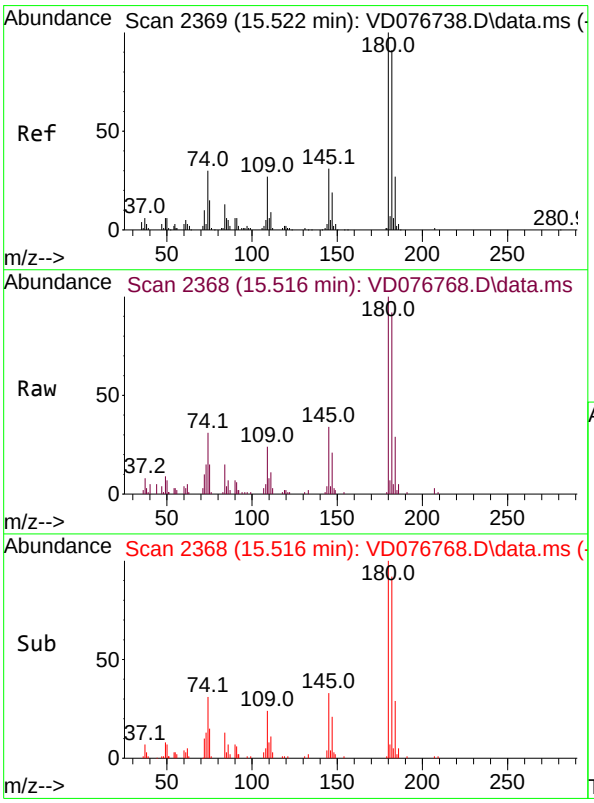
Ion	Ratio	Lower	Upper
128	100		
127	15.0	10.5	15.7
129	9.6	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
VD0718SBS01

Manual Integrations
APPROVED

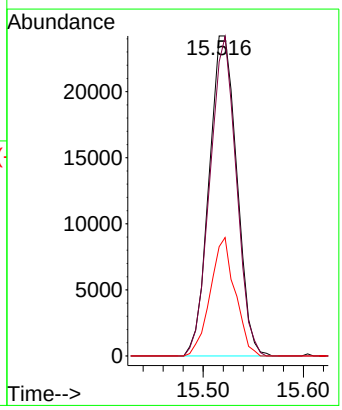
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023



#96
1,2,3-Trichlorobenzene
Concen: 19.208 ug/l
RT: 15.516 min Scan# 2368
Delta R.T. -0.006 min
Lab File: VD076768.D
Acq: 18 Jul 2023 10:36

Tgt Ion:180 Resp: 46478

Ion	Ratio	Lower	Upper
180	100		
182	94.8	47.3	141.9
145	33.1	15.1	45.3



Raw Data: **VN078554.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBS02	SDG No.:	O3645
Lab Sample ID:	VN0718WBS02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078554.D	1		07/18/23 12:25	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	16.7		0.14	1.00	ug/L
74-87-3	Chloromethane	21.5		0.25	1.00	ug/L
75-01-4	Vinyl Chloride	19.3		0.25	1.00	ug/L
74-83-9	Bromomethane	17.9		1.60	5.00	ug/L
75-00-3	Chloroethane	17.7		0.28	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.2		0.13	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.3		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.21	1.00	ug/L
67-64-1	Acetone	99.4		1.20	5.00	ug/L
75-15-0	Carbon Disulfide	15.7		0.27	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.9		0.14	1.00	ug/L
79-20-9	Methyl Acetate	20.2		0.36	1.00	ug/L
75-09-2	Methylene Chloride	19.9		0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.3		0.17	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.8		0.16	1.00	ug/L
110-82-7	Cyclohexane	17.9		1.60	5.00	ug/L
78-93-3	2-Butanone	100		1.20	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.0		0.13	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.0		0.20	1.00	ug/L
74-97-5	Bromochloromethane	20.4		0.14	1.00	ug/L
67-66-3	Chloroform	20.0		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.3		0.14	1.00	ug/L
108-87-2	Methylcyclohexane	18.6		0.16	1.00	ug/L
71-43-2	Benzene	19.5		0.12	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.4		0.16	1.00	ug/L
79-01-6	Trichloroethene	18.5		0.26	1.00	ug/L
78-87-5	1,2-Dichloropropane	20.1		0.15	1.00	ug/L
75-27-4	Bromodichloromethane	20.4		0.15	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.74	5.00	ug/L
108-88-3	Toluene	19.9		0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	20.1		0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.3		0.15	1.00	ug/L

Raw Data: **VN078554.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBS02	SDG No.:	O3645
Lab Sample ID:	VN0718WBS02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078554.D	1		07/18/23 12:25	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	22.0		0.13	1.00	ug/L
591-78-6	2-Hexanone	100		0.98	5.00	ug/L
124-48-1	Dibromochloromethane	20.4		0.15	1.00	ug/L
106-93-4	1,2-Dibromoethane	20.2		0.13	1.00	ug/L
127-18-4	Tetrachloroethene	17.6		0.17	1.00	ug/L
108-90-7	Chlorobenzene	19.3		0.12	1.00	ug/L
100-41-4	Ethyl Benzene	18.7		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	40.8		0.31	2.00	ug/L
1330-20-7	Total Xylenes	58.5		0.46	3.00	ug/L
95-47-6	o-Xylene	17.7		0.15	1.00	ug/L
100-42-5	Styrene	18.1		0.13	1.00	ug/L
75-25-2	Bromoform	20.3		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	19.0		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	21.7		0.15	1.00	ug/L
103-65-1	n-propylbenzene	19.2		0.15	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	19.2		0.17	1.00	ug/L
98-06-6	tert-Butylbenzene	19.4		0.16	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	19.8		0.16	1.00	ug/L
135-98-8	sec-Butylbenzene	19.2		0.16	1.00	ug/L
99-87-6	p-Isopropyltoluene	19.1		0.16	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.0		0.23	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.2		0.24	1.00	ug/L
104-51-8	n-Butylbenzene	19.2		0.24	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.2		0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.5		0.43	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	15.6		0.43	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	16.3		0.55	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.0		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		75 - 124	107%	SPK: 50
2037-26-5	Toluene-d8	50.4		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		64 - 133	101%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VN078554.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBS02	SDG No.:	O3645
Lab Sample ID:	VN0718WBS02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078554.D	1		07/18/23 12:25	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	432000	8.23			
540-36-3	1,4-Difluorobenzene	743000	9.106			
3114-55-4	Chlorobenzene-d5	745000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	252000	13.794			

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\VN071823\
Data File : VN078554.D
Acq On : 18 Jul 2023 12:25
Operator : JC\MD
Sample : VN0718WBS02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 19 01:46:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.230	168	432335	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	742826	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	745463	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	251794	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.588	65	312946	53.994	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 107.980%			
35) Dibromofluoromethane	8.177	113	269352	53.416	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 106.840%			
50) Toluene-d8	10.571	98	960068	50.399	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.800%			
62) 4-Bromofluorobenzene	12.853	95	297190	50.650	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 101.300%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.136	85	88271	16.653	ug/l	97
3) Chloromethane	2.371	50	123862	21.499	ug/l	98
4) Vinyl Chloride	2.518	62	143985	19.319	ug/l	98
5) Bromomethane	2.959	94	99638	17.949	ug/l	96
6) Chloroethane	3.124	64	85547	17.735	ug/l	100
7) Trichlorofluoromethane	3.501	101	162449	18.234	ug/l	100
8) Diethyl Ether	3.965	74	58496	19.707	ug/l	80
9) 1,1,2-Trichlorotrifluo...	4.377	101	90836	19.261	ug/l	96
10) Methyl Iodide	4.595	142	117862	18.187	ug/l	92
11) Tert butyl alcohol	5.536	59	90087	100.797	ug/l	99
12) 1,1-Dichloroethene	4.348	96	82352	18.052	ug/l	89
13) Acrolein	4.195	56	89646	101.949	ug/l	93
14) Allyl chloride	5.030	41	113471	18.203	ug/l	94
15) Acrylonitrile	5.736	53	232967	103.167	ug/l	100
16) Acetone	4.442	43	179374	99.353	ug/l	89
17) Carbon Disulfide	4.718	76	207724	15.747	ug/l	99
18) Methyl Acetate	5.036	43	154034	20.154	ug/l	92
19) Methyl tert-butyl Ether	5.806	73	299131	19.901	ug/l	96
20) Methylene Chloride	5.283	84	106692	19.865	ug/l	90
21) trans-1,2-Dichloroethene	5.800	96	93956	18.277	ug/l	91
22) Diisopropyl ether	6.683	45	285181	20.431	ug/l #	91
23) Vinyl Acetate	6.612	43	857555m	96.642	ug/l	
24) 1,1-Dichloroethane	6.577	63	176693	18.787	ug/l	99
25) 2-Butanone	7.494	43	294438	103.603	ug/l #	87
26) 2,2-Dichloropropane	7.500	77	145815	18.955	ug/l	97
27) cis-1,2-Dichloroethene	7.500	96	112823	18.972	ug/l	93
28) Bromochloromethane	7.824	49	90530	20.436	ug/l	91
29) Tetrahydrofuran	7.847	42	178529	95.735	ug/l	88
30) Chloroform	7.971	83	195688	19.985	ug/l	92
31) Cyclohexane	8.265	56	139825	17.851	ug/l	89
32) 1,1,1-Trichloroethane	8.177	97	169470	19.304	ug/l	97
36) 1,1-Dichloropropene	8.383	75	134928	18.532	ug/l	97
37) Ethyl Acetate	7.571	43	114161	18.809	ug/l	99
38) Carbon Tetrachloride	8.371	117	150371	19.002	ug/l	95
39) Methylcyclohexane	9.606	83	123641	18.604	ug/l	94
40) Benzene	8.618	78	420147	19.478	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078554.D
Acq On : 18 Jul 2023 12:25
Operator : JC\MD
Sample : VN0718WBS02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 19 01:46:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.783	41	63362	20.478 ug/l		91
42) 1,2-Dichloroethane	8.677	62	149757	20.411 ug/l		99
43) Isopropyl Acetate	8.694	43	202971	20.312 ug/l		95
44) Trichloroethene	9.359	130	107797	18.542 ug/l		99
45) 1,2-Dichloropropane	9.630	63	109648	20.070 ug/l		93
46) Dibromomethane	9.712	93	81778	21.268 ug/l		95
47) Bromodichloromethane	9.894	83	157226	20.398 ug/l		99
48) Methyl methacrylate	9.688	41	90769	19.607 ug/l		90
49) 1,4-Dioxane	9.700	88	41292	408.988 ug/l	#	81
51) 4-Methyl-2-Pentanone	10.453	43	618141	103.998 ug/l		94
52) Toluene	10.635	92	266337	19.922 ug/l		96
53) t-1,3-Dichloropropene	10.841	75	158669	20.094 ug/l		99
54) cis-1,3-Dichloropropene	10.318	75	170747	20.285 ug/l		96
55) 1,1,2-Trichloroethane	11.018	97	115627	21.952 ug/l		96
56) Ethyl methacrylate	10.882	69	149885	20.356 ug/l		93
57) 1,3-Dichloropropane	11.171	76	180459	20.150 ug/l		100
58) 2-Chloroethyl Vinyl ether	10.165	63	272267	103.761 ug/l		92
59) 2-Hexanone	11.200	43	427197	101.128 ug/l		93
60) Dibromochloromethane	11.365	129	118751	20.422 ug/l		99
61) 1,2-Dibromoethane	11.477	107	109820	20.240 ug/l		99
64) Tetrachloroethene	11.112	164	98668	17.605 ug/l		97
65) Chlorobenzene	11.900	112	322323	19.344 ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.965	131	123538	19.272 ug/l		97
67) Ethyl Benzene	11.971	91	526970	18.710 ug/l		100
68) m/p-Xylenes	12.076	106	424839	40.796 ug/l		98
69) o-Xylene	12.400	106	186461	17.727 ug/l		95
70) Styrene	12.418	104	297827	18.099 ug/l		97
71) Bromoform	12.582	173	88158	20.307 ug/l	#	98
73) Isopropylbenzene	12.700	105	450263	19.031 ug/l		100
74) N-amyl acetate	12.500	43	165565	20.306 ug/l		93
75) 1,1,2,2-Tetrachloroethane	12.941	83	154710	21.656 ug/l		100
76) 1,2,3-Trichloropropane	13.000	75	121016m	19.884 ug/l		
77) Bromobenzene	12.988	156	106636	19.792 ug/l		96
78) n-propylbenzene	13.041	91	485899	19.203 ug/l		98
79) 2-Chlorotoluene	13.129	91	311399	18.789 ug/l		98
80) 1,3,5-Trimethylbenzene	13.176	105	359774	19.245 ug/l		97
81) trans-1,4-Dichloro-2-b...	12.747	75	41472	17.906 ug/l		89
82) 4-Chlorotoluene	13.229	91	292202	18.899 ug/l		98
83) tert-Butylbenzene	13.447	119	308430	19.433 ug/l		94
84) 1,2,4-Trimethylbenzene	13.488	105	360176	19.836 ug/l		99
85) sec-Butylbenzene	13.623	105	385047	19.194 ug/l		99
86) p-Isopropyltoluene	13.735	119	307374	19.081 ug/l		98
87) 1,3-Dichlorobenzene	13.735	146	172585	19.001 ug/l		98
88) 1,4-Dichlorobenzene	13.818	146	166525	18.202 ug/l		98
89) n-Butylbenzene	14.059	91	221333	19.203 ug/l		95
90) Hexachloroethane	14.335	117	64059	21.166 ug/l		85
91) 1,2-Dichlorobenzene	14.112	146	173911	19.240 ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.723	75	24492	20.490 ug/l		95
93) 1,2,4-Trichlorobenzene	15.394	180	44883	15.558 ug/l		96
94) Hexachlorobutadiene	15.506	225	32658	19.345 ug/l		98
95) Naphthalene	15.647	128	133856	13.573 ug/l		98
96) 1,2,3-Trichlorobenzene	15.847	180	53976	16.272 ug/l		95

Sample Results: **VN078554.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078554.D
Acq On : 18 Jul 2023 12:25
Operator : JC\MD
Sample : VN0718WBS02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 19 01:46:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

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

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

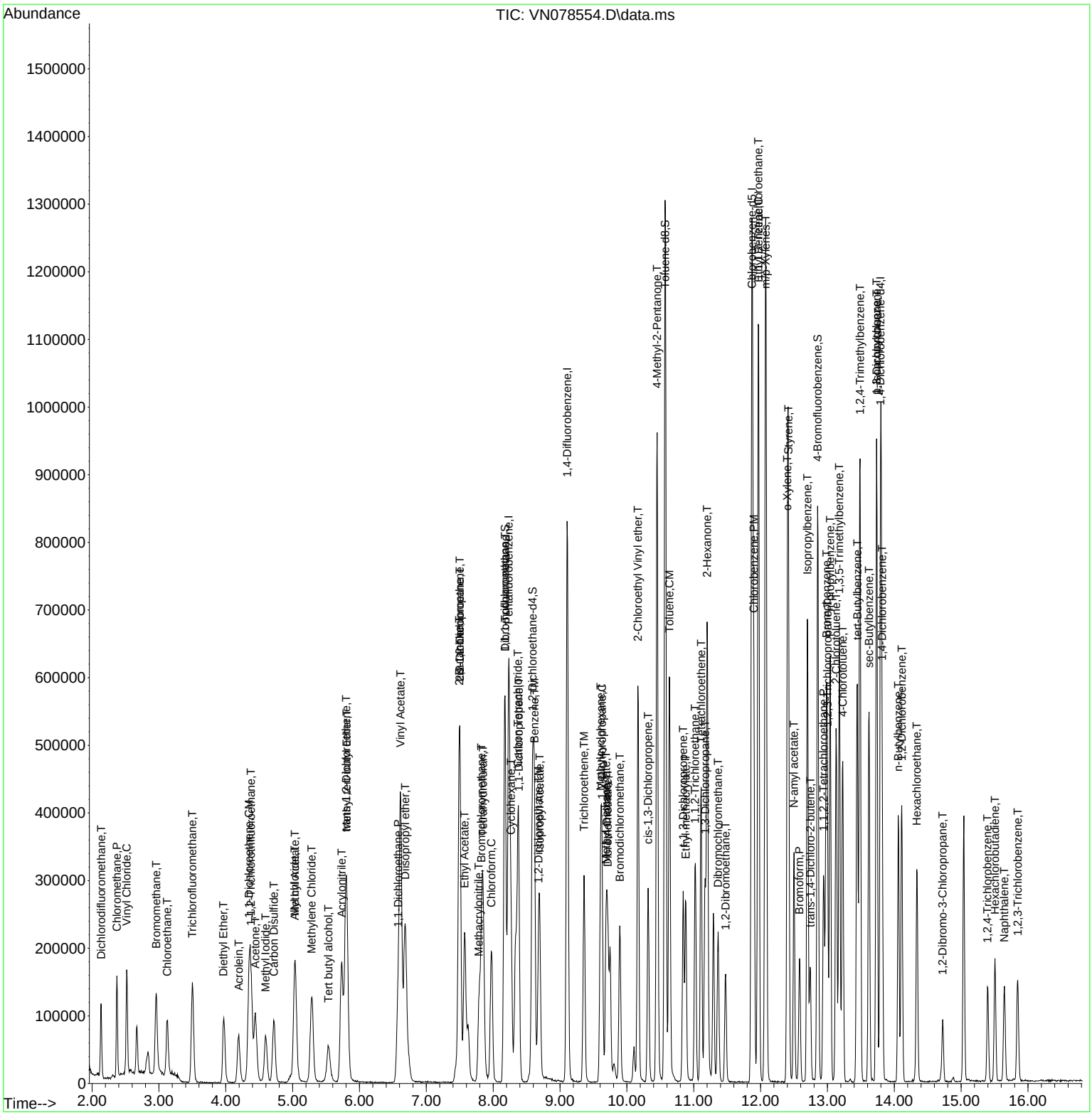
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078554.D
Acq On : 18 Jul 2023 12:25
Operator : JC\MD
Sample : VN0718WBS02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

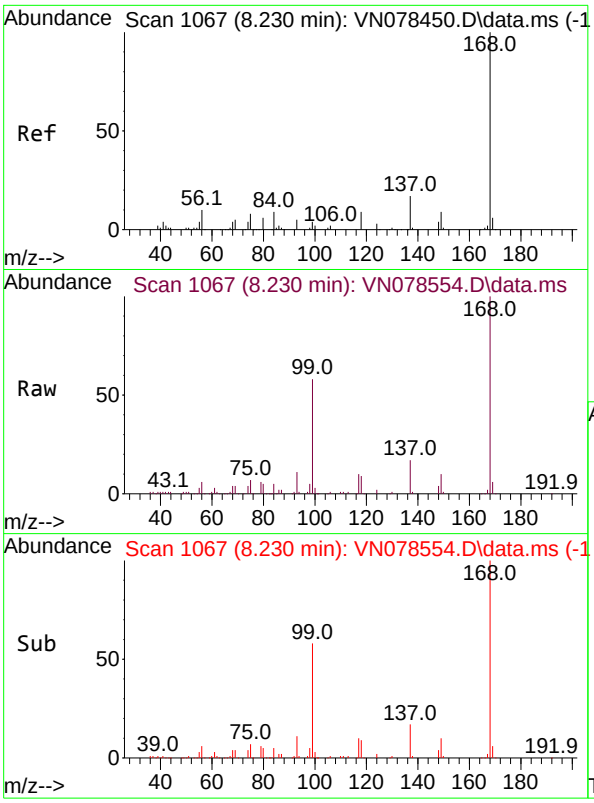
Quant Time: Jul 19 01:46:31 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

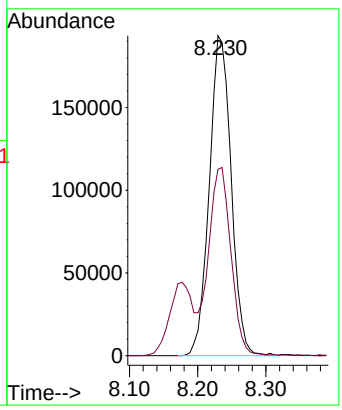




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.230 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:168 Resp: 43233

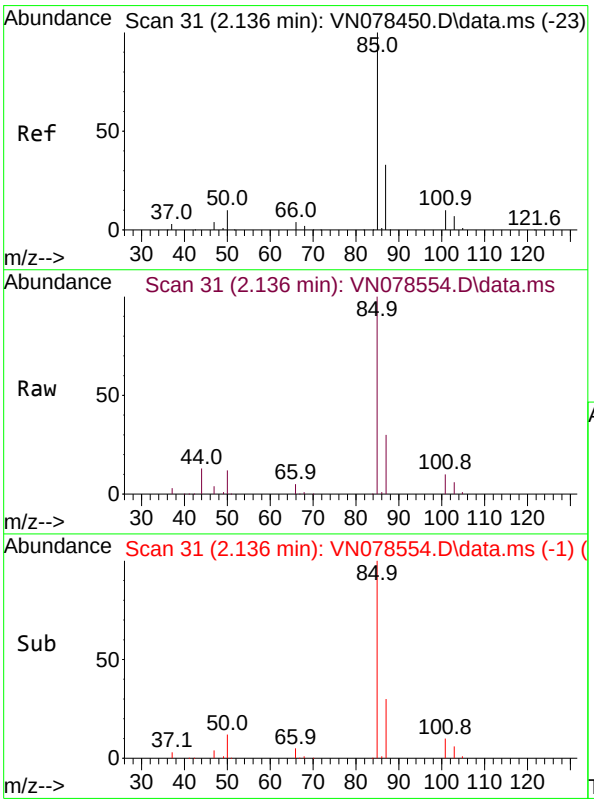
Ion	Ratio	Lower	Upper
168	100		
99	58.1	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

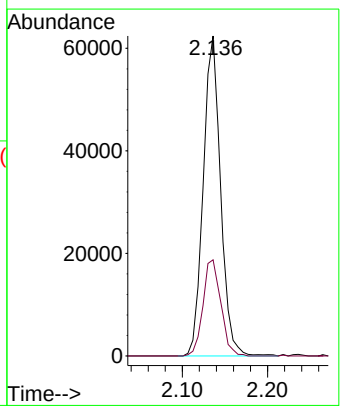
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

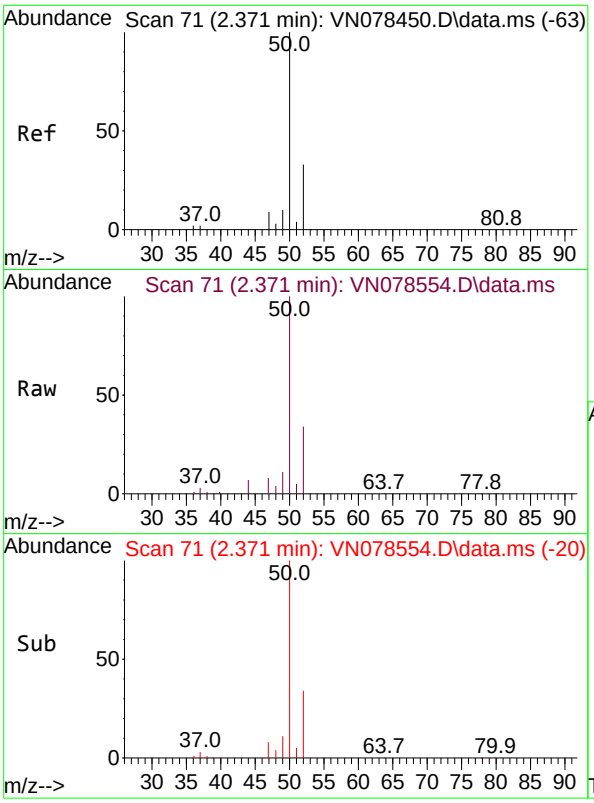


#2
Dichlorodifluoromethane
Concen: 16.653 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 85 Resp: 88271

Ion	Ratio	Lower	Upper
85	100		
87	30.0	15.8	47.4

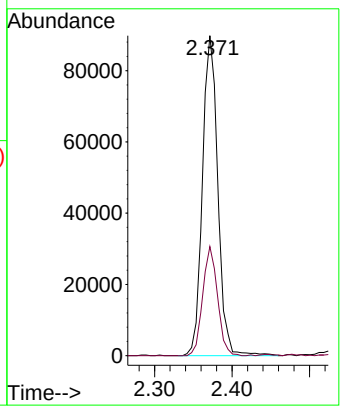




#3
Chloromethane
Concen: 21.499 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 50 Resp: 12386

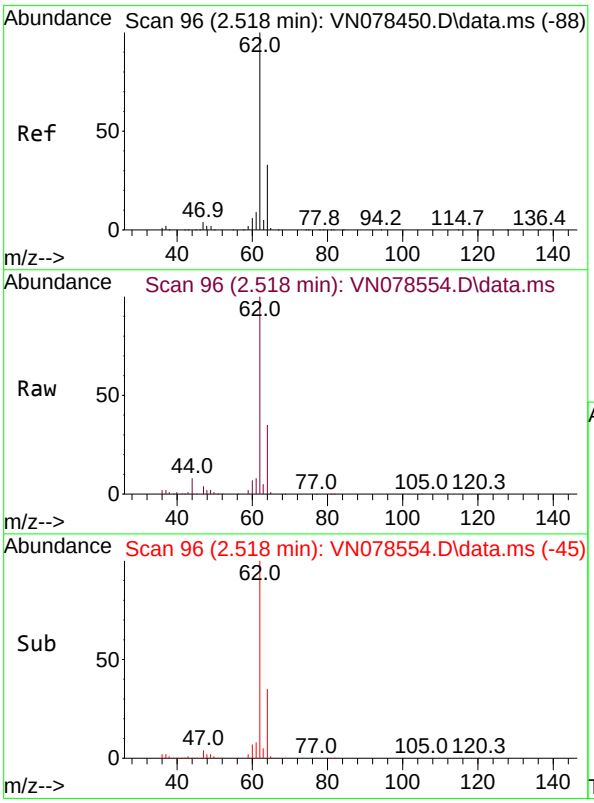
Ion	Ratio	Lower	Upper
50	100		
52	34.1	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

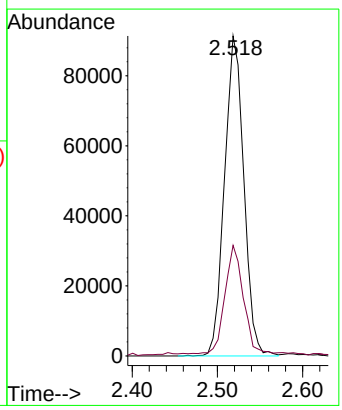
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

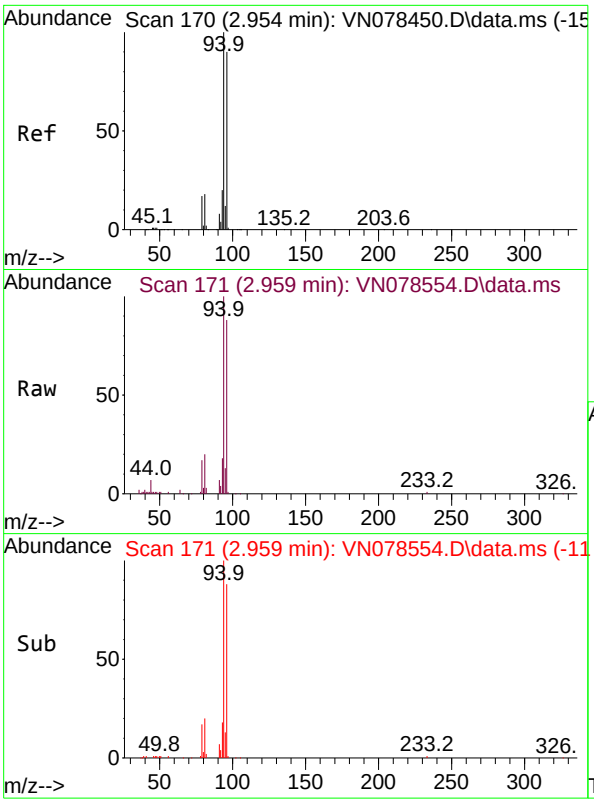


#4
Vinyl Chloride
Concen: 19.319 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 62 Resp: 143985

Ion	Ratio	Lower	Upper
62	100		
64	33.9	26.2	39.2

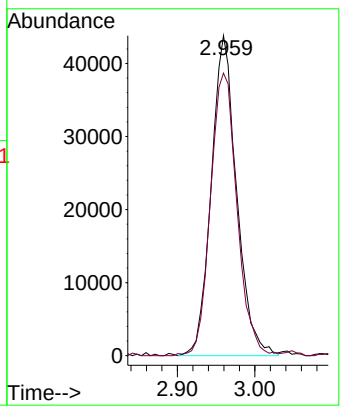




#5
Bromomethane
Concen: 17.949 ug/l
RT: 2.959 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 94 Resp: 9963

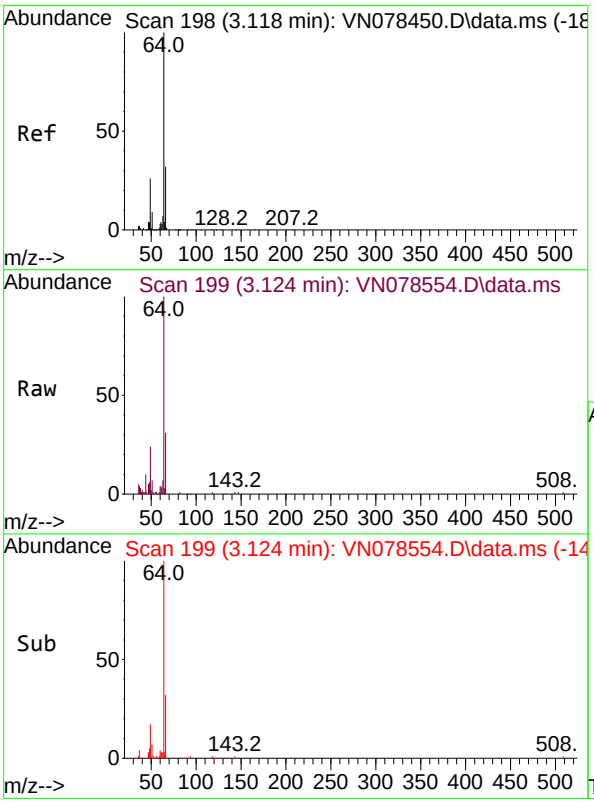
Ion	Ratio	Lower	Upper
94	100		
96	87.7	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

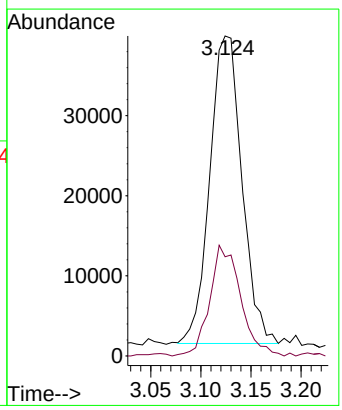
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

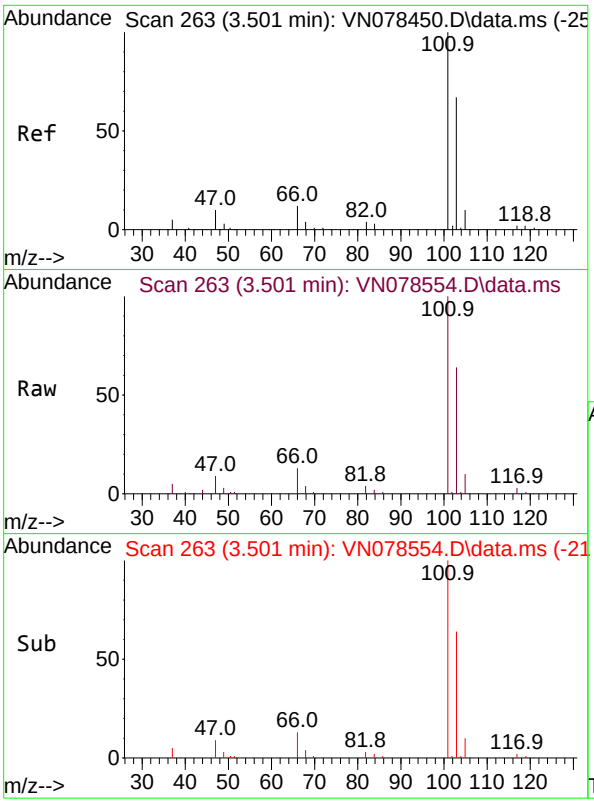


#6
Chloroethane
Concen: 17.735 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 64 Resp: 85547

Ion	Ratio	Lower	Upper
64	100		
66	31.8	25.4	38.2





#7
Trichlorofluoromethane
Concen: 18.234 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

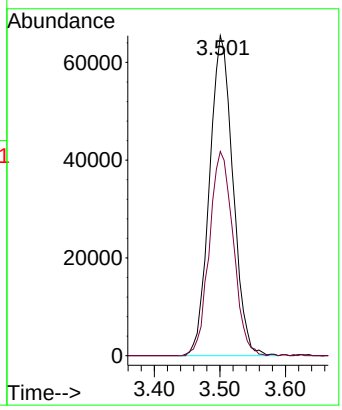
Tgt Ion:101 Resp: 16244

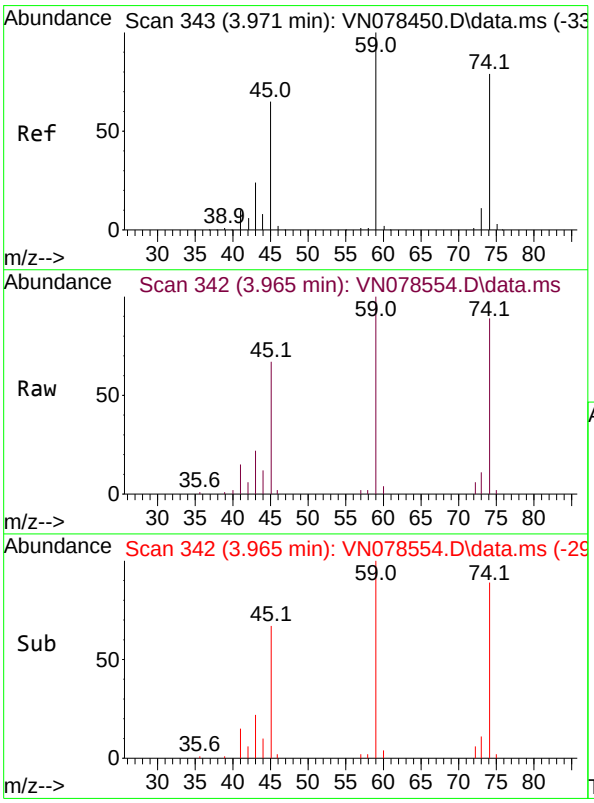
Ion	Ratio	Lower	Upper
101	100		
103	63.8	50.7	76.1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

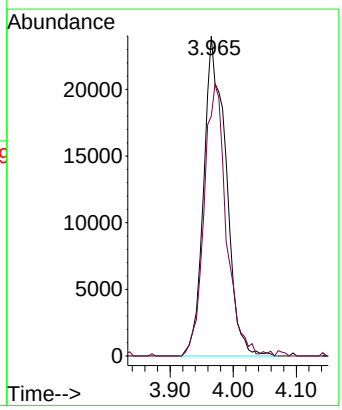


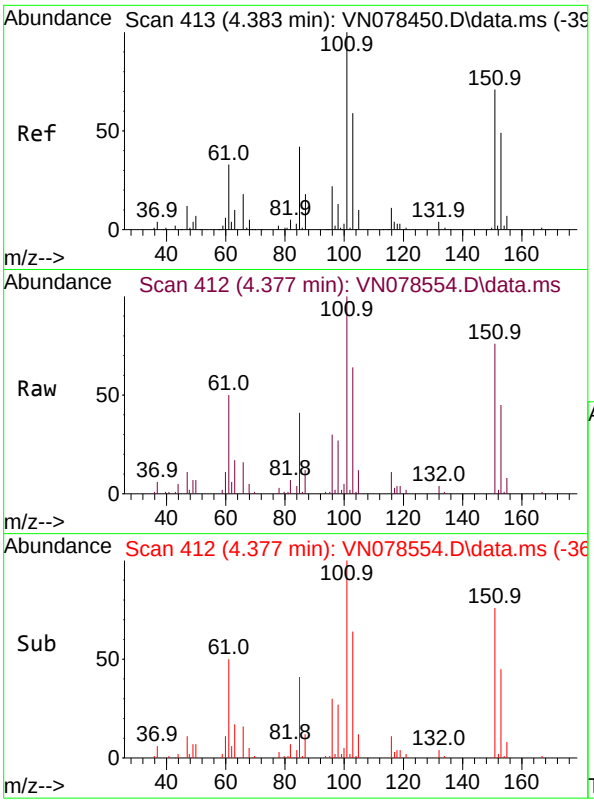


#8
Diethyl Ether
Concen: 19.707 ug/l
RT: 3.965 min Scan# 342
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 74 Resp: 58496

Ion	Ratio	Lower	Upper
74	100		
45	85.1	34.4	103.3

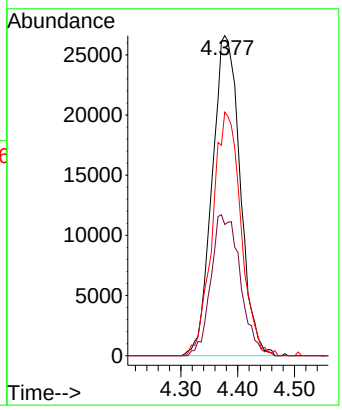




#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.261 ug/l
RT: 4.377 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:101 Resp: 9083

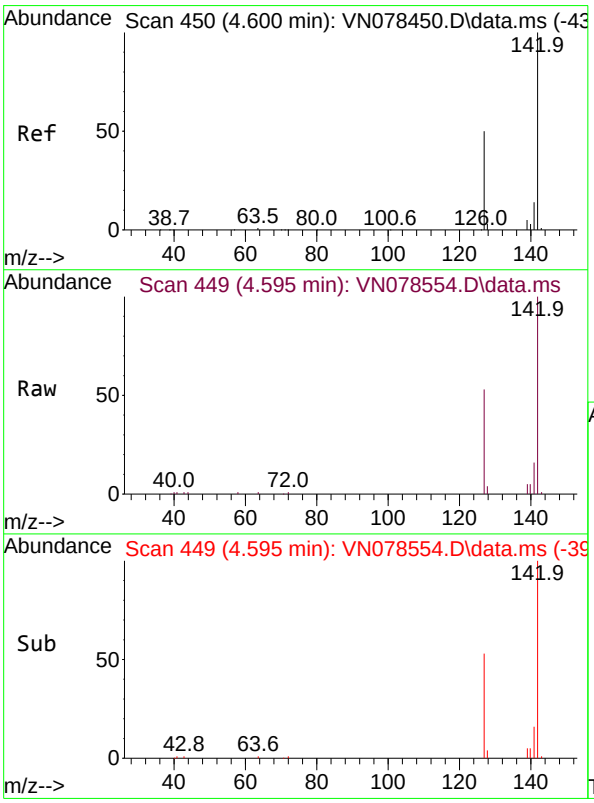
Ion	Ratio	Lower	Upper
101	100		
85	46.0	36.6	55.0
151	77.5	57.6	86.4



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

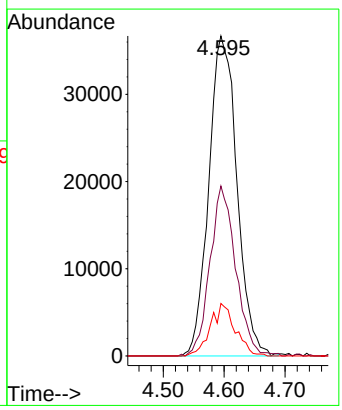
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

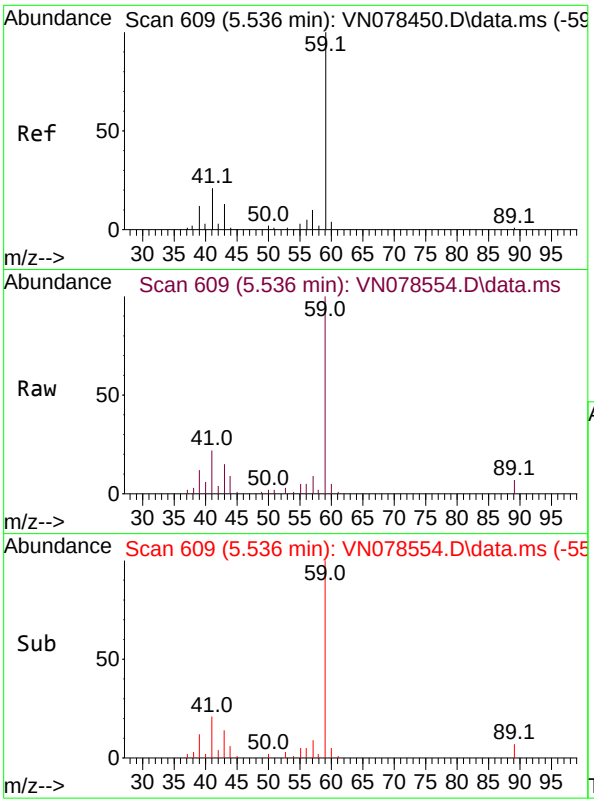


#10
Methyl Iodide
Concen: 18.187 ug/l
RT: 4.595 min Scan# 449
Delta R.T. -0.005 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:142 Resp: 117862

Ion	Ratio	Lower	Upper
142	100		
127	53.1	37.6	56.4
141	16.4	11.4	17.0

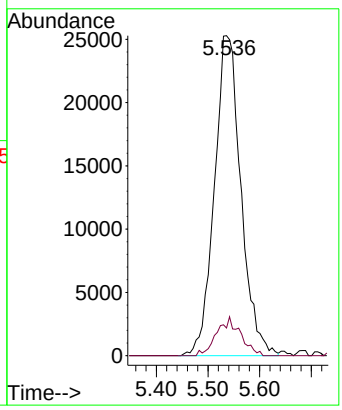




#11
Tert butyl alcohol
Concen: 100.797 ug/l
RT: 5.536 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 59 Resp: 9008

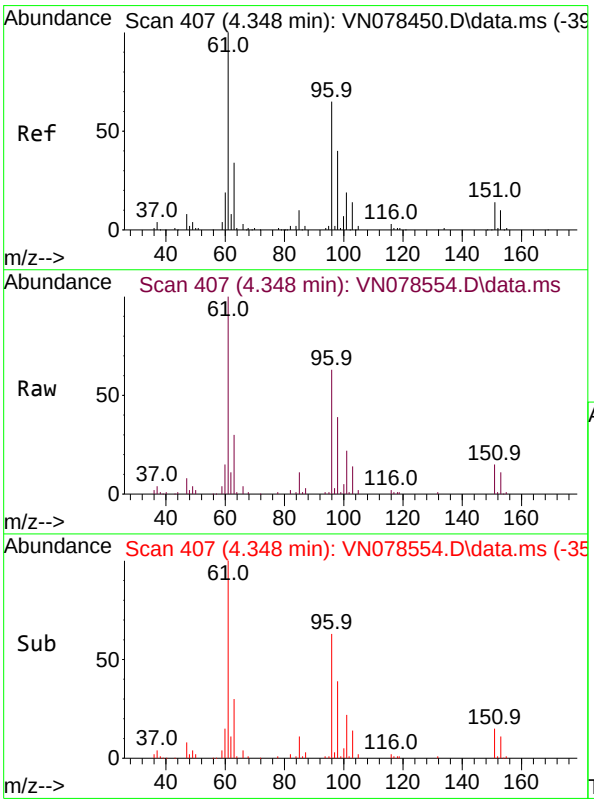
Ion	Ratio	Lower	Upper
59	100		
57	10.8	8.2	12.4



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

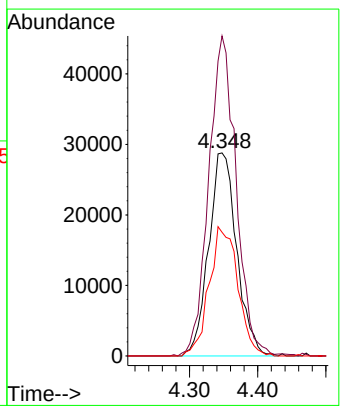
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

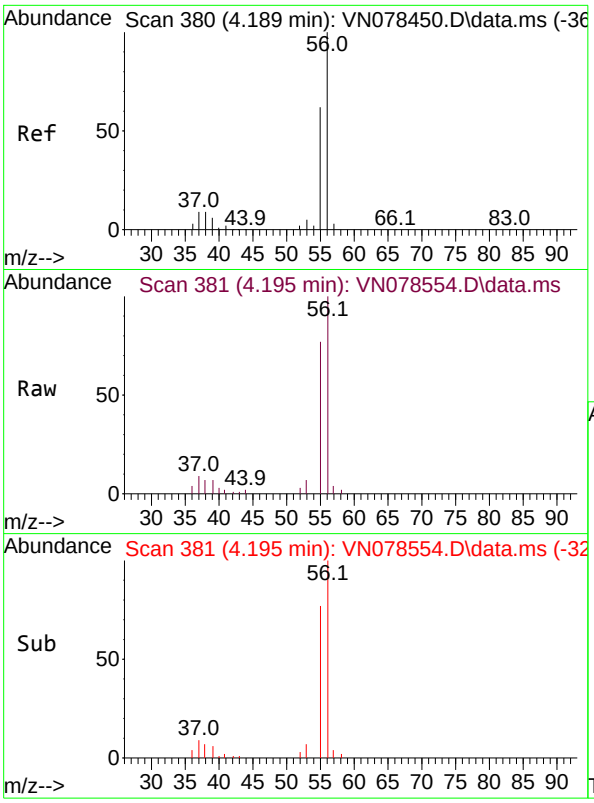


#12
1,1-Dichloroethene
Concen: 18.052 ug/l
RT: 4.348 min Scan# 407
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 96 Resp: 82352

Ion	Ratio	Lower	Upper
96	100		
61	157.6	112.7	169.1
98	60.9	51.2	76.8





#13
Acrolein
Concen: 101.949 ug/l
RT: 4.195 min Scan# 3
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

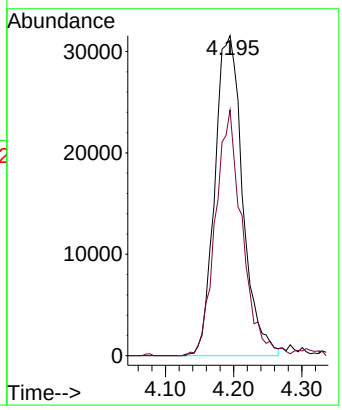
Tgt Ion: 56 Resp: 8964

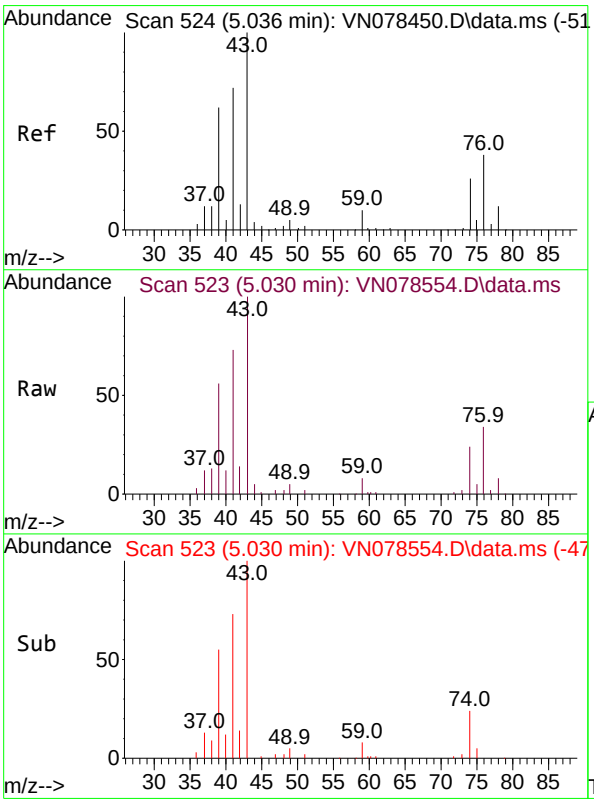
Ion	Ratio	Lower	Upper
56	100		
55	73.9	54.5	81.7

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

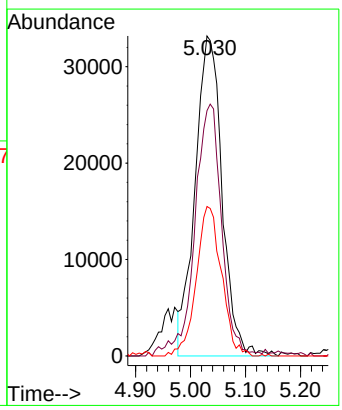


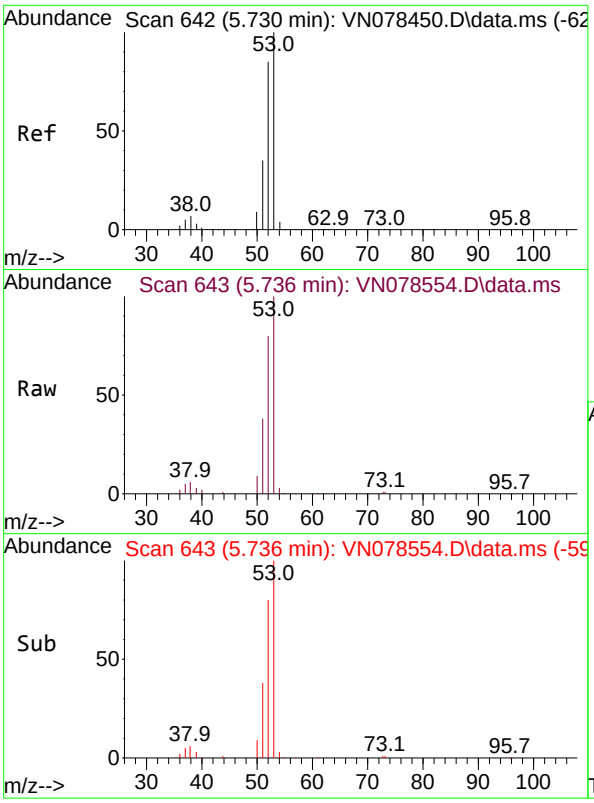


#14
Allyl chloride
Concen: 18.203 ug/l
RT: 5.030 min Scan# 523
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 41 Resp: 113471

Ion	Ratio	Lower	Upper
41	100		
39	77.9	58.8	88.2
76	43.5	39.1	58.7

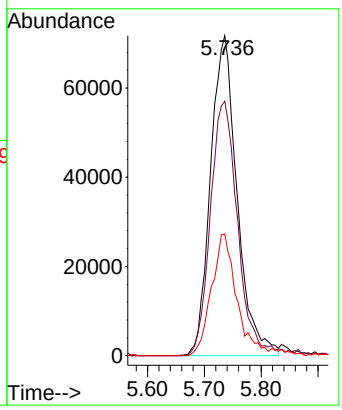




#15
Acrylonitrile
Concen: 103.167 ug/l
RT: 5.736 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 53 Resp: 23296

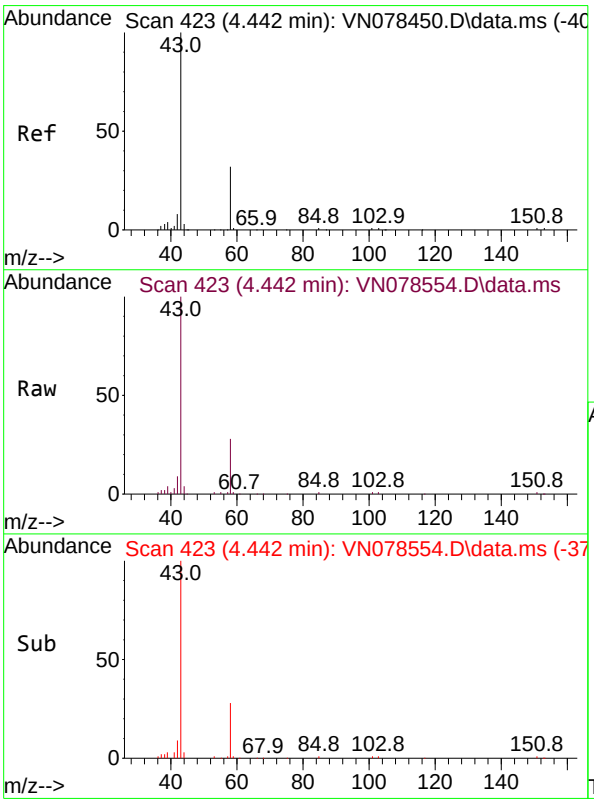
Ion	Ratio	Lower	Upper
53	100		
52	81.9	65.3	97.9
51	35.9	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

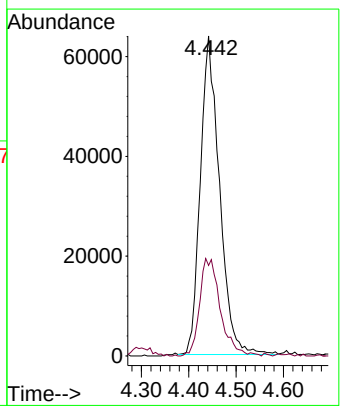
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

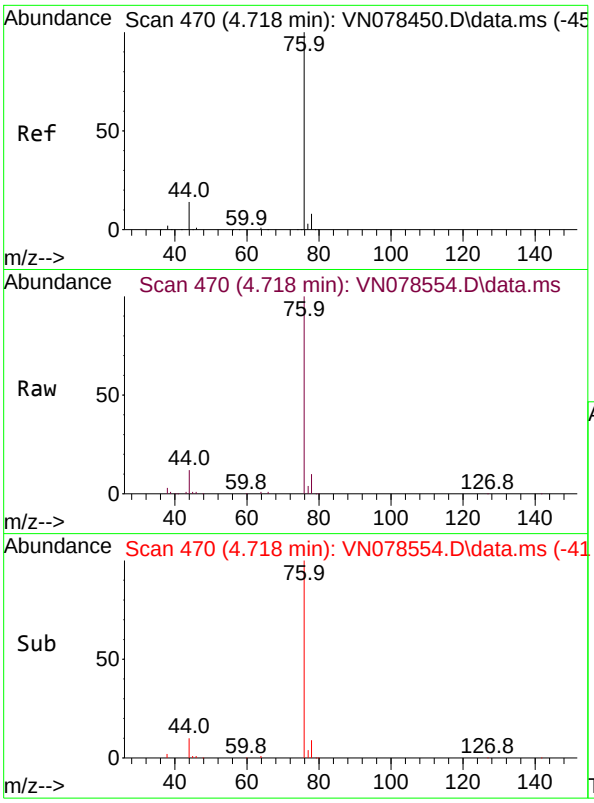


#16
Acetone
Concen: 99.353 ug/l
RT: 4.442 min Scan# 423
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 43 Resp: 179374

Ion	Ratio	Lower	Upper
43	100		
58	28.4	28.0	42.0





#17
Carbon Disulfide
Concen: 15.747 ug/l
RT: 4.718 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

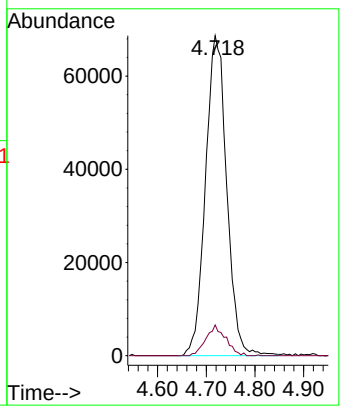
Tgt Ion: 76 Resp: 20772

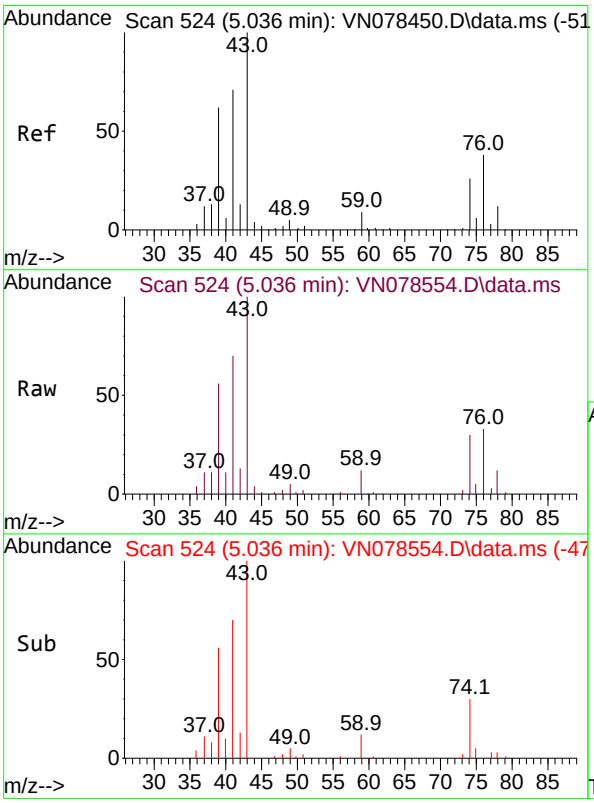
Ion	Ratio	Lower	Upper
76	100		
78	9.6	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

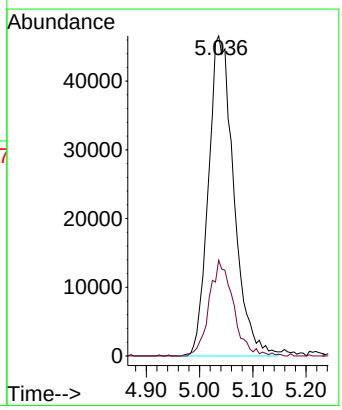


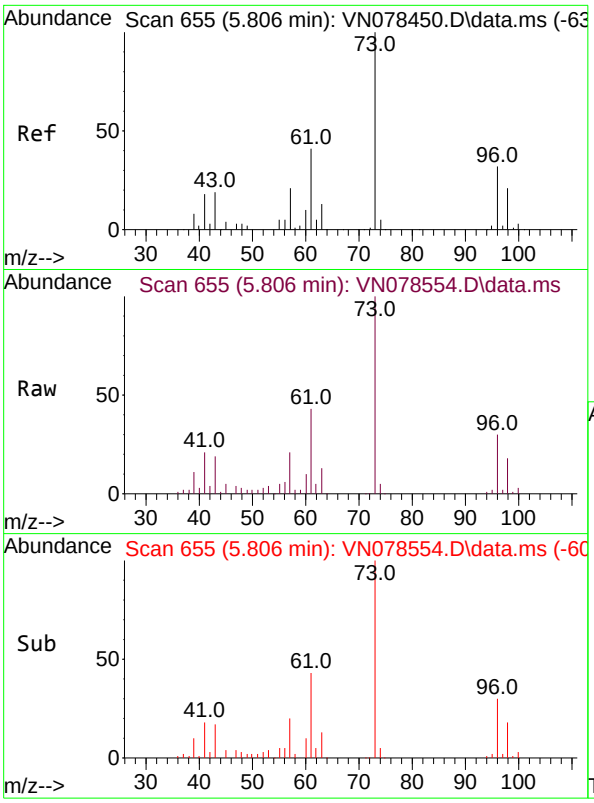


#18
Methyl Acetate
Concen: 20.154 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 43 Resp: 154034

Ion	Ratio	Lower	Upper
43	100		
74	28.3	26.2	39.4





#19
Methyl tert-butyl Ether
Concen: 19.901 ug/l
RT: 5.806 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

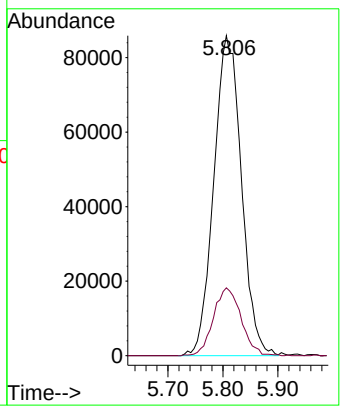
Tgt Ion: 73 Resp: 29913

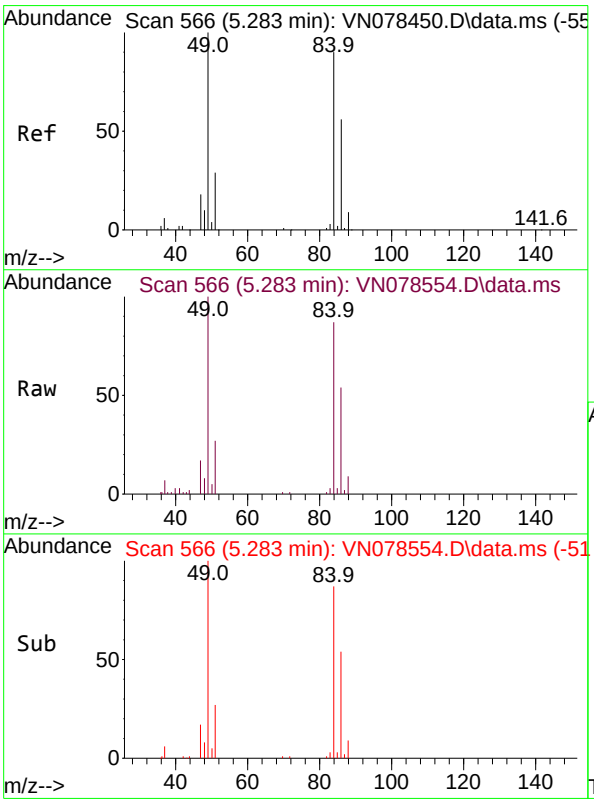
Ion	Ratio	Lower	Upper
73	100		
57	21.2	15.6	23.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

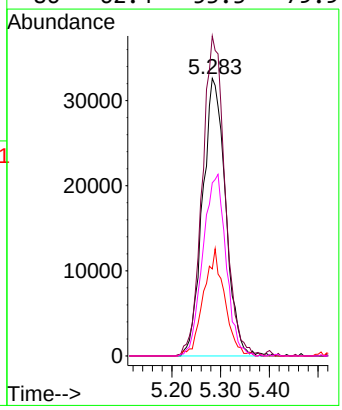


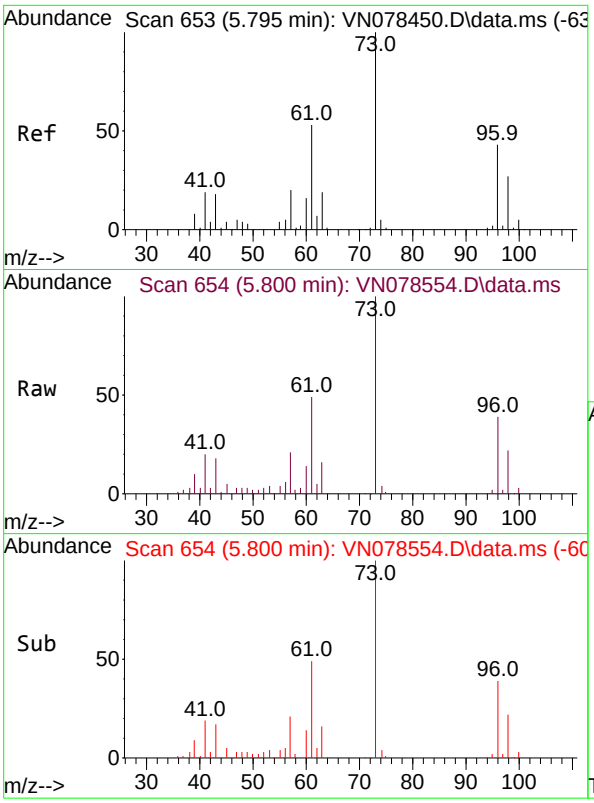


#20
Methylene Chloride
Concen: 19.865 ug/l
RT: 5.283 min Scan# 566
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 84 Resp: 106692

Ion	Ratio	Lower	Upper
84	100		
49	114.8	79.7	119.5
51	31.4	25.2	37.8
86	62.4	53.3	79.9





#21
trans-1,2-Dichloroethene
Concen: 18.277 ug/l
RT: 5.800 min Scan# 6
Delta R.T. 0.005 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

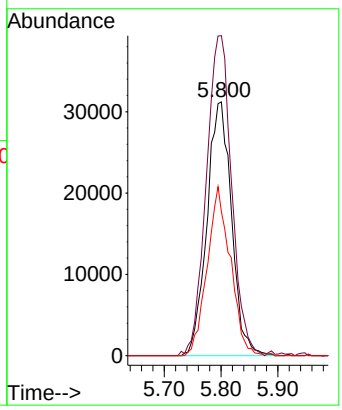
Tgt Ion: 96 Resp: 9395

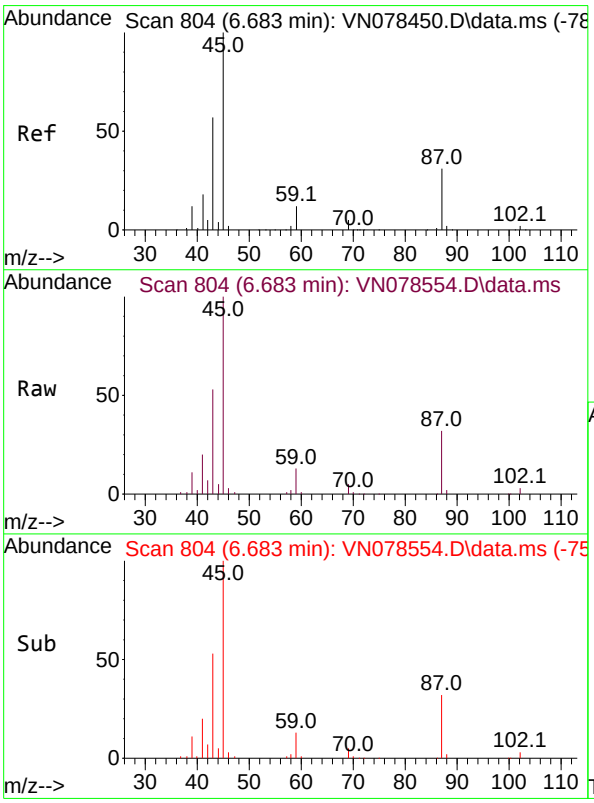
Ion	Ratio	Lower	Upper
96	100		
61	126.1	90.1	135.1
98	56.7	46.4	69.6

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

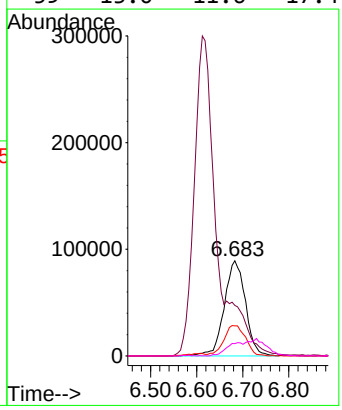


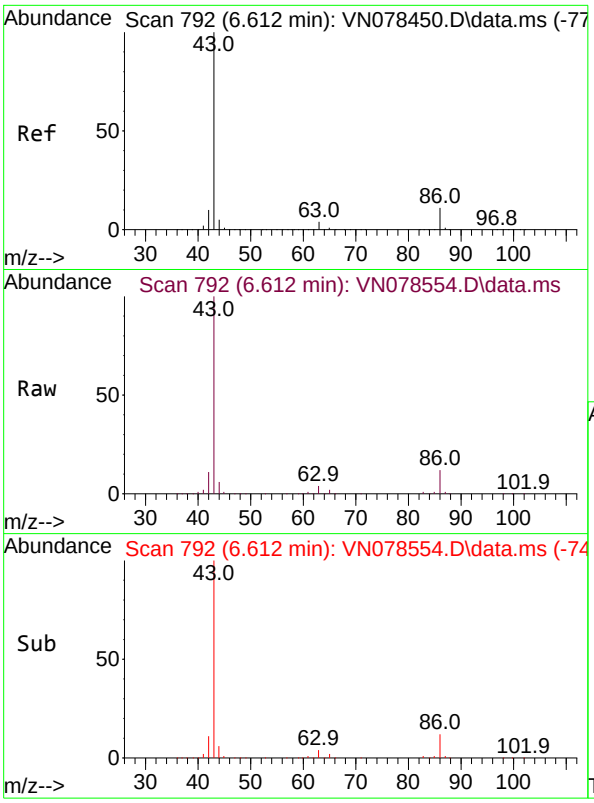


#22
Diisopropyl ether
Concen: 20.431 ug/l
RT: 6.683 min Scan# 804
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 45 Resp: 285181

Ion	Ratio	Lower	Upper
45	100		
43	51.3	45.5	68.3
87	31.5	31.8	47.8#
59	13.0	11.6	17.4

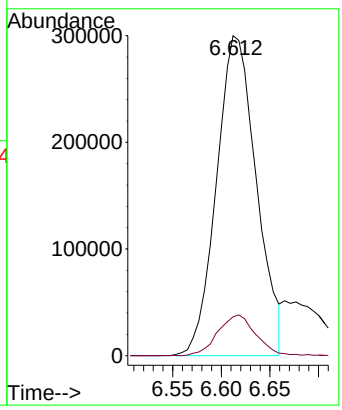




#23
Vinyl Acetate
Concen: 96.642 ug/l m
RT: 6.612 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 43 Resp: 85755

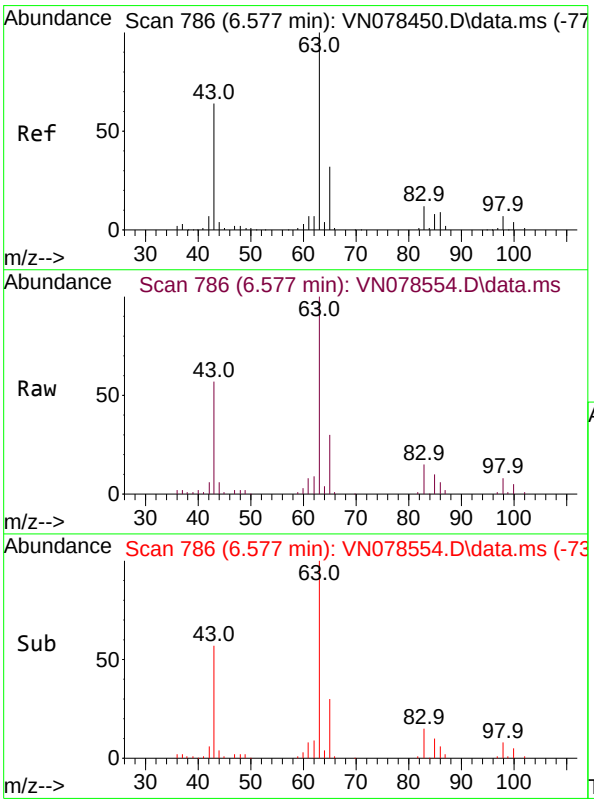
Ion	Ratio	Lower	Upper
43	100		
86	12.2	13.0	19.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

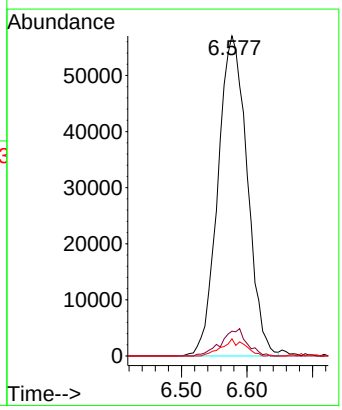
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

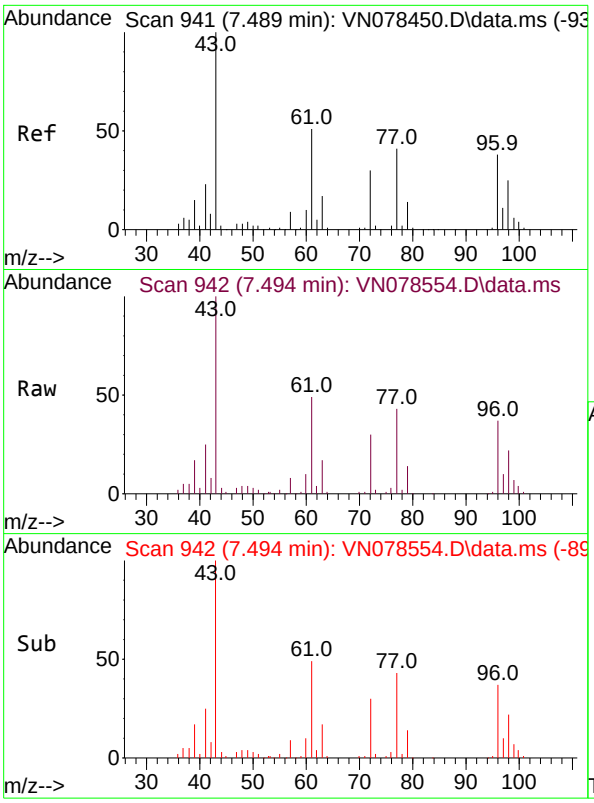


#24
1,1-Dichloroethane
Concen: 18.787 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 63 Resp: 176693

Ion	Ratio	Lower	Upper
63	100		
98	7.8	3.9	11.7
100	5.4	2.5	7.4





#25
2-Butanone
Concen: 103.603 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.005 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

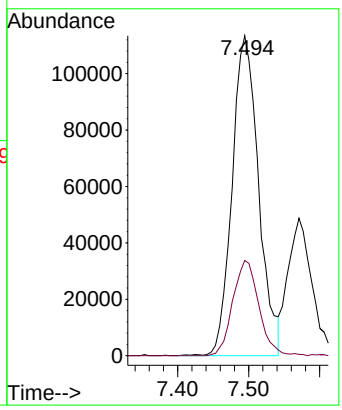
Tgt Ion: 43 Resp: 29443

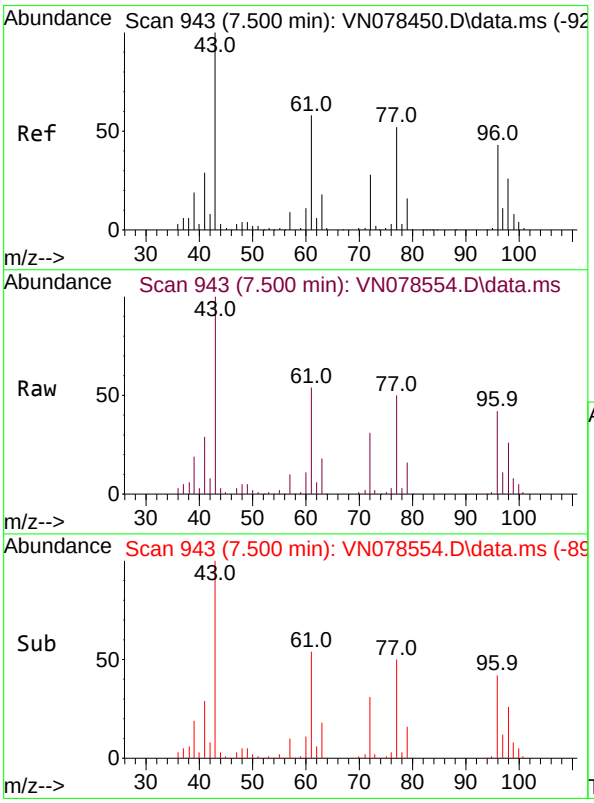
Ion	Ratio	Lower	Upper
43	100		
72	29.8	30.2	45.2

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

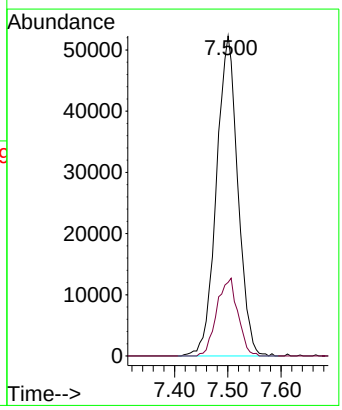


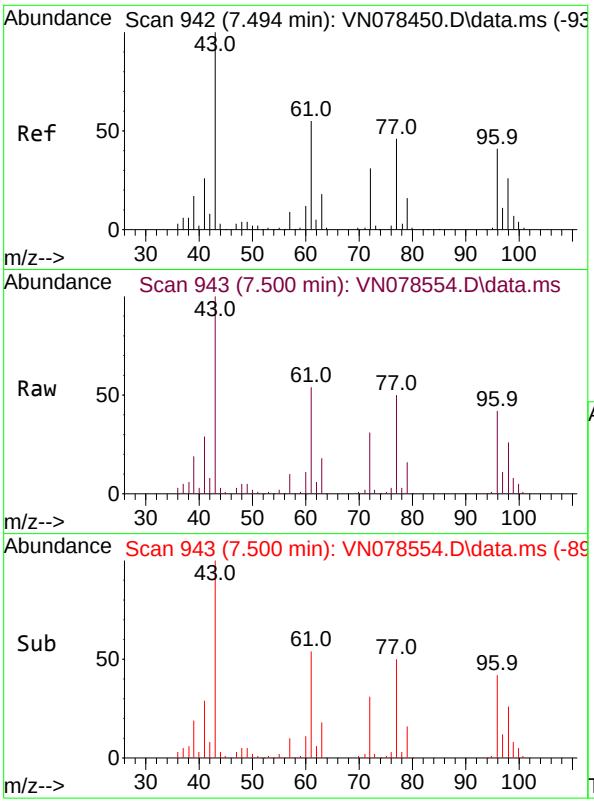


#26
2,2-Dichloropropane
Concen: 18.955 ug/l
RT: 7.500 min Scan# 943
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 77 Resp: 145815

Ion	Ratio	Lower	Upper
77	100		
97	23.9	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 18.972 ug/l
RT: 7.500 min Scan# 94
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

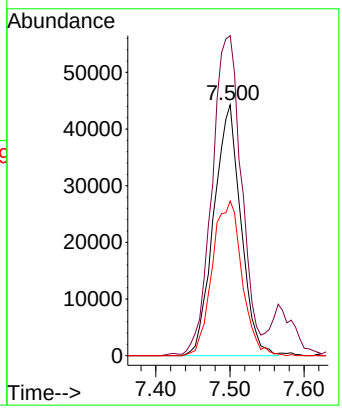
Tgt Ion: 96 Resp: 11282

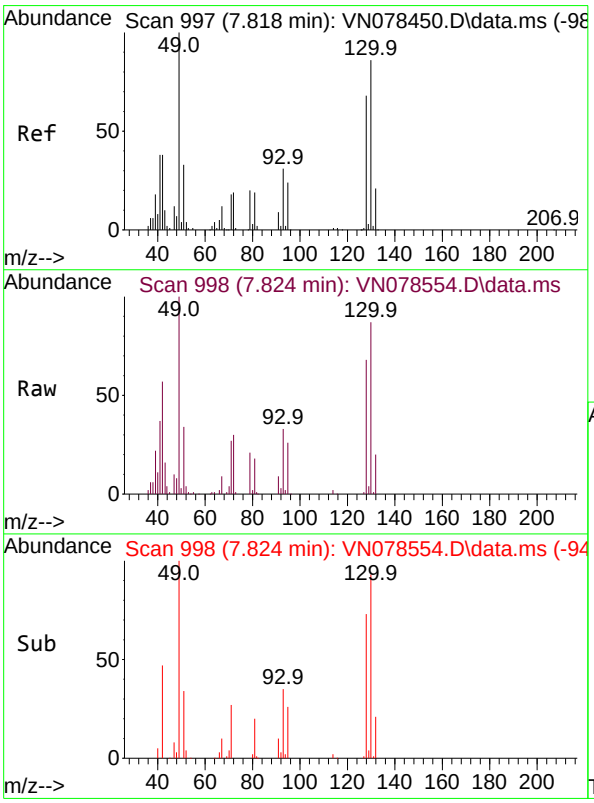
Ion	Ratio	Lower	Upper
96	100		
61	138.2	0.0	255.2
98	67.1	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

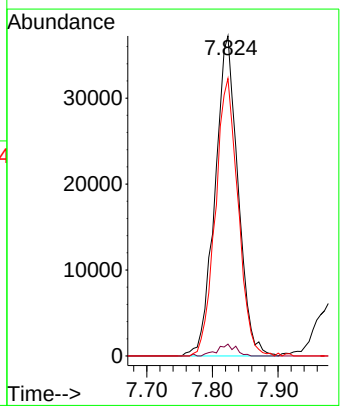


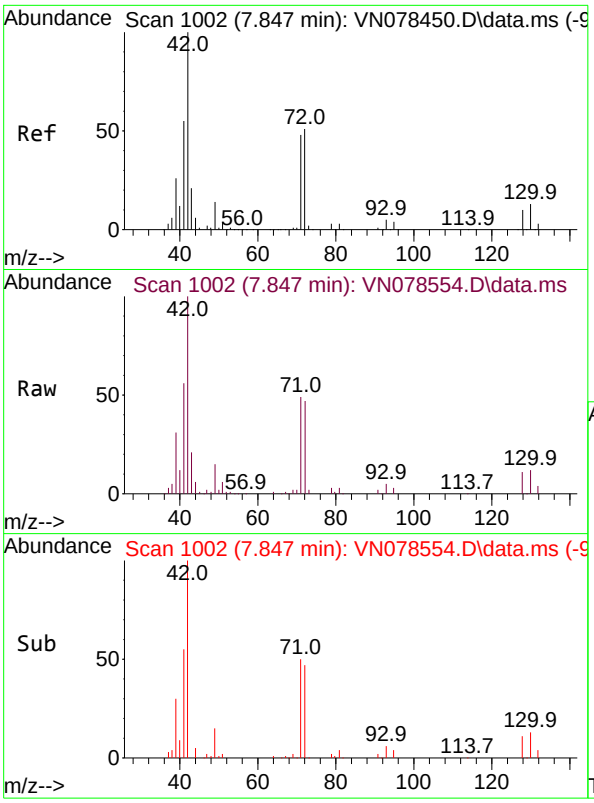


#28
Bromochloromethane
Concen: 20.436 ug/l
RT: 7.824 min Scan# 998
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 49 Resp: 90530

Ion	Ratio	Lower	Upper
49	100		
129	3.0	0.0	4.8
130	85.3	75.3	112.9

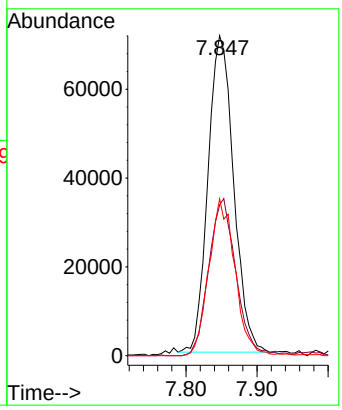




#29
Tetrahydrofuran
Concen: 95.735 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 42 Resp: 17852

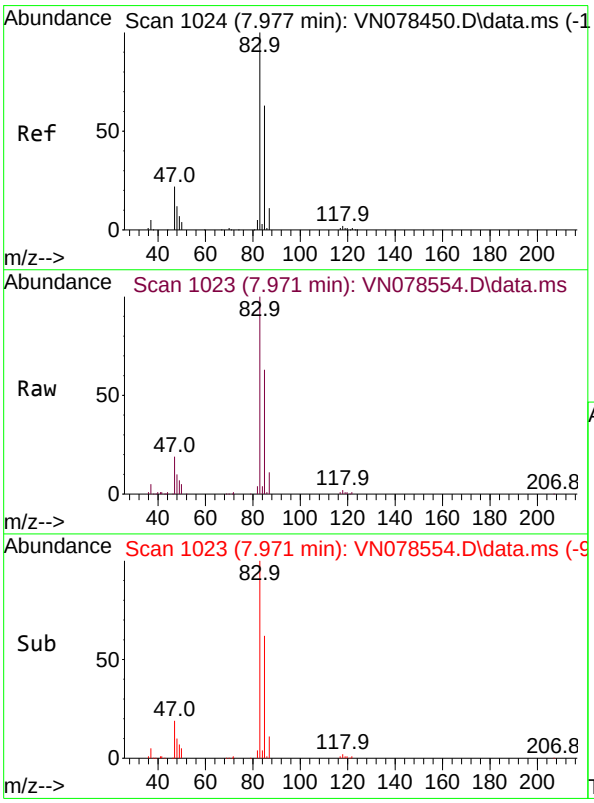
Ion	Ratio	Lower	Upper
42	100		
72	52.9	49.8	74.6
71	50.3	47.4	71.2



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

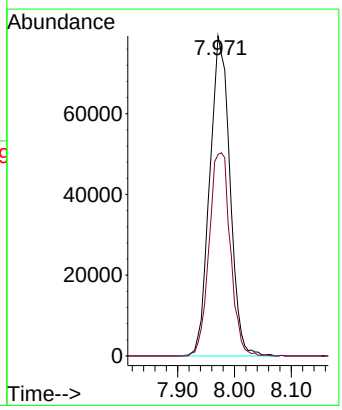
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

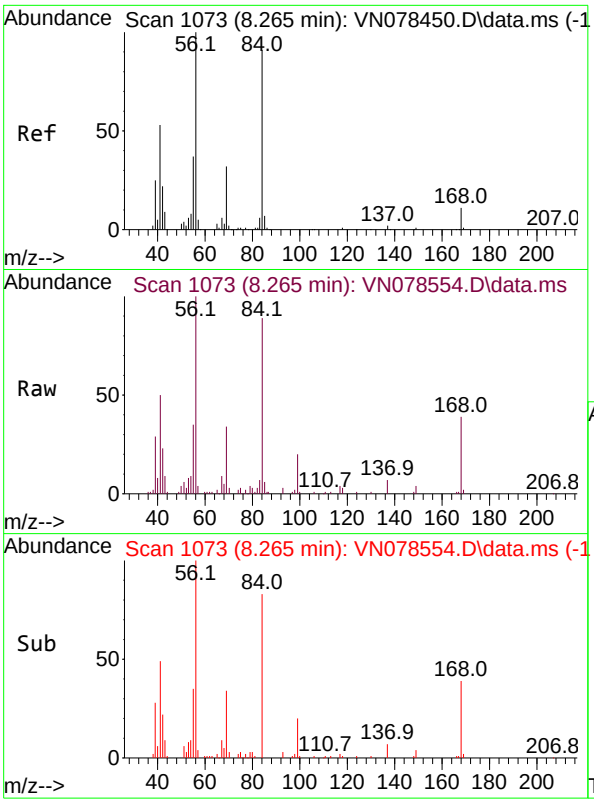


#30
Chloroform
Concen: 19.985 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 83 Resp: 195688

Ion	Ratio	Lower	Upper
83	100		
85	63.0	55.4	83.0

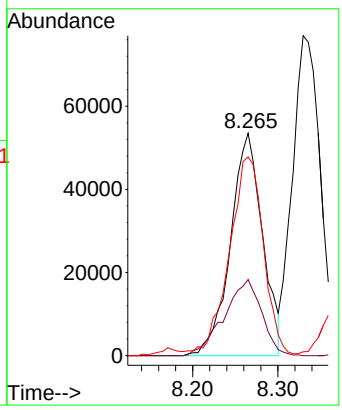




#31
Cyclohexane
Concen: 17.851 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 56 Resp: 13982

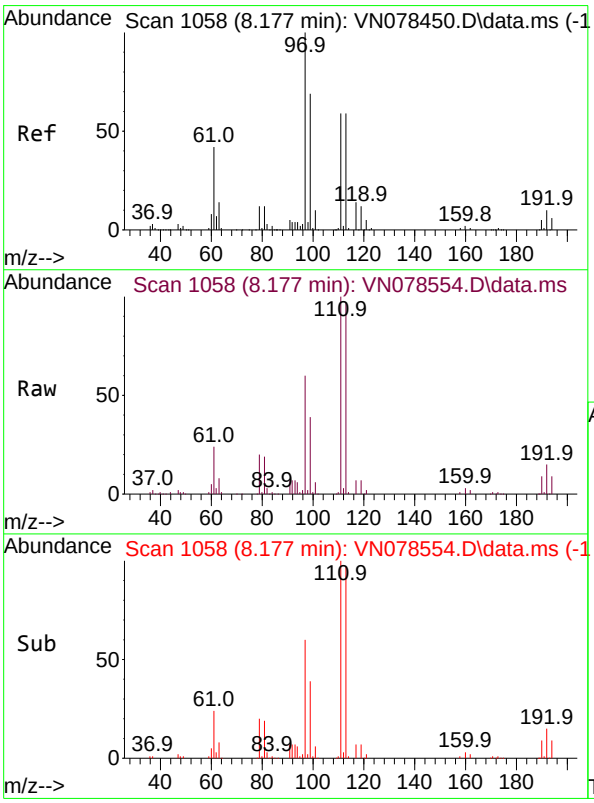
Ion	Ratio	Lower	Upper
56	100		
69	34.2	26.8	40.2
84	87.3	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

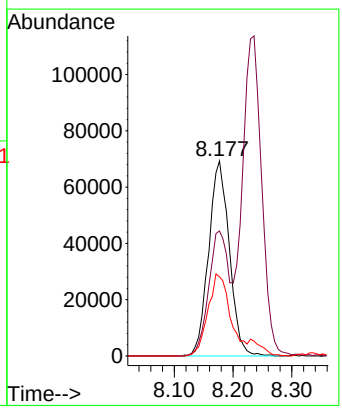
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

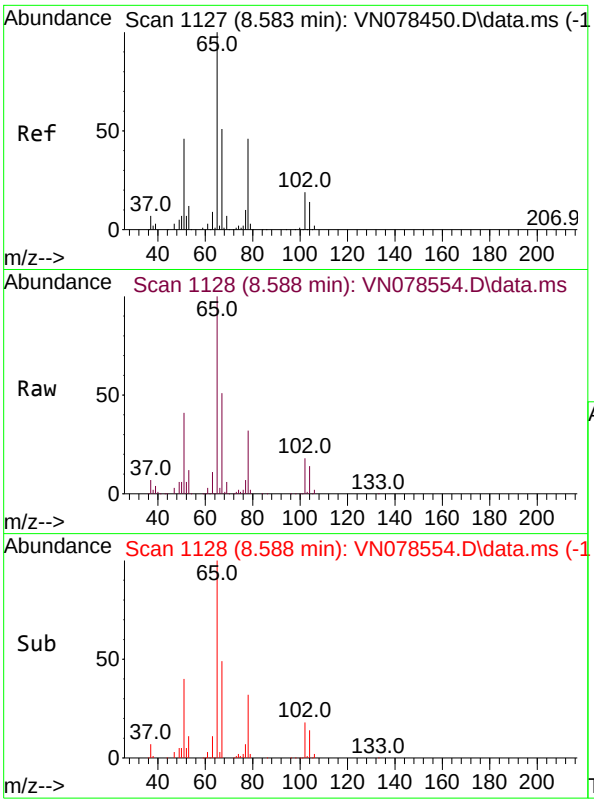


#32
1,1,1-Trichloroethane
Concen: 19.304 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 97 Resp: 169470

Ion	Ratio	Lower	Upper
97	100		
99	64.5	50.3	75.5
61	45.6	34.7	52.1

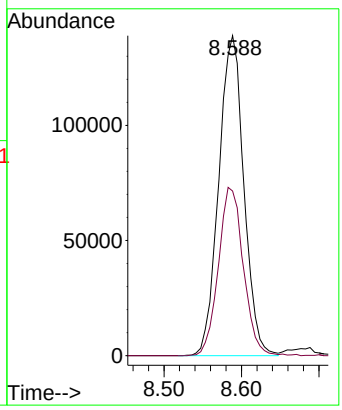




#33
1,2-Dichloroethane-d4
Concen: 53.994 ug/l
RT: 8.588 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 65 Resp: 31294

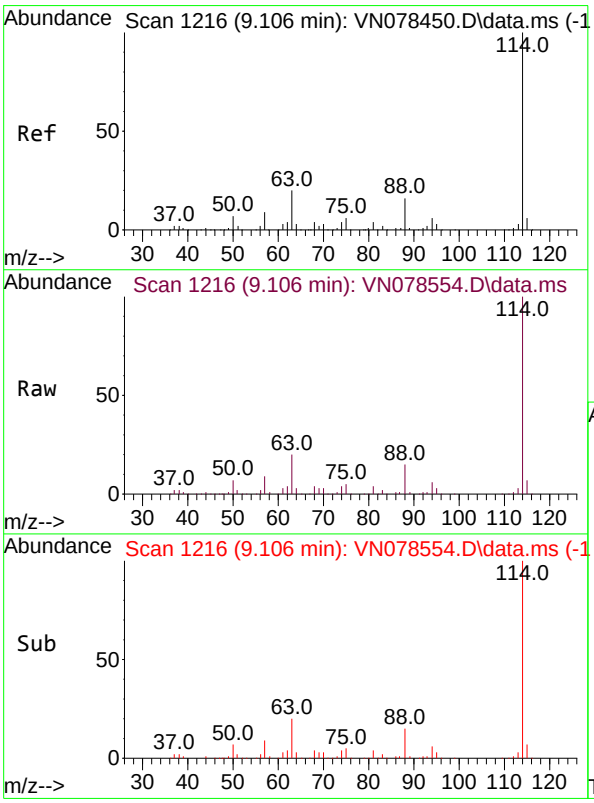
Ion	Ratio	Lower	Upper
65	100		
67	52.4	0.0	106.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

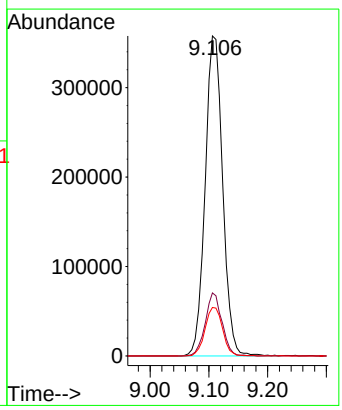
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

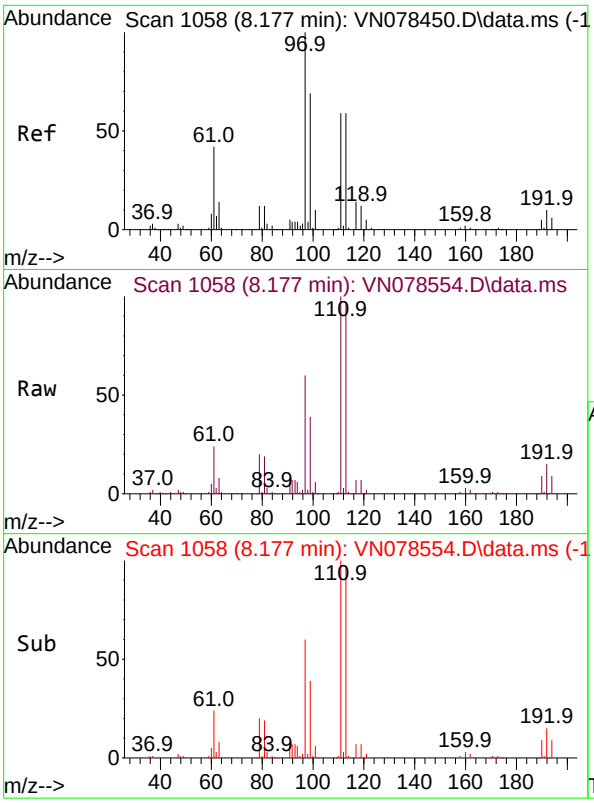


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:114 Resp: 742826

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	36.4
88	15.2	0.0	30.6

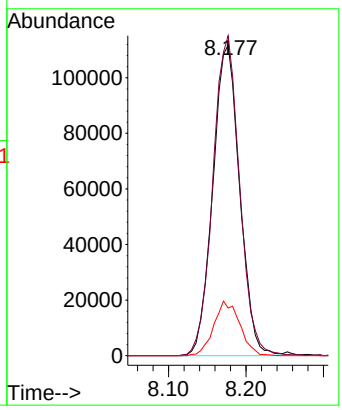




#35
Dibromofluoromethane
Concen: 53.416 ug/l
RT: 8.177 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:113 Resp: 26935

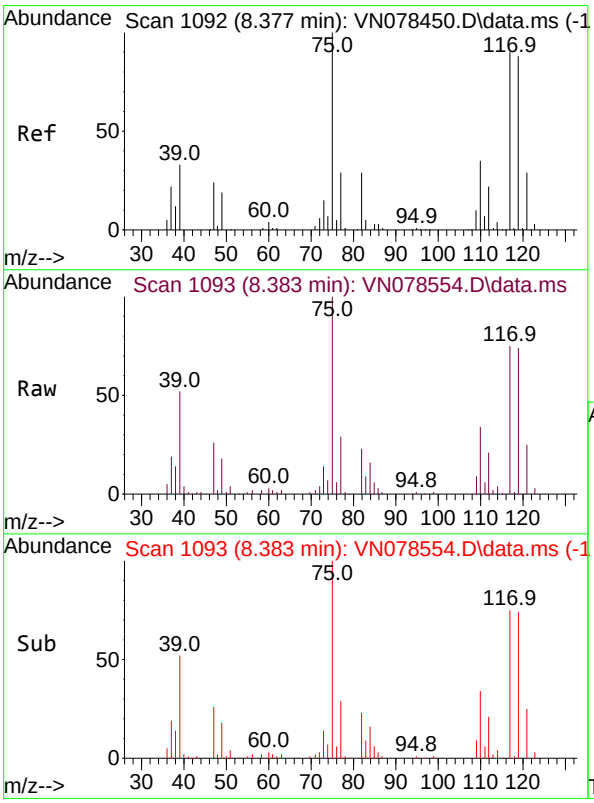
Ion	Ratio	Lower	Upper
113	100		
111	102.5	82.6	123.8
192	17.1	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

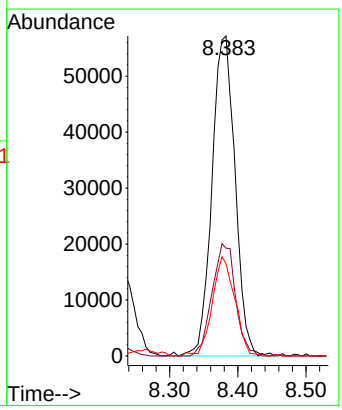
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

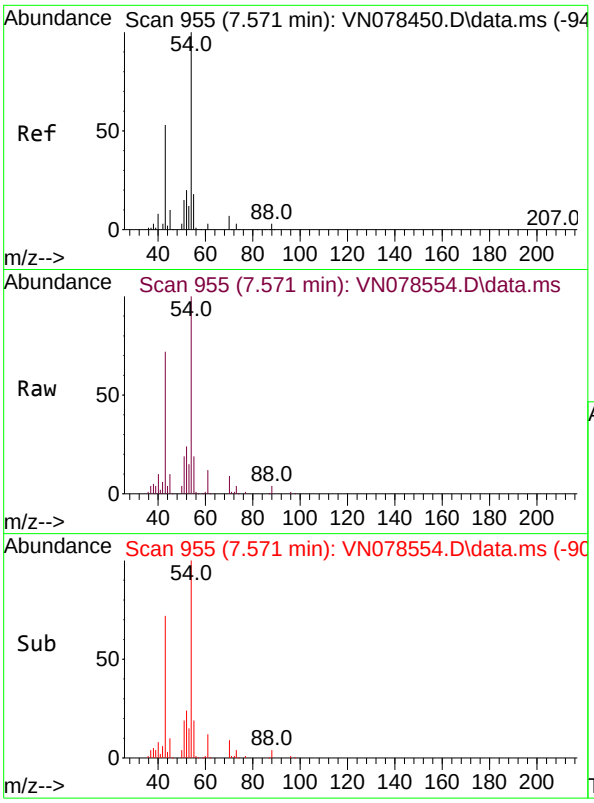


#36
1,1-Dichloropropene
Concen: 18.532 ug/l
RT: 8.383 min Scan# 1093
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 75 Resp: 134928

Ion	Ratio	Lower	Upper
75	100		
110	35.6	19.1	57.3
77	30.2	25.0	37.4





#37
Ethyl Acetate
Concen: 18.809 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

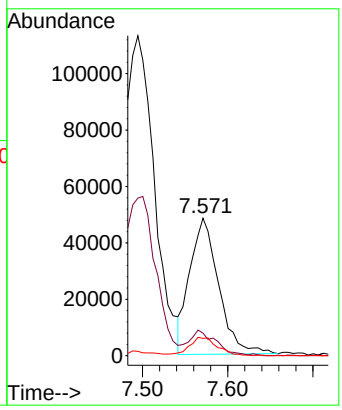
Tgt Ion: 43 Resp: 11416

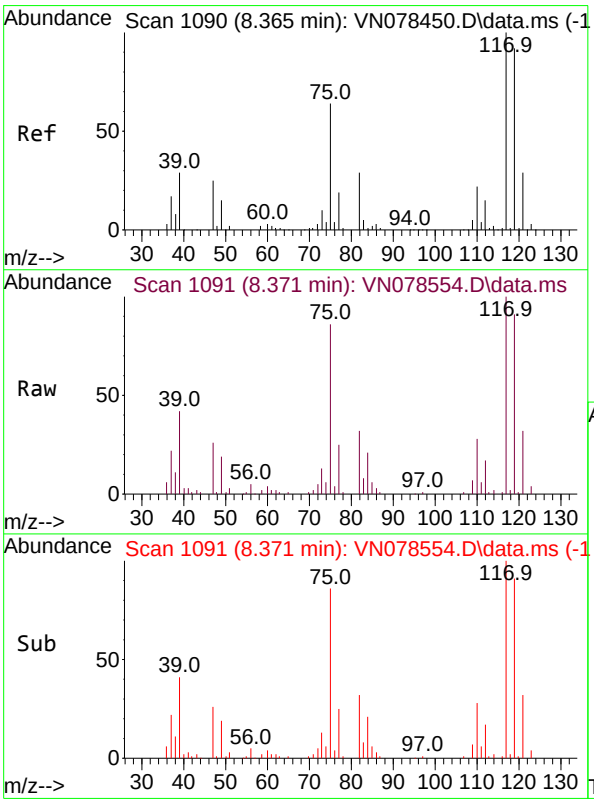
Ion	Ratio	Lower	Upper
43	100		
61	16.6	13.2	19.8
70	13.0	11.3	16.9

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

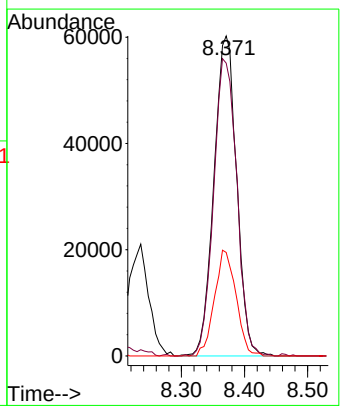


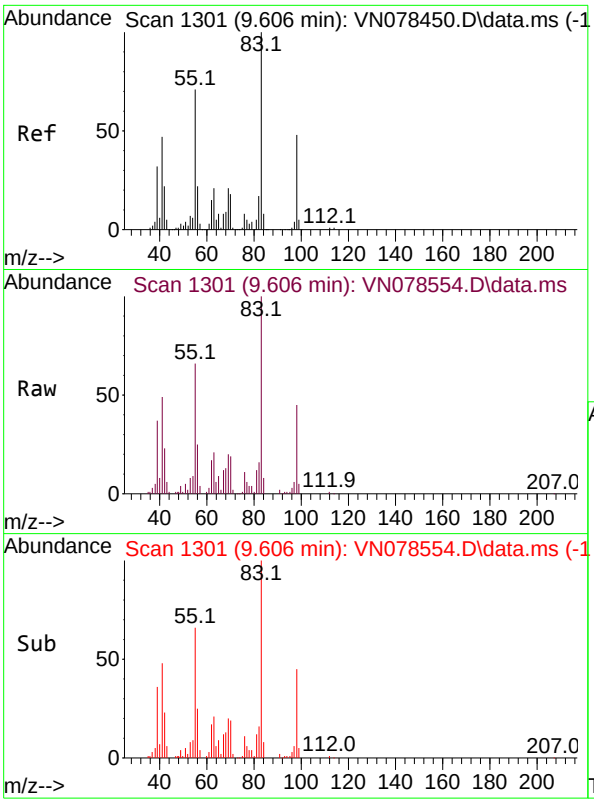


#38
Carbon Tetrachloride
Concen: 19.002 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:117 Resp: 150371

Ion	Ratio	Lower	Upper
117	100		
119	91.5	77.3	115.9
121	32.4	23.3	34.9





#39
Methylcyclohexane
Concen: 18.604 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

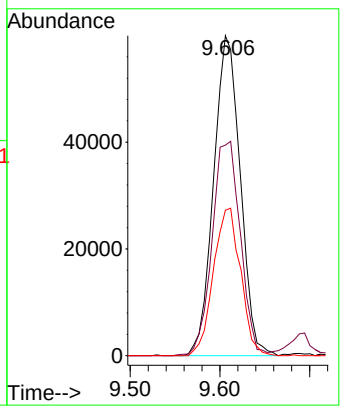
Tgt Ion: 83 Resp: 12364

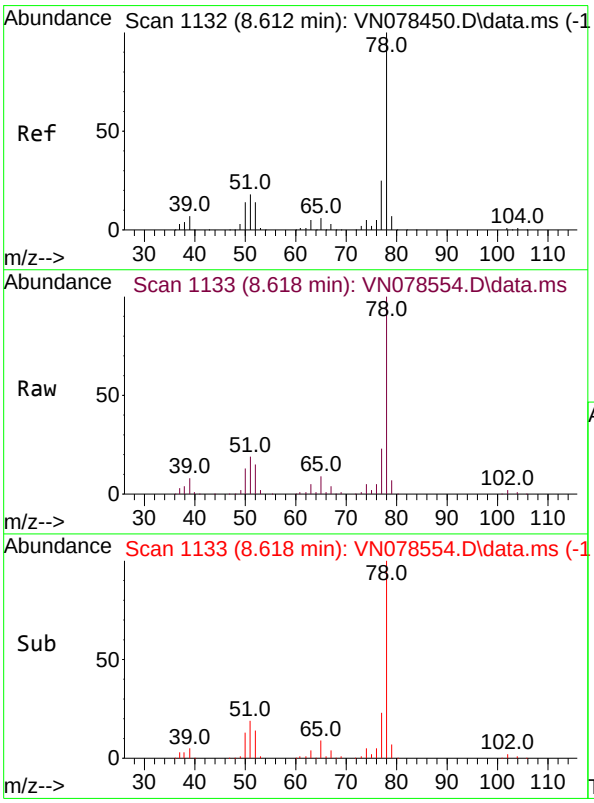
Ion	Ratio	Lower	Upper
83	100		
55	65.5	49.1	73.7
98	45.5	40.6	61.0

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

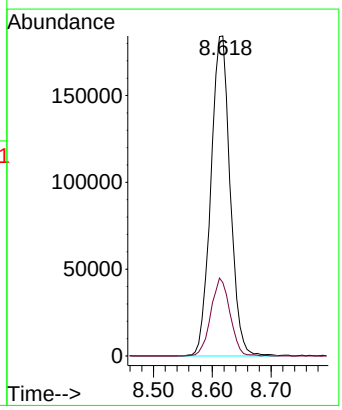


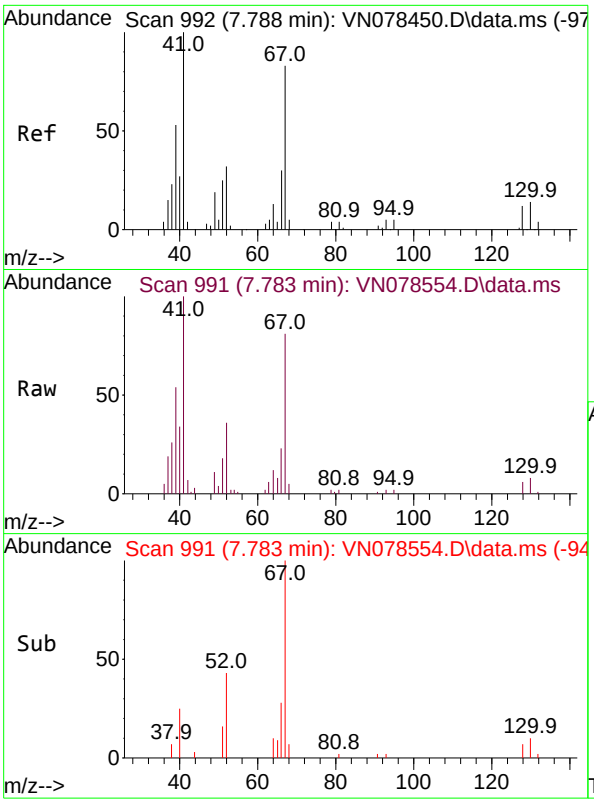


#40
Benzene
Concen: 19.478 ug/l
RT: 8.618 min Scan# 1133
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 78 Resp: 420147

Ion	Ratio	Lower	Upper
78	100		
77	22.9	19.0	28.6

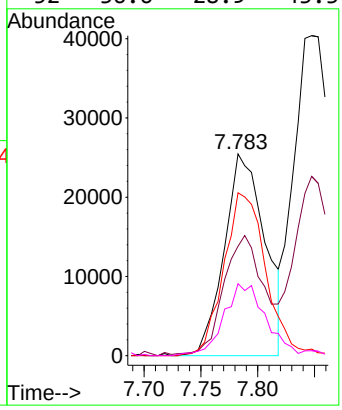




#41
Methacrylonitrile
Concen: 20.478 ug/l
RT: 7.783 min Scan# 9
Delta R.T. -0.005 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 41 Resp: 6336

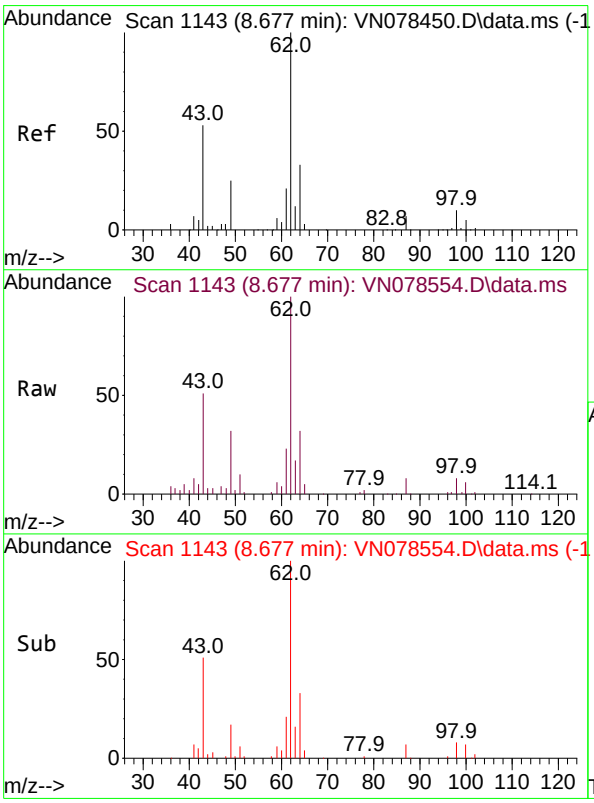
Ion	Ratio	Lower	Upper
41	100		
39	56.5	42.6	64.0
67	83.5	77.5	116.3
52	36.6	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

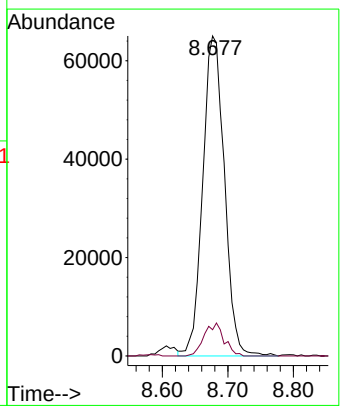
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

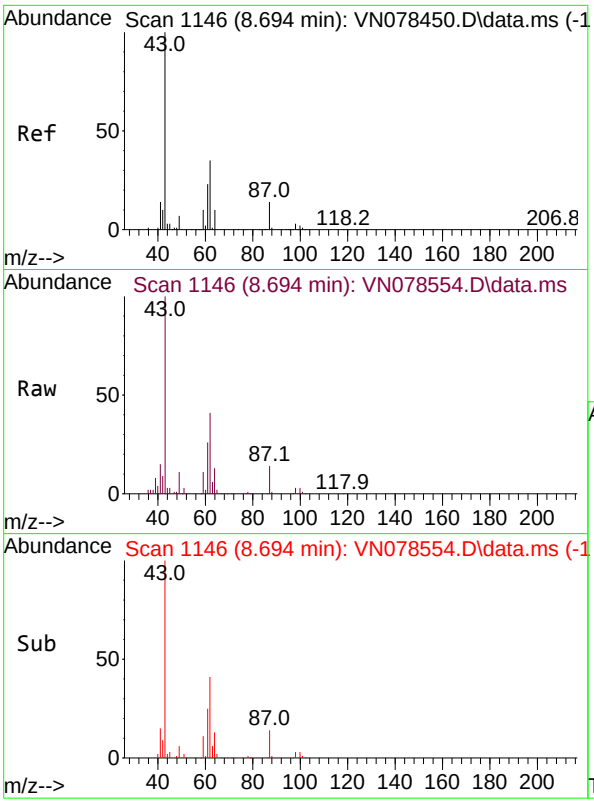


#42
1,2-Dichloroethane
Concen: 20.411 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 62 Resp: 149757

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.8





#43
Isopropyl Acetate
Concen: 20.312 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

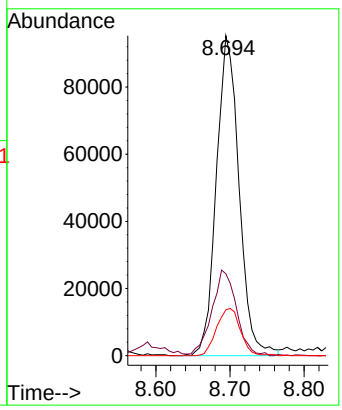
Tgt Ion: 43 Resp: 20297

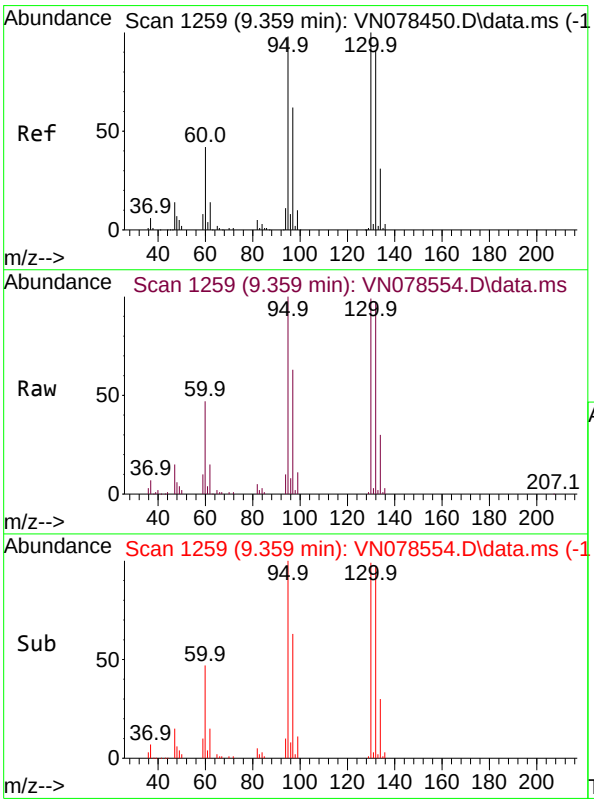
Ion	Ratio	Lower	Upper
43	100		
61	28.9	24.7	37.1
87	15.5	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

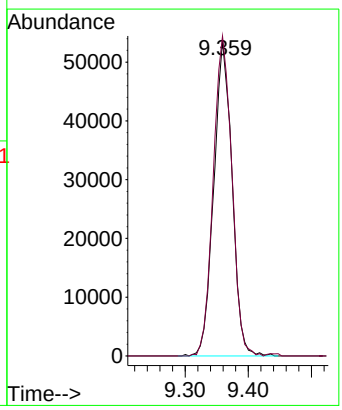


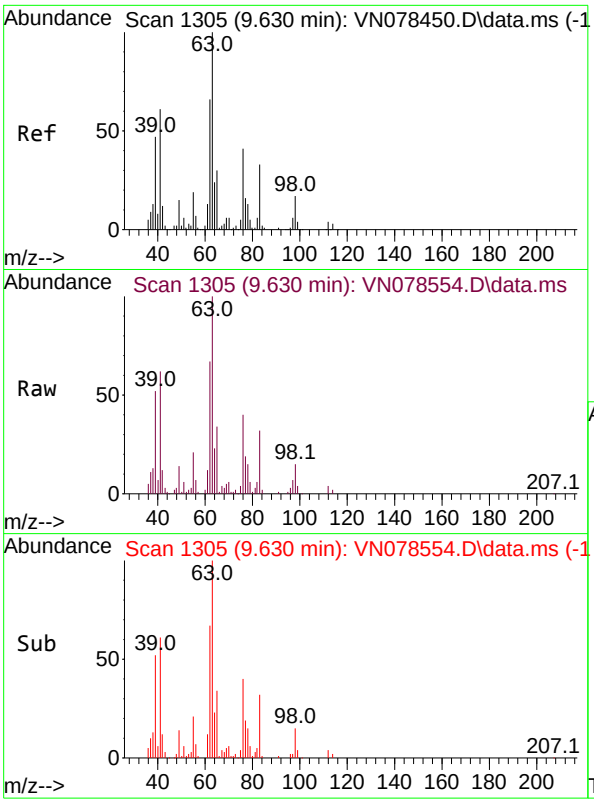


#44
Trichloroethene
Concen: 18.542 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:130 Resp: 107797

Ion	Ratio	Lower	Upper
130	100		
95	101.5	0.0	204.6





#45
1,2-Dichloropropane
Concen: 20.070 ug/l
RT: 9.630 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

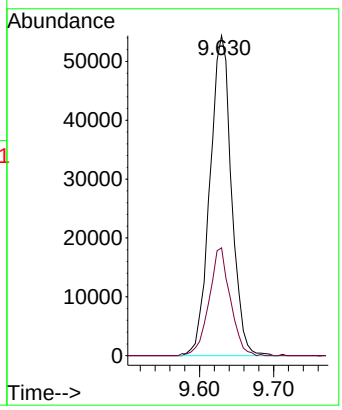
Tgt Ion: 63 Resp: 10964

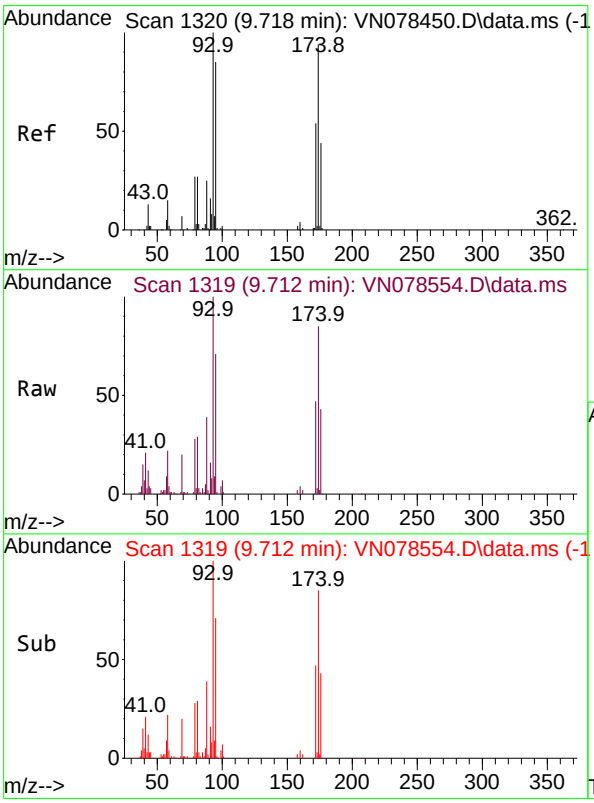
Ion	Ratio	Lower	Upper
63	100		
65	33.7	23.9	35.9

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

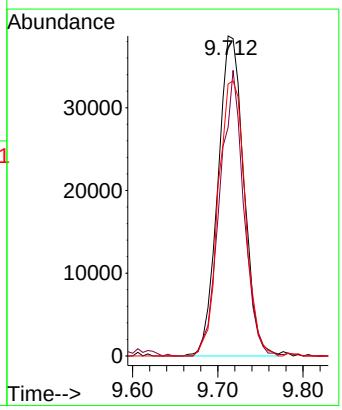


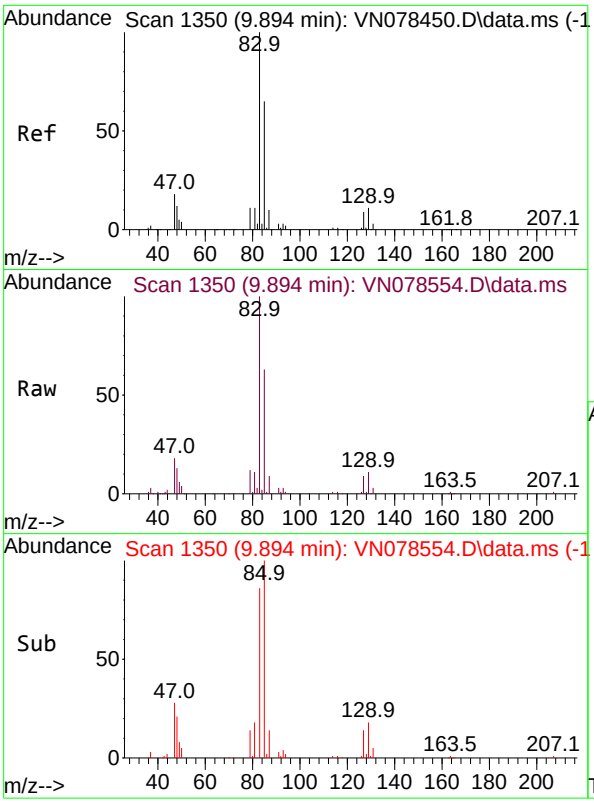


#46
Dibromomethane
Concen: 21.268 ug/l
RT: 9.712 min Scan# 1319
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 93 Resp: 81778

Ion	Ratio	Lower	Upper
93	100		
95	82.1	63.8	95.8
174	88.6	65.6	98.4

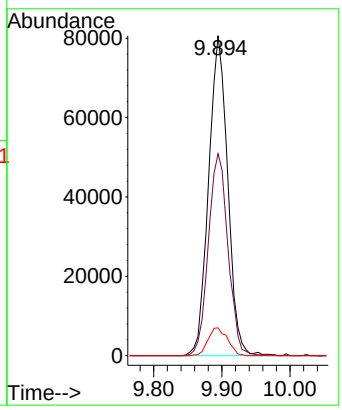




#47
Bromodichloromethane
Concen: 20.398 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 83 Resp: 15722

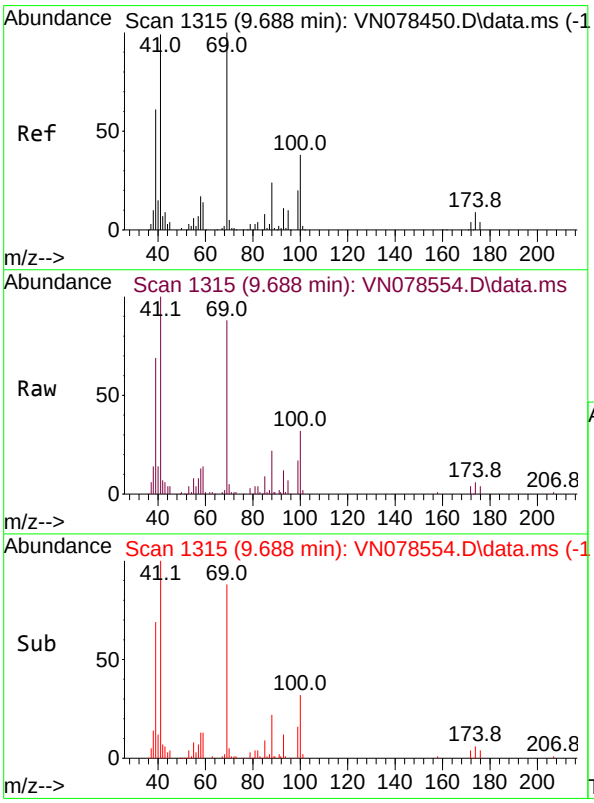
Ion	Ratio	Lower	Upper
83	100		
85	63.1	49.6	74.4
127	8.7	7.0	10.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

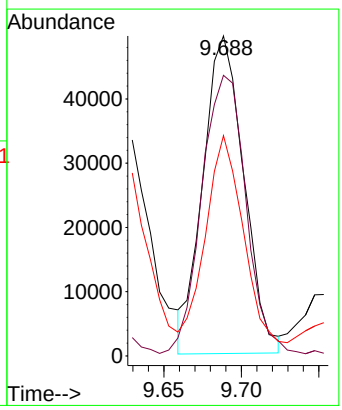
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

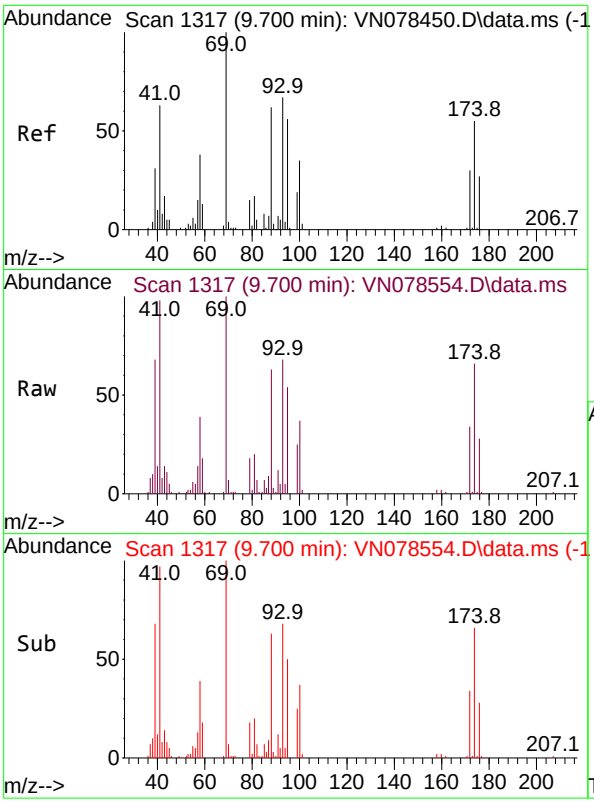


#48
Methyl methacrylate
Concen: 19.607 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 41 Resp: 90769

Ion	Ratio	Lower	Upper
41	100		
69	97.1	90.4	135.6
39	67.0	54.6	81.8





#49
1,4-Dioxane
Concen: 408.988 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

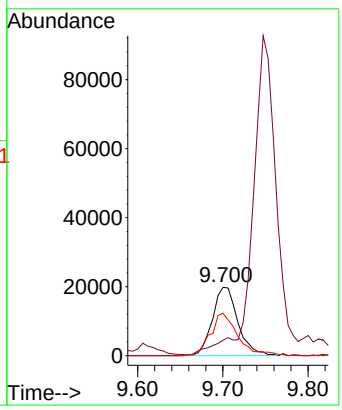
Tgt Ion: 88 Resp: 4129

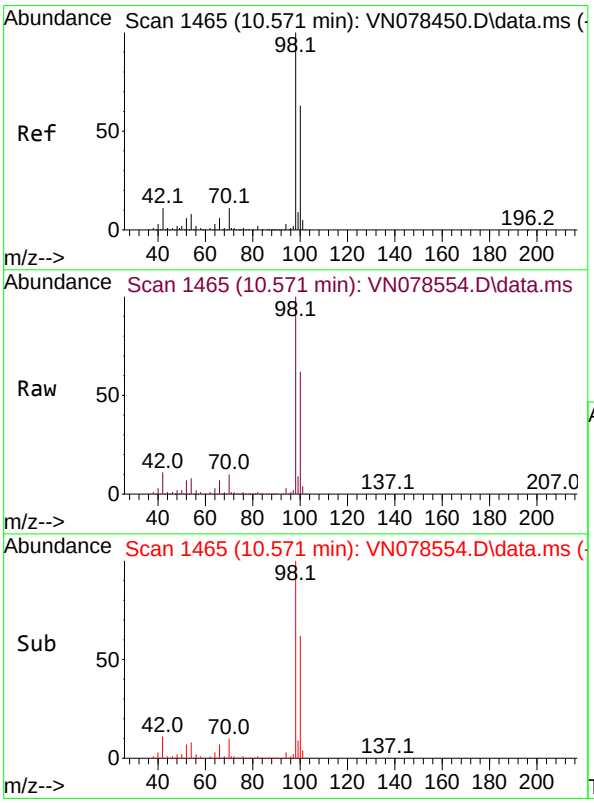
Ion	Ratio	Lower	Upper
88	100		
43	0.0	17.0	25.6
58	65.9	47.0	70.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

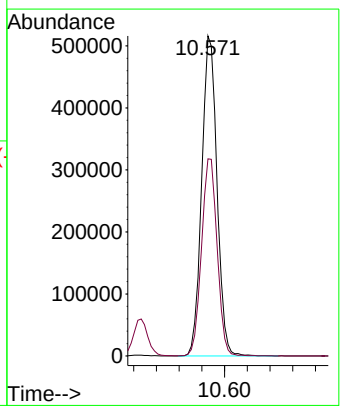


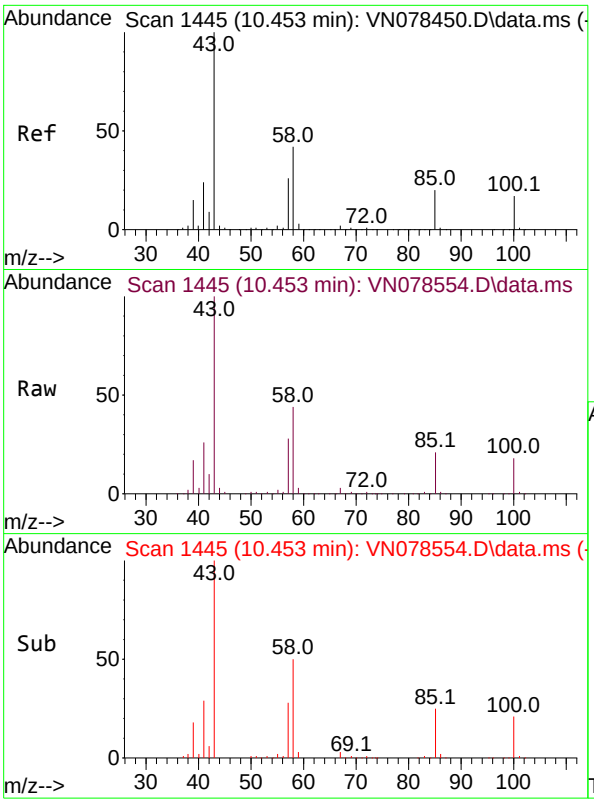


#50
Toluene-d8
Concen: 50.399 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 98 Resp: 960068

Ion	Ratio	Lower	Upper
98	100		
100	63.1	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 103.998 ug/l
RT: 10.453 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

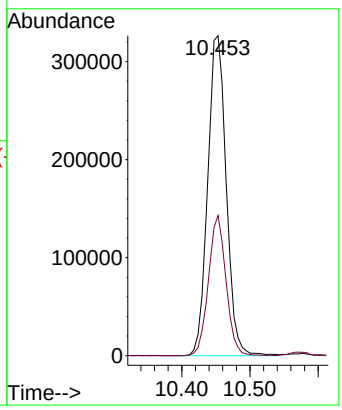
Tgt Ion: 43 Resp: 61814

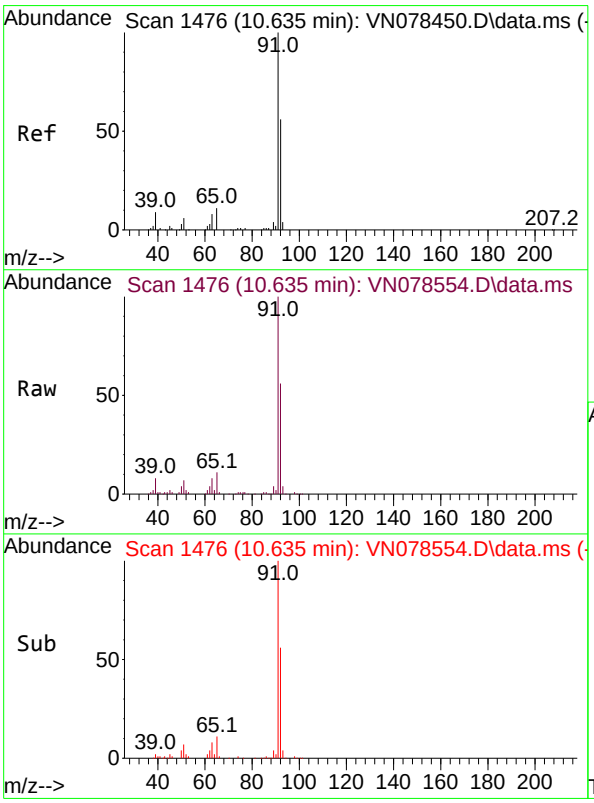
Ion	Ratio	Lower	Upper
43	100		
58	41.5	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

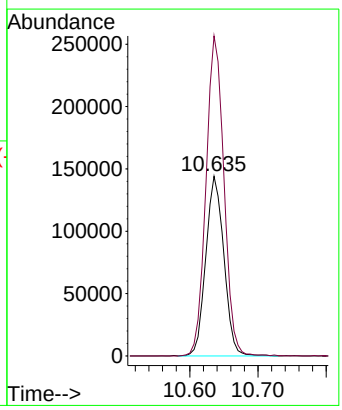


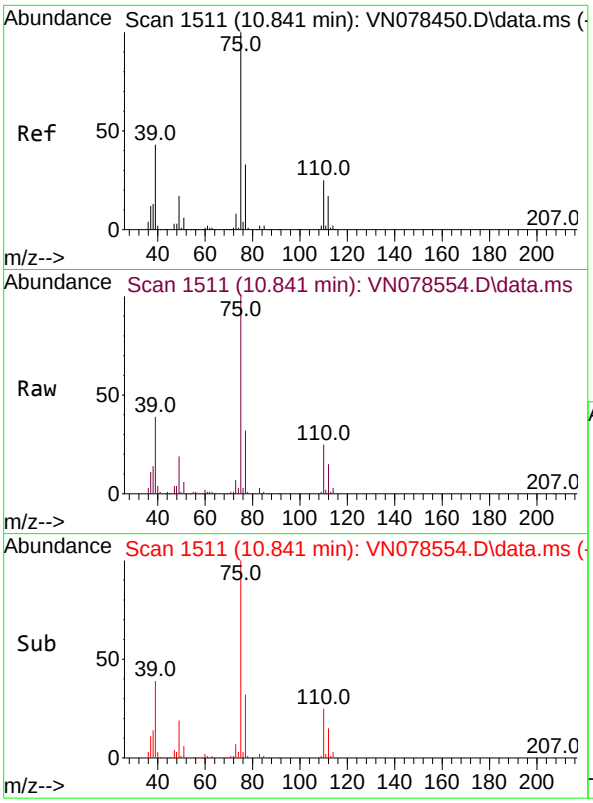


#52
Toluene
Concen: 19.922 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 92 Resp: 266337

Ion	Ratio	Lower	Upper
92	100		
91	176.8	137.4	206.0

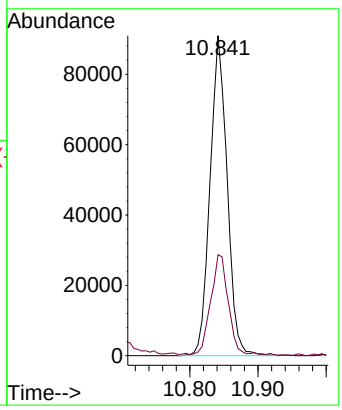




#53
t-1,3-Dichloropropene
Concen: 20.094 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 75 Resp: 15866

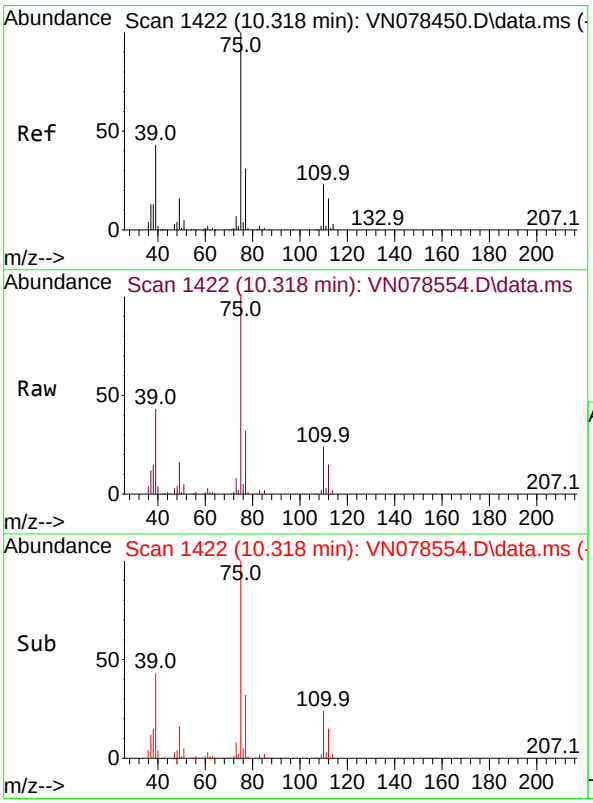
Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

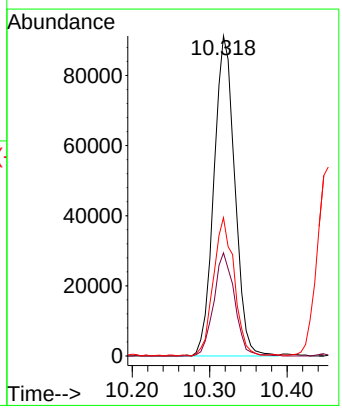
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

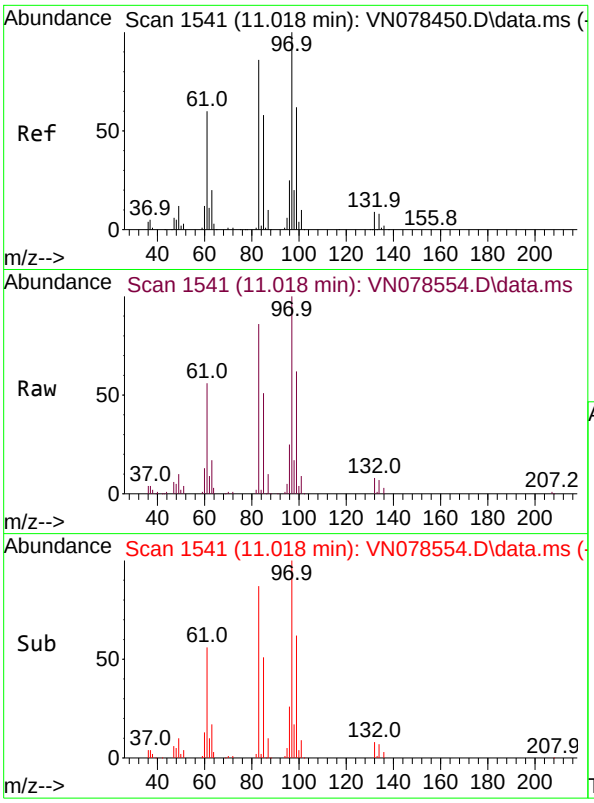


#54
cis-1,3-Dichloropropene
Concen: 20.285 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 75 Resp: 170747

Ion	Ratio	Lower	Upper
75	100		
77	32.2	26.1	39.1
39	43.2	31.6	47.4

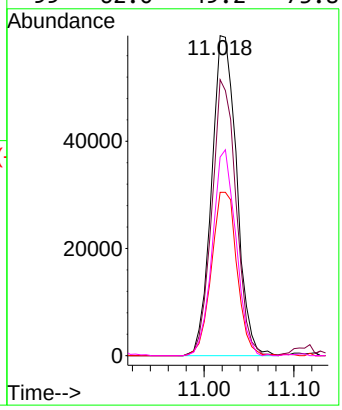




#55
1,1,2-Trichloroethane
Concen: 21.952 ug/l
RT: 11.018 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 97 Resp: 11562

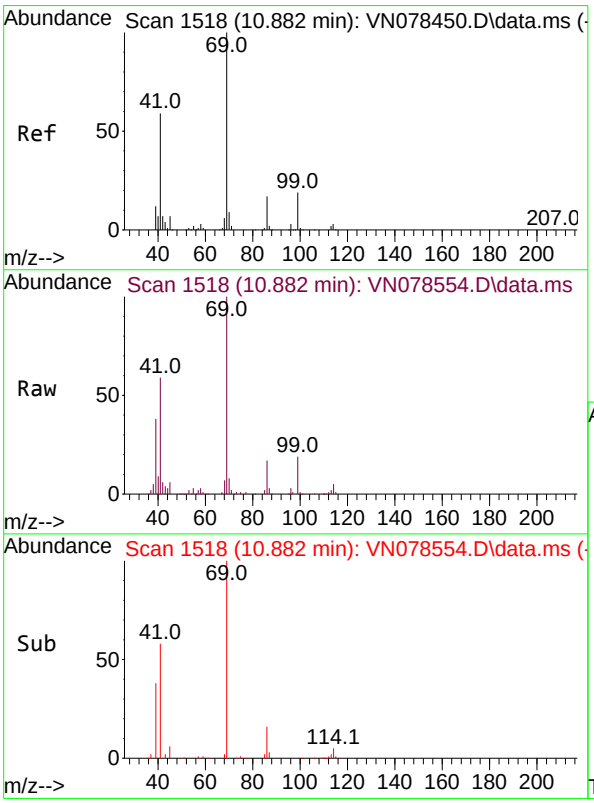
Ion	Ratio	Lower	Upper
97	100		
83	86.3	65.1	97.7
85	51.1	43.4	65.2
99	62.0	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

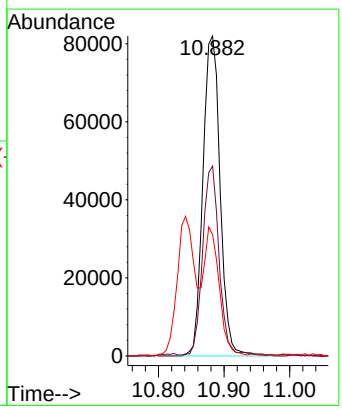
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

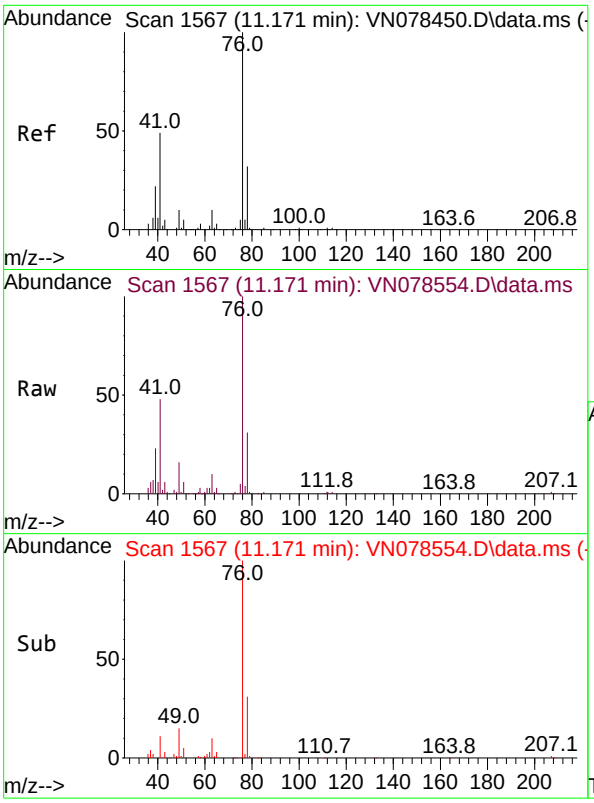


#56
Ethyl methacrylate
Concen: 20.356 ug/l
RT: 10.882 min Scan# 1518
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 69 Resp: 149885

Ion	Ratio	Lower	Upper
69	100		
41	56.4	39.6	59.4
39	37.4	28.6	43.0





#57
1,3-Dichloropropane
Concen: 20.150 ug/l
RT: 11.171 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

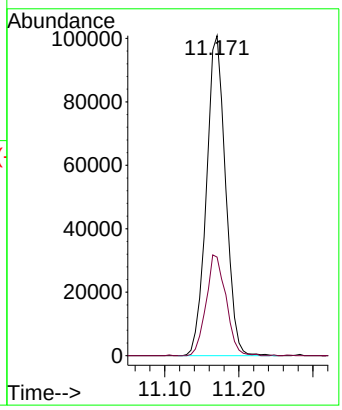
Tgt Ion: 76 Resp: 18045

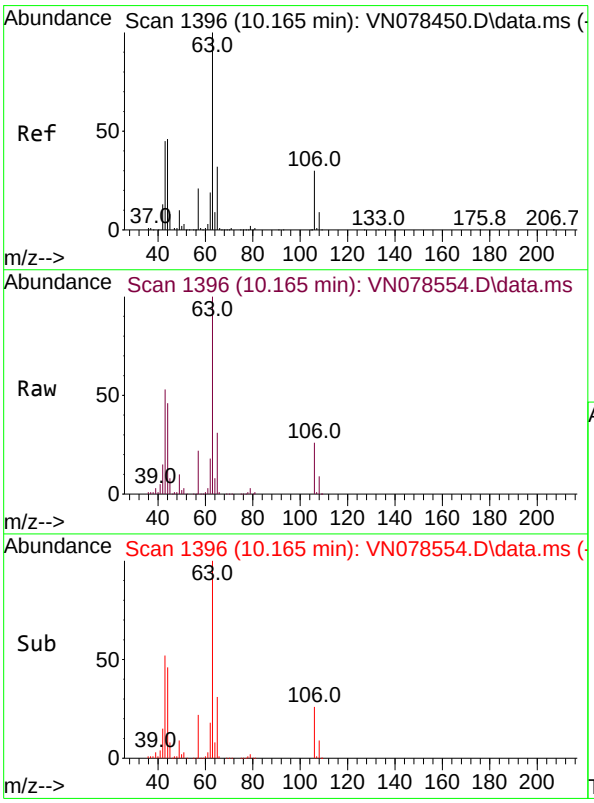
Ion	Ratio	Lower	Upper
76	100		
78	32.8	26.1	39.1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

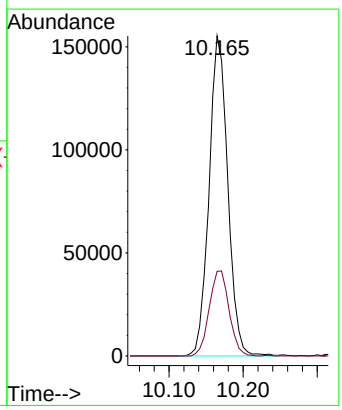


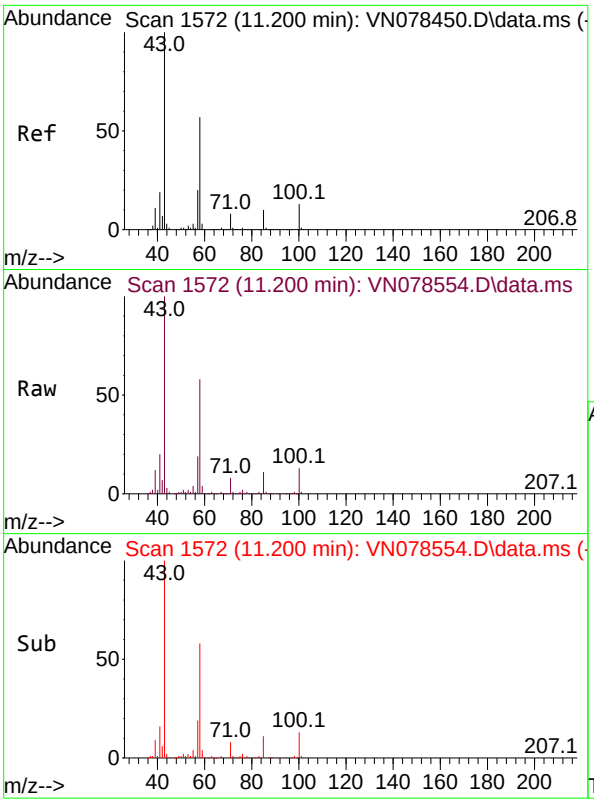


#58
2-Chloroethyl Vinyl ether
Concen: 103.761 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 63 Resp: 272267

Ion	Ratio	Lower	Upper
63	100		
106	28.1	26.2	39.4





#59
2-Hexanone
Concen: 101.128 ug/l
RT: 11.200 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

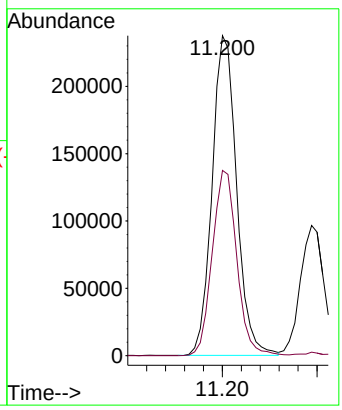
Tgt Ion: 43 Resp: 42719

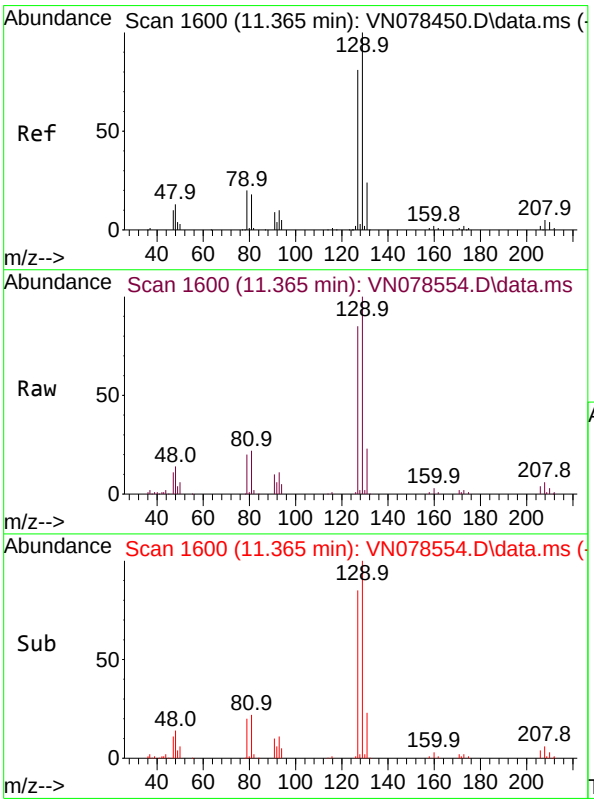
Ion	Ratio	Lower	Upper
43	100		
58	58.1	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

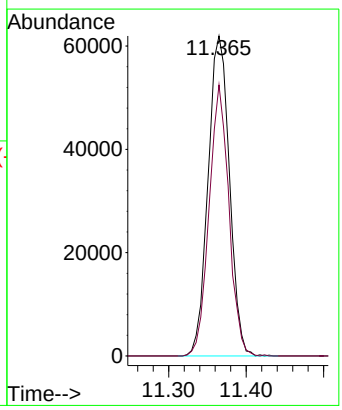


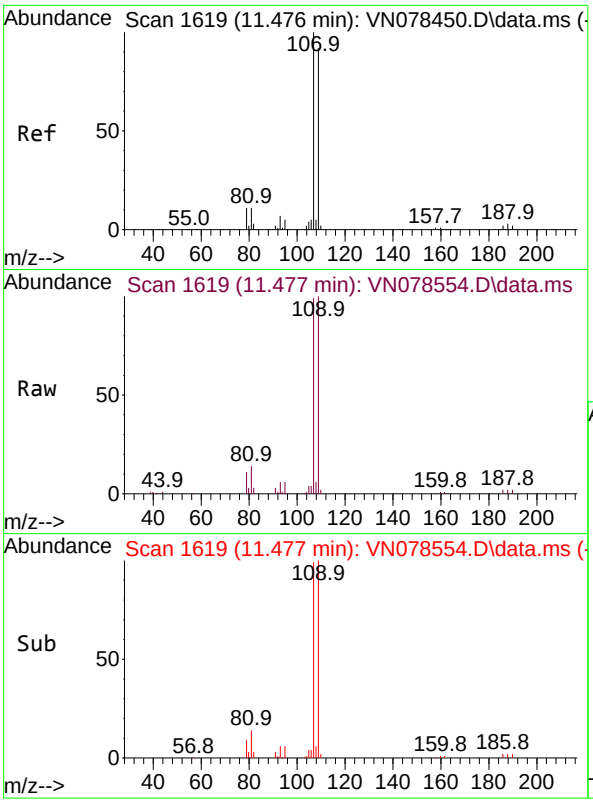


#60
Dibromochloromethane
Concen: 20.422 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:129 Resp: 118751

Ion	Ratio	Lower	Upper
129	100		
127	78.4	38.6	116.0





#61
1,2-Dibromoethane
Concen: 20.240 ug/l
RT: 11.477 min Scan# 1
Delta R.T. 0.001 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

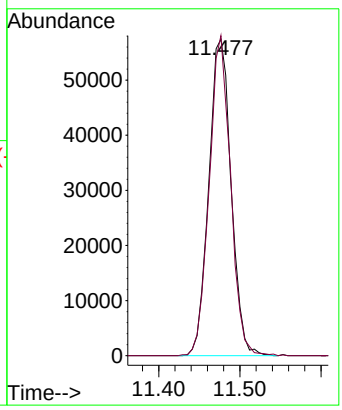
Tgt Ion:107 Resp: 10982

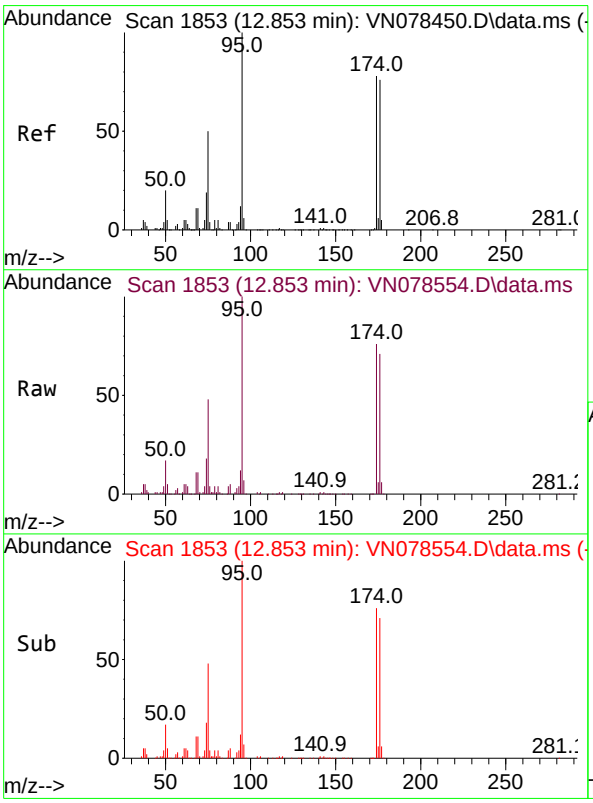
Ion	Ratio	Lower	Upper
107	100		
109	96.2	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

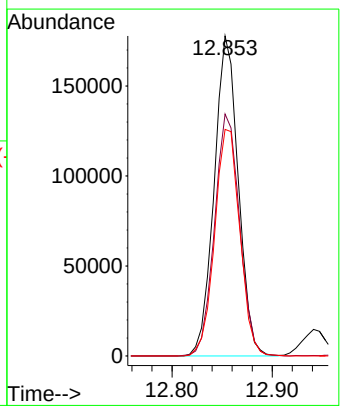


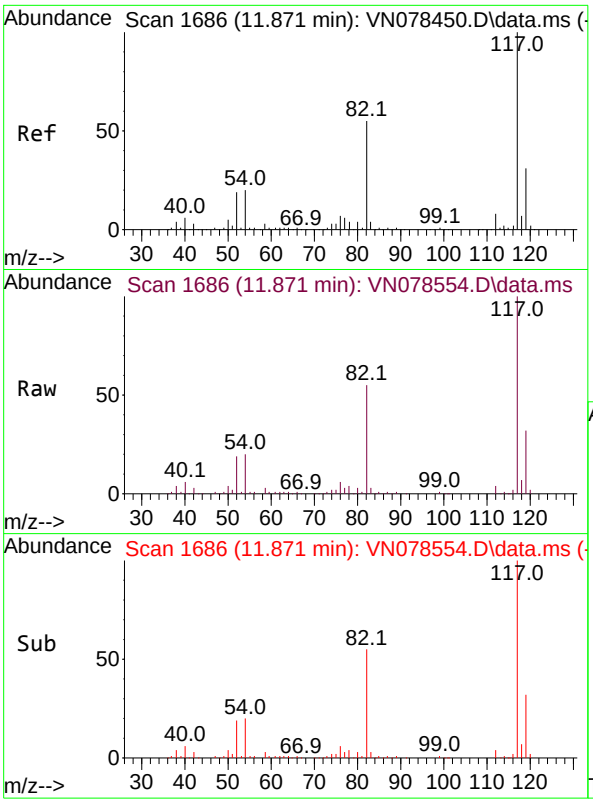


#62
4-Bromofluorobenzene
Concen: 50.650 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 95 Resp: 297190

Ion	Ratio	Lower	Upper
95	100		
174	78.4	0.0	143.8
176	73.9	0.0	135.8

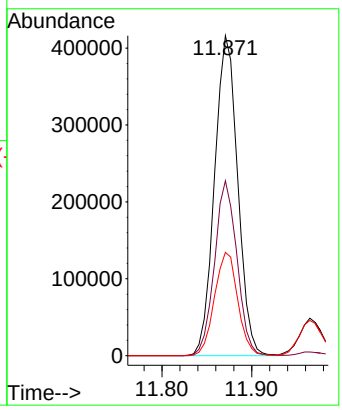




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:117 Resp: 74546

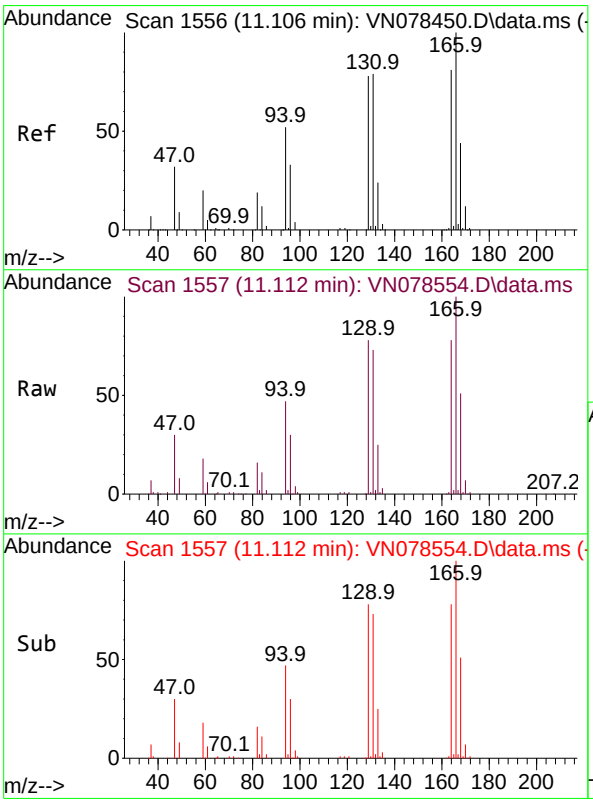
Ion	Ratio	Lower	Upper
117	100		
82	54.6	44.0	66.0
119	32.3	25.6	38.4



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

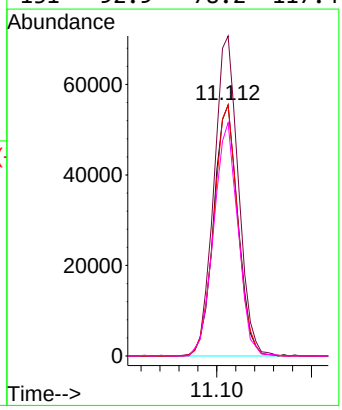
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

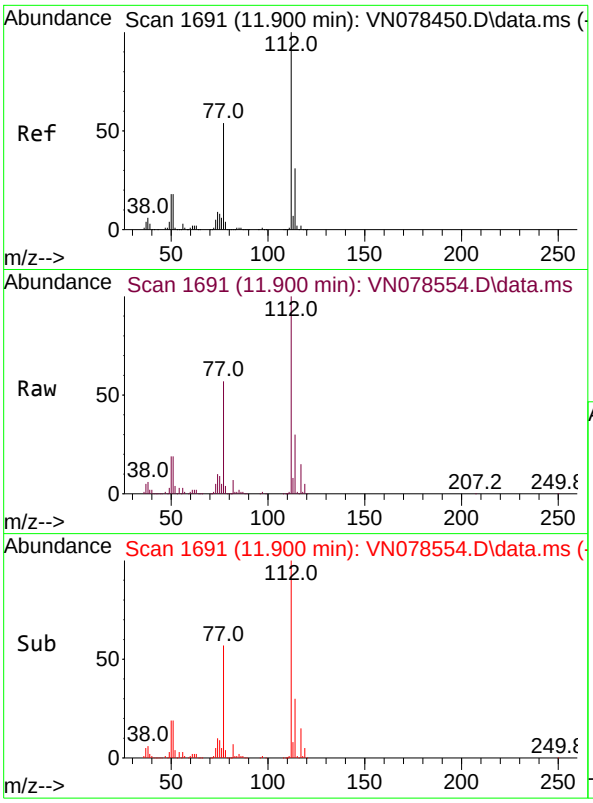


#64
Tetrachloroethene
Concen: 17.605 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:164 Resp: 98668

Ion	Ratio	Lower	Upper
164	100		
166	127.5	101.4	152.0
129	100.0	82.4	123.6
131	92.9	78.2	117.4





#65
Chlorobenzene
Concen: 19.344 ug/l
RT: 11.900 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

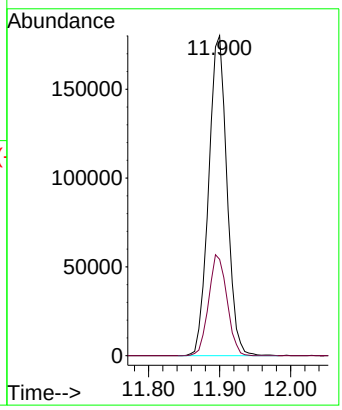
Tgt Ion:112 Resp: 32232

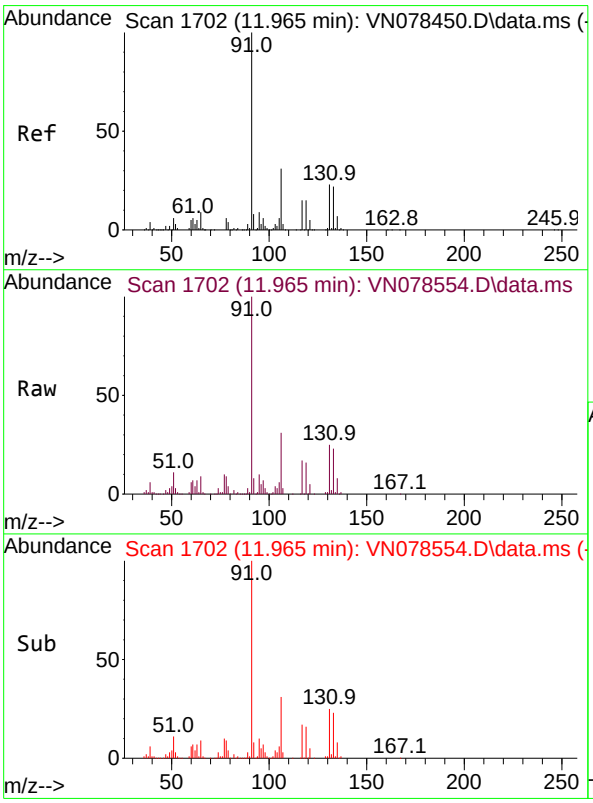
Ion	Ratio	Lower	Upper
112	100		
114	30.1	25.0	37.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

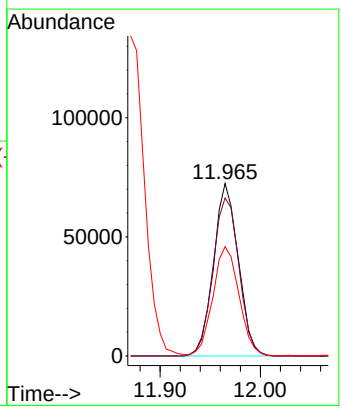


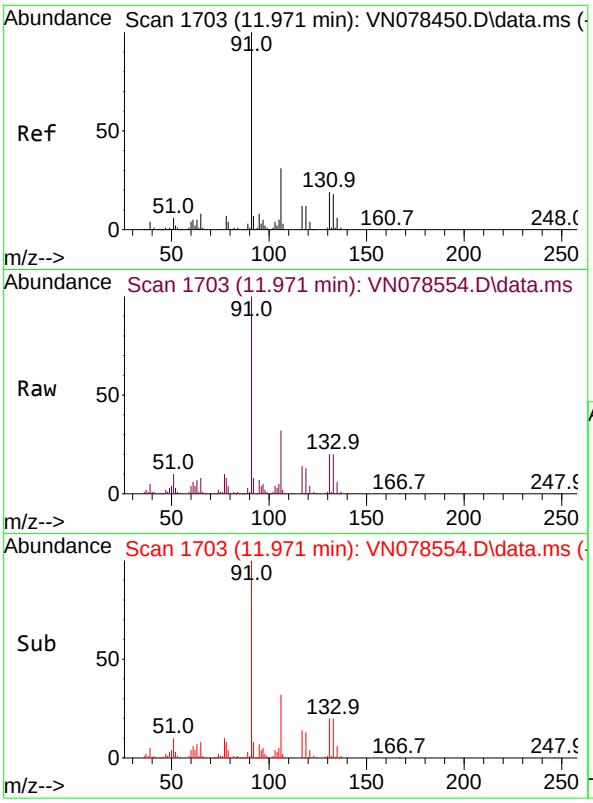


#66
1,1,1,2-Tetrachloroethane
Concen: 19.272 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:131 Resp: 123538

Ion	Ratio	Lower	Upper
131	100		
133	97.4	46.4	139.1
119	67.5	34.1	102.2





#67
Ethyl Benzene
Concen: 18.710 ug/l
RT: 11.971 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

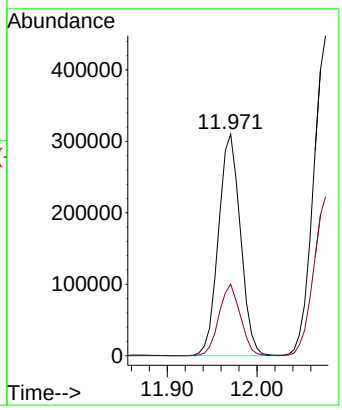
Tgt Ion: 91 Resp: 52697

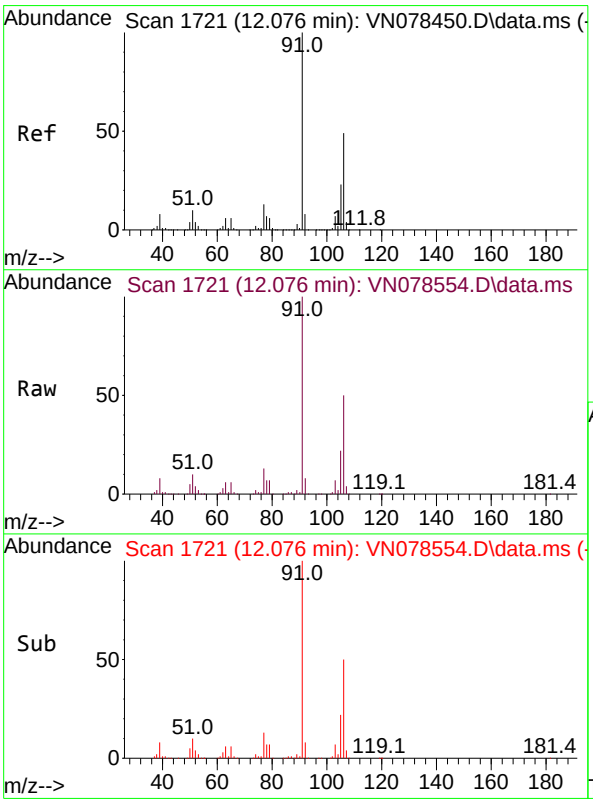
Ion	Ratio	Lower	Upper
91	100		
106	32.3	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

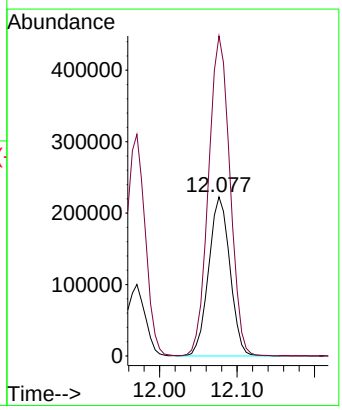


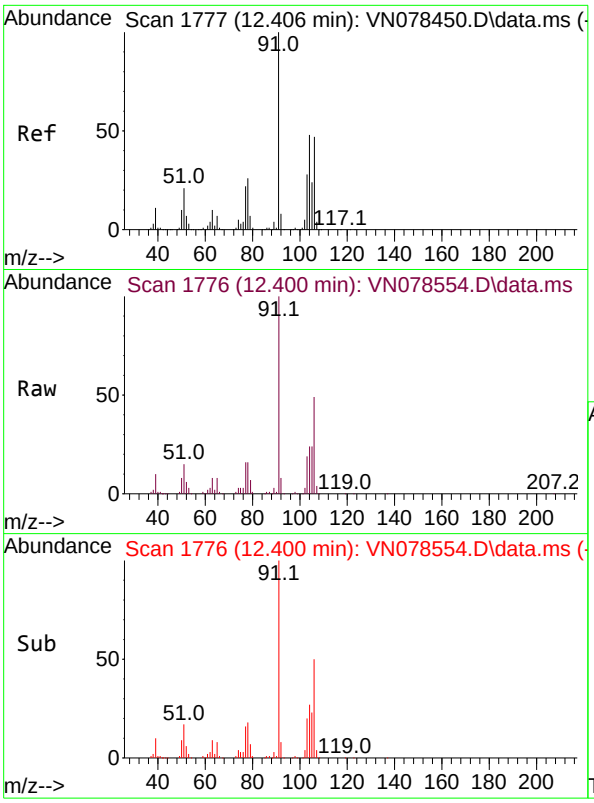


#68
m/p-Xylenes
Concen: 40.796 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:106 Resp: 424839

Ion	Ratio	Lower	Upper
106	100		
91	202.9	159.6	239.4





#69
o-Xylene
Concen: 17.727 ug/l
RT: 12.400 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

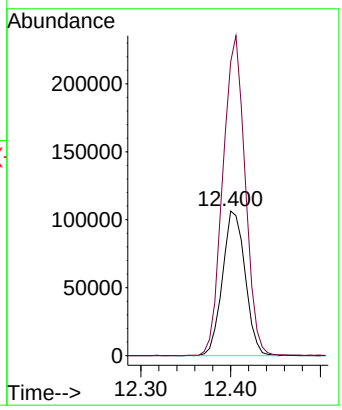
Tgt Ion:106 Resp: 18646

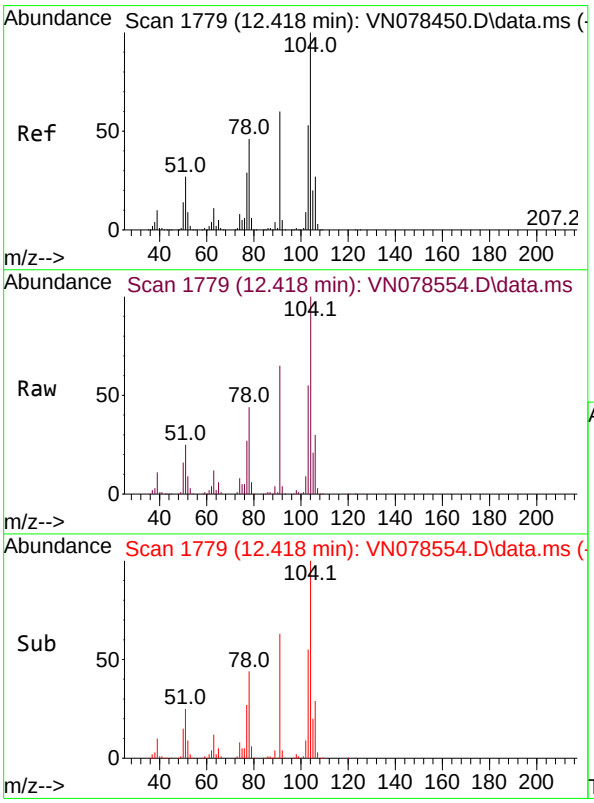
Ion	Ratio	Lower	Upper
106	100		
91	218.4	105.2	315.5

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

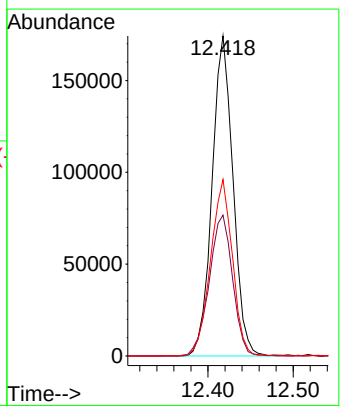


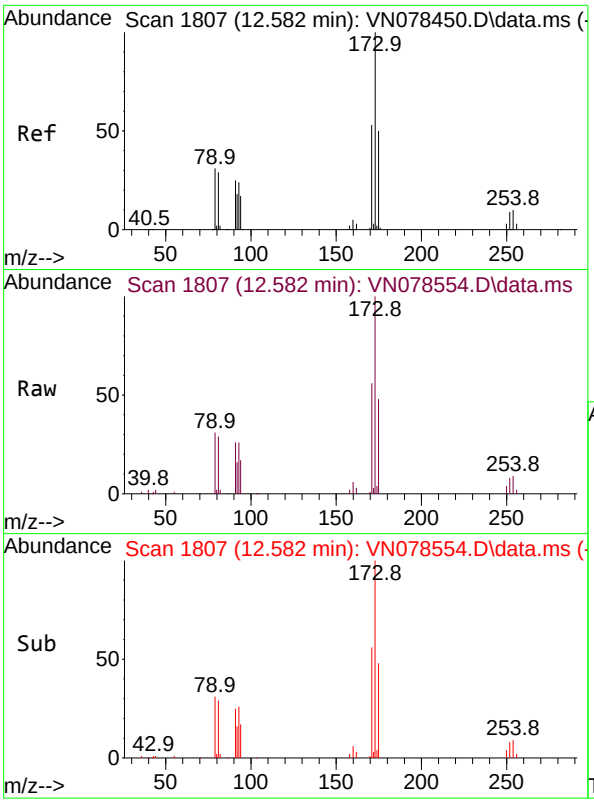


#70
Styrene
Concen: 18.099 ug/l
RT: 12.418 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:104 Resp: 297827

Ion	Ratio	Lower	Upper
104	100		
78	49.1	39.5	59.3
103	57.6	43.2	64.8





#71
Bromoform
Concen: 20.307 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

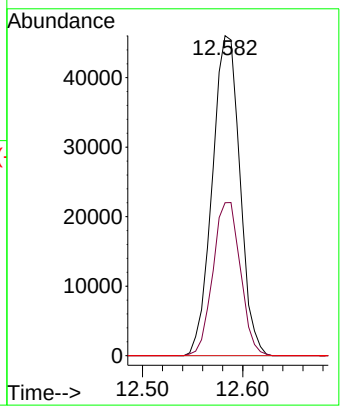
Tgt Ion:173 Resp: 8815

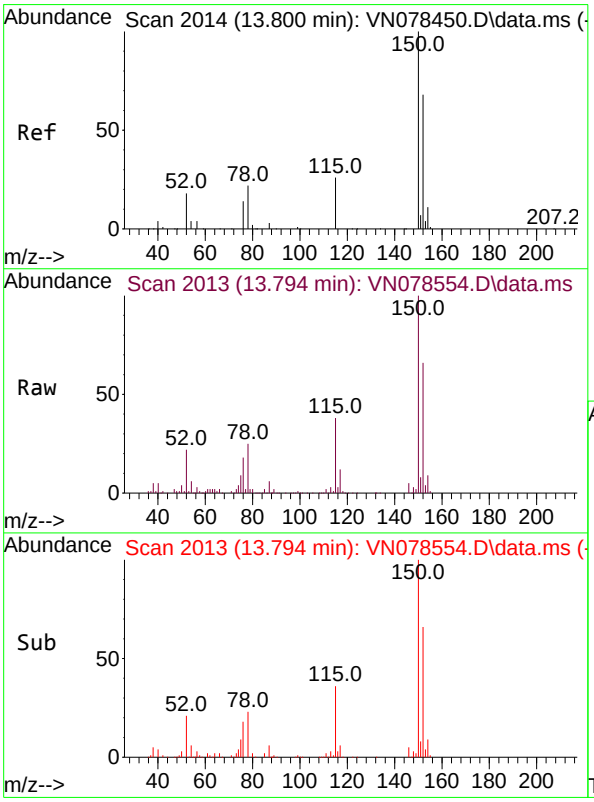
Ion	Ratio	Lower	Upper
173	100		
175	47.6	24.3	73.0
254	0.0	0.0	0.0

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

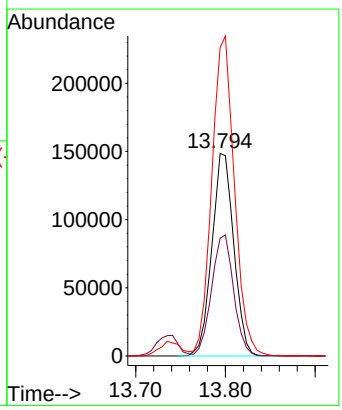


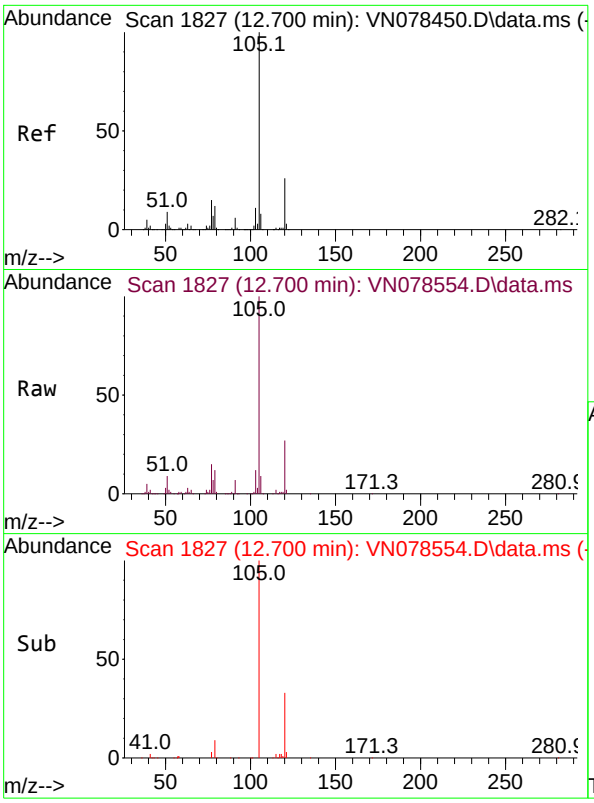


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:152 Resp: 251794

Ion	Ratio	Lower	Upper
152	100		
115	60.1	32.3	96.8
150	163.4	0.0	355.8

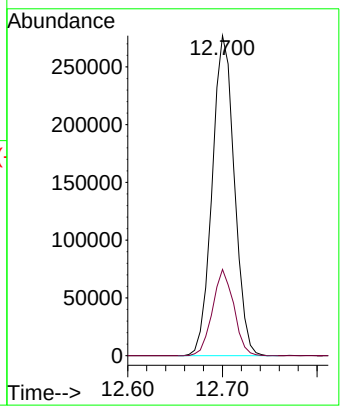




#73
Isopropylbenzene
Concen: 19.031 ug/l
RT: 12.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:105 Resp: 45026

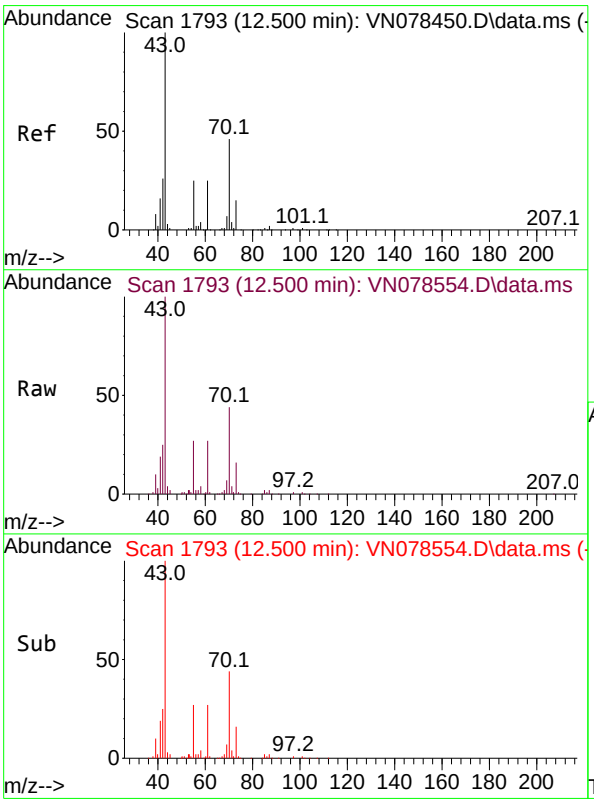
Ion	Ratio	Lower	Upper
105	100		
120	25.9	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

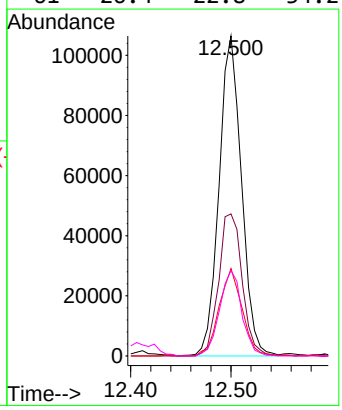
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

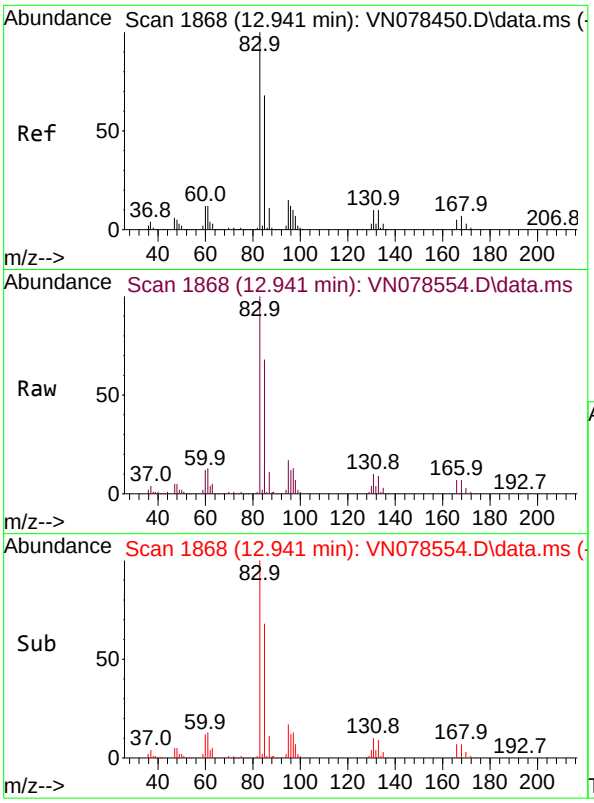


#74
N-amyl acetate
Concen: 20.306 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 43 Resp: 165565

Ion	Ratio	Lower	Upper
43	100		
70	46.7	43.4	65.2
55	28.0	21.4	32.0
61	26.4	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 21.656 ug/l
RT: 12.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

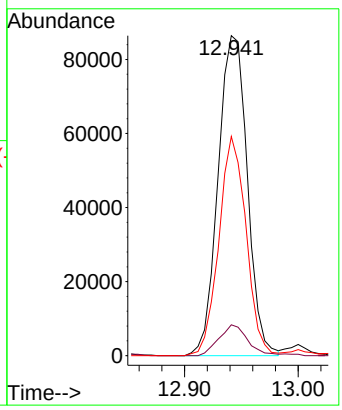
Tgt Ion: 83 Resp: 15471

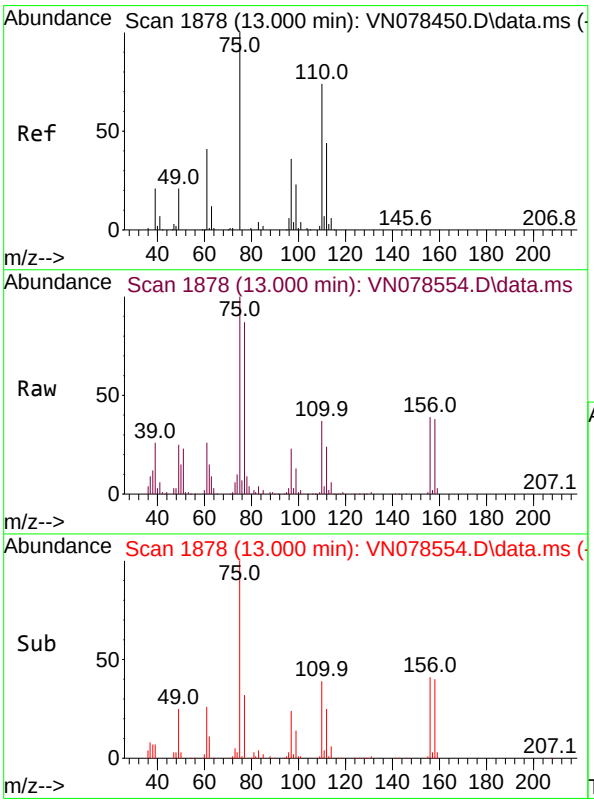
Ion	Ratio	Lower	Upper
83	100		
131	9.7	5.0	15.0
85	63.7	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

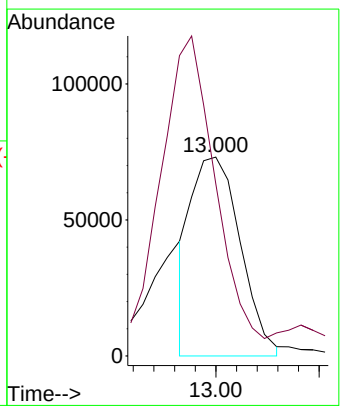


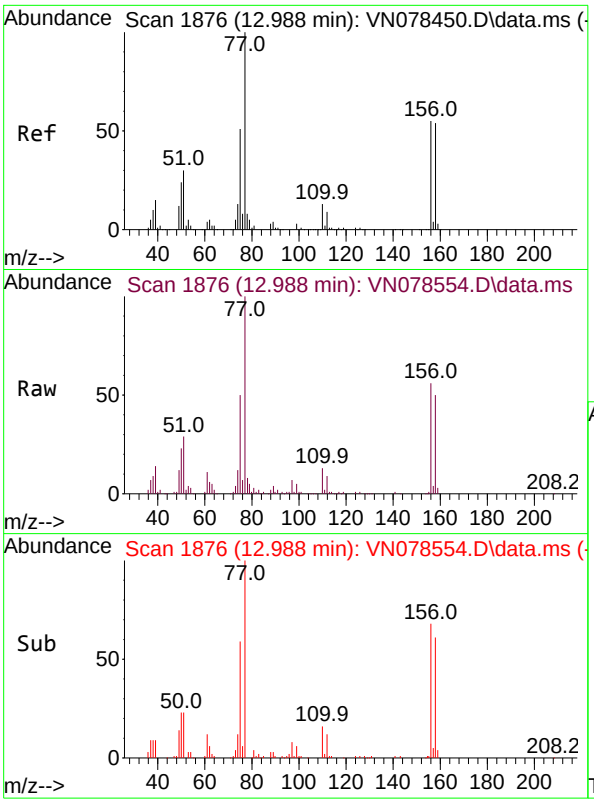


#76
1,2,3-Trichloropropane
Concen: 19.884 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 75 Resp: 121016

Ion	Ratio	Lower	Upper
75	100		
77	184.7	84.5	253.5

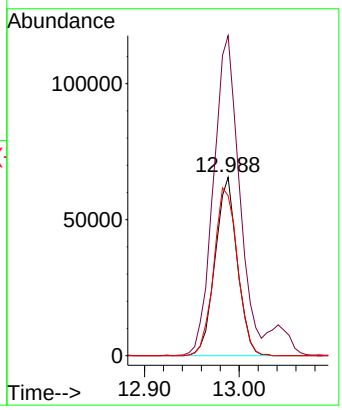




#77
Bromobenzene
Concen: 19.792 ug/l
RT: 12.988 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:156 Resp: 10663

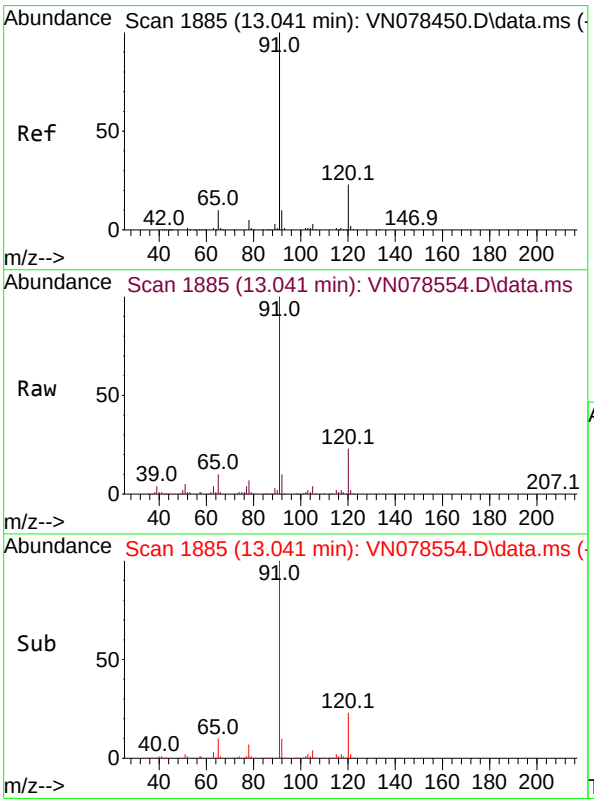
Ion	Ratio	Lower	Upper
156	100		
77	209.6	107.7	323.3
158	100.4	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

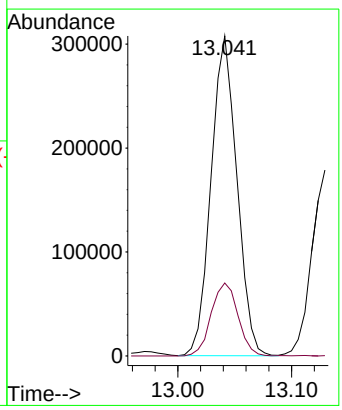
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

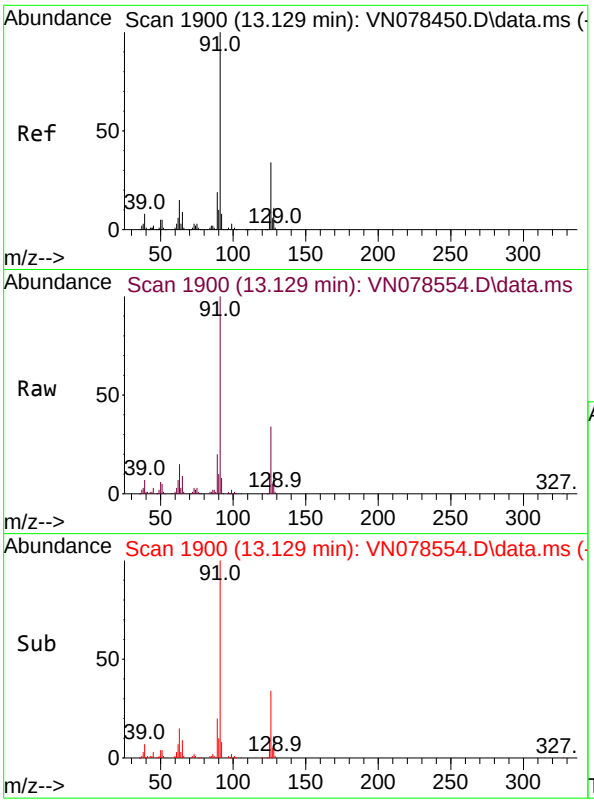


#78
n-propylbenzene
Concen: 19.203 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 91 Resp: 485899

Ion	Ratio	Lower	Upper
91	100		
120	23.7	11.5	34.4

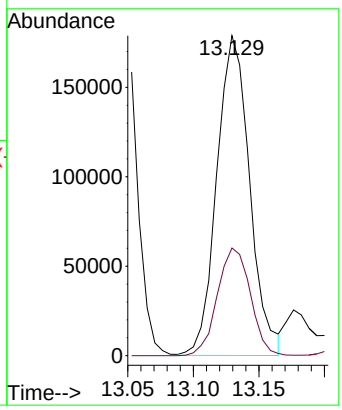




#79
2-Chlorotoluene
Concen: 18.789 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 91 Resp: 31139

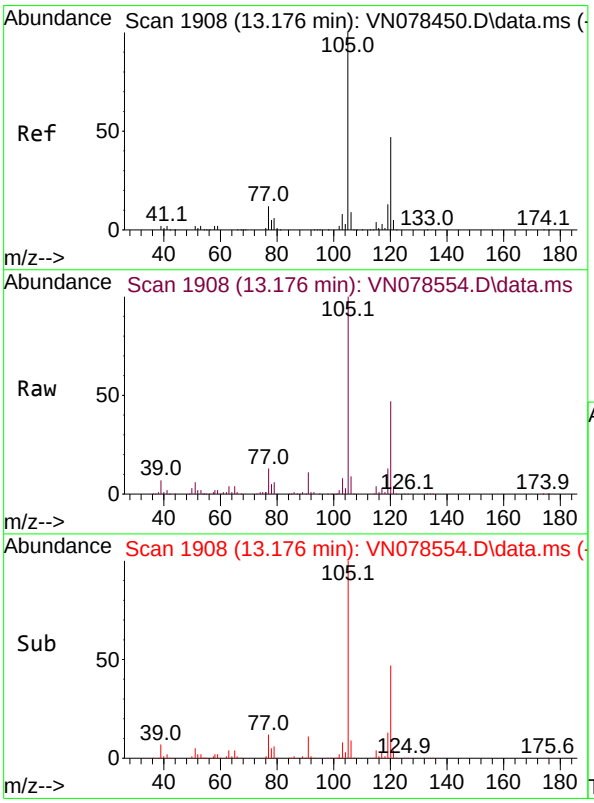
Ion	Ratio	Lower	Upper
91	100		
126	33.8	16.3	48.8



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

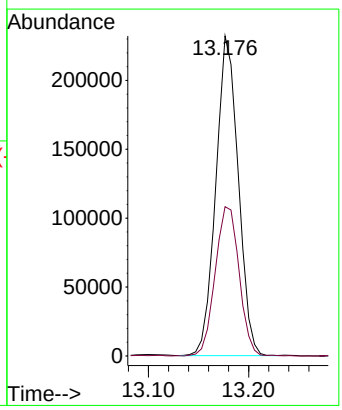
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

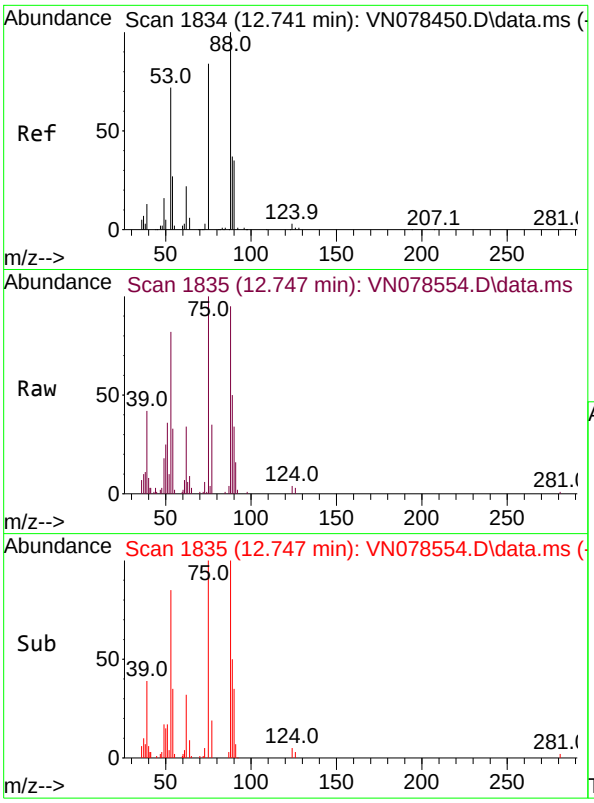


#80
1,3,5-Trimethylbenzene
Concen: 19.245 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:105 Resp: 359774

Ion	Ratio	Lower	Upper
105	100		
120	49.9	24.1	72.3





#81
trans-1,4-Dichloro-2-butene
Concen: 17.906 ug/l
RT: 12.747 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

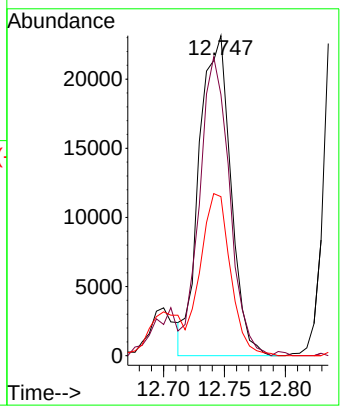
Tgt Ion: 75 Resp: 4147

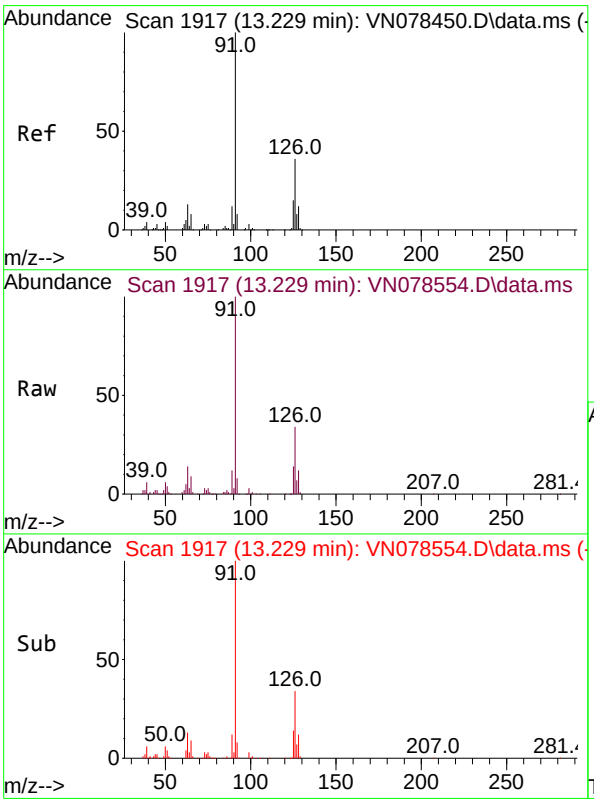
Ion	Ratio	Lower	Upper
75	100		
53	100.0	67.4	101.2
89	48.1	38.8	58.2

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

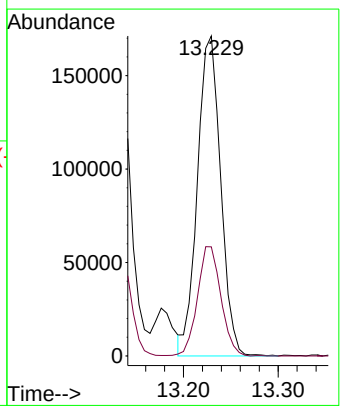


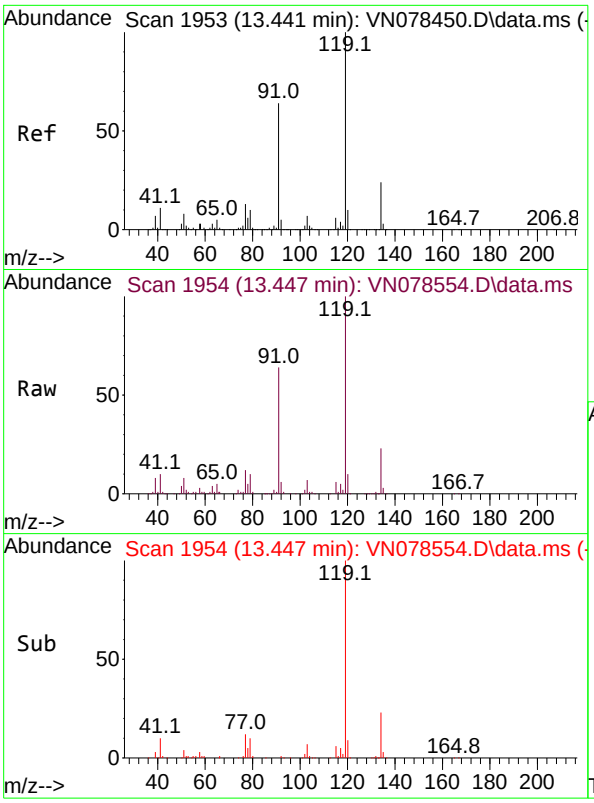


#82
4-Chlorotoluene
Concen: 18.899 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 91 Resp: 292202

Ion	Ratio	Lower	Upper
91	100		
126	34.5	16.7	50.0

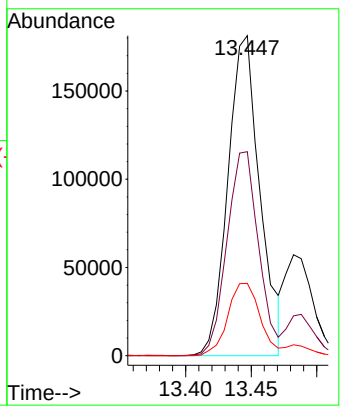




#83
tert-Butylbenzene
Concen: 19.433 ug/l
RT: 13.447 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:119 Resp: 30843

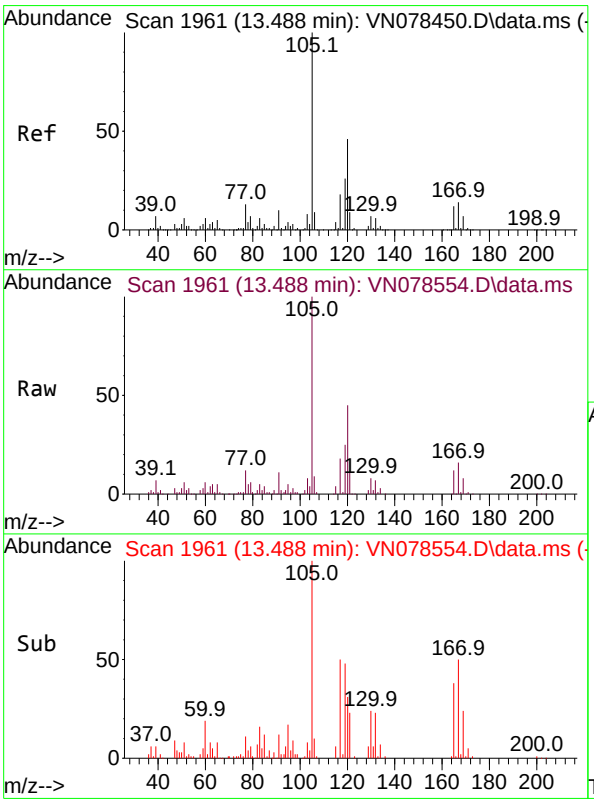
Ion	Ratio	Lower	Upper
119	100		
91	63.1	33.9	101.7
134	23.3	13.2	39.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

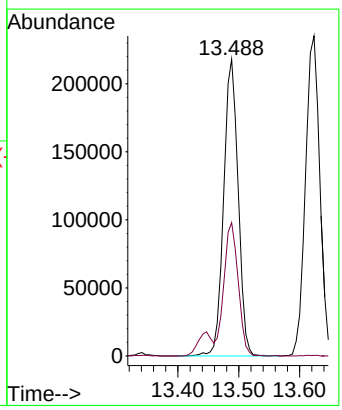
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

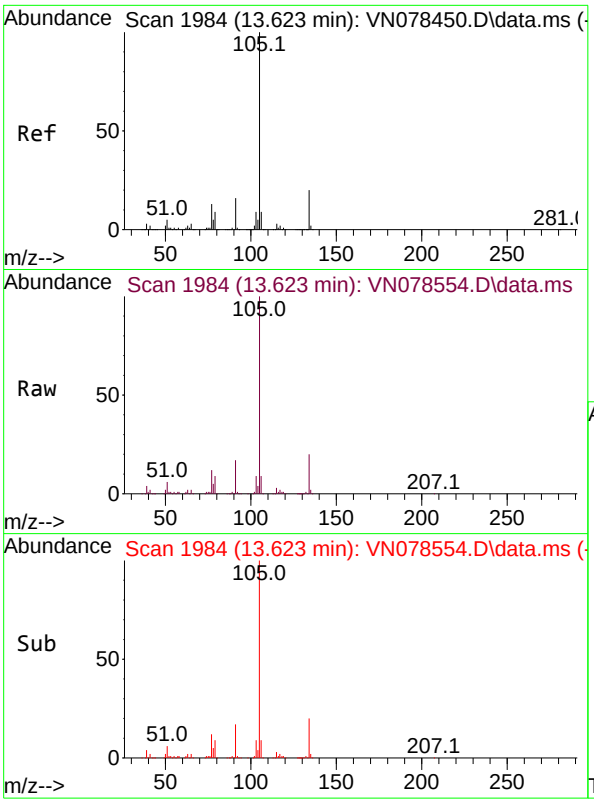


#84
1,2,4-Trimethylbenzene
Concen: 19.836 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:105 Resp: 360176

Ion	Ratio	Lower	Upper
105	100		
120	44.5	22.0	66.0





#85
sec-Butylbenzene
Concen: 19.194 ug/l
RT: 13.623 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

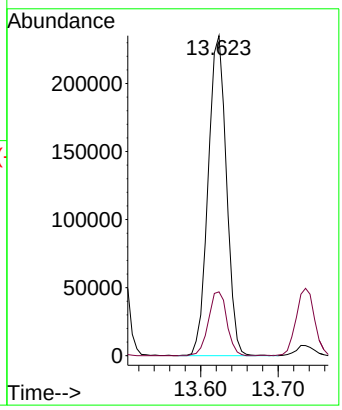
Tgt Ion:105 Resp: 38504

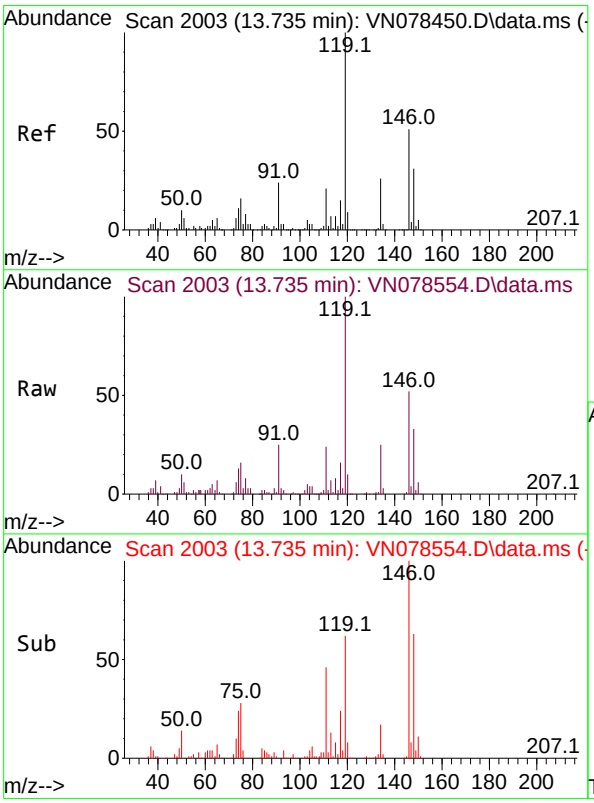
Ion	Ratio	Lower	Upper
105	100		
134	20.1	9.8	29.3

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

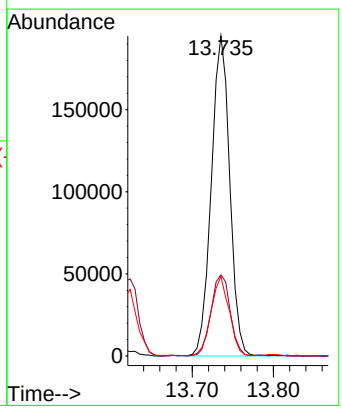


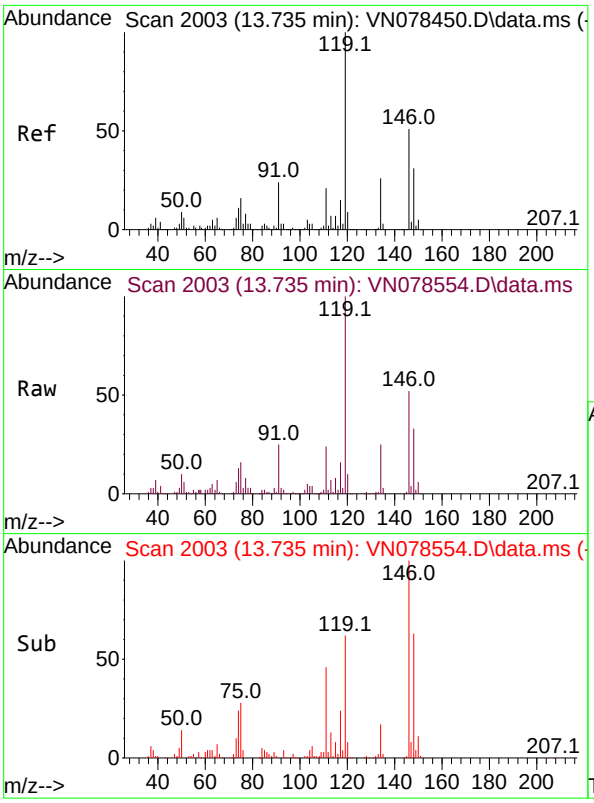


#86
p-Isopropyltoluene
Concen: 19.081 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:119 Resp: 307374

Ion	Ratio	Lower	Upper
119	100		
134	26.5	12.6	37.8
91	24.3	12.4	37.2

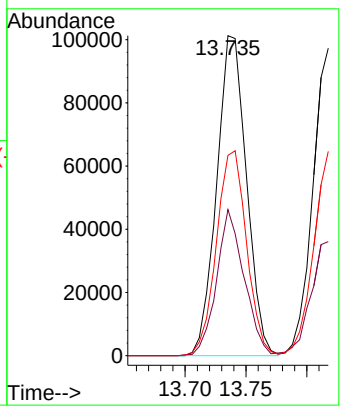




#87
1,3-Dichlorobenzene
Concen: 19.001 ug/l
RT: 13.735 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:146 Resp: 17258

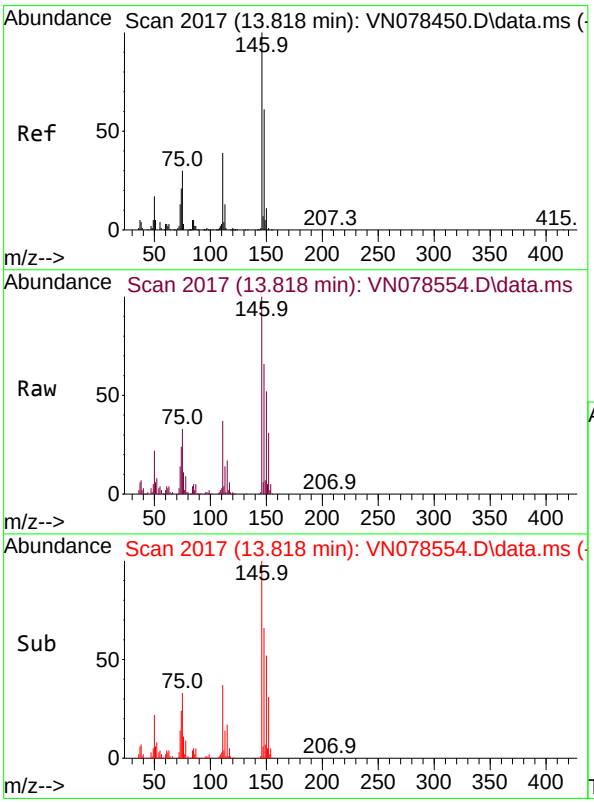
Ion	Ratio	Lower	Upper
146	100		
111	42.2	22.1	66.3
148	64.8	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

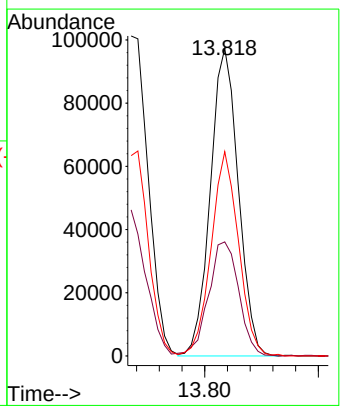
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

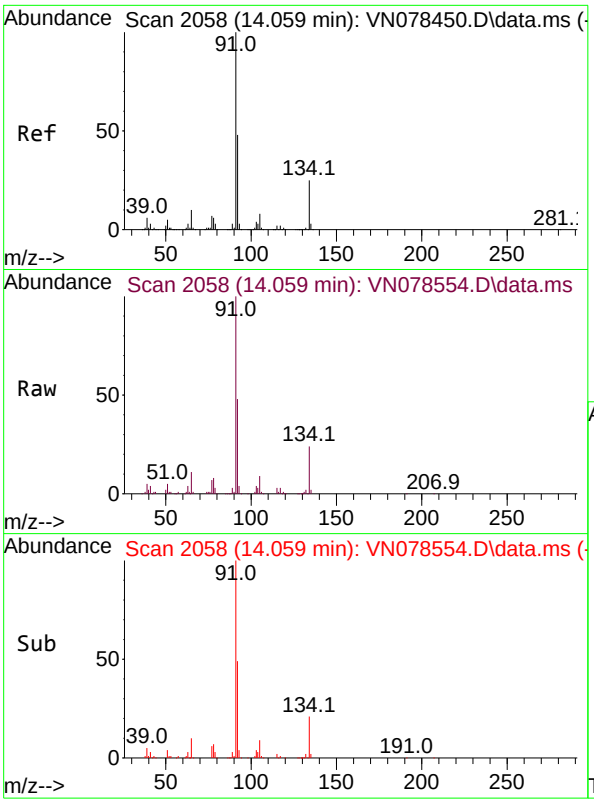


#88
1,4-Dichlorobenzene
Concen: 18.202 ug/l
RT: 13.818 min Scan# 2017
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:146 Resp: 166525

Ion	Ratio	Lower	Upper
146	100		
111	40.0	20.6	61.8
148	65.1	31.6	94.8





#89
n-Butylbenzene
Concen: 19.203 ug/l
RT: 14.059 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

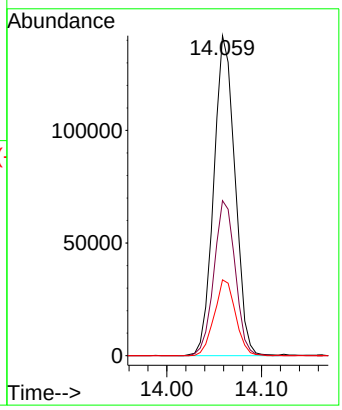
Tgt Ion: 91 Resp: 22133

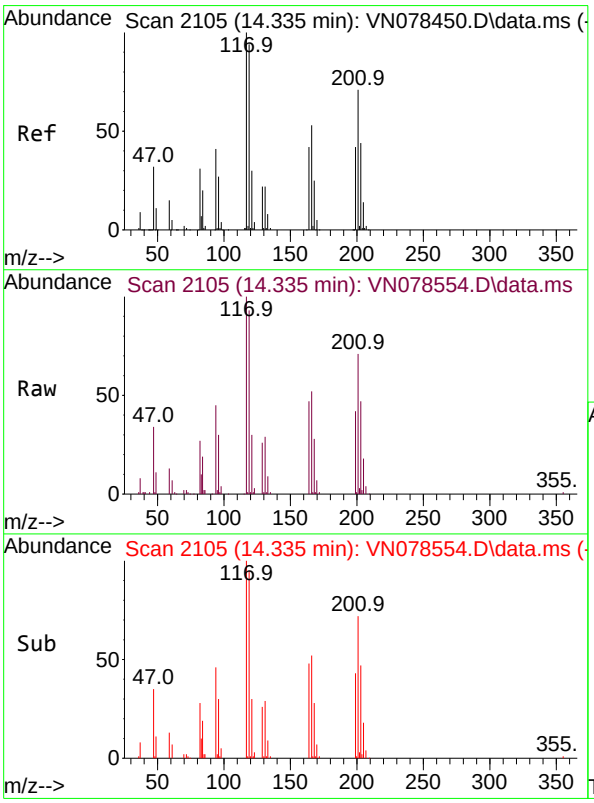
Ion	Ratio	Lower	Upper
91	100		
92	48.6	26.4	79.0
134	23.8	12.6	37.6

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

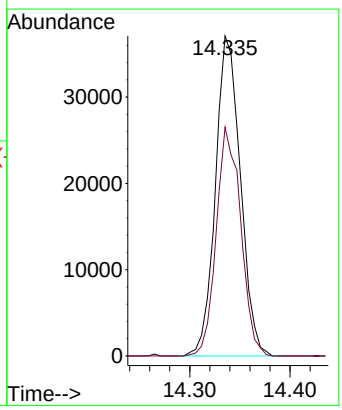


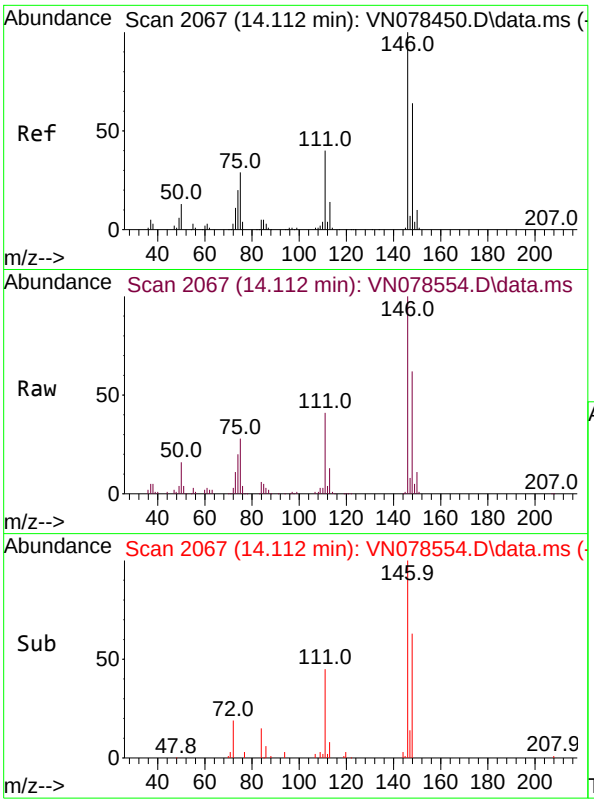


#90
Hexachloroethane
Concen: 21.166 ug/l
RT: 14.335 min Scan# 2105
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:117 Resp: 64059

Ion	Ratio	Lower	Upper
117	100		
201	69.8	29.3	88.0

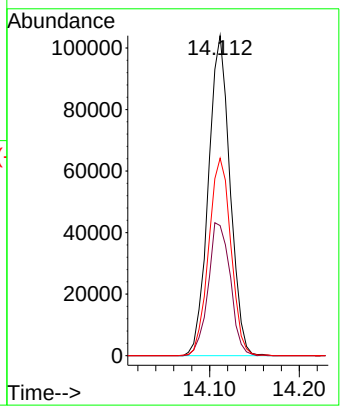




#91
1,2-Dichlorobenzene
Concen: 19.240 ug/l
RT: 14.112 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:146 Resp: 17391

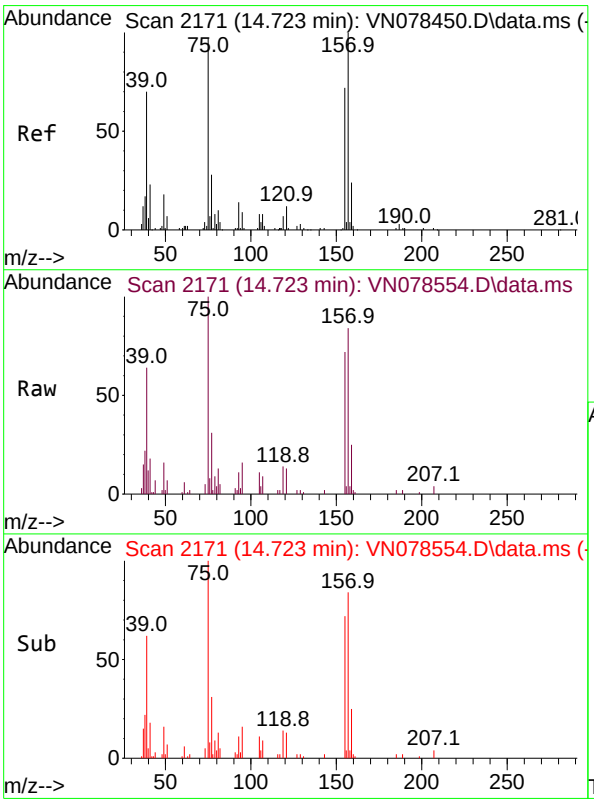
Ion	Ratio	Lower	Upper
146	100		
111	42.4	22.0	66.0
148	63.5	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

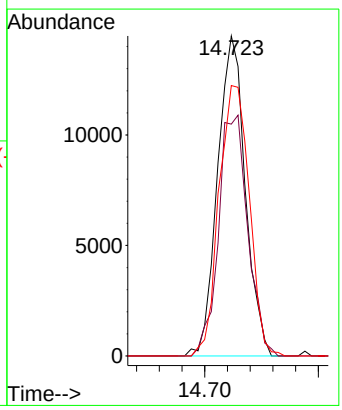
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

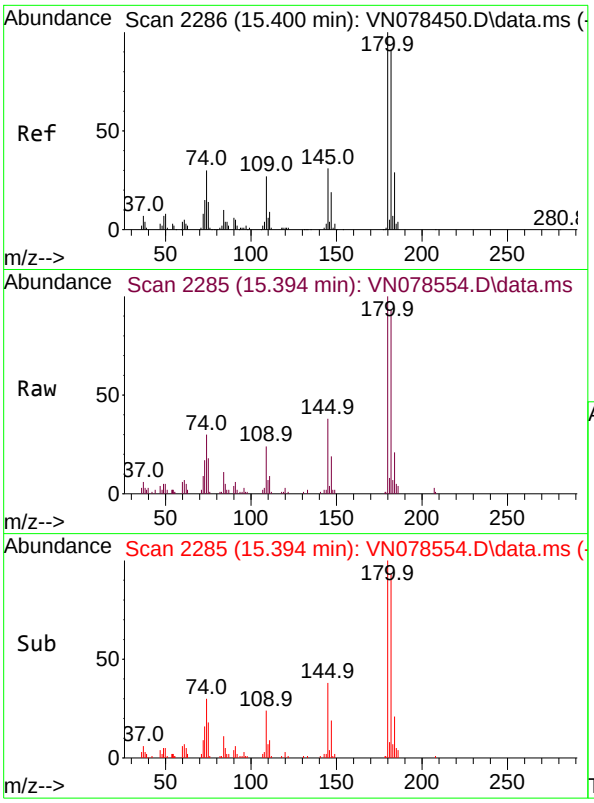


#92
1,2-Dibromo-3-Chloropropane
Concen: 20.490 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion: 75 Resp: 24492

Ion	Ratio	Lower	Upper
75	100		
155	79.7	39.1	117.2
157	92.5	50.3	150.9





#93
1,2,4-Trichlorobenzene
Concen: 15.558 ug/l
RT: 15.394 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

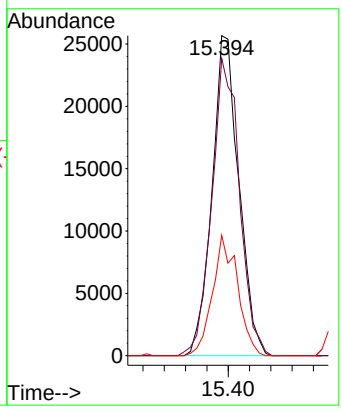
Tgt Ion:180 Resp: 4488

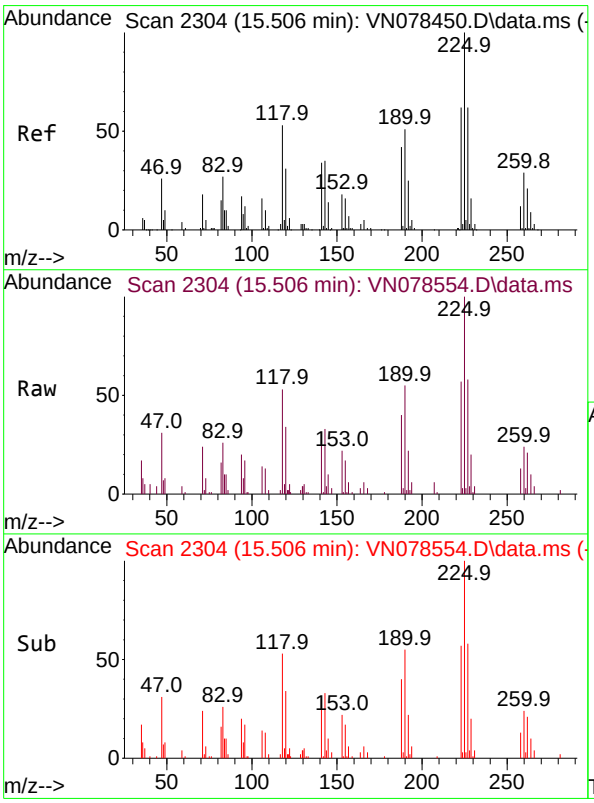
Ion	Ratio	Lower	Upper
180	100		
182	95.8	46.1	138.2
145	35.1	16.6	49.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

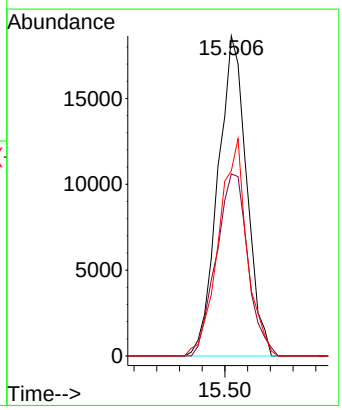


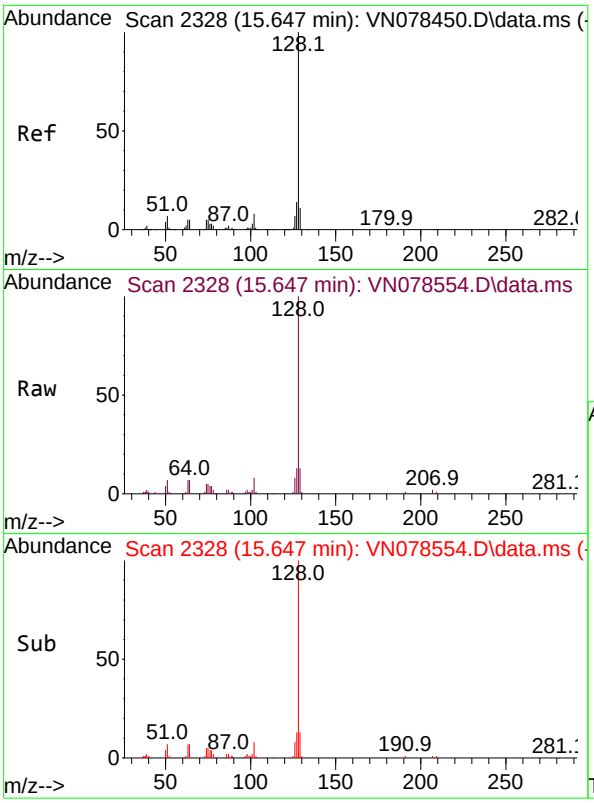


#94
Hexachlorobutadiene
Concen: 19.345 ug/l
RT: 15.506 min Scan# 2304
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:225 Resp: 32658

Ion	Ratio	Lower	Upper
225	100		
223	62.7	31.3	93.8
227	66.8	31.9	95.9

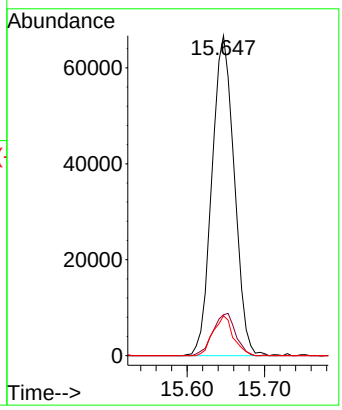




#95
Naphthalene
Concen: 13.573 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:128 Resp: 13385

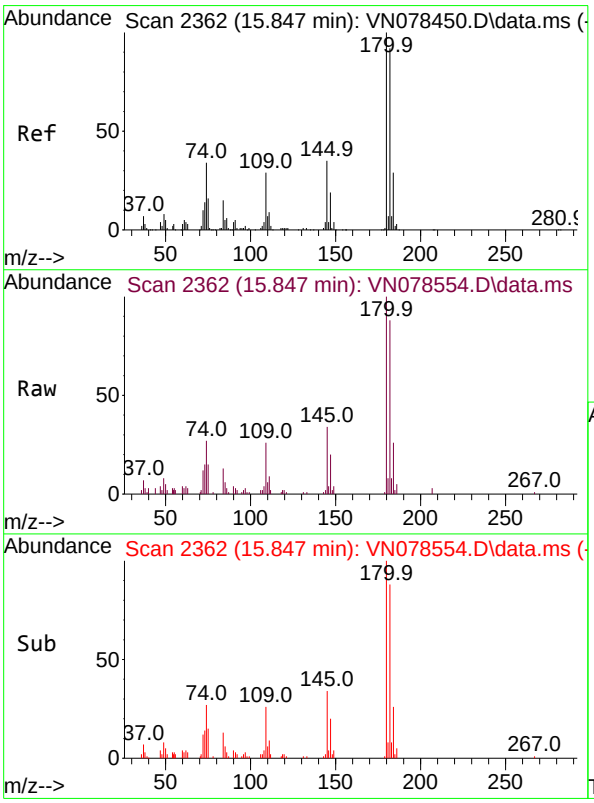
Ion	Ratio	Lower	Upper
128	100		
127	13.4	10.0	15.0
129	11.3	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBS02

Manual Integrations
APPROVED

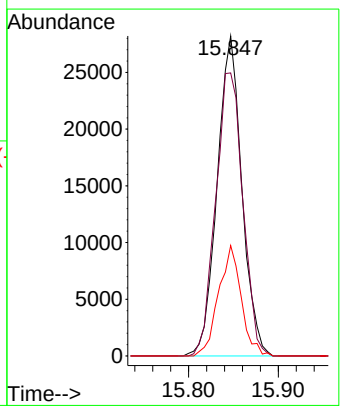
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023



#96
1,2,3-Trichlorobenzene
Concen: 16.272 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078554.D
Acq: 18 Jul 2023 12:25

Tgt Ion:180 Resp: 53976

Ion	Ratio	Lower	Upper
180	100		
182	97.1	46.2	138.6
145	31.6	17.5	52.6



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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBSD02	SDG No.:	O3645
Lab Sample ID:	VN0718WBSD02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078556.D	1		07/18/23 13:13	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	18.6		0.14	1.00	ug/L
74-87-3	Chloromethane	23.5		0.25	1.00	ug/L
75-01-4	Vinyl Chloride	21.7		0.25	1.00	ug/L
74-83-9	Bromomethane	18.1		1.60	5.00	ug/L
75-00-3	Chloroethane	20.8		0.28	1.00	ug/L
75-69-4	Trichlorofluoromethane	20.9		0.13	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21.3		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	21.0		0.21	1.00	ug/L
67-64-1	Acetone	120		1.20	5.00	ug/L
75-15-0	Carbon Disulfide	17.4		0.27	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	21.1		0.14	1.00	ug/L
79-20-9	Methyl Acetate	21.3		0.36	1.00	ug/L
75-09-2	Methylene Chloride	21.9		0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	20.2		0.17	1.00	ug/L
75-34-3	1,1-Dichloroethane	21.5		0.16	1.00	ug/L
110-82-7	Cyclohexane	19.8		1.60	5.00	ug/L
78-93-3	2-Butanone	110		1.20	5.00	ug/L
56-23-5	Carbon Tetrachloride	21.7		0.13	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	20.9		0.20	1.00	ug/L
74-97-5	Bromochloromethane	20.3		0.14	1.00	ug/L
67-66-3	Chloroform	22.0		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	21.7		0.14	1.00	ug/L
108-87-2	Methylcyclohexane	20.9		0.16	1.00	ug/L
71-43-2	Benzene	21.6		0.12	1.00	ug/L
107-06-2	1,2-Dichloroethane	21.4		0.16	1.00	ug/L
79-01-6	Trichloroethene	21.1		0.26	1.00	ug/L
78-87-5	1,2-Dichloropropane	22.3		0.15	1.00	ug/L
75-27-4	Bromodichloromethane	21.6		0.15	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.74	5.00	ug/L
108-88-3	Toluene	22.0		0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	24.3		0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	22.5		0.15	1.00	ug/L

Raw Data: **VN078556.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBSD02	SDG No.:	O3645
Lab Sample ID:	VN0718WBSD02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078556.D	1		07/18/23 13:13	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	25.8		0.13	1.00	ug/L
591-78-6	2-Hexanone	150		0.98	5.00	ug/L
124-48-1	Dibromochloromethane	27.5		0.15	1.00	ug/L
106-93-4	1,2-Dibromoethane	25.3		0.13	1.00	ug/L
127-18-4	Tetrachloroethene	26.3		0.17	1.00	ug/L
108-90-7	Chlorobenzene	21.8		0.12	1.00	ug/L
100-41-4	Ethyl Benzene	22.0		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	45.2		0.31	2.00	ug/L
1330-20-7	Total Xylenes	67.4		0.46	3.00	ug/L
95-47-6	o-Xylene	22.2		0.15	1.00	ug/L
100-42-5	Styrene	23.1		0.13	1.00	ug/L
75-25-2	Bromoform	23.5		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	20.8		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	22.5		0.15	1.00	ug/L
103-65-1	n-propylbenzene	21.6		0.15	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	21.5		0.17	1.00	ug/L
98-06-6	tert-Butylbenzene	21.5		0.16	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	21.6		0.16	1.00	ug/L
135-98-8	sec-Butylbenzene	21.4		0.16	1.00	ug/L
99-87-6	p-Isopropyltoluene	22.1		0.16	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	21.4		0.23	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	20.3		0.24	1.00	ug/L
104-51-8	n-Butylbenzene	21.7		0.24	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	21.2		0.17	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.1		0.43	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	16.8		0.43	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.3		0.55	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.0		74 - 125	100%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	48.6		86 - 113	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		64 - 133	97%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VN078556.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	
Project:	Mackenna Parcels	Date Received:	
Client Sample ID:	VN0718WBSD02	SDG No.:	O3645
Lab Sample ID:	VN0718WBSD02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN078556.D	1		07/18/23 13:13	VN071823

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	485000	8.235			
540-36-3	1,4-Difluorobenzene	833000	9.106			
3114-55-4	Chlorobenzene-d5	717000	11.871			
3855-82-1	1,4-Dichlorobenzene-d4	285000	13.794			

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\VN071823\
Data File : VN078556.D
Acq On : 18 Jul 2023 13:13
Operator : JC\MD
Sample : VN0718WBSD02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 19 01:47:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.235	168	485193	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.106	114	833352	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.871	117	717025	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	285080	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.588	65	325286	50.009	ug/l		0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 100.020%				
35) Dibromofluoromethane	8.171	113	285546	50.476	ug/l		0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.960%				
50) Toluene-d8	10.571	98	1039630	48.648	ug/l		0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 97.300%				
62) 4-Bromofluorobenzene	12.853	95	318612	48.402	ug/l		0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 96.800%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.136	85	110622	18.596	ug/l		98
3) Chloromethane	2.371	50	151836	23.483	ug/l		96
4) Vinyl Chloride	2.518	62	181134	21.656	ug/l		97
5) Bromomethane	2.953	94	112674	18.129	ug/l		99
6) Chloroethane	3.118	64	110890	20.795	ug/l		94
7) Trichlorofluoromethane	3.500	101	209409	20.944	ug/l		97
8) Diethyl Ether	3.971	74	68204	20.474	ug/l		79
9) 1,1,2-Trichlorotrifluo...	4.377	101	112980	21.346	ug/l		95
10) Methyl Iodide	4.600	142	148948	20.480	ug/l		100
11) Tert butyl alcohol	5.536	59	105331	105.014	ug/l	#	83
12) 1,1-Dichloroethene	4.353	96	107259	20.950	ug/l		95
13) Acrolein	4.195	56	90590	91.799	ug/l		97
14) Allyl chloride	5.036	41	136354	19.491	ug/l		93
15) Acrylonitrile	5.730	53	266914	105.323	ug/l		99
16) Acetone	4.442	43	243262	120.060	ug/l		97
17) Carbon Disulfide	4.724	76	258059	17.431	ug/l		98
18) Methyl Acetate	5.036	43	182758	21.308	ug/l		89
19) Methyl tert-butyl Ether	5.812	73	355607	21.081	ug/l		95
20) Methylene Chloride	5.289	84	130992	21.850	ug/l		94
21) trans-1,2-Dichloroethene	5.794	96	116771	20.240	ug/l		90
22) Diisopropyl ether	6.683	45	350166	22.354	ug/l	#	94
23) Vinyl Acetate	6.618	43	1043813	104.817	ug/l	#	89
24) 1,1-Dichloroethane	6.577	63	226920	21.498	ug/l		96
25) 2-Butanone	7.494	43	354926	111.281	ug/l	#	86
26) 2,2-Dichloropropane	7.500	77	192022	22.243	ug/l		95
27) cis-1,2-Dichloroethene	7.500	96	139243	20.863	ug/l		92
28) Bromochloromethane	7.824	49	100971	20.310	ug/l		94
29) Tetrahydrofuran	7.847	42	217665	104.006	ug/l	#	85
30) Chloroform	7.977	83	242138	22.034	ug/l		99
31) Cyclohexane	8.265	56	174220	19.819	ug/l		92
32) 1,1,1-Trichloroethane	8.177	97	213926	21.713	ug/l		100
36) 1,1-Dichloropropene	8.377	75	168850	20.671	ug/l		97
37) Ethyl Acetate	7.571	43	138330	20.315	ug/l	#	95
38) Carbon Tetrachloride	8.371	117	192335	21.665	ug/l		93
39) Methylcyclohexane	9.612	83	155775	20.893	ug/l		97
40) Benzene	8.612	78	522339	21.585	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078556.D
Acq On : 18 Jul 2023 13:13
Operator : JC\MD
Sample : VN0718WBSD02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 19 01:47:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.783	41	78925	22.737 ug/l		91
42) 1,2-Dichloroethane	8.682	62	176391	21.430 ug/l		99
43) Isopropyl Acetate	8.694	43	255047	22.751 ug/l		95
44) Trichloroethene	9.359	130	137619	21.100 ug/l		98
45) 1,2-Dichloropropane	9.629	63	136425	22.259 ug/l		97
46) Dibromomethane	9.718	93	96834	22.448 ug/l		94
47) Bromodichloromethane	9.894	83	186625	21.582 ug/l		92
48) Methyl methacrylate	9.688	41	109602	21.103 ug/l		91
49) 1,4-Dioxane	9.700	88	47215	416.854 ug/l		90
51) 4-Methyl-2-Pentanone	10.453	43	736270	110.416 ug/l		93
52) Toluene	10.635	92	329625	21.978 ug/l		97
53) t-1,3-Dichloropropene	10.841	75	215321	24.306 ug/l		98
54) cis-1,3-Dichloropropene	10.318	75	212582	22.512 ug/l		95
55) 1,1,2-Trichloroethane	11.024	97	152529	25.812 ug/l		95
56) Ethyl methacrylate	10.882	69	199186	24.114 ug/l	#	91
57) 1,3-Dichloropropane	11.171	76	291394	29.002 ug/l		99
58) 2-Chloroethyl Vinyl ether	10.165	63	274995	93.416 ug/l		91
59) 2-Hexanone	11.200	43	700604	147.834 ug/l		89
60) Dibromochloromethane	11.365	129	179375	27.496 ug/l		98
61) 1,2-Dibromoethane	11.476	107	154255	25.341 ug/l		99
64) Tetrachloroethene	11.112	164	141903	26.323 ug/l		94
65) Chlorobenzene	11.900	112	349752	21.822 ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.965	131	140618	22.807 ug/l		99
67) Ethyl Benzene	11.971	91	596265	22.010 ug/l		99
68) m/p-Xylenes	12.076	106	452872	45.213 ug/l		97
69) o-Xylene	12.406	106	224403	22.180 ug/l		98
70) Styrene	12.418	104	365331	23.081 ug/l		97
71) Bromoform	12.582	173	98044	23.480 ug/l	#	99
73) Isopropylbenzene	12.700	105	558489	20.849 ug/l		99
74) N-amyl acetate	12.500	43	189309	20.507 ug/l		91
75) 1,1,2,2-Tetrachloroethane	12.941	83	181413	22.547 ug/l		99
76) 1,2,3-Trichloropropane	13.000	75	150651m	21.863 ug/l		
77) Bromobenzene	12.988	156	135033	22.325 ug/l		95
78) n-propylbenzene	13.041	91	619570	21.627 ug/l		100
79) 2-Chlorotoluene	13.129	91	389350	20.749 ug/l		96
80) 1,3,5-Trimethylbenzene	13.176	105	454764	21.486 ug/l		99
81) trans-1,4-Dichloro-2-b...	12.741	75	50116	19.112 ug/l		90
82) 4-Chlorotoluene	13.229	91	358564	20.484 ug/l		98
83) tert-Butylbenzene	13.447	119	387076	21.541 ug/l		95
84) 1,2,4-Trimethylbenzene	13.488	105	443044	21.550 ug/l		97
85) sec-Butylbenzene	13.617	105	485564	21.378 ug/l		99
86) p-Isopropyltoluene	13.735	119	403437	22.121 ug/l		98
87) 1,3-Dichlorobenzene	13.735	146	219940	21.388 ug/l		97
88) 1,4-Dichlorobenzene	13.817	146	210155	20.289 ug/l		100
89) n-Butylbenzene	14.059	91	283683	21.739 ug/l		98
90) Hexachloroethane	14.341	117	78655	23.024 ug/l		81
91) 1,2-Dichlorobenzene	14.112	146	217094	21.213 ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.723	75	27267	20.115 ug/l		91
93) 1,2,4-Trichlorobenzene	15.394	180	54932	16.818 ug/l		95
94) Hexachlorobutadiene	15.506	225	39052	20.686 ug/l		95
95) Naphthalene	15.647	128	166279	14.892 ug/l		98
96) 1,2,3-Trichlorobenzene	15.847	180	64988	17.304 ug/l		95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078556.D
Acq On : 18 Jul 2023 13:13
Operator : JC\MD
Sample : VN0718WBSD02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 19 01:47:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

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

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

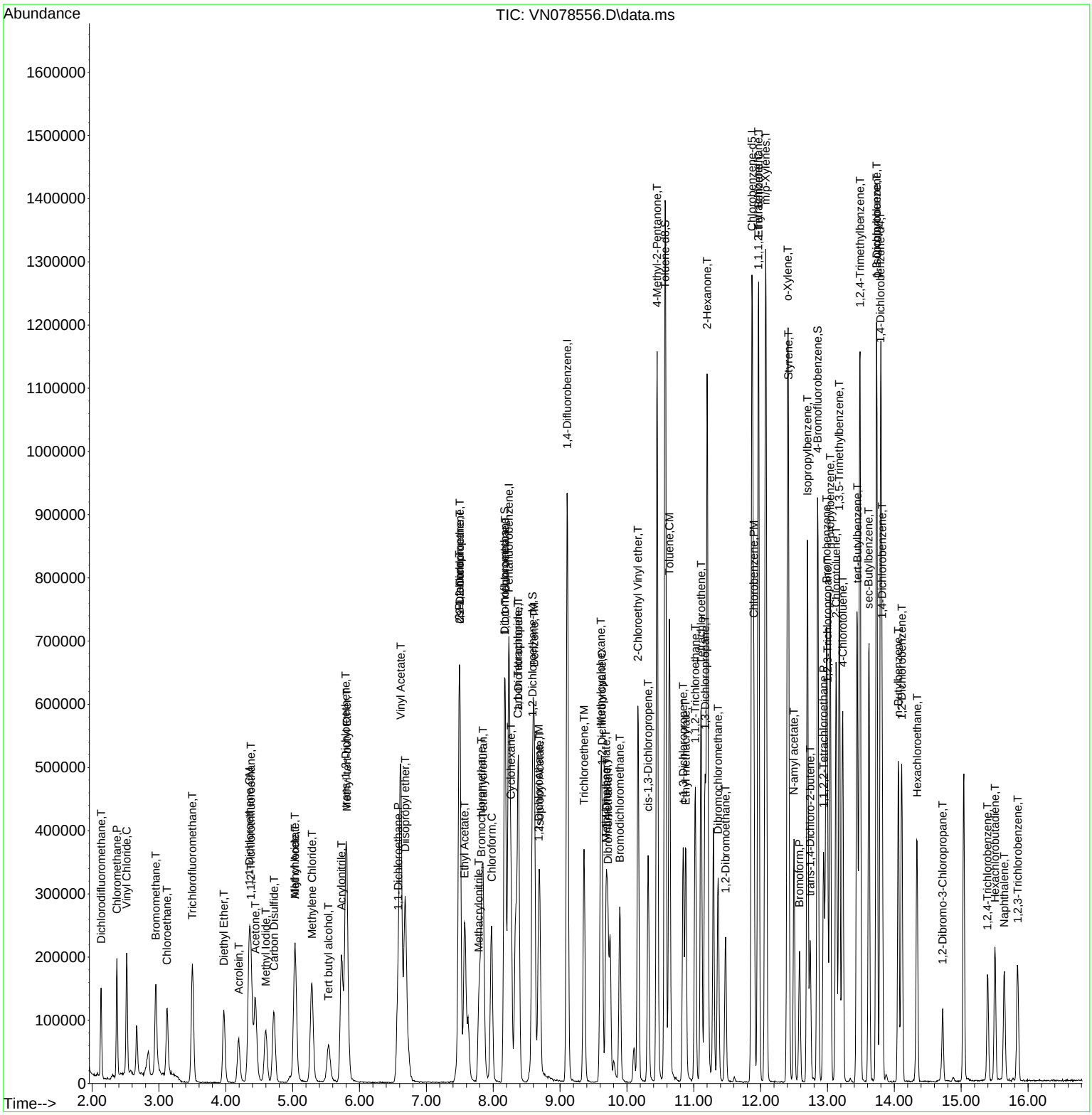
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071823\
Data File : VN078556.D
Acq On : 18 Jul 2023 13:13
Operator : JC\MD
Sample : VN0718WBSD02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

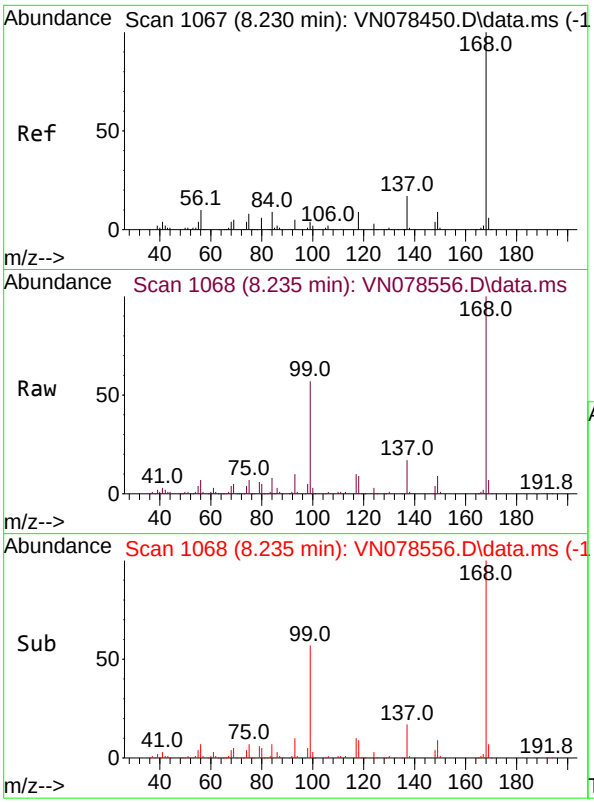
Quant Time: Jul 19 01:47:58 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071023W.M
Quant Title : SW846 8260
QLast Update : Mon Jul 10 16:13:53 2023
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

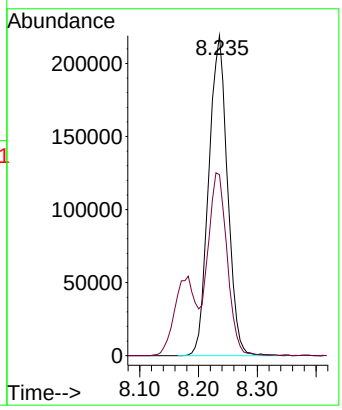




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.235 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:168 Resp: 48519

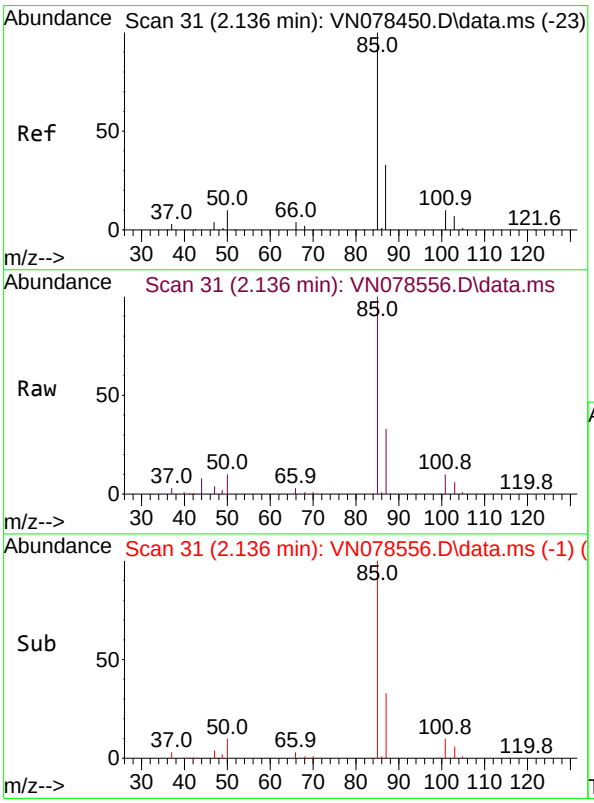
Ion	Ratio	Lower	Upper
168	100		
99	56.4	53.0	79.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

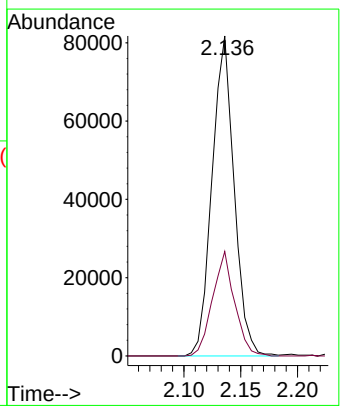
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

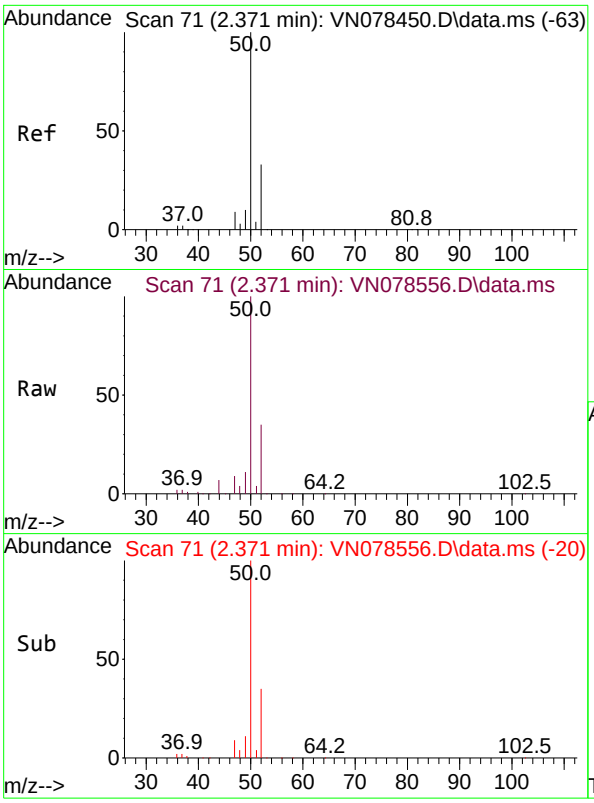


#2
Dichlorodifluoromethane
Concen: 18.596 ug/l
RT: 2.136 min Scan# 31
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 85 Resp: 110622

Ion	Ratio	Lower	Upper
85	100		
87	32.6	15.8	47.4

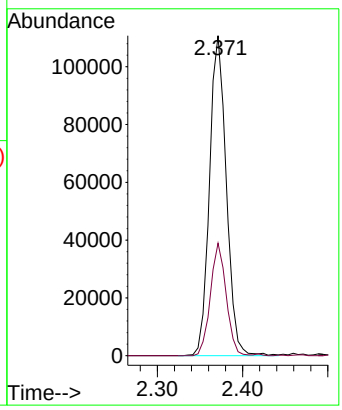




#3
Chloromethane
Concen: 23.483 ug/l
RT: 2.371 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 50 Resp: 15183

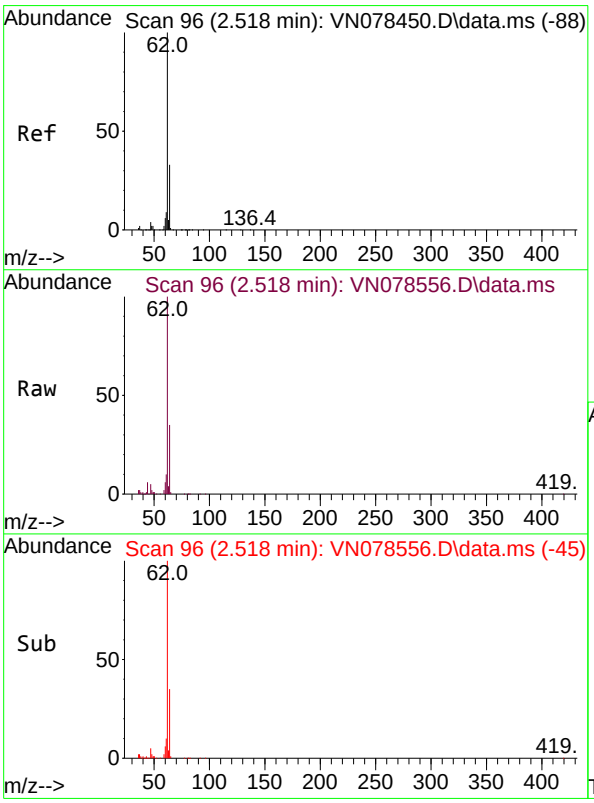
Ion	Ratio	Lower	Upper
50	100		
52	35.2	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

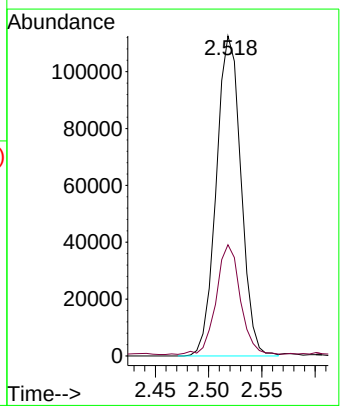
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

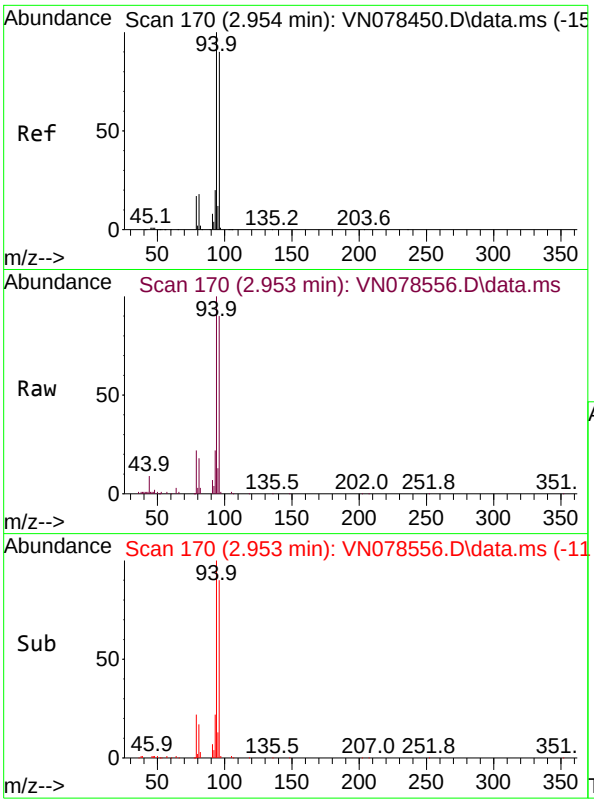


#4
Vinyl Chloride
Concen: 21.656 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 62 Resp: 181134

Ion	Ratio	Lower	Upper
62	100		
64	34.2	26.2	39.2

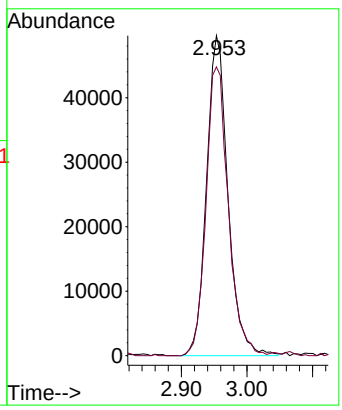




#5
Bromomethane
Concen: 18.129 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 94 Resp: 11267

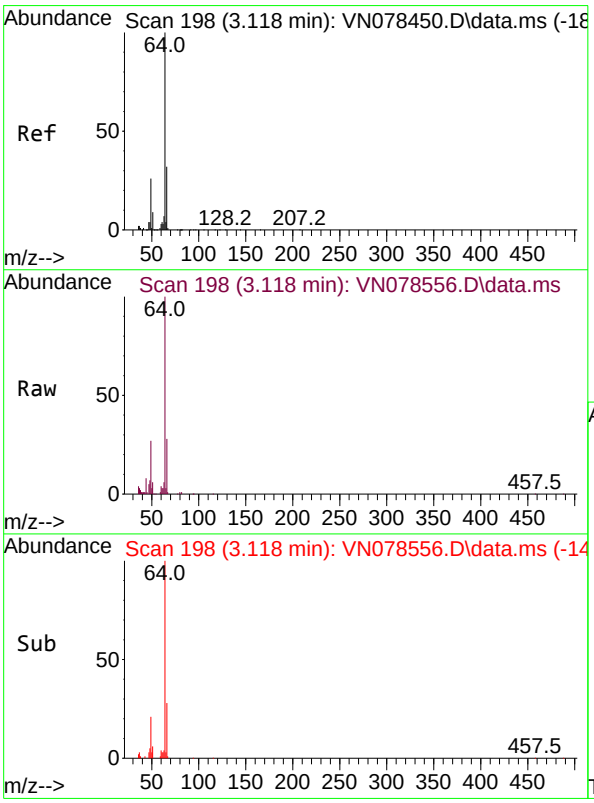
Ion	Ratio	Lower	Upper
94	100		
96	90.2	73.1	109.7



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

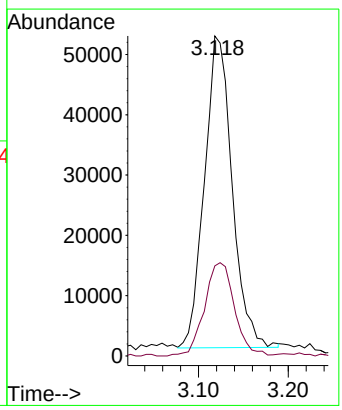
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

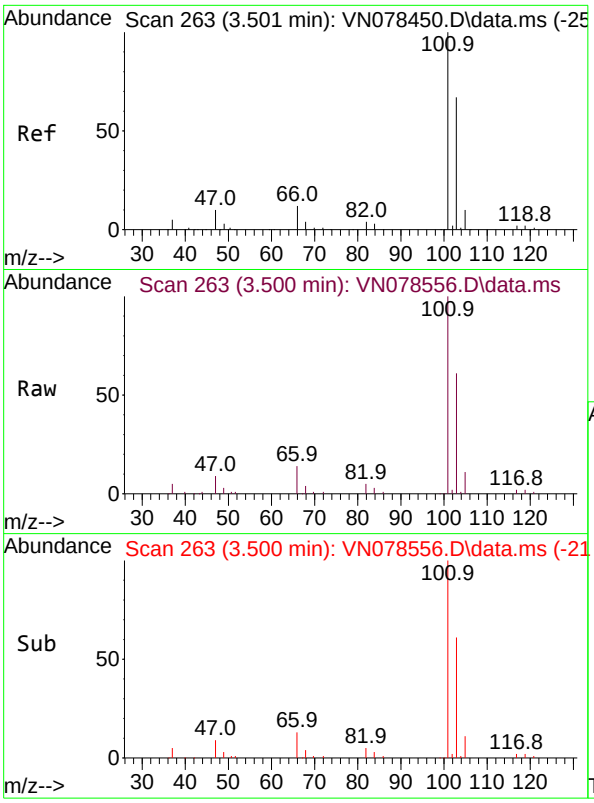


#6
Chloroethane
Concen: 20.795 ug/l
RT: 3.118 min Scan# 198
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 64 Resp: 110890

Ion	Ratio	Lower	Upper
64	100		
66	28.4	25.4	38.2





#7
Trichlorofluoromethane
Concen: 20.944 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.001 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

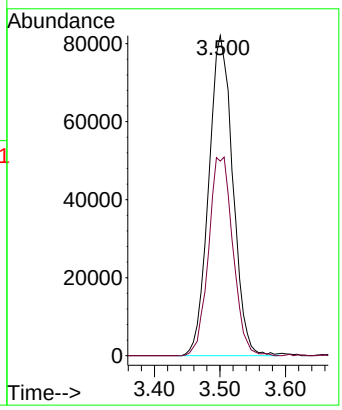
Tgt Ion:101 Resp: 20940

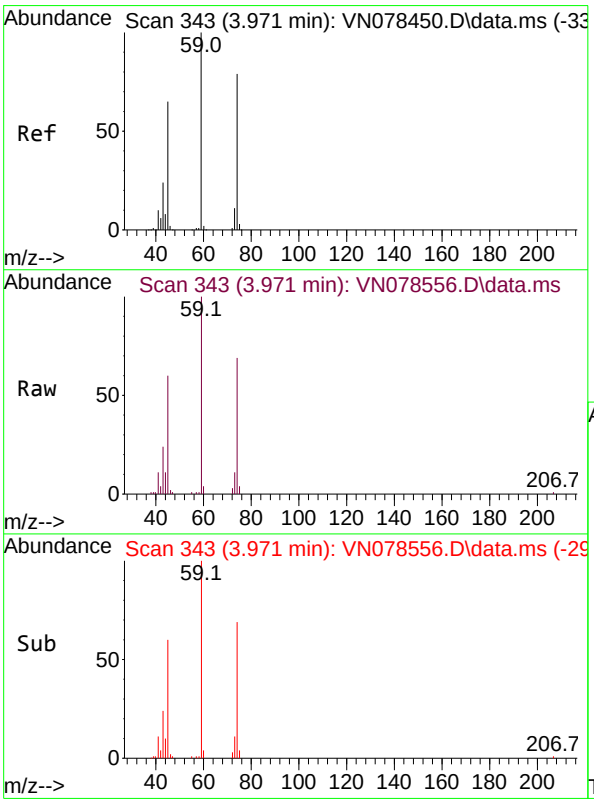
Ion	Ratio	Lower	Upper
101	100		
103	60.8	50.7	76.1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

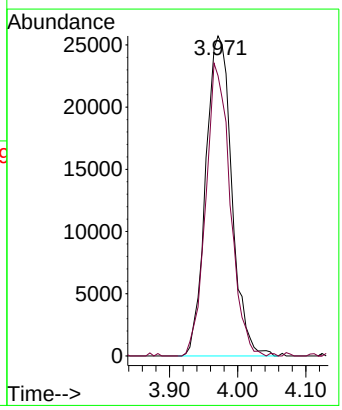


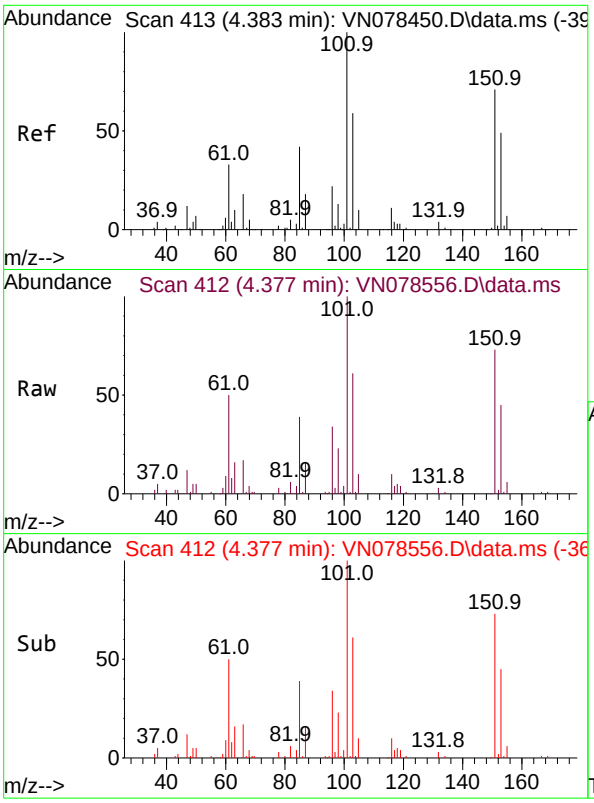


#8
Diethyl Ether
Concen: 20.474 ug/l
RT: 3.971 min Scan# 343
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 74 Resp: 68204

Ion	Ratio	Lower	Upper
74	100		
45	85.7	34.4	103.3





#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.346 ug/l
RT: 4.377 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

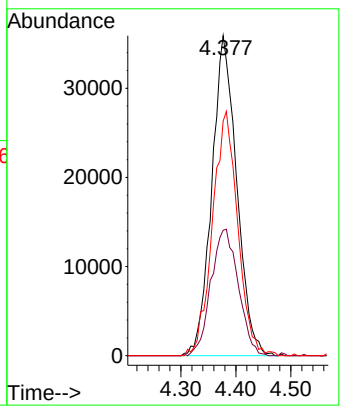
Tgt Ion:101 Resp: 11298

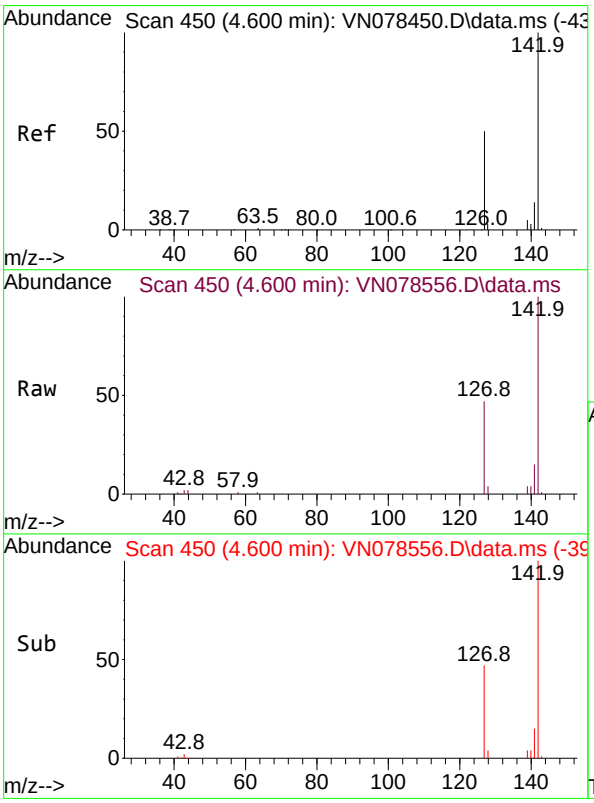
Ion	Ratio	Lower	Upper
101	100		
85	43.4	36.6	55.0
151	77.4	57.6	86.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

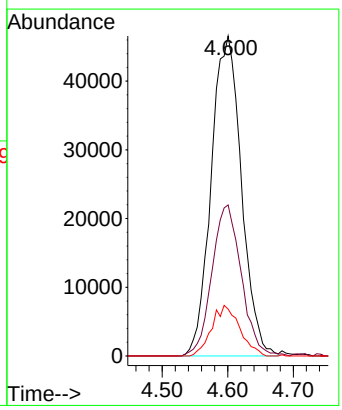


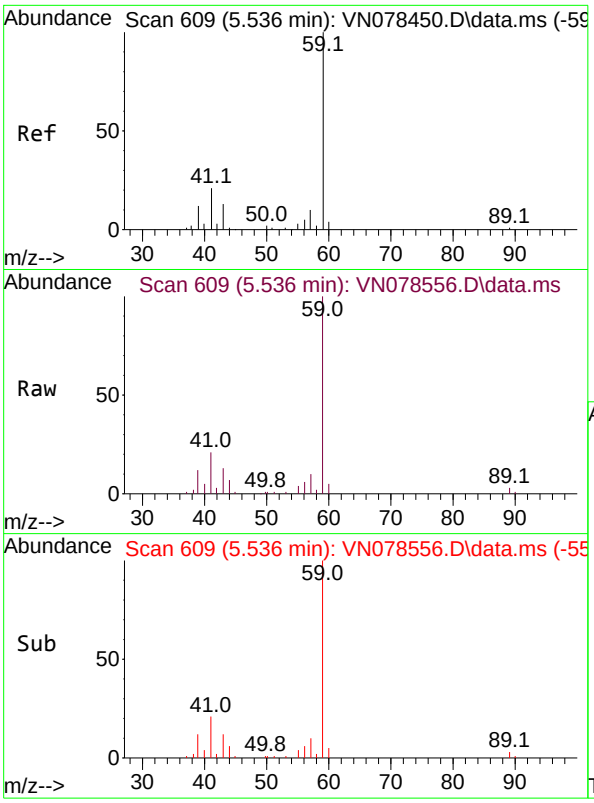


#10
Methyl Iodide
Concen: 20.480 ug/l
RT: 4.600 min Scan# 450
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:142 Resp: 148948

Ion	Ratio	Lower	Upper
142	100		
127	47.2	37.6	56.4
141	14.6	11.4	17.0





#11
Tert butyl alcohol
Concen: 105.014 ug/l
RT: 5.536 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

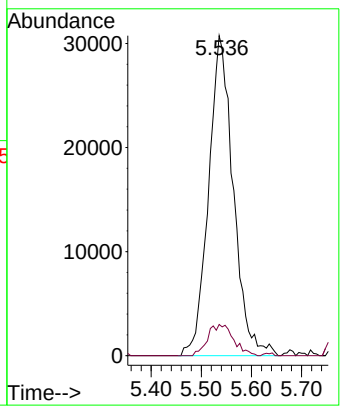
Tgt Ion: 59 Resp: 10533

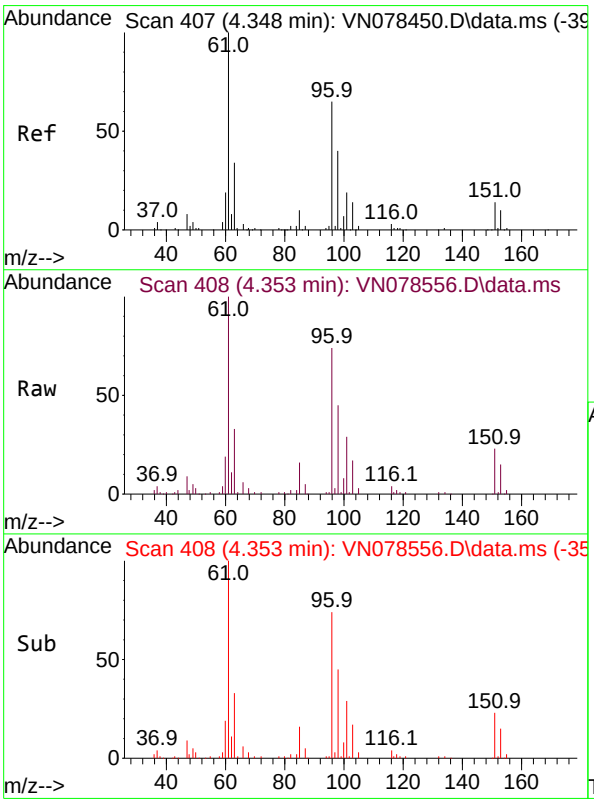
Ion	Ratio	Lower	Upper
59	100		
57	4.0	8.2	12.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

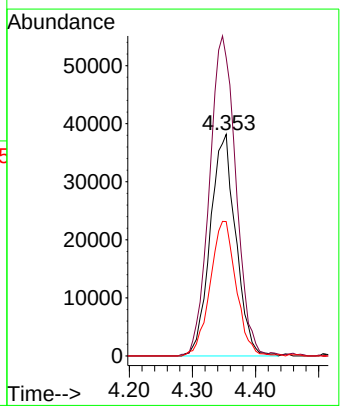


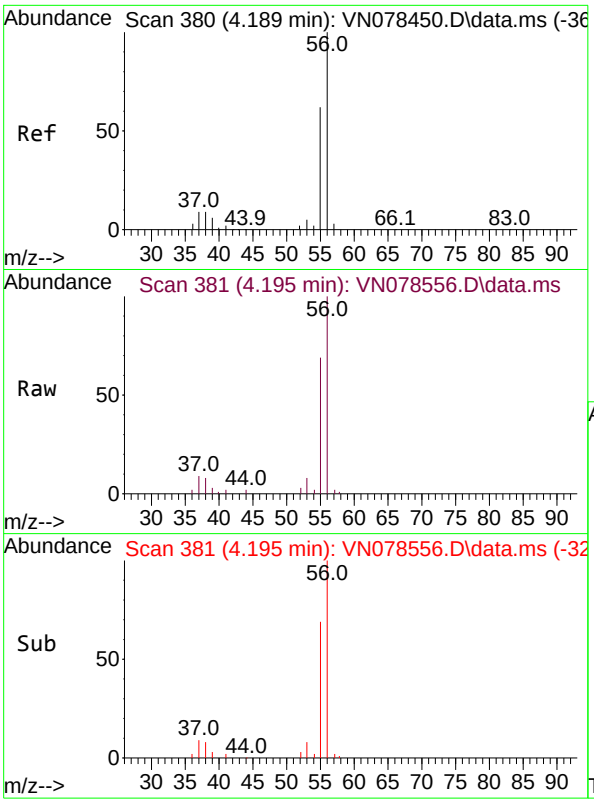


#12
1,1-Dichloroethene
Concen: 20.950 ug/l
RT: 4.353 min Scan# 408
Delta R.T. 0.005 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 96 Resp: 107259

Ion	Ratio	Lower	Upper
96	100		
61	134.6	112.7	169.1
98	60.6	51.2	76.8

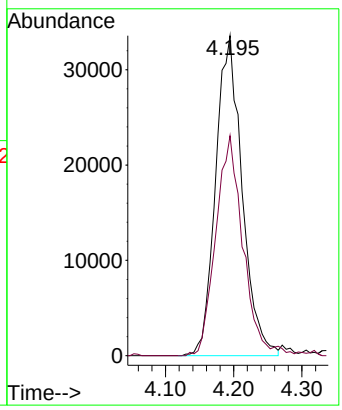




#13
Acrolein
Concen: 91.799 ug/l
RT: 4.195 min Scan# 3
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 56 Resp: 9059

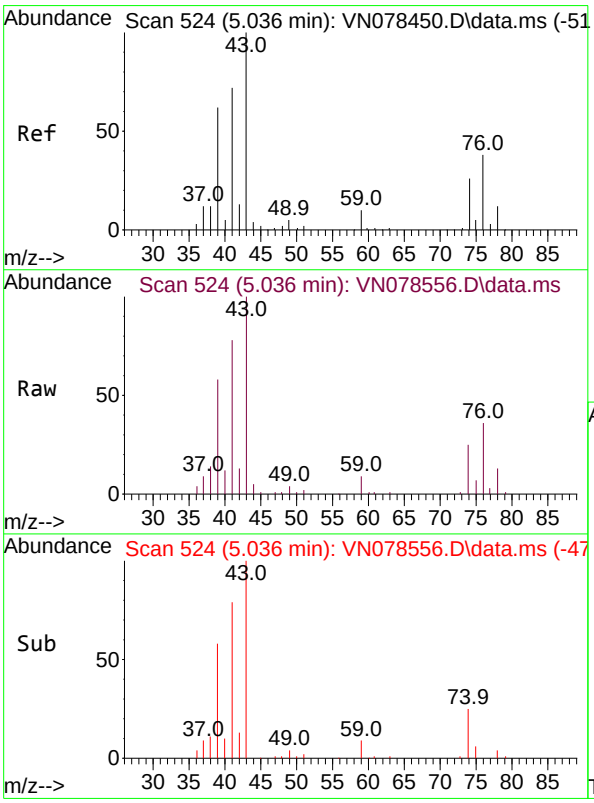
Ion	Ratio	Lower	Upper
56	100		
55	70.8	54.5	81.7



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

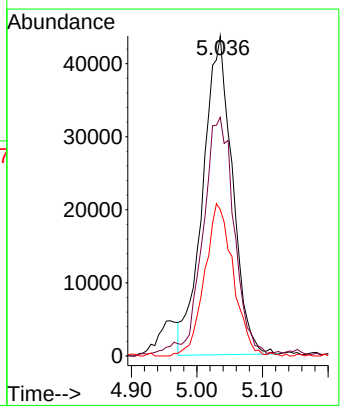
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

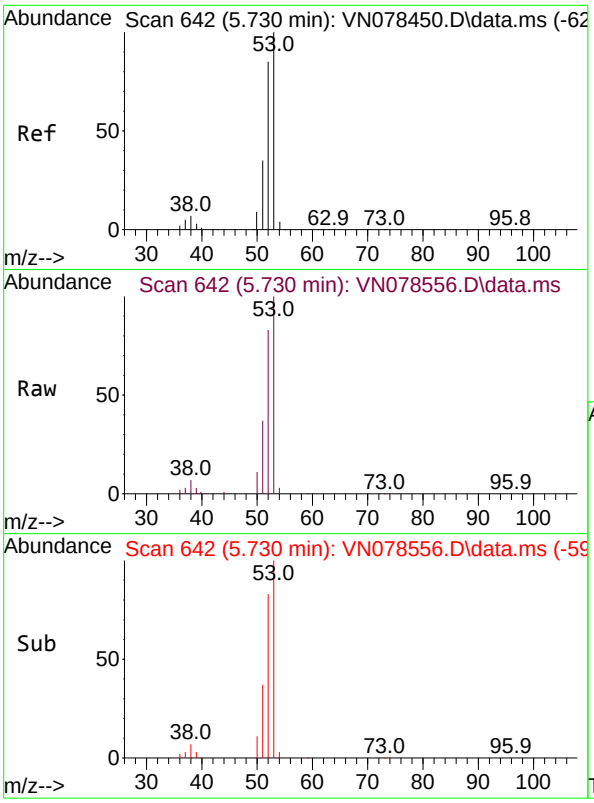


#14
Allyl chloride
Concen: 19.491 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 41 Resp: 136354

Ion	Ratio	Lower	Upper
41	100		
39	80.7	58.8	88.2
76	46.3	39.1	58.7





#15
Acrylonitrile
Concen: 105.323 ug/l
RT: 5.730 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

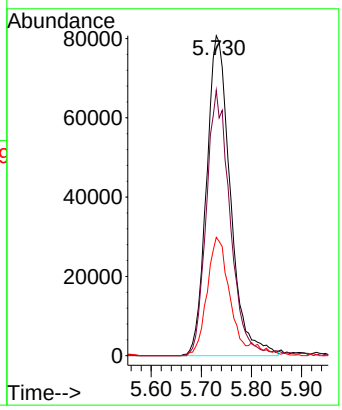
Tgt Ion: 53 Resp: 26691

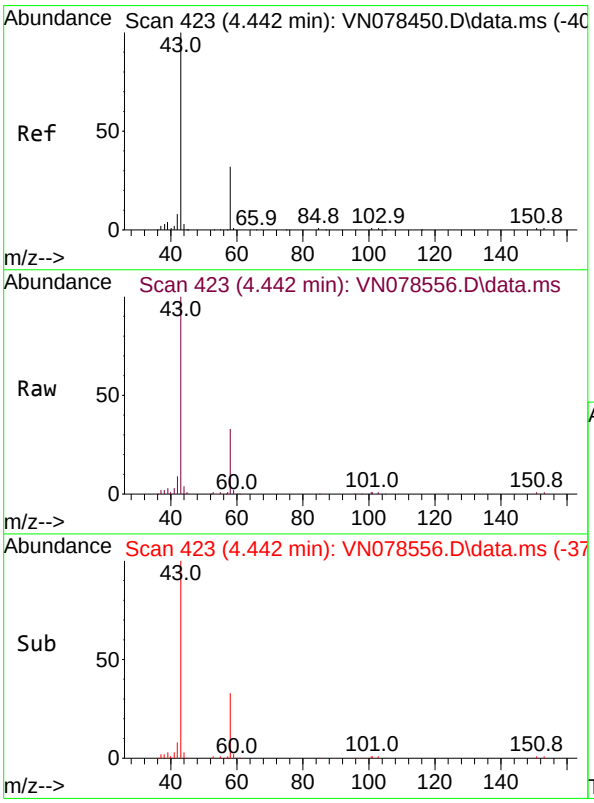
Ion	Ratio	Lower	Upper
53	100		
52	82.2	65.3	97.9
51	34.6	28.9	43.3

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

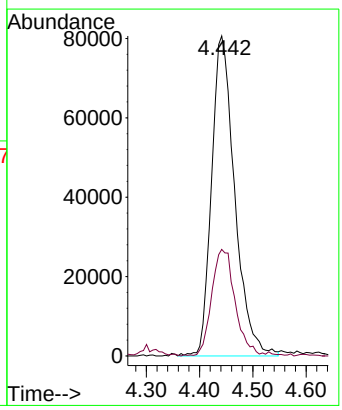


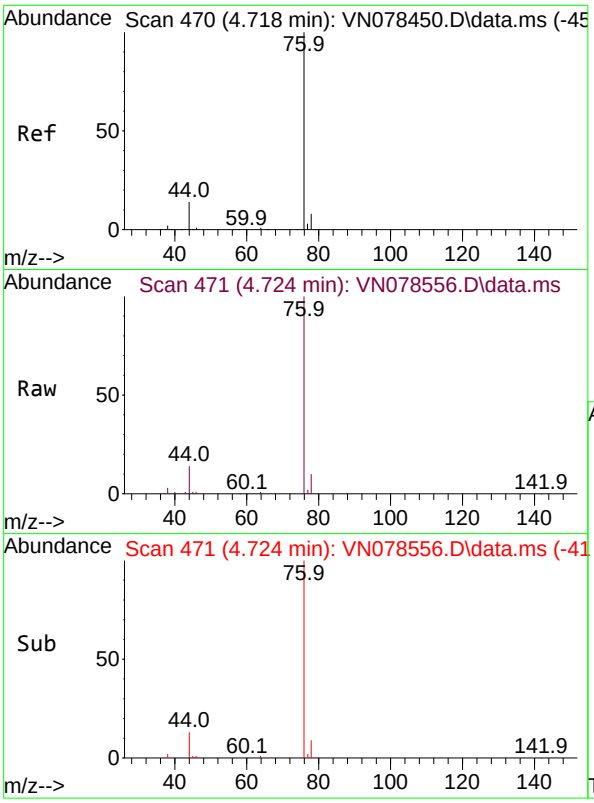


#16
Acetone
Concen: 120.060 ug/l
RT: 4.442 min Scan# 423
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 43 Resp: 243262

Ion	Ratio	Lower	Upper
43	100		
58	33.2	28.0	42.0

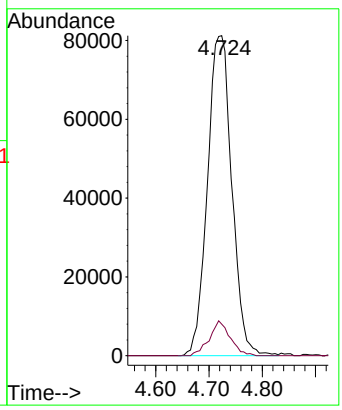




#17
Carbon Disulfide
Concen: 17.431 ug/l
RT: 4.724 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 76 Resp: 25805

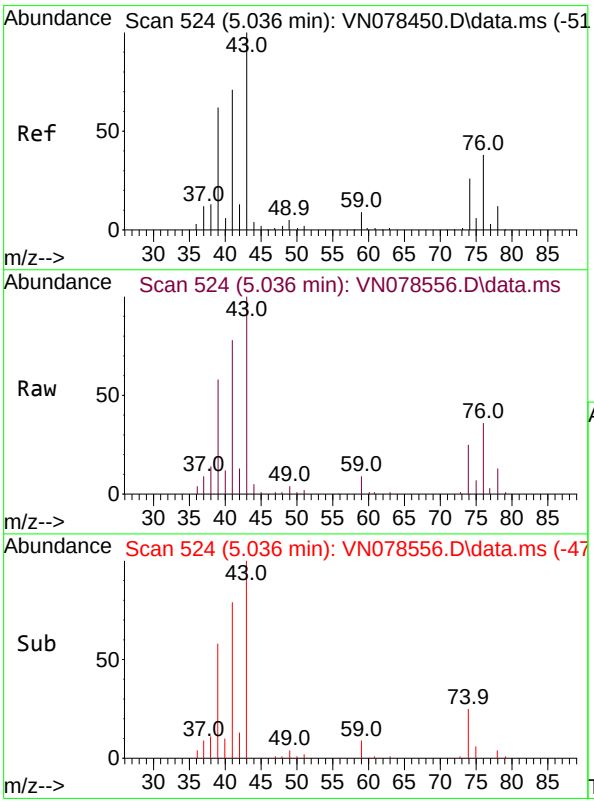
Ion	Ratio	Lower	Upper
76	100		
78	9.9	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

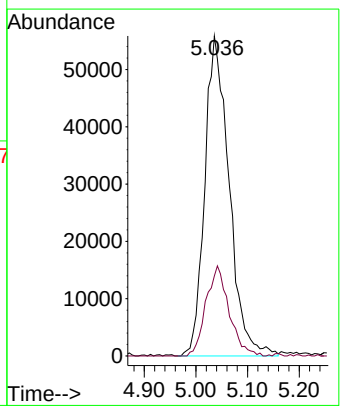
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

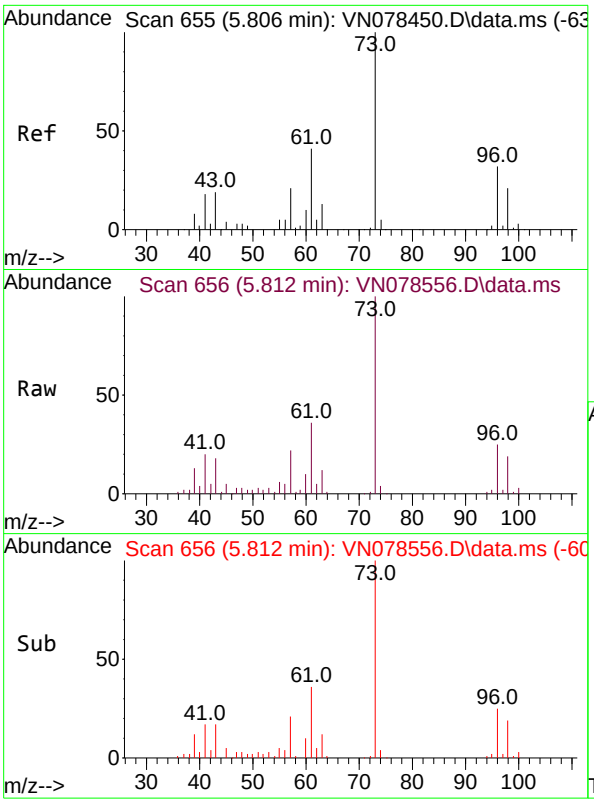


#18
Methyl Acetate
Concen: 21.308 ug/l
RT: 5.036 min Scan# 524
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 43 Resp: 182758

Ion	Ratio	Lower	Upper
43	100		
74	26.7	26.2	39.4





#19
Methyl tert-butyl Ether
Concen: 21.081 ug/l
RT: 5.812 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

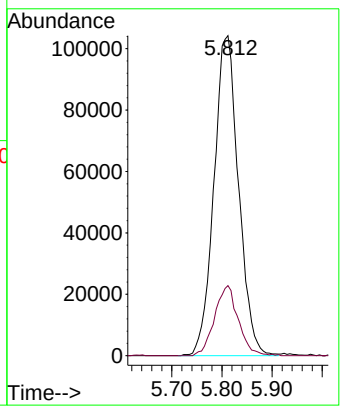
Tgt Ion: 73 Resp: 35560

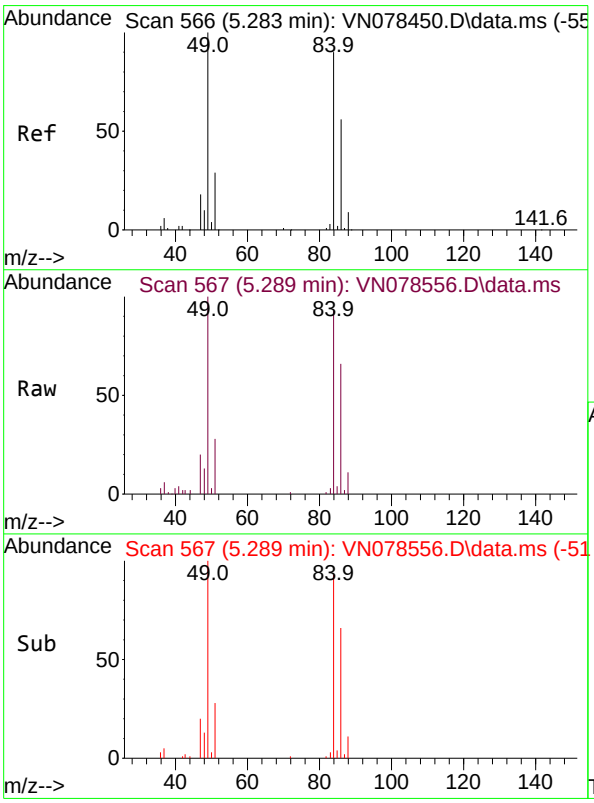
Ion	Ratio	Lower	Upper
73	100		
57	21.9	15.6	23.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

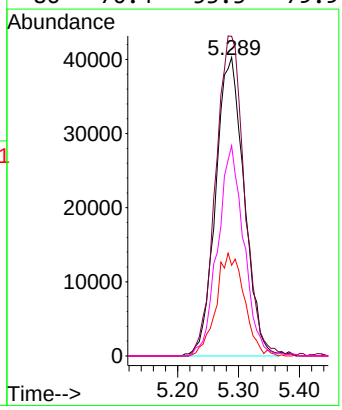


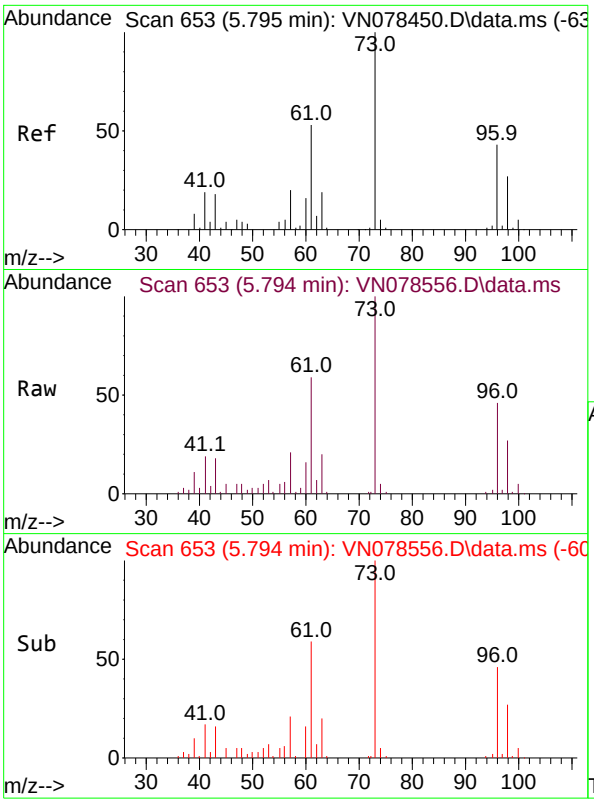


#20
Methylene Chloride
Concen: 21.850 ug/l
RT: 5.289 min Scan# 567
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 84 Resp: 130992

Ion	Ratio	Lower	Upper
84	100		
49	107.1	79.7	119.5
51	30.4	25.2	37.8
86	70.4	53.3	79.9

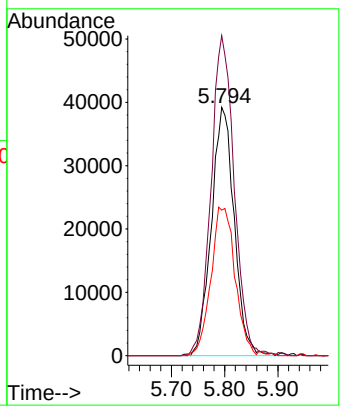




#21
trans-1,2-Dichloroethene
Concen: 20.240 ug/l
RT: 5.794 min Scan# 6
Delta R.T. -0.001 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 96 Resp: 11677

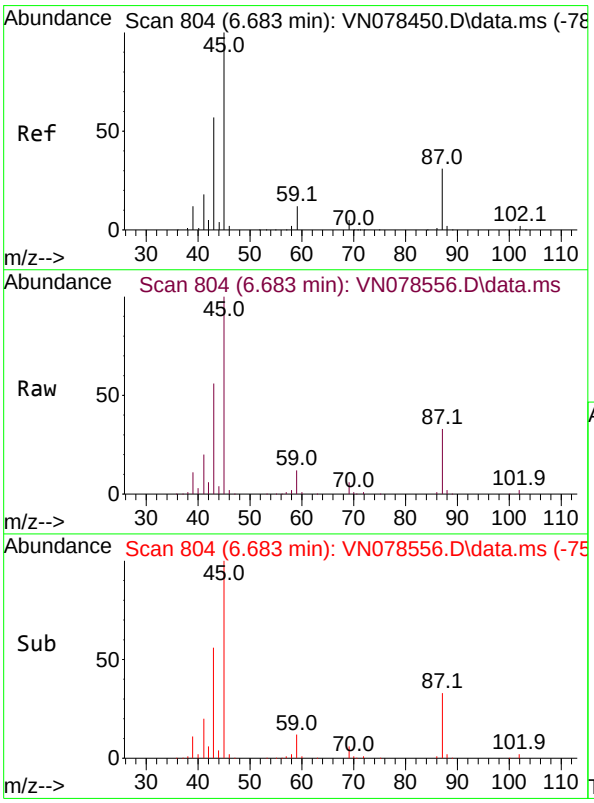
Ion	Ratio	Lower	Upper
96	100		
61	128.9	90.1	135.1
98	58.6	46.4	69.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

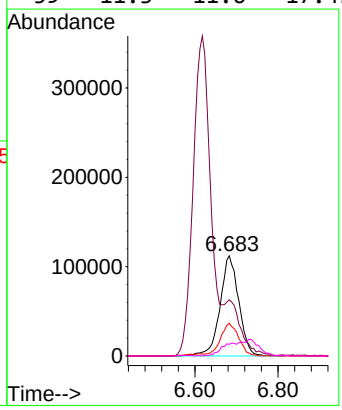
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

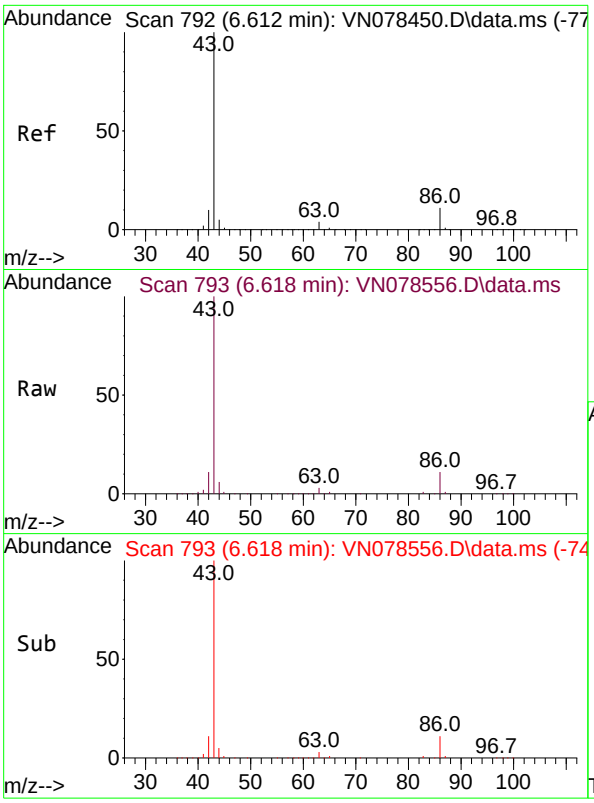


#22
Diisopropyl ether
Concen: 22.354 ug/l
RT: 6.683 min Scan# 804
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 45 Resp: 350166

Ion	Ratio	Lower	Upper
45	100		
43	55.4	45.5	68.3
87	32.3	31.8	47.8
59	11.3	11.6	17.4#





#23
Vinyl Acetate
Concen: 104.817 ug/l
RT: 6.618 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

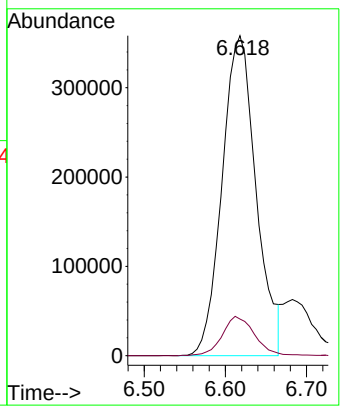
Tgt Ion: 43 Resp: 104381

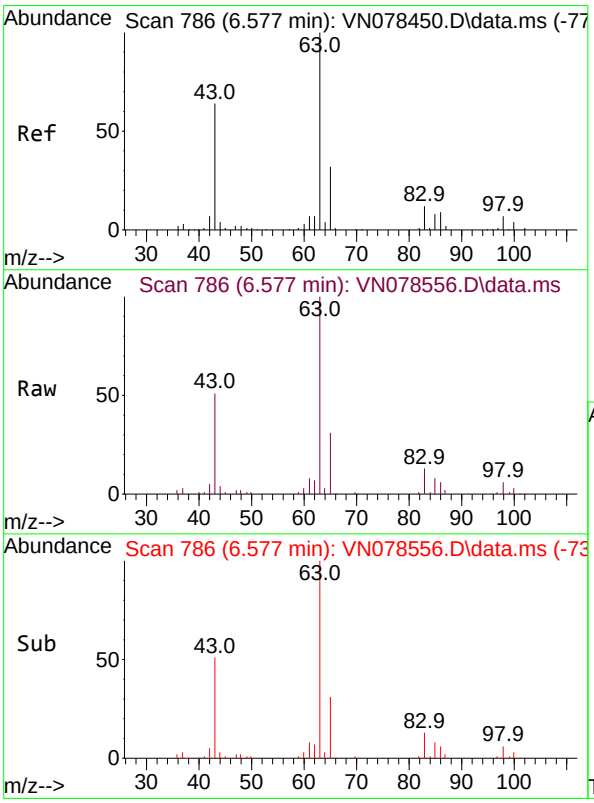
Ion	Ratio	Lower	Upper
43	100		
86	11.5	13.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

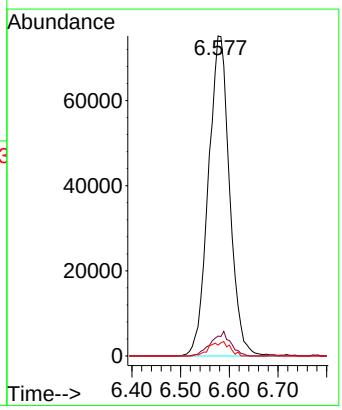


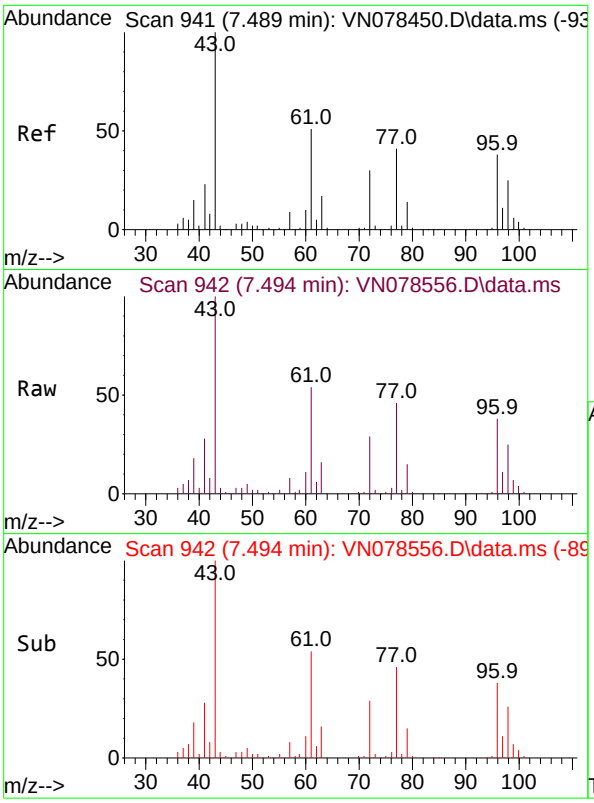


#24
1,1-Dichloroethane
Concen: 21.498 ug/l
RT: 6.577 min Scan# 786
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 63 Resp: 226920

Ion	Ratio	Lower	Upper
63	100		
98	6.2	3.9	11.7
100	3.4	2.5	7.4





#25
2-Butanone
Concen: 111.281 ug/l
RT: 7.494 min Scan# 94
Delta R.T. 0.005 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

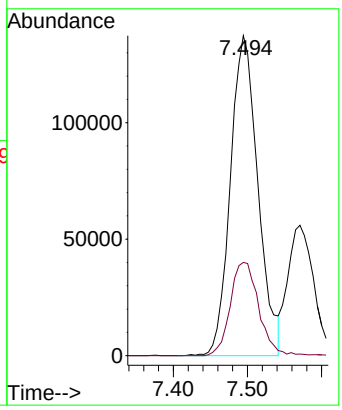
Tgt Ion: 43 Resp: 35492(

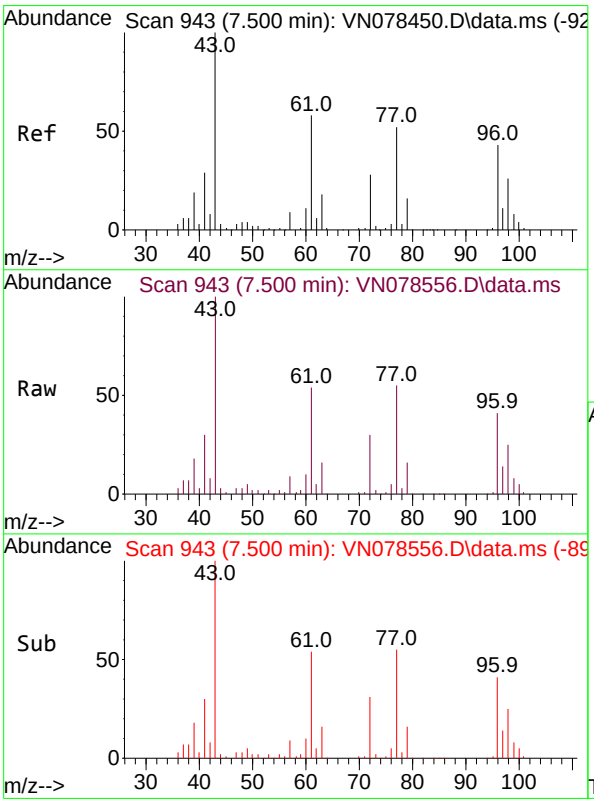
Ion	Ratio	Lower	Upper
43	100		
72	29.1	30.2	45.2#

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

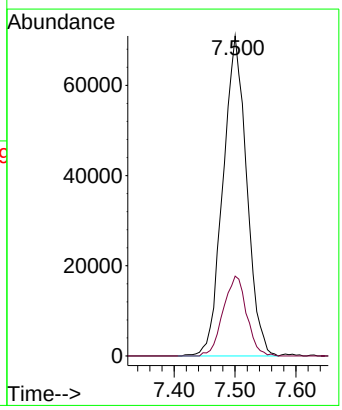


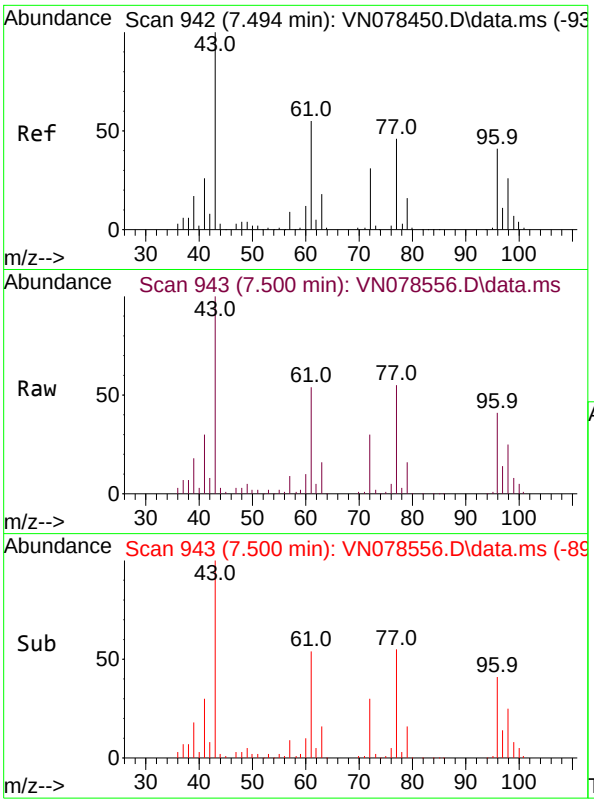


#26
2,2-Dichloropropane
Concen: 22.243 ug/l
RT: 7.500 min Scan# 943
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 77 Resp: 192022

Ion	Ratio	Lower	Upper
77	100		
97	24.6	11.2	33.6





#27
cis-1,2-Dichloroethene
Concen: 20.863 ug/l
RT: 7.500 min Scan# 94
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

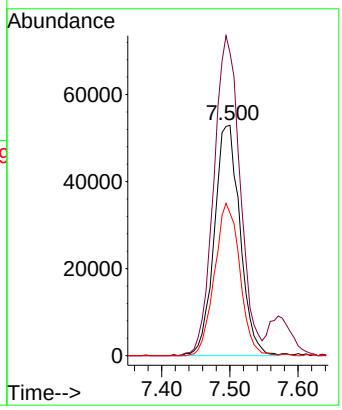
Tgt Ion: 96 Resp: 13924

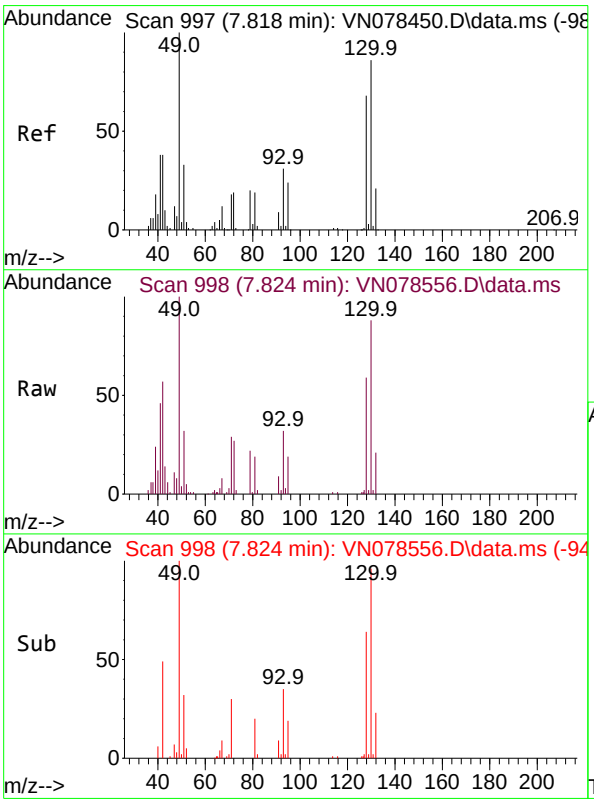
Ion	Ratio	Lower	Upper
96	100		
61	141.9	0.0	255.2
98	64.9	0.0	128.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

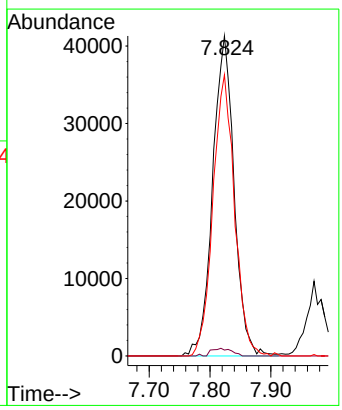


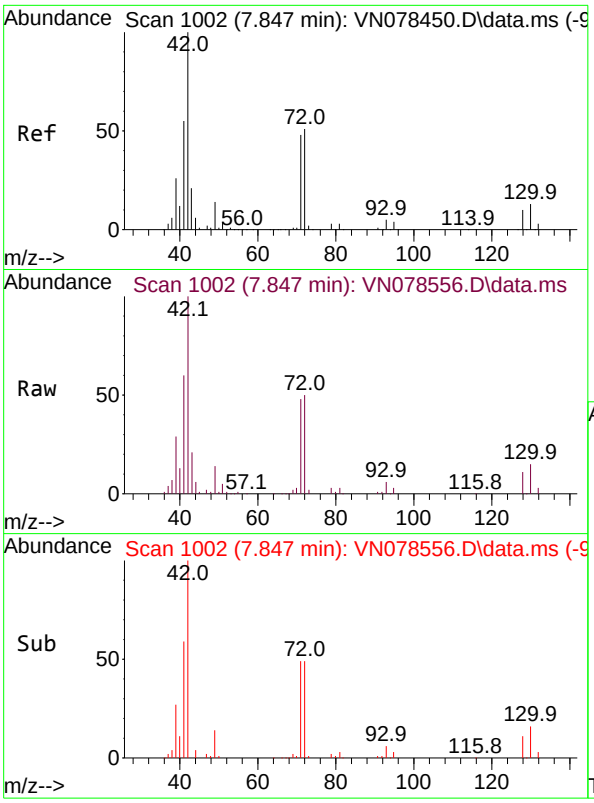


#28
Bromochloromethane
Concen: 20.310 ug/l
RT: 7.824 min Scan# 998
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 49 Resp: 100971

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	4.8
130	88.5	75.3	112.9

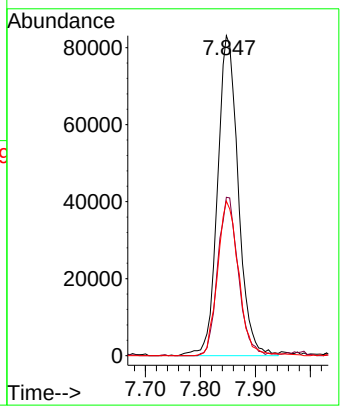




#29
Tetrahydrofuran
Concen: 104.006 ug/l
RT: 7.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 42 Resp: 21766

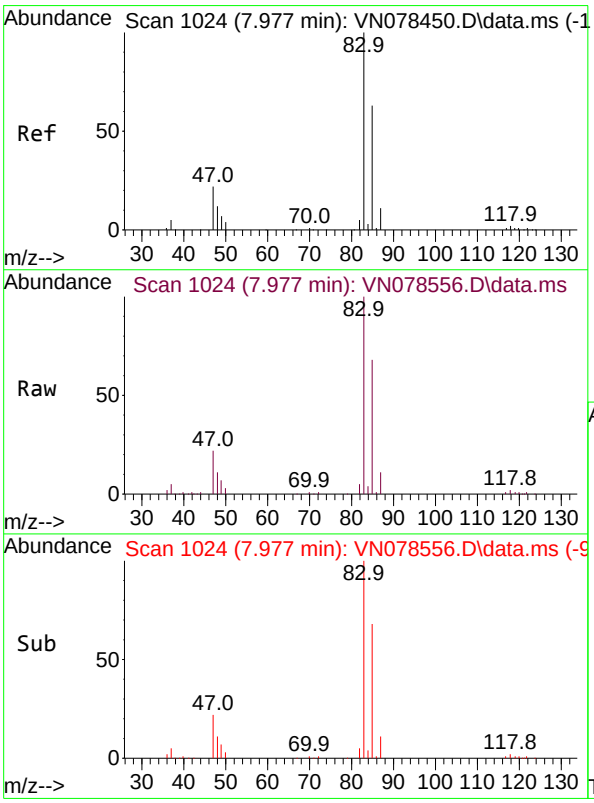
Ion	Ratio	Lower	Upper
42	100		
72	49.3	49.8	74.6
71	48.7	47.4	71.2



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

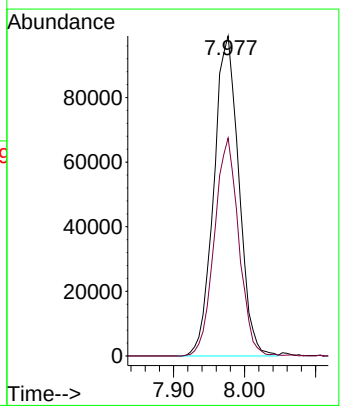
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

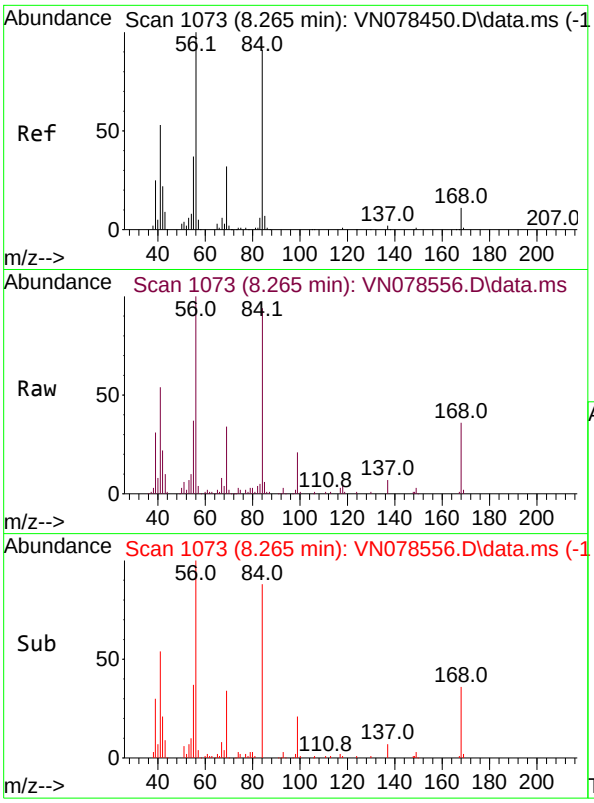


#30
Chloroform
Concen: 22.034 ug/l
RT: 7.977 min Scan# 1024
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 83 Resp: 242138

Ion	Ratio	Lower	Upper
83	100		
85	68.1	55.4	83.0

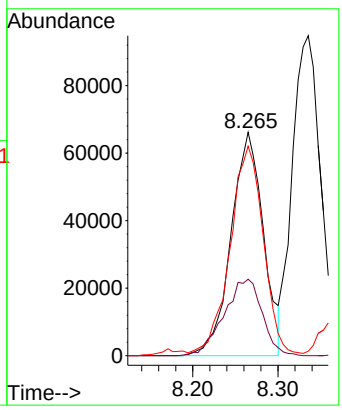




#31
Cyclohexane
Concen: 19.819 ug/l
RT: 8.265 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 56 Resp: 17422

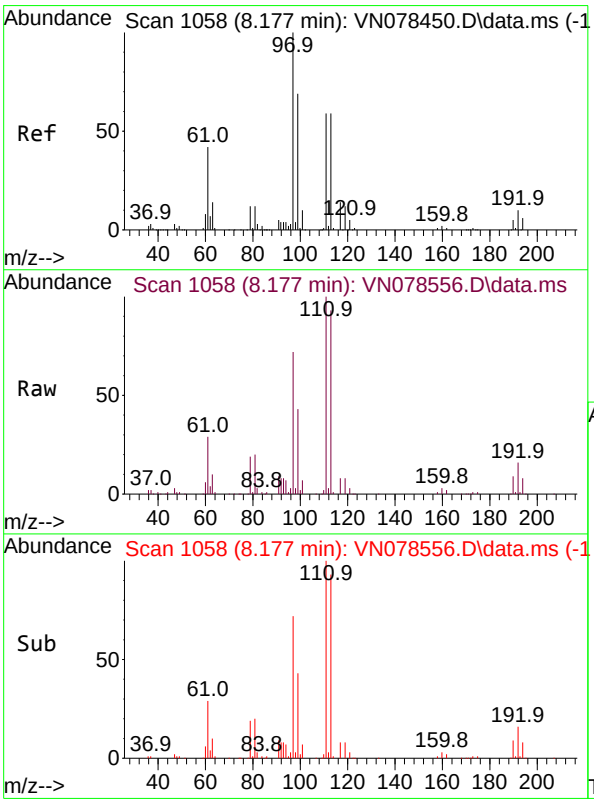
Ion	Ratio	Lower	Upper
56	100		
69	34.3	26.8	40.2
84	91.8	81.8	122.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

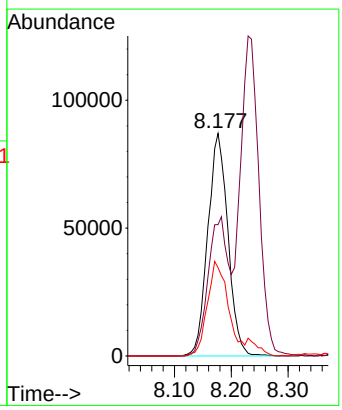
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

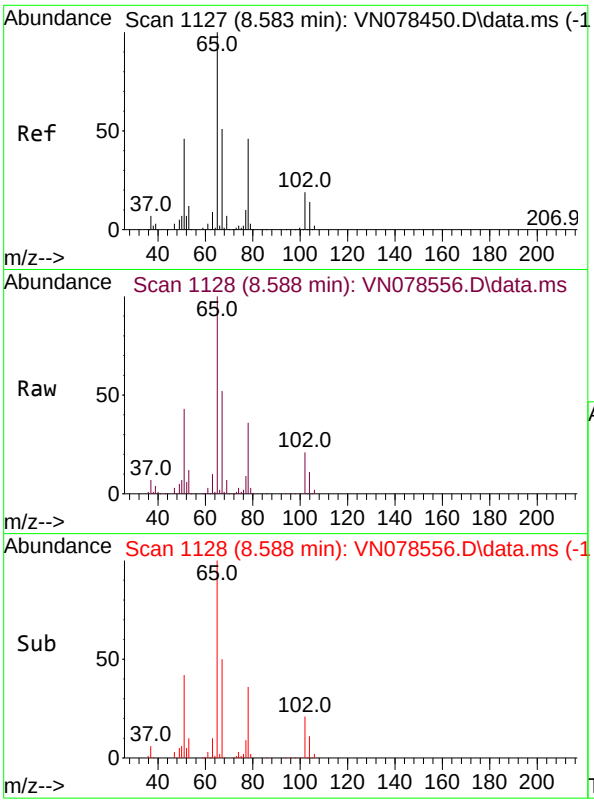


#32
1,1,1-Trichloroethane
Concen: 21.713 ug/l
RT: 8.177 min Scan# 1058
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 97 Resp: 213926

Ion	Ratio	Lower	Upper
97	100		
99	62.9	50.3	75.5
61	44.0	34.7	52.1

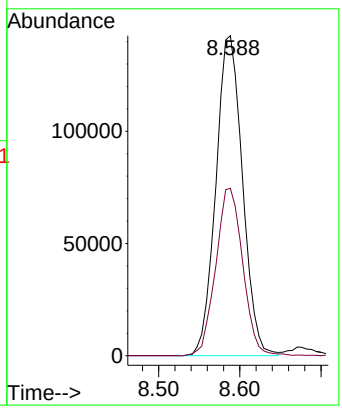




#33
1,2-Dichloroethane-d4
Concen: 50.009 ug/l
RT: 8.588 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 65 Resp: 32528

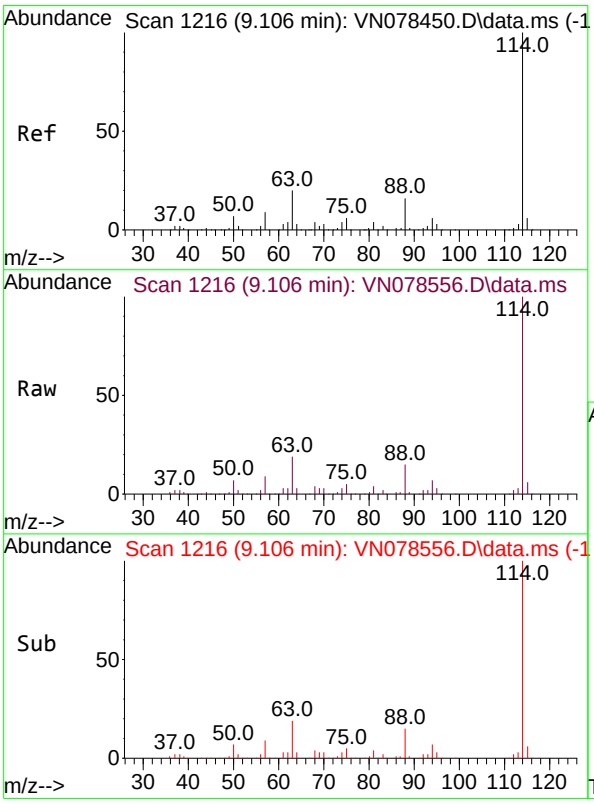
Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	106.6



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

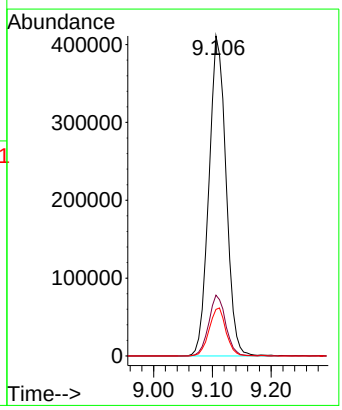
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

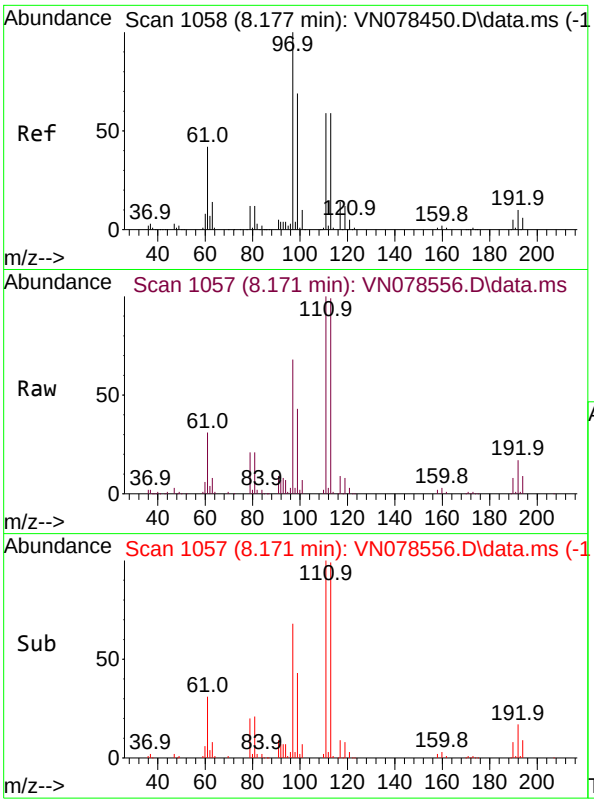


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.106 min Scan# 1216
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:114 Resp: 833352

Ion	Ratio	Lower	Upper
114	100		
63	19.0	0.0	36.4
88	14.6	0.0	30.6

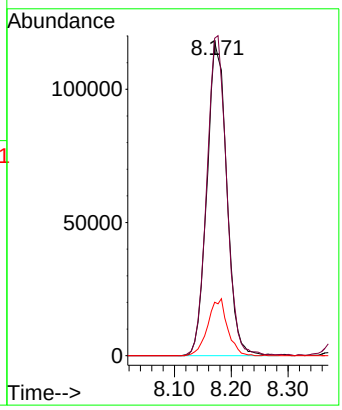




#35
Dibromofluoromethane
Concen: 50.476 ug/l
RT: 8.171 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:113 Resp: 28554

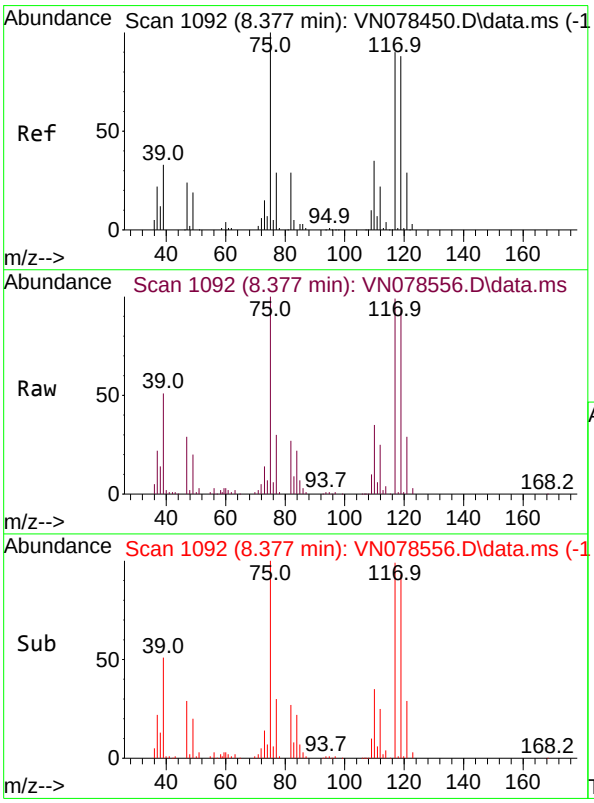
Ion	Ratio	Lower	Upper
113	100		
111	101.6	82.6	123.8
192	17.9	12.7	19.1



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

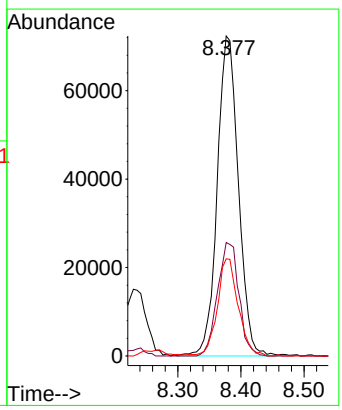
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

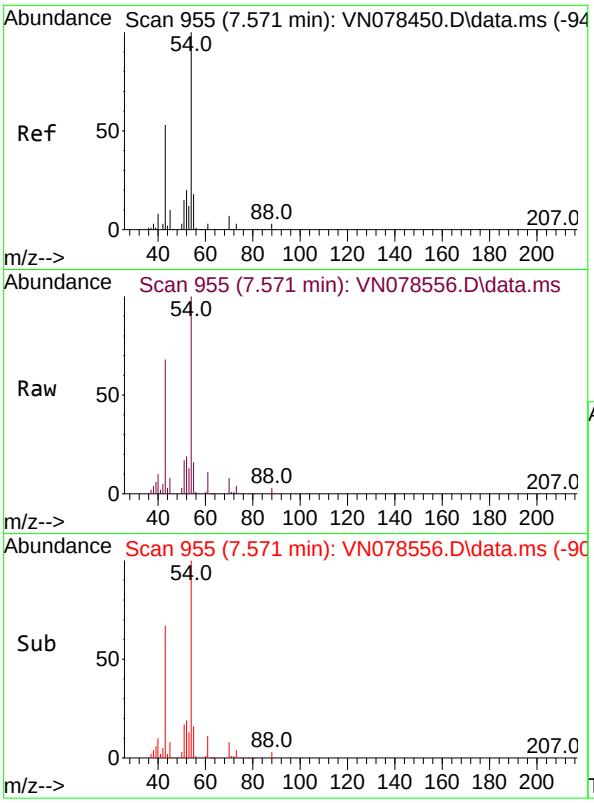


#36
1,1-Dichloropropene
Concen: 20.671 ug/l
RT: 8.377 min Scan# 1092
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 75 Resp: 168850

Ion	Ratio	Lower	Upper
75	100		
110	35.7	19.1	57.3
77	29.9	25.0	37.4

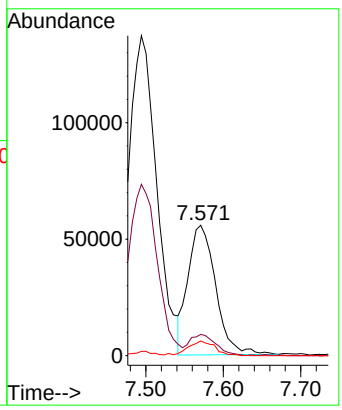




#37
Ethyl Acetate
Concen: 20.315 ug/l
RT: 7.571 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 43 Resp: 13833

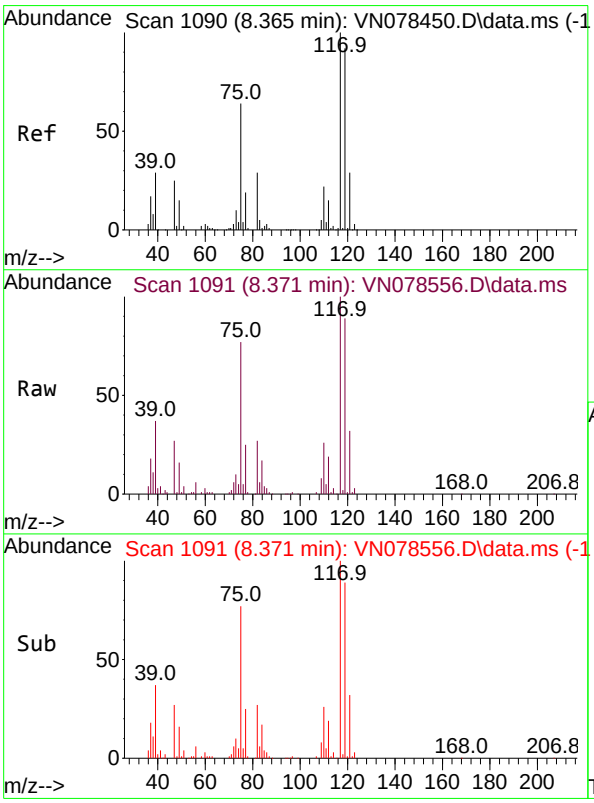
Ion	Ratio	Lower	Upper
43	100		
61	15.5	13.2	19.8
70	11.1	11.3	16.9



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

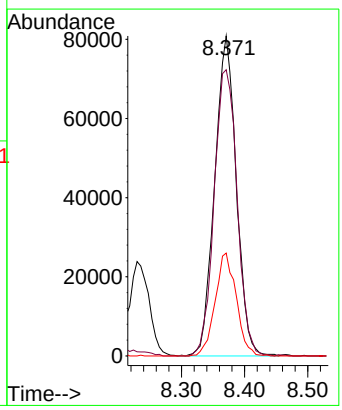
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

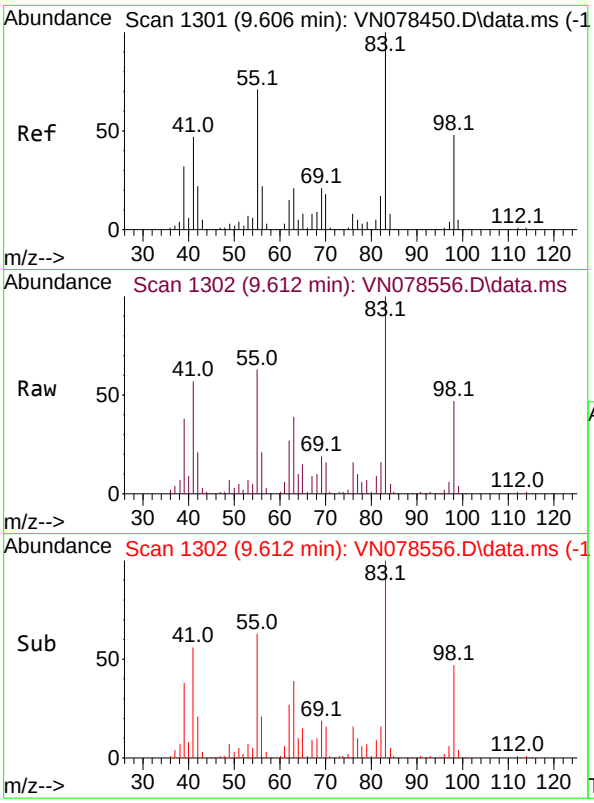


#38
Carbon Tetrachloride
Concen: 21.665 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:117 Resp: 192335

Ion	Ratio	Lower	Upper
117	100		
119	89.4	77.3	115.9
121	32.1	23.3	34.9

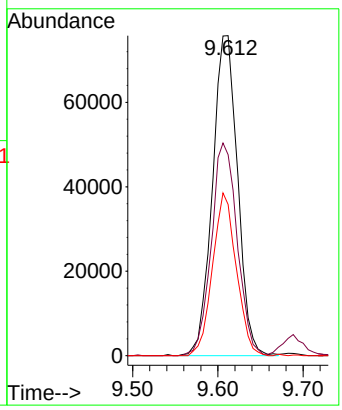




#39
Methylcyclohexane
Concen: 20.893 ug/l
RT: 9.612 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 83 Resp: 15577

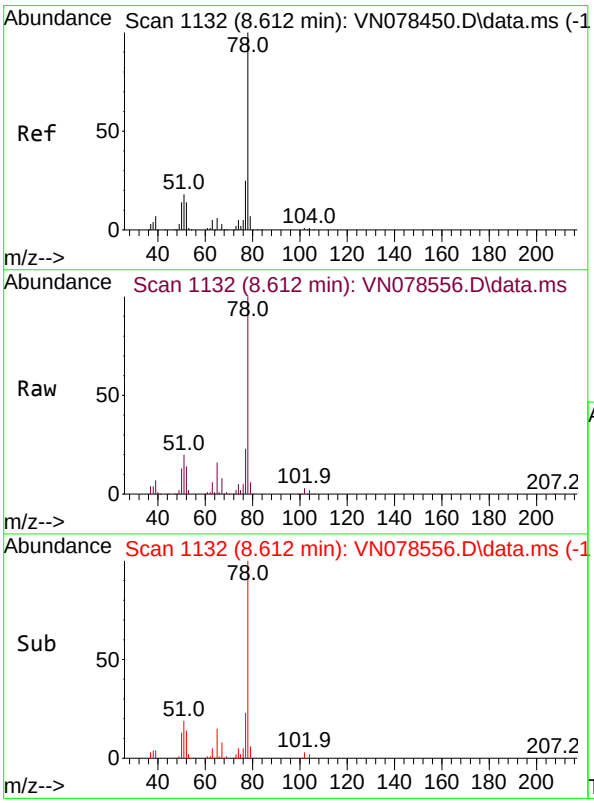
Ion	Ratio	Lower	Upper
83	100		
55	62.8	49.1	73.7
98	47.3	40.6	61.0



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

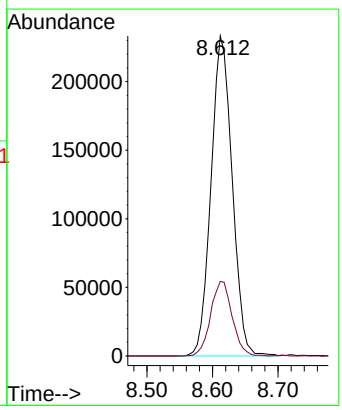
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

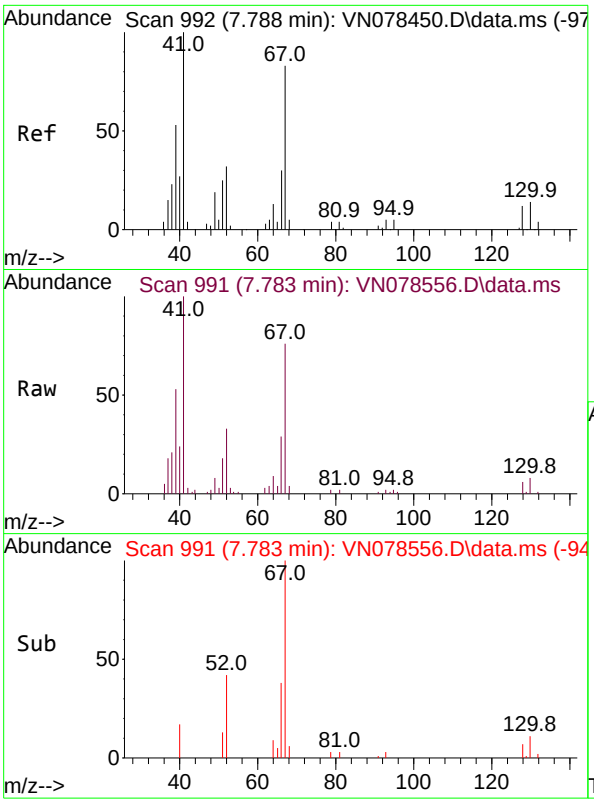


#40
Benzene
Concen: 21.585 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 78 Resp: 522339

Ion	Ratio	Lower	Upper
78	100		
77	23.3	19.0	28.6

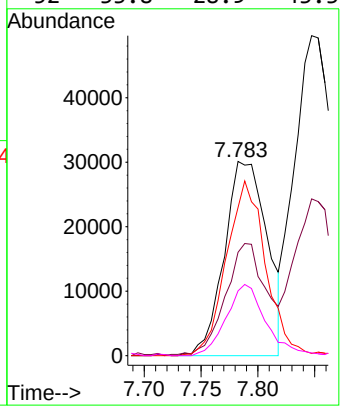




#41
Methacrylonitrile
Concen: 22.737 ug/l
RT: 7.783 min Scan# 9
Delta R.T. -0.005 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 41 Resp: 7892

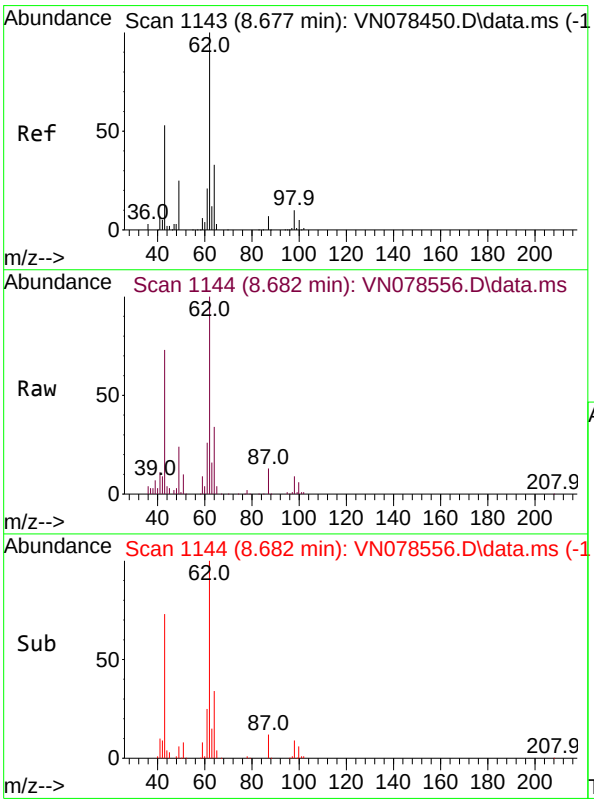
Ion	Ratio	Lower	Upper
41	100		
39	55.3	42.6	64.0
67	83.3	77.5	116.3
52	33.8	28.9	43.3



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

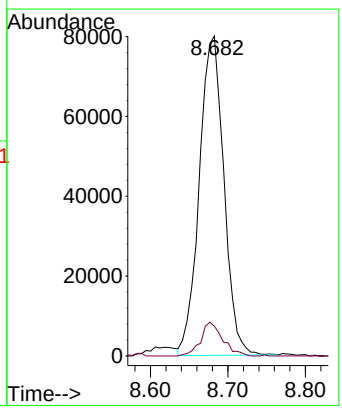
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

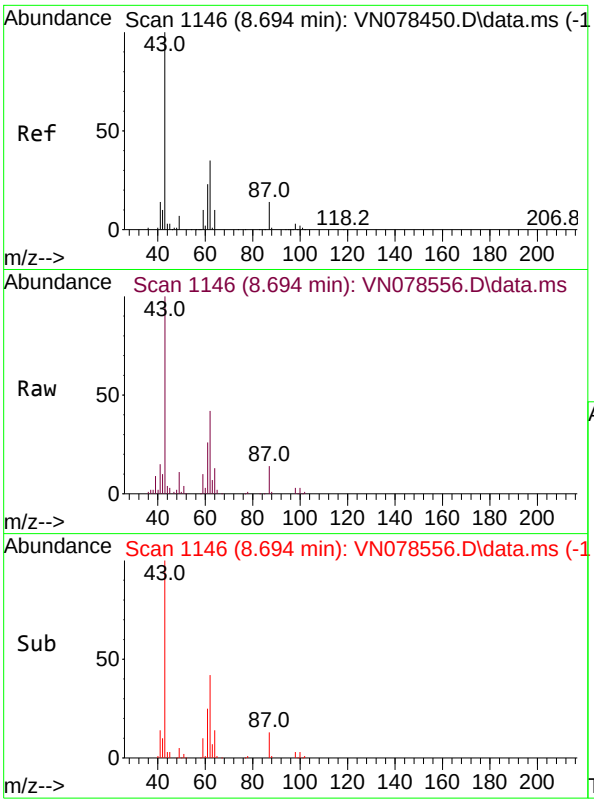


#42
1,2-Dichloroethane
Concen: 21.430 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. 0.005 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 62 Resp: 176391

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.8





#43
Isopropyl Acetate
Concen: 22.751 ug/l
RT: 8.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

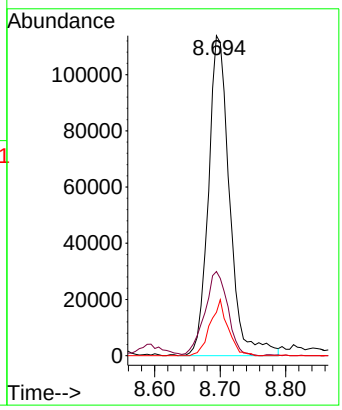
Tgt Ion: 43 Resp: 25504

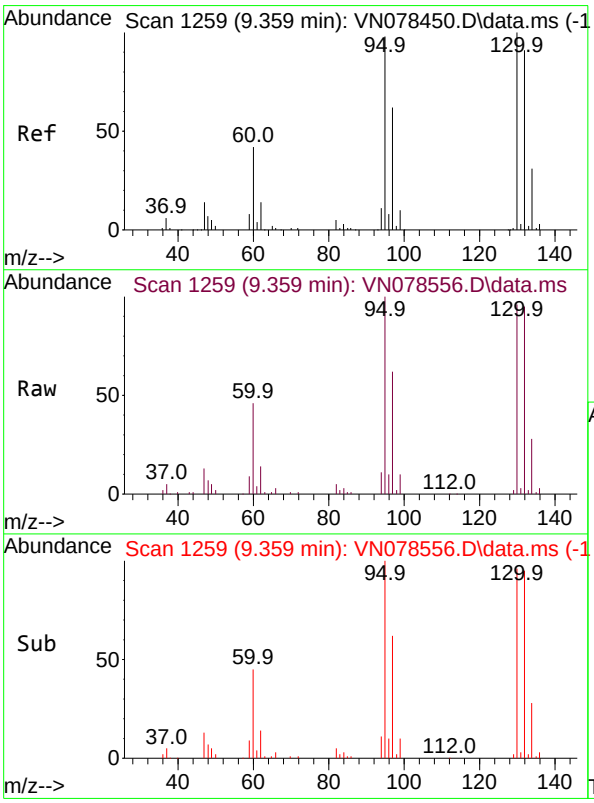
Ion	Ratio	Lower	Upper
43	100		
61	28.7	24.7	37.1
87	14.7	14.6	21.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

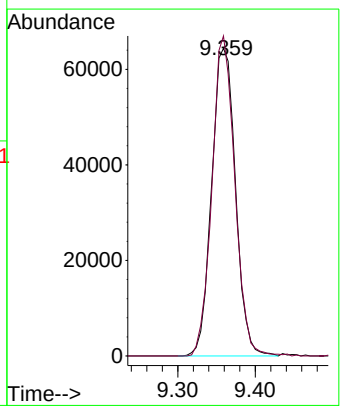


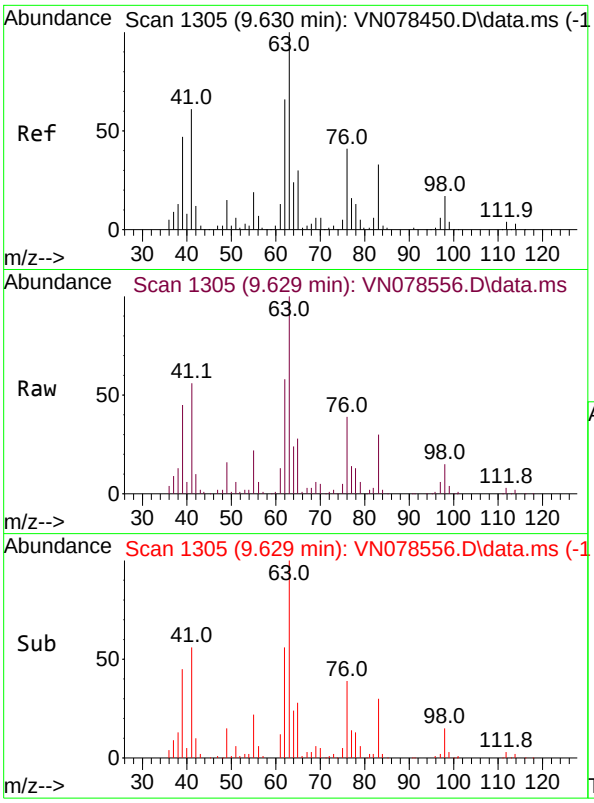


#44
Trichloroethene
Concen: 21.100 ug/l
RT: 9.359 min Scan# 1259
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:130 Resp: 137619

Ion	Ratio	Lower	Upper
130	100		
95	104.0	0.0	204.6

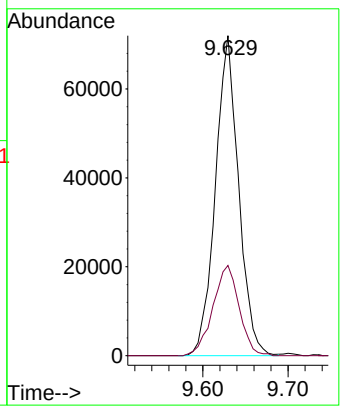




#45
1,2-Dichloropropane
Concen: 22.259 ug/l
RT: 9.629 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 63 Resp: 13642

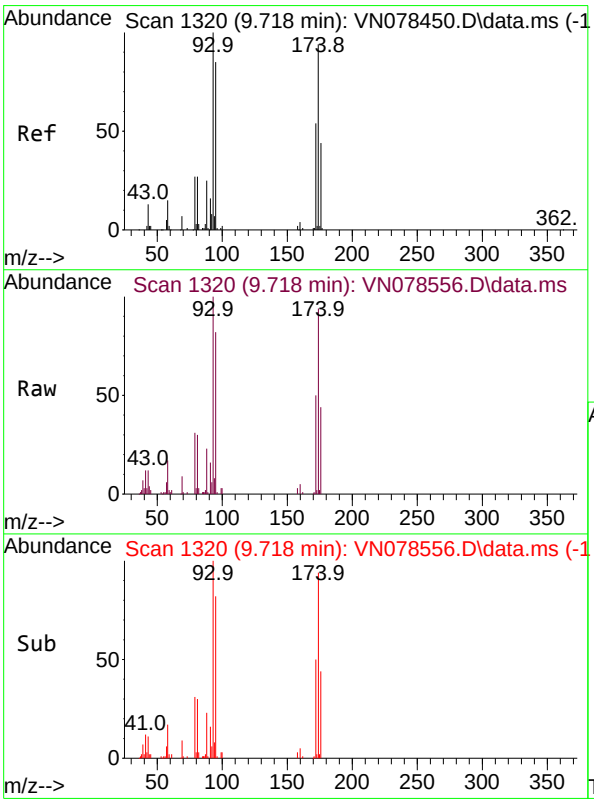
Ion	Ratio	Lower	Upper
63	100		
65	28.2	23.9	35.9



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

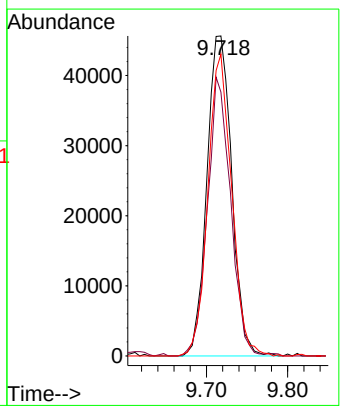
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

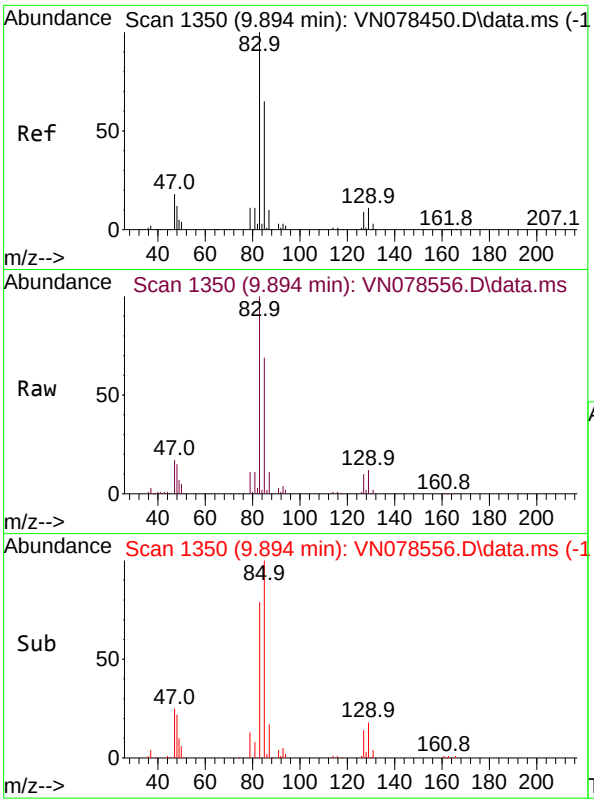


#46
Dibromomethane
Concen: 22.448 ug/l
RT: 9.718 min Scan# 1320
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 93 Resp: 96834

Ion	Ratio	Lower	Upper
93	100		
95	81.3	63.8	95.8
174	90.5	65.6	98.4





#47
Bromodichloromethane
Concen: 21.582 ug/l
RT: 9.894 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

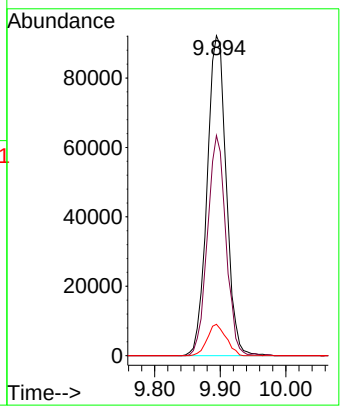
Tgt Ion: 83 Resp: 18662

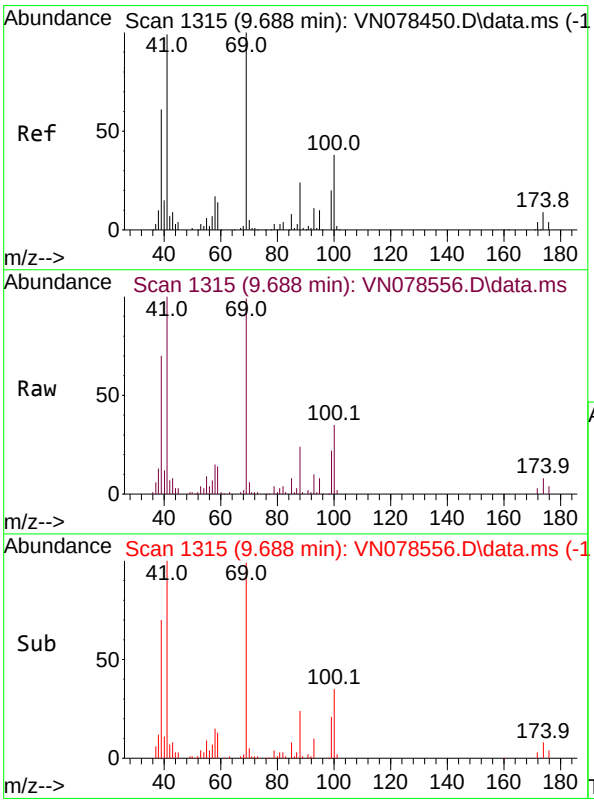
Ion	Ratio	Lower	Upper
83	100		
85	68.8	49.6	74.4
127	9.8	7.0	10.6

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

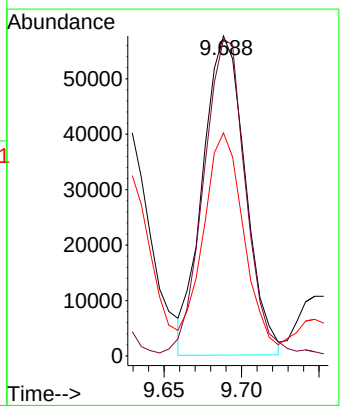


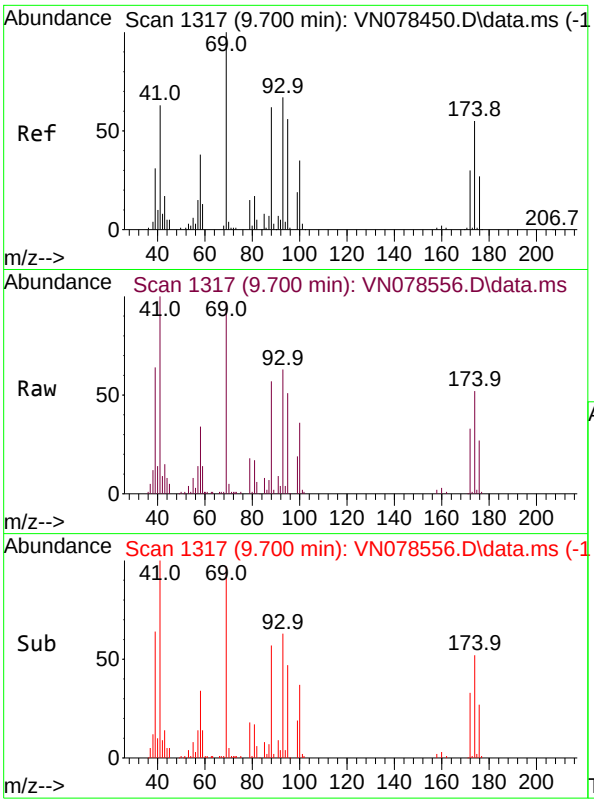


#48
Methyl methacrylate
Concen: 21.103 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 41 Resp: 109602

Ion	Ratio	Lower	Upper
41	100		
69	98.9	90.4	135.6
39	67.3	54.6	81.8





#49
1,4-Dioxane
Concen: 416.854 ug/l
RT: 9.700 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

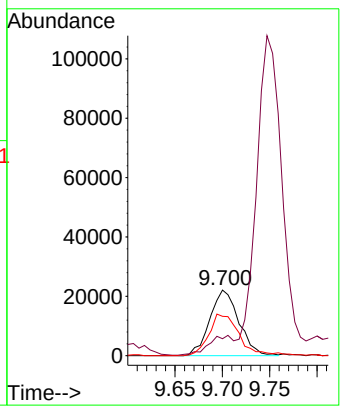
Tgt Ion: 88 Resp: 4721

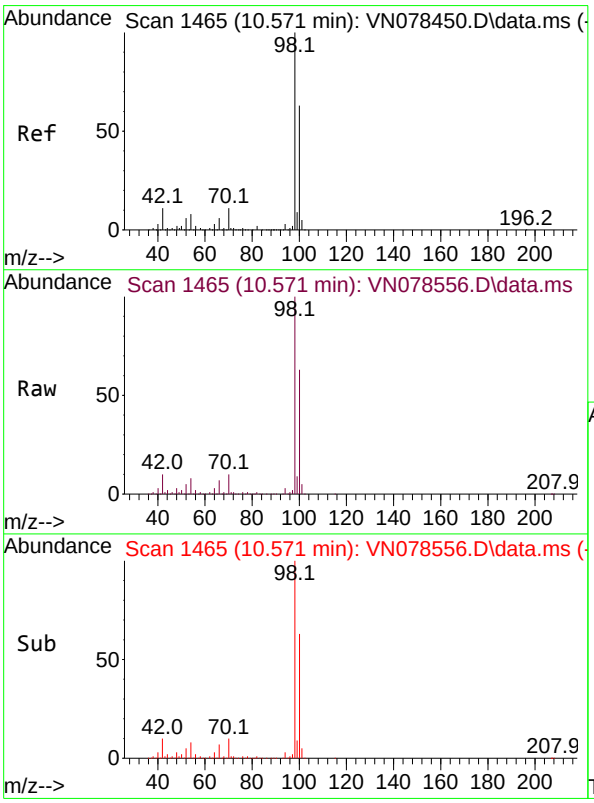
Ion	Ratio	Lower	Upper
88	100		
43	25.2	17.0	25.6
58	66.9	47.0	70.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

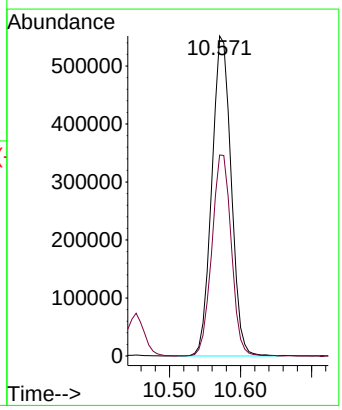


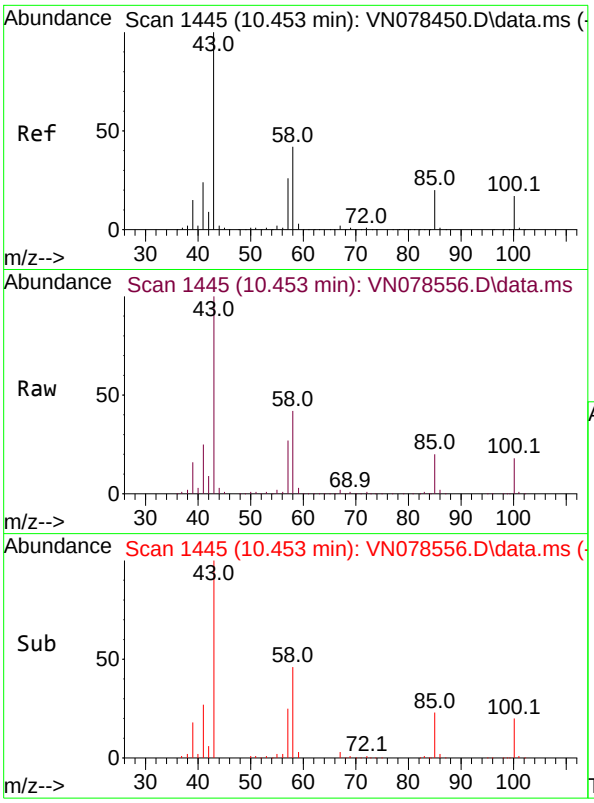


#50
Toluene-d8
Concen: 48.648 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 98 Resp: 1039630

Ion	Ratio	Lower	Upper
98	100		
100	63.2	52.0	78.0





#51
4-Methyl-2-Pentanone
Concen: 110.416 ug/l
RT: 10.453 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

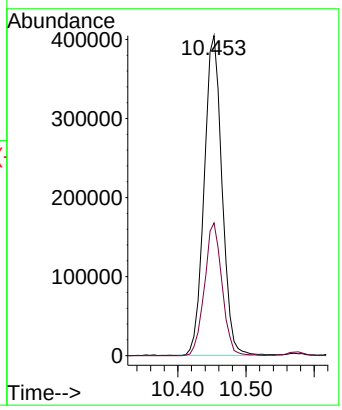
Tgt Ion: 43 Resp: 73627

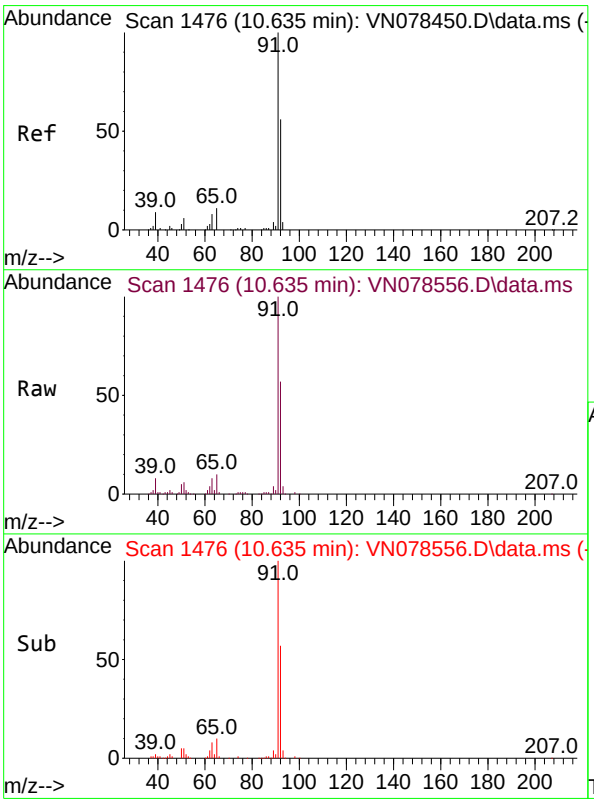
Ion	Ratio	Lower	Upper
43	100		
58	40.9	36.6	54.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

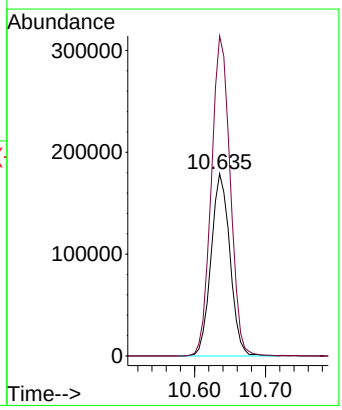


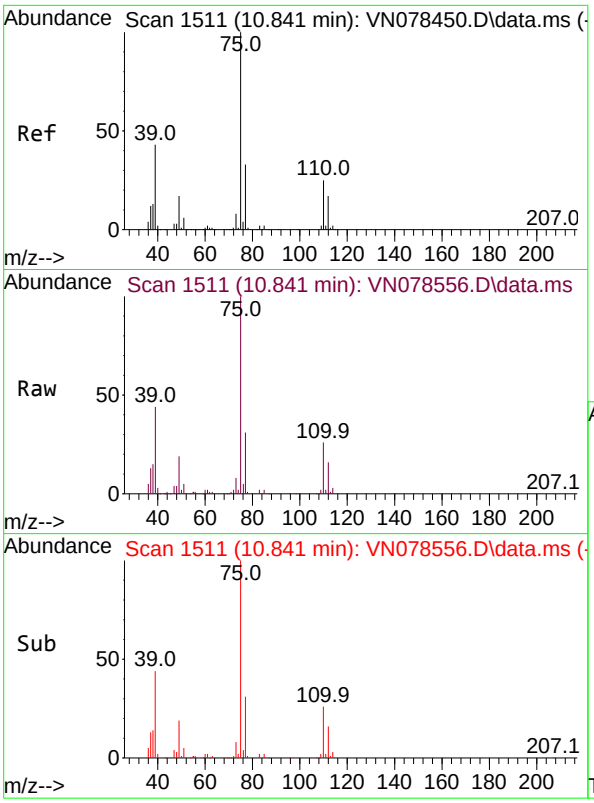


#52
Toluene
Concen: 21.978 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 92 Resp: 329625

Ion	Ratio	Lower	Upper
92	100		
91	176.1	137.4	206.0

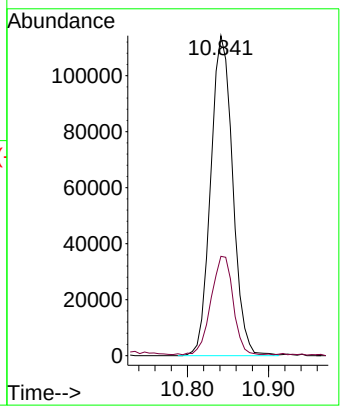




#53
t-1,3-Dichloropropene
Concen: 24.306 ug/l
RT: 10.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 75 Resp: 21532

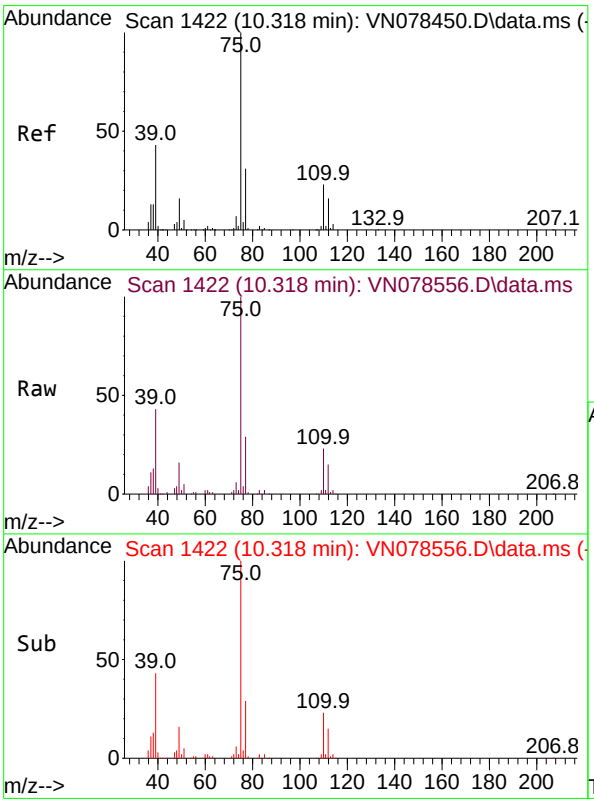
Ion	Ratio	Lower	Upper
75	100		
77	30.6	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

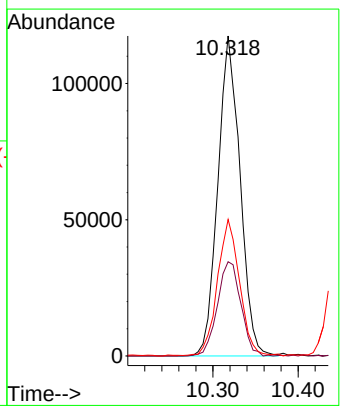
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

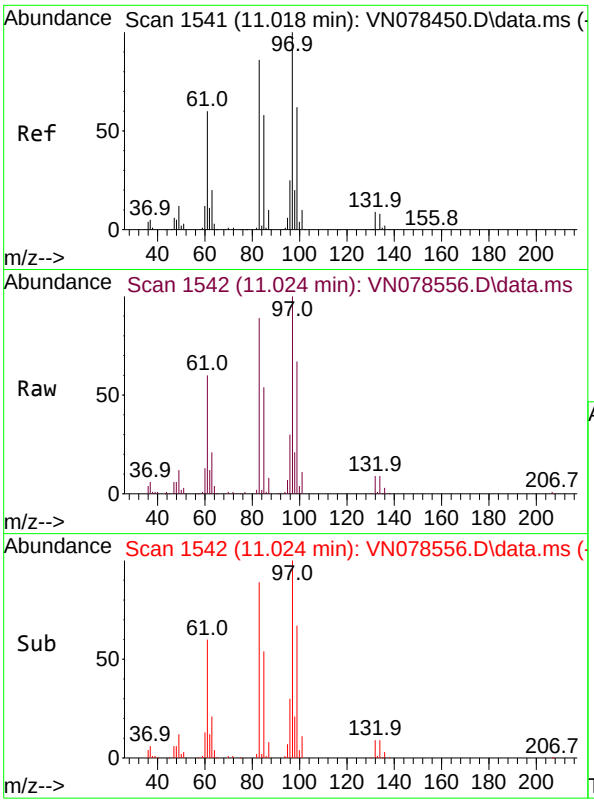


#54
cis-1,3-Dichloropropene
Concen: 22.512 ug/l
RT: 10.318 min Scan# 1422
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 75 Resp: 212582

Ion	Ratio	Lower	Upper
75	100		
77	29.5	26.1	39.1
39	42.5	31.6	47.4

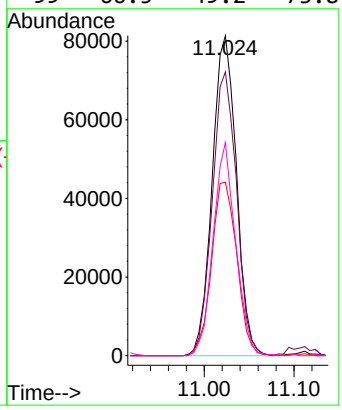




#55
1,1,2-Trichloroethane
Concen: 25.812 ug/l
RT: 11.024 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 97 Resp: 15252

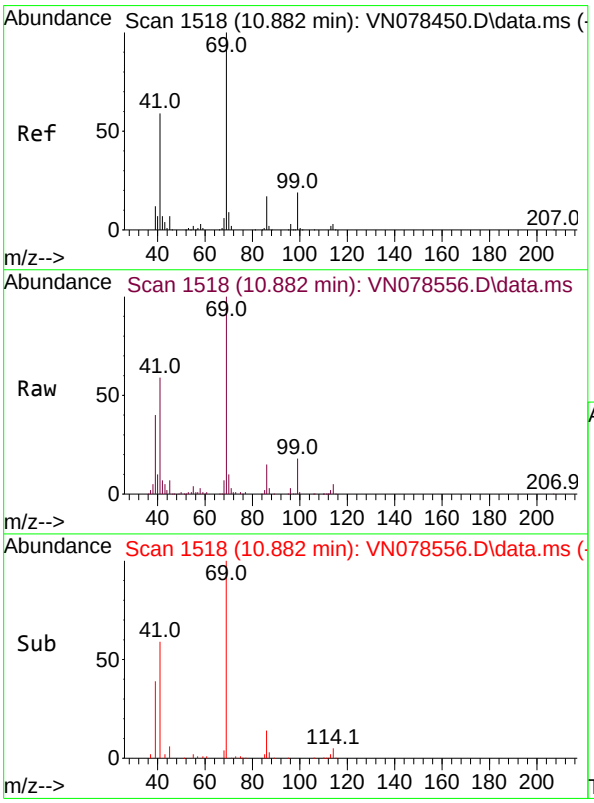
Ion	Ratio	Lower	Upper
97	100		
83	88.6	65.1	97.7
85	54.3	43.4	65.2
99	66.5	49.2	73.8



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

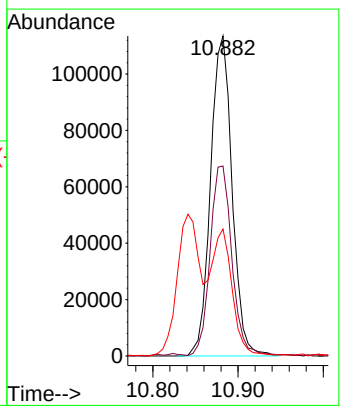
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

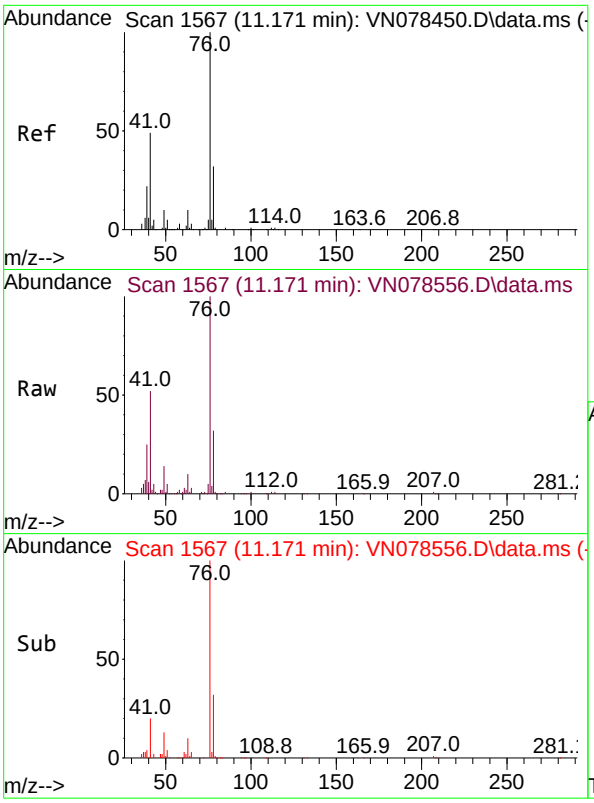


#56
Ethyl methacrylate
Concen: 24.114 ug/l
RT: 10.882 min Scan# 1518
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 69 Resp: 199186

Ion	Ratio	Lower	Upper
69	100		
41	59.8	39.6	59.4#
39	35.0	28.6	43.0





#57
1,3-Dichloropropane
Concen: 29.002 ug/l
RT: 11.171 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

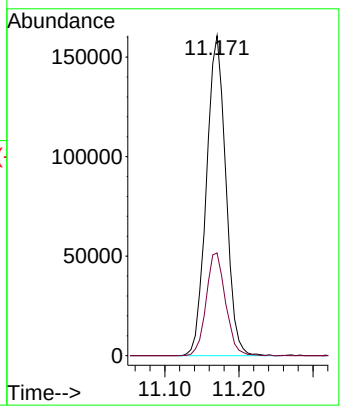
Tgt Ion: 76 Resp: 29139

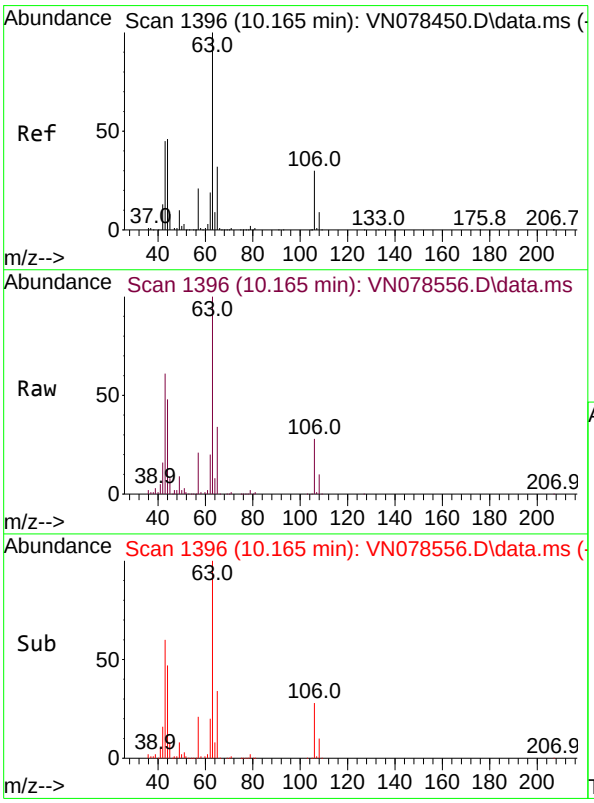
Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.1	39.1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

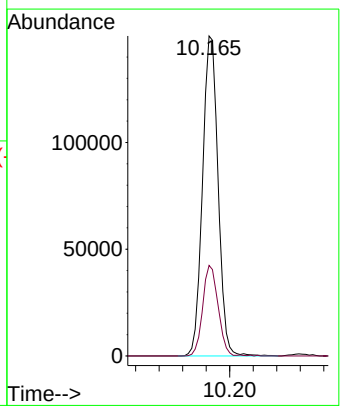


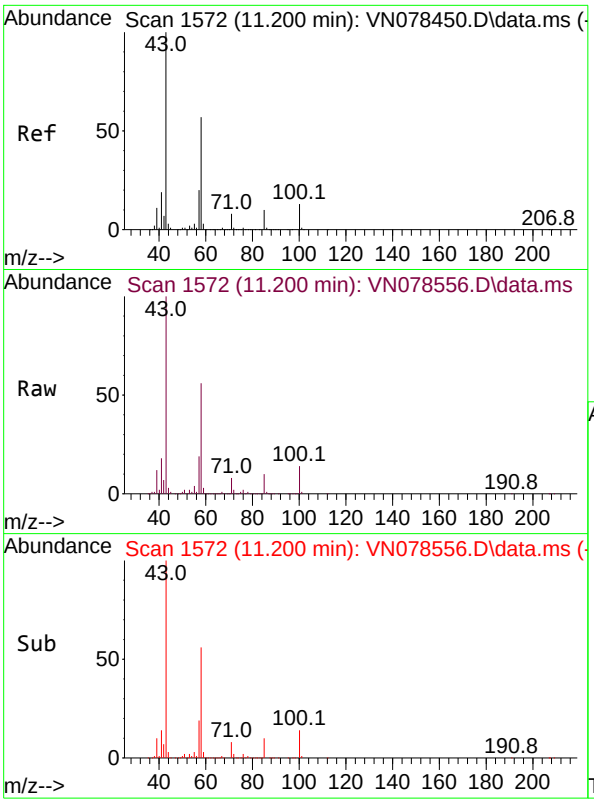


#58
2-Chloroethyl Vinyl ether
Concen: 93.416 ug/l
RT: 10.165 min Scan# 1396
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 63 Resp: 274995

Ion	Ratio	Lower	Upper
63	100		
106	28.0	26.2	39.4





#59
2-Hexanone
Concen: 147.834 ug/l
RT: 11.200 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

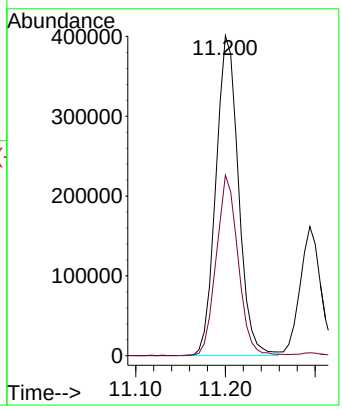
Tgt Ion: 43 Resp: 70060

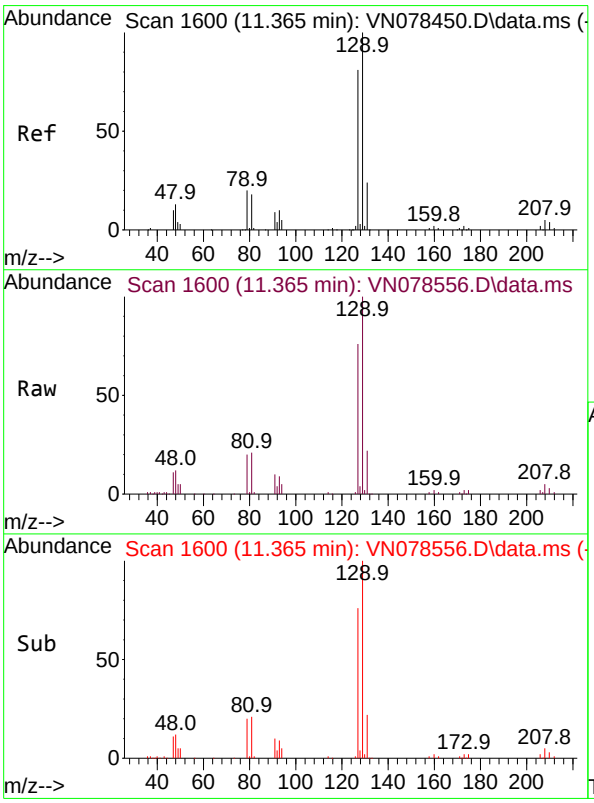
Ion	Ratio	Lower	Upper
43	100		
58	54.7	31.7	95.1

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

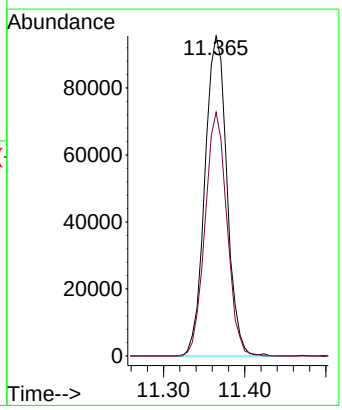


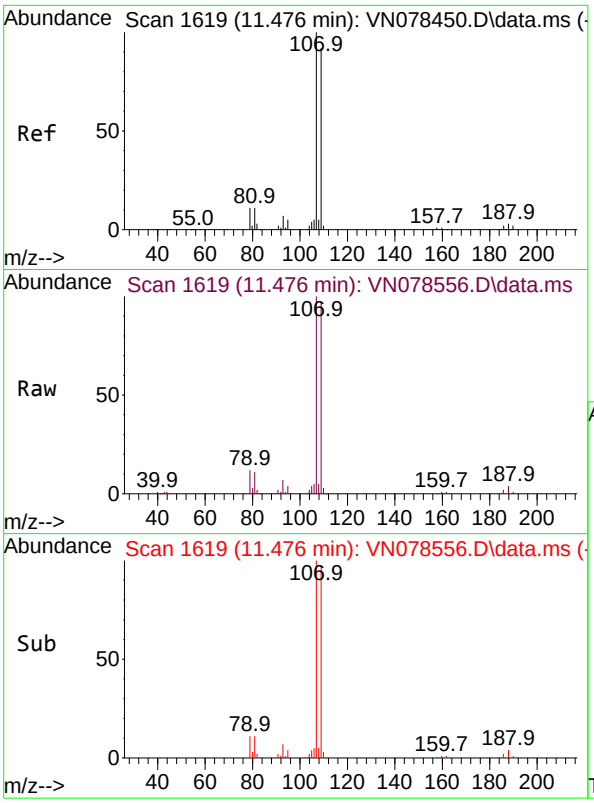


#60
Dibromochloromethane
Concen: 27.496 ug/l
RT: 11.365 min Scan# 1600
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:129 Resp: 179375

Ion	Ratio	Lower	Upper
129	100		
127	75.9	38.6	116.0





#61
1,2-Dibromoethane
Concen: 25.341 ug/l
RT: 11.476 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

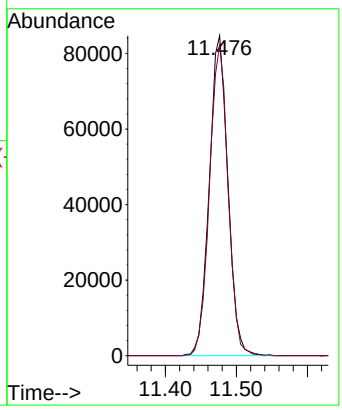
Tgt Ion:107 Resp: 15425

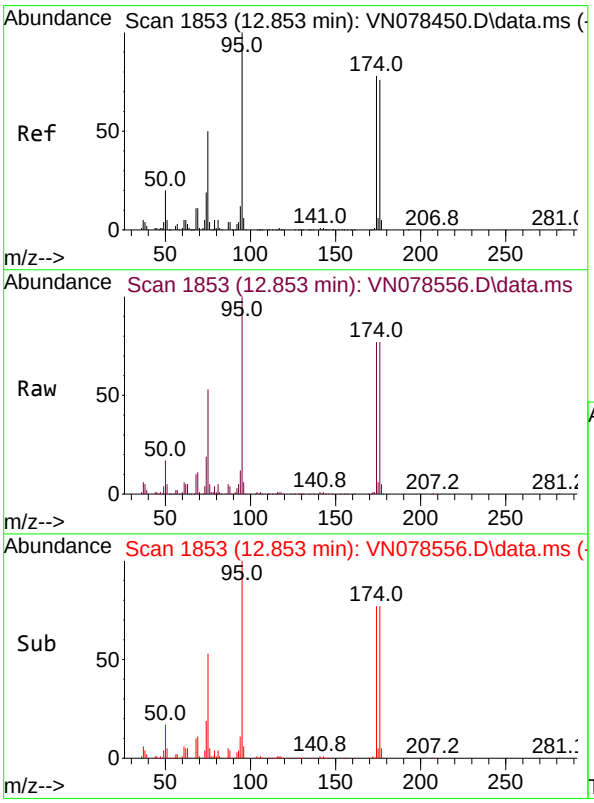
Ion	Ratio	Lower	Upper
107	100		
109	96.9	76.6	114.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

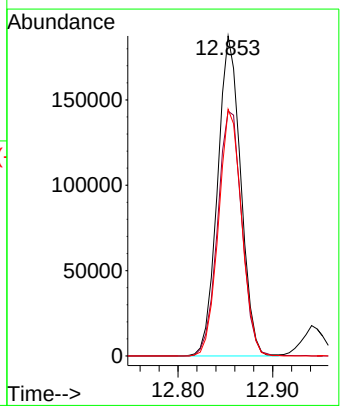


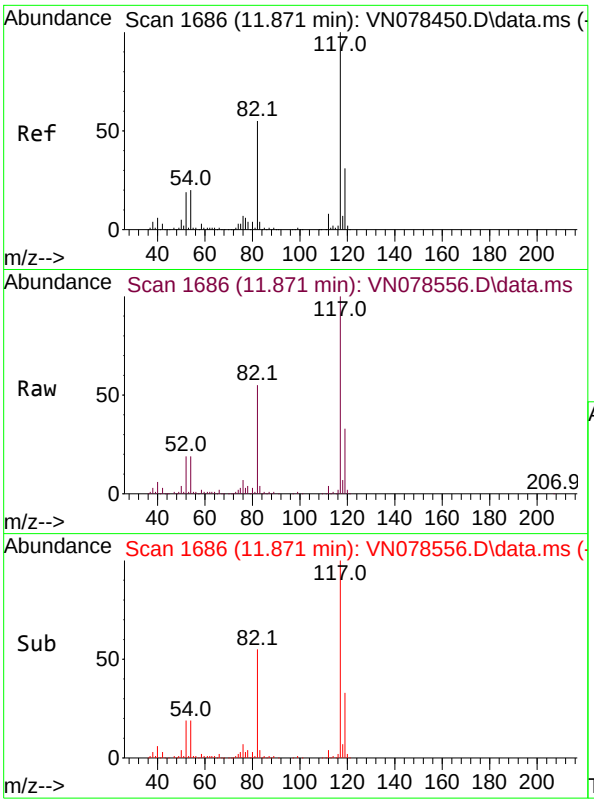


#62
4-Bromofluorobenzene
Concen: 48.402 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 95 Resp: 318612

Ion	Ratio	Lower	Upper
95	100		
174	79.9	0.0	143.8
176	77.1	0.0	135.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

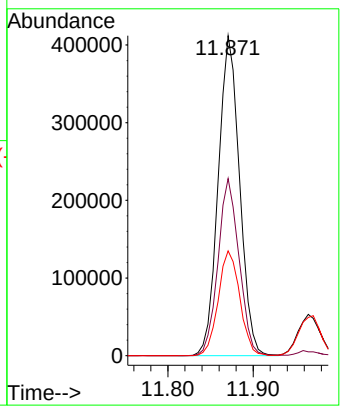
Tgt Ion:117 Resp: 71702

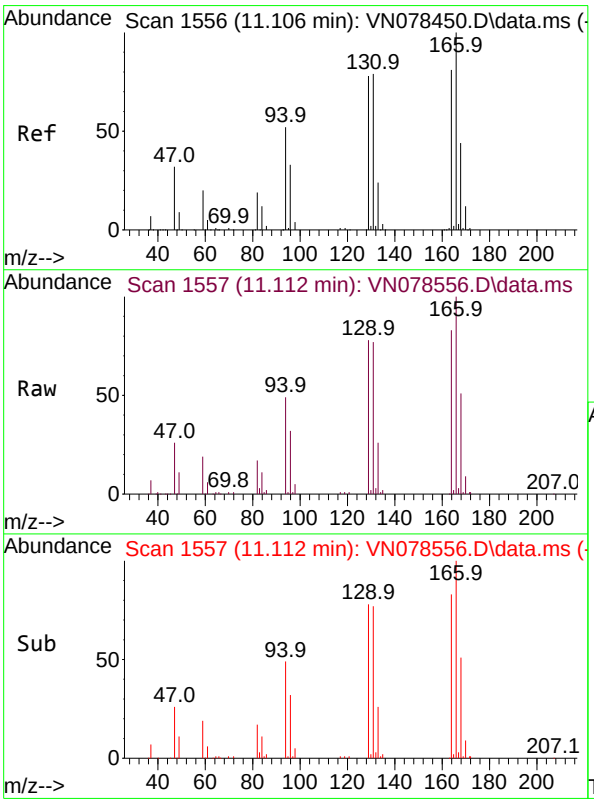
Ion	Ratio	Lower	Upper
117	100		
82	55.3	44.0	66.0
119	32.8	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

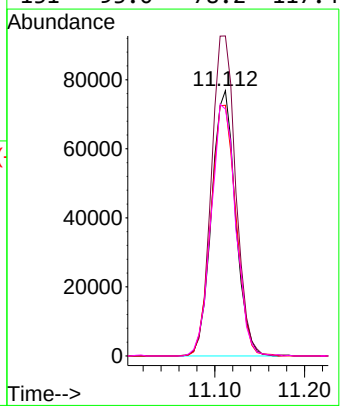


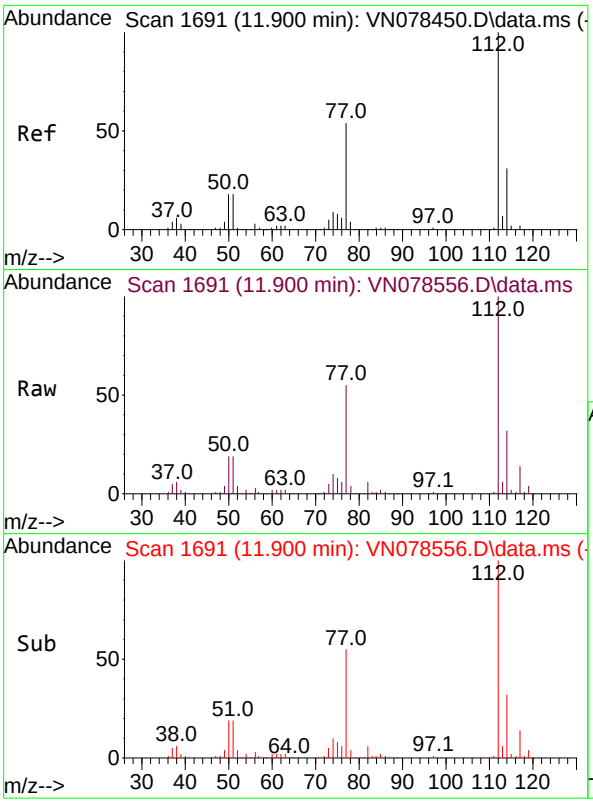


#64
Tetrachloroethene
Concen: 26.323 ug/l
RT: 11.112 min Scan# 1557
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:164 Resp: 141903

Ion	Ratio	Lower	Upper
164	100		
166	120.6	101.4	152.0
129	94.5	82.4	123.6
131	93.0	78.2	117.4





#65
Chlorobenzene
Concen: 21.822 ug/l
RT: 11.900 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

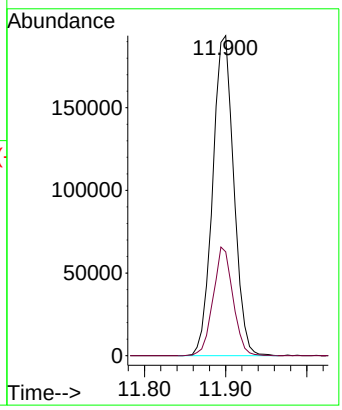
Tgt Ion:112 Resp: 34975

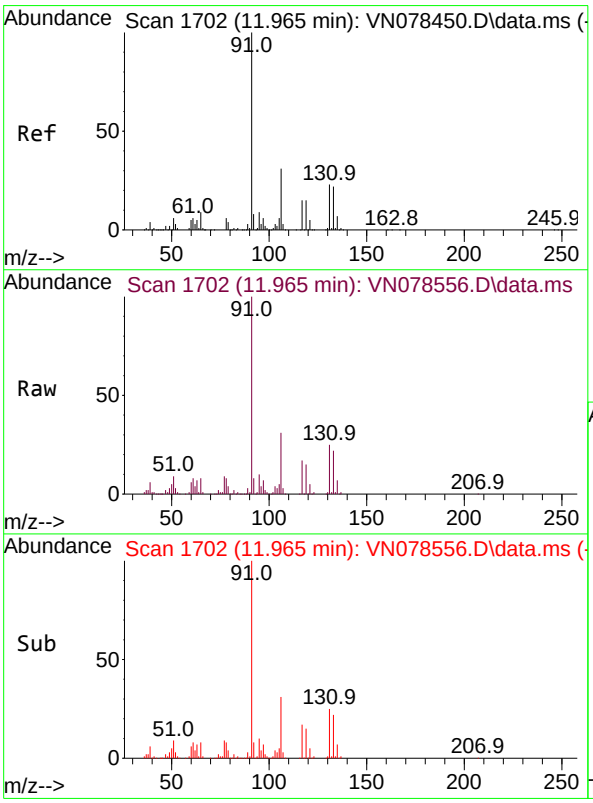
Ion	Ratio	Lower	Upper
112	100		
114	32.4	25.0	37.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

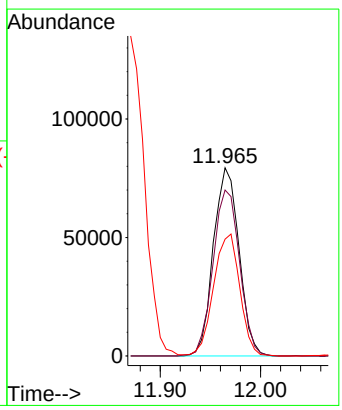


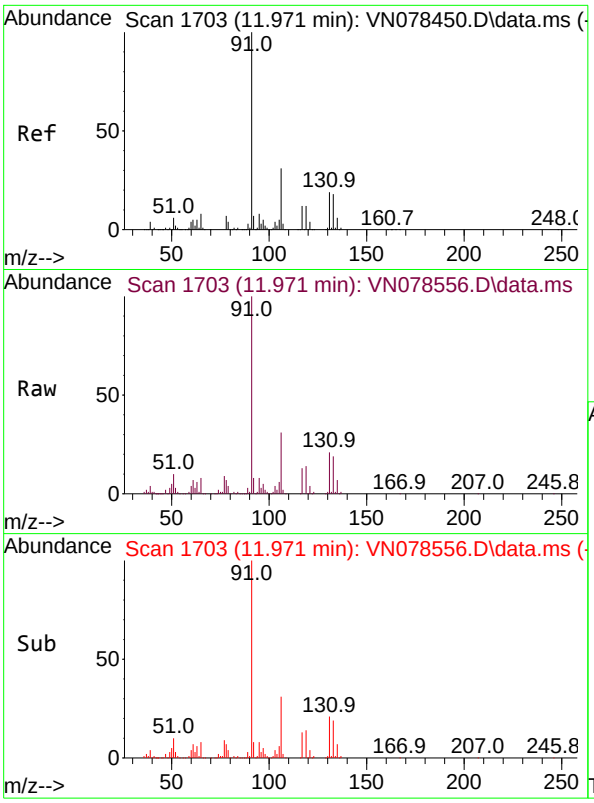


#66
1,1,1,2-Tetrachloroethane
Concen: 22.807 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:131 Resp: 140618

Ion	Ratio	Lower	Upper
131	100		
133	91.9	46.4	139.1
119	66.4	34.1	102.2





#67
Ethyl Benzene
Concen: 22.010 ug/l
RT: 11.971 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

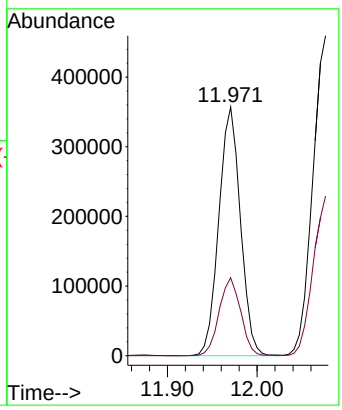
Tgt Ion: 91 Resp: 59626

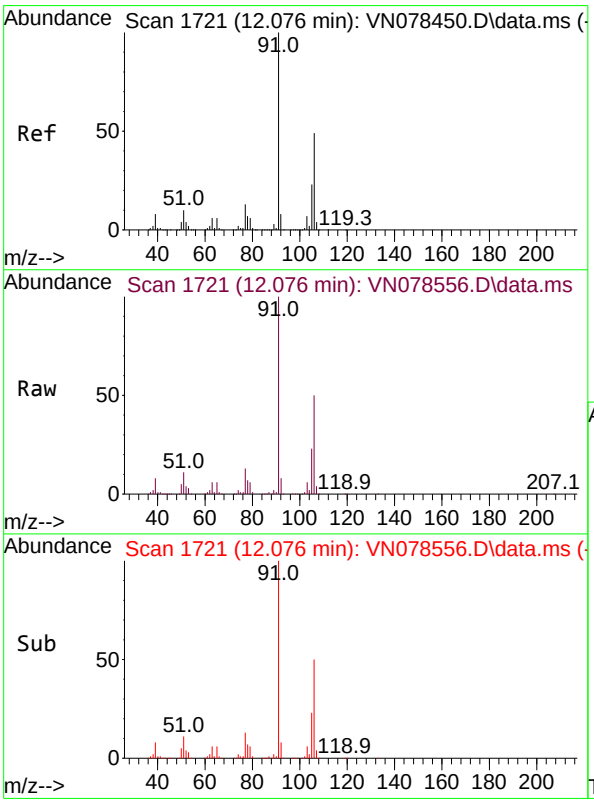
Ion	Ratio	Lower	Upper
91	100		
106	31.3	25.6	38.4

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

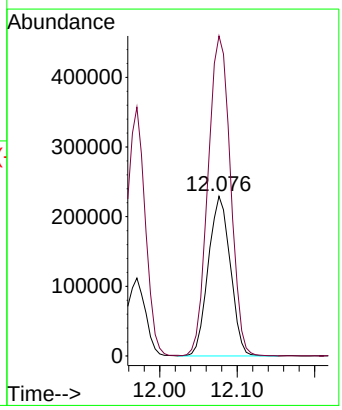


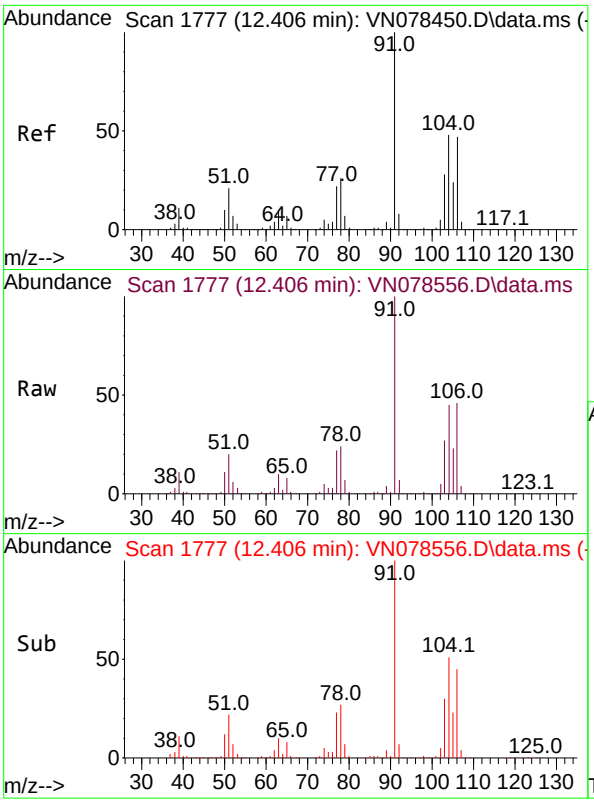


#68
m/p-Xylenes
Concen: 45.213 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:106 Resp: 452872

Ion	Ratio	Lower	Upper
106	100		
91	204.0	159.6	239.4

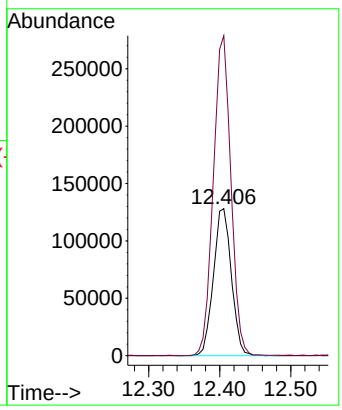




#69
o-Xylene
Concen: 22.180 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:106 Resp: 22440

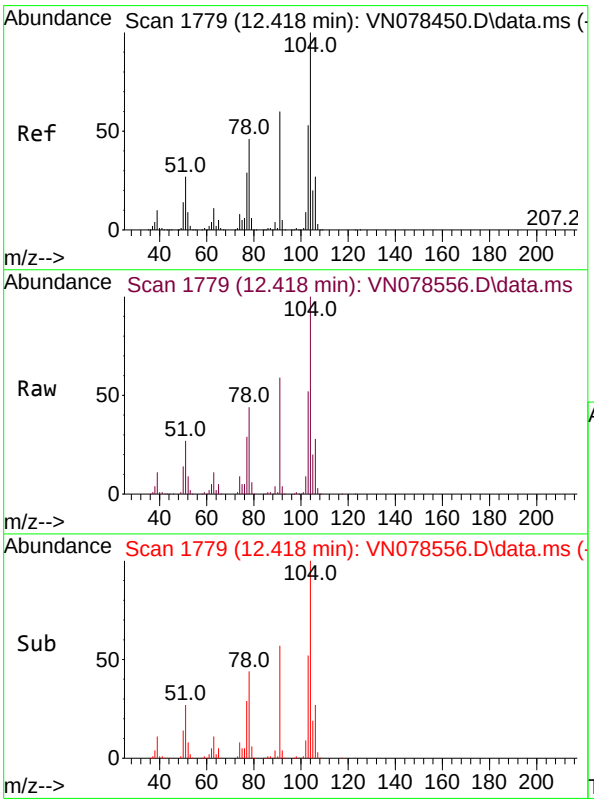
Ion	Ratio	Lower	Upper
106	100		
91	213.6	105.2	315.5



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

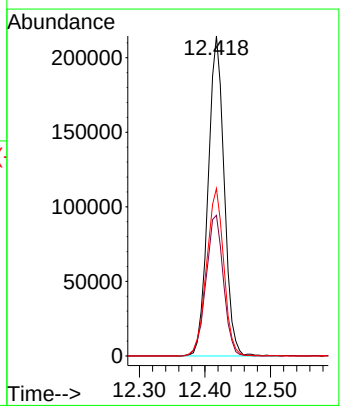
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

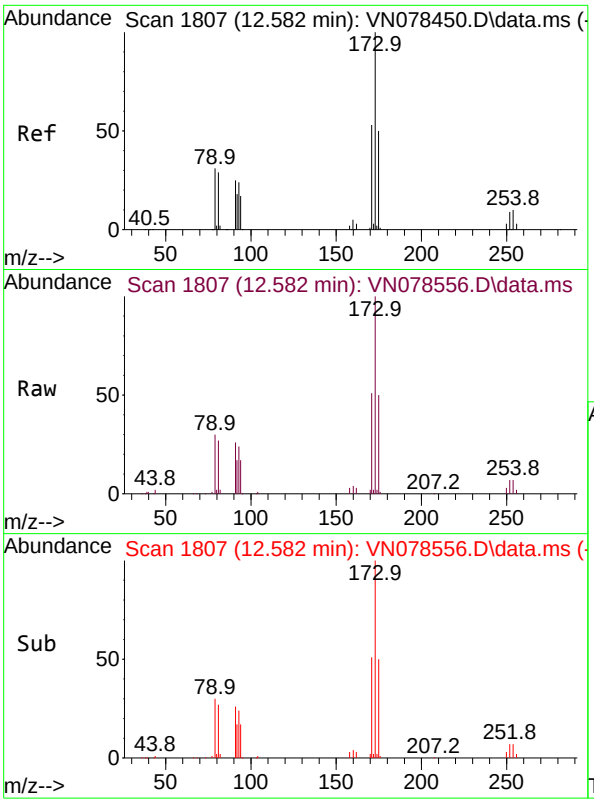


#70
Styrene
Concen: 23.081 ug/l
RT: 12.418 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:104 Resp: 365331

Ion	Ratio	Lower	Upper
104	100		
78	47.6	39.5	59.3
103	56.0	43.2	64.8





#71
Bromoform
Concen: 23.480 ug/l
RT: 12.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

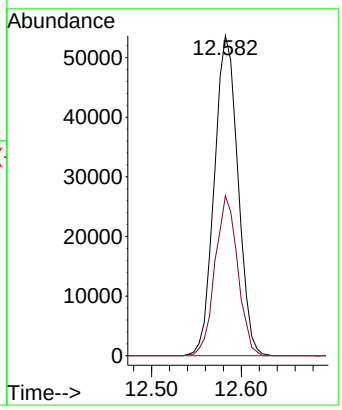
Tgt Ion:173 Resp: 9804

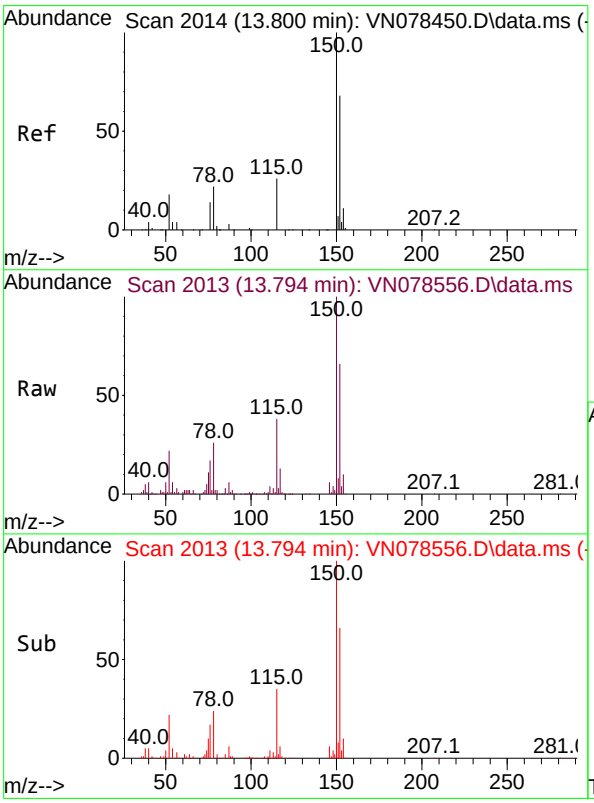
Ion	Ratio	Lower	Upper
173	100		
175	48.1	24.3	73.0
254	0.0	0.0	0.0

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

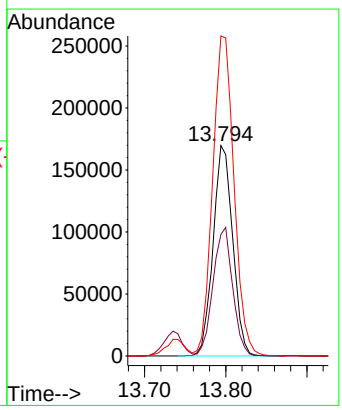


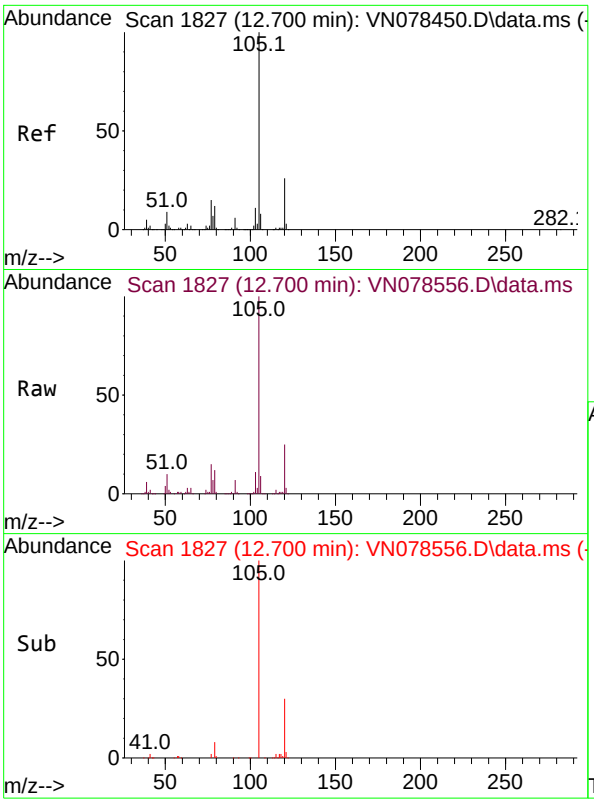


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. -0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:152 Resp: 285080

Ion	Ratio	Lower	Upper
152	100		
115	61.0	32.3	96.8
150	165.5	0.0	355.8

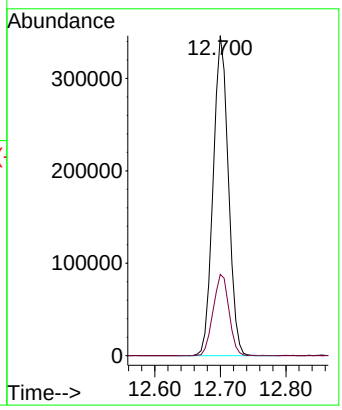




#73
Isopropylbenzene
Concen: 20.849 ug/l
RT: 12.700 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:105 Resp: 55848

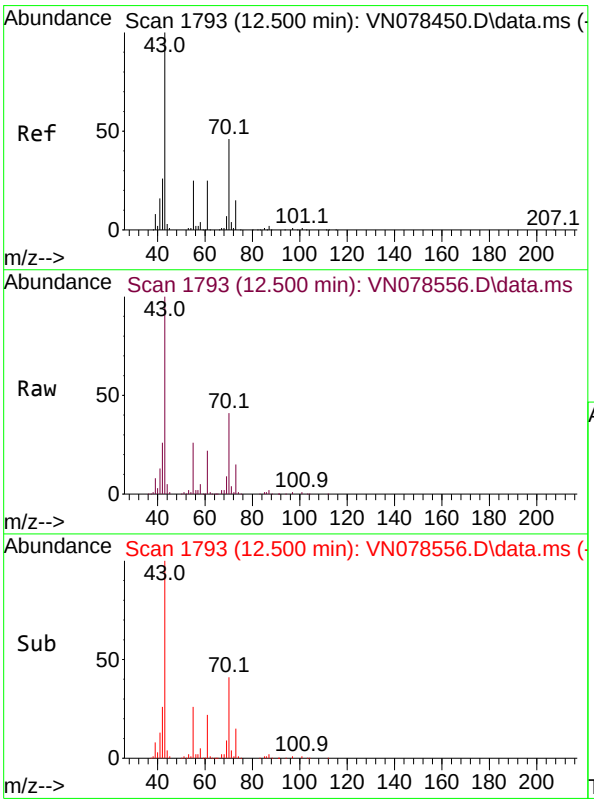
Ion	Ratio	Lower	Upper
105	100		
120	26.4	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

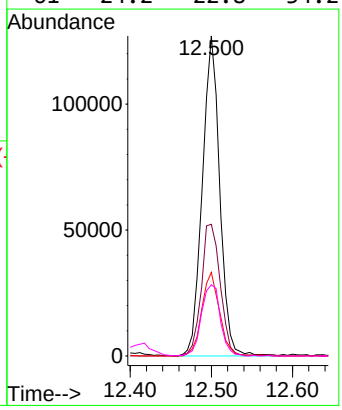
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

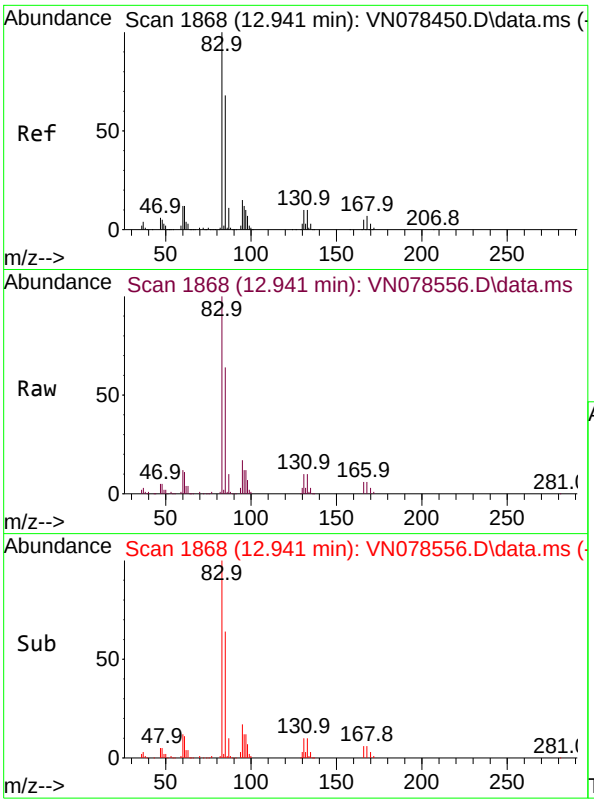


#74
N-amyl acetate
Concen: 20.507 ug/l
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 43 Resp: 189309

Ion	Ratio	Lower	Upper
43	100		
70	44.8	43.4	65.2
55	26.7	21.4	32.0
61	24.2	22.8	34.2





#75
1,1,2,2-Tetrachloroethane
Concen: 22.547 ug/l
RT: 12.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

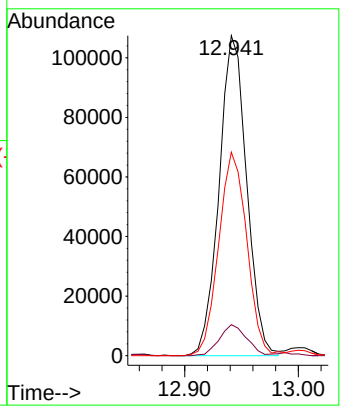
Tgt Ion: 83 Resp: 18141

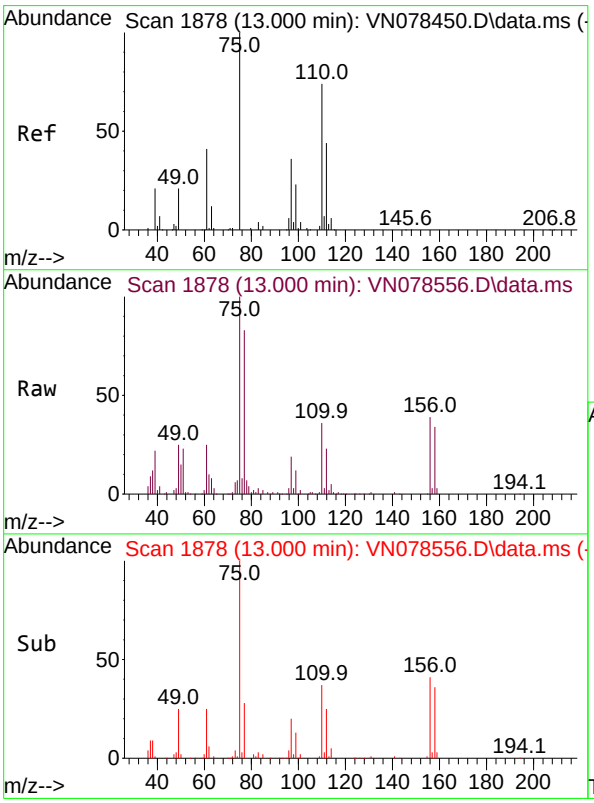
Ion	Ratio	Lower	Upper
83	100		
131	9.6	5.0	15.0
85	64.9	31.9	95.7

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

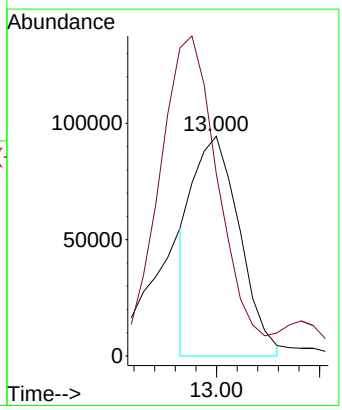


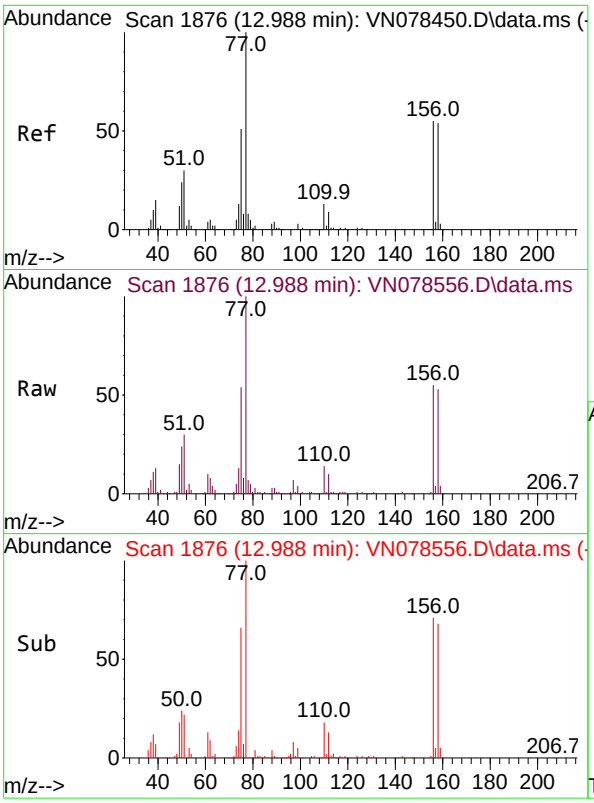


#76
1,2,3-Trichloropropane
Concen: 21.863 ug/l m
RT: 13.000 min Scan# 1878
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 75 Resp: 150651

Ion	Ratio	Lower	Upper
75	100		
77	183.9	84.5	253.5

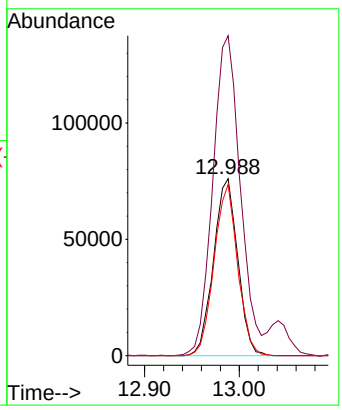




#77
Bromobenzene
Concen: 22.325 ug/l
RT: 12.988 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:156 Resp: 13503

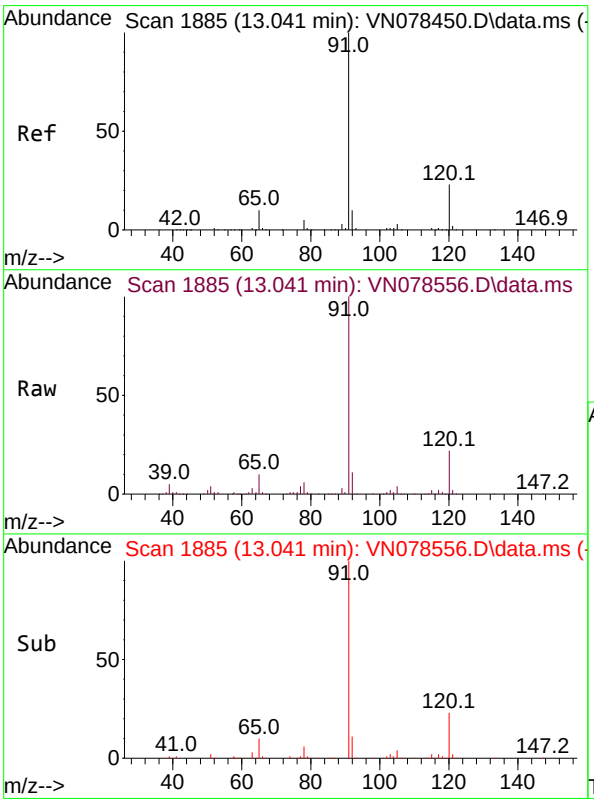
Ion	Ratio	Lower	Upper
156	100		
77	205.2	107.7	323.3
158	94.2	48.4	145.3



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

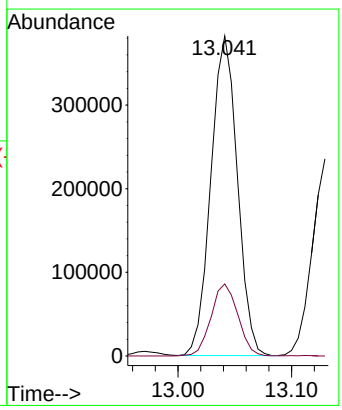
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

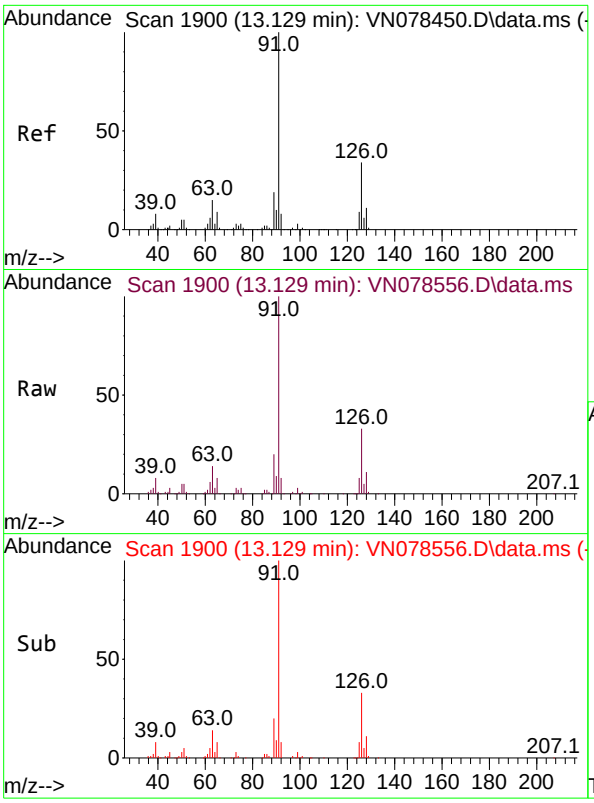


#78
n-propylbenzene
Concen: 21.627 ug/l
RT: 13.041 min Scan# 1885
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 91 Resp: 619570

Ion	Ratio	Lower	Upper
91	100		
120	22.8	11.5	34.4





#79
2-Chlorotoluene
Concen: 20.749 ug/l
RT: 13.129 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

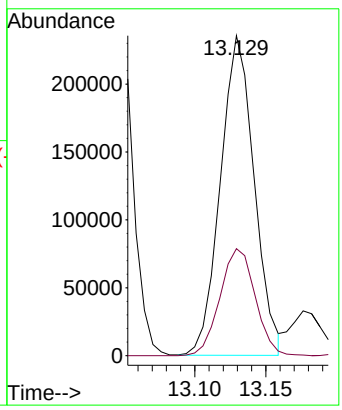
Tgt Ion: 91 Resp: 38935

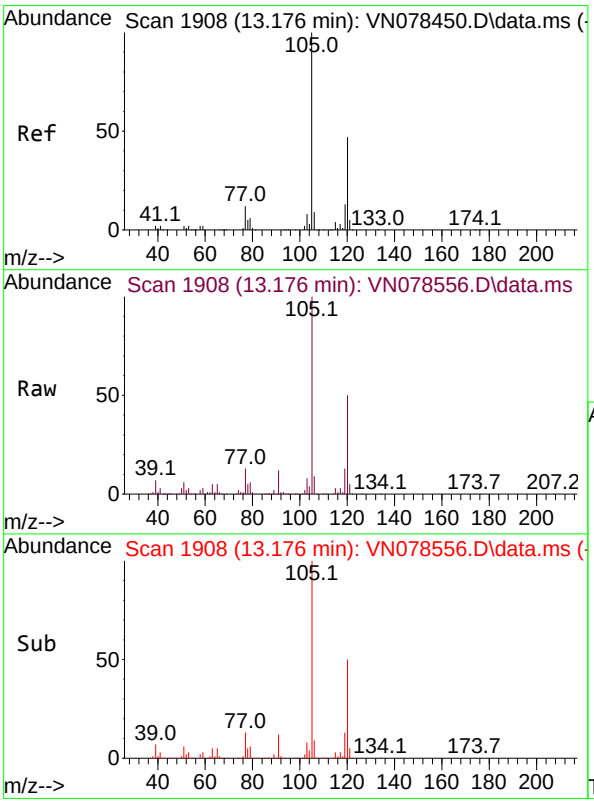
Ion	Ratio	Lower	Upper
91	100		
126	34.9	16.3	48.8

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

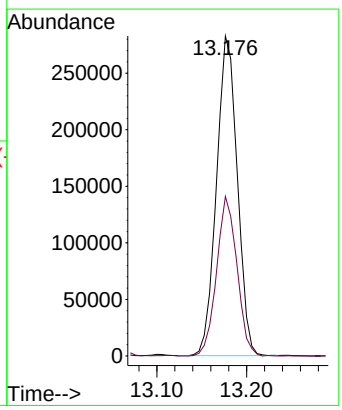


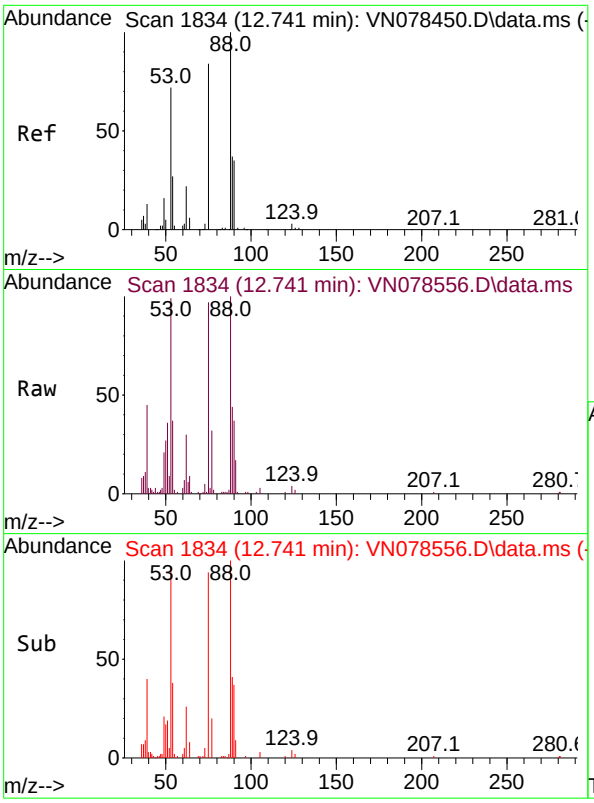


#80
1,3,5-Trimethylbenzene
Concen: 21.486 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:105 Resp: 454764

Ion	Ratio	Lower	Upper
105	100		
120	48.8	24.1	72.3





#81
trans-1,4-Dichloro-2-butene
Concen: 19.112 ug/l
RT: 12.741 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

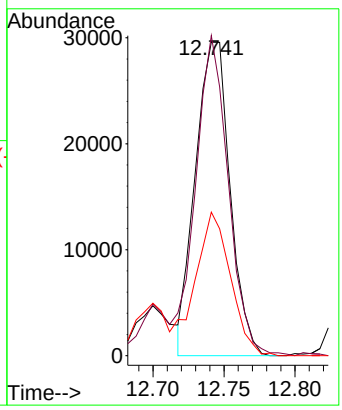
Tgt Ion: 75 Resp: 5011

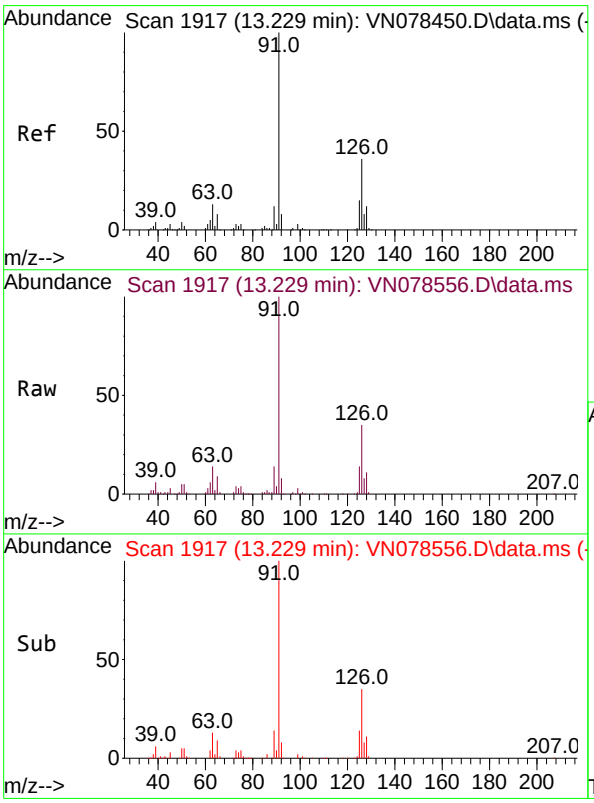
Ion	Ratio	Lower	Upper
75	100		
53	97.1	67.4	101.2
89	47.0	38.8	58.2

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

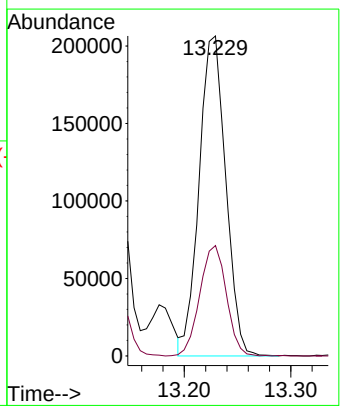


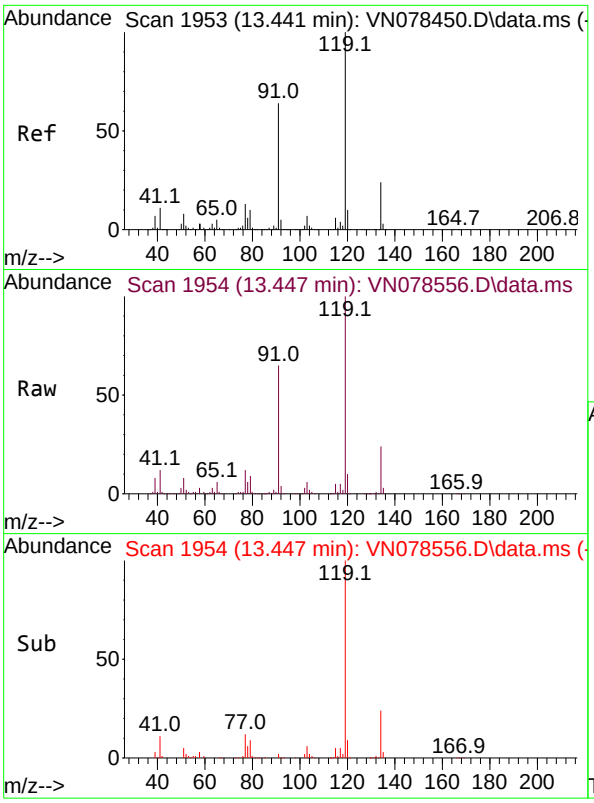


#82
4-Chlorotoluene
Concen: 20.484 ug/l
RT: 13.229 min Scan# 1917
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 91 Resp: 358564

Ion	Ratio	Lower	Upper
91	100		
126	34.4	16.7	50.0





#83
tert-Butylbenzene
Concen: 21.541 ug/l
RT: 13.447 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

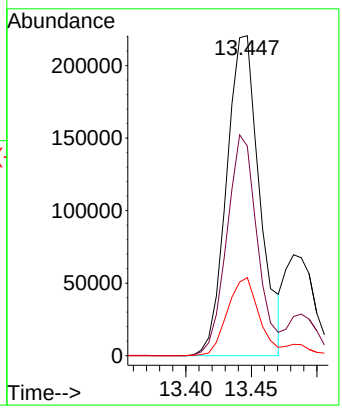
Tgt Ion:119 Resp: 38707

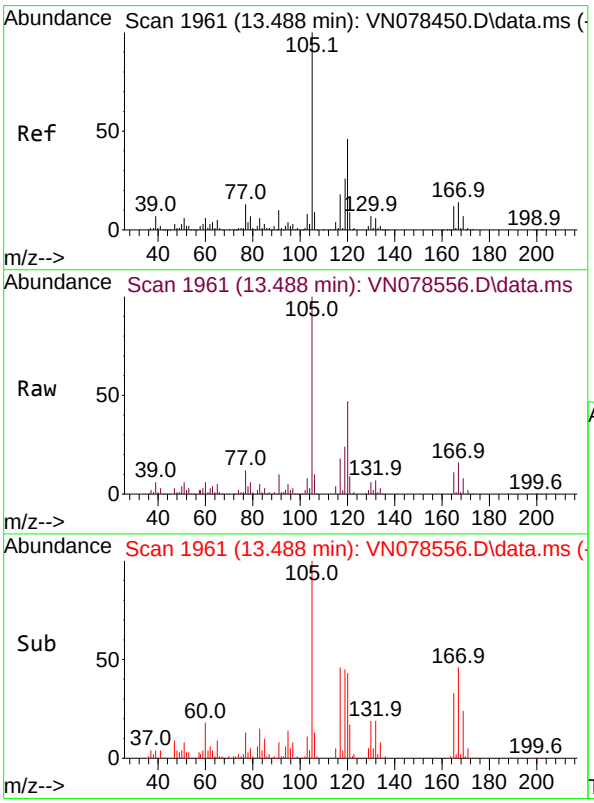
Ion	Ratio	Lower	Upper
119	100		
91	63.9	33.9	101.7
134	23.8	13.2	39.6

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

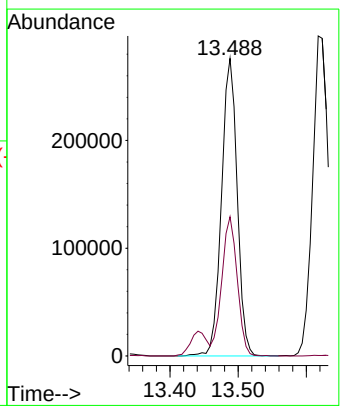


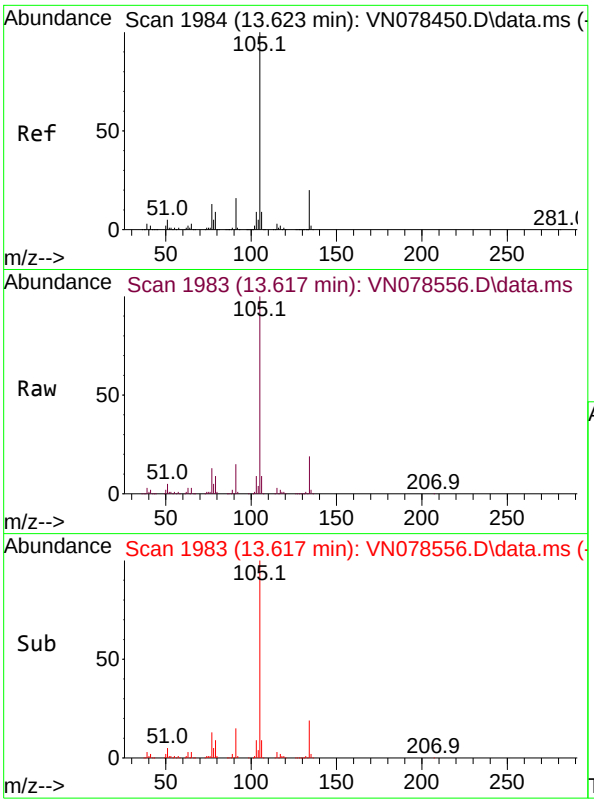


#84
1,2,4-Trimethylbenzene
Concen: 21.550 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:105 Resp: 443044

Ion	Ratio	Lower	Upper
105	100		
120	46.0	22.0	66.0





#85
sec-Butylbenzene
Concen: 21.378 ug/l
RT: 13.617 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

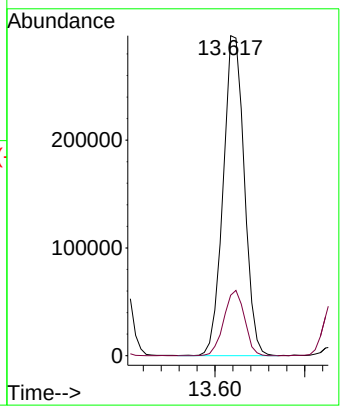
Tgt Ion:105 Resp: 48556

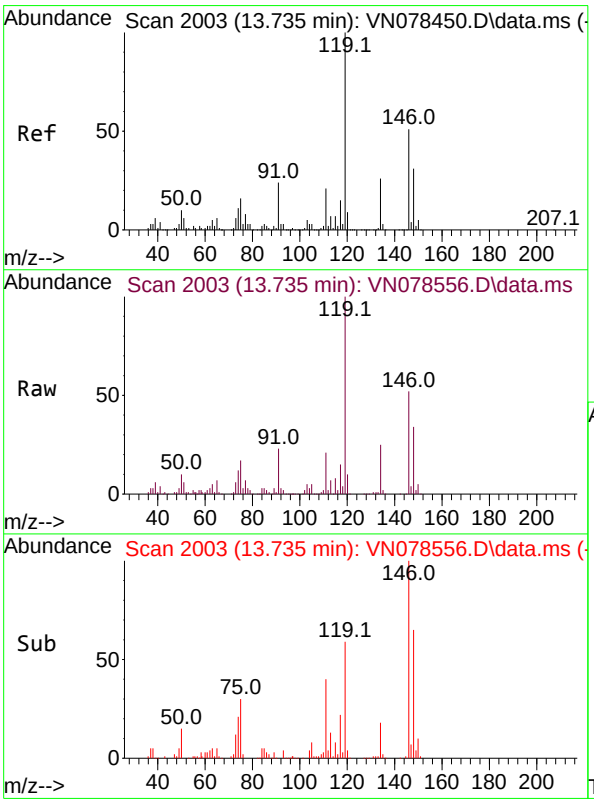
Ion	Ratio	Lower	Upper
105	100		
134	20.0	9.8	29.3

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

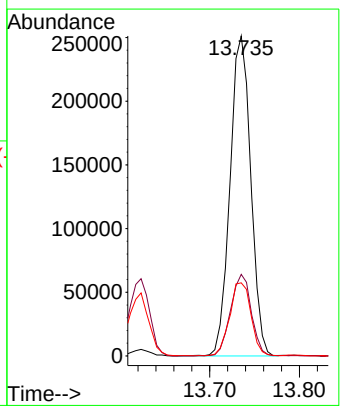


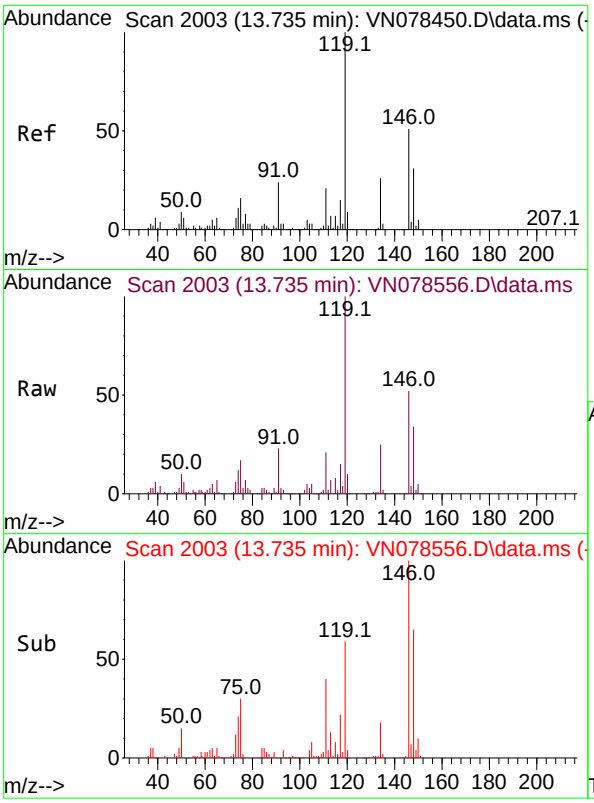


#86
p-Isopropyltoluene
Concen: 22.121 ug/l
RT: 13.735 min Scan# 2003
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:119 Resp: 403437

Ion	Ratio	Lower	Upper
119	100		
134	25.6	12.6	37.8
91	23.5	12.4	37.2

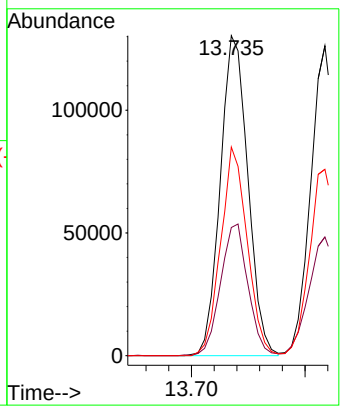




#87
1,3-Dichlorobenzene
Concen: 21.388 ug/l
RT: 13.735 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:146 Resp: 21994

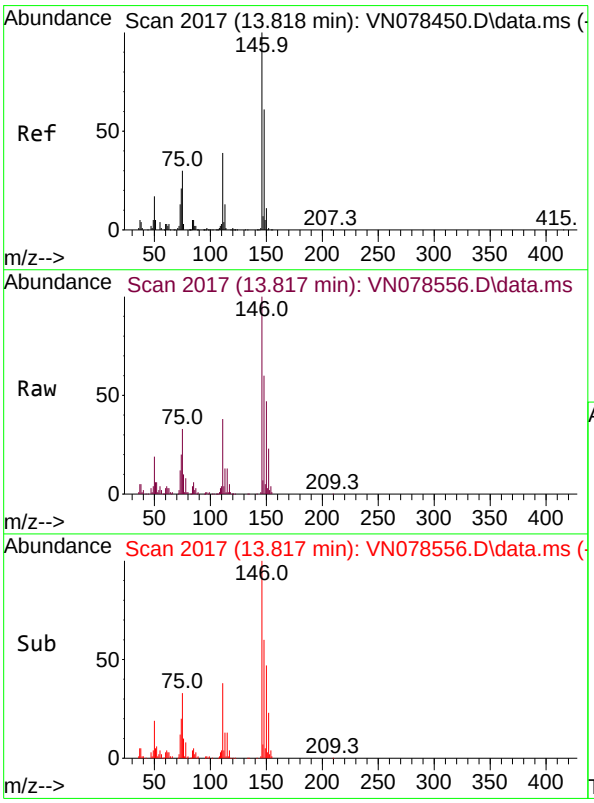
Ion	Ratio	Lower	Upper
146	100		
111	41.0	22.1	66.3
148	62.6	32.0	96.0



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

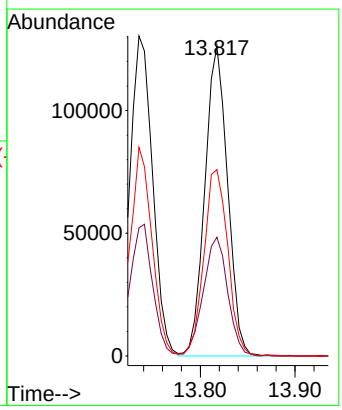
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

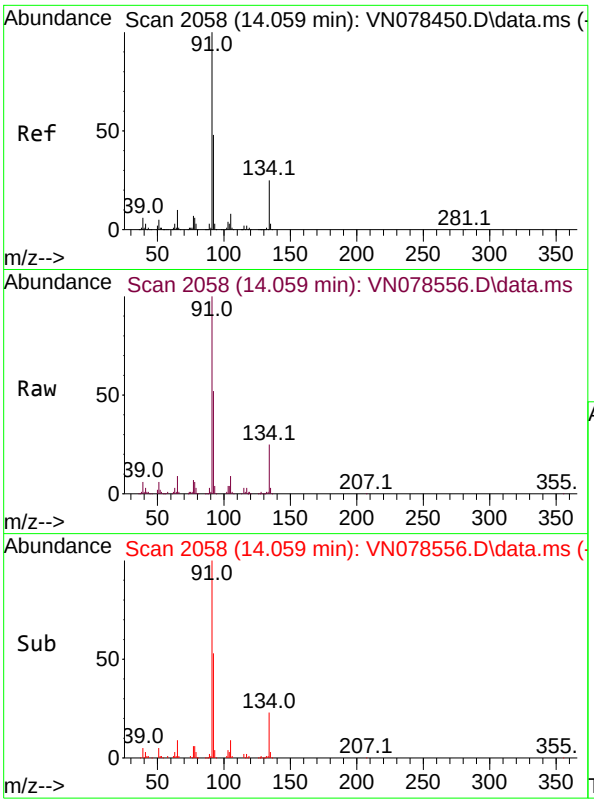


#88
1,4-Dichlorobenzene
Concen: 20.289 ug/l
RT: 13.817 min Scan# 2017
Delta R.T. -0.001 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:146 Resp: 210155

Ion	Ratio	Lower	Upper
146	100		
111	40.9	20.6	61.8
148	63.2	31.6	94.8





#89
n-Butylbenzene
Concen: 21.739 ug/l
RT: 14.059 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

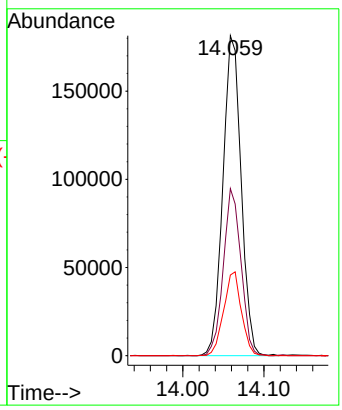
Tgt Ion: 91 Resp: 28368

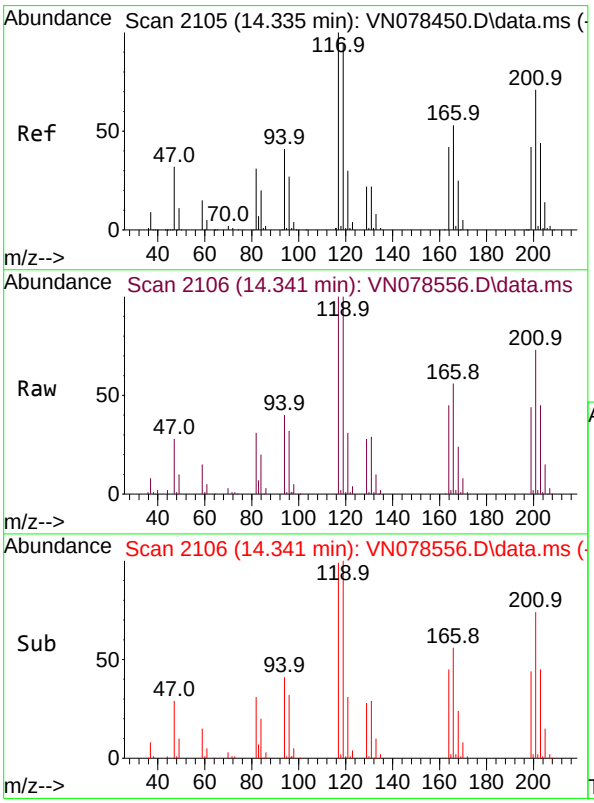
Ion	Ratio	Lower	Upper
91	100		
92	50.5	26.4	79.0
134	25.5	12.6	37.6

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

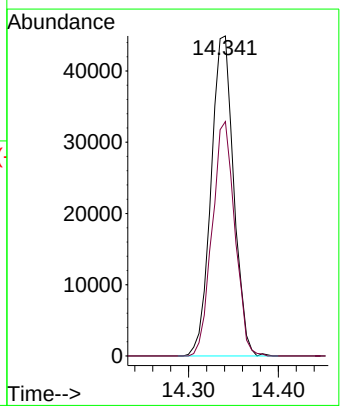


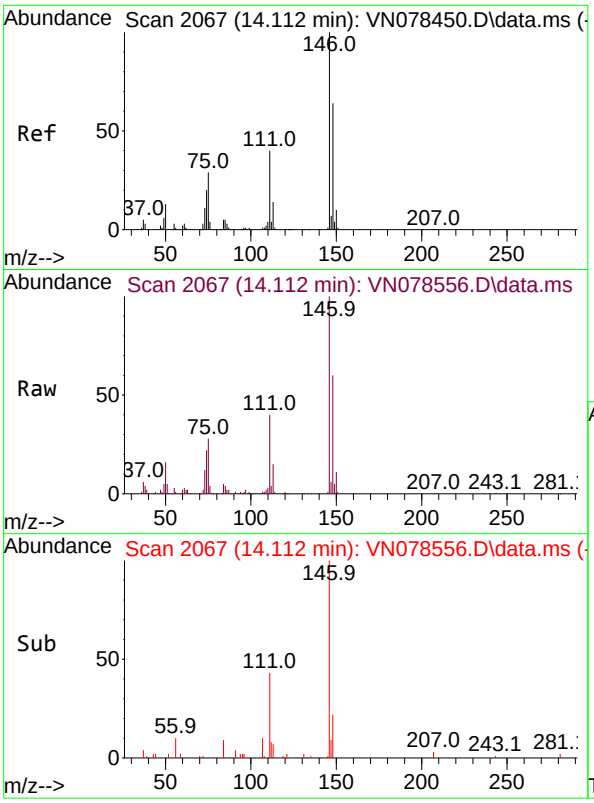


#90
Hexachloroethane
Concen: 23.024 ug/l
RT: 14.341 min Scan# 2106
Delta R.T. 0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:117 Resp: 78655

Ion	Ratio	Lower	Upper
117	100		
201	73.2	29.3	88.0





#91
1,2-Dichlorobenzene
Concen: 21.213 ug/l
RT: 14.112 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

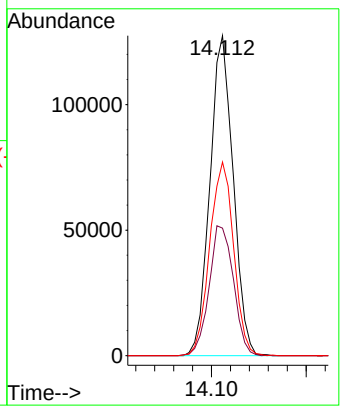
Tgt Ion:146 Resp: 21709

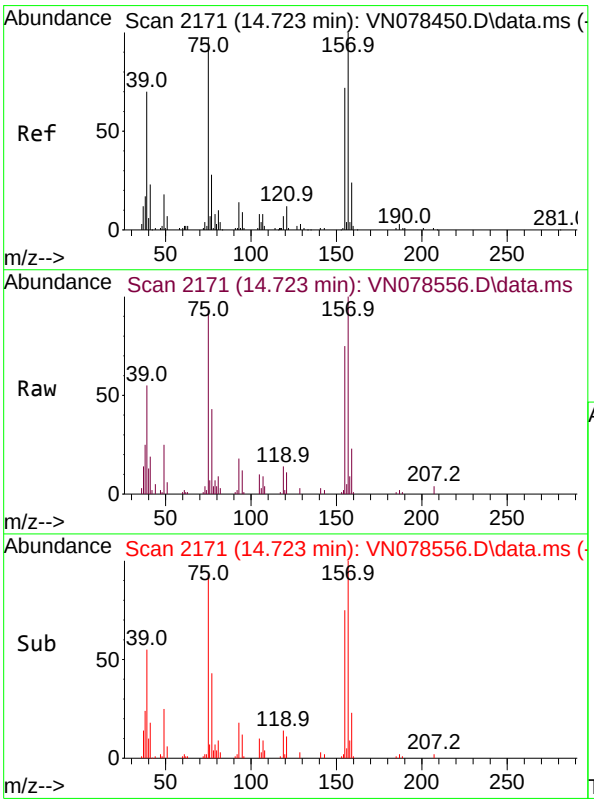
Ion	Ratio	Lower	Upper
146	100		
111	42.5	22.0	66.0
148	62.4	31.8	95.3

Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

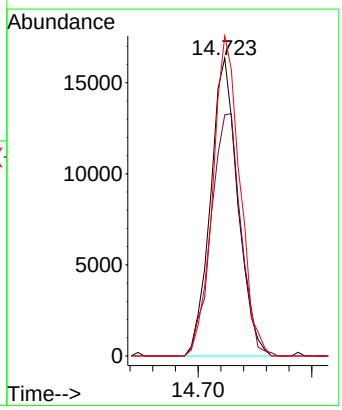


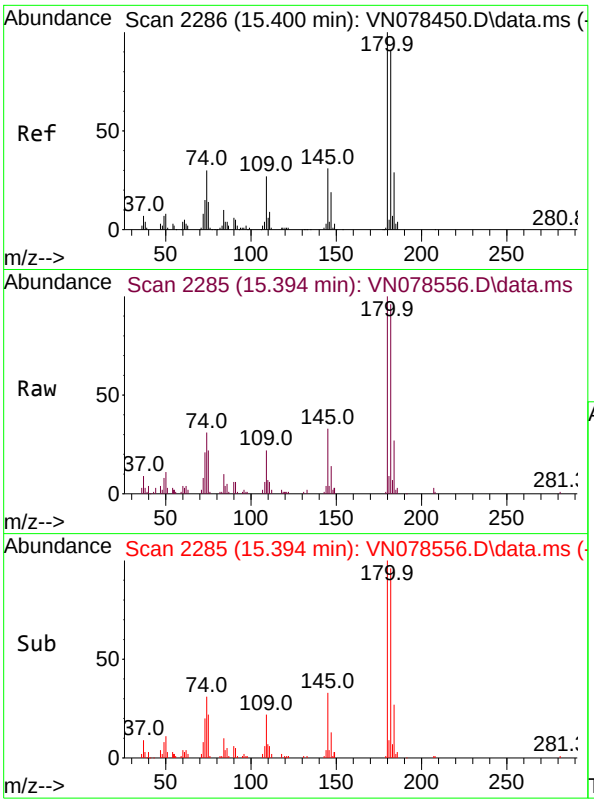


#92
1,2-Dibromo-3-Chloropropane
Concen: 20.115 ug/l
RT: 14.723 min Scan# 2171
Delta R.T. 0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion: 75 Resp: 27267

Ion	Ratio	Lower	Upper
75	100		
155	88.3	39.1	117.2
157	106.7	50.3	150.9

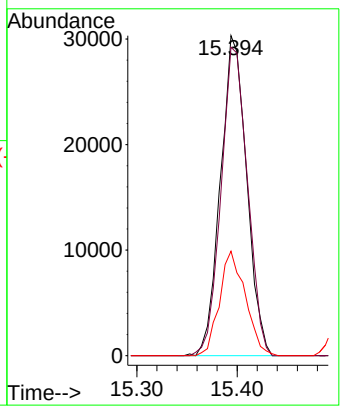




#93
1,2,4-Trichlorobenzene
Concen: 16.818 ug/l
RT: 15.394 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:180 Resp: 5493

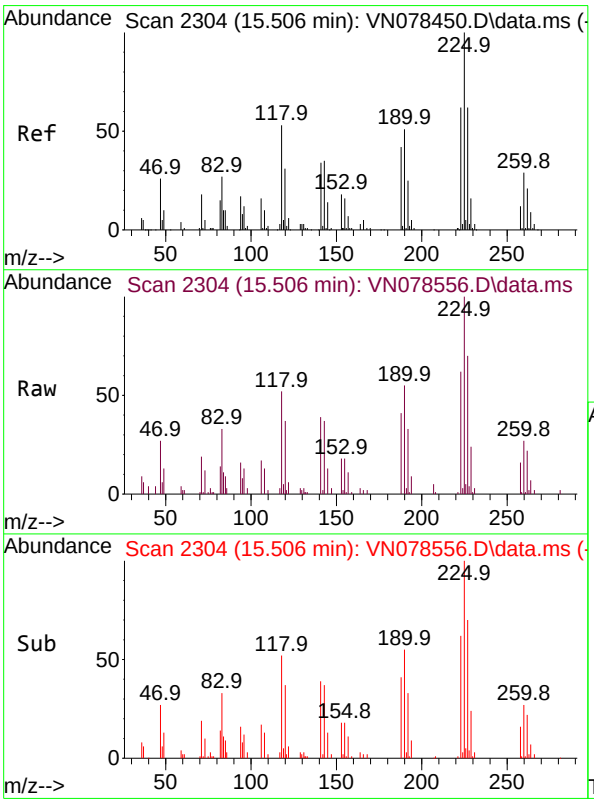
Ion	Ratio	Lower	Upper
180	100		
182	97.4	46.1	138.2
145	32.4	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

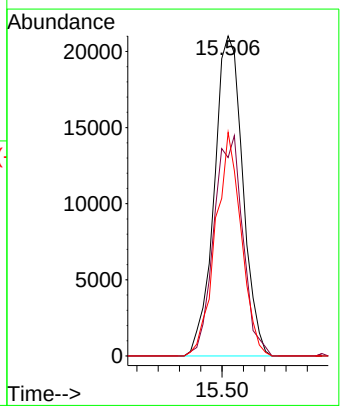
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023

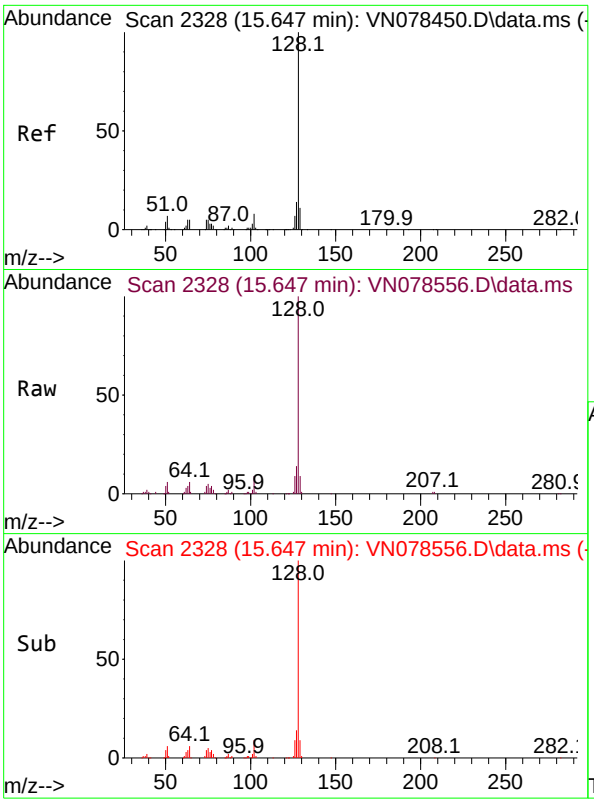


#94
Hexachlorobutadiene
Concen: 20.686 ug/l
RT: 15.506 min Scan# 2304
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:225 Resp: 39052

Ion	Ratio	Lower	Upper
225	100		
223	69.6	31.3	93.8
227	63.1	31.9	95.9

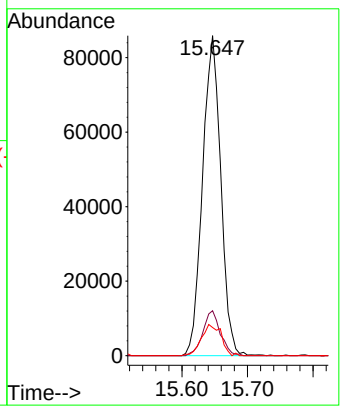




#95
Naphthalene
Concen: 14.892 ug/l
RT: 15.647 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:128 Resp: 16627

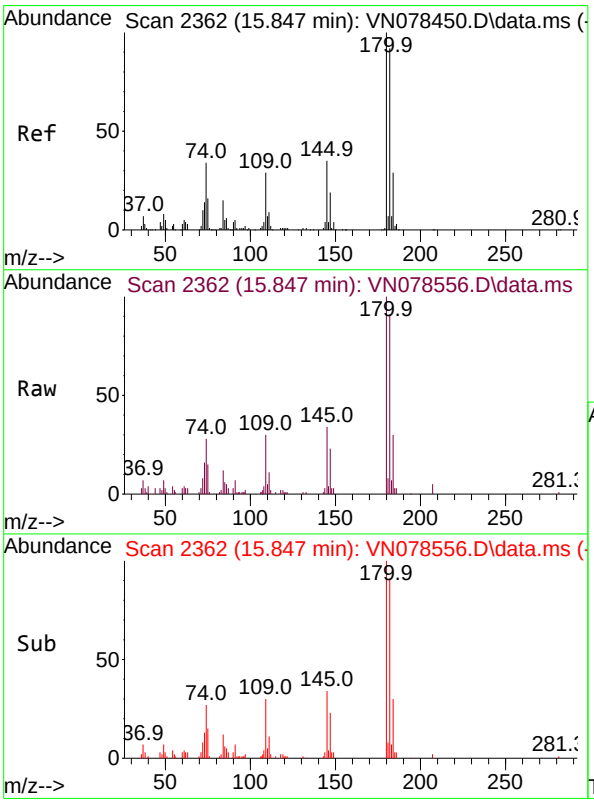
Ion	Ratio	Lower	Upper
128	100		
127	13.4	10.0	15.0
129	10.6	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VN0718WBSD02

Manual Integrations
APPROVED

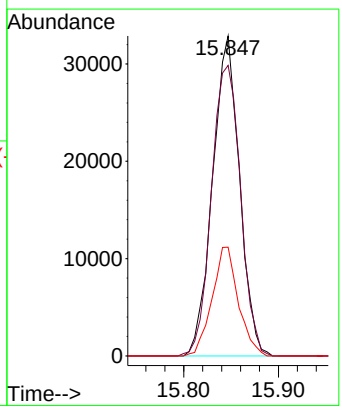
Reviewed By :John Carlone 07/19/2023
Supervised By :Mahesh Dadoda 07/19/2023



#96
1,2,3-Trichlorobenzene
Concen: 17.304 ug/l
RT: 15.847 min Scan# 2362
Delta R.T. -0.000 min
Lab File: VN078556.D
Acq: 18 Jul 2023 13:13

Tgt Ion:180 Resp: 64988

Ion	Ratio	Lower	Upper
180	100		
182	97.8	46.2	138.6
145	33.1	17.5	52.6



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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)MS	SDG No.:	O3645
Lab Sample ID:	O3645-09MS	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.17 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076762.D	1		07/17/23 18:48	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	41.9		1.40	4.40	ug/Kg
74-87-3	Chloromethane	47.4		0.81	4.40	ug/Kg
75-01-4	Vinyl Chloride	44.9		0.83	4.40	ug/Kg
74-83-9	Bromomethane	37.3		1.10	4.40	ug/Kg
75-00-3	Chloroethane	45.5		0.78	4.40	ug/Kg
75-69-4	Trichlorofluoromethane	42.7		0.94	4.40	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	42.5		0.64	4.40	ug/Kg
75-35-4	1,1-Dichloroethene	42.7		0.70	4.40	ug/Kg
67-64-1	Acetone	230		8.30	22.2	ug/Kg
75-15-0	Carbon Disulfide	43.3		2.00	4.40	ug/Kg
1634-04-4	Methyl tert-butyl Ether	45.5		0.58	4.40	ug/Kg
79-20-9	Methyl Acetate	60.5		1.40	4.40	ug/Kg
75-09-2	Methylene Chloride	54.3		5.40	8.90	ug/Kg
156-60-5	trans-1,2-Dichloroethene	44.4		0.65	4.40	ug/Kg
75-34-3	1,1-Dichloroethane	46.9		0.64	4.40	ug/Kg
110-82-7	Cyclohexane	39.9		0.62	4.40	ug/Kg
78-93-3	2-Butanone	230		6.50	22.2	ug/Kg
56-23-5	Carbon Tetrachloride	43.7		0.69	4.40	ug/Kg
156-59-2	cis-1,2-Dichloroethene	45.8		0.57	4.40	ug/Kg
74-97-5	Bromochloromethane	47.5		2.10	4.40	ug/Kg
67-66-3	Chloroform	47.0		1.20	4.40	ug/Kg
71-55-6	1,1,1-Trichloroethane	46.3		0.67	4.40	ug/Kg
108-87-2	Methylcyclohexane	41.4		3.00	4.40	ug/Kg
71-43-2	Benzene	45.1		0.59	4.40	ug/Kg
107-06-2	1,2-Dichloroethane	47.8		0.64	4.40	ug/Kg
79-01-6	Trichloroethene	43.1		0.59	4.40	ug/Kg
78-87-5	1,2-Dichloropropane	46.2		0.52	4.40	ug/Kg
75-27-4	Bromodichloromethane	44.9		0.62	4.40	ug/Kg
108-10-1	4-Methyl-2-Pentanone	230		4.00	22.2	ug/Kg
108-88-3	Toluene	44.5		0.58	4.40	ug/Kg
10061-02-6	t-1,3-Dichloropropene	44.2		0.68	4.40	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	44.0		0.66	4.40	ug/Kg

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)MS	SDG No.:	O3645
Lab Sample ID:	O3645-09MS	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.17 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076762.D	1		07/17/23 18:48	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	46.2		0.76	4.40	ug/Kg
591-78-6	2-Hexanone	220		4.70	22.2	ug/Kg
124-48-1	Dibromochloromethane	46.3		0.75	4.40	ug/Kg
106-93-4	1,2-Dibromoethane	45.3		0.70	4.40	ug/Kg
127-18-4	Tetrachloroethene	62.9		0.68	4.40	ug/Kg
108-90-7	Chlorobenzene	44.1		0.56	4.40	ug/Kg
100-41-4	Ethyl Benzene	43.8		0.59	4.40	ug/Kg
179601-23-1	m/p-Xylenes	87.8		1.30	8.90	ug/Kg
1330-20-7	Total Xylenes	132		1.98	13.3	ug/Kg
95-47-6	o-Xylene	44.1		0.68	4.40	ug/Kg
100-42-5	Styrene	43.6		0.61	4.40	ug/Kg
75-25-2	Bromoform	44.6		0.84	4.40	ug/Kg
98-82-8	Isopropylbenzene	45.6		0.63	4.40	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	48.0		0.95	4.40	ug/Kg
103-65-1	n-propylbenzene	44.3		0.62	4.40	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	45.6		0.57	4.40	ug/Kg
98-06-6	tert-Butylbenzene	44.6		0.68	4.40	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	45.5		0.59	4.40	ug/Kg
135-98-8	sec-Butylbenzene	43.5		0.68	4.40	ug/Kg
99-87-6	p-Isopropyltoluene	42.0		0.66	4.40	ug/Kg
541-73-1	1,3-Dichlorobenzene	42.7		0.60	4.40	ug/Kg
106-46-7	1,4-Dichlorobenzene	43.3		0.53	4.40	ug/Kg
104-51-8	n-Butylbenzene	37.7		0.60	4.40	ug/Kg
95-50-1	1,2-Dichlorobenzene	43.7		0.53	4.40	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	48.7		1.10	4.40	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	33.5		0.54	4.40	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	33.8		0.56	4.40	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.7		50 - 163	113%	SPK: 50
1868-53-7	Dibromofluoromethane	54.7		54 - 147	109%	SPK: 50
2037-26-5	Toluene-d8	50.8		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.0		30 - 143	100%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076762.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)MS	SDG No.:	O3645
Lab Sample ID:	O3645-09MS	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.17 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076762.D	1		07/17/23 18:48	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	136000	7.869			
540-36-3	1,4-Difluorobenzene	255000	8.775			
3114-55-4	Chlorobenzene-d5	232000	11.58			
3855-82-1	1,4-Dichlorobenzene-d4	102000	13.516			

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\VD071723\
Data File : VD076762.D
Acq On : 17 Jul 2023 18:48
Operator : KP/SY
Sample : 03645-09MS
Misc : 6.17G/5.0ml/MSVOA_D/SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 18 01:24:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.869	168	136385	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	255118	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.580	117	231626	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	102048	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	77077	56.739	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 113.480%			
35) Dibromofluoromethane	7.798	113	87753	54.737	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 109.480%			
50) Toluene-d8	10.269	98	291124	50.761	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 101.520%			
62) 4-Bromofluorobenzene	12.574	95	92839	50.039	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 100.080%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	50313	47.175	ug/l	95
3) Chloromethane	2.146	50	98241	53.398	ug/l	97
4) Vinyl Chloride	2.275	62	123958	50.544	ug/l	98
5) Bromomethane	2.681	94	84784	42.018	ug/l	99
6) Chloroethane	2.822	64	95023	51.318	ug/l	92
7) Trichlorofluoromethane	3.163	101	105055	48.141	ug/l	96
8) Diethyl Ether	3.587	74	38640	51.429	ug/l	92
9) 1,1,2-Trichlorotrifluo...	3.957	101	68648	47.857	ug/l	96
10) Methyl Iodide	4.151	142	78594	48.605	ug/l	93
11) Tert butyl alcohol	5.057	59	24880	245.442	ug/l	98
12) 1,1-Dichloroethene	3.934	96	64855	48.123	ug/l	96
13) Acrolein	3.787	56	12978	187.872	ug/l	96
14) Allyl chloride	4.557	41	84456	47.704	ug/l	92
15) Acrylonitrile	5.251	53	95205	257.996	ug/l	98
16) Acetone	4.016	43	84532	260.560	ug/l	91
17) Carbon Disulfide	4.257	76	153425	48.742	ug/l #	94
18) Methyl Acetate	4.557	43	83048	68.134	ug/l	97
19) Methyl tert-butyl Ether	5.310	73	185410	51.302	ug/l	95
20) Methylene Chloride	4.798	84	113804	61.222	ug/l	94
21) trans-1,2-Dichloroethene	5.304	96	78383	50.035	ug/l	99
22) Diisopropyl ether	6.216	45	225237	53.726	ug/l	94
23) Vinyl Acetate	6.151	43	327552m	157.910	ug/l	
24) 1,1-Dichloroethane	6.104	63	149263	52.807	ug/l	97
25) 2-Butanone	7.081	43	114110	262.810	ug/l #	81
26) 2,2-Dichloropropane	7.069	77	111750	45.863	ug/l	98
27) cis-1,2-Dichloroethene	7.075	96	99749	51.652	ug/l	100
28) Bromochloromethane	7.422	49	37857	53.570	ug/l	83
29) Tetrahydrofuran	7.445	42	67407	262.757	ug/l	94
30) Chloroform	7.592	83	163843	52.923	ug/l	94
31) Cyclohexane	7.875	56	89954	44.995	ug/l	95
32) 1,1,1-Trichloroethane	7.786	97	130350	52.185	ug/l	99
36) 1,1-Dichloropropene	8.004	75	102159	48.765	ug/l	97
37) Ethyl Acetate	7.163	43	42968	45.863	ug/l	96
38) Carbon Tetrachloride	7.986	117	98769	49.239	ug/l	90
39) Methylcyclohexane	9.275	83	112929	46.686	ug/l	97
40) Benzene	8.245	78	335519	50.759	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076762.D
Acq On : 17 Jul 2023 18:48
Operator : KP/SY
Sample : 03645-09MS
Misc : 6.17G/5.0ml/MSVOA_D/SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 18 01:24:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.404	41	27155	47.465	ug/l	#	95
42) 1,2-Dichloroethane	8.322	62	92516	53.868	ug/l		97
43) Isopropyl Acetate	8.357	43	86070	47.074	ug/l		95
44) Trichloroethene	9.028	130	87411	48.529	ug/l		93
45) 1,2-Dichloropropane	9.304	63	88821	52.056	ug/l		98
46) Dibromomethane	9.392	93	52055	52.120	ug/l		90
47) Bromodichloromethane	9.586	83	126882	50.625	ug/l		97
48) Methyl methacrylate	9.380	41	43093	51.784	ug/l	#	86
49) 1,4-Dioxane	9.386	88	13037	1018.827	ug/l	#	94
51) 4-Methyl-2-Pentanone	10.157	43	247823	254.571	ug/l		93
52) Toluene	10.333	92	217641	50.133	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	115824	49.788	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	136063	49.627	ug/l	#	91
55) 1,1,2-Trichloroethane	10.733	97	75918	52.055	ug/l		96
56) Ethyl methacrylate	10.598	69	80783	47.990	ug/l	#	91
57) 1,3-Dichloropropane	10.880	76	119864	50.467	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	144596	221.918	ug/l		94
59) 2-Hexanone	10.922	43	174279	250.895	ug/l		93
60) Dibromochloromethane	11.075	129	88288	52.110	ug/l		98
61) 1,2-Dibromoethane	11.180	107	69039	51.059	ug/l		99
64) Tetrachloroethene	10.810	164	93577	70.850	ug/l	#	89
65) Chlorobenzene	11.604	112	231306	49.653	ug/l		93
66) 1,1,1,2-Tetrachloroethane	11.680	131	89113	51.380	ug/l		97
67) Ethyl Benzene	11.680	91	403570	49.329	ug/l		100
68) m/p-Xylenes	11.792	106	310678	98.877	ug/l		91
69) o-Xylene	12.122	106	150864	49.652	ug/l		91
70) Styrene	12.133	104	261449	49.154	ug/l		97
71) Bromoform	12.304	173	47743	50.261	ug/l	#	99
73) Isopropylbenzene	12.422	105	380456	51.387	ug/l		95
74) N-amyl acetate	12.233	43	66267	42.485	ug/l		95
75) 1,1,2,2-Tetrachloroethane	12.674	83	86025	54.116	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	56385m	58.101	ug/l		
77) Bromobenzene	12.698	156	89094	52.133	ug/l		86
78) n-propylbenzene	12.763	91	447534	49.860	ug/l		96
79) 2-Chlorotoluene	12.851	91	248274	50.447	ug/l		96
80) 1,3,5-Trimethylbenzene	12.904	105	307821	51.418	ug/l		95
81) trans-1,4-Dichloro-2-b...	12.469	75	23897	52.407	ug/l		98
82) 4-Chlorotoluene	12.945	91	258783	50.333	ug/l		95
83) tert-Butylbenzene	13.163	119	264778	50.231	ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	313642	51.268	ug/l		97
85) sec-Butylbenzene	13.345	105	395037	49.052	ug/l		94
86) p-Isopropyltoluene	13.463	119	314695	47.315	ug/l		96
87) 1,3-Dichlorobenzene	13.457	146	168929	48.059	ug/l		96
88) 1,4-Dichlorobenzene	13.539	146	168085	48.807	ug/l		98
89) n-Butylbenzene	13.786	91	276486	42.482	ug/l		98
90) Hexachloroethane	14.051	117	62935	51.182	ug/l		86
91) 1,2-Dichlorobenzene	13.827	146	152620	49.274	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.445	75	12438	54.876	ug/l		88
93) 1,2,4-Trichlorobenzene	15.098	180	71301	37.706	ug/l		96
94) Hexachlorobutadiene	15.204	225	30889	33.965	ug/l		98
95) Naphthalene	15.333	128	182825	44.653	ug/l		96
96) 1,2,3-Trichlorobenzene	15.521	180	64587	38.061	ug/l		96

Sample Results: **VD076762.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076762.D
Acq On : 17 Jul 2023 18:48
Operator : KP/SY
Sample : 03645-09MS
Misc : 6.17G/5.0ml/MSVOA_D/SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 18 01:24:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

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

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

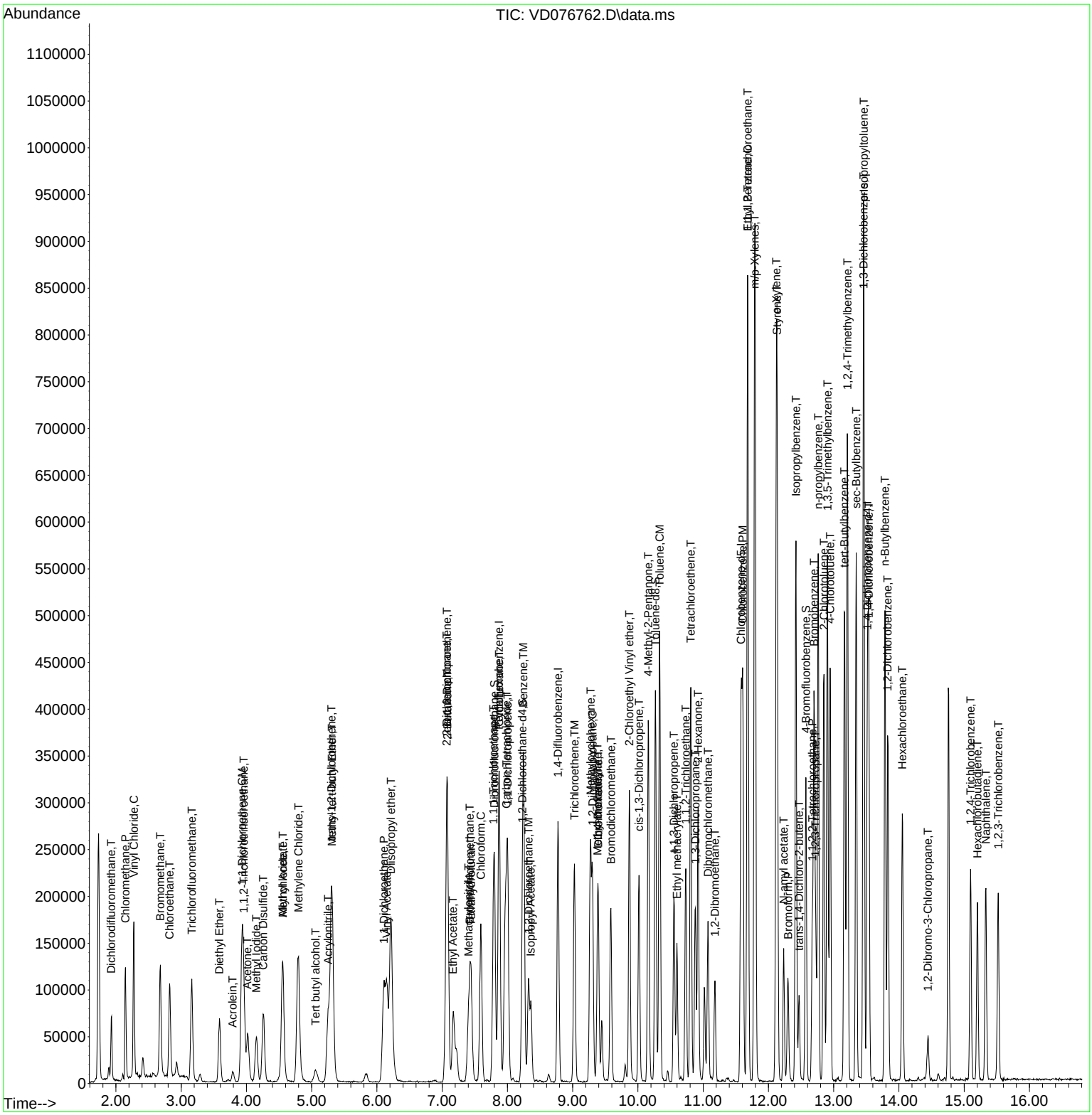
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076762.D
Acq On : 17 Jul 2023 18:48
Operator : KP/SY
Sample : 03645-09MS
Misc : 6.17G/5.0ml/MSVOA_D/SOIL
ALS Vial : 20 Sample Multiplier: 1

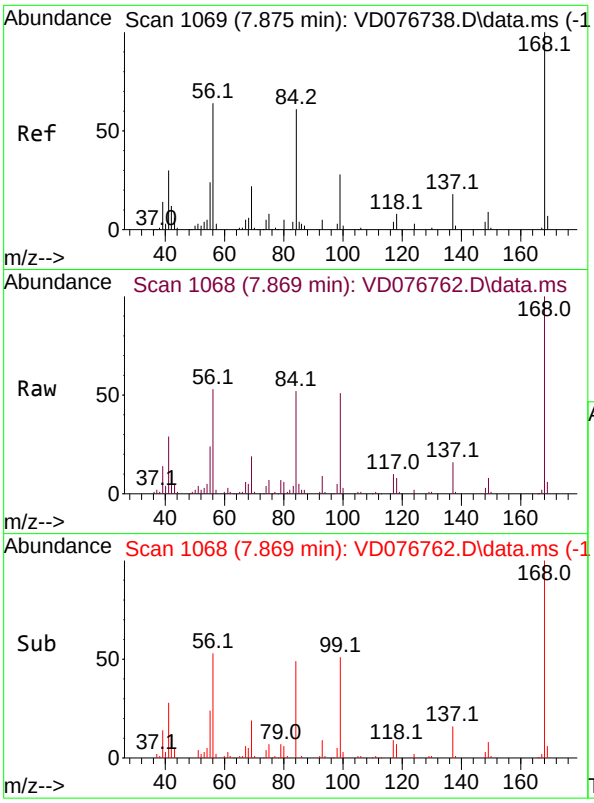
Quant Time: Jul 18 01:24:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

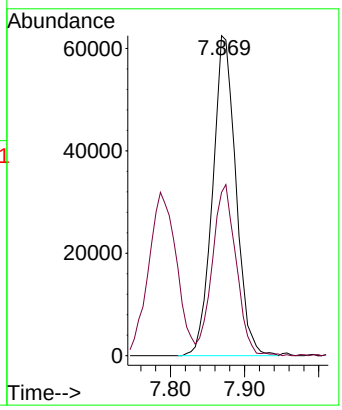




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.869 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:168 Resp: 13638

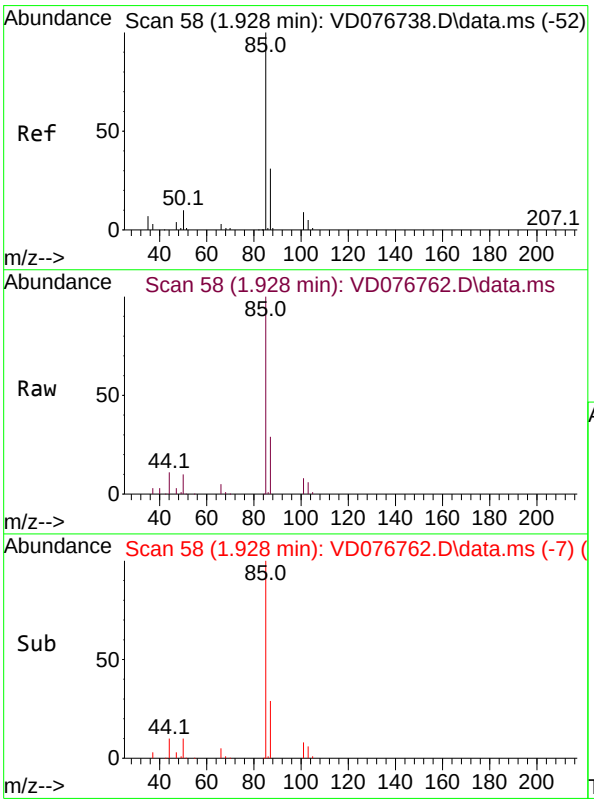
Ion	Ratio	Lower	Upper
168	100		
99	50.5	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

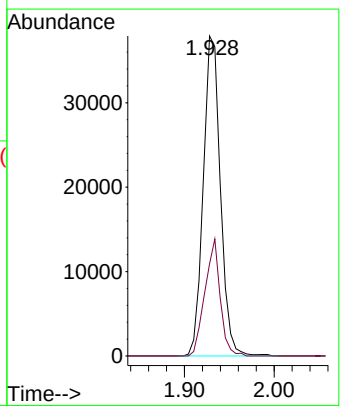
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

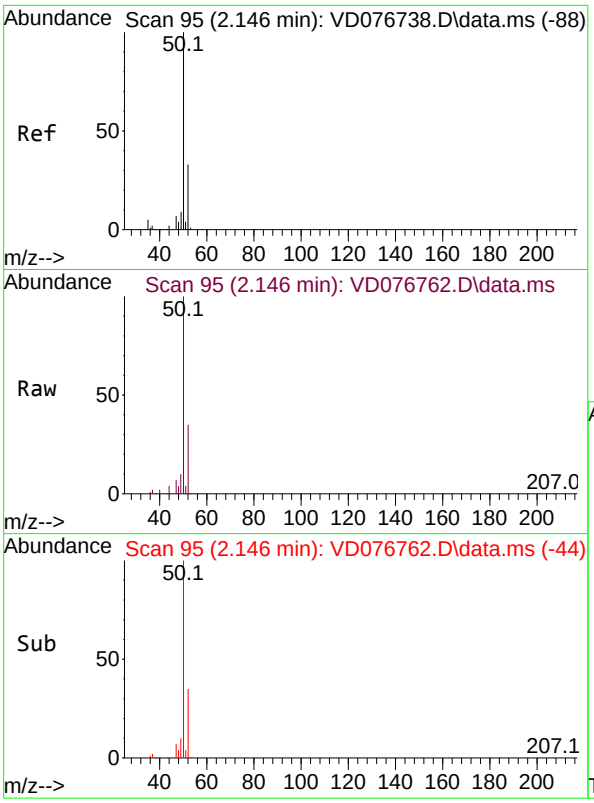


#2
Dichlorodifluoromethane
Concen: 47.175 ug/l
RT: 1.928 min Scan# 58
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 85 Resp: 50313

Ion	Ratio	Lower	Upper
85	100		
87	28.8	15.7	47.0





#3
Chloromethane
Concen: 53.398 ug/l
RT: 2.146 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

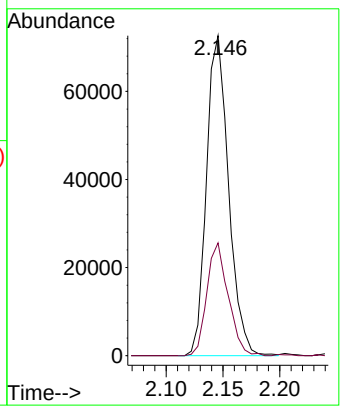
Tgt Ion: 50 Resp: 9824

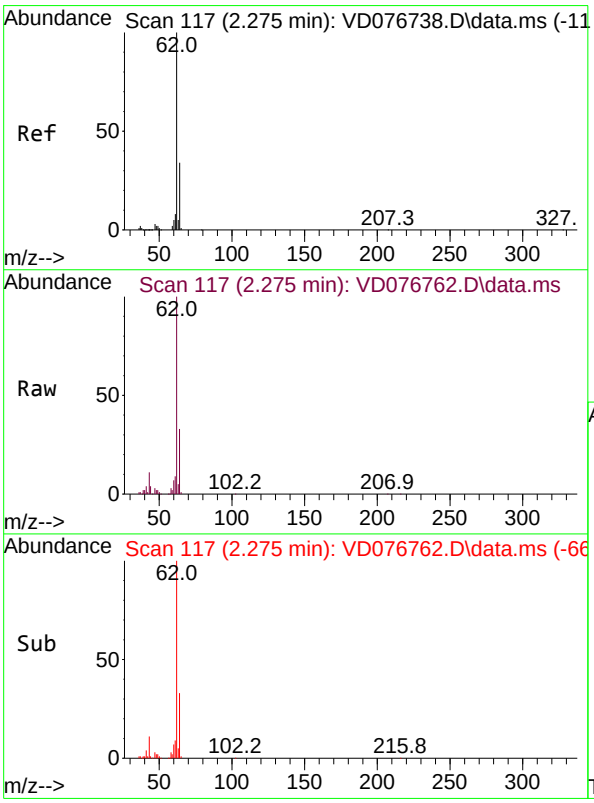
Ion	Ratio	Lower	Upper
50	100		
52	35.3	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

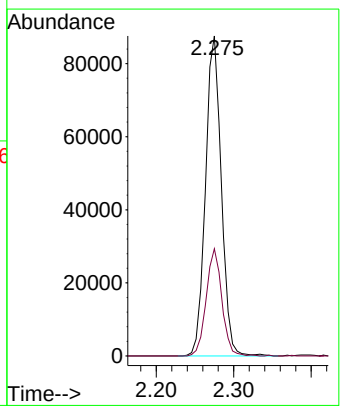


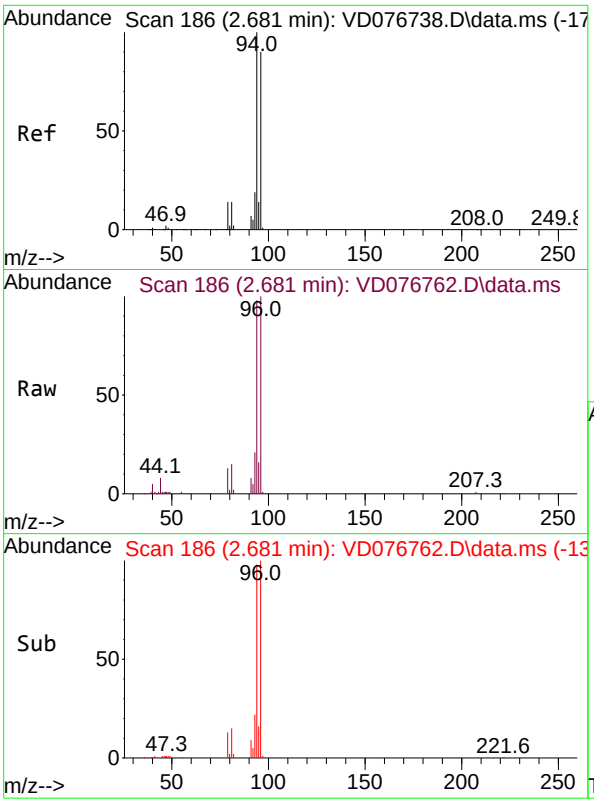


#4
Vinyl Chloride
Concen: 50.544 ug/l
RT: 2.275 min Scan# 117
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 62 Resp: 123958

Ion	Ratio	Lower	Upper
62	100		
64	33.5	26.0	39.0





#5
Bromomethane
Concen: 42.018 ug/l
RT: 2.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

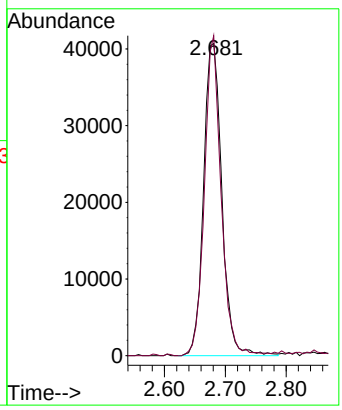
Tgt Ion: 94 Resp: 8478

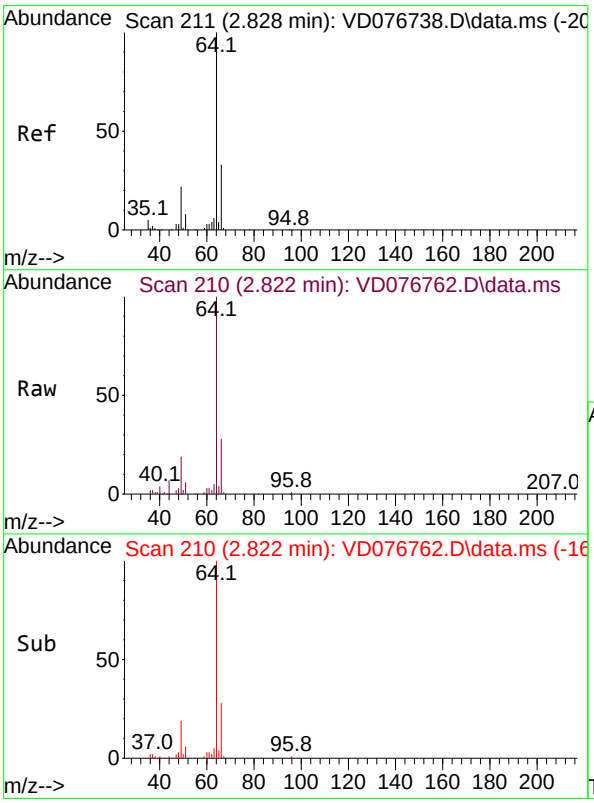
Ion	Ratio	Lower	Upper
94	100		
96	93.5	75.8	113.8

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

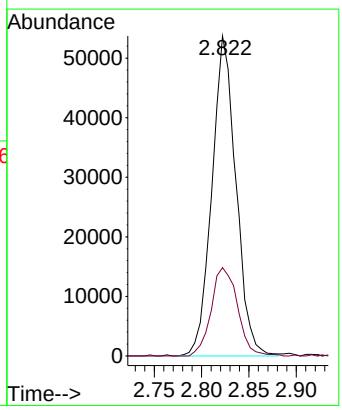


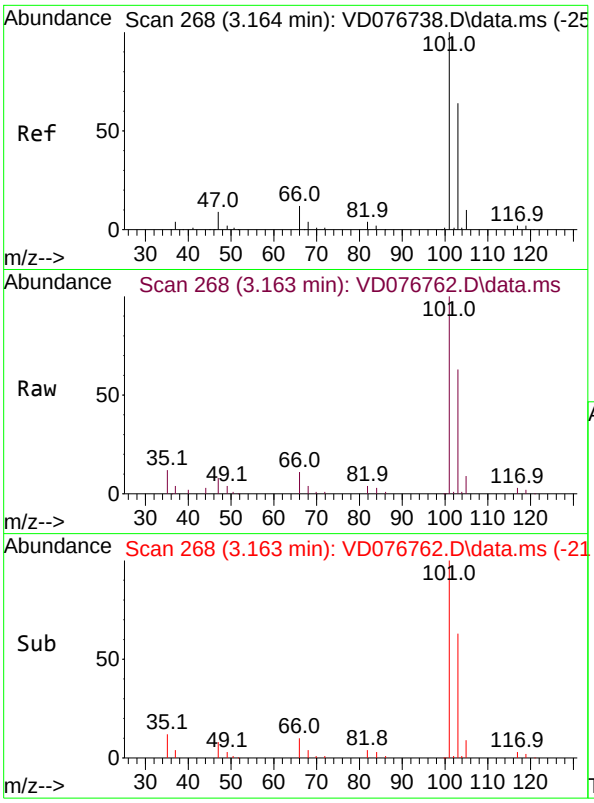


#6
Chloroethane
Concen: 51.318 ug/l
RT: 2.822 min Scan# 210
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 64 Resp: 95023

Ion	Ratio	Lower	Upper
64	100		
66	27.6	25.5	38.3





#7
Trichlorofluoromethane
Concen: 48.141 ug/l
RT: 3.163 min Scan# 2
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

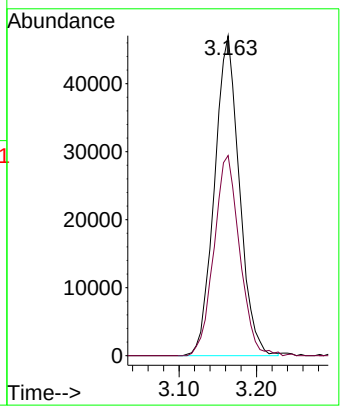
Tgt Ion:101 Resp: 10505

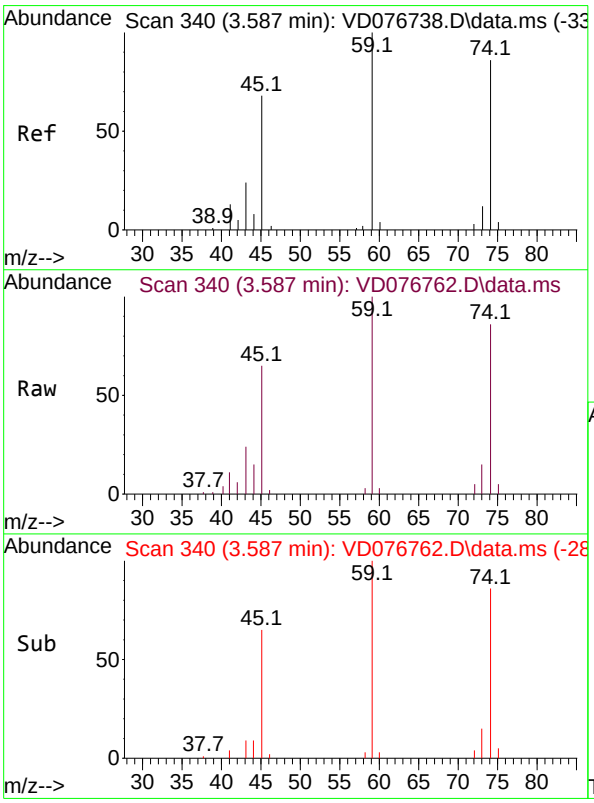
Ion	Ratio	Lower	Upper
101	100		
103	62.5	52.3	78.5

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

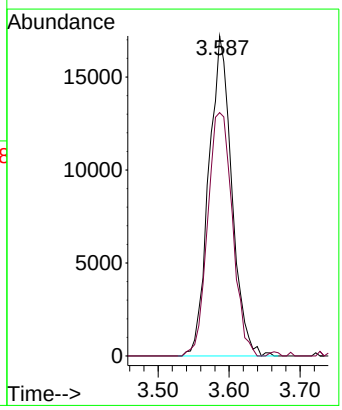


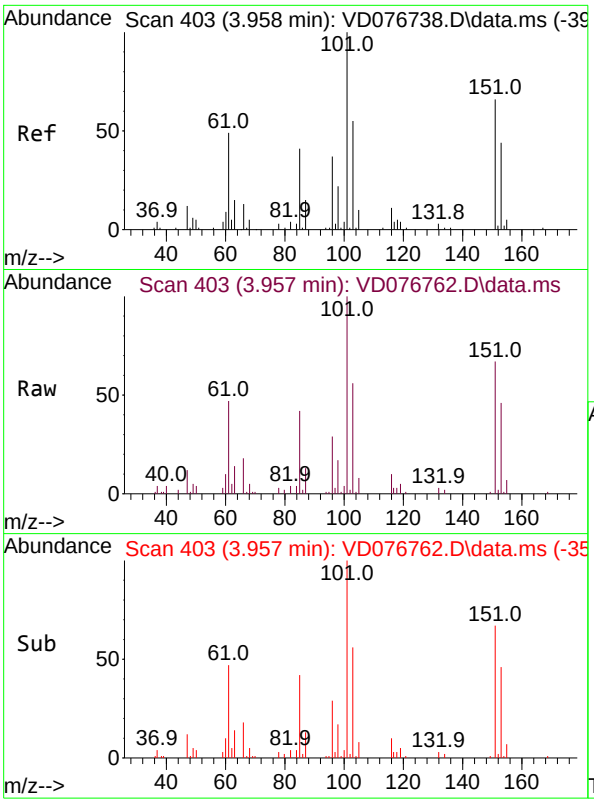


#8
Diethyl Ether
Concen: 51.429 ug/l
RT: 3.587 min Scan# 340
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 74 Resp: 38640

Ion	Ratio	Lower	Upper
74	100		
45	81.9	37.5	112.7





#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.857 ug/l
RT: 3.957 min Scan# 4
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

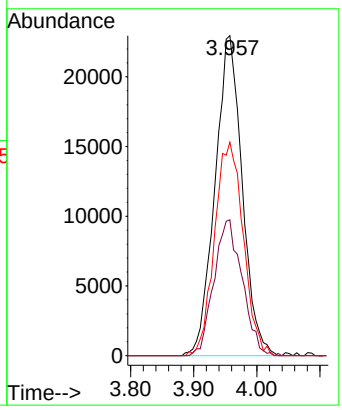
Tgt Ion:101 Resp: 6864

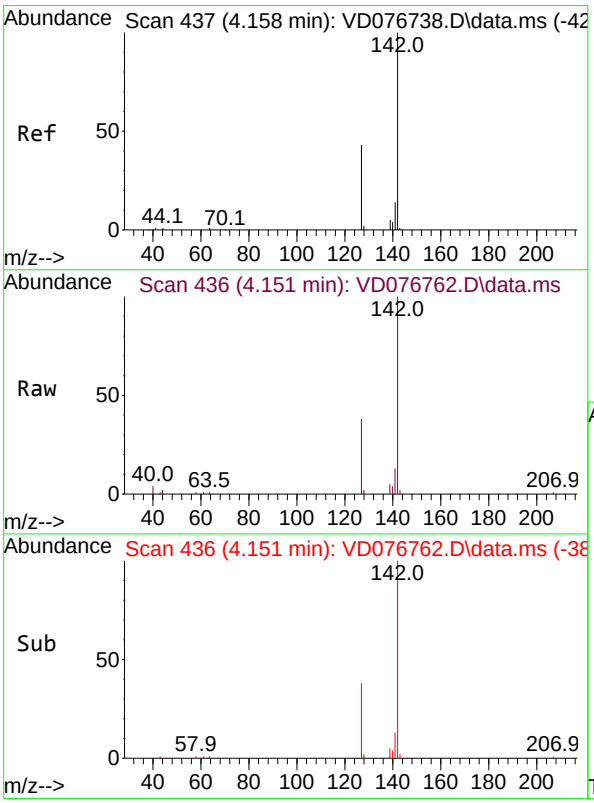
Ion	Ratio	Lower	Upper
101	100		
85	44.2	33.8	50.6
151	70.4	59.8	89.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

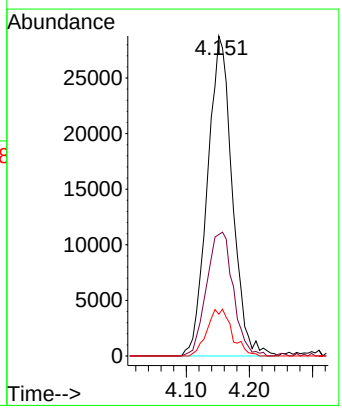


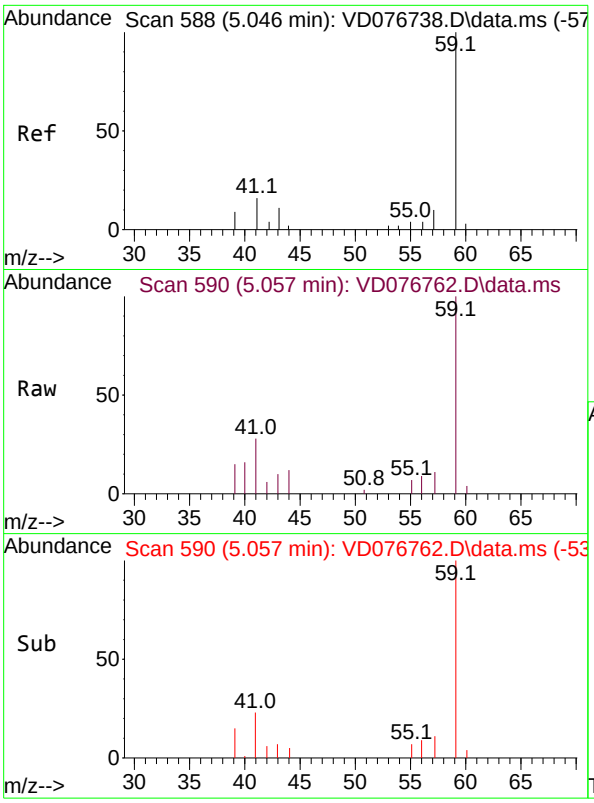


#10
Methyl Iodide
Concen: 48.605 ug/l
RT: 4.151 min Scan# 436
Delta R.T. -0.007 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:142 Resp: 78594

Ion	Ratio	Lower	Upper
142	100		
127	41.6	29.4	44.0
141	14.7	11.1	16.7

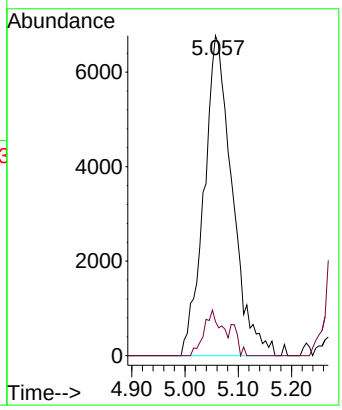




#11
Tert butyl alcohol
Concen: 245.442 ug/l
RT: 5.057 min Scan# 5
Delta R.T. 0.011 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 59 Resp: 2488

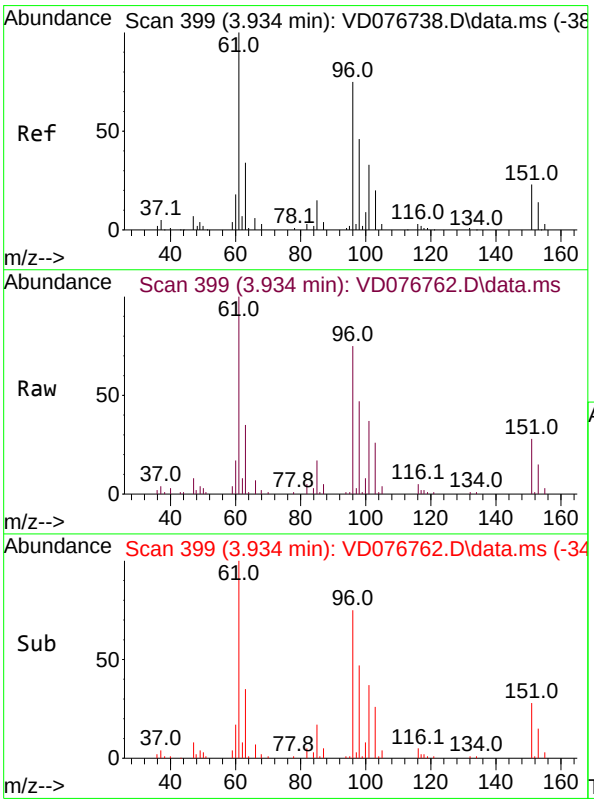
Ion	Ratio	Lower	Upper
59	100		
57	9.0	7.8	11.8



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

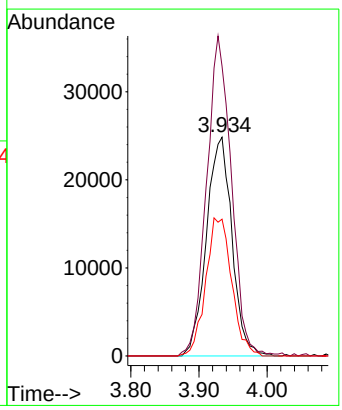
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

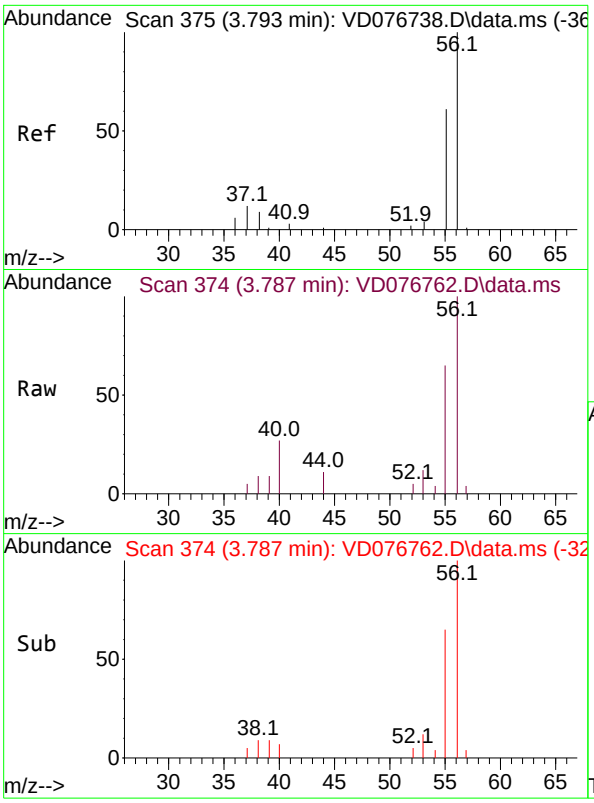


#12
1,1-Dichloroethene
Concen: 48.123 ug/l
RT: 3.934 min Scan# 399
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 96 Resp: 64855

Ion	Ratio	Lower	Upper
96	100		
61	132.5	100.6	150.8
98	62.6	50.2	75.2

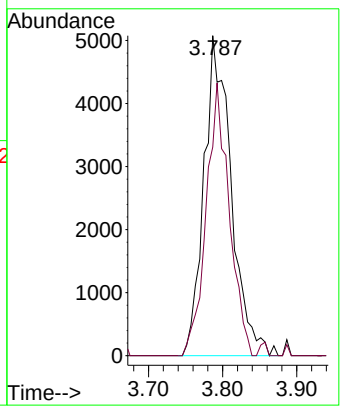




#13
Acrolein
Concen: 187.872 ug/l
RT: 3.787 min Scan# 3
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 56 Resp: 1297

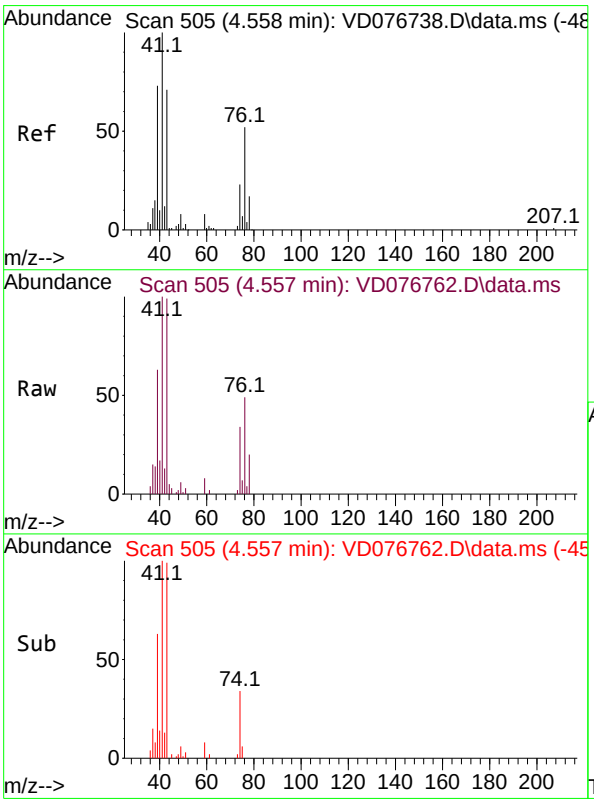
Ion	Ratio	Lower	Upper
56	100		
55	72.0	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

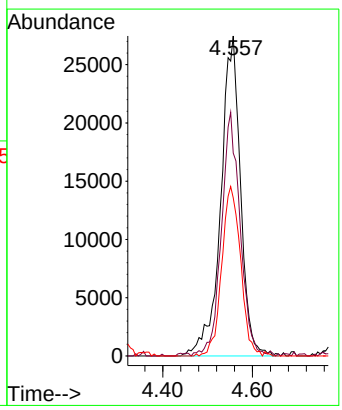
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

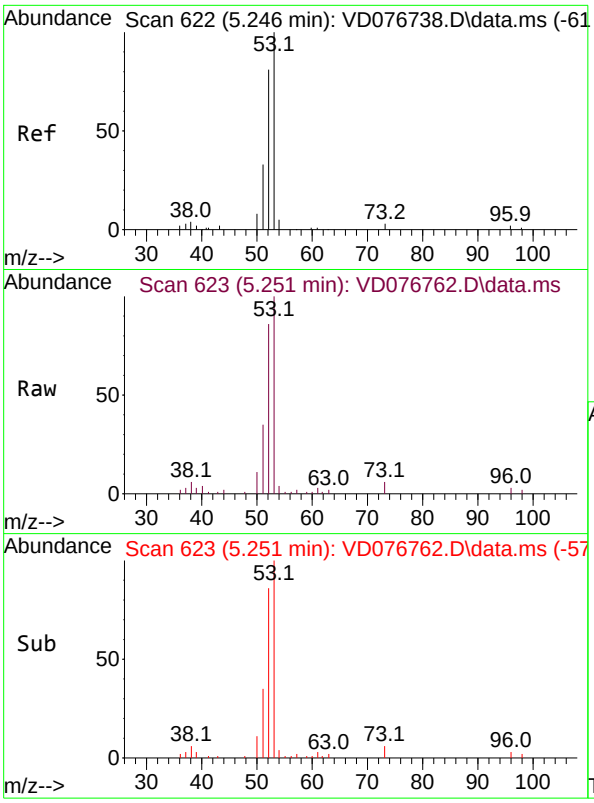


#14
Allyl chloride
Concen: 47.704 ug/l
RT: 4.557 min Scan# 505
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 41 Resp: 84456

Ion	Ratio	Lower	Upper
41	100		
39	71.7	53.8	80.6
76	50.1	45.8	68.8

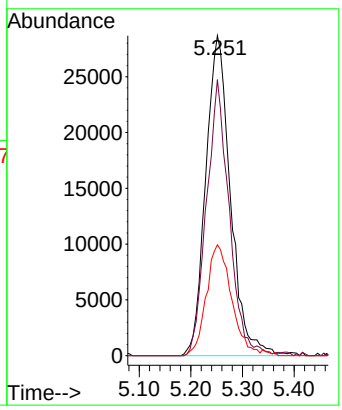




#15
Acrylonitrile
Concen: 257.996 ug/l
RT: 5.251 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 53 Resp: 9520

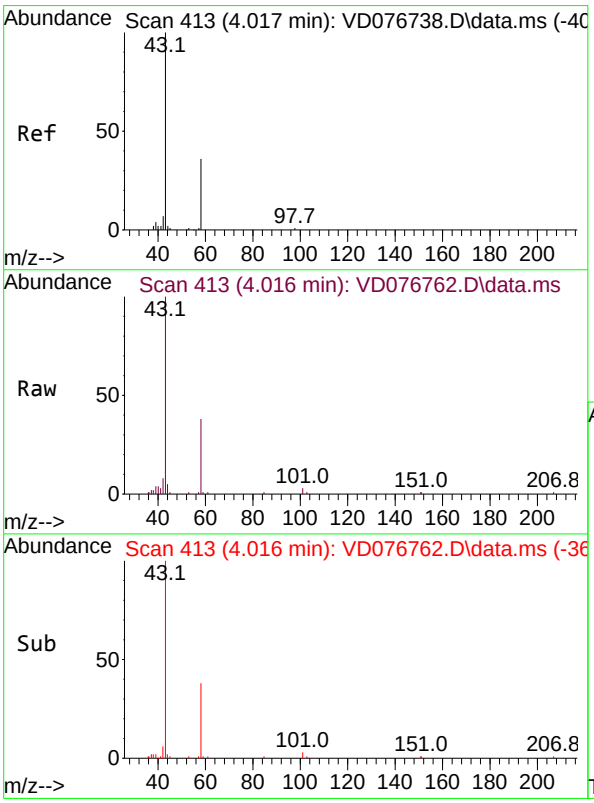
Ion	Ratio	Lower	Upper
53	100		
52	79.1	65.0	97.4
51	35.3	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

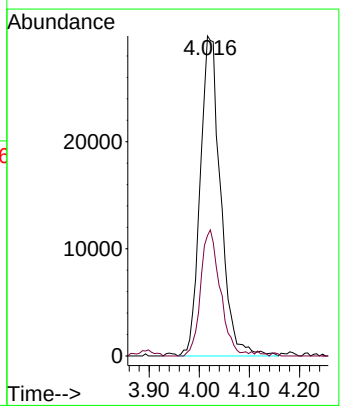
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

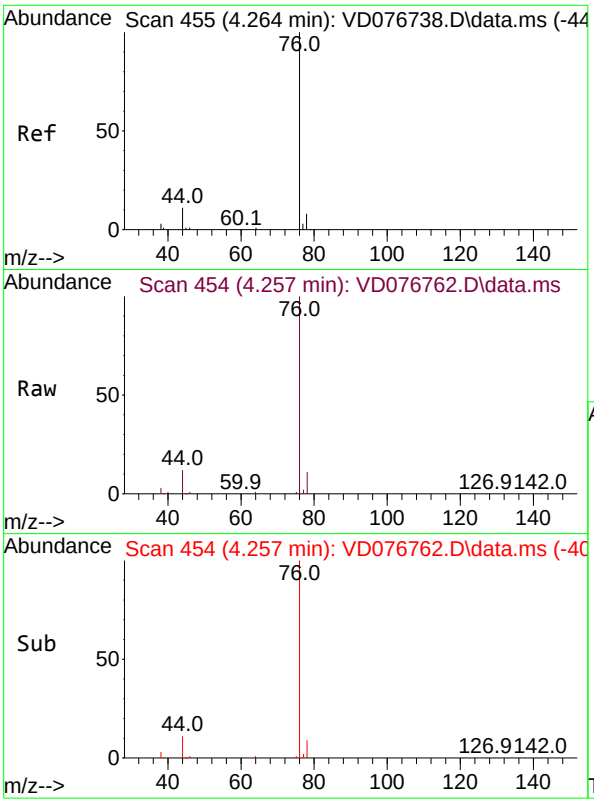


#16
Acetone
Concen: 260.560 ug/l
RT: 4.016 min Scan# 413
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 43 Resp: 84532

Ion	Ratio	Lower	Upper
43	100		
58	37.6	34.7	52.1





#17
Carbon Disulfide
Concen: 48.742 ug/l
RT: 4.257 min Scan# 4
Delta R.T. -0.007 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

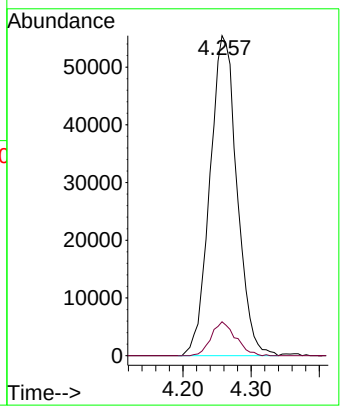
Tgt Ion: 76 Resp: 15342

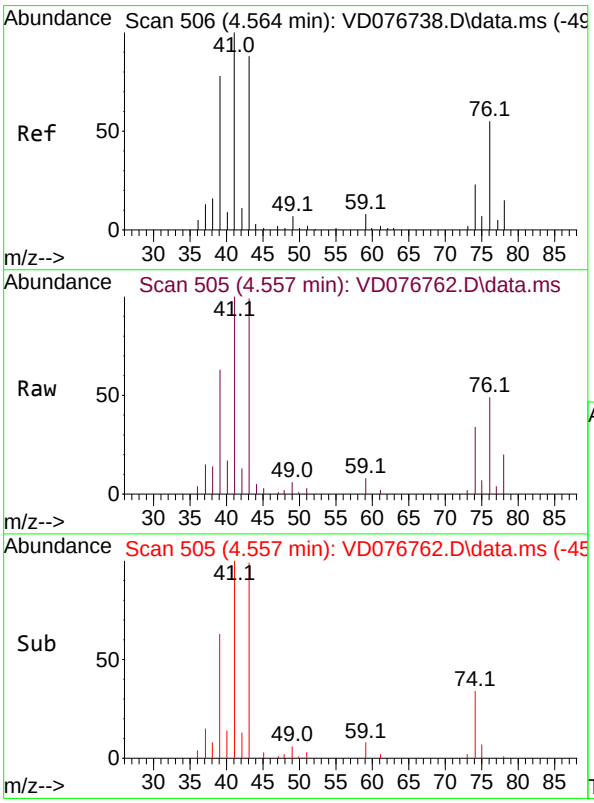
Ion	Ratio	Lower	Upper
76	100		
78	10.6	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

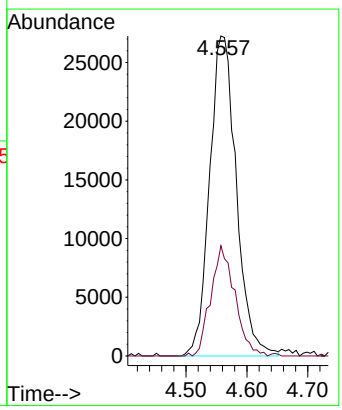


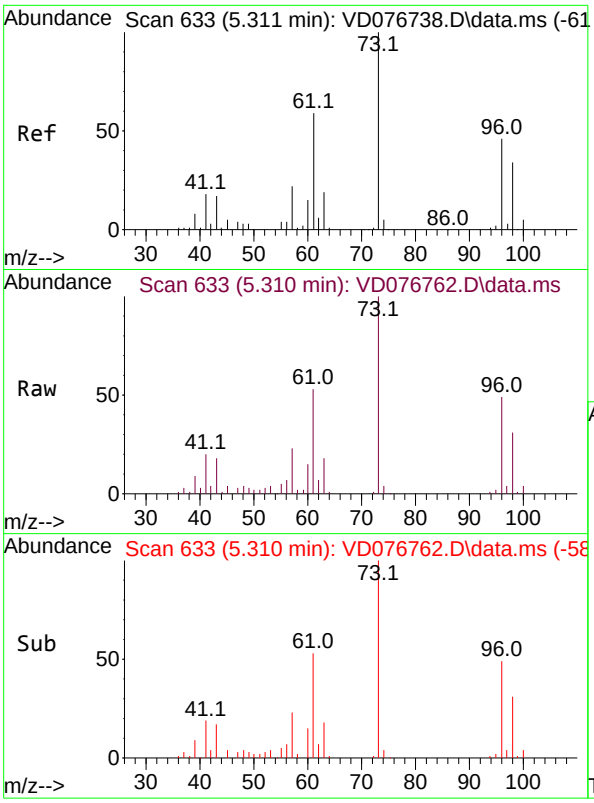


#18
Methyl Acetate
Concen: 68.134 ug/l
RT: 4.557 min Scan# 505
Delta R.T. -0.007 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 43 Resp: 83048

Ion	Ratio	Lower	Upper
43	100		
74	31.1	26.4	39.6





#19
Methyl tert-butyl Ether
Concen: 51.302 ug/l
RT: 5.310 min Scan# 6
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

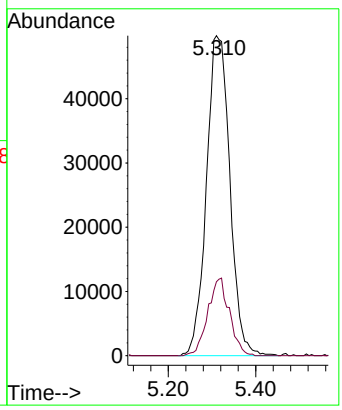
Tgt Ion: 73 Resp: 18541

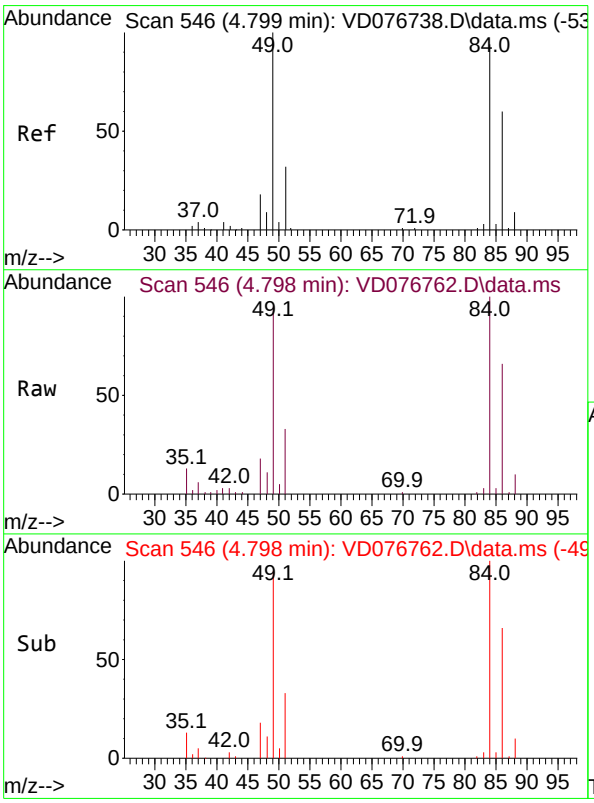
Ion	Ratio	Lower	Upper
73	100		
57	23.1	16.6	25.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

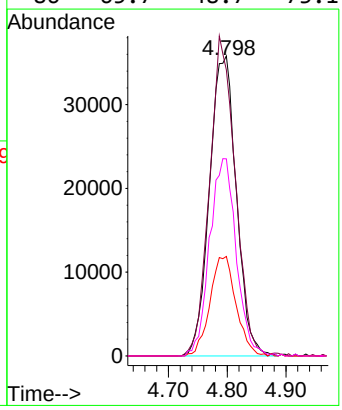


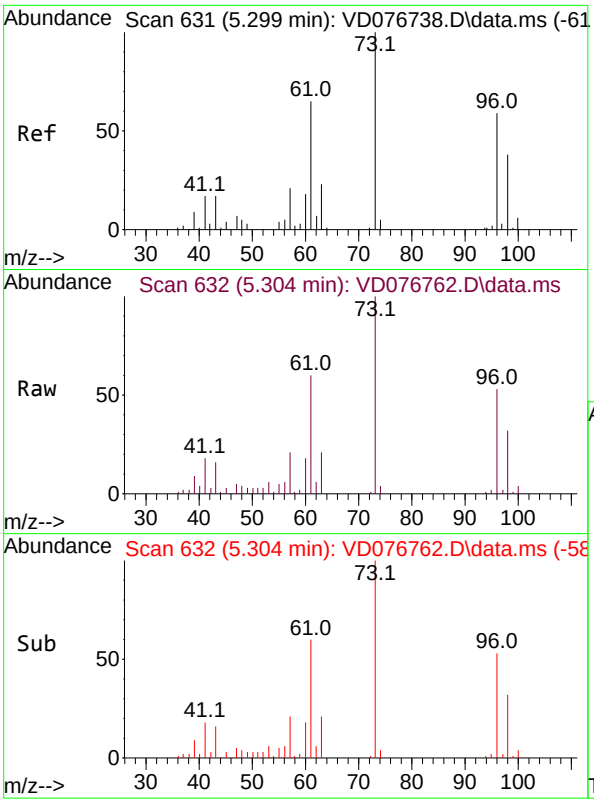


#20
Methylene Chloride
Concen: 61.222 ug/l
RT: 4.798 min Scan# 546
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 84 Resp: 113804

Ion	Ratio	Lower	Upper
84	100		
49	95.4	71.4	107.2
51	33.2	24.5	36.7
86	65.7	48.7	73.1

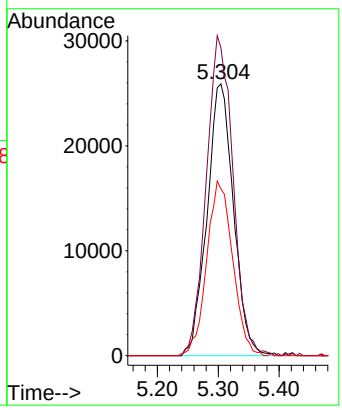




#21
trans-1,2-Dichloroethene
Concen: 50.035 ug/l
RT: 5.304 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 96 Resp: 7838

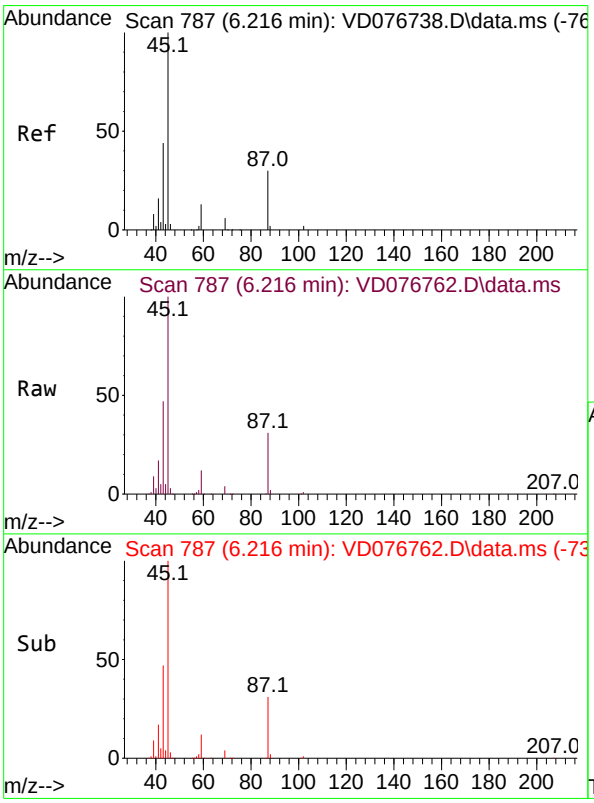
Ion	Ratio	Lower	Upper
96	100		
61	113.3	89.3	133.9
98	61.3	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

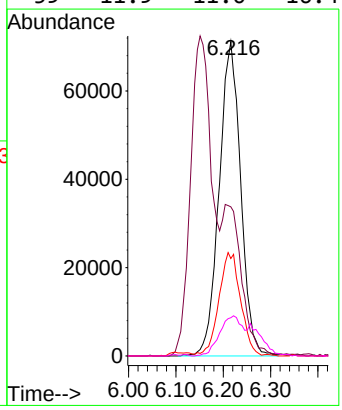
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

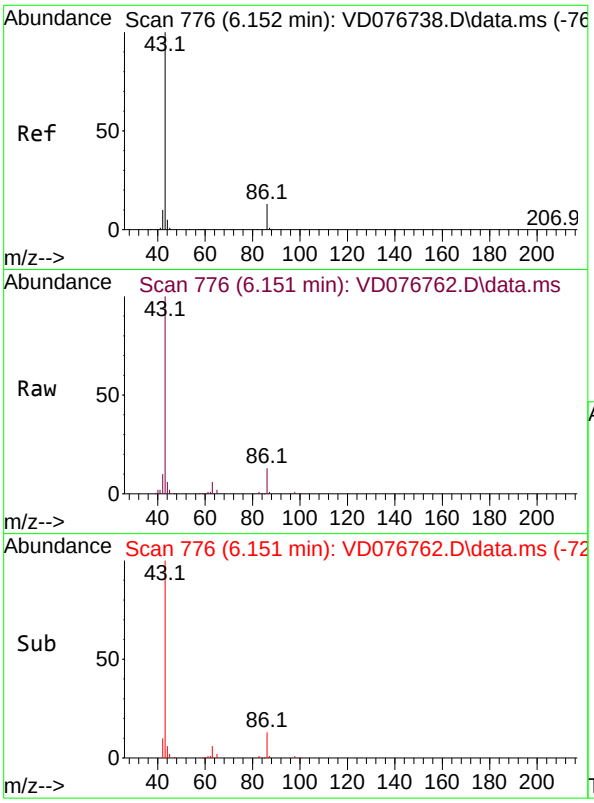


#22
Diisopropyl ether
Concen: 53.726 ug/l
RT: 6.216 min Scan# 787
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 45 Resp: 225237

Ion	Ratio	Lower	Upper
45	100		
43	46.9	40.0	60.0
87	31.0	28.2	42.4
59	11.9	11.0	16.4





#23
Vinyl Acetate
Concen: 157.910 ug/l m
RT: 6.151 min Scan# 7
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

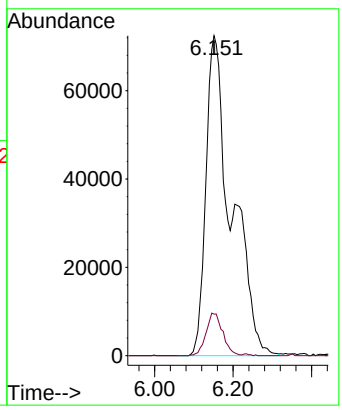
Tgt Ion: 43 Resp: 32755

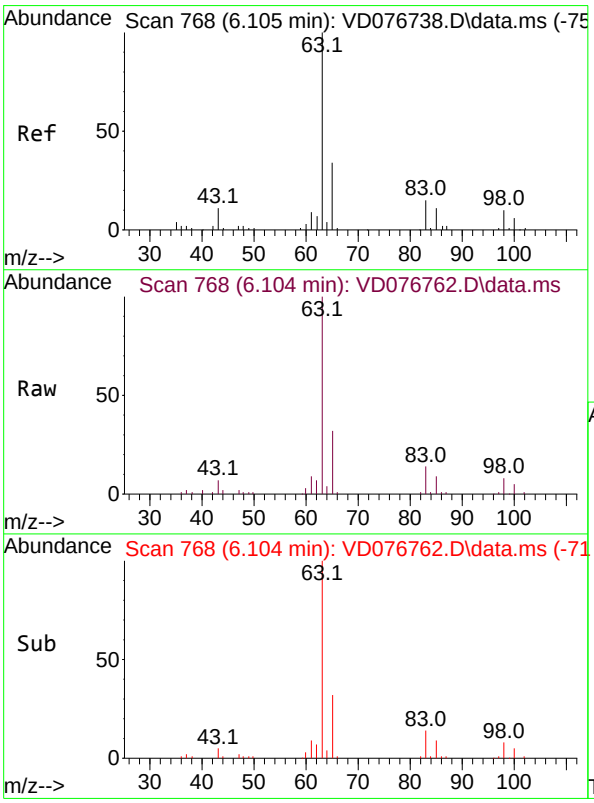
Ion	Ratio	Lower	Upper
43	100		
86	13.0	12.5	18.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

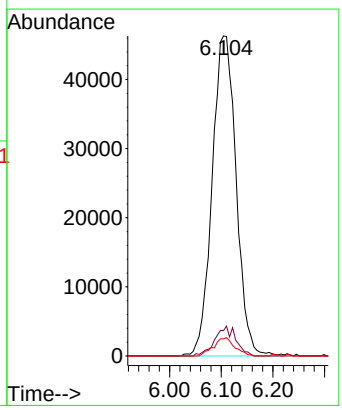


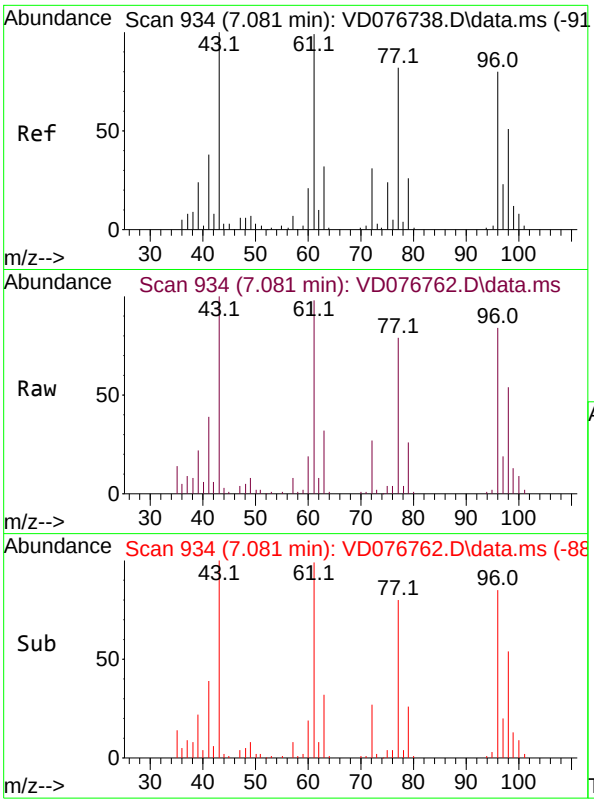


#24
1,1-Dichloroethane
Concen: 52.807 ug/l
RT: 6.104 min Scan# 768
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 63 Resp: 149263

Ion	Ratio	Lower	Upper
63	100		
98	7.9	4.5	13.7
100	5.4	2.5	7.5





#25
2-Butanone
Concen: 262.810 ug/l
RT: 7.081 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

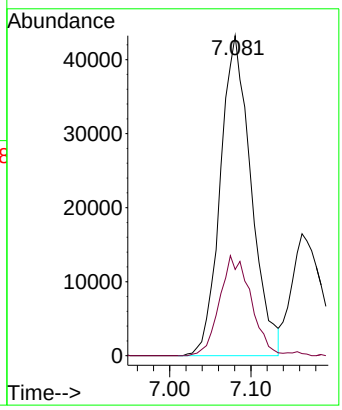
Tgt Ion: 43 Resp: 11411

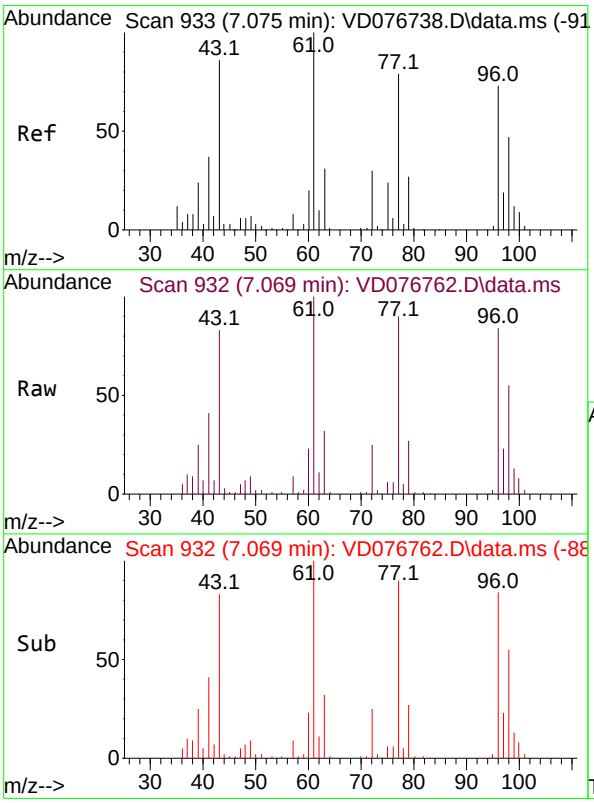
Ion	Ratio	Lower	Upper
43	100		
72	27.0	30.7	46.1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

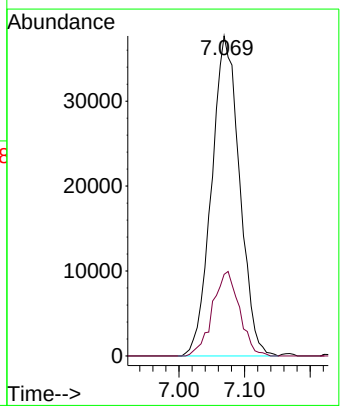


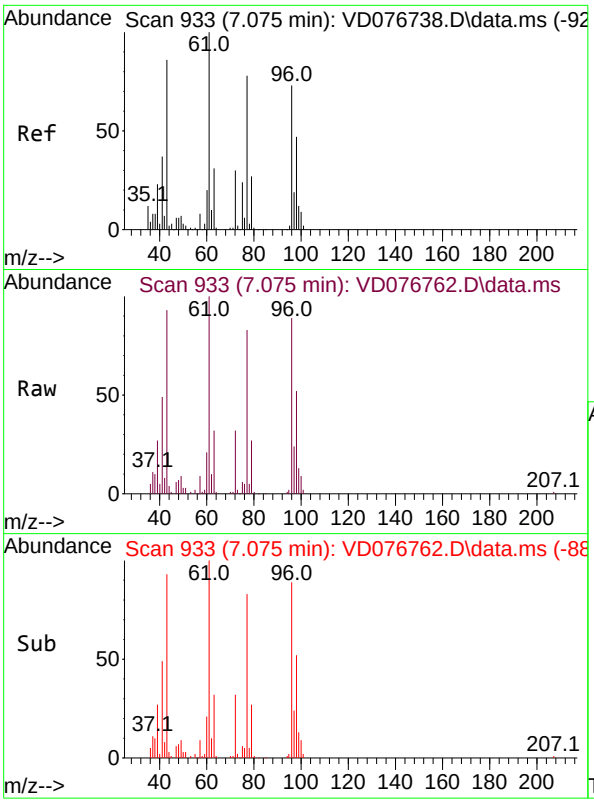


#26
2,2-Dichloropropane
Concen: 45.863 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 77 Resp: 111750

Ion	Ratio	Lower	Upper
77	100		
97	25.4	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 51.652 ug/l
RT: 7.075 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

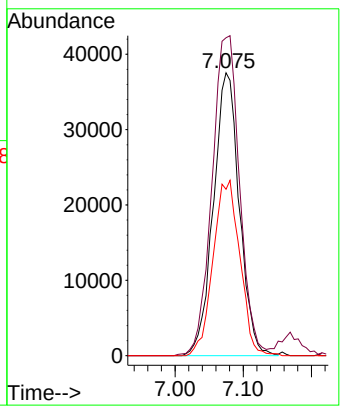
Tgt Ion: 96 Resp: 9974

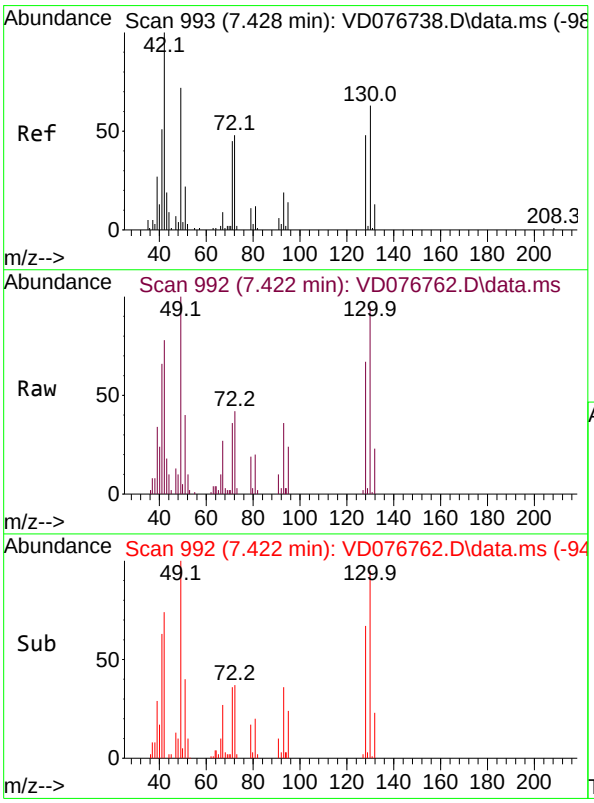
Ion	Ratio	Lower	Upper
96	100		
61	119.9	0.0	239.2
98	63.9	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

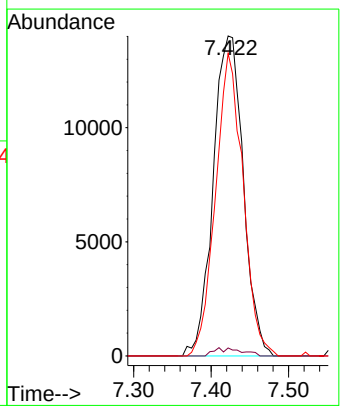


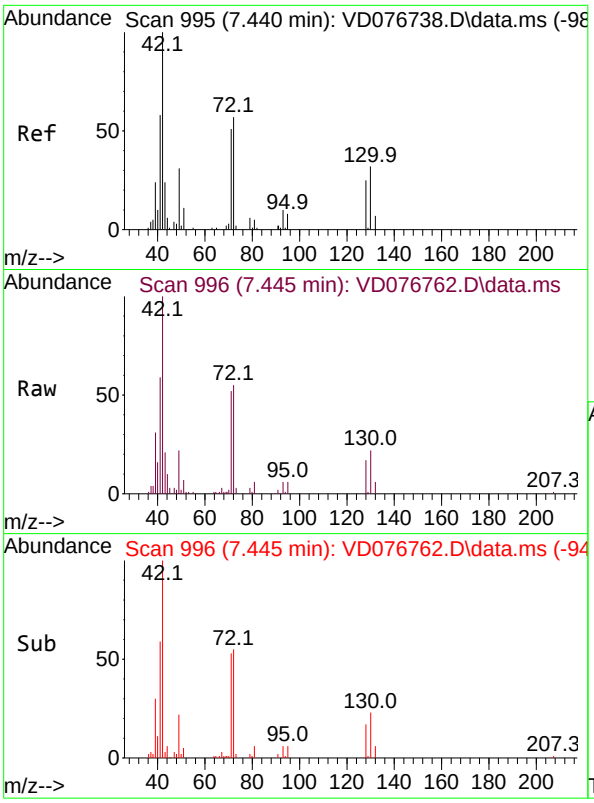


#28
Bromochloromethane
Concen: 53.570 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 49 Resp: 37857

Ion	Ratio	Lower	Upper
49	100		
129	0.9	0.0	6.0
130	86.5	83.2	124.8





#29
Tetrahydrofuran
Concen: 262.757 ug/l
RT: 7.445 min Scan# 9
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

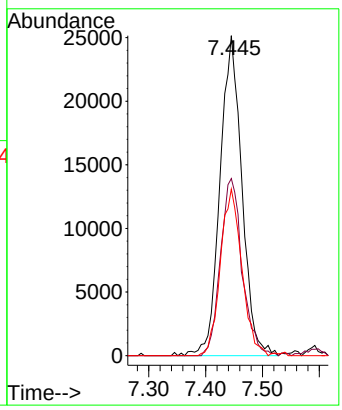
Tgt Ion: 42 Resp: 6740

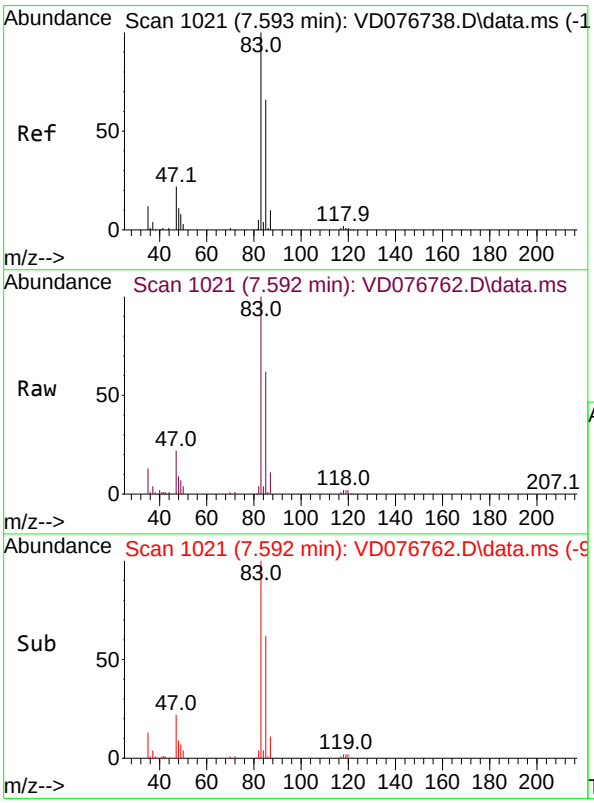
Ion	Ratio	Lower	Upper
42	100		
72	54.8	46.5	69.7
71	50.7	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

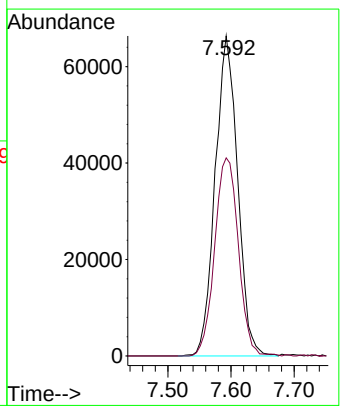


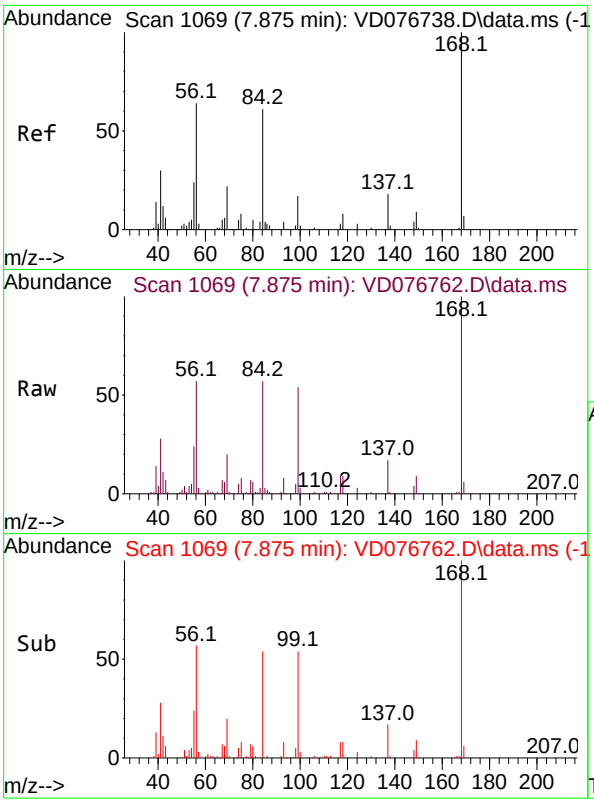


#30
Chloroform
Concen: 52.923 ug/l
RT: 7.592 min Scan# 1021
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 83 Resp: 163843

Ion	Ratio	Lower	Upper
83	100		
85	61.9	53.4	80.2





#31
Cyclohexane
Concen: 44.995 ug/l
RT: 7.875 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

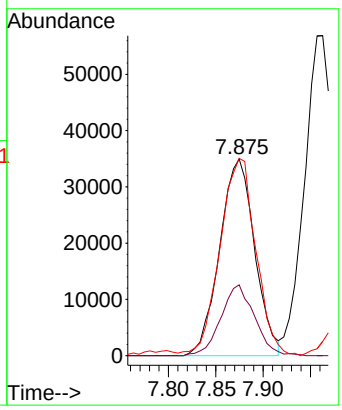
Tgt Ion: 56 Resp: 8995

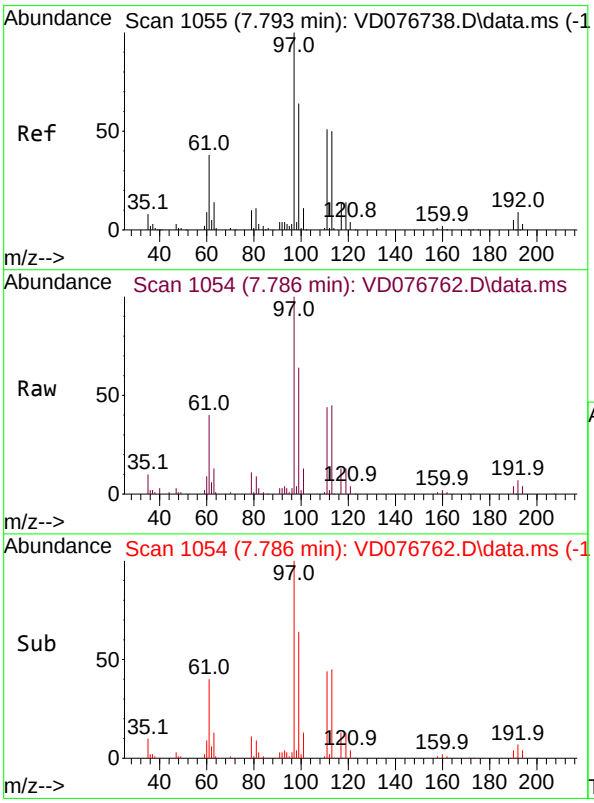
Ion	Ratio	Lower	Upper
56	100		
69	36.0	28.6	43.0
84	99.0	84.8	127.2

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

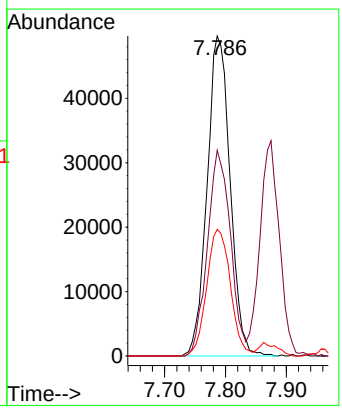


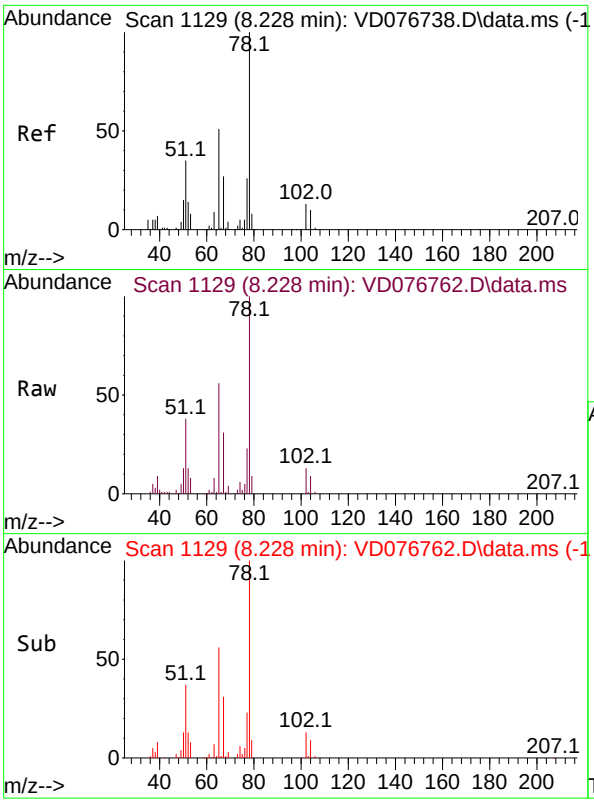


#32
1,1,1-Trichloroethane
Concen: 52.185 ug/l
RT: 7.786 min Scan# 1054
Delta R.T. -0.007 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 97 Resp: 130350

Ion	Ratio	Lower	Upper
97	100		
99	64.4	52.0	78.0
61	40.8	33.8	50.8

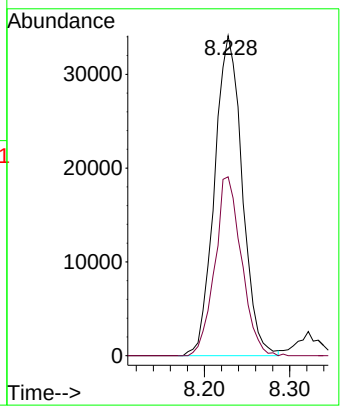




#33
1,2-Dichloroethane-d4
Concen: 56.739 ug/l
RT: 8.228 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 65 Resp: 7707

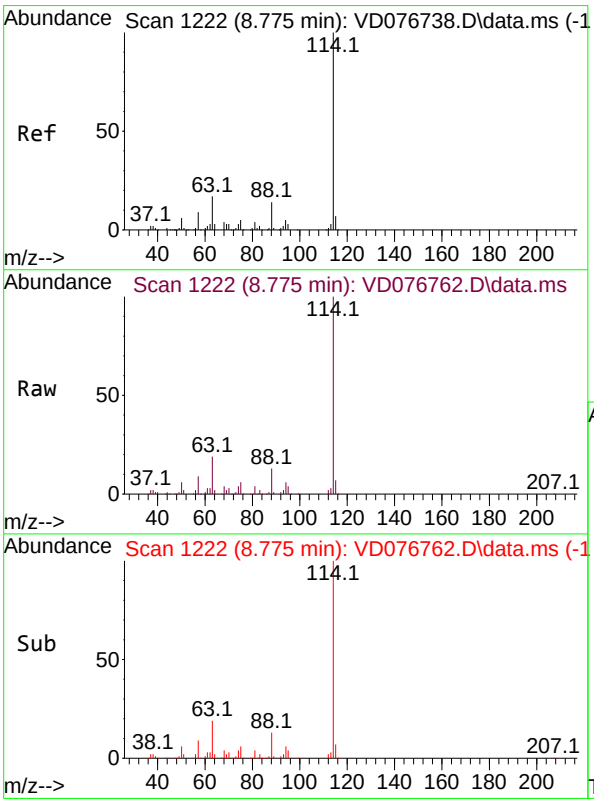
Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	115.0



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

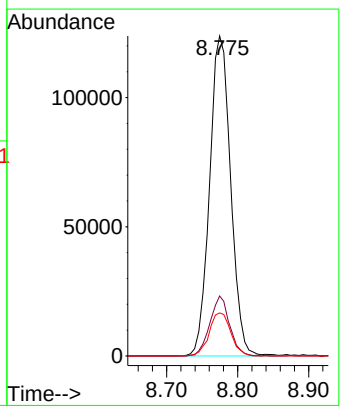
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

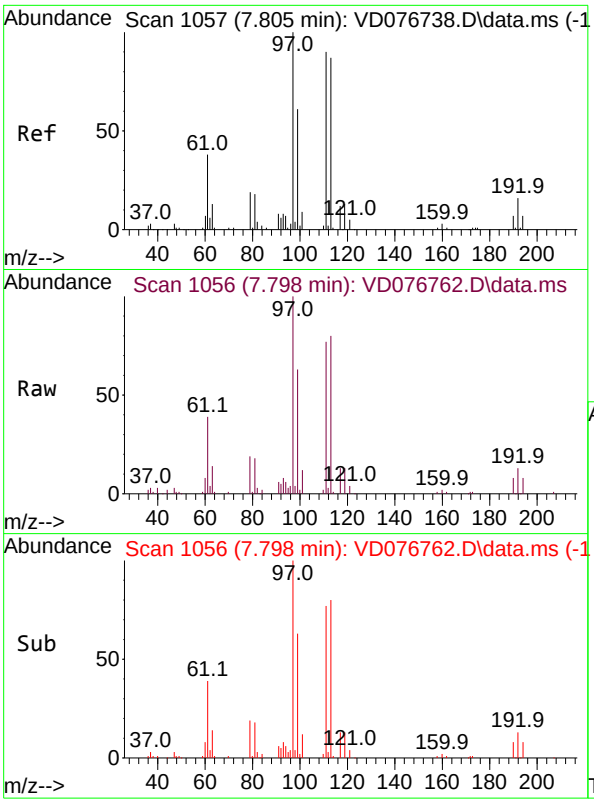


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:114 Resp: 255118

Ion	Ratio	Lower	Upper
114	100		
63	18.7	0.0	33.4
88	13.4	0.0	26.2

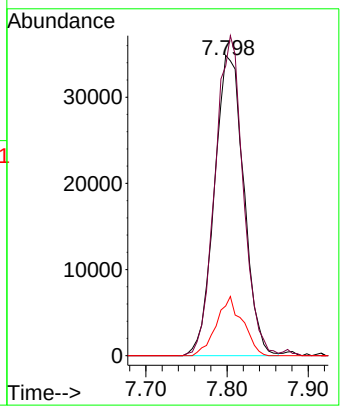




#35
Dibromofluoromethane
Concen: 54.737 ug/l
RT: 7.798 min Scan# 1
Delta R.T. -0.007 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:113 Resp: 8775

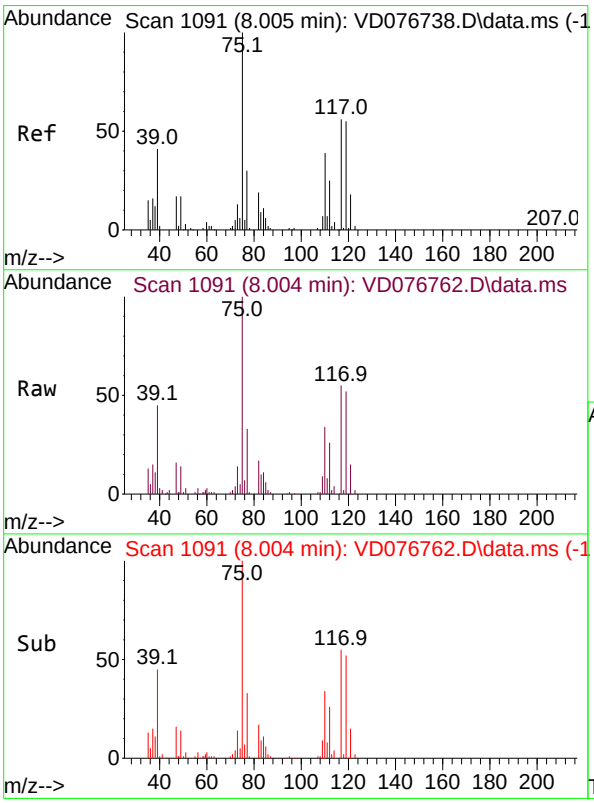
Ion	Ratio	Lower	Upper
113	100		
111	101.7	84.7	127.1
192	17.6	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

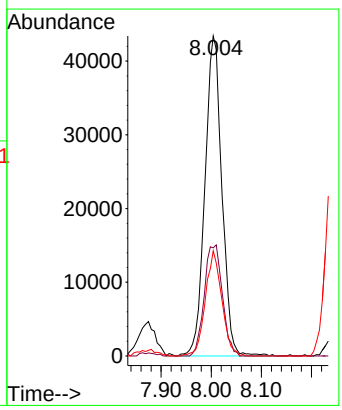
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

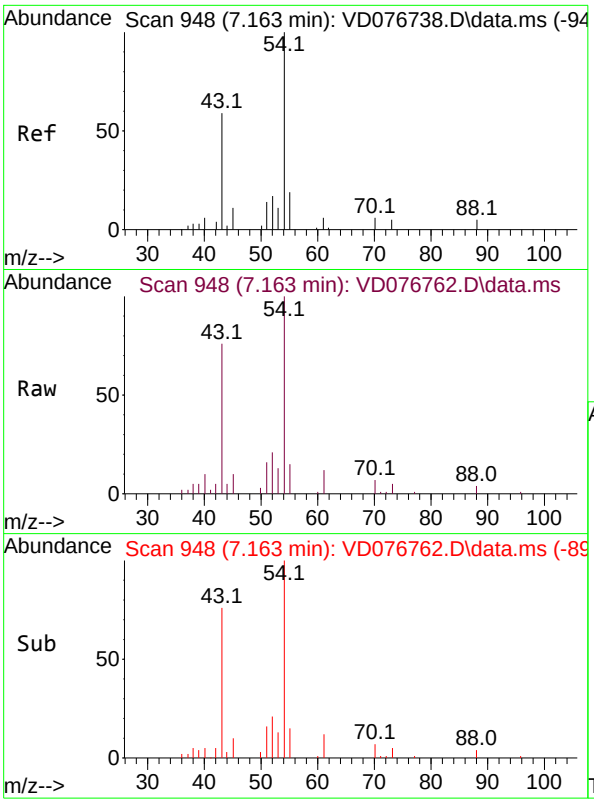


#36
1,1-Dichloropropene
Concen: 48.765 ug/l
RT: 8.004 min Scan# 1091
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 75 Resp: 102159

Ion	Ratio	Lower	Upper
75	100		
110	36.9	19.9	59.6
77	31.7	24.7	37.1





#37
Ethyl Acetate
Concen: 45.863 ug/l
RT: 7.163 min Scan# 94
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

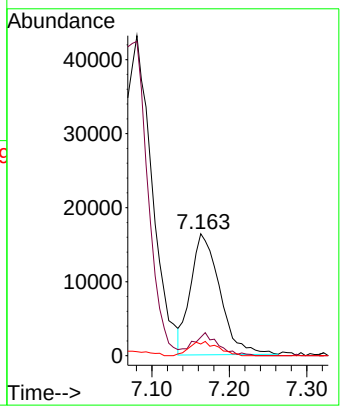
Tgt Ion: 43 Resp: 4296

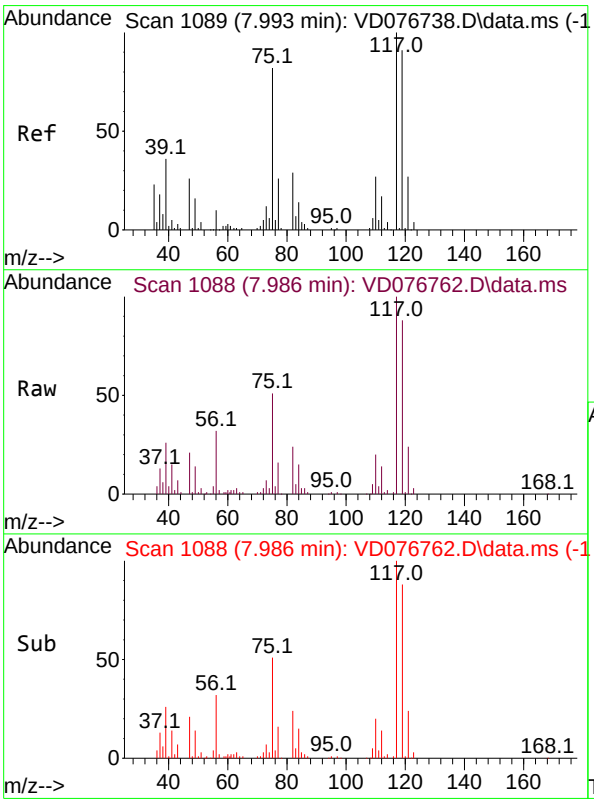
Ion	Ratio	Lower	Upper
43	100		
61	16.5	14.9	22.3
70	11.3	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

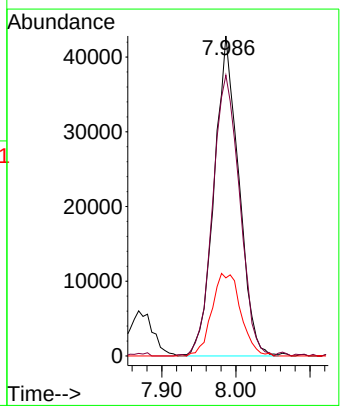


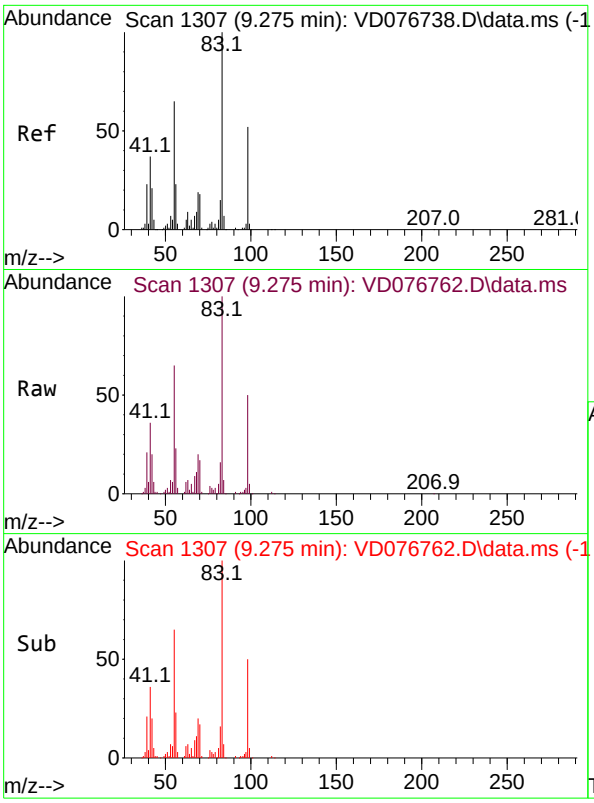


#38
Carbon Tetrachloride
Concen: 49.239 ug/l
RT: 7.986 min Scan# 1088
Delta R.T. -0.007 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:117 Resp: 98769

Ion	Ratio	Lower	Upper
117	100		
119	87.3	78.0	117.0
121	24.4	24.2	36.2





#39
Methylcyclohexane
Concen: 46.686 ug/l
RT: 9.275 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

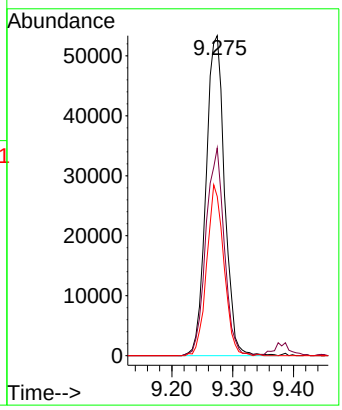
Tgt Ion: 83 Resp: 11292

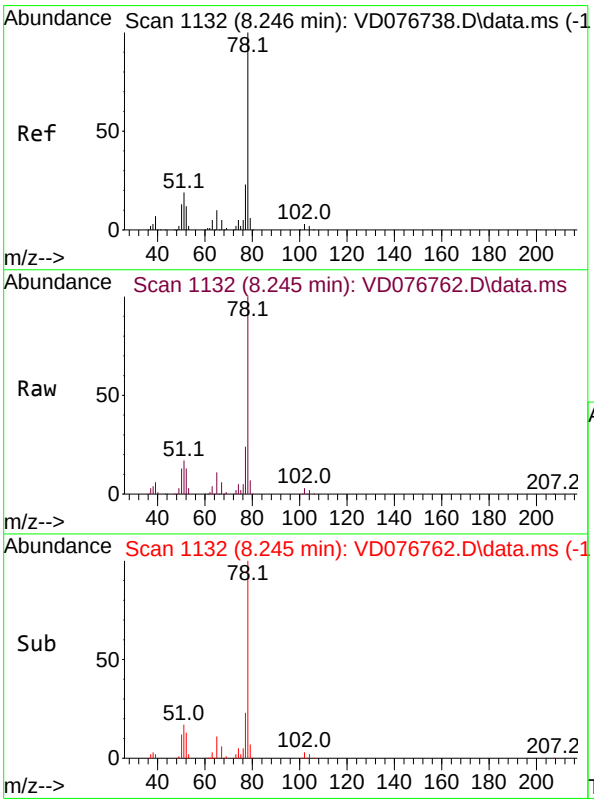
Ion	Ratio	Lower	Upper
83	100		
55	64.9	49.4	74.0
98	49.8	38.4	57.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

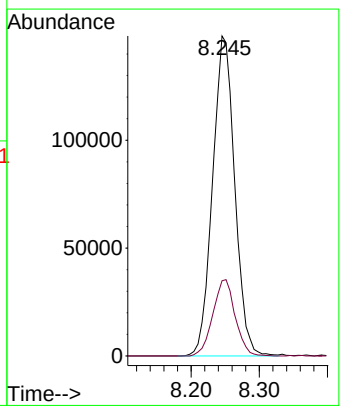


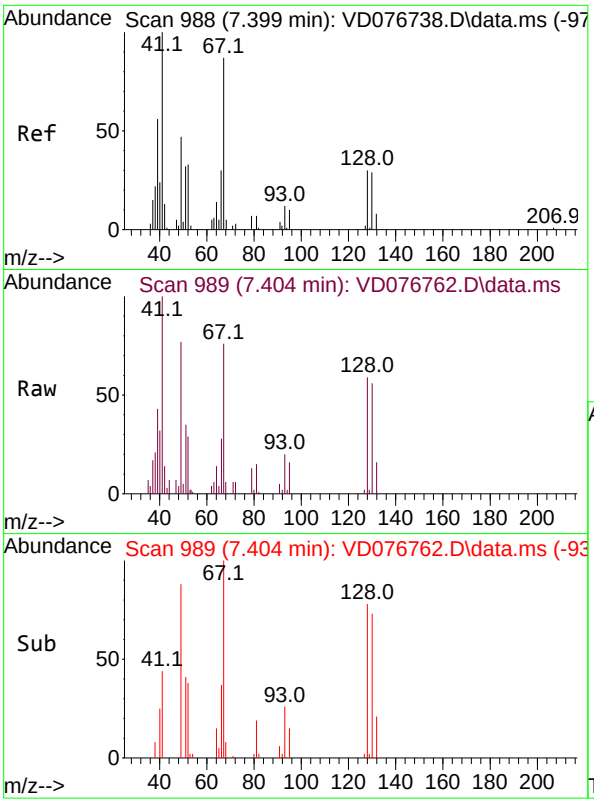


#40
Benzene
Concen: 50.759 ug/l
RT: 8.245 min Scan# 1132
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 78 Resp: 335519

Ion	Ratio	Lower	Upper
78	100		
77	23.5	19.4	29.0

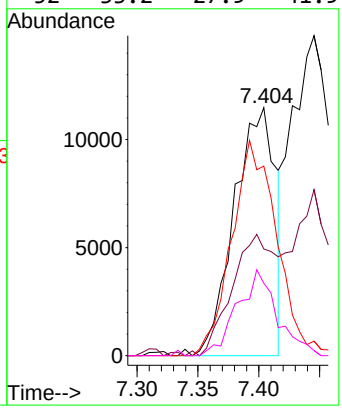




#41
Methacrylonitrile
Concen: 47.465 ug/l
RT: 7.404 min Scan# 9
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 41 Resp: 2715

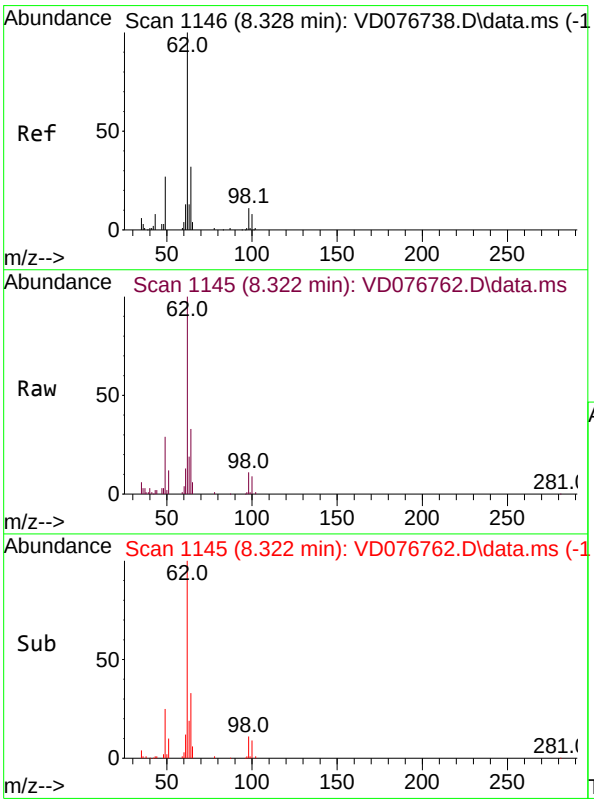
Ion	Ratio	Lower	Upper
41	100		
39	51.4	34.0	51.0
67	94.2	77.0	115.4
52	33.2	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

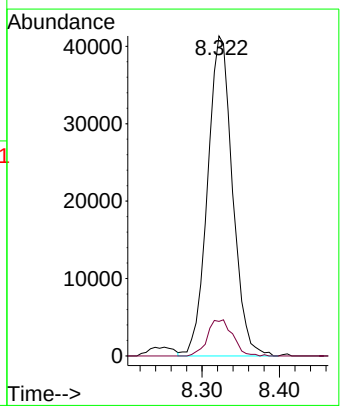
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

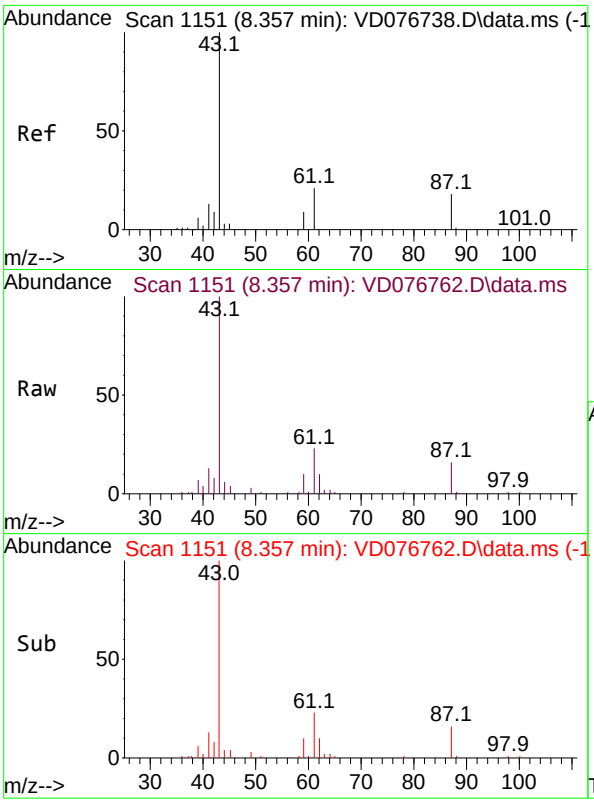


#42
1,2-Dichloroethane
Concen: 53.868 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 62 Resp: 92516

Ion	Ratio	Lower	Upper
62	100		
98	11.5	0.0	25.4

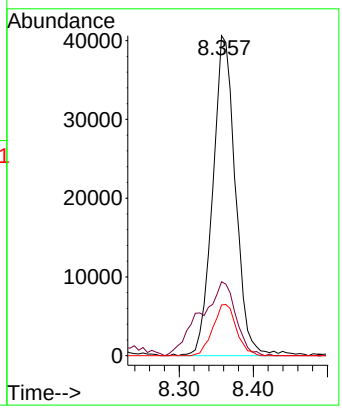




#43
Isopropyl Acetate
Concen: 47.074 ug/l
RT: 8.357 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 43 Resp: 8607

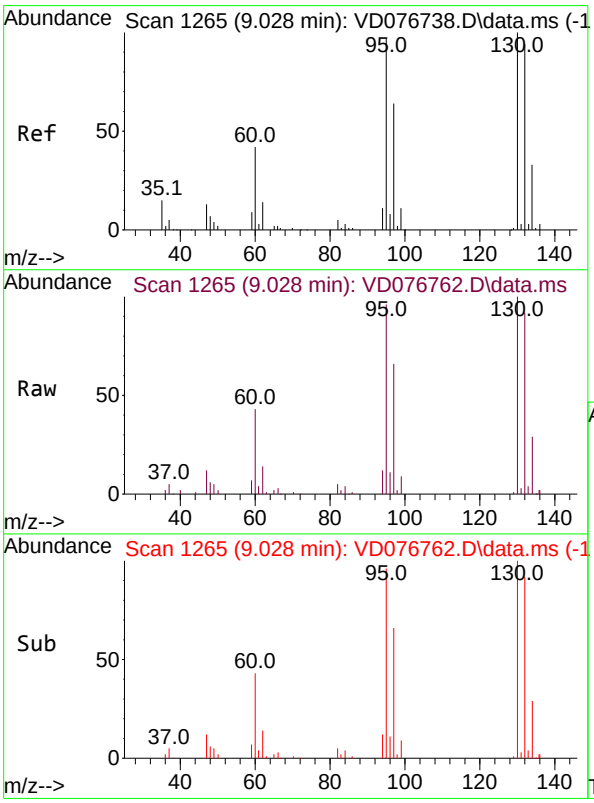
Ion	Ratio	Lower	Upper
43	100		
61	36.1	31.4	47.0
87	16.6	14.9	22.3



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

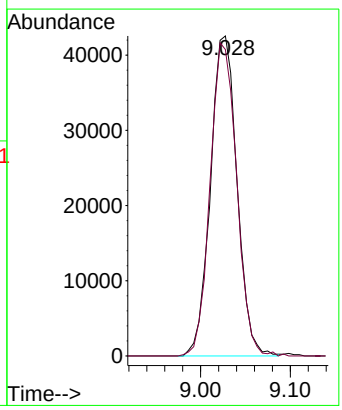
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

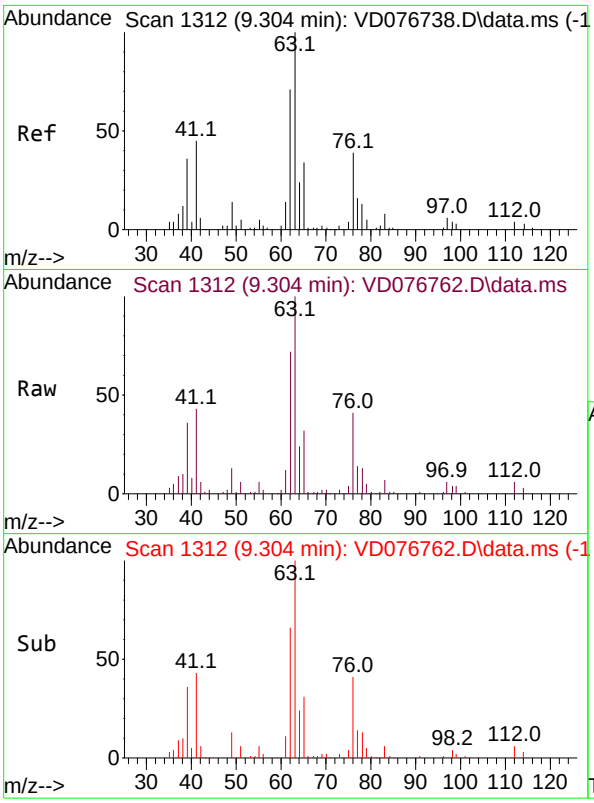


#44
Trichloroethene
Concen: 48.529 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:130 Resp: 87411

Ion	Ratio	Lower	Upper
130	100		
95	95.8	0.0	179.2

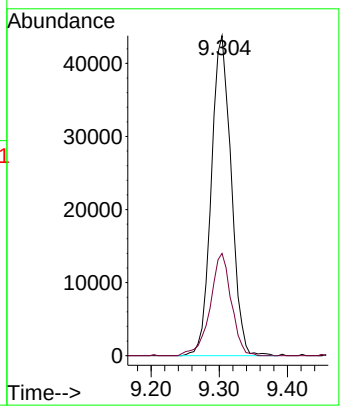




#45
1,2-Dichloropropane
Concen: 52.056 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 63 Resp: 8882

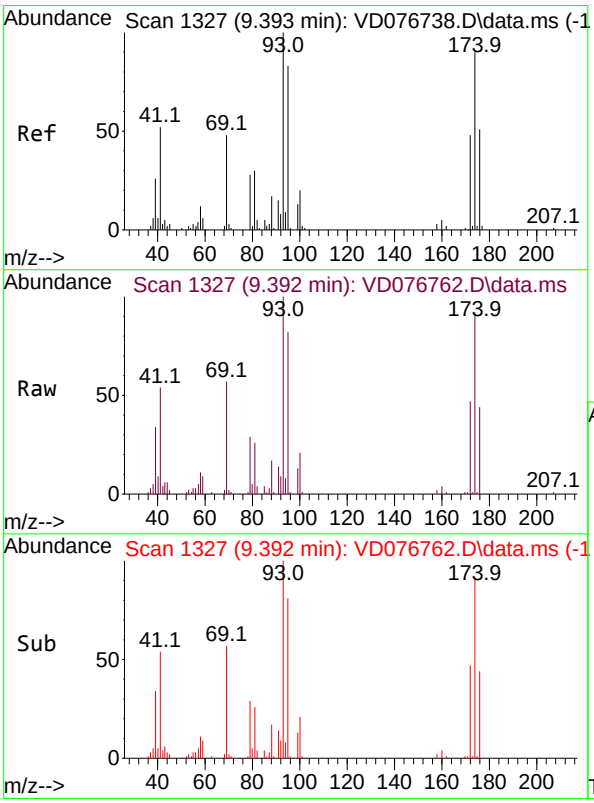
Ion	Ratio	Lower	Upper
63	100		
65	31.9	24.5	36.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

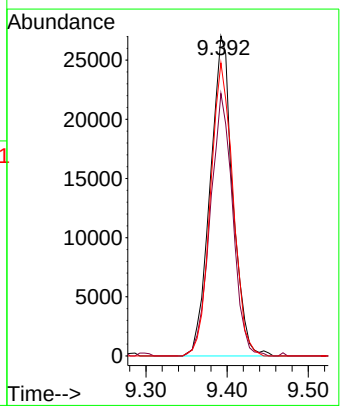
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

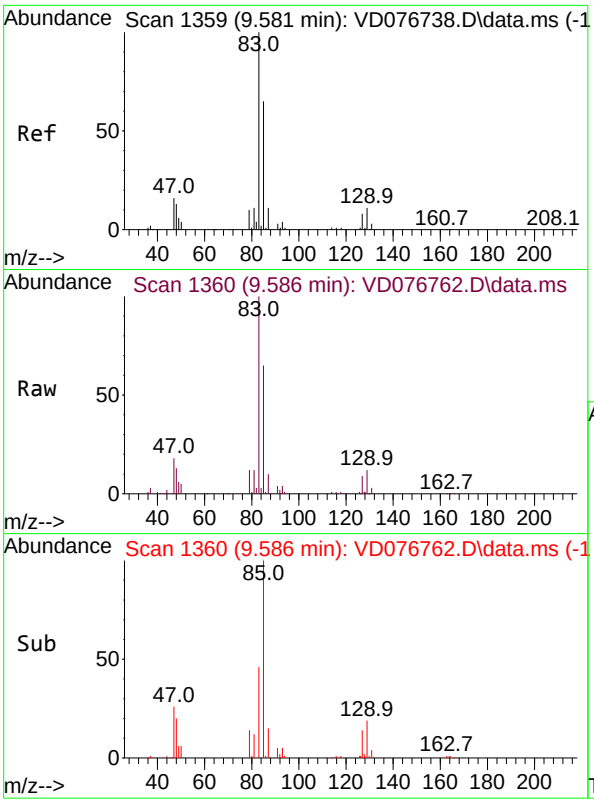


#46
Dibromomethane
Concen: 52.120 ug/l
RT: 9.392 min Scan# 1327
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 93 Resp: 52055

Ion	Ratio	Lower	Upper
93	100		
95	81.3	67.7	101.5
174	91.6	85.4	128.2

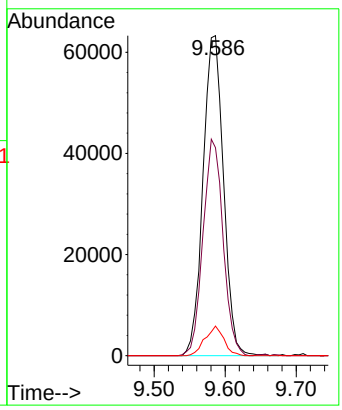




#47
Bromodichloromethane
Concen: 50.625 ug/l
RT: 9.586 min Scan# 1
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 83 Resp: 12688

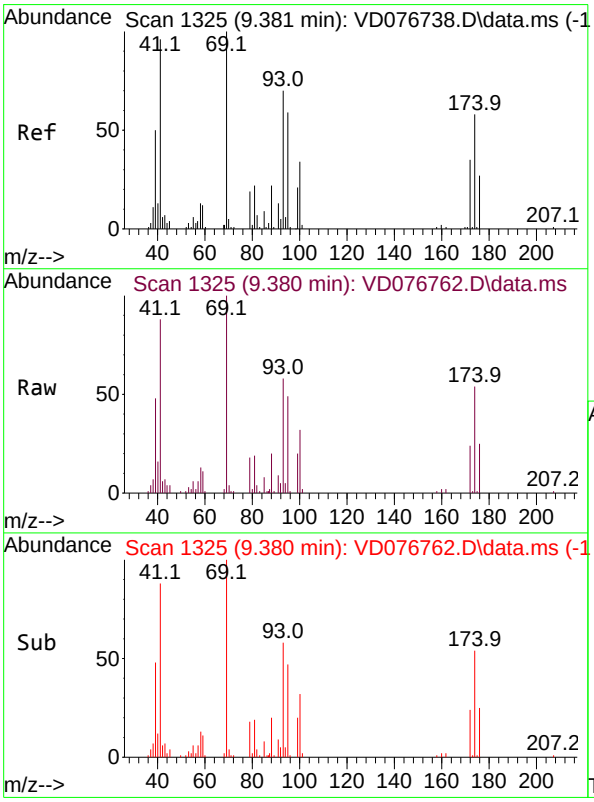
Ion	Ratio	Lower	Upper
83	100		
85	65.0	50.2	75.4
127	9.3	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

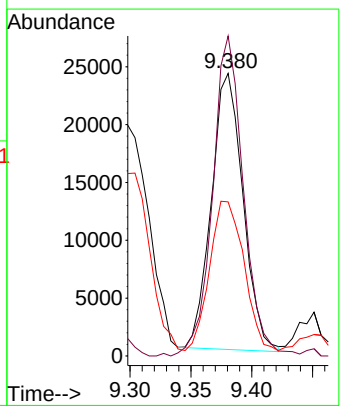
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

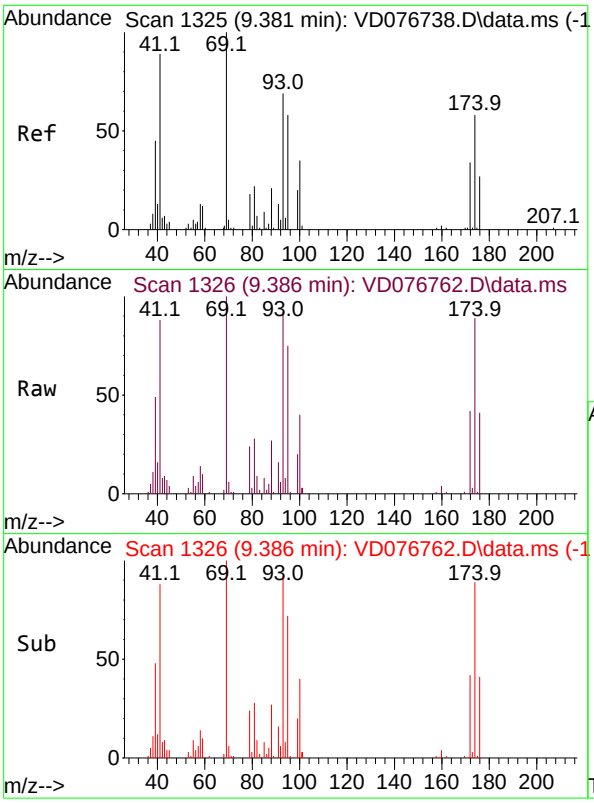


#48
Methyl methacrylate
Concen: 51.784 ug/l
RT: 9.380 min Scan# 1325
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 41 Resp: 43093

Ion	Ratio	Lower	Upper
41	100		
69	113.1	102.2	153.2
39	63.3	41.4	62.2#





#49
1,4-Dioxane
Concen: 1018.827 ug/l
RT: 9.386 min Scan# 1
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

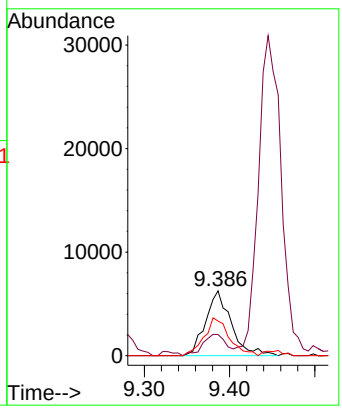
Tgt Ion: 88 Resp: 1303

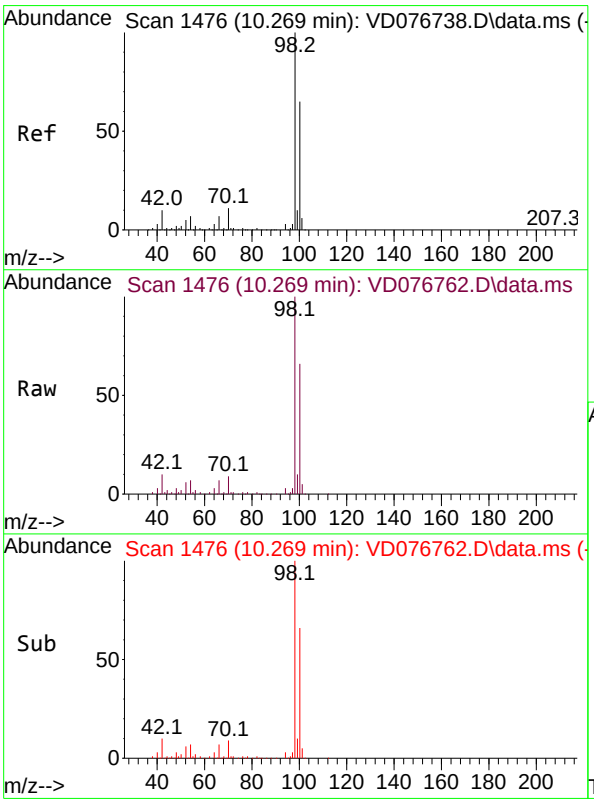
Ion	Ratio	Lower	Upper
88	100		
43	30.0	19.0	28.6
58	56.8	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

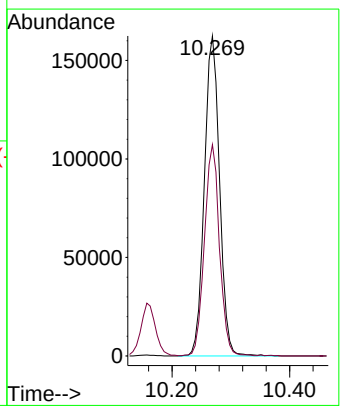


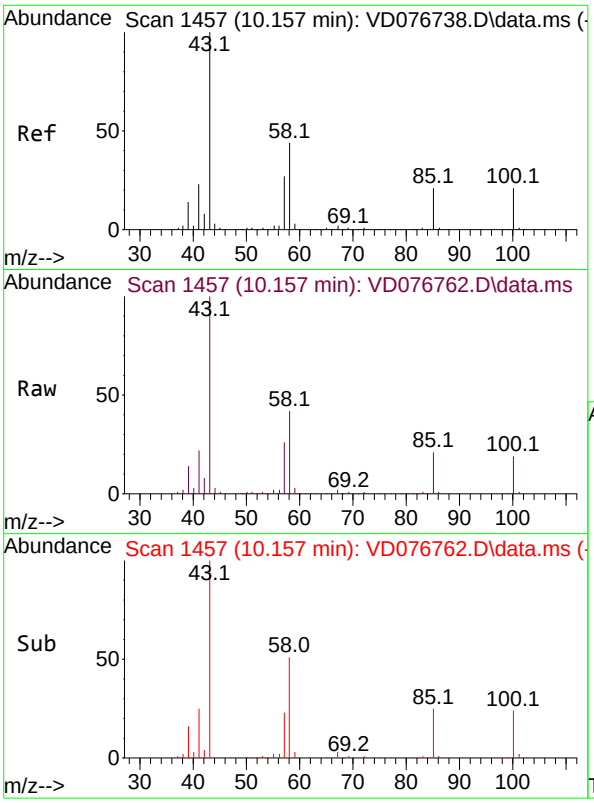


#50
Toluene-d8
Concen: 50.761 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 98 Resp: 291124

Ion	Ratio	Lower	Upper
98	100		
100	65.3	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 254.571 ug/l
RT: 10.157 min Scan# 14
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

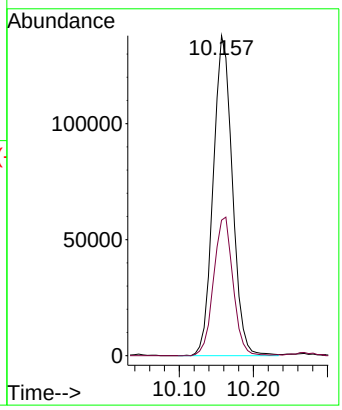
Tgt Ion: 43 Resp: 24782

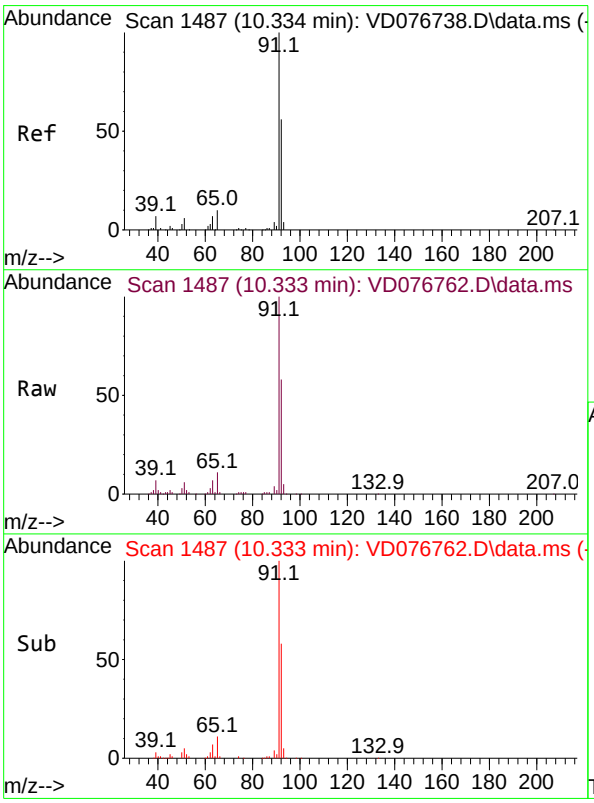
Ion	Ratio	Lower	Upper
43	100		
58	43.9	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

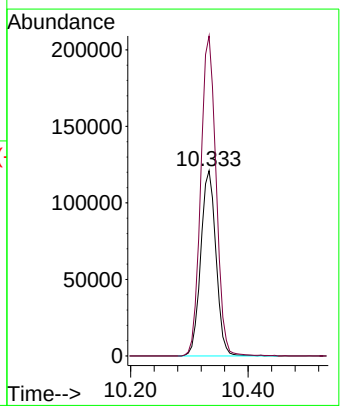


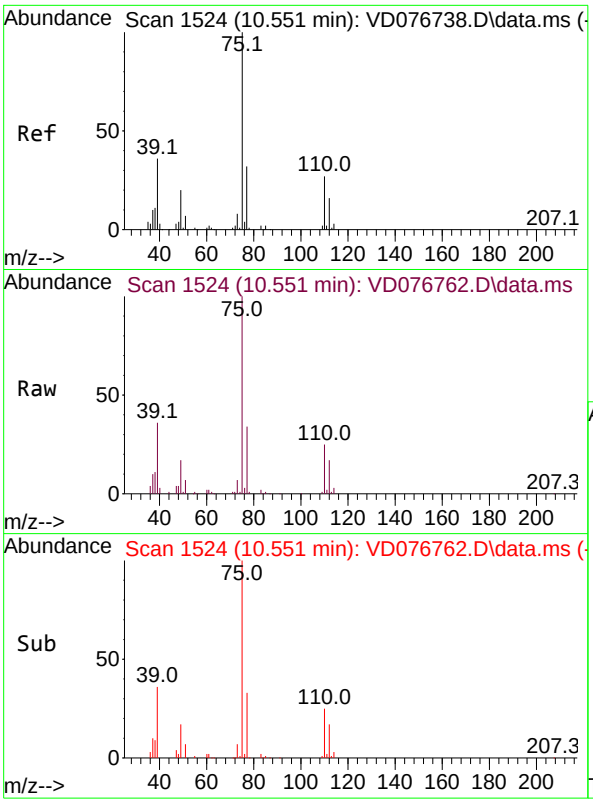


#52
Toluene
Concen: 50.133 ug/l
RT: 10.333 min Scan# 1487
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 92 Resp: 217641

Ion	Ratio	Lower	Upper
92	100		
91	174.3	143.0	214.4

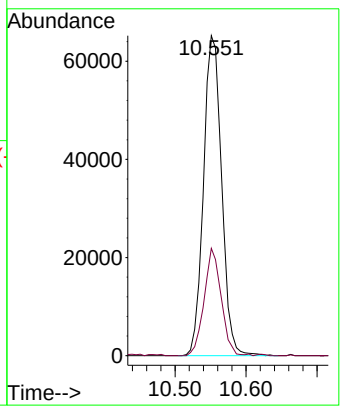




#53
t-1,3-Dichloropropene
Concen: 49.788 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 75 Resp: 11582

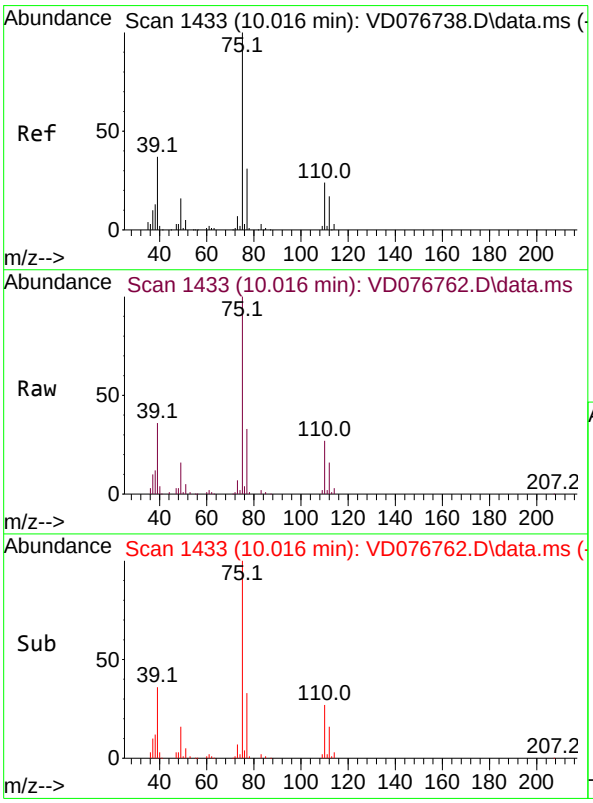
Ion	Ratio	Lower	Upper
75	100		
77	33.6	25.3	37.9



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

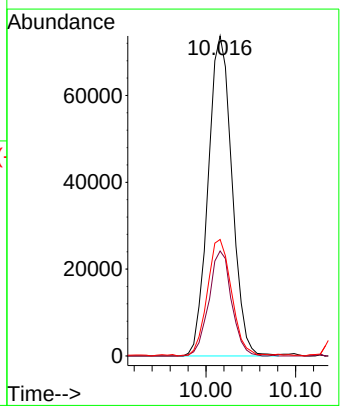
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

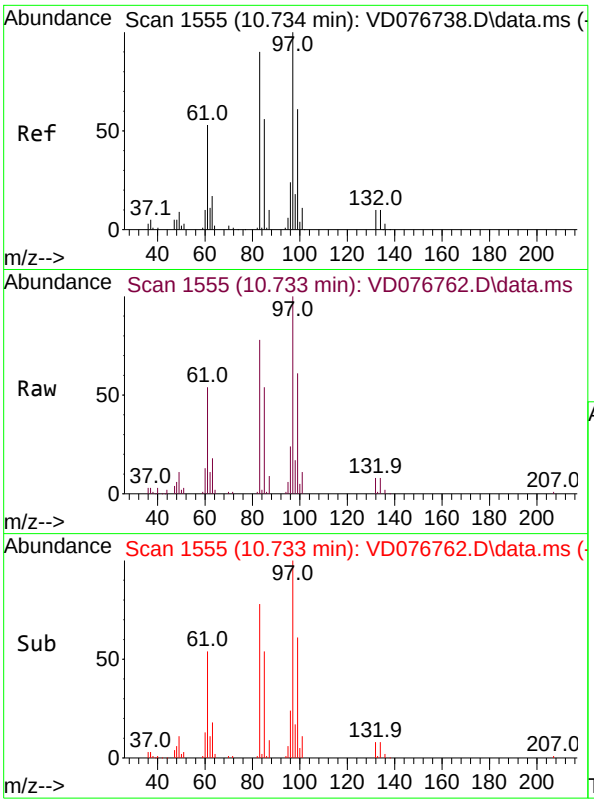


#54
cis-1,3-Dichloropropene
Concen: 49.627 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 75 Resp: 136063

Ion	Ratio	Lower	Upper
75	100		
77	32.8	25.5	38.3
39	36.4	22.1	33.1#

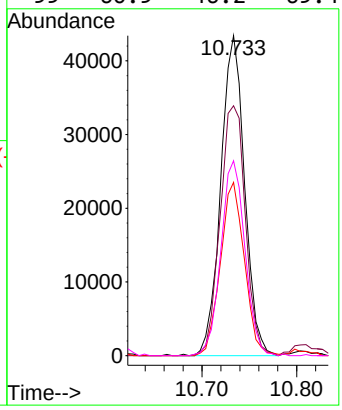




#55
1,1,2-Trichloroethane
Concen: 52.055 ug/l
RT: 10.733 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 97 Resp: 7591

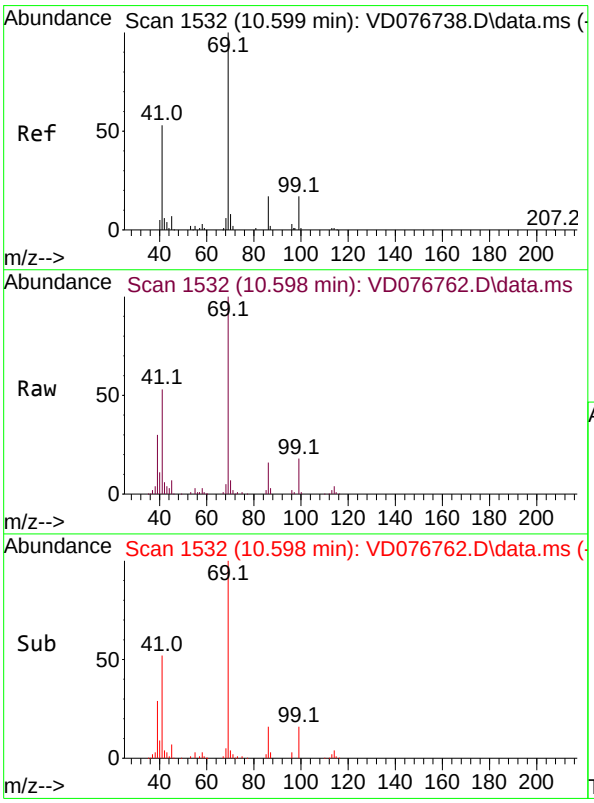
Ion	Ratio	Lower	Upper
97	100		
83	78.1	65.8	98.6
85	54.2	45.7	68.5
99	60.9	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

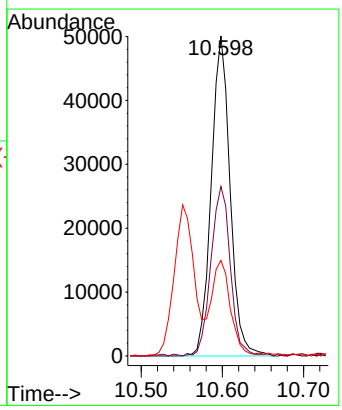
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

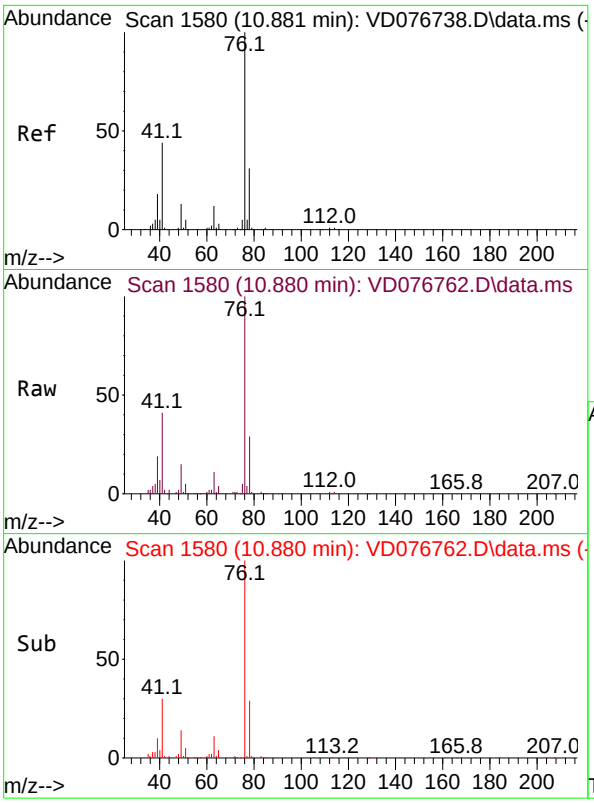


#56
Ethyl methacrylate
Concen: 47.990 ug/l
RT: 10.598 min Scan# 1532
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 69 Resp: 80783

Ion	Ratio	Lower	Upper
69	100		
41	55.0	39.1	58.7
39	30.2	20.0	30.0#





#57
1,3-Dichloropropane
Concen: 50.467 ug/l
RT: 10.880 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

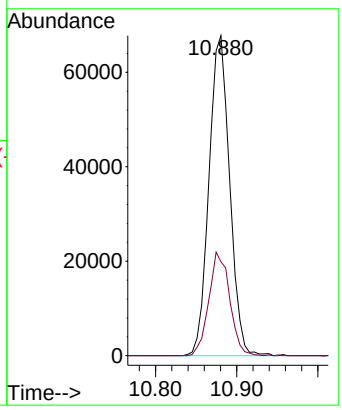
Tgt Ion: 76 Resp: 11986

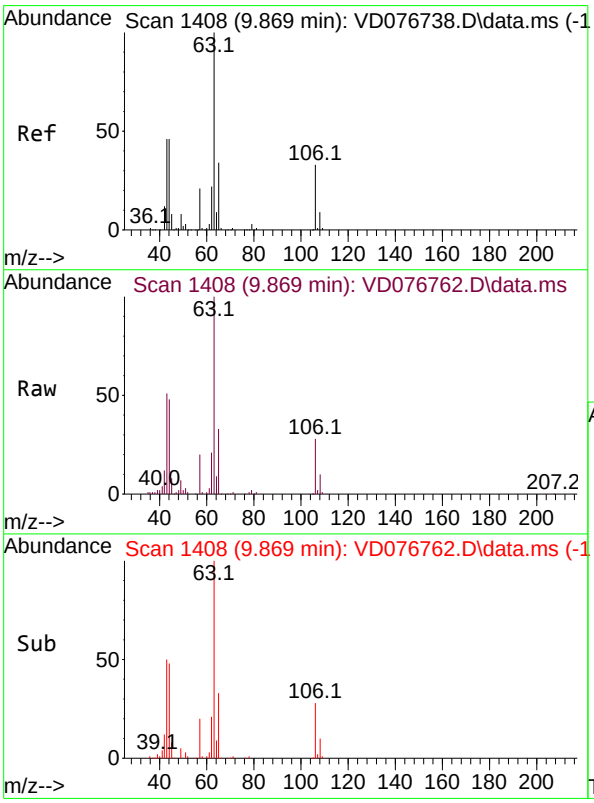
Ion	Ratio	Lower	Upper
76	100		
78	32.6	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

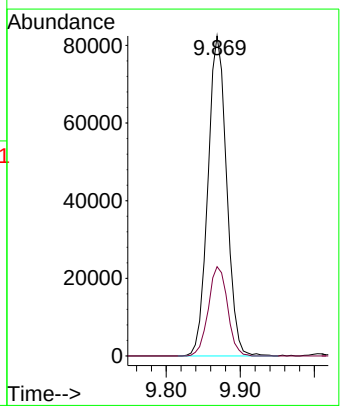


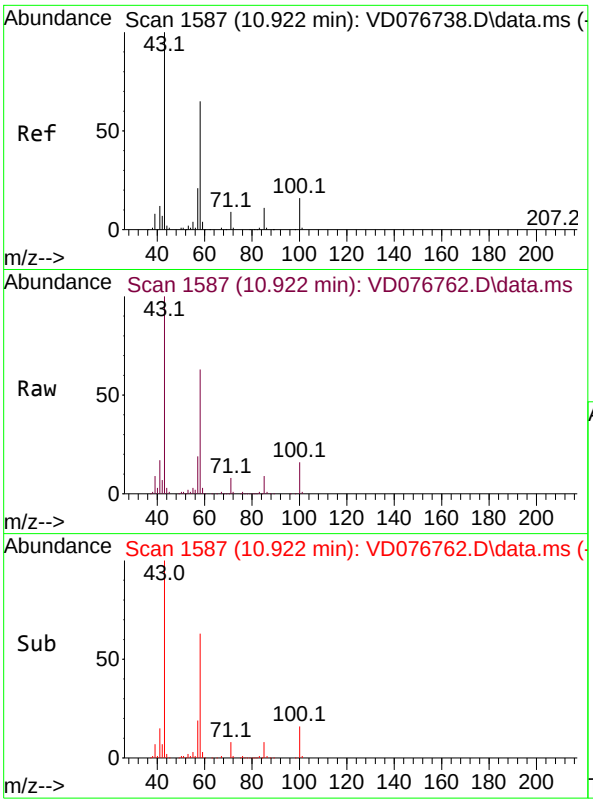


#58
2-Chloroethyl Vinyl ether
Concen: 221.918 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 63 Resp: 144596

Ion	Ratio	Lower	Upper
63	100		
106	28.5	25.3	37.9





#59
2-Hexanone
Concen: 250.895 ug/l
RT: 10.922 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

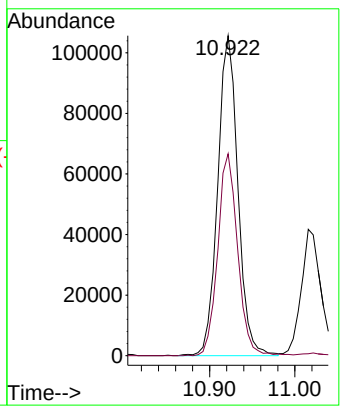
Tgt Ion: 43 Resp: 17427

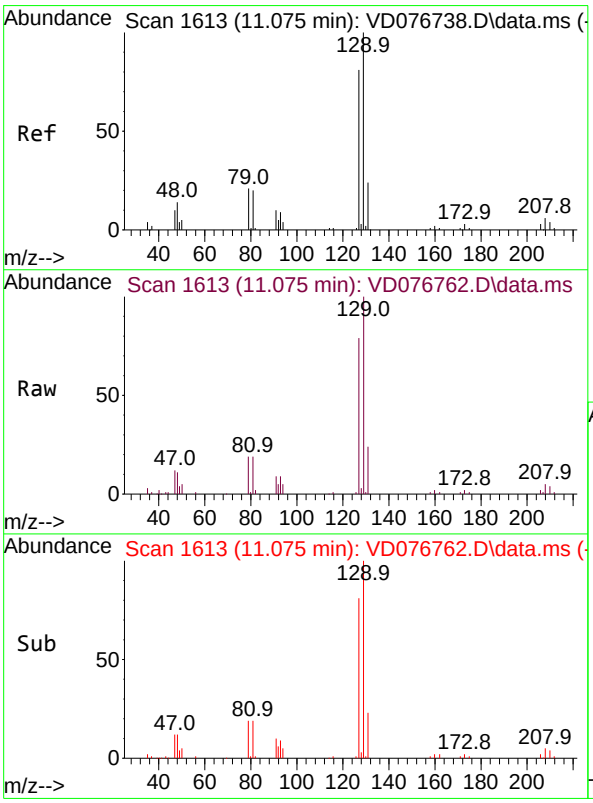
Ion	Ratio	Lower	Upper
43	100		
58	62.2	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

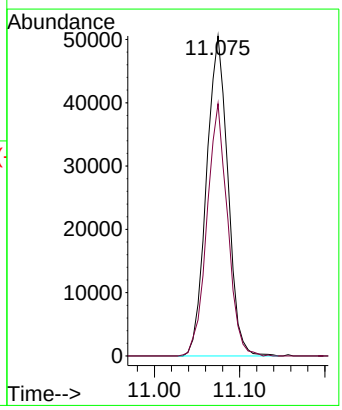


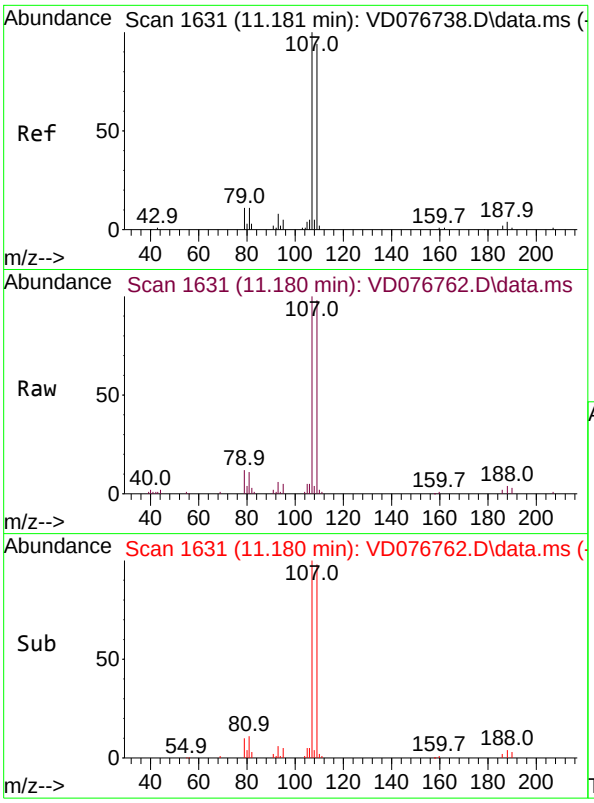


#60
Dibromochloromethane
Concen: 52.110 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:129 Resp: 88288

Ion	Ratio	Lower	Upper
129	100		
127	76.2	37.1	111.5





#61
1,2-Dibromoethane
Concen: 51.059 ug/l
RT: 11.180 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

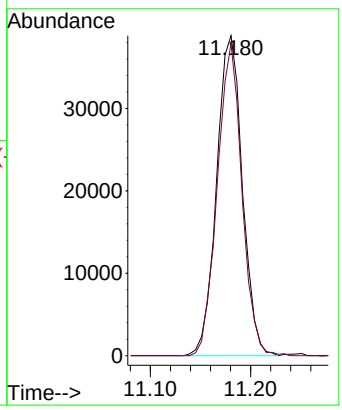
Tgt Ion:107 Resp: 6903

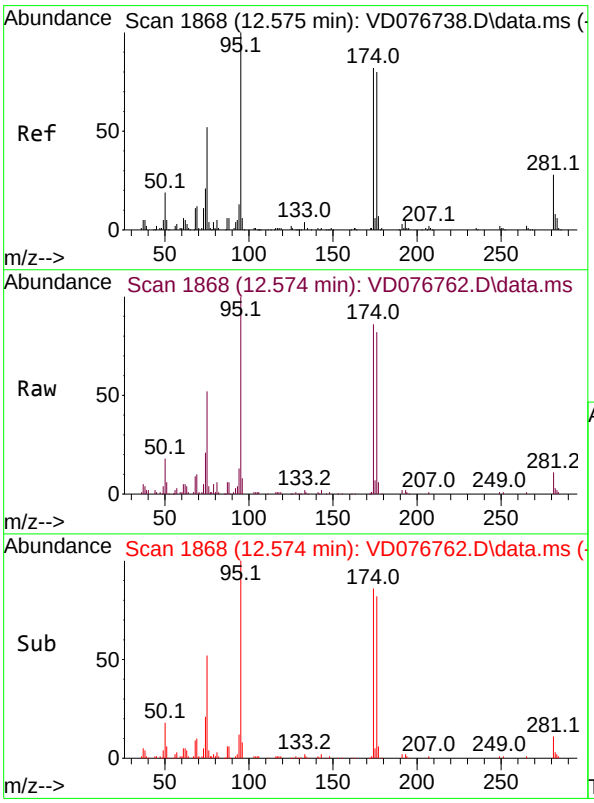
Ion	Ratio	Lower	Upper
107	100		
109	93.4	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

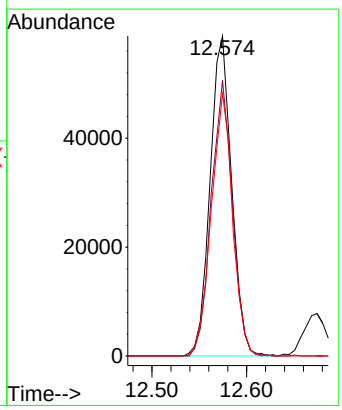


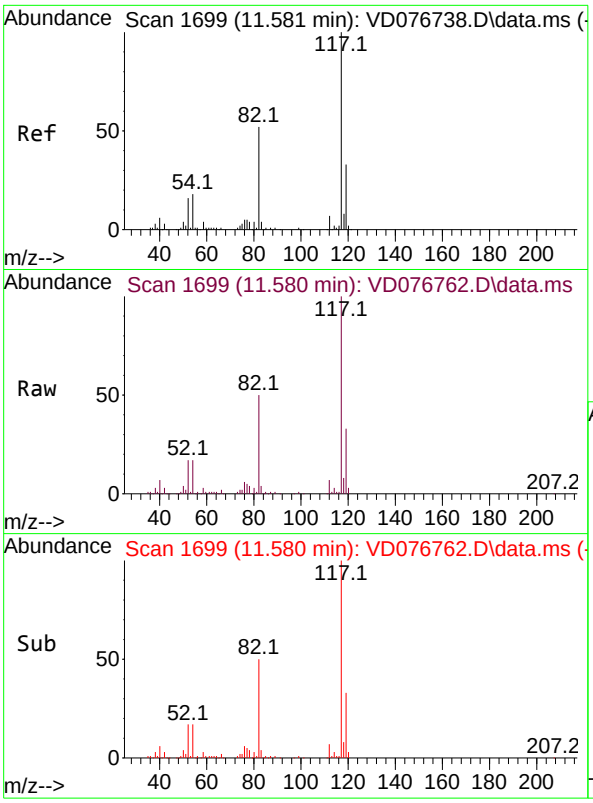


#62
4-Bromofluorobenzene
Concen: 50.039 ug/l
RT: 12.574 min Scan# 1868
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 95 Resp: 92839

Ion	Ratio	Lower	Upper
95	100		
174	84.5	0.0	201.8
176	81.6	0.0	191.8





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.580 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

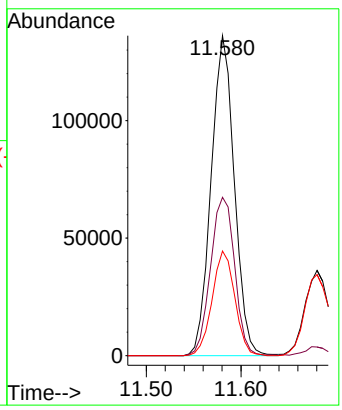
Tgt Ion:117 Resp: 23162

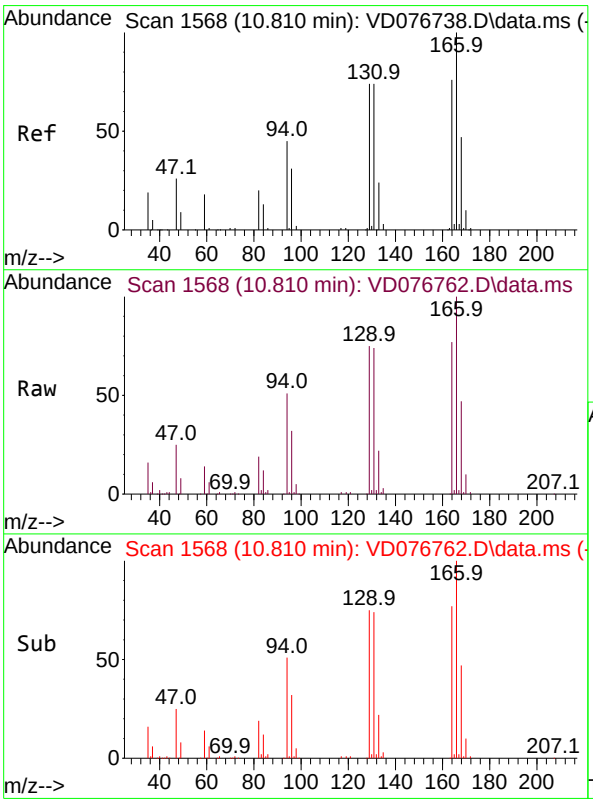
Ion	Ratio	Lower	Upper
117	100		
82	49.5	38.3	57.5
119	32.7	25.0	37.4

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

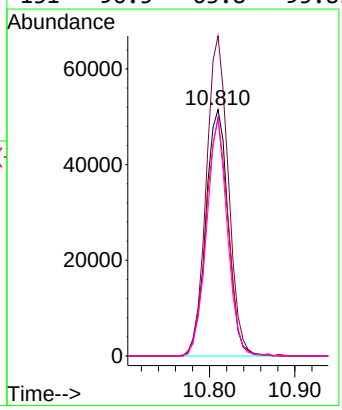


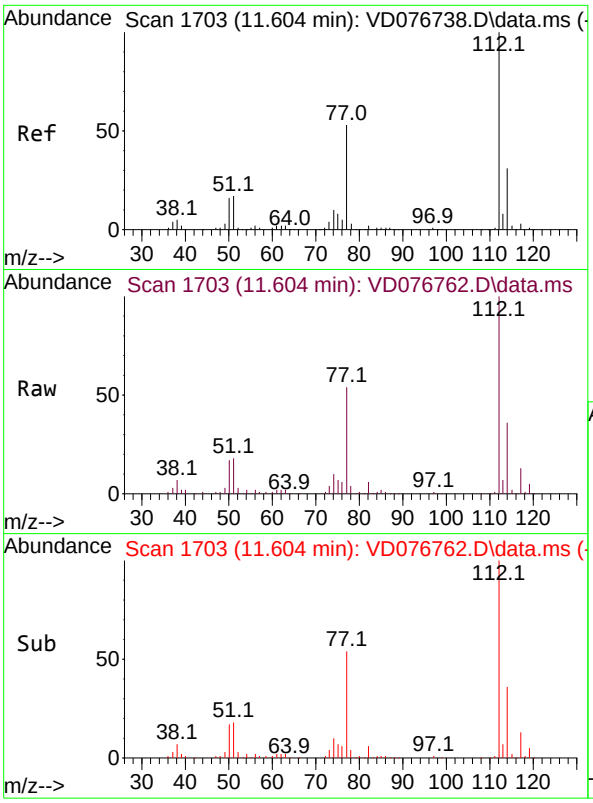


#64
Tetrachloroethene
Concen: 70.850 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:164 Resp: 93577

Ion	Ratio	Lower	Upper
164	100		
166	129.9	99.2	148.8
129	96.9	68.4	102.6
131	96.5	63.8	95.8#

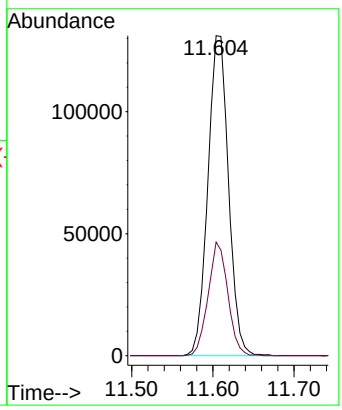




#65
Chlorobenzene
Concen: 49.653 ug/l
RT: 11.604 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:112 Resp: 23130

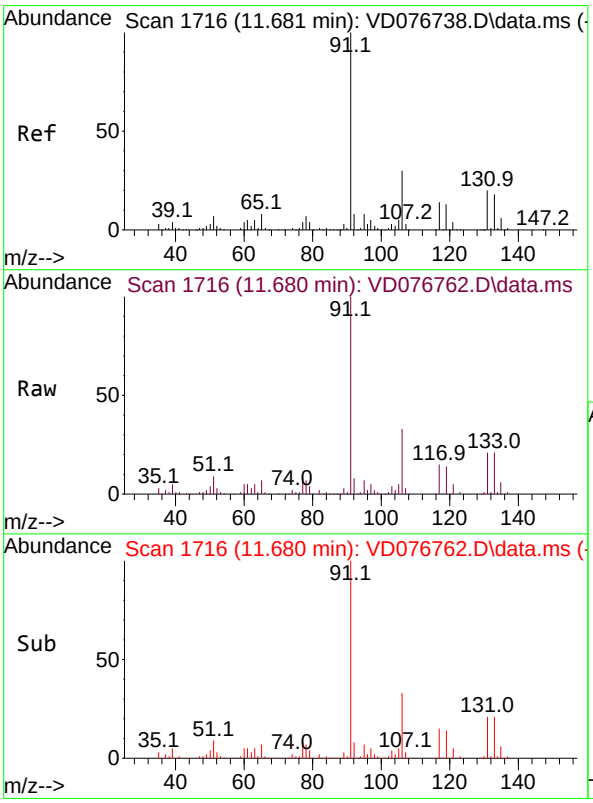
Ion	Ratio	Lower	Upper
112	100		
114	35.5	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

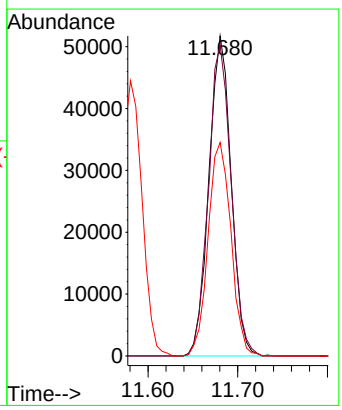
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

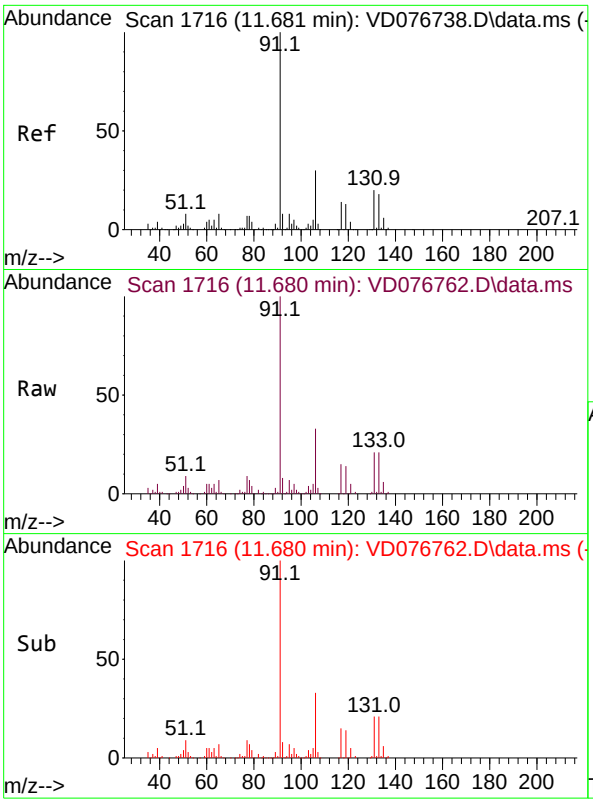


#66
1,1,1,2-Tetrachloroethane
Concen: 51.380 ug/l
RT: 11.680 min Scan# 1716
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:131 Resp: 89113

Ion	Ratio	Lower	Upper
131	100		
133	99.4	48.5	145.5
119	68.5	35.6	106.9





#67
Ethyl Benzene
Concen: 49.329 ug/l
RT: 11.680 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

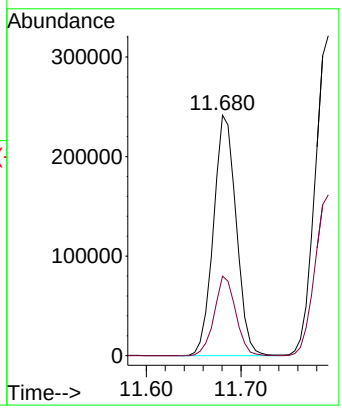
Tgt Ion: 91 Resp: 40357

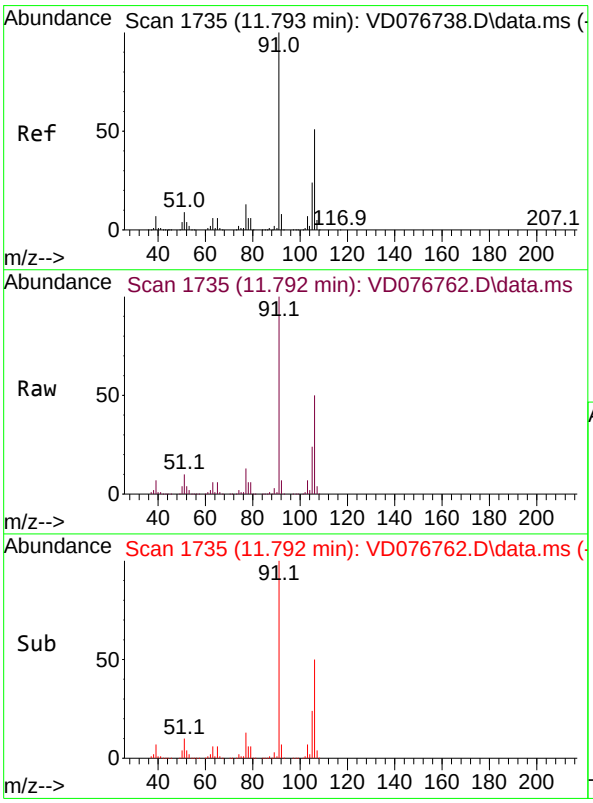
Ion	Ratio	Lower	Upper
91	100		
106	33.1	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

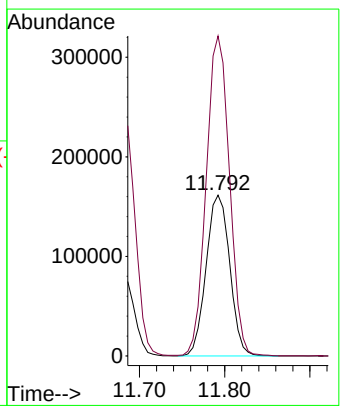


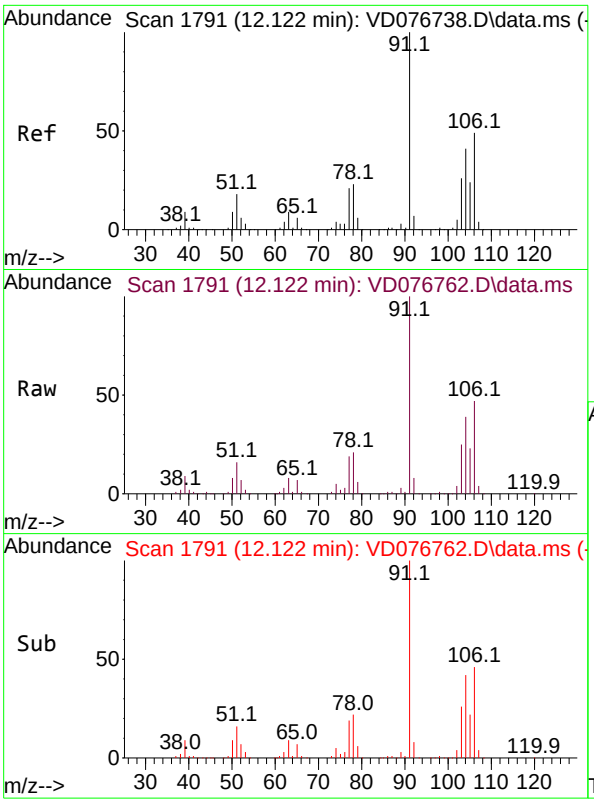


#68
m/p-Xylenes
Concen: 98.877 ug/l
RT: 11.792 min Scan# 1735
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:106 Resp: 310678

Ion	Ratio	Lower	Upper
106	100		
91	196.3	147.0	220.6





#69
o-Xylene
Concen: 49.652 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

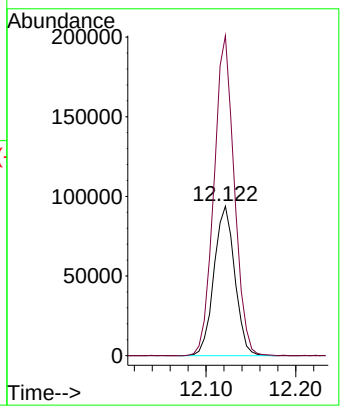
Tgt Ion:106 Resp: 15086

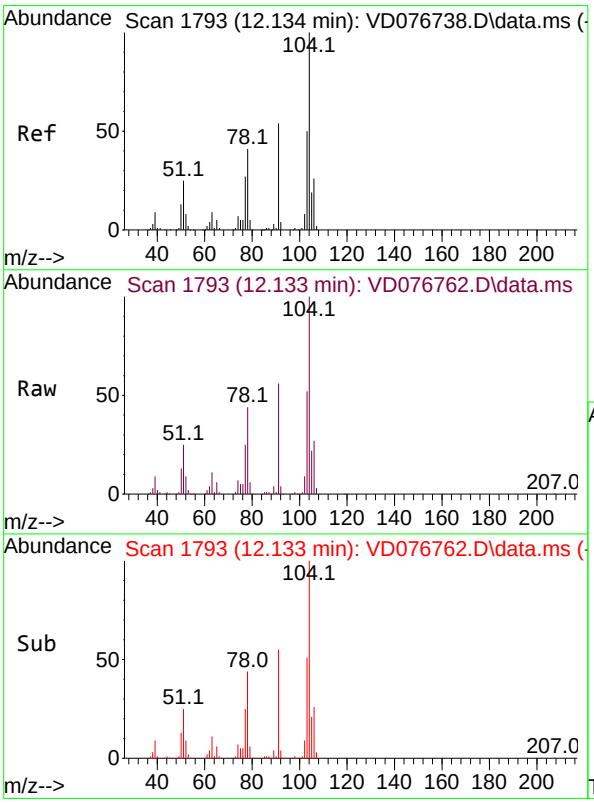
Ion	Ratio	Lower	Upper
106	100		
91	209.6	97.9	293.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

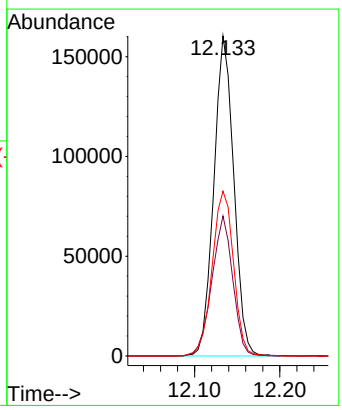


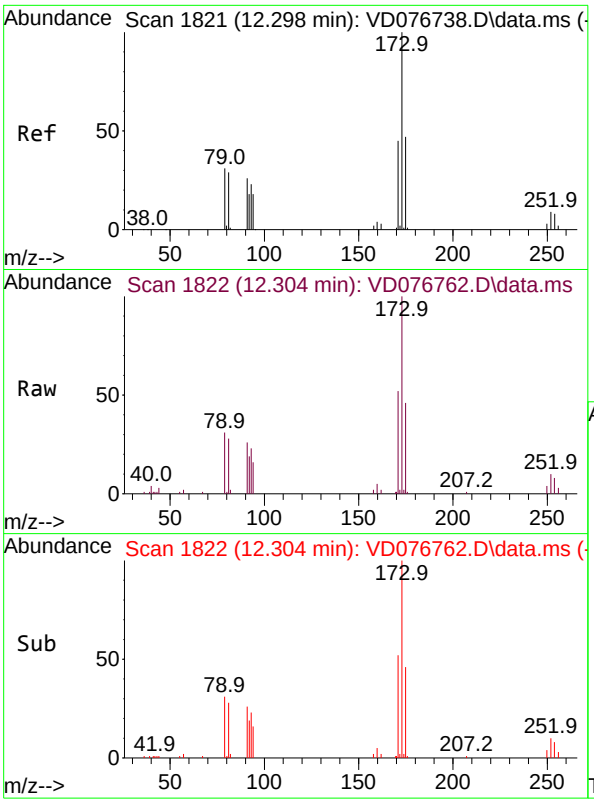


#70
Styrene
Concen: 49.154 ug/l
RT: 12.133 min Scan# 1793
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:104 Resp: 261449

Ion	Ratio	Lower	Upper
104	100		
78	45.6	33.2	49.8
103	55.1	43.6	65.4





#71
Bromoform
Concen: 50.261 ug/l
RT: 12.304 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

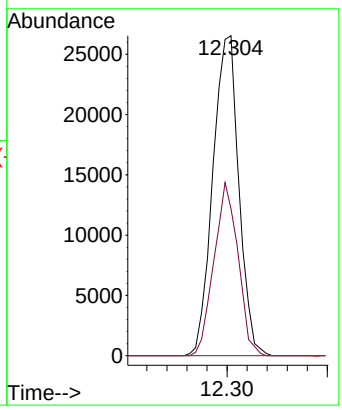
Tgt Ion:173 Resp: 4774

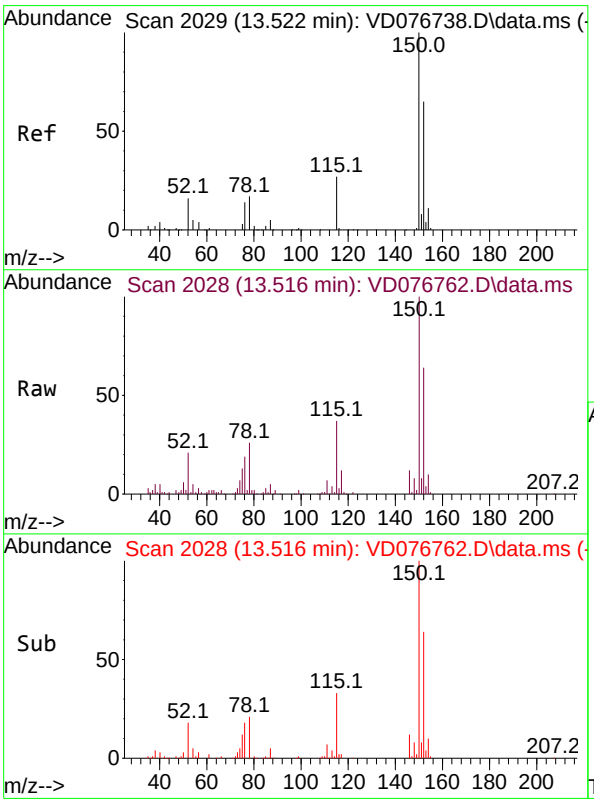
Ion	Ratio	Lower	Upper
173	100		
175	50.0	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

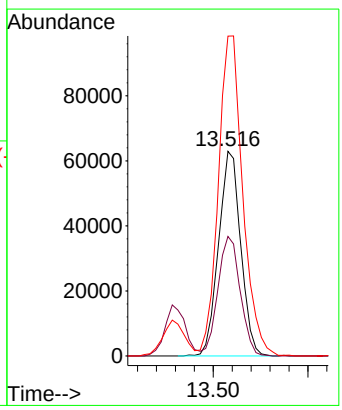


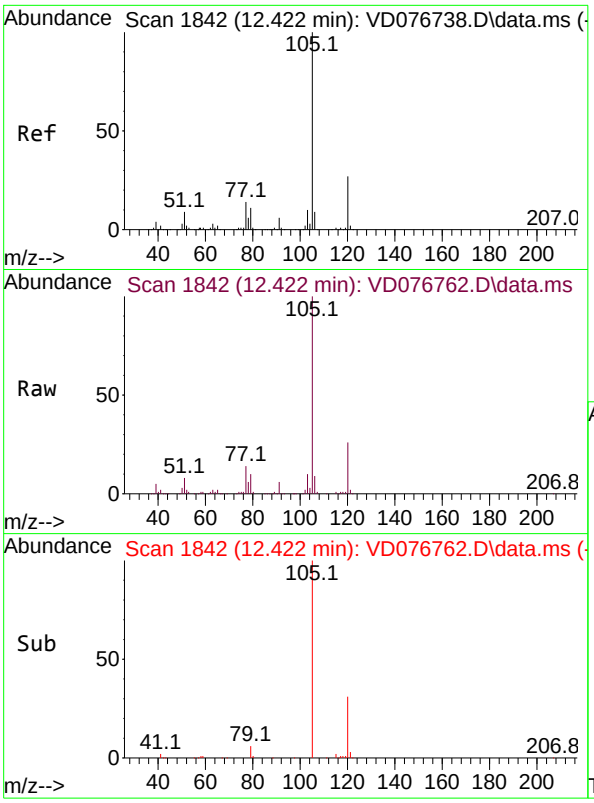


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:152 Resp: 102048

Ion	Ratio	Lower	Upper
152	100		
115	58.8	27.1	81.3
150	173.3	0.0	353.6

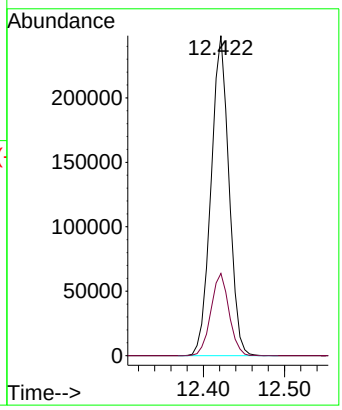




#73
Isopropylbenzene
Concen: 51.387 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:105 Resp: 38045

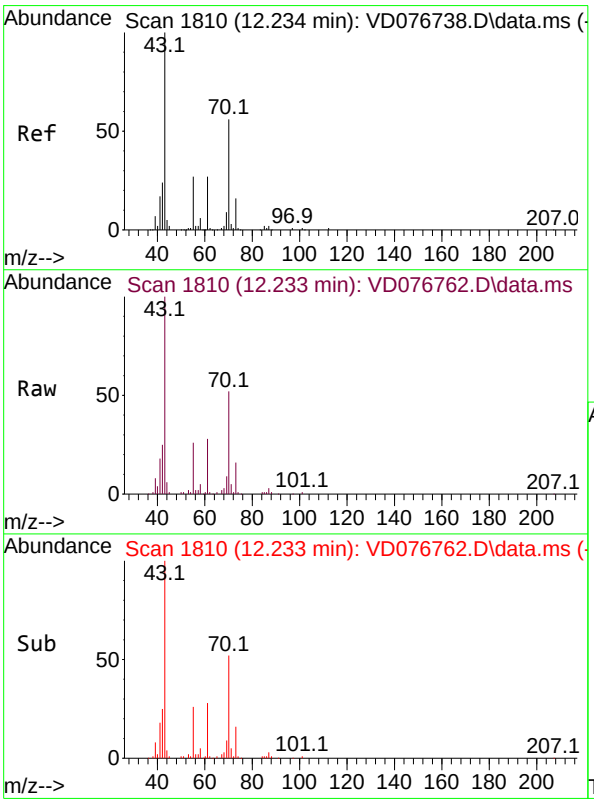
Ion	Ratio	Lower	Upper
105	100		
120	26.0	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

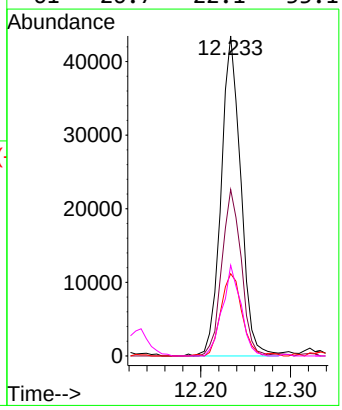
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

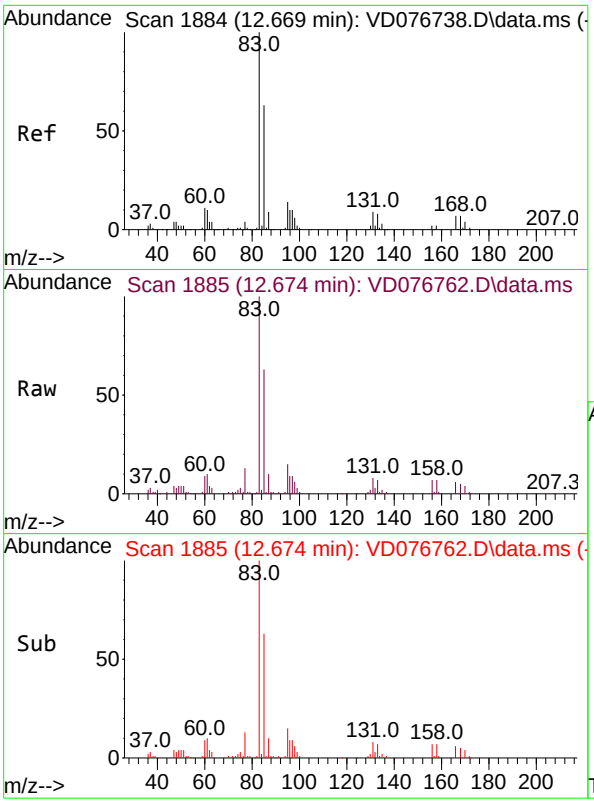


#74
N-amyl acetate
Concen: 42.485 ug/l
RT: 12.233 min Scan# 1810
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 43 Resp: 66267

Ion	Ratio	Lower	Upper
43	100		
70	51.5	45.0	67.4
55	27.8	23.8	35.6
61	26.7	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 54.116 ug/l
RT: 12.674 min Scan# 1
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

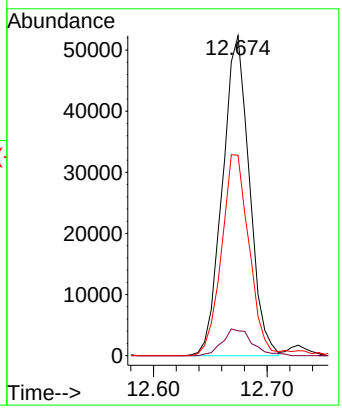
Tgt Ion: 83 Resp: 8602

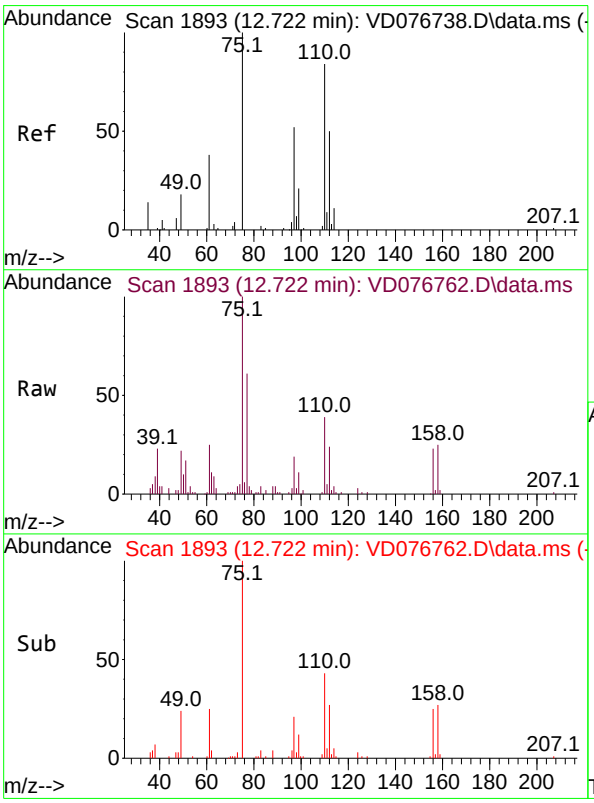
Ion	Ratio	Lower	Upper
83	100		
131	9.2	5.1	15.3
85	64.2	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

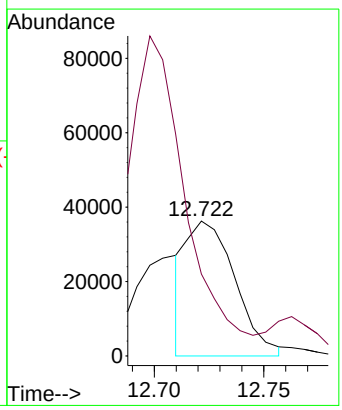


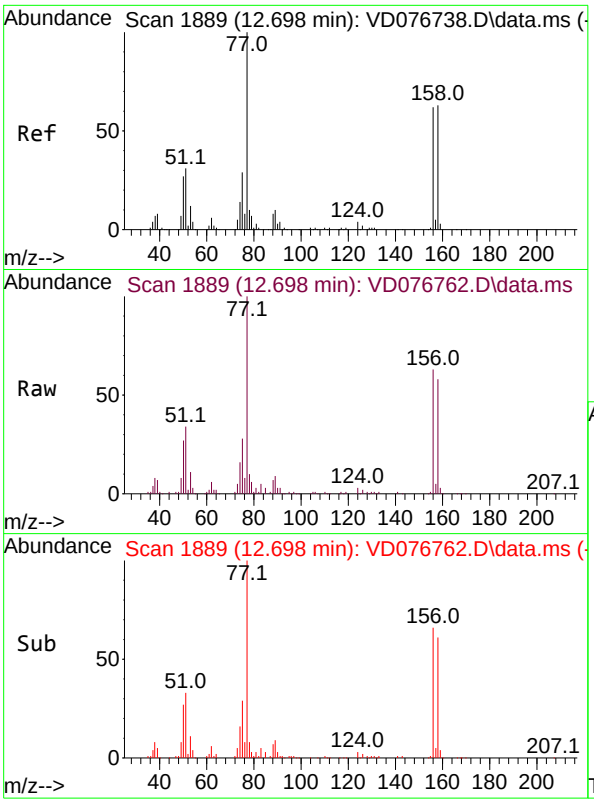


#76
1,2,3-Trichloropropane
Concen: 58.101 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 75 Resp: 56385

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 52.133 ug/l
RT: 12.698 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

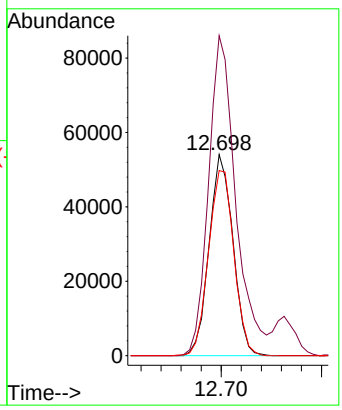
Tgt Ion:156 Resp: 8909

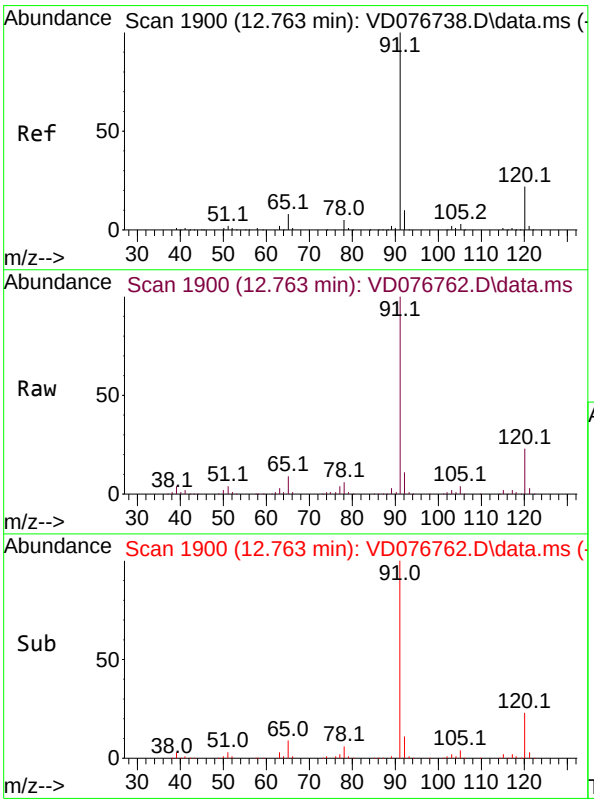
Ion	Ratio	Lower	Upper
156	100		
77	181.4	76.8	230.4
158	98.1	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

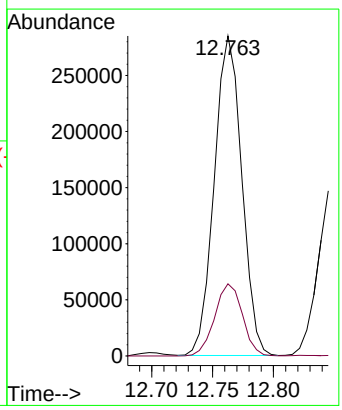


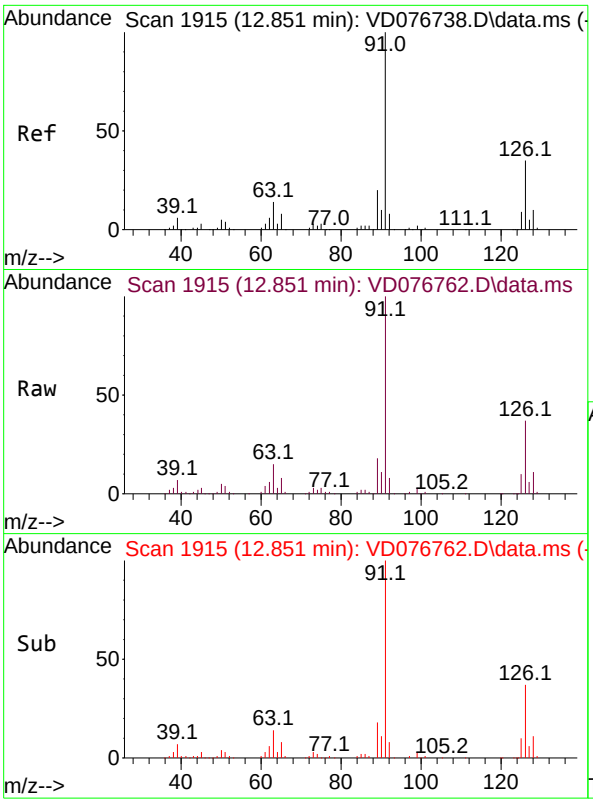


#78
n-propylbenzene
Concen: 49.860 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 91 Resp: 447534

Ion	Ratio	Lower	Upper
91	100		
120	22.7	12.4	37.2





#79
2-Chlorotoluene
Concen: 50.447 ug/l
RT: 12.851 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

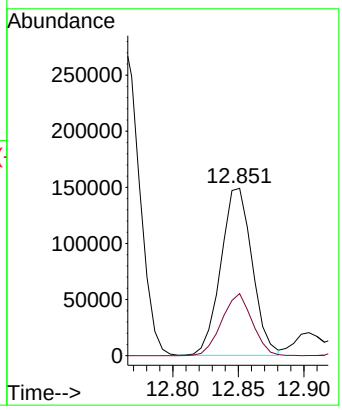
Tgt Ion: 91 Resp: 24827

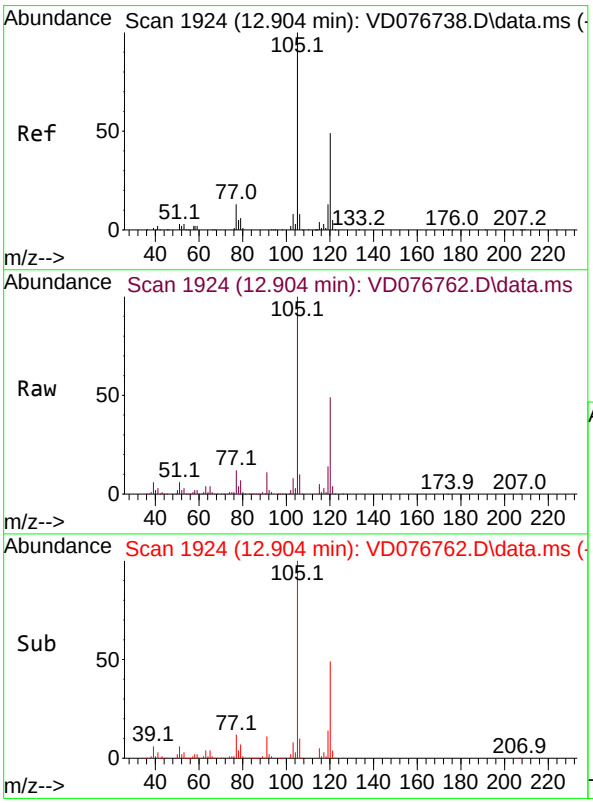
Ion	Ratio	Lower	Upper
91	100		
126	36.0	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

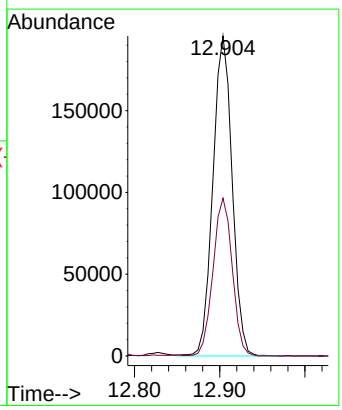


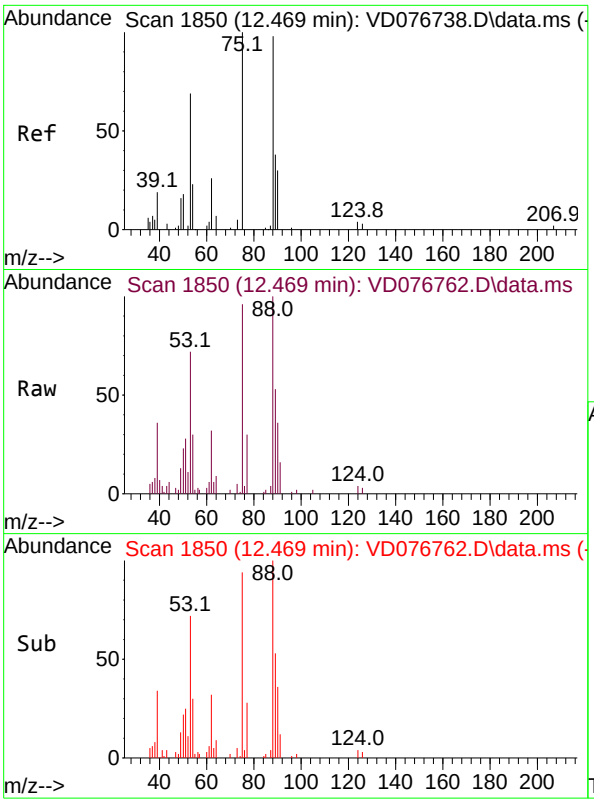


#80
1,3,5-Trimethylbenzene
Concen: 51.418 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:105 Resp: 307821

Ion	Ratio	Lower	Upper
105	100		
120	49.2	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 52.407 ug/l
RT: 12.469 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

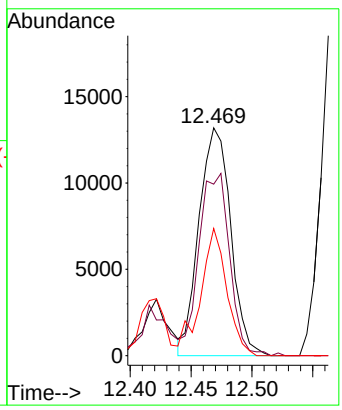
Tgt Ion: 75 Resp: 2389

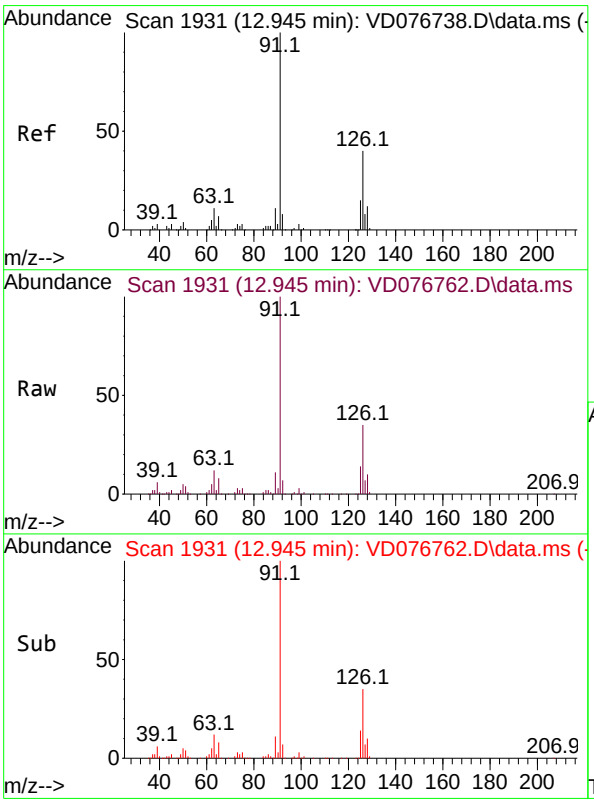
Ion	Ratio	Lower	Upper
75	100		
53	77.7	63.0	94.4
89	46.0	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

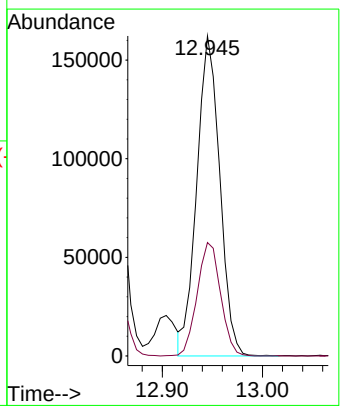


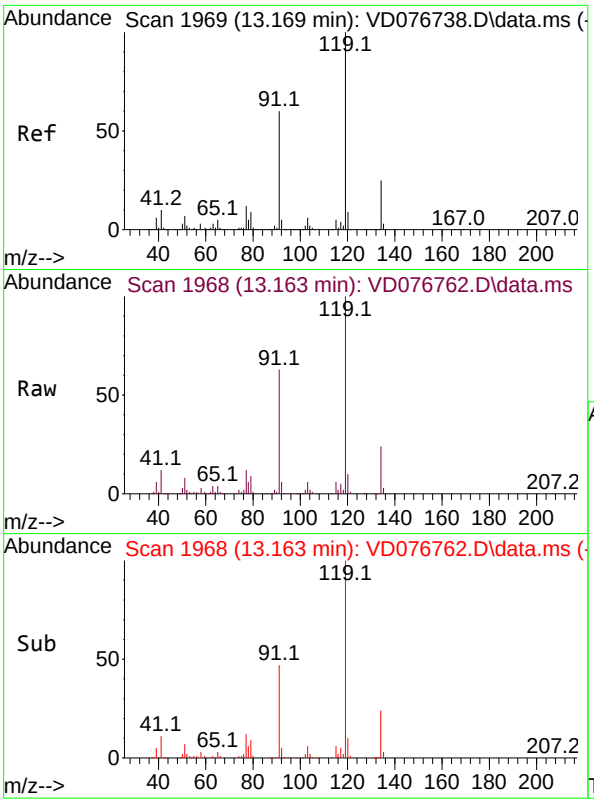


#82
4-Chlorotoluene
Concen: 50.333 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 91 Resp: 258783

Ion	Ratio	Lower	Upper
91	100		
126	36.0	19.4	58.4

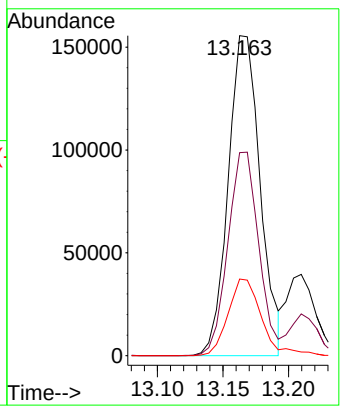




#83
tert-Butylbenzene
Concen: 50.231 ug/l
RT: 13.163 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:119 Resp: 26477

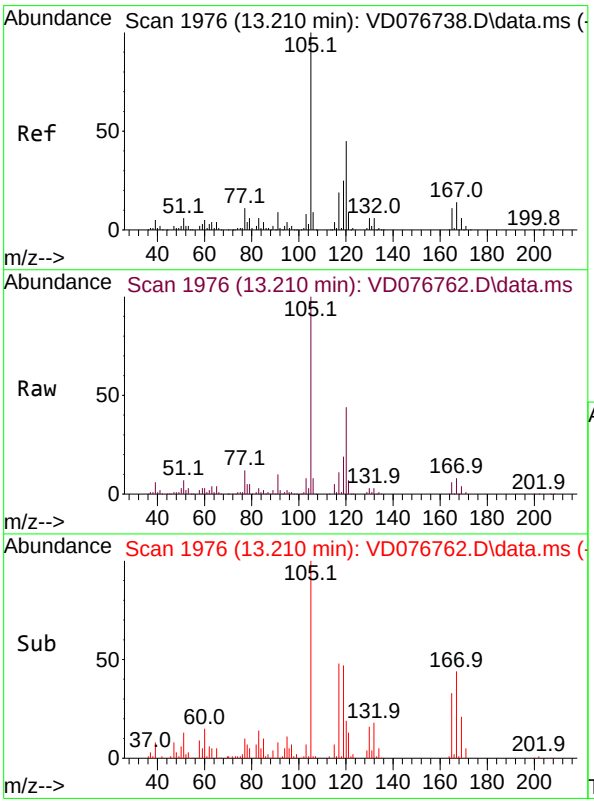
Ion	Ratio	Lower	Upper
119	100		
91	61.3	29.3	87.8
134	25.1	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

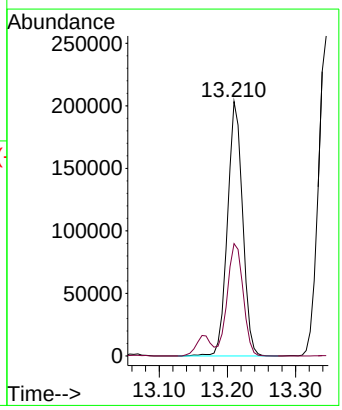
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

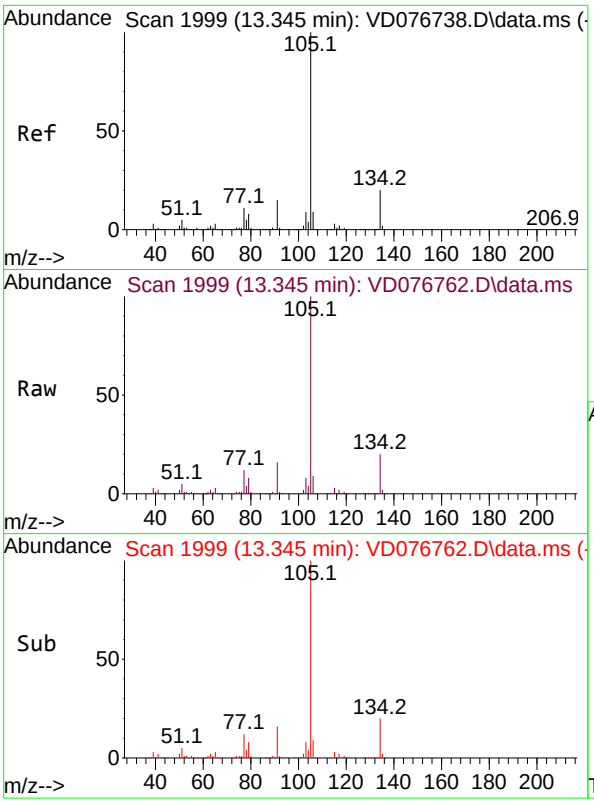


#84
1,2,4-Trimethylbenzene
Concen: 51.268 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:105 Resp: 313642

Ion	Ratio	Lower	Upper
105	100		
120	46.6	24.3	72.9





#85
sec-Butylbenzene
Concen: 49.052 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

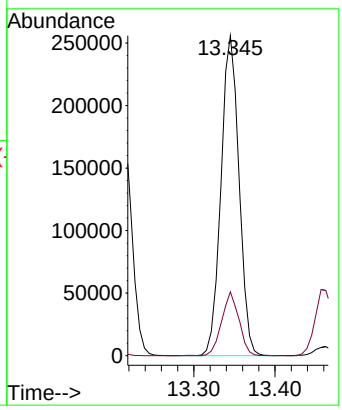
Tgt Ion:105 Resp: 39503

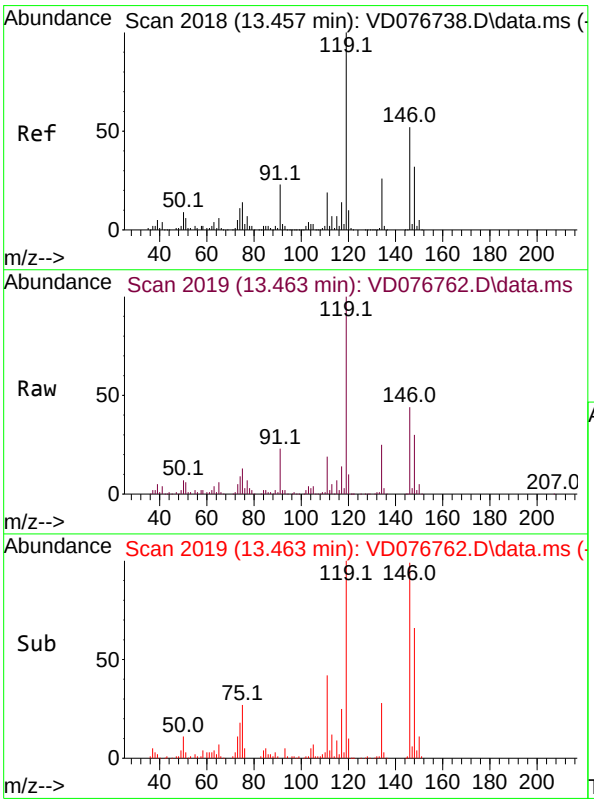
Ion	Ratio	Lower	Upper
105	100		
134	19.1	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

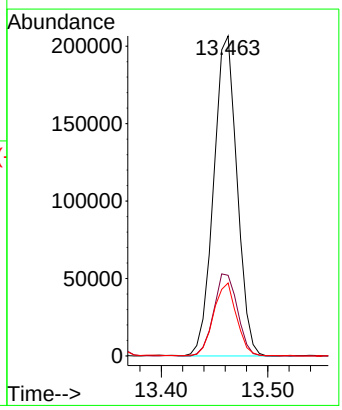


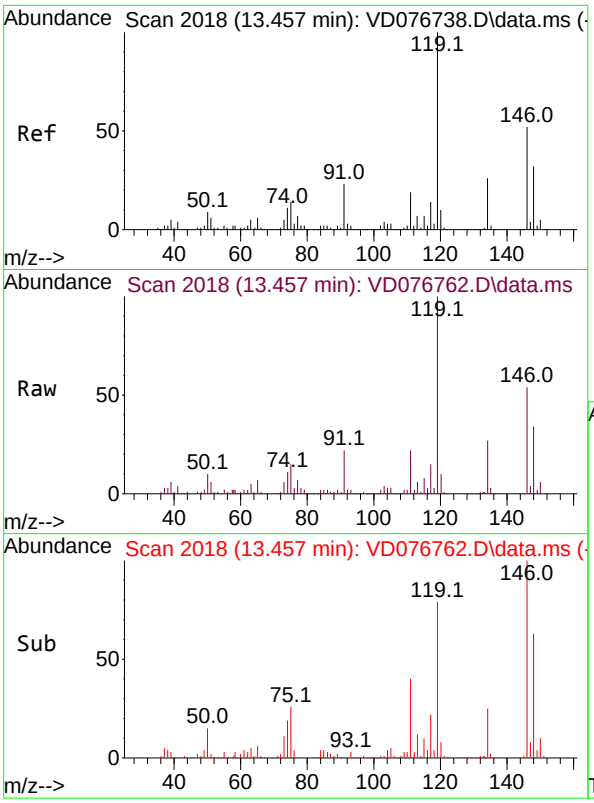


#86
p-Isopropyltoluene
Concen: 47.315 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:119 Resp: 314695

Ion	Ratio	Lower	Upper
119	100		
134	26.1	14.2	42.6
91	22.2	10.5	31.5

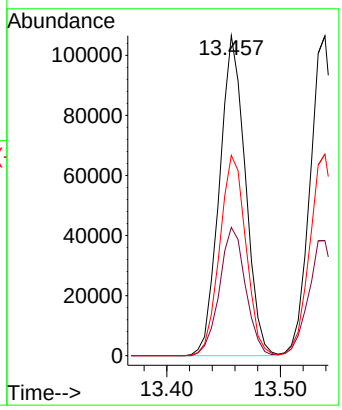




#87
1,3-Dichlorobenzene
Concen: 48.059 ug/l
RT: 13.457 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:146 Resp: 16892

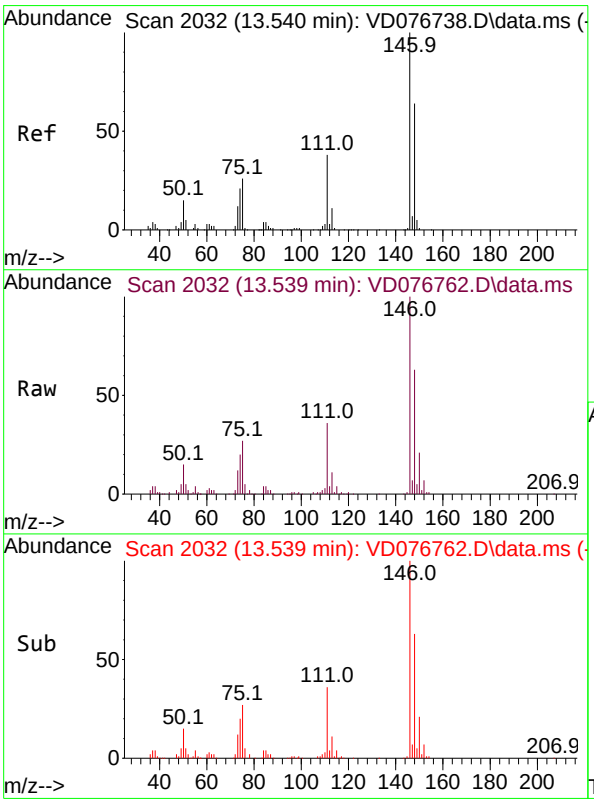
Ion	Ratio	Lower	Upper
146	100		
111	40.3	17.9	53.8
148	63.3	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

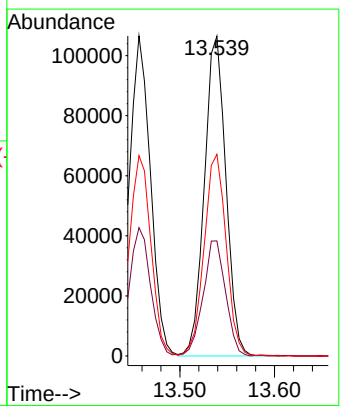
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

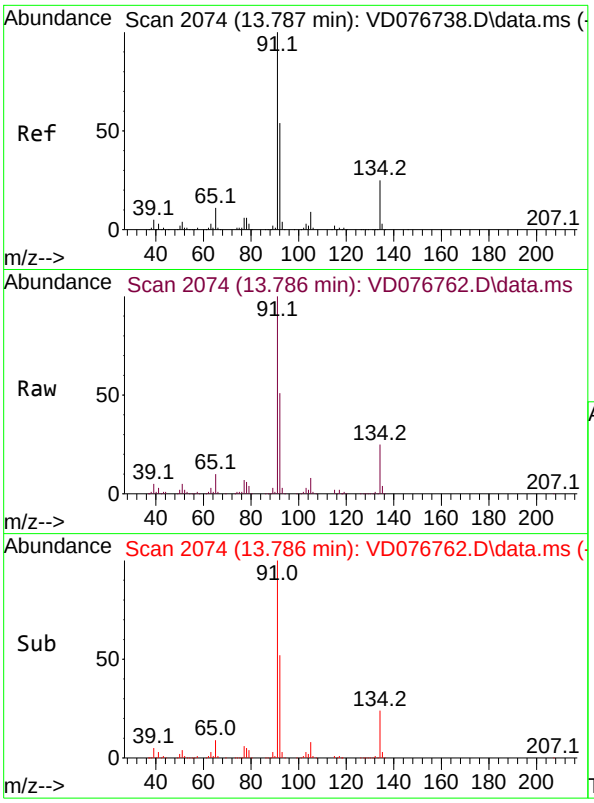


#88
1,4-Dichlorobenzene
Concen: 48.807 ug/l
RT: 13.539 min Scan# 2032
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:146 Resp: 168085

Ion	Ratio	Lower	Upper
146	100		
111	37.2	17.4	52.3
148	64.5	31.7	95.1

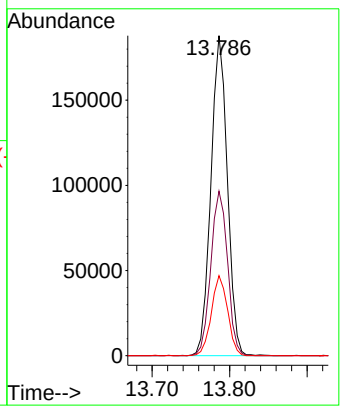




#89
n-Butylbenzene
Concen: 42.482 ug/l
RT: 13.786 min Scan# 2
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 91 Resp: 27648

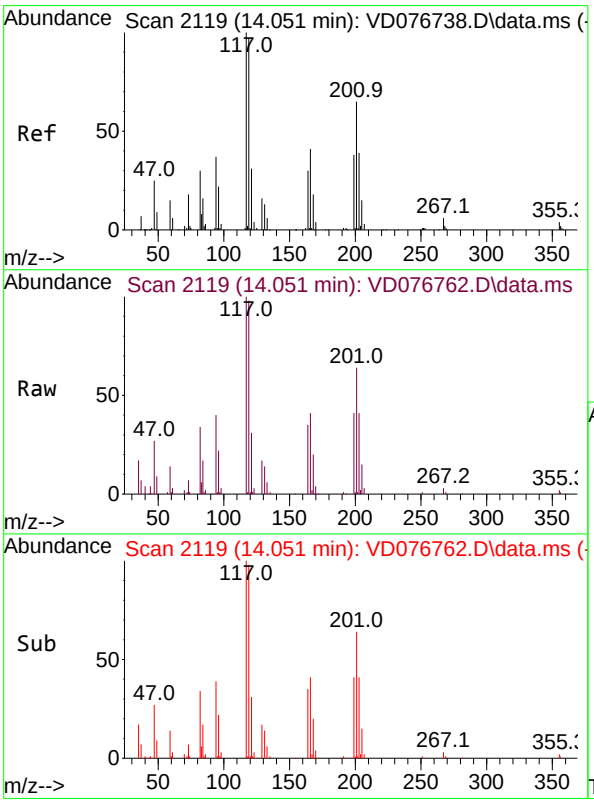
Ion	Ratio	Lower	Upper
91	100		
92	52.4	26.5	79.5
134	24.7	13.8	41.3



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

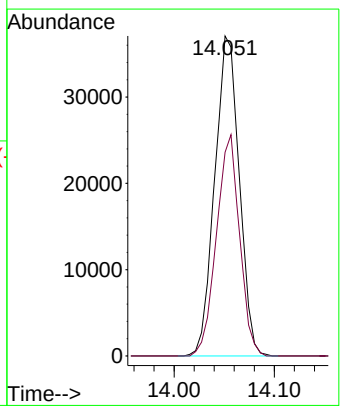
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

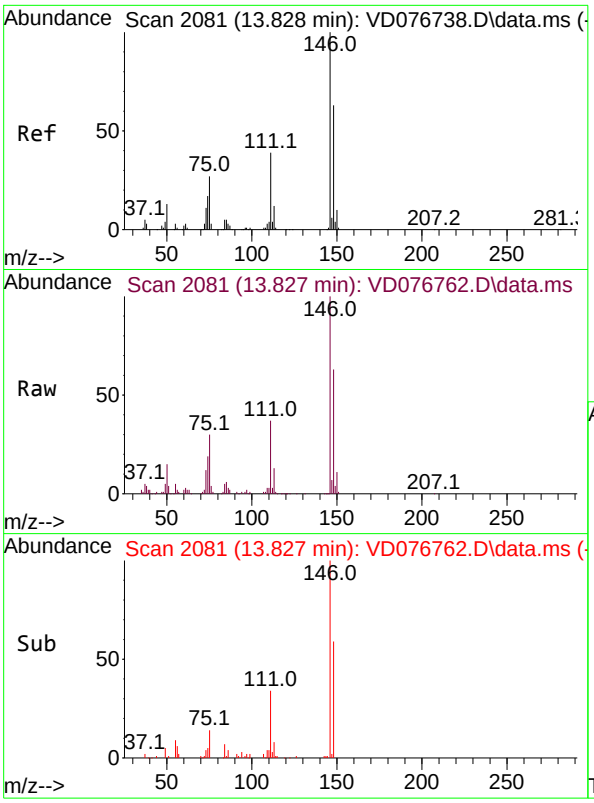


#90
Hexachloroethane
Concen: 51.182 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:117 Resp: 62935

Ion	Ratio	Lower	Upper
117	100		
201	65.2	38.5	115.5

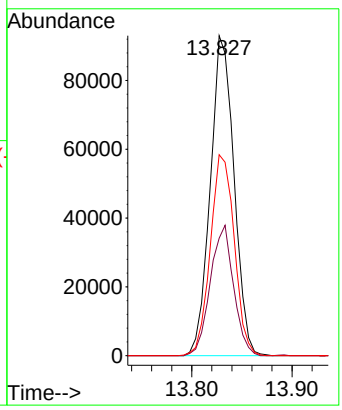




#91
1,2-Dichlorobenzene
Concen: 49.274 ug/l
RT: 13.827 min Scan# 2
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:146 Resp: 15262

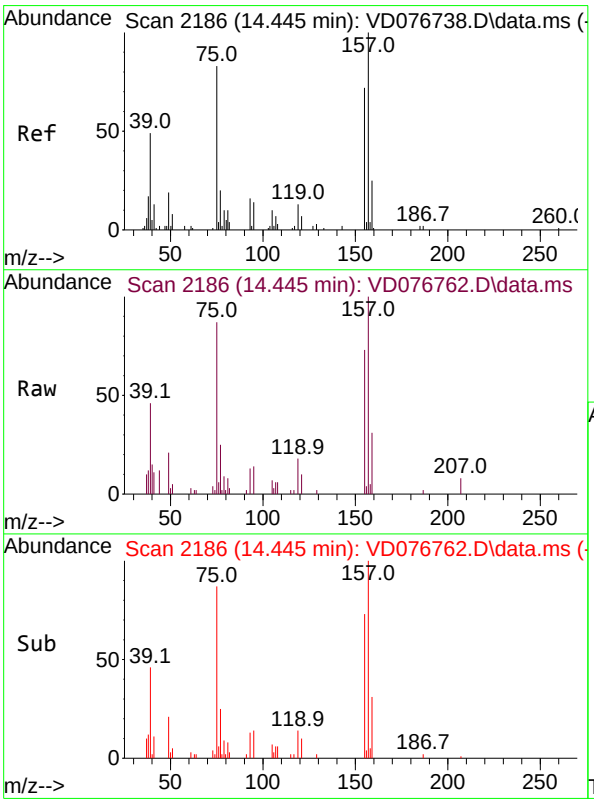
Ion	Ratio	Lower	Upper
146	100		
111	40.0	18.3	54.8
148	63.5	31.6	94.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

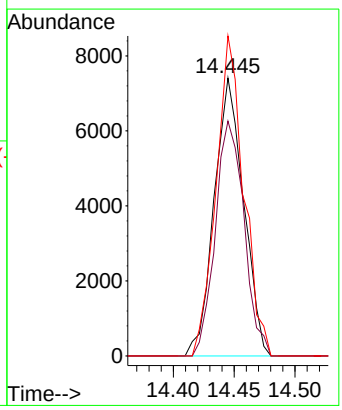
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

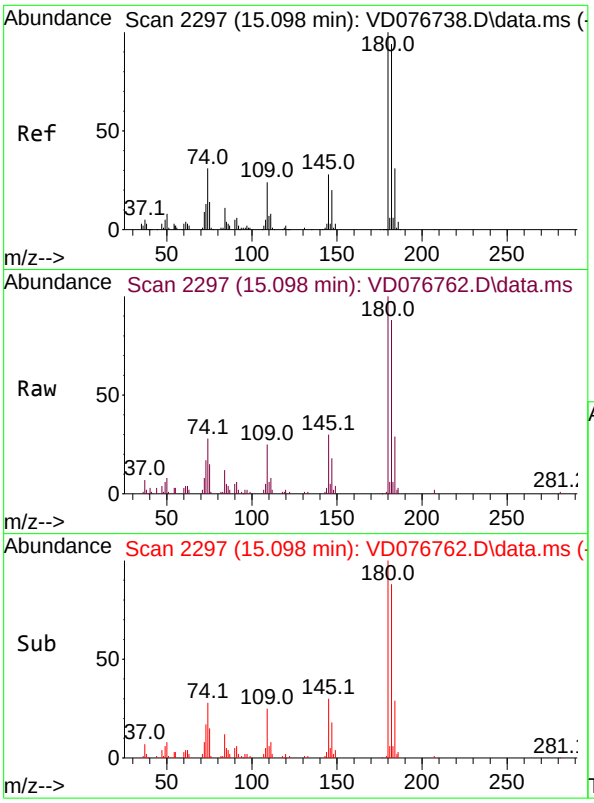


#92
1,2-Dibromo-3-Chloropropane
Concen: 54.876 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion: 75 Resp: 12438

Ion	Ratio	Lower	Upper
75	100		
155	82.6	47.9	143.8
157	108.3	59.9	179.7

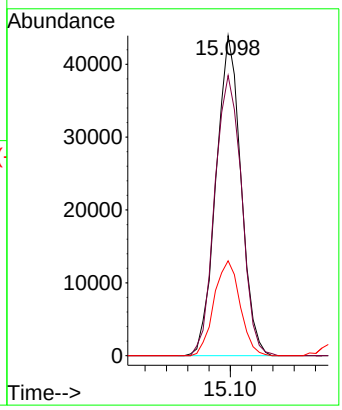




#93
1,2,4-Trichlorobenzene
Concen: 37.706 ug/l
RT: 15.098 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:180 Resp: 7130

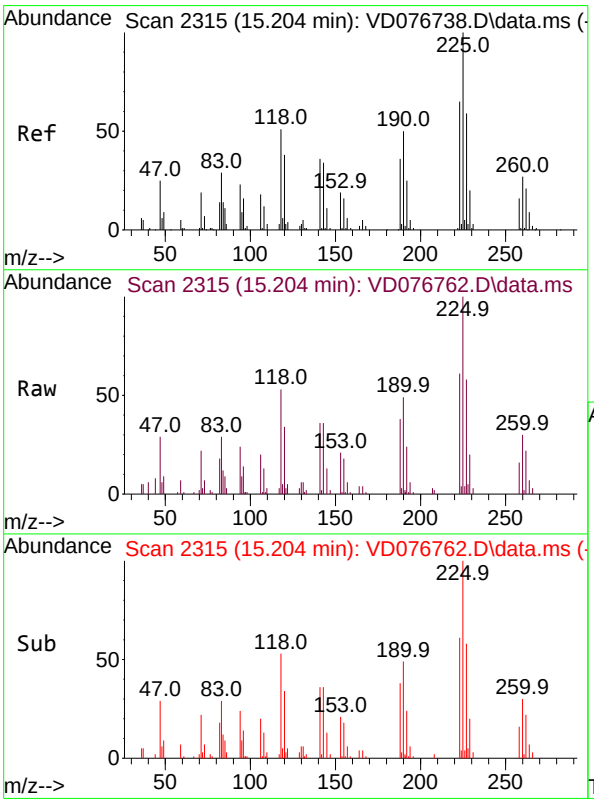
Ion	Ratio	Lower	Upper
180	100		
182	93.7	48.5	145.6
145	30.8	14.2	42.6



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

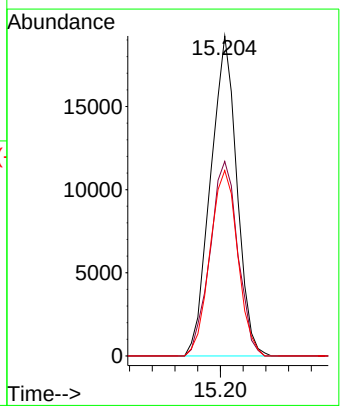
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

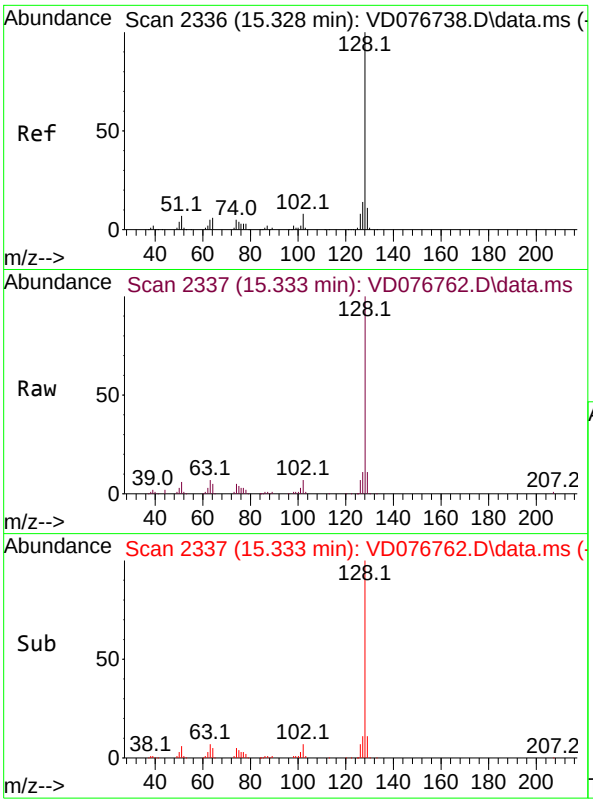


#94
Hexachlorobutadiene
Concen: 33.965 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. -0.000 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:225 Resp: 30889

Ion	Ratio	Lower	Upper
225	100		
223	64.2	31.6	94.8
227	61.1	31.7	95.1

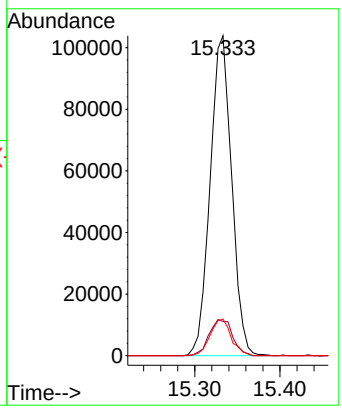




#95
Naphthalene
Concen: 44.653 ug/l
RT: 15.333 min Scan# 2
Delta R.T. 0.005 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:128 Resp: 18282

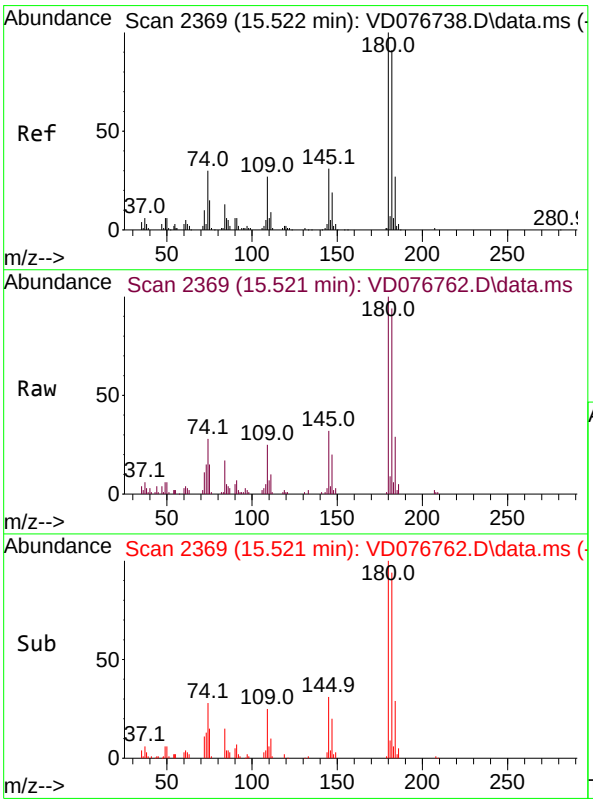
Ion	Ratio	Lower	Upper
128	100		
127	10.7	10.5	15.7
129	11.4	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MS

Manual Integrations
APPROVED

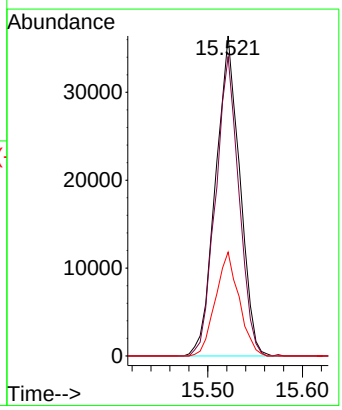
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023



#96
1,2,3-Trichlorobenzene
Concen: 38.061 ug/l
RT: 15.521 min Scan# 2369
Delta R.T. -0.001 min
Lab File: VD076762.D
Acq: 17 Jul 2023 18:48

Tgt Ion:180 Resp: 64587

Ion	Ratio	Lower	Upper
180	100		
182	90.1	47.3	141.9
145	31.7	15.1	45.3



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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)MSD	SDG No.:	O3645
Lab Sample ID:	O3645-10MSD	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.31 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076763.D	1		07/17/23 19:17	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	49.8		1.40	4.30	ug/Kg
74-87-3	Chloromethane	56.0		0.79	4.30	ug/Kg
75-01-4	Vinyl Chloride	53.4		0.81	4.30	ug/Kg
74-83-9	Bromomethane	45.9		1.10	4.30	ug/Kg
75-00-3	Chloroethane	52.9		0.76	4.30	ug/Kg
75-69-4	Trichlorofluoromethane	51.0		0.92	4.30	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	50.1		0.62	4.30	ug/Kg
75-35-4	1,1-Dichloroethene	50.4		0.69	4.30	ug/Kg
67-64-1	Acetone	260		8.10	21.7	ug/Kg
75-15-0	Carbon Disulfide	49.7		1.90	4.30	ug/Kg
1634-04-4	Methyl tert-butyl Ether	55.2		0.56	4.30	ug/Kg
79-20-9	Methyl Acetate	69.8		1.40	4.30	ug/Kg
75-09-2	Methylene Chloride	62.5		5.30	8.70	ug/Kg
156-60-5	trans-1,2-Dichloroethene	50.9		0.63	4.30	ug/Kg
75-34-3	1,1-Dichloroethane	54.8		0.62	4.30	ug/Kg
110-82-7	Cyclohexane	44.2		0.61	4.30	ug/Kg
78-93-3	2-Butanone	270		6.30	21.7	ug/Kg
56-23-5	Carbon Tetrachloride	51.3		0.68	4.30	ug/Kg
156-59-2	cis-1,2-Dichloroethene	55.3		0.56	4.30	ug/Kg
74-97-5	Bromochloromethane	44.7		2.00	4.30	ug/Kg
67-66-3	Chloroform	56.3		1.10	4.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	53.4		0.66	4.30	ug/Kg
108-87-2	Methylcyclohexane	43.4		2.90	4.30	ug/Kg
71-43-2	Benzene	52.7		0.57	4.30	ug/Kg
107-06-2	1,2-Dichloroethane	55.7		0.62	4.30	ug/Kg
79-01-6	Trichloroethene	49.2		0.57	4.30	ug/Kg
78-87-5	1,2-Dichloropropane	53.9		0.51	4.30	ug/Kg
75-27-4	Bromodichloromethane	54.1		0.61	4.30	ug/Kg
108-10-1	4-Methyl-2-Pentanone	260		3.90	21.7	ug/Kg
108-88-3	Toluene	51.1		0.56	4.30	ug/Kg
10061-02-6	t-1,3-Dichloropropene	51.2		0.67	4.30	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	52.2		0.64	4.30	ug/Kg

Raw Data: **VD076763.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)MSD	SDG No.:	O3645
Lab Sample ID:	O3645-10MSD	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.31 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076763.D	1		07/17/23 19:17	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
79-00-5	1,1,2-Trichloroethane	52.8		0.75	4.30	ug/Kg
591-78-6	2-Hexanone	260		4.60	21.7	ug/Kg
124-48-1	Dibromochloromethane	55.0		0.74	4.30	ug/Kg
106-93-4	1,2-Dibromoethane	52.1		0.69	4.30	ug/Kg
127-18-4	Tetrachloroethene	69.4		0.67	4.30	ug/Kg
108-90-7	Chlorobenzene	50.3		0.55	4.30	ug/Kg
100-41-4	Ethyl Benzene	49.4		0.58	4.30	ug/Kg
179601-23-1	m/p-Xylenes	98.8		1.20	8.70	ug/Kg
1330-20-7	Total Xylenes	150		1.87	13.0	ug/Kg
95-47-6	o-Xylene	50.8		0.67	4.30	ug/Kg
100-42-5	Styrene	50.7		0.60	4.30	ug/Kg
75-25-2	Bromoform	54.5		0.82	4.30	ug/Kg
98-82-8	Isopropylbenzene	50.8		0.62	4.30	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	53.6		0.93	4.30	ug/Kg
103-65-1	n-propylbenzene	49.1		0.61	4.30	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	50.2		0.56	4.30	ug/Kg
98-06-6	tert-Butylbenzene	49.2		0.67	4.30	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	50.7		0.58	4.30	ug/Kg
135-98-8	sec-Butylbenzene	46.8		0.67	4.30	ug/Kg
99-87-6	p-Isopropyltoluene	46.3		0.64	4.30	ug/Kg
541-73-1	1,3-Dichlorobenzene	48.5		0.59	4.30	ug/Kg
106-46-7	1,4-Dichlorobenzene	48.5		0.52	4.30	ug/Kg
104-51-8	n-Butylbenzene	41.2		0.59	4.30	ug/Kg
95-50-1	1,2-Dichlorobenzene	50.5		0.52	4.30	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	53.3		1.00	4.30	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	40.5		0.53	4.30	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	40.6		0.55	4.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.1		50 - 163	102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		54 - 147	102%	SPK: 50
2037-26-5	Toluene-d8	48.0		58 - 134	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.3		30 - 143	95%	SPK: 50
INTERNAL STANDARDS						

Raw Data: **VD076763.D**

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

Report of Analysis

Client:	LaBella Associates P.C.	Date Collected:	07/12/23
Project:	Mackenna Parcels	Date Received:	07/17/23
Client Sample ID:	SB-04-(1-5)MSD	SDG No.:	O3645
Lab Sample ID:	O3645-10MSD	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	91.3
Sample Wt/Vol:	6.31 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD076763.D	1		07/17/23 19:17	VD071723

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
363-72-4	Pentafluorobenzene	155000	7.875			
540-36-3	1,4-Difluorobenzene	288000	8.775			
3114-55-4	Chlorobenzene-d5	267000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	118000	13.516			

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\VD071723\
Data File : VD076763.D
Acq On : 17 Jul 2023 19:17
Operator : KP/SY
Sample : 03645-10MSD
Misc : 6.31G/5.0ml/MSVOA_D/SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 18 01:24:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	154913	50.000	ug/l	# 0.00
34) 1,4-Difluorobenzene	8.775	114	288394	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	267266	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	117737	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.222	65	78835	51.093	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 102.180%			
35) Dibromofluoromethane	7.804	113	92680	51.140	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 102.280%			
50) Toluene-d8	10.269	98	311009	47.971	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 95.940%			
62) 4-Bromofluorobenzene	12.575	95	99127	47.263	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 94.520%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.928	85	69471	57.348	ug/l	95
3) Chloromethane	2.146	50	134731	64.474	ug/l	97
4) Vinyl Chloride	2.275	62	171460	61.551	ug/l	99
5) Bromomethane	2.681	94	121139	52.854	ug/l	99
6) Chloroethane	2.822	64	128270	60.988	ug/l	100
7) Trichlorofluoromethane	3.164	101	145713	58.787	ug/l	100
8) Diethyl Ether	3.587	74	56719	66.462	ug/l	94
9) 1,1,2-Trichlorotrifluo...	3.958	101	94082	57.743	ug/l	97
10) Methyl Iodide	4.152	142	110367	60.091	ug/l	93
11) Tert butyl alcohol	5.063	59	32739	284.343	ug/l	95
12) 1,1-Dichloroethene	3.934	96	88933	58.097	ug/l	96
13) Acrolein	3.787	56	13266	169.073	ug/l	99
14) Allyl chloride	4.558	41	120958	60.151	ug/l	94
15) Acrylonitrile	5.252	53	128926	307.590	ug/l	98
16) Acetone	4.016	43	111861	303.560	ug/l	92
17) Carbon Disulfide	4.258	76	204615	57.230	ug/l	98
18) Methyl Acetate	4.558	43	111312	80.399	ug/l	96
19) Methyl tert-butyl Ether	5.316	73	261058	63.594	ug/l	100
20) Methylene Chloride	4.793	84	147965	71.956	ug/l	89
21) trans-1,2-Dichloroethene	5.305	96	104331	58.634	ug/l	94
22) Diisopropyl ether	6.216	45	311139	65.340	ug/l	97
23) Vinyl Acetate	6.152	43	483800m	205.341	ug/l	
24) 1,1-Dichloroethane	6.105	63	202824	63.173	ug/l	96
25) 2-Butanone	7.081	43	151760	307.719	ug/l	90
26) 2,2-Dichloropropane	7.069	77	149668	54.078	ug/l	97
27) cis-1,2-Dichloroethene	7.075	96	139774	63.721	ug/l	99
28) Bromochloromethane	7.422	49	41332	51.492	ug/l	85
29) Tetrahydrofuran	7.440	42	89024	305.517	ug/l	93
30) Chloroform	7.599	83	228033	64.847	ug/l	96
31) Cyclohexane	7.875	56	115712	50.957	ug/l	94
32) 1,1,1-Trichloroethane	7.793	97	174419	61.476	ug/l	99
36) 1,1-Dichloropropene	8.004	75	135848	57.364	ug/l	96
37) Ethyl Acetate	7.169	43	53075	50.115	ug/l	97
38) Carbon Tetrachloride	7.993	117	133925	59.061	ug/l	99
39) Methylcyclohexane	9.269	83	136811	50.033	ug/l	95
40) Benzene	8.252	78	453946	60.752	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076763.D
Acq On : 17 Jul 2023 19:17
Operator : KP/SY
Sample : 03645-10MSD
Misc : 6.31G/5.0ml/MSVOA_D/SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 18 01:24:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	35915	55.533	ug/l	#	94
42) 1,2-Dichloroethane	8.322	62	124536	64.145	ug/l		98
43) Isopropyl Acetate	8.363	43	112697	54.525	ug/l		96
44) Trichloroethene	9.028	130	115528	56.738	ug/l		87
45) 1,2-Dichloropropane	9.304	63	119898	62.161	ug/l		92
46) Dibromomethane	9.393	93	72106	63.866	ug/l		89
47) Bromodichloromethane	9.581	83	176684	62.361	ug/l		98
48) Methyl methacrylate	9.381	41	62712	66.665	ug/l	#	81
49) 1,4-Dioxane	9.381	88	17274	1194.182	ug/l	#	87
51) 4-Methyl-2-Pentanone	10.157	43	331913	301.610	ug/l		93
52) Toluene	10.334	92	289171	58.924	ug/l		94
53) t-1,3-Dichloropropene	10.551	75	155141	58.994	ug/l		97
54) cis-1,3-Dichloropropene	10.016	75	186302	60.111	ug/l	#	91
55) 1,1,2-Trichloroethane	10.734	97	100337	60.860	ug/l		96
56) Ethyl methacrylate	10.598	69	108158	56.839	ug/l		93
57) 1,3-Dichloropropane	10.875	76	158597	59.070	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	174837	237.369	ug/l		98
59) 2-Hexanone	10.922	43	230885	294.034	ug/l		92
60) Dibromochloromethane	11.075	129	121354	63.362	ug/l		98
61) 1,2-Dibromoethane	11.175	107	91781	60.046	ug/l		99
64) Tetrachloroethene	10.810	164	121928	80.005	ug/l		93
65) Chlorobenzene	11.604	112	311278	57.909	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.681	131	122078	61.001	ug/l		97
67) Ethyl Benzene	11.681	91	537090	56.895	ug/l		97
68) m/p-Xylenes	11.793	106	412710	113.834	ug/l		93
69) o-Xylene	12.122	106	205130	58.509	ug/l		93
70) Styrene	12.134	104	358738	58.451	ug/l		98
71) Bromoform	12.298	173	68844	62.811	ug/l	#	97
73) Isopropylbenzene	12.422	105	499749	58.504	ug/l		95
74) N-amyl acetate	12.234	43	91328	50.750	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.675	83	113347	61.802	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	70732m	63.173	ug/l		
77) Bromobenzene	12.698	156	122885	62.324	ug/l		89
78) n-propylbenzene	12.763	91	586382	56.624	ug/l		95
79) 2-Chlorotoluene	12.851	91	333506	58.735	ug/l		96
80) 1,3,5-Trimethylbenzene	12.904	105	399207	57.797	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.469	75	31516	59.906	ug/l		96
82) 4-Chlorotoluene	12.945	91	341690	57.603	ug/l		96
83) tert-Butylbenzene	13.163	119	344874	56.708	ug/l		97
84) 1,2,4-Trimethylbenzene	13.210	105	412437	58.433	ug/l		95
85) sec-Butylbenzene	13.345	105	500818	53.900	ug/l		95
86) p-Isopropyltoluene	13.463	119	409013	53.301	ug/l		97
87) 1,3-Dichlorobenzene	13.457	146	226560	55.865	ug/l		96
88) 1,4-Dichlorobenzene	13.539	146	222247	55.935	ug/l		98
89) n-Butylbenzene	13.787	91	356090	47.422	ug/l		98
90) Hexachloroethane	14.051	117	81265	57.282	ug/l		85
91) 1,2-Dichlorobenzene	13.828	146	207760	58.138	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.445	75	16067	61.441	ug/l		95
93) 1,2,4-Trichlorobenzene	15.098	180	101738	46.633	ug/l		96
94) Hexachlorobutadiene	15.204	225	38306	36.508	ug/l		98
95) Naphthalene	15.328	128	247308	52.353	ug/l		98
96) 1,2,3-Trichlorobenzene	15.522	180	91521	46.747	ug/l		99

Sample Results: **VD076763.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076763.D
Acq On : 17 Jul 2023 19:17
Operator : KP/SY
Sample : 03645-10MSD
Misc : 6.31G/5.0ml/MSVOA_D/SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 18 01:24:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

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

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

Sample Results: **VD076763.D**

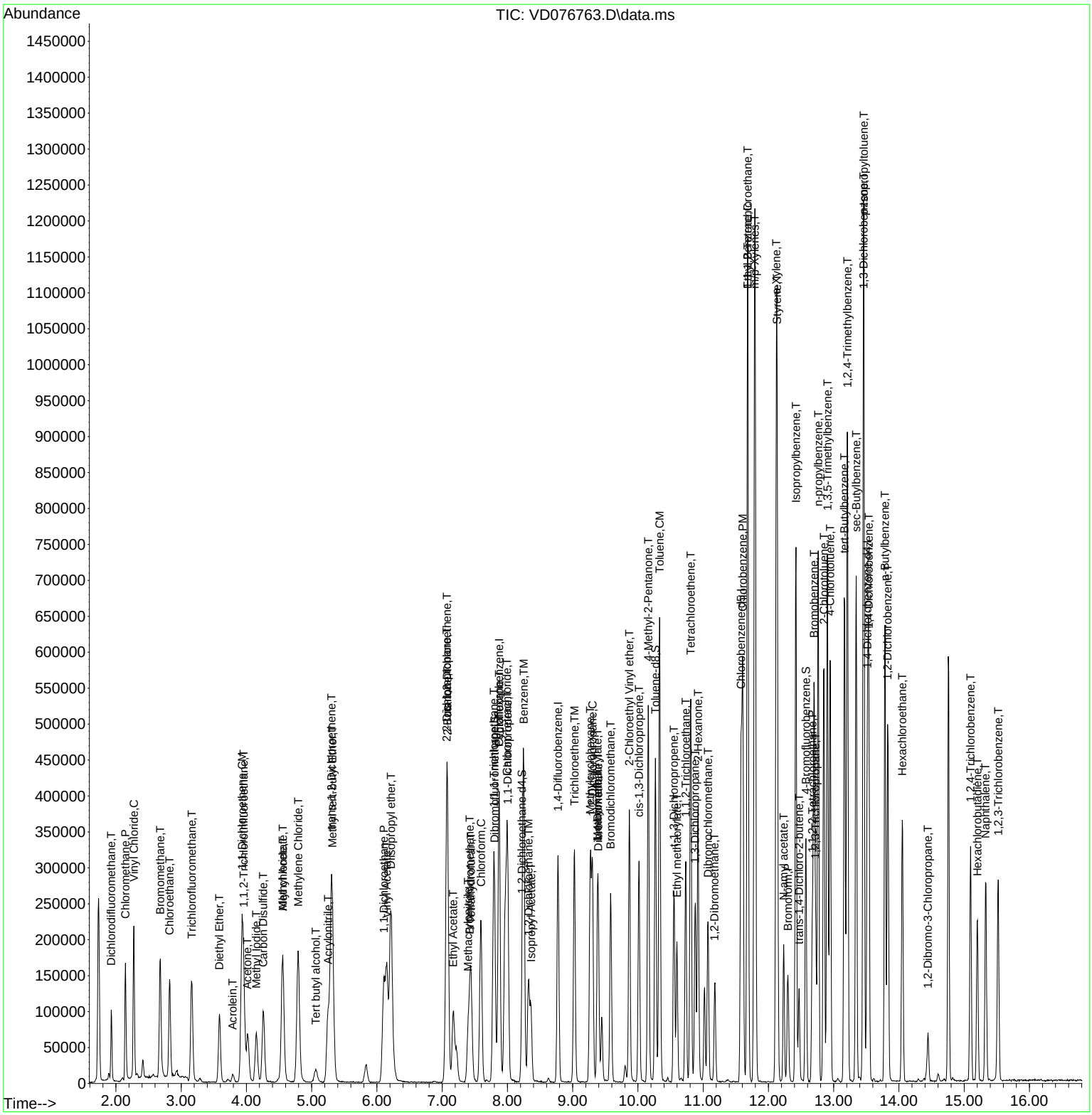
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD071723\
Data File : VD076763.D
Acq On : 17 Jul 2023 19:17
Operator : KP/SY
Sample : 03645-10MSD
Misc : 6.31G/5.0ml/MSVOA_D/SOIL
ALS Vial : 21 Sample Multiplier: 1

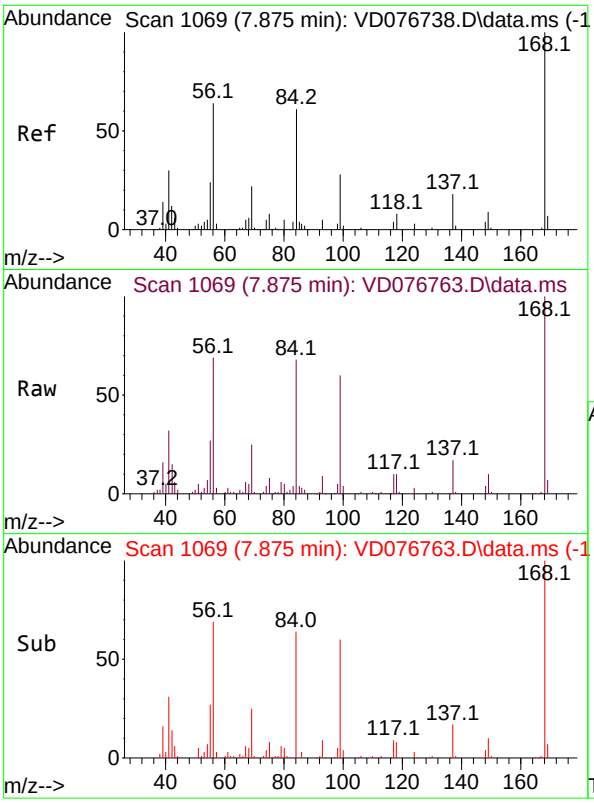
Quant Time: Jul 18 01:24:53 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D071423S.M
Quant Title : SW846 8260
QLast Update : Mon Jul 17 08:07:52 2023
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

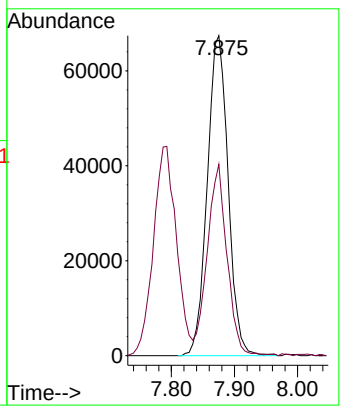




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:168 Resp: 15491

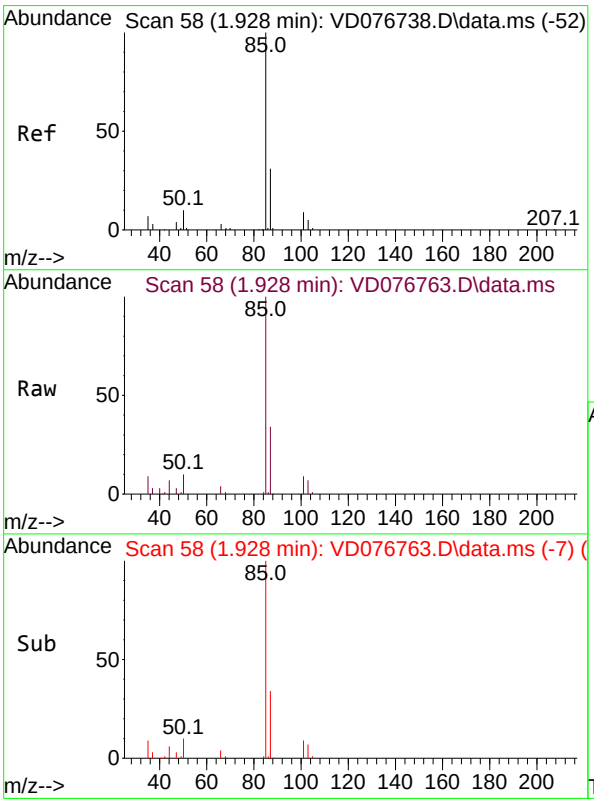
Ion	Ratio	Lower	Upper
168	100		
99	59.8	36.7	55.1



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

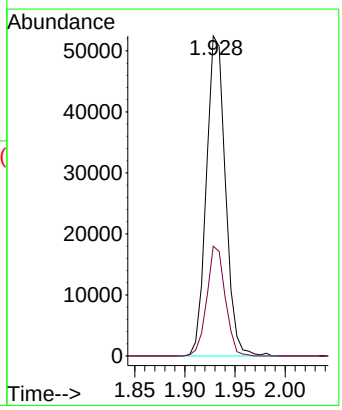
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

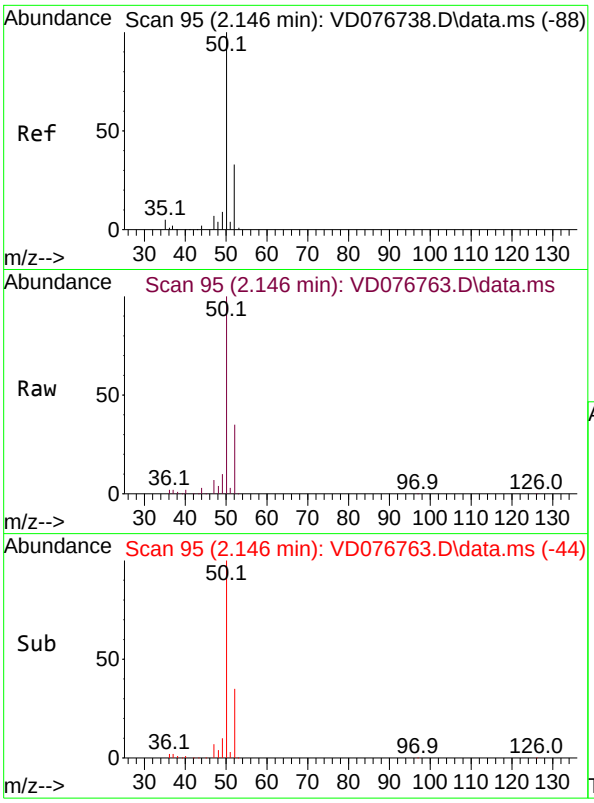


#2
Dichlorodifluoromethane
Concen: 57.348 ug/l
RT: 1.928 min Scan# 58
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 85 Resp: 69471

Ion	Ratio	Lower	Upper
85	100		
87	34.3	15.7	47.0





#3
Chloromethane
Concen: 64.474 ug/l
RT: 2.146 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

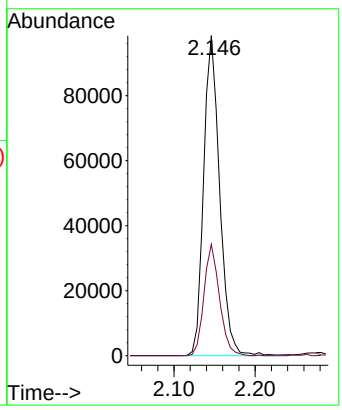
Tgt Ion: 50 Resp: 13473

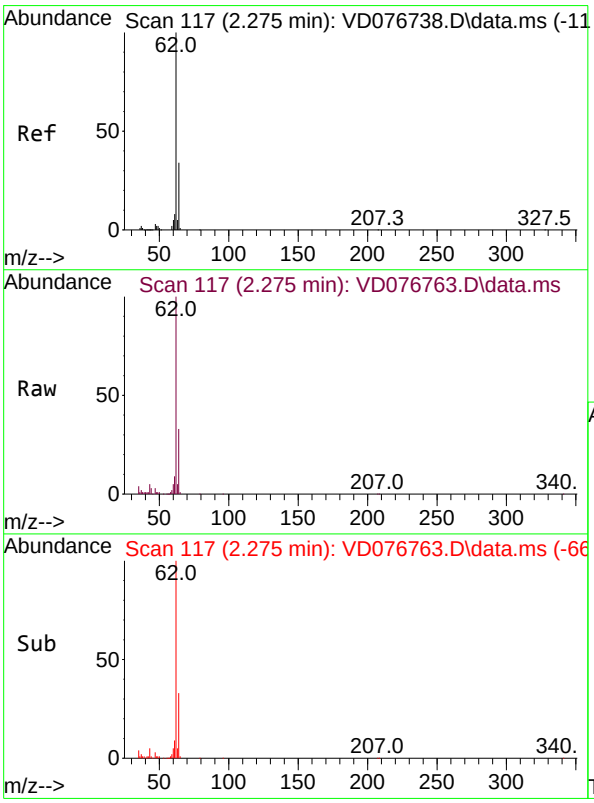
Ion	Ratio	Lower	Upper
50	100		
52	34.8	26.6	40.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

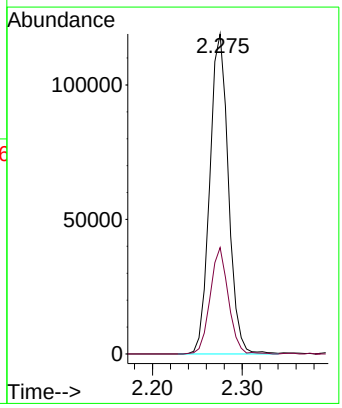


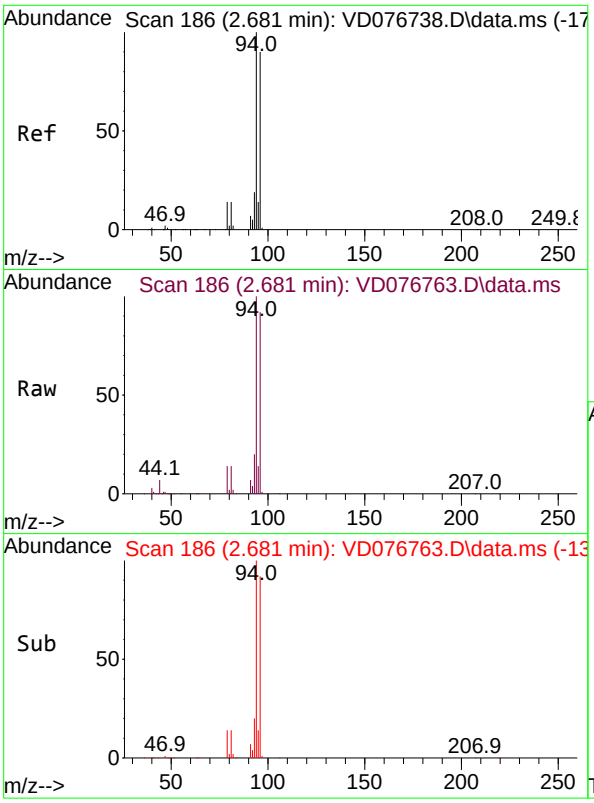


#4
Vinyl Chloride
Concen: 61.551 ug/l
RT: 2.275 min Scan# 117
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 62 Resp: 171460

Ion	Ratio	Lower	Upper
62	100		
64	33.2	26.0	39.0





#5
Bromomethane
Concen: 52.854 ug/l
RT: 2.681 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

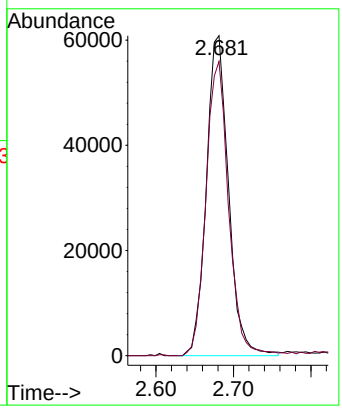
Tgt Ion: 94 Resp: 12113

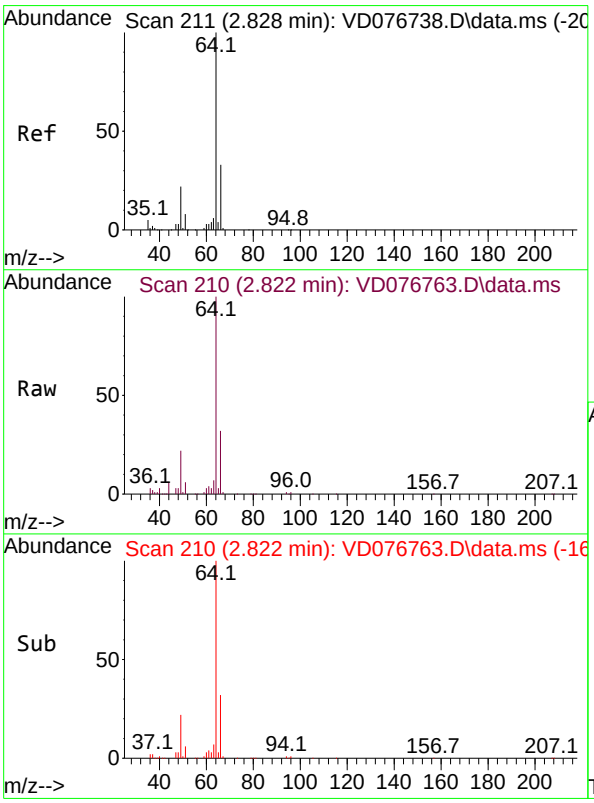
Ion	Ratio	Lower	Upper
94	100		
96	93.9	75.8	113.8

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

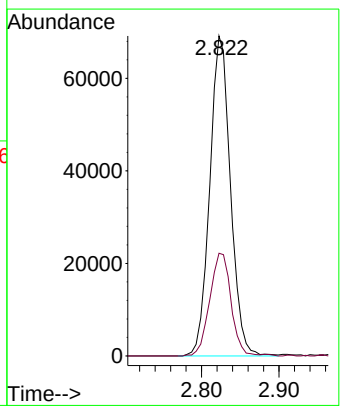


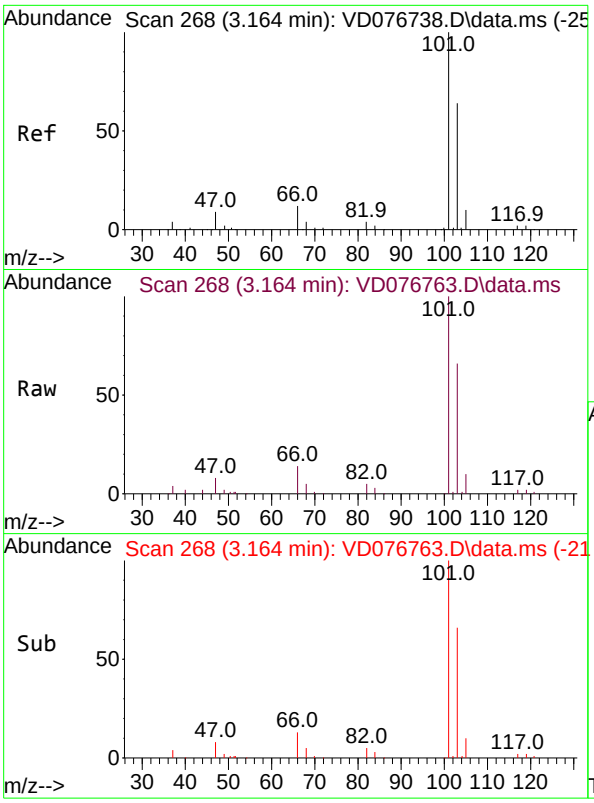


#6
Chloroethane
Concen: 60.988 ug/l
RT: 2.822 min Scan# 210
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 64 Resp: 128270

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.5	38.3

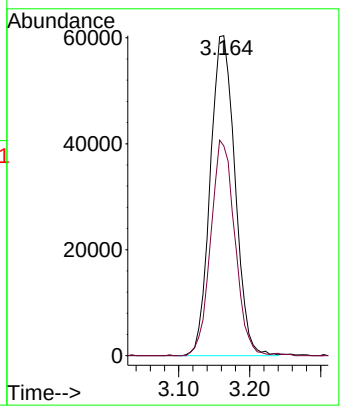




#7
Trichlorofluoromethane
Concen: 58.787 ug/l
RT: 3.164 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:101 Resp: 14571

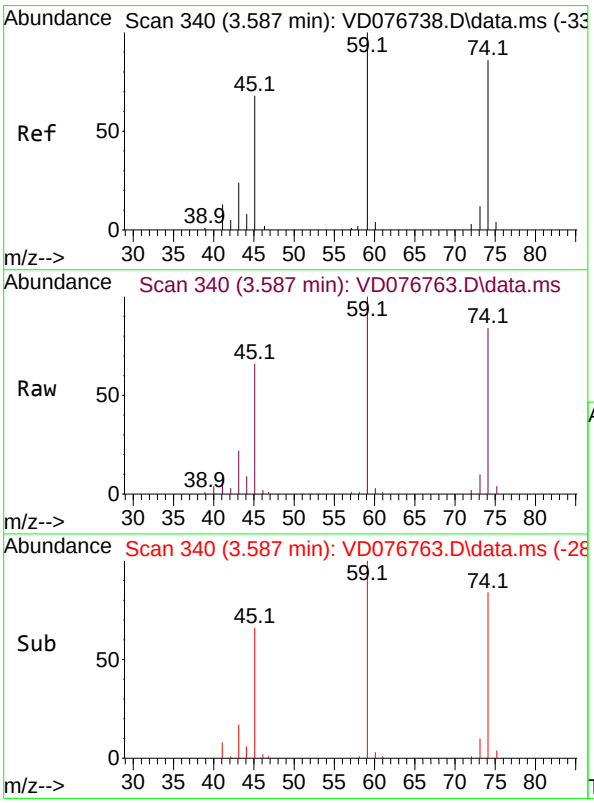
Ion	Ratio	Lower	Upper
101	100		
103	65.5	52.3	78.5



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

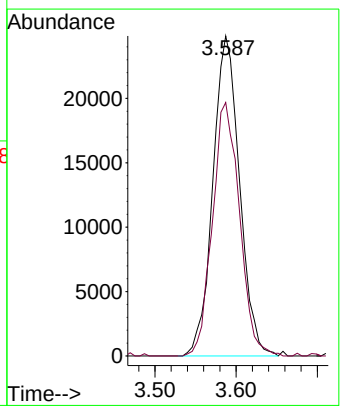
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

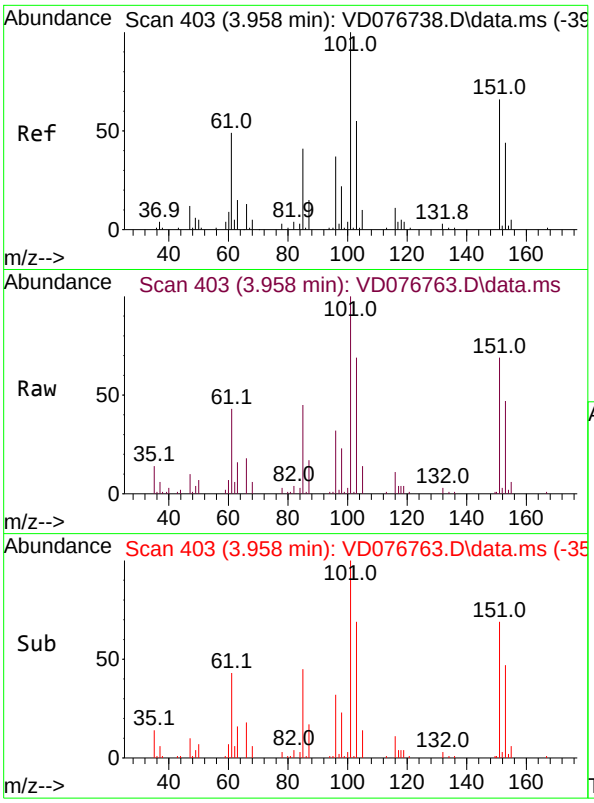


#8
Diethyl Ether
Concen: 66.462 ug/l
RT: 3.587 min Scan# 340
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 74 Resp: 56719

Ion	Ratio	Lower	Upper
74	100		
45	80.4	37.5	112.7

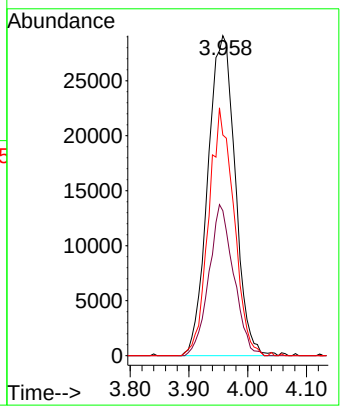




#9
1,1,2-Trichlorotrifluoroethane
Concen: 57.743 ug/l
RT: 3.958 min Scan# 4
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:101 Resp: 9408

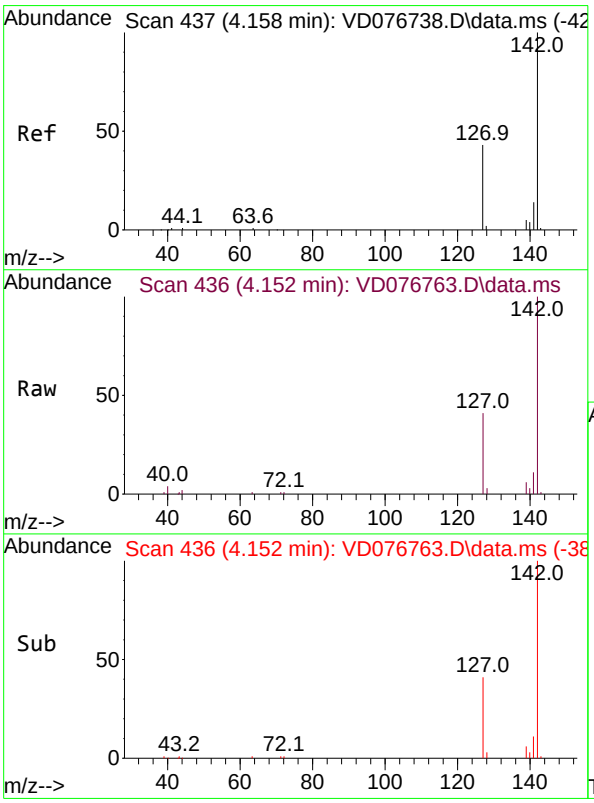
Ion	Ratio	Lower	Upper
101	100		
85	42.7	33.8	50.6
151	71.4	59.8	89.6



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

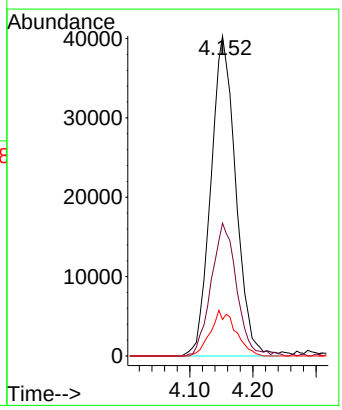
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

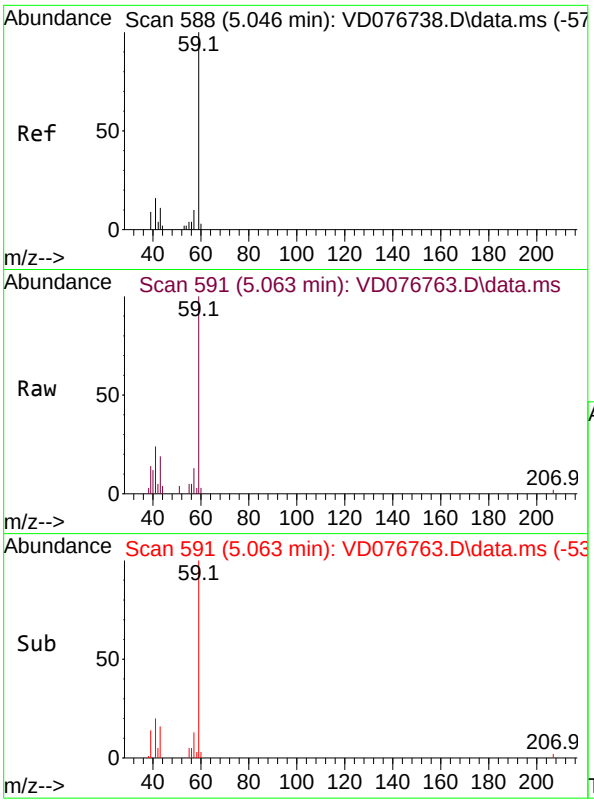


#10
Methyl Iodide
Concen: 60.091 ug/l
RT: 4.152 min Scan# 436
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:142 Resp: 110367

Ion	Ratio	Lower	Upper
142	100		
127	42.5	29.4	44.0
141	14.4	11.1	16.7

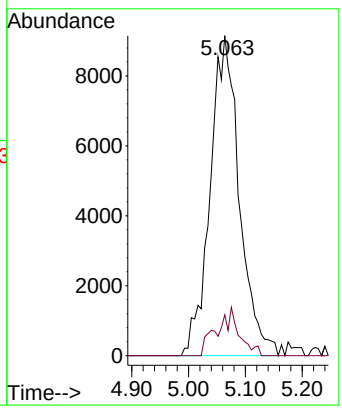




#11
Tert butyl alcohol
Concen: 284.343 ug/l
RT: 5.063 min Scan# 5
Delta R.T. 0.017 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 59 Resp: 3273

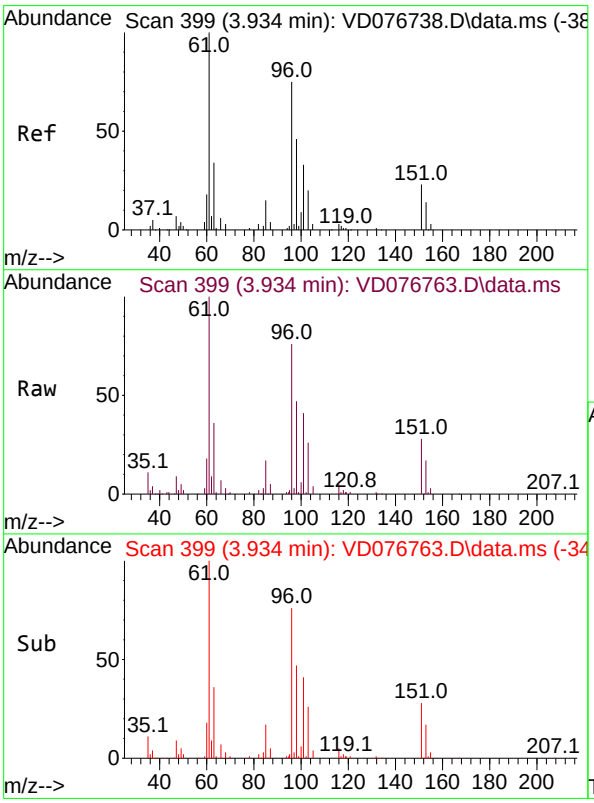
Ion	Ratio	Lower	Upper
59	100		
57	8.1	7.8	11.8



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

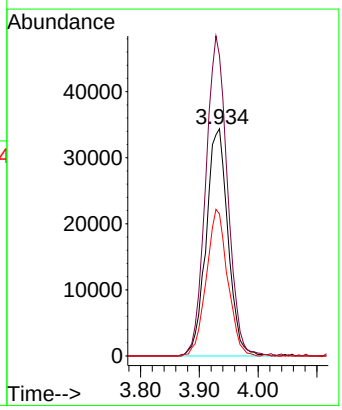
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

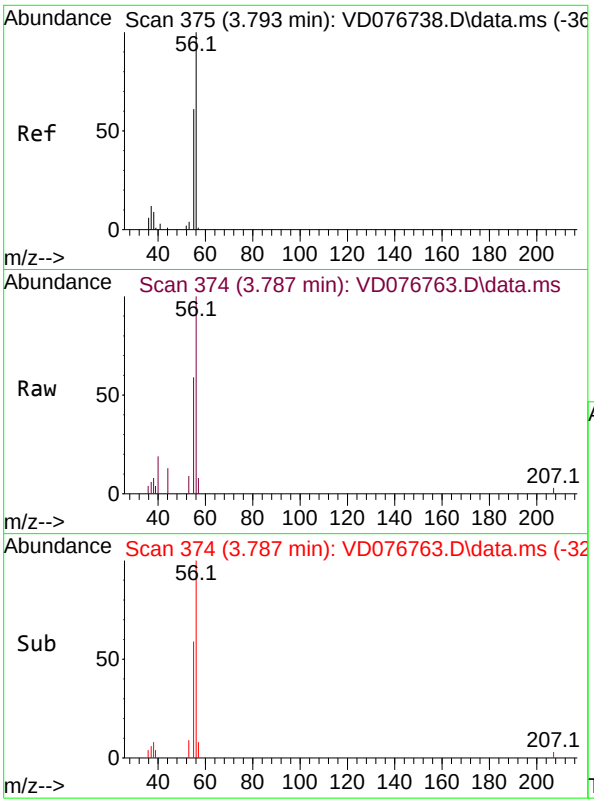


#12
1,1-Dichloroethene
Concen: 58.097 ug/l
RT: 3.934 min Scan# 399
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 96 Resp: 88933

Ion	Ratio	Lower	Upper
96	100		
61	132.1	100.6	150.8
98	62.5	50.2	75.2

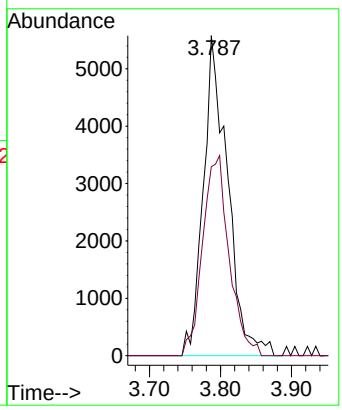




#13
Acrolein
Concen: 169.073 ug/l
RT: 3.787 min Scan# 3
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 56 Resp: 1326

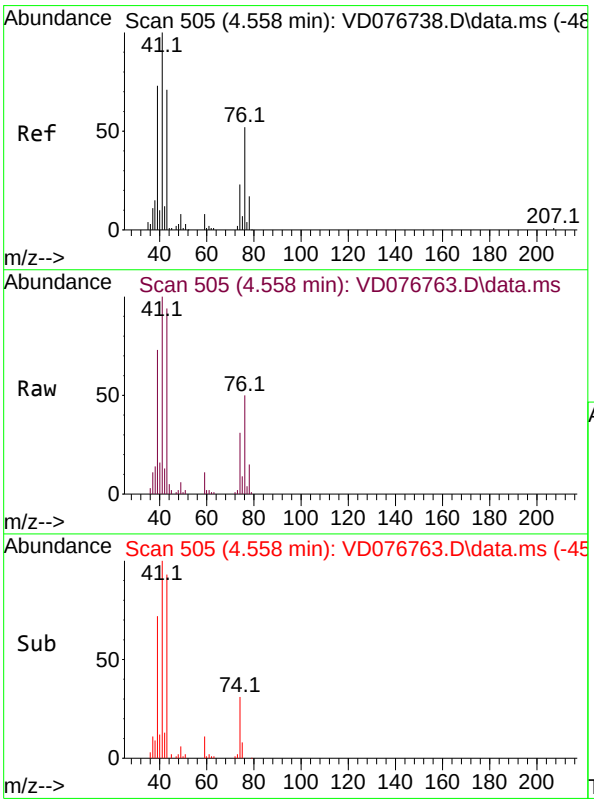
Ion	Ratio	Lower	Upper
56	100		
55	68.1	55.1	82.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

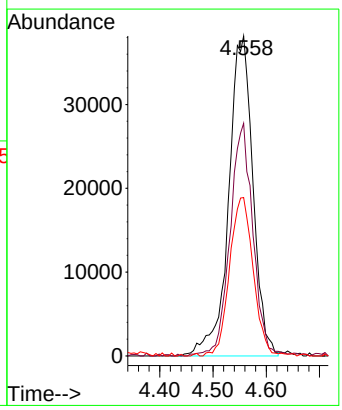
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

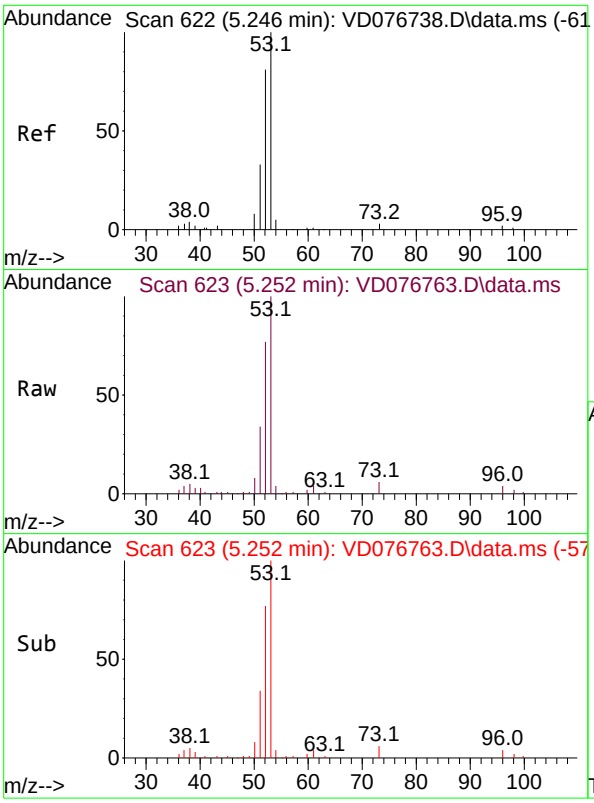


#14
Allyl chloride
Concen: 60.151 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 41 Resp: 120958

Ion	Ratio	Lower	Upper
41	100		
39	68.4	53.8	80.6
76	48.4	45.8	68.8

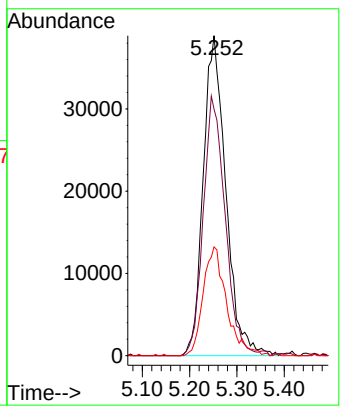




#15
Acrylonitrile
Concen: 307.590 ug/l
RT: 5.252 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 53 Resp: 12892

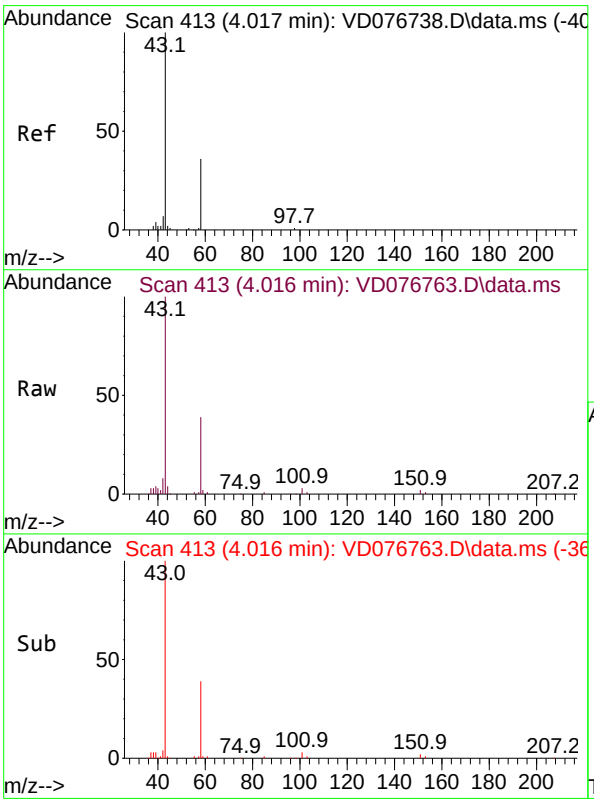
Ion	Ratio	Lower	Upper
53	100		
52	78.3	65.0	97.4
51	35.3	28.3	42.5



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

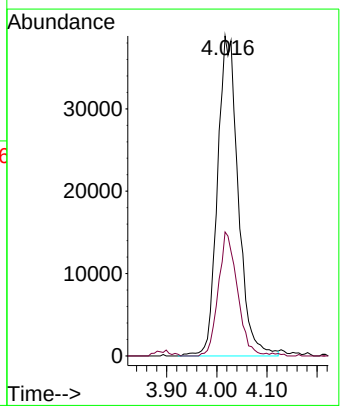
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

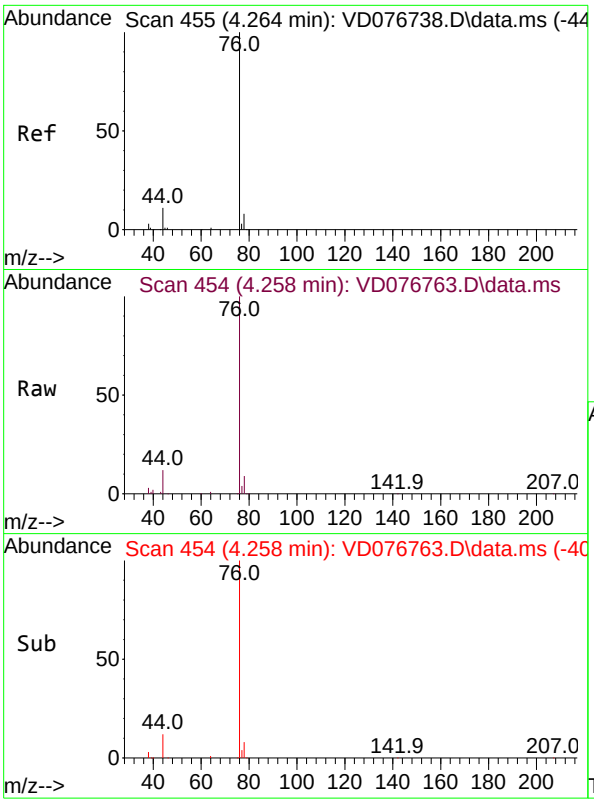


#16
Acetone
Concen: 303.560 ug/l
RT: 4.016 min Scan# 413
Delta R.T. -0.001 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 43 Resp: 111861

Ion	Ratio	Lower	Upper
43	100		
58	38.2	34.7	52.1





#17
Carbon Disulfide
Concen: 57.230 ug/l
RT: 4.258 min Scan# 4
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

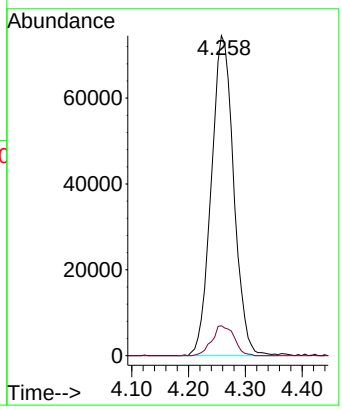
Tgt Ion: 76 Resp: 20461

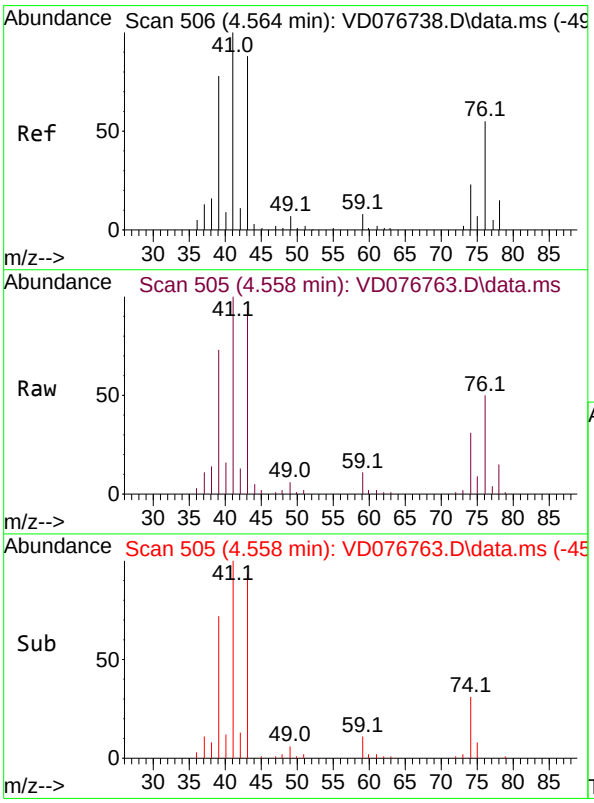
Ion	Ratio	Lower	Upper
76	100		
78	9.3	6.8	10.2

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

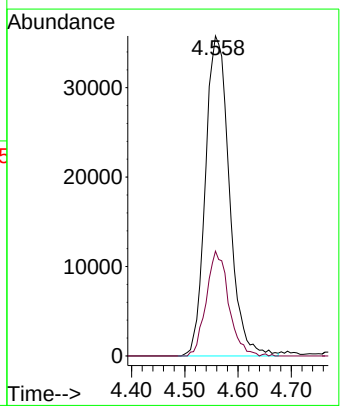


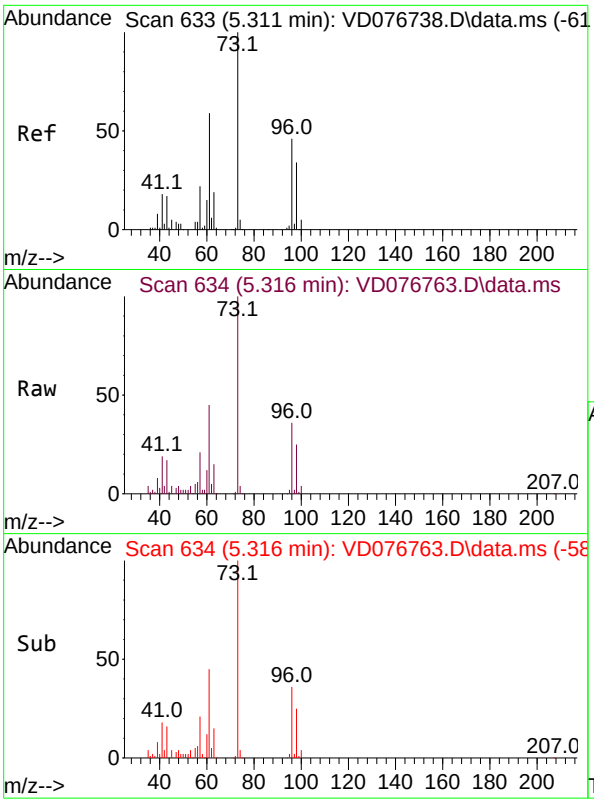


#18
Methyl Acetate
Concen: 80.399 ug/l
RT: 4.558 min Scan# 505
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 43 Resp: 111312

Ion	Ratio	Lower	Upper
43	100		
74	30.7	26.4	39.6





#19
Methyl tert-butyl Ether
Concen: 63.594 ug/l
RT: 5.316 min Scan# 6
Delta R.T. 0.005 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

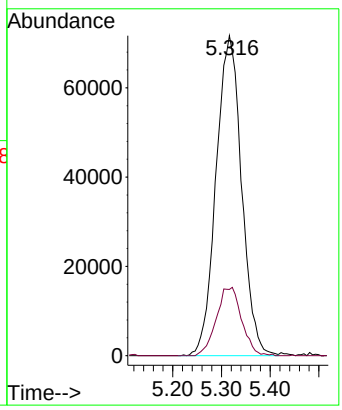
Tgt Ion: 73 Resp: 26105

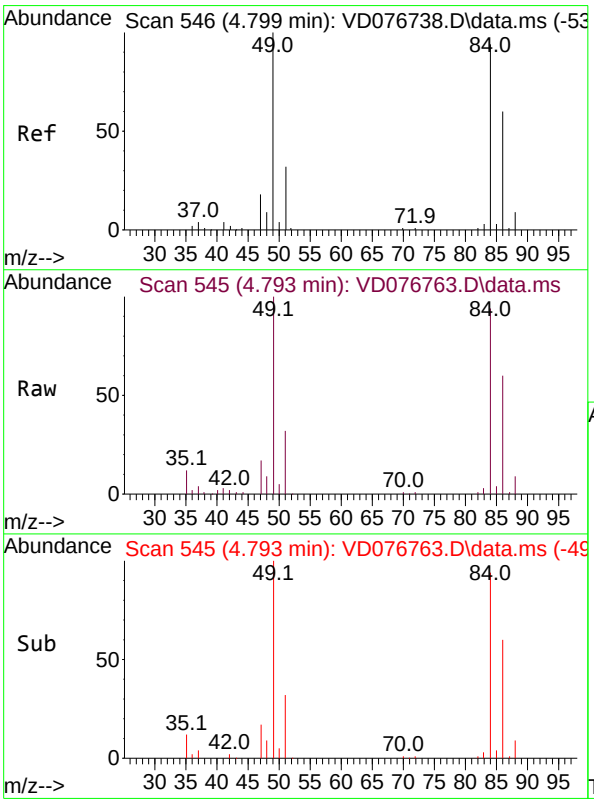
Ion	Ratio	Lower	Upper
73	100		
57	20.7	16.6	25.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

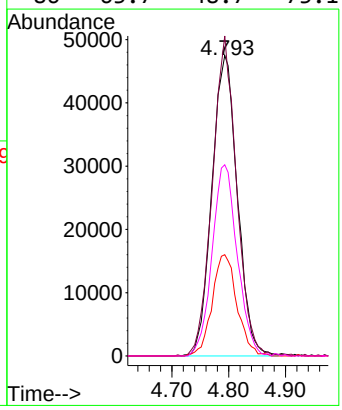


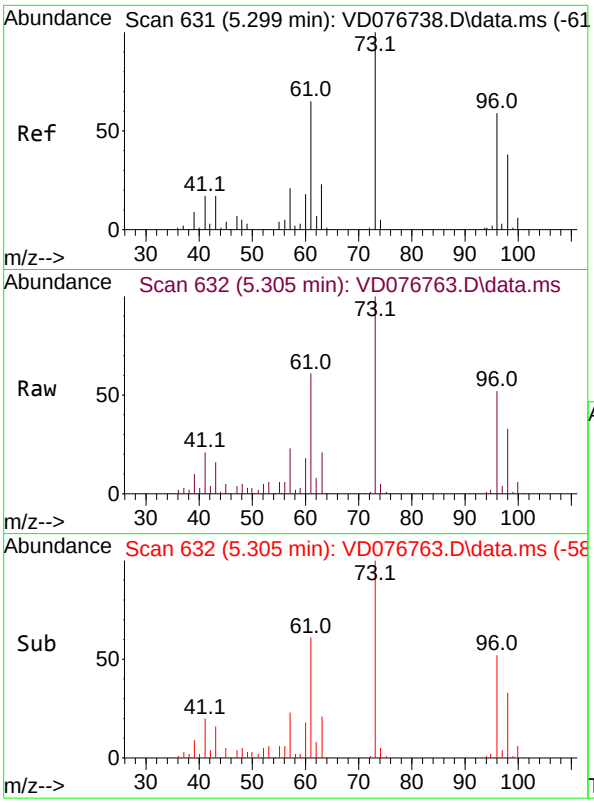


#20
Methylene Chloride
Concen: 71.956 ug/l
RT: 4.793 min Scan# 545
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 84 Resp: 147965

Ion	Ratio	Lower	Upper
84	100		
49	106.2	71.4	107.2
51	33.7	24.5	36.7
86	63.7	48.7	73.1

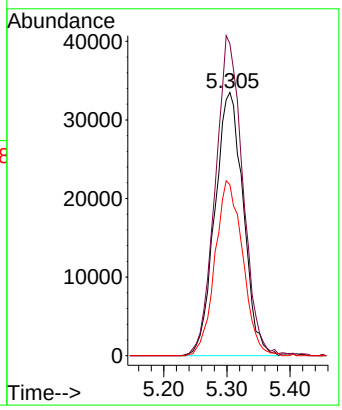




#21
trans-1,2-Dichloroethene
Concen: 58.634 ug/l
RT: 5.305 min Scan# 6
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 96 Resp: 10433

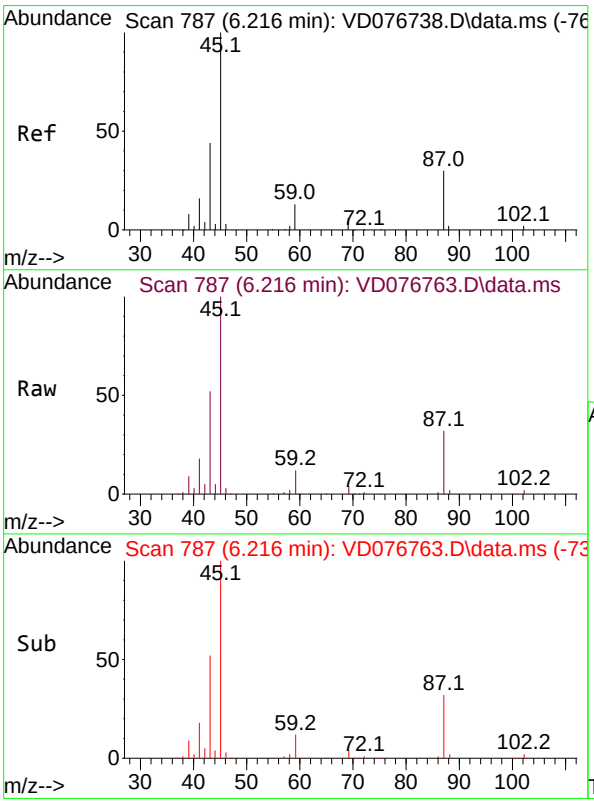
Ion	Ratio	Lower	Upper
96	100		
61	118.6	89.3	133.9
98	65.0	48.6	73.0



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

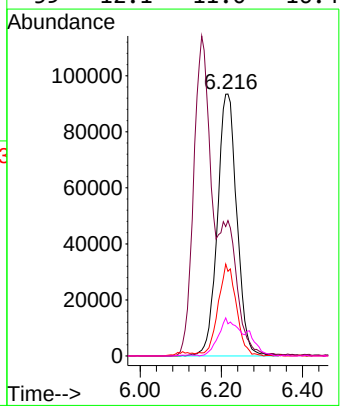
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

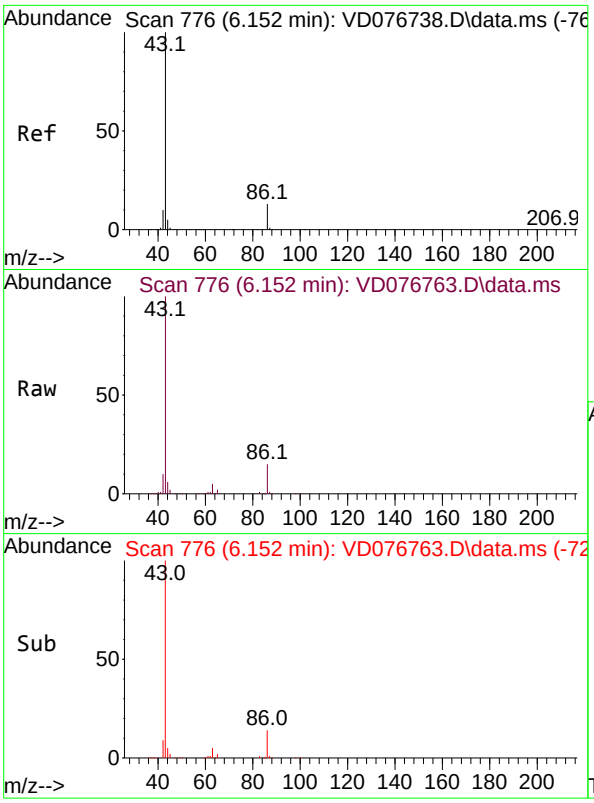


#22
Diisopropyl ether
Concen: 65.340 ug/l
RT: 6.216 min Scan# 787
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 45 Resp: 311139

Ion	Ratio	Lower	Upper
45	100		
43	51.2	40.0	60.0
87	32.3	28.2	42.4
59	12.1	11.0	16.4

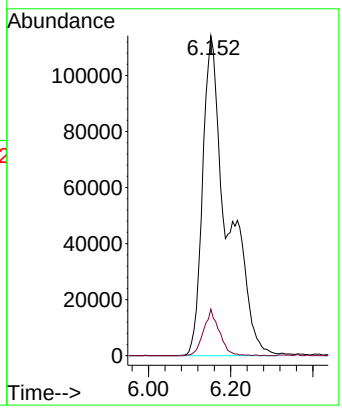




#23
Vinyl Acetate
Concen: 205.341 ug/l m
RT: 6.152 min Scan# 7
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 43 Resp: 48380

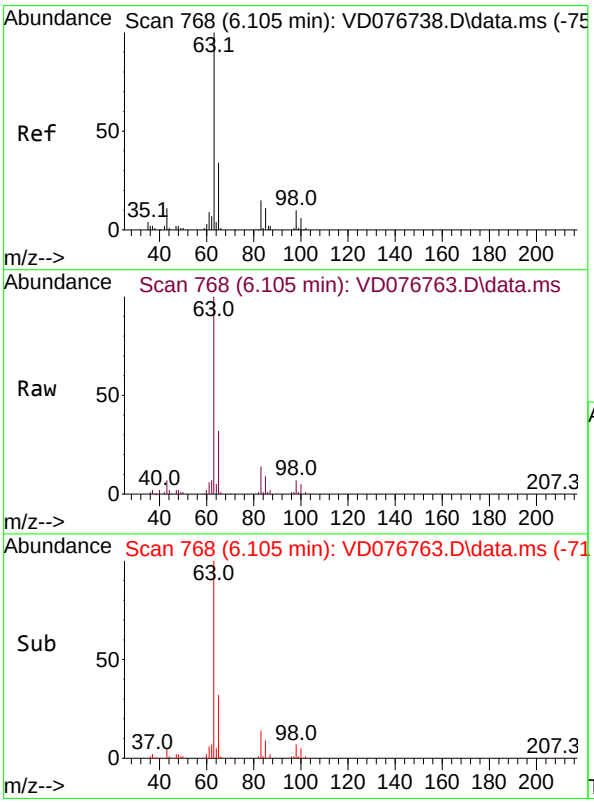
Ion	Ratio	Lower	Upper
43	100		
86	14.5	12.5	18.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

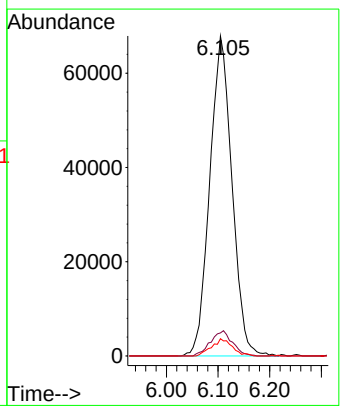
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

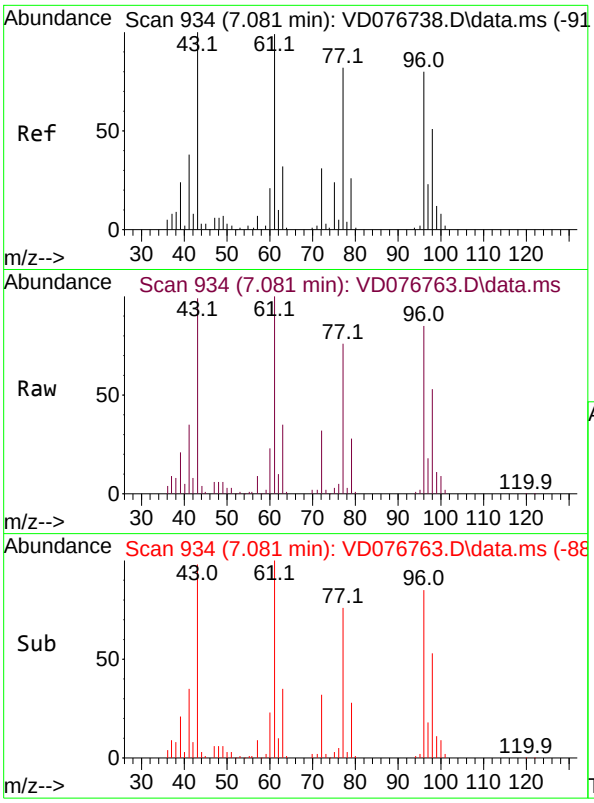


#24
1,1-Dichloroethane
Concen: 63.173 ug/l
RT: 6.105 min Scan# 768
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 63 Resp: 202824

Ion	Ratio	Lower	Upper
63	100		
98	7.2	4.5	13.7
100	5.4	2.5	7.5





#25
2-Butanone
Concen: 307.719 ug/l
RT: 7.081 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

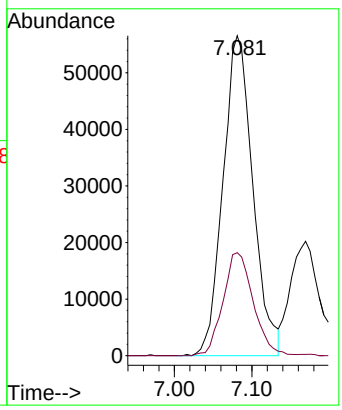
Tgt Ion: 43 Resp: 15176

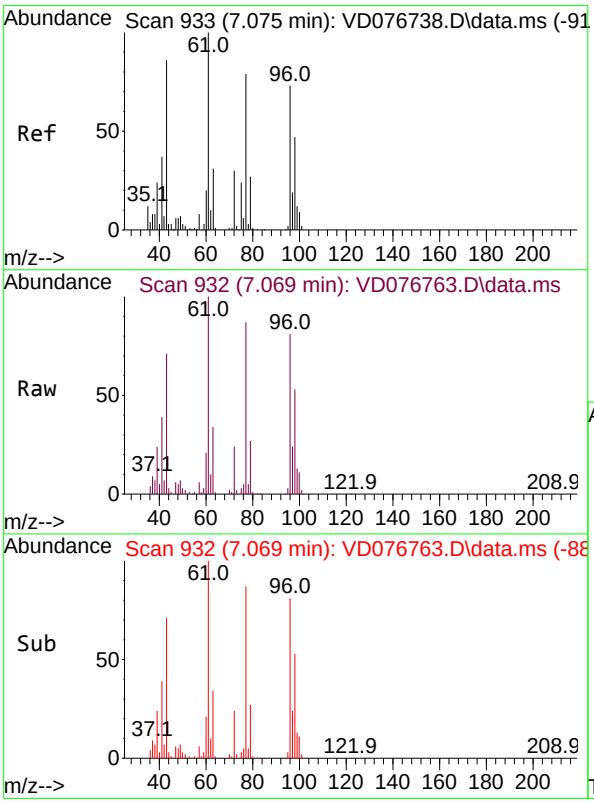
Ion	Ratio	Lower	Upper
43	100		
72	32.2	30.7	46.1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

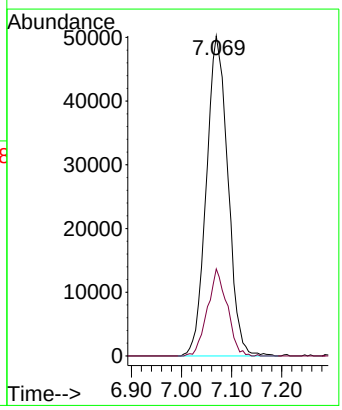


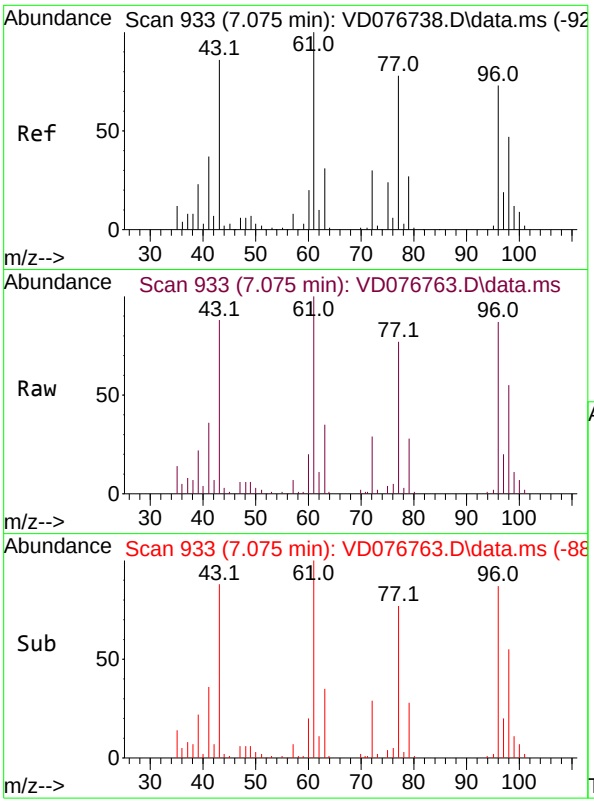


#26
2,2-Dichloropropane
Concen: 54.078 ug/l
RT: 7.069 min Scan# 932
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 77 Resp: 149668

Ion	Ratio	Lower	Upper
77	100		
97	25.0	13.2	39.6





#27
cis-1,2-Dichloroethene
Concen: 63.721 ug/l
RT: 7.075 min Scan# 9
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

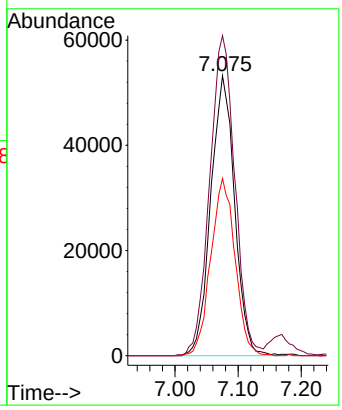
Tgt Ion: 96 Resp: 13977

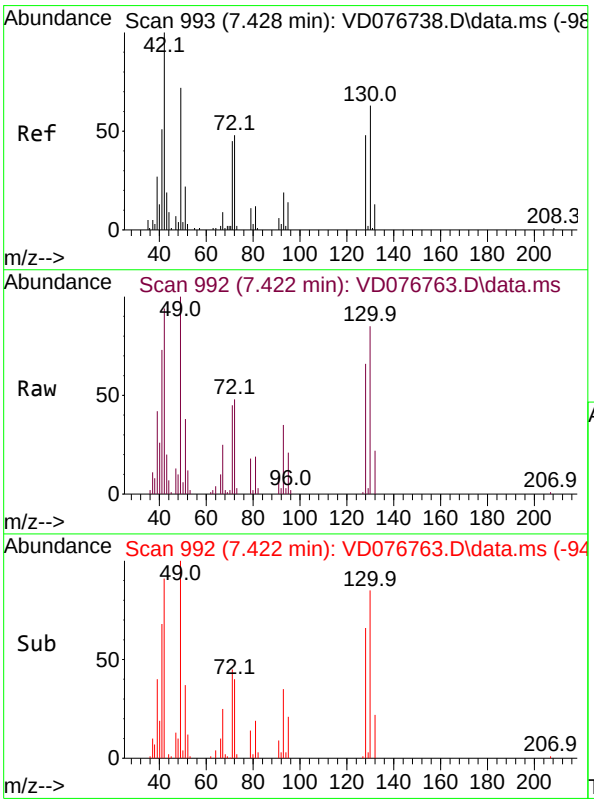
Ion	Ratio	Lower	Upper
96	100		
61	120.7	0.0	239.2
98	64.3	0.0	128.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

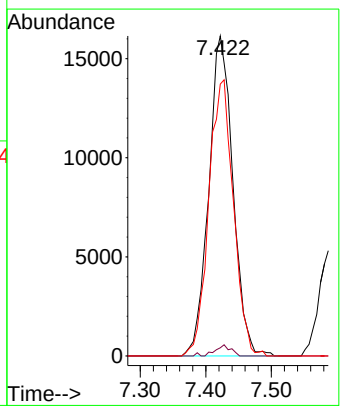


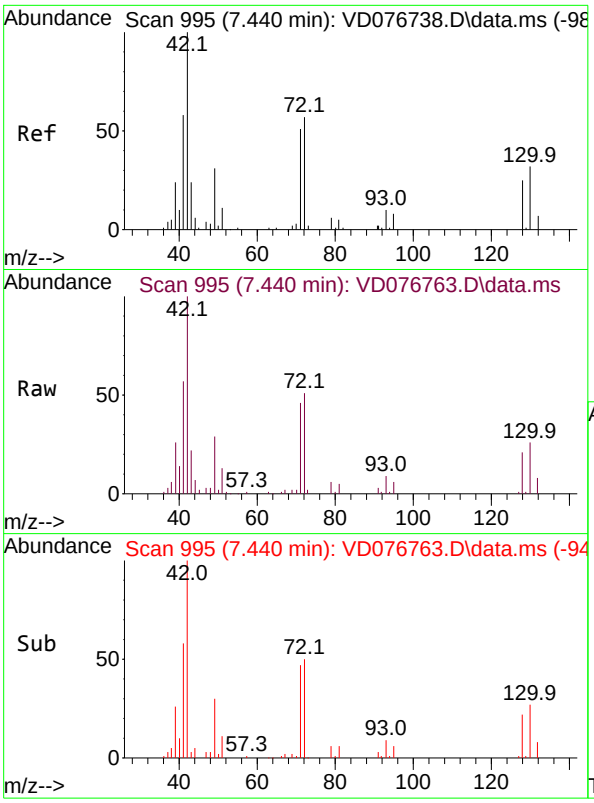


#28
Bromochloromethane
Concen: 51.492 ug/l
RT: 7.422 min Scan# 992
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 49 Resp: 41332

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	6.0
130	88.0	83.2	124.8





#29
Tetrahydrofuran
Concen: 305.517 ug/l
RT: 7.440 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

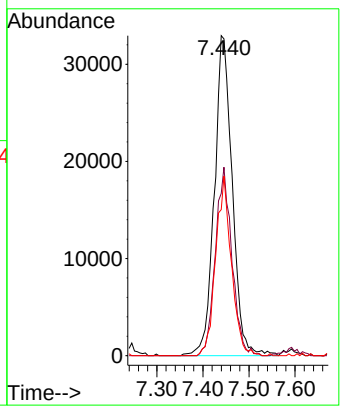
Tgt Ion: 42 Resp: 8902

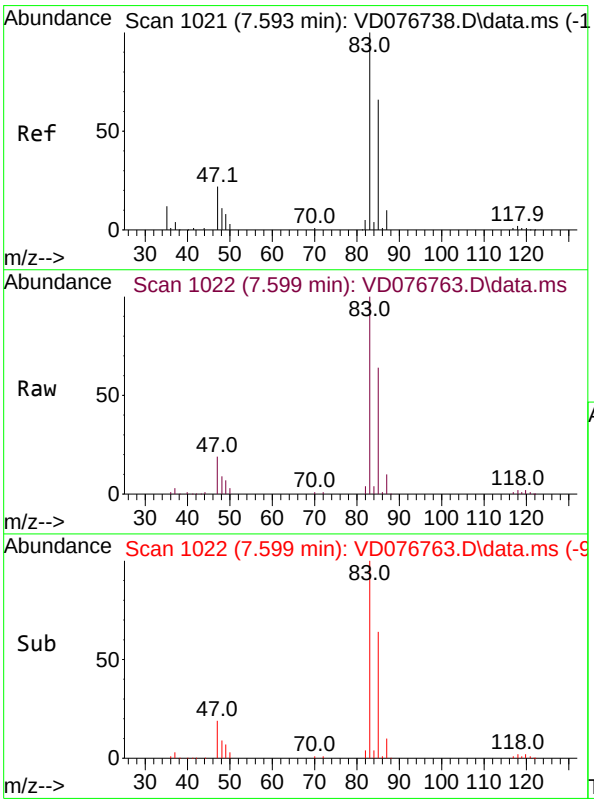
Ion	Ratio	Lower	Upper
42	100		
72	54.3	46.5	69.7
71	49.2	44.5	66.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

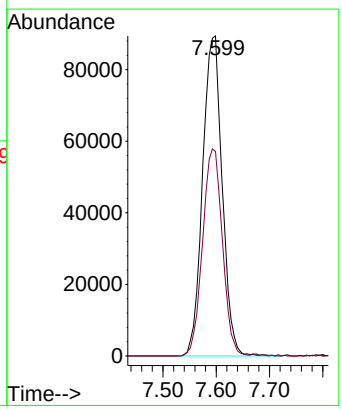


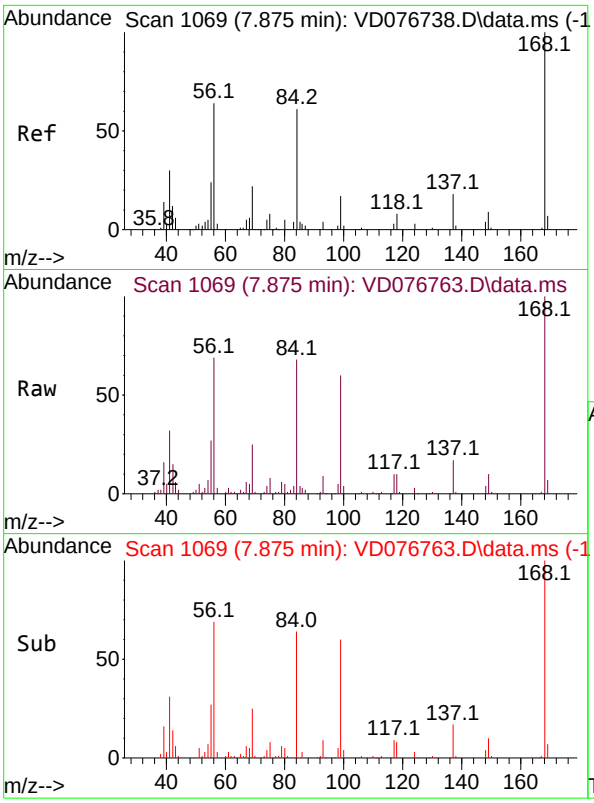


#30
Chloroform
Concen: 64.847 ug/l
RT: 7.599 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 83 Resp: 228033

Ion	Ratio	Lower	Upper
83	100		
85	64.0	53.4	80.2





#31
Cyclohexane
Concen: 50.957 ug/l
RT: 7.875 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

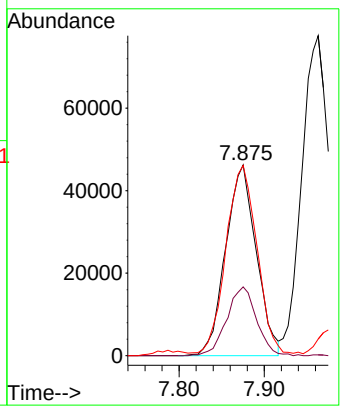
Tgt Ion: 56 Resp: 11571

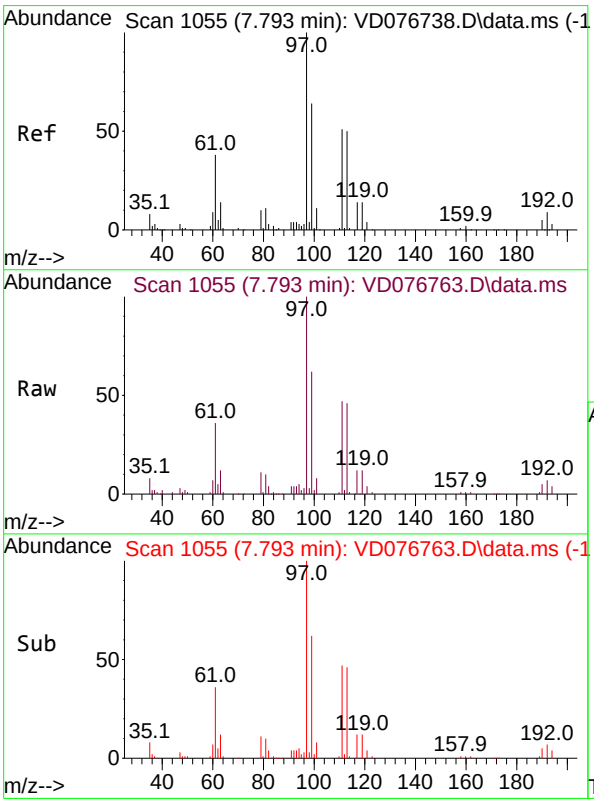
Ion	Ratio	Lower	Upper
56	100		
69	36.1	28.6	43.0
84	97.4	84.8	127.2

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

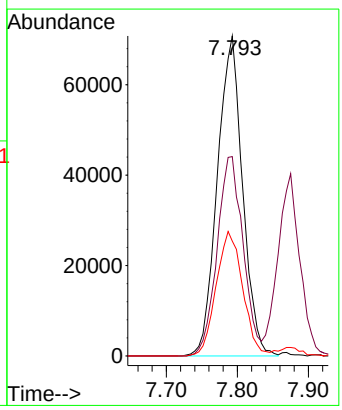


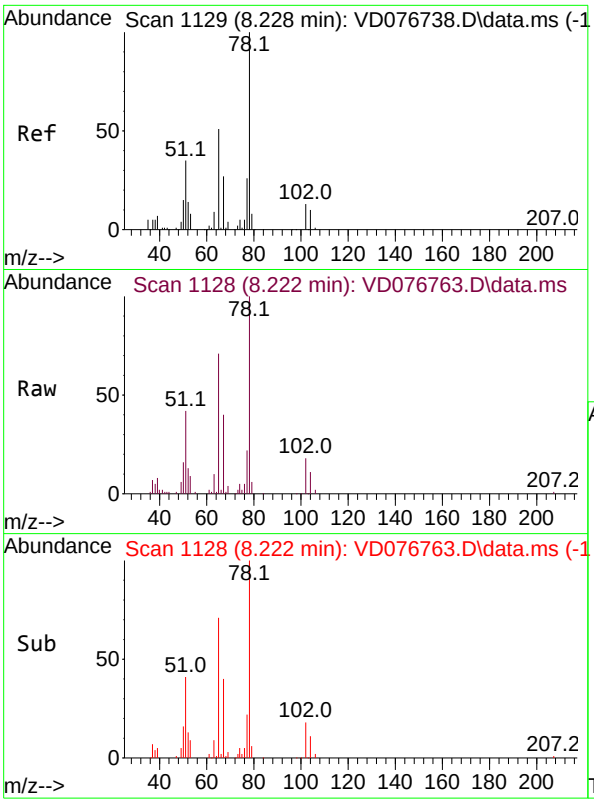


#32
1,1,1-Trichloroethane
Concen: 61.476 ug/l
RT: 7.793 min Scan# 1055
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 97 Resp: 174419

Ion	Ratio	Lower	Upper
97	100		
99	64.4	52.0	78.0
61	40.9	33.8	50.8





#33
1,2-Dichloroethane-d4
Concen: 51.093 ug/l
RT: 8.222 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

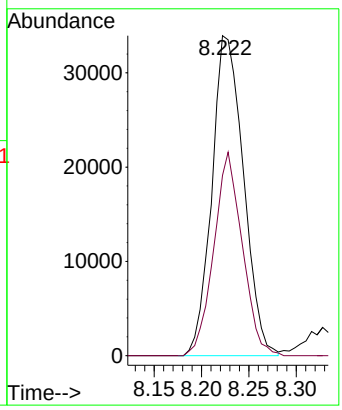
Tgt Ion: 65 Resp: 7883

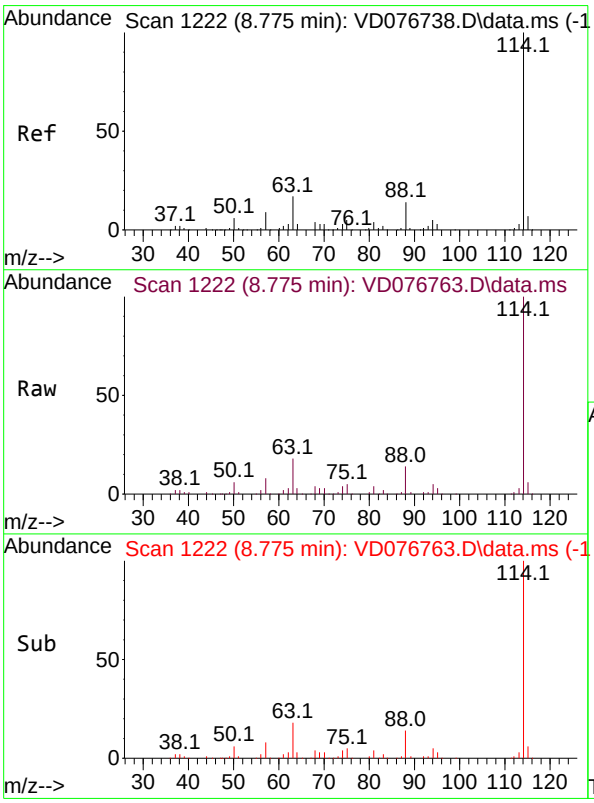
Ion	Ratio	Lower	Upper
65	100		
67	57.3	0.0	115.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

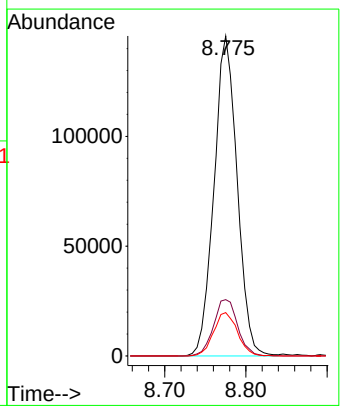


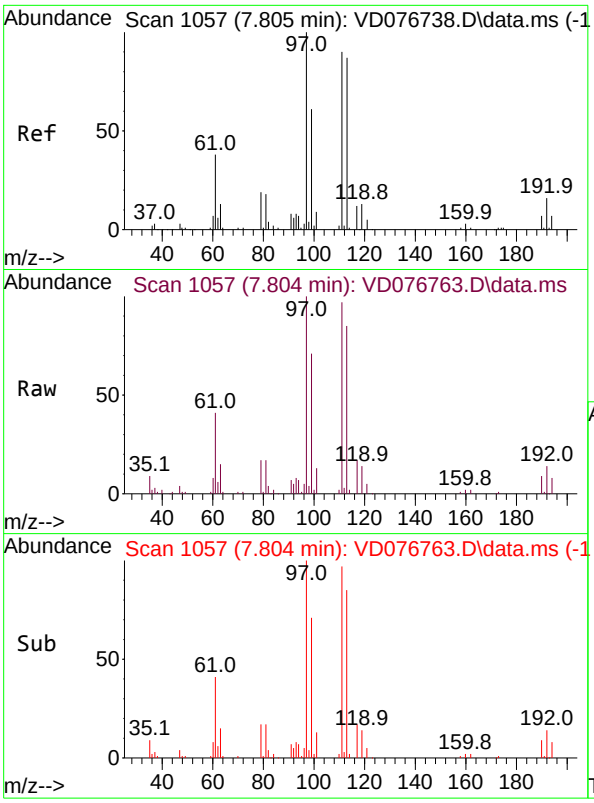


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1222
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:114 Resp: 288394

Ion	Ratio	Lower	Upper
114	100		
63	17.6	0.0	33.4
88	13.5	0.0	26.2

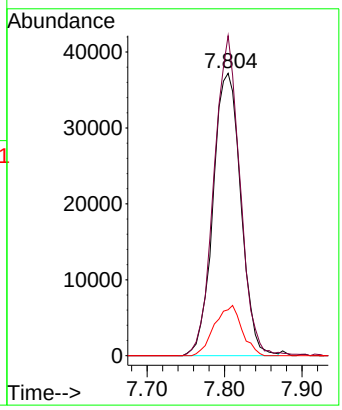




#35
Dibromofluoromethane
Concen: 51.140 ug/l
RT: 7.804 min Scan# 1
Delta R.T. -0.001 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:113 Resp: 9268

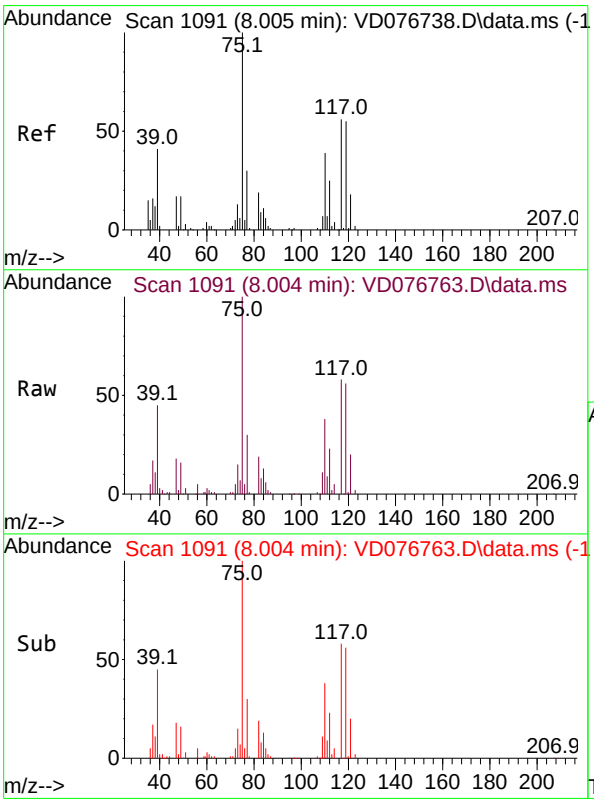
Ion	Ratio	Lower	Upper
113	100		
111	106.5	84.7	127.1
192	17.6	16.8	25.2



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

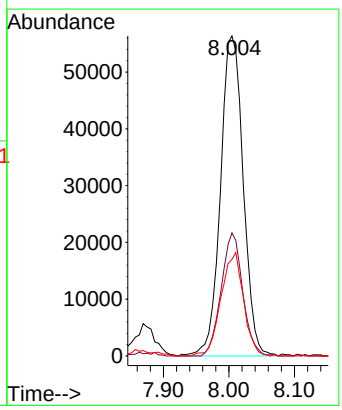
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

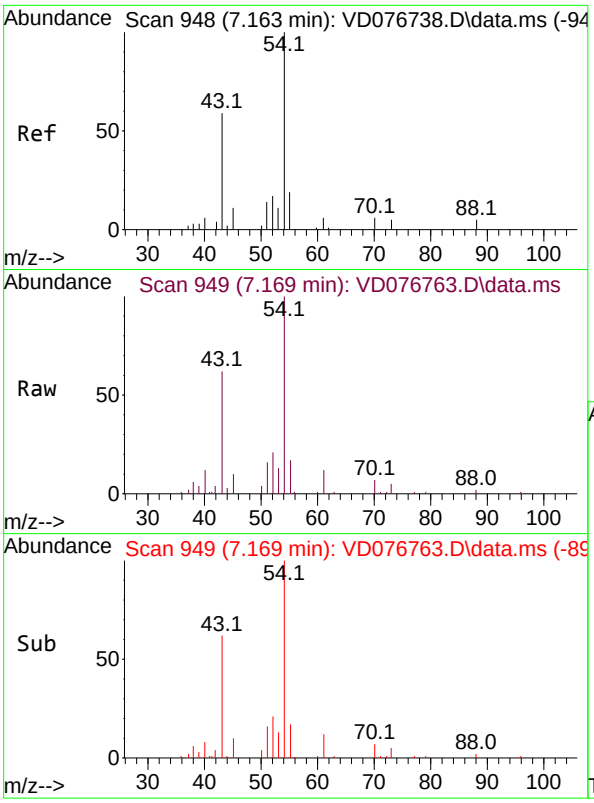


#36
1,1-Dichloropropene
Concen: 57.364 ug/l
RT: 8.004 min Scan# 1091
Delta R.T. -0.001 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 75 Resp: 135848

Ion	Ratio	Lower	Upper
75	100		
110	36.2	19.9	59.6
77	32.0	24.7	37.1





#37
Ethyl Acetate
Concen: 50.115 ug/l
RT: 7.169 min Scan# 94
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

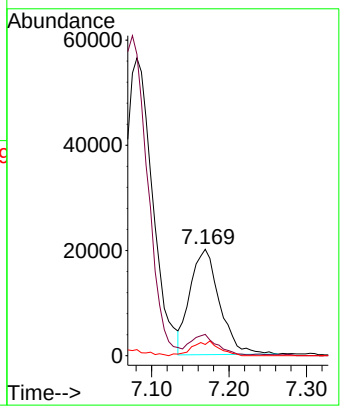
Tgt Ion: 43 Resp: 5307

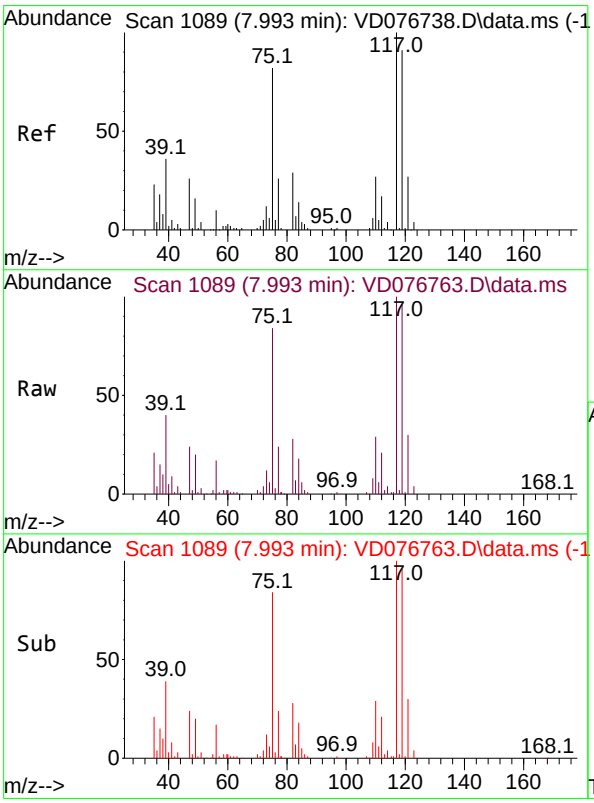
Ion	Ratio	Lower	Upper
43	100		
61	16.7	14.9	22.3
70	12.5	10.0	15.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

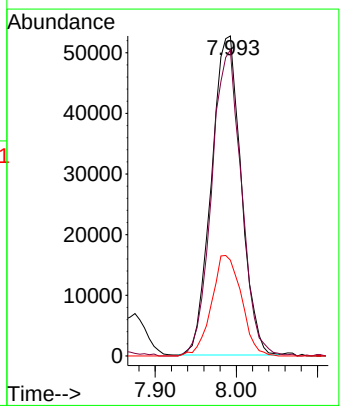


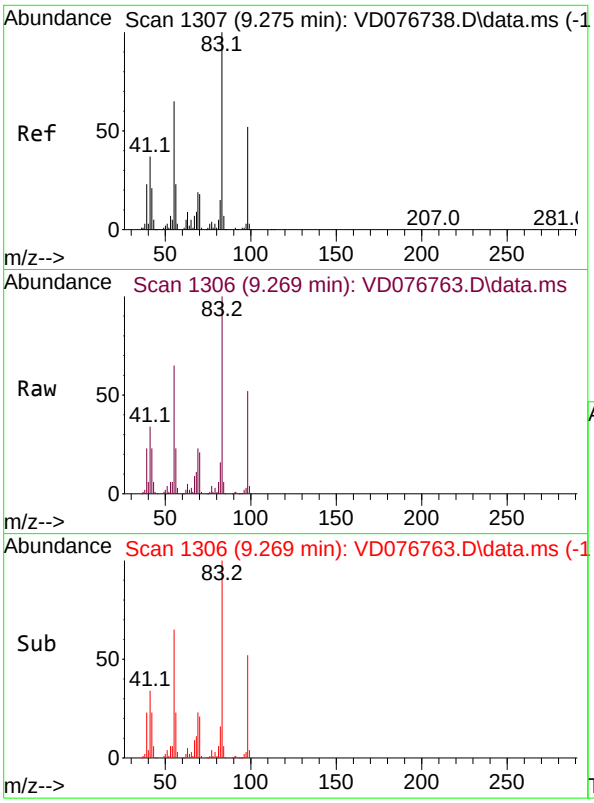


#38
Carbon Tetrachloride
Concen: 59.061 ug/l
RT: 7.993 min Scan# 1089
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:117 Resp: 133925

Ion	Ratio	Lower	Upper
117	100		
119	95.9	78.0	117.0
121	30.0	24.2	36.2

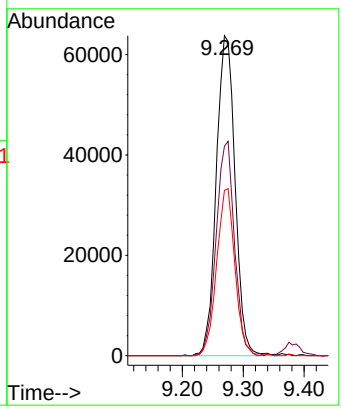




#39
Methylcyclohexane
Concen: 50.033 ug/l
RT: 9.269 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 83 Resp: 13681

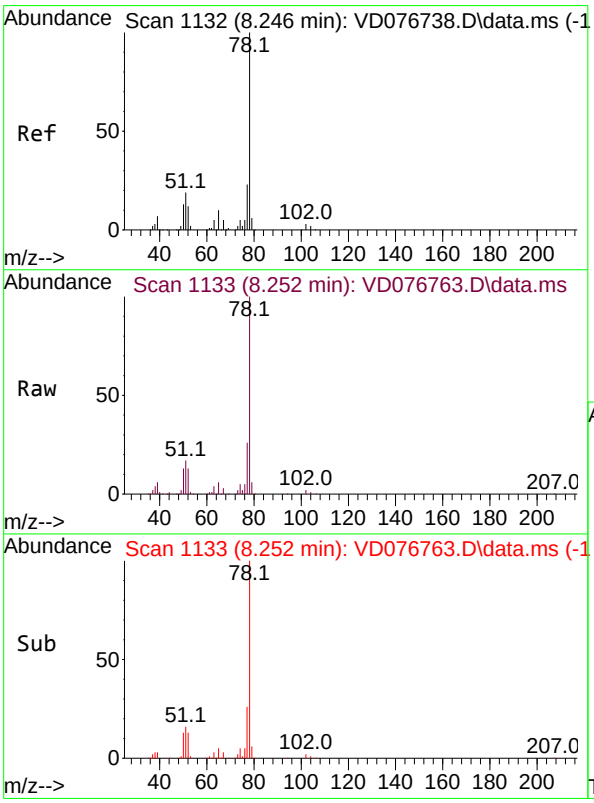
Ion	Ratio	Lower	Upper
83	100		
55	65.5	49.4	74.0
98	51.6	38.4	57.6



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

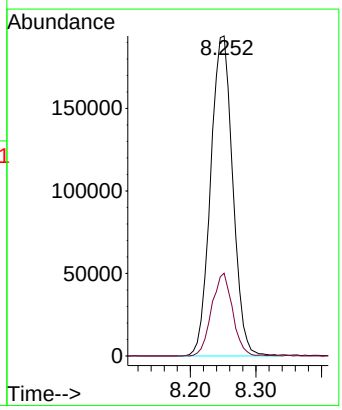
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

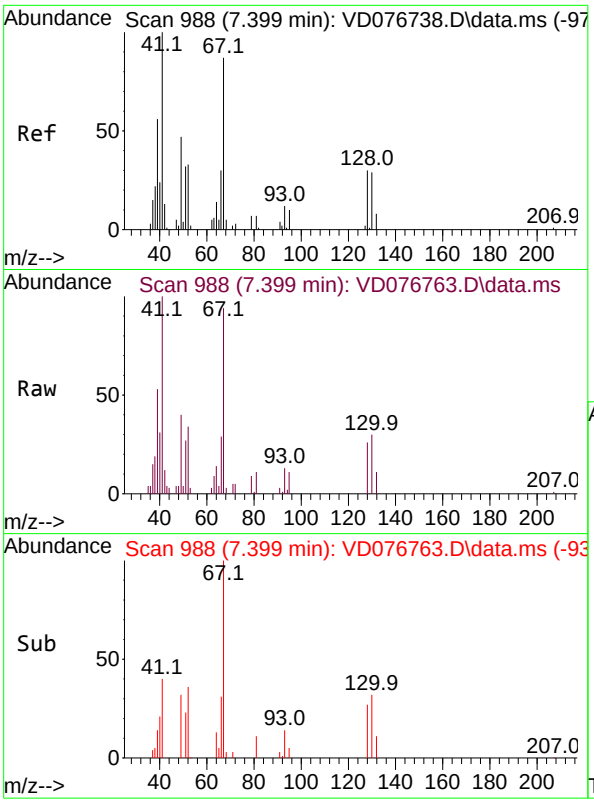


#40
Benzene
Concen: 60.752 ug/l
RT: 8.252 min Scan# 1133
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 78 Resp: 453946

Ion	Ratio	Lower	Upper
78	100		
77	25.9	19.4	29.0

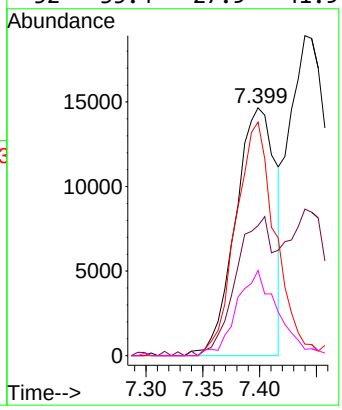




#41
Methacrylonitrile
Concen: 55.533 ug/l
RT: 7.399 min Scan# 9
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 41 Resp: 3591

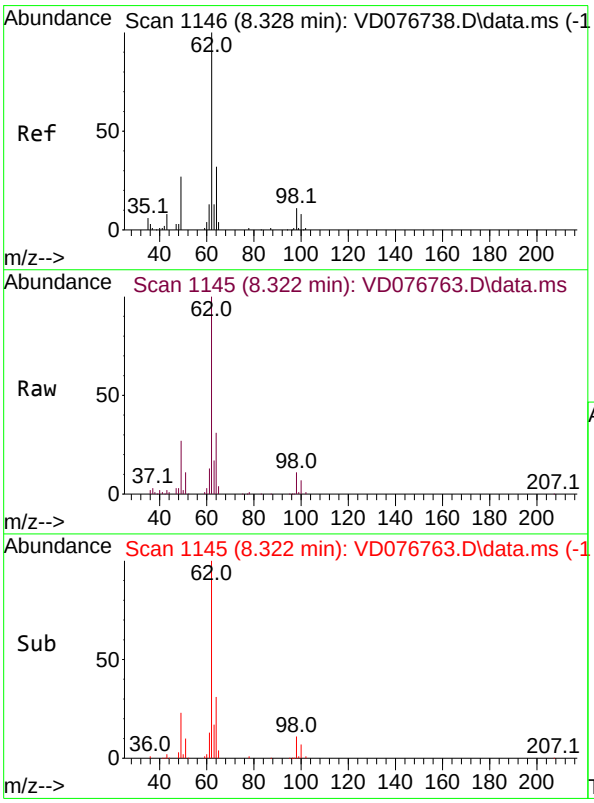
Ion	Ratio	Lower	Upper
41	100		
39	55.0	34.0	51.0#
67	94.3	77.0	115.4
52	35.4	27.9	41.9



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

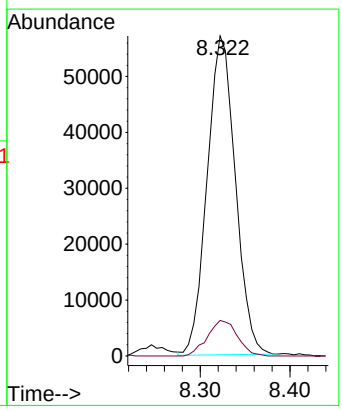
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

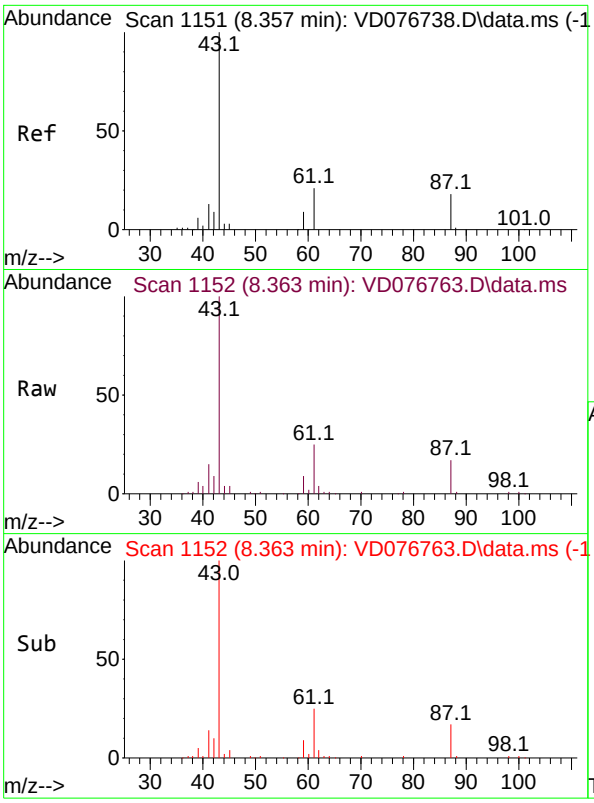


#42
1,2-Dichloroethane
Concen: 64.145 ug/l
RT: 8.322 min Scan# 1145
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 62 Resp: 124536

Ion	Ratio	Lower	Upper
62	100		
98	11.8	0.0	25.4





#43
Isopropyl Acetate
Concen: 54.525 ug/l
RT: 8.363 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

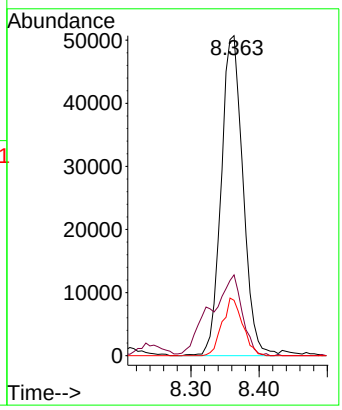
Tgt Ion: 43 Resp: 11269

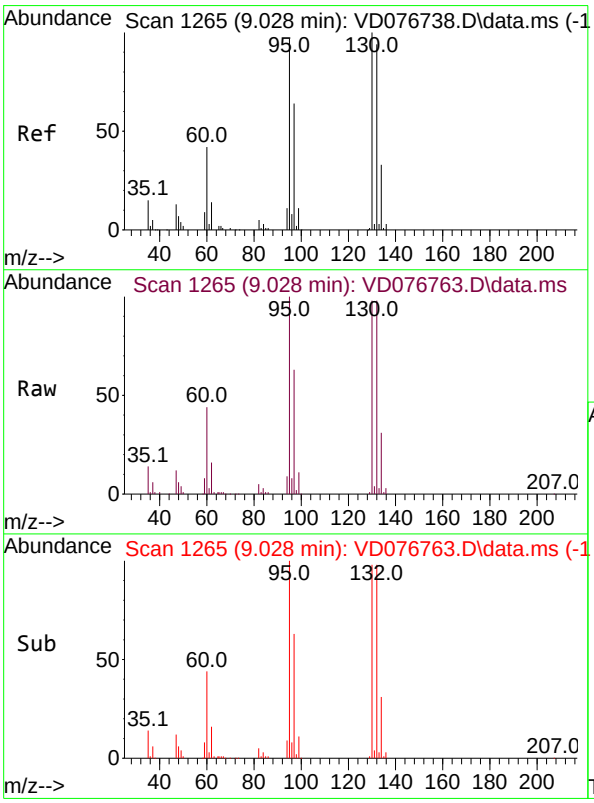
Ion	Ratio	Lower	Upper
43	100		
61	37.0	31.4	47.0
87	16.9	14.9	22.3

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

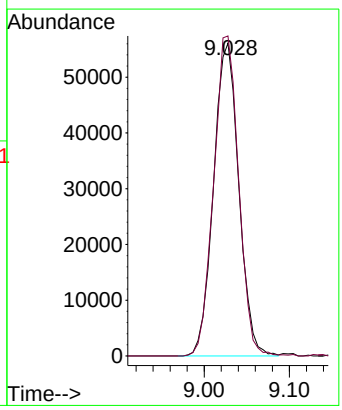


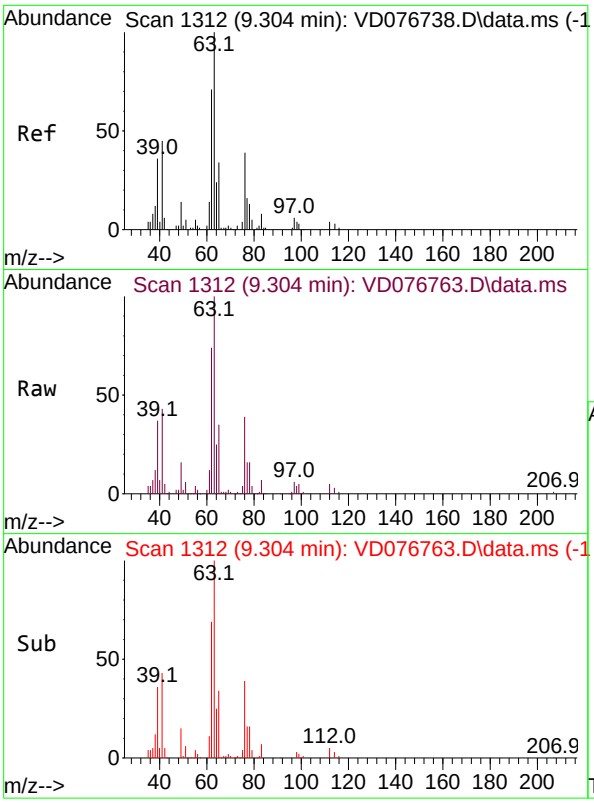


#44
Trichloroethene
Concen: 56.738 ug/l
RT: 9.028 min Scan# 1265
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:130 Resp: 115528

Ion	Ratio	Lower	Upper
130	100		
95	102.3	0.0	179.2





#45
1,2-Dichloropropane
Concen: 62.161 ug/l
RT: 9.304 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

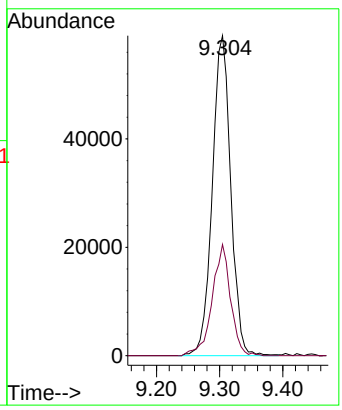
Tgt Ion: 63 Resp: 11989

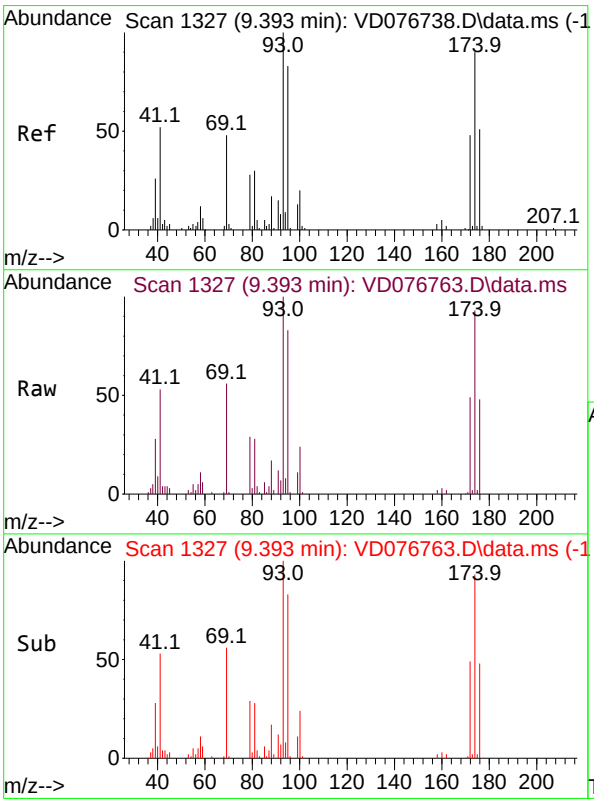
Ion	Ratio	Lower	Upper
63	100		
65	34.7	24.5	36.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

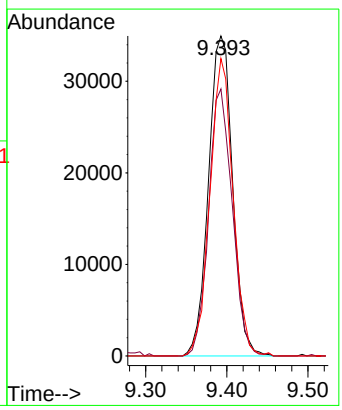


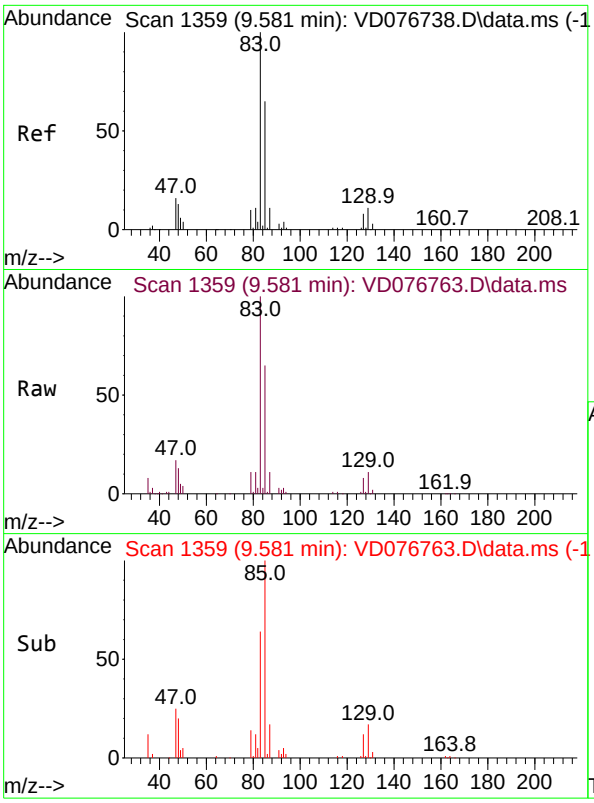


#46
Dibromomethane
Concen: 63.866 ug/l
RT: 9.393 min Scan# 1327
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 93 Resp: 72106

Ion	Ratio	Lower	Upper
93	100		
95	81.8	67.7	101.5
174	89.3	85.4	128.2

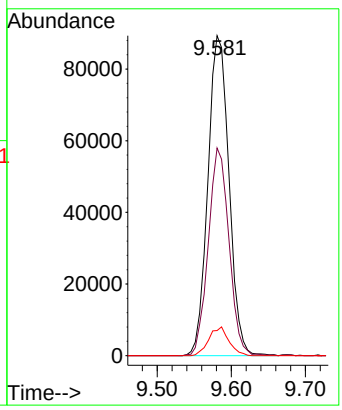




#47
Bromodichloromethane
Concen: 62.361 ug/l
RT: 9.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 83 Resp: 17668

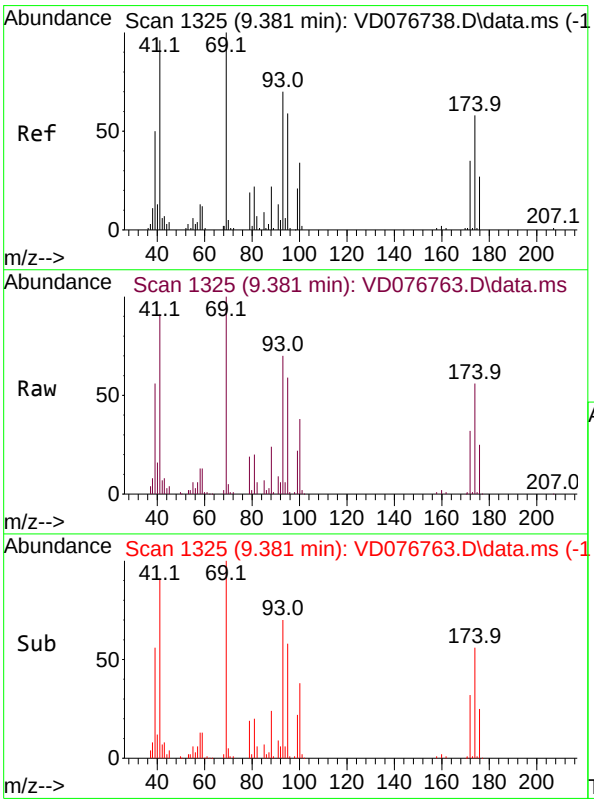
Ion	Ratio	Lower	Upper
83	100		
85	64.9	50.2	75.4
127	7.8	6.3	9.5



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

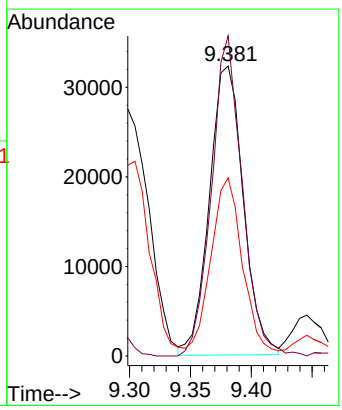
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

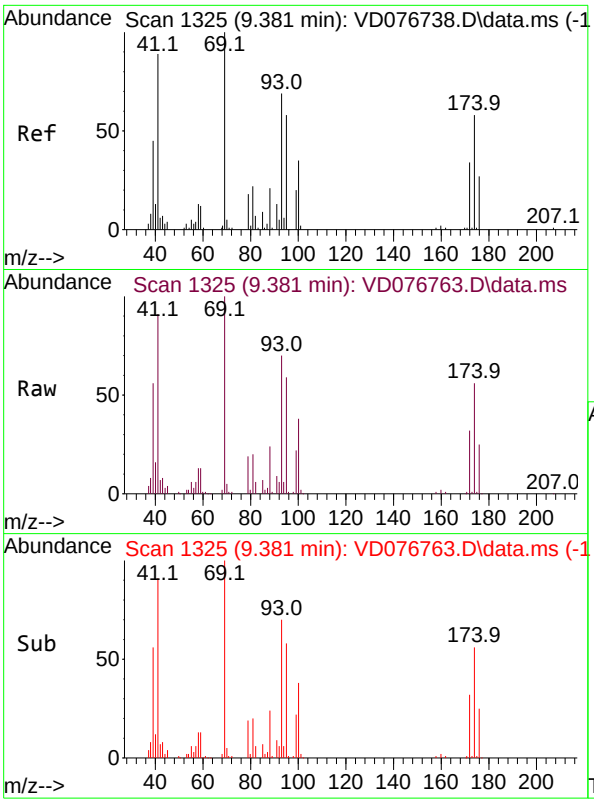


#48
Methyl methacrylate
Concen: 66.665 ug/l
RT: 9.381 min Scan# 1325
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 41 Resp: 62712

Ion	Ratio	Lower	Upper
41	100		
69	100.4	102.2	153.2#
39	57.9	41.4	62.2





#49
1,4-Dioxane
Concen: 1194.182 ug/l
RT: 9.381 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

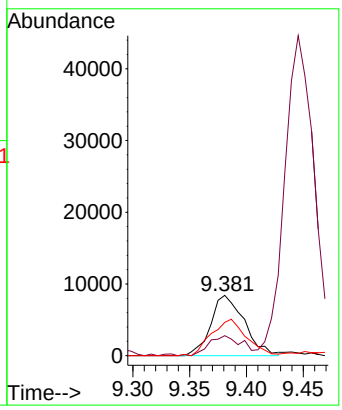
Tgt Ion: 88 Resp: 1727

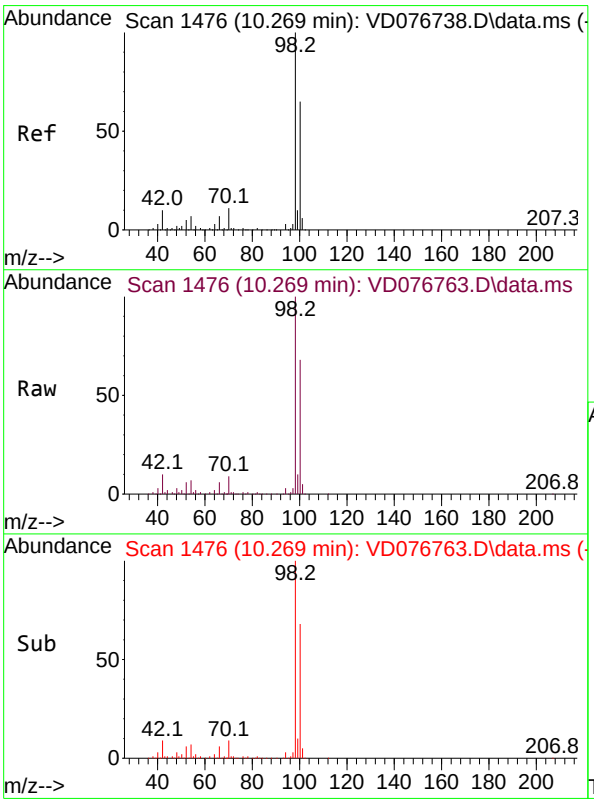
Ion	Ratio	Lower	Upper
88	100		
43	31.8	19.0	28.6
58	62.9	43.5	65.3

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

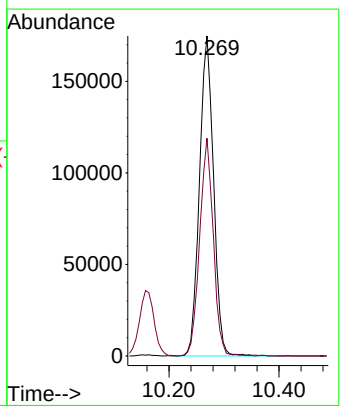


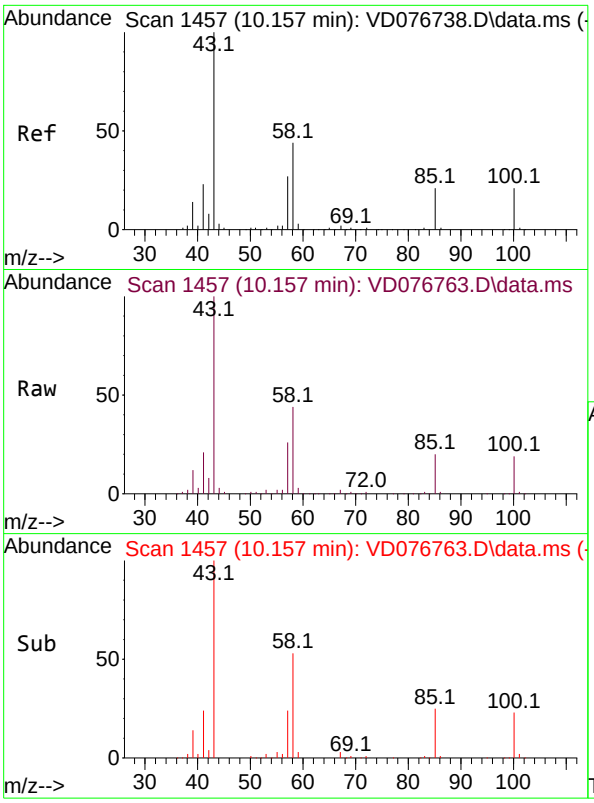


#50
Toluene-d8
Concen: 47.971 ug/l
RT: 10.269 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 98 Resp: 311009

Ion	Ratio	Lower	Upper
98	100		
100	65.9	50.3	75.5





#51
4-Methyl-2-Pentanone
Concen: 301.610 ug/l
RT: 10.157 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

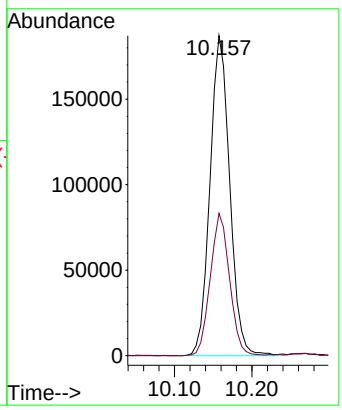
Tgt Ion: 43 Resp: 33191

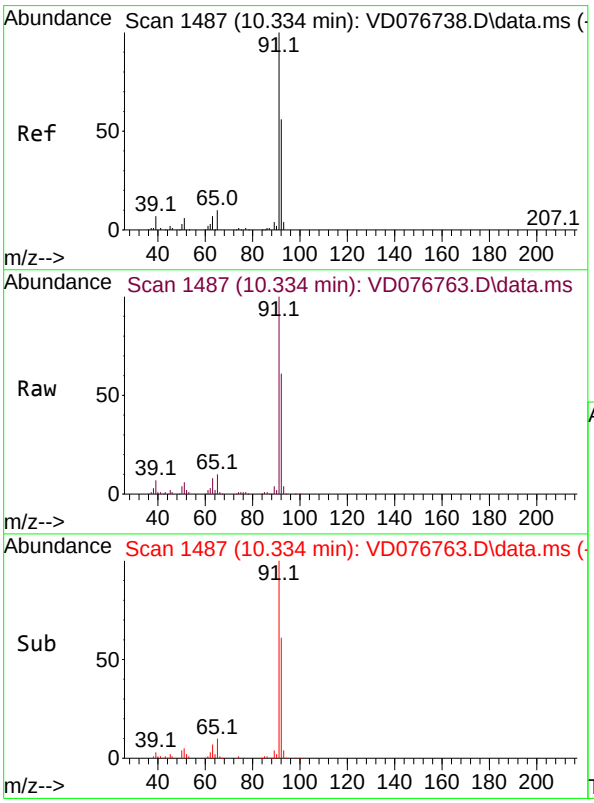
Ion	Ratio	Lower	Upper
43	100		
58	43.5	38.9	58.3

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

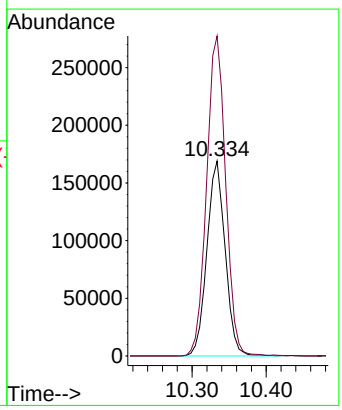


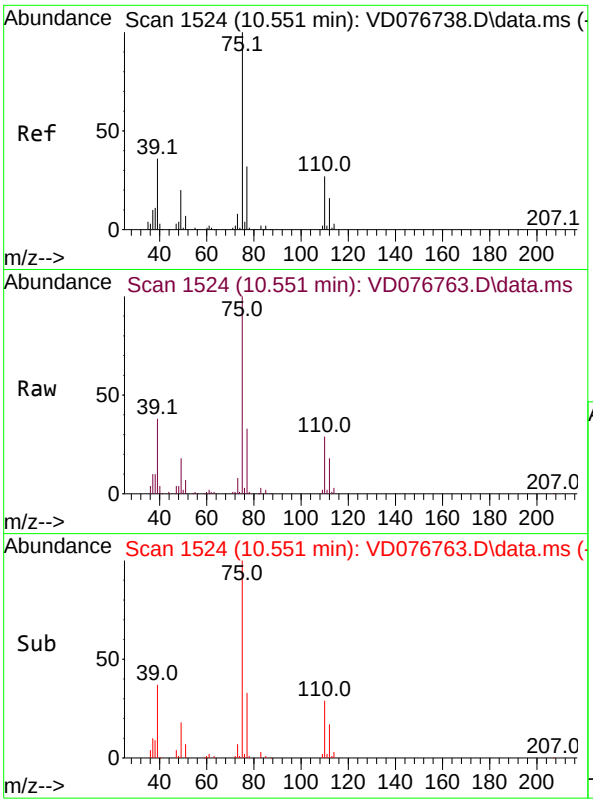


#52
Toluene
Concen: 58.924 ug/l
RT: 10.334 min Scan# 1487
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 92 Resp: 289171

Ion	Ratio	Lower	Upper
92	100		
91	170.8	143.0	214.4





#53
t-1,3-Dichloropropene
Concen: 58.994 ug/l
RT: 10.551 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

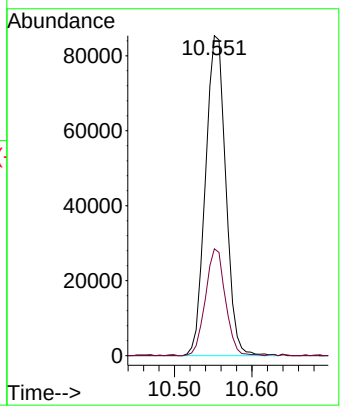
Tgt Ion: 75 Resp: 15514

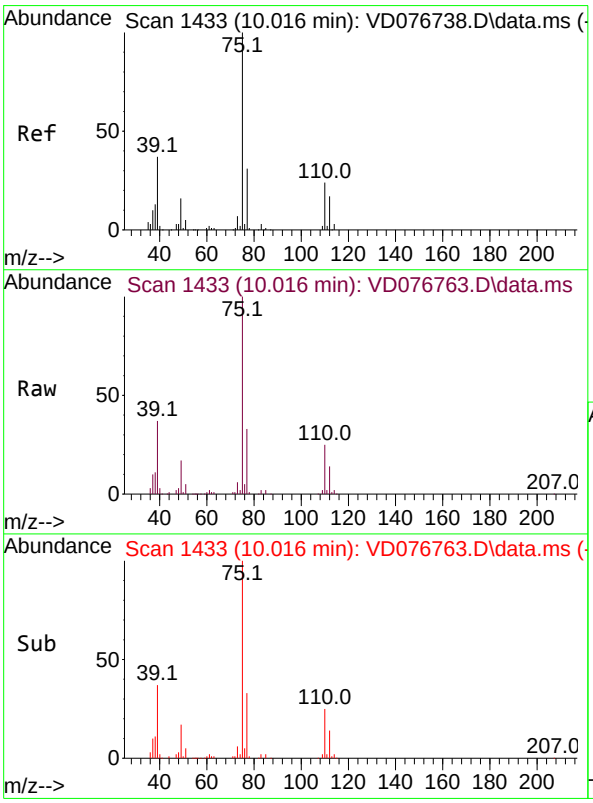
Ion	Ratio	Lower	Upper
75	100		
77	33.4	25.3	37.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

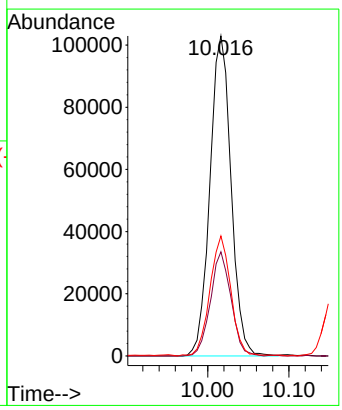


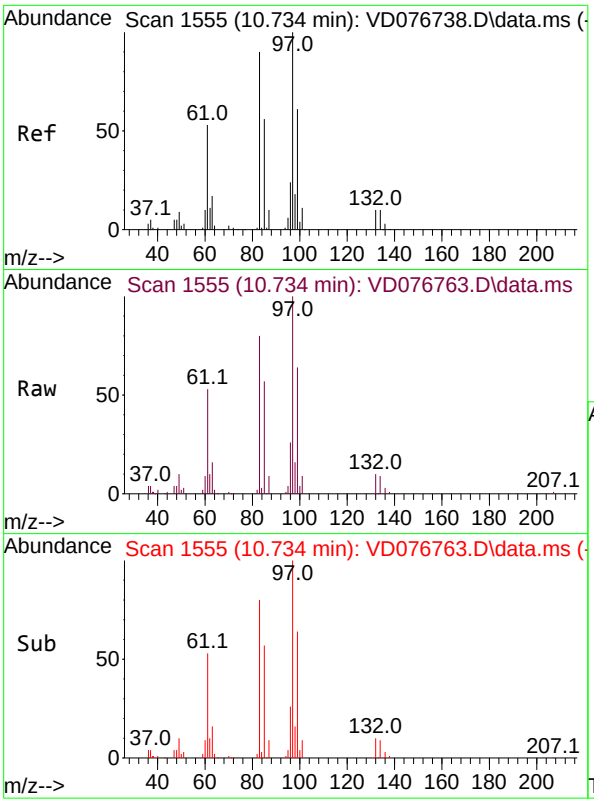


#54
cis-1,3-Dichloropropene
Concen: 60.111 ug/l
RT: 10.016 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 75 Resp: 186302

Ion	Ratio	Lower	Upper
75	100		
77	32.6	25.5	38.3
39	37.5	22.1	33.1#

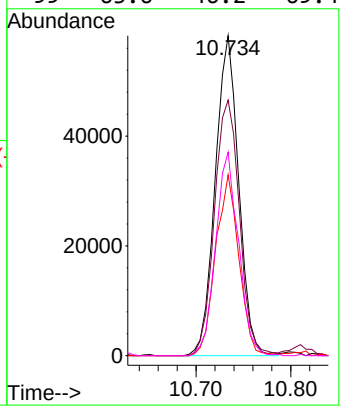




#55
1,1,2-Trichloroethane
Concen: 60.860 ug/l
RT: 10.734 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 97 Resp: 10033

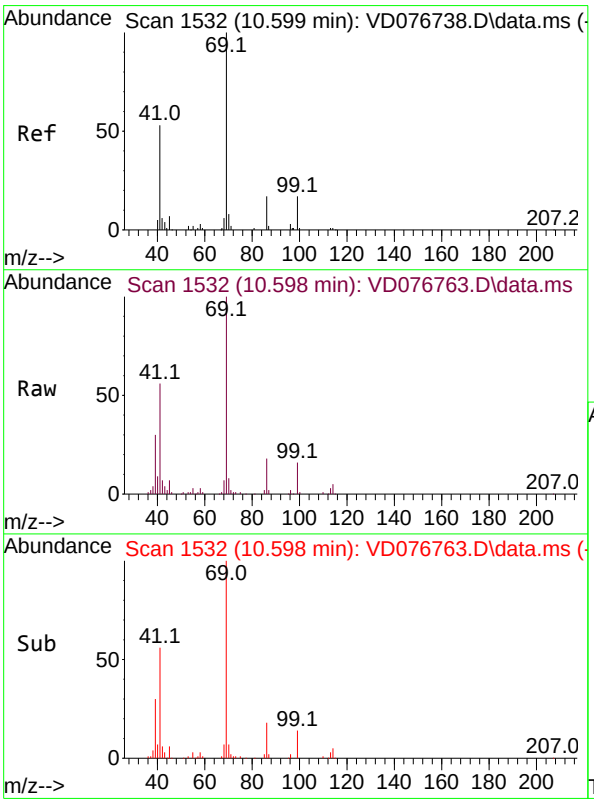
Ion	Ratio	Lower	Upper
97	100		
83	79.9	65.8	98.6
85	56.5	45.7	68.5
99	63.6	46.2	69.4



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

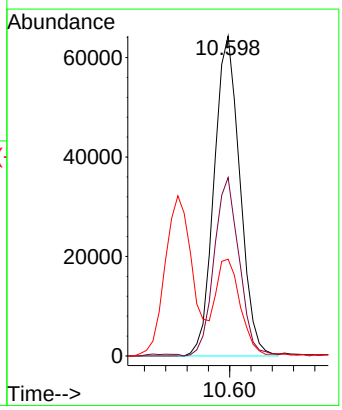
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

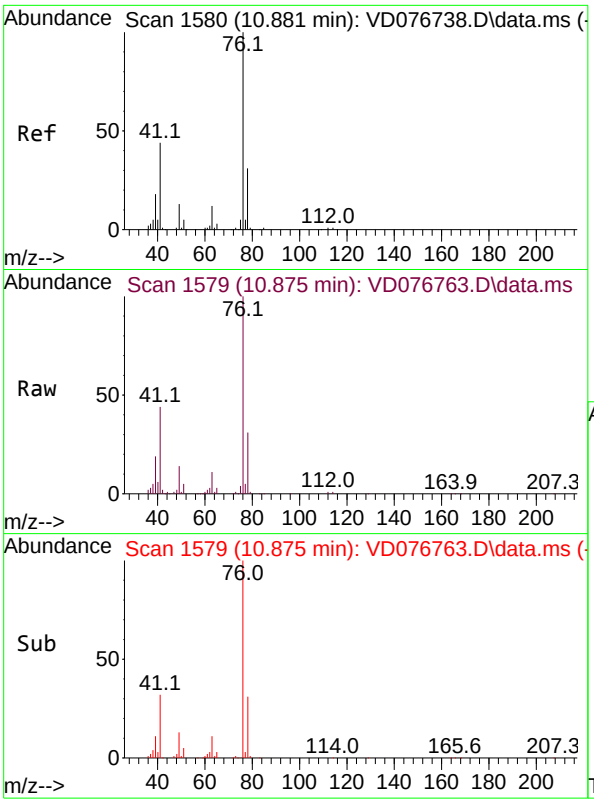


#56
Ethyl methacrylate
Concen: 56.839 ug/l
RT: 10.598 min Scan# 1532
Delta R.T. -0.001 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 69 Resp: 108158

Ion	Ratio	Lower	Upper
69	100		
41	54.6	39.1	58.7
39	27.3	20.0	30.0





#57
1,3-Dichloropropane
Concen: 59.070 ug/l
RT: 10.875 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

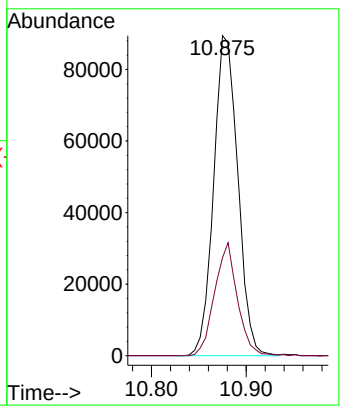
Tgt Ion: 76 Resp: 15859

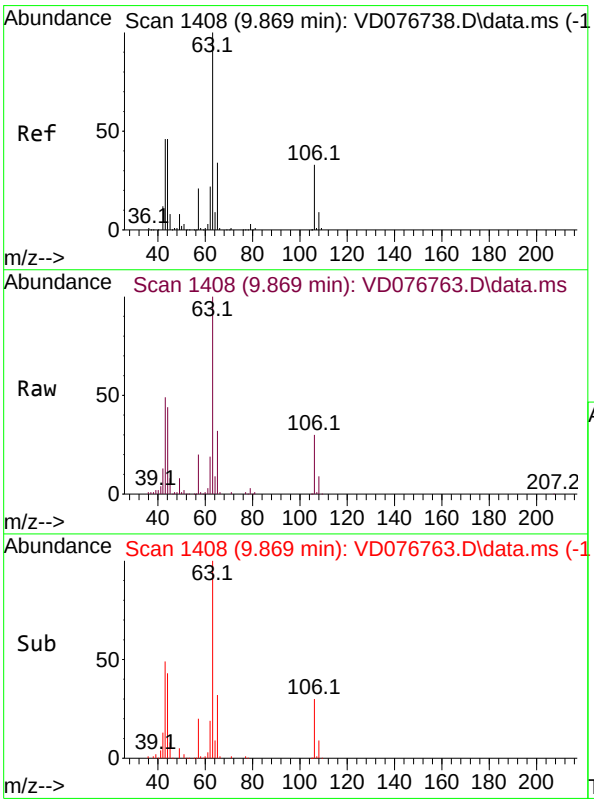
Ion	Ratio	Lower	Upper
76	100		
78	33.3	26.4	39.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

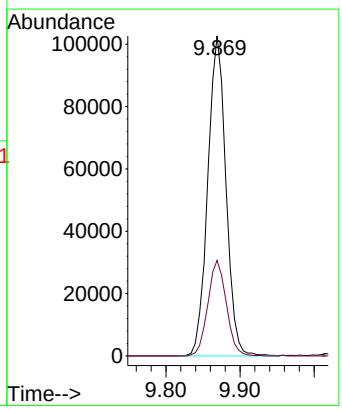


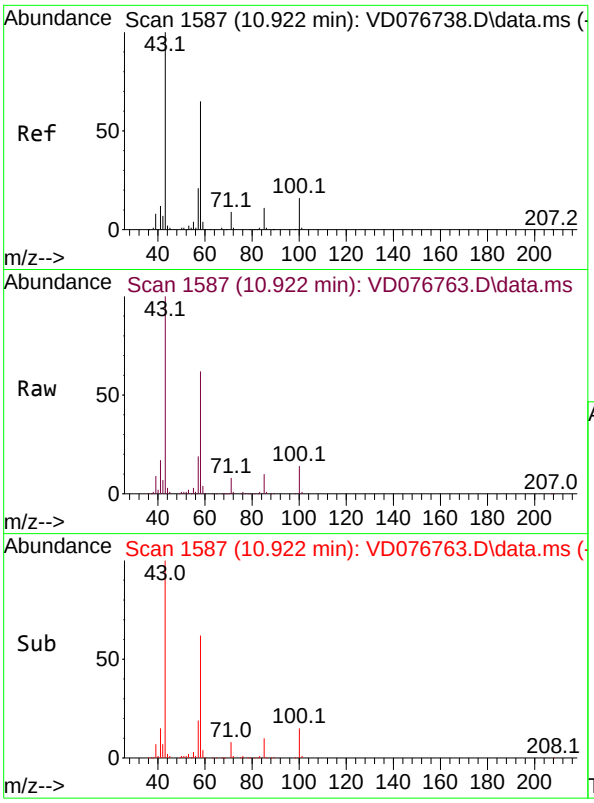


#58
2-Chloroethyl Vinyl ether
Concen: 237.369 ug/l
RT: 9.869 min Scan# 1408
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 63 Resp: 174837

Ion	Ratio	Lower	Upper
63	100		
106	30.3	25.3	37.9





#59
2-Hexanone
Concen: 294.034 ug/l
RT: 10.922 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

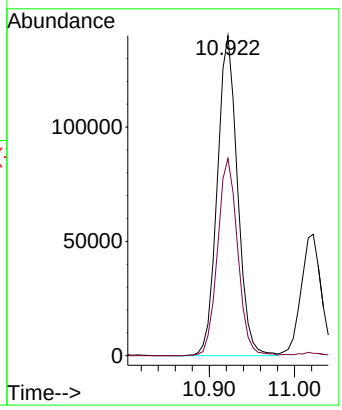
Tgt Ion: 43 Resp: 23088

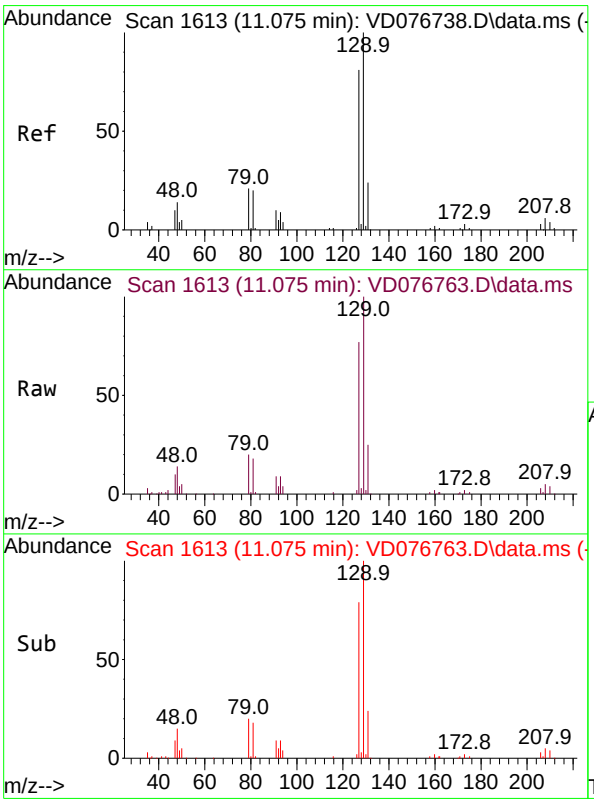
Ion	Ratio	Lower	Upper
43	100		
58	61.5	34.1	102.2

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

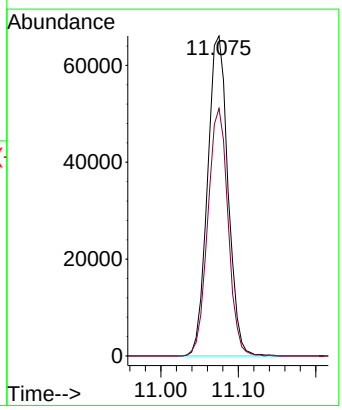


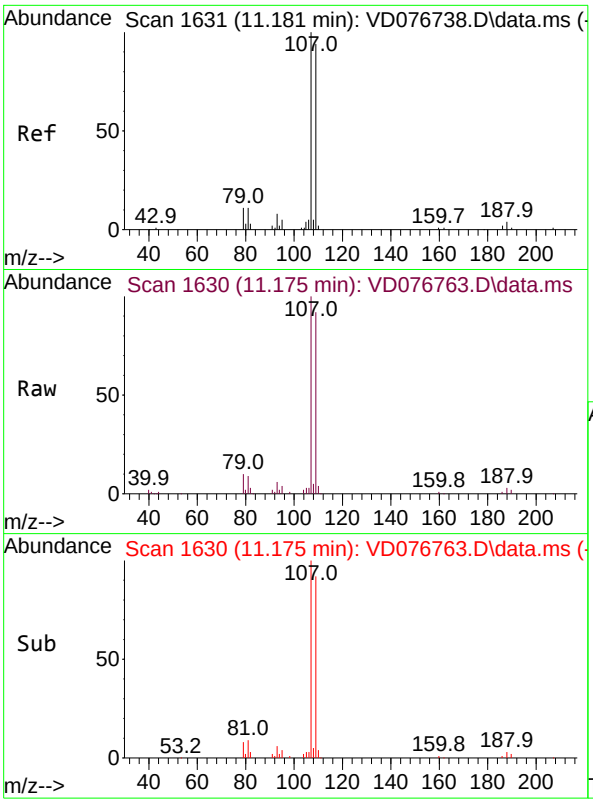


#60
Dibromochloromethane
Concen: 63.362 ug/l
RT: 11.075 min Scan# 1613
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:129 Resp: 121354

Ion	Ratio	Lower	Upper
129	100		
127	76.2	37.1	111.5





#61
1,2-Dibromoethane
Concen: 60.046 ug/l
RT: 11.175 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

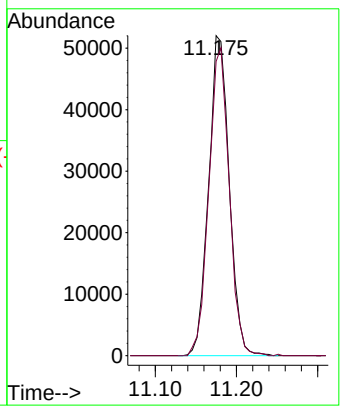
Tgt Ion:107 Resp: 9178

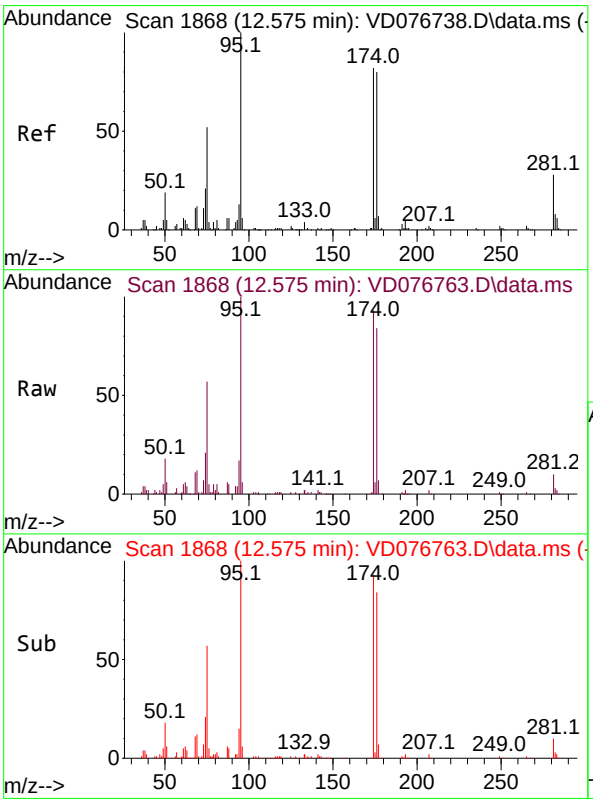
Ion	Ratio	Lower	Upper
107	100		
109	95.2	75.6	113.4

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

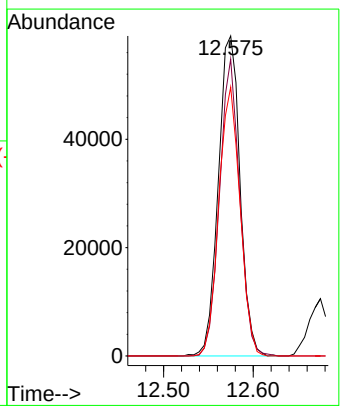


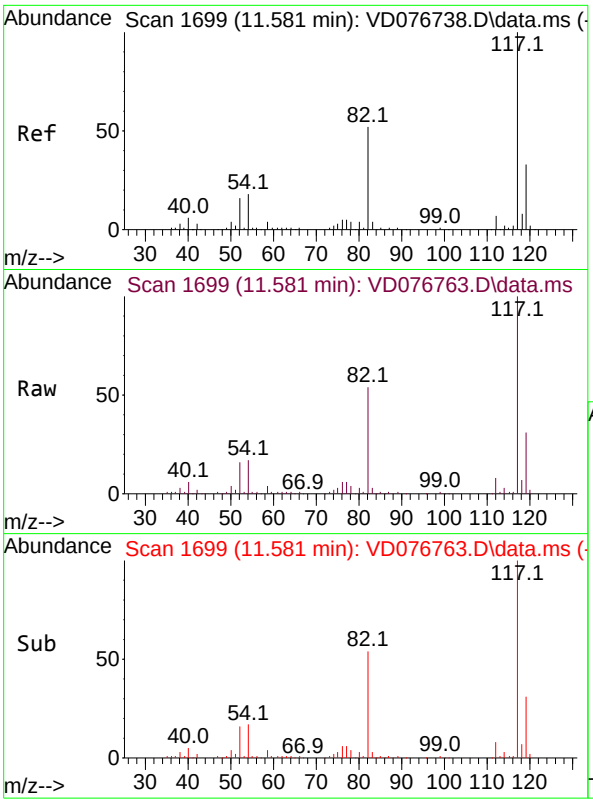


#62
4-Bromofluorobenzene
Concen: 47.263 ug/l
RT: 12.575 min Scan# 1868
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 95 Resp: 99127

Ion	Ratio	Lower	Upper
95	100		
174	86.0	0.0	201.8
176	82.2	0.0	191.8

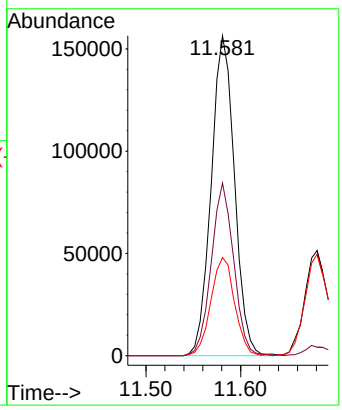




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:117 Resp: 26726

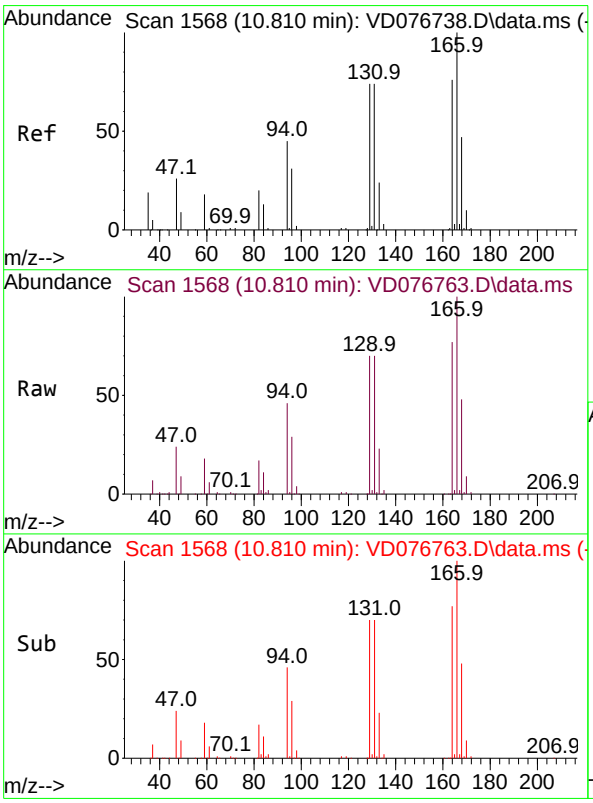
Ion	Ratio	Lower	Upper
117	100		
82	53.9	38.3	57.5
119	30.7	25.0	37.4



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

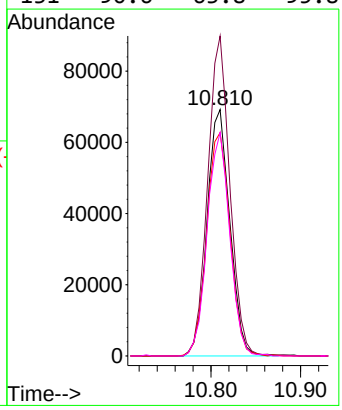
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

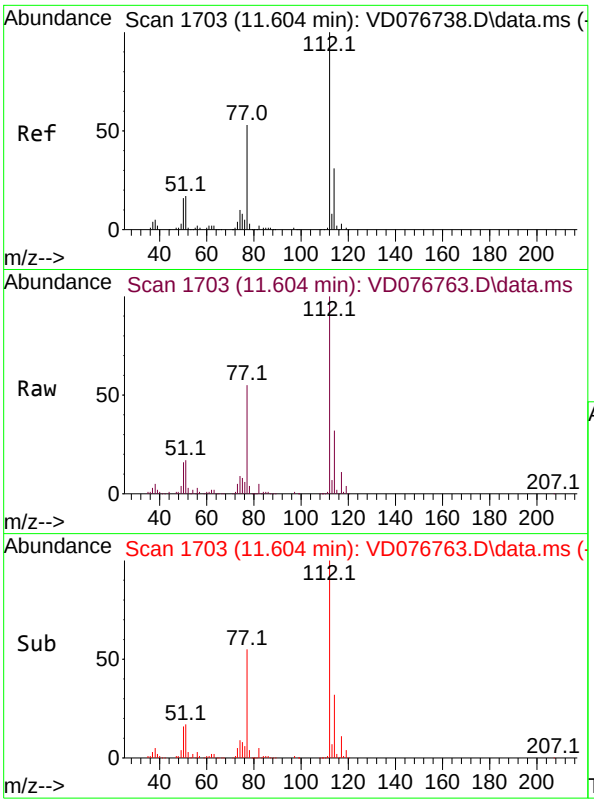


#64
Tetrachloroethene
Concen: 80.005 ug/l
RT: 10.810 min Scan# 1568
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:164 Resp: 121928

Ion	Ratio	Lower	Upper
164	100		
166	129.8	99.2	148.8
129	90.6	68.4	102.6
131	90.6	63.8	95.8

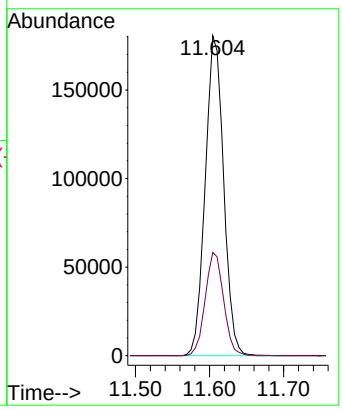




#65
Chlorobenzene
Concen: 57.909 ug/l
RT: 11.604 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:112 Resp: 31127

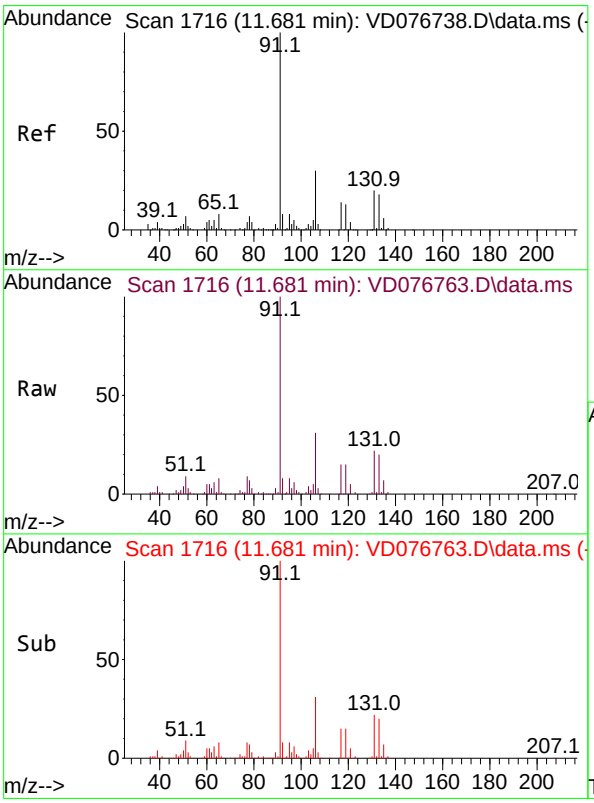
Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.1	37.7



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

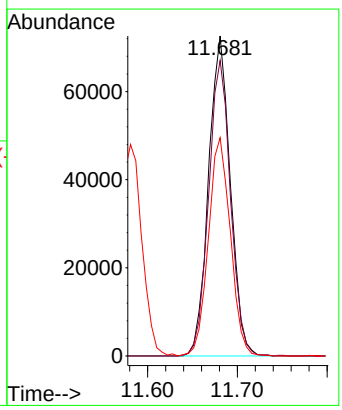
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

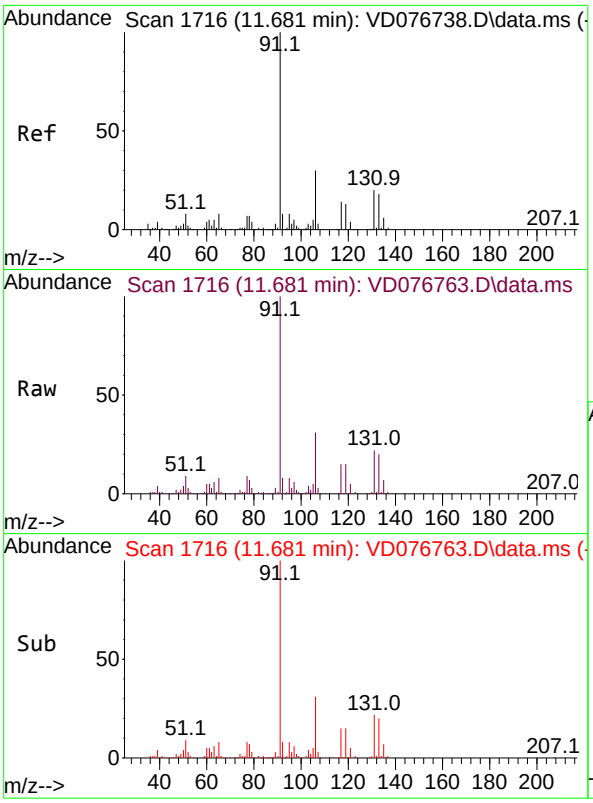


#66
1,1,1,2-Tetrachloroethane
Concen: 61.001 ug/l
RT: 11.681 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:131 Resp: 122078

Ion	Ratio	Lower	Upper
131	100		
133	93.4	48.5	145.5
119	69.0	35.6	106.9





#67
Ethyl Benzene
Concen: 56.895 ug/l
RT: 11.681 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

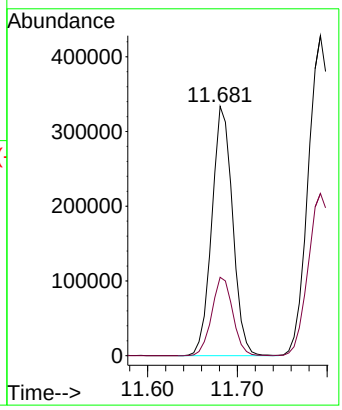
Tgt Ion: 91 Resp: 53709

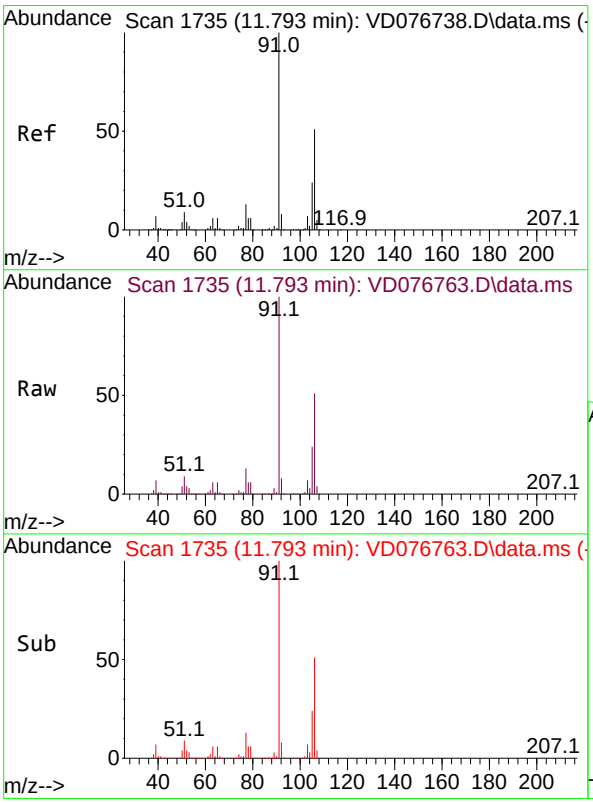
Ion	Ratio	Lower	Upper
91	100		
106	31.5	26.5	39.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

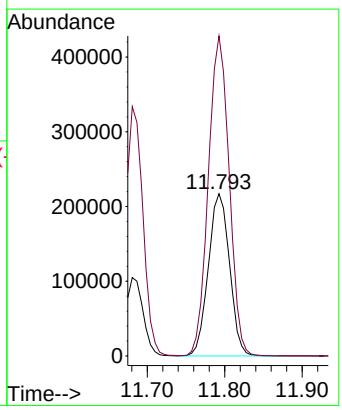


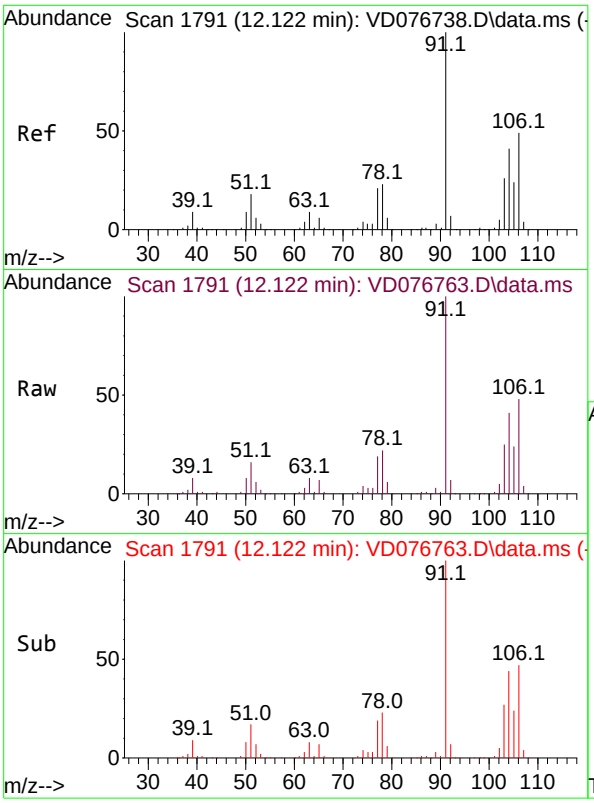


#68
m/p-Xylenes
Concen: 113.834 ug/l
RT: 11.793 min Scan# 1735
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:106 Resp: 412710

Ion	Ratio	Lower	Upper
106	100		
91	193.8	147.0	220.6

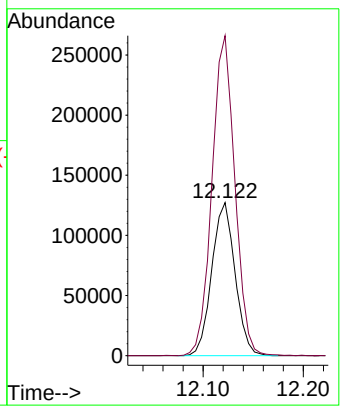




#69
o-Xylene
Concen: 58.509 ug/l
RT: 12.122 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:106 Resp: 20513

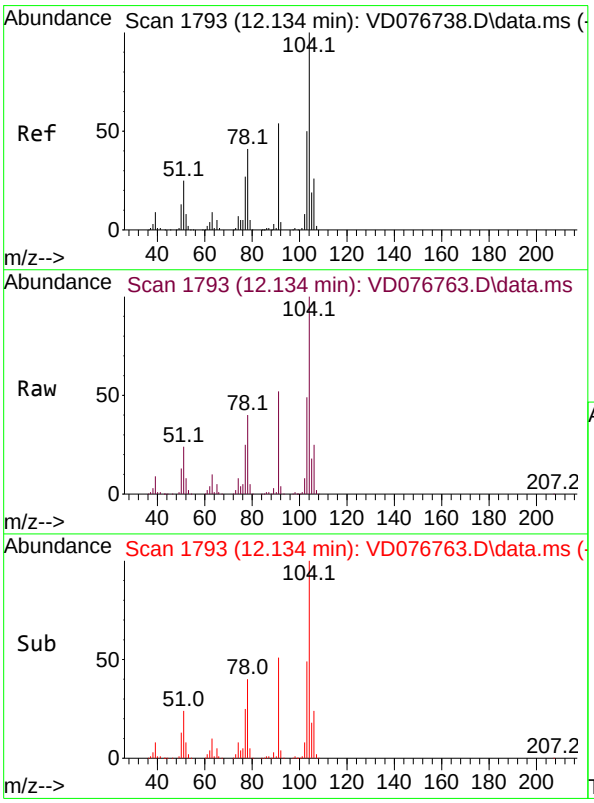
Ion	Ratio	Lower	Upper
106	100		
91	206.1	97.9	293.6



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

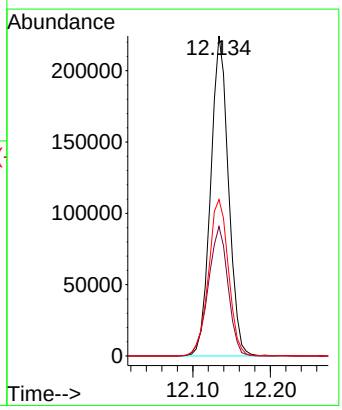
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

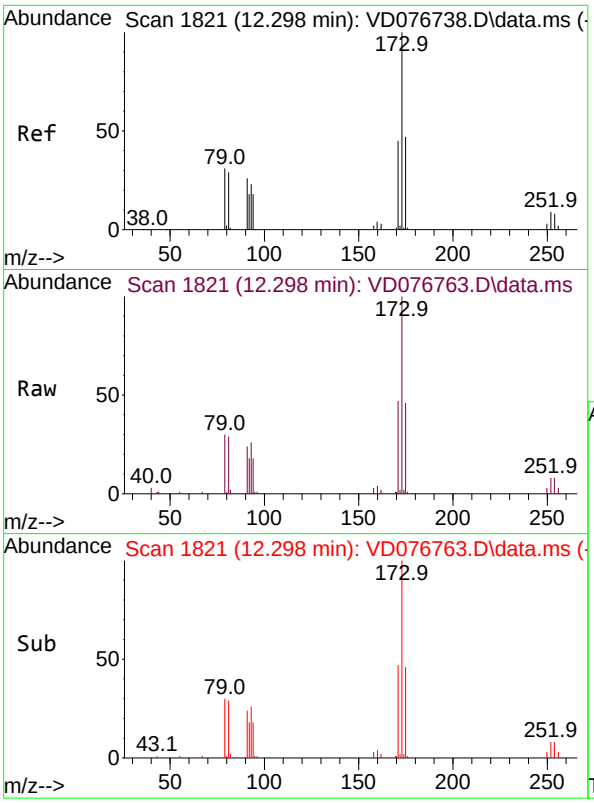


#70
Styrene
Concen: 58.451 ug/l
RT: 12.134 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:104 Resp: 358738

Ion	Ratio	Lower	Upper
104	100		
78	44.6	33.2	49.8
103	54.6	43.6	65.4





#71
Bromoform
Concen: 62.811 ug/l
RT: 12.298 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

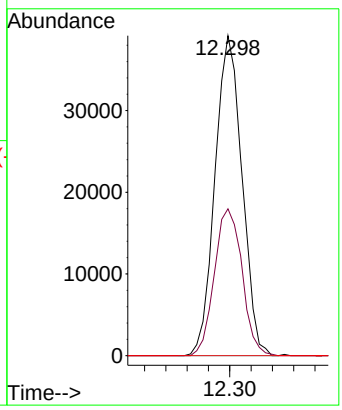
Tgt Ion:173 Resp: 6884

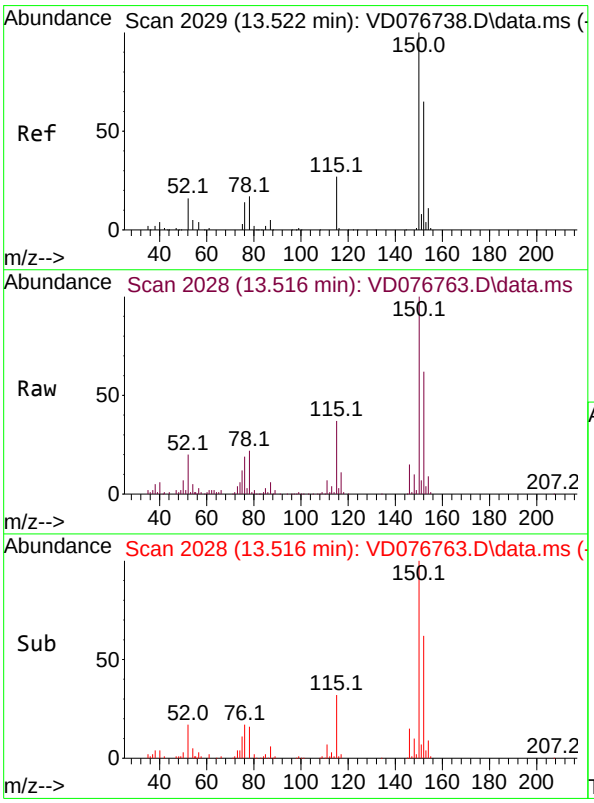
Ion	Ratio	Lower	Upper
173	100		
175	47.0	24.6	73.8
254	0.0	0.0	0.0

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

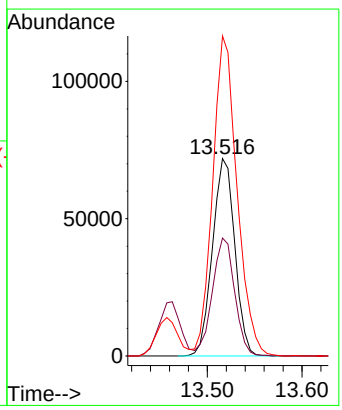


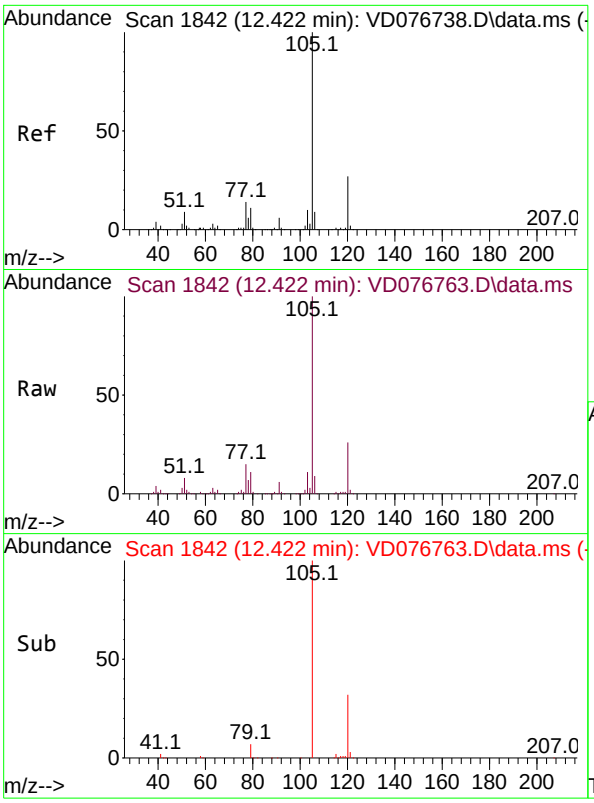


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:152 Resp: 117737

Ion	Ratio	Lower	Upper
152	100		
115	59.6	27.1	81.3
150	177.2	0.0	353.6

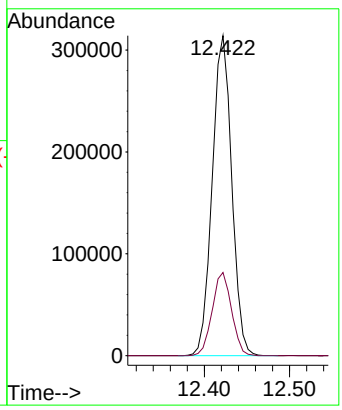




#73
Isopropylbenzene
Concen: 58.504 ug/l
RT: 12.422 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:105 Resp: 49974

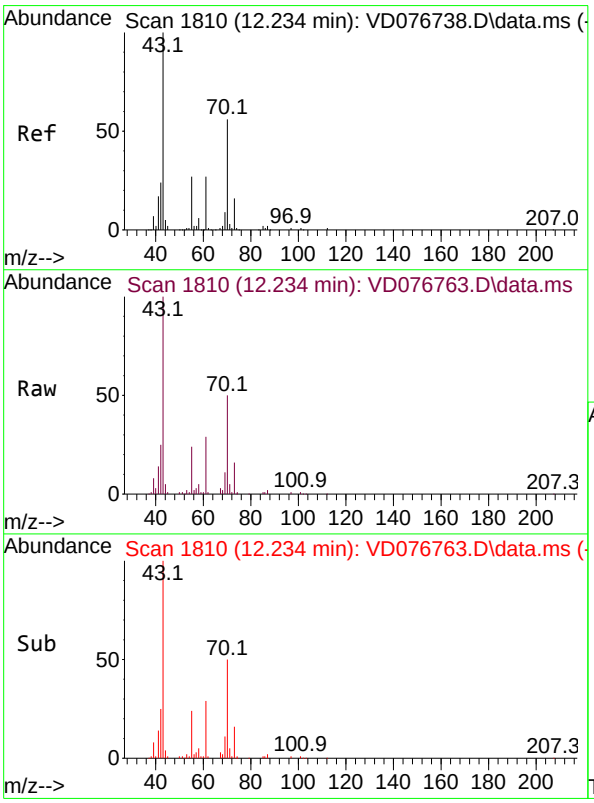
Ion	Ratio	Lower	Upper
105	100		
120	25.7	14.3	42.9



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

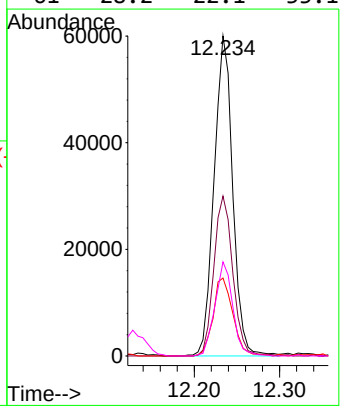
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

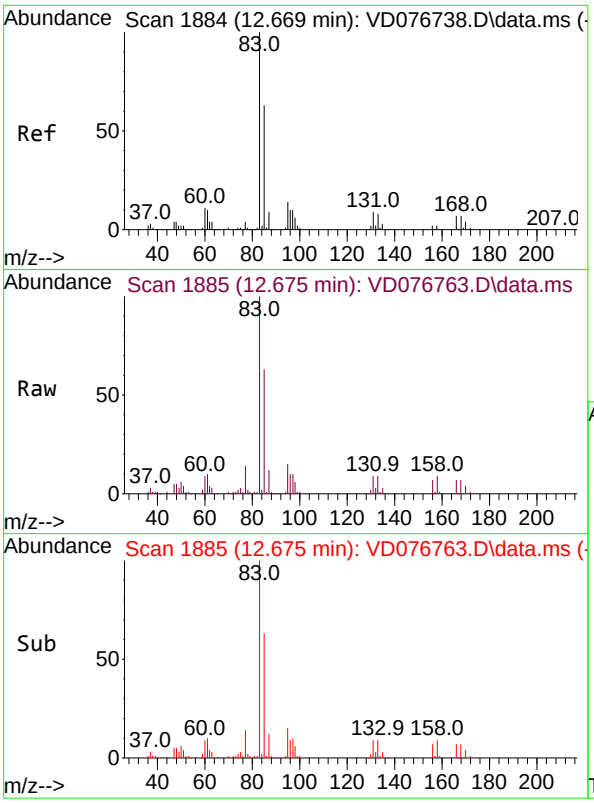


#74
N-amyl acetate
Concen: 50.750 ug/l
RT: 12.234 min Scan# 1810
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 43 Resp: 91328

Ion	Ratio	Lower	Upper
43	100		
70	50.8	45.0	67.4
55	25.9	23.8	35.6
61	28.2	22.1	33.1





#75
1,1,2,2-Tetrachloroethane
Concen: 61.802 ug/l
RT: 12.675 min Scan# 1
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

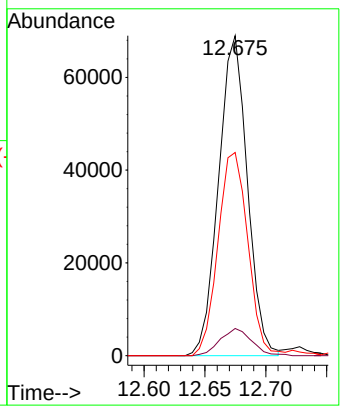
Tgt Ion: 83 Resp: 11334

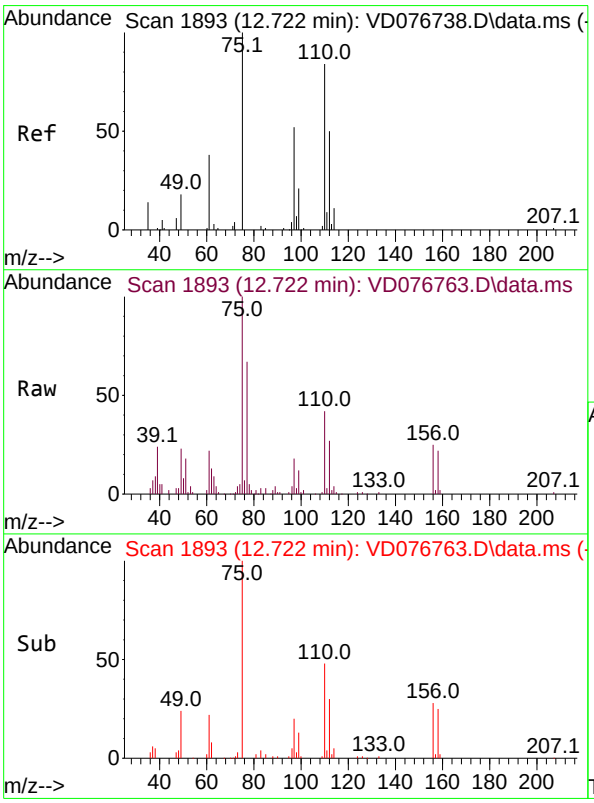
Ion	Ratio	Lower	Upper
83	100		
131	9.4	5.1	15.3
85	65.9	32.6	97.8

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

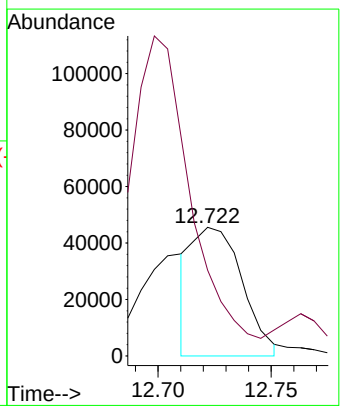


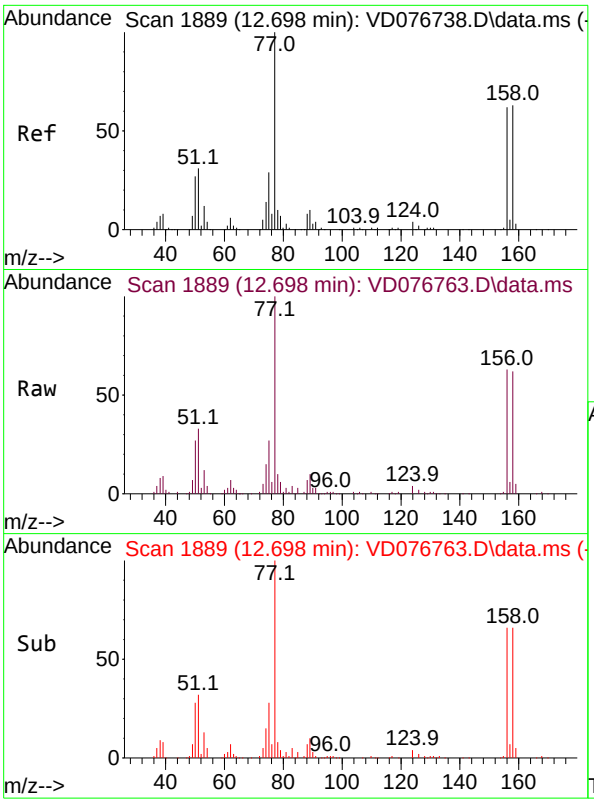


#76
1,2,3-Trichloropropane
Concen: 63.173 ug/l m
RT: 12.722 min Scan# 1893
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 75 Resp: 70732

Ion	Ratio	Lower	Upper
75	100		
77	0.0	0.0	0.0





#77
Bromobenzene
Concen: 62.324 ug/l
RT: 12.698 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

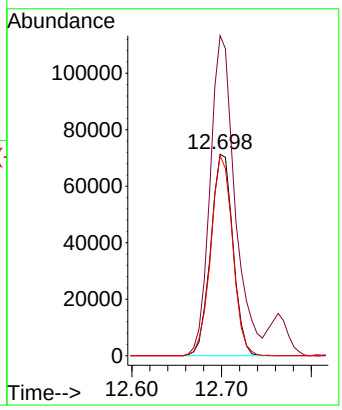
Tgt Ion:156 Resp: 12288

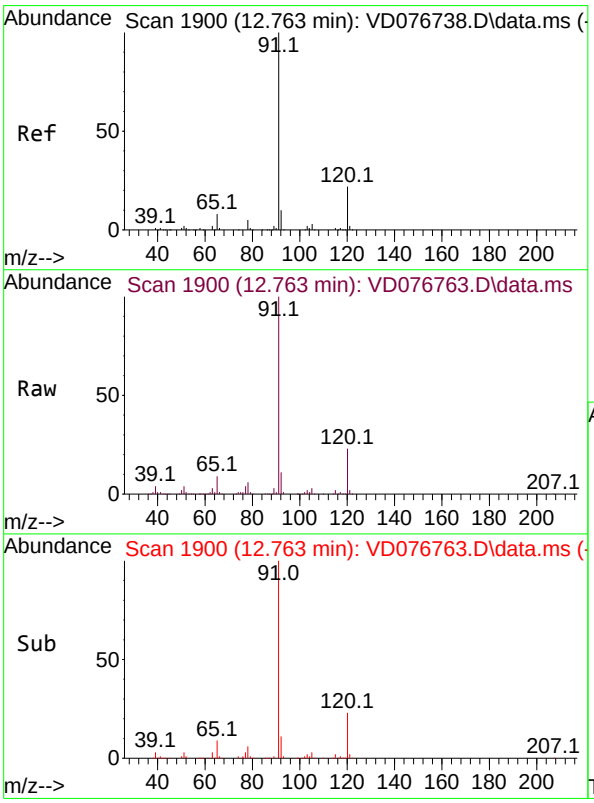
Ion	Ratio	Lower	Upper
156	100		
77	177.0	76.8	230.4
158	97.3	48.6	145.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

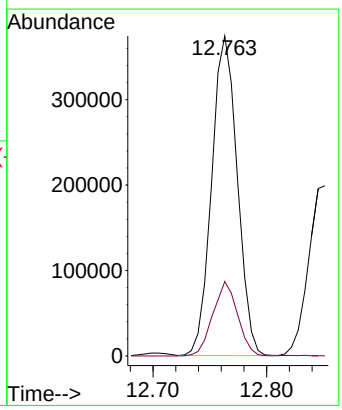


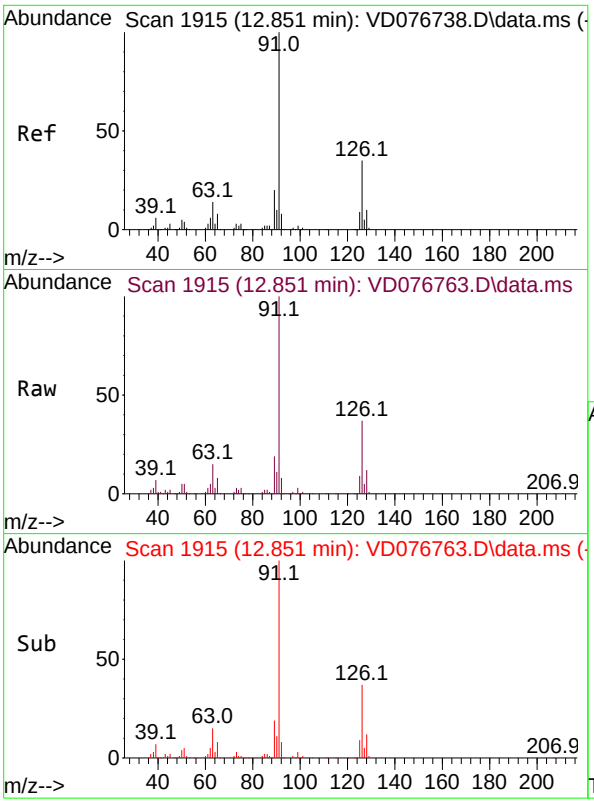


#78
n-propylbenzene
Concen: 56.624 ug/l
RT: 12.763 min Scan# 1900
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 91 Resp: 586382

Ion	Ratio	Lower	Upper
91	100		
120	22.5	12.4	37.2





#79
2-Chlorotoluene
Concen: 58.735 ug/l
RT: 12.851 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

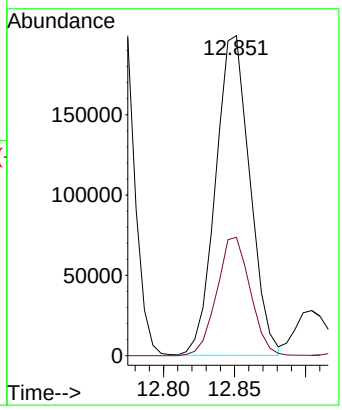
Tgt Ion: 91 Resp: 33350

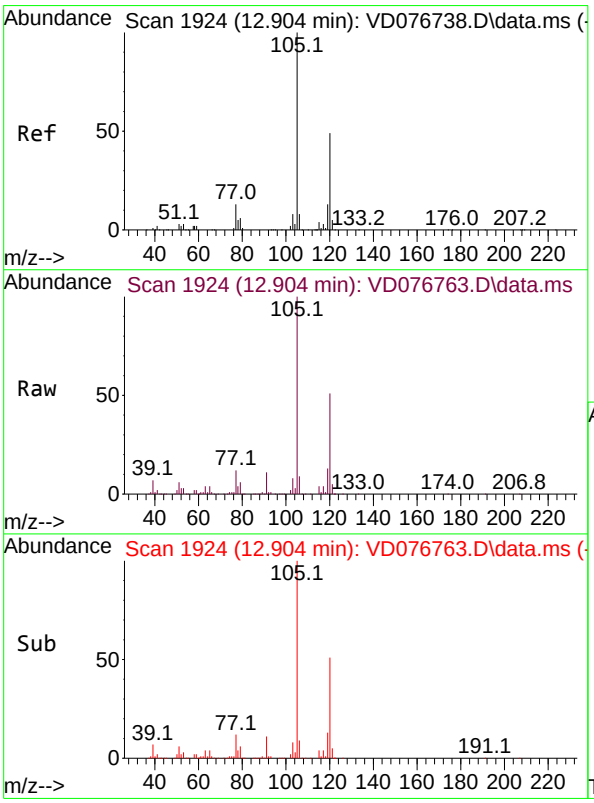
Ion	Ratio	Lower	Upper
91	100		
126	36.3	19.4	58.1

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

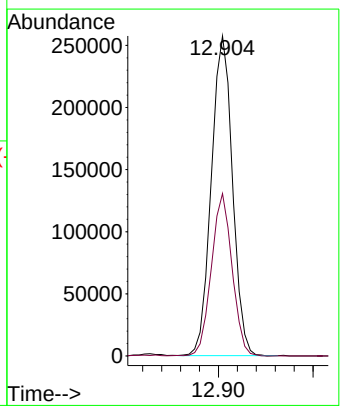


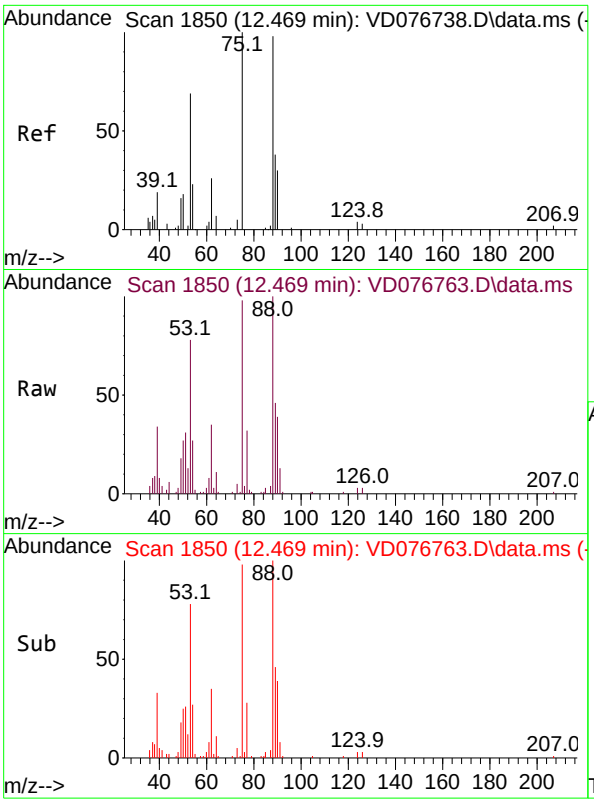


#80
1,3,5-Trimethylbenzene
Concen: 57.797 ug/l
RT: 12.904 min Scan# 1924
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:105 Resp: 399207

Ion	Ratio	Lower	Upper
105	100		
120	49.7	26.4	79.2





#81
trans-1,4-Dichloro-2-butene
Concen: 59.906 ug/l
RT: 12.469 min Scan# 1
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

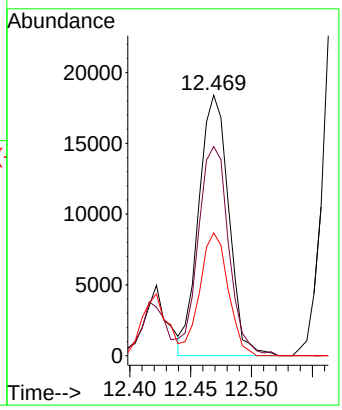
Tgt Ion: 75 Resp: 3151

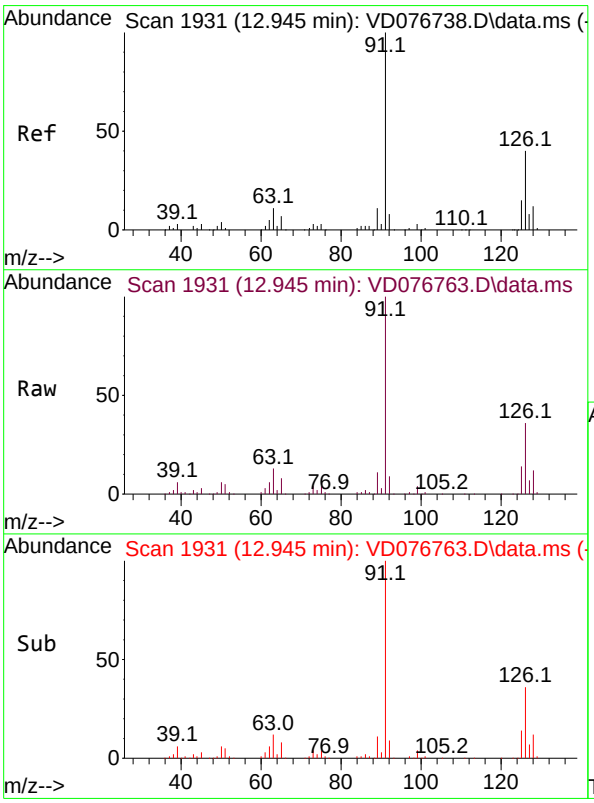
Ion	Ratio	Lower	Upper
75	100		
53	82.9	63.0	94.4
89	44.8	37.9	56.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

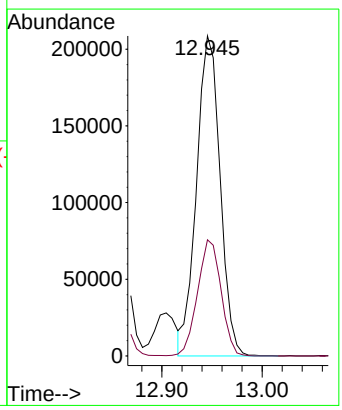


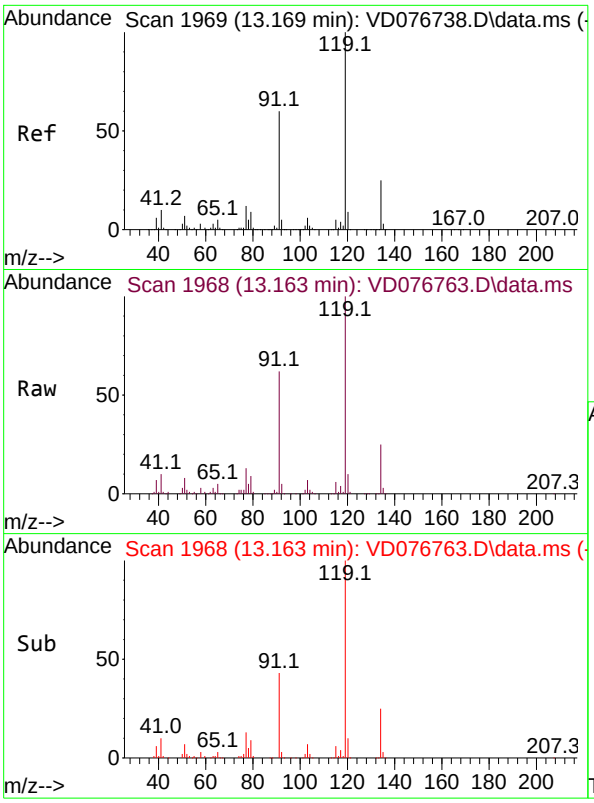


#82
4-Chlorotoluene
Concen: 57.603 ug/l
RT: 12.945 min Scan# 1931
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 91 Resp: 341690

Ion	Ratio	Lower	Upper
91	100		
126	36.2	19.4	58.4

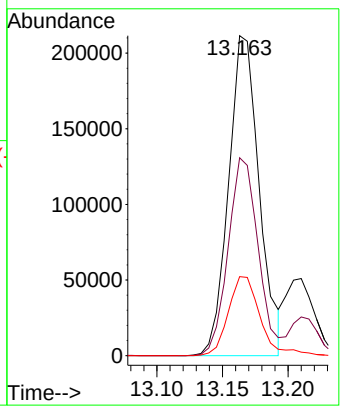




#83
tert-Butylbenzene
Concen: 56.708 ug/l
RT: 13.163 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:119 Resp: 34487

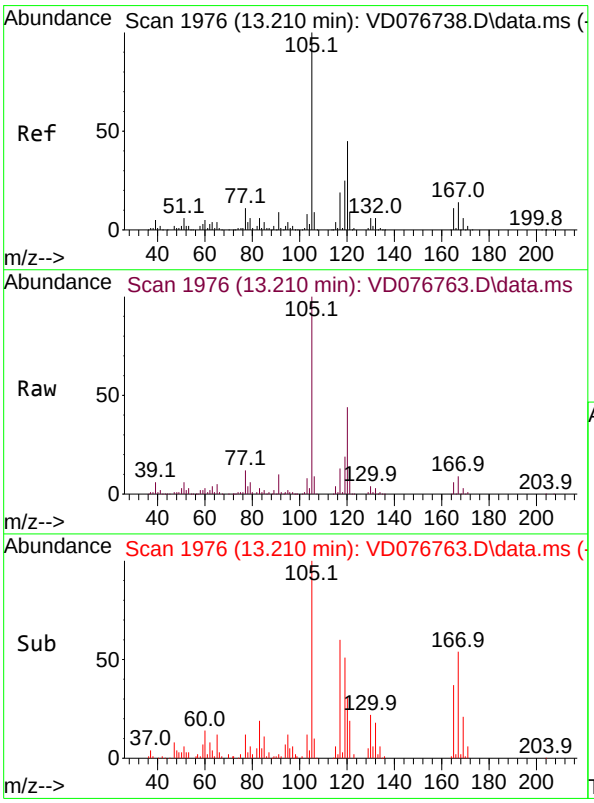
Ion	Ratio	Lower	Upper
119	100		
91	60.5	29.3	87.8
134	25.7	14.1	42.3



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

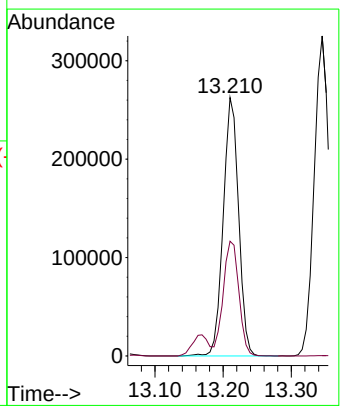
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

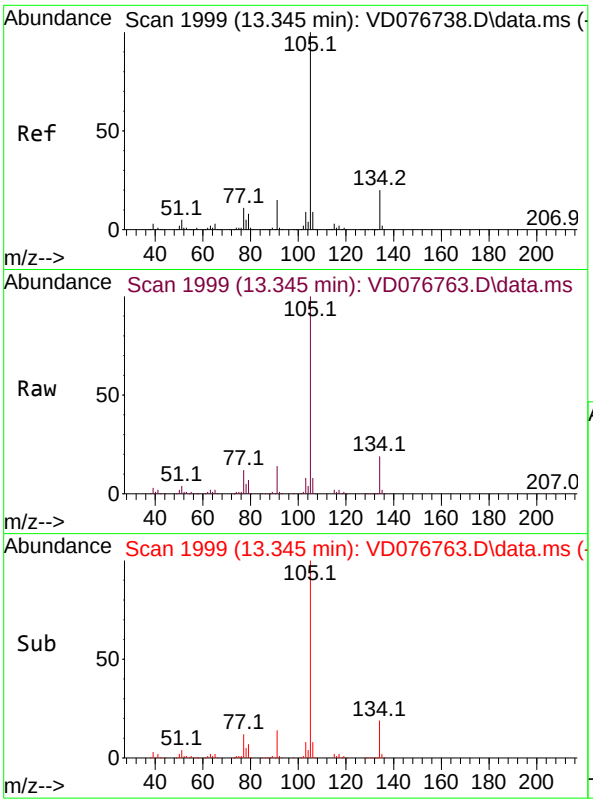


#84
1,2,4-Trimethylbenzene
Concen: 58.433 ug/l
RT: 13.210 min Scan# 1976
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:105 Resp: 412437

Ion	Ratio	Lower	Upper
105	100		
120	45.0	24.3	72.9





#85
sec-Butylbenzene
Concen: 53.900 ug/l
RT: 13.345 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

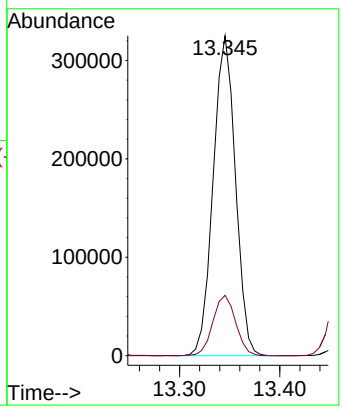
Tgt Ion:105 Resp: 50081

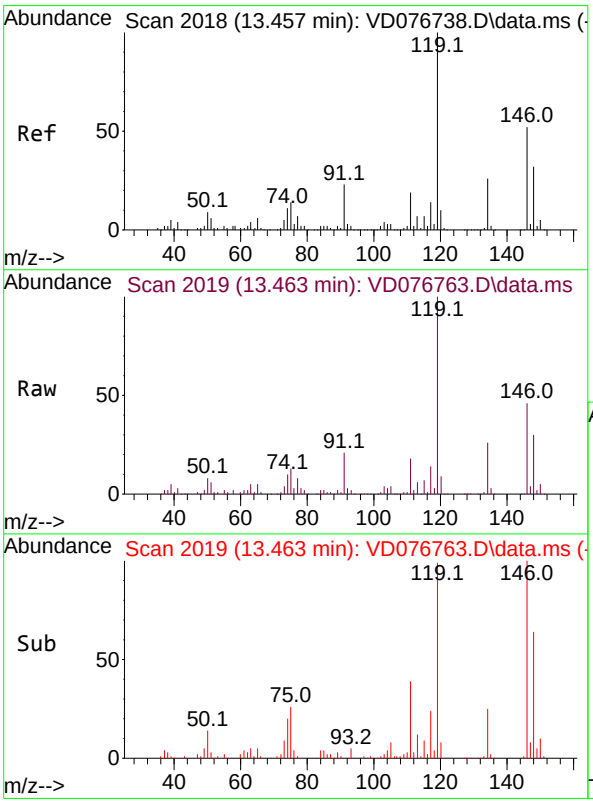
Ion	Ratio	Lower	Upper
105	100		
134	19.3	10.9	32.9

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

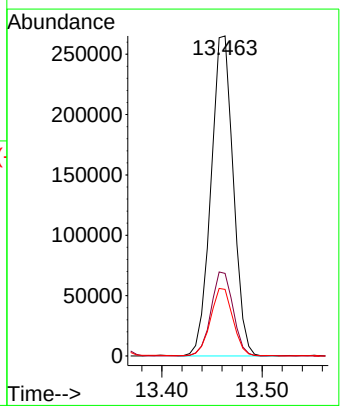


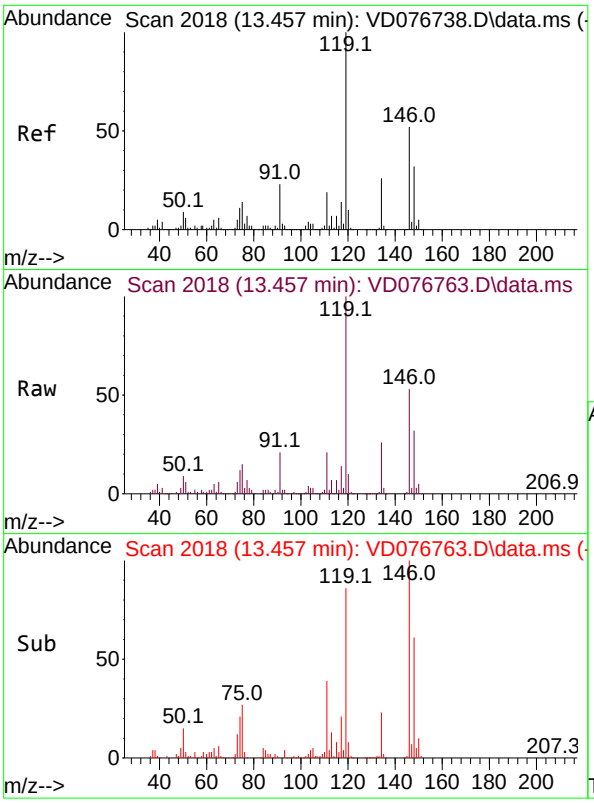


#86
p-Isopropyltoluene
Concen: 53.301 ug/l
RT: 13.463 min Scan# 2019
Delta R.T. 0.006 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:119 Resp: 409013

Ion	Ratio	Lower	Upper
119	100		
134	25.9	14.2	42.6
91	21.2	10.5	31.5

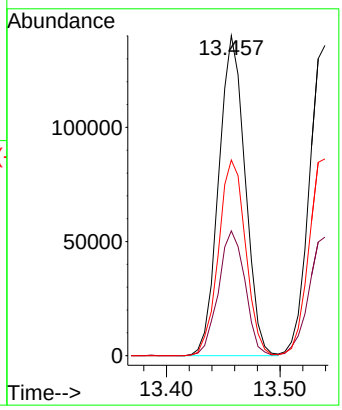




#87
1,3-Dichlorobenzene
Concen: 55.865 ug/l
RT: 13.457 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:146 Resp: 22656

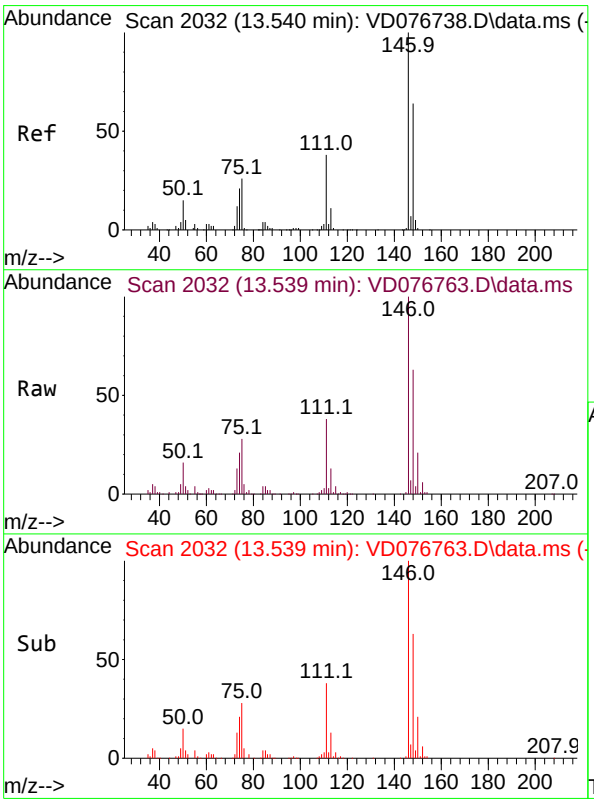
Ion	Ratio	Lower	Upper
146	100		
111	39.2	17.9	53.8
148	62.7	32.3	96.8



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

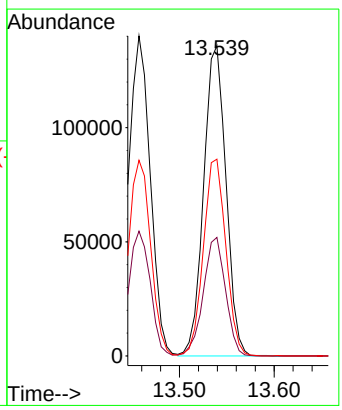
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

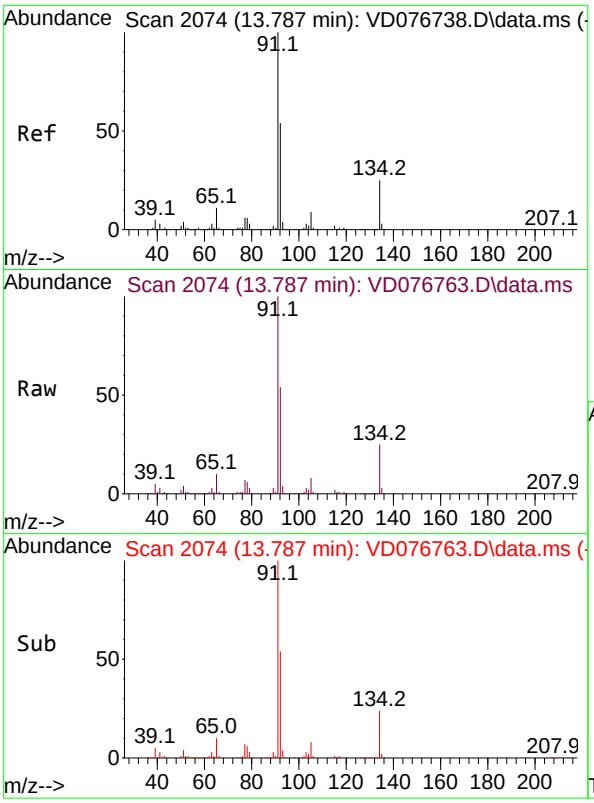


#88
1,4-Dichlorobenzene
Concen: 55.935 ug/l
RT: 13.539 min Scan# 2032
Delta R.T. -0.001 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:146 Resp: 222247

Ion	Ratio	Lower	Upper
146	100		
111	38.2	17.4	52.3
148	63.8	31.7	95.1





#89
n-Butylbenzene
Concen: 47.422 ug/l
RT: 13.787 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

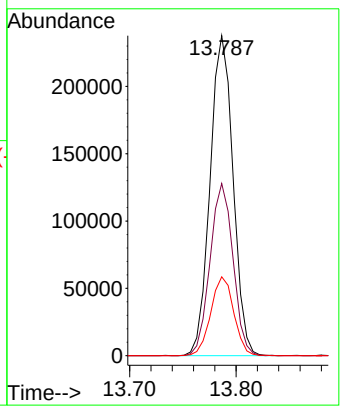
Tgt Ion: 91 Resp: 35609

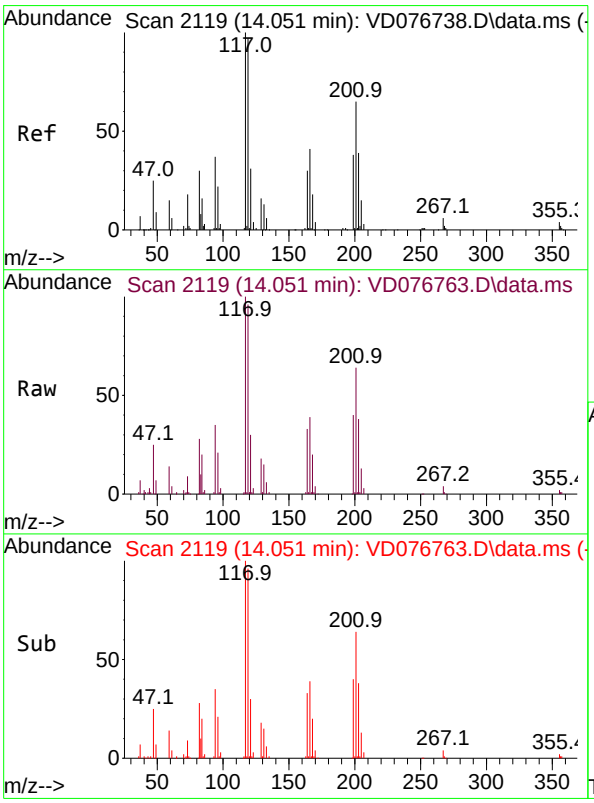
Ion	Ratio	Lower	Upper
91	100		
92	53.7	26.5	79.5
134	24.7	13.8	41.3

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

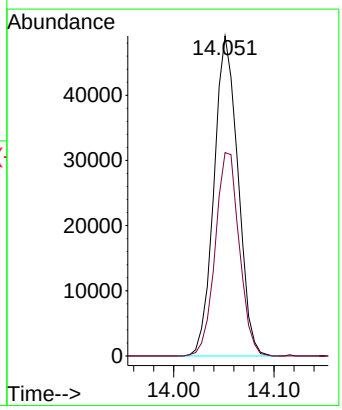


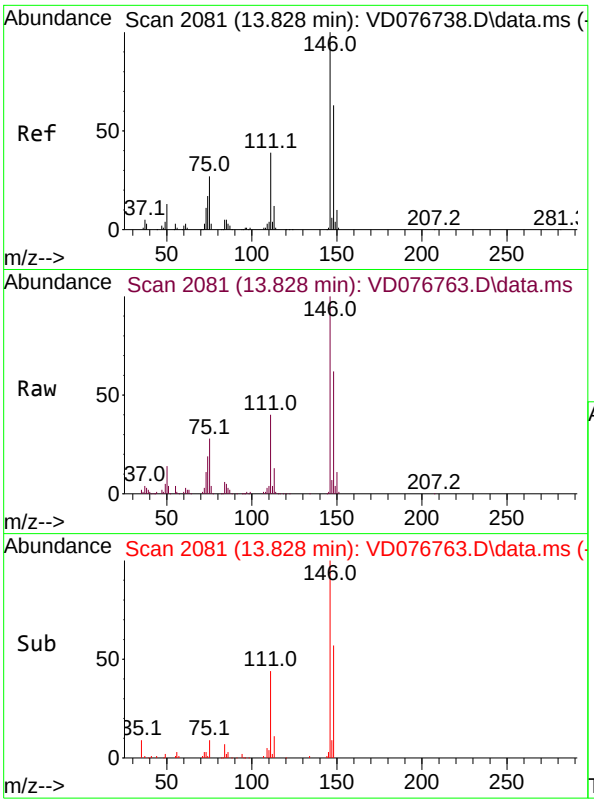


#90
Hexachloroethane
Concen: 57.282 ug/l
RT: 14.051 min Scan# 2119
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:117 Resp: 81265

Ion	Ratio	Lower	Upper
117	100		
201	63.9	38.5	115.5





#91
1,2-Dichlorobenzene
Concen: 58.138 ug/l
RT: 13.828 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

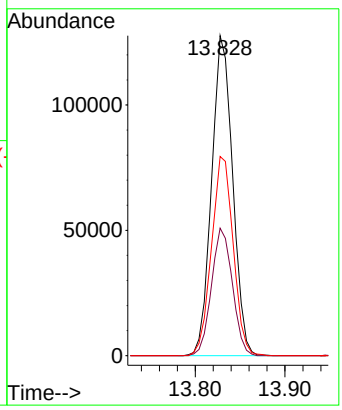
Tgt Ion:146 Resp: 20776

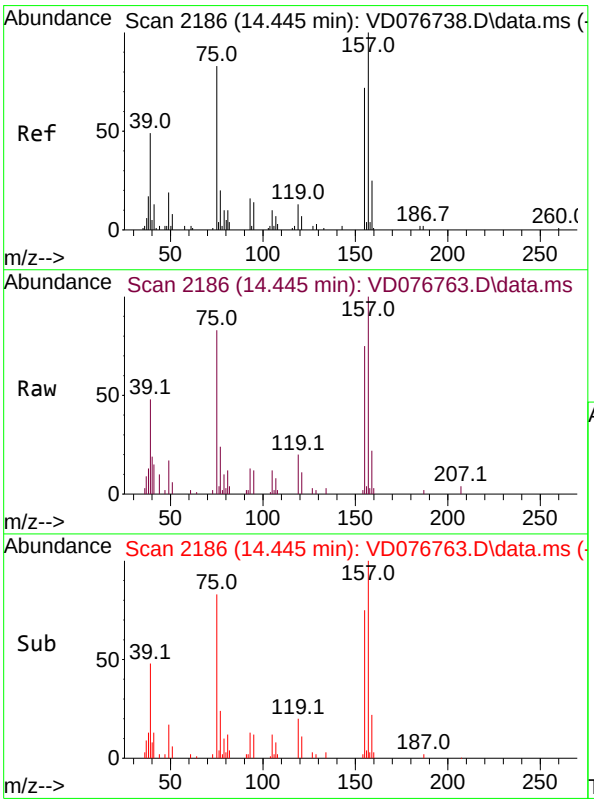
Ion	Ratio	Lower	Upper
146	100		
111	39.6	18.3	54.8
148	64.3	31.6	94.7

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

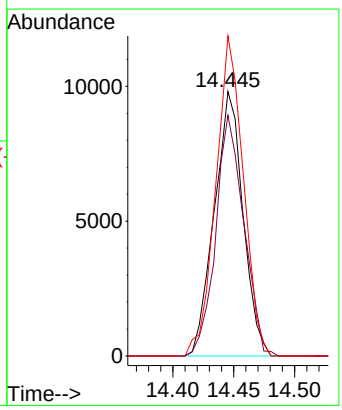


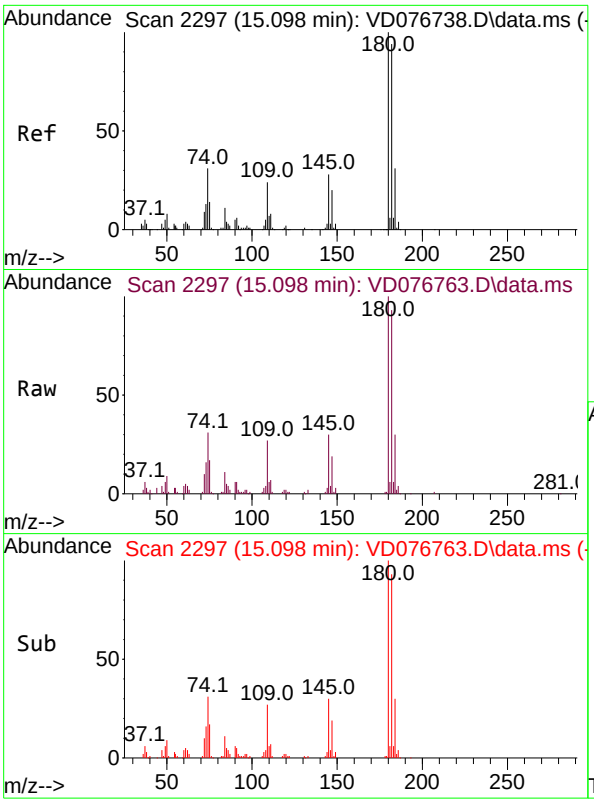


#92
1,2-Dibromo-3-Chloropropane
Concen: 61.441 ug/l
RT: 14.445 min Scan# 2186
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion: 75 Resp: 16067

Ion	Ratio	Lower	Upper
75	100		
155	88.9	47.9	143.8
157	116.2	59.9	179.7





#93
1,2,4-Trichlorobenzene
Concen: 46.633 ug/l
RT: 15.098 min Scan# 2
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

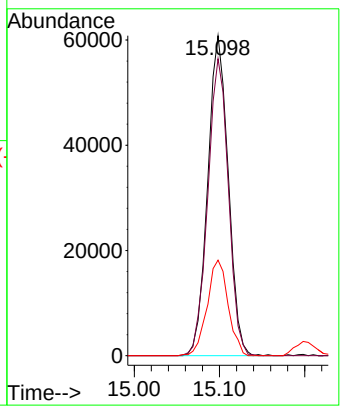
Tgt Ion:180 Resp: 10173

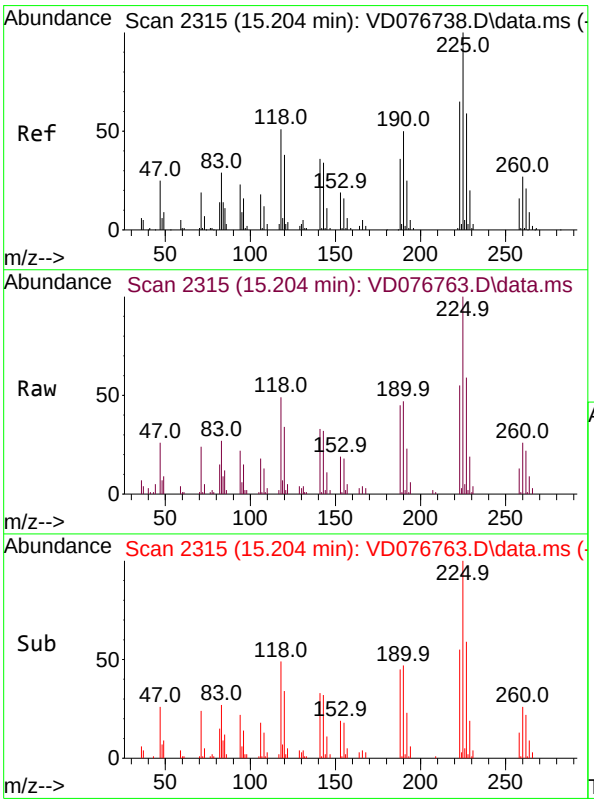
Ion	Ratio	Lower	Upper
180	100		
182	93.2	48.5	145.6
145	30.6	14.2	42.6

Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023

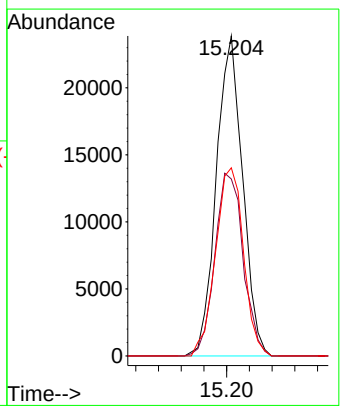


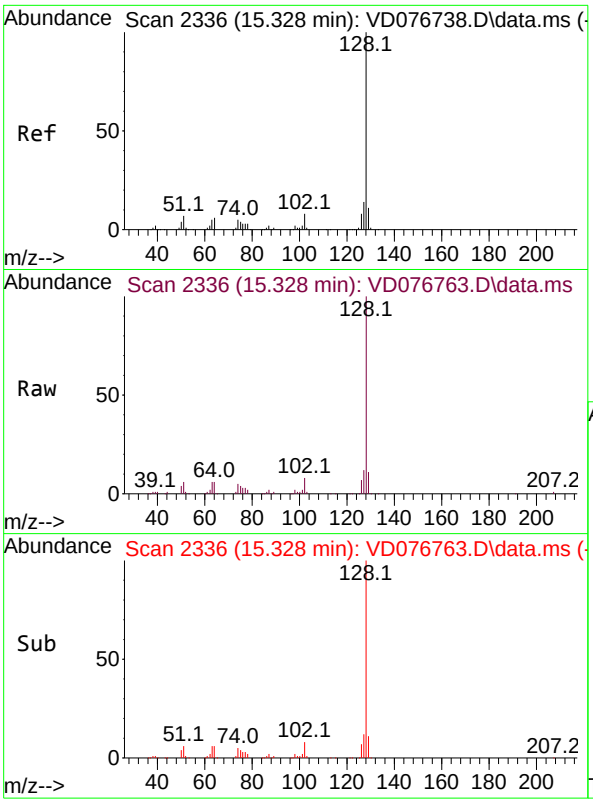


#94
Hexachlorobutadiene
Concen: 36.508 ug/l
RT: 15.204 min Scan# 2315
Delta R.T. 0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:225 Resp: 38306

Ion	Ratio	Lower	Upper
225	100		
223	61.4	31.6	94.8
227	62.6	31.7	95.1

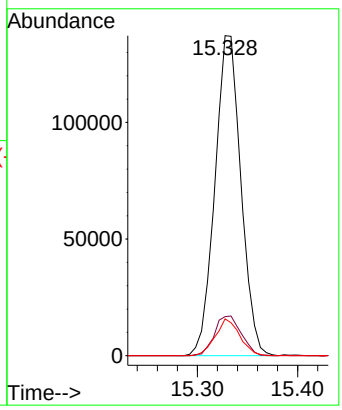




#95
Naphthalene
Concen: 52.353 ug/l
RT: 15.328 min Scan# 2
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:128 Resp: 24730

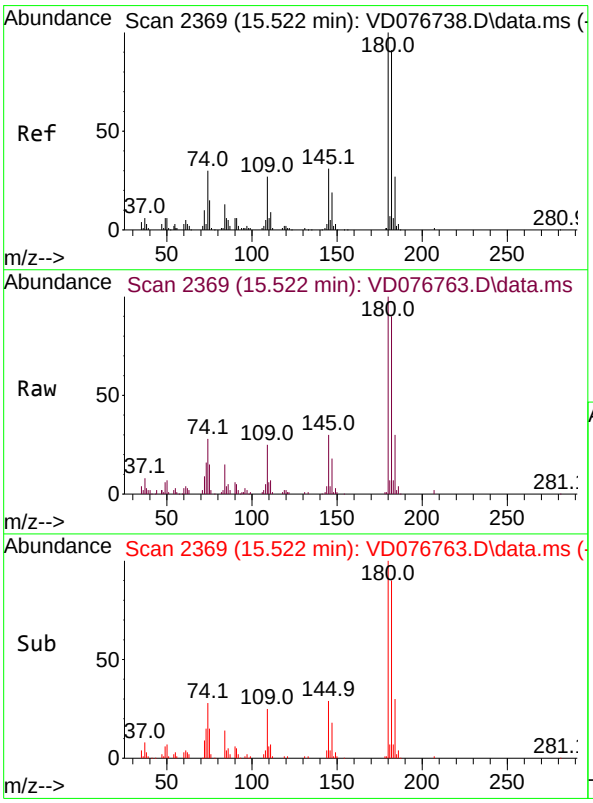
Ion	Ratio	Lower	Upper
128	100		
127	12.2	10.5	15.7
129	11.5	8.7	13.1



Instrument :
MSVOA_D
ClientSampleId :
SB-04-(1-5)MSD

Manual Integrations
APPROVED

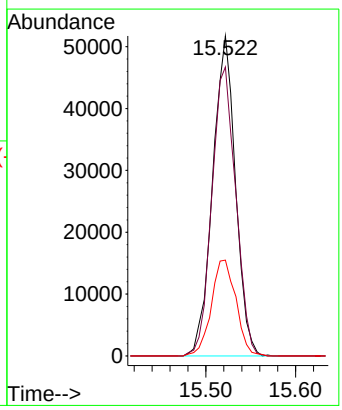
Reviewed By :John Carlone 07/18/2023
Supervised By :Mahesh Dadoda 07/18/2023



#96
1,2,3-Trichlorobenzene
Concen: 46.747 ug/l
RT: 15.522 min Scan# 2369
Delta R.T. -0.000 min
Lab File: VD076763.D
Acq: 17 Jul 2023 19:17

Tgt Ion:180 Resp: 91521

Ion	Ratio	Lower	Upper
180	100		
182	94.2	47.3	141.9
145	32.3	15.1	45.3



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

Manual Integration Report

Sequence:	VD071423	Instrument	MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC020	VD076737.D	1,2,3-Trichloropropane	JOHN	7/17/2023 11:37:29 AM	MMDadoda	7/17/2023 4:14:41 PM	Peak Integrated by Software
VSTDICCC050	VD076738.D	1,2,3-Trichloropropane	JOHN	7/17/2023 11:37:35 AM	MMDadoda	7/17/2023 4:14:43 PM	Peak Integrated by Software
VSTDICC100	VD076739.D	1,2,3-Trichloropropane	JOHN	7/17/2023 11:37:41 AM	MMDadoda	7/17/2023 4:14:44 PM	Peak Integrated by Software
VSTDICC150	VD076740.D	1,2,3-Trichloropropane	JOHN	7/17/2023 11:37:47 AM	MMDadoda	7/17/2023 4:14:46 PM	Peak Integrated by Software
VSTDICC005	VD076742.D	1,2,3-Trichloropropane	JOHN	7/17/2023 11:37:52 AM	MMDadoda	7/17/2023 4:14:47 PM	Peak Integrated by Software
VSTDICC005	VD076742.D	Tert butyl alcohol	JOHN	7/17/2023 11:37:52 AM	MMDadoda	7/17/2023 4:14:47 PM	Peak Integrated by Software
VSTDICV050	VD076743.D	1,2,3-Trichloropropane	JOHN	7/17/2023 11:38:00 AM	MMDadoda	7/17/2023 4:14:49 PM	Peak Integrated by Software
VSTDICV050	VD076743.D	Vinyl Acetate	JOHN	7/17/2023 11:38:00 AM	MMDadoda	7/17/2023 4:14:49 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VD071723	Instrument	MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VD076745.D	1,2,3-Trichloropropane	JOHN	7/18/2023 9:50:56 AM	MMDadoda	7/18/2023 3:12:58 PM	Peak Integrated by Software
VSTDCCC050	VD076745.D	Methacrylonitrile	JOHN	7/18/2023 9:50:56 AM	MMDadoda	7/18/2023 3:12:58 PM	Peak Integrated by Software
VSTDCCC050	VD076745.D	Vinyl Acetate	JOHN	7/18/2023 9:50:56 AM	MMDadoda	7/18/2023 3:12:58 PM	Peak Integrated by Software
VD0717SBS01	VD076747.D	1,2,3-Trichloropropane	JOHN	7/18/2023 9:51:05 AM	MMDadoda	7/18/2023 3:12:56 PM	Peak Integrated by Software
O3645-09MS	VD076762.D	1,2,3-Trichloropropane	JOHN	7/18/2023 9:51:23 AM	MMDadoda	7/18/2023 3:12:49 PM	Peak Integrated by Software
O3645-09MS	VD076762.D	Vinyl Acetate	JOHN	7/18/2023 9:51:23 AM	MMDadoda	7/18/2023 3:12:49 PM	Peak Integrated by Software
O3645-10MSD	VD076763.D	1,2,3-Trichloropropane	JOHN	7/18/2023 9:51:28 AM	MMDadoda	7/18/2023 3:12:48 PM	Peak Integrated by Software
O3645-10MSD	VD076763.D	Vinyl Acetate	JOHN	7/18/2023 9:51:28 AM	MMDadoda	7/18/2023 3:12:48 PM	Peak Integrated by Software
VSTDCCC050	VD076764.D	1,2,3-Trichloropropane	JOHN	7/18/2023 9:51:34 AM	MMDadoda	7/18/2023 3:12:47 PM	Peak Integrated by Software
VSTDCCC050	VD076764.D	Vinyl Acetate	JOHN	7/18/2023 9:51:34 AM	MMDadoda	7/18/2023 3:12:47 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	vd071823	Instrument	MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VD076766.D	1,2,3-Trichloropropane	JOHN	7/19/2023 10:03:21 AM	MMDadoda	7/19/2023 11:16:24 AM	Peak Integrated by Software
VD0718SBS01	VD076768.D	1,2,3-Trichloropropane	JOHN	7/19/2023 10:03:30 AM	MMDadoda	7/19/2023 11:16:25 AM	Peak Integrated by Software
VD0718SBS01	VD076768.D	Vinyl Acetate	JOHN	7/19/2023 10:03:30 AM	MMDadoda	7/19/2023 11:16:25 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VN071023	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC100	VN078449.D	1,2,3-Trichloropropane	JOHN	7/10/2023 4:27:44 PM	MMDadoda	7/11/2023 3:08:37 PM	Peak Integrated by Software
VSTDICCC050	VN078450.D	1,2,3-Trichloropropane	JOHN	7/10/2023 4:27:50 PM	MMDadoda	7/11/2023 3:08:37 PM	Peak Integrated by Software
VSTDICC040	VN078451.D	1,2,3-Trichloropropane	JOHN	7/10/2023 4:27:55 PM	MMDadoda	7/11/2023 3:08:38 PM	Peak Integrated by Software
VSTDICC020	VN078452.D	1,2,3-Trichloropropane	JOHN	7/10/2023 4:28:00 PM	MMDadoda	7/11/2023 3:08:39 PM	Peak Integrated by Software
VSTDICC005	VN078453.D	1,2,3-Trichloropropane	JOHN	7/10/2023 4:28:07 PM	MMDadoda	7/11/2023 3:08:40 PM	Peak Integrated by Software
VSTDICC001	VN078454.D	1,1,2-Trichlorotrifluoroethane	JOHN	7/10/2023 4:28:12 PM	MMDadoda	7/11/2023 3:08:42 PM	Peak Integrated by Software
VSTDICC001	VN078454.D	1,2,3-Trichloropropane	JOHN	7/10/2023 4:28:12 PM	MMDadoda	7/11/2023 3:08:42 PM	Peak Integrated by Software
VSTDICC001	VN078454.D	1,4-Dichlorobenzene	JOHN	7/10/2023 4:28:12 PM	MMDadoda	7/11/2023 3:08:42 PM	Peak Integrated by Software
VSTDICC001	VN078454.D	2,2-Dichloropropane	JOHN	7/10/2023 4:28:12 PM	MMDadoda	7/11/2023 3:08:42 PM	Peak Integrated by Software
VSTDICV050	VN078456.D	1,2,3-Trichloropropane	JOHN	7/11/2023 9:17:10 AM	MMDadoda	7/11/2023 3:08:43 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	vn071823	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN078550.D	1,2,3-Trichloropropane	JOHN	7/19/2023 9:17:40 AM	MMDadoda	7/19/2023 11:17:28 AM	Peak Integrated by Software
VN0718WBS02	VN078554.D	1,2,3-Trichloropropane	JOHN	7/19/2023 9:17:52 AM	MMDadoda	7/19/2023 11:17:25 AM	Peak Integrated by Software
VN0718WBS02	VN078554.D	Vinyl Acetate	JOHN	7/19/2023 9:17:52 AM	MMDadoda	7/19/2023 11:17:25 AM	Peak Integrated by Software
VN0718WBSD02	VN078556.D	1,2,3-Trichloropropane	JOHN	7/19/2023 9:17:58 AM	MMDadoda	7/19/2023 11:17:23 AM	Peak Integrated by Software
VSTDCCC050	VN078569.D	1,2,3-Trichloropropane	JOHN	7/19/2023 9:18:19 AM	MMDadoda	7/19/2023 11:17:22 AM	Peak Integrated by Software

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071423

Review By	John Carlone	Review On	7/17/2023 11:38:15 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/17/2023 12:22:13 PM		
SubDirectory	VD071423	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121762
Initial Calibration Stds	VP121763,VP121764,VP121765,VP121766,VP121767,VP121768
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP121769
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD076734.D	14 Jul 2023 10:44	KP/SY	Ok
2	VSTDICC005	VD076735.D	14 Jul 2023 11:55	KP/SY	Not Ok
3	VSTDICC010	VD076736.D	14 Jul 2023 12:22	KP/SY	Not Ok
4	VSTDICC020	VD076737.D	14 Jul 2023 12:50	KP/SY	Ok,M
5	VSTDICCC050	VD076738.D	14 Jul 2023 13:21	KP/SY	Ok,M
6	VSTDICC100	VD076739.D	14 Jul 2023 13:49	KP/SY	Ok,M
7	VSTDICC150	VD076740.D	14 Jul 2023 14:17	KP/SY	Ok,M
8	VIBLK	VD076741.D	14 Jul 2023 14:45	KP/SY	Ok
9	VSTDICC005	VD076742.D	14 Jul 2023 15:57	KP/SY	Ok,M
10	VSTDICV050	VD076743.D	14 Jul 2023 16:35	KP/SY	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071723

Review By	John Carlone	Review On	7/18/2023 9:51:59 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/18/2023 3:13:00 PM		
SubDirectory	VD071723	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121778
Initial Calibration Stds	
CCC	VP121789,VP121790,LOD-VP121793,VP121794
Internal Standard/PEM	VP120390
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD076744.D	17 Jul 2023 09:08	KP/SY	Ok
2	VSTDCCC050	VD076745.D	17 Jul 2023 10:19	KP/SY	Ok,M
3	VD0717SBL01	VD076746.D	17 Jul 2023 11:15	KP/SY	Ok
4	VD0717SBS01	VD076747.D	17 Jul 2023 11:46	KP/SY	Ok,M
5	VD0717SBSD01	VD076748.D	17 Jul 2023 12:13	KP/SY	Ok,M
6	O3572-01 2.5ppb	VD076749.D	17 Jul 2023 12:41	KP/SY	Ok,M
7	O3572-01 4.0ppb	VD076750.D	17 Jul 2023 13:09	KP/SY	Ok,M
8	O3645-01	VD076751.D	17 Jul 2023 13:36	KP/SY	Ok
9	O3645-02	VD076752.D	17 Jul 2023 14:04	KP/SY	Ok
10	O3645-03	VD076753.D	17 Jul 2023 14:32	KP/SY	Ok
11	O3645-04	VD076754.D	17 Jul 2023 15:01	KP/SY	Ok
12	O3645-05	VD076755.D	17 Jul 2023 15:29	KP/SY	Ok
13	O3645-06	VD076756.D	17 Jul 2023 15:57	KP/SY	Ok
14	O3645-07	VD076757.D	17 Jul 2023 16:26	KP/SY	Not Ok
15	O3638-01	VD076758.D	17 Jul 2023 16:54	KP/SY	Ok
16	O3638-11	VD076759.D	17 Jul 2023 17:23	KP/SY	Ok
17	O3638-21	VD076760.D	17 Jul 2023 17:52	KP/SY	Ok
18	O3638-31	VD076761.D	17 Jul 2023 18:20	KP/SY	Ok
19	O3645-09MS	VD076762.D	17 Jul 2023 18:48	KP/SY	Ok,M
20	O3645-10MSD	VD076763.D	17 Jul 2023 19:17	KP/SY	Ok,M
21	VSTDCCC050	VD076764.D	17 Jul 2023 19:45	KP/SY	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071823

Review By	John Carlone	Review On	7/19/2023 10:06:34 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/19/2023 11:16:42 AM		
SubDirectory	VD071823	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121821
Initial Calibration Stds	
CCC	VP121824,VP121825,MDL-VP121826,VP121827,LOQ-VP121828
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD076765.D	18 Jul 2023 08:41	KP/SY	Ok
2	VSTDCCC050	VD076766.D	18 Jul 2023 09:13	KP/SY	Ok,M
3	VD0718SBL01	VD076767.D	18 Jul 2023 10:09	KP/SY	Ok
4	VD0718SBS01	VD076768.D	18 Jul 2023 10:36	KP/SY	Ok,M
5	VD0718SBSD01	VD076769.D	18 Jul 2023 11:04	KP/SY	Ok,M
6	O3572-03	VD076770.D	18 Jul 2023 11:32	KP/SY	ReRun
7	O3572-03	VD076771.D	18 Jul 2023 12:00	KP/SY	ReRun
8	O3572-02	VD076772.D	18 Jul 2023 12:27	KP/SY	ReRun
9	O3654-01	VD076773.D	18 Jul 2023 12:56	KP/SY	Ok
10	O3652-01	VD076774.D	18 Jul 2023 13:24	KP/SY	Ok
11	O3652-11	VD076775.D	18 Jul 2023 13:52	KP/SY	Ok
12	O3652-21	VD076776.D	18 Jul 2023 14:20	KP/SY	Ok
13	O3645-07	VD076777.D	18 Jul 2023 14:49	KP/SY	Ok
14	O3639-01	VD076778.D	18 Jul 2023 15:17	KP/SY	Ok
15	O3639-11	VD076779.D	18 Jul 2023 15:45	KP/SY	Ok
16	O3639-21	VD076780.D	18 Jul 2023 16:14	KP/SY	Ok
17	O3639-31	VD076781.D	18 Jul 2023 16:42	KP/SY	Ok

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN071023

Review By	John Carlone	Review On	7/11/2023 9:17:25 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/11/2023 3:08:52 PM		
SubDirectory	VN071023	HP Acquire Method		HP Processing Method	82N071023W.M

STD. NAME	STD REF.#
Tune/Reschk	VP121589
Initial Calibration Stds	VP121609,VP121610,VP121611,VP121612,VP121613,VP121614
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP121617
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN078448.D	10 Jul 2023 11:48	JC\MD	Ok
2	VSTDICC100	VN078449.D	10 Jul 2023 12:21	JC\MD	Ok,M
3	VSTDICCC050	VN078450.D	10 Jul 2023 12:46	JC\MD	Ok,M
4	VSTDICC040	VN078451.D	10 Jul 2023 13:10	JC\MD	Ok,M
5	VSTDICC020	VN078452.D	10 Jul 2023 13:34	JC\MD	Ok,M
6	VSTDICC005	VN078453.D	10 Jul 2023 13:58	JC\MD	Ok,M
7	VSTDICC001	VN078454.D	10 Jul 2023 14:46	JC\MD	Ok,M
8	IBLK	VN078455.D	10 Jul 2023 15:10	JC\MD	Ok
9	VSTDICV050	VN078456.D	10 Jul 2023 16:03	JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN071823

Review By	John Carlone	Review On	7/19/2023 9:20:33 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/19/2023 11:17:35 AM		
SubDirectory	VN071823	HP Acquire Method		HP Processing Method	82N071023W.M

STD. NAME	STD REF.#
Tune/Reschk	VP121817
Initial Calibration Stds	
CCC	VP121818,VP121819
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN078549.D	18 Jul 2023 09:55	JC\MD	Ok
2	VSTDCCC050	VN078550.D	18 Jul 2023 10:29	JC\MD	Ok,M
3	VN0718MBL01	VN078551.D	18 Jul 2023 11:03	JC\MD	Ok
4	VN0718WBL01	VN078552.D	18 Jul 2023 11:27	JC\MD	Ok
5	VN0718WBS01	VN078553.D	18 Jul 2023 11:51	JC\MD	Not Ok
6	VN0718WBS02	VN078554.D	18 Jul 2023 12:25	JC\MD	Ok,M
7	PB154251TB	VN078555.D	18 Jul 2023 12:49	JC\MD	Ok
8	VN0718WBSD02	VN078556.D	18 Jul 2023 13:13	JC\MD	Ok,M
9	PB154251ZHE#02	VN078557.D	18 Jul 2023 13:37	JC\MD	Ok
10	PB154251ZHE#03	VN078558.D	18 Jul 2023 14:01	JC\MD	Ok
11	PB154251ZHE#04	VN078559.D	18 Jul 2023 14:25	JC\MD	Ok
12	O3625-02	VN078560.D	18 Jul 2023 14:50	JC\MD	Ok
13	O3646-02	VN078561.D	18 Jul 2023 15:14	JC\MD	Ok
14	O3646-05	VN078562.D	18 Jul 2023 15:38	JC\MD	Ok
15	O3654-02	VN078563.D	18 Jul 2023 16:03	JC\MD	ReRun
16	PB154251ZHE#01	VN078564.D	18 Jul 2023 16:27	JC\MD	Ok
17	IBLK	VN078565.D	18 Jul 2023 16:51	JC\MD	Ok
18	O3645-08	VN078566.D	18 Jul 2023 17:16	JC\MD	Ok
19	O3646-05RE	VN078567.D	18 Jul 2023 17:40	JC\MD	Not Ok
20	O3654-02	VN078568.D	18 Jul 2023 18:04	JC\MD	Ok
21	VSTDCCC050	VN078569.D	18 Jul 2023 18:29	JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071423

Review By	John Carlone	Review On	7/17/2023 11:38:15 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/17/2023 12:22:13 PM		
SubDirectory	VD071423	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121762
Initial Calibration Stds	VP121763,VP121764,VP121765,VP121766,VP121767,VP121768
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP121769
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD076734.D	14 Jul 2023 10:44		KP/SY	Ok
2	VSTDICC005	VSTDICC005	VD076735.D	14 Jul 2023 11:55	Not used	KP/SY	Not Ok
3	VSTDICC010	VSTDICC010	VD076736.D	14 Jul 2023 12:22	not used	KP/SY	Not Ok
4	VSTDICC020	VSTDICC020	VD076737.D	14 Jul 2023 12:50		KP/SY	Ok,M
5	VSTDICCC050	VSTDICCC050	VD076738.D	14 Jul 2023 13:21	Pass for non DOD	KP/SY	Ok,M
6	VSTDICC100	VSTDICC100	VD076739.D	14 Jul 2023 13:49		KP/SY	Ok,M
7	VSTDICC150	VSTDICC150	VD076740.D	14 Jul 2023 14:17		KP/SY	Ok,M
8	VIBLK	VIBLK	VD076741.D	14 Jul 2023 14:45		KP/SY	Ok
9	VSTDICC005	VSTDICC005	VD076742.D	14 Jul 2023 15:57		KP/SY	Ok,M
10	VSTDICV050	ICVVD071423	VD076743.D	14 Jul 2023 16:35		KP/SY	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071723

Review By	John Carlone	Review On	7/18/2023 9:51:59 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/18/2023 3:13:00 PM		
SubDirectory	VD071723	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121778
Initial Calibration Stds	
CCC	VP121789,VP121790,LOD-VP121793,VP121794
Internal Standard/PEM	VP120390
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD076744.D	17 Jul 2023 09:08		KP/SY	Ok
2	VSTDCCC050	VSTDCCC050	VD076745.D	17 Jul 2023 10:19		KP/SY	Ok,M
3	VD0717SBL01	VD0717SBL01	VD076746.D	17 Jul 2023 11:15		KP/SY	Ok
4	VD0717SBS01	VD0717SBS01	VD076747.D	17 Jul 2023 11:46		KP/SY	Ok,M
5	VD0717SBSD01	VD0717SBSD01	VD076748.D	17 Jul 2023 12:13		KP/SY	Ok,M
6	O3572-01 2.5ppb	LOD-MDL-SOIL-01-QT	VD076749.D	17 Jul 2023 12:41	lod-2.5	KP/SY	Ok,M
7	O3572-01 4.0ppb	LOD-MDL-SOIL-01-QT	VD076750.D	17 Jul 2023 13:09	lod-4.0	KP/SY	Ok,M
8	O3645-01	SB-02-(3-5)	VD076751.D	17 Jul 2023 13:36	vial A	KP/SY	Ok
9	O3645-02	SB-04-(1-5)	VD076752.D	17 Jul 2023 14:04	vial A	KP/SY	Ok
10	O3645-03	SB-07-(1-3)	VD076753.D	17 Jul 2023 14:32	vial A	KP/SY	Ok
11	O3645-04	SB-08-(0.5-2.0)	VD076754.D	17 Jul 2023 15:01	vial A	KP/SY	Ok
12	O3645-05	SB-09-(2.0-4.0)	VD076755.D	17 Jul 2023 15:29	vial A	KP/SY	Ok
13	O3645-06	SB-10-(0.5-2.0)	VD076756.D	17 Jul 2023 15:57	vial A	KP/SY	Ok
14	O3645-07	DUP	VD076757.D	17 Jul 2023 16:26	vial A Com#81 out of range, not able to quant	KP/SY	Not Ok
15	O3638-01	TP1	VD076758.D	17 Jul 2023 16:54	vial A	KP/SY	Ok
16	O3638-11	TP2	VD076759.D	17 Jul 2023 17:23	vial A	KP/SY	Ok
17	O3638-21	TP6	VD076760.D	17 Jul 2023 17:52	vial A	KP/SY	Ok
18	O3638-31	TP7	VD076761.D	17 Jul 2023 18:20	vial A	KP/SY	Ok
19	O3645-09MS	SB-04-(1-5)MS	VD076762.D	17 Jul 2023 18:48	vial A	KP/SY	Ok,M

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071723

Review By	John Carlone	Review On	7/18/2023 9:51:59 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/18/2023 3:13:00 PM		
SubDirectory	VD071723	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121778
Initial Calibration Stds	
CCC	VP121789,VP121790,LOD-VP121793,VP121794
Internal Standard/PEM	VP120390
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

20	O3645-10MSD	SB-04-(1-5)MSD	VD076763.D	17 Jul 2023 19:17	vial A	KP/SY	Ok,M
21	VSTDCCC050	VSTDCCC050EC	VD076764.D	17 Jul 2023 19:45		KP/SY	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD071823

Review By	John Carlone	Review On	7/19/2023 10:06:34 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/19/2023 11:16:42 AM		
SubDirectory	VD071823	HP Acquire Method	MSVOA_D	HP Processing Method	82d071423s.m

STD. NAME	STD REF.#
Tune/Reschk	VP121821
Initial Calibration Stds	
CCC	VP121824,VP121825,MDL-VP121826,VP121827,LOQ-VP121828
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	VD076765.D	18 Jul 2023 08:41		KP/SY	Ok
2	VSTDCCC050	VSTDCCC050	VD076766.D	18 Jul 2023 09:13		KP/SY	Ok,M
3	VD0718SBL01	VD0718SBL01	VD076767.D	18 Jul 2023 10:09		KP/SY	Ok
4	VD0718SBS01	VD0718SBS01	VD076768.D	18 Jul 2023 10:36		KP/SY	Ok,M
5	VD0718SBSD01	VD0718SBSD01	VD076769.D	18 Jul 2023 11:04		KP/SY	Ok,M
6	O3572-03	MDL-SOIL-03-QT3-202	VD076770.D	18 Jul 2023 11:32	endcc missing	KP/SY	ReRun
7	O3572-03	MDL-SOIL-03-QT3-202	VD076771.D	18 Jul 2023 12:00	endcc missing	KP/SY	ReRun
8	O3572-02	LOQ-SOIL-02-QT3-202	VD076772.D	18 Jul 2023 12:27	endcc missing	KP/SY	ReRun
9	O3654-01	72-12016	VD076773.D	18 Jul 2023 12:56	vial A	KP/SY	Ok
10	O3652-01	TP19	VD076774.D	18 Jul 2023 13:24	vial A	KP/SY	Ok
11	O3652-11	TP18	VD076775.D	18 Jul 2023 13:52	vial A	KP/SY	Ok
12	O3652-21	TP17	VD076776.D	18 Jul 2023 14:20	vial A	KP/SY	Ok
13	O3645-07	DUP	VD076777.D	18 Jul 2023 14:49	vial B	KP/SY	Ok
14	O3639-01	TP3	VD076778.D	18 Jul 2023 15:17	vial A	KP/SY	Ok
15	O3639-11	TP4	VD076779.D	18 Jul 2023 15:45	vial A	KP/SY	Ok
16	O3639-21	TP5	VD076780.D	18 Jul 2023 16:14	vial A	KP/SY	Ok
17	O3639-31	TP10	VD076781.D	18 Jul 2023 16:42	vial A	KP/SY	Ok

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN071023

Review By	John Carlone	Review On	7/11/2023 9:17:25 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/11/2023 3:08:52 PM		
SubDirectory	VN071023	HP Acquire Method		HP Processing Method	82N071023W.M

STD. NAME	STD REF.#
Tune/Reschk	VP121589
Initial Calibration Stds	VP121609,VP121610,VP121611,VP121612,VP121613,VP121614
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP121617
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN078448.D	10 Jul 2023 11:48		JC\MD	Ok
2	VSTDICC100	VSTDICC100	VN078449.D	10 Jul 2023 12:21	Pass for DOD	JC\MD	Ok,M
3	VSTDICCC050	VSTDICCC050	VN078450.D	10 Jul 2023 12:46	LR - 05,06,20,75,77,90,92,94	JC\MD	Ok,M
4	VSTDICC040	VSTDICC040	VN078451.D	10 Jul 2023 13:10		JC\MD	Ok,M
5	VSTDICC020	VSTDICC020	VN078452.D	10 Jul 2023 13:34		JC\MD	Ok,M
6	VSTDICC005	VSTDICC005	VN078453.D	10 Jul 2023 13:58		JC\MD	Ok,M
7	VSTDICC001	VSTDICC001	VN078454.D	10 Jul 2023 14:46		JC\MD	Ok,M
8	IBLK	IBLK	VN078455.D	10 Jul 2023 15:10		JC\MD	Ok
9	VSTDICV050	ICVVN071023	VN078456.D	10 Jul 2023 16:03		JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN071823

Review By	John Carlone	Review On	7/19/2023 9:20:33 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/19/2023 11:17:35 AM		
SubDirectory	VN071823	HP Acquire Method		HP Processing Method	82N071023W.M

STD. NAME	STD REF.#
Tune/Reschk	VP121817
Initial Calibration Stds	
CCC	VP121818,VP121819
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	VN078549.D	18 Jul 2023 09:55		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN078550.D	18 Jul 2023 10:29	pH#Lot#V12668	JC\MD	Ok,M
3	VN0718MBL01	VN0718MBL01	VN078551.D	18 Jul 2023 11:03		JC\MD	Ok
4	VN0718WBL01	VN0718WBL01	VN078552.D	18 Jul 2023 11:27		JC\MD	Ok
5	VN0718WBS01	VN0718WBS01	VN078553.D	18 Jul 2023 11:51	1,2,4- Trichlorobenzene low	JC\MD	Not Ok
6	VN0718WBS02	VN0718WBS02	VN078554.D	18 Jul 2023 12:25		JC\MD	Ok,M
7	PB154251TB	PB154251TB	VN078555.D	18 Jul 2023 12:49		JC\MD	Ok
8	VN0718WBSD02	VN0718WBSD02	VN078556.D	18 Jul 2023 13:13		JC\MD	Ok,M
9	PB154251ZHE#02	PB154251ZHE#02	VN078557.D	18 Jul 2023 13:37		JC\MD	Ok
10	PB154251ZHE#03	PB154251ZHE#03	VN078558.D	18 Jul 2023 14:01		JC\MD	Ok
11	PB154251ZHE#04	PB154251ZHE#04	VN078559.D	18 Jul 2023 14:25		JC\MD	Ok
12	O3625-02	RBR200018	VN078560.D	18 Jul 2023 14:50	vial A pH#5.0	JC\MD	Ok
13	O3646-02	GATE-1	VN078561.D	18 Jul 2023 15:14	vial A pH#5.0	JC\MD	Ok
14	O3646-05	YARD-1	VN078562.D	18 Jul 2023 15:38	vial A pH#5.0	JC\MD	Ok
15	O3654-02	72-12016	VN078563.D	18 Jul 2023 16:03	vial A pH#5.0 Surrogate Fail	JC\MD	ReRun
16	PB154251ZHE#01	PB154251ZHE#01	VN078564.D	18 Jul 2023 16:27		JC\MD	Ok
17	IBLK	IBLK	VN078565.D	18 Jul 2023 16:51		JC\MD	Ok
18	O3645-08	RINSATE-BLANK	VN078566.D	18 Jul 2023 17:16	vial B pH<2	JC\MD	Ok
19	O3646-05RE	YARD-1RE	VN078567.D	18 Jul 2023 17:40	Not required	JC\MD	Not Ok

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN071823

Review By	John Carlone	Review On	7/19/2023 9:20:33 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/19/2023 11:17:35 AM		
SubDirectory	VN071823	HP Acquire Method		HP Processing Method	82N071023W.M

STD. NAME	STD REF.#
Tune/Reschk	VP121817
Initial Calibration Stds	
CCC	VP121818,VP121819
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

20	O3654-02	72-12016	VN078568.D	18 Jul 2023 18:04	vial B pH#5.0	JC\MD	Ok
21	VSTDCCC050	VSTDCCC050EC	VN078569.D	18 Jul 2023 18:29		JC\MD	Ok,M

M : Manual Integration

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB126475

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
O3638-01	TP1	1	1.15	8.81	9.96	9.14	90.7	
O3638-03	TP1-A	2	1.15	8.60	9.75	8.52	85.7	
O3638-04	TP1-B	3	1.13	8.60	9.73	8.88	90.1	
O3638-05	TP1-C	4	1.13	8.58	9.71	8.74	88.7	
O3638-06	TP1-D	5	1.12	8.51	9.63	8.58	87.7	
O3638-07	TP1-E	6	1.13	8.72	9.85	9.05	90.8	
O3638-08	TP1-F	7	1.16	8.47	9.63	8.47	86.3	
O3638-09	TP1-G	8	1.14	8.79	9.93	9.16	91.2	
O3638-10	TP1-H	9	1.12	8.44	9.56	8.55	88.0	
O3638-11	TP2	10	1.12	8.65	9.77	8.52	85.5	
O3638-13	TP2-A	11	1.15	8.81	9.96	8.99	89.0	
O3638-14	TP2-B	12	1.13	8.45	9.58	8.38	85.8	
O3638-15	TP2-C	13	1.12	8.66	9.78	8.55	85.8	
O3638-16	TP2-D	14	1.18	8.50	9.68	8.68	88.2	
O3638-17	TP2-E	15	1.18	8.54	9.72	8.52	85.9	
O3638-18	TP2-F	16	1.19	8.66	9.85	8.61	85.7	
O3638-19	TP2-G	17	1.15	8.80	9.95	8.69	85.7	
O3638-20	TP2-H	18	1.12	8.41	9.53	8.24	84.7	
O3638-21	TP6	19	1.14	8.82	9.96	9.31	92.6	
O3638-23	TP6-A	20	1.16	8.80	9.96	9.29	92.4	
O3638-24	TP6-B	21	1.11	8.55	9.66	8.72	89.0	
O3638-25	TP6-C	22	1.19	8.63	9.82	9.14	92.1	
O3638-26	TP6-D	23	1.12	8.71	9.83	8.84	88.6	
O3638-27	TP6-E	24	1.14	8.42	9.56	8.86	91.7	
O3638-28	TP6-F	25	1.11	8.86	9.97	9.24	91.8	
O3638-29	TP6-G	26	1.12	8.58	9.7	8.67	88.0	
O3638-30	TP6-H	27	1.14	8.84	9.98	9.22	91.4	
O3638-31	TP7	28	1.18	8.72	9.9	8.96	89.2	

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC: LB126475

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
O3638-33	TP7-A	29	1.12	8.61	9.73	8.68	87.8	
O3638-34	TP7-B	30	1.11	8.52	9.63	8.6	87.9	
O3638-35	TP7-C	31	1.18	8.81	9.99	9.37	93.0	
O3638-36	TP7-D	32	1.11	8.86	9.97	8.76	86.3	
O3638-37	TP7-E	33	1.19	8.57	9.76	8.73	88.0	
O3638-38	TP7-F	34	1.19	8.52	9.71	8.72	88.4	
O3638-39	TP7-G	35	1.13	8.59	9.72	8.71	88.2	
O3638-40	TP7-H	36	1.15	8.83	9.98	9.14	90.5	
O3639-01	TP3	37	1.12	8.70	9.82	8.57	85.6	
O3639-03	TP3-A	38	1.12	8.68	9.8	8.48	84.8	
O3639-04	TP3-B	39	1.13	8.85	9.98	9.06	89.6	
O3639-05	TP3-C	40	1.18	8.72	9.9	8.53	84.3	
O3639-06	TP3-D	41	1.13	8.55	9.68	8.66	88.1	
O3639-07	TP3-E	42	1.19	8.41	9.6	8.48	86.7	
O3639-08	TP3-F	43	1.19	8.63	9.82	8.7	87.0	
O3639-09	TP3-G	44	1.18	8.68	9.86	8.74	87.1	
O3639-10	TP3-H	45	1.11	8.50	9.61	8.65	88.7	
O3639-11	TP4	46	1.19	8.53	9.72	8.67	87.7	
O3639-13	TP4-A	47	1.15	8.51	9.66	8.36	84.7	
O3639-14	TP4-B	48	1.14	8.55	9.69	8.6	87.3	
O3639-15	TP4-C	49	1.12	8.68	9.8	8.6	86.2	
O3639-16	TP4-D	50	1.19	8.72	9.91	8.81	87.4	
O3639-17	TP4-E	51	1.15	8.54	9.69	8.64	87.7	
O3639-18	TP4-F	52	1.12	8.65	9.77	8.72	87.9	
O3639-19	TP4-G	53	1.14	8.83	9.97	8.86	87.4	
O3639-20	TP4-H	54	1.12	8.85	9.97	8.65	85.1	
O3639-21	TP5	55	1.12	8.46	9.58	8.77	90.4	
O3639-23	TP5-A	56	1.14	8.81	9.95	9.28	92.4	

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC: LB126475

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
O3639-24	TP5-B	57	1.17	8.60	9.77	8.97	90.7	
O3639-25	TP5-C	58	1.15	8.81	9.96	9.21	91.5	
O3639-26	TP5-D	59	1.15	8.38	9.53	8.79	91.2	
O3639-27	TP5-E	60	1.19	8.43	9.62	8.91	91.6	
O3639-28	TP5-F	61	1.19	8.55	9.74	9.00	91.3	
O3639-29	TP5-G	62	1.18	8.60	9.78	8.91	89.9	
O3639-30	TP5-H	63	1.12	8.47	9.59	8.7	89.5	
O3639-31	TP10	64	1.12	8.77	9.89	8.64	85.7	
O3639-33	TP10-A	65	1.15	8.60	9.75	8.63	87.0	
O3639-34	TP10-B	66	1.15	8.59	9.74	8.65	87.3	
O3639-35	TP10-C	67	1.17	8.60	9.77	8.63	86.7	
O3639-36	TP10-D	68	1.16	8.83	9.99	9.47	94.1	
O3639-37	TP10-E	69	1.19	8.57	9.76	8.63	86.8	
O3639-38	TP10-F	70	1.16	8.82	9.98	9.5	94.6	
O3639-39	TP10-G	71	1.16	8.77	9.93	8.78	86.9	
O3639-40	TP10-H	72	1.15	8.81	9.96	9.14	90.7	
O3640-01	TP9	73	1.12	8.47	9.59	8.72	89.7	
O3640-03	TP9-A	74	1.17	8.53	9.7	8.77	89.1	
O3640-04	TP9-B	75	1.15	8.82	9.97	9.34	92.9	
O3640-05	TP9-C	76	1.12	8.56	9.68	8.83	90.1	
O3640-06	TP9-D	77	1.11	8.69	9.8	8.88	89.4	
O3640-07	TP9-E	78	1.13	8.69	9.82	8.92	89.6	
O3640-08	TP9-F	79	1.16	8.83	9.99	9.41	93.4	
O3640-09	TP9-G	80	1.19	8.59	9.78	8.94	90.2	
O3640-10	TP9-H	81	1.19	8.60	9.79	8.93	90.0	
O3640-11	TP8	82	1.12	8.80	9.92	8.91	88.5	
O3640-13	TP8-A	83	1.11	8.88	9.99	9.55	95.0	
O3640-14	TP8-B	84	1.19	8.72	9.91	8.81	87.4	

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB126475

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
O3640-15	TP8-C	85	1.14	8.84	9.98	9.56	95.2	
O3640-16	TP8-D	86	1.19	8.70	9.89	8.79	87.4	
O3640-17	TP8-E	87	1.15	8.84	9.99	9.03	89.1	
O3640-18	TP8-F	88	1.12	8.45	9.57	8.58	88.3	
O3640-19	TP8-G	89	1.19	8.63	9.82	8.89	89.2	
O3640-20	TP8-H	90	1.14	8.53	9.67	8.59	87.3	
O3640-21	TP12	91	1.11	8.87	9.98	8.81	86.8	
O3640-23	TP12-A	92	1.16	8.60	9.76	8.56	86.0	
O3640-24	TP12-B	93	1.19	8.63	9.82	8.84	88.6	
O3640-25	TP12-C	94	1.17	8.52	9.69	8.66	87.9	
O3640-26	TP12-D	95	1.14	8.66	9.8	8.76	88.0	
O3640-27	TP12-E	96	1.16	8.48	9.64	8.65	88.3	
O3640-28	TP12-F	97	1.16	8.77	9.93	8.82	87.3	
O3640-29	TP12-G	98	1.12	8.45	9.57	8.41	86.3	
O3640-30	TP12-H	99	1.18	8.57	9.75	8.72	88.0	
O3640-31	TP11	100	1.12	8.62	9.74	8.7	87.9	
O3640-33	TP11-A	101	1.12	8.87	9.99	9.54	94.9	
O3640-34	TP11-B	102	1.14	8.83	9.97	8.7	85.6	
O3640-35	TP11-C	103	1.12	8.61	9.73	8.48	85.5	
O3640-36	TP11-D	104	1.15	8.79	9.94	9.1	90.4	
O3640-37	TP11-E	105	1.15	8.40	9.55	8.7	89.9	
O3640-38	TP11-F	106	1.15	8.82	9.97	8.96	88.5	
O3640-39	TP11-G	107	1.15	8.84	9.99	9.31	92.3	
O3640-40	TP11-H	108	1.17	8.59	9.76	8.82	89.1	
O3641-01	TP13	109	1.14	8.83	9.97	8.4	82.2	
O3641-03	TP13-A	110	1.19	8.47	9.66	8.34	84.4	
O3641-04	TP13-B	111	1.1	8.68	9.78	8.33	83.3	
O3641-05	TP13-C	112	1.13	8.37	9.5	8.15	83.9	

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC: LB126475

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
O3641-06	TP13-D	113	1.17	8.58	9.75	8.28	82.9	
O3641-07	TP13-E	114	1.13	8.69	9.82	8.42	83.9	
O3641-08	TP13-F	115	1.19	8.47	9.66	8.02	80.6	
O3641-09	TP13-G	116	1.14	8.37	9.51	8.16	83.9	
O3641-10	TP13-H	117	1.12	8.63	9.75	8.4	84.4	
O3641-11	TP14	118	1.18	8.52	9.7	8.4	84.7	
O3641-13	TP14-A	119	1.12	8.72	9.84	8.67	86.6	
O3641-14	TP14-B	120	1.14	8.80	9.94	8.62	85.0	
O3641-15	TP14-C	121	1.16	8.41	9.57	8.31	85.0	
O3641-16	TP14-D	122	1.17	8.58	9.75	8.5	85.4	
O3641-17	TP14-E	123	1.17	8.45	9.62	8.33	84.7	
O3641-18	TP14-F	124	1.15	8.82	9.97	9.09	90.0	
O3641-19	TP14-G	125	1.18	8.54	9.72	8.54	86.2	
O3641-20	TP14-H	126	1.18	8.66	9.84	8.24	81.5	
O3641-21	TP16	127	1.18	8.54	9.72	8.6	86.9	
O3641-23	TP16-A	128	1.16	8.74	9.9	8.78	87.2	
O3641-24	TP16-B	129	1.19	8.55	9.74	7.9	78.5	
O3641-25	TP16-C	130	1.17	8.77	9.94	8.75	86.4	
O3641-26	TP16-D	131	1.19	8.53	9.72	8.53	86.0	
O3641-27	TP16-E	132	1.15	8.80	9.95	8.28	81.0	
O3641-28	TP16-F	133	1.19	8.50	9.69	7.71	76.7	
O3641-29	TP16-G	134	1.19	8.47	9.66	7.4	73.3	
O3641-30	TP16-H	135	1.15	8.37	9.52	7.47	75.5	
O3641-31	TP15	136	1.12	8.71	9.83	8.37	83.2	
O3641-33	TP15-A	137	1.12	8.46	9.58	7.86	79.7	
O3641-34	TP15-B	138	1.15	8.38	9.53	7.93	80.9	
O3641-35	TP15-C	139	1.17	8.50	9.67	8.06	81.1	
O3641-36	TP15-D	140	1.16	8.68	9.84	8.8	88.0	

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC: LB126475

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
O3641-37	TP15-E	141	1.16	8.78	9.94	8.57	84.4	
O3641-38	TP15-F	142	1.15	8.84	9.99	8.4	82.0	
O3641-39	TP15-G	143	1.18	8.57	9.75	7.99	79.5	
O3641-40	TP15-H	144	1.15	8.80	9.95	8.32	81.5	
O3643-01	01A-01B-01C	145	1.00	1.00	2.00	2.00	100.0	CAULKING SAMPLE
O3644-01	01A-01B-01C	146	1.00	1.00	2.00	2.00	100.0	CAULKING SAMPLE
O3645-01	SB-02-(3-5)	147	1.15	8.81	9.96	8.75	86.3	
O3645-02	SB-04-(1-5)	148	1.15	8.36	9.51	8.78	91.3	
O3645-03	SB-07-(1-3)	149	1.13	8.75	9.88	8.09	79.5	
O3645-04	SB-08-(10.5-2.0)	150	1.13	8.40	9.53	7.4	74.6	
O3645-05	SB-09-(2.0-4.0)	151	1.19	8.71	9.9	8.11	79.4	
O3645-06	SB-10-(0.5-2.0)	152	1.19	8.43	9.62	8.21	83.3	
O3645-07	DUP	153	1.18	8.81	9.99	8.3	80.8	
O3645-09	O3645-02MS	154	1.15	8.36	9.51	8.78	91.3	
O3645-10	O3645-02MSD	155	1.15	8.36	9.51	8.78	91.3	
O3646-01	GATE-1	164	1.14	8.85	9.99	8.52	83.4	
O3646-03	GATE-1-EPH-2	165	1.12	8.85	9.97	8.53	83.7	
O3646-04	YARD-1	166	1.18	8.45	9.63	8.8	90.2	
O3646-06	YARD-1-EPH-2	167	1.1	8.79	9.89	8.36	82.6	
O3647-01	SAMPLE-1	156	1.16	8.50	9.66	8.89	90.9	
O3648-01	OK-01-071723	168	1.13	8.45	9.58	7.93	80.5	
O3648-02	OK-01-071723-EPH-2	169	1.13	8.45	9.58	7.93	80.5	
O3649-01	X182-S5	157	1.15	8.50	9.65	8.14	82.2	
O3649-02	X182-B4	158	1.15	8.81	9.96	8.58	84.3	
O3649-03	X182-S3	159	1.12	8.72	9.84	8.9	89.2	
O3649-04	X182-B3	160	1.13	8.53	9.66	8.51	86.5	
O3649-05	X182-B3-DUP	161	1.19	8.71	9.9	8.85	87.9	
O3649-06	X182-S4	162	1.16	8.83	9.99	9.39	93.2	

CHEMTECH

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 7/18/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/17/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 07/18/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC: LB126475

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
O3650-01	NWB-1933	163	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
O3654-01	72-12016	170	1.19	8.57	9.76	8.96	90.7	
O3654-03	72-12016-EPH-2	171	1.18	8.54	9.72	9.15	93.3	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB126475

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3638-01	TP1	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-03	TP1-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-04	TP1-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-05	TP1-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-06	TP1-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-07	TP1-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-08	TP1-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-09	TP1-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-10	TP1-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-11	TP2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-13	TP2-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-14	TP2-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-15	TP2-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-16	TP2-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-17	TP2-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-18	TP2-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-19	TP2-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-20	TP2-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-21	TP6	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-23	TP6-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-24	TP6-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO

JD 07-17-23

Date/Time ~~07-16-23~~ 15:00

Raw Sample Received by: JD (WC)

Raw Sample Relinquished by: L. C (Sm)

07-17-23

Date/Time ~~07-16-23~~ 7P 17:20

Raw Sample Received by: L. C Sm

Raw Sample Relinquished by: JD (WC)

NB 126475

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3638-25	TP6-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-26	TP6-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-27	TP6-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-28	TP6-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-29	TP6-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-30	TP6-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-31	TP7	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-33	TP7-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-34	TP7-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-35	TP7-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-36	TP7-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-37	TP7-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-38	TP7-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-39	TP7-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3638-40	TP7-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-01	TP3	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-03	TP3-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-04	TP3-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-05	TP3-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-06	TP3-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-07	TP3-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO

JP 07-17-23

Date/Time 07-16-23 1510

Raw Sample Received by: JP COC

Raw Sample Relinquished by: L.C (Sm)

JP 07-17-23

Date/Time 07-16-23 1720

Raw Sample Received by: L.C (Sm)

Raw Sample Relinquished by: JP COC

VB 126475

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3639-08	TP3-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-09	TP3-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-10	TP3-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-11	TP4	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-13	TP4-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-14	TP4-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-15	TP4-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-16	TP4-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-17	TP4-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-18	TP4-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-19	TP4-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-20	TP4-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-21	TP5	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-23	TP5-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-24	TP5-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-25	TP5-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-26	TP5-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-27	TP5-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-28	TP5-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-29	TP5-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-30	TP5-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO

JD 07-17-23

Date/Time ~~07-16-23~~ 15:00

Raw Sample Received by: JD (UPS)

Raw Sample Relinquished by: I.C (Son)

JD 07-17-23

Date/Time ~~07-16-23~~ 7:20

Raw Sample Received by: I.C (Son)

Raw Sample Relinquished by: JD (UPS)

WORKLIST(Hardcopy Internal Chain)

MS126475

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3639-31	TP10	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-33	TP10-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-34	TP10-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-35	TP10-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-36	TP10-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-37	TP10-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-38	TP10-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-39	TP10-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3639-40	TP10-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-01	TP9	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-03	TP9-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-04	TP9-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-05	TP9-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-06	TP9-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-07	TP9-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-08	TP9-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-09	TP9-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-10	TP9-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-11	TP8	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-13	TP8-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-14	TP8-B JP	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO

Date/Time ~~07-16-23~~ 07-17-23 1510

Raw Sample Received by: JP (WC)

Raw Sample Relinquished by: L.C (Sm)

JP 07-17-23

Date/Time ~~07-16-23~~ 1420

Raw Sample Received by: L.C (Sm)

Raw Sample Relinquished by: JP (WC)

126475

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3640-15	TP8-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-16	TP8-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-17	TP8-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-18	TP8-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-19	TP8-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-20	TP8-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-21	TP12	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-23	TP12-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-24	TP12-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-25	TP12-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-26	TP12-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-27	TP12-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-28	TP12-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-29	TP12-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-30	TP12-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-31	TP11	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-33	TP11-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-34	TP11-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-35	TP11-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-36	TP11-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-37	TP11-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO

30 07-17-23

Date/Time ~~07-16-23~~ 1500

Raw Sample Received by: TT (CDC)

Raw Sample Relinquished by: J.C (SMI)

07-17-23 TP

Date/Time ~~07-16-23~~ 1720

Raw Sample Received by: J.C (SMI)

Raw Sample Relinquished by: TT (CDC)

WORKLIST(Hardcopy Internal Chain)

LB 126475

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3640-38	TP11-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-39	TP11-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3640-40	TP11-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-01	TP13	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-03	TP13-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-04	TP13-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-05	TP13-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-06	TP13-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-07	TP13-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-08	TP13-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-09	TP13-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-10	TP13-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-11	TP14	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-13	TP14-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-14	TP14-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-15	TP14-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-16	TP14-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-17	TP14-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-18	TP14-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-19	TP14-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-20 JB 07-17-23	TP14-H	Solid	Percent Solids	Cool 4 deg C	PSEG03 JB 07-17-23	I11	07/14/2023	Chemtech -SO

Date/Time 07-16-23 15:00

Raw Sample Received by: JB (CDC)

Raw Sample Relinquished by: L.C (Sm)

Date/Time 07-16-23 17:40

Raw Sample Received by: L.C (Sm)

Raw Sample Relinquished by: TR (CDC)

WORKLIST(Hardcopy Internal Chain)

1B 726475

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3641-21	TP16	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-23	TP16-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-24	TP16-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-25	TP16-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-26	TP16-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-27	TP16-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-28	TP16-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-29	TP16-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-30	TP16-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-31	TP15	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-33	TP15-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-34	TP15-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-35	TP15-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-36	TP15-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-37	TP15-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-38	TP15-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-39	TP15-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3641-40	TP15-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/14/2023	Chemtech -SO
O3643-01	01A-01B-01C	Solid	Percent Solids	Cool 4 deg C	BSIG01	I11	07/17/2023	Chemtech -SO
O3644-01	01A-01B-01C	Solid	Percent Solids	Cool 4 deg C	BSIG01	I11	07/17/2023	Chemtech -SO
O3645-01	SB-02-(3-5)	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/12/2023	Chemtech -SO

07-17-23 JP

Date/Time ~~07-16-23~~ 15:00

Raw Sample Received by: JP (COC)

Raw Sample Relinquished by: J.C Sm

JP 07-17-23

Date/Time ~~07-16-23~~ 17:20

Raw Sample Received by: J.C Sm

Raw Sample Relinquished by: JP (COC)

WORKLIST(Hardcopy Internal Chain)

VB 126475

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3645-02	SB-04-(1-5)	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/12/2023	Chemtech -SO
O3645-03	SB-07-(1-3)	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/13/2023	Chemtech -SO
O3645-04	SB-08-(10.5-2.0)	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/13/2023	Chemtech -SO
O3645-05	SB-09-(2.0-4.0)	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/13/2023	Chemtech -SO
O3645-06	SB-10-(0.5-2.0)	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/13/2023	Chemtech -SO
O3645-07	DUP	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/13/2023	Chemtech -SO
O3645-09	O3645-02MS	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/12/2023	Chemtech -SO
O3645-10	O3645-02MSD	Solid	Percent Solids	Cool 4 deg C	LABE01	I11	07/12/2023	Chemtech -SO
O3646-01	GATE-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO
O3646-03	GATE-1-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO
O3646-04	YARD-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO
O3646-06	YARD-1-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO
O3647-01	SAMPLE-1	Solid	Percent Solids	Cool 4 deg C	PREM01	I11	07/13/2023	Chemtech -SO
O3648-01	OK-01-071723	Solid	Percent Solids	Cool 4 deg C	PSEG05	I11	07/17/2023	Chemtech -SO
O3648-02	OK-01-071723-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG05	I11	07/17/2023	Chemtech -SO
O3649-01	X182-S5	Solid	Percent Solids	Cool 4 deg C	ATCE02	I11	07/17/2023	Chemtech -SO
O3649-02	X182-B4	Solid	Percent Solids	Cool 4 deg C	ATCE02	I11	07/17/2023	Chemtech -SO
O3649-03	X182-S3	Solid	Percent Solids	Cool 4 deg C	ATCE02	I11	07/17/2023	Chemtech -SO
O3649-04	X182-B3	Solid	Percent Solids	Cool 4 deg C	ATCE02	I11	07/17/2023	Chemtech -SO
O3649-05	X182-B3-DUP	Solid	Percent Solids	Cool 4 deg C	ATCE02	I11	07/17/2023	Chemtech -SO
O3649-06	X182-S4	Solid	Percent Solids	Cool 4 deg C	ATCE02	I11	07/17/2023	Chemtech -SO

TP 07-17-23

Date/Time 07-16-23 15:00

Raw Sample Received by: JDC (COC)

Raw Sample Relinquished by: K. Cline

Date/Time 07-17-23 TP 07-16-23 17:20

Raw Sample Received by: K. Cline

Raw Sample Relinquished by: JDC (COC)

WORKLIST(Hardcopy Internal Chain)

NB 126475

WorkList Name : %1-071723 **WorkList ID :** 171905 **Department :** Wet-Chemistry **Date :** 07-16-2023 06:33:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
O3650-01	NWB-1933	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO
O3654-01	72-12016	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO
O3654-03	72-12016-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I11	07/17/2023	Chemtech -SO

07-17-23 JP

Date/Time ~~07-16-23~~ 15:00

Raw Sample Received by: JP (COC)

Raw Sample Relinquished by: L.C (sm)

JP 07-17-23

Date/Time ~~07-16-23~~ 17:20

Raw Sample Received by: L.C (sm)

Raw Sample Relinquished by: JP (COC)

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

Prep Standard - Chemical Standard Summary

Order ID : O3645

Test : VOCMS Group1

Prepbatch ID :

Sequence ID/Qc Batch ID: VD071723,vd071823,vn071723,vn071823,

Standard ID :
VP118161,VP118162,VP118164,VP119199,VP119200,VP120190,VP120390,VP120540,VP121045,VP121351,VP121353
,VP121396,VP121532,VP121534,VP121535,VP121536,VP121538,VP121539,VP121541,VP121576,VP121616,VP1216
91,VP121778,VP121780,VP121785,VP121786,VP121788,VP121789,VP121790,VP121794,VP121804,VP121805,VP12
1817,VP121818,VP121819,VP121821,VP121824,VP121825,VP121827,

Chemical ID :
LOD-VP121793,LOQ-VP121828,MDL-VP121826,V10601,V12006,V12012,V12081,V12082,V12226,V12229,V12695,V12
761,V12764,V12765,V12767,V12768,V12783,V12784,V12785,V12786,V12787,V12788,V12789,V12963,V13088,V13089
,V13104,V13196,V13199,V13217,V13222,V13302,V13331,V13343,V13344,V13494,V13495,V13520,V13521,V13523,V1
3546,V13558,V13559,V13577,V13578,V13641,V13644,V13655,V13657,V13658,V13661,V13870,V13871,V13872,V1387
5,V13876,W2606,

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP118161	01/24/2023	07/24/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/25/2023

FROM 1.00000ml of V12783 + 1.00000ml of V12784 + 1.00000ml of V12785 + 1.00000ml of V12786 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1811	8260 Working Std(2-CVE)-500ppm	VP118162	01/24/2023	07/24/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/25/2023

FROM 7.50000ml of V13217 + 12.50000ml of VP118161 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1813	8260 Working Std(2-CVE)-50ppm	VP118164	01/24/2023	07/24/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/25/2023

FROM 9.37500ml of V13217 + 0.62500ml of VP118161 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
252	8260 Working STD (BCM)-First source, 100PPM	VP119199	03/15/2023	09/10/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/17/2023

FROM 0.25000ml of V12765 + 1.00000ml of V12761 + 23.75000ml of V13222 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
254	8260 Working STD (BCM)-First source, 10PPM	VP119200	03/15/2023	09/10/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/17/2023

FROM 0.05000ml of V12765 + 9.95000ml of V13222 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
249	8260 Surrogate, 100PPM	VP120190	04/28/2023	09/15/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 05/02/2023

FROM 0.10000ml of V12006 + 24.90000ml of V13657 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1917	8260 Internal standard 50 ppm	VP120390	05/05/2023	10/27/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 05/09/2023

FROM 0.05000ml of V12081 + 24.95000ml of V13657 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
719	8260 Working STD (BCM)-First source, 400PPM	VP120540	05/16/2023	11/16/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 05/17/2023

FROM 1.00000ml of V12768 + 1.50000ml of V12764 + 1.50000ml of V12767 + 16.00000ml of V13658 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP121045	06/08/2023	12/08/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/09/2023

FROM 0.50000ml of V10601 + 49.50000ml of V13655 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP121351	06/23/2023	08/05/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/28/2023

FROM 0.16000ml of V12229 + 0.80000ml of V12695 + 0.80000ml of V13104 + 0.80000ml of V13302 + 0.80000ml of V13331 + 0.80000ml of V13661 + 1.60000ml of V13546 + 4.24000ml of V13655 = Final Quantity: 10.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
820	8260 Calibration Working STD Mix-Second source, 10PPM	VP121353	06/23/2023	08/05/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/28/2023

FROM 4.68750ml of V13655 + 0.31250ml of VP121351 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
617	8260 Surrogate, 400PPM	VP121396	06/26/2023	12/26/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/28/2023

FROM 0.80000ml of V12012 + 49.20000ml of V13641 = Final Quantity: 50.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
263	8260 Working STD (Acrolein)-Second source, 800PPM	VP121532	07/05/2023	07/27/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 0.60000ml of V13876 + 1.00000ml of V13875 + 8.40000ml of V13641 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
826	8260 Working STD (Acrolein)-Second source, 50PPM	VP121534	07/05/2023	07/27/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 4.68750ml of V13641 + 0.31250ml of VP121532 = Final Quantity: 5.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP121535	07/05/2023	07/28/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 1.00000ml of V13872 + 1.50000ml of V13870 + 1.50000ml of V13871 + 21.00000ml of V13641 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
56	8260 Working STD (Acrolein) -first source, 500PPM	VP121536	07/05/2023	07/28/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 7.50000ml of V13641 + 12.50000ml of VP121535 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
181	8260 Working STD (Acrolein)-First source, 50PPM	VP121538	07/05/2023	07/28/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 9.87500ml of V13641 + 0.62500ml of VP121535 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP121539	07/05/2023	01/05/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 0.60000ml of V13578 + 1.00000ml of V13577 + 18.40000ml of V13644 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1818	8260 Working Std(2-CVE)-SS, 50ppm	VP121541	07/05/2023	01/05/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 9.37500ml of V13644 + 0.62500ml of VP121539 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP121576	07/07/2023	12/26/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/07/2023

FROM 0.25000ml of V12082 + 24.75000ml of V13644 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
825	8260 Working STD (BCM)-Second source, 10PPM	VP121616	07/10/2023	01/05/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/11/2023

FROM 0.05000ml of V12963 + 4.95000ml of V13644 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP121691	07/13/2023	01/05/2024	Semsettin Yesilyurt	None	None	John Carlone 07/17/2023

FROM 0.20000ml of V12784 + 1.00000ml of V12787 + 1.00000ml of V12788 + 1.00000ml of V12789 + 36.80000ml of V13644 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
732	BFB TUNE CHECK - SOIL	VP121778	07/17/2023	07/18/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.99800ml of W2606 + 0.00200ml of VP121045 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP121780	07/17/2023	07/18/2023	John Carlone	None	None	Mahesh Dadoda 07/20/2023

FROM 39.98400ml of W2606 + 0.01600ml of VP121045 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP121785	07/17/2023	08/26/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/20/2023

FROM 0.40000ml of V12226 + 0.50000ml of V13089 + 0.50000ml of V13199 + 0.50000ml of V13344 + 0.50000ml of V13495 + 0.50000ml of V13559 + 1.00000ml of V13523 + 1.50000ml of V13088 + 1.50000ml of V13196 + 1.50000ml of V13343 + 1.50000ml of V13494 + 1.50000ml of V13520 + 1.50000ml of V13521 + 1.50000ml of V13558 + 10.60000ml of V13644 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
244	8260 Calibration Working STD Mix-First source, 100PPM	VP121786	07/17/2023	08/26/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/20/2023

FROM 5.62500ml of V13644 + 9.37500ml of VP121785 = Final Quantity: 15.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
246	8260 Calibration Working STD Mix-First source, 10PPM	VP121788	07/17/2023	08/26/2023	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/20/2023

FROM 9.37500ml of V13644 + 0.62500ml of VP121785 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
773	50 PPB CCC, 8260-SOIL	VP121789	07/17/2023	07/18/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.98000ml of W2606 + 0.00250ml of VP118162 + 0.00250ml of VP119199 + 0.00250ml of VP120190 + 0.00250ml of VP121536 + 0.00250ml of VP121786 + 0.00500ml of VP120390 = Final Quantity: 5.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
773	50 PPB CCC, 8260-SOIL	VP121790	07/17/2023	07/18/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.98000ml of W2606 + 0.00250ml of VP118162 + 0.00250ml of VP119199 + 0.00250ml of VP120190 + 0.00250ml of VP121536 + 0.00250ml of VP121786 + 0.00500ml of VP120390 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
833	2.5 PPB LOD, 8260-SOIL	VP121794	07/17/2023	07/18/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.98000ml of W2606 + 0.00130ml of VP121353 + 0.00130ml of VP121534 + 0.00130ml of VP121541 + 0.00130ml of VP121616 + 0.00250ml of VP120190 + 0.00500ml of VP120390 = Final Quantity: 5.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP121804	07/17/2023	07/18/2023	John Carlone	None	None	Mahesh Dadoda 07/20/2023

FROM 39.94450ml of W2606 + 0.00500ml of VP120540 + 0.00500ml of VP121396 + 0.00800ml of VP121576 + 0.01250ml of VP121535 + 0.01250ml of VP121691 + 0.01250ml of VP121785 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP121805	07/17/2023	07/18/2023	John Carlone	None	None	Mahesh Dadoda 07/20/2023

FROM 39.94450ml of W2606 + 0.00500ml of VP120540 + 0.00500ml of VP121396 + 0.00800ml of VP121576 + 0.01250ml of VP121535 + 0.01250ml of VP121691 + 0.01250ml of VP121785 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP121817	07/18/2023	07/19/2023	John Carlone	None	None	Mahesh Dadoda 07/20/2023

FROM 39.98400ml of W2606 + 0.01600ml of VP121045 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP121818	07/18/2023	07/19/2023	John Carlone	None	None	Mahesh Dadoda 07/20/2023

FROM 39.94450ml of W2606 + 0.00500ml of VP120540 + 0.00500ml of VP121396 + 0.00800ml of VP121576 + 0.01250ml of VP121535 + 0.01250ml of VP121691 + 0.01250ml of VP121785 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP121819	07/18/2023	07/19/2023	John Carlone	None	None	Mahesh Dadoda 07/20/2023

FROM 39.94450ml of W2606 + 0.00500ml of VP120540 + 0.00500ml of VP121396 + 0.00800ml of VP121576 + 0.01250ml of VP121535 + 0.01250ml of VP121691 + 0.01250ml of VP121785 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
732	BFB TUNE CHECK - SOIL	VP121821	07/18/2023	07/19/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.99800ml of W2606 + 0.00200ml of VP121045 = Final Quantity: 5.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
773	50 PPB CCC, 8260-SOIL	VP121824	07/18/2023	07/19/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.98000ml of W2606 + 0.00250ml of VP118162 + 0.00250ml of VP119199 + 0.00250ml of VP120190 + 0.00250ml of VP121536 + 0.00250ml of VP121786 + 0.00500ml of VP120390 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
773	50 PPB CCC, 8260-SOIL	VP121825	07/18/2023	07/19/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.98000ml of W2606 + 0.00250ml of VP118162 + 0.00250ml of VP119199 + 0.00250ml of VP120190 + 0.00250ml of VP121536 + 0.00250ml of VP121786 + 0.00500ml of VP120390 = Final Quantity: 5.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3763	4.0 PPB 8260 SOIL MDL	VP121827	07/18/2023	07/19/2023	Mahesh Dadoda	None	None	John Carlone 07/20/2023

FROM 4.98000ml of W2606 + 0.00200ml of VP118164 + 0.00200ml of VP119200 + 0.00200ml of VP121538 + 0.00200ml of VP121788 + 0.00250ml of VP120190 + 0.00500ml of VP120390 = Final Quantity: 5.000 ml

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0147670	12/12/2023	12/12/2022 / SAM	01/09/2020 / sam	V10601

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0173020	09/15/2023	03/15/2023 / SAM	06/04/2021 / SAM	V12006

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0173020	12/26/2023	06/26/2023 / SAM	06/04/2021 / SAM	V12012

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0173600	11/04/2023	05/04/2023 / SAM	06/22/2021 / SAM	V12081

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0173600	12/26/2023	06/26/2023 / SAM	06/22/2021 / SAM	V12082

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0168291	09/27/2023	03/27/2023 / SAM	10/15/2021 / SAM	V12226

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0173797	08/28/2023	02/28/2023 / SAM	10/15/2021 / SAM	V12229

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0180020	11/18/2023	05/18/2023 / SAM	03/07/2022 / SAM	V12695

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0176219	09/15/2023	03/15/2023 / SAM	03/25/2022 / SAM	V12761

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0176219	11/16/2023	05/16/2023 / SAM	03/25/2022 / SAM	V12764

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0176219	09/15/2023	03/15/2023 / SAM	03/25/2022 / SAM	V12765

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0176219	11/16/2023	05/16/2023 / SAM	03/25/2022 / SAM	V12767

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0176219	11/16/2023	05/16/2023 / SAM	03/25/2022 / SAM	V12768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	07/24/2023	01/24/2023 / SAM	03/30/2022 / SAM	V12783

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	12/13/2024	01/24/2023 / SAM	03/30/2022 / SAM	V12784

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	07/24/2023	01/24/2023 / SAM	03/30/2022 / SAM	V12785

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	07/24/2023	01/24/2023 / SAM	03/30/2022 / SAM	V12786

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	01/13/2024	07/13/2023 / SAM	03/30/2022 / SAM	V12787

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	01/13/2024	07/13/2023 / SAM	03/30/2022 / SAM	V12788

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	121321	01/13/2024	07/13/2023 / SAM	03/30/2022 / SAM	V12789

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70046 / Bromochloromethane Std. sol/methanol 1000ppm	070122	01/10/2024	07/10/2023 / SAM	07/06/2022 / SAM	V12963

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0187424	12/26/2023	06/26/2023 / SAM	08/12/2022 / SAM	V13088

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0187424	12/26/2023	06/26/2023 / SAM	08/12/2022 / SAM	V13089

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0187418	11/18/2023	05/18/2023 / SAM	08/12/2022 / SAM	V13104

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0186868	12/26/2023	06/26/2023 / SAM	09/01/2022 / SAM	V13196

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0186868	12/26/2023	06/26/2023 / SAM	09/01/2022 / SAM	V13199

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2362001	07/24/2023	01/24/2023 / SAM	09/13/2022 / SAM	V13217

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2362001	09/10/2023	03/10/2023 / SAM	09/13/2022 / SAM	V13222

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	112921	11/29/2024	05/18/2023 / SAM	11/16/2022 / SAM	V13302

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	031921	11/18/2023	05/18/2023 / SAM	11/18/2022 / SAM	V13331

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	032922	12/26/2023	06/26/2023 / SAM	11/18/2022 / SAM	V13343

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	032922	12/26/2023	06/26/2023 / SAM	11/18/2022 / SAM	V13344

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0188819	12/26/2023	06/26/2023 / SAM	01/27/2023 / SAM	V13494

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0188819	12/26/2023	06/26/2023 / SAM	01/27/2023 / SAM	V13495

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0190554	12/26/2023	06/26/2023 / SAM	01/27/2023 / SAM	V13520

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0190554	12/26/2023	06/26/2023 / SAM	01/27/2023 / SAM	V13521

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0190554	12/26/2023	06/26/2023 / SAM	01/27/2023 / SAM	V13523

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0186767	09/30/2025	06/23/2023 / SAM	01/27/2023 / SAM	V13546

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	042921	12/26/2023	06/26/2023 / SAM	01/30/2023 / SAM	V13558

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	042921	12/26/2023	06/26/2023 / SAM	01/30/2023 / SAM	V13559

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	111722	01/05/2024	07/05/2023 / SAM	01/30/2023 / SAM	V13577

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	111722	01/05/2024	07/05/2023 / SAM	01/30/2023 / SAM	V13578

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2862010	12/26/2023	06/26/2023 / SAM	02/23/2023 / SAM	V13641

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2862010	01/05/2024	07/05/2023 / SAM	02/23/2023 / SAM	V13644

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2862010	12/08/2023	06/08/2023 / SAM	02/23/2023 / SAM	V13655

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2862010	10/27/2023	04/27/2023 / SAM	02/23/2023 / SAM	V13657

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2862010	11/16/2023	05/16/2023 / SAM	02/23/2023 / SAM	V13658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0193195	11/18/2023	05/18/2023 / SAM	03/13/2023 / SAM	V13661

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	062823	07/28/2023	07/05/2023 / SAM	06/29/2023 / SAM	V13870

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	062823	07/28/2023	07/05/2023 / SAM	06/29/2023 / SAM	V13871

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	062823	07/28/2023	07/05/2023 / SAM	06/29/2023 / SAM	V13872

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	062723	07/27/2023	07/05/2023 / SAM	06/29/2023 / SAM	V13875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	062723	07/27/2023	07/05/2023 / SAM	06/29/2023 / SAM	V13876

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2862010
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	< 0.02
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2862010
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	< 0.02
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2862010
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	< 0.02
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2862010
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	< 0.02
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2862010
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	< 0.02
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 042921
Description: Universal VOA Megamix
69 components
Expiration Date: 042924
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol DY186-USQ8

Eli Aliaga 042921
Formulated By: Eli Aliaga DATE

Pedro Rentas 042921
Reviewed By: Pedro L. Rentas DATE

	5E-05	Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL):	100.0	0.012 Flask Uncertainty

	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expended Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20041	2002.0	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2.	Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20233	2003.0	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	MKCD9604	NA	NA	NA	2000	100	0.2	NA	0.20001	0.20015	2001.4	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4.	cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21054	0.21060	2000.6	8.5	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20726	0.20751	2002.4	8.4	110-57-6	N/A	N/A
6.	Diethyl ether (Ethyl ether)	(0153)	SHBK1918	NA	NA	NA	2000	99.9	0.2	NA	0.20023	0.20048	2002.3	8.1	60-29-7	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7.	Ethyl methacrylate	(0361)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20230	2002.7	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0488)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20101	0.20130	2002.8	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9.	2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20101	0.20123	2002.1	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10.	Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20220	2001.7	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11.	Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20046	2002.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12.	Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20048	2002.7	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13.	Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20216	2001.5	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14.	2-Nitropropane	(0481)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20556	0.20585	2001.0	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15.	Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20409	0.20418	2000.9	8.2	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20221	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	100220	0.05	5.00	40018.8	2000	NA	NA	0.017	NA	NA	2000.8	18.4	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	100220	0.05	5.00	40007.7	2000	NA	NA	0.017	NA	NA	2000.3	18.4	124-48-1	N/A	orl-rat 846mg/kg
19.	cis-1,2-Dichloroethene	35171	100220	0.05	5.00	40012.4	2000	NA	NA	0.017	NA	NA	2000.5	18.4	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	100220	0.05	5.00	40005.6	2000	NA	NA	0.017	NA	NA	2000.2	18.4	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	100220	0.05	5.00	40013.9	2000	NA	NA	0.017	NA	NA	2000.6	18.4	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	031621	0.10	10.00	20009.1	2000	NA	NA	0.042	NA	NA	2000.8	19.3	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	2000.0	19.2	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.1	19.2	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	2000.0	19.3	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.1	19.3	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.1	19.3	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	011421	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	2000.0	18.4	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	011421	0.05	5.00	40003.9	2000	NA	NA	0.017	NA	NA	2000.1	18.4	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	011421	0.05	5.00	40004.9	2000	NA	NA	0.017	NA	NA	2000.1	18.4	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	011421	0.05	5.00	40002.2	2000	NA	NA	0.017	NA	NA	2000.0	18.4	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	011421	0.05	5.00	40013.9	2000	NA	NA	0.017	NA	NA	2000.6	18.4	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	011421	0.05	5.00	40015.0	2000	NA	NA	0.017	NA	NA	2000.7	26.1	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	011421	0.05	5.00	40004.4	2000	NA	NA	0.017	NA	NA	2000.1	18.4	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	011421	0.05	5.00	40009.1	2000	NA	NA	0.017	NA	NA	2000.4	18.5	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	011421	0.05	5.00	40003.5	2000	NA	NA	0.017	NA	NA	2000.1	26.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	011421	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.5	18.4	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	011421	0.05	5.00	40011.0	2000	NA	NA	0.017	NA	NA	2000.5	18.4	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	011421	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.9	18.4	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	011421	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	2000.1	18.4	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	011421	0.05	5.00	40015.2	2000	NA	NA	0.017	NA	NA	2000.7	18.4	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45.	Benzene	35162	020821	0.05	5.00	40008.9	2000	NA	NA	0.017	NA	NA	2000.3	18.4	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	020821	0.05	5.00	40019.0	2000	NA	NA	0.017	NA	NA	2000.9	18.4	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	020821	0.05	5.00	40019.8	2000	NA	NA	0.017	NA	NA	2000.9	18.4	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	020821	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.9	18.4	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	020821	0.05	5.00	40056.4	2000	NA	NA	0.017	NA	NA	2002.7	18.4	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	020821	0.05	5.00	40005.1	2000	NA	NA	0.017	NA	NA	2000.2	18.3	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	020821	0.05	5.00	40022.8	2000	NA	NA	0.017	NA	NA	2001.0	18.4	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	020821	0.05	5.00	40008.9	2000	NA	NA	0.017	NA	NA	2000.3	18.4	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	020821	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.4	87-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	35162	020821	0.05	5.00	40027.4	2000	NA	NA	0.017	NA	NA	2001.3	18.4	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	020821	0.05	5.00	40012.4	2000	NA	NA	0.017	NA	NA	2000.5	18.4	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	020821	0.05	5.00	40011.5	2000	NA	NA	0.017	NA	NA	2000.5	18.5	108-67-8	N/A	orl-rat 5000mg/kg
57.	m-Xylene	35162	020821	0.05	5.00	40021.8	2000	NA	NA	0.017	NA	NA	2001.0	18.4	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	022521	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2000.2	18.4	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	022521	0.05	5.00	40011.7	2000	NA	NA	0.017	NA	NA	2000.5	18.4	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	022521	0.05	5.00	40009.0	2000	NA	NA	0.017	NA	NA	2000.4	18.4	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	022521	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.4	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	022521	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.9	18.4	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	022521	0.05	5.00	40004.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	022521	0.05	5.00	40003.6	2000	NA	NA	0.017	NA	NA	2000.1	18.4	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	022521	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	022521	0.05	5.00	40007.4	2000	NA	NA	0.017	NA	NA	2000.3	18.4	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	022521	0.05	5.00	40004.6	2000	NA	NA	0.017	NA	NA	2000.1	18.4	103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	35163	022521	0.05	5.00	40003.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	022521	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

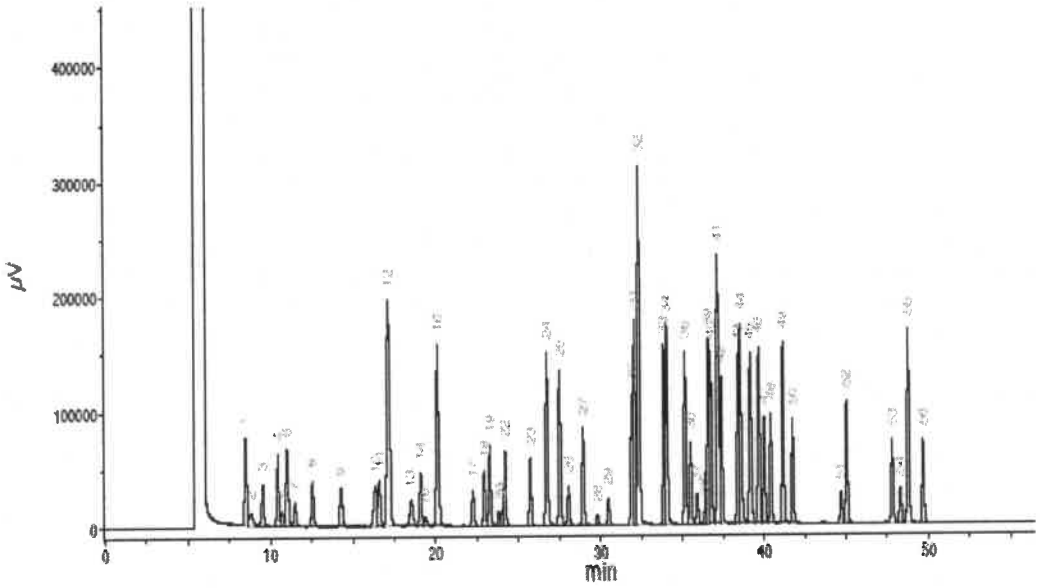
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 22, "P95317 L042921 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35999 points at 10 points/second.
Created: Thu, Apr 29, 2021 at 3:49:30 PM.
Sampled: Sequence "042521-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=4



Peak #	Analyte	FID RT (min.)
1	Ether	8.48
2	1,1,2-Trichloro-1,2,2-trifluoroethane	8.90
3	1,1-Dichloroethene	9.51
4	Acetonitrile	10.44
5	Iodoethane	10.71
6	Allyl chloride	11.02
7	**Carbon disulfide/Methylene chloride**	11.51
8	trans-1,2-Dichloroethene	12.55
9	1,1-Dichloroethane	14.28
10	2,2-Dichloropropane	16.33
11	cis-1,2-Dichloroethene	16.59
12	**Methacrylonitrile/Methyl acrylate/Chloroform**	17.14
13	**Isobutanol/1,1,1-Trichloroethane**	18.32
14	1,1-Dichloropropene	19.08
15	Carbon tetrachloride	19.39
16	**Benzene/1,2-Dichloroethane**	20.10
17	Trichloroethene	22.03
18	1,2-Dichloropropane	22.92
19	Methyl methacrylate	23.26
20	Bromodichloromethane	23.79
21	Dibromomethane	23.98
22	2-Nitropropane	24.18
23	cis-1,3-Dichloropropene	25.71
24	Toluene	26.71
25	**Ethyl methacrylate/trans-1,3-Dichloropropene**	27.90
26	1,1,2-Trichloroethane	28.04
27	**Tetrachloroethene/1,3-Dichloropropane**	28.92
28	Dibromochloromethane	29.79
29	1,2-Dibromoethane	30.46
30	Chlorobenzene	31.89
31	**Ethylbenzene/1,1,1,2-Tetrachloroethane**	32.07
32	**m-Xylene/p-Xylene**	32.33
33	o-Xylene	33.87
34	Styrene	34.04
35	**Isopropylbenzene/Bromoform**	35.14
36	cis-1,4-Dichloro-2-butene	35.49
37	1,1,2,2-Tetrachloroethane	35.90
38	**1,2,3-Trichloropropane**	36.34
39	**n-Propylbenzene**	36.58
40	**trans-1,4-Dichloro-2-butene/Bromobenzene**	36.73
41	**1,3,5-Trimethylbenzene/2-Chlorotoluene**	37.17
42	4-Chlorotoluene	37.38
43	tert-Butylbenzene	38.41
44	**1,2,4-Trimethylbenzene/Pentachloroethane**	38.55
45	sec-Butylbenzene	38.16
46	p-Isopropyltoluene	39.68
47	1,3-Dichlorobenzene	40.01
48	1,4-Dichlorobenzene	40.42
49	n-Butylbenzene	41.16
50	1,2-Dichlorobenzene	41.74
51	1,2-Dibromo-3-chloropropane	44.68
52	Nitrobenzene	45.04
53	1,2,4-Trichlorobenzene	47.80
54	Hexachlorobutadiene	48.29
55	Naphthalene	48.76
56	1,2,3-Trichlorobenzene	49.66

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face shield**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability — Stable under recommended storage conditions.
Possibility of hazardous reactions — Vapours may form explosive mixture with air.
Conditions to avoid — Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid — Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 042921
Description: Universal VOA Megamix
69 components
Expiration Date: 042924
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol DY186-USQ8

Eli Aliaga 042921
Formulated By: Eli Aliaga DATE

Pedro Rentas 042921
Reviewed By: Pedro L. Rentas DATE

	5E-05	Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL):	100.0	0.012 Flask Uncertainty

	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expended Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20041	2002.0	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2.	Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20233	2003.0	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	MKCD9604	NA	NA	NA	2000	100	0.2	NA	0.20001	0.20015	2001.4	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4.	cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21054	0.21060	2000.6	8.5	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20726	0.20751	2002.4	8.4	110-57-6	N/A	N/A
6.	Diethyl ether (Ethyl ether)	(0153)	SHBK1918	NA	NA	NA	2000	99.9	0.2	NA	0.20023	0.20048	2002.3	8.1	60-29-7	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7.	Ethyl methacrylate	(0361)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20230	2002.7	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0488)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20101	0.20130	2002.8	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9.	2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20101	0.20123	2002.1	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10.	Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20220	2001.7	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11.	Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20046	2002.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12.	Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20048	2002.7	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13.	Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20216	2001.5	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14.	2-Nitropropane	(0481)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20556	0.20585	2001.0	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15.	Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20409	0.20418	2000.9	8.2	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20221	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	100220	0.05	5.00	40018.8	2000	NA	NA	0.017	NA	NA	2000.8	18.4	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	100220	0.05	5.00	40007.7	2000	NA	NA	0.017	NA	NA	2000.3	18.4	124-48-1	N/A	orl-rat 846mg/kg
19.	cis-1,2-Dichloroethene	35171	100220	0.05	5.00	40012.4	2000	NA	NA	0.017	NA	NA	2000.5	18.4	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	100220	0.05	5.00	40005.6	2000	NA	NA	0.017	NA	NA	2000.2	18.4	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	100220	0.05	5.00	40013.9	2000	NA	NA	0.017	NA	NA	2000.6	18.4	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	031621	0.10	10.00	20009.1	2000	NA	NA	0.042	NA	NA	2000.8	19.3	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	2000.0	19.2	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.1	19.2	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	2000.0	19.3	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.1	19.3	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.1	19.3	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	011421	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	2000.0	18.4	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	011421	0.05	5.00	40003.9	2000	NA	NA	0.017	NA	NA	2000.1	18.4	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	011421	0.05	5.00	40004.9	2000	NA	NA	0.017	NA	NA	2000.1	18.4	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	011421	0.05	5.00	40002.2	2000	NA	NA	0.017	NA	NA	2000.0	18.4	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	011421	0.05	5.00	40013.9	2000	NA	NA	0.017	NA	NA	2000.6	18.4	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	011421	0.05	5.00	40015.0	2000	NA	NA	0.017	NA	NA	2000.7	26.1	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	011421	0.05	5.00	40004.4	2000	NA	NA	0.017	NA	NA	2000.1	18.4	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	011421	0.05	5.00	40009.1	2000	NA	NA	0.017	NA	NA	2000.4	18.5	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	011421	0.05	5.00	40003.5	2000	NA	NA	0.017	NA	NA	2000.1	26.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	011421	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.5	18.4	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	011421	0.05	5.00	40011.0	2000	NA	NA	0.017	NA	NA	2000.5	18.4	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	011421	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.9	18.4	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	011421	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	2000.1	18.4	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	011421	0.05	5.00	40015.2	2000	NA	NA	0.017	NA	NA	2000.7	18.4	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45.	Benzene	35162	020821	0.05	5.00	40008.9	2000	NA	NA	0.017	NA	NA	2000.3	18.4	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	020821	0.05	5.00	40019.0	2000	NA	NA	0.017	NA	NA	2000.9	18.4	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	020821	0.05	5.00	40019.8	2000	NA	NA	0.017	NA	NA	2000.9	18.4	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	020821	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.9	18.4	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	020821	0.05	5.00	40056.4	2000	NA	NA	0.017	NA	NA	2002.7	18.4	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	020821	0.05	5.00	40005.1	2000	NA	NA	0.017	NA	NA	2000.2	18.3	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	020821	0.05	5.00	40022.8	2000	NA	NA	0.017	NA	NA	2001.0	18.4	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	020821	0.05	5.00	40008.9	2000	NA	NA	0.017	NA	NA	2000.3	18.4	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	020821	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.4	87-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	35162	020821	0.05	5.00	40027.4	2000	NA	NA	0.017	NA	NA	2001.3	18.4	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	020821	0.05	5.00	40012.4	2000	NA	NA	0.017	NA	NA	2000.5	18.4	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	020821	0.05	5.00	40011.5	2000	NA	NA	0.017	NA	NA	2000.5	18.5	108-67-8	N/A	orl-rat 5000mg/kg
57.	m-Xylene	35162	020821	0.05	5.00	40021.8	2000	NA	NA	0.017	NA	NA	2001.0	18.4	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	022521	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2000.2	18.4	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	022521	0.05	5.00	40011.7	2000	NA	NA	0.017	NA	NA	2000.5	18.4	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	022521	0.05	5.00	40009.0	2000	NA	NA	0.017	NA	NA	2000.4	18.4	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	022521	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.4	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	022521	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.9	18.4	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	022521	0.05	5.00	40004.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	022521	0.05	5.00	40003.6	2000	NA	NA	0.017	NA	NA	2000.1	18.4	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	022521	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	022521	0.05	5.00	40007.4	2000	NA	NA	0.017	NA	NA	2000.3	18.4	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	022521	0.05	5.00	40004.6	2000	NA	NA	0.017	NA	NA	2000.1	18.4	103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	35163	022521	0.05	5.00	40003.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	022521	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

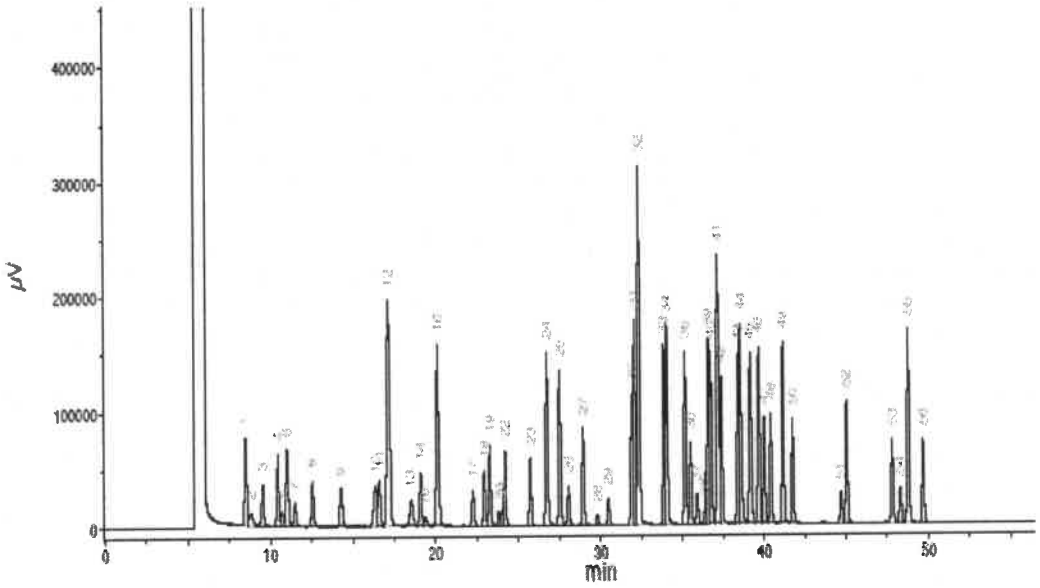
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 22, "P95317 L042921 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35999 points at 10 points/second.
Created: Thu, Apr 29, 2021 at 3:49:30 PM.
Sampled: Sequence "042521-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=4



Peak #	Analyte	FID RT (min.)
1	Ether	8.48
2	1,1,2-Trichloro-1,2,2-trifluoroethane	8.90
3	1,1-Dichloroethene	9.51
4	Acetonitrile	10.44
5	Iodoethane	10.71
6	Allyl chloride	11.02
7	**Carbon disulfide/Methylene chloride**	11.51
8	trans-1,2-Dichloroethene	12.55
9	1,1-Dichloroethane	14.28
10	2,2-Dichloropropane	16.33
11	cis-1,2-Dichloroethene	16.59
12	**Methacrylonitrile/Methyl acrylate/Chloroform**	17.14
13	**Isobutanol/1,1,1-Trichloroethane**	18.32
14	1,1-Dichloropropene	19.08
15	Carbon tetrachloride	19.39
16	**Benzene/1,2-Dichloroethane**	20.10
17	Trichloroethene	22.03
18	1,2-Dichloropropane	22.92
19	Methyl methacrylate	23.26
20	Bromodichloromethane	23.79
21	Dibromomethane	23.98
22	2-Nitropropane	24.18
23	cis-1,3-Dichloropropene	25.71
24	Toluene	26.71
25	**Ethyl methacrylate/trans-1,3-Dichloropropene**	27.90
26	1,1,2-Trichloroethane	28.04
27	**Tetrachloroethene/1,3-Dichloropropane**	28.92
28	Dibromochloromethane	29.79
29	1,2-Dibromoethane	30.46
30	Chlorobenzene	31.89
31	**Ethylbenzene/1,1,1,2-Tetrachloroethane**	32.07
32	**m-Xylene/p-Xylene**	32.33
33	o-Xylene	33.87
34	Styrene	34.04
35	**Isopropylbenzene/Bromoform**	35.14
36	cis-1,4-Dichloro-2-butene	35.49
37	1,1,2,2-Tetrachloroethane	35.90
38	**1,2,3-Trichloropropane**	36.34
39	**n-Propylbenzene**	36.58
40	**trans-1,4-Dichloro-2-butene/Bromobenzene**	36.73
41	**1,3,5-Trimethylbenzene/2-Chlorotoluene**	37.17
42	4-Chlorotoluene	37.38
43	tert-Butylbenzene	38.41
44	**1,2,4-Trimethylbenzene/Pentachloroethane**	38.55
45	sec-Butylbenzene	38.16
46	p-Isopropyltoluene	39.68
47	1,3-Dichlorobenzene	40.01
48	1,4-Dichlorobenzene	40.42
49	n-Butylbenzene	41.16
50	1,2-Dichlorobenzene	41.74
51	1,2-Dibromo-3-chloropropane	44.68
52	Nitrobenzene	45.04
53	1,2,4-Trichlorobenzene	47.80
54	Hexachlorobutadiene	48.29
55	Naphthalene	48.76
56	1,2,3-Trichlorobenzene	49.66

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face shield**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability — Stable under recommended storage conditions.
Possibility of hazardous reactions — Vapours may form explosive mixture with air.
Conditions to avoid — Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid — Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

2

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 062723
Description: Acrolein

Solvent(s): Water **Lot#** 102422Q

Expiration Date: 072723
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

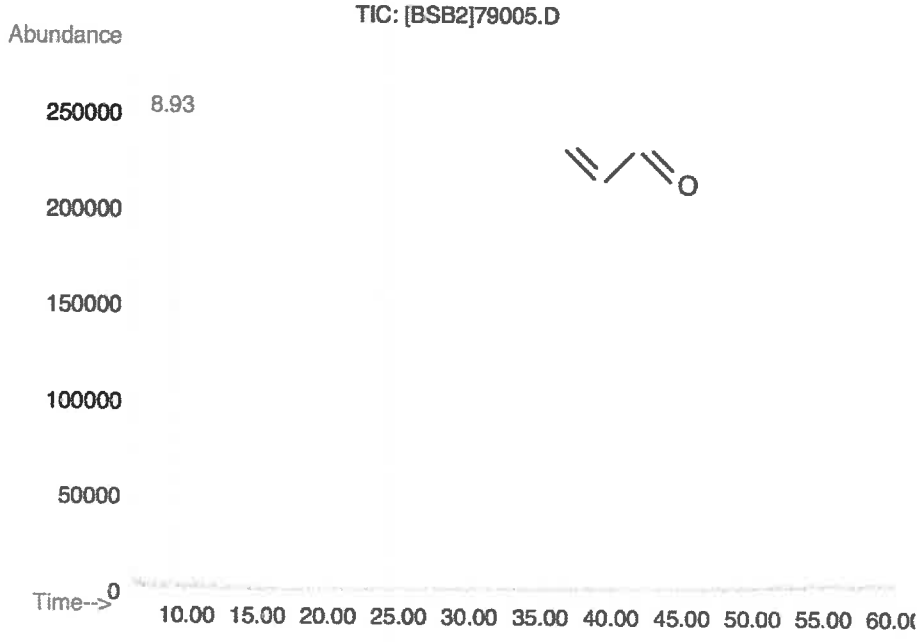
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

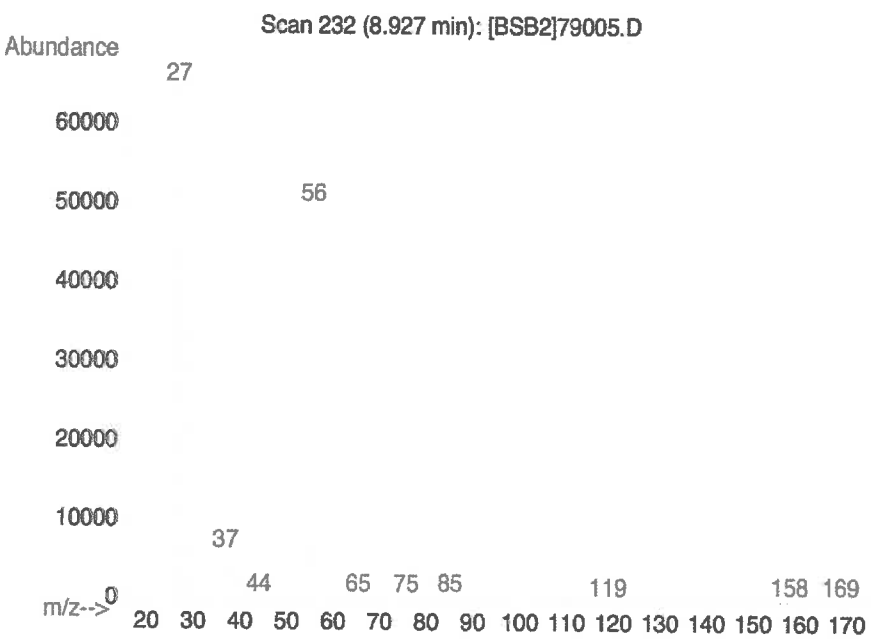
Weight(s) shown below were combined and diluted to (mL): 10.0

Justin Dippold	062723
Formulated By: Justin Dippold	DATE
Pedro Rentas	062723
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755R02D	5000	97.1	0.5	0.05160	0.05165	5004.4	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

2

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 062723
Description: Acrolein

Solvent(s): Water **Lot#** 102422Q

Expiration Date: 072723
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

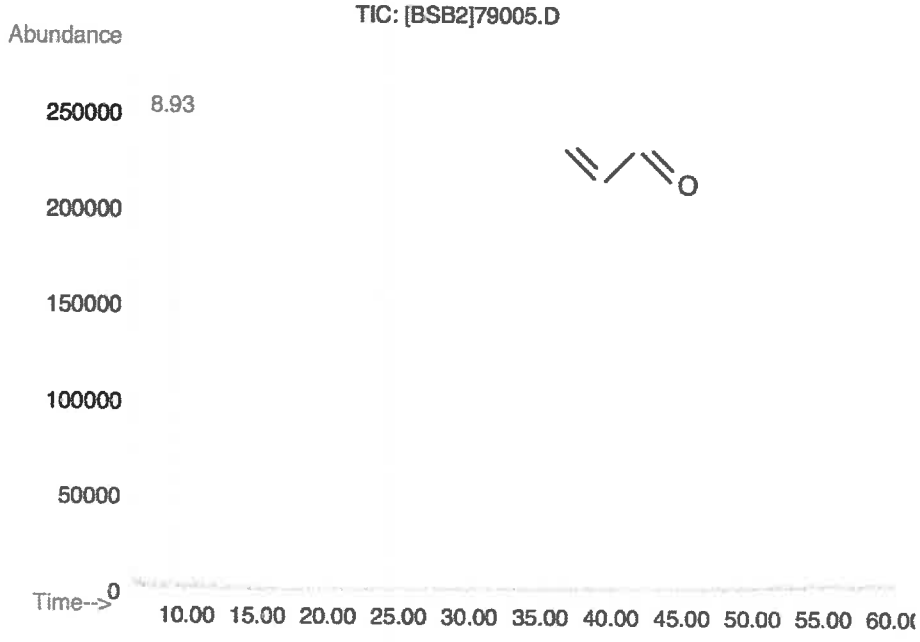
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

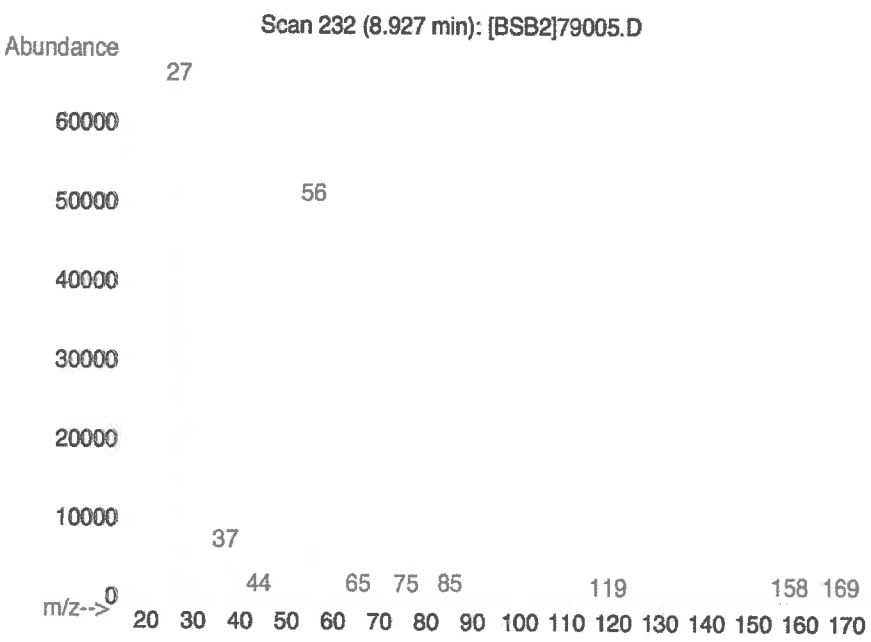
Weight(s) shown below were combined and diluted to (mL): 10.0

Justin Dippold	062723
Formulated By: Justin Dippold	DATE
Pedro Rentas	062723
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755R02D	5000	97.1	0.5	0.05160	0.05165	5004.4	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 062823
Description: Acrolein

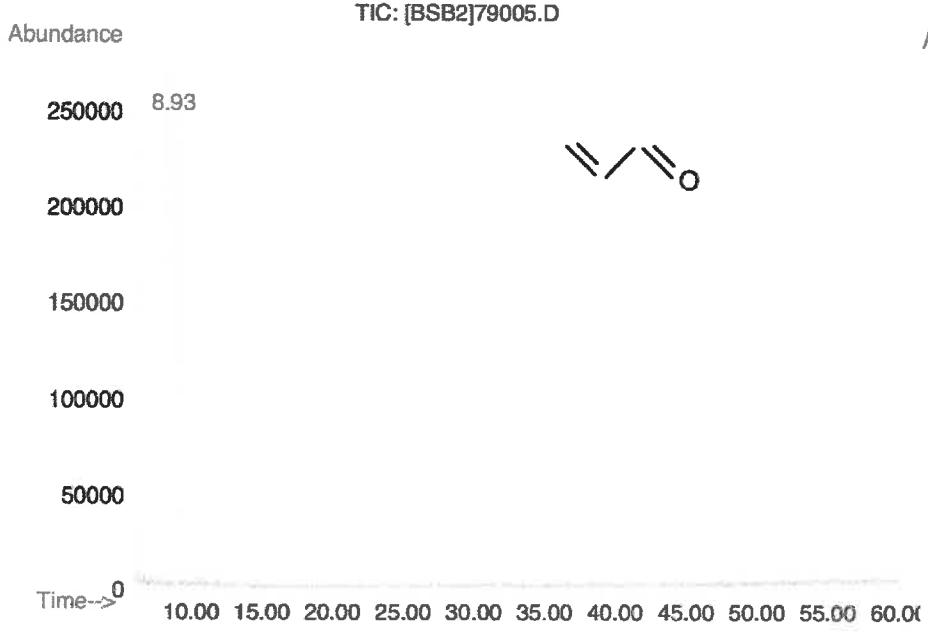
Solvent(s): Water **Lot#** 102422Q

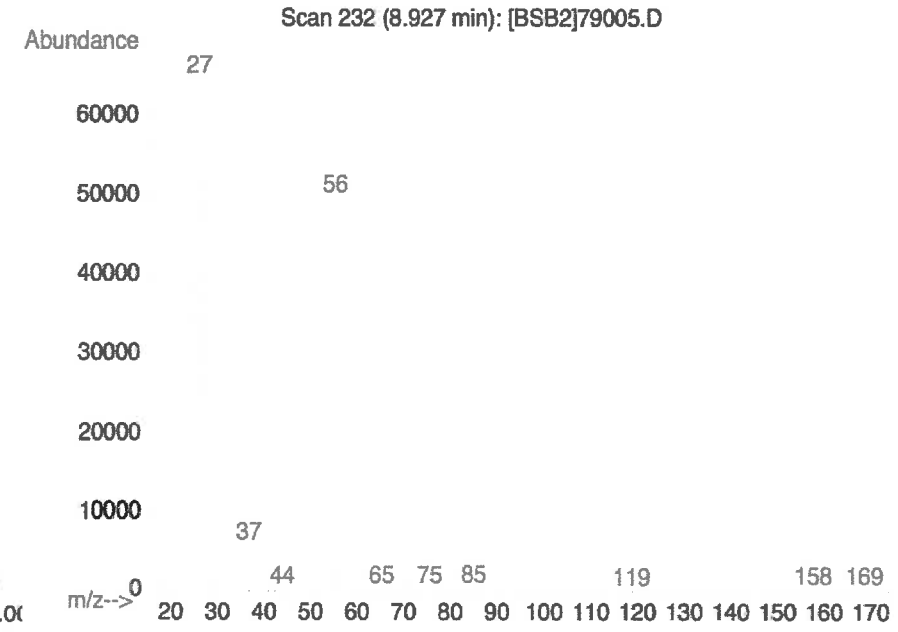
Expiration Date: 072823
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Gabriel Helland	062823
Formulated By: Gabriel Helland	DATE
Pedro Rentas	062823
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755R09M	5000	97.1	0.5	0.05160	0.05165	5004.4	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	May 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 062823
Description: Acrolein

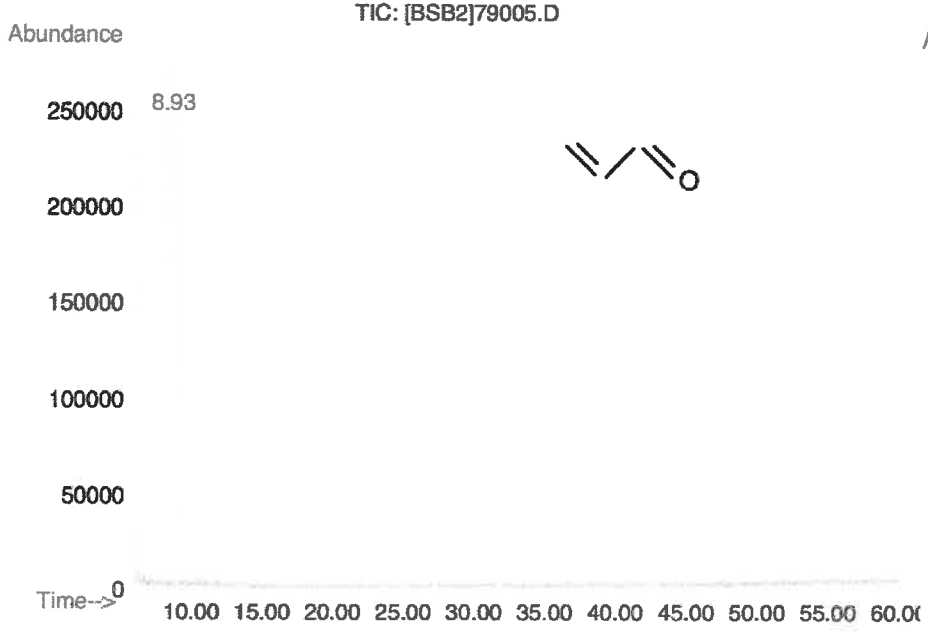
Solvent(s): Water **Lot#** 102422Q

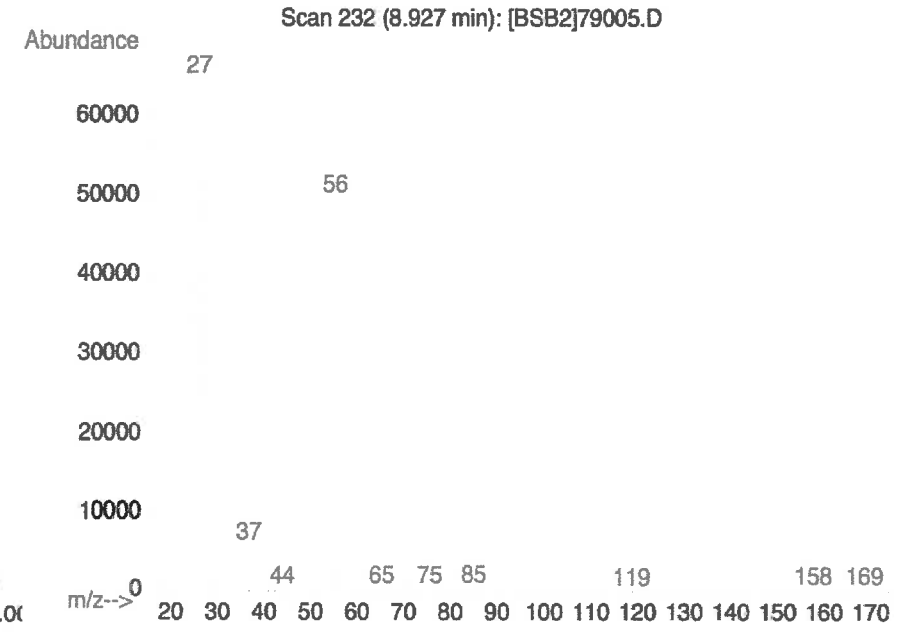
Expiration Date: 072823
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Gabriel Helland	062823
Formulated By: Gabriel Helland	DATE
Pedro Rentas	062823
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755R09M	5000	97.1	0.5	0.05160	0.05165	5004.4	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	May 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 062823
Description: Acrolein

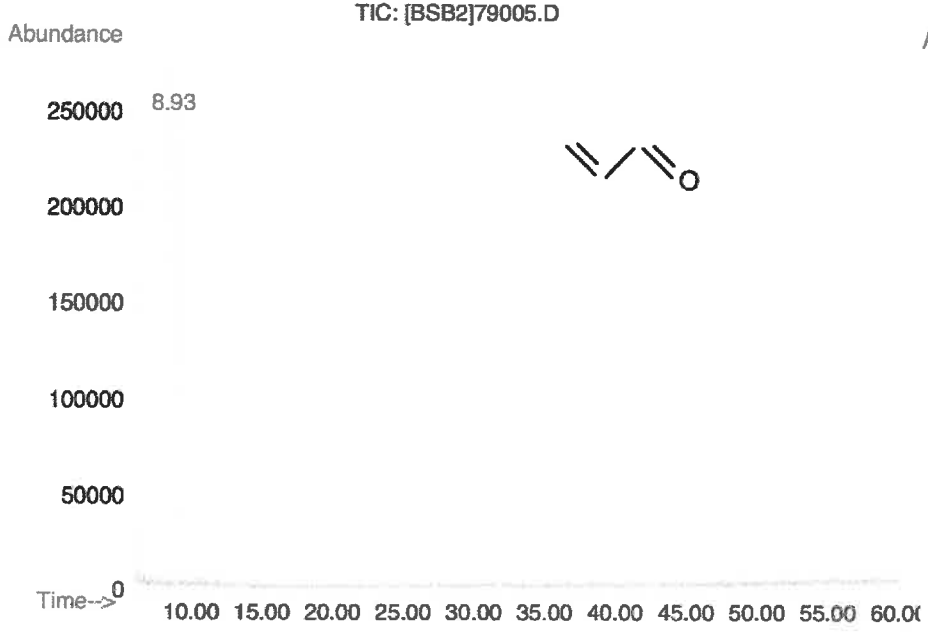
Solvent(s): Water **Lot#** 102422Q

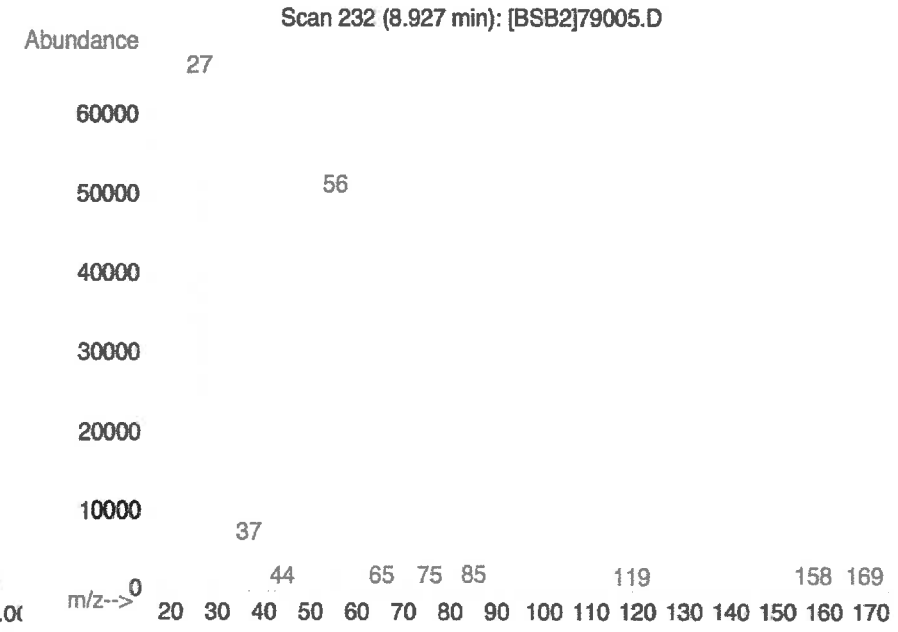
Expiration Date: 072823
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Gabriel Helland	062823
Formulated By: Gabriel Helland	DATE
Pedro Rentas	062823
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755R09M	5000	97.1	0.5	0.05160	0.05165	5004.4	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	May 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 111722
Description: 2-Chloroethyl vinyl ether

Solvent(s): Methanol **Lot#** EB679-US

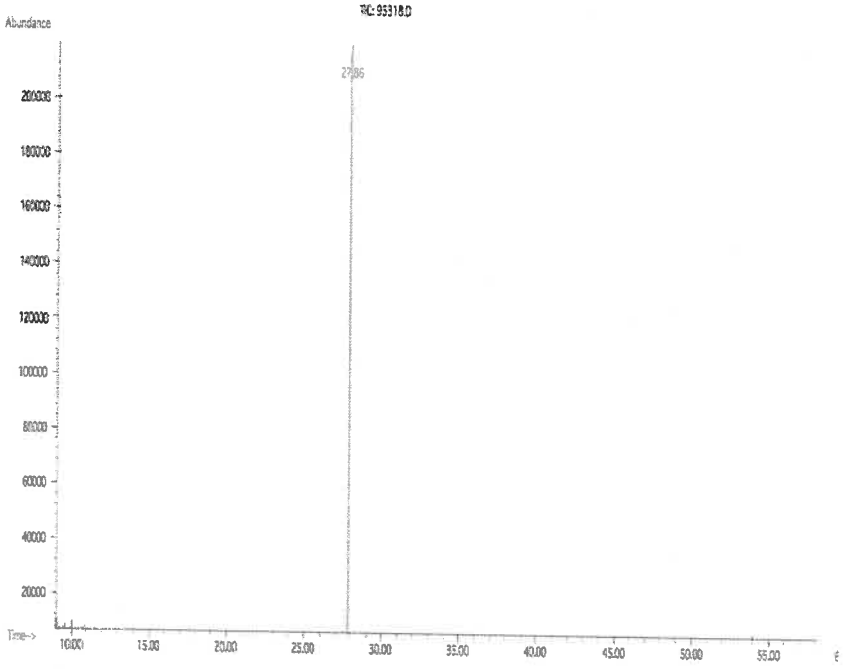
Expiration Date: 111725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

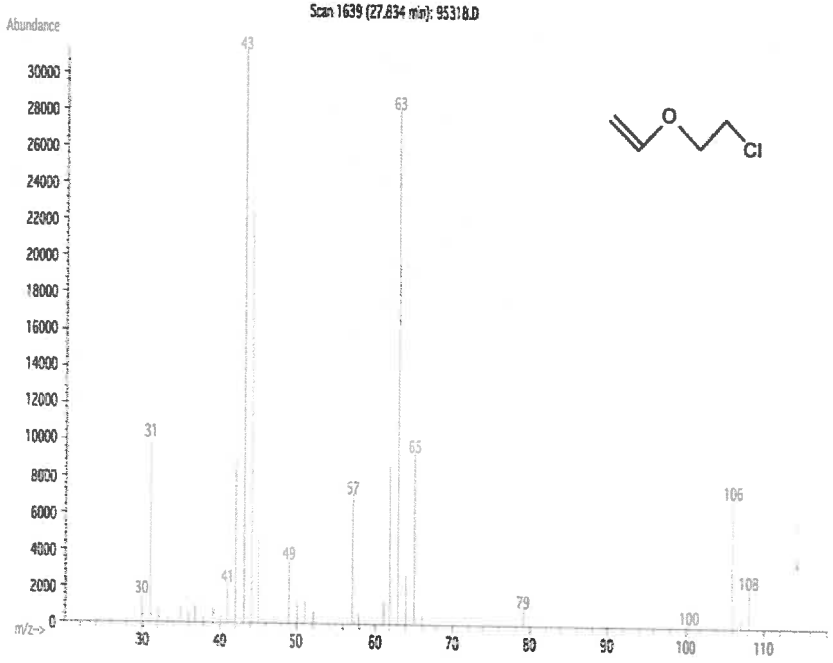
Weight(s) shown below were combined and diluted to (mL): 50.0 | 5E-05 Balance Uncertainty | 0.001 Flask Uncertainty

Formulated By:	Eli Aliaga	111722 DATE
Reviewed By:	Pedro L. Rentas	111722 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50541	0.50551	10001.9	40.5	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 111722
Description: 2-Chloroethyl vinyl ether

Solvent(s): Methanol **Lot#** EB679-US

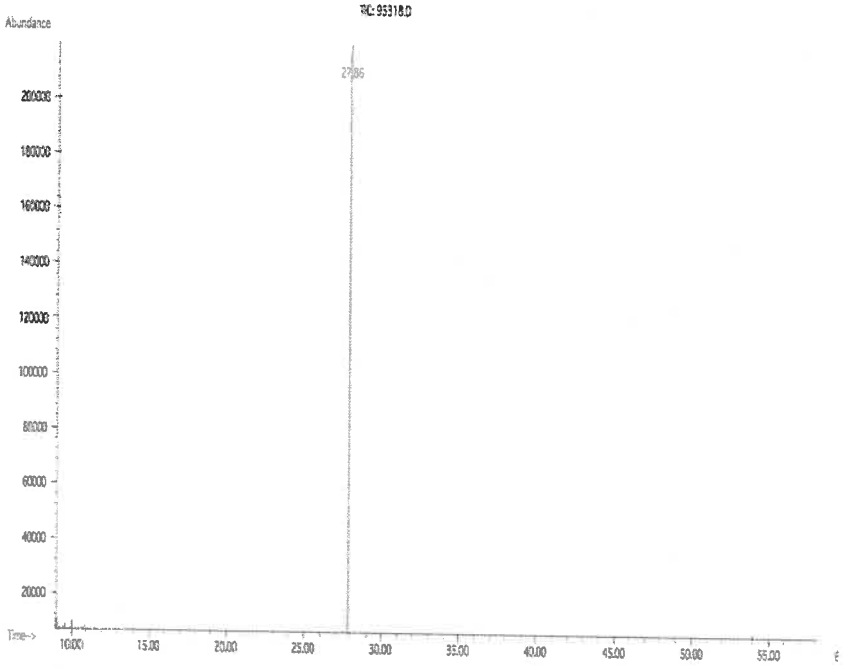
Expiration Date: 111725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

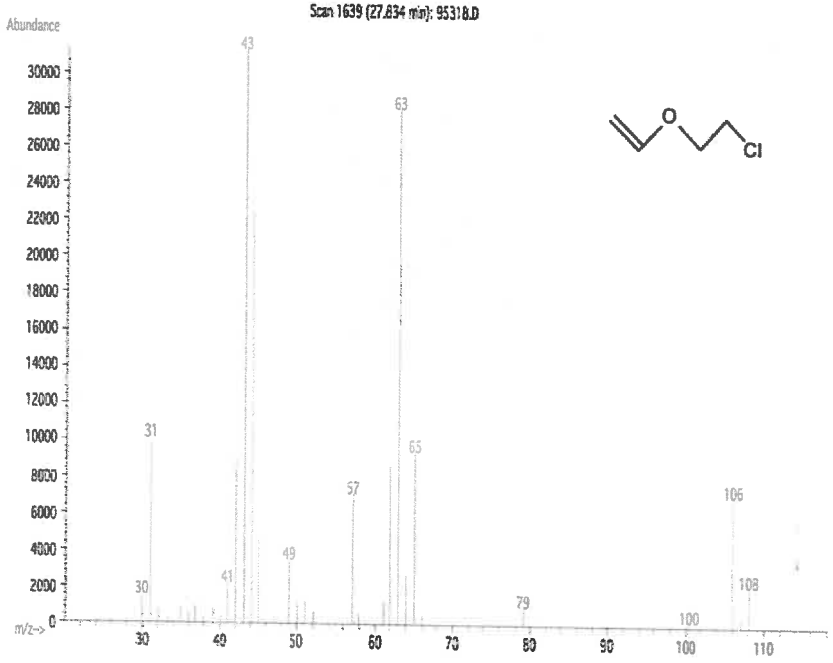
Weight(s) shown below were combined and diluted to (mL): 50.0 | 5E-05 Balance Uncertainty | 0.001 Flask Uncertainty

Formulated By:	Eli Aliaga	111722 DATE
Reviewed By:	Pedro L. Rentas	111722 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50541	0.50551	10001.9	40.5	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

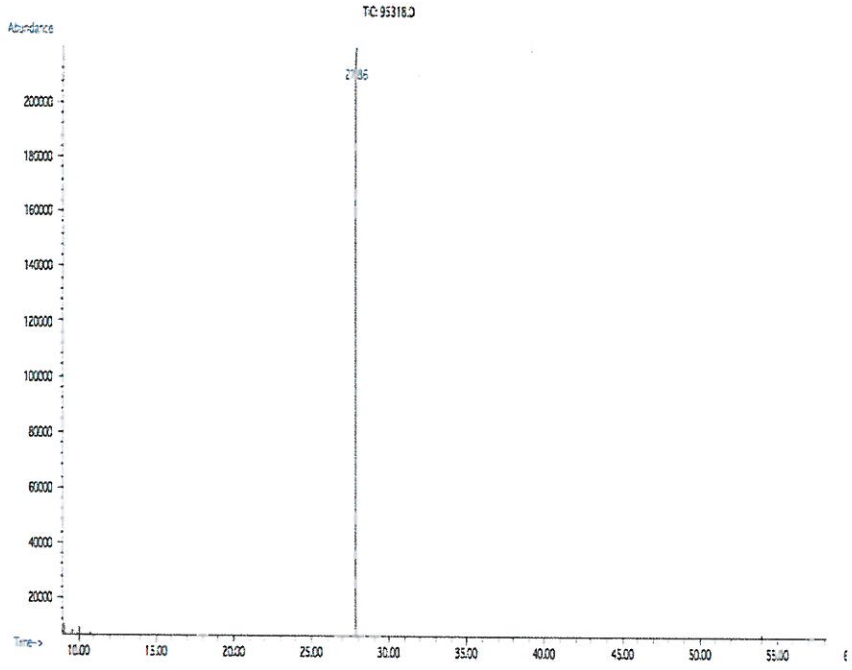
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

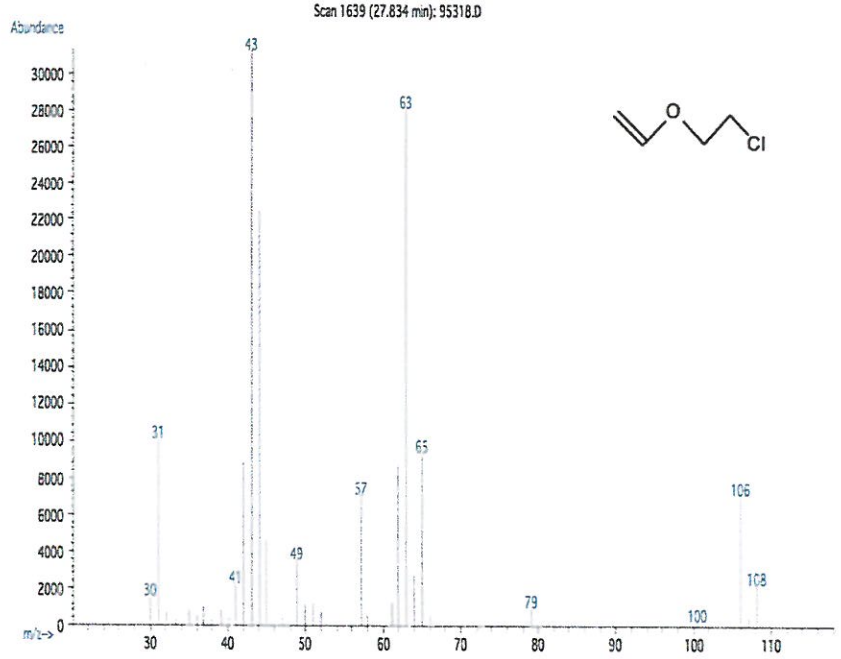
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

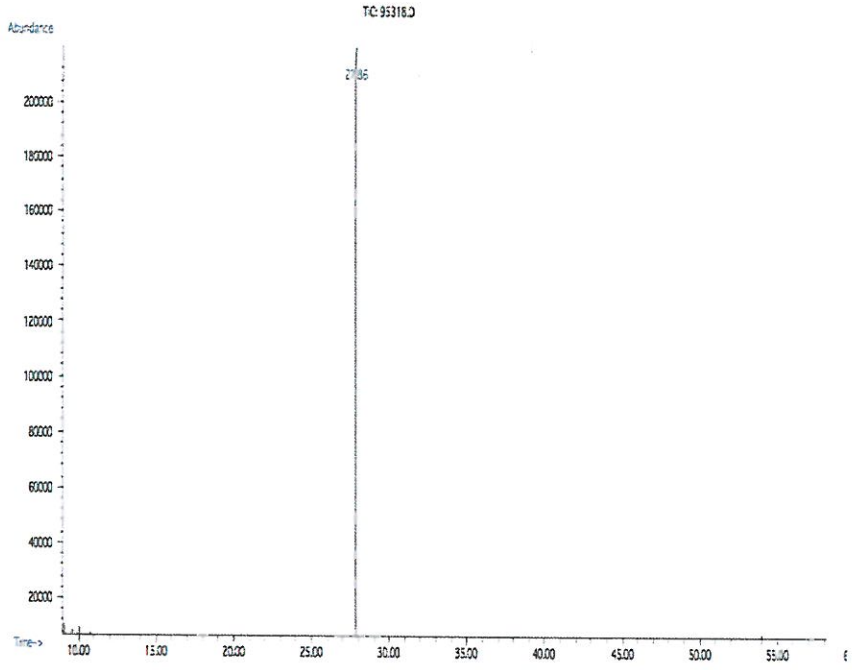
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

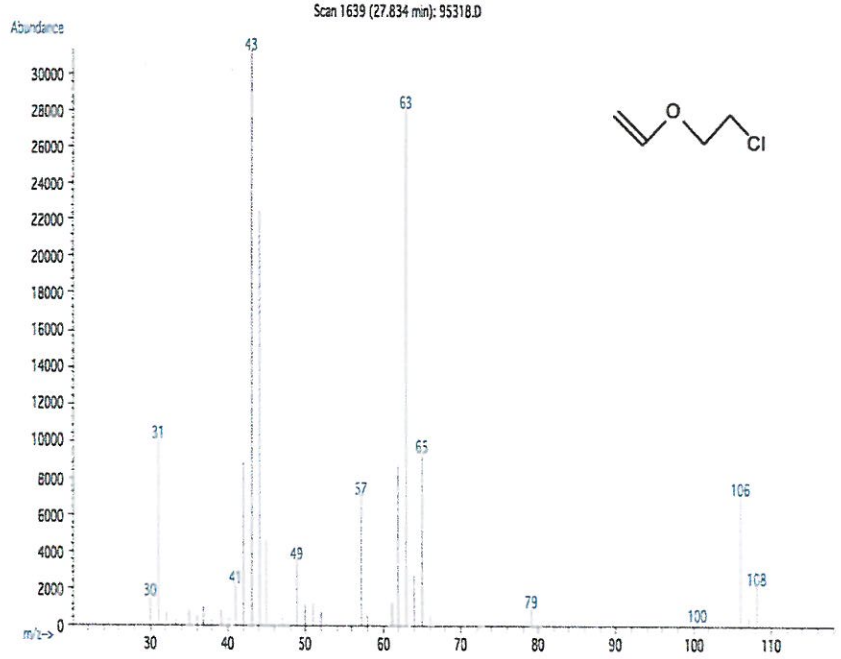
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

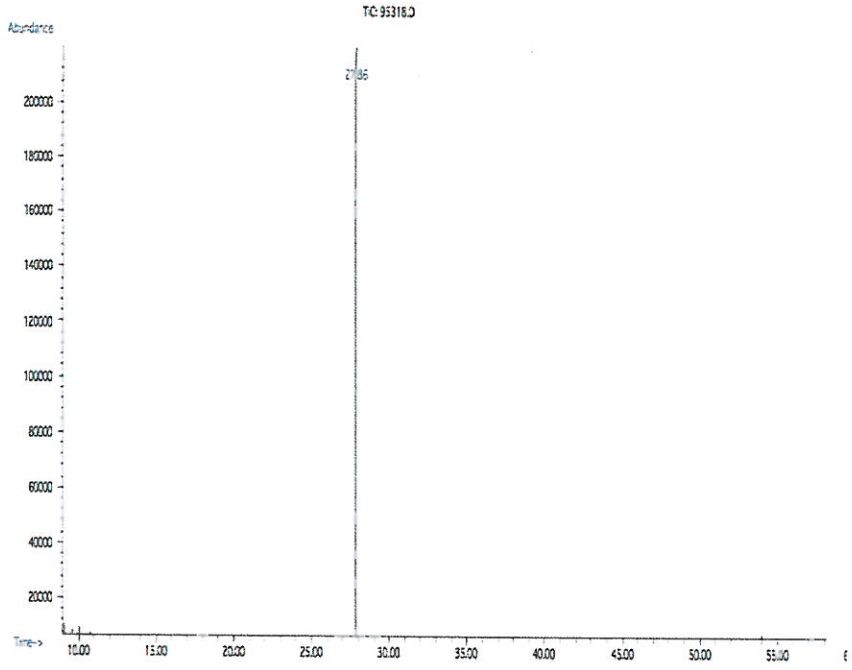
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

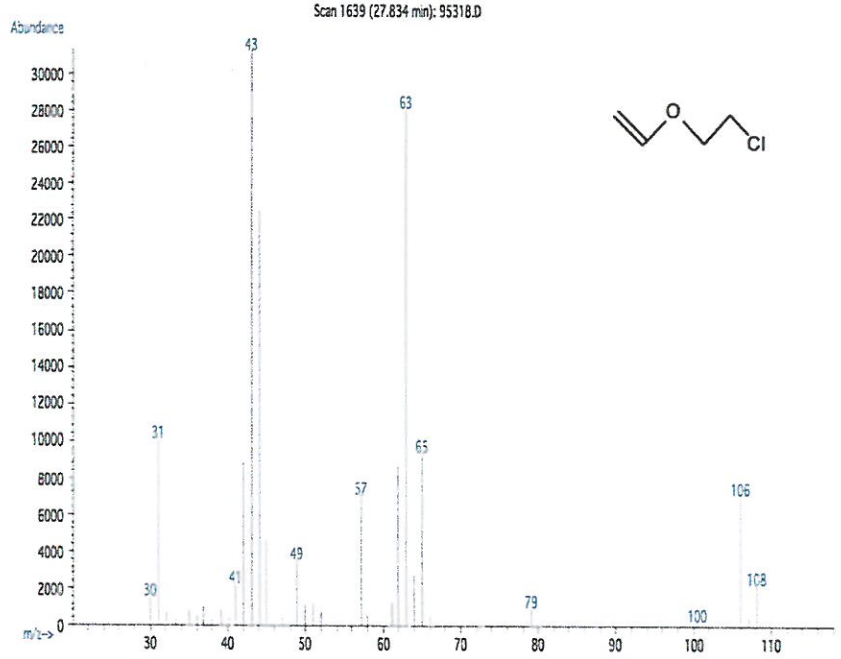
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

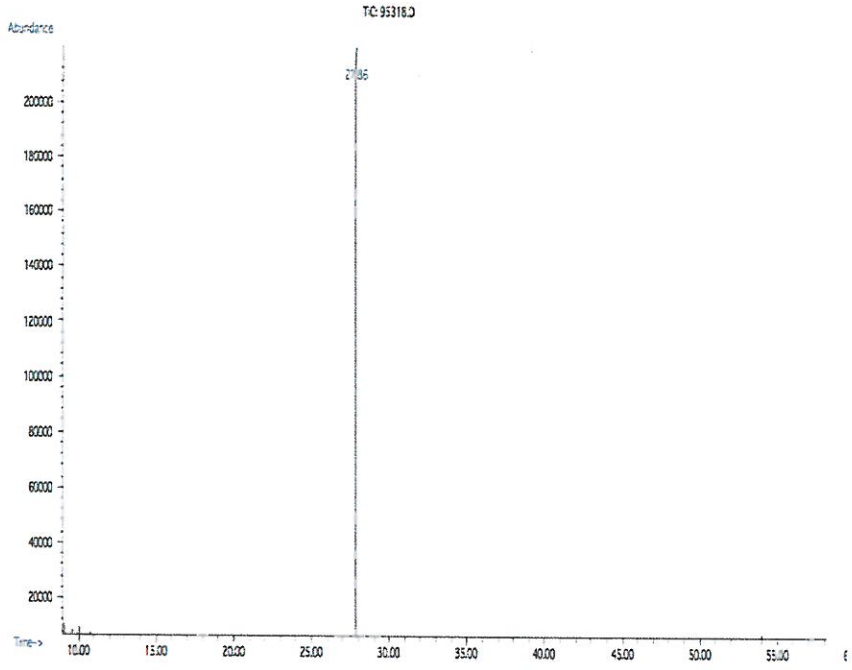
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

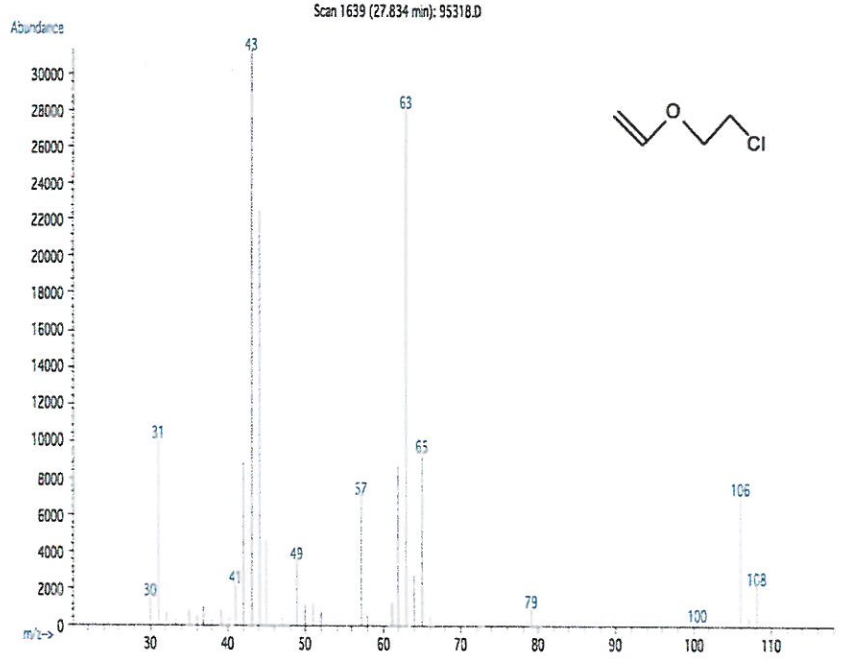
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

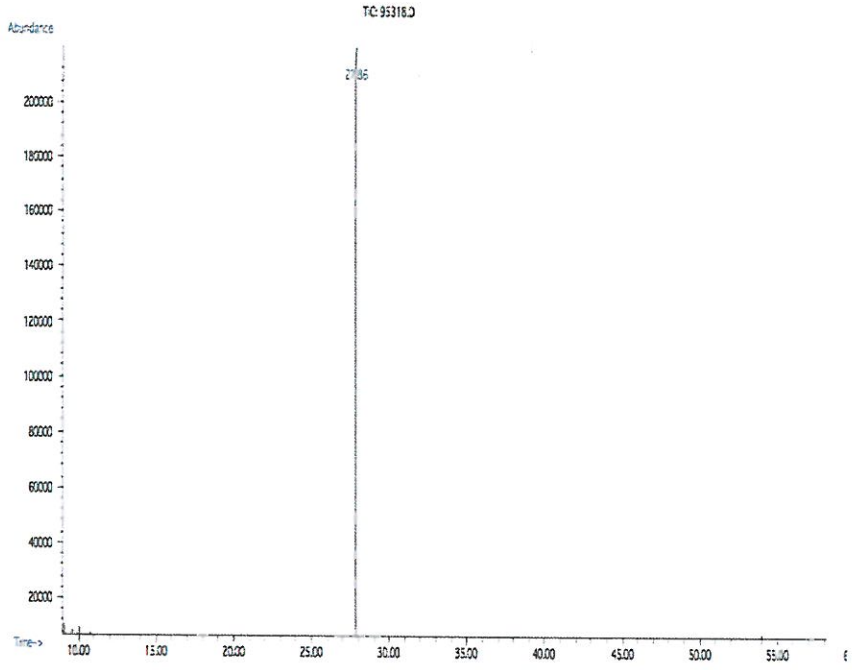
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

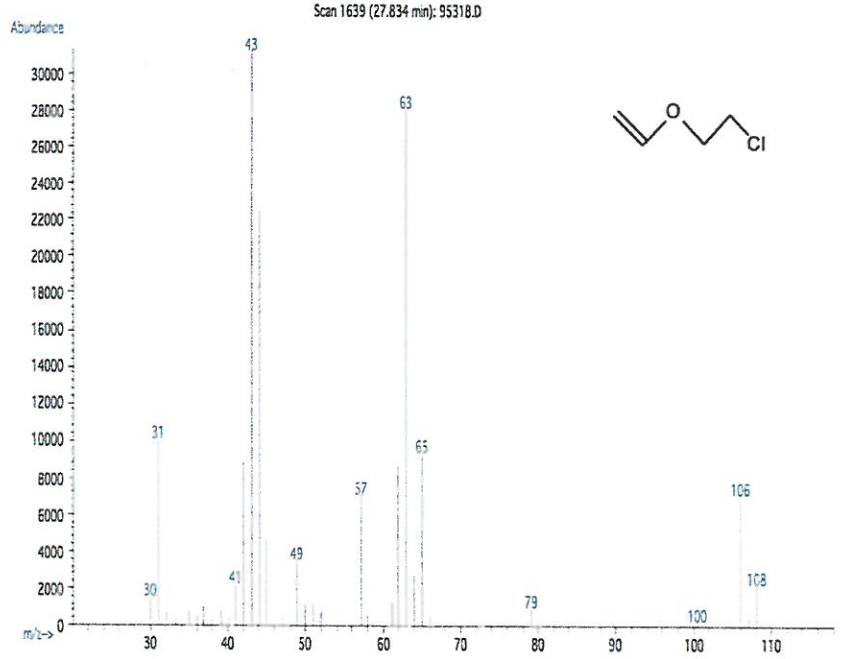
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

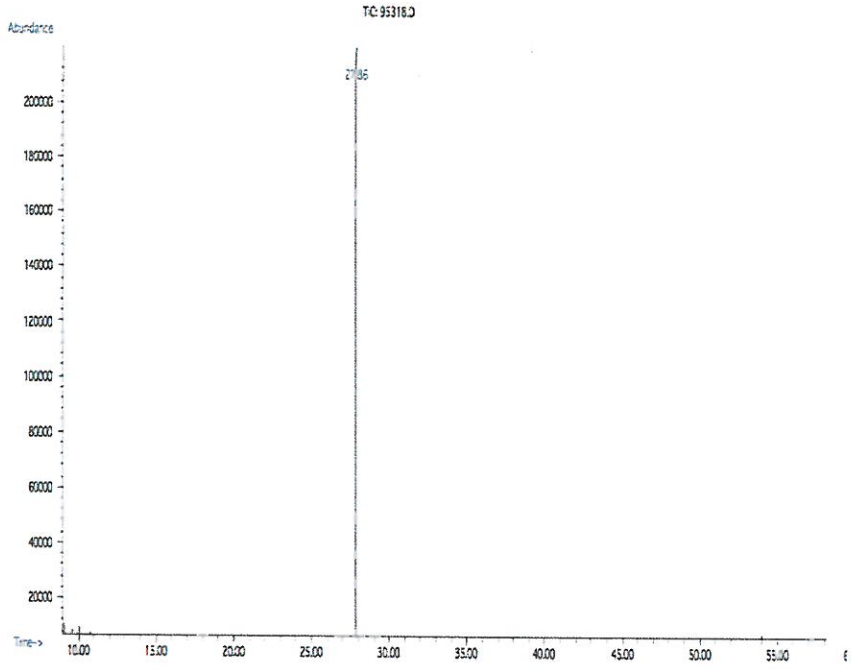
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

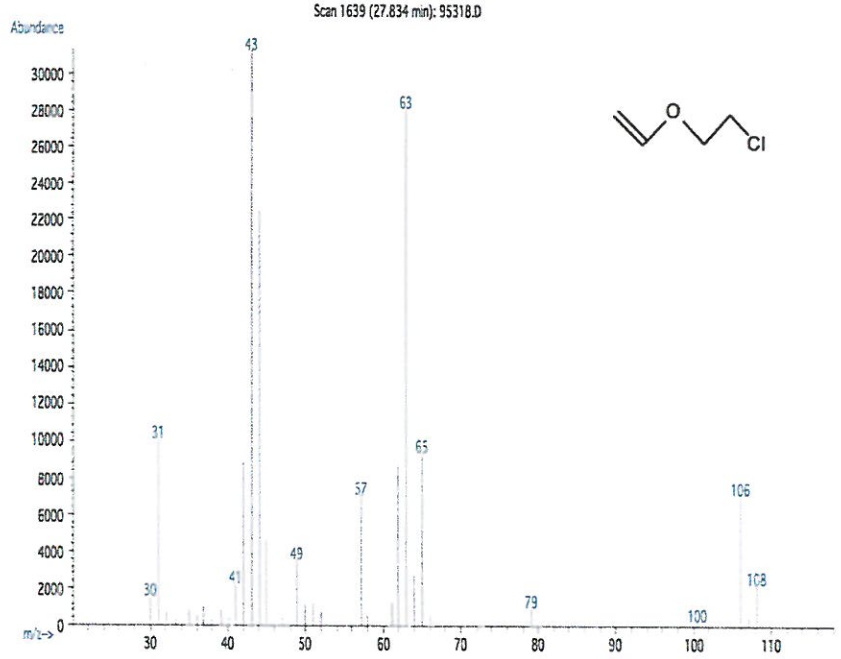
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol EA899-US

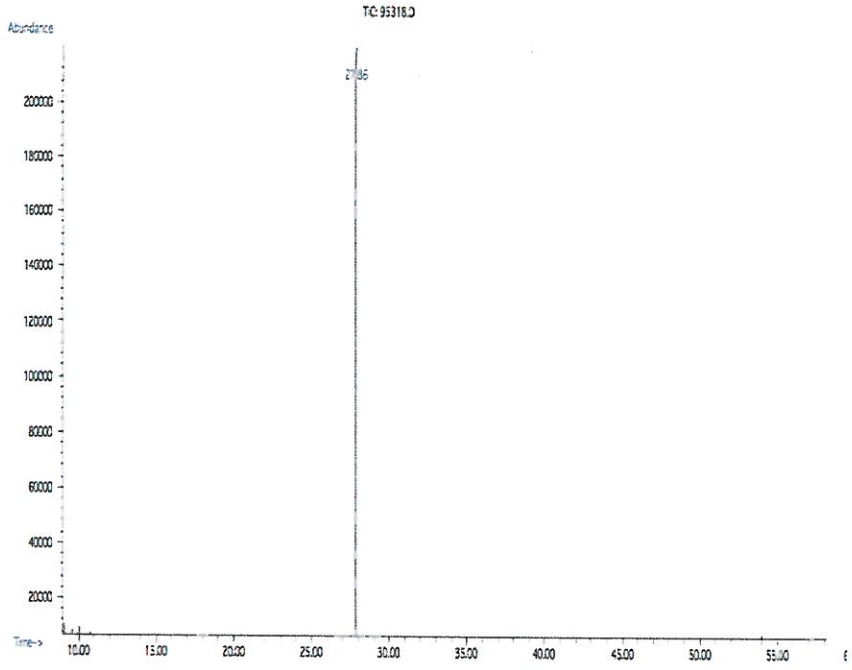
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

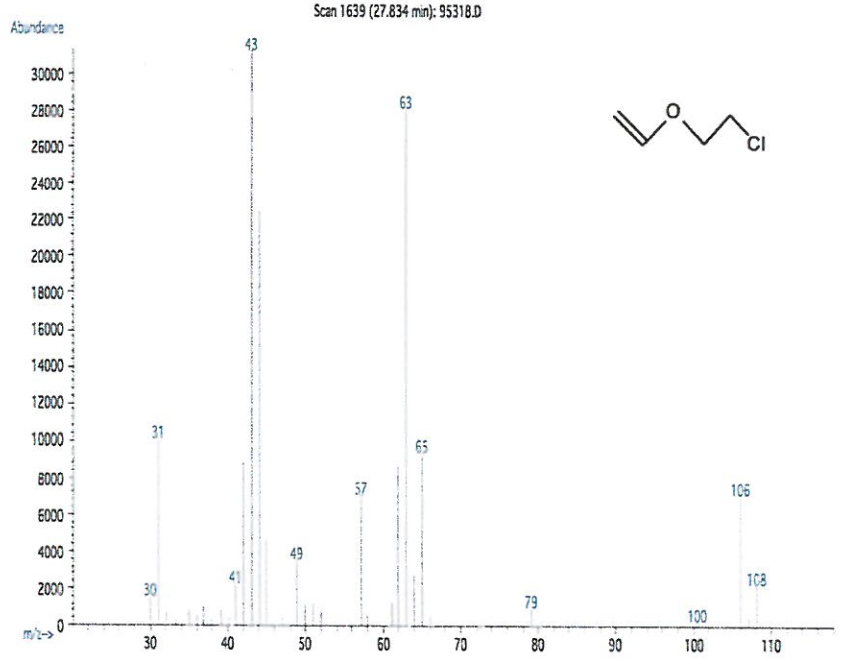
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

		121321
Formulated By:	Benson Chan	DATE
		121321
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30320	0.30411	10030.2	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0173020

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4	25,060.0 µg/mL	+/- 231.9100 µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot PR-29377)		+/- 1,416.6261 µg/mL	Unstressed
	Purity 99%		+/- 1,449.2417 µg/mL	Stressed
2	1-Bromo-4-fluorobenzene (BFB)	25,188.0 µg/mL	+/- 233.0945 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 1,423.8618 µg/mL	Unstressed
	Purity 99%		+/- 1,456.6441 µg/mL	Stressed
3	Dibromofluoromethane	25,212.0 µg/mL	+/- 233.3166 µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 012021)		+/- 1,425.2185 µg/mL	Unstressed
	Purity 99%		+/- 1,458.0320 µg/mL	Stressed
4	Toluene-d8	25,104.0 µg/mL	+/- 232.3171 µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-31750)		+/- 1,419.1134 µg/mL	Unstressed
	Purity 99%		+/- 1,451.7863 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Lane Kibe - Mix Technician

Date Mixed: 03-Jun-2021 **Balance:** B251644995

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

Safety Data Sheet

Revision Date: 05/24/21
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**555582 / Custom 8260A/B Surrogate Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	7
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
P&T Methanol	67-56-1	200-659-6	90
1-Bromo-4-fluorobenzene (BFB)	460-00-4	207-300-2	2.5
1,2-dichloroethane-d4	17060-07-0		2.5
dibromofluoromethane	1868-53-7		2.5
toluene-d8	2037-26-5	218-009-5	2.5

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.
Fire and/or Explosion Hazards:	Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the

environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
P&T Methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1-Bromo-4-fluorobenzene (BFB)	460-00-4	Not established	None Known	Not established	No data available
1,2-dichloroethane-d4	17060-07-0	Not established	None Known	Not established	No data available
dibromofluoromethane	1868-53-7	Not established	None Known	Not established	No data available
toluene-d8	2037-26-5	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	151.5 °C Boiling Point (at 1013.25 hPa) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	50
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%

Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	90
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Benzene, 1-bromo-4-fluoro-	460-00-4	Inhalation LC50 Rat 18 g/m3 4 h; Oral LD50 Rat 2700 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
P&T Methanol	67-56-1	X	X	-	X
1-Bromo-4-fluorobenzene (BFB)	460-00-4	-	-	-	X
1,2-dichloroethane-d4	17060-07-0	-	-	-	-
dibromofluoromethane	1868-53-7	-	-	-	-
toluene-d8	2037-26-5	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California

P&T Methanol	67-56-1	X	X	X	X
1-Bromo-4-fluorobenzene (BFB)	460-00-4	-	-	-	-
1,2-dichloroethane-d4	17060-07-0	-	-	-	-
dibromofluoromethane	1868-53-7	-	-	-	-
toluene-d8	2037-26-5	-	-	-	-

16. OTHER INFORMATION

Prior Version Date: 07/20/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0173020

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4	25,060.0 µg/mL	+/- 231.9100 µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot PR-29377)		+/- 1,416.6261 µg/mL	Unstressed
	Purity 99%		+/- 1,449.2417 µg/mL	Stressed
2	1-Bromo-4-fluorobenzene (BFB)	25,188.0 µg/mL	+/- 233.0945 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 1,423.8618 µg/mL	Unstressed
	Purity 99%		+/- 1,456.6441 µg/mL	Stressed
3	Dibromofluoromethane	25,212.0 µg/mL	+/- 233.3166 µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 012021)		+/- 1,425.2185 µg/mL	Unstressed
	Purity 99%		+/- 1,458.0320 µg/mL	Stressed
4	Toluene-d8	25,104.0 µg/mL	+/- 232.3171 µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-31750)		+/- 1,419.1134 µg/mL	Unstressed
	Purity 99%		+/- 1,451.7863 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Lane Kibe - Mix Technician

Date Mixed: 03-Jun-2021 **Balance:** B251644995

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

Safety Data Sheet

Revision Date: 05/24/21
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**555582 / Custom 8260A/B Surrogate Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	7
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
P&T Methanol	67-56-1	200-659-6	90
1-Bromo-4-fluorobenzene (BFB)	460-00-4	207-300-2	2.5
1,2-dichloroethane-d4	17060-07-0		2.5
dibromofluoromethane	1868-53-7		2.5
toluene-d8	2037-26-5	218-009-5	2.5

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.
Fire and/or Explosion Hazards:	Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the

environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
P&T Methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1-Bromo-4-fluorobenzene (BFB)	460-00-4	Not established	None Known	Not established	No data available
1,2-dichloroethane-d4	17060-07-0	Not established	None Known	Not established	No data available
dibromofluoromethane	1868-53-7	Not established	None Known	Not established	No data available
toluene-d8	2037-26-5	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	151.5 °C Boiling Point (at 1013.25 hPa) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	50
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%

Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	90
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Benzene, 1-bromo-4-fluoro-	460-00-4	Inhalation LC50 Rat 18 g/m3 4 h; Oral LD50 Rat 2700 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
P&T Methanol	67-56-1	X	X	-	X
1-Bromo-4-fluorobenzene (BFB)	460-00-4	-	-	-	X
1,2-dichloroethane-d4	17060-07-0	-	-	-	-
dibromofluoromethane	1868-53-7	-	-	-	-
toluene-d8	2037-26-5	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California

P&T Methanol	67-56-1	X	X	X	X
1-Bromo-4-fluorobenzene (BFB)	460-00-4	-	-	-	-
1,2-dichloroethane-d4	17060-07-0	-	-	-	-
dibromofluoromethane	1868-53-7	-	-	-	-
toluene-d8	2037-26-5	-	-	-	-

16. OTHER INFORMATION

Prior Version Date: 07/20/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0173600

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-30447) **Purity** 99%	25,040.0 µg/mL	+/- 231.7249 µg/mL +/- 1,415.4955 µg/mL +/- 1,448.0851 µg/mL	Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 (Lot MKBN8571V) **Purity** 99%	25,216.0 µg/mL	+/- 233.3536 µg/mL +/- 1,425.4447 µg/mL +/- 1,458.2633 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-29571) **Purity** 99%	25,120.0 µg/mL	+/- 232.4652 µg/mL +/- 1,420.0178 µg/mL +/- 1,452.7116 µg/mL	Gravimetric Unstressed Stressed
4	Pentafluorobenzene **CAS #** 363-72-4 (Lot MKCK2250) **Purity** 99%	25,092.0 µg/mL	+/- 232.2061 µg/mL +/- 1,418.4350 µg/mL +/- 1,451.0923 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Walker Workman - Operations Technician I

Date Mixed: 18-Jun-2021 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

Safety Data Sheet

Revision Date: 05/24/21
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**555581 / Custom 8260 Internal Standard Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	8
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
P&T Methanol	67-56-1	200-659-6	90
1,4-difluorobenzene	540-36-3	208-742-9	2.5
pentafluorobenzene	363-72-4	206-658-7	2.5
1,4-dichlorobenzene-d4	3855-82-1		2.5
chlorobenzene-d5	3114-55-4	221-482-0	2.5

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
Fire and/or Explosion Hazards:	Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the

area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
P&T Methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1,4-difluorobenzene	540-36-3	Not established	None Known	Not established	No data available
pentafluorobenzene	363-72-4	Not established	None Known	Not established	No data available
1,4-dichlorobenzene-d4	3855-82-1	Not established	None Known	Not established	No data available
chlorobenzene-d5	3114-55-4	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	36
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available

Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	90
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Benzene, 1,2,3,4,5-pentafluoro-	363-72-4	Oral LD50 Rat 2 g/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
P&T Methanol	67-56-1	X	X	-	X
1,4-difluorobenzene	540-36-3	-	-	-	-
pentafluorobenzene	363-72-4	-	-	-	X
1,4-dichlorobenzene-d4	3855-82-1	-	-	-	-
chlorobenzene-d5	3114-55-4	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
P&T Methanol	67-56-1	X	X	X	X
1,4-difluorobenzene	540-36-3	-	-	-	-
pentafluorobenzene	363-72-4	-	-	-	-
1,4-dichlorobenzene-d4	3855-82-1	-	-	-	-
chlorobenzene-d5	3114-55-4	-	-	-	-

16. OTHER INFORMATION

Prior Version Date: 12/15/16

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0173600

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-30447) **Purity** 99%	25,040.0 µg/mL	+/- 231.7249 µg/mL +/- 1,415.4955 µg/mL +/- 1,448.0851 µg/mL	Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 (Lot MKBN8571V) **Purity** 99%	25,216.0 µg/mL	+/- 233.3536 µg/mL +/- 1,425.4447 µg/mL +/- 1,458.2633 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-29571) **Purity** 99%	25,120.0 µg/mL	+/- 232.4652 µg/mL +/- 1,420.0178 µg/mL +/- 1,452.7116 µg/mL	Gravimetric Unstressed Stressed
4	Pentafluorobenzene **CAS #** 363-72-4 (Lot MKCK2250) **Purity** 99%	25,092.0 µg/mL	+/- 232.2061 µg/mL +/- 1,418.4350 µg/mL +/- 1,451.0923 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Walker Workman - Operations Technician I

Date Mixed: 18-Jun-2021 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

Safety Data Sheet

Revision Date: 05/24/21
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**555581 / Custom 8260 Internal Standard Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	8
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
P&T Methanol	67-56-1	200-659-6	90
1,4-difluorobenzene	540-36-3	208-742-9	2.5
pentafluorobenzene	363-72-4	206-658-7	2.5
1,4-dichlorobenzene-d4	3855-82-1		2.5
chlorobenzene-d5	3114-55-4	221-482-0	2.5

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
Fire and/or Explosion Hazards:	Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the

area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
P&T Methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1,4-difluorobenzene	540-36-3	Not established	None Known	Not established	No data available
pentafluorobenzene	363-72-4	Not established	None Known	Not established	No data available
1,4-dichlorobenzene-d4	3855-82-1	Not established	None Known	Not established	No data available
chlorobenzene-d5	3114-55-4	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	36
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available

Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	90
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Benzene, 1,2,3,4,5-pentafluoro-	363-72-4	Oral LD50 Rat 2 g/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
P&T Methanol	67-56-1	X	X	-	X
1,4-difluorobenzene	540-36-3	-	-	-	-
pentafluorobenzene	363-72-4	-	-	-	X
1,4-dichlorobenzene-d4	3855-82-1	-	-	-	-
chlorobenzene-d5	3114-55-4	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
P&T Methanol	67-56-1	X	X	X	X
1,4-difluorobenzene	540-36-3	-	-	-	-
pentafluorobenzene	363-72-4	-	-	-	-
1,4-dichlorobenzene-d4	3855-82-1	-	-	-	-
chlorobenzene-d5	3114-55-4	-	-	-	-

16. OTHER INFORMATION

Prior Version Date: 12/15/16

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0173797

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBM7694) **Purity** 99%	50,012.0 µg/mL	+/- 292.8313 µg/mL +/- 1,071.3233 µg/mL +/- 1,102.4365 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

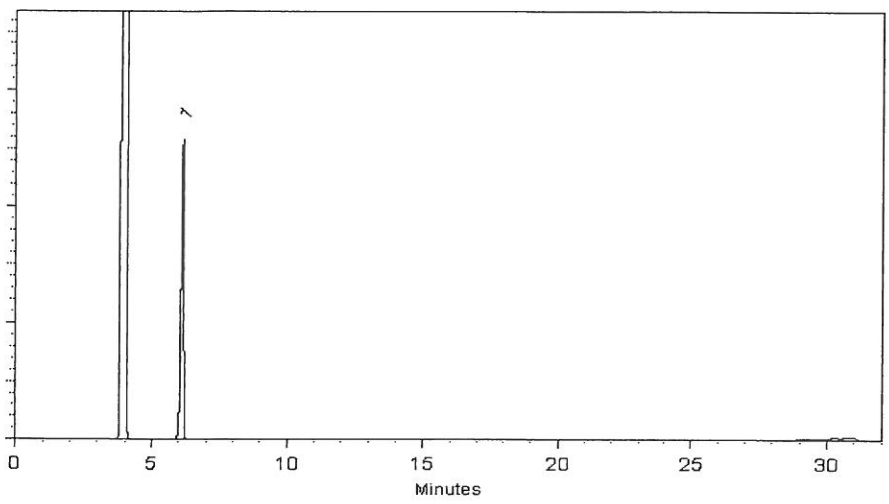
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 24-Jun-2021 **Balance:** 1127510105

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 25-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0176219

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,016.0 µg/mL	+/- 11.9744	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 113.0617	µg/mL	Unstressed
	Purity 99%		+/- 115.7059	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

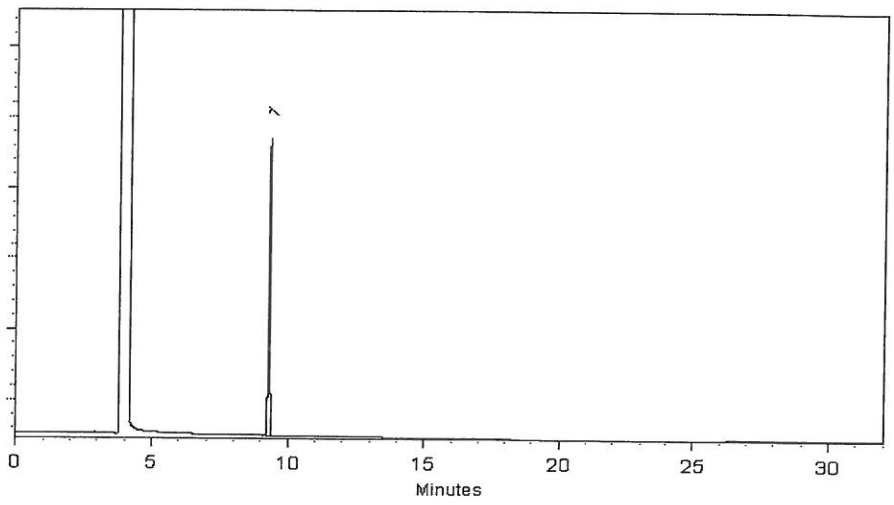
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 08-Sep-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 10-Sep-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0176219

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,016.0 µg/mL	+/- 11.9744	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 113.0617	µg/mL	Unstressed
	Purity 99%		+/- 115.7059	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

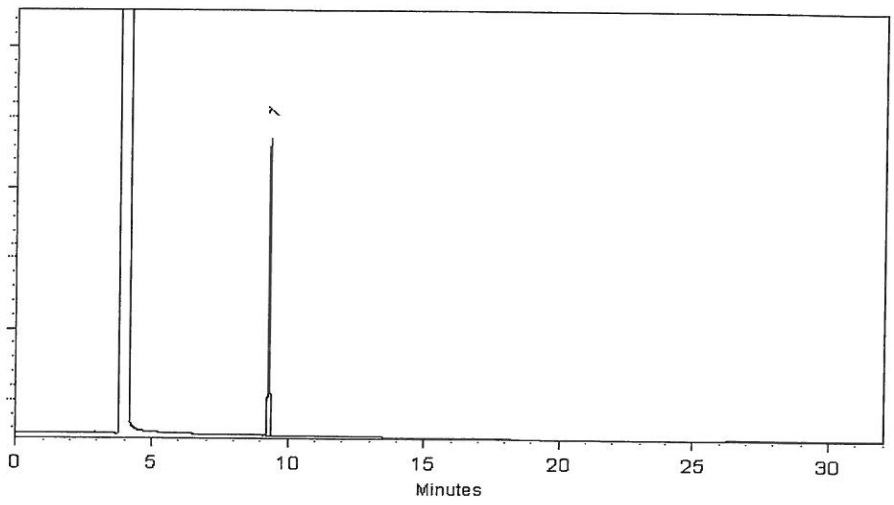
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 08-Sep-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 10-Sep-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0176219

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,016.0 µg/mL	+/- 11.9744	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 113.0617	µg/mL	Unstressed
	Purity 99%		+/- 115.7059	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

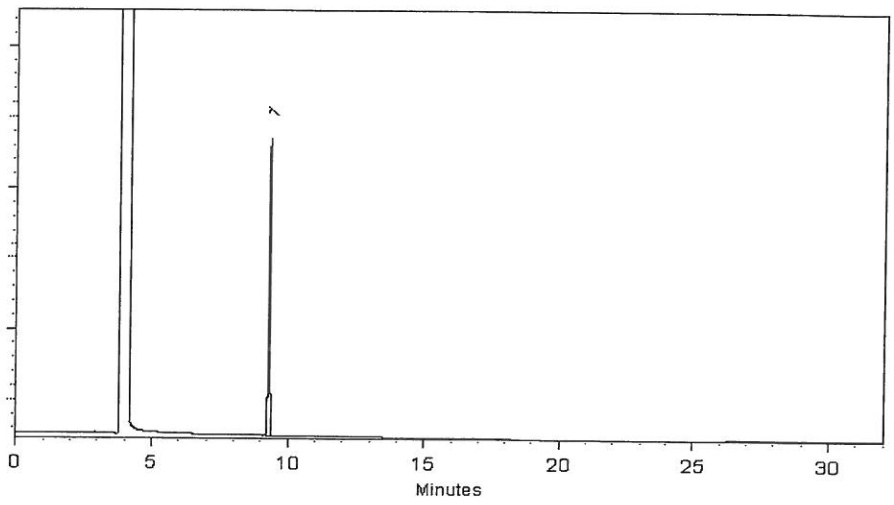
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 08-Sep-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 10-Sep-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0176219

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,016.0 µg/mL	+/- 11.9744	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 113.0617	µg/mL	Unstressed
	Purity 99%		+/- 115.7059	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

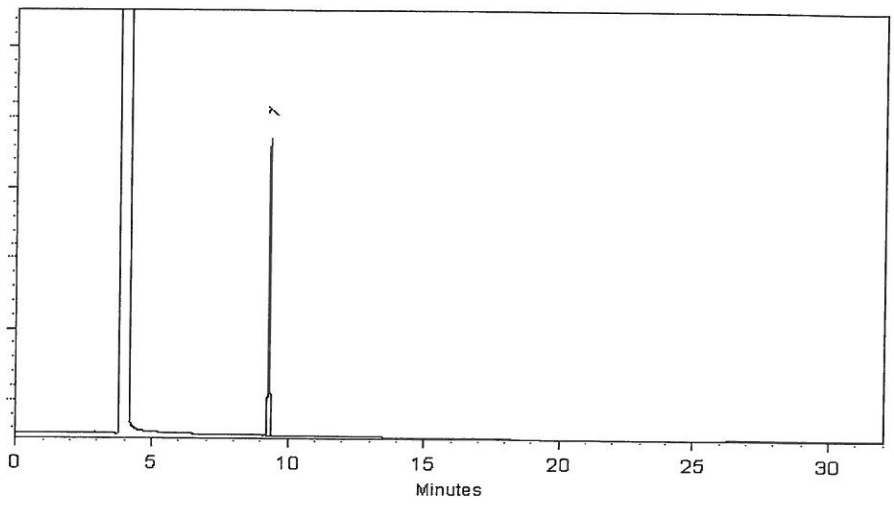
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 08-Sep-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 10-Sep-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0176219

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,016.0 µg/mL	+/- 11.9744	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 113.0617	µg/mL	Unstressed
	Purity 99%		+/- 115.7059	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

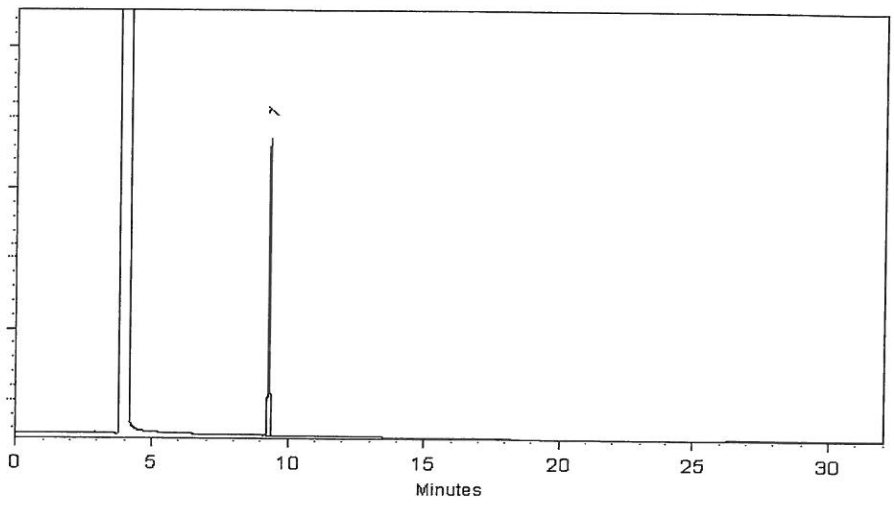
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 08-Sep-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 10-Sep-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0180020

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)		2,000.3	µg/mL	+/- 15.3069	µg/mL	Gravimetric
	CAS # 75-71-8	(Lot 00012554)			+/- 112.5944	µg/mL	Unstressed
	Purity 99%				+/- 115.2086	µg/mL	Stressed
2	Chloromethane (methyl chloride)		2,000.2	µg/mL	+/- 16.0159	µg/mL	Gravimetric
	CAS # 74-87-3	(Lot SHBK6571)			+/- 112.6902	µg/mL	Unstressed
	Purity 99%				+/- 115.3022	µg/mL	Stressed
3	Vinyl chloride		2,000.2	µg/mL	+/- 15.3606	µg/mL	Gravimetric
	CAS # 75-01-4	(Lot 00015559)			+/- 112.5946	µg/mL	Unstressed
	Purity 99%				+/- 115.2084	µg/mL	Stressed
4	Bromomethane (methyl bromide)		2,000.0	µg/mL	+/- 16.4530	µg/mL	Gravimetric
	CAS # 74-83-9	(Lot 101604)			+/- 112.7388	µg/mL	Unstressed
	Purity 99%				+/- 115.3490	µg/mL	Stressed
5	Chloroethane (ethyl chloride)		2,000.0	µg/mL	+/- 14.9791	µg/mL	Gravimetric
	CAS # 75-00-3	(Lot 107-401039114-1)			+/- 112.5343	µg/mL	Unstressed
	Purity 99%				+/- 115.1491	µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)		2,000.4	µg/mL	+/- 16.7677	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot MKCL8411)			+/- 112.8062	µg/mL	Unstressed
	Purity 99%				+/- 115.4158	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

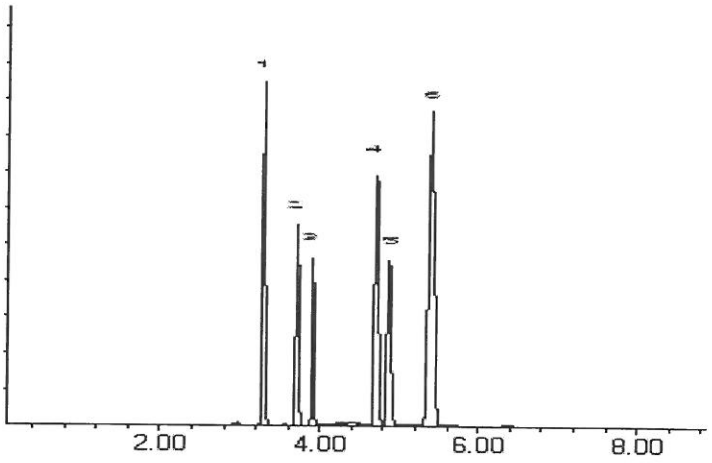
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

Date Mixed: 27-Dec-2021 **Balance:** B707717271

Clara Windle - Operations Technician I

Date Passed: 06-Jan-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0186767

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot MKCQ7914) **Purity** 99%	5,046.8 µg/mL	+/- 29.3427 µg/mL +/- 304.4978 µg/mL +/- 305.2207 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBN2844) **Purity** 99%	5,048.8 µg/mL	+/- 29.3544 µg/mL +/- 304.6185 µg/mL +/- 305.3417 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBN3601) **Purity** 99%	5,045.0 µg/mL	+/- 29.3321 µg/mL +/- 304.3872 µg/mL +/- 305.1099 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKCQ6663) **Purity** 99%	5,045.3 µg/mL	+/- 29.3340 µg/mL +/- 304.4073 µg/mL +/- 305.1300 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

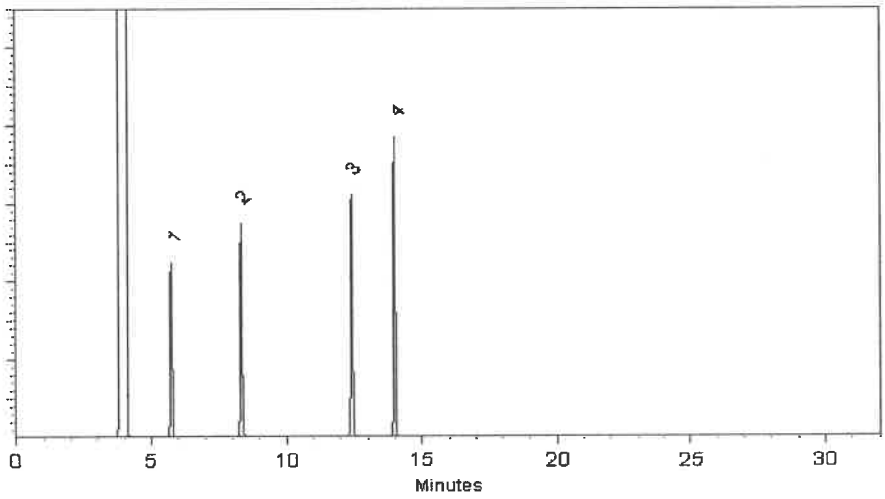
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 28-Jun-2022 **Balance:** B251644995

Christie Mills - Operations Tech II - ARM QC

Date Passed: 30-Jun-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

20

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Composition

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-FL **Lot No.:** A0187418

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	8,008.0 µg/mL	+/- 46.9954	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot RD220630)		+/- 483.2004	µg/mL	Unstressed
	Purity 99%		+/- 484.3474	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

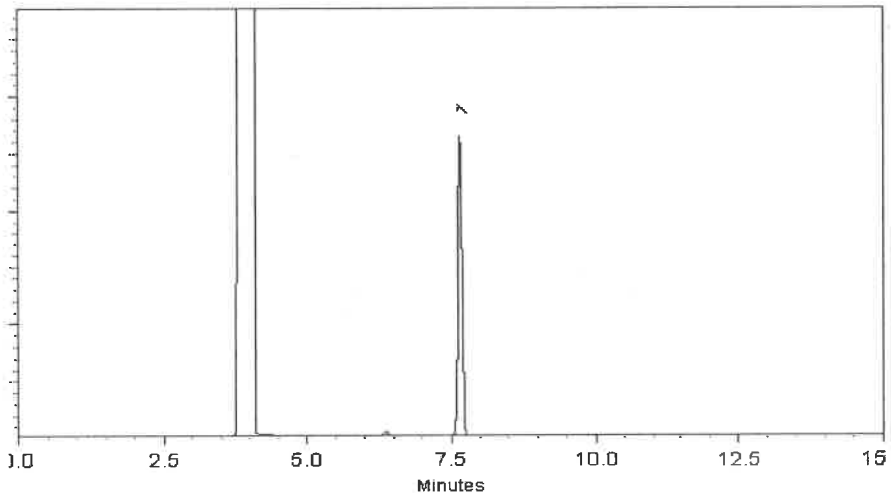
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Operations Technician II **Date Mixed:** 18-Jul-2022 **Balance:** 1127510105

Fang-Yun Weaver - Operations Lead Tech - ARM QC **Date Passed:** 26-Jul-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0187421

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate **CAS #** 108-05-4 (Lot RD220630) **Purity** 99%	8,078.0 µg/mL	+/- 47.4062 µg/mL +/- 487.4241 µg/mL +/- 488.5812 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

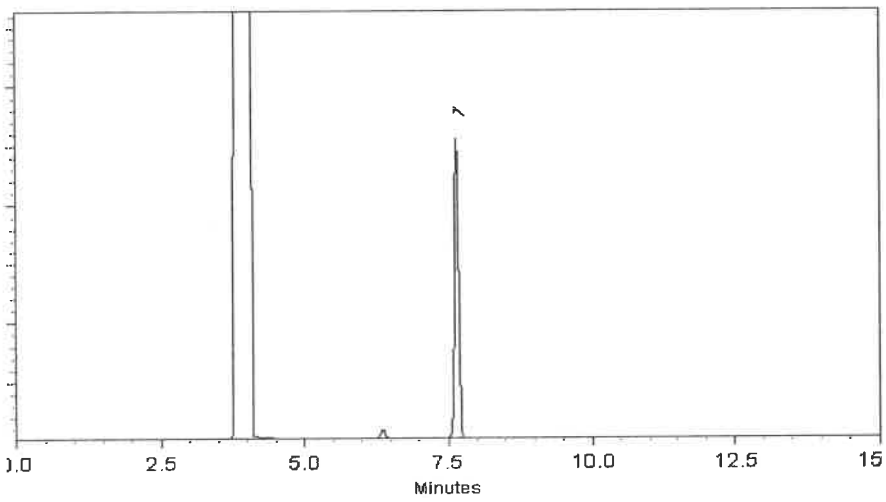
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 18-Jul-2022 **Balance:** B251644995

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 26-Jul-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0187421

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate **CAS #** 108-05-4 (Lot RD220630) **Purity** 99%	8,078.0 µg/mL	+/- 47.4062 µg/mL +/- 487.4241 µg/mL +/- 488.5812 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

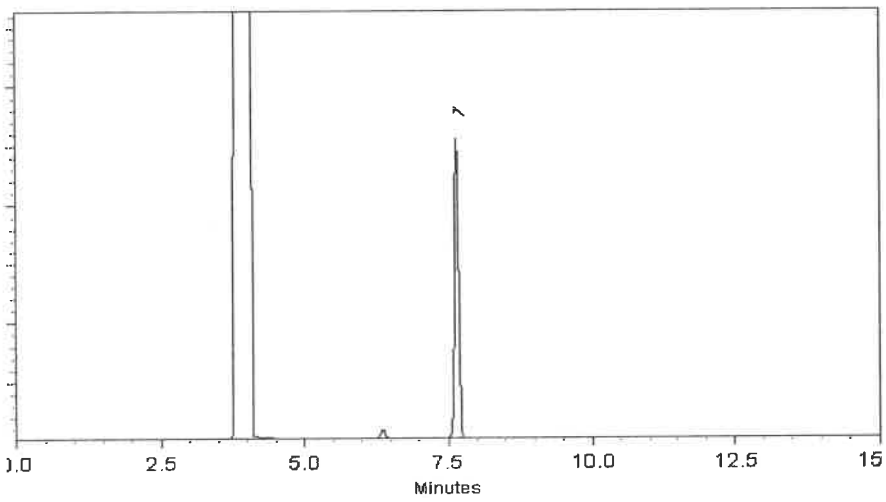
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 18-Jul-2022 **Balance:** B251644995

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 26-Jul-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0188819

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,019.1 µg/mL	+/- 13.7336 µg/mL +/- 113.4320 µg/mL +/- 116.0758 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,019.1 µg/mL	+/- 14.0370 µg/mL +/- 113.4702 µg/mL +/- 116.1132 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,018.0 µg/mL	+/- 14.5590 µg/mL +/- 113.4768 µg/mL +/- 116.1169 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,017.0 µg/mL	+/- 13.2023 µg/mL +/- 113.2515 µg/mL +/- 115.8939 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,019.0 µg/mL	+/- 14.2283 µg/mL +/- 113.4891 µg/mL +/- 116.1314 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot MKCL8411) **Purity** 99%	2,018.8 µg/mL	+/- 16.3342 µg/mL +/- 113.7612 µg/mL +/- 116.3969 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

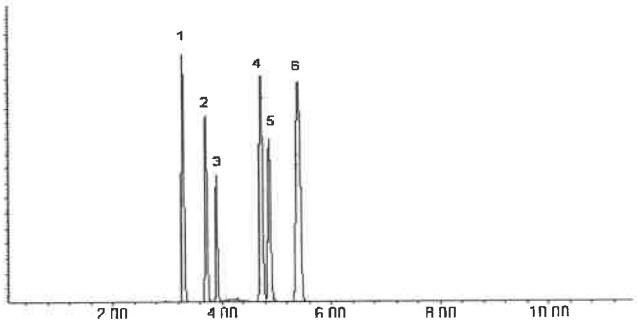
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline
Miranda Kline - Operations Technician I

Date Mixed: 22-Aug-2022 **Balance:** B251644995

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 25-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0188819

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,019.1 µg/mL	+/- 13.7336 µg/mL +/- 113.4320 µg/mL +/- 116.0758 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,019.1 µg/mL	+/- 14.0370 µg/mL +/- 113.4702 µg/mL +/- 116.1132 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,018.0 µg/mL	+/- 14.5590 µg/mL +/- 113.4768 µg/mL +/- 116.1169 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,017.0 µg/mL	+/- 13.2023 µg/mL +/- 113.2515 µg/mL +/- 115.8939 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,019.0 µg/mL	+/- 14.2283 µg/mL +/- 113.4891 µg/mL +/- 116.1314 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot MKCL8411) **Purity** 99%	2,018.8 µg/mL	+/- 16.3342 µg/mL +/- 113.7612 µg/mL +/- 116.3969 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

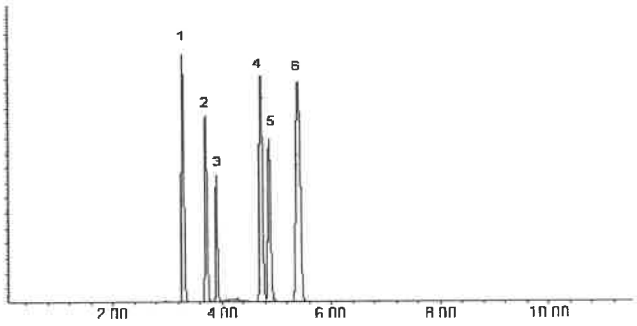
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline
Miranda Kline - Operations Technician I

Date Mixed: 22-Aug-2022 **Balance:** B251644995

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 25-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0190554

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 **Purity** 99% (Lot 103138L01T)	5,006.0 µg/mL	+/- 29.1053 µg/mL +/- 302.0342 µg/mL +/- 302.7512 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99% (Lot SHBN2844)	5,002.3 µg/mL	+/- 29.0840 µg/mL +/- 301.8129 µg/mL +/- 302.5295 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99% (Lot SHBP4724)	5,001.7 µg/mL	+/- 29.0801 µg/mL +/- 301.7727 µg/mL +/- 302.4892 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99% (Lot MKCQ6663)	5,000.8 µg/mL	+/- 29.0753 µg/mL +/- 301.7224 µg/mL +/- 302.4388 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

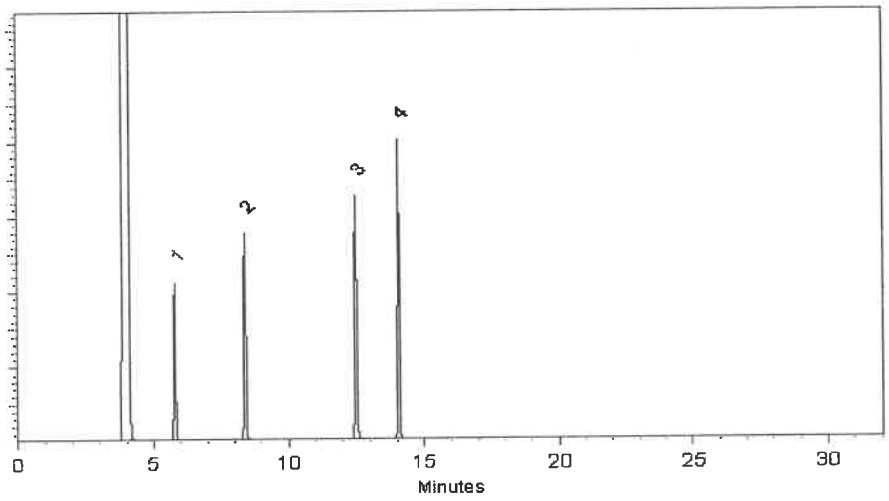
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 13-Oct-2022 **Balance:** B707717271

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 17-Oct-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0190554

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 **Purity** 99% (Lot 103138L01T)	5,006.0 µg/mL	+/- 29.1053 µg/mL +/- 302.0342 µg/mL +/- 302.7512 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99% (Lot SHBN2844)	5,002.3 µg/mL	+/- 29.0840 µg/mL +/- 301.8129 µg/mL +/- 302.5295 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99% (Lot SHBP4724)	5,001.7 µg/mL	+/- 29.0801 µg/mL +/- 301.7727 µg/mL +/- 302.4892 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99% (Lot MKCQ6663)	5,000.8 µg/mL	+/- 29.0753 µg/mL +/- 301.7224 µg/mL +/- 302.4388 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

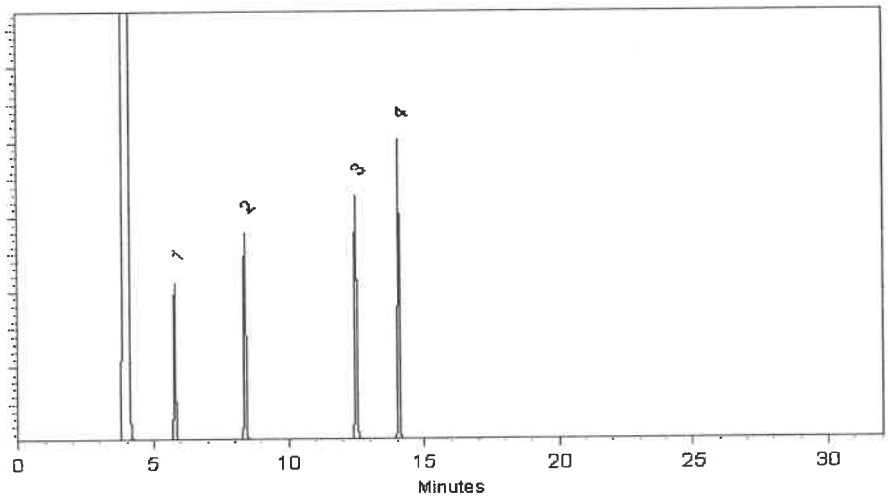
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 13-Oct-2022 **Balance:** B707717271

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 17-Oct-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0190554

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 **Purity** 99% (Lot 103138L01T)	5,006.0 µg/mL	+/- 29.1053 µg/mL +/- 302.0342 µg/mL +/- 302.7512 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99% (Lot SHBN2844)	5,002.3 µg/mL	+/- 29.0840 µg/mL +/- 301.8129 µg/mL +/- 302.5295 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99% (Lot SHBP4724)	5,001.7 µg/mL	+/- 29.0801 µg/mL +/- 301.7727 µg/mL +/- 302.4892 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99% (Lot MKCQ6663)	5,000.8 µg/mL	+/- 29.0753 µg/mL +/- 301.7224 µg/mL +/- 302.4388 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

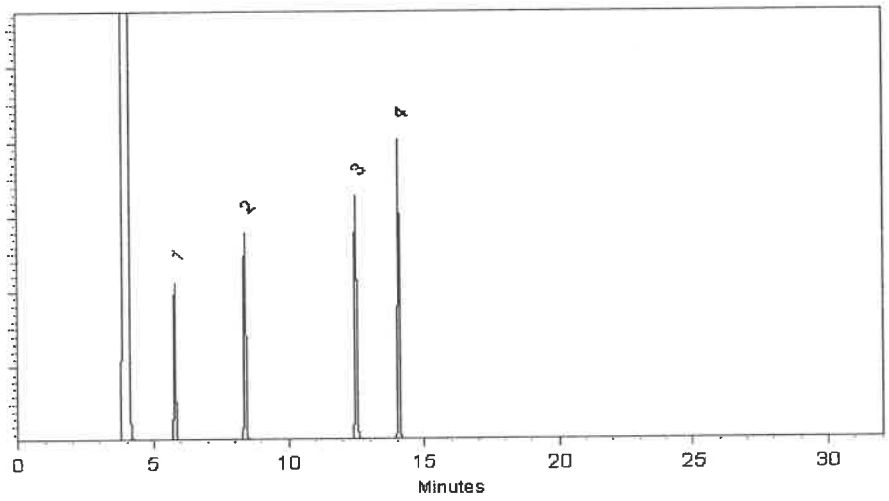
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 13-Oct-2022 **Balance:** B707717271

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 17-Oct-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0193195

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.7 µg/mL	+/- 69.8089
2	Vinyl acetate	108-05-4	RD220630	99%	2,008.3 µg/mL	+/- 69.4172
3	Ethyl acetate	141-78-6	SHBP9289	99%	2,008.3 µg/mL	+/- 69.4172
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,009.0 µg/mL	+/- 69.4402
5	Propyl acetate	109-60-4	TFFKL	99%	2,019.0 µg/mL	+/- 69.7859
6	Butyl acetate	123-86-4	SHBP6314	99%	2,018.3 µg/mL	+/- 69.7628
7	Amyl acetate	628-63-7	41325/1	97%	2,012.4 µg/mL	+/- 69.5587

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

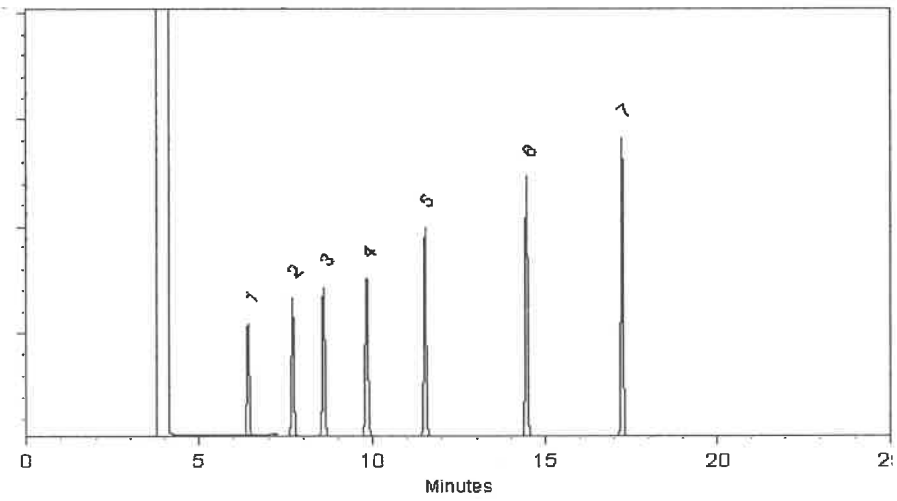
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 04-Jan-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-Jan-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2362001
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	< 0.1 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2362001
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	< 0.1 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0147670

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,511.0 µg/mL	+/- 14.7360	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 140.8035	µg/mL	Unstressed
	Purity 99%		+/- 144.0975	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

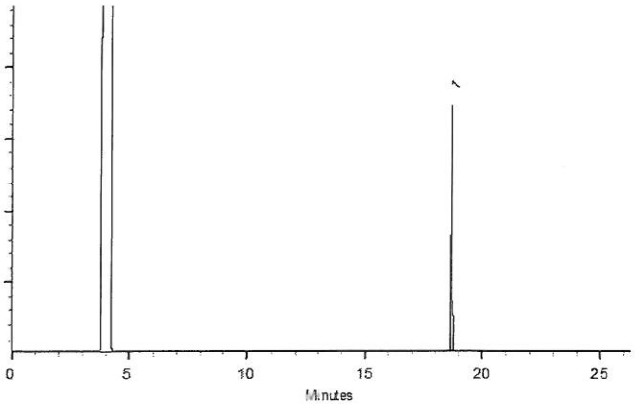
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dustin J. Lidgett

Dustin Lidgett - Mix Technician

Date Mixed: 01-Apr-2019 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 04-Apr-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95319
Lot Number: 031921
Description: Revised Additions Mix
11 components
Expiration Date: 031924
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

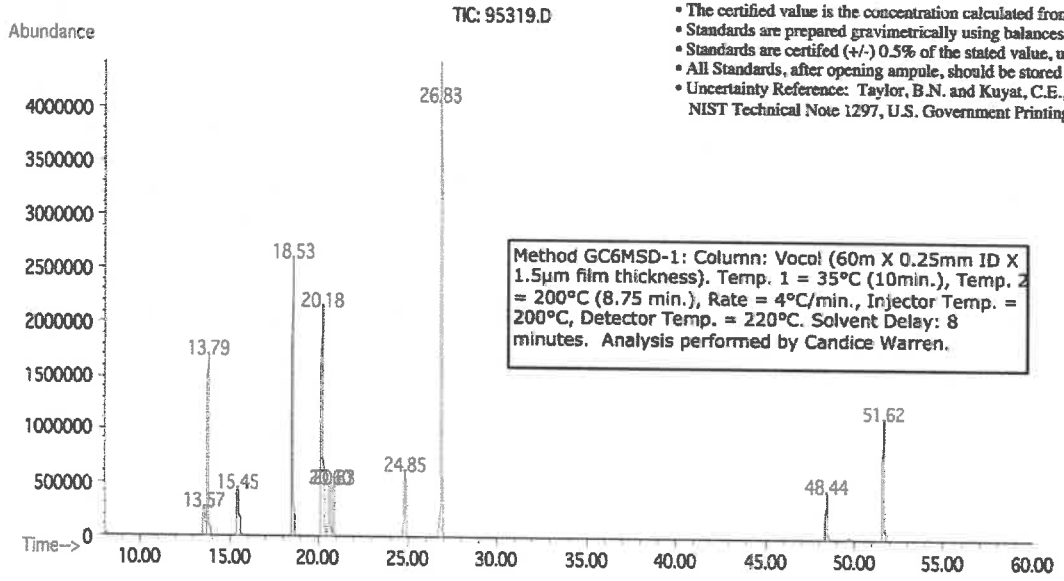
Solvent(s): Methanol **Lot#** DY186-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By: Prashant Chauhan 031921 DATE

Reviewed By: Pedro L. Rentas 031921 DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01015	1.01040	10002.5	40.5	107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20003	0.20033	2003.0	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20101	0.20130	2002.8	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20220	2001.7	8.2	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04060	4.04110	40005.0	161.9	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20230	2002.7	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20203	0.20235	2003.2	8.2	108-87-2	N/A	N/A
8.	Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20041	0.20080	2003.9	8.1	1634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02030	2.02080	20005.0	81.0	107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00105	1.00140	10003.5	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21506	0.21536	2002.8	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

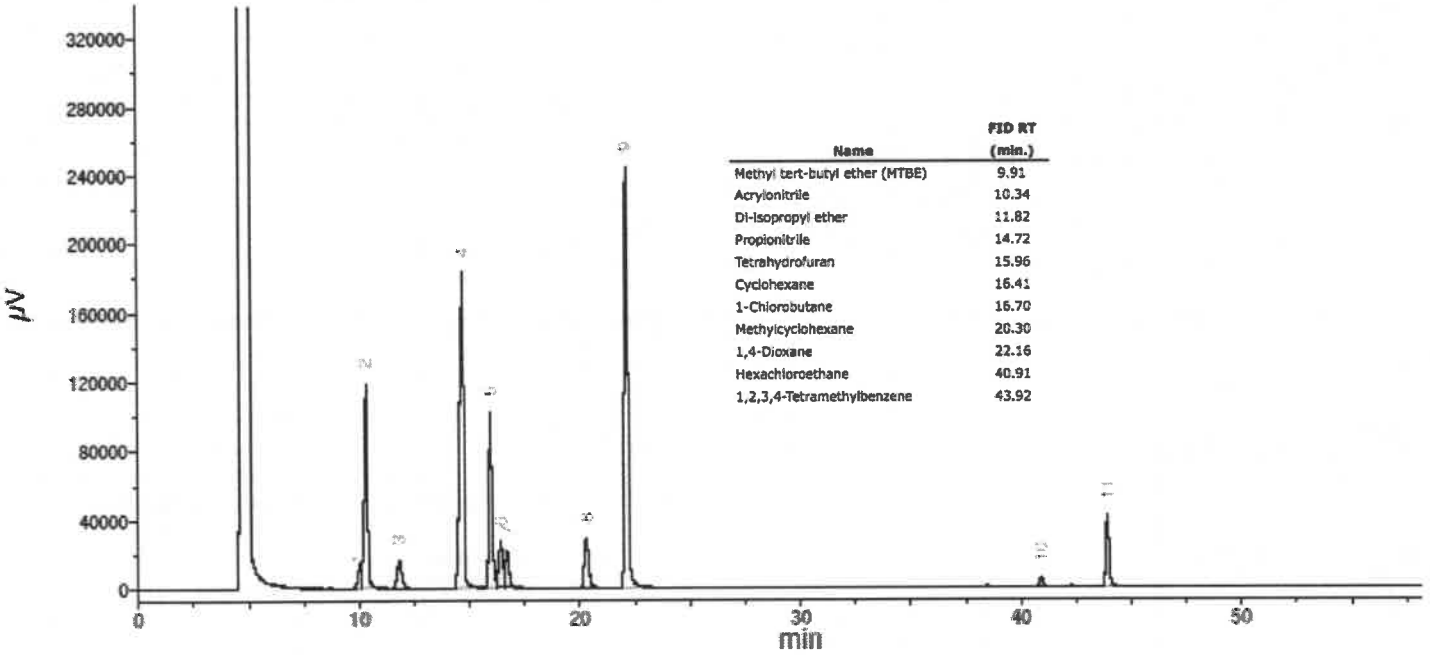
Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Run 44, "P95319 L031921 [Varied in MeOH]"

Run Length: 60.00 min, 36000 points at 10 points/second.
Created: Sun, Mar 28, 2021 at 4:18:23 PM.
Sampled: Sequence "032421-GC13M1", Method "GC13-M1".
Analyzed using Method "GC13-M1".

Comments

GC13-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=6



Name	FID RT (min.)
Methyl tert-butyl ether (MTBE)	9.91
Acrylonitrile	10.34
Di-isopropyl ether	11.82
Propionitrile	14.72
Tetrahydrofuran	15.96
Cyclohexane	16.41
1-Chlorobutane	16.70
Methylcyclohexane	20.30
1,4-Dioxane	22.16
Hexachloroethane	40.91
1,2,3,4-Tetramethylbenzene	43.92

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

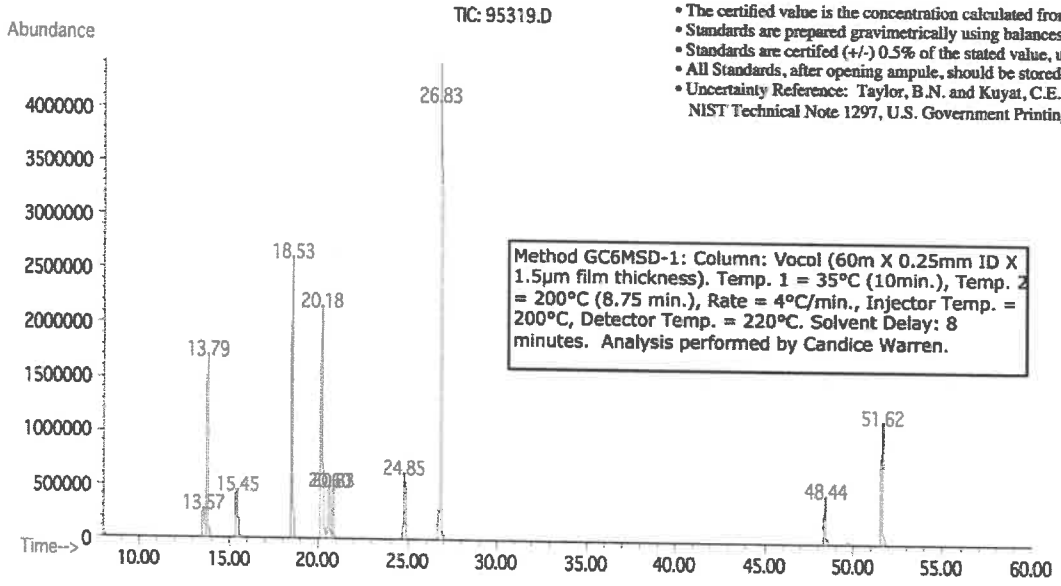
Part Number: 95319
Lot Number: 032922
Description: Revised Additions Mix
11 components
Expiration Date: 032925
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EC592-US

Weight(s) shown below were combined and diluted to (mL): 100.0 | 5E-05 Balance Uncertainty | 0.012 Flask Uncertainty

Formulated By:	Prashant Chauhan	032922 DATE
Reviewed By:	Pedro L. Rentas	032922 DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01015	1.01030	10001.5	40.5	107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20003	0.20020	2001.7	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	28930	2000	99	0.2	0.20203	0.20215	2001.2	8.2	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20215	2001.2	8.2	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04060	4.04100	40004.0	161.9	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20213	2001.0	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20203	0.20215	2001.2	8.2	108-87-2	N/A	N/A
8.	Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20041	0.20055	2001.4	8.1	1634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02030	2.02045	20001.5	81.0	107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	SHBH8330	10000	99.9	0.2	1.00105	1.00120	10001.5	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 1650mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21506	0.21520	2001.3	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components:	CAS#:	LD50 Oral - Rat	OSHA PEL	% (optional)
Methanol	67-56-1	2,769 mg/kg	200 ppm	> 99

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

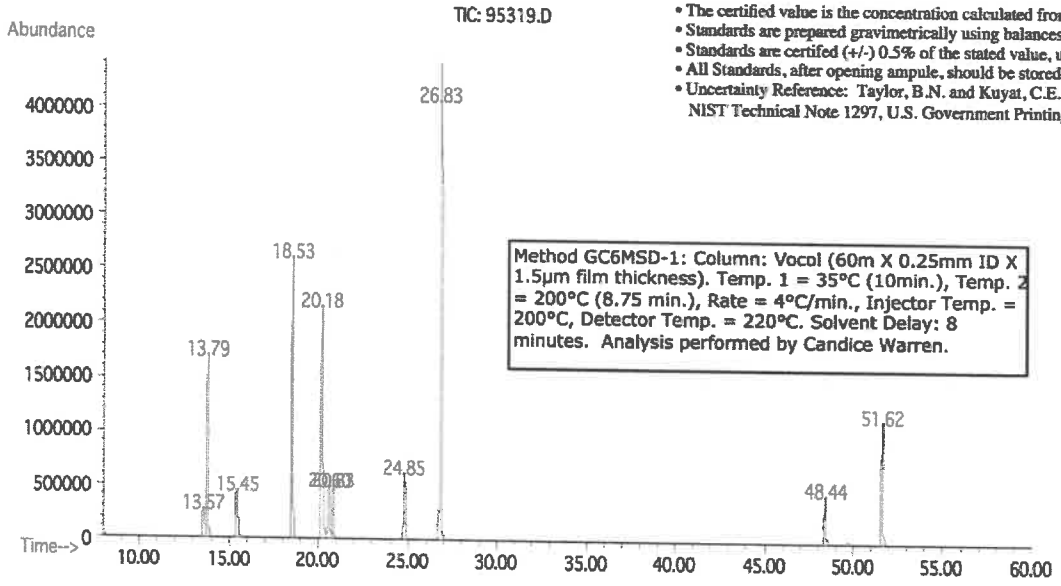
Part Number: 95319
Lot Number: 032922
Description: Revised Additions Mix
11 components
Expiration Date: 032925
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EC592-US

Weight(s) shown below were combined and diluted to (mL): 100.0 | 5E-05 Balance Uncertainty | 0.012 Flask Uncertainty

Formulated By:	Prashant Chauhan	032922 DATE
Reviewed By:	Pedro L. Rentas	032922 DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01015	1.01030	10001.5	40.5	107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20003	0.20020	2001.7	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	28930	2000	99	0.2	0.20203	0.20215	2001.2	8.2	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20215	2001.2	8.2	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04060	4.04100	40004.0	161.9	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20213	2001.0	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20203	0.20215	2001.2	8.2	108-87-2	N/A	N/A
8.	Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20041	0.20055	2001.4	8.1	1634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02030	2.02045	20001.5	81.0	107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	SHBH8330	10000	99.9	0.2	1.00105	1.00120	10001.5	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 1650mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21506	0.21520	2001.3	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components:	CAS#:	LD50 Oral - Rat	OSHA PEL	% (optional)
Methanol	67-56-1	2,769 mg/kg	200 ppm	> 99

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70046
Lot Number: 070122
Description: Bromochloromethane

Solvent: Methanol **Lot#** EC592-US

Expiration Date: 070127
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

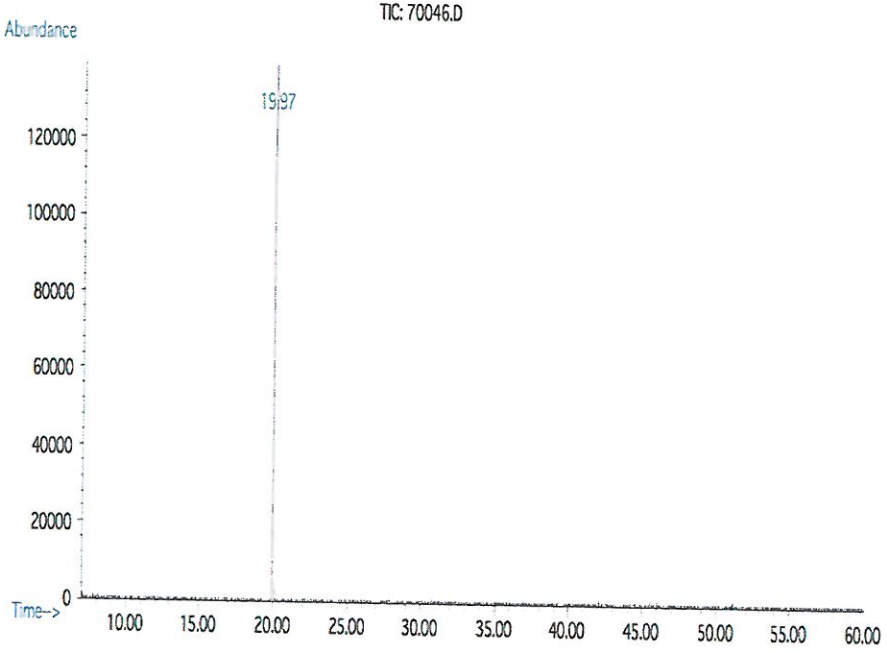
Weight(s) shown below were combined and diluted to (mL): 25.0

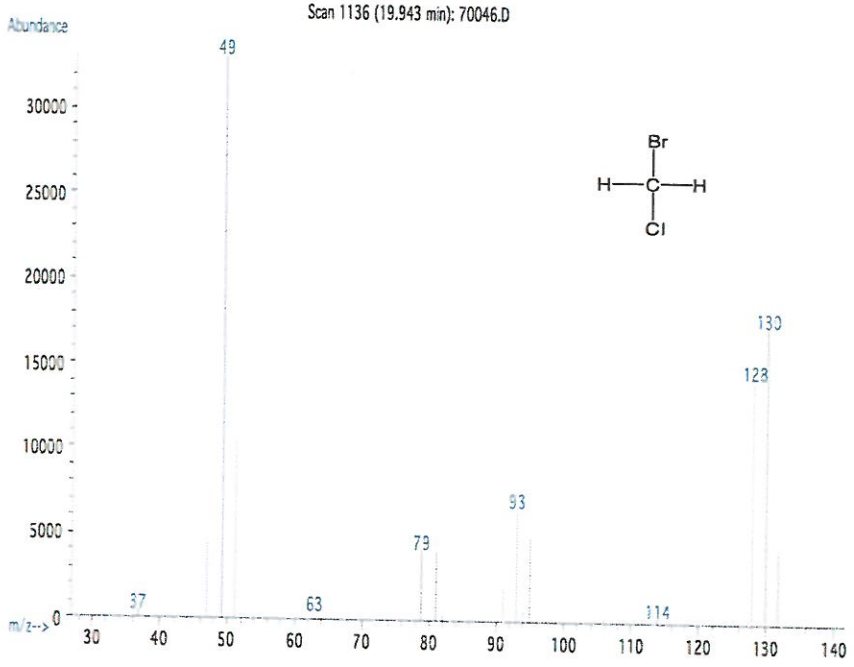
5E-05 Balance Uncertainty
0.0002 Flask Uncertainty

Gabriel Helland		070122
Formulated By:	Gabriel Helland	DATE
Pedro Rentas		070122
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Bromochloromethane	46	AY01	1000	99	0.2	0.02530	0.02540	1004.1	5.7	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg

Method GC6MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C. Analyst: Candice Warren





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 112921
Description: Universal VOA Megamix
69 components
Expiration Date: 112924
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Solvent(s): Lot#
Methanol EA899-USG2

Formulated By:	Prashant Chauhan	112921 DATE
Reviewed By:	Pedro L. Rentas	112921 DATE

5E-05 Balance Uncertainty

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20032	2001.1	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0326)	102396	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20222	2001.9	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCD9604	NA	NA	NA	2000	100	0.2	NA	0.20001	0.20015	2001.4	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14716EF	NA	NA	NA	2000	95	0.2	NA	0.21054	0.21060	2000.6	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0488)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20726	0.20736	2000.8	8.4	110-57-6	N/A	N/A
6. Diethyl ether (Ethyl ether)	(0153)	SHBK1918	NA	NA	NA	2000	99.9	0.2	NA	0.20023	0.20025	2000.2	8.1	60-29-7	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7. Ethyl methacrylate	(0381)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20208	2000.5	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF6716V	NA	NA	NA	2000	99.5	0.2	NA	0.20101	0.20110	2000.8	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20101	0.20122	2002.0	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20211	2000.8	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20026	2000.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20021	0.20045	2002.4	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20231	2002.8	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20556	0.20562	2000.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20409	0.20412	2000.3	8.2	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20203	0.20213	2001.0	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	051121	0.05	5.00	40015.4	2000	NA	NA	0.017	NA	NA	2000.7	18.4	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	051121	0.05	5.00	40042.8	2000	NA	NA	0.017	NA	NA	2002.0	18.4	124-48-1	N/A	orl-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	051121	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	2000.1	18.4	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	051121	0.05	5.00	40006.5	2000	NA	NA	0.017	NA	NA	2000.3	18.4	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	051121	0.05	5.00	40021.1	2000	NA	NA	0.017	NA	NA	2001.0	18.4	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	070721	0.10	10.00	20014.9	2000	NA	NA	0.042	NA	NA	2001.4	19.3	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	2000.0	19.2	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.1	19.2	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	2000.0	19.3	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.1	19.3	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.1	19.3	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.1	19.3	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	102821	0.05	5.00	40006.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	102821	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.5	18.4	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	102821	0.05	5.00	40004.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	102821	0.05	5.00	40016.9	2000	NA	NA	0.017	NA	NA	2000.7	18.4	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	102821	0.05	5.00	40003.9	2000	NA	NA	0.017	NA	NA	2000.1	18.4	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	102821	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2000.2	26.1	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	102821	0.05	5.00	40013.7	2000	NA	NA	0.017	NA	NA	2000.6	18.4	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	102821	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.5	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	102821	0.05	5.00	40014.0	2000	NA	NA	0.017	NA	NA	2000.6	28.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	102821	0.05	5.00	40010.9	2000	NA	NA	0.017	NA	NA	2000.4	18.4	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	102821	0.05	5.00	40015.0	2000	NA	NA	0.017	NA	NA	2000.7	18.4	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	102821	0.05	5.00	40011.7	2000	NA	NA	0.017	NA	NA	2000.5	18.4	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	102821	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	2000.1	18.4	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	102821	0.05	5.00	40005.2	2000	NA	NA	0.017	NA	NA	2000.2	18.4	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	020821	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	2000.3	18.4	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	020821	0.05	5.00	40019.0	2000	NA	NA	0.017	NA	NA	2000.9	18.4	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	020821	0.05	5.00	40019.8	2000	NA	NA	0.017	NA	NA	2000.9	18.4	104-51-8	N/A	N/A
48. Ethyl benzene	35162	020821	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.9	18.4	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	020821	0.05	5.00	40056.4	2000	NA	NA	0.017	NA	NA	2002.7	18.4	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	020821	0.05	5.00	40005.1	2000	NA	NA	0.017	NA	NA	2000.2	18.3	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	020821	0.05	5.00	40022.8	2000	NA	NA	0.017	NA	NA	2001.0	18.4	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	020821	0.05	5.00	40008.9	2000	NA	NA	0.017	NA	NA	2000.3	18.4	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	020821	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.4	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	020821	0.05	5.00	40027.4	2000	NA	NA	0.017	NA	NA	2001.3	18.4	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	020821	0.05	5.00	40012.4	2000	NA	NA	0.017	NA	NA	2000.5	18.4	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	020821	0.05	5.00	40011.5	2000	NA	NA	0.017	NA	NA	2000.5	18.5	108-67-8	N/A	orl-rat 5000mg/kg
57. m-Xylene	35162	020821	0.05	5.00	40021.8	2000	NA	NA	0.017	NA	NA	2001.0	18.4	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	022521	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2000.2	18.4	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	022521	0.05	5.00	40011.7	2000	NA	NA	0.017	NA	NA	2000.5	18.4	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	022521	0.05	5.00	40009.0	2000	NA	NA	0.017	NA	NA	2000.4	18.4	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	022521	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	2000.0	18.4	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	022521	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.9	18.4	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	022521	0.05	5.00	40004.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	022521	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	2000.1	18.4	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	022521	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	022521	0.05	5.00	40007.4	2000	NA	NA	0.017	NA	NA	2000.3	18.4	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	022521	0.05	5.00	40004.6	2000	NA	NA	0.017	NA	NA	2000.1	18.4	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	022521	0.05	5.00	40003.0	2000	NA	NA	0.017	NA	NA	2000.1	18.4	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	022521	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	2000.2	18.4	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

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

Preservation Log

BalanceID: VOC-SC-1

Review By: pedro

Supervise By: john

Seq	LabID	Vial A Weight(g)= Total Wt-Tare Wt	Vial A Time	Vial B Weight(g)= Total Wt-Tare Wt	Vial B Time	Vial C Weight(g) Preserve with MeOH	Vial C Time	Methanol ID	Preservation Date	Comments
1	O3645-01	37.96-31.508=6.45	10:00	36.41-31.035=5.37	10:01	40.24-33.414=6.83	10:02	V13654	07/17/2023	TERRACORE SAMPLE STORED IN FRZ #2
2	O3645-02	38.19-31.454=6.74	10:03	37.20-30.749=6.45	10:04	33.99-33.59=0.4	10:05	V13654	07/17/2023	
3	O3645-03	37.-31.259=5.74	10:06	36.64-31.209=5.43	10:07	38.97-33.346=5.62	10:08	V13654	07/17/2023	
4	O3645-04	36.35-30.683=5.67	10:09	36.90-31.194=5.71	10:10	38.59-33.414=5.18	10:11	V13654	07/17/2023	
5	O3645-06	35.87-30.951=4.92	10:15	36.23-31.231=5	10:16	37.60-33.313=4.29	10:17	V13654	07/17/2023	
6	O3645-07	36.70-30.7885=5.92	10:18	37.08-31.163=5.92	10:19	39.28-33.269=6.01	10:20	V13654	07/17/2023	
7	O3645-09	37.29-31.116=6.17	10:21	36.88-30.784=6.1	10:22	35.93-29.827=6.1	10:23	V13654	07/17/2023	
8	O3645-10	37.50-31.194=6.31	10:24	37.63-31.104=6.53	10:25	39.79-33.329=6.46	10:26	V13654	07/17/2023	

Instructions : For medium Level analysis, 5ml MeOH added for CLP(SOM/SFAM) method and 10ml for regular 8260.

If the samples are not to be analyzed within 48hrs of sampling, preserve samples immediately, Vials A and B are stored in the VOA-FRZ-2.

Vial C - MeOH preserved vials are kept in VOA-REF #6.

QA Contorl # A3041177

CHEMTECH

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. 03645
QUOTE NO.
COC Number 2040304

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: LaBella Associates
ADDRESS: 300 Pearl Street
CITY Buffalo STATE: NY ZIP: 14202
ATTENTION: Andy Benkleman
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Mackenna Parcels
PROJECT NO.: LOCATION: Niagara Falls
PROJECT MANAGER: Andy Benkleman
e-mail: abenkleman@labellapc.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: SAME PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced ☐ US EPA CLP
- ☐ NYS ASP A ☒ NYS ASP B
- ☐ Other _____
- ☐ EDD FORMAT _____

ANALYSIS

1 VOCs (TCL + 5 TICs)
2 SVOCs (TCL + 10 TICs)
3 PCBs (TCL)
4 Metals + Hg (RCRA)
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	SB-02 (3-5')	Soil	C		7/12/23	1230	2	X	X	X	X						
2.	SB-04 (1-5')	Soil	C		7/12/23	1315	6	X	X	X	X						MS/MSD
3.	SB-07 (1-3')	Soil	C		7/13/23	1030	2	X	X	X	X						
4.	SB-08 (0.5-2.0')	Soil	C		7/13/23	1100	2	X	X	X	X						
5.	SB-09 (2.0-4.0')	Soil	C		7/13/23	1130	2	X	X	X	X						
6.	SB-10 (0.5-2.0')	Soil	C		7/13/23	1200	2	X	X	X	X						
7.	Dup DUP	Soil	C		7/12/23	—	2	X	X	X	X						
8.	Rinsate Blank	H_2O		G	7/12/23	1215	4	X	X	X	X						
9.																	
10.																	

COMMENTS: ← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	7/12/23	1. Sample Fridge/Freezer
2.	7/13/23	2. FEDEX
3. FedEx	7-13-23 0912	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 24.3 °C
Comments: SB-02, SB-04 and DUP frozen on 7/12/23 @ 1600
* ICE Melted

Page ____ of ____
CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☐ Field Sampling
Shipment Complete ☐ YES ☐ NO

Copyright © 2023
WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

From: Samantha Beazley <Samantha@chemtech.net>
Sent: Monday, July 17, 2023 11:40 AM
To: 'abenkleman@labellapc.com'
Subject: RE: Login Summary Details For Project Mackenna Parcels-O3645.

Good Morning,

Note that there was no sample volume received in the terracore kit for sample “SB-09-(2.0-4.0)”. The lab will not be able to analyze this sample for VOC.

Respectfully,

Samantha Beazley
Project Manager

CHEMTECH

284 Sheffield St. | Mountainside, NJ 07092
Direct: (908) 728-3148
samantha@chemtech.net | www.chemtech.net

Your Opinion Matters! Please Give Us Your Feedback

From: CHEMTECH-Data@chemtech.net <CHEMTECH-Data@chemtech.net>
Sent: Monday, July 17, 2023 10:12 AM
To: abenkleman@labellapc.com
Cc: Samantha@chemtech.net
Subject: Login Summary Details For Project Mackenna Parcels-O3645.

To Andrew T. Benkleman;

Please see the attached Login Summary for the following project, or download the file using your login credentials from the link below.

Order ID	: O3645
Project ID	: Mackenna Parcels
Download File	: https://chemtech.net/secureLogin.aspx
Order Date	: 7/17/2023 9:31:59 AM
CHEMTECH’s Project Manager	: Samantha Beazley , Samantha@chemtech.net , Ext :
CHEMTECH’s Sales Executive	: Jordan Hedvat , jordan@chemtech.net , 908-728-3144 Ext :

Thank you for the opportunity to provide you with our services. For any questions please feel free to contact your project manager.

Click Here for our short online customer Survey http://chemtech.net/ClientSurvey.aspx .

Thank you,

Notice: The information transmitted in this e-mail message and in any attachments is intended Solely for the attention of the named addressee(s) and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is strictly prohibited and may be unlawful. If you have received this transmission in error, please notify us immediately by return e-mail, and permanently delete this transmission, including attachments if any, from any computer.

CHEMTECH 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	T104704488-23-16

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : O3645 LABE01
Client Name : LaBella Associates P.C.
Client Contact : Andrew T. Benkleman
Invoice Name : LaBella Associates P.C.
Invoice Contact : Andrew T. Benkleman

Order Date : 7/17/2023 9:31:59 AM
Project Name : Mackenna Parcels
Receive DateTime : 7/17/2023 9:12:00 AM
Purchase Order :

Project Mgr :
Report Type : ~~Level 2~~ NYS ASP B
EDD Type : Excel NY SB 7/20/23
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
O3645-01	SB-02-(3-5)	Solid	07/12/2023	12:30						
					VOCMS Group1		8260D	10 Bus. Days		
O3645-02	SB-04-(1-5)	Solid	07/12/2023	13:15						
					VOCMS Group1		8260D	10 Bus. Days		
O3645-03	SB-07-(1-3)	Solid	07/13/2023	10:30						
					VOCMS Group1		8260D	10 Bus. Days		
O3645-04	SB-08 ~~(10.5-2.0)~~ (0.5-2.0)	Solid	07/13/2023	11:00						
					VOCMS Group1		8260D	10 Bus. Days		
~~O3645-05~~	~~SB-09-(2.0-4.0)~~	~~Solid~~	~~07/13/2023~~	~~11:30~~						
					~~VOCMS Group1~~		~~8260D~~	~~10 Bus. Days~~		
O3645-06	SB-10-(0.5-2.0)	Solid	07/13/2023	12:00						
					VOCMS Group1		8260D	10 Bus. Days		
O3645-07	DUP	Solid	07/12/2023	00:00						
					VOCMS Group1		8260D	10 Bus. Days		
O3645-08	RINSATE-BLANK	Water	07/12/2023	12:15						
					VOCMS Group1		8260-Low	10 Bus. Days		
O3645-09	O3645-02MS	Solid	07/12/2023	13:15						

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : O3645 LABE01
Client Name : LaBella Associates P.C.
Client Contact : Andrew T. Benkleman
Invoice Name : LaBella Associates P.C.
Invoice Contact : Andrew T. Benkleman

Order Date : 7/17/2023 9:31:59 AM
Project Name : Mackenna Parcels
Receive DateTime : 7/17/2023 9:12:00 AM
Purchase Order :

Project Mgr :
Report Type : ~~Level 2~~ NYS ASP B
SB 7/20/23
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
					VOCMS Group1		8260D	10 Bus. Days		
O3645-10	O3645-02MSD	Solid	07/12/2023	13:15						
					VOCMS Group1		8260D	10 Bus. Days		

Relinguished By :
Date / Time : 7/17/23 0950

Received By : Sam
Date / Time : 7/17/23 9.50
Storage Area : VOA Refridgerator Room

Reg #6
Reg #2
Reg #4