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

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : CTO WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q1774

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

Table Of Contents for Q1774

1) VOLATILES DATA 2
2) Signature Page 4
3) Case Narrative 5
4) Qualifier Page 7
5) Conformance/Non Conformance 8
6) QA Checklist 10
7) Chronicle 11
8) Hit Summary 12
9) QC Data Summary For VOCMS Group4 13
- 9.1) Deuterated Monitoring Compound Summary 14
- 9.2) LCS/LCSD Summary 15
- 9.3) Method Blank Summary 19
- 9.4) GS/MS Tune Summary 20
- 9.5) Internal Standard Area and RT Summary 21

10) Sample Data 22
- 10.1) TT-073-IDWGW-20250409 23
- 10.2) TT-074-IDWGW-20250409 32
- 10.3) TT-075-IDWGW-20250409 41

11) Calibration Data Summary 51
- 11.1) Initial Calibration Data 52
  - 11.1.1) VN041125 52
- 11.2) Continued Calibration Data 306
  - 11.2.1) VN086255.D 306

12) QC Sample Data 361
- 12.1) Tune Raw Data 362
- 12.2) Method Blank Data 363
- 12.3) LCS Data 371
- 12.4) LCSD Data 423

13) Manual Integration 475
14) Analytical Runlogs 477
15) Standard Prep Logs 479
16) Shipping Document 594
- 16.1) Chain Of Custody 595
- 16.2) ROC 596
- 16.3) Lab Certificate 598

16.4) Internal COC 599

17) Not Reviewed Data 600

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

Cover Page

Order ID : Q1774

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
Q1774-02	TT-073-IDWGW-20250409
Q1774-03	TT-074-IDWGW-20250409
Q1774-04	TT-075-IDWGW-20250409

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 : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 1:39 pm, Apr 21, 2025

Date: 4/15/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE13
Project Manager # Ernie Wu
Chemtech Project # Q1774
Test Name: VOCMS Group4

A. Number of Samples and Date of Receipt:
3 Water samples were received on 04/10/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, PCB, pH and VOCMS Group4. This data package contains results for VOCMS Group4.

C. Analytical Techniques:
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 Group4 was based on method 624.1.

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 RPD for {VN0411WBSD01} with File ID: VN086250.D met criteria except for Acrolein[23%] due to difference in results of BS and BSD.

The Blank Spike for {VN0411WBS01} with File ID: VN086249.D met requirements for all samples except for Carbon disulfide[109%] is failing high but no positive hit in associate sample therefore no corrective action taken.

The Blank Spike Duplicate met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.
The Tuning criteria met requirements.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."

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

"As per method, MS/MSD is required to be performed with the sample analysis. However, Lab did not receive sufficient volume to perform the MS/MSD therefore MS/MSD were not performed for this project. However, Lab has performed LCS/LCSD instead.".

VIAL A and B combined to run samples#02,03 and 04 as all vials contained much sediment.

The SDG Q1774 is logged for VOCMS group4. Lab not certified for Hexachloroethane, Iodomethane, Methyl Methacrylate and tert-Butylbenzene compounds for 624.1 method.

The Sample # TT-075-IDWGW-20250409 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

Trip Blank was not provided with this set of samples.
The not QT review data is reported in the Miscellaneous.

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 <35% 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 > 35% 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 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

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

QA Control # A3040960

ALLIANCE 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: Q1774 MATRIX: Water

METHOD: 624.1

		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 Initial Calibration met the requirements . The Continuous Calibration met the requirements.			✓
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.			
	The Surrogate recoveries met the acceptable criteria.			
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 for {VN0411WBS01} with File ID: VN086249.D met requirements for all samples except for Carbon disulfide[109%] is failing high but no positive hit in associate sample therefore no corrective action taken.			
	The Blank Spike Duplicate met requirements for all samples.			
	The RPD for {VN0411WBSD01} with File ID: VN086250.D met criteria except for Acrolein[23%] due to difference in results of BS and BSD.			
9.	Internal Standard Area/Retention Time Shift Meet Criteria			✓
	Comments:			

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

		NA	NO	YES
10.	Analysis Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."

"As per method, MS/MSD is required to be performed with the sample analysis. However, Lab did not receive sufficient volume to perform the MS/MSD therefore MS/MSD were not performed for this project. However, Lab has performed LCS/LCSD instead."..

VIAL A and B combined to run samples#02,03 and 04 as all vials contained much sediment.

The SDG Q1774 is logged for VOCMS group4. Lab not certified for Hexachloroethane, Iodomethane, Methyl Methacrylate and tert-Butylbenzene compounds for 624.1 method.

The Sample # TT-075-IDWGW-20250409 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

Trip Blank was not provided with this set of samples.

The not QT review data is reported in the Miscellaneous.

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 <35% 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 >35% for the Initial Calibration curve for SW-846 analysis.

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 10:02 am, Apr 21, 2025

Date

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1774

	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	✓

QA Review Signature: SOHIL JODHANI **Date:** 04/15/2025

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

LAB CHRONICLE

OrderID:	Q1774	**OrderDate:**	4/10/2025 10:43:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	CTO WE13
Contact:	Ernie Wu	**Location:**	F11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1774-02	**TT-073-IDWGW-2025 0409**	**Water**			**04/09/25**			**04/10/25**
			VOCMS Group4	624.1			04/11/25	
Q1774-03	**TT-074-IDWGW-2025 0409**	**Water**			**04/09/25**			**04/10/25**
			VOCMS Group4	624.1			04/11/25	
Q1774-04	**TT-075-IDWGW-2025 0409**	**Water**			**04/09/25**			**04/10/25**
			VOCMS Group4	624.1			04/11/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q1774

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**TT-073-IDWGW-20250409**							
Q1774-02	TT-073-IDWGW-2(	Water	Acetone	29.9		4.60	25.0	ug/L
Q1774-02	TT-073-IDWGW-2(	Water	Trichloroethene	8.70		0.49	5.00	ug/L
			Total Voc :	38.6				
			Total Concentration:	38.6				
Client ID:	**TT-074-IDWGW-20250409**							
Q1774-03	TT-074-IDWGW-2(	Water	Acetone	34.2		4.60	25.0	ug/L
Q1774-03	TT-074-IDWGW-2(	Water	Trichloroethene	7.40		0.49	5.00	ug/L
			Total Voc :	41.6				
			Total Concentration:	41.6				
Client ID:	**TT-075-IDWGW-20250409**							
Q1774-04	TT-075-IDWGW-2(	Water	Acetone	21.8	J	4.60	25.0	ug/L
Q1774-04	TT-075-IDWGW-2(	Water	Trichloroethene	28.0		0.49	5.00	ug/L
Q1774-04	TT-075-IDWGW-2(	Water	1,1,2-Trichloroethane	0.55	J	0.45	5.00	ug/L
			Total Voc :	50.4				
			Total Concentration:	50.4				

QC SUMMARY

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

Surrogate Summary

SDG No.: Q1774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1774-02	TT-073-IDWGW-20250409	1,2-Dichloroethane-d4	30	30.3	101	91	110
		Toluene-d8	30	30.1	100	91	112
		4-Bromofluorobenzene	30	29.0	97	63	112
Q1774-03	TT-074-IDWGW-20250409	1,2-Dichloroethane-d4	30	30.6	102	91	110
		Toluene-d8	30	31.0	103	91	112
		4-Bromofluorobenzene	30	28.6	95	63	112
Q1774-04	TT-075-IDWGW-20250409	1,2-Dichloroethane-d4	30	30.2	101	91	110
		Toluene-d8	30	31.4	105	91	112
		4-Bromofluorobenzene	30	28.6	95	63	112
VN0411WBL01	VN0411WBL01	1,2-Dichloroethane-d4	30	30.7	102	91	110
		Toluene-d8	30	30.8	103	91	112
		4-Bromofluorobenzene	30	28.6	95	63	112
VN0411WBS01	VN0411WBS01	1,2-Dichloroethane-d4	30	30.5	102	91	110
		Toluene-d8	30	30.3	101	91	112
		4-Bromofluorobenzene	30	29.8	99	63	112
VN0411WBSD0	VN0411WBSD01	1,2-Dichloroethane-d4	30	30.2	101	91	110
		Toluene-d8	30	29.8	99	91	112
		4-Bromofluorobenzene	30	29.6	99	63	112

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1 **Datafile :** VN086249.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0411WBS01	Dichlorodifluoromethane	20	22.7	ug/L	114			72	118	
	Chloromethane	20	21.6	ug/L	108			1	205	
	Vinyl Chloride	20	21.5	ug/L	108			5	195	
	Bromomethane	20	20.4	ug/L	102			15	185	
	Chloroethane	20	21.1	ug/L	106			40	160	
	Trichlorofluoromethane	20	21.5	ug/L	108			50	150	
	1,1,2-Trichlorotrifluoroethane	20	21.8	ug/L	109			64	127	
	1,1-Dichloroethene	20	21.4	ug/L	107			50	150	
	Acrolein	100	78.0	ug/L	78			60	140	
	Acrylonitrile	100	99.6	ug/L	100			60	140	
	Acetone	100	95.5	ug/L	96			41	148	
	Carbon disulfide	20	21.8	ug/L	109		*	76	107	
	Methyl tert-butyl Ether	20	21.2	ug/L	106			82	114	
	Methyl Acetate	20	20.1	ug/L	101			63	139	
	Methylene Chloride	20	21.2	ug/L	106			60	140	
	trans-1,2-Dichloroethene	20	20.9	ug/L	104			70	130	
	1,1-Dichloroethane	20	21.7	ug/L	109			70	130	
	Cyclohexane	20	21.6	ug/L	108			79	113	
	2-Butanone	100	96.8	ug/L	97			69	129	
	Carbon Tetrachloride	20	20.9	ug/L	104			70	130	
	2,2-Dichloropropane	20	21.1	ug/L	106			62	139	
	cis-1,2-Dichloroethene	20	21.4	ug/L	107			81	112	
	Chloroform	20	21.7	ug/L	109			70	135	
	1,1,1-Trichloroethane	20	20.7	ug/L	104			70	130	
	Methylcyclohexane	20	20.9	ug/L	104			79	112	
	1,1-Dichloropropene	20	20.8	ug/L	104			70	139	
	Benzene	20	21.0	ug/L	105			65	135	
	1,2-Dichloroethane	20	20.9	ug/L	104			70	130	
	Trichloroethene	20	20.2	ug/L	101			65	135	
	1,2-Dichloropropane	20	20.9	ug/L	104			35	165	
	Dibromomethane	20	20.0	ug/L	100			72	138	
	Bromodichloromethane	20	20.6	ug/L	103			65	135	
	4-Methyl-2-Pentanone	100	100	ug/L	100			73	131	
	Toluene	20	21.4	ug/L	107			70	130	
	t-1,3-Dichloropropene	20	20.5	ug/L	103			50	150	
	cis-1,3-Dichloropropene	20	20.7	ug/L	104			25	175	
	1,1,2-Trichloroethane	20	20.4	ug/L	102			70	130	
	1,3-Dichloropropane	20	20.9	ug/L	104			70	141	
	2-Hexanone	100	100	ug/L	100			72	128	
	Dibromochloromethane	20	20.4	ug/L	102			70	135	
	1,2-Dibromoethane	20	20.0	ug/L	100			86	114	
	Tetrachloroethene	20	20.9	ug/L	104			70	130	
	Chlorobenzene	20	20.6	ug/L	103			65	135	
	1,1,1,2-Tetrachloroethane	20	21.3	ug/L	106			63	138	
	Hexachloroethane	20	20.4	ug/L	102			70	130	
	Ethyl Benzene	20	21.0	ug/L	105			60	140	
	m/p-Xylenes	40	41.7	ug/L	104			87	111	
	o-Xylene	20	21.1	ug/L	106			87	111	

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1 **Datafile :** VN086249.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0411WBS01	Styrene	20	20.9	ug/L	104			85	106	
	Bromoform	20	19.9	ug/L	100			70	130	
	Isopropylbenzene	20	21.2	ug/L	106			86	112	
	1,1,2,2-Tetrachloroethane	20	20.8	ug/L	104			60	140	
	1,2,3-Trichloropropane	20	20.3	ug/L	102			61	148	
	Bromobenzene	20	20.6	ug/L	103			59	142	
	N-propylbenzene	20	21.2	ug/L	106			67	139	
	2-Chlorotoluene	20	21.0	ug/L	105			66	138	
	1,3,5-Trimethylbenzene	20	21.4	ug/L	107			66	139	
	4-Chlorotoluene	20	20.6	ug/L	103			66	141	
	tert-Butylbenzene	20	20.7	ug/L	104			56	140	
	1,2,4-Trimethylbenzene	20	20.8	ug/L	104			63	142	
	Sec-butylbenzene	20	21.4	ug/L	107			63	144	
	p-Isopropyltoluene	20	21.3	ug/L	106			57	147	
	1,3-Dichlorobenzene	20	20.4	ug/L	102			70	130	
	1,4-Dichlorobenzene	20	20.4	ug/L	102			65	135	
	n-Butylbenzene	20	21.8	ug/L	109			49	157	
	1,2-Dichlorobenzene	20	20.0	ug/L	100			65	135	
	1,2-Dibromo-3-Chloropropane	20	18.5	ug/L	93			69	122	
	1,2,4-Trichlorobenzene	20	19.7	ug/L	99			61	118	
	Hexachlorobutadiene	20	19.2	ug/L	96			16	187	
	Naphthalene	20	18.4	ug/L	92			45	152	
	1,2,3-Trichlorobenzene	20	19.7	ug/L	99			38	159	
	Methyl iodide	20	21.2	ug/L	106			70	130	
	Methyl methacrylate	20	20.2	ug/L	101			70	130	

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1 **Datafile :** VN086250.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0411WBSD01	Dichlorodifluoromethane	20	20.2	ug/L	101	12		72	118	20
	Chloromethane	20	19.2	ug/L	96	12		1	205	20
	Vinyl Chloride	20	19.3	ug/L	97	11		5	195	20
	Bromomethane	20	19.2	ug/L	96	6		15	185	20
	Chloroethane	20	19.1	ug/L	96	10		40	160	20
	Trichlorofluoromethane	20	19.4	ug/L	97	11		50	150	20
	1,1,2-Trichlorotrifluoroethane	20	19.7	ug/L	99	10		64	127	20
	1,1-Dichloroethene	20	19.1	ug/L	96	11		50	150	20
	Acrolein	100	97.7	ug/L	98	23	*	60	140	20
	Acrylonitrile	100	100	ug/L	100	0		60	140	20
	Acetone	100	100	ug/L	100	4		41	148	20
	Carbon disulfide	20	19.0	ug/L	95	14		76	107	20
	Methyl tert-butyl Ether	20	21.1	ug/L	106	0		82	114	20
	Methyl Acetate	20	20.9	ug/L	104	3		63	139	20
	Methylene Chloride	20	19.9	ug/L	100	6		60	140	20
	trans-1,2-Dichloroethene	20	18.8	ug/L	94	10		70	130	20
	1,1-Dichloroethane	20	20.1	ug/L	101	8		70	130	20
	Cyclohexane	20	19.3	ug/L	97	11		79	113	20
	2-Butanone	100	110	ug/L	110	13		69	129	20
	Carbon Tetrachloride	20	20.6	ug/L	103	1		70	130	20
	2,2-Dichloropropane	20	20.6	ug/L	103	3		62	139	20
	cis-1,2-Dichloroethene	20	19.7	ug/L	99	8		81	112	20
	Chloroform	20	19.9	ug/L	100	9		70	135	20
	1,1,1-Trichloroethane	20	20.3	ug/L	102	2		70	130	20
	Methylcyclohexane	20	20.1	ug/L	101	3		79	112	20
	1,1-Dichloropropene	20	20.6	ug/L	103	1		70	139	20
	Benzene	20	20.8	ug/L	104	1		65	135	20
	1,2-Dichloroethane	20	21.4	ug/L	107	3		70	130	20
	Trichloroethene	20	20.5	ug/L	103	2		65	135	20
	1,2-Dichloropropane	20	21.4	ug/L	107	3		35	165	20
	Dibromomethane	20	21.2	ug/L	106	6		72	138	20
	Bromodichloromethane	20	21.2	ug/L	106	3		65	135	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	10		73	131	20
	Toluene	20	20.7	ug/L	104	3		70	130	20
	t-1,3-Dichloropropene	20	21.4	ug/L	107	4		50	150	20
	cis-1,3-Dichloropropene	20	21.4	ug/L	107	3		25	175	20
	1,1,2-Trichloroethane	20	21.6	ug/L	108	6		70	130	20
	1,3-Dichloropropane	20	21.9	ug/L	110	6		70	141	20
	2-Hexanone	100	110	ug/L	110	10		72	128	20
	Dibromochloromethane	20	21.7	ug/L	109	7		70	135	20
	1,2-Dibromoethane	20	21.5	ug/L	108	8		86	114	20
	Tetrachloroethene	20	20.3	ug/L	102	2		70	130	20
	Chlorobenzene	20	20.6	ug/L	103	0		65	135	20
	1,1,1,2-Tetrachloroethane	20	21.2	ug/L	106	0		63	138	20
	Hexachloroethane	20	19.5	ug/L	98	4		70	130	20
	Ethyl Benzene	20	20.2	ug/L	101	4		60	140	20
	m/p-Xylenes	40	40.7	ug/L	102	2		87	111	20
	o-Xylene	20	20.8	ug/L	104	2		87	111	20

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1 **Datafile :** VN086250.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0411WBSD01	Styrene	20	20.9	ug/L	104	0		85	106	20
	Bromoform	20	20.8	ug/L	104	4		70	130	20
	Isopropylbenzene	20	20.4	ug/L	102	4		86	112	20
	1,1,2,2-Tetrachloroethane	20	21.6	ug/L	108	4		60	140	20
	1,2,3-Trichloropropane	20	21.3	ug/L	106	4		61	148	20
	Bromobenzene	20	20.7	ug/L	104	1		59	142	20
	N-propylbenzene	20	20.3	ug/L	102	4		67	139	20
	2-Chlorotoluene	20	20.1	ug/L	101	4		66	138	20
	1,3,5-Trimethylbenzene	20	20.5	ug/L	103	4		66	139	20
	4-Chlorotoluene	20	20.0	ug/L	100	3		66	141	20
	tert-Butylbenzene	20	19.8	ug/L	99	5		56	140	20
	1,2,4-Trimethylbenzene	20	20.5	ug/L	103	1		63	142	20
	Sec-butylbenzene	20	20.2	ug/L	101	6		63	144	20
	p-Isopropyltoluene	20	20.1	ug/L	101	5		57	147	20
	1,3-Dichlorobenzene	20	20.3	ug/L	102	0		70	130	20
	1,4-Dichlorobenzene	20	20.1	ug/L	101	1		65	135	20
	n-Butylbenzene	20	20.3	ug/L	102	7		49	157	20
	1,2-Dichlorobenzene	20	20.5	ug/L	103	3		65	135	20
	1,2-Dibromo-3-Chloropropane	20	20.5	ug/L	103	10		69	122	20
	1,2,4-Trichlorobenzene	20	20.5	ug/L	103	4		61	118	20
	Hexachlorobutadiene	20	19.2	ug/L	96	0		16	187	20
	Naphthalene	20	20.7	ug/L	104	12		45	152	20
	1,2,3-Trichlorobenzene	20	20.5	ug/L	103	4		38	159	20
	Methyl iodide	20	19.1	ug/L	96	10		70	130	20
	Methyl methacrylate	20	21.1	ug/L	106	5		70	130	20

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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0411WBL01

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG NO.: Q1774

Lab File ID: VN086251.D Lab Sample ID: VN0411WBL01

Date Analyzed: 04/11/2025 Time Analyzed: 15:40

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
VN0411WBS01	VN0411WBS01	VN086249.D	04/11/2025
VN0411WBSD01	VN0411WBSD01	VN086250.D	04/11/2025
TT-073-IDWGW-20250409	Q1774-02	VN086252.D	04/11/2025
TT-074-IDWGW-20250409	Q1774-03	VN086253.D	04/11/2025
TT-075-IDWGW-20250409	Q1774-04	VN086254.D	04/11/2025

COMMENTS:

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG NO.: Q1774

Lab File ID: VN086241.D BFB Injection Date: 04/11/2025

Instrument ID: MSVOA_N BFB Injection Time: 09:52

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	19.1
75	30.0 - 60.0% of mass 95	51.3
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	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	67.2
175	5.0 - 9.0% of mass 174	4.8 (7.1) 1
176	95.0 - 101.0% of mass 174	64.9 (96.7) 1
177	5.0 - 9.0% of mass 176	4.2 (6.4) 2

1-Value is % mass 174 2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN086242.D	04/11/2025	11:04
VSTDICC050	VSTDICC050	VN086244.D	04/11/2025	11:52
VSTDICCC020	VSTDICCC020	VN086245.D	04/11/2025	12:16
VSTDICC005	VSTDICC005	VN086246.D	04/11/2025	12:40
VN0411WBS01	VN0411WBS01	VN086249.D	04/11/2025	14:38
VN0411WBSD01	VN0411WBSD01	VN086250.D	04/11/2025	15:16
VN0411WBL01	VN0411WBL01	VN086251.D	04/11/2025	15:40
TT-073-IDWGW-20250409	Q1774-02	VN086252.D	04/11/2025	16:15
TT-074-IDWGW-20250409	Q1774-03	VN086253.D	04/11/2025	16:39
TT-075-IDWGW-20250409	Q1774-04	VN086254.D	04/11/2025	17:03
VSTDCCC020EC	VSTDCCC020	VN086255.D	04/11/2025	17:28

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG NO.: Q1774

Lab File ID: VN086245.D Date Analyzed: 04/11/2025

Instrument ID: MSVOA_N Time Analyzed: 12:16

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	30974	7.81	185020	9.10	163907	11.87
UPPER LIMIT	61948	8.312	370040	9.6	327814	12.365
LOWER LIMIT	15487	7.312	92510	8.6	81953.5	11.365
EPA SAMPLE NO.						
TT-073-IDWGW-20250409	16665	7.82	98006	9.10	84075	11.87
TT-074-IDWGW-20250409	19774	7.82	120171	9.09	102960	11.87
TT-075-IDWGW-20250409	29637	7.81	180090	9.10	151244	11.87
VN0411WBL01	32111	7.81	197127	9.10	168421	11.87
VN0411WBS01	32103	7.81	201467	9.10	175632	11.87
VN0411WBSD01	34735	7.81	202525	9.10	180363	11.86

IS1 = Bromochloromethane
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.

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-073-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-02	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086252.D	1		04/11/25 16:15	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.77	U	0.77	5.00	ug/L
74-87-3	Chloromethane	0.64	U	0.64	5.00	ug/L
75-01-4	Vinyl Chloride	0.83	U	0.83	5.00	ug/L
74-83-9	Bromomethane	0.80	U	0.80	5.00	ug/L
75-00-3	Chloroethane	2.30	U	2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.80	U	0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.96	U	0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.76	U	0.76	5.00	ug/L
107-02-8	Acrolein	6.60	U	6.60	25.0	ug/L
107-13-1	Acrylonitrile	2.80	U	2.80	25.0	ug/L
67-64-1	Acetone	29.9		4.60	25.0	ug/L
75-15-0	Carbon Disulfide	0.82	UQ	0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.77	U	0.77	5.00	ug/L
79-20-9	Methyl Acetate	0.91	U	0.91	5.00	ug/L
75-09-2	Methylene Chloride	0.86	U	0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.82	U	0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.68	U	0.68	5.00	ug/L
110-82-7	Cyclohexane	0.92	U	0.92	5.00	ug/L
78-93-3	2-Butanone	2.00	U	2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.74	U	0.74	5.00	ug/L
594-20-7	2,2-Dichloropropane	0.66	U	0.66	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.80	U	0.80	5.00	ug/L
67-66-3	Chloroform	0.55	U	0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.63	U	0.63	5.00	ug/L
108-87-2	Methylcyclohexane	0.73	U	0.73	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.63	U	0.63	5.00	ug/L
71-43-2	Benzene	0.45	U	0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.50	5.00	ug/L
79-01-6	Trichloroethene	8.70		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-073-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-02	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086252.D	1		04/11/25 16:15	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.59	U	0.59	5.00	ug/L
75-27-4	Bromodichloromethane	0.64	U	0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	3.00	U	3.00	25.0	ug/L
108-88-3	Toluene	0.46	U	0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.67	U	0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.45	U	0.45	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.44	U	0.44	5.00	ug/L
591-78-6	2-Hexanone	3.20	U	3.20	25.0	ug/L
124-48-1	Dibromochloromethane	0.66	U	0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	0.56	5.00	ug/L
127-18-4	Tetrachloroethene	0.84	U	0.84	5.00	ug/L
108-90-7	Chlorobenzene	0.47	U	0.47	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.62	U	0.62	5.00	ug/L
67-72-1	Hexachloroethane	0.98	U	0.98	5.00	ug/L
100-41-4	Ethyl Benzene	0.56	U	0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	1.30	U	1.30	10.0	ug/L
95-47-6	o-Xylene	0.67	U	0.67	5.00	ug/L
100-42-5	Styrene	0.72	U	0.72	5.00	ug/L
75-25-2	Bromoform	0.94	U	0.94	5.00	ug/L
98-82-8	Isopropylbenzene	0.78	U	0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.44	U	0.44	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.62	U	0.62	5.00	ug/L
108-86-1	Bromobenzene	0.59	U	0.59	5.00	ug/L
103-65-1	n-propylbenzene	0.67	U	0.67	5.00	ug/L
95-49-8	2-Chlorotoluene	0.64	U	0.64	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.59	U	0.59	5.00	ug/L
106-43-4	4-Chlorotoluene	0.62	U	0.62	5.00	ug/L
98-06-6	tert-butylbenzene	0.71	U	0.71	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.77	U	0.77	5.00	ug/L
135-98-8	sec-Butylbenzene	0.64	U	0.64	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-073-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-02	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086252.D	1		04/11/25 16:15	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.70	U	0.70	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.81	U	0.81	5.00	ug/L
104-51-8	n-Butylbenzene	0.82	U	0.82	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.86	U	0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	0.68	U	0.68	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
74-88-4	Methyl Iodide	0.91	U	0.91	5.00	ug/L
80-62-6	Methyl methacrylate	0.71	U	0.71	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.3		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	30.1		91 - 112	100%	SPK: 30
460-00-4	4-Bromofluorobenzene	29.0		63 - 112	97%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	16700	7.818			
540-36-3	1,4-Difluorobenzene	98000	9.1			
3114-55-4	Chlorobenzene-d5	84100	11.865			

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\VN041125\
Data File : VN086252.D
Acq On : 11 Apr 2025 16:15
Operator : JC\MD
Sample : Q1774-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-073-IDWGW-20250409

Quant Time: Apr 12 01:50:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

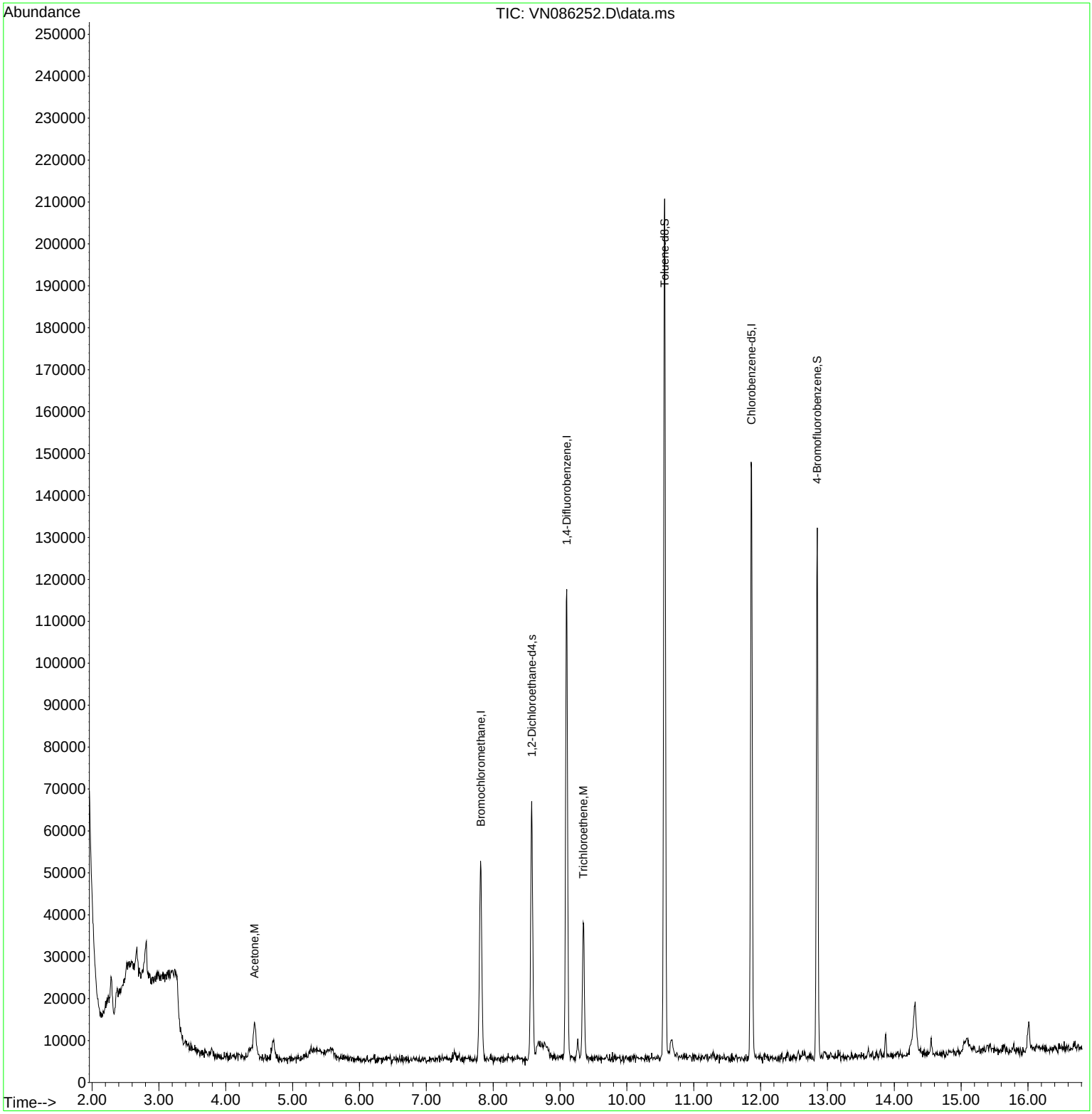
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.818	128	16665	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	98006	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	84075	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	49324	30.345	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.133%			
60) 4-Bromofluorobenzene	12.847	95	48470	28.956	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 96.533%			
63) Toluene-d8	10.565	98	142745	30.074	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 100.233%			
Target Compounds						Qvalue
15) Acetone	4.430	58	5740	29.925	ug/l	82
37) Trichloroethene	9.347	130	11784	8.744	ug/l	100

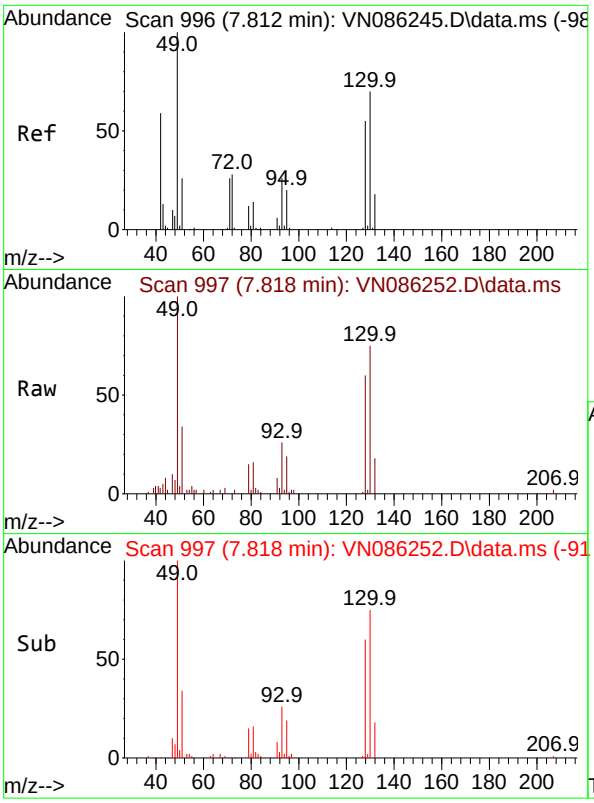
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086252.D
Acq On : 11 Apr 2025 16:15
Operator : JC\MD
Sample : Q1774-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-073-IDWGW-20250409

Quant Time: Apr 12 01:50:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



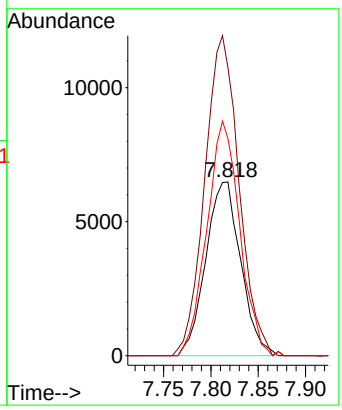


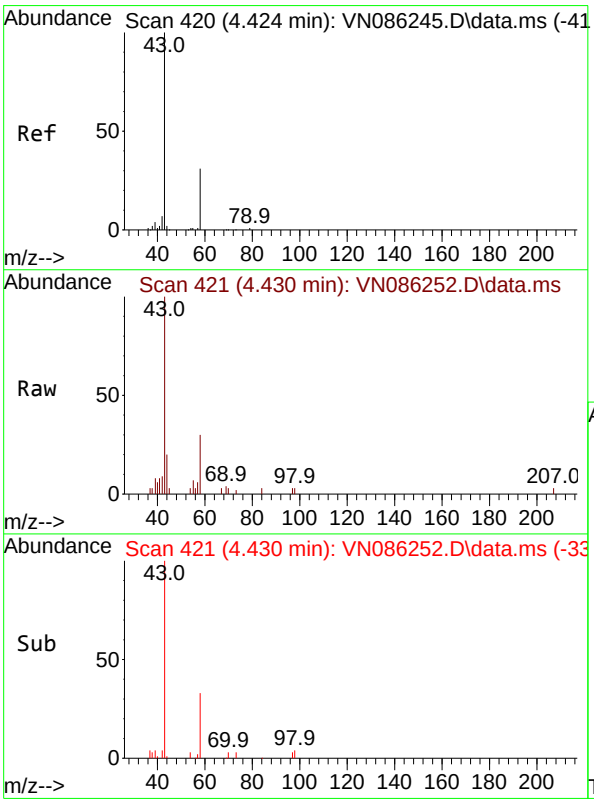
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.818 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Instrument :
MSVOA_N
ClientSampleId :
TT-073-IDWGW-20250409

Tgt Ion:128 Resp: 16665

Ion	Ratio	Lower	Upper
128	100		
49	179.9	0.0	452.5
130	126.8	0.0	315.0

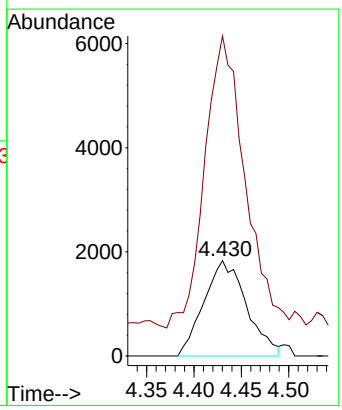


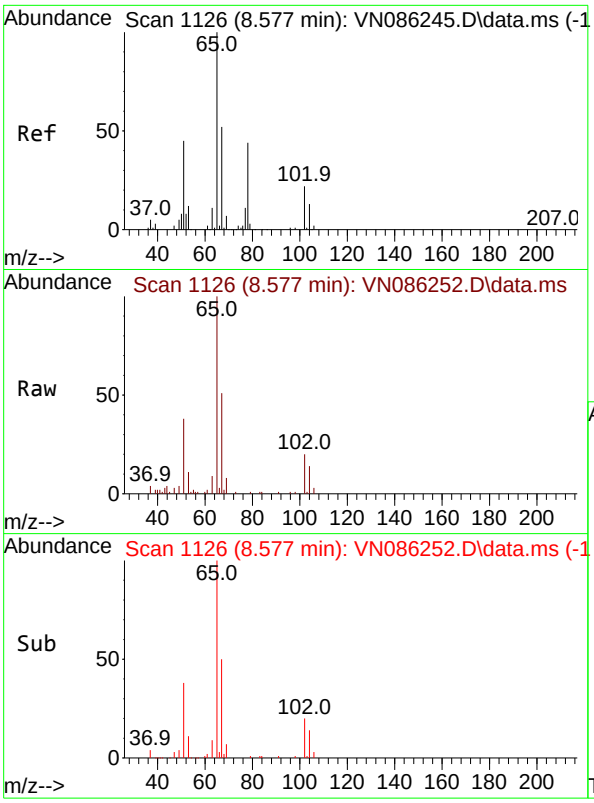


#15
Acetone
Concen: 29.925 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.006 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Tgt Ion: 58 Resp: 5740

Ion	Ratio	Lower	Upper
58	100		
43	289.9	261.8	392.8



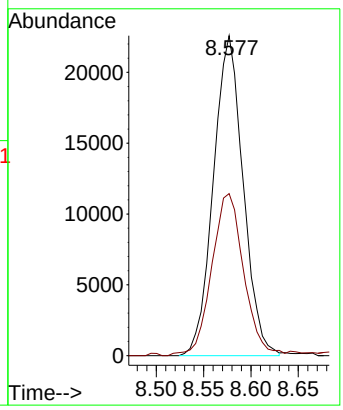


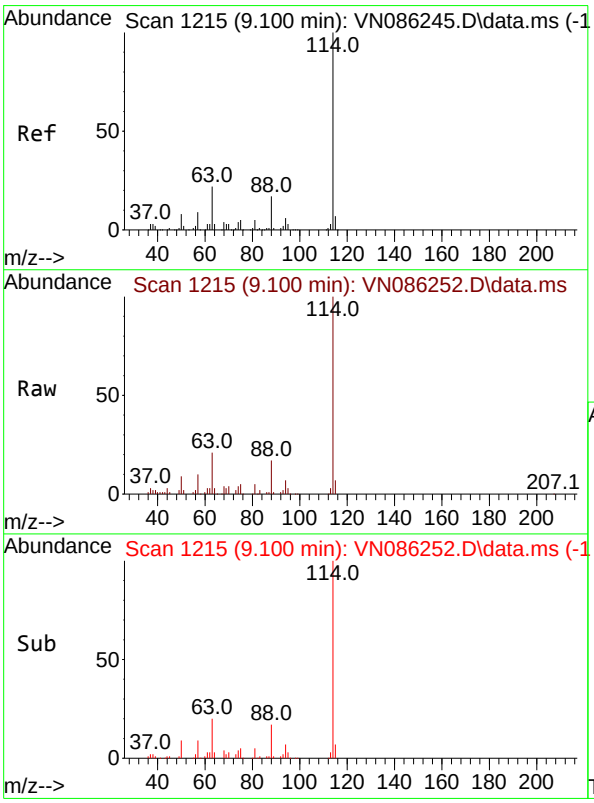
#27
1,2-Dichloroethane-d4
Concen: 30.345 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Instrument :
MSVOA_N
ClientSampleId :
TT-073-IDWGW-20250409

Tgt Ion: 65 Resp: 49324

Ion	Ratio	Lower	Upper
65	100		
67	53.9	43.4	65.2

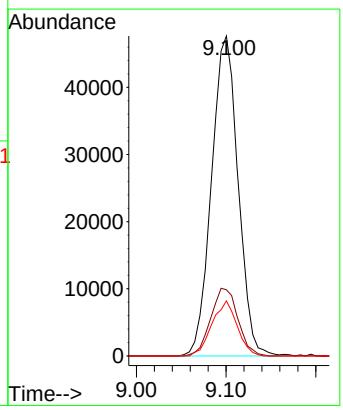


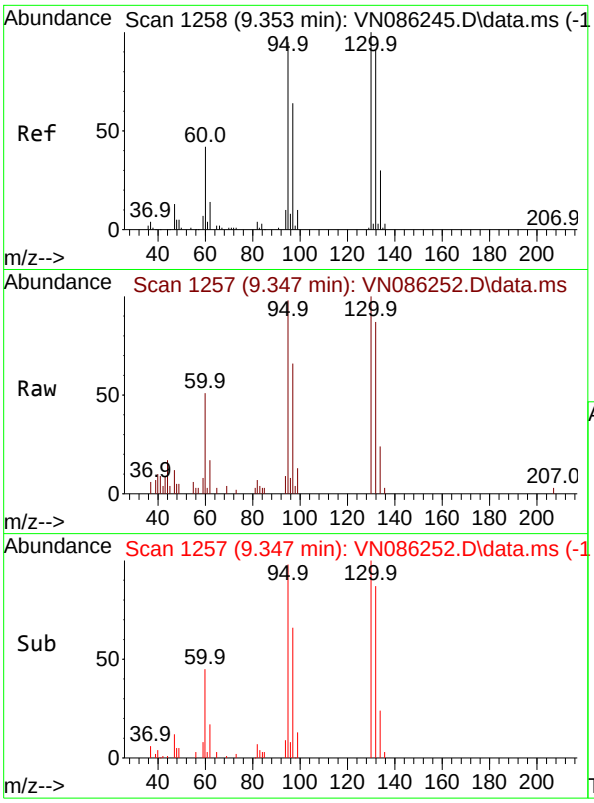


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.000 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Tgt Ion:114 Resp: 98006

Ion	Ratio	Lower	Upper
114	100		
63	21.7	17.8	26.6
88	16.3	13.4	20.2



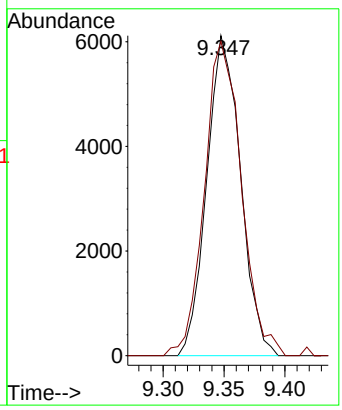


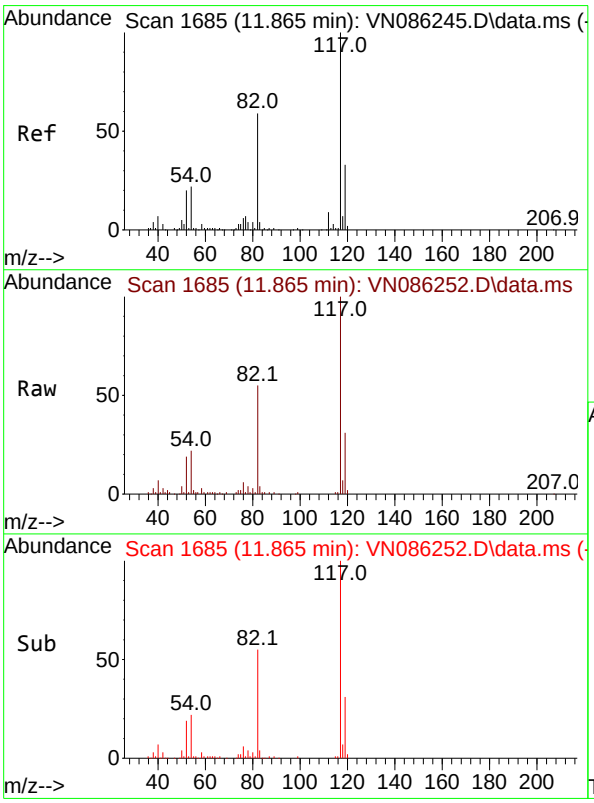
#37
Trichloroethene
Concen: 8.744 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Instrument :
MSVOA_N
ClientSampleId :
TT-073-IDWGW-20250409

Tgt Ion:130 Resp: 11784

Ion	Ratio	Lower	Upper
130	100		
95	95.4	76.4	114.6

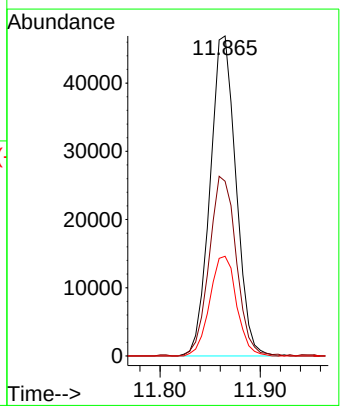


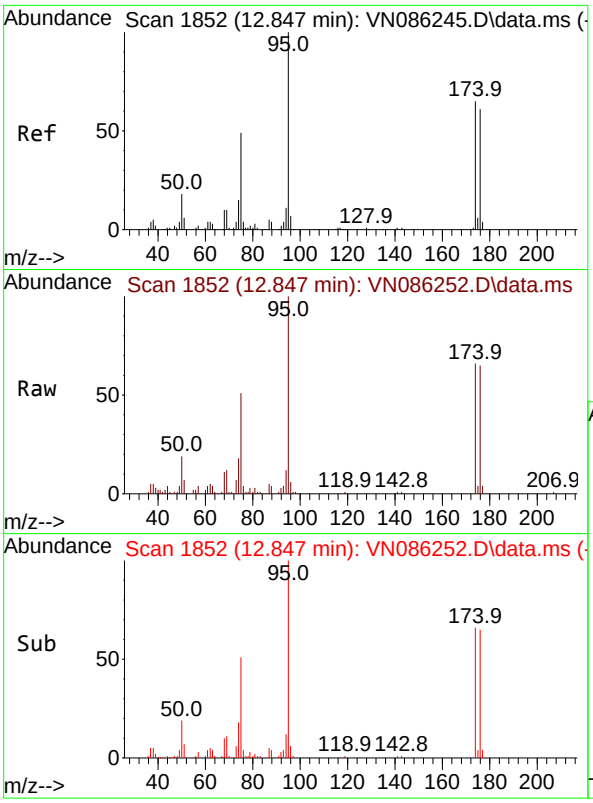


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.000 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Tgt Ion:117 Resp: 84075

Ion	Ratio	Lower	Upper
117	100		
82	58.8	47.3	70.9
119	32.3	25.9	38.9



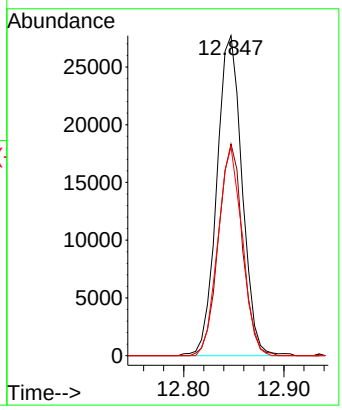


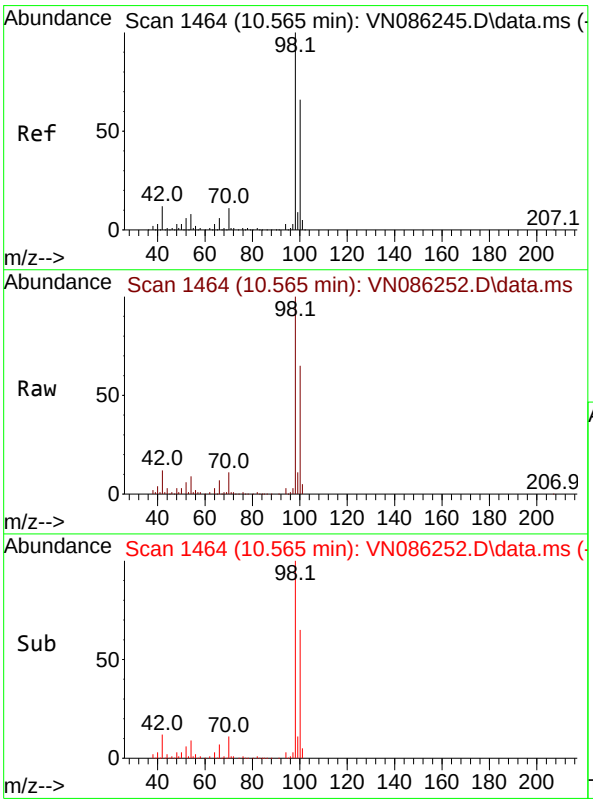
#60
4-Bromofluorobenzene
Concen: 28.956 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Instrument :
MSVOA_N
ClientSampleId :
TT-073-IDWGW-20250409

Tgt Ion: 95 Resp: 48470

Ion	Ratio	Lower	Upper
95	100		
174	63.3	52.7	79.1
176	62.7	49.8	74.8

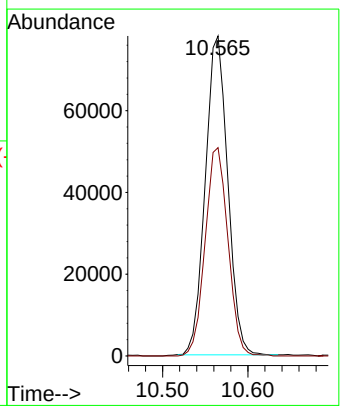




#63
Toluene-d8
Concen: 30.074 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.000 min
Lab File: VN086252.D
Acq: 11 Apr 2025 16:15

Tgt Ion: 98 Resp: 142745

Ion	Ratio	Lower	Upper
98	100		
100	66.4	52.3	78.5



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-074-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-03	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086253.D	1		04/11/25 16:39	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.77	U	0.77	5.00	ug/L
74-87-3	Chloromethane	0.64	U	0.64	5.00	ug/L
75-01-4	Vinyl Chloride	0.83	U	0.83	5.00	ug/L
74-83-9	Bromomethane	0.80	U	0.80	5.00	ug/L
75-00-3	Chloroethane	2.30	U	2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.80	U	0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.96	U	0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.76	U	0.76	5.00	ug/L
107-02-8	Acrolein	6.60	U	6.60	25.0	ug/L
107-13-1	Acrylonitrile	2.80	U	2.80	25.0	ug/L
67-64-1	Acetone	34.2		4.60	25.0	ug/L
75-15-0	Carbon Disulfide	0.82	UQ	0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.77	U	0.77	5.00	ug/L
79-20-9	Methyl Acetate	0.91	U	0.91	5.00	ug/L
75-09-2	Methylene Chloride	0.86	U	0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.82	U	0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.68	U	0.68	5.00	ug/L
110-82-7	Cyclohexane	0.92	U	0.92	5.00	ug/L
78-93-3	2-Butanone	2.00	U	2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.74	U	0.74	5.00	ug/L
594-20-7	2,2-Dichloropropane	0.66	U	0.66	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.80	U	0.80	5.00	ug/L
67-66-3	Chloroform	0.55	U	0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.63	U	0.63	5.00	ug/L
108-87-2	Methylcyclohexane	0.73	U	0.73	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.63	U	0.63	5.00	ug/L
71-43-2	Benzene	0.45	U	0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.50	5.00	ug/L
79-01-6	Trichloroethene	7.40		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-074-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-03	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086253.D	1		04/11/25 16:39	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.59	U	0.59	5.00	ug/L
75-27-4	Bromodichloromethane	0.64	U	0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	3.00	U	3.00	25.0	ug/L
108-88-3	Toluene	0.46	U	0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.67	U	0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.45	U	0.45	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.44	U	0.44	5.00	ug/L
591-78-6	2-Hexanone	3.20	U	3.20	25.0	ug/L
124-48-1	Dibromochloromethane	0.66	U	0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	0.56	5.00	ug/L
127-18-4	Tetrachloroethene	0.84	U	0.84	5.00	ug/L
108-90-7	Chlorobenzene	0.47	U	0.47	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.62	U	0.62	5.00	ug/L
67-72-1	Hexachloroethane	0.98	U	0.98	5.00	ug/L
100-41-4	Ethyl Benzene	0.56	U	0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	1.30	U	1.30	10.0	ug/L
95-47-6	o-Xylene	0.67	U	0.67	5.00	ug/L
100-42-5	Styrene	0.72	U	0.72	5.00	ug/L
75-25-2	Bromoform	0.94	U	0.94	5.00	ug/L
98-82-8	Isopropylbenzene	0.78	U	0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.44	U	0.44	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.62	U	0.62	5.00	ug/L
108-86-1	Bromobenzene	0.59	U	0.59	5.00	ug/L
103-65-1	n-propylbenzene	0.67	U	0.67	5.00	ug/L
95-49-8	2-Chlorotoluene	0.64	U	0.64	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.59	U	0.59	5.00	ug/L
106-43-4	4-Chlorotoluene	0.62	U	0.62	5.00	ug/L
98-06-6	tert-butylbenzene	0.71	U	0.71	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.77	U	0.77	5.00	ug/L
135-98-8	sec-Butylbenzene	0.64	U	0.64	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-074-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-03	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086253.D	1		04/11/25 16:39	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.70	U	0.70	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.81	U	0.81	5.00	ug/L
104-51-8	n-Butylbenzene	0.82	U	0.82	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.86	U	0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	0.68	U	0.68	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
74-88-4	Methyl Iodide	0.91	U	0.91	5.00	ug/L
80-62-6	Methyl methacrylate	0.71	U	0.71	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.6		91 - 110	102%	SPK: 30
2037-26-5	Toluene-d8	31.0		91 - 112	103%	SPK: 30
460-00-4	4-Bromofluorobenzene	28.6		63 - 112	95%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	19800	7.818			
540-36-3	1,4-Difluorobenzene	120000	9.094			
3114-55-4	Chlorobenzene-d5	103000	11.865			

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\VN041125\
Data File : VN086253.D
Acq On : 11 Apr 2025 16:39
Operator : JC\MD
Sample : Q1774-03
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 12 01:51:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.818	128	19774	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.094	114	120171	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	102960	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	58937	30.558	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.867%			
60) 4-Bromofluorobenzene	12.847	95	58540	28.558	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 95.200%			
63) Toluene-d8	10.565	98	179971	30.962	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 103.200%			
Target Compounds						Qvalue
15) Acetone	4.436	58	7787m	34.213	ug/l	
37) Trichloroethene	9.353	130	12262	7.420	ug/l	96

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

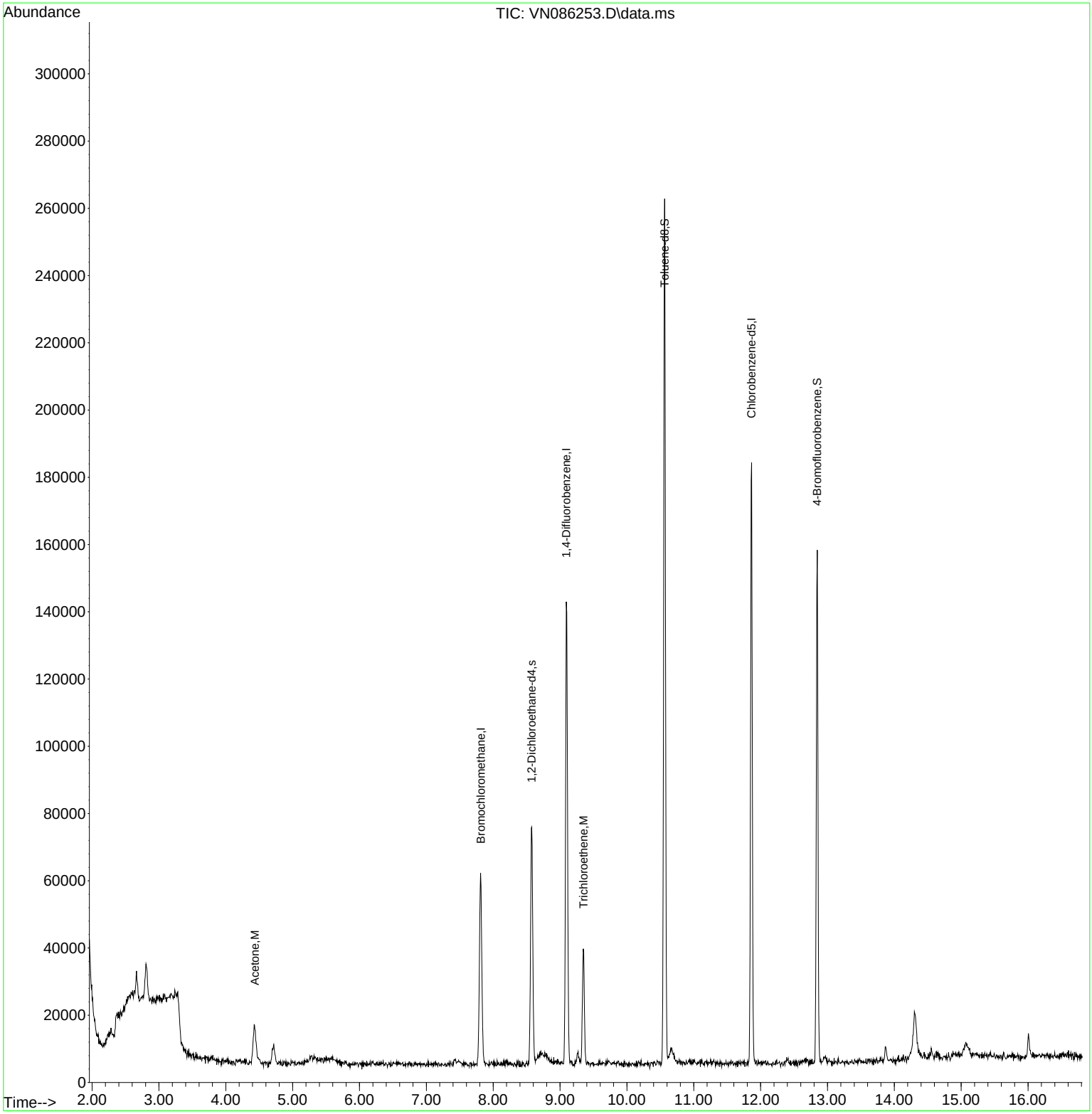
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086253.D
Acq On : 11 Apr 2025 16:39
Operator : JC\MD
Sample : Q1774-03
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

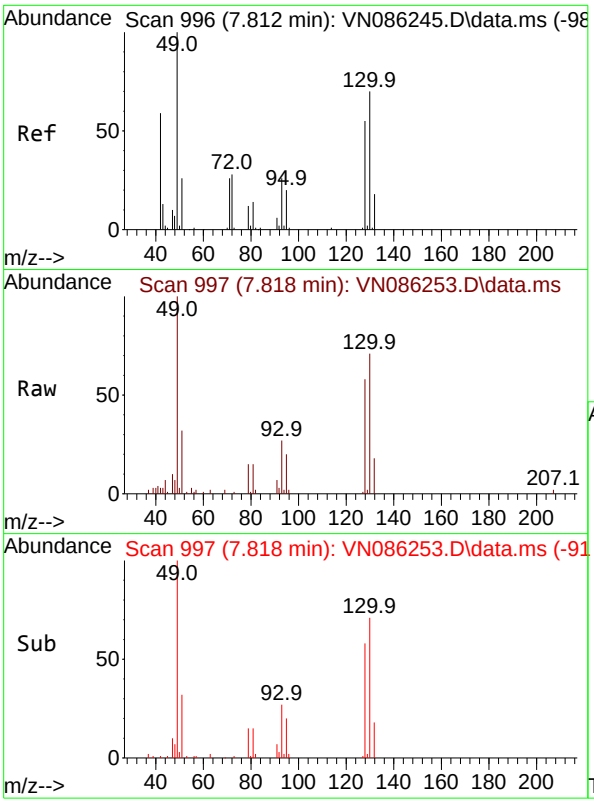
Quant Time: Apr 12 01:51:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

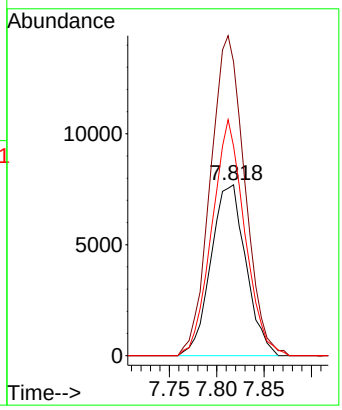




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.818 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion:128 Resp: 1977

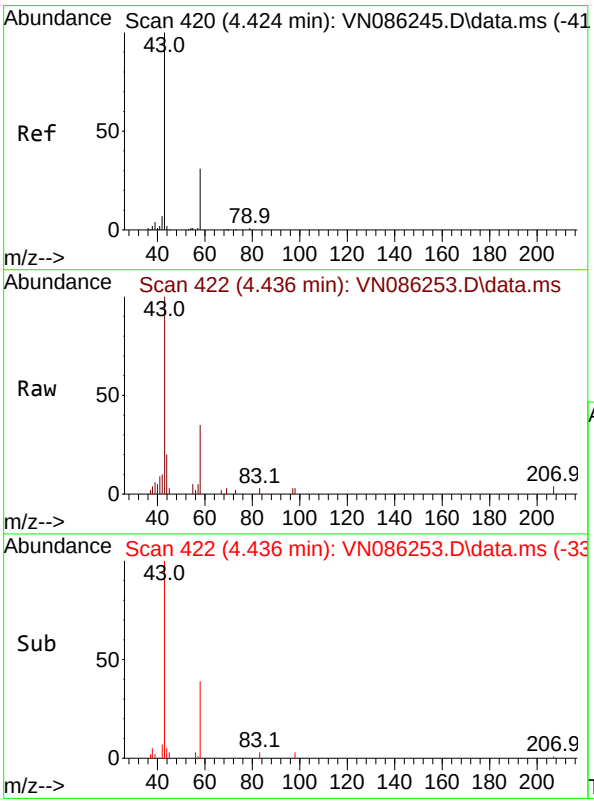
Ion	Ratio	Lower	Upper
128	100		
49	184.1	0.0	452.5
130	129.7	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Manual Integrations
APPROVED

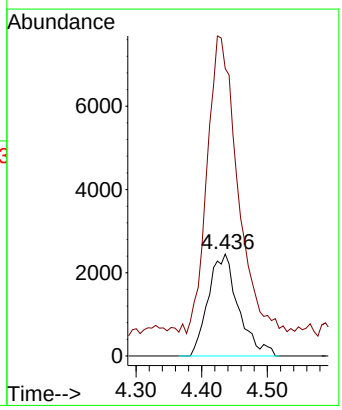
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

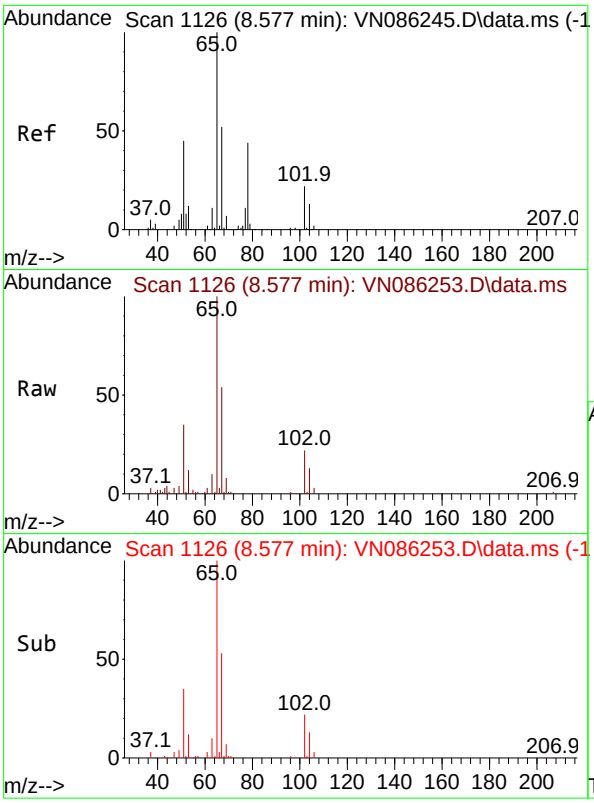


#15
Acetone
Concen: 34.213 ug/l m
RT: 4.436 min Scan# 422
Delta R.T. 0.012 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 58 Resp: 7787

Ion	Ratio	Lower	Upper
58	100		
43	282.1	261.8	392.8

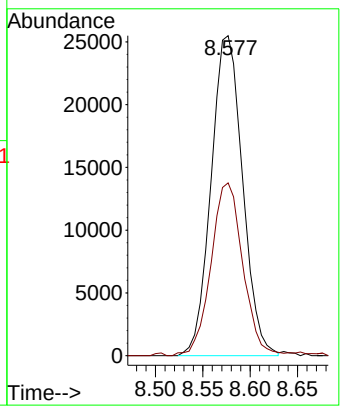




#27
1,2-Dichloroethane-d4
Concen: 30.558 ug/l
RT: 8.577 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 65 Resp: 5893

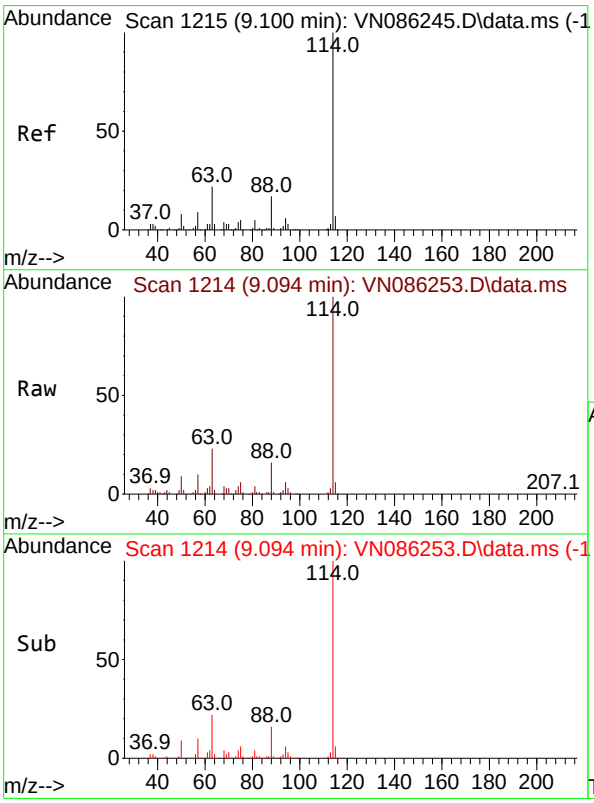
Ion	Ratio	Lower	Upper
65	100		
67	53.6	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Manual Integrations
APPROVED

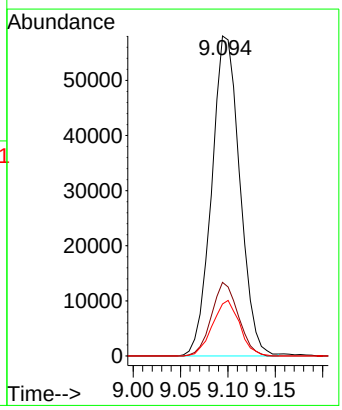
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

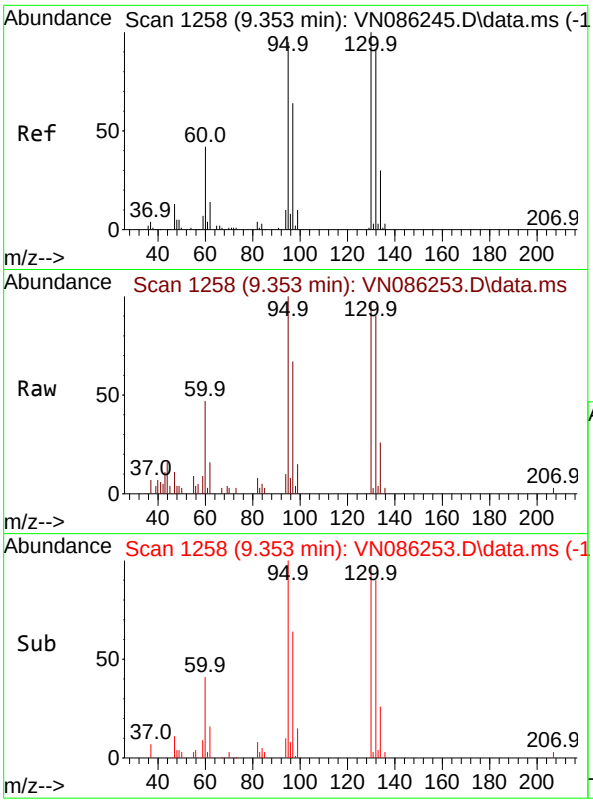


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. -0.006 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion:114 Resp: 120171

Ion	Ratio	Lower	Upper
114	100		
63	21.8	17.8	26.6
88	16.8	13.4	20.2

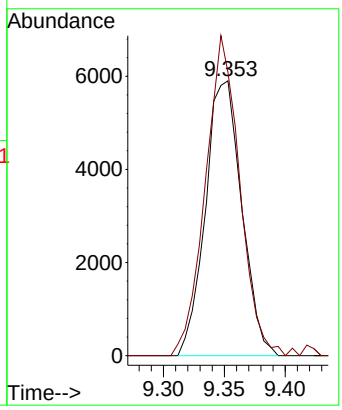




#37
Trichloroethene
Concen: 7.420 ug/l
RT: 9.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion:130 Resp: 1226

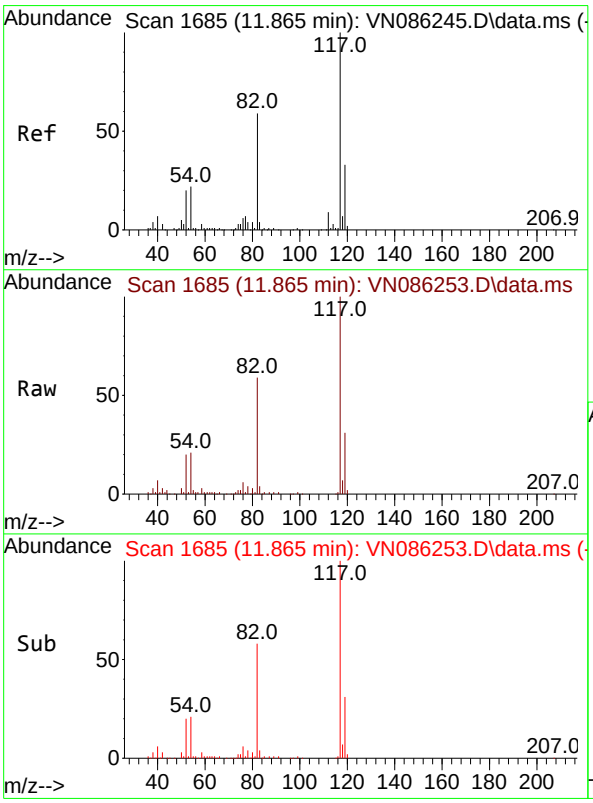
Ion	Ratio	Lower	Upper
130	100		
95	99.6	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Manual Integrations
APPROVED

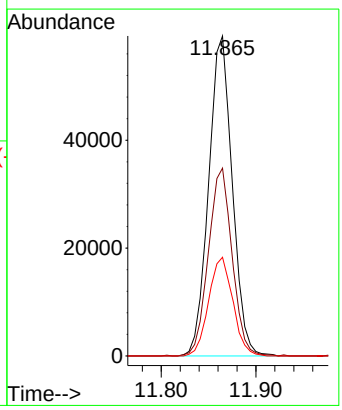
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

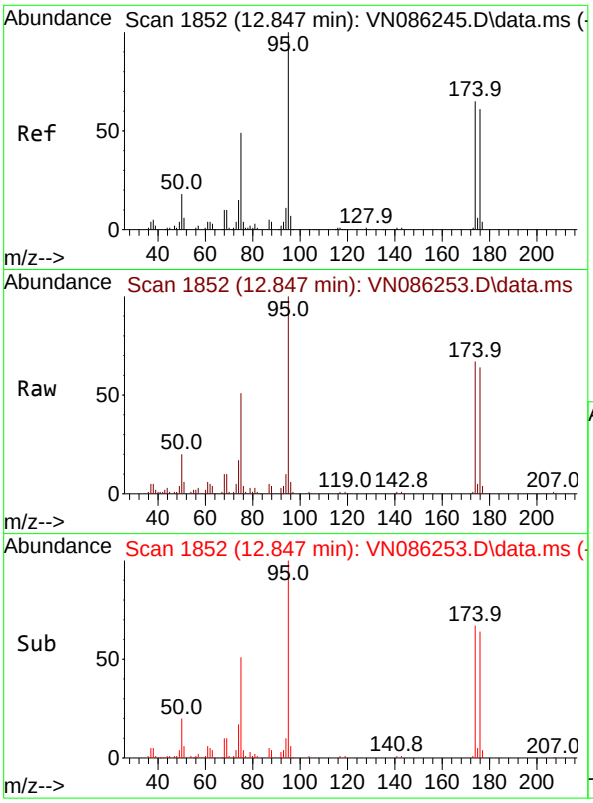


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion:117 Resp: 102960

Ion	Ratio	Lower	Upper
117	100		
82	59.0	47.3	70.9
119	31.6	25.9	38.9

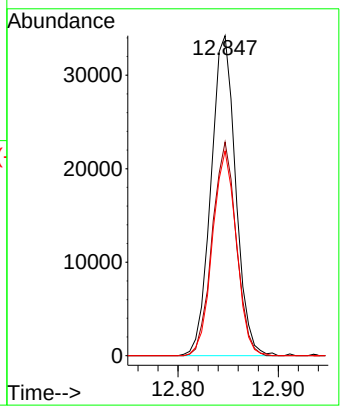




#60
4-Bromofluorobenzene
Concen: 28.558 ug/l
RT: 12.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 95 Resp: 5854

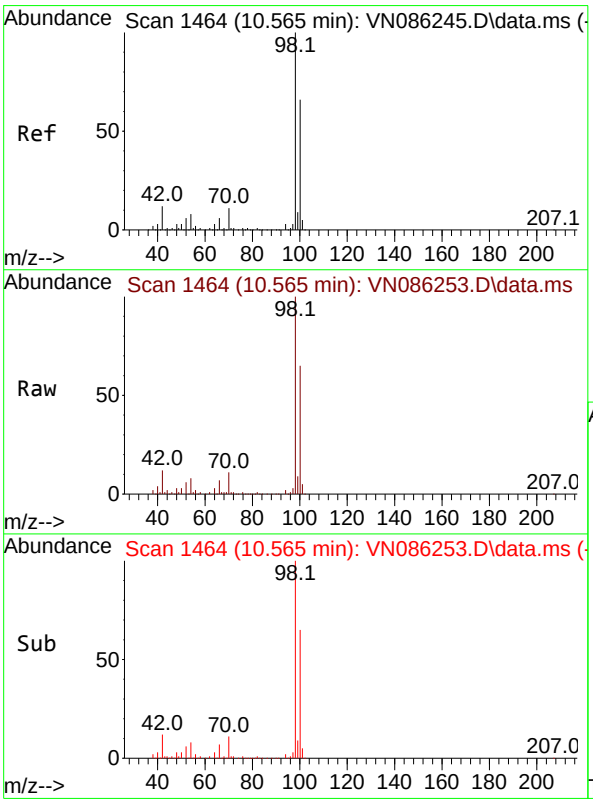
Ion	Ratio	Lower	Upper
95	100		
174	64.8	52.7	79.1
176	61.9	49.8	74.8



Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Manual Integrations
APPROVED

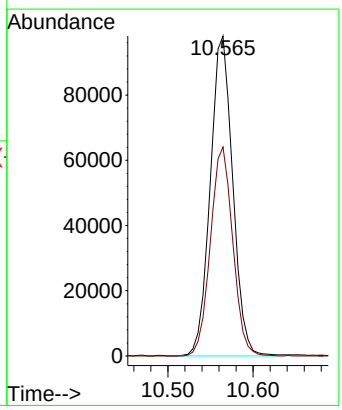
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#63
Toluene-d8
Concen: 30.962 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 98 Resp: 179971

Ion	Ratio	Lower	Upper
98	100		
100	64.9	52.3	78.5



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-075-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-04	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086254.D	1		04/11/25 17:03	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.77	U	0.77	5.00	ug/L
74-87-3	Chloromethane	0.64	U	0.64	5.00	ug/L
75-01-4	Vinyl Chloride	0.83	U	0.83	5.00	ug/L
74-83-9	Bromomethane	0.80	U	0.80	5.00	ug/L
75-00-3	Chloroethane	2.30	U	2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.80	U	0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.96	U	0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.76	U	0.76	5.00	ug/L
107-02-8	Acrolein	6.60	U	6.60	25.0	ug/L
107-13-1	Acrylonitrile	2.80	U	2.80	25.0	ug/L
67-64-1	Acetone	21.8	J	4.60	25.0	ug/L
75-15-0	Carbon Disulfide	0.82	UQ	0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.77	U	0.77	5.00	ug/L
79-20-9	Methyl Acetate	0.91	U	0.91	5.00	ug/L
75-09-2	Methylene Chloride	0.86	U	0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.82	U	0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.68	U	0.68	5.00	ug/L
110-82-7	Cyclohexane	0.92	U	0.92	5.00	ug/L
78-93-3	2-Butanone	2.00	U	2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.74	U	0.74	5.00	ug/L
594-20-7	2,2-Dichloropropane	0.66	U	0.66	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.80	U	0.80	5.00	ug/L
67-66-3	Chloroform	0.55	U	0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.63	U	0.63	5.00	ug/L
108-87-2	Methylcyclohexane	0.73	U	0.73	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.63	U	0.63	5.00	ug/L
71-43-2	Benzene	0.45	U	0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.50	5.00	ug/L
79-01-6	Trichloroethene	28.0		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-075-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-04	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086254.D	1		04/11/25 17:03	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.59	U	0.59	5.00	ug/L
75-27-4	Bromodichloromethane	0.64	U	0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	3.00	U	3.00	25.0	ug/L
108-88-3	Toluene	0.46	U	0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.67	U	0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.55	J	0.45	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.44	U	0.44	5.00	ug/L
591-78-6	2-Hexanone	3.20	U	3.20	25.0	ug/L
124-48-1	Dibromochloromethane	0.66	U	0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	0.56	5.00	ug/L
127-18-4	Tetrachloroethene	0.84	U	0.84	5.00	ug/L
108-90-7	Chlorobenzene	0.47	U	0.47	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.62	U	0.62	5.00	ug/L
67-72-1	Hexachloroethane	0.98	U	0.98	5.00	ug/L
100-41-4	Ethyl Benzene	0.56	U	0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	1.30	U	1.30	10.0	ug/L
95-47-6	o-Xylene	0.67	U	0.67	5.00	ug/L
100-42-5	Styrene	0.72	U	0.72	5.00	ug/L
75-25-2	Bromoform	0.94	U	0.94	5.00	ug/L
98-82-8	Isopropylbenzene	0.78	U	0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.44	U	0.44	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.62	U	0.62	5.00	ug/L
108-86-1	Bromobenzene	0.59	U	0.59	5.00	ug/L
103-65-1	n-propylbenzene	0.67	U	0.67	5.00	ug/L
95-49-8	2-Chlorotoluene	0.64	U	0.64	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.59	U	0.59	5.00	ug/L
106-43-4	4-Chlorotoluene	0.62	U	0.62	5.00	ug/L
98-06-6	tert-butylbenzene	0.71	U	0.71	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.77	U	0.77	5.00	ug/L
135-98-8	sec-Butylbenzene	0.64	U	0.64	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/09/25
Project:	CTO WE13	Date Received:	04/10/25
Client Sample ID:	TT-075-IDWGW-20250409	SDG No.:	Q1774
Lab Sample ID:	Q1774-04	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086254.D	1		04/11/25 17:03	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.70	U	0.70	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.81	U	0.81	5.00	ug/L
104-51-8	n-Butylbenzene	0.82	U	0.82	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.86	U	0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	0.68	U	0.68	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
74-88-4	Methyl Iodide	0.91	U	0.91	5.00	ug/L
80-62-6	Methyl methacrylate	0.71	U	0.71	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.2		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	31.4		91 - 112	105%	SPK: 30
460-00-4	4-Bromofluorobenzene	28.6		63 - 112	95%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	29600	7.806			
540-36-3	1,4-Difluorobenzene	180000	9.1			
3114-55-4	Chlorobenzene-d5	151000	11.865			

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\VN041125\
Data File : VN086254.D
Acq On : 11 Apr 2025 17:03
Operator : JC\MD
Sample : Q1774-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 12 01:51:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.806	128	29637	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	180090	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	151244	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	87305	30.202	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.667%			
60) 4-Bromofluorobenzene	12.847	95	86127	28.602	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 95.333%			
63) Toluene-d8	10.565	98	268466	31.442	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.800%			
Target Compounds						Qvalue
9) 1,1,2-Trichlorotrifluo...	4.371	101	1764m	0.844	ug/l	
15) Acetone	4.436	58	7424m	21.763	ug/l	
37) Trichloroethene	9.347	130	69371	28.013	ug/l	92
50) 1,1,2-Trichloroethane	11.012	97	1273	0.550	ug/l #	83

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

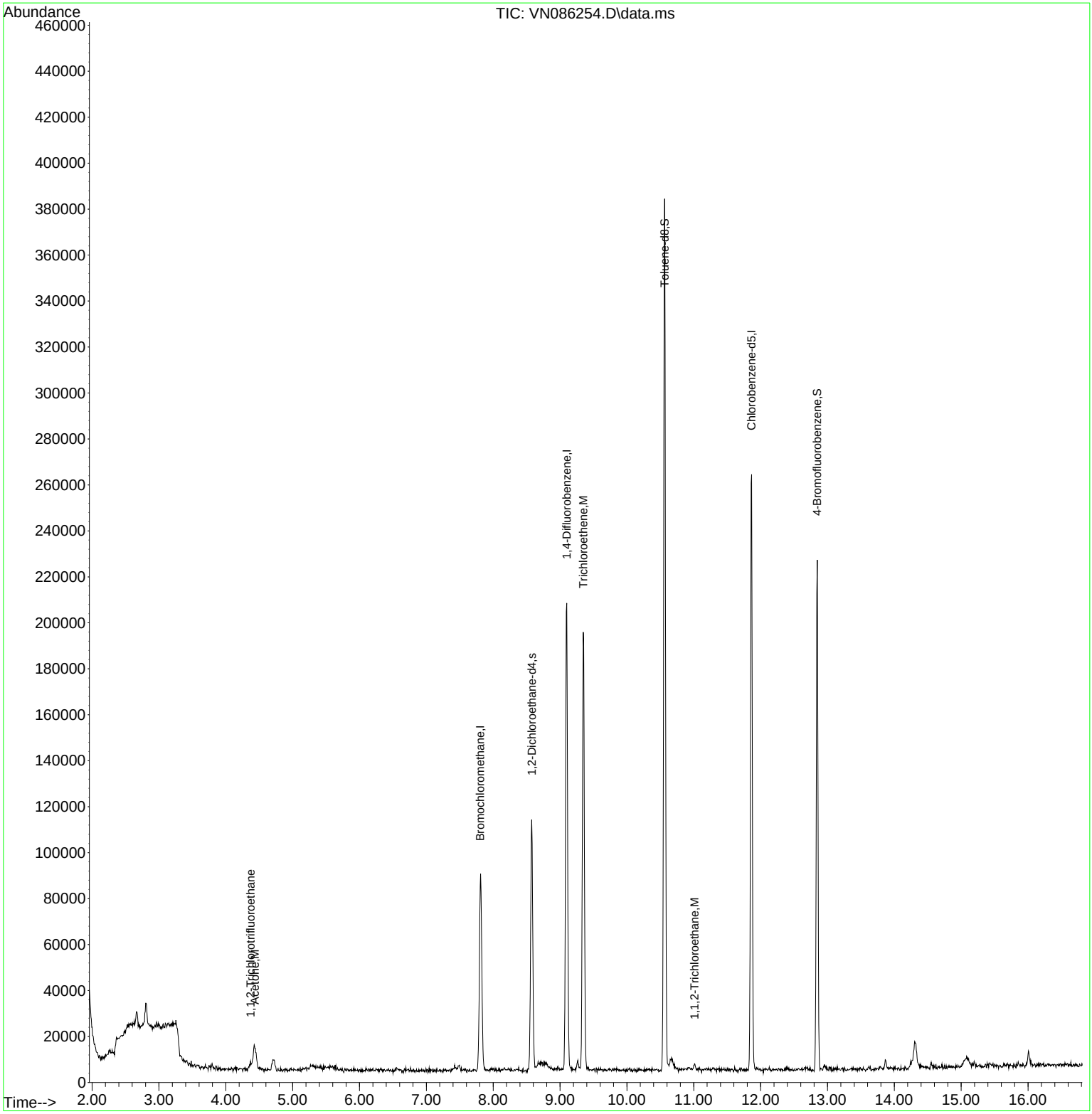
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086254.D
Acq On : 11 Apr 2025 17:03
Operator : JC\MD
Sample : Q1774-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

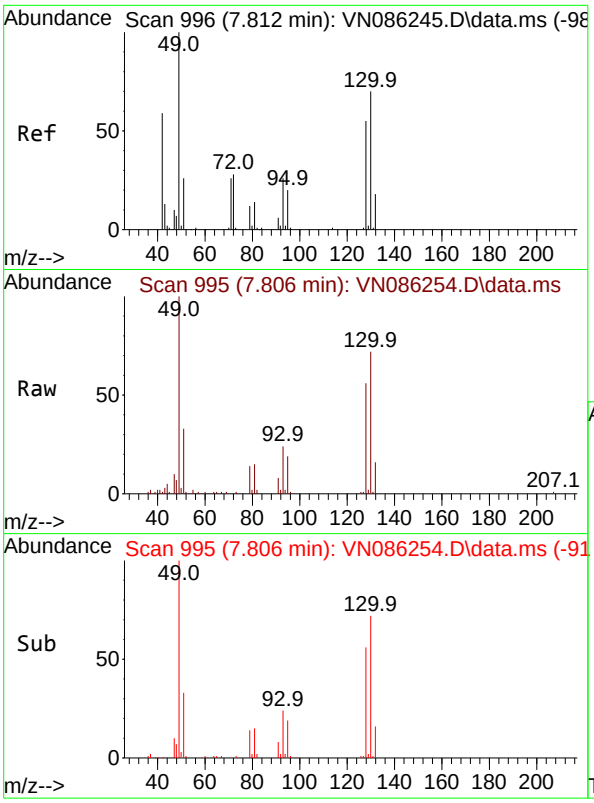
Quant Time: Apr 12 01:51:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

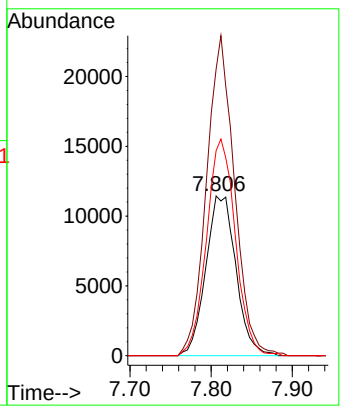




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:128 Resp: 2963

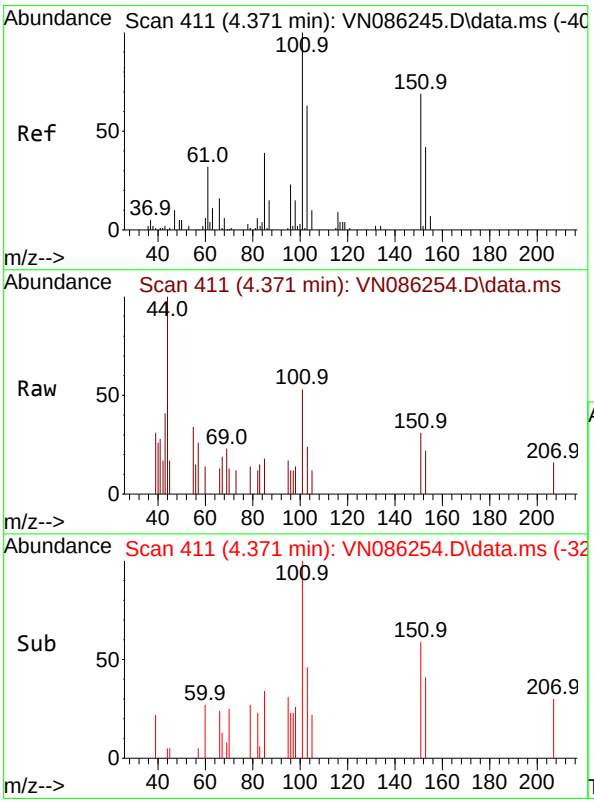
Ion	Ratio	Lower	Upper
128	100		
49	185.0	0.0	452.5
130	129.5	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations
APPROVED

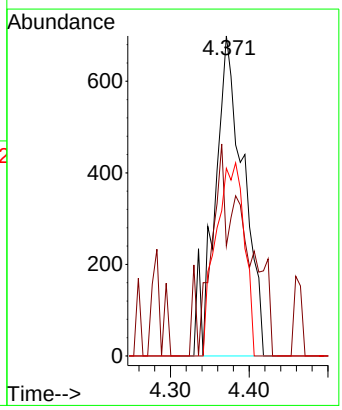
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

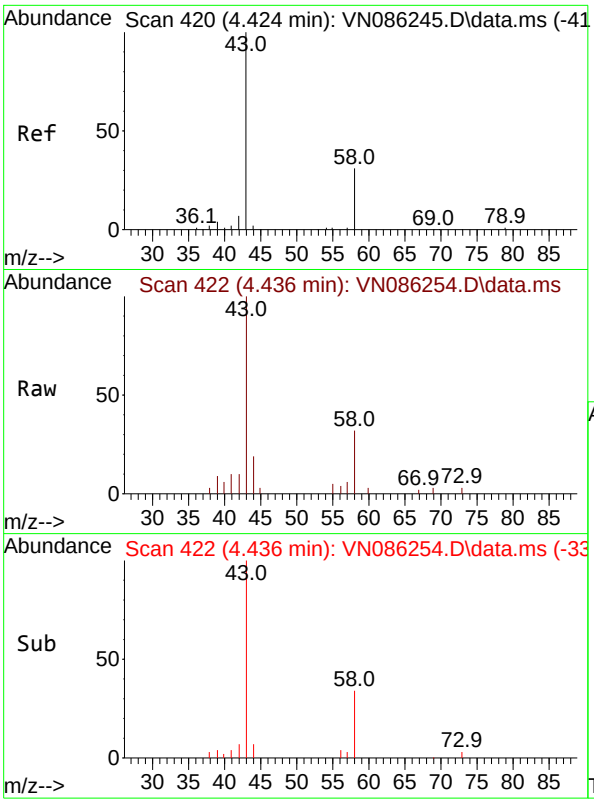


#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.844 ug/l m
RT: 4.371 min Scan# 411
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:101 Resp: 1764

Ion	Ratio	Lower	Upper
101	100		
85	32.3	0.0	93.0
151	0.0	0.0	138.6

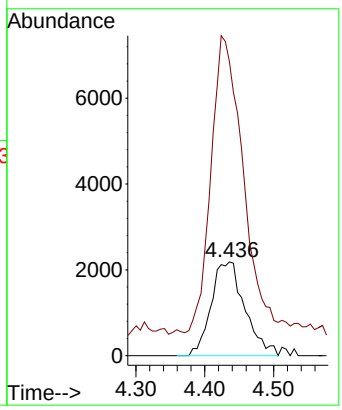




#15
Acetone
Concen: 21.763 ug/l m
RT: 4.436 min Scan# 4
Delta R.T. 0.012 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 58 Resp: 742

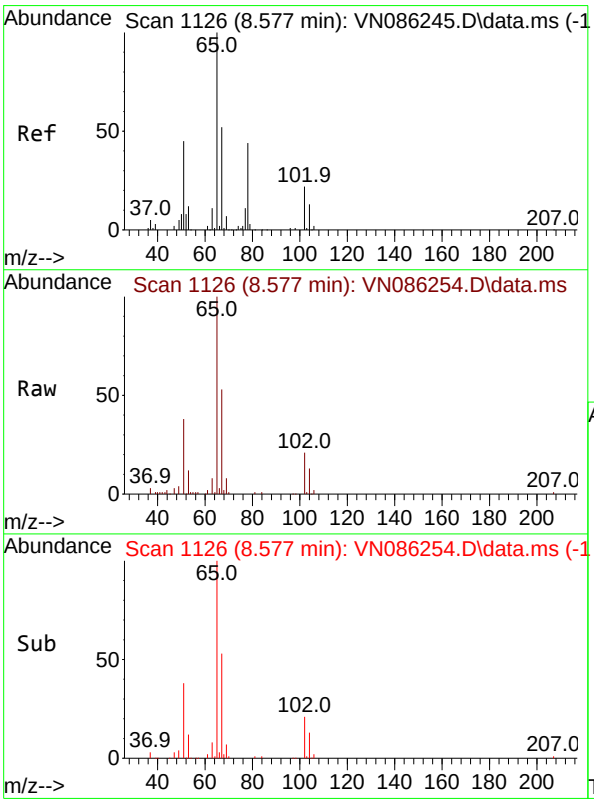
Ion	Ratio	Lower	Upper
58	100		
43	313.7	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations
APPROVED

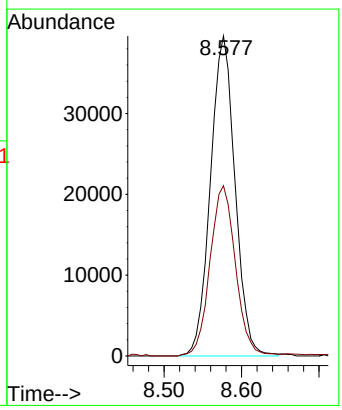
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

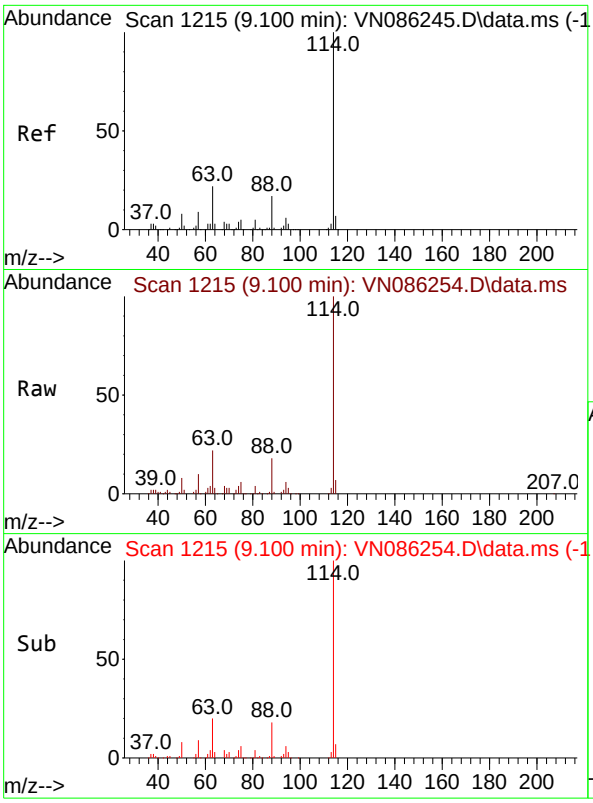


#27
1,2-Dichloroethane-d4
Concen: 30.202 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 65 Resp: 87305

Ion	Ratio	Lower	Upper
65	100		
67	55.2	43.4	65.2





#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

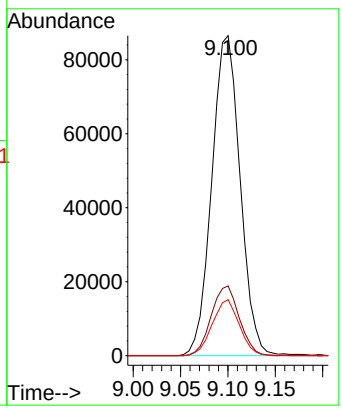
Tgt Ion:114 Resp: 18009

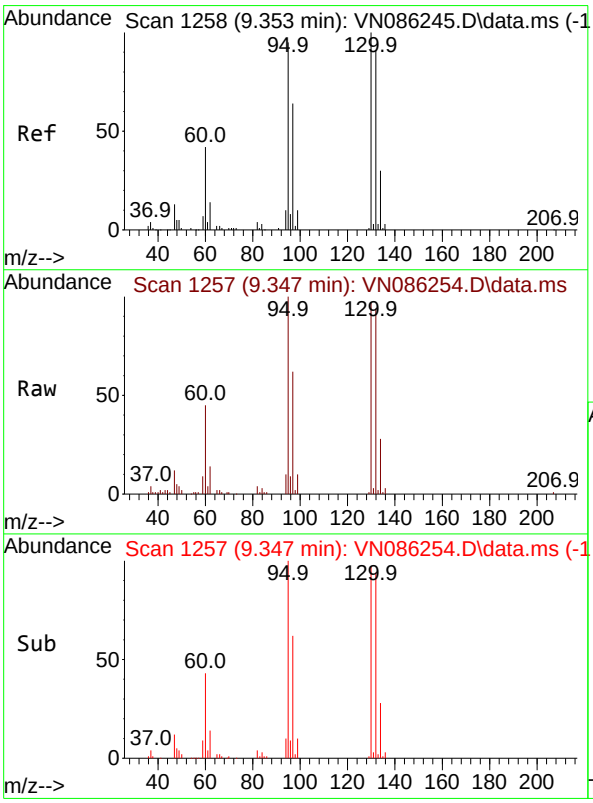
Ion	Ratio	Lower	Upper
114	100		
63	21.6	17.8	26.6
88	16.7	13.4	20.2

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

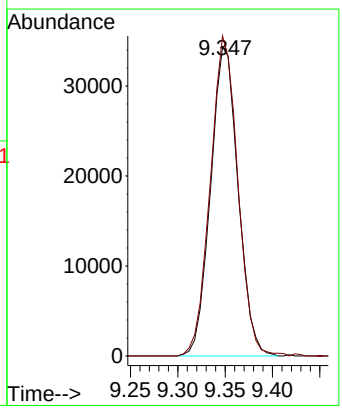


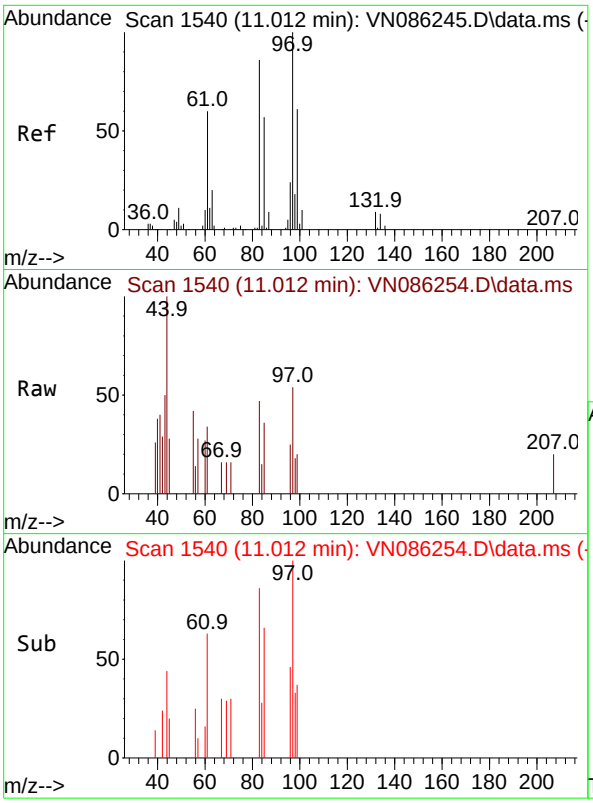


#37
Trichloroethene
Concen: 28.013 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.006 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:130 Resp: 69371

Ion	Ratio	Lower	Upper
130	100		
95	103.5	76.4	114.6

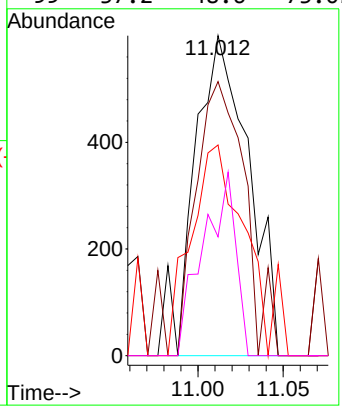




#50
1,1,2-Trichloroethane
Concen: 0.550 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 97 Resp: 127

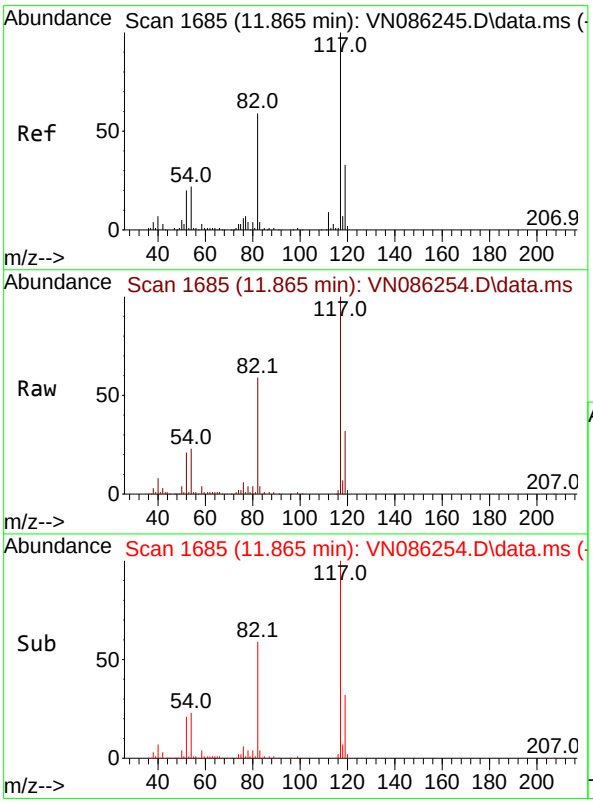
Ion	Ratio	Lower	Upper
97	100		
83	85.7	68.6	103.0
85	37.3	45.9	68.9#
99	37.2	48.6	73.0#



Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations
APPROVED

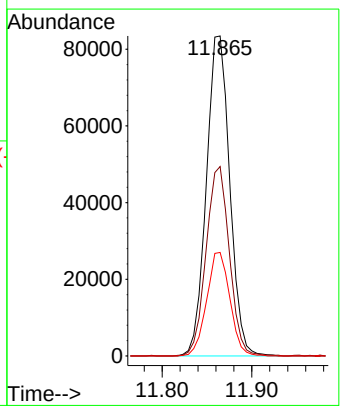
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

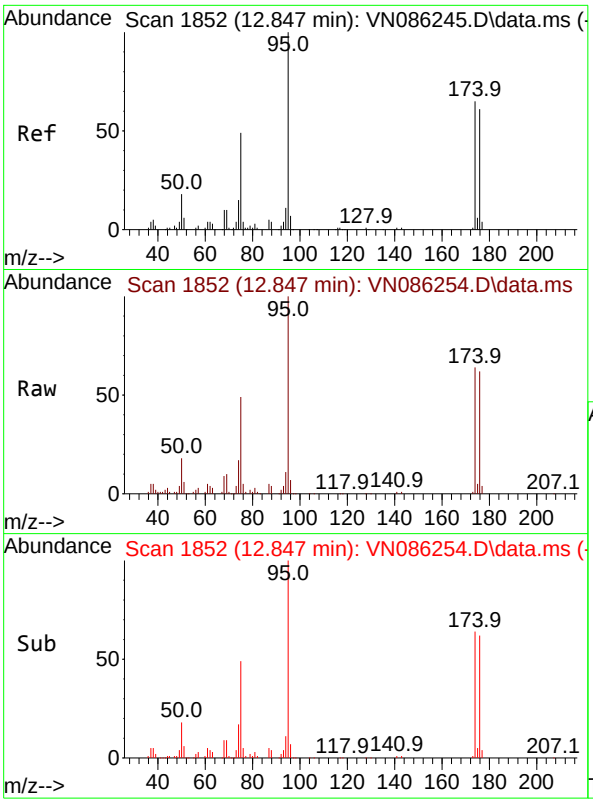


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:117 Resp: 151244

Ion	Ratio	Lower	Upper
117	100		
82	59.0	47.3	70.9
119	32.2	25.9	38.9

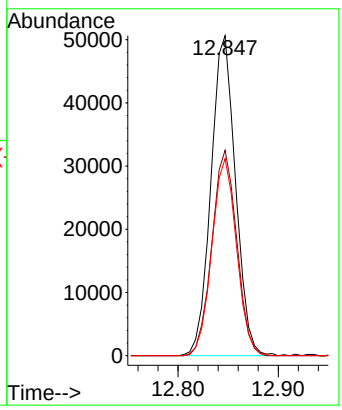




#60
4-Bromofluorobenzene
Concen: 28.602 ug/l
RT: 12.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 95 Resp: 8612

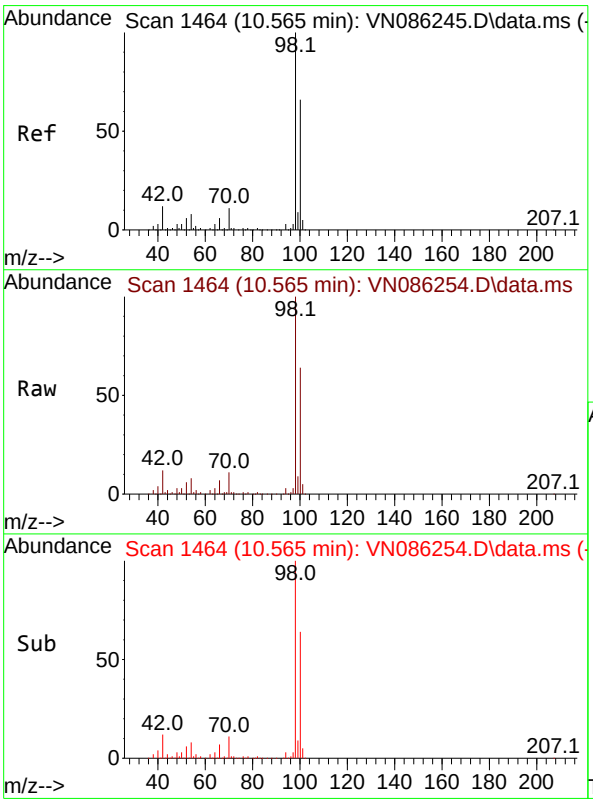
Ion	Ratio	Lower	Upper
95	100		
174	64.8	52.7	79.1
176	61.8	49.8	74.8



Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Manual Integrations
APPROVED

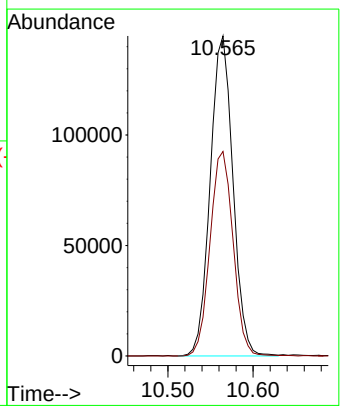
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#63
Toluene-d8
Concen: 31.442 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 98 Resp: 268466

Ion	Ratio	Lower	Upper
98	100		
100	64.7	52.3	78.5



CALIBRATION SUMMARY

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG No.: Q1774

Instrument ID: MSVOA_N Calibration Date(s): 04/11/2025 04/11/2025

Heated Purge: (Y/N) N Calibration Time(s): 11:04 12:40

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

LAB FILE ID: RRF100 = VN086242.D RRF050 = VN086244.D RRF020 = VN086245.D
RRF005 = VN086246.D RRF = RRF =

COMPOUND	RRF100	RRF050	RRF020	RRF005	RRF	RRF	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	2.460	2.758	2.325	2.072			2.404	11.9
Chloromethane	3.236	3.617	3.094	3.342			3.322	6.7
Vinyl Chloride	3.116	3.535	3.007	3.000			3.164	8
Bromomethane	1.382	1.638	1.475	1.819			1.578	12.2
Chloroethane	1.887	2.187	1.860	2.059			1.998	7.7
Trichlorofluoromethane	3.329	3.883	3.207	3.311			3.433	8.9
1,1,2-Trichlorotrifluoroethane	2.040	2.381	1.998	2.048			2.117	8.4
1,1-Dichloroethene	2.111	2.464	2.145	2.418			2.284	8
Acrolein	0.387	0.329	0.270	0.481			0.367	24.6
Acrylonitrile	1.263	1.506	1.282	1.397			1.362	8.3
Acetone	0.300	0.389	0.329	0.363			0.345	11.3
Carbon Disulfide	6.053	6.710	6.274	7.165			6.550	7.5
Methyl tert-Butyl Ether	7.709	9.105	7.691	8.471			8.244	8.2
Methyl Acetate	2.942	3.736	2.970	3.256			3.226	11.4
Methylene Chloride	2.407	2.766	2.387	2.858			2.605	9.3
trans-1,2-Dichloroethene	2.231	2.557	2.221	2.616			2.406	8.7
1,1-Dichloroethane	4.380	5.082	4.345	4.460			4.567	7.6
Cyclohexane	0.686	0.784	0.660	0.690			0.705	7.7
2-Butanone	0.278	0.336	0.290	0.287			0.298	8.8
Carbon Tetrachloride	0.484	0.562	0.472	0.458			0.494	9.4
2,2-Dichloropropane	0.651	0.733	0.638	0.623			0.662	7.4
cis-1,2-Dichloroethene	2.674	3.101	2.690	3.000			2.866	7.6
Chloroform	4.120	4.832	4.093	4.374			4.355	7.9
1,1,1-Trichloroethane	0.587	0.679	0.586	0.621			0.618	7.1
Methylcyclohexane	0.656	0.714	0.616	0.650			0.659	6.2
1,1-Dichloropropene	0.527	0.592	0.514	0.516			0.537	6.9
Benzene	1.669	1.880	1.633	1.657			1.710	6.7
1,2-Dichloroethane	0.521	0.591	0.512	0.516			0.535	7
Trichloroethene	0.403	0.463	0.396	0.387			0.413	8.3
1,2-Dichloropropane	0.420	0.475	0.405	0.403			0.425	7.9

* 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.

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG No.: Q1774

Instrument ID: MSVOA_N Calibration Date(s): 04/11/2025 04/11/2025

Heated Purge: (Y/N) N Calibration Time(s): 11:04 12:40

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

LAB FILE ID: RRF100 = VN086242.D RRF050 = VN086244.D RRF020 = VN086245.D
RRF005 = VN086246.D RRF = RRF =

COMPOUND	RRF100	RRF050	RRF020	RRF005	RRF	RRF	$\overline{RRF}$	% RSD
Dibromomethane	0.261	0.301	0.260	0.277			0.275	6.9
Bromodichloromethane	0.557	0.636	0.565	0.603			0.590	6.2
4-Methyl-2-Pentanone	0.627	0.758	0.671	0.667			0.681	8.1
Toluene	1.908	2.219	1.941	1.981			2.012	7
t-1,3-Dichloropropene	0.650	0.745	0.633	0.641			0.667	7.8
cis-1,3-Dichloropropene	0.696	0.782	0.677	0.670			0.706	7.3
1,1,2-Trichloroethane	0.364	0.420	0.372	0.385			0.385	6.4
1,3-Dichloropropane	0.664	0.764	0.648	0.671			0.687	7.6
2-Hexanone	0.464	0.571	0.497	0.496			0.507	8.9
Dibromochloromethane	0.407	0.469	0.404	0.406			0.422	7.5
1,2-Dibromoethane	0.371	0.429	0.370	0.386			0.389	7.1
Tetrachloroethene	0.432	0.501	0.424	0.415			0.443	8.9
Chlorobenzene	1.156	1.357	1.179	1.224			1.229	7.3
1,1,1,2-Tetrachloroethane	0.384	0.455	0.390	0.393			0.406	8.1
Hexachloroethane	0.274	0.319	0.265	0.265			0.281	9.3
Ethyl Benzene	2.099	2.496	2.140	2.192			2.232	8.1
m/p-Xylenes	0.795	0.939	0.789	0.796			0.830	8.8
o-Xylene	0.777	0.921	0.779	0.787			0.816	8.6
Styrene	1.315	1.563	1.293	1.334			1.376	9.1
Bromoform	0.262	0.312	0.264	0.265			0.276	8.7
Isopropylbenzene	1.910	2.274	1.917	1.947			2.012	8.7
1,1,2,2-Tetrachloroethane	0.500	0.608	0.558	0.626			0.573	9.9
1,2,3-Trichloropropane	0.550	0.662	0.566	0.606			0.596	8.4
Bromobenzene	0.422	0.505	0.426	0.431			0.446	8.8
n-propylbenzene	2.311	2.708	2.229	2.256			2.376	9.4
2-Chlorotoluene	1.403	1.687	1.412	1.472			1.494	8.9
1,3,5-Trimethylbenzene	1.586	1.865	1.574	1.587			1.653	8.5
4-Chlorotoluene	1.420	1.694	1.383	1.470			1.492	9.4
tert-butylbenzene	1.332	1.584	1.349	1.457			1.430	8.1
1,2,4-Trimethylbenzene	1.607	1.912	1.600	1.586			1.676	9.4

* 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.

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG No.: Q1774

Instrument ID: MSVOA_N Calibration Date(s): 04/11/2025 04/11/2025

Heated Purge: (Y/N) N Calibration Time(s): 11:04 12:40

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

LAB FILE ID: RRF100 = VN086242.D RRF050 = VN086244.D RRF020 = VN086245.D
RRF005 = VN086246.D RRF = RRF =

COMPOUND	RRF100	RRF050	RRF020	RRF005	RRF	RRF	$\overline{RRF}$	% RSD
sec-Butylbenzene	1.924	2.234	1.909	1.915			1.995	8
p-Isopropyltoluene	1.621	1.891	1.584	1.562			1.664	9.2
1,3-Dichlorobenzene	0.785	0.958	0.773	0.798			0.829	10.5
1,4-Dichlorobenzene	0.785	0.950	0.777	0.813			0.831	9.7
n-Butylbenzene	1.490	1.679	1.420	1.416			1.502	8.2
1,2-Dichlorobenzene	0.761	0.943	0.778	0.791			0.818	10.3
1,2-Dibromo-3-Chloropropane	0.116	0.148	0.128	0.129			0.130	10.3
1,2,4-Trichlorobenzene	0.371	0.439	0.402	0.380			0.398	7.5
Hexachlorobutadiene	0.151	0.176	0.167	0.194			0.172	10.4
Naphthalene	1.396	1.756	1.548	1.578			1.569	9.4
1,2,3-Trichlorobenzene	0.371	0.439	0.402	0.380			0.398	7.5
1,2-Dichloroethane-d4	2.882	2.916	2.904	3.003			2.926	1.8
Toluene-d8	1.673	1.674	1.718	1.710			1.694	1.4
4-Bromofluorobenzene	0.600	0.607	0.594	0.589			0.597	1.3
Methyl Iodide	2.474	2.976	2.463	2.589			2.626	9.2
Methyl methacrylate	0.468	0.558	0.471	0.467			0.491	9

* 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 : 624N041125W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Sat Apr 12 01:21:52 2025
Response Via : Initial Calibration

Calibration Files
5 =VN086246.D 20 =VN086245.D 50 =VN086244.D 100 =VN086242.D

		Compound	5	20	50	100	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------					
2)	M	Dichlorodifluoro...	2.072	2.325	2.758	2.460	2.404	11.88
3)	M	Chloromethane	3.342	3.094	3.617	3.236	3.322	6.66
4)	M	Vinyl Chloride	3.000	3.007	3.535	3.116	3.164	7.98
5)	M	Bromomethane	1.819	1.475	1.638	1.382	1.578	12.19
6)	M	Chloroethane	2.059	1.860	2.187	1.887	1.998	7.69
7)	M	Trichlorofluorom...	3.311	3.207	3.883	3.329	3.433	8.89
8)	T	Diethyl Ether	1.627	1.476	1.736	1.492	1.583	7.73
9)		1,1,2-Trichlorot...	2.048	1.998	2.381	2.040	2.117	8.38
10)	M	1,1-Dichloroethene	2.418	2.145	2.464	2.111	2.284	7.97
11)		Methyl Iodide	2.589	2.463	2.976	2.474	2.626	9.17
12)		Methyl Acetate	3.256	2.970	3.736	2.942	3.226	11.42
13)	M	Acrolein	0.481	0.270	0.329	0.387	0.367	24.59
14)	M	Acrylonitrile	1.397	1.282	1.506	1.263	1.362	8.27
15)	M	Acetone	0.363	0.329	0.389	0.300	0.345	11.27
16)	M	Carbon Disulfide	7.165	6.274	6.710	6.053	6.550	7.52
17)		Allyl chloride	4.154	3.712	4.336	3.723	3.981	7.87
18)	M	Methylene Chloride	2.858	2.387	2.766	2.407	2.605	9.31
19)	M	trans-1,2-Dichlo...	2.616	2.221	2.557	2.231	2.406	8.71
20)	T	Diisopropyl ether	8.334	8.092	9.676	8.136	8.560	8.78
21)	M	1,1-Dichloroethane	4.460	4.345	5.082	4.380	4.567	7.59
22)	M	cis-1,2-Dichloro...	3.000	2.690	3.101	2.674	2.866	7.57
23)	M	tert-Butyl Alcohol	0.570	0.545	0.640	0.503	0.564	10.19
24)	M	Methyl tert-Buty...	8.471	7.691	9.105	7.709	8.244	8.24
25)	M	Chloroform	4.374	4.093	4.832	4.120	4.355	7.87
26)		Cyclohexane	4.272	3.944	4.808	4.066	4.273	8.94
27)	s	1,2-Dichloroetha...	3.003	2.904	2.916	2.882	2.926	1.81
28)	I	1,4-Difluorobenzene	----------ISTD----------					
29)		1,1-Dichloropropene	0.516	0.514	0.592	0.527	0.537	6.86
30)	M	2-Butanone	0.287	0.290	0.336	0.278	0.298	8.77
31)		2,2-Dichloropropane	0.623	0.638	0.733	0.651	0.662	7.41
32)	M	1,1,1-Trichloroe...	0.621	0.586	0.679	0.587	0.618	7.08
33)	M	Carbon Tetrachlo...	0.458	0.472	0.562	0.484	0.494	9.42
34)	M	Benzene	1.657	1.633	1.880	1.669	1.710	6.69
35)		Methacrylonitrile	0.338	0.318	0.366	0.321	0.336	6.49
36)	M	1,2-Dichloroethane	0.516	0.512	0.591	0.521	0.535	7.04
37)	M	Trichloroethene	0.387	0.396	0.463	0.403	0.413	8.30
38)		Methylcyclohexane	0.650	0.616	0.714	0.656	0.659	6.19
39)	M	1,2-Dichloropropane	0.403	0.405	0.475	0.420	0.425	7.91
40)		Dibromomethane	0.277	0.260	0.301	0.261	0.275	6.91
41)	M	Bromodichloromet...	0.603	0.565	0.636	0.557	0.590	6.19
42)	M	Vinyl Acetate	0.998	1.000	1.092	0.965	1.014	5.40
43)		Ethyl Acetate	0.606	0.589	0.658	0.550	0.601	7.48
44)		Isopropyl Acetate	1.217	1.050	1.182	1.008	1.114	9.07
45)	T	1,4-Dioxane	0.009	0.009	0.010	0.008	0.009	9.38
46)		Methyl methacrylate	0.467	0.471	0.558	0.468	0.491	9.04
47)		n-amyl Acetate	0.875	0.824	0.998	0.837	0.883	8.98
48)	M	t-1,3-Dichloropr...	0.641	0.633	0.745	0.650	0.667	7.83
49)	T	cis-1,3-Dichloro...	0.670	0.677	0.782	0.696	0.706	7.35
50)	M	1,1,2-Trichloroe...	0.385	0.372	0.420	0.364	0.385	6.39
51)		Ethyl methacrylate	0.700	0.681	0.798	0.685	0.716	7.71
52)		1,3-Dichloropropane	0.671	0.648	0.764	0.664	0.687	7.61
53)	M	Dibromochloromet...	0.406	0.404	0.469	0.407	0.422	7.49
54)	M	1,2-Dibromoethane	0.386	0.370	0.429	0.371	0.389	7.12
55)	M	2-Chloroethyl vi...	0.318	0.324	0.387	0.054	0.271	54.58
56)	M	Bromoform	0.265	0.264	0.312	0.262	0.276	8.72

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 624N041125W.M

57)	I	Chlorobenzene-d5	----------ISTD----------						
58)	M	4-Methyl-2-Penta...	0.667	0.671	0.758	0.627	0.681	8.14	
59)	M	2-Hexanone	0.496	0.497	0.571	0.464	0.507	8.88	
60)	S	4-Bromofluoroben...	0.589	0.594	0.607	0.600	0.597	1.29	
61)	M	Tetrachloroethene	0.415	0.424	0.501	0.432	0.443	8.88	
62)	M	Toluene	1.981	1.941	2.219	1.908	2.012	7.01	
63)	S	Toluene-d8	1.710	1.718	1.674	1.673	1.694	1.39	
64)	M	Chlorobenzene	1.224	1.179	1.357	1.156	1.229	7.32	
65)		1,1,1,2-Tetrachl...	0.393	0.390	0.455	0.384	0.406	8.14	
66)	M	Ethyl Benzene	2.192	2.140	2.496	2.099	2.232	8.07	
67)	M	m/p-Xylenes	0.796	0.789	0.939	0.795	0.830	8.78	
68)	M	o-Xylene	0.787	0.779	0.921	0.777	0.816	8.59	
69)	M	Styrene	1.334	1.293	1.563	1.315	1.376	9.13	
70)		Isopropylbenzene	1.947	1.917	2.274	1.910	2.012	8.72	
71)	M	1,1,2,2-Tetrachl...	0.626	0.558	0.608	0.500	0.573	9.90	
72)		1,2,3-Trichlorop...	0.606	0.566	0.662	0.550	0.596	8.37	
73)		Bromobenzene	0.431	0.426	0.505	0.422	0.446	8.82	
74)		n-propylbenzene	2.256	2.229	2.708	2.311	2.376	9.42	
75)		2-Chlorotoluene	1.472	1.412	1.687	1.403	1.494	8.87	
76)		1,3,5-Trimethylb...	1.587	1.574	1.865	1.586	1.653	8.54	
77)		t-1,4-Dichloro-2...	0.266	0.261	0.313	0.259	0.275	9.36	
78)		4-Chlorotoluene	1.470	1.383	1.694	1.420	1.492	9.36	
79)		tert-butylbenzene	1.457	1.349	1.584	1.332	1.430	8.14	
80)		1,2,4-Trimethylb...	1.586	1.600	1.912	1.607	1.676	9.40	
81)		sec-Butylbenzene	1.915	1.909	2.234	1.924	1.995	7.98	
82)		p-Isopropyltoluene	1.562	1.584	1.891	1.621	1.664	9.17	
83)	M	1,3-Dichlorobenzene	0.798	0.773	0.958	0.785	0.829	10.47	
84)	M	1,4-Dichlorobenzene	0.813	0.777	0.950	0.785	0.831	9.66	
85)		n-Butylbenzene	1.416	1.420	1.679	1.490	1.502	8.21	
86)	T	Hexachloroethane	0.265	0.265	0.319	0.274	0.281	9.25	
87)	M	1,2-Dichlorobenzene	0.791	0.778	0.943	0.761	0.818	10.25	
88)		1,2-Dibromo-3-Ch...	0.129	0.128	0.148	0.116	0.130	10.28	
89)		1,2,4-Trichlorob...	0.380	0.402	0.439	0.371	0.398	7.51	
90)		Hexachlorobutadiene	0.194	0.167	0.176	0.151	0.172	10.39	
91)	M	Naphthalene	1.578	1.548	1.756	1.396	1.569	9.41	
92)		1,2,3-Trichlorob...	0.380	0.402	0.439	0.371	0.398	7.51	

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086242.D
Acq On : 11 Apr 2025 11:04
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 00:17:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	20477	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	121329	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	110874	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.576	65	59014	29.547	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 98.500%			
60) 4-Bromofluorobenzene	12.847	95	66521	30.135	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.433%			
63) Toluene-d8	10.565	98	185448	29.627	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.767%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	167899	102.336	ug/l	97
3) Chloromethane	2.359	50	220891	97.412	ug/l	99
4) Vinyl Chloride	2.518	62	212658	98.457	ug/l	97
5) Bromomethane	2.959	94	94323	87.548	ug/l	99
6) Chloroethane	3.118	64	128777	94.415	ug/l	98
7) Trichlorofluoromethane	3.500	101	227259	96.994	ug/l	100
8) Diethyl Ether	3.959	74	101866	94.275	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	139276	96.398	ug/l	99
10) 1,1-Dichloroethene	4.341	96	144087	92.407	ug/l	98
11) Methyl Iodide	4.589	142	168878	94.232	ug/l	98
12) Methyl Acetate	5.018	43	200798	91.194	ug/l	99
13) Acrolein	4.177	56	131999	527.390	ug/l	100
14) Acrylonitrile	5.712	53	430948	463.608	ug/l	99
15) Acetone	4.424	58	102413	434.159	ug/l	86
16) Carbon Disulfide	4.712	76	413127	92.399	ug/l	99
17) Allyl chloride	5.018	41	254150	93.519	ug/l	98
18) Methylene Chloride	5.277	84	164274	92.405	ug/l	94
19) trans-1,2-Dichloroethene	5.783	96	152296	108.281	ug/l	99
20) Diisopropyl ether	6.665	45	555310	95.034	ug/l	96
21) 1,1-Dichloroethane	6.565	63	298980	95.915	ug/l	98
22) cis-1,2-Dichloroethene	7.482	96	182539	93.299	ug/l	97
23) tert-Butyl Alcohol	5.512	59	171504	445.280	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	526162	93.663	ug/l	98
25) Chloroform	7.965	83	281205	94.604	ug/l	96
26) Cyclohexane	8.253	56	277499	95.155	ug/l #	99
29) 1,1-Dichloropropene	8.371	75	213302	98.138	ug/l	99
30) 2-Butanone	7.477	43	562722	467.239	ug/l	100
31) 2,2-Dichloropropane	7.488	77	263451	98.472	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	237411	94.957	ug/l	100
33) Carbon Tetrachloride	8.359	117	195904	98.048	ug/l	99
34) Benzene	8.600	78	675144	97.638	ug/l	97
35) Methacrylonitrile	7.777	41	129803	95.604	ug/l	99
36) 1,2-Dichloroethane	8.665	62	210783	97.412	ug/l	99
37) Trichloroethene	9.347	130	163126	97.775	ug/l	91
38) Methylcyclohexane	9.594	83	265418	99.571	ug/l	100
39) 1,2-Dichloropropane	9.618	63	169660	98.606	ug/l	98
40) Dibromomethane	9.706	93	105464	94.904	ug/l	99
41) Bromodichloromethane	9.882	83	225206	94.332	ug/l	99
42) Vinyl Acetate	6.600	43	1951001	475.901	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086242.D
Acq On : 11 Apr 2025 11:04
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 00:17:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	222324	91.520	ug/l		99
44) Isopropyl Acetate	8.682	43	407532	90.431	ug/l		98
45) 1,4-Dioxane	9.694	88	65820	1836.730	ug/l	#	92
46) Methyl methacrylate	9.676	41	189237	95.302	ug/l		99
47) n-amyl Acetate	12.488	43	338467	92.953	ug/l		99
48) t-1,3-Dichloropropene	10.829	75	263069	97.471	ug/l		100
49) cis-1,3-Dichloropropene	10.312	75	281650	98.600	ug/l		97
50) 1,1,2-Trichloroethane	11.012	97	147343	94.534	ug/l		98
51) Ethyl methacrylate	10.870	69	276983	95.629	ug/l		97
52) 1,3-Dichloropropane	11.159	76	268559	96.673	ug/l		99
53) Dibromochloromethane	11.359	129	164626	96.562	ug/l		100
54) 1,2-Dibromoethane	11.465	107	149844	95.239	ug/l		99
55) 2-Chloroethyl vinyl ether	10.159	63	109257	99.826	ug/l		99
56) Bromoform	12.576	173	105955	94.994	ug/l		98
58) 4-Methyl-2-Pentanone	10.441	43	1157830	460.173	ug/l		99
59) 2-Hexanone	11.194	43	858112	458.017	ug/l		100
61) Tetrachloroethene	11.100	164	159732	97.556	ug/l		96
62) Toluene	10.629	91	705070	94.810	ug/l		99
64) Chlorobenzene	11.888	112	427265	94.040	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	142064	94.745	ug/l		99
66) Ethyl Benzene	11.959	91	775657	94.050	ug/l		98
67) m/p-Xylenes	12.070	106	587623	191.616	ug/l		99
68) o-Xylene	12.394	106	287174	95.205	ug/l		98
69) Styrene	12.406	104	486004	95.537	ug/l		99
70) Isopropylbenzene	12.694	105	705950	94.920	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	184643	87.222	ug/l		100
72) 1,2,3-Trichloropropane	12.988	75	203289m	67.831	ug/l		
73) Bromobenzene	12.976	156	155884	94.613	ug/l		99
74) n-propylbenzene	13.035	91	854262	96.989	ug/l		100
75) 2-Chlorotoluene	13.123	91	518416	93.916	ug/l		100
76) 1,3,5-Trimethylbenzene	13.170	105	586325	95.970	ug/l		100
77) t-1,4-Dichloro-2-butene	12.735	75	95696	94.184	ug/l		92
78) 4-Chlorotoluene	13.217	91	524792	95.194	ug/l		99
79) tert-butylbenzene	13.435	119	492114	93.090	ug/l		99
80) 1,2,4-Trimethylbenzene	13.482	105	593988	95.880	ug/l		99
81) sec-Butylbenzene	13.611	105	711037	96.423	ug/l		99
82) p-Isopropyltoluene	13.723	119	599176	97.402	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	290118	94.739	ug/l		100
84) 1,4-Dichlorobenzene	13.806	146	290254	94.482	ug/l		100
85) n-Butylbenzene	14.053	91	550772	99.247	ug/l		100
86) Hexachloroethane	14.329	117	101143	97.469	ug/l		98
87) 1,2-Dichlorobenzene	14.100	146	281264	93.023	ug/l		100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	42853	88.876	ug/l		98
89) 1,2,4-Trichlorobenzene	15.835	180	137279	93.313	ug/l		100
90) Hexachlorobutadiene	15.500	225	55837	87.904	ug/l		99
91) Naphthalene	15.635	128	516032	88.964	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	137279	93.313	ug/l		100

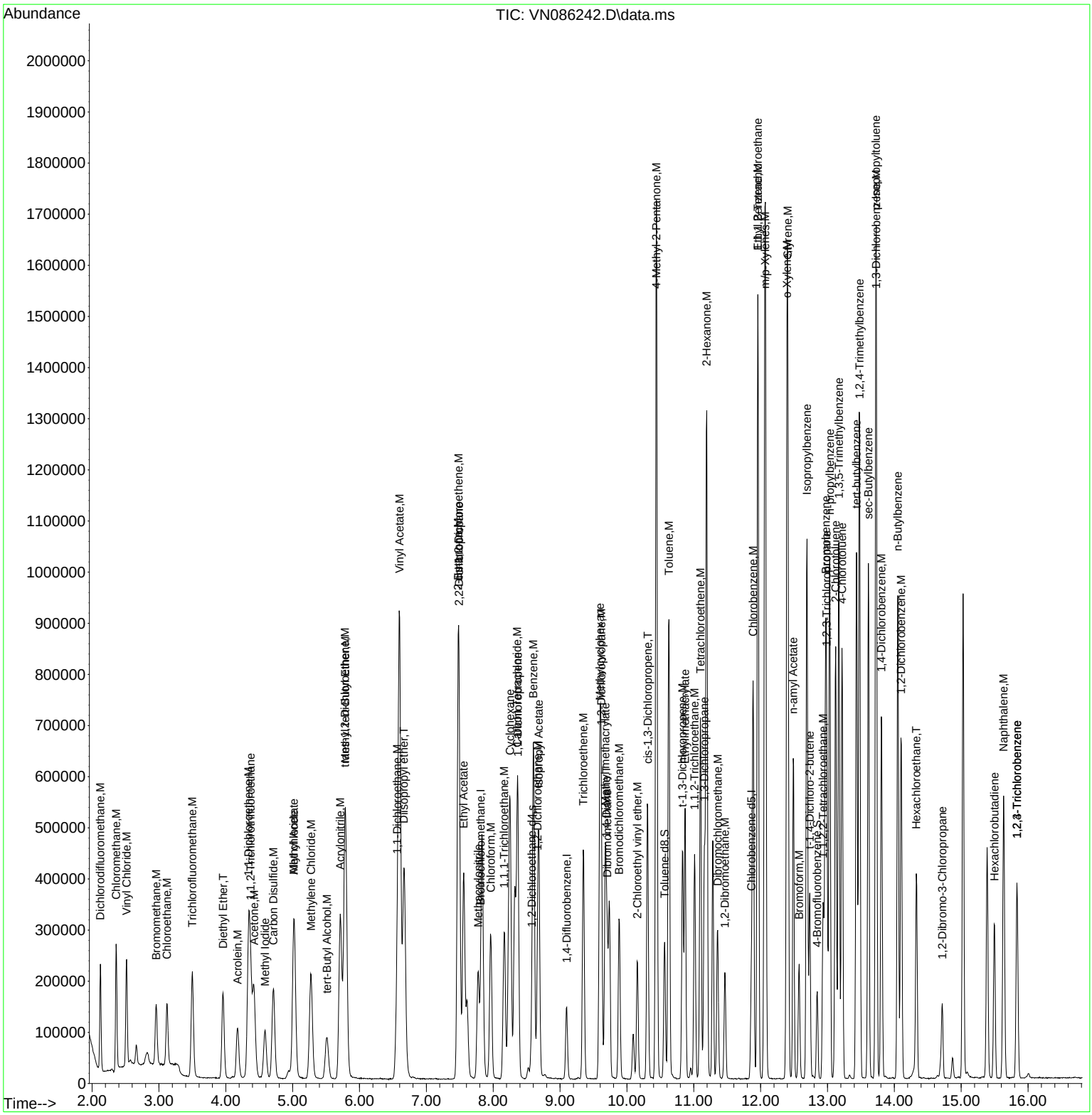
(#) = qualifier out of range (m) = manual integration (+) = signals summed

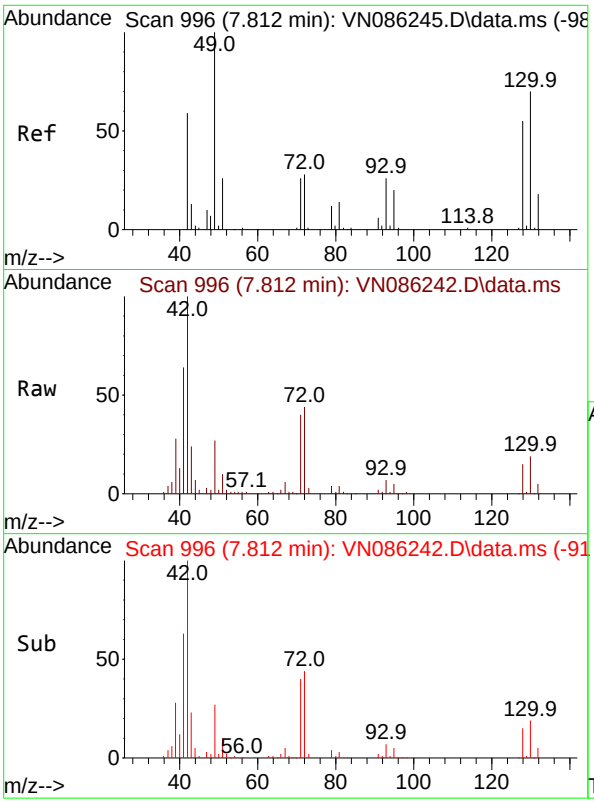
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086242.D
Acq On : 11 Apr 2025 11:04
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 00:17:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

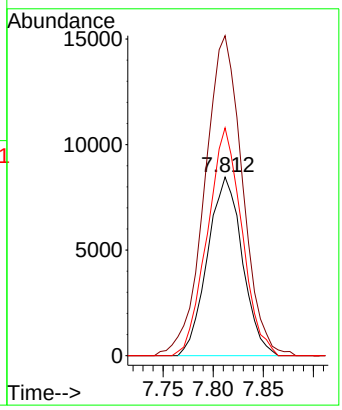




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:128 Resp: 2047

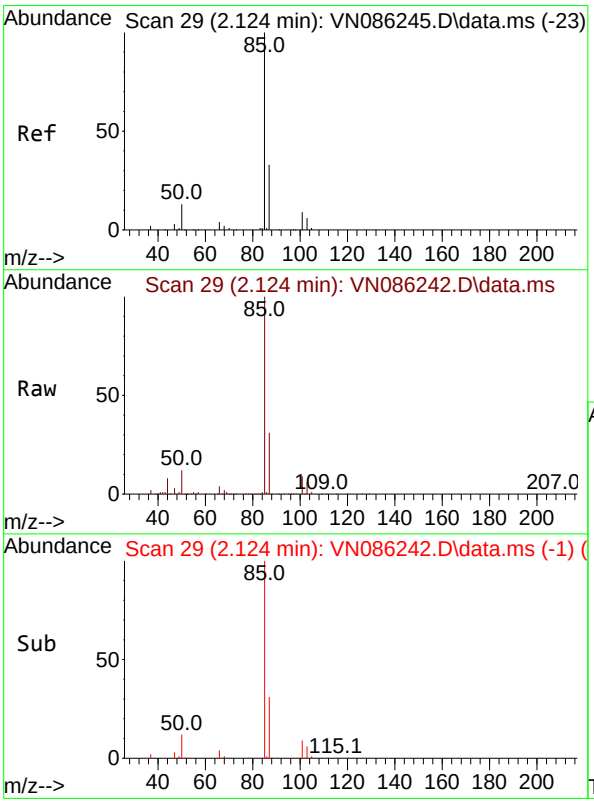
Ion	Ratio	Lower	Upper
128	100		
49	194.2	0.0	452.5
130	126.4	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

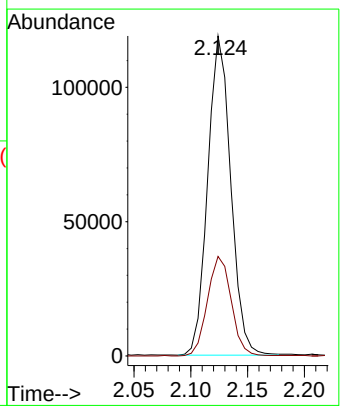
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

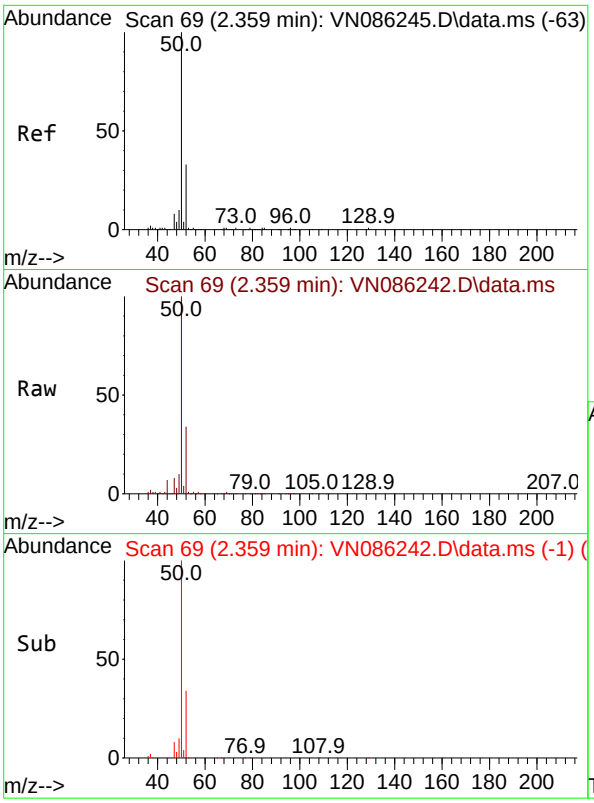


#2
Dichlorodifluoromethane
Concen: 102.336 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 85 Resp: 167899

Ion	Ratio	Lower	Upper
85	100		
87	31.2	16.3	48.9

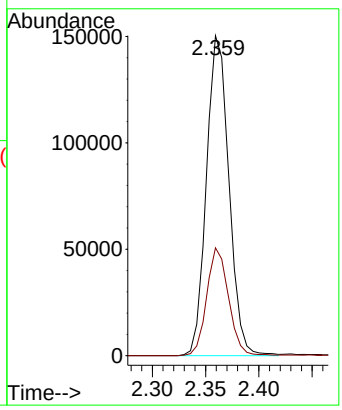




#3
Chloromethane
Concen: 97.412 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 50 Resp: 22089

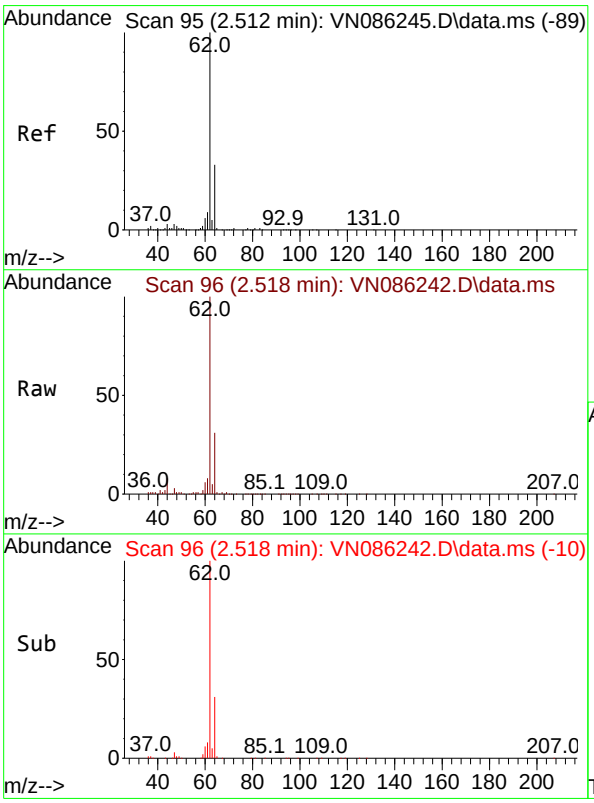
Ion	Ratio	Lower	Upper
50	100		
52	33.7	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

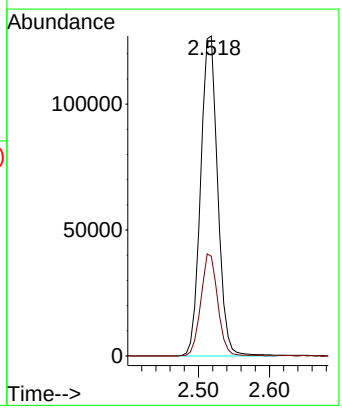
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

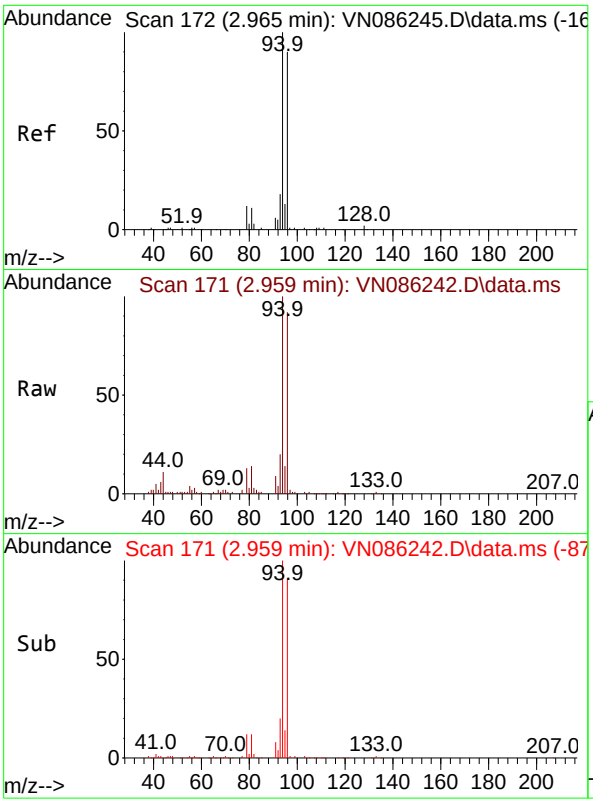


#4
Vinyl Chloride
Concen: 98.457 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 62 Resp: 212658

Ion	Ratio	Lower	Upper
62	100		
64	31.1	26.3	39.5

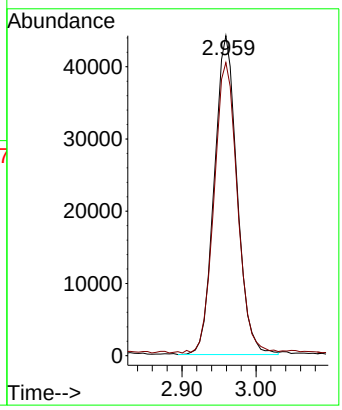




#5
Bromomethane
Concen: 87.548 ug/l
RT: 2.959 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 94 Resp: 9432

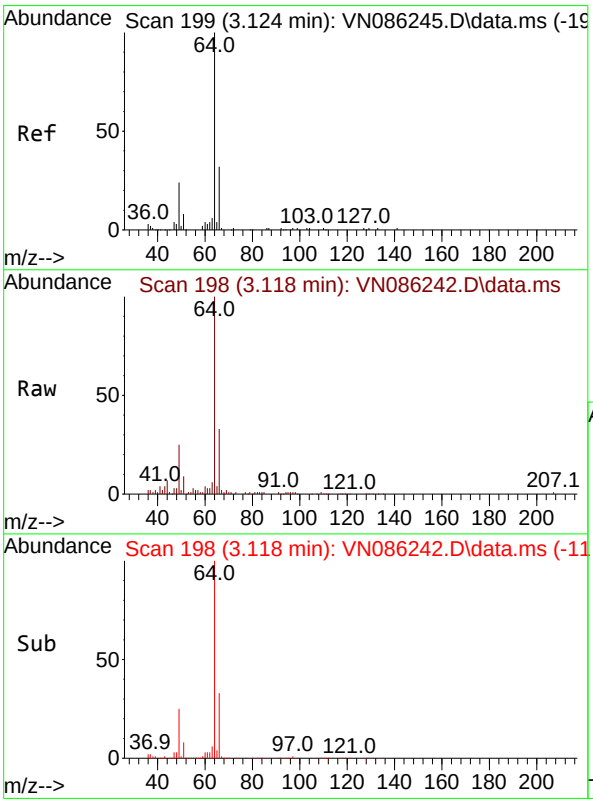
Ion	Ratio	Lower	Upper
94	100		
96	90.7	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

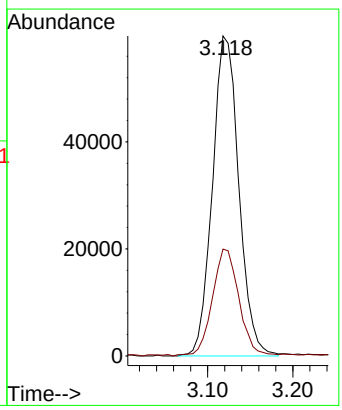
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

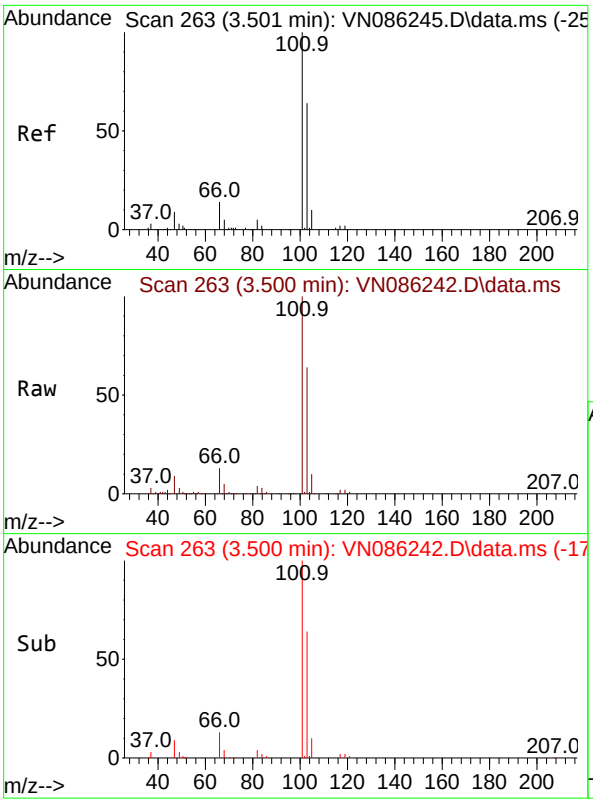


#6
Chloroethane
Concen: 94.415 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 64 Resp: 128777

Ion	Ratio	Lower	Upper
64	100		
66	33.0	25.7	38.5

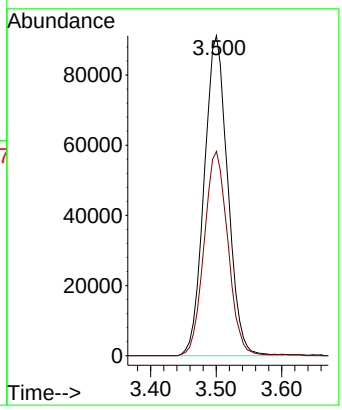




#7
Trichlorofluoromethane
Concen: 96.994 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:101 Resp: 22725

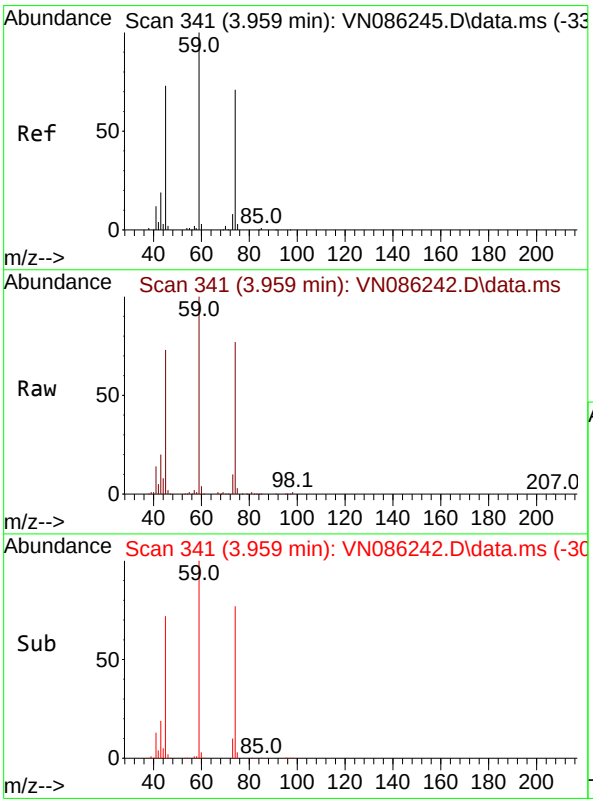
Ion	Ratio	Lower	Upper
101	100		
103	63.8	51.2	76.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

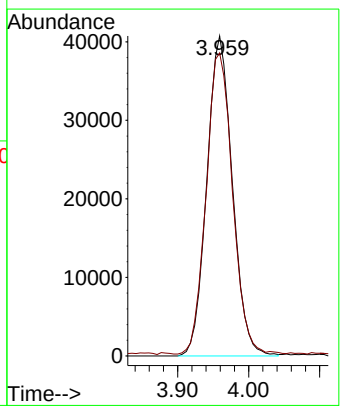
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

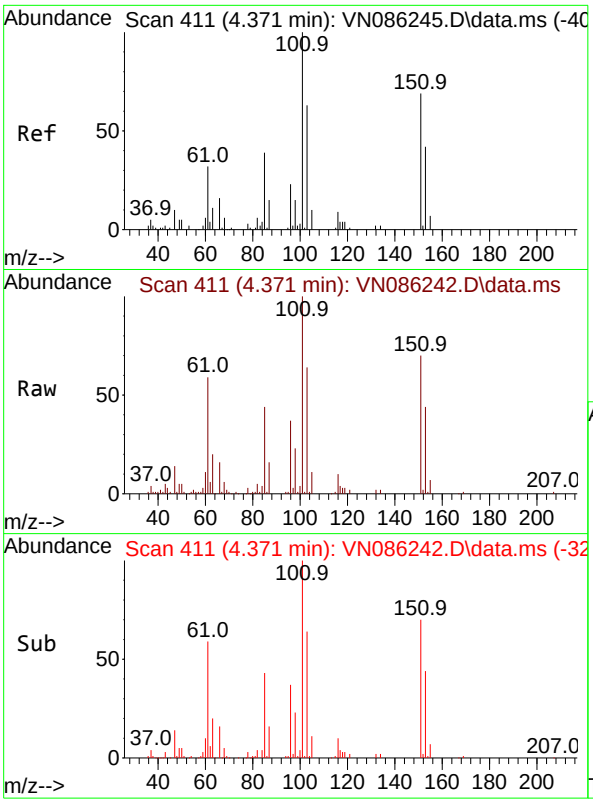


#8
Diethyl Ether
Concen: 94.275 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 74 Resp: 101866

Ion	Ratio	Lower	Upper
74	100		
45	96.7	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 96.398 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

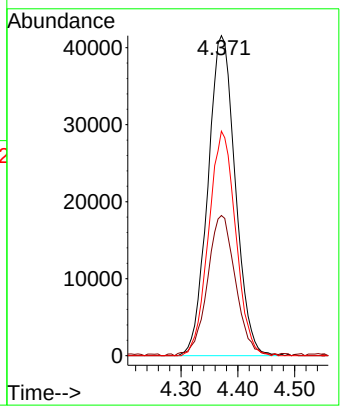
Tgt Ion:101 Resp: 13927

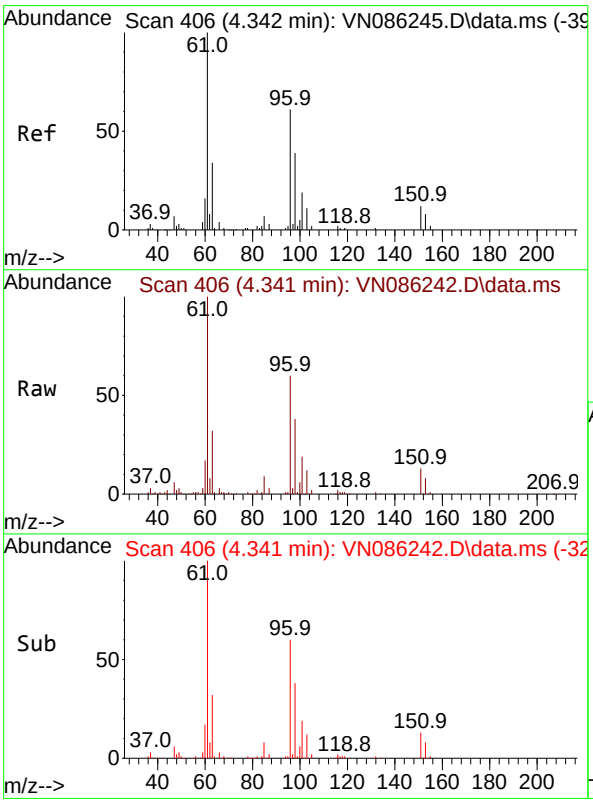
Ion	Ratio	Lower	Upper
101	100		
85	44.7	0.0	93.0
151	69.2	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

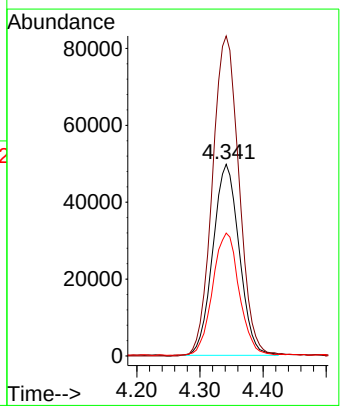


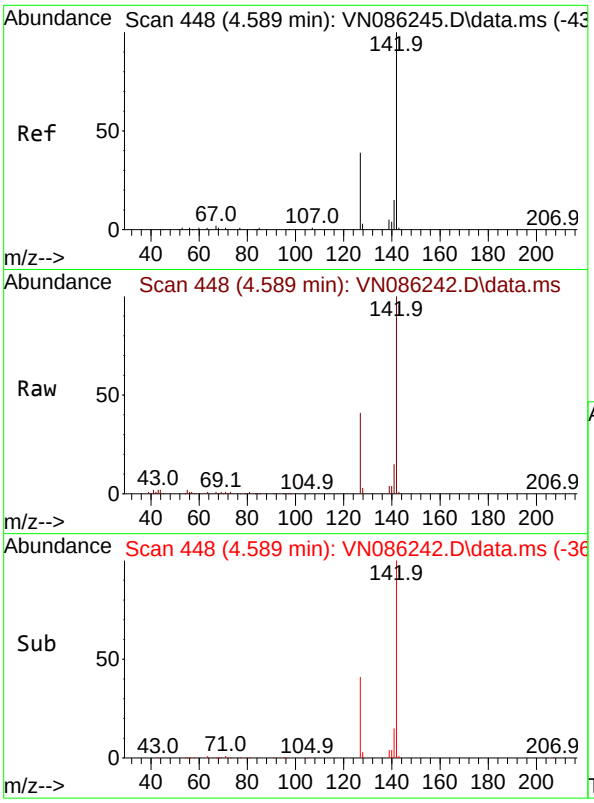


#10
1,1-Dichloroethene
Concen: 92.407 ug/l
RT: 4.341 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 96 Resp: 144087

Ion	Ratio	Lower	Upper
96	100		
61	167.5	131.1	196.7
98	63.7	51.6	77.4





#11
Methyl Iodide
Concen: 94.232 ug/l
RT: 4.589 min Scan# 44
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

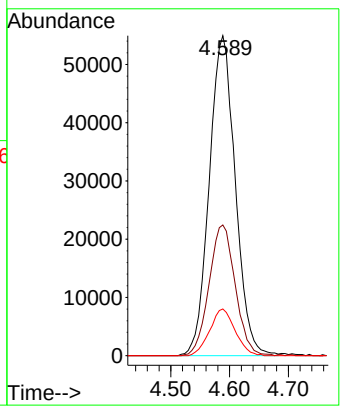
Tgt Ion:142 Resp: 16887

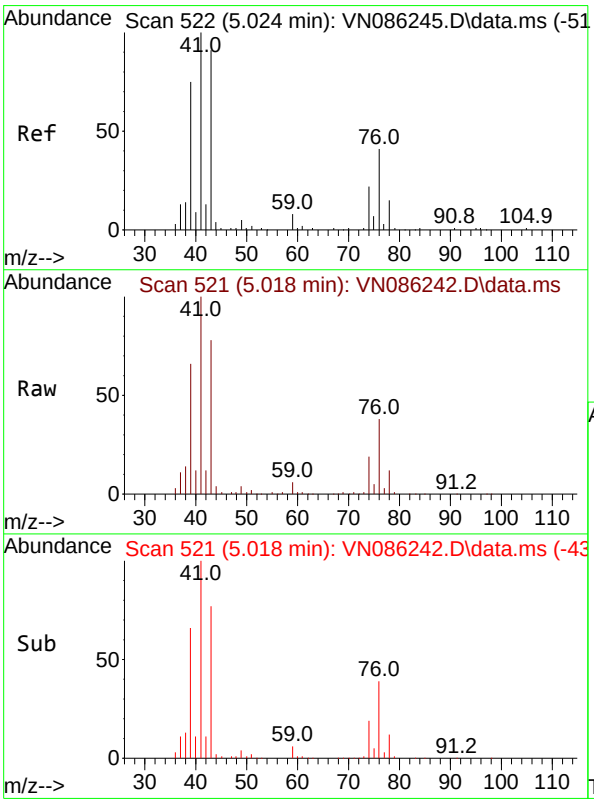
Ion	Ratio	Lower	Upper
142	100		
127	40.8	19.6	58.8
141	14.6	7.3	21.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

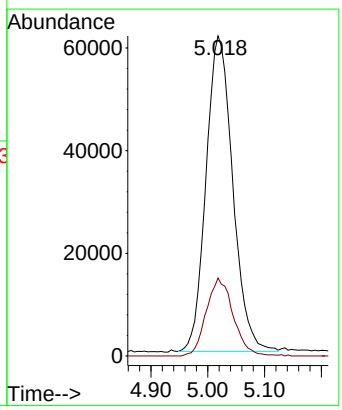


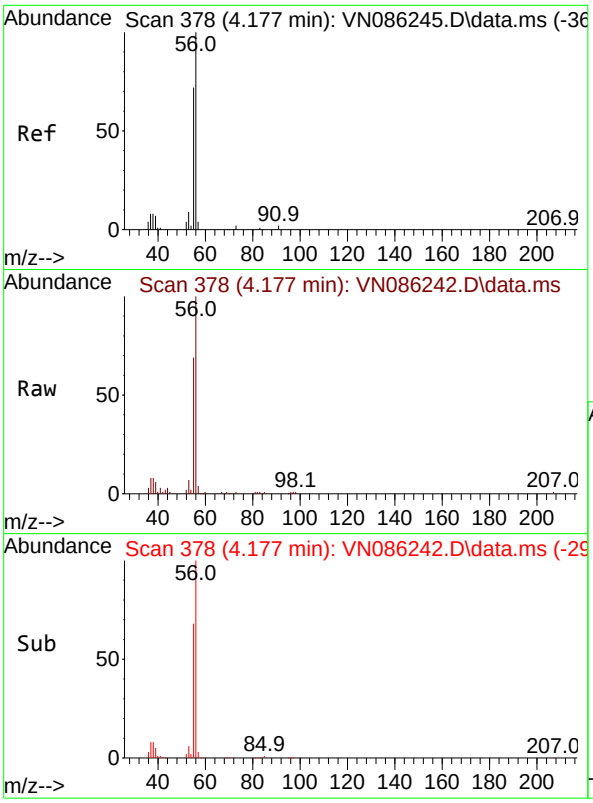


#12
Methyl Acetate
Concen: 91.194 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 200798

Ion	Ratio	Lower	Upper
43	100		
74	24.6	19.1	28.7

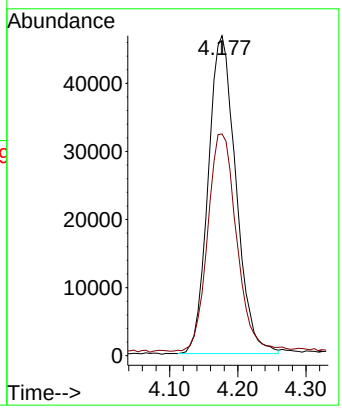




#13
Acrolein
Concen: 527.390 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 56 Resp: 13199

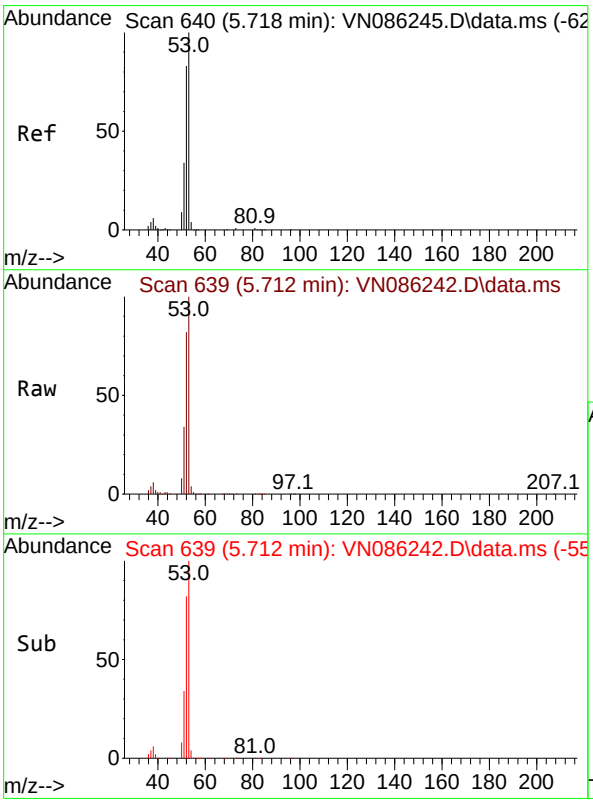
Ion	Ratio	Lower	Upper
56	100		
55	70.9	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

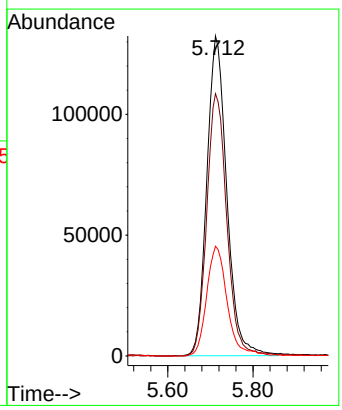
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

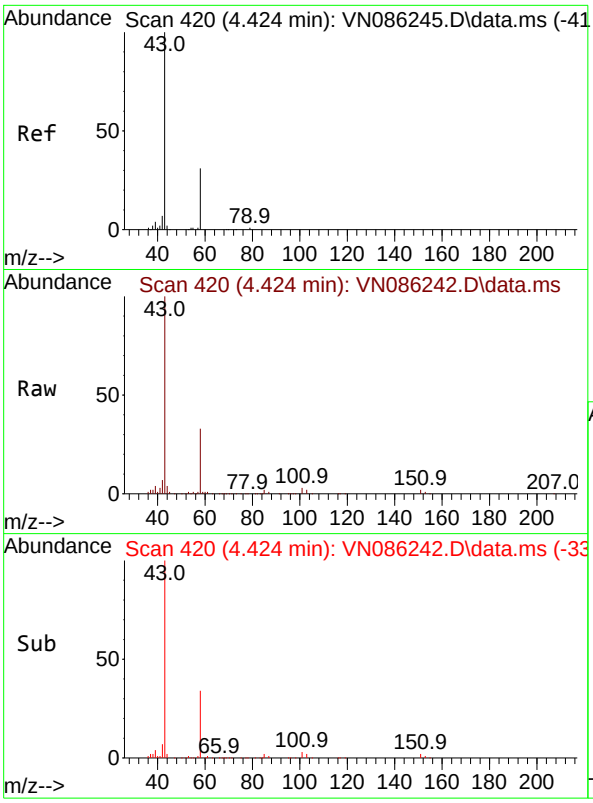


#14
Acrylonitrile
Concen: 463.608 ug/l
RT: 5.712 min Scan# 639
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 53 Resp: 430948

Ion	Ratio	Lower	Upper
53	100		
52	82.1	40.2	120.6
51	35.1	17.5	52.6

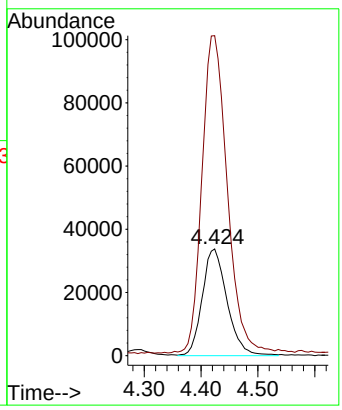




#15
Acetone
Concen: 434.159 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 58 Resp: 10241

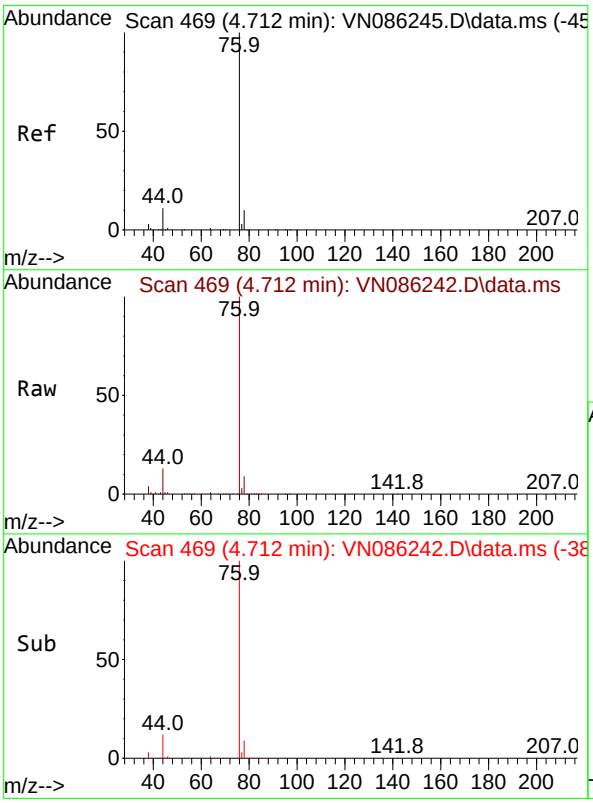
Ion	Ratio	Lower	Upper
58	100		
43	297.7	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

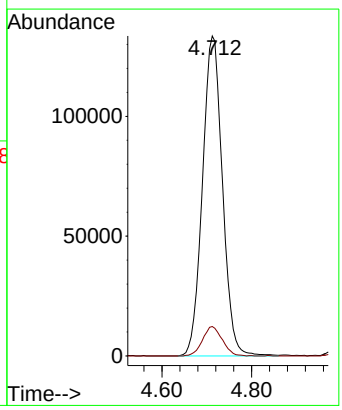
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

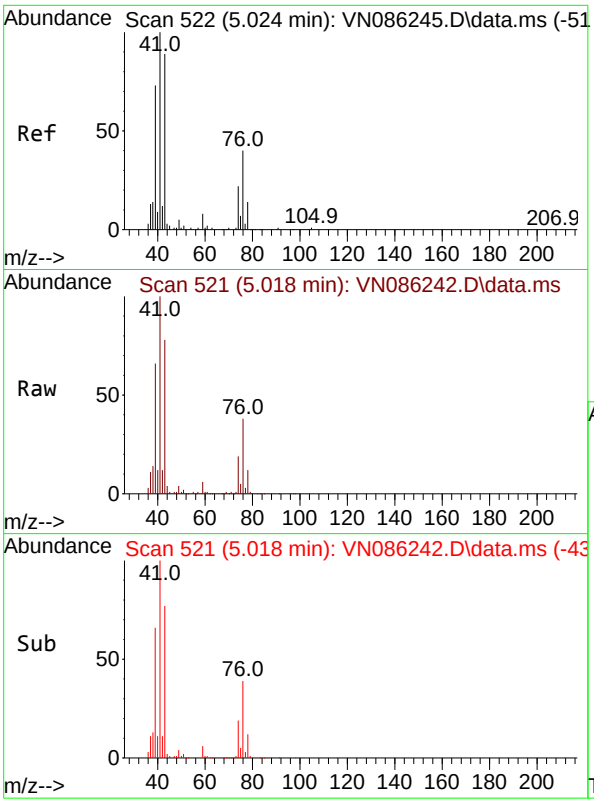


#16
Carbon Disulfide
Concen: 92.399 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 76 Resp: 413127

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.7	11.5

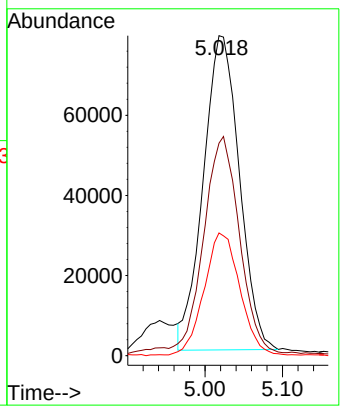




#17
Allyl chloride
Concen: 93.519 ug/l
RT: 5.018 min Scan# 5
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 41 Resp: 25415

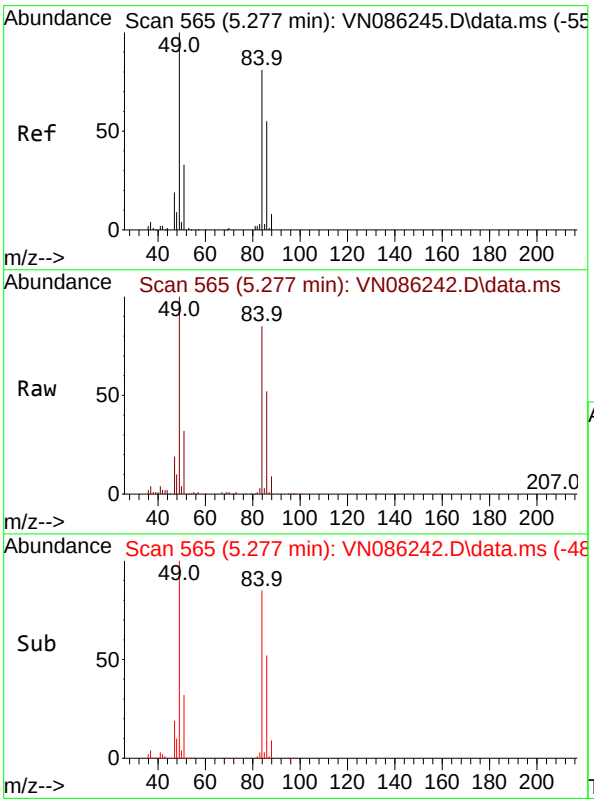
Ion	Ratio	Lower	Upper
41	100		
39	66.6	34.4	103.2
76	38.5	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

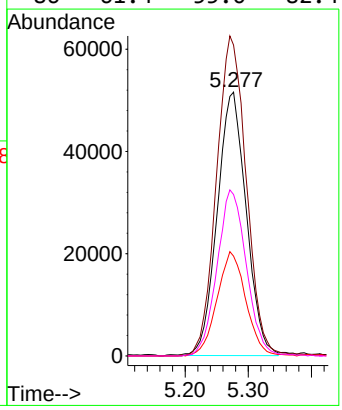
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

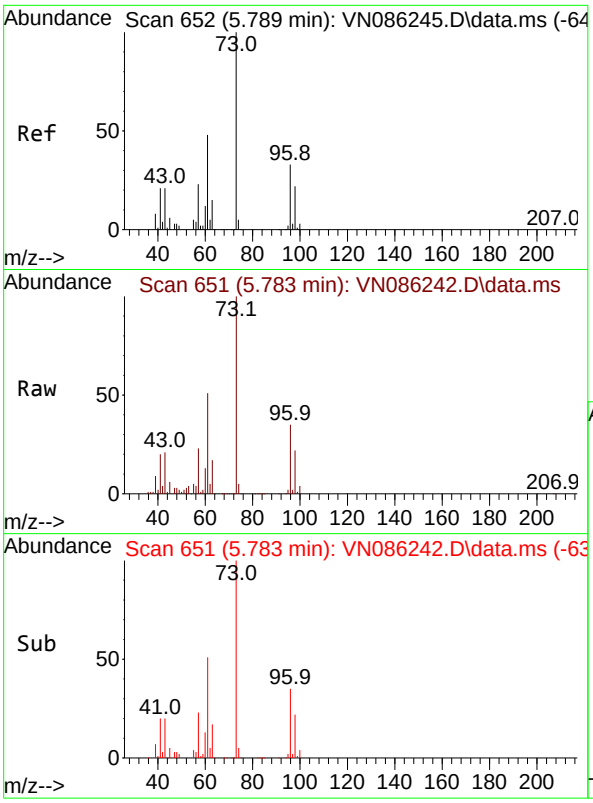


#18
Methylene Chloride
Concen: 92.405 ug/l
RT: 5.277 min Scan# 565
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 84 Resp: 164274

Ion	Ratio	Lower	Upper
84	100		
49	118.2	99.1	148.7
51	38.0	32.3	48.5
86	61.4	55.0	82.4

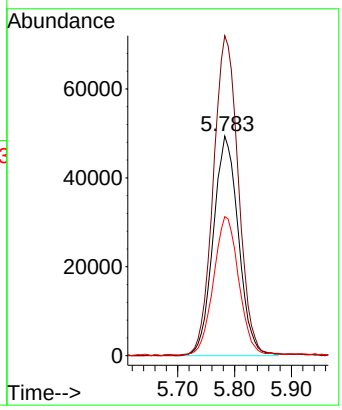




#19
trans-1,2-Dichloroethene
Concen: 108.281 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 96 Resp: 15229

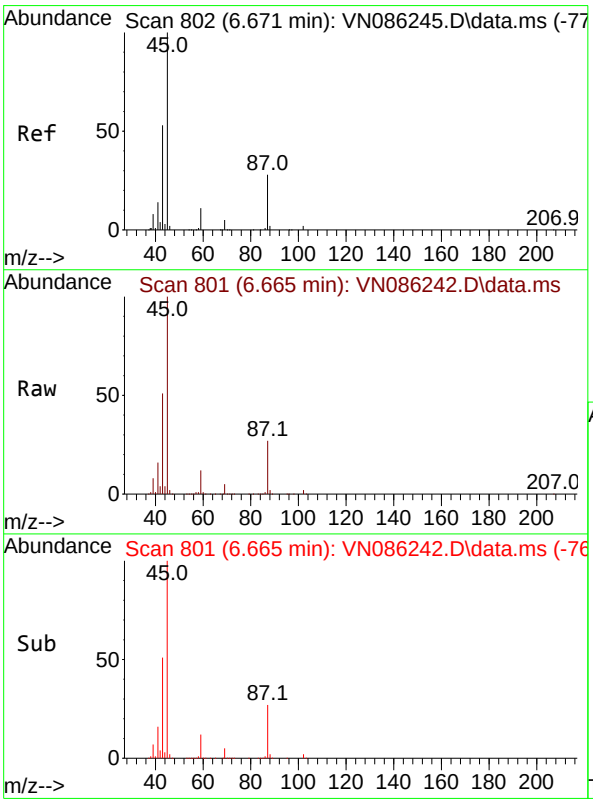
Ion	Ratio	Lower	Upper
96	100		
61	145.7	115.9	173.9
98	62.9	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

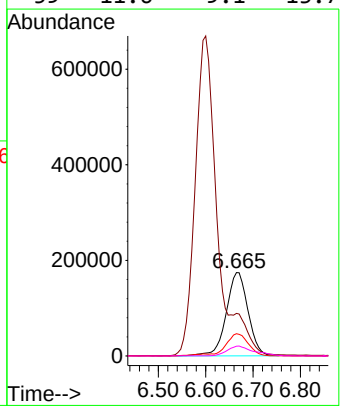
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

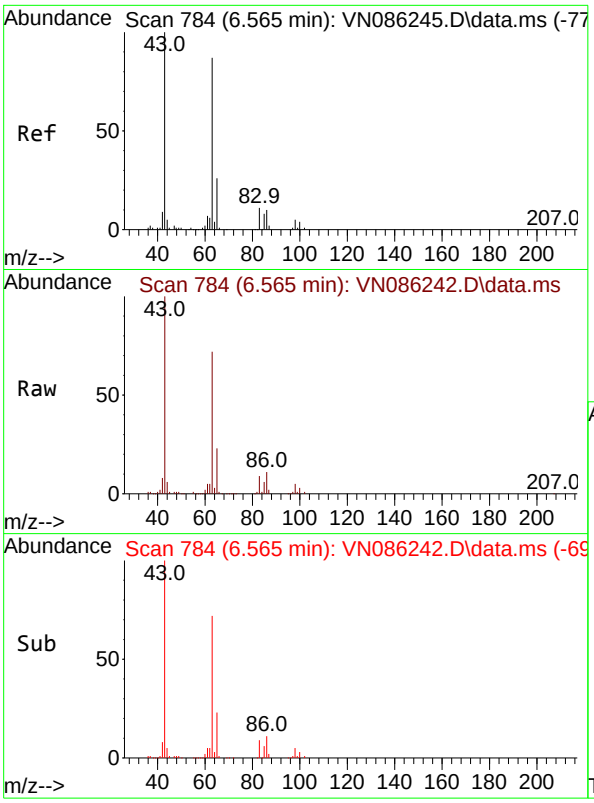


#20
Diisopropyl ether
Concen: 95.034 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 45 Resp: 555310

Ion	Ratio	Lower	Upper
45	100		
43	49.6	42.3	63.5
87	26.5	22.2	33.4
59	11.6	9.1	13.7

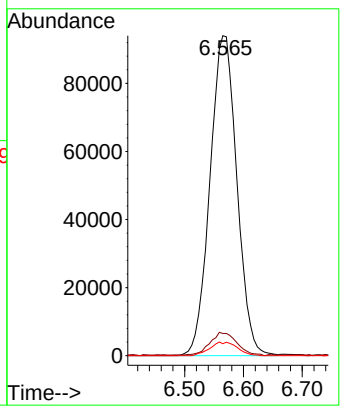




#21
1,1-Dichloroethane
Concen: 95.915 ug/l
RT: 6.565 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 63 Resp: 29898

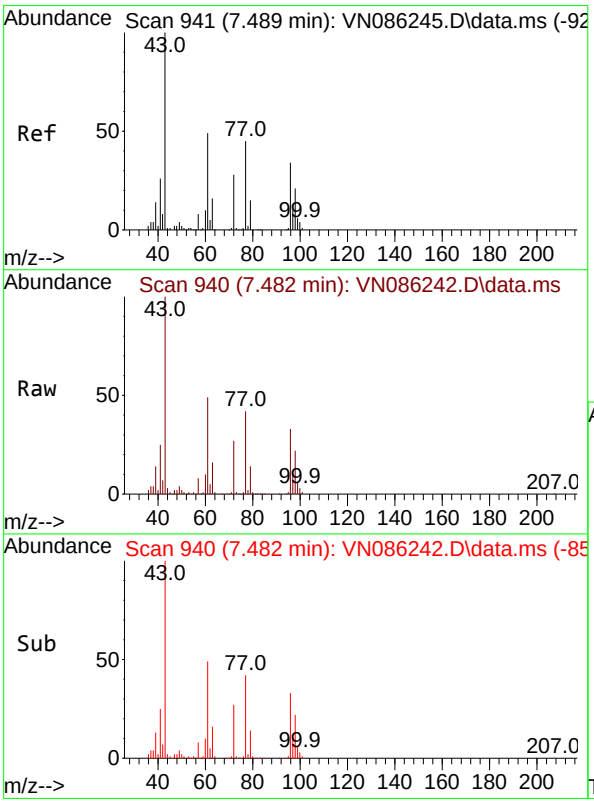
Ion	Ratio	Lower	Upper
63	100		
98	6.7	3.1	9.3
100	3.8	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

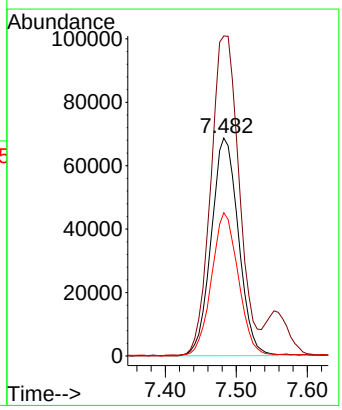
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

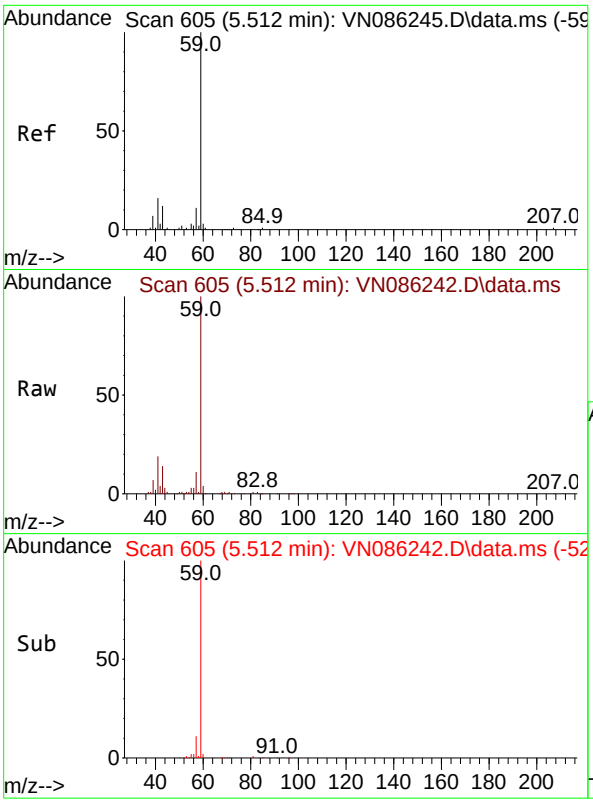


#22
cis-1,2-Dichloroethene
Concen: 93.299 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 96 Resp: 182539

Ion	Ratio	Lower	Upper
96	100		
61	154.3	119.5	179.3
98	64.4	51.0	76.6

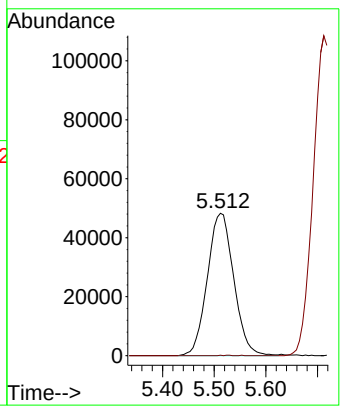




#23
tert-Butyl Alcohol
Concen: 445.280 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 59 Resp: 17150

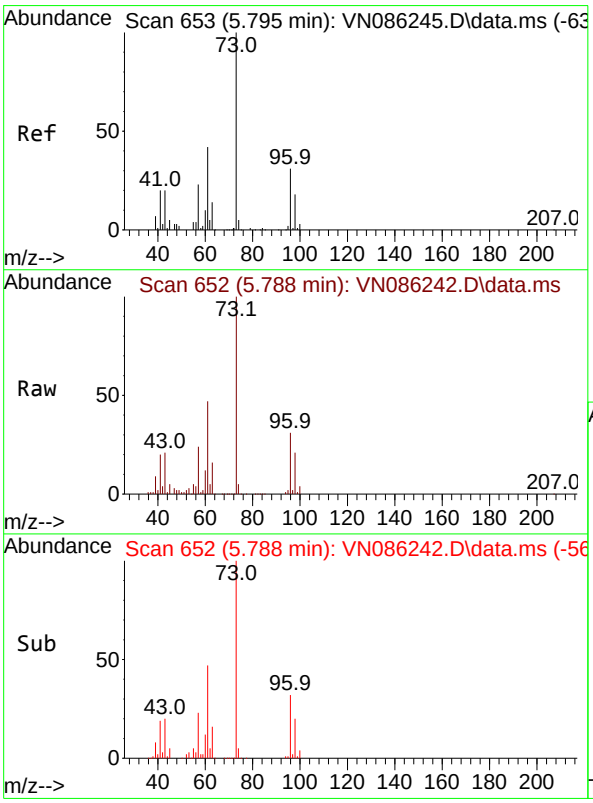
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

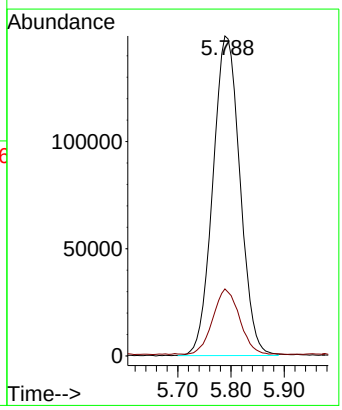
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

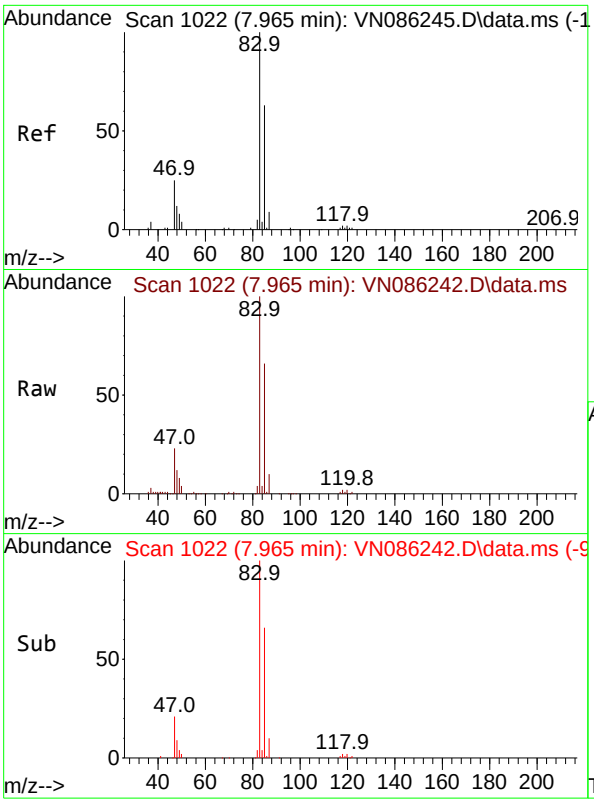


#24
Methyl tert-Butyl Ether
Concen: 93.663 ug/l
RT: 5.788 min Scan# 652
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 73 Resp: 526162

Ion	Ratio	Lower	Upper
73	100		
43	19.9	16.8	25.2

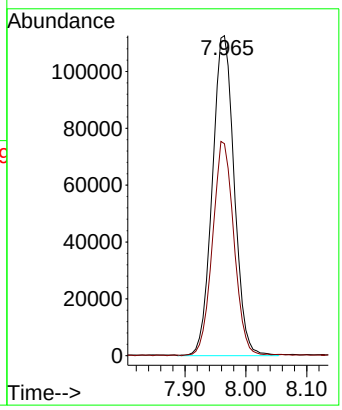




#25
Chloroform
Concen: 94.604 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 83 Resp: 28120

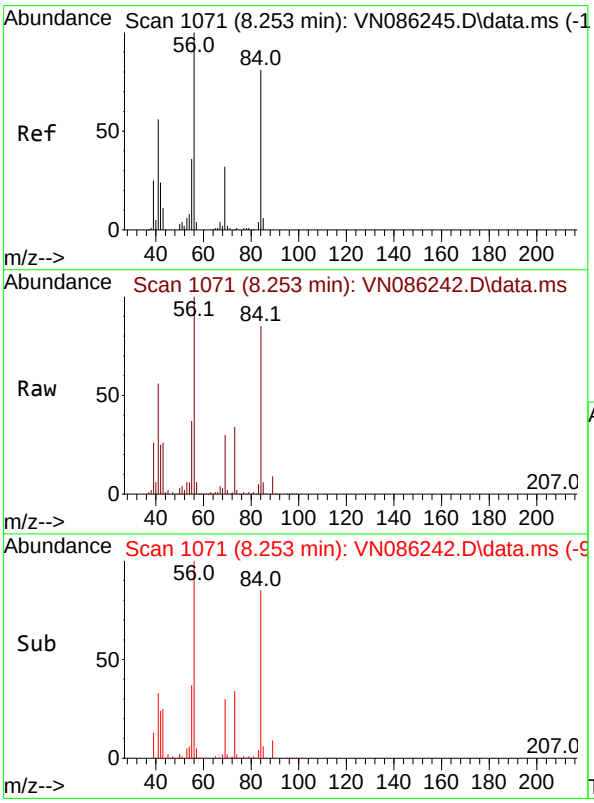
Ion	Ratio	Lower	Upper
83	100		
85	66.0	50.5	75.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

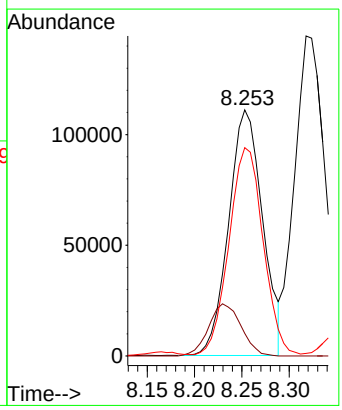
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

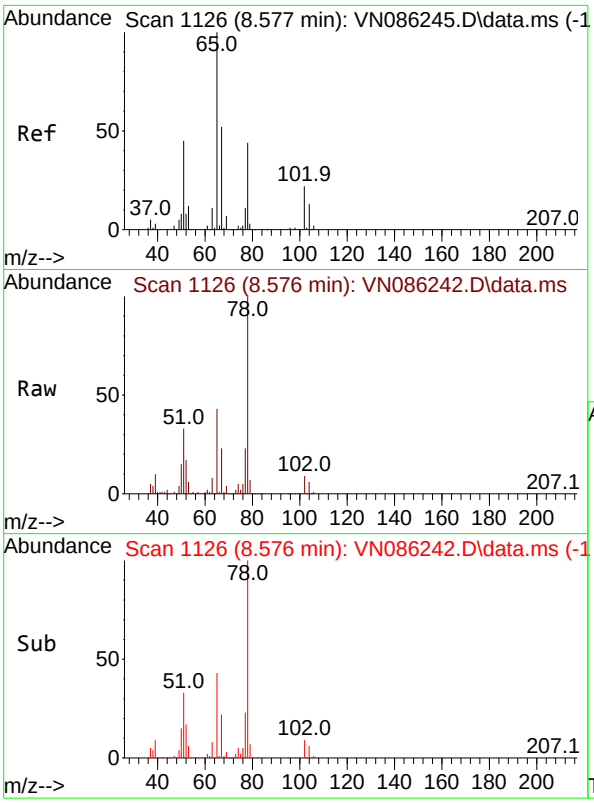


#26
Cyclohexane
Concen: 95.155 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 56 Resp: 277499

Ion	Ratio	Lower	Upper
56	100		
89	20.3	0.0	0.0#
84	85.5	69.0	103.4

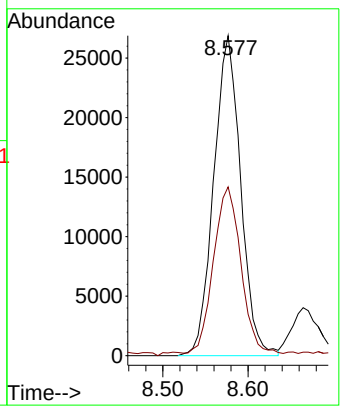




#27
1,2-Dichloroethane-d4
Concen: 29.547 ug/l
RT: 8.576 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 65 Resp: 5901

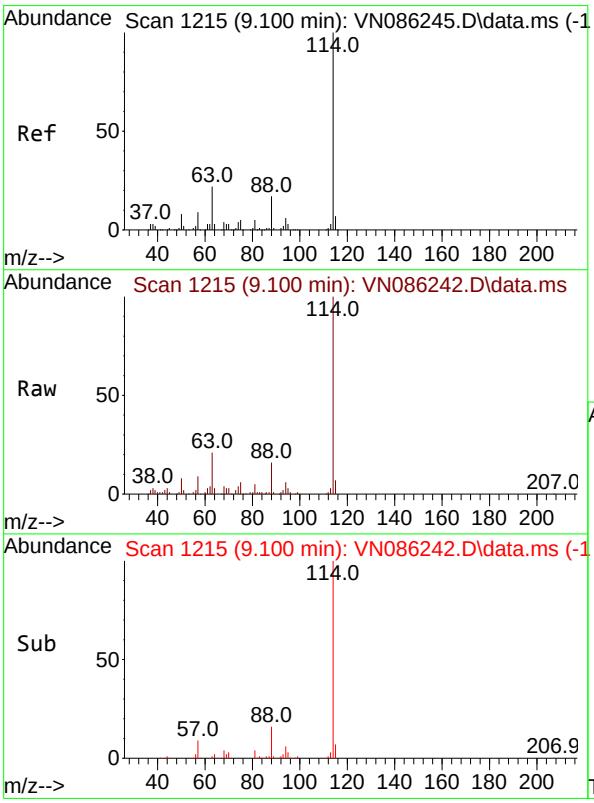
Ion	Ratio	Lower	Upper
65	100		
67	52.6	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

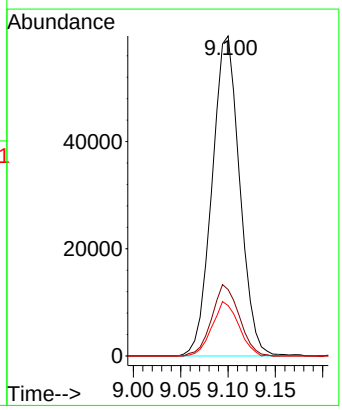
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

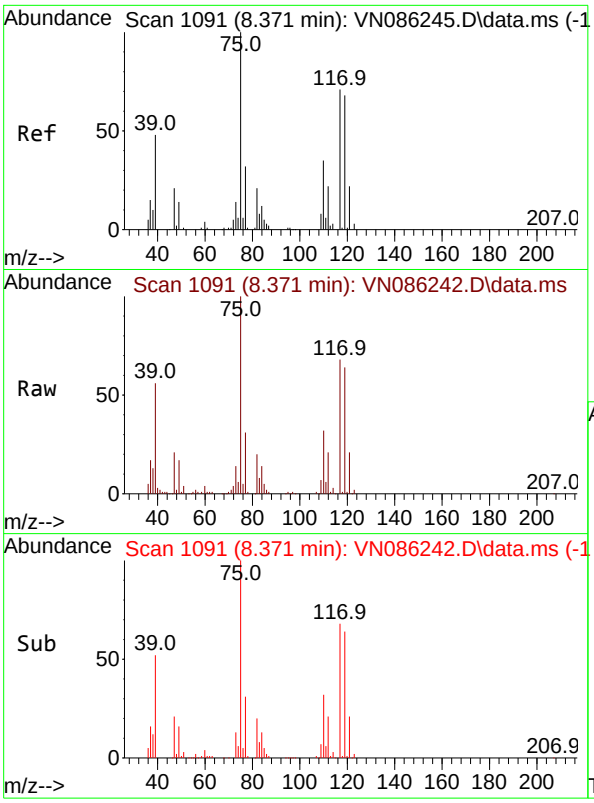


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:114 Resp: 121329

Ion	Ratio	Lower	Upper
114	100		
63	22.1	17.8	26.6
88	16.3	13.4	20.2

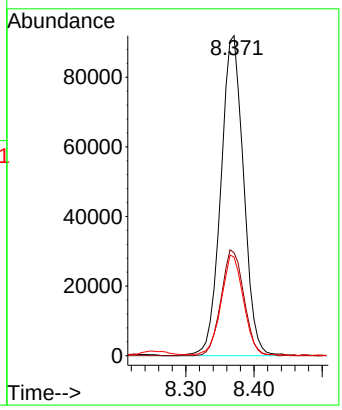




#29
1,1-Dichloropropene
Concen: 98.138 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 21330

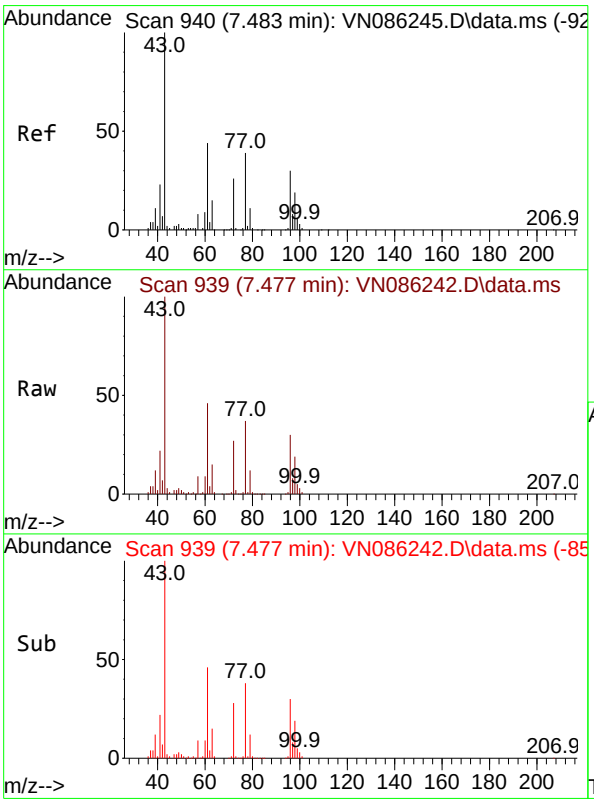
Ion	Ratio	Lower	Upper
75	100		
110	33.2	0.0	68.6
77	31.4	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

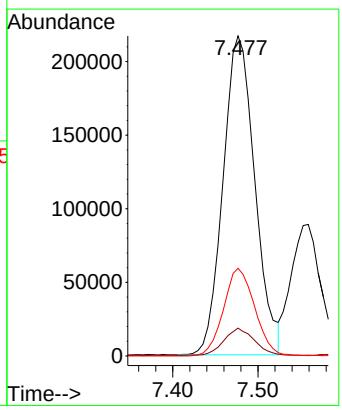
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

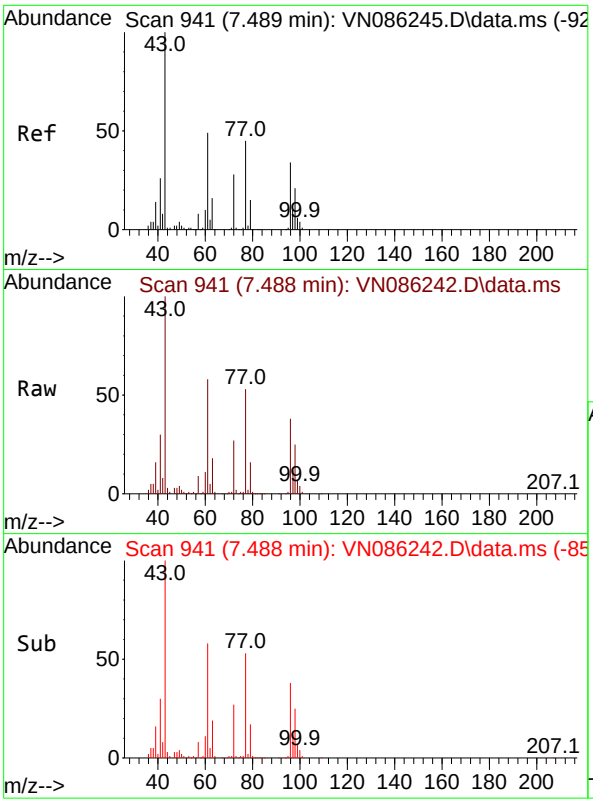


#30
2-Butanone
Concen: 467.239 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 562722

Ion	Ratio	Lower	Upper
43	100		
57	8.2	6.4	9.6
72	27.0	21.5	32.3

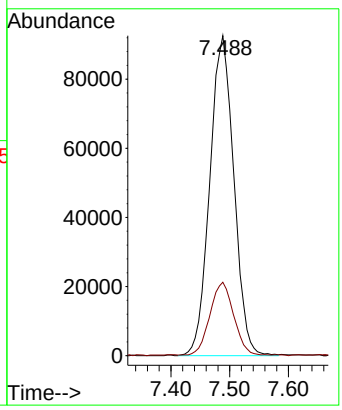




#31
2,2-Dichloropropane
Concen: 98.472 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 77 Resp: 26345

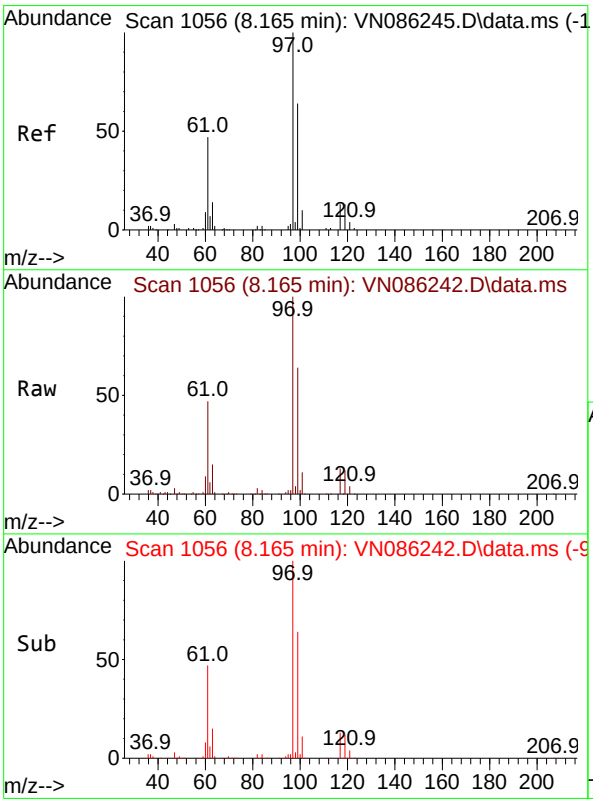
Ion	Ratio	Lower	Upper
77	100		
97	22.6	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

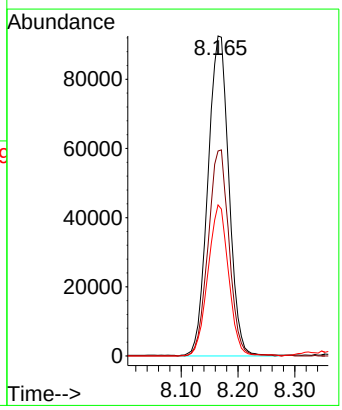
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

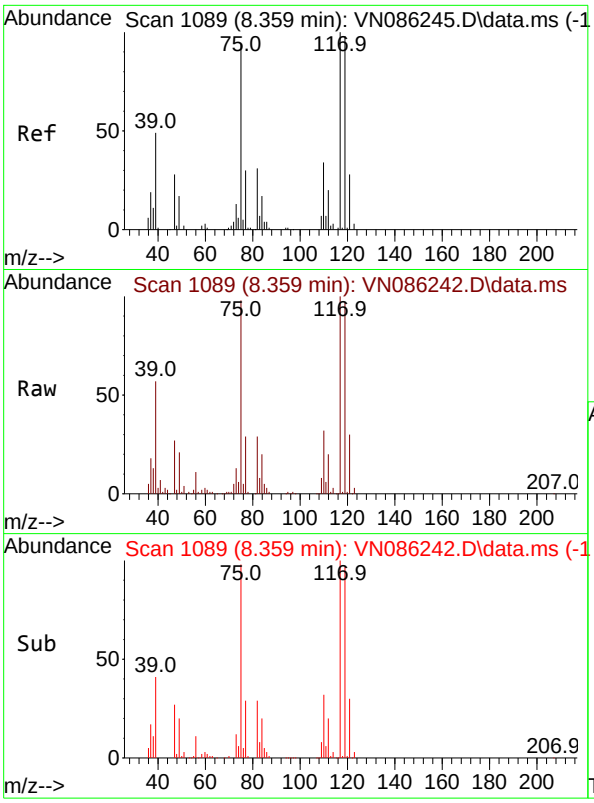


#32
1,1,1-Trichloroethane
Concen: 94.957 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 97 Resp: 237411

Ion	Ratio	Lower	Upper
97	100		
99	64.1	51.4	77.2
61	46.3	37.0	55.6

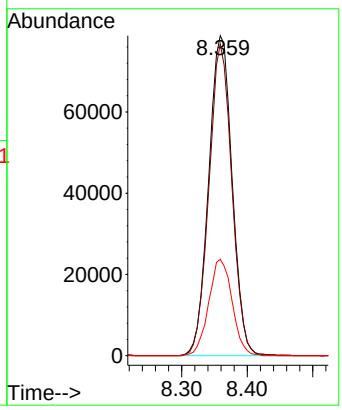




#33
Carbon Tetrachloride
Concen: 98.048 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:117 Resp: 19590

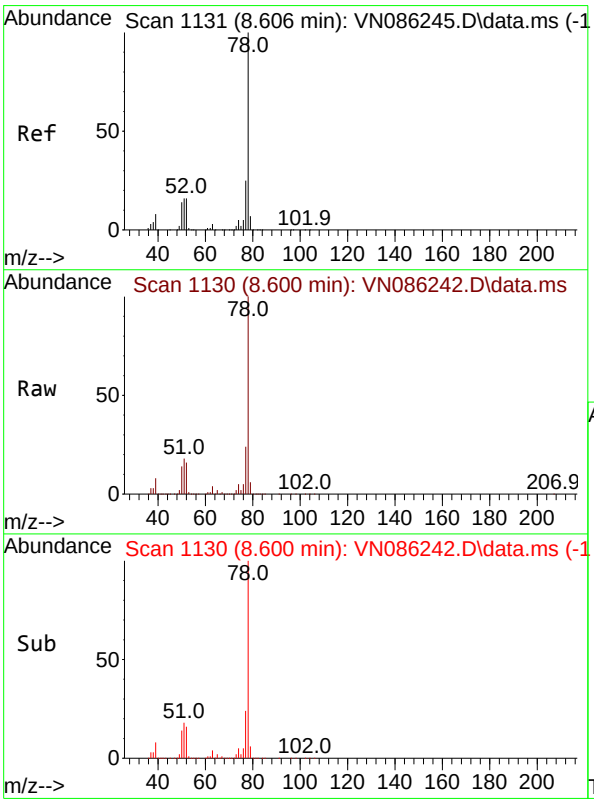
Ion	Ratio	Lower	Upper
117	100		
119	97.4	78.3	117.5
121	30.1	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

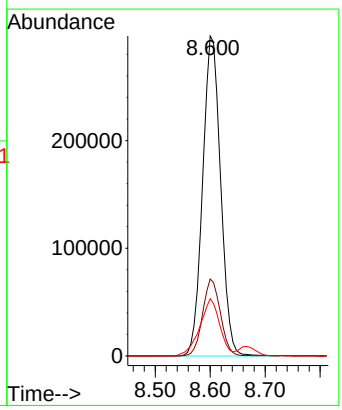
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

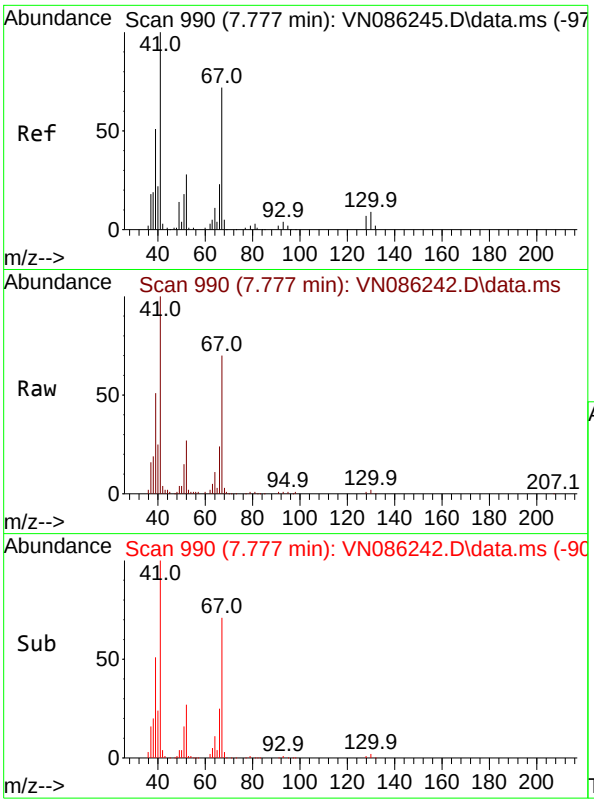


#34
Benzene
Concen: 97.638 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 78 Resp: 675144

Ion	Ratio	Lower	Upper
78	100		
77	24.1	20.0	30.0
51	17.9	12.9	19.3

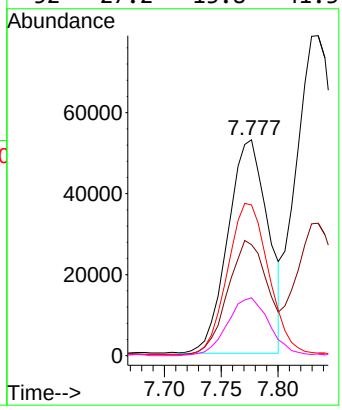




#35
Methacrylonitrile
Concen: 95.604 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 41 Resp: 12980

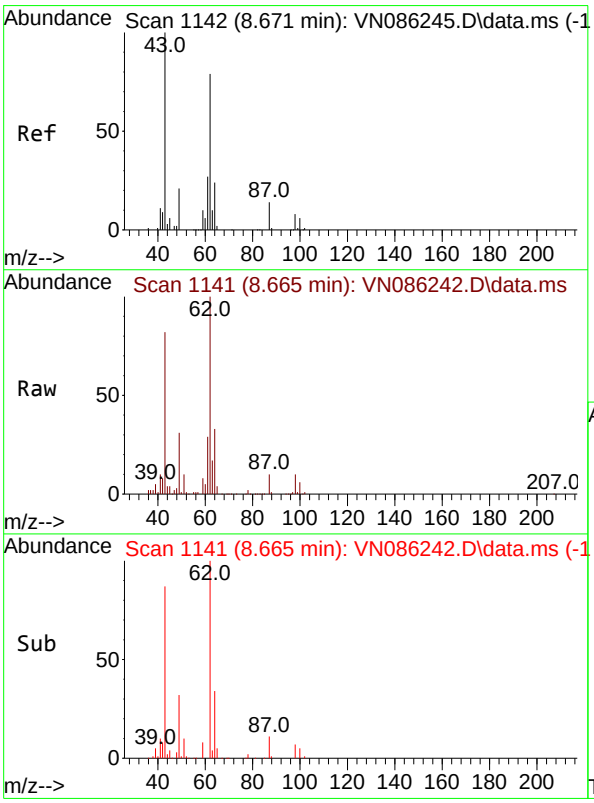
Ion	Ratio	Lower	Upper
41	100		
39	51.5	25.8	77.3
67	70.4	36.0	108.0
52	27.2	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

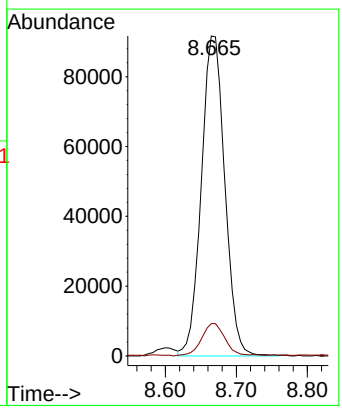
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

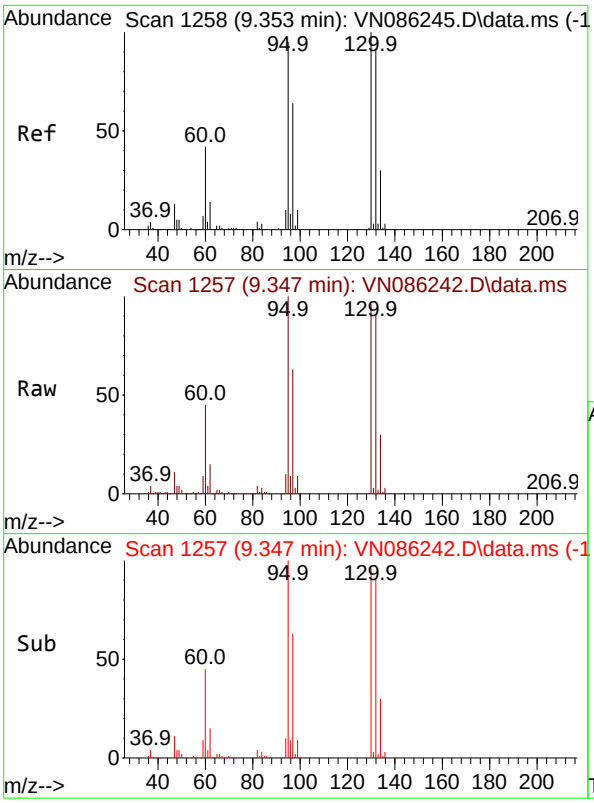


#36
1,2-Dichloroethane
Concen: 97.412 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 62 Resp: 210783

Ion	Ratio	Lower	Upper
62	100		
98	10.1	8.6	12.8

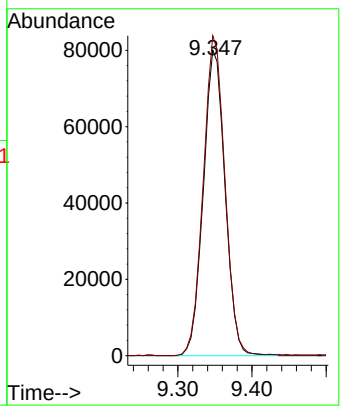




#37
Trichloroethene
Concen: 97.775 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:130 Resp: 16312

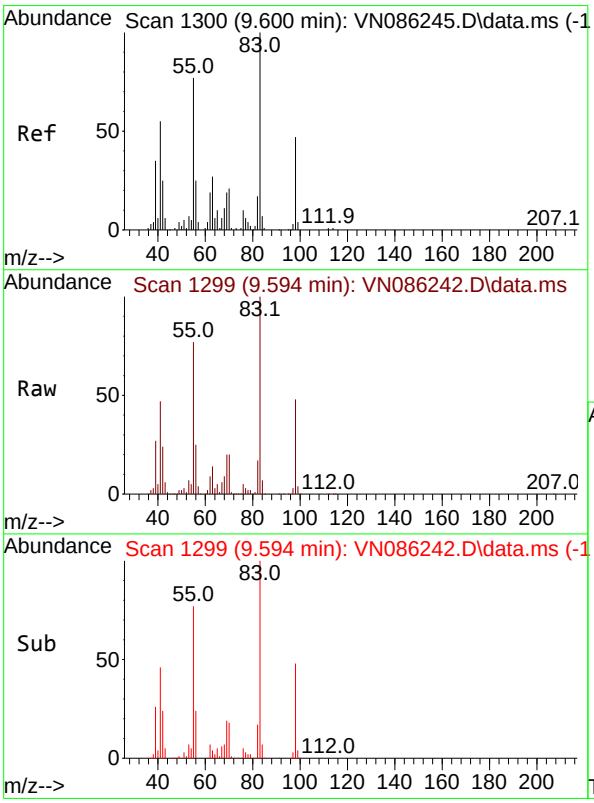
Ion	Ratio	Lower	Upper
130	100		
95	104.5	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

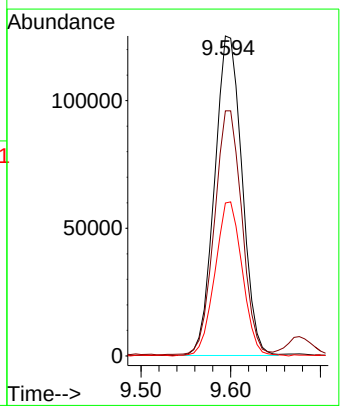
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

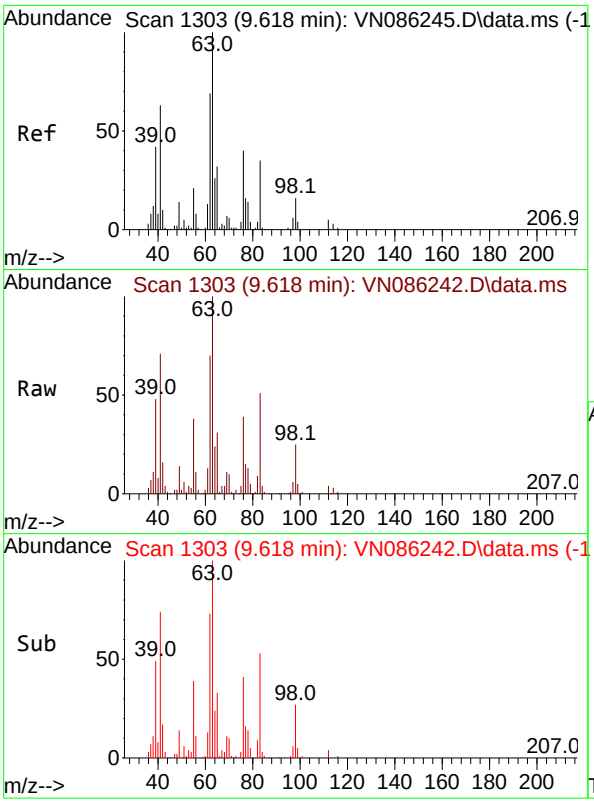


#38
Methylcyclohexane
Concen: 99.571 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 83 Resp: 265418

Ion	Ratio	Lower	Upper
83	100		
55	76.8	38.5	115.5
98	48.3	24.4	73.2

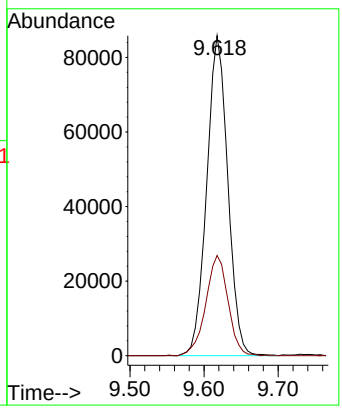




#39
1,2-Dichloropropane
Concen: 98.606 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 63 Resp: 16966

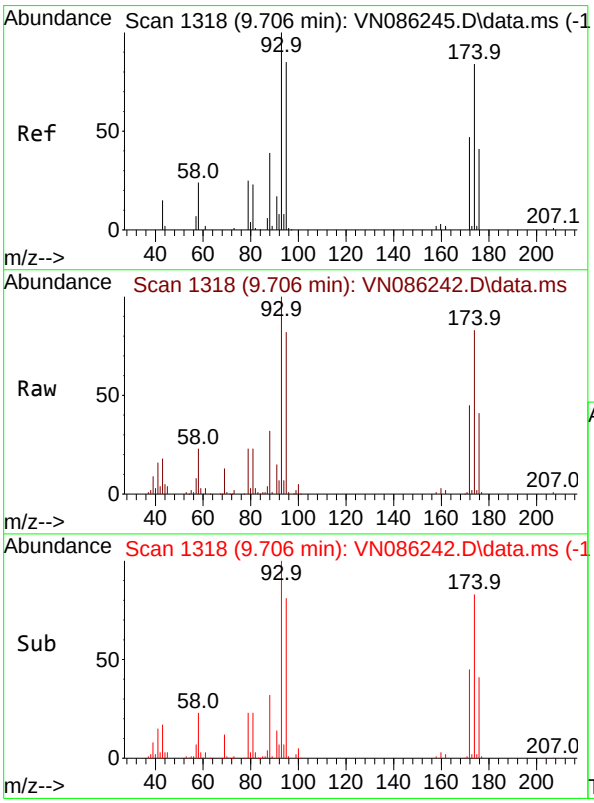
Ion	Ratio	Lower	Upper
63	100		
65	31.3	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

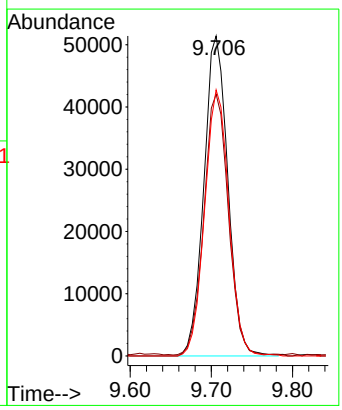
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

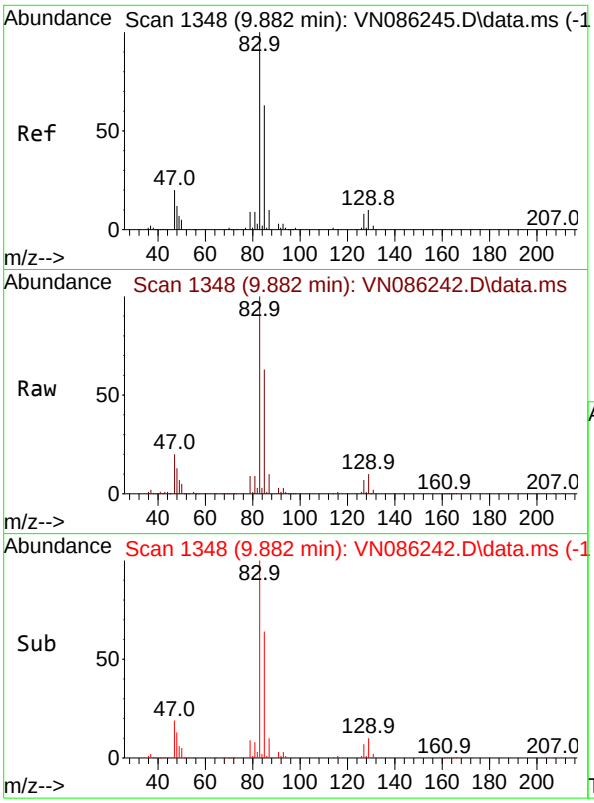


#40
Dibromomethane
Concen: 94.904 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 93 Resp: 105464

Ion	Ratio	Lower	Upper
93	100		
95	83.1	0.0	169.0
174	83.9	0.0	168.0

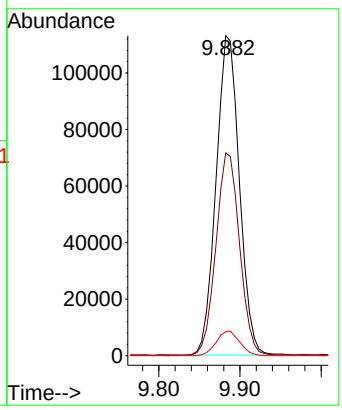




#41
Bromodichloromethane
Concen: 94.332 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 83 Resp: 22520

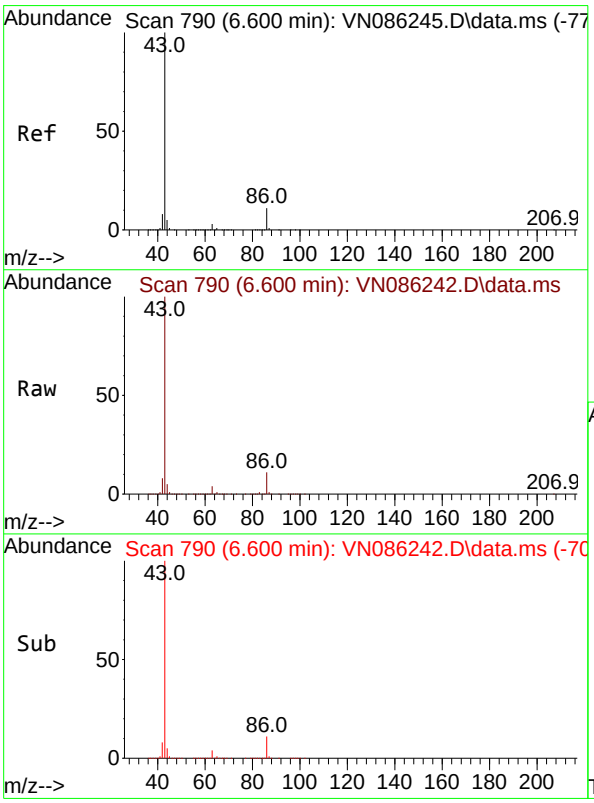
Ion	Ratio	Lower	Upper
83	100		
85	63.3	50.2	75.2
127	7.5	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

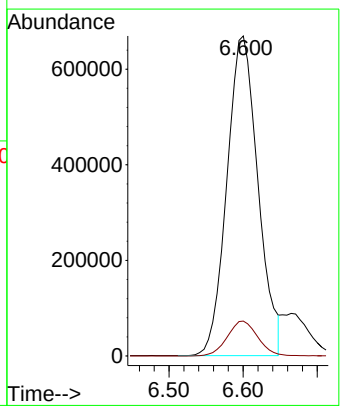
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

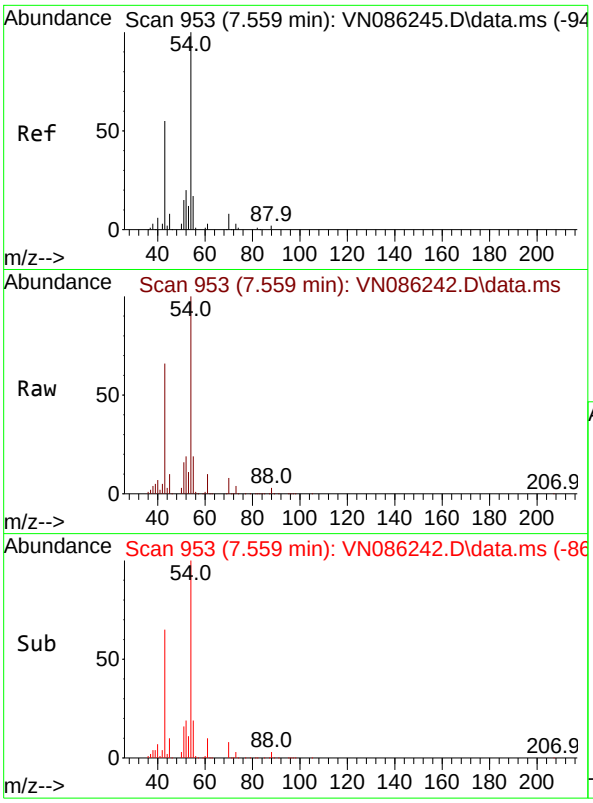


#42
Vinyl Acetate
Concen: 475.901 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 1951001

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.4	12.6





#43
Ethyl Acetate
Concen: 91.520 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

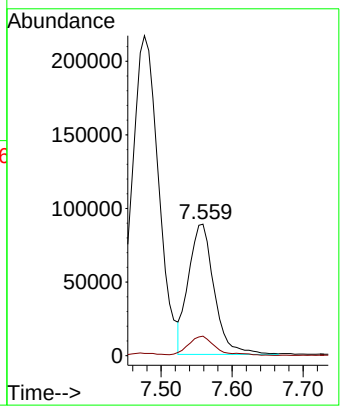
Tgt Ion: 43 Resp: 22232

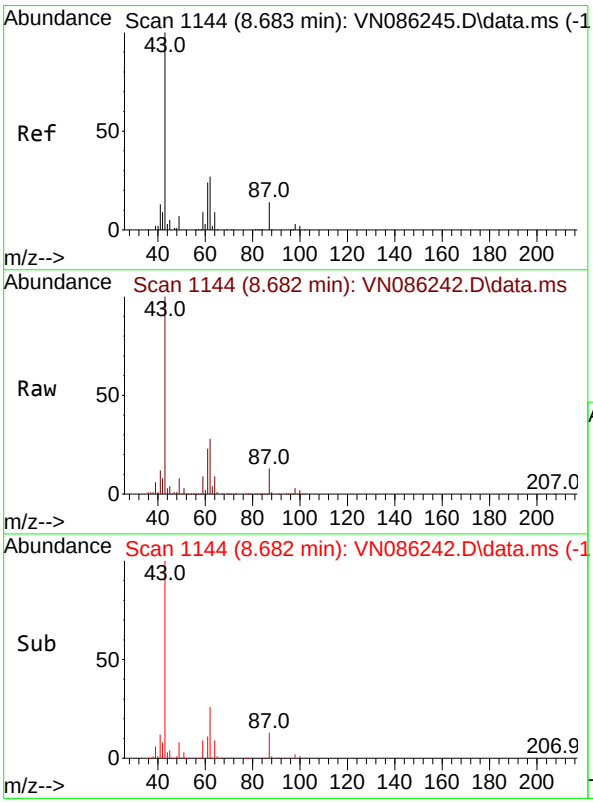
Ion	Ratio	Lower	Upper
43	100		
45	13.5	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

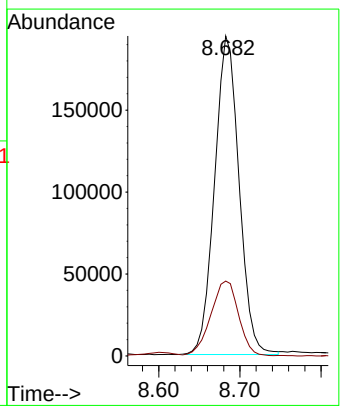


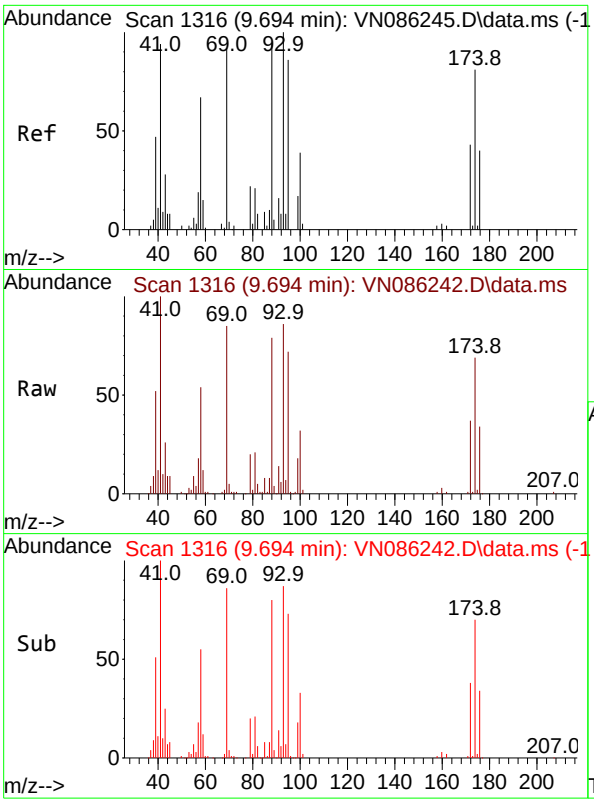


#44
Isopropyl Acetate
Concen: 90.431 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 407532

Ion	Ratio	Lower	Upper
43	100		
61	26.7	20.5	30.7

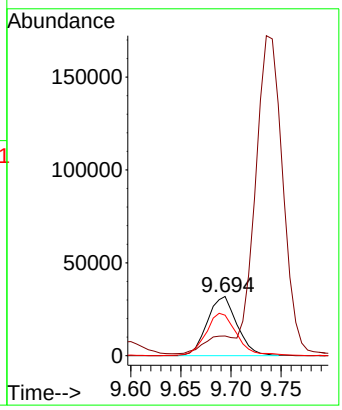




#45
1,4-Dioxane
Concen: 1836.730 ug/l
RT: 9.694 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 88 Resp: 6582

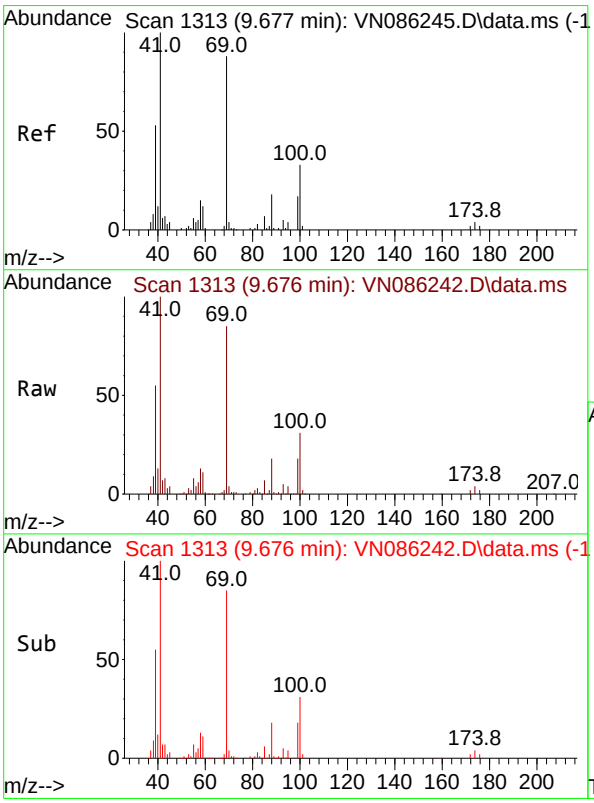
Ion	Ratio	Lower	Upper
88	100		
43	34.0	14.4	21.6
58	73.3	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

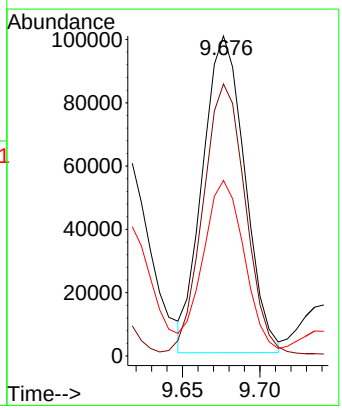
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

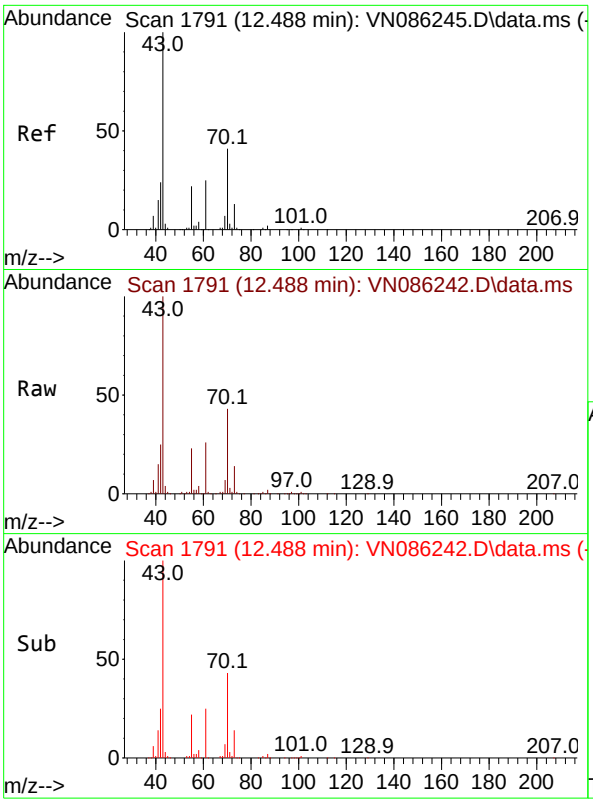


#46
Methyl methacrylate
Concen: 95.302 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 41 Resp: 189237

Ion	Ratio	Lower	Upper
41	100		
69	86.0	43.2	129.6
39	54.9	26.4	79.0

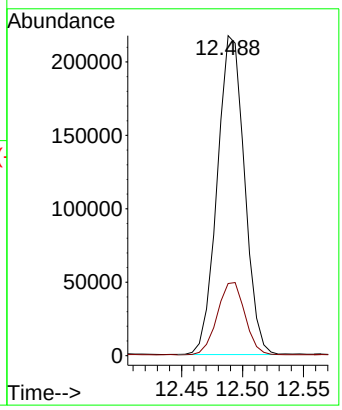




#47
n-amyl Acetate
Concen: 92.953 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 33846

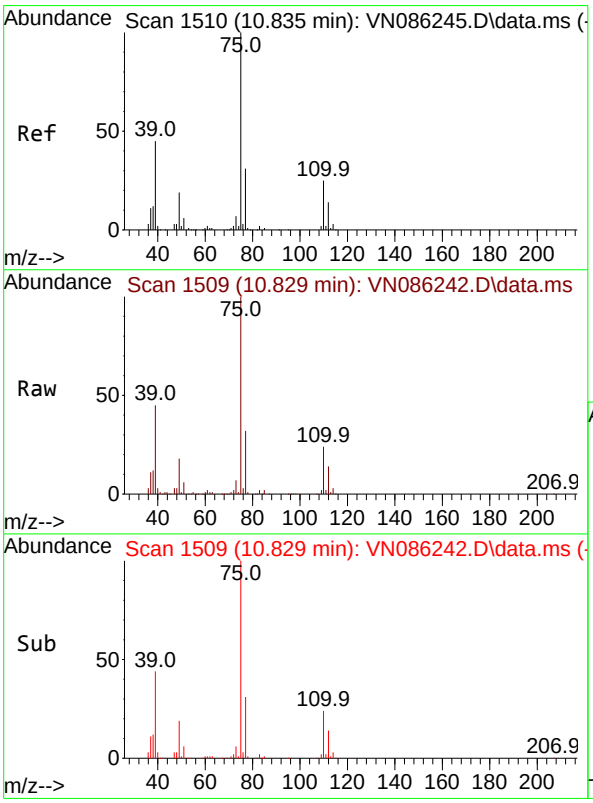
Ion	Ratio	Lower	Upper
43	100		
55	23.1	19.0	28.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

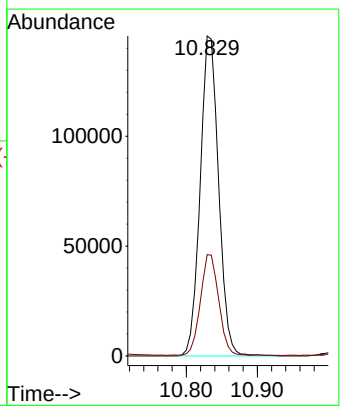
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

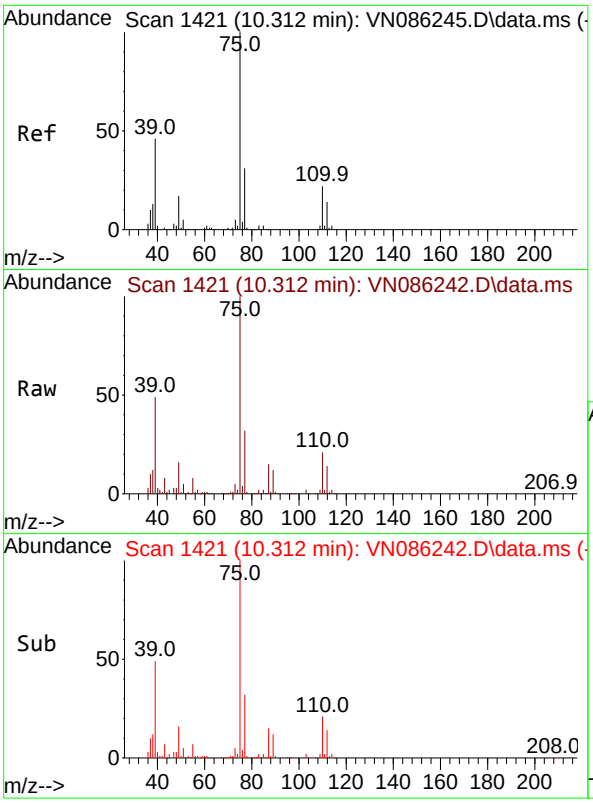


#48
t-1,3-Dichloropropene
Concen: 97.471 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 263069

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7

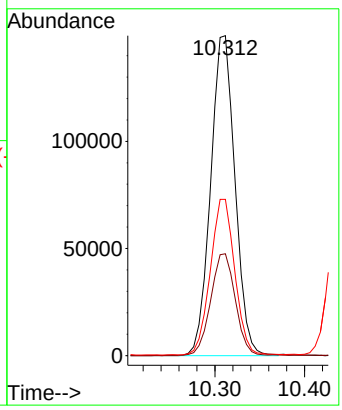




#49
cis-1,3-Dichloropropene
Concen: 98.600 ug/l
RT: 10.312 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 28165

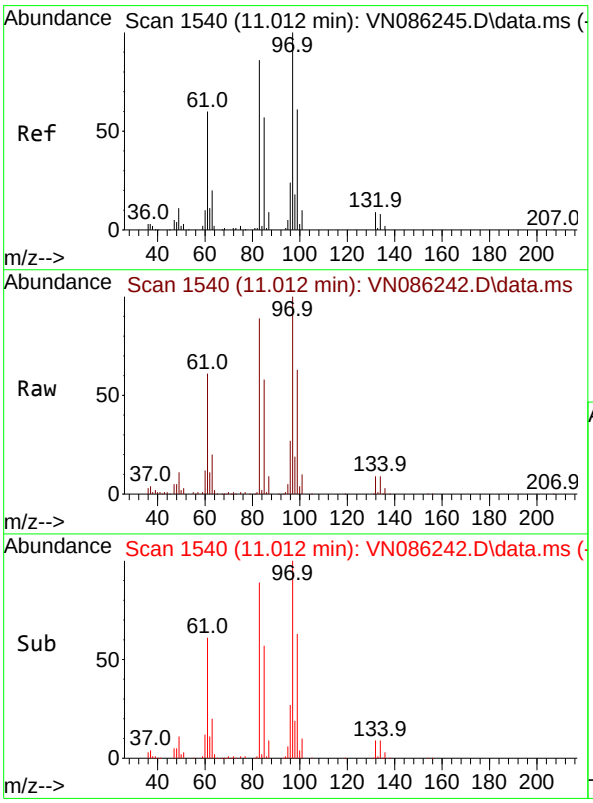
Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.0	37.4
39	48.6	36.7	55.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

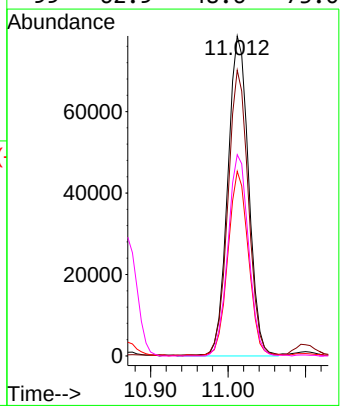
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

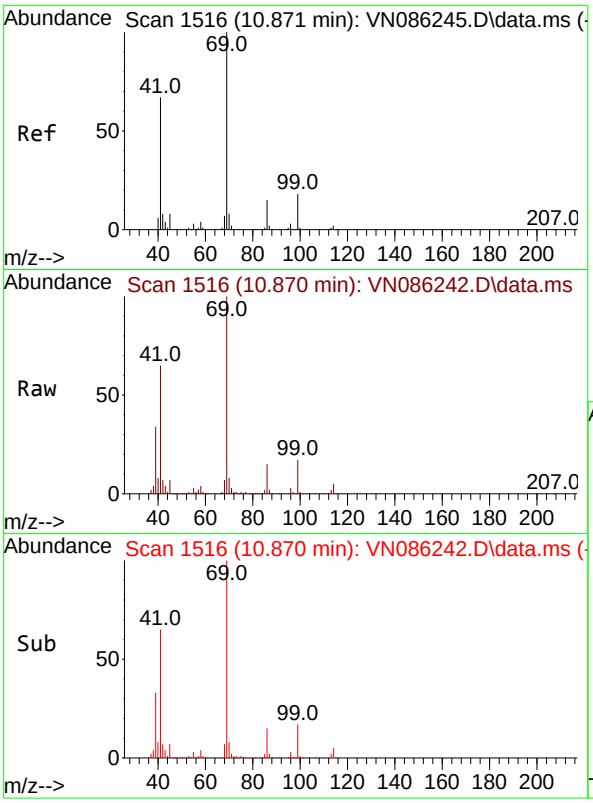


#50
1,1,2-Trichloroethane
Concen: 94.534 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 97 Resp: 147343

Ion	Ratio	Lower	Upper
97	100		
83	89.0	68.6	103.0
85	57.5	45.9	68.9
99	62.9	48.6	73.0

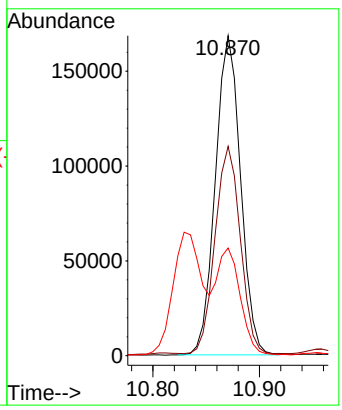




#51
Ethyl methacrylate
Concen: 95.629 ug/l
RT: 10.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 69 Resp: 27698

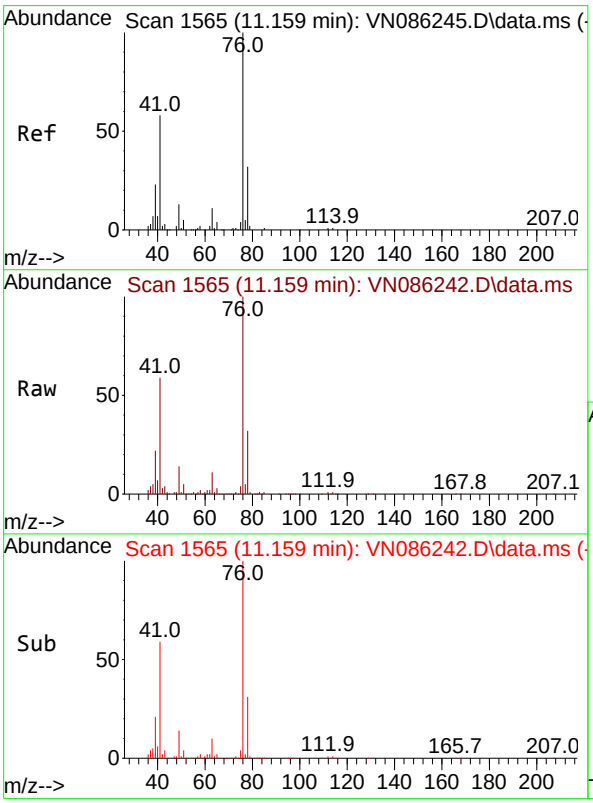
Ion	Ratio	Lower	Upper
69	100		
41	64.9	33.6	100.6
39	33.4	17.8	53.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

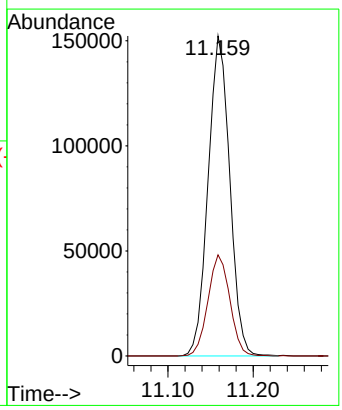
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

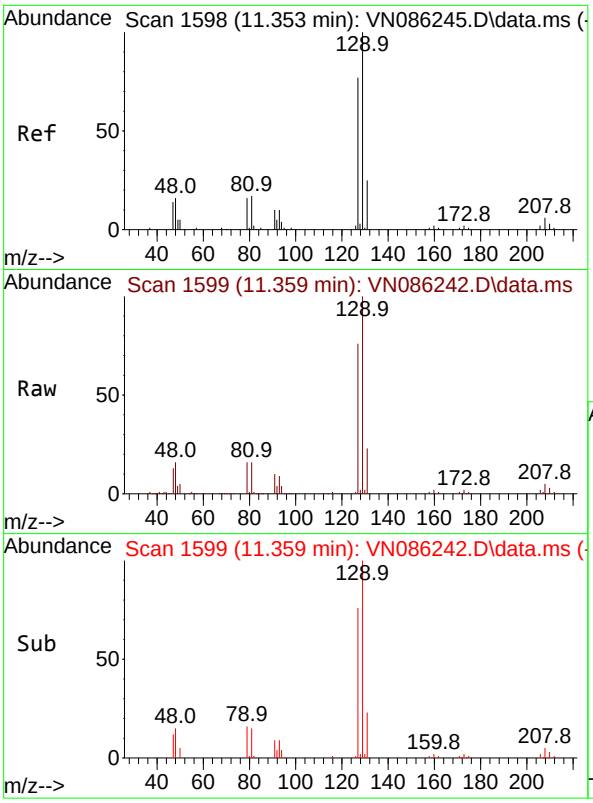


#52
1,3-Dichloropropane
Concen: 96.673 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 76 Resp: 268559

Ion	Ratio	Lower	Upper
76	100		
78	31.9	0.0	64.6

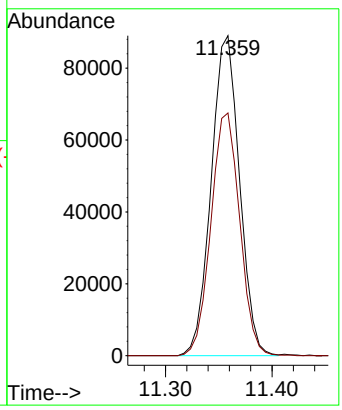




#53
Dibromochloromethane
Concen: 96.562 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:129 Resp: 16462

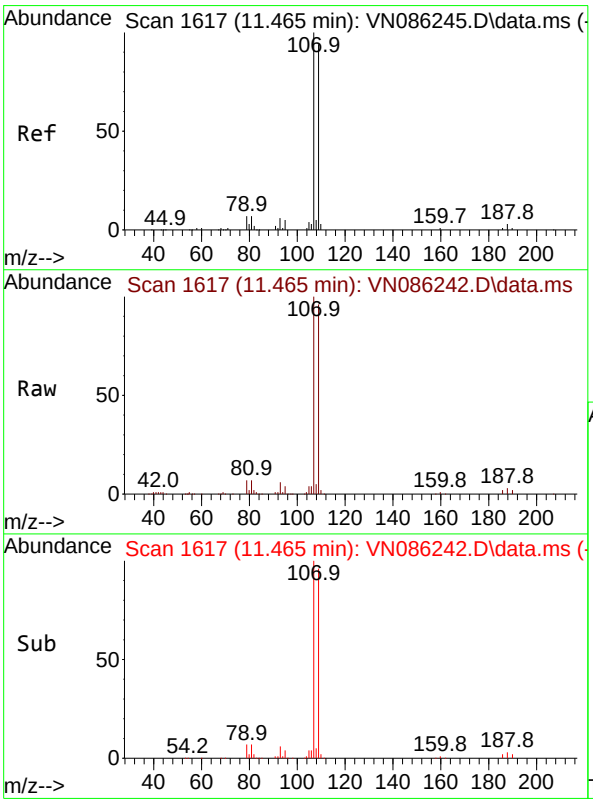
Ion	Ratio	Lower	Upper
129	100		
127	76.8	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

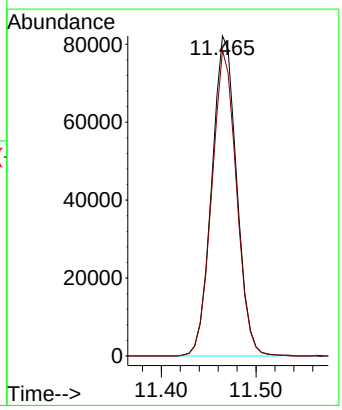
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

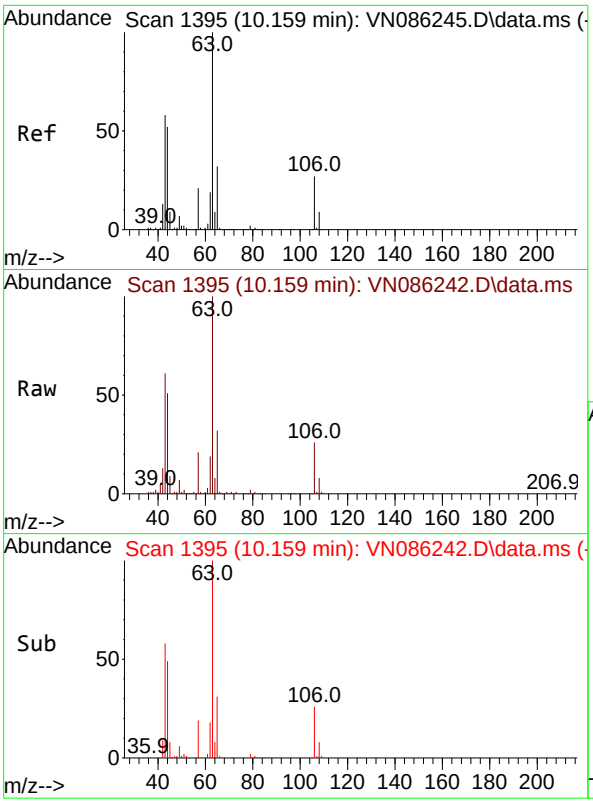


#54
1,2-Dibromoethane
Concen: 95.239 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:107 Resp: 149844

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.2	112.8

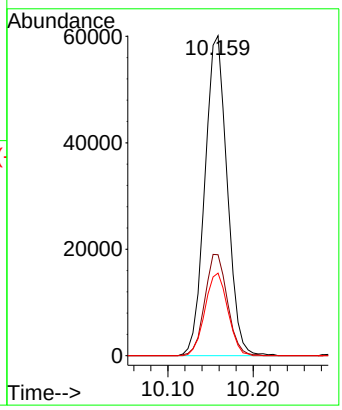




#55
2-Chloroethyl vinyl ether
Concen: 99.826 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 63 Resp: 10925

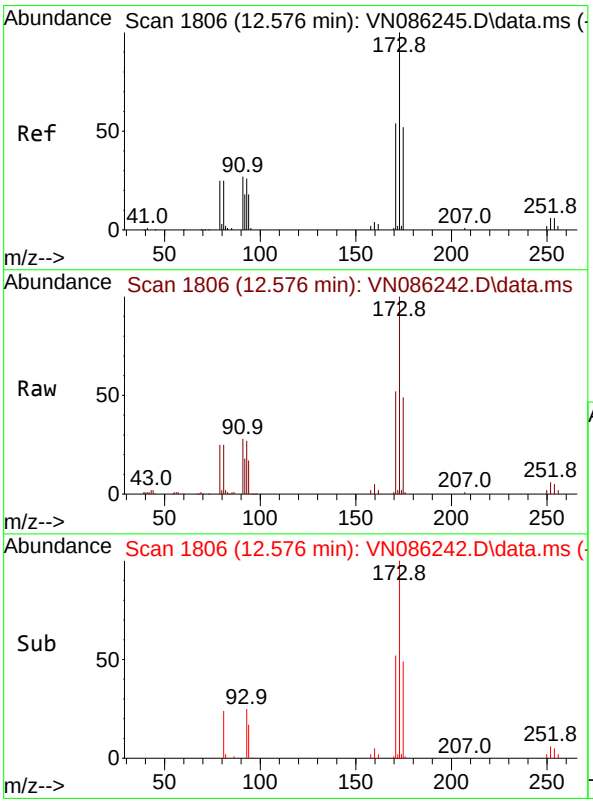
Ion	Ratio	Lower	Upper
63	100		
65	32.1	25.8	38.8
106	26.4	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

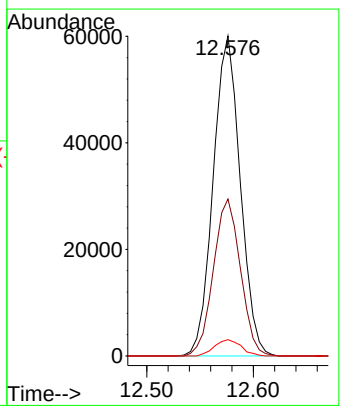
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

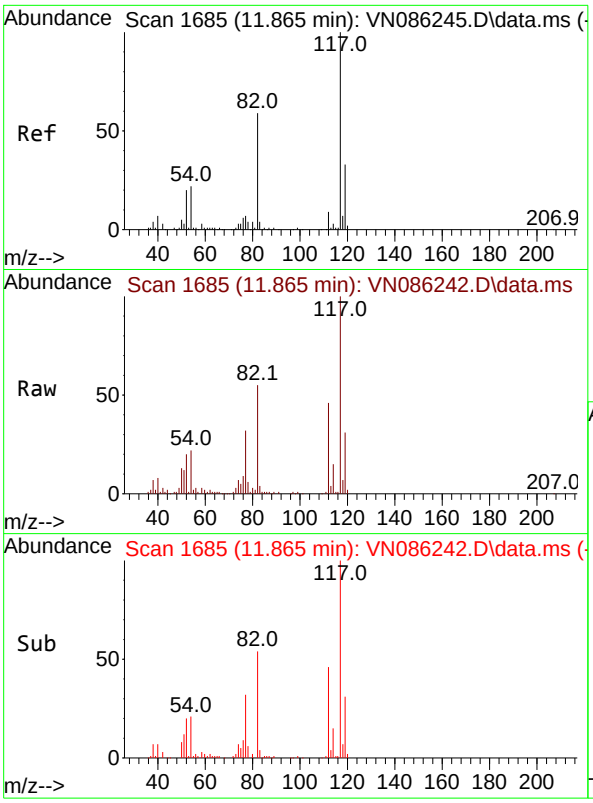


#56
Bromoform
Concen: 94.994 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:173 Resp: 105955

Ion	Ratio	Lower	Upper
173	100		
175	48.9	38.2	57.4
254	5.0	4.5	6.7

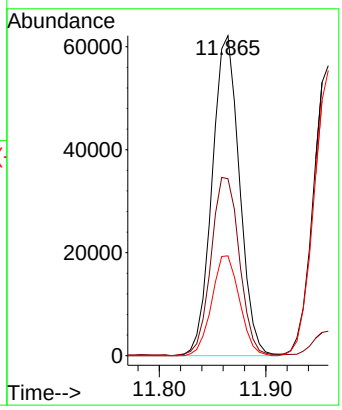




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:117 Resp: 11087

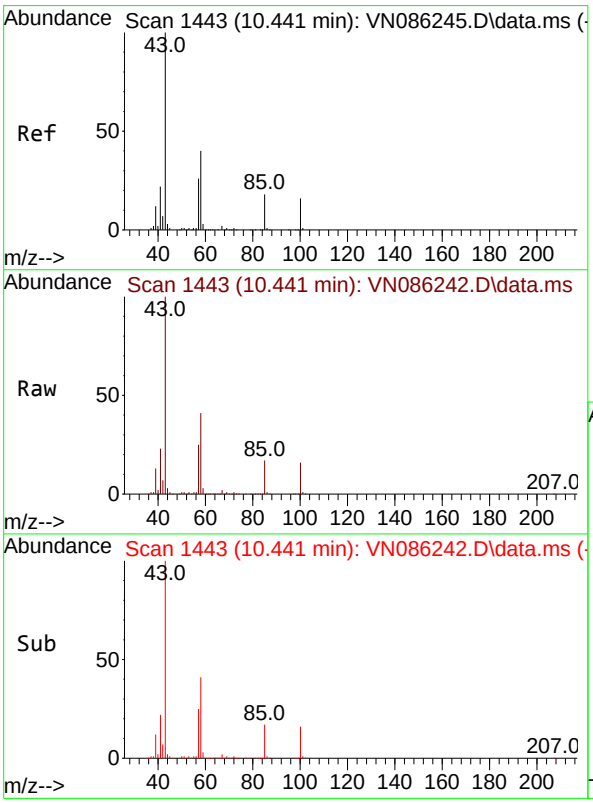
Ion	Ratio	Lower	Upper
117	100		
82	58.0	47.3	70.9
119	31.7	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

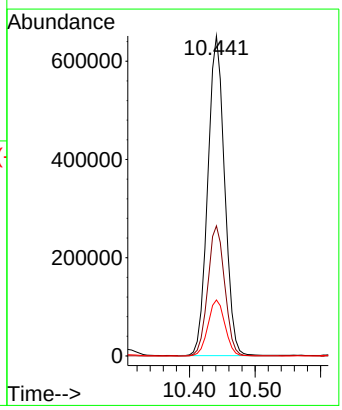
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

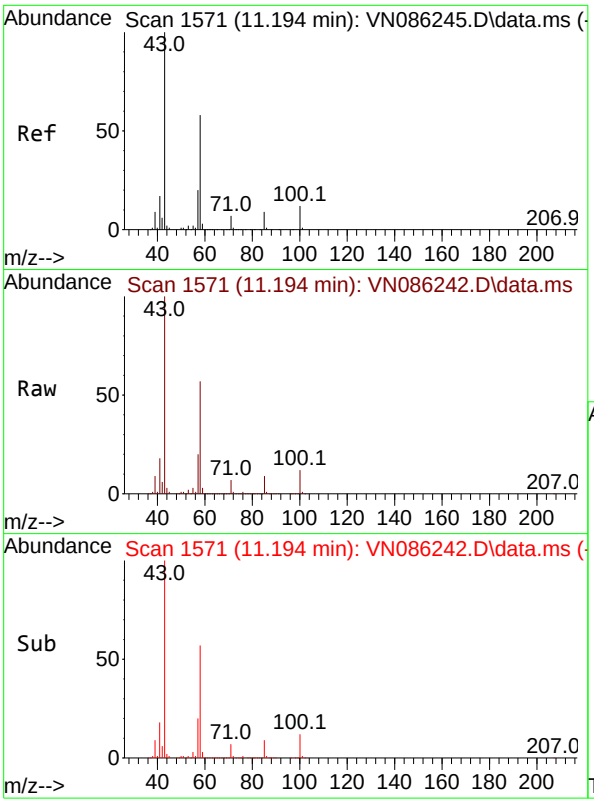


#58
4-Methyl-2-Pentanone
Concen: 460.173 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 1157830

Ion	Ratio	Lower	Upper
43	100		
58	40.9	32.5	48.7
85	17.7	14.4	21.6

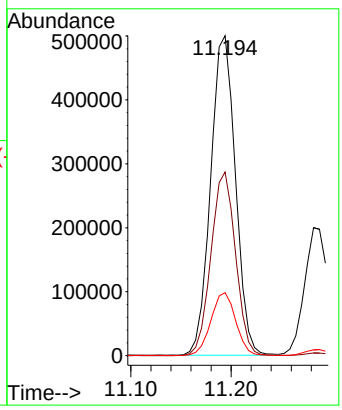




#59
2-Hexanone
Concen: 458.017 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 85811

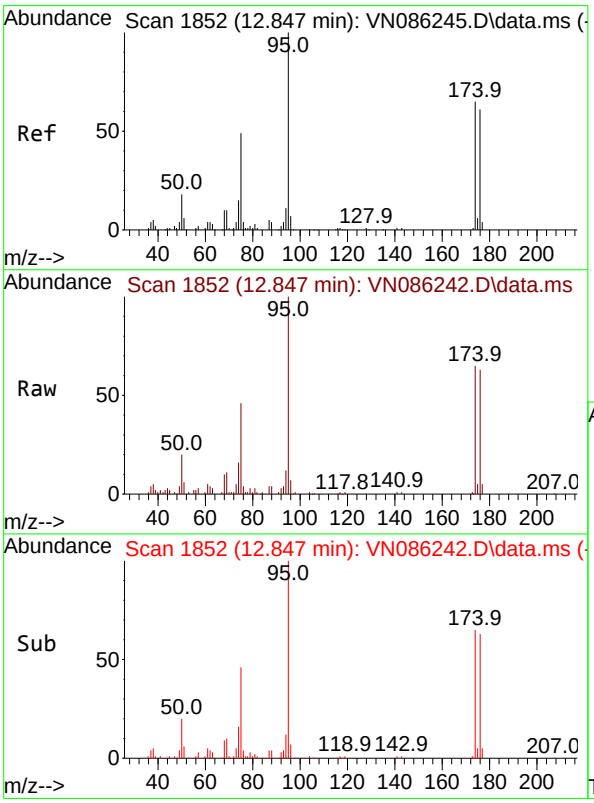
Ion	Ratio	Lower	Upper
43	100		
58	57.0	45.3	67.9
57	19.7	15.8	23.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

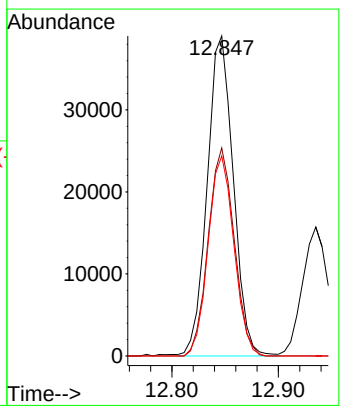
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

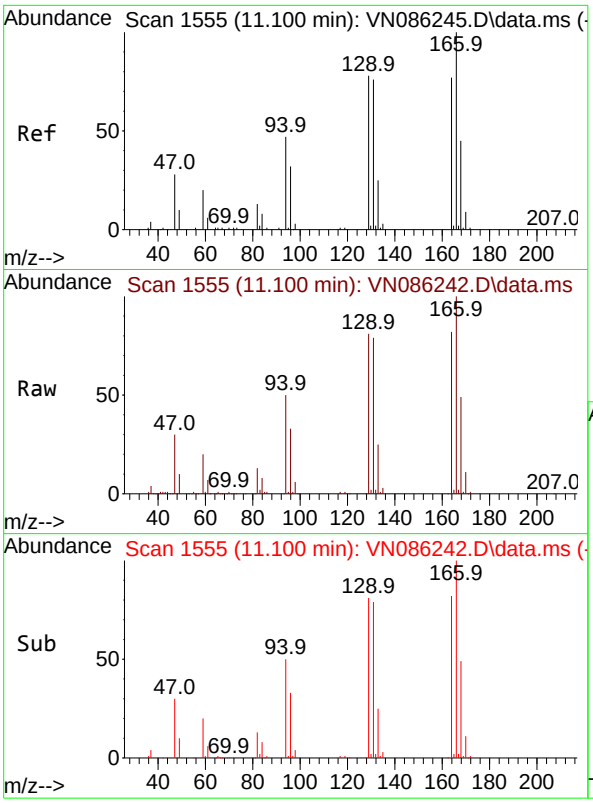


#60
4-Bromofluorobenzene
Concen: 30.135 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 95 Resp: 66521

Ion	Ratio	Lower	Upper
95	100		
174	64.5	52.7	79.1
176	61.5	49.8	74.8

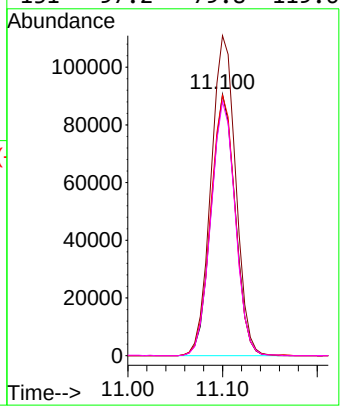




#61
Tetrachloroethene
Concen: 97.556 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:164 Resp: 15973

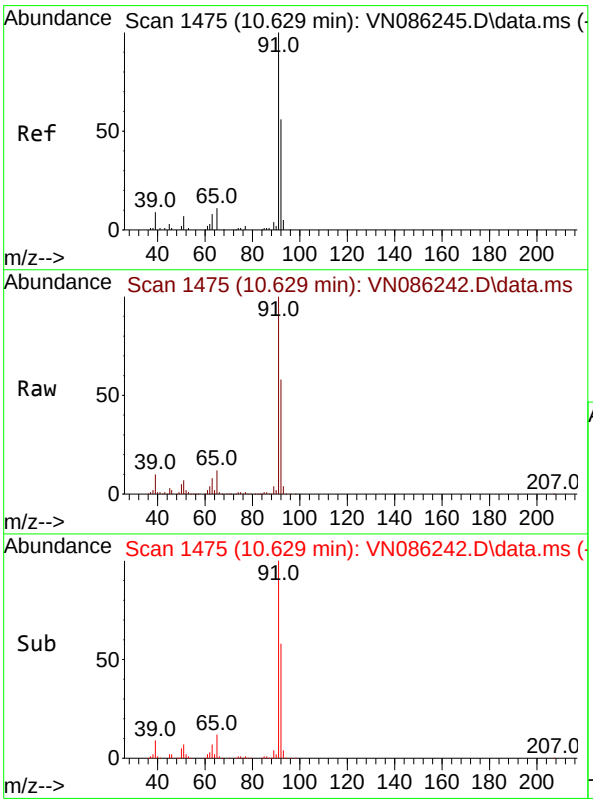
Ion	Ratio	Lower	Upper
164	100		
166	122.4	104.5	156.7
129	99.7	81.7	122.5
131	97.2	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

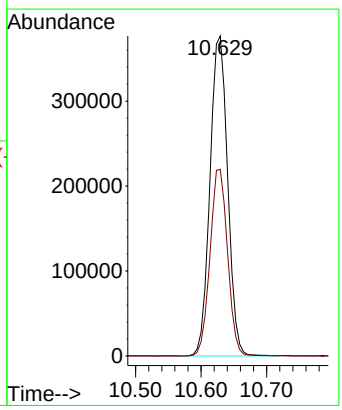
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

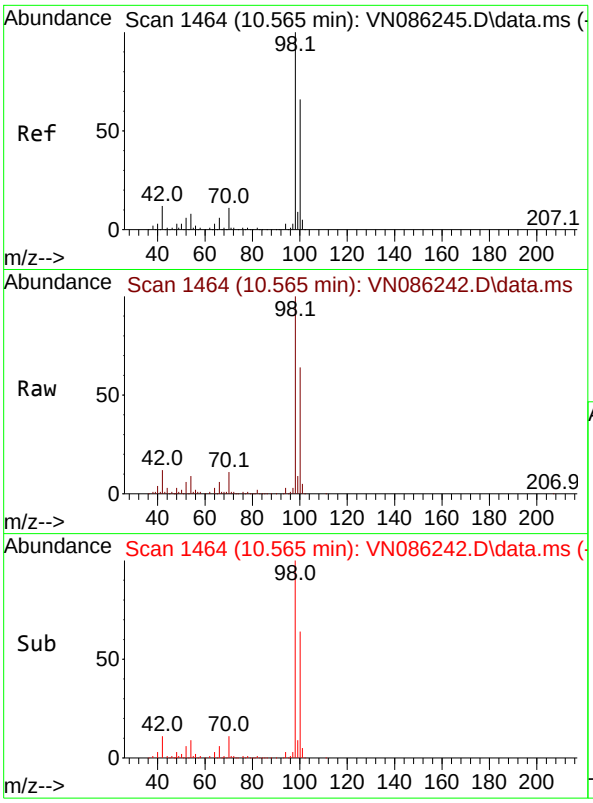


#62
Toluene
Concen: 94.810 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 705070

Ion	Ratio	Lower	Upper
91	100		
92	57.9	46.8	70.2

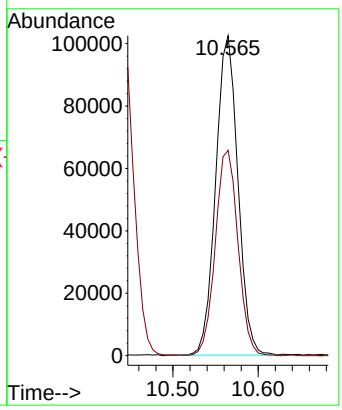




#63
Toluene-d8
Concen: 29.627 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 98 Resp: 18544

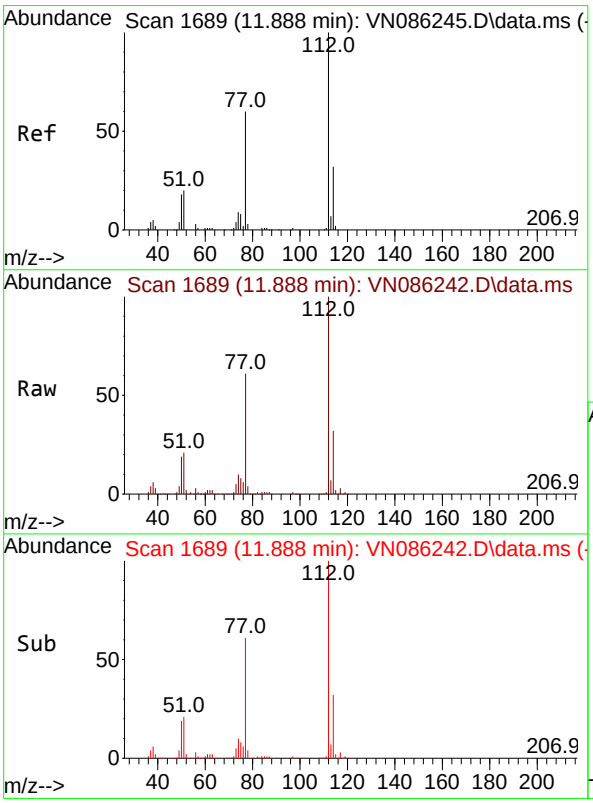
Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

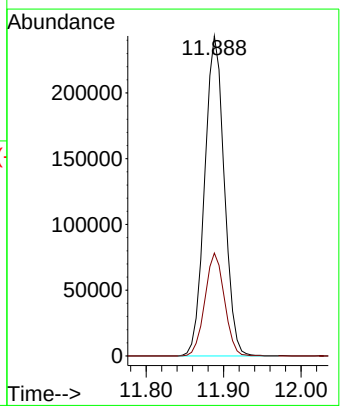
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

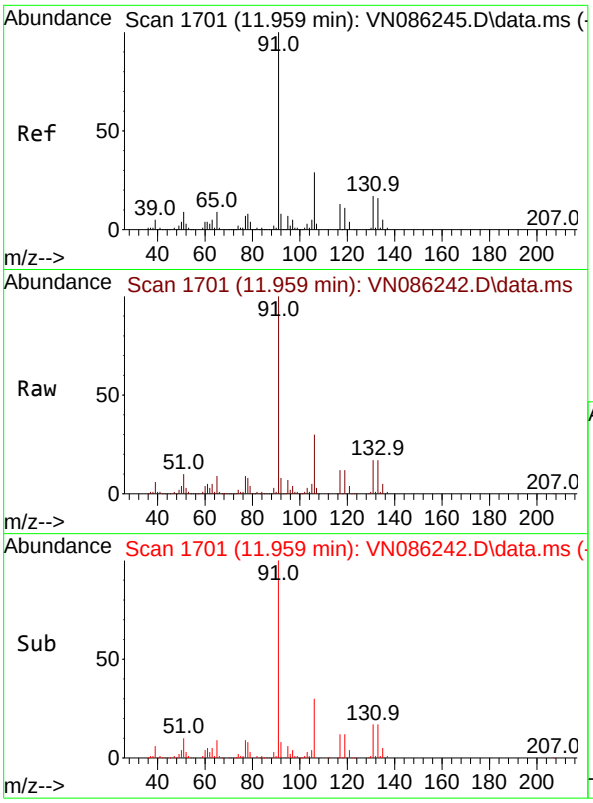


#64
Chlorobenzene
Concen: 94.040 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:112 Resp: 427265

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.6

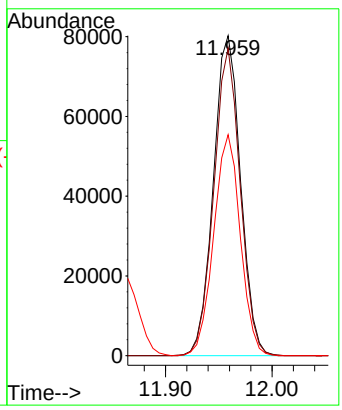




#65
1,1,1,2-Tetrachloroethane
Concen: 94.745 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:131 Resp: 14206

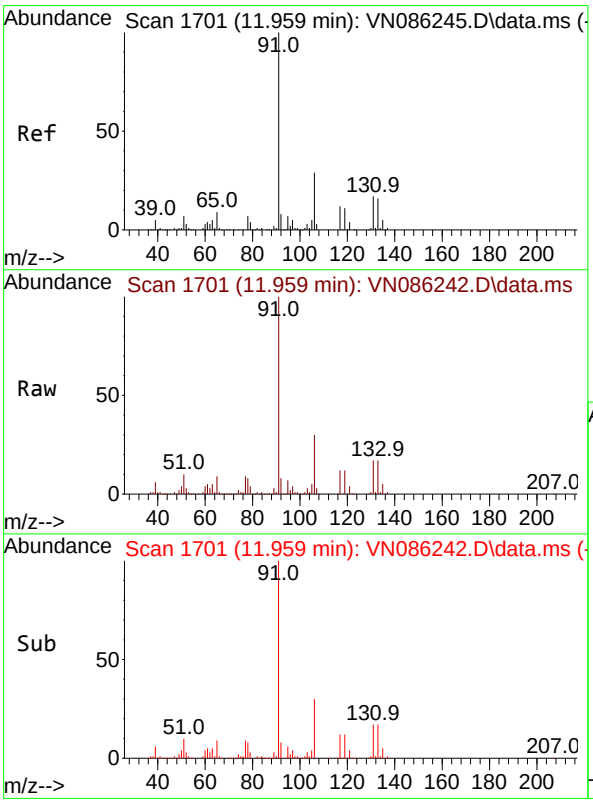
Ion	Ratio	Lower	Upper
131	100		
133	93.5	0.0	190.4
119	67.7	0.0	135.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

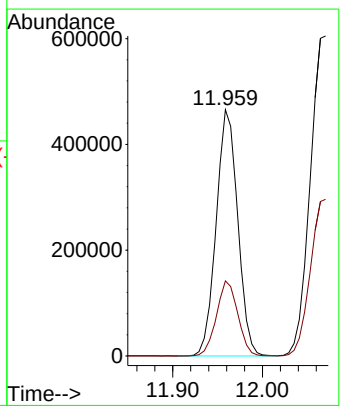
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

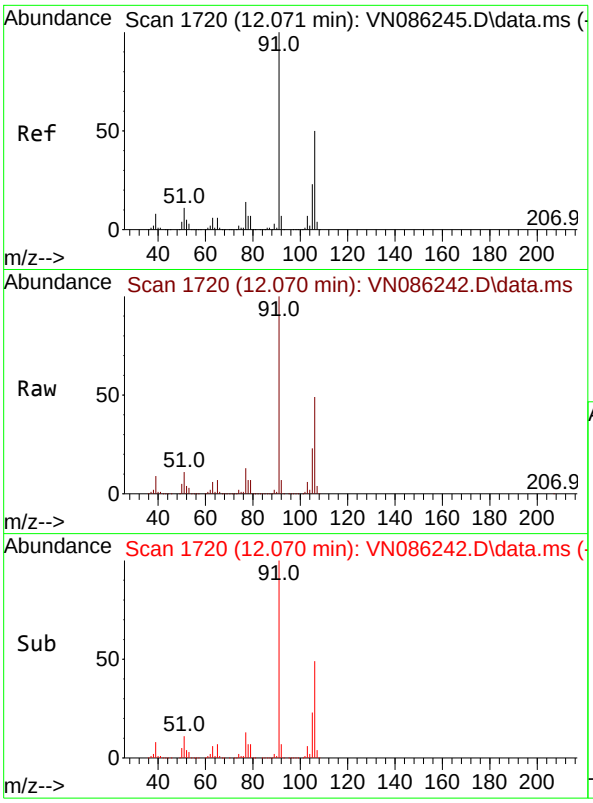


#66
Ethyl Benzene
Concen: 94.050 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 775657

Ion	Ratio	Lower	Upper
91	100		
106	30.5	23.4	35.0

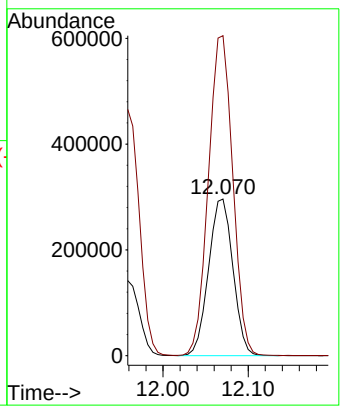




#67
m/p-Xylenes
Concen: 191.616 ug/l
RT: 12.070 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:106 Resp: 58762

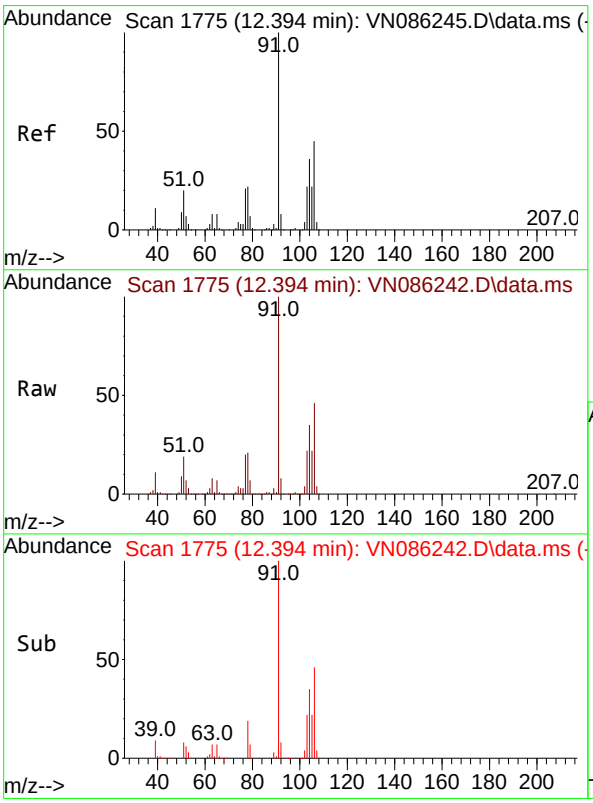
Ion	Ratio	Lower	Upper
106	100		
91	204.2	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

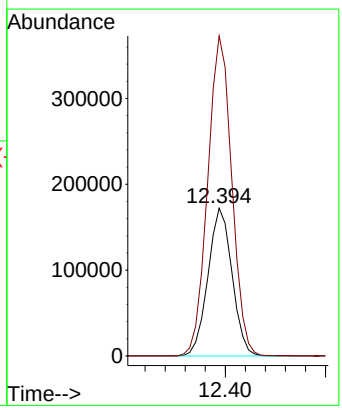
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

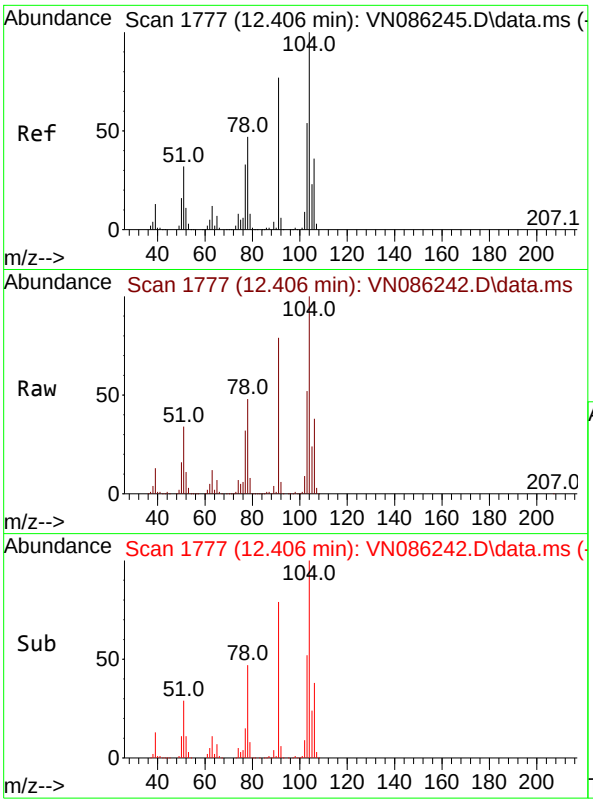


#68
o-Xylene
Concen: 95.205 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:106 Resp: 287174

Ion	Ratio	Lower	Upper
106	100		
91	216.6	109.8	329.4

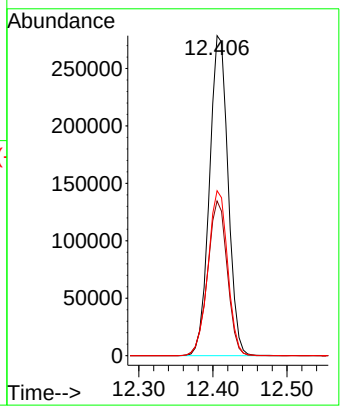




#69
Styrene
Concen: 95.537 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:104 Resp: 48600

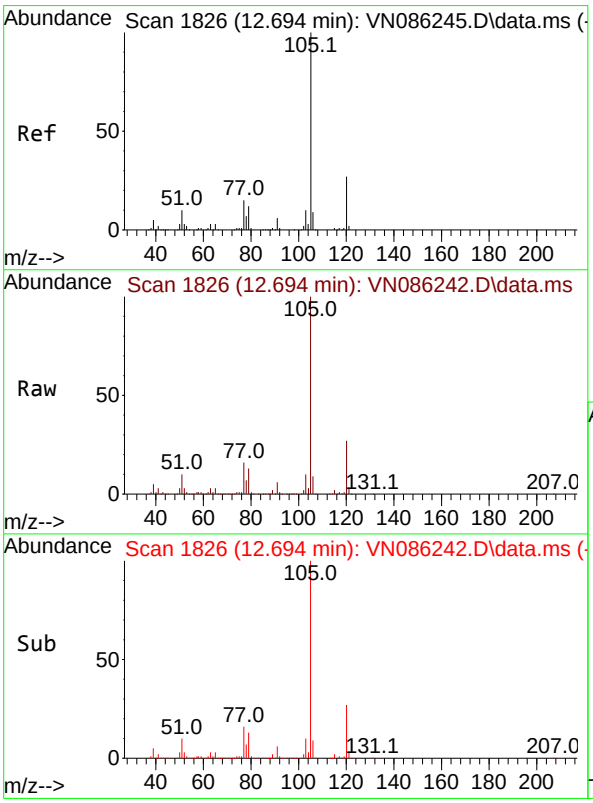
Ion	Ratio	Lower	Upper
104	100		
78	50.9	41.4	62.0
103	54.3	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

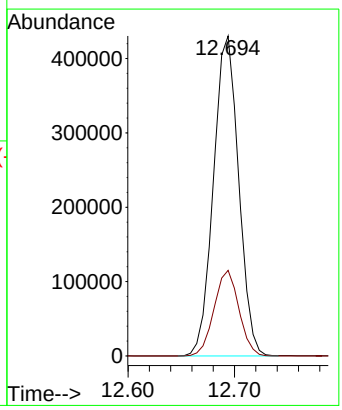
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

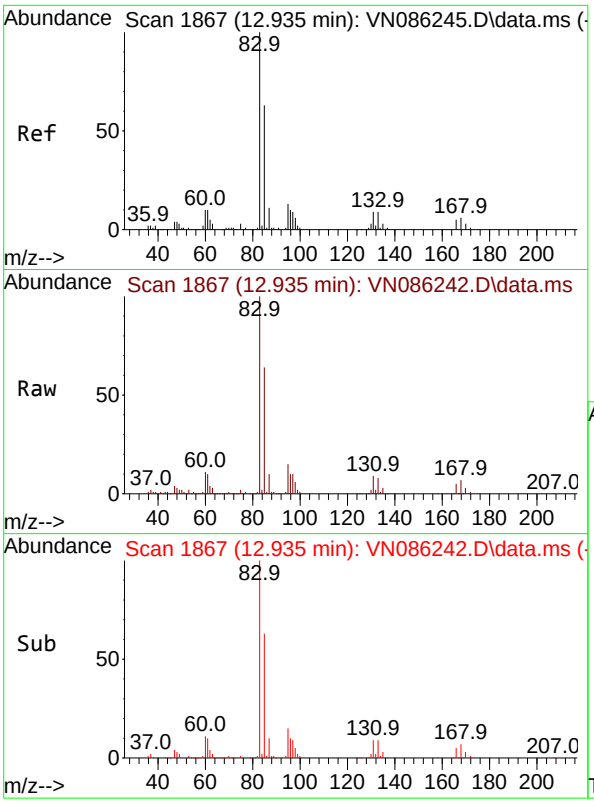


#70
Isopropylbenzene
Concen: 94.920 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 705950

Ion	Ratio	Lower	Upper
105	100		
120	26.4	18.3	34.1





#71
1,1,2,2-Tetrachloroethane
Concen: 87.222 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

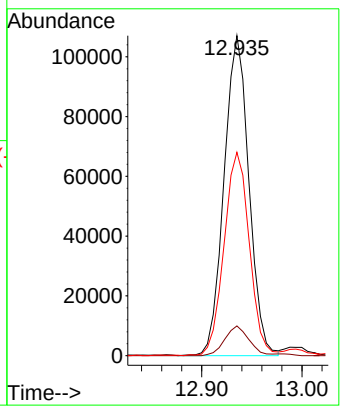
Tgt Ion: 83 Resp: 18464

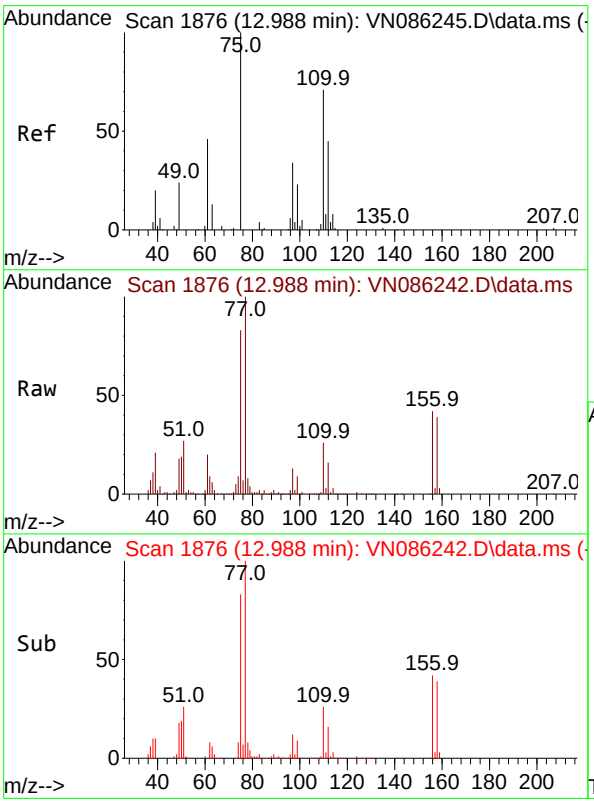
Ion	Ratio	Lower	Upper
83	100		
131	9.0	4.8	14.3
85	64.2	32.3	96.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

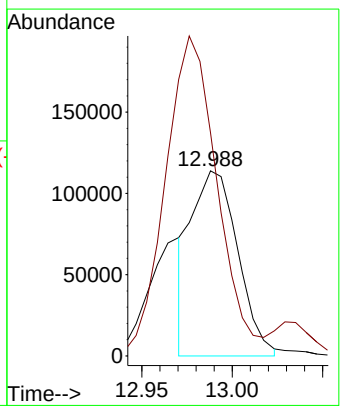


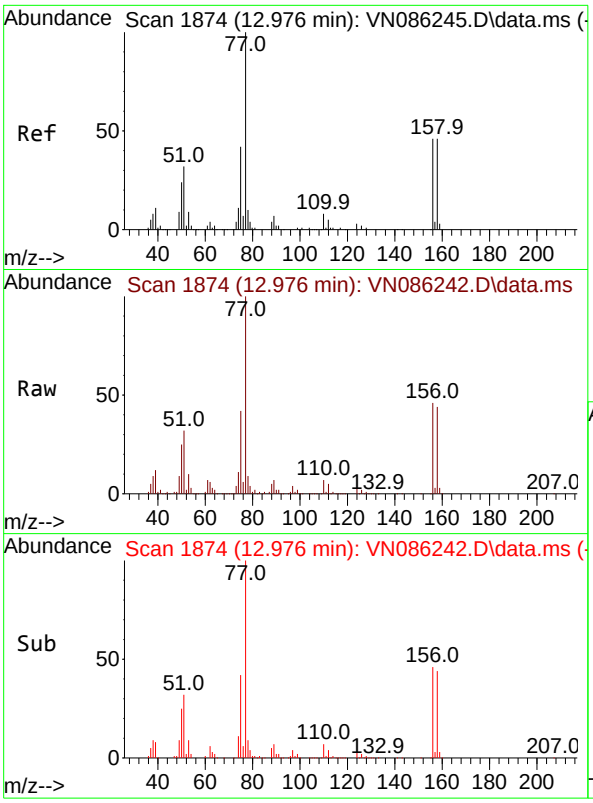


#72
1,2,3-Trichloropropane
Concen: 67.831 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 203289

Ion	Ratio	Lower	Upper
75	100		
77	193.6	0.0	380.0

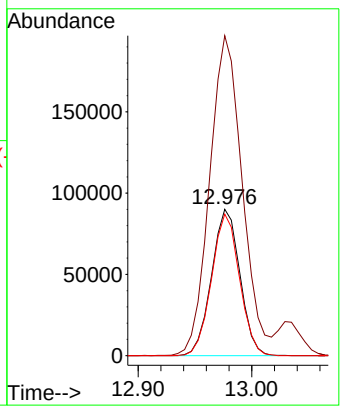




#73
Bromobenzene
Concen: 94.613 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:156 Resp: 15588

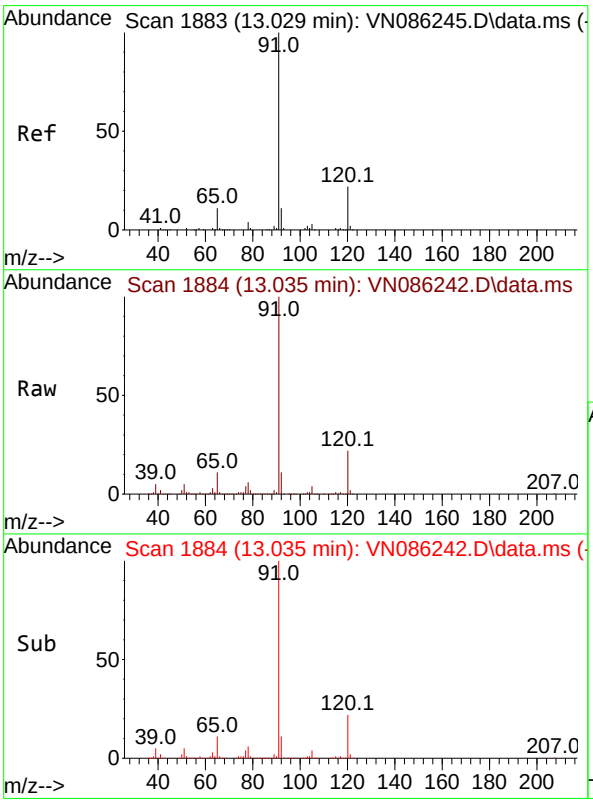
Ion	Ratio	Lower	Upper
156	100		
77	252.4	0.0	505.2
158	95.6	0.0	195.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

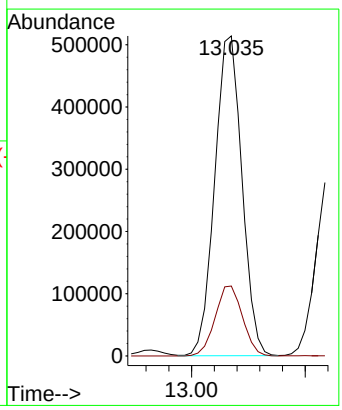
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

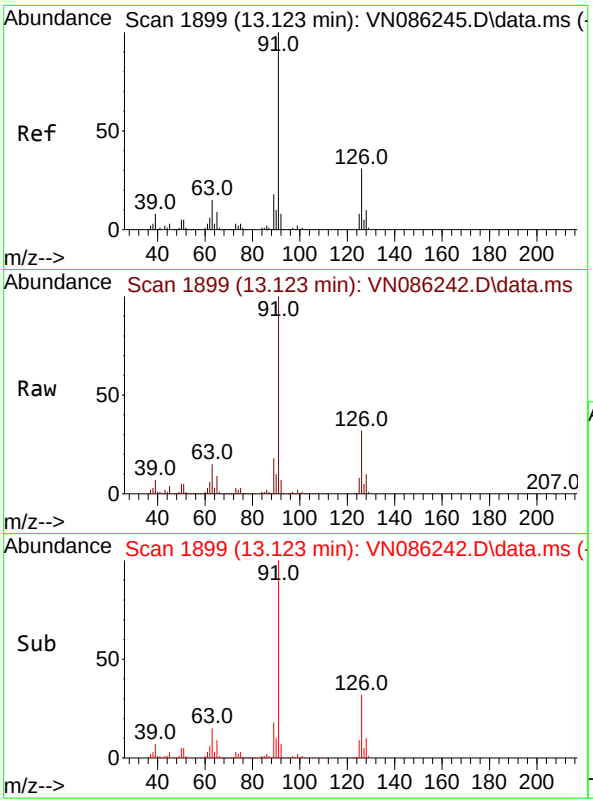


#74
n-propylbenzene
Concen: 96.989 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 854262

Ion	Ratio	Lower	Upper
91	100		
120	22.0	0.0	44.0

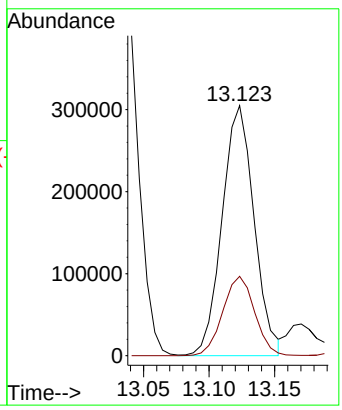




#75
2-Chlorotoluene
Concen: 93.916 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 51841

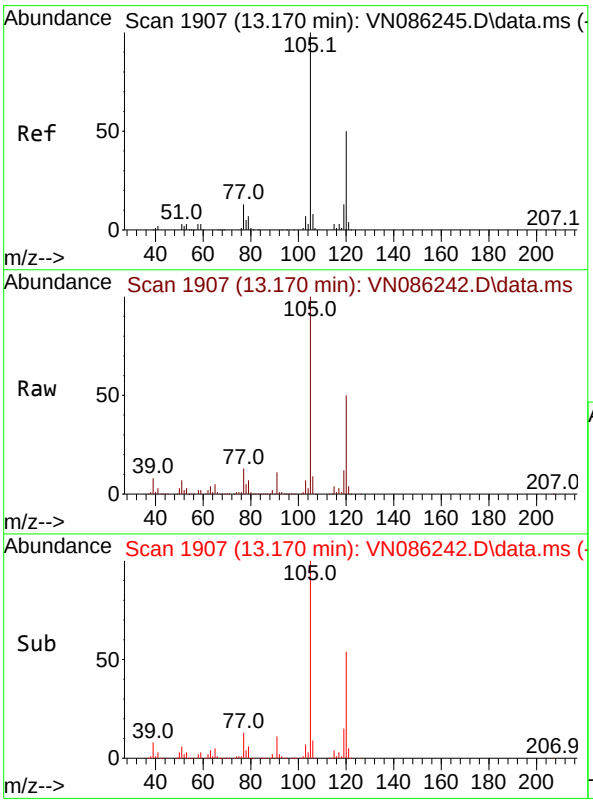
Ion	Ratio	Lower	Upper
91	100		
126	31.6	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

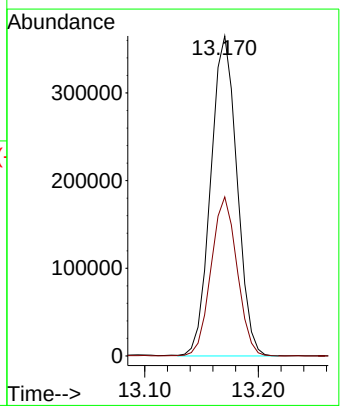
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

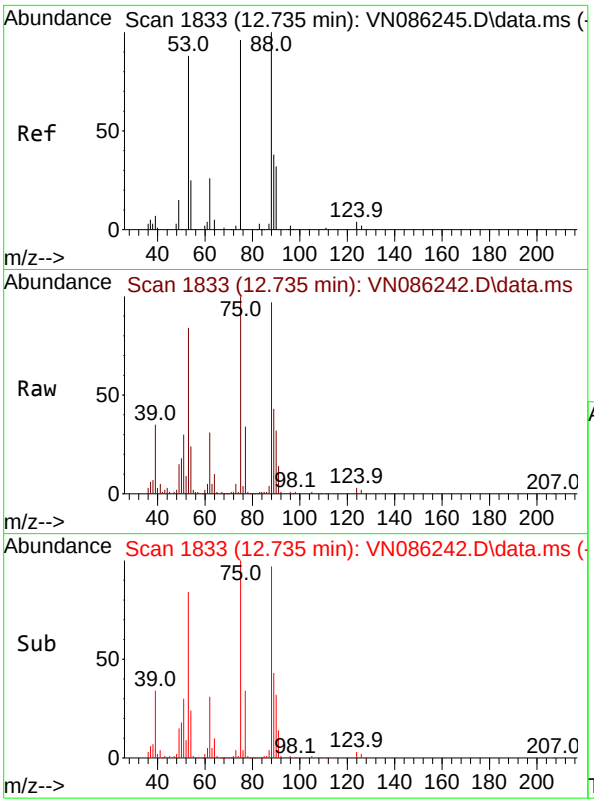


#76
1,3,5-Trimethylbenzene
Concen: 95.970 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 586325

Ion	Ratio	Lower	Upper
105	100		
120	49.1	0.0	98.0

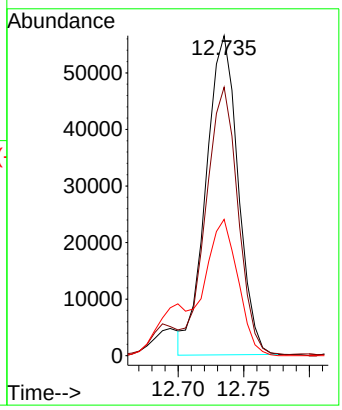




#77
t-1,4-Dichloro-2-butene
Concen: 94.184 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 9569

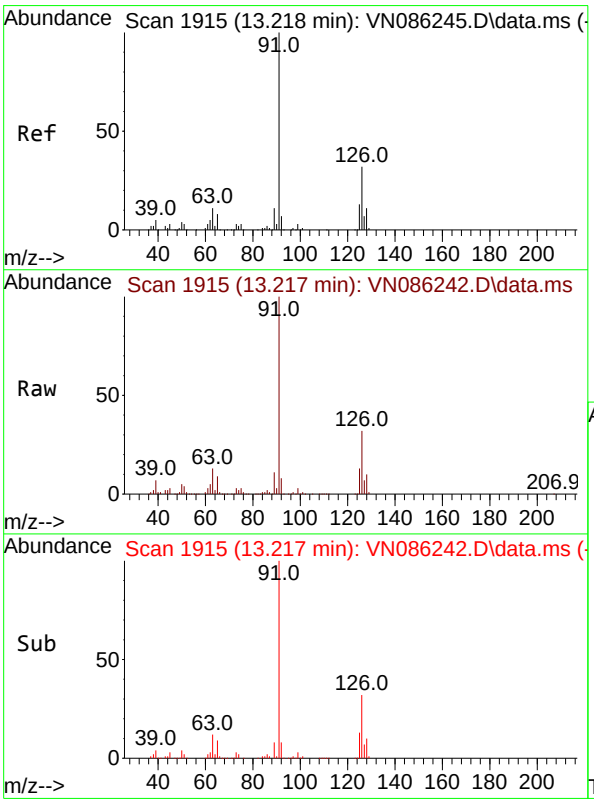
Ion	Ratio	Lower	Upper
75	100		
53	83.6	46.4	139.2
89	42.8	22.5	67.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

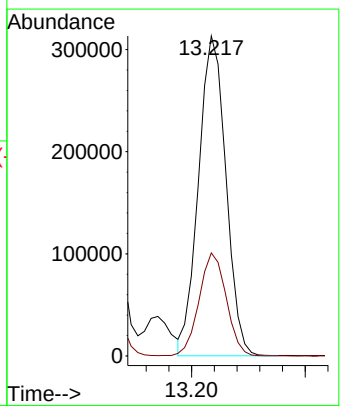
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

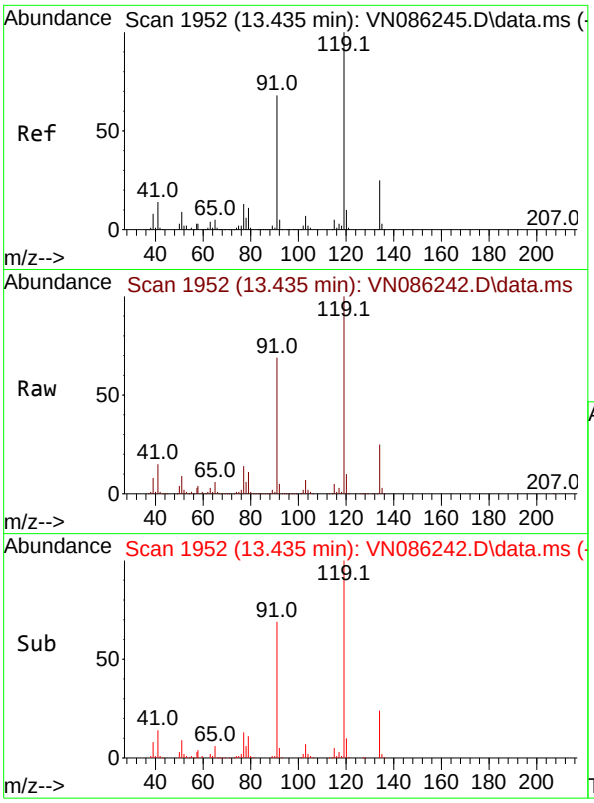


#78
4-Chlorotoluene
Concen: 95.194 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 524792

Ion	Ratio	Lower	Upper
91	100		
126	32.0	0.0	63.2

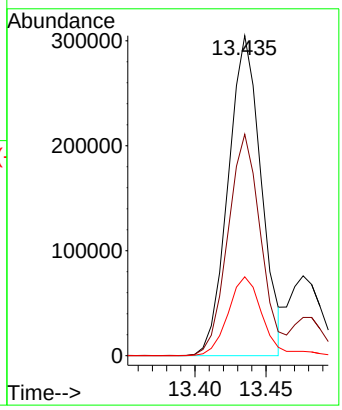




#79
tert-butylbenzene
Concen: 93.090 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:119 Resp: 49211

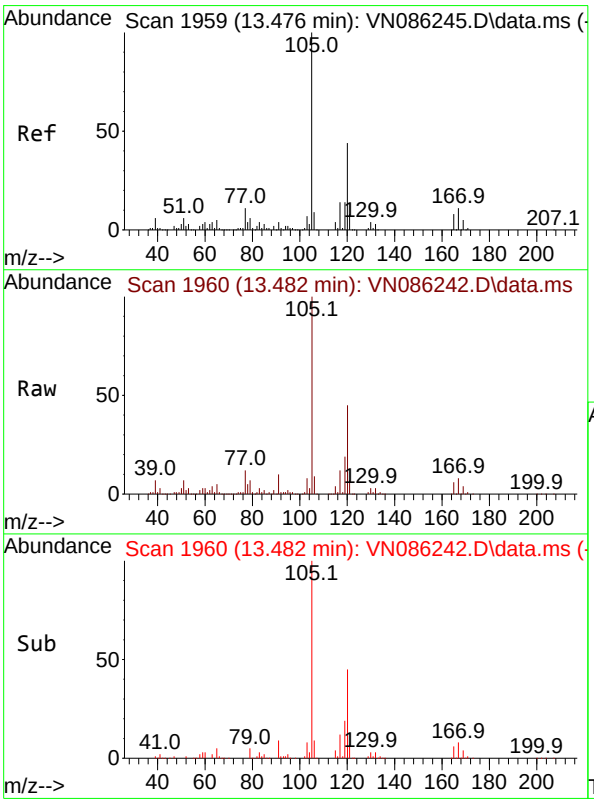
Ion	Ratio	Lower	Upper
119	100		
91	69.3	0.0	136.6
134	24.8	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

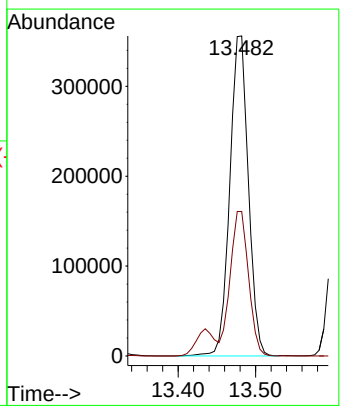
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

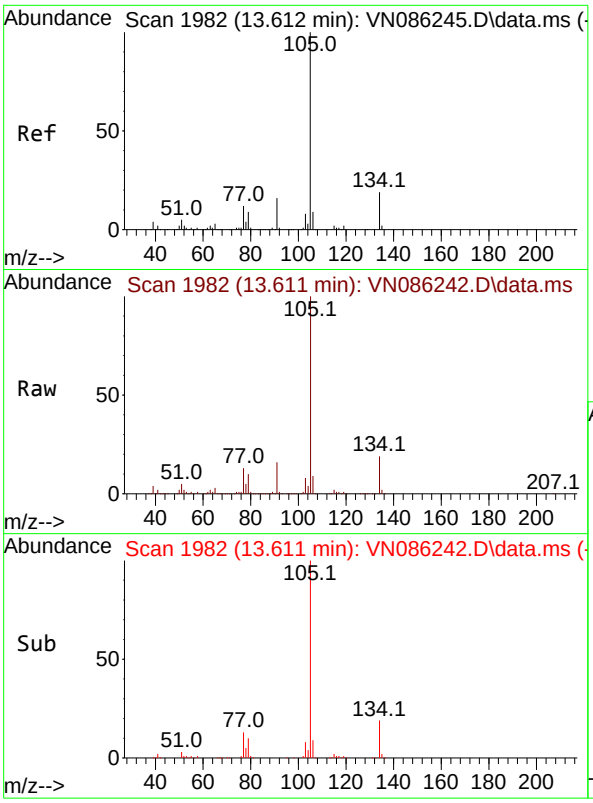


#80
1,2,4-Trimethylbenzene
Concen: 95.880 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 593988

Ion	Ratio	Lower	Upper
105	100		
120	44.6	0.0	91.0

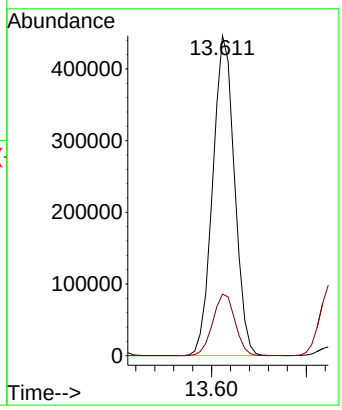




#81
sec-Butylbenzene
Concen: 96.423 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 71103

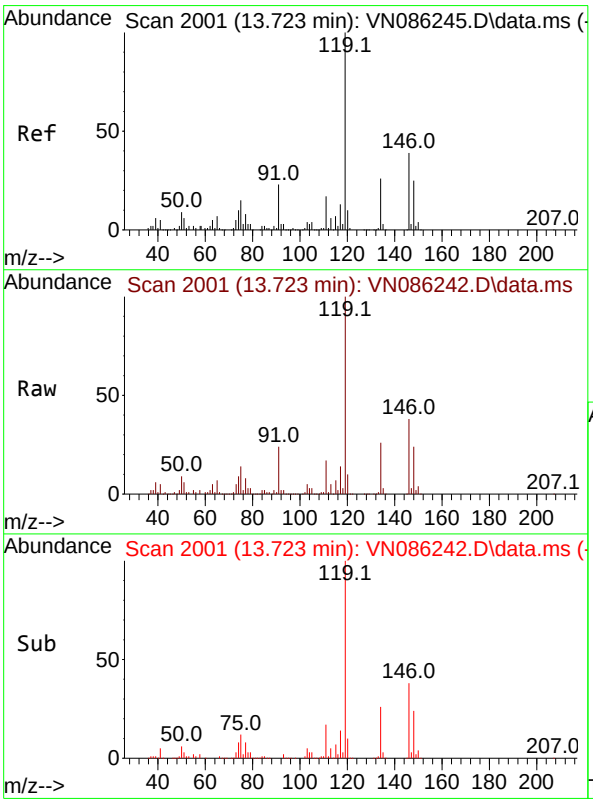
Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

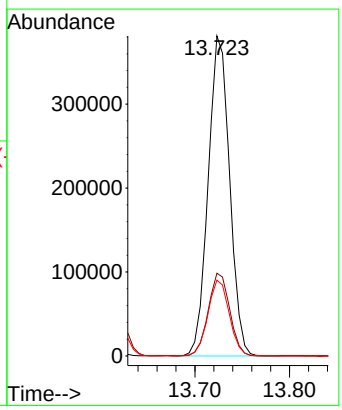
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

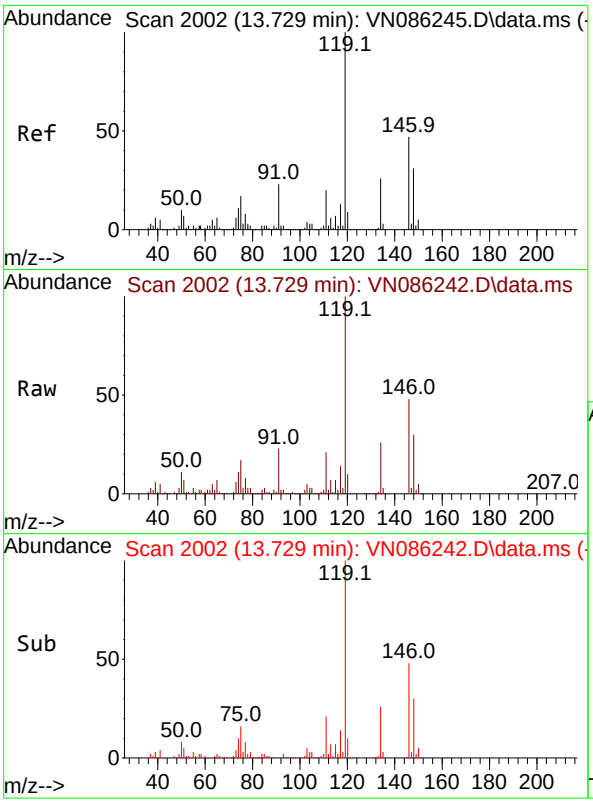


#82
p-Isopropyltoluene
Concen: 97.402 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:119 Resp: 599176

Ion	Ratio	Lower	Upper
119	100		
134	25.9	0.0	51.6
91	23.6	0.0	48.2

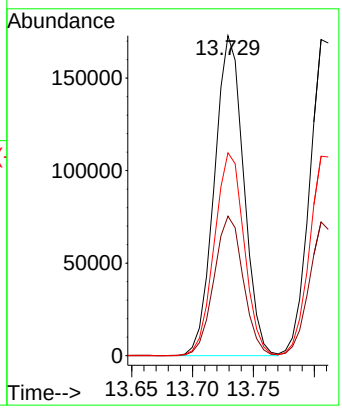




#83
1,3-Dichlorobenzene
Concen: 94.739 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:146 Resp: 29011

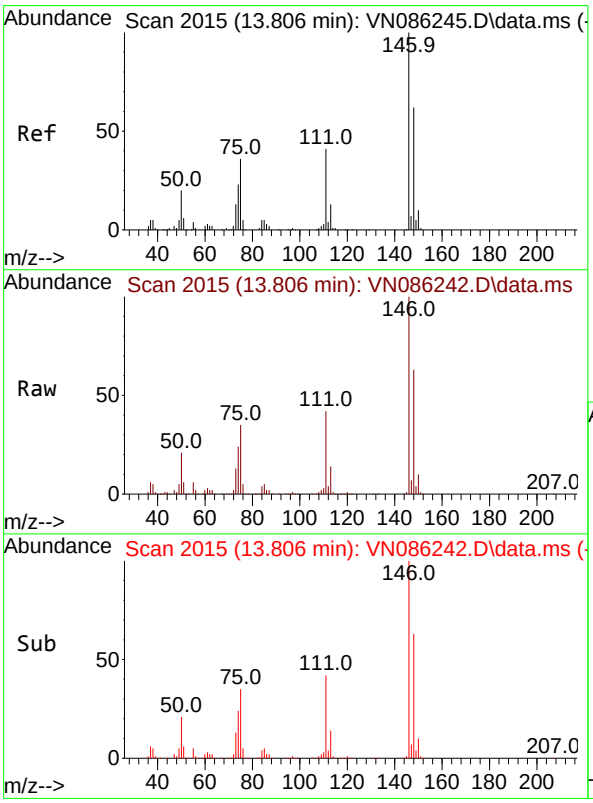
Ion	Ratio	Lower	Upper
146	100		
111	43.7	21.7	65.1
148	64.4	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

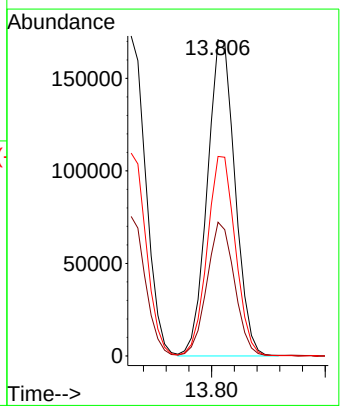
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

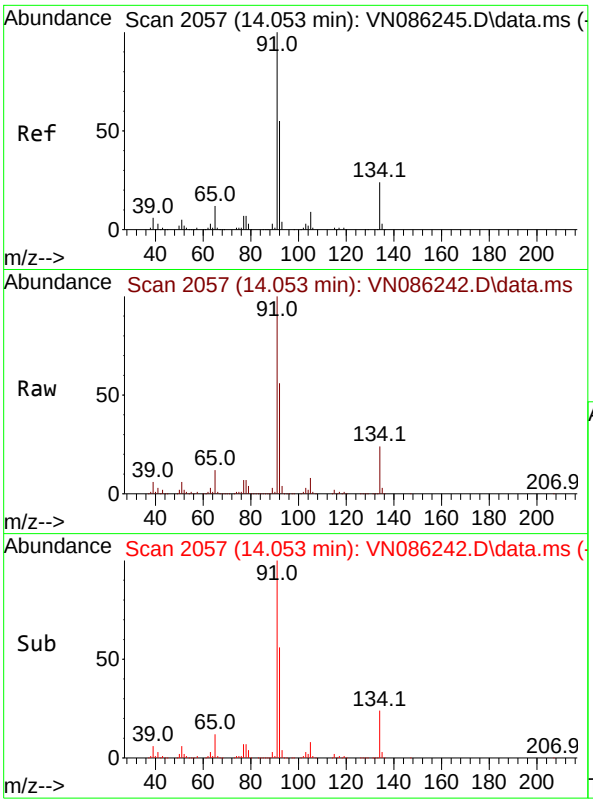


#84
1,4-Dichlorobenzene
Concen: 94.482 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:146 Resp: 290254

Ion	Ratio	Lower	Upper
146	100		
111	42.1	20.8	62.4
148	63.8	31.9	95.5

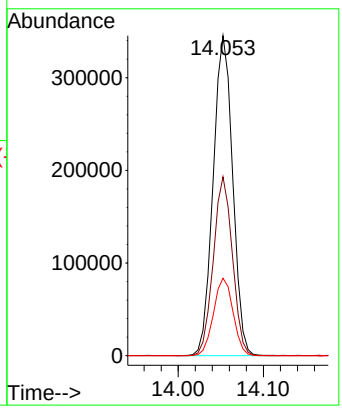




#85
n-Butylbenzene
Concen: 99.247 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 55077

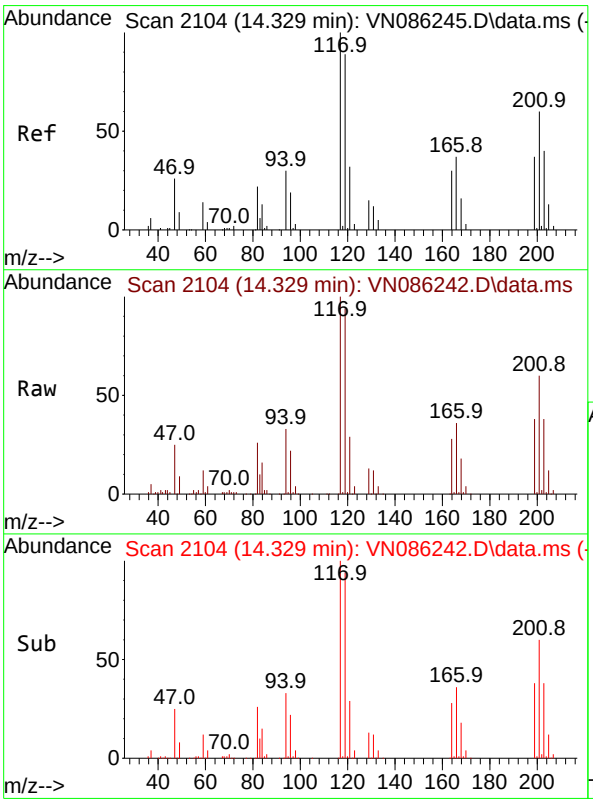
Ion	Ratio	Lower	Upper
91	100		
92	54.5	0.0	109.4
134	24.2	0.0	48.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

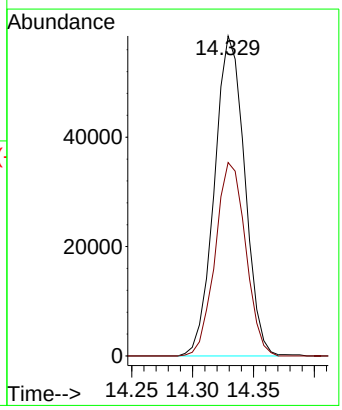
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

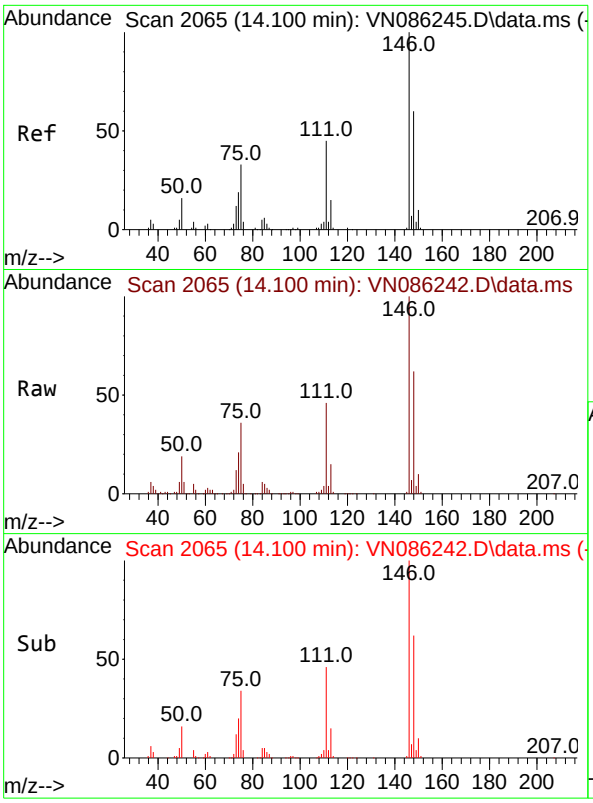


#86
Hexachloroethane
Concen: 97.469 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:117 Resp: 101143

Ion	Ratio	Lower	Upper
117	100		
201	60.7	30.9	92.8

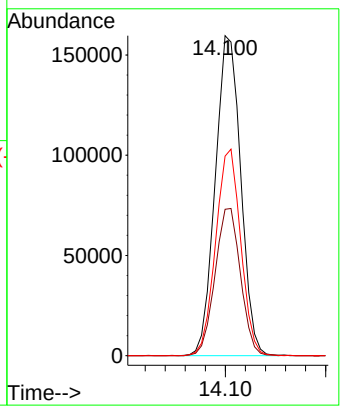




#87
1,2-Dichlorobenzene
Concen: 93.023 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:146 Resp: 28126

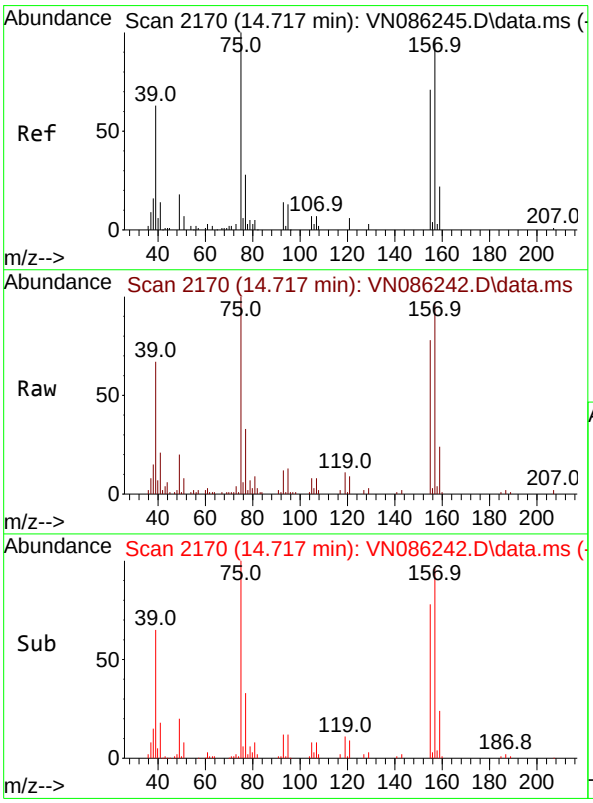
Ion	Ratio	Lower	Upper
146	100		
111	45.9	22.7	68.0
148	63.4	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

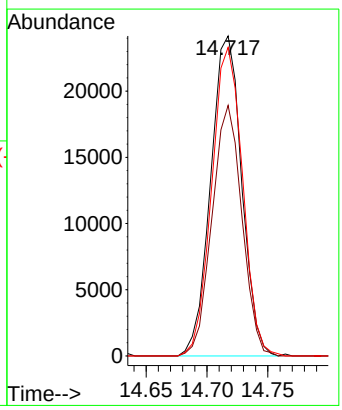
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

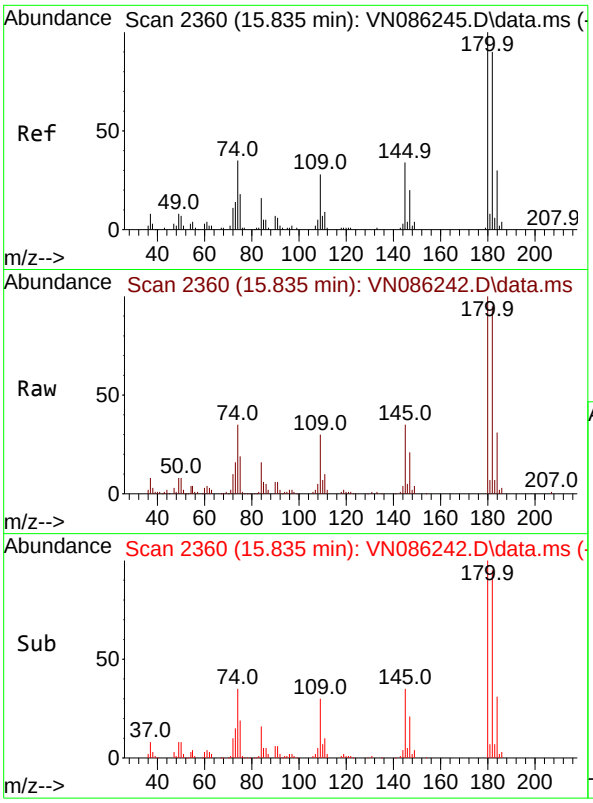


#88
1,2-Dibromo-3-Chloropropane
Concen: 88.876 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 42853

Ion	Ratio	Lower	Upper
75	100		
155	75.5	60.3	90.5
157	95.8	79.0	118.4

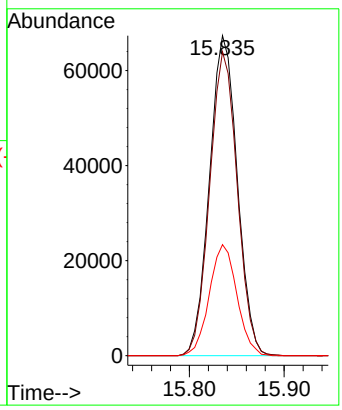




#89
1,2,4-Trichlorobenzene
Concen: 93.313 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:180 Resp: 13727

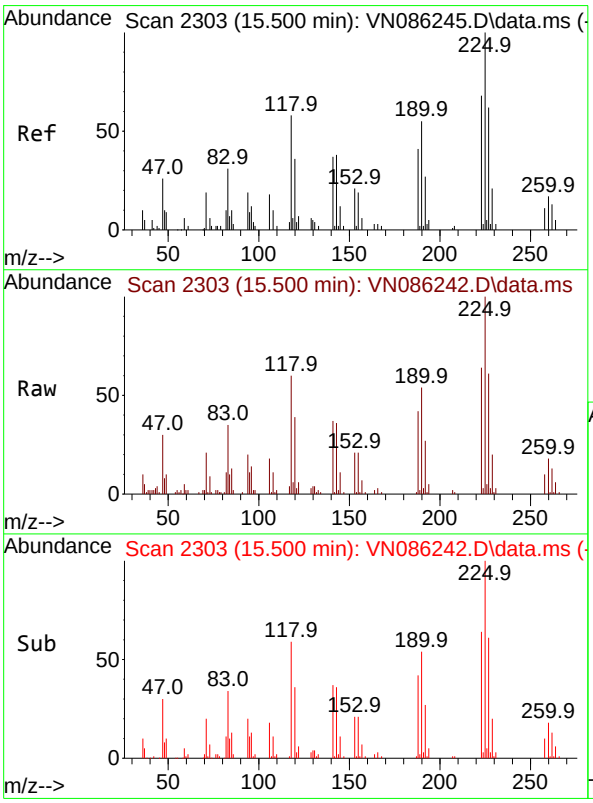
Ion	Ratio	Lower	Upper
180	100		
182	94.1	75.1	112.7
145	34.5	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

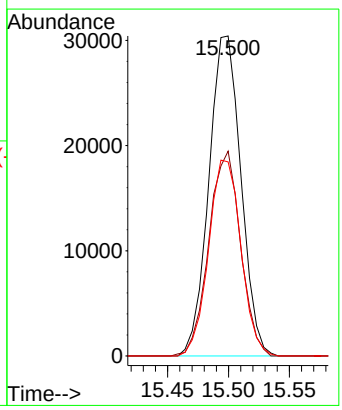
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

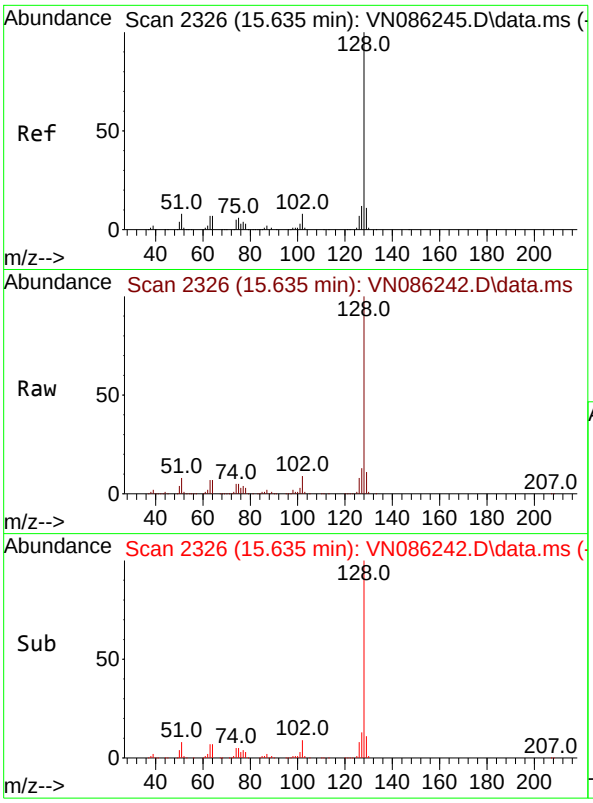


#90
Hexachlorobutadiene
Concen: 87.904 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:225 Resp: 55837

Ion	Ratio	Lower	Upper
225	100		
223	63.1	0.0	130.0
227	61.5	0.0	123.2

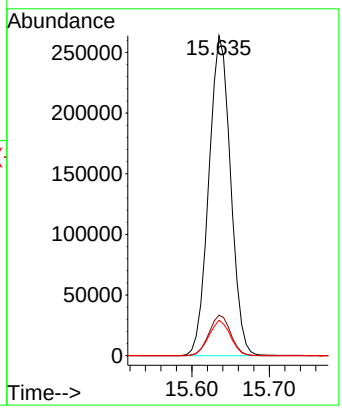




#91
Naphthalene
Concen: 88.964 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:128 Resp: 51603

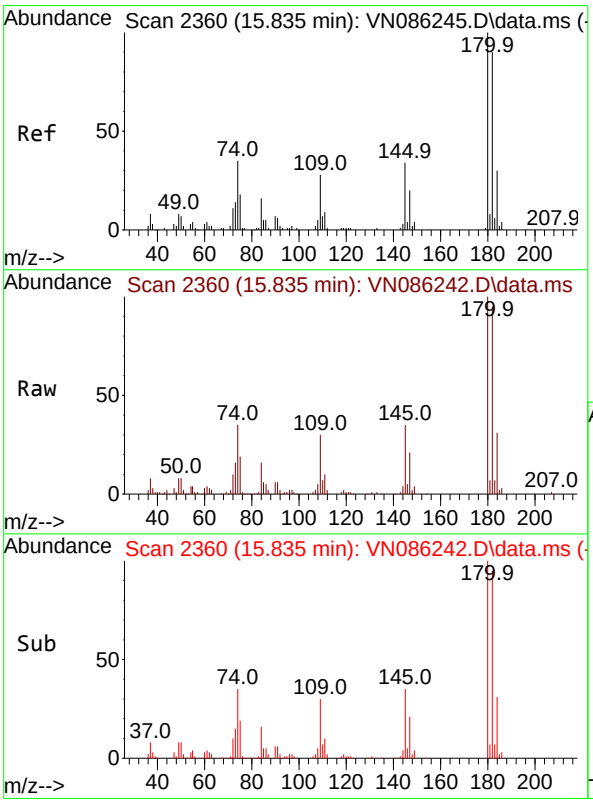
Ion	Ratio	Lower	Upper
128	100		
127	12.6	10.2	15.2
129	10.9	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

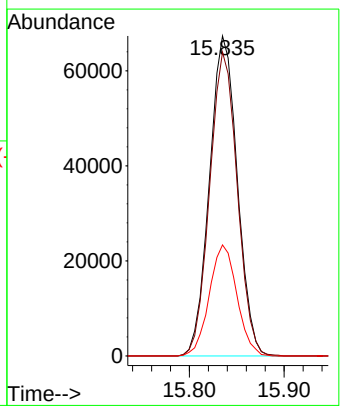
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 93.313 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:180 Resp: 137279

Ion	Ratio	Lower	Upper
180	100		
182	94.1	0.0	187.8
145	34.5	0.0	67.8



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086244.D
Acq On : 11 Apr 2025 11:52
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 12 00:19:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	34719	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	212849	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	191848	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	101225	29.892	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 99.633%			
60) 4-Bromofluorobenzene	12.847	95	116379	30.469	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 101.567%			
63) Toluene-d8	10.565	98	321243	29.660	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.867%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	159577	57.365	ug/l	99
3) Chloromethane	2.359	50	209307	54.440	ug/l	98
4) Vinyl Chloride	2.512	62	204553	55.856	ug/l	98
5) Bromomethane	2.953	94	94764	51.877	ug/l	93
6) Chloroethane	3.118	64	126545	54.720	ug/l	98
7) Trichlorofluoromethane	3.495	101	224704	56.563	ug/l	99
8) Diethyl Ether	3.959	74	100444	54.826	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.365	101	137760	56.236	ug/l	97
10) 1,1-Dichloroethene	4.342	96	142552	53.920	ug/l	95
11) Methyl Iodide	4.583	142	172223	56.678	ug/l	98
12) Methyl Acetate	5.024	43	216174	57.904	ug/l	98
13) Acrolein	4.177	56	95048	223.977	ug/l	99
14) Acrylonitrile	5.712	53	435610	276.391	ug/l	98
15) Acetone	4.424	58	112588	281.504	ug/l	93
16) Carbon Disulfide	4.712	76	388287	51.220	ug/l	99
17) Allyl chloride	5.018	41	250898	54.451	ug/l	99
18) Methylene Chloride	5.277	84	160052	53.099	ug/l	97
19) trans-1,2-Dichloroethene	5.789	96	147953	62.042	ug/l	98
20) Diisopropyl ether	6.671	45	559920	56.516	ug/l	97
21) 1,1-Dichloroethane	6.571	63	294059	55.639	ug/l	98
22) cis-1,2-Dichloroethene	7.482	96	179457	54.098	ug/l	97
23) tert-Butyl Alcohol	5.512	59	185093	283.431	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	526838	55.313	ug/l	98
25) Chloroform	7.965	83	279630	55.484	ug/l	96
26) Cyclohexane	8.253	56	278241	56.272	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	210025	55.081	ug/l	99
30) 2-Butanone	7.477	43	596520	282.334	ug/l	99
31) 2,2-Dichloropropane	7.488	77	260037	55.404	ug/l	97
32) 1,1,1-Trichloroethane	8.165	97	240887	54.920	ug/l	99
33) Carbon Tetrachloride	8.359	117	199323	56.865	ug/l	97
34) Benzene	8.606	78	666877	54.974	ug/l	98
35) Methacrylonitrile	7.777	41	129688	54.448	ug/l	99
36) 1,2-Dichloroethane	8.665	62	209738	55.252	ug/l	97
37) Trichloroethene	9.347	130	164224	56.109	ug/l	90
38) Methylcyclohexane	9.600	83	253415	54.191	ug/l	99
39) 1,2-Dichloropropane	9.618	63	168378	55.783	ug/l	98
40) Dibromomethane	9.706	93	106697	54.730	ug/l	99
41) Bromodichloromethane	9.888	83	225600	53.865	ug/l	97
42) Vinyl Acetate	6.600	43	1937093	269.341	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086244.D
Acq On : 11 Apr 2025 11:52
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 12 00:19:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	233433	54.775	ug/l		98
44) Isopropyl Acetate	8.682	43	419280	53.034	ug/l		99
45) 1,4-Dioxane	9.688	88	71351	1134.960	ug/l	#	95
46) Methyl methacrylate	9.676	41	197782	56.778	ug/l		99
47) n-amyl Acetate	12.488	43	354004	55.417	ug/l		99
48) t-1,3-Dichloropropene	10.835	75	264279	55.817	ug/l		99
49) cis-1,3-Dichloropropene	10.306	75	277506	55.377	ug/l		97
50) 1,1,2-Trichloroethane	11.012	97	149001	54.493	ug/l		98
51) Ethyl methacrylate	10.871	69	283112	55.717	ug/l		96
52) 1,3-Dichloropropane	11.159	76	271010	55.609	ug/l		100
53) Dibromochloromethane	11.359	129	166341	55.616	ug/l		99
54) 1,2-Dibromoethane	11.465	107	152197	55.141	ug/l		100
55) 2-Chloroethyl vinyl ether	10.159	63	685916	357.238	ug/l		99
56) Bromoform	12.576	173	110623	56.534	ug/l		100
58) 4-Methyl-2-Pentanone	10.441	43	1212140	278.421	ug/l		99
59) 2-Hexanone	11.194	43	912206	281.386	ug/l		99
61) Tetrachloroethene	11.100	164	160227	56.555	ug/l		98
62) Toluene	10.629	91	709533	55.140	ug/l		100
64) Chlorobenzene	11.888	112	434051	55.211	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	145468	56.068	ug/l		99
66) Ethyl Benzene	11.959	91	797966	55.917	ug/l		97
67) m/p-Xylenes	12.070	106	600484	113.164	ug/l		100
68) o-Xylene	12.394	106	294512	56.428	ug/l		99
69) Styrene	12.406	104	499886	56.790	ug/l		99
70) Isopropylbenzene	12.694	105	727241	56.511	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	194327	53.052	ug/l		99
72) 1,2,3-Trichloropropane	12.988	75	211703m	40.824	ug/l		
73) Bromobenzene	12.976	156	161325	56.588	ug/l		99
74) n-propylbenzene	13.035	91	865912	56.817	ug/l		100
75) 2-Chlorotoluene	13.123	91	539350	56.468	ug/l		100
76) 1,3,5-Trimethylbenzene	13.170	105	596201	56.398	ug/l		100
77) t-1,4-Dichloro-2-butene	12.735	75	100158	56.970	ug/l		92
78) 4-Chlorotoluene	13.217	91	541691	56.787	ug/l		100
79) tert-butylbenzene	13.435	119	506518	55.374	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	611389	57.035	ug/l		99
81) sec-Butylbenzene	13.612	105	714247	55.977	ug/l		99
82) p-Isopropyltoluene	13.723	119	604494	56.791	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	306241	57.795	ug/l		99
84) 1,4-Dichlorobenzene	13.812	146	303615	57.117	ug/l		100
85) n-Butylbenzene	14.053	91	536941	55.917	ug/l		99
86) Hexachloroethane	14.329	117	102084	56.854	ug/l		99
87) 1,2-Dichlorobenzene	14.100	146	301390	57.607	ug/l		100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	47464	56.890	ug/l		99
89) 1,2,4-Trichlorobenzene	15.835	180	140271	55.103	ug/l		98
90) Hexachlorobutadiene	15.500	225	56236	51.165	ug/l		99
91) Naphthalene	15.635	128	561578	55.953	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	140271	55.103	ug/l		98

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

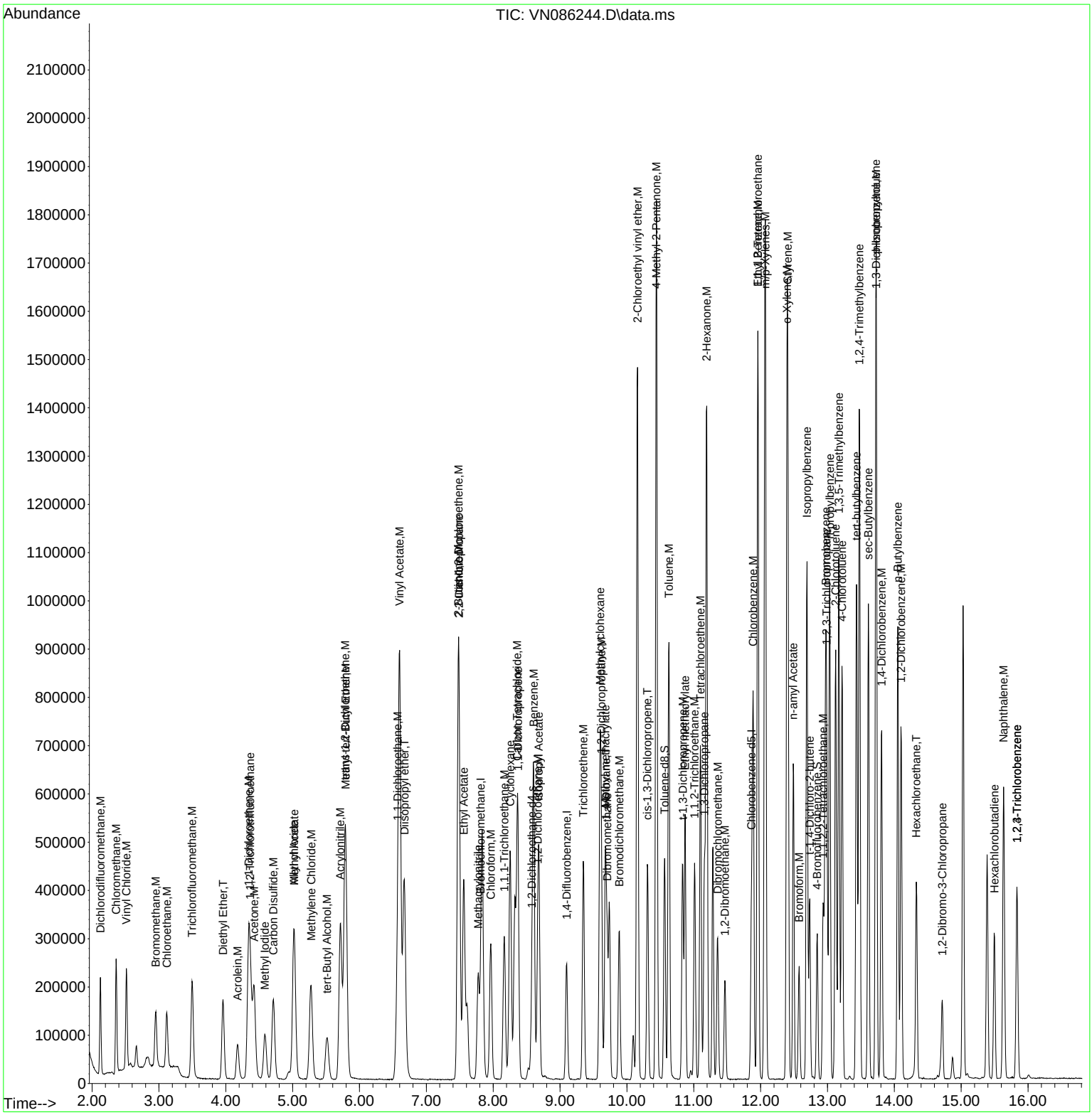
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086244.D
Acq On : 11 Apr 2025 11:52
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

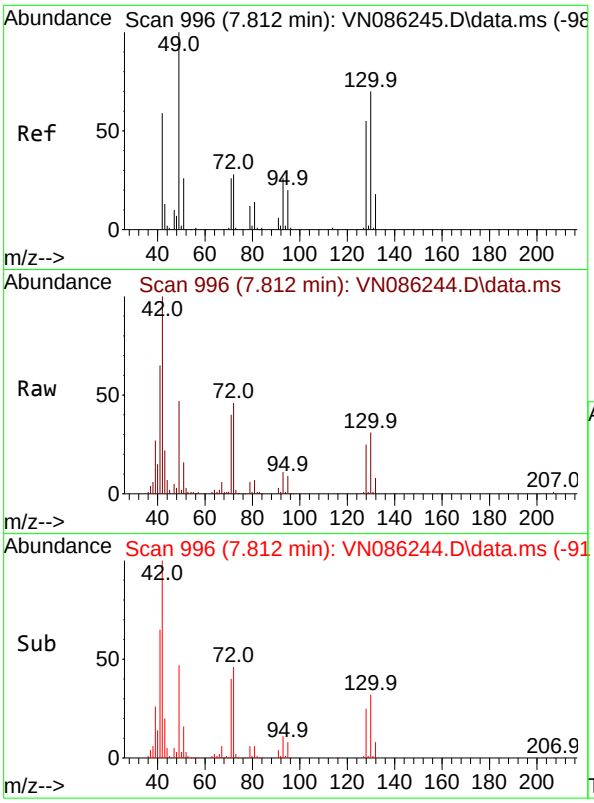
Quant Time: Apr 12 00:19:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

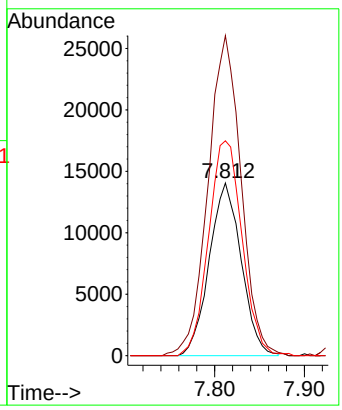




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:128 Resp: 3471

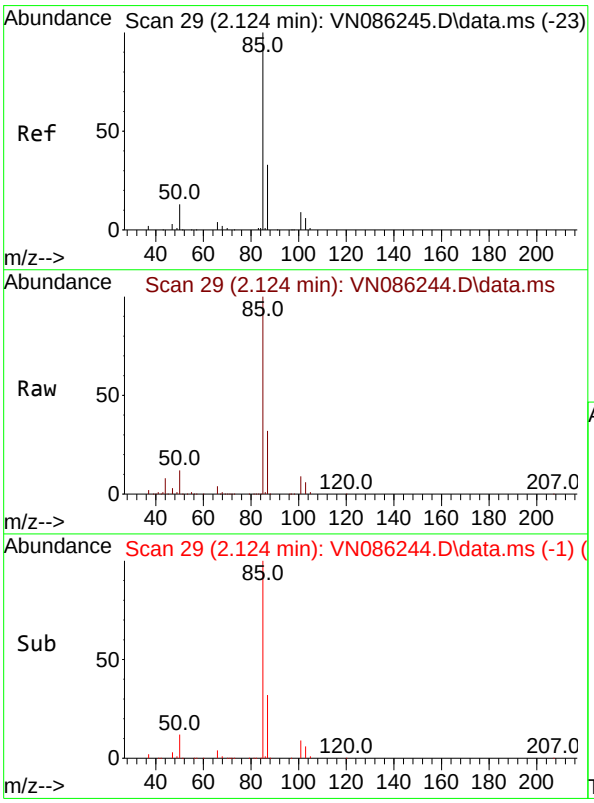
Ion	Ratio	Lower	Upper
128	100		
49	191.4	0.0	452.5
130	130.4	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

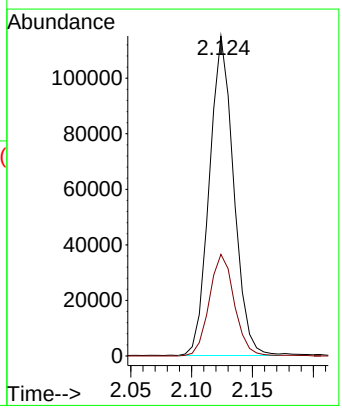
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

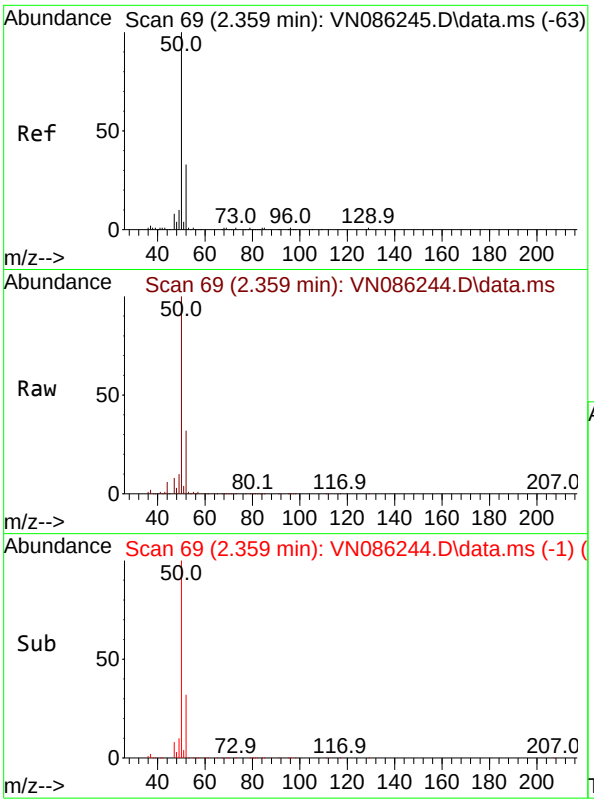


#2
Dichlorodifluoromethane
Concen: 57.365 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 85 Resp: 159577

Ion	Ratio	Lower	Upper
85	100		
87	31.8	16.3	48.9

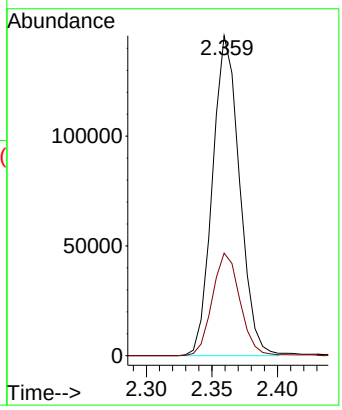




#3
Chloromethane
Concen: 54.440 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 50 Resp: 20930

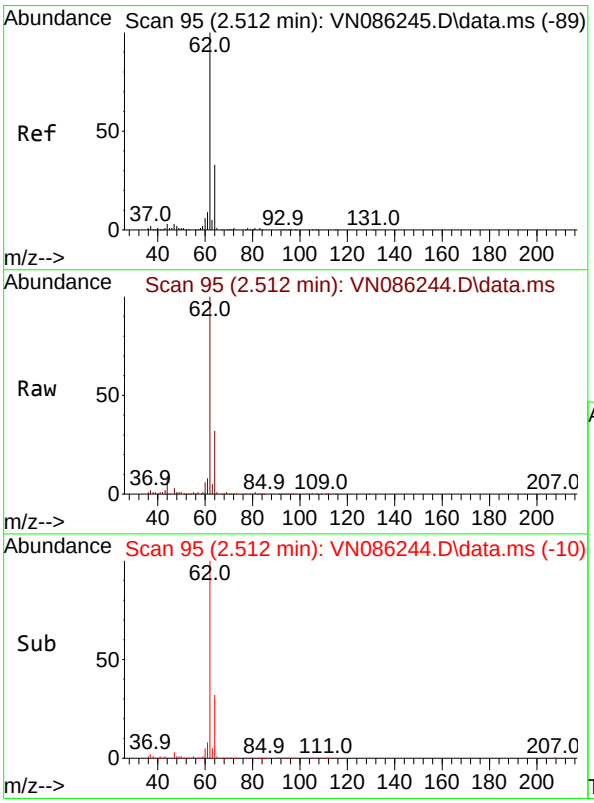
Ion	Ratio	Lower	Upper
50	100		
52	32.1	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

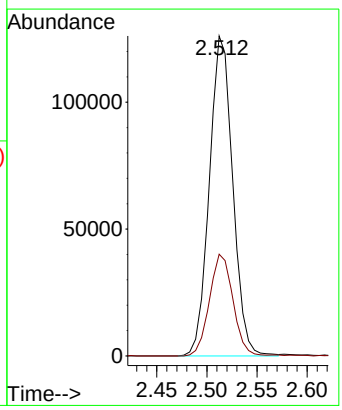
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

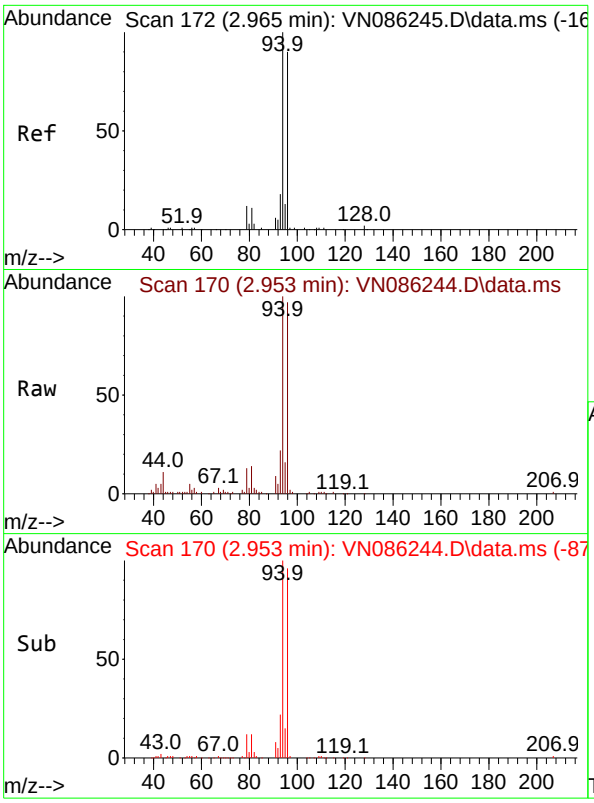


#4
Vinyl Chloride
Concen: 55.856 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 62 Resp: 204553

Ion	Ratio	Lower	Upper
62	100		
64	31.8	26.3	39.5

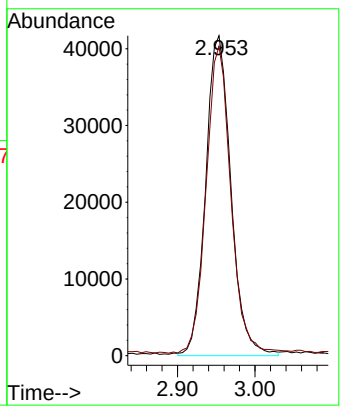




#5
Bromomethane
Concen: 51.877 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 94 Resp: 9476

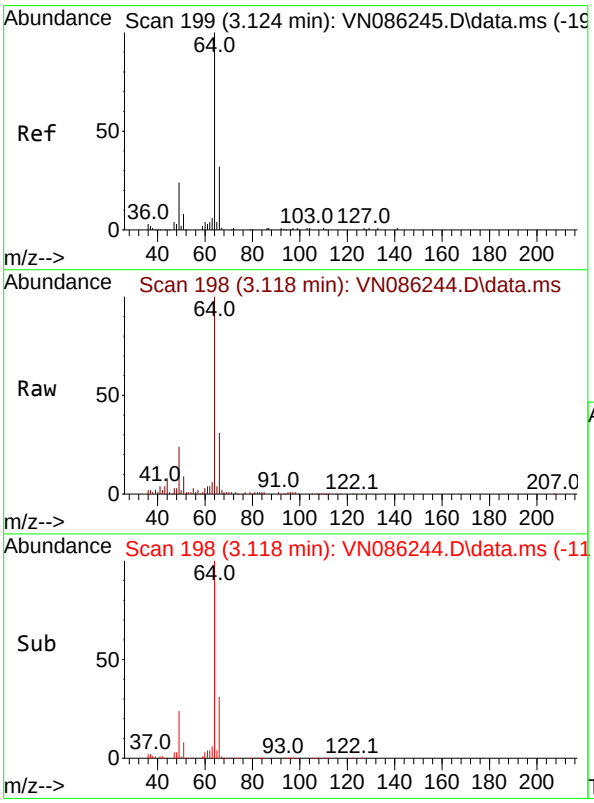
Ion	Ratio	Lower	Upper
94	100		
96	96.6	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

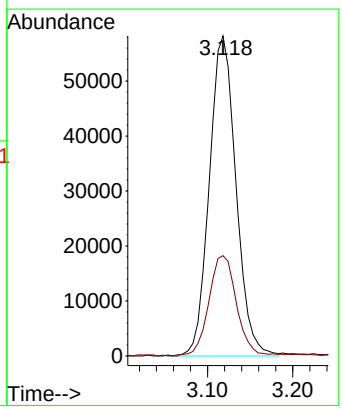
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

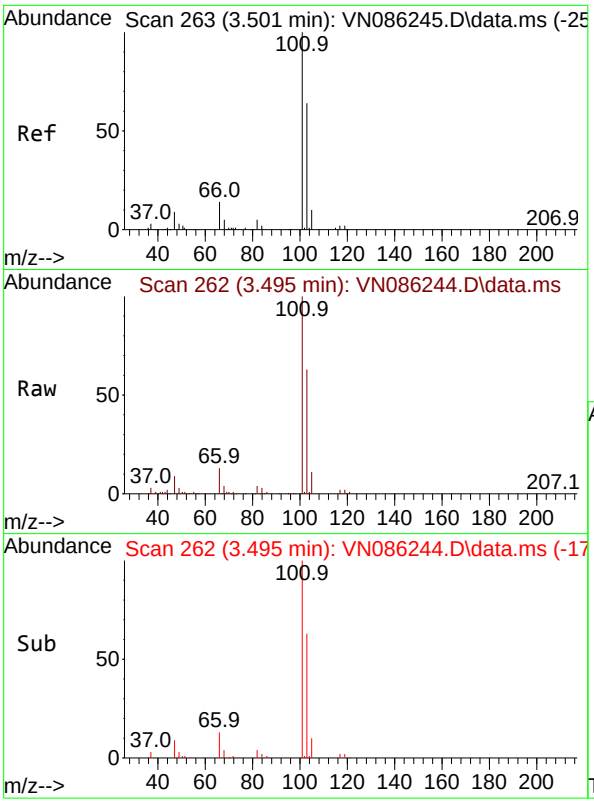


#6
Chloroethane
Concen: 54.720 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 64 Resp: 126545

Ion	Ratio	Lower	Upper
64	100		
66	31.0	25.7	38.5





#7
Trichlorofluoromethane
Concen: 56.563 ug/l
RT: 3.495 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

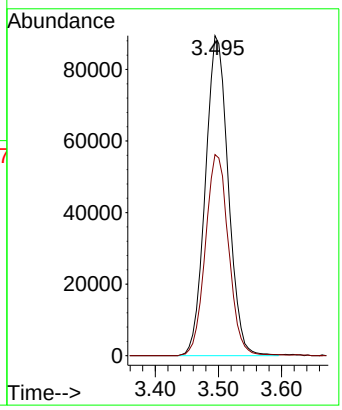
Tgt Ion:101 Resp: 22470

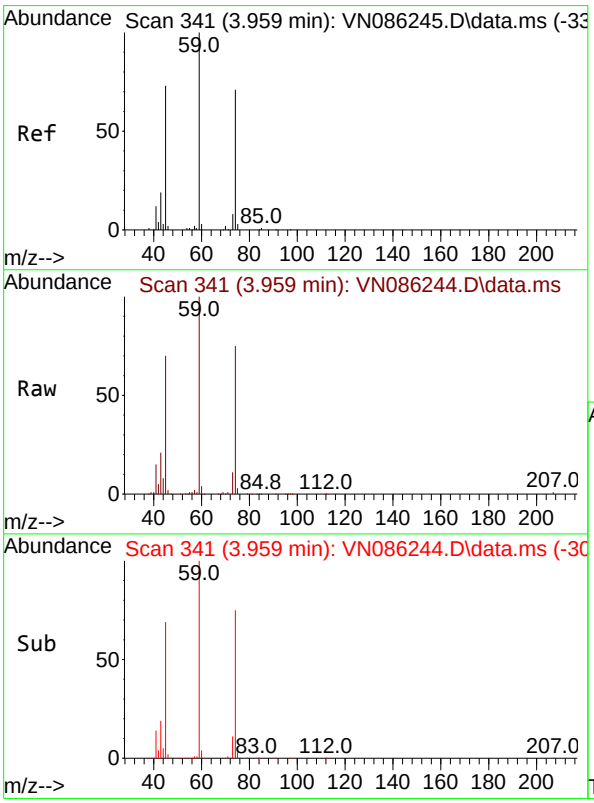
Ion	Ratio	Lower	Upper
101	100		
103	62.8	51.2	76.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

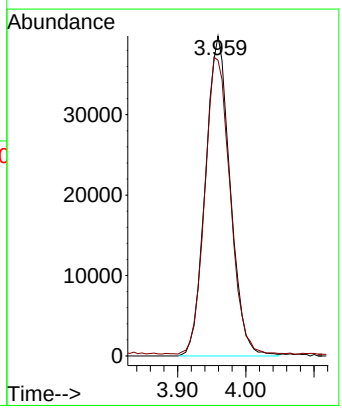


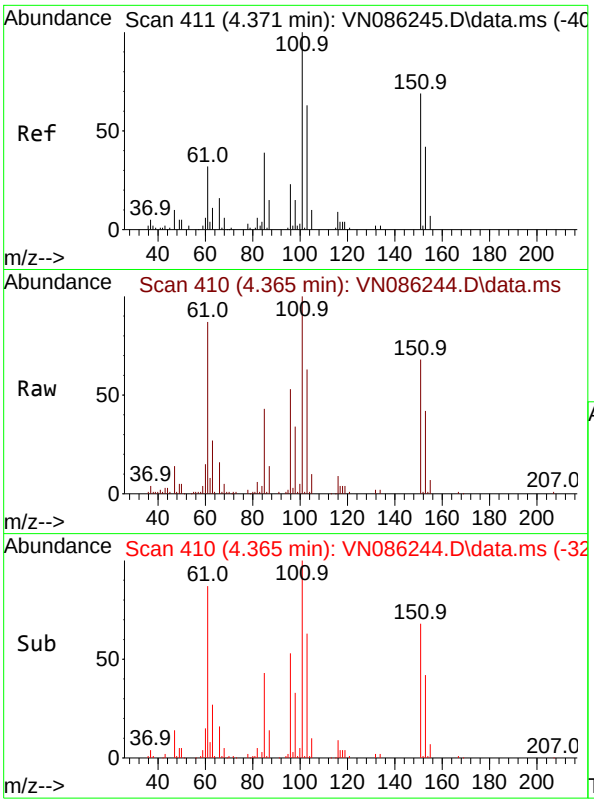


#8
Diethyl Ether
Concen: 54.826 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 74 Resp: 100444

Ion	Ratio	Lower	Upper
74	100		
45	94.8	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 56.236 ug/l
RT: 4.365 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

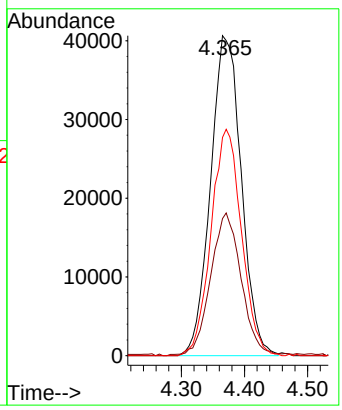
Tgt Ion:101 Resp: 13776

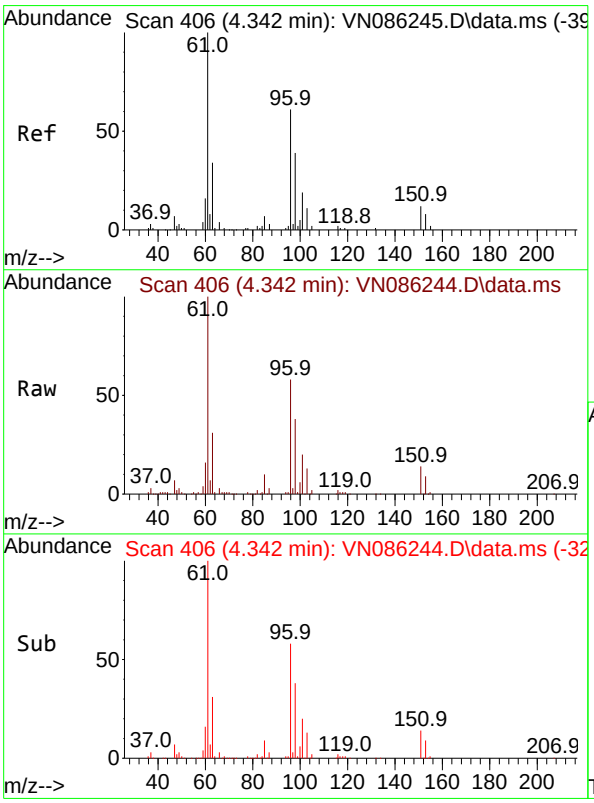
Ion	Ratio	Lower	Upper
101	100		
85	43.0	0.0	93.0
151	69.8	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

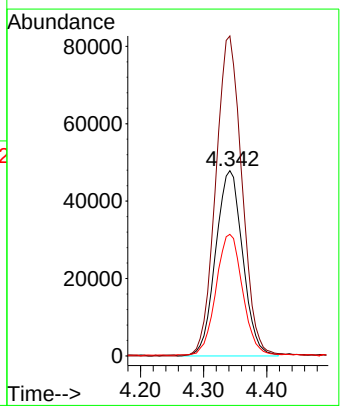


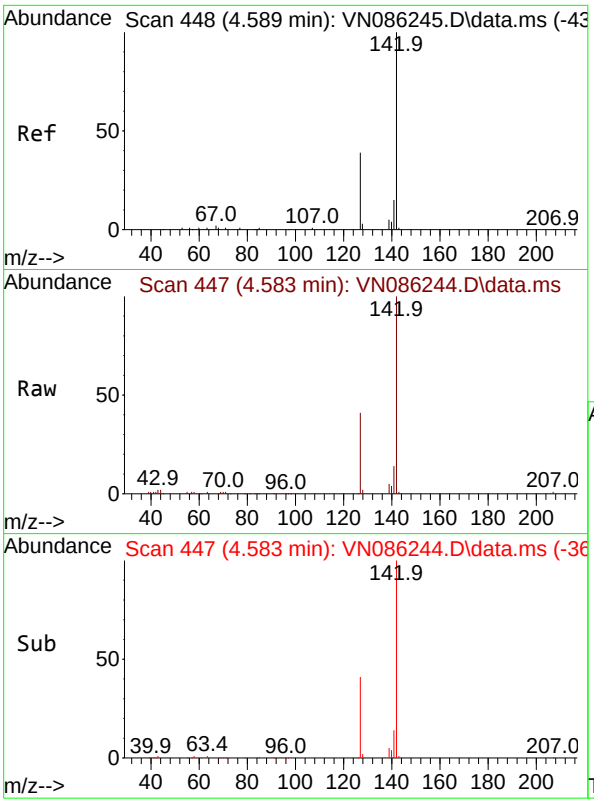


#10
1,1-Dichloroethene
Concen: 53.920 ug/l
RT: 4.342 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 96 Resp: 142552

Ion	Ratio	Lower	Upper
96	100		
61	172.7	131.1	196.7
98	64.9	51.6	77.4

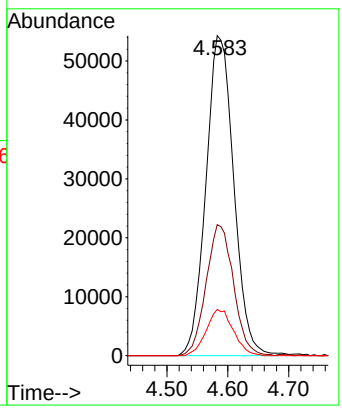




#11
Methyl Iodide
Concen: 56.678 ug/l
RT: 4.583 min Scan# 44
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:142 Resp: 17222

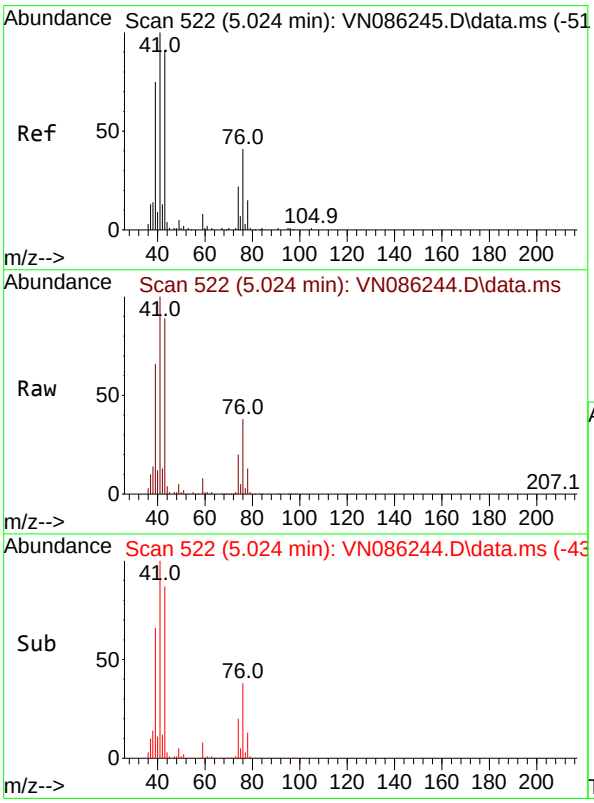
Ion	Ratio	Lower	Upper
142	100		
127	41.0	19.6	58.8
141	14.5	7.3	21.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

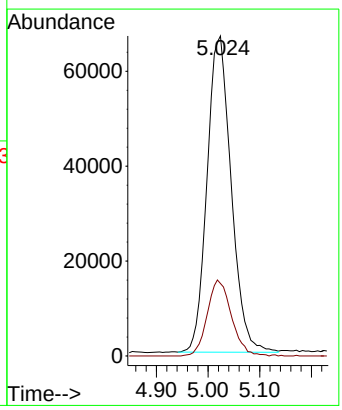
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

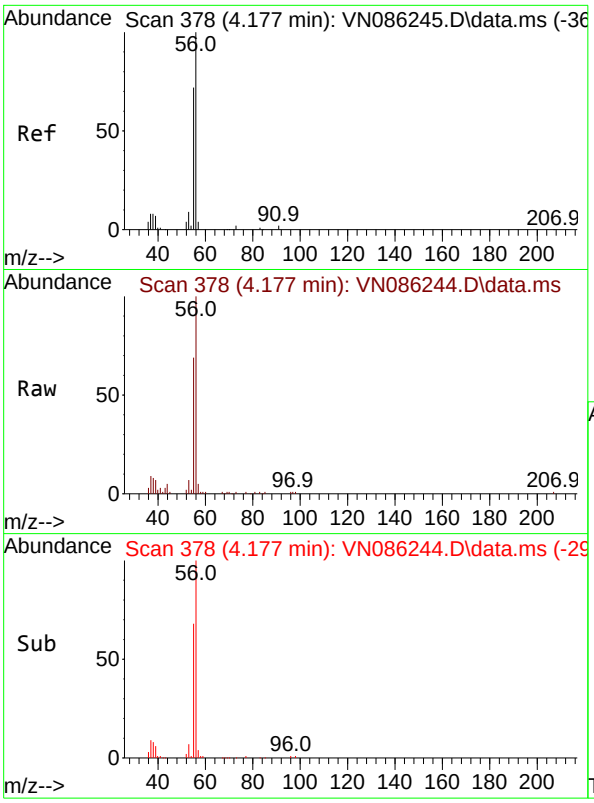


#12
Methyl Acetate
Concen: 57.904 ug/l
RT: 5.024 min Scan# 522
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 216174

Ion	Ratio	Lower	Upper
43	100		
74	22.9	19.1	28.7

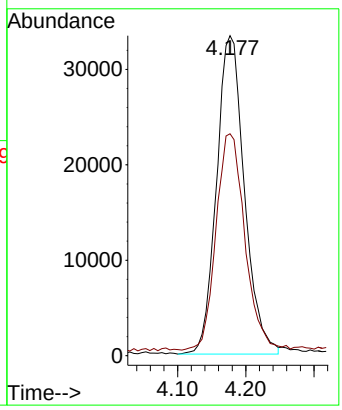




#13
Acrolein
Concen: 223.977 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 56 Resp: 9504

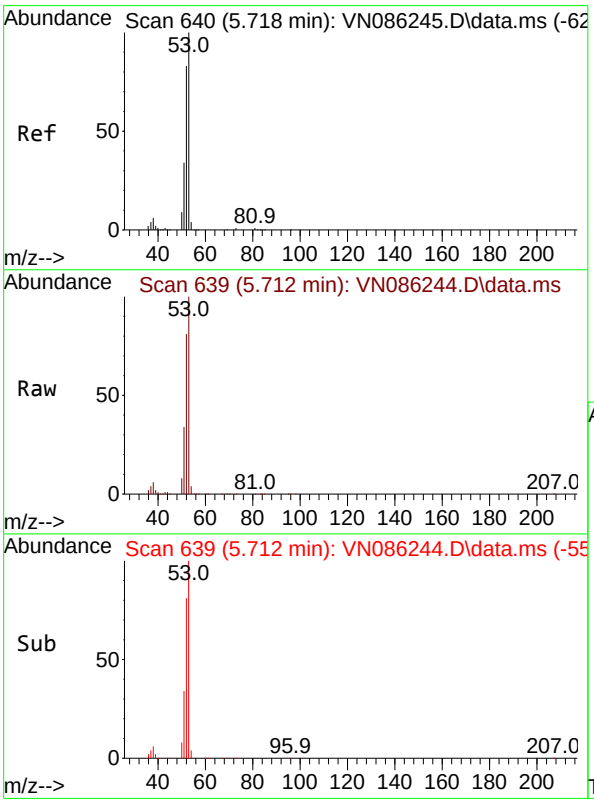
Ion	Ratio	Lower	Upper
56	100		
55	69.9	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

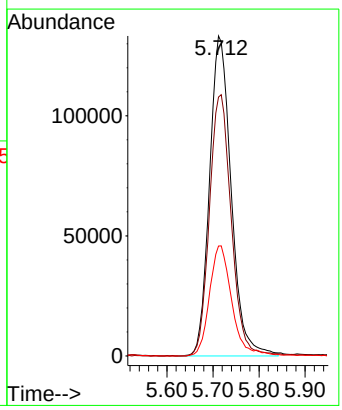
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

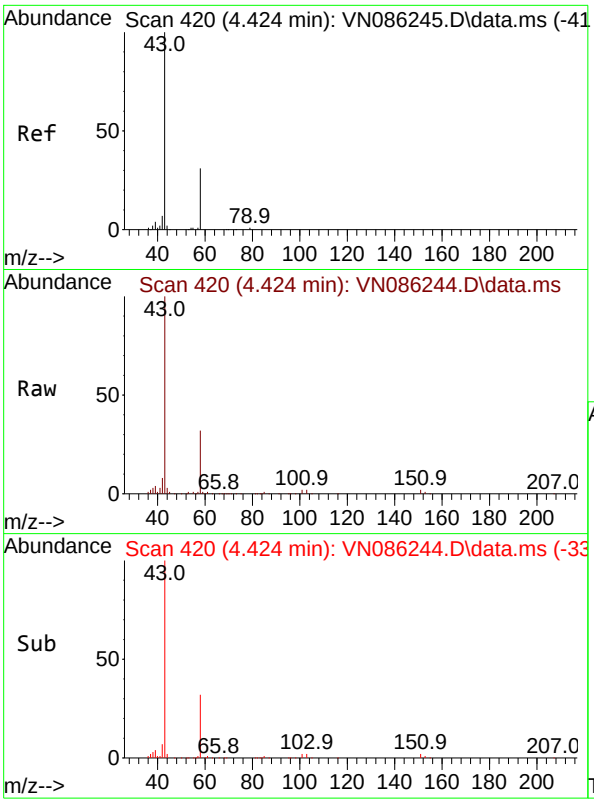


#14
Acrylonitrile
Concen: 276.391 ug/l
RT: 5.712 min Scan# 639
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 53 Resp: 435610

Ion	Ratio	Lower	Upper
53	100		
52	82.0	40.2	120.6
51	34.5	17.5	52.6





#15
Acetone
Concen: 281.504 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

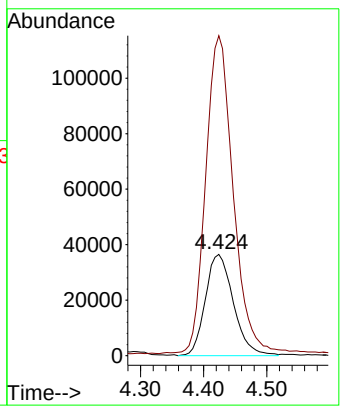
Tgt Ion: 58 Resp: 11258

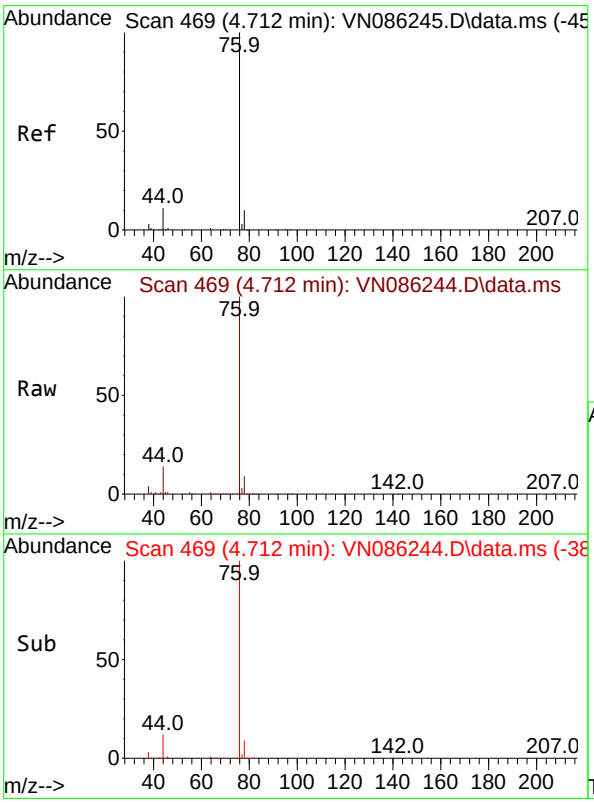
Ion	Ratio	Lower	Upper
58	100		
43	312.3	261.8	392.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

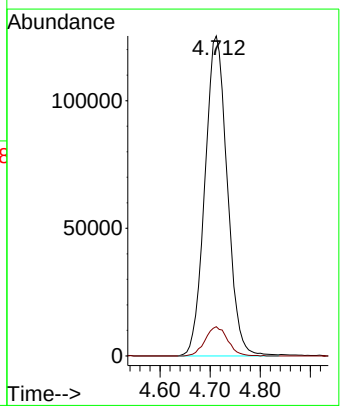


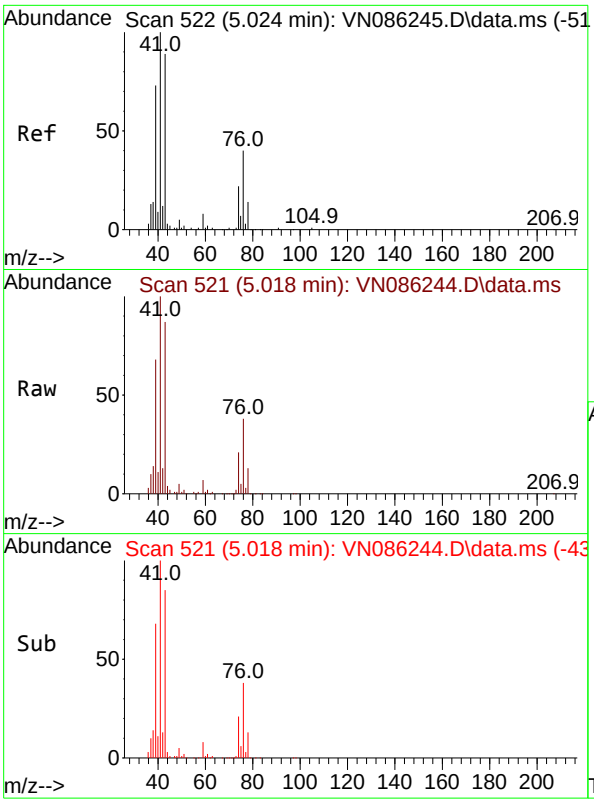


#16
Carbon Disulfide
Concen: 51.220 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 76 Resp: 388287

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.7	11.5

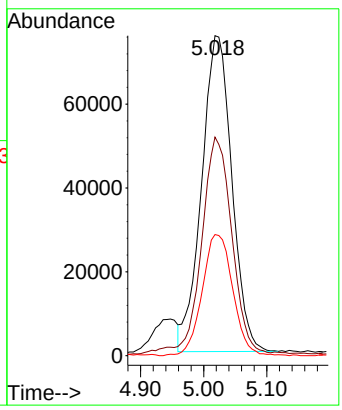




#17
Allyl chloride
Concen: 54.451 ug/l
RT: 5.018 min Scan# 5
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 41 Resp: 25089

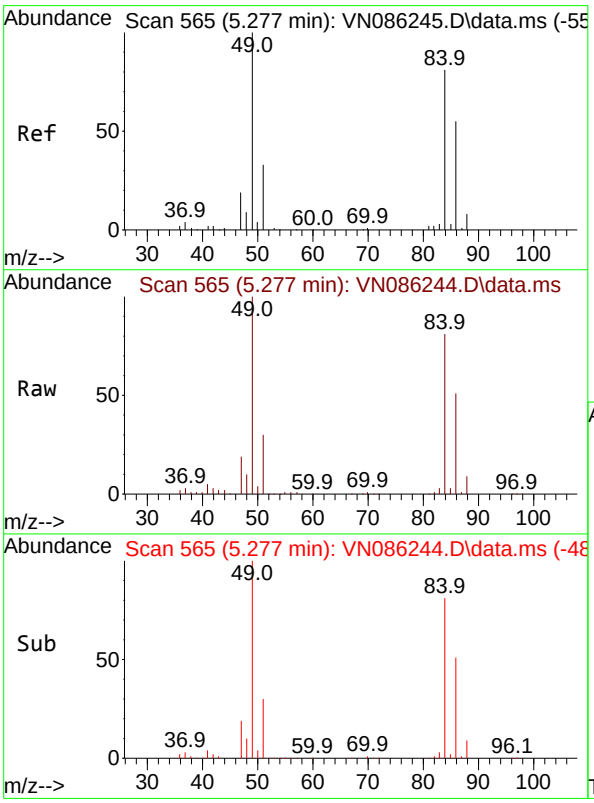
Ion	Ratio	Lower	Upper
41	100		
39	68.2	34.4	103.2
76	38.1	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

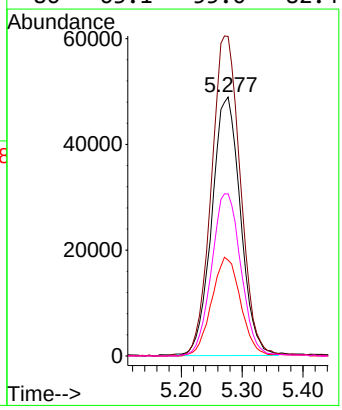
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

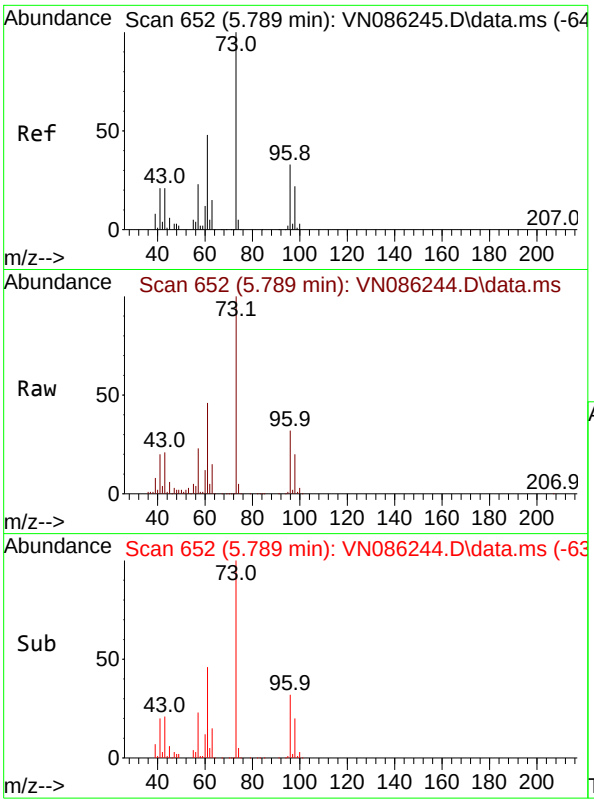


#18
Methylene Chloride
Concen: 53.099 ug/l
RT: 5.277 min Scan# 565
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 84 Resp: 160052

Ion	Ratio	Lower	Upper
84	100		
49	124.3	99.1	148.7
51	37.3	32.3	48.5
86	63.1	55.0	82.4

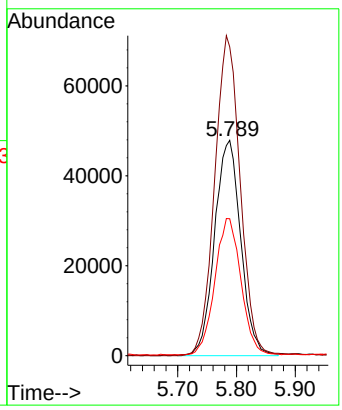




#19
trans-1,2-Dichloroethene
Concen: 62.042 ug/l
RT: 5.789 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 96 Resp: 14795

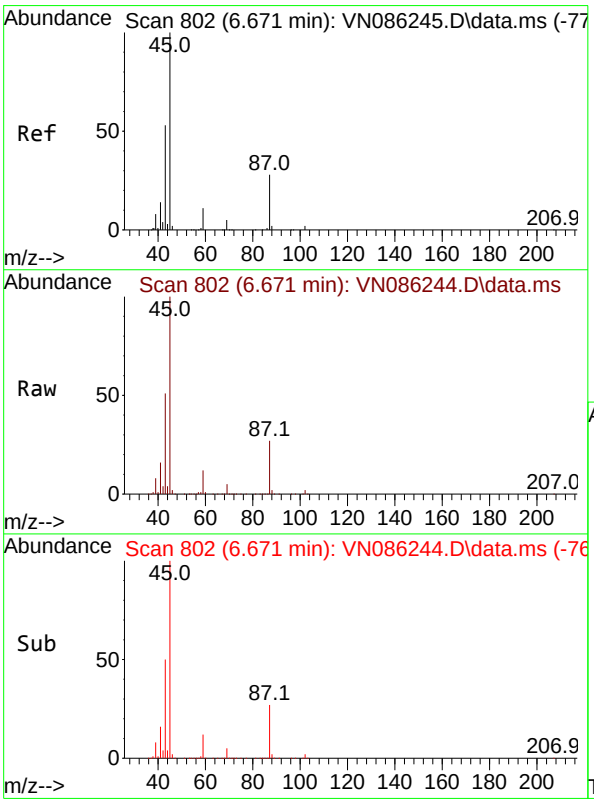
Ion	Ratio	Lower	Upper
96	100		
61	143.4	115.9	173.9
98	63.2	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

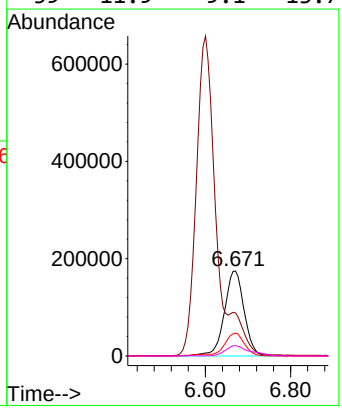
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

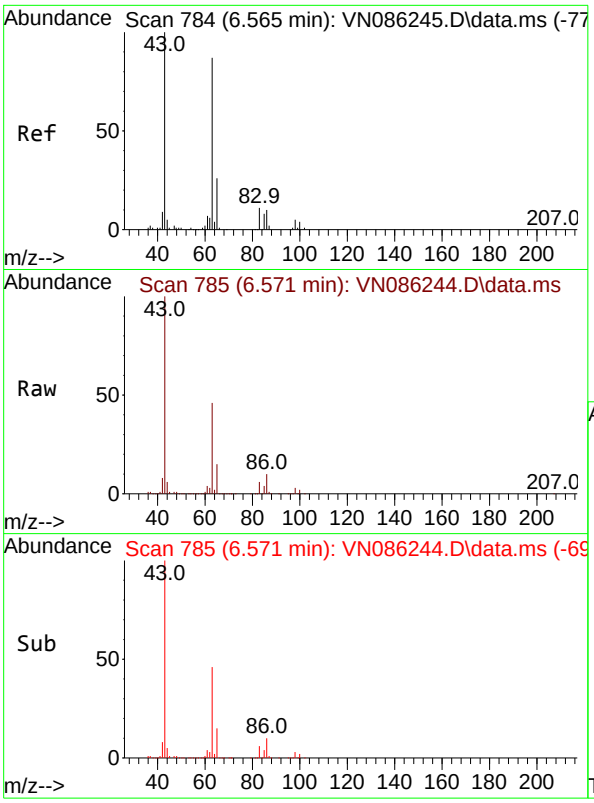


#20
Diisopropyl ether
Concen: 56.516 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 45 Resp: 559920

Ion	Ratio	Lower	Upper
45	100		
43	49.4	42.3	63.5
87	27.1	22.2	33.4
59	11.9	9.1	13.7

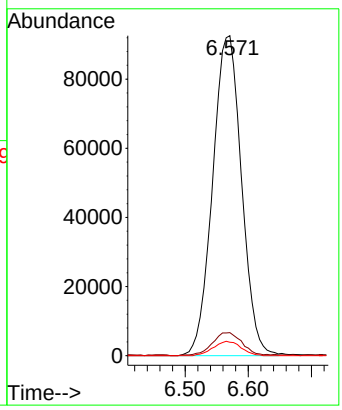




#21
1,1-Dichloroethane
Concen: 55.639 ug/l
RT: 6.571 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 63 Resp: 29405

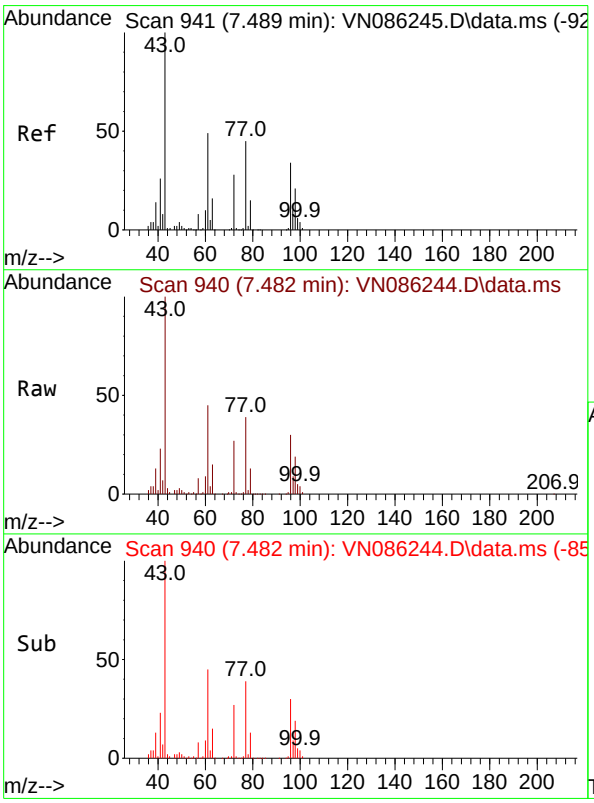
Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.1	9.3
100	4.2	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

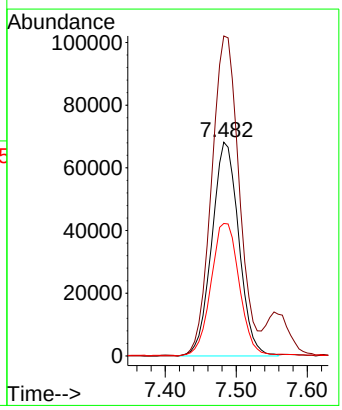
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

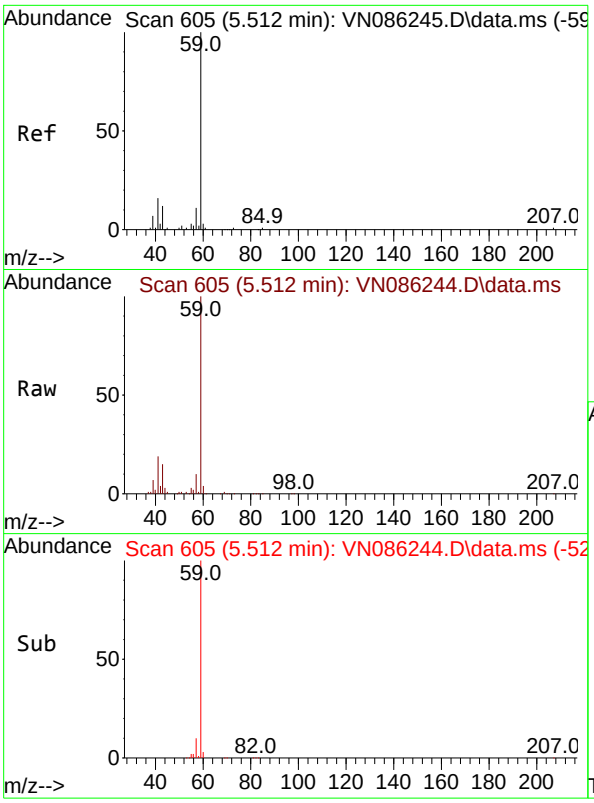


#22
cis-1,2-Dichloroethene
Concen: 54.098 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 96 Resp: 179457

Ion	Ratio	Lower	Upper
96	100		
61	153.7	119.5	179.3
98	65.1	51.0	76.6

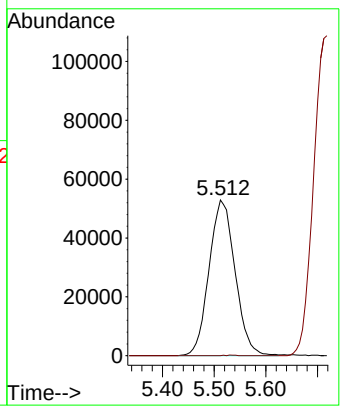




#23
tert-Butyl Alcohol
Concen: 283.431 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 59 Resp: 18509

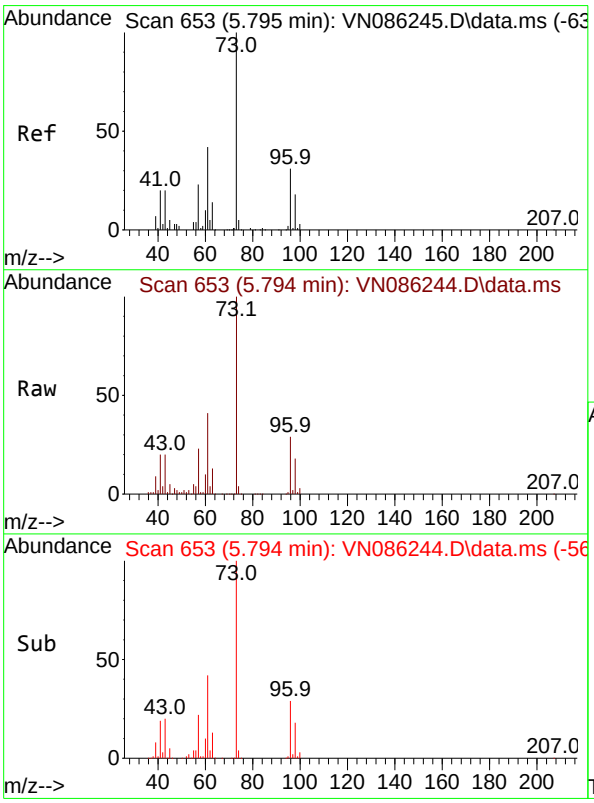
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

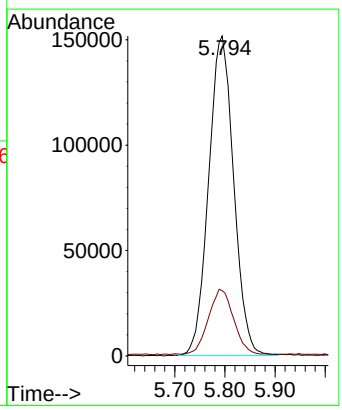
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

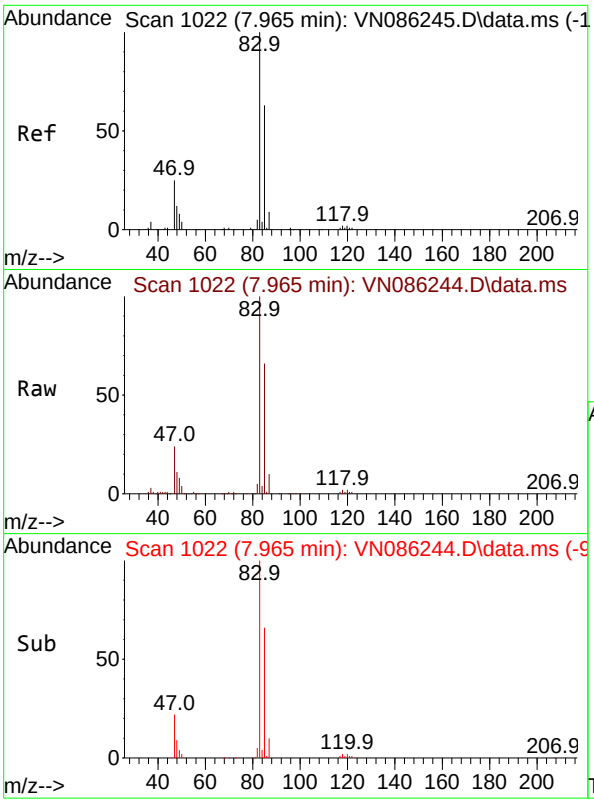


#24
Methyl tert-Butyl Ether
Concen: 55.313 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 73 Resp: 526838

Ion	Ratio	Lower	Upper
73	100		
43	20.3	16.8	25.2

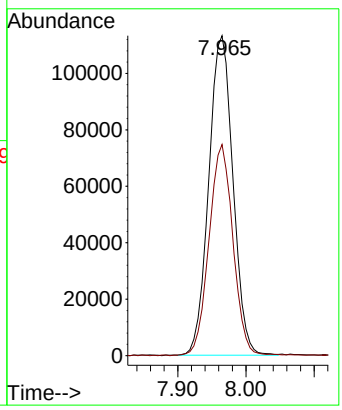




#25
Chloroform
Concen: 55.484 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 83 Resp: 27963

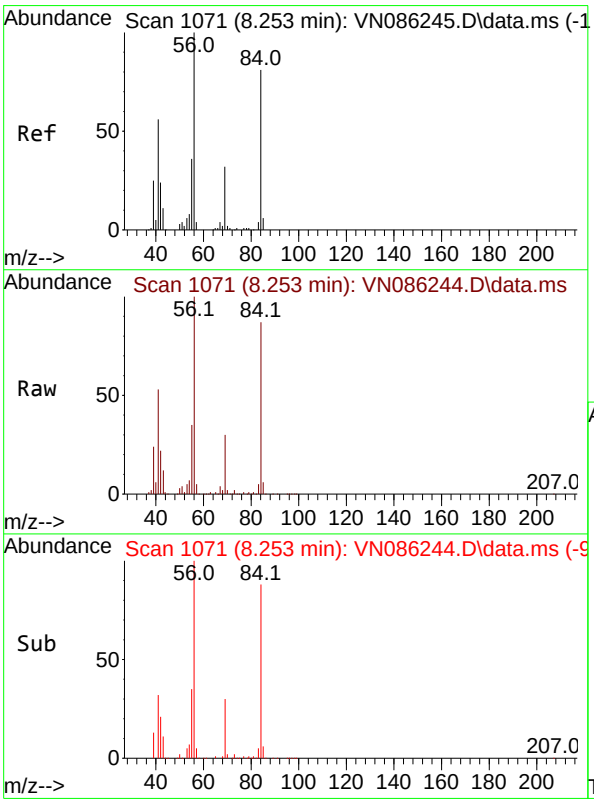
Ion	Ratio	Lower	Upper
83	100		
85	65.9	50.5	75.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

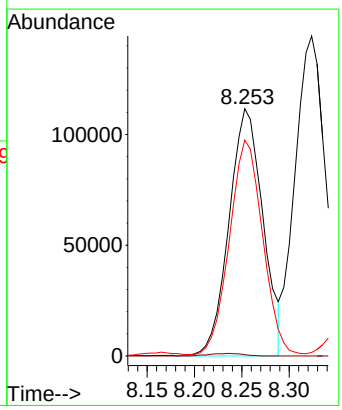
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

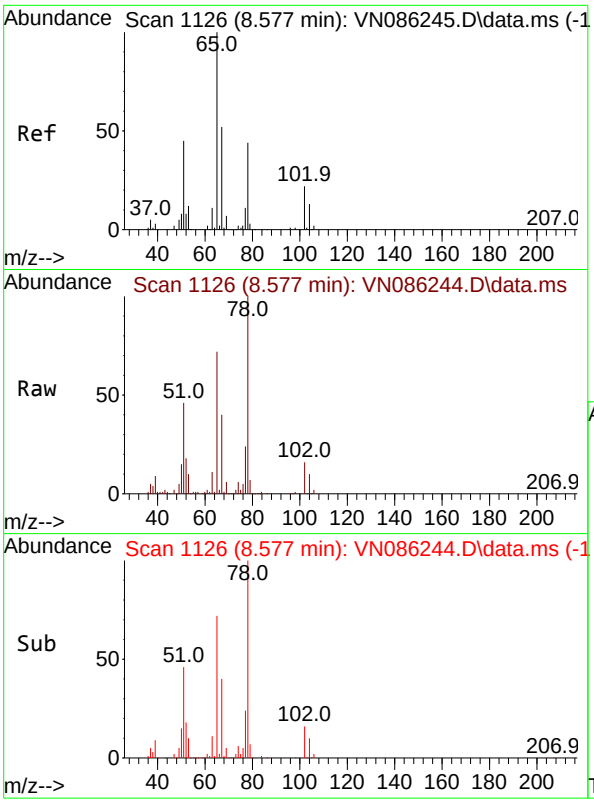


#26
Cyclohexane
Concen: 56.272 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 56 Resp: 278241

Ion	Ratio	Lower	Upper
56	100		
89	1.0	0.0	0.0#
84	86.0	69.0	103.4

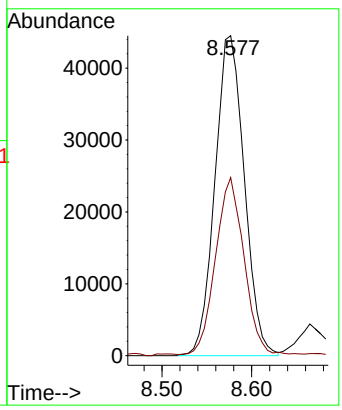




#27
1,2-Dichloroethane-d4
Concen: 29.892 ug/l
RT: 8.577 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 65 Resp: 10122

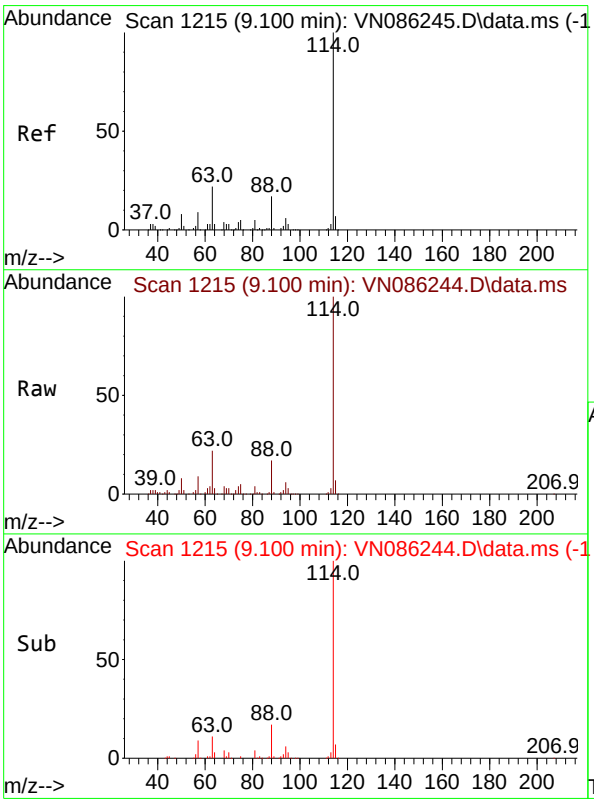
Ion	Ratio	Lower	Upper
65	100		
67	53.0	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

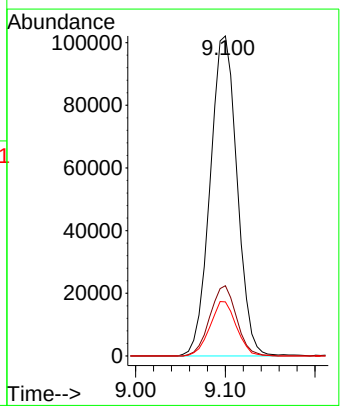
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

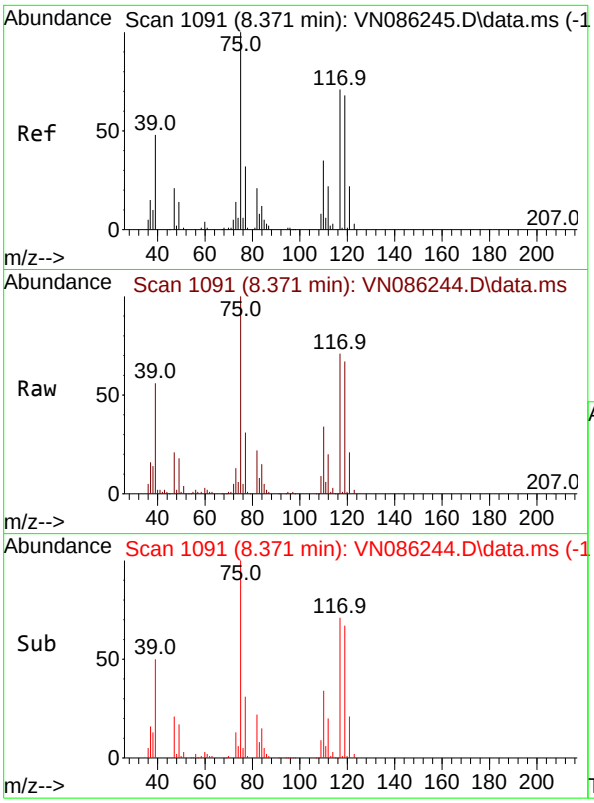


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:114 Resp: 212849

Ion	Ratio	Lower	Upper
114	100		
63	21.7	17.8	26.6
88	16.7	13.4	20.2

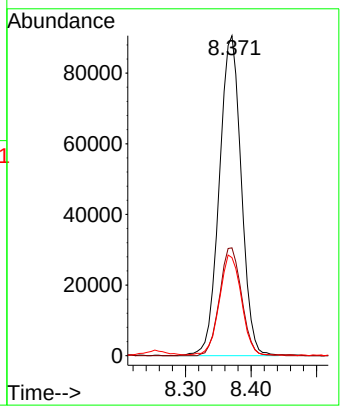




#29
1,1-Dichloropropene
Concen: 55.081 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 21002

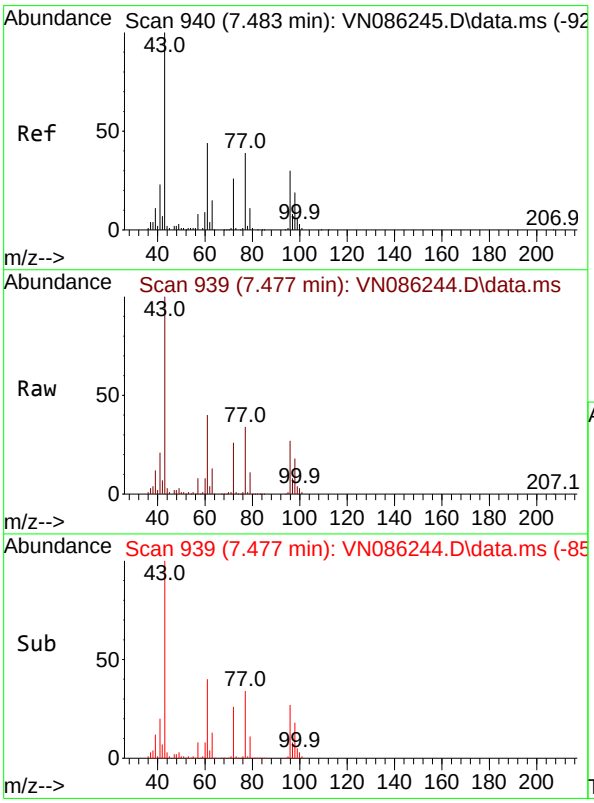
Ion	Ratio	Lower	Upper
75	100		
110	33.9	0.0	68.6
77	31.4	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

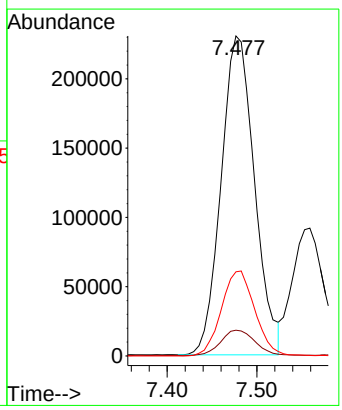
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

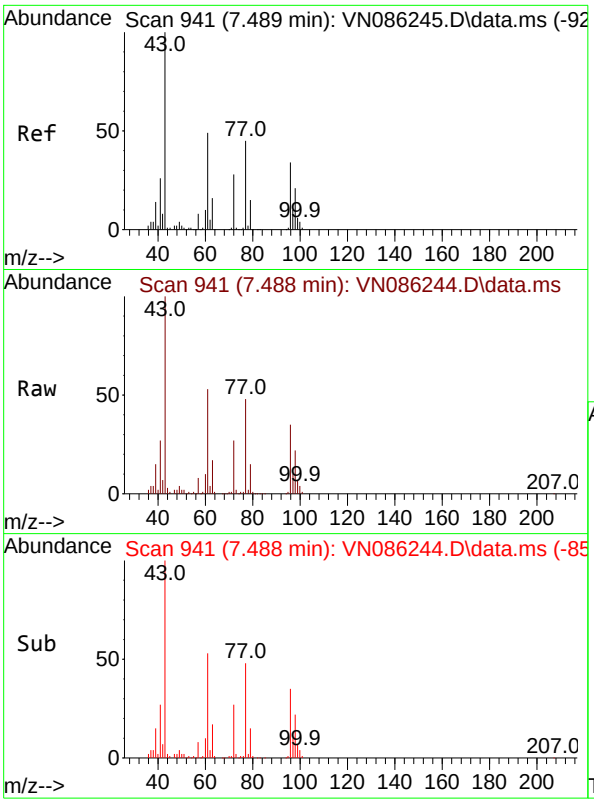


#30
2-Butanone
Concen: 282.334 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 596520

Ion	Ratio	Lower	Upper
43	100		
57	8.3	6.4	9.6
72	26.5	21.5	32.3

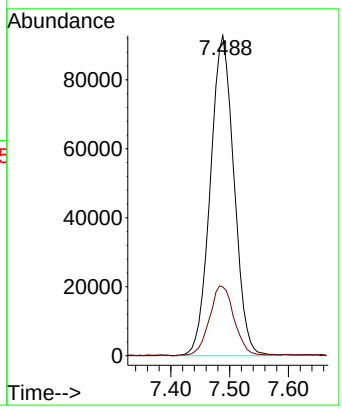




#31
2,2-Dichloropropane
Concen: 55.404 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 77 Resp: 26003

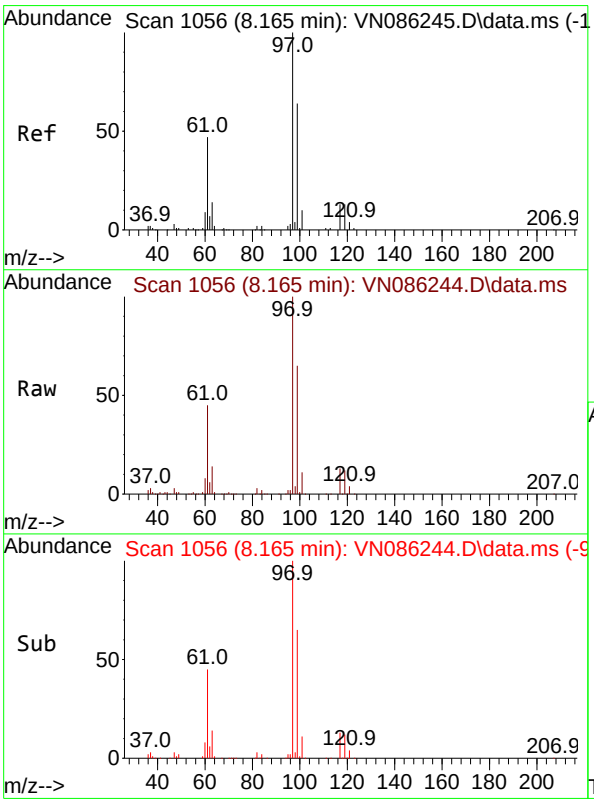
Ion	Ratio	Lower	Upper
77	100		
97	22.2	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

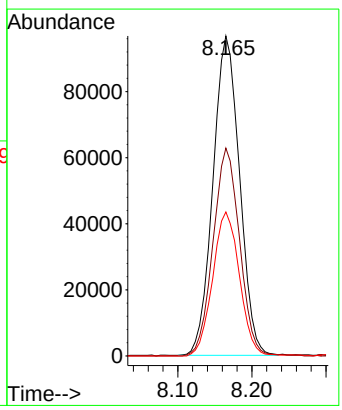
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

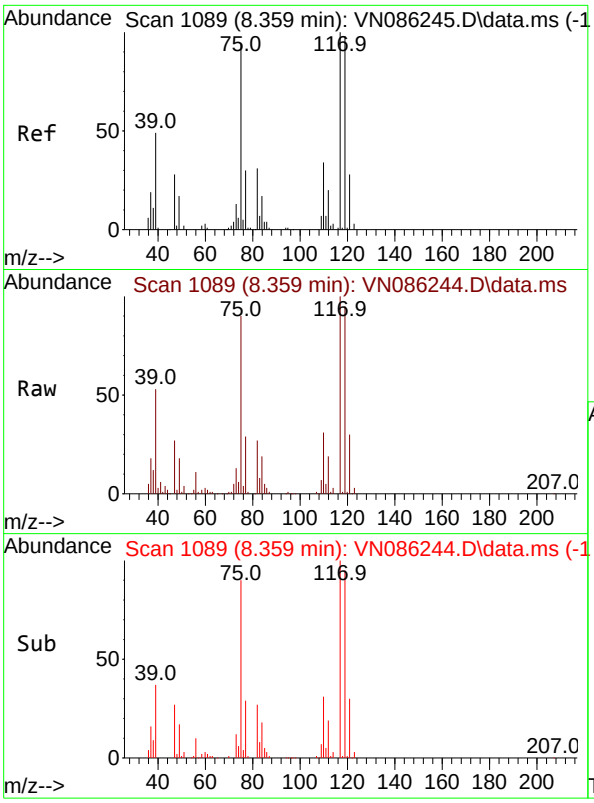


#32
1,1,1-Trichloroethane
Concen: 54.920 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 97 Resp: 240887

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.4	77.2
61	45.4	37.0	55.6

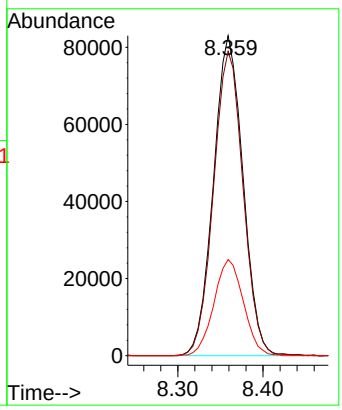




#33
Carbon Tetrachloride
Concen: 56.865 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:117 Resp: 19932

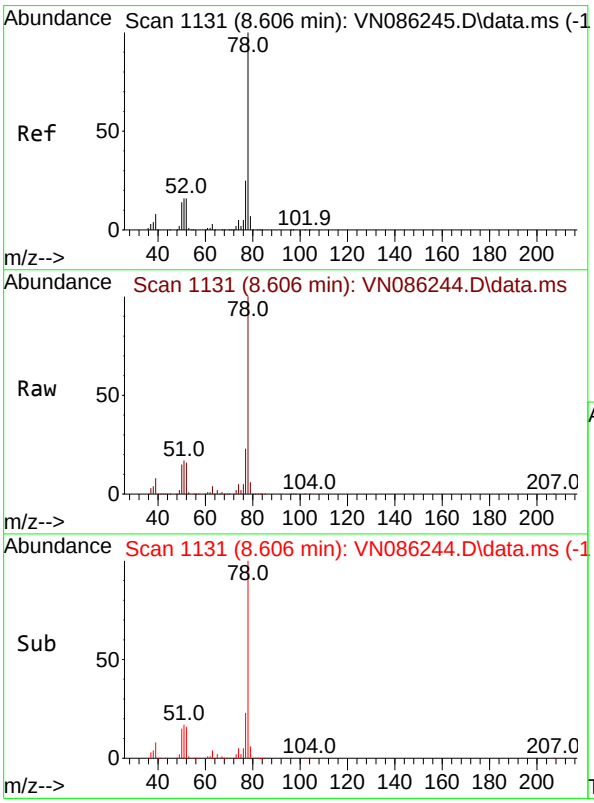
Ion	Ratio	Lower	Upper
117	100		
119	94.9	78.3	117.5
121	30.0	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

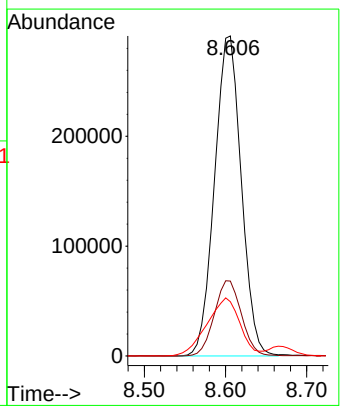
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

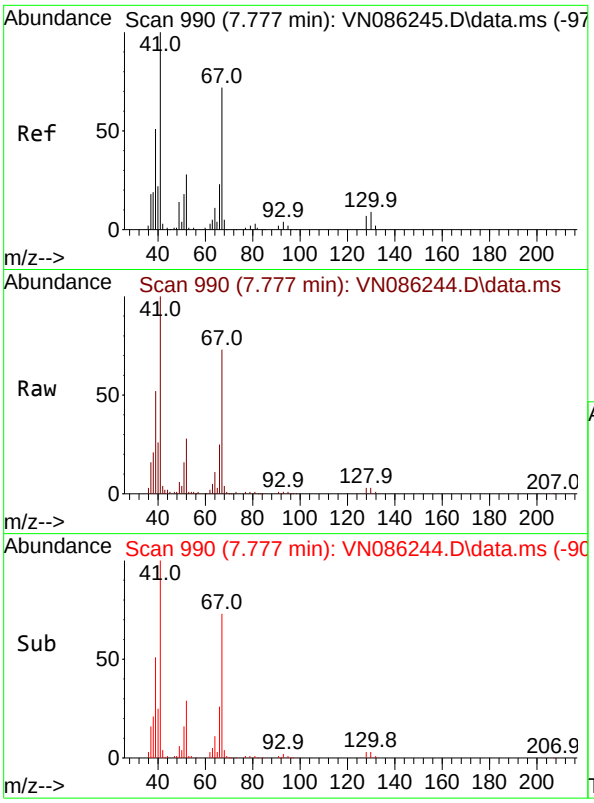


#34
Benzene
Concen: 54.974 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 78 Resp: 666877

Ion	Ratio	Lower	Upper
78	100		
77	23.4	20.0	30.0
51	16.4	12.9	19.3

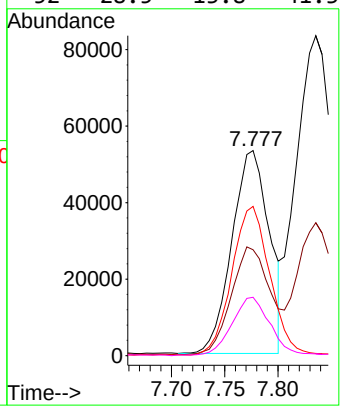




#35
Methacrylonitrile
Concen: 54.448 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 41 Resp: 12968

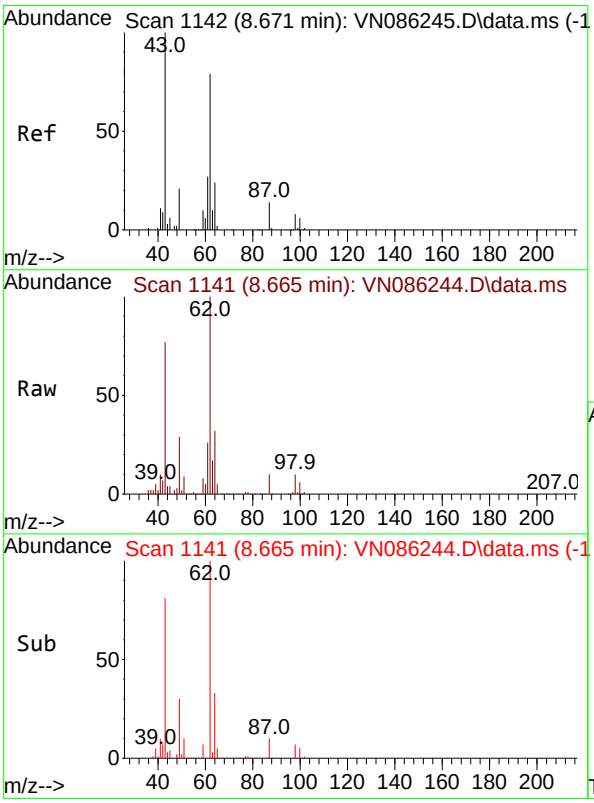
Ion	Ratio	Lower	Upper
41	100		
39	51.4	25.8	77.3
67	73.1	36.0	108.0
52	28.5	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

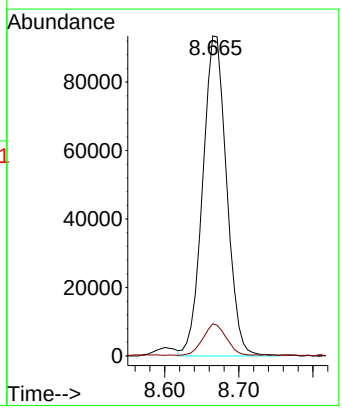
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

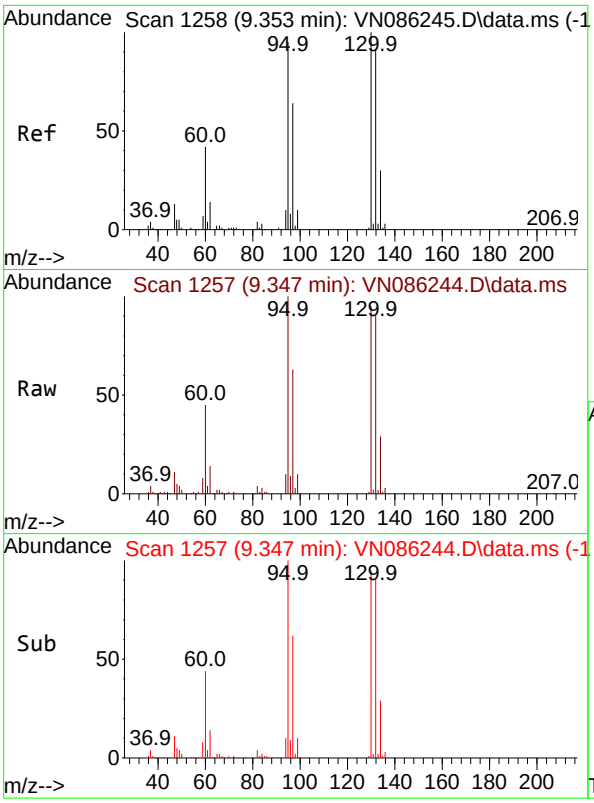


#36
1,2-Dichloroethane
Concen: 55.252 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 62 Resp: 209738

Ion	Ratio	Lower	Upper
62	100		
98	9.5	8.6	12.8

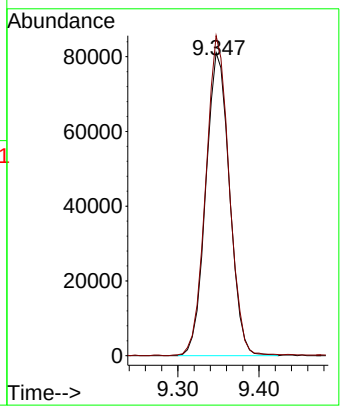




#37
Trichloroethene
Concen: 56.109 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:130 Resp: 16422

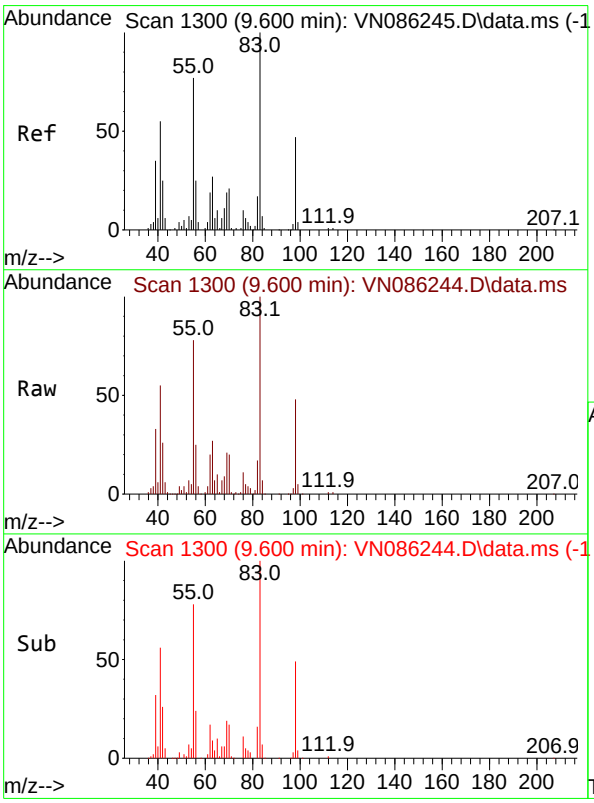
Ion	Ratio	Lower	Upper
130	100		
95	105.2	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

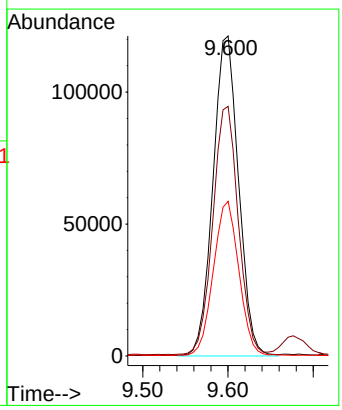
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

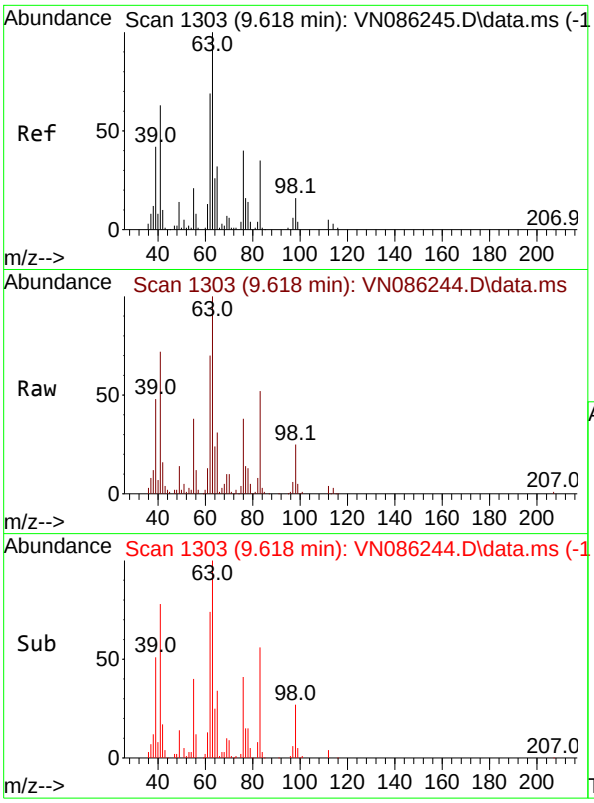


#38
Methylcyclohexane
Concen: 54.191 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 83 Resp: 253415

Ion	Ratio	Lower	Upper
83	100		
55	77.0	38.5	115.5
98	47.8	24.4	73.2

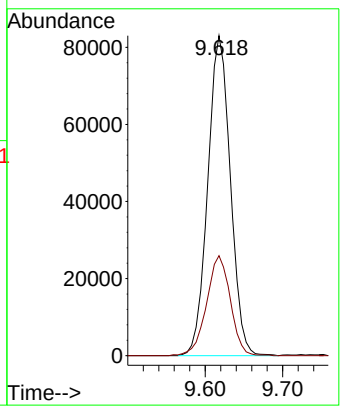




#39
1,2-Dichloropropane
Concen: 55.783 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 63 Resp: 16837

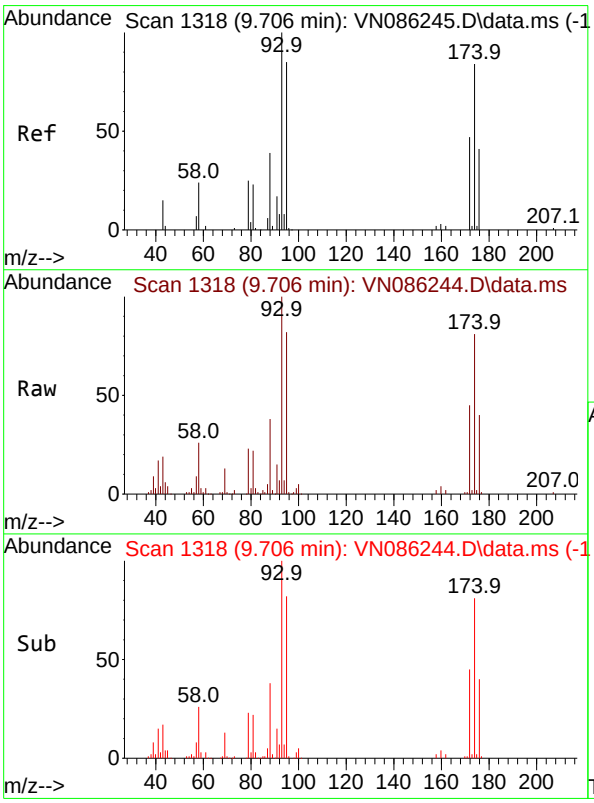
Ion	Ratio	Lower	Upper
63	100		
65	31.2	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

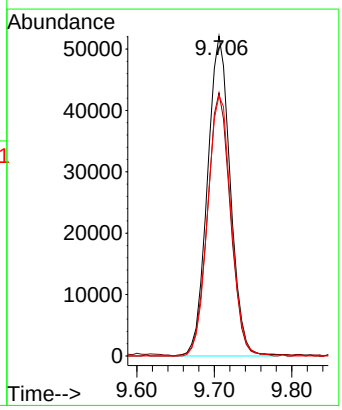
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

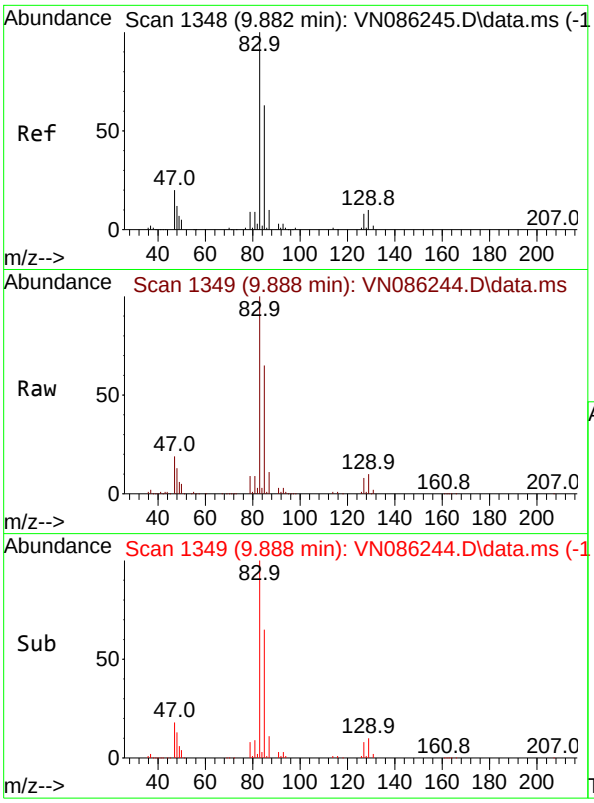


#40
Dibromomethane
Concen: 54.730 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 93 Resp: 106697

Ion	Ratio	Lower	Upper
93	100		
95	82.5	0.0	169.0
174	83.6	0.0	168.0

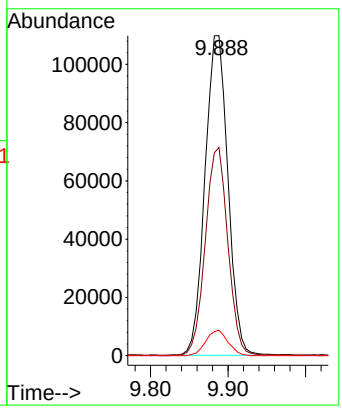




#41
Bromodichloromethane
Concen: 53.865 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 83 Resp: 22560

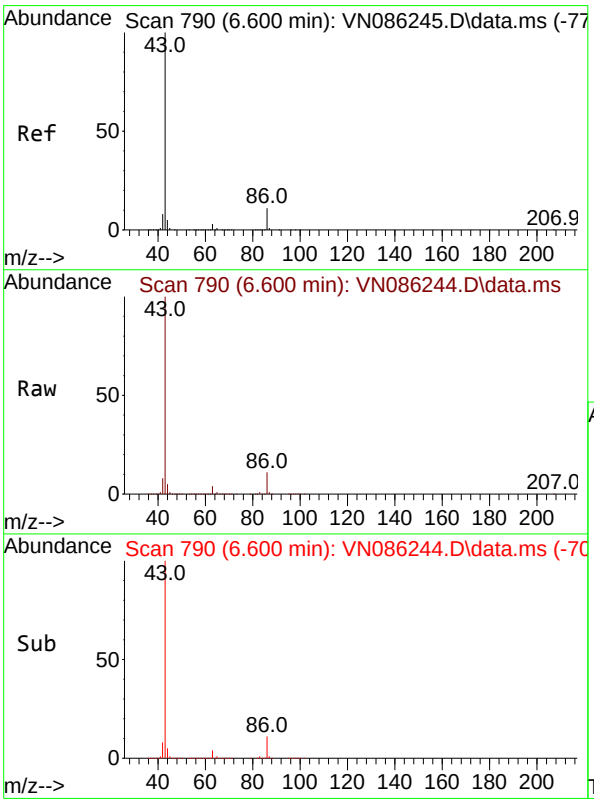
Ion	Ratio	Lower	Upper
83	100		
85	65.0	50.2	75.2
127	8.0	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

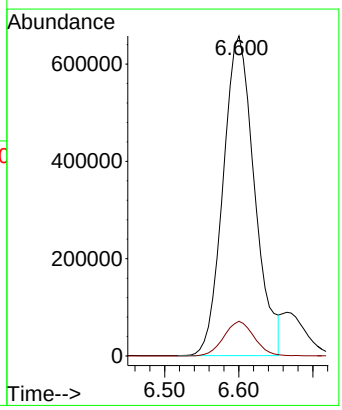
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

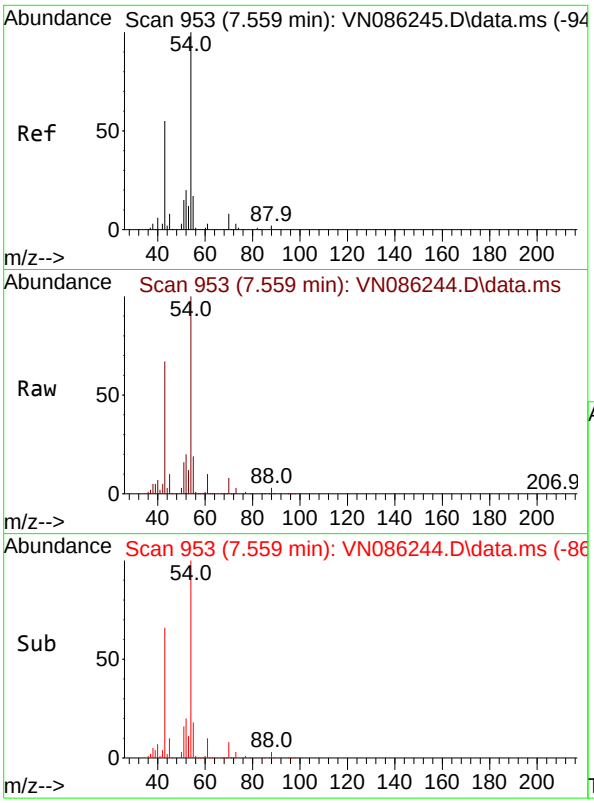


#42
Vinyl Acetate
Concen: 269.341 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 1937093

Ion	Ratio	Lower	Upper
43	100		
86	10.5	8.4	12.6





#43
Ethyl Acetate
Concen: 54.775 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

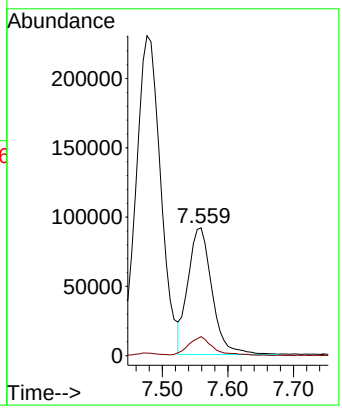
Tgt Ion: 43 Resp: 23343

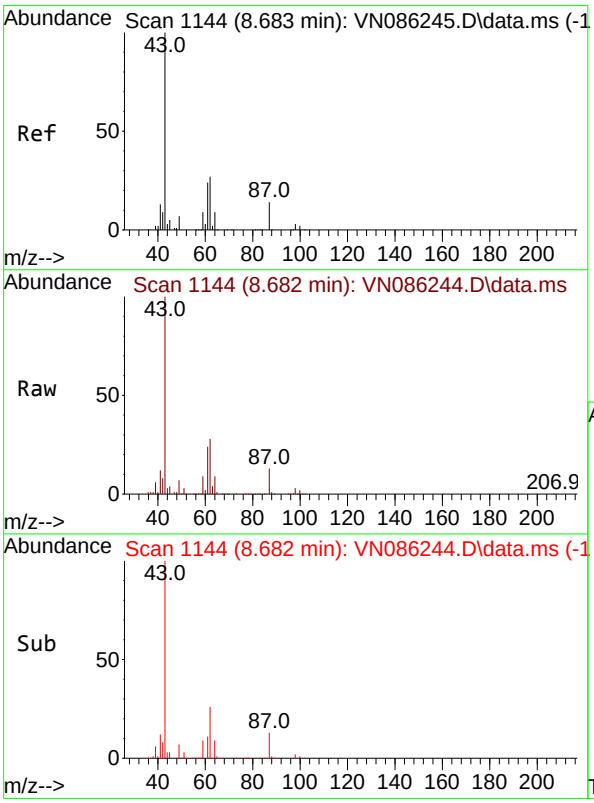
Ion	Ratio	Lower	Upper
43	100		
45	14.6	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

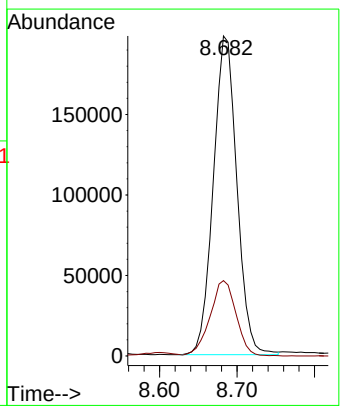


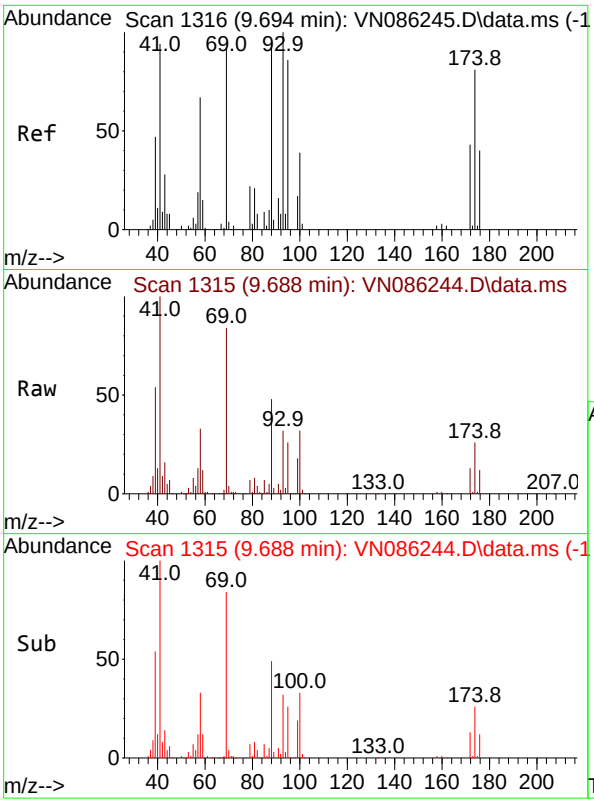


#44
Isopropyl Acetate
Concen: 53.034 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 419280

Ion	Ratio	Lower	Upper
43	100		
61	26.1	20.5	30.7

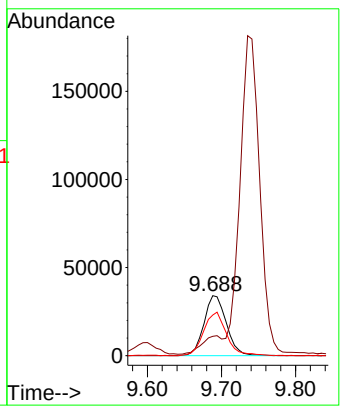




#45
1,4-Dioxane
Concen: 1134.960 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 88 Resp: 7135

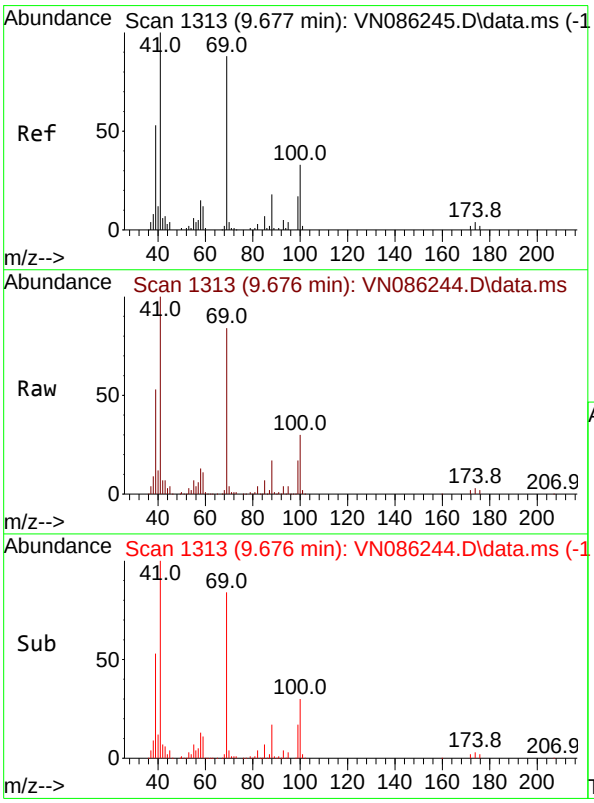
Ion	Ratio	Lower	Upper
88	100		
43	27.1	14.4	21.6
58	74.0	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

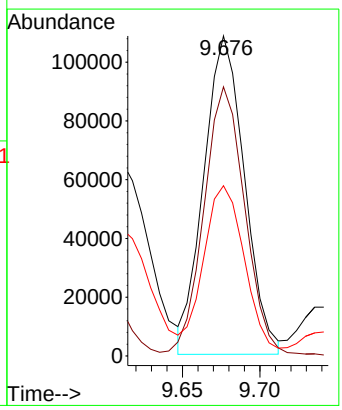
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

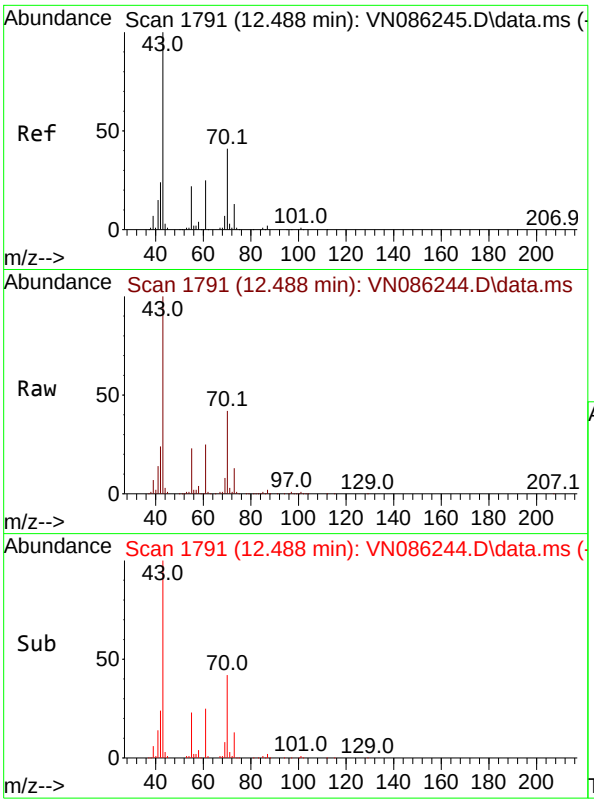


#46
Methyl methacrylate
Concen: 56.778 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 41 Resp: 197782

Ion	Ratio	Lower	Upper
41	100		
69	85.6	43.2	129.6
39	53.3	26.4	79.0

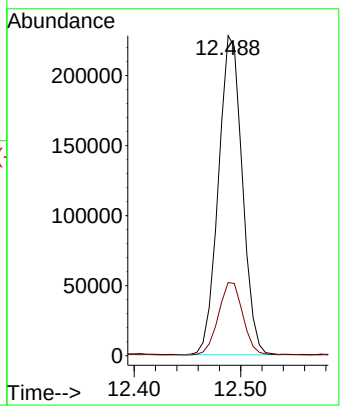




#47
n-amyl Acetate
Concen: 55.417 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 35400

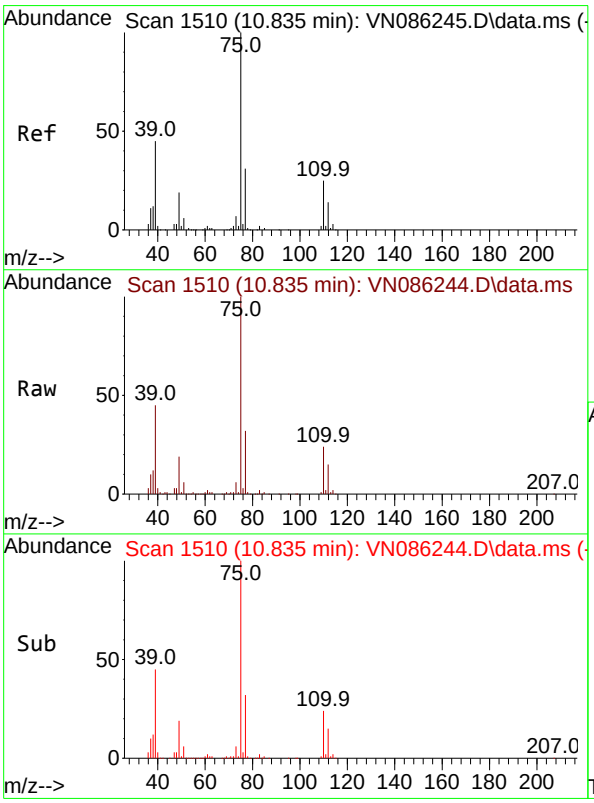
Ion	Ratio	Lower	Upper
43	100		
55	23.3	19.0	28.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

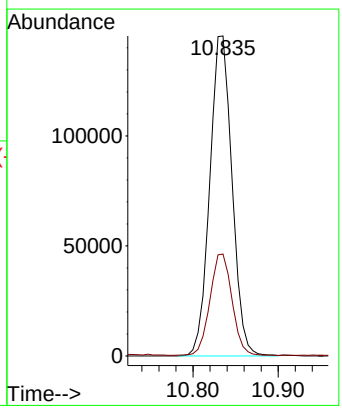
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

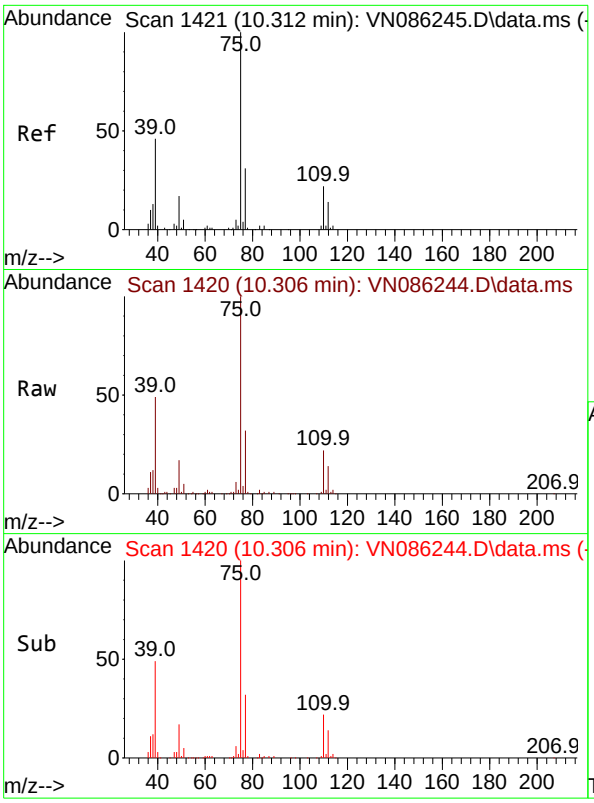


#48
t-1,3-Dichloropropene
Concen: 55.817 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 264279

Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.1	37.7

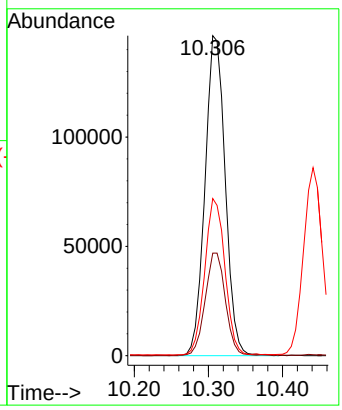




#49
cis-1,3-Dichloropropene
Concen: 55.377 ug/l
RT: 10.306 min Scan# 14
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 27750

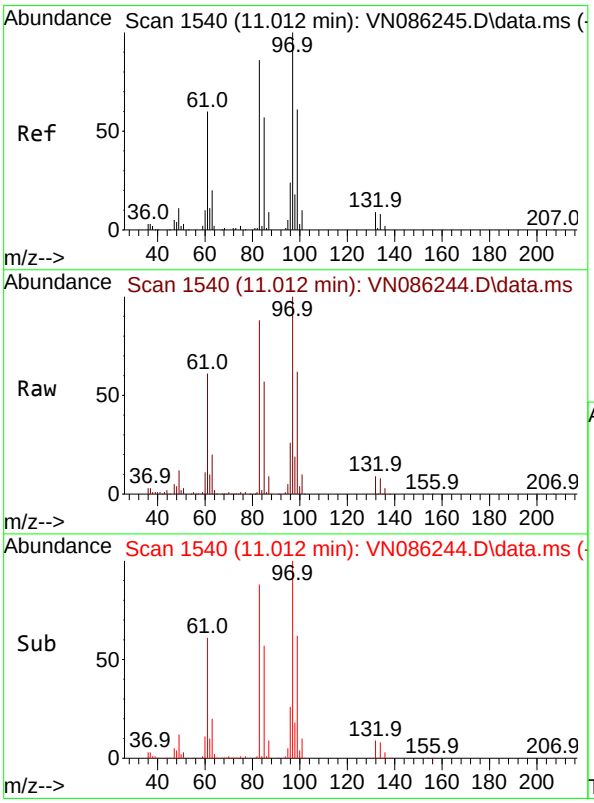
Ion	Ratio	Lower	Upper
75	100		
77	31.9	25.0	37.4
39	48.8	36.7	55.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

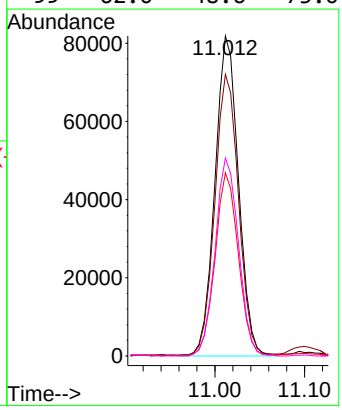
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

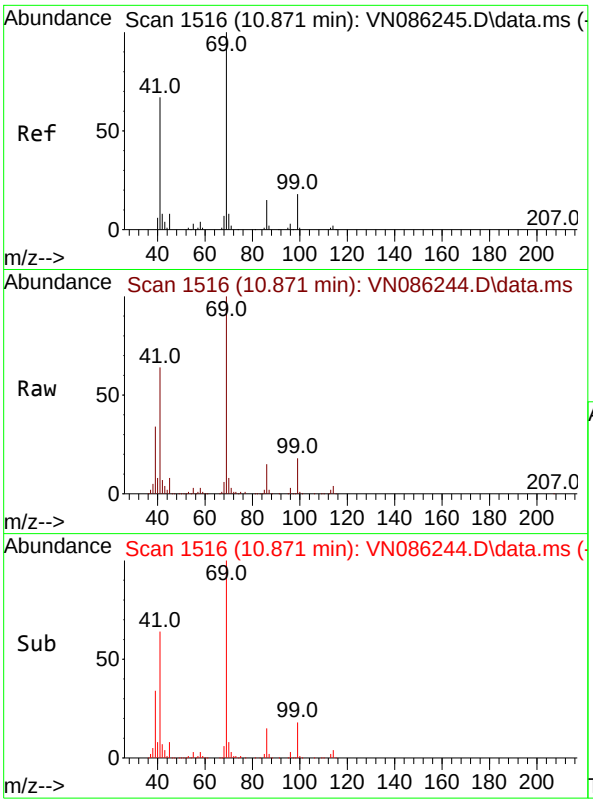


#50
1,1,2-Trichloroethane
Concen: 54.493 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 97 Resp: 149001

Ion	Ratio	Lower	Upper
97	100		
83	88.0	68.6	103.0
85	57.2	45.9	68.9
99	62.0	48.6	73.0

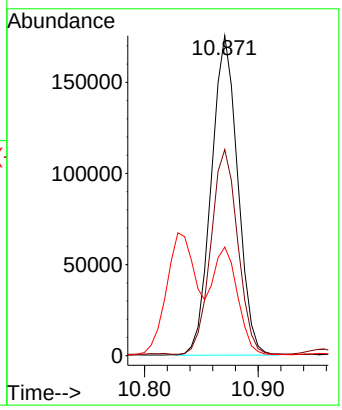




#51
Ethyl methacrylate
Concen: 55.717 ug/l
RT: 10.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 69 Resp: 28311

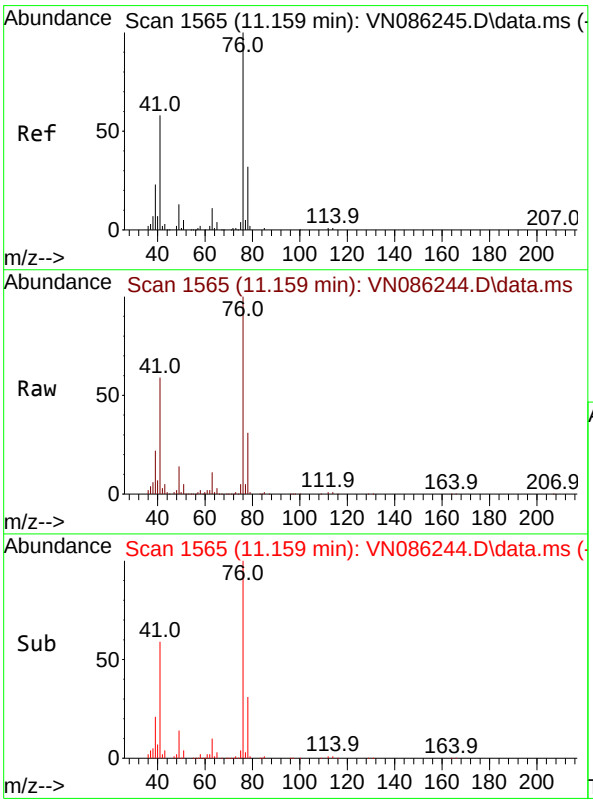
Ion	Ratio	Lower	Upper
69	100		
41	64.1	33.6	100.6
39	33.6	17.8	53.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

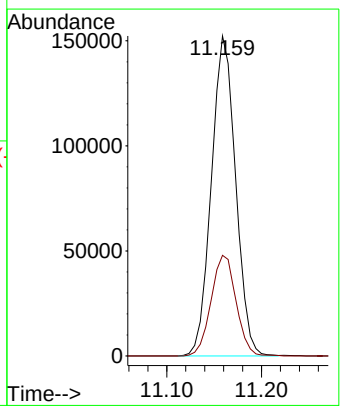
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

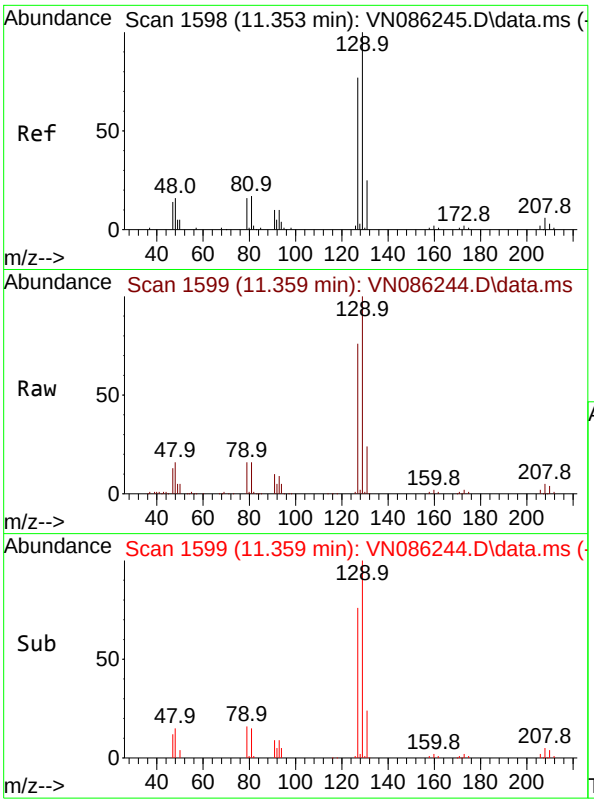


#52
1,3-Dichloropropane
Concen: 55.609 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 76 Resp: 271010

Ion	Ratio	Lower	Upper
76	100		
78	32.4	0.0	64.6

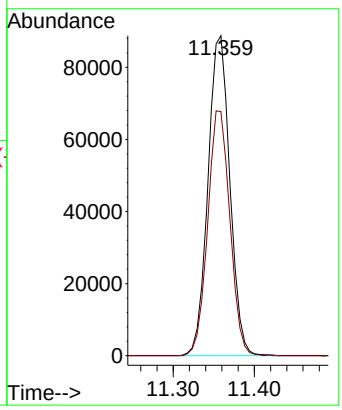




#53
Dibromochloromethane
Concen: 55.616 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:129 Resp: 16634

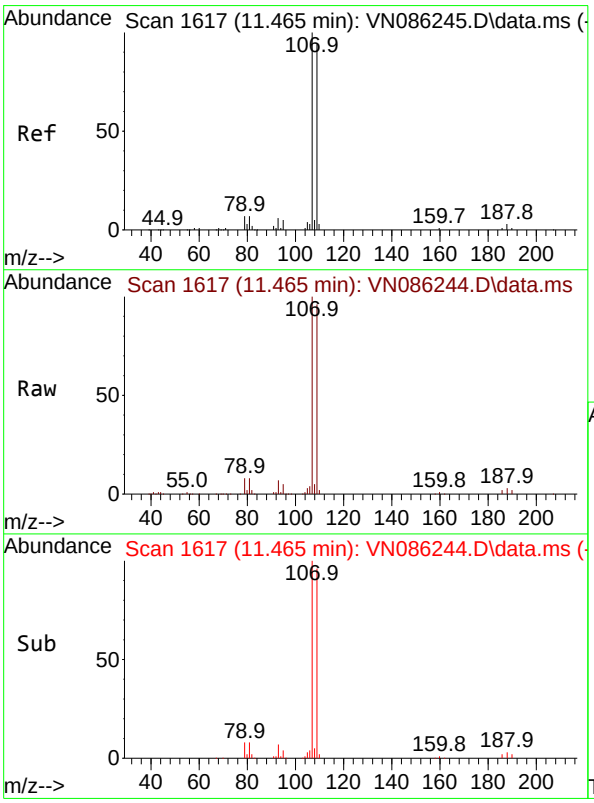
Ion	Ratio	Lower	Upper
129	100		
127	77.4	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

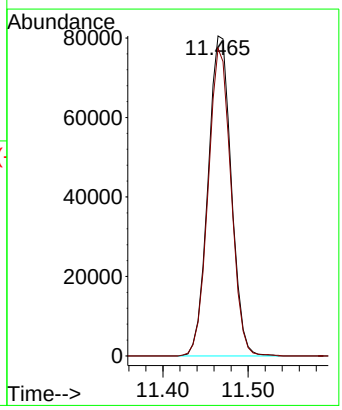
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

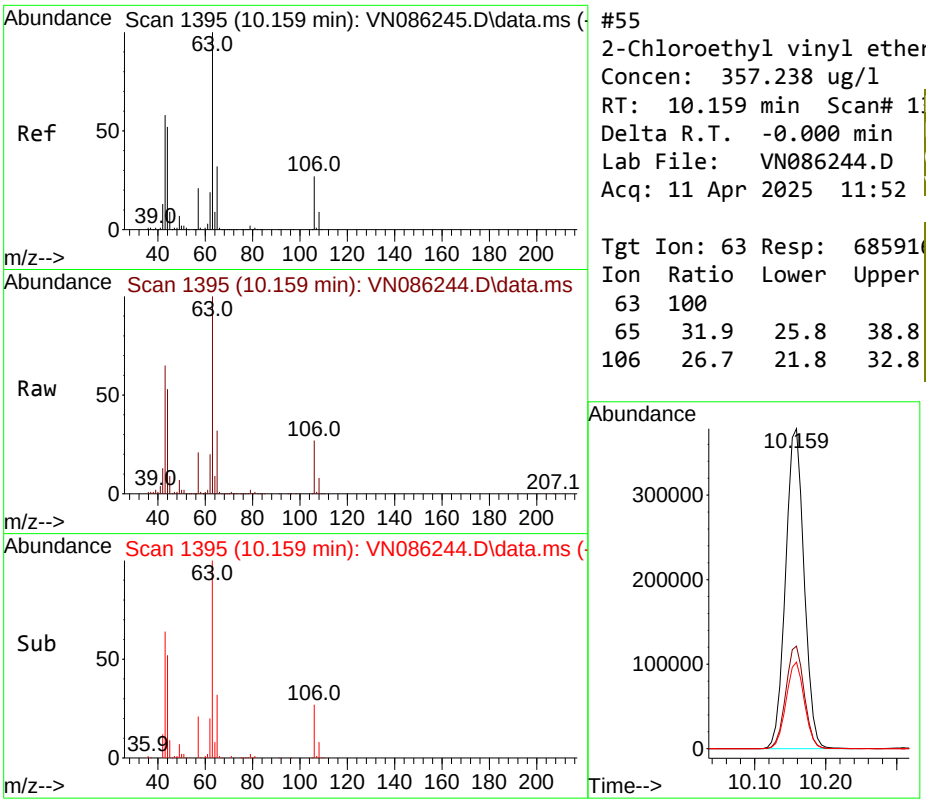


#54
1,2-Dibromoethane
Concen: 55.141 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:107 Resp: 152197

Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.2	112.8





#55
2-Chloroethyl vinyl ether
Concen: 357.238 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

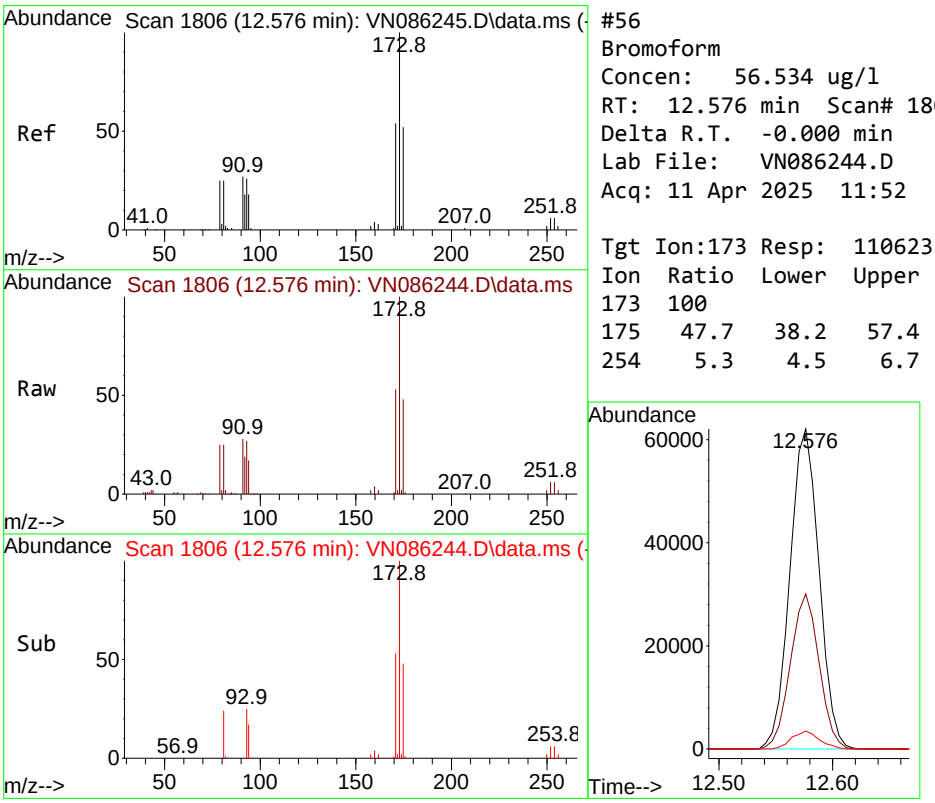
Tgt Ion: 63 Resp: 68591

Ion	Ratio	Lower	Upper
63	100		
65	31.9	25.8	38.8
106	26.7	21.8	32.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

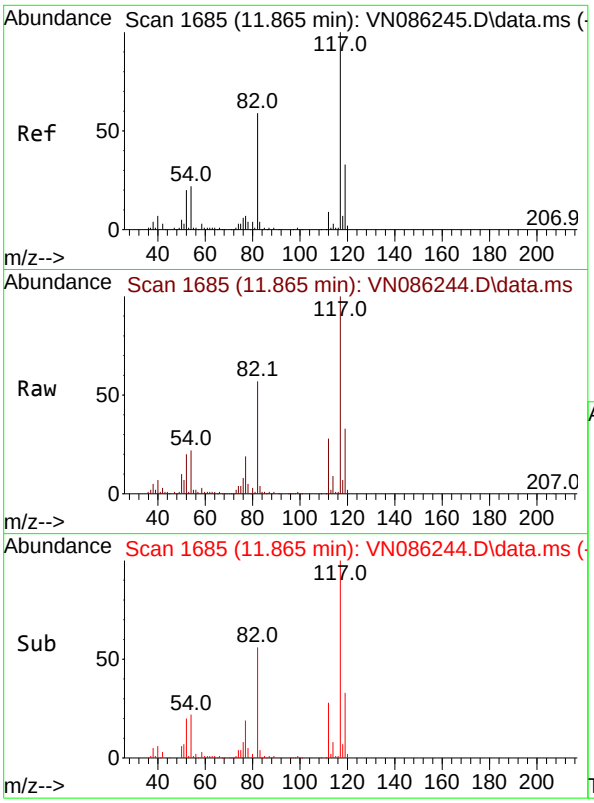
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#56
Bromoform
Concen: 56.534 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:173 Resp: 110623

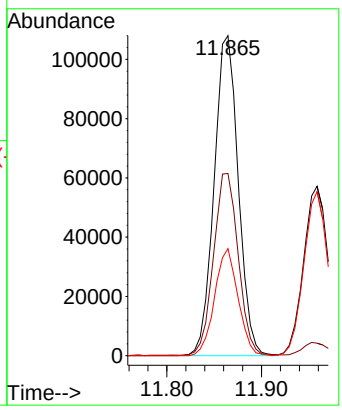
Ion	Ratio	Lower	Upper
173	100		
175	47.7	38.2	57.4
254	5.3	4.5	6.7



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:117 Resp: 19184

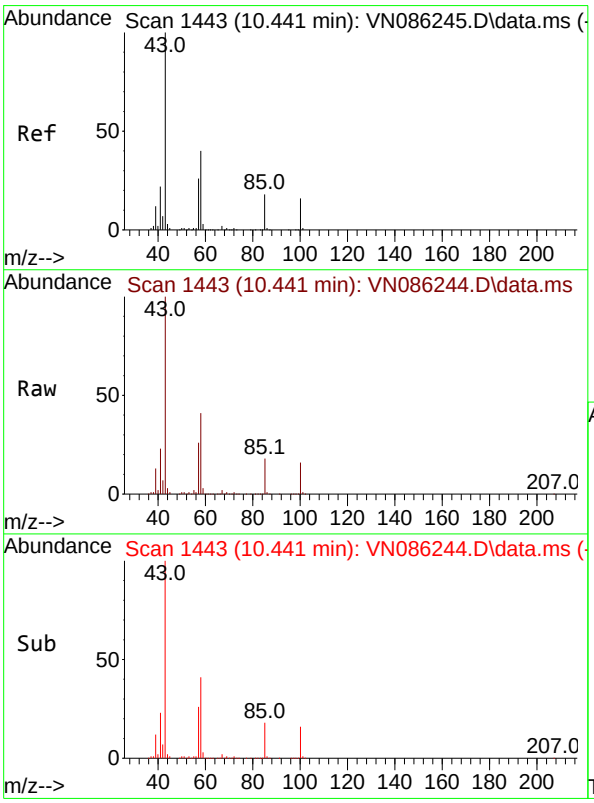
Ion	Ratio	Lower	Upper
117	100		
82	58.1	47.3	70.9
119	32.4	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

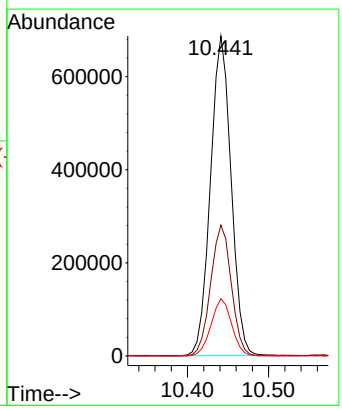
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

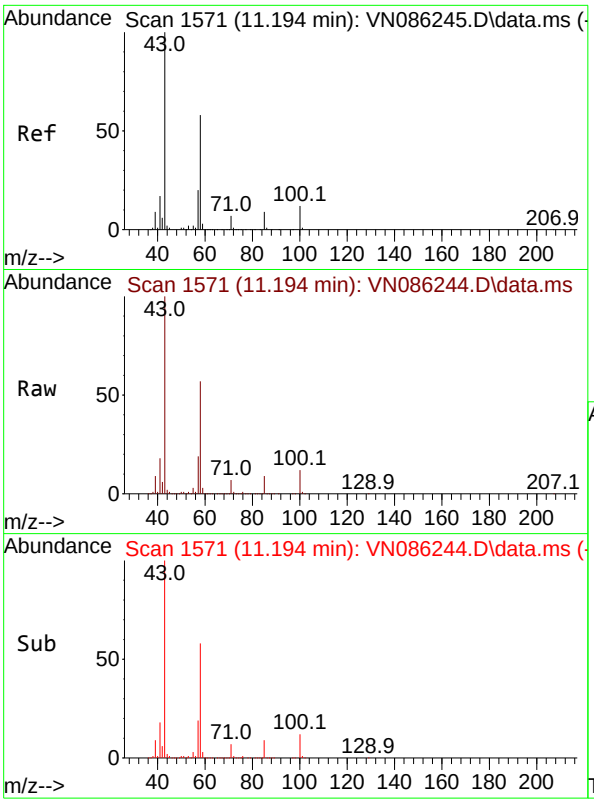


#58
4-Methyl-2-Pentanone
Concen: 278.421 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 1212140

Ion	Ratio	Lower	Upper
43	100		
58	41.0	32.5	48.7
85	17.8	14.4	21.6





#59
2-Hexanone
Concen: 281.386 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

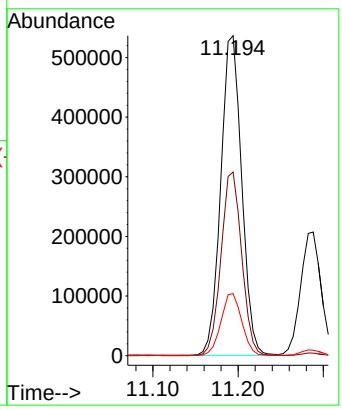
Tgt Ion: 43 Resp: 91220

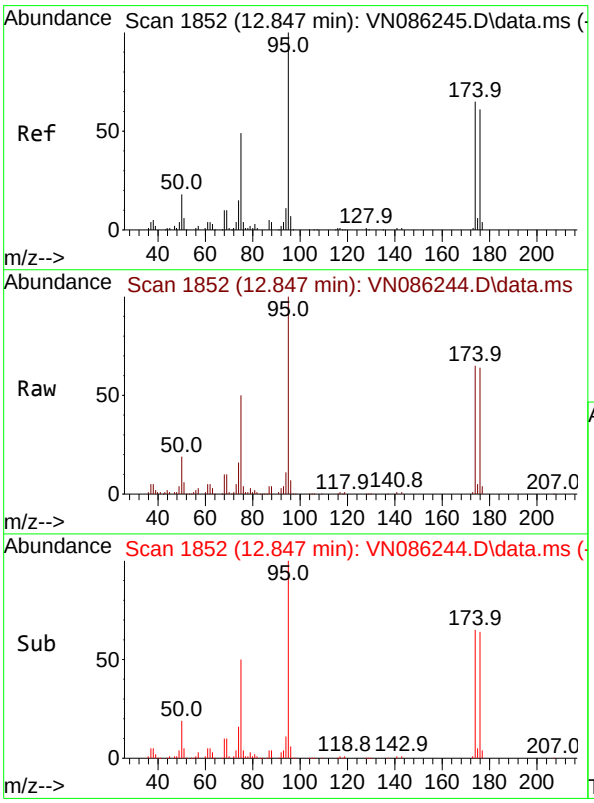
Ion	Ratio	Lower	Upper
43	100		
58	57.0	45.3	67.9
57	19.4	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

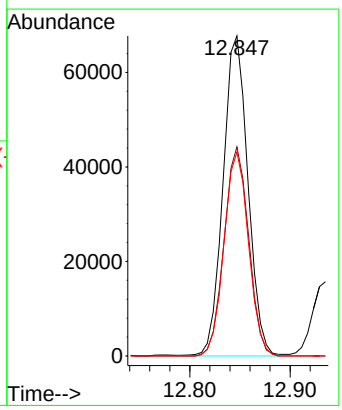


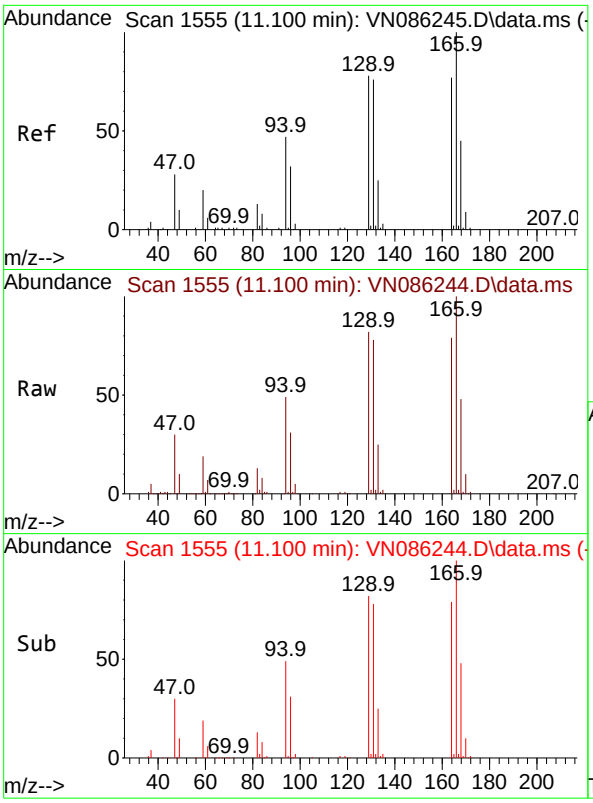


#60
4-Bromofluorobenzene
Concen: 30.469 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 95 Resp: 116379

Ion	Ratio	Lower	Upper
95	100		
174	64.5	52.7	79.1
176	62.7	49.8	74.8

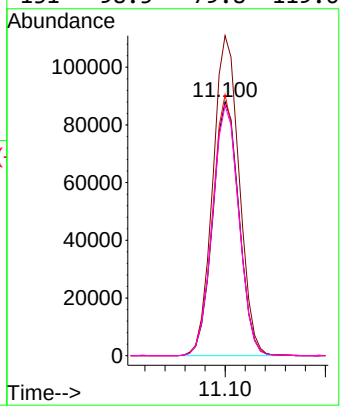




#61
Tetrachloroethene
Concen: 56.555 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:164 Resp: 16022

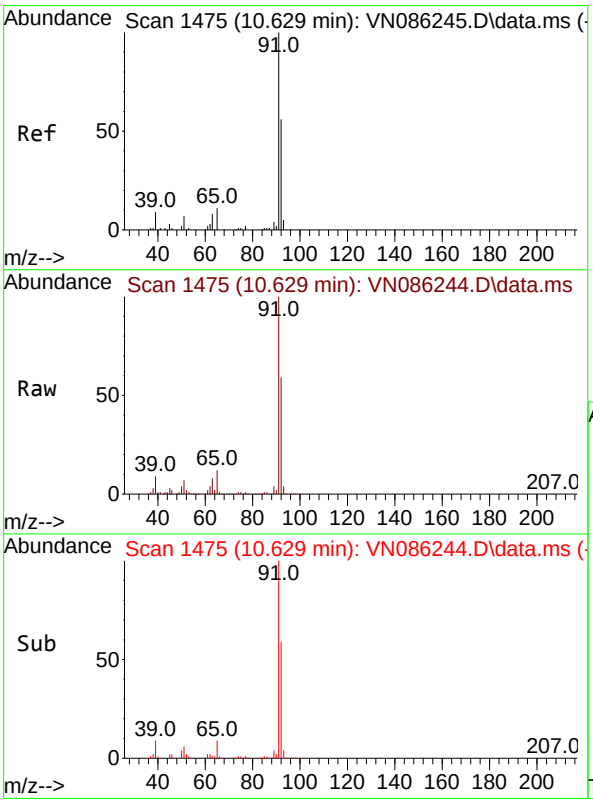
Ion	Ratio	Lower	Upper
164	100		
166	126.0	104.5	156.7
129	102.7	81.7	122.5
131	98.5	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

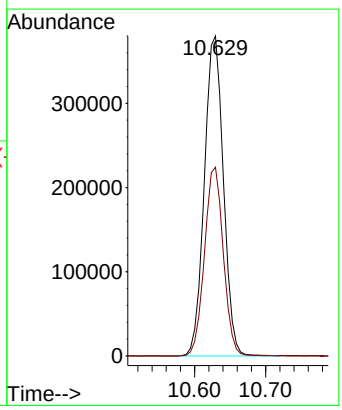
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

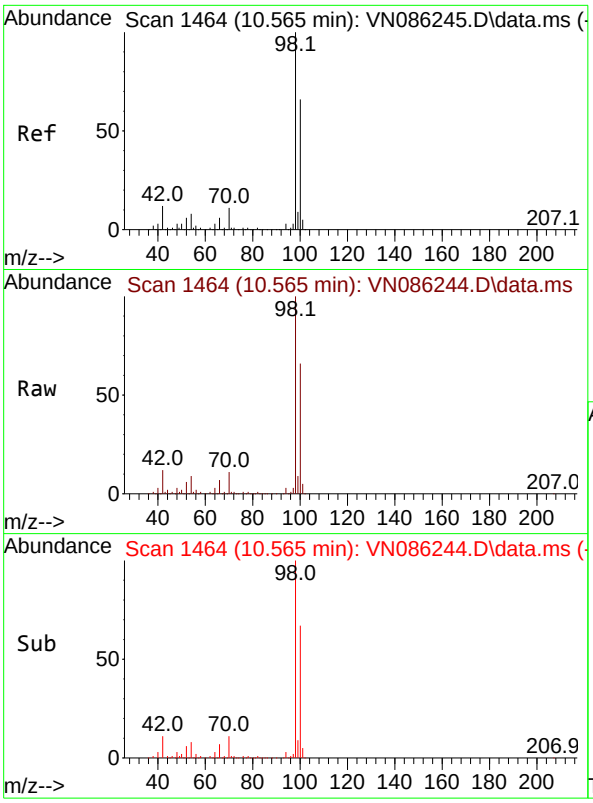


#62
Toluene
Concen: 55.140 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 709533

Ion	Ratio	Lower	Upper
91	100		
92	58.3	46.8	70.2





#63
Toluene-d8
Concen: 29.660 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

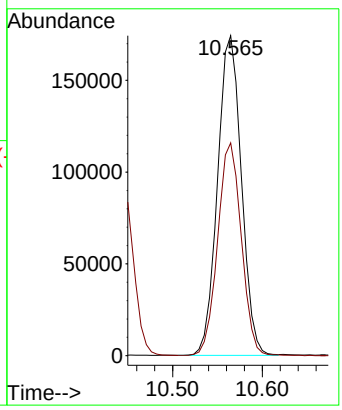
Tgt Ion: 98 Resp: 32124

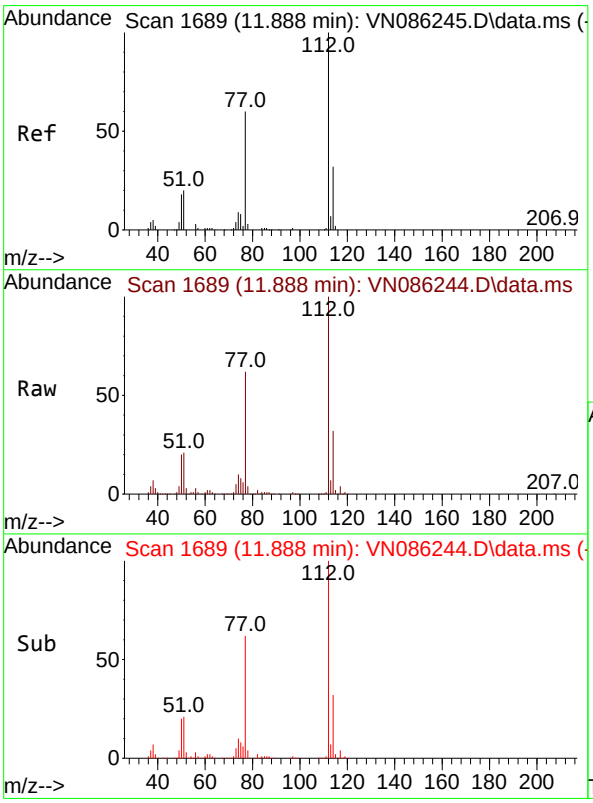
Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.3	78.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

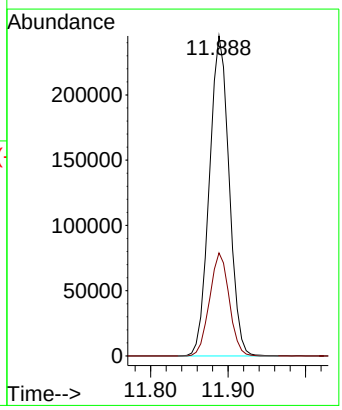


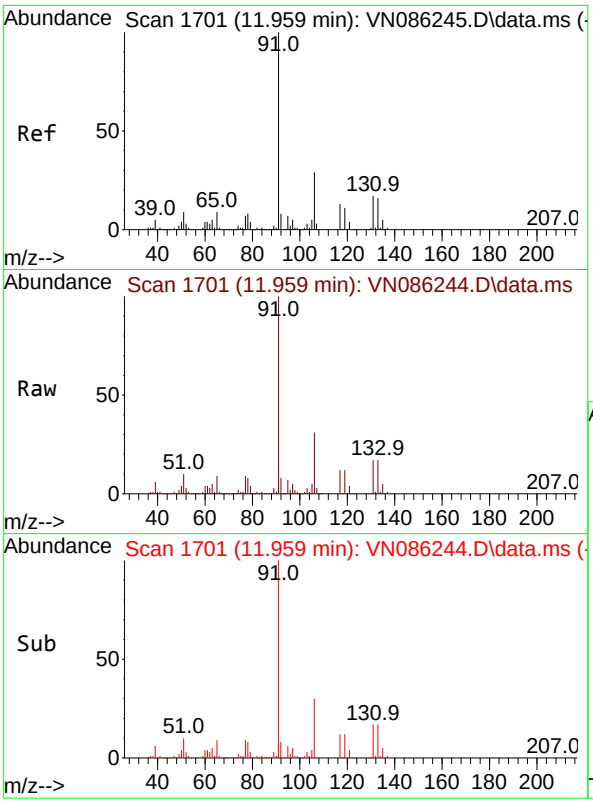


#64
Chlorobenzene
Concen: 55.211 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:112 Resp: 434051

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.6





#65
1,1,1,2-Tetrachloroethane
Concen: 56.068 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

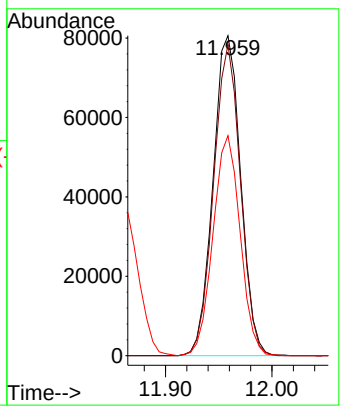
Tgt Ion:131 Resp: 14546

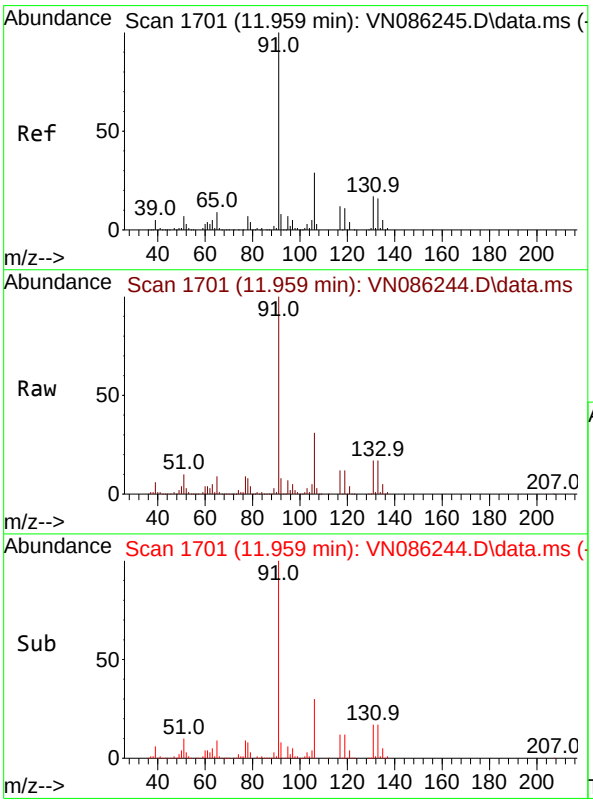
Ion	Ratio	Lower	Upper
131	100		
133	94.4	0.0	190.4
119	67.5	0.0	135.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

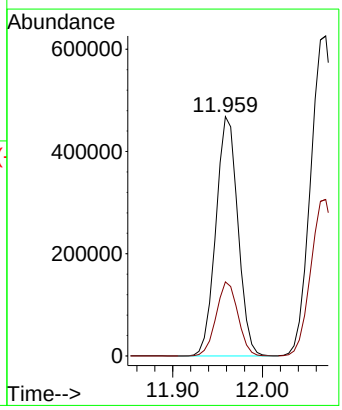


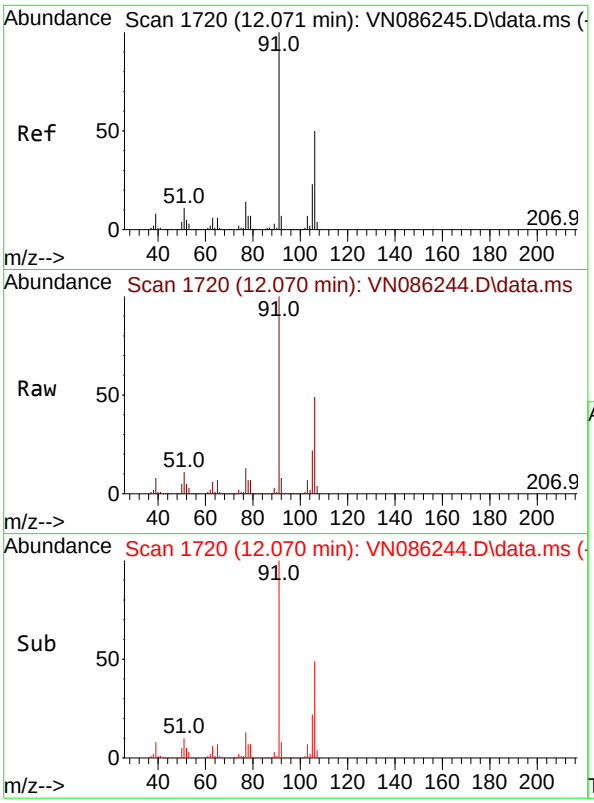


#66
Ethyl Benzene
Concen: 55.917 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 797966

Ion	Ratio	Lower	Upper
91	100		
106	30.9	23.4	35.0

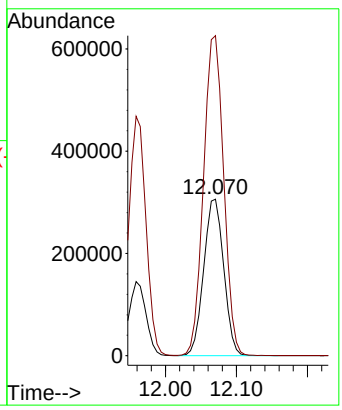




#67
m/p-Xylenes
Concen: 113.164 ug/l
RT: 12.070 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:106 Resp: 60048

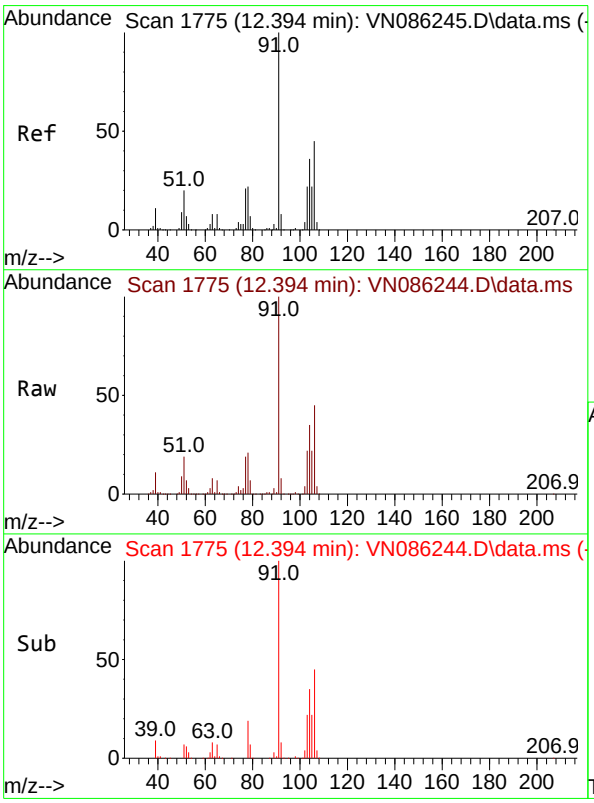
Ion	Ratio	Lower	Upper
106	100		
91	205.7	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

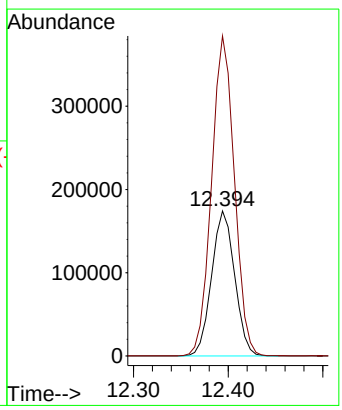
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

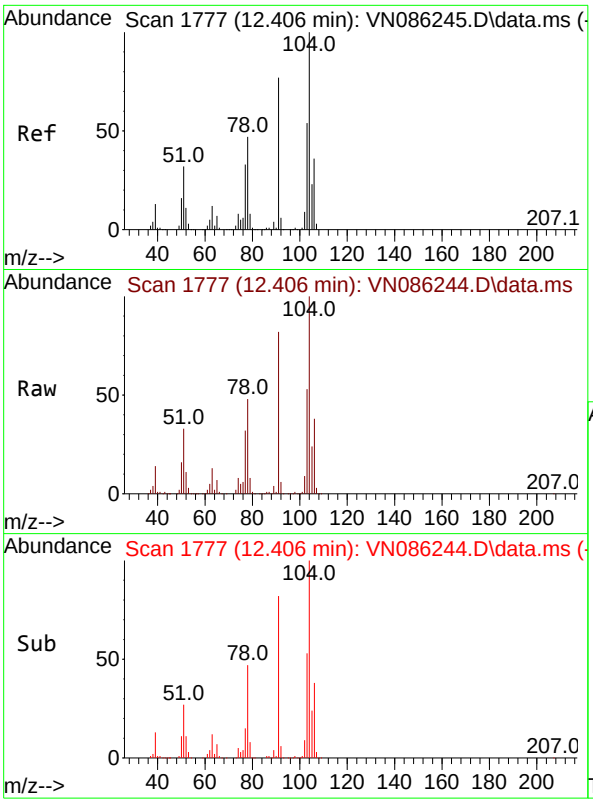


#68
o-Xylene
Concen: 56.428 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:106 Resp: 294512

Ion	Ratio	Lower	Upper
106	100		
91	218.4	109.8	329.4

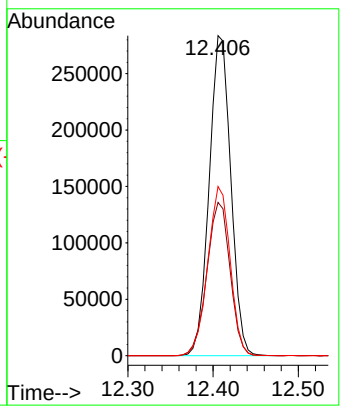




#69
Styrene
Concen: 56.790 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:104 Resp: 49988

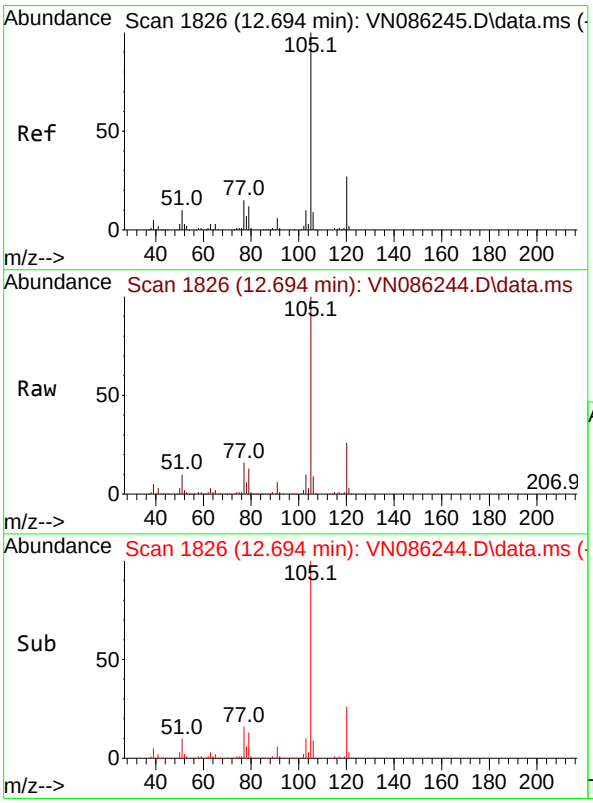
Ion	Ratio	Lower	Upper
104	100		
78	51.3	41.4	62.0
103	54.8	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

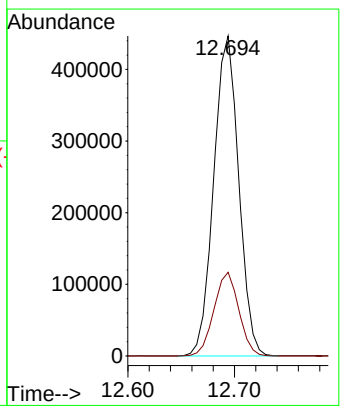
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

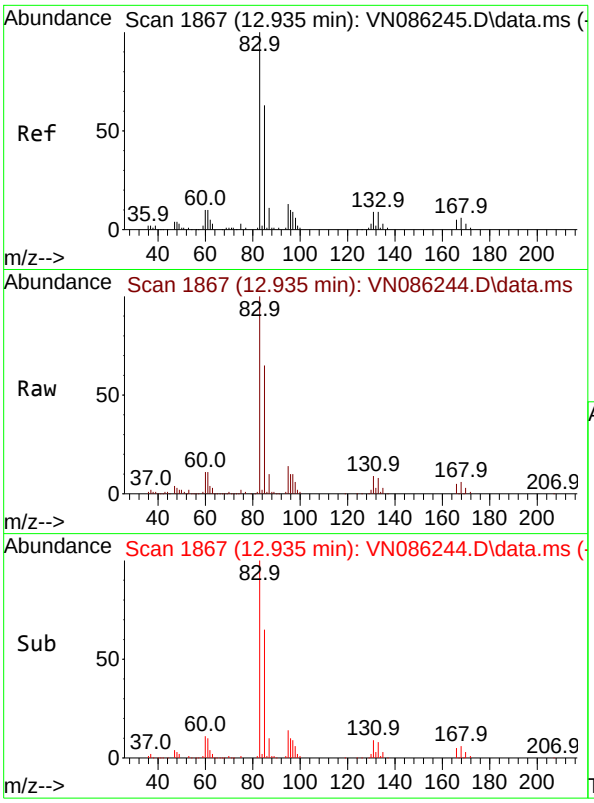


#70
Isopropylbenzene
Concen: 56.511 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 727241

Ion	Ratio	Lower	Upper
105	100		
120	26.0	18.3	34.1

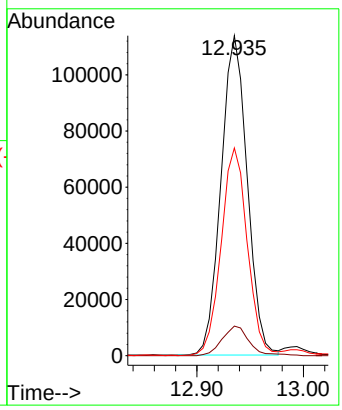




#71
1,1,2,2-Tetrachloroethane
Concen: 53.052 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 83 Resp: 19432

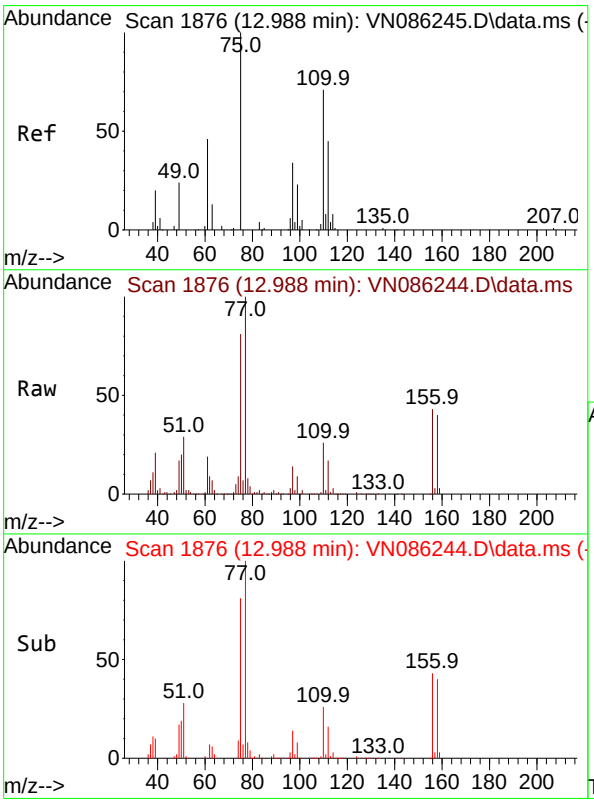
Ion	Ratio	Lower	Upper
83	100		
131	9.6	4.8	14.3
85	65.0	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

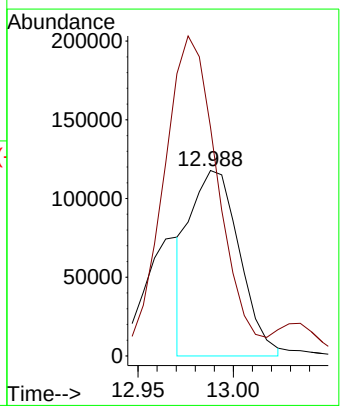
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

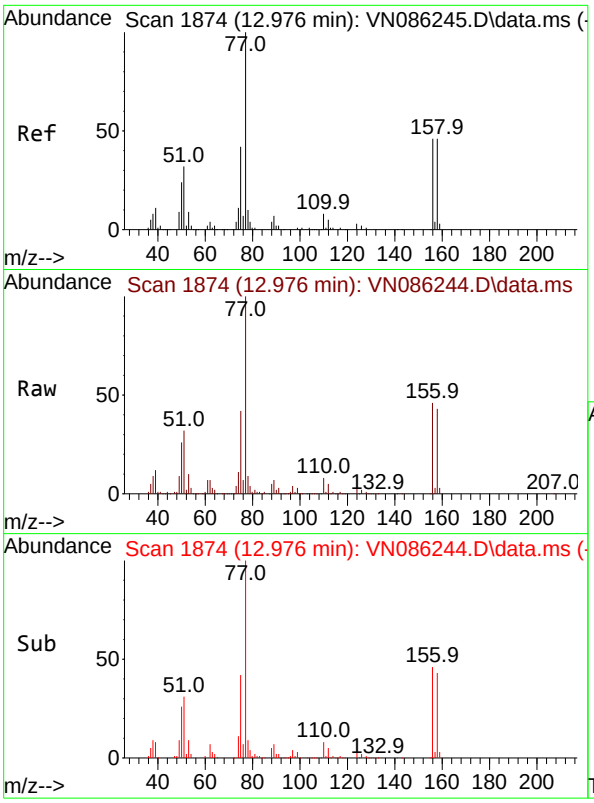


#72
1,2,3-Trichloropropane
Concen: 40.824 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 211703

Ion	Ratio	Lower	Upper
75	100		
77	193.1	0.0	380.0

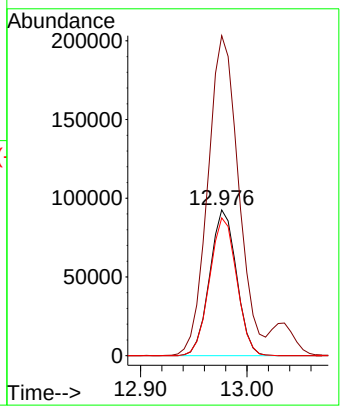




#73
Bromobenzene
Concen: 56.588 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:156 Resp: 16132

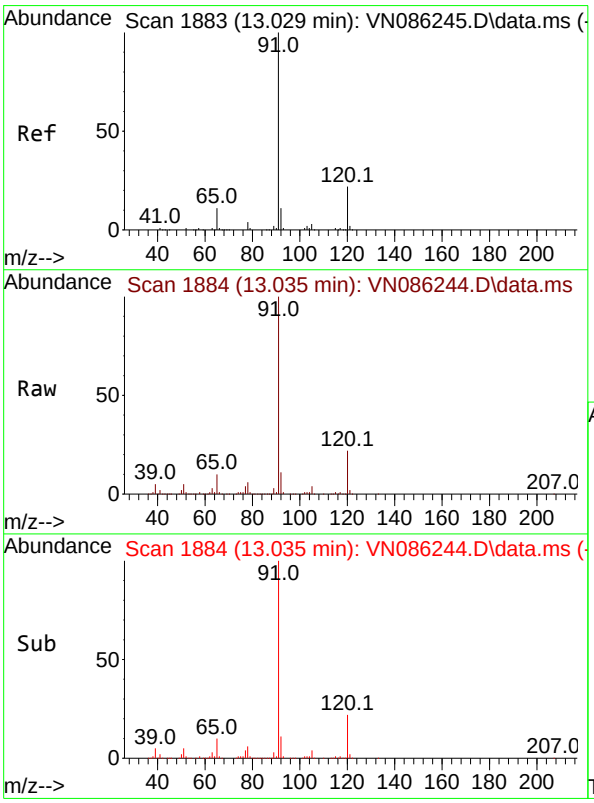
Ion	Ratio	Lower	Upper
156	100		
77	253.4	0.0	505.2
158	95.7	0.0	195.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

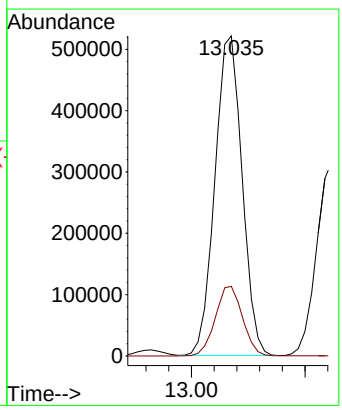
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

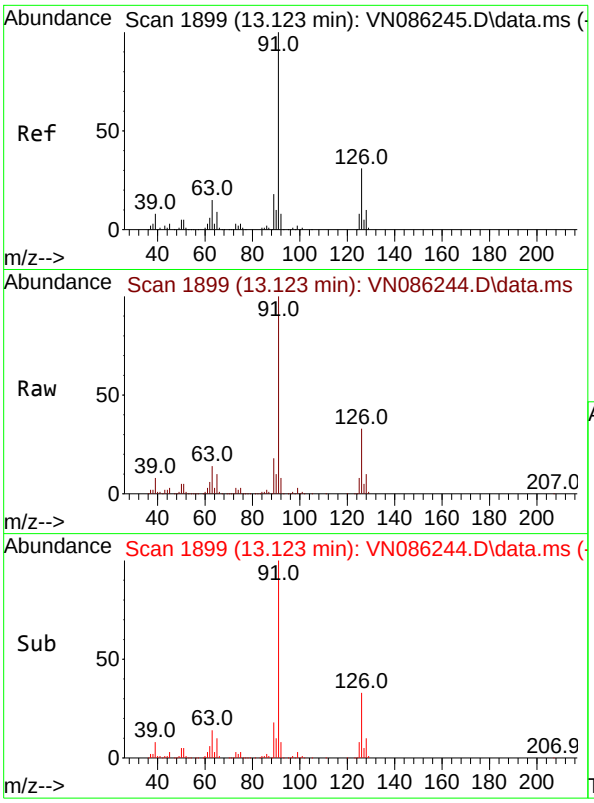


#74
n-propylbenzene
Concen: 56.817 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 865912

Ion	Ratio	Lower	Upper
91	100		
120	21.8	0.0	44.0

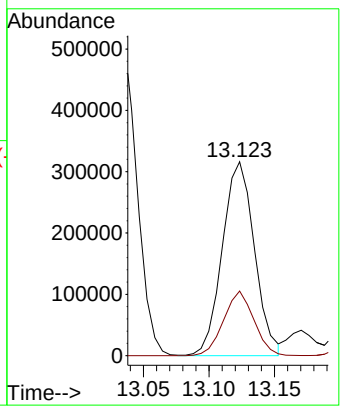




#75
2-Chlorotoluene
Concen: 56.468 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 53935

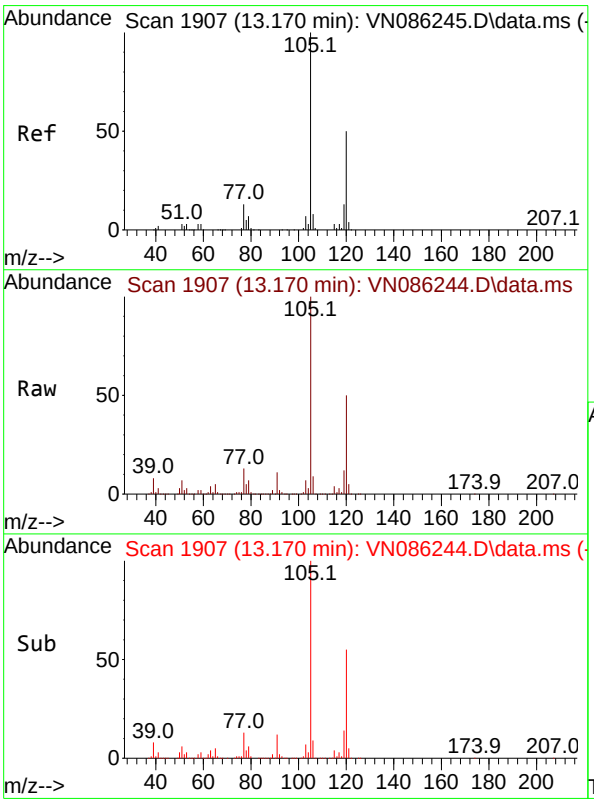
Ion	Ratio	Lower	Upper
91	100		
126	31.5	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

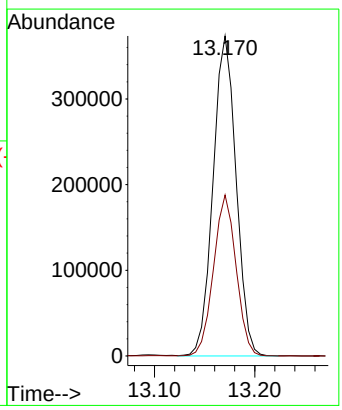
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

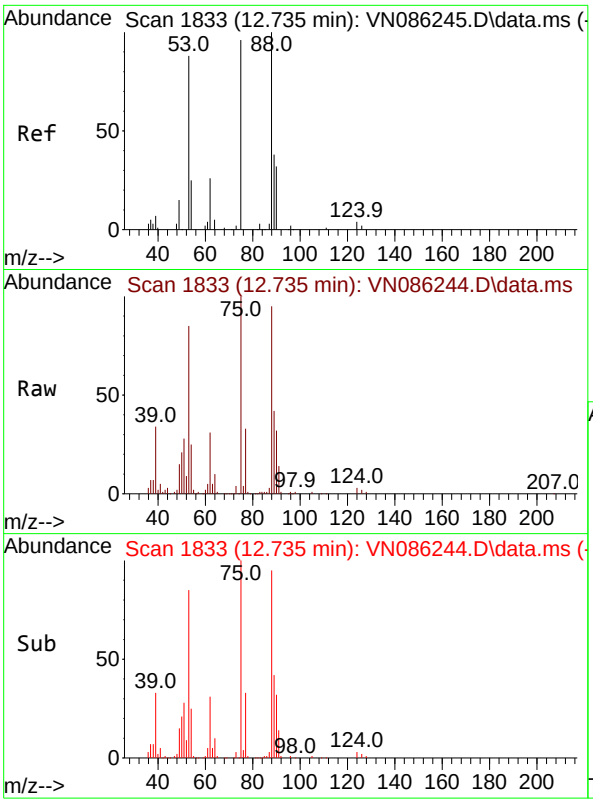


#76
1,3,5-Trimethylbenzene
Concen: 56.398 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 596201

Ion	Ratio	Lower	Upper
105	100		
120	49.3	0.0	98.0

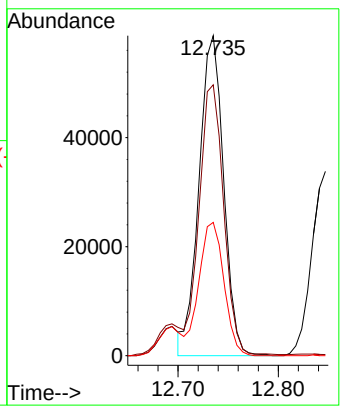




#77
t-1,4-Dichloro-2-butene
Concen: 56.970 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 10015

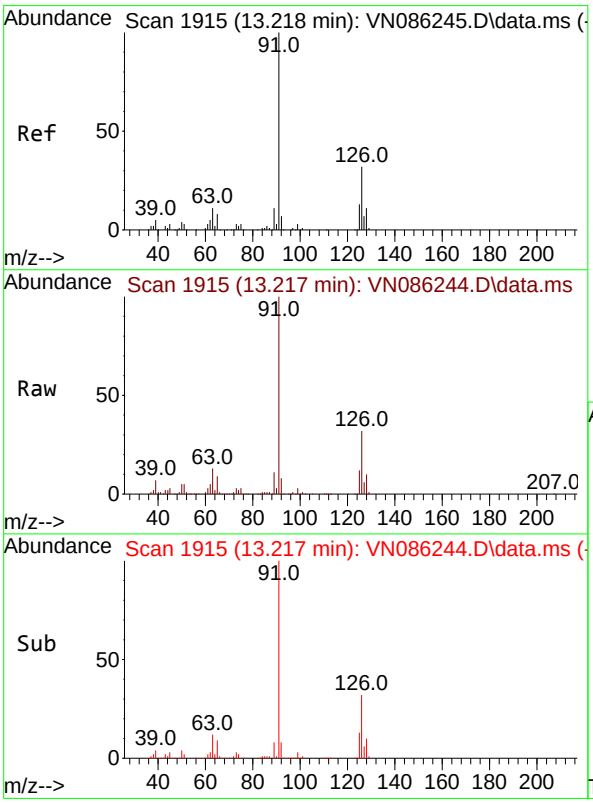
Ion	Ratio	Lower	Upper
75	100		
53	84.3	46.4	139.2
89	41.7	22.5	67.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

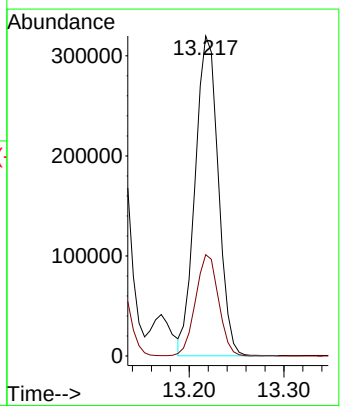
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

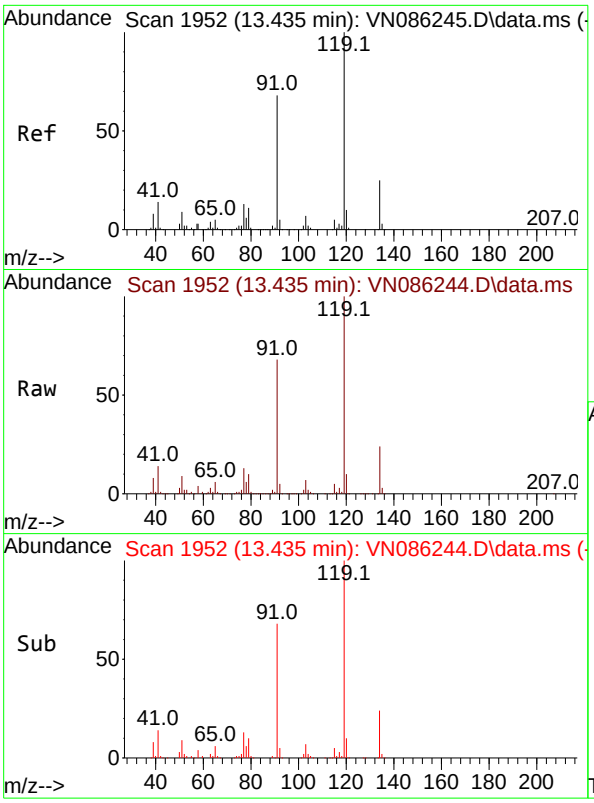


#78
4-Chlorotoluene
Concen: 56.787 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 541691

Ion	Ratio	Lower	Upper
91	100		
126	31.6	0.0	63.2

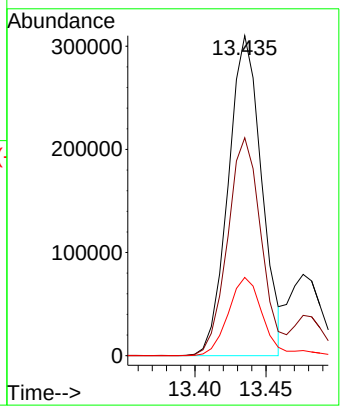




#79
tert-butylbenzene
Concen: 55.374 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:119 Resp: 506518

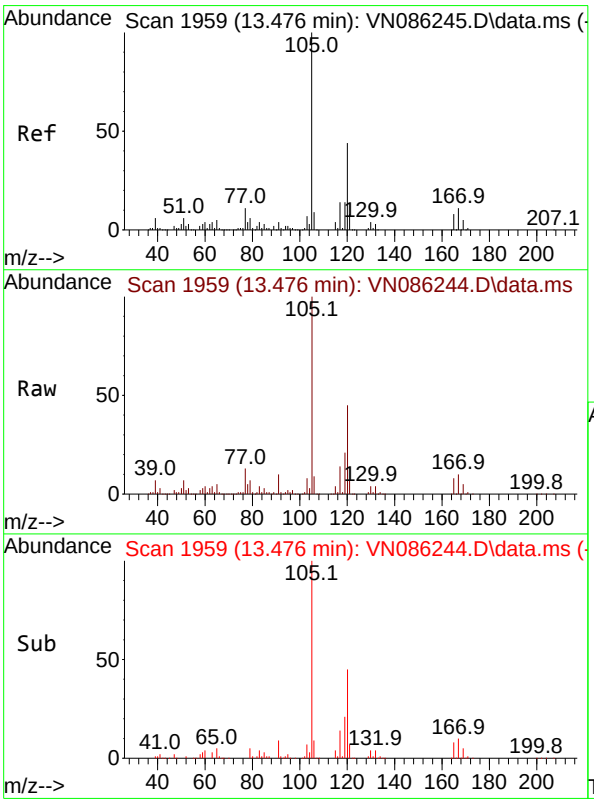
Ion	Ratio	Lower	Upper
119	100		
91	69.1	0.0	136.6
134	24.6	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

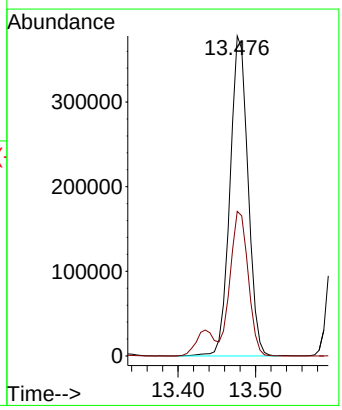
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

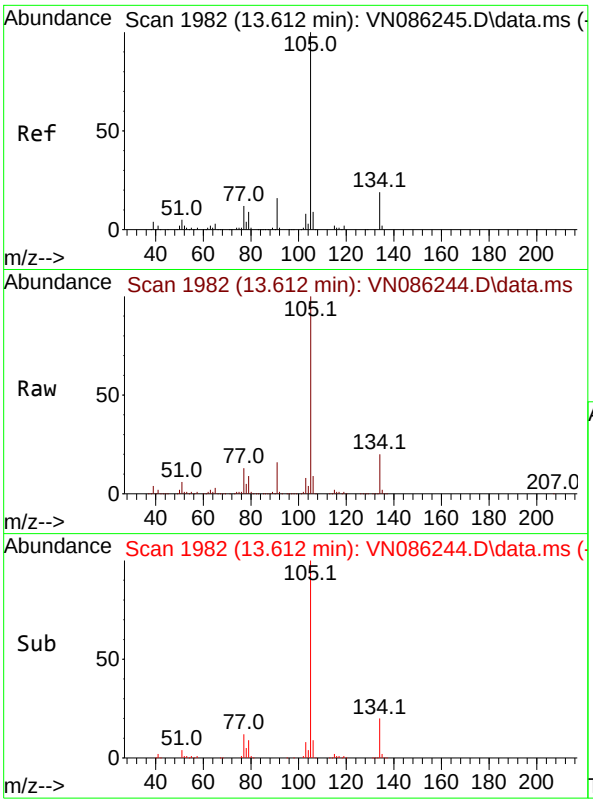


#80
1,2,4-Trimethylbenzene
Concen: 57.035 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 611389

Ion	Ratio	Lower	Upper
105	100		
120	45.1	0.0	91.0

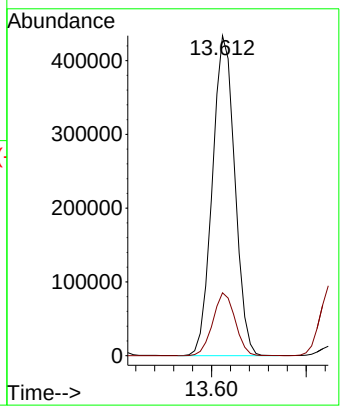




#81
sec-Butylbenzene
Concen: 55.977 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 71424

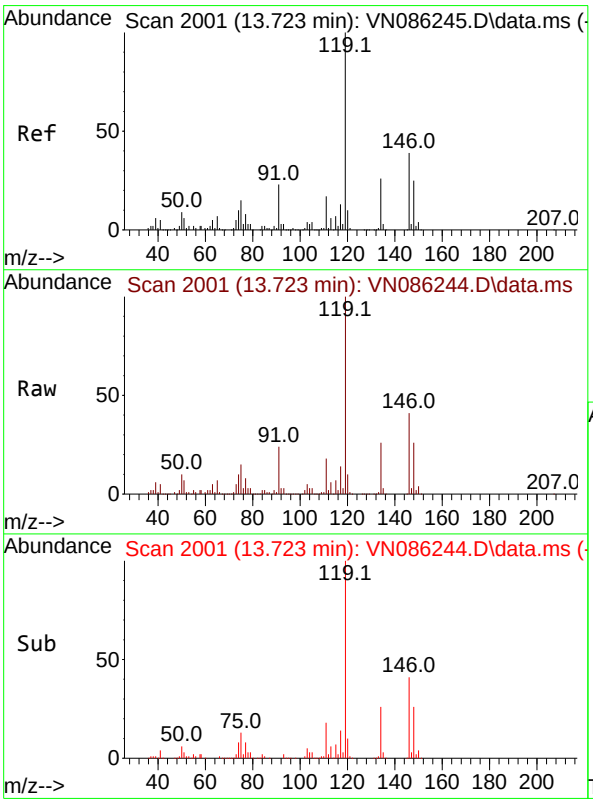
Ion	Ratio	Lower	Upper
105	100		
134	19.5	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

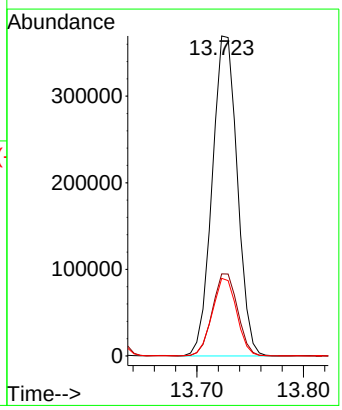
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

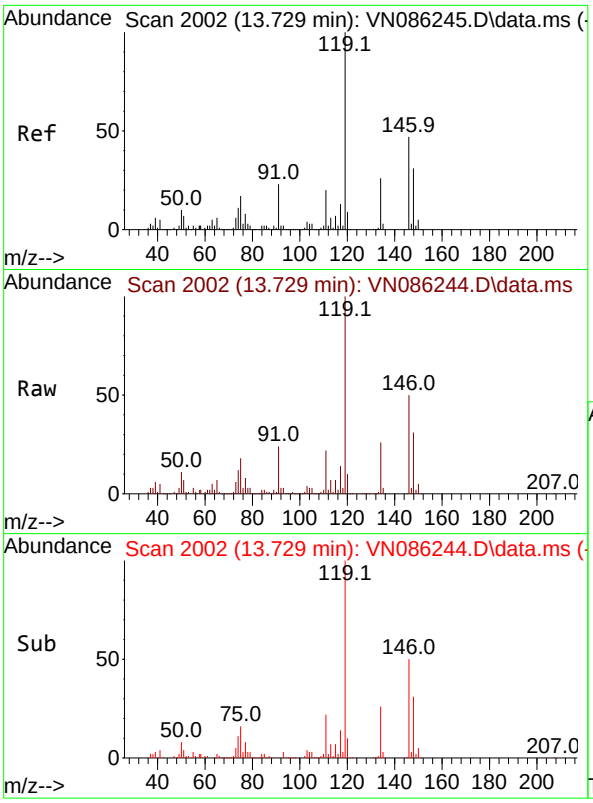


#82
p-Isopropyltoluene
Concen: 56.791 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:119 Resp: 604494

Ion	Ratio	Lower	Upper
119	100		
134	25.8	0.0	51.6
91	23.6	0.0	48.2

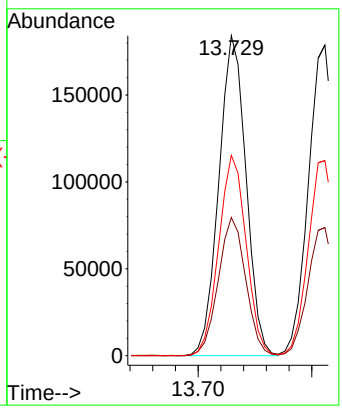




#83
1,3-Dichlorobenzene
Concen: 57.795 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:146 Resp: 30624

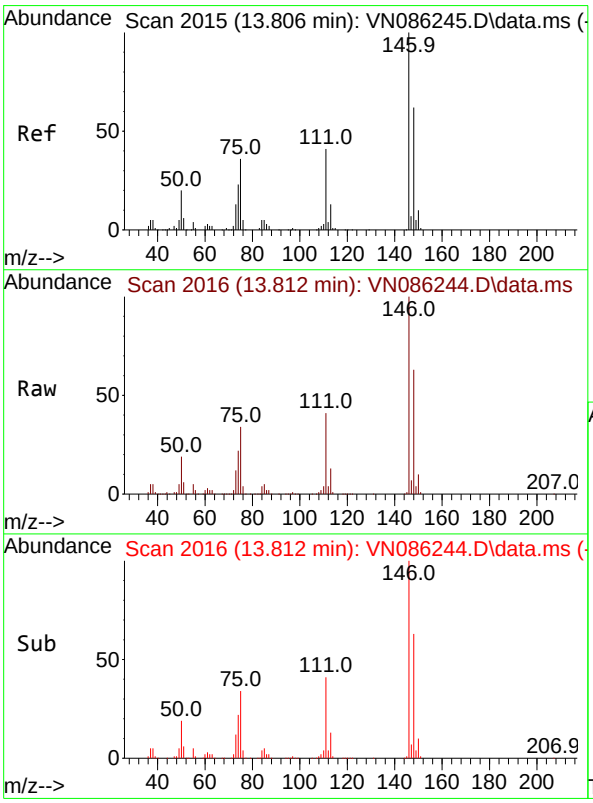
Ion	Ratio	Lower	Upper
146	100		
111	43.6	21.7	65.1
148	63.2	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

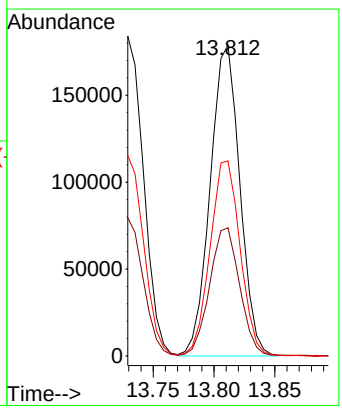
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

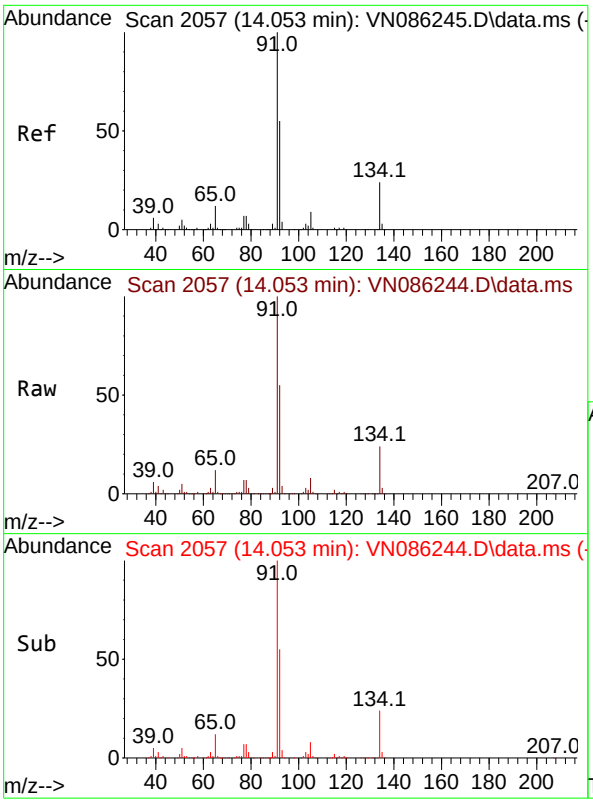


#84
1,4-Dichlorobenzene
Concen: 57.117 ug/l
RT: 13.812 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:146 Resp: 303615

Ion	Ratio	Lower	Upper
146	100		
111	41.6	20.8	62.4
148	63.7	31.9	95.5

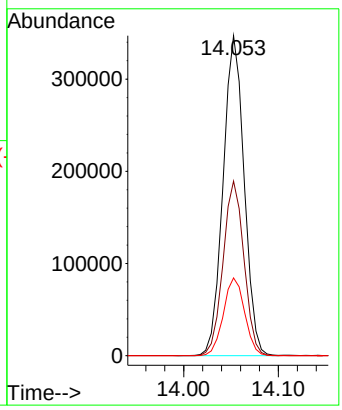




#85
n-Butylbenzene
Concen: 55.917 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 53694

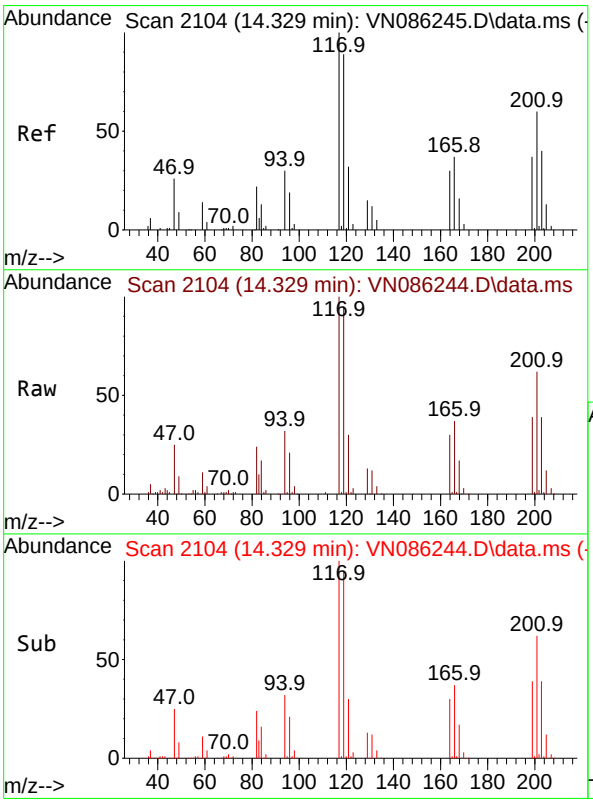
Ion	Ratio	Lower	Upper
91	100		
92	54.0	0.0	109.4
134	24.5	0.0	48.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

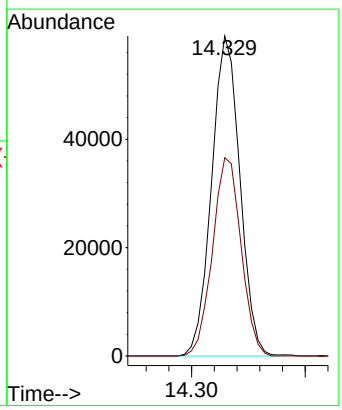
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

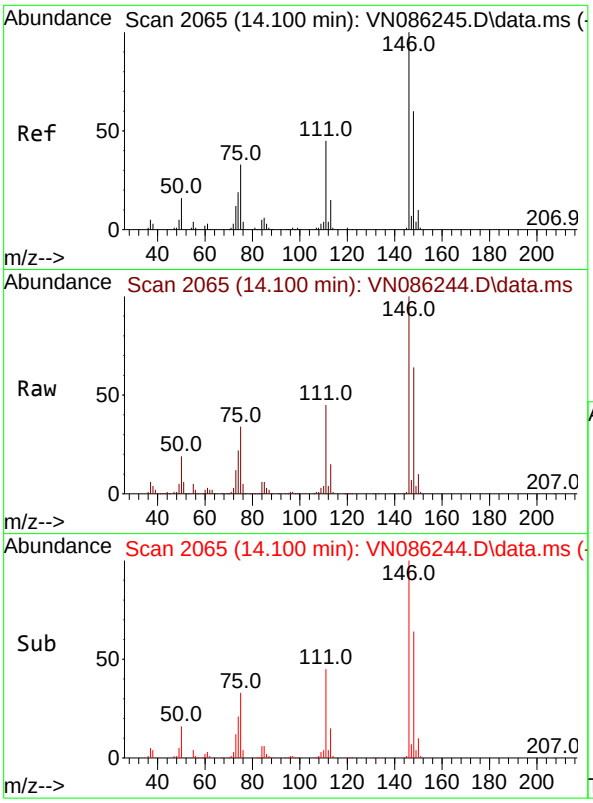


#86
Hexachloroethane
Concen: 56.854 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:117 Resp: 102084

Ion	Ratio	Lower	Upper
117	100		
201	62.6	30.9	92.8

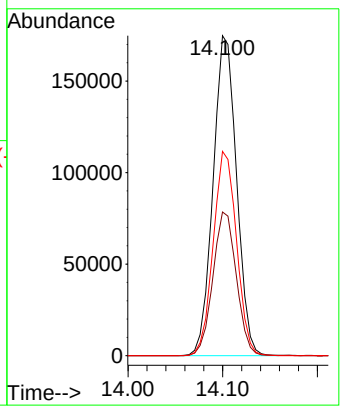




#87
1,2-Dichlorobenzene
Concen: 57.607 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:146 Resp: 30139

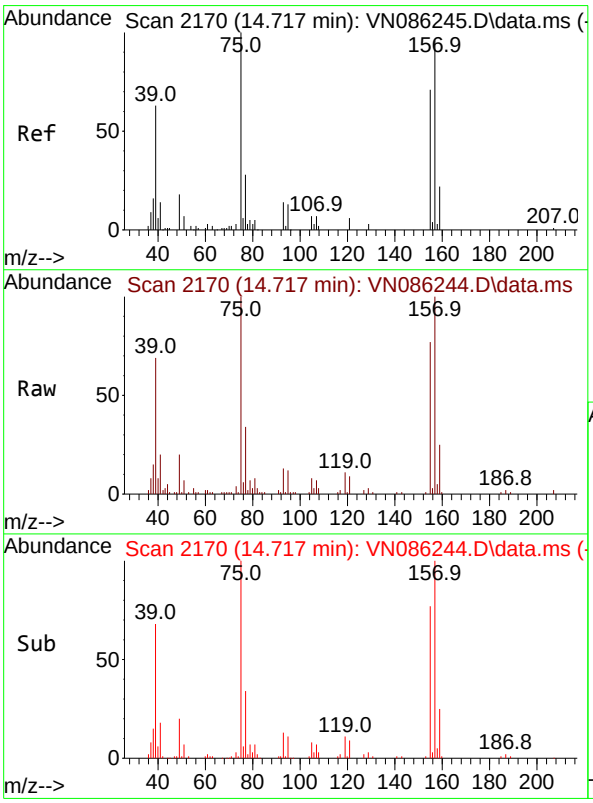
Ion	Ratio	Lower	Upper
146	100		
111	44.9	22.7	68.0
148	63.4	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations APPROVED

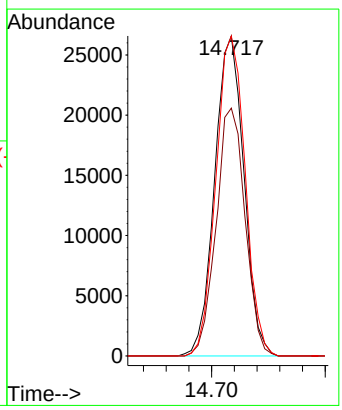
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

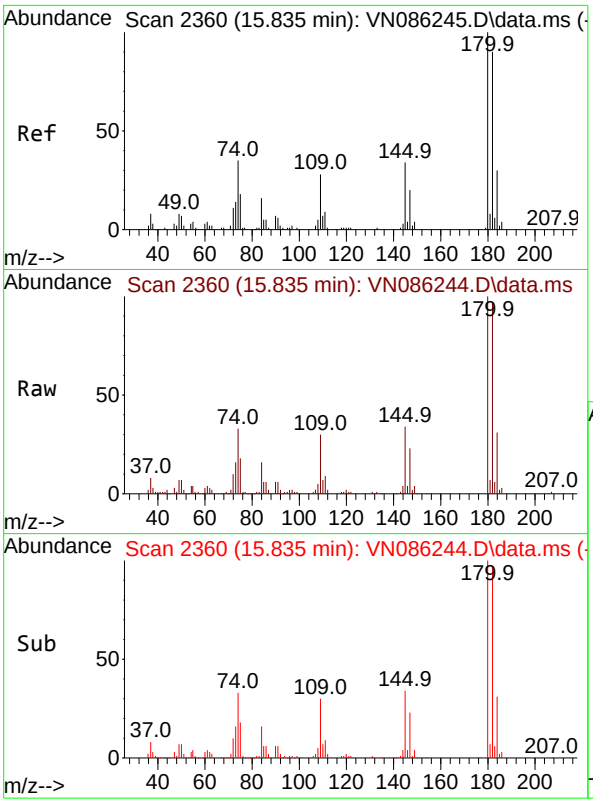


#88
1,2-Dibromo-3-Chloropropane
Concen: 56.890 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 47464

Ion	Ratio	Lower	Upper
75	100		
155	76.8	60.3	90.5
157	99.9	79.0	118.4

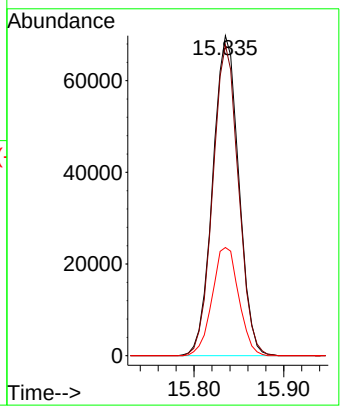




#89
1,2,4-Trichlorobenzene
Concen: 55.103 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:180 Resp: 14027

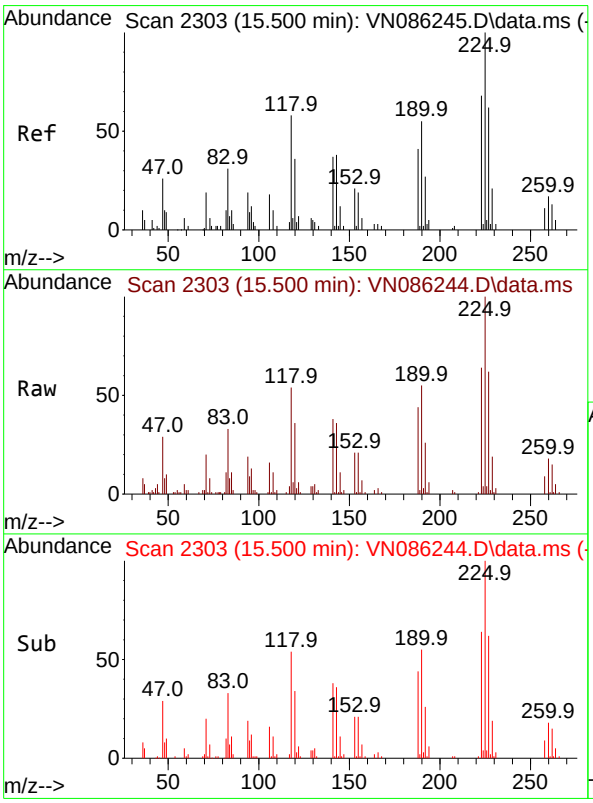
Ion	Ratio	Lower	Upper
180	100		
182	95.8	75.1	112.7
145	34.6	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

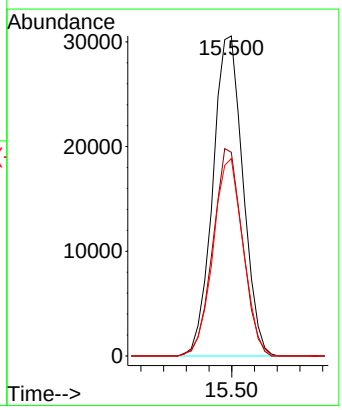
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

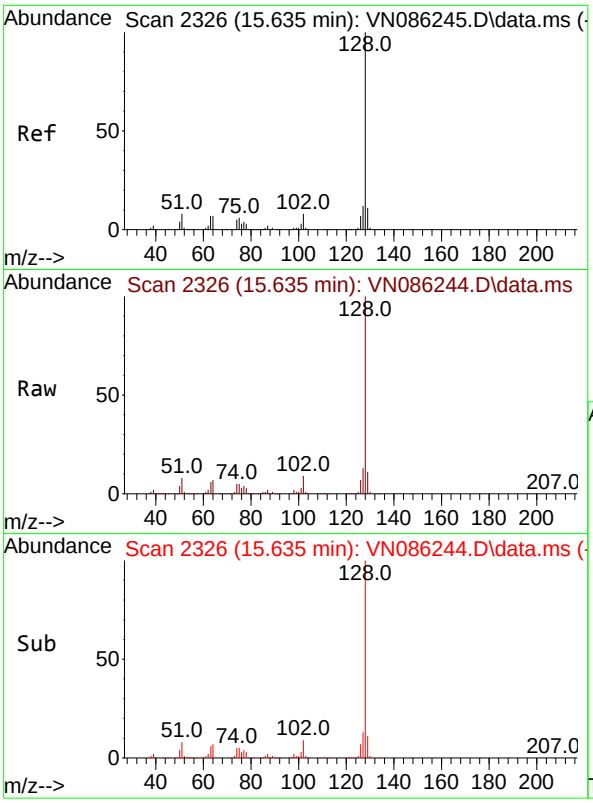


#90
Hexachlorobutadiene
Concen: 51.165 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:225 Resp: 56236

Ion	Ratio	Lower	Upper
225	100		
223	63.7	0.0	130.0
227	61.6	0.0	123.2

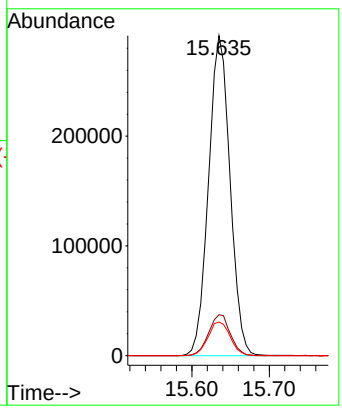




#91
Naphthalene
Concen: 55.953 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:128 Resp: 56157

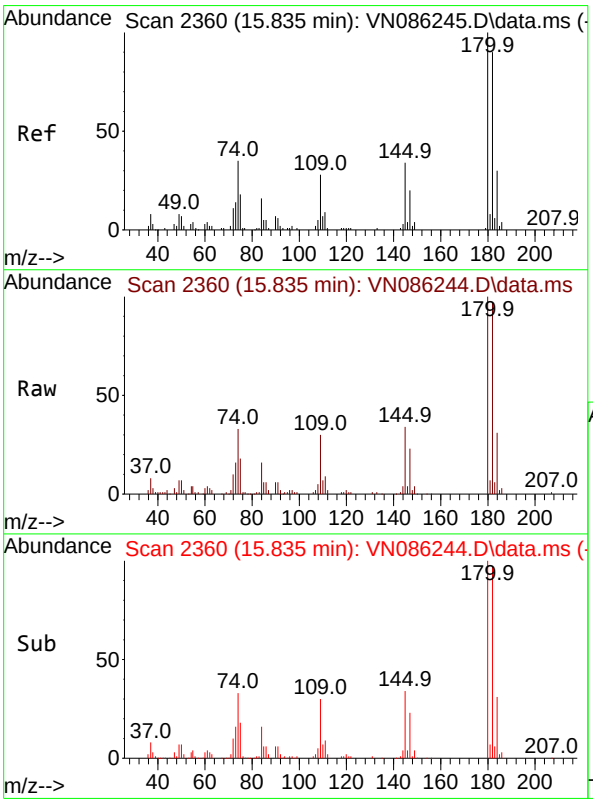
Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.2	15.2
129	10.9	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations
APPROVED

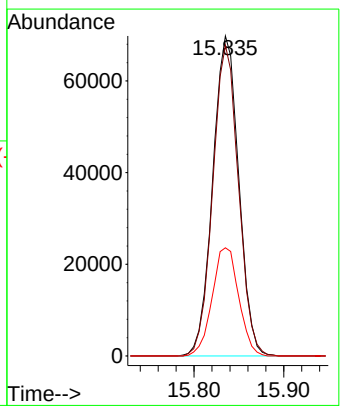
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 55.103 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:180 Resp: 140271

Ion	Ratio	Lower	Upper
180	100		
182	95.8	0.0	187.8
145	34.6	0.0	67.8



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086245.D
Acq On : 11 Apr 2025 12:16
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 12 00:20:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	30974	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	185020	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	163907	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	89958	29.776	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 99.267%			
60) 4-Bromofluorobenzene	12.847	95	97314	29.820	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.400%			
63) Toluene-d8	10.565	98	281589	30.431	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.433%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	48008	19.345	ug/l	100
3) Chloromethane	2.359	50	63879	18.624	ug/l	100
4) Vinyl Chloride	2.512	62	62095	19.006	ug/l	100
5) Bromomethane	2.965	94	30452	18.686	ug/l	100
6) Chloroethane	3.124	64	38415	18.620	ug/l	100
7) Trichlorofluoromethane	3.501	101	66215	18.683	ug/l	100
8) Diethyl Ether	3.959	74	30487	18.653	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	41257	18.878	ug/l	100
10) 1,1-Dichloroethene	4.342	96	44299	18.782	ug/l	100
11) Methyl Iodide	4.589	142	50856	18.760	ug/l	100
12) Methyl Acetate	5.024	43	61331	18.414	ug/l	100
13) Acrolein	4.177	56	27873	73.623	ug/l	100
14) Acrylonitrile	5.718	53	132407	94.169	ug/l	100
15) Acetone	4.424	58	33967	95.196	ug/l	95
16) Carbon Disulfide	4.712	76	129547	19.155	ug/l	100
17) Allyl chloride	5.024	41	76657	18.648	ug/l	100
18) Methylene Chloride	5.277	84	49299	18.333	ug/l	100
19) trans-1,2-Dichloroethene	5.789	96	45854	21.553	ug/l	100
20) Diisopropyl ether	6.671	45	167099	18.905	ug/l	100
21) 1,1-Dichloroethane	6.565	63	89726	19.030	ug/l	100
22) cis-1,2-Dichloroethene	7.489	96	55538	18.766	ug/l	100
23) tert-Butyl Alcohol	5.512	59	56269	96.582	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	158818	18.690	ug/l	100
25) Chloroform	7.965	83	84511	18.796	ug/l	100
26) Cyclohexane	8.253	56	81442	18.462	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	63403	19.129	ug/l	100
30) 2-Butanone	7.483	43	178630	97.263	ug/l	100
31) 2,2-Dichloropropane	7.489	77	78733	19.298	ug/l	100
32) 1,1,1-Trichloroethane	8.165	97	72230	18.945	ug/l	100
33) Carbon Tetrachloride	8.359	117	58240	19.114	ug/l	100
34) Benzene	8.606	78	201431	19.103	ug/l	100
35) Methacrylonitrile	7.777	41	39241	18.953	ug/l	100
36) 1,2-Dichloroethane	8.671	62	63104	19.124	ug/l	100
37) Trichloroethene	9.353	130	48886	19.215	ug/l	100
38) Methylcyclohexane	9.600	83	75994	18.695	ug/l	100
39) 1,2-Dichloropropane	9.618	63	49925	19.028	ug/l	100
40) Dibromomethane	9.706	93	32130	18.960	ug/l	100
41) Bromodichloromethane	9.882	83	69713	19.149	ug/l	100
42) Vinyl Acetate	6.600	43	616622	98.633	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086245.D
Acq On : 11 Apr 2025 12:16
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 12 00:20:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	72635	19.607	ug/l	100
44) Isopropyl Acetate	8.683	43	129543	18.850	ug/l	100
45) 1,4-Dioxane	9.694	88	21134	386.736	ug/l	100
46) Methyl methacrylate	9.677	41	58112	19.192	ug/l	100
47) n-amyl Acetate	12.488	43	101635	18.304	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	78104	18.977	ug/l	100
49) cis-1,3-Dichloropropene	10.312	75	83505	19.170	ug/l	100
50) 1,1,2-Trichloroethane	11.012	97	45892	19.308	ug/l	100
51) Ethyl methacrylate	10.871	69	84042	19.027	ug/l	100
52) 1,3-Dichloropropane	11.159	76	79960	18.875	ug/l	100
53) Dibromochloromethane	11.353	129	49892	19.190	ug/l	100
54) 1,2-Dibromoethane	11.465	107	45668	19.034	ug/l	100
55) 2-Chloroethyl vinyl ether	10.159	63	199584	119.582	ug/l	100
56) Bromoform	12.576	173	32612	19.173	ug/l	100
58) 4-Methyl-2-Pentanone	10.441	43	366576	98.554	ug/l	100
59) 2-Hexanone	11.194	43	271384	97.984	ug/l	100
61) Tetrachloroethene	11.100	164	46313	19.134	ug/l	100
62) Toluene	10.629	91	212088	19.292	ug/l	100
64) Chlorobenzene	11.888	112	128877	19.188	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	42656	19.244	ug/l	100
66) Ethyl Benzene	11.959	91	233805	19.177	ug/l	100
67) m/p-Xylenes	12.071	106	172384	38.024	ug/l	100
68) o-Xylene	12.394	106	85173	19.101	ug/l	100
69) Styrene	12.406	104	141327	18.793	ug/l	100
70) Isopropylbenzene	12.694	105	209526	19.057	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.935	83	60936	19.472	ug/l	100
72) 1,2,3-Trichloropropane	12.988	75	61888m	13.969	ug/l	
73) Bromobenzene	12.976	156	46561	19.116	ug/l	100
74) n-propylbenzene	13.029	91	243573	18.707	ug/l	100
75) 2-Chlorotoluene	13.123	91	154341	18.914	ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	172014	19.046	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	28529	18.993	ug/l	100
78) 4-Chlorotoluene	13.218	91	151091	18.539	ug/l	100
79) tert-butylbenzene	13.435	119	147428	18.865	ug/l	100
80) 1,2,4-Trimethylbenzene	13.476	105	174827	19.089	ug/l	100
81) sec-Butylbenzene	13.612	105	208583	19.134	ug/l	100
82) p-Isopropyltoluene	13.723	119	173120	19.037	ug/l	100
83) 1,3-Dichlorobenzene	13.729	146	84482	18.662	ug/l	100
84) 1,4-Dichlorobenzene	13.806	146	84947	18.705	ug/l	100
85) n-Butylbenzene	14.053	91	155208	18.919	ug/l	100
86) Hexachloroethane	14.329	117	29008	18.910	ug/l	100
87) 1,2-Dichlorobenzene	14.100	146	85009	19.018	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	14031	19.684	ug/l	100
89) 1,2,4-Trichlorobenzene	15.835	180	43895	20.183	ug/l	100
90) Hexachlorobutadiene	15.500	225	18215	19.398	ug/l	100
91) Naphthalene	15.635	128	169118	19.722	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	43895	20.183	ug/l	100

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

ICAL Form

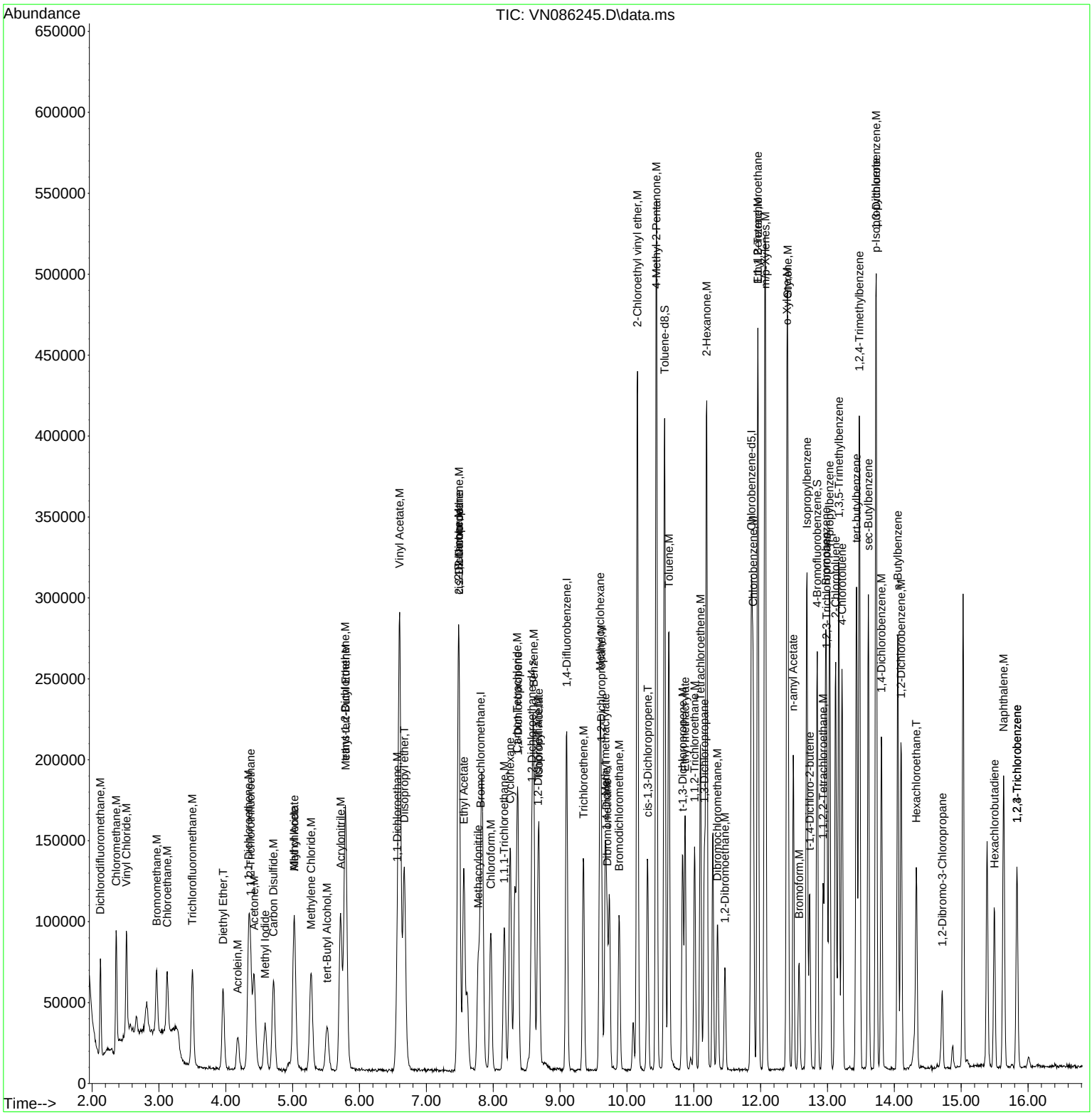
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086245.D
Acq On : 11 Apr 2025 12:16
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

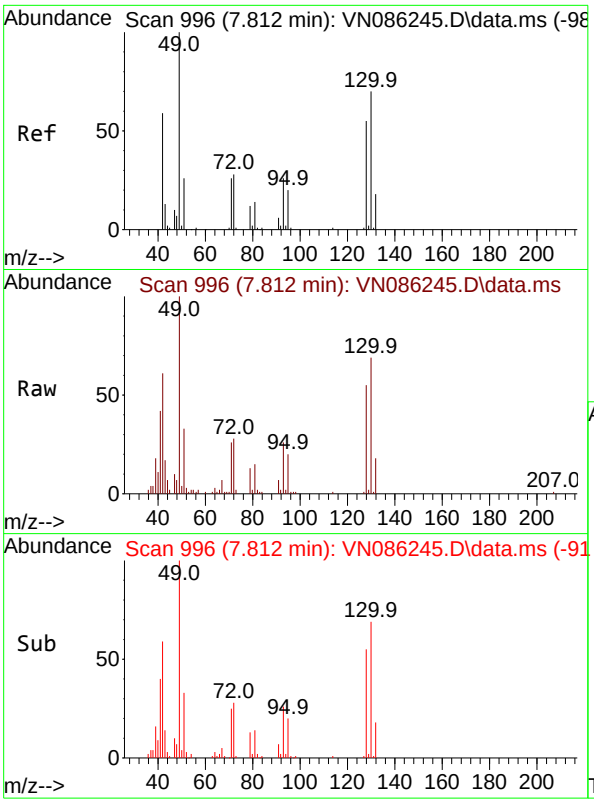
Quant Time: Apr 12 00:20:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

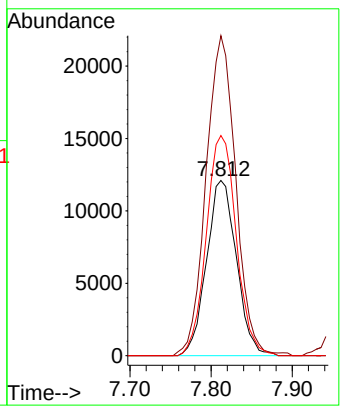




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:128 Resp: 3097

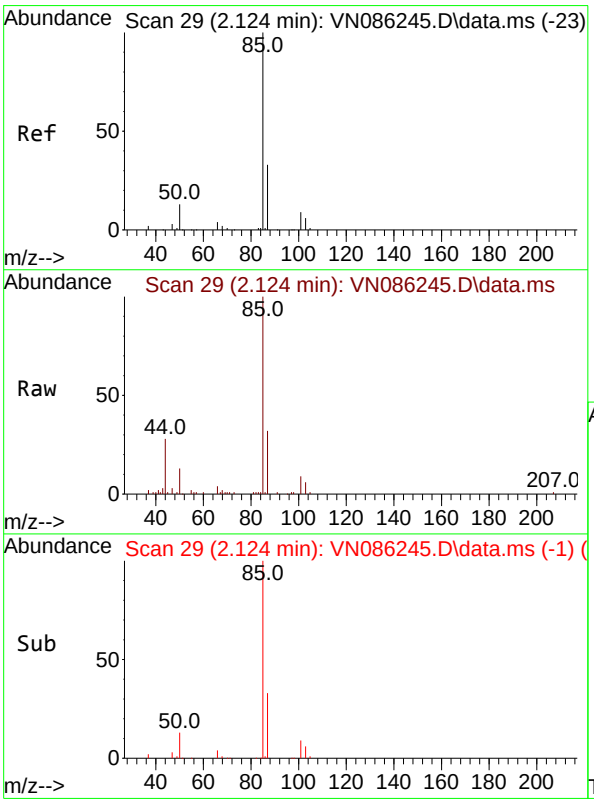
Ion	Ratio	Lower	Upper
128	100		
49	181.0	0.0	452.5
130	126.0	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

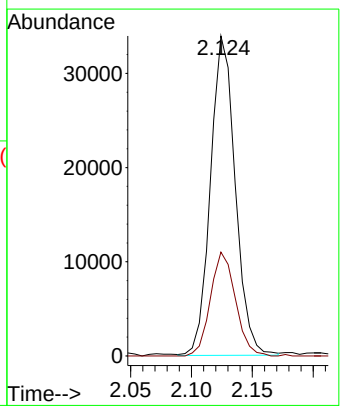
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

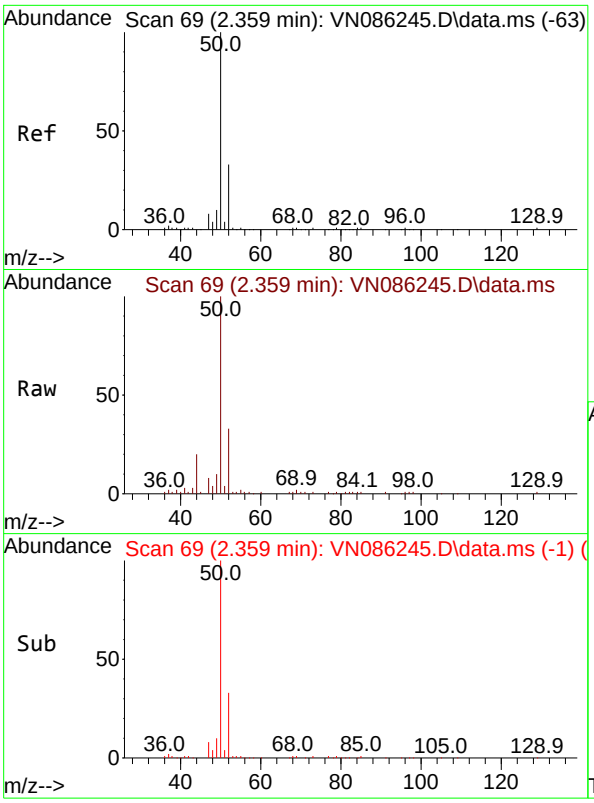


#2
Dichlorodifluoromethane
Concen: 19.345 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 85 Resp: 48008

Ion	Ratio	Lower	Upper
85	100		
87	32.6	16.3	48.9

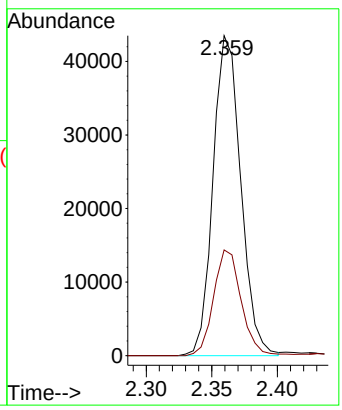




#3
Chloromethane
Concen: 18.624 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 50 Resp: 6387

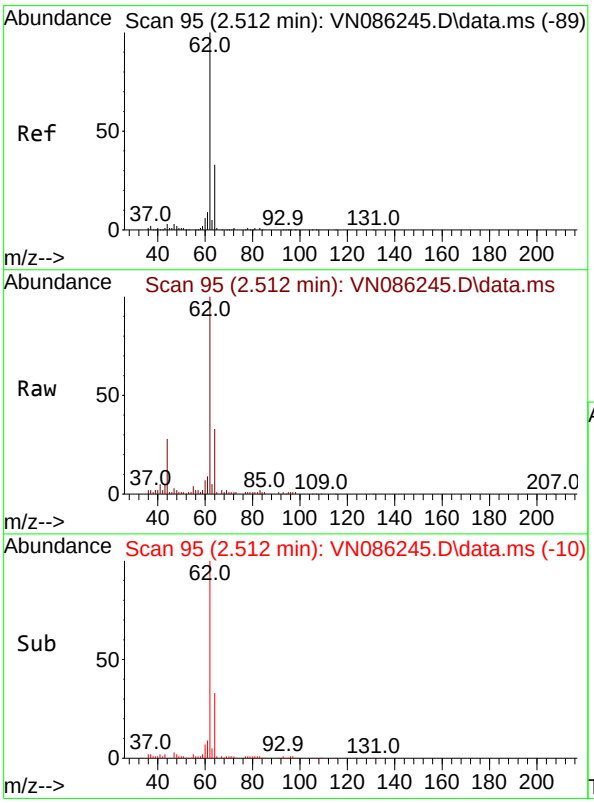
Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

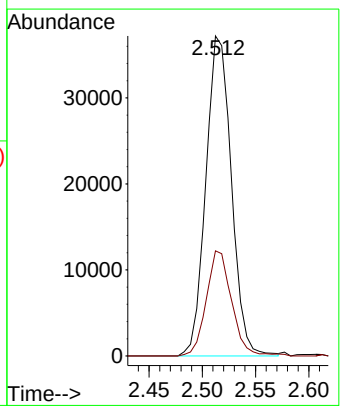
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

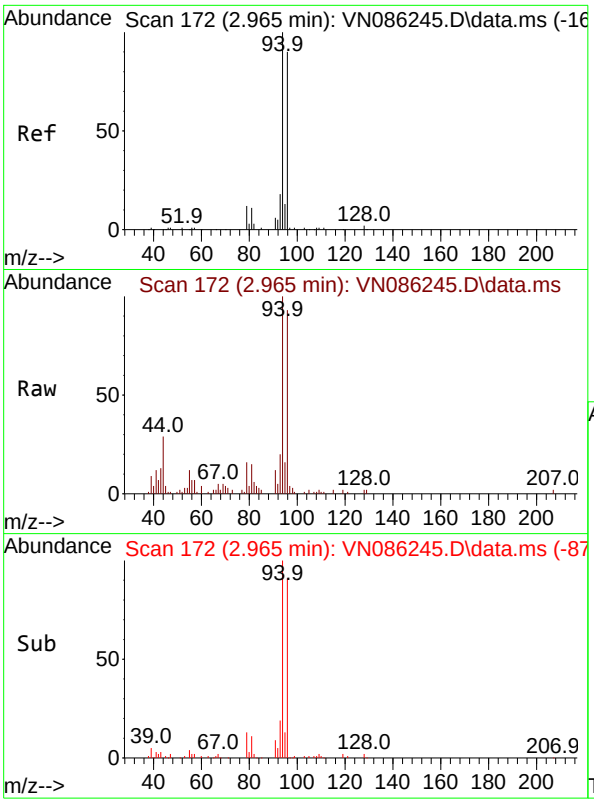


#4
Vinyl Chloride
Concen: 19.006 ug/l
RT: 2.512 min Scan# 95
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 62 Resp: 62095

Ion	Ratio	Lower	Upper
62	100		
64	32.9	26.3	39.5

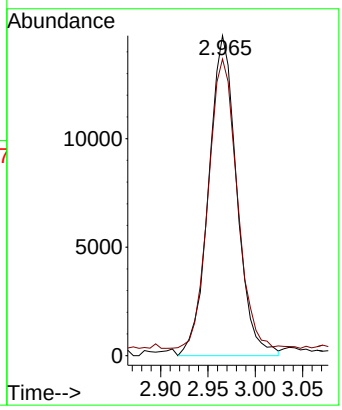




#5
Bromomethane
Concen: 18.686 ug/l
RT: 2.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 94 Resp: 3045

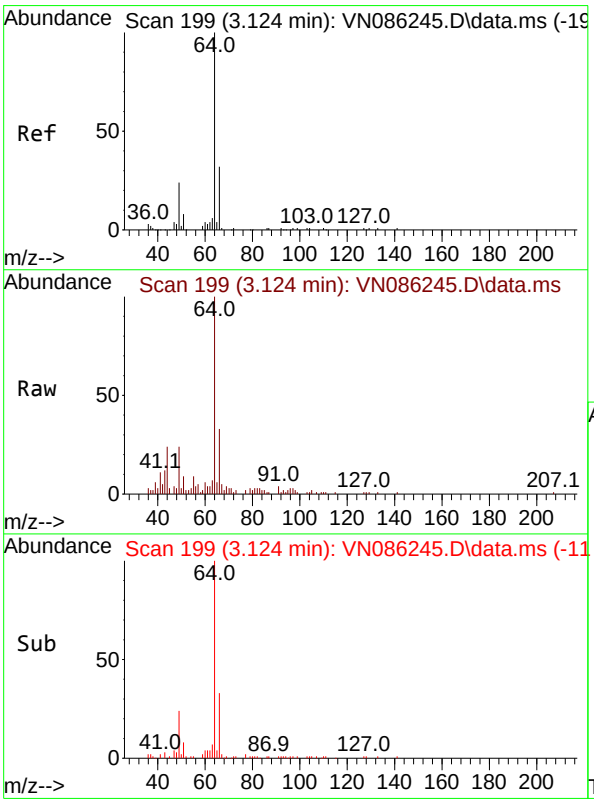
Ion	Ratio	Lower	Upper
94	100		
96	90.2	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

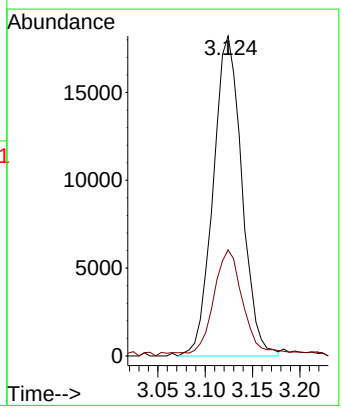
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

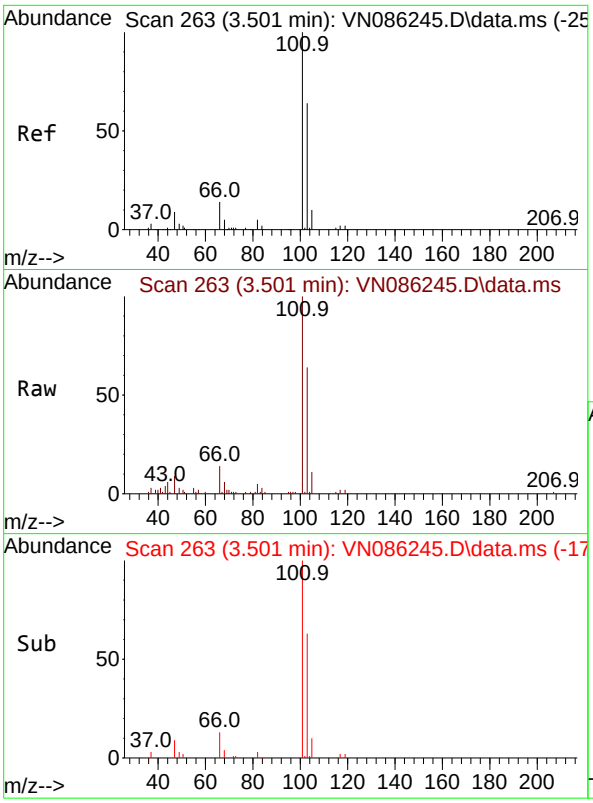


#6
Chloroethane
Concen: 18.620 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 64 Resp: 38415

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.7	38.5

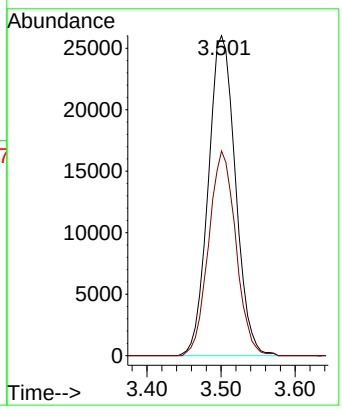




#7
Trichlorofluoromethane
Concen: 18.683 ug/l
RT: 3.501 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:101 Resp: 6621

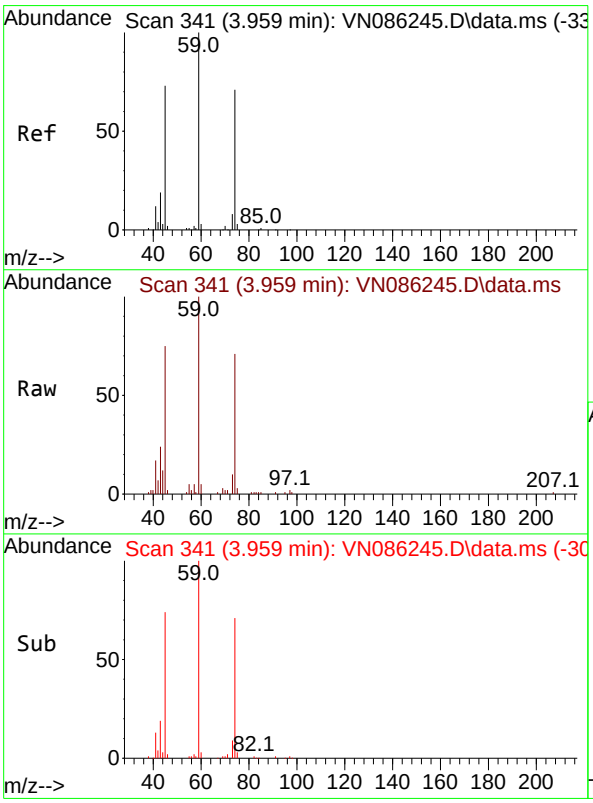
Ion	Ratio	Lower	Upper
101	100		
103	64.0	51.2	76.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

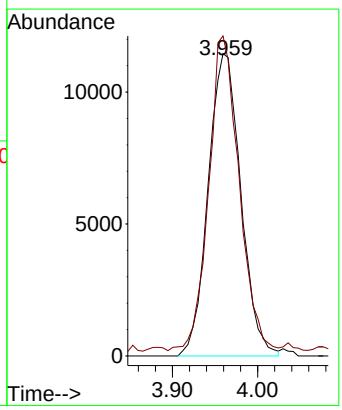
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

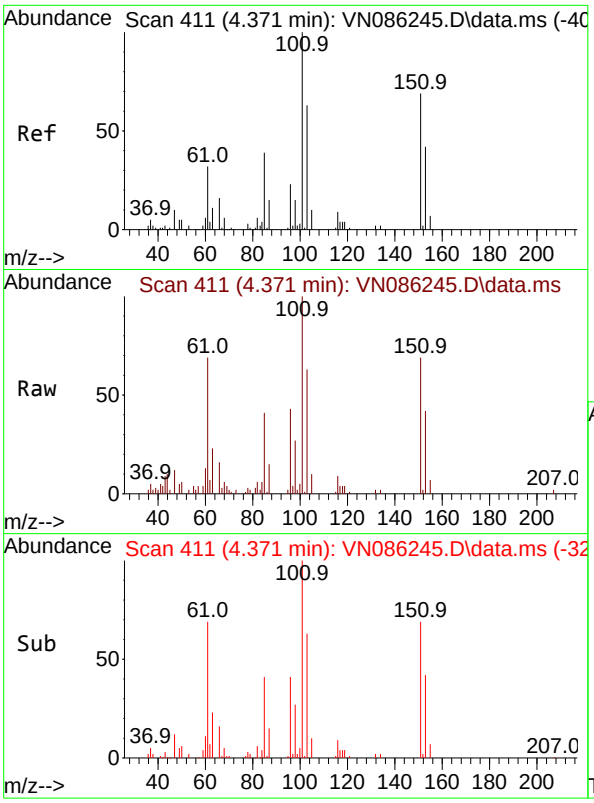


#8
Diethyl Ether
Concen: 18.653 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 74 Resp: 30487

Ion	Ratio	Lower	Upper
74	100		
45	96.2	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 18.878 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

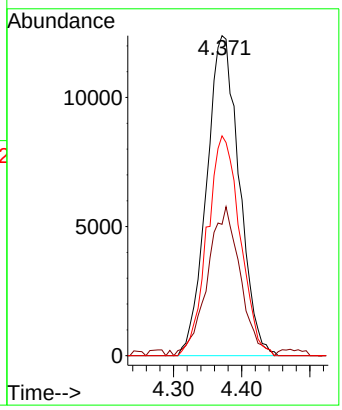
Tgt Ion:101 Resp: 4125

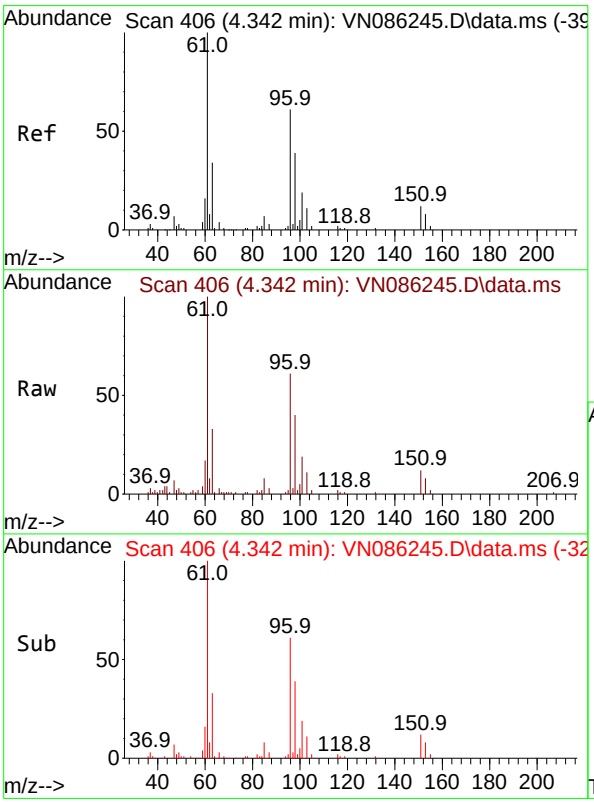
Ion	Ratio	Lower	Upper
101	100		
85	46.5	0.0	93.0
151	69.3	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

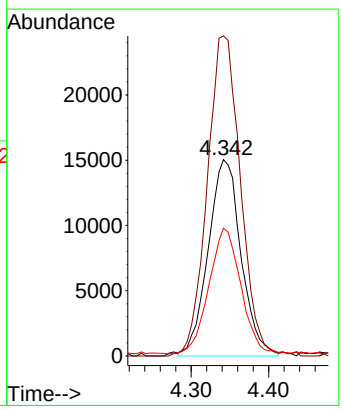


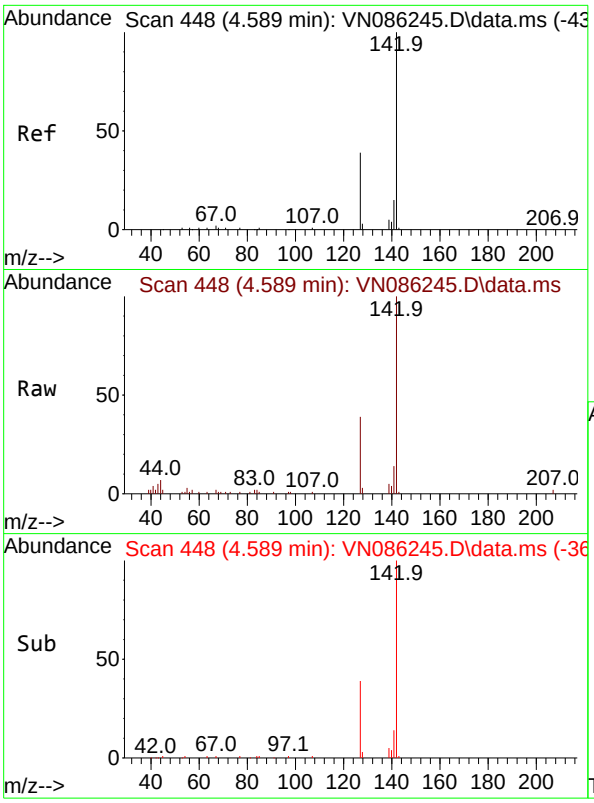


#10
1,1-Dichloroethene
Concen: 18.782 ug/l
RT: 4.342 min Scan# 406
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 96 Resp: 44299

Ion	Ratio	Lower	Upper
96	100		
61	163.9	131.1	196.7
98	64.5	51.6	77.4

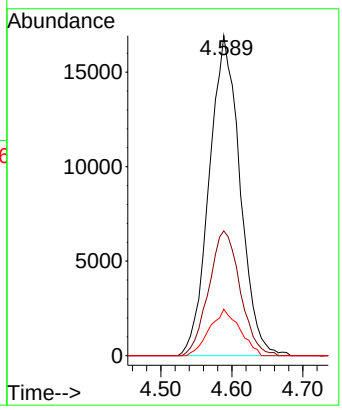




#11
Methyl Iodide
Concen: 18.760 ug/l
RT: 4.589 min Scan# 44
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:142 Resp: 5085(

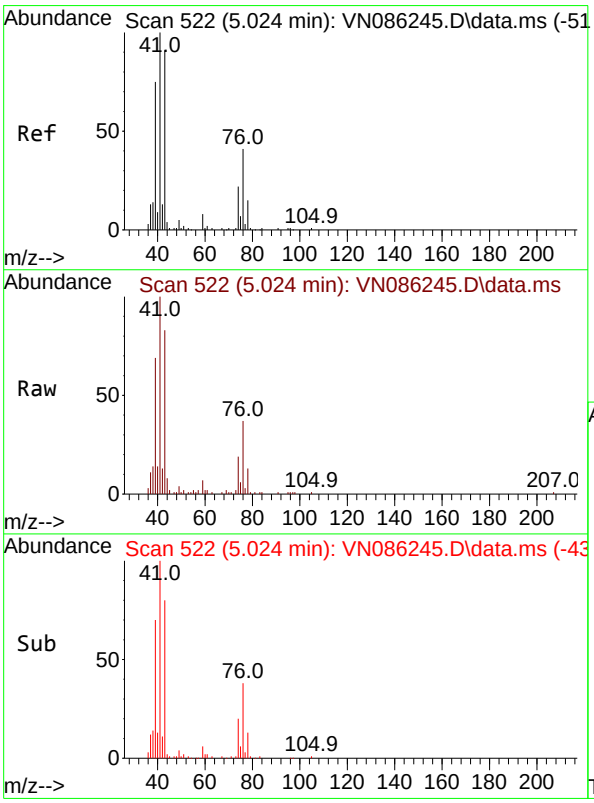
Ion	Ratio	Lower	Upper
142	100		
127	39.2	19.6	58.8
141	14.6	7.3	21.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

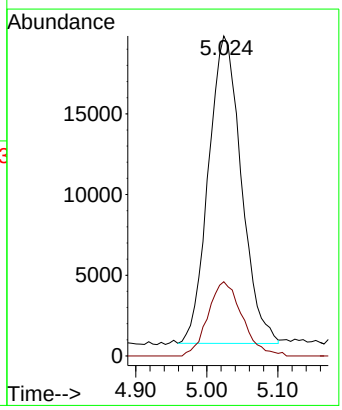
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

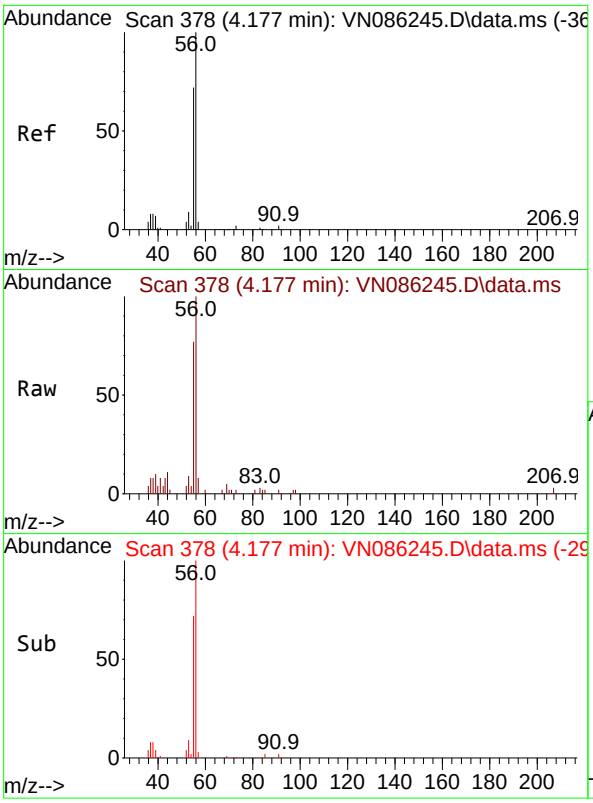


#12
Methyl Acetate
Concen: 18.414 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 61331

Ion	Ratio	Lower	Upper
43	100		
74	23.9	19.1	28.7

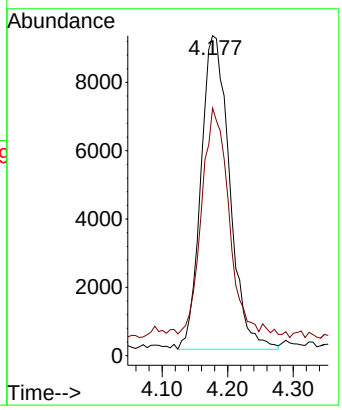




#13
Acrolein
Concen: 73.623 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 56 Resp: 2787

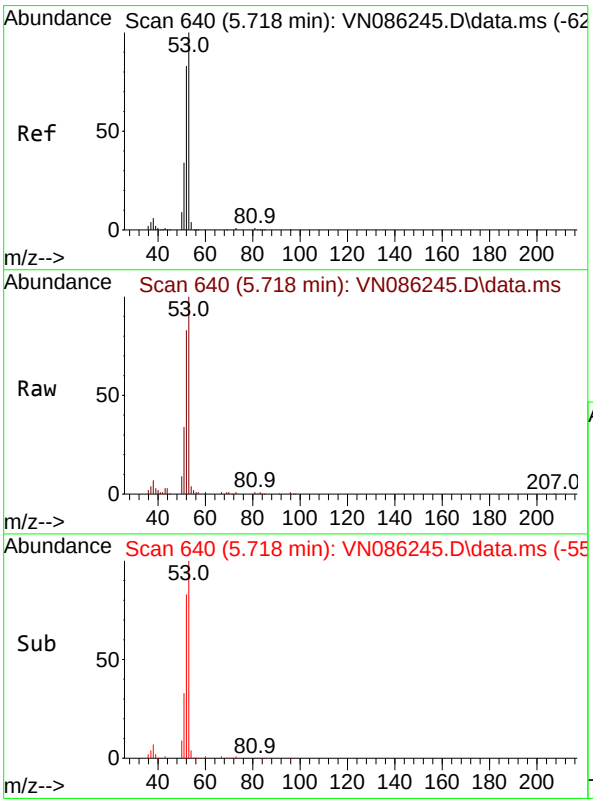
Ion	Ratio	Lower	Upper
56	100		
55	70.6	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

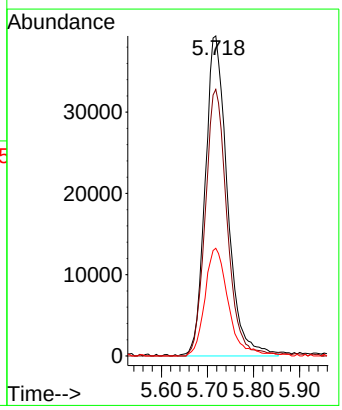
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

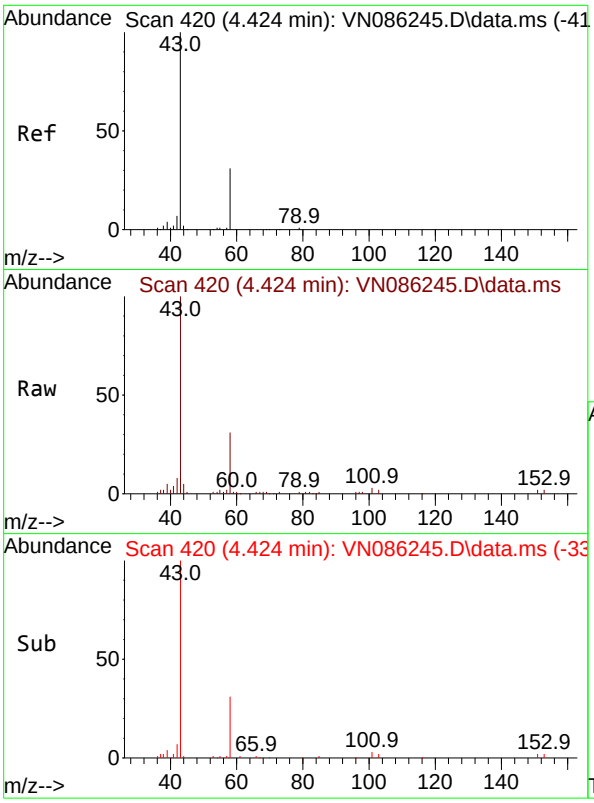


#14
Acrylonitrile
Concen: 94.169 ug/l
RT: 5.718 min Scan# 640
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 53 Resp: 132407

Ion	Ratio	Lower	Upper
53	100		
52	80.4	40.2	120.6
51	35.1	17.5	52.6

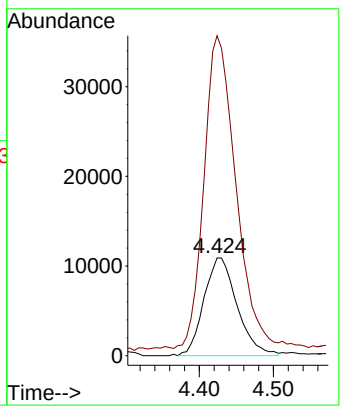




#15
Acetone
Concen: 95.196 ug/l
RT: 4.424 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 58 Resp: 3396

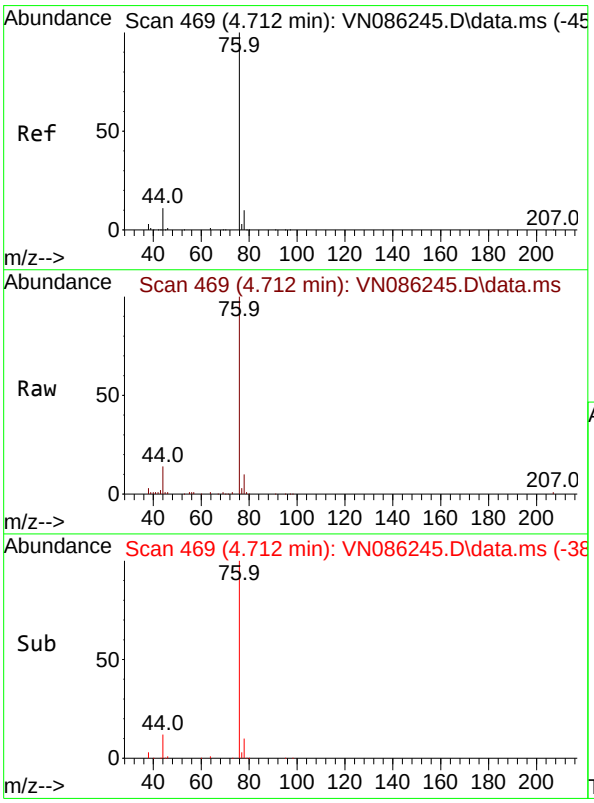
Ion	Ratio	Lower	Upper
58	100		
43	317.0	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

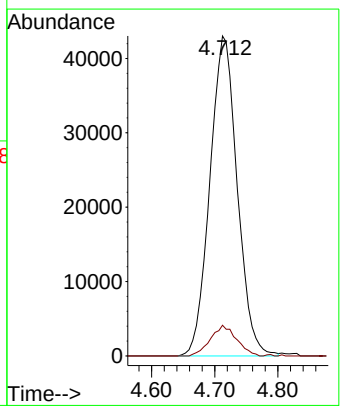
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

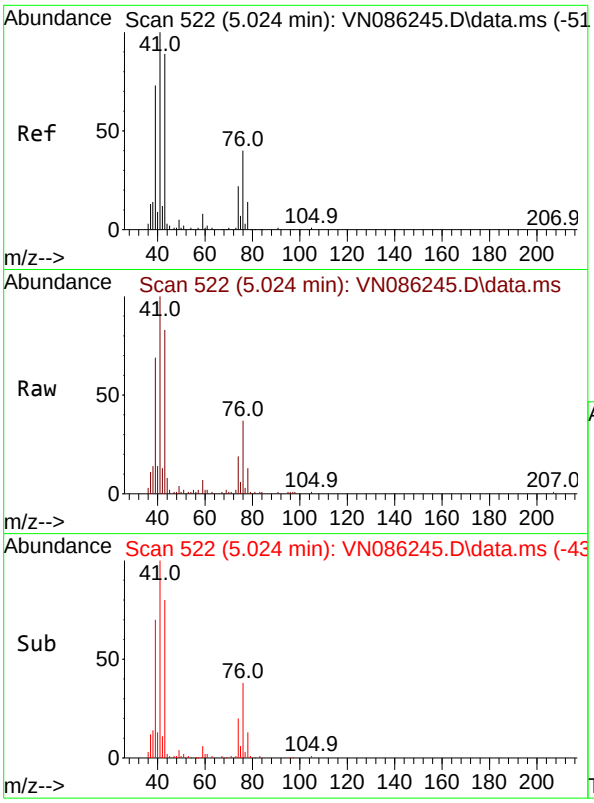


#16
Carbon Disulfide
Concen: 19.155 ug/l
RT: 4.712 min Scan# 469
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 76 Resp: 129547

Ion	Ratio	Lower	Upper
76	100		
78	9.6	7.7	11.5

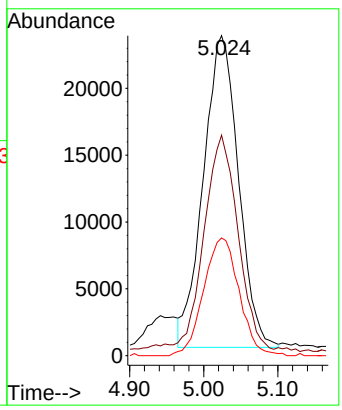




#17
Allyl chloride
Concen: 18.648 ug/l
RT: 5.024 min Scan# 5
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 41 Resp: 7665

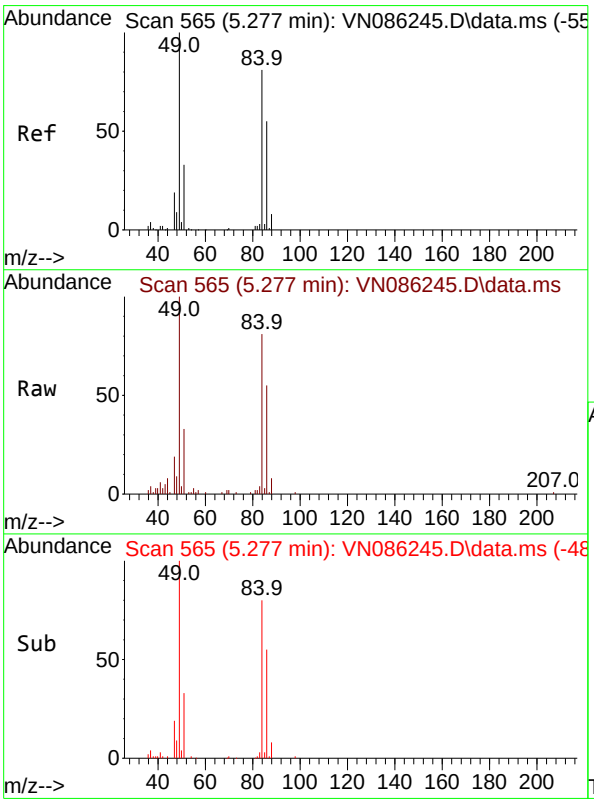
Ion	Ratio	Lower	Upper
41	100		
39	68.8	34.4	103.2
76	37.5	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

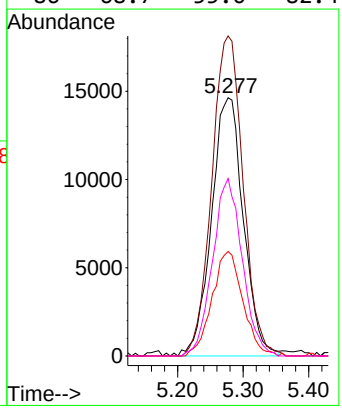
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

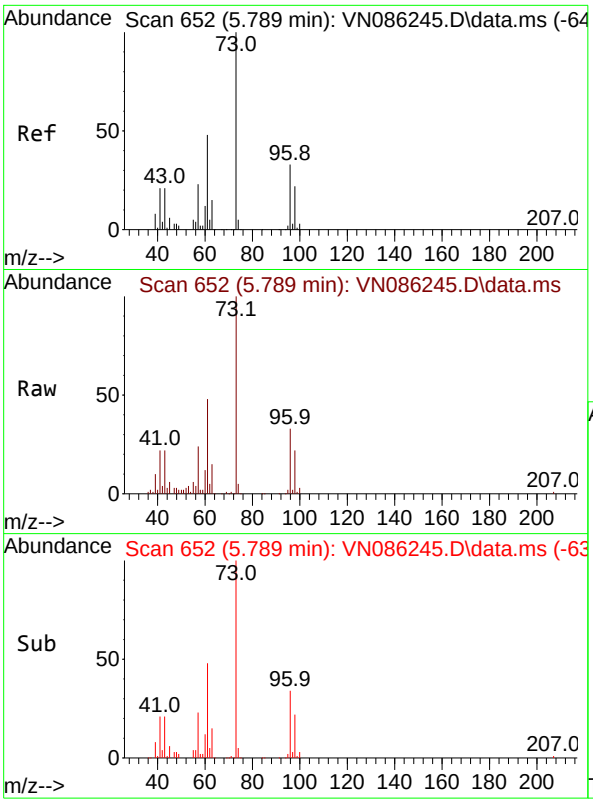


#18
Methylene Chloride
Concen: 18.333 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 84 Resp: 49299

Ion	Ratio	Lower	Upper
84	100		
49	123.9	99.1	148.7
51	40.4	32.3	48.5
86	68.7	55.0	82.4

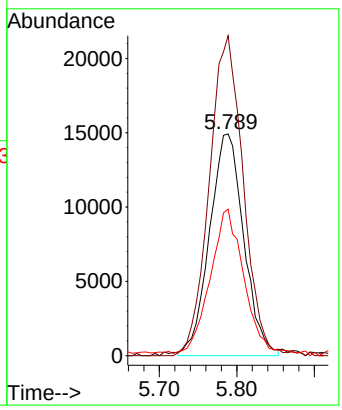




#19
trans-1,2-Dichloroethene
Concen: 21.553 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 96 Resp: 4585

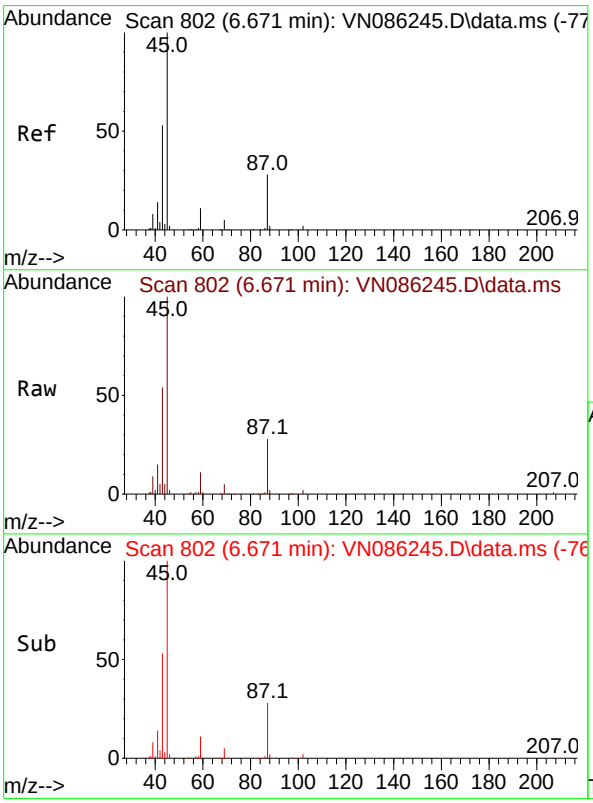
Ion	Ratio	Lower	Upper
96	100		
61	144.9	115.9	173.9
98	65.1	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

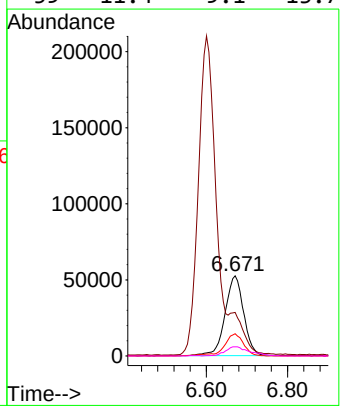
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

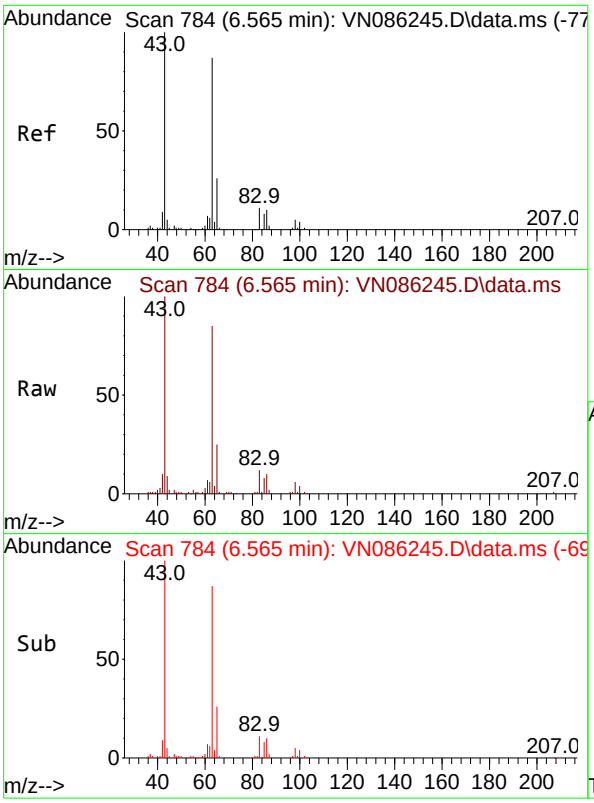


#20
Diisopropyl ether
Concen: 18.905 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 45 Resp: 167099

Ion	Ratio	Lower	Upper
45	100		
43	52.9	42.3	63.5
87	27.8	22.2	33.4
59	11.4	9.1	13.7

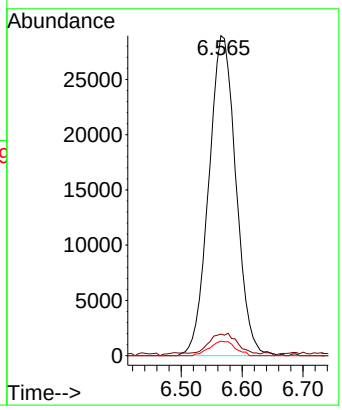




#21
1,1-Dichloroethane
Concen: 19.030 ug/l
RT: 6.565 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 63 Resp: 8972

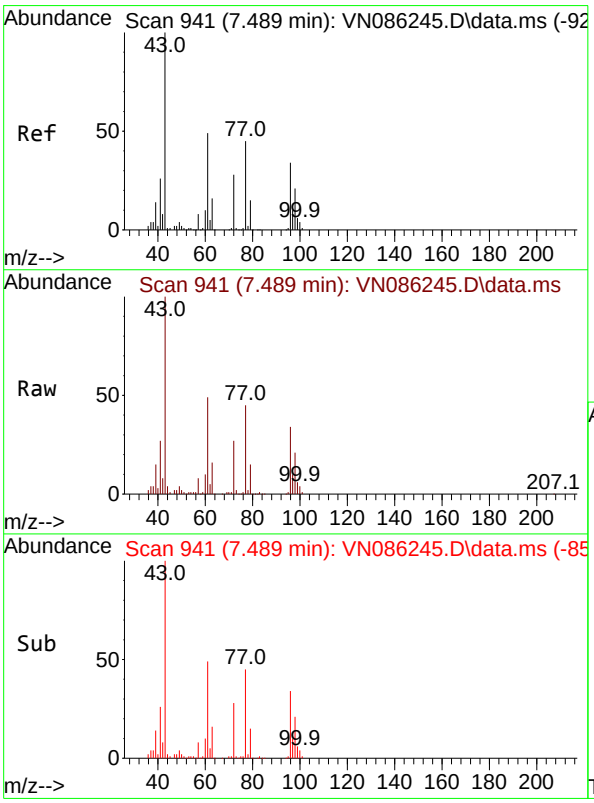
Ion	Ratio	Lower	Upper
63	100		
98	6.2	3.1	9.3
100	4.6	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

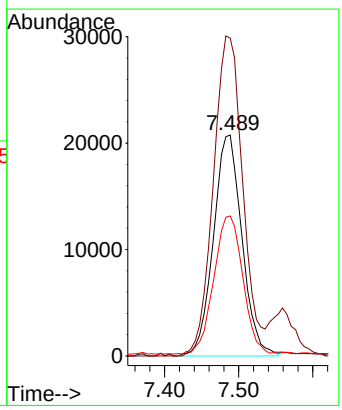
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

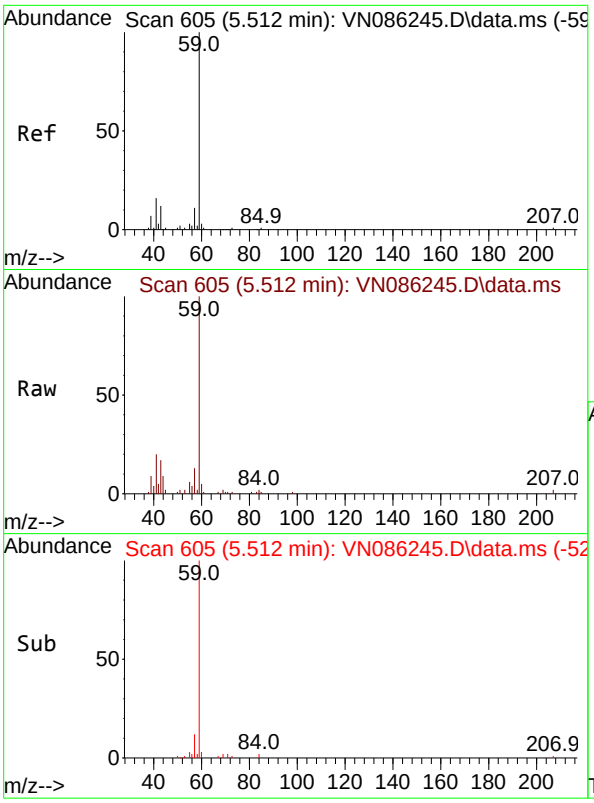


#22
cis-1,2-Dichloroethene
Concen: 18.766 ug/l
RT: 7.489 min Scan# 941
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 96 Resp: 55538

Ion	Ratio	Lower	Upper
96	100		
61	149.4	119.5	179.3
98	63.8	51.0	76.6

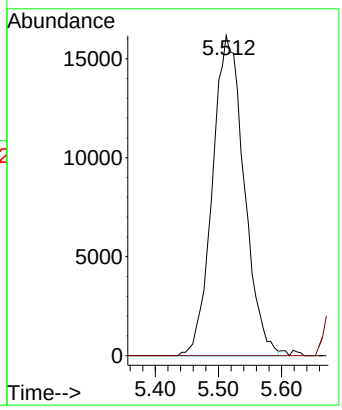




#23
tert-Butyl Alcohol
Concen: 96.582 ug/l
RT: 5.512 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 59 Resp: 5626

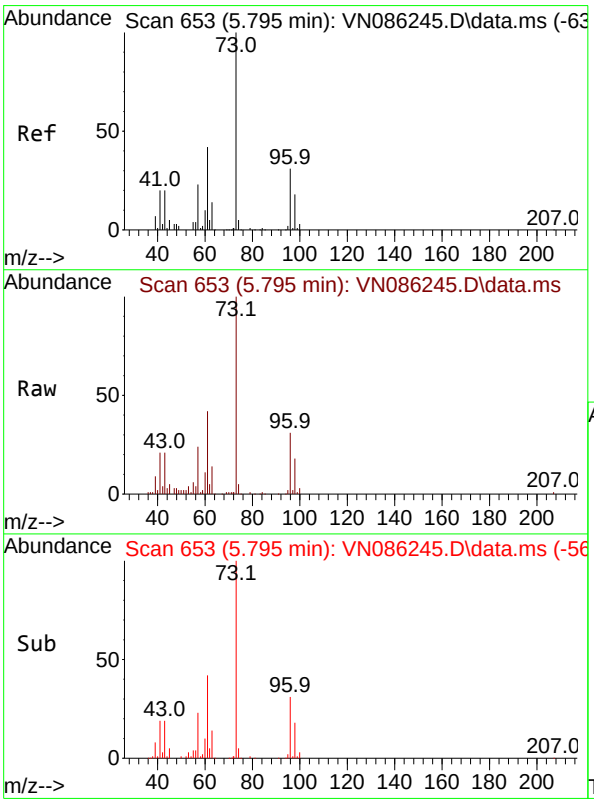
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

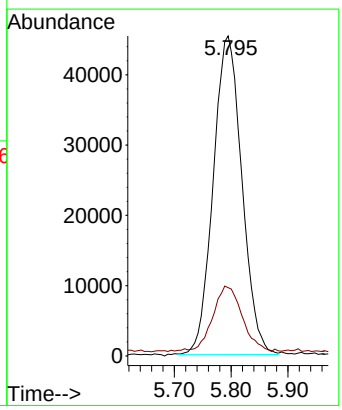
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

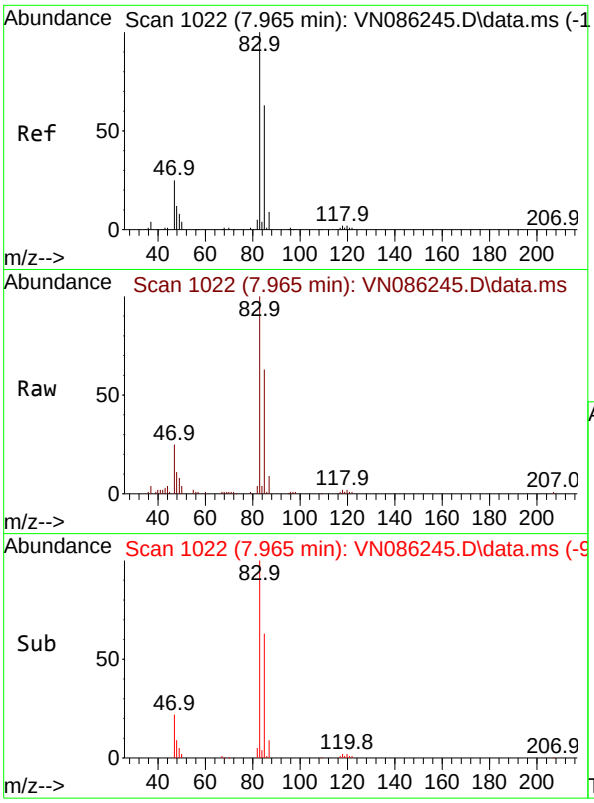


#24
Methyl tert-Butyl Ether
Concen: 18.690 ug/l
RT: 5.795 min Scan# 653
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 73 Resp: 158818

Ion	Ratio	Lower	Upper
73	100		
43	21.0	16.8	25.2





#25
Chloroform
Concen: 18.796 ug/l
RT: 7.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

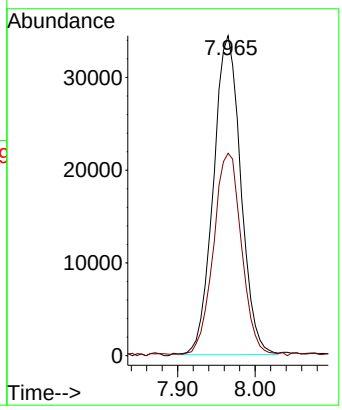
Tgt Ion: 83 Resp: 8451

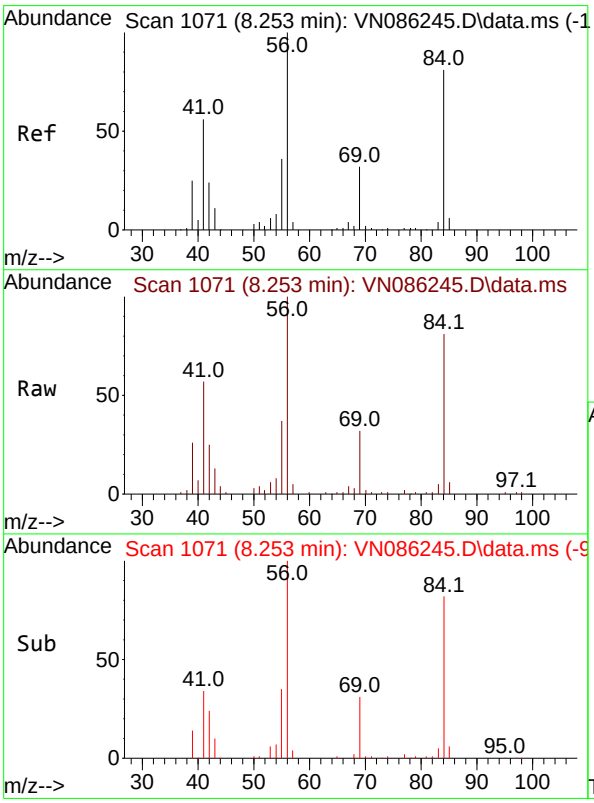
Ion	Ratio	Lower	Upper
83	100		
85	63.1	50.5	75.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

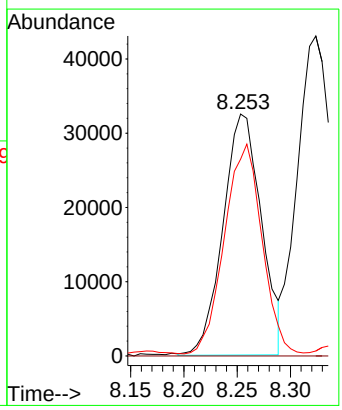


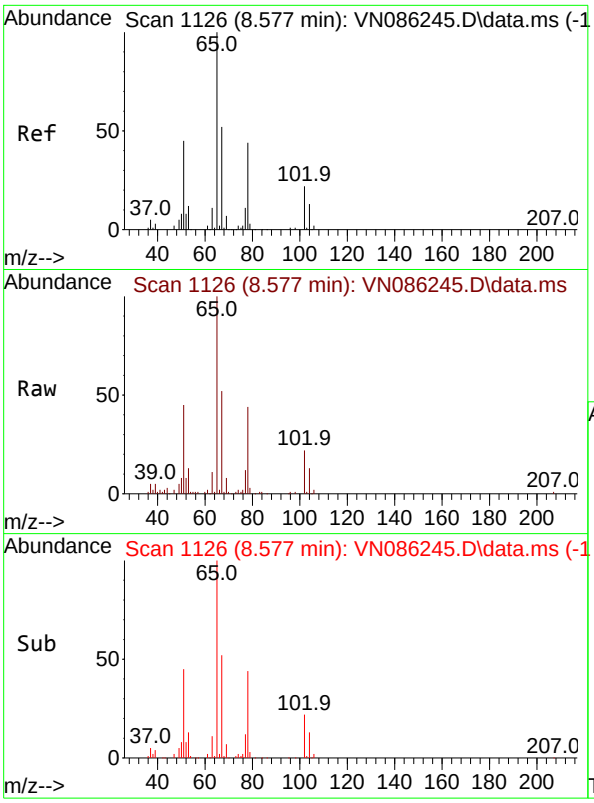


#26
Cyclohexane
Concen: 18.462 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 56 Resp: 81442

Ion	Ratio	Lower	Upper
56	100		
89	0.0	0.0	0.0
84	86.2	69.0	103.4

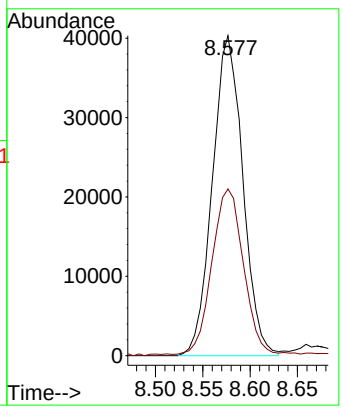




#27
1,2-Dichloroethane-d4
Concen: 29.776 ug/l
RT: 8.577 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 65 Resp: 8995

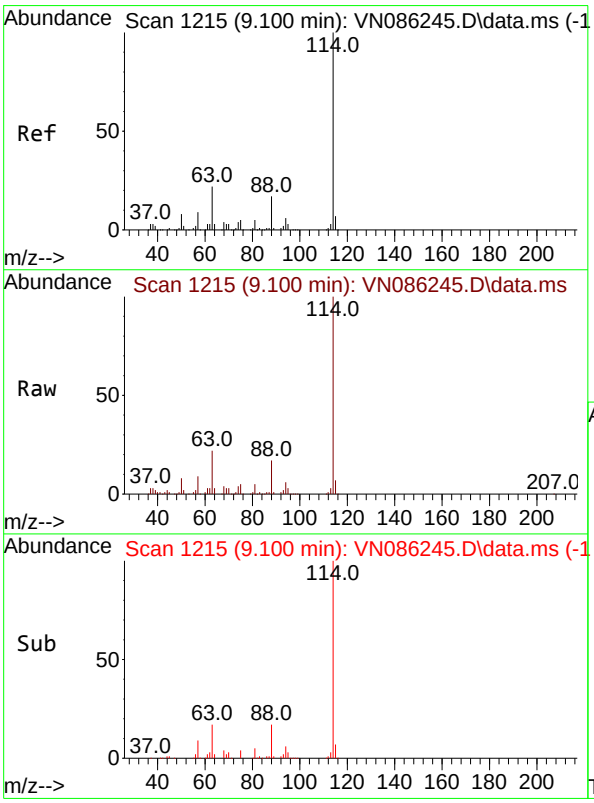
Ion	Ratio	Lower	Upper
65	100		
67	54.3	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

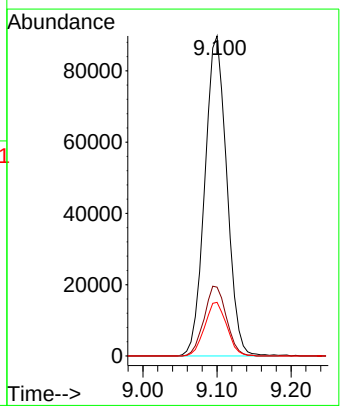
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

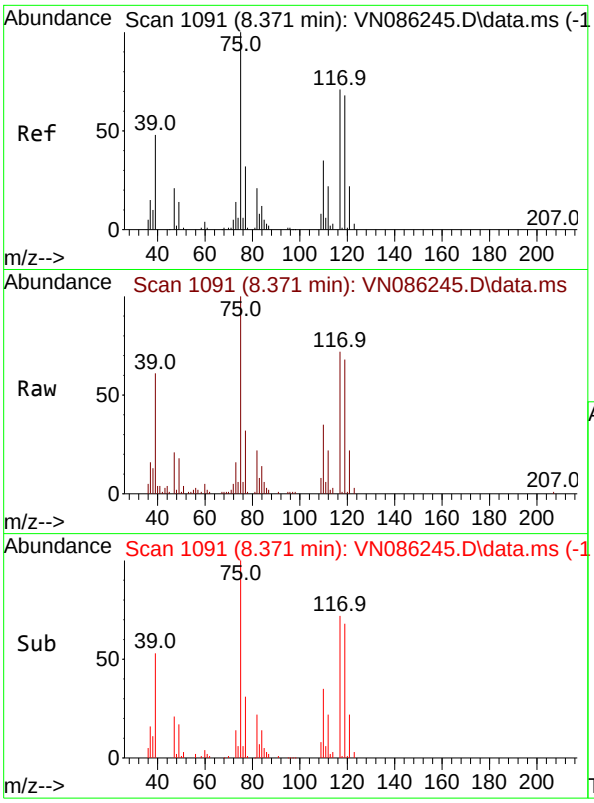


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:114 Resp: 185020

Ion	Ratio	Lower	Upper
114	100		
63	22.2	17.8	26.6
88	16.8	13.4	20.2

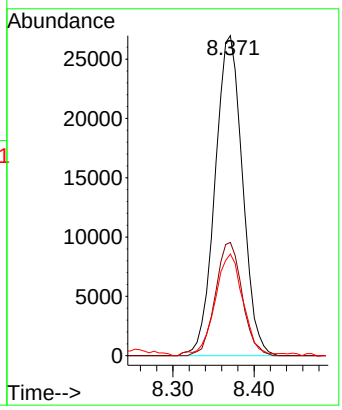




#29
1,1-Dichloropropene
Concen: 19.129 ug/l
RT: 8.371 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 6340

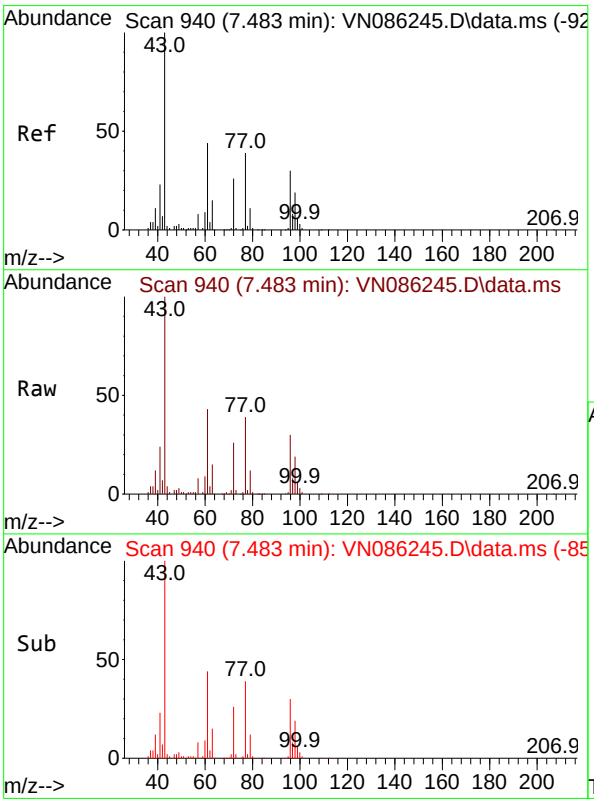
Ion	Ratio	Lower	Upper
75	100		
110	34.3	0.0	68.6
77	31.9	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

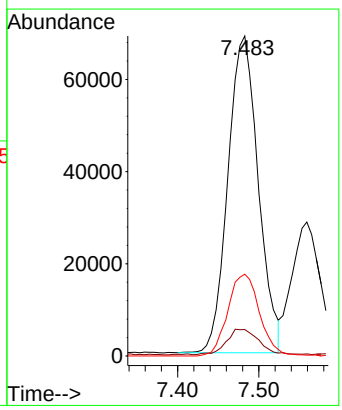
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

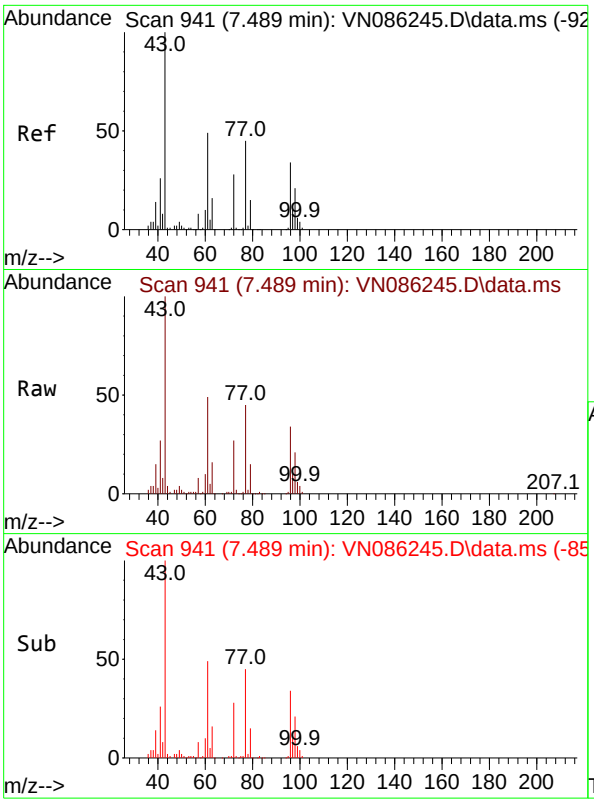


#30
2-Butanone
Concen: 97.263 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 178630

Ion	Ratio	Lower	Upper
43	100		
57	8.0	6.4	9.6
72	26.9	21.5	32.3

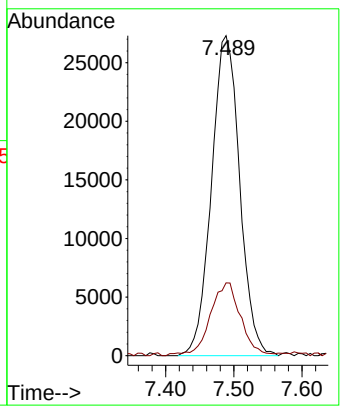




#31
2,2-Dichloropropane
Concen: 19.298 ug/l
RT: 7.489 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 77 Resp: 7873

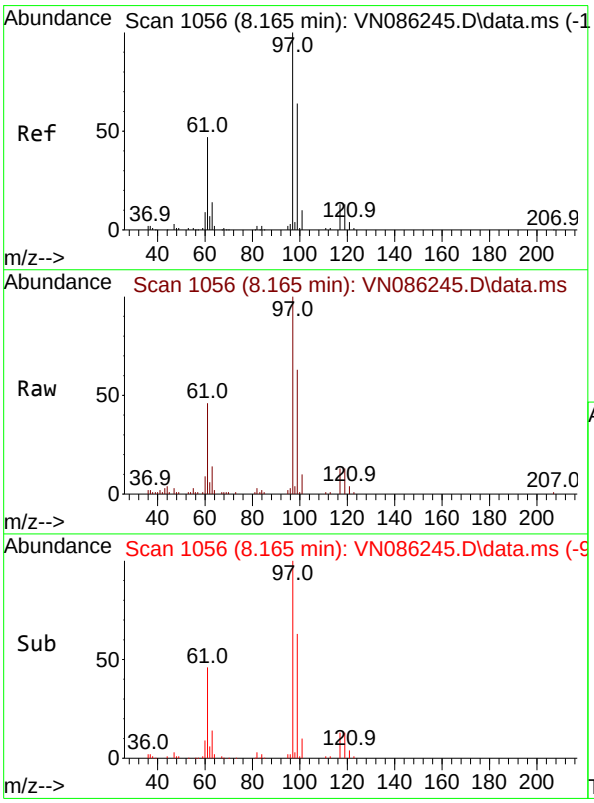
Ion	Ratio	Lower	Upper
77	100		
97	23.5	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

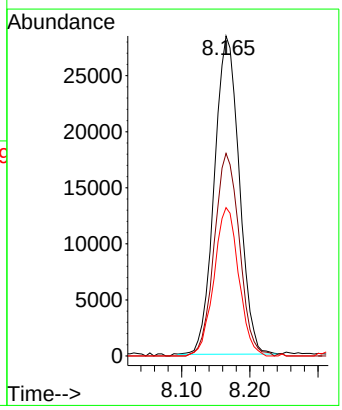
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

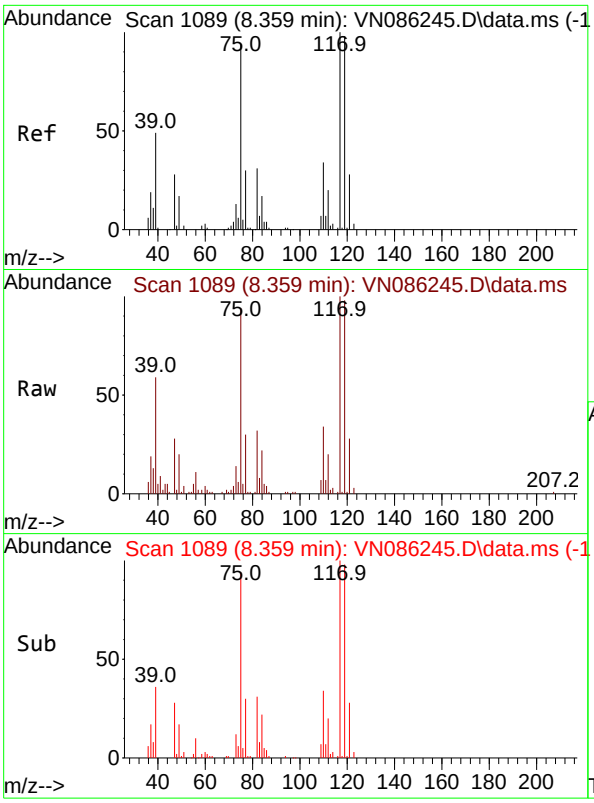


#32
1,1,1-Trichloroethane
Concen: 18.945 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 97 Resp: 72230

Ion	Ratio	Lower	Upper
97	100		
99	64.3	51.4	77.2
61	46.3	37.0	55.6

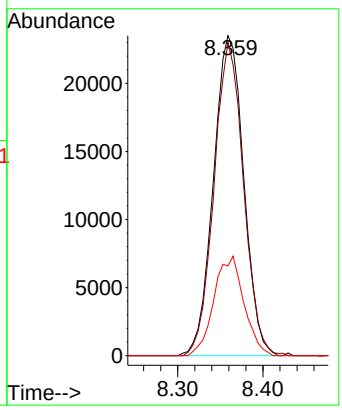




#33
Carbon Tetrachloride
Concen: 19.114 ug/l
RT: 8.359 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:117 Resp: 5824

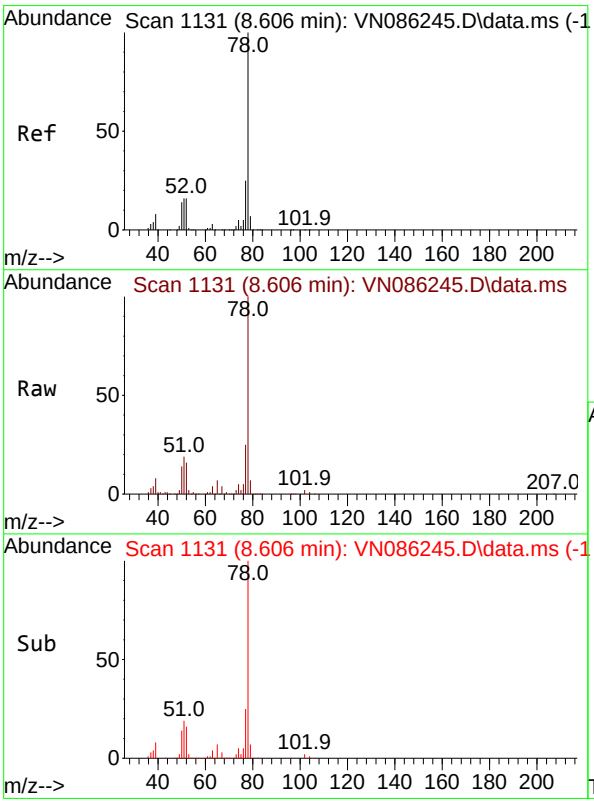
Ion	Ratio	Lower	Upper
117	100		
119	97.9	78.3	117.5
121	28.1	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

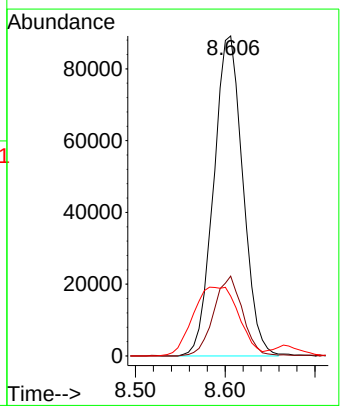
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

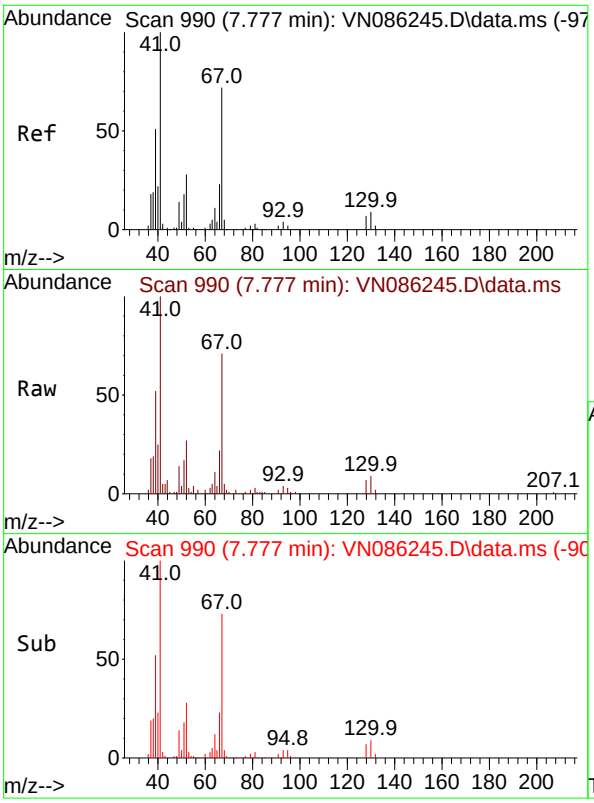


#34
Benzene
Concen: 19.103 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 78 Resp: 201431

Ion	Ratio	Lower	Upper
78	100		
77	25.0	20.0	30.0
51	16.1	12.9	19.3

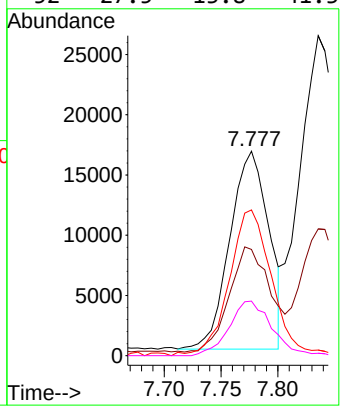




#35
Methacrylonitrile
Concen: 18.953 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 41 Resp: 3924

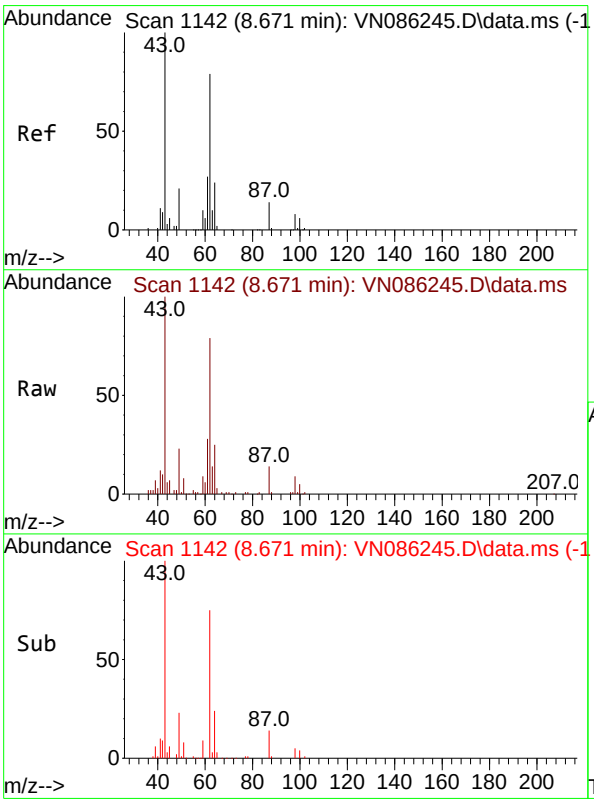
Ion	Ratio	Lower	Upper
41	100		
39	51.5	25.8	77.3
67	72.0	36.0	108.0
52	27.5	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

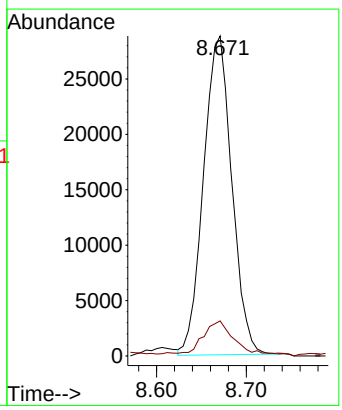
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

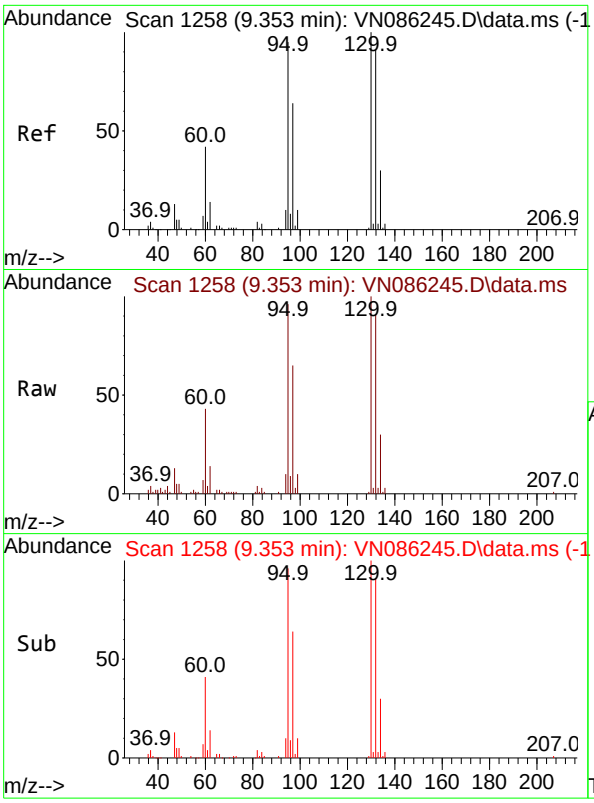


#36
1,2-Dichloroethane
Concen: 19.124 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 62 Resp: 63104

Ion	Ratio	Lower	Upper
62	100		
98	10.7	8.6	12.8

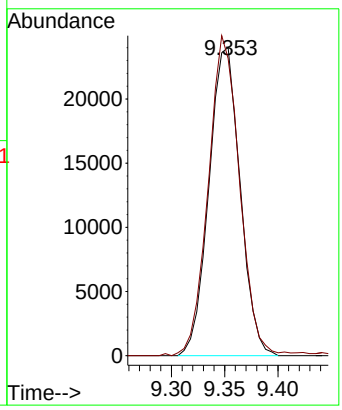




#37
Trichloroethene
Concen: 19.215 ug/l
RT: 9.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:130 Resp: 4888

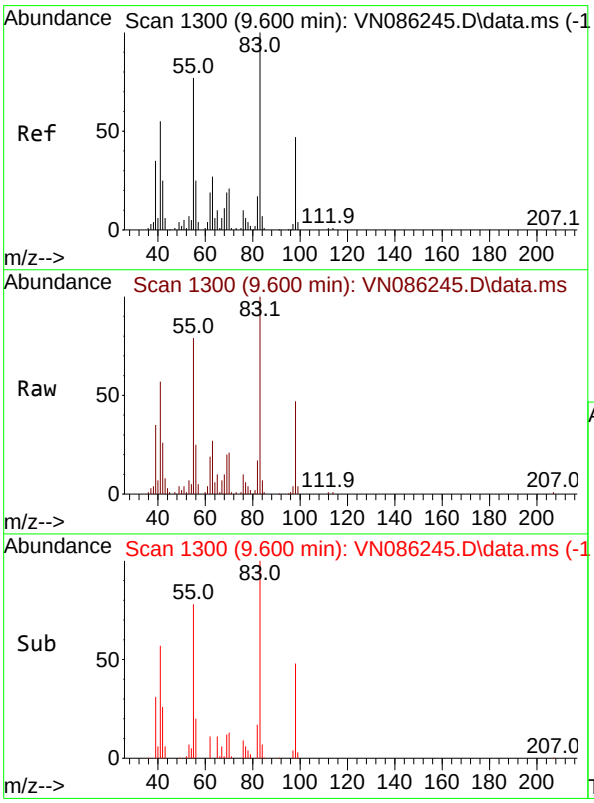
Ion	Ratio	Lower	Upper
130	100		
95	95.5	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

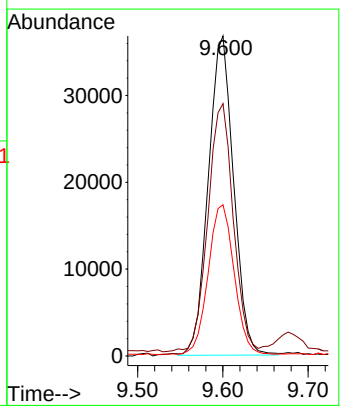
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

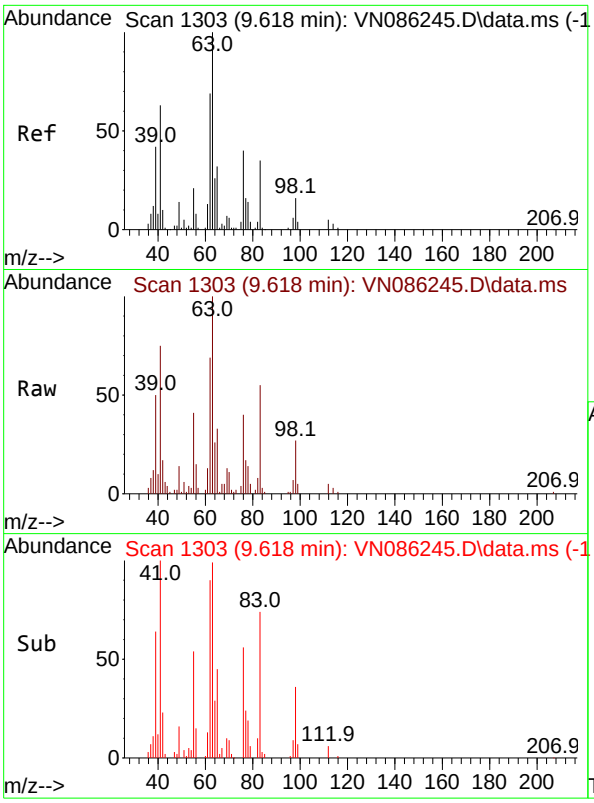


#38
Methylcyclohexane
Concen: 18.695 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 83 Resp: 75994

Ion	Ratio	Lower	Upper
83	100		
55	77.0	38.5	115.5
98	48.8	24.4	73.2

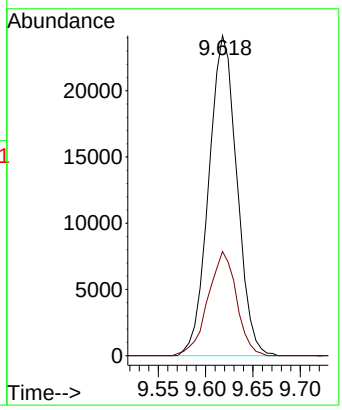




#39
1,2-Dichloropropane
Concen: 19.028 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 63 Resp: 4992

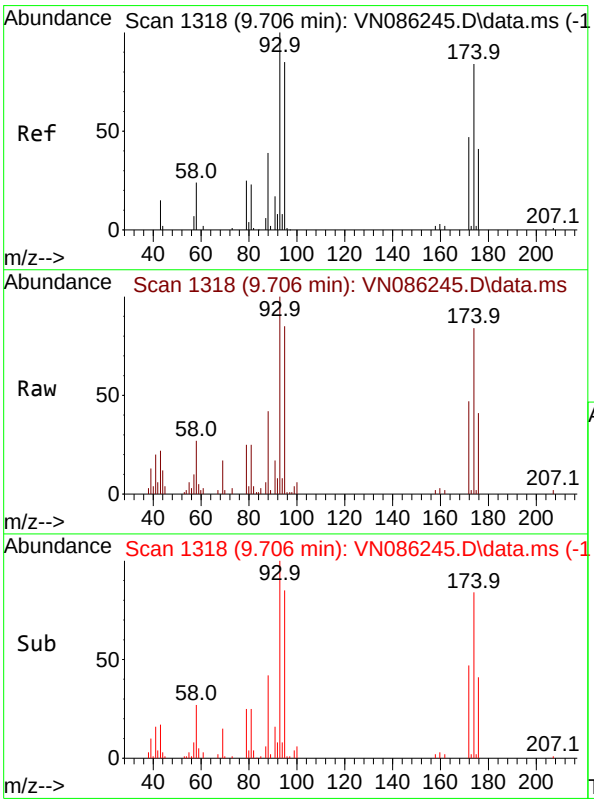
Ion	Ratio	Lower	Upper
63	100		
65	32.5	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

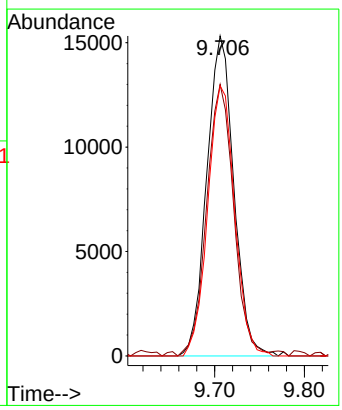
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

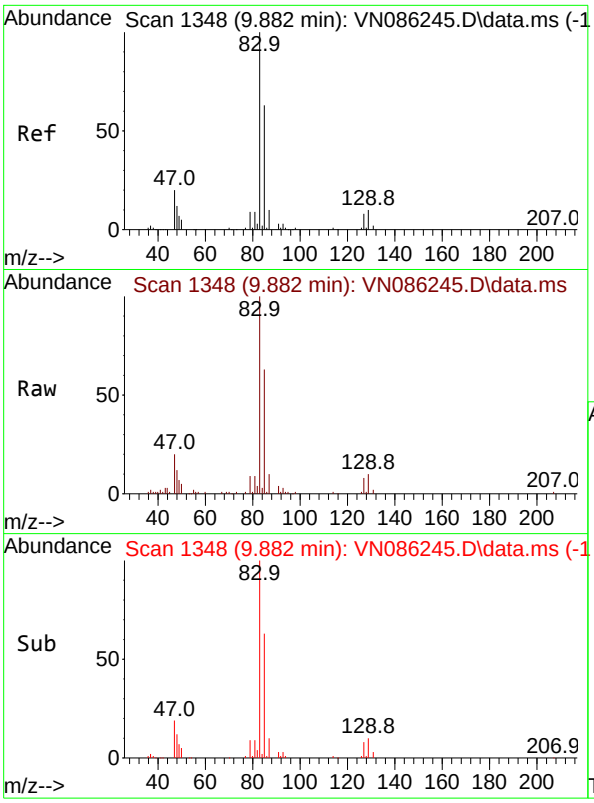


#40
Dibromomethane
Concen: 18.960 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 93 Resp: 32130

Ion	Ratio	Lower	Upper
93	100		
95	84.5	0.0	169.0
174	84.0	0.0	168.0

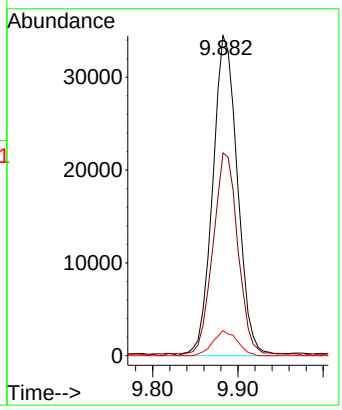




#41
Bromodichloromethane
Concen: 19.149 ug/l
RT: 9.882 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 83 Resp: 6971

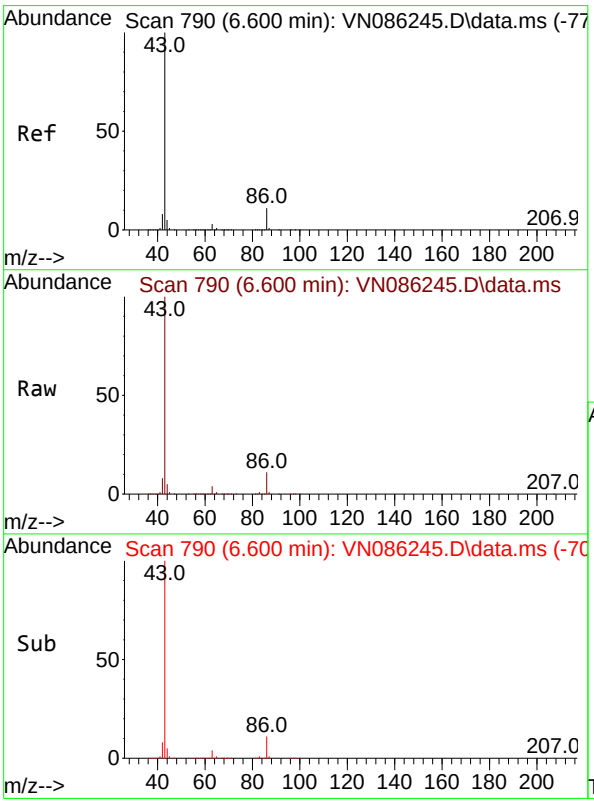
Ion	Ratio	Lower	Upper
83	100		
85	62.7	50.2	75.2
127	7.8	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

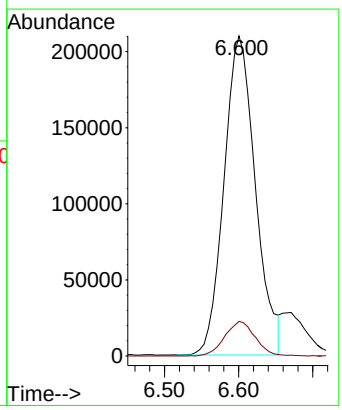
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

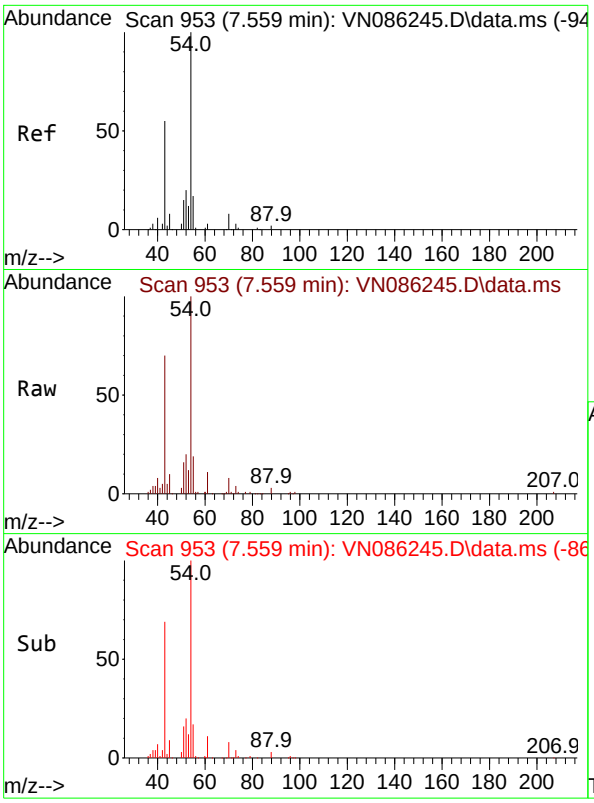


#42
Vinyl Acetate
Concen: 98.633 ug/l
RT: 6.600 min Scan# 790
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 616622

Ion	Ratio	Lower	Upper
43	100		
86	10.5	8.4	12.6





#43
Ethyl Acetate
Concen: 19.607 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

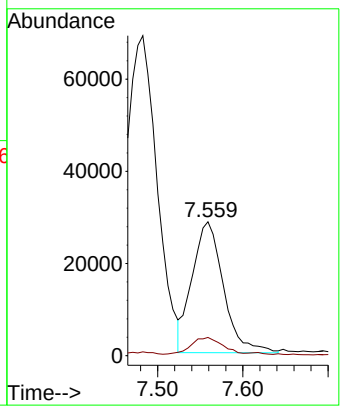
Tgt Ion: 43 Resp: 7263

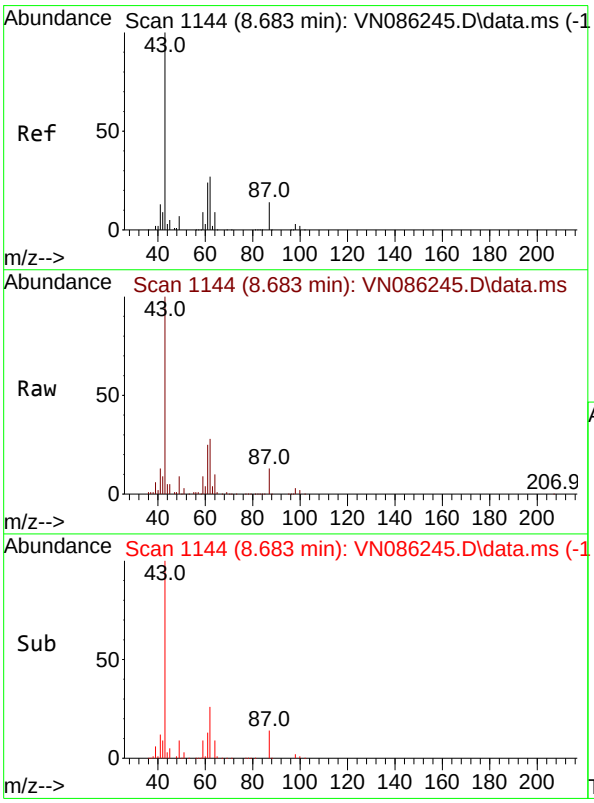
Ion	Ratio	Lower	Upper
43	100		
45	14.0	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

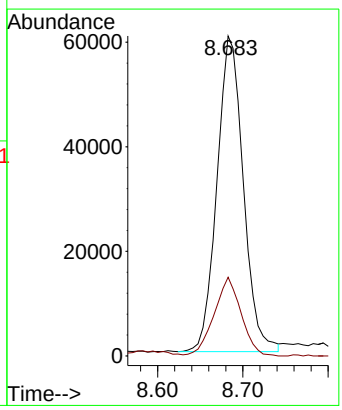


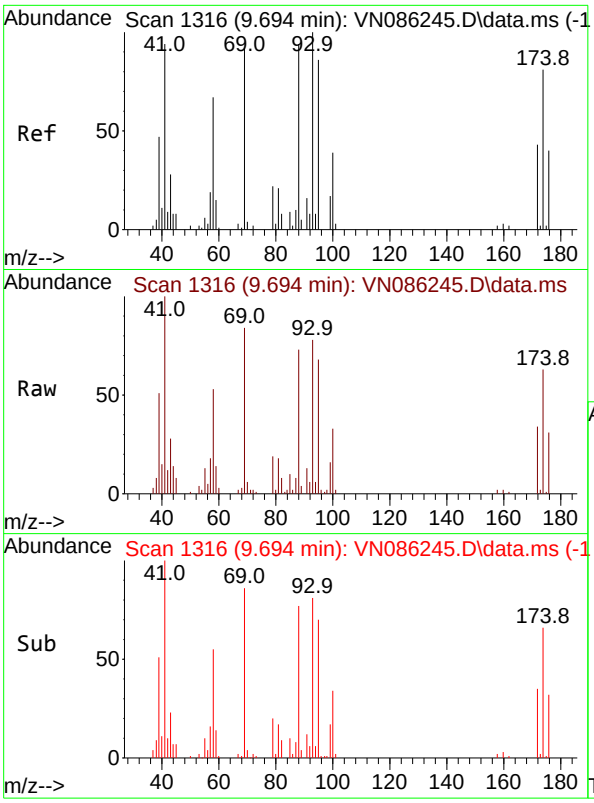


#44
Isopropyl Acetate
Concen: 18.850 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 129543

Ion	Ratio	Lower	Upper
43	100		
61	25.6	20.5	30.7





#45
1,4-Dioxane
Concen: 386.736 ug/l
RT: 9.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

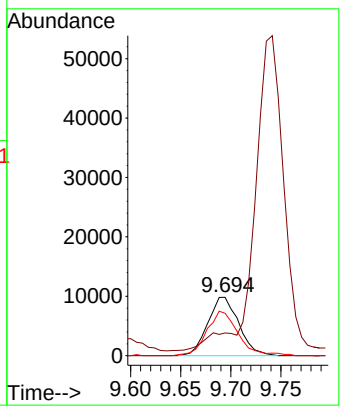
Tgt Ion: 88 Resp: 2113

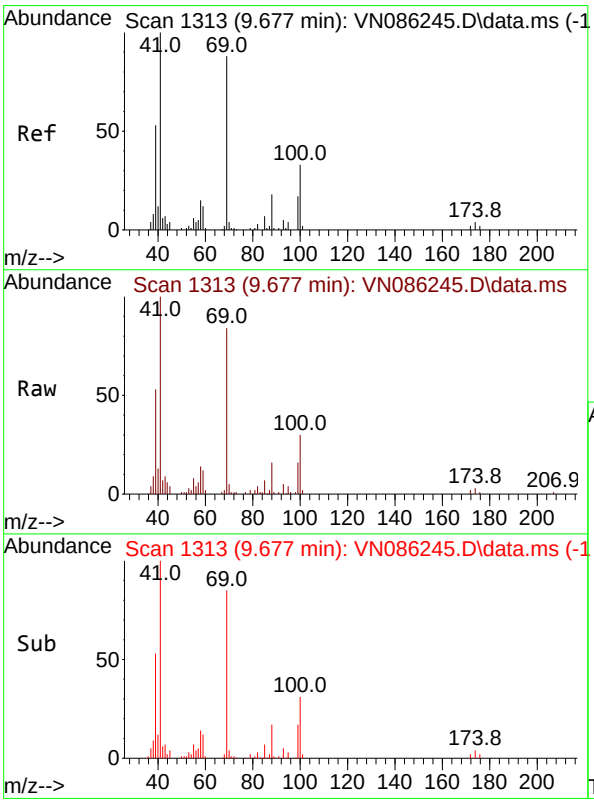
Ion	Ratio	Lower	Upper
88	100		
43	18.0	14.4	21.6
58	74.8	59.8	89.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

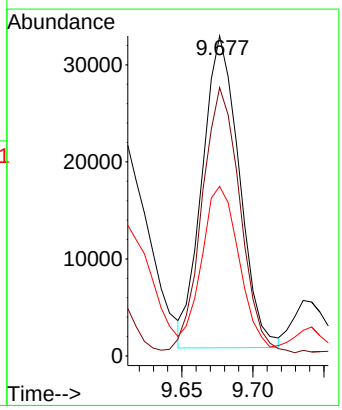


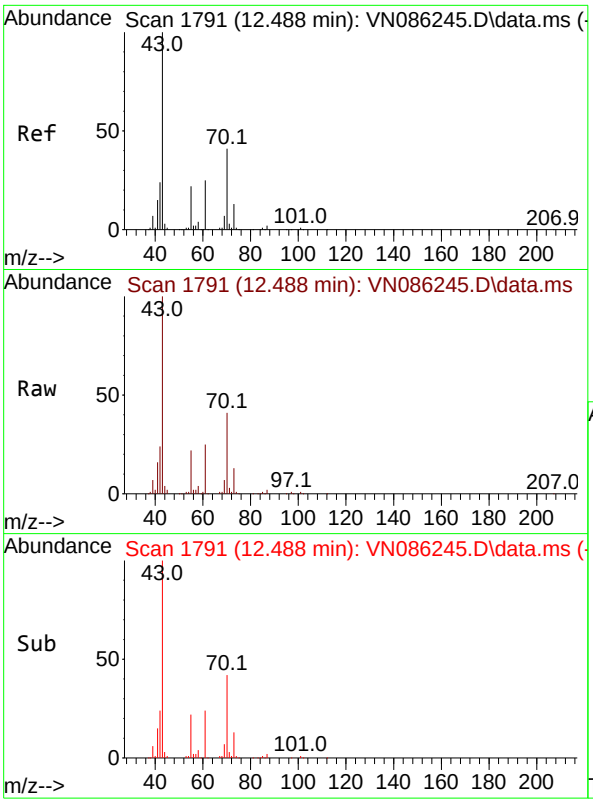


#46
Methyl methacrylate
Concen: 19.192 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 41 Resp: 58112

Ion	Ratio	Lower	Upper
41	100		
69	86.4	43.2	129.6
39	52.7	26.4	79.0





#47
n-amyl Acetate
Concen: 18.304 ug/l
RT: 12.488 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

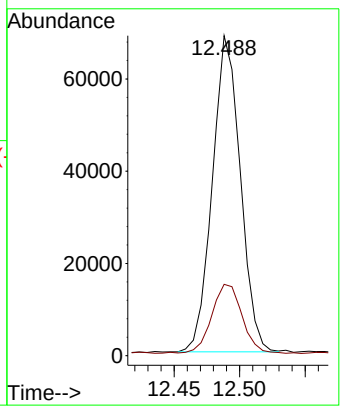
Tgt Ion: 43 Resp: 10163

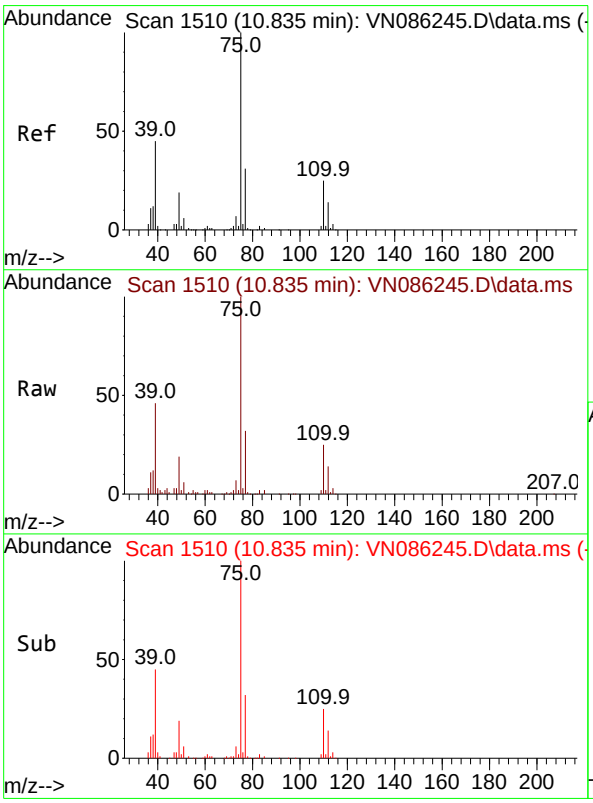
Ion	Ratio	Lower	Upper
43	100		
55	23.7	19.0	28.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

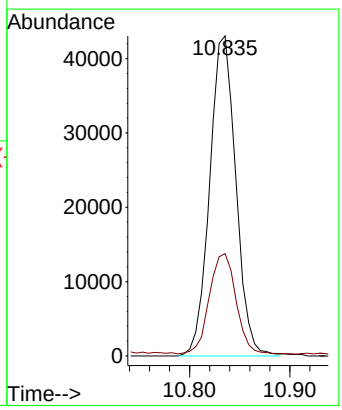


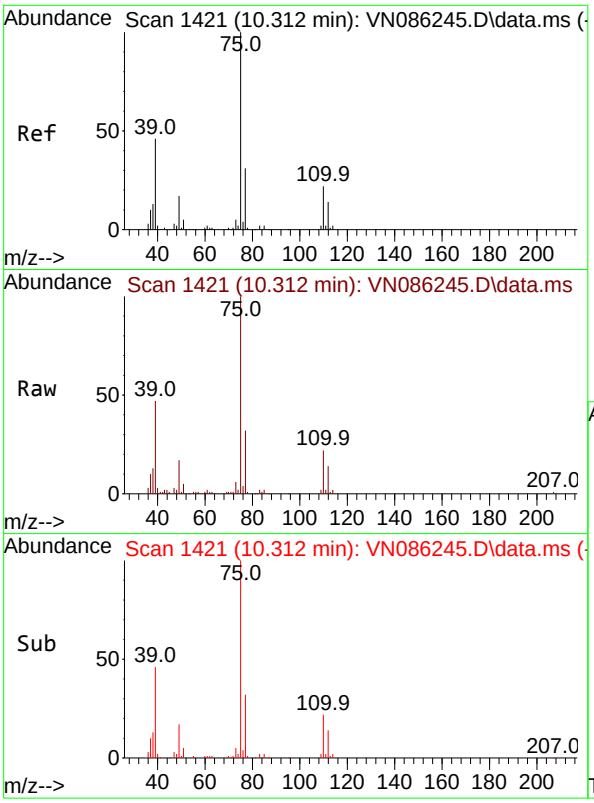


#48
t-1,3-Dichloropropene
Concen: 18.977 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 78104

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7

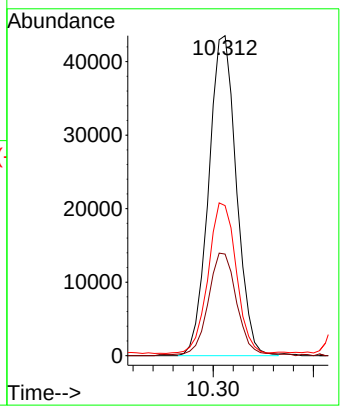




#49
cis-1,3-Dichloropropene
Concen: 19.170 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 8350

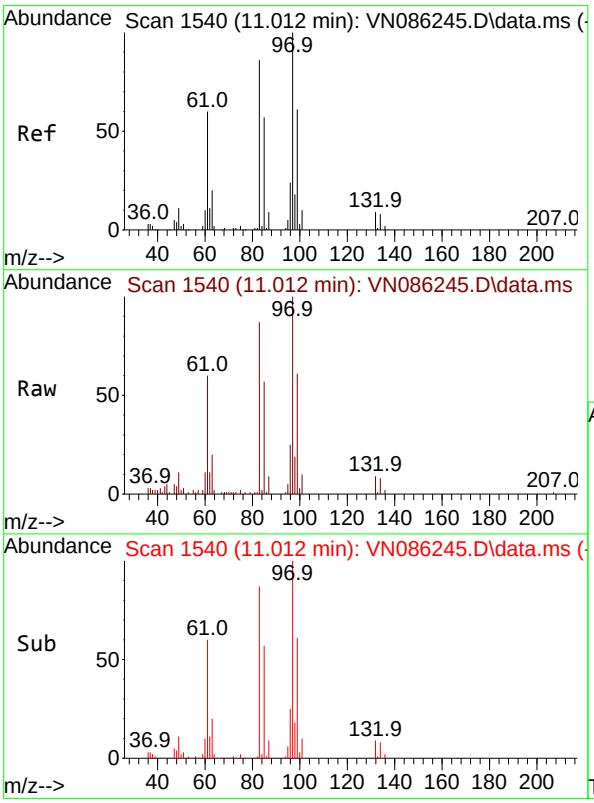
Ion	Ratio	Lower	Upper
75	100		
77	31.2	25.0	37.4
39	45.9	36.7	55.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

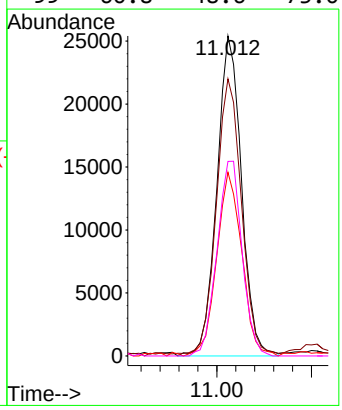
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

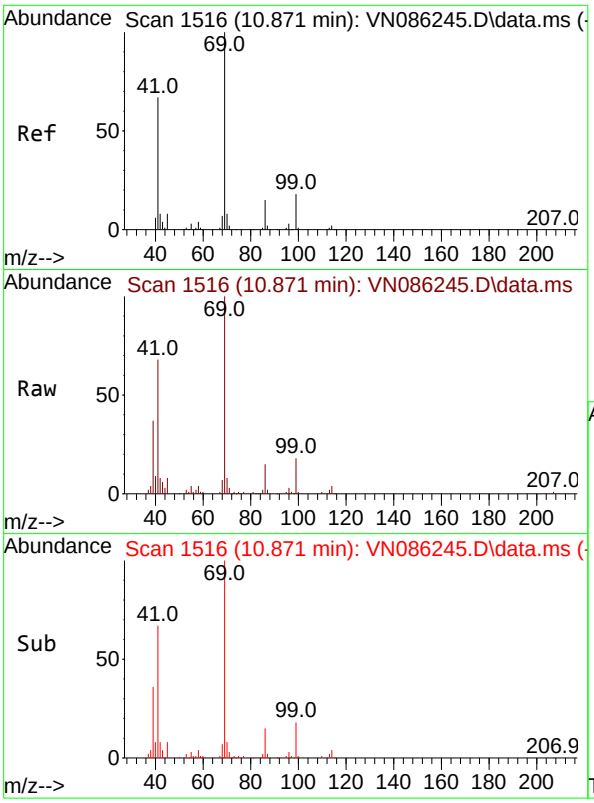


#50
1,1,2-Trichloroethane
Concen: 19.308 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 97 Resp: 45892

Ion	Ratio	Lower	Upper
97	100		
83	85.8	68.6	103.0
85	57.4	45.9	68.9
99	60.8	48.6	73.0

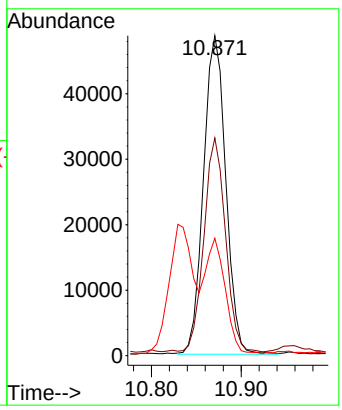




#51
Ethyl methacrylate
Concen: 19.027 ug/l
RT: 10.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 69 Resp: 8404

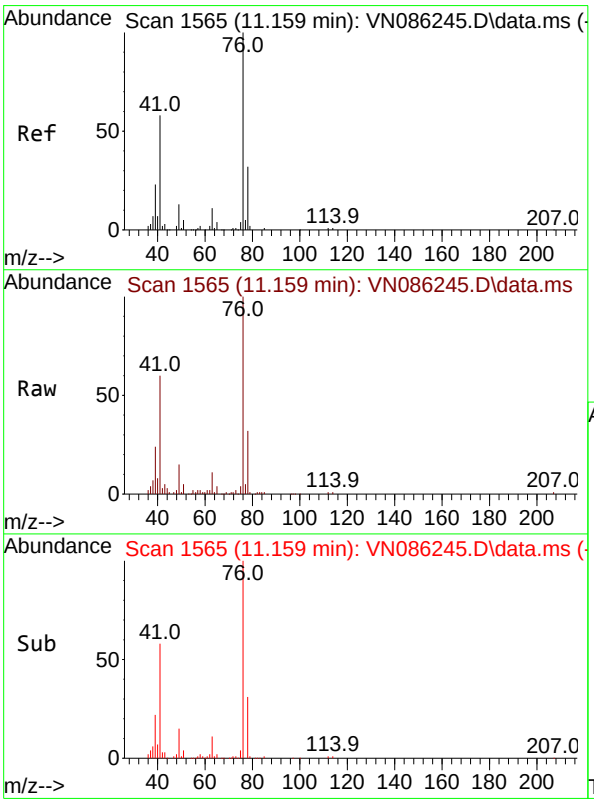
Ion	Ratio	Lower	Upper
69	100		
41	67.1	33.6	100.6
39	35.6	17.8	53.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

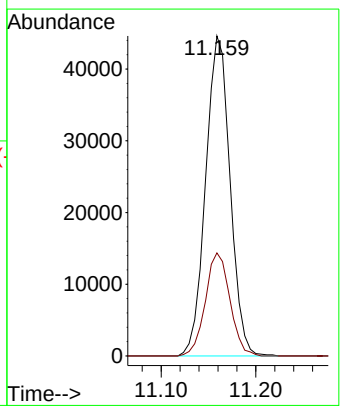
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

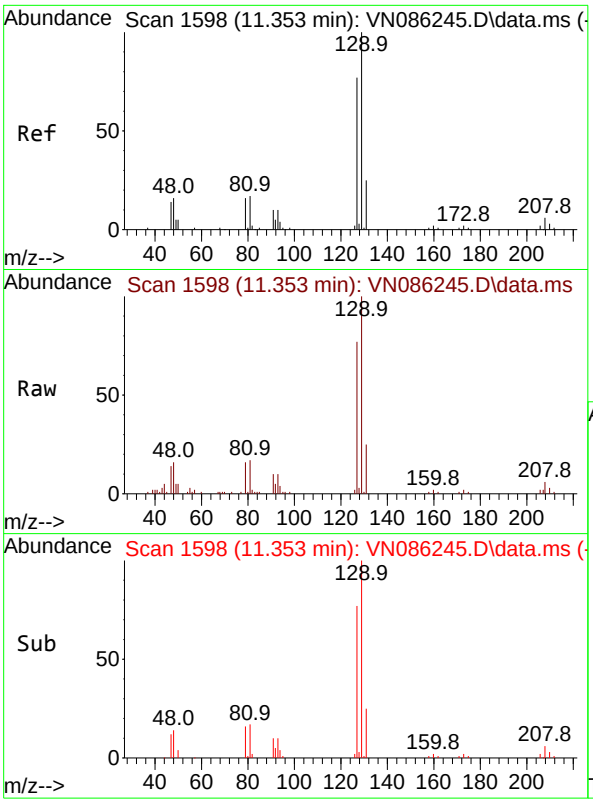


#52
1,3-Dichloropropane
Concen: 18.875 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 76 Resp: 79960

Ion	Ratio	Lower	Upper
76	100		
78	32.3	0.0	64.6

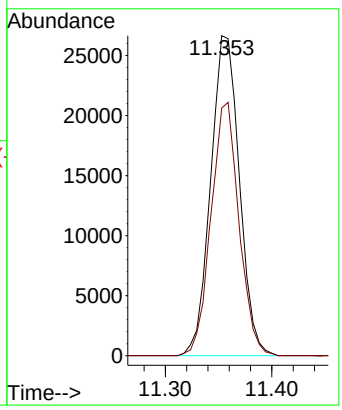




#53
Dibromochloromethane
Concen: 19.190 ug/l
RT: 11.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:129 Resp: 4989

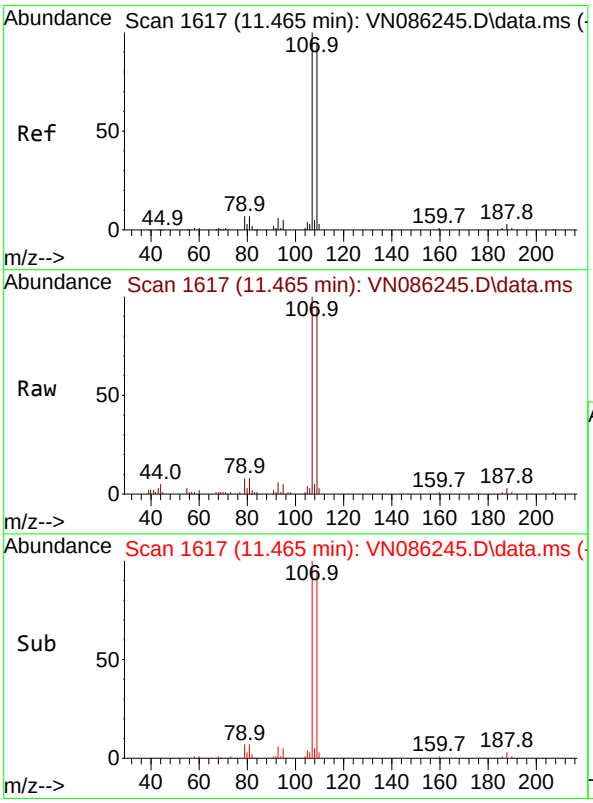
Ion	Ratio	Lower	Upper
129	100		
127	77.0	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

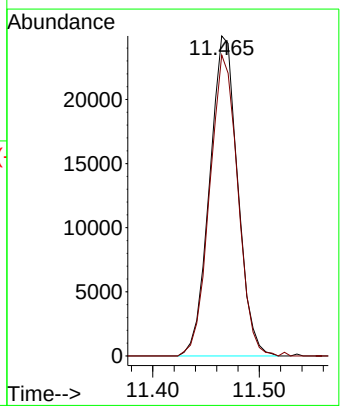
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

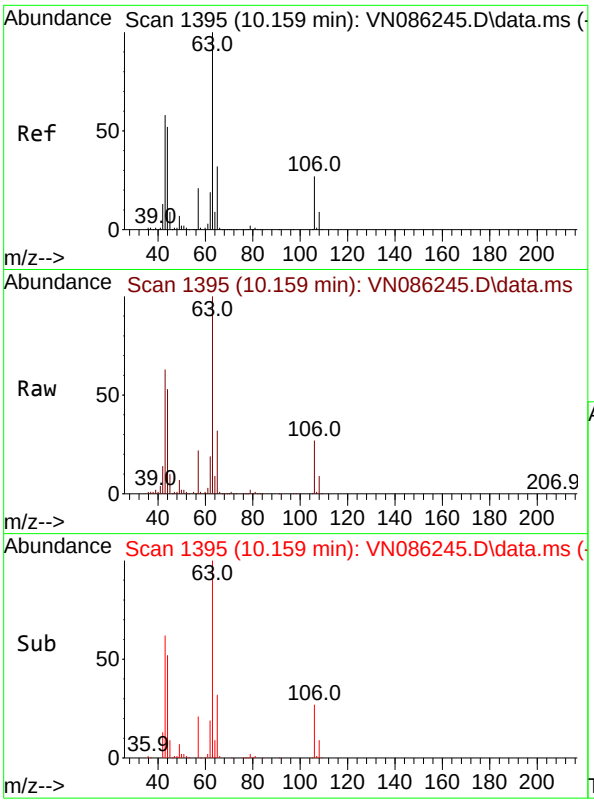


#54
1,2-Dibromoethane
Concen: 19.034 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:107 Resp: 45668

Ion	Ratio	Lower	Upper
107	100		
109	94.0	75.2	112.8

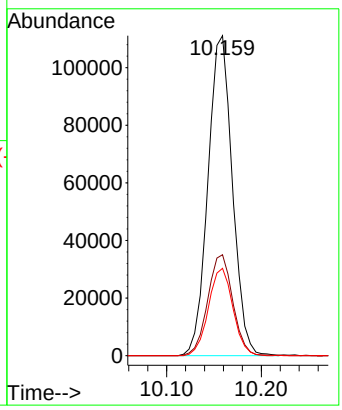




#55
2-Chloroethyl vinyl ether
Concen: 119.582 ug/l
RT: 10.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 63 Resp: 19958

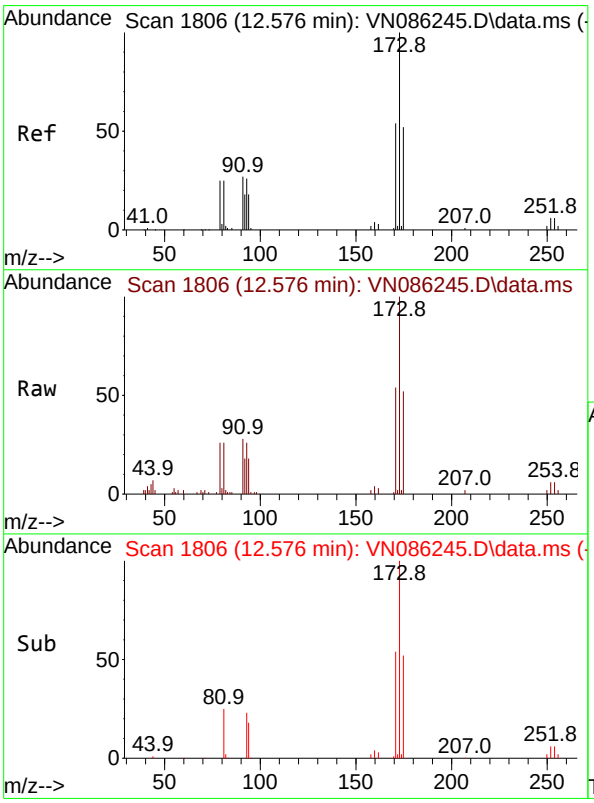
Ion	Ratio	Lower	Upper
63	100		
65	32.3	25.8	38.8
106	27.3	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

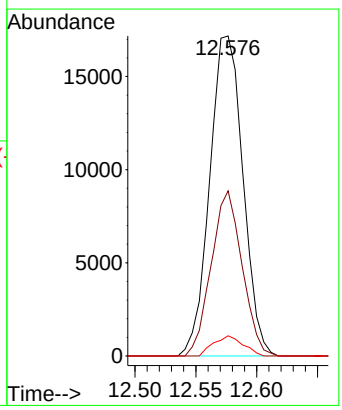
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

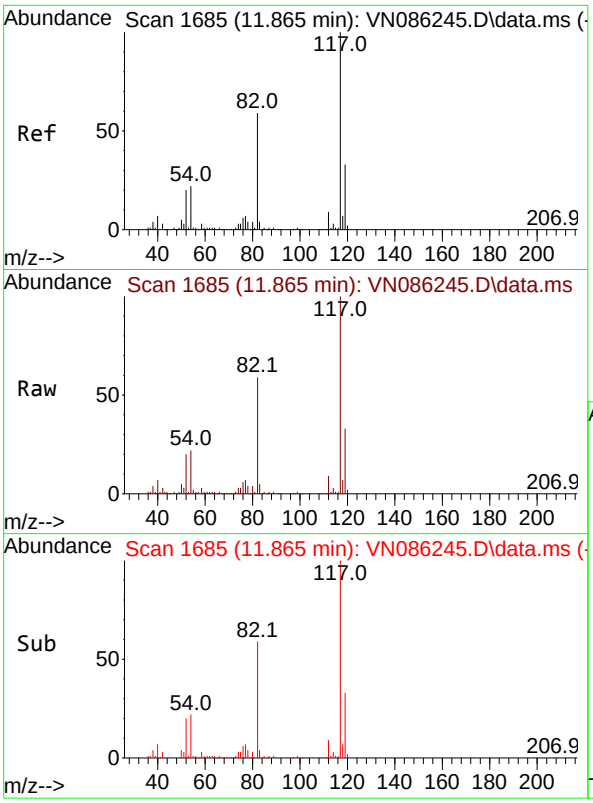


#56
Bromoform
Concen: 19.173 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:173 Resp: 32612

Ion	Ratio	Lower	Upper
173	100		
175	47.8	38.2	57.4
254	5.6	4.5	6.7





#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

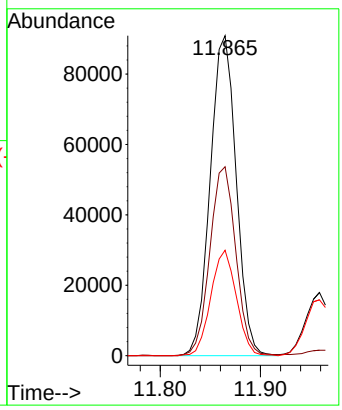
Tgt Ion:117 Resp: 16390

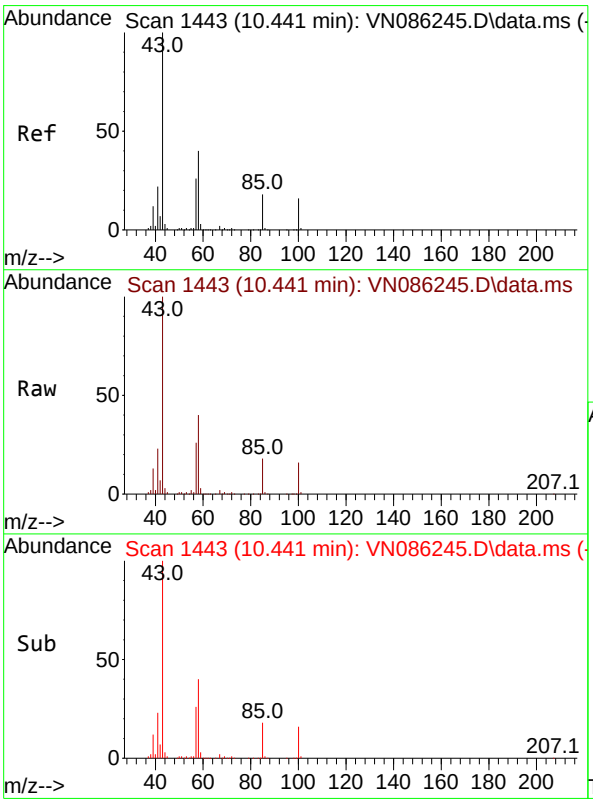
Ion	Ratio	Lower	Upper
117	100		
82	59.1	47.3	70.9
119	32.4	25.9	38.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

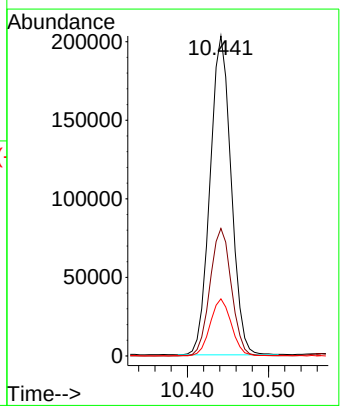


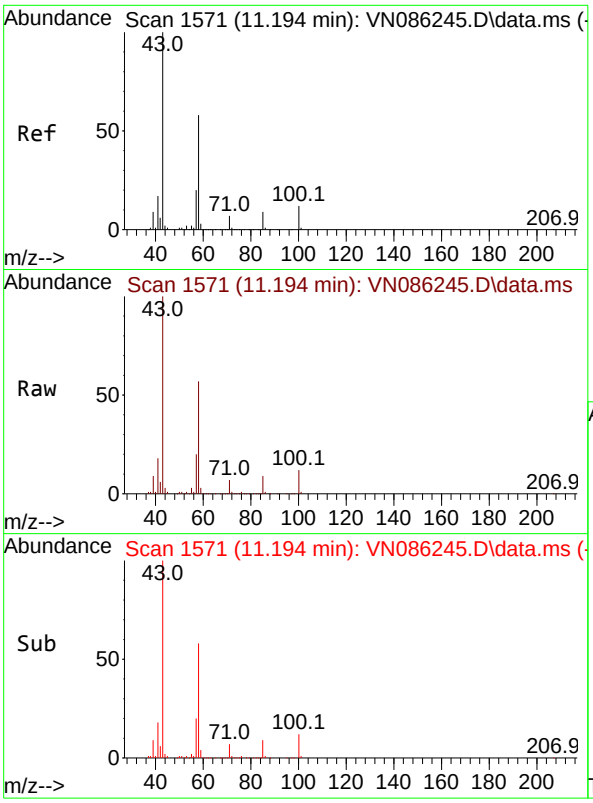


#58
4-Methyl-2-Pentanone
Concen: 98.554 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 366576

Ion	Ratio	Lower	Upper
43	100		
58	40.6	32.5	48.7
85	18.0	14.4	21.6





#59
2-Hexanone
Concen: 97.984 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

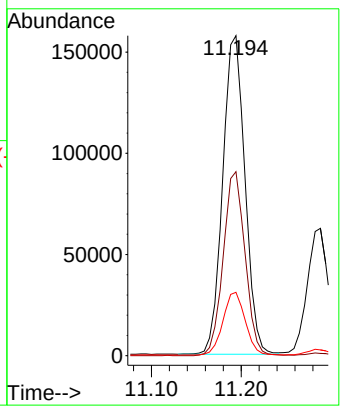
Tgt Ion: 43 Resp: 27138

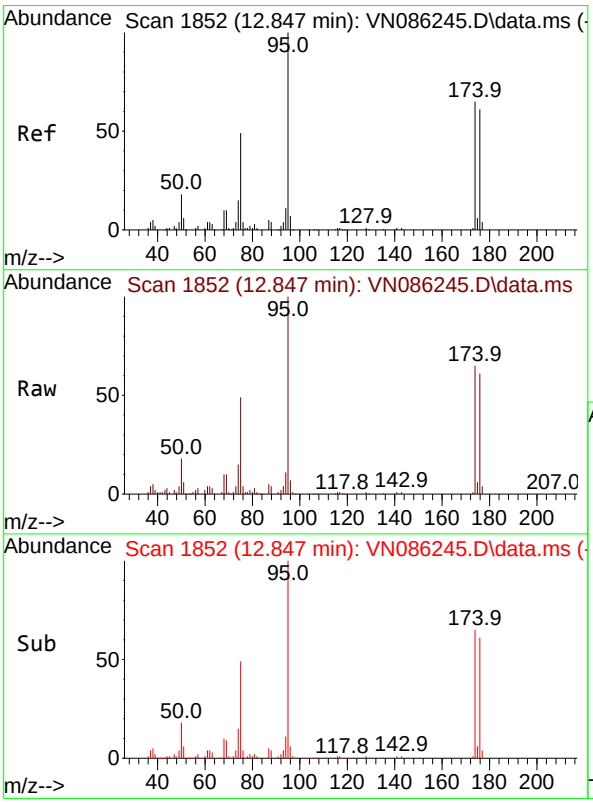
Ion	Ratio	Lower	Upper
43	100		
58	56.6	45.3	67.9
57	19.7	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

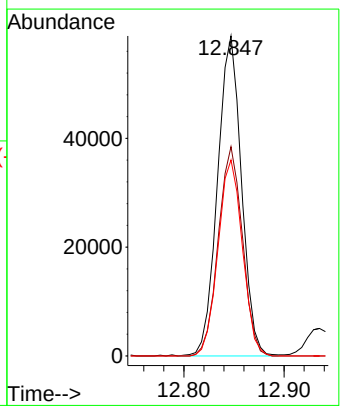


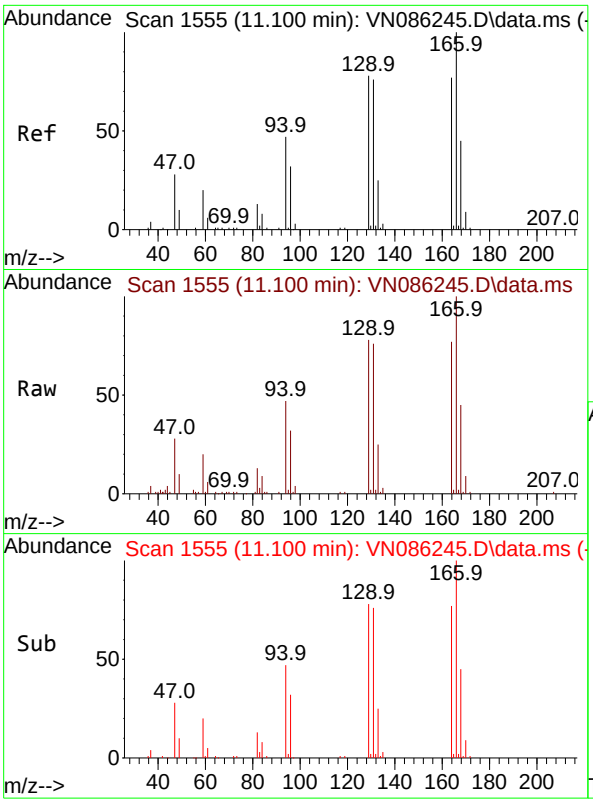


#60
4-Bromofluorobenzene
Concen: 29.820 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 95 Resp: 97314

Ion	Ratio	Lower	Upper
95	100		
174	65.9	52.7	79.1
176	62.3	49.8	74.8

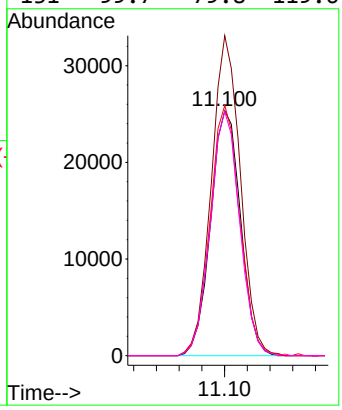




#61
Tetrachloroethene
Concen: 19.134 ug/l
RT: 11.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:164 Resp: 4631

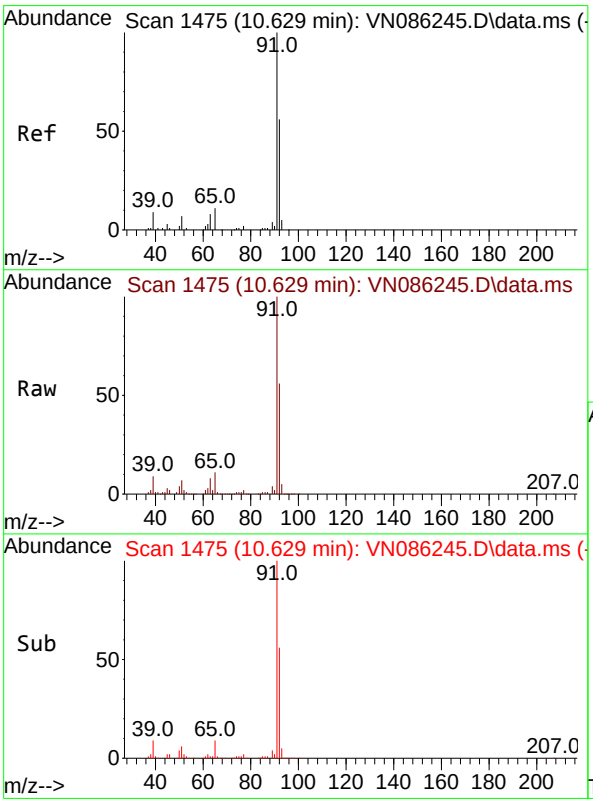
Ion	Ratio	Lower	Upper
164	100		
166	130.6	104.5	156.7
129	102.1	81.7	122.5
131	99.7	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

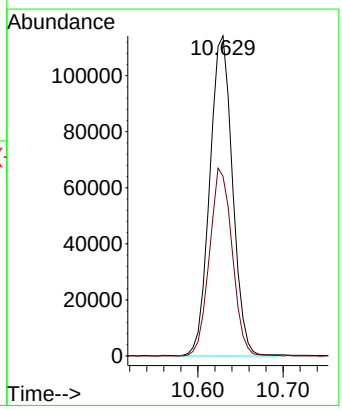
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

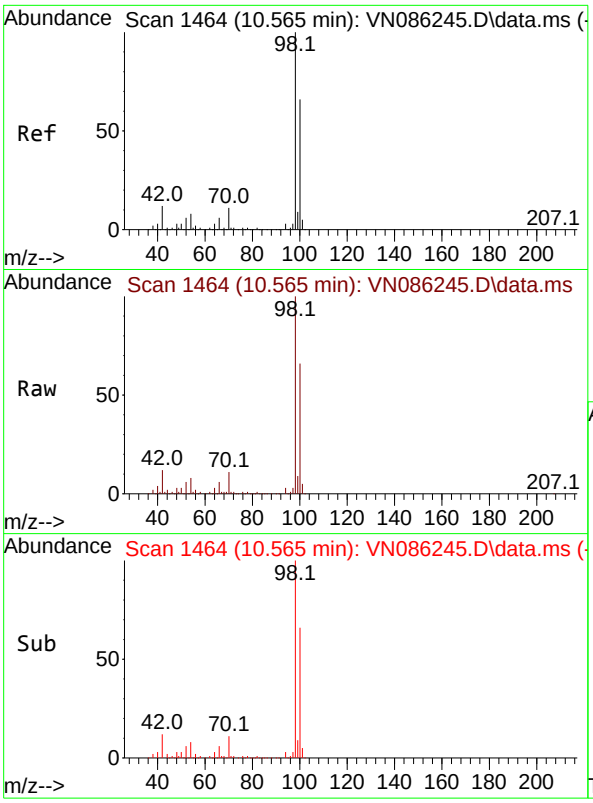


#62
Toluene
Concen: 19.292 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 212088

Ion	Ratio	Lower	Upper
91	100		
92	58.5	46.8	70.2

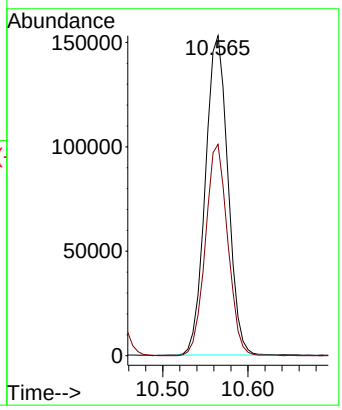




#63
Toluene-d8
Concen: 30.431 ug/l
RT: 10.565 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 98 Resp: 28158

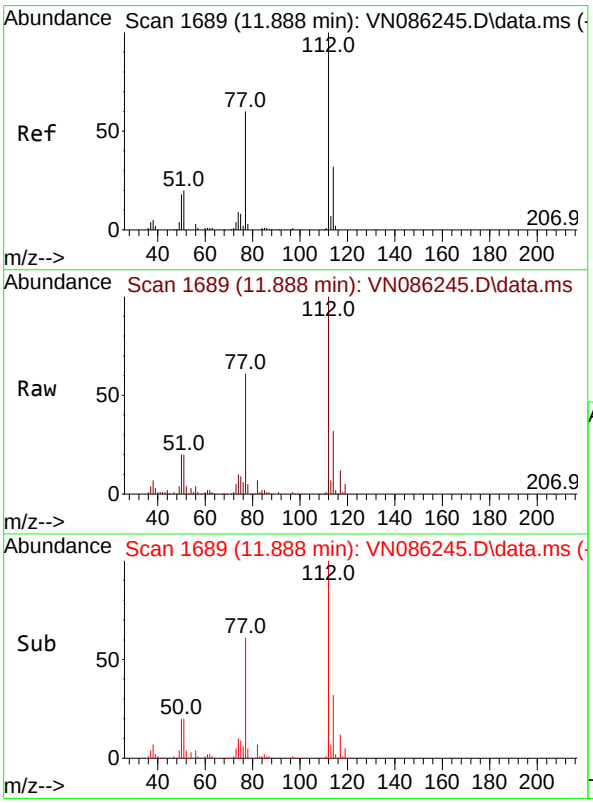
Ion	Ratio	Lower	Upper
98	100		
100	65.4	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

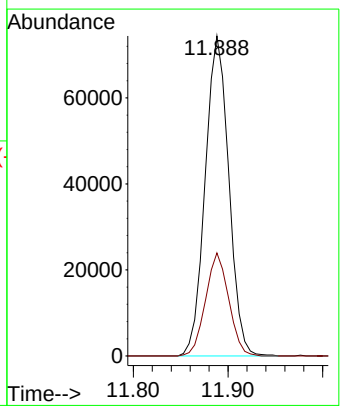
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

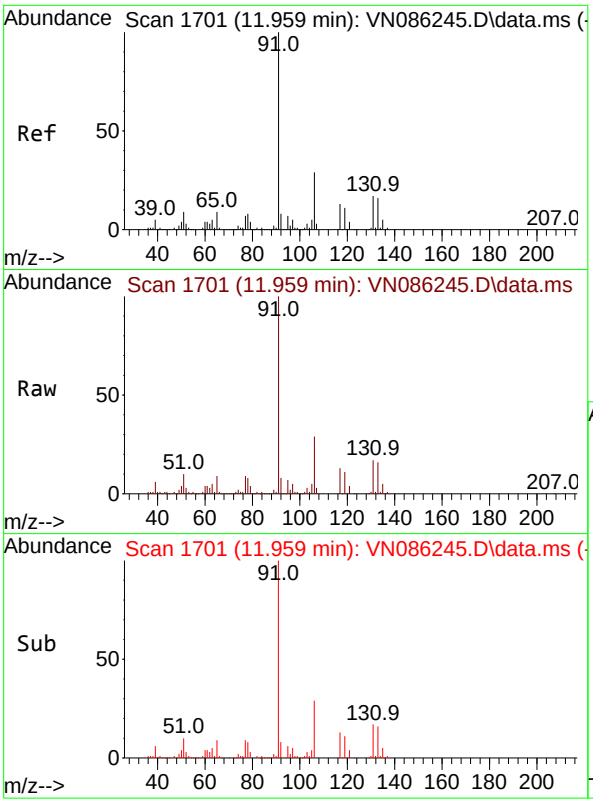


#64
Chlorobenzene
Concen: 19.188 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:112 Resp: 128877

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.6

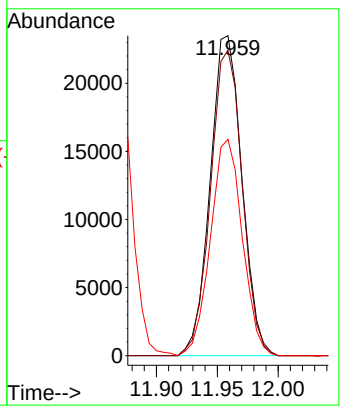




#65
1,1,1,2-Tetrachloroethane
Concen: 19.244 ug/l
RT: 11.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:131 Resp: 4265

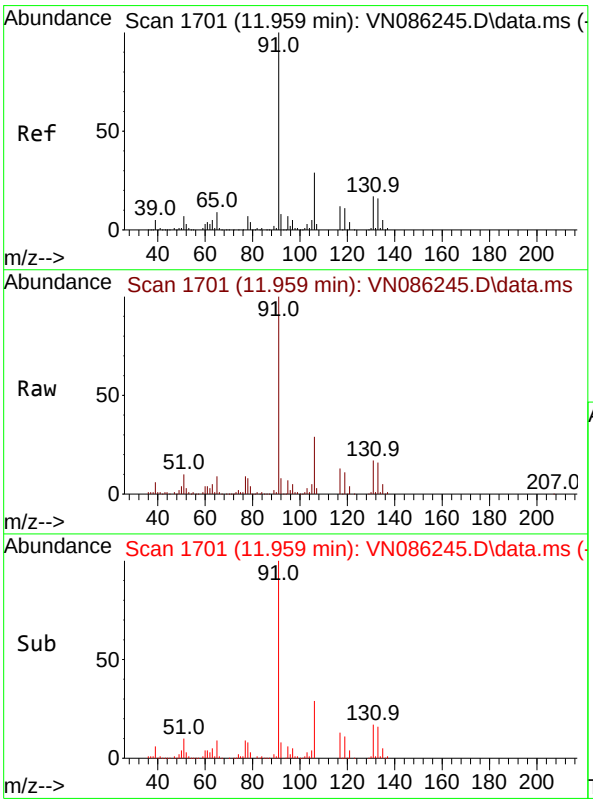
Ion	Ratio	Lower	Upper
131	100		
133	95.2	0.0	190.4
119	67.8	0.0	135.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

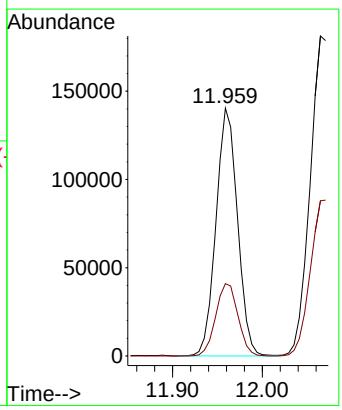
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

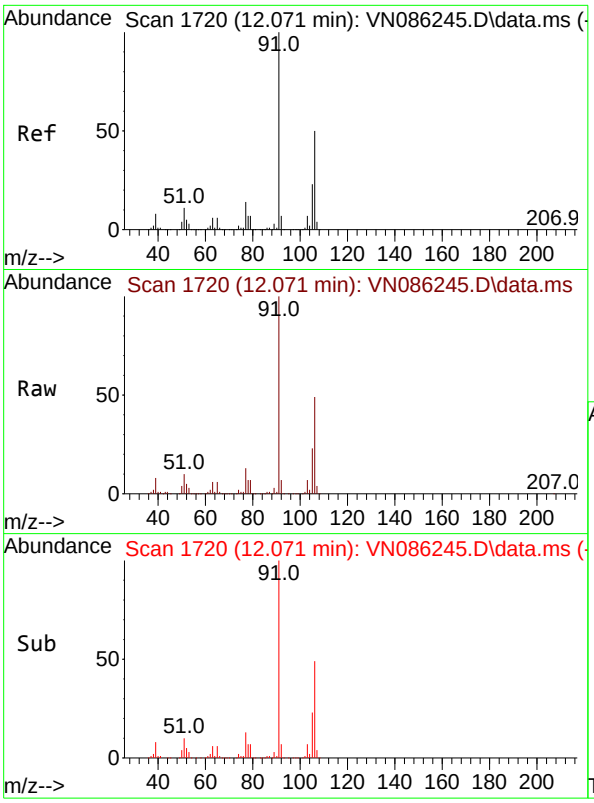


#66
Ethyl Benzene
Concen: 19.177 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 233805

Ion	Ratio	Lower	Upper
91	100		
106	29.2	23.4	35.0

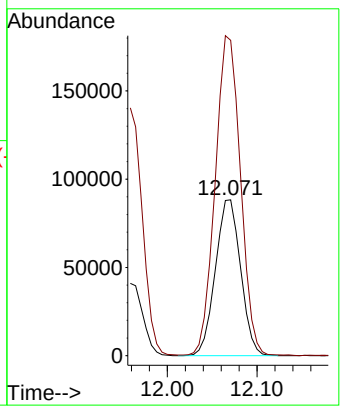




#67
m/p-Xylenes
Concen: 38.024 ug/l
RT: 12.071 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:106 Resp: 17238

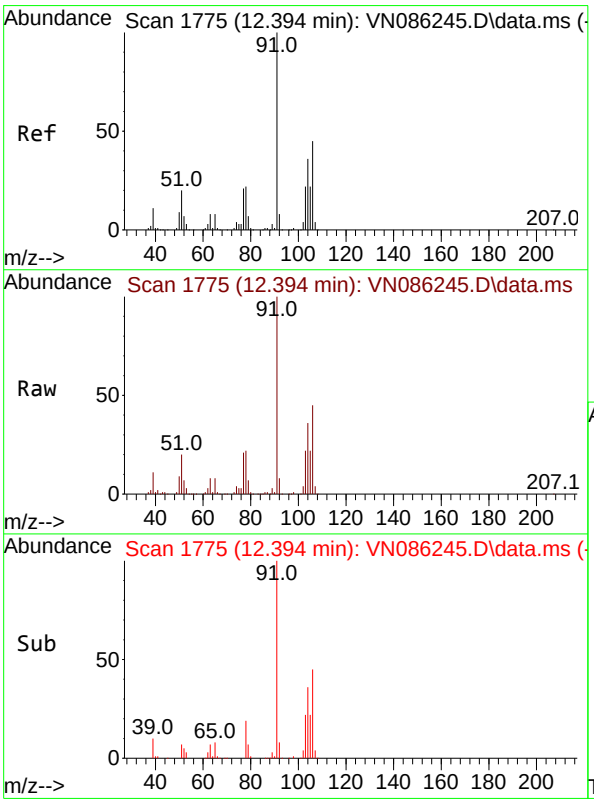
Ion	Ratio	Lower	Upper
106	100		
91	205.6	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

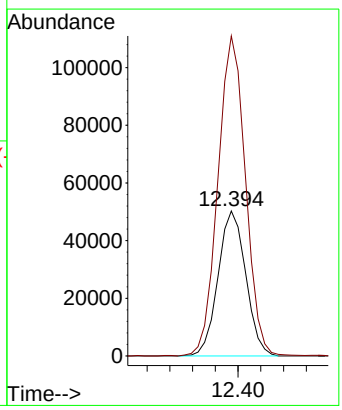
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

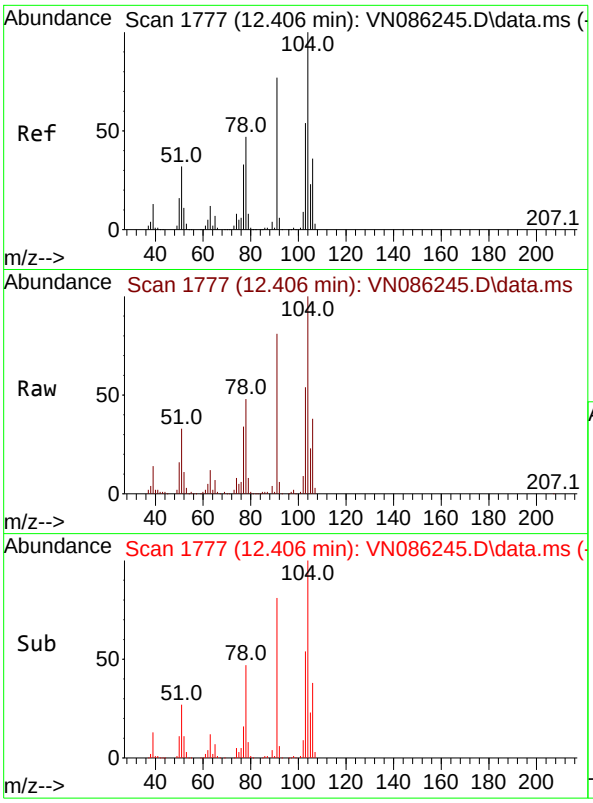


#68
o-Xylene
Concen: 19.101 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:106 Resp: 85173

Ion	Ratio	Lower	Upper
106	100		
91	219.6	109.8	329.4

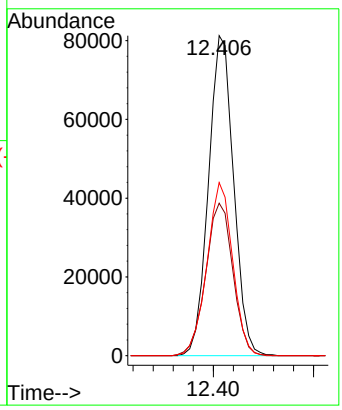




#69
Styrene
Concen: 18.793 ug/l
RT: 12.406 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:104 Resp: 14132

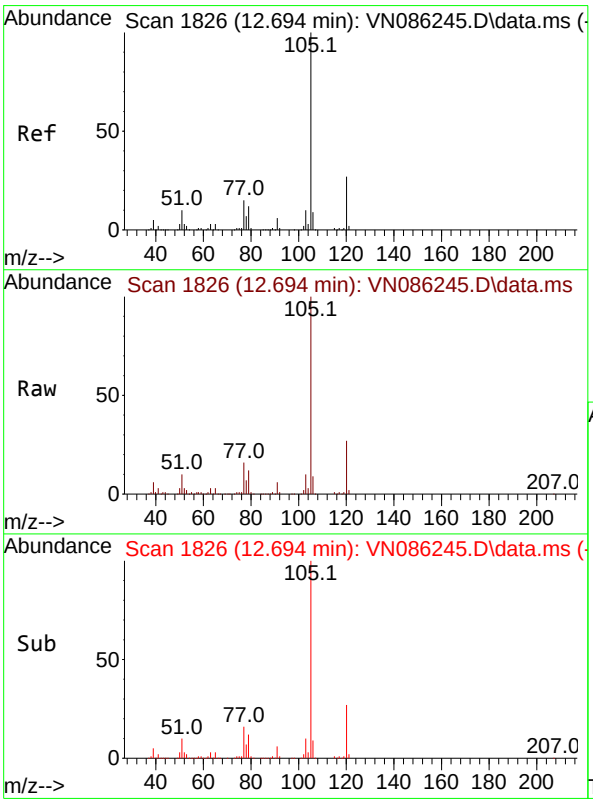
Ion	Ratio	Lower	Upper
104	100		
78	51.7	41.4	62.0
103	55.3	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

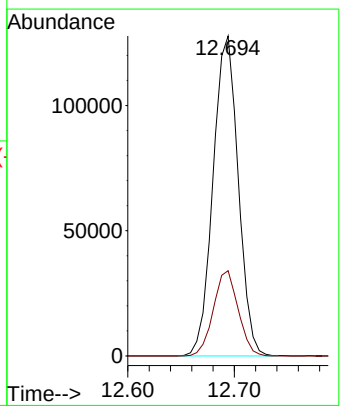
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

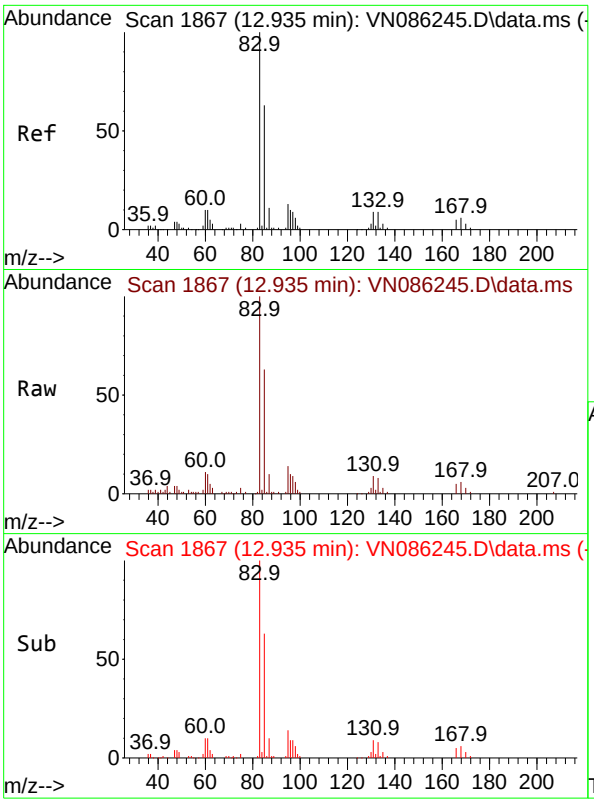


#70
Isopropylbenzene
Concen: 19.057 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 209526

Ion	Ratio	Lower	Upper
105	100		
120	26.2	18.3	34.1

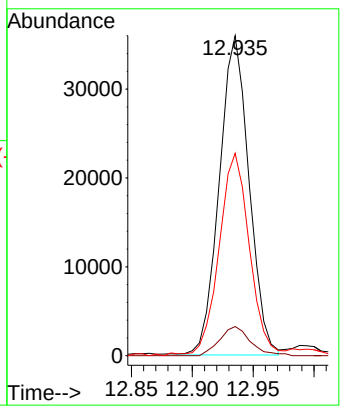




#71
1,1,2,2-Tetrachloroethane
Concen: 19.472 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 83 Resp: 6093

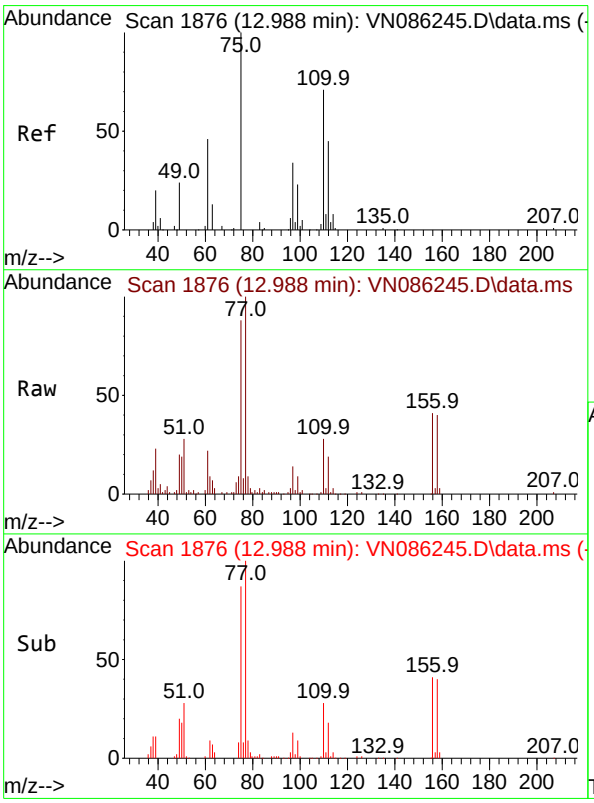
Ion	Ratio	Lower	Upper
83	100		
131	9.5	4.8	14.3
85	64.5	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

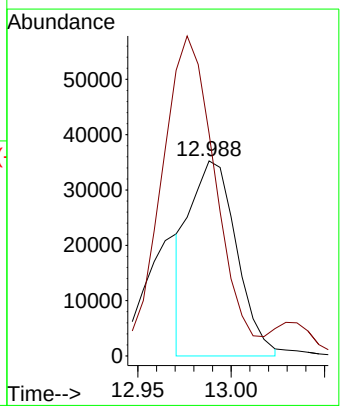
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

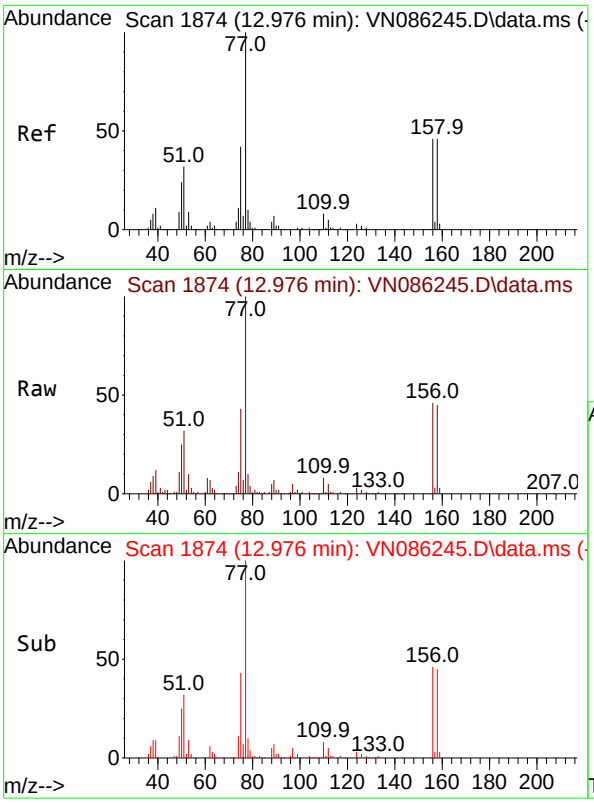


#72
1,2,3-Trichloropropane
Concen: 13.969 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 61888

Ion	Ratio	Lower	Upper
75	100		
77	190.0	0.0	380.0





#73
Bromobenzene
Concen: 19.116 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

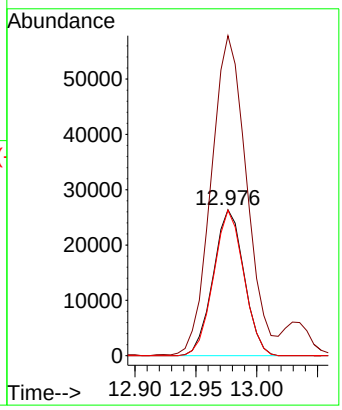
Tgt Ion:156 Resp: 4656

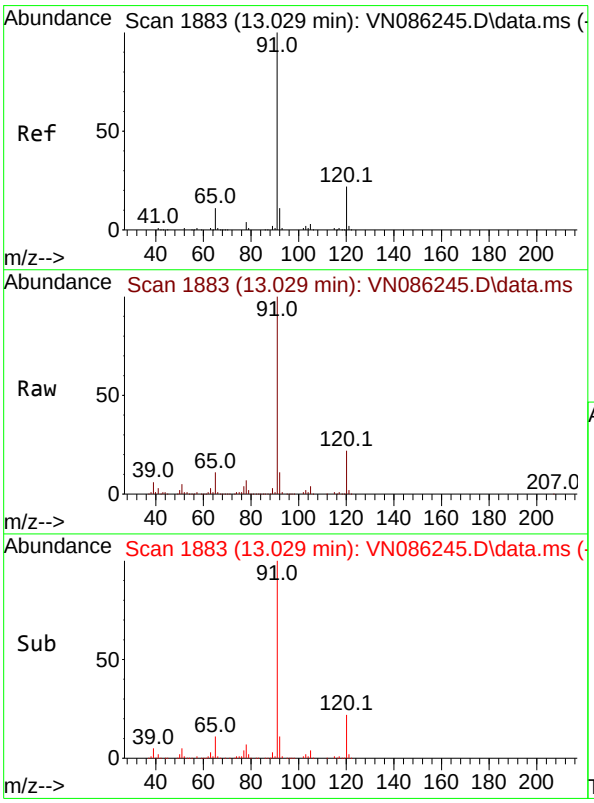
Ion	Ratio	Lower	Upper
156	100		
77	252.6	0.0	505.2
158	97.5	0.0	195.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

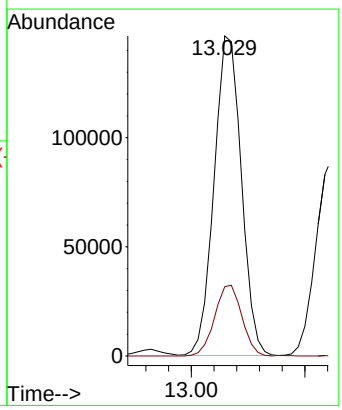


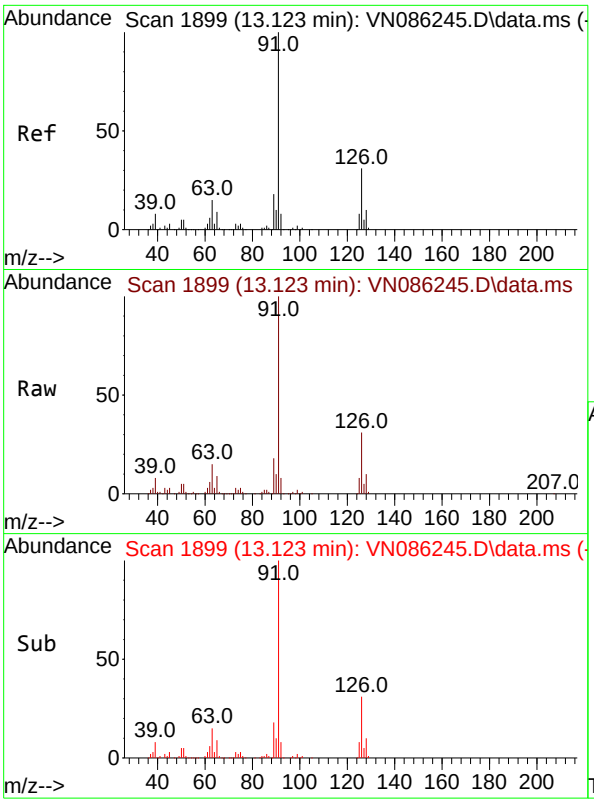


#74
n-propylbenzene
Concen: 18.707 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 243573

Ion	Ratio	Lower	Upper
91	100		
120	22.1	0.0	44.0

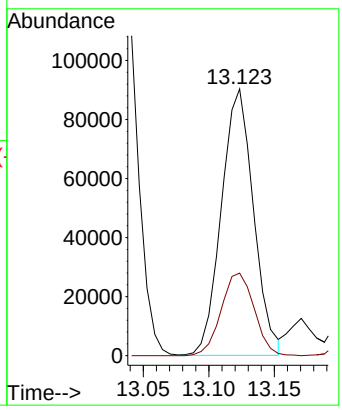




#75
2-Chlorotoluene
Concen: 18.914 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 15434

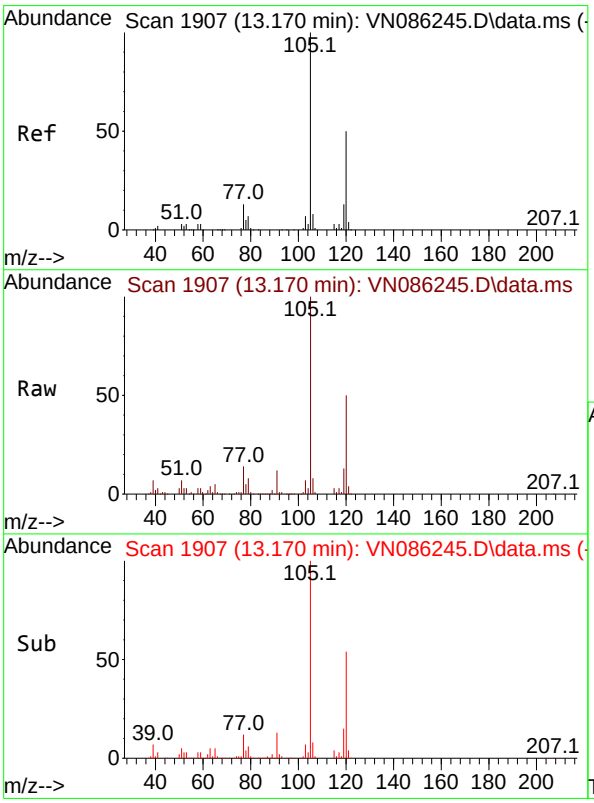
Ion	Ratio	Lower	Upper
91	100		
126	31.7	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

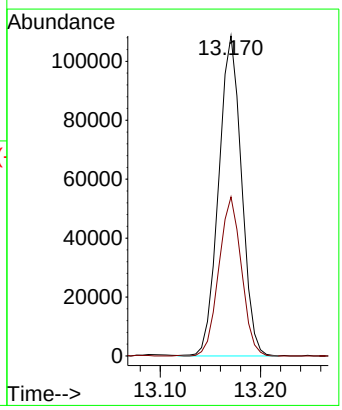
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

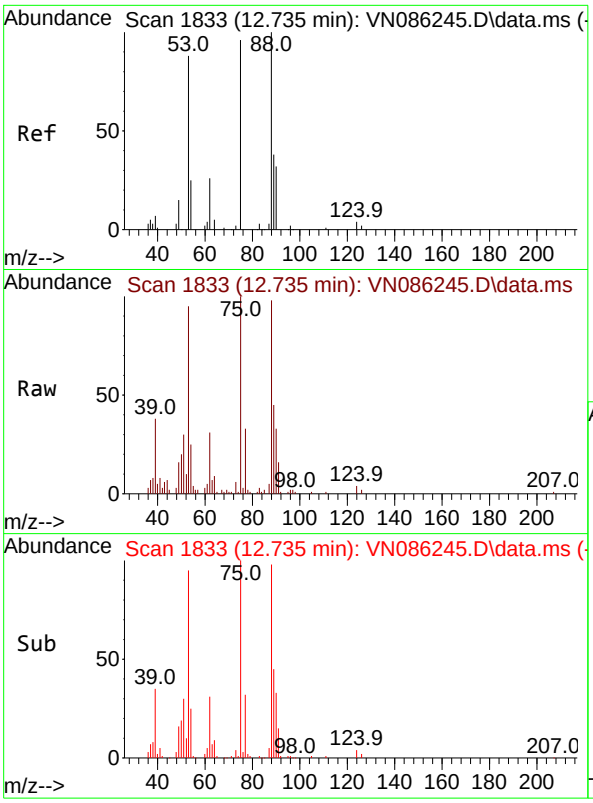


#76
1,3,5-Trimethylbenzene
Concen: 19.046 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 172014

Ion	Ratio	Lower	Upper
105	100		
120	49.0	0.0	98.0





#77
t-1,4-Dichloro-2-butene
Concen: 18.993 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

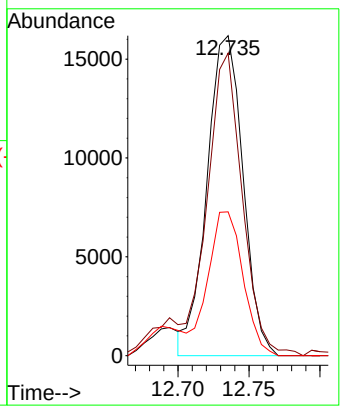
Tgt Ion: 75 Resp: 2852

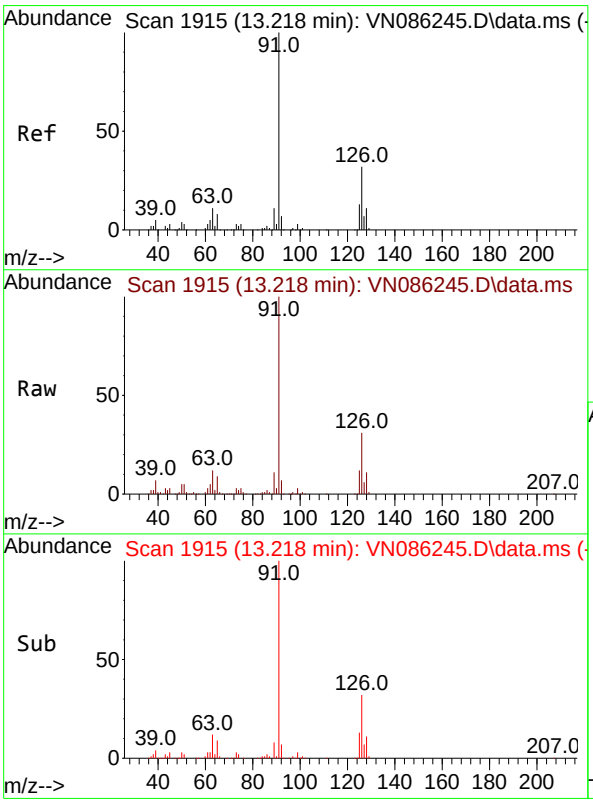
Ion	Ratio	Lower	Upper
75	100		
53	92.8	46.4	139.2
89	45.0	22.5	67.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

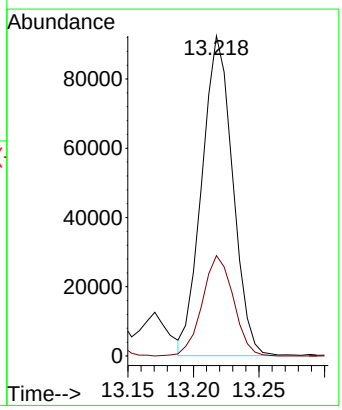


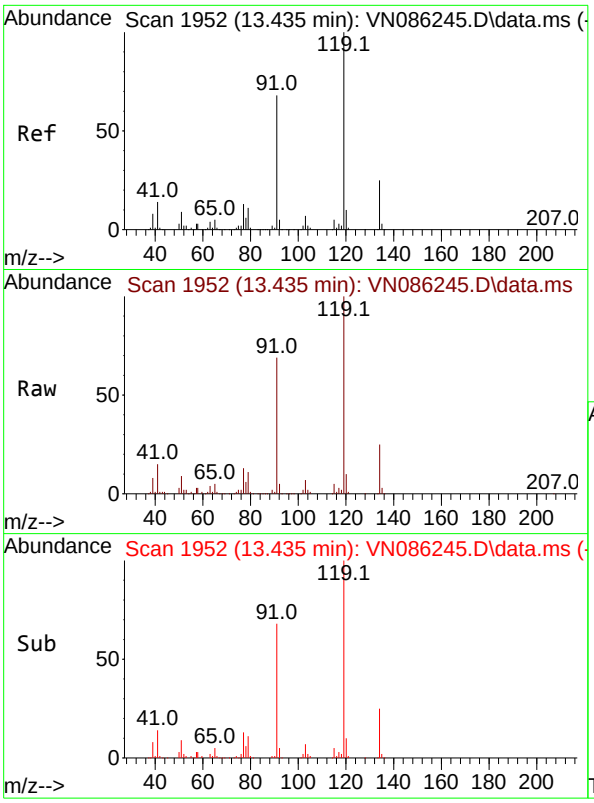


#78
4-Chlorotoluene
Concen: 18.539 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 151091

Ion	Ratio	Lower	Upper
91	100		
126	31.6	0.0	63.2

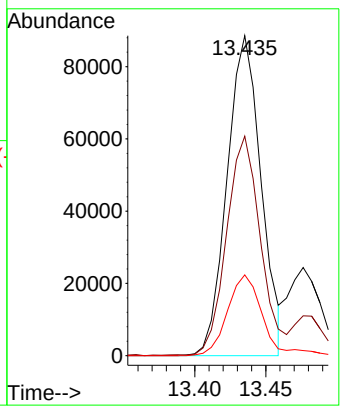




#79
tert-butylbenzene
Concen: 18.865 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:119 Resp: 14742

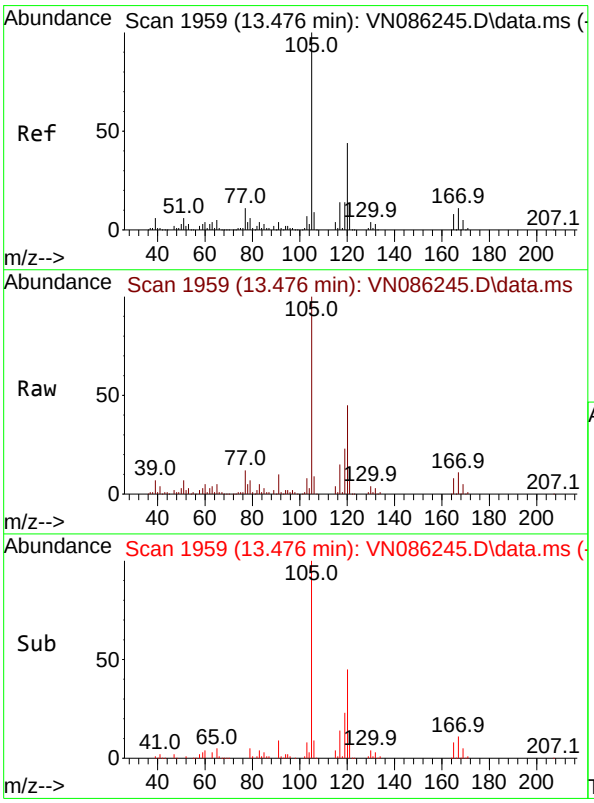
Ion	Ratio	Lower	Upper
119	100		
91	68.3	0.0	136.6
134	24.7	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

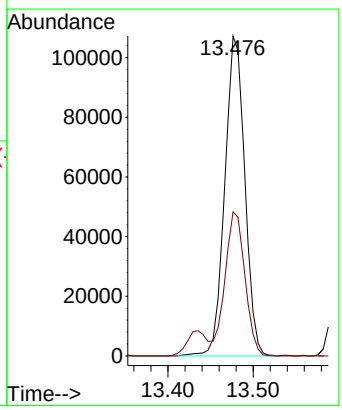
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

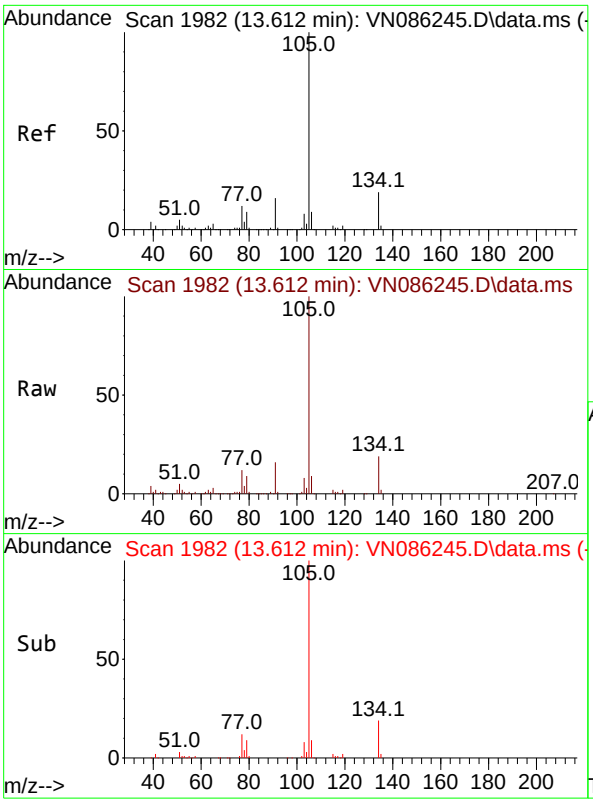


#80
1,2,4-Trimethylbenzene
Concen: 19.089 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 174827

Ion	Ratio	Lower	Upper
105	100		
120	45.5	0.0	91.0

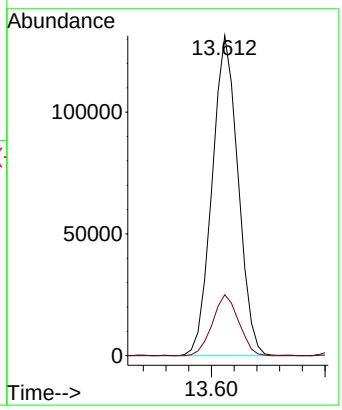




#81
sec-Butylbenzene
Concen: 19.134 ug/l
RT: 13.612 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 20858

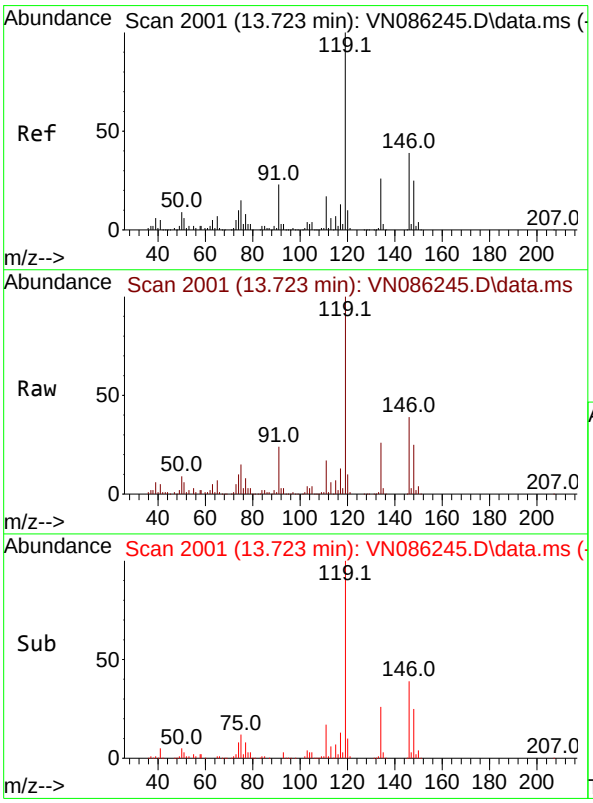
Ion	Ratio	Lower	Upper
105	100		
134	19.3	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

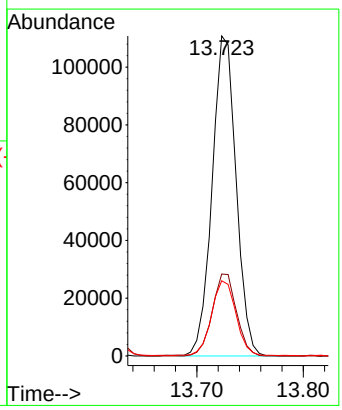
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

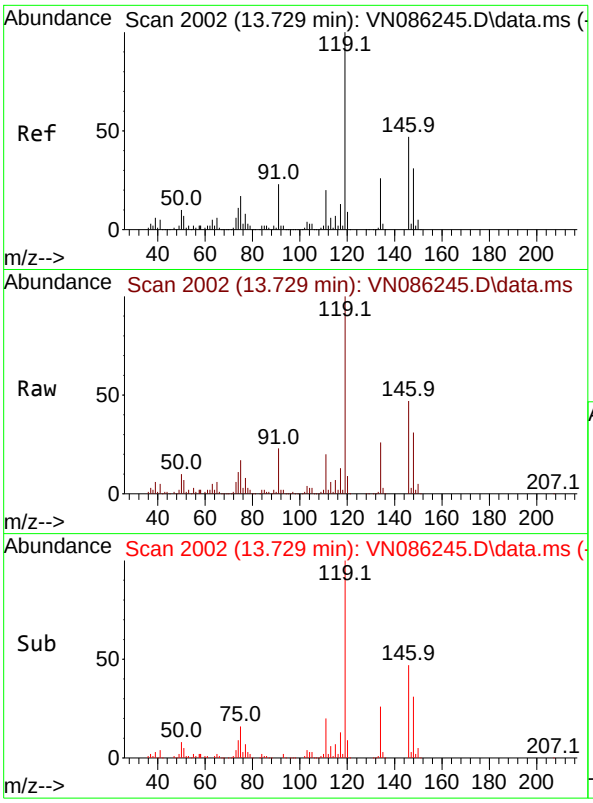


#82
p-Isopropyltoluene
Concen: 19.037 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:119 Resp: 173120

Ion	Ratio	Lower	Upper
119	100		
134	25.8	0.0	51.6
91	24.1	0.0	48.2

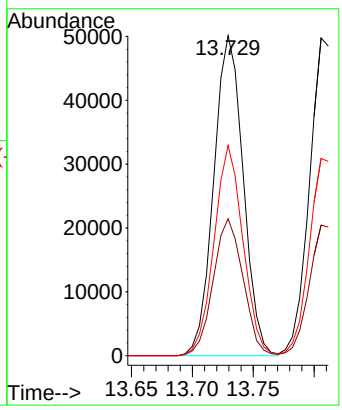




#83
1,3-Dichlorobenzene
Concen: 18.662 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:146 Resp: 8448

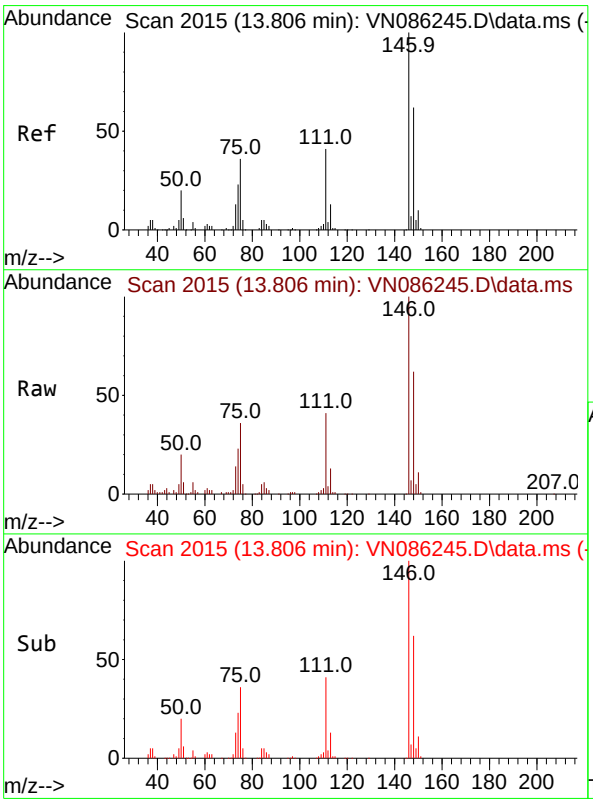
Ion	Ratio	Lower	Upper
146	100		
111	43.4	21.7	65.1
148	64.5	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

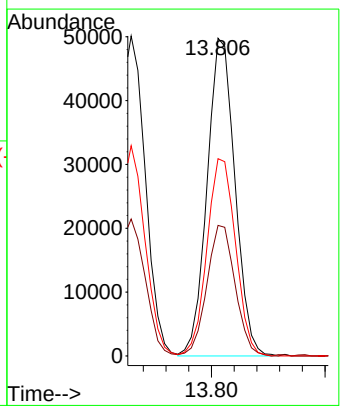
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

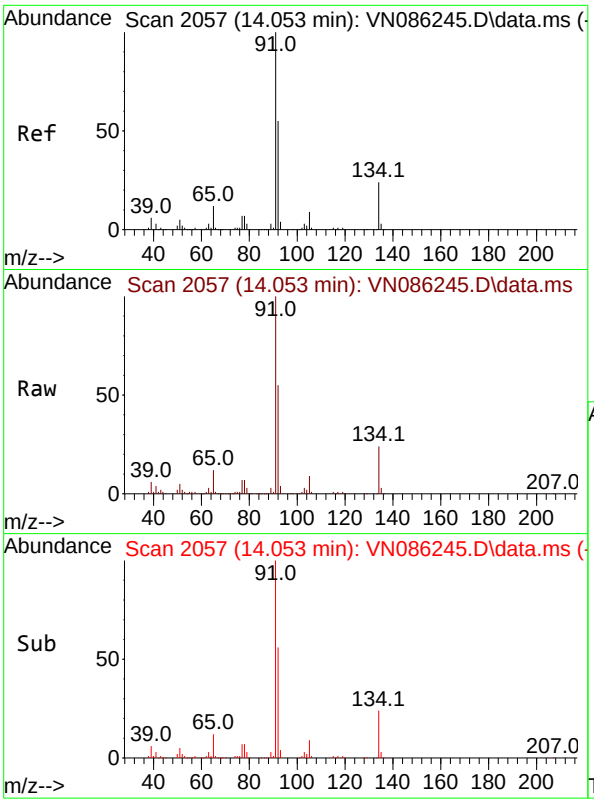


#84
1,4-Dichlorobenzene
Concen: 18.705 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:146 Resp: 84947

Ion	Ratio	Lower	Upper
146	100		
111	41.6	20.8	62.4
148	63.7	31.9	95.5

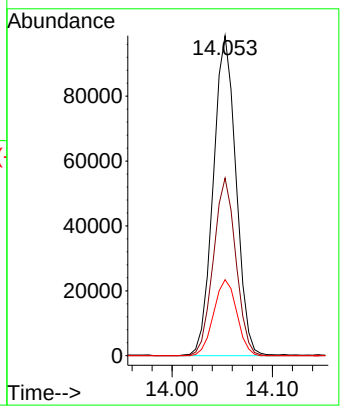




#85
n-Butylbenzene
Concen: 18.919 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 15520

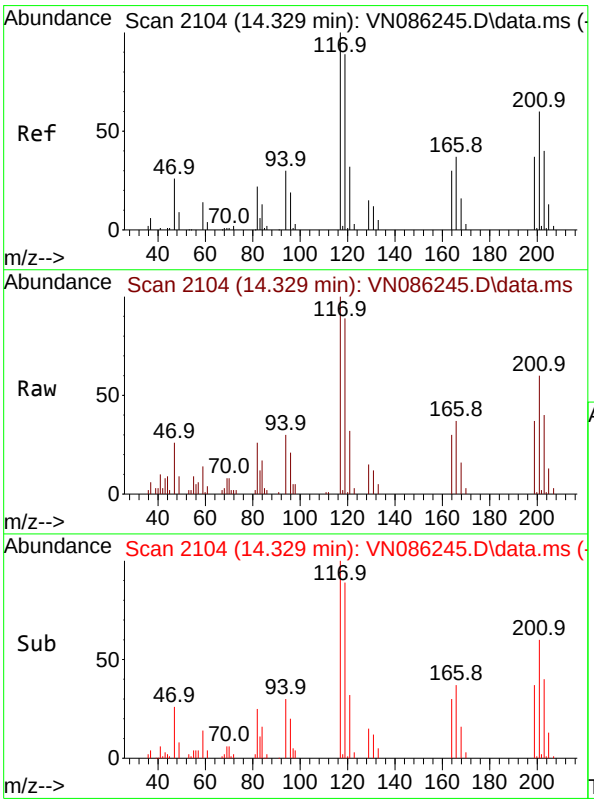
Ion	Ratio	Lower	Upper
91	100		
92	54.7	0.0	109.4
134	24.1	0.0	48.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

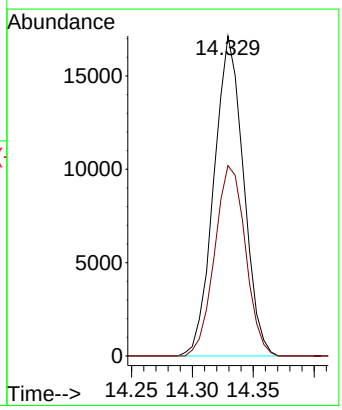
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

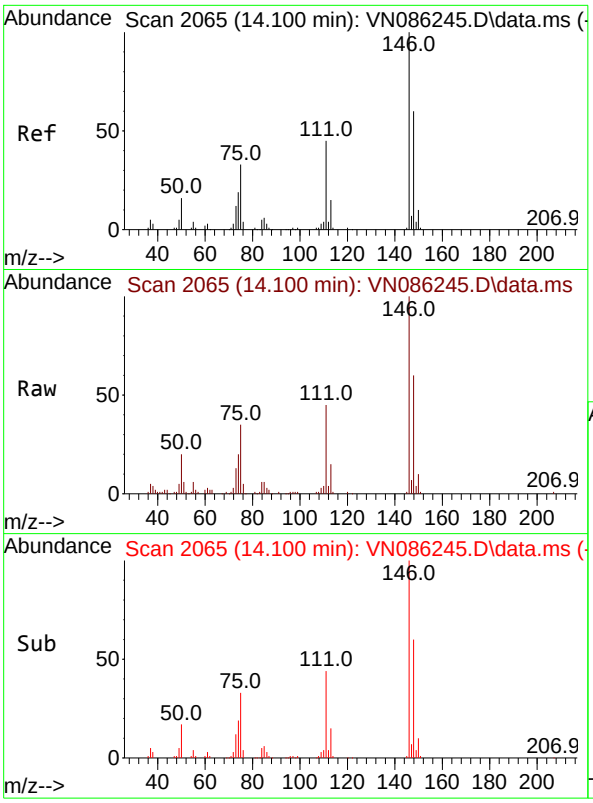


#86
Hexachloroethane
Concen: 18.910 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:117 Resp: 29008

Ion	Ratio	Lower	Upper
117	100		
201	61.9	30.9	92.8

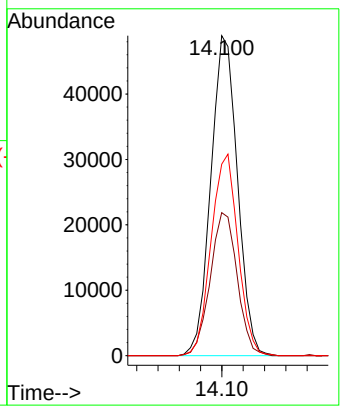




#87
1,2-Dichlorobenzene
Concen: 19.018 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:146 Resp: 8500

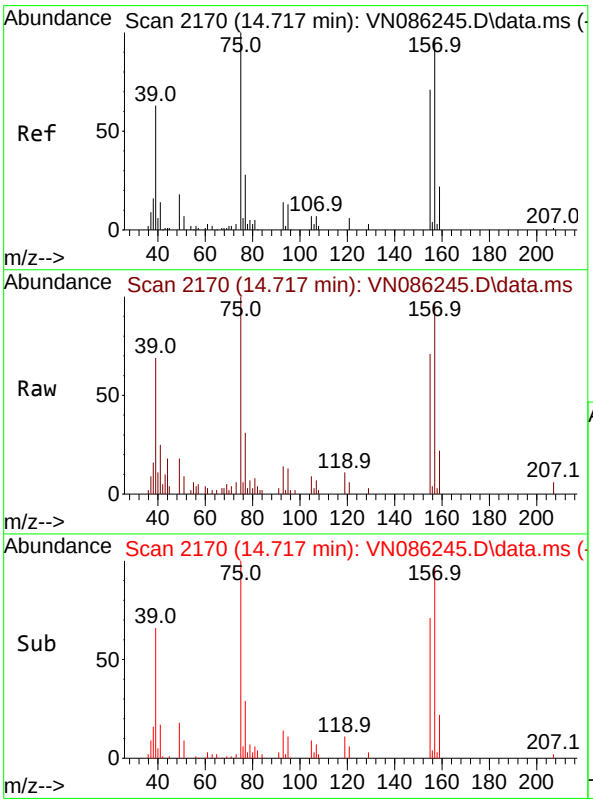
Ion	Ratio	Lower	Upper
146	100		
111	45.3	22.7	68.0
148	63.5	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

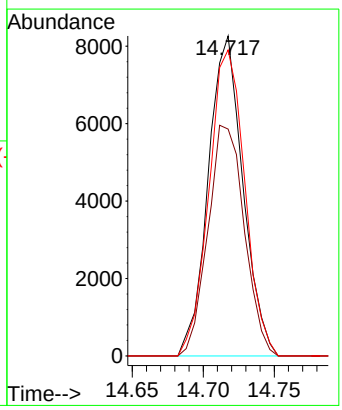
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

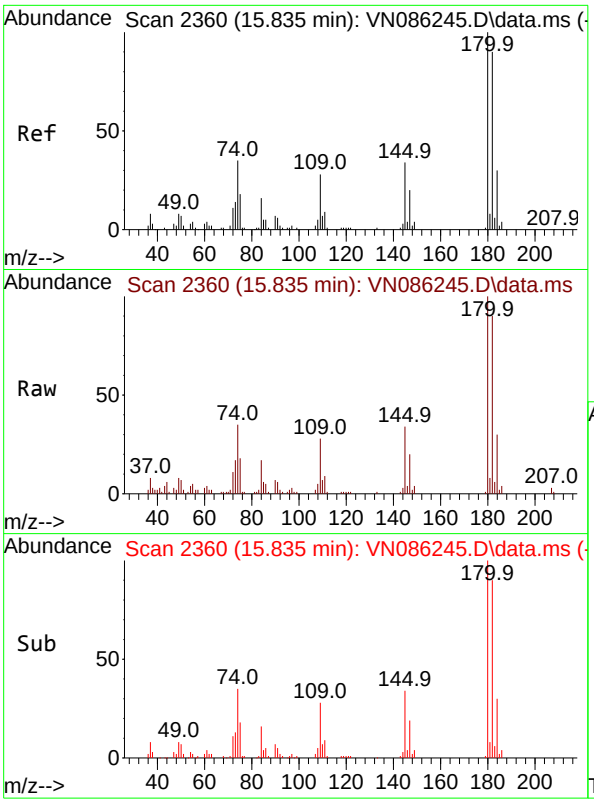


#88
1,2-Dibromo-3-Chloropropane
Concen: 19.684 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 14031

Ion	Ratio	Lower	Upper
75	100		
155	75.4	60.3	90.5
157	98.7	79.0	118.4

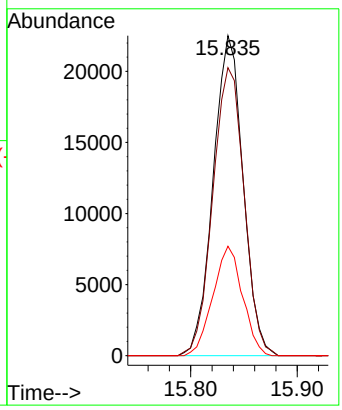




#89
1,2,4-Trichlorobenzene
Concen: 20.183 ug/l
RT: 15.835 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:180 Resp: 4389

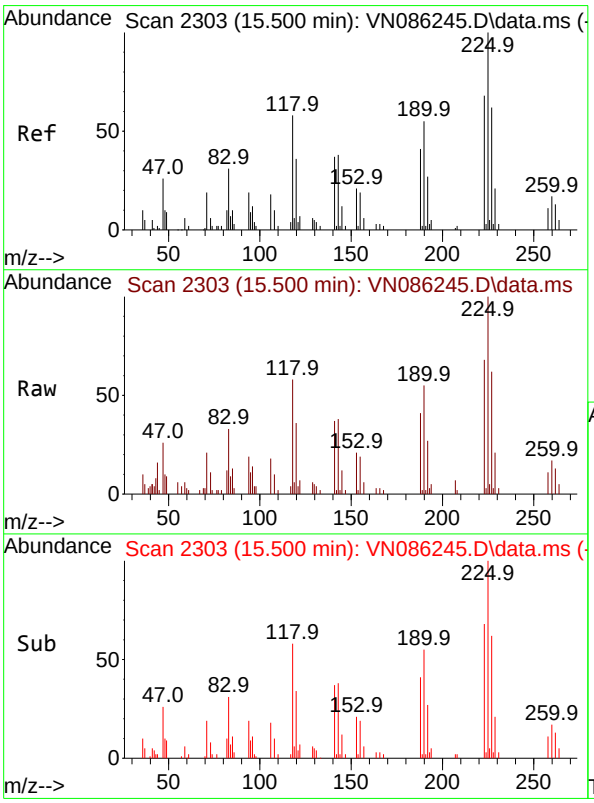
Ion	Ratio	Lower	Upper
180	100		
182	93.9	75.1	112.7
145	33.9	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

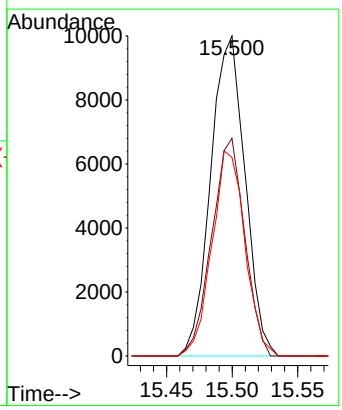
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

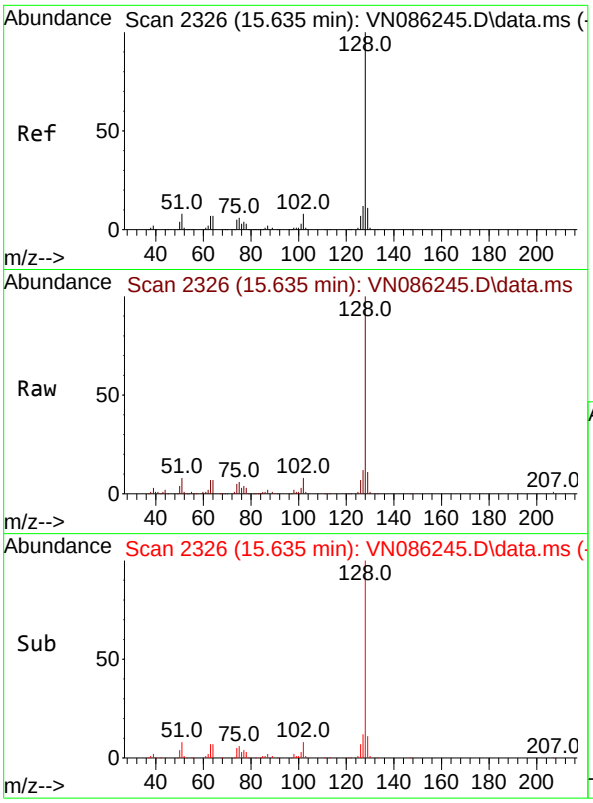


#90
Hexachlorobutadiene
Concen: 19.398 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:225 Resp: 18215

Ion	Ratio	Lower	Upper
225	100		
223	65.0	0.0	130.0
227	61.6	0.0	123.2

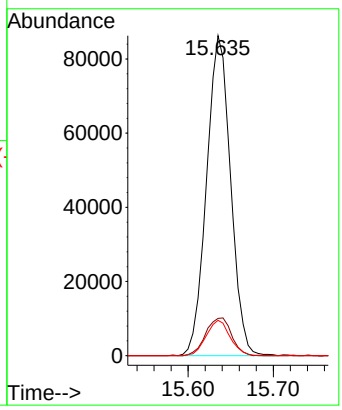




#91
Naphthalene
Concen: 19.722 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:128 Resp: 16911

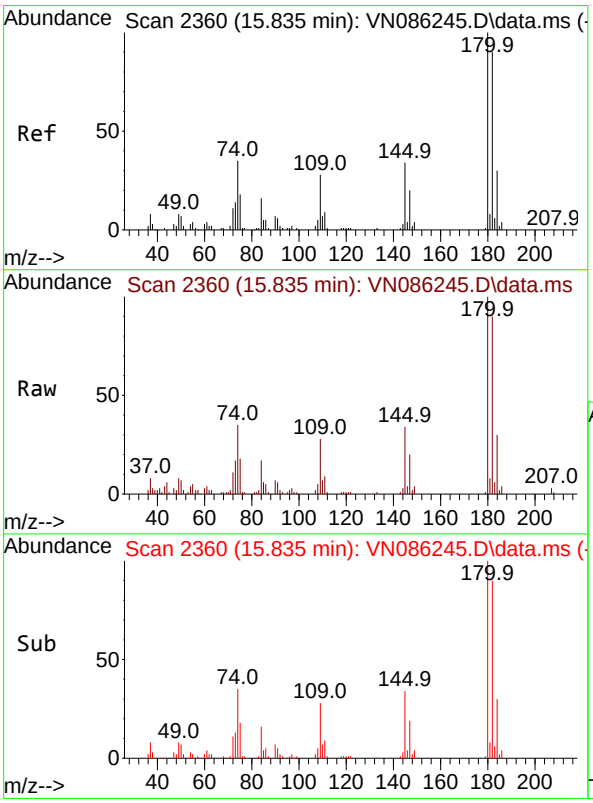
Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2
129	11.0	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations APPROVED

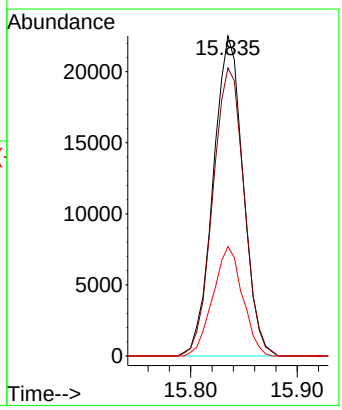
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 20.183 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:180 Resp: 43895

Ion	Ratio	Lower	Upper
180	100		
182	93.9	0.0	187.8
145	33.9	0.0	67.8



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086246.D
Acq On : 11 Apr 2025 12:40
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 12 00:25:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.812	128	26939	30.000	ug/l		0.00
28) 1,4-Difluorobenzene	9.100	114	166827	30.000	ug/l		0.00
57) Chlorobenzene-d5	11.865	117	146541	30.000	ug/l		0.00
System Monitoring Compounds							
27) 1,2-Dichloroethane-d4	8.577	65	80888	30.785	ug/l		0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.600%				
60) 4-Bromofluorobenzene	12.847	95	86291	29.576	ug/l		0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 98.600%				
63) Toluene-d8	10.565	98	250531	30.283	ug/l		0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 100.933%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.124	85	9304	4.311	ug/l		99
3) Chloromethane	2.359	50	15004	5.030	ug/l		94
4) Vinyl Chloride	2.512	62	13469	4.740	ug/l		100
5) Bromomethane	2.965	94	8169	5.763	ug/l		98
6) Chloroethane	3.118	64	9245	5.152	ug/l		97
7) Trichlorofluoromethane	3.501	101	14867	4.823	ug/l		99
8) Diethyl Ether	3.959	74	7307	5.140	ug/l		96
9) 1,1,2-Trichlorotrifluo...	4.371	101	9194	4.837	ug/l		92
10) 1,1-Dichloroethene	4.336	96	10856	5.292	ug/l		98
11) Methyl Iodide	4.583	142	11623m	4.930	ug/l		
12) Methyl Acetate	5.024	43	14618	5.046	ug/l		97
13) Acrolein	4.177	56	10809	32.827	ug/l		99
14) Acrylonitrile	5.718	53	31353	25.638	ug/l		98
15) Acetone	4.436	58	8149	26.259	ug/l		77
16) Carbon Disulfide	4.712	76	32171	5.469	ug/l		100
17) Allyl chloride	5.024	41	18652	5.217	ug/l		96
18) Methylene Chloride	5.283	84	12832	5.487	ug/l		85
19) trans-1,2-Dichloroethene	5.777	96	11746m	6.348	ug/l		
20) Diisopropyl ether	6.671	45	37420	4.868	ug/l		96
21) 1,1-Dichloroethane	6.571	63	20024	4.883	ug/l		98
22) cis-1,2-Dichloroethene	7.488	96	13471	5.234	ug/l		95
23) tert-Butyl Alcohol	5.518	59	12793	25.247	ug/l	#	100
24) Methyl tert-Butyl Ether	5.794	73	38035m	5.147	ug/l		
25) Chloroform	7.959	83	19640	5.022	ug/l		93
26) Cyclohexane	8.253	56	19181	4.999	ug/l	#	100
29) 1,1-Dichloropropene	8.371	75	14353	4.803	ug/l		97
30) 2-Butanone	7.483	43	39891	24.089	ug/l		99
31) 2,2-Dichloropropane	7.483	77	17332	4.711	ug/l	#	84
32) 1,1,1-Trichloroethane	8.165	97	17271	5.024	ug/l		98
33) Carbon Tetrachloride	8.365	117	12727	4.633	ug/l		95
34) Benzene	8.606	78	46065	4.845	ug/l	#	88
35) Methacrylonitrile	7.777	41	9403	5.037	ug/l		96
36) 1,2-Dichloroethane	8.671	62	14350	4.823	ug/l	#	87
37) Trichloroethene	9.353	130	10774	4.697	ug/l		97
38) Methylcyclohexane	9.600	83	18064	4.929	ug/l		97
39) 1,2-Dichloropropane	9.618	63	11201	4.735	ug/l		94
40) Dibromomethane	9.706	93	7704	5.042	ug/l		95
41) Bromodichloromethane	9.882	83	16772	5.109	ug/l		100
42) Vinyl Acetate	6.600	43	138739	24.613	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086246.D
Acq On : 11 Apr 2025 12:40
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 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 12 00:25:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	16850	5.045	ug/l	#	79
44) Isopropyl Acetate	8.683	43	33849	5.463	ug/l		95
45) 1,4-Dioxane	9.688	88	4828	97.983	ug/l	#	86
46) Methyl methacrylate	9.677	41	12994	4.759	ug/l		95
47) n-amyl Acetate	12.488	43	24334	4.860	ug/l		98
48) t-1,3-Dichloropropene	10.835	75	17815	4.801	ug/l		100
49) cis-1,3-Dichloropropene	10.312	75	18616	4.740	ug/l		96
50) 1,1,2-Trichloroethane	11.012	97	10709	4.997	ug/l		96
51) Ethyl methacrylate	10.871	69	19475	4.890	ug/l		91
52) 1,3-Dichloropropane	11.159	76	18666	4.887	ug/l		95
53) Dibromochloromethane	11.359	129	11282	4.813	ug/l		100
54) 1,2-Dibromoethane	11.465	107	10742	4.965	ug/l		95
55) 2-Chloroethyl vinyl ether	10.159	63	44228	29.389	ug/l		99
56) Bromoform	12.576	173	7367	4.804	ug/l	#	98
58) 4-Methyl-2-Pentanone	10.441	43	81510	24.511	ug/l		99
59) 2-Hexanone	11.194	43	60580	24.465	ug/l		99
61) Tetrachloroethene	11.100	164	10135	4.683	ug/l		96
62) Toluene	10.624	91	48384	4.923	ug/l		99
64) Chlorobenzene	11.888	112	29905	4.980	ug/l		95
65) 1,1,1,2-Tetrachloroethane	11.959	131	9602	4.845	ug/l		96
66) Ethyl Benzene	11.965	91	53539	4.912	ug/l		98
67) m/p-Xylenes	12.071	106	38897	9.597	ug/l		97
68) o-Xylene	12.394	106	19223	4.822	ug/l		98
69) Styrene	12.406	104	32582	4.846	ug/l		100
70) Isopropylbenzene	12.694	105	47563	4.839	ug/l		98
71) 1,1,2,2-Tetrachloroethane	12.935	83	15293	5.466	ug/l		93
72) 1,2,3-Trichloropropane	12.988	75	14811m	3.739	ug/l		
73) Bromobenzene	12.976	156	10521	4.831	ug/l		96
74) n-propylbenzene	13.035	91	55104	4.734	ug/l		100
75) 2-Chlorotoluene	13.123	91	35960	4.929	ug/l		99
76) 1,3,5-Trimethylbenzene	13.170	105	38762	4.800	ug/l		100
77) t-1,4-Dichloro-2-butene	12.735	75	6507	4.845	ug/l		94
78) 4-Chlorotoluene	13.218	91	35898	4.927	ug/l		98
79) tert-butylbenzene	13.435	119	35578	5.092	ug/l		97
80) 1,2,4-Trimethylbenzene	13.482	105	38730	4.730	ug/l		99
81) sec-Butylbenzene	13.612	105	46761	4.798	ug/l		100
82) p-Isopropyltoluene	13.729	119	38146	4.692	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	19501	4.818	ug/l		98
84) 1,4-Dichlorobenzene	13.806	146	19847	4.888	ug/l		99
85) n-Butylbenzene	14.053	91	34592	4.716	ug/l		99
86) Hexachloroethane	14.329	117	6465	4.714	ug/l		97
87) 1,2-Dichlorobenzene	14.106	146	19316	4.834	ug/l		98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	3152	4.946	ug/l		94
89) 1,2,4-Trichlorobenzene	15.835	180	9291	4.778	ug/l		95
90) Hexachlorobutadiene	15.500	225	4734	5.639	ug/l		96
91) Naphthalene	15.635	128	38531	5.026	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	9291	4.778	ug/l		95

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

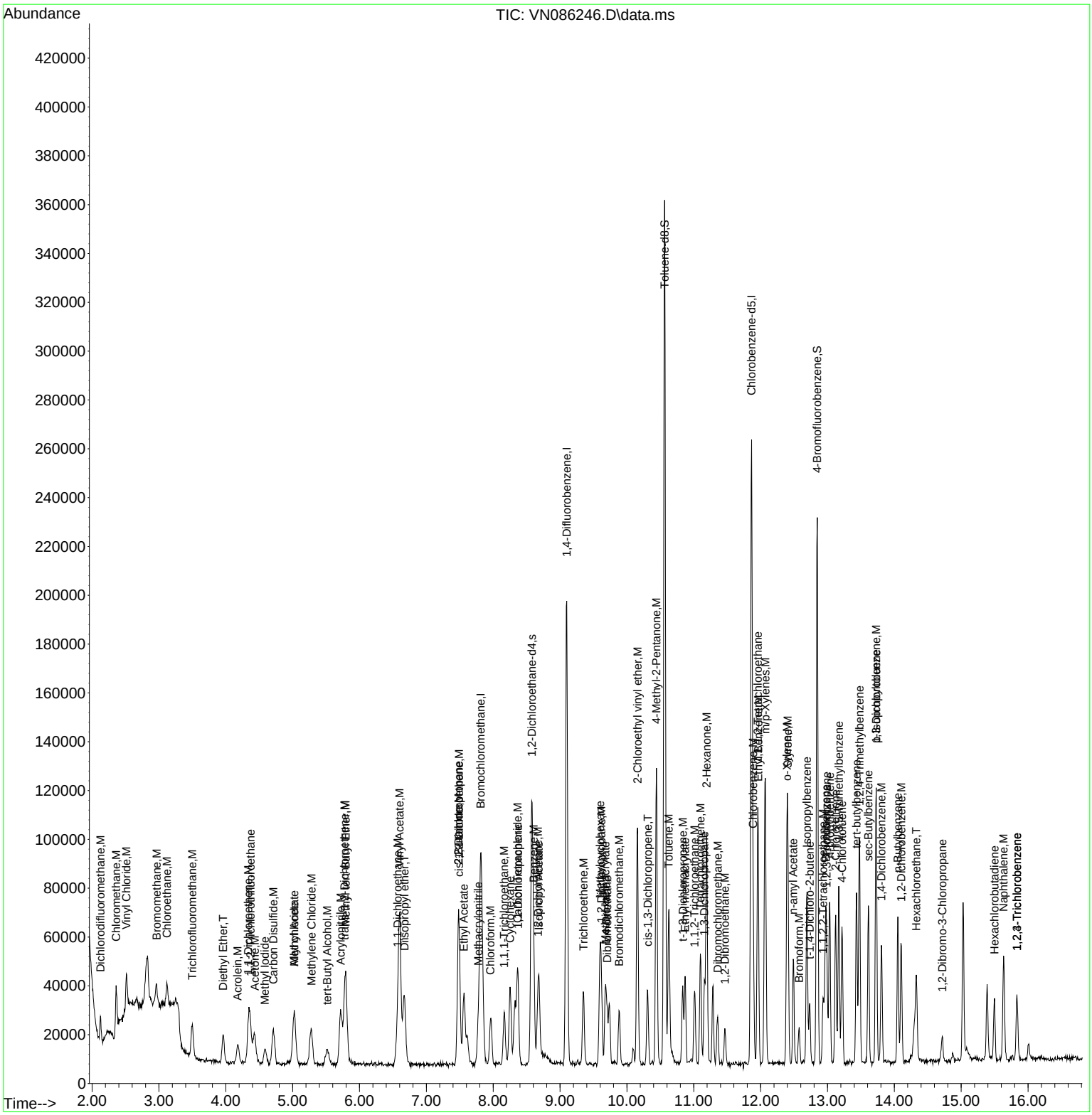
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086246.D
Acq On : 11 Apr 2025 12:40
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

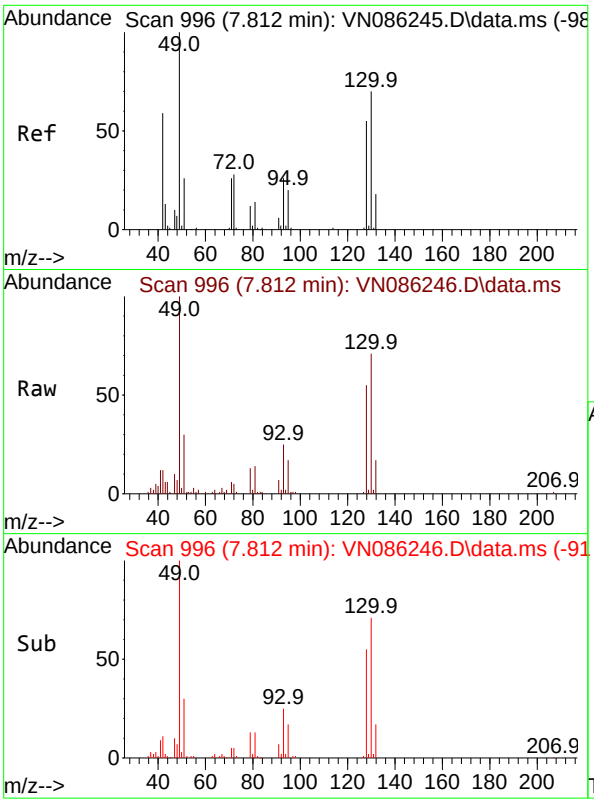
Quant Time: Apr 12 00:25:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

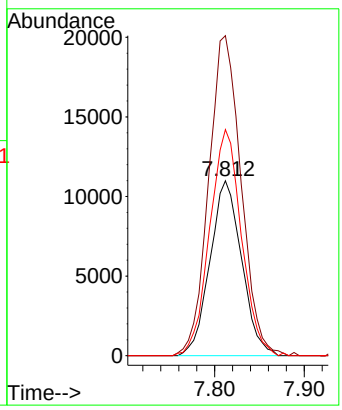




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:128 Resp: 2693

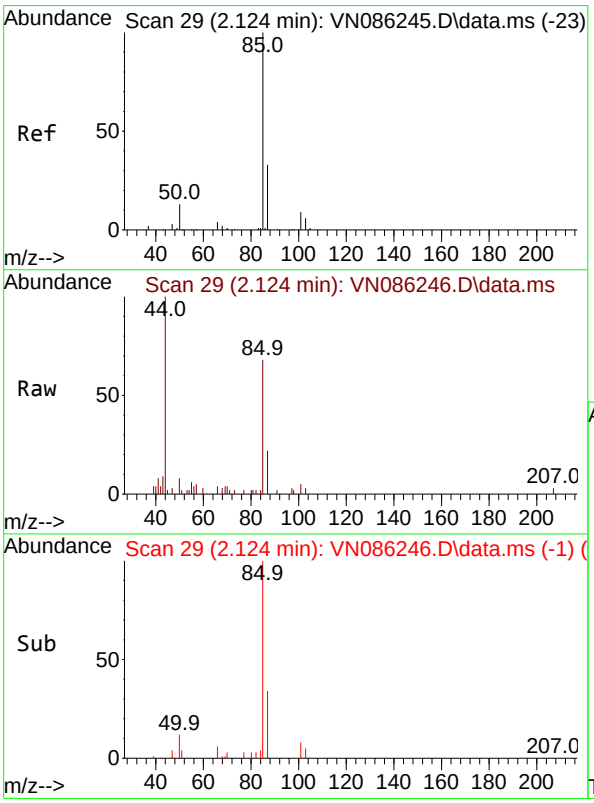
Ion	Ratio	Lower	Upper
128	100		
49	187.2	0.0	452.5
130	129.7	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

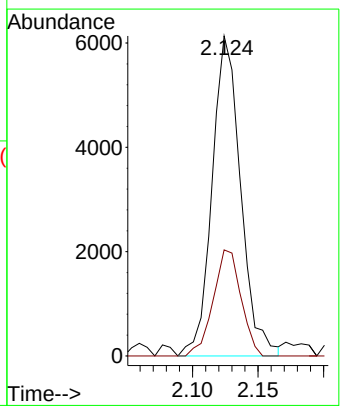
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

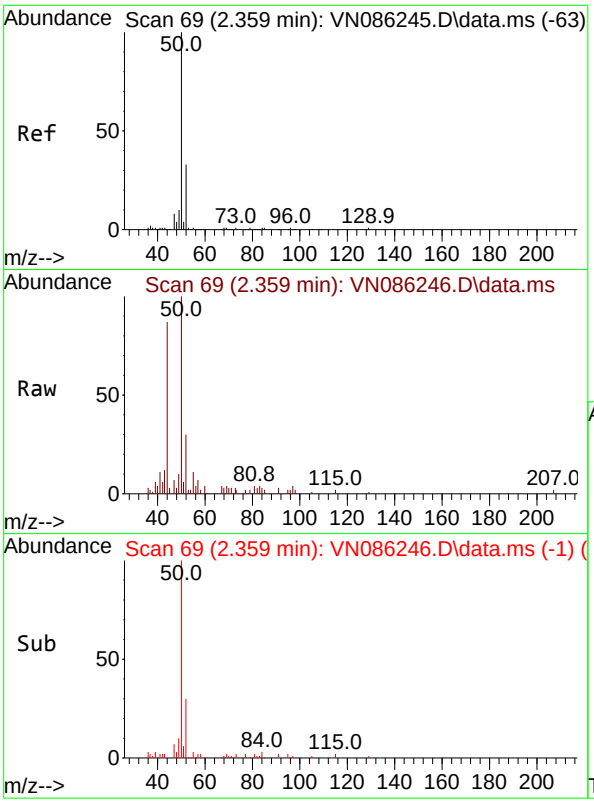


#2
Dichlorodifluoromethane
Concen: 4.311 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 85 Resp: 9304

Ion	Ratio	Lower	Upper
85	100		
87	33.1	16.3	48.9

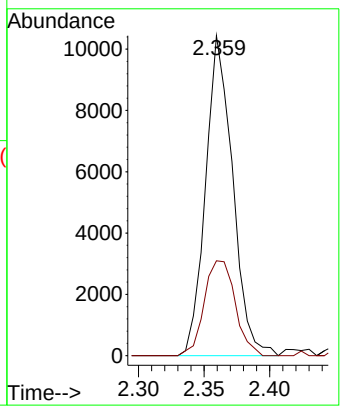




#3
Chloromethane
Concen: 5.030 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 50 Resp: 1500

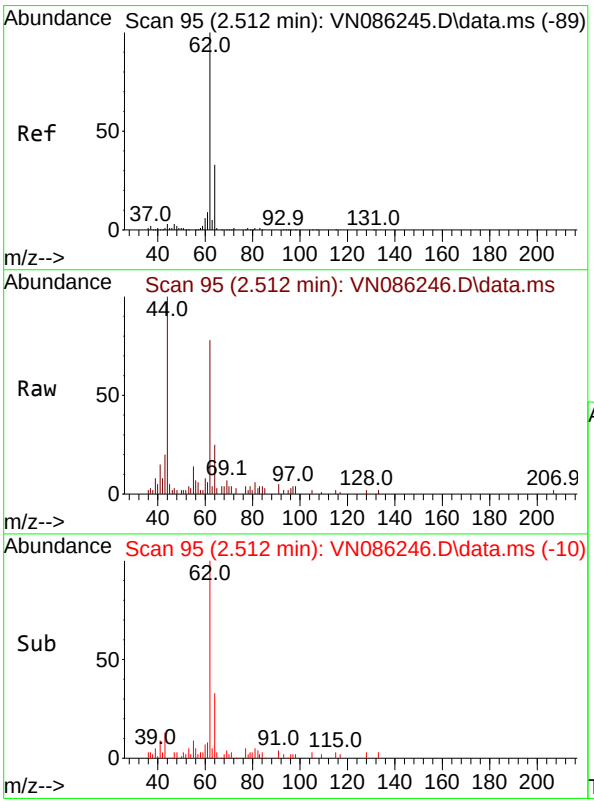
Ion	Ratio	Lower	Upper
50	100		
52	29.7	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

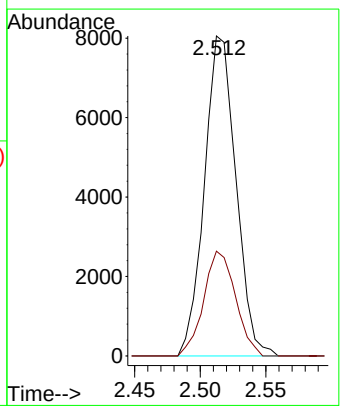
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

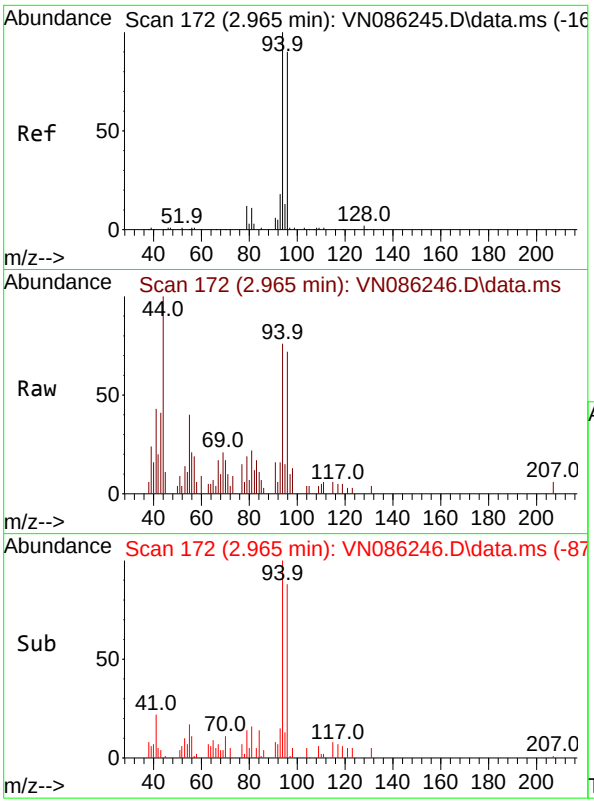


#4
Vinyl Chloride
Concen: 4.740 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 62 Resp: 13469

Ion	Ratio	Lower	Upper
62	100		
64	32.8	26.3	39.5

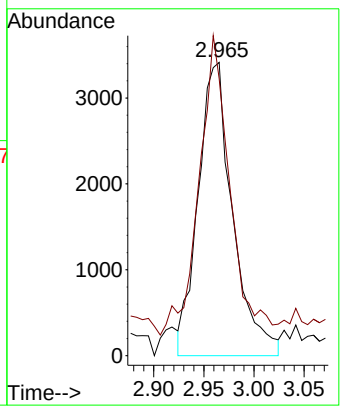




#5
Bromomethane
Concen: 5.763 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 94 Resp: 816

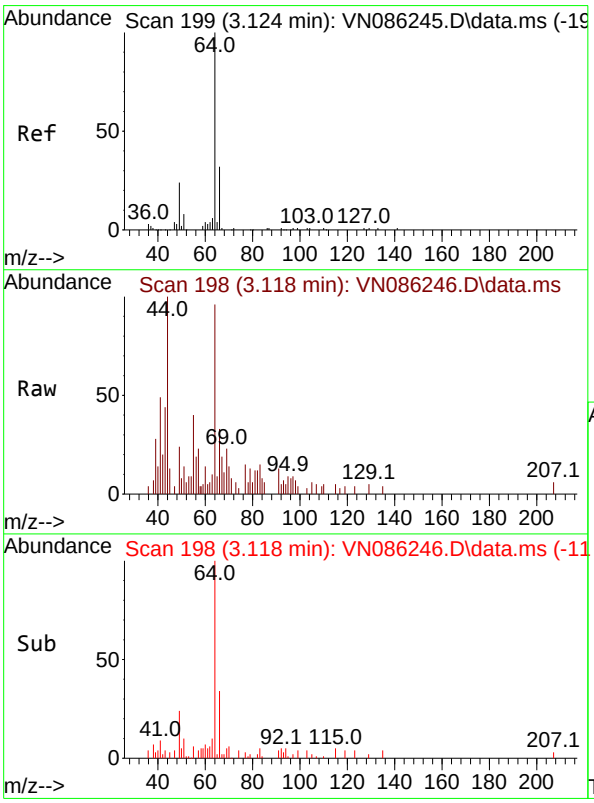
Ion	Ratio	Lower	Upper
94	100		
96	88.5	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

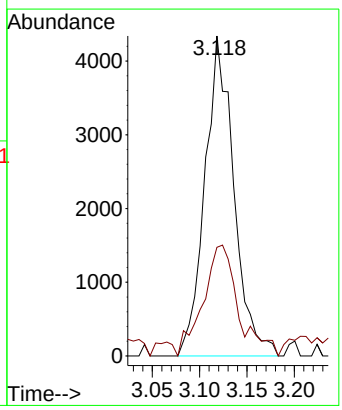
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

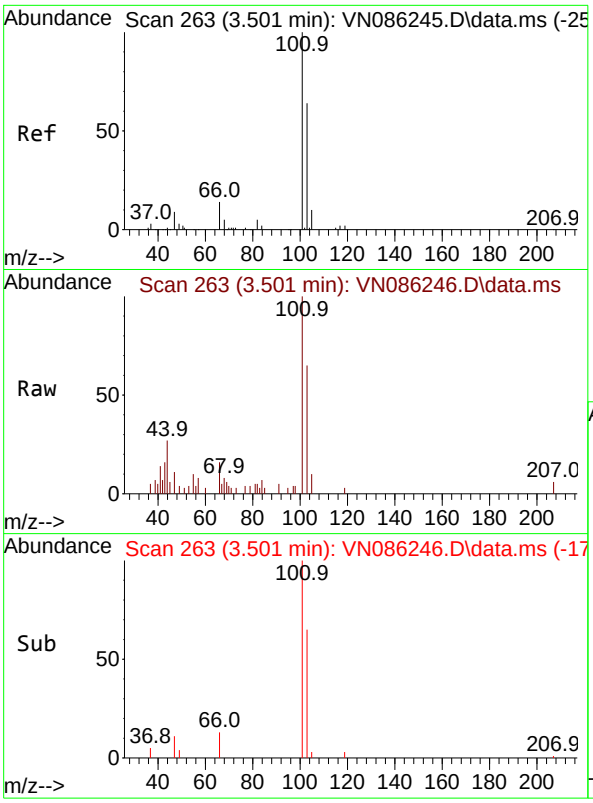


#6
Chloroethane
Concen: 5.152 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 64 Resp: 9245

Ion	Ratio	Lower	Upper
64	100		
66	34.0	25.7	38.5

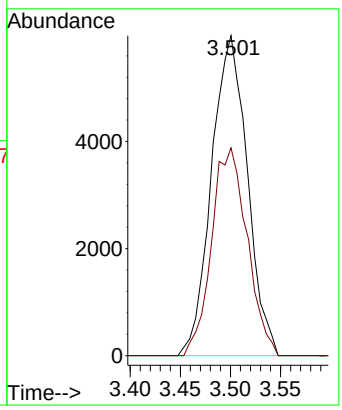




#7
Trichlorofluoromethane
Concen: 4.823 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:101 Resp: 1486

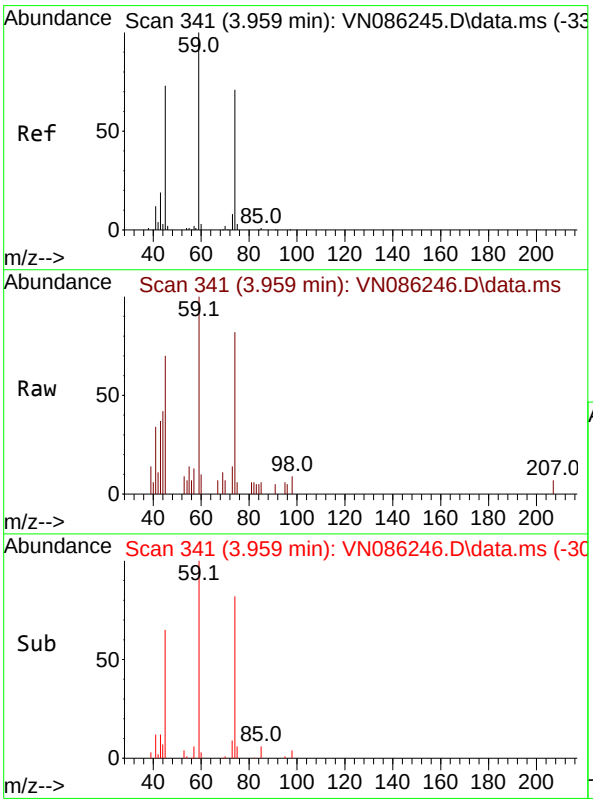
Ion	Ratio	Lower	Upper
101	100		
103	65.0	51.2	76.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

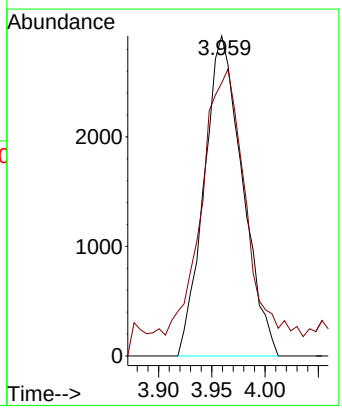
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

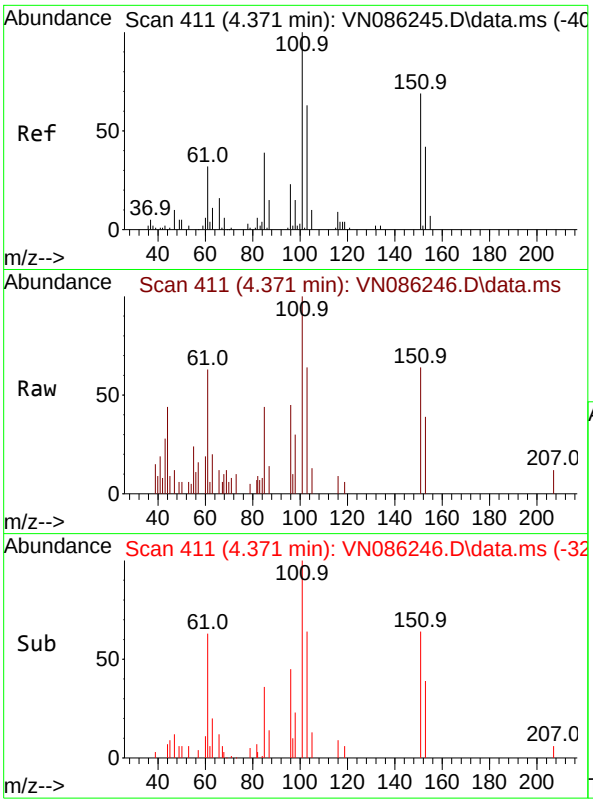


#8
Diethyl Ether
Concen: 5.140 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 74 Resp: 7307

Ion	Ratio	Lower	Upper
74	100		
45	92.1	19.2	173.2

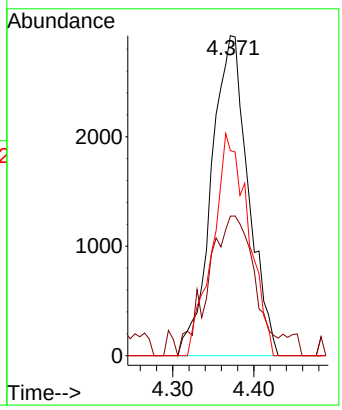




#9
1,1,2-Trichlorotrifluoroethane
Concen: 4.837 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:101 Resp: 919

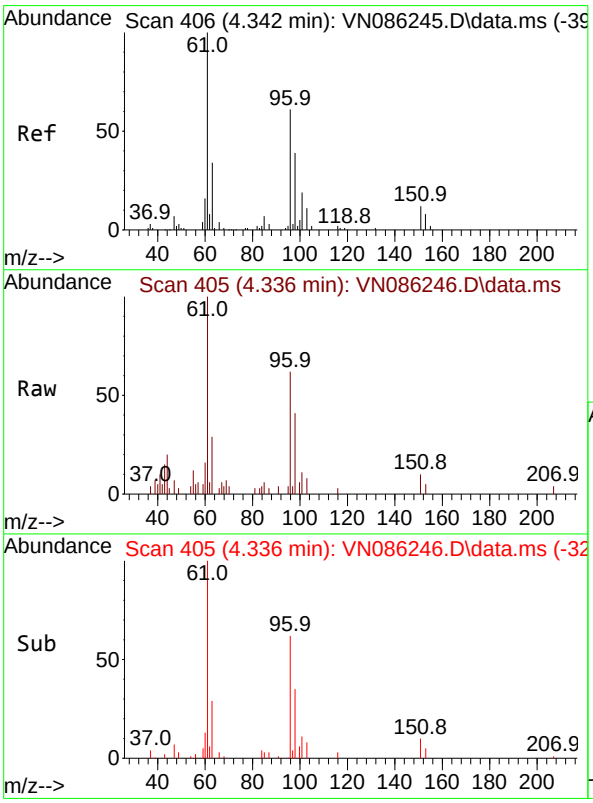
Ion	Ratio	Lower	Upper
101	100		
85	35.1	0.0	93.0
151	67.5	0.0	138.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

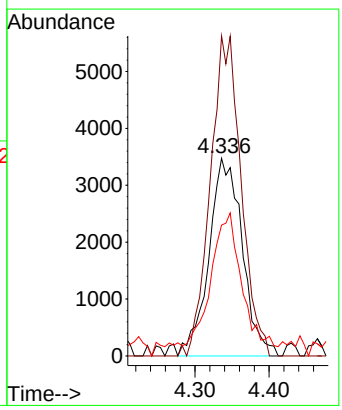
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

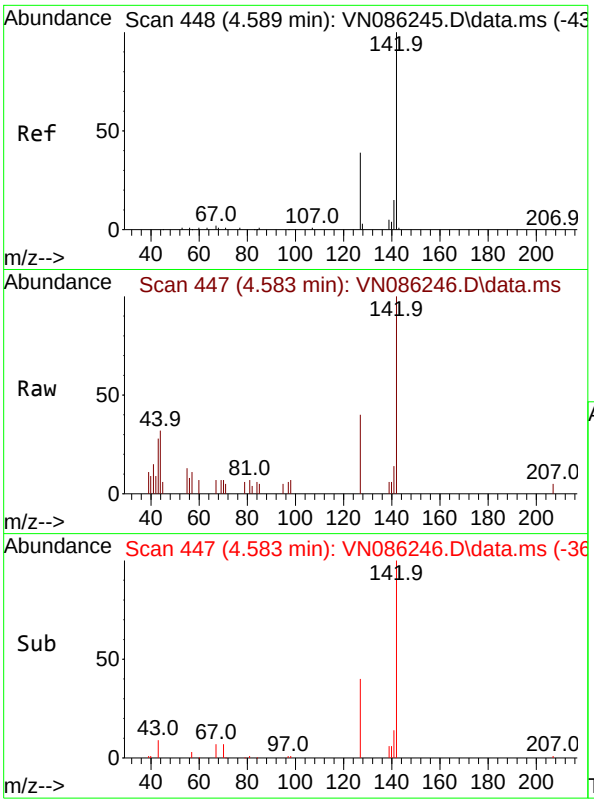


#10
1,1-Dichloroethene
Concen: 5.292 ug/l
RT: 4.336 min Scan# 405
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 96 Resp: 10856

Ion	Ratio	Lower	Upper
96	100		
61	161.9	131.1	196.7
98	61.6	51.6	77.4

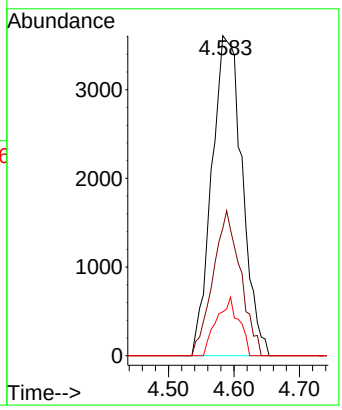




#11
Methyl Iodide
Concen: 4.930 ug/l m
RT: 4.583 min Scan# 44
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:142 Resp: 1162

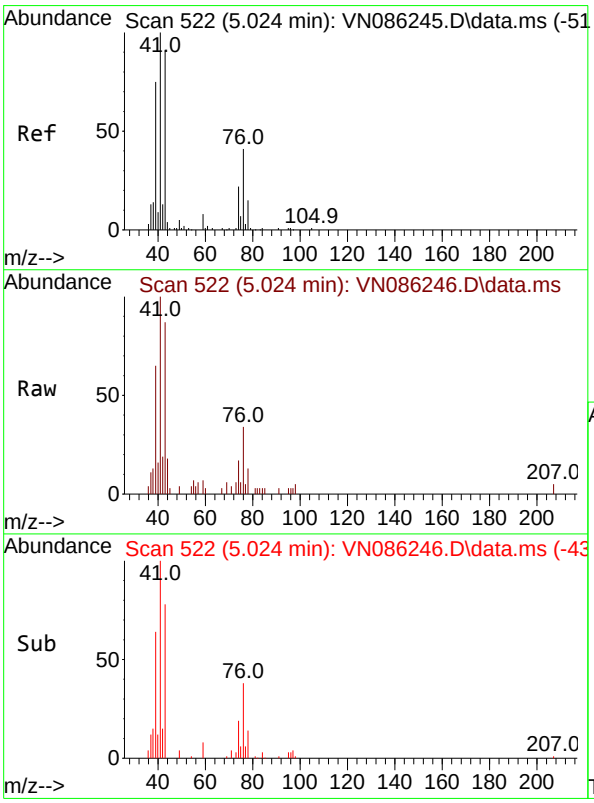
Ion	Ratio	Lower	Upper
142	100		
127	39.8	19.6	58.8
141	13.7	7.3	21.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

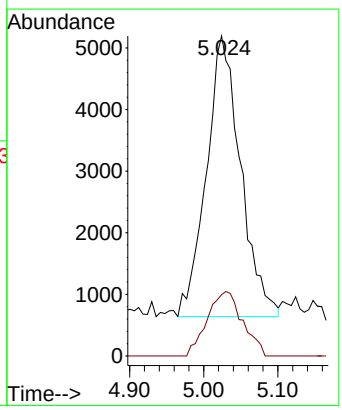
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

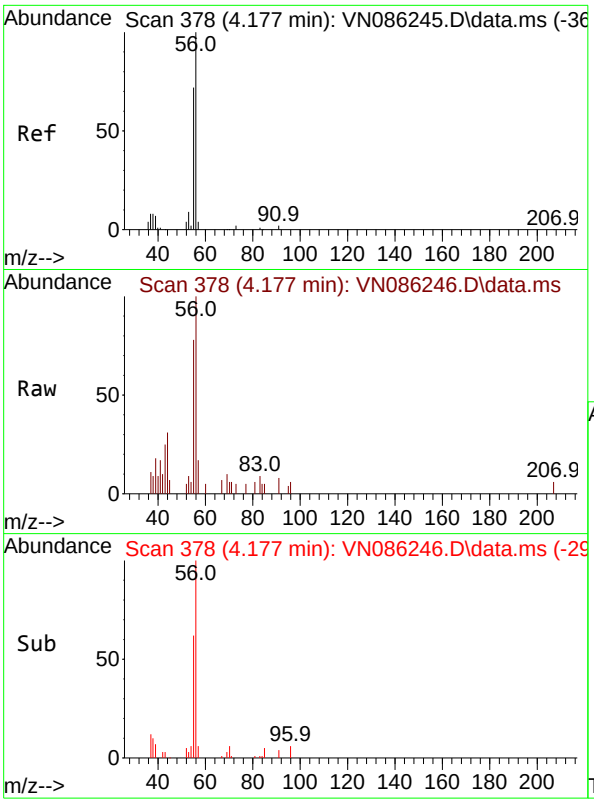


#12
Methyl Acetate
Concen: 5.046 ug/l
RT: 5.024 min Scan# 522
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 14618

Ion	Ratio	Lower	Upper
43	100		
74	22.2	19.1	28.7

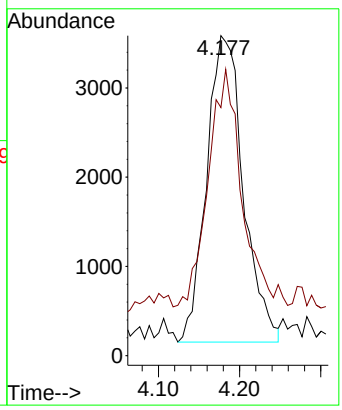




#13
Acrolein
Concen: 32.827 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 56 Resp: 1080

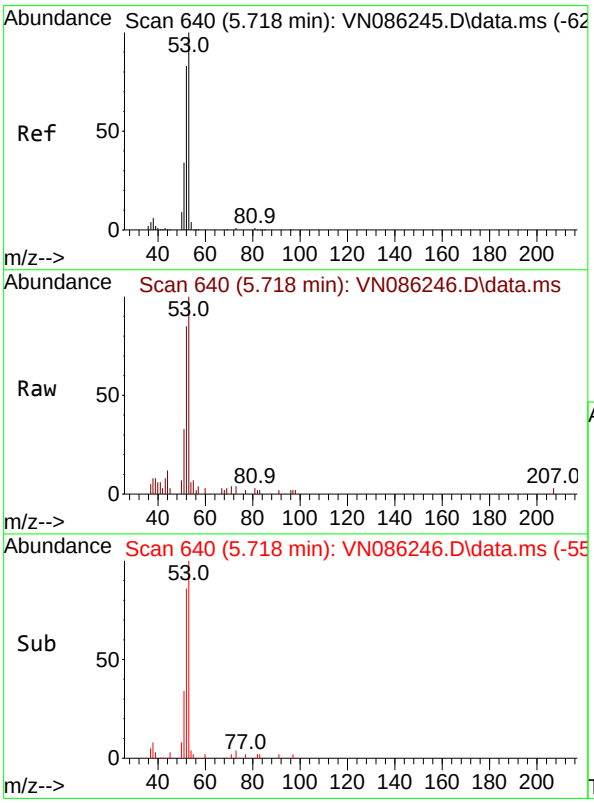
Ion	Ratio	Lower	Upper
56	100		
55	69.7	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

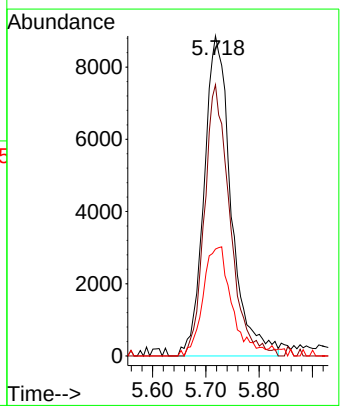
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

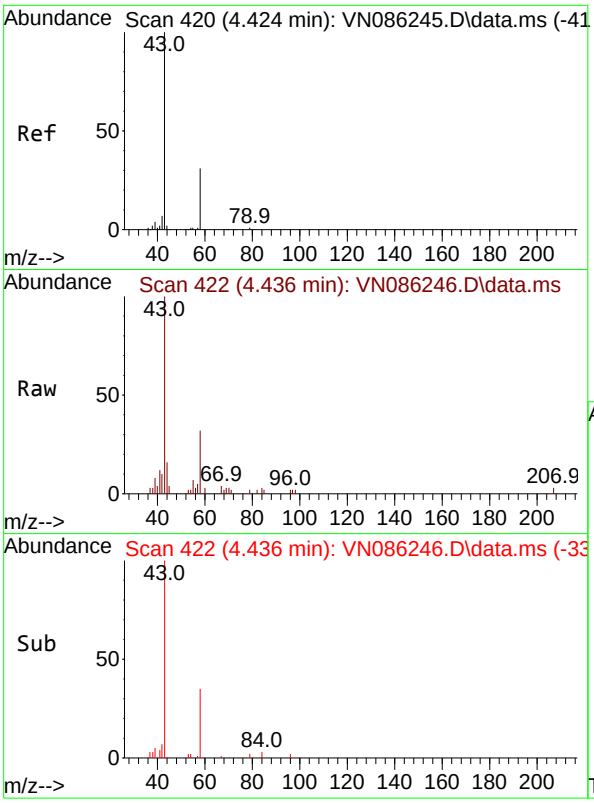


#14
Acrylonitrile
Concen: 25.638 ug/l
RT: 5.718 min Scan# 640
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 53 Resp: 31353

Ion	Ratio	Lower	Upper
53	100		
52	78.8	40.2	120.6
51	33.7	17.5	52.6

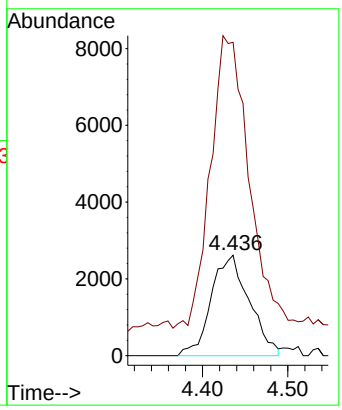




#15
Acetone
Concen: 26.259 ug/l
RT: 4.436 min Scan# 4
Delta R.T. 0.012 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 58 Resp: 814

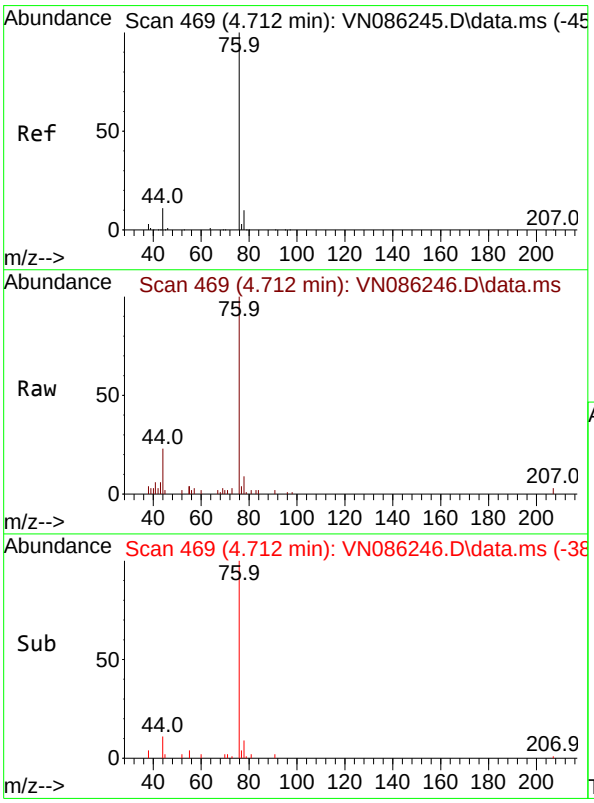
Ion	Ratio	Lower	Upper
58	100		
43	280.1	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

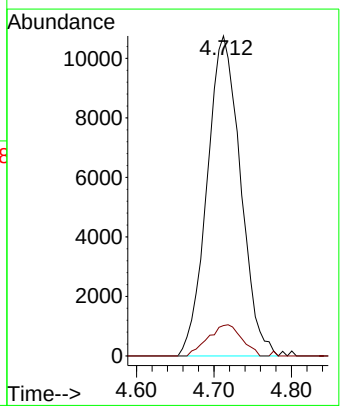
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

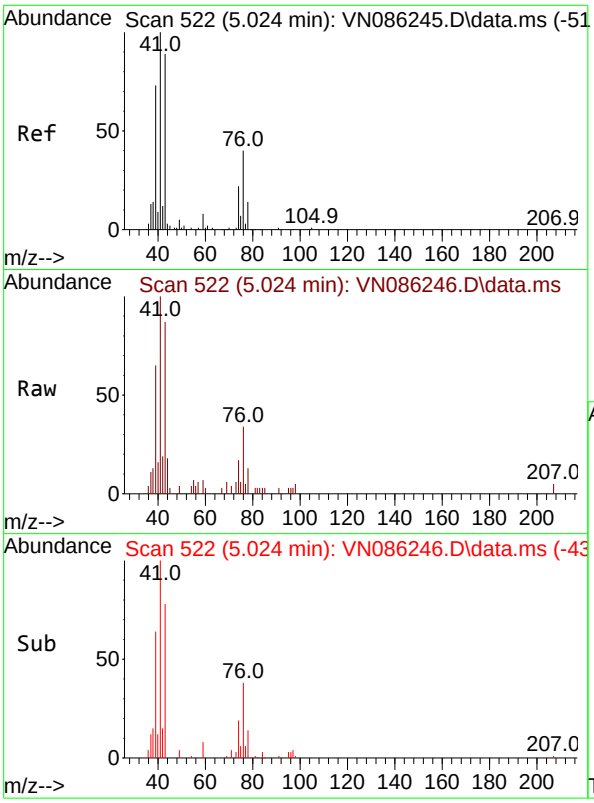


#16
Carbon Disulfide
Concen: 5.469 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 76 Resp: 32171

Ion	Ratio	Lower	Upper
76	100		
78	9.5	7.7	11.5

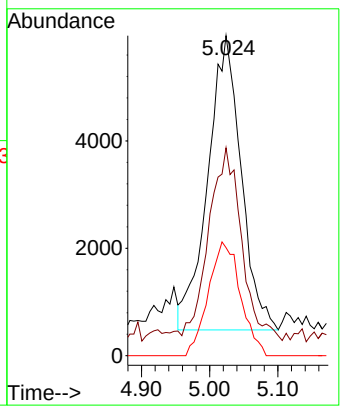




#17
Allyl chloride
Concen: 5.217 ug/l
RT: 5.024 min Scan# 5
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 41 Resp: 1865

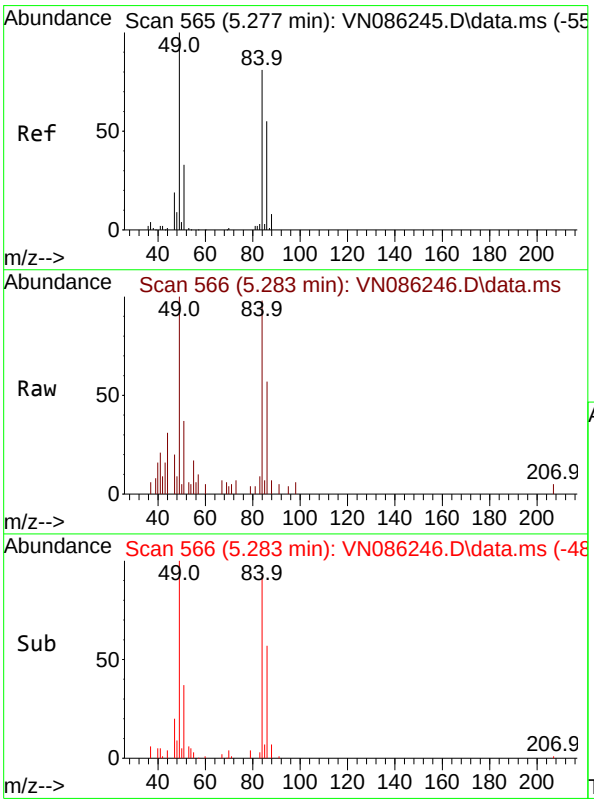
Ion	Ratio	Lower	Upper
41	100		
39	63.8	34.4	103.2
76	36.7	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

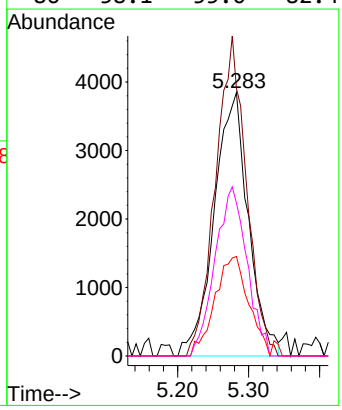
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

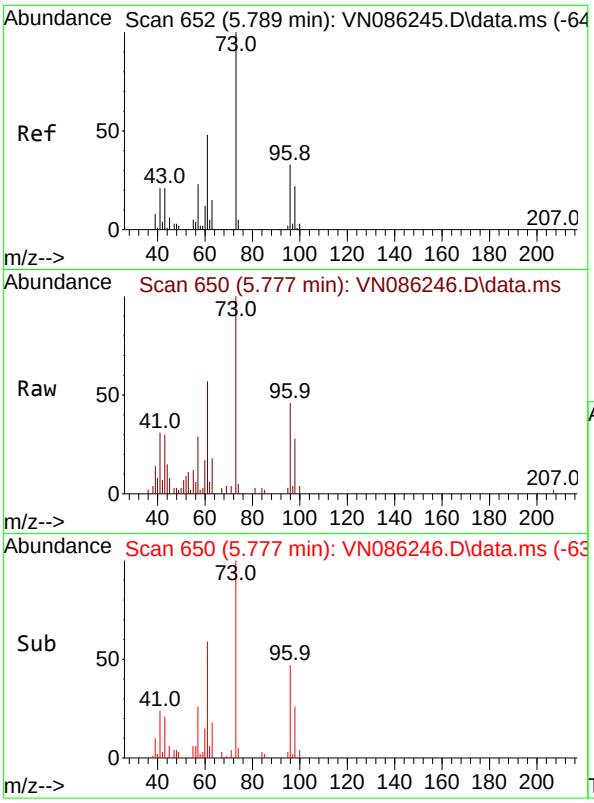


#18
Methylene Chloride
Concen: 5.487 ug/l
RT: 5.283 min Scan# 566
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 84 Resp: 12832

Ion	Ratio	Lower	Upper
84	100		
49	101.6	99.1	148.7
51	37.8	32.3	48.5
86	58.1	55.0	82.4

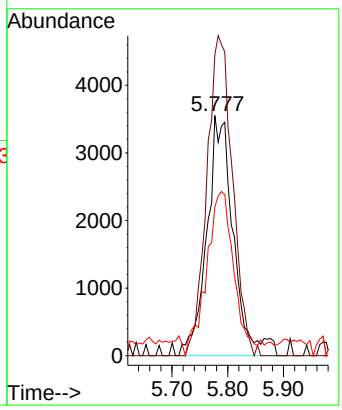




#19
trans-1,2-Dichloroethene
Concen: 6.348 ug/l m
RT: 5.777 min Scan# 6
Delta R.T. -0.012 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 96 Resp: 1174

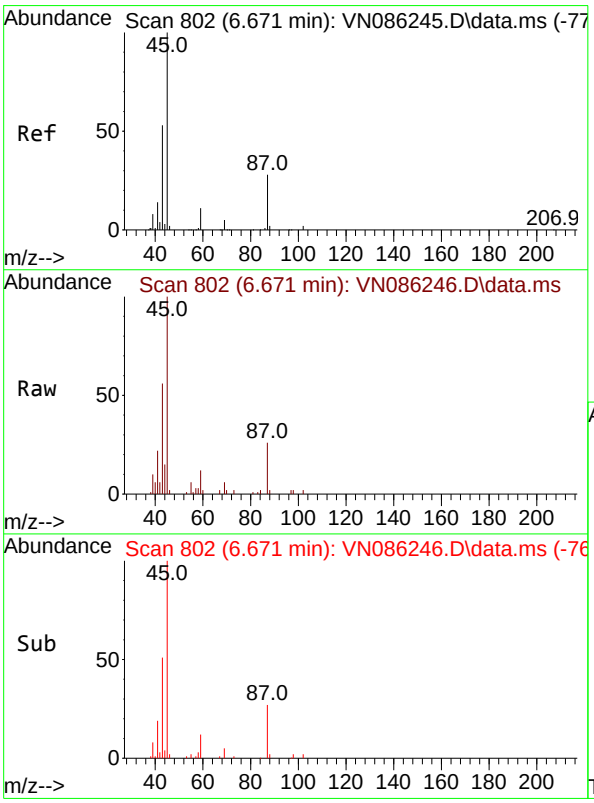
Ion	Ratio	Lower	Upper
96	100		
61	125.3	115.9	173.9
98	61.9	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

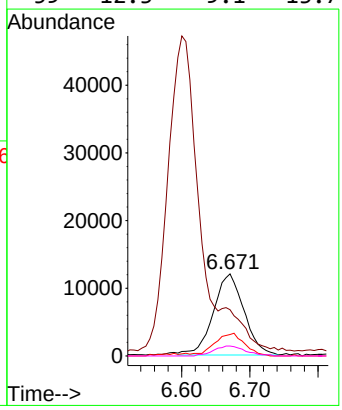
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

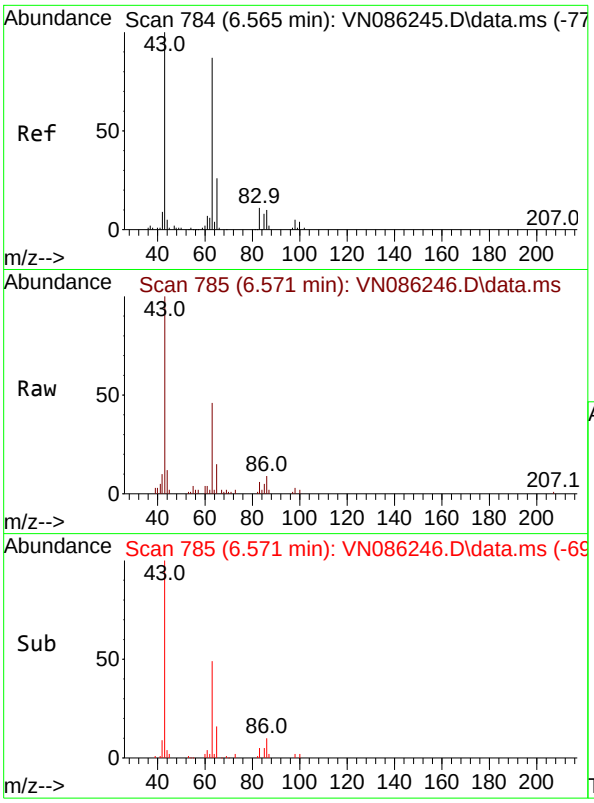


#20
Diisopropyl ether
Concen: 4.868 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 45 Resp: 37420

Ion	Ratio	Lower	Upper
45	100		
43	49.8	42.3	63.5
87	26.5	22.2	33.4
59	12.3	9.1	13.7

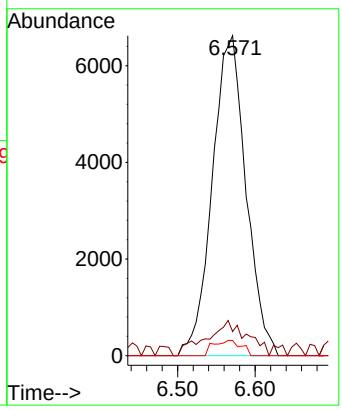




#21
1,1-Dichloroethane
Concen: 4.883 ug/l
RT: 6.571 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 63 Resp: 2002

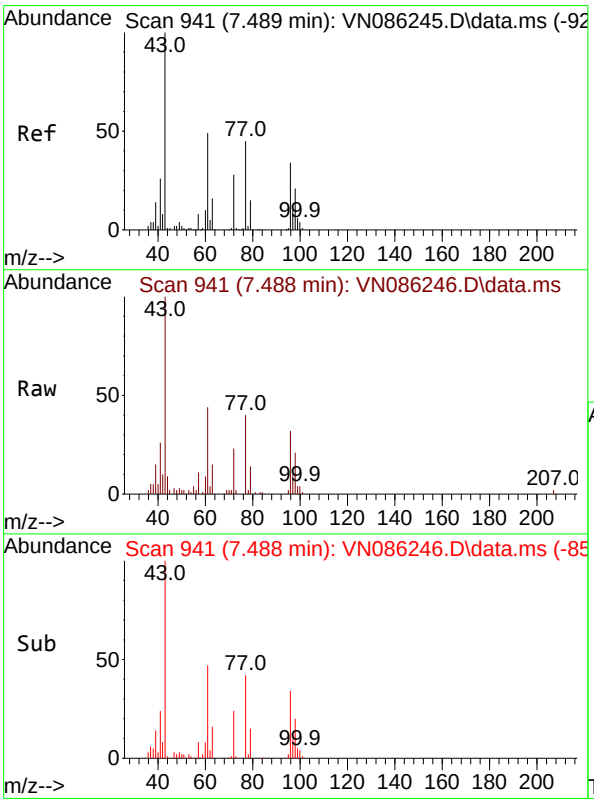
Ion	Ratio	Lower	Upper
63	100		
98	7.6	3.1	9.3
100	4.7	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

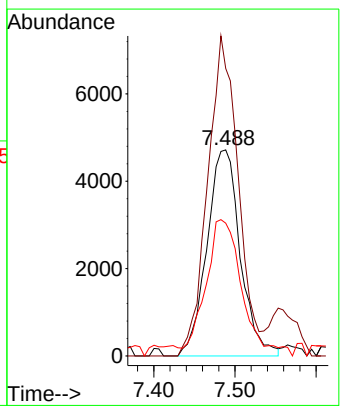
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

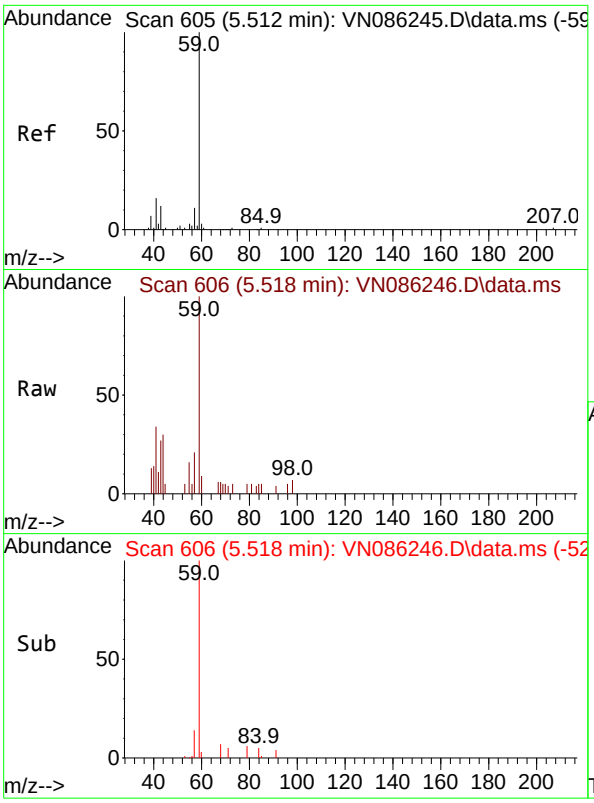


#22
cis-1,2-Dichloroethene
Concen: 5.234 ug/l
RT: 7.488 min Scan# 941
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 96 Resp: 13471

Ion	Ratio	Lower	Upper
96	100		
61	141.2	119.5	179.3
98	61.3	51.0	76.6

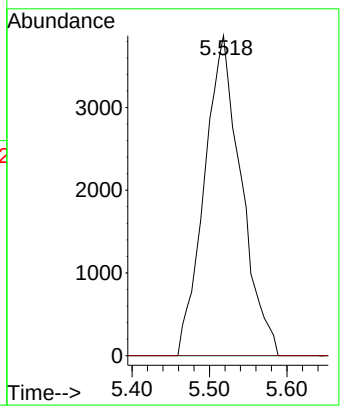




#23
tert-Butyl Alcohol
Concen: 25.247 ug/l
RT: 5.518 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 59 Resp: 1279

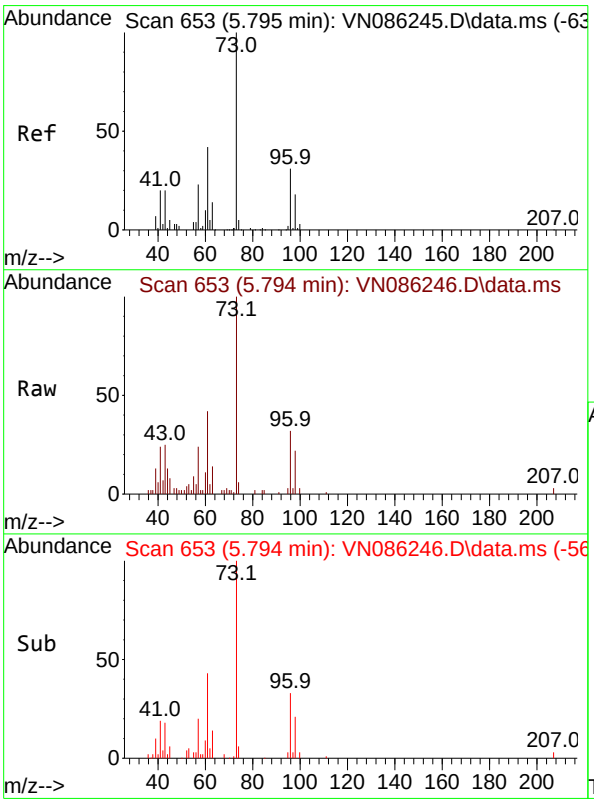
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

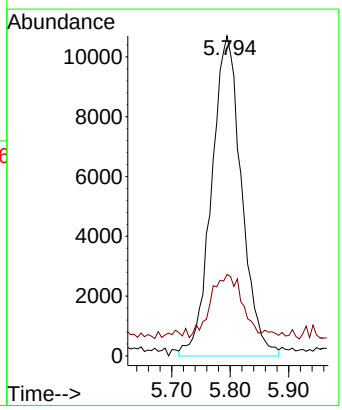
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

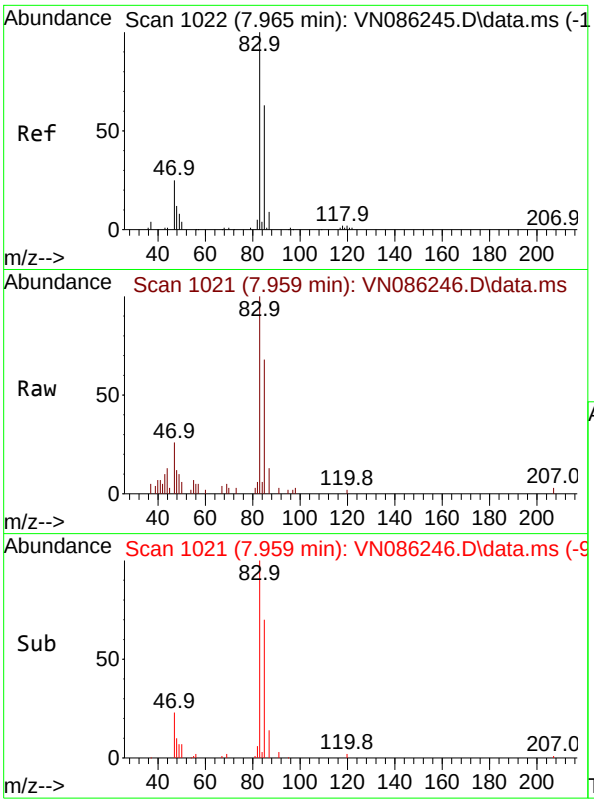


#24
Methyl tert-Butyl Ether
Concen: 5.147 ug/l m
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 73 Resp: 38035

Ion	Ratio	Lower	Upper
73	100		
43	0.1	16.8	25.2#

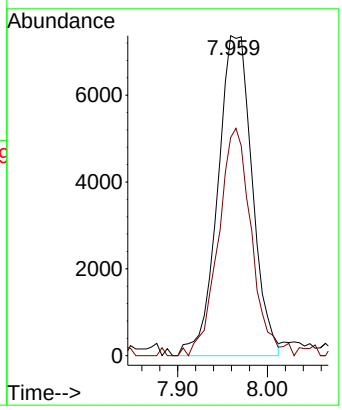




#25
Chloroform
Concen: 5.022 ug/l
RT: 7.959 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 83 Resp: 1964

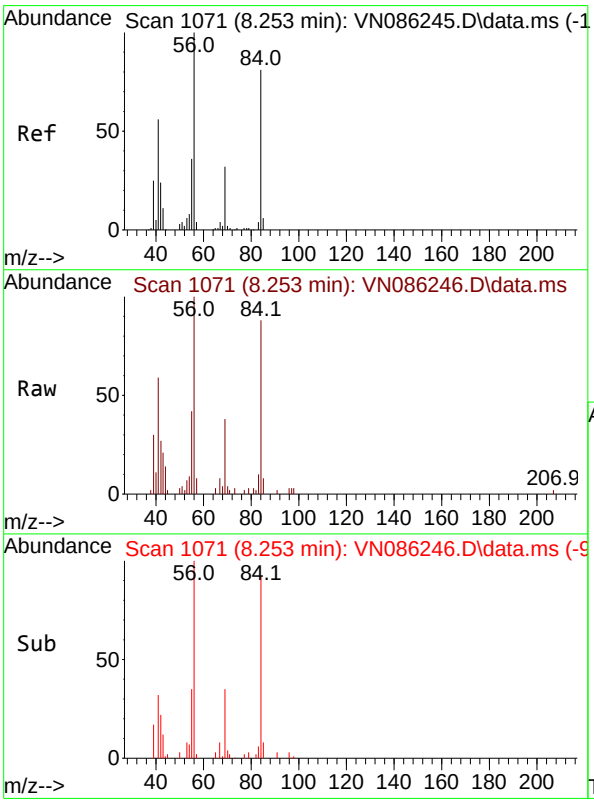
Ion	Ratio	Lower	Upper
83	100		
85	68.2	50.5	75.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

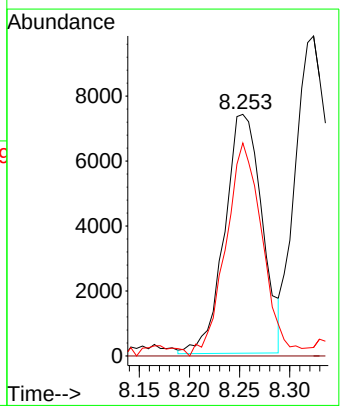
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

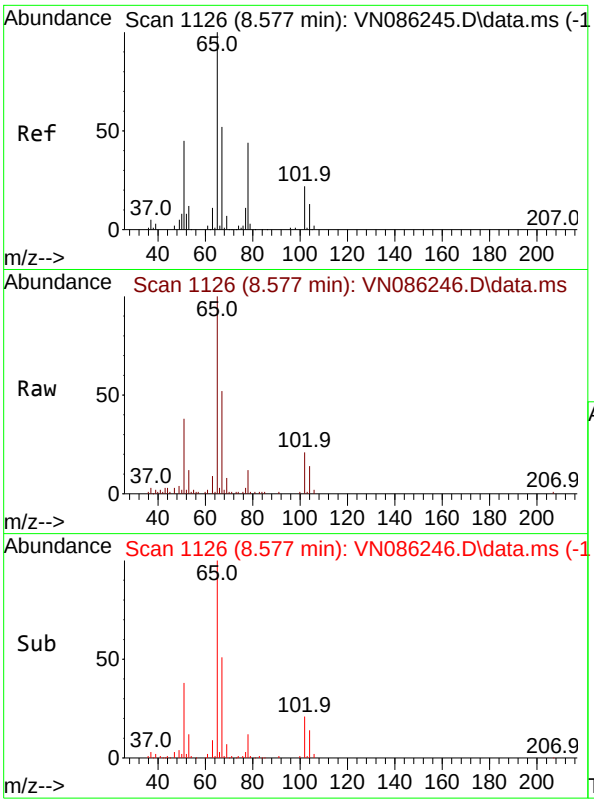


#26
Cyclohexane
Concen: 4.999 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 56 Resp: 19181

Ion	Ratio	Lower	Upper
56	100		
89	0.0	0.0	0.0
84	86.6	69.0	103.4

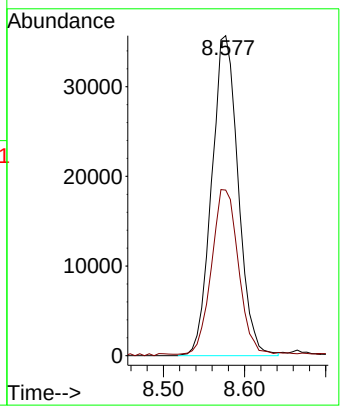




#27
1,2-Dichloroethane-d4
Concen: 30.785 ug/l
RT: 8.577 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 65 Resp: 8088

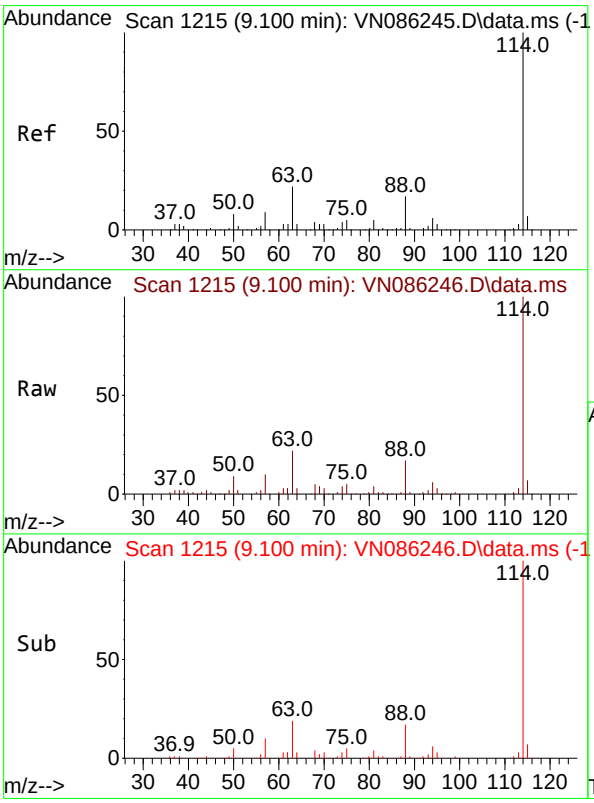
Ion	Ratio	Lower	Upper
65	100		
67	52.0	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

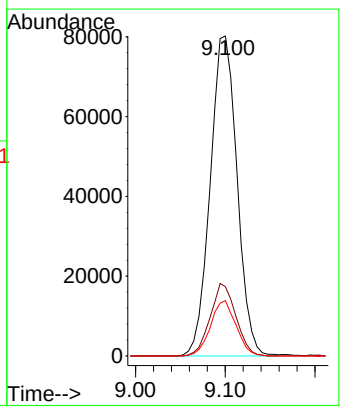
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

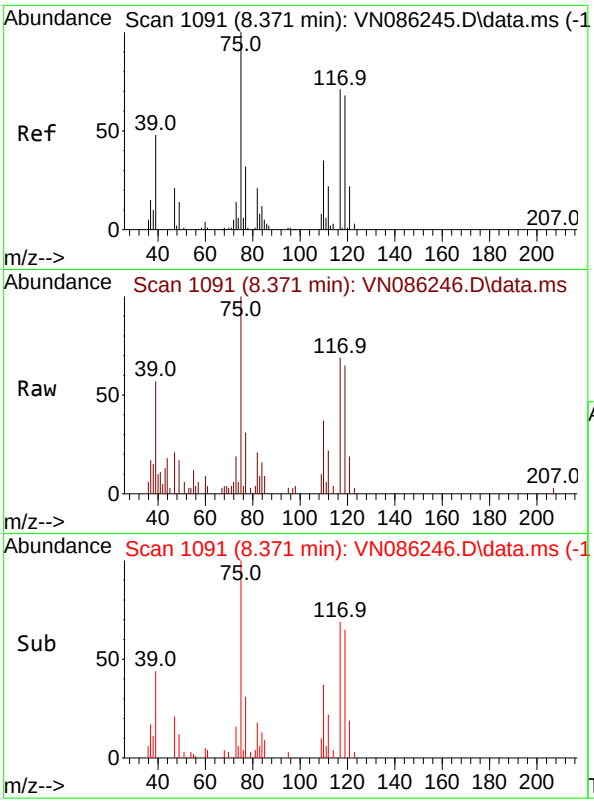


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:114 Resp: 166827

Ion	Ratio	Lower	Upper
114	100		
63	21.5	17.8	26.6
88	16.4	13.4	20.2

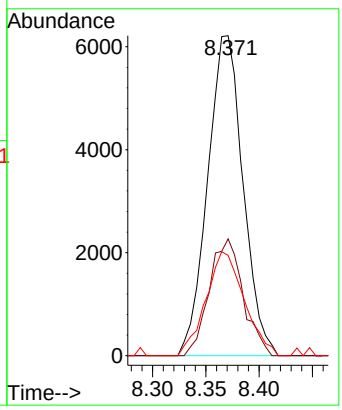




#29
1,1-Dichloropropene
Concen: 4.803 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 1435

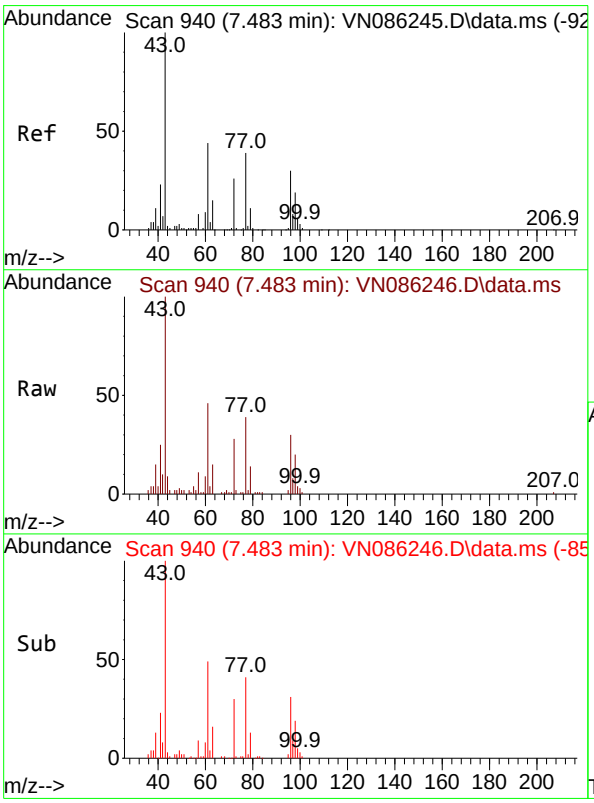
Ion	Ratio	Lower	Upper
75	100		
110	34.9	0.0	68.6
77	35.2	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

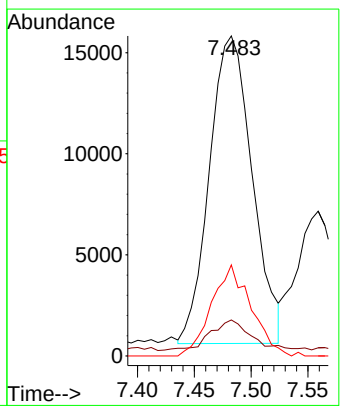
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

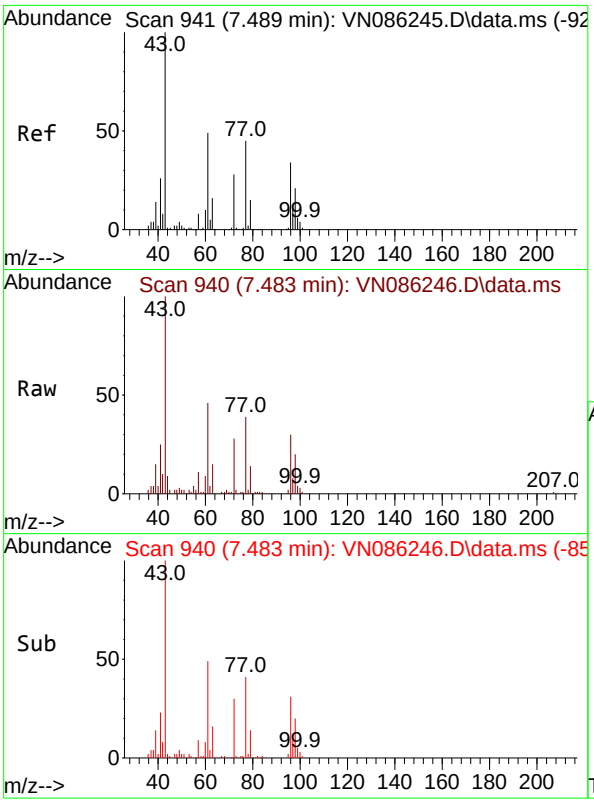


#30
2-Butanone
Concen: 24.089 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 39891

Ion	Ratio	Lower	Upper
43	100		
57	7.0	6.4	9.6
72	27.2	21.5	32.3

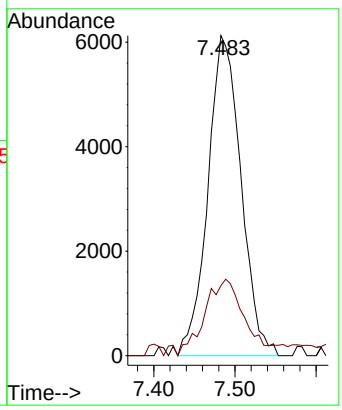




#31
2,2-Dichloropropane
Concen: 4.711 ug/l
RT: 7.483 min Scan# 94
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 77 Resp: 1733

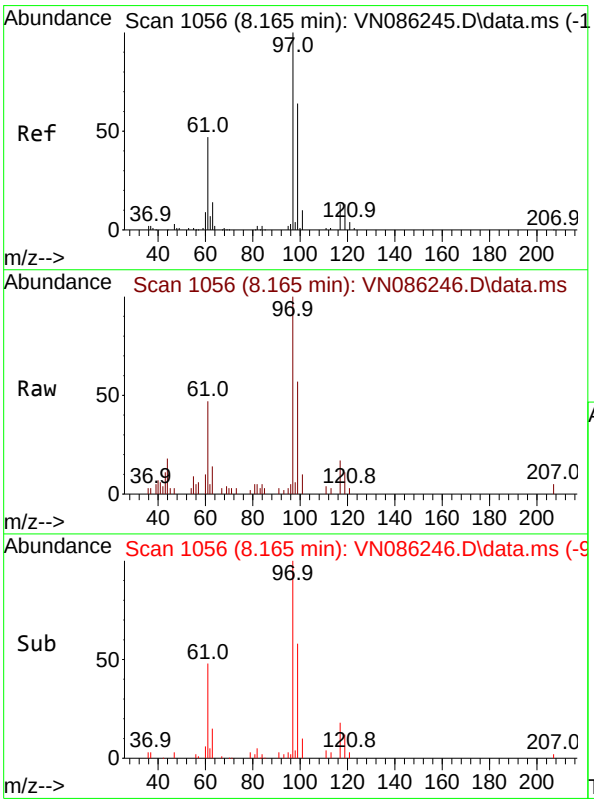
Ion	Ratio	Lower	Upper
77	100		
97	15.5	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

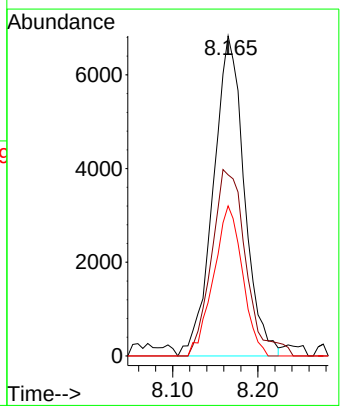
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

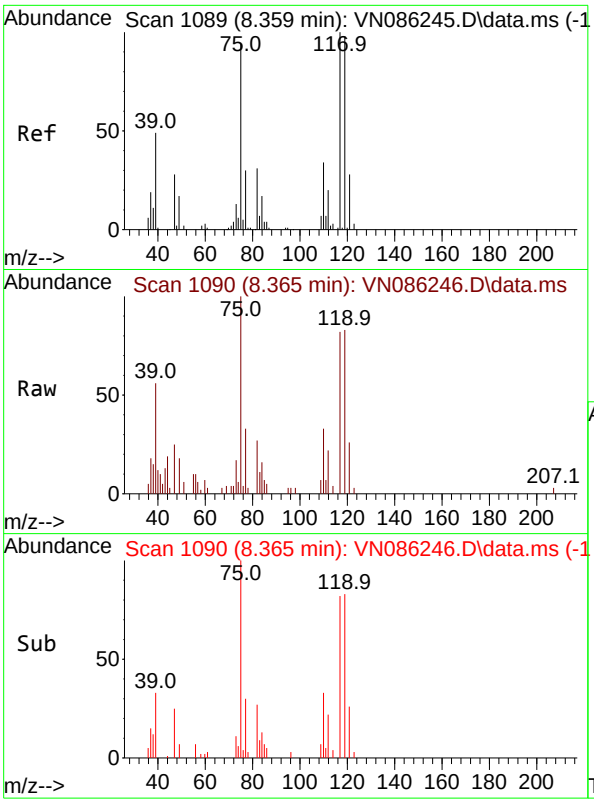


#32
1,1,1-Trichloroethane
Concen: 5.024 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 97 Resp: 17271

Ion	Ratio	Lower	Upper
97	100		
99	64.2	51.4	77.2
61	43.9	37.0	55.6

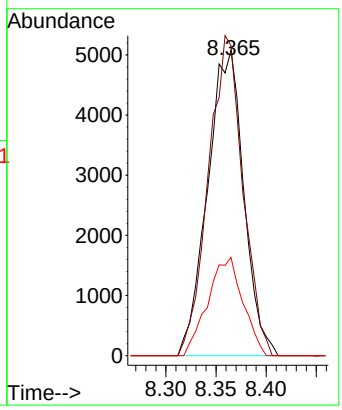




#33
Carbon Tetrachloride
Concen: 4.633 ug/l
RT: 8.365 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:117 Resp: 1272

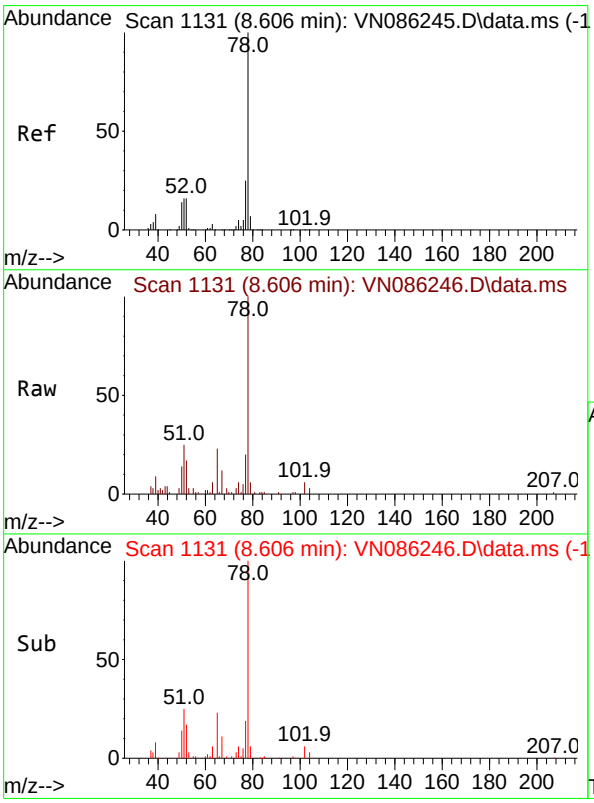
Ion	Ratio	Lower	Upper
117	100		
119	101.5	78.3	117.5
121	32.2	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

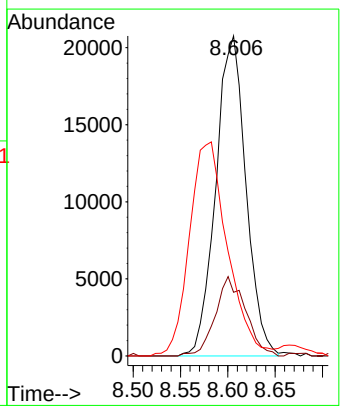
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

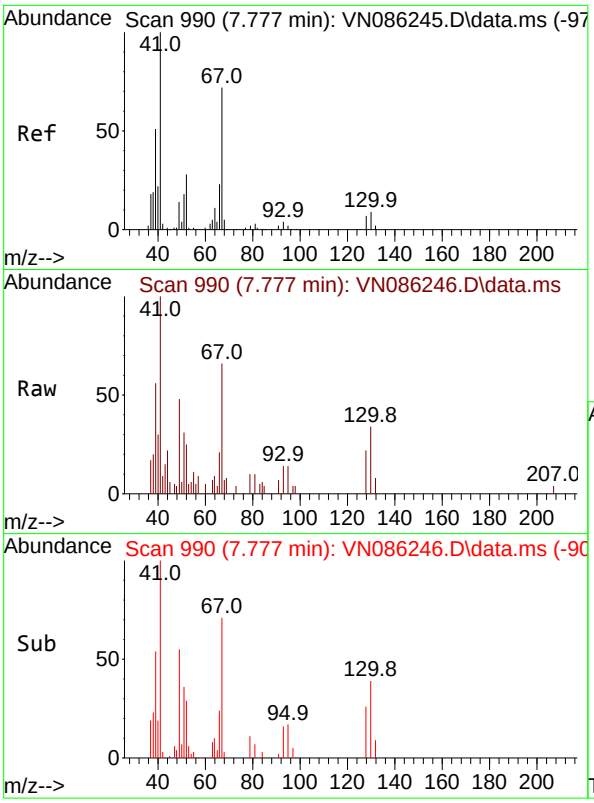


#34
Benzene
Concen: 4.845 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 78 Resp: 46065

Ion	Ratio	Lower	Upper
78	100		
77	19.9	20.0	30.0#
51	22.7	12.9	19.3#

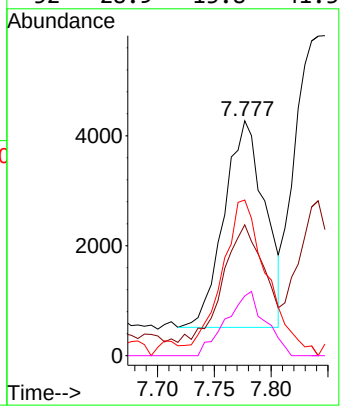




#35
Methacrylonitrile
Concen: 5.037 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 41 Resp: 940

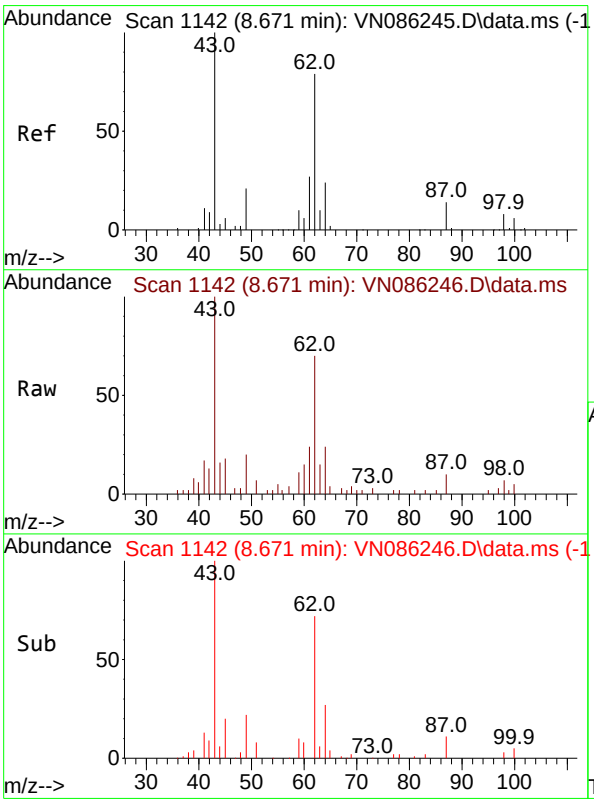
Ion	Ratio	Lower	Upper
41	100		
39	57.0	25.8	77.3
67	70.6	36.0	108.0
52	28.9	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

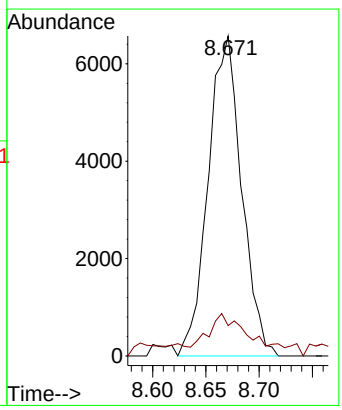
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

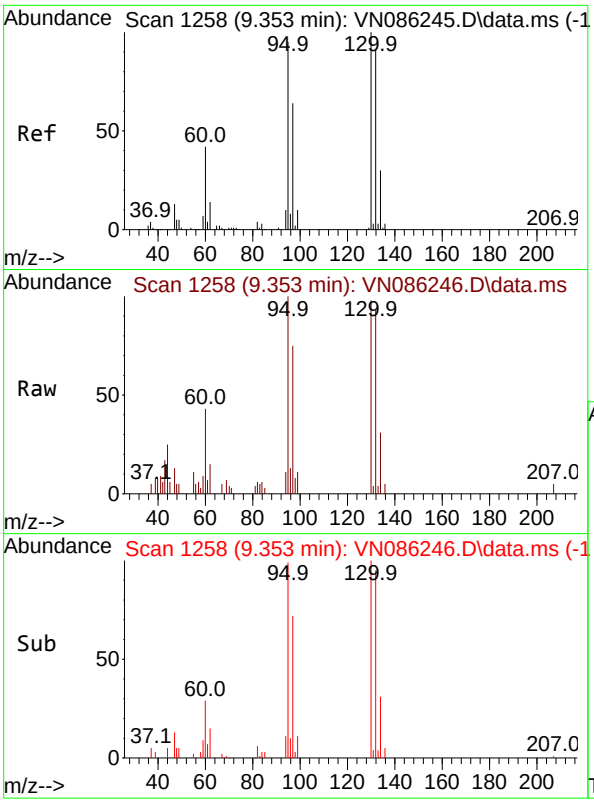


#36
1,2-Dichloroethane
Concen: 4.823 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 62 Resp: 14350

Ion	Ratio	Lower	Upper
62	100		
98	5.6	8.6	12.8#

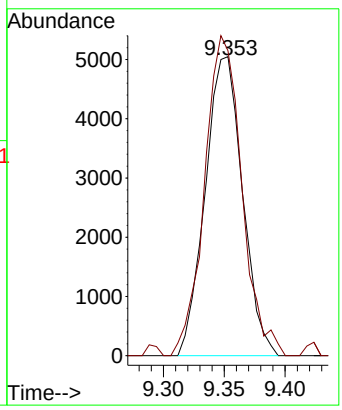




#37
Trichloroethene
Concen: 4.697 ug/l
RT: 9.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:130 Resp: 1077

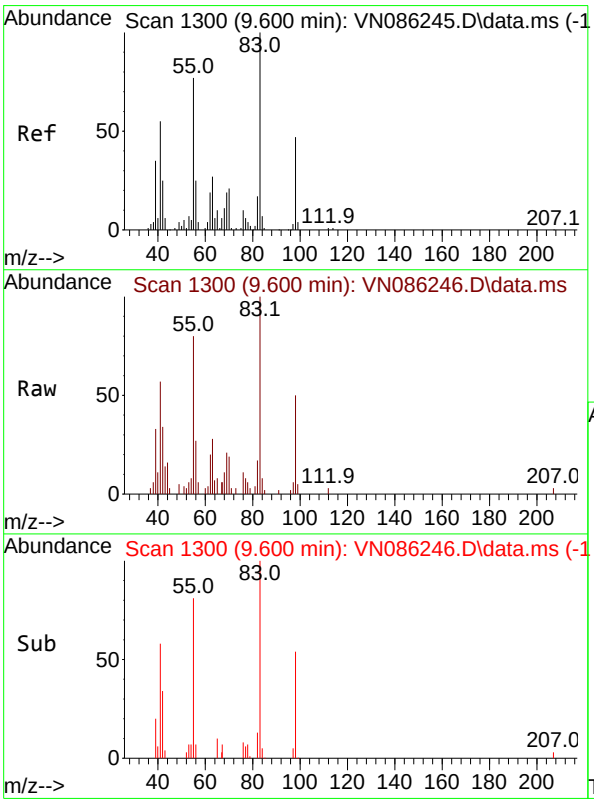
Ion	Ratio	Lower	Upper
130	100		
95	98.0	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

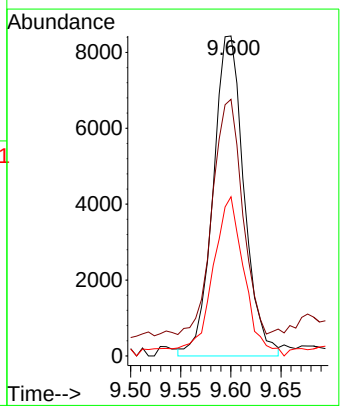
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

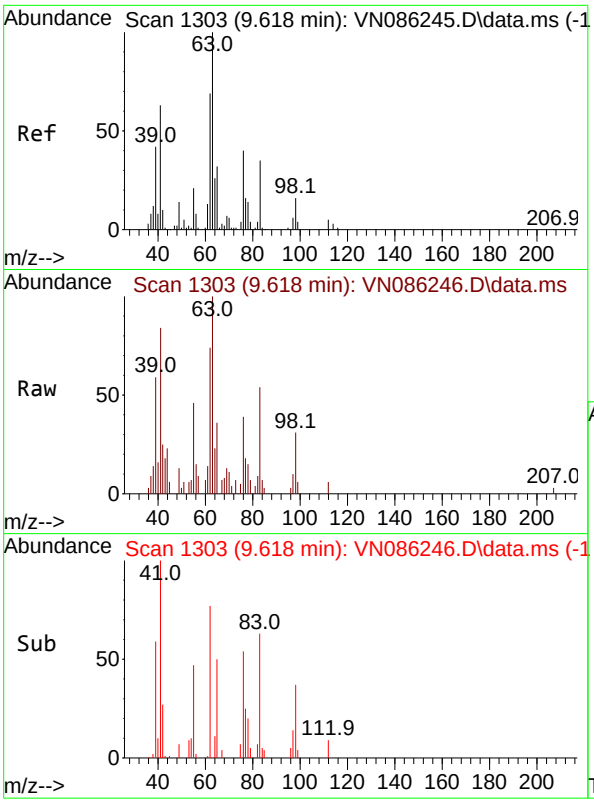


#38
Methylcyclohexane
Concen: 4.929 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 83 Resp: 18064

Ion	Ratio	Lower	Upper
83	100		
55	74.6	38.5	115.5
98	50.9	24.4	73.2

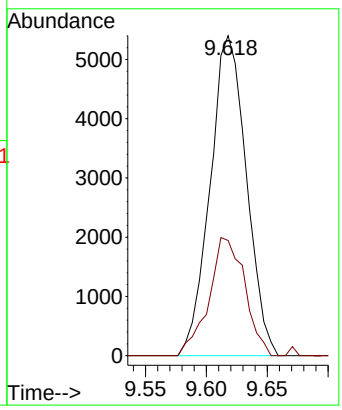




#39
1,2-Dichloropropane
Concen: 4.735 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 63 Resp: 1120

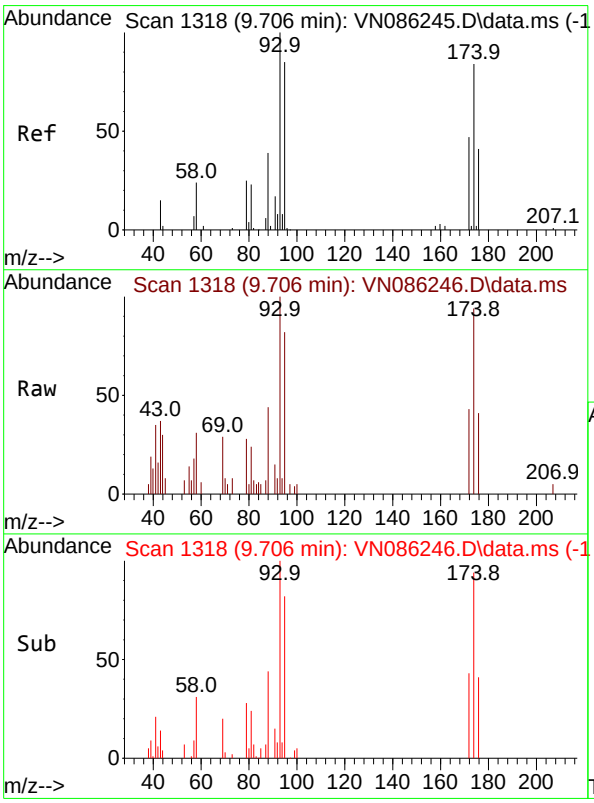
Ion	Ratio	Lower	Upper
63	100		
65	36.0	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

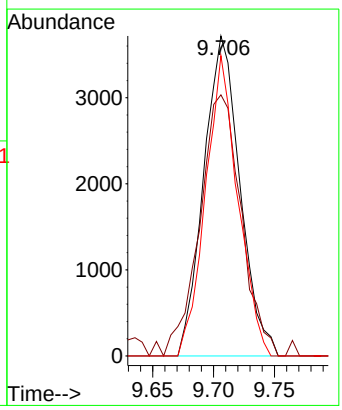
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

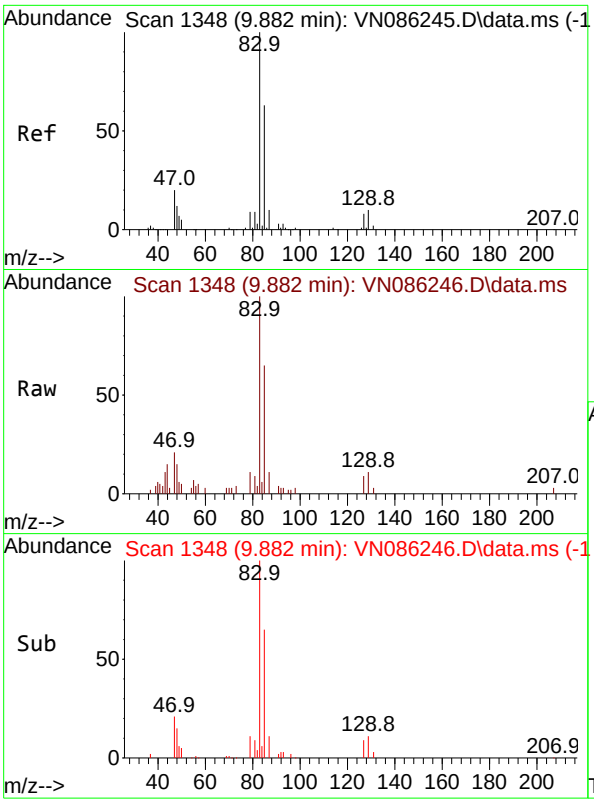


#40
Dibromomethane
Concen: 5.042 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 93 Resp: 7704

Ion	Ratio	Lower	Upper
93	100		
95	93.0	0.0	169.0
174	83.9	0.0	168.0

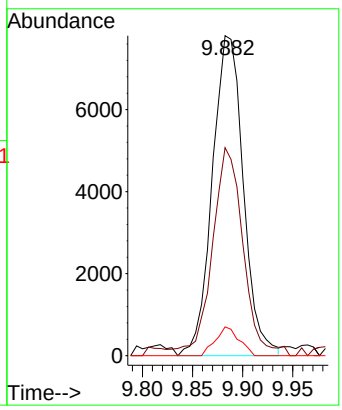




#41
Bromodichloromethane
Concen: 5.109 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 83 Resp: 1677

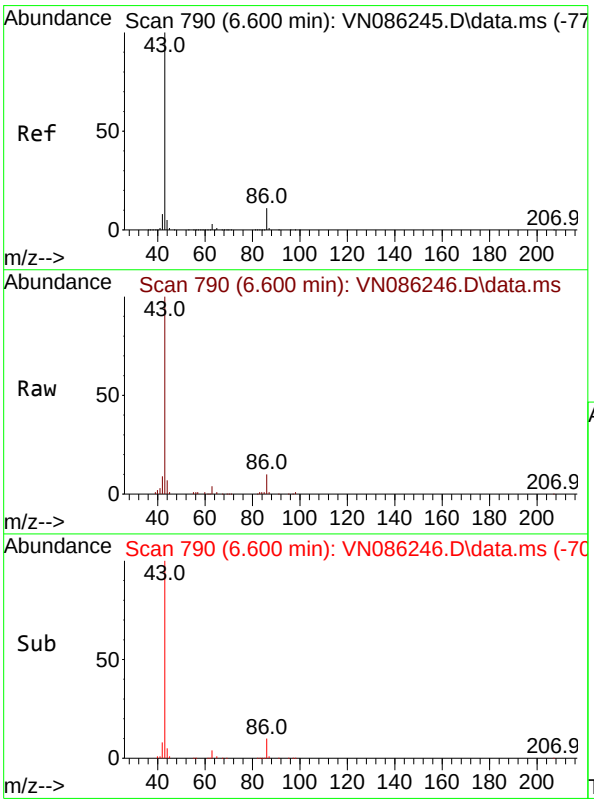
Ion	Ratio	Lower	Upper
83	100		
85	62.7	50.2	75.2
127	9.0	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

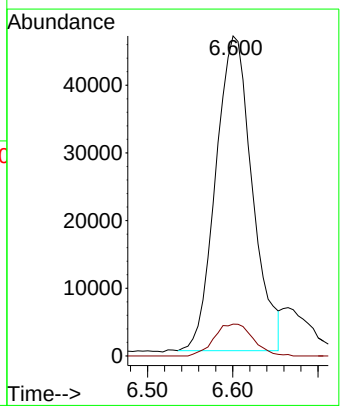
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

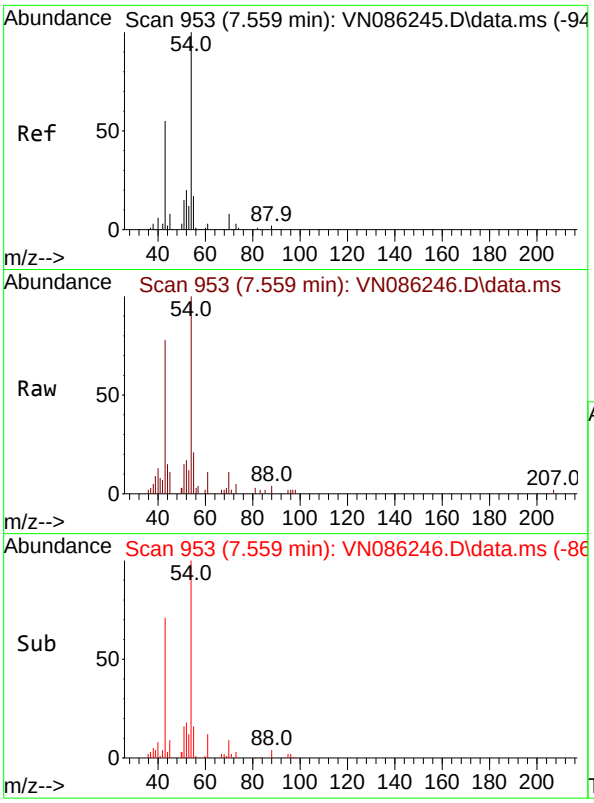


#42
Vinyl Acetate
Concen: 24.613 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 138739

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.4	12.6





#43
Ethyl Acetate
Concen: 5.045 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

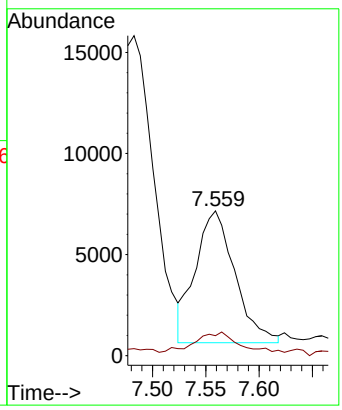
Tgt Ion: 43 Resp: 1685

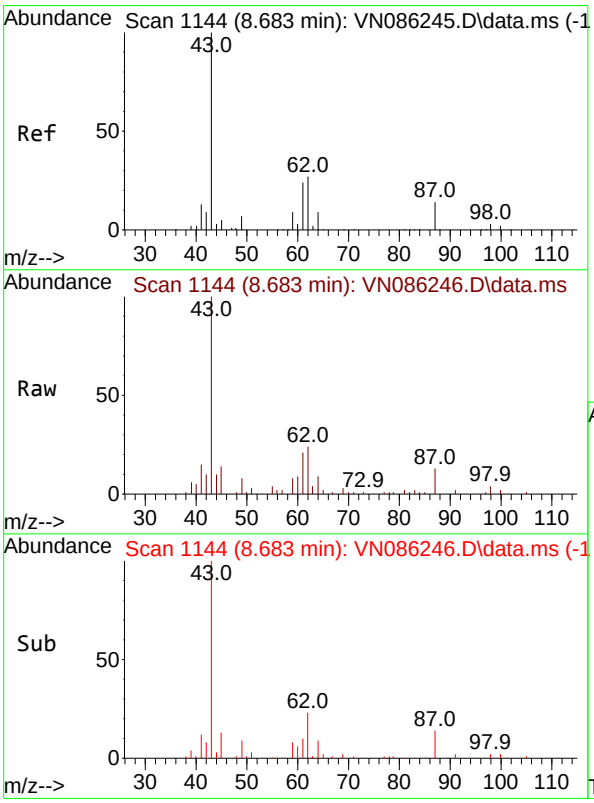
Ion	Ratio	Lower	Upper
43	100		
45	5.4	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

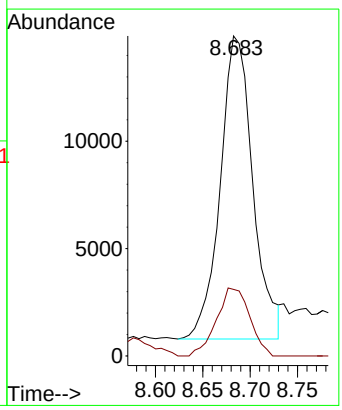


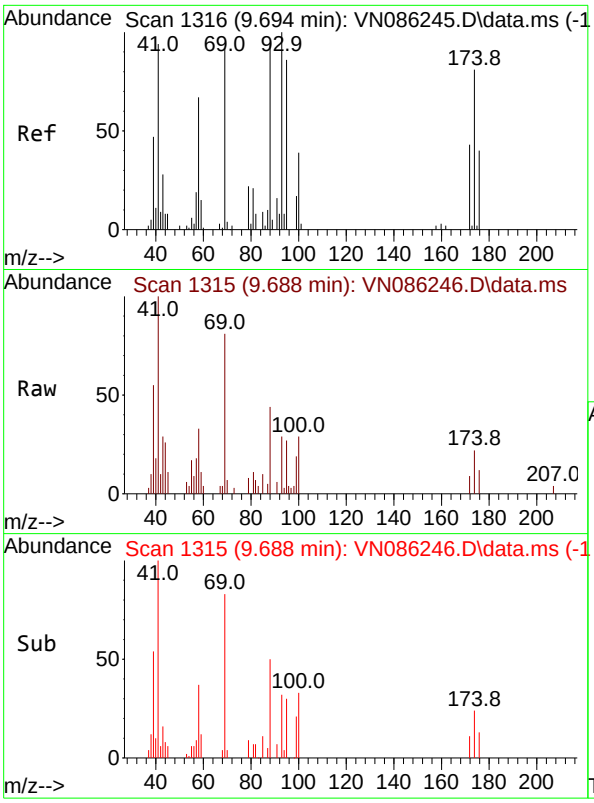


#44
Isopropyl Acetate
Concen: 5.463 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 33849

Ion	Ratio	Lower	Upper
43	100		
61	22.8	20.5	30.7

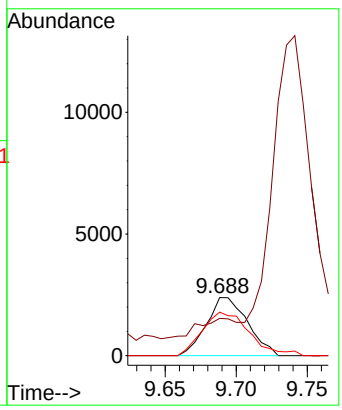




#45
1,4-Dioxane
Concen: 97.983 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 88 Resp: 482

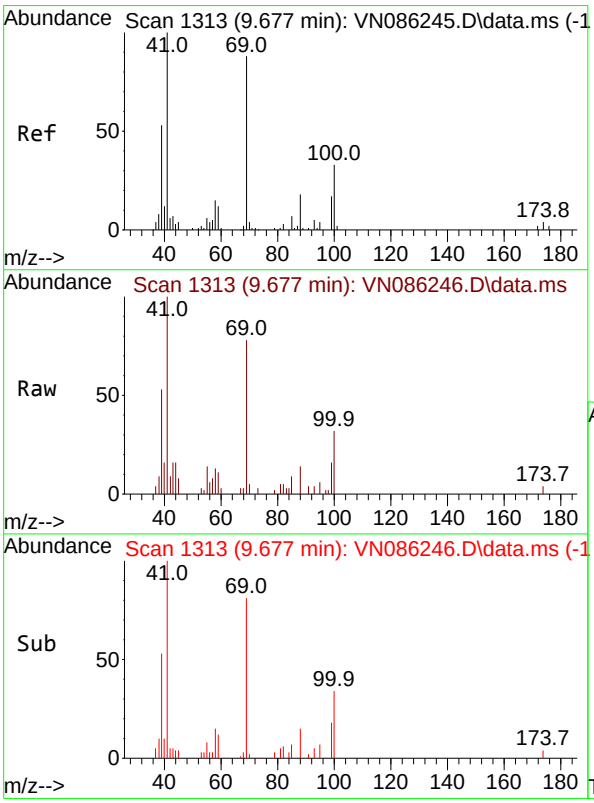
Ion	Ratio	Lower	Upper
88	100		
43	5.9	14.4	21.6
58	84.2	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

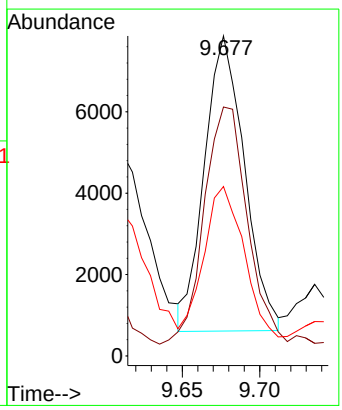
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

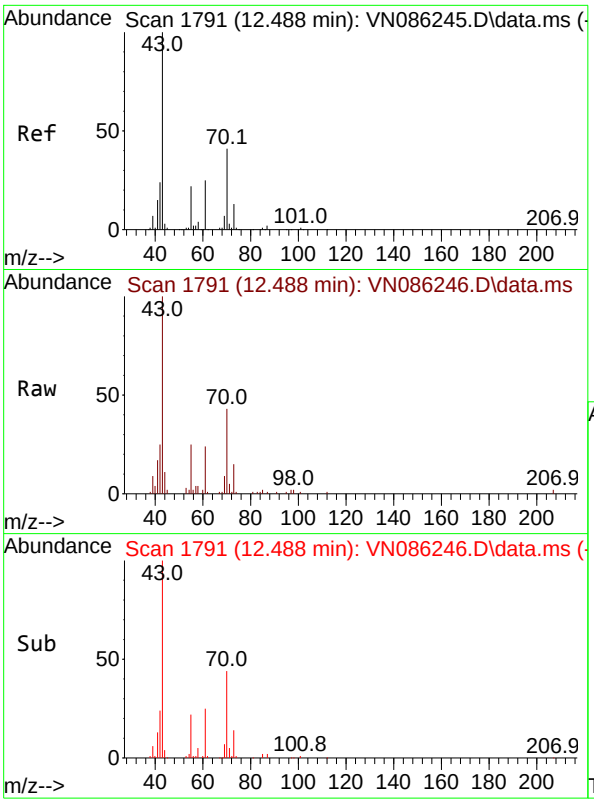


#46
Methyl methacrylate
Concen: 4.759 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 41 Resp: 12994

Ion	Ratio	Lower	Upper
41	100		
69	79.8	43.2	129.6
39	53.4	26.4	79.0





#47
n-amyl Acetate
Concen: 4.860 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

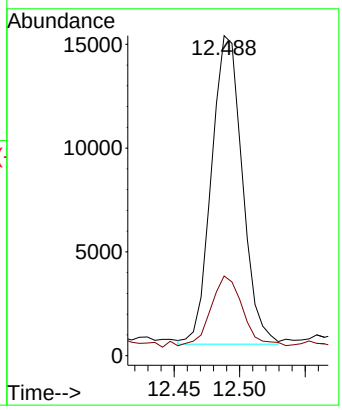
Tgt Ion: 43 Resp: 2433

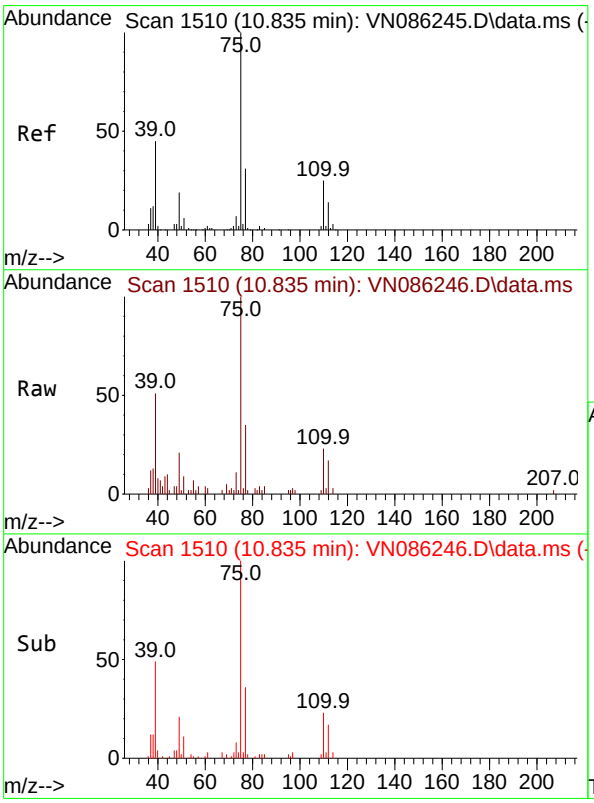
Ion	Ratio	Lower	Upper
43	100		
55	22.9	19.0	28.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

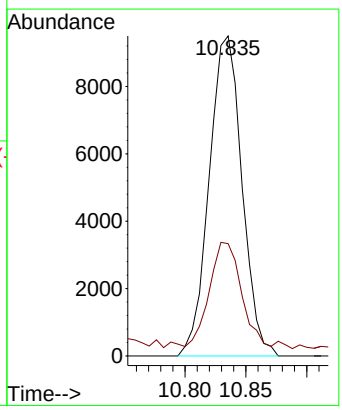


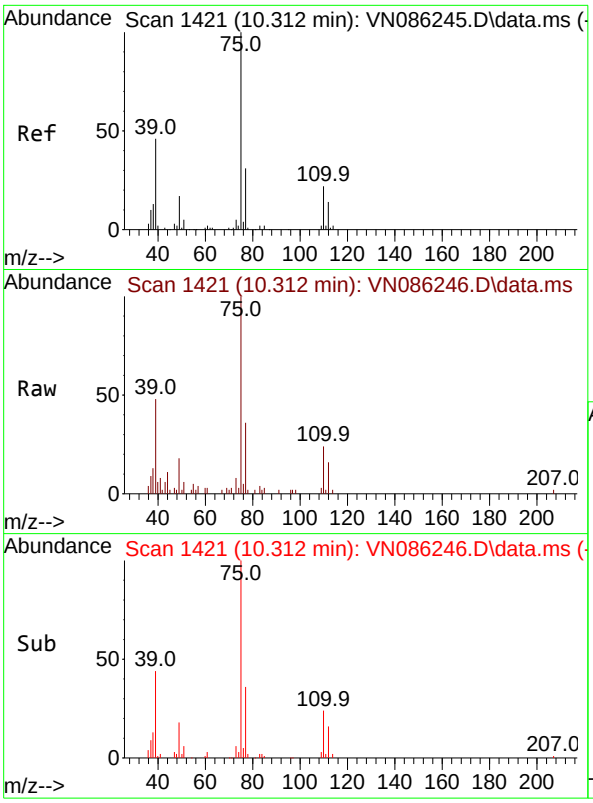


#48
t-1,3-Dichloropropene
Concen: 4.801 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 17815

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7





#49
cis-1,3-Dichloropropene
Concen: 4.740 ug/l
RT: 10.312 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

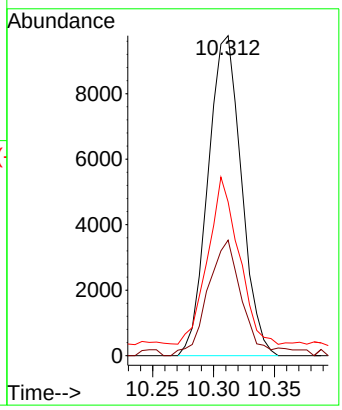
Tgt Ion: 75 Resp: 1861

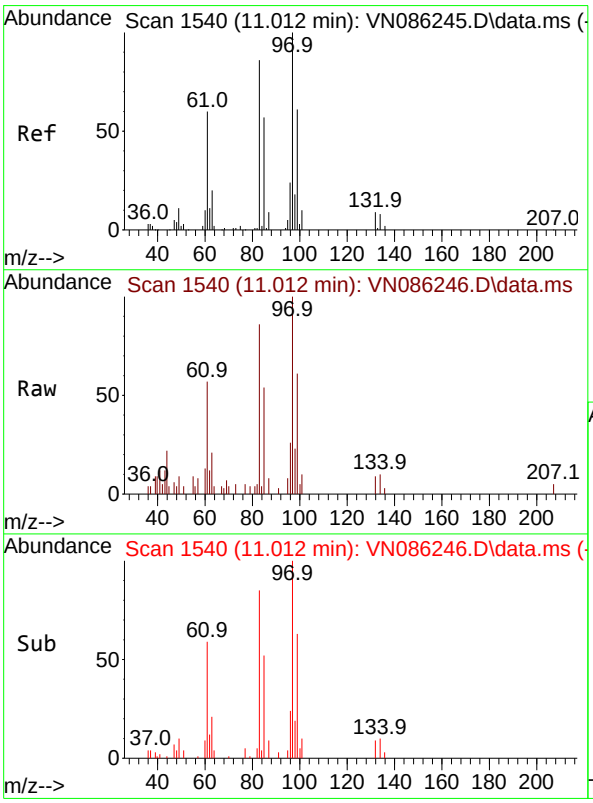
Ion	Ratio	Lower	Upper
75	100		
77	34.4	25.0	37.4
39	44.5	36.7	55.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

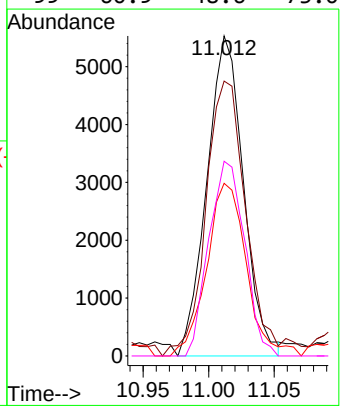


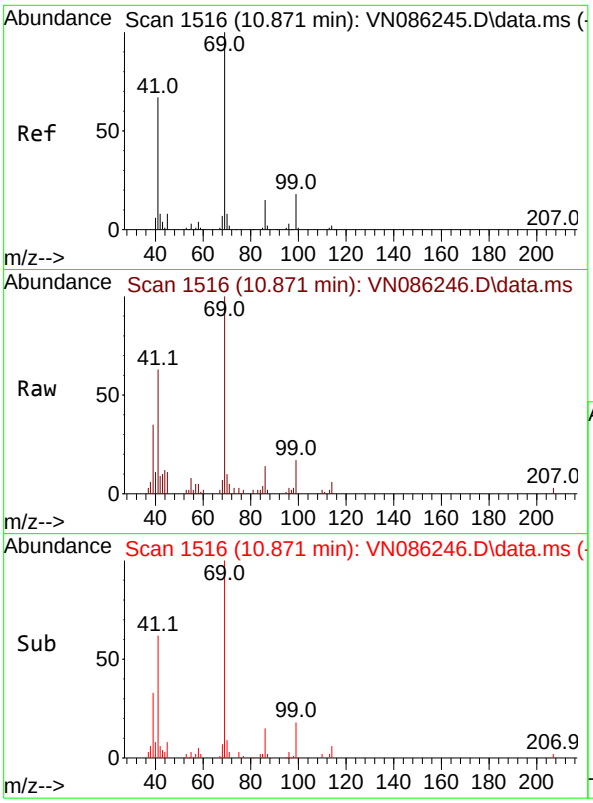


#50
1,1,2-Trichloroethane
Concen: 4.997 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 97 Resp: 10709

Ion	Ratio	Lower	Upper
97	100		
83	82.8	68.6	103.0
85	51.2	45.9	68.9
99	60.9	48.6	73.0

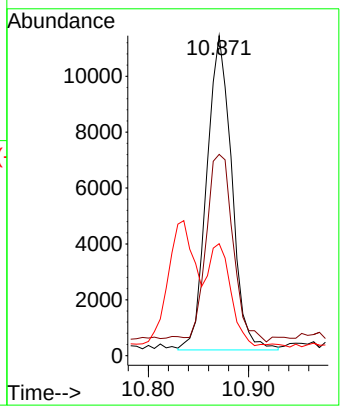




#51
Ethyl methacrylate
Concen: 4.890 ug/l
RT: 10.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 69 Resp: 1947

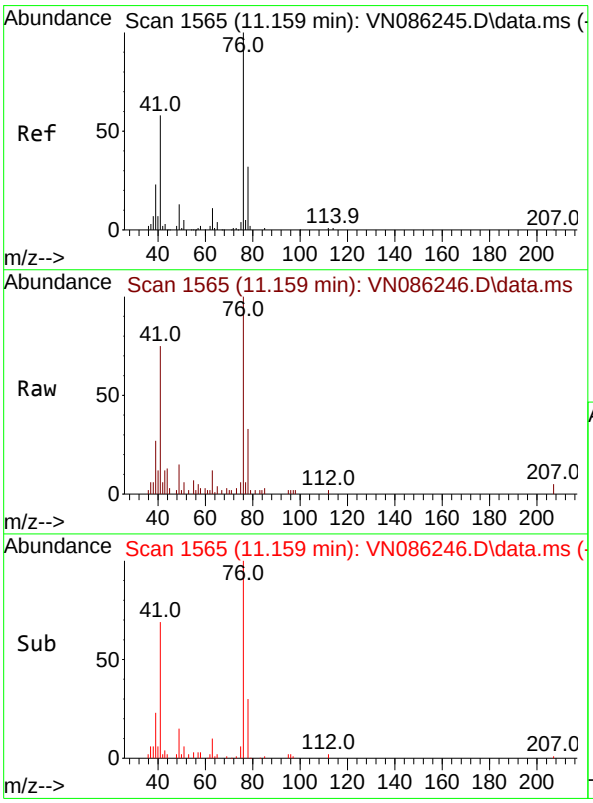
Ion	Ratio	Lower	Upper
69	100		
41	58.5	33.6	100.6
39	32.2	17.8	53.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

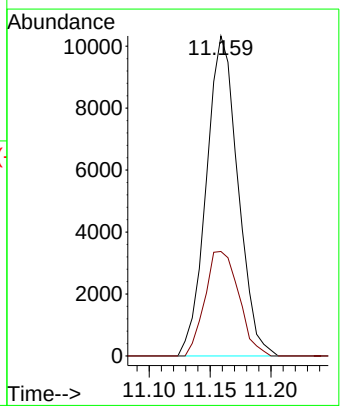
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

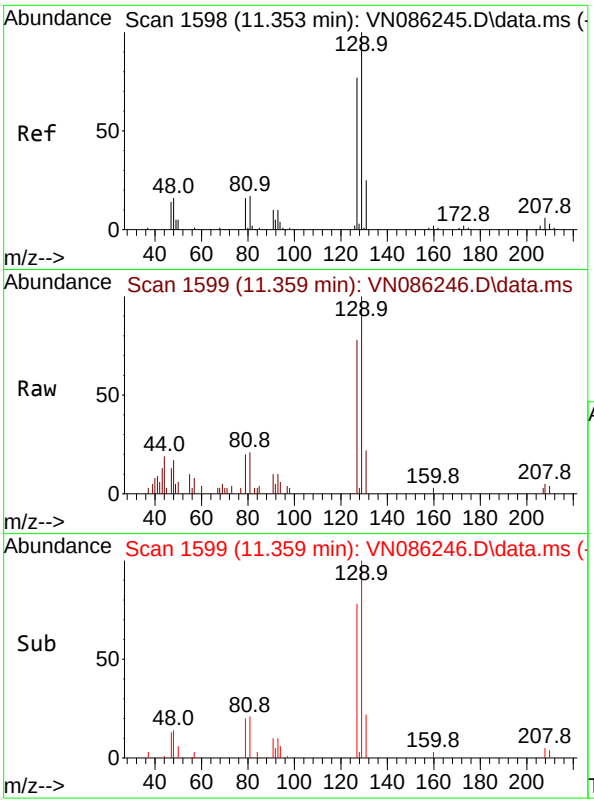


#52
1,3-Dichloropropane
Concen: 4.887 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 76 Resp: 18666

Ion	Ratio	Lower	Upper
76	100		
78	35.0	0.0	64.6

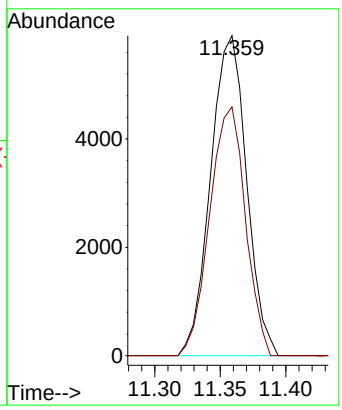




#53
Dibromochloromethane
Concen: 4.813 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:129 Resp: 1128

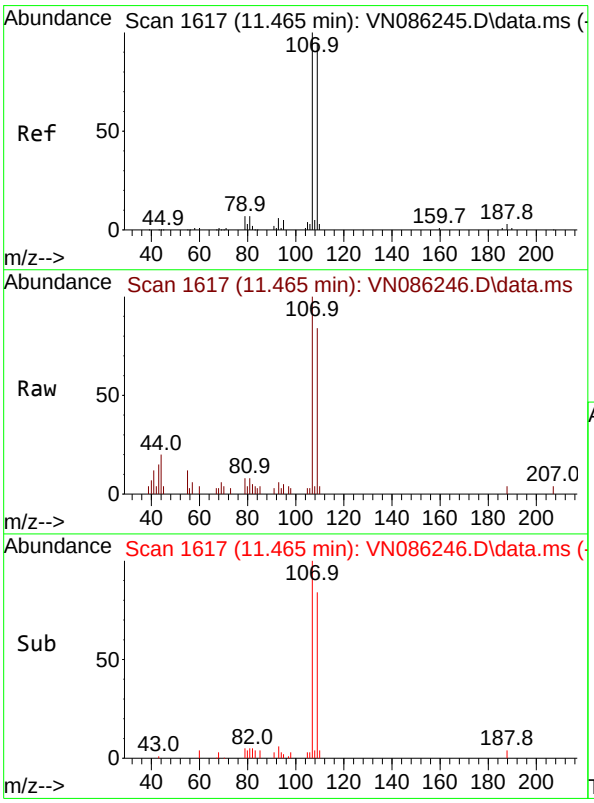
Ion	Ratio	Lower	Upper
129	100		
127	77.0	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

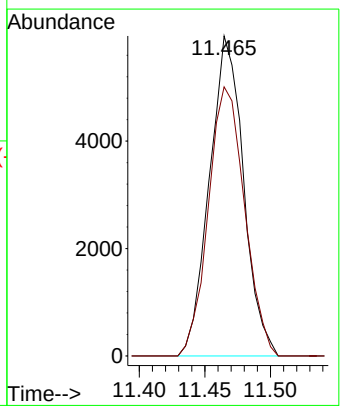
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

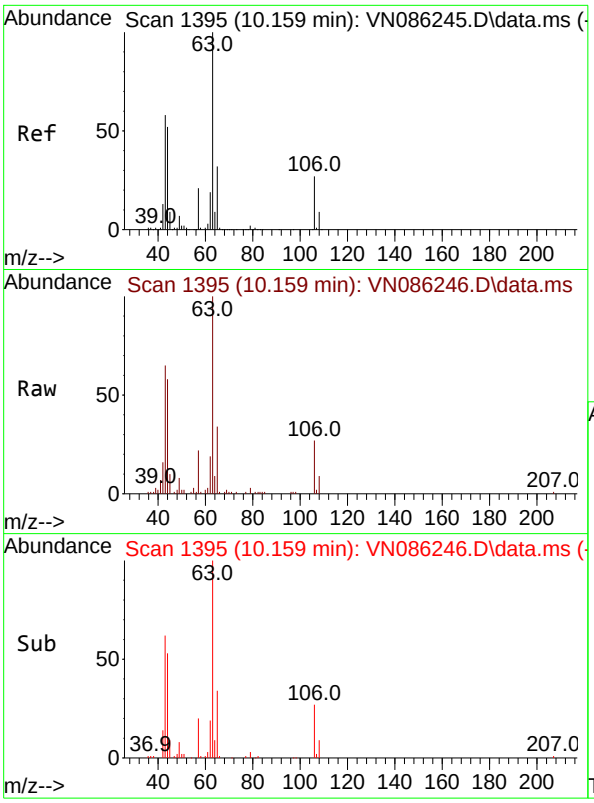


#54
1,2-Dibromoethane
Concen: 4.965 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:107 Resp: 10742

Ion	Ratio	Lower	Upper
107	100		
109	89.5	75.2	112.8

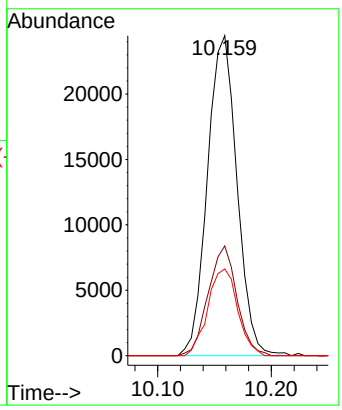




#55
2-Chloroethyl vinyl ether
Concen: 29.389 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 63 Resp: 4422

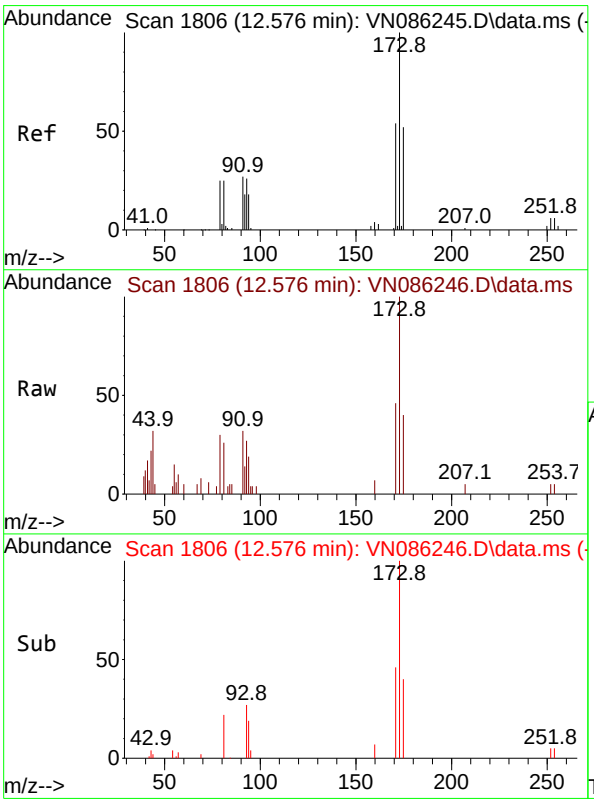
Ion	Ratio	Lower	Upper
63	100		
65	33.2	25.8	38.8
106	27.4	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

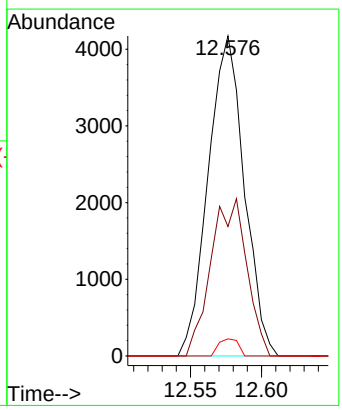
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

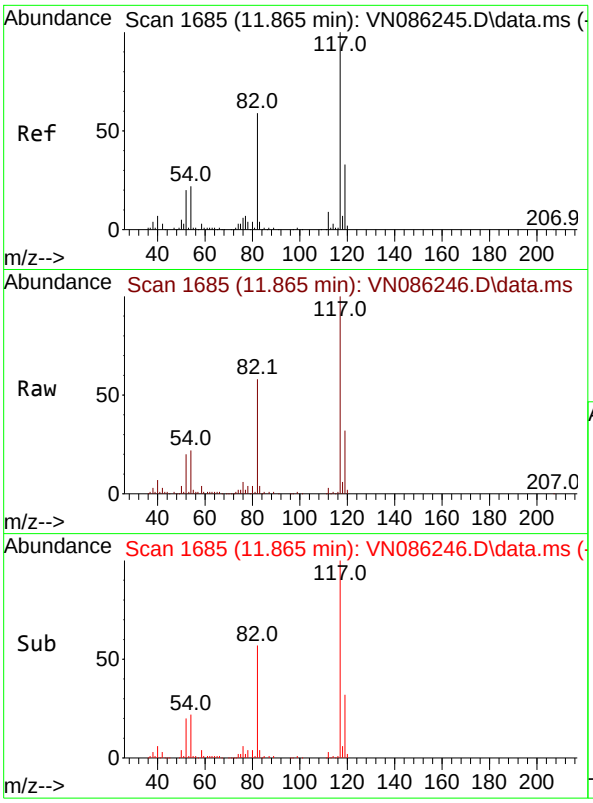


#56
Bromoform
Concen: 4.804 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:173 Resp: 7367

Ion	Ratio	Lower	Upper
173	100		
175	48.9	38.2	57.4
254	2.9	4.5	6.7#

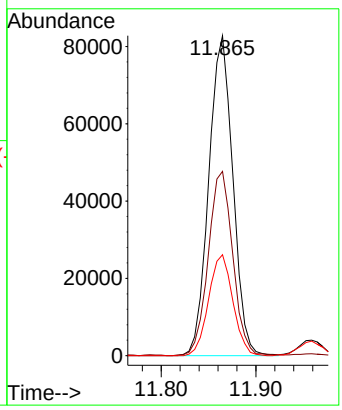




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:117 Resp: 14654

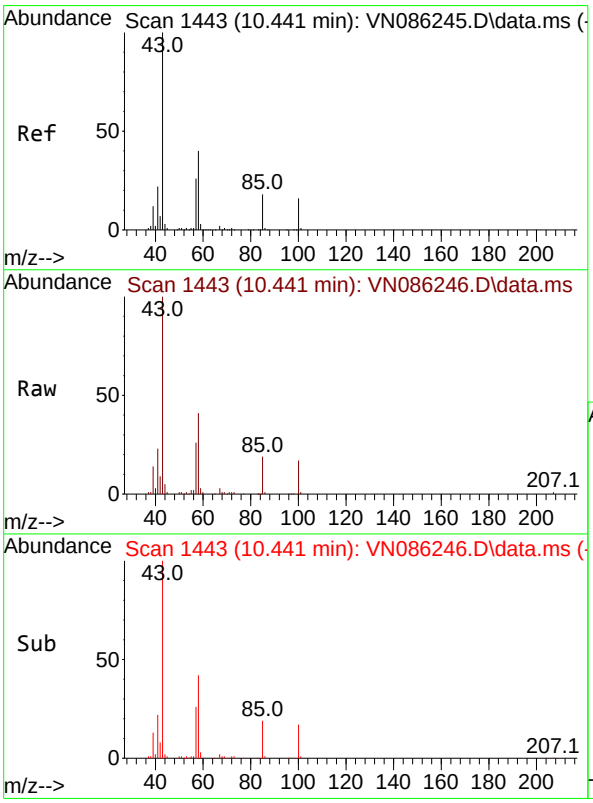
Ion	Ratio	Lower	Upper
117	100		
82	58.4	47.3	70.9
119	31.8	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

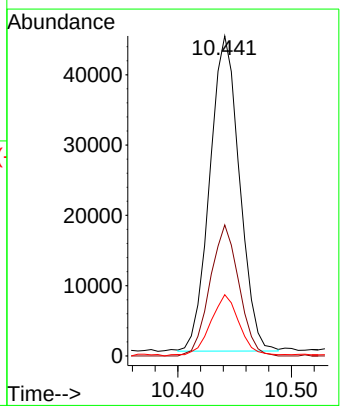
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

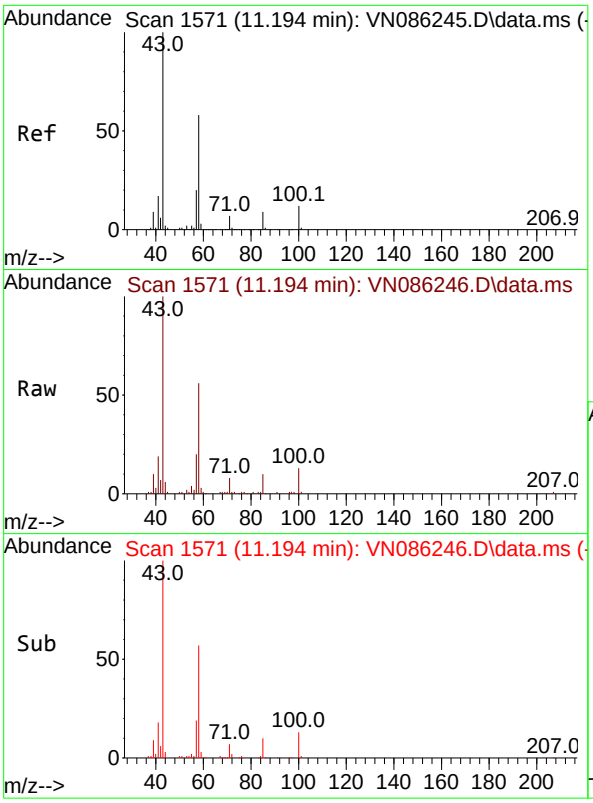


#58
4-Methyl-2-Pentanone
Concen: 24.511 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 81510

Ion	Ratio	Lower	Upper
43	100		
58	40.4	32.5	48.7
85	18.8	14.4	21.6





#59
2-Hexanone
Concen: 24.465 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

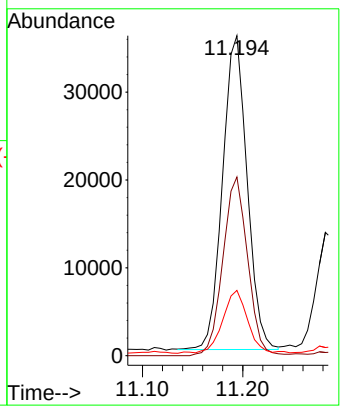
Tgt Ion: 43 Resp: 6058

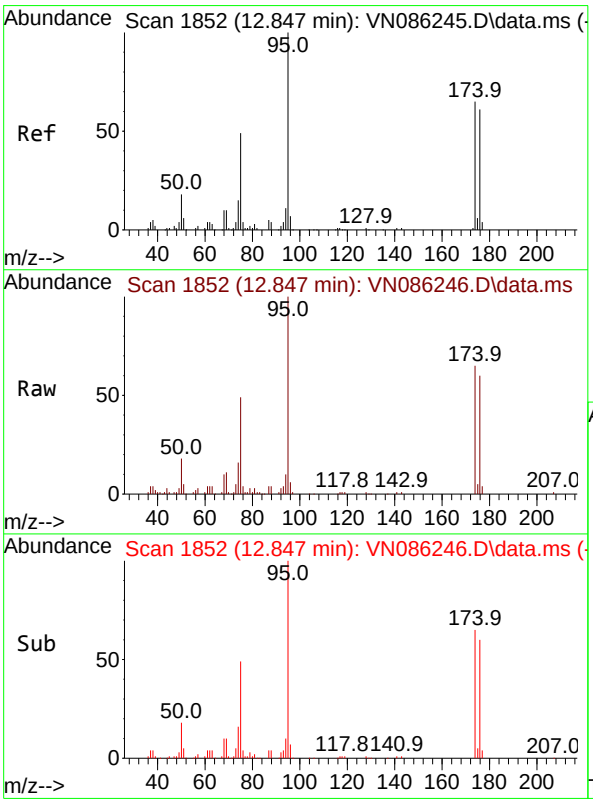
Ion	Ratio	Lower	Upper
43	100		
58	57.5	45.3	67.9
57	19.9	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

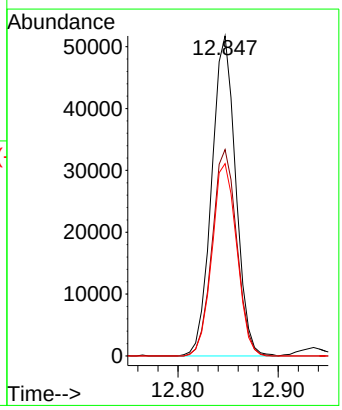


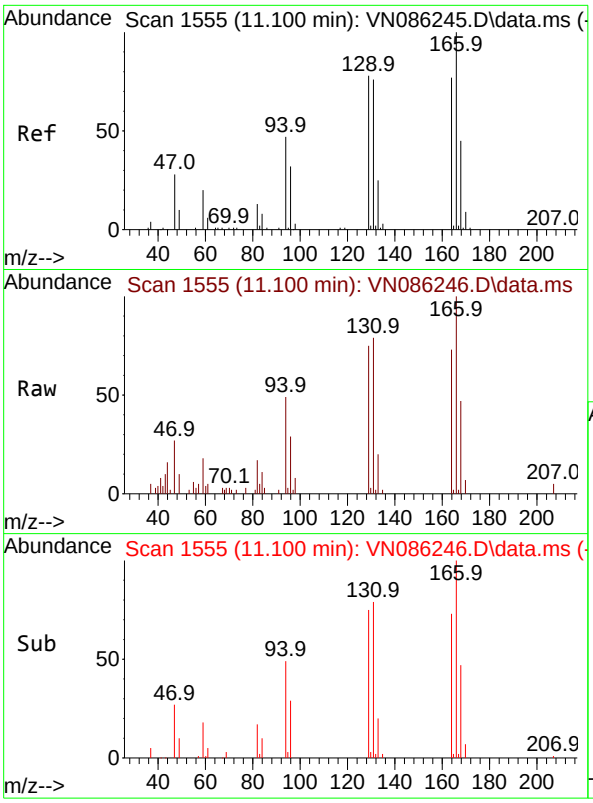


#60
4-Bromofluorobenzene
Concen: 29.576 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 95 Resp: 86291

Ion	Ratio	Lower	Upper
95	100		
174	66.1	52.7	79.1
176	61.8	49.8	74.8

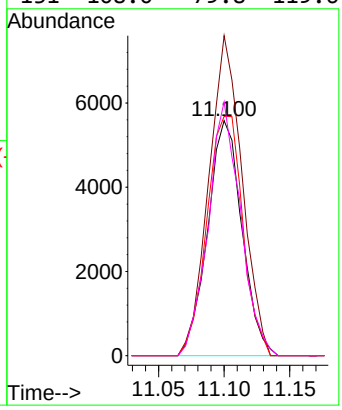




#61
Tetrachloroethene
Concen: 4.683 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:164 Resp: 1013

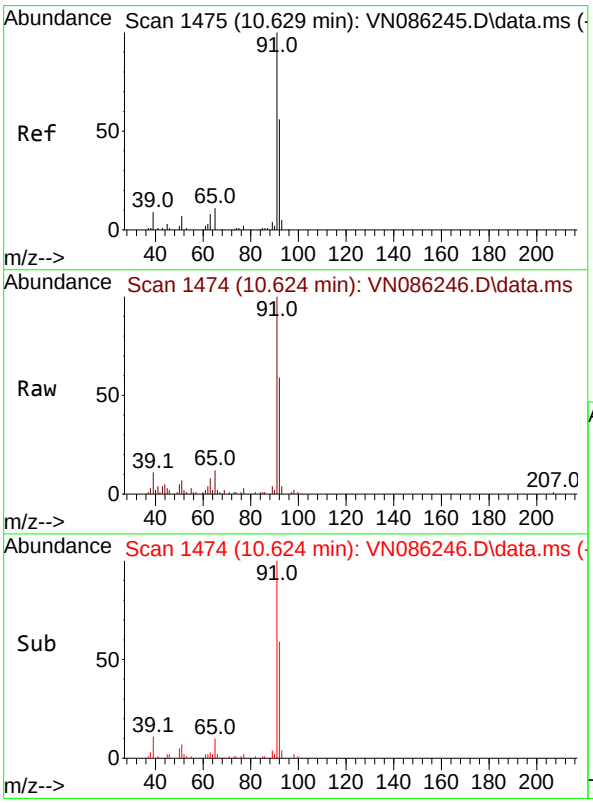
Ion	Ratio	Lower	Upper
164	100		
166	136.2	104.5	156.7
129	101.9	81.7	122.5
131	108.0	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

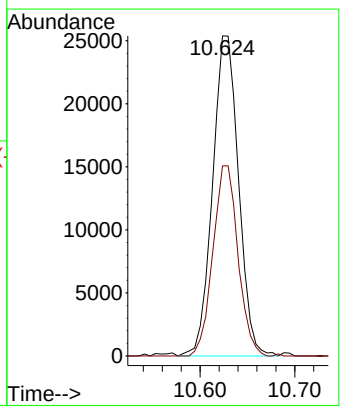
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

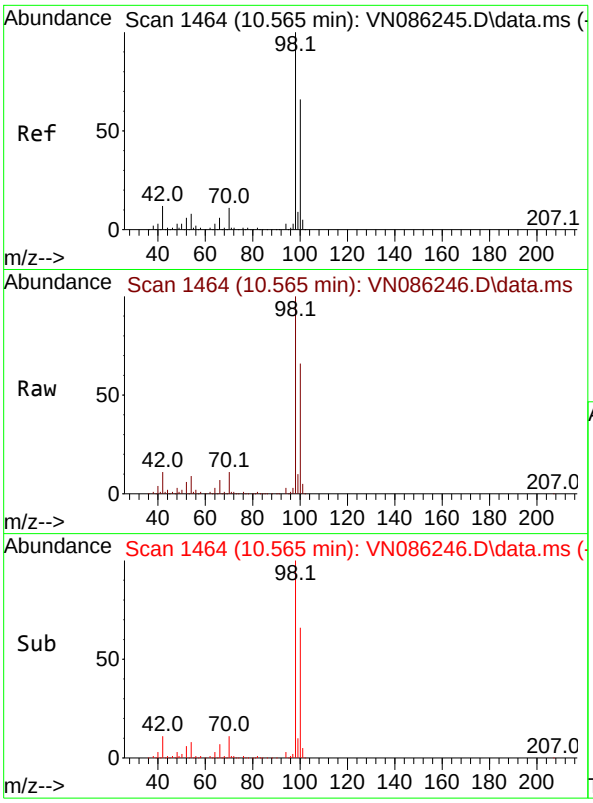


#62
Toluene
Concen: 4.923 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 48384

Ion	Ratio	Lower	Upper
91	100		
92	57.5	46.8	70.2

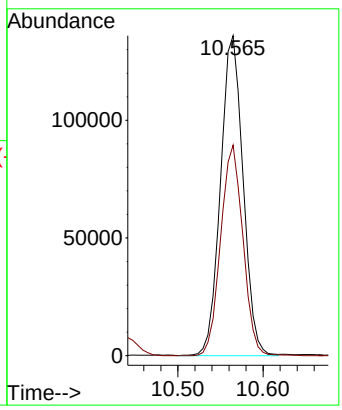




#63
Toluene-d8
Concen: 30.283 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 98 Resp: 25053

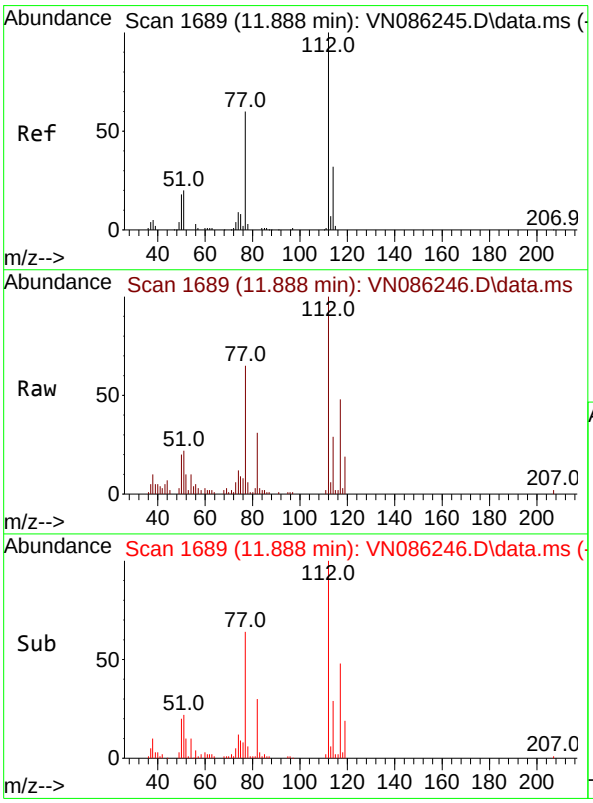
Ion	Ratio	Lower	Upper
98	100		
100	64.9	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

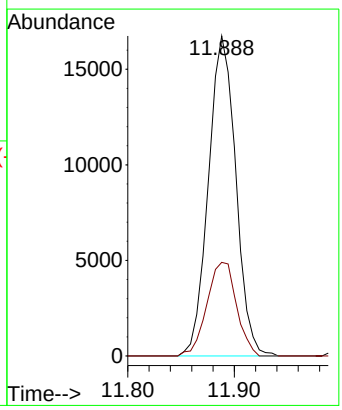
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

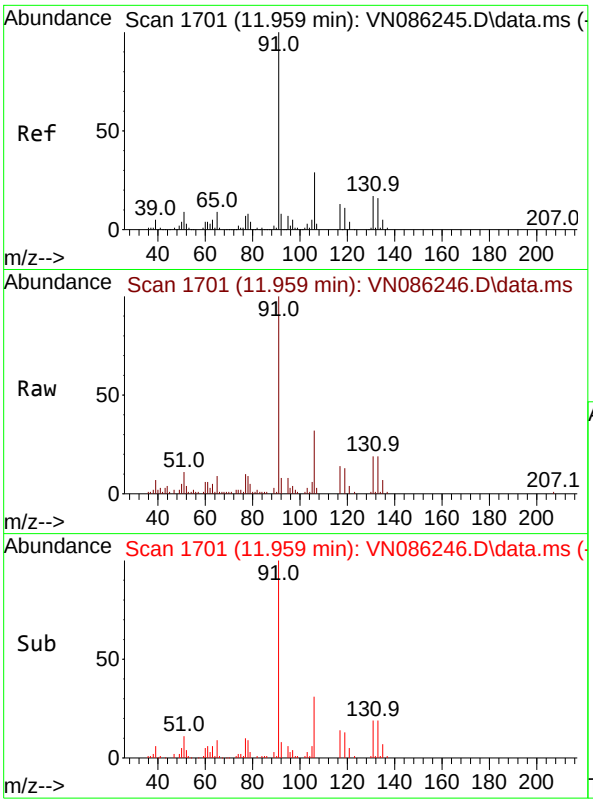


#64
Chlorobenzene
Concen: 4.980 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:112 Resp: 29905

Ion	Ratio	Lower	Upper
112	100		
114	29.3	25.8	38.6

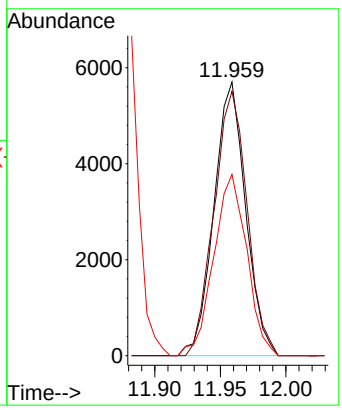




#65
1,1,1,2-Tetrachloroethane
Concen: 4.845 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:131 Resp: 960

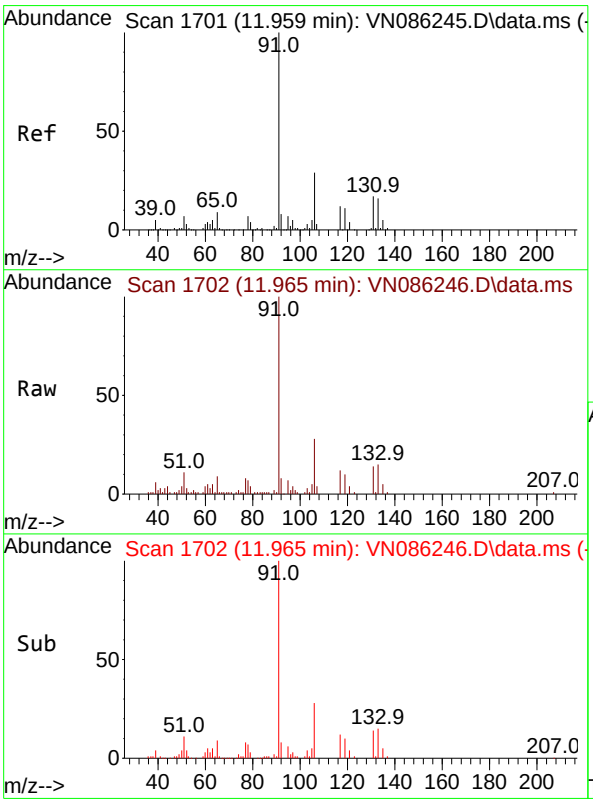
Ion	Ratio	Lower	Upper
131	100		
133	100.9	0.0	190.4
119	69.0	0.0	135.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

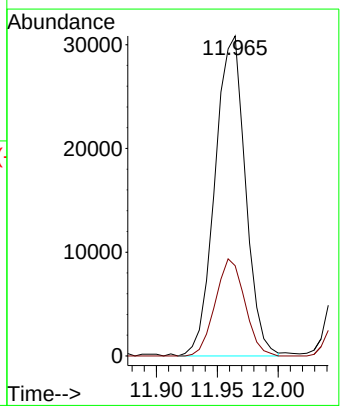
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

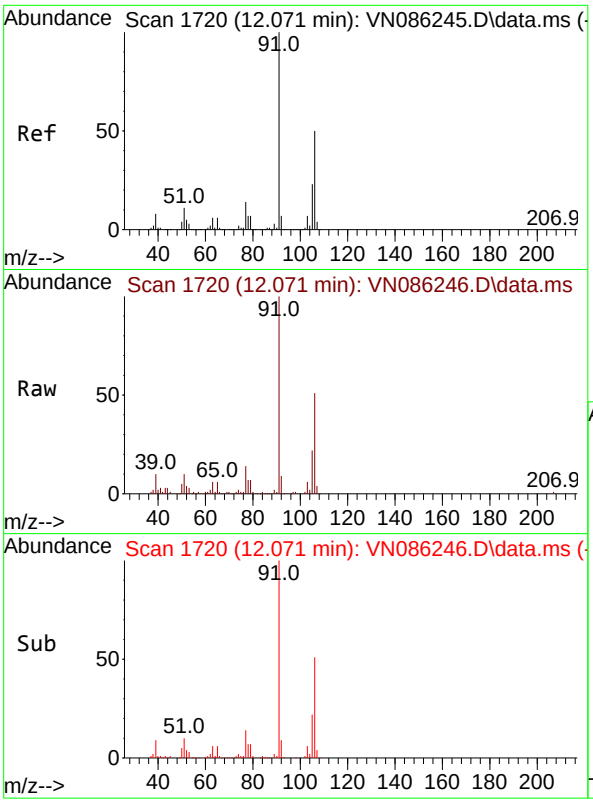


#66
Ethyl Benzene
Concen: 4.912 ug/l
RT: 11.965 min Scan# 1702
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 53539

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.4	35.0

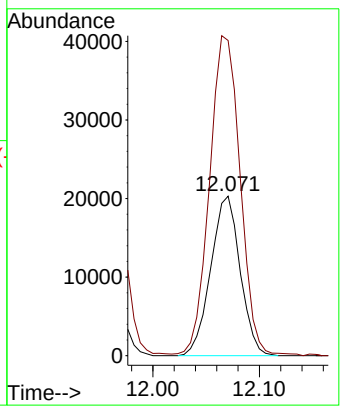




#67
m/p-Xylenes
Concen: 9.597 ug/l
RT: 12.071 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:106 Resp: 3889

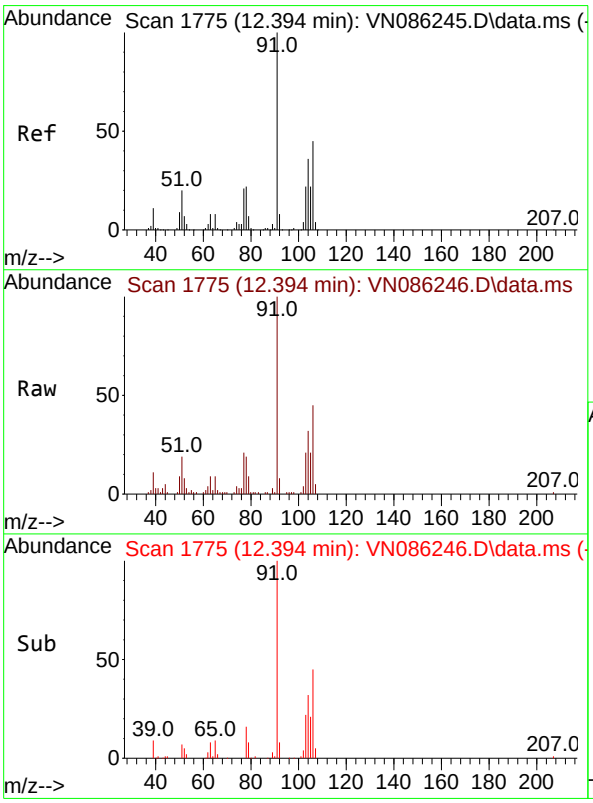
Ion	Ratio	Lower	Upper
106	100		
91	209.5	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

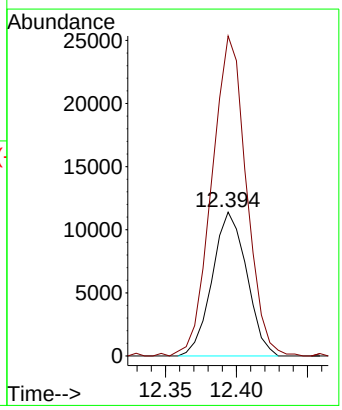
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

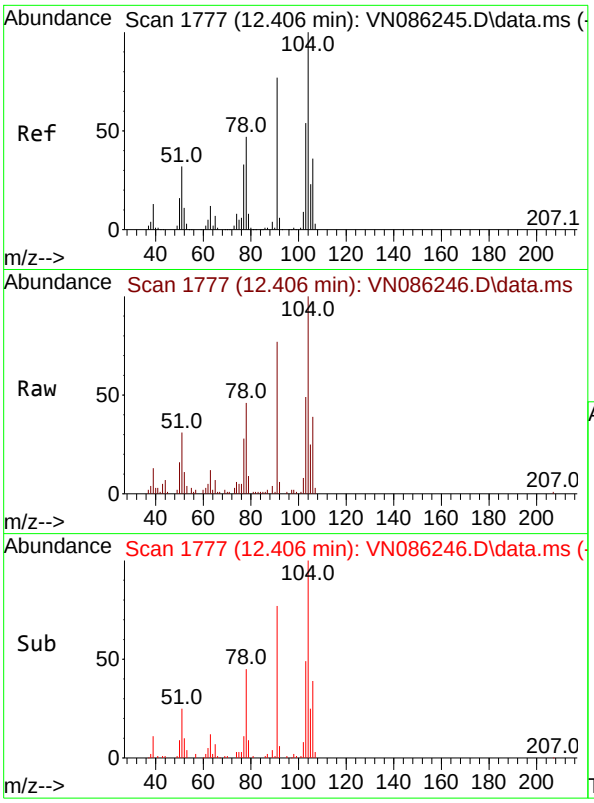


#68
o-Xylene
Concen: 4.822 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:106 Resp: 19223

Ion	Ratio	Lower	Upper
106	100		
91	222.7	109.8	329.4

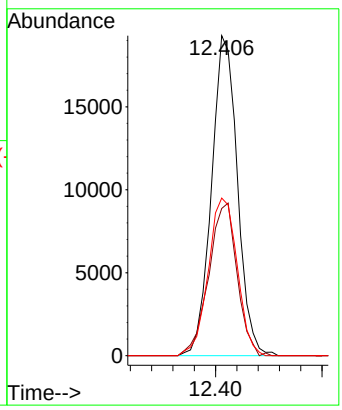




#69
Styrene
Concen: 4.846 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:104 Resp: 3258

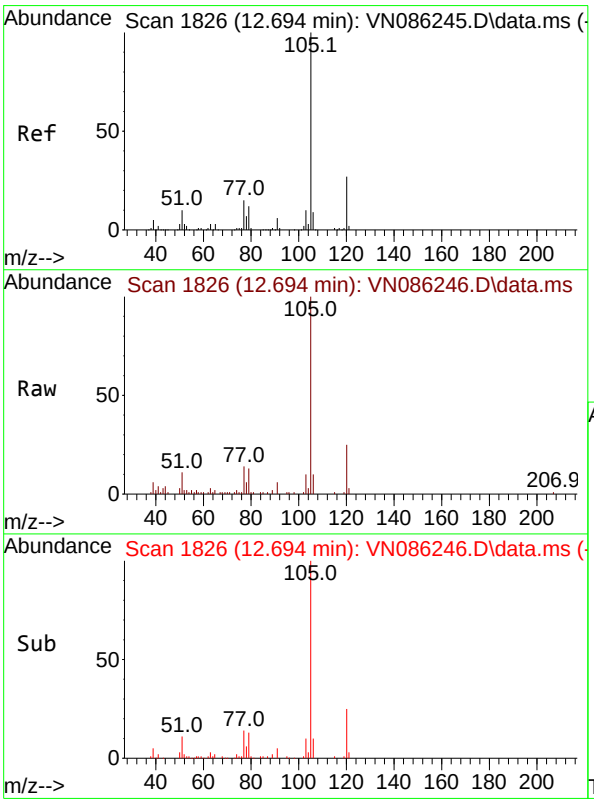
Ion	Ratio	Lower	Upper
104	100		
78	51.8	41.4	62.0
103	54.8	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

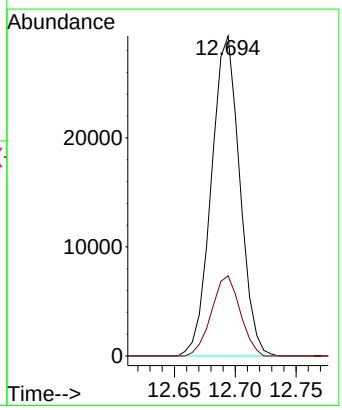
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

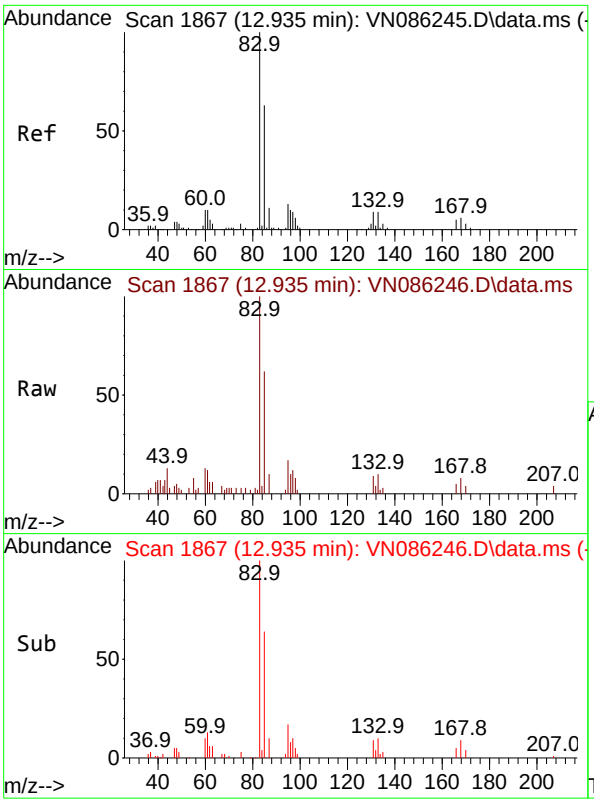


#70
Isopropylbenzene
Concen: 4.839 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:105 Resp: 47563

Ion	Ratio	Lower	Upper
105	100		
120	25.3	18.3	34.1





#71
1,1,2,2-Tetrachloroethane
Concen: 5.466 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

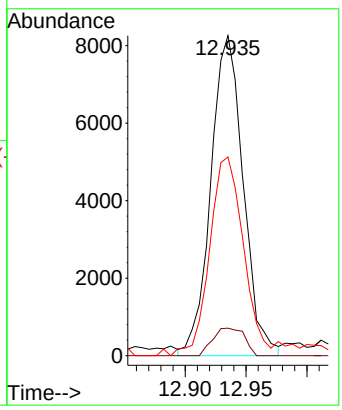
Tgt Ion: 83 Resp: 1529

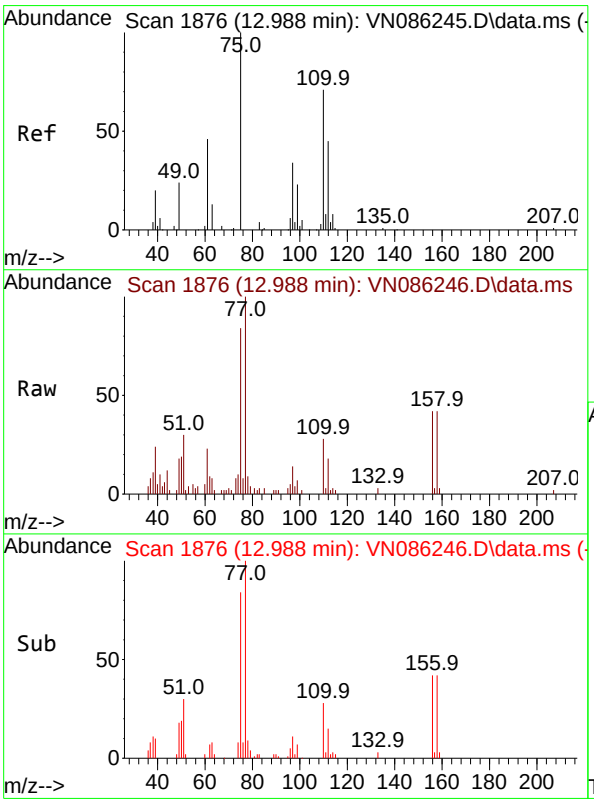
Ion	Ratio	Lower	Upper
83	100		
131	8.4	4.8	14.3
85	58.9	32.3	96.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

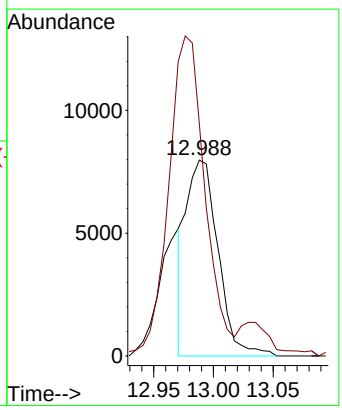


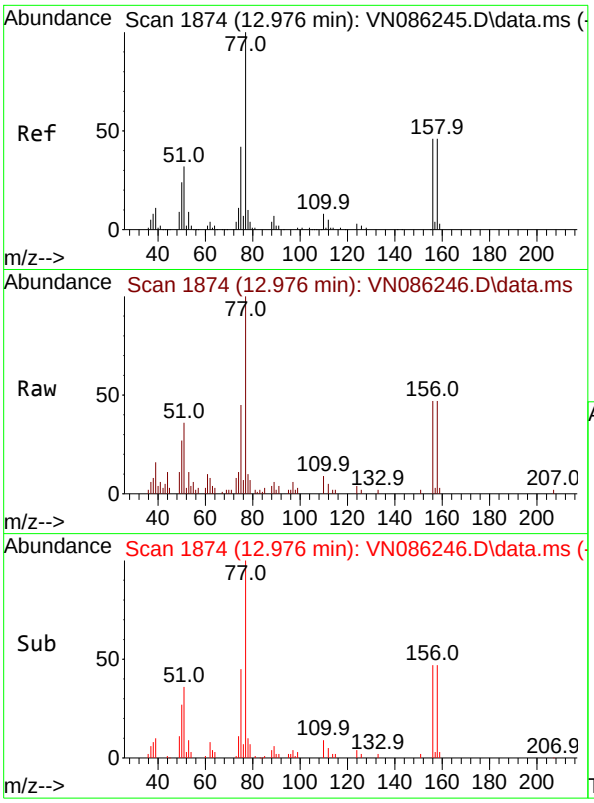


#72
1,2,3-Trichloropropane
Concen: 3.739 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 14811

Ion	Ratio	Lower	Upper
75	100		
77	185.5	0.0	380.0

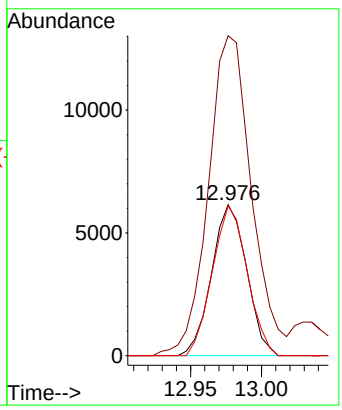




#73
Bromobenzene
Concen: 4.831 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:156 Resp: 1052

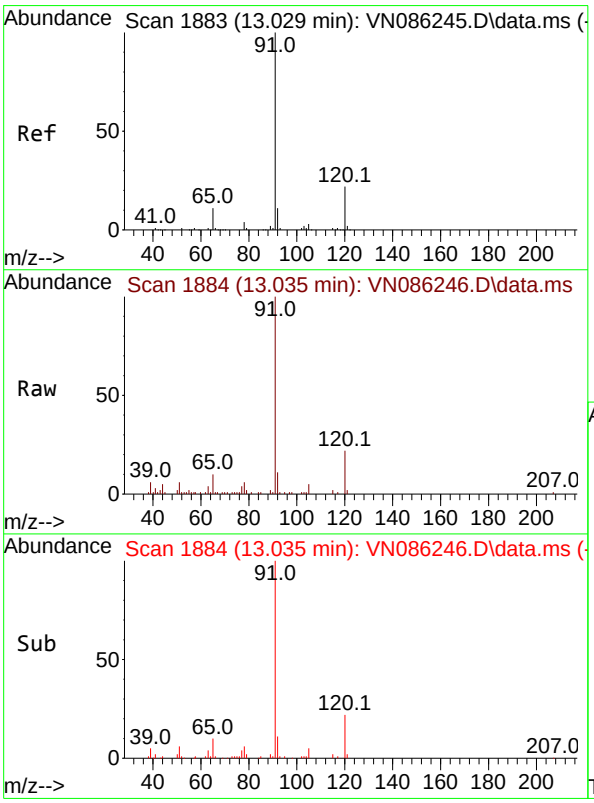
Ion	Ratio	Lower	Upper
156	100		
77	261.1	0.0	505.2
158	98.7	0.0	195.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

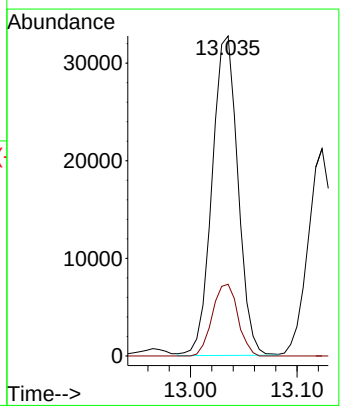
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

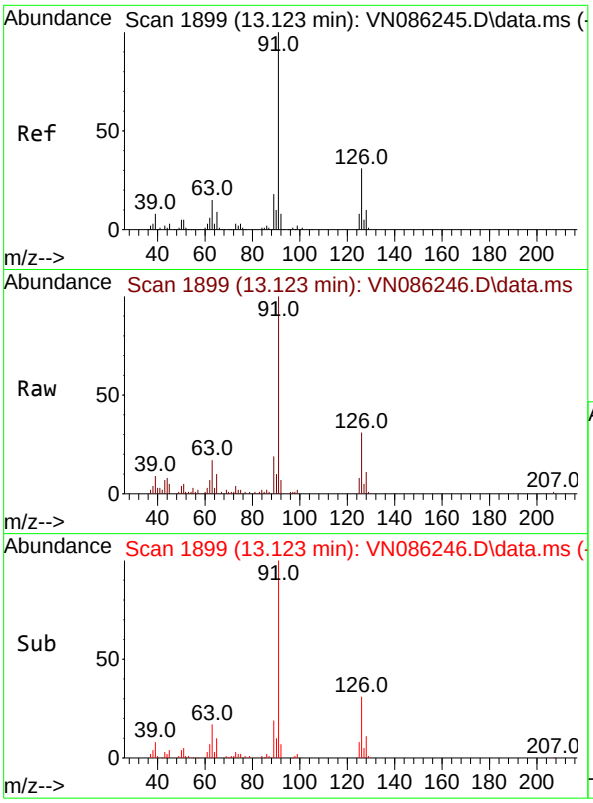


#74
n-propylbenzene
Concen: 4.734 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 55104

Ion	Ratio	Lower	Upper
91	100		
120	22.1	0.0	44.0

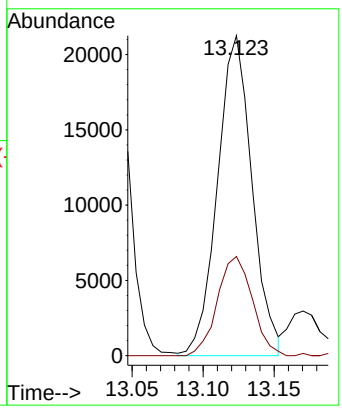




#75
2-Chlorotoluene
Concen: 4.929 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 3596

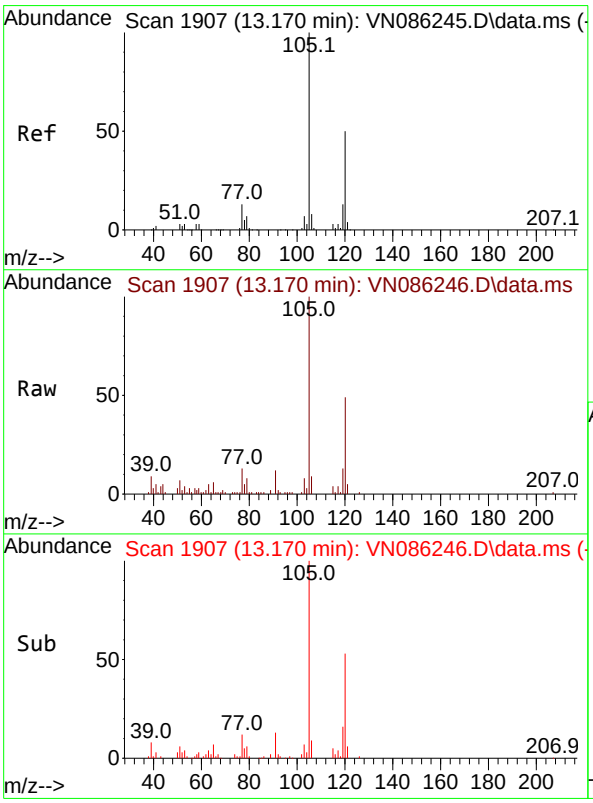
Ion	Ratio	Lower	Upper
91	100		
126	31.3	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

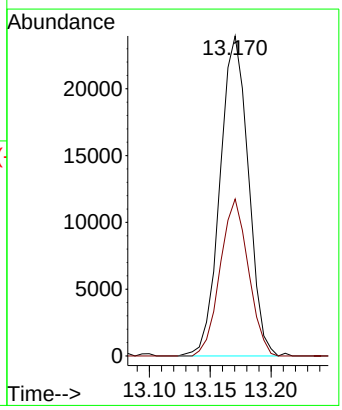
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

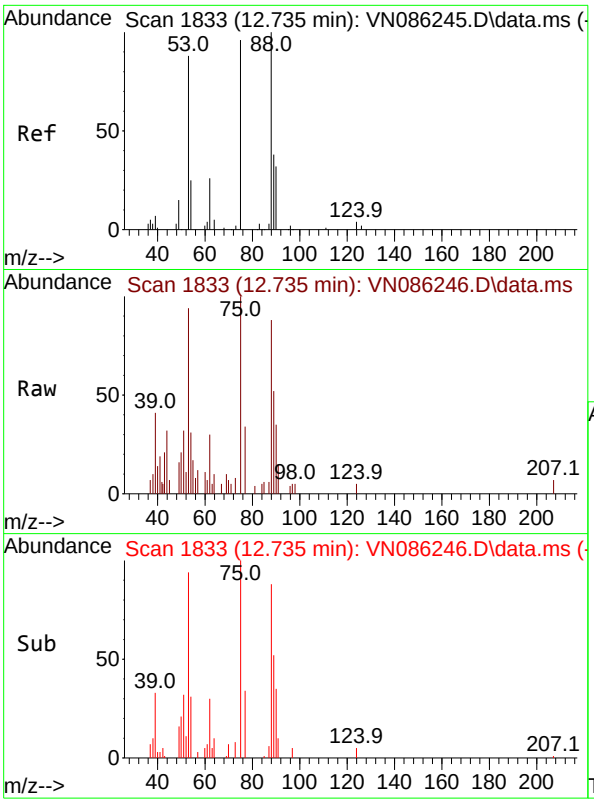


#76
1,3,5-Trimethylbenzene
Concen: 4.800 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:105 Resp: 38762

Ion	Ratio	Lower	Upper
105	100		
120	48.8	0.0	98.0

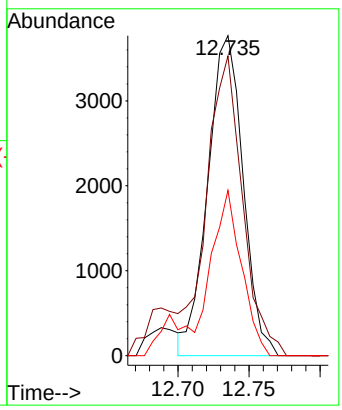




#77
t-1,4-Dichloro-2-butene
Concen: 4.845 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 650

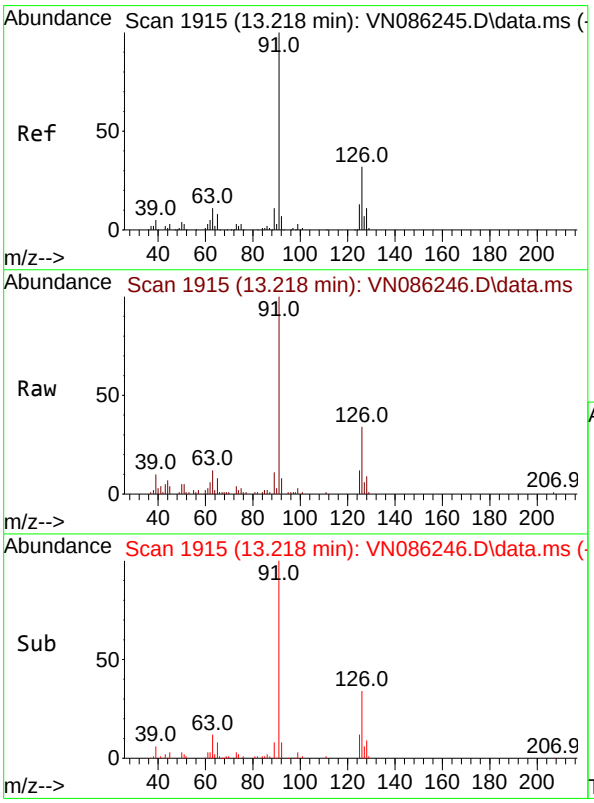
Ion	Ratio	Lower	Upper
75	100		
53	89.4	46.4	139.2
89	51.6	22.5	67.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

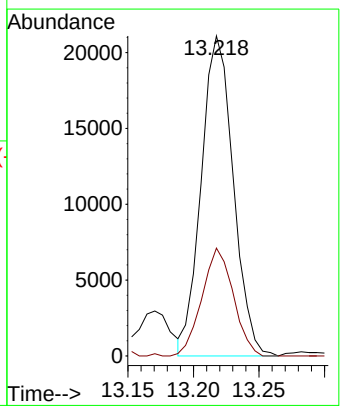
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

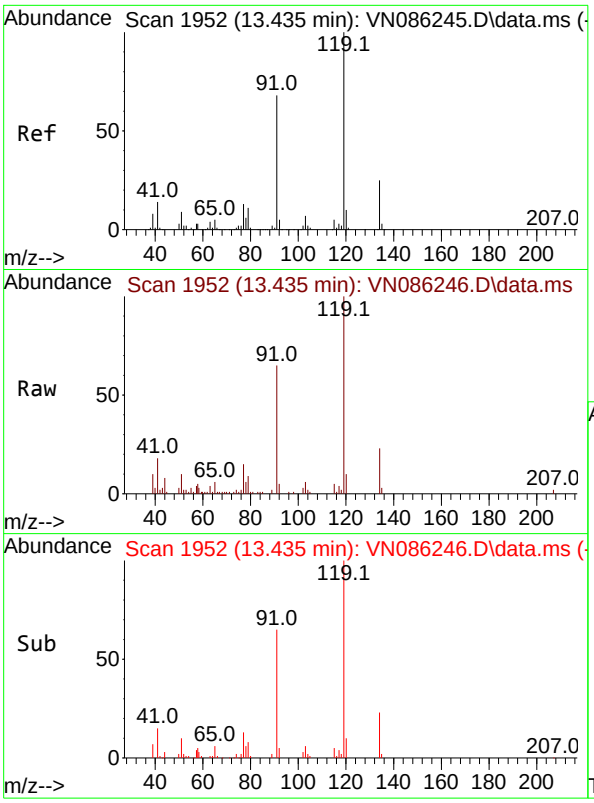


#78
4-Chlorotoluene
Concen: 4.927 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 35898

Ion	Ratio	Lower	Upper
91	100		
126	33.0	0.0	63.2

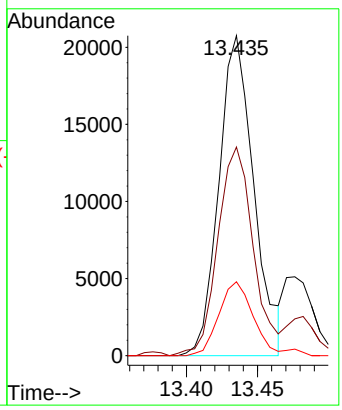




#79
tert-butylbenzene
Concen: 5.092 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:119 Resp: 3557

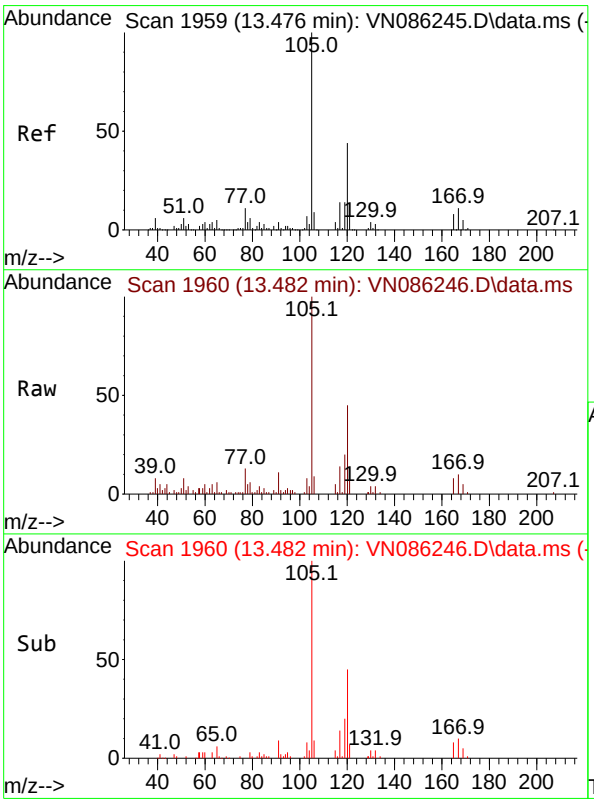
Ion	Ratio	Lower	Upper
119	100		
91	66.0	0.0	136.6
134	22.4	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

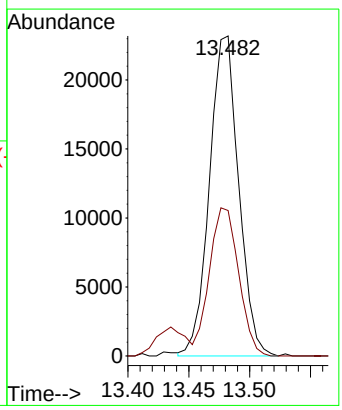
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

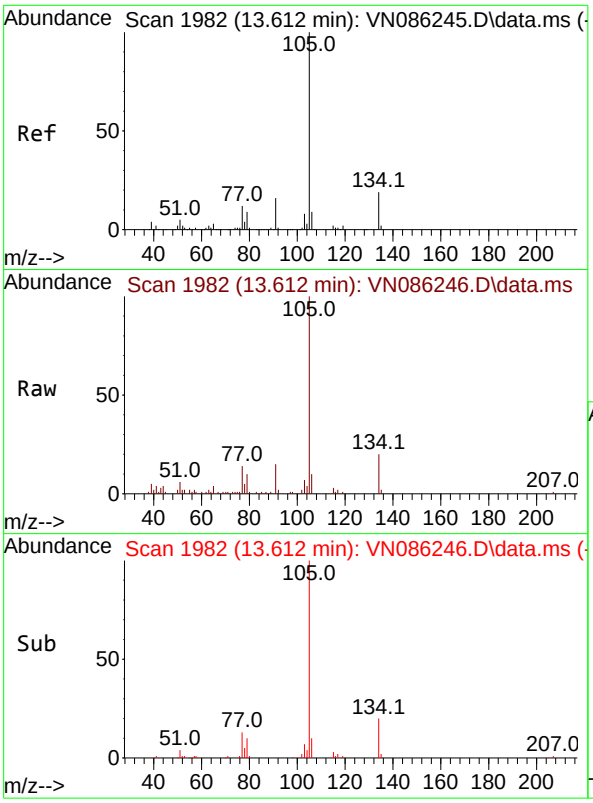


#80
1,2,4-Trimethylbenzene
Concen: 4.730 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:105 Resp: 38730

Ion	Ratio	Lower	Upper
105	100		
120	46.3	0.0	91.0

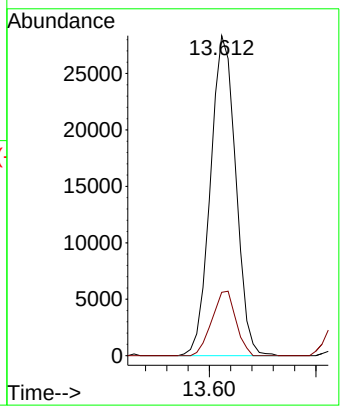




#81
sec-Butylbenzene
Concen: 4.798 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:105 Resp: 4676

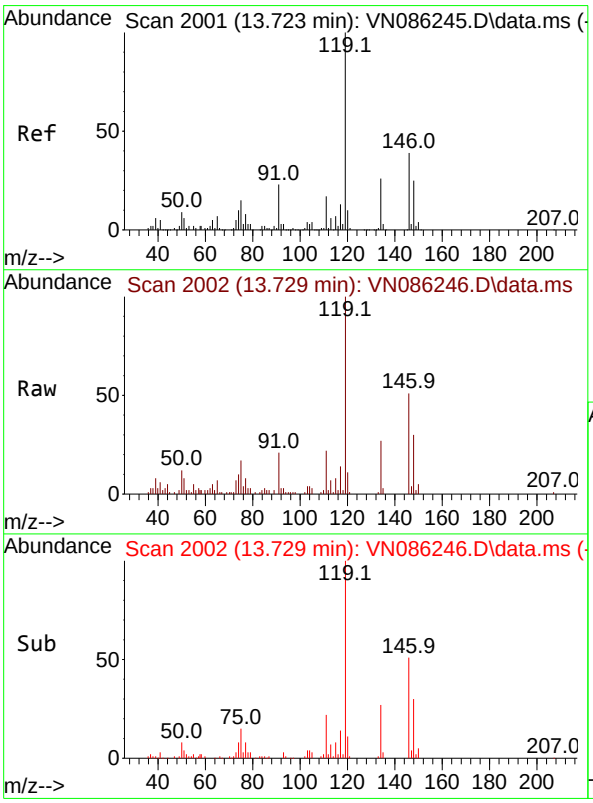
Ion	Ratio	Lower	Upper
105	100		
134	19.1	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

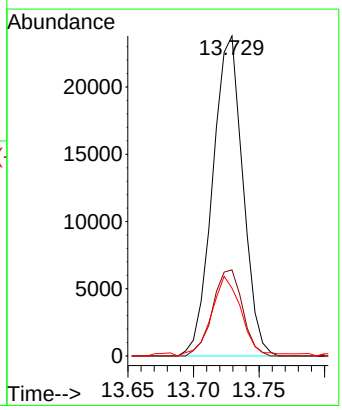
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

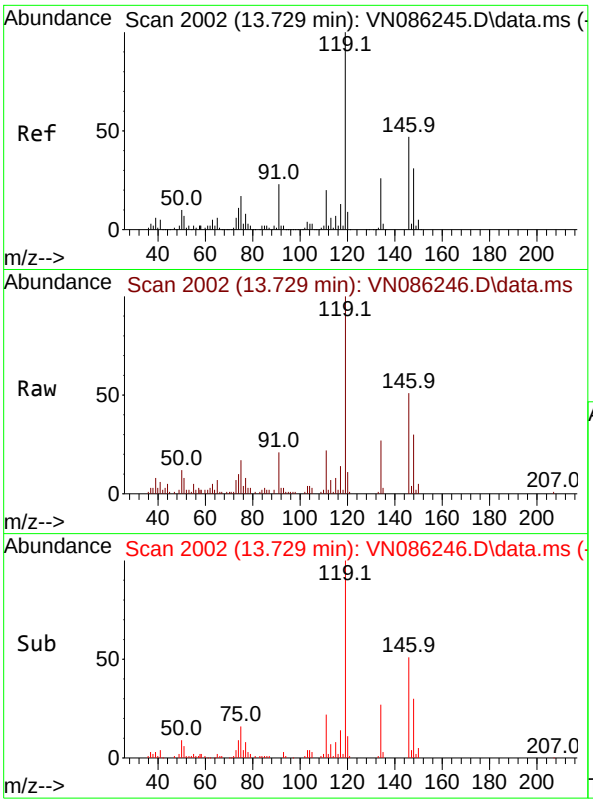


#82
p-Isopropyltoluene
Concen: 4.692 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:119 Resp: 38146

Ion	Ratio	Lower	Upper
119	100		
134	26.6	0.0	51.6
91	24.5	0.0	48.2

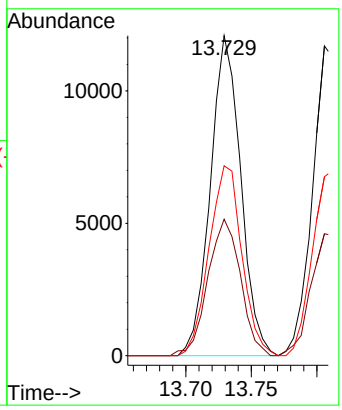




#83
1,3-Dichlorobenzene
Concen: 4.818 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:146 Resp: 1950

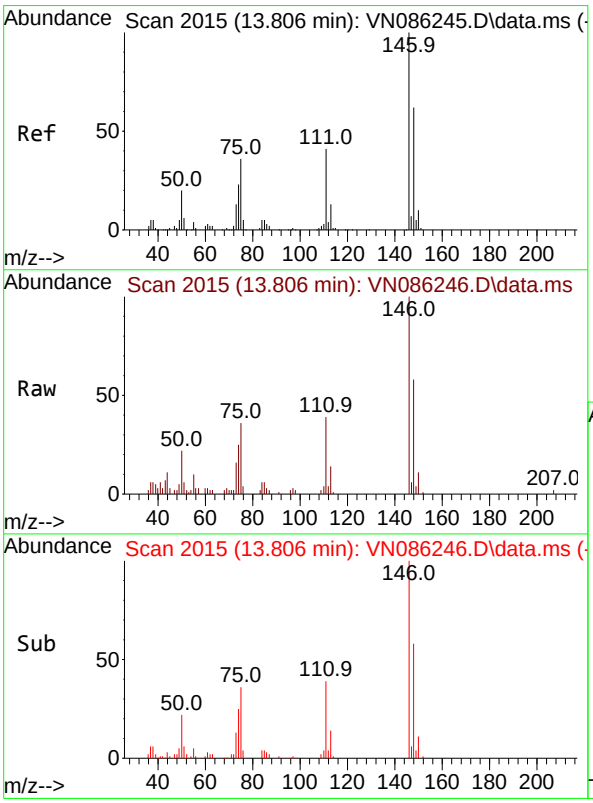
Ion	Ratio	Lower	Upper
146	100		
111	45.8	21.7	65.1
148	64.0	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

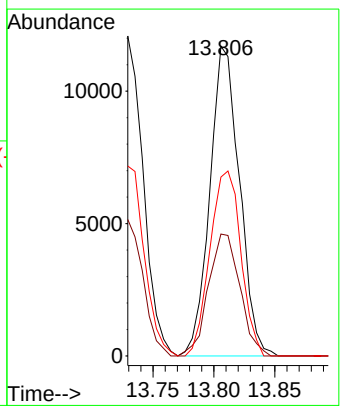
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

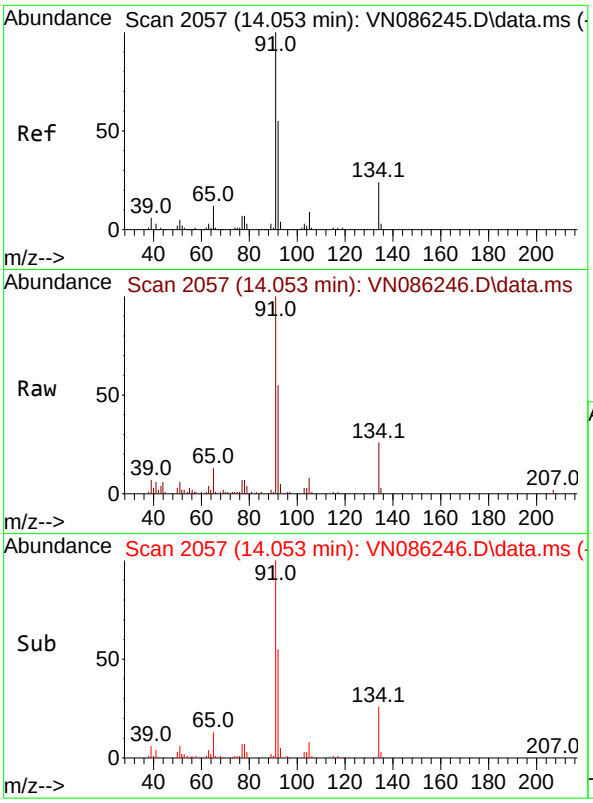


#84
1,4-Dichlorobenzene
Concen: 4.888 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:146 Resp: 19847

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.8	62.4
148	62.3	31.9	95.5

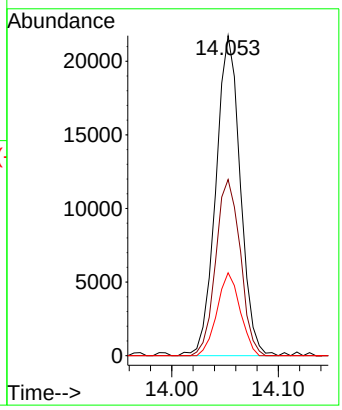




#85
n-Butylbenzene
Concen: 4.716 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 3459

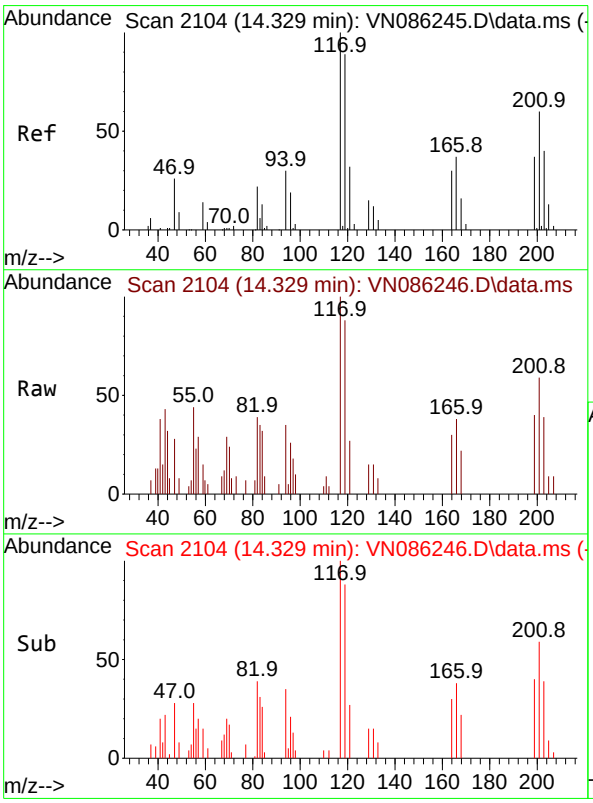
Ion	Ratio	Lower	Upper
91	100		
92	55.3	0.0	109.4
134	24.5	0.0	48.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

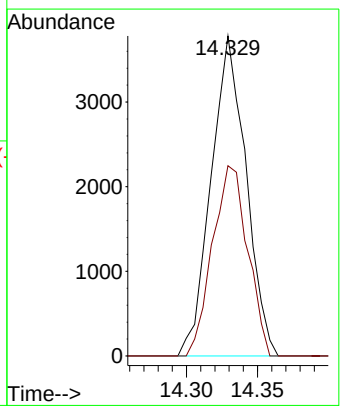
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

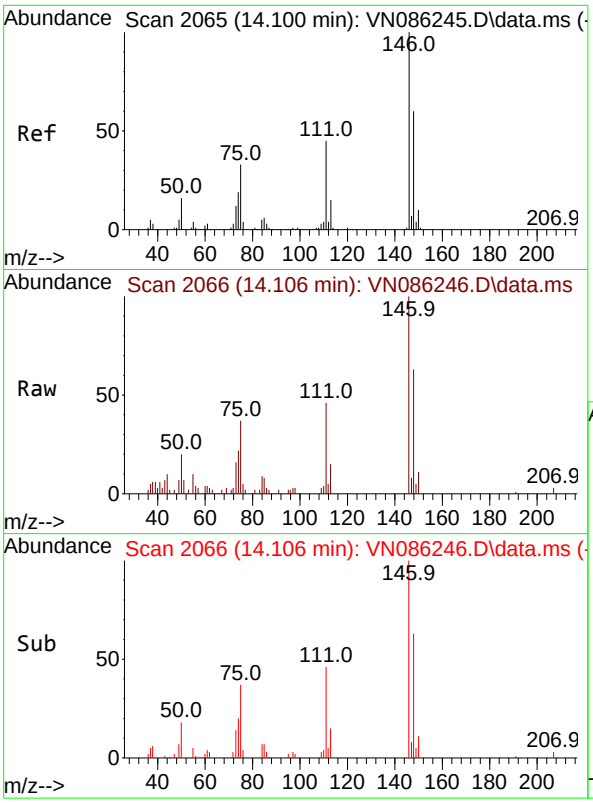


#86
Hexachloroethane
Concen: 4.714 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:117 Resp: 6465

Ion	Ratio	Lower	Upper
117	100		
201	59.8	30.9	92.8

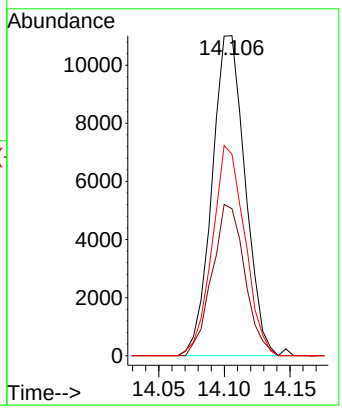




#87
1,2-Dichlorobenzene
Concen: 4.834 ug/l
RT: 14.106 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:146 Resp: 1931

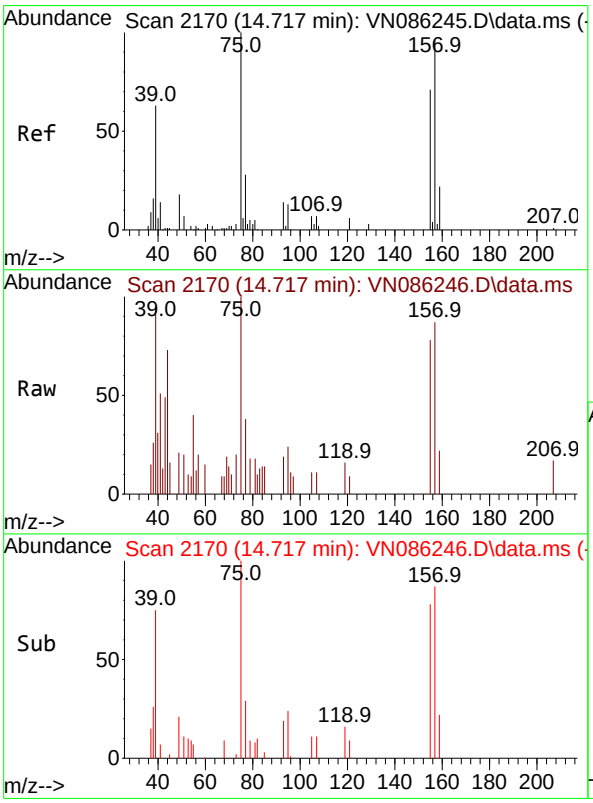
Ion	Ratio	Lower	Upper
146	100		
111	46.7	22.7	68.0
148	64.6	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

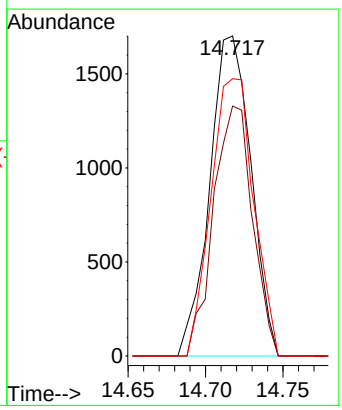
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

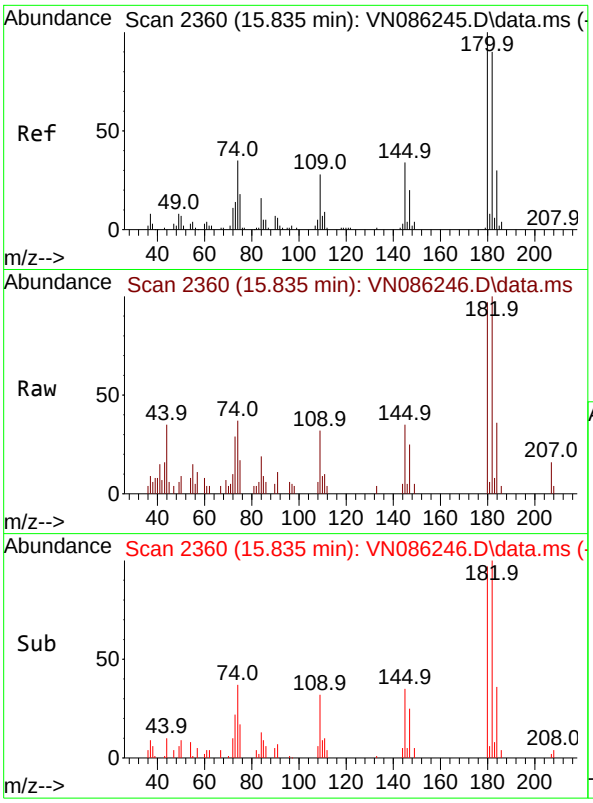


#88
1,2-Dibromo-3-Chloropropane
Concen: 4.946 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 3152

Ion	Ratio	Lower	Upper
75	100		
155	73.8	60.3	90.5
157	89.7	79.0	118.4

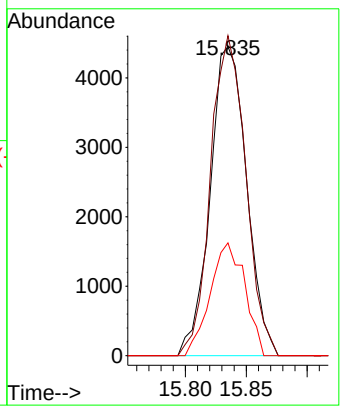




#89
1,2,4-Trichlorobenzene
Concen: 4.778 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:180 Resp: 929

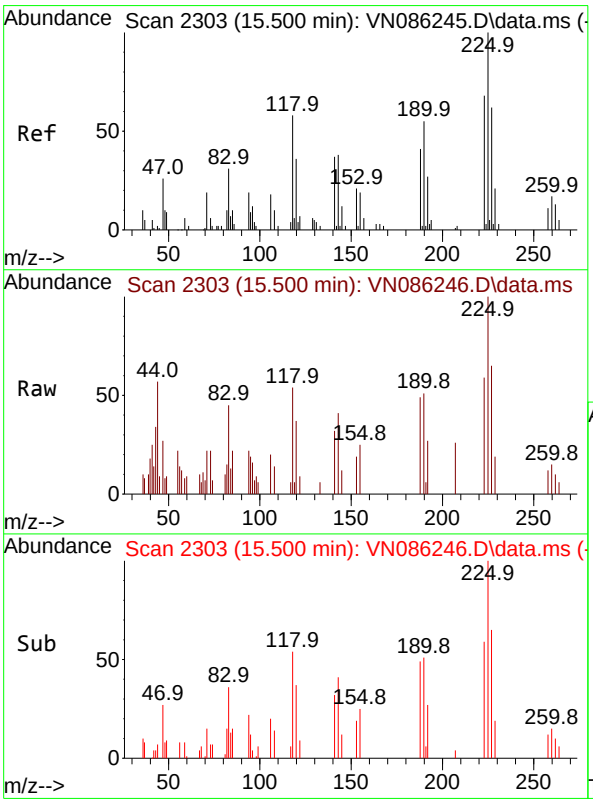
Ion	Ratio	Lower	Upper
180	100		
182	99.7	75.1	112.7
145	34.6	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

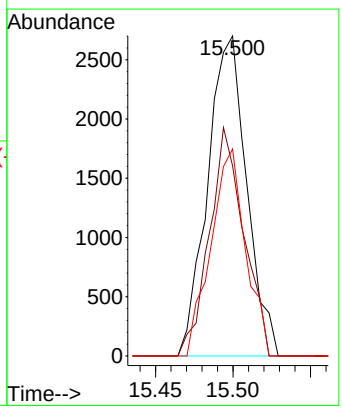
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

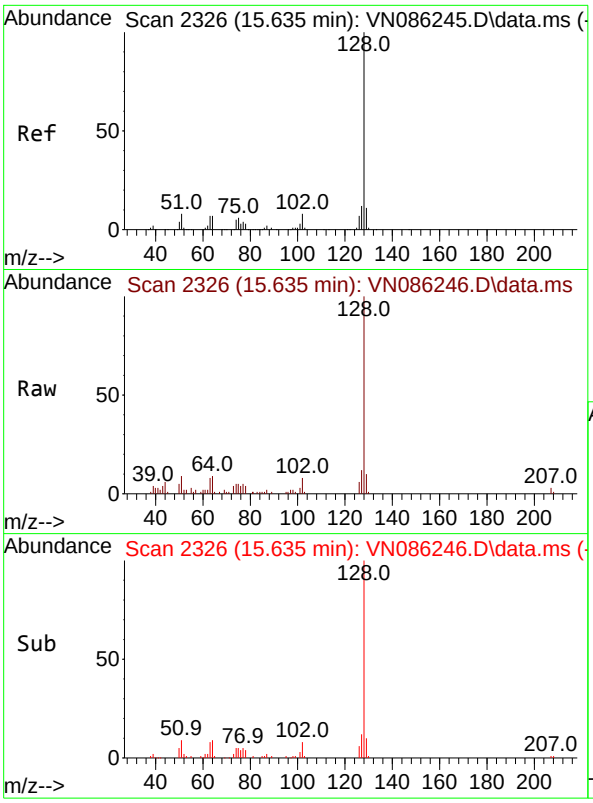


#90
Hexachlorobutadiene
Concen: 5.639 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:225 Resp: 4734

Ion	Ratio	Lower	Upper
225	100		
223	62.9	0.0	130.0
227	57.5	0.0	123.2

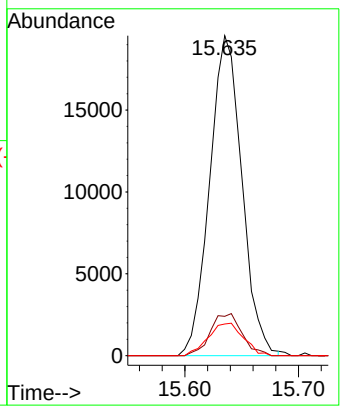




#91
Naphthalene
Concen: 5.026 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:128 Resp: 3853

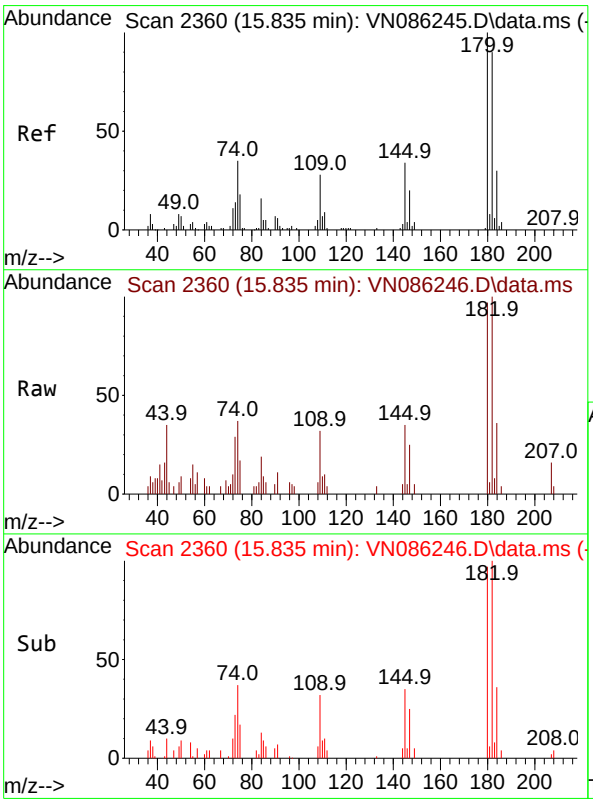
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.2	15.2
129	11.1	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

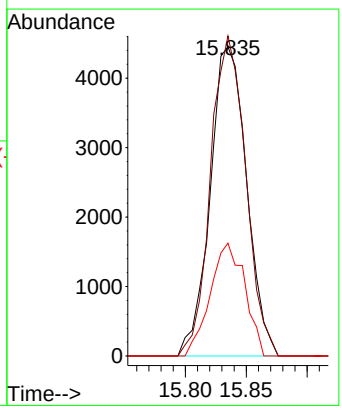
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 4.778 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:180 Resp: 9291

Ion	Ratio	Lower	Upper
180	100		
182	99.7	0.0	187.8
145	34.6	0.0	67.8



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	31045	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	187987	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	165721	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	90166	29.777	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 99.267%			
60) 4-Bromofluorobenzene	12.847	95	97275	29.482	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 98.267%			
63) Toluene-d8	10.565	98	279650	29.890	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.633%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	53635	21.563	ug/l	100
3) Chloromethane	2.359	50	69535	20.226	ug/l	100
4) Vinyl Chloride	2.518	62	66222	20.223	ug/l	99
5) Bromomethane	2.965	94	32967	20.183	ug/l	98
6) Chloroethane	3.124	64	42684	20.642	ug/l	99
7) Trichlorofluoromethane	3.501	101	72724	20.473	ug/l	99
8) Diethyl Ether	3.959	74	33215	20.276	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	43944	20.062	ug/l	99
10) 1,1-Dichloroethene	4.348	96	47582	20.128	ug/l	99
11) Methyl Iodide	4.589	142	54740	20.148	ug/l	97
12) Methyl Acetate	5.024	43	64185	19.227	ug/l	98
13) Acrolein	4.177	56	33914	89.375	ug/l	98
14) Acrylonitrile	5.718	53	135274	95.988	ug/l	97
15) Acetone	4.424	58	33542	93.868	ug/l	92
16) Carbon Disulfide	4.712	76	138661	20.456	ug/l	100
17) Allyl chloride	5.024	41	85704	20.801	ug/l	98
18) Methylene Chloride	5.277	84	54353	20.166	ug/l	99
19) trans-1,2-Dichloroethene	5.789	96	48899	19.638	ug/l	96
20) Diisopropyl ether	6.665	45	183254	20.688	ug/l	99
21) 1,1-Dichloroethane	6.565	63	97247	20.578	ug/l	100
22) cis-1,2-Dichloroethene	7.483	96	59840	20.174	ug/l	98
23) tert-Butyl Alcohol	5.512	59	56480	96.723	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	172426	20.211	ug/l	98
25) Chloroform	7.965	83	93183	20.677	ug/l	100
26) Cyclohexane	8.253	56	88041	19.913	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	68608	20.373	ug/l	99
30) 2-Butanone	7.483	43	184728	98.995	ug/l	99
31) 2,2-Dichloropropane	7.489	77	87512	21.111	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	77645	20.044	ug/l	100
33) Carbon Tetrachloride	8.359	117	63029	20.360	ug/l	99
34) Benzene	8.600	78	219862	20.522	ug/l #	95
35) Methacrylonitrile	7.777	41	41577	19.764	ug/l	99
36) 1,2-Dichloroethane	8.671	62	68362	20.391	ug/l	100
37) Trichloroethene	9.353	130	51292	19.842	ug/l	94
38) Methylcyclohexane	9.594	83	83168	20.137	ug/l	98
39) 1,2-Dichloropropane	9.618	63	55116	20.675	ug/l	97
40) Dibromomethane	9.706	93	33887	19.681	ug/l	98
41) Bromodichloromethane	9.882	83	75048	20.289	ug/l	99
42) Vinyl Acetate	6.600	43	657878	103.572	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	75482	20.054	ug/l		98
44) Isopropyl Acetate	8.683	43	141640	20.285	ug/l		99
45) 1,4-Dioxane	9.694	88	20541	369.952	ug/l	#	92
46) Methyl methacrylate	9.677	41	61396	19.956	ug/l		97
47) n-amyl Acetate	12.488	43	108446	19.589	ug/l		99
48) t-1,3-Dichloropropene	10.835	75	84428	20.190	ug/l		96
49) cis-1,3-Dichloropropene	10.312	75	91089	20.581	ug/l		98
50) 1,1,2-Trichloroethane	11.012	97	47672	19.741	ug/l		97
51) Ethyl methacrylate	10.871	69	90916	20.259	ug/l		95
52) 1,3-Dichloropropane	11.159	76	87015	20.216	ug/l		100
53) Dibromochloromethane	11.359	129	52628	19.923	ug/l		97
54) 1,2-Dibromoethane	11.471	107	48175	19.762	ug/l		98
55) 2-Chloroethyl vinyl ether	10.159	63	225521	132.990	ug/l		100
56) Bromoform	12.576	173	33456	19.359	ug/l		97
58) 4-Methyl-2-Pentanone	10.441	43	381072	101.329	ug/l		100
59) 2-Hexanone	11.194	43	284098	101.451	ug/l		99
61) Tetrachloroethene	11.100	164	49360	20.169	ug/l		96
62) Toluene	10.630	91	228625	20.568	ug/l		100
64) Chlorobenzene	11.888	112	138700	20.424	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	46048	20.546	ug/l		99
66) Ethyl Benzene	11.959	91	250686	20.336	ug/l		98
67) m/p-Xylenes	12.065	106	186247	40.633	ug/l		100
68) o-Xylene	12.394	106	92550	20.528	ug/l		98
69) Styrene	12.406	104	154208	20.281	ug/l		99
70) Isopropylbenzene	12.694	105	225389	20.275	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	64915	20.516	ug/l		99
72) 1,2,3-Trichloropropane	12.988	75	64339m	19.534	ug/l		
73) Bromobenzene	12.976	156	48932	19.870	ug/l		99
74) n-propylbenzene	13.035	91	265507	20.227	ug/l		100
75) 2-Chlorotoluene	13.123	91	164538	19.943	ug/l		99
76) 1,3,5-Trimethylbenzene	13.171	105	185869	20.354	ug/l		99
77) t-1,4-Dichloro-2-butene	12.735	75	29750	19.590	ug/l		93
78) 4-Chlorotoluene	13.218	91	160908	19.528	ug/l		99
79) tert-butylbenzene	13.435	119	158200	20.021	ug/l		100
80) 1,2,4-Trimethylbenzene	13.476	105	185022	19.981	ug/l		99
81) sec-Butylbenzene	13.612	105	222043	20.145	ug/l		99
82) p-Isopropyltoluene	13.729	119	183515	19.959	ug/l		100
83) 1,3-Dichlorobenzene	13.729	146	87179	19.047	ug/l		99
84) 1,4-Dichlorobenzene	13.806	146	86888	18.923	ug/l		99
85) n-Butylbenzene	14.053	91	164471	19.828	ug/l		99
86) Hexachloroethane	14.329	117	29849	19.245	ug/l		99
87) 1,2-Dichlorobenzene	14.100	146	84631	18.727	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	13051	18.109	ug/l		96
89) 1,2,4-Trichlorobenzene	15.841	180	41396	18.826	ug/l		98
90) Hexachlorobutadiene	15.494	225	16389	17.262	ug/l		99
91) Naphthalene	15.635	128	157404	18.155	ug/l		100
92) 1,2,3-Trichlorobenzene	15.841	180	41396	18.826	ug/l		98

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

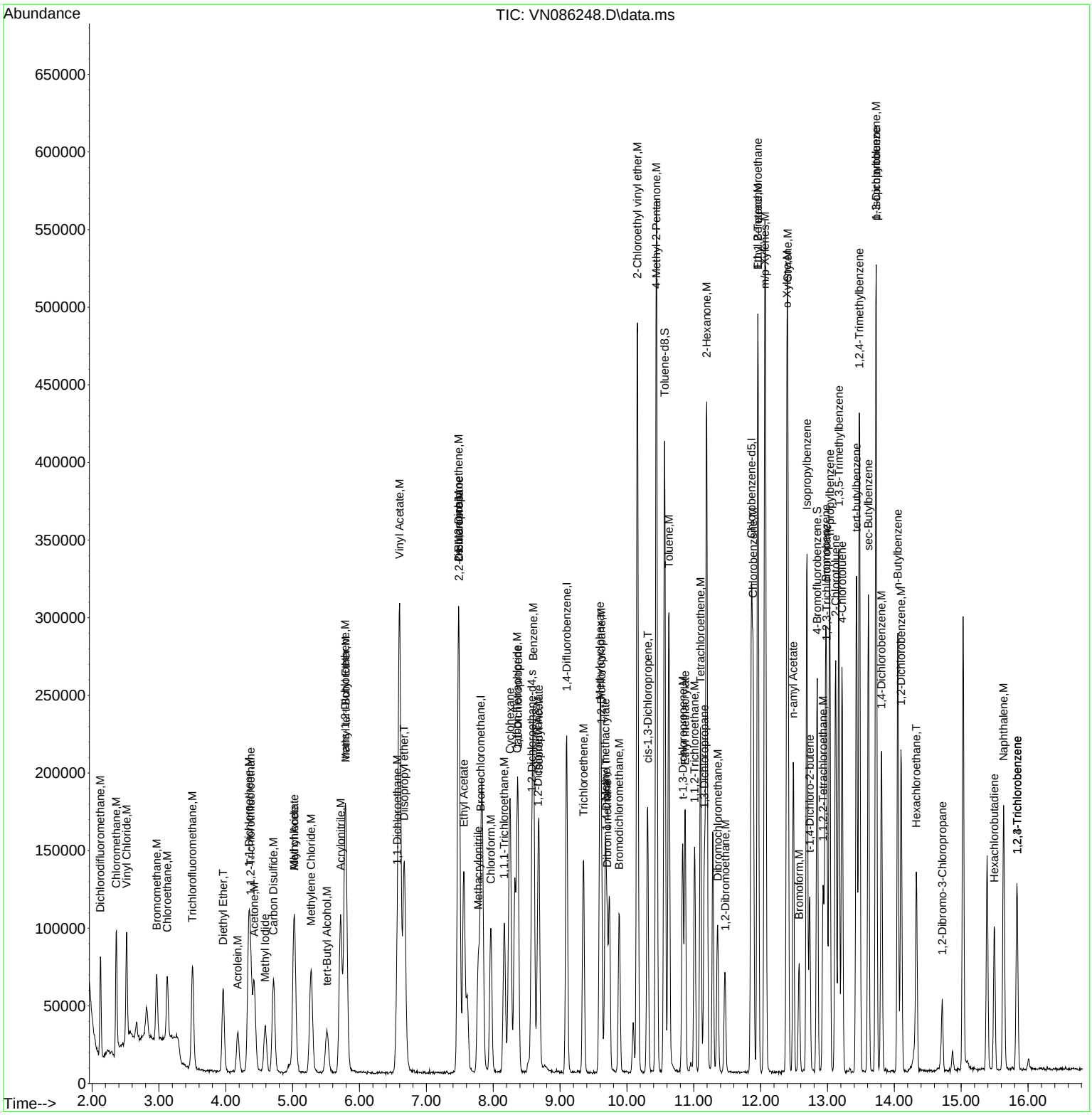
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

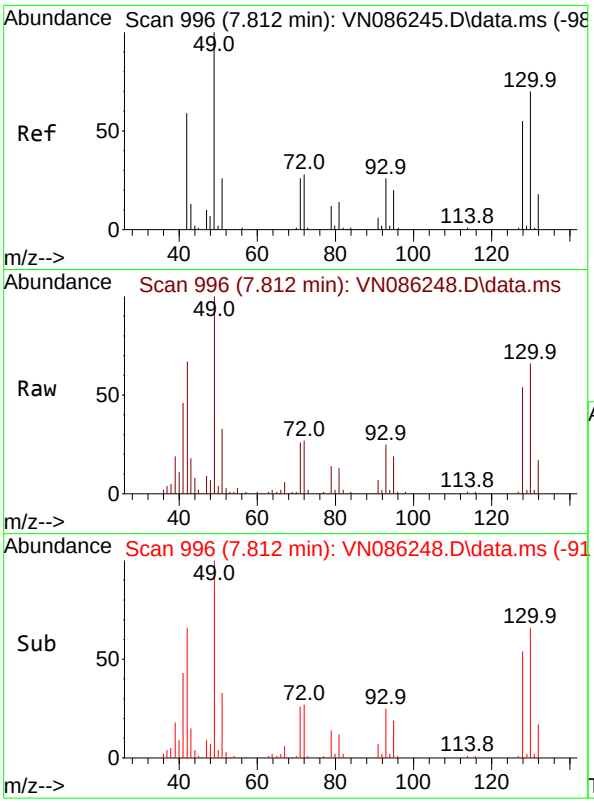
Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

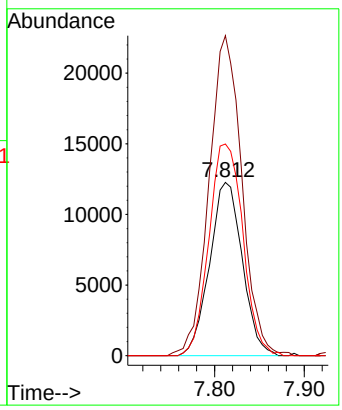




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:128 Resp: 3104

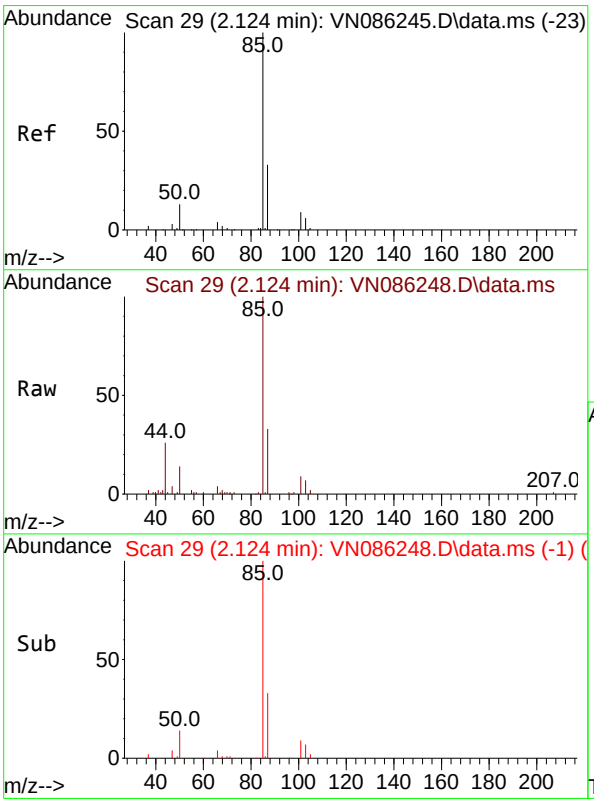
Ion	Ratio	Lower	Upper
128	100		
49	184.6	0.0	452.5
130	126.9	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

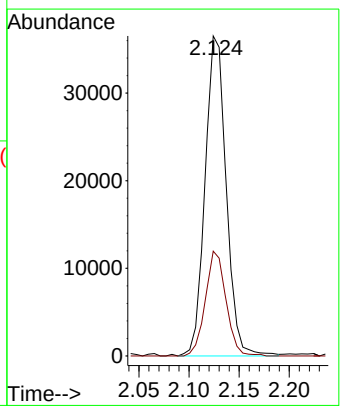
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

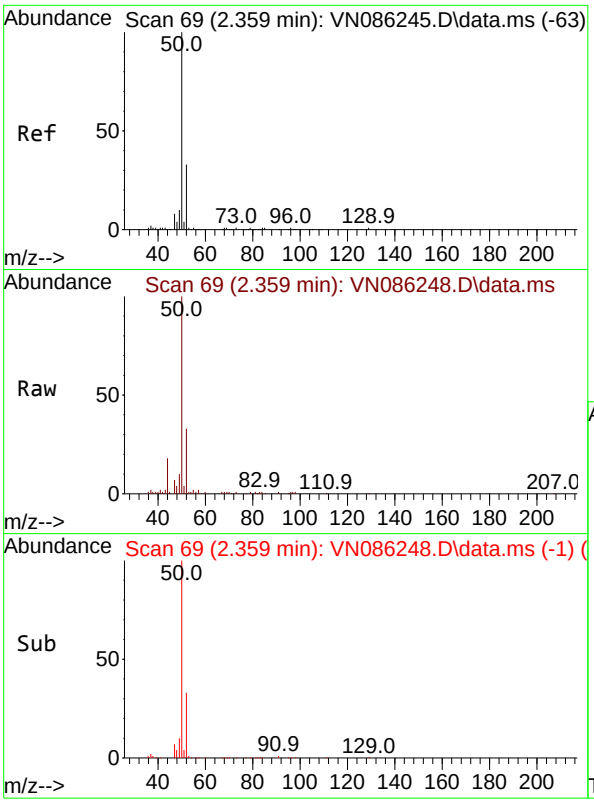


#2
Dichlorodifluoromethane
Concen: 21.563 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 85 Resp: 53635

Ion	Ratio	Lower	Upper
85	100		
87	32.7	16.3	48.9

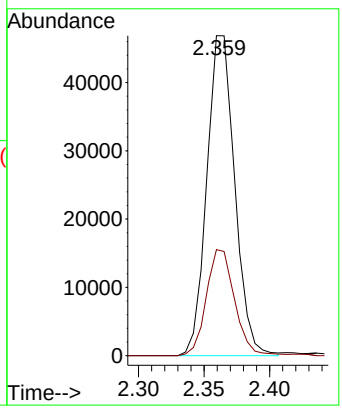




#3
Chloromethane
Concen: 20.226 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 50 Resp: 6953

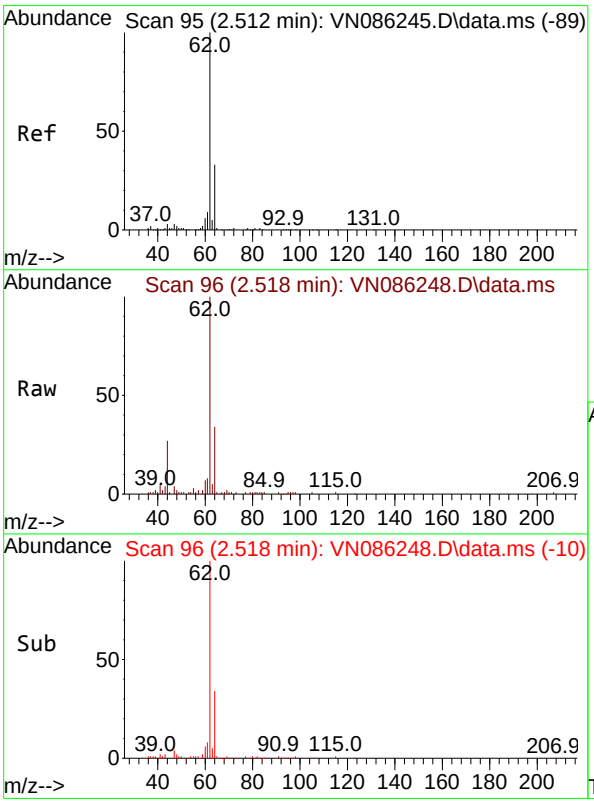
Ion	Ratio	Lower	Upper
50	100		
52	33.2	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

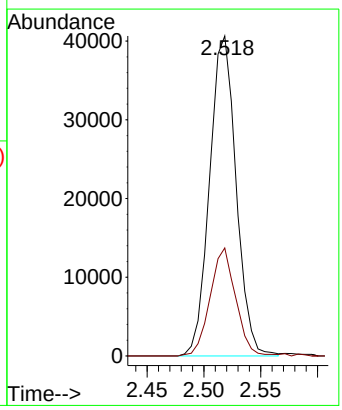
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

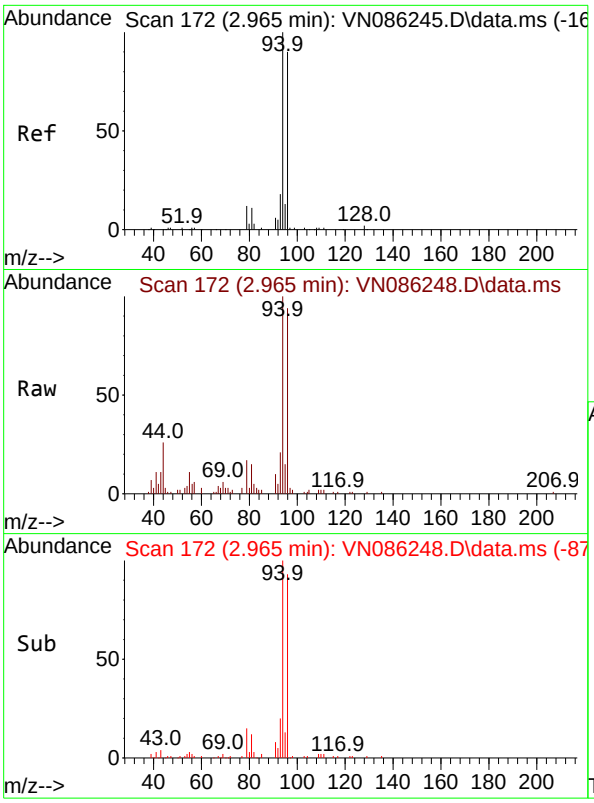


#4
Vinyl Chloride
Concen: 20.223 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 62 Resp: 66222

Ion	Ratio	Lower	Upper
62	100		
64	33.7	26.3	39.5

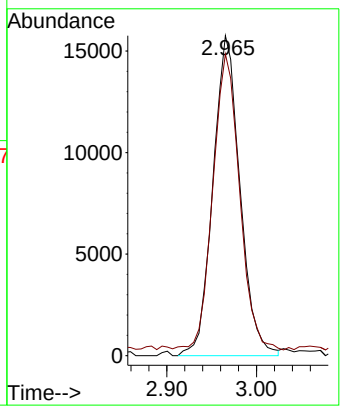




#5
Bromomethane
Concen: 20.183 ug/l
RT: 2.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 94 Resp: 3296

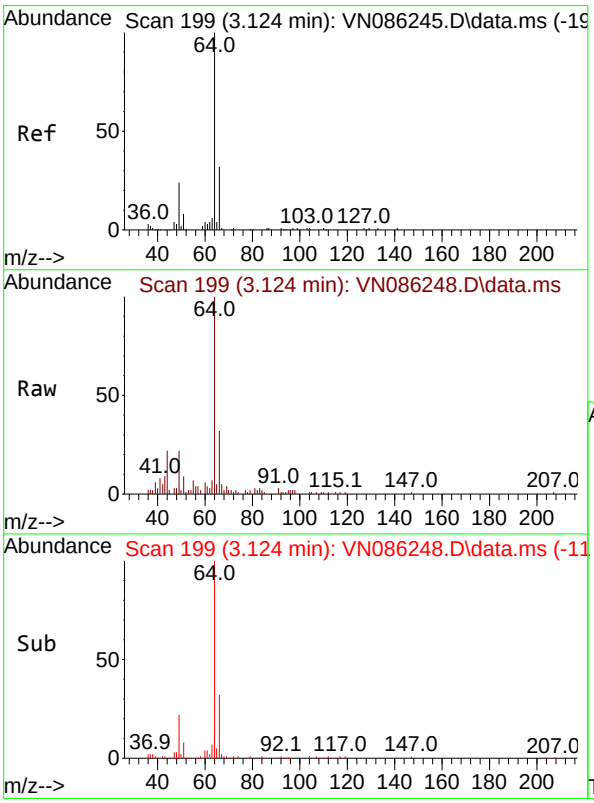
Ion	Ratio	Lower	Upper
94	100		
96	91.9	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

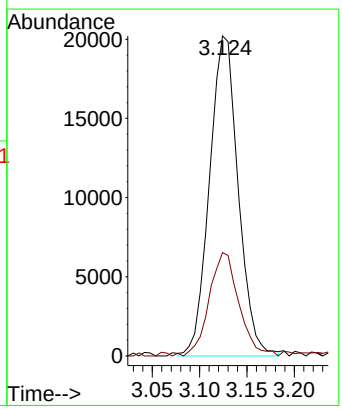
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

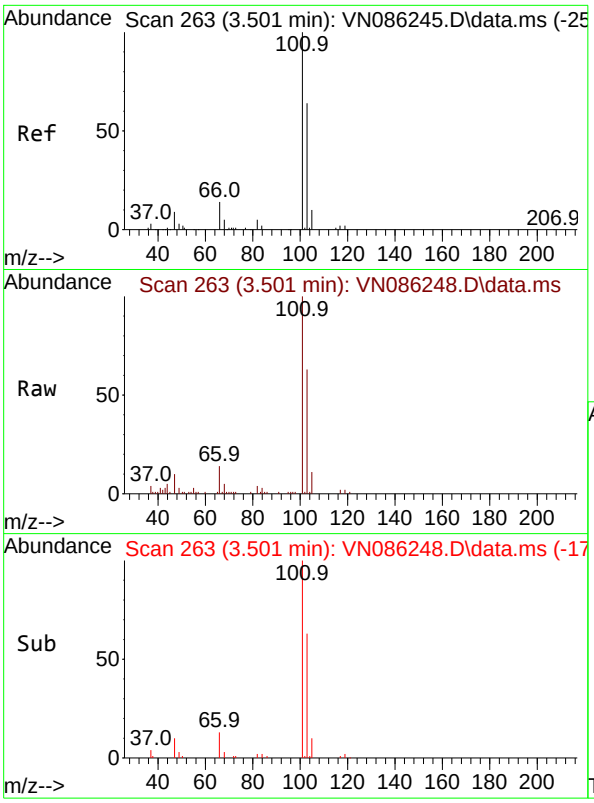


#6
Chloroethane
Concen: 20.642 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 64 Resp: 42684

Ion	Ratio	Lower	Upper
64	100		
66	32.6	25.7	38.5

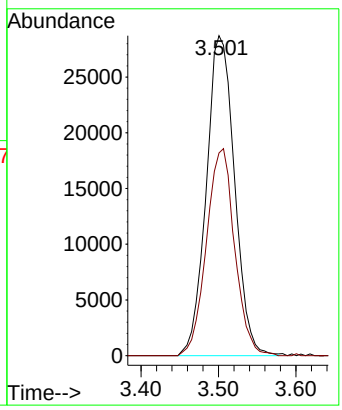




#7
Trichlorofluoromethane
Concen: 20.473 ug/l
RT: 3.501 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:101 Resp: 7272

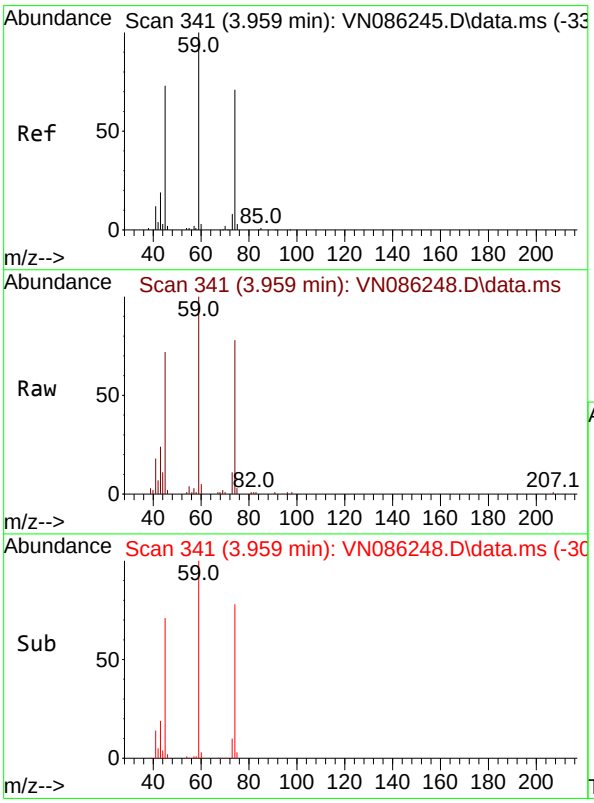
Ion	Ratio	Lower	Upper
101	100		
103	63.4	51.2	76.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

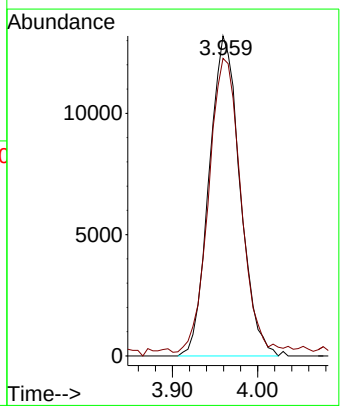
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

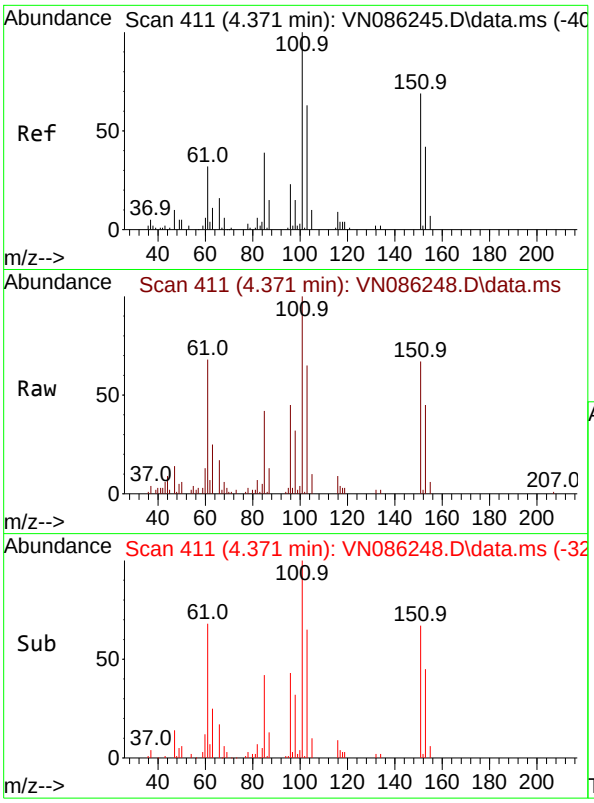


#8
Diethyl Ether
Concen: 20.276 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 74 Resp: 33215

Ion	Ratio	Lower	Upper
74	100		
45	96.4	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.062 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

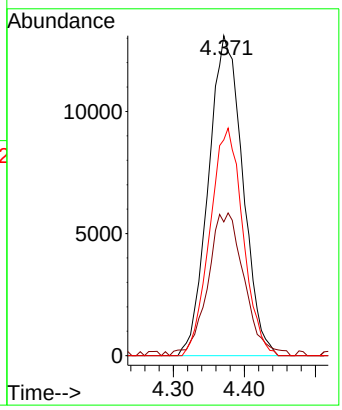
Tgt Ion:101 Resp: 4394

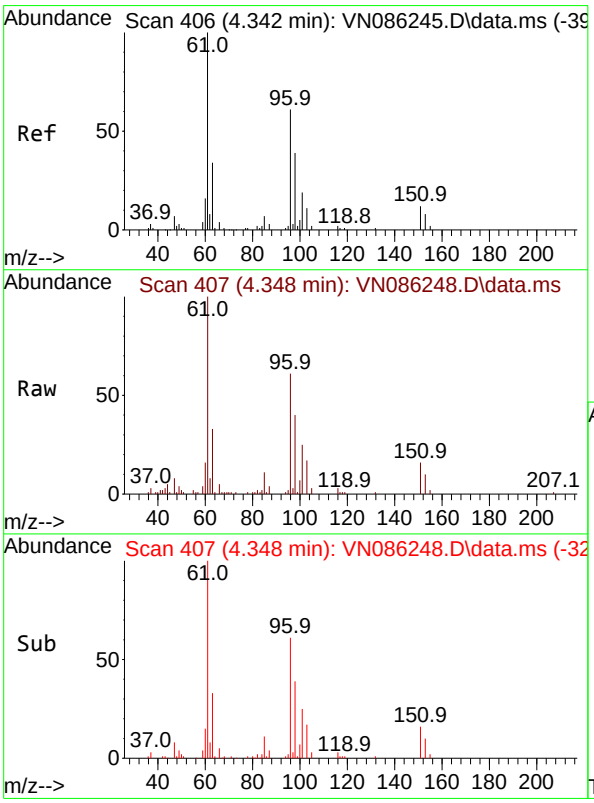
Ion	Ratio	Lower	Upper
101	100		
85	46.6	0.0	93.0
151	68.6	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

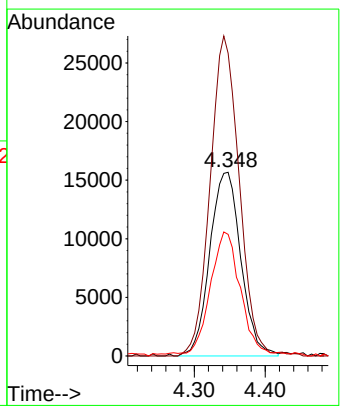


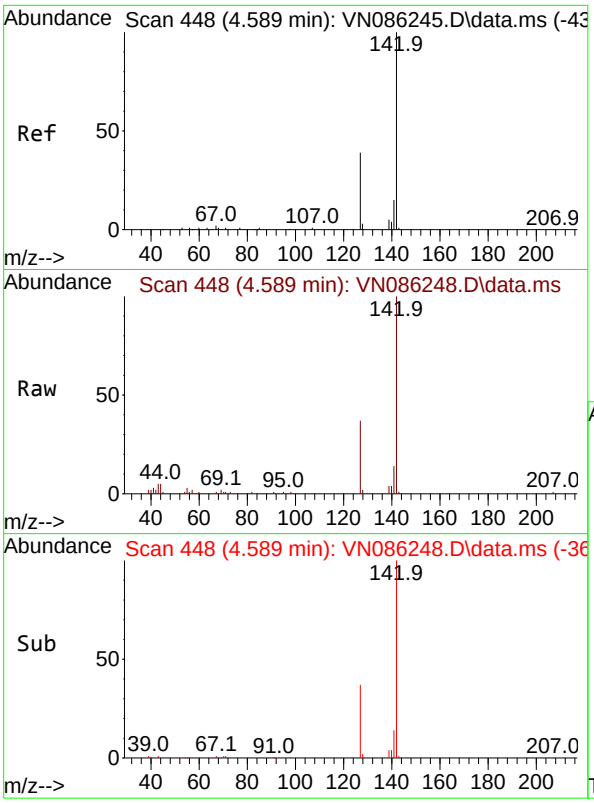


#10
1,1-Dichloroethene
Concen: 20.128 ug/l
RT: 4.348 min Scan# 407
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 96 Resp: 47582

Ion	Ratio	Lower	Upper
96	100		
61	164.7	131.1	196.7
98	64.7	51.6	77.4

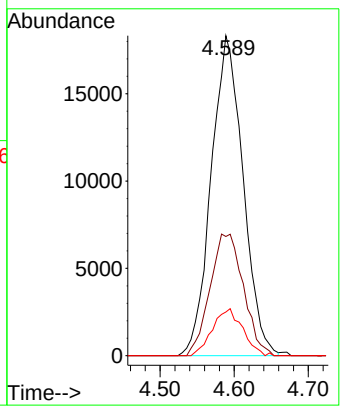




#11
Methyl Iodide
Concen: 20.148 ug/l
RT: 4.589 min Scan# 44
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:142 Resp: 5474(

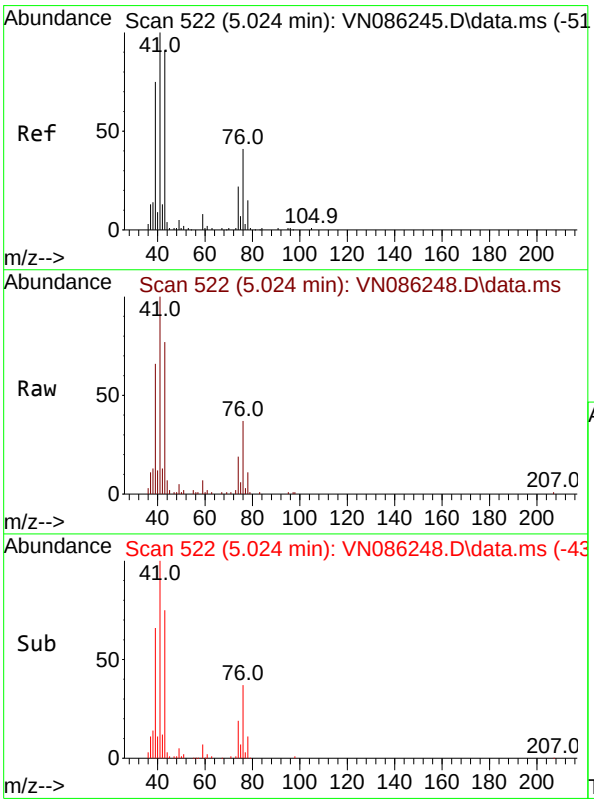
Ion	Ratio	Lower	Upper
142	100		
127	37.4	19.6	58.8
141	13.7	7.3	21.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

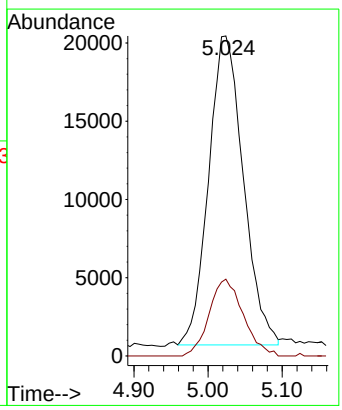
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

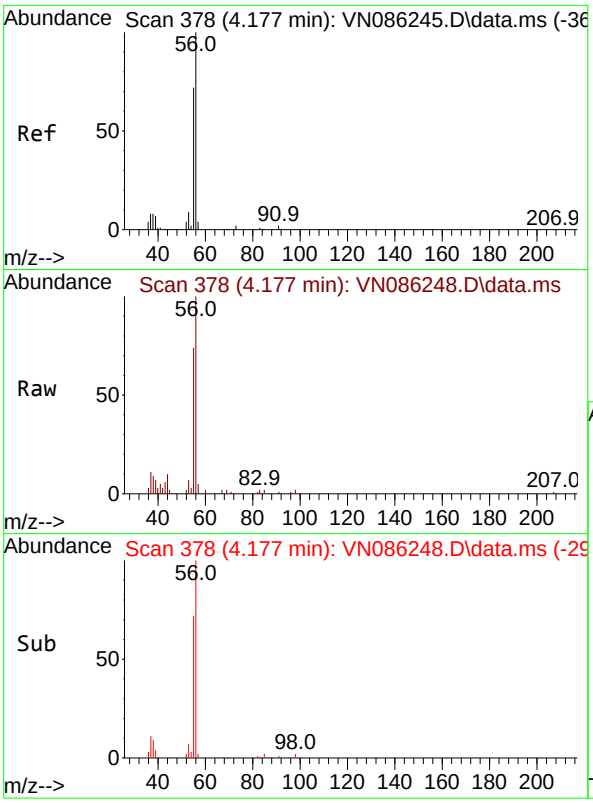


#12
Methyl Acetate
Concen: 19.227 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 64185

Ion	Ratio	Lower	Upper
43	100		
74	25.1	19.1	28.7

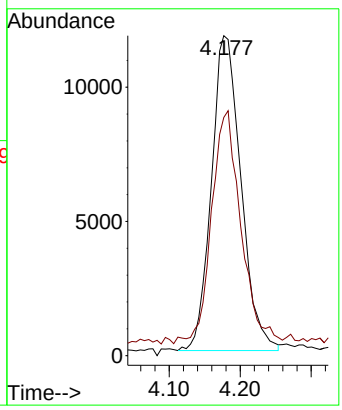




#13
Acrolein
Concen: 89.375 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 56 Resp: 3391

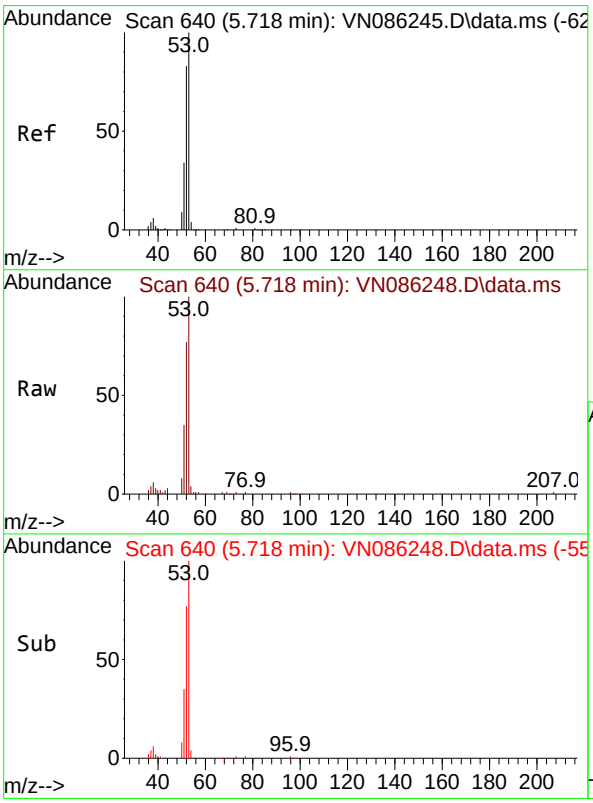
Ion	Ratio	Lower	Upper
56	100		
55	71.9	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

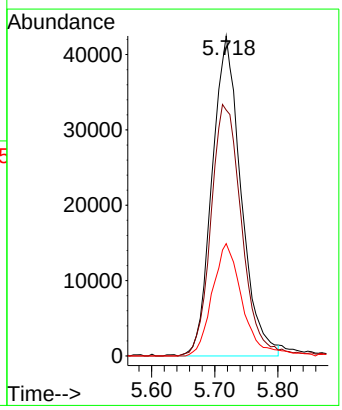
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

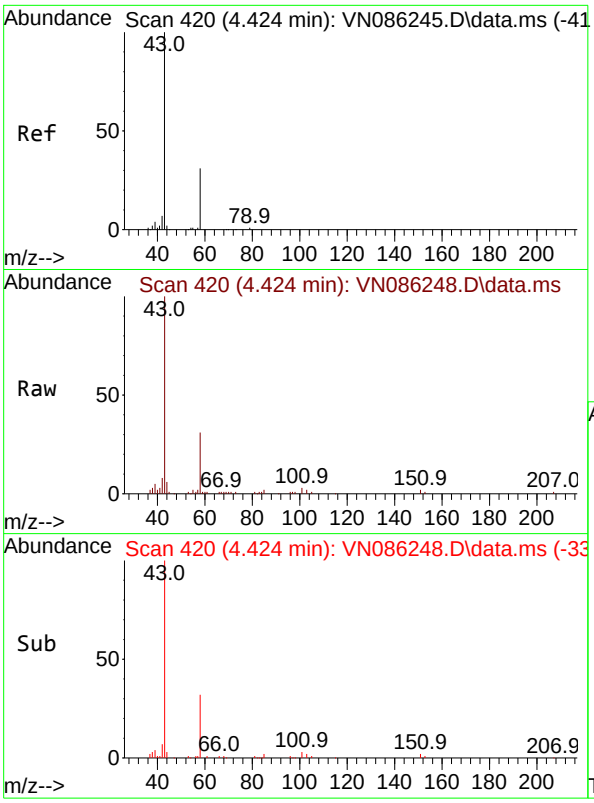


#14
Acrylonitrile
Concen: 95.988 ug/l
RT: 5.718 min Scan# 640
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 53 Resp: 135274

Ion	Ratio	Lower	Upper
53	100		
52	83.3	40.2	120.6
51	36.4	17.5	52.6

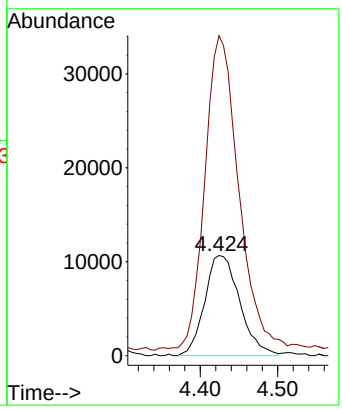




#15
Acetone
Concen: 93.868 ug/l
RT: 4.424 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 58 Resp: 3354

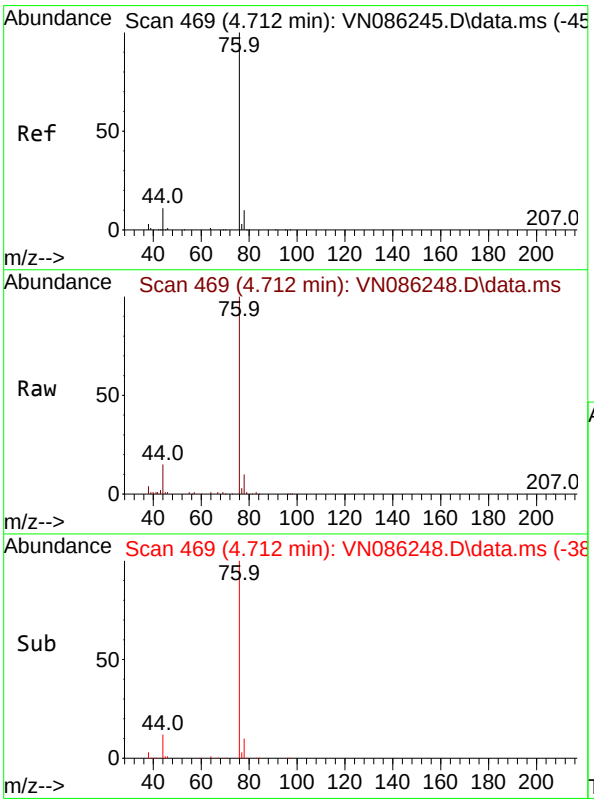
Ion	Ratio	Lower	Upper
58	100		
43	311.7	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

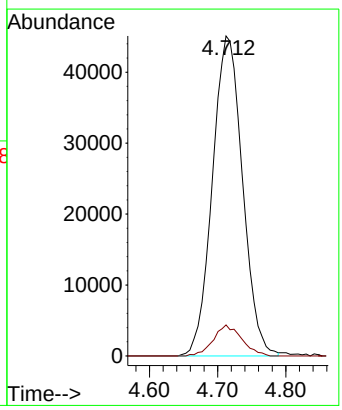
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

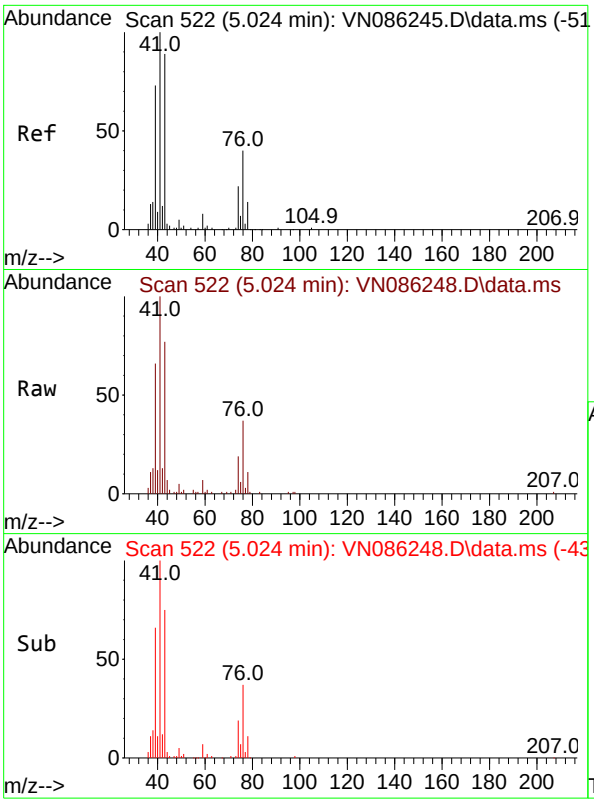


#16
Carbon Disulfide
Concen: 20.456 ug/l
RT: 4.712 min Scan# 469
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 76 Resp: 138661

Ion	Ratio	Lower	Upper
76	100		
78	9.7	7.7	11.5

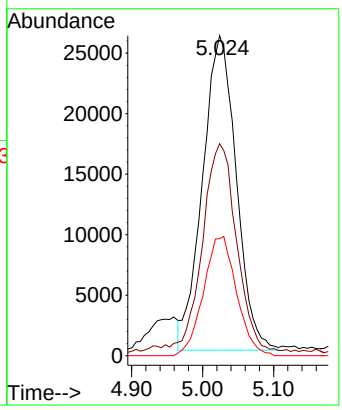




#17
Allyl chloride
Concen: 20.801 ug/l
RT: 5.024 min Scan# 5
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 41 Resp: 8570

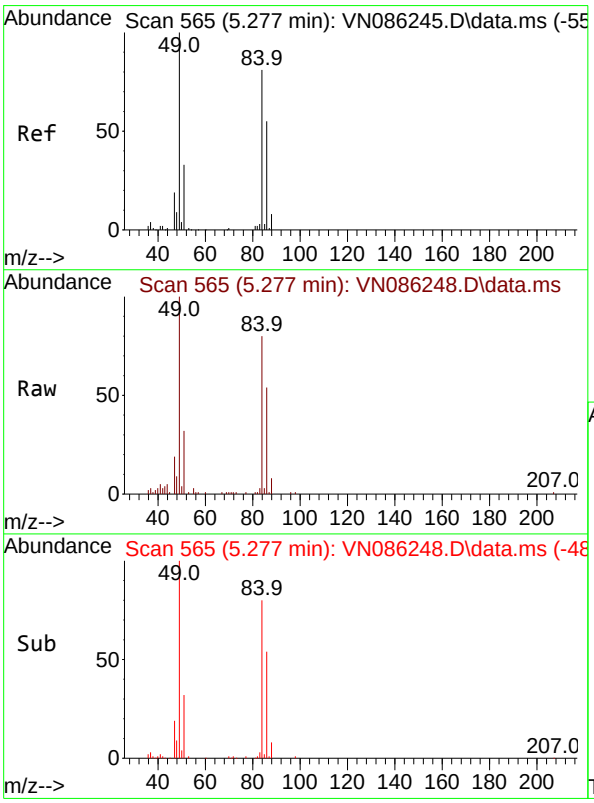
Ion	Ratio	Lower	Upper
41	100		
39	66.3	34.4	103.2
76	37.5	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

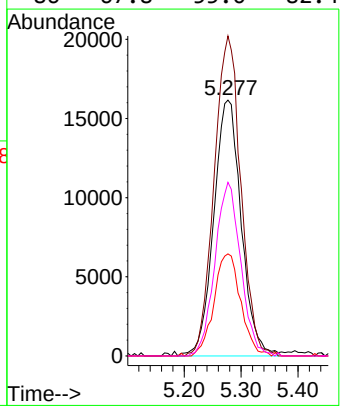
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

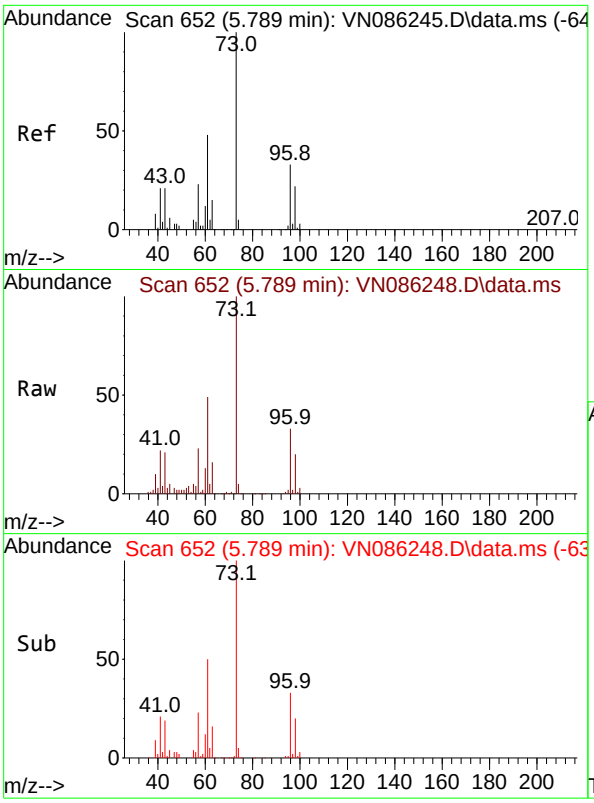


#18
Methylene Chloride
Concen: 20.166 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 84 Resp: 54353

Ion	Ratio	Lower	Upper
84	100		
49	125.0	99.1	148.7
51	39.9	32.3	48.5
86	67.8	55.0	82.4

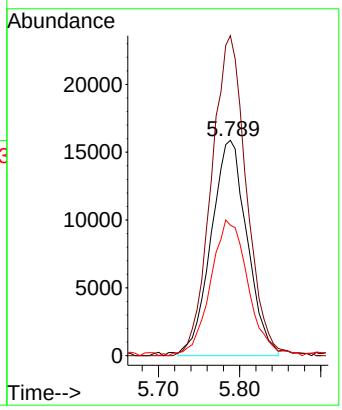




#19
trans-1,2-Dichloroethene
Concen: 19.638 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 96 Resp: 4889

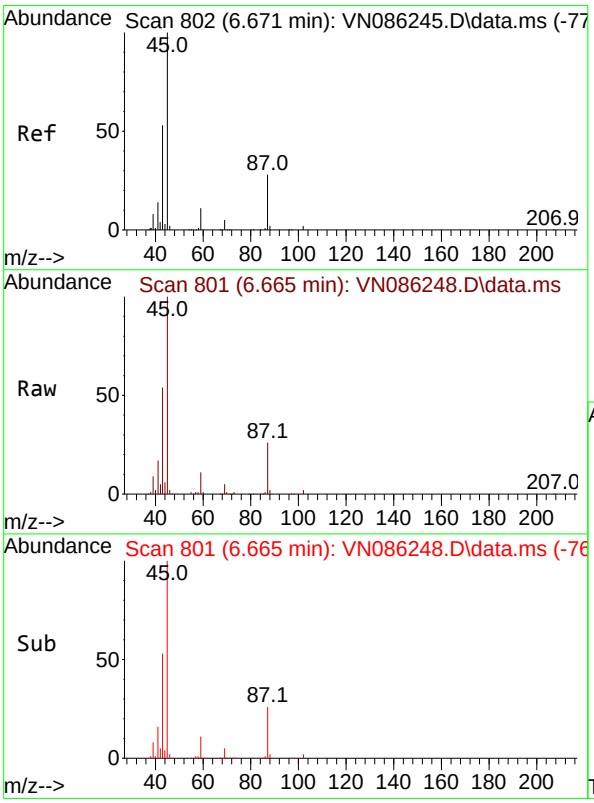
Ion	Ratio	Lower	Upper
96	100		
61	149.0	115.9	173.9
98	60.0	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

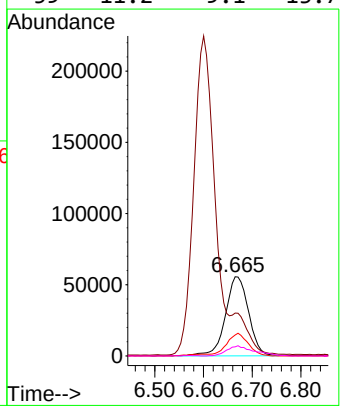
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

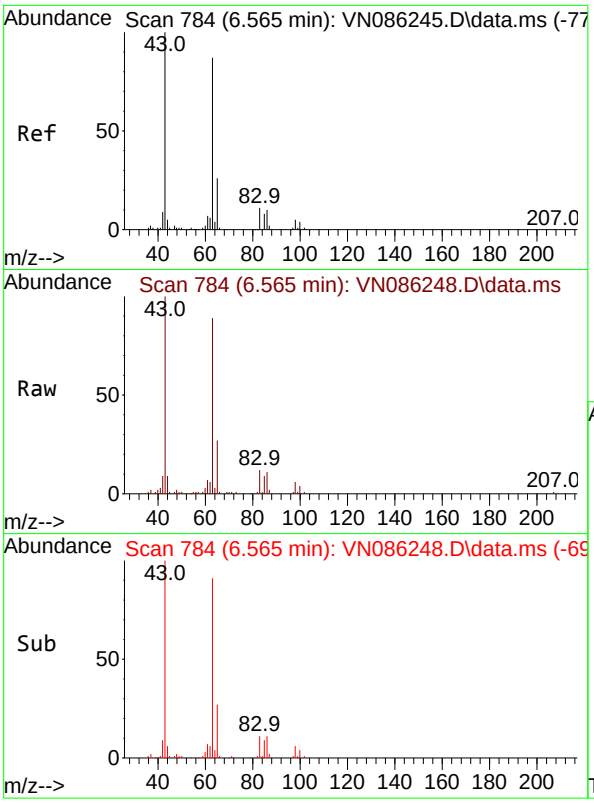


#20
Diisopropyl ether
Concen: 20.688 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 45 Resp: 183254

Ion	Ratio	Lower	Upper
45	100		
43	52.3	42.3	63.5
87	26.5	22.2	33.4
59	11.2	9.1	13.7

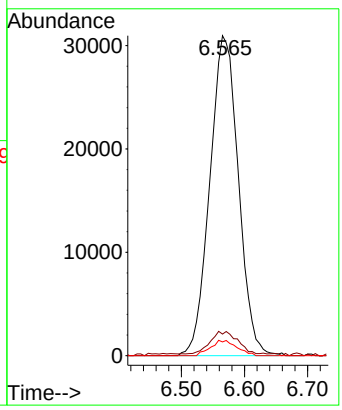




#21
1,1-Dichloroethane
Concen: 20.578 ug/l
RT: 6.565 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 63 Resp: 9724

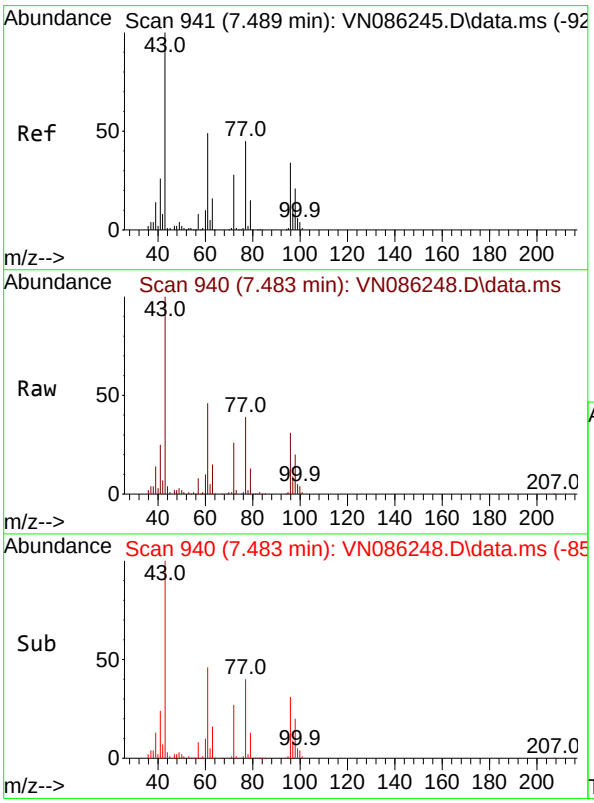
Ion	Ratio	Lower	Upper
63	100		
98	6.2	3.1	9.3
100	4.3	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

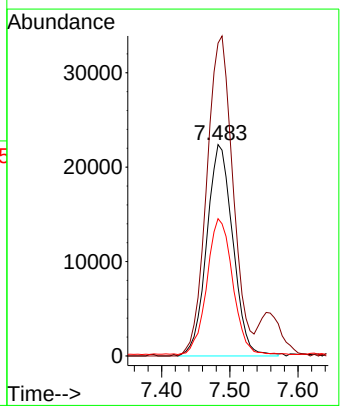
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

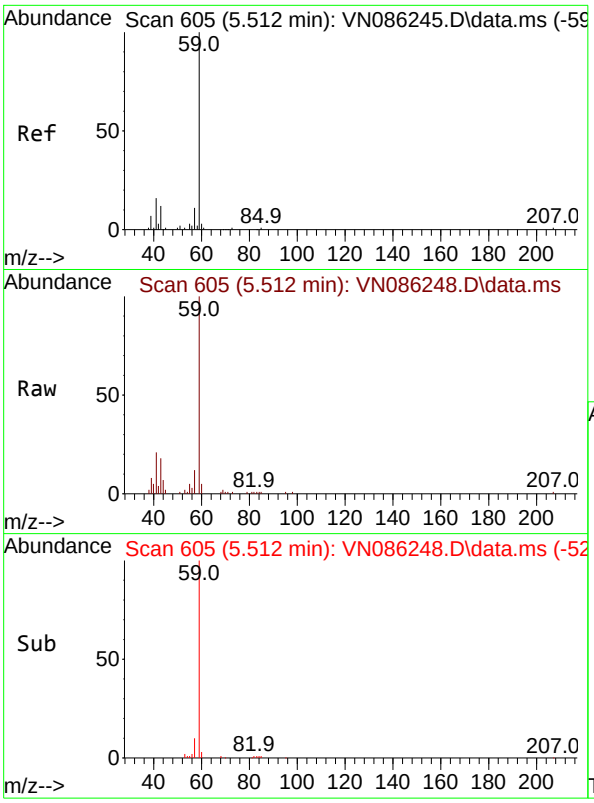


#22
cis-1,2-Dichloroethene
Concen: 20.174 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 96 Resp: 59840

Ion	Ratio	Lower	Upper
96	100		
61	152.2	119.5	179.3
98	63.0	51.0	76.6

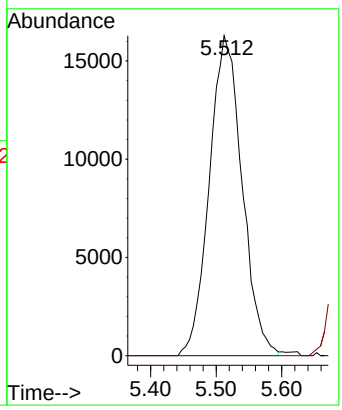




#23
tert-Butyl Alcohol
Concen: 96.723 ug/l
RT: 5.512 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 59 Resp: 5648

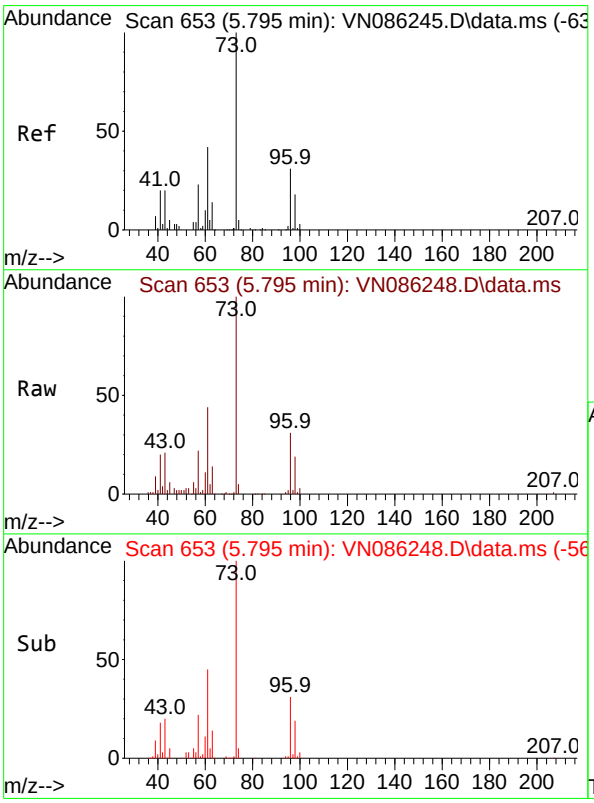
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

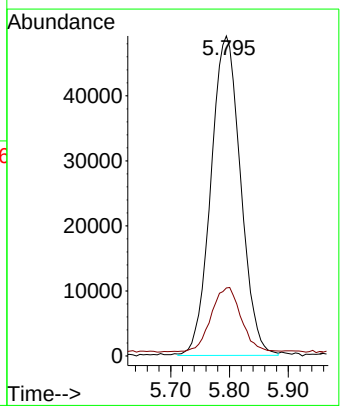
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

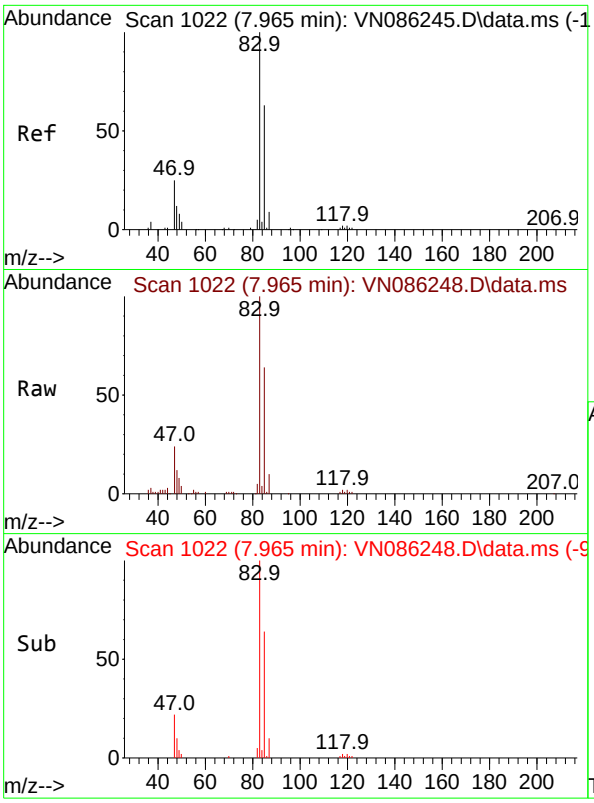


#24
Methyl tert-Butyl Ether
Concen: 20.211 ug/l
RT: 5.795 min Scan# 653
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 73 Resp: 172426

Ion	Ratio	Lower	Upper
73	100		
43	20.2	16.8	25.2





#25
Chloroform
Concen: 20.677 ug/l
RT: 7.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

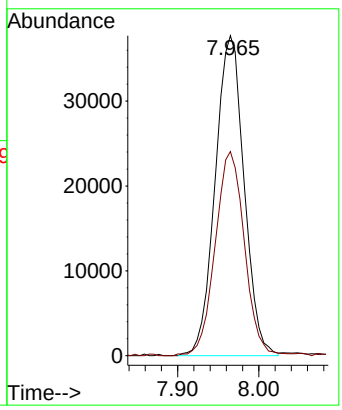
Tgt Ion: 83 Resp: 9318

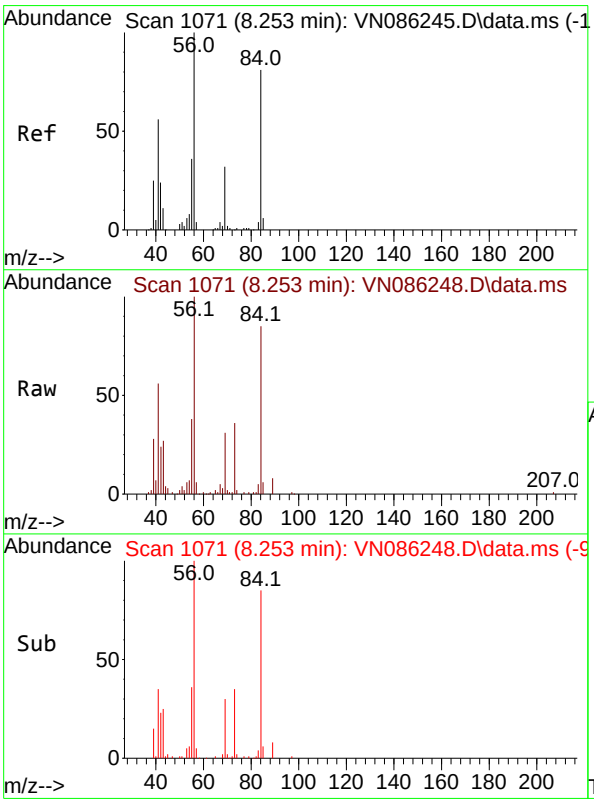
Ion	Ratio	Lower	Upper
83	100		
85	63.3	50.5	75.7

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

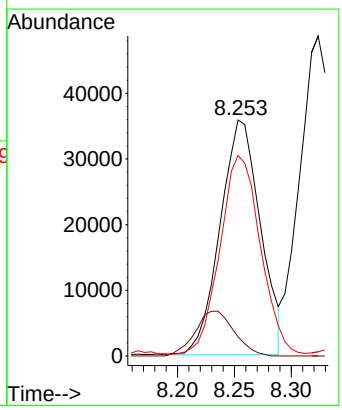


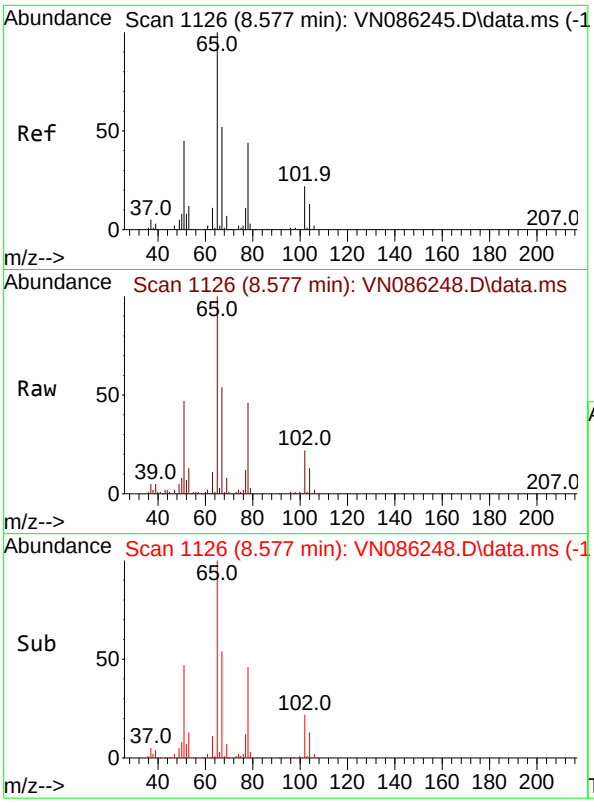


#26
Cyclohexane
Concen: 19.913 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 56 Resp: 88041

Ion	Ratio	Lower	Upper
56	100		
89	18.6	0.0	0.0#
84	86.2	69.0	103.4

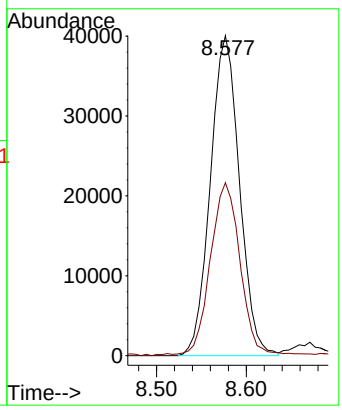




#27
1,2-Dichloroethane-d4
Concen: 29.777 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 65 Resp: 9016

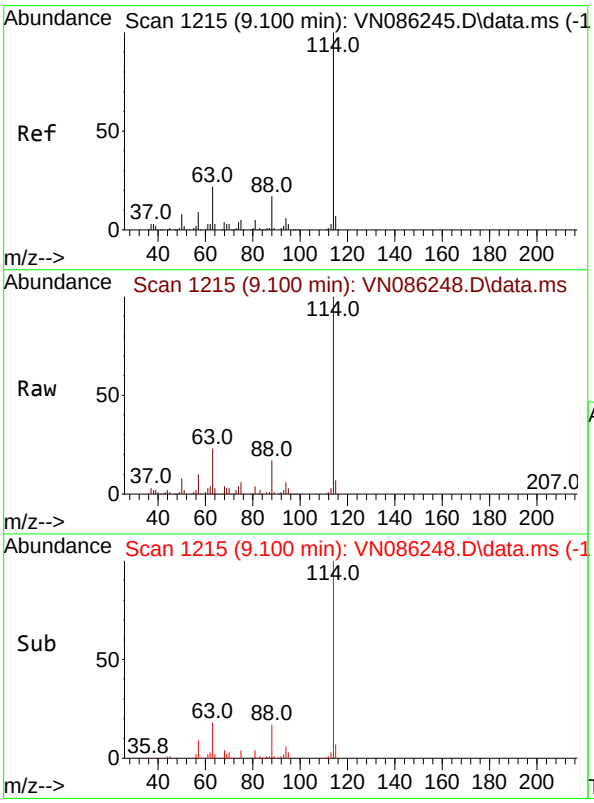
Ion	Ratio	Lower	Upper
65	100		
67	54.6	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

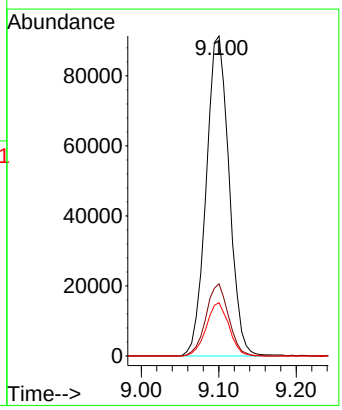
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

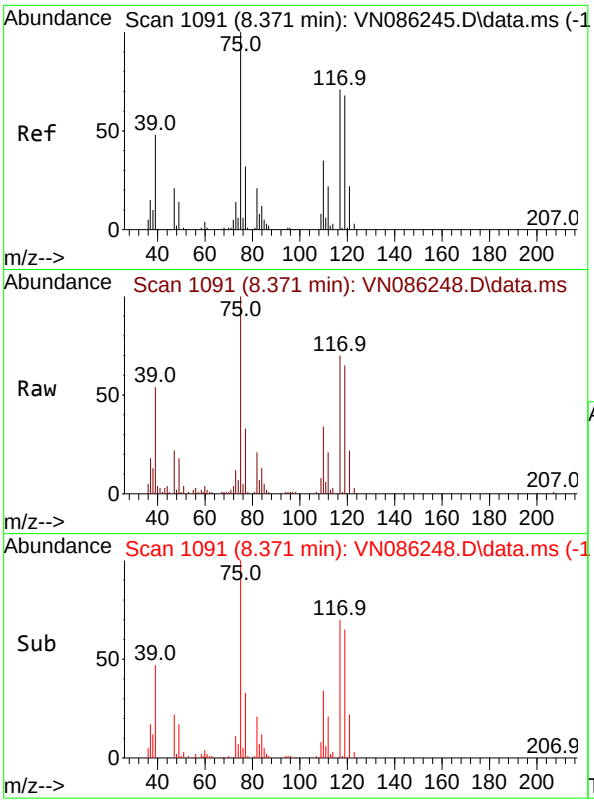


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:114 Resp: 187987

Ion	Ratio	Lower	Upper
114	100		
63	22.2	17.8	26.6
88	16.5	13.4	20.2

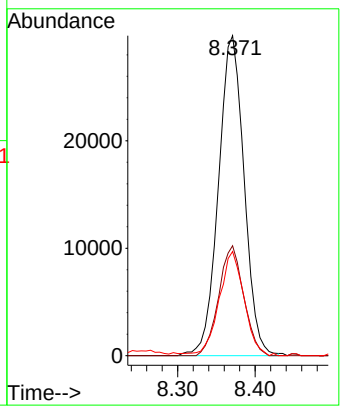




#29
1,1-Dichloropropene
Concen: 20.373 ug/l
RT: 8.371 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 6860

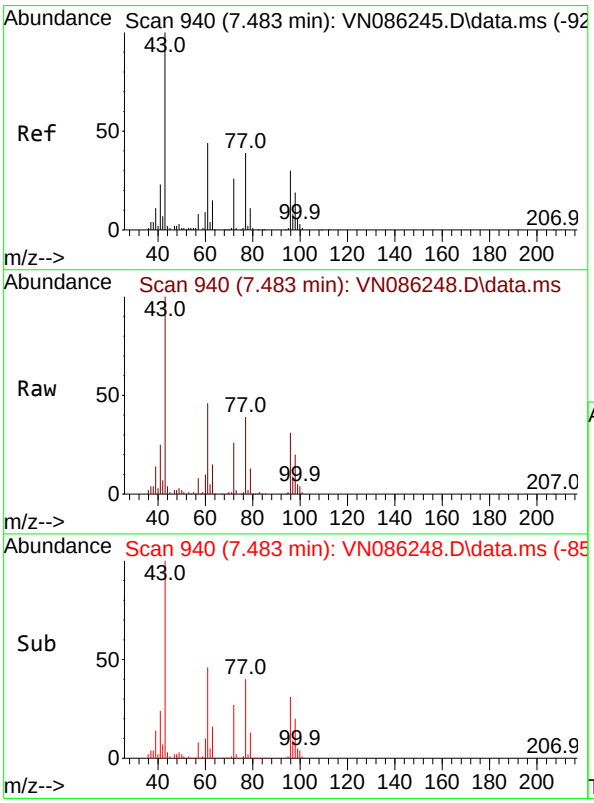
Ion	Ratio	Lower	Upper
75	100		
110	33.4	0.0	68.6
77	31.4	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

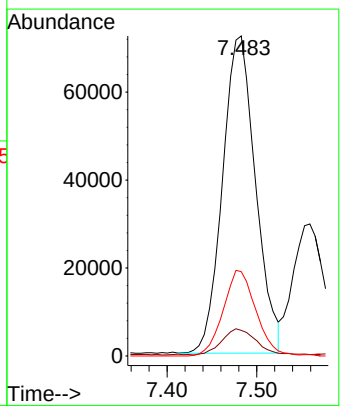
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

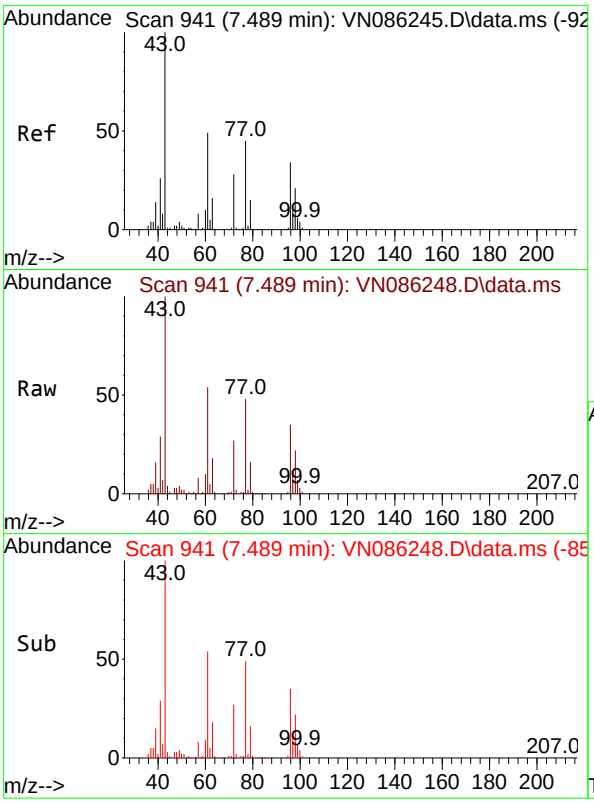


#30
2-Butanone
Concen: 98.995 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 184728

Ion	Ratio	Lower	Upper
43	100		
57	8.6	6.4	9.6
72	26.7	21.5	32.3

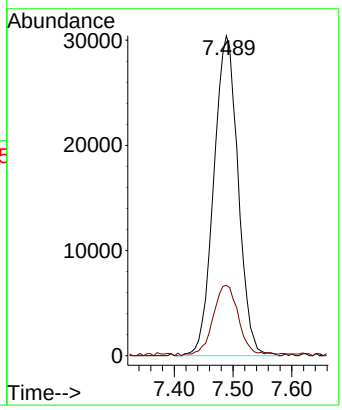




#31
2,2-Dichloropropane
Concen: 21.111 ug/l
RT: 7.489 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 77 Resp: 8751

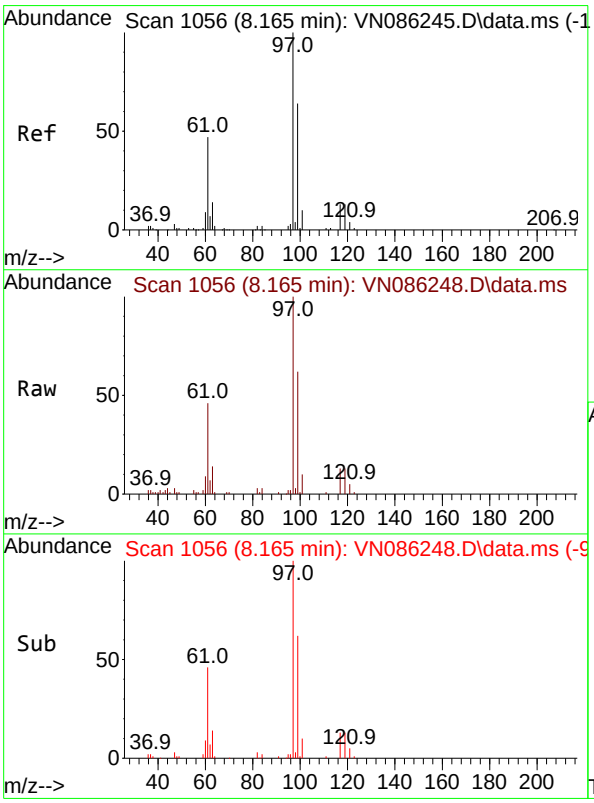
Ion	Ratio	Lower	Upper
77	100		
97	22.7	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

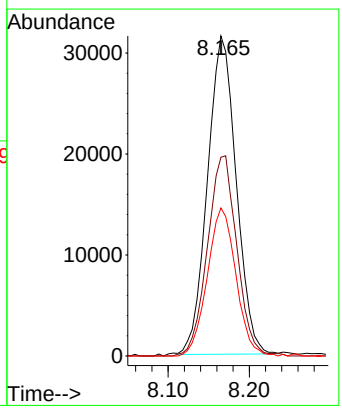
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

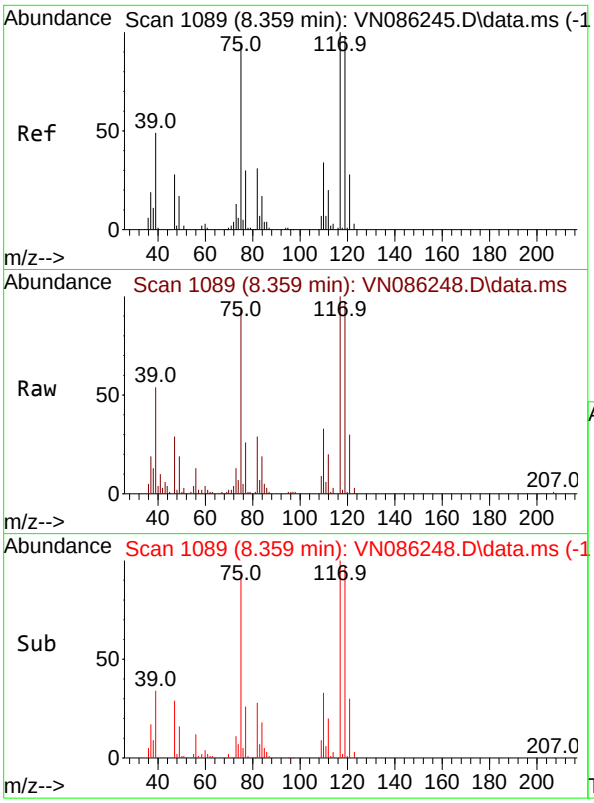


#32
1,1,1-Trichloroethane
Concen: 20.044 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 97 Resp: 77645

Ion	Ratio	Lower	Upper
97	100		
99	64.1	51.4	77.2
61	46.2	37.0	55.6

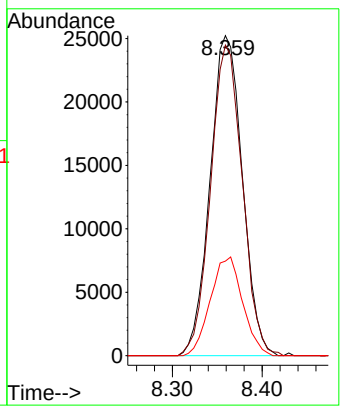




#33
Carbon Tetrachloride
Concen: 20.360 ug/l
RT: 8.359 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:117 Resp: 6302

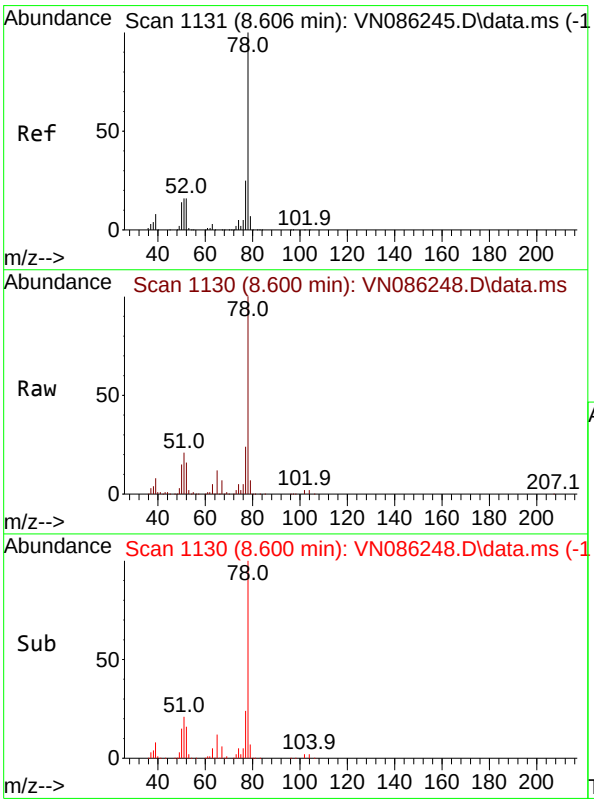
Ion	Ratio	Lower	Upper
117	100		
119	97.1	78.3	117.5
121	29.6	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

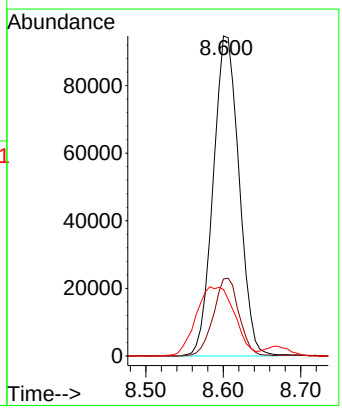
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

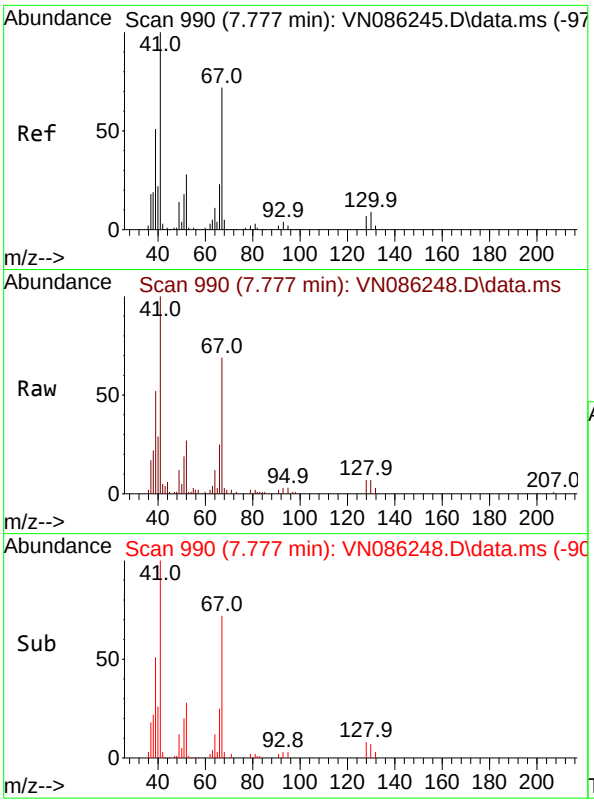


#34
Benzene
Concen: 20.522 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 78 Resp: 219862

Ion	Ratio	Lower	Upper
78	100		
77	24.1	20.0	30.0
51	19.8	12.9	19.3#

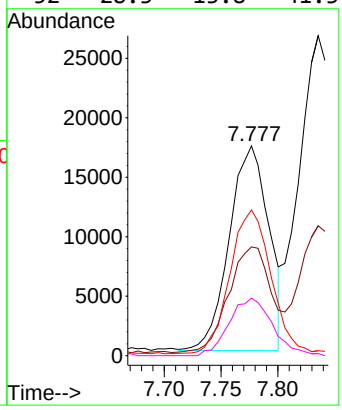




#35
Methacrylonitrile
Concen: 19.764 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 41 Resp: 4157

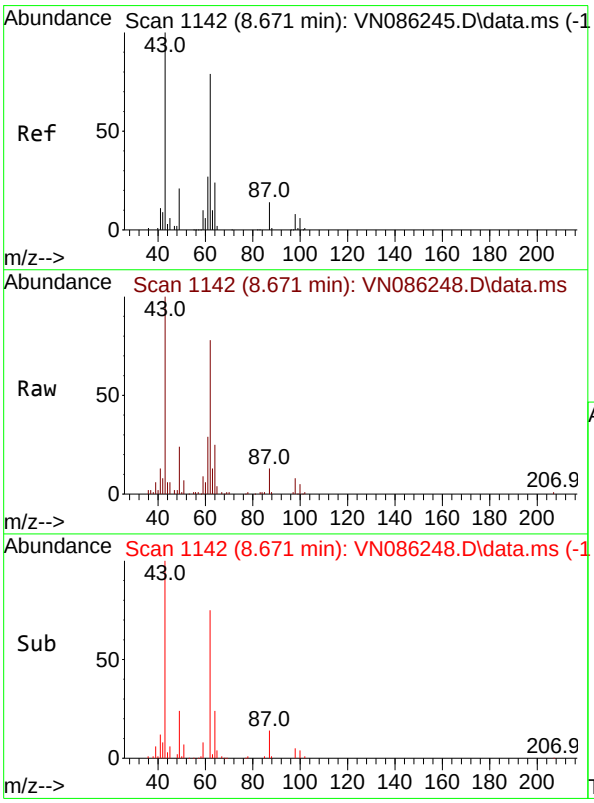
Ion	Ratio	Lower	Upper
41	100		
39	51.7	25.8	77.3
67	70.4	36.0	108.0
52	28.3	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

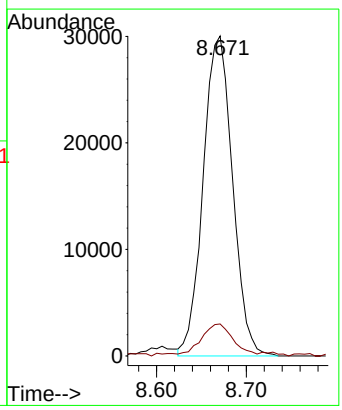
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

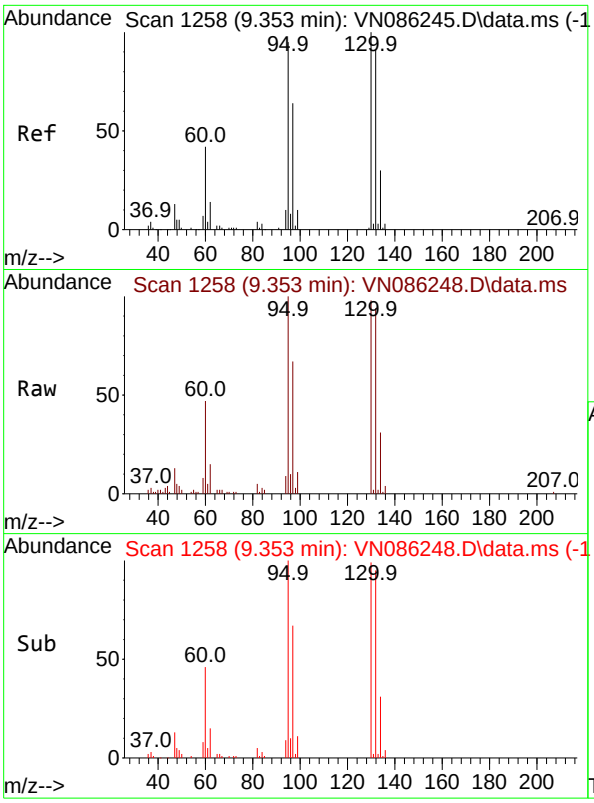


#36
1,2-Dichloroethane
Concen: 20.391 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 62 Resp: 68362

Ion	Ratio	Lower	Upper
62	100		
98	10.6	8.6	12.8

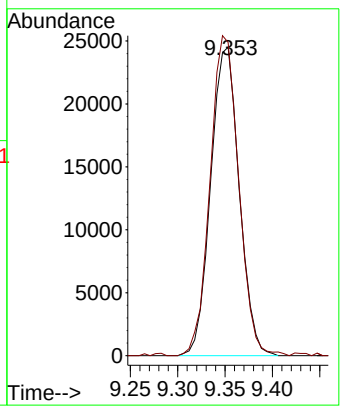




#37
Trichloroethene
Concen: 19.842 ug/l
RT: 9.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:130 Resp: 5129

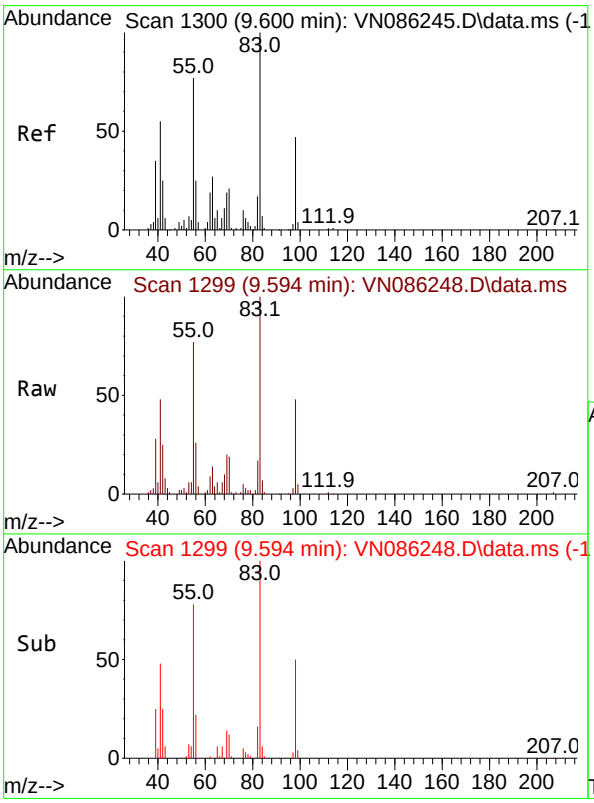
Ion	Ratio	Lower	Upper
130	100		
95	101.6	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

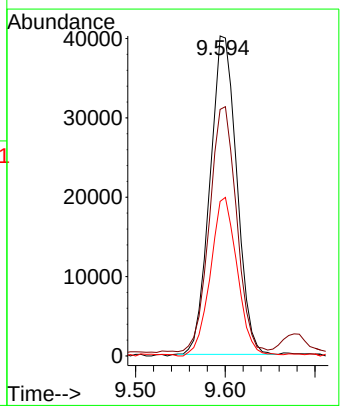
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

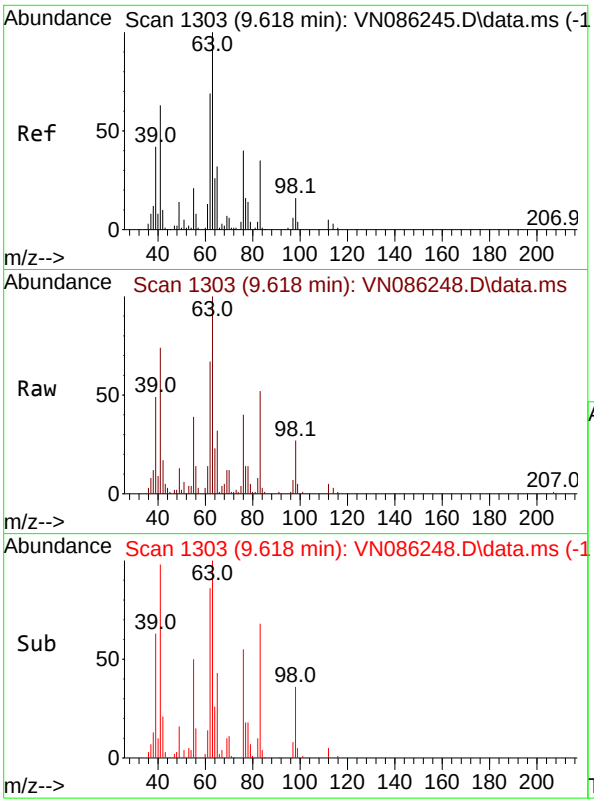


#38
Methylcyclohexane
Concen: 20.137 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 83 Resp: 83168

Ion	Ratio	Lower	Upper
83	100		
55	78.5	38.5	115.5
98	50.0	24.4	73.2

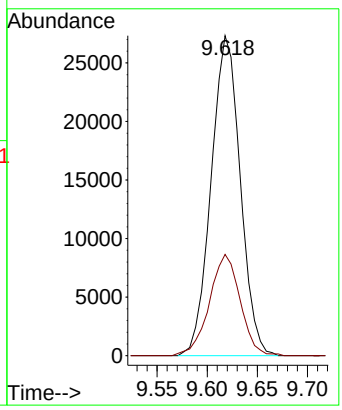




#39
1,2-Dichloropropane
Concen: 20.675 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 63 Resp: 5511

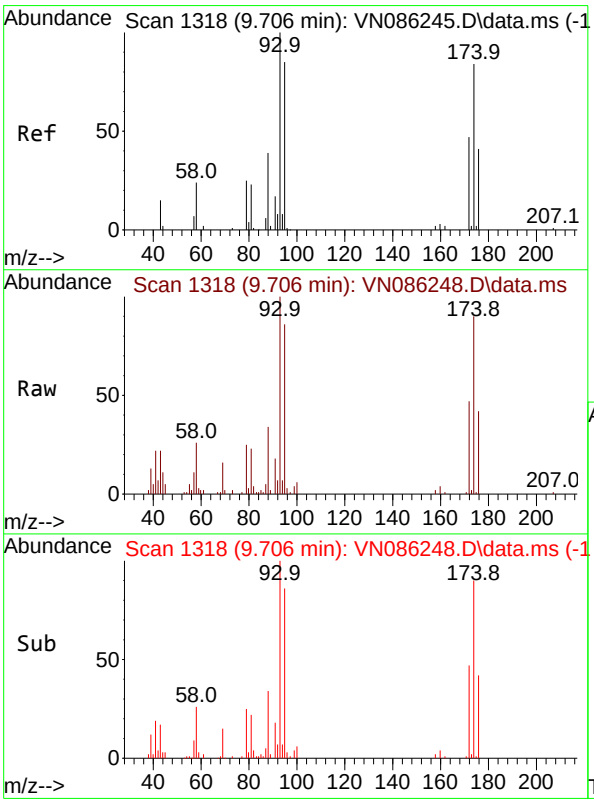
Ion	Ratio	Lower	Upper
63	100		
65	31.1	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

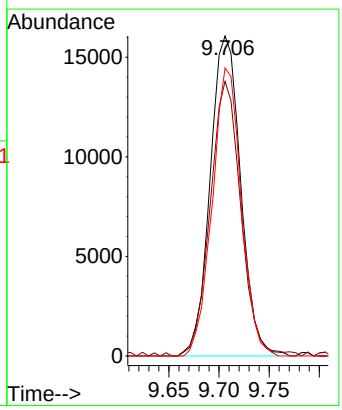
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

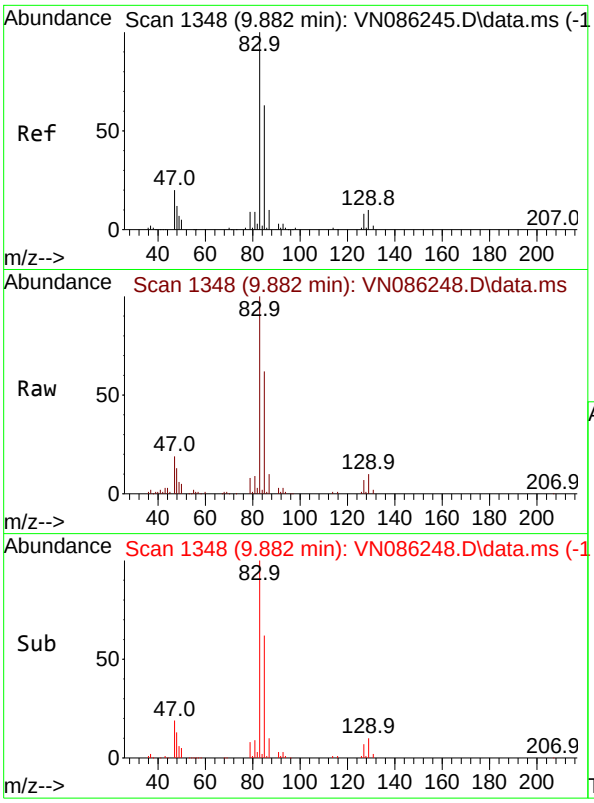


#40
Dibromomethane
Concen: 19.681 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 93 Resp: 33887

Ion	Ratio	Lower	Upper
93	100		
95	86.2	0.0	169.0
174	85.9	0.0	168.0

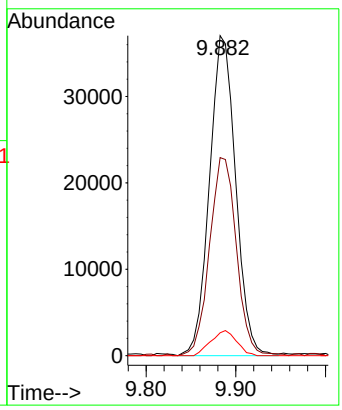




#41
Bromodichloromethane
Concen: 20.289 ug/l
RT: 9.882 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 83 Resp: 7504

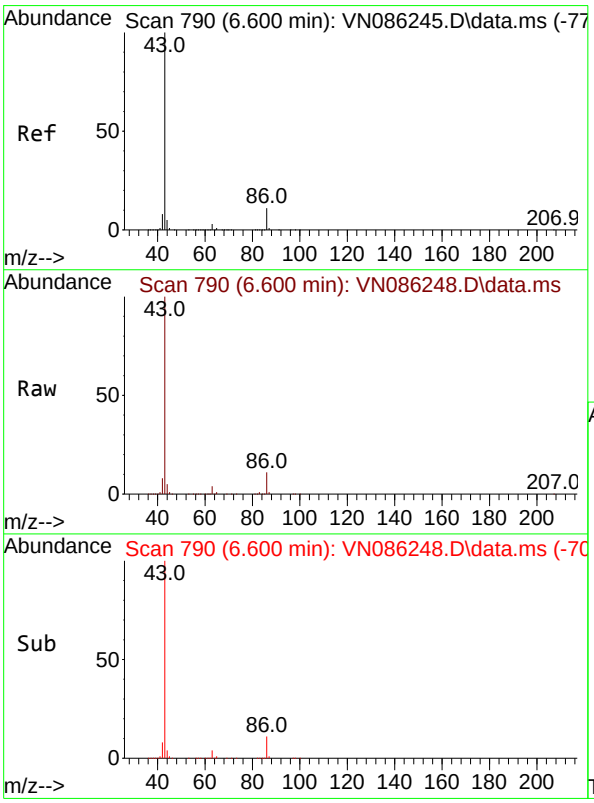
Ion	Ratio	Lower	Upper
83	100		
85	61.9	50.2	75.2
127	7.1	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

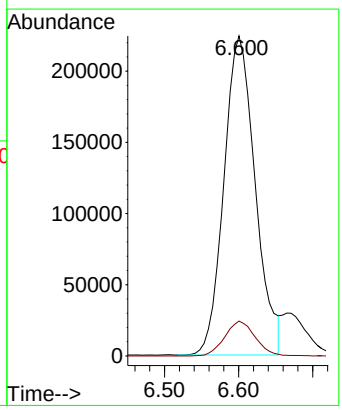
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

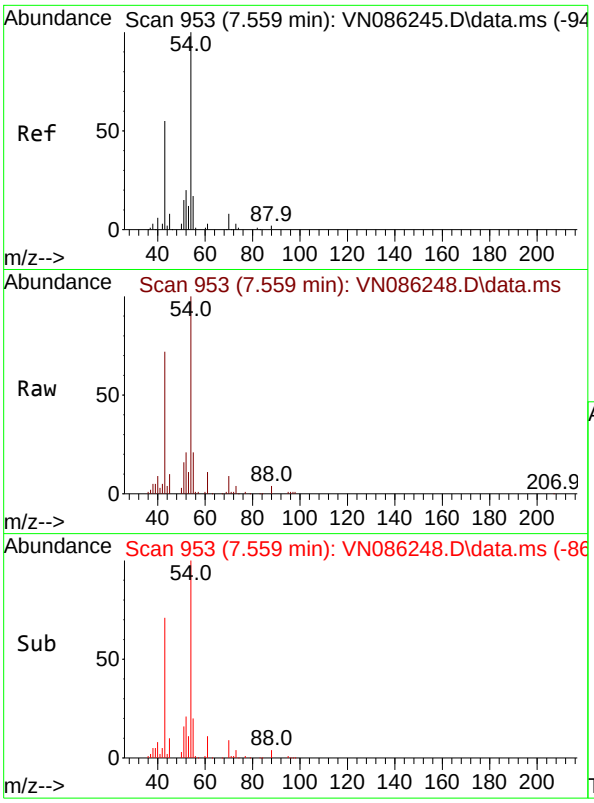


#42
Vinyl Acetate
Concen: 103.572 ug/l
RT: 6.600 min Scan# 790
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 657878

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.4	12.6





#43
Ethyl Acetate
Concen: 20.054 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

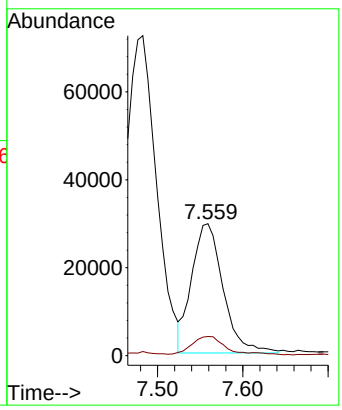
Tgt Ion: 43 Resp: 7548

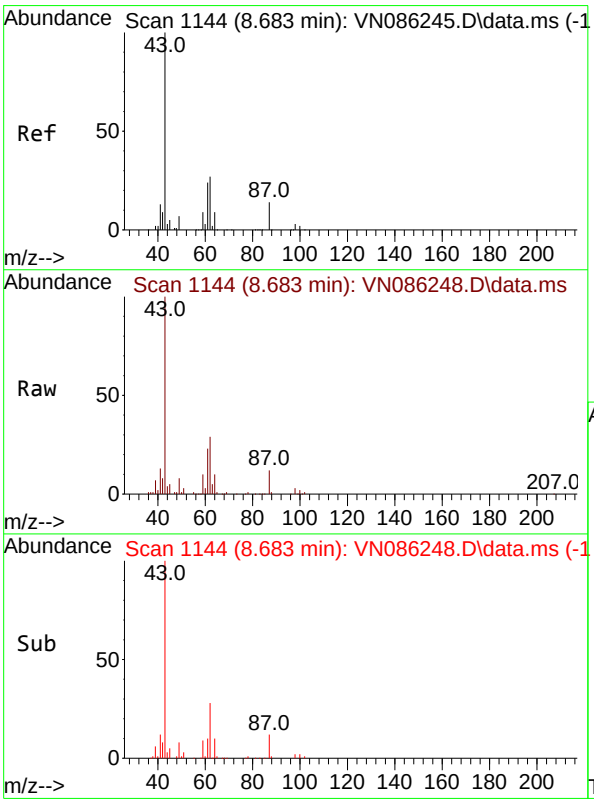
Ion	Ratio	Lower	Upper
43	100		
45	13.3	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

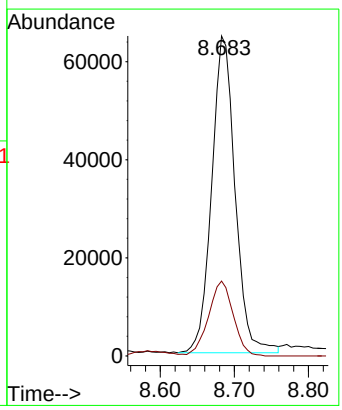


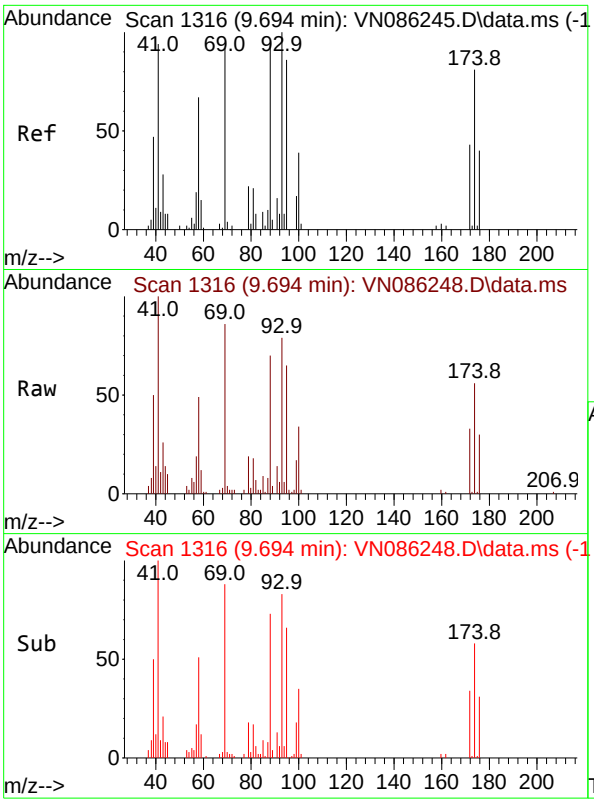


#44
Isopropyl Acetate
Concen: 20.285 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 141640

Ion	Ratio	Lower	Upper
43	100		
61	25.0	20.5	30.7

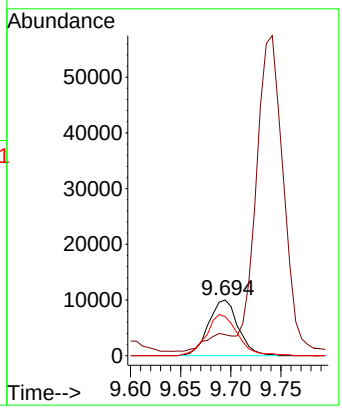




#45
1,4-Dioxane
Concen: 369.952 ug/l
RT: 9.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 88 Resp: 2054

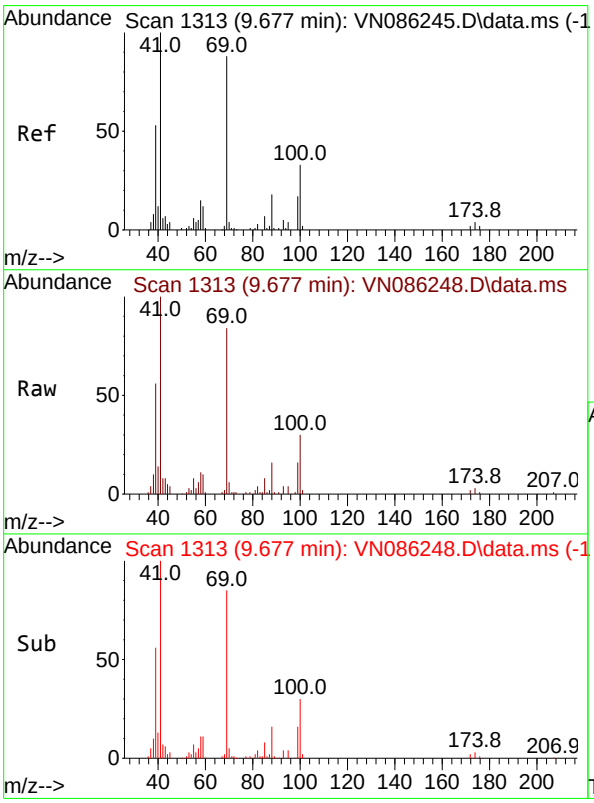
Ion	Ratio	Lower	Upper
88	100		
43	32.9	14.4	21.6
58	76.6	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

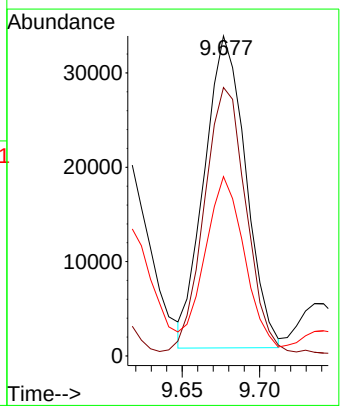
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

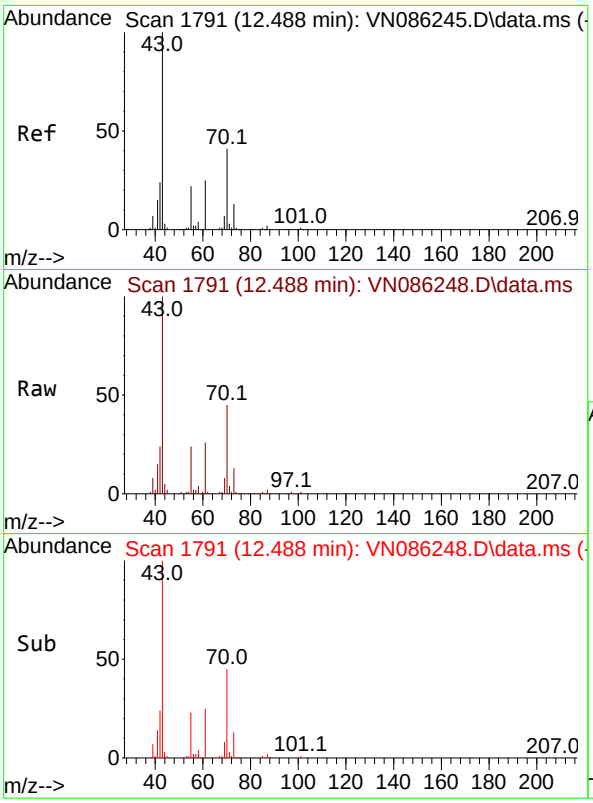


#46
Methyl methacrylate
Concen: 19.956 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 41 Resp: 61396

Ion	Ratio	Lower	Upper
41	100		
69	85.0	43.2	129.6
39	56.3	26.4	79.0

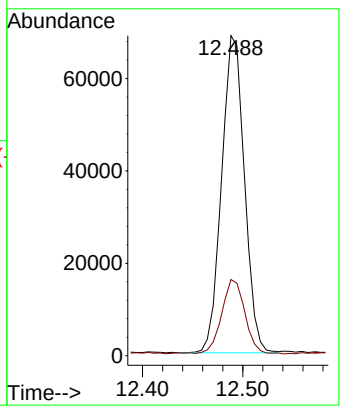




#47
n-amyl Acetate
Concen: 19.589 ug/l
RT: 12.488 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 10844

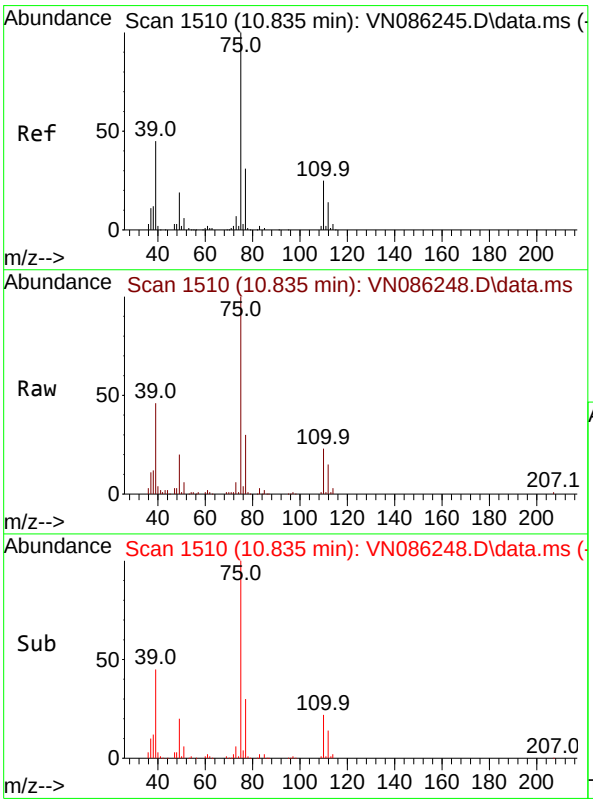
Ion	Ratio	Lower	Upper
43	100		
55	23.4	19.0	28.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

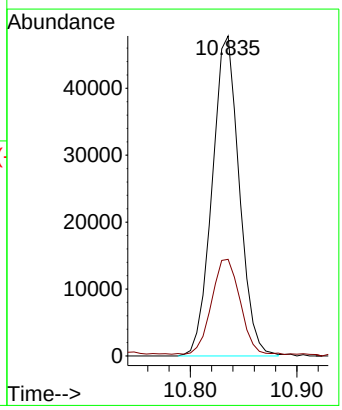
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

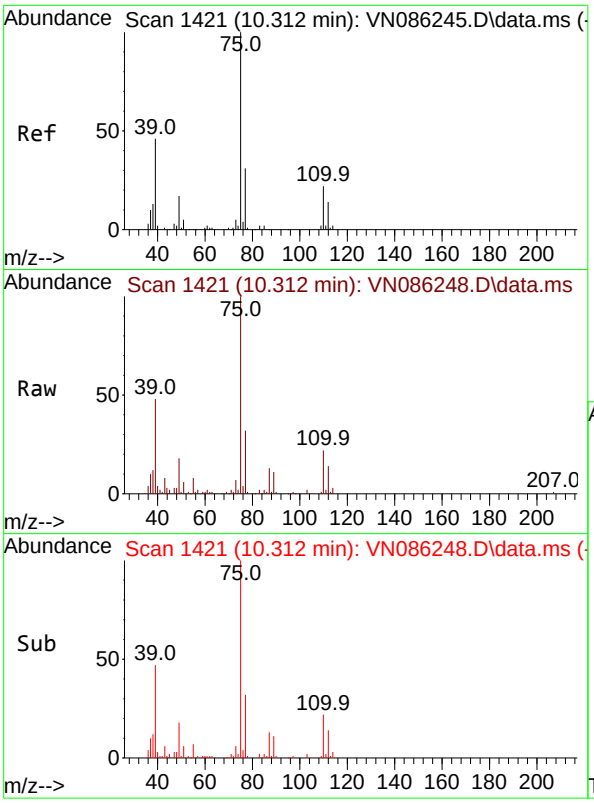


#48
t-1,3-Dichloropropene
Concen: 20.190 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 84428

Ion	Ratio	Lower	Upper
75	100		
77	29.4	25.1	37.7

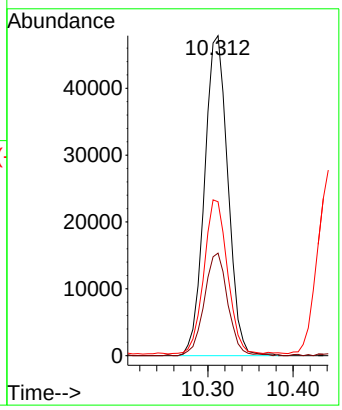




#49
cis-1,3-Dichloropropene
Concen: 20.581 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 9108

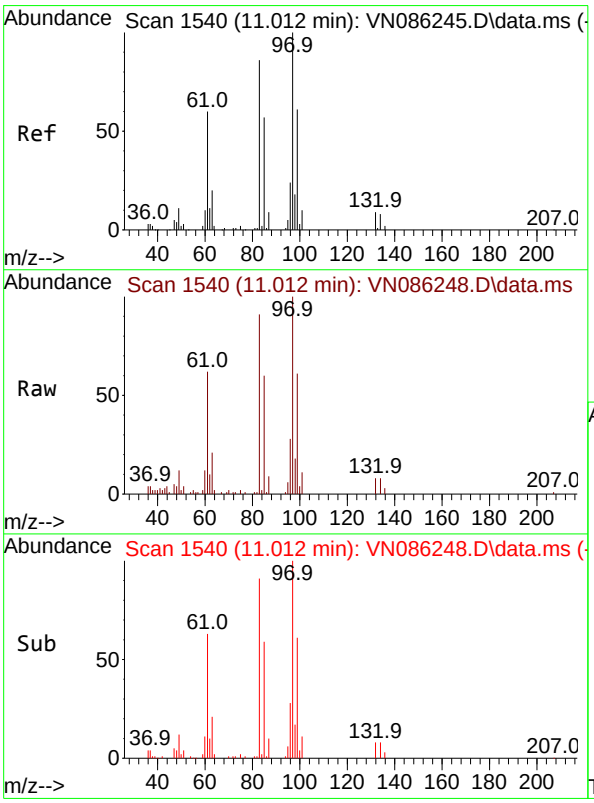
Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.0	37.4
39	47.4	36.7	55.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

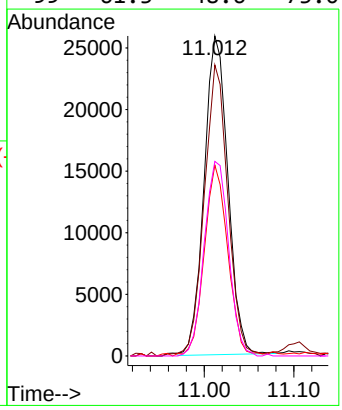
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

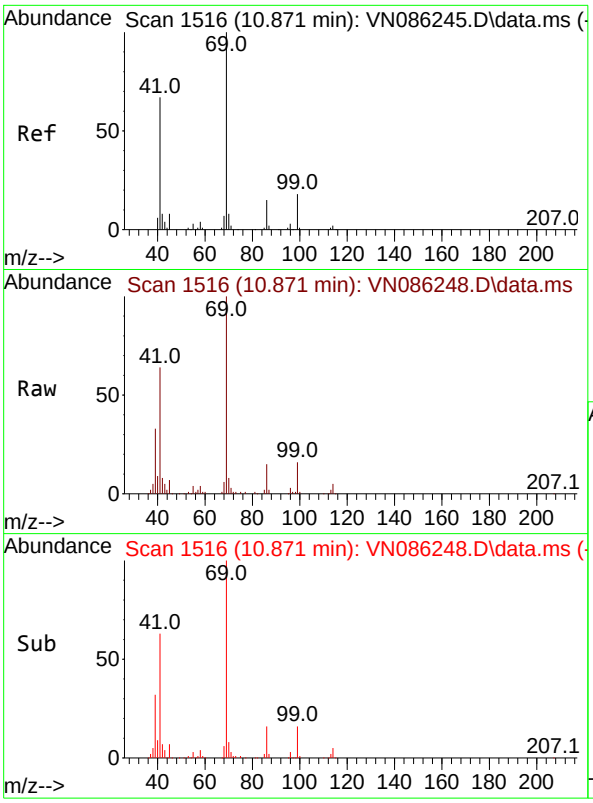


#50
1,1,2-Trichloroethane
Concen: 19.741 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 97 Resp: 47672

Ion	Ratio	Lower	Upper
97	100		
83	90.8	68.6	103.0
85	59.4	45.9	68.9
99	61.3	48.6	73.0

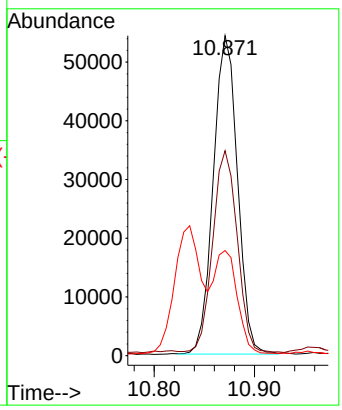




#51
Ethyl methacrylate
Concen: 20.259 ug/l
RT: 10.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 69 Resp: 9091

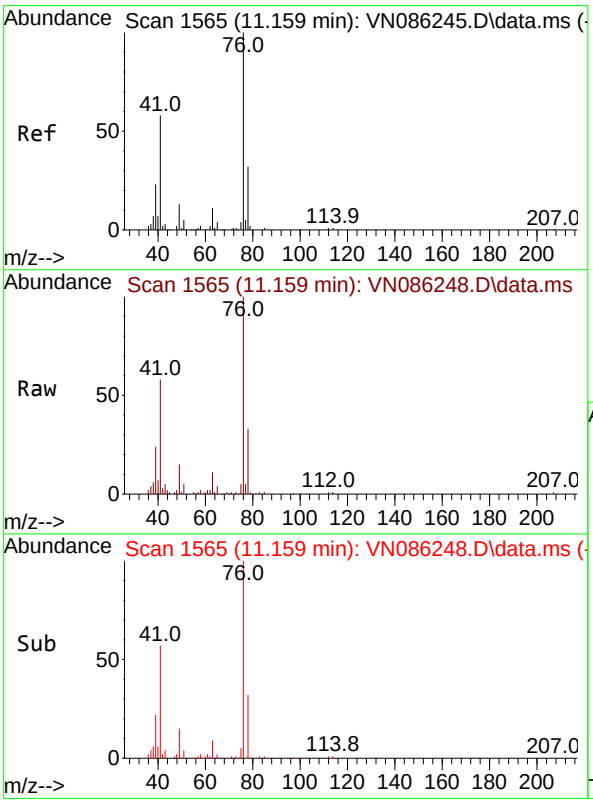
Ion	Ratio	Lower	Upper
69	100		
41	63.2	33.6	100.6
39	32.3	17.8	53.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

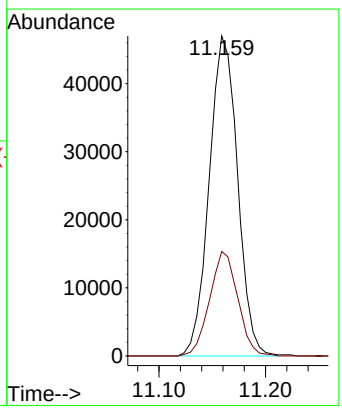
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

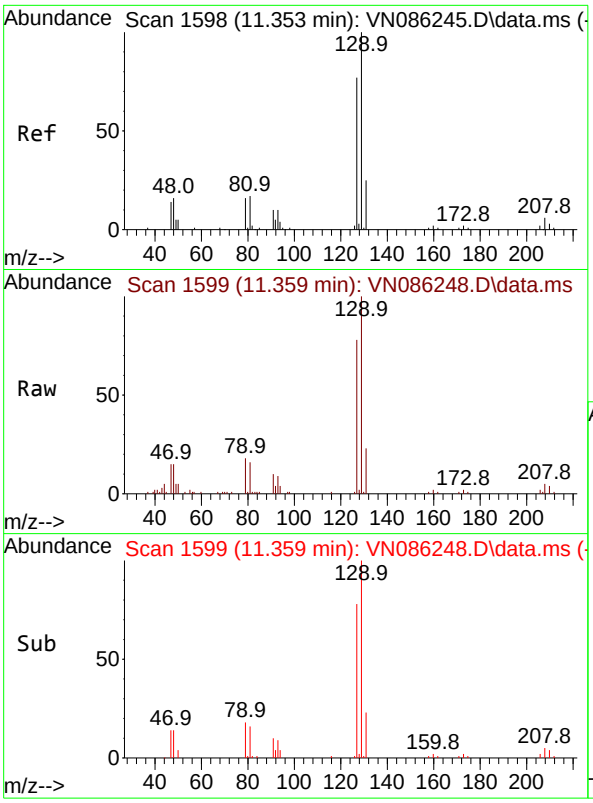


#52
1,3-Dichloropropane
Concen: 20.216 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 76 Resp: 87015

Ion	Ratio	Lower	Upper
76	100		
78	32.4	0.0	64.6

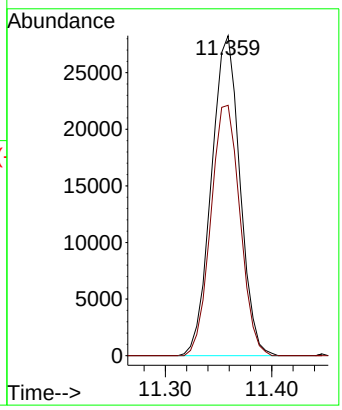




#53
Dibromochloromethane
Concen: 19.923 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:129 Resp: 5262

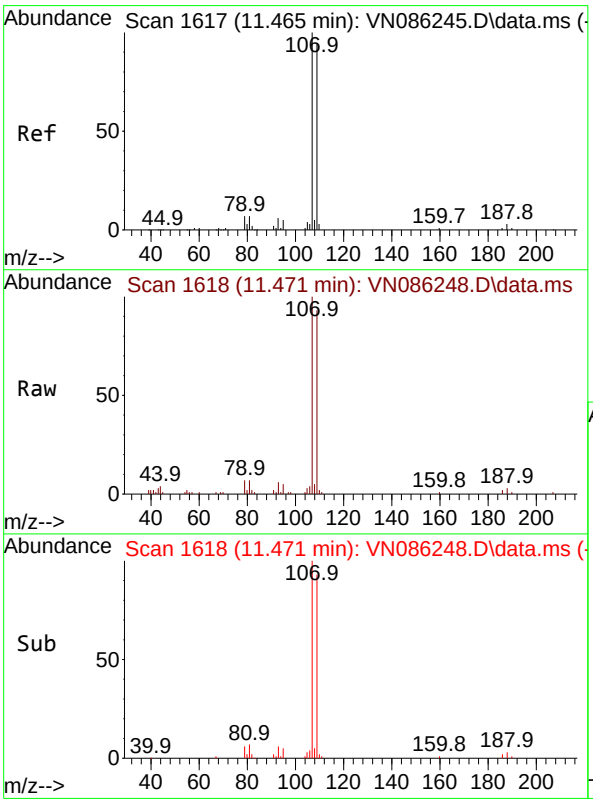
Ion	Ratio	Lower	Upper
129	100		
127	79.9	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

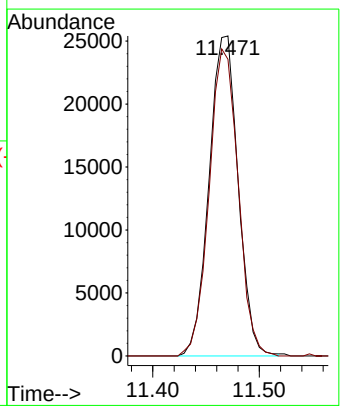
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

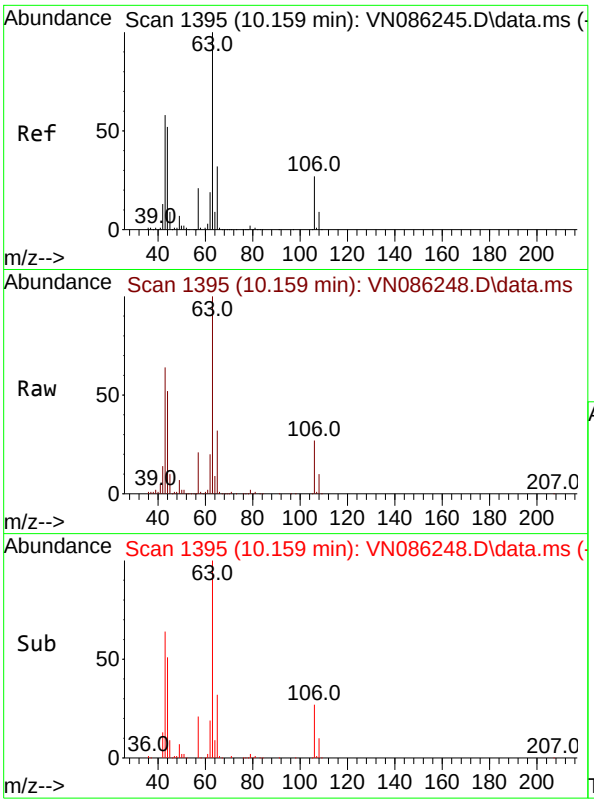


#54
1,2-Dibromoethane
Concen: 19.762 ug/l
RT: 11.471 min Scan# 1618
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:107 Resp: 48175

Ion	Ratio	Lower	Upper
107	100		
109	95.6	75.2	112.8

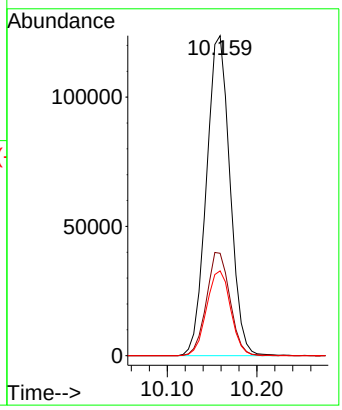




#55
2-Chloroethyl vinyl ether
Concen: 132.990 ug/l
RT: 10.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 63 Resp: 22552

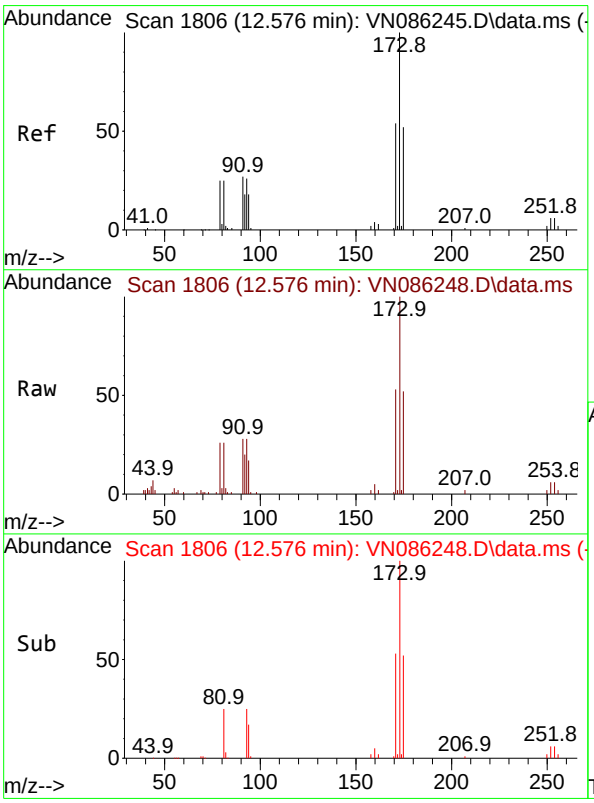
Ion	Ratio	Lower	Upper
63	100		
65	32.2	25.8	38.8
106	27.0	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

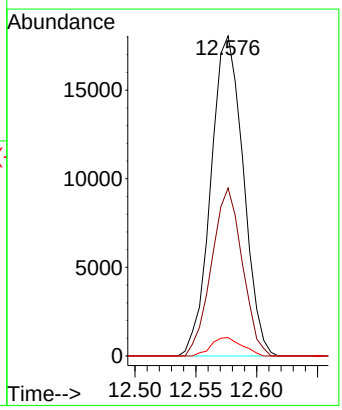
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

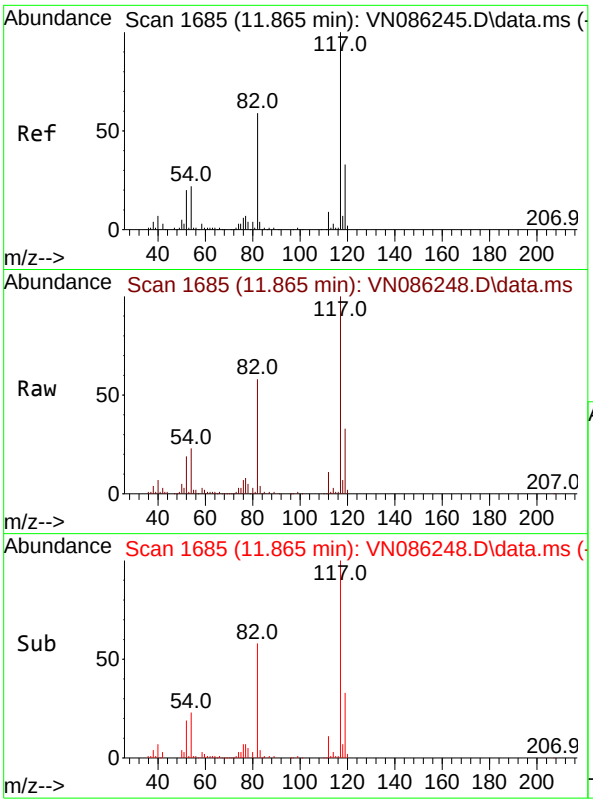


#56
Bromoform
Concen: 19.359 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:173 Resp: 33456

Ion	Ratio	Lower	Upper
173	100		
175	49.7	38.2	57.4
254	5.5	4.5	6.7

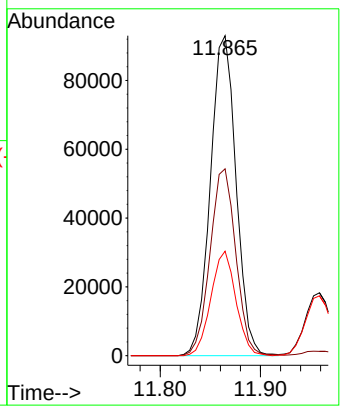




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:117 Resp: 16572

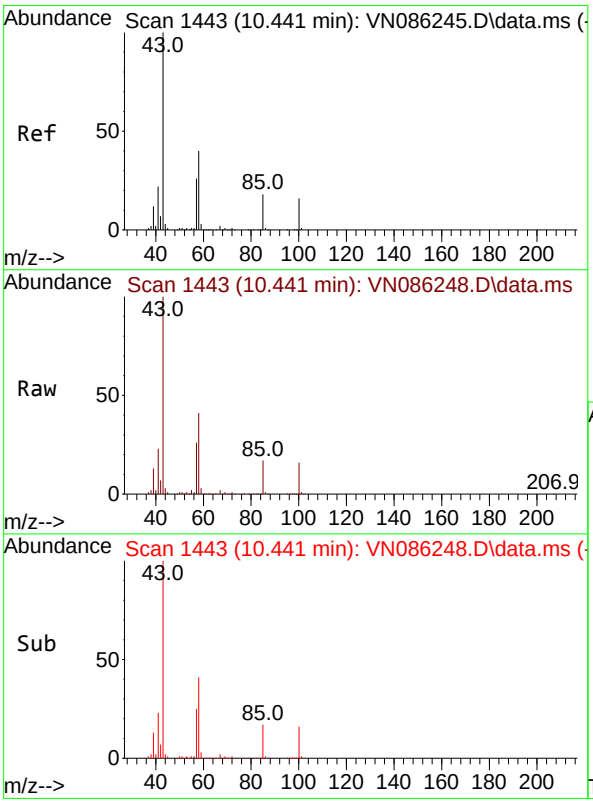
Ion	Ratio	Lower	Upper
117	100		
82	58.7	47.3	70.9
119	31.7	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

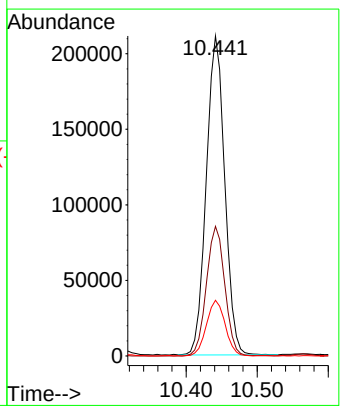
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

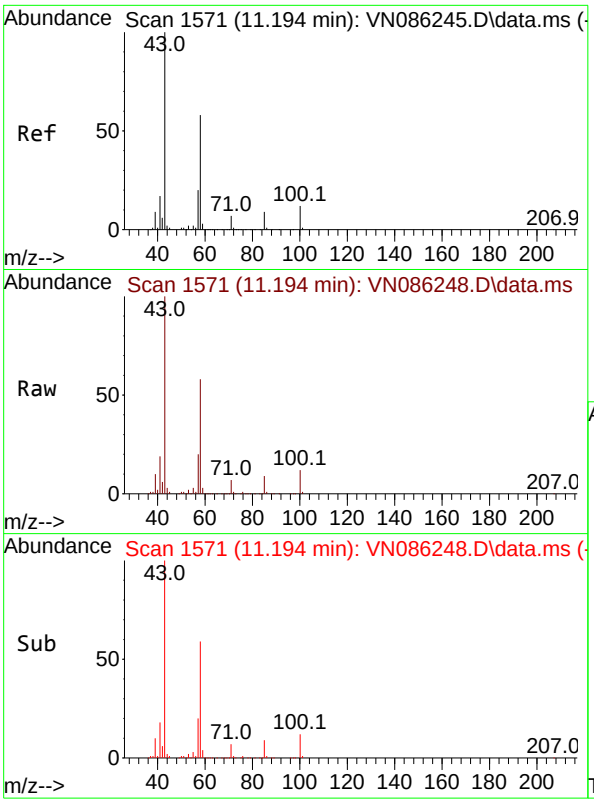


#58
4-Methyl-2-Pentanone
Concen: 101.329 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 381072

Ion	Ratio	Lower	Upper
43	100		
58	40.6	32.5	48.7
85	17.8	14.4	21.6





#59
2-Hexanone
Concen: 101.451 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

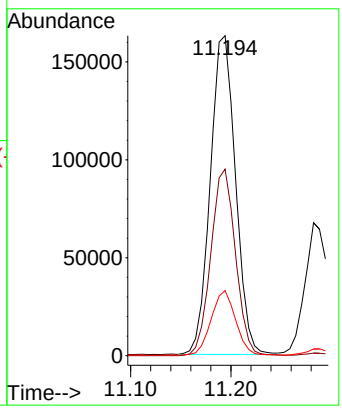
Tgt Ion: 43 Resp: 28409

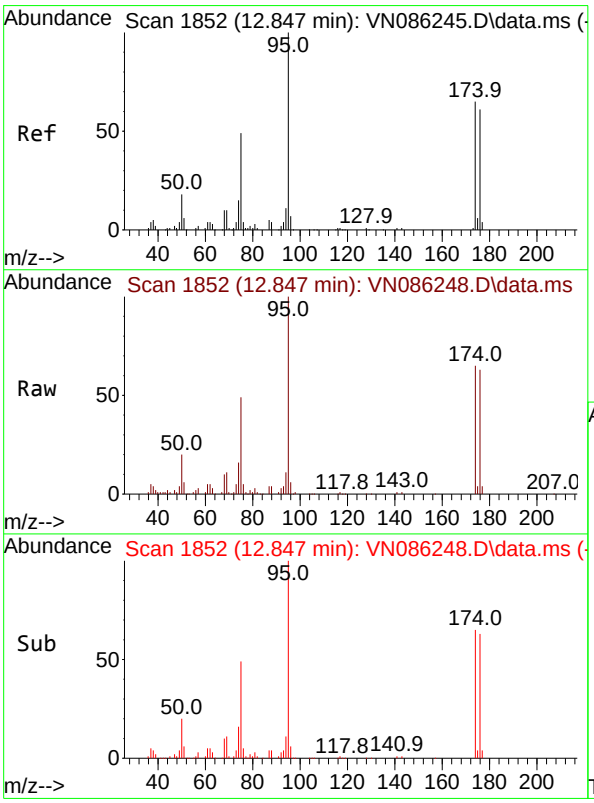
Ion	Ratio	Lower	Upper
43	100		
58	57.1	45.3	67.9
57	19.4	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

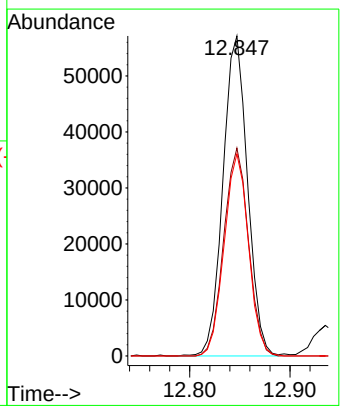


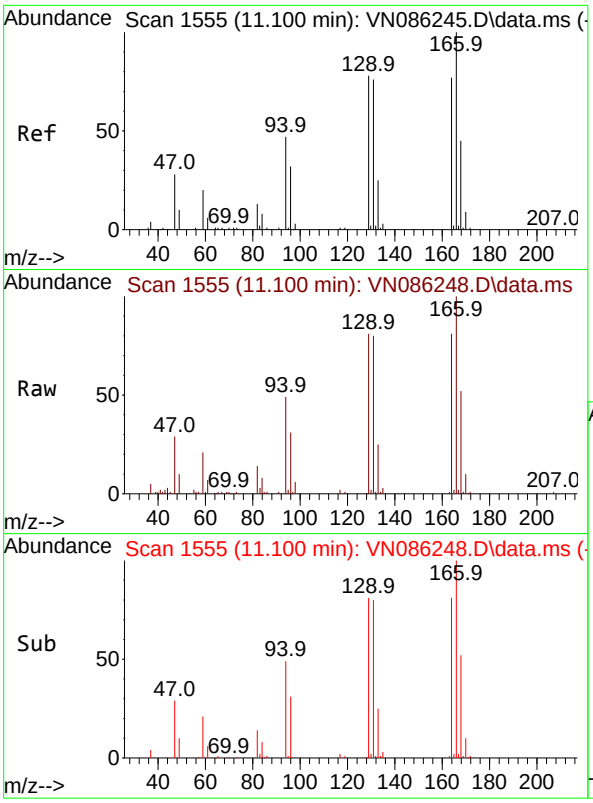


#60
4-Bromofluorobenzene
Concen: 29.482 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 95 Resp: 97275

Ion	Ratio	Lower	Upper
95	100		
174	65.2	52.7	79.1
176	62.4	49.8	74.8

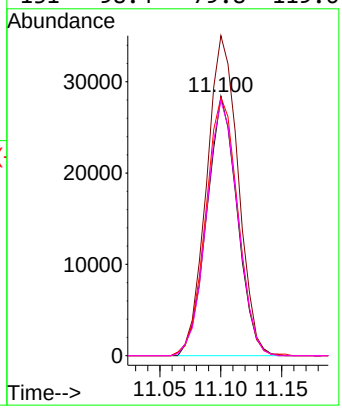




#61
Tetrachloroethene
Concen: 20.169 ug/l
RT: 11.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:164 Resp: 4936

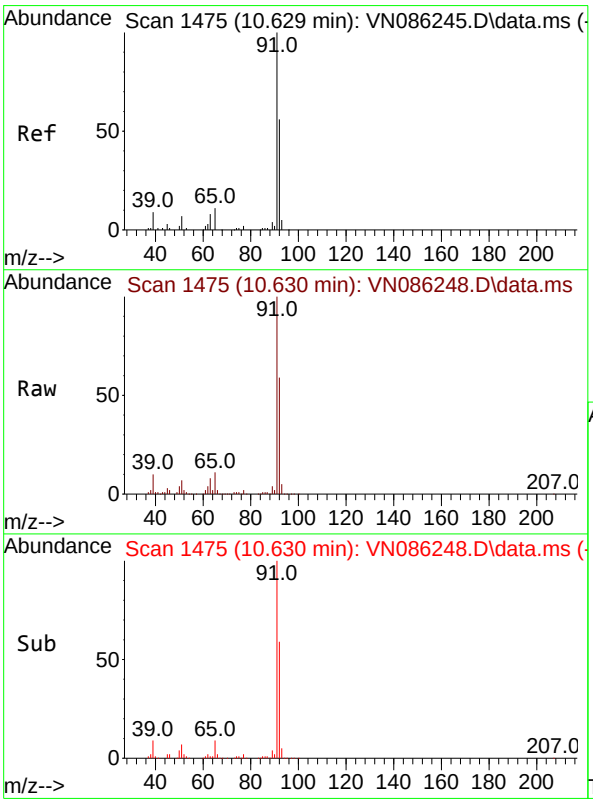
Ion	Ratio	Lower	Upper
164	100		
166	122.8	104.5	156.7
129	99.1	81.7	122.5
131	98.4	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

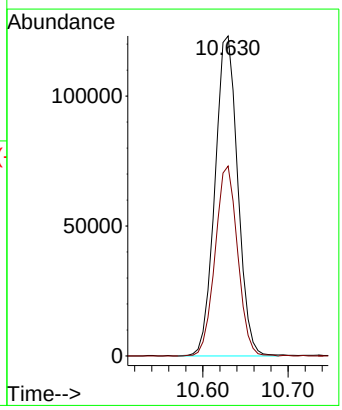
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

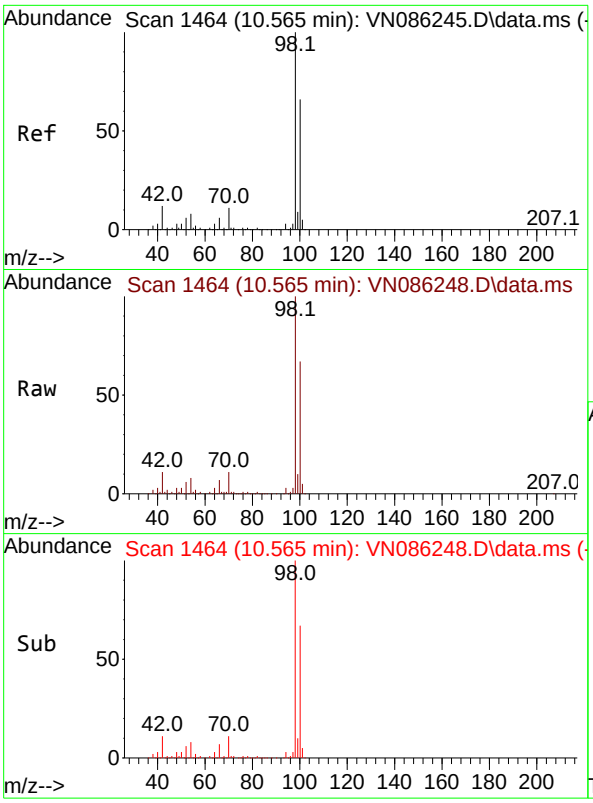


#62
Toluene
Concen: 20.568 ug/l
RT: 10.630 min Scan# 1475
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 228625

Ion	Ratio	Lower	Upper
91	100		
92	58.6	46.8	70.2

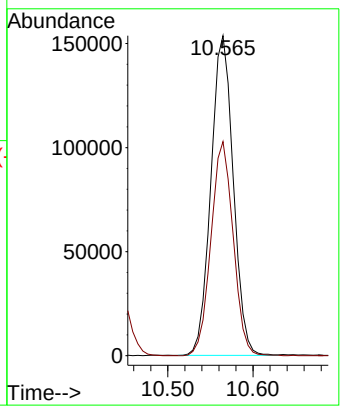




#63
Toluene-d8
Concen: 29.890 ug/l
RT: 10.565 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 98 Resp: 27965

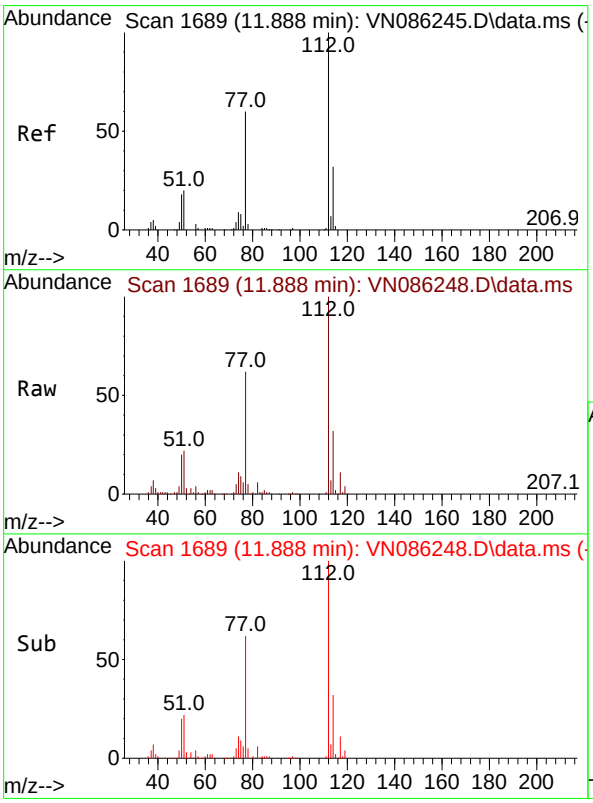
Ion	Ratio	Lower	Upper
98	100		
100	66.6	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

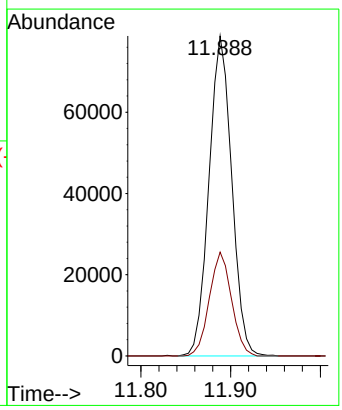
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

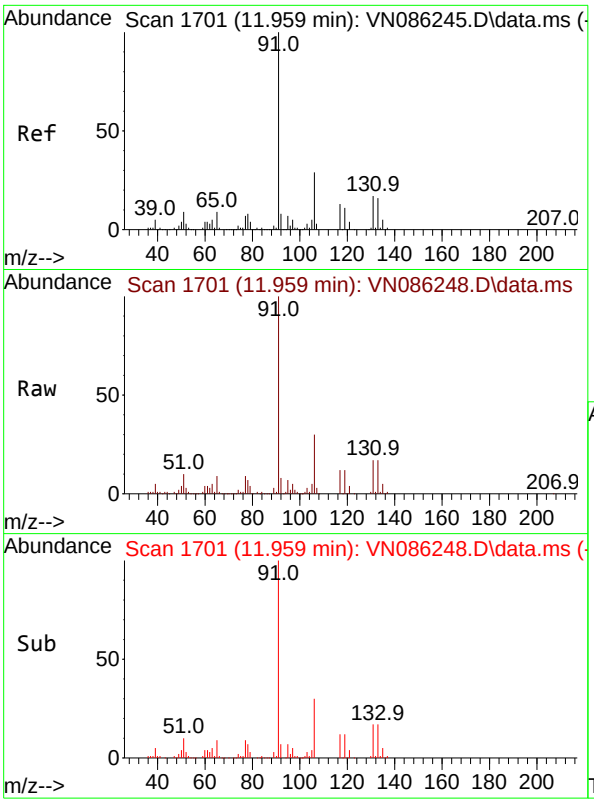


#64
Chlorobenzene
Concen: 20.424 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:112 Resp: 138700

Ion	Ratio	Lower	Upper
112	100		
114	32.5	25.8	38.6

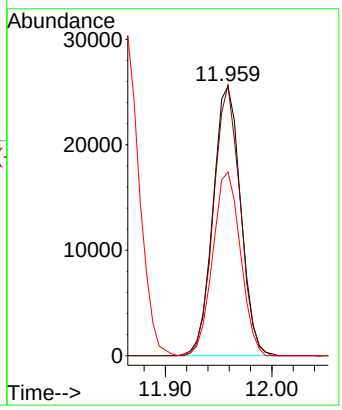




#65
1,1,1,2-Tetrachloroethane
Concen: 20.546 ug/l
RT: 11.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:131 Resp: 4604

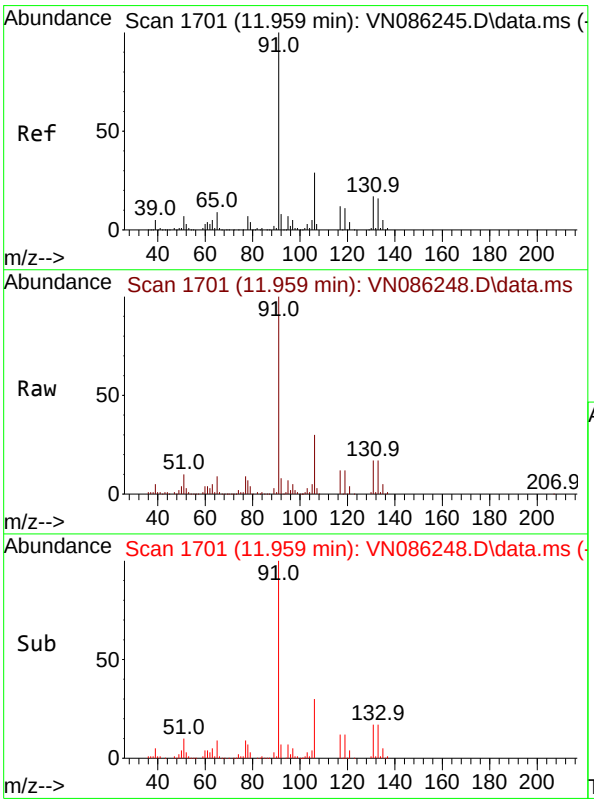
Ion	Ratio	Lower	Upper
131	100		
133	96.3	0.0	190.4
119	68.4	0.0	135.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

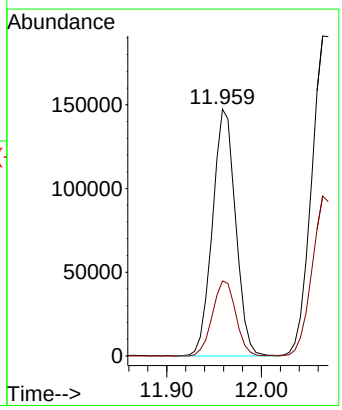
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

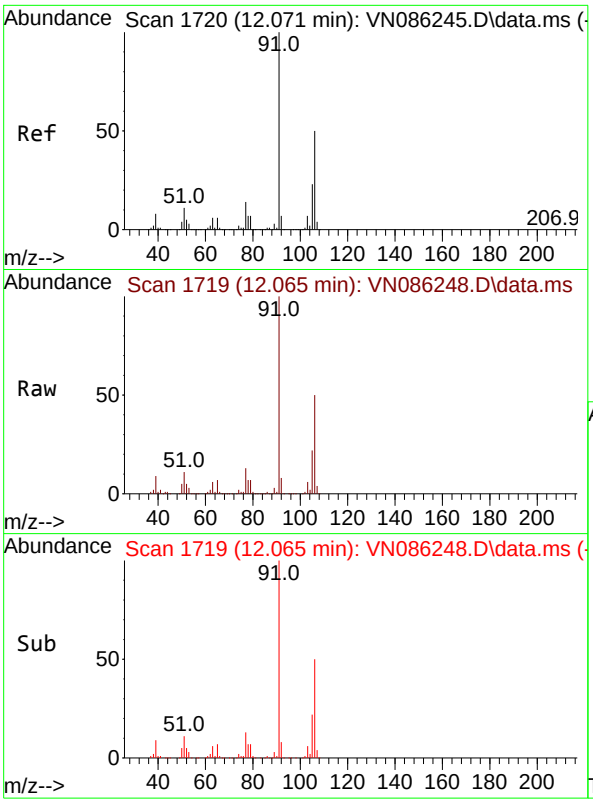


#66
Ethyl Benzene
Concen: 20.336 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 250686

Ion	Ratio	Lower	Upper
91	100		
106	30.4	23.4	35.0

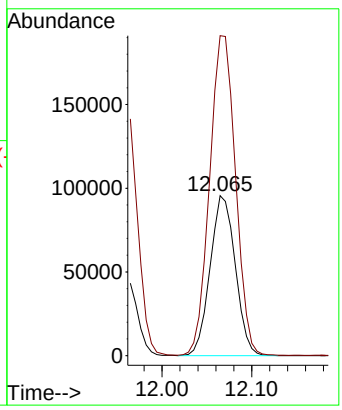




#67
m/p-Xylenes
Concen: 40.633 ug/l
RT: 12.065 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:106 Resp: 18624

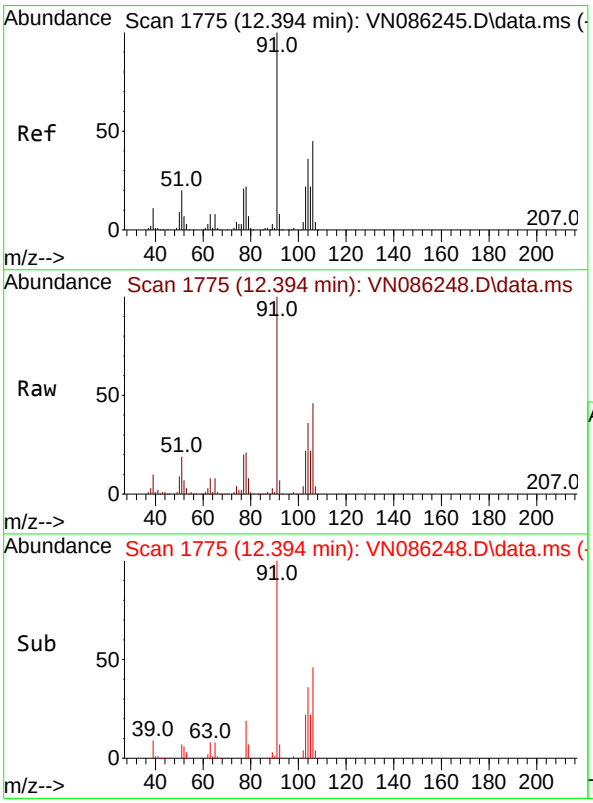
Ion	Ratio	Lower	Upper
106	100		
91	205.6	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

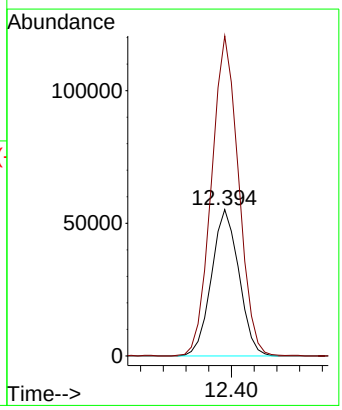
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

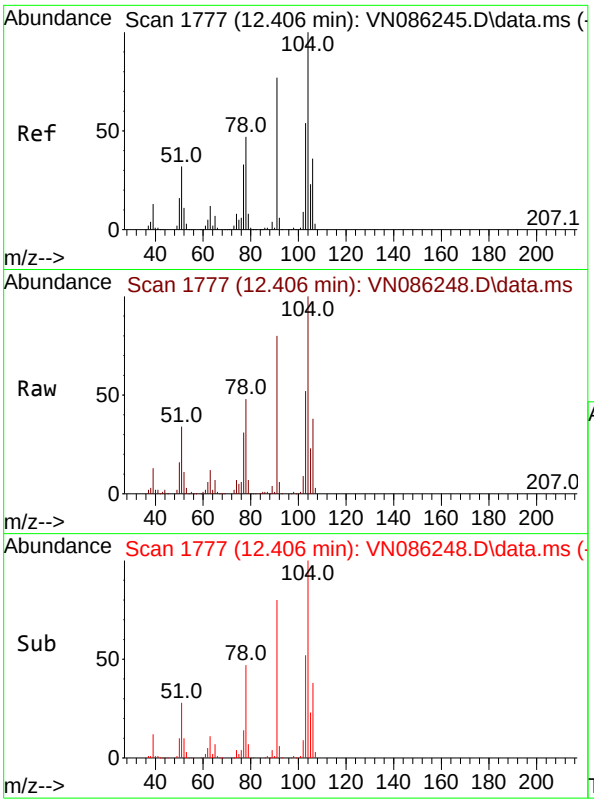


#68
o-Xylene
Concen: 20.528 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:106 Resp: 92550

Ion	Ratio	Lower	Upper
106	100		
91	216.2	109.8	329.4

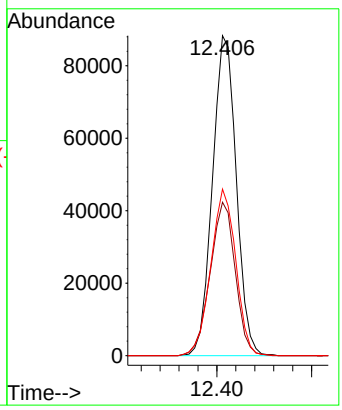




#69
Styrene
Concen: 20.281 ug/l
RT: 12.406 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:104 Resp: 15420

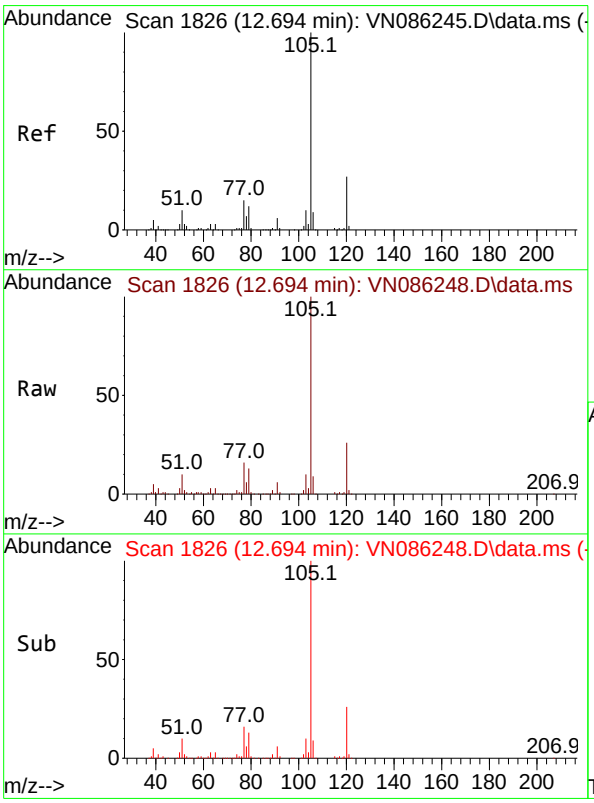
Ion	Ratio	Lower	Upper
104	100		
78	50.6	41.4	62.0
103	54.6	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

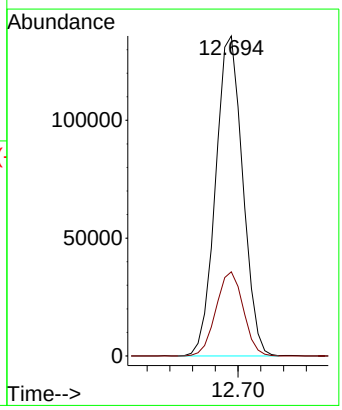
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

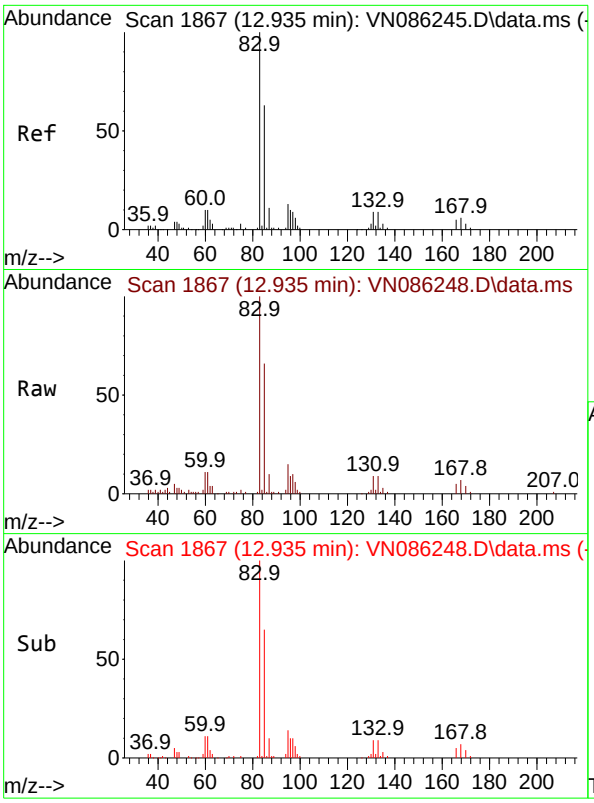


#70
Isopropylbenzene
Concen: 20.275 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 225389

Ion	Ratio	Lower	Upper
105	100		
120	26.4	18.3	34.1

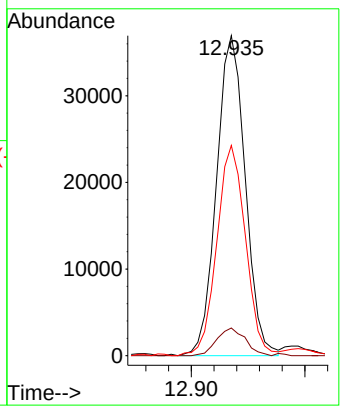




#71
1,1,2,2-Tetrachloroethane
Concen: 20.516 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 83 Resp: 6491

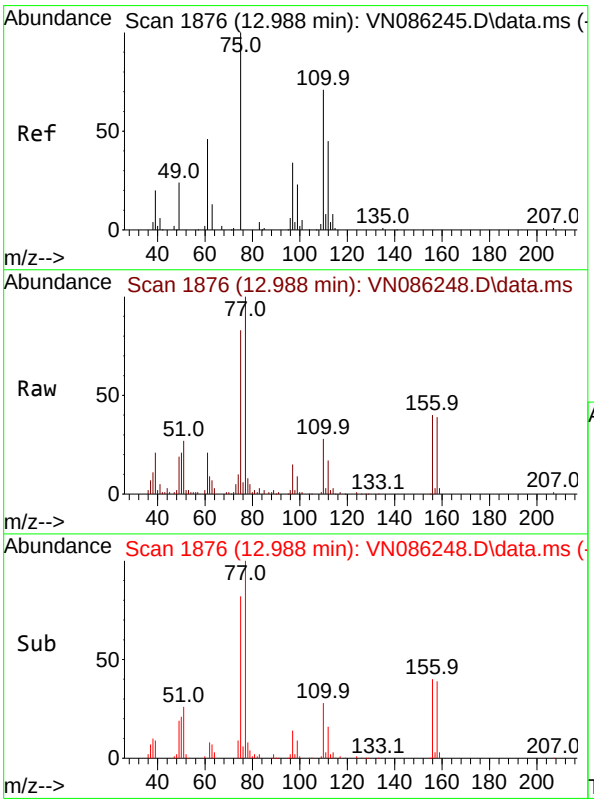
Ion	Ratio	Lower	Upper
83	100		
131	8.6	4.8	14.3
85	65.4	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

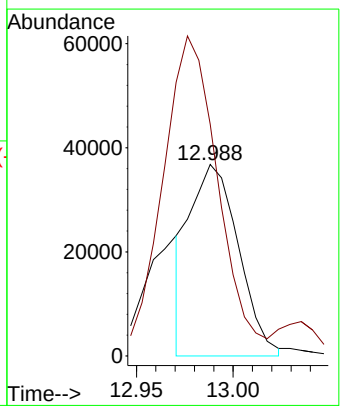
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

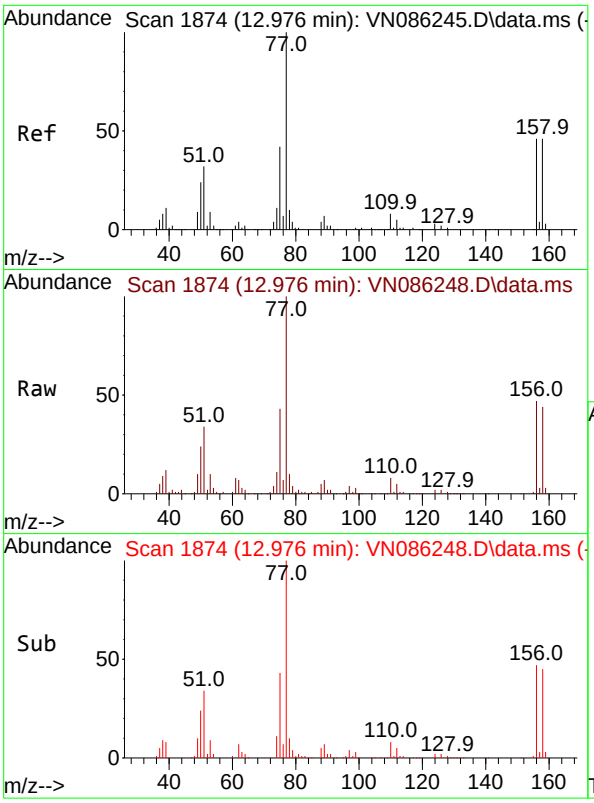


#72
1,2,3-Trichloropropane
Concen: 19.534 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 64339

Ion	Ratio	Lower	Upper
75	100		
77	191.4	0.0	380.0

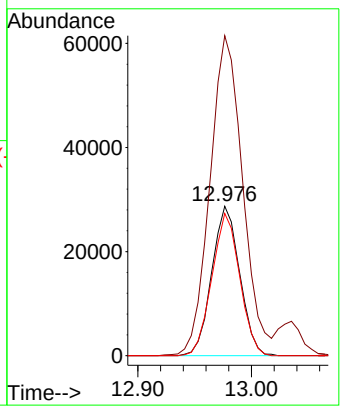




#73
Bromobenzene
Concen: 19.870 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:156 Resp: 4893

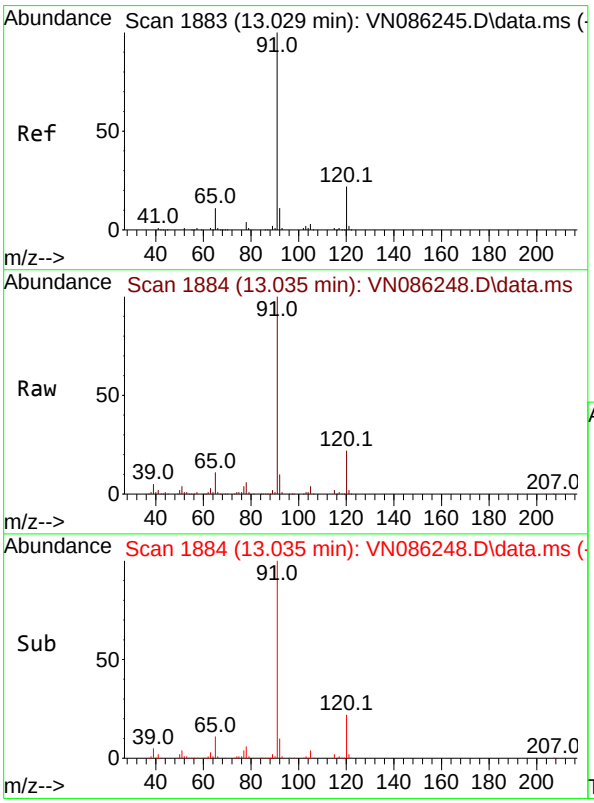
Ion	Ratio	Lower	Upper
156	100		
77	251.7	0.0	505.2
158	95.0	0.0	195.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

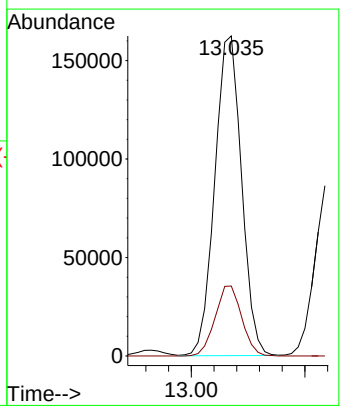
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

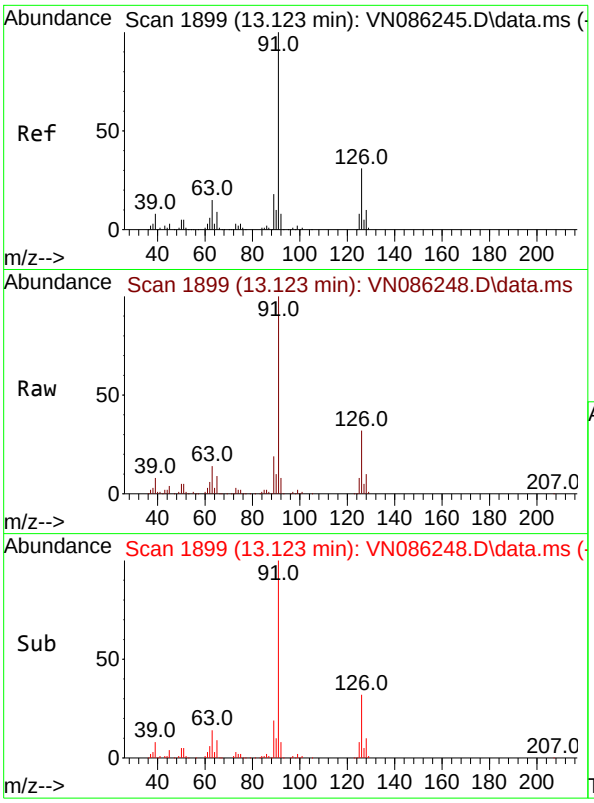


#74
n-propylbenzene
Concen: 20.227 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 265507

Ion	Ratio	Lower	Upper
91	100		
120	21.8	0.0	44.0

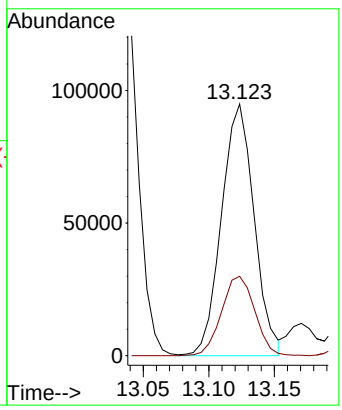




#75
2-Chlorotoluene
Concen: 19.943 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 16453

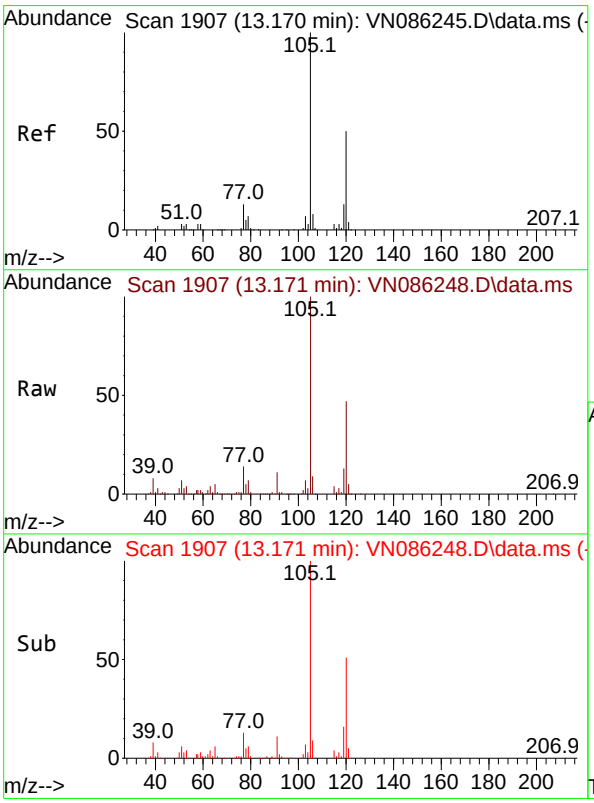
Ion	Ratio	Lower	Upper
91	100		
126	32.1	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

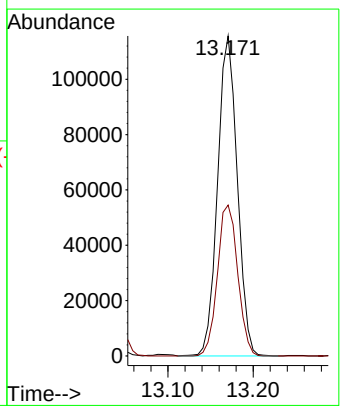
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

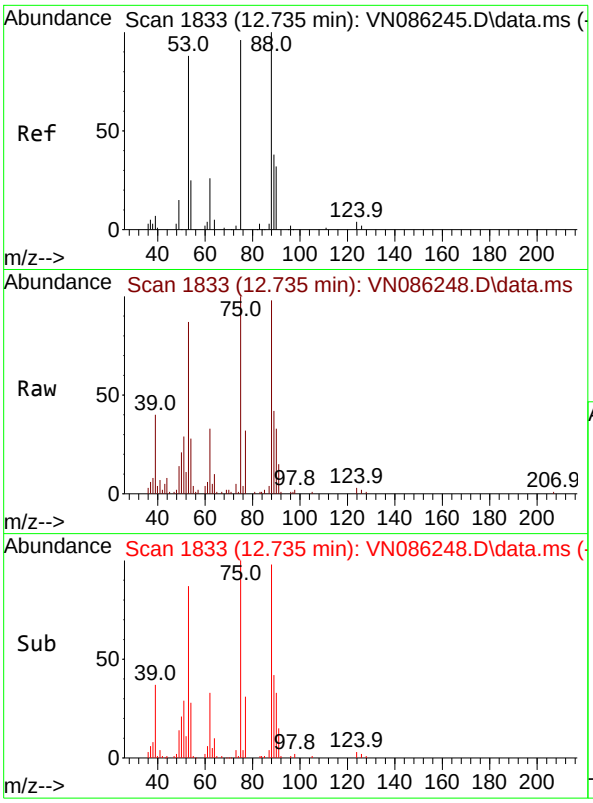


#76
1,3,5-Trimethylbenzene
Concen: 20.354 ug/l
RT: 13.171 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 185869

Ion	Ratio	Lower	Upper
105	100		
120	48.5	0.0	98.0

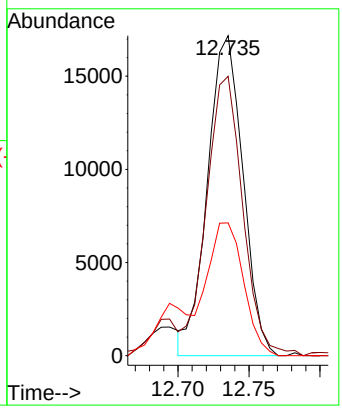




#77
t-1,4-Dichloro-2-butene
Concen: 19.590 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 2975

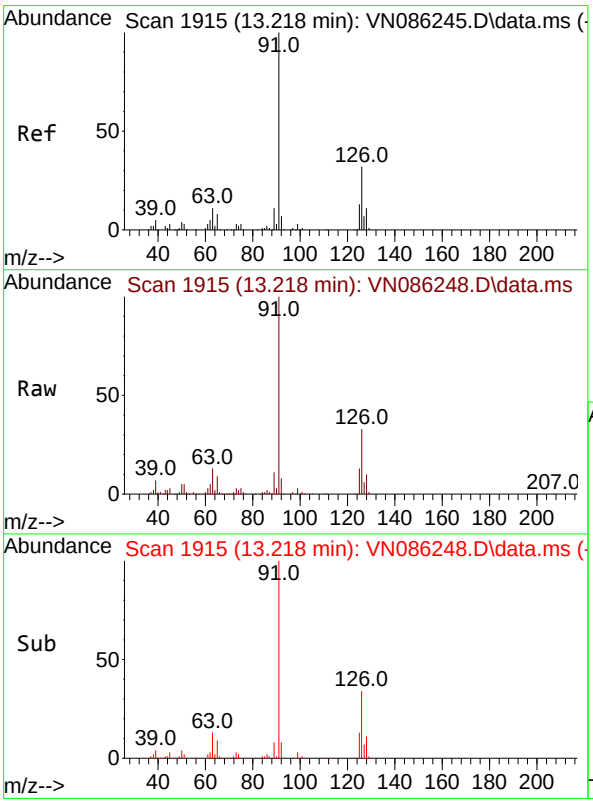
Ion	Ratio	Lower	Upper
75	100		
53	85.0	46.4	139.2
89	41.5	22.5	67.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

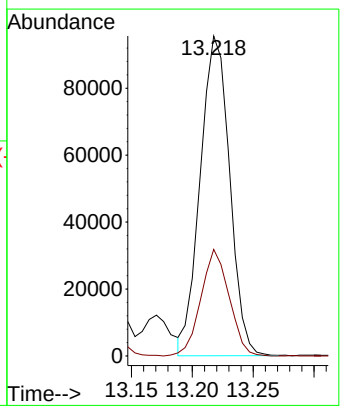
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

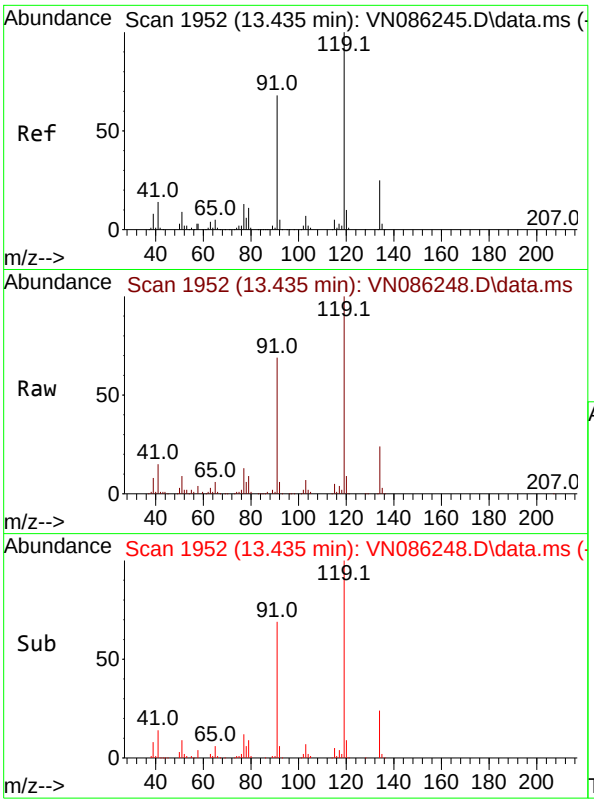


#78
4-Chlorotoluene
Concen: 19.528 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 160908

Ion	Ratio	Lower	Upper
91	100		
126	31.9	0.0	63.2

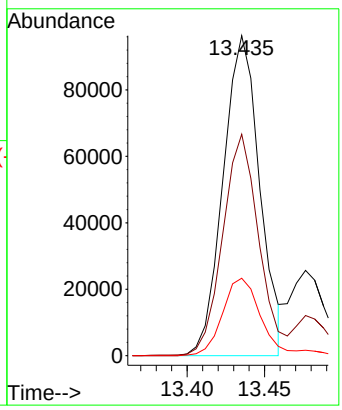




#79
tert-butylbenzene
Concen: 20.021 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:119 Resp: 15820

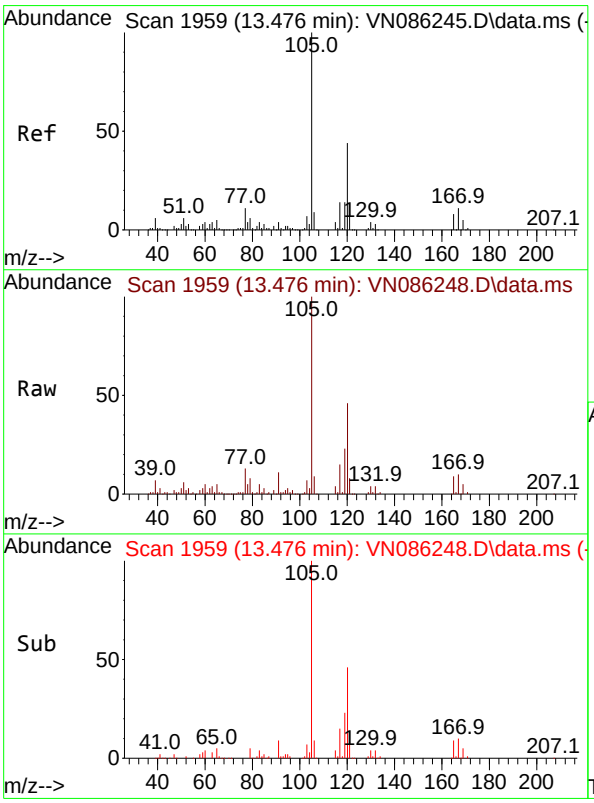
Ion	Ratio	Lower	Upper
119	100		
91	68.6	0.0	136.6
134	24.9	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

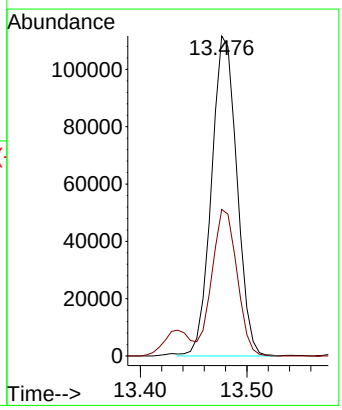
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

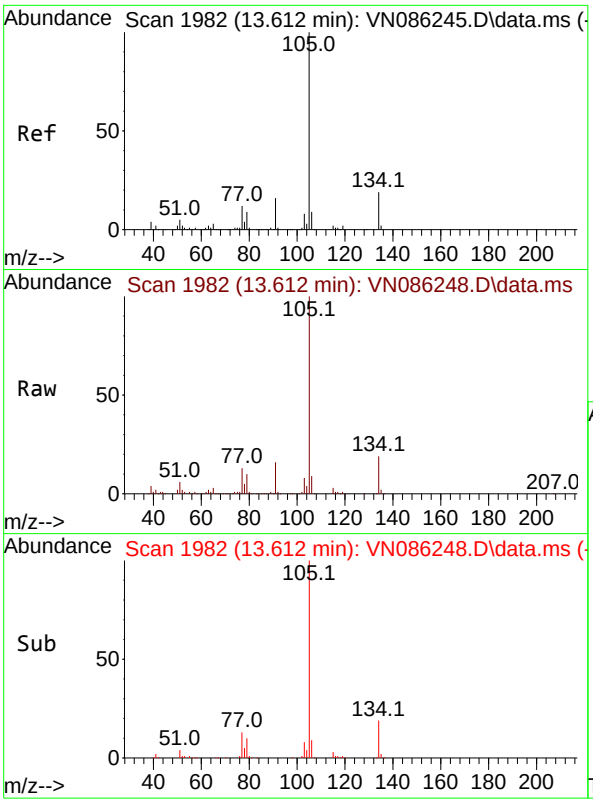


#80
1,2,4-Trimethylbenzene
Concen: 19.981 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 185022

Ion	Ratio	Lower	Upper
105	100		
120	44.9	0.0	91.0

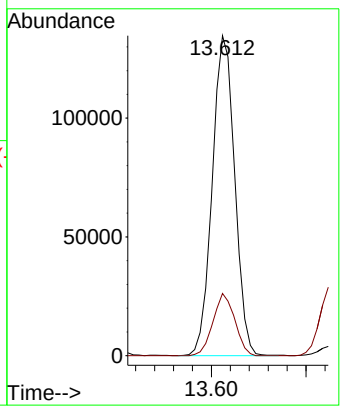




#81
sec-Butylbenzene
Concen: 20.145 ug/l
RT: 13.612 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 22204

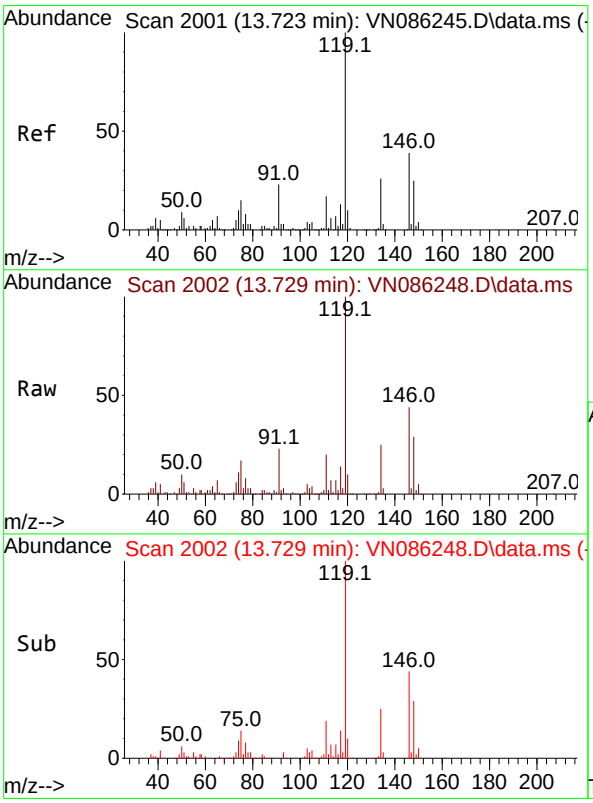
Ion	Ratio	Lower	Upper
105	100		
134	18.9	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

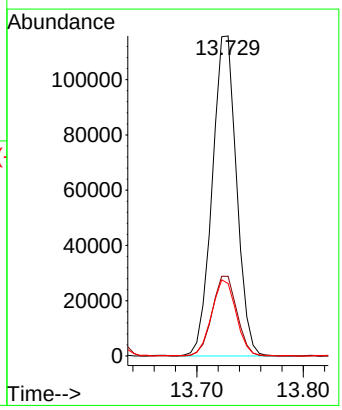
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

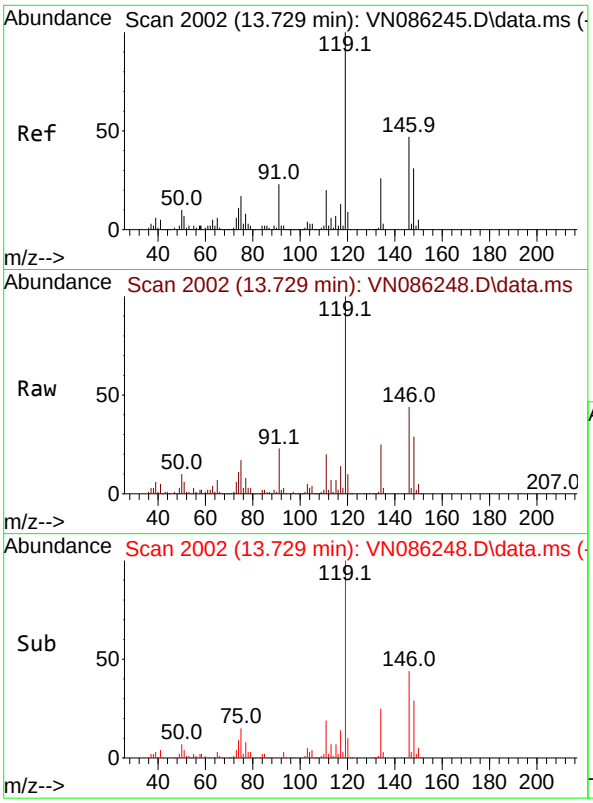


#82
p-Isopropyltoluene
Concen: 19.959 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:119 Resp: 183515

Ion	Ratio	Lower	Upper
119	100		
134	25.4	0.0	51.6
91	24.1	0.0	48.2

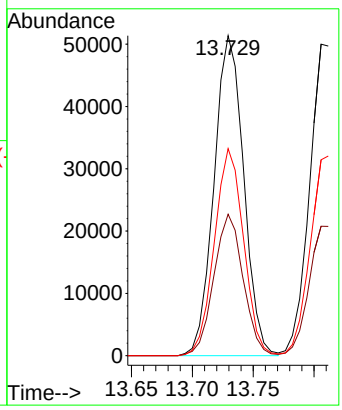




#83
1,3-Dichlorobenzene
Concen: 19.047 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:146 Resp: 8717

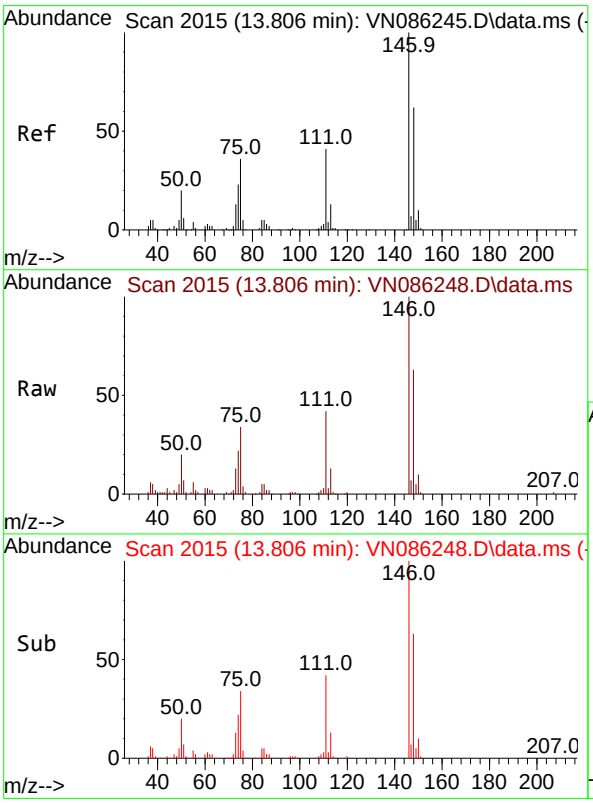
Ion	Ratio	Lower	Upper
146	100		
111	43.7	21.7	65.1
148	63.7	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

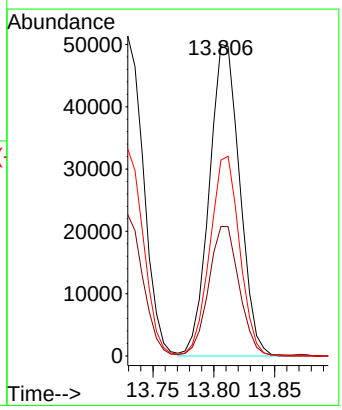
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

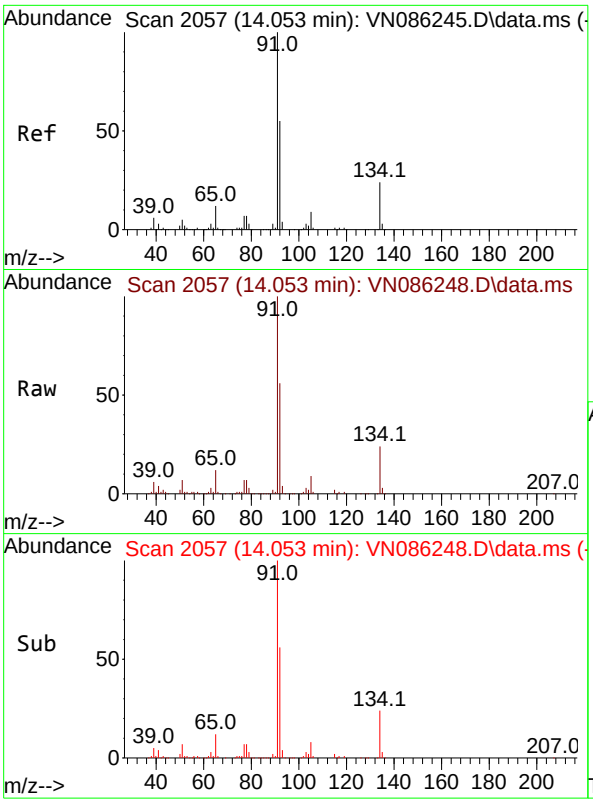


#84
1,4-Dichlorobenzene
Concen: 18.923 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:146 Resp: 86888

Ion	Ratio	Lower	Upper
146	100		
111	41.7	20.8	62.4
148	62.7	31.9	95.5

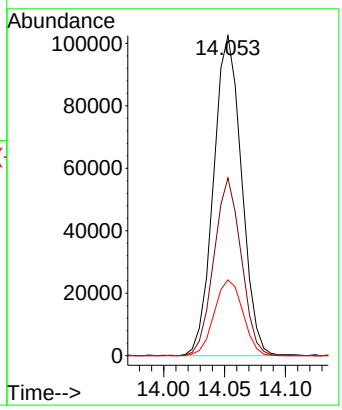




#85
n-Butylbenzene
Concen: 19.828 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 16447

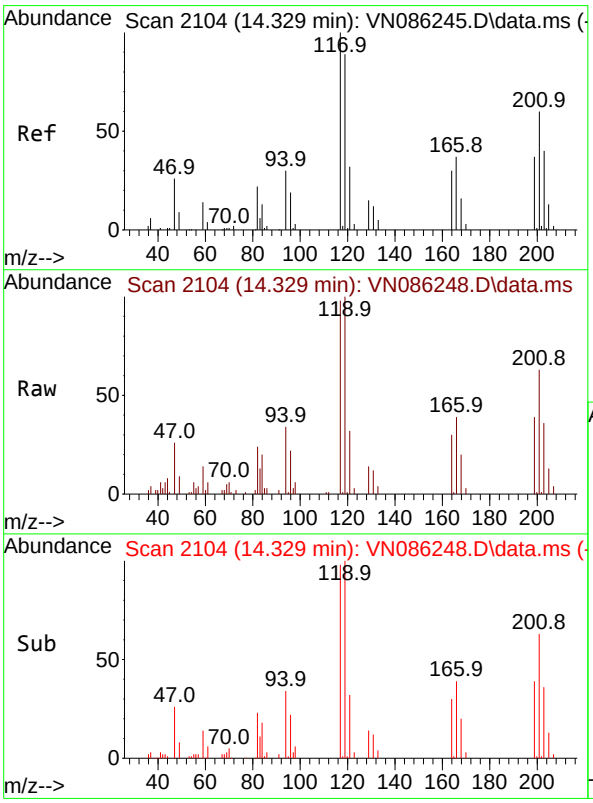
Ion	Ratio	Lower	Upper
91	100		
92	53.9	0.0	109.4
134	24.1	0.0	48.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

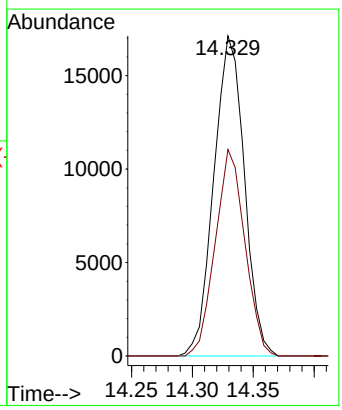
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

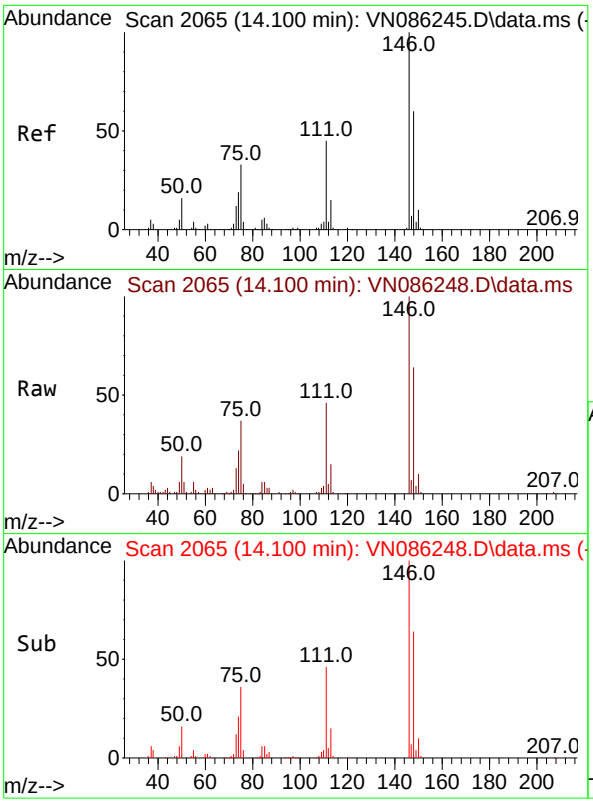


#86
Hexachloroethane
Concen: 19.245 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:117 Resp: 29849

Ion	Ratio	Lower	Upper
117	100		
201	62.7	30.9	92.8

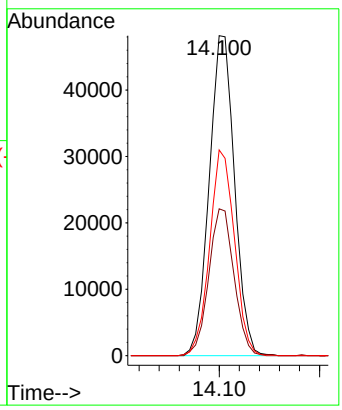




#87
1,2-Dichlorobenzene
Concen: 18.727 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:146 Resp: 8463

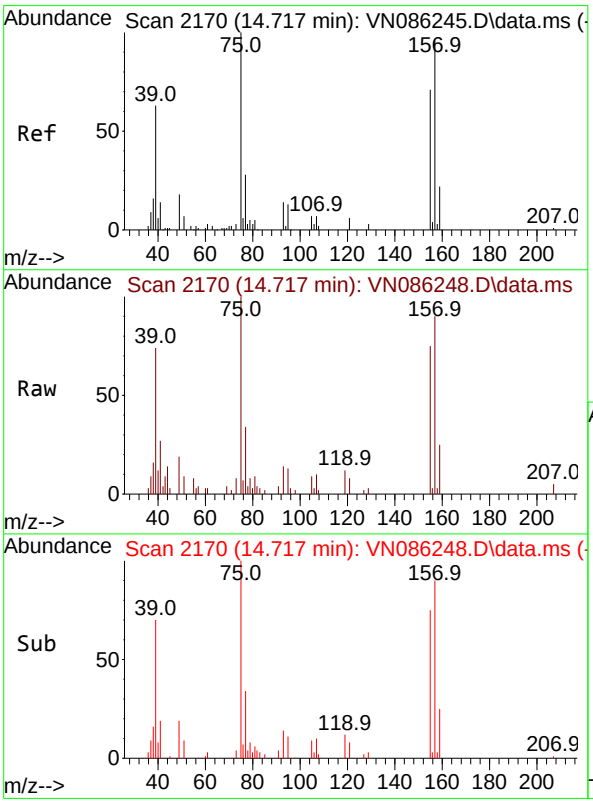
Ion	Ratio	Lower	Upper
146	100		
111	45.8	22.7	68.0
148	63.1	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

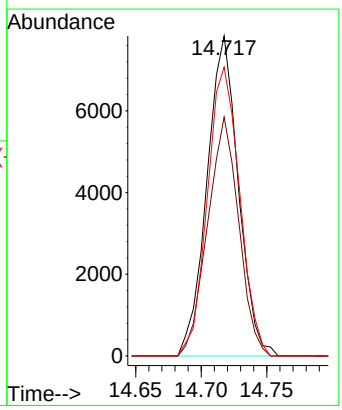
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

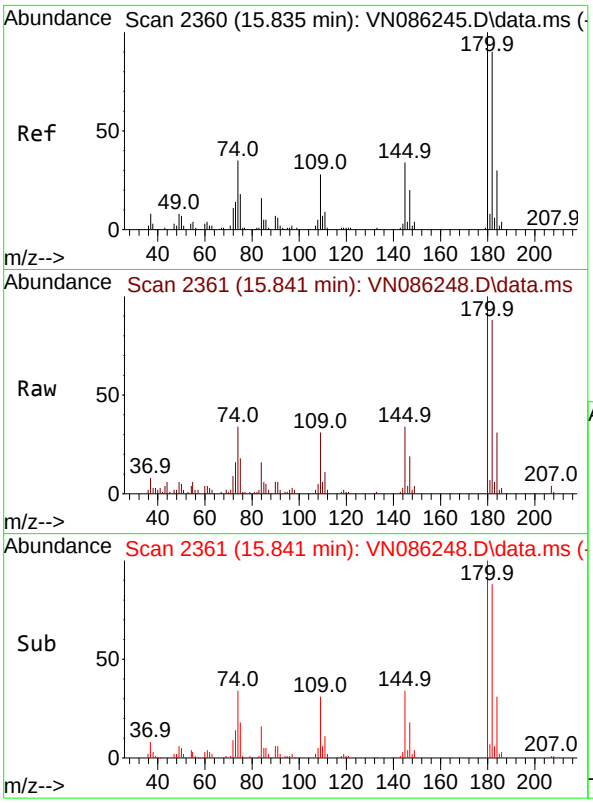


#88
1,2-Dibromo-3-Chloropropane
Concen: 18.109 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 13051

Ion	Ratio	Lower	Upper
75	100		
155	73.8	60.3	90.5
157	92.5	79.0	118.4

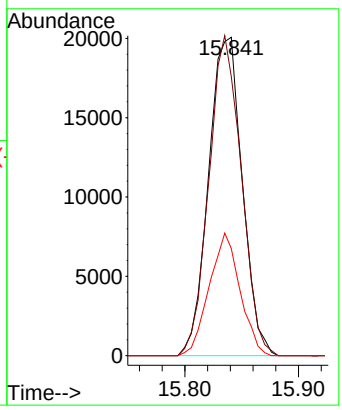




#89
1,2,4-Trichlorobenzene
Concen: 18.826 ug/l
RT: 15.841 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:180 Resp: 4139

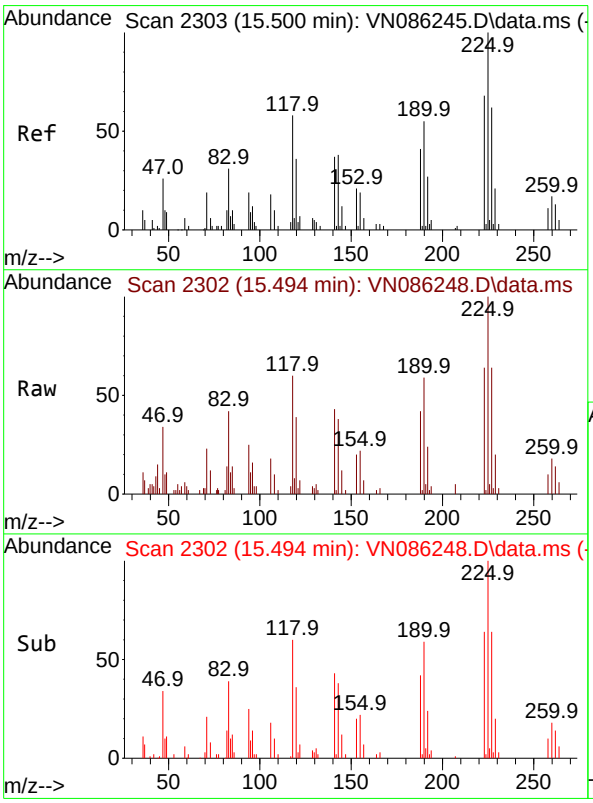
Ion	Ratio	Lower	Upper
180	100		
182	96.3	75.1	112.7
145	35.2	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations
APPROVED

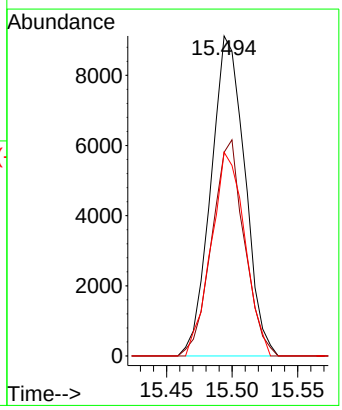
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

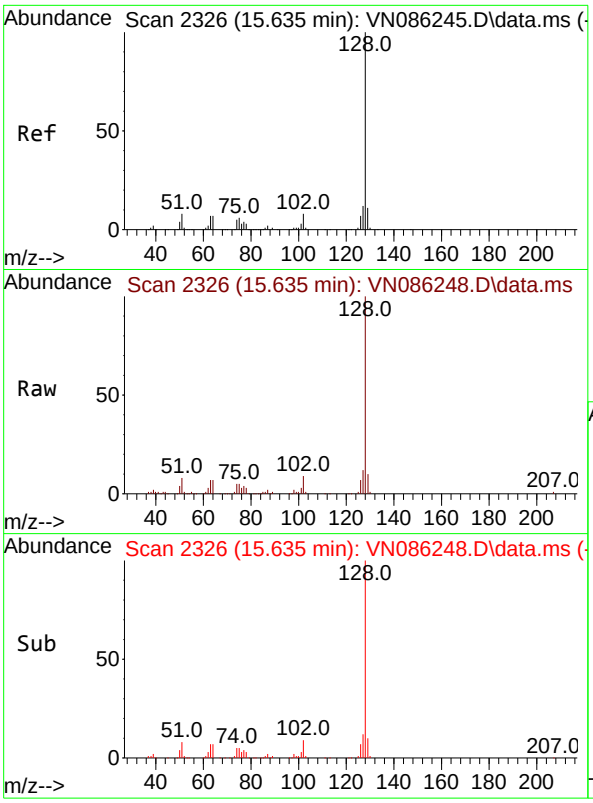


#90
Hexachlorobutadiene
Concen: 17.262 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:225 Resp: 16389

Ion	Ratio	Lower	Upper
225	100		
223	64.7	0.0	130.0
227	63.3	0.0	123.2

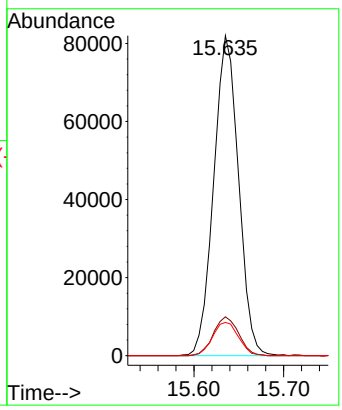




#91
Naphthalene
Concen: 18.155 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:128 Resp: 15740

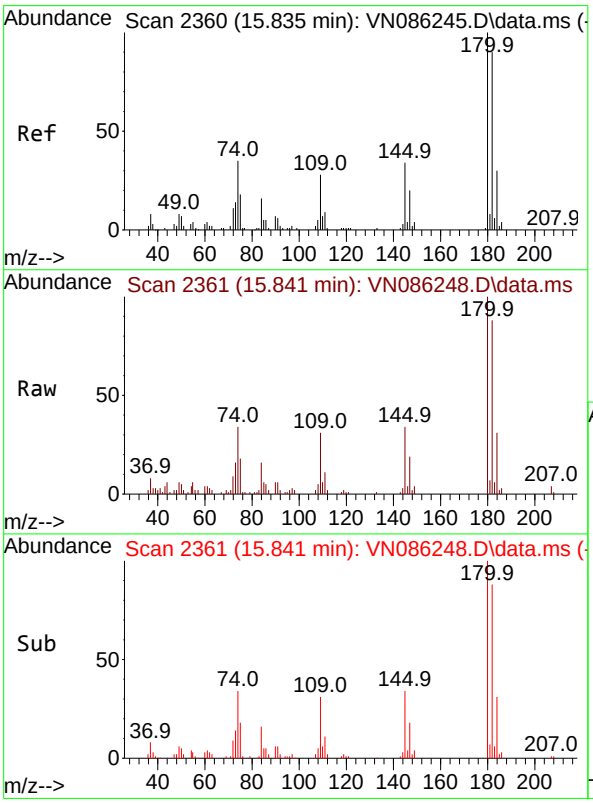
Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.2
129	10.9	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Manual Integrations APPROVED

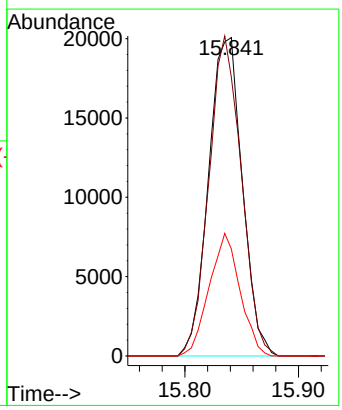
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 18.826 ug/l
RT: 15.841 min Scan# 2361
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:180 Resp: 41396

Ion	Ratio	Lower	Upper
180	100		
182	96.3	0.0	187.8
145	35.2	0.0	67.8



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	Bromochloromethane	1.000	1.000	0.0	100	0.00
2	M	Dichlorodifluoromethane	2.404	2.591	-7.8	112	0.00
3	M	Chloromethane	3.322	3.360	-1.1	109	0.00
4	M	Vinyl Chloride	3.164	3.200	-1.1	107	0.00
5	M	Bromomethane	1.578	1.593	-1.0	108	0.00
6	M	Chloroethane	1.998	2.062	-3.2	111	0.00
7	M	Trichlorofluoromethane	3.433	3.514	-2.4	110	0.00
8	T	Diethyl Ether	1.583	1.605	-1.4	109	0.00
9		1,1,2-Trichlorotrifluoroeth	2.117	2.123	-0.3	107	0.00
10	M	1,1-Dichloroethene	2.284	2.299	-0.7	107	0.00
11		Methyl Iodide	2.626	2.645	-0.7	108	0.00
12		Methyl Acetate	3.226	3.101	3.9	105	0.00
13	M	Acrolein	0.367	0.328	10.6	122	0.00
14	M	Acrylonitrile	1.362	1.307	4.0	102	0.00
15	M	Acetone	0.345	0.324	6.1	99	0.00
16	M	Carbon Disulfide	6.550	6.700	-2.3	107	0.00
17		Allyl chloride	3.981	4.141	-4.0	112	0.00
18	M	Methylene Chloride	2.605	2.626	-0.8	110	0.00
19	M	trans-1,2-Dichloroethene	2.406	2.363	1.8	107	0.00
20	T	Diisopropyl ether	8.560	8.854	-3.4	110	0.00
21	M	1,1-Dichloroethane	4.567	4.699	-2.9	108	0.00
22	M	cis-1,2-Dichloroethene	2.866	2.891	-0.9	108	0.00
23	M	tert-Butyl Alcohol	0.564	0.546	3.2	100	0.00
24	M	Methyl tert-Butyl Ether	8.244	8.331	-1.1	109	0.00
25	M	Chloroform	4.355	4.502	-3.4	110	0.00
26		Cyclohexane	4.273	4.254	0.4	108	0.00
27	s	1,2-Dichloroethane-d4	2.926	2.904	0.8	100	0.00
28	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
29		1,1-Dichloropropene	0.537	0.547	-1.9	108	0.00
30	M	2-Butanone	0.298	0.295	1.0	103	0.00
31		2,2-Dichloropropane	0.662	0.698	-5.4	111	0.00
32	M	1,1,1-Trichloroethane	0.618	0.620	-0.3	107	0.00
33	M	Carbon Tetrachloride	0.494	0.503	-1.8	108	0.00
34	M	Benzene	1.710	1.754	-2.6	109	0.00
35		Methacrylonitrile	0.336	0.332	1.2	106	0.00
36	M	1,2-Dichloroethane	0.535	0.545	-1.9	108	0.00
37	M	Trichloroethene	0.413	0.409	1.0	105	0.00
38		Methylcyclohexane	0.659	0.664	-0.8	109	0.00
39	M	1,2-Dichloropropane	0.425	0.440	-3.5	110	0.00
40		Dibromomethane	0.275	0.270	1.8	105	0.00
41	M	Bromodichloromethane	0.590	0.599	-1.5	108	0.00
42	M	Vinyl Acetate	1.014	1.050	-3.6	107	0.00
43		Ethyl Acetate	0.601	0.602	-0.2	104	0.00
44		Isopropyl Acetate	1.114	1.130	-1.4	109	0.00
45	T	1,4-Dioxane	0.009	0.008	11.1	97	0.00
46		Methyl methacrylate	0.491	0.490	0.2	106	0.00
47		n-amyl Acetate	0.883	0.865	2.0	107	0.00
48	M	t-1,3-Dichloropropene	0.667	0.674	-1.0	108	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	cis-1,3-Dichloropropene	0.706	0.727	-3.0	109	0.00
50	M	1,1,2-Trichloroethane	0.385	0.380	1.3	104	0.00
51		Ethyl methacrylate	0.716	0.725	-1.3	108	0.00
52		1,3-Dichloropropane	0.687	0.694	-1.0	109	0.00
53	M	Dibromochloromethane	0.422	0.420	0.5	105	0.00
54	M	1,2-Dibromoethane	0.389	0.384	1.3	105	0.00
55	M	2-Chloroethyl vinyl ether	0.271	0.360	-32.8#	113	0.00
56	M	Bromoform	0.276	0.267	3.3	103	0.00
57	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
58	M	4-Methyl-2-Pentanone	0.681	0.690	-1.3	104	0.00
59	M	2-Hexanone	0.507	0.514	-1.4	105	0.00
60	S	4-Bromofluorobenzene	0.597	0.587	1.7	100	0.00
61	M	Tetrachloroethene	0.443	0.447	-0.9	107	0.00
62	M	Toluene	2.012	2.069	-2.8	108	0.00
63	S	Toluene-d8	1.694	1.687	0.4	99	0.00
64	M	Chlorobenzene	1.229	1.255	-2.1	108	0.00
65		1,1,1,2-Tetrachloroethane	0.406	0.417	-2.7	108	0.00
66	M	Ethyl Benzene	2.232	2.269	-1.7	107	0.00
67	M	m/p-Xylenes	0.830	0.843	-1.6	108	0.00
68	M	o-Xylene	0.816	0.838	-2.7	109	0.00
69	M	Styrene	1.376	1.396	-1.5	109	0.00
70		Isopropylbenzene	2.012	2.040	-1.4	108	0.00
71	M	1,1,2,2-Tetrachloroethane	0.573	0.588	-2.6	107	0.00
72		1,2,3-Trichloropropane	0.596	0.582	2.3	104	0.00
73		Bromobenzene	0.446	0.443	0.7	105	0.00
74		n-propylbenzene	2.376	2.403	-1.1	109	0.00
75		2-Chlorotoluene	1.494	1.489	0.3	107	0.00
76		1,3,5-Trimethylbenzene	1.653	1.682	-1.8	108	0.00
77		t-1,4-Dichloro-2-butene	0.275	0.269	2.2	104	0.00
78		4-Chlorotoluene	1.492	1.456	2.4	106	0.00
79		tert-butylbenzene	1.430	1.432	-0.1	107	0.00
80		1,2,4-Trimethylbenzene	1.676	1.675	0.1	106	0.00
81		sec-Butylbenzene	1.995	2.010	-0.8	106	0.00
82		p-Isopropyltoluene	1.664	1.661	0.2	106	0.00
83	M	1,3-Dichlorobenzene	0.829	0.789	4.8	103	0.00
84	M	1,4-Dichlorobenzene	0.831	0.786	5.4	102	0.00
85		n-Butylbenzene	1.502	1.489	0.9	106	0.00
86	T	Hexachloroethane	0.281	0.270	3.9	103	0.00
87	M	1,2-Dichlorobenzene	0.818	0.766	6.4	100	0.00
88		1,2-Dibromo-3-Chloropropane	0.130	0.118	9.2	93	0.00
89		1,2,4-Trichlorobenzene	0.398	0.375	5.8	94	0.00
90		Hexachlorobutadiene	0.172	0.148	14.0	90	0.00
91	M	Naphthalene	1.569	1.425	9.2	93	0.00
92		1,2,3-Trichlorobenzene	0.398	0.375	5.8	94	0.00

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	Bromochloromethane	30.000	30.000	0.0	100	0.00
2	M	Dichlorodifluoromethane	20.000	21.563	-7.8	112	0.00
3	M	Chloromethane	20.000	20.226	-1.1	109	0.00
4	M	Vinyl Chloride	20.000	20.223	-1.1	107	0.00
5	M	Bromomethane	20.000	20.183	-0.9	108	0.00
6	M	Chloroethane	20.000	20.642	-3.2	111	0.00
7	M	Trichlorofluoromethane	20.000	20.473	-2.4	110	0.00
8	T	Diethyl Ether	20.000	20.276	-1.4	109	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	20.062	-0.3	107	0.00
10	M	1,1-Dichloroethene	20.000	20.128	-0.6	107	0.00
11		Methyl Iodide	20.000	20.148	-0.7	108	0.00
12		Methyl Acetate	20.000	19.227	3.9	105	0.00
13	M	Acrolein	100.000	89.375	10.6	122	0.00
14	M	Acrylonitrile	100.000	95.988	4.0	102	0.00
15	M	Acetone	100.000	93.868	6.1	99	0.00
16	M	Carbon Disulfide	20.000	20.456	-2.3	107	0.00
17		Allyl chloride	20.000	20.801	-4.0	112	0.00
18	M	Methylene Chloride	20.000	20.166	-0.8	110	0.00
19	M	trans-1,2-Dichloroethene	20.000	19.638	1.8	107	0.00
20	T	Diisopropyl ether	20.000	20.688	-3.4	110	0.00
21	M	1,1-Dichloroethane	20.000	20.578	-2.9	108	0.00
22	M	cis-1,2-Dichloroethene	20.000	20.174	-0.9	108	0.00
23	M	tert-Butyl Alcohol	100.000	96.723	3.3	100	0.00
24	M	Methyl tert-Butyl Ether	20.000	20.211	-1.1	109	0.00
25	M	Chloroform	20.000	20.677	-3.4	110	0.00
26		Cyclohexane	20.000	19.913	0.4	108	0.00
27	s	1,2-Dichloroethane-d4	30.000	29.777	0.7	100	0.00
28	I	1,4-Difluorobenzene	30.000	30.000	0.0	102	0.00
29		1,1-Dichloropropene	20.000	20.373	-1.9	108	0.00
30	M	2-Butanone	100.000	98.995	1.0	103	0.00
31		2,2-Dichloropropane	20.000	21.111	-5.6	111	0.00
32	M	1,1,1-Trichloroethane	20.000	20.044	-0.2	107	0.00
33	M	Carbon Tetrachloride	20.000	20.360	-1.8	108	0.00
34	M	Benzene	20.000	20.522	-2.6	109	0.00
35		Methacrylonitrile	20.000	19.764	1.2	106	0.00
36	M	1,2-Dichloroethane	20.000	20.391	-2.0	108	0.00
37	M	Trichloroethene	20.000	19.842	0.8	105	0.00
38		Methylcyclohexane	20.000	20.137	-0.7	109	0.00
39	M	1,2-Dichloropropane	20.000	20.675	-3.4	110	0.00
40		Dibromomethane	20.000	19.681	1.6	105	0.00
41	M	Bromodichloromethane	20.000	20.289	-1.4	108	0.00
42	M	Vinyl Acetate	100.000	103.572	-3.6	107	0.00
43		Ethyl Acetate	20.000	20.054	-0.3	104	0.00
44		Isopropyl Acetate	20.000	20.285	-1.4	109	0.00
45	T	1,4-Dioxane	400.000	369.952	7.5	97	0.00
46		Methyl methacrylate	20.000	19.956	0.2	106	0.00
47		n-amyl Acetate	20.000	19.589	2.1	107	0.00
48	M	t-1,3-Dichloropropene	20.000	20.190	-1.0	108	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	cis-1,3-Dichloropropene	20.000	20.581	-2.9	109	0.00
50	M	1,1,2-Trichloroethane	20.000	19.741	1.3	104	0.00
51		Ethyl methacrylate	20.000	20.259	-1.3	108	0.00
52		1,3-Dichloropropane	20.000	20.216	-1.1	109	0.00
53	M	Dibromochloromethane	20.000	19.923	0.4	105	0.00
54	M	1,2-Dibromoethane	20.000	19.762	1.2	105	0.00
55	M	2-Chloroethyl vinyl ether	100.000	132.990	-33.0#	113	0.00
56	M	Bromoform	20.000	19.359	3.2	103	0.00
57	I	Chlorobenzene-d5	30.000	30.000	0.0	101	0.00
58	M	4-Methyl-2-Pentanone	100.000	101.329	-1.3	104	0.00
59	M	2-Hexanone	100.000	101.451	-1.5	105	0.00
60	S	4-Bromofluorobenzene	30.000	29.482	1.7	100	0.00
61	M	Tetrachloroethene	20.000	20.169	-0.8	107	0.00
62	M	Toluene	20.000	20.568	-2.8	108	0.00
63	S	Toluene-d8	30.000	29.890	0.4	99	0.00
64	M	Chlorobenzene	20.000	20.424	-2.1	108	0.00
65		1,1,1,2-Tetrachloroethane	20.000	20.546	-2.7	108	0.00
66	M	Ethyl Benzene	20.000	20.336	-1.7	107	0.00
67	M	m/p-Xylenes	40.000	40.633	-1.6	108	0.00
68	M	o-Xylene	20.000	20.528	-2.6	109	0.00
69	M	Styrene	20.000	20.281	-1.4	109	0.00
70		Isopropylbenzene	20.000	20.275	-1.4	108	0.00
71	M	1,1,2,2-Tetrachloroethane	20.000	20.516	-2.6	107	0.00
72		1,2,3-Trichloropropane	20.000	19.534	2.3	104	0.00
73		Bromobenzene	20.000	19.870	0.6	105	0.00
74		n-propylbenzene	20.000	20.227	-1.1	109	0.00
75		2-Chlorotoluene	20.000	19.943	0.3	107	0.00
76		1,3,5-Trimethylbenzene	20.000	20.354	-1.8	108	0.00
77		t-1,4-Dichloro-2-butene	20.000	19.590	2.1	104	0.00
78		4-Chlorotoluene	20.000	19.528	2.4	106	0.00
79		tert-butylbenzene	20.000	20.021	-0.1	107	0.00
80		1,2,4-Trimethylbenzene	20.000	19.981	0.1	106	0.00
81		sec-Butylbenzene	20.000	20.145	-0.7	106	0.00
82		p-Isopropyltoluene	20.000	19.959	0.2	106	0.00
83	M	1,3-Dichlorobenzene	20.000	19.047	4.8	103	0.00
84	M	1,4-Dichlorobenzene	20.000	18.923	5.4	102	0.00
85		n-Butylbenzene	20.000	19.828	0.9	106	0.00
86	T	Hexachloroethane	20.000	19.245	3.8	103	0.00
87	M	1,2-Dichlorobenzene	20.000	18.727	6.4	100	0.00
88		1,2-Dibromo-3-Chloropropane	20.000	18.109	9.5	93	0.00
89		1,2,4-Trichlorobenzene	20.000	18.826	5.9	94	0.00
90		Hexachlorobutadiene	20.000	17.262	13.7	90	0.00
91	M	Naphthalene	20.000	18.155	9.2	93	0.00
92		1,2,3-Trichlorobenzene	20.000	18.826	5.9	94	0.00

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

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG No.: Q1774

Instrument ID: MSVOA_N Calibration Date/Time: 04/11/2025 17:28

Lab File ID: VN086255.D Init. Calib. Date(s): 04/11/2025 04/11/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:04 12:40

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	2.404	2.329		-3.12	50
Chloromethane	3.322	3.290		-0.96	50
Vinyl Chloride	3.164	3.093	0.1	-2.24	50
Bromomethane	1.578	1.524	0.1	-3.42	50
Chloroethane	1.998	1.989		-0.45	50
Trichlorofluoromethane	3.433	3.320		-3.29	50
1,1,2-Trichlorotrifluoroethane	2.117	1.981		-6.42	50
1,1-Dichloroethene	2.284	2.142	0.1	-6.22	50
Acrolein	0.367	0.303		-17.44	50
Acrylonitrile	1.362	1.283		-5.8	50
Acetone	0.345	0.315		-8.7	50
Carbon Disulfide	6.550	6.271		-4.26	50
Methyl tert-Butyl Ether	8.244	7.740		-6.11	50
Methyl Acetate	3.226	2.973		-7.84	50
Methylene Chloride	2.605	2.476		-4.95	50
trans-1,2-Dichloroethene	2.406	2.267		-5.78	50
1,1-Dichloroethane	4.567	4.406	0.2	-3.53	50
Cyclohexane	0.705	0.688		-2.41	50
2-Butanone	0.298	0.289		-3.02	50
Carbon Tetrachloride	0.494	0.480	0.1	-2.83	50
2,2-Dichloropropane	0.662	0.630		-4.83	50
cis-1,2-Dichloroethene	2.866	2.731		-4.71	50
Chloroform	4.355	4.229	0.2	-2.89	50
1,1,1-Trichloroethane	0.618	0.613	0.1	-0.81	50
Methylcyclohexane	0.659	0.623		-5.46	50
1,1-Dichloropropene	0.537	0.536		-0.19	50
Benzene	1.710	1.702	0.5	-0.47	50
1,2-Dichloroethane	0.535	0.527	0.1	-1.5	50
Trichloroethene	0.413	0.390	0.3	-5.57	50
1,2-Dichloropropane	0.425	0.419		-1.41	50
Dibromomethane	0.275	0.273		-0.73	50
Bromodichloromethane	0.590	0.577	0.2	-2.2	50
4-Methyl-2-Pentanone	0.681	0.675		-0.88	50
Toluene	2.012	2.024	0.4	0.6	50
t-1,3-Dichloropropene	0.667	0.639	0.1	-4.2	50
cis-1,3-Dichloropropene	0.706	0.700	0.2	-0.85	50
1,1,2-Trichloroethane	0.385	0.372	0.1	-3.38	50
1,3-Dichloropropane	0.687	0.678		-1.31	50

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Alliance TECHNICAL GROUP

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1774 SAS No.: Q1774 SDG No.: Q1774

Instrument ID: MSVOA_N Calibration Date/Time: 04/11/2025 17:28

Lab File ID: VN086255.D Init. Calib. Date(s): 04/11/2025 04/11/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:04 12:40

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
2-Hexanone	0.507	0.497		-1.97	50
Dibromochloromethane	0.422	0.409	0.1	-3.08	50
1,2-Dibromoethane	0.389	0.381		-2.06	50
Tetrachloroethene	0.443	0.436	0.2	-1.58	50
Chlorobenzene	1.229	1.213	0.5	-1.3	50
1,1,1,2-Tetrachloroethane	0.406	0.409		0.74	50
Hexachloroethane	0.281	0.270		-3.91	50
Ethyl Benzene	2.232	2.191	0.1	-1.84	50
m/p-Xylenes	0.830	0.800	0.3	-3.61	50
o-Xylene	0.816	0.819	0.3	0.37	50
Styrene	1.376	1.320	0.3	-4.07	50
Bromoform	0.276	0.256	0.1	-7.25	50
Isopropylbenzene	2.012	1.938		-3.68	50
1,1,2,2-Tetrachloroethane	0.573	0.586	0.3	2.27	50
1,2,3-Trichloropropane	0.596	0.572		-4.03	50
Bromobenzene	0.446	0.429		-3.81	50
n-propylbenzene	2.376	2.251		-5.26	50
2-Chlorotoluene	1.494	1.457		-2.48	50
1,3,5-Trimethylbenzene	1.653	1.573		-4.84	50
4-Chlorotoluene	1.492	1.416		-5.09	50
tert-butylbenzene	1.430	1.362		-4.76	50
1,2,4-Trimethylbenzene	1.676	1.585		-5.43	50
sec-Butylbenzene	1.995	1.884		-5.56	50
p-Isopropyltoluene	1.664	1.531		-7.99	50
1,3-Dichlorobenzene	0.829	0.766	0.2	-7.6	50
1,4-Dichlorobenzene	0.831	0.752	0.2	-9.51	50
n-Butylbenzene	1.502	1.334		-11.19	50
1,2-Dichlorobenzene	0.818	0.769	0.2	-5.99	50
1,2-Dibromo-3-Chloropropane	0.130	0.116		-10.77	50
1,2,4-Trichlorobenzene	0.398	0.331	0.2	-16.83	50
Hexachlorobutadiene	0.172	0.126		-26.74	50
Naphthalene	1.569	1.309		-16.57	50
1,2,3-Trichlorobenzene	0.398	0.331		-16.83	50
1,2-Dichloroethane-d4	2.926	2.837	0.01	-3.04	50
Toluene-d8	1.694	1.736	0.01	2.48	50
4-Bromofluorobenzene	0.597	0.593	0.2	-0.67	50
Methyl Iodide	2.626	2.513		-4.3	50
Methyl methacrylate	0.491	0.468		-4.68	50

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\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	18884	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	109876	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	95362	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	53571	29.085	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 96.933%			
60) 4-Bromofluorobenzene	12.847	95	56553	29.786	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.300%			
63) Toluene-d8	10.565	98	165558	30.752	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 102.500%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	29320	19.378	ug/l	99
3) Chloromethane	2.359	50	41417	19.805	ug/l	95
4) Vinyl Chloride	2.518	62	38937	19.548	ug/l	99
5) Bromomethane	2.971	94	19187	19.311	ug/l	99
6) Chloroethane	3.130	64	25042	19.909	ug/l	99
7) Trichlorofluoromethane	3.501	101	41794	19.342	ug/l	98
8) Diethyl Ether	3.965	74	18888	18.955	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.377	101	24936	18.715	ug/l	96
10) 1,1-Dichloroethene	4.348	96	26966	18.753	ug/l	98
11) Methyl Iodide	4.583	142	31641	19.145	ug/l	94
12) Methyl Acetate	5.030	43	37430	18.433	ug/l	97
13) Acrolein	4.183	56	19090	82.706	ug/l	97
14) Acrylonitrile	5.718	53	80784	94.238	ug/l	99
15) Acetone	4.424	58	19847	91.311	ug/l	90
16) Carbon Disulfide	4.718	76	78952	19.148	ug/l	97
17) Allyl chloride	5.030	41	49113	19.596	ug/l	95
18) Methylene Chloride	5.277	84	31167	19.010	ug/l	96
19) trans-1,2-Dichloroethene	5.789	96	28540	18.843	ug/l	99
20) Diisopropyl ether	6.671	45	95774	17.775	ug/l	97
21) 1,1-Dichloroethane	6.571	63	55465	19.295	ug/l	98
22) cis-1,2-Dichloroethene	7.483	96	34384	19.057	ug/l	99
23) tert-Butyl Alcohol	5.512	59	31875	89.739	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	97437	18.777	ug/l	98
25) Chloroform	7.965	83	53242	19.423	ug/l	93
26) Cyclohexane	8.253	56	50381	18.733	ug/l #	99
29) 1,1-Dichloropropene	8.371	75	39298	19.965	ug/l	99
30) 2-Butanone	7.477	43	105674	96.889	ug/l	99
31) 2,2-Dichloropropane	7.489	77	46144	19.045	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	44888	19.825	ug/l	99
33) Carbon Tetrachloride	8.359	117	35183	19.444	ug/l	96
34) Benzene	8.600	78	124673	19.909	ug/l	97
35) Methacrylonitrile	7.777	41	25486	20.728	ug/l	98
36) 1,2-Dichloroethane	8.671	62	38614	19.705	ug/l	97
37) Trichloroethene	9.347	130	28562	18.904	ug/l	95
38) Methylcyclohexane	9.594	83	45627	18.901	ug/l	99
39) 1,2-Dichloropropane	9.618	63	30685	19.693	ug/l	94
40) Dibromomethane	9.706	93	20002	19.875	ug/l	100
41) Bromodichloromethane	9.888	83	42242	19.539	ug/l	100
42) Vinyl Acetate	6.600	43	378299	101.896	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	37557	17.072	ug/l	#	93
44) Isopropyl Acetate	8.683	43	79656	19.518	ug/l		100
45) 1,4-Dioxane	9.694	88	12723	392.047	ug/l	#	93
46) Methyl methacrylate	9.677	41	34286	19.067	ug/l		98
47) n-amyl Acetate	12.488	43	57635	17.812	ug/l		99
48) t-1,3-Dichloropropene	10.829	75	46804	19.149	ug/l		98
49) cis-1,3-Dichloropropene	10.312	75	51256	19.814	ug/l		96
50) 1,1,2-Trichloroethane	11.012	97	27268	19.319	ug/l		97
51) Ethyl methacrylate	10.871	69	49228	18.768	ug/l		95
52) 1,3-Dichloropropane	11.159	76	49662	19.740	ug/l		99
53) Dibromochloromethane	11.353	129	29962	19.406	ug/l		99
54) 1,2-Dibromoethane	11.465	107	27931	19.603	ug/l		99
55) 2-Chloroethyl vinyl ether	10.159	63	98312	99.189	ug/l		99
56) Bromoform	12.576	173	18754	18.566	ug/l		98
58) 4-Methyl-2-Pentanone	10.441	43	214641	99.184	ug/l		99
59) 2-Hexanone	11.194	43	158086	98.104	ug/l		99
61) Tetrachloroethene	11.100	164	27738	19.697	ug/l		98
62) Toluene	10.624	91	128682	20.118	ug/l		100
64) Chlorobenzene	11.888	112	77123	19.736	ug/l		99
65) 1,1,1,2-Tetrachloroethane	11.959	131	26021	20.177	ug/l		98
66) Ethyl Benzene	11.959	91	139309	19.639	ug/l		98
67) m/p-Xylenes	12.071	106	101714	38.563	ug/l		98
68) o-Xylene	12.394	106	52037	20.058	ug/l		98
69) Styrene	12.406	104	83949	19.187	ug/l		99
70) Isopropylbenzene	12.694	105	123201	19.260	ug/l		99
71) 1,1,2,2-Tetrachloroethane	12.935	83	37233	20.449	ug/l		98
72) 1,2,3-Trichloropropane	12.994	75	36376m	19.193	ug/l		
73) Bromobenzene	12.976	156	27272	19.245	ug/l		99
74) n-propylbenzene	13.029	91	143093	18.944	ug/l		100
75) 2-Chlorotoluene	13.123	91	92645	19.514	ug/l		99
76) 1,3,5-Trimethylbenzene	13.170	105	99973	19.025	ug/l		98
77) t-1,4-Dichloro-2-butene	12.735	75	16490	18.869	ug/l		92
78) 4-Chlorotoluene	13.218	91	90011	18.983	ug/l		98
79) tert-butylbenzene	13.435	119	86567	19.039	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	100765	18.911	ug/l		100
81) sec-Butylbenzene	13.612	105	119744	18.880	ug/l		99
82) p-Isopropyltoluene	13.729	119	97324	18.394	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	48725	18.499	ug/l		98
84) 1,4-Dichlorobenzene	13.806	146	47819	18.098	ug/l		98
85) n-Butylbenzene	14.053	91	84791	17.764	ug/l		98
86) Hexachloroethane	14.329	117	17164	19.231	ug/l		96
87) 1,2-Dichlorobenzene	14.100	146	48868	18.791	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	7385	17.808	ug/l		97
89) 1,2,4-Trichlorobenzene	15.835	180	21063	16.646	ug/l		98
90) Hexachlorobutadiene	15.494	225	8007	14.656	ug/l		96
91) Naphthalene	15.635	128	83203	16.677	ug/l		99
92) 1,2,3-Trichlorobenzene	15.835	180	21063	16.646	ug/l		98

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

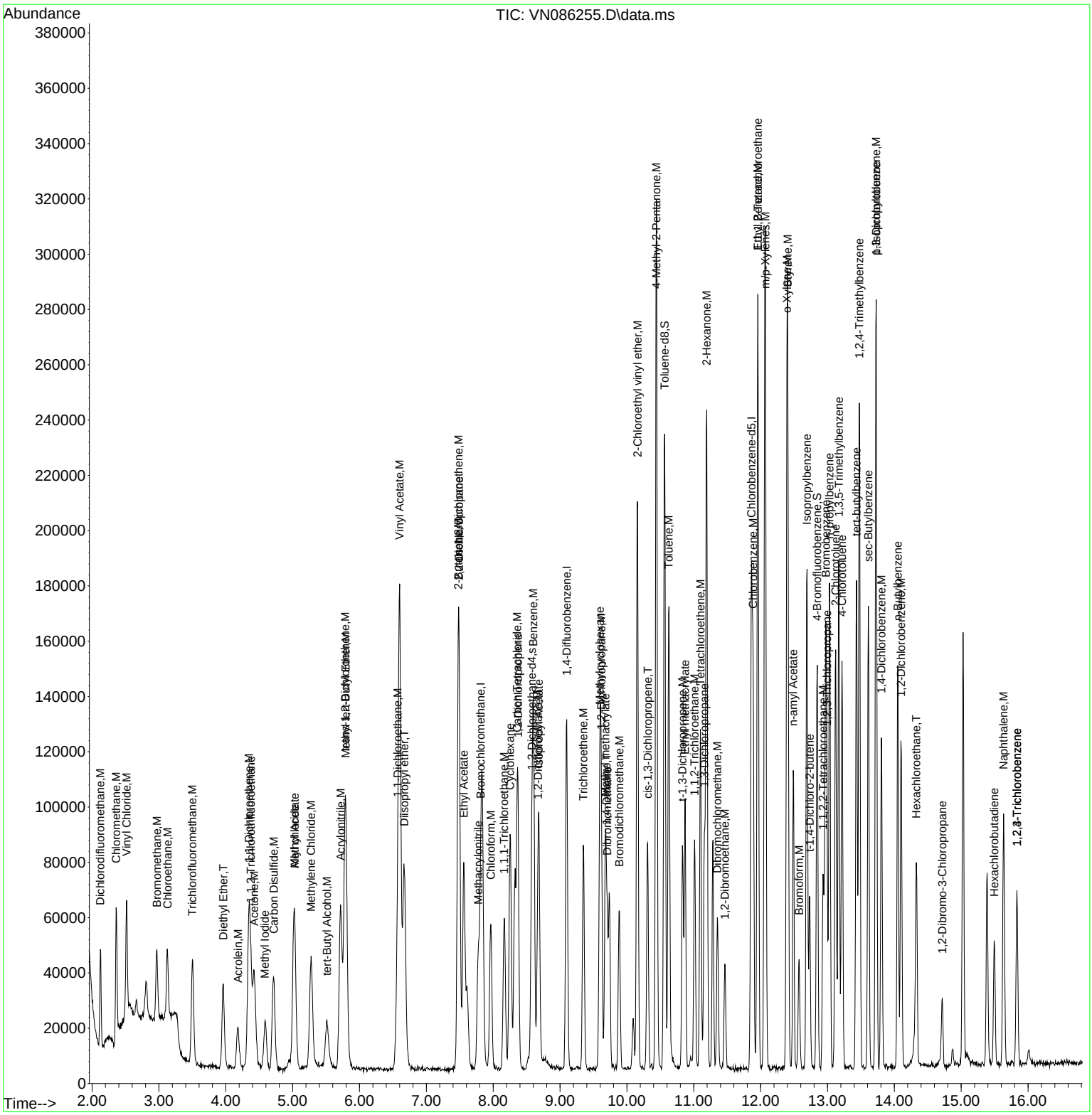
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

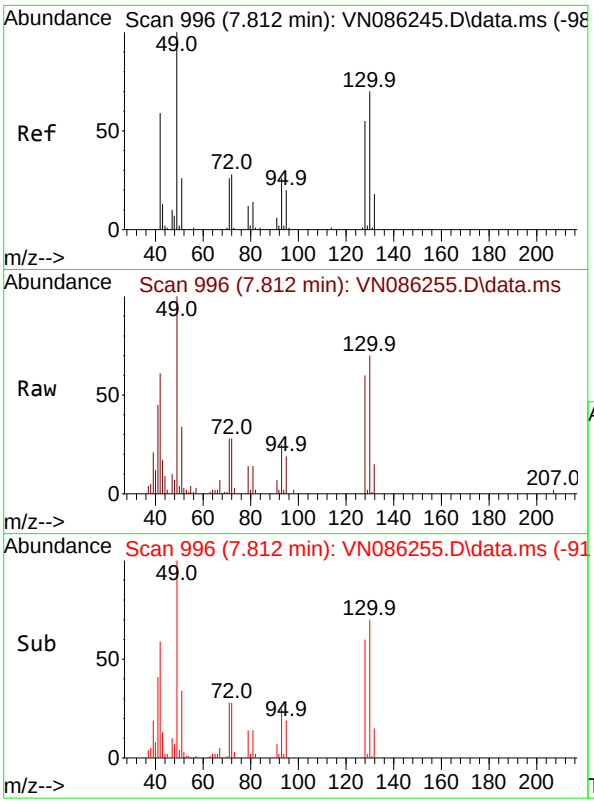
Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

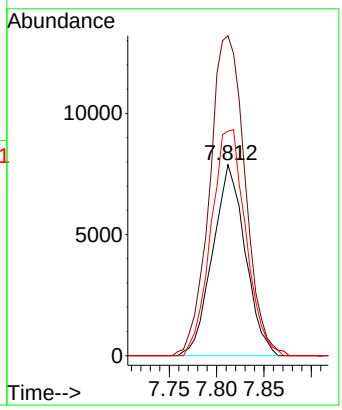




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:128 Resp: 1888

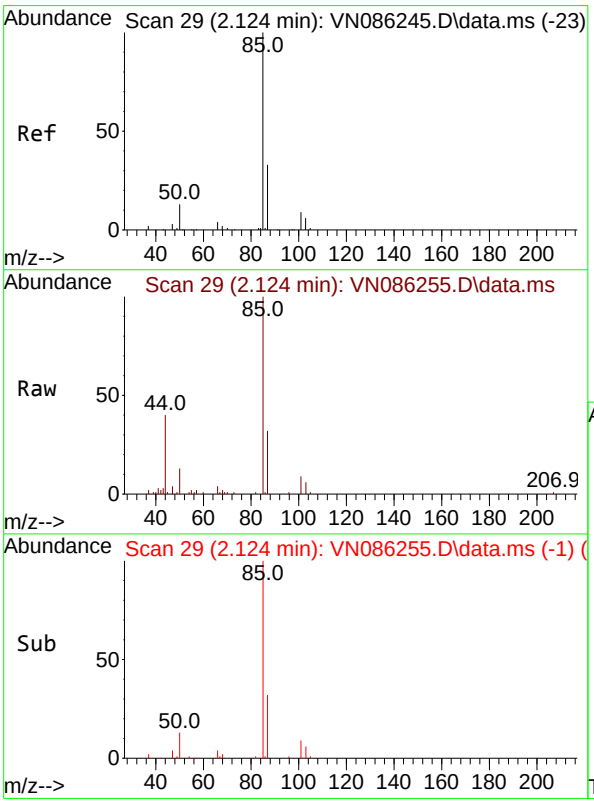
Ion	Ratio	Lower	Upper
128	100		
49	182.5	0.0	452.5
130	126.4	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

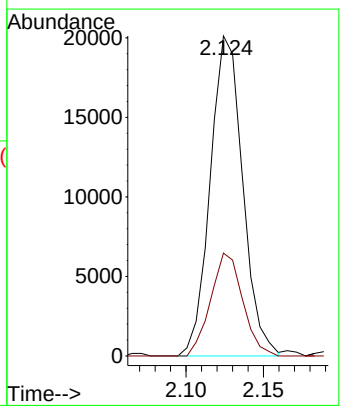
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

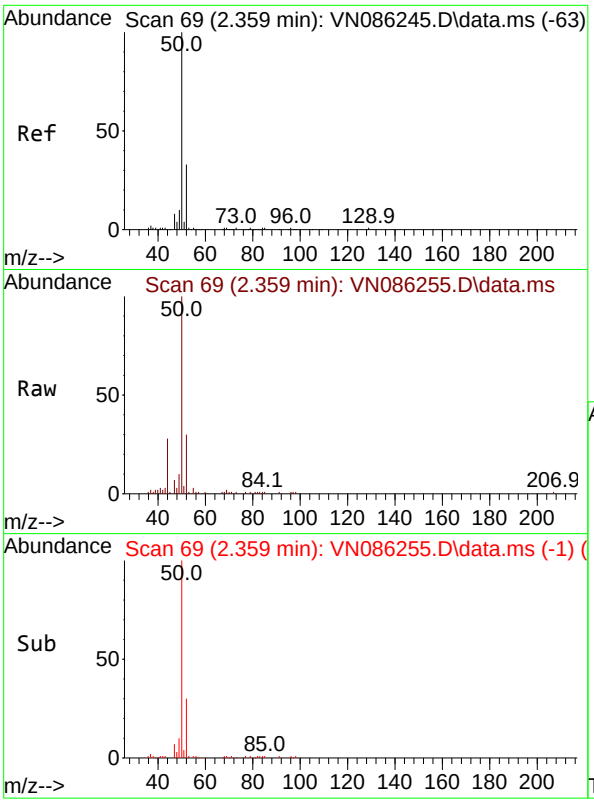


#2
Dichlorodifluoromethane
Concen: 19.378 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 85 Resp: 29320

Ion	Ratio	Lower	Upper
85	100		
87	32.1	16.3	48.9





#3
Chloromethane
Concen: 19.805 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

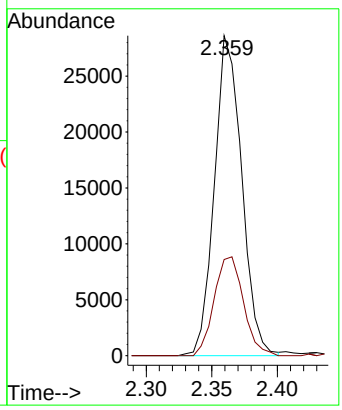
Tgt Ion: 50 Resp: 4141

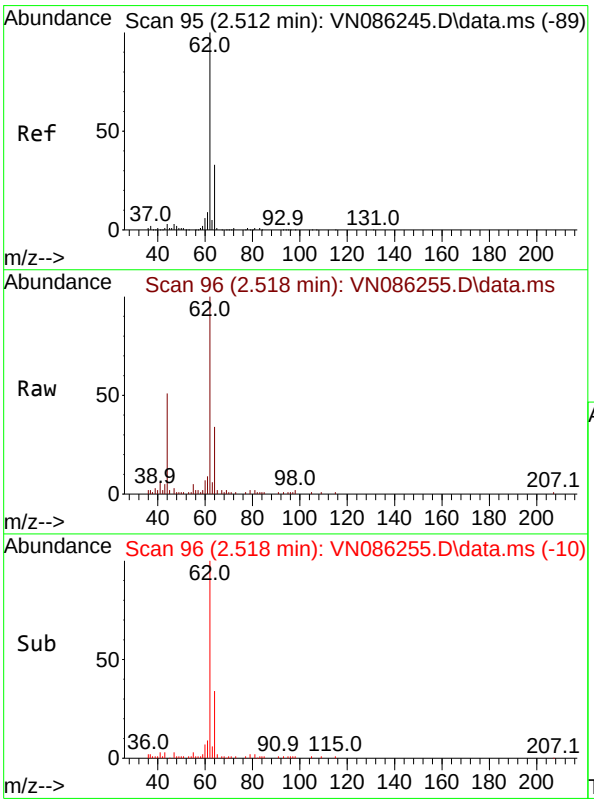
Ion	Ratio	Lower	Upper
50	100		
52	30.1	26.4	39.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

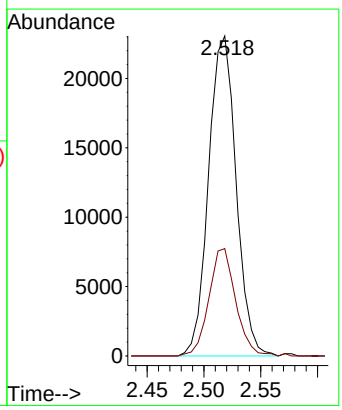


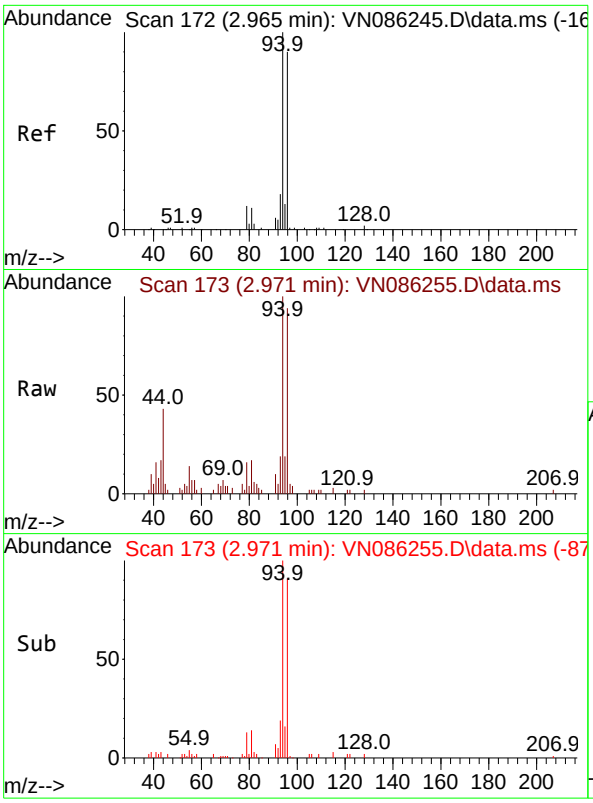


#4
Vinyl Chloride
Concen: 19.548 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 62 Resp: 38937

Ion	Ratio	Lower	Upper
62	100		
64	33.6	26.3	39.5

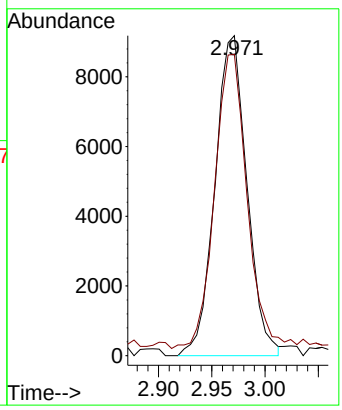




#5
Bromomethane
Concen: 19.311 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 94 Resp: 1918

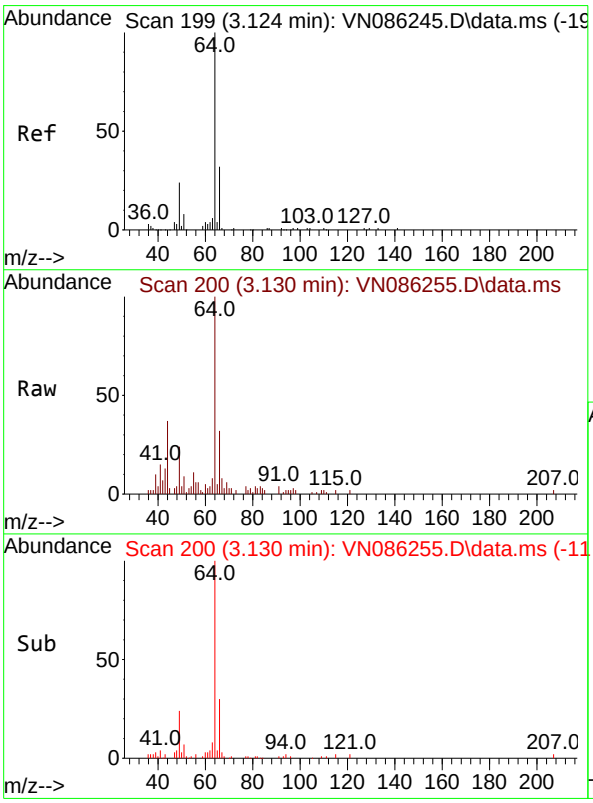
Ion	Ratio	Lower	Upper
94	100		
96	90.8	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

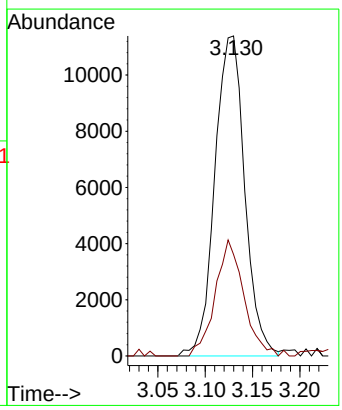
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

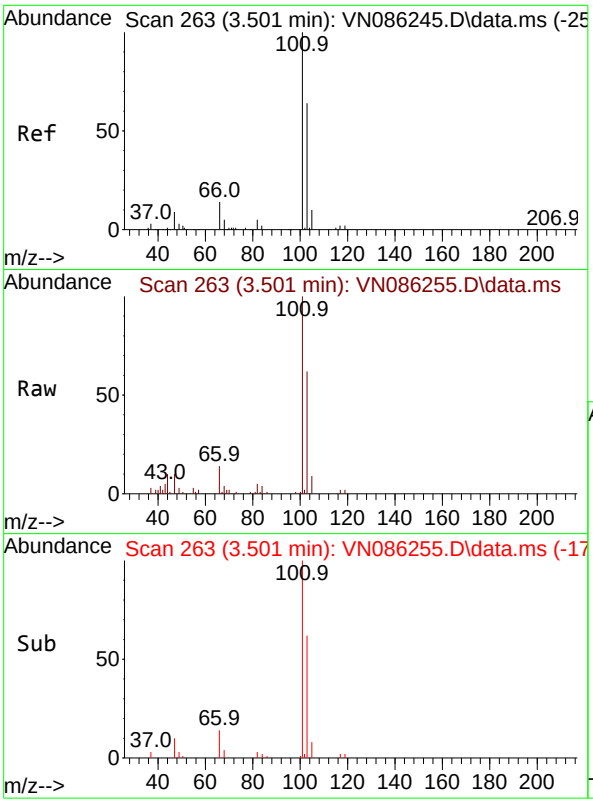


#6
Chloroethane
Concen: 19.909 ug/l
RT: 3.130 min Scan# 200
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 64 Resp: 25042

Ion	Ratio	Lower	Upper
64	100		
66	31.7	25.7	38.5





#7
Trichlorofluoromethane
Concen: 19.342 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

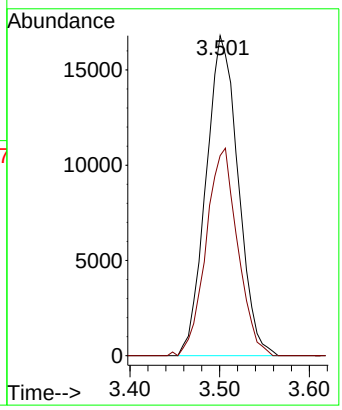
Tgt Ion:101 Resp: 4179

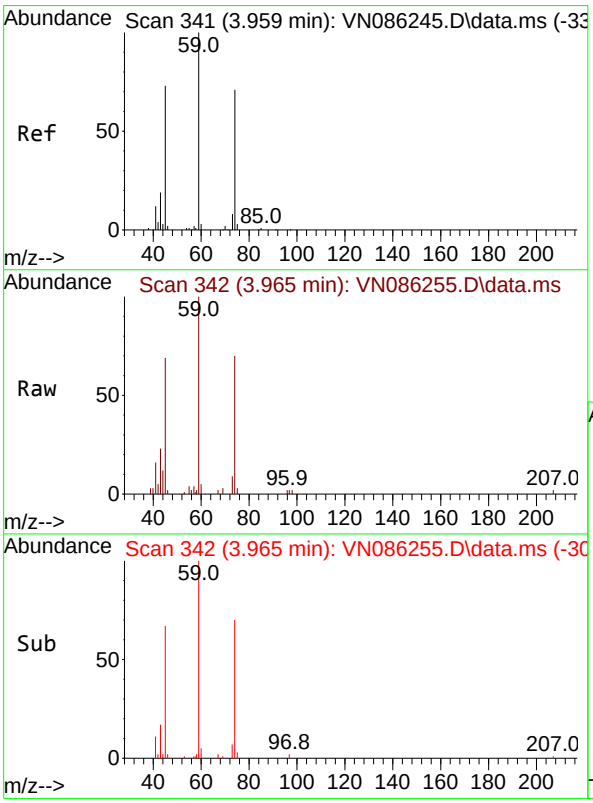
Ion	Ratio	Lower	Upper
101	100		
103	62.5	51.2	76.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

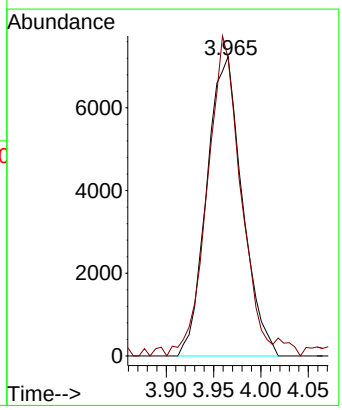


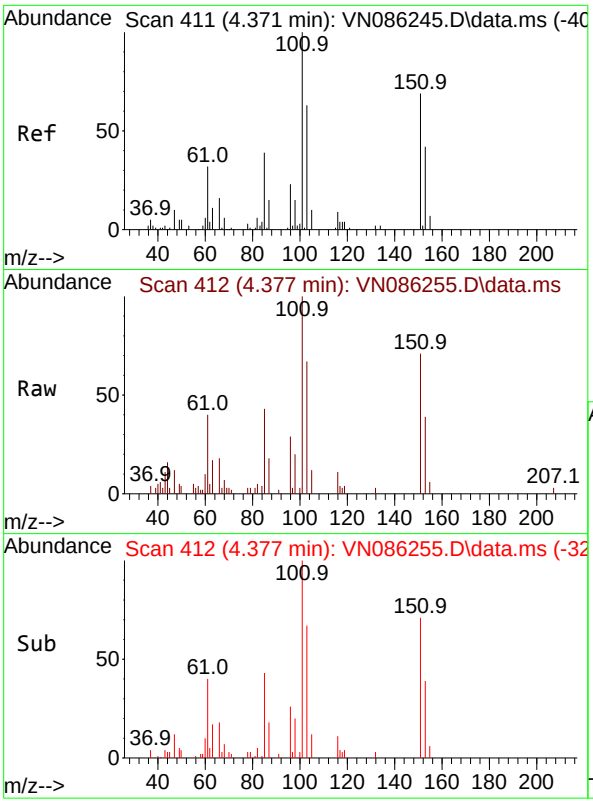


#8
Diethyl Ether
Concen: 18.955 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 74 Resp: 18888

Ion	Ratio	Lower	Upper
74	100		
45	99.8	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 18.715 ug/l
RT: 4.377 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

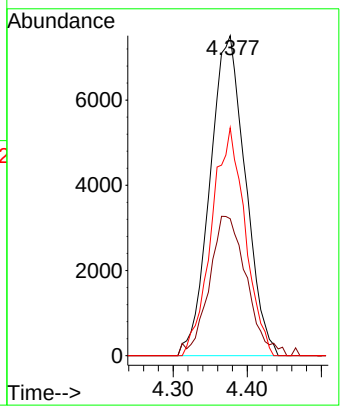
Tgt Ion:101 Resp: 2493

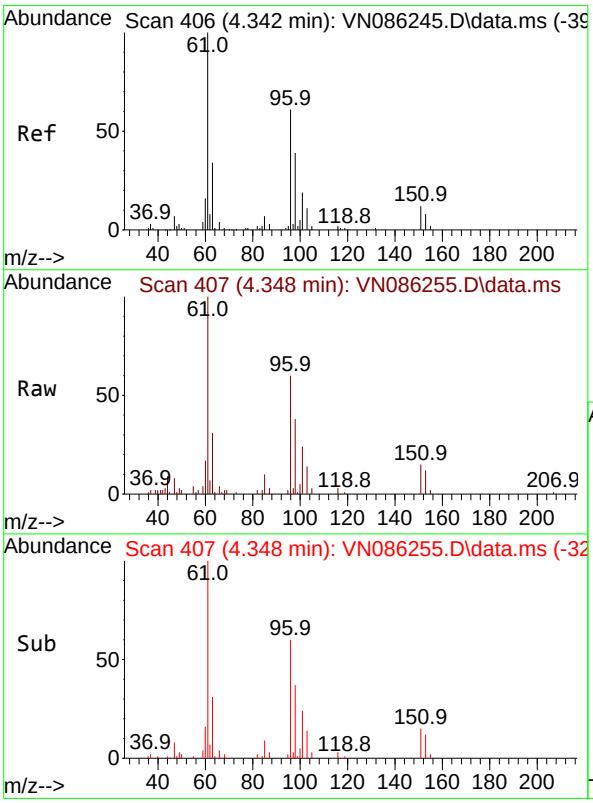
Ion	Ratio	Lower	Upper
101	100		
85	41.9	0.0	93.0
151	67.7	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

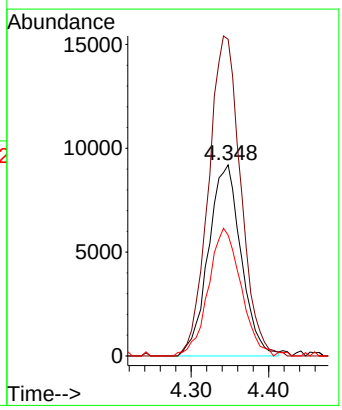


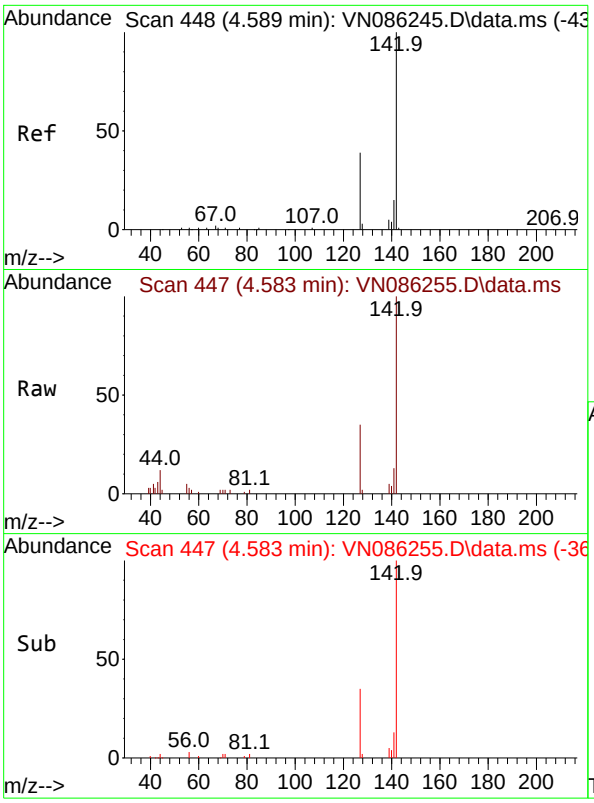


#10
1,1-Dichloroethene
Concen: 18.753 ug/l
RT: 4.348 min Scan# 407
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 96 Resp: 26966

Ion	Ratio	Lower	Upper
96	100		
61	165.8	131.1	196.7
98	61.5	51.6	77.4

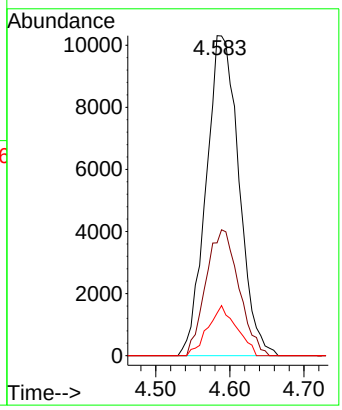




#11
Methyl Iodide
Concen: 19.145 ug/l
RT: 4.583 min Scan# 44
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:142 Resp: 3164

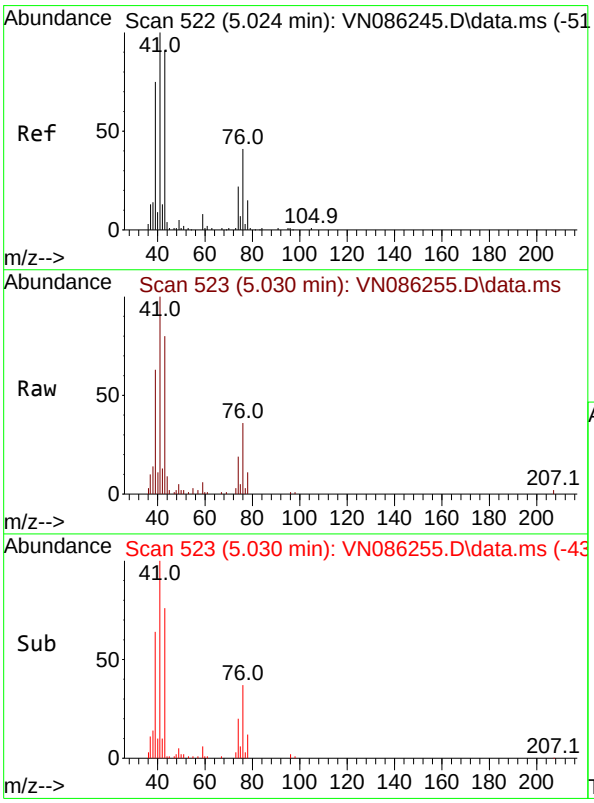
Ion	Ratio	Lower	Upper
142	100		
127	35.3	19.6	58.8
141	13.3	7.3	21.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

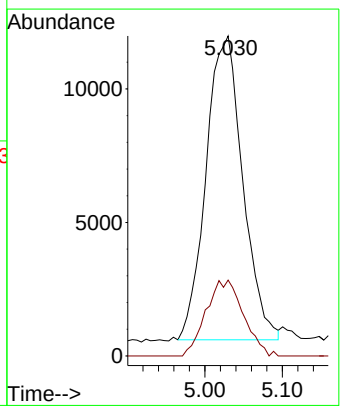
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

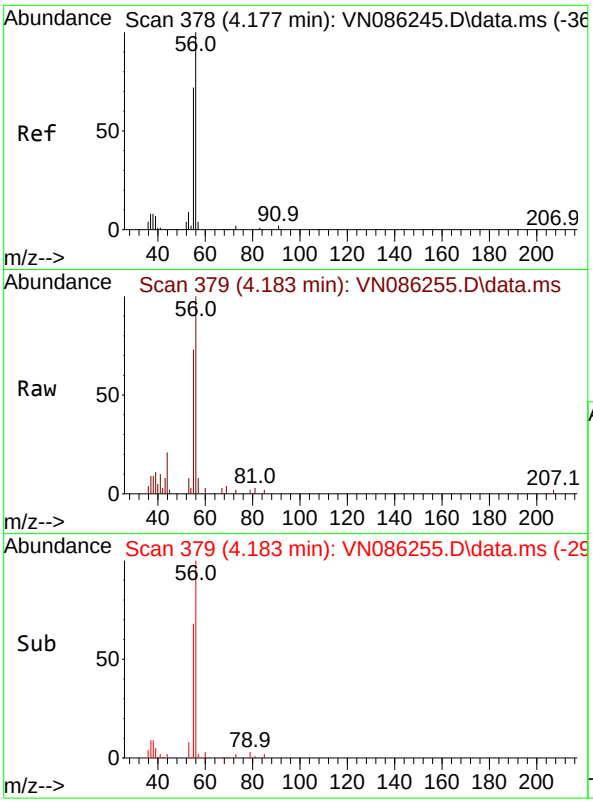


#12
Methyl Acetate
Concen: 18.433 ug/l
RT: 5.030 min Scan# 523
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 37430

Ion	Ratio	Lower	Upper
43	100		
74	25.4	19.1	28.7

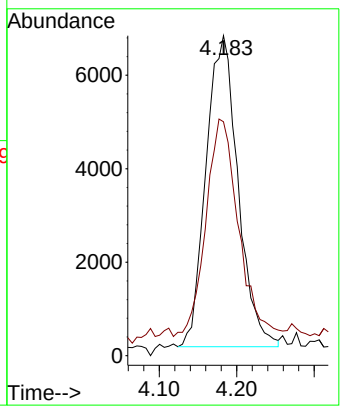




#13
Acrolein
Concen: 82.706 ug/l
RT: 4.183 min Scan# 3
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 56 Resp: 1909

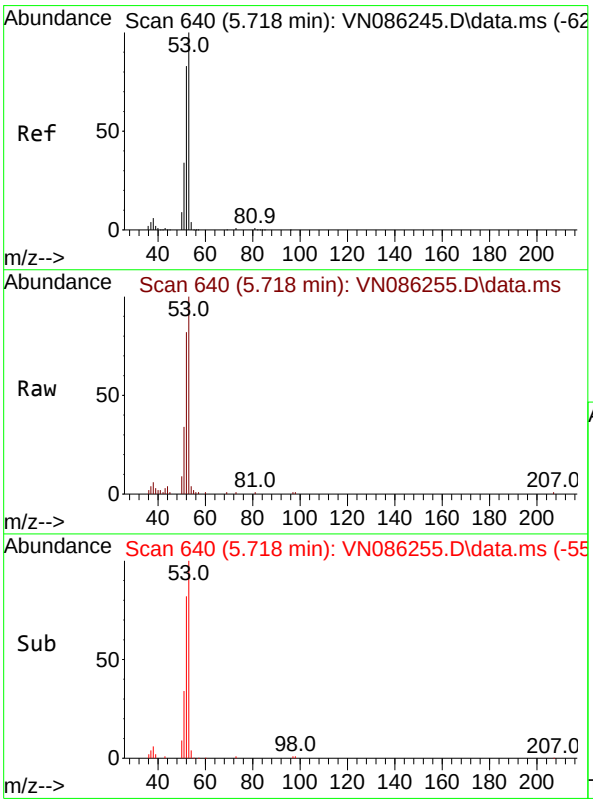
Ion	Ratio	Lower	Upper
56	100		
55	73.3	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

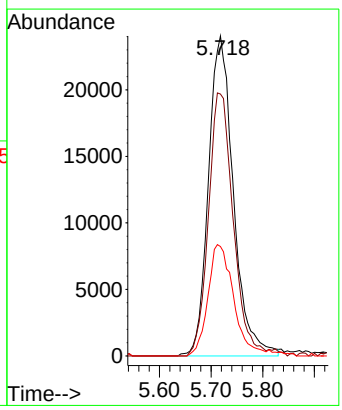
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

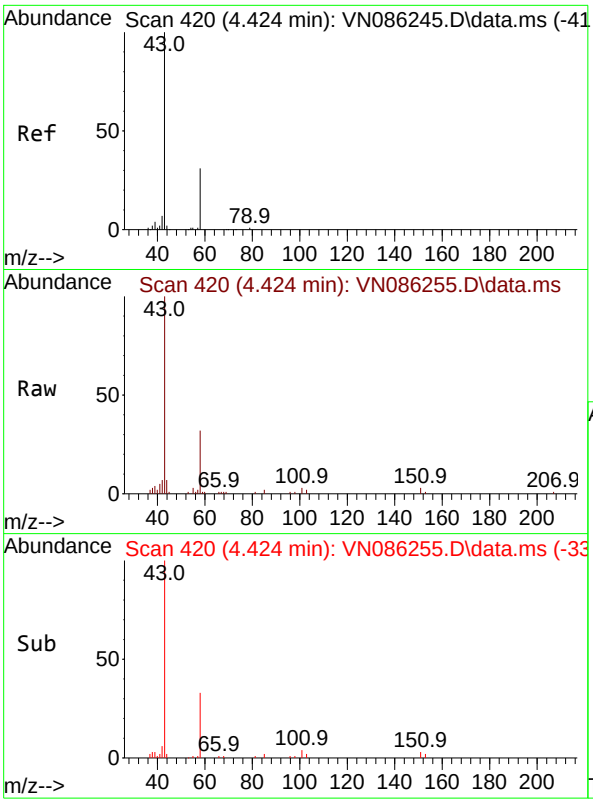


#14
Acrylonitrile
Concen: 94.238 ug/l
RT: 5.718 min Scan# 640
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 53 Resp: 80784

Ion	Ratio	Lower	Upper
53	100		
52	81.0	40.2	120.6
51	35.6	17.5	52.6

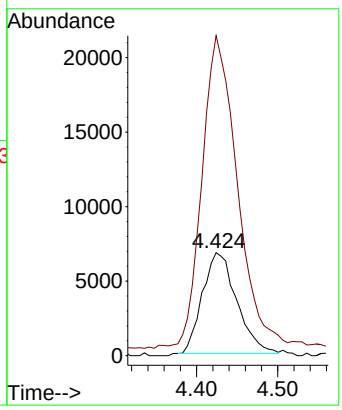




#15
Acetone
Concen: 91.311 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 58 Resp: 1984

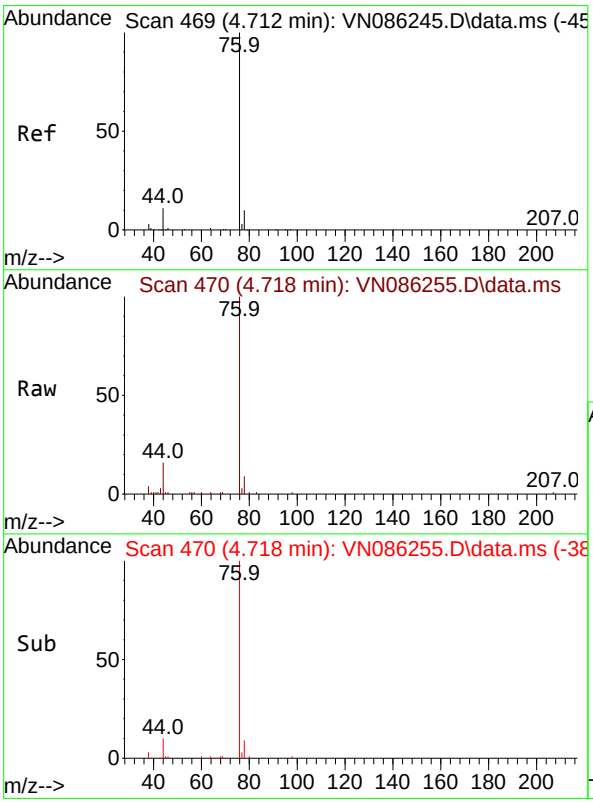
Ion	Ratio	Lower	Upper
58	100		
43	305.8	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

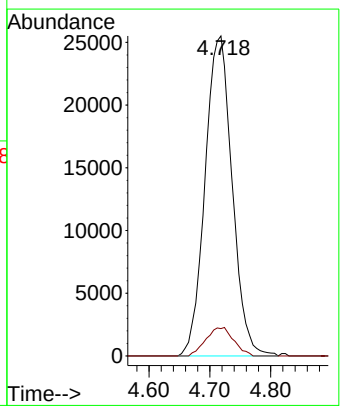
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

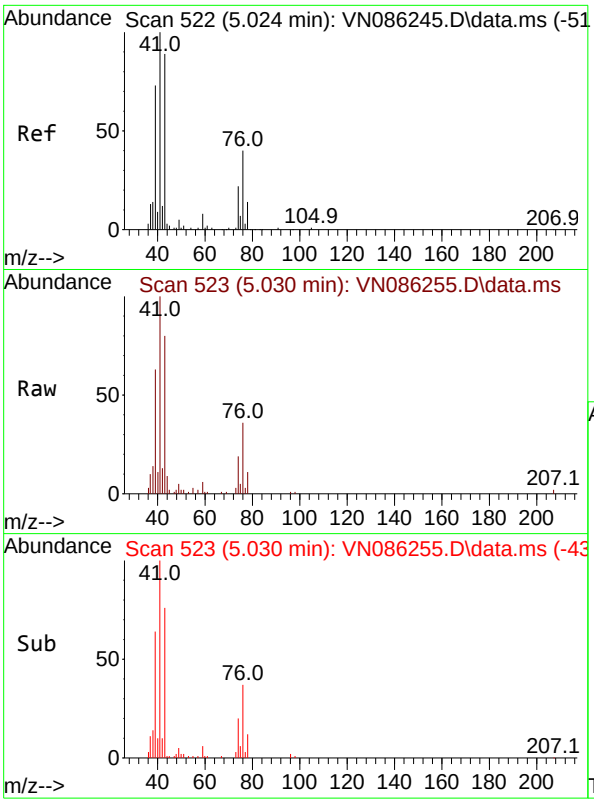


#16
Carbon Disulfide
Concen: 19.148 ug/l
RT: 4.718 min Scan# 470
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 76 Resp: 78952

Ion	Ratio	Lower	Upper
76	100		
78	8.6	7.7	11.5

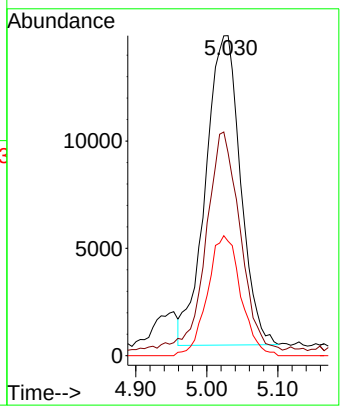




#17
Allyl chloride
Concen: 19.596 ug/l
RT: 5.030 min Scan# 5
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 41 Resp: 4911

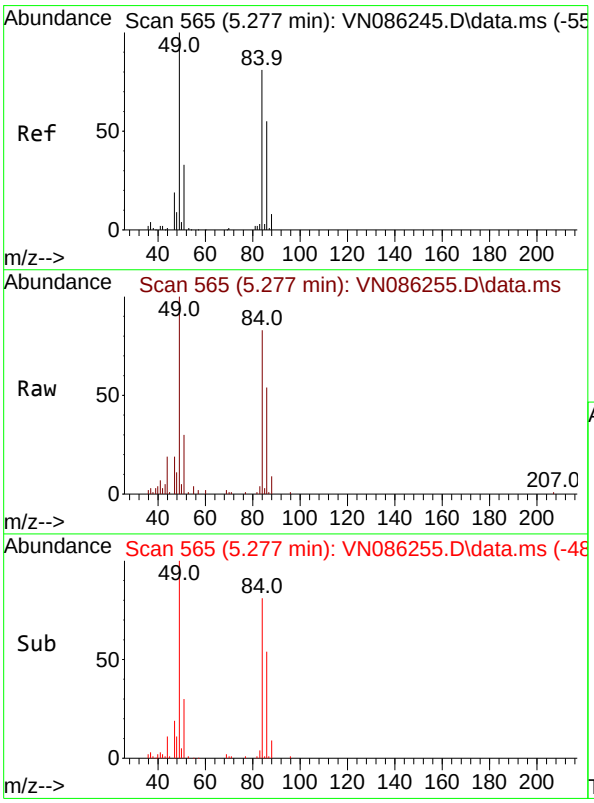
Ion	Ratio	Lower	Upper
41	100		
39	63.0	34.4	103.2
76	37.1	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

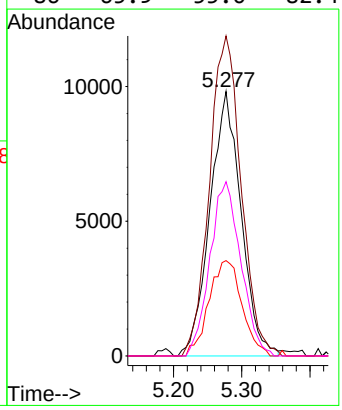
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

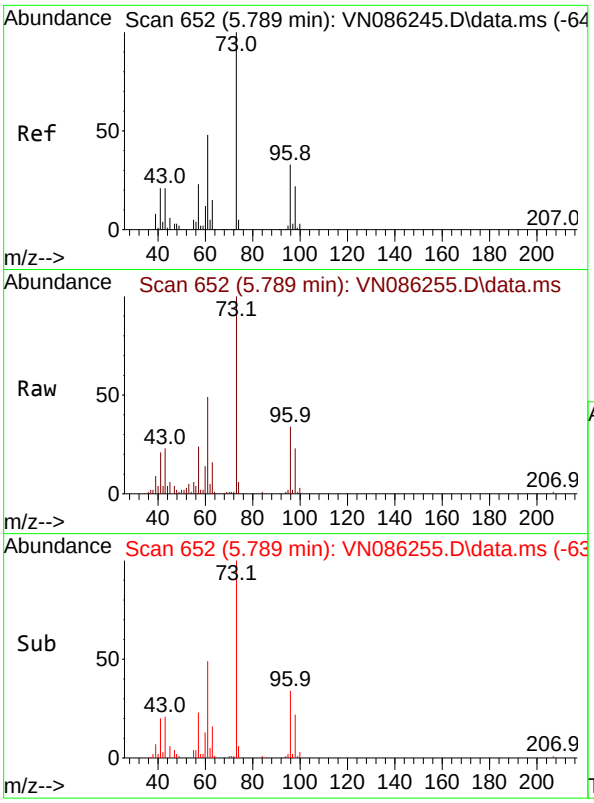


#18
Methylene Chloride
Concen: 19.010 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 84 Resp: 31167

Ion	Ratio	Lower	Upper
84	100		
49	121.0	99.1	148.7
51	36.1	32.3	48.5
86	65.9	55.0	82.4

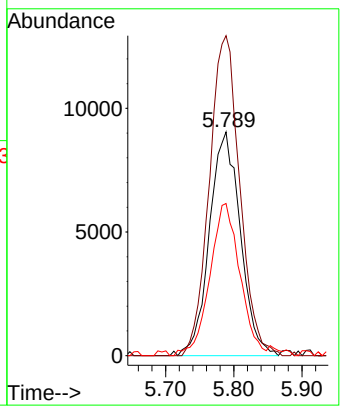




#19
trans-1,2-Dichloroethene
Concen: 18.843 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 96 Resp: 2854

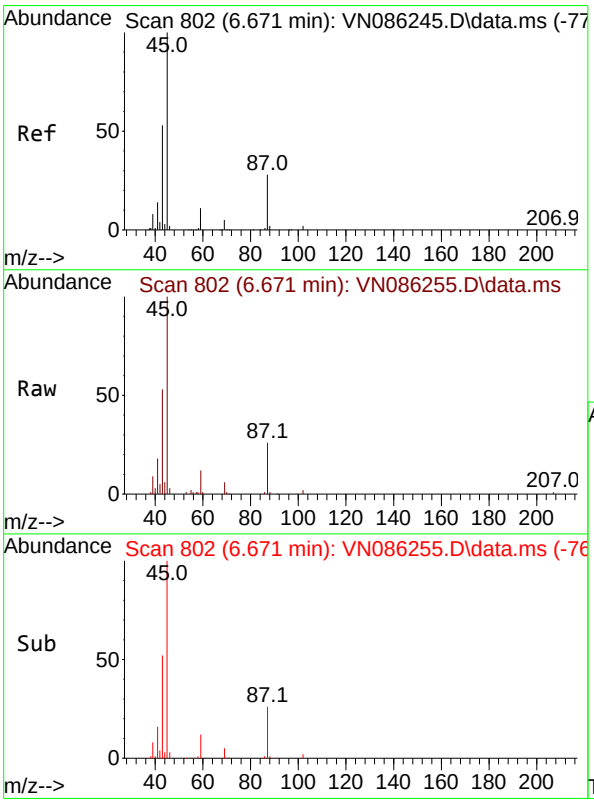
Ion	Ratio	Lower	Upper
96	100		
61	143.1	115.9	173.9
98	65.6	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

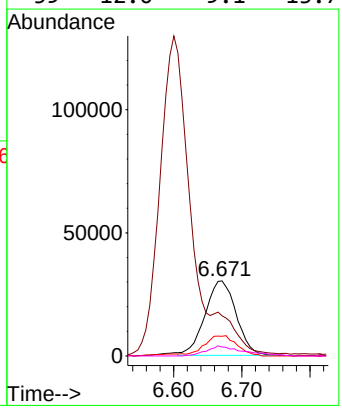
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

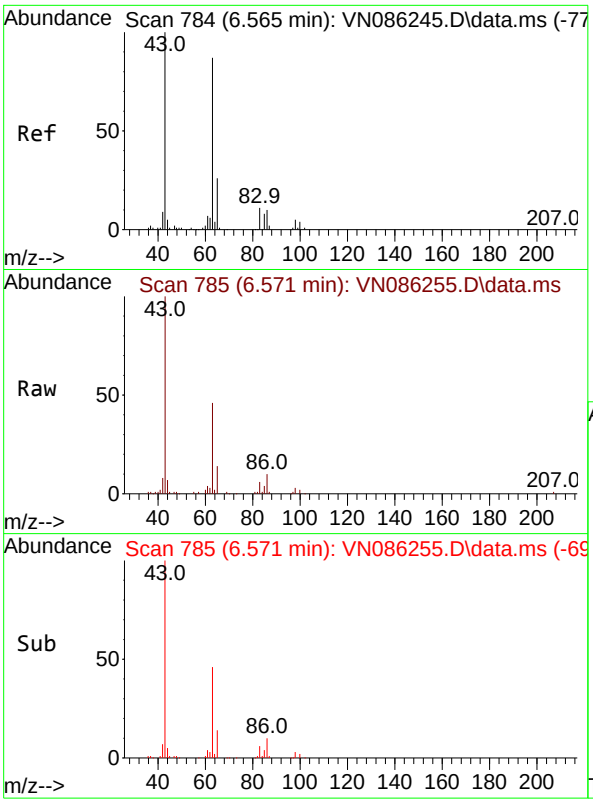


#20
Diisopropyl ether
Concen: 17.775 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 45 Resp: 95774

Ion	Ratio	Lower	Upper
45	100		
43	51.0	42.3	63.5
87	26.4	22.2	33.4
59	12.0	9.1	13.7

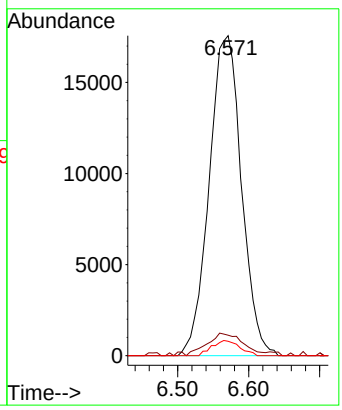




#21
1,1-Dichloroethane
Concen: 19.295 ug/l
RT: 6.571 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 63 Resp: 5546

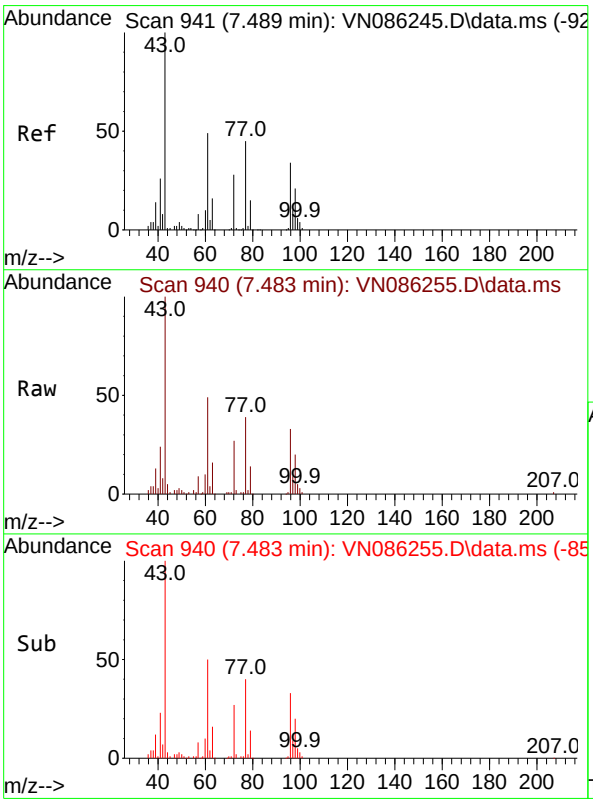
Ion	Ratio	Lower	Upper
63	100		
98	5.3	3.1	9.3
100	4.5	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

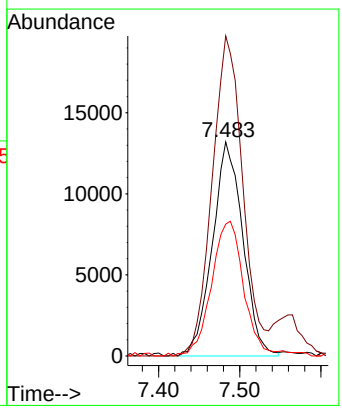
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

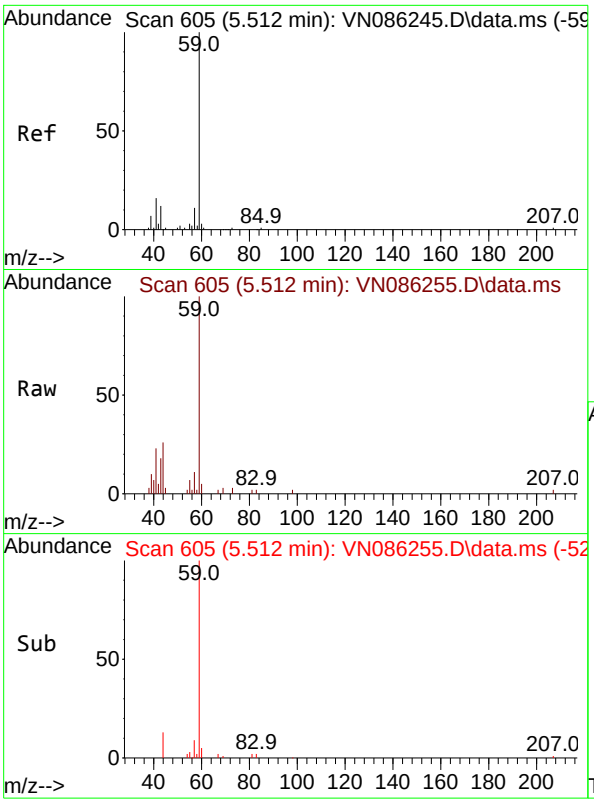


#22
cis-1,2-Dichloroethene
Concen: 19.057 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 96 Resp: 34384

Ion	Ratio	Lower	Upper
96	100		
61	150.8	119.5	179.3
98	62.9	51.0	76.6

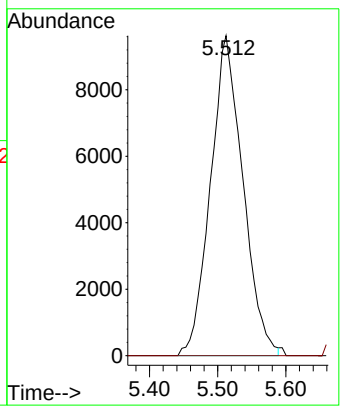




#23
tert-Butyl Alcohol
Concen: 89.739 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 59 Resp: 3187

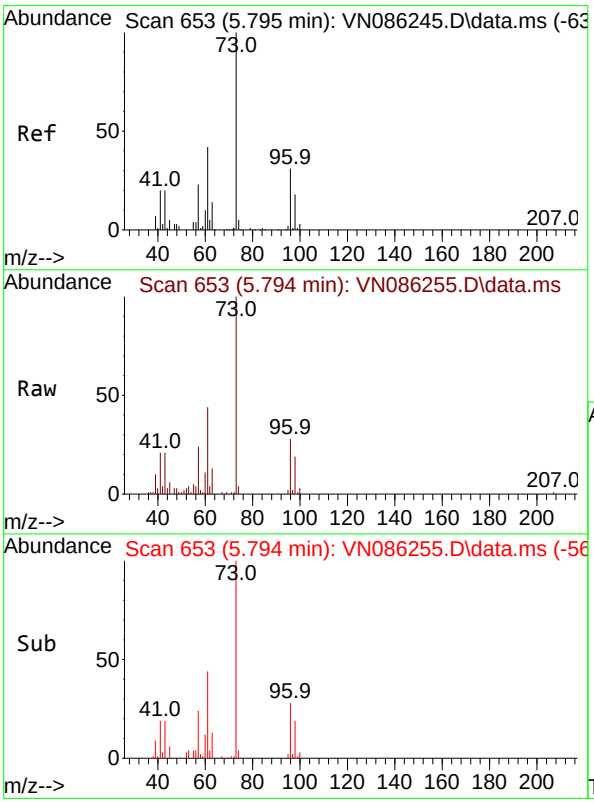
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

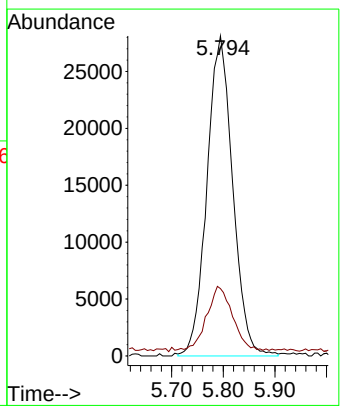
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

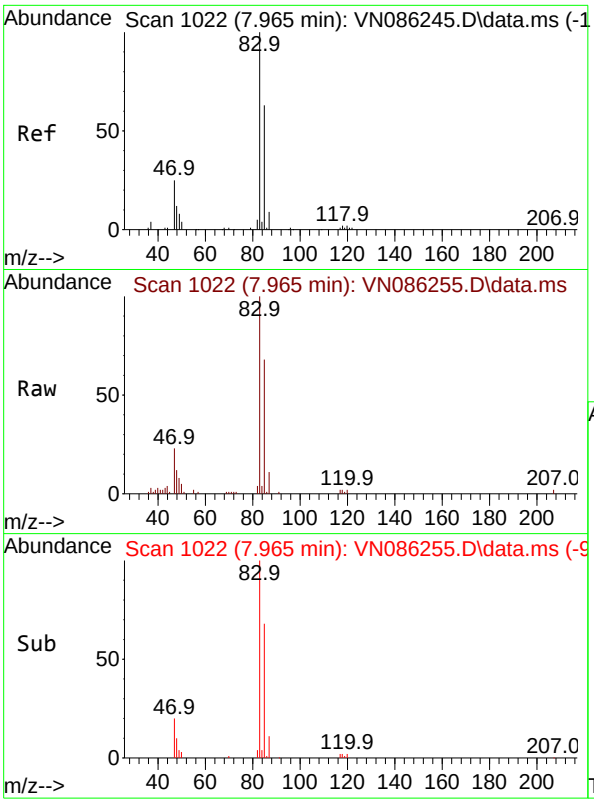


#24
Methyl tert-Butyl Ether
Concen: 18.777 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 73 Resp: 97437

Ion	Ratio	Lower	Upper
73	100		
43	20.0	16.8	25.2

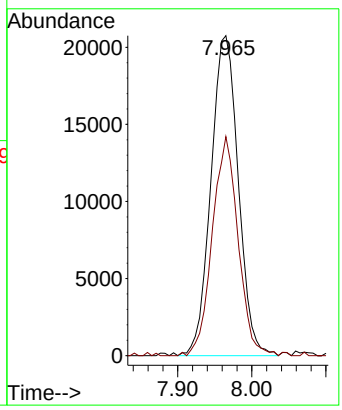




#25
Chloroform
Concen: 19.423 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 83 Resp: 5324

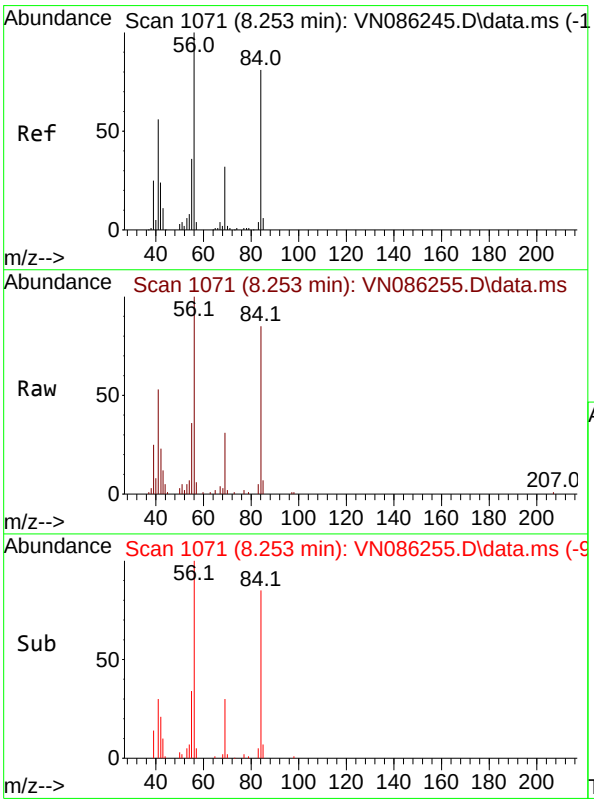
Ion	Ratio	Lower	Upper
83	100		
85	68.5	50.5	75.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

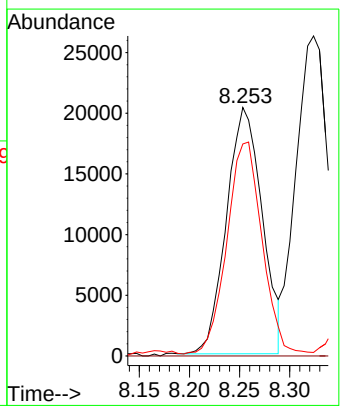
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

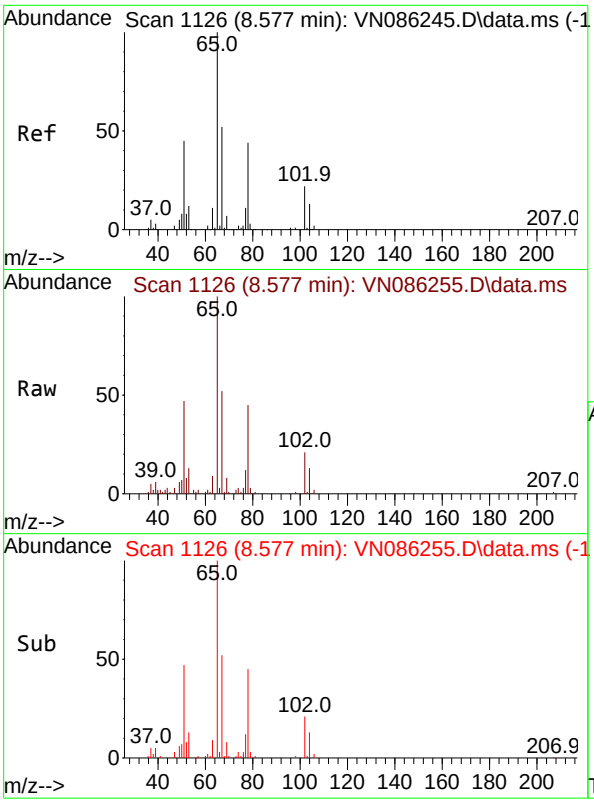


#26
Cyclohexane
Concen: 18.733 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 56 Resp: 50381

Ion	Ratio	Lower	Upper
56	100		
89	0.0	0.0	0.0
84	86.9	69.0	103.4

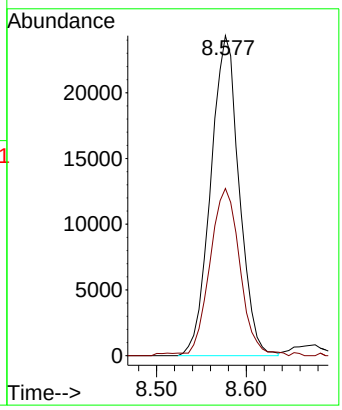




#27
1,2-Dichloroethane-d4
Concen: 29.085 ug/l
RT: 8.577 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 65 Resp: 5357

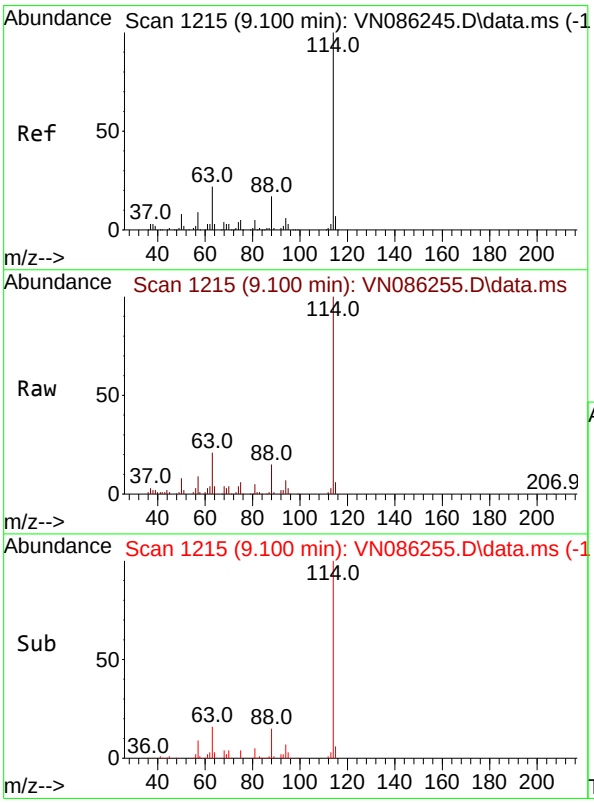
Ion	Ratio	Lower	Upper
65	100		
67	54.5	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

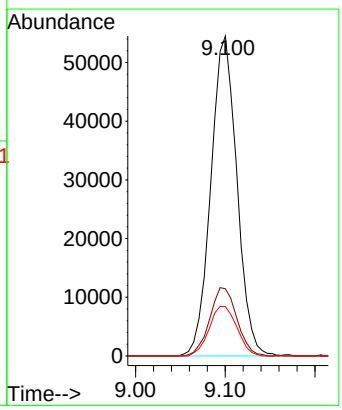
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

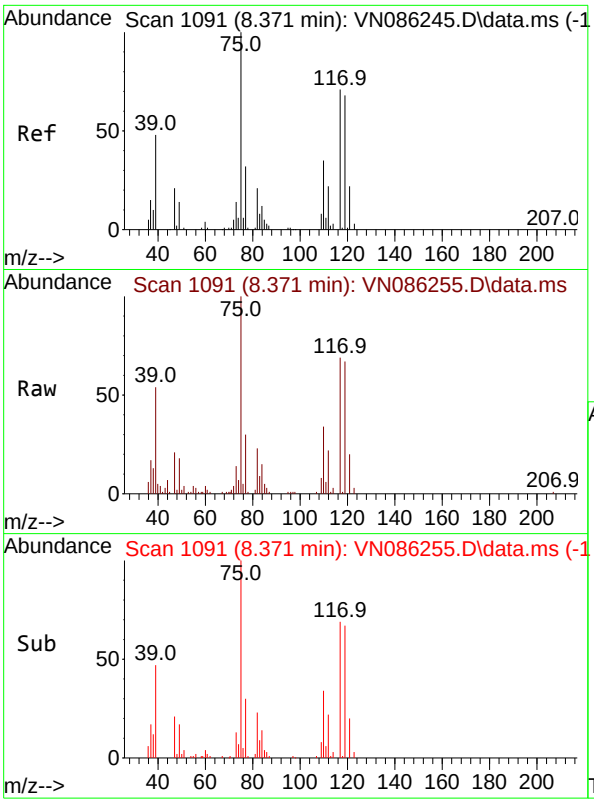


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:114 Resp: 109876

Ion	Ratio	Lower	Upper
114	100		
63	22.3	17.8	26.6
88	16.5	13.4	20.2

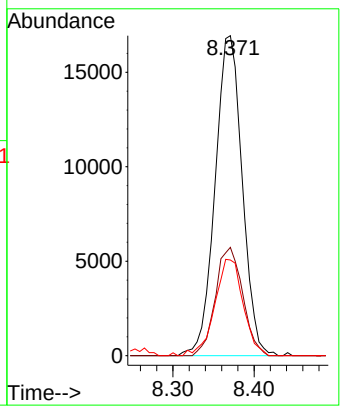




#29
1,1-Dichloropropene
Concen: 19.965 ug/l
RT: 8.371 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 3929

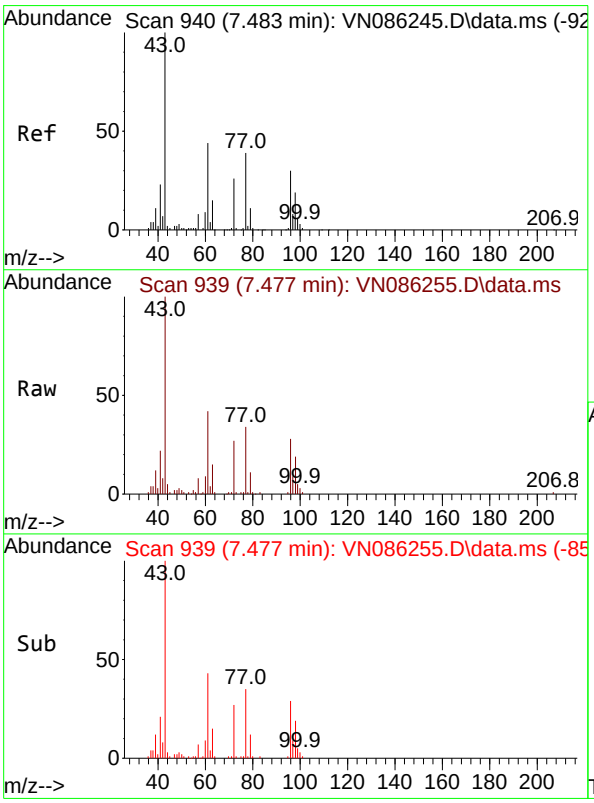
Ion	Ratio	Lower	Upper
75	100		
110	34.1	0.0	68.6
77	31.5	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

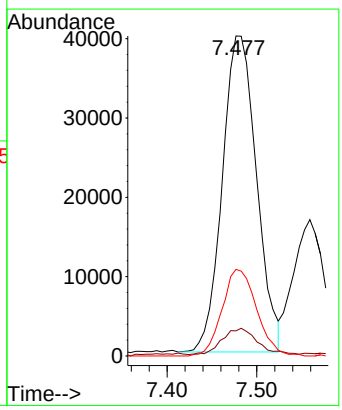
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

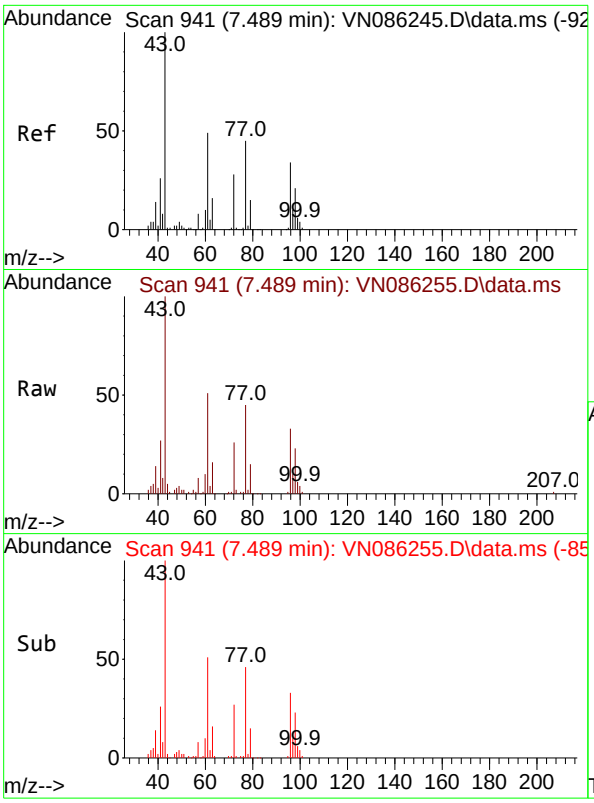


#30
2-Butanone
Concen: 96.889 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 105674

Ion	Ratio	Lower	Upper
43	100		
57	8.0	6.4	9.6
72	27.4	21.5	32.3

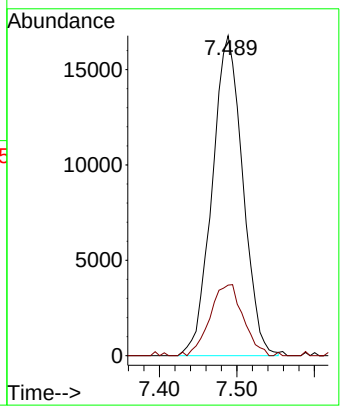




#31
2,2-Dichloropropane
Concen: 19.045 ug/l
RT: 7.489 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 77 Resp: 4614

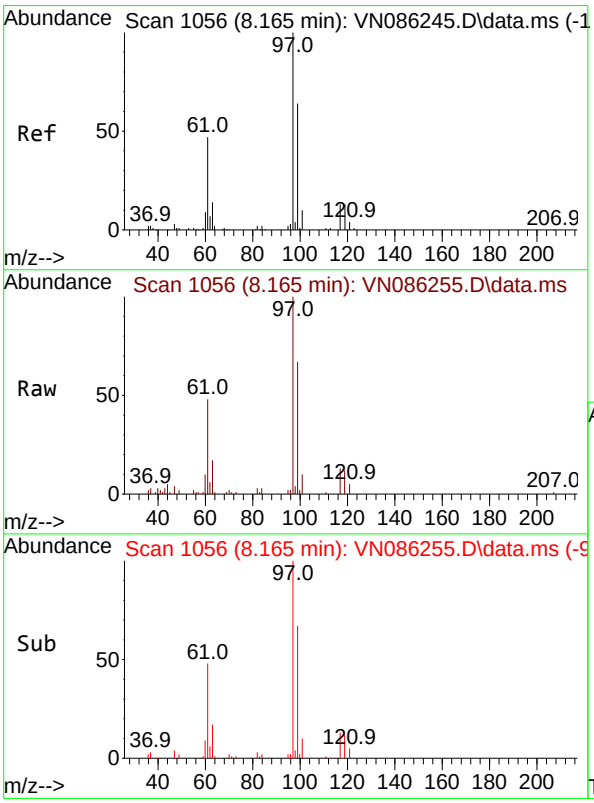
Ion	Ratio	Lower	Upper
77	100		
97	23.9	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

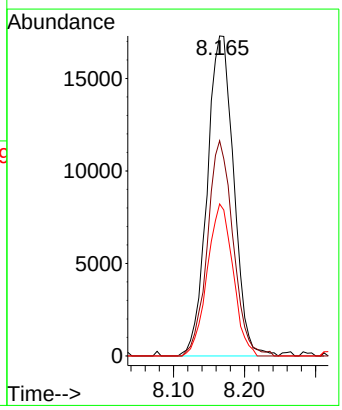
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

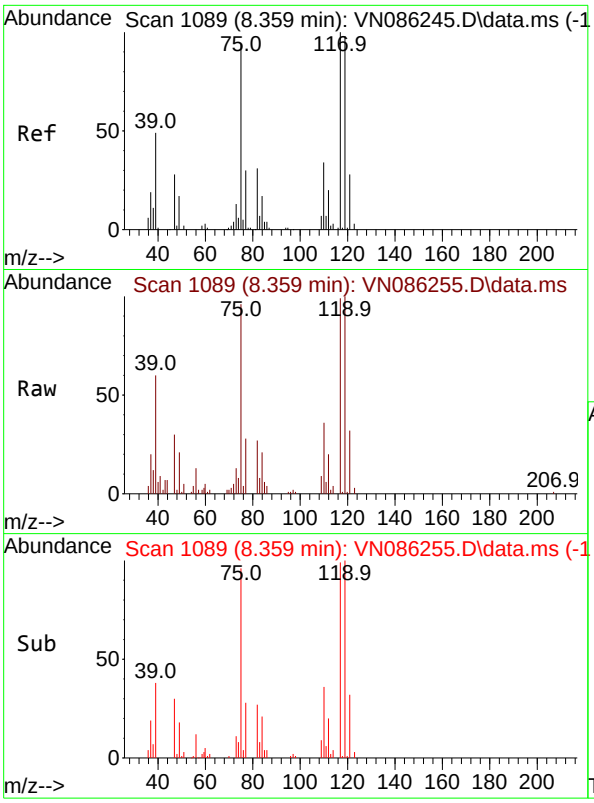


#32
1,1,1-Trichloroethane
Concen: 19.825 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 97 Resp: 44888

Ion	Ratio	Lower	Upper
97	100		
99	65.1	51.4	77.2
61	46.0	37.0	55.6

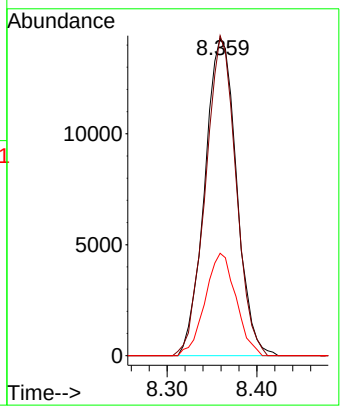




#33
Carbon Tetrachloride
Concen: 19.444 ug/l
RT: 8.359 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:117 Resp: 3518

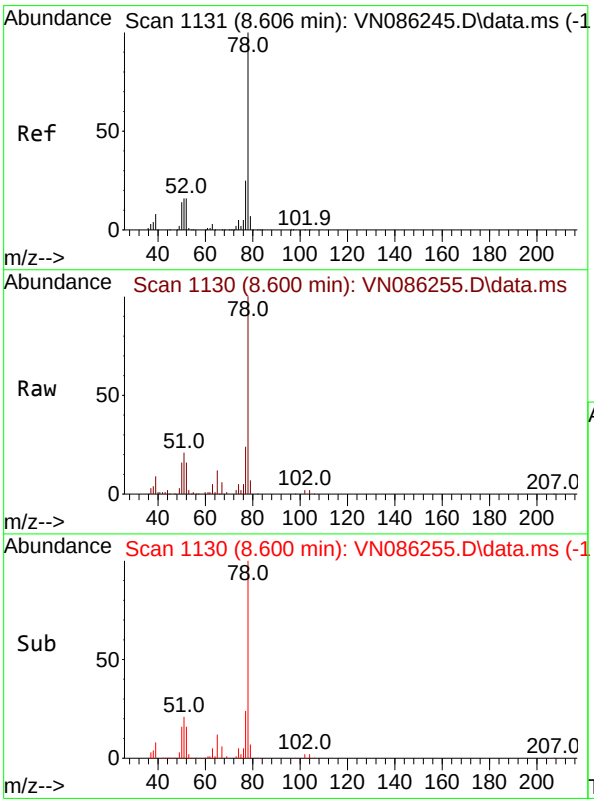
Ion	Ratio	Lower	Upper
117	100		
119	100.7	78.3	117.5
121	32.2	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

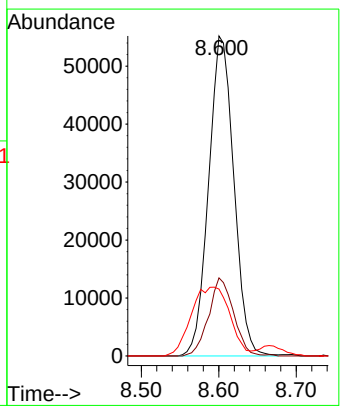
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

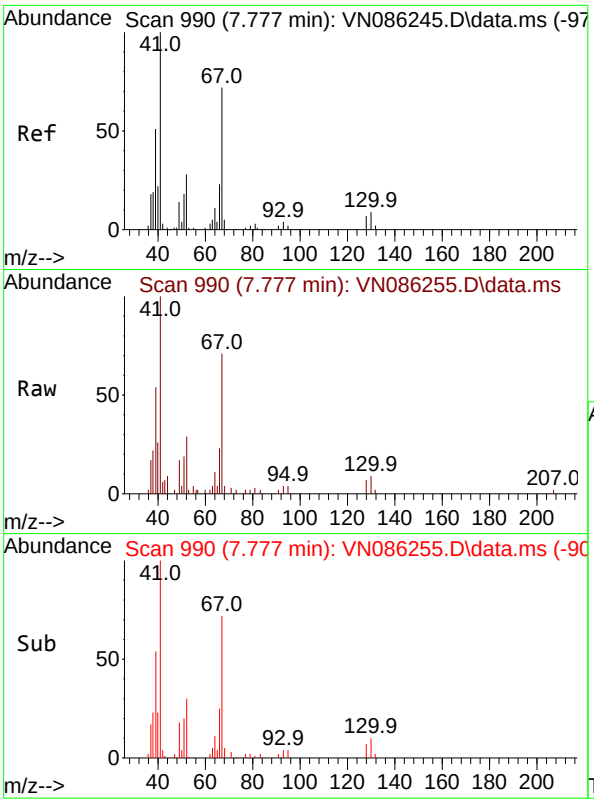


#34
Benzene
Concen: 19.909 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 78 Resp: 124673

Ion	Ratio	Lower	Upper
78	100		
77	24.4	20.0	30.0
51	18.5	12.9	19.3

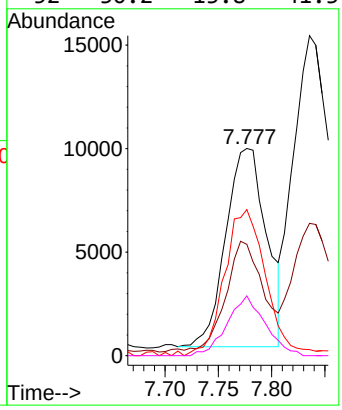




#35
Methacrylonitrile
Concen: 20.728 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 41 Resp: 2548

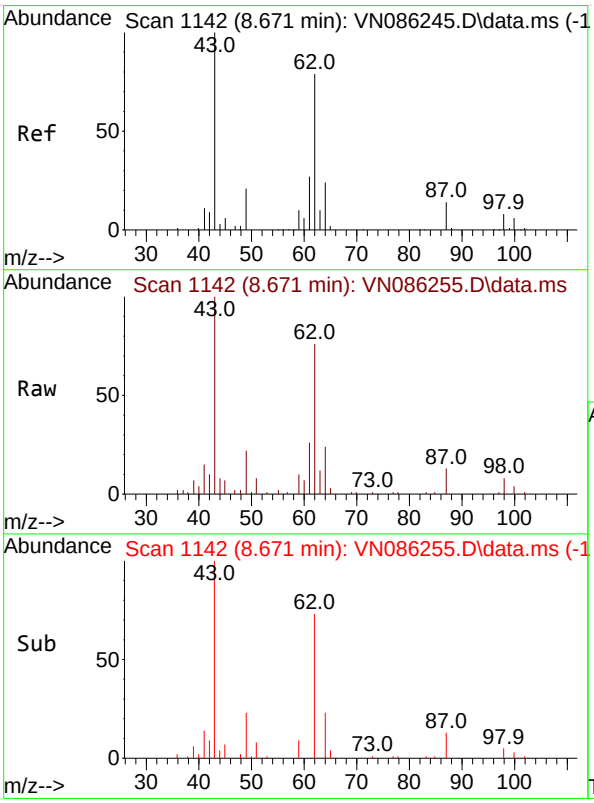
Ion	Ratio	Lower	Upper
41	100		
39	52.8	25.8	77.3
67	71.4	36.0	108.0
52	30.2	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

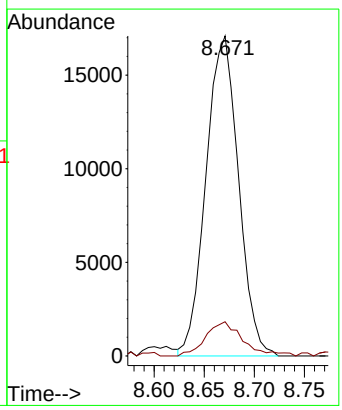
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

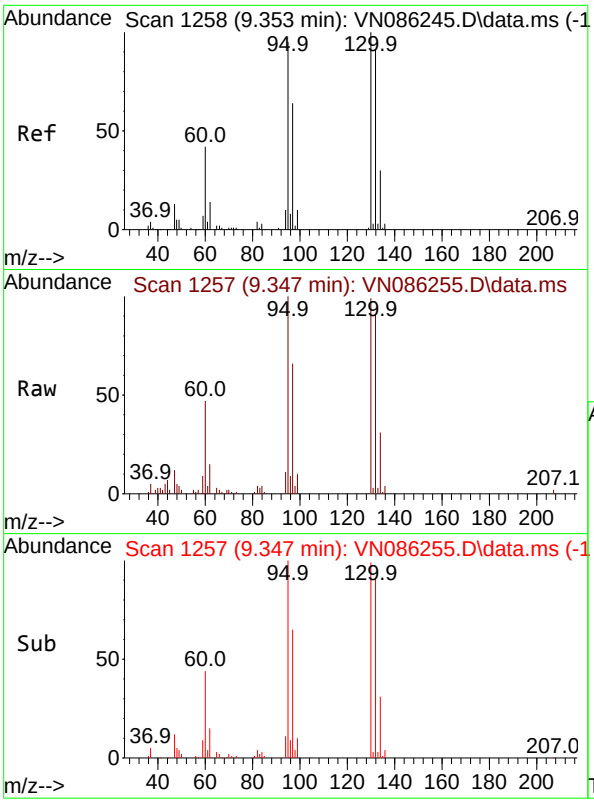


#36
1,2-Dichloroethane
Concen: 19.705 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 62 Resp: 38614

Ion	Ratio	Lower	Upper
62	100		
98	11.9	8.6	12.8

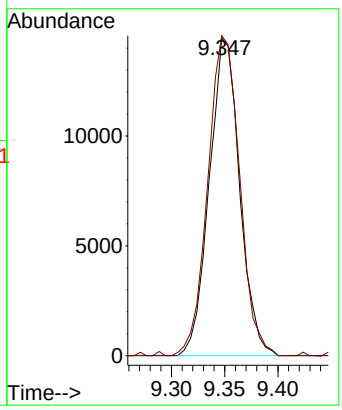




#37
Trichloroethene
Concen: 18.904 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:130 Resp: 2856

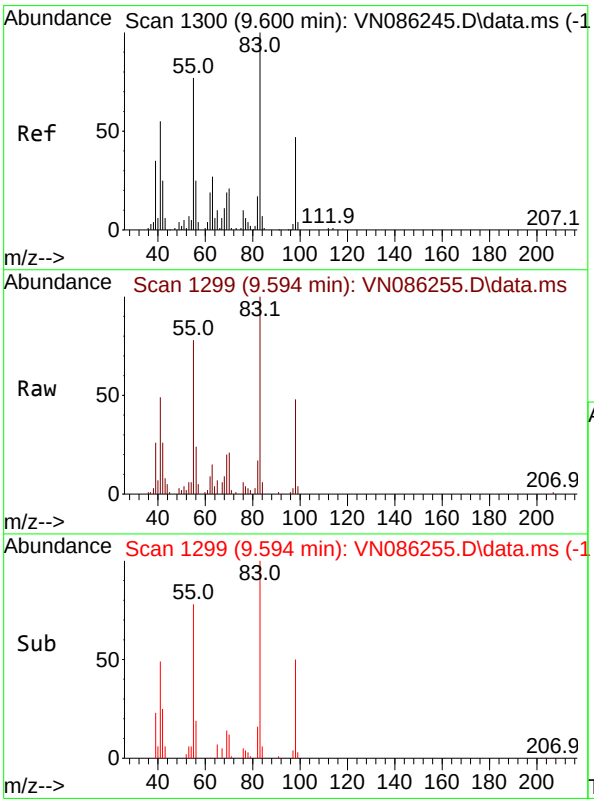
Ion	Ratio	Lower	Upper
130	100		
95	100.7	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

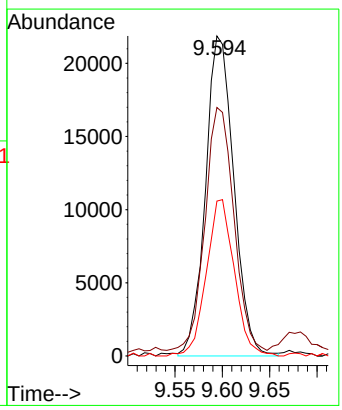
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

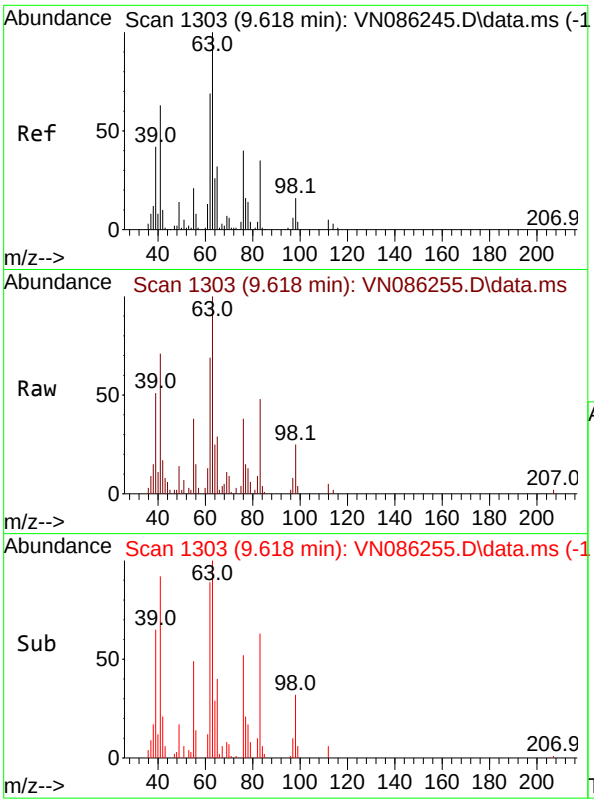


#38
Methylcyclohexane
Concen: 18.901 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 83 Resp: 45627

Ion	Ratio	Lower	Upper
83	100		
55	77.7	38.5	115.5
98	48.0	24.4	73.2

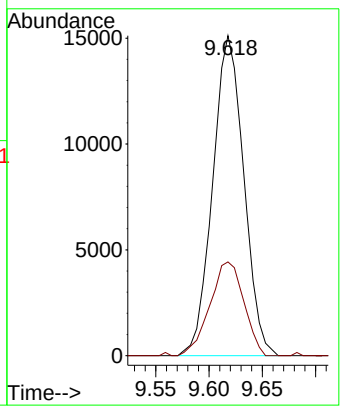




#39
1,2-Dichloropropane
Concen: 19.693 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 63 Resp: 3068

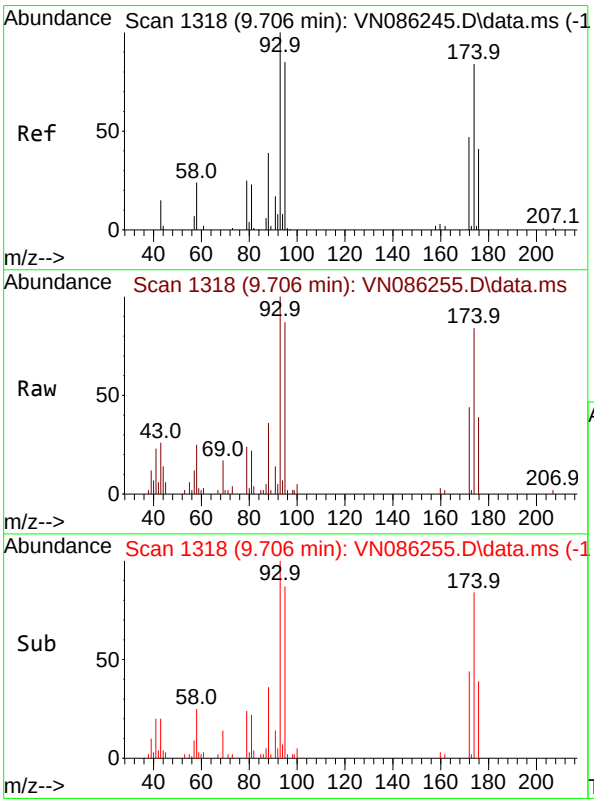
Ion	Ratio	Lower	Upper
63	100		
65	29.3	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

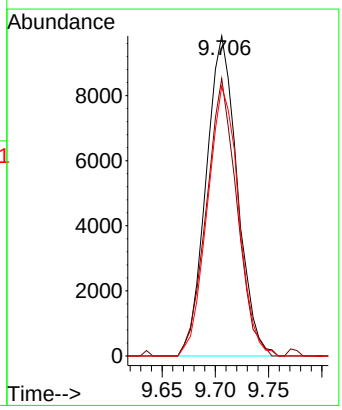
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

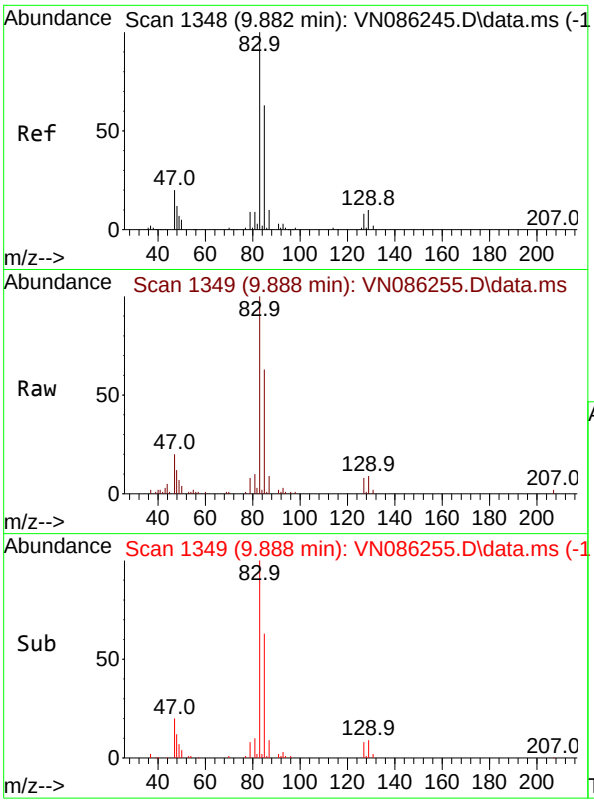


#40
Dibromomethane
Concen: 19.875 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 93 Resp: 20002

Ion	Ratio	Lower	Upper
93	100		
95	84.4	0.0	169.0
174	84.5	0.0	168.0

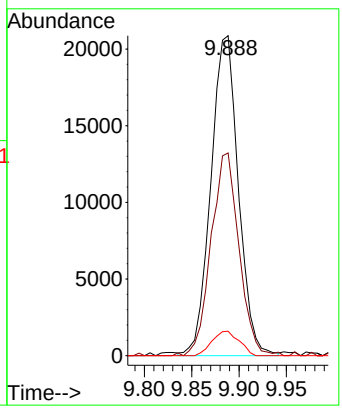




#41
Bromodichloromethane
Concen: 19.539 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 83 Resp: 4224

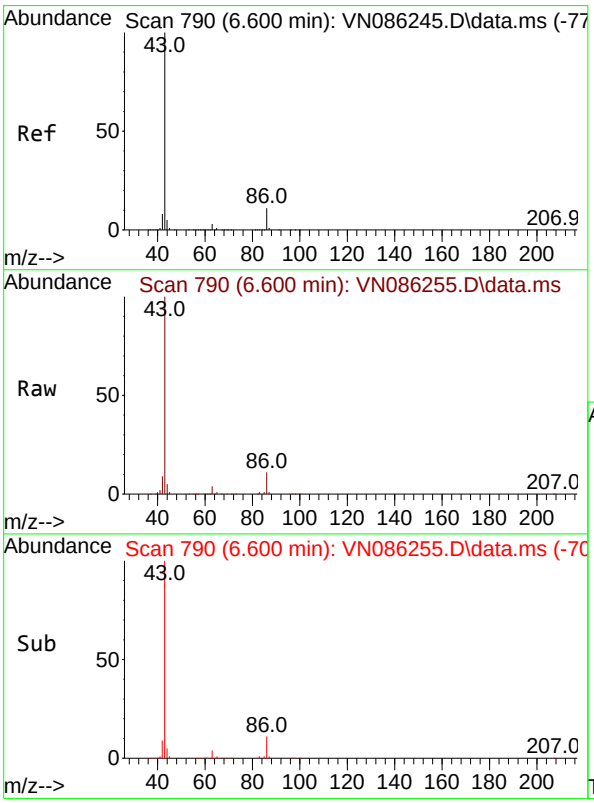
Ion	Ratio	Lower	Upper
83	100		
85	63.0	50.2	75.2
127	7.7	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

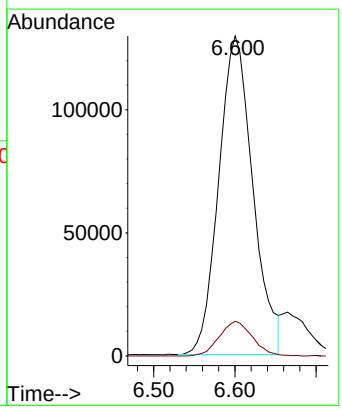
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

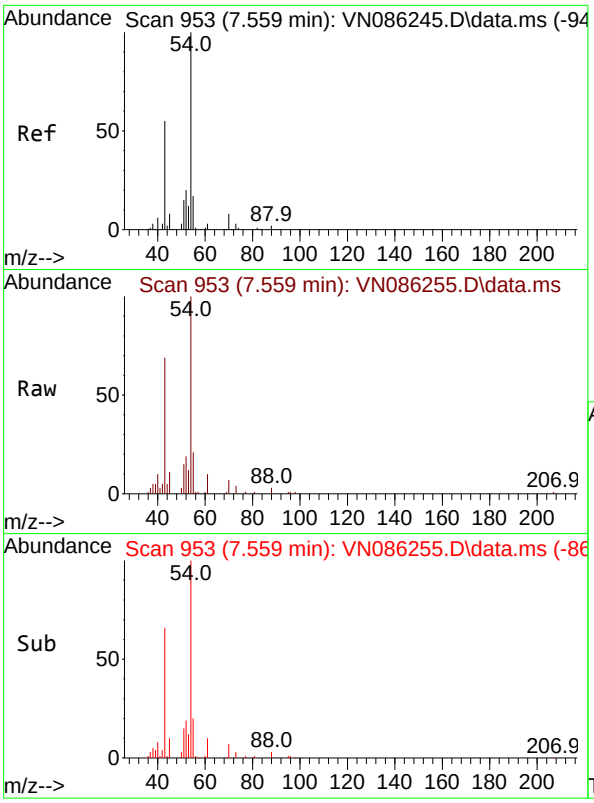


#42
Vinyl Acetate
Concen: 101.896 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 378299

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.4	12.6





#43
Ethyl Acetate
Concen: 17.072 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

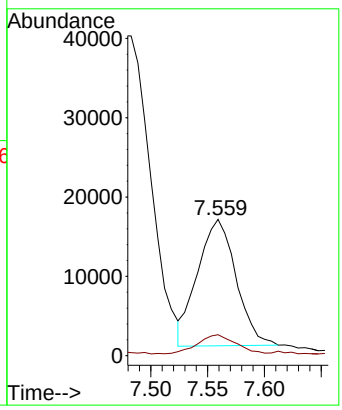
Tgt Ion: 43 Resp: 3755

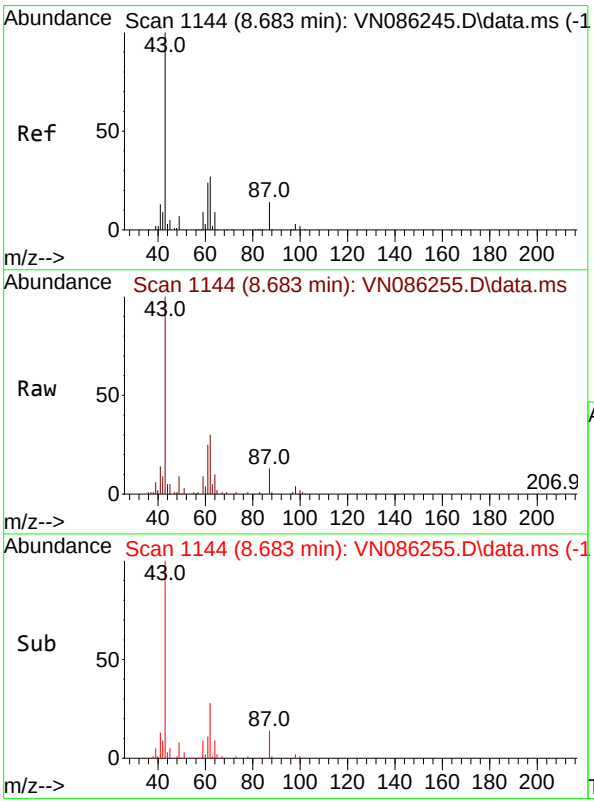
Ion	Ratio	Lower	Upper
43	100		
45	16.9	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

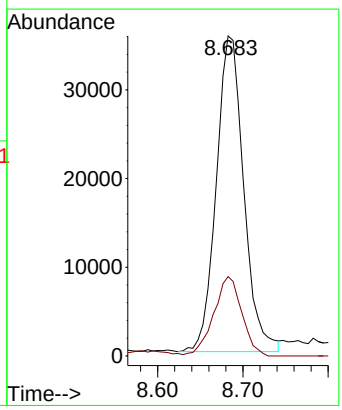


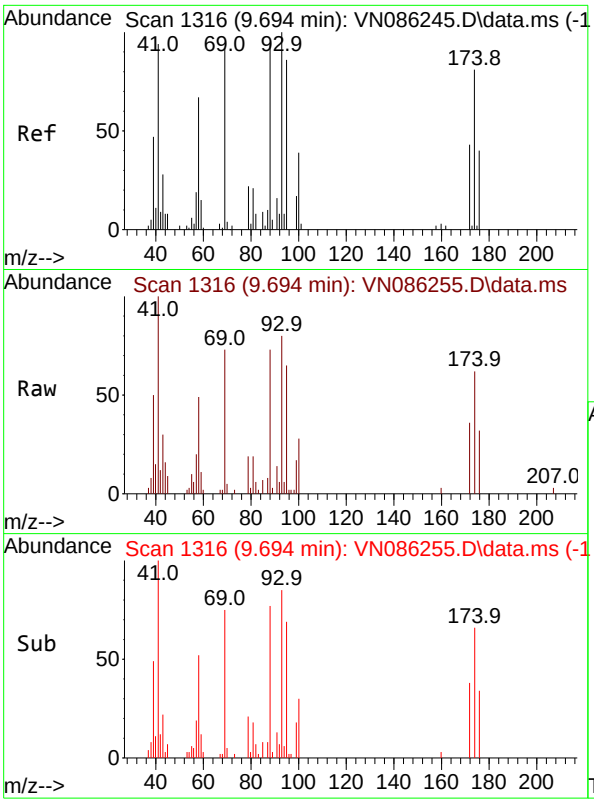


#44
Isopropyl Acetate
Concen: 19.518 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 79656

Ion	Ratio	Lower	Upper
43	100		
61	25.7	20.5	30.7

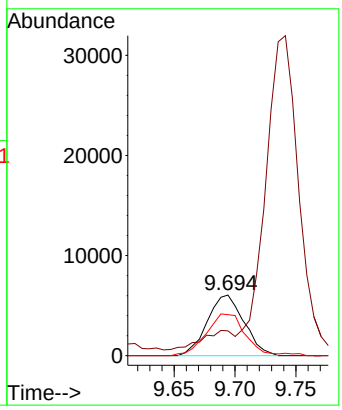




#45
1,4-Dioxane
Concen: 392.047 ug/l
RT: 9.694 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 88 Resp: 1272

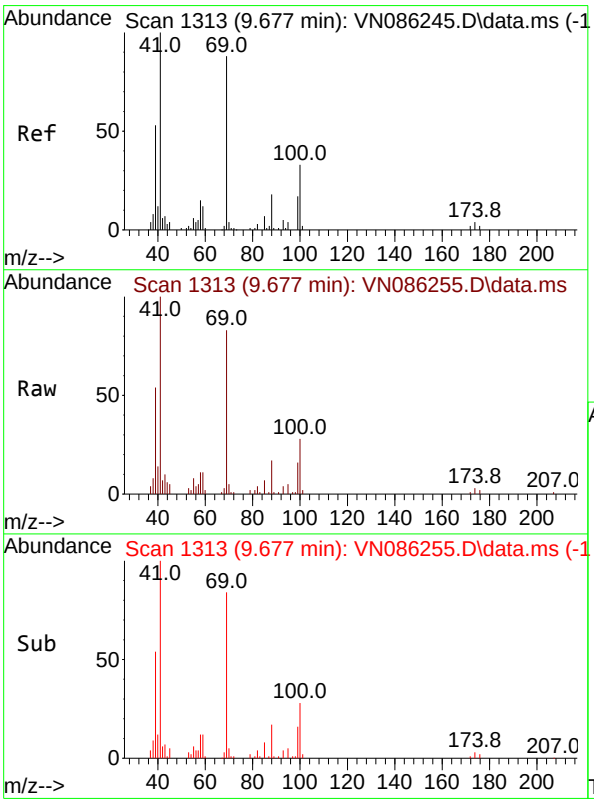
Ion	Ratio	Lower	Upper
88	100		
43	28.1	14.4	21.6
58	72.3	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

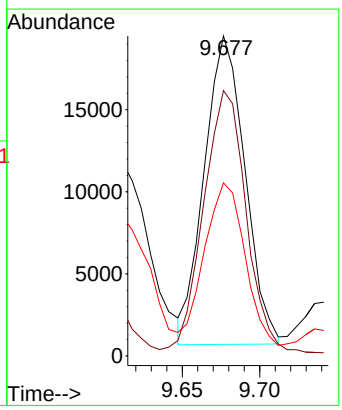
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

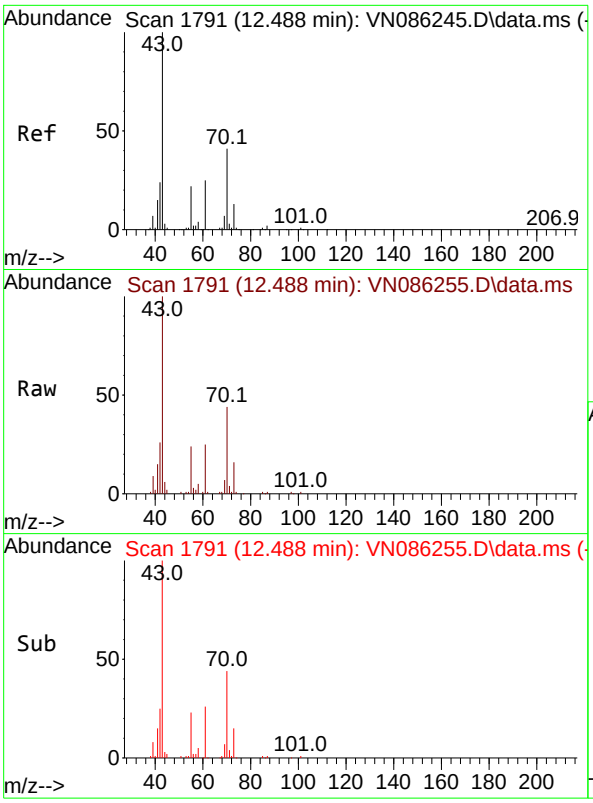


#46
Methyl methacrylate
Concen: 19.067 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 41 Resp: 34286

Ion	Ratio	Lower	Upper
41	100		
69	84.2	43.2	129.6
39	54.0	26.4	79.0





#47
n-amyl Acetate
Concen: 17.812 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

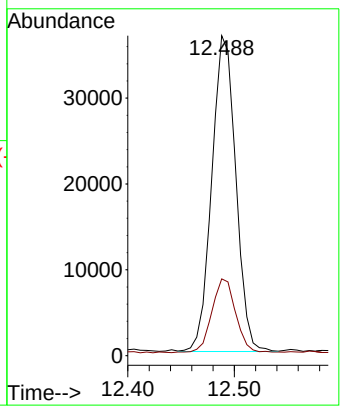
Tgt Ion: 43 Resp: 5763

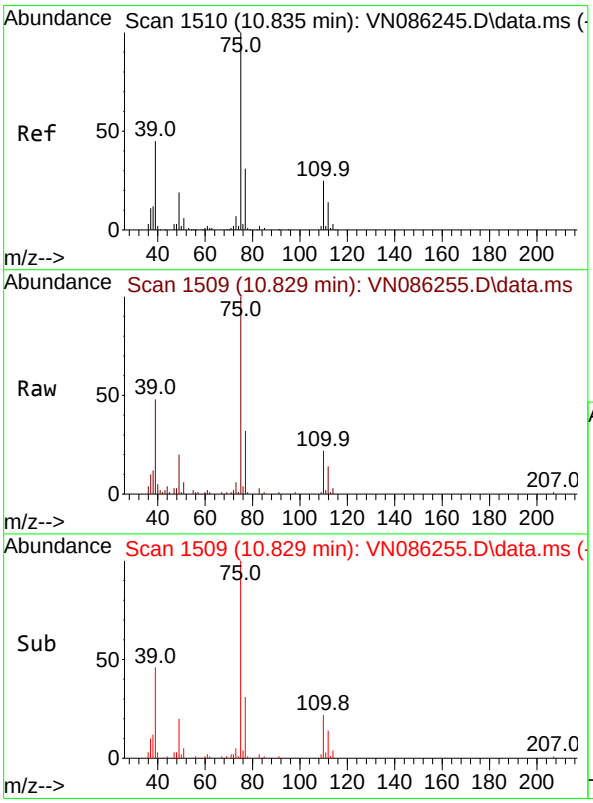
Ion	Ratio	Lower	Upper
43	100		
55	23.2	19.0	28.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

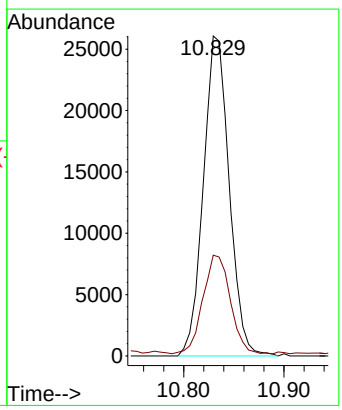


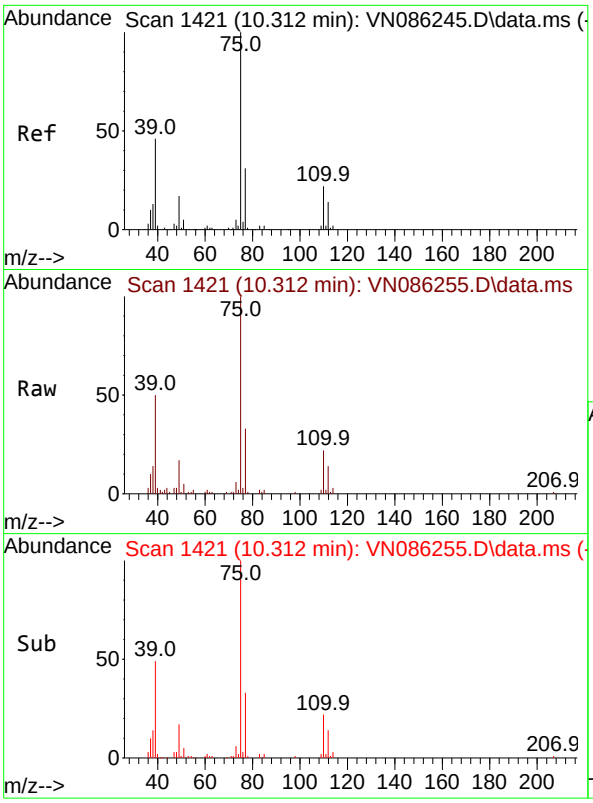


#48
t-1,3-Dichloropropene
Concen: 19.149 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 46804

Ion	Ratio	Lower	Upper
75	100		
77	30.4	25.1	37.7





#49
cis-1,3-Dichloropropene
Concen: 19.814 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

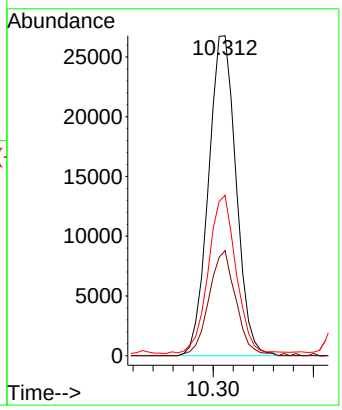
Tgt Ion: 75 Resp: 5125

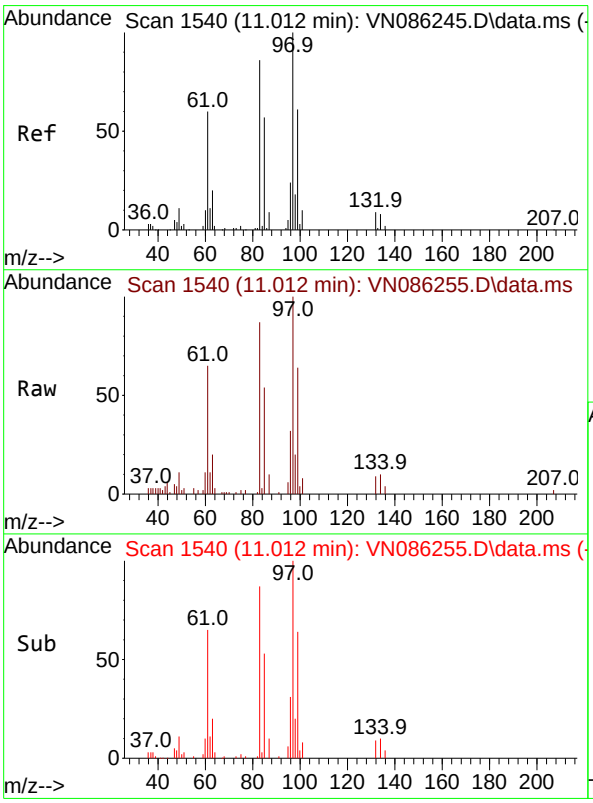
Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.0	37.4
39	49.2	36.7	55.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

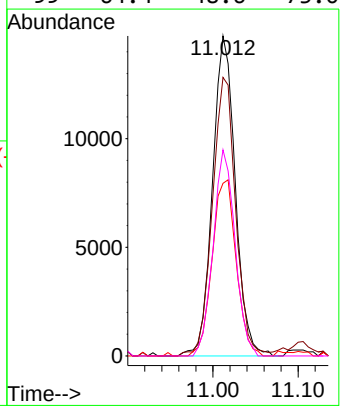


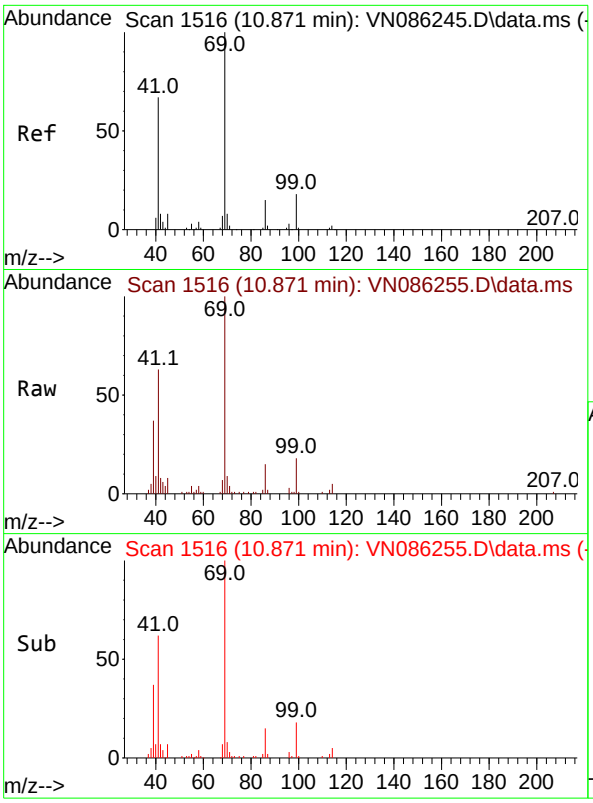


#50
1,1,2-Trichloroethane
Concen: 19.319 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 97 Resp: 27268

Ion	Ratio	Lower	Upper
97	100		
83	87.0	68.6	103.0
85	54.0	45.9	68.9
99	64.4	48.6	73.0





#51
Ethyl methacrylate
Concen: 18.768 ug/l
RT: 10.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

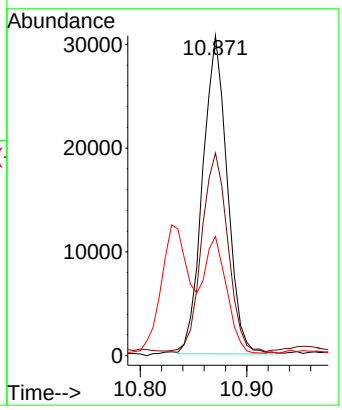
Tgt Ion: 69 Resp: 4922

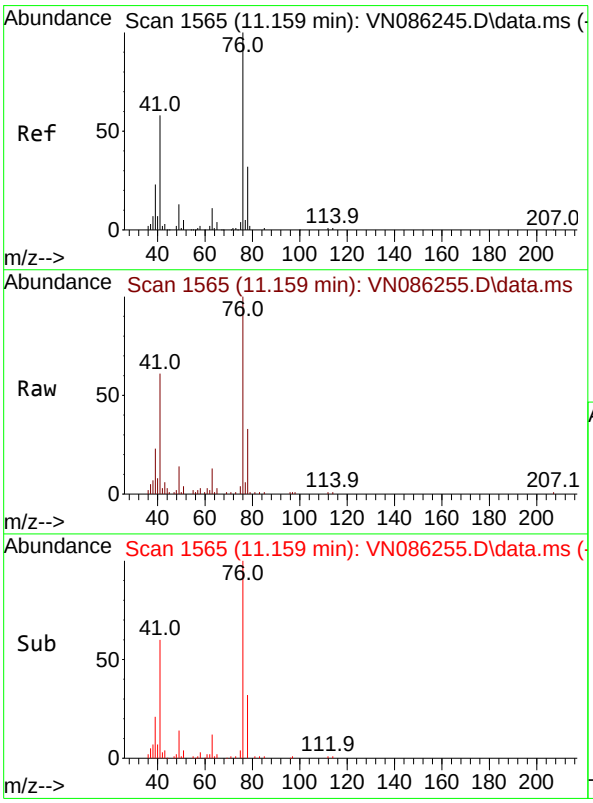
Ion	Ratio	Lower	Upper
69	100		
41	62.0	33.6	100.6
39	36.8	17.8	53.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

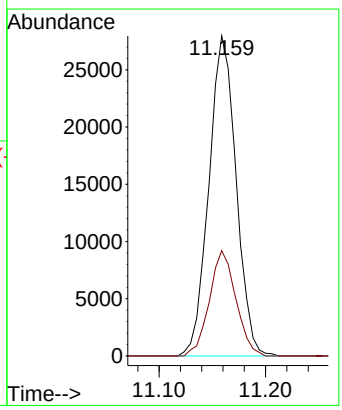


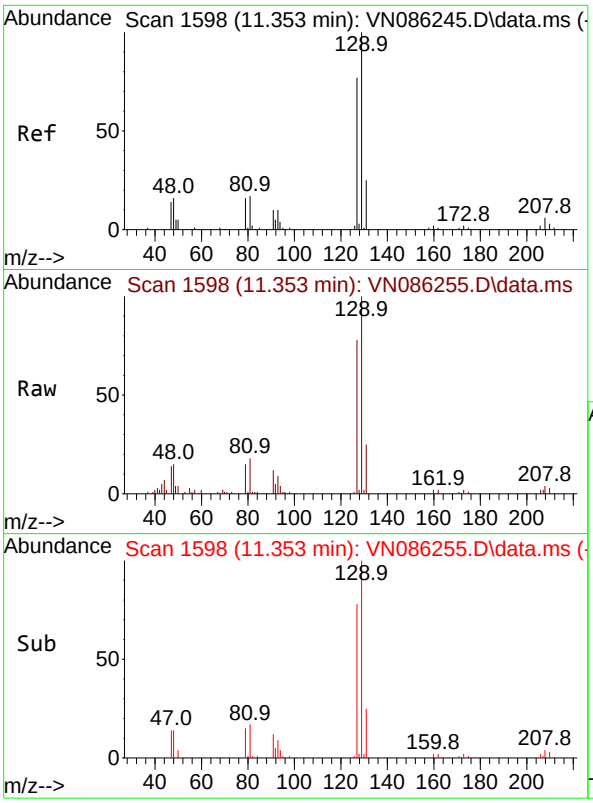


#52
1,3-Dichloropropane
Concen: 19.740 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 76 Resp: 49662

Ion	Ratio	Lower	Upper
76	100		
78	32.0	0.0	64.6

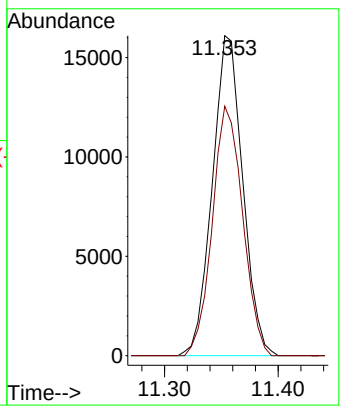




#53
Dibromochloromethane
Concen: 19.406 ug/l
RT: 11.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:129 Resp: 2996

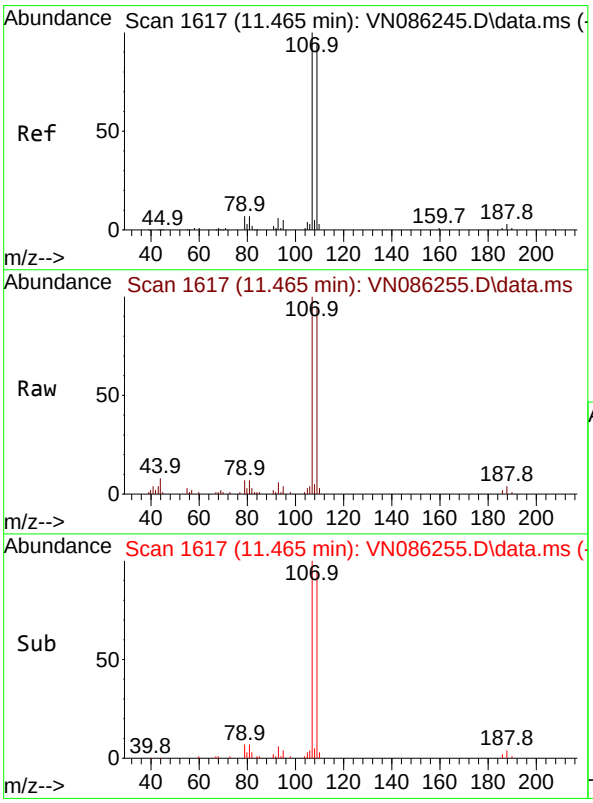
Ion	Ratio	Lower	Upper
129	100		
127	77.7	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

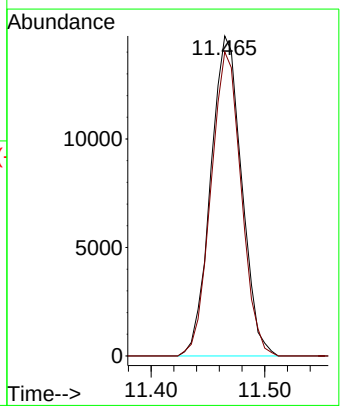
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

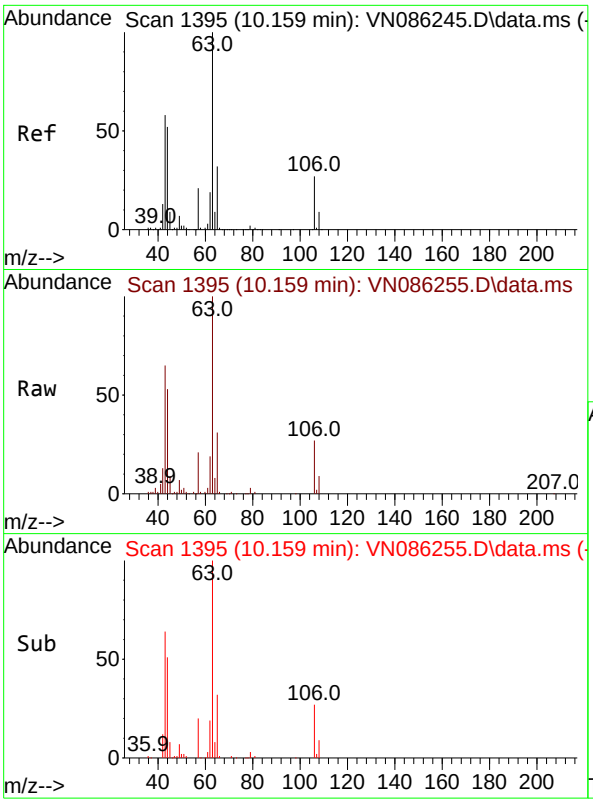


#54
1,2-Dibromoethane
Concen: 19.603 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:107 Resp: 27931

Ion	Ratio	Lower	Upper
107	100		
109	92.9	75.2	112.8

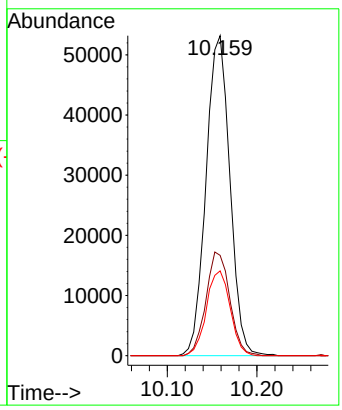




#55
2-Chloroethyl vinyl ether
Concen: 99.189 ug/l
RT: 10.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 63 Resp: 9831

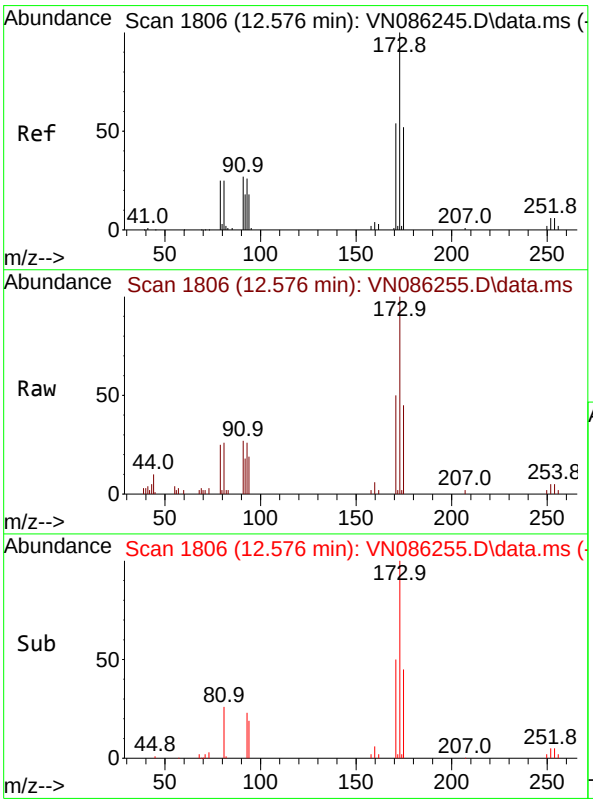
Ion	Ratio	Lower	Upper
63	100		
65	32.4	25.8	38.8
106	26.4	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

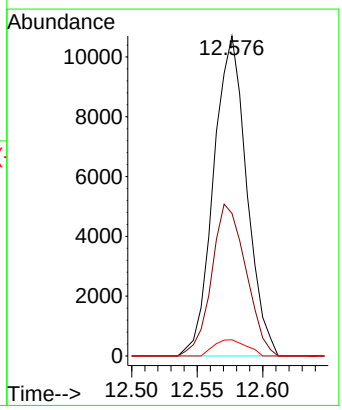
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

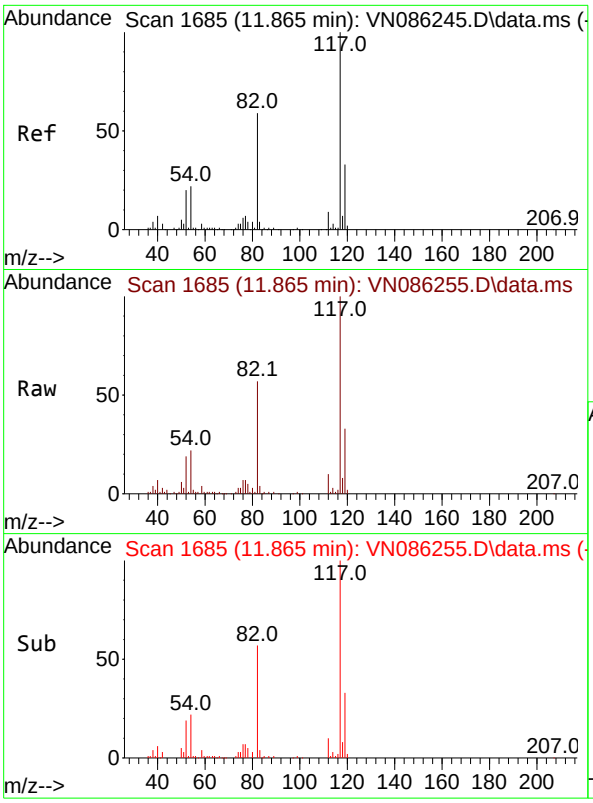


#56
Bromoform
Concen: 18.566 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:173 Resp: 18754

Ion	Ratio	Lower	Upper
173	100		
175	49.1	38.2	57.4
254	5.0	4.5	6.7

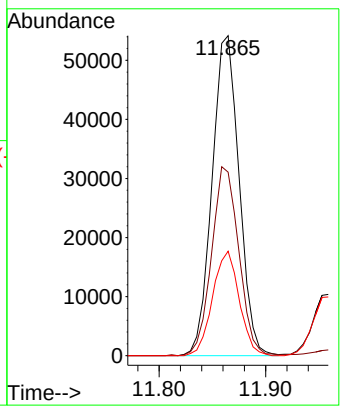




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:117 Resp: 9536

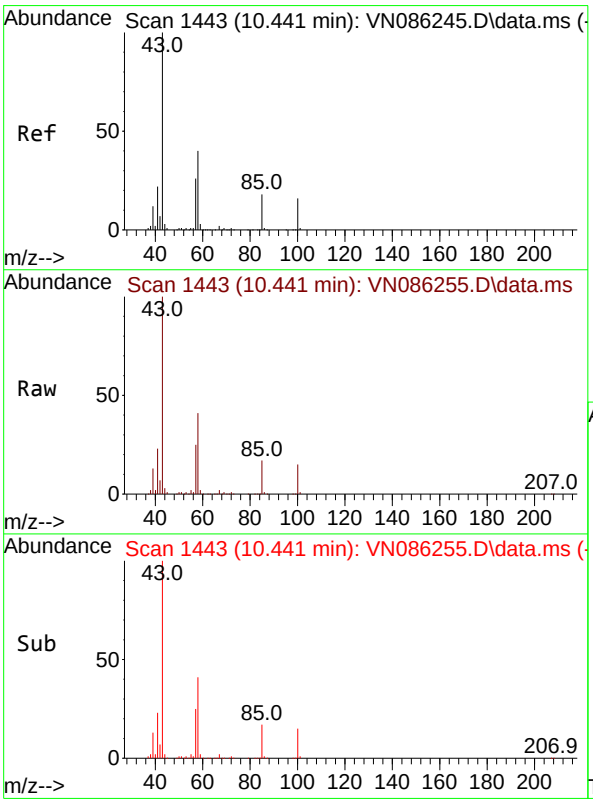
Ion	Ratio	Lower	Upper
117	100		
82	59.6	47.3	70.9
119	32.2	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

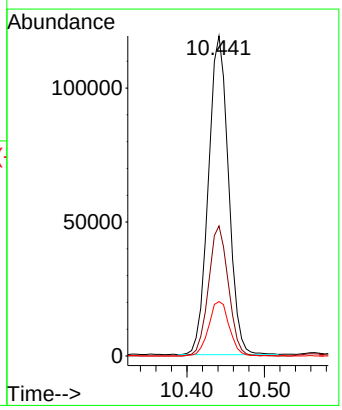
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

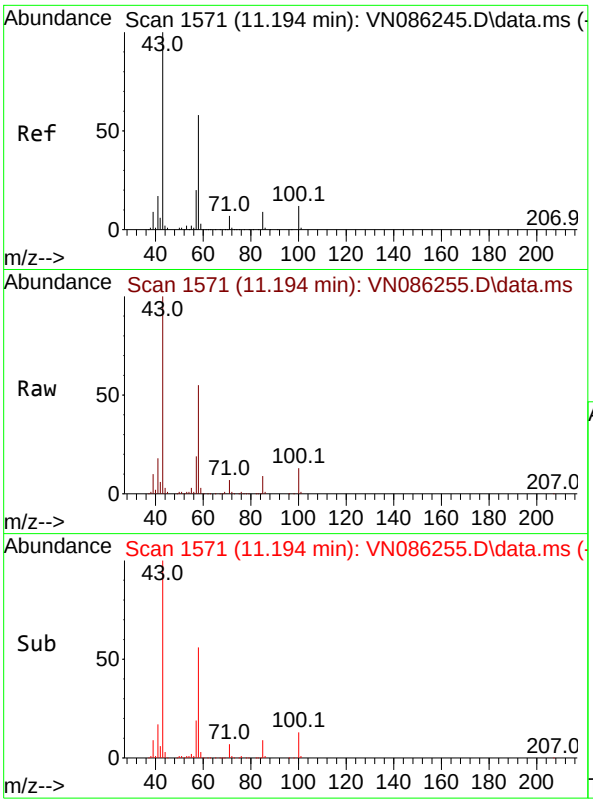


#58
4-Methyl-2-Pentanone
Concen: 99.184 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 214641

Ion	Ratio	Lower	Upper
43	100		
58	40.3	32.5	48.7
85	17.5	14.4	21.6





#59
2-Hexanone
Concen: 98.104 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

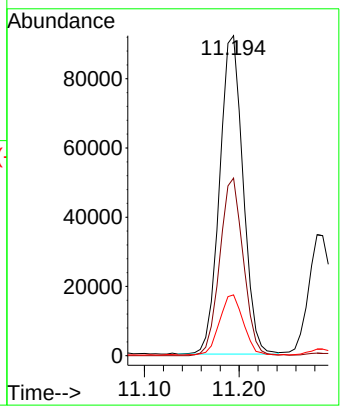
Tgt Ion: 43 Resp: 15808

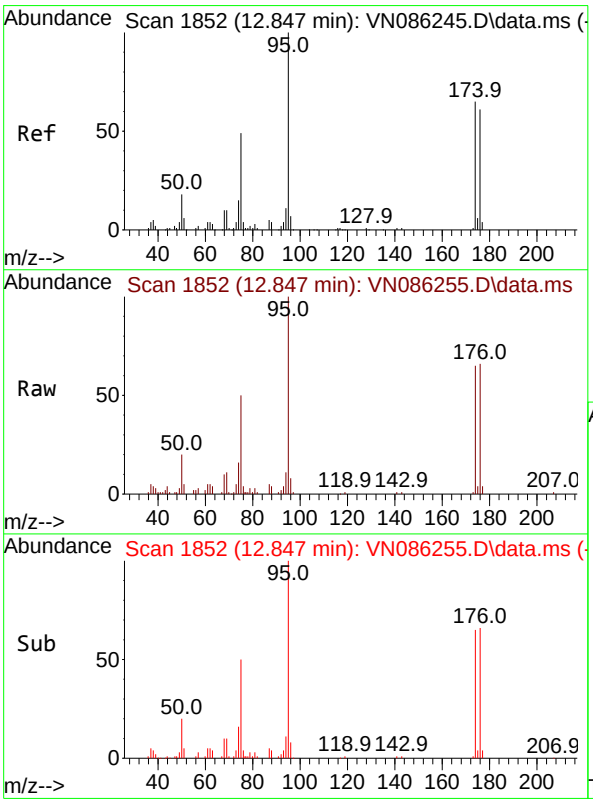
Ion	Ratio	Lower	Upper
43	100		
58	55.9	45.3	67.9
57	19.1	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

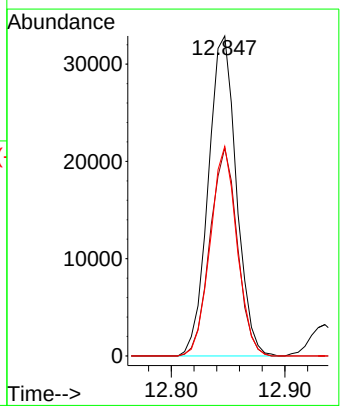


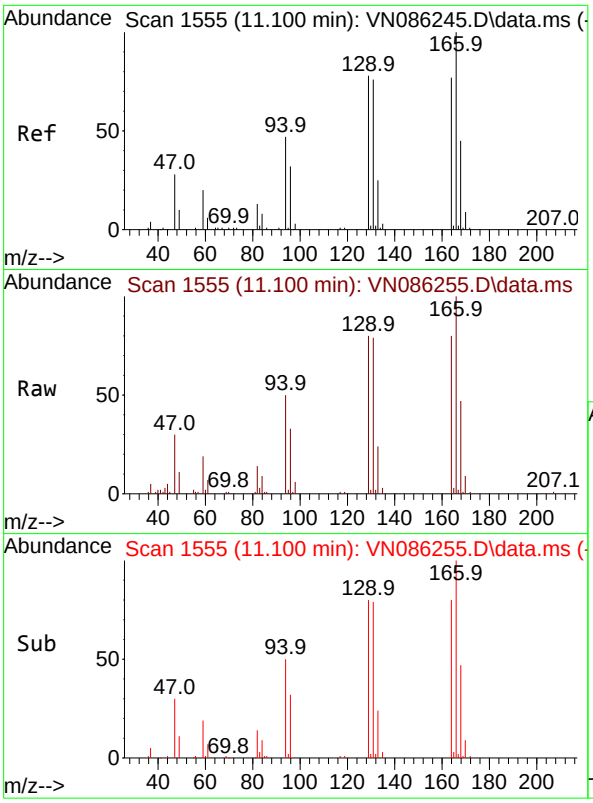


#60
4-Bromofluorobenzene
Concen: 29.786 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 95 Resp: 56553

Ion	Ratio	Lower	Upper
95	100		
174	63.1	52.7	79.1
176	62.3	49.8	74.8

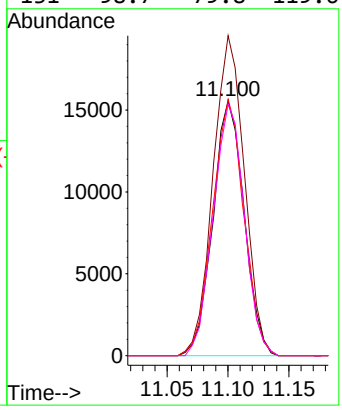




#61
Tetrachloroethene
Concen: 19.697 ug/l
RT: 11.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:164 Resp: 2773

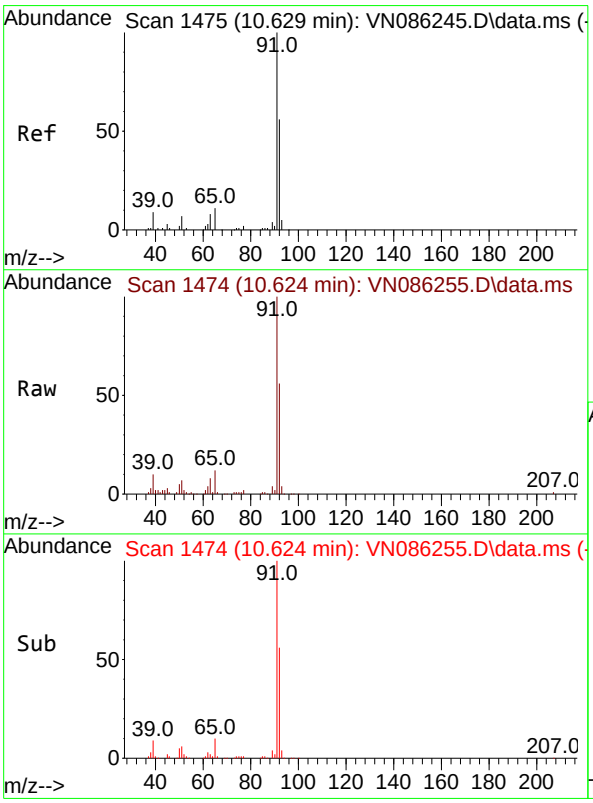
Ion	Ratio	Lower	Upper
164	100		
166	125.7	104.5	156.7
129	100.7	81.7	122.5
131	98.7	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

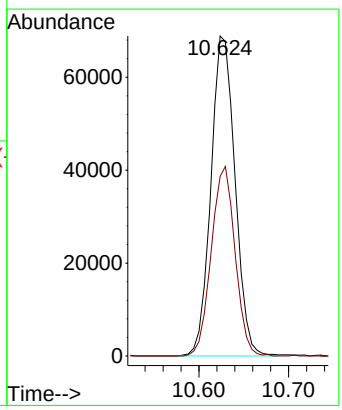
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

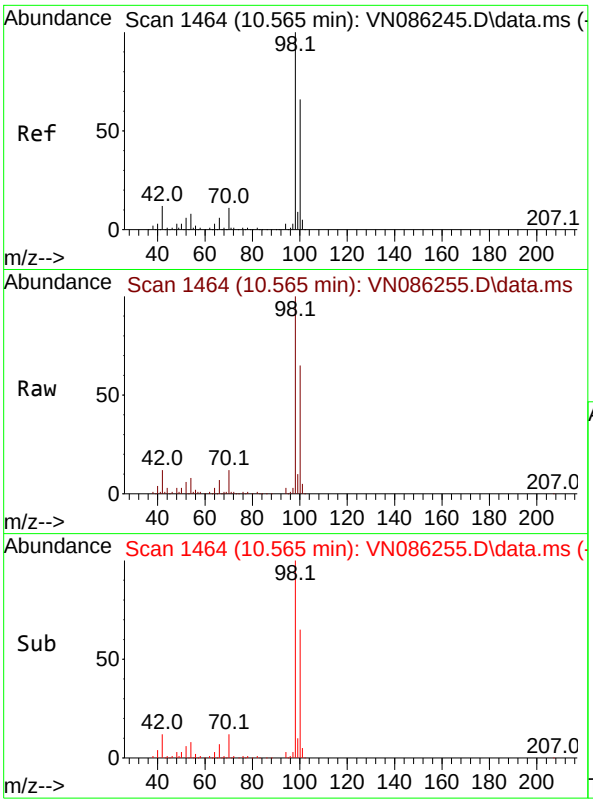


#62
Toluene
Concen: 20.118 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 128682

Ion	Ratio	Lower	Upper
91	100		
92	58.2	46.8	70.2





#63
Toluene-d8
Concen: 30.752 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

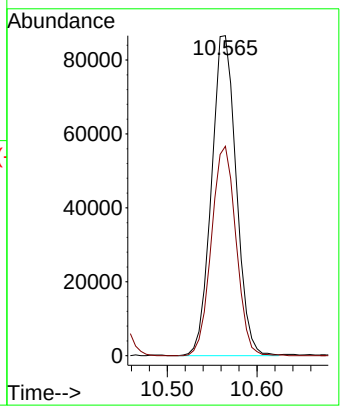
Tgt Ion: 98 Resp: 16555

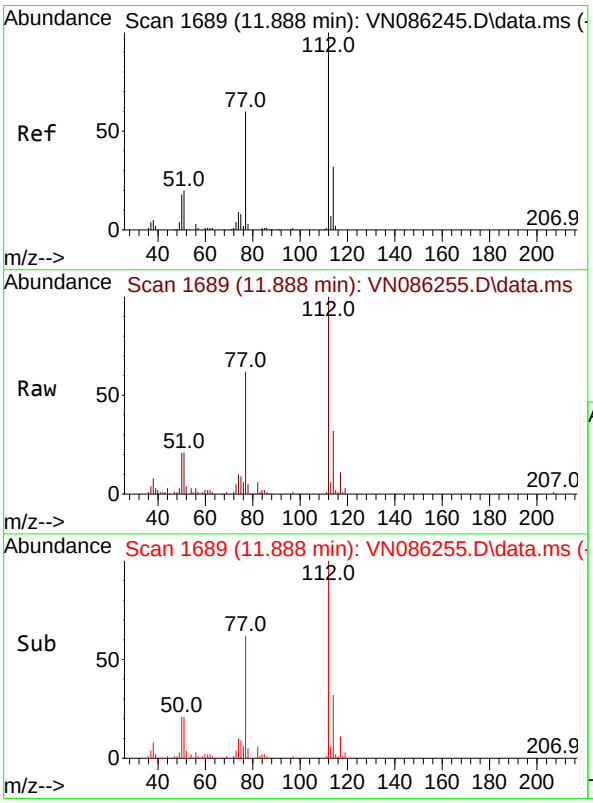
Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.3	78.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

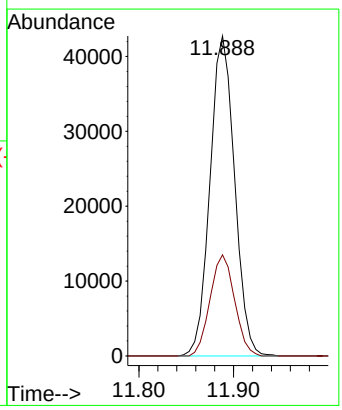


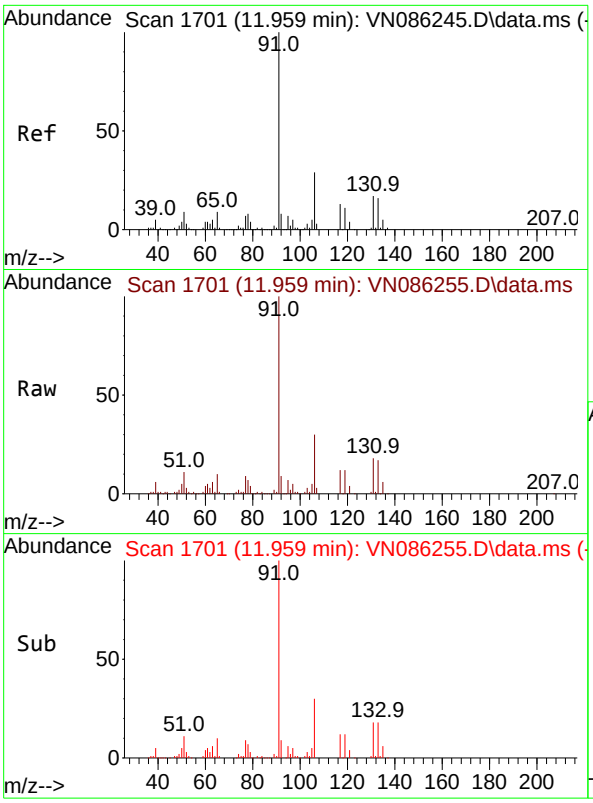


#64
Chlorobenzene
Concen: 19.736 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:112 Resp: 77123

Ion	Ratio	Lower	Upper
112	100		
114	31.6	25.8	38.6





#65
1,1,1,2-Tetrachloroethane
Concen: 20.177 ug/l
RT: 11.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

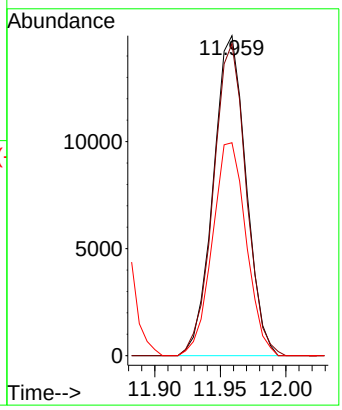
Tgt Ion:131 Resp: 2602

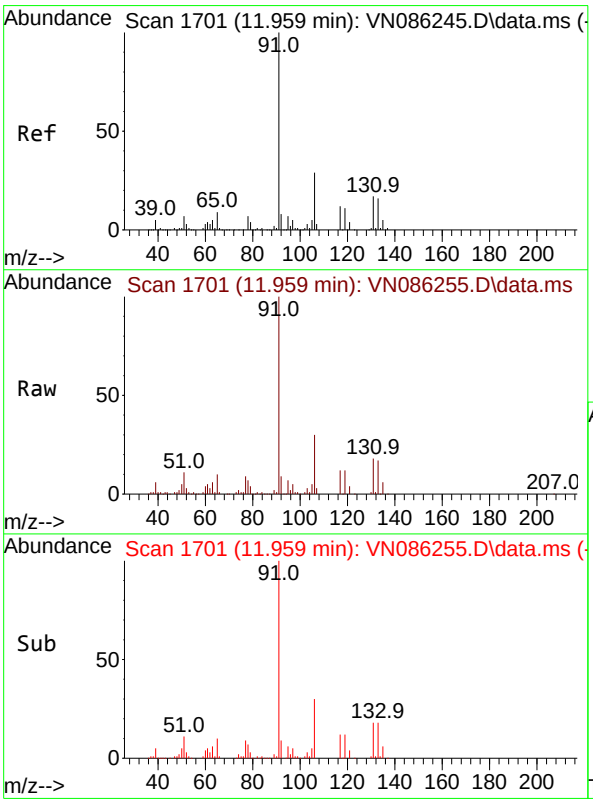
Ion	Ratio	Lower	Upper
131	100		
133	97.4	0.0	190.4
119	68.5	0.0	135.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

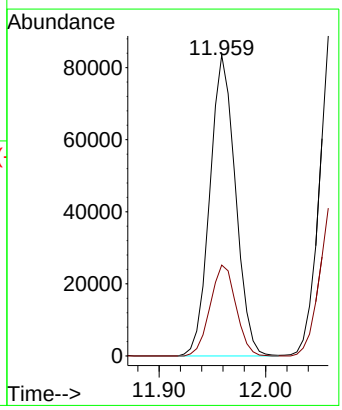


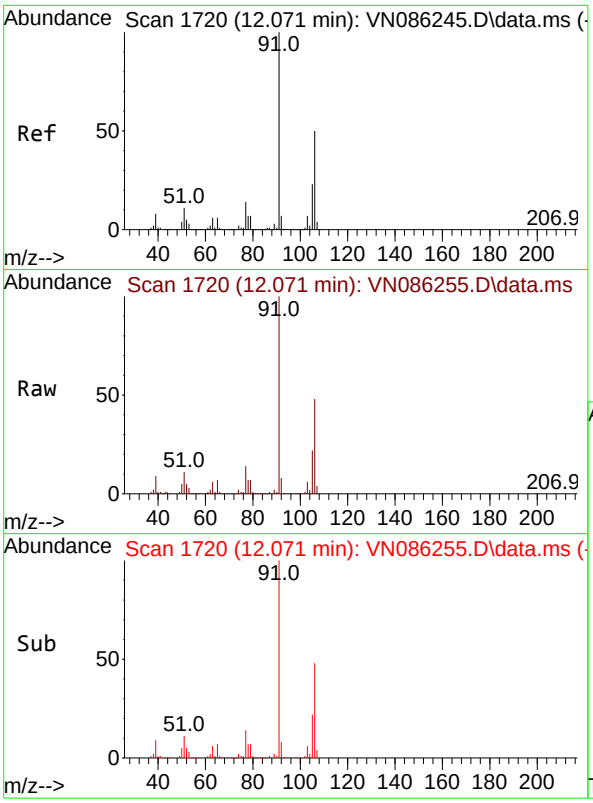


#66
Ethyl Benzene
Concen: 19.639 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 139309

Ion	Ratio	Lower	Upper
91	100		
106	30.2	23.4	35.0

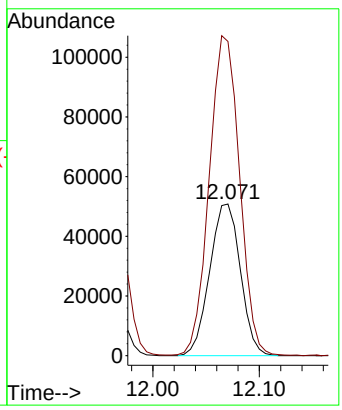




#67
m/p-Xylenes
Concen: 38.563 ug/l
RT: 12.071 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:106 Resp: 10171

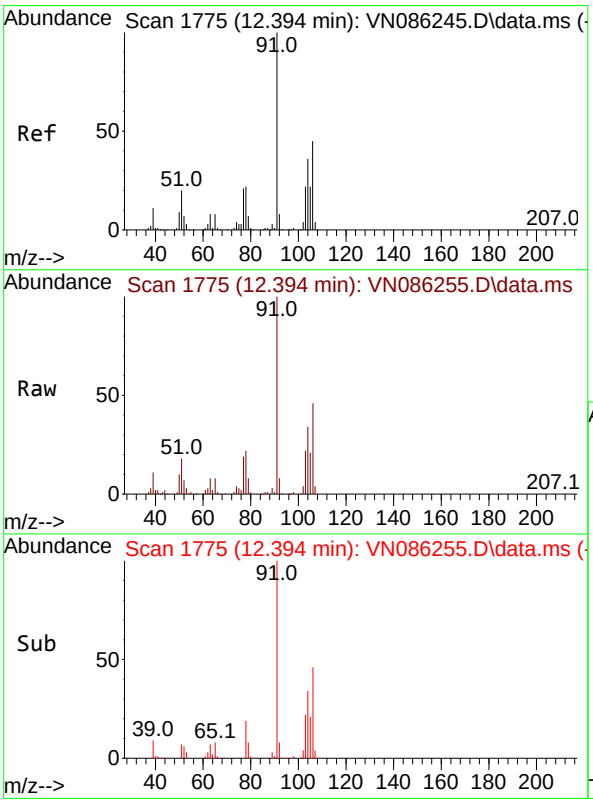
Ion	Ratio	Lower	Upper
106	100		
91	208.9	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

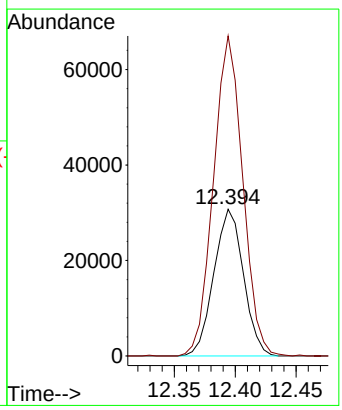
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

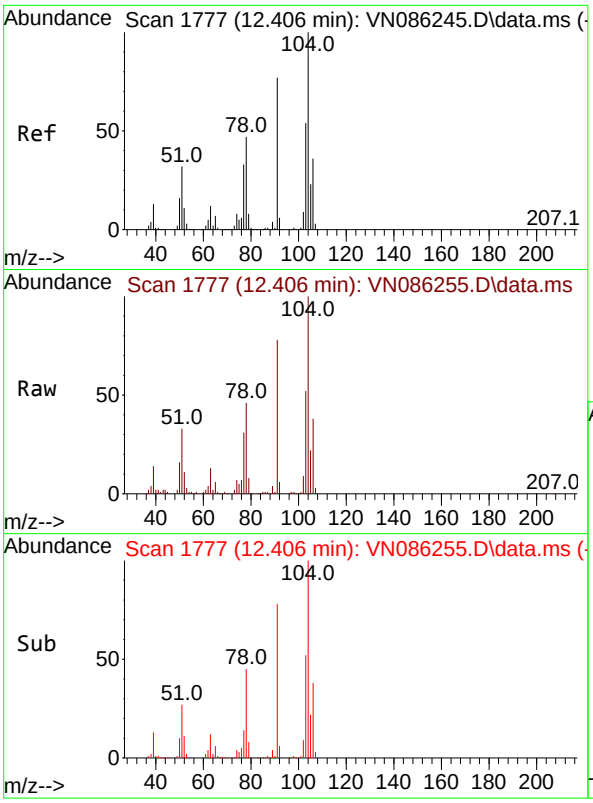


#68
o-Xylene
Concen: 20.058 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:106 Resp: 52037

Ion	Ratio	Lower	Upper
106	100		
91	215.7	109.8	329.4

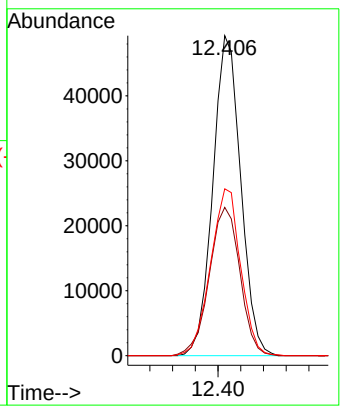




#69
Styrene
Concen: 19.187 ug/l
RT: 12.406 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:104 Resp: 8394

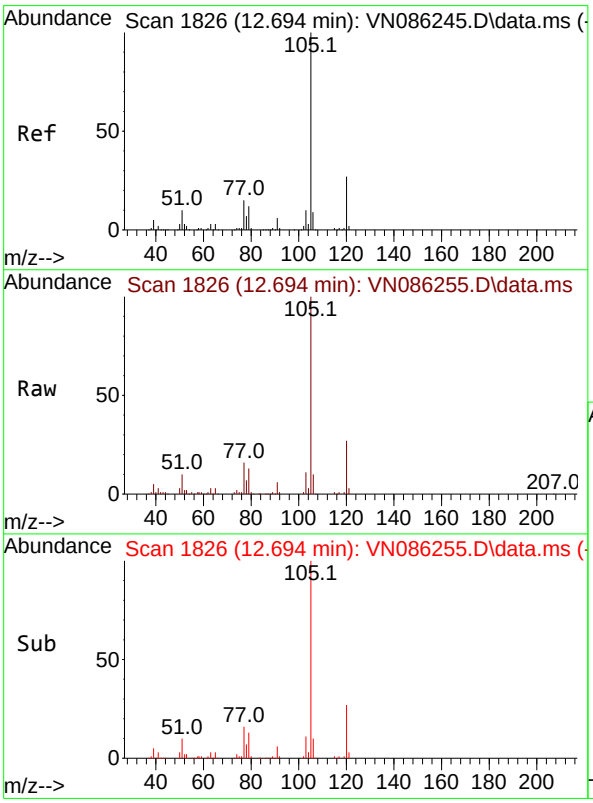
Ion	Ratio	Lower	Upper
104	100		
78	50.8	41.4	62.0
103	56.2	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

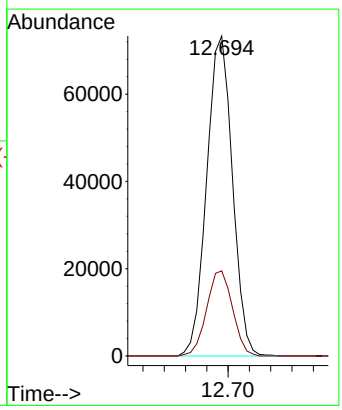
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

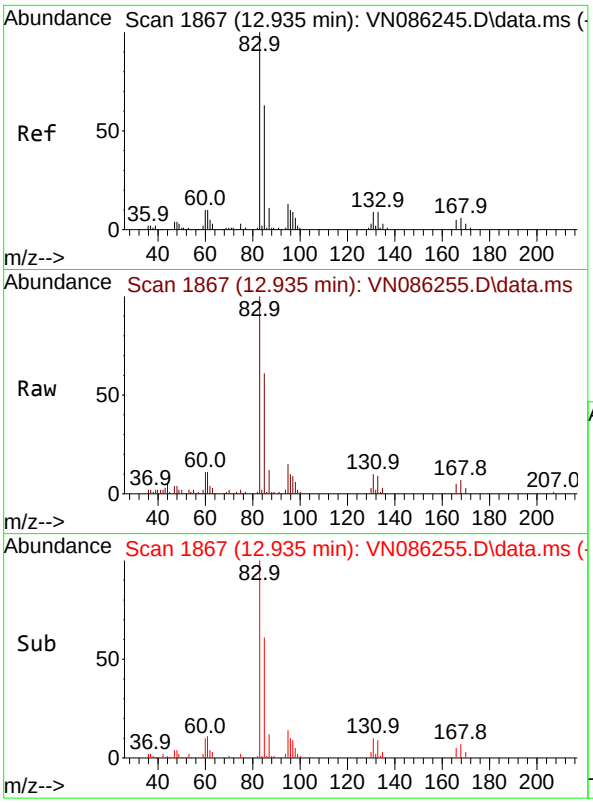


#70
Isopropylbenzene
Concen: 19.260 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 123201

Ion	Ratio	Lower	Upper
105	100		
120	26.7	18.3	34.1

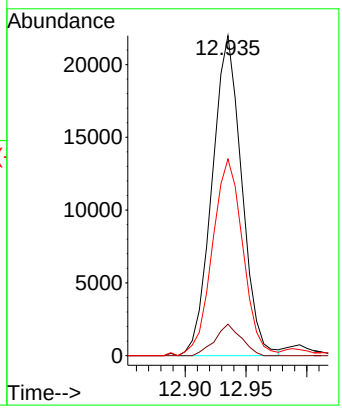




#71
1,1,2,2-Tetrachloroethane
Concen: 20.449 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 83 Resp: 3723

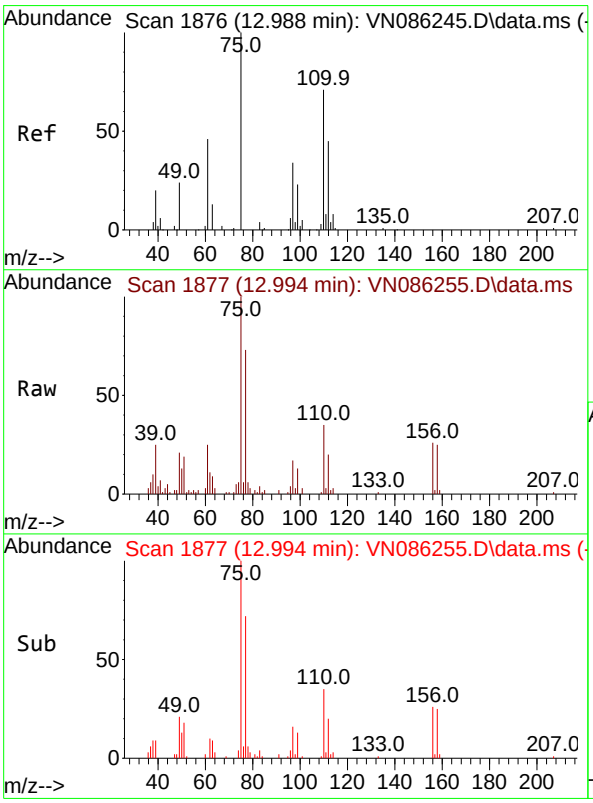
Ion	Ratio	Lower	Upper
83	100		
131	8.7	4.8	14.3
85	63.2	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

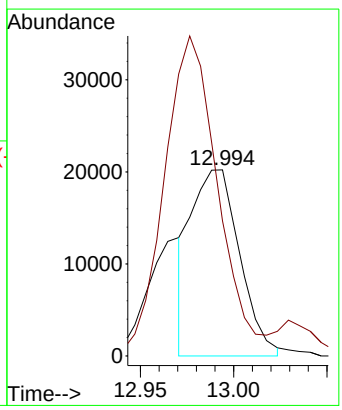
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

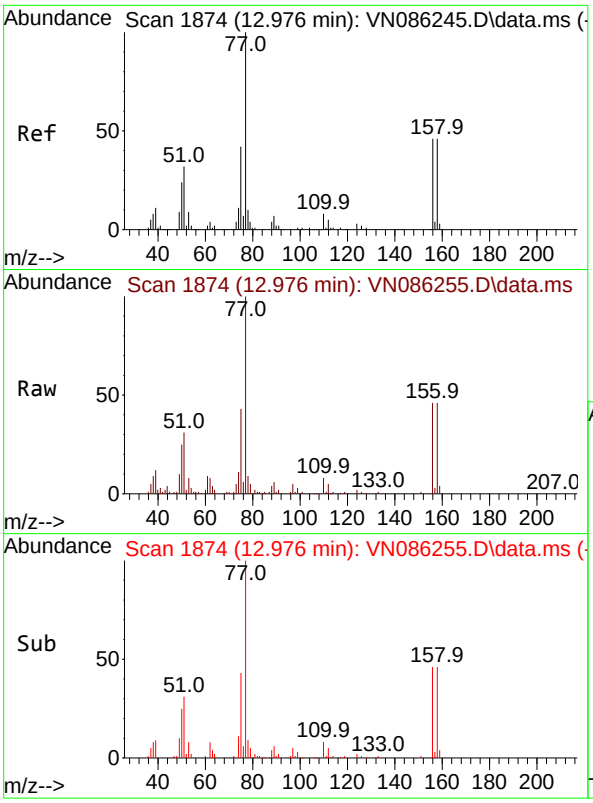


#72
1,2,3-Trichloropropane
Concen: 19.193 ug/l m
RT: 12.994 min Scan# 1877
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 36376

Ion	Ratio	Lower	Upper
75	100		
77	191.2	0.0	380.0





#73
Bromobenzene
Concen: 19.245 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

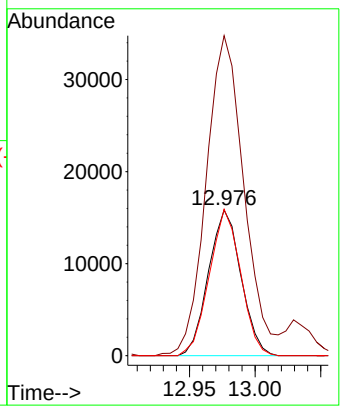
Tgt Ion:156 Resp: 2727

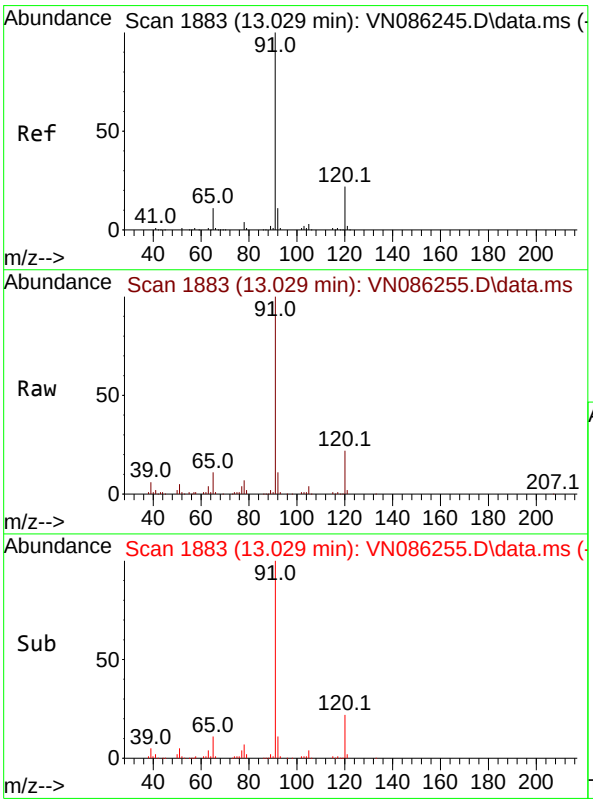
Ion	Ratio	Lower	Upper
156	100		
77	255.1	0.0	505.2
158	97.0	0.0	195.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

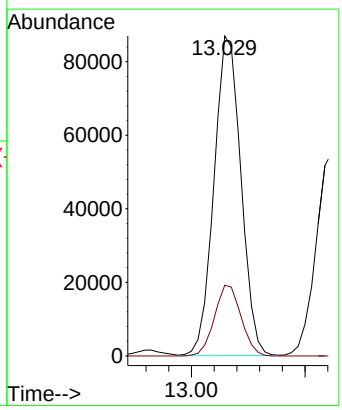


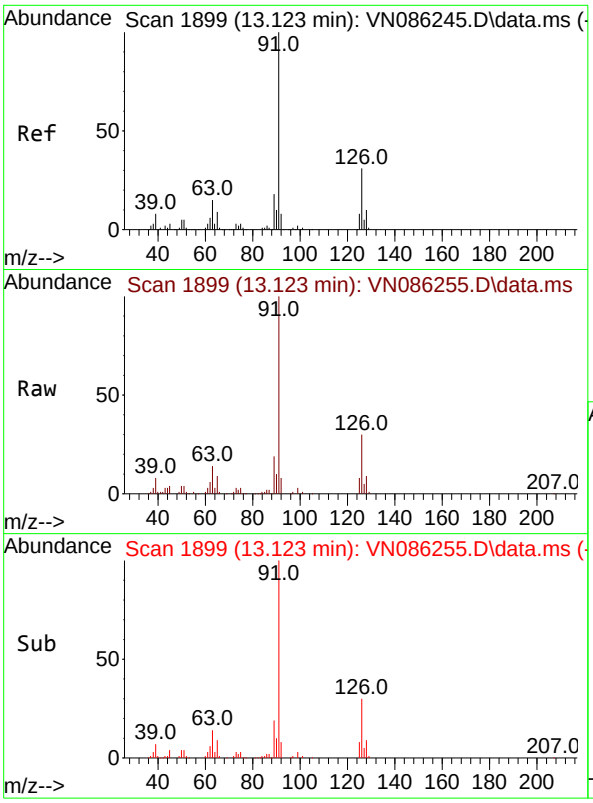


#74
n-propylbenzene
Concen: 18.944 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 143093

Ion	Ratio	Lower	Upper
91	100		
120	21.9	0.0	44.0

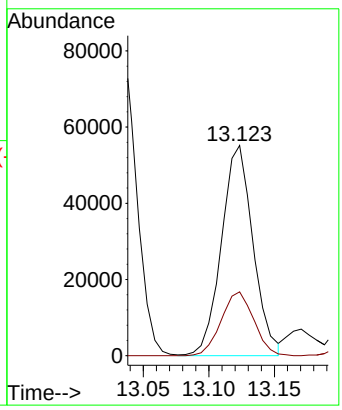




#75
2-Chlorotoluene
Concen: 19.514 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 9264

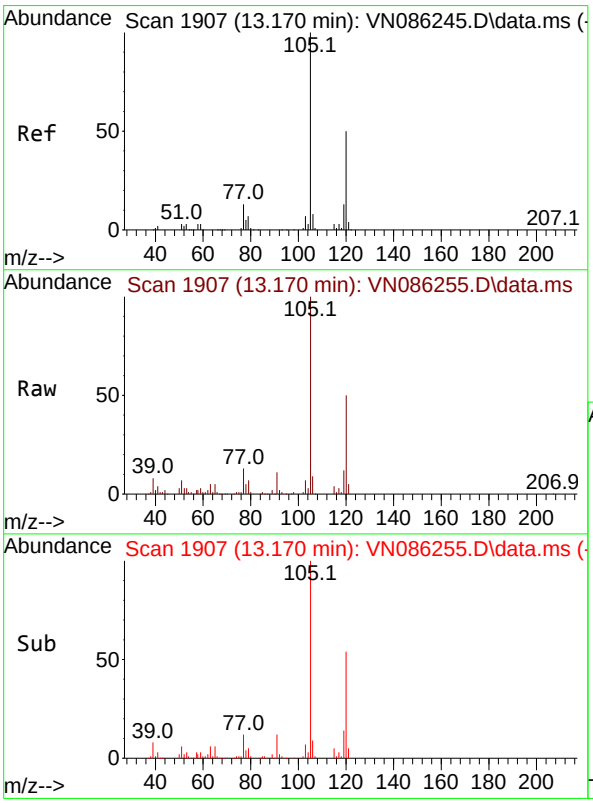
Ion	Ratio	Lower	Upper
91	100		
126	31.3	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

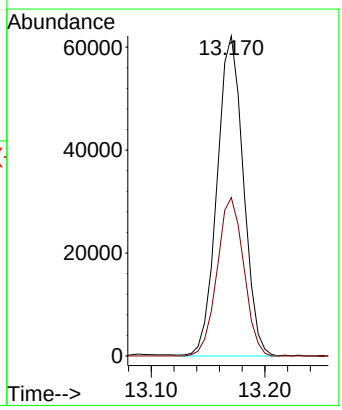
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

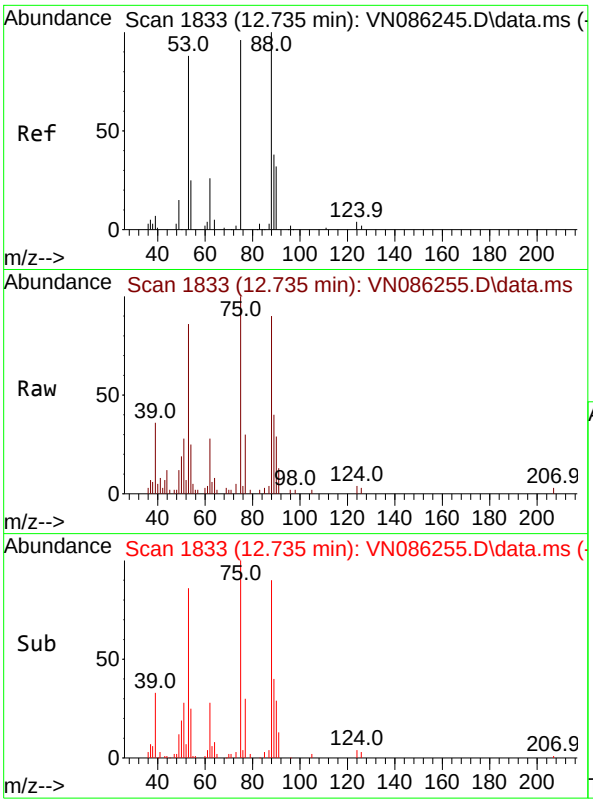


#76
1,3,5-Trimethylbenzene
Concen: 19.025 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 99973

Ion	Ratio	Lower	Upper
105	100		
120	50.0	0.0	98.0

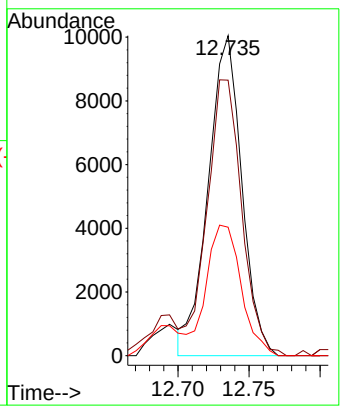




#77
t-1,4-Dichloro-2-butene
Concen: 18.869 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 1649

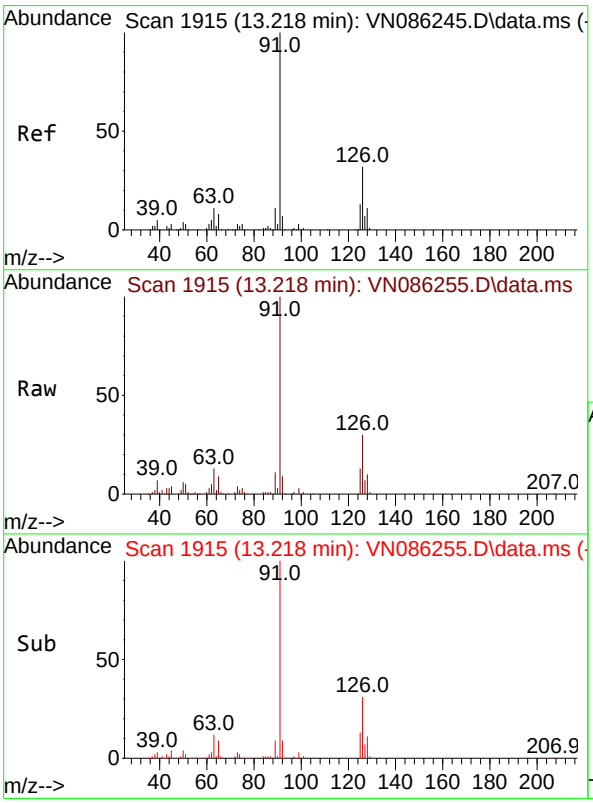
Ion	Ratio	Lower	Upper
75	100		
53	84.4	46.4	139.2
89	40.2	22.5	67.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

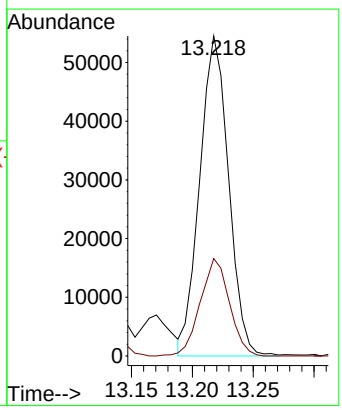
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

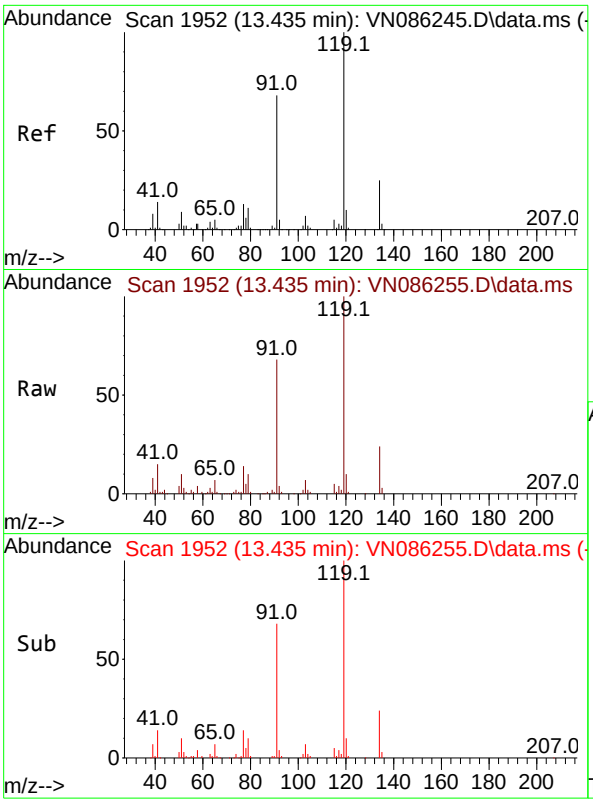


#78
4-Chlorotoluene
Concen: 18.983 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 90011

Ion	Ratio	Lower	Upper
91	100		
126	30.7	0.0	63.2

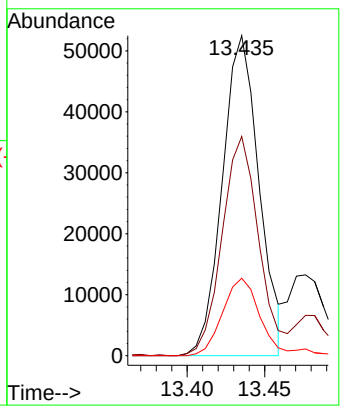




#79
tert-butylbenzene
Concen: 19.039 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:119 Resp: 8656

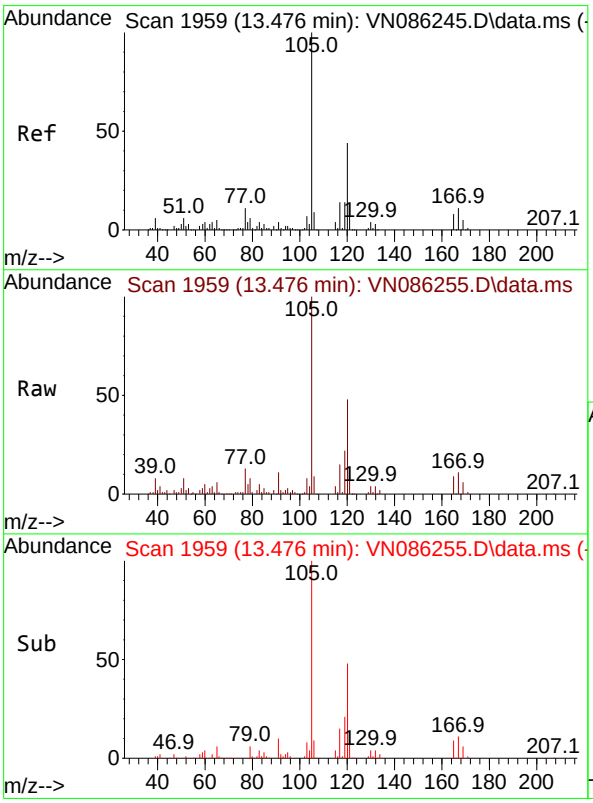
Ion	Ratio	Lower	Upper
119	100		
91	68.8	0.0	136.6
134	24.1	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

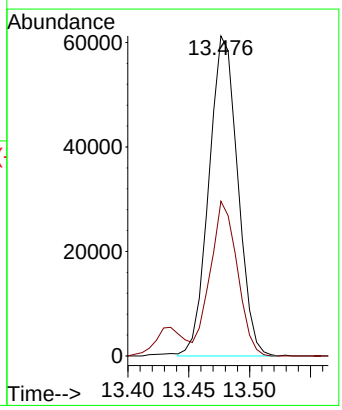
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

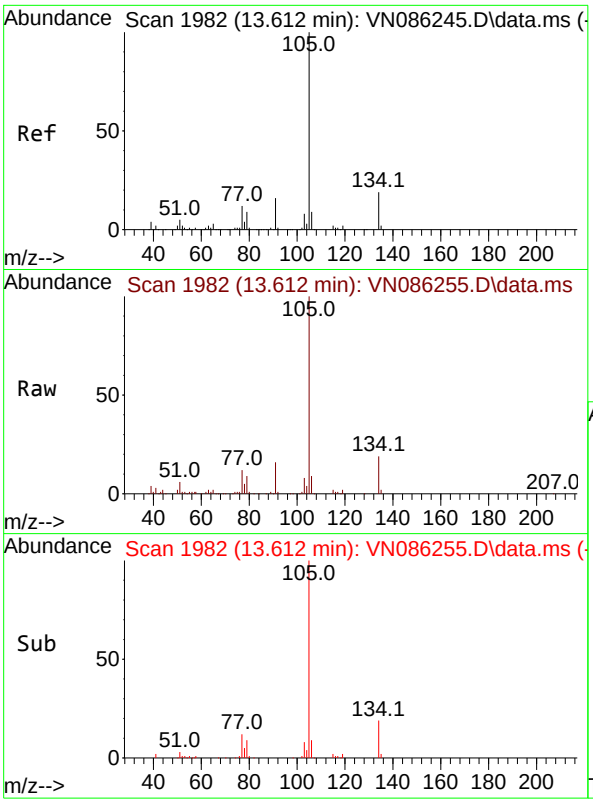


#80
1,2,4-Trimethylbenzene
Concen: 18.911 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 100765

Ion	Ratio	Lower	Upper
105	100		
120	45.4	0.0	91.0

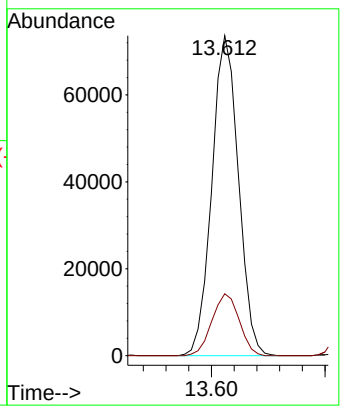




#81
sec-Butylbenzene
Concen: 18.880 ug/l
RT: 13.612 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 11974

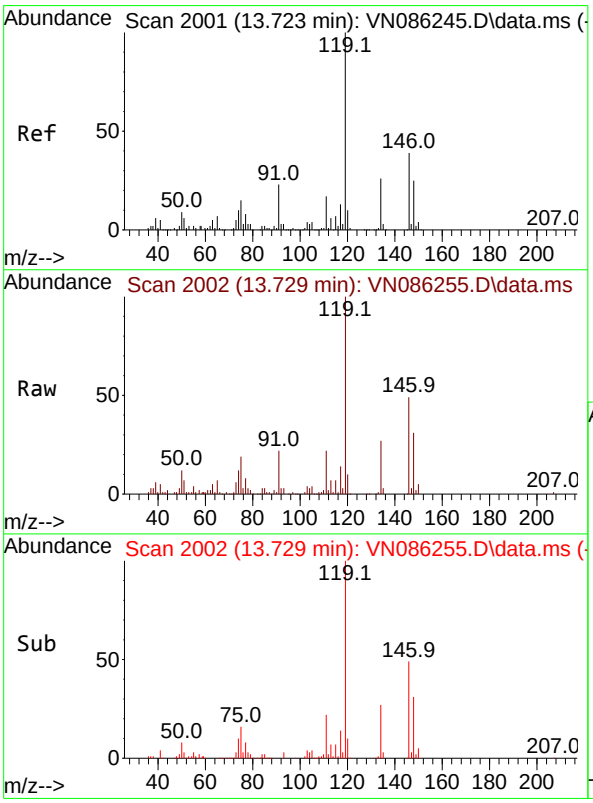
Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations APPROVED

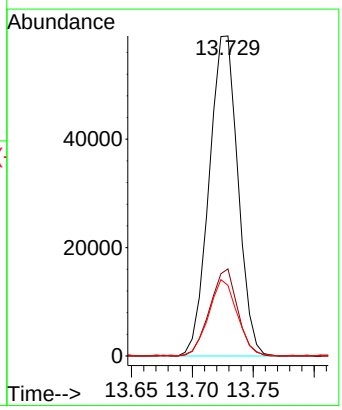
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

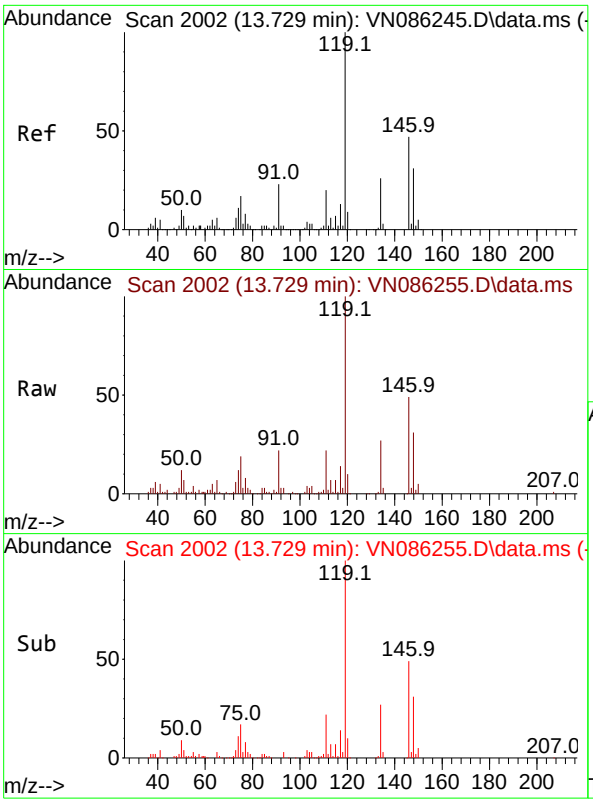


#82
p-Isopropyltoluene
Concen: 18.394 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:119 Resp: 97324

Ion	Ratio	Lower	Upper
119	100		
134	26.2	0.0	51.6
91	23.8	0.0	48.2

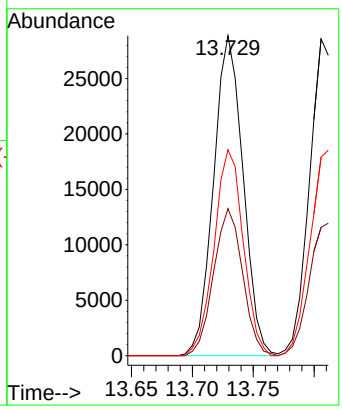




#83
1,3-Dichlorobenzene
Concen: 18.499 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:146 Resp: 4872

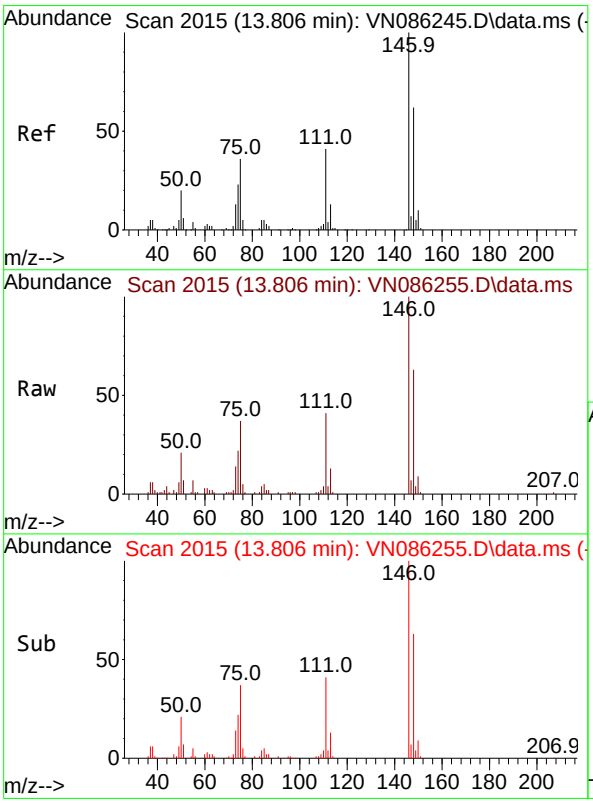
Ion	Ratio	Lower	Upper
146	100		
111	45.1	21.7	65.1
148	63.5	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

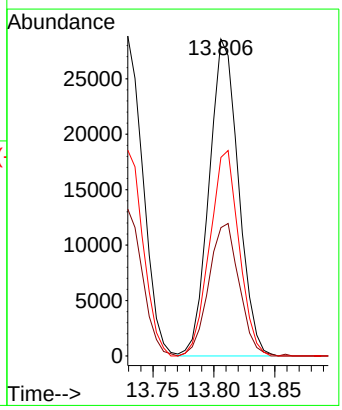
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

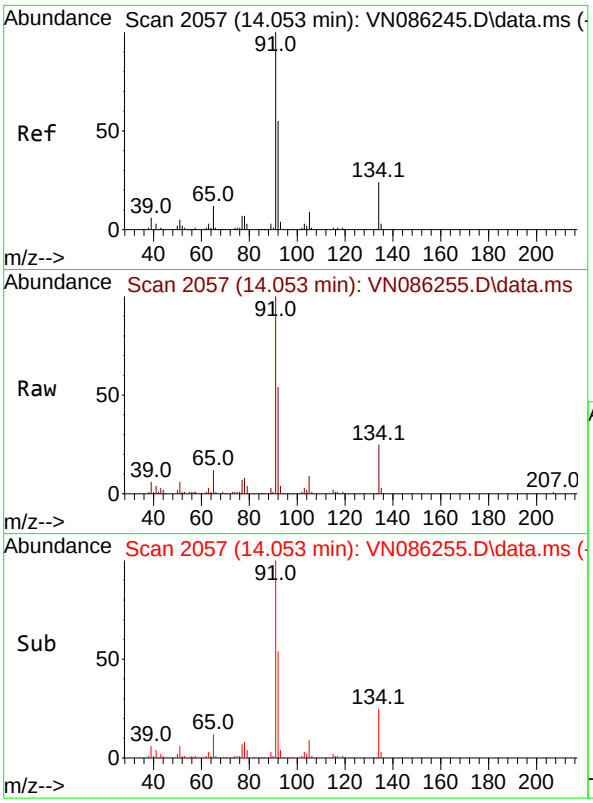


#84
1,4-Dichlorobenzene
Concen: 18.098 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:146 Resp: 47819

Ion	Ratio	Lower	Upper
146	100		
111	43.4	20.8	62.4
148	64.8	31.9	95.5





#85
n-Butylbenzene
Concen: 17.764 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

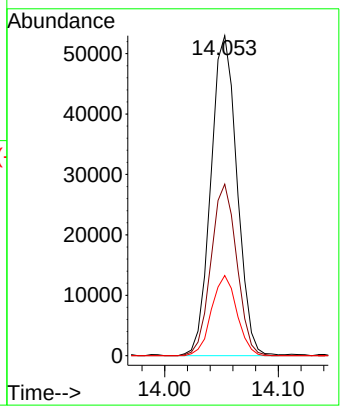
Tgt Ion: 91 Resp: 8479

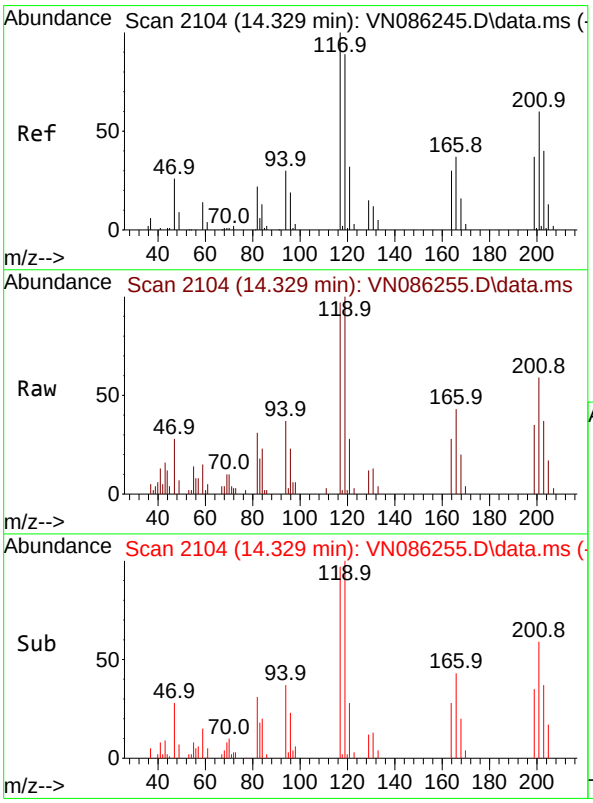
Ion	Ratio	Lower	Upper
91	100		
92	52.7	0.0	109.4
134	24.3	0.0	48.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

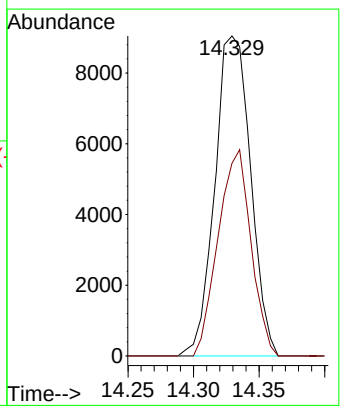


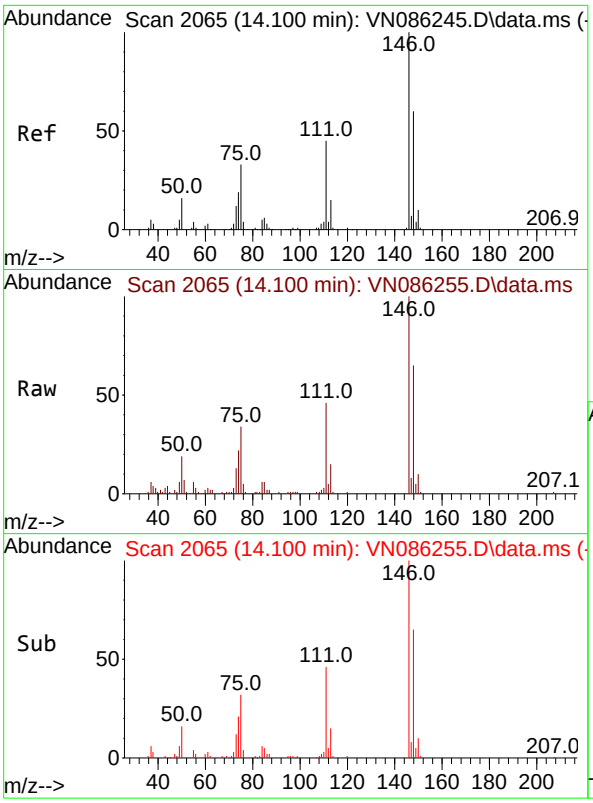


#86
Hexachloroethane
Concen: 19.231 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:117 Resp: 17164

Ion	Ratio	Lower	Upper
117	100		
201	59.2	30.9	92.8

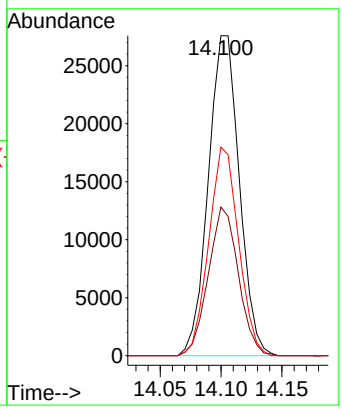




#87
1,2-Dichlorobenzene
Concen: 18.791 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:146 Resp: 4886

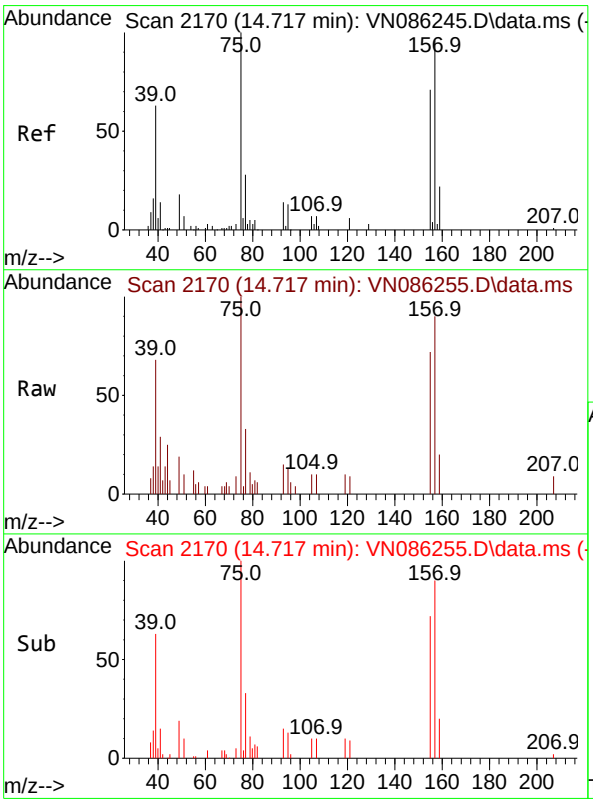
Ion	Ratio	Lower	Upper
146	100		
111	45.1	22.7	68.0
148	62.7	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

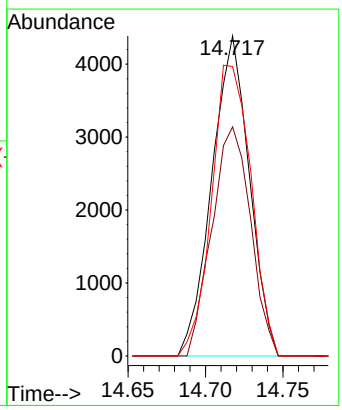
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

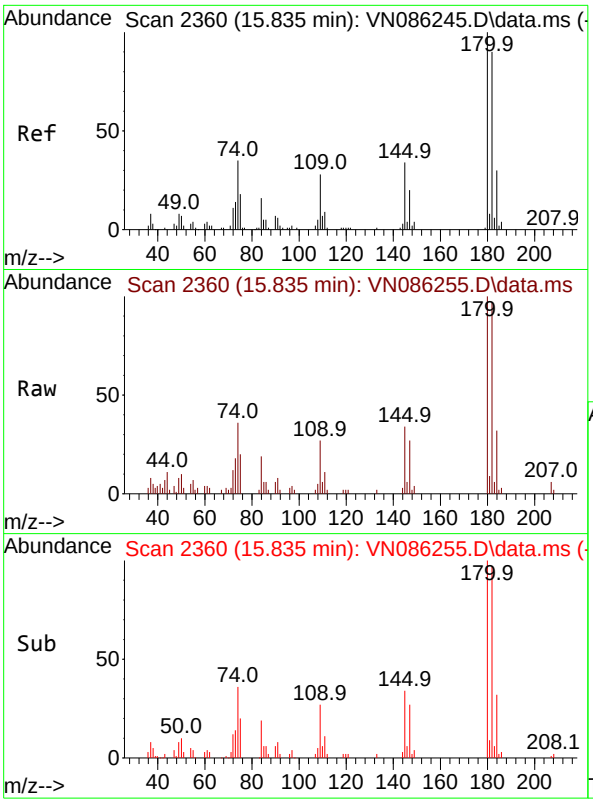


#88
1,2-Dibromo-3-Chloropropane
Concen: 17.808 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 7385

Ion	Ratio	Lower	Upper
75	100		
155	73.8	60.3	90.5
157	95.7	79.0	118.4

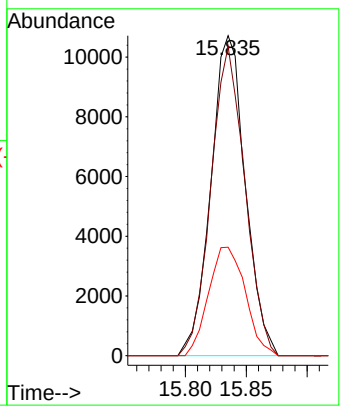




#89
1,2,4-Trichlorobenzene
Concen: 16.646 ug/l
RT: 15.835 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:180 Resp: 2106

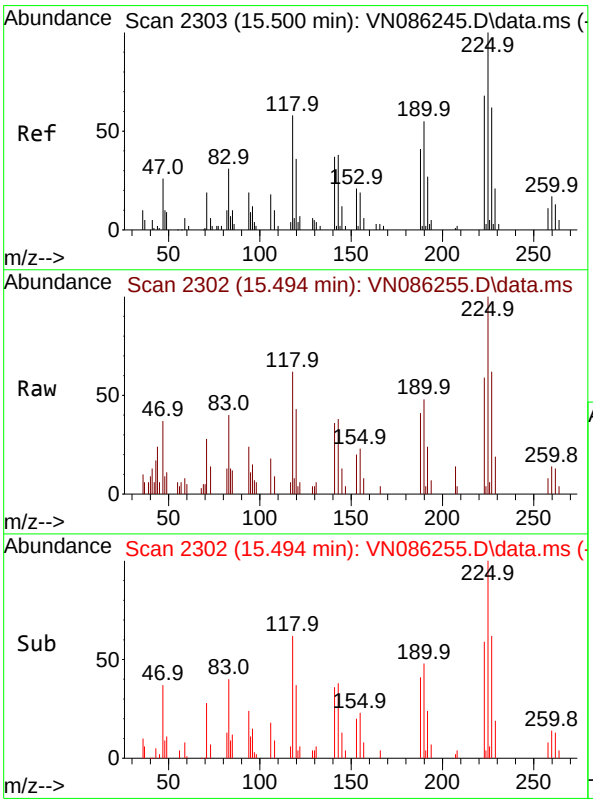
Ion	Ratio	Lower	Upper
180	100		
182	95.2	75.1	112.7
145	36.2	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

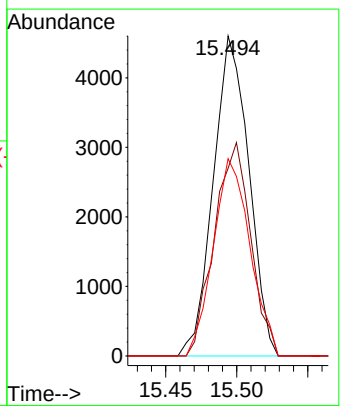
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

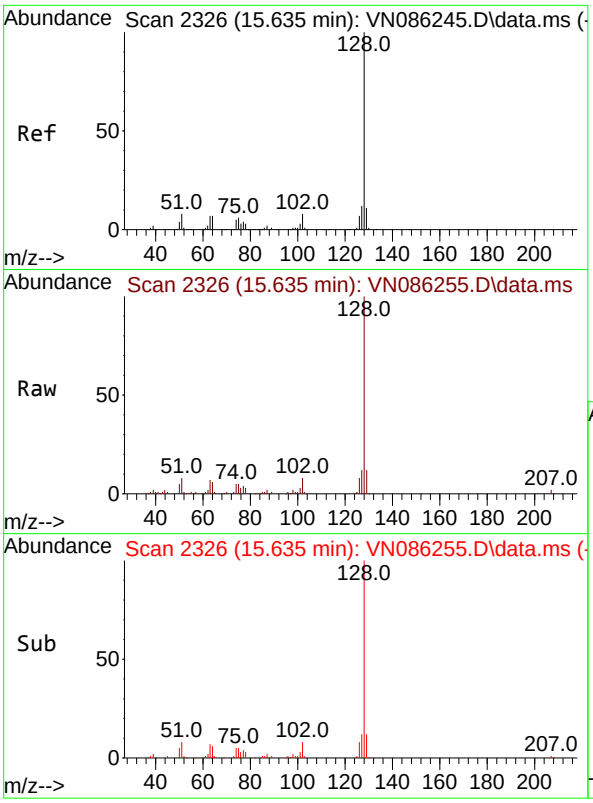


#90
Hexachlorobutadiene
Concen: 14.656 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:225 Resp: 8007

Ion	Ratio	Lower	Upper
225	100		
223	68.3	0.0	130.0
227	63.9	0.0	123.2

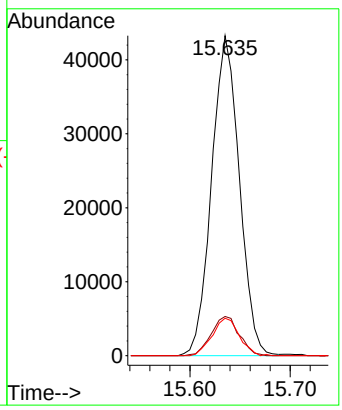




#91
Naphthalene
Concen: 16.677 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:128 Resp: 8320

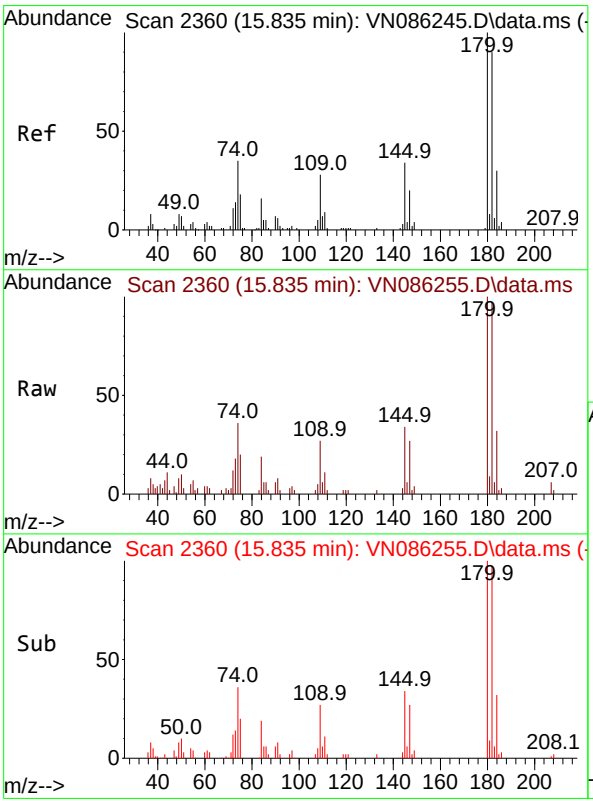
Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.2
129	11.3	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

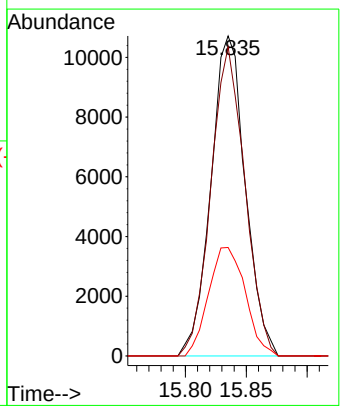
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 16.646 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:180 Resp: 21063

Ion	Ratio	Lower	Upper
180	100		
182	95.2	0.0	187.8
145	36.2	0.0	67.8



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC020

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	Bromochloromethane	1.000	1.000	0.0	61	0.00
2	M	Dichlorodifluoromethane	2.404	2.329	3.1	61	0.00
3	M	Chloromethane	3.322	3.290	1.0	65	0.00
4	M	Vinyl Chloride	3.164	3.093	2.2	63	0.00
5	M	Bromomethane	1.578	1.524	3.4	63	0.00
6	M	Chloroethane	1.998	1.989	0.5	65	0.00
7	M	Trichlorofluoromethane	3.433	3.320	3.3	63	0.00
8	T	Diethyl Ether	1.583	1.500	5.2	62	0.00
9		1,1,2-Trichlorotrifluoroeth	2.117	1.981	6.4	60	0.00
10	M	1,1-Dichloroethene	2.284	2.142	6.2	61	0.00
11		Methyl Iodide	2.626	2.513	4.3	62	0.00
12		Methyl Acetate	3.226	2.973	7.8	61	0.00
13	M	Acrolein	0.367	0.303	17.4	68	0.00
14	M	Acrylonitrile	1.362	1.283	5.8	61	0.00
15	M	Acetone	0.345	0.315	8.7	58	0.00
16	M	Carbon Disulfide	6.550	6.271	4.3	61	0.00
17		Allyl chloride	3.981	3.901	2.0	64	0.00
18	M	Methylene Chloride	2.605	2.476	5.0	63	0.00
19	M	trans-1,2-Dichloroethene	2.406	2.267	5.8	62	0.00
20	T	Diisopropyl ether	8.560	7.608	11.1	57	0.00
21	M	1,1-Dichloroethane	4.567	4.406	3.5	62	0.00
22	M	cis-1,2-Dichloroethene	2.866	2.731	4.7	62	0.00
23	M	tert-Butyl Alcohol	0.564	0.506	10.3	57	0.00
24	M	Methyl tert-Butyl Ether	8.244	7.740	6.1	61	0.00
25	M	Chloroform	4.355	4.229	2.9	63	0.00
26		Cyclohexane	4.273	4.002	6.3	62	0.00
27	s	1,2-Dichloroethane-d4	2.926	2.837	3.0	60	0.00
28	I	1,4-Difluorobenzene	1.000	1.000	0.0	59	0.00
29		1,1-Dichloropropene	0.537	0.536	0.2	62	0.00
30	M	2-Butanone	0.298	0.289	3.0	59	0.00
31		2,2-Dichloropropane	0.662	0.630	4.8	59	0.00
32	M	1,1,1-Trichloroethane	0.618	0.613	0.8	62	0.00
33	M	Carbon Tetrachloride	0.494	0.480	2.8	60	0.00
34	M	Benzene	1.710	1.702	0.5	62	0.00
35		Methacrylonitrile	0.336	0.348	-3.6	65	0.00
36	M	1,2-Dichloroethane	0.535	0.527	1.5	61	0.00
37	M	Trichloroethene	0.413	0.390	5.6	58	0.00
38		Methylcyclohexane	0.659	0.623	5.5	60	0.00
39	M	1,2-Dichloropropane	0.425	0.419	1.4	61	0.00
40		Dibromomethane	0.275	0.273	0.7	62	0.00
41	M	Bromodichloromethane	0.590	0.577	2.2	61	0.00
42	M	Vinyl Acetate	1.014	1.033	-1.9	61	0.00
43		Ethyl Acetate	0.601	0.513	14.6	52	0.00
44		Isopropyl Acetate	1.114	1.087	2.4	61	0.00
45	T	1,4-Dioxane	0.009	0.009	0.0	60	0.00
46		Methyl methacrylate	0.491	0.468	4.7	59	0.00
47		n-amyl Acetate	0.883	0.787	10.9	57	0.00
48	M	t-1,3-Dichloropropene	0.667	0.639	4.2	60	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC020

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	cis-1,3-Dichloropropene	0.706	0.700	0.8	61	0.00
50	M	1,1,2-Trichloroethane	0.385	0.372	3.4	59	0.00
51		Ethyl methacrylate	0.716	0.672	6.1	59	0.00
52		1,3-Dichloropropane	0.687	0.678	1.3	62	0.00
53	M	Dibromochloromethane	0.422	0.409	3.1	60	0.00
54	M	1,2-Dibromoethane	0.389	0.381	2.1	61	0.00
55	M	2-Chloroethyl vinyl ether	0.271	0.268	1.1	49#	0.00
56	M	Bromoform	0.276	0.256	7.2	58	0.00
57	I	Chlorobenzene-d5	1.000	1.000	0.0	58	0.00
58	M	4-Methyl-2-Pentanone	0.681	0.675	0.9	59	0.00
59	M	2-Hexanone	0.507	0.497	2.0	58	0.00
60	S	4-Bromofluorobenzene	0.597	0.593	0.7	58	0.00
61	M	Tetrachloroethene	0.443	0.436	1.6	60	0.00
62	M	Toluene	2.012	2.024	-0.6	61	0.00
63	S	Toluene-d8	1.694	1.736	-2.5	59	0.00
64	M	Chlorobenzene	1.229	1.213	1.3	60	0.00
65		1,1,1,2-Tetrachloroethane	0.406	0.409	-0.7	61	0.00
66	M	Ethyl Benzene	2.232	2.191	1.8	60	0.00
67	M	m/p-Xylenes	0.830	0.800	3.6	59	0.00
68	M	o-Xylene	0.816	0.819	-0.4	61	0.00
69	M	Styrene	1.376	1.320	4.1	59	0.00
70		Isopropylbenzene	2.012	1.938	3.7	59	0.00
71	M	1,1,2,2-Tetrachloroethane	0.573	0.586	-2.3	61	0.00
72		1,2,3-Trichloropropane	0.596	0.572	4.0	59	0.00
73		Bromobenzene	0.446	0.429	3.8	59	0.00
74		n-propylbenzene	2.376	2.251	5.3	59	0.00
75		2-Chlorotoluene	1.494	1.457	2.5	60	0.00
76		1,3,5-Trimethylbenzene	1.653	1.573	4.8	58	0.00
77		t-1,4-Dichloro-2-butene	0.275	0.259	5.8	58	0.00
78		4-Chlorotoluene	1.492	1.416	5.1	60	0.00
79		tert-butylbenzene	1.430	1.362	4.8	59	0.00
80		1,2,4-Trimethylbenzene	1.676	1.585	5.4	58	0.00
81		sec-Butylbenzene	1.995	1.884	5.6	57	0.00
82		p-Isopropyltoluene	1.664	1.531	8.0	56	0.00
83	M	1,3-Dichlorobenzene	0.829	0.766	7.6	58	0.00
84	M	1,4-Dichlorobenzene	0.831	0.752	9.5	56	0.00
85		n-Butylbenzene	1.502	1.334	11.2	55	0.00
86	T	Hexachloroethane	0.281	0.270	3.9	59	0.00
87	M	1,2-Dichlorobenzene	0.818	0.769	6.0	57	0.00
88		1,2-Dibromo-3-Chloropropane	0.130	0.116	10.8	53	0.00
89		1,2,4-Trichlorobenzene	0.398	0.331	16.8	48#	0.00
90		Hexachlorobutadiene	0.172	0.126	26.7#	44#	0.00
91	M	Naphthalene	1.569	1.309	16.6	49#	0.00
92		1,2,3-Trichlorobenzene	0.398	0.331	16.8	48#	0.00

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

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC020

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	Bromochloromethane	30.000	30.000	0.0	61	0.00
2	M	Dichlorodifluoromethane	20.000	19.378	3.1	61	0.00
3	M	Chloromethane	20.000	19.805	1.0	65	0.00
4	M	Vinyl Chloride	20.000	19.548	2.3	63	0.00
5	M	Bromomethane	20.000	19.311	3.4	63	0.00
6	M	Chloroethane	20.000	19.909	0.5	65	0.00
7	M	Trichlorofluoromethane	20.000	19.342	3.3	63	0.00
8	T	Diethyl Ether	20.000	18.955	5.2	62	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	18.715	6.4	60	0.00
10	M	1,1-Dichloroethene	20.000	18.753	6.2	61	0.00
11		Methyl Iodide	20.000	19.145	4.3	62	0.00
12		Methyl Acetate	20.000	18.433	7.8	61	0.00
13	M	Acrolein	100.000	82.706	17.3	68	0.00
14	M	Acrylonitrile	100.000	94.238	5.8	61	0.00
15	M	Acetone	100.000	91.311	8.7	58	0.00
16	M	Carbon Disulfide	20.000	19.148	4.3	61	0.00
17		Allyl chloride	20.000	19.596	2.0	64	0.00
18	M	Methylene Chloride	20.000	19.010	4.9	63	0.00
19	M	trans-1,2-Dichloroethene	20.000	18.843	5.8	62	0.00
20	T	Diisopropyl ether	20.000	17.775	11.1	57	0.00
21	M	1,1-Dichloroethane	20.000	19.295	3.5	62	0.00
22	M	cis-1,2-Dichloroethene	20.000	19.057	4.7	62	0.00
23	M	tert-Butyl Alcohol	100.000	89.739	10.3	57	0.00
24	M	Methyl tert-Butyl Ether	20.000	18.777	6.1	61	0.00
25	M	Chloroform	20.000	19.423	2.9	63	0.00
26		Cyclohexane	20.000	18.733	6.3	62	0.00
27	s	1,2-Dichloroethane-d4	30.000	29.085	3.0	60	0.00
28	I	1,4-Difluorobenzene	30.000	30.000	0.0	59	0.00
29		1,1-Dichloropropene	20.000	19.965	0.2	62	0.00
30	M	2-Butanone	100.000	96.889	3.1	59	0.00
31		2,2-Dichloropropane	20.000	19.045	4.8	59	0.00
32	M	1,1,1-Trichloroethane	20.000	19.825	0.9	62	0.00
33	M	Carbon Tetrachloride	20.000	19.444	2.8	60	0.00
34	M	Benzene	20.000	19.909	0.5	62	0.00
35		Methacrylonitrile	20.000	20.728	-3.6	65	0.00
36	M	1,2-Dichloroethane	20.000	19.705	1.5	61	0.00
37	M	Trichloroethene	20.000	18.904	5.5	58	0.00
38		Methylcyclohexane	20.000	18.901	5.5	60	0.00
39	M	1,2-Dichloropropane	20.000	19.693	1.5	61	0.00
40		Dibromomethane	20.000	19.875	0.6	62	0.00
41	M	Bromodichloromethane	20.000	19.539	2.3	61	0.00
42	M	Vinyl Acetate	100.000	101.896	-1.9	61	0.00
43		Ethyl Acetate	20.000	17.072	14.6	52	0.00
44		Isopropyl Acetate	20.000	19.518	2.4	61	0.00
45	T	1,4-Dioxane	400.000	392.047	2.0	60	0.00
46		Methyl methacrylate	20.000	19.067	4.7	59	0.00
47		n-amyl Acetate	20.000	17.812	10.9	57	0.00
48	M	t-1,3-Dichloropropene	20.000	19.149	4.3	60	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC020

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
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	cis-1,3-Dichloropropene	20.000	19.814	0.9	61	0.00
50	M	1,1,2-Trichloroethane	20.000	19.319	3.4	59	0.00
51		Ethyl methacrylate	20.000	18.768	6.2	59	0.00
52		1,3-Dichloropropane	20.000	19.740	1.3	62	0.00
53	M	Dibromochloromethane	20.000	19.406	3.0	60	0.00
54	M	1,2-Dibromoethane	20.000	19.603	2.0	61	0.00
55	M	2-Chloroethyl vinyl ether	100.000	99.189	0.8	49	0.00
56	M	Bromoform	20.000	18.566	7.2	58	0.00
57	I	Chlorobenzene-d5	30.000	30.000	0.0	58	0.00
58	M	4-Methyl-2-Pentanone	100.000	99.184	0.8	59	0.00
59	M	2-Hexanone	100.000	98.104	1.9	58	0.00
60	S	4-Bromofluorobenzene	30.000	29.786	0.7	58	0.00
61	M	Tetrachloroethene	20.000	19.697	1.5	60	0.00
62	M	Toluene	20.000	20.118	-0.6	61	0.00
63	S	Toluene-d8	30.000	30.752	-2.5	59	0.00
64	M	Chlorobenzene	20.000	19.736	1.3	60	0.00
65		1,1,1,2-Tetrachloroethane	20.000	20.177	-0.9	61	0.00
66	M	Ethyl Benzene	20.000	19.639	1.8	60	0.00
67	M	m/p-Xylenes	40.000	38.563	3.6	59	0.00
68	M	o-Xylene	20.000	20.058	-0.3	61	0.00
69	M	Styrene	20.000	19.187	4.1	59	0.00
70		Isopropylbenzene	20.000	19.260	3.7	59	0.00
71	M	1,1,2,2-Tetrachloroethane	20.000	20.449	-2.2	61	0.00
72		1,2,3-Trichloropropane	20.000	19.193	4.0	59	0.00
73		Bromobenzene	20.000	19.245	3.8	59	0.00
74		n-propylbenzene	20.000	18.944	5.3	59	0.00
75		2-Chlorotoluene	20.000	19.514	2.4	60	0.00
76		1,3,5-Trimethylbenzene	20.000	19.025	4.9	58	0.00
77		t-1,4-Dichloro-2-butene	20.000	18.869	5.7	58	0.00
78		4-Chlorotoluene	20.000	18.983	5.1	60	0.00
79		tert-butylbenzene	20.000	19.039	4.8	59	0.00
80		1,2,4-Trimethylbenzene	20.000	18.911	5.4	58	0.00
81		sec-Butylbenzene	20.000	18.880	5.6	57	0.00
82		p-Isopropyltoluene	20.000	18.394	8.0	56	0.00
83	M	1,3-Dichlorobenzene	20.000	18.499	7.5	58	0.00
84	M	1,4-Dichlorobenzene	20.000	18.098	9.5	56	0.00
85		n-Butylbenzene	20.000	17.764	11.2	55	0.00
86	T	Hexachloroethane	20.000	19.231	3.8	59	0.00
87	M	1,2-Dichlorobenzene	20.000	18.791	6.0	57	0.00
88		1,2-Dibromo-3-Chloropropane	20.000	17.808	11.0	53	0.00
89		1,2,4-Trichlorobenzene	20.000	16.646	16.8	48	0.00
90		Hexachlorobutadiene	20.000	14.656	26.7#	44	0.00
91	M	Naphthalene	20.000	16.677	16.6	49	0.00
92		1,2,3-Trichlorobenzene	20.000	16.646	16.8	48	0.00

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

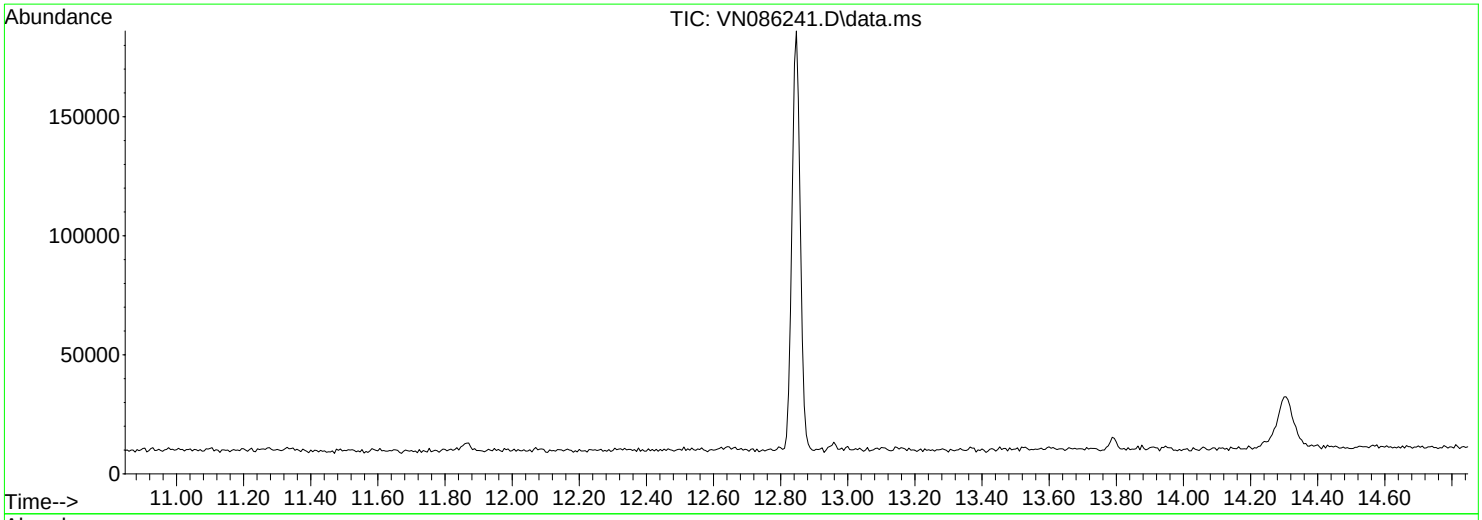
QC SAMPLE DATA

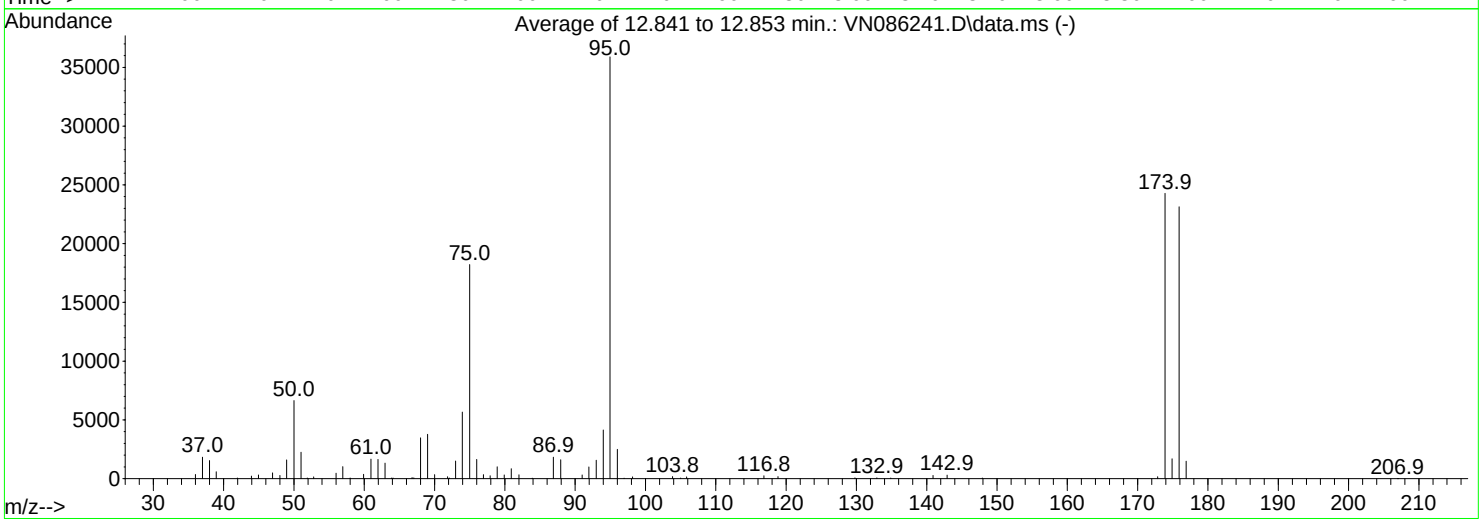
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086241.D
Acq On : 11 Apr 2025 09:52
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N031825W.M
Title : SW846 8260
Last Update : Tue Apr 08 14:20:04 2025





AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1842

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	6647	PASS
75	95	30	60	50.8	18224	PASS
95	95	100	100	100.0	35896	PASS
96	95	5	9	6.9	2487	PASS
173	174	0.00	2	0.7	164	PASS
174	95	50	100	67.6	24277	PASS
175	174	5	9	7.0	1691	PASS
176	174	95	101	95.3	23128	PASS
177	176	5	9	6.4	1490	PASS

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VN0411WBL01		SDG No.:	Q1774	
Lab Sample ID:	VN0411WBL01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086251.D	1		04/11/25 15:40	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.77	U	0.77	5.00	ug/L
74-87-3	Chloromethane	0.64	U	0.64	5.00	ug/L
75-01-4	Vinyl Chloride	0.83	U	0.83	5.00	ug/L
74-83-9	Bromomethane	0.80	U	0.80	5.00	ug/L
75-00-3	Chloroethane	2.30	U	2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.80	U	0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.96	U	0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.76	U	0.76	5.00	ug/L
107-02-8	Acrolein	6.60	U	6.60	25.0	ug/L
107-13-1	Acrylonitrile	2.80	U	2.80	25.0	ug/L
67-64-1	Acetone	4.60	U	4.60	25.0	ug/L
75-15-0	Carbon Disulfide	0.82	U	0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.77	U	0.77	5.00	ug/L
79-20-9	Methyl Acetate	0.91	U	0.91	5.00	ug/L
75-09-2	Methylene Chloride	0.86	U	0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.82	U	0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.68	U	0.68	5.00	ug/L
110-82-7	Cyclohexane	0.92	U	0.92	5.00	ug/L
78-93-3	2-Butanone	2.00	U	2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.74	U	0.74	5.00	ug/L
594-20-7	2,2-Dichloropropane	0.66	U	0.66	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.80	U	0.80	5.00	ug/L
67-66-3	Chloroform	0.55	U	0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.63	U	0.63	5.00	ug/L
108-87-2	Methylcyclohexane	0.73	U	0.73	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.63	U	0.63	5.00	ug/L
71-43-2	Benzene	0.45	U	0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.50	5.00	ug/L
79-01-6	Trichloroethene	0.49	U	0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN0411WBL01	SDG No.:	Q1774
Lab Sample ID:	VN0411WBL01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086251.D	1		04/11/25 15:40	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.59	U	0.59	5.00	ug/L
75-27-4	Bromodichloromethane	0.64	U	0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	3.00	U	3.00	25.0	ug/L
108-88-3	Toluene	0.46	U	0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.67	U	0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.45	U	0.45	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.44	U	0.44	5.00	ug/L
591-78-6	2-Hexanone	3.20	U	3.20	25.0	ug/L
124-48-1	Dibromochloromethane	0.66	U	0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	0.56	5.00	ug/L
127-18-4	Tetrachloroethene	0.84	U	0.84	5.00	ug/L
108-90-7	Chlorobenzene	0.47	U	0.47	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.62	U	0.62	5.00	ug/L
67-72-1	Hexachloroethane	0.98	U	0.98	5.00	ug/L
100-41-4	Ethyl Benzene	0.56	U	0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	1.30	U	1.30	10.0	ug/L
95-47-6	o-Xylene	0.67	U	0.67	5.00	ug/L
100-42-5	Styrene	0.72	U	0.72	5.00	ug/L
75-25-2	Bromoform	0.94	U	0.94	5.00	ug/L
98-82-8	Isopropylbenzene	0.78	U	0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.44	U	0.44	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.62	U	0.62	5.00	ug/L
108-86-1	Bromobenzene	0.59	U	0.59	5.00	ug/L
103-65-1	n-propylbenzene	0.67	U	0.67	5.00	ug/L
95-49-8	2-Chlorotoluene	0.64	U	0.64	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.59	U	0.59	5.00	ug/L
106-43-4	4-Chlorotoluene	0.62	U	0.62	5.00	ug/L
98-06-6	tert-butylbenzene	0.71	U	0.71	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.77	U	0.77	5.00	ug/L
135-98-8	sec-Butylbenzene	0.64	U	0.64	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN0411WBL01	SDG No.:	Q1774
Lab Sample ID:	VN0411WBL01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086251.D	1		04/11/25 15:40	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.70	U	0.70	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.81	U	0.81	5.00	ug/L
104-51-8	n-Butylbenzene	0.82	U	0.82	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.67	U	0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.86	U	0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	1.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	0.68	U	0.68	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
74-88-4	Methyl Iodide	0.91	U	0.91	5.00	ug/L
80-62-6	Methyl methacrylate	0.71	U	0.71	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.7		91 - 110	102%	SPK: 30
2037-26-5	Toluene-d8	30.8		91 - 112	103%	SPK: 30
460-00-4	4-Bromofluorobenzene	28.6		63 - 112	95%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	32100	7.812			
540-36-3	1,4-Difluorobenzene	197000	9.1			
3114-55-4	Chlorobenzene-d5	168000	11.865			

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\VN041125\
Data File : VN086251.D
Acq On : 11 Apr 2025 15:40
Operator : JC\MD
Sample : VN0411WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBL01

Quant Time: Apr 12 01:50:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

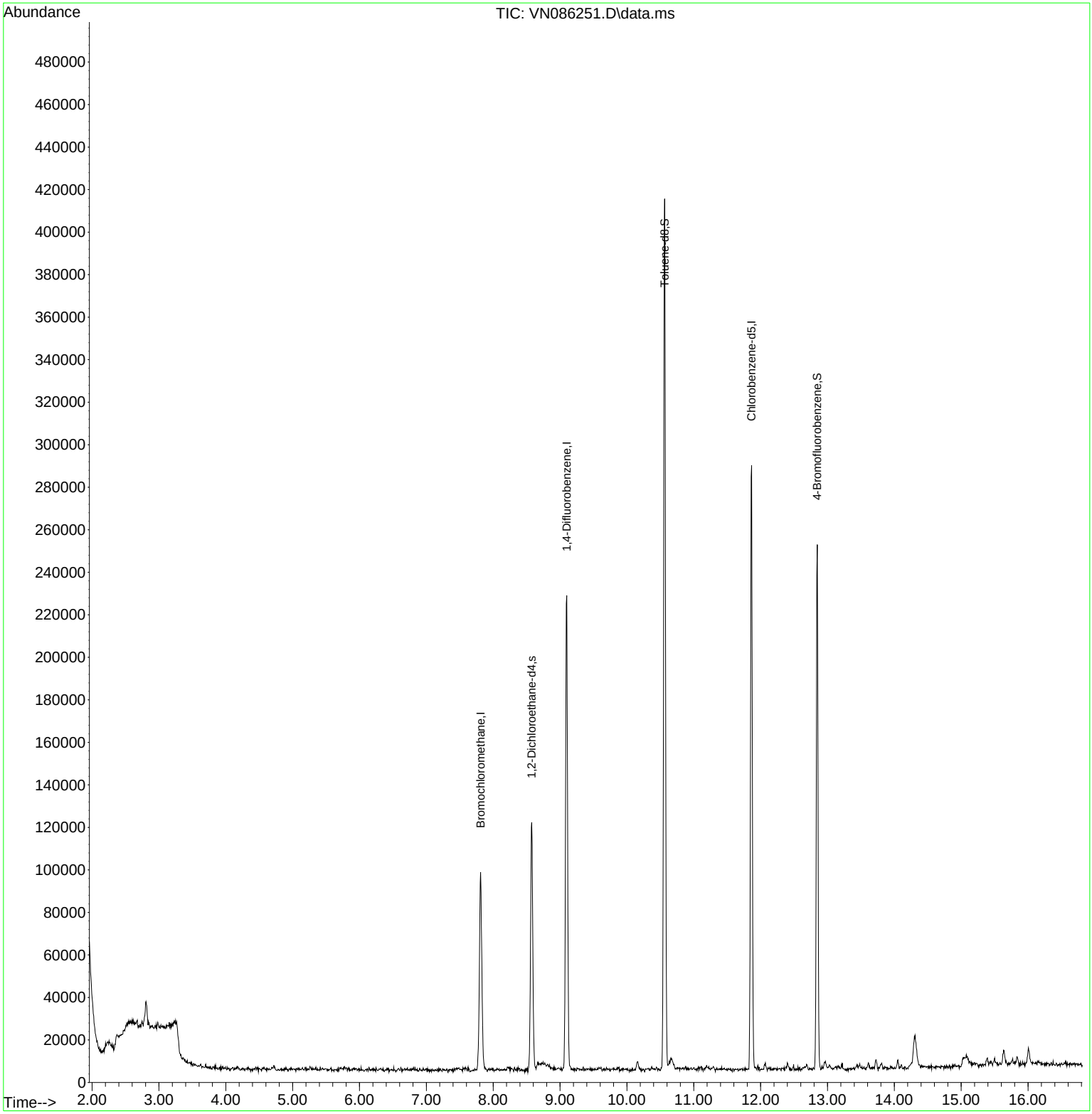
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	32111	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	197127	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	168421	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	96086	30.679	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.267%			
60) 4-Bromofluorobenzene	12.847	95	96020	28.635	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 95.467%			
63) Toluene-d8	10.565	98	293128	30.829	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 102.767%			
Target Compounds						Qvalue

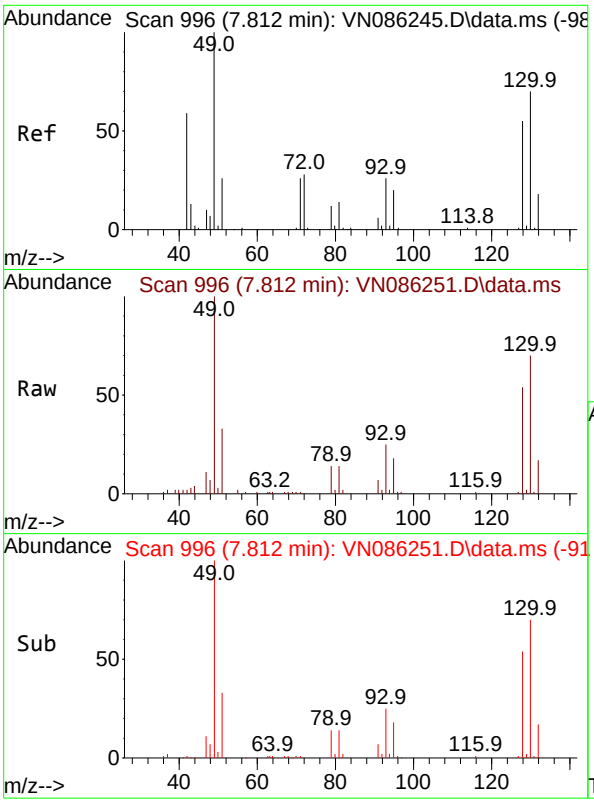
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086251.D
Acq On : 11 Apr 2025 15:40
Operator : JC\MD
Sample : VN0411WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBL01

Quant Time: Apr 12 01:50:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



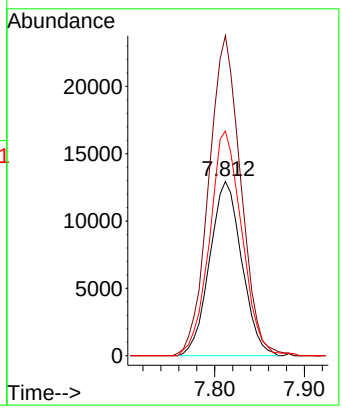


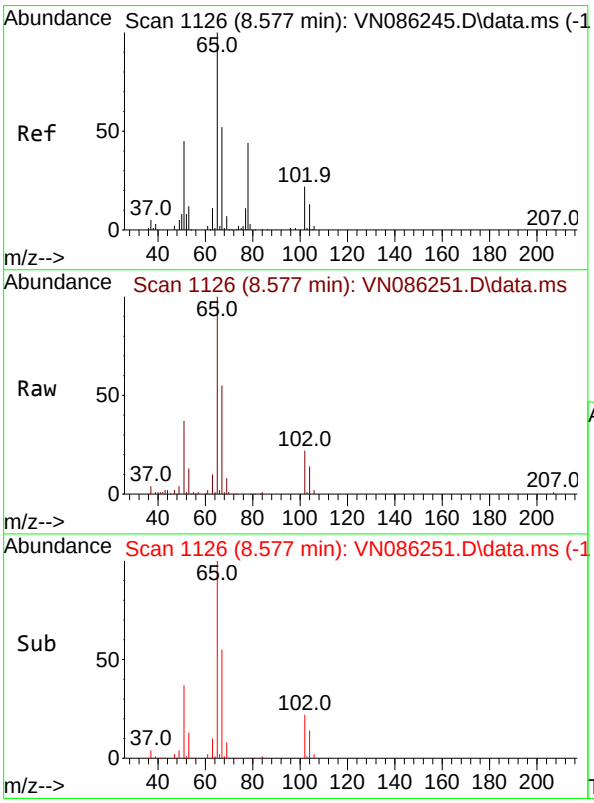
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086251.D
Acq: 11 Apr 2025 15:40

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBL01

Tgt Ion:128 Resp: 32111

Ion	Ratio	Lower	Upper
128	100		
49	183.1	0.0	452.5
130	129.9	0.0	315.0

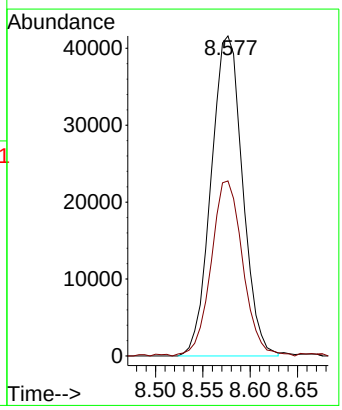


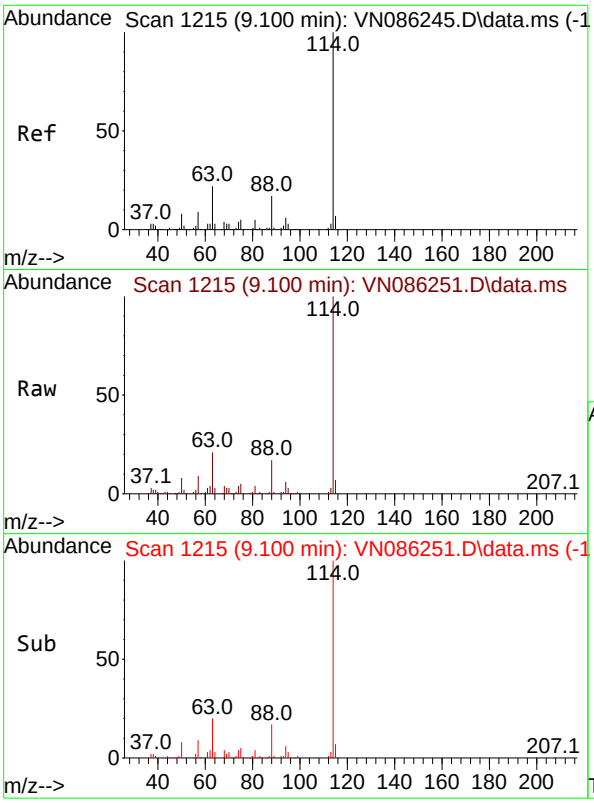


#27
1,2-Dichloroethane-d4
Concen: 30.679 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. -0.000 min
Lab File: VN086251.D
Acq: 11 Apr 2025 15:40

Tgt Ion: 65 Resp: 96086

Ion	Ratio	Lower	Upper
65	100		
67	55.0	43.4	65.2



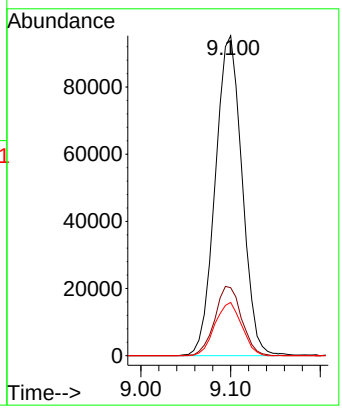


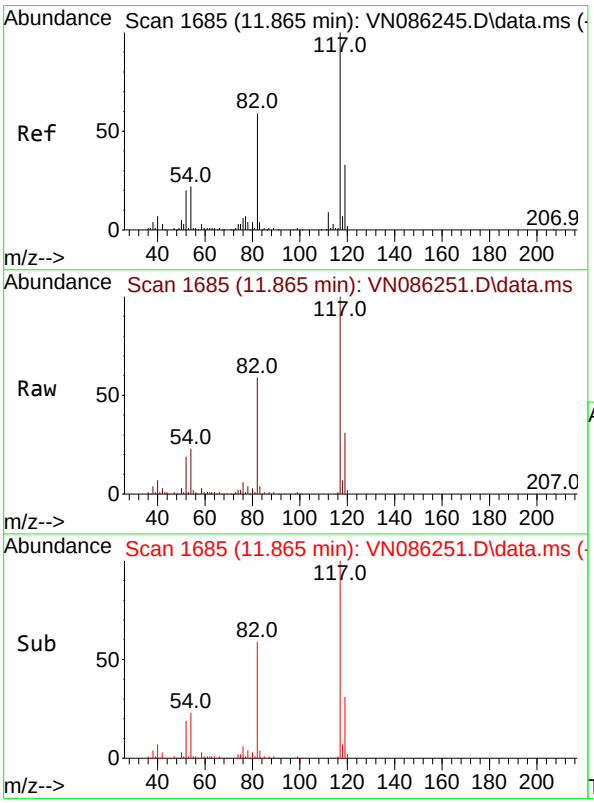
#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086251.D
Acq: 11 Apr 2025 15:40

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBL01

Tgt Ion:114 Resp: 197127

Ion	Ratio	Lower	Upper
114	100		
63	21.7	17.8	26.6
88	16.6	13.4	20.2

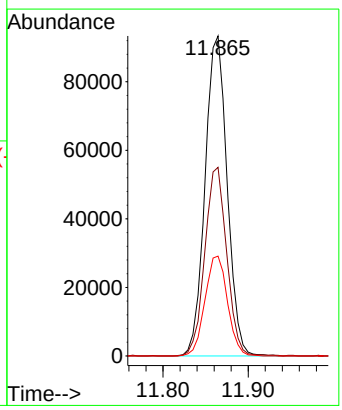


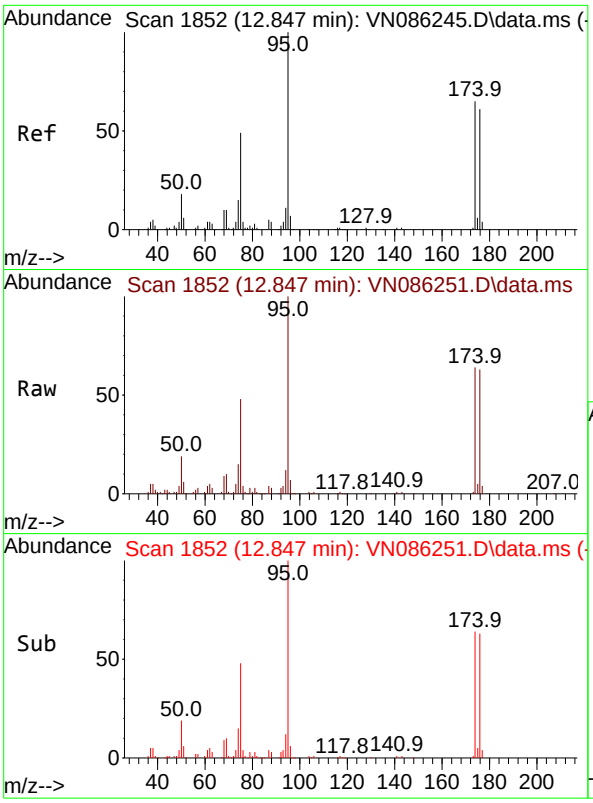


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN086251.D
Acq: 11 Apr 2025 15:40

Tgt Ion:117 Resp: 168421

Ion	Ratio	Lower	Upper
117	100		
82	58.6	47.3	70.9
119	31.9	25.9	38.9



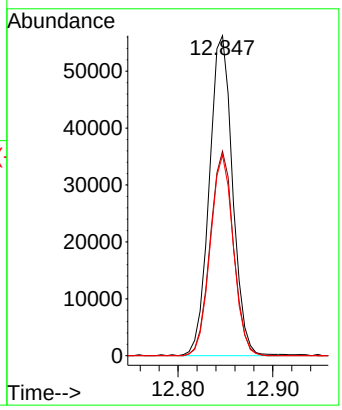


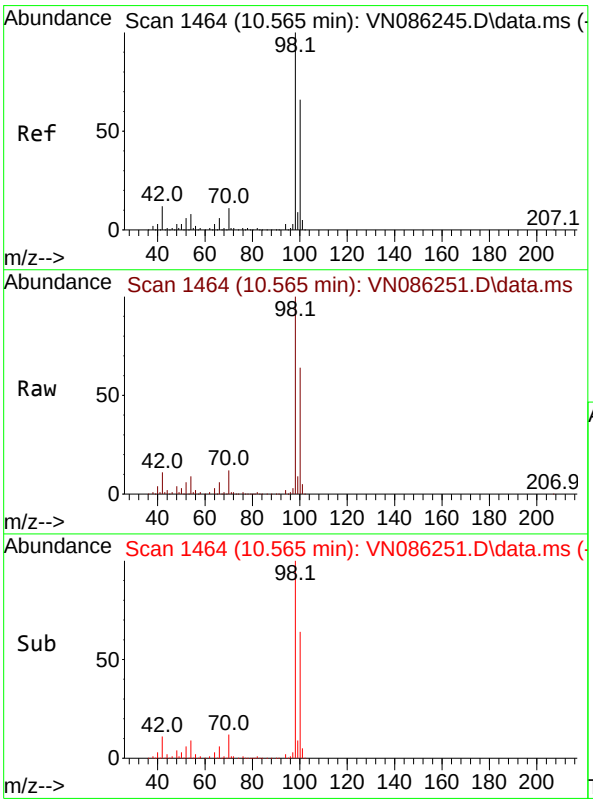
#60
4-Bromofluorobenzene
Concen: 28.635 ug/l
RT: 12.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086251.D
Acq: 11 Apr 2025 15:40

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBL01

Tgt Ion: 95 Resp: 96020

Ion	Ratio	Lower	Upper
95	100		
174	63.7	52.7	79.1
176	61.7	49.8	74.8

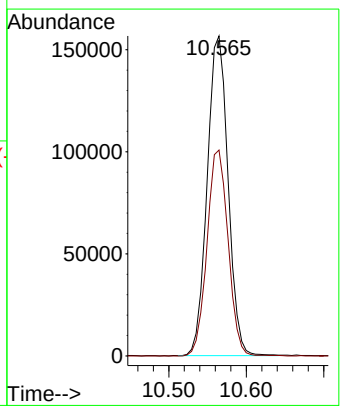




#63
Toluene-d8
Concen: 30.829 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN086251.D
Acq: 11 Apr 2025 15:40

Tgt Ion: 98 Resp: 293128

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.3	78.5



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN0411WBS01	SDG No.:	Q1774
Lab Sample ID:	VN0411WBS01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086249.D	1		04/11/25 14:38	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	22.7		0.77	5.00	ug/L
74-87-3	Chloromethane	21.6		0.64	5.00	ug/L
75-01-4	Vinyl Chloride	21.5		0.83	5.00	ug/L
74-83-9	Bromomethane	20.4		0.80	5.00	ug/L
75-00-3	Chloroethane	21.1		2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	21.5		0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21.8		0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	21.4		0.76	5.00	ug/L
107-02-8	Acrolein	78.0		6.60	25.0	ug/L
107-13-1	Acrylonitrile	99.6		2.80	25.0	ug/L
67-64-1	Acetone	95.5		4.60	25.0	ug/L
75-15-0	Carbon Disulfide	21.8		0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	21.2		0.77	5.00	ug/L
79-20-9	Methyl Acetate	20.1		0.91	5.00	ug/L
75-09-2	Methylene Chloride	21.2		0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	20.9		0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	21.7		0.68	5.00	ug/L
110-82-7	Cyclohexane	21.6		0.92	5.00	ug/L
78-93-3	2-Butanone	96.8		2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	20.9		0.74	5.00	ug/L
594-20-7	2,2-Dichloropropane	21.1		0.66	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	21.4		0.80	5.00	ug/L
67-66-3	Chloroform	21.7		0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.7		0.63	5.00	ug/L
108-87-2	Methylcyclohexane	20.9		0.73	5.00	ug/L
563-58-6	1,1-Dichloropropene	20.8		0.63	5.00	ug/L
71-43-2	Benzene	21.0		0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	20.9		0.50	5.00	ug/L
79-01-6	Trichloroethene	20.2		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	20.9		0.46	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VN0411WBS01		SDG No.:	Q1774	
Lab Sample ID:	VN0411WBS01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086249.D	1		04/11/25 14:38	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	20.0		0.59	5.00	ug/L
75-27-4	Bromodichloromethane	20.6		0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		3.00	25.0	ug/L
108-88-3	Toluene	21.4		0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	20.5		0.72	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.7		0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.4		0.45	5.00	ug/L
142-28-9	1,3-Dichloropropane	20.9		0.44	5.00	ug/L
591-78-6	2-Hexanone	100		3.20	25.0	ug/L
124-48-1	Dibromochloromethane	20.4		0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	20.0		0.56	5.00	ug/L
127-18-4	Tetrachloroethene	20.9		0.84	5.00	ug/L
108-90-7	Chlorobenzene	20.6		0.47	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	21.3		0.62	5.00	ug/L
67-72-1	Hexachloroethane	20.4		0.98	5.00	ug/L
100-41-4	Ethyl Benzene	21.0		0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	41.7		1.30	10.0	ug/L
95-47-6	o-Xylene	21.1		0.67	5.00	ug/L
100-42-5	Styrene	20.9		0.72	5.00	ug/L
75-25-2	Bromoform	19.9		0.94	5.00	ug/L
98-82-8	Isopropylbenzene	21.2		0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.8		0.44	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	20.3		0.62	5.00	ug/L
108-86-1	Bromobenzene	20.6		0.59	5.00	ug/L
103-65-1	n-propylbenzene	21.2		0.67	5.00	ug/L
95-49-8	2-Chlorotoluene	21.0		0.64	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	21.4		0.59	5.00	ug/L
106-43-4	4-Chlorotoluene	20.6		0.62	5.00	ug/L
98-06-6	tert-butylbenzene	20.7		0.71	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.8		0.77	5.00	ug/L
135-98-8	sec-Butylbenzene	21.4		0.64	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VN0411WBS01		SDG No.:	Q1774	
Lab Sample ID:	VN0411WBS01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5 Units: mL		Final Vol:	5000	uL
Soil Aliquot Vol:	uL		Test:	VOCMS Group4	
GC Column:	RXI-624 ID : 0.25		Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086249.D	1		04/11/25 14:38	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	21.3		0.70	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.4		0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	20.4		0.81	5.00	ug/L
104-51-8	n-Butylbenzene	21.8		0.82	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	20.0		0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.5		0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.7		1.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	19.2		0.68	5.00	ug/L
91-20-3	Naphthalene	18.4		1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.7		1.10	5.00	ug/L
74-88-4	Methyl Iodide	21.2		0.91	5.00	ug/L
80-62-6	Methyl methacrylate	20.2		0.71	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.5		91 - 110	102%	SPK: 30
2037-26-5	Toluene-d8	30.3		91 - 112	101%	SPK: 30
460-00-4	4-Bromofluorobenzene	29.8		63 - 112	99%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	32100	7.812			
540-36-3	1,4-Difluorobenzene	201000	9.1			
3114-55-4	Chlorobenzene-d5	176000	11.865			

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\VN041125\
Data File : VN086249.D
Acq On : 11 Apr 2025 14:38
Operator : JC\MD
Sample : VN0411WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 12 01:48:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	32103	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	201467	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	175632	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	95625	30.539	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.800%			
60) 4-Bromofluorobenzene	12.847	95	104335	29.838	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.467%			
63) Toluene-d8	10.565	98	300690	30.325	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.100%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	58287	22.661	ug/l	99
3) Chloromethane	2.359	50	76833	21.612	ug/l	99
4) Vinyl Chloride	2.518	62	72960	21.546	ug/l	100
5) Bromomethane	2.965	94	34468	20.406	ug/l	92
6) Chloroethane	3.124	64	45142	21.111	ug/l	99
7) Trichlorofluoromethane	3.501	101	78964	21.497	ug/l	98
8) Diethyl Ether	3.959	74	35948	21.221	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	49466	21.838	ug/l	99
10) 1,1-Dichloroethene	4.342	96	52323	21.404	ug/l	97
11) Methyl Iodide	4.589	142	59569	21.202	ug/l	99
12) Methyl Acetate	5.024	43	69220	20.052	ug/l	98
13) Acrolein	4.177	56	30590	77.958	ug/l	99
14) Acrylonitrile	5.712	53	145157	99.606	ug/l	98
15) Acetone	4.424	58	35289	95.503	ug/l	93
16) Carbon Disulfide	4.712	76	153034	21.832	ug/l	99
17) Allyl chloride	5.024	41	91394	21.451	ug/l	98
18) Methylene Chloride	5.277	84	59182	21.234	ug/l	97
19) trans-1,2-Dichloroethene	5.783	96	53765	20.881	ug/l	99
20) Diisopropyl ether	6.665	45	200652	21.906	ug/l	98
21) 1,1-Dichloroethane	6.565	63	106184	21.728	ug/l	99
22) cis-1,2-Dichloroethene	7.483	96	65736	21.431	ug/l	98
23) tert-Butyl Alcohol	5.506	59	57260	94.827	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	187291	21.230	ug/l	99
25) Chloroform	7.965	83	101051	21.684	ug/l	98
26) Cyclohexane	8.253	56	98792	21.608	ug/l #	98
29) 1,1-Dichloropropene	8.371	75	75242	20.848	ug/l	98
30) 2-Butanone	7.477	43	193486	96.751	ug/l	99
31) 2,2-Dichloropropane	7.488	77	93697	21.091	ug/l	100
32) 1,1,1-Trichloroethane	8.165	97	85736	20.651	ug/l	99
33) Carbon Tetrachloride	8.359	117	69324	20.895	ug/l	97
34) Benzene	8.600	78	240800	20.972	ug/l	95
35) Methacrylonitrile	7.777	41	44549	19.760	ug/l	96
36) 1,2-Dichloroethane	8.665	62	75064	20.892	ug/l	99
37) Trichloroethene	9.347	130	55823	20.150	ug/l	92
38) Methylcyclohexane	9.594	83	92449	20.887	ug/l	99
39) 1,2-Dichloropropane	9.618	63	59643	20.876	ug/l	97
40) Dibromomethane	9.706	93	36945	20.021	ug/l	99
41) Bromodichloromethane	9.882	83	81655	20.598	ug/l	99
42) Vinyl Acetate	6.594	43	723573	106.292	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086249.D
Acq On : 11 Apr 2025 14:38
Operator : JC\MD
Sample : VN0411WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 12 01:48:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.553	43	77965	19.328	ug/l		98
44) Isopropyl Acetate	8.683	43	150010	20.046	ug/l		99
45) 1,4-Dioxane	9.688	88	21831	366.878	ug/l	#	93
46) Methyl methacrylate	9.677	41	66579	20.193	ug/l		99
47) n-amyl Acetate	12.488	43	118327	19.943	ug/l		100
48) t-1,3-Dichloropropene	10.829	75	92056	20.541	ug/l		99
49) cis-1,3-Dichloropropene	10.306	75	98100	20.682	ug/l		95
50) 1,1,2-Trichloroethane	11.012	97	52750	20.382	ug/l		98
51) Ethyl methacrylate	10.871	69	97258	20.222	ug/l		98
52) 1,3-Dichloropropane	11.159	76	96585	20.938	ug/l		100
53) Dibromochloromethane	11.353	129	57663	20.369	ug/l		98
54) 1,2-Dibromoethane	11.465	107	52283	20.012	ug/l		99
55) 2-Chloroethyl vinyl ether	10.153	63	182299	100.309	ug/l		100
56) Bromoform	12.576	173	36790	19.864	ug/l		99
58) 4-Methyl-2-Pentanone	10.441	43	405618	101.770	ug/l		100
59) 2-Hexanone	11.194	43	298673	100.637	ug/l		100
61) Tetrachloroethene	11.100	164	54335	20.949	ug/l		98
62) Toluene	10.624	91	251566	21.355	ug/l		100
64) Chlorobenzene	11.888	112	148243	20.597	ug/l		99
65) 1,1,1,2-Tetrachloroethane	11.959	131	50696	21.344	ug/l		100
66) Ethyl Benzene	11.959	91	273823	20.960	ug/l		98
67) m/p-Xylenes	12.065	106	202596	41.705	ug/l		98
68) o-Xylene	12.394	106	100957	21.129	ug/l		99
69) Styrene	12.406	104	168655	20.929	ug/l		99
70) Isopropylbenzene	12.694	105	249762	21.200	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	69753	20.801	ug/l		99
72) 1,2,3-Trichloropropane	12.988	75	70785m	20.279	ug/l		
73) Bromobenzene	12.976	156	53692	20.572	ug/l		98
74) n-propylbenzene	13.029	91	295354	21.231	ug/l		99
75) 2-Chlorotoluene	13.123	91	183287	20.961	ug/l		99
76) 1,3,5-Trimethylbenzene	13.170	105	206643	21.352	ug/l		98
77) t-1,4-Dichloro-2-butene	12.735	75	31266	19.426	ug/l		94
78) 4-Chlorotoluene	13.218	91	179801	20.589	ug/l		99
79) tert-butylbenzene	13.435	119	173459	20.714	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	203945	20.782	ug/l		99
81) sec-Butylbenzene	13.612	105	249442	21.354	ug/l		99
82) p-Isopropyltoluene	13.723	119	207519	21.296	ug/l		100
83) 1,3-Dichlorobenzene	13.729	146	98830	20.374	ug/l		99
84) 1,4-Dichlorobenzene	13.806	146	99189	20.383	ug/l		99
85) n-Butylbenzene	14.053	91	191298	21.761	ug/l		99
86) Hexachloroethane	14.329	117	33590	20.435	ug/l		100
87) 1,2-Dichlorobenzene	14.100	146	95565	19.953	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.712	75	14160	18.539	ug/l		99
89) 1,2,4-Trichlorobenzene	15.835	180	45993	19.736	ug/l		99
90) Hexachlorobutadiene	15.494	225	19273	19.154	ug/l		96
91) Naphthalene	15.635	128	169515	18.449	ug/l		99
92) 1,2,3-Trichlorobenzene	15.835	180	45993	19.736	ug/l		99

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

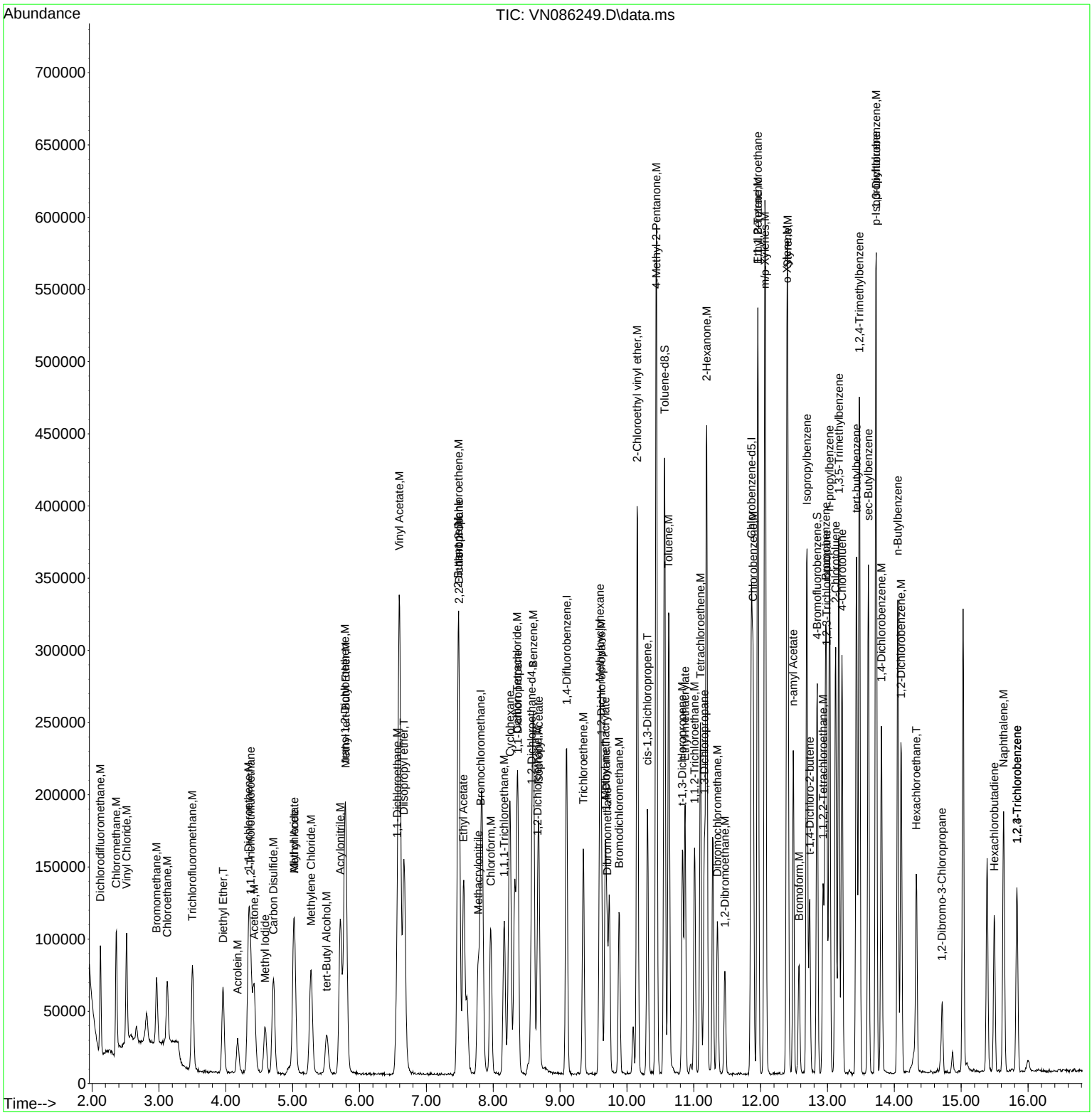
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086249.D
Acq On : 11 Apr 2025 14:38
Operator : JC\MD
Sample : VN0411WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

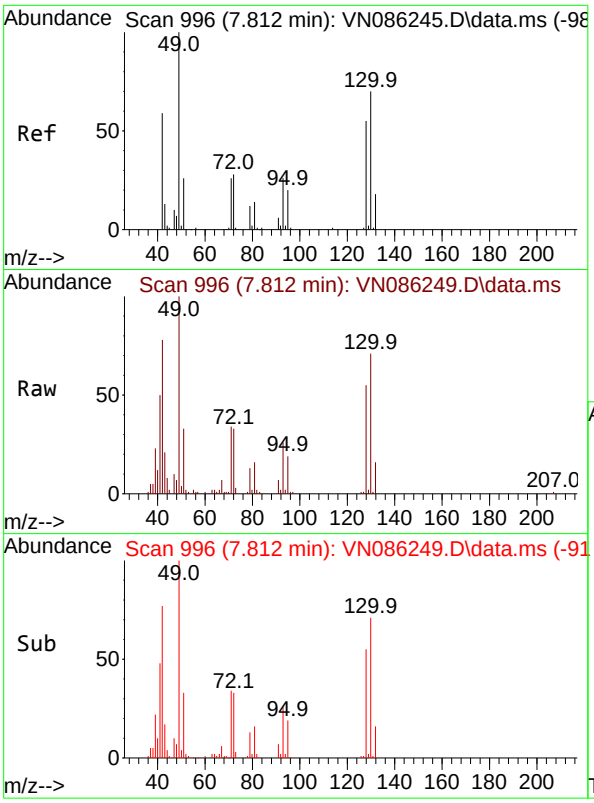
Quant Time: Apr 12 01:48:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025





#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

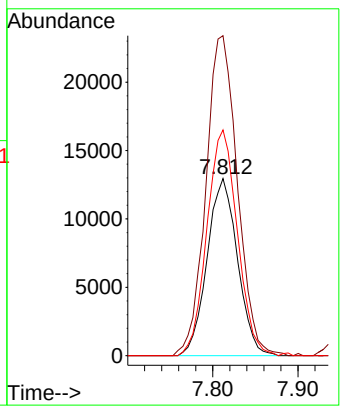
Tgt Ion:128 Resp: 3210

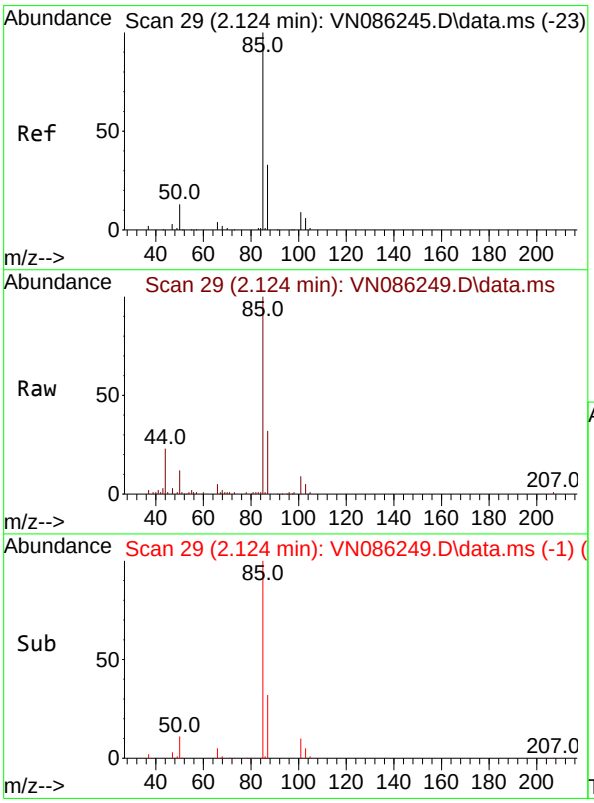
Ion	Ratio	Lower	Upper
128	100		
49	187.6	0.0	452.5
130	127.9	0.0	315.0

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

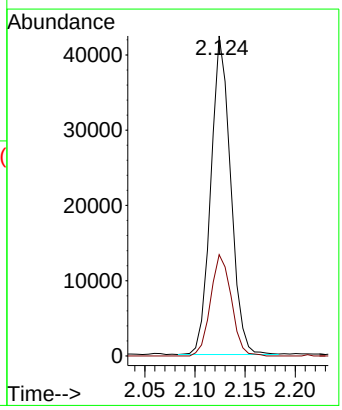


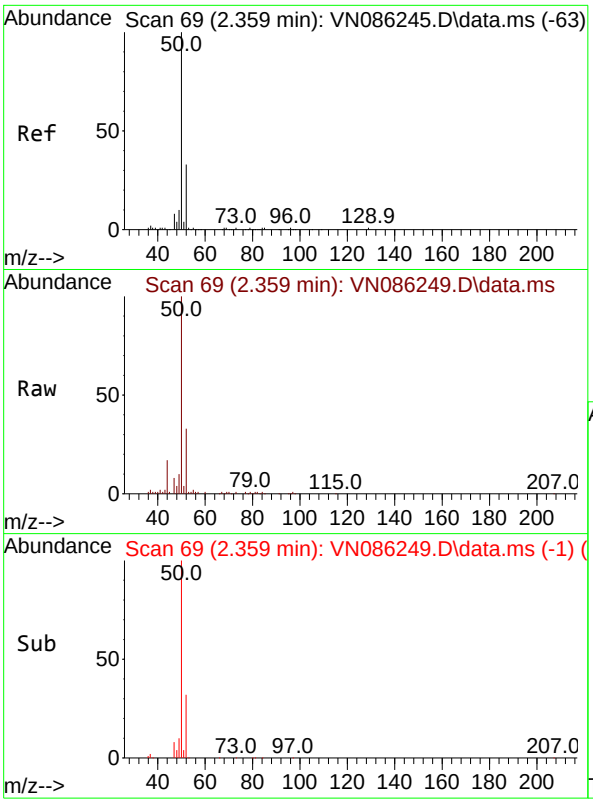


#2
Dichlorodifluoromethane
Concen: 22.661 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 85 Resp: 58287

Ion	Ratio	Lower	Upper
85	100		
87	31.8	16.3	48.9

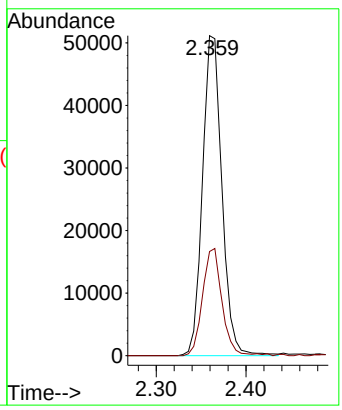




#3
Chloromethane
Concen: 21.612 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 50 Resp: 7683

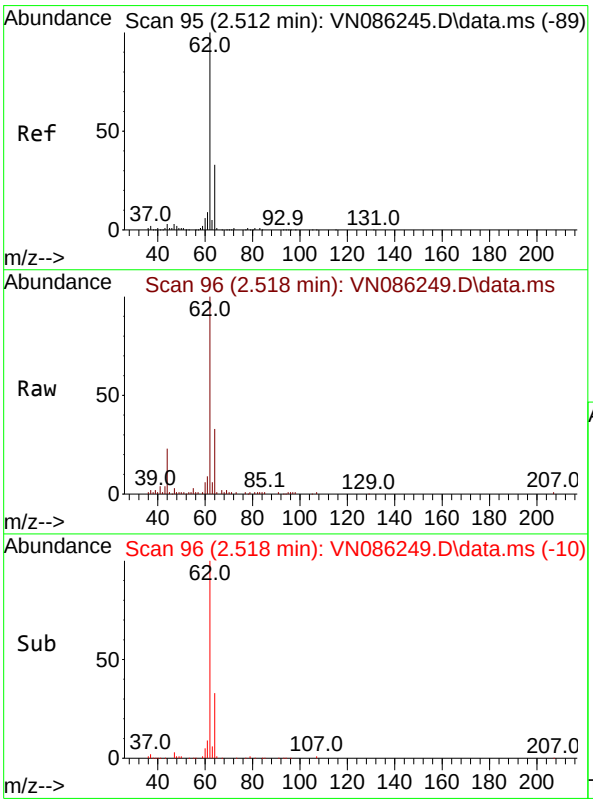
Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

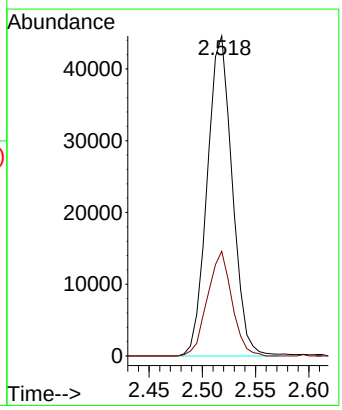
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

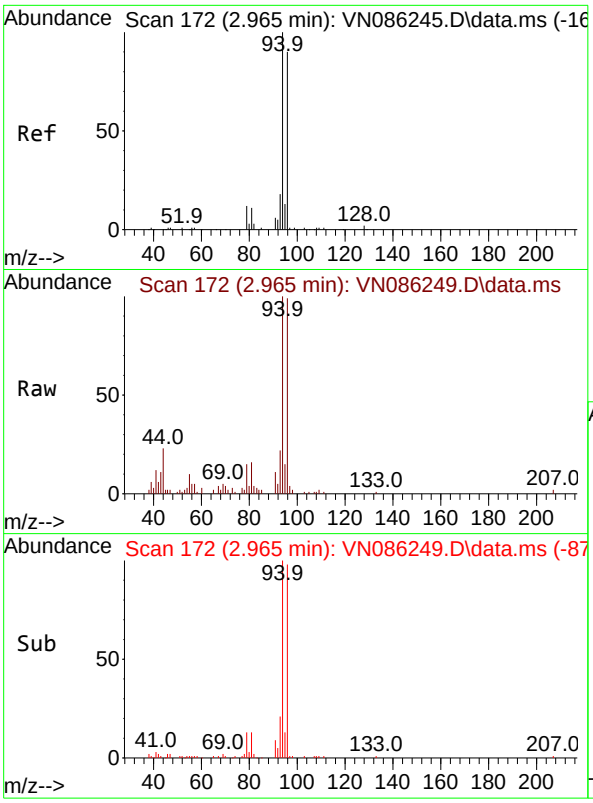


#4
Vinyl Chloride
Concen: 21.546 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 62 Resp: 72960

Ion	Ratio	Lower	Upper
62	100		
64	32.7	26.3	39.5

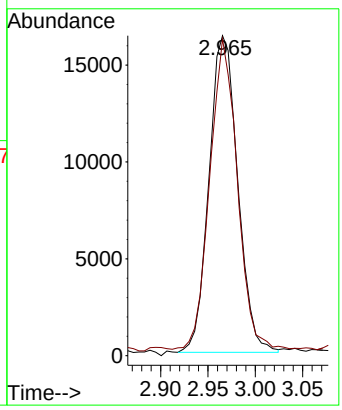




#5
Bromomethane
Concen: 20.406 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 94 Resp: 3446

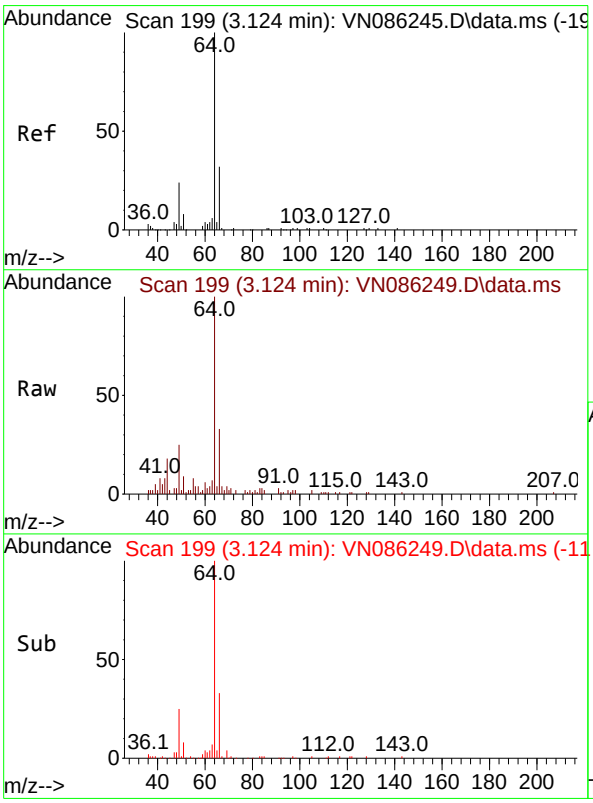
Ion	Ratio	Lower	Upper
94	100		
96	97.5	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

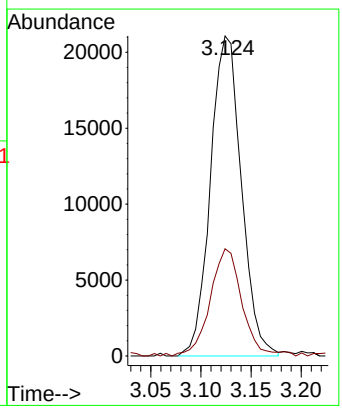
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

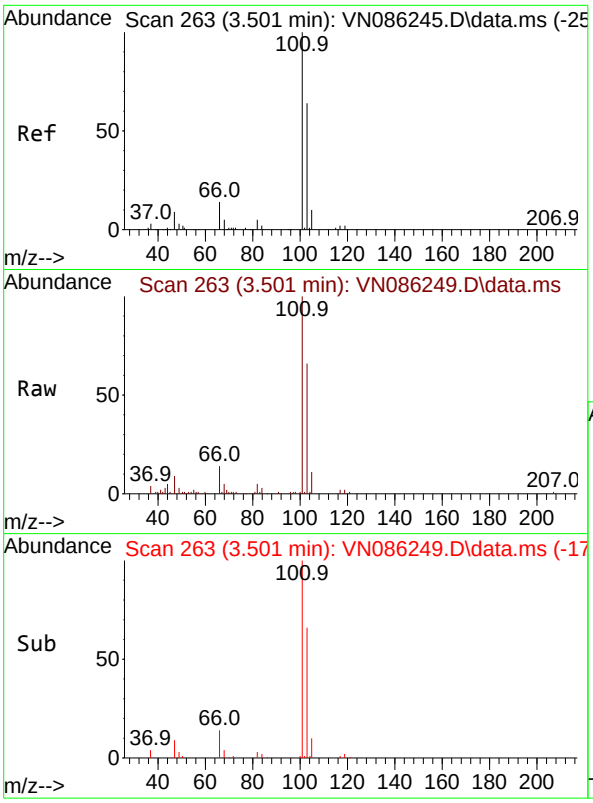


#6
Chloroethane
Concen: 21.111 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 64 Resp: 45142

Ion	Ratio	Lower	Upper
64	100		
66	32.7	25.7	38.5

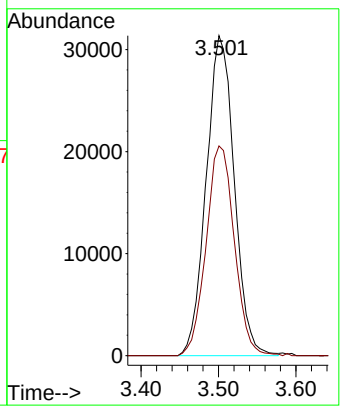




#7
Trichlorofluoromethane
Concen: 21.497 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:101 Resp: 7896

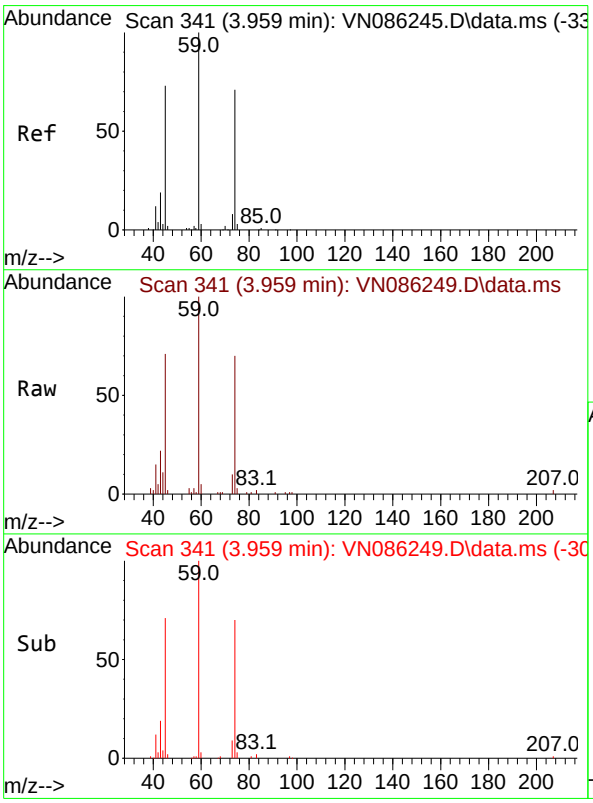
Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.2	76.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

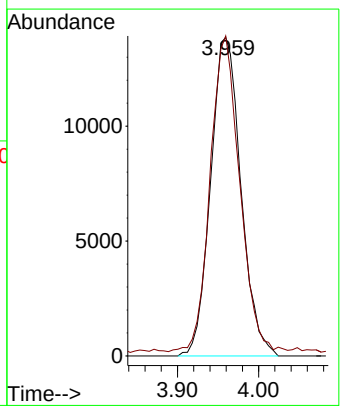
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

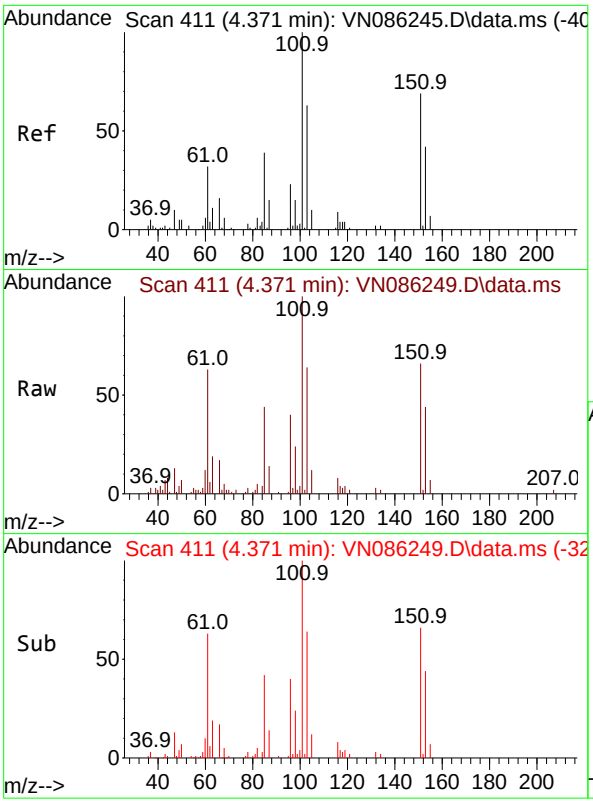


#8
Diethyl Ether
Concen: 21.221 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 74 Resp: 35948

Ion	Ratio	Lower	Upper
74	100		
45	95.7	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.838 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

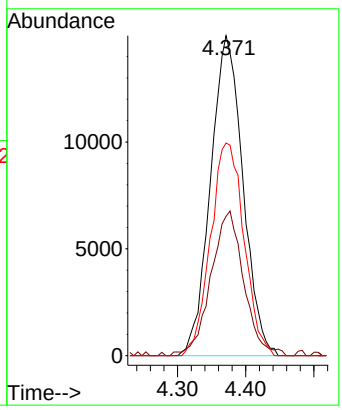
Tgt Ion:101 Resp: 4946

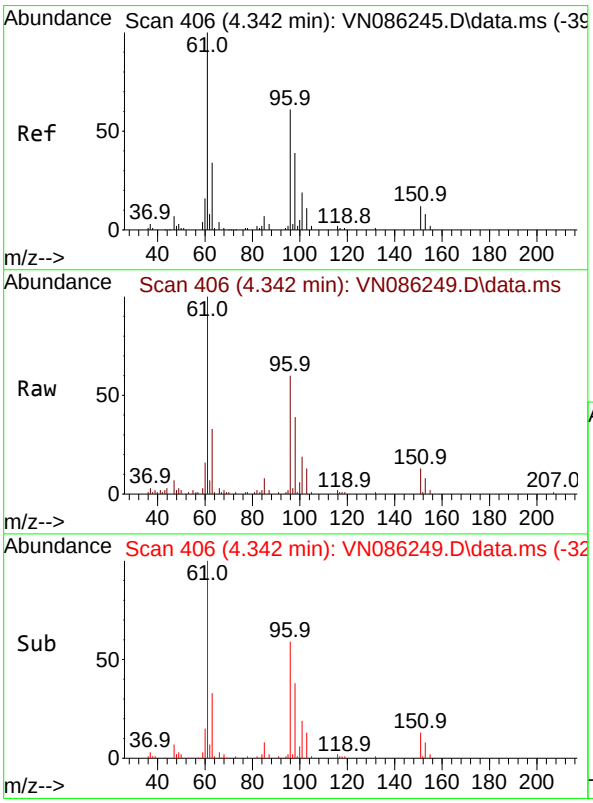
Ion	Ratio	Lower	Upper
101	100		
85	45.1	0.0	93.0
151	68.6	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

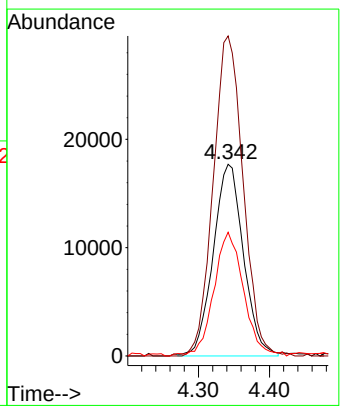


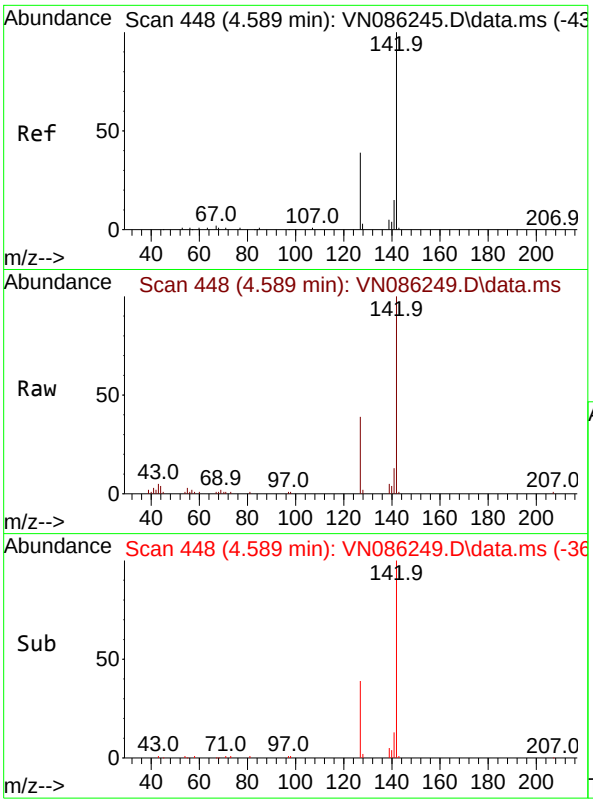


#10
1,1-Dichloroethene
Concen: 21.404 ug/l
RT: 4.342 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 96 Resp: 52323

Ion	Ratio	Lower	Upper
96	100		
61	168.3	131.1	196.7
98	63.8	51.6	77.4





#11
Methyl Iodide
Concen: 21.202 ug/l
RT: 4.589 min Scan# 44
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

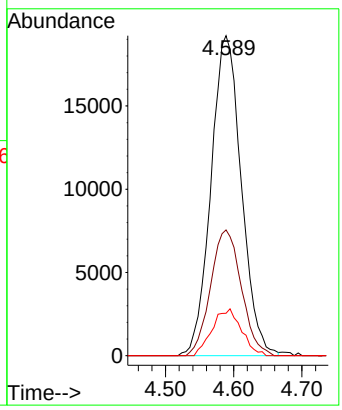
Tgt Ion:142 Resp: 5956

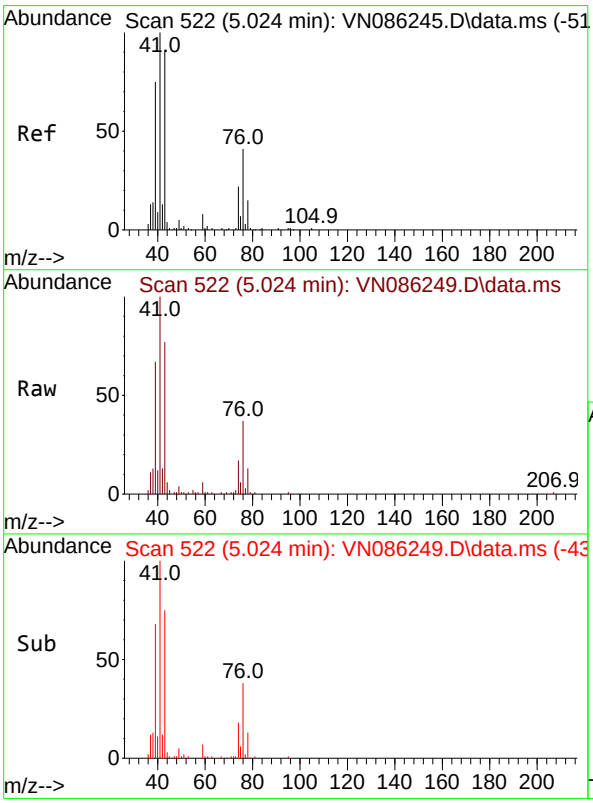
Ion	Ratio	Lower	Upper
142	100		
127	39.5	19.6	58.8
141	13.3	7.3	21.9

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

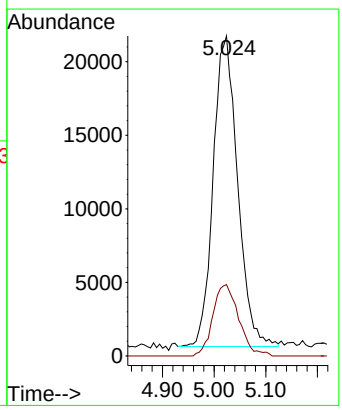


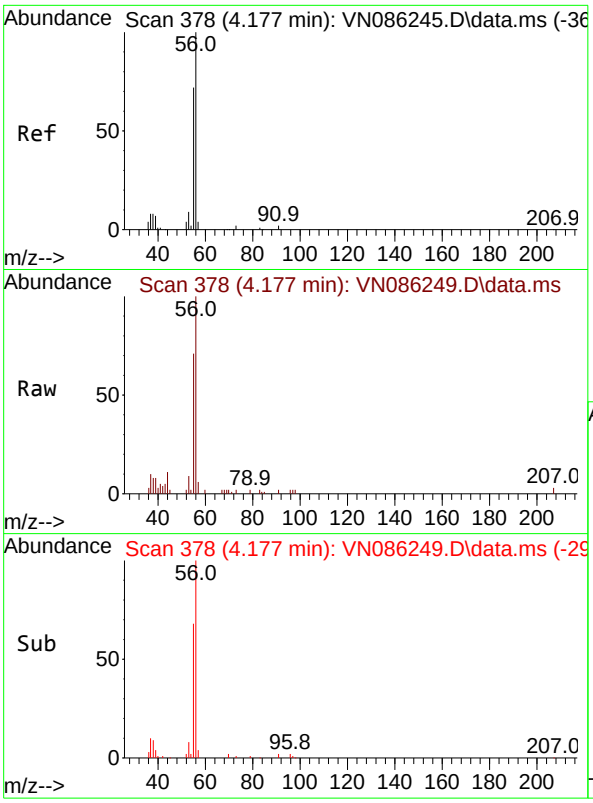


#12
Methyl Acetate
Concen: 20.052 ug/l
RT: 5.024 min Scan# 522
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 69220

Ion	Ratio	Lower	Upper
43	100		
74	23.1	19.1	28.7

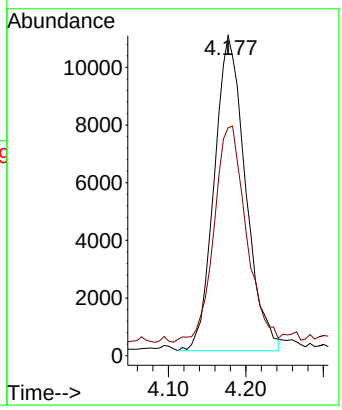




#13
Acrolein
Concen: 77.958 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 56 Resp: 3059

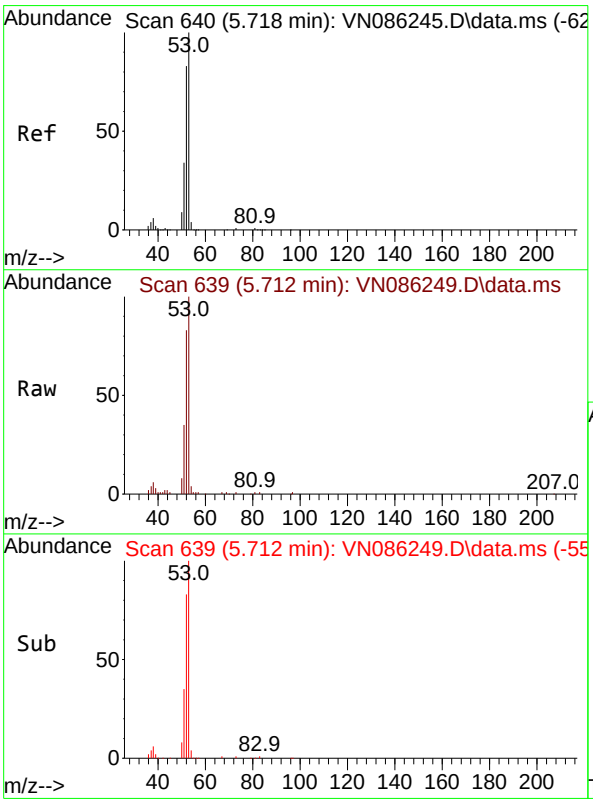
Ion	Ratio	Lower	Upper
56	100		
55	70.1	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

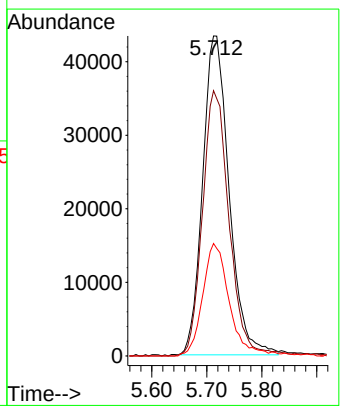
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

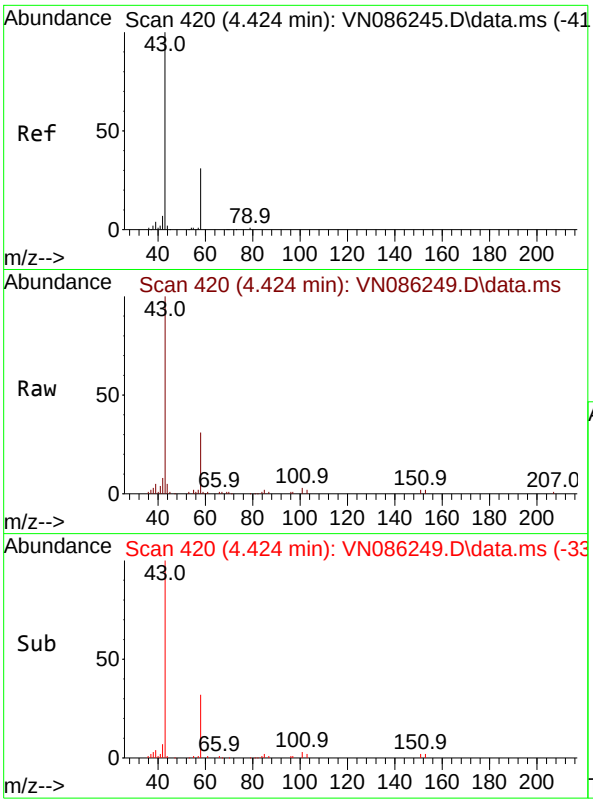


#14
Acrylonitrile
Concen: 99.606 ug/l
RT: 5.712 min Scan# 639
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 53 Resp: 145157

Ion	Ratio	Lower	Upper
53	100		
52	83.4	40.2	120.6
51	35.0	17.5	52.6

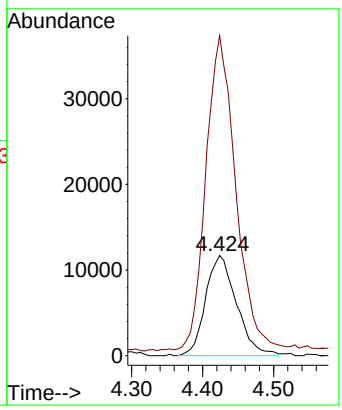




#15
Acetone
Concen: 95.503 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 58 Resp: 3528

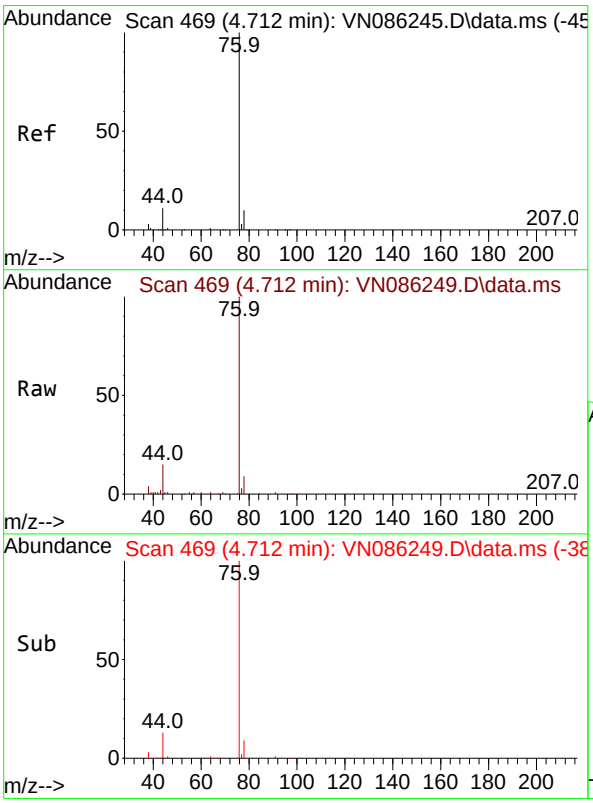
Ion	Ratio	Lower	Upper
58	100		
43	313.0	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

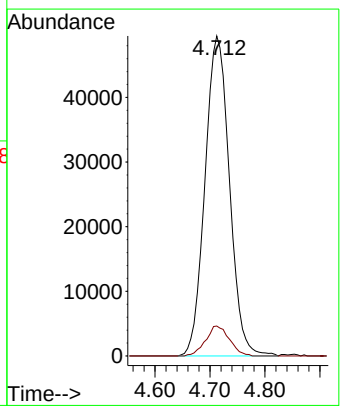
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

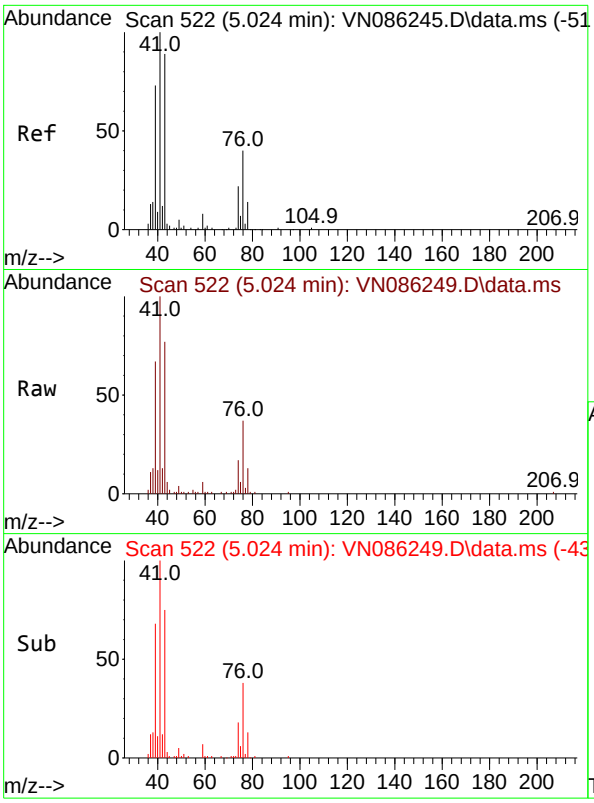


#16
Carbon Disulfide
Concen: 21.832 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 76 Resp: 153034

Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.7	11.5

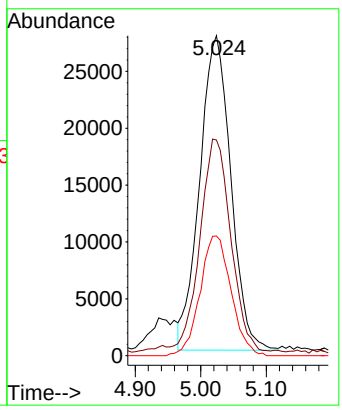




#17
Allyl chloride
Concen: 21.451 ug/l
RT: 5.024 min Scan# 5
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 41 Resp: 9139

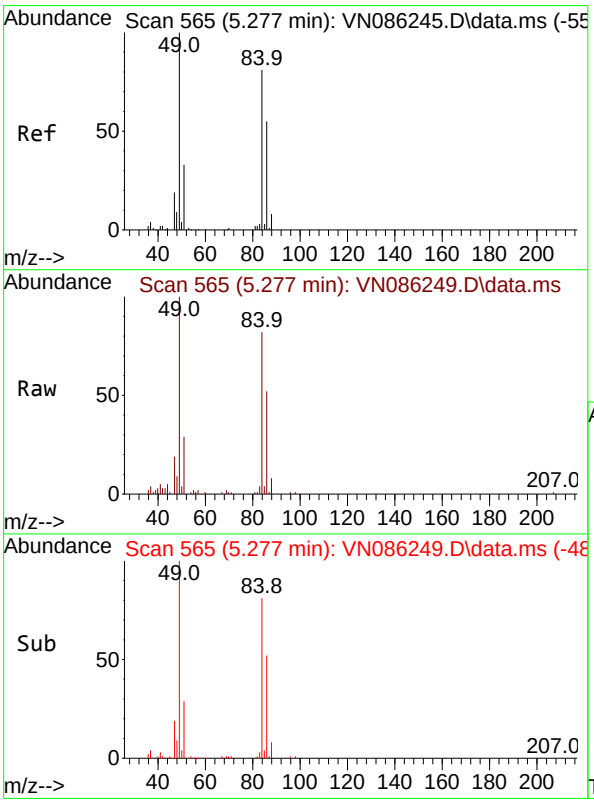
Ion	Ratio	Lower	Upper
41	100		
39	67.2	34.4	103.2
76	38.3	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

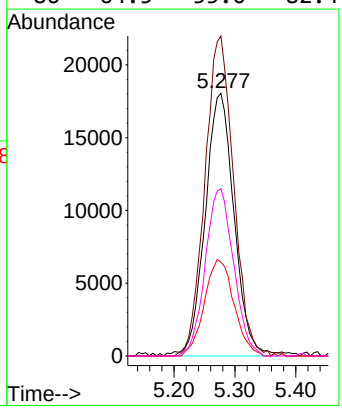
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

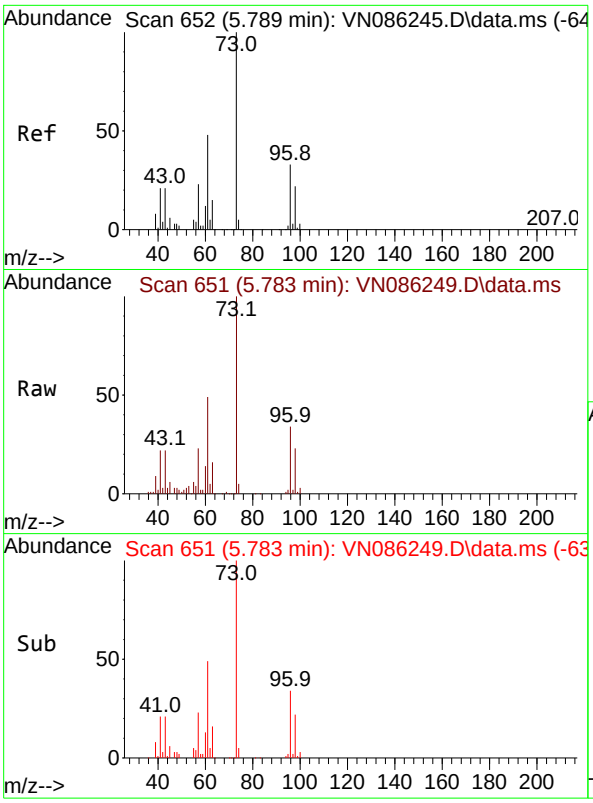


#18
Methylene Chloride
Concen: 21.234 ug/l
RT: 5.277 min Scan# 565
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 84 Resp: 59182

Ion	Ratio	Lower	Upper
84	100		
49	122.3	99.1	148.7
51	36.1	32.3	48.5
86	64.5	55.0	82.4

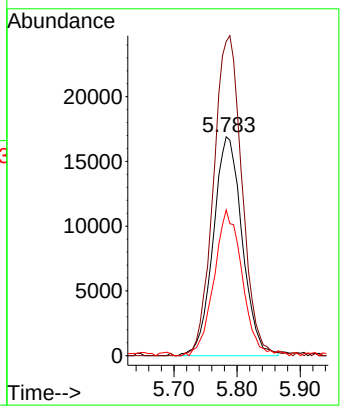




#19
trans-1,2-Dichloroethene
Concen: 20.881 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 96 Resp: 5376

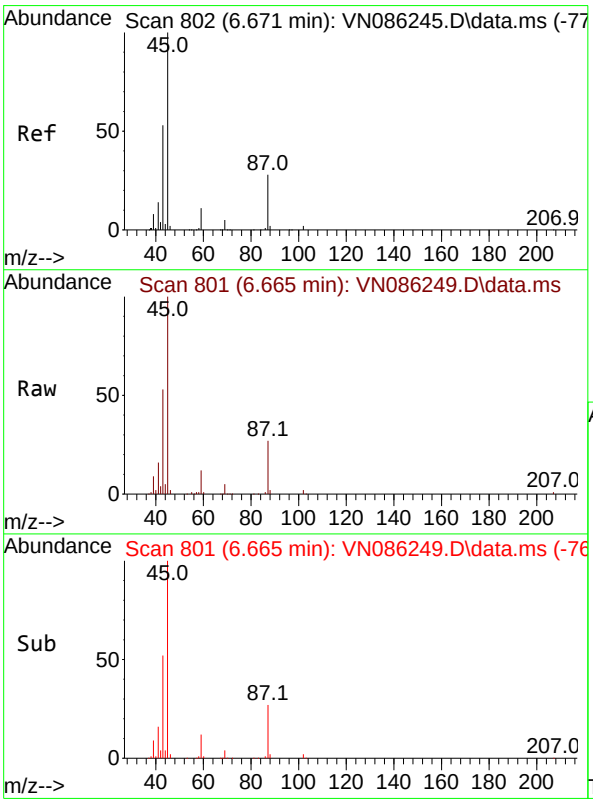
Ion	Ratio	Lower	Upper
96	100		
61	143.6	115.9	173.9
98	66.6	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

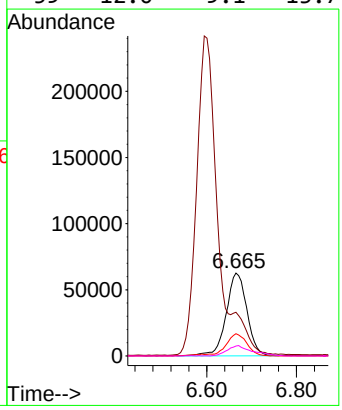
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

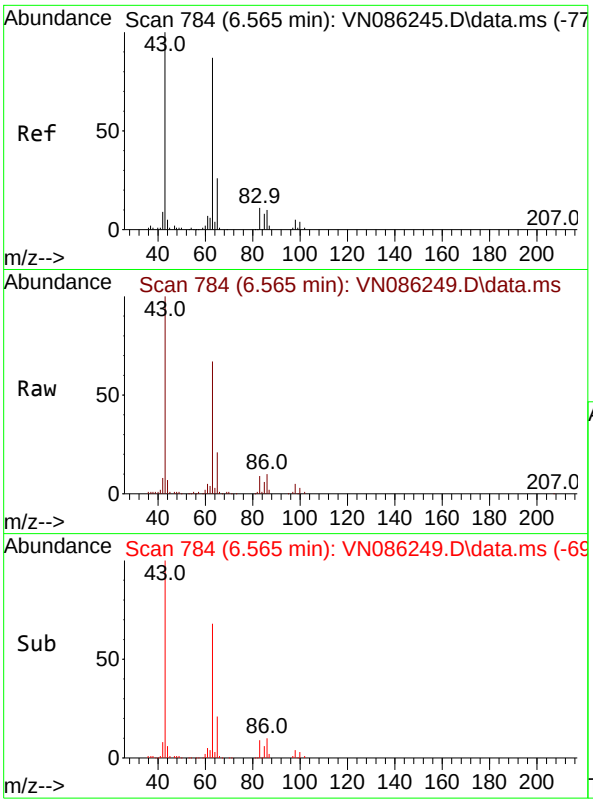


#20
Diisopropyl ether
Concen: 21.906 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 45 Resp: 200652

Ion	Ratio	Lower	Upper
45	100		
43	51.0	42.3	63.5
87	27.0	22.2	33.4
59	12.0	9.1	13.7

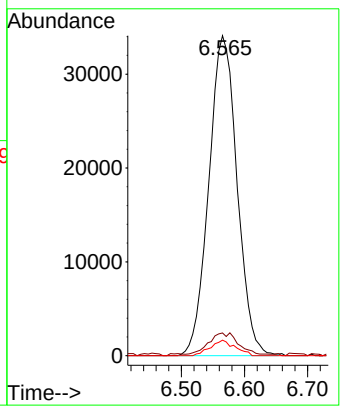




#21
1,1-Dichloroethane
Concen: 21.728 ug/l
RT: 6.565 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 63 Resp: 10618

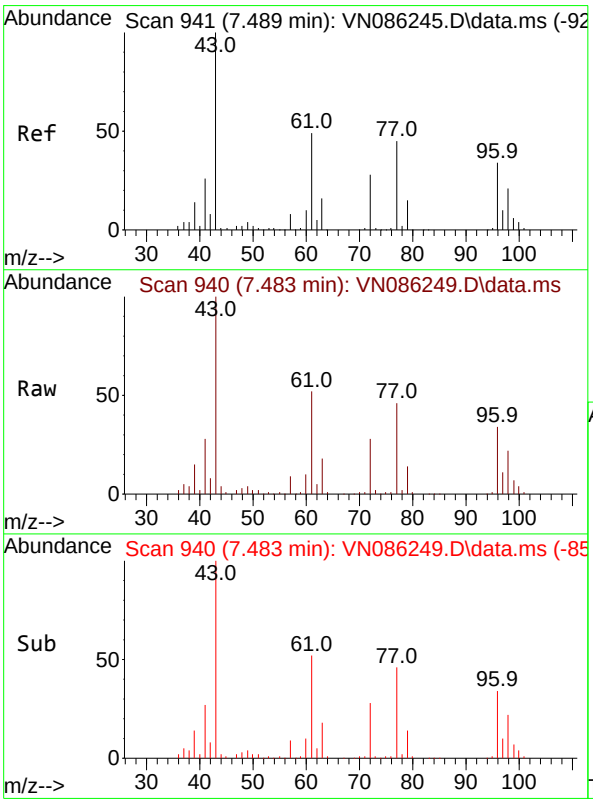
Ion	Ratio	Lower	Upper
63	100		
98	6.5	3.1	9.3
100	4.9	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

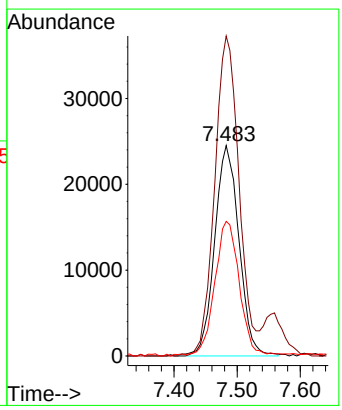
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

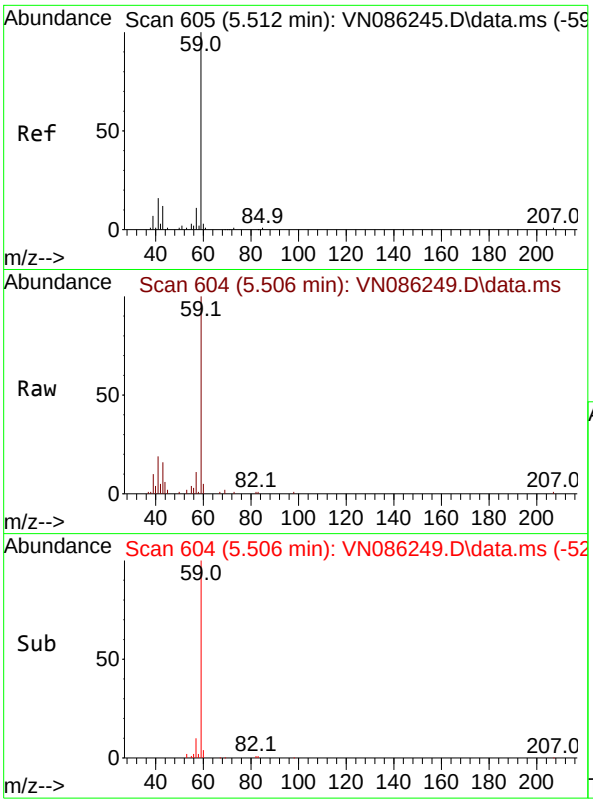


#22
cis-1,2-Dichloroethene
Concen: 21.431 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 96 Resp: 65736

Ion	Ratio	Lower	Upper
96	100		
61	152.3	119.5	179.3
98	64.7	51.0	76.6

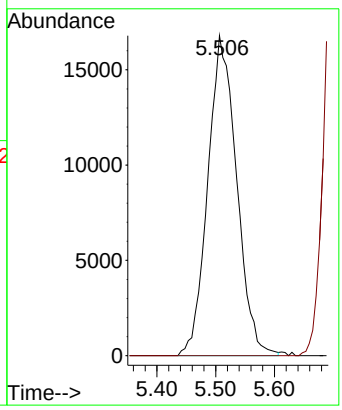




#23
tert-Butyl Alcohol
Concen: 94.827 ug/l
RT: 5.506 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 59 Resp: 5726

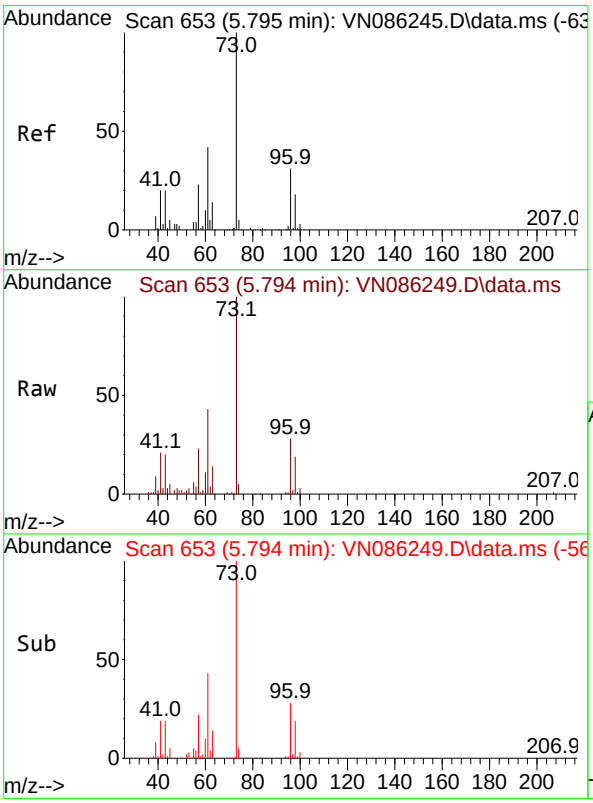
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

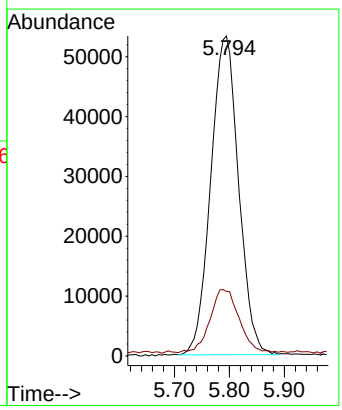
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

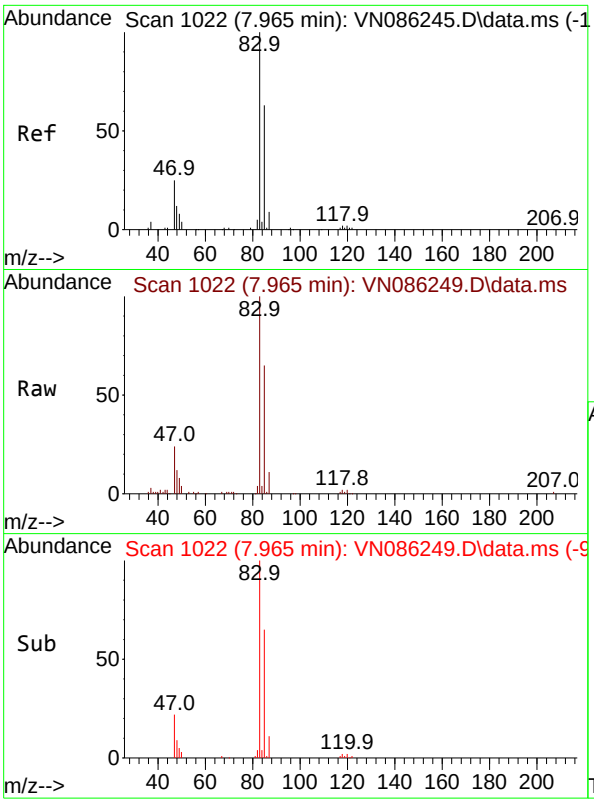


#24
Methyl tert-Butyl Ether
Concen: 21.230 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 73 Resp: 187291

Ion	Ratio	Lower	Upper
73	100		
43	20.4	16.8	25.2

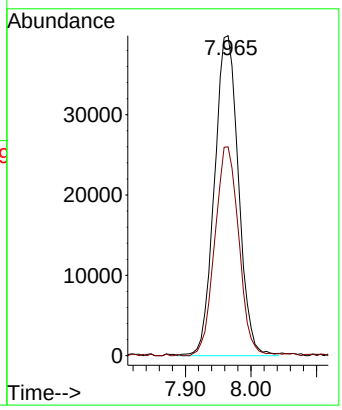




#25
Chloroform
Concen: 21.684 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 83 Resp: 10105

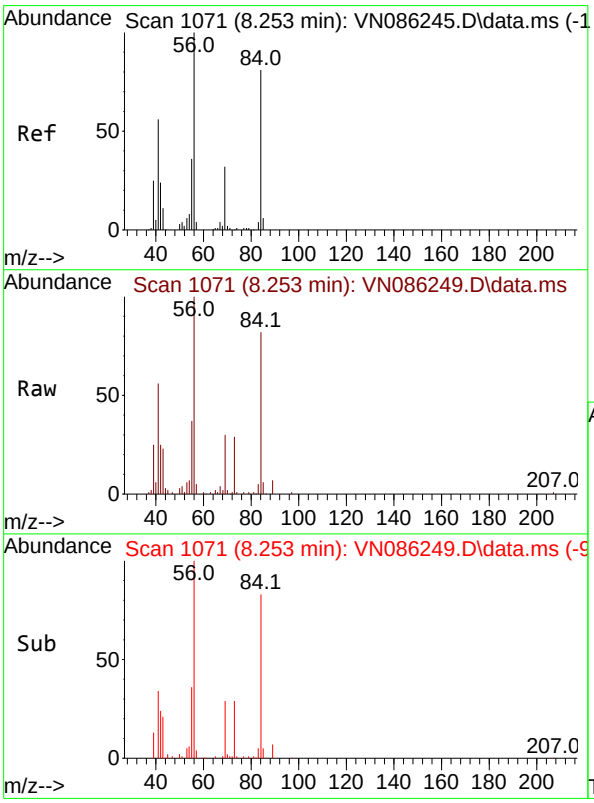
Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.5	75.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

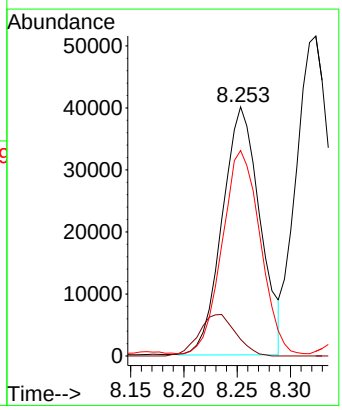
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

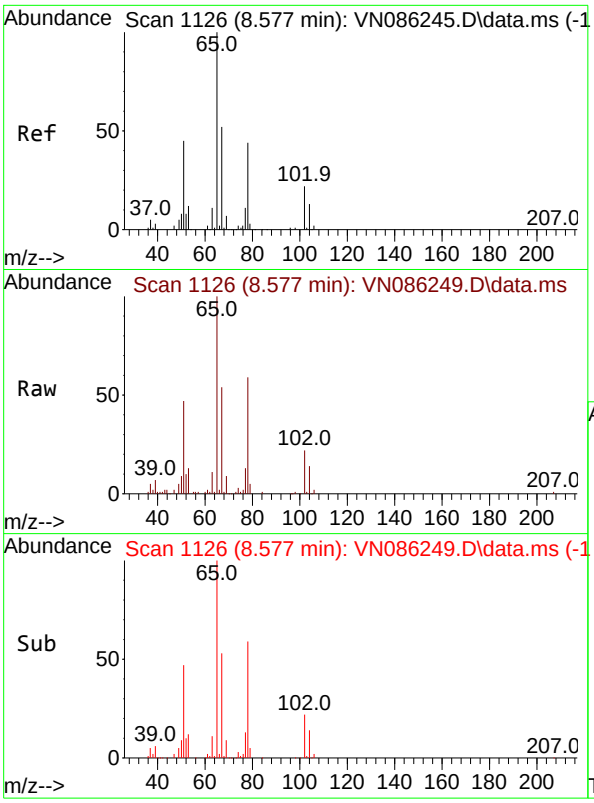


#26
Cyclohexane
Concen: 21.608 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 56 Resp: 98792

Ion	Ratio	Lower	Upper
56	100		
89	16.4	0.0	0.0#
84	84.4	69.0	103.4

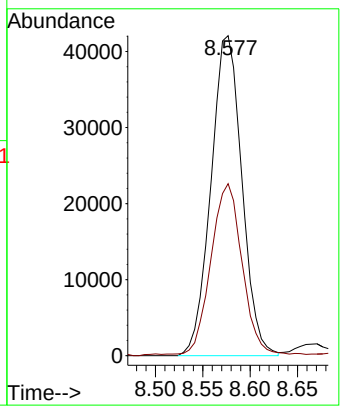




#27
1,2-Dichloroethane-d4
Concen: 30.539 ug/l
RT: 8.577 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 65 Resp: 9562

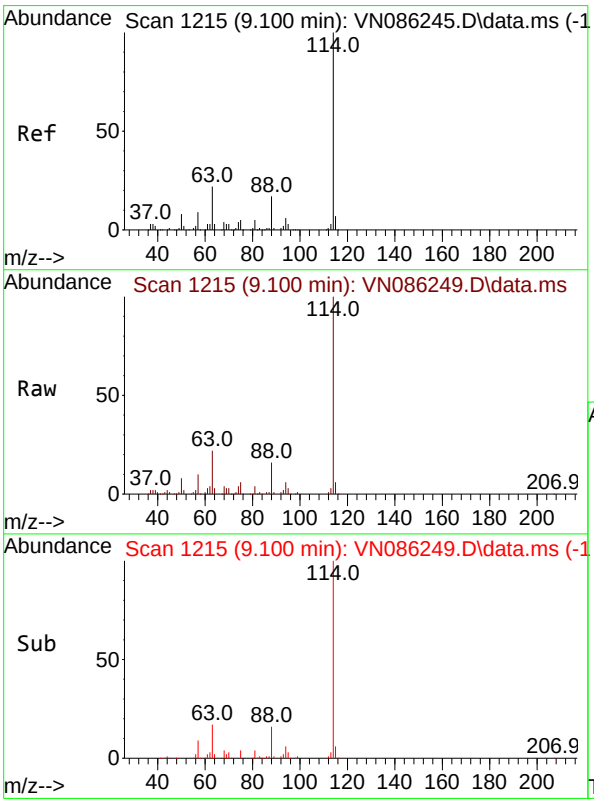
Ion	Ratio	Lower	Upper
65	100		
67	54.6	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

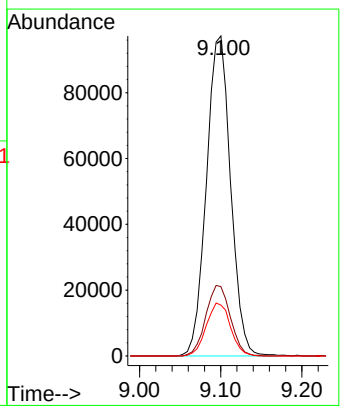
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

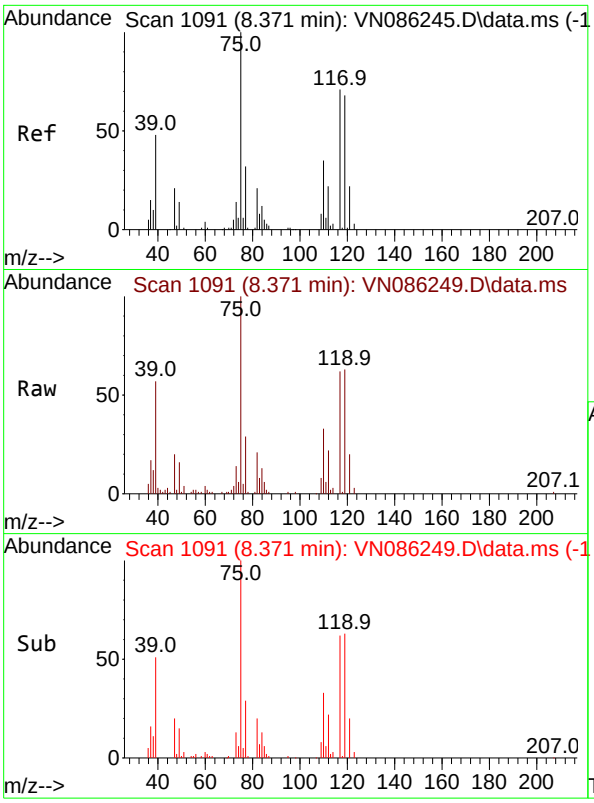


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:114 Resp: 201467

Ion	Ratio	Lower	Upper
114	100		
63	22.3	17.8	26.6
88	16.5	13.4	20.2

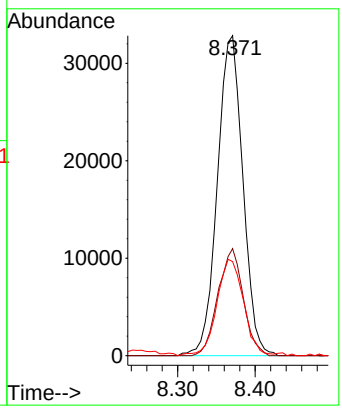




#29
1,1-Dichloropropene
Concen: 20.848 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 7524

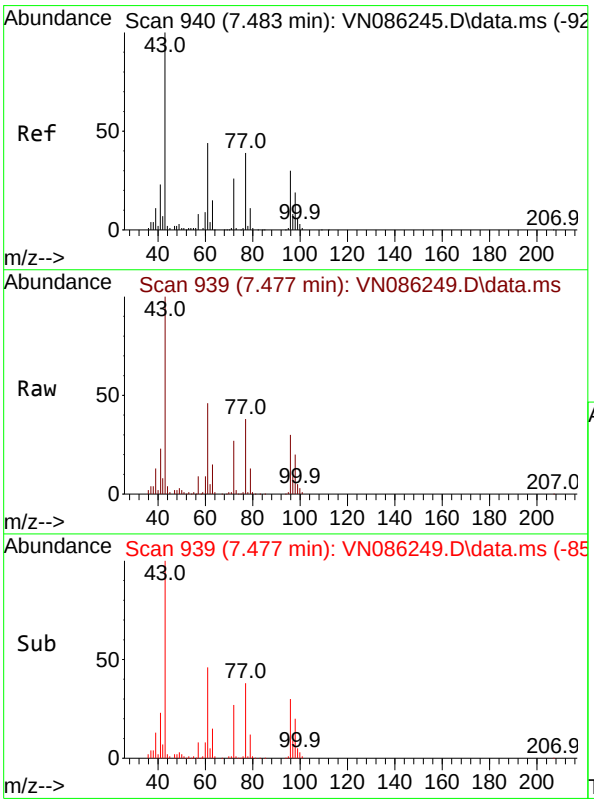
Ion	Ratio	Lower	Upper
75	100		
110	33.1	0.0	68.6
77	31.4	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

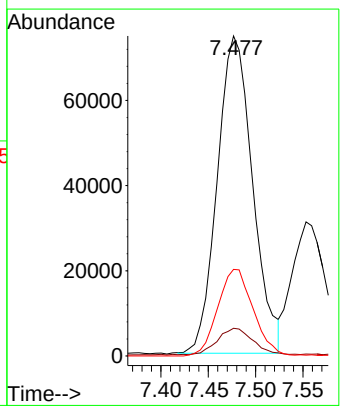
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

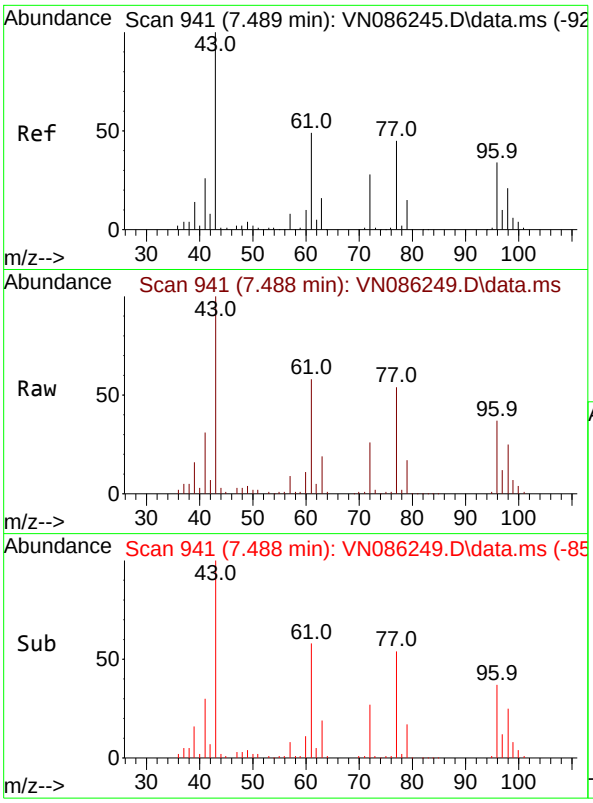


#30
2-Butanone
Concen: 96.751 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 193486

Ion	Ratio	Lower	Upper
43	100		
57	8.4	6.4	9.6
72	27.2	21.5	32.3

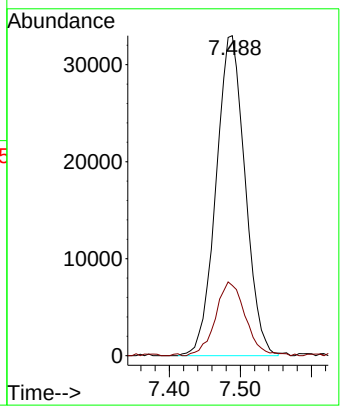




#31
2,2-Dichloropropane
Concen: 21.091 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 77 Resp: 9369

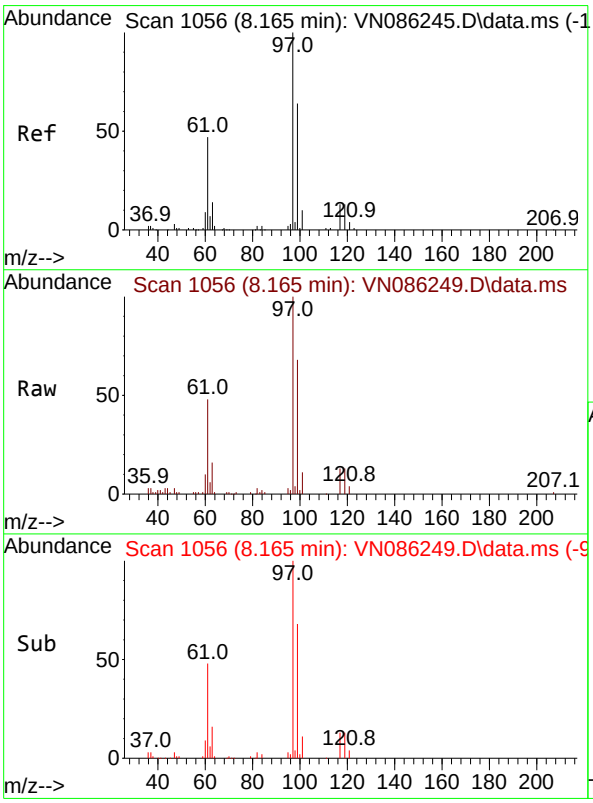
Ion	Ratio	Lower	Upper
77	100		
97	23.5	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

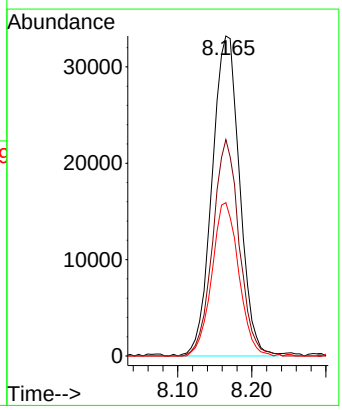
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

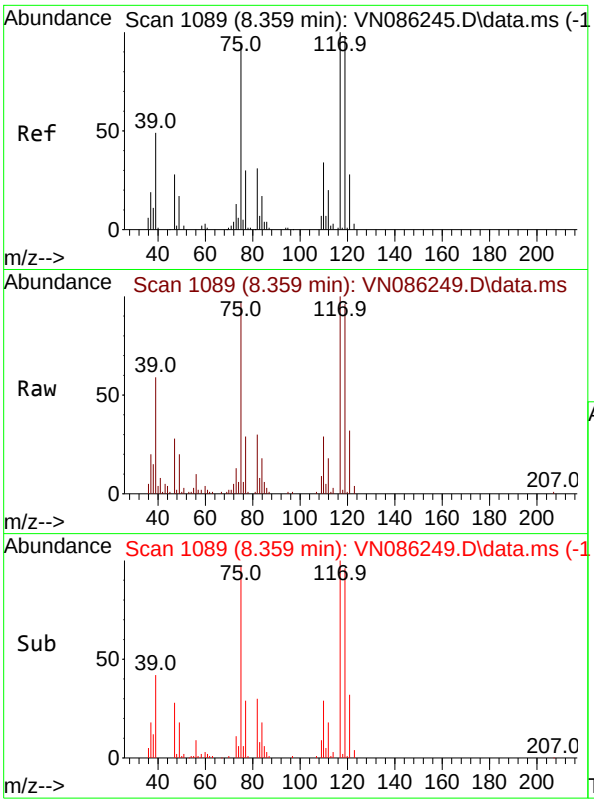


#32
1,1,1-Trichloroethane
Concen: 20.651 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 97 Resp: 85736

Ion	Ratio	Lower	Upper
97	100		
99	64.9	51.4	77.2
61	46.7	37.0	55.6

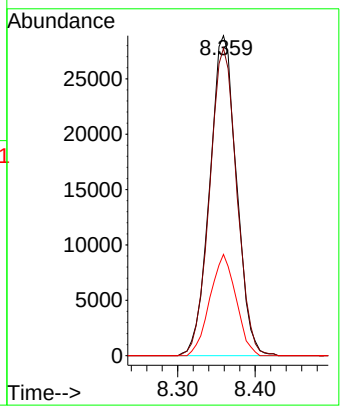




#33
Carbon Tetrachloride
Concen: 20.895 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:117 Resp: 6932

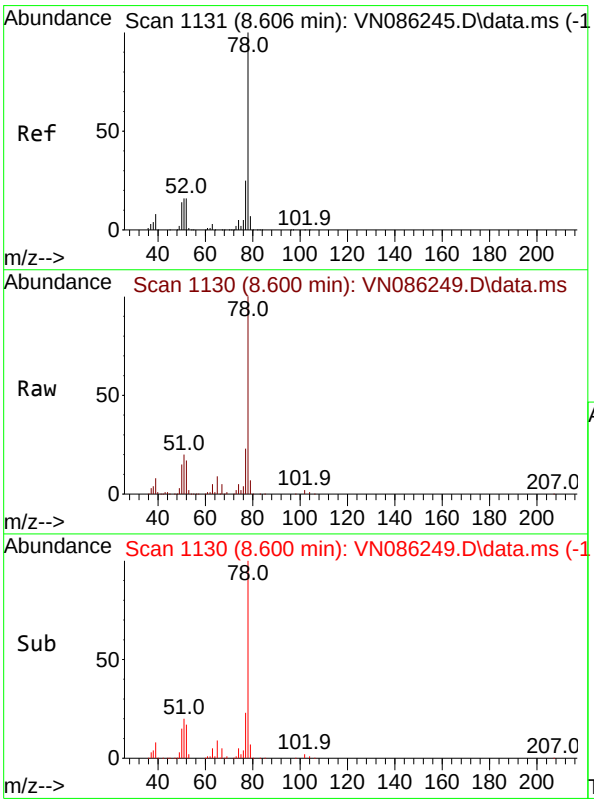
Ion	Ratio	Lower	Upper
117	100		
119	96.0	78.3	117.5
121	31.6	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

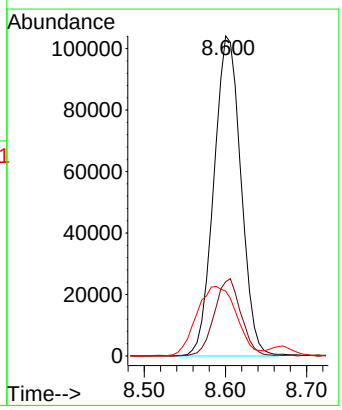
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

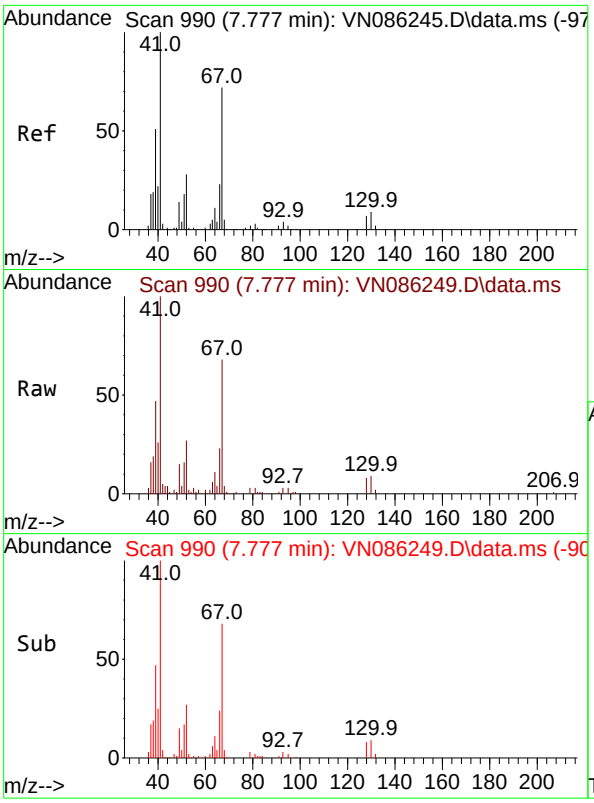


#34
Benzene
Concen: 20.972 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 78 Resp: 240800

Ion	Ratio	Lower	Upper
78	100		
77	23.0	20.0	30.0
51	19.1	12.9	19.3

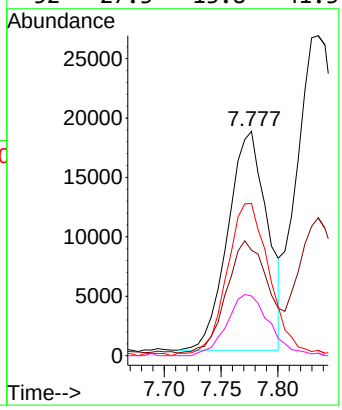




#35
Methacrylonitrile
Concen: 19.760 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 41 Resp: 4454

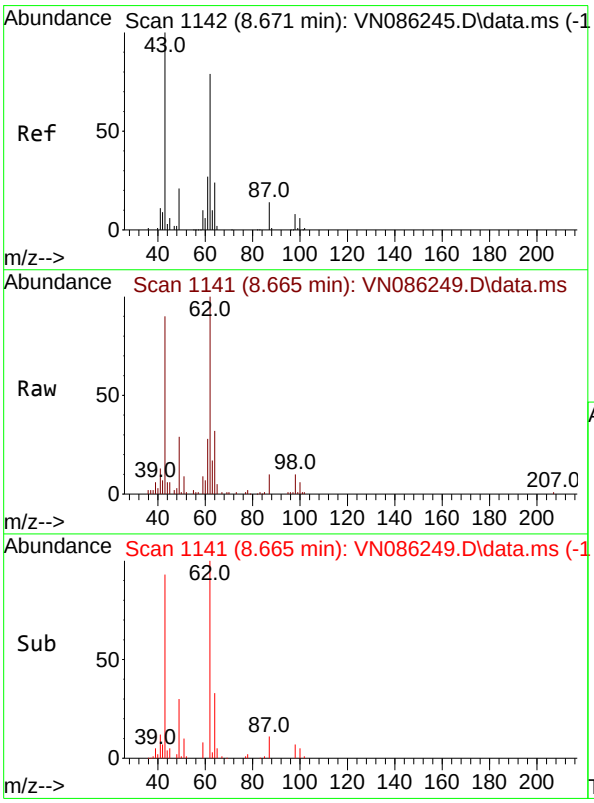
Ion	Ratio	Lower	Upper
41	100		
39	47.0	25.8	77.3
67	68.5	36.0	108.0
52	27.3	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

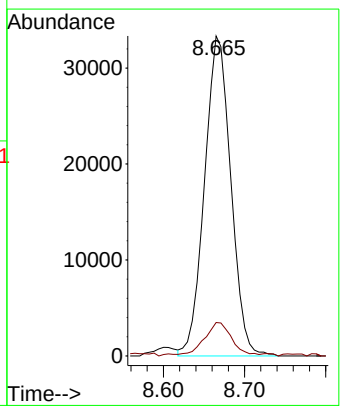
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

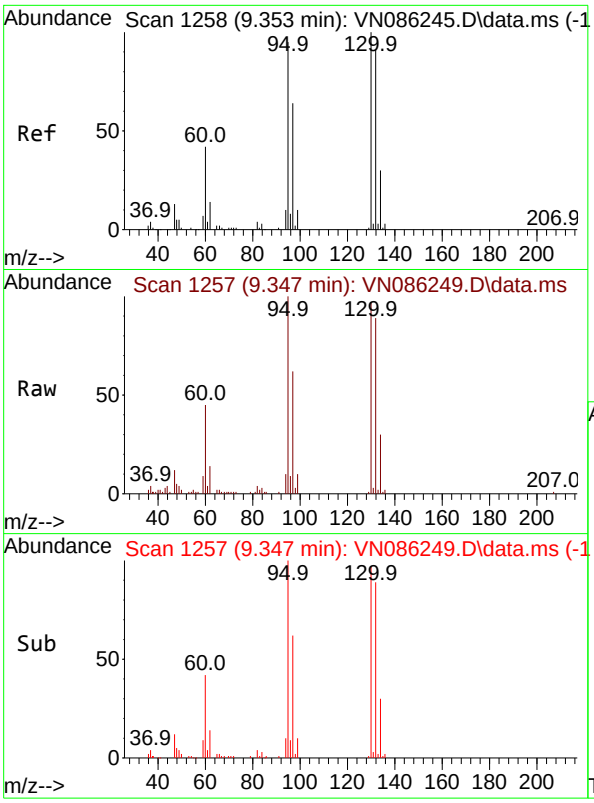


#36
1,2-Dichloroethane
Concen: 20.892 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 62 Resp: 75064

Ion	Ratio	Lower	Upper
62	100		
98	10.3	8.6	12.8

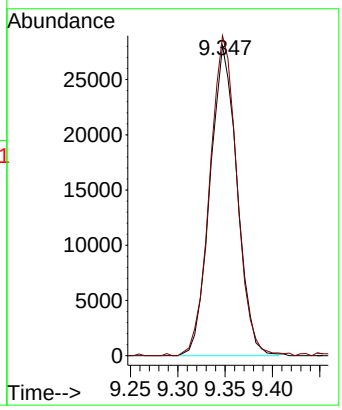




#37
Trichloroethene
Concen: 20.150 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:130 Resp: 5582

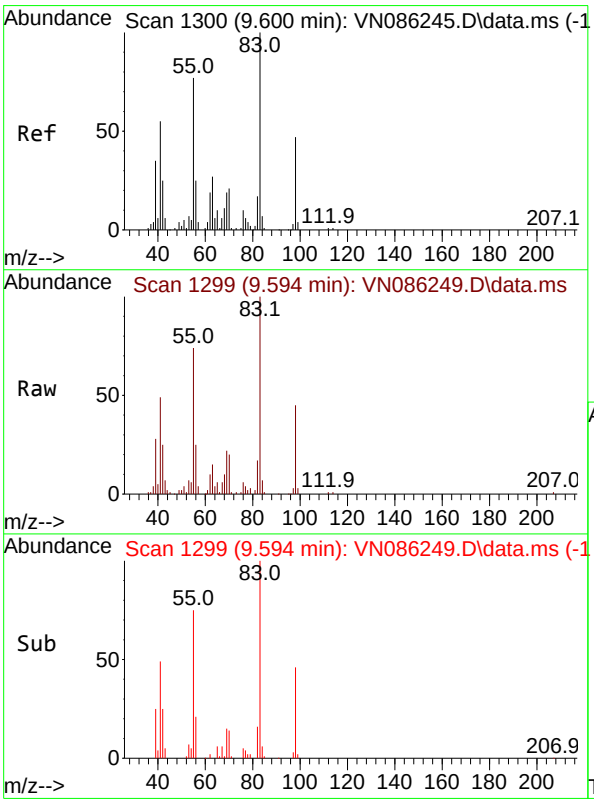
Ion	Ratio	Lower	Upper
130	100		
95	103.2	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

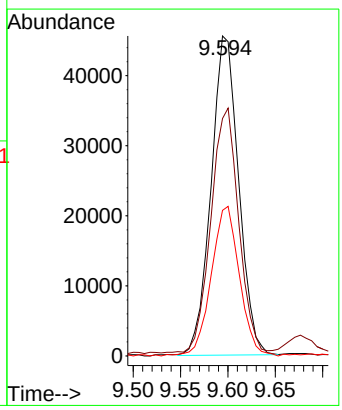
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

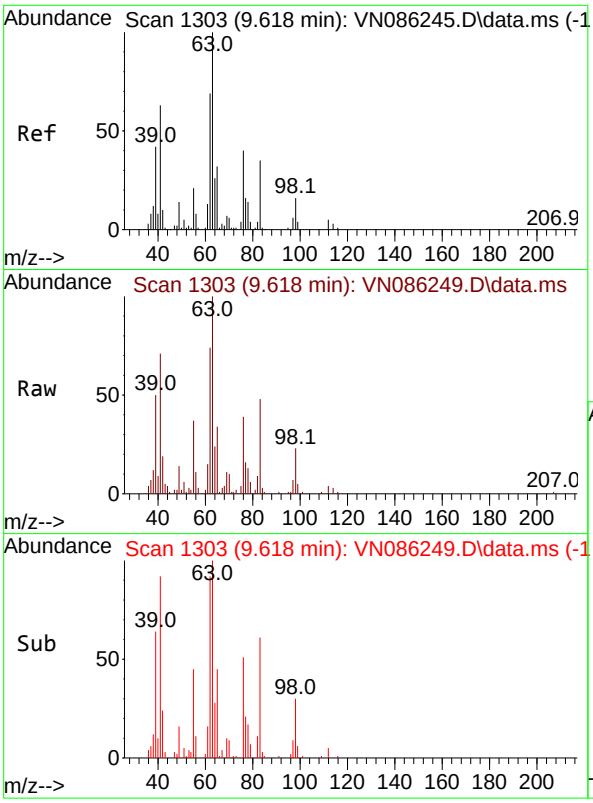


#38
Methylcyclohexane
Concen: 20.887 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 83 Resp: 92449

Ion	Ratio	Lower	Upper
83	100		
55	77.4	38.5	115.5
98	47.6	24.4	73.2

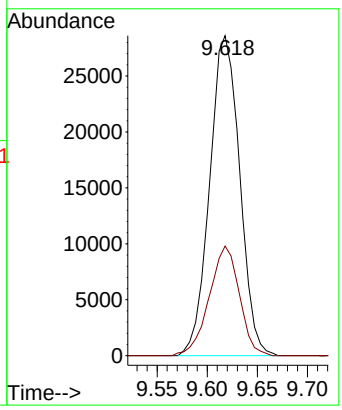




#39
1,2-Dichloropropane
Concen: 20.876 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 63 Resp: 5964

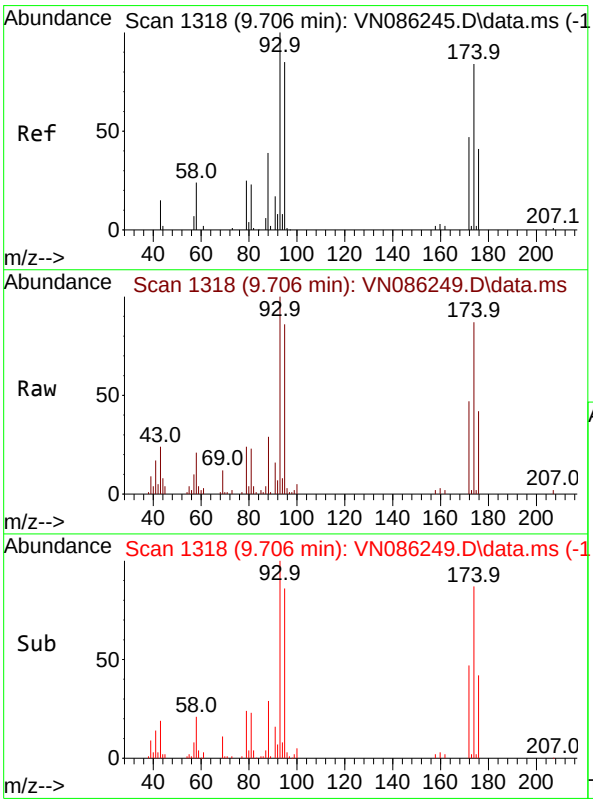
Ion	Ratio	Lower	Upper
63	100		
65	34.2	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

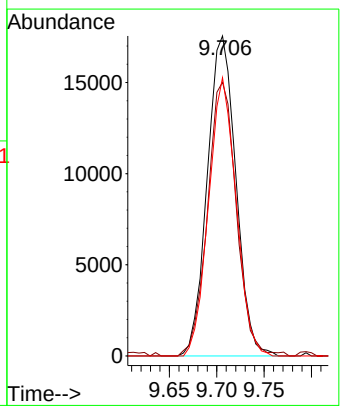
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

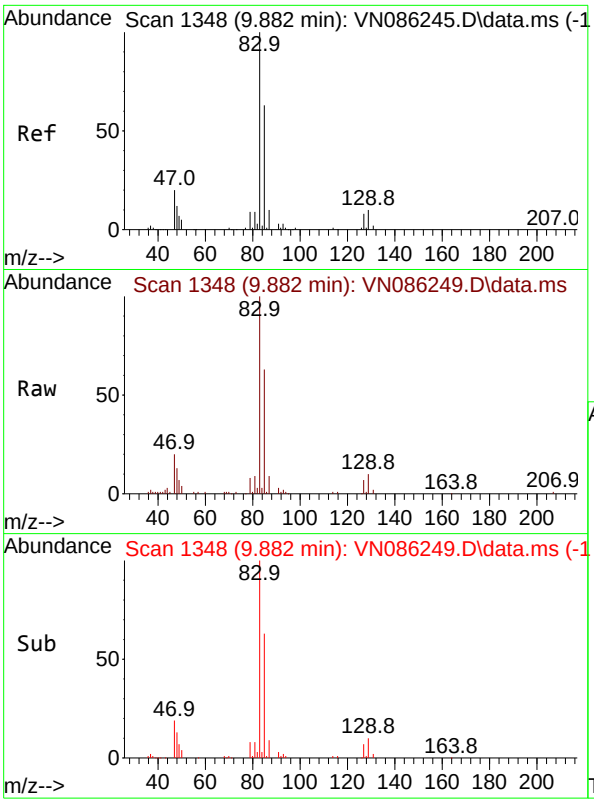


#40
Dibromomethane
Concen: 20.021 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 93 Resp: 36945

Ion	Ratio	Lower	Upper
93	100		
95	85.6	0.0	169.0
174	83.5	0.0	168.0

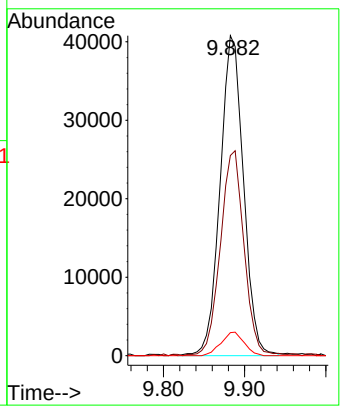




#41
Bromodichloromethane
Concen: 20.598 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 83 Resp: 8165

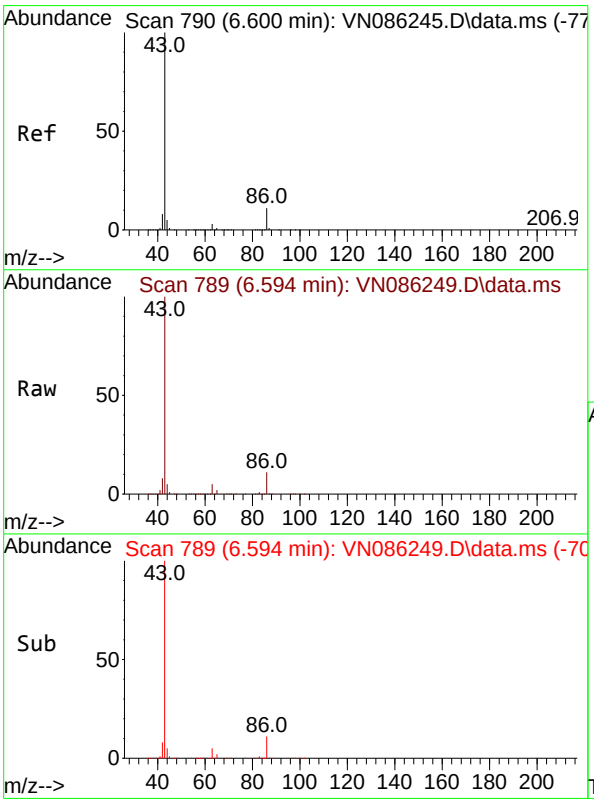
Ion	Ratio	Lower	Upper
83	100		
85	62.1	50.2	75.2
127	7.2	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

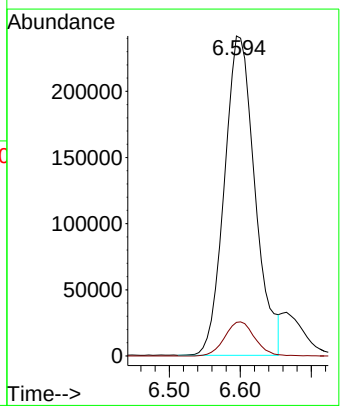
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

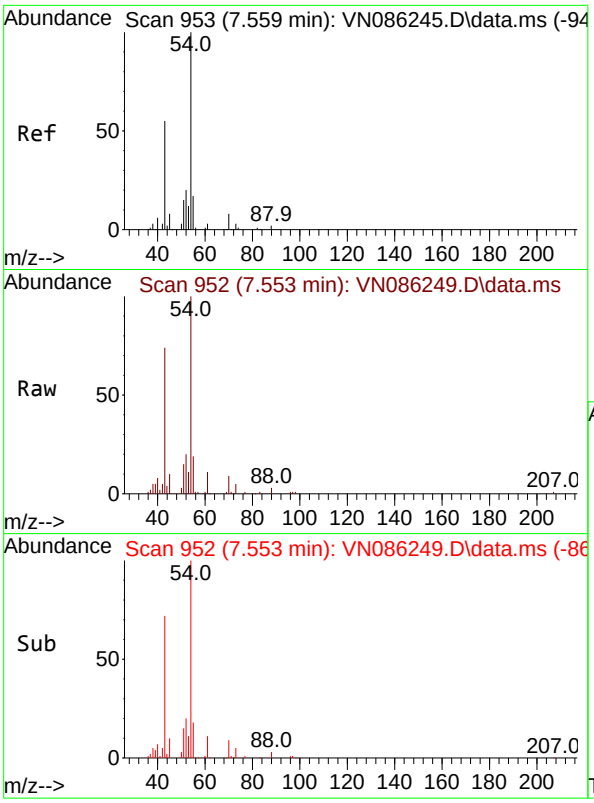


#42
Vinyl Acetate
Concen: 106.292 ug/l
RT: 6.594 min Scan# 789
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 723573

Ion	Ratio	Lower	Upper
43	100		
86	10.4	8.4	12.6





#43
Ethyl Acetate
Concen: 19.328 ug/l
RT: 7.553 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

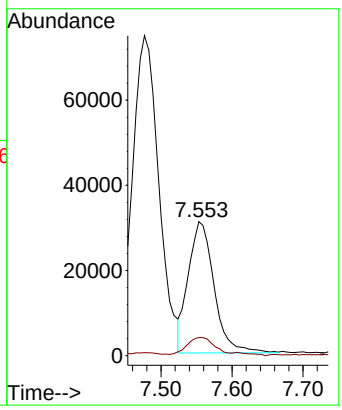
Tgt Ion: 43 Resp: 7796

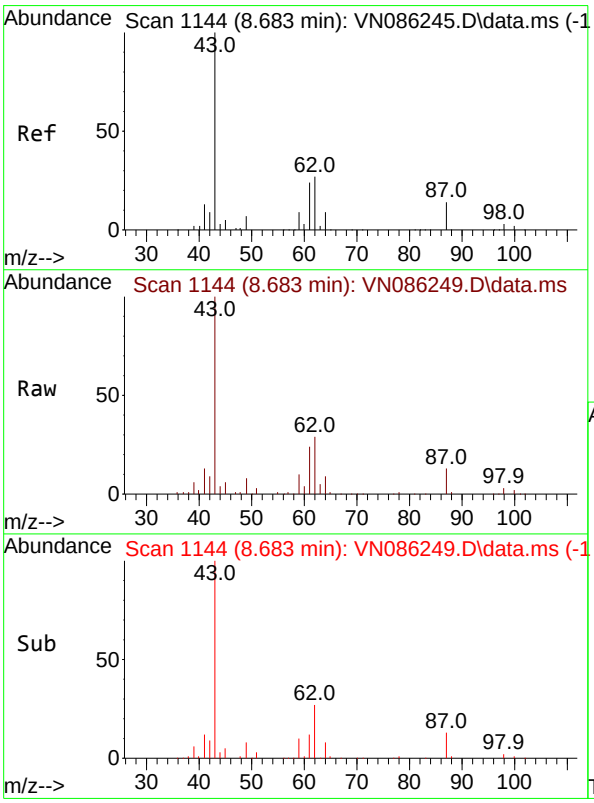
Ion	Ratio	Lower	Upper
43	100		
45	13.2	11.2	16.8

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

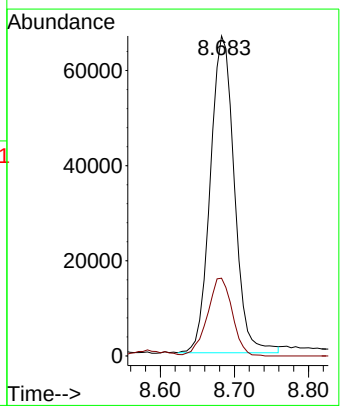


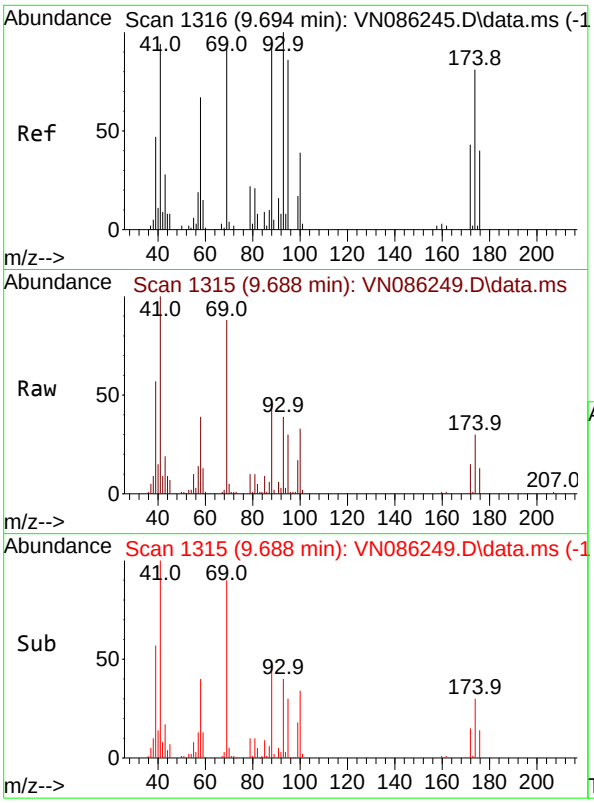


#44
Isopropyl Acetate
Concen: 20.046 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 150010

Ion	Ratio	Lower	Upper
43	100		
61	24.9	20.5	30.7

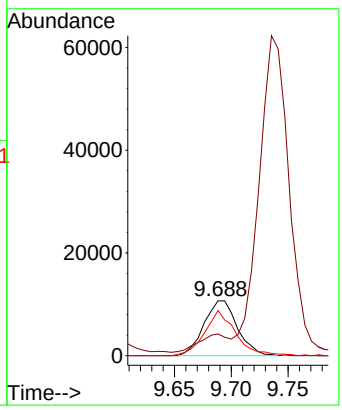




#45
1,4-Dioxane
Concen: 366.878 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 88 Resp: 2183

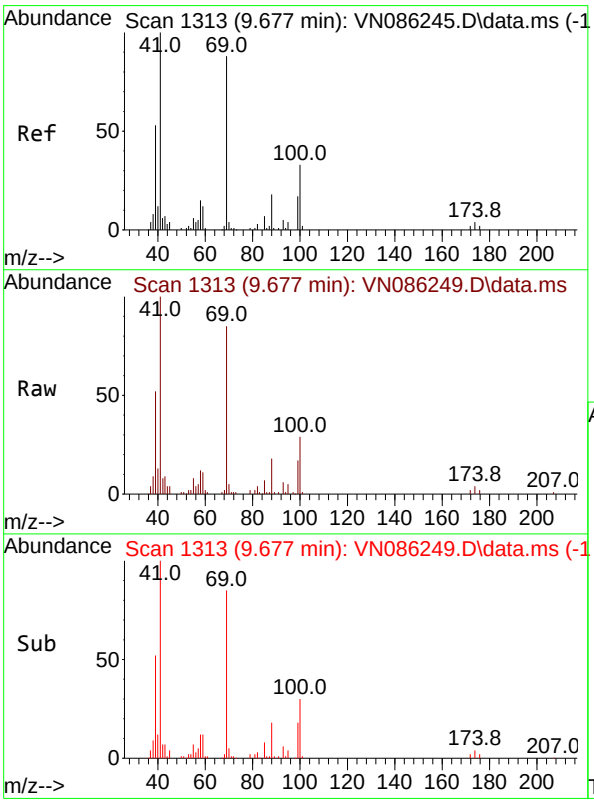
Ion	Ratio	Lower	Upper
88	100		
43	30.1	14.4	21.6
58	76.8	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

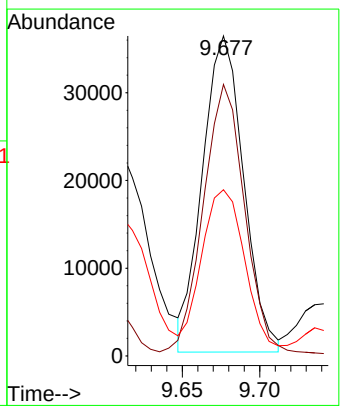
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

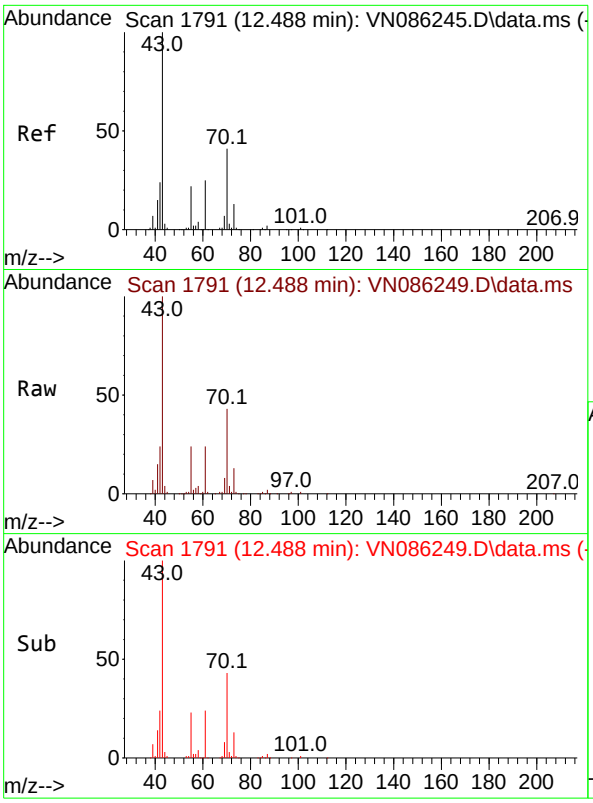


#46
Methyl methacrylate
Concen: 20.193 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 41 Resp: 66579

Ion	Ratio	Lower	Upper
41	100		
69	85.8	43.2	129.6
39	51.3	26.4	79.0





#47
n-amyl Acetate
Concen: 19.943 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

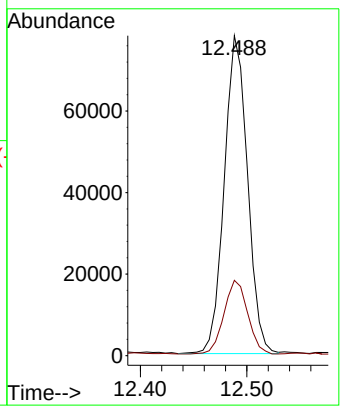
Tgt Ion: 43 Resp: 11832

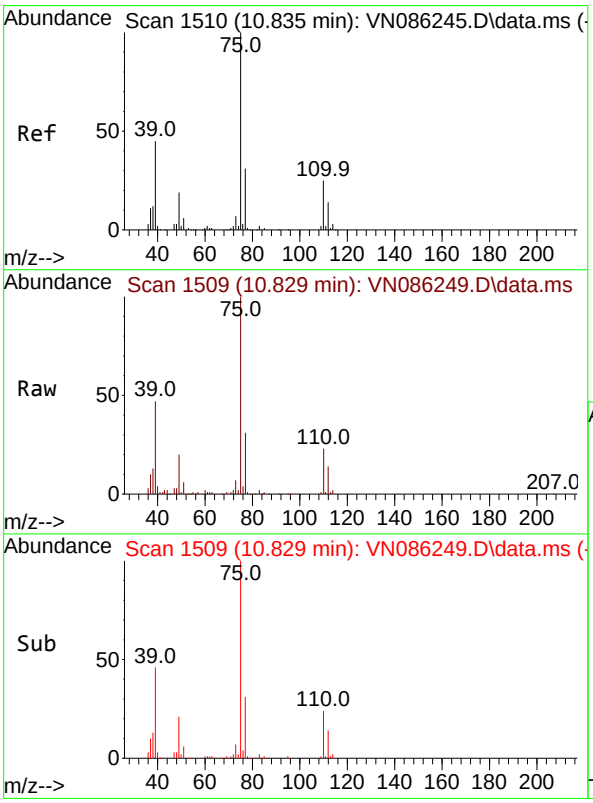
Ion	Ratio	Lower	Upper
43	100		
55	23.5	19.0	28.4

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

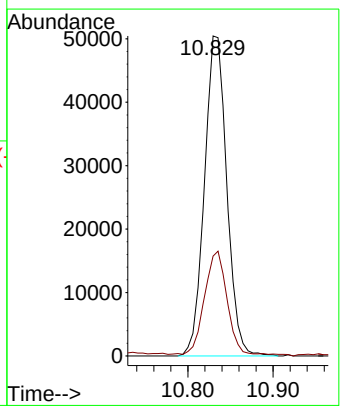


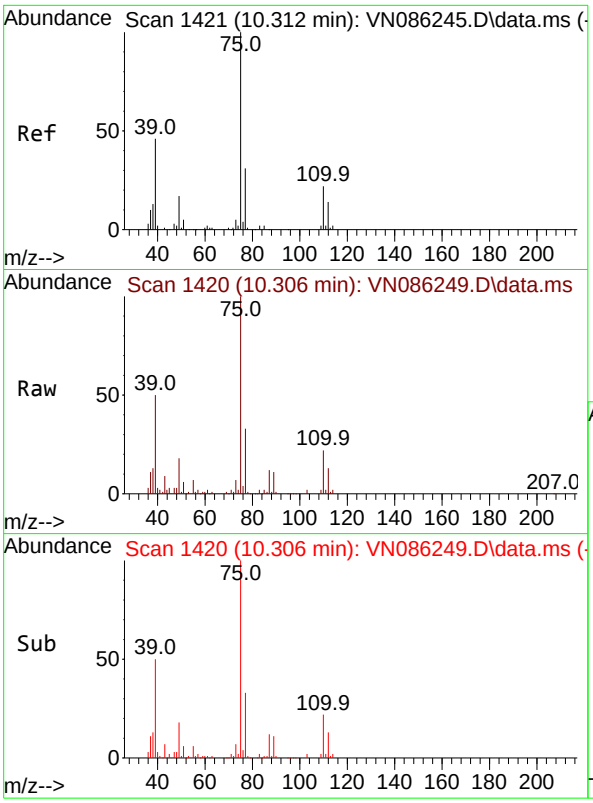


#48
t-1,3-Dichloropropene
Concen: 20.541 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 92056

Ion	Ratio	Lower	Upper
75	100		
77	30.7	25.1	37.7

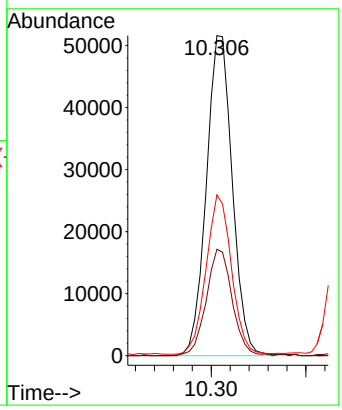




#49
cis-1,3-Dichloropropene
Concen: 20.682 ug/l
RT: 10.306 min Scan# 14
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 9810

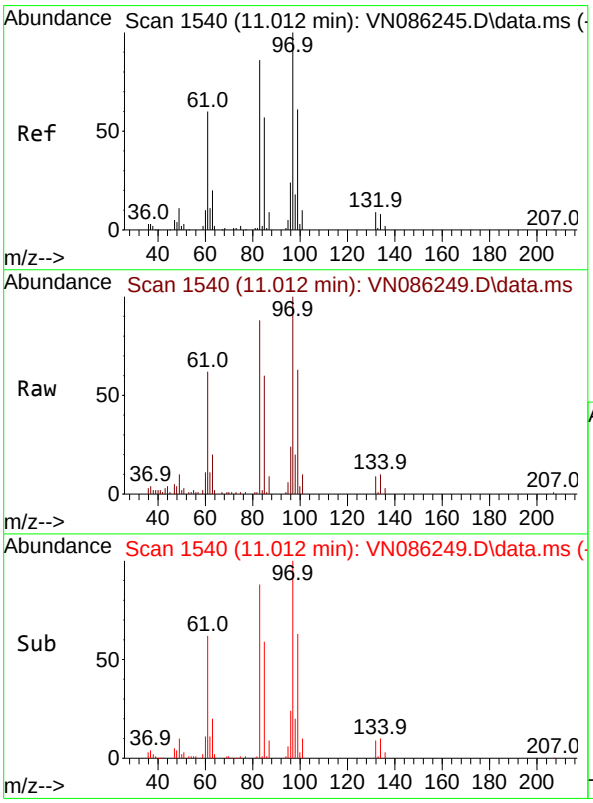
Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.0	37.4
39	49.8	36.7	55.1



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

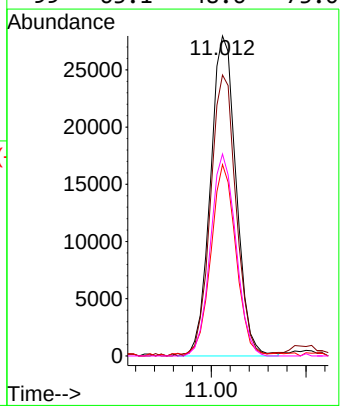
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

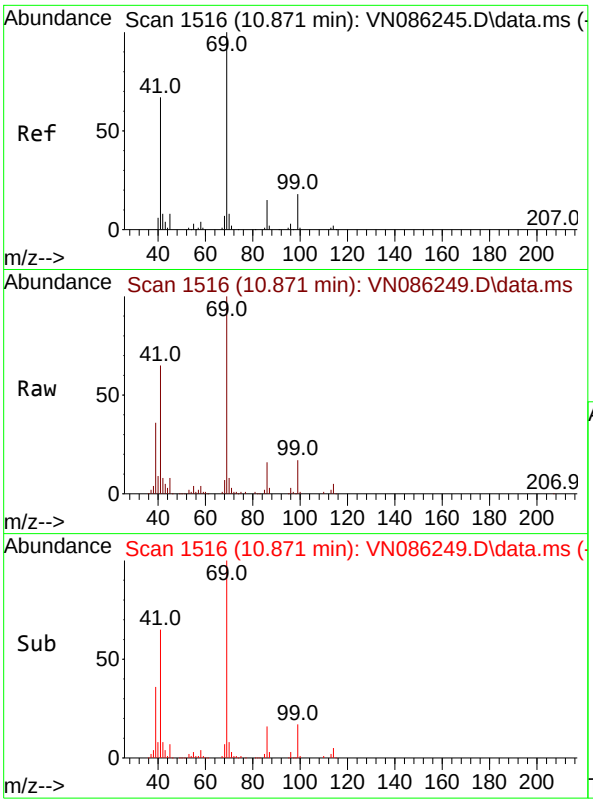


#50
1,1,2-Trichloroethane
Concen: 20.382 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 97 Resp: 52750

Ion	Ratio	Lower	Upper
97	100		
83	87.0	68.6	103.0
85	59.1	45.9	68.9
99	63.1	48.6	73.0

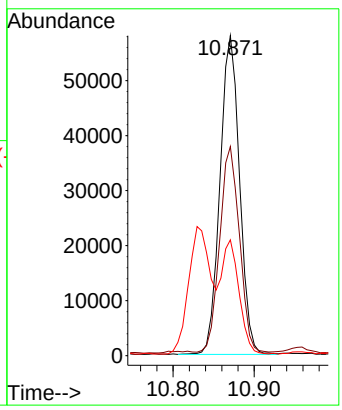




#51
Ethyl methacrylate
Concen: 20.222 ug/l
RT: 10.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 69 Resp: 9725

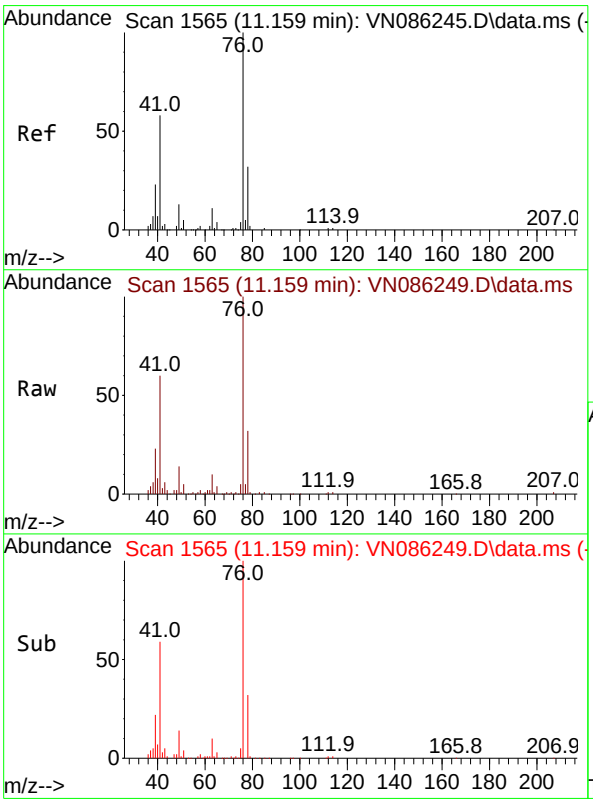
Ion	Ratio	Lower	Upper
69	100		
41	64.3	33.6	100.6
39	35.9	17.8	53.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

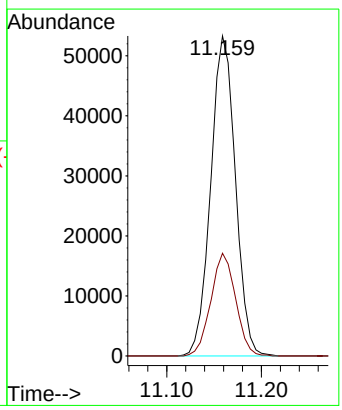
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

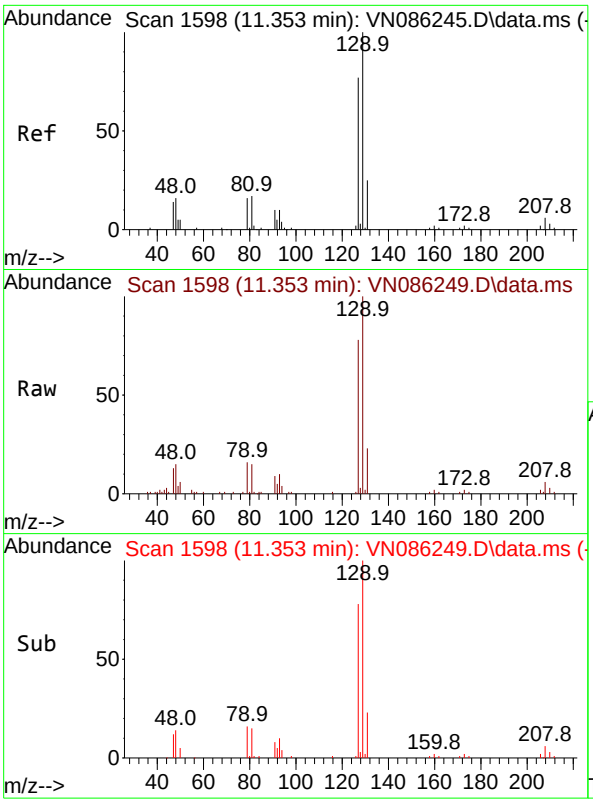


#52
1,3-Dichloropropane
Concen: 20.938 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 76 Resp: 96585

Ion	Ratio	Lower	Upper
76	100		
78	32.1	0.0	64.6

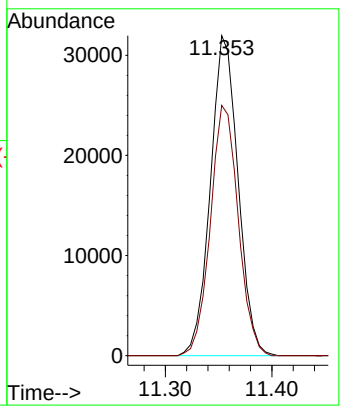




#53
Dibromochloromethane
Concen: 20.369 ug/l
RT: 11.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:129 Resp: 5766

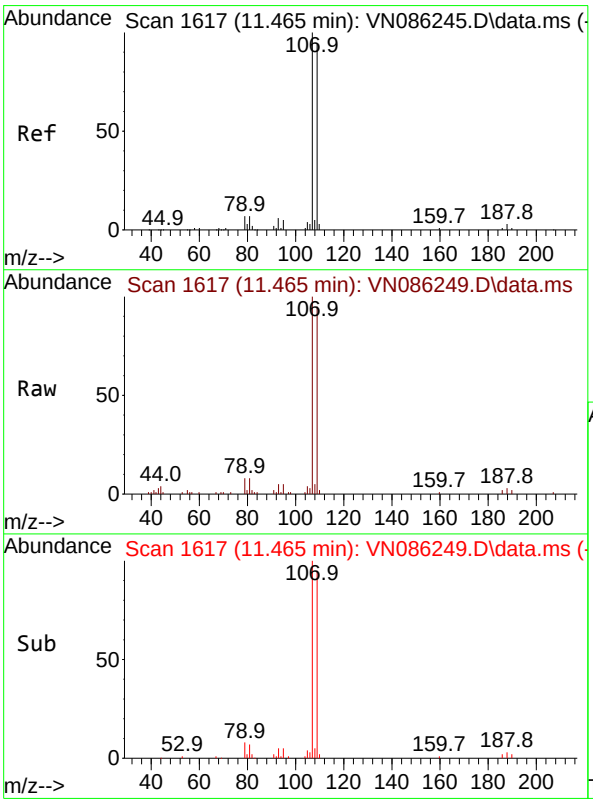
Ion	Ratio	Lower	Upper
129	100		
127	78.7	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

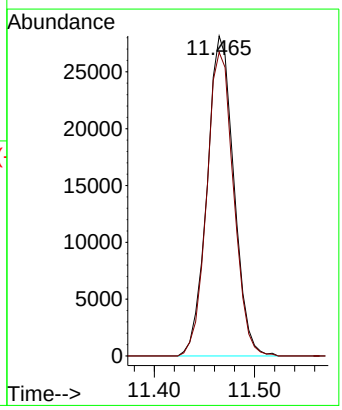
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

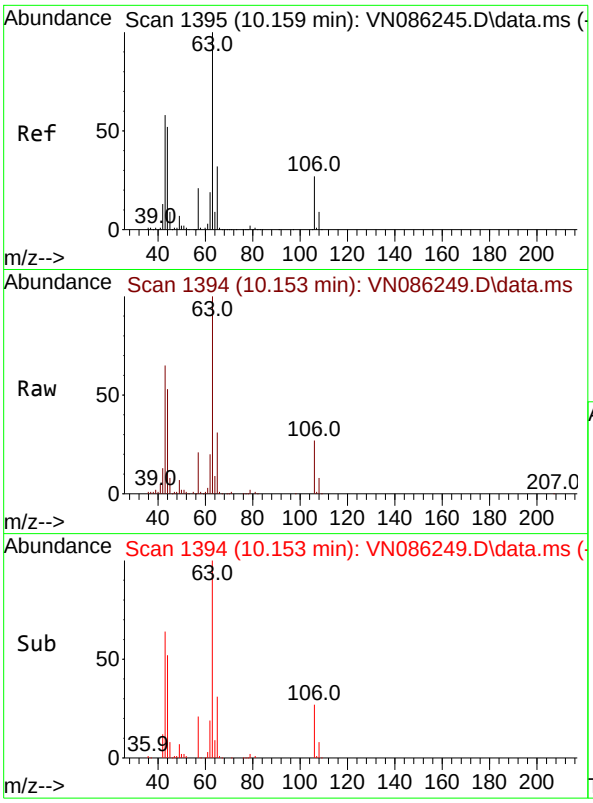


#54
1,2-Dibromoethane
Concen: 20.012 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:107 Resp: 52283

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.2	112.8

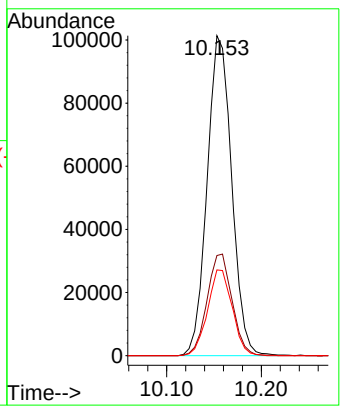




#55
2-Chloroethyl vinyl ether
Concen: 100.309 ug/l
RT: 10.153 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 63 Resp: 18229

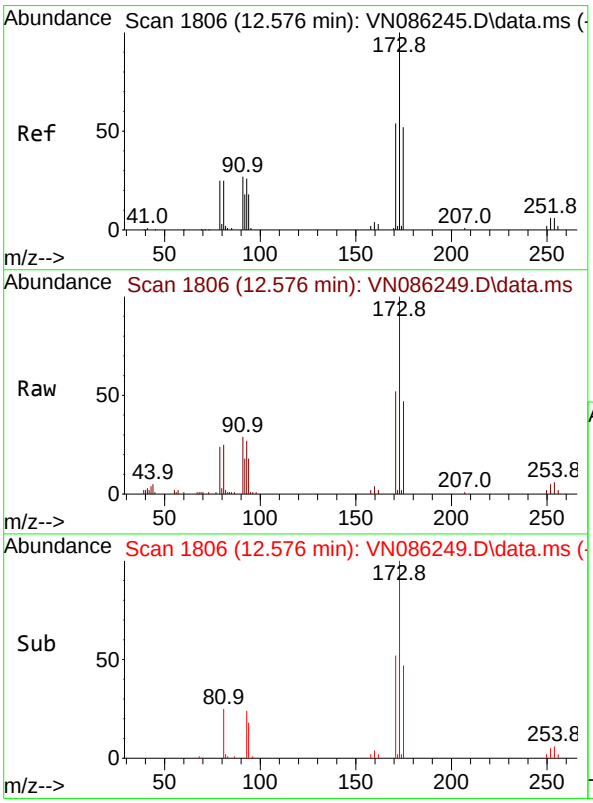
Ion	Ratio	Lower	Upper
63	100		
65	32.2	25.8	38.8
106	27.0	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

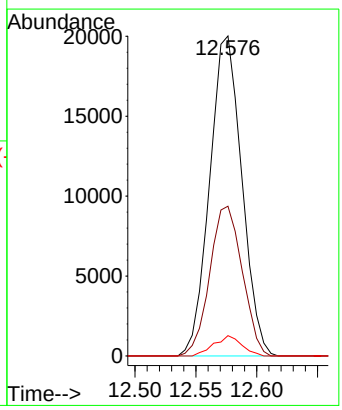
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

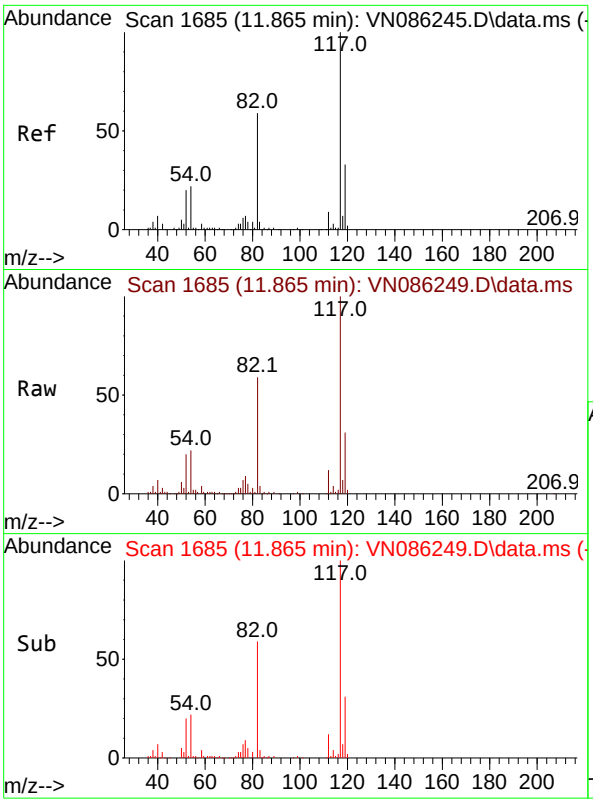


#56
Bromoform
Concen: 19.864 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:173 Resp: 36790

Ion	Ratio	Lower	Upper
173	100		
175	47.3	38.2	57.4
254	5.5	4.5	6.7

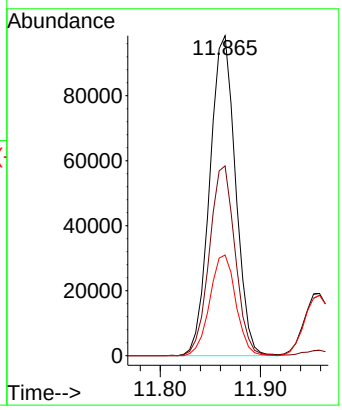




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:117 Resp: 17563

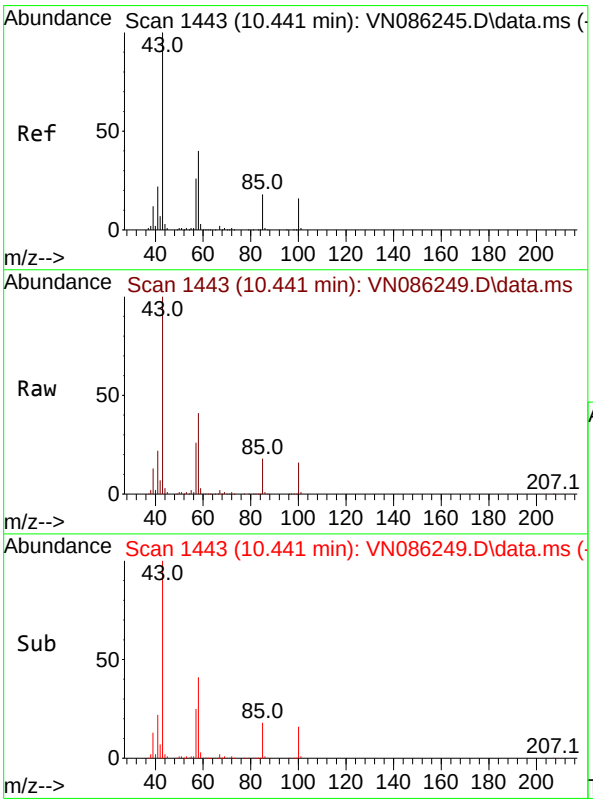
Ion	Ratio	Lower	Upper
117	100		
82	59.5	47.3	70.9
119	31.8	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

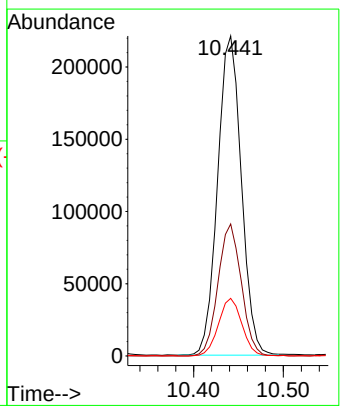
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

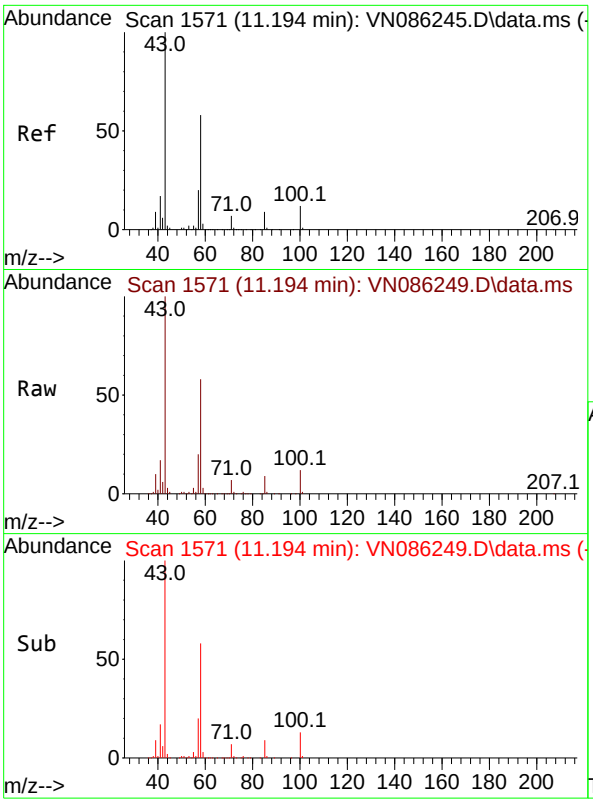


#58
4-Methyl-2-Pentanone
Concen: 101.770 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 405618

Ion	Ratio	Lower	Upper
43	100		
58	40.6	32.5	48.7
85	17.9	14.4	21.6





#59
2-Hexanone
Concen: 100.637 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

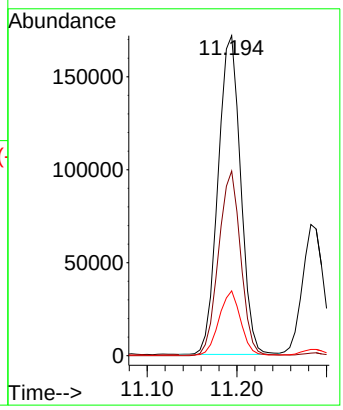
Tgt Ion: 43 Resp: 29867

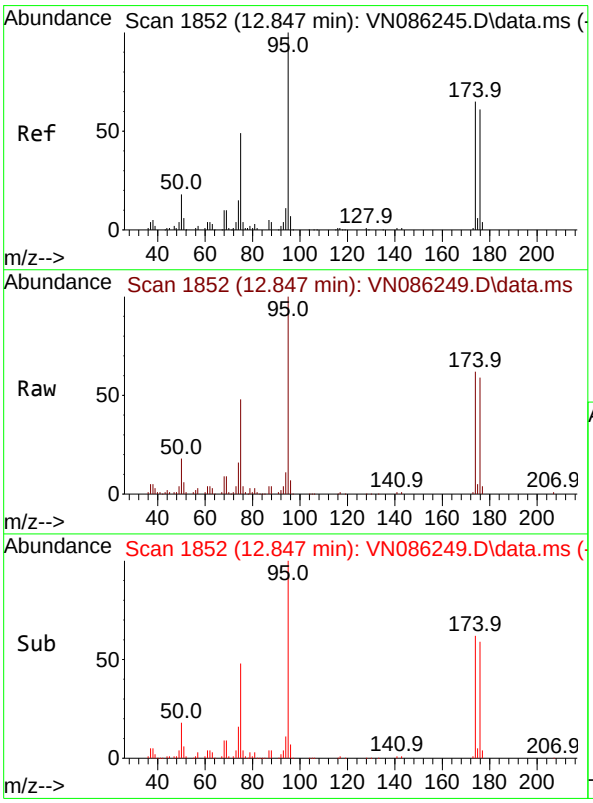
Ion	Ratio	Lower	Upper
43	100		
58	56.8	45.3	67.9
57	19.3	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

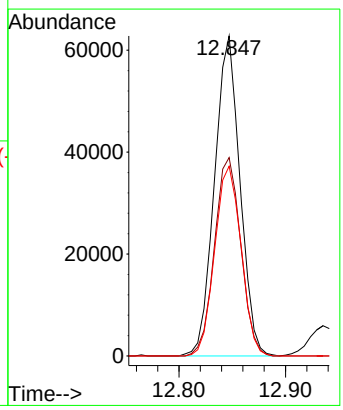


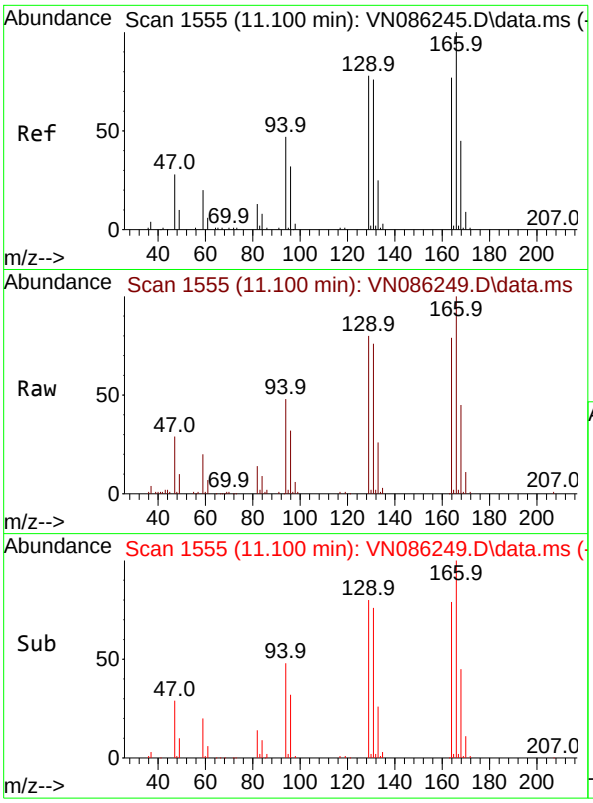


#60
4-Bromofluorobenzene
Concen: 29.838 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 95 Resp: 104335

Ion	Ratio	Lower	Upper
95	100		
174	63.9	52.7	79.1
176	61.2	49.8	74.8

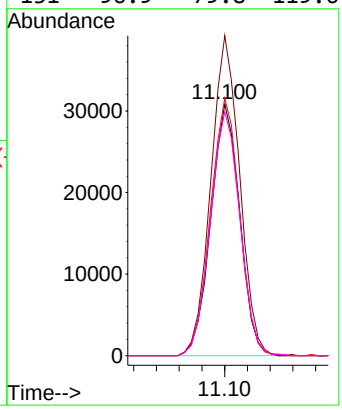




#61
Tetrachloroethene
Concen: 20.949 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:164 Resp: 5433

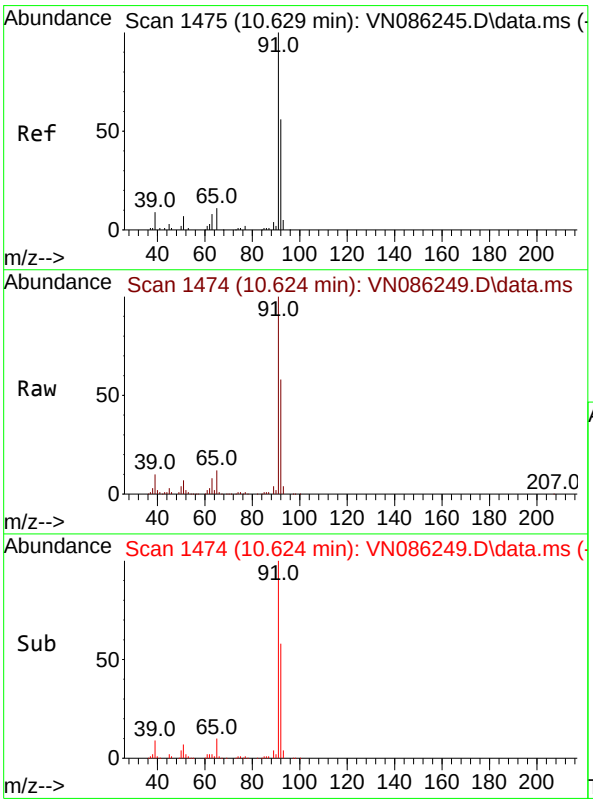
Ion	Ratio	Lower	Upper
164	100		
166	127.2	104.5	156.7
129	102.3	81.7	122.5
131	96.9	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

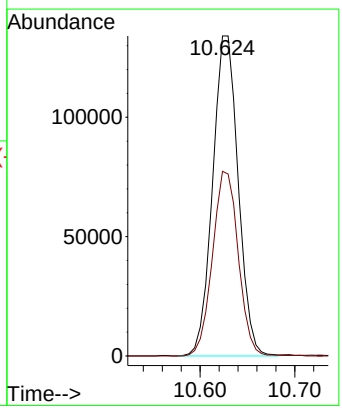
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

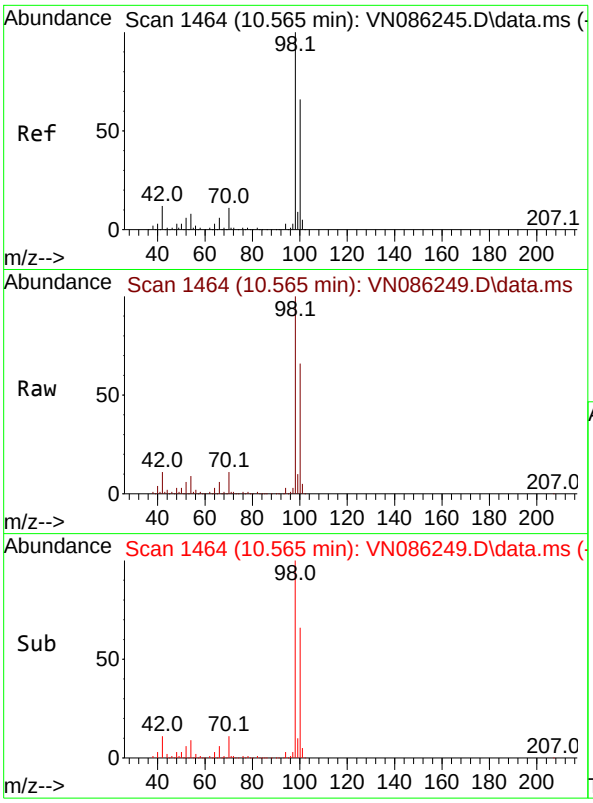


#62
Toluene
Concen: 21.355 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 251566

Ion	Ratio	Lower	Upper
91	100		
92	58.1	46.8	70.2

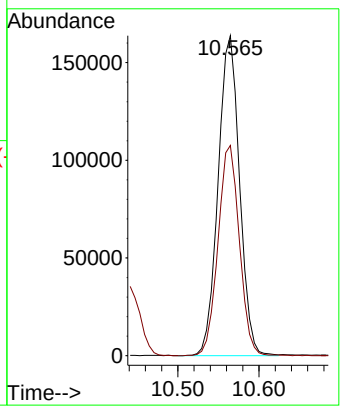




#63
Toluene-d8
Concen: 30.325 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 98 Resp: 30069

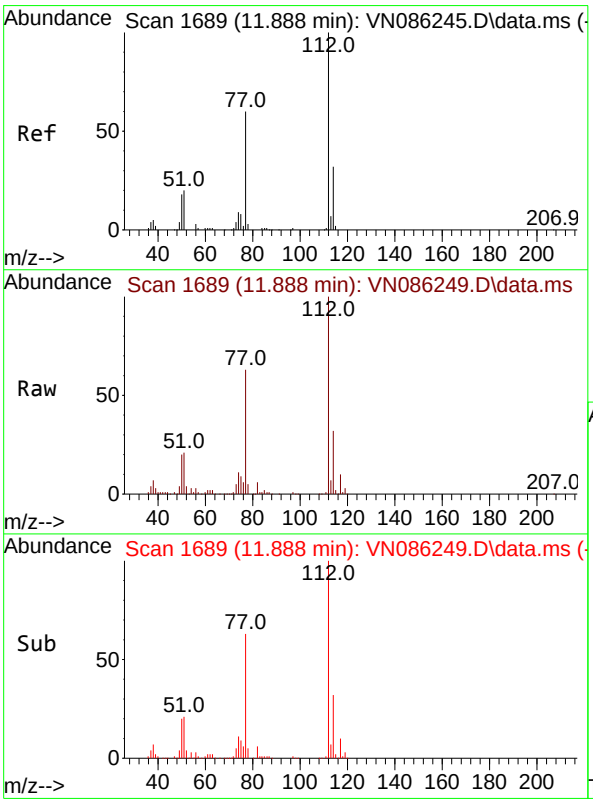
Ion	Ratio	Lower	Upper
98	100		
100	65.3	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

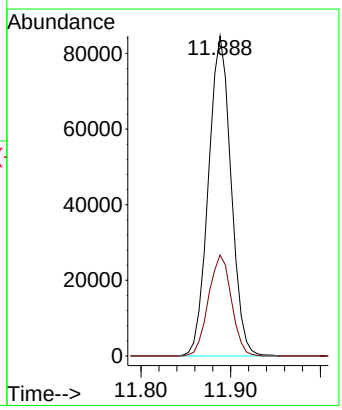
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

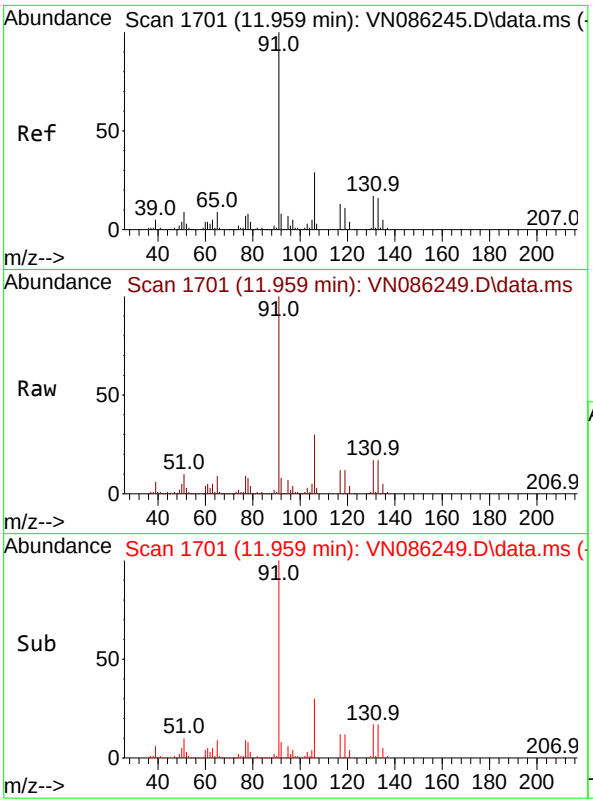


#64
Chlorobenzene
Concen: 20.597 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:112 Resp: 148243

Ion	Ratio	Lower	Upper
112	100		
114	31.5	25.8	38.6

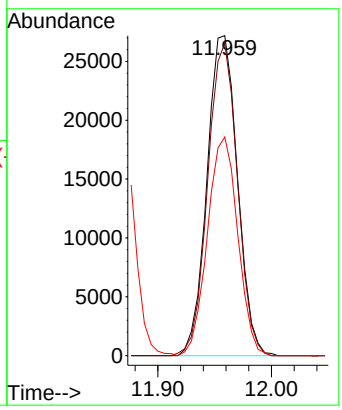




#65
1,1,1,2-Tetrachloroethane
Concen: 21.344 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:131 Resp: 5069

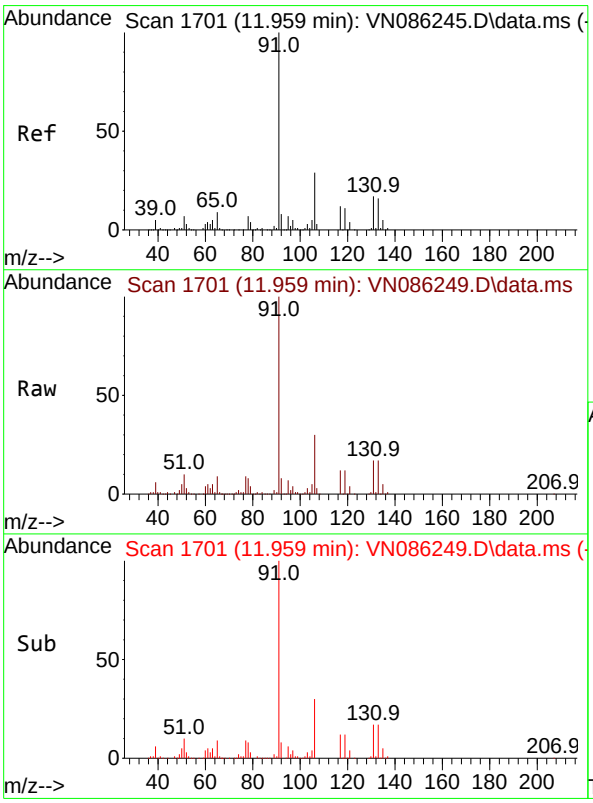
Ion	Ratio	Lower	Upper
131	100		
133	94.9	0.0	190.4
119	67.7	0.0	135.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

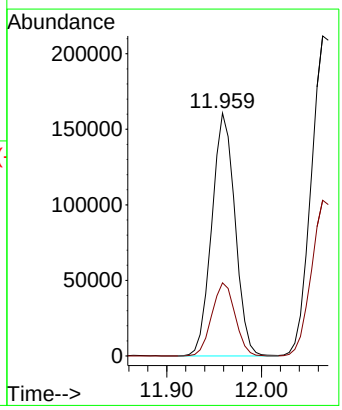
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

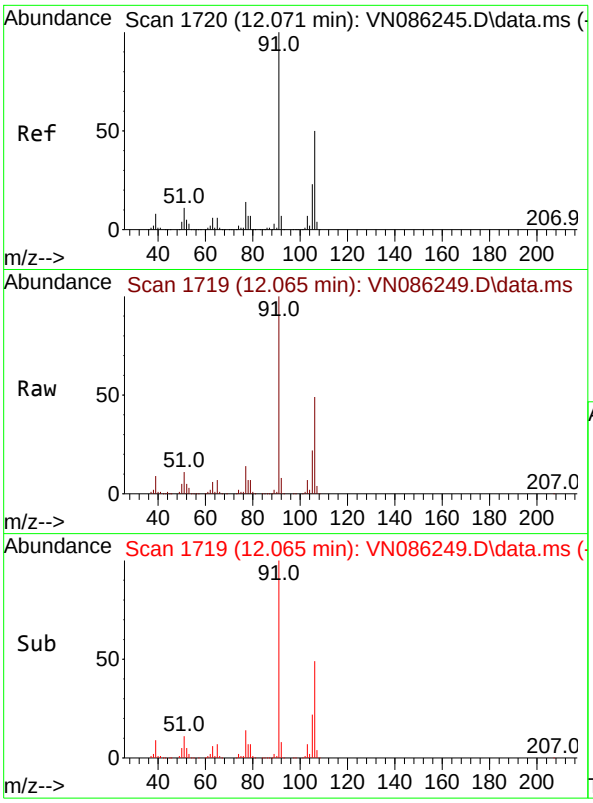


#66
Ethyl Benzene
Concen: 20.960 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 273823

Ion	Ratio	Lower	Upper
91	100		
106	30.1	23.4	35.0

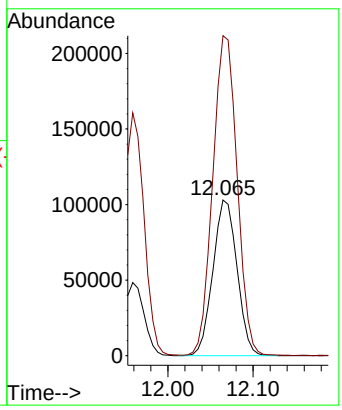




#67
m/p-Xylenes
Concen: 41.705 ug/l
RT: 12.065 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:106 Resp: 20259

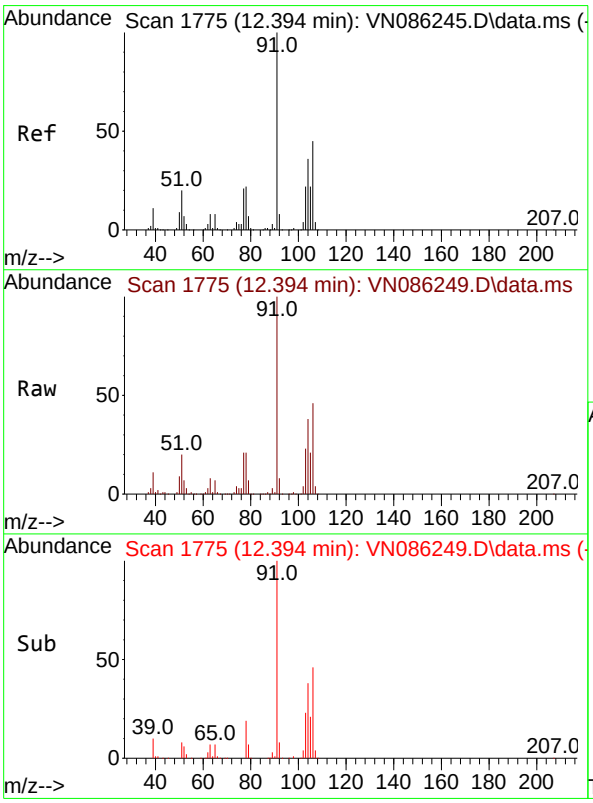
Ion	Ratio	Lower	Upper
106	100		
91	208.3	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

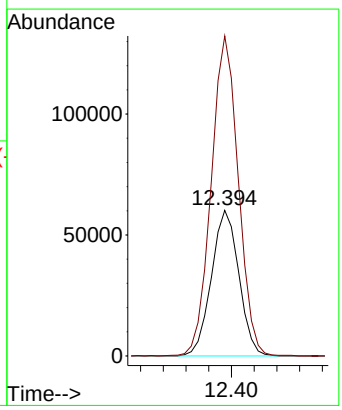
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

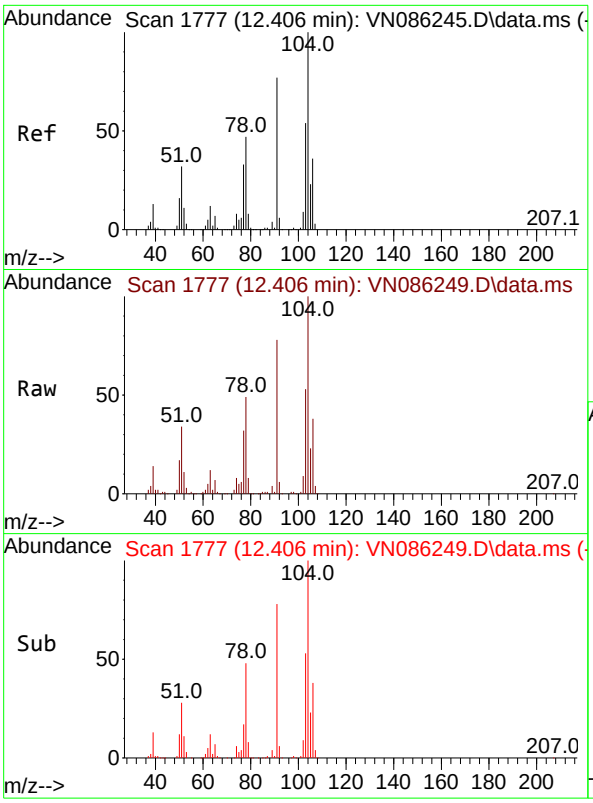


#68
o-Xylene
Concen: 21.129 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:106 Resp: 100957

Ion	Ratio	Lower	Upper
106	100		
91	217.4	109.8	329.4

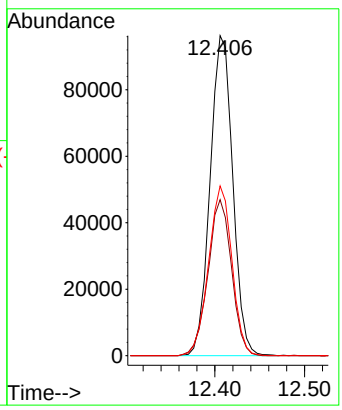




#69
Styrene
Concen: 20.929 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:104 Resp: 16865

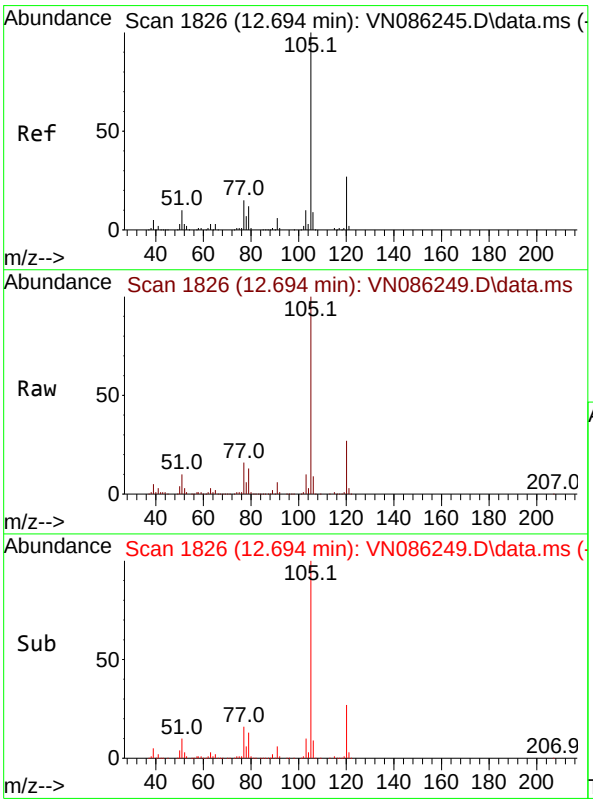
Ion	Ratio	Lower	Upper
104	100		
78	50.7	41.4	62.0
103	54.8	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

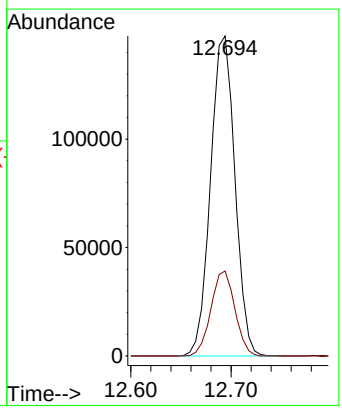
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

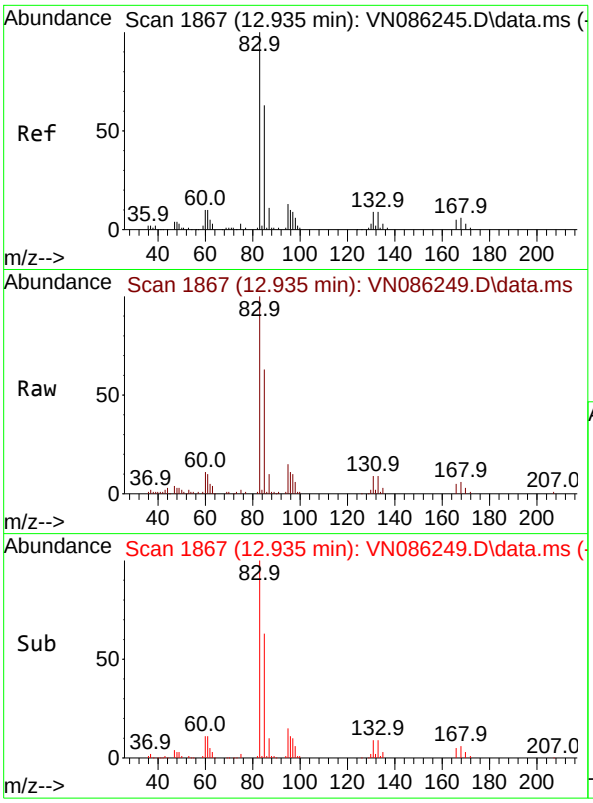


#70
Isopropylbenzene
Concen: 21.200 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 249762

Ion	Ratio	Lower	Upper
105	100		
120	26.0	18.3	34.1





#71
1,1,2,2-Tetrachloroethane
Concen: 20.801 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

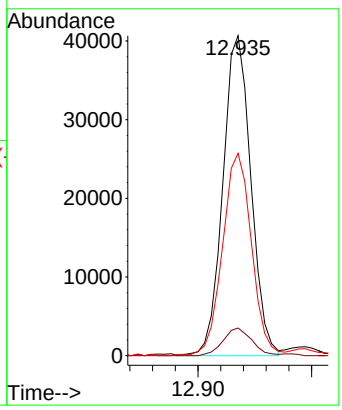
Tgt Ion: 83 Resp: 6975

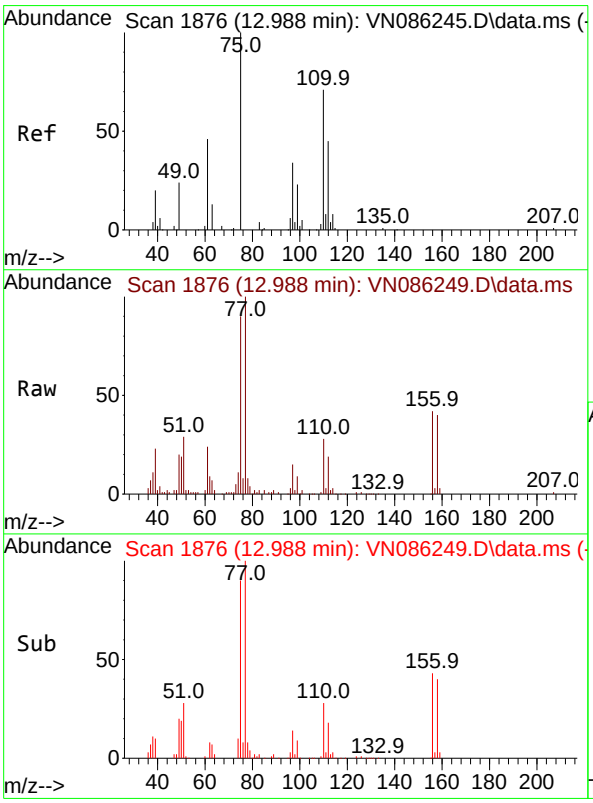
Ion	Ratio	Lower	Upper
83	100		
131	8.9	4.8	14.3
85	65.3	32.3	96.8

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

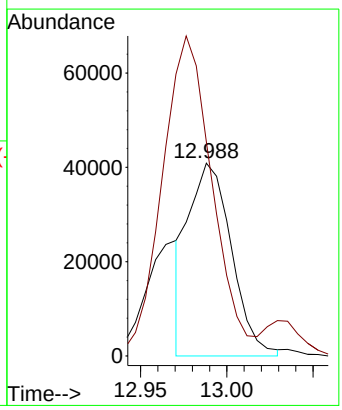


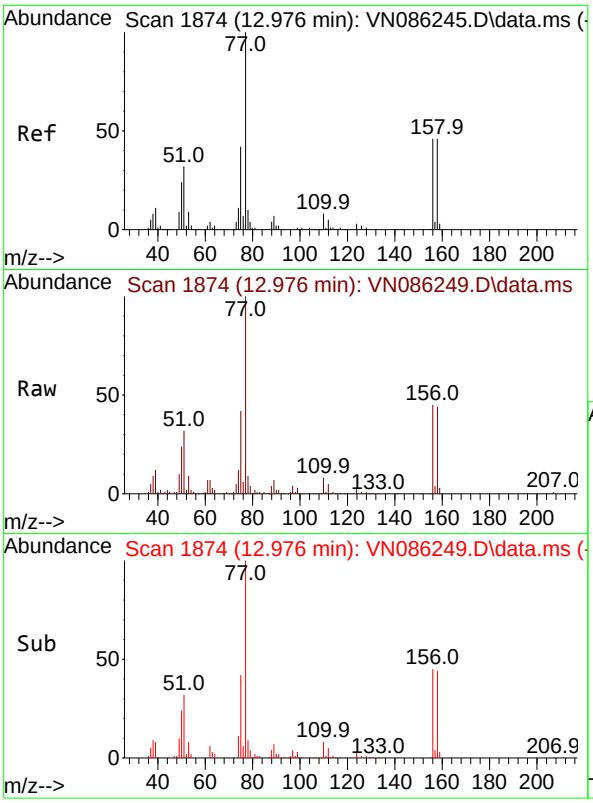


#72
1,2,3-Trichloropropane
Concen: 20.279 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 70785

Ion	Ratio	Lower	Upper
75	100		
77	194.0	0.0	380.0

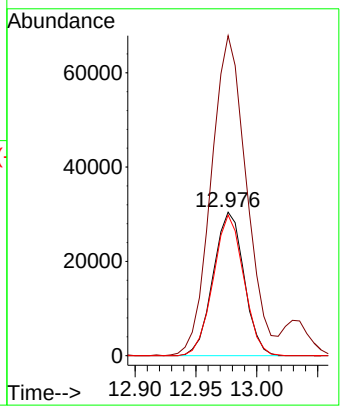




#73
Bromobenzene
Concen: 20.572 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:156 Resp: 5369

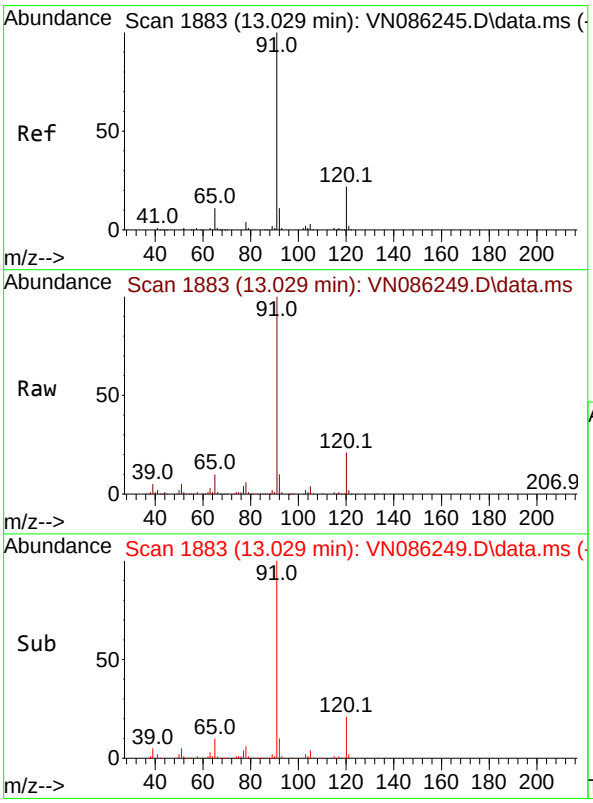
Ion	Ratio	Lower	Upper
156	100		
77	255.8	0.0	505.2
158	96.7	0.0	195.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

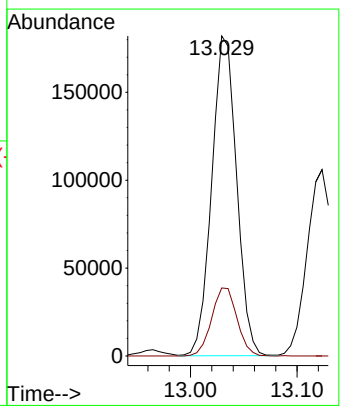
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

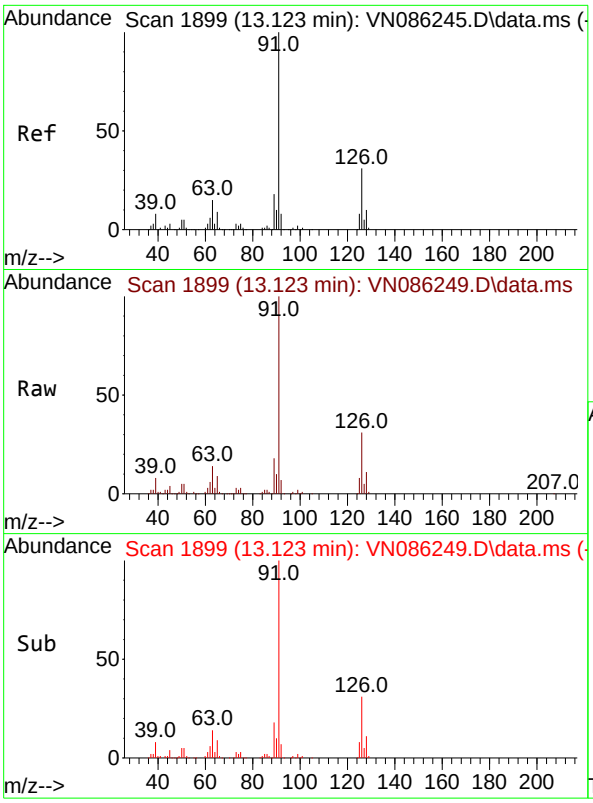


#74
n-propylbenzene
Concen: 21.231 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 295354

Ion	Ratio	Lower	Upper
91	100		
120	21.6	0.0	44.0

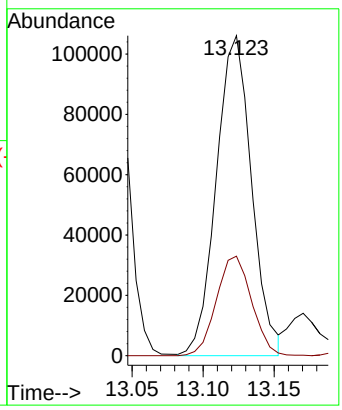




#75
2-Chlorotoluene
Concen: 20.961 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 18328

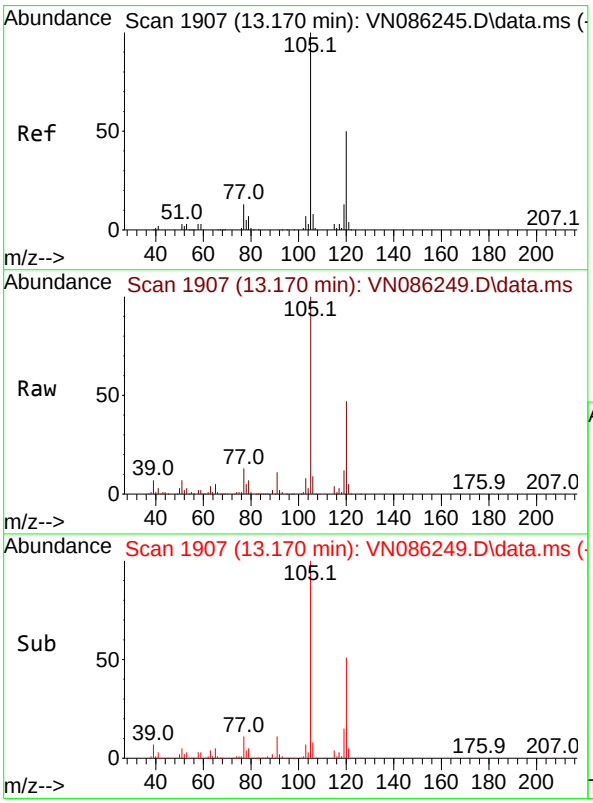
Ion	Ratio	Lower	Upper
91	100		
126	31.0	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

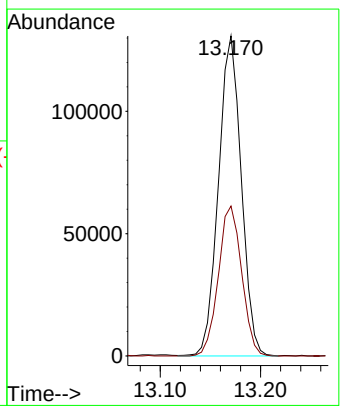
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

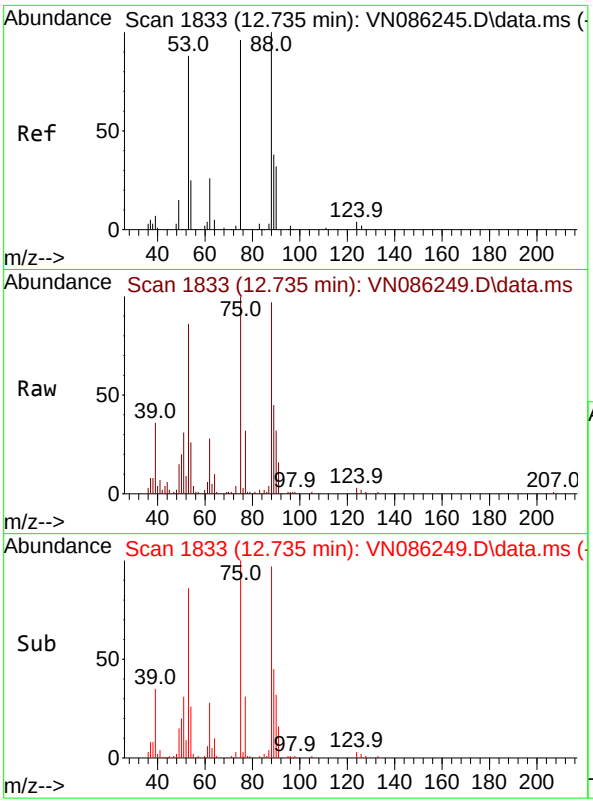


#76
1,3,5-Trimethylbenzene
Concen: 21.352 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 206643

Ion	Ratio	Lower	Upper
105	100		
120	47.8	0.0	98.0

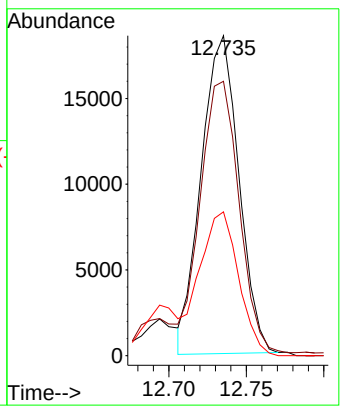




#77
t-1,4-Dichloro-2-butene
Concen: 19.426 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 3126

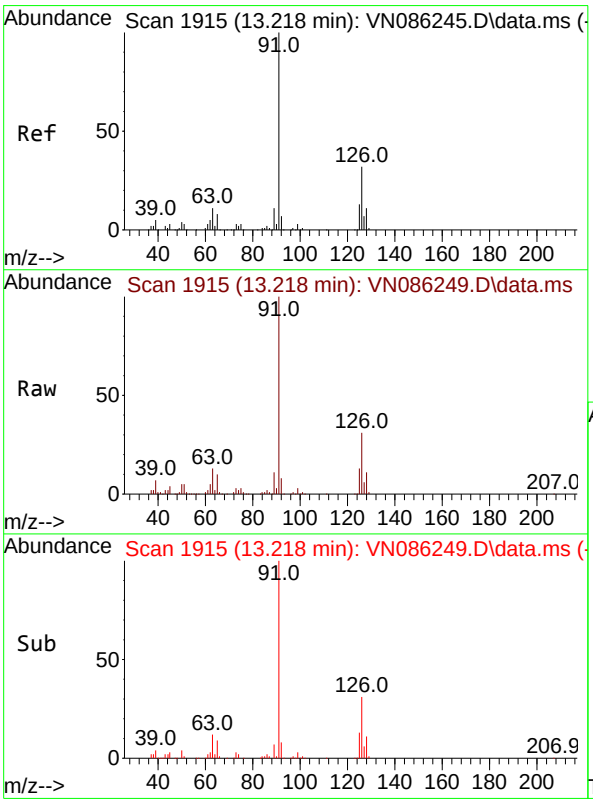
Ion	Ratio	Lower	Upper
75	100		
53	85.1	46.4	139.2
89	45.4	22.5	67.5



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

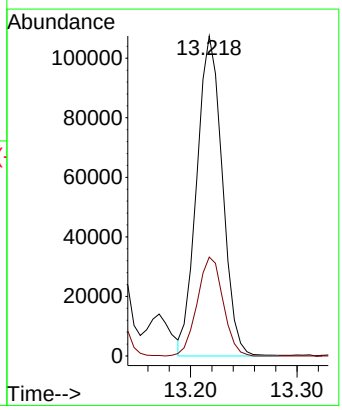
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

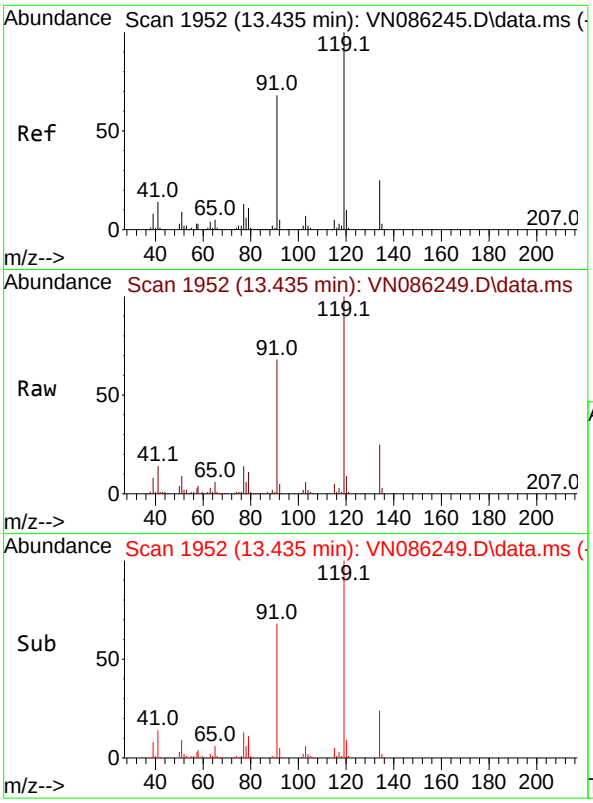


#78
4-Chlorotoluene
Concen: 20.589 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 179801

Ion	Ratio	Lower	Upper
91	100		
126	31.2	0.0	63.2

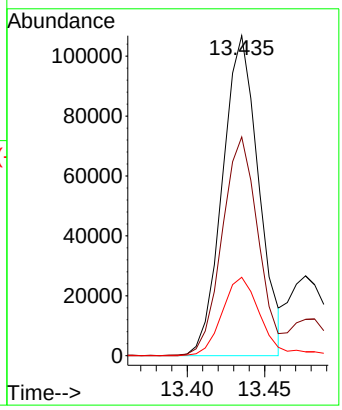




#79
tert-butylbenzene
Concen: 20.714 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:119 Resp: 17345

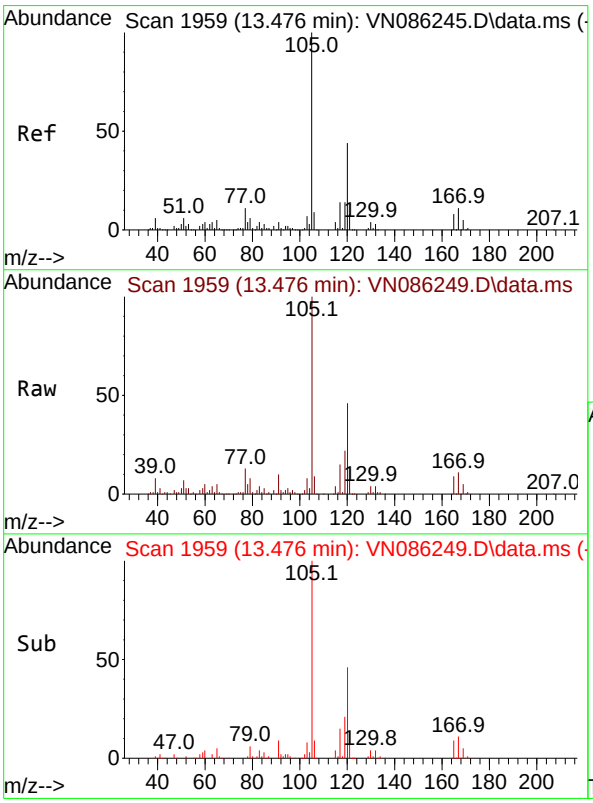
Ion	Ratio	Lower	Upper
119	100		
91	67.9	0.0	136.6
134	26.2	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations
APPROVED

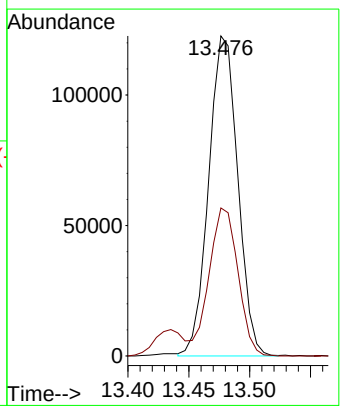
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

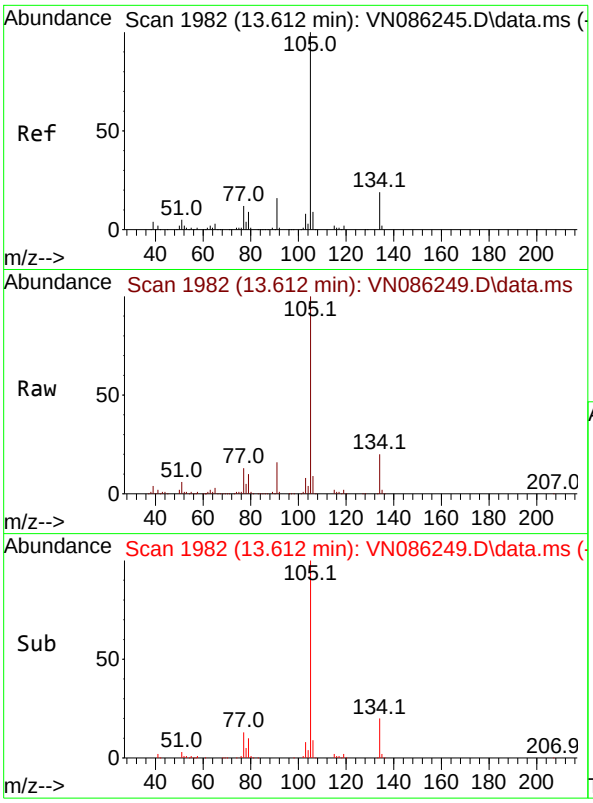


#80
1,2,4-Trimethylbenzene
Concen: 20.782 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 203945

Ion	Ratio	Lower	Upper
105	100		
120	46.4	0.0	91.0

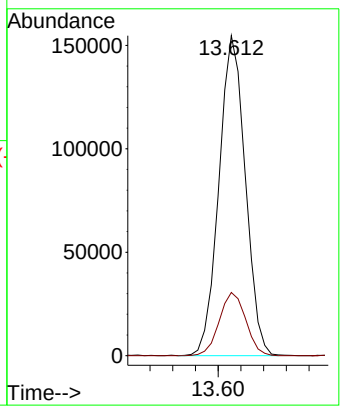




#81
sec-Butylbenzene
Concen: 21.354 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 24944

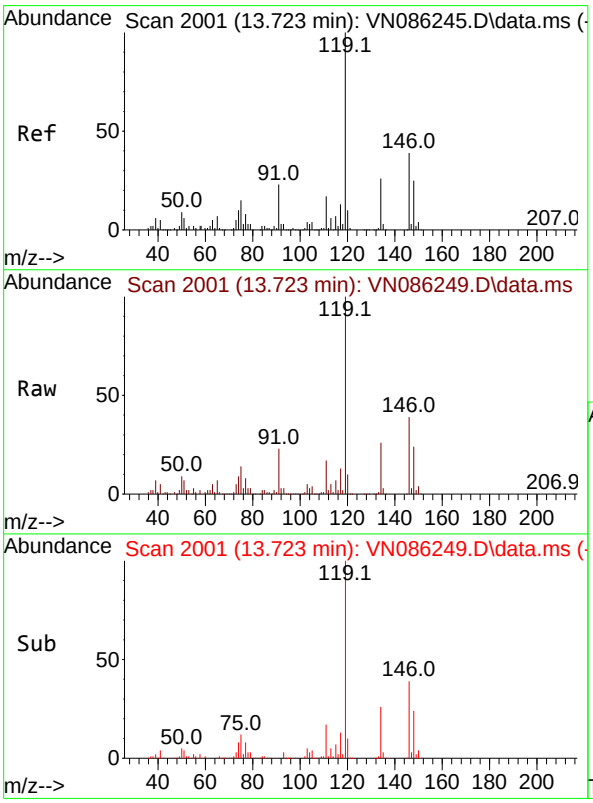
Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

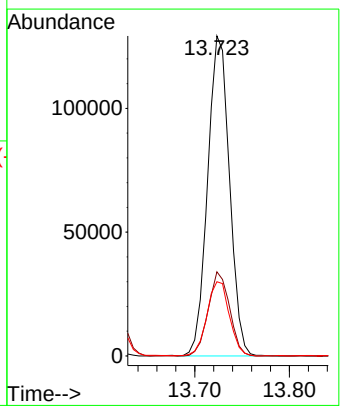
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

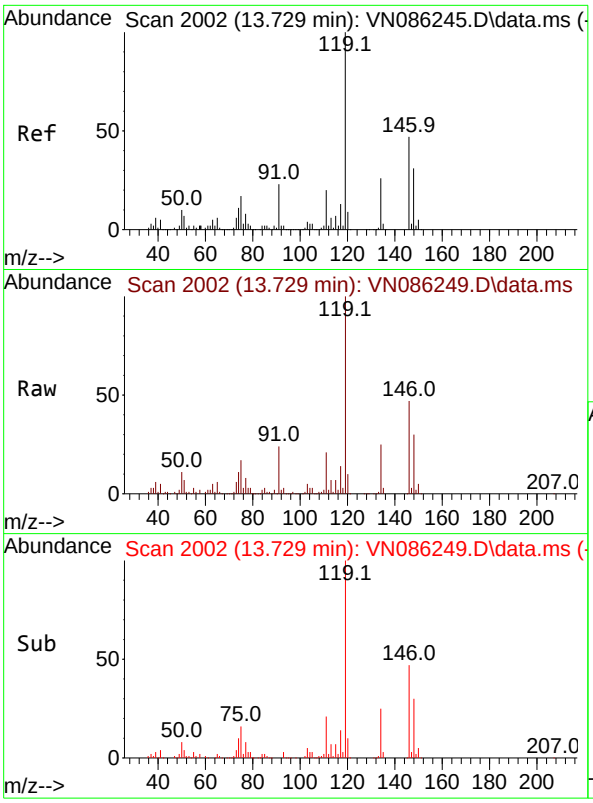


#82
p-Isopropyltoluene
Concen: 21.296 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:119 Resp: 207519

Ion	Ratio	Lower	Upper
119	100		
134	25.7	0.0	51.6
91	23.9	0.0	48.2

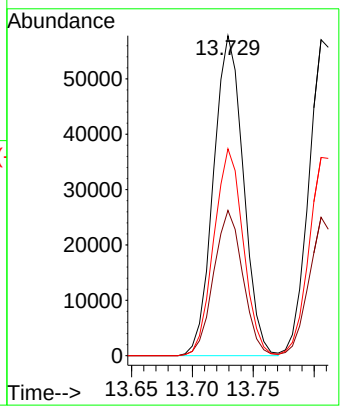




#83
1,3-Dichlorobenzene
Concen: 20.374 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:146 Resp: 9883

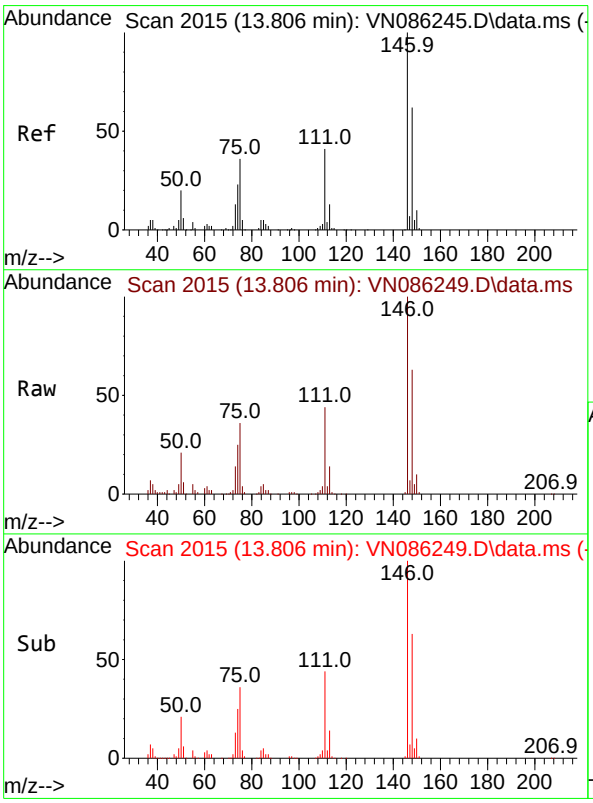
Ion	Ratio	Lower	Upper
146	100		
111	44.4	21.7	65.1
148	63.5	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

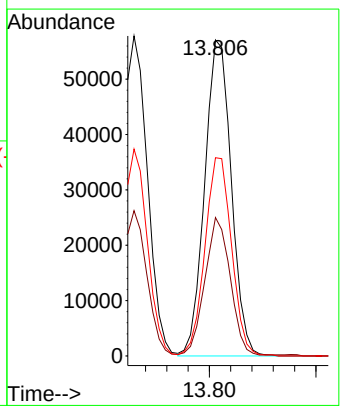
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

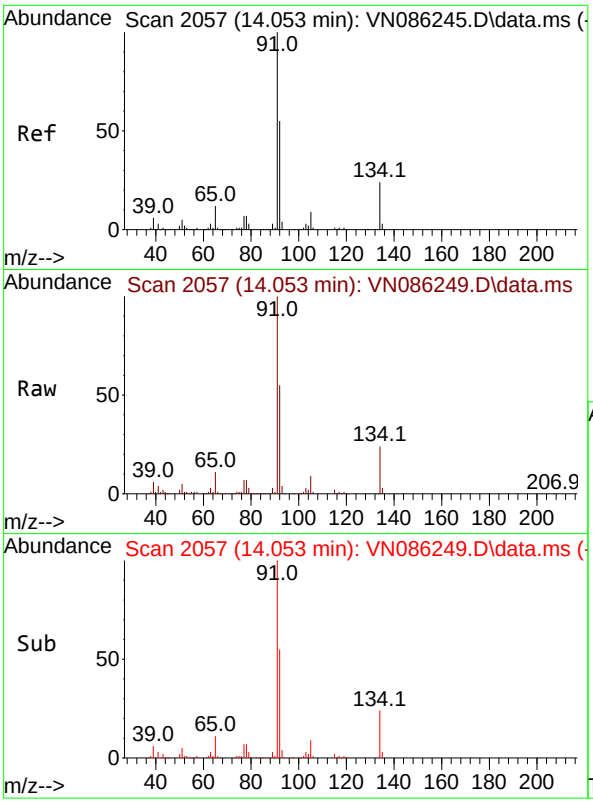


#84
1,4-Dichlorobenzene
Concen: 20.383 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:146 Resp: 99189

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.8	62.4
148	62.9	31.9	95.5

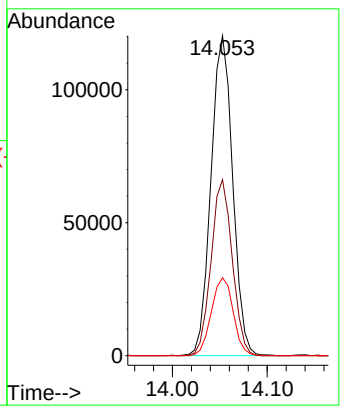




#85
n-Butylbenzene
Concen: 21.761 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 19129

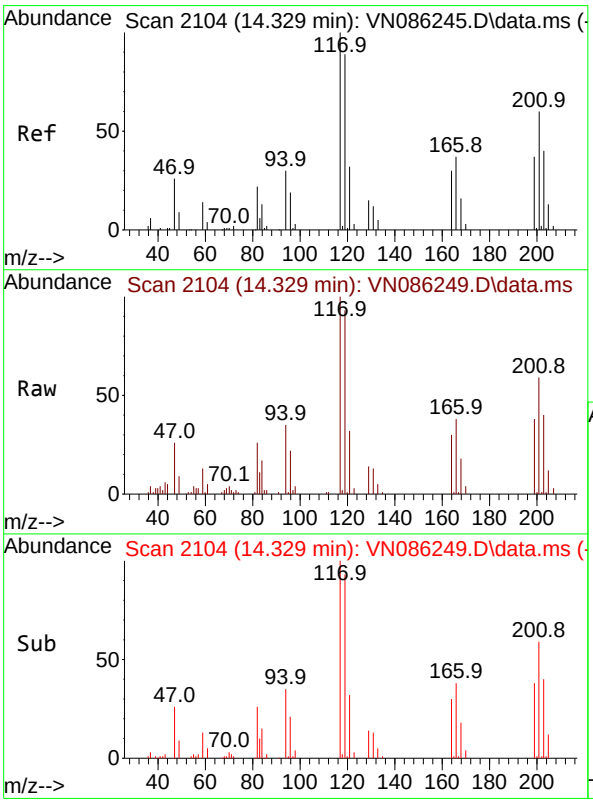
Ion	Ratio	Lower	Upper
91	100		
92	53.6	0.0	109.4
134	24.5	0.0	48.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

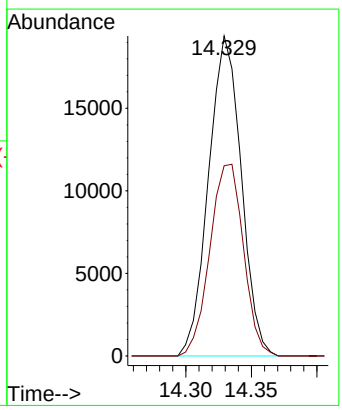
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

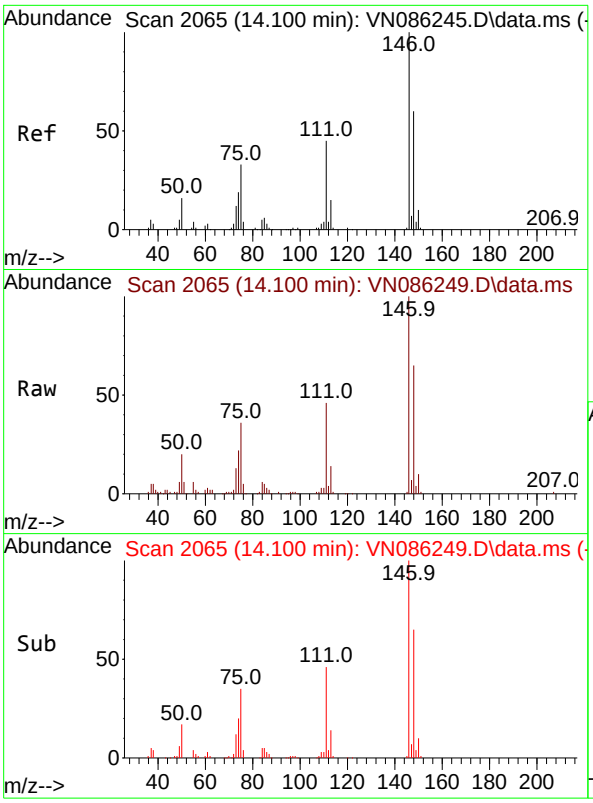


#86
Hexachloroethane
Concen: 20.435 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:117 Resp: 33590

Ion	Ratio	Lower	Upper
117	100		
201	61.5	30.9	92.8

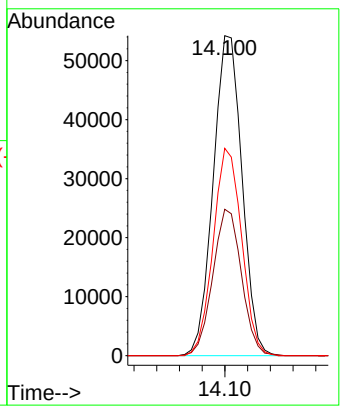




#87
1,2-Dichlorobenzene
Concen: 19.953 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:146 Resp: 9556

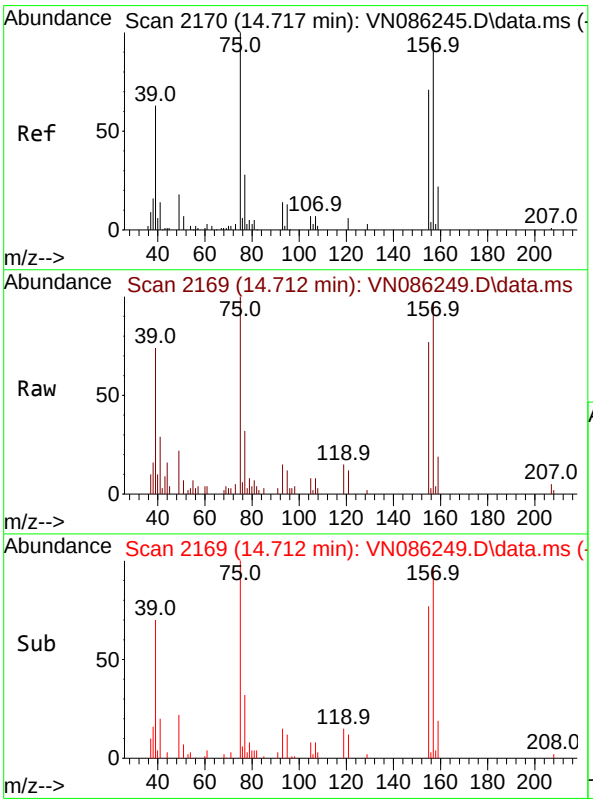
Ion	Ratio	Lower	Upper
146	100		
111	45.5	22.7	68.0
148	64.0	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

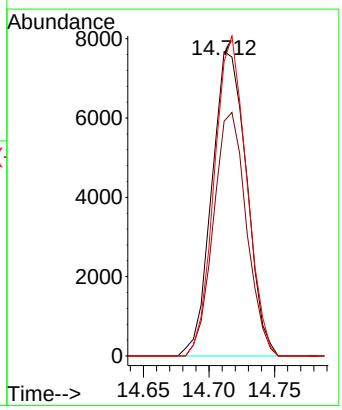
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

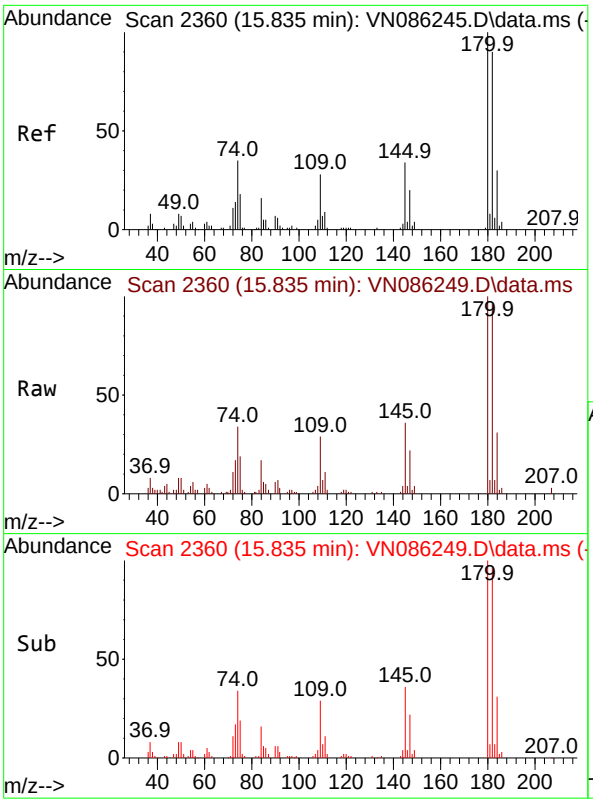


#88
1,2-Dibromo-3-Chloropropane
Concen: 18.539 ug/l
RT: 14.712 min Scan# 2169
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 14160

Ion	Ratio	Lower	Upper
75	100		
155	75.9	60.3	90.5
157	97.1	79.0	118.4

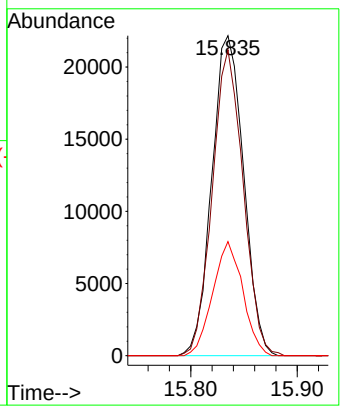




#89
1,2,4-Trichlorobenzene
Concen: 19.736 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:180 Resp: 4599

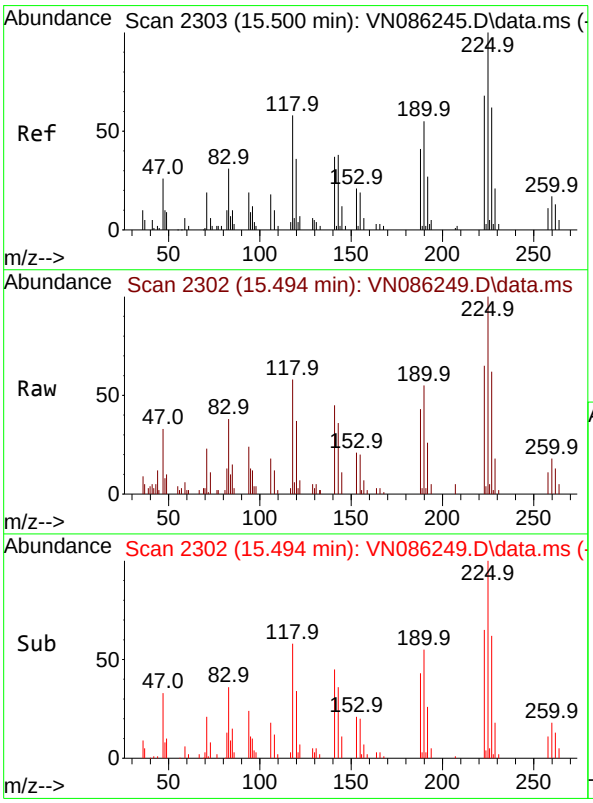
Ion	Ratio	Lower	Upper
180	100		
182	92.4	75.1	112.7
145	33.7	27.1	40.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

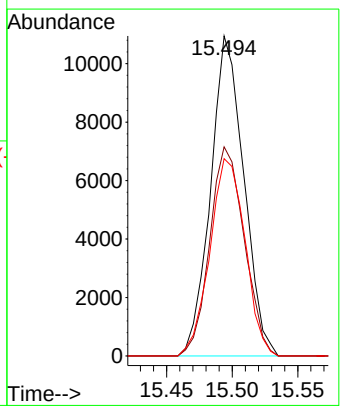
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

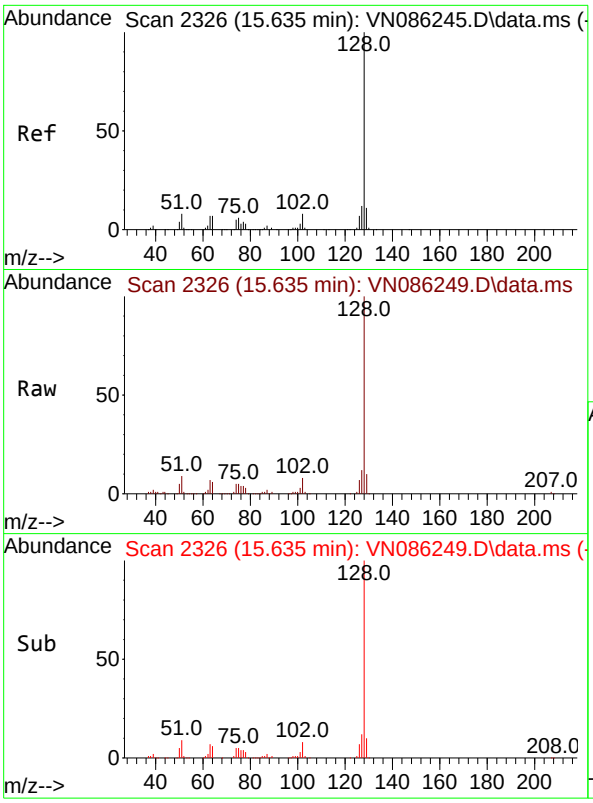


#90
Hexachlorobutadiene
Concen: 19.154 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:225 Resp: 19273

Ion	Ratio	Lower	Upper
225	100		
223	67.9	0.0	130.0
227	65.2	0.0	123.2

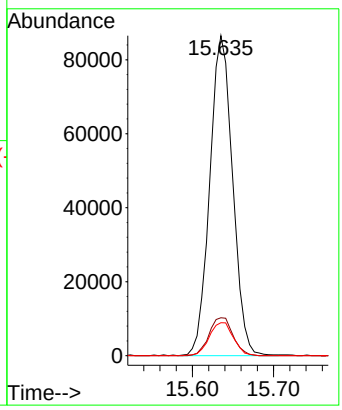




#91
Naphthalene
Concen: 18.449 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:128 Resp: 16951

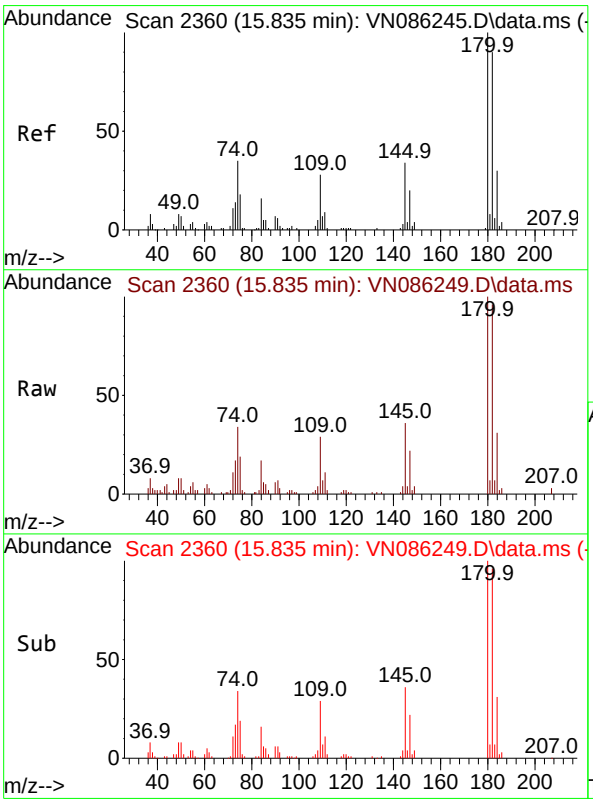
Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.2
129	10.9	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Manual Integrations APPROVED

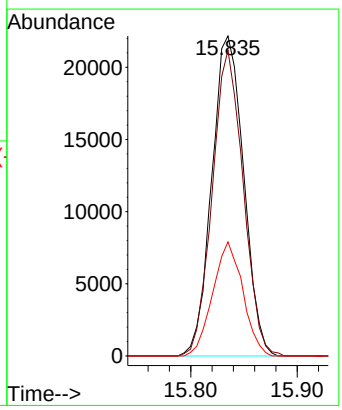
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 19.736 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:180 Resp: 45993

Ion	Ratio	Lower	Upper
180	100		
182	92.4	0.0	187.8
145	33.7	0.0	67.8



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VN0411WBSD01		SDG No.:	Q1774	
Lab Sample ID:	VN0411WBSD01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086250.D	1		04/11/25 15:16	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.2		0.77	5.00	ug/L
74-87-3	Chloromethane	19.2		0.64	5.00	ug/L
75-01-4	Vinyl Chloride	19.3		0.83	5.00	ug/L
74-83-9	Bromomethane	19.2		0.80	5.00	ug/L
75-00-3	Chloroethane	19.1		2.30	5.00	ug/L
75-69-4	Trichlorofluoromethane	19.4		0.80	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.7		0.96	5.00	ug/L
75-35-4	1,1-Dichloroethene	19.1		0.76	5.00	ug/L
107-02-8	Acrolein	97.7		6.60	25.0	ug/L
107-13-1	Acrylonitrile	100		2.80	25.0	ug/L
67-64-1	Acetone	100		4.60	25.0	ug/L
75-15-0	Carbon Disulfide	19.0		0.82	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	21.1		0.77	5.00	ug/L
79-20-9	Methyl Acetate	20.9		0.91	5.00	ug/L
75-09-2	Methylene Chloride	19.9		0.86	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.8		0.82	5.00	ug/L
75-34-3	1,1-Dichloroethane	20.1		0.68	5.00	ug/L
110-82-7	Cyclohexane	19.3		0.92	5.00	ug/L
78-93-3	2-Butanone	110		2.00	25.0	ug/L
56-23-5	Carbon Tetrachloride	20.6		0.74	5.00	ug/L
594-20-7	2,2-Dichloropropane	20.6		0.66	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.7		0.80	5.00	ug/L
67-66-3	Chloroform	19.9		0.55	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.3		0.63	5.00	ug/L
108-87-2	Methylcyclohexane	20.1		0.73	5.00	ug/L
563-58-6	1,1-Dichloropropene	20.6		0.63	5.00	ug/L
71-43-2	Benzene	20.8		0.45	5.00	ug/L
107-06-2	1,2-Dichloroethane	21.4		0.50	5.00	ug/L
79-01-6	Trichloroethene	20.5		0.49	5.00	ug/L
78-87-5	1,2-Dichloropropane	21.4		0.46	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VN0411WBSD01		SDG No.:	Q1774	
Lab Sample ID:	VN0411WBSD01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086250.D	1		04/11/25 15:16	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	21.2		0.59	5.00	ug/L
75-27-4	Bromodichloromethane	21.2		0.64	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		3.00	25.0	ug/L
108-88-3	Toluene	20.7		0.46	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	21.4		0.72	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	21.4		0.67	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	21.6		0.45	5.00	ug/L
142-28-9	1,3-Dichloropropane	21.9		0.44	5.00	ug/L
591-78-6	2-Hexanone	110		3.20	25.0	ug/L
124-48-1	Dibromochloromethane	21.7		0.66	5.00	ug/L
106-93-4	1,2-Dibromoethane	21.5		0.56	5.00	ug/L
127-18-4	Tetrachloroethene	20.3		0.84	5.00	ug/L
108-90-7	Chlorobenzene	20.6		0.47	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	21.2		0.62	5.00	ug/L
67-72-1	Hexachloroethane	19.5		0.98	5.00	ug/L
100-41-4	Ethyl Benzene	20.2		0.56	5.00	ug/L
179601-23-1	m/p-Xylenes	40.7		1.30	10.0	ug/L
95-47-6	o-Xylene	20.8		0.67	5.00	ug/L
100-42-5	Styrene	20.9		0.72	5.00	ug/L
75-25-2	Bromoform	20.8		0.94	5.00	ug/L
98-82-8	Isopropylbenzene	20.4		0.78	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	21.6		0.44	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	21.3		0.62	5.00	ug/L
108-86-1	Bromobenzene	20.7		0.59	5.00	ug/L
103-65-1	n-propylbenzene	20.3		0.67	5.00	ug/L
95-49-8	2-Chlorotoluene	20.1		0.64	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	20.5		0.59	5.00	ug/L
106-43-4	4-Chlorotoluene	20.0		0.62	5.00	ug/L
98-06-6	tert-butylbenzene	19.8		0.71	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.5		0.77	5.00	ug/L
135-98-8	sec-Butylbenzene	20.2		0.64	5.00	ug/L

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN0411WBSD01	SDG No.:	Q1774
Lab Sample ID:	VN0411WBSD01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group4
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN086250.D	1		04/11/25 15:16	VN041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	20.1		0.70	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.3		0.67	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	20.1		0.81	5.00	ug/L
104-51-8	n-Butylbenzene	20.3		0.82	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	20.5		0.67	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.5		0.86	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.5		1.00	5.00	ug/L
87-68-3	Hexachlorobutadiene	19.2		0.68	5.00	ug/L
91-20-3	Naphthalene	20.7		1.00	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	20.5		1.10	5.00	ug/L
74-88-4	Methyl Iodide	19.1		0.91	5.00	ug/L
80-62-6	Methyl methacrylate	21.1		0.71	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.2		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.8		91 - 112	99%	SPK: 30
460-00-4	4-Bromofluorobenzene	29.6		63 - 112	99%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	34700	7.812			
540-36-3	1,4-Difluorobenzene	203000	9.1			
3114-55-4	Chlorobenzene-d5	180000	11.859			

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\VN041125\
Data File : VN086250.D
Acq On : 11 Apr 2025 15:16
Operator : JC\MD
Sample : VN0411WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 12 01:49:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	34735	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	202525	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.859	117	180363	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.576	65	102343	30.208	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.700%			
60) 4-Bromofluorobenzene	12.847	95	106256	29.590	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 98.633%			
63) Toluene-d8	10.565	98	303469	29.803	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.333%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	56086	20.153	ug/l	92
3) Chloromethane	2.359	50	73828	19.194	ug/l	98
4) Vinyl Chloride	2.518	62	70644	19.281	ug/l	93
5) Bromomethane	2.965	94	35079	19.194	ug/l	100
6) Chloroethane	3.124	64	44166	19.089	ug/l	96
7) Trichlorofluoromethane	3.500	101	77277	19.443	ug/l	96
8) Diethyl Ether	3.959	74	38725	21.128	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.371	101	48170	19.655	ug/l	98
10) 1,1-Dichloroethene	4.341	96	50453	19.075	ug/l	98
11) Methyl Iodide	4.589	142	58142	19.126	ug/l	99
12) Methyl Acetate	5.018	43	77938	20.867	ug/l	99
13) Acrolein	4.177	56	41459	97.652	ug/l	95
14) Acrylonitrile	5.718	53	157824	100.092	ug/l	98
15) Acetone	4.424	58	40914	102.336	ug/l	90
16) Carbon Disulfide	4.712	76	144392	19.038	ug/l	98
17) Allyl chloride	5.018	41	93530	20.289	ug/l	96
18) Methylene Chloride	5.271	84	60034	19.908	ug/l	94
19) trans-1,2-Dichloroethene	5.783	96	52359	18.794	ug/l	97
20) Diisopropyl ether	6.671	45	208832	21.072	ug/l	97
21) 1,1-Dichloroethane	6.565	63	106033	20.053	ug/l	97
22) cis-1,2-Dichloroethene	7.482	96	65216	19.651	ug/l	99
23) tert-Butyl Alcohol	5.512	59	63490	97.177	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	201155	21.074	ug/l	98
25) Chloroform	7.965	83	100265	19.885	ug/l	96
26) Cyclohexane	8.253	56	95525	19.310	ug/l #	100
29) 1,1-Dichloropropene	8.365	75	74865	20.635	ug/l	98
30) 2-Butanone	7.477	43	214454	106.676	ug/l	100
31) 2,2-Dichloropropane	7.488	77	92014	20.604	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	84856	20.333	ug/l	99
33) Carbon Tetrachloride	8.359	117	68854	20.645	ug/l	98
34) Benzene	8.606	78	240477	20.834	ug/l	97
35) Methacrylonitrile	7.777	41	48115	21.230	ug/l	97
36) 1,2-Dichloroethane	8.671	62	77436	21.439	ug/l	99
37) Trichloroethene	9.347	130	57010	20.471	ug/l	97
38) Methylcyclohexane	9.600	83	89548	20.125	ug/l	99
39) 1,2-Dichloropropane	9.618	63	61439	21.392	ug/l	96
40) Dibromomethane	9.706	93	39298	21.185	ug/l	99
41) Bromodichloromethane	9.888	83	84468	21.197	ug/l	98
42) Vinyl Acetate	6.600	43	753748	110.147	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086250.D
Acq On : 11 Apr 2025 15:16
Operator : JC\MD
Sample : VN0411WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 12 01:49:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Ethyl Acetate	7.559	43	84905	20.939 ug/l	95
44) Isopropyl Acetate	8.682	43	160910	21.391 ug/l	99
45) 1,4-Dioxane	9.688	88	23420	391.526 ug/l #	91
46) Methyl methacrylate	9.676	41	69895	21.088 ug/l	96
47) n-amyl Acetate	12.488	43	126575	21.222 ug/l	99
48) t-1,3-Dichloropropene	10.835	75	96458	21.411 ug/l	99
49) cis-1,3-Dichloropropene	10.312	75	102066	21.406 ug/l	99
50) 1,1,2-Trichloroethane	11.012	97	56096	21.561 ug/l	97
51) Ethyl methacrylate	10.870	69	105140	21.747 ug/l	97
52) 1,3-Dichloropropane	11.159	76	101323	21.850 ug/l	100
53) Dibromochloromethane	11.359	129	61771	21.706 ug/l	98
54) 1,2-Dibromoethane	11.465	107	56526	21.523 ug/l	100
55) 2-Chloroethyl vinyl ether	10.159	63	254446	139.276 ug/l	99
56) Bromoform	12.576	173	38804	20.842 ug/l	99
58) 4-Methyl-2-Pentanone	10.441	43	446372	109.058 ug/l	99
59) 2-Hexanone	11.194	43	321747	105.569 ug/l	100
61) Tetrachloroethene	11.100	164	53974	20.264 ug/l	97
62) Toluene	10.629	91	250492	20.706 ug/l	100
64) Chlorobenzene	11.888	112	152512	20.635 ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	51756	21.219 ug/l	99
66) Ethyl Benzene	11.959	91	271487	20.236 ug/l	96
67) m/p-Xylenes	12.070	106	203138	40.720 ug/l	100
68) o-Xylene	12.394	106	102269	20.842 ug/l	97
69) Styrene	12.406	104	172721	20.872 ug/l	98
70) Isopropylbenzene	12.694	105	247015	20.417 ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.935	83	74426	21.612 ug/l	98
72) 1,2,3-Trichloropropane	12.988	75	76312m	21.289 ug/l	
73) Bromobenzene	12.976	156	55372	20.660 ug/l	97
74) n-propylbenzene	13.035	91	290430	20.330 ug/l	99
75) 2-Chlorotoluene	13.123	91	180253	20.074 ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	203242	20.450 ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	33778	20.436 ug/l	92
78) 4-Chlorotoluene	13.217	91	179336	19.997 ug/l	99
79) tert-butylbenzene	13.435	119	170326	19.806 ug/l	99
80) 1,2,4-Trimethylbenzene	13.476	105	206236	20.464 ug/l	98
81) sec-Butylbenzene	13.611	105	242336	20.202 ug/l	100
82) p-Isopropyltoluene	13.723	119	201123	20.098 ug/l	100
83) 1,3-Dichlorobenzene	13.729	146	101287	20.332 ug/l	98
84) 1,4-Dichlorobenzene	13.811	146	100671	20.144 ug/l	99
85) n-Butylbenzene	14.053	91	183068	20.279 ug/l	99
86) Hexachloroethane	14.329	117	32907	19.494 ug/l	99
87) 1,2-Dichlorobenzene	14.106	146	100901	20.514 ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	16110	20.539 ug/l	97
89) 1,2,4-Trichlorobenzene	15.835	180	48993	20.472 ug/l	99
90) Hexachlorobutadiene	15.494	225	19853	19.213 ug/l	99
91) Naphthalene	15.635	128	194900	20.655 ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	48993	20.472 ug/l	99

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

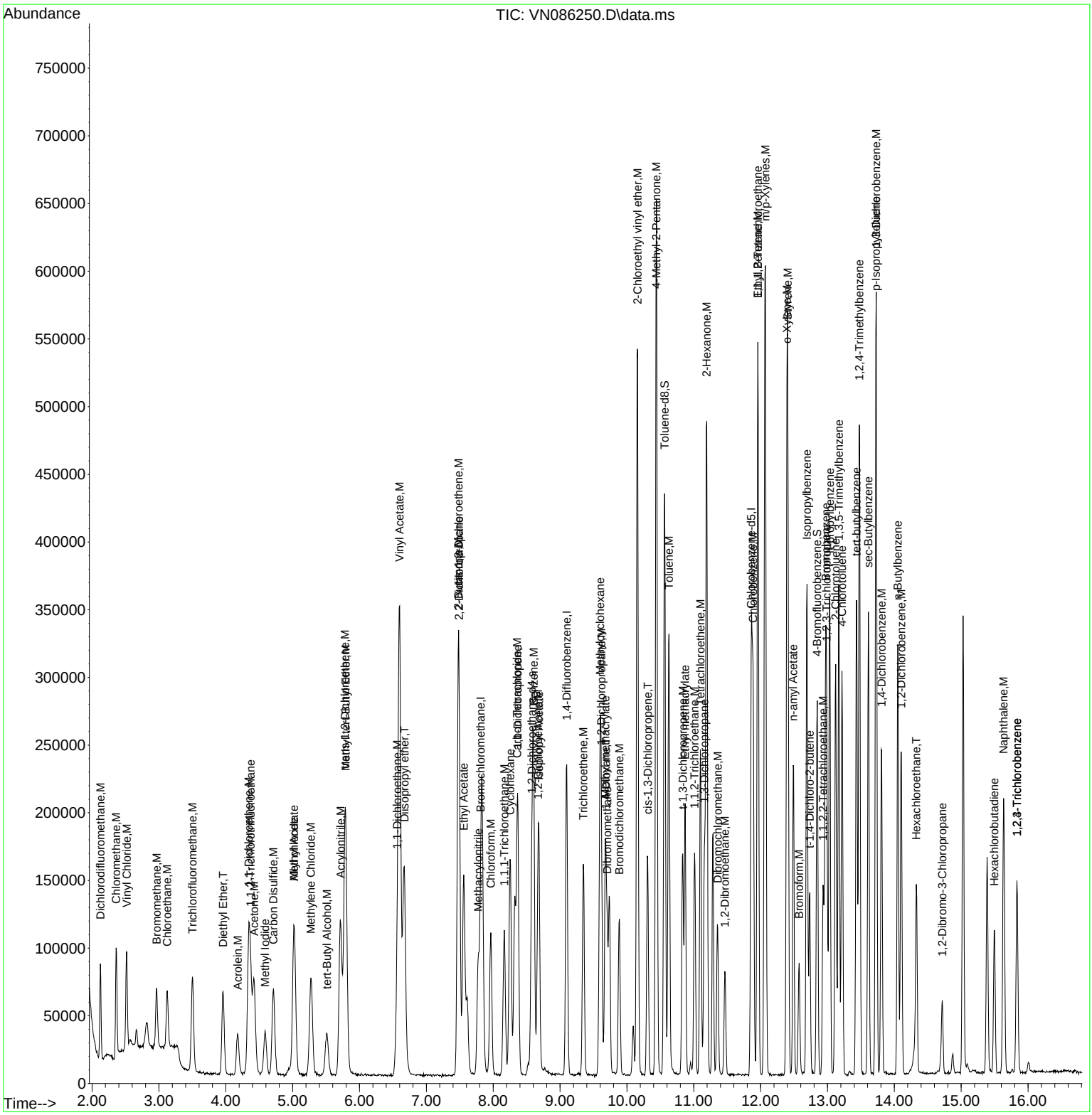
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086250.D
Acq On : 11 Apr 2025 15:16
Operator : JC\MD
Sample : VN0411WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

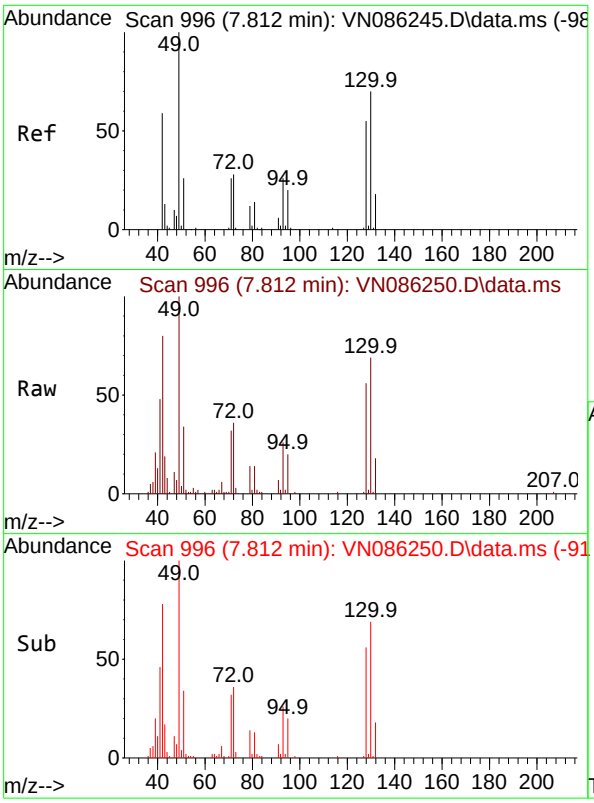
Quant Time: Apr 12 01:49:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

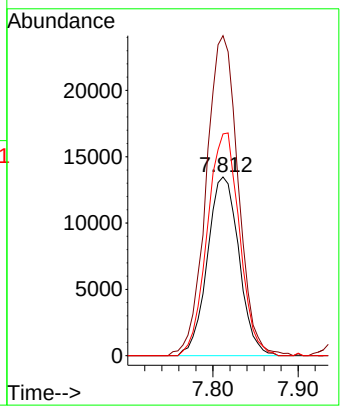




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:128 Resp: 3473

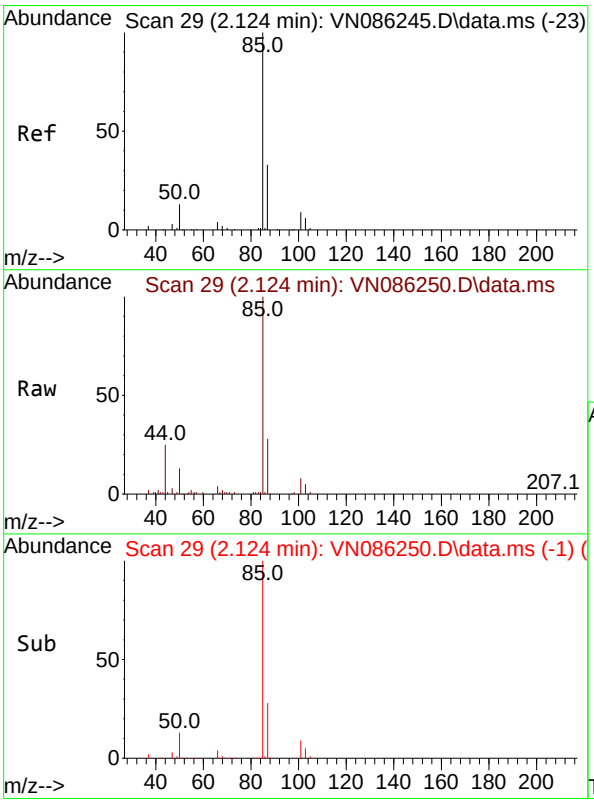
Ion	Ratio	Lower	Upper
128	100		
49	181.2	0.0	452.5
130	127.0	0.0	315.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

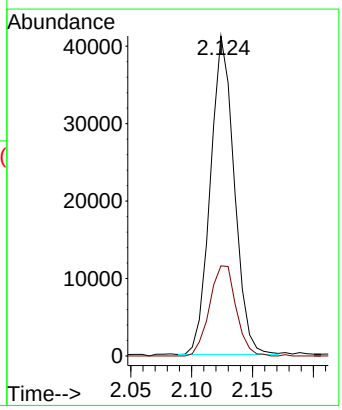
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

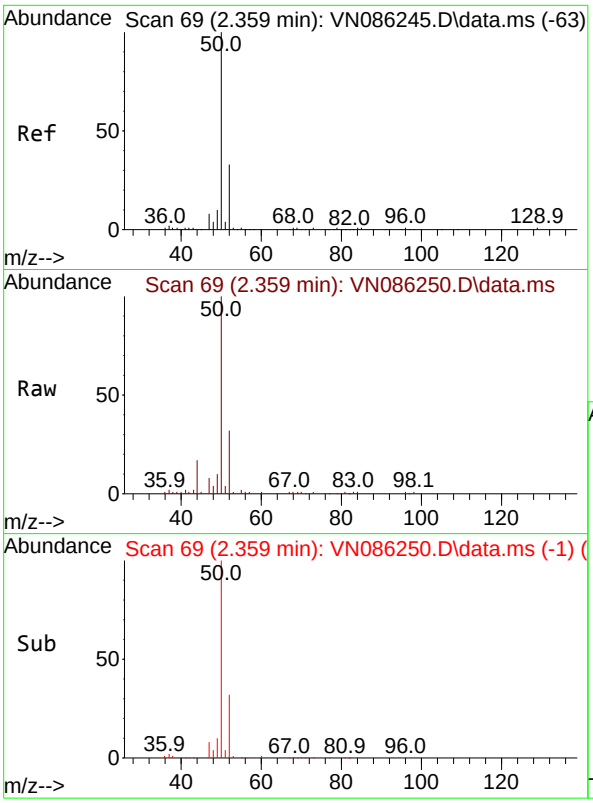


#2
Dichlorodifluoromethane
Concen: 20.153 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 85 Resp: 56086

Ion	Ratio	Lower	Upper
85	100		
87	28.3	16.3	48.9

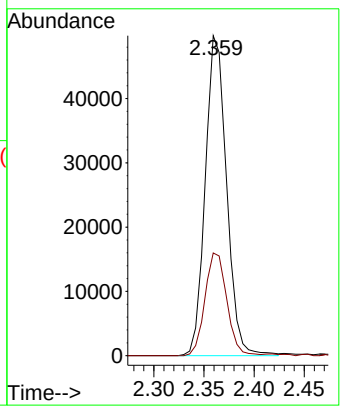




#3
Chloromethane
Concen: 19.194 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 50 Resp: 7382

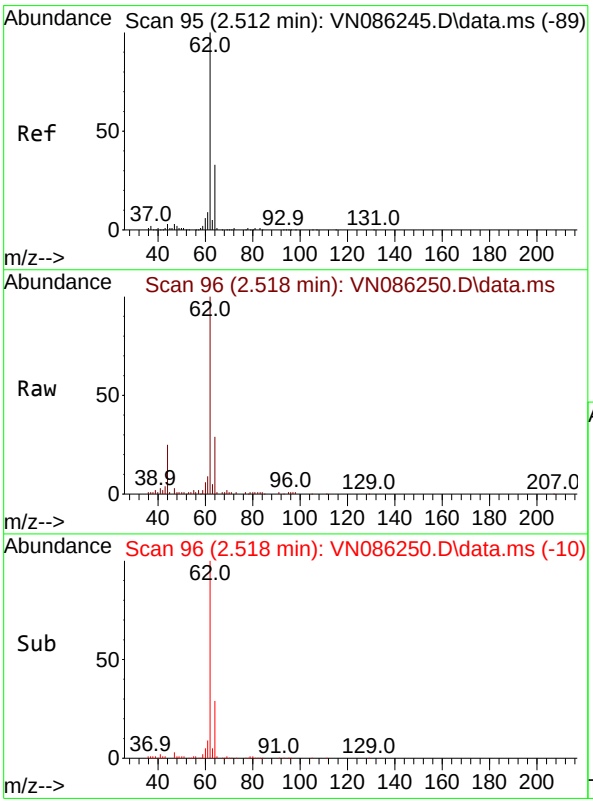
Ion	Ratio	Lower	Upper
50	100		
52	32.1	26.4	39.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

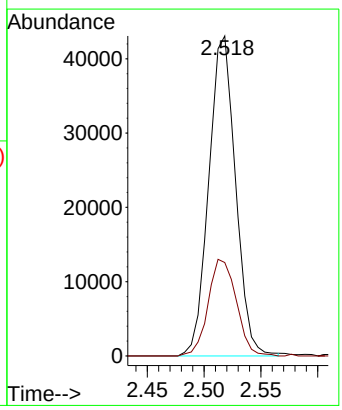
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

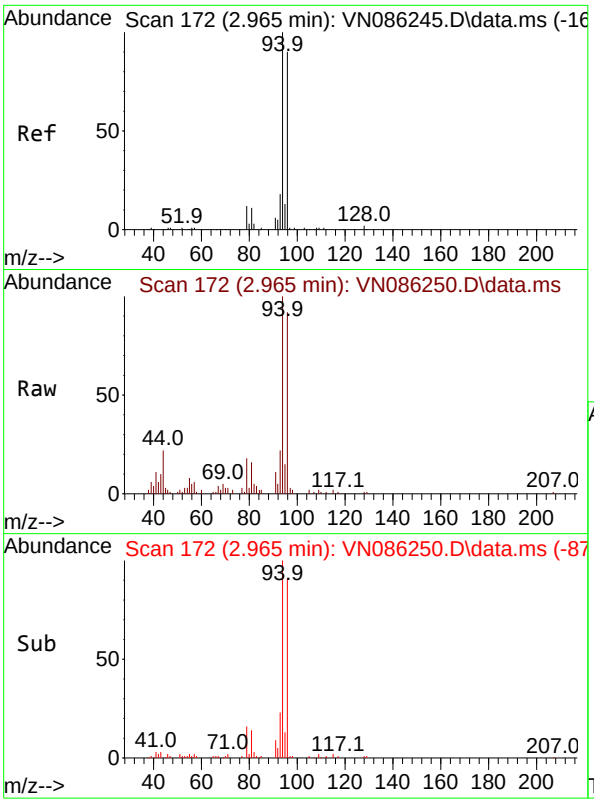


#4
Vinyl Chloride
Concen: 19.281 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 62 Resp: 70644

Ion	Ratio	Lower	Upper
62	100		
64	29.2	26.3	39.5

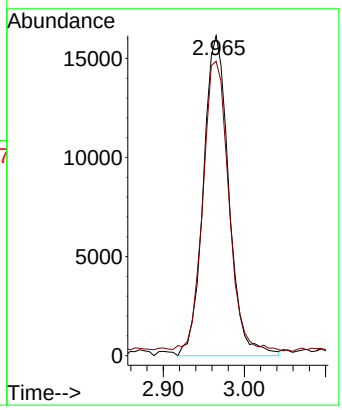




#5
Bromomethane
Concen: 19.194 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 94 Resp: 3507

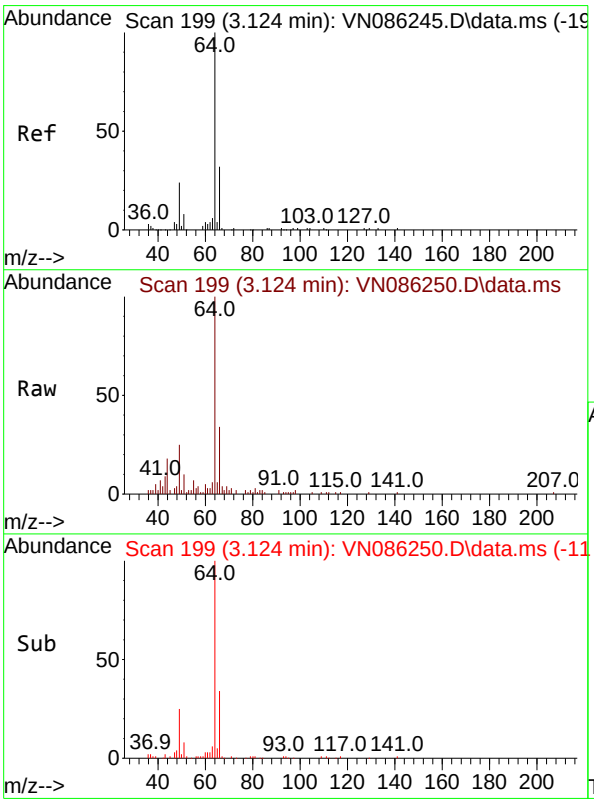
Ion	Ratio	Lower	Upper
94	100		
96	90.0	72.2	108.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

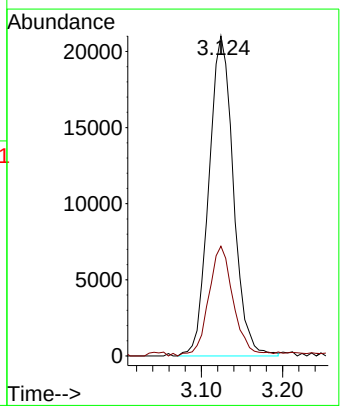
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

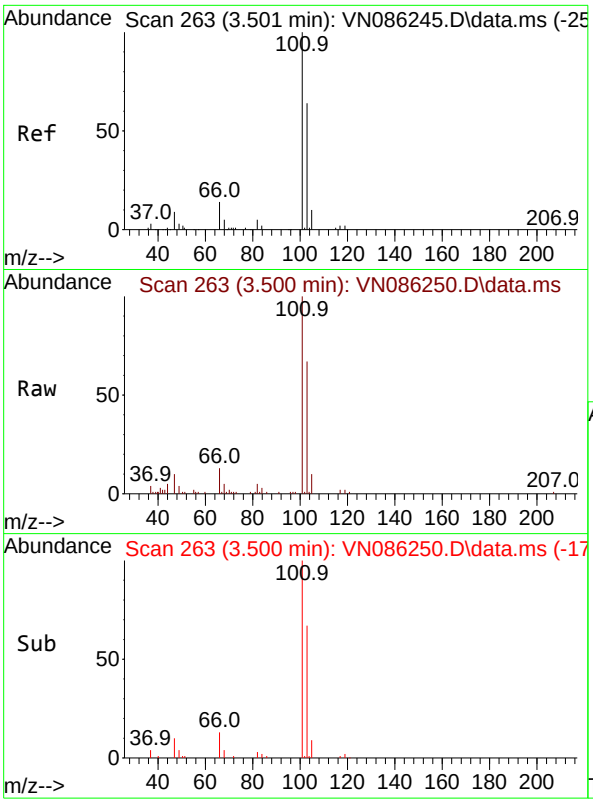


#6
Chloroethane
Concen: 19.089 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 64 Resp: 44166

Ion	Ratio	Lower	Upper
64	100		
66	34.3	25.7	38.5

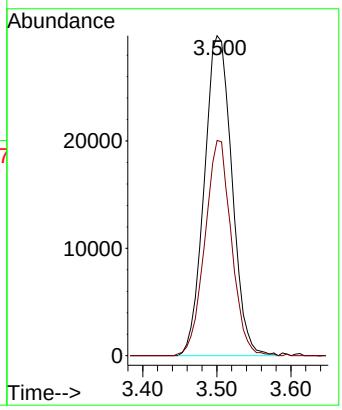




#7
Trichlorofluoromethane
Concen: 19.443 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:101 Resp: 7727

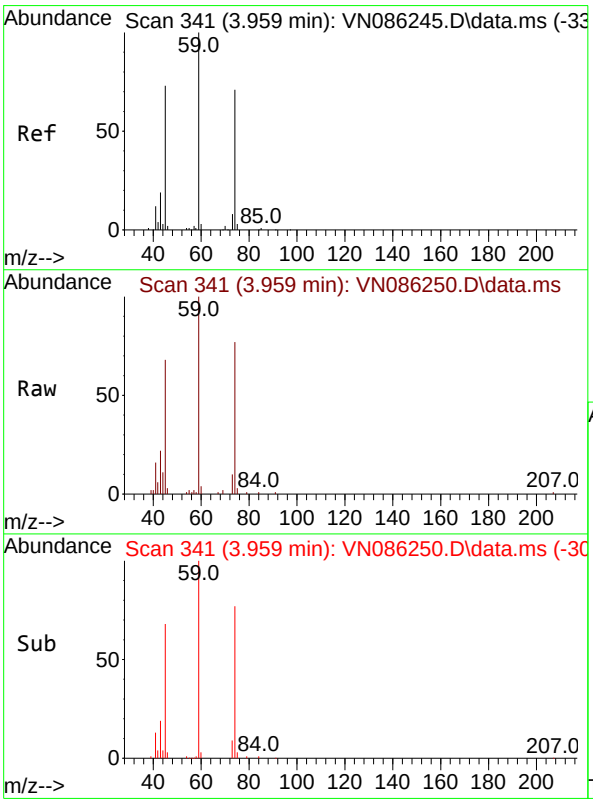
Ion	Ratio	Lower	Upper
101	100		
103	67.2	51.2	76.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

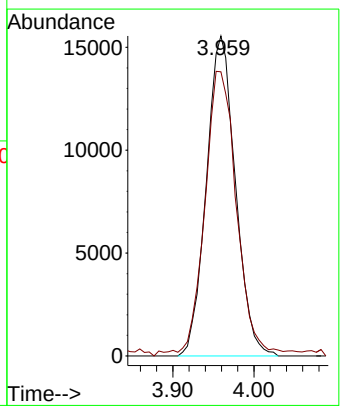
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

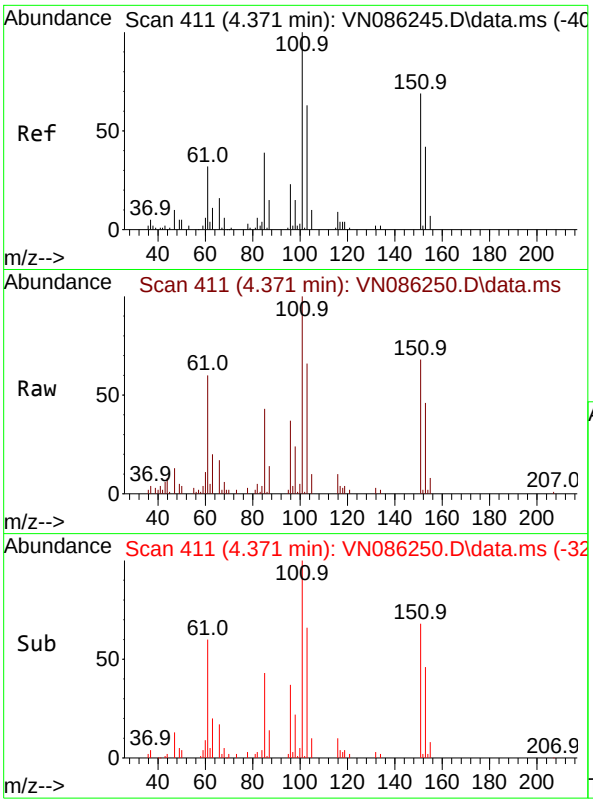


#8
Diethyl Ether
Concen: 21.128 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 74 Resp: 38725

Ion	Ratio	Lower	Upper
74	100		
45	93.7	19.2	173.2





#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.655 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

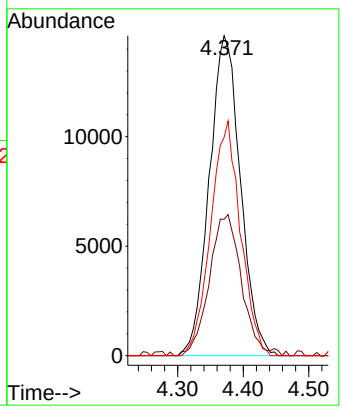
Tgt Ion:101 Resp: 4817

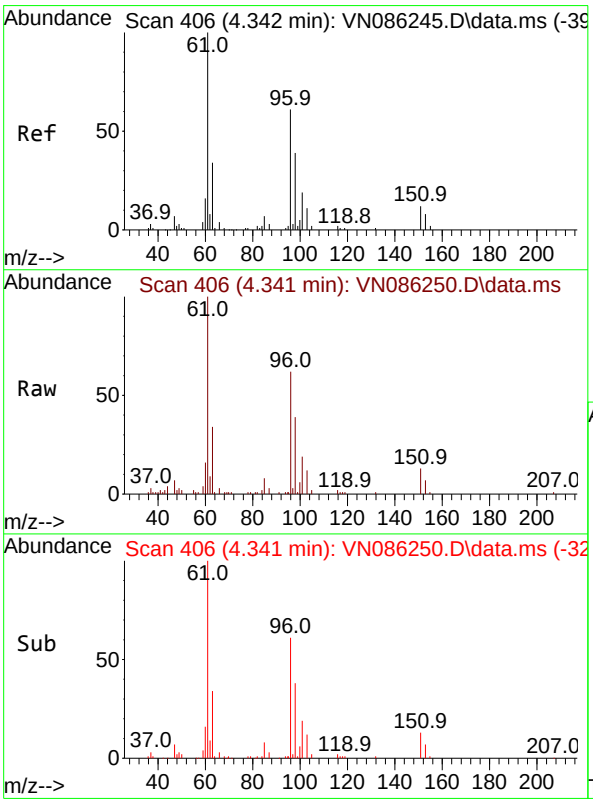
Ion	Ratio	Lower	Upper
101	100		
85	45.2	0.0	93.0
151	70.3	0.0	138.6

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

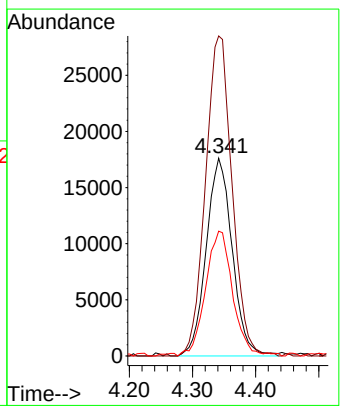


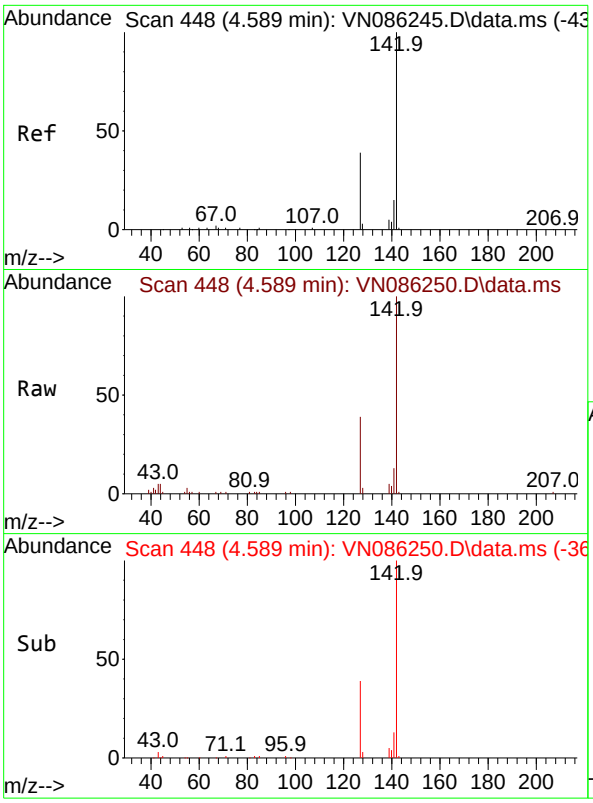


#10
1,1-Dichloroethene
Concen: 19.075 ug/l
RT: 4.341 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 96 Resp: 50453

Ion	Ratio	Lower	Upper
96	100		
61	161.8	131.1	196.7
98	63.1	51.6	77.4





#11
Methyl Iodide
Concen: 19.126 ug/l
RT: 4.589 min Scan# 44
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

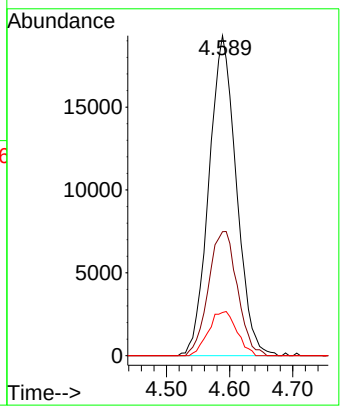
Tgt Ion:142 Resp: 5814

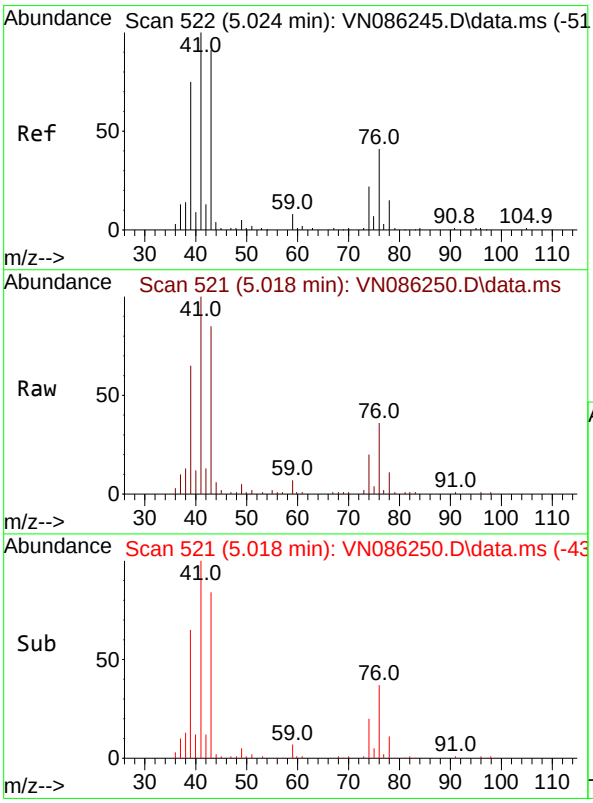
Ion	Ratio	Lower	Upper
142	100		
127	38.8	19.6	58.8
141	13.5	7.3	21.9

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

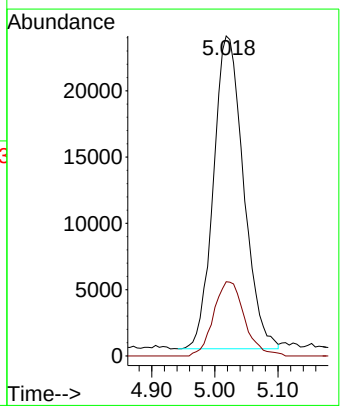


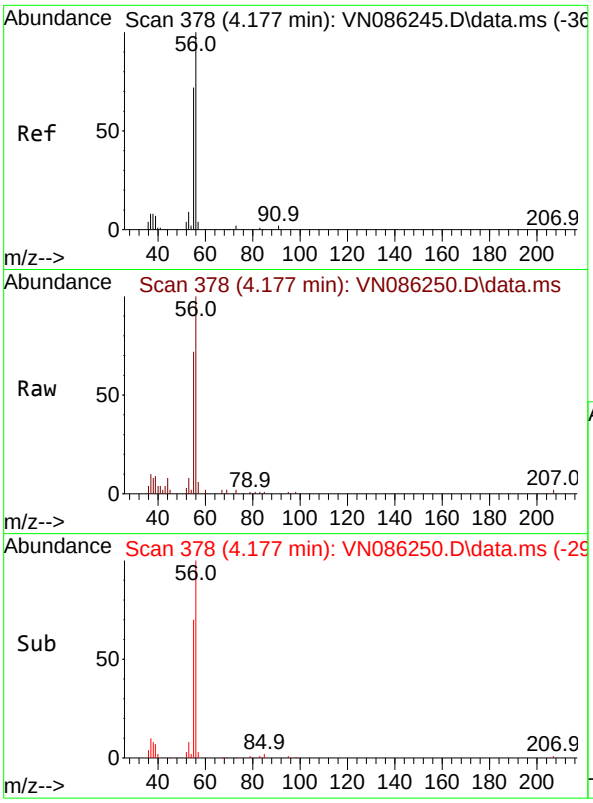


#12
Methyl Acetate
Concen: 20.867 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 77938

Ion	Ratio	Lower	Upper
43	100		
74	23.4	19.1	28.7

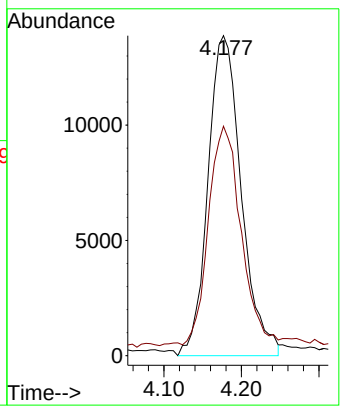




#13
Acrolein
Concen: 97.652 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 56 Resp: 4145

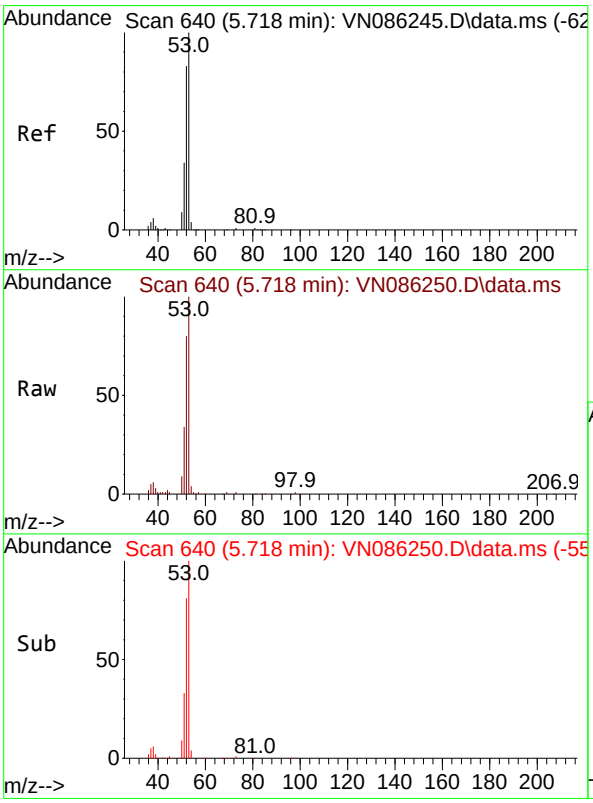
Ion	Ratio	Lower	Upper
56	100		
55	66.9	56.5	84.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

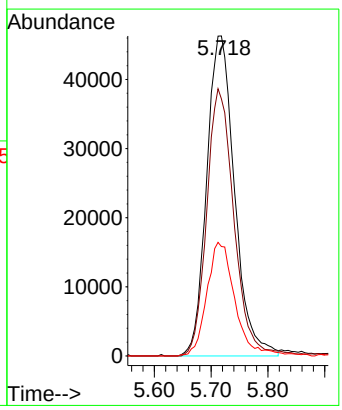
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

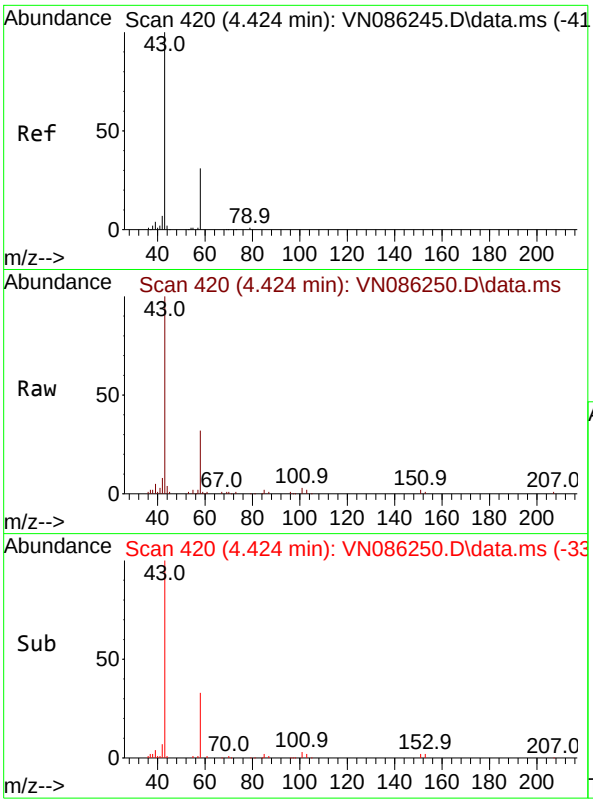


#14
Acrylonitrile
Concen: 100.092 ug/l
RT: 5.718 min Scan# 640
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 53 Resp: 157824

Ion	Ratio	Lower	Upper
53	100		
52	81.6	40.2	120.6
51	33.9	17.5	52.6

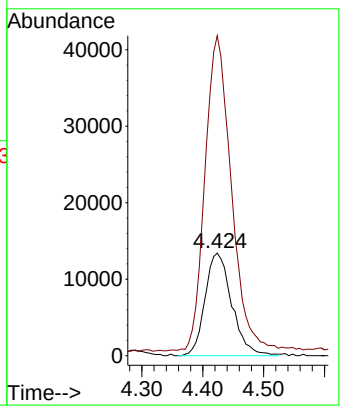




#15
Acetone
Concen: 102.336 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 58 Resp: 4091

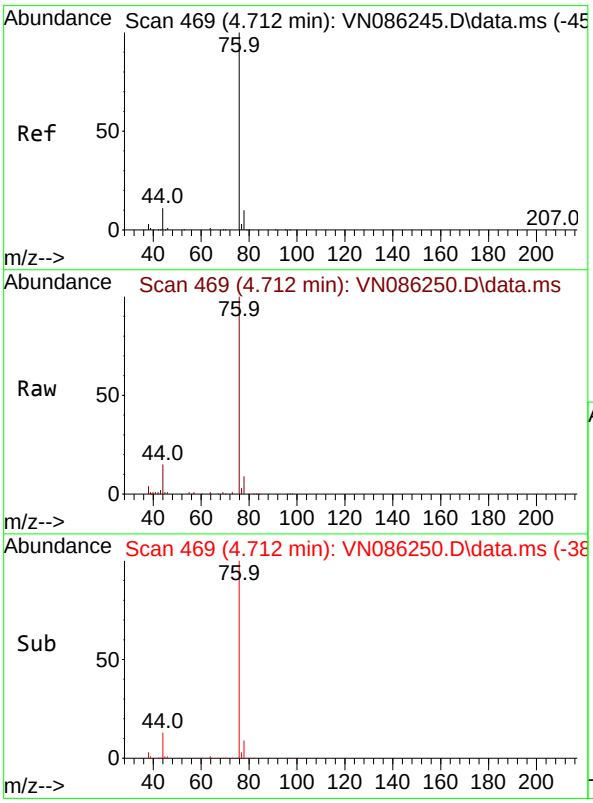
Ion	Ratio	Lower	Upper
58	100		
43	306.6	261.8	392.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

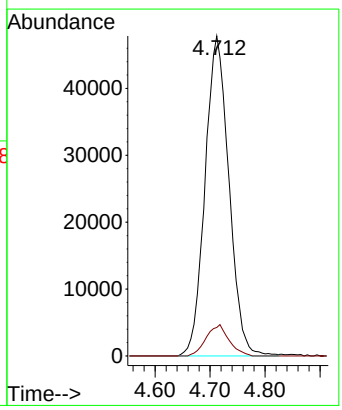
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

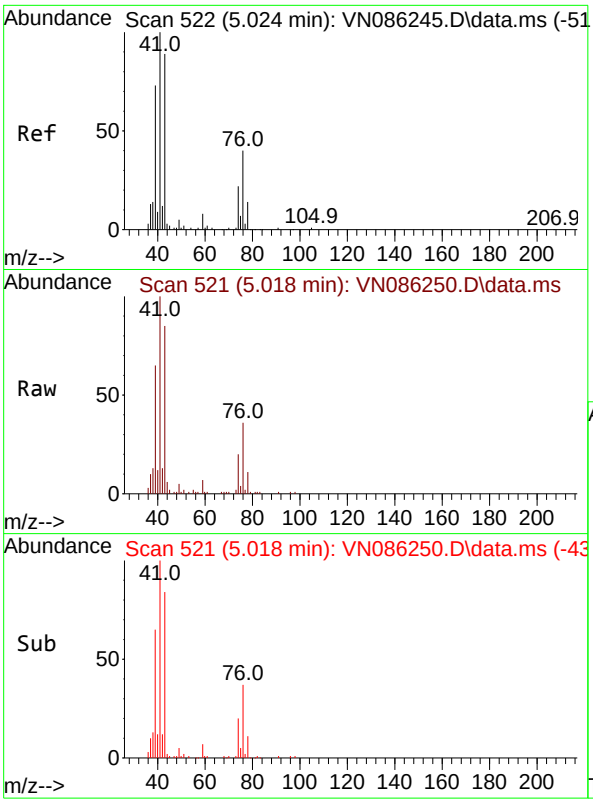


#16
Carbon Disulfide
Concen: 19.038 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 76 Resp: 144392

Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.7	11.5

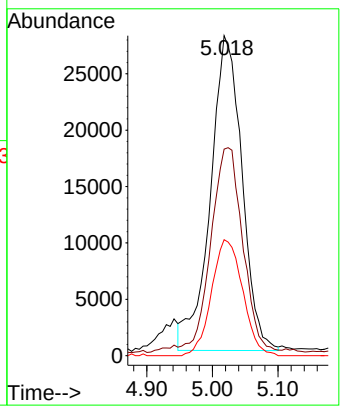




#17
Allyl chloride
Concen: 20.289 ug/l
RT: 5.018 min Scan# 5
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 41 Resp: 9353

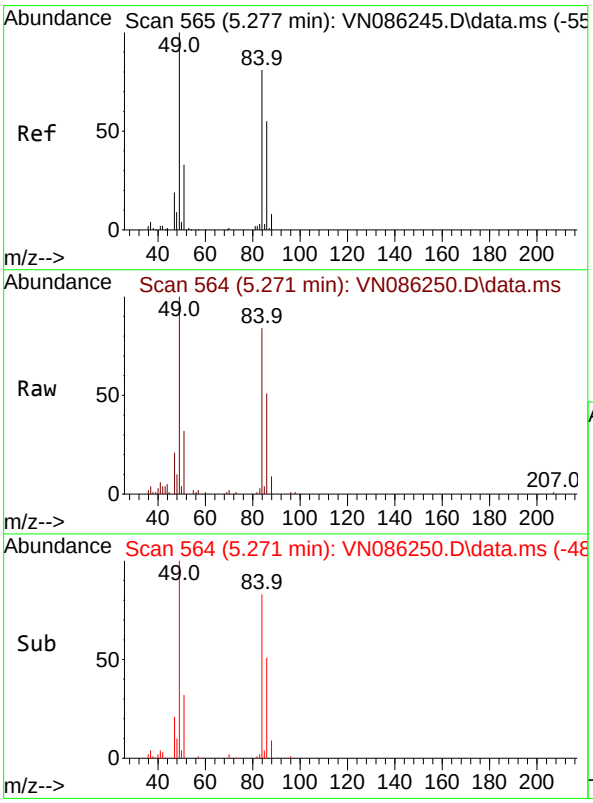
Ion	Ratio	Lower	Upper
41	100		
39	64.5	34.4	103.2
76	37.2	18.8	56.3



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

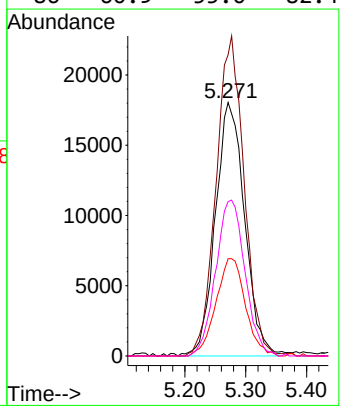
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

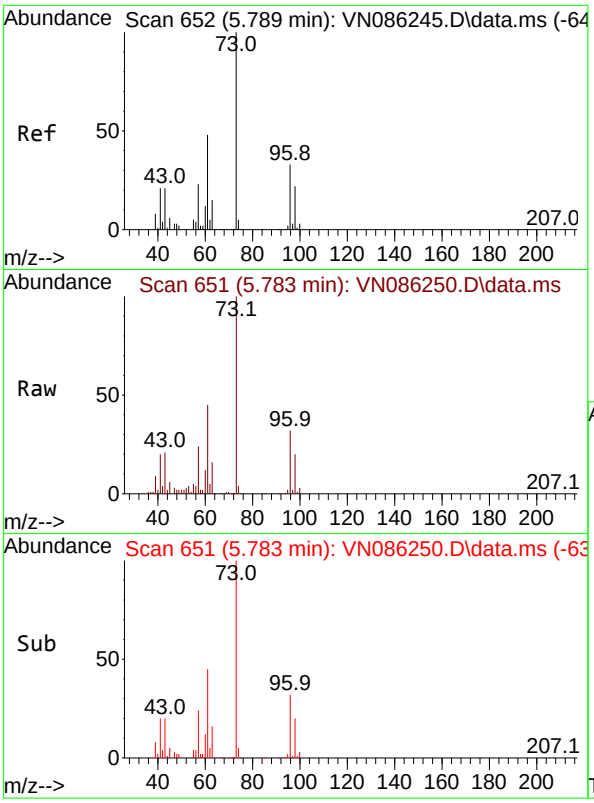


#18
Methylene Chloride
Concen: 19.908 ug/l
RT: 5.271 min Scan# 564
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 84 Resp: 60034

Ion	Ratio	Lower	Upper
84	100		
49	118.9	99.1	148.7
51	38.4	32.3	48.5
86	60.9	55.0	82.4

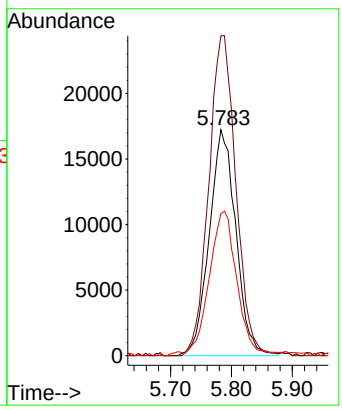




#19
trans-1,2-Dichloroethene
Concen: 18.794 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 96 Resp: 5235

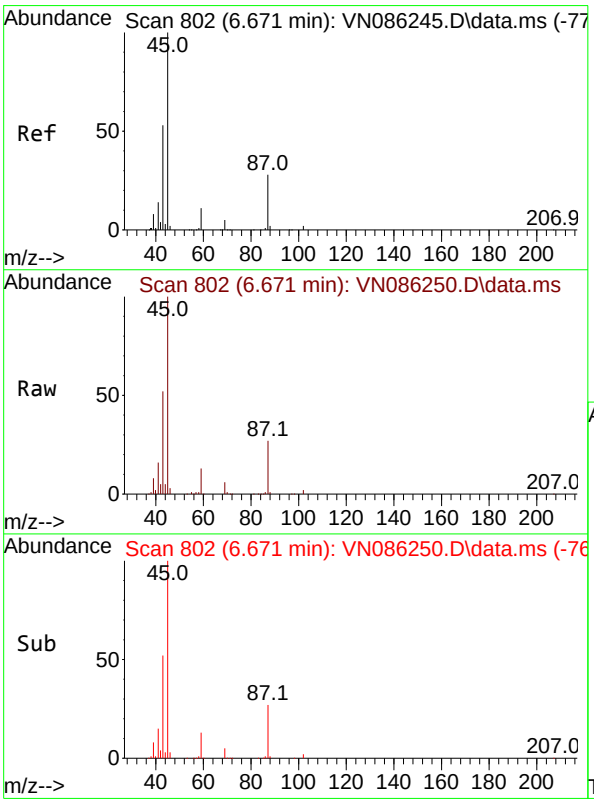
Ion	Ratio	Lower	Upper
96	100		
61	141.6	115.9	173.9
98	61.4	52.1	78.1



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

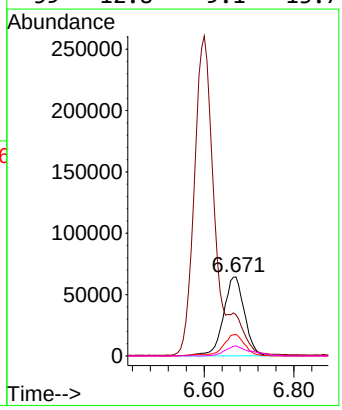
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

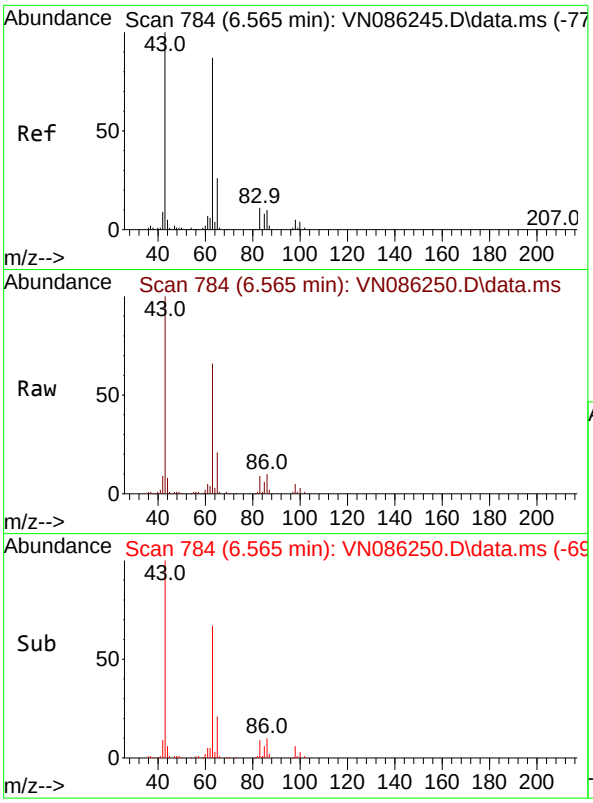


#20
Diisopropyl ether
Concen: 21.072 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 45 Resp: 208832

Ion	Ratio	Lower	Upper
45	100		
43	50.1	42.3	63.5
87	27.4	22.2	33.4
59	12.8	9.1	13.7

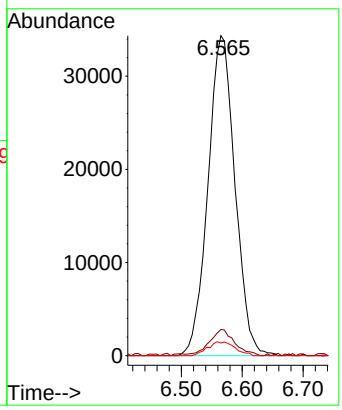




#21
1,1-Dichloroethane
Concen: 20.053 ug/l
RT: 6.565 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 63 Resp: 10603

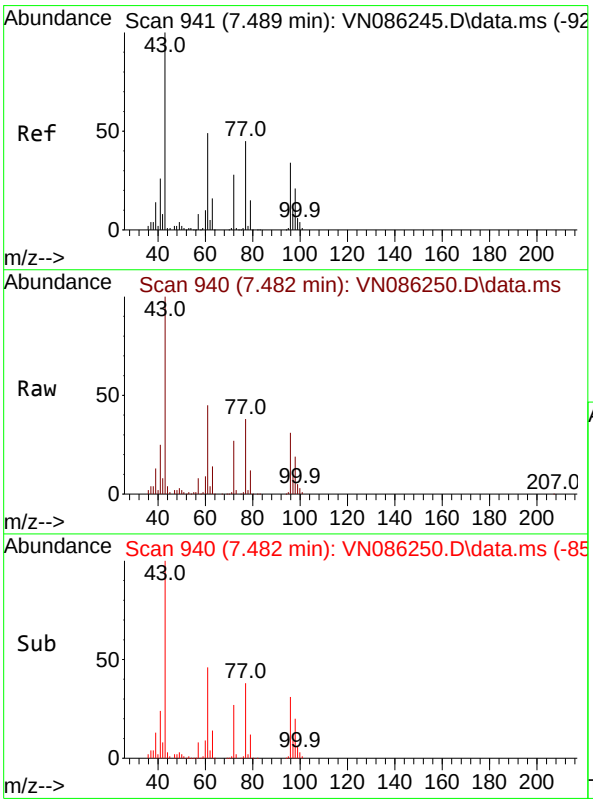
Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.1	9.3
100	4.0	2.3	6.9



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

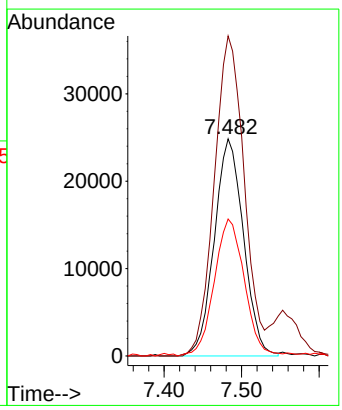
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

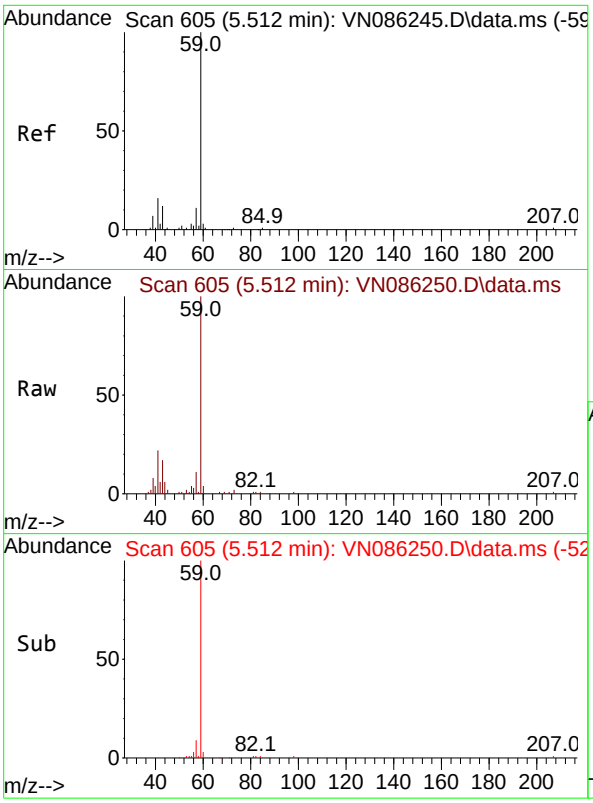


#22
cis-1,2-Dichloroethene
Concen: 19.651 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 96 Resp: 65216

Ion	Ratio	Lower	Upper
96	100		
61	150.4	119.5	179.3
98	64.8	51.0	76.6

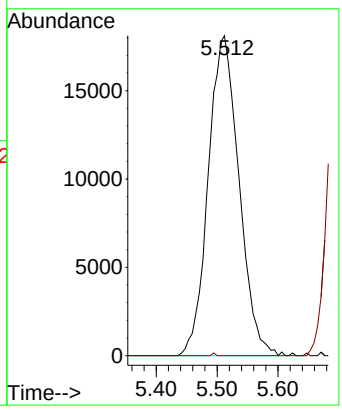




#23
tert-Butyl Alcohol
Concen: 97.177 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 59 Resp: 6349

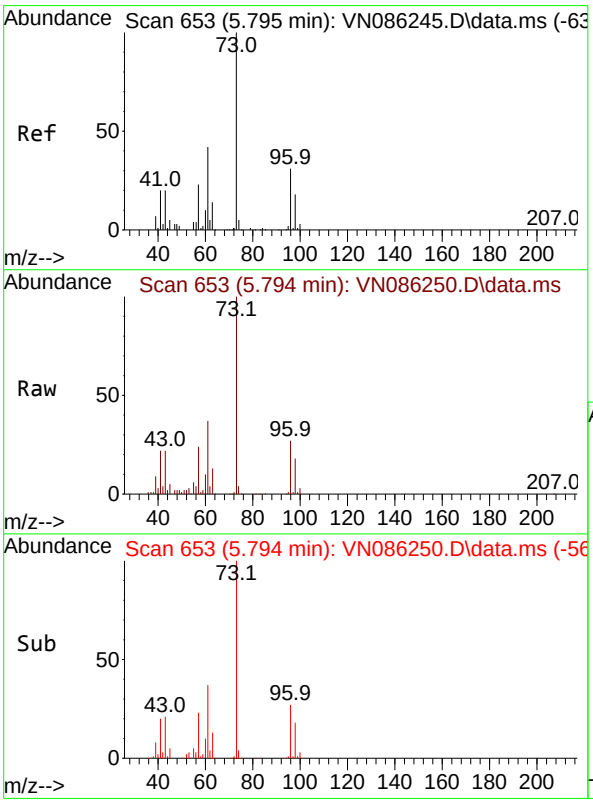
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

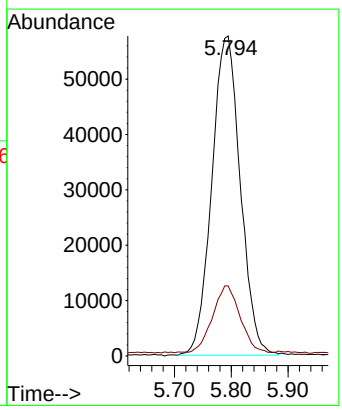
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

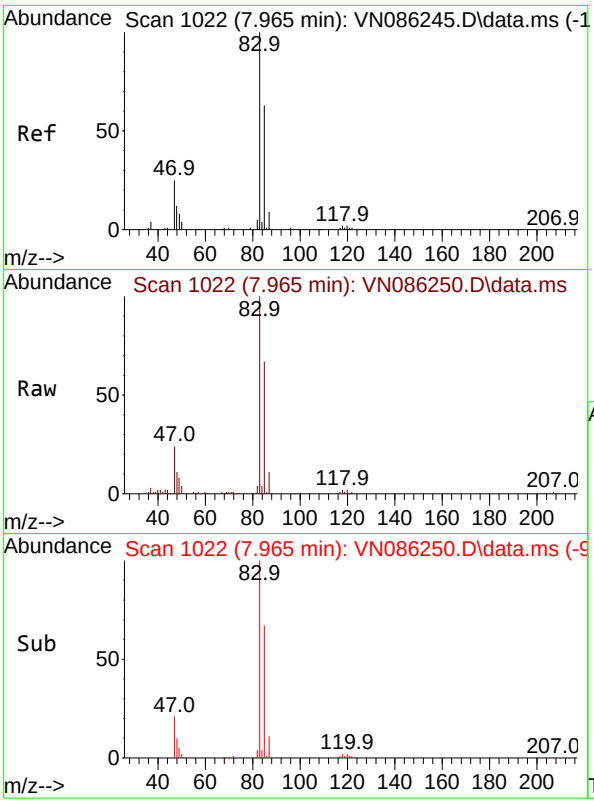


#24
Methyl tert-Butyl Ether
Concen: 21.074 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 73 Resp: 201155

Ion	Ratio	Lower	Upper
73	100		
43	20.2	16.8	25.2

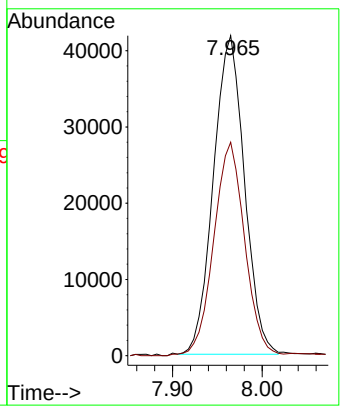




#25
Chloroform
Concen: 19.885 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 83 Resp: 10026

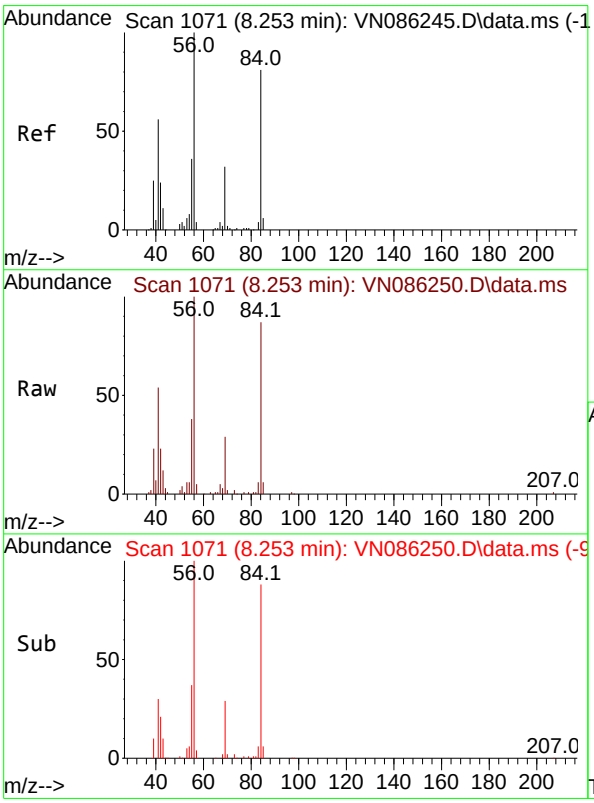
Ion	Ratio	Lower	Upper
83	100		
85	66.5	50.5	75.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

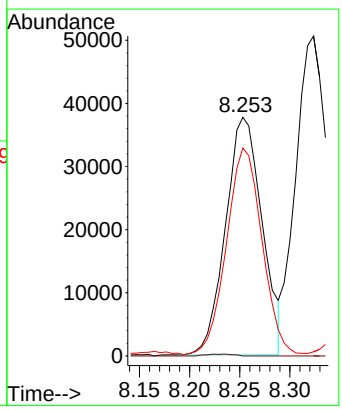
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

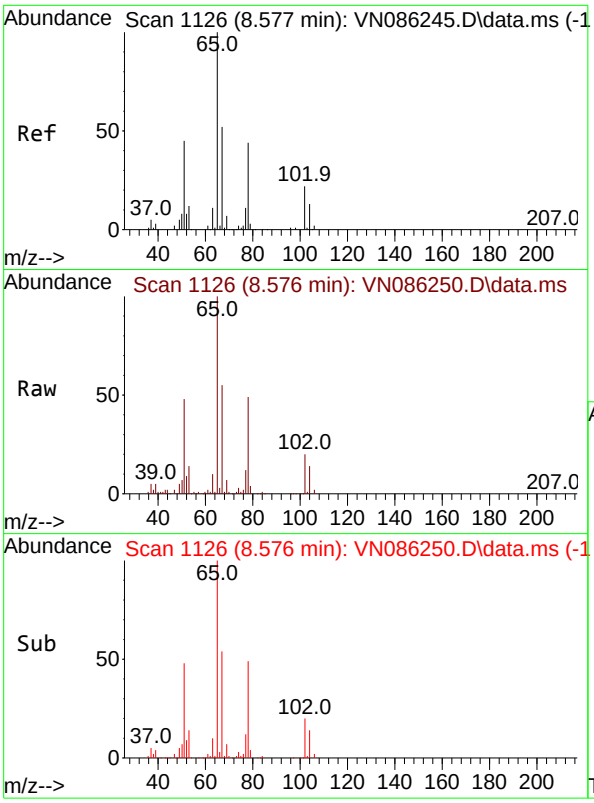


#26
Cyclohexane
Concen: 19.310 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 56 Resp: 95525

Ion	Ratio	Lower	Upper
56	100		
89	0.6	0.0	0.0#
84	85.9	69.0	103.4

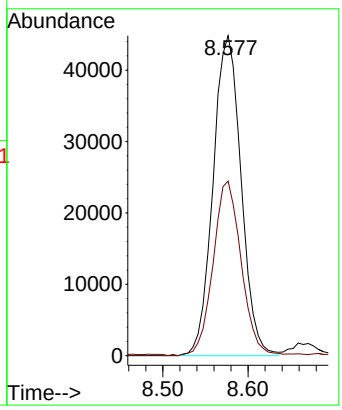




#27
1,2-Dichloroethane-d4
Concen: 30.208 ug/l
RT: 8.576 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 65 Resp: 10234

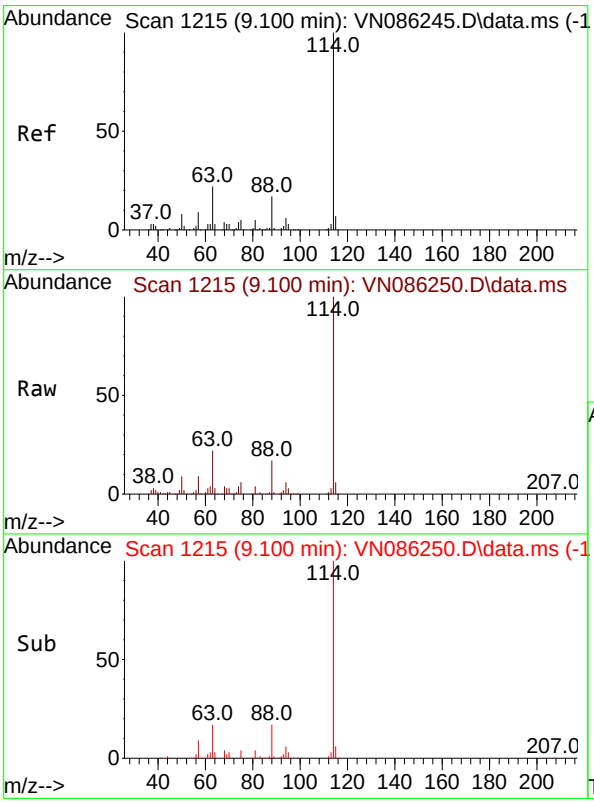
Ion	Ratio	Lower	Upper
65	100		
67	54.6	43.4	65.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations APPROVED

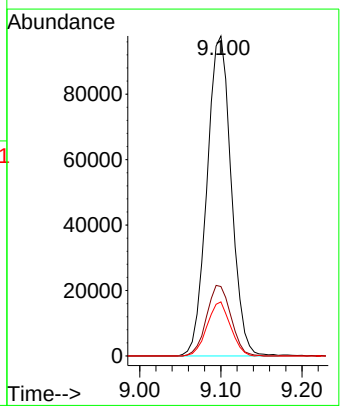
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

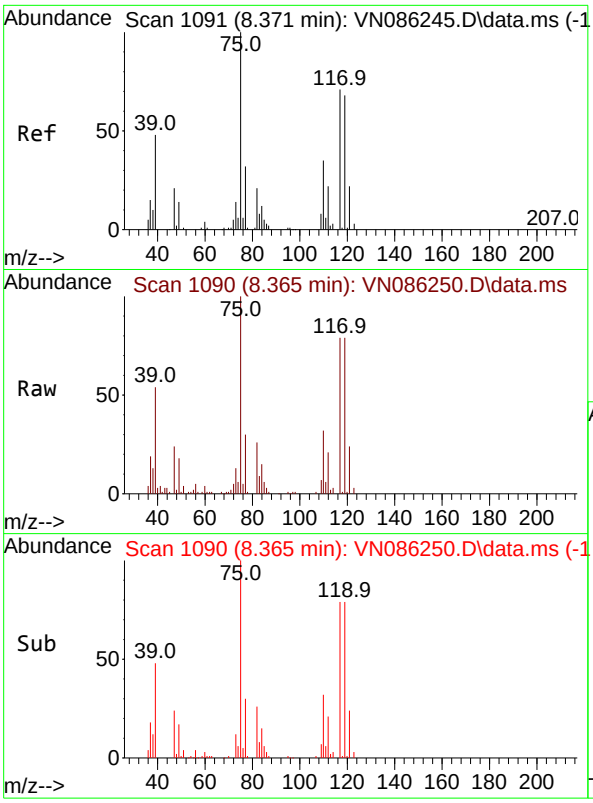


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:114 Resp: 202525

Ion	Ratio	Lower	Upper
114	100		
63	22.2	17.8	26.6
88	16.3	13.4	20.2

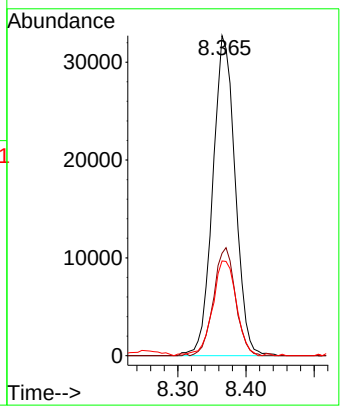




#29
1,1-Dichloropropene
Concen: 20.635 ug/l
RT: 8.365 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 7486

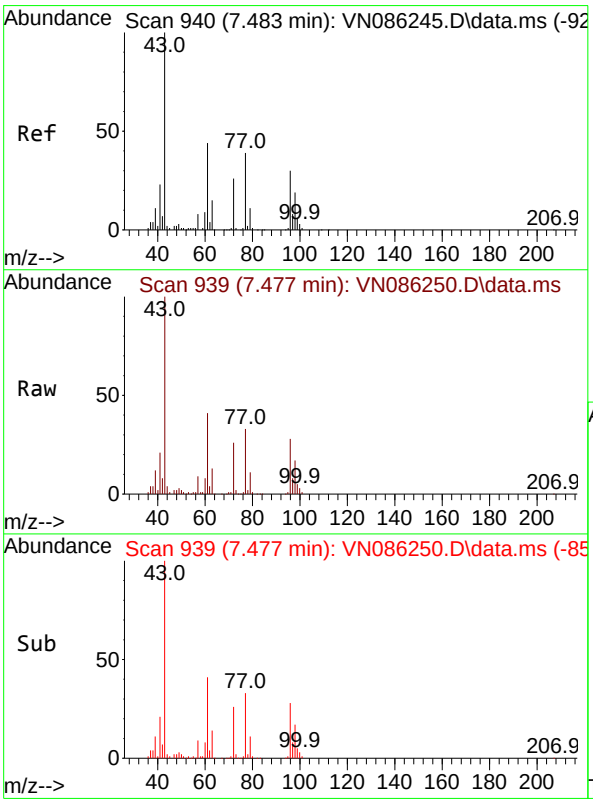
Ion	Ratio	Lower	Upper
75	100		
110	32.9	0.0	68.6
77	31.3	0.0	63.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

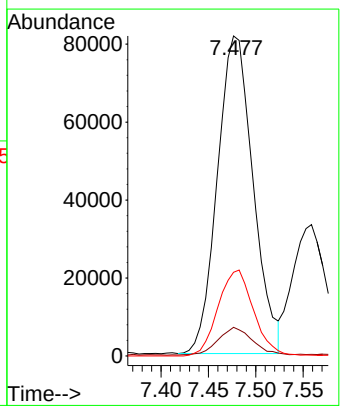
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

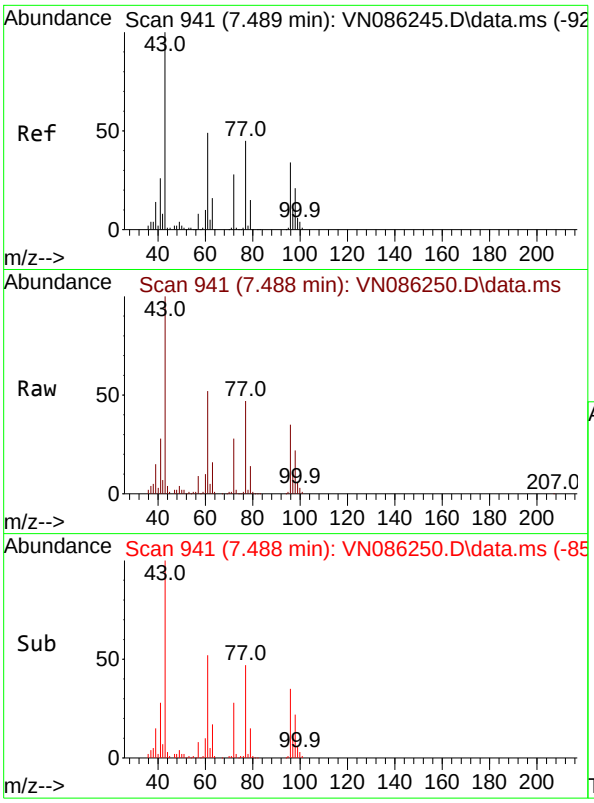


#30
2-Butanone
Concen: 106.676 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 214454

Ion	Ratio	Lower	Upper
43	100		
57	8.4	6.4	9.6
72	26.8	21.5	32.3

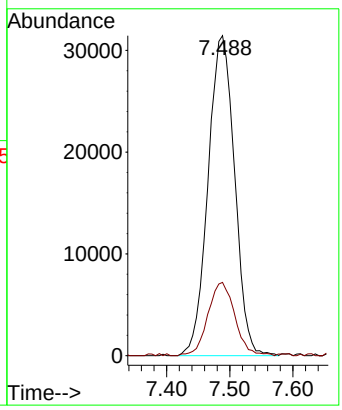




#31
2,2-Dichloropropane
Concen: 20.604 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 77 Resp: 9201

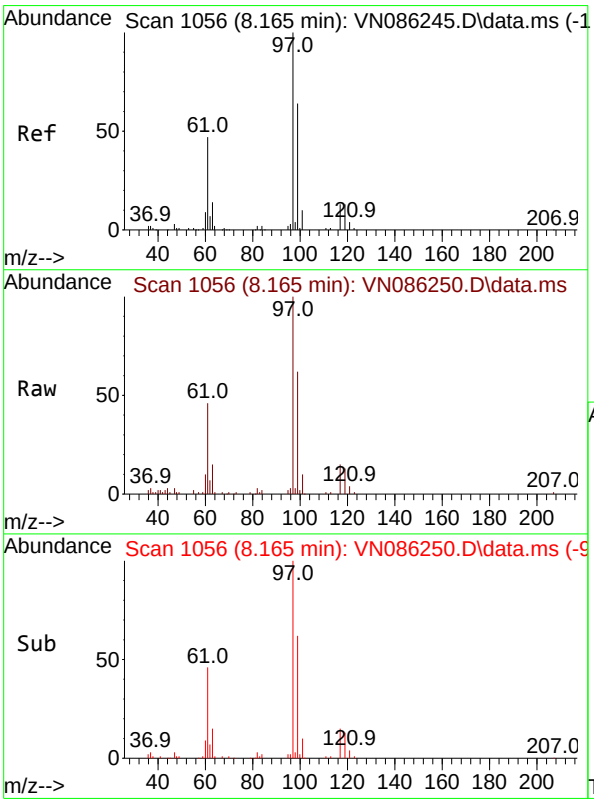
Ion	Ratio	Lower	Upper
77	100		
97	23.0	18.8	28.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

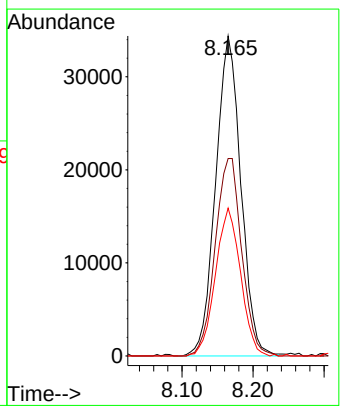
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

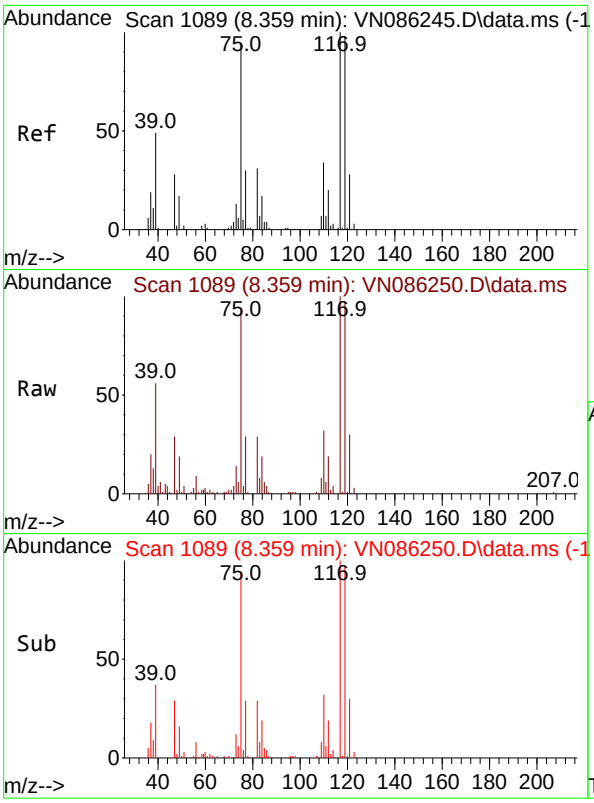


#32
1,1,1-Trichloroethane
Concen: 20.333 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 97 Resp: 84856

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.4	77.2
61	46.0	37.0	55.6

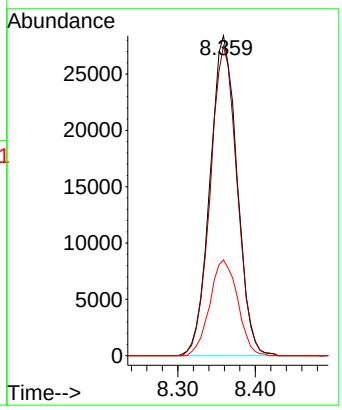




#33
Carbon Tetrachloride
Concen: 20.645 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:117 Resp: 6885

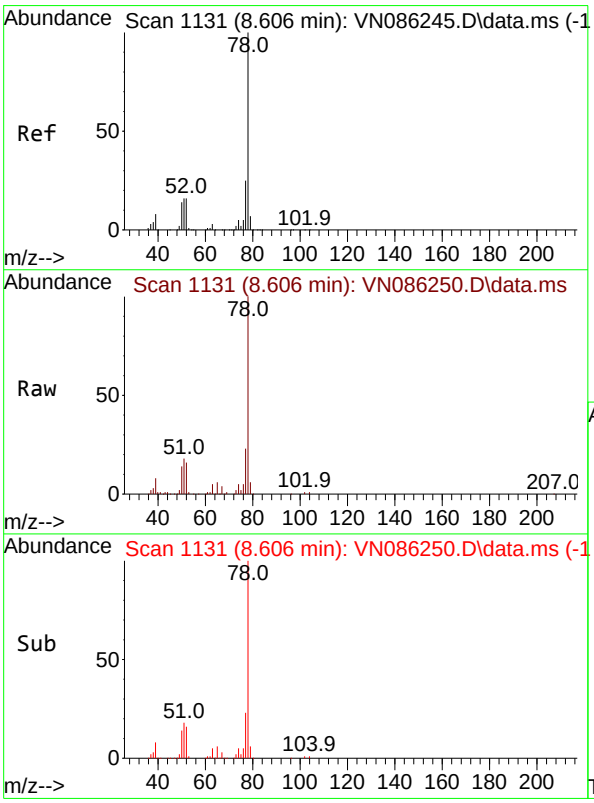
Ion	Ratio	Lower	Upper
117	100		
119	96.8	78.3	117.5
121	29.9	22.5	33.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

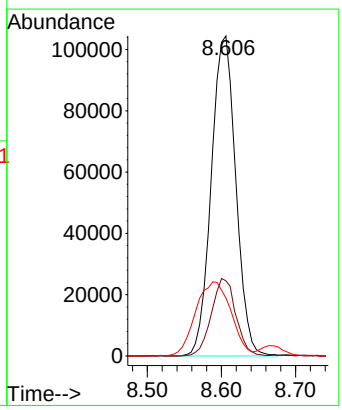
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

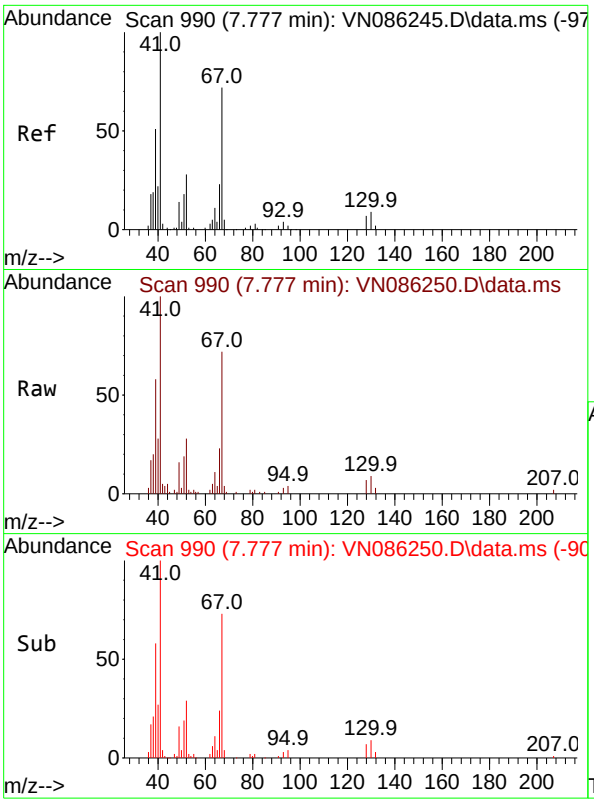


#34
Benzene
Concen: 20.834 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 78 Resp: 240477

Ion	Ratio	Lower	Upper
78	100		
77	23.5	20.0	30.0
51	16.9	12.9	19.3

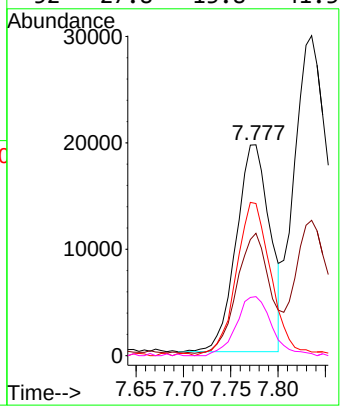




#35
Methacrylonitrile
Concen: 21.230 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 41 Resp: 4811

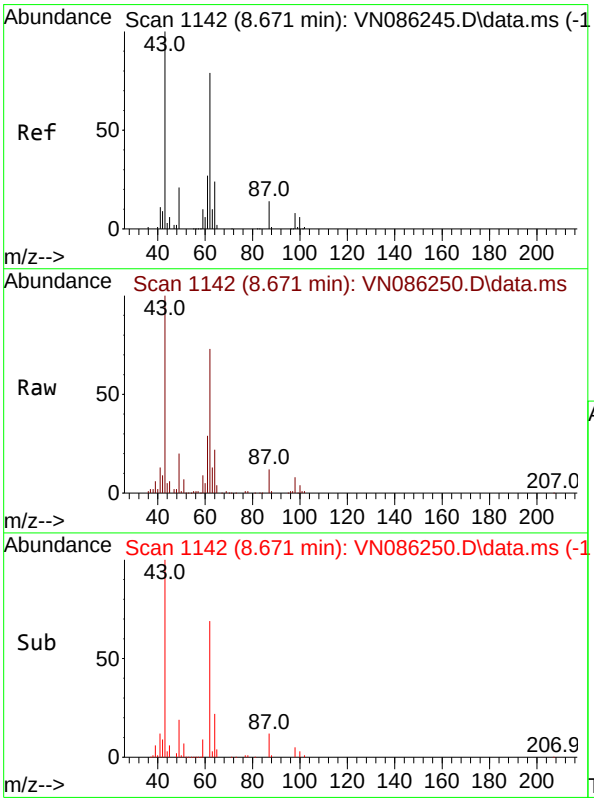
Ion	Ratio	Lower	Upper
41	100		
39	57.6	25.8	77.3
67	72.6	36.0	108.0
52	27.8	13.8	41.3



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

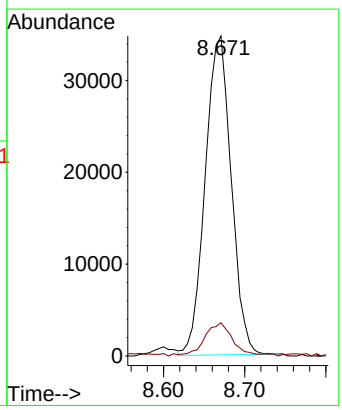
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

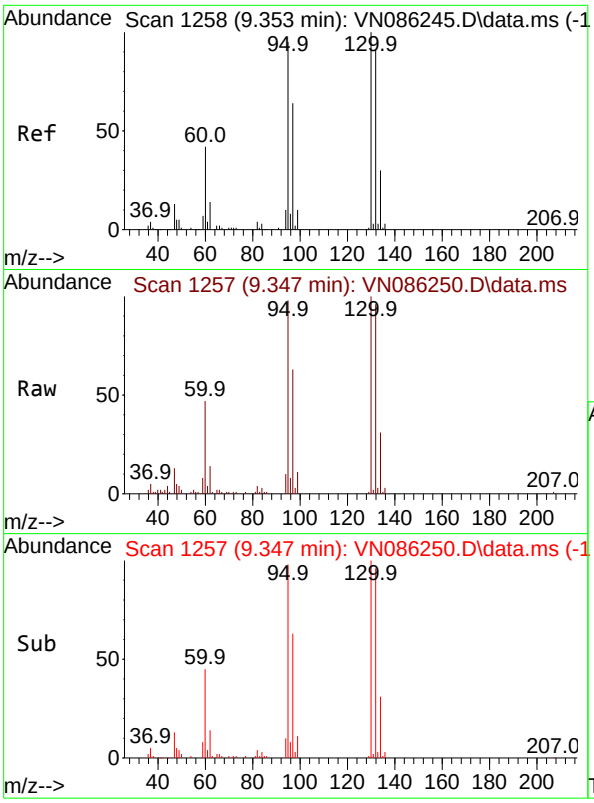


#36
1,2-Dichloroethane
Concen: 21.439 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 62 Resp: 77436

Ion	Ratio	Lower	Upper
62	100		
98	10.1	8.6	12.8

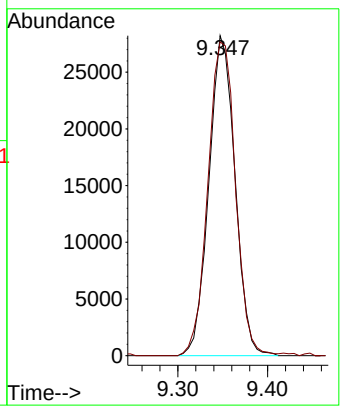




#37
Trichloroethene
Concen: 20.471 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:130 Resp: 5701

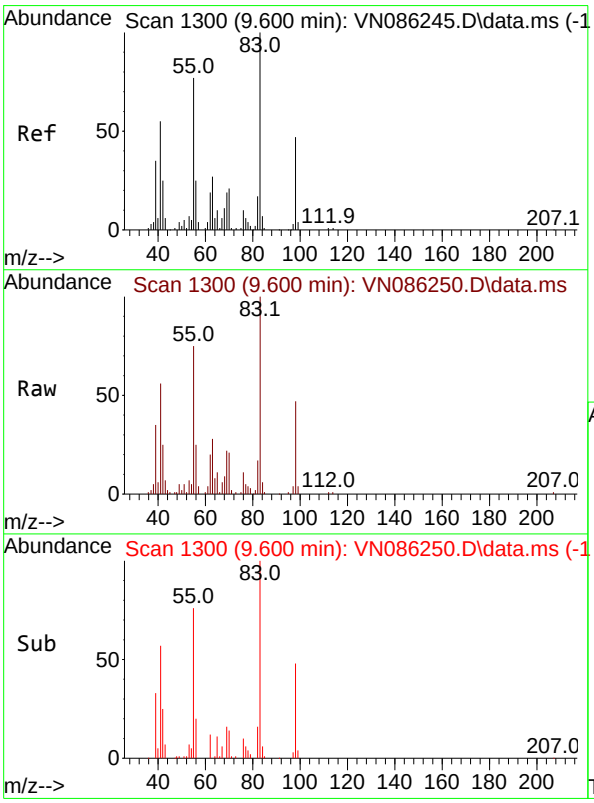
Ion	Ratio	Lower	Upper
130	100		
95	98.1	76.4	114.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

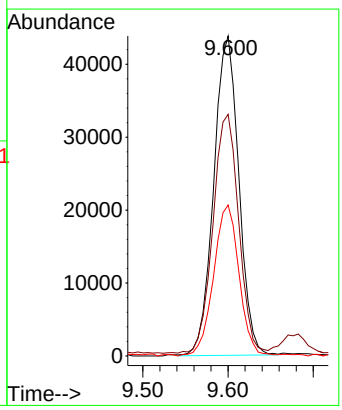
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

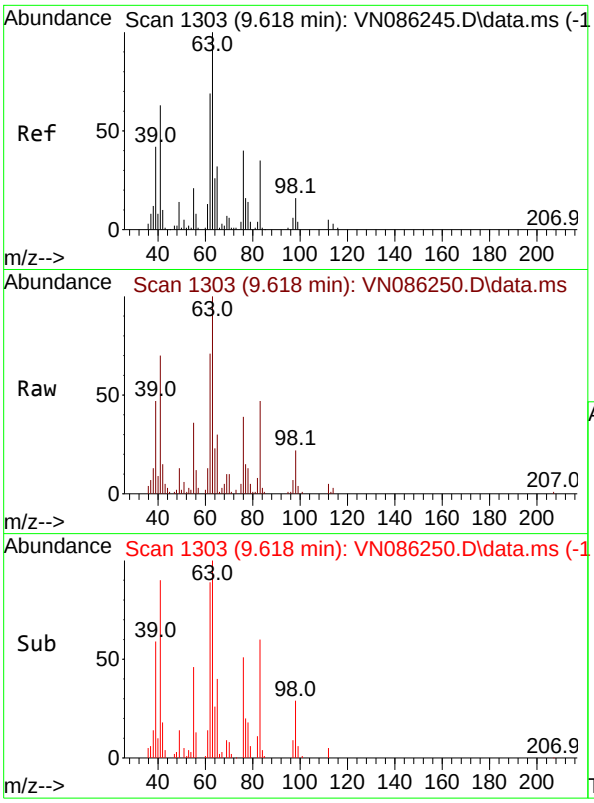


#38
Methylcyclohexane
Concen: 20.125 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 83 Resp: 89548

Ion	Ratio	Lower	Upper
83	100		
55	76.5	38.5	115.5
98	48.1	24.4	73.2

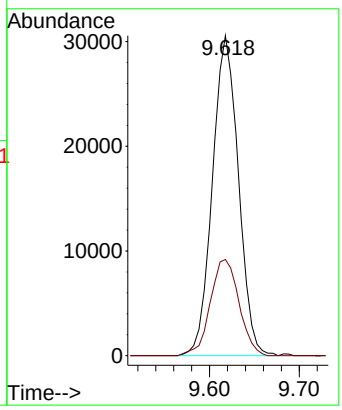




#39
1,2-Dichloropropane
Concen: 21.392 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 63 Resp: 6143

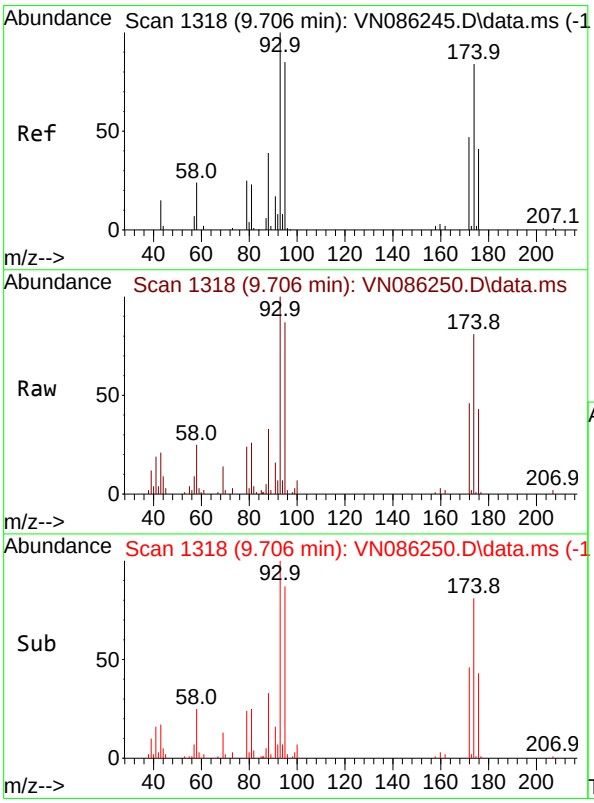
Ion	Ratio	Lower	Upper
63	100		
65	30.1	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

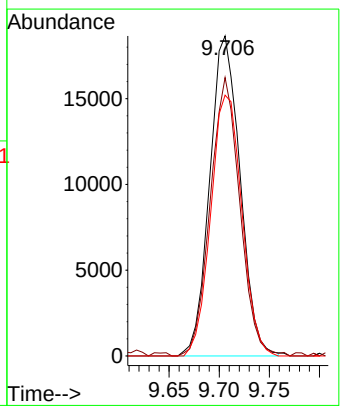
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

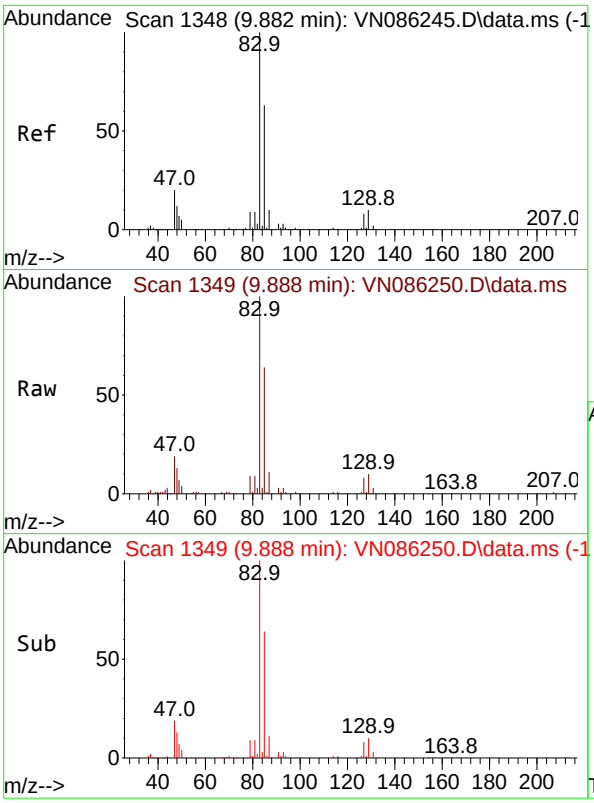


#40
Dibromomethane
Concen: 21.185 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 93 Resp: 39298

Ion	Ratio	Lower	Upper
93	100		
95	84.7	0.0	169.0
174	83.2	0.0	168.0

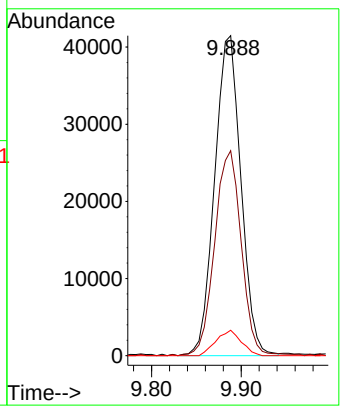




#41
Bromodichloromethane
Concen: 21.197 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 83 Resp: 8446

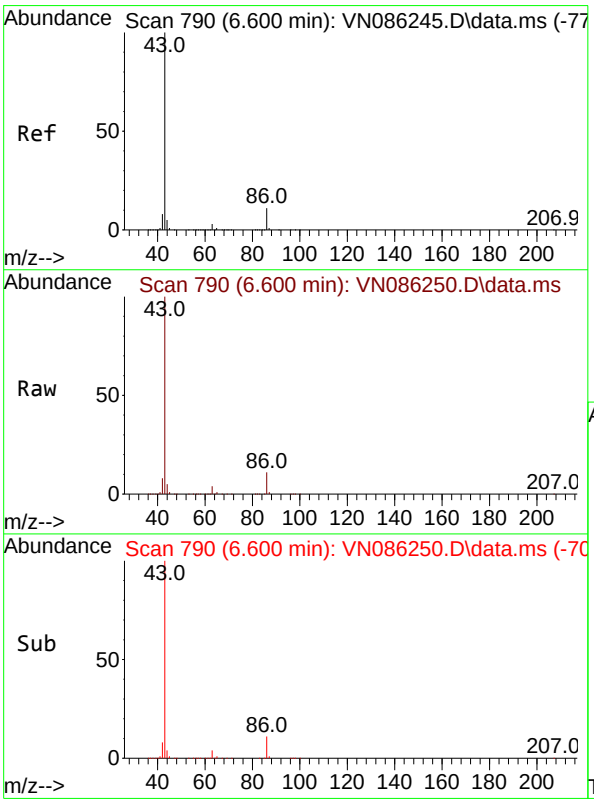
Ion	Ratio	Lower	Upper
83	100		
85	64.0	50.2	75.2
127	8.0	6.2	9.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

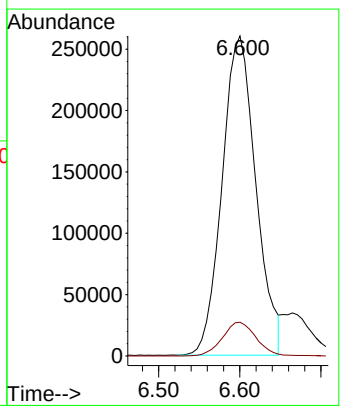
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

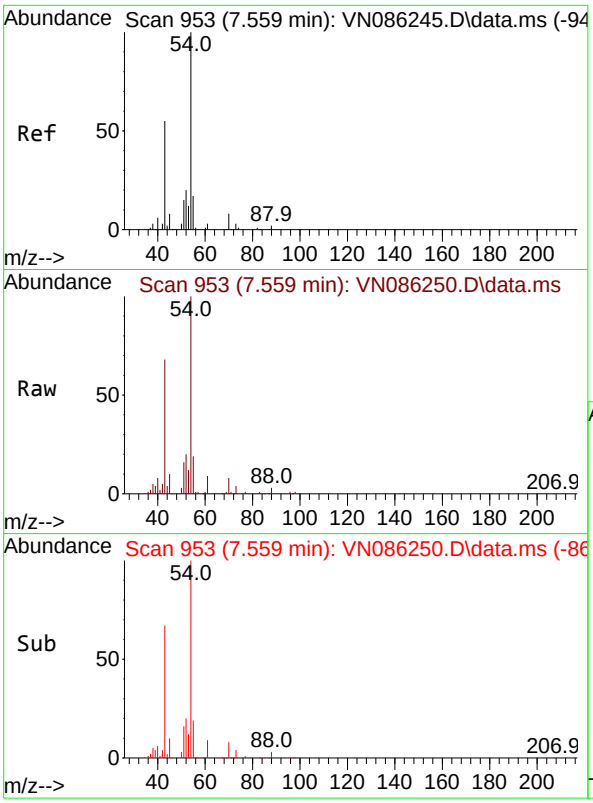


#42
Vinyl Acetate
Concen: 110.147 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 753748

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.4	12.6

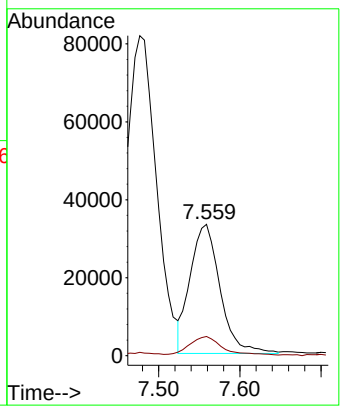




#43
Ethyl Acetate
Concen: 20.939 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 8490

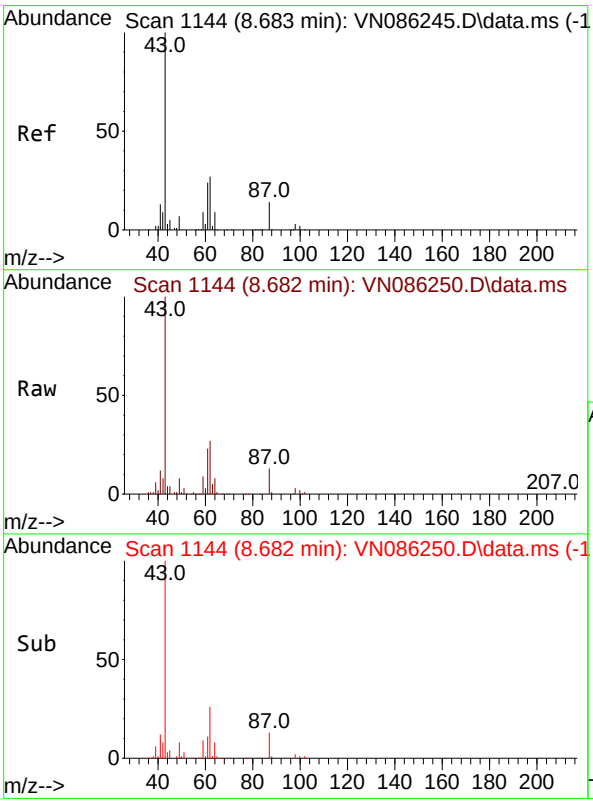
Ion	Ratio	Lower	Upper
43	100		
45	15.9	11.2	16.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

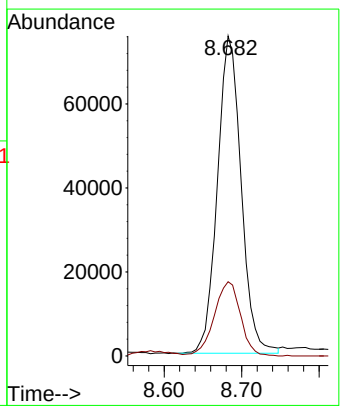
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

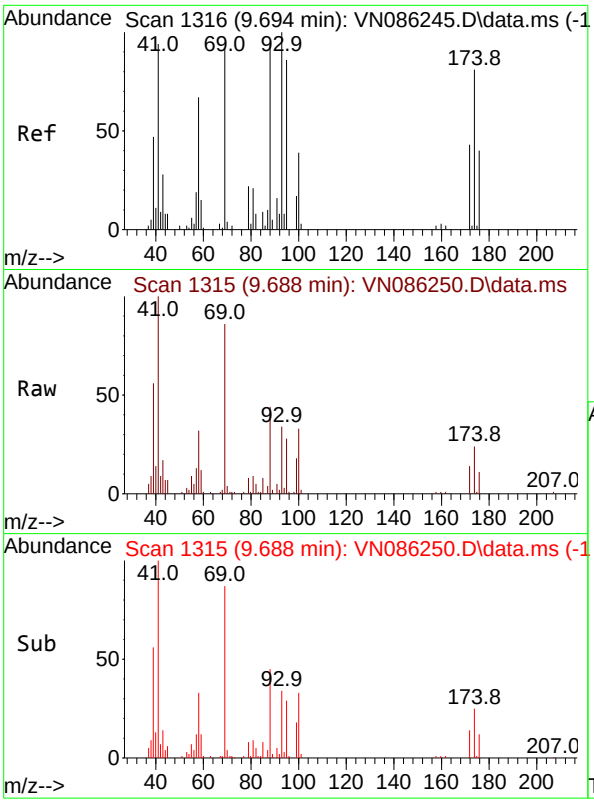


#44
Isopropyl Acetate
Concen: 21.391 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 160910

Ion	Ratio	Lower	Upper
43	100		
61	25.9	20.5	30.7

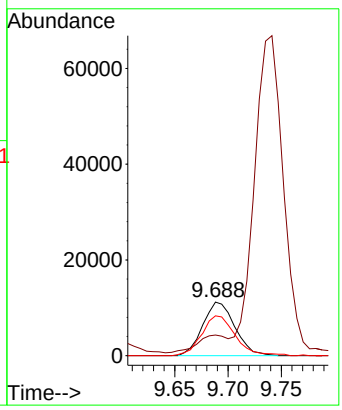




#45
1,4-Dioxane
Concen: 391.526 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

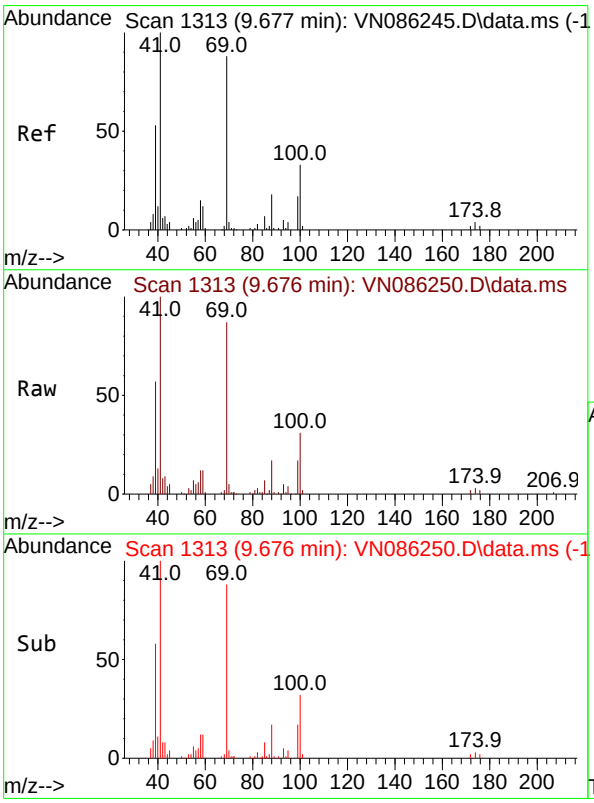
Tgt Ion: 88 Resp: 2342

Ion	Ratio	Lower	Upper
88	100		
43	30.8	14.4	21.6
58	78.0	59.8	89.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

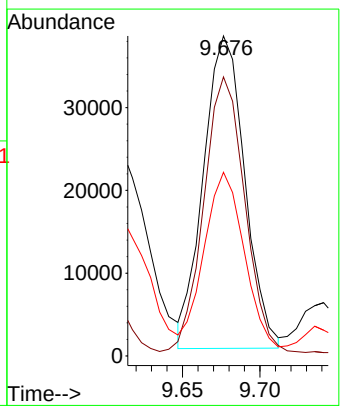
Manual Integrations
APPROVED
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

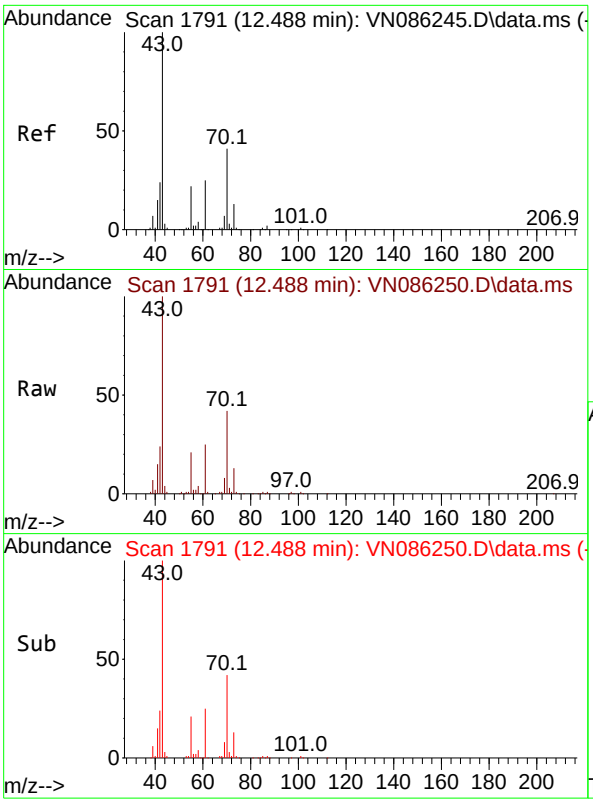


#46
Methyl methacrylate
Concen: 21.088 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 41 Resp: 69895

Ion	Ratio	Lower	Upper
41	100		
69	89.0	43.2	129.6
39	57.9	26.4	79.0

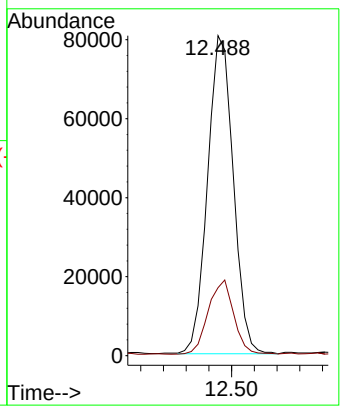




#47
n-amyl Acetate
Concen: 21.222 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 12657

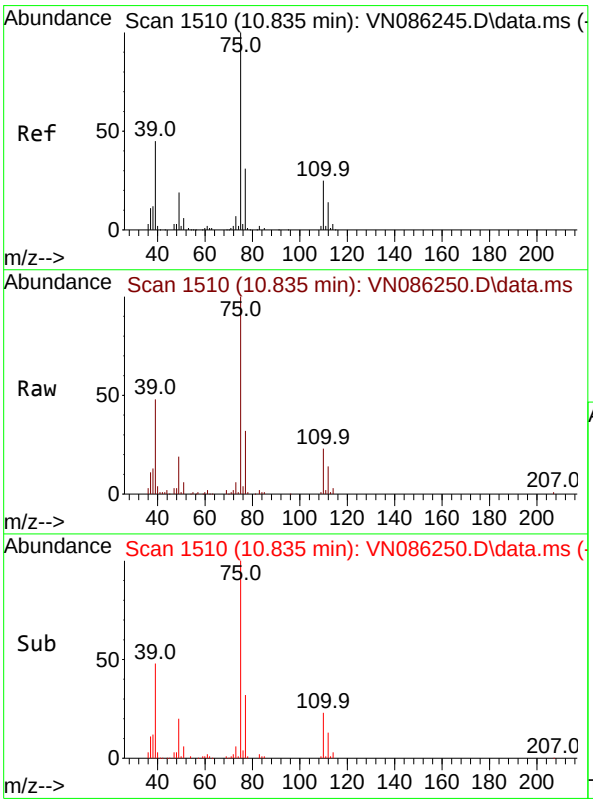
Ion	Ratio	Lower	Upper
43	100		
55	23.1	19.0	28.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

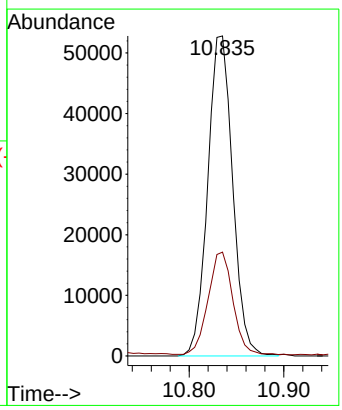
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

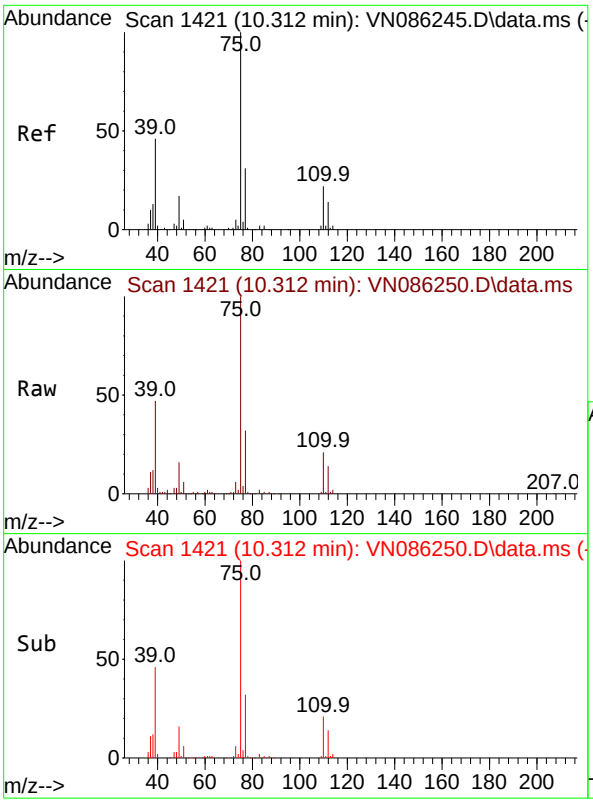


#48
t-1,3-Dichloropropene
Concen: 21.411 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 96458

Ion	Ratio	Lower	Upper
75	100		
77	32.0	25.1	37.7

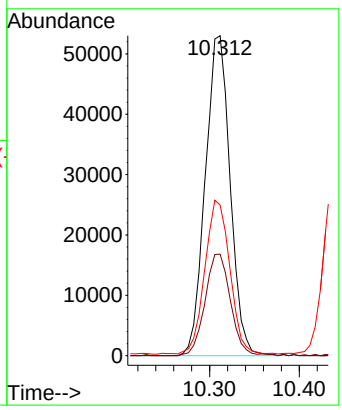




#49
cis-1,3-Dichloropropene
Concen: 21.406 ug/l
RT: 10.312 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 10206

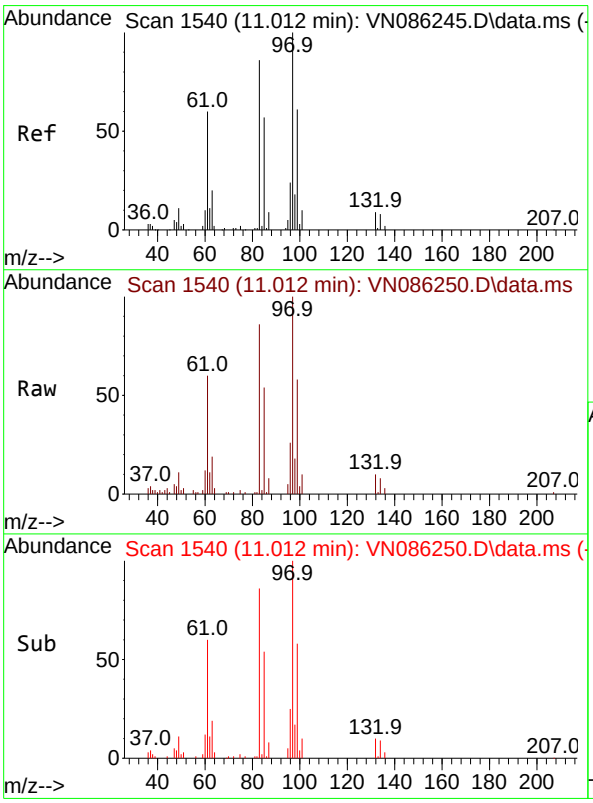
Ion	Ratio	Lower	Upper
75	100		
77	31.8	25.0	37.4
39	46.5	36.7	55.1



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

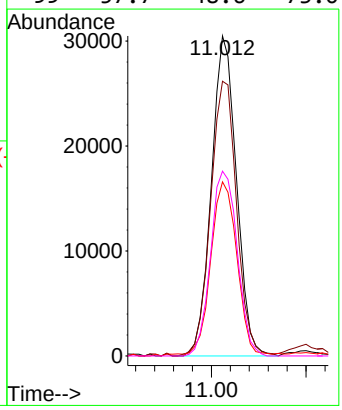
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

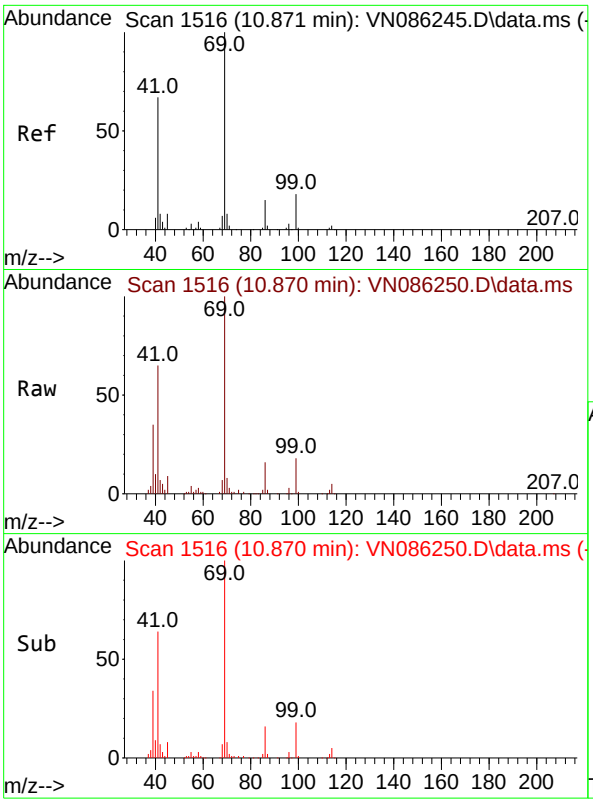


#50
1,1,2-Trichloroethane
Concen: 21.561 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 97 Resp: 56096

Ion	Ratio	Lower	Upper
97	100		
83	85.9	68.6	103.0
85	53.8	45.9	68.9
99	57.7	48.6	73.0





#51
Ethyl methacrylate
Concen: 21.747 ug/l
RT: 10.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

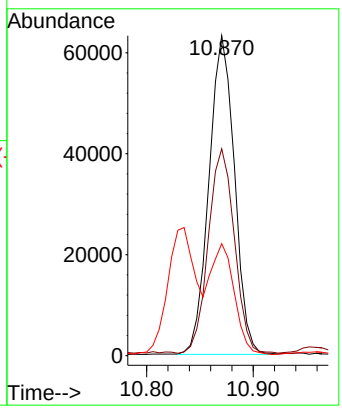
Tgt Ion: 69 Resp: 10514

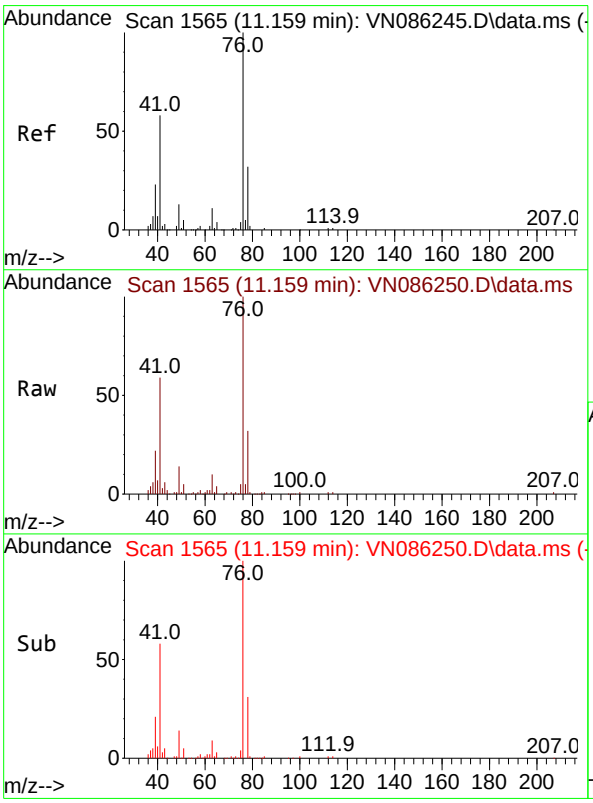
Ion	Ratio	Lower	Upper
69	100		
41	64.2	33.6	100.6
39	34.7	17.8	53.4

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

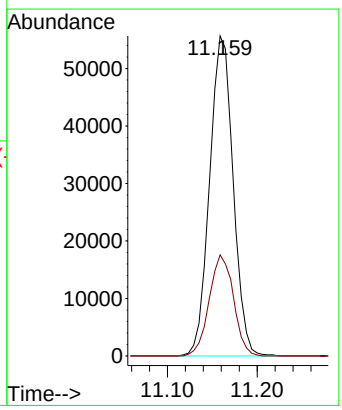


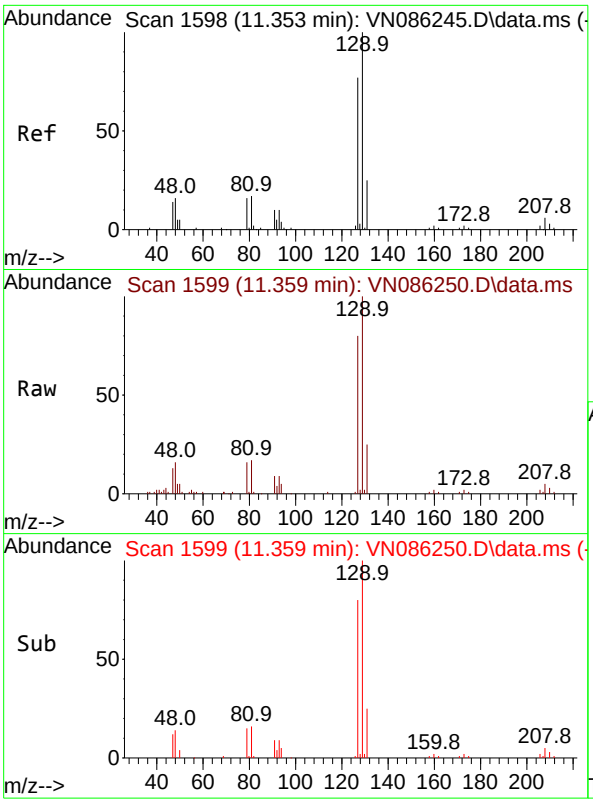


#52
1,3-Dichloropropane
Concen: 21.850 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 76 Resp: 101323

Ion	Ratio	Lower	Upper
76	100		
78	32.5	0.0	64.6

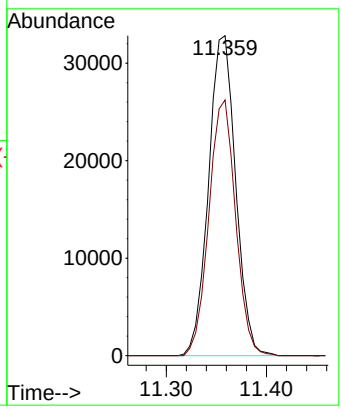




#53
Dibromochloromethane
Concen: 21.706 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:129 Resp: 6177

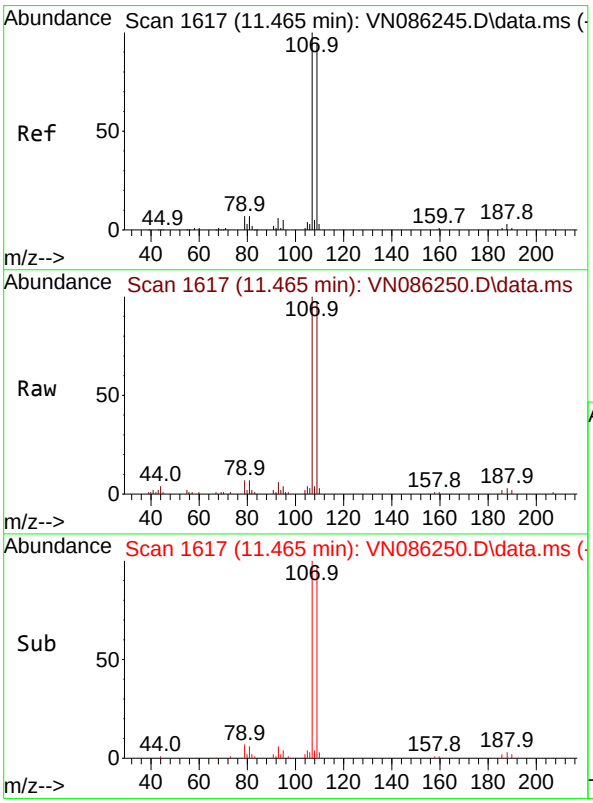
Ion	Ratio	Lower	Upper
129	100		
127	78.6	38.5	115.5



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

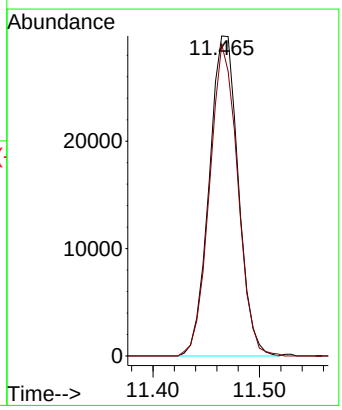
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

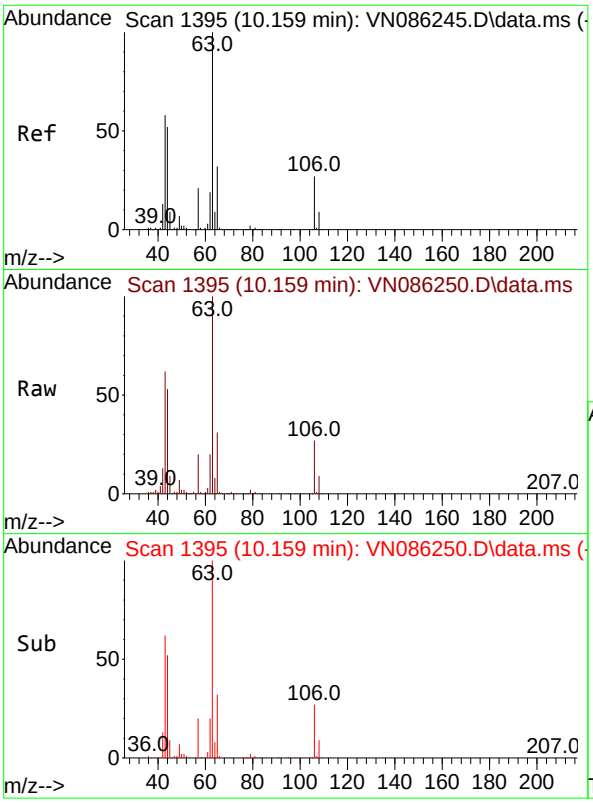


#54
1,2-Dibromoethane
Concen: 21.523 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:107 Resp: 56526

Ion	Ratio	Lower	Upper
107	100		
109	94.1	75.2	112.8

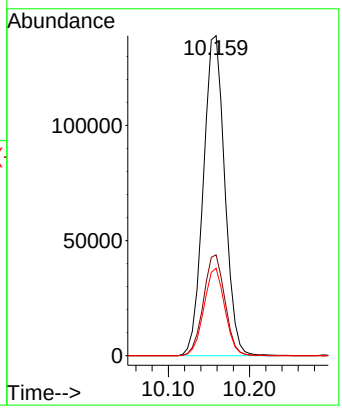




#55
2-Chloroethyl vinyl ether
Concen: 139.276 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 63 Resp: 25444

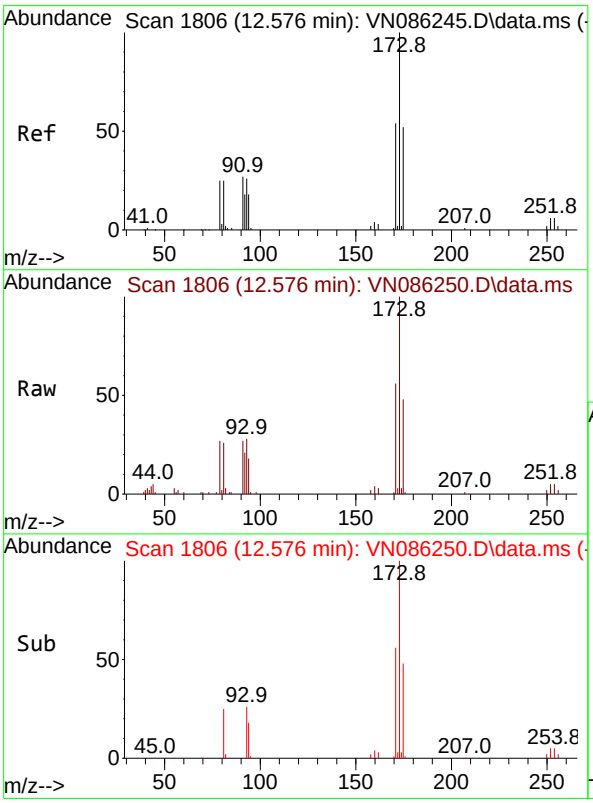
Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.8	38.8
106	26.7	21.8	32.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

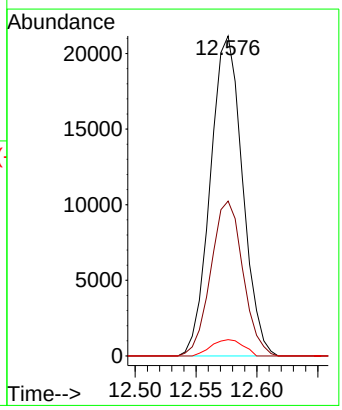
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

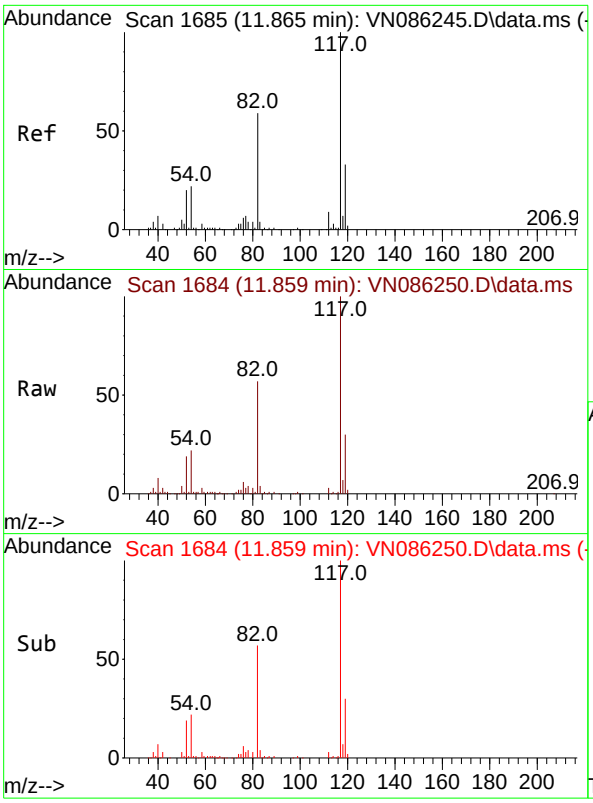


#56
Bromoform
Concen: 20.842 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:173 Resp: 38804

Ion	Ratio	Lower	Upper
173	100		
175	48.4	38.2	57.4
254	5.1	4.5	6.7





#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

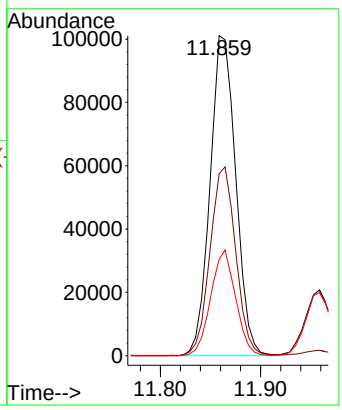
Tgt Ion:117 Resp: 18036

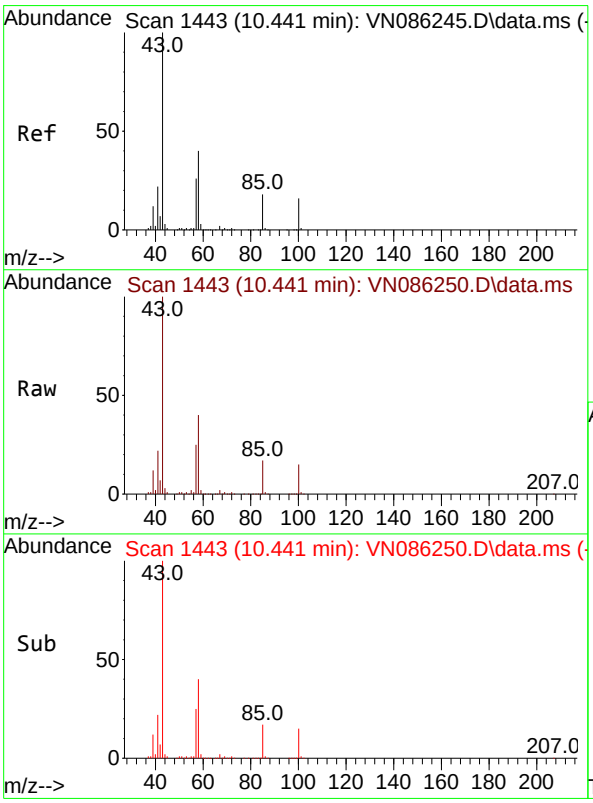
Ion	Ratio	Lower	Upper
117	100		
82	59.2	47.3	70.9
119	31.9	25.9	38.9

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

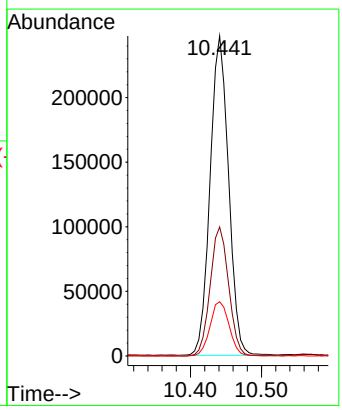


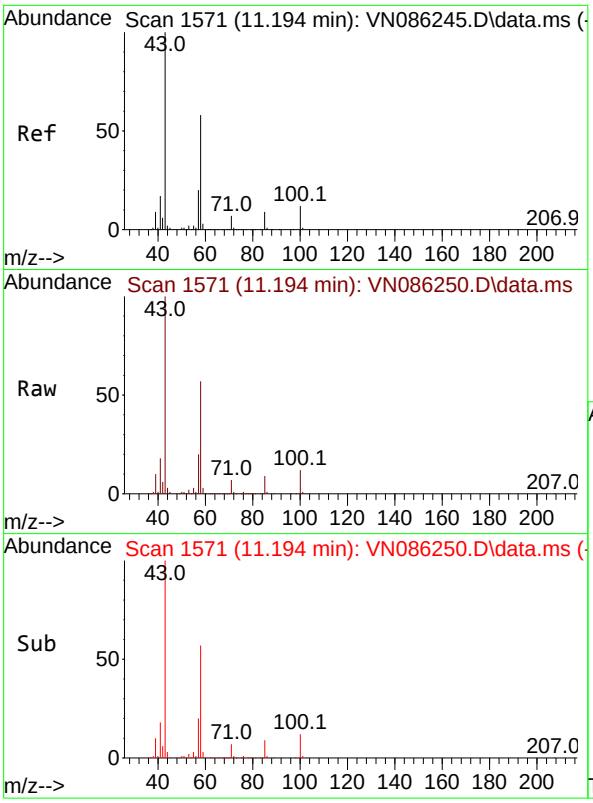


#58
4-Methyl-2-Pentanone
Concen: 109.058 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 446372

Ion	Ratio	Lower	Upper
43	100		
58	40.3	32.5	48.7
85	17.6	14.4	21.6





#59
2-Hexanone
Concen: 105.569 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

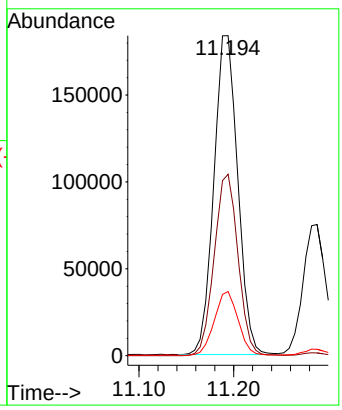
Tgt Ion: 43 Resp: 32174

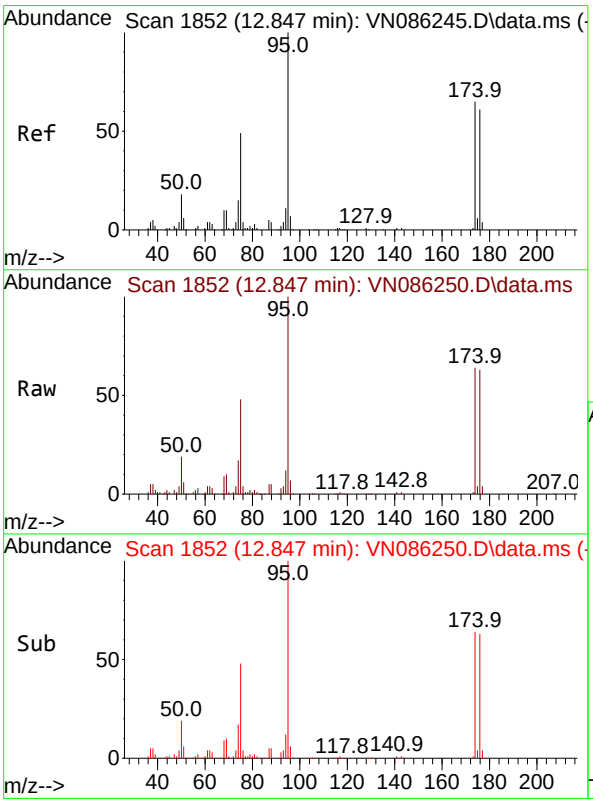
Ion	Ratio	Lower	Upper
43	100		
58	56.7	45.3	67.9
57	19.7	15.8	23.6

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

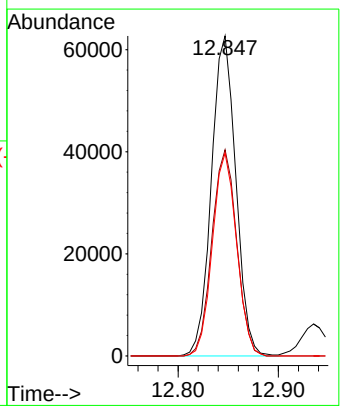


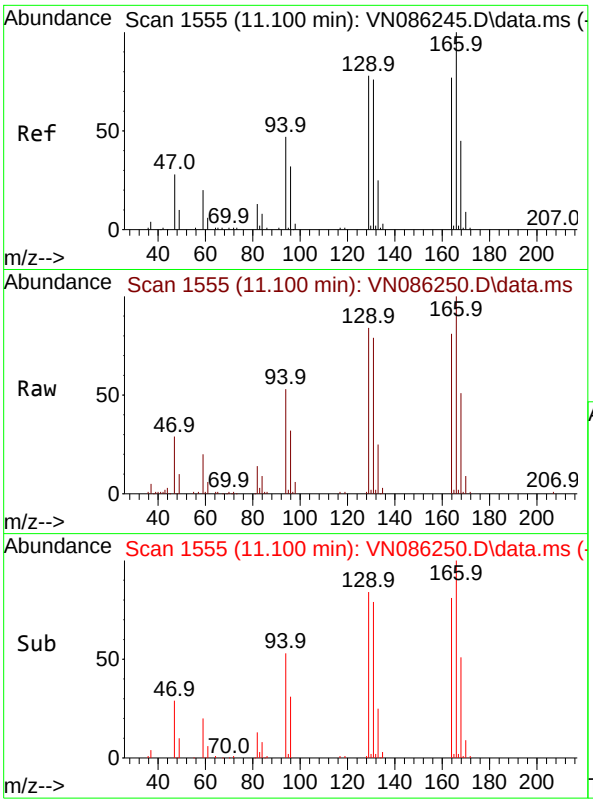


#60
4-Bromofluorobenzene
Concen: 29.590 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 95 Resp: 106256

Ion	Ratio	Lower	Upper
95	100		
174	65.0	52.7	79.1
176	62.5	49.8	74.8

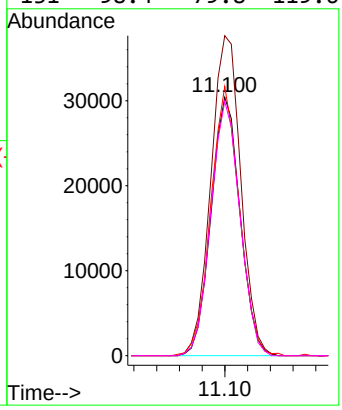




#61
Tetrachloroethene
Concen: 20.264 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:164 Resp: 5397

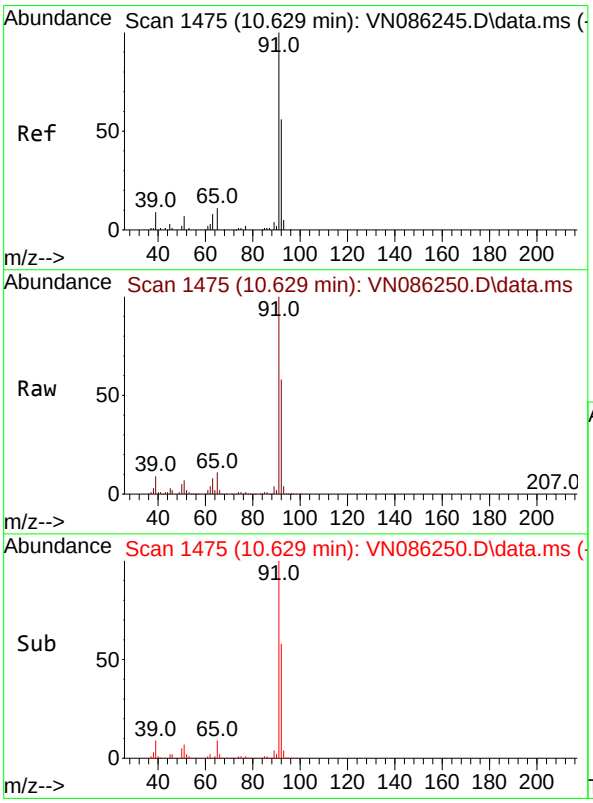
Ion	Ratio	Lower	Upper
164	100		
166	123.9	104.5	156.7
129	103.6	81.7	122.5
131	98.4	79.8	119.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

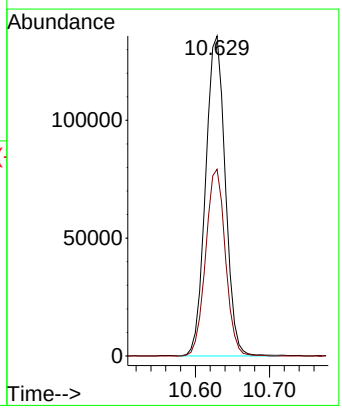
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

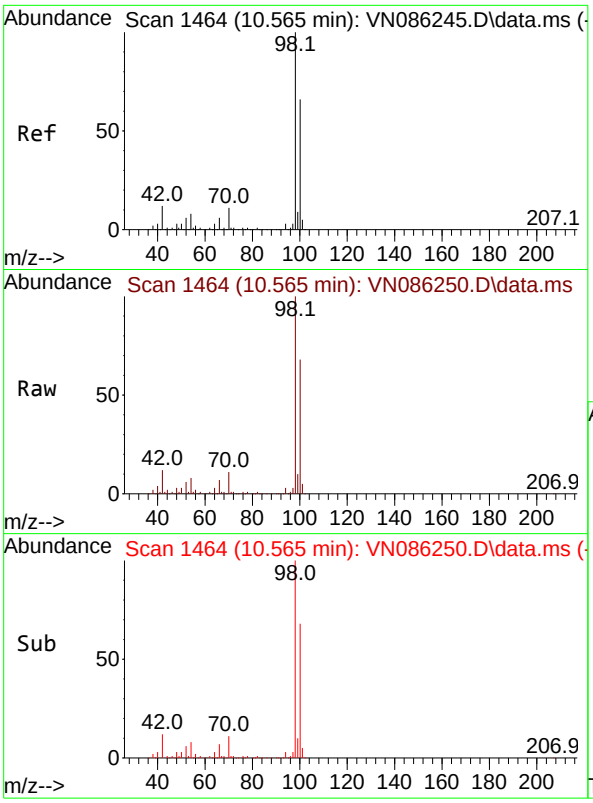


#62
Toluene
Concen: 20.706 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 250492

Ion	Ratio	Lower	Upper
91	100		
92	58.4	46.8	70.2





#63
Toluene-d8
Concen: 29.803 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

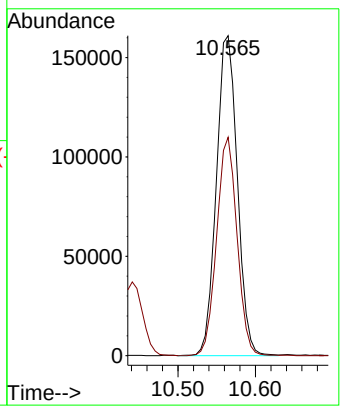
Tgt Ion: 98 Resp: 30346

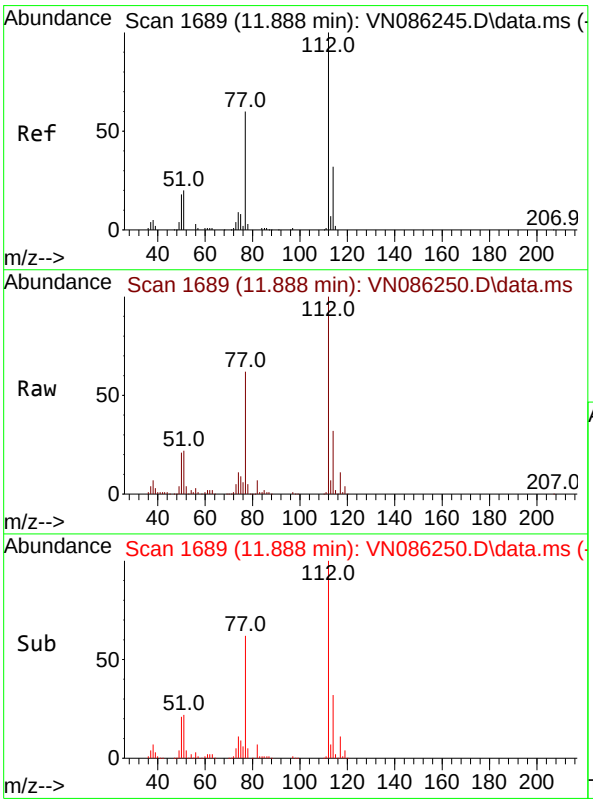
Ion	Ratio	Lower	Upper
98	100		
100	66.4	52.3	78.5

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

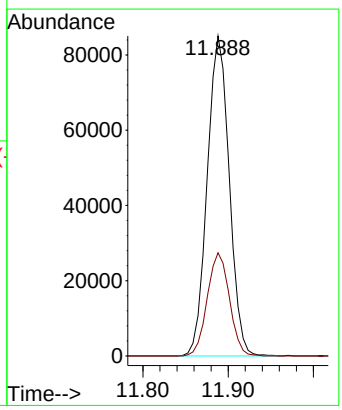


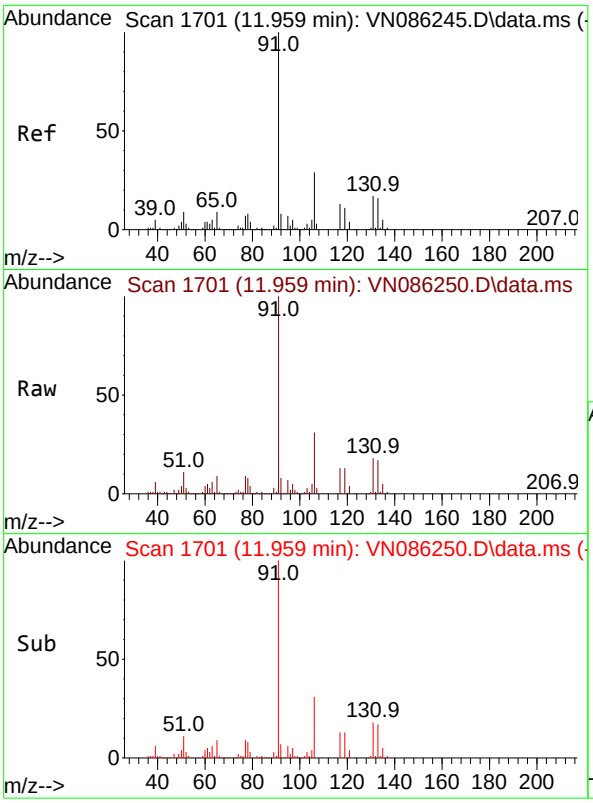


#64
Chlorobenzene
Concen: 20.635 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:112 Resp: 152512

Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.8	38.6

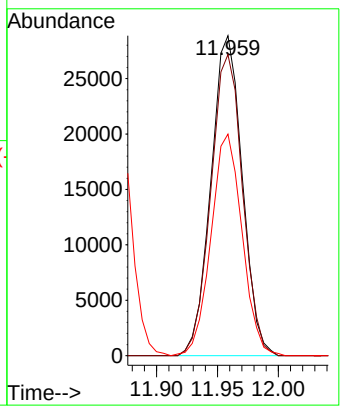




#65
1,1,1,2-Tetrachloroethane
Concen: 21.219 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:131 Resp: 5175

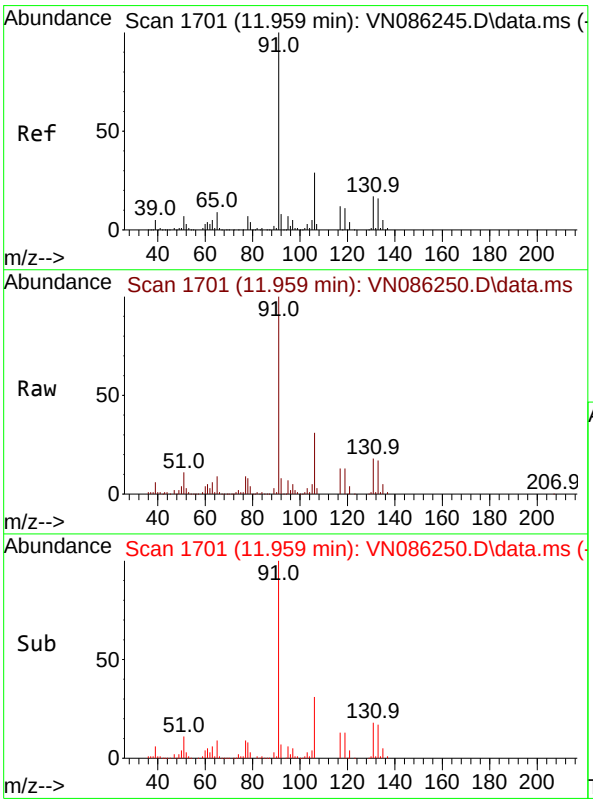
Ion	Ratio	Lower	Upper
131	100		
133	95.3	0.0	190.4
119	68.7	0.0	135.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

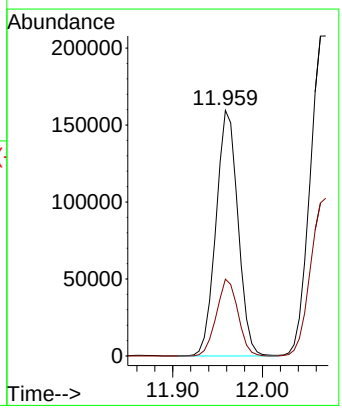
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

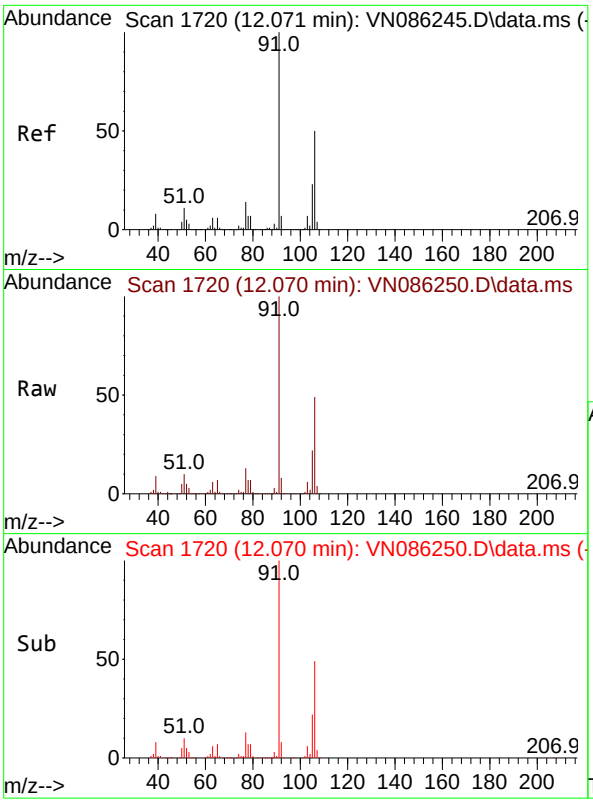


#66
Ethyl Benzene
Concen: 20.236 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 271487

Ion	Ratio	Lower	Upper
91	100		
106	31.3	23.4	35.0

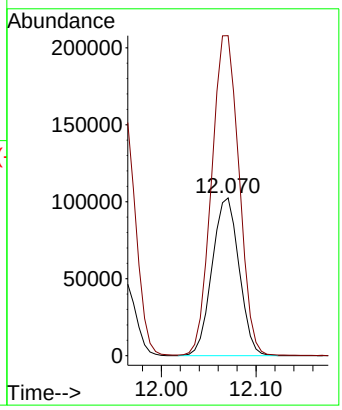




#67
m/p-Xylenes
Concen: 40.720 ug/l
RT: 12.070 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:106 Resp: 20313

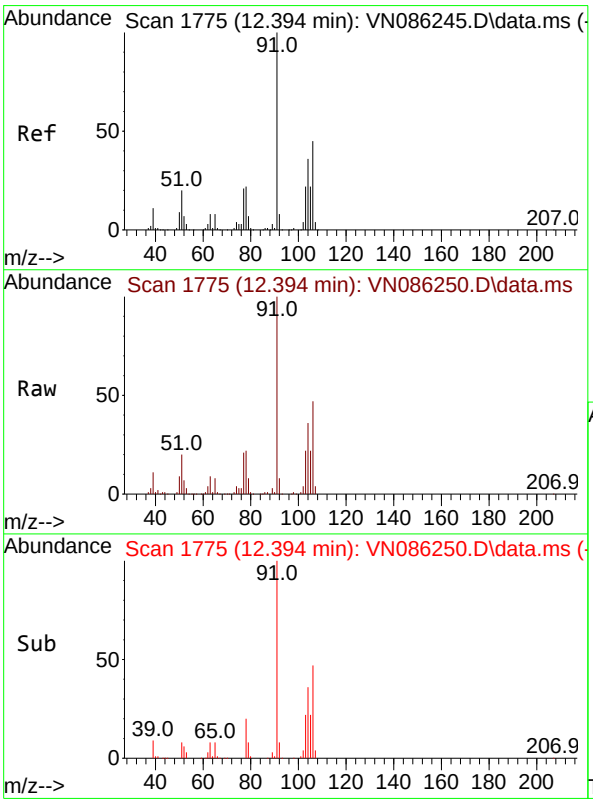
Ion	Ratio	Lower	Upper
106	100		
91	205.7	164.5	246.7



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

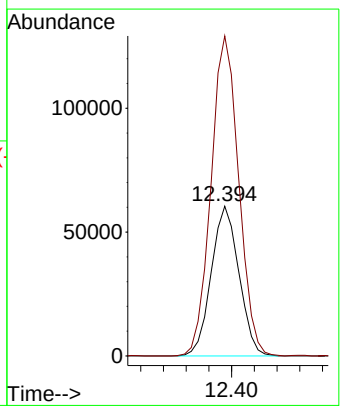
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

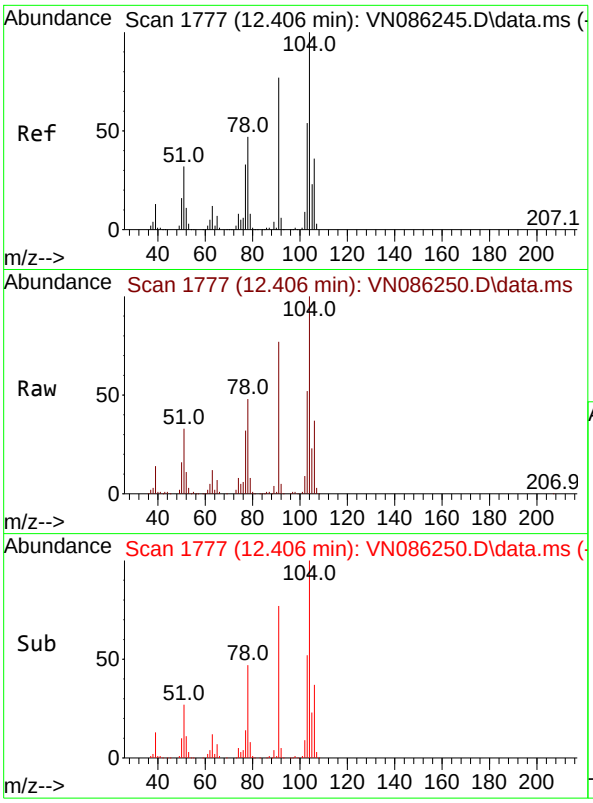


#68
o-Xylene
Concen: 20.842 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:106 Resp: 102269

Ion	Ratio	Lower	Upper
106	100		
91	214.0	109.8	329.4

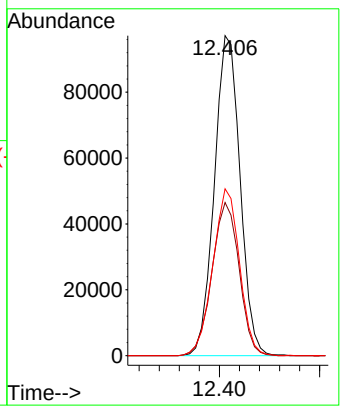




#69
Styrene
Concen: 20.872 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:104 Resp: 17272

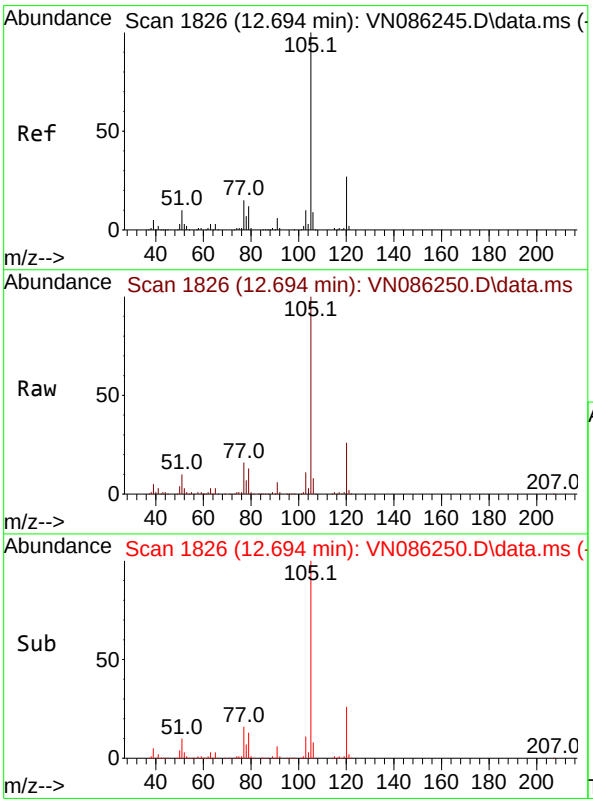
Ion	Ratio	Lower	Upper
104	100		
78	50.6	41.4	62.0
103	54.0	44.2	66.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

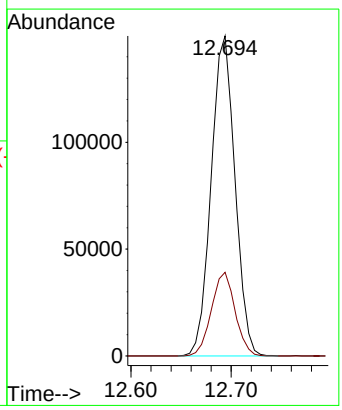
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

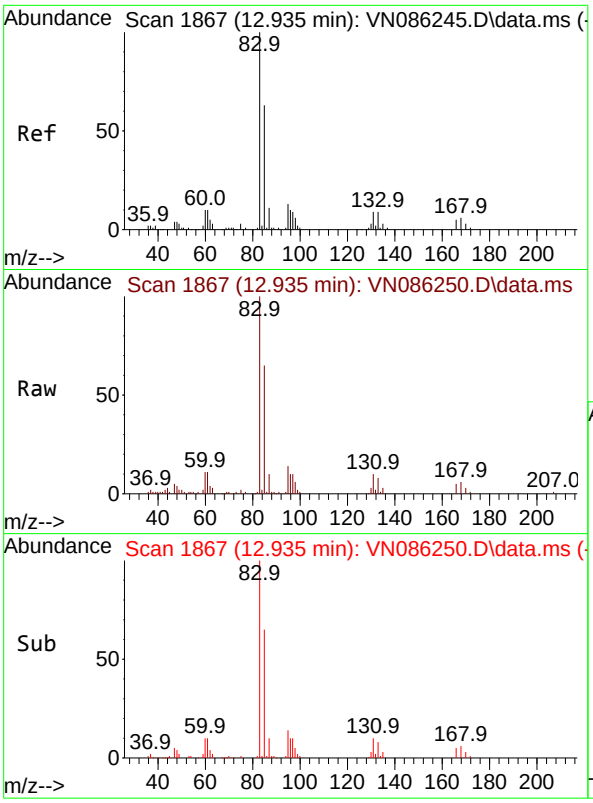


#70
Isopropylbenzene
Concen: 20.417 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 247015

Ion	Ratio	Lower	Upper
105	100		
120	25.9	18.3	34.1

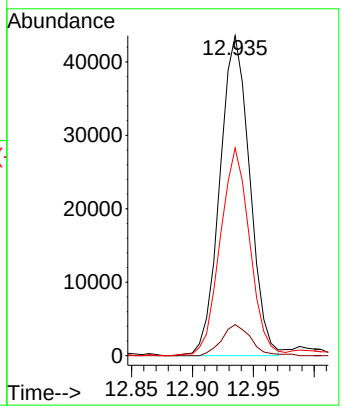




#71
1,1,2,2-Tetrachloroethane
Concen: 21.612 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 83 Resp: 7442

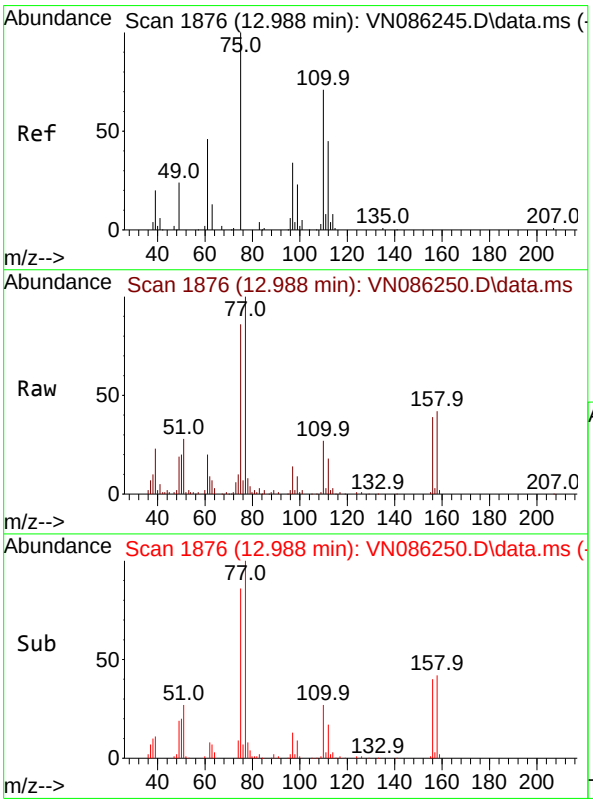
Ion	Ratio	Lower	Upper
83	100		
131	9.4	4.8	14.3
85	63.0	32.3	96.8



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

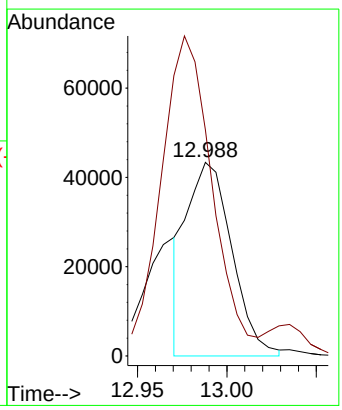
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

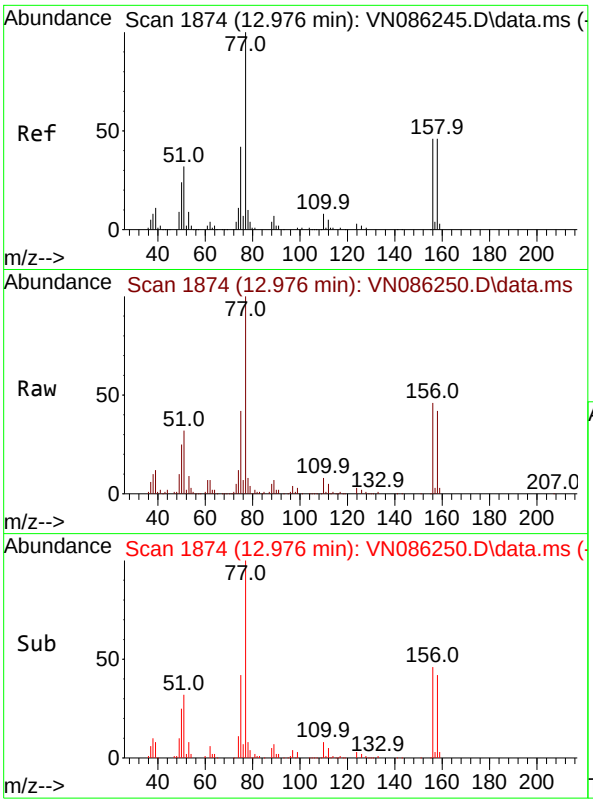


#72
1,2,3-Trichloropropane
Concen: 21.289 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 76312

Ion	Ratio	Lower	Upper
75	100		
77	187.9	0.0	380.0

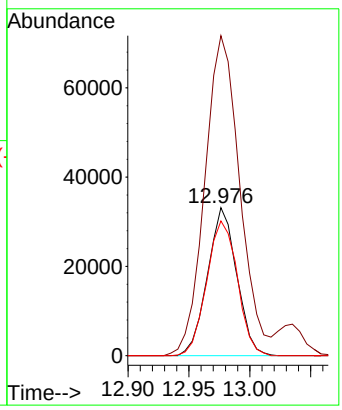




#73
Bromobenzene
Concen: 20.660 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:156 Resp: 5537

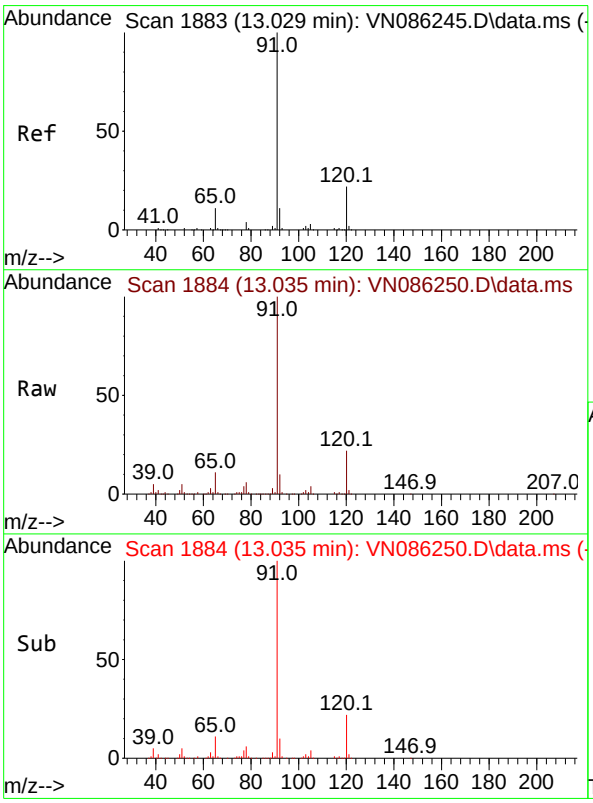
Ion	Ratio	Lower	Upper
156	100		
77	258.9	0.0	505.2
158	95.5	0.0	195.0



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

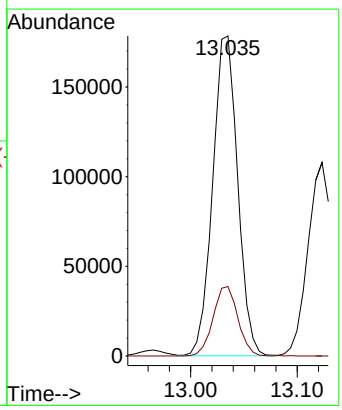
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

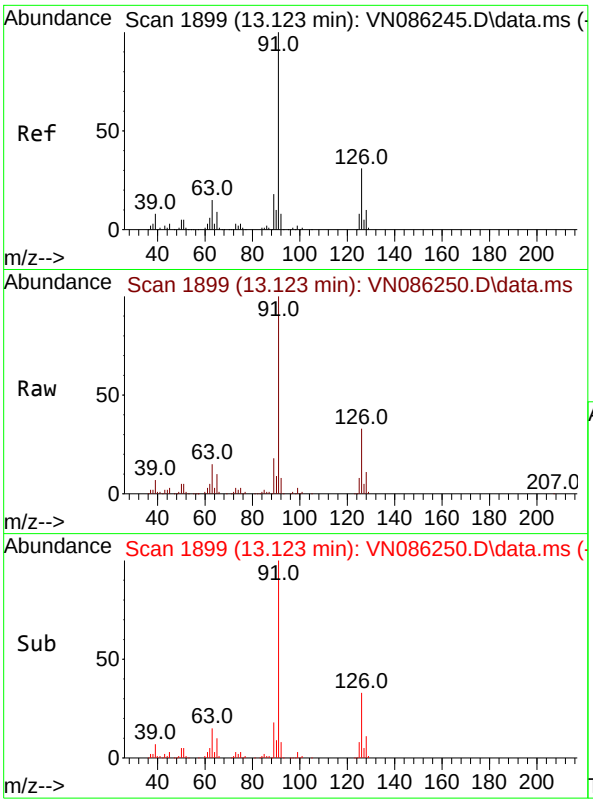


#74
n-propylbenzene
Concen: 20.330 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 290430

Ion	Ratio	Lower	Upper
91	100		
120	21.5	0.0	44.0

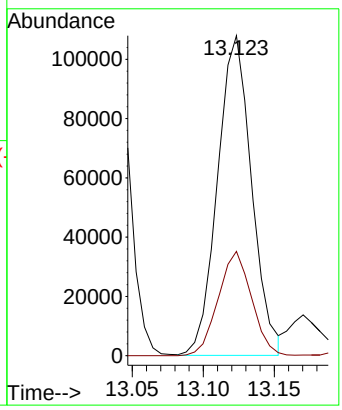




#75
2-Chlorotoluene
Concen: 20.074 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 18025

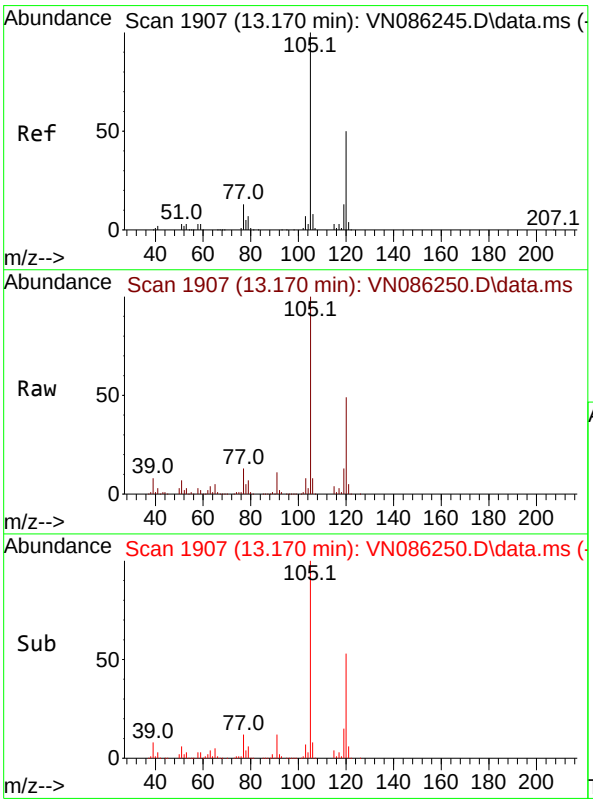
Ion	Ratio	Lower	Upper
91	100		
126	31.8	0.0	63.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

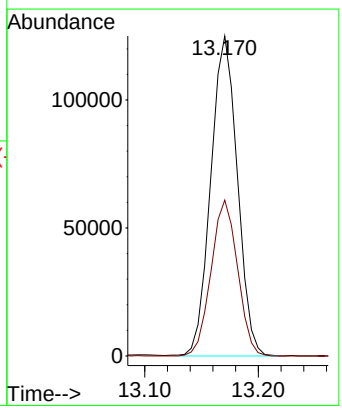
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

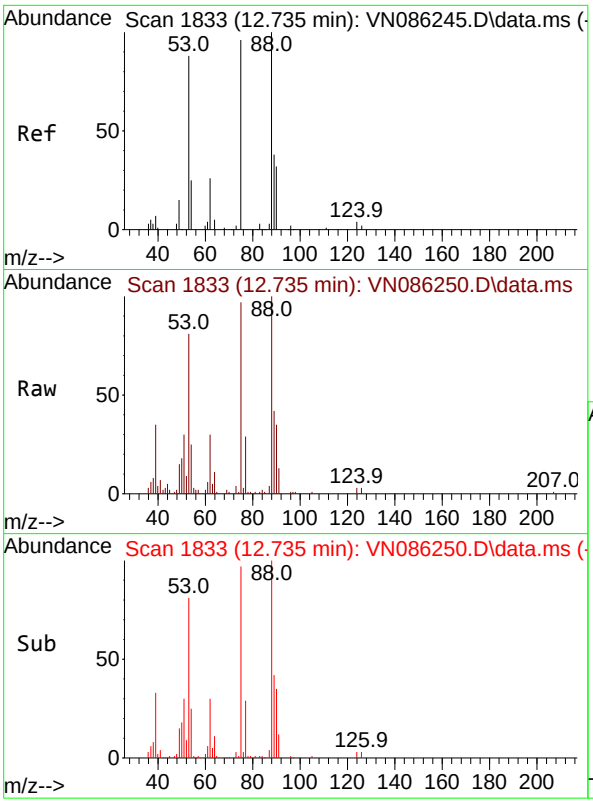


#76
1,3,5-Trimethylbenzene
Concen: 20.450 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 203242

Ion	Ratio	Lower	Upper
105	100		
120	48.5	0.0	98.0





#77
t-1,4-Dichloro-2-butene
Concen: 20.436 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

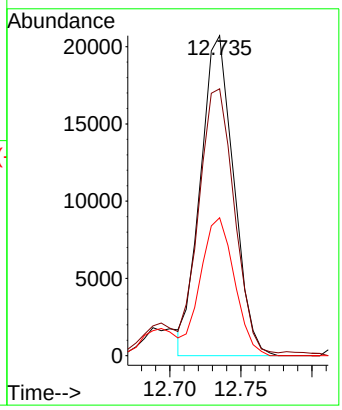
Tgt Ion: 75 Resp: 3377

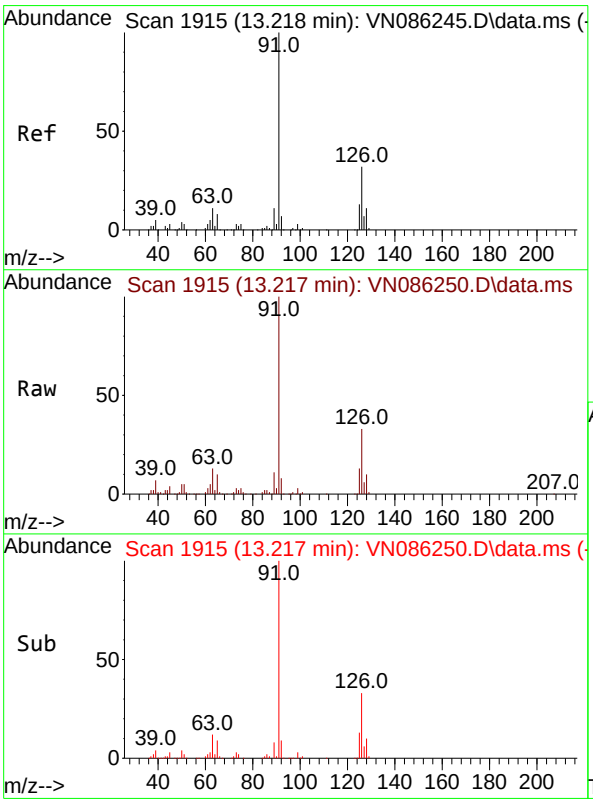
Ion	Ratio	Lower	Upper
75	100		
53	82.5	46.4	139.2
89	43.1	22.5	67.5

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

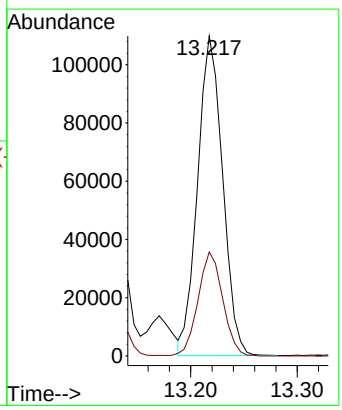


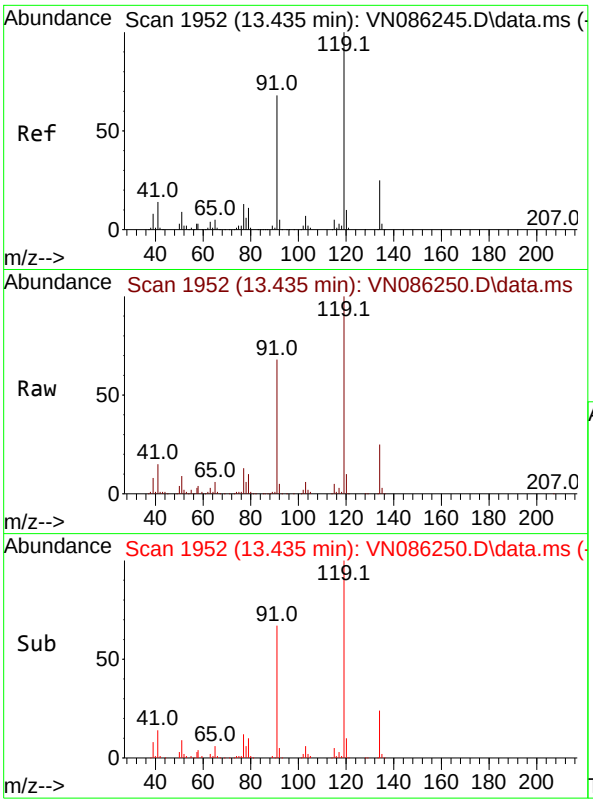


#78
4-Chlorotoluene
Concen: 19.997 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 179336

Ion	Ratio	Lower	Upper
91	100		
126	32.1	0.0	63.2

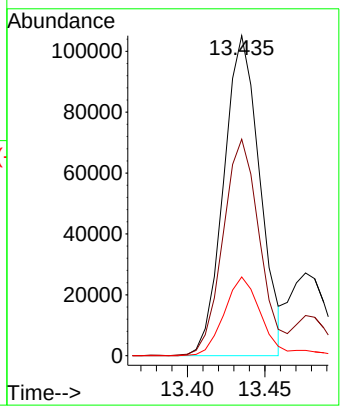




#79
tert-butylbenzene
Concen: 19.806 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:119 Resp: 17032

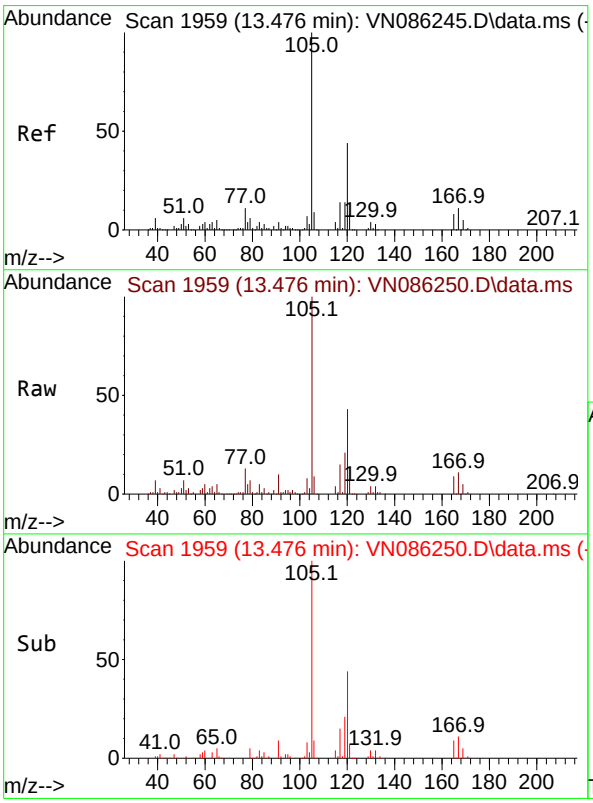
Ion	Ratio	Lower	Upper
119	100		
91	69.3	0.0	136.6
134	24.5	0.0	49.4



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

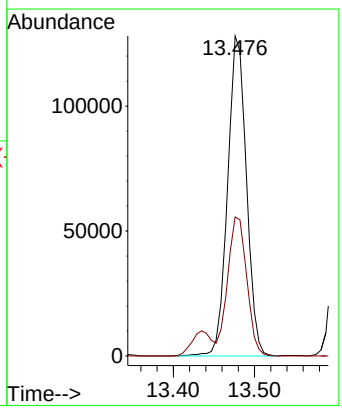
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

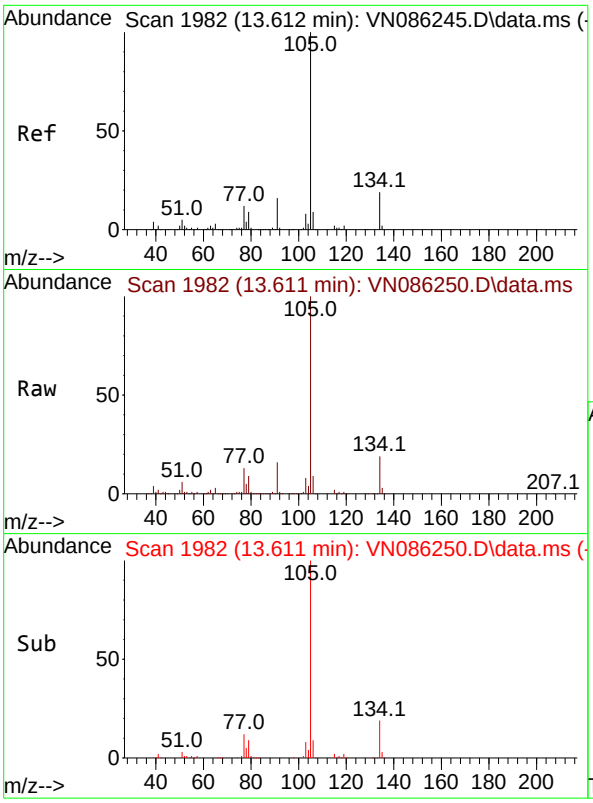


#80
1,2,4-Trimethylbenzene
Concen: 20.464 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 206236

Ion	Ratio	Lower	Upper
105	100		
120	44.1	0.0	91.0

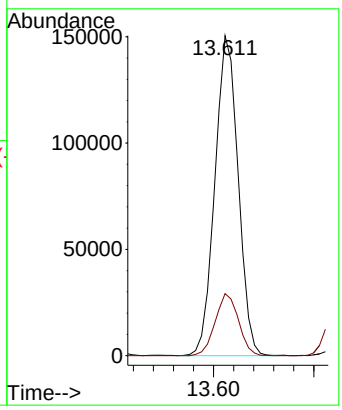




#81
sec-Butylbenzene
Concen: 20.202 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 24233

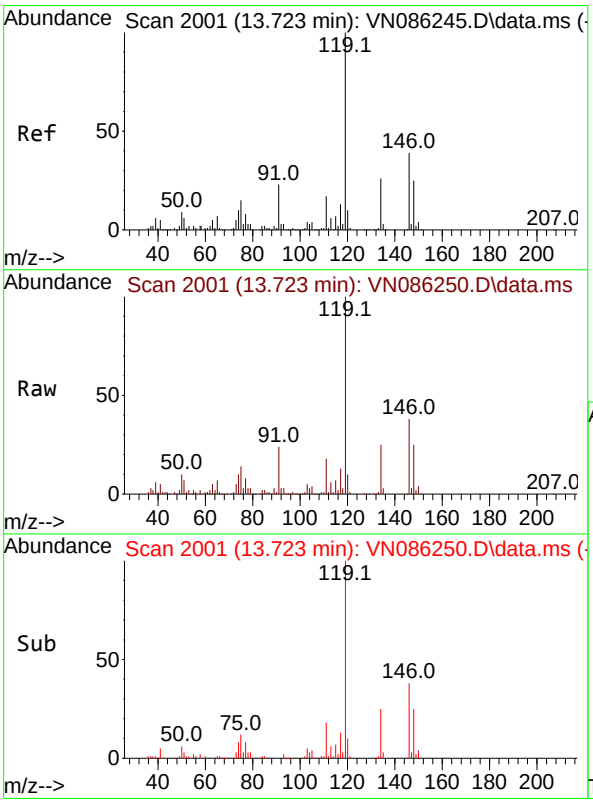
Ion	Ratio	Lower	Upper
105	100		
134	19.4	0.0	38.6



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

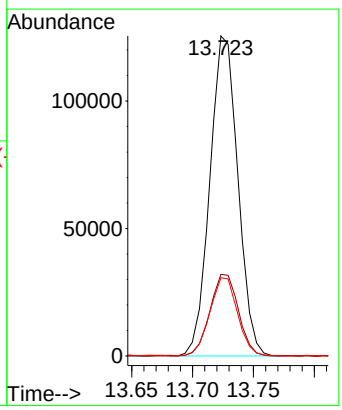
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

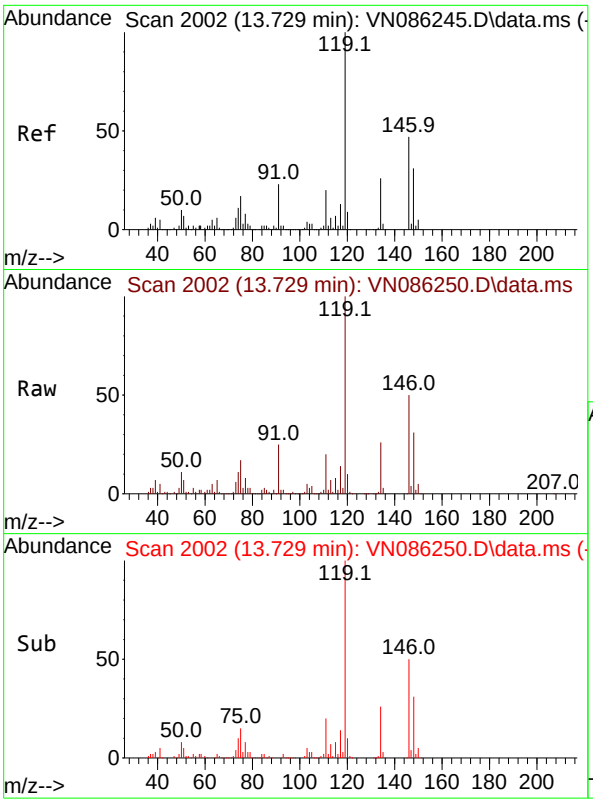


#82
p-Isopropyltoluene
Concen: 20.098 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:119 Resp: 201123

Ion	Ratio	Lower	Upper
119	100		
134	25.8	0.0	51.6
91	24.4	0.0	48.2





#83
1,3-Dichlorobenzene
Concen: 20.332 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

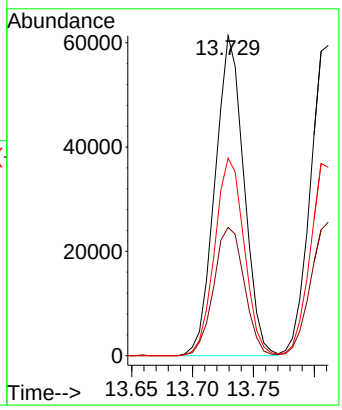
Tgt Ion:146 Resp: 10128

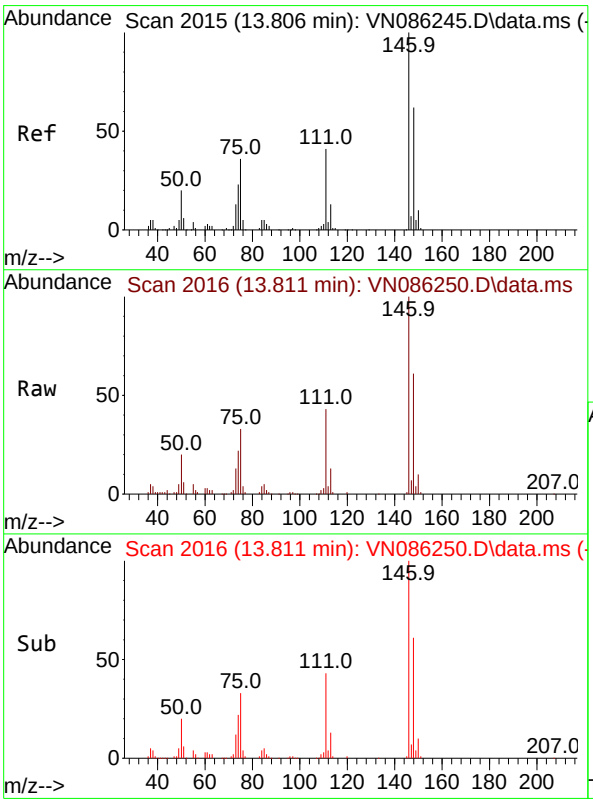
Ion	Ratio	Lower	Upper
146	100		
111	42.6	21.7	65.1
148	63.1	32.3	96.8

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

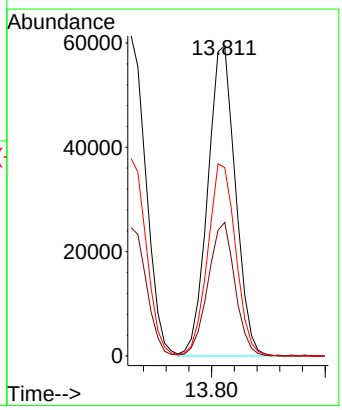


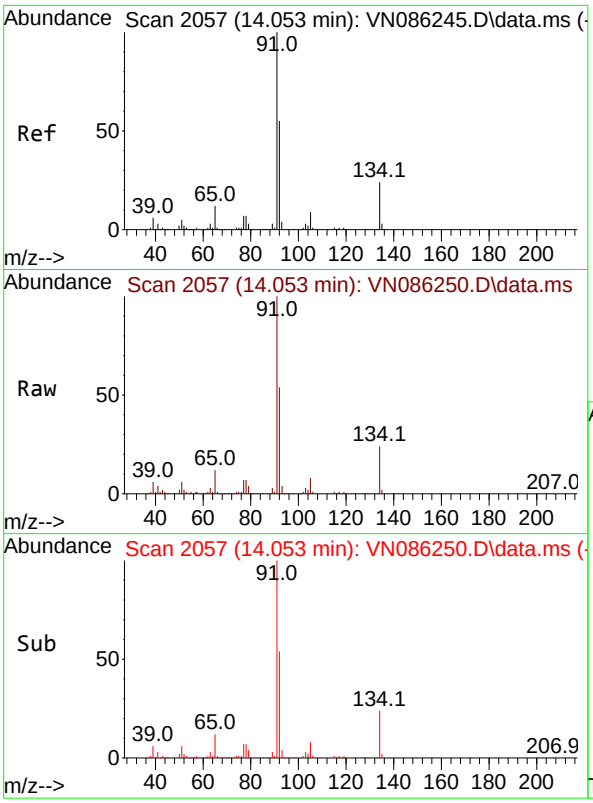


#84
1,4-Dichlorobenzene
Concen: 20.144 ug/l
RT: 13.811 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:146 Resp: 100671

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.8	62.4
148	62.5	31.9	95.5





#85
n-Butylbenzene
Concen: 20.279 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

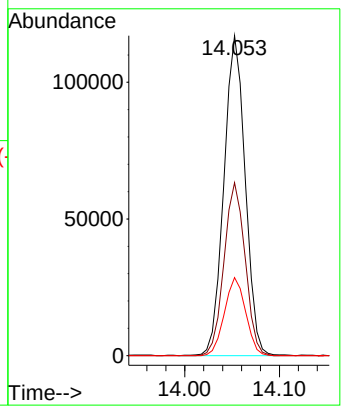
Tgt Ion: 91 Resp: 18306

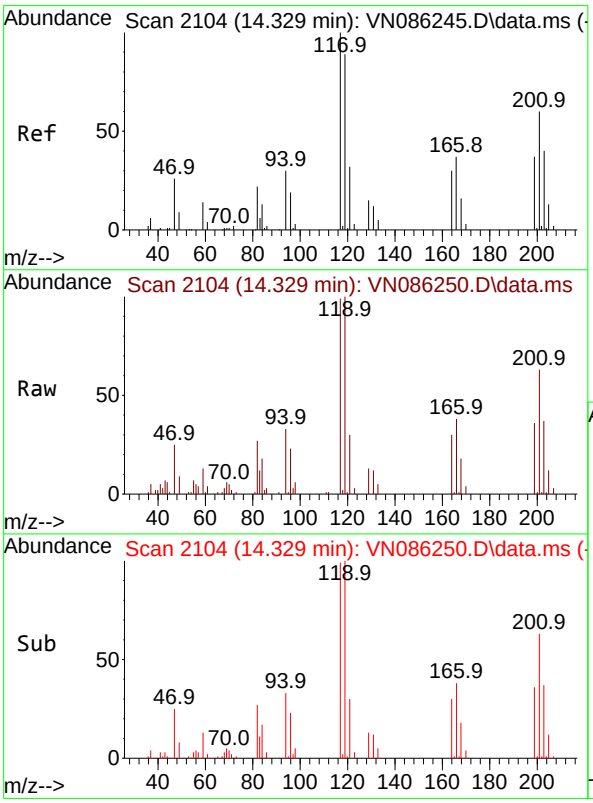
Ion	Ratio	Lower	Upper
91	100		
92	53.4	0.0	109.4
134	24.2	0.0	48.2

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

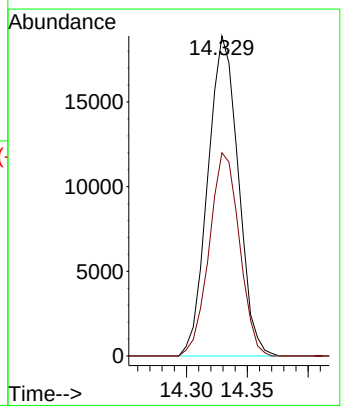


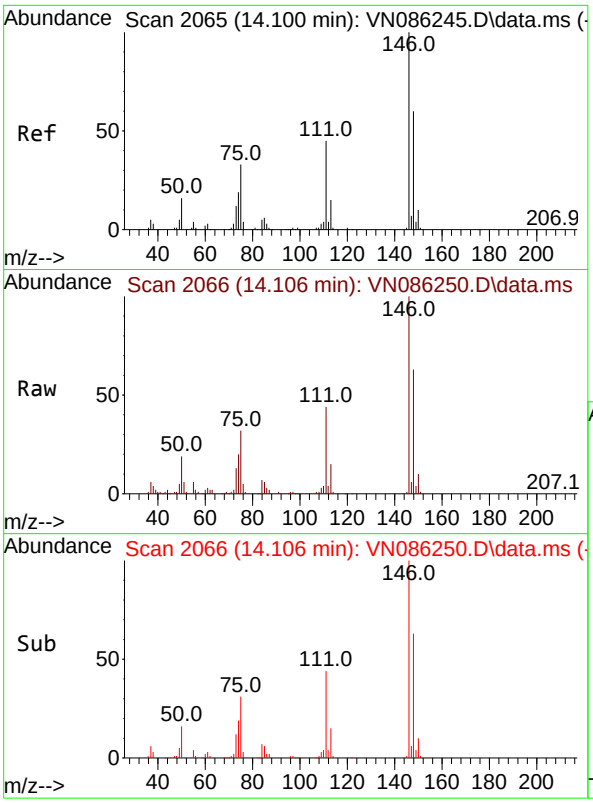


#86
Hexachloroethane
Concen: 19.494 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:117 Resp: 32907

Ion	Ratio	Lower	Upper
117	100		
201	63.0	30.9	92.8

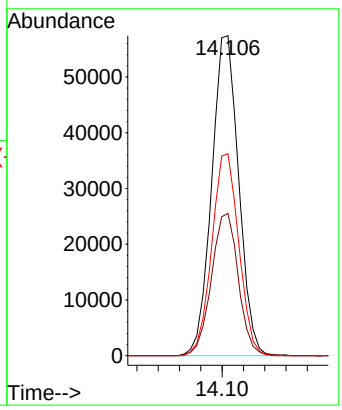




#87
1,2-Dichlorobenzene
Concen: 20.514 ug/l
RT: 14.106 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:146 Resp: 10090

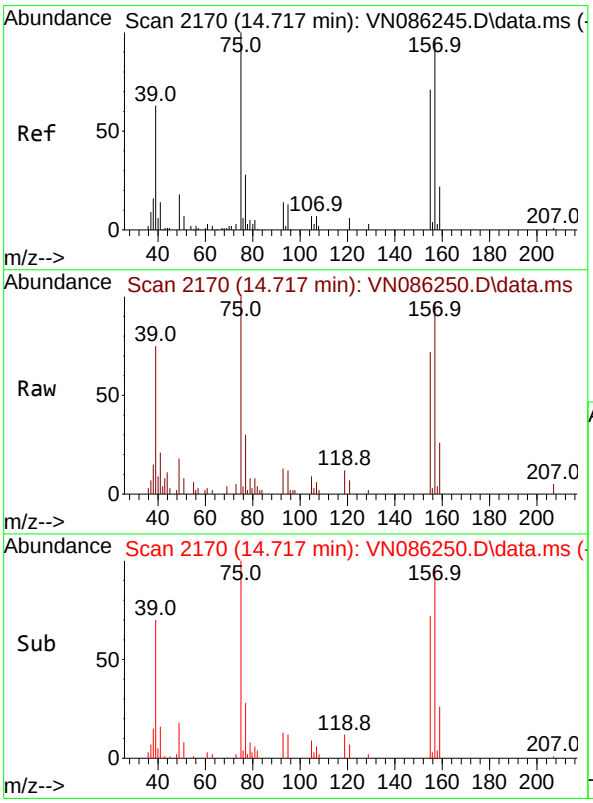
Ion	Ratio	Lower	Upper
146	100		
111	44.3	22.7	68.0
148	63.1	31.8	95.3



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

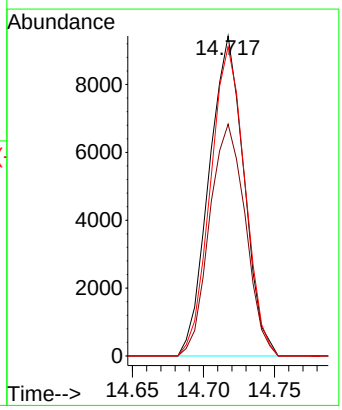
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

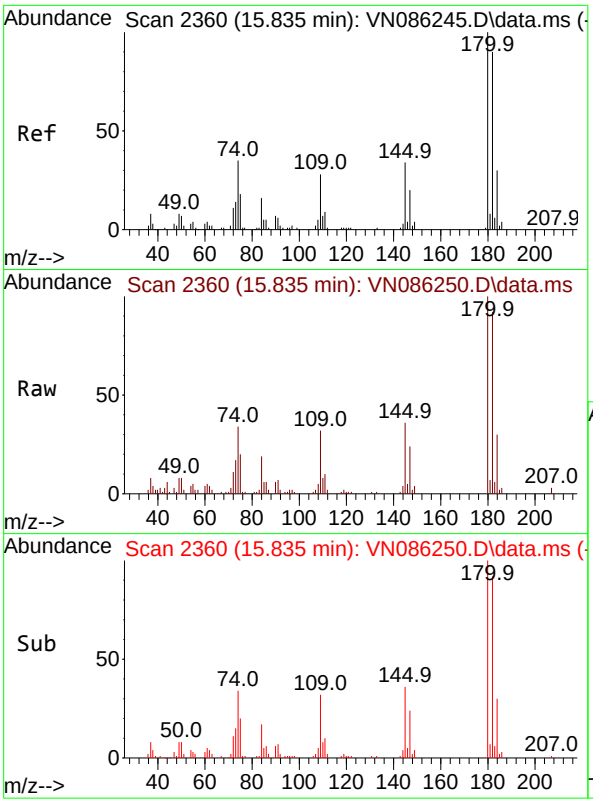


#88
1,2-Dibromo-3-Chloropropane
Concen: 20.539 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 16110

Ion	Ratio	Lower	Upper
75	100		
155	74.4	60.3	90.5
157	95.2	79.0	118.4





#89
1,2,4-Trichlorobenzene
Concen: 20.472 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

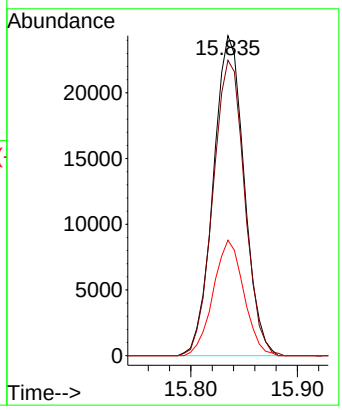
Tgt Ion:180 Resp: 4899

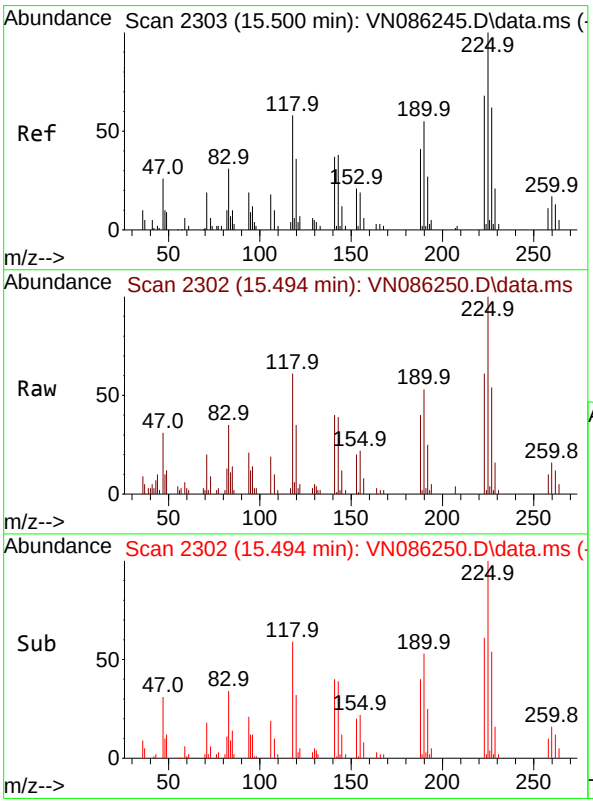
Ion	Ratio	Lower	Upper
180	100		
182	94.3	75.1	112.7
145	35.7	27.1	40.7

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

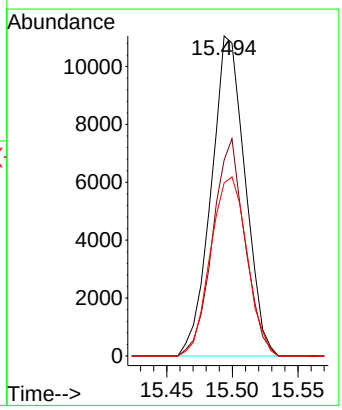


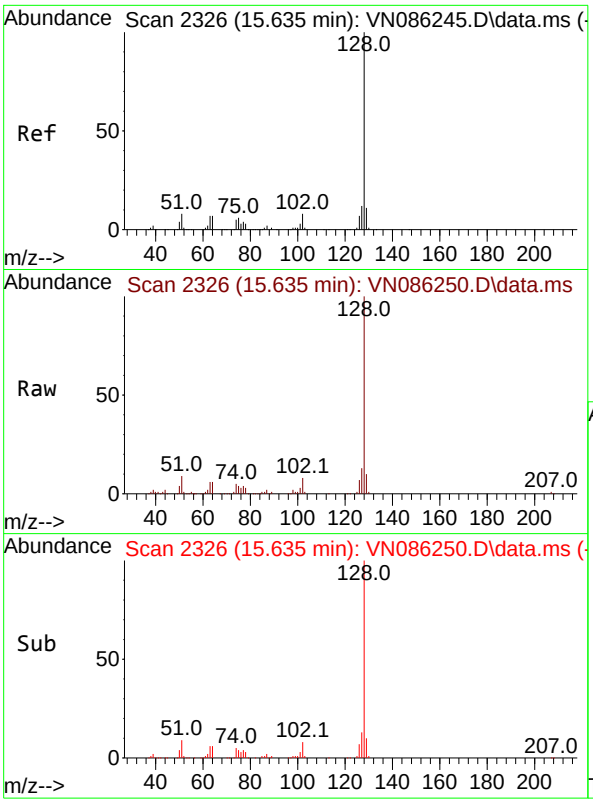


#90
Hexachlorobutadiene
Concen: 19.213 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:225 Resp: 19853

Ion	Ratio	Lower	Upper
225	100		
223	64.4	0.0	130.0
227	60.3	0.0	123.2

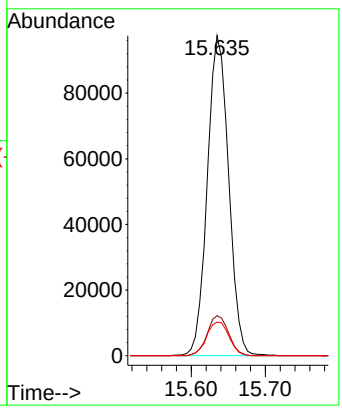




#91
Naphthalene
Concen: 20.655 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:128 Resp: 19490

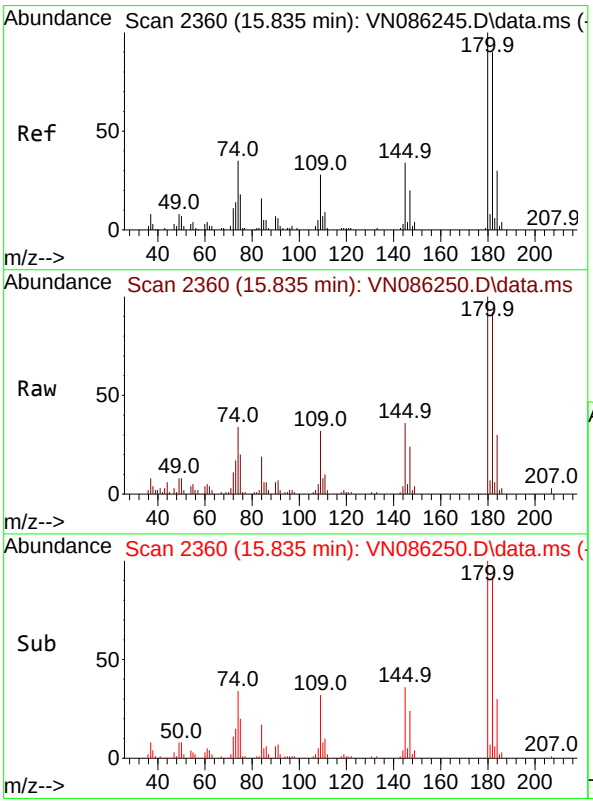
Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.2	15.2
129	11.1	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Manual Integrations
APPROVED

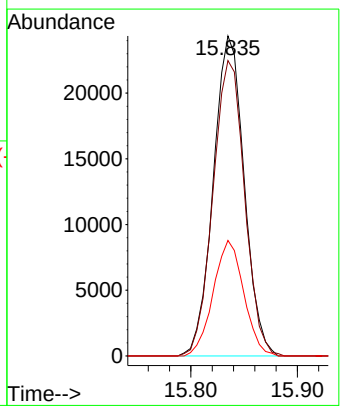
Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025



#92
1,2,3-Trichlorobenzene
Concen: 20.472 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:180 Resp: 48993

Ion	Ratio	Lower	Upper
180	100		
182	94.3	0.0	187.8
145	35.7	0.0	67.8



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

Manual Integration Report

Sequence:	VN041125	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC100	VN086242.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:12 AM	MMDadoda	4/14/2025 3:43:46 PM	Peak Integrated by Software
VSTDICC050	VN086244.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:21 AM	MMDadoda	4/14/2025 3:43:50 PM	Peak Integrated by Software
VSTDICCC020	VN086245.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:25 AM	MMDadoda	4/14/2025 3:43:52 PM	Peak Integrated by Software
VSTDICC005	VN086246.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:30 AM	MMDadoda	4/14/2025 3:43:53 PM	Peak Integrated by Software
VSTDICC005	VN086246.D	Methyl Iodide	JOHN	4/14/2025 9:11:30 AM	MMDadoda	4/14/2025 3:43:53 PM	Peak Integrated by Software
VSTDICC005	VN086246.D	Methyl tert-Butyl Ether	JOHN	4/14/2025 9:11:30 AM	MMDadoda	4/14/2025 3:43:53 PM	Peak Integrated by Software
VSTDICC005	VN086246.D	trans-1,2-Dichloroethene	JOHN	4/14/2025 9:11:30 AM	MMDadoda	4/14/2025 3:43:53 PM	Peak Integrated by Software
VSTDICV020	VN086248.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:35 AM	MMDadoda	4/14/2025 3:43:56 PM	Peak Integrated by Software
VN0411WBS01	VN086249.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:40 AM	MMDadoda	4/14/2025 3:43:58 PM	Peak Integrated by Software
VN0411WBSD01	VN086250.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:11:44 AM	MMDadoda	4/14/2025 3:44:00 PM	Peak Integrated by Software
Q1774-03	VN086253.D	Acetone	JOHN	4/14/2025 9:13:05 AM	MMDadoda	4/14/2025 3:44:02 PM	Peak Integrated by Software
Q1774-04	VN086254.D	1,1,2-Trichlorotrifluoroethane	JOHN	4/14/2025 9:13:09 AM	MMDadoda	4/14/2025 3:44:04 PM	Peak Integrated by Software
Q1774-04	VN086254.D	Acetone	JOHN	4/14/2025 9:13:09 AM	MMDadoda	4/14/2025 3:44:04 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VN041125	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC020	VN086255.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:13:15 AM	MMDadoda	4/14/2025 3:44:07 PM	Peak Integrated by Software

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN041125

Review By	John Carlone	Review On	4/14/2025 9:15:54 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	4/14/2025 3:45:12 PM		
SubDirectory	VN041125	HP Acquire Method		HP Processing Method	624N041125W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133643
Initial Calibration Stds	VP133645,VP133646,VP133647,VP133648,VP133649
CCC	VP133644
Internal Standard/PEM	
ICV/I.BLK	VP133650
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr #	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN086241.D	11 Apr 2025 09:52	JC\MD	Ok
2	VSTDICC100	VN086242.D	11 Apr 2025 11:04	JC\MD	Ok,M
3	VSTDICC050	VN086243.D	11 Apr 2025 11:28	JC\MD	Not Ok
4	VSTDICC050	VN086244.D	11 Apr 2025 11:52	JC\MD	Ok,M
5	VSTDICCC020	VN086245.D	11 Apr 2025 12:16	JC\MD	Ok,M
6	VSTDICC005	VN086246.D	11 Apr 2025 12:40	JC\MD	Ok,M
7	IBLK	VN086247.D	11 Apr 2025 13:04	JC\MD	Ok
8	VSTDICV020	VN086248.D	11 Apr 2025 13:34	JC\MD	Ok,M
9	VN0411WBS01	VN086249.D	11 Apr 2025 14:38	JC\MD	Ok,M
10	VN0411WBSD01	VN086250.D	11 Apr 2025 15:16	JC\MD	Ok,M
11	VN0411WBL01	VN086251.D	11 Apr 2025 15:40	JC\MD	Ok
12	Q1774-02	VN086252.D	11 Apr 2025 16:15	JC\MD	Ok
13	Q1774-03	VN086253.D	11 Apr 2025 16:39	JC\MD	Ok,M
14	Q1774-04	VN086254.D	11 Apr 2025 17:03	JC\MD	Ok,M
15	VSTDCCC020	VN086255.D	11 Apr 2025 17:28	JC\MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN041125

Review By	John Carlone	Review On	4/14/2025 9:15:54 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	4/14/2025 3:45:12 PM		
SubDirectory	VN041125	HP Acquire Method		HP Processing Method	624N041125W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133643
Initial Calibration Stds	VP133645,VP133646,VP133647,VP133648,VP133649
CCC	VP133644
Internal Standard/PEM	
ICV/I.BLK	VP133650
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr #	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN086241.D	11 Apr 2025 09:52		JC\MD	Ok
2	VSTDICC100	VSTDICC100	VN086242.D	11 Apr 2025 11:04	pH#Lot#V12668	JC\MD	Ok,M
3	VSTDICC050	VSTDICC050	VN086243.D	11 Apr 2025 11:28	Spike error	JC\MD	Not Ok
4	VSTDICC050	VSTDICC050	VN086244.D	11 Apr 2025 11:52		JC\MD	Ok,M
5	VSTDICCC020	VSTDICCC020	VN086245.D	11 Apr 2025 12:16	Method fail for comp.#55	JC\MD	Ok,M
6	VSTDICC005	VSTDICC005	VN086246.D	11 Apr 2025 12:40		JC\MD	Ok,M
7	IBLK	IBLK	VN086247.D	11 Apr 2025 13:04		JC\MD	Ok
8	VSTDICV020	ICVVN041125	VN086248.D	11 Apr 2025 13:34		JC\MD	Ok,M
9	VN0411WBS01	VN0411WBS01	VN086249.D	11 Apr 2025 14:38		JC\MD	Ok,M
10	VN0411WBSD01	VN0411WBSD01	VN086250.D	11 Apr 2025 15:16		JC\MD	Ok,M
11	VN0411WBL01	VN0411WBL01	VN086251.D	11 Apr 2025 15:40		JC\MD	Ok
12	Q1774-02	TT-073-IDWGW-20250	VN086252.D	11 Apr 2025 16:15	vial A+B pH<2	JC\MD	Ok
13	Q1774-03	TT-074-IDWGW-20250	VN086253.D	11 Apr 2025 16:39	vial A+B pH<2	JC\MD	Ok,M
14	Q1774-04	TT-075-IDWGW-20250	VN086254.D	11 Apr 2025 17:03	vial A+B pH<2	JC\MD	Ok,M
15	VSTDCCC020	VSTDCCC020EC	VN086255.D	11 Apr 2025 17:28		JC\MD	Ok,M

M : Manual Integration

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

Prep Standard - Chemical Standard Summary

Order ID : Q1774

Test : VOCMS Group4

Prepbatch ID :

Sequence ID/Qc Batch ID: VN041125,

Standard ID :
VP131767,VP132035,VP132037,VP132101,VP133251,VP133342,VP133344,VP133346,VP133544,VP133546,VP133608,VP133643,VP133644,VP133645,VP133646,VP133647,VP133648,VP133649,VP133650,

Chemical ID :
V13391,V13449,V13582,V13822,V14127,V14154,V14180,V14195,V14423,V14431,V14435,V14501,V14502,V14523,V14524,V14580,V14614,V14615,V14624,V14630,V14631,V14632,V14633,V14719,V14720,V14726,V14744,V14753,V14794,V14804,V14805,V14842,V14883,V14885,V14896,V14897,V14898,V14899,V14900,V14901,W3112,

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP131767	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/27/2024

FROM 0.50000ml of V13391 + 49.50000ml of V14154 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP132035	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024

FROM 1.00000ml of V14630 + 1.00000ml of V14631 + 1.00000ml of V14632 + 1.00000ml of V14633 + 46.00000ml of V14614 = Final Quantity: 50.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1812	8260 Working Std(2-CVE)-100ppm	VP132037	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024

FROM 0.25000ml of V14633 + 24.75000ml of V14614 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP132101	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/19/2024

FROM 0.80000ml of V13582 + 9.20000ml of V14614 = Final Quantity: 10.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
466	624 Internal Standard and Surrogate Mix, 150PPM	VP133251	03/12/2025	07/02/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/21/2025

FROM 0.15000ml of V14580 + 0.15000ml of V14885 + 24.75000ml of V14624 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP133342	03/18/2025	04/17/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/20/2025

FROM 1.00000ml of V14896 + 1.00000ml of V14897 + 1.00000ml of V14898 + 1.00000ml of V14899 + 21.00000ml of V14883 = Final Quantity: 25.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
180	8260 Working STD (Acrolein)-First source, 100PPM	VP133344	03/18/2025	04/17/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/20/2025

FROM 17.50000ml of V14883 + 2.50000ml of VP133342 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
263	8260 Working STD (Acrolein)-Second source, 800PPM	VP133346	03/18/2025	04/15/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/20/2025

FROM 0.60000ml of V14901 + 1.00000ml of V14900 + 8.40000ml of V14883 = Final Quantity: 10.000 ml

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

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	VP133544	04/01/2025	05/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 04/03/2025

FROM 0.40000ml of V14842 + 1.00000ml of V14431 + 1.00000ml of V14435 + 1.00000ml of V14501 + 1.00000ml of V14502 + 1.00000ml of V14523 + 1.00000ml of V14524 + 1.00000ml of V14726 + 1.00000ml of V14744 + 1.00000ml of V14753 + 1.00000ml of V14804 + 1.00000ml of V14805 + 1.50000ml of V14719 + 1.50000ml of V14720 + 10.60000ml of V14615 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
245	8260 Calibration Working STD Mix-First source, 20PPM	VP133546	04/01/2025	05/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 04/03/2025

FROM 17.50000ml of V14615 + 2.50000ml of VP133544 = Final Quantity: 20.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP133608	04/04/2025	05/17/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 04/07/2025

FROM 0.16000ml of V13449 + 0.80000ml of V13822 + 0.80000ml of V14127 + 0.80000ml of V14180 + 0.80000ml of V14423 + 0.80000ml of V14794 + 1.60000ml of V14195 + 4.24000ml of V14615 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP133643	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP131767 = Final Quantity: 40.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
645	20 PPB CCC, 624	VP133644	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.97000ml of W3112 + 0.00500ml of VP132035 + 0.00500ml of VP133342 + 0.00500ml of VP133544 + 0.00800ml of VP133251 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
637	5 PPB ICC, 624	VP133645	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.96200ml of W3112 + 0.00800ml of VP133251 + 0.01000ml of VP132037 + 0.01000ml of VP133344 + 0.01000ml of VP133546 = Final Quantity: 40.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
639	20 PPB ICC, 624	VP133646	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.97000ml of W3112 + 0.00500ml of VP132035 + 0.00500ml of VP133342 + 0.00500ml of VP133544 + 0.00800ml of VP133251 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
640	50 PPB ICC, 624	VP133647	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.95450ml of W3112 + 0.00800ml of VP133251 + 0.01250ml of VP132035 + 0.01250ml of VP133342 + 0.01250ml of VP133544 = Final Quantity: 40.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
642	100 PPB ICC, 624	VP133648	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.91700ml of W3112 + 0.00800ml of VP133251 + 0.02500ml of VP132035 + 0.02500ml of VP133342 + 0.02500ml of VP133544 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
643	150 PPB ICC, 624	VP133649	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.87950ml of W3112 + 0.00800ml of VP133251 + 0.03750ml of VP132035 + 0.03750ml of VP133342 + 0.03750ml of VP133544 = Final Quantity: 40.000 ml

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
644	20 PPB ICV, 624	VP133650	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.97000ml of W3112 + 0.00500ml of VP132101 + 0.00500ml of VP133346 + 0.00500ml of VP133608 + 0.00800ml of VP133251 = Final Quantity: 40.000 ml

284 Sheffield Street, Mountainside, New Jersey 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	A0191805	11/22/2025	11/22/2024 / SAM	01/13/2023 / SAM	V13391

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	A0191703	06/02/2025	12/02/2024 / SAM	01/23/2023 / SAM	V13449

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	11/17/2025	12/12/2024 / SAM	01/30/2023 / SAM	V13582

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	A0197644	09/30/2025	03/31/2025 / SAM	05/31/2023 / SAM	V13822

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)	011624	09/30/2025	03/31/2025 / SAM	01/17/2024 / SAM	V14127

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)	22L0562016	05/18/2025	11/18/2024 / pedro	02/06/2024 / SAM	V14154

284 Sheffield Street, Mountainside, New Jersey 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.	95317 / Universal VOA Mega Mix (Min order = 5)	021524	09/30/2025	03/31/2025 / SAM	02/20/2024 / SAM	V14180

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	A0200785	09/30/2025	03/31/2025 / SAM	02/28/2024 / SAM	V14195

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	A0205013	06/30/2025	03/31/2025 / SAM	08/15/2024 / SAM	V14423

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	A0209618	09/20/2025	03/20/2025 / SAM	08/15/2024 / SAM	V14431

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	A0209618	09/20/2025	03/20/2025 / SAM	08/15/2024 / SAM	V14435

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)	021624	09/20/2025	03/20/2025 / SAM	09/17/2024 / SAM	V14501

284 Sheffield Street, Mountainside, New Jersey 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.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	09/20/2025	03/20/2025 / SAM	09/17/2024 / SAM	V14502

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)	091724	09/20/2025	03/20/2025 / SAM	09/18/2024 / SAM	V14523

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)	091724	09/20/2025	03/20/2025 / SAM	09/18/2024 / SAM	V14524

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555584 / Custom Standard, CLP VOA SurrogateStd [CS 5179-4]	A0219012	01/02/2026	01/02/2025 / SAM	11/18/2024 / SAM	V14580

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)	22L0562016	06/10/2025	12/10/2024 / SAM	11/26/2024 / SAM	V14614

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)	22L0562016	09/19/2025	03/19/2025 / SAM	11/26/2024 / SAM	V14615

284 Sheffield Street, Mountainside, New Jersey 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)	23I0762004	07/13/2025	01/13/2025 / SAM	11/26/2024 / SAM	V14624

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14630

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14631

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14632

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14633

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	A02110618	09/20/2025	03/20/2025 / SAM	12/17/2024 / SAM	V14719

284 Sheffield Street, Mountainside, New Jersey 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	A02110618	09/20/2025	03/20/2025 / SAM	12/17/2024 / SAM	V14720

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	A02110618	07/30/2025	01/30/2025 / SAM	12/17/2024 / SAM	V14726

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	A0216826	08/27/2025	02/27/2025 / SAM	12/17/2024 / SAM	V14744

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	A0216826	07/30/2025	01/30/2025 / SAM	12/17/2024 / SAM	V14753

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	A0220563	09/30/2025	03/31/2025 / SAM	01/08/2025 / SAM	V14794

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	A0220471	09/20/2025	03/20/2025 / SAM	01/08/2025 / SAM	V14804

284 Sheffield Street, Mountainside, New Jersey 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	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0220471	09/20/2025	03/20/2025 / SAM	01/08/2025 / SAM	V14805

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	A0217535	08/27/2025	02/27/2025 / SAM	01/21/2025 / SAM	V14842

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)	22L0562016	10/25/2025	02/19/2025 / Jaswal	04/22/2024 / Jaswal	V14883

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555583 / Custom Standard, CLP VOA Internal Std [CS 5179-3]	A0223136	03/12/2026	03/12/2025 / SAM	03/12/2025 / SAM	V14885

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14896

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14897

284 Sheffield Street, Mountainside, New Jersey 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)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14898

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14899

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031525	04/15/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14900

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031525	04/15/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14901

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
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	0.5 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.01
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

Ken Koehnlein
Sr. Manager, Quality Assurance

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Baxter

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
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	0.2
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 Ethier
Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Baxter

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
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	0.2
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 Ethier
Jamie Ethier
Vice President Global Quality

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

12

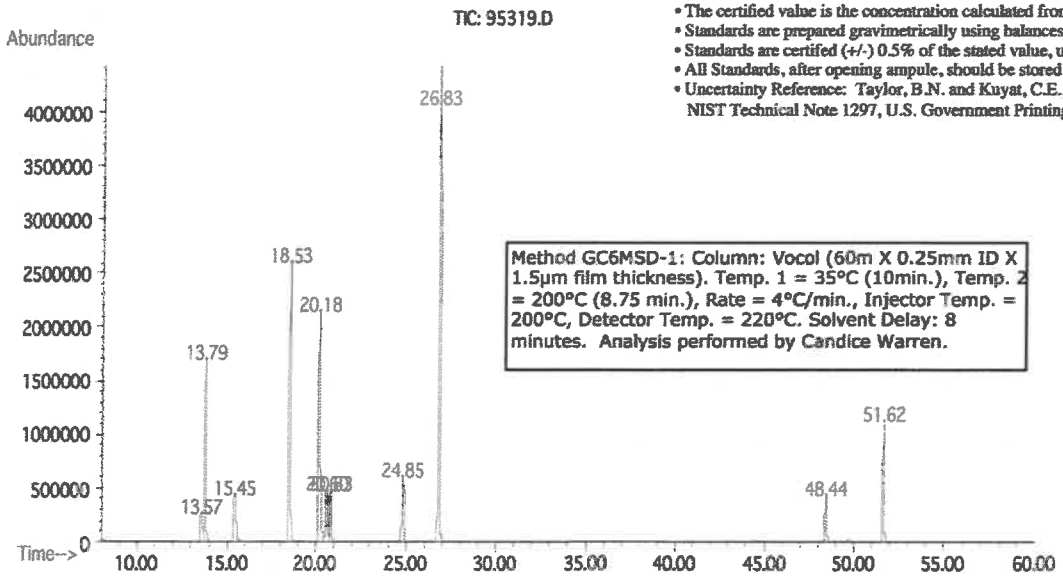
ANAB ISO 17034 Accredit
AR-1539 Certificate Number
https://Absolutestandards.cc

CERTIFIED WEIGHT REPORT

Part Number:	95319	Solvent(s):	Lot#
Lot Number:	011624	Methanol	EH471-US
Description:	Revised Additions Mix 11 components		
Expiration Date:	011627		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	Varied		
NIST Test ID#:	6UTB	5E-05 Balance Uncertainty	
Weight(s) shown below were combined and diluted to (mL):	100.0	0.021 Flask Uncertainty	

Formulated By:	Prashant Chauhan	011624 DATE
Reviewed By:	Pedro L. Rentas	011624 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	1.01035	1.01080	10004.4	40.6	107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20007	0.20035	2002.8	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3. Cyclohexane	1023	28930	2000	99	0.2	0.20207	0.20222	2001.5	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	0.20207	0.20227	2002.0	8.2	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04142	4.04213	40007.0	162.5	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20207	0.20221	2001.4	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	SHBG0199V	2000	99	0.2	0.20207	0.20230	2002.3	8.2	108-87-2	N/A	orl-mus 2250mg/kg
8. Methyl tert-butyl ether (MTBE)	209	21880	2000	99	0.2	0.20207	0.20227	2002.0	8.2	1634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02071	2.02150	20007.8	81.3	107-12-0	N/A	orl-rat 39mg/kg
10. Tetrahydrofuran	380	SHBH8330	10000	99.9	0.2	1.00125	1.00200	10007.5	40.3	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 1650mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21511	0.21522	2001.0	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

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021524
Description: Universal VOA Megamix
69 components
Expiration Date: 021527
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 8UTB

Solvent(s): Methanol
Lot#: EG359-USQ12

Formulated By: Mario Luis 021524 DATE

Reviewed By: Pedro L. Rentas 021524 DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

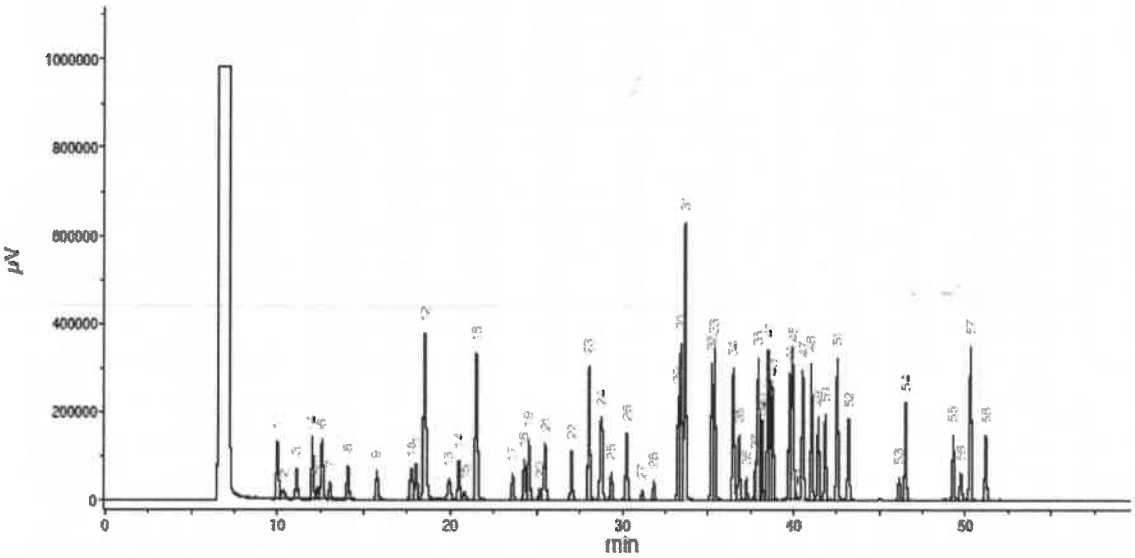
	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expended Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20022	2001.5	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	0.20207	0.20222	2001.5	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	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	0.21058	0.21060	2000.2	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	0.20731	0.20734	2000.3	8.4	110-57-6	N/A	N/A
6.	Diethyl ether	(0153)	IK18CAS000(	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20042	2001.7	8.1	60-29-7	N/A	N/A
7.	Ethyl methacrylate	(0381)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20231	2002.4	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20118	2001.2	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	0.20106	0.20120	2001.4	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	0.20207	0.20209	2000.2	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	0.20025	0.20042	2001.7	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	0.20025	0.20030	2000.5	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	0.20207	0.20230	2002.3	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	0.20560	0.20570	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	0.20413	0.20415	2000.2	8.3	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20210	2000.3	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.6	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.8mg/kg
45.	Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	050823	0.05	5.00	40005.6	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1260mg/kg
54.	1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57.	m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	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).

Run 17, "P95317 L021524 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 10:04:27 AM.
Sampled: Sequence "021624-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=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	19.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.58
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropene	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.66
32	o-Xylene	33.22
33	Styrene	35.39
34	Isopropylbenzene/Bromoform	36.48
35	cis-1,4-Dichloro-2-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	43.10
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.48
55	1,2,4-Trichlorobenzene	48.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021624
Description: Universal VOA Megamix
69 components
Expiration Date: 021627
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty 5E-05 Balance Uncertainty

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

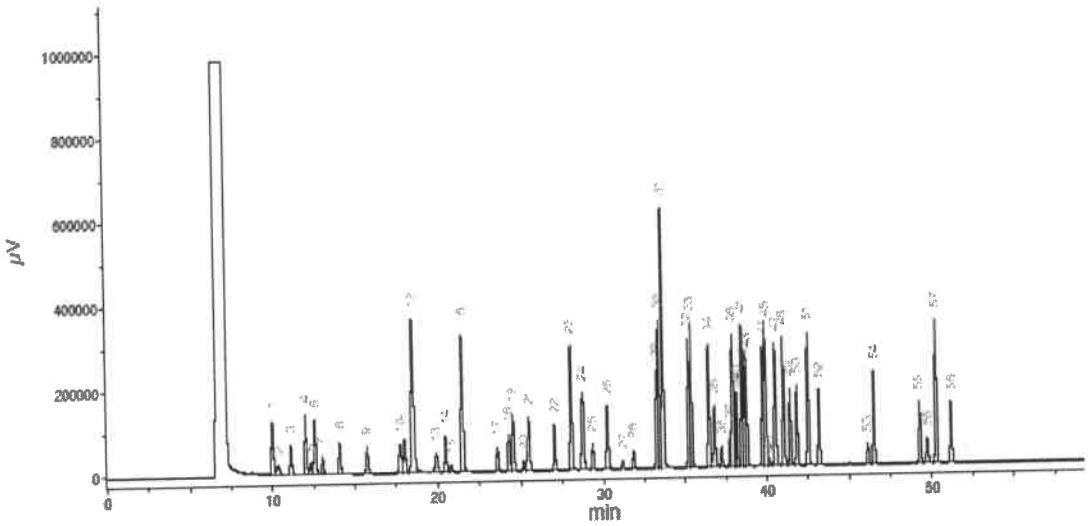
	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	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	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	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	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0466)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6.	Diethyl ether	(0153)	IK18CAS0000	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7.	Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	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	0.20106	0.20120	2001.4	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	0.20207	0.20221	2001.4	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	0.20025	0.20040	2001.5	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	0.20025	0.20041	2001.6	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	0.20207	0.20220	2001.3	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	0.20560	0.20577	2001.6	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	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.8	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45.	Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57.	m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 8040mg/kg
68.	o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	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 16, "P95317 L021624 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-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=3



Peak #	Name	FID RT (min.)
1	Ether	6.97
2	1,1,2-Trichloro-1,2,3-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropene	19.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.07
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
35	cis-1,4-Dichloro-2-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.12
50	1,4-Dichlorobenzene	41.33
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	48.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

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, 2024

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))			
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	% (optional) > 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.
Storage Conditions	Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. 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

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021624
Description: Universal VOA Megamix
69 components
Expiration Date: 021627
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

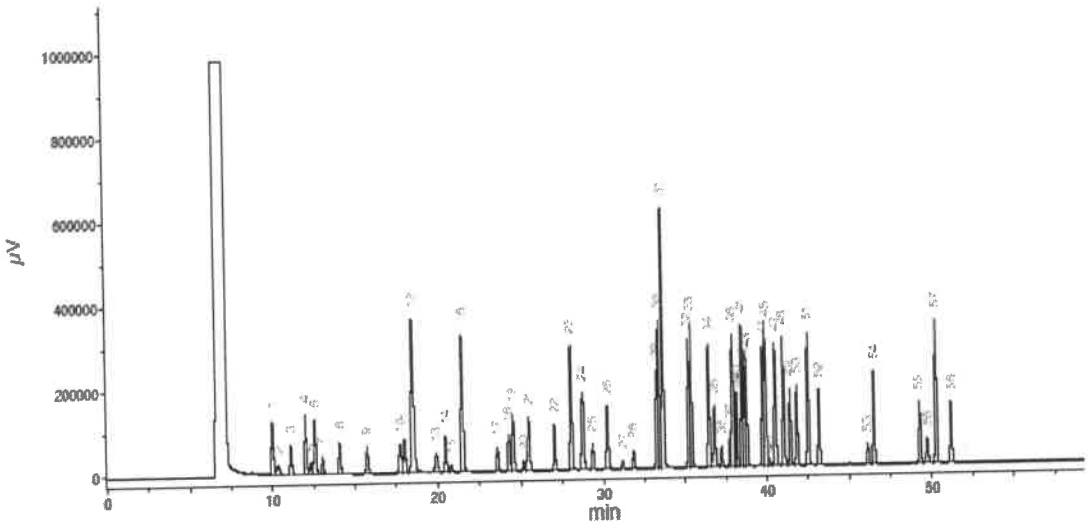
	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	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	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	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	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0466)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6.	Diethyl ether	(0153)	IK18CAS0000	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7.	Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	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	0.20106	0.20120	2001.4	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	0.20207	0.20221	2001.4	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	0.20025	0.20040	2001.5	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	0.20025	0.20041	2001.6	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	0.20207	0.20220	2001.3	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	0.20560	0.20577	2001.6	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	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.8	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45.	Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57.	m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 8040mg/kg
68.	o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	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 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-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=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,3-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethane/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
35	cis-1,4-Dichloro-2-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.12
50	1,4-Dichlorobenzene	41.33
51	n-Butylbenzene	42.32
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	48.26
56	Hexachlorobutadiene	48.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

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, 2024

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))			
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	% (optional) > 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.
Storage Conditions	Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. 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

Rec 03/18/24

ANAB ISO 17034 Accredit
AR-1539 Certificate Numbe
https://Absolutestandards.cc

CERTIFIED WEIGHT REPORT

2 Vials

V14900-901

Part Number:	91980
Lot Number:	031525
Description:	Acrolein
Expiration Date:	041525
Recommended Storage:	Refrigerate (4 °C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

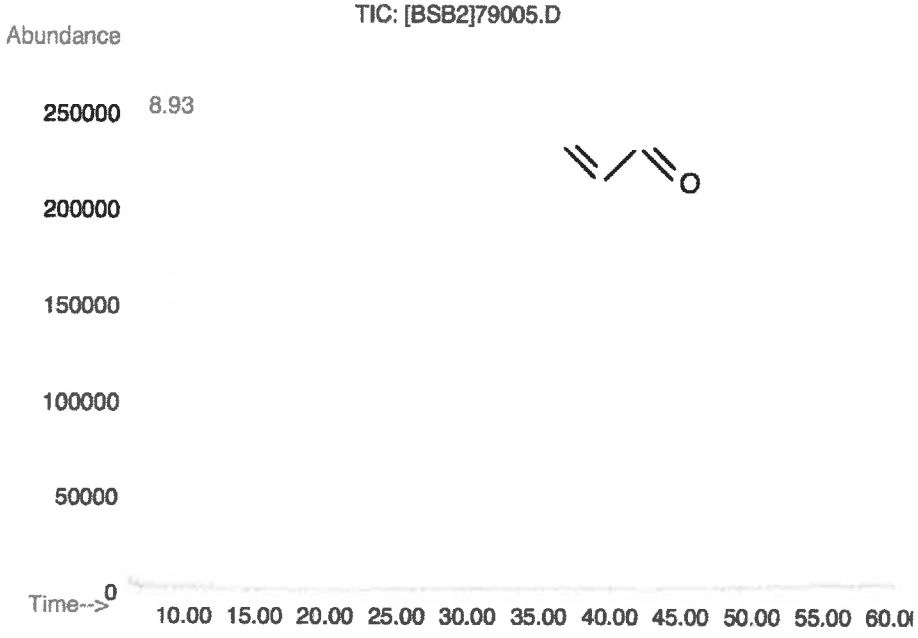
Solvent(s): **Lot#**
Water 072324Q

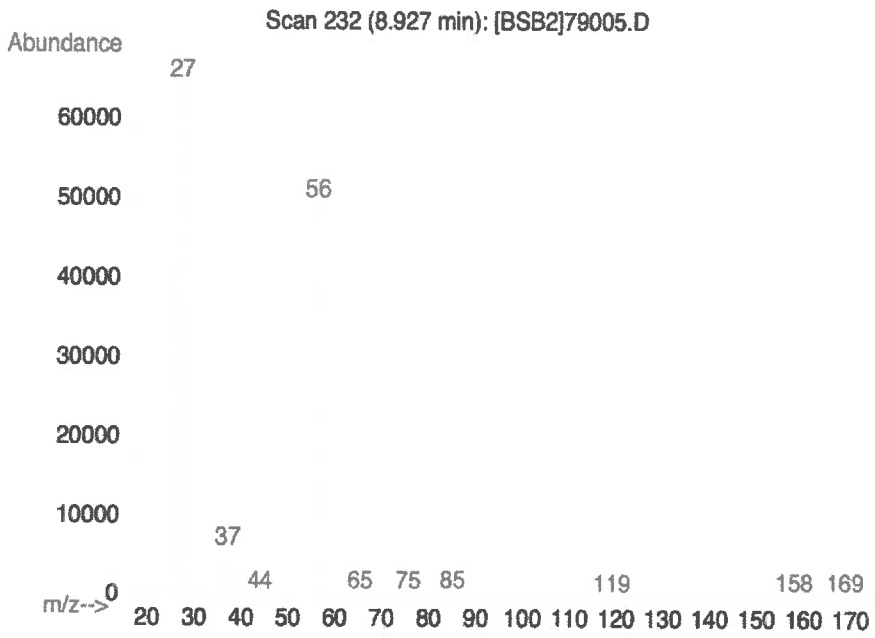
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Justin Dippold	031525 DATE
Reviewed By:	Pedro L. Rentas	031525 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	103755R02H	5000	97	0.5	0.05166	0.05170	5004.1	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 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

Rec 03/18/24

ANAB ISO 17034 Accredit
AR-1539 Certificate Numbe
https://Absolutestandards.cc

CERTIFIED WEIGHT REPORT

2 Vials

V14900-901

Part Number:	91980
Lot Number:	031525
Description:	Acrolein
Expiration Date:	041525
Recommended Storage:	Refrigerate (4 °C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

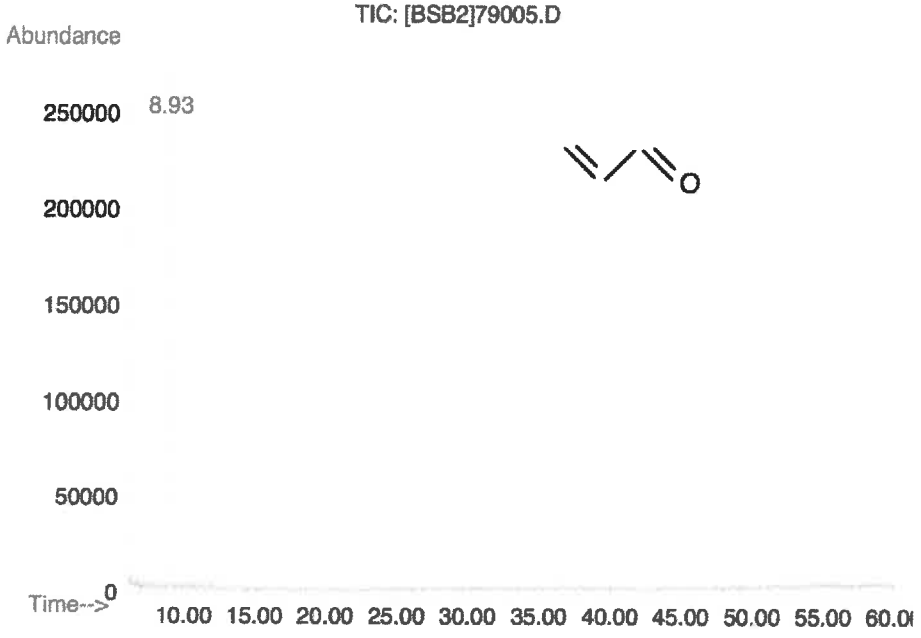
Solvent(s): **Lot#**
Water 072324Q

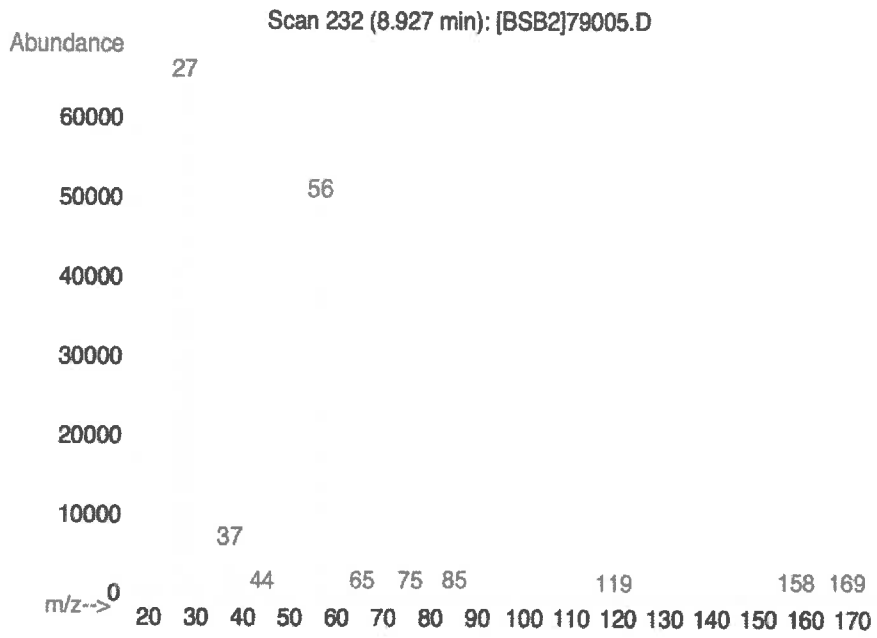
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Justin Dippold	031525 DATE
Reviewed By:	Pedro L. Rentas	031525 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	103755R02H	5000	97	0.5	0.05166	0.05170	5004.1	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 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

Exp 03/18/24

ANAB ISO 17034 Accredite
AR-1539 Certificate Numbe
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Expiration Date: 041725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water **Lot#** 072324Q

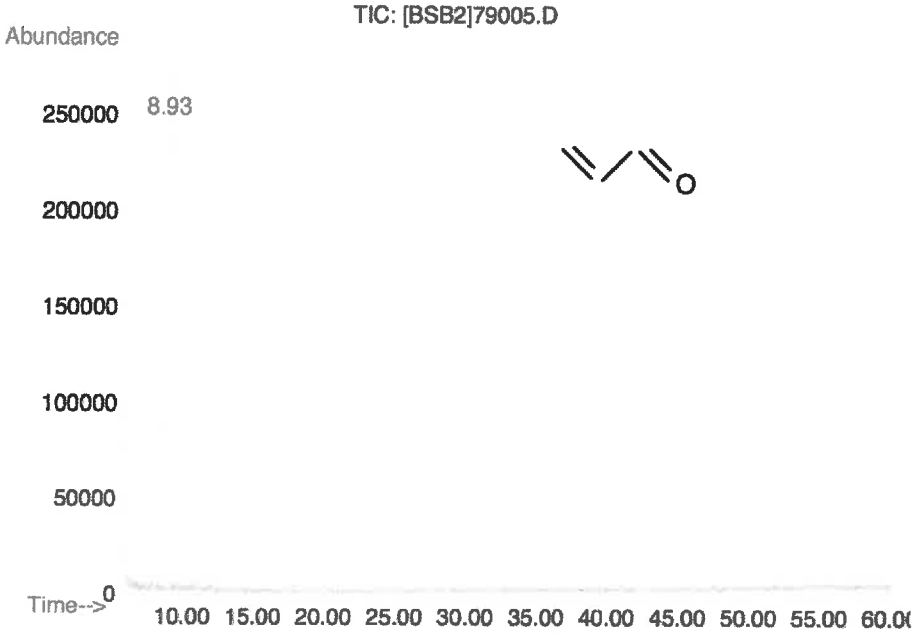
5 vials
V14895 to V14899

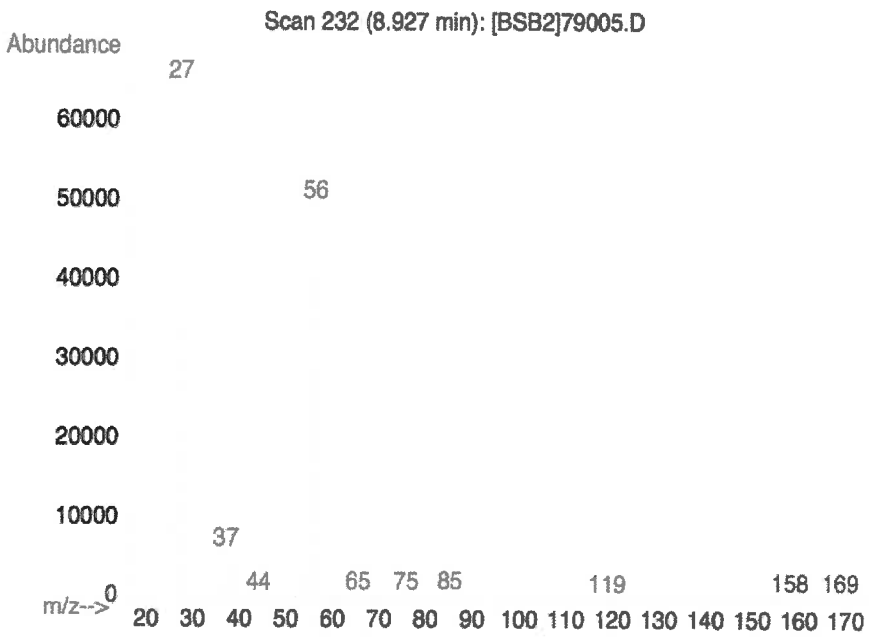
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Lawrence Barry	031725 DATE
Reviewed By:	Pedro L. Rentas	031725 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	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	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	January 1, 2025

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

Exp 03/18/24

ANAB ISO 17034 Accredite
AR-1539 Certificate Numbe
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Expiration Date: 041725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water Lot# 072324Q

5 vial

V14895 to V14899

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

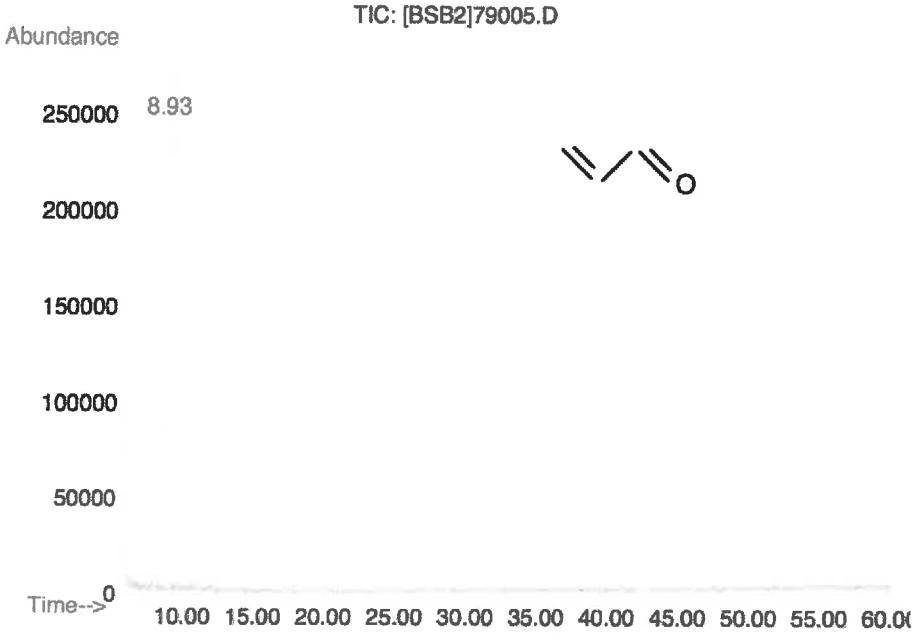
Weight(s) shown below were combined and diluted to (mL): 10.0

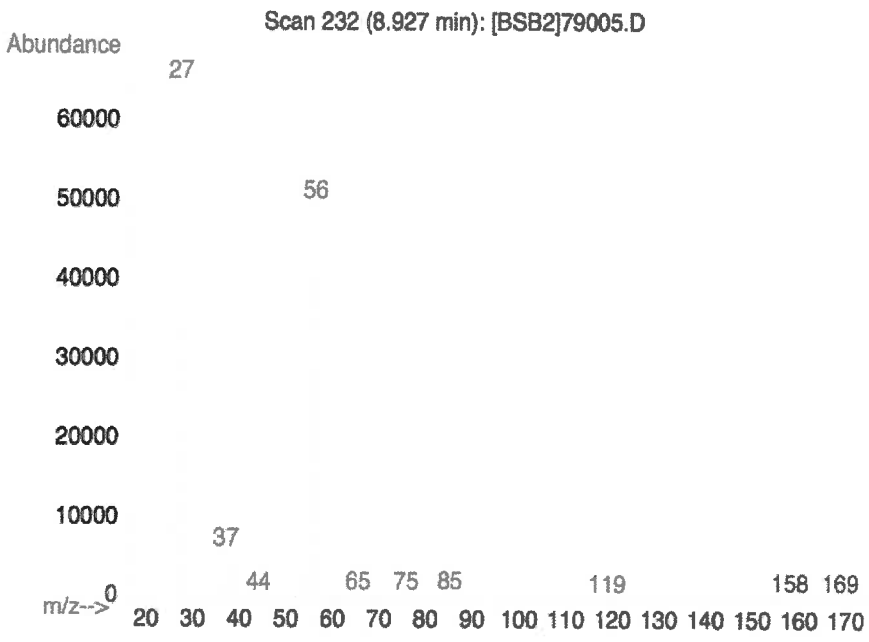
Formulated By: Lawrence Barry 031725 DATE

Reviewed By: Pedro L. Rentas 031725 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	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	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	January 1, 2025

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

Exp 03/18/24

ANAB ISO 17034 Accredite
AR-1539 Certificate Numbe
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Expiration Date: 041725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water **Lot#** 072324Q

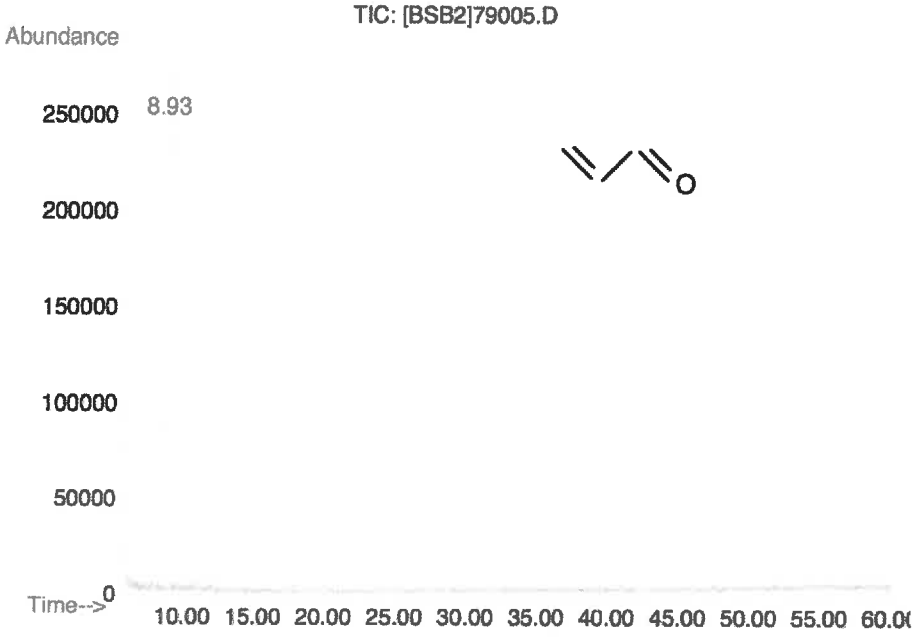
5 vials
V14895 to V14899

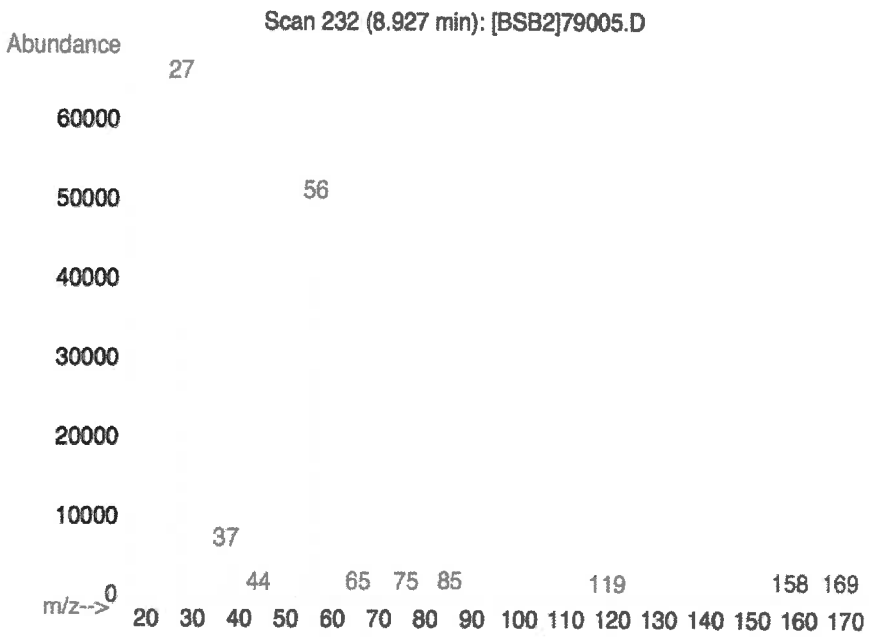
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Lawrence Barry	031725 DATE
Reviewed By:	Pedro L. Rentas	031725 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	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	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	January 1, 2025

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

Rec 03/18/24

ANAB ISO 17034 Accredite
AR-1539 Certificate Numbe
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

5 vial

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Solvent(s): Water **Lot#** 072324Q

V14895 to V14899

Expiration Date: 041725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

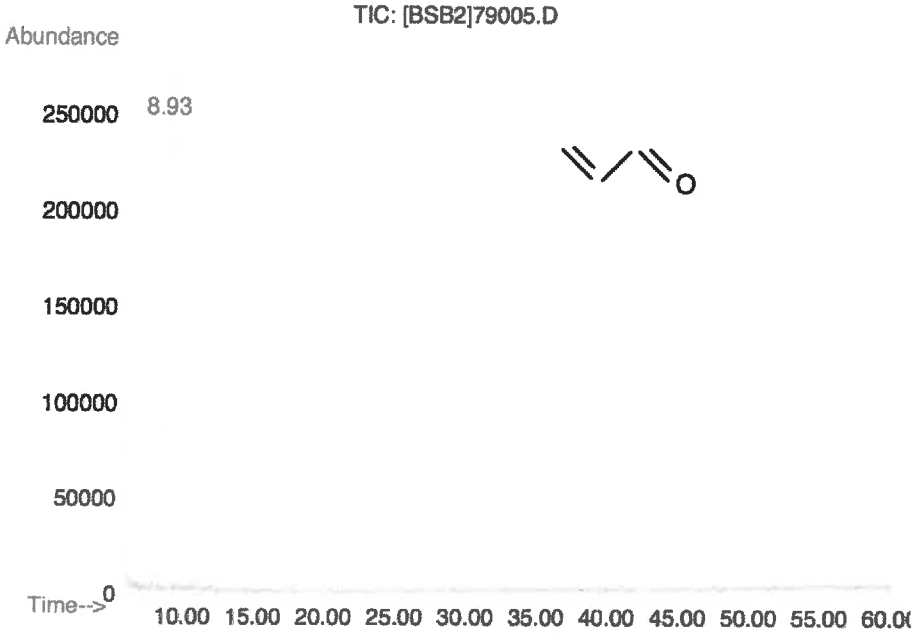
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

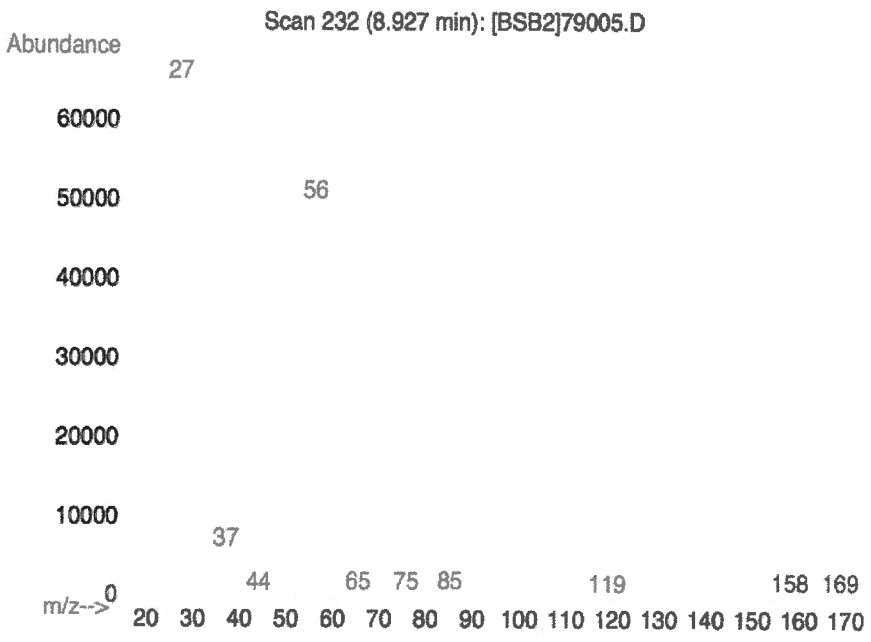
Weight(s) shown below were combined and diluted to (mL): 10.0

Formulated By: Lawrence Barry	031725 DATE
Reviewed By: Pedro L. Rentas	031725 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	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	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	January 1, 2025

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

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Numb
https://Absolutestandards.co...

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL): 10.0

Solvent(s): **Lot#**
Water 072324Q

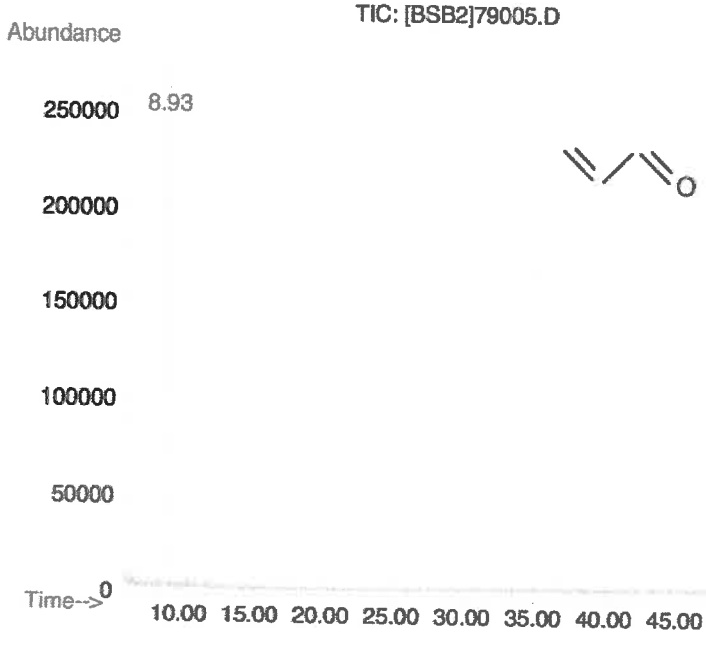
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

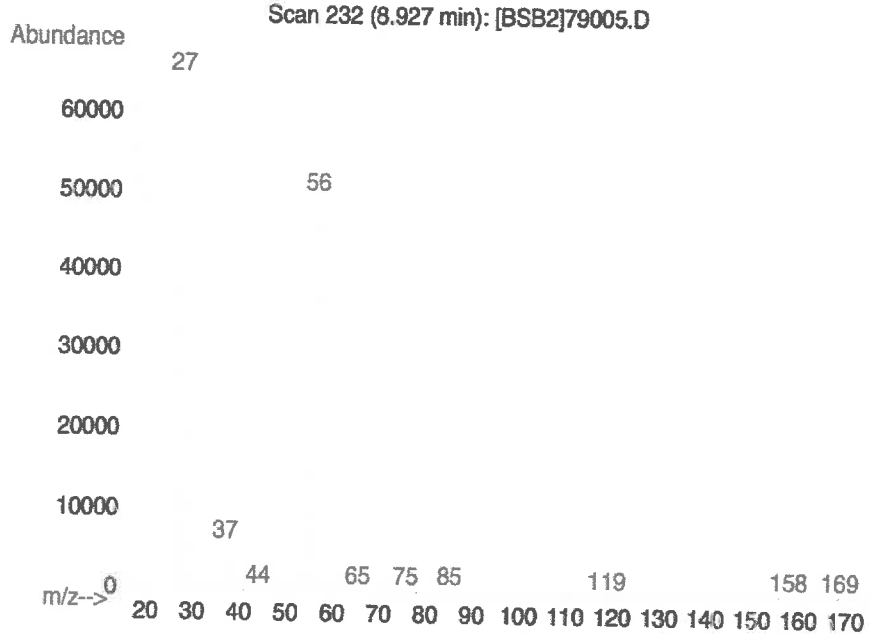
Justin Dippold 091424
Formulated By: Justin Dippold DATE

Pedro Rentas 091424
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	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	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 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

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Numb
https://Absolutestandards.co...

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Solvent(s): Water **Lot#** 072324Q

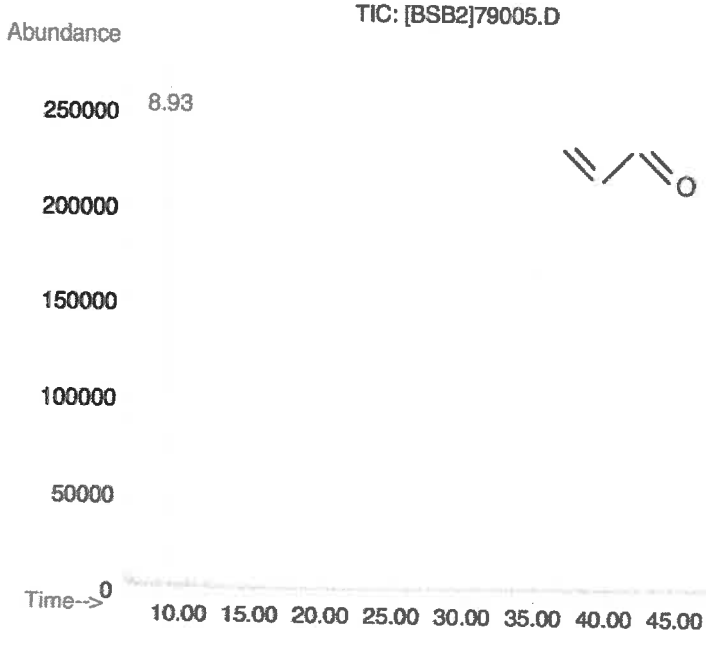
Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

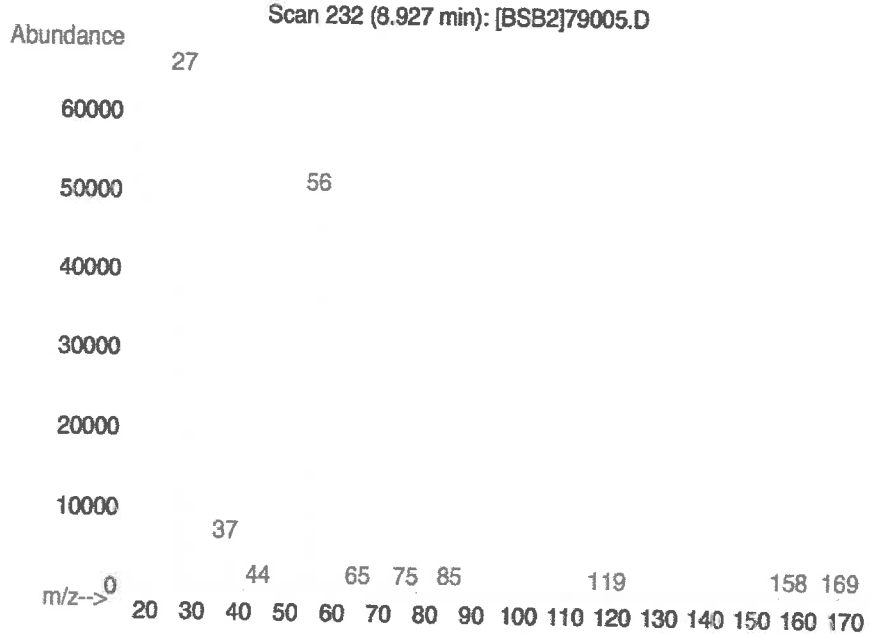
Weight(s) shown below were combined and diluted to (mL): 10.0 | 5E-05 Balance Uncertainty | 0.001 Flask Uncertainty

Justin Dippold	091424
Formulated By: Justin Dippold	DATE
Pedro Rentas	091424
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	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	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 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 Accredite
AR-1539 Certificate Number
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 111722
Description: 2-Chloroethyl vinyl ether

Solvent(s): Methanol **Lot#** EB679-US

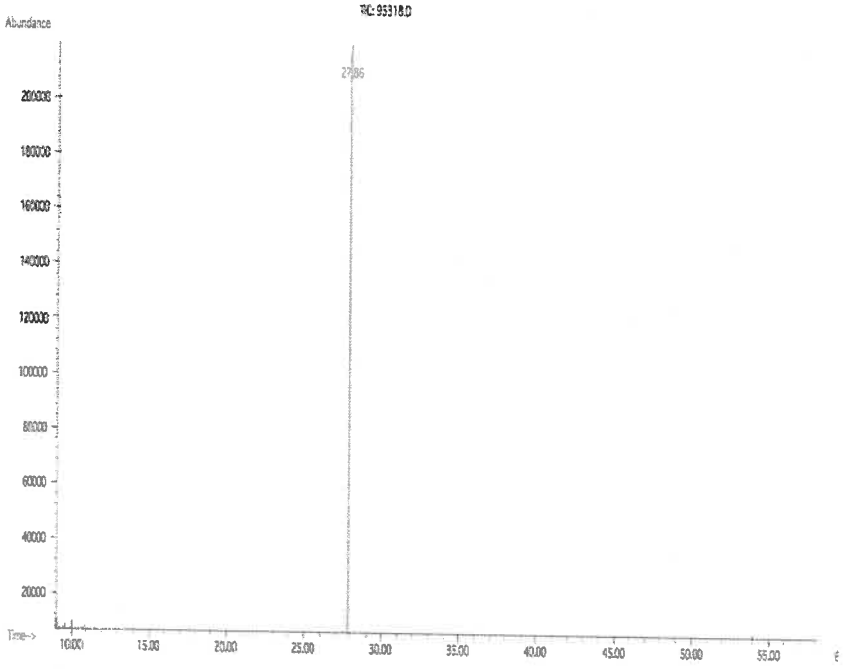
Expiration Date: 111725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

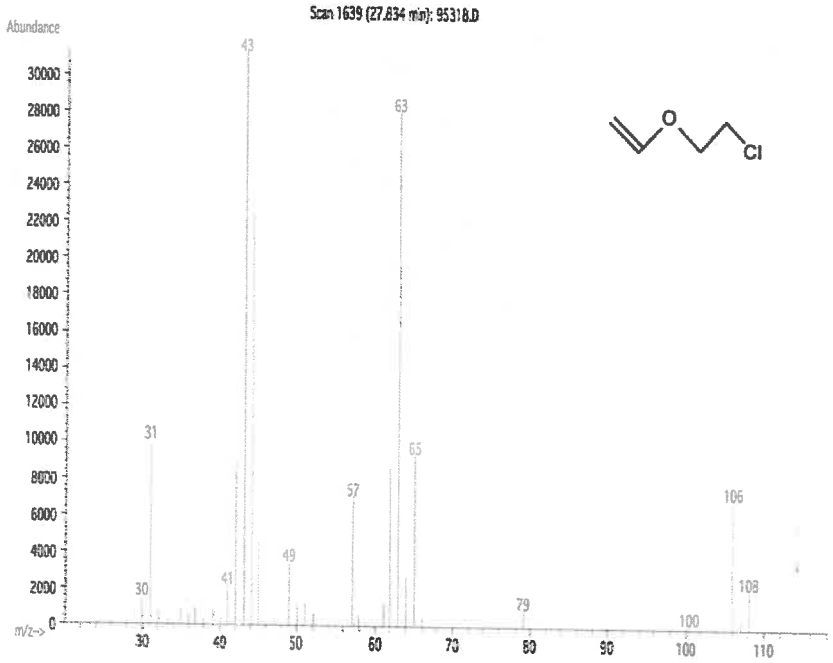
Weight(s) shown below were combined and diluted to (mL): 50.0 | 5E-05 Balance Uncertainty | 0.001 Flask Uncertainty

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

Rec 12/6/24
20 vial
V14630 to
V14649

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

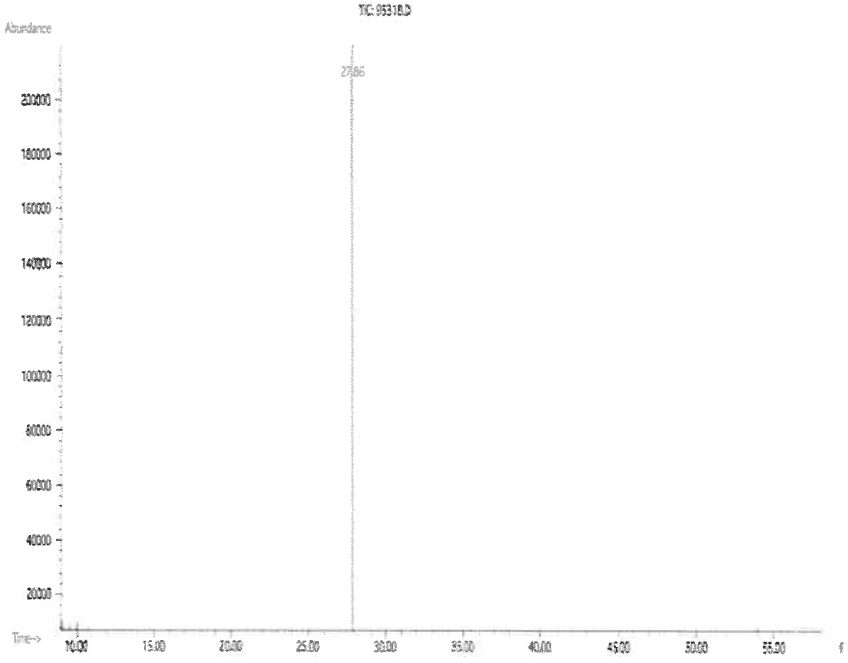
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

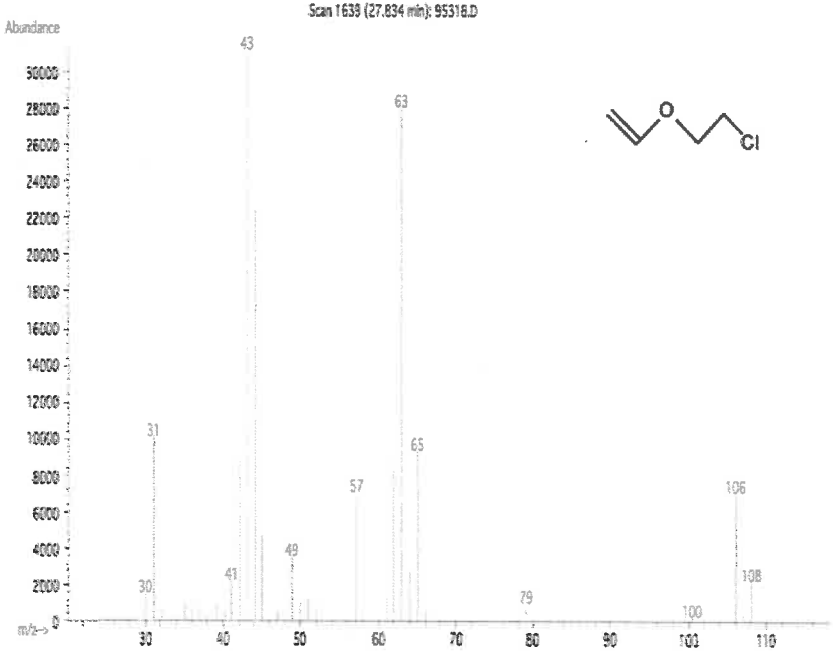
Weight(s) shown below were combined and diluted to (mL): 50.0

Prashant Chauhan	120524	
Formulated By:	Prashant Chauhan	DATE
Pedro Rentas	120524	
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	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-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.
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, 2024

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial
V14630 to
V14649

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

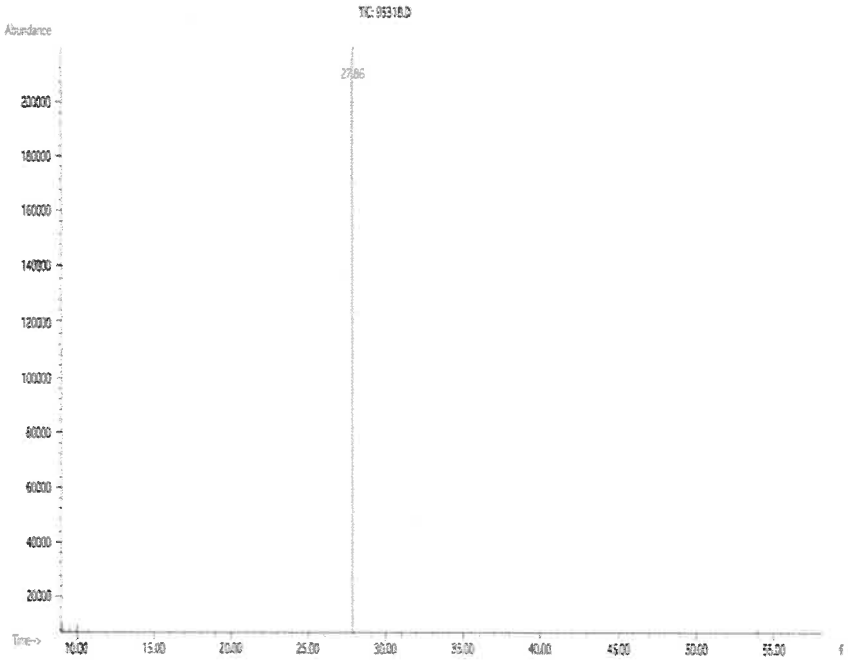
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

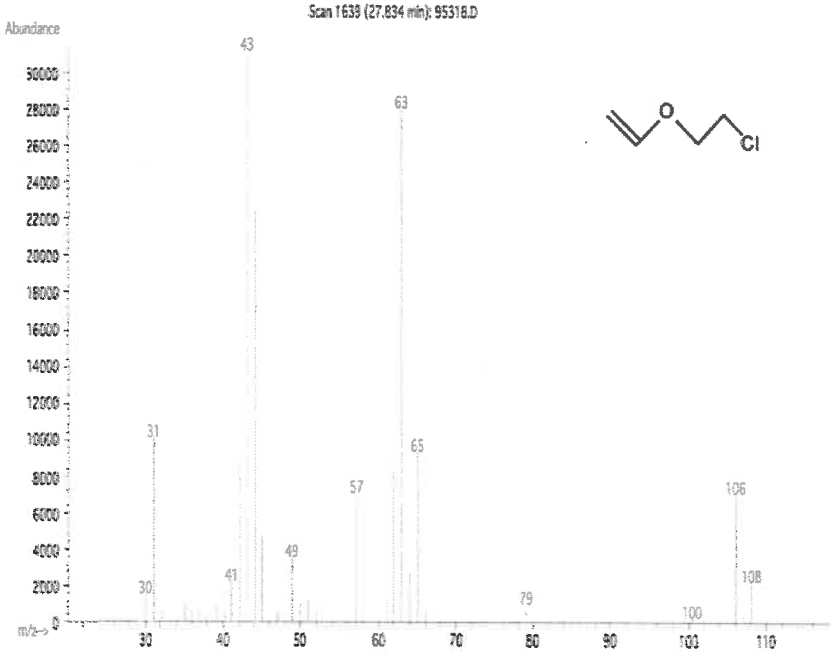
Weight(s) shown below were combined and diluted to (mL): 50.0

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-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.
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, 2024

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial
V14630 to
V14649

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

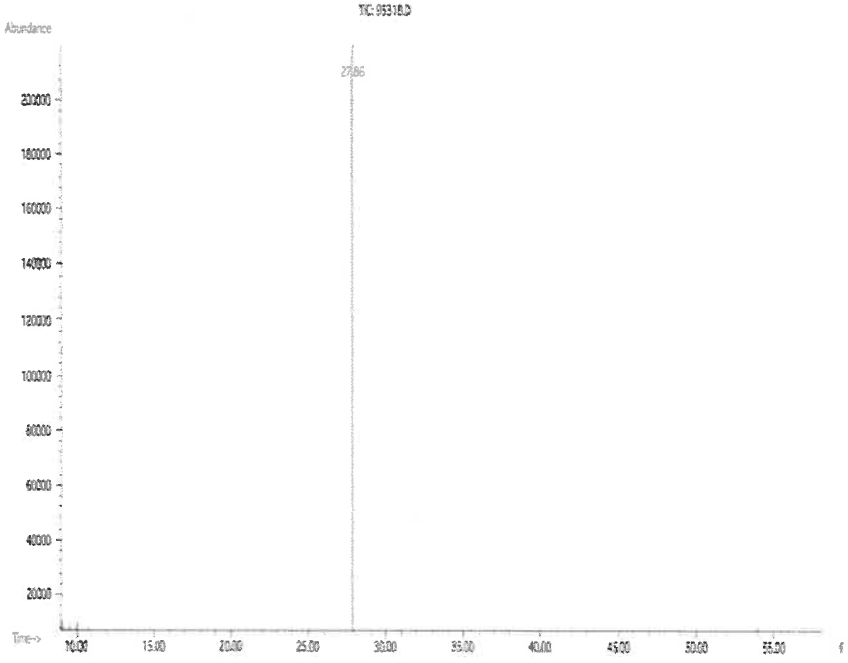
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

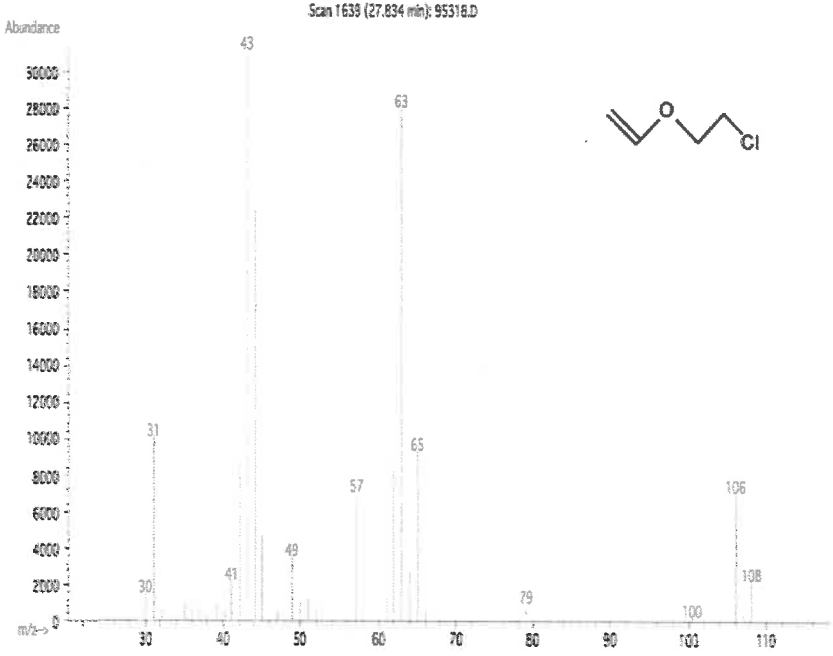
Weight(s) shown below were combined and diluted to (mL): 50.0

Prashant Chauhan	120524	
Formulated By:	Prashant Chauhan	DATE
Pedro Rentas	120524	
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	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-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.
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, 2024

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial
V14630 to
V14649

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

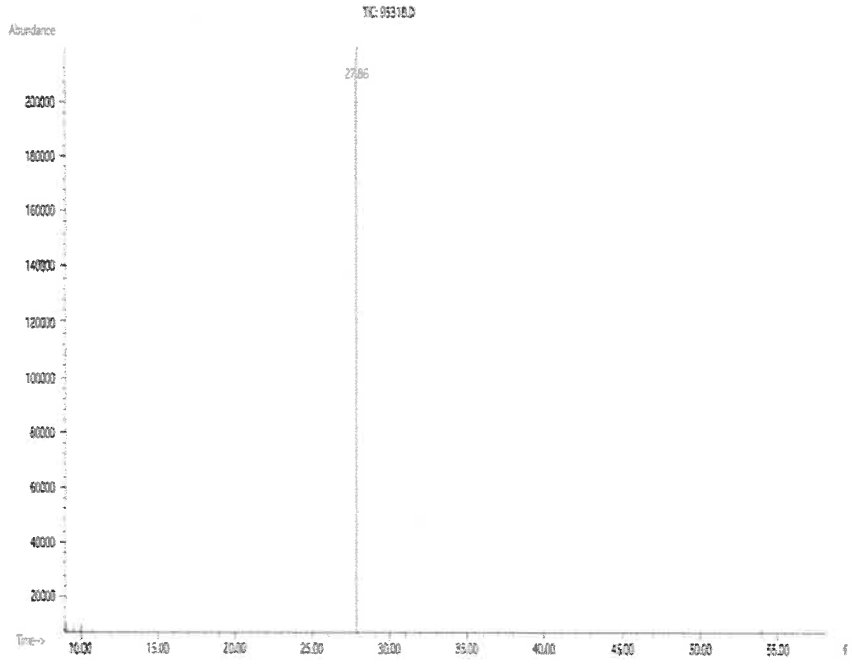
Solvent(s): Methanol **Lot#** EJ143-US

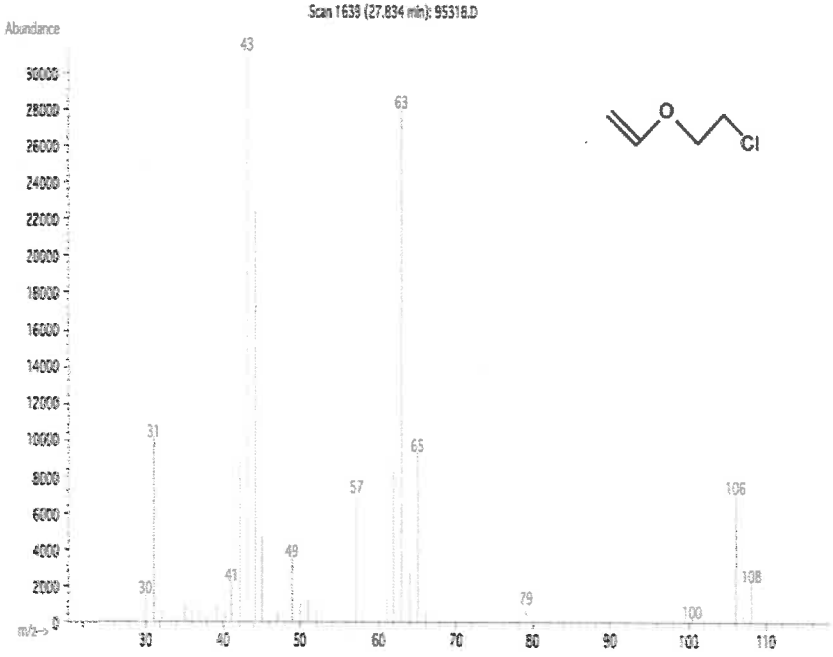
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro Rentas	120524
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	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-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.
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, 2024

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.

4 J

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.:** A0191703

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 : November 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	tert-Butanol (TBA)		50,122.0 µg/mL	+/- 293.4753 µg/mL	Gravimetric
	CAS # 75-65-0	(Lot 101619K21F-1)		+/- 1,073.6797 µg/mL	Unstressed
	Purity 99%			+/- 1,104.8612 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)

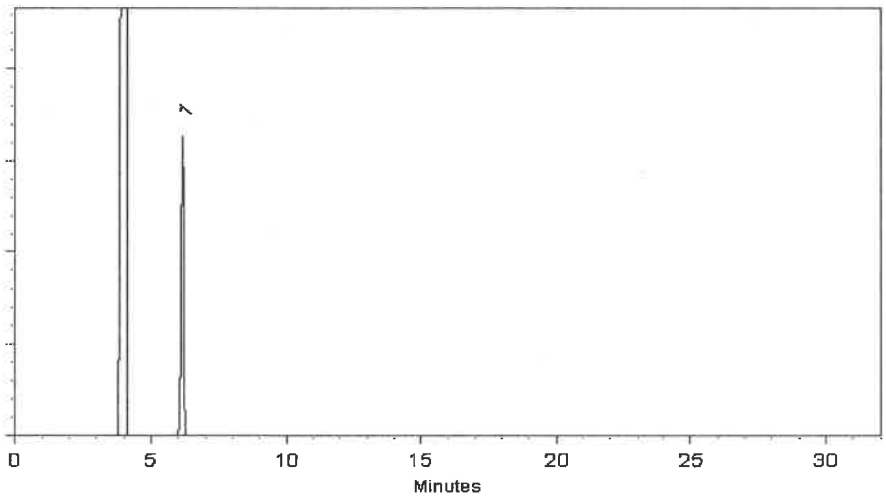
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Alicia Leathers - Operation Technician I

Date Mixed: 15-Nov-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 17-Nov-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

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.:** A0191805

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 : November 30, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	2,483.9 µg/mL	+/- 139.5488

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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.)

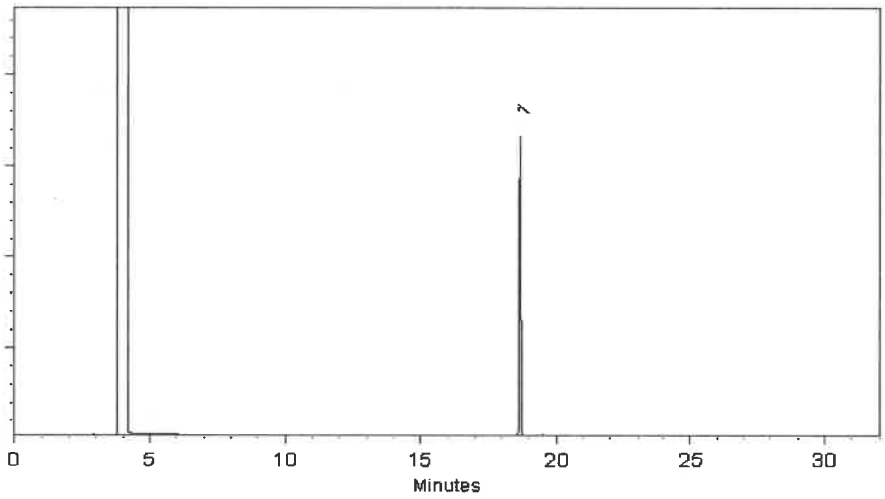
Inj. Temp:
200°C

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.

Alicia Leathers - Operation Technician I

Date Mixed: 17-Nov-2022 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Nov-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 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.

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. : 30042 **Lot No.:** A0197644

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 : January 31, 2030 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00012554	99%	2,001.6 µg/mL	+/- 112.7159
2	Chloromethane (methyl chloride)	74-87-3	SHBM9611	99%	2,002.0 µg/mL	+/- 112.7840
3	Vinyl chloride	75-01-4	00015559	99%	2,002.2 µg/mL	+/- 112.6713
4	Bromomethane (methyl bromide)	74-83-9	101604	99%	2,006.4 µg/mL	+/- 112.8861
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.9 µg/mL	+/- 112.5990
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCL8411	99%	1,999.2 µg/mL	+/- 112.4861

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

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.

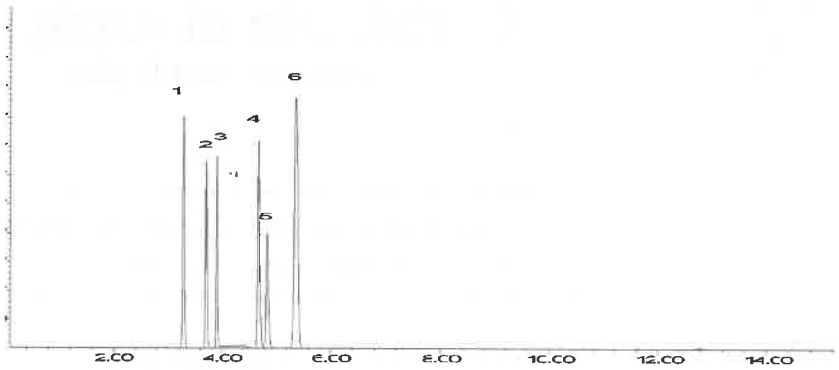
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

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.

Brittany Federinko - Operations Tech I

Date Mixed: 02-May-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-May-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.

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

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.:** A0200785

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 : November 30, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

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.)

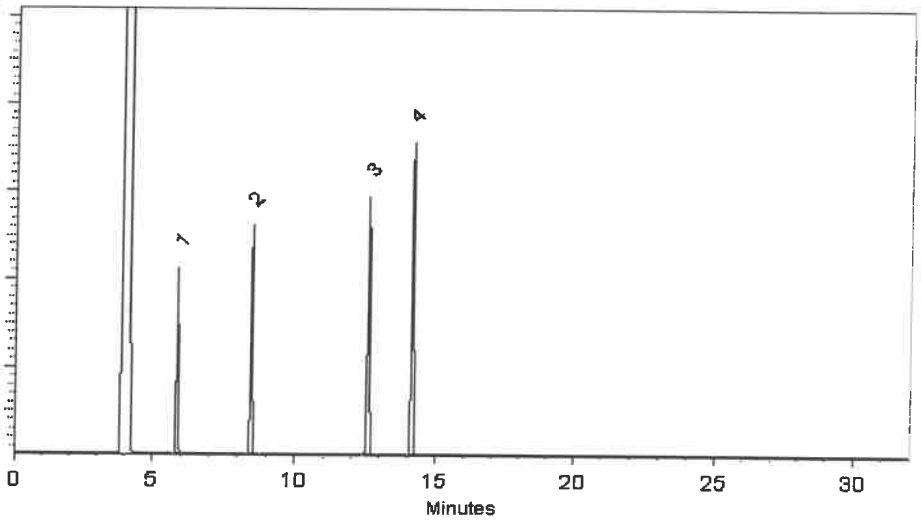
Inj. Temp:
200°C

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.

Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023 **Balance Serial #** B707717271

Marlina Cowan – Operations Tech II ARM QC

Date Passed: 16-Aug-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.

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

ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0205013

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 : June 30, 2025 **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%	2,012.7 µg/mL	+/- 69.5670
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,017.5 µg/mL	+/- 69.7338
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,020.0 µg/mL	+/- 69.8205
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,018.7 µg/mL	+/- 69.7744
5	Propyl acetate	109-60-4	KLOBM	99%	2,012.0 µg/mL	+/- 69.5439
6	Butyl acetate	123-86-4	SHBP6314	99%	2,020.0 µg/mL	+/- 69.8205
7	Amyl acetate	628-63-7	41325/1	97%	2,019.5 µg/mL	+/- 69.8046

* 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.)

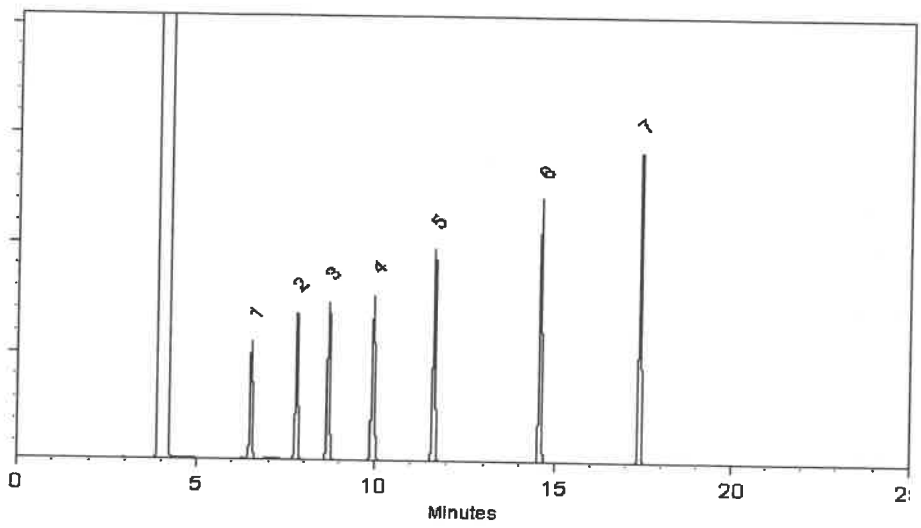
Inj. Temp:
200°C

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.

Brittany Federinko - Operations Tech I

Date Mixed: 04-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-Dec-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.

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

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. : 30489 **Lot No.:** A0209618

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 : September 30, 2025 **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%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* 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.)

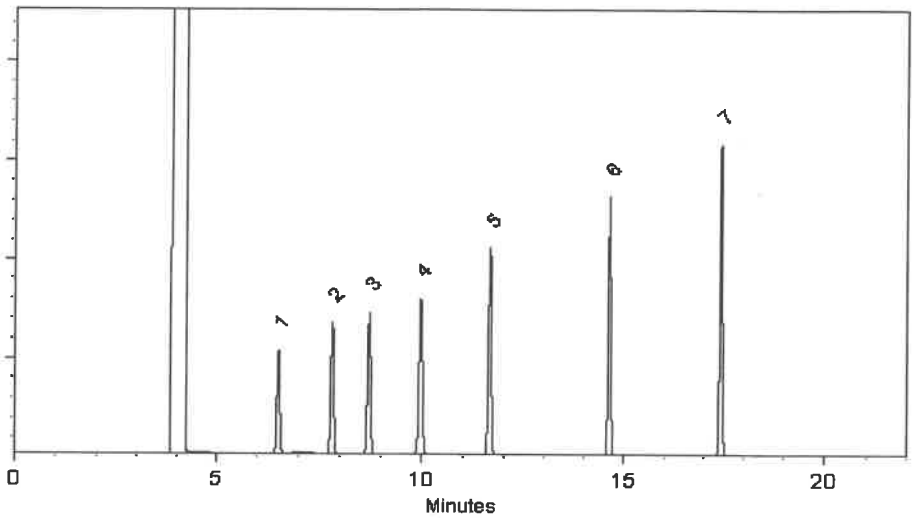
Inj. Temp:
200°C

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.

Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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.

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

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. : 30489 **Lot No.:** A0209618

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 : September 30, 2025 **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%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* 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.)

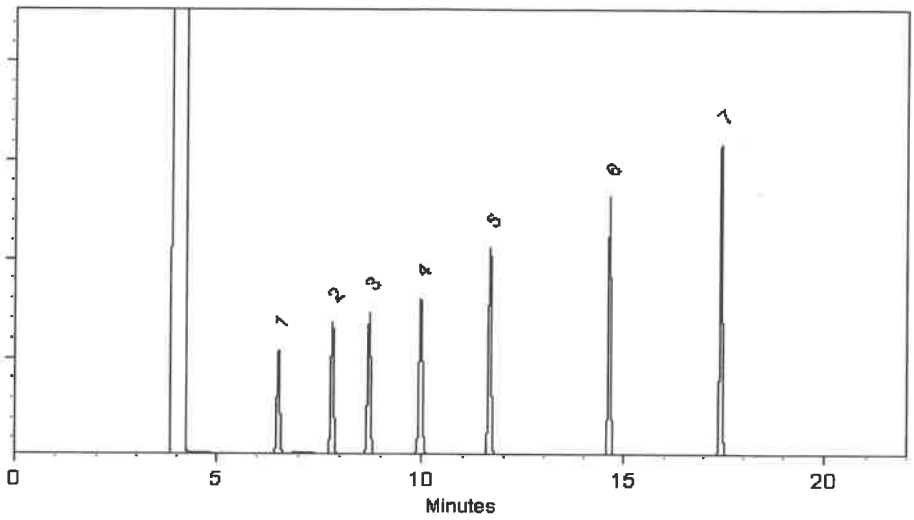
Inj. Temp:
200°C

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.

Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

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.:** A0210618

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 : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

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.)

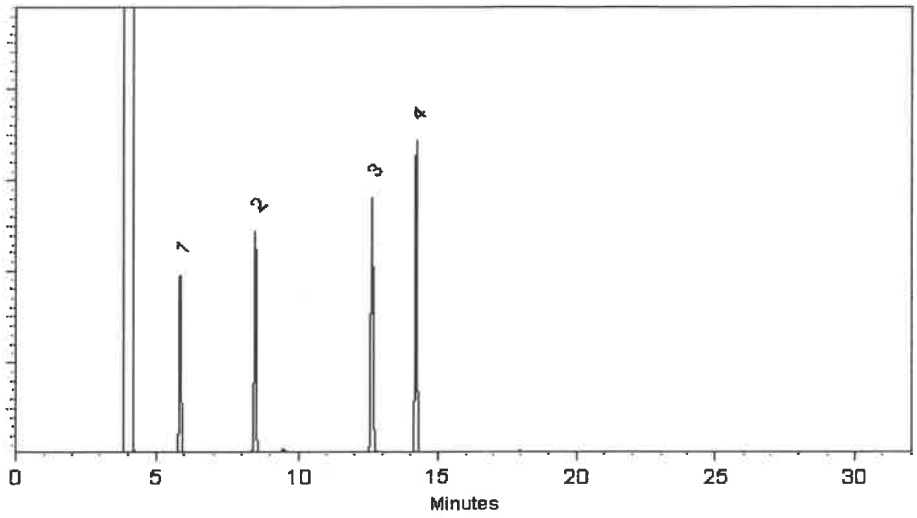
Inj. Temp:
200°C

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.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

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.:** A0210618

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 : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

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.)

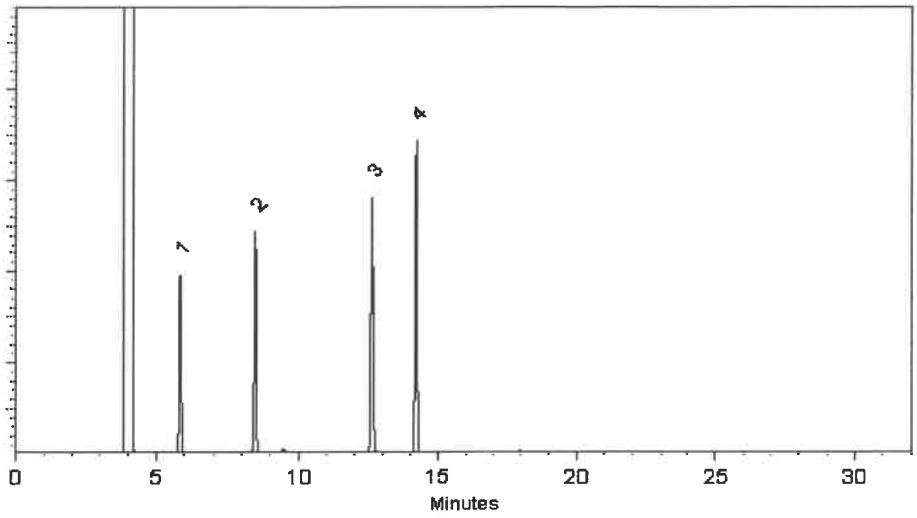
Inj. Temp:
200°C

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.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

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.:** A0210618

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 : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

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.)

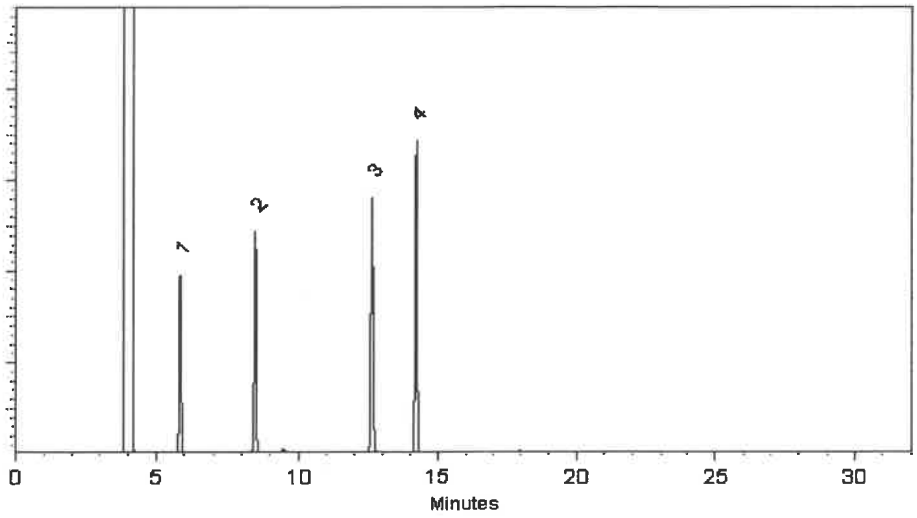
Inj. Temp:
200°C

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.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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.:** A0216826

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 : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

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.

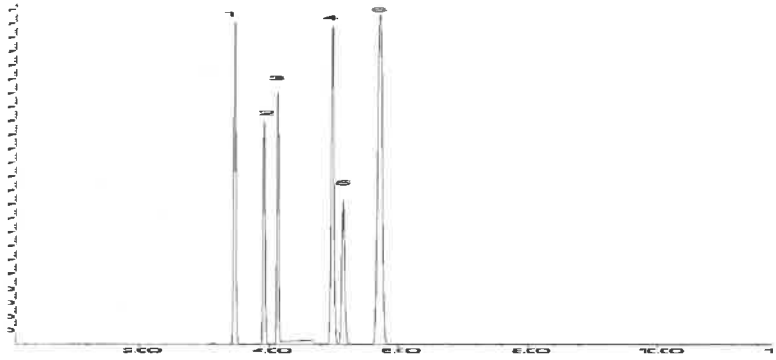
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

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.

Tom Suckar - Mix Technician

Date Mixed: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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.:** A0216826

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 : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

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.

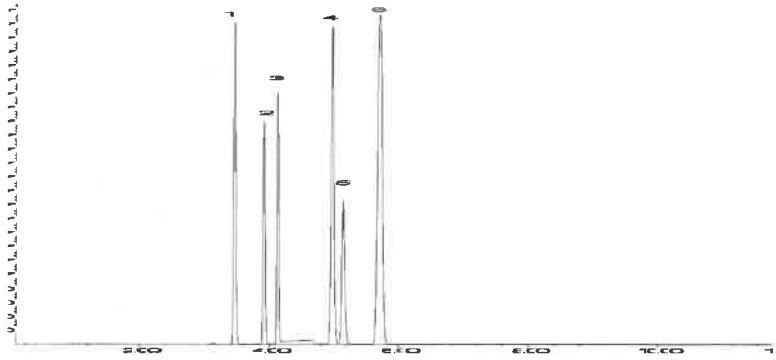
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

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.

Tom Suckar - Mix Technician

Date Mixed: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

J14842 to 14846

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.:** A0217535

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 : October 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	tert-Butanol (TBA)	75-65-0	SHBQ8002-1	99%	50,007.5 µg/mL	+/- 717.6137

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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.)

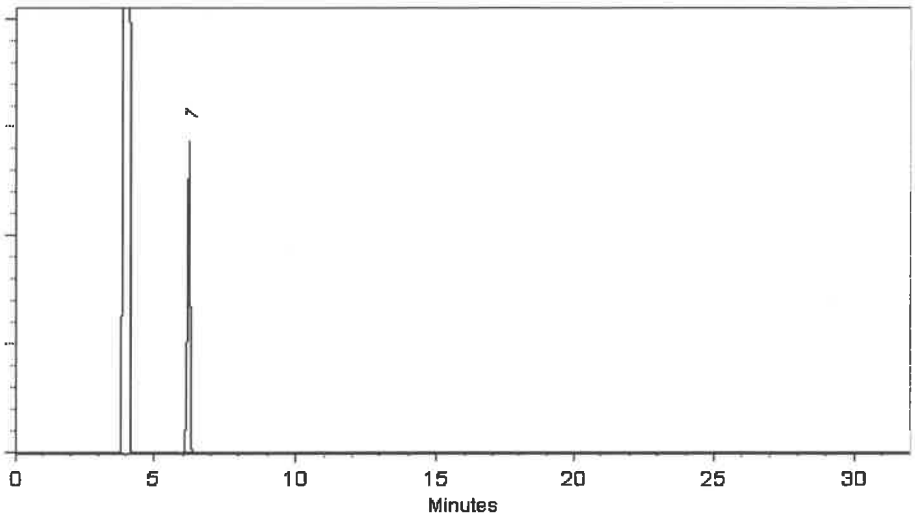
Inj. Temp:
200°C

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.

Aaron Enyart - Operations Tech I

Date Mixed: 07-Oct-2024 **Balance Serial #** B251644995

Brittany Federinko - Operations Tech I

Date Passed: 09-Oct-2024

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

gravimetric

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. : 555584 **Lot No.:** A0219012

Description : Custom CLP VOA Surrogate Standard Mix

Custom CLP VOA Surrogate Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dichloroethane-d4	17060-07-0	PR-33313	99%	25,228.0 µg/mL	+/- 1,428.7919
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	0000268853	99%	25,196.0 µg/mL	+/- 1,426.9795
3	Toluene-d8	2037-26-5	PR-34141	99%	25,228.0 µg/mL	+/- 1,428.7919

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Jess Hoy - Operations Tech I

Date Mixed: 12-Nov-2024 **Balance:** 1127510105

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Zoviy Rec 01/08/21

CERTIFIED REFERENCE MATERIAL

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic

V14803 - V14822

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.:** A0220471

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 : June 30, 2026 **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	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* 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.)

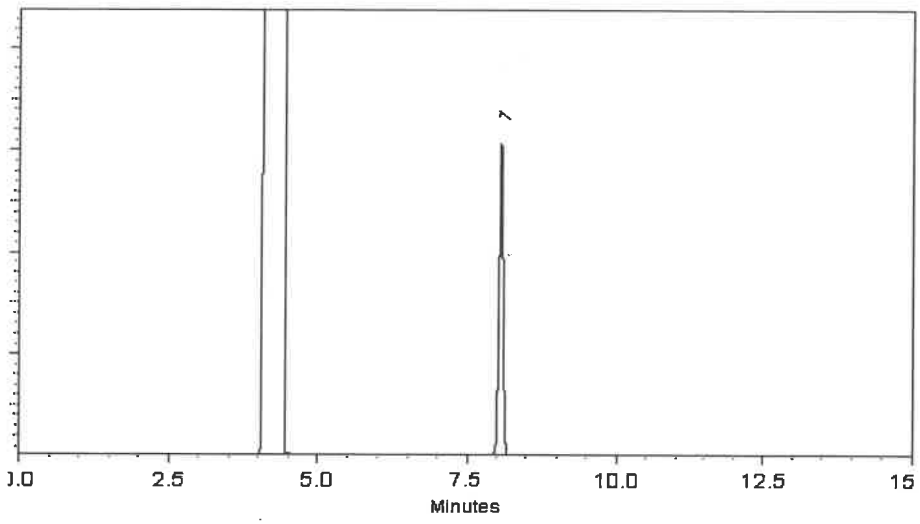
Inj. Temp:
200°C

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.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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.

Zoey Rec 01/08/21

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

V14803 - V14822

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.:** A0220471

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 : June 30, 2026 **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	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* 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.)

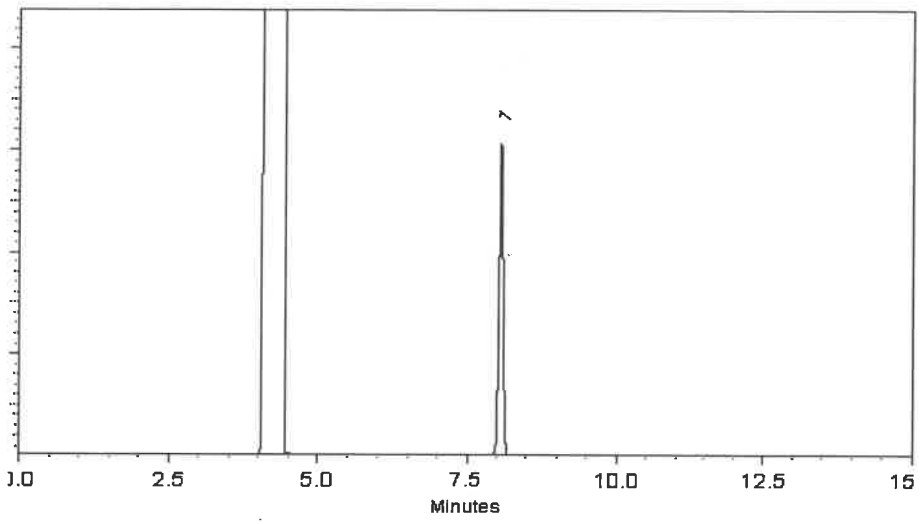
Inj. Temp:
200°C

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.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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.

10 vial Rec 01/08/25

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic

V14793 to 14802

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.:** A0220563

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 : June 30, 2026 **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	Vinyl acetate	108-05-4	RD240423RSR	99%	8,060.0 µg/mL	+/- 278.5905

* 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.)

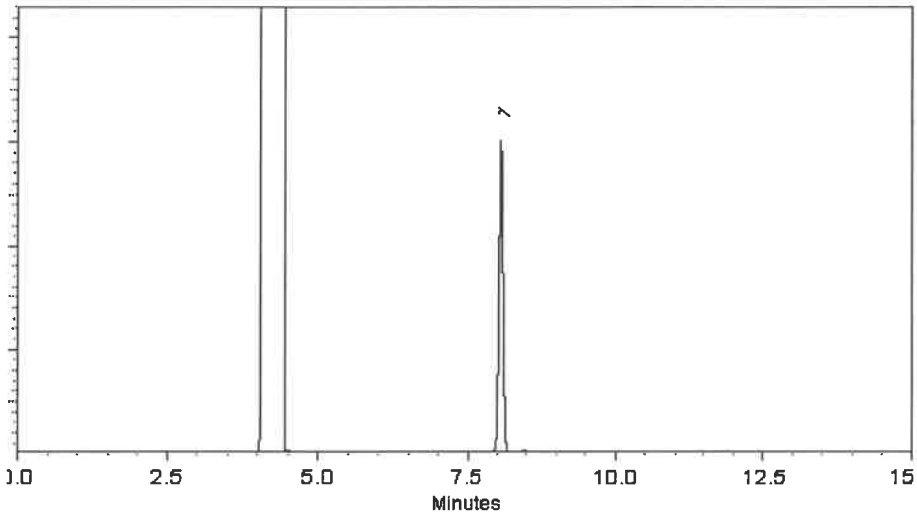
Inj. Temp:
200°C

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.

Tom Suckal - Mix Technician

Date Mixed: 30-Dec-2024 **Balance Serial #** B345965662

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 03/12/25

CERTIFIED REFERENCE MATERIAL

10 vials

Certificate of Analysis

gravimetric

V14885 – to – V14894

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. : 555583 **Lot No.:** A0223136

Description : Custom CLP VOA Internal Standard Mix

Custom CLP VOA Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Difluorobenzene	540-36-3	MKCS8657	99%	25,024.0 µg/mL	+/- 1,417.2383
2	Bromochloromethane	74-97-5	S241017RSR	99%	25,060.0 µg/mL	+/- 1,419.2772
3	Chlorobenzene-d5	3114-55-4	PR-31132	99%	25,048.4 µg/mL	+/- 1,418.6202

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Penelope Riglin - Operations Tech I

Date Mixed: 10-Mar-2025 **Balance:** 1128342314

REVIEWED

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.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
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	0.2
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

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

V14883
V14884

Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
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	0.2
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

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number: Q1774

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: SEE CONTRACT PO#
ADDRESS: 4433 Corporation Ln, Suite 300	PROJECT #: 112G08005-WE13 LOCATION: GW IDW	ADDRESS:
CITY: Virginia Beach STATE: VA ZIP: 23462	PROJECT MANAGER: Ernie Wu	CITY: STATE: ZIP:
ATTENTION: Ernie Wu	E-MAIL: ernie.wu@tetratech.com	ATTENTION: PHONE:
PHONE: 757-466-4901 FAX: 757-461-4148	PHONE: 757-466-4901 FAX: 757-461-4148	

DATA TURNAROUND INFORMATION

FAX:_____48hr_____ DAYS*
HARD COPY:_____48hr_____DAYS*
EDD_____48hr_____DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ❑ RESULTS ONLY
- ❑ RESULTS + QC
- ❑ New Jersey REDUCED
- ❑ New Jersey CLP
- ❑ USEPA CLP
- ❑ New York State ASP "B"
- ❑ New York State ASP "A"
- ❑ Other_____
- ❑ EDD Format_____

ANALYSIS

	1	2	3	4	5	6	7	8	9
	VOC's (EPA 624)	pH	Total Metals	PCB's (EPA 8082)					

PRESERVATIVES

	1	2	3	4	5	6	7	8	9
	A		B						

COMMENTS

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	COMMENTS
1.	BP-TB-20250407	QA		X	4/7/25	9:00	2	Trip Blank
2.	TT-073-IDWGW-20250409	AQ		X	4/9/25	11:30	5	PH. 1.3 LOT # 80-80444
3.	TT-074-IDWGW-20250409	AQ		X	4/9/25	11:40	5	PH 1.3
4.	TT-075-IDWGW-20250409	AQ		X	4/9/25	11:50	5	PH 1.0
5.								
6.								
7.								
8.								
9.								
10.								

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

	DATE/TIME		
RELINQUISHED BY SAMPLER 1.	4/9/25 14:00	RECEIVED BY 1.	
RELINQUISHED BY 2. FedEx	4-10-25 0950	RECEIVED BY 2.	
RELINQUISHED BY 3.	DATE/TIME	RECEIVED FOR LAB BY 3.	

Conditions of bottles or coolers at receipt: q Compliant q Non Compliant q Cooler Temp 2.3°C
MeOH extraction requires an additional 4oz. Jar for percent solid
q Ice in Cooler?: Y
Comments:
48hr TAT - CTO-WE13 Drilling GW IDW Sampling - Frac Tank #3291 (TT-050)
(Adjust Factor +1 IR(XU) #1

Page 1 of 1

SHIPPED VIA: CLIENT: ❑ Hand Delivered ❑ Overnight
CHEMTECH: ❑ Picked Up ❑ Overnight

Shipment Complete ❑ YES ❑ NO

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

From: Wu, Ernie <Ernie.Wu@tetratech.com>
Sent: Thursday, April 10, 2025 2:48 PM
Subject: RE: Q1774
Attachments: SKM_C55825041011470.pdf

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Kiran,

Thanks for letting me know. Please proceed with the analysis without the trip blank.

Ernie

Ernie Wu | Project Manager | Environmental Scientist
Direct **+1 (757) 466-4148** | Business **+1 (757) 461-3768** | ernie.wu@tetratech.com
Time Zone: Eastern Time

Tetra Tech | *Leading with Science®*
4433 Corporation Lane, Ste 300 | Virginia Beach, VA 23462 | tetratech.com
EGS

This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

From: Kiran Saleem <Kiran.Saleem@alliancetg.com>
Sent: Thursday, April 10, 2025 12:45 PM
To: Wu, Ernie <Ernie.Wu@tetratech.com>
Cc: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Subject: Q1774

□ **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. □

Good Afternoon Ernie,

I am reaching out to inform you that we did not receive the sample 1 which is BP-TB-20250407 for attached COC.

Thanks.

NOTE: Chemtech is now an Alliance Technical Group company. Please add AllianceTG.com to your safe senders list to ensure receipt of important emails.

Regards,

Kiran Saleem
Project Manager
Alliance Technical Group
Main: 908-789-8900
Direct: 908-728-3148
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

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-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1774 TETR06
Client Name : Tetra Tech NUS, Inc.
Client Contact : Ernie Wu
Invoice Name : Tetra Tech NUS, Inc.
Invoice Contact : Ernie Wu

Order Date : 4/10/2025 10:43:00 AM
Project Name : CTO WE13
Receive DateTime : 4/10/2025 9:50:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : ADAPT
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
~~Q1774-01~~	~~BP-TB-20250407~~	~~Water~~	~~04/09/2025~~	~~09:00~~					
					~~VOCMS Group4~~		~~624.1~~		~~2 Bus. Days~~
Q1774-02	TT-073-IDWGW-20250409	Water	04/09/2025	11:30					
					VOCMS Group4		624.1		2 Bus. Days
Q1774-03	TT-074-IDWGW-20250409	Water	04/09/2025	11:40					
					VOCMS Group4		624.1		2 Bus. Days
Q1774-04	TT-075-IDWGW-20250409	Water	04/09/2025	11:50					
					VOCMS Group4		624.1		2 Bus. Days

Relinguished By :
Date / Time : 4/10/25 1120

Received By :
Date / Time : 4/10/25 11:20

Storage Area : VOA Refridgerator Room

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086242.D
Acq On : 11 Apr 2025 11:04
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Quant Time: Apr 12 00:17:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	20477	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	121329	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	110874	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.576	65	59014	29.547	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 98.500%			
60) 4-Bromofluorobenzene	12.847	95	66521	30.135	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.433%			
63) Toluene-d8	10.565	98	185448	29.627	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.767%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	167899	102.336	ug/l	97
3) Chloromethane	2.359	50	220891	97.412	ug/l	99
4) Vinyl Chloride	2.518	62	212658	98.457	ug/l	97
5) Bromomethane	2.959	94	94323	87.548	ug/l	99
6) Chloroethane	3.118	64	128777	94.415	ug/l	98
7) Trichlorofluoromethane	3.500	101	227259	96.994	ug/l	100
8) Diethyl Ether	3.959	74	101866	94.275	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	139276	96.398	ug/l	99
10) 1,1-Dichloroethene	4.341	96	144087	92.407	ug/l	98
11) Methyl Iodide	4.589	142	168878	94.232	ug/l	98
12) Methyl Acetate	5.018	43	200798	91.194	ug/l	99
13) Acrolein	4.177	56	131999	527.390	ug/l	100
14) Acrylonitrile	5.712	53	430948	463.608	ug/l	99
15) Acetone	4.424	58	102413	434.159	ug/l	86
16) Carbon Disulfide	4.712	76	413127	92.399	ug/l	99
17) Allyl chloride	5.018	41	254150	93.519	ug/l	98
18) Methylene Chloride	5.277	84	164274	92.405	ug/l	94
19) trans-1,2-Dichloroethene	5.783	96	152296	108.281	ug/l	99
20) Diisopropyl ether	6.665	45	555310	95.034	ug/l	96
21) 1,1-Dichloroethane	6.565	63	298980	95.915	ug/l	98
22) cis-1,2-Dichloroethene	7.482	96	182539	93.299	ug/l	97
23) tert-Butyl Alcohol	5.512	59	171504	445.280	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	526162	93.663	ug/l	98
25) Chloroform	7.965	83	281205	94.604	ug/l	96
26) Cyclohexane	8.253	56	277499	95.155	ug/l #	99
29) 1,1-Dichloropropene	8.371	75	213302	98.138	ug/l	99
30) 2-Butanone	7.477	43	562722	467.239	ug/l	100
31) 2,2-Dichloropropane	7.488	77	263451	98.472	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	237411	94.957	ug/l	100
33) Carbon Tetrachloride	8.359	117	195904	98.048	ug/l	99
34) Benzene	8.600	78	675144	97.638	ug/l	97
35) Methacrylonitrile	7.777	41	129803	95.604	ug/l	99
36) 1,2-Dichloroethane	8.665	62	210783	97.412	ug/l	99
37) Trichloroethene	9.347	130	163126	97.775	ug/l	91
38) Methylcyclohexane	9.594	83	265418	99.571	ug/l	100
39) 1,2-Dichloropropane	9.618	63	169660	98.606	ug/l	98
40) Dibromomethane	9.706	93	105464	94.904	ug/l	99
41) Bromodichloromethane	9.882	83	225206	94.332	ug/l	99
42) Vinyl Acetate	6.600	43	1951001	475.901	ug/l	99

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086242.D
Acq On : 11 Apr 2025 11:04
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Quant Time: Apr 12 00:17:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

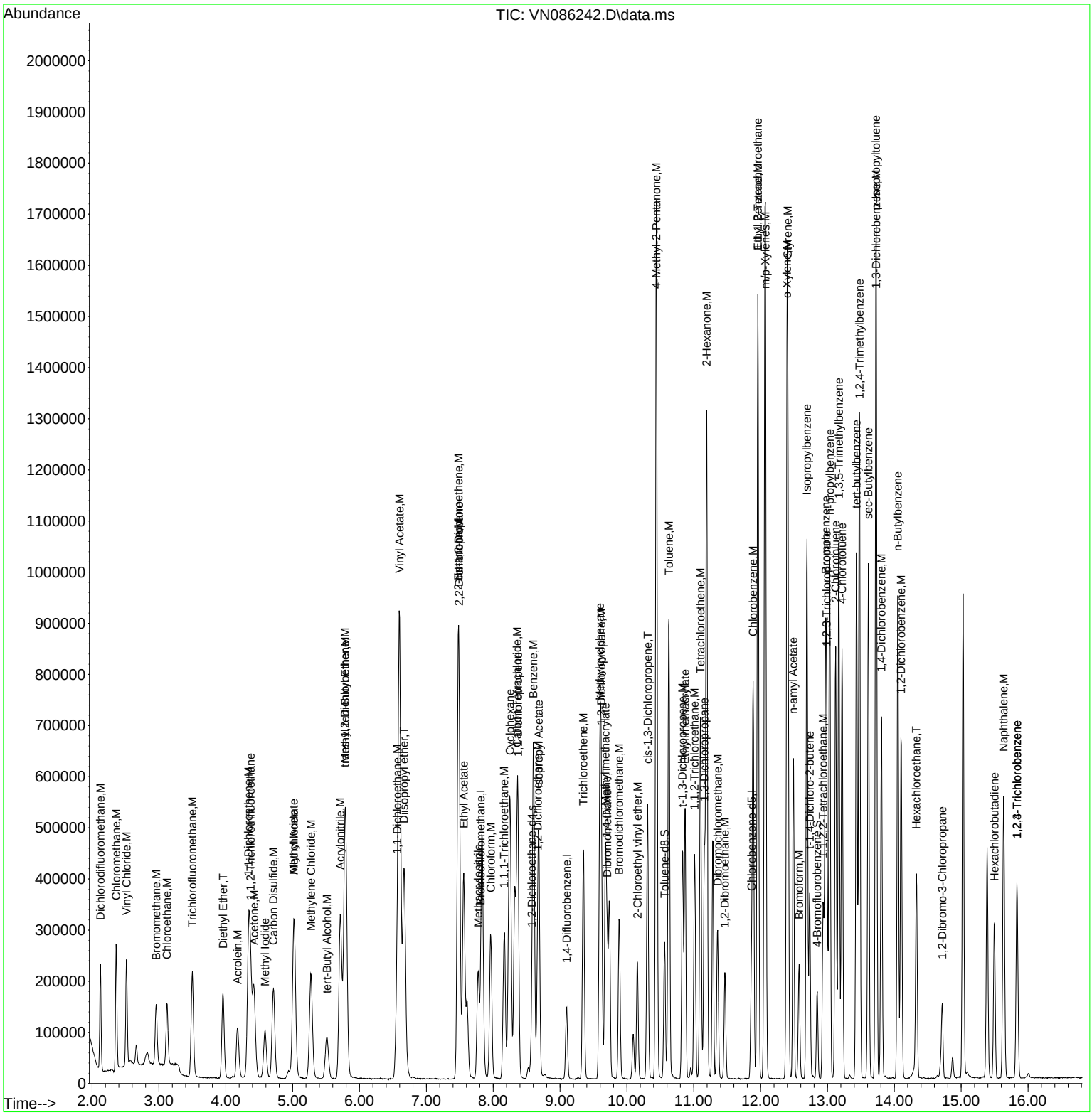
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	222324	91.520	ug/l		99
44) Isopropyl Acetate	8.682	43	407532	90.431	ug/l		98
45) 1,4-Dioxane	9.694	88	65820	1836.730	ug/l	#	92
46) Methyl methacrylate	9.676	41	189237	95.302	ug/l		99
47) n-amyl Acetate	12.488	43	338467	92.953	ug/l		99
48) t-1,3-Dichloropropene	10.829	75	263069	97.471	ug/l		100
49) cis-1,3-Dichloropropene	10.312	75	281650	98.600	ug/l		97
50) 1,1,2-Trichloroethane	11.012	97	147343	94.534	ug/l		98
51) Ethyl methacrylate	10.870	69	276983	95.629	ug/l		97
52) 1,3-Dichloropropane	11.159	76	268559	96.673	ug/l		99
53) Dibromochloromethane	11.359	129	164626	96.562	ug/l		100
54) 1,2-Dibromoethane	11.465	107	149844	95.239	ug/l		99
55) 2-Chloroethyl vinyl ether	10.159	63	109257	99.826	ug/l		99
56) Bromoform	12.576	173	105955	94.994	ug/l		98
58) 4-Methyl-2-Pentanone	10.441	43	1157830	460.173	ug/l		99
59) 2-Hexanone	11.194	43	858112	458.017	ug/l		100
61) Tetrachloroethene	11.100	164	159732	97.556	ug/l		96
62) Toluene	10.629	91	705070	94.810	ug/l		99
64) Chlorobenzene	11.888	112	427265	94.040	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	142064	94.745	ug/l		99
66) Ethyl Benzene	11.959	91	775657	94.050	ug/l		98
67) m/p-Xylenes	12.070	106	587623	191.616	ug/l		99
68) o-Xylene	12.394	106	287174	95.205	ug/l		98
69) Styrene	12.406	104	486004	95.537	ug/l		99
70) Isopropylbenzene	12.694	105	705950	94.920	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	184643	87.222	ug/l		100
72) 1,2,3-Trichloropropane	12.988	75	301047	100.449	ug/l		60
73) Bromobenzene	12.976	156	155884	94.613	ug/l		99
74) n-propylbenzene	13.035	91	854262	96.989	ug/l		100
75) 2-Chlorotoluene	13.123	91	518416	93.916	ug/l		100
76) 1,3,5-Trimethylbenzene	13.170	105	586325	95.970	ug/l		100
77) t-1,4-Dichloro-2-butene	12.735	75	95696	94.184	ug/l		92
78) 4-Chlorotoluene	13.217	91	524792	95.194	ug/l		99
79) tert-butylbenzene	13.435	119	492114	93.090	ug/l		99
80) 1,2,4-Trimethylbenzene	13.482	105	593988	95.880	ug/l		99
81) sec-Butylbenzene	13.611	105	711037	96.423	ug/l		99
82) p-Isopropyltoluene	13.723	119	599176	97.402	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	290118	94.739	ug/l		100
84) 1,4-Dichlorobenzene	13.806	146	290254	94.482	ug/l		100
85) n-Butylbenzene	14.053	91	550772	99.247	ug/l		100
86) Hexachloroethane	14.329	117	101143	97.469	ug/l		98
87) 1,2-Dichlorobenzene	14.100	146	281264	93.023	ug/l		100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	42853	88.876	ug/l		98
89) 1,2,4-Trichlorobenzene	15.835	180	137279	93.313	ug/l		100
90) Hexachlorobutadiene	15.500	225	55837	87.904	ug/l		99
91) Naphthalene	15.635	128	516032	88.964	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	137279	93.313	ug/l		100

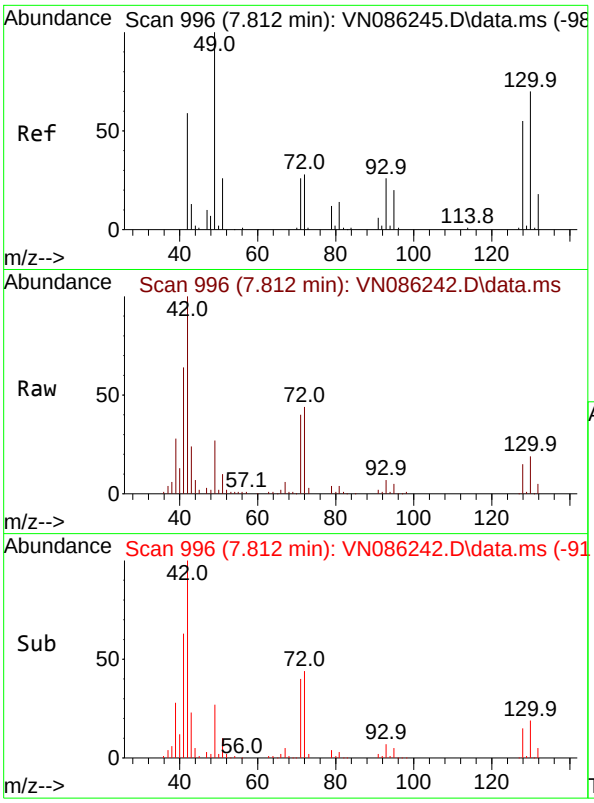
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086242.D
Acq On : 11 Apr 2025 11:04
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Quant Time: Apr 12 00:17:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration



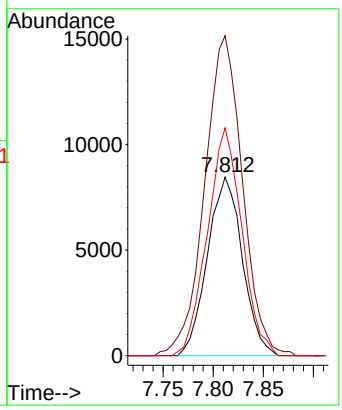


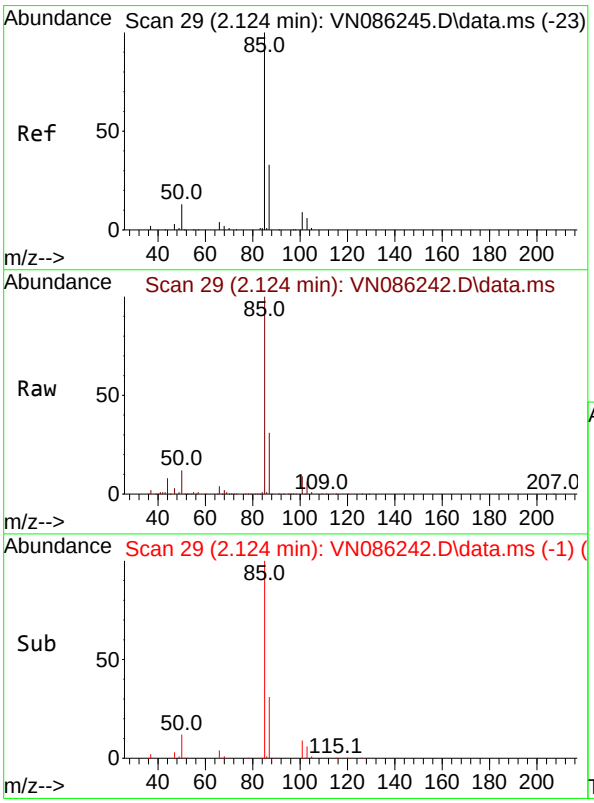
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:128 Resp: 20477

Ion	Ratio	Lower	Upper
128	100		
49	194.2	0.0	452.5
130	126.4	0.0	315.0

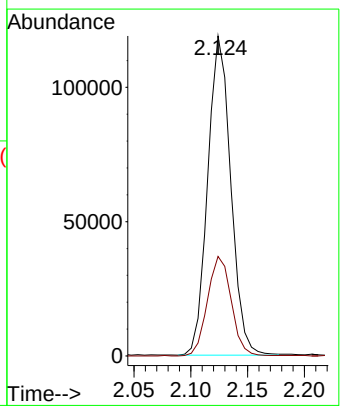


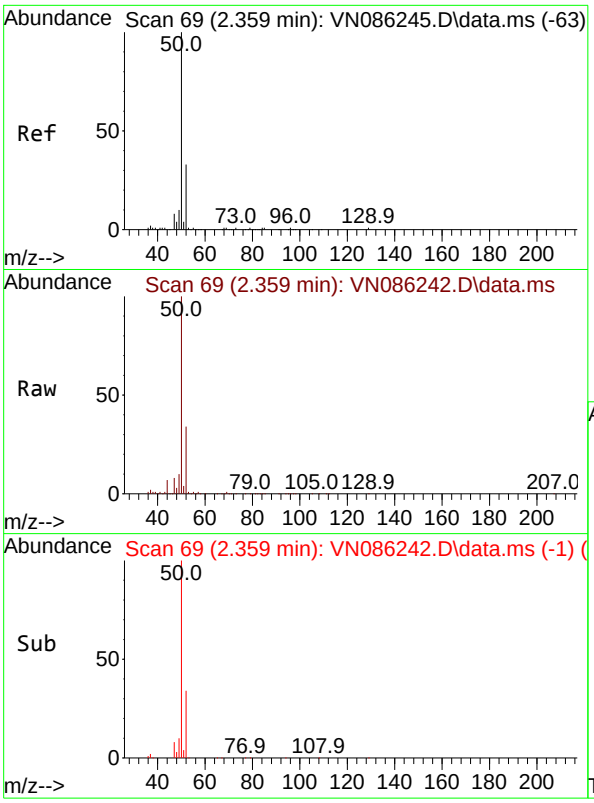


#2
Dichlorodifluoromethane
Concen: 102.336 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 85 Resp: 167899

Ion	Ratio	Lower	Upper
85	100		
87	31.2	16.3	48.9



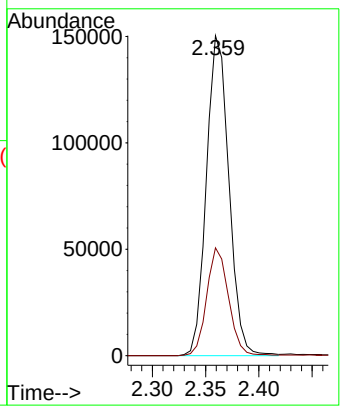


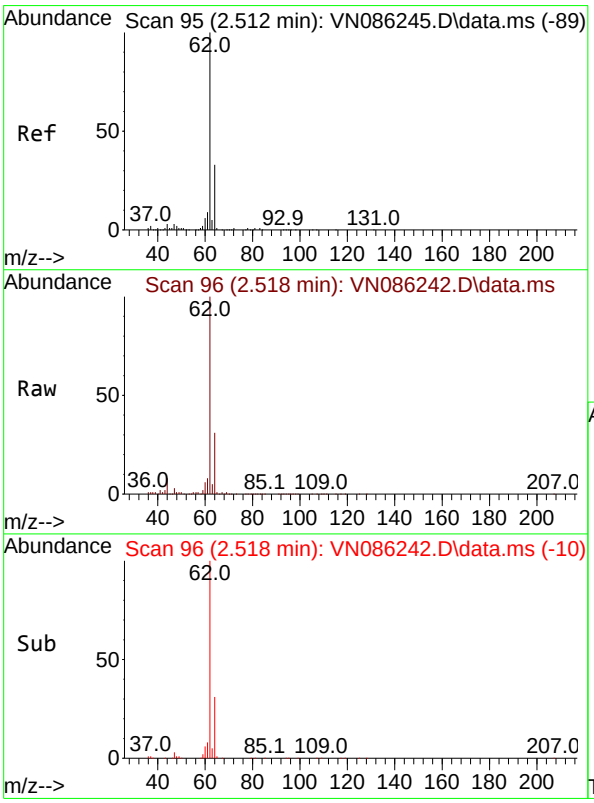
#3
Chloromethane
Concen: 97.412 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 50 Resp: 220891

Ion	Ratio	Lower	Upper
50	100		
52	33.7	26.4	39.6

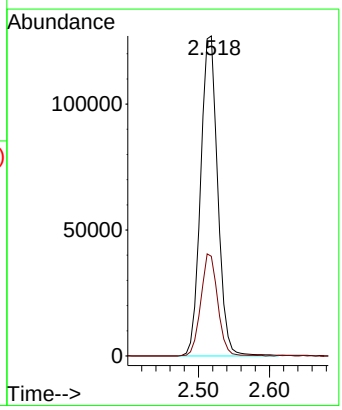


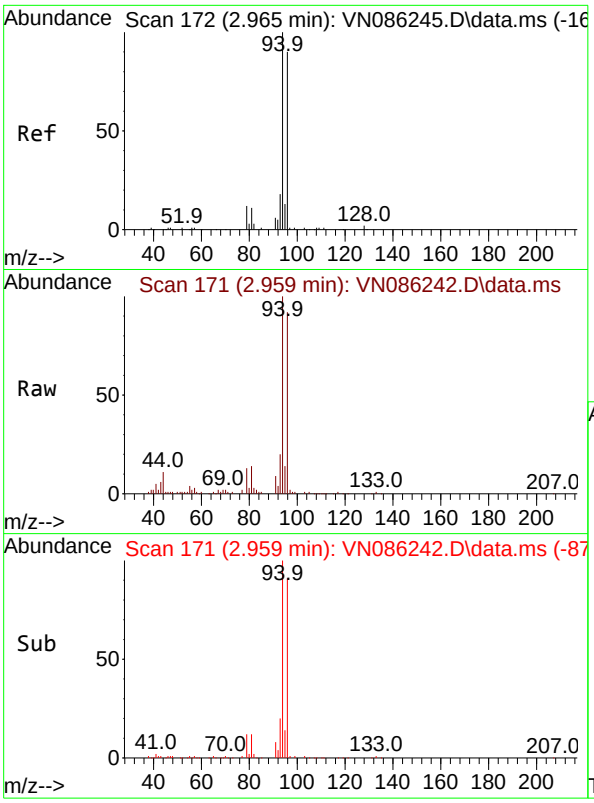


#4
Vinyl Chloride
Concen: 98.457 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 62 Resp: 212658

Ion	Ratio	Lower	Upper
62	100		
64	31.1	26.3	39.5



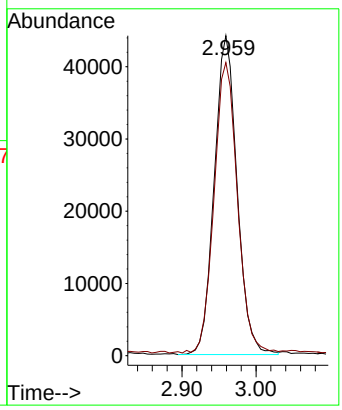


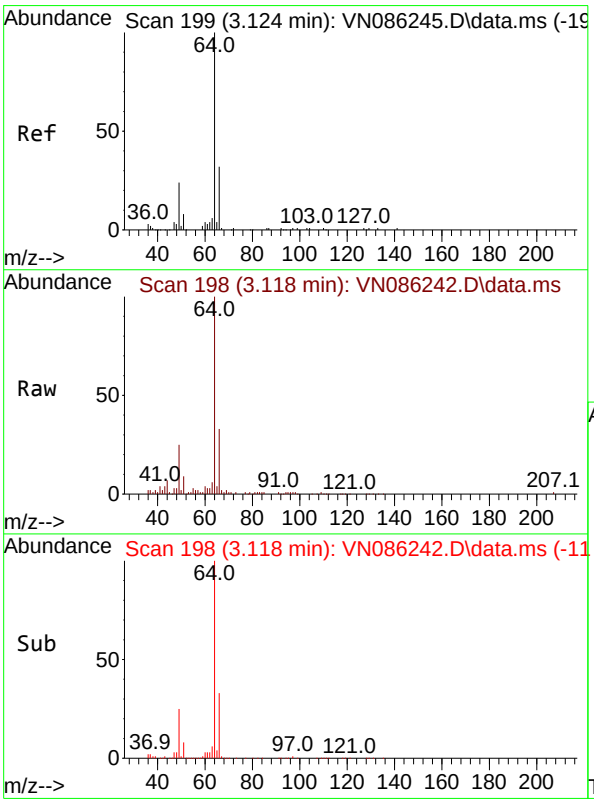
#5
Bromomethane
Concen: 87.548 ug/l
RT: 2.959 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 94 Resp: 94323

Ion	Ratio	Lower	Upper
94	100		
96	90.7	72.2	108.2

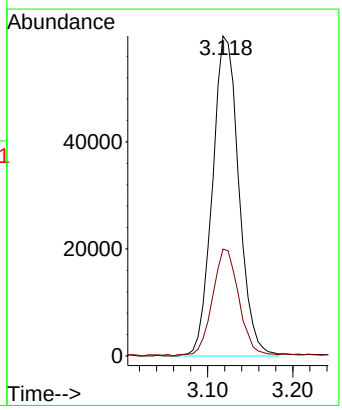


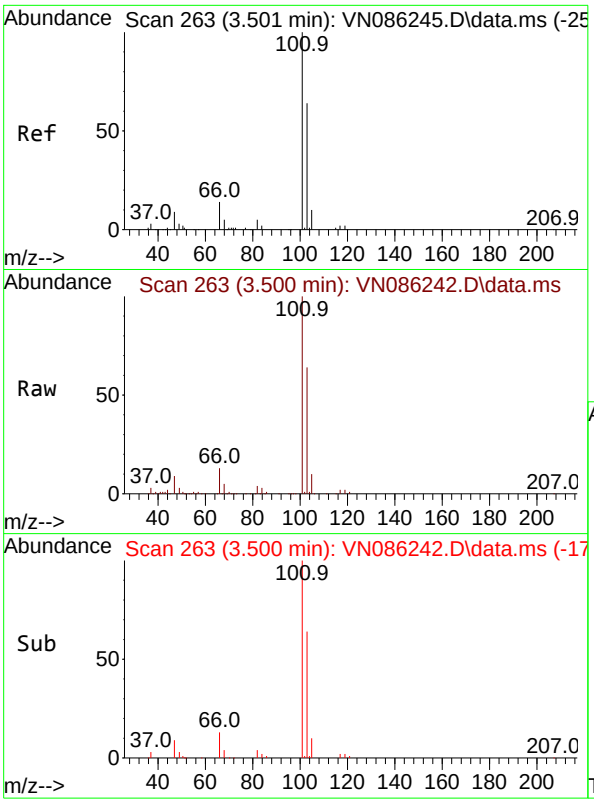


#6
Chloroethane
Concen: 94.415 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 64 Resp: 128777

Ion	Ratio	Lower	Upper
64	100		
66	33.0	25.7	38.5



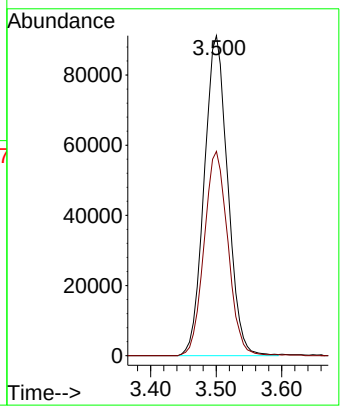


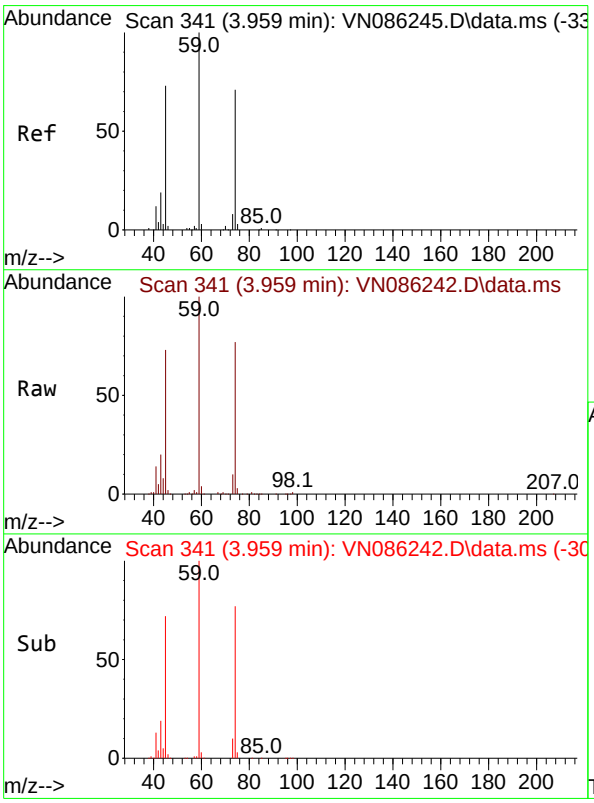
#7
Trichlorofluoromethane
Concen: 96.994 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:101 Resp: 227259

Ion	Ratio	Lower	Upper
101	100		
103	63.8	51.2	76.8

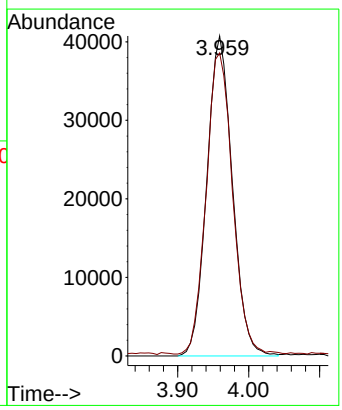


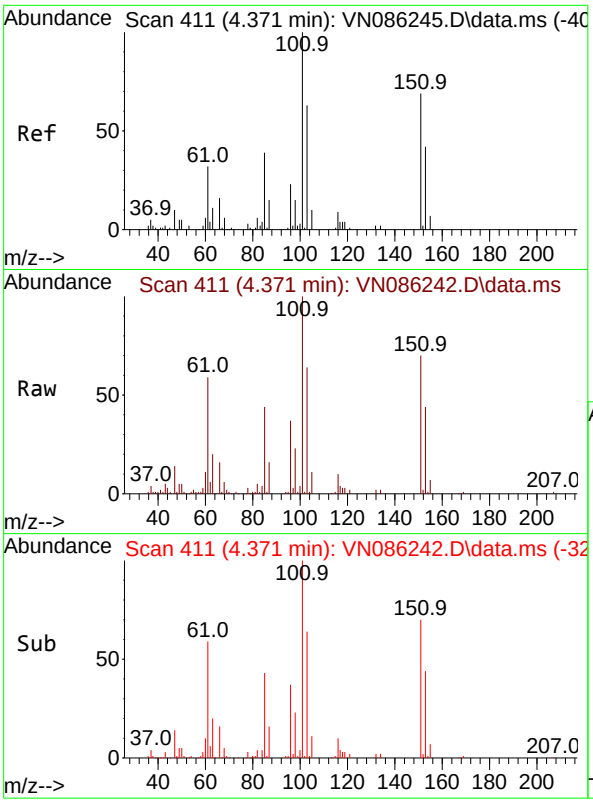


#8
Diethyl Ether
Concen: 94.275 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 74 Resp: 101866

Ion	Ratio	Lower	Upper
74	100		
45	96.7	19.2	173.2



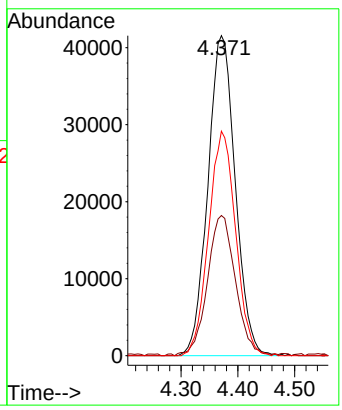


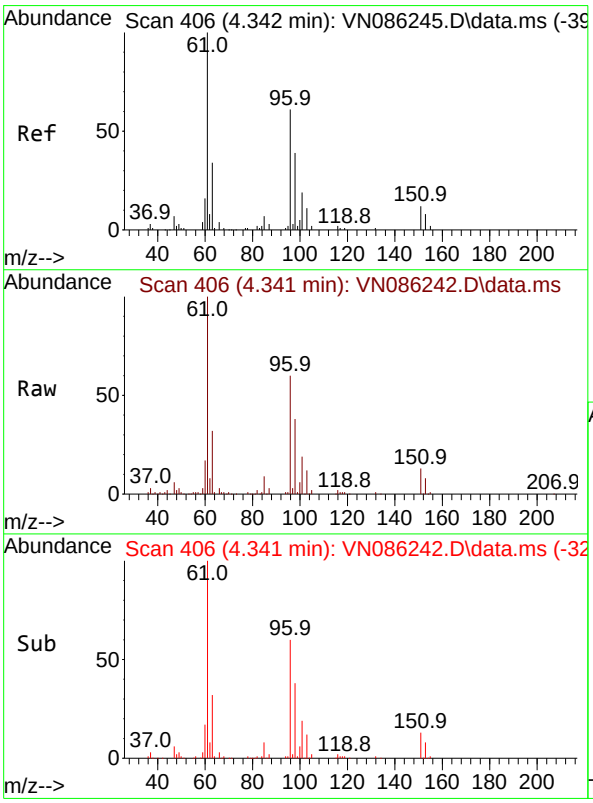
#9
1,1,2-Trichlorotrifluoroethane
Concen: 96.398 ug/l
RT: 4.371 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:101 Resp: 139276

Ion	Ratio	Lower	Upper
101	100		
85	44.7	0.0	93.0
151	69.2	0.0	138.6

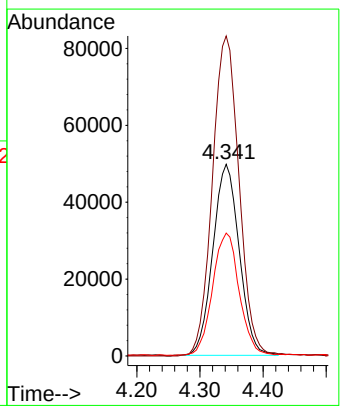


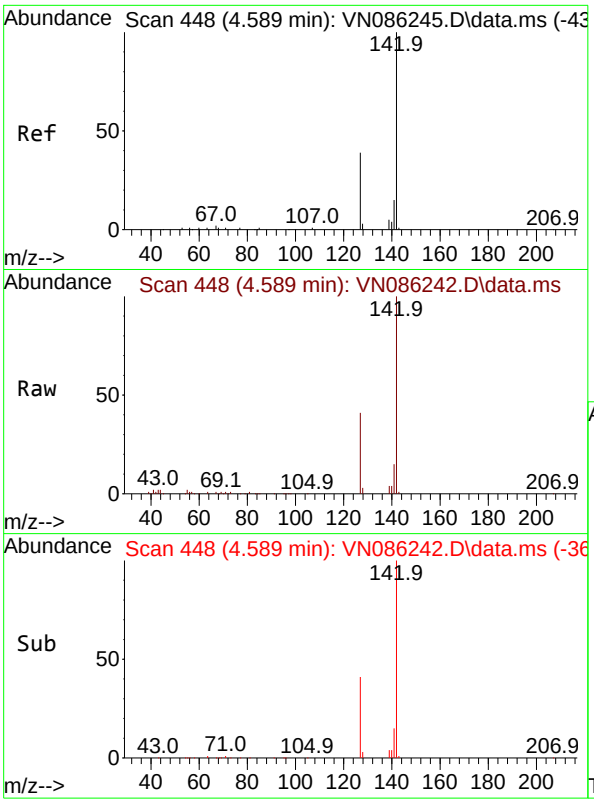


#10
1,1-Dichloroethene
Concen: 92.407 ug/l
RT: 4.341 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 96 Resp: 144087

Ion	Ratio	Lower	Upper
96	100		
61	167.5	131.1	196.7
98	63.7	51.6	77.4



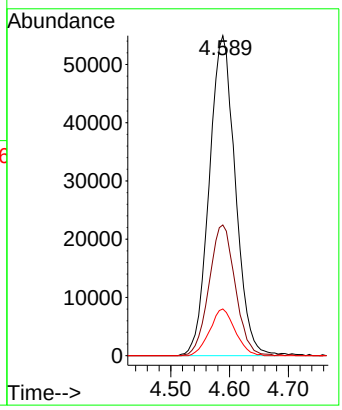


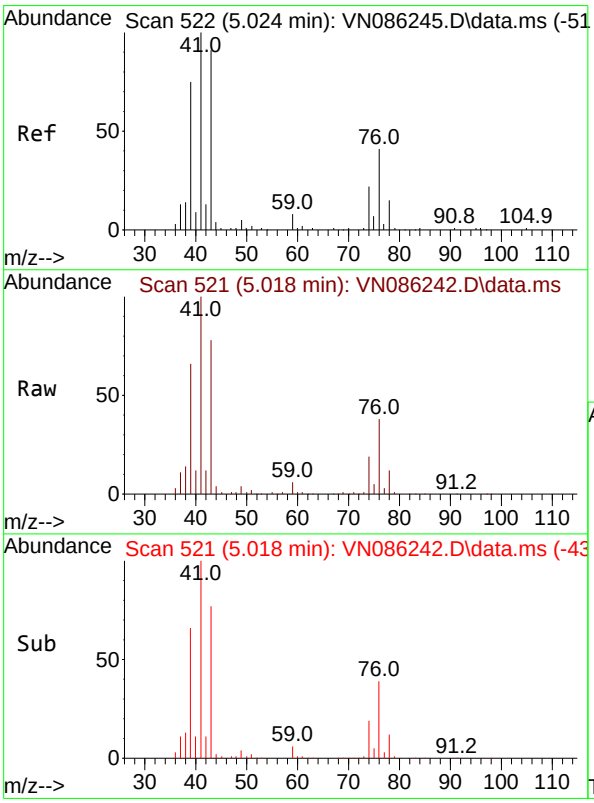
#11
Methyl Iodide
Concen: 94.232 ug/l
RT: 4.589 min Scan# 44
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:142 Resp: 168878

Ion	Ratio	Lower	Upper
142	100		
127	40.8	19.6	58.8
141	14.6	7.3	21.9

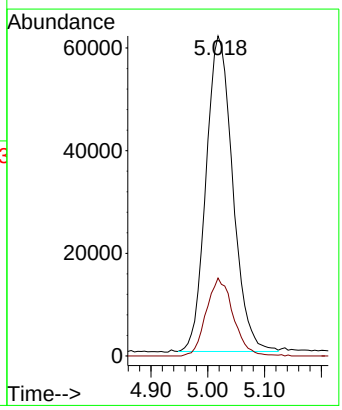


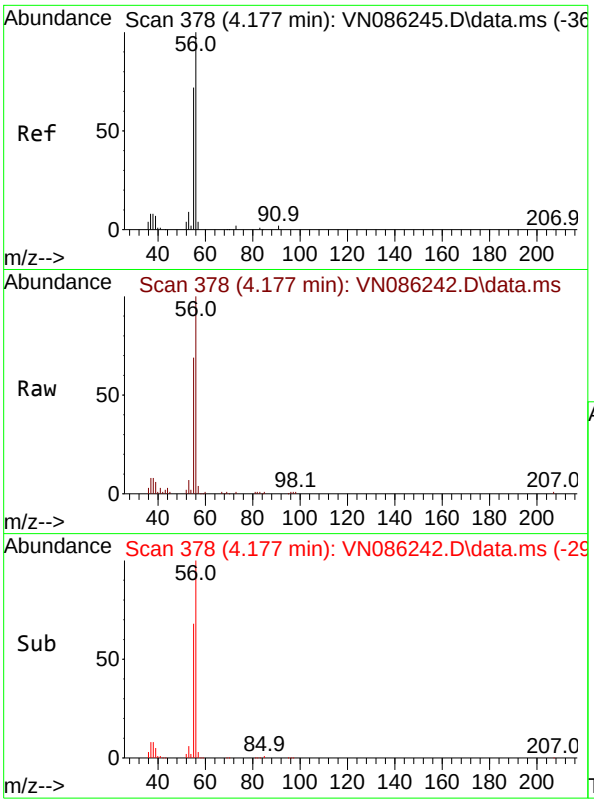


#12
Methyl Acetate
Concen: 91.194 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 200798

Ion	Ratio	Lower	Upper
43	100		
74	24.6	19.1	28.7



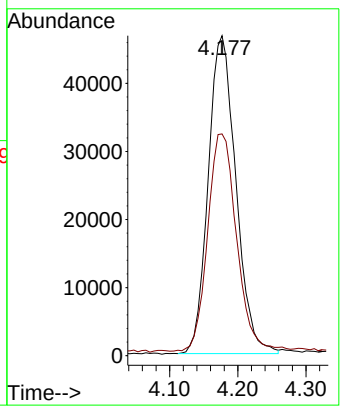


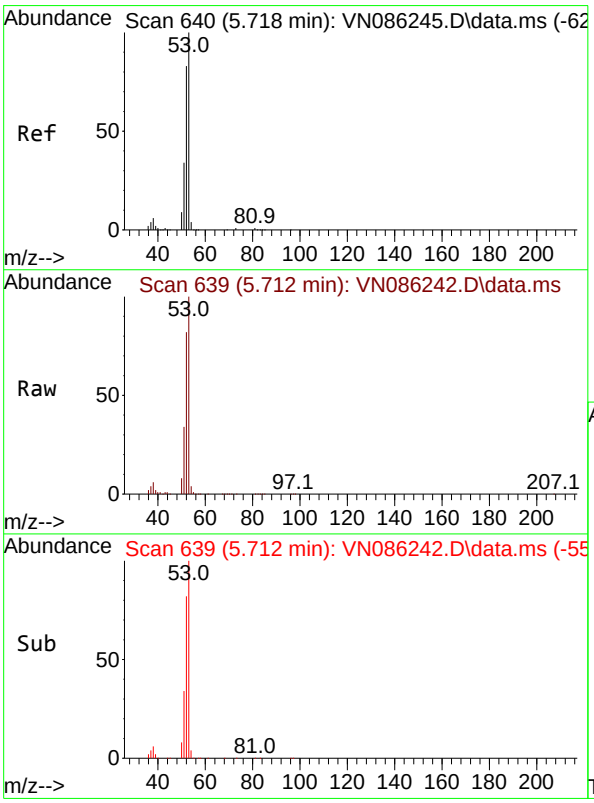
#13
Acrolein
Concen: 527.390 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 56 Resp: 131999

Ion	Ratio	Lower	Upper
56	100		
55	70.9	56.5	84.7

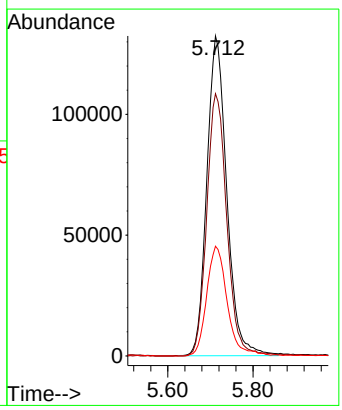


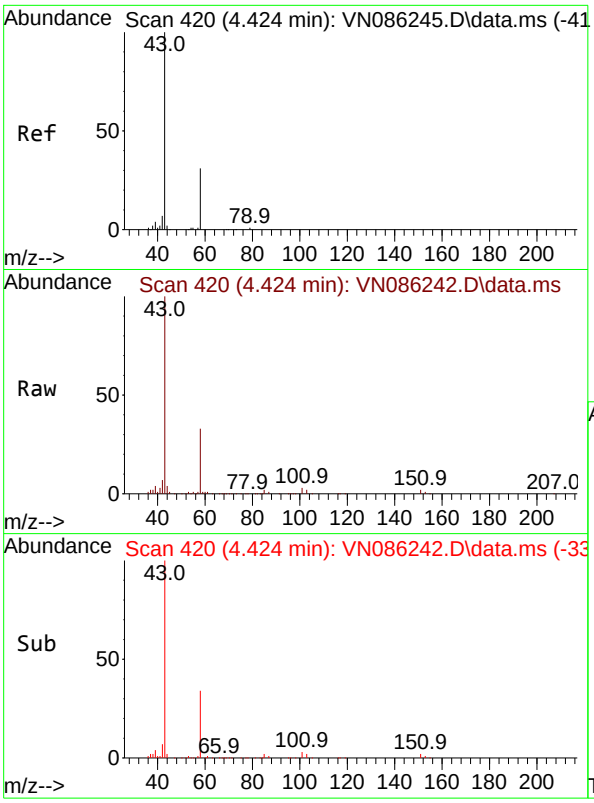


#14
Acrylonitrile
Concen: 463.608 ug/l
RT: 5.712 min Scan# 639
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 53 Resp: 430948

Ion	Ratio	Lower	Upper
53	100		
52	82.1	40.2	120.6
51	35.1	17.5	52.6



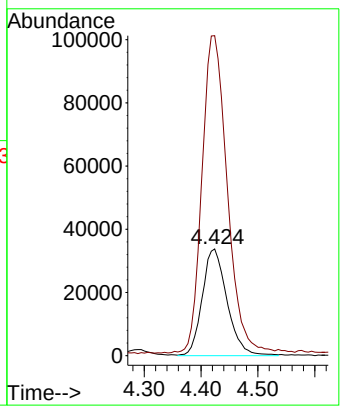


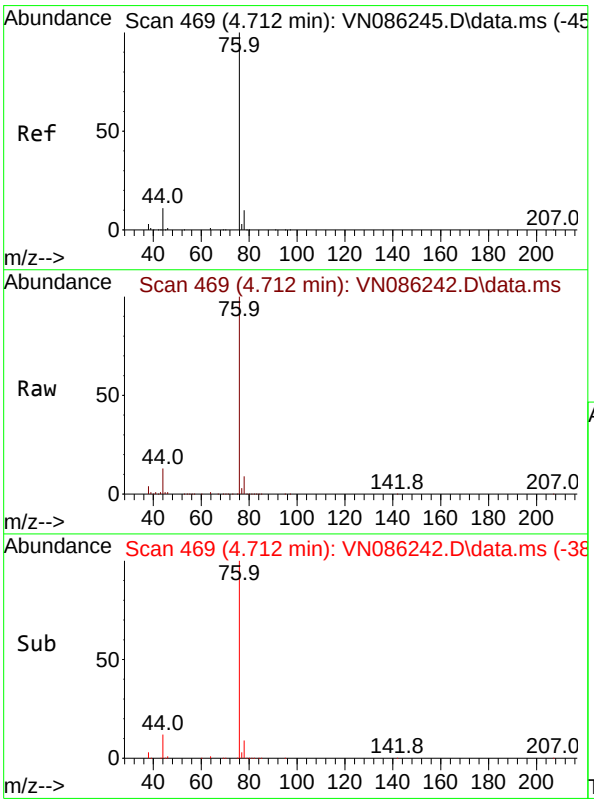
#15
Acetone
Concen: 434.159 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 58 Resp: 102413

Ion	Ratio	Lower	Upper
58	100		
43	297.7	261.8	392.8

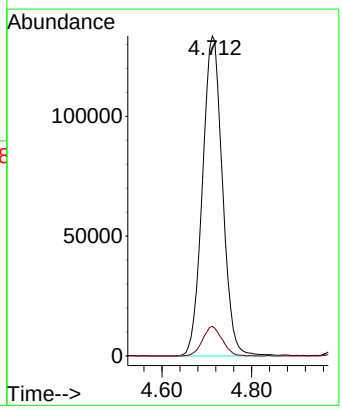


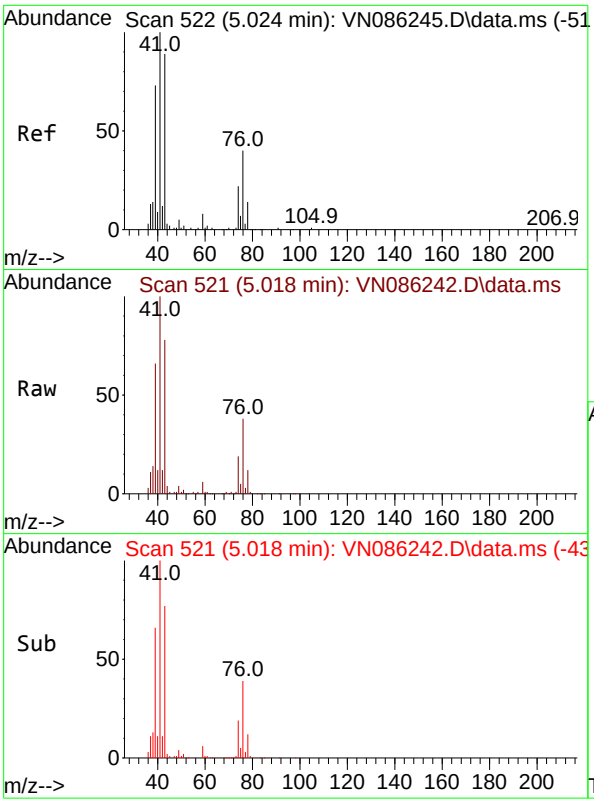


#16
Carbon Disulfide
Concen: 92.399 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 76 Resp: 413127

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.7	11.5



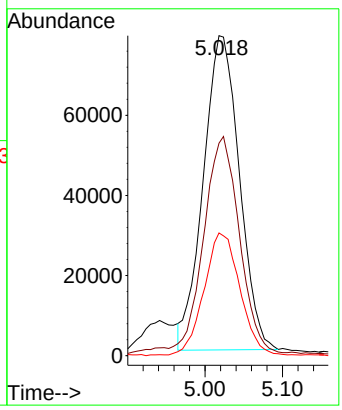


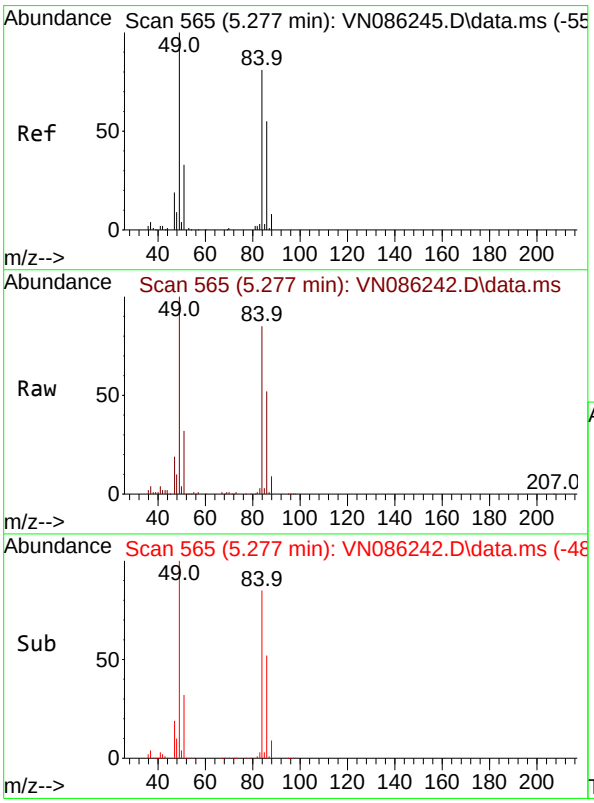
#17
Allyl chloride
Concen: 93.519 ug/l
RT: 5.018 min Scan# 5
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 41 Resp: 254150

Ion	Ratio	Lower	Upper
41	100		
39	66.6	34.4	103.2
76	38.5	18.8	56.3

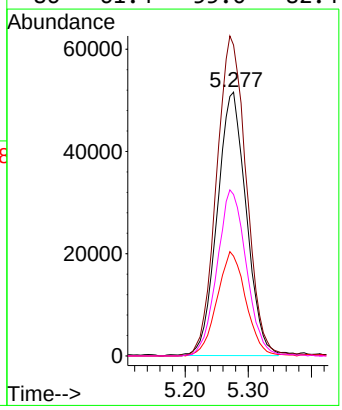


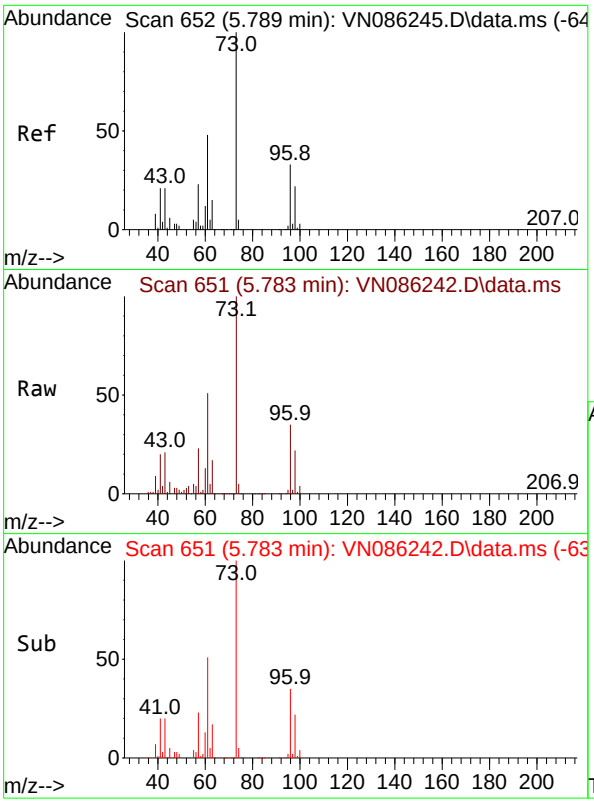


#18
Methylene Chloride
Concen: 92.405 ug/l
RT: 5.277 min Scan# 565
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 84 Resp: 164274

Ion	Ratio	Lower	Upper
84	100		
49	118.2	99.1	148.7
51	38.0	32.3	48.5
86	61.4	55.0	82.4



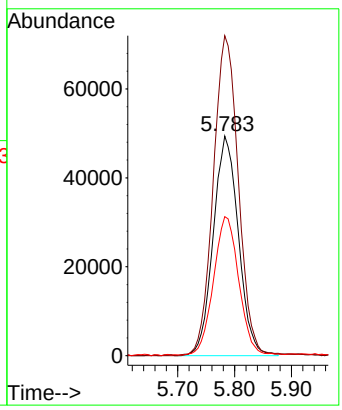


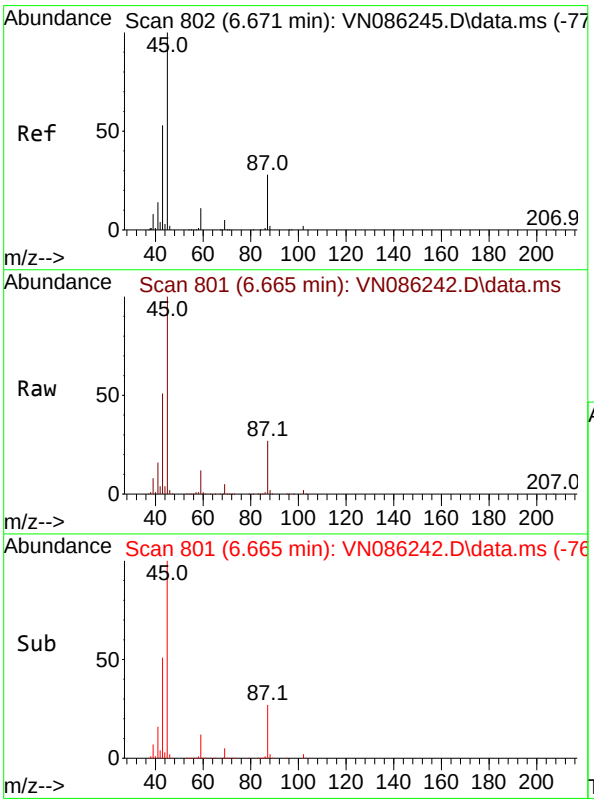
#19
trans-1,2-Dichloroethene
Concen: 108.281 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 96 Resp: 152296

Ion	Ratio	Lower	Upper
96	100		
61	145.7	115.9	173.9
98	62.9	52.1	78.1

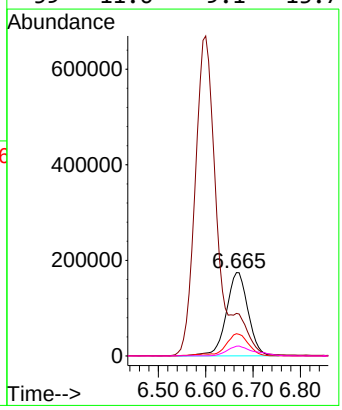


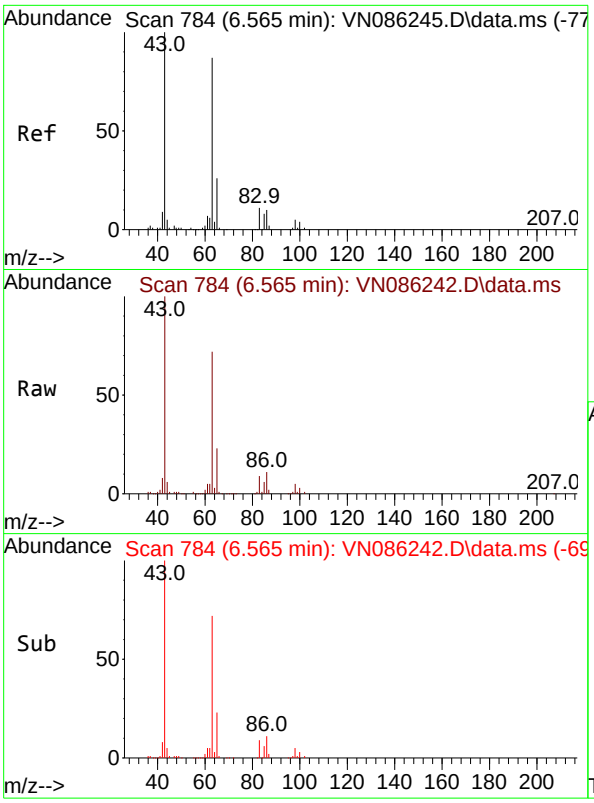


#20
Diisopropyl ether
Concen: 95.034 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 45 Resp: 555310

Ion	Ratio	Lower	Upper
45	100		
43	49.6	42.3	63.5
87	26.5	22.2	33.4
59	11.6	9.1	13.7



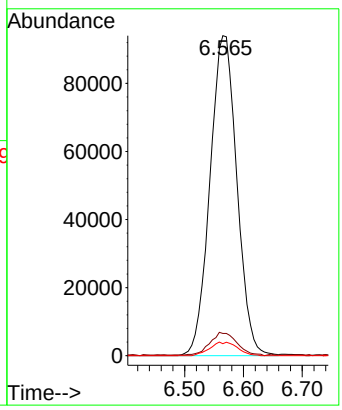


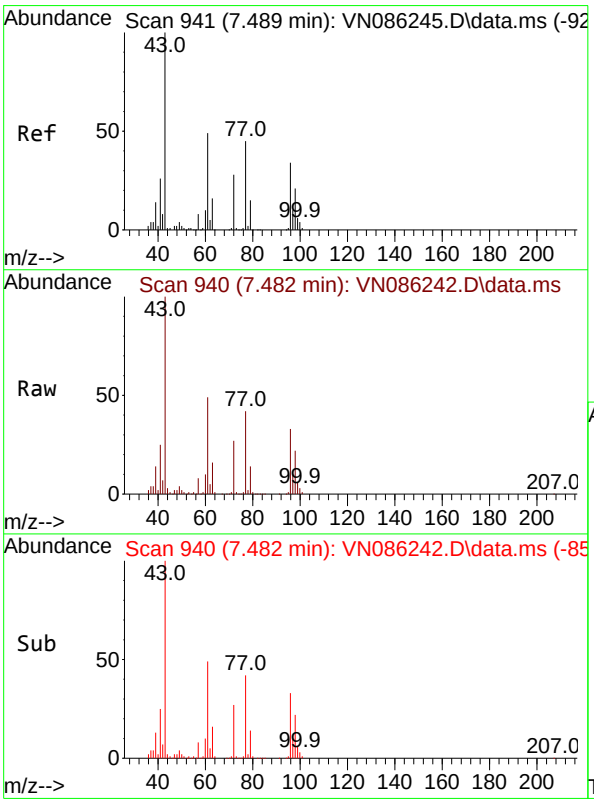
#21
1,1-Dichloroethane
Concen: 95.915 ug/l
RT: 6.565 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 63 Resp: 298980

Ion	Ratio	Lower	Upper
63	100		
98	6.7	3.1	9.3
100	3.8	2.3	6.9

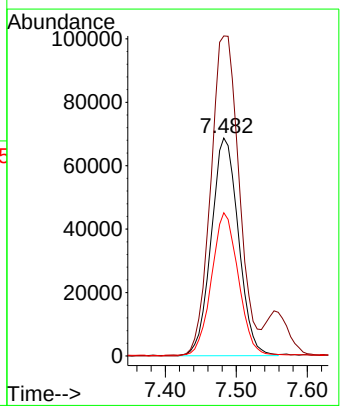


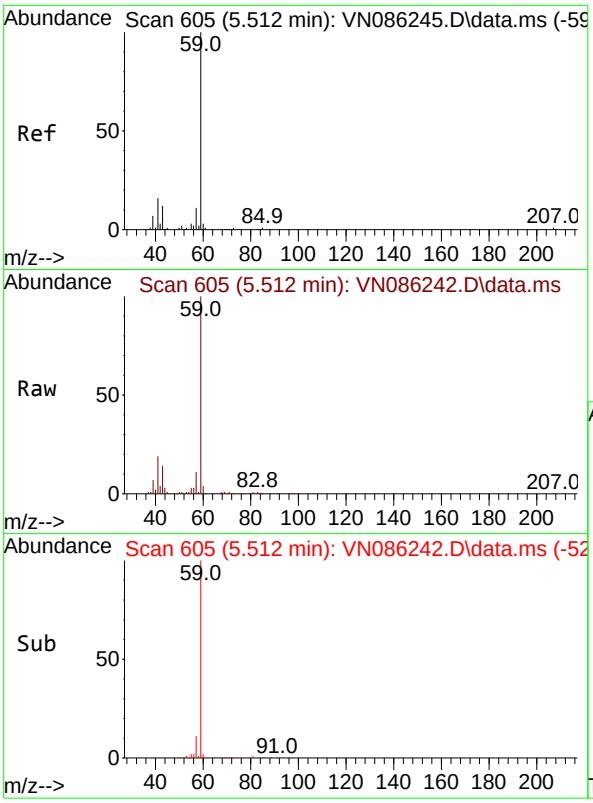


#22
cis-1,2-Dichloroethene
Concen: 93.299 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 96 Resp: 182539

Ion	Ratio	Lower	Upper
96	100		
61	154.3	119.5	179.3
98	64.4	51.0	76.6



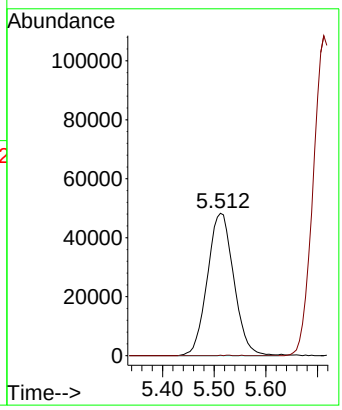


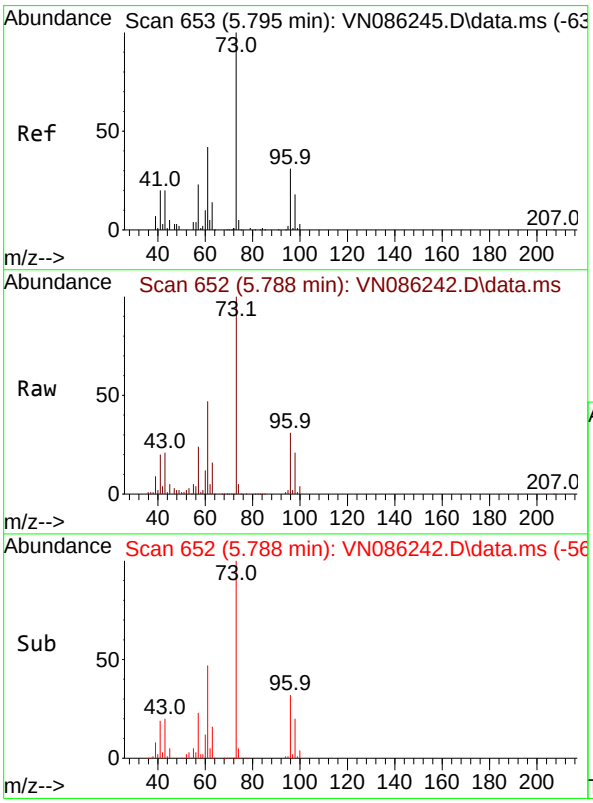
#23
tert-Butyl Alcohol
Concen: 445.280 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 59 Resp: 171504

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0#

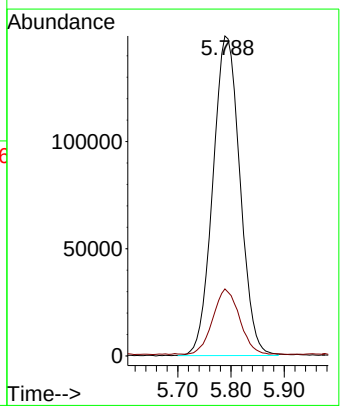


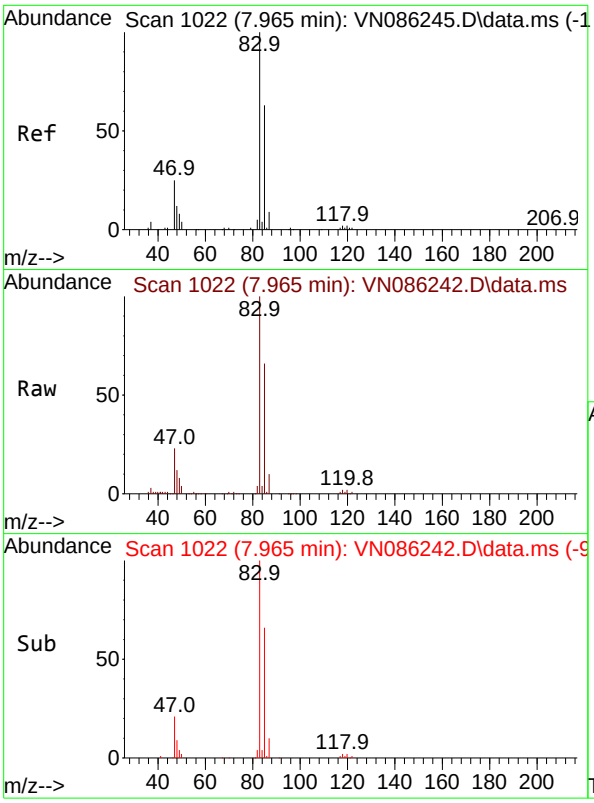


#24
Methyl tert-Butyl Ether
Concen: 93.663 ug/l
RT: 5.788 min Scan# 652
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 73 Resp: 526162

Ion	Ratio	Lower	Upper
73	100		
43	19.9	16.8	25.2



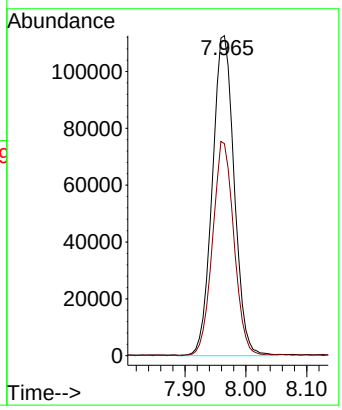


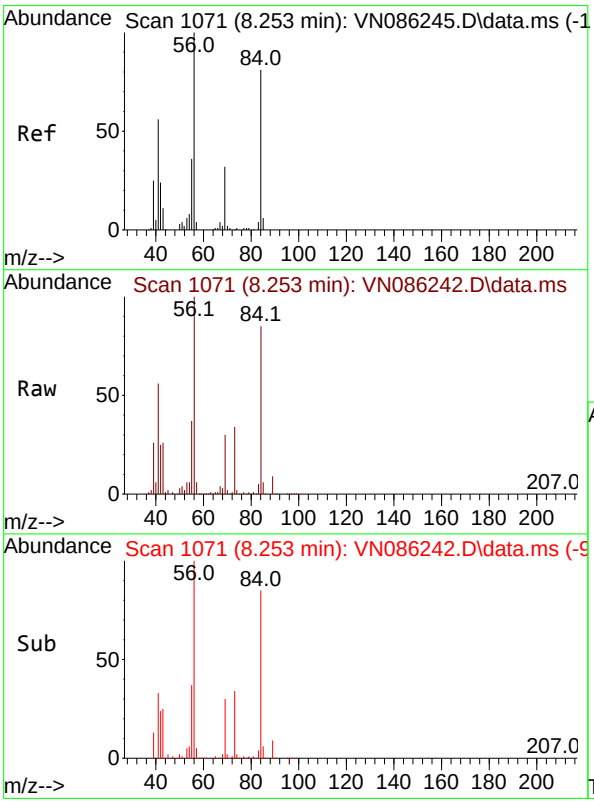
#25
Chloroform
Concen: 94.604 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 83 Resp: 281205

Ion	Ratio	Lower	Upper
83	100		
85	66.0	50.5	75.7

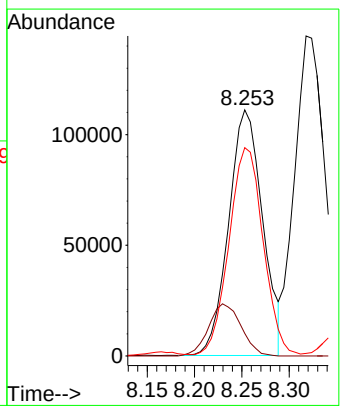


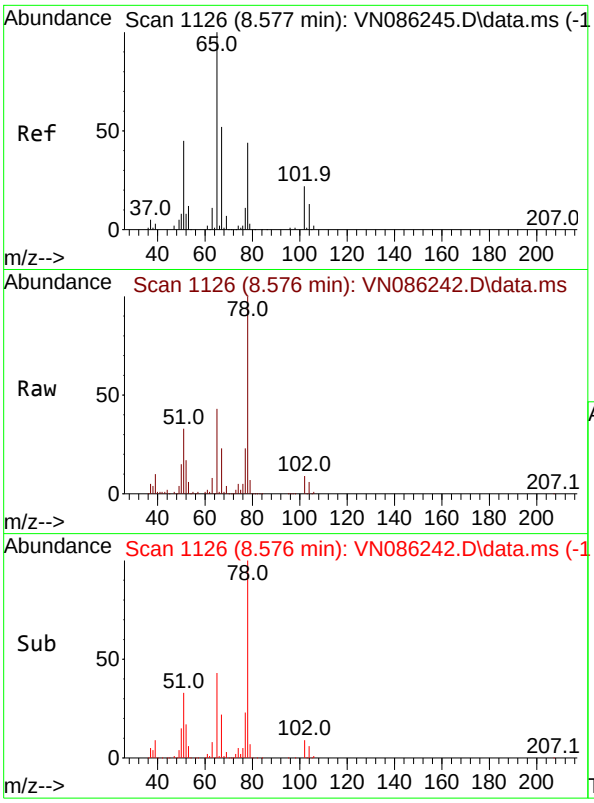


#26
Cyclohexane
Concen: 95.155 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 56 Resp: 277499

Ion	Ratio	Lower	Upper
56	100		
89	20.3	0.0	0.0#
84	85.5	69.0	103.4



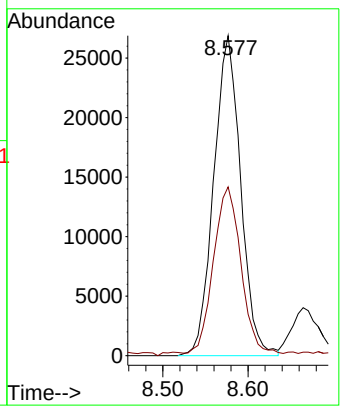


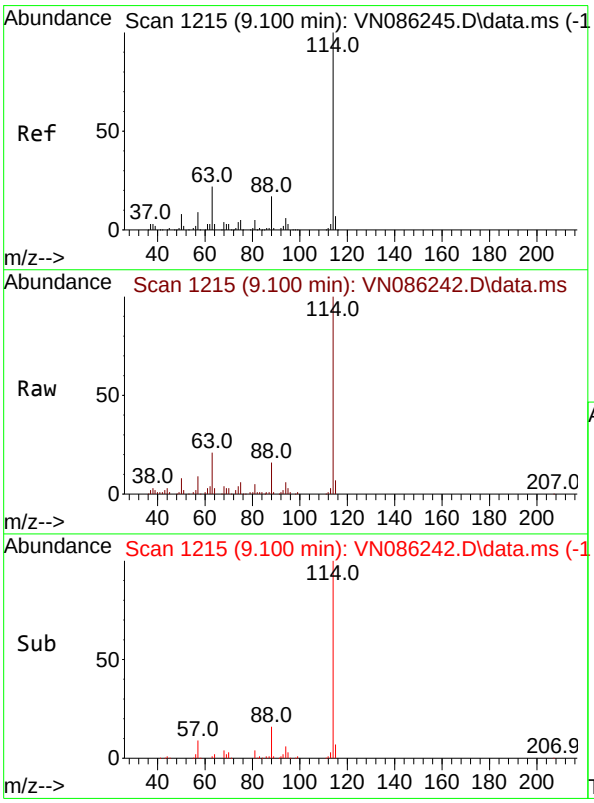
#27
1,2-Dichloroethane-d4
Concen: 29.547 ug/l
RT: 8.576 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 65 Resp: 59014

Ion	Ratio	Lower	Upper
65	100		
67	52.6	43.4	65.2

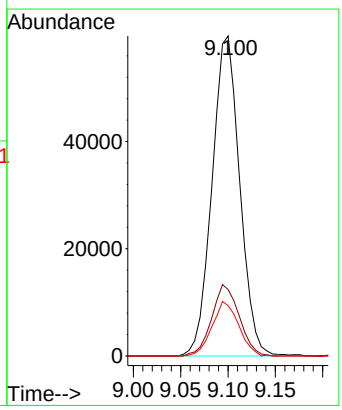


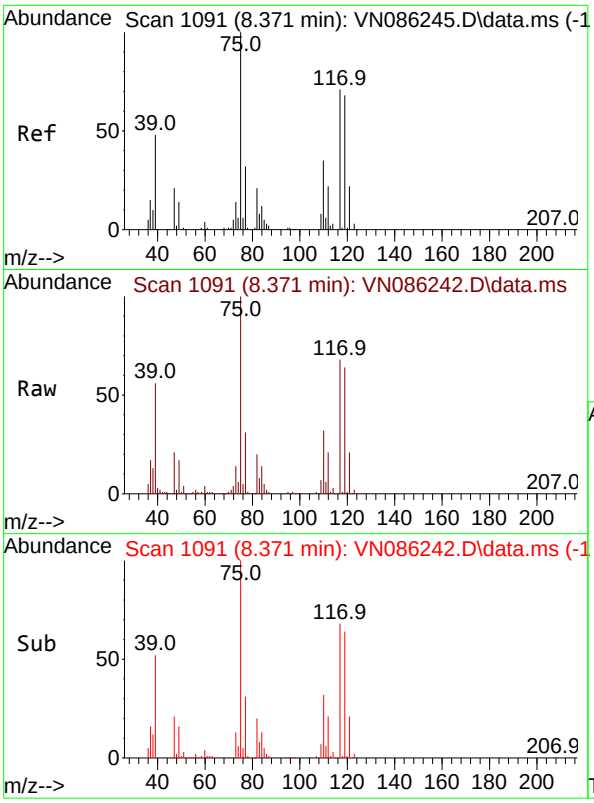


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:114 Resp: 121329

Ion	Ratio	Lower	Upper
114	100		
63	22.1	17.8	26.6
88	16.3	13.4	20.2



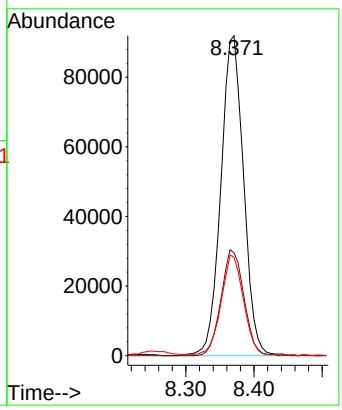


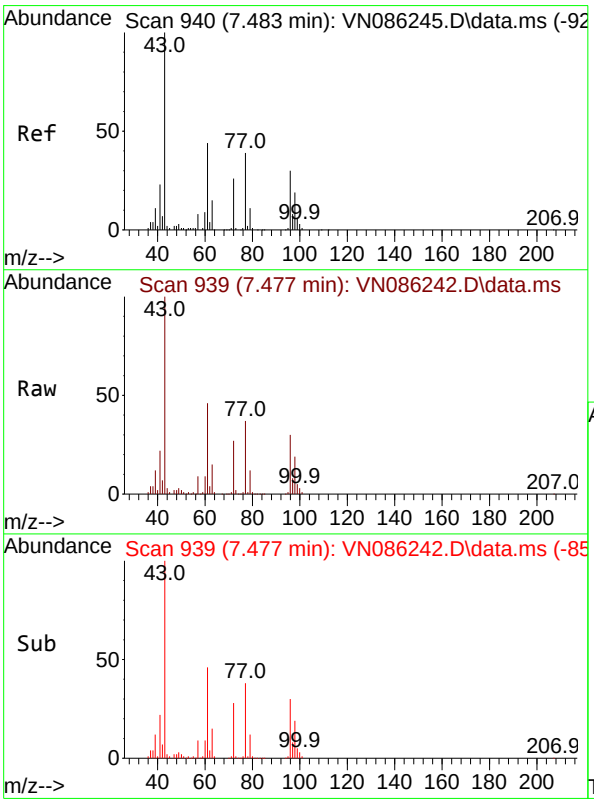
#29
1,1-Dichloropropene
Concen: 98.138 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 75 Resp: 213302

Ion	Ratio	Lower	Upper
75	100		
110	33.2	0.0	68.6
77	31.4	0.0	63.8

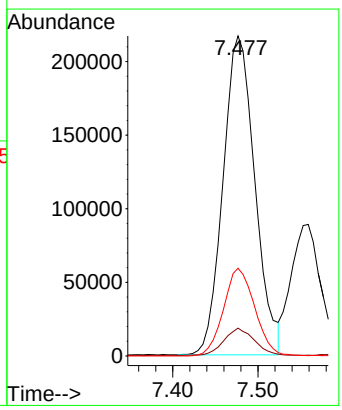


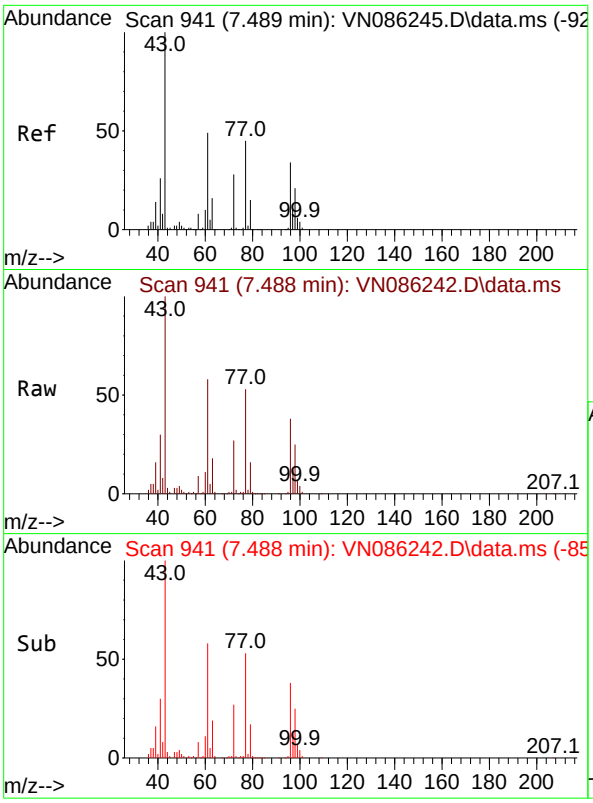


#30
2-Butanone
Concen: 467.239 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 562722

Ion	Ratio	Lower	Upper
43	100		
57	8.2	6.4	9.6
72	27.0	21.5	32.3



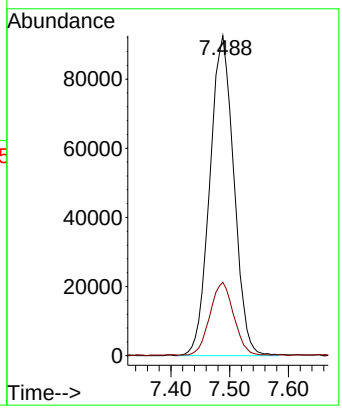


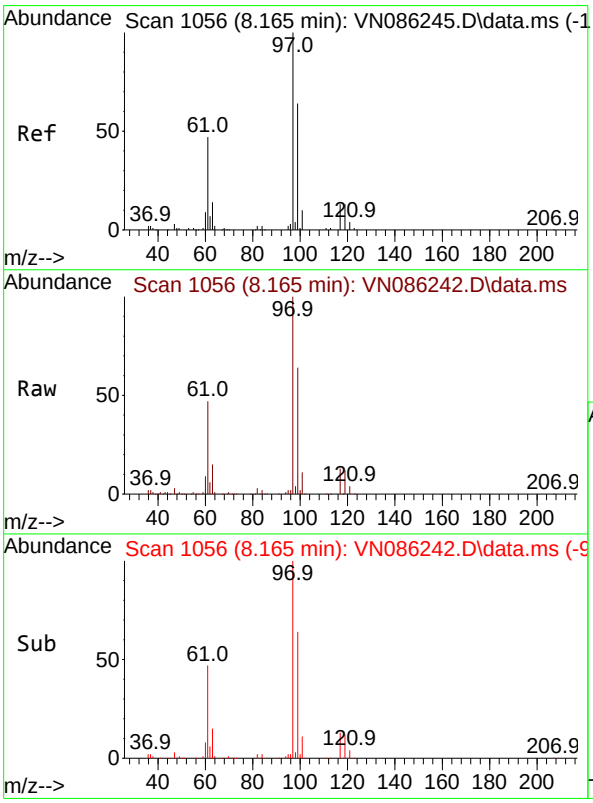
#31
2,2-Dichloropropane
Concen: 98.472 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 77 Resp: 263451

Ion	Ratio	Lower	Upper
77	100		
97	22.6	18.8	28.2

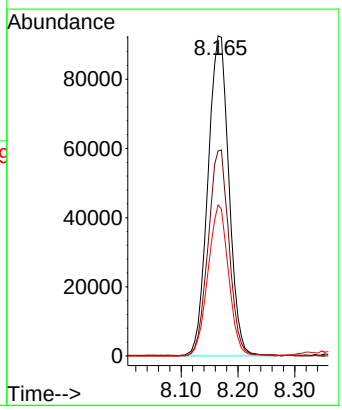


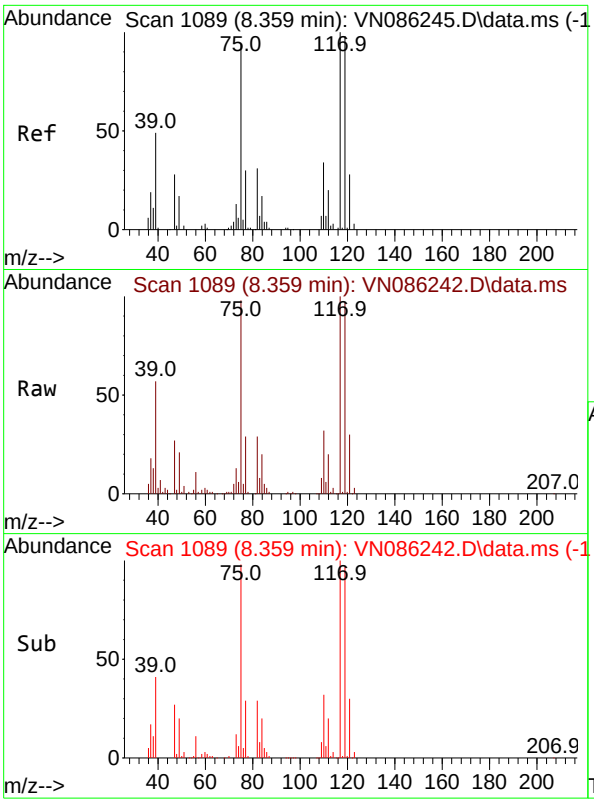


#32
1,1,1-Trichloroethane
Concen: 94.957 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 97 Resp: 237411

Ion	Ratio	Lower	Upper
97	100		
99	64.1	51.4	77.2
61	46.3	37.0	55.6



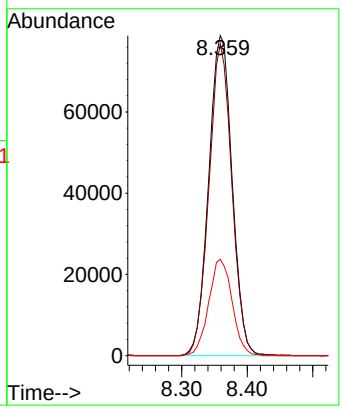


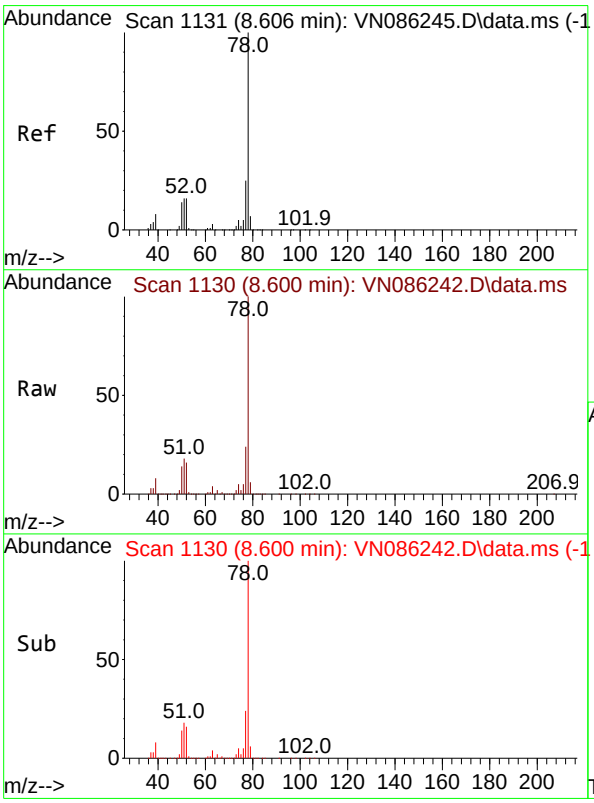
#33
Carbon Tetrachloride
Concen: 98.048 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:117 Resp: 195904

Ion	Ratio	Lower	Upper
117	100		
119	97.4	78.3	117.5
121	30.1	22.5	33.7

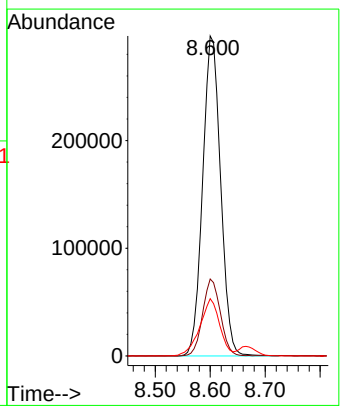


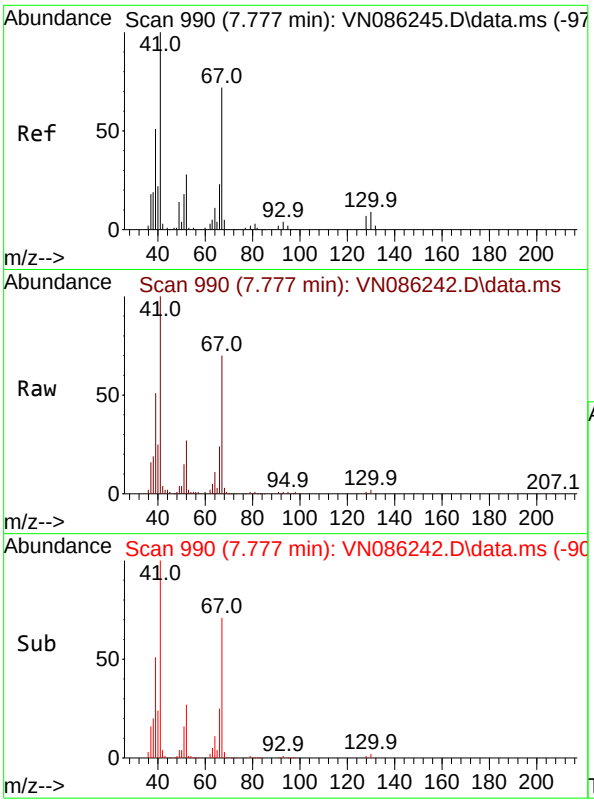


#34
Benzene
Concen: 97.638 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 78 Resp: 675144

Ion	Ratio	Lower	Upper
78	100		
77	24.1	20.0	30.0
51	17.9	12.9	19.3



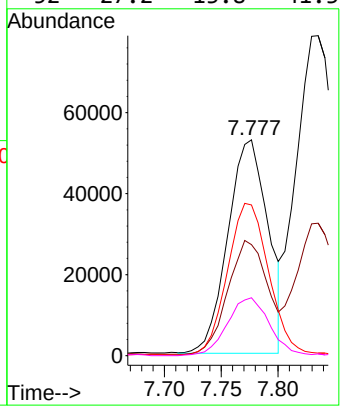


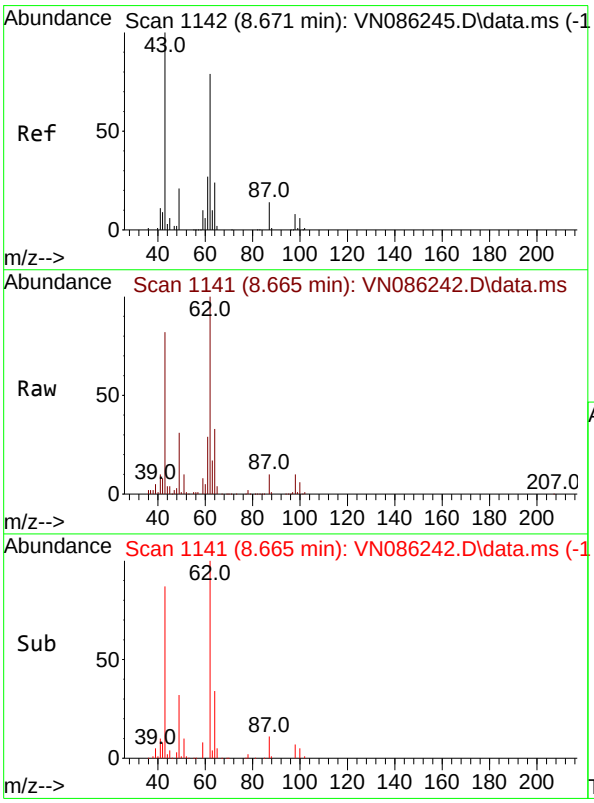
#35
Methacrylonitrile
Concen: 95.604 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 41 Resp: 129803

Ion	Ratio	Lower	Upper
41	100		
39	51.5	25.8	77.3
67	70.4	36.0	108.0
52	27.2	13.8	41.3

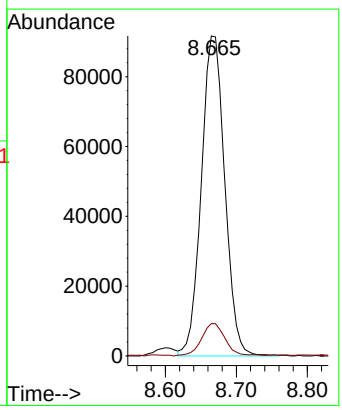


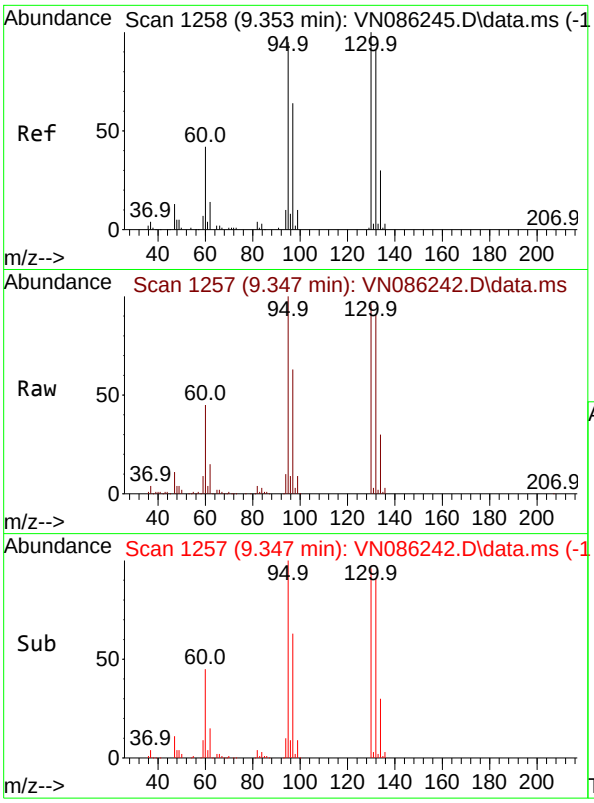


#36
1,2-Dichloroethane
Concen: 97.412 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 62 Resp: 210783

Ion	Ratio	Lower	Upper
62	100		
98	10.1	8.6	12.8



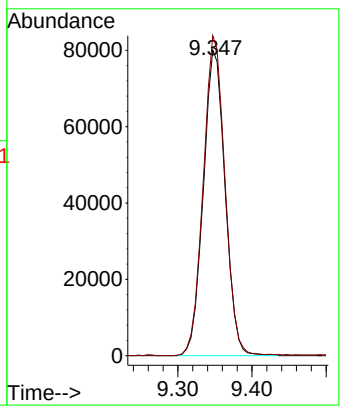


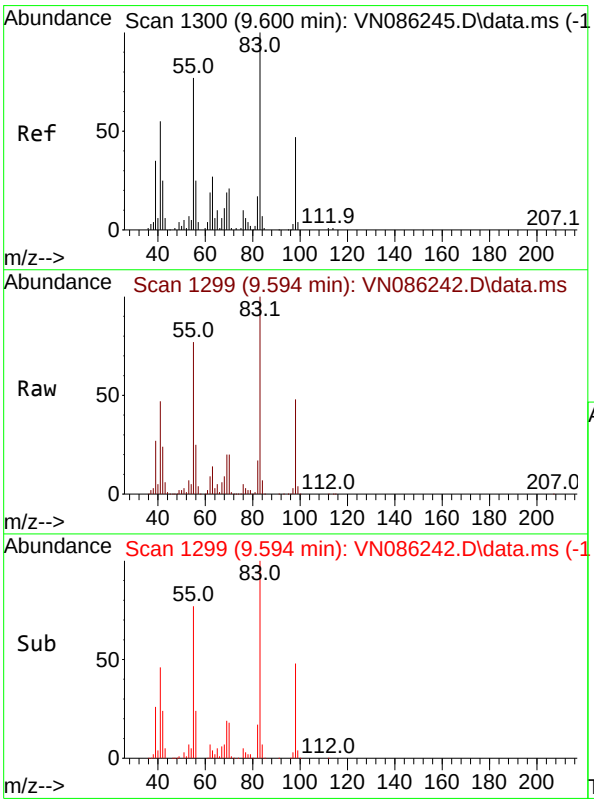
#37
Trichloroethene
Concen: 97.775 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:130 Resp: 163126

Ion	Ratio	Lower	Upper
130	100		
95	104.5	76.4	114.6

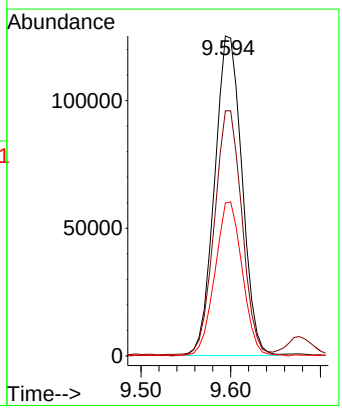


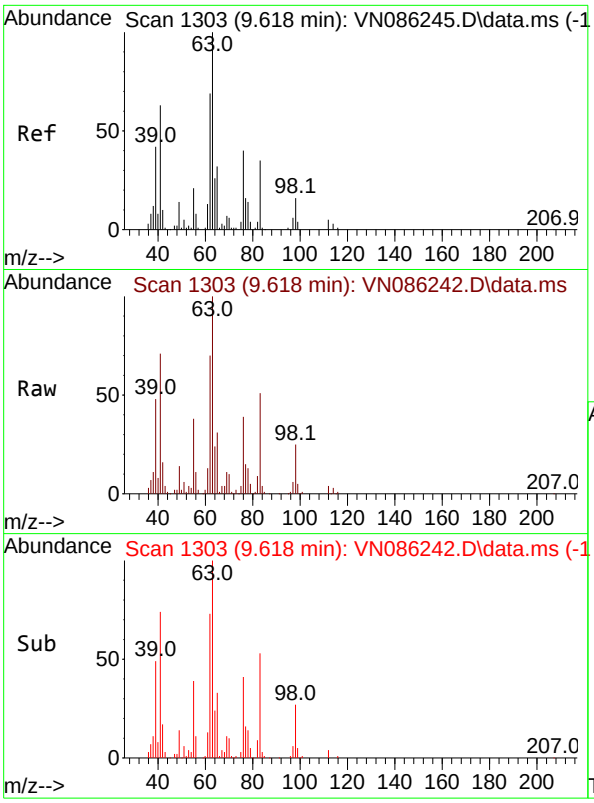


#38
Methylcyclohexane
Concen: 99.571 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 83 Resp: 265418

Ion	Ratio	Lower	Upper
83	100		
55	76.8	38.5	115.5
98	48.3	24.4	73.2



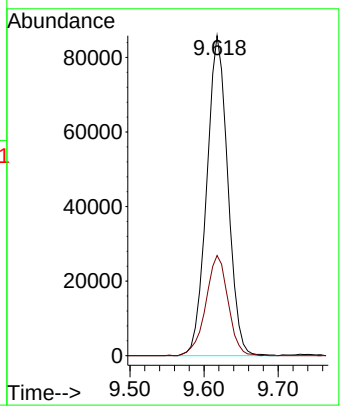


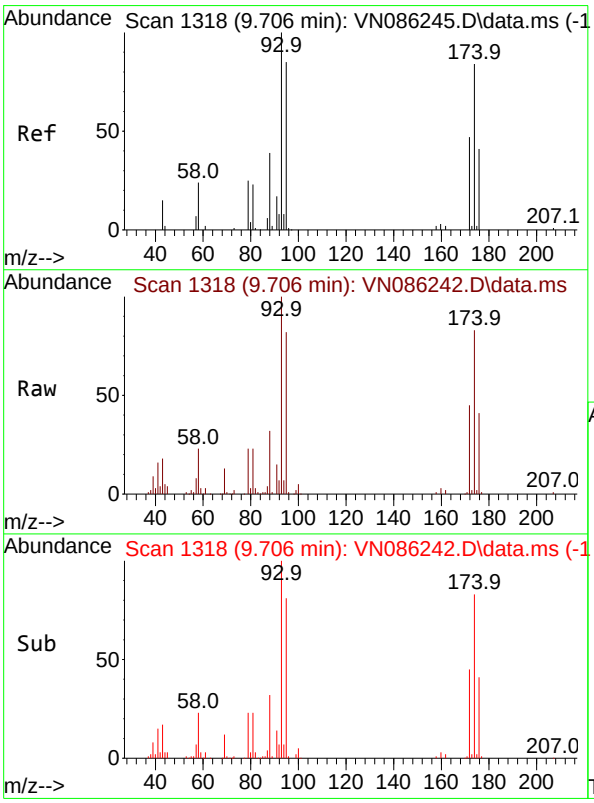
#39
1,2-Dichloropropane
Concen: 98.606 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 63 Resp: 169660

Ion	Ratio	Lower	Upper
63	100		
65	31.3	26.0	39.0

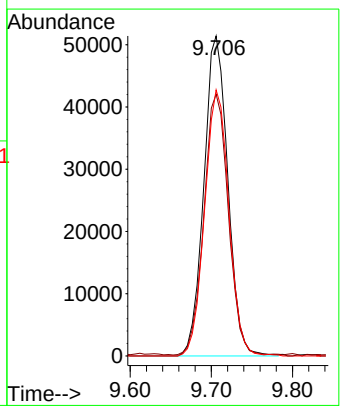


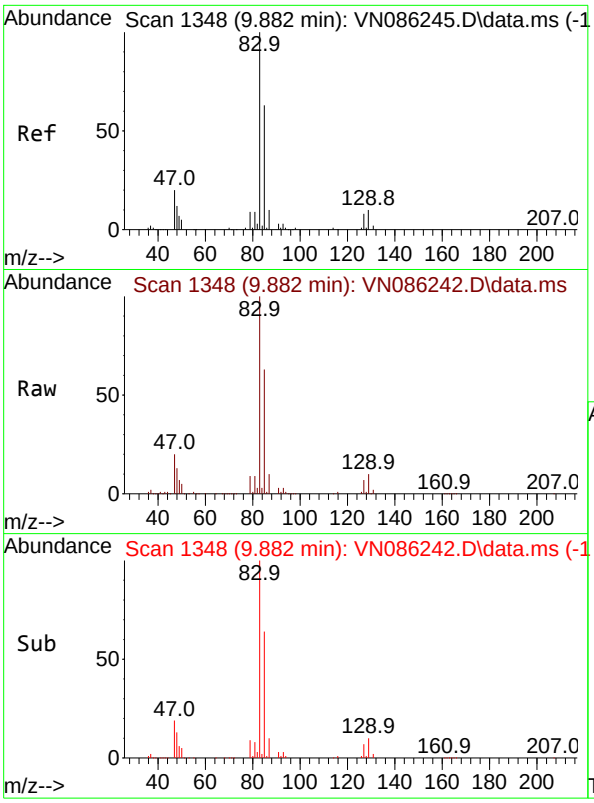


#40
Dibromomethane
Concen: 94.904 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 93 Resp: 105464

Ion	Ratio	Lower	Upper
93	100		
95	83.1	0.0	169.0
174	83.9	0.0	168.0



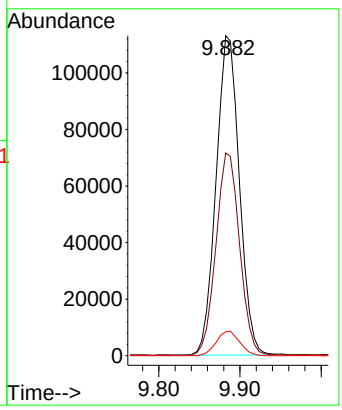


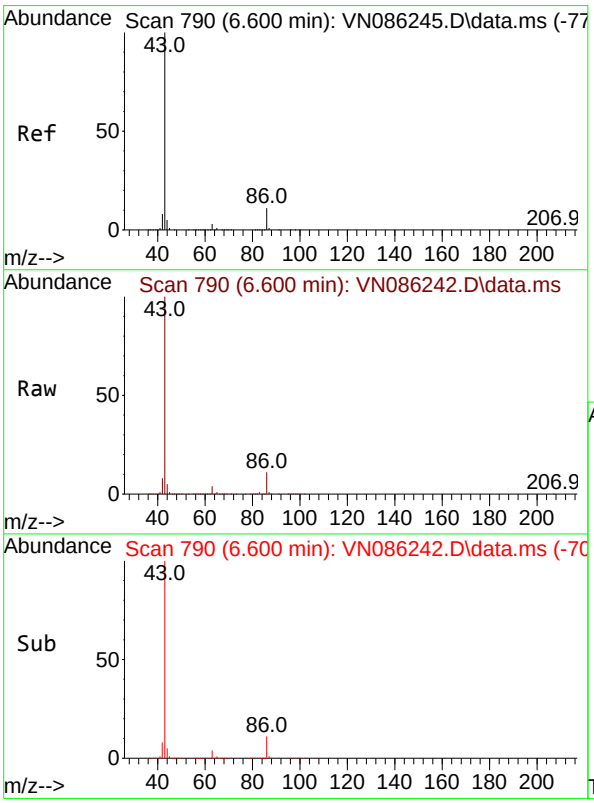
#41
Bromodichloromethane
Concen: 94.332 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 83 Resp: 225206

Ion	Ratio	Lower	Upper
83	100		
85	63.3	50.2	75.2
127	7.5	6.2	9.4

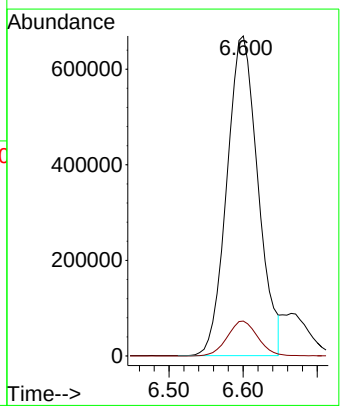


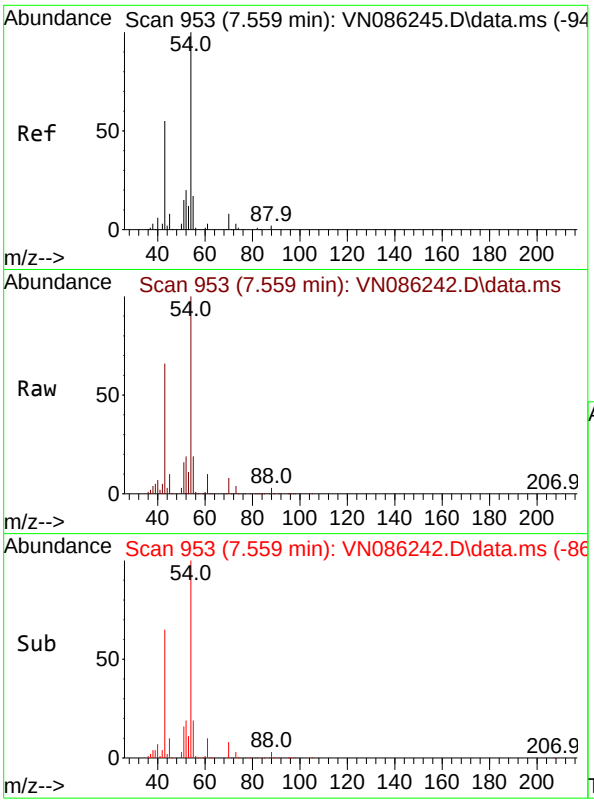


#42
Vinyl Acetate
Concen: 475.901 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 1951001

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.4	12.6



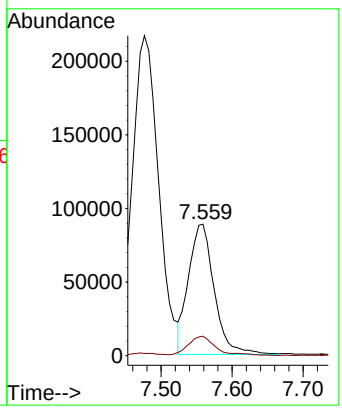


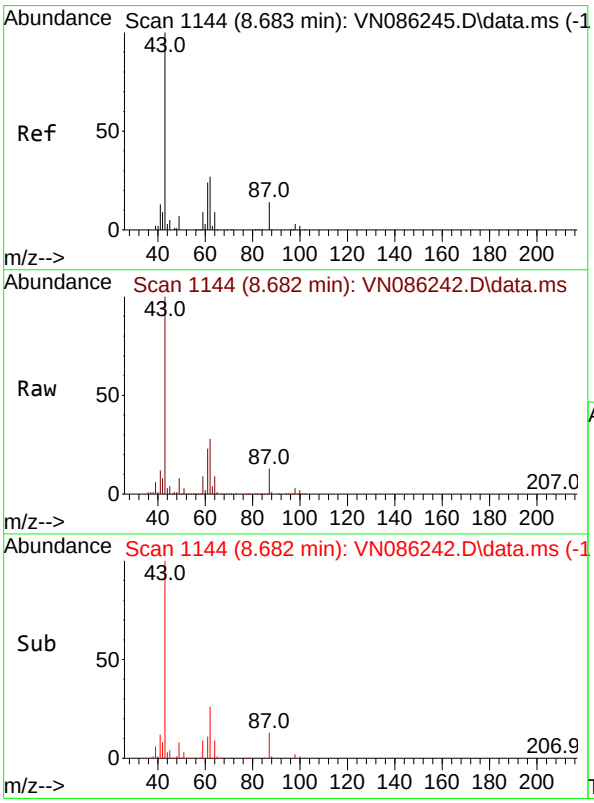
#43
Ethyl Acetate
Concen: 91.520 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 43 Resp: 222324

Ion	Ratio	Lower	Upper
43	100		
45	13.5	11.2	16.8

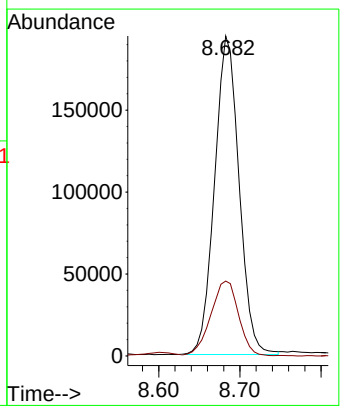


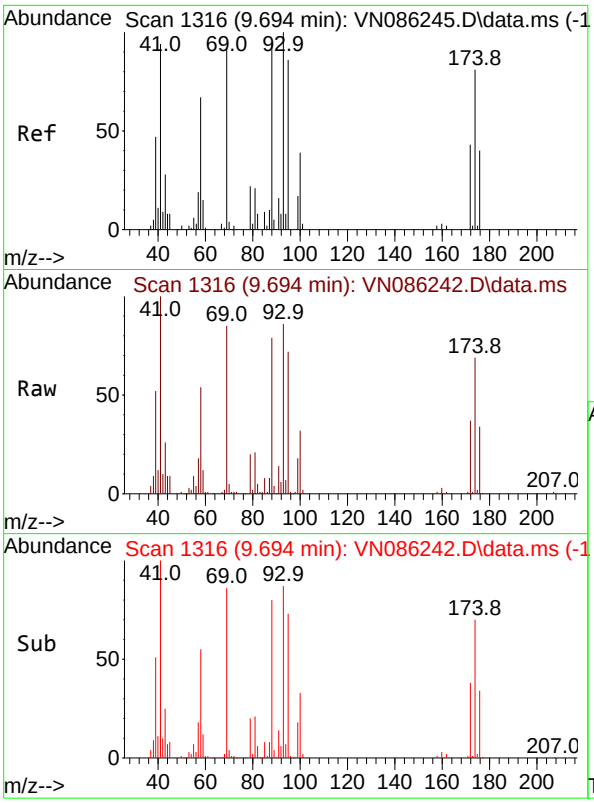


#44
Isopropyl Acetate
Concen: 90.431 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 407532

Ion	Ratio	Lower	Upper
43	100		
61	26.7	20.5	30.7



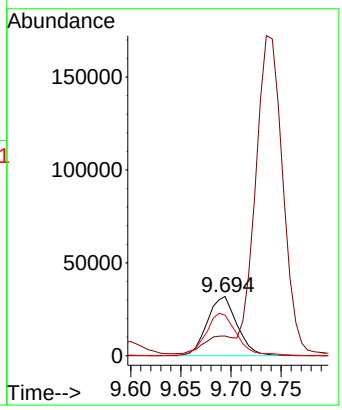


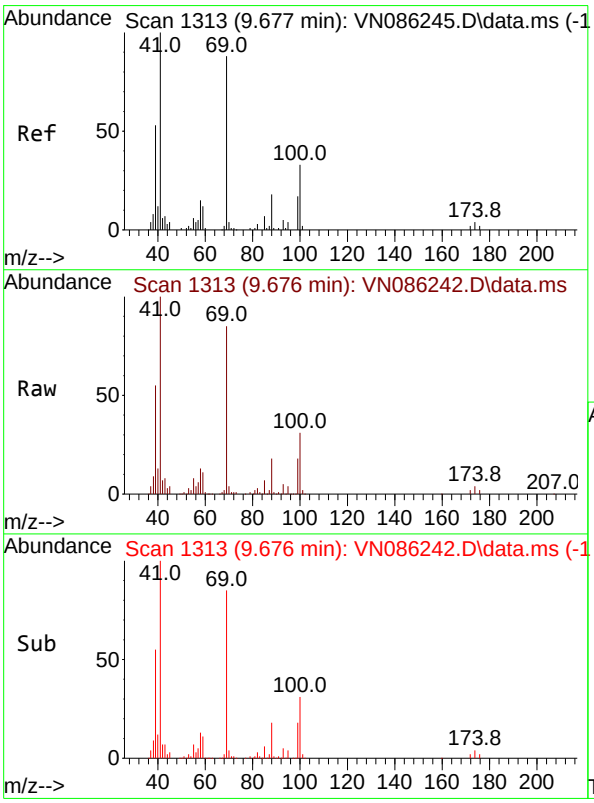
#45
1,4-Dioxane
Concen: 1836.730 ug/l
RT: 9.694 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 88 Resp: 65820

Ion	Ratio	Lower	Upper
88	100		
43	34.0	14.4	21.6#
58	73.3	59.8	89.8

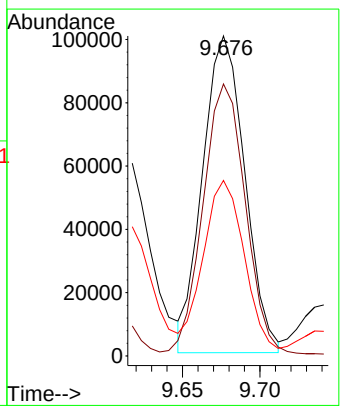


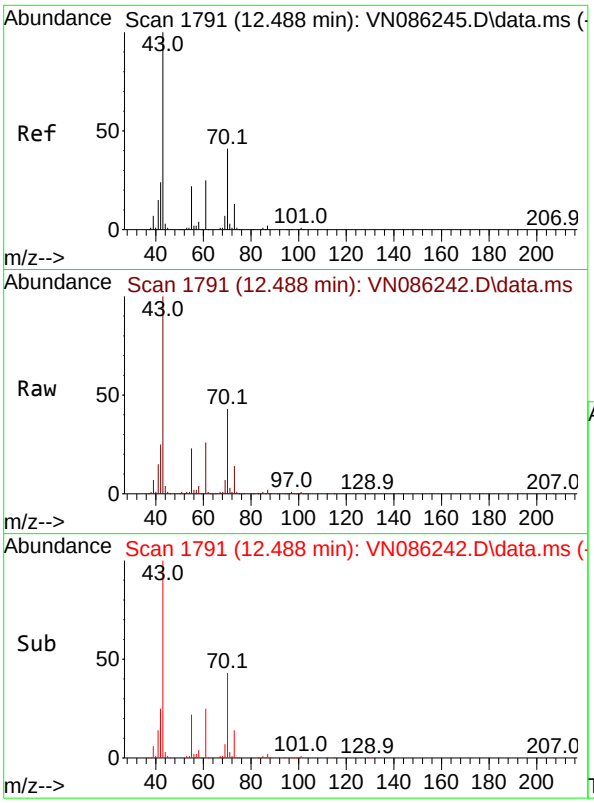


#46
Methyl methacrylate
Concen: 95.302 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 41 Resp: 189237

Ion	Ratio	Lower	Upper
41	100		
69	86.0	43.2	129.6
39	54.9	26.4	79.0



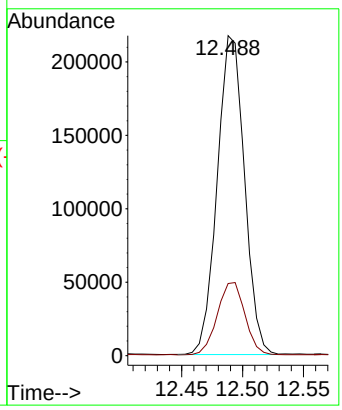


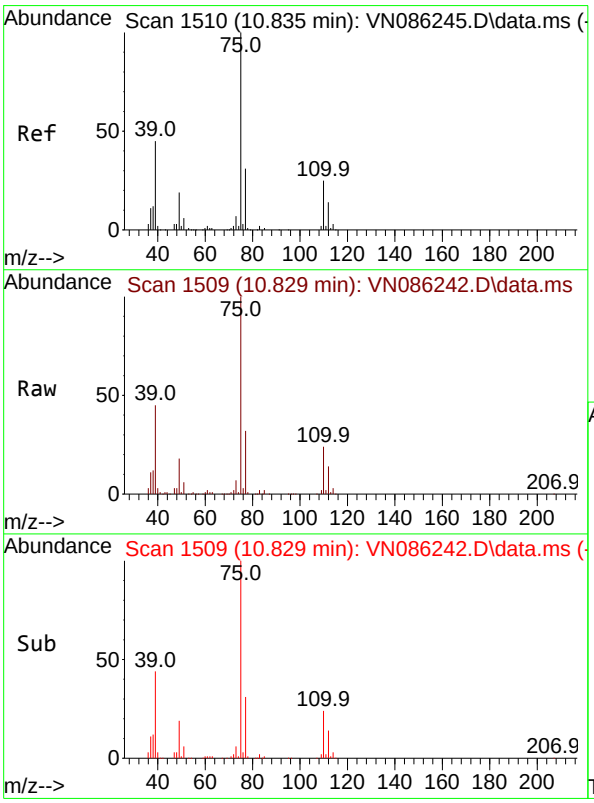
#47
n-amyl Acetate
Concen: 92.953 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 43 Resp: 338467

Ion	Ratio	Lower	Upper
43	100		
55	23.1	19.0	28.4

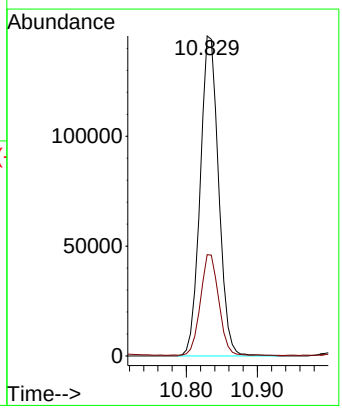


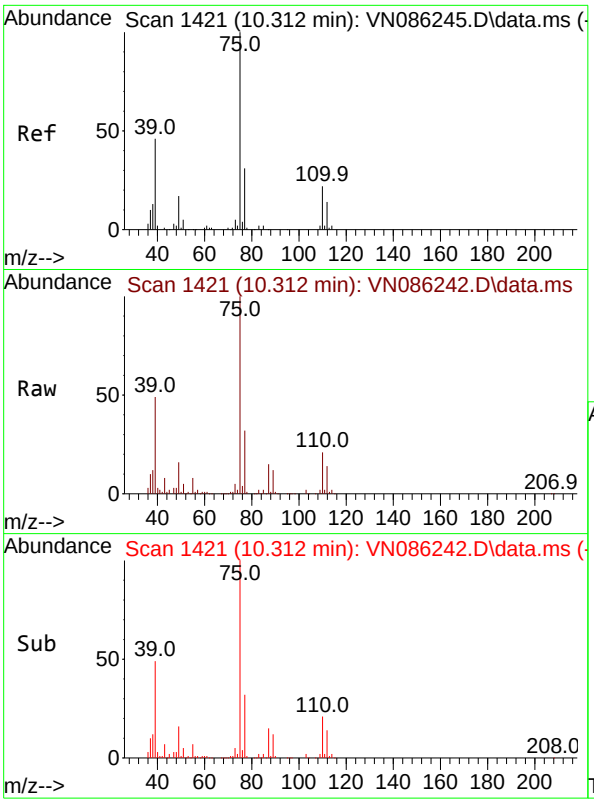


#48
t-1,3-Dichloropropene
Concen: 97.471 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. -0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 263069

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7



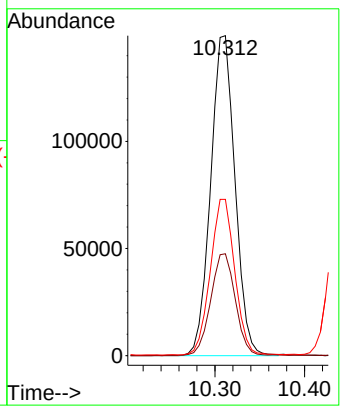


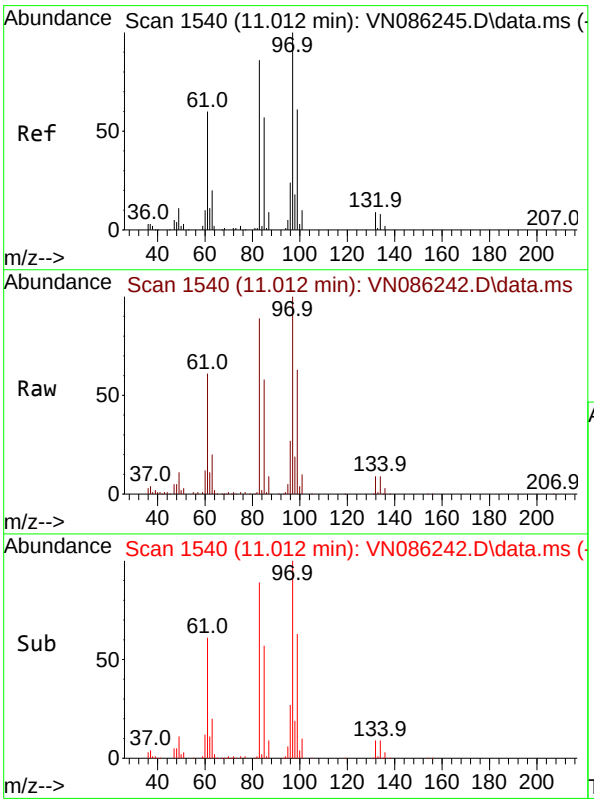
#49
cis-1,3-Dichloropropene
Concen: 98.600 ug/l
RT: 10.312 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 75 Resp: 281650

Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.0	37.4
39	48.6	36.7	55.1

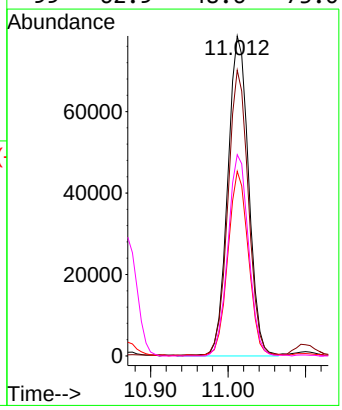


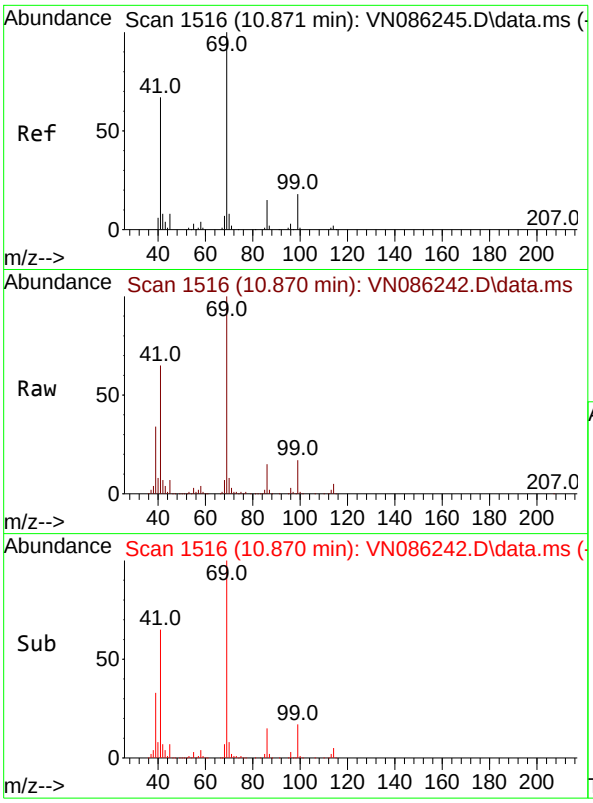


#50
1,1,2-Trichloroethane
Concen: 94.534 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 97 Resp: 147343

Ion	Ratio	Lower	Upper
97	100		
83	89.0	68.6	103.0
85	57.5	45.9	68.9
99	62.9	48.6	73.0



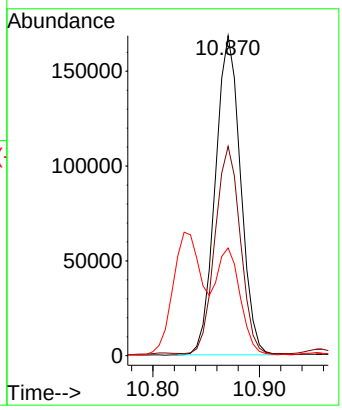


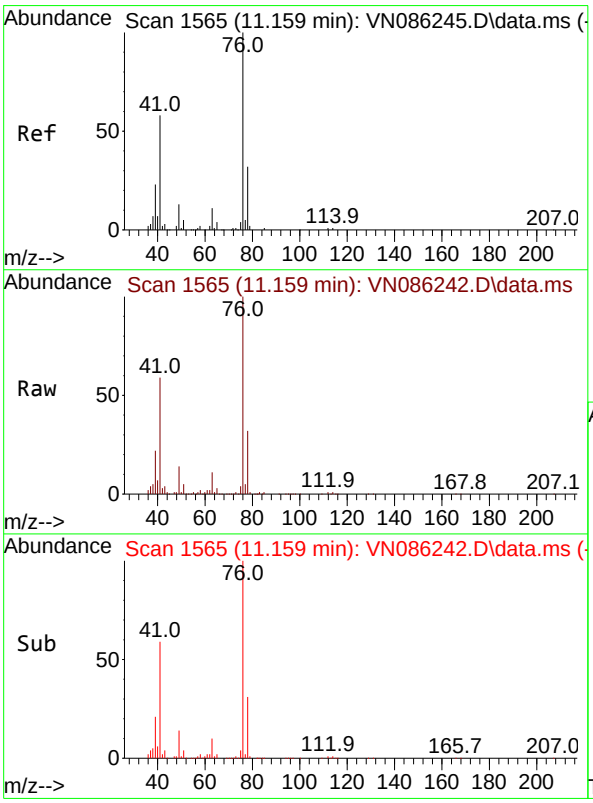
#51
Ethyl methacrylate
Concen: 95.629 ug/l
RT: 10.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 69 Resp: 276983

Ion	Ratio	Lower	Upper
69	100		
41	64.9	33.6	100.6
39	33.4	17.8	53.4

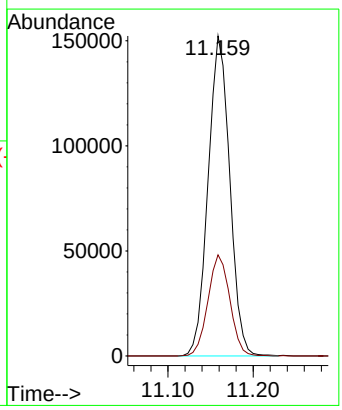


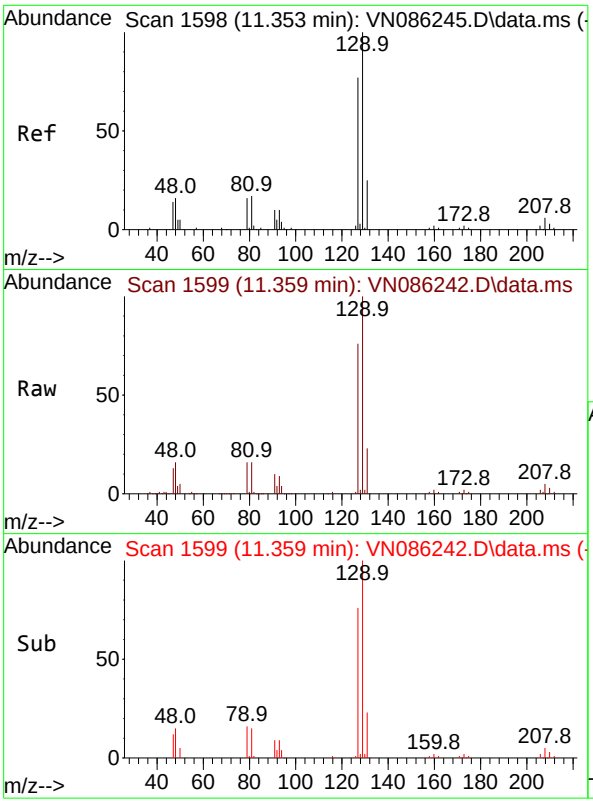


#52
1,3-Dichloropropane
Concen: 96.673 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 76 Resp: 268559

Ion	Ratio	Lower	Upper
76	100		
78	31.9	0.0	64.6



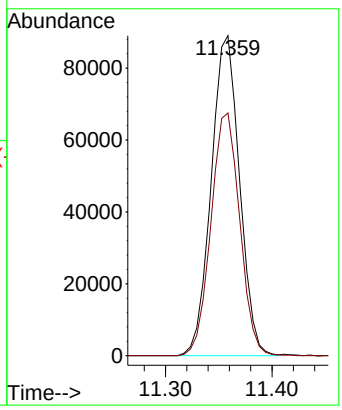


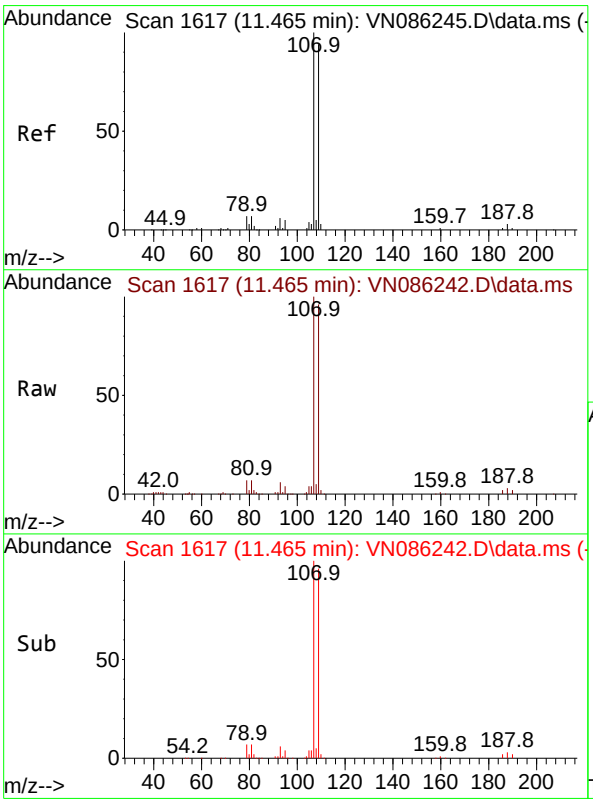
#53
Dibromochloromethane
Concen: 96.562 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:129 Resp: 164626

Ion	Ratio	Lower	Upper
129	100		
127	76.8	38.5	115.5

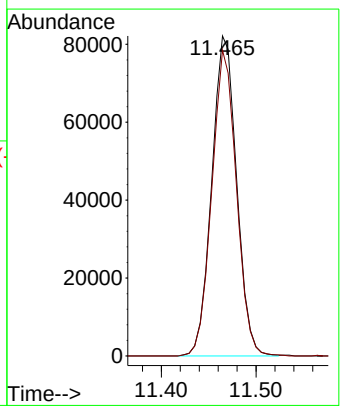


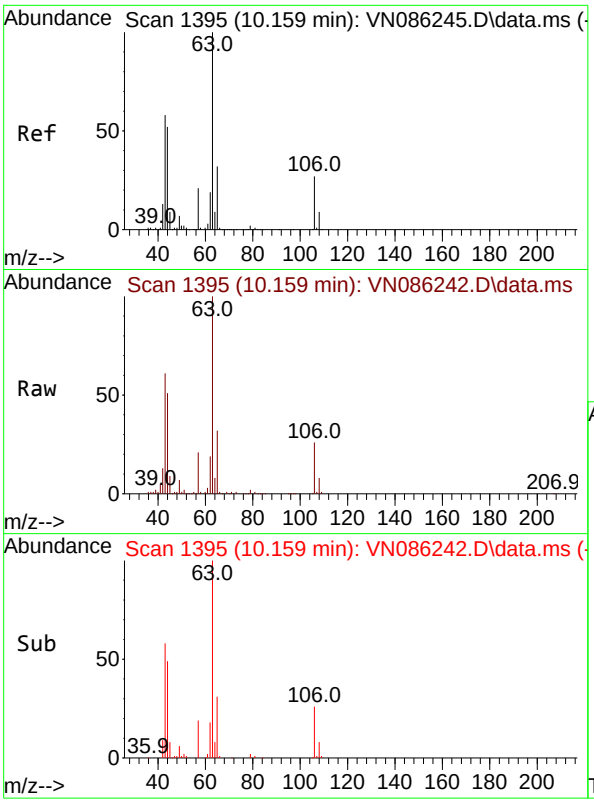


#54
1,2-Dibromoethane
Concen: 95.239 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:107 Resp: 149844

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.2	112.8



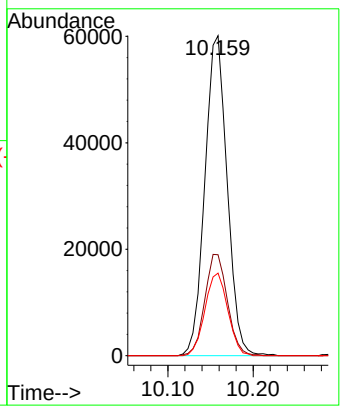


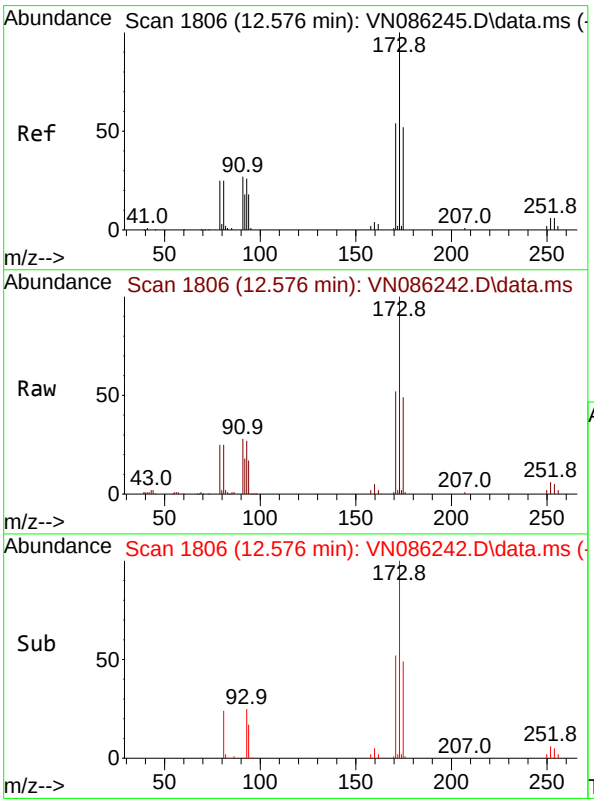
#55
2-Chloroethyl vinyl ether
Concen: 99.826 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 63 Resp: 109257

Ion	Ratio	Lower	Upper
63	100		
65	32.1	25.8	38.8
106	26.4	21.8	32.8

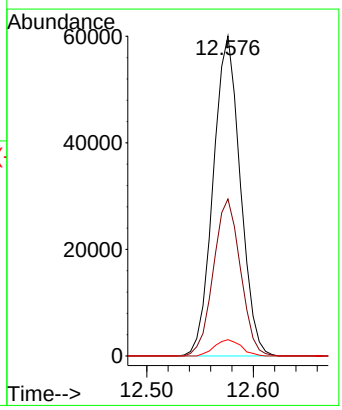


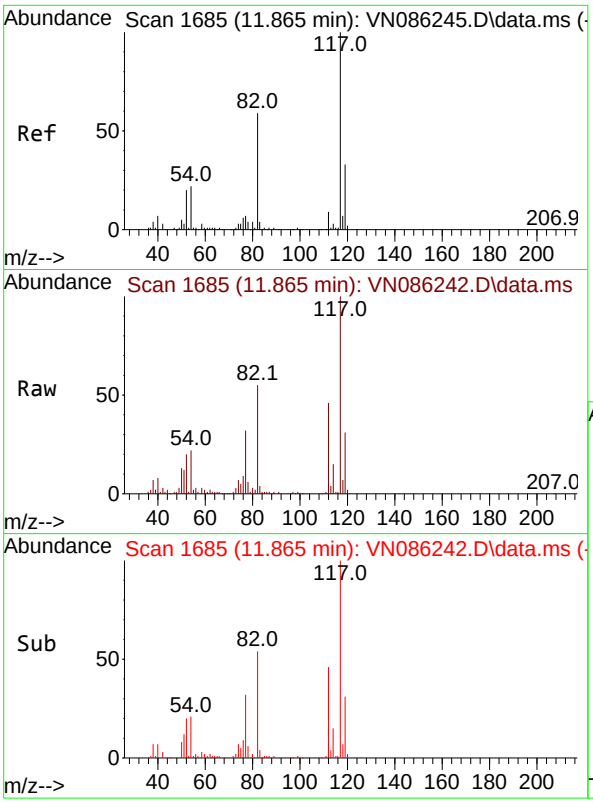


#56
Bromoform
Concen: 94.994 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:173 Resp: 105955

Ion	Ratio	Lower	Upper
173	100		
175	48.9	38.2	57.4
254	5.0	4.5	6.7



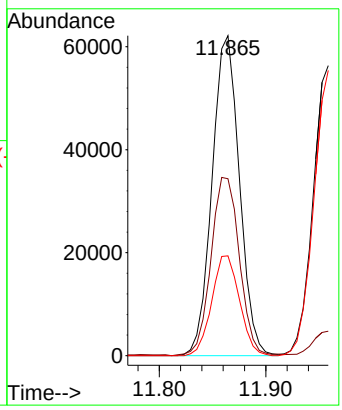


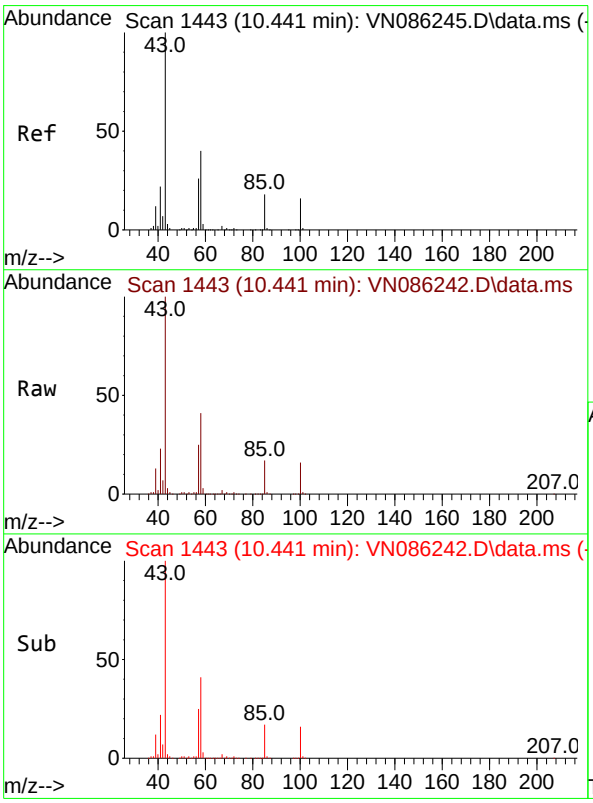
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:117 Resp: 110874

Ion	Ratio	Lower	Upper
117	100		
82	58.0	47.3	70.9
119	31.7	25.9	38.9

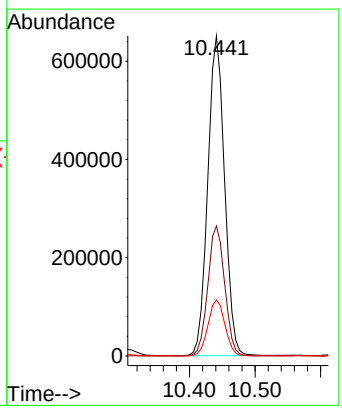


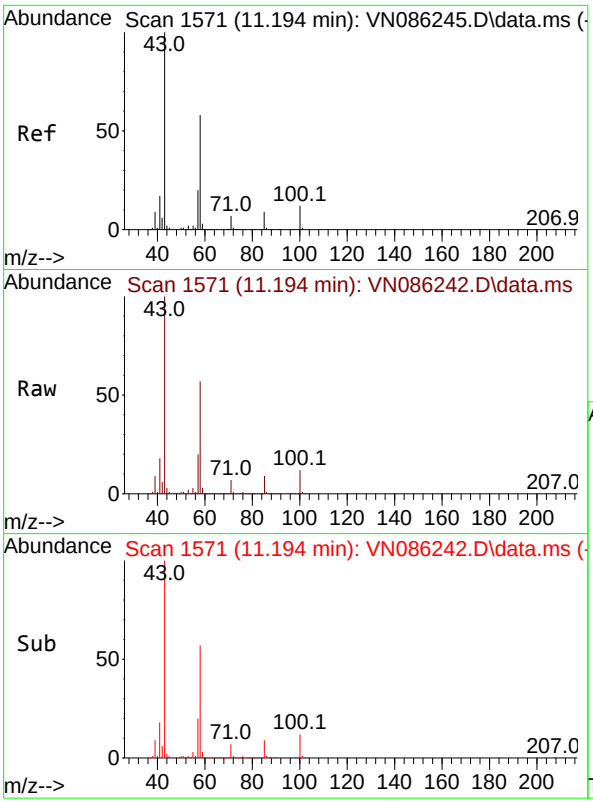


#58
4-Methyl-2-Pentanone
Concen: 460.173 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 43 Resp: 1157830

Ion	Ratio	Lower	Upper
43	100		
58	40.9	32.5	48.7
85	17.7	14.4	21.6



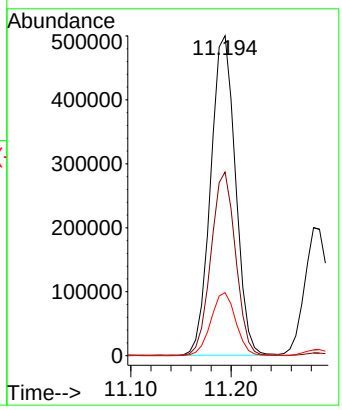


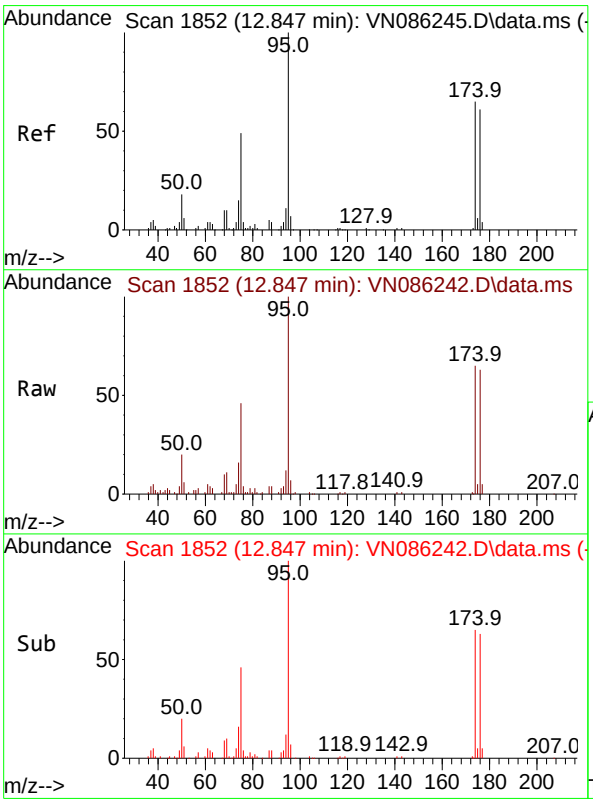
#59
2-Hexanone
Concen: 458.017 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 43 Resp: 858112

Ion	Ratio	Lower	Upper
43	100		
58	57.0	45.3	67.9
57	19.7	15.8	23.6

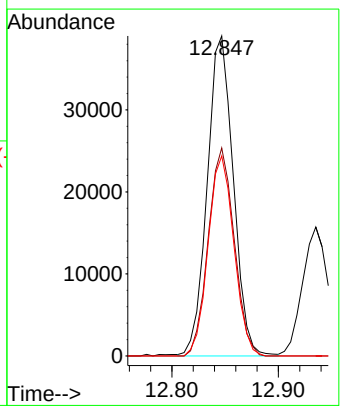


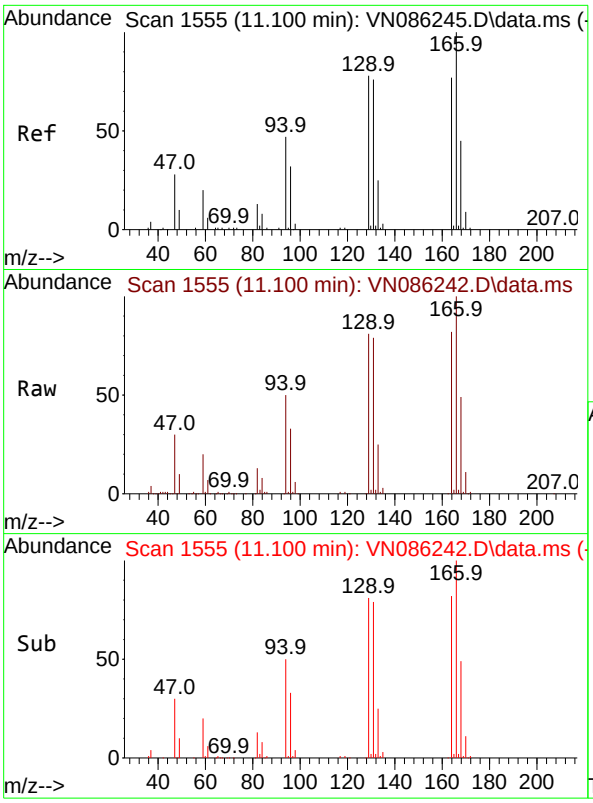


#60
4-Bromofluorobenzene
Concen: 30.135 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 95 Resp: 66521

Ion	Ratio	Lower	Upper
95	100		
174	64.5	52.7	79.1
176	61.5	49.8	74.8



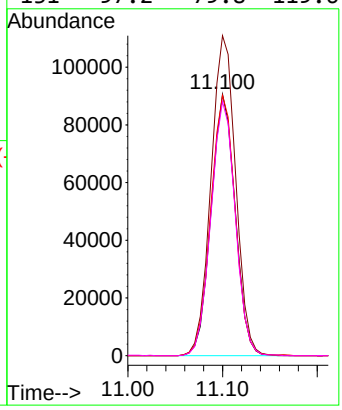


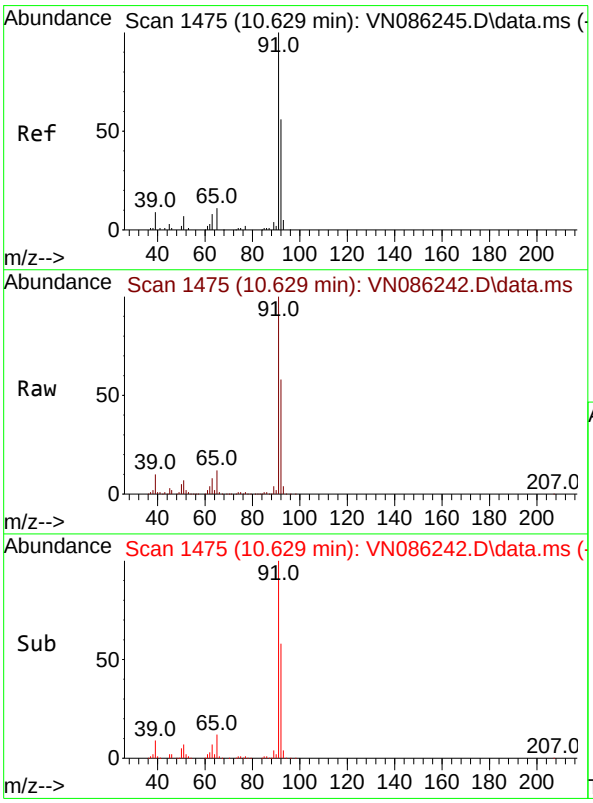
#61
Tetrachloroethene
Concen: 97.556 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:164 Resp: 159732

Ion	Ratio	Lower	Upper
164	100		
166	122.4	104.5	156.7
129	99.7	81.7	122.5
131	97.2	79.8	119.6

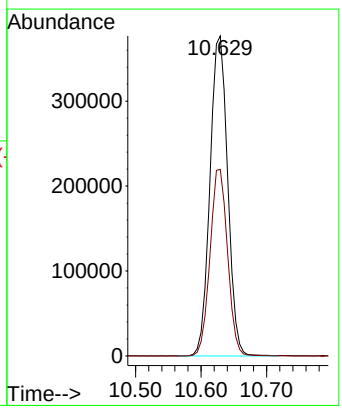


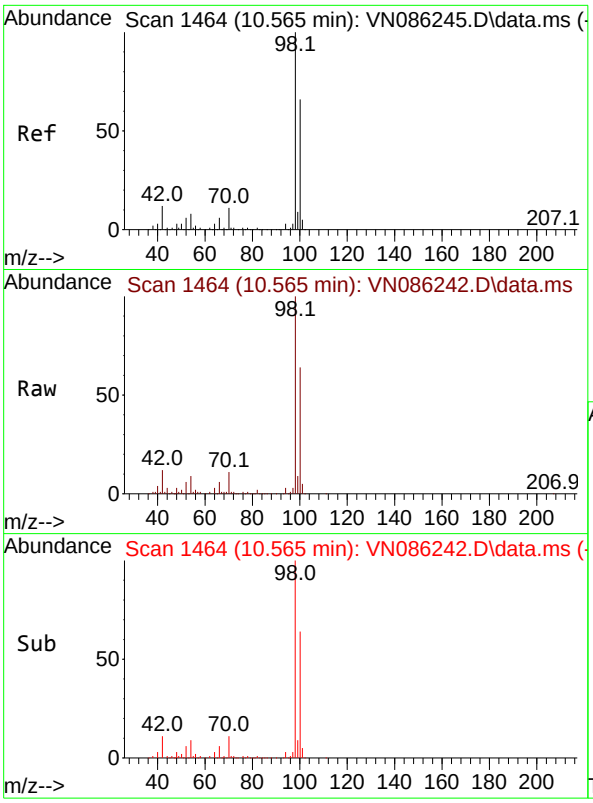


#62
Toluene
Concen: 94.810 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 705070

Ion	Ratio	Lower	Upper
91	100		
92	57.9	46.8	70.2



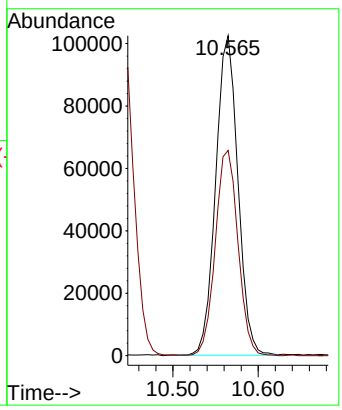


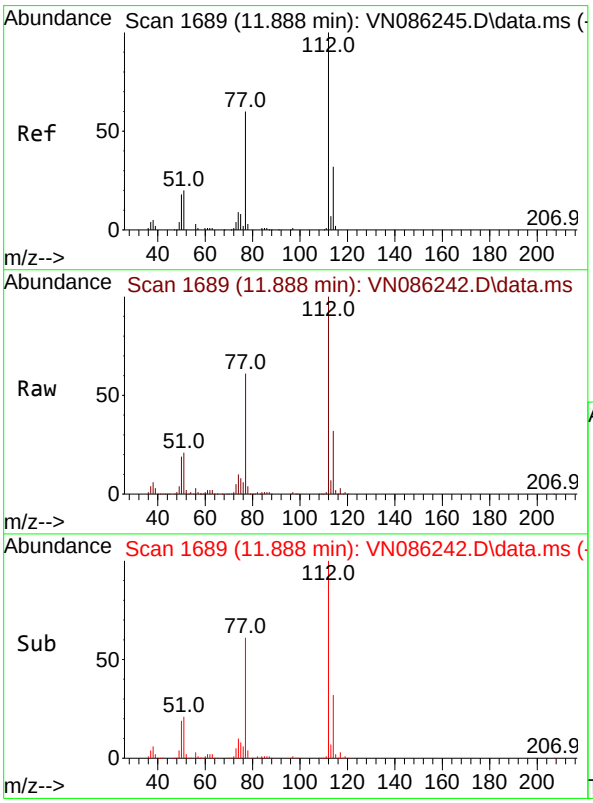
#63
Toluene-d8
Concen: 29.627 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 98 Resp: 185448

Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.3	78.5

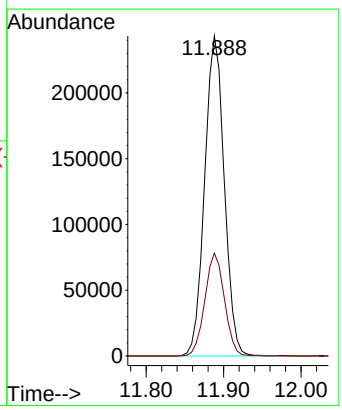


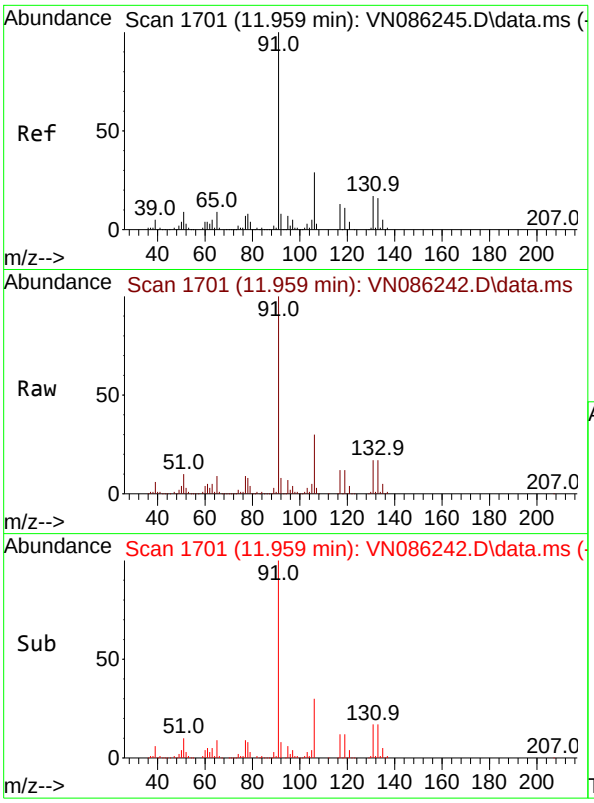


#64
Chlorobenzene
Concen: 94.040 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:112 Resp: 427265

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.6



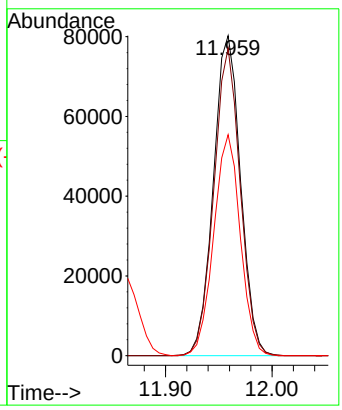


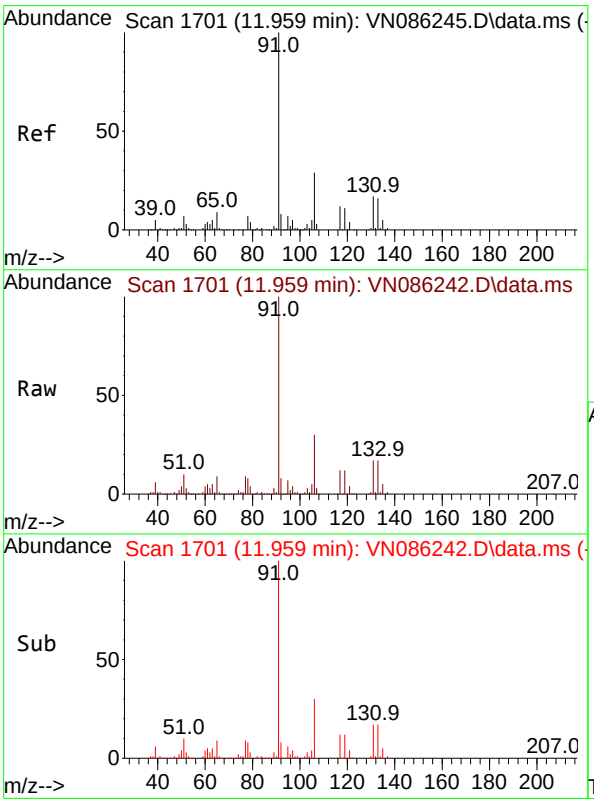
#65
1,1,1,2-Tetrachloroethane
Concen: 94.745 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:131 Resp: 142064

Ion	Ratio	Lower	Upper
131	100		
133	93.5	0.0	190.4
119	67.7	0.0	135.6

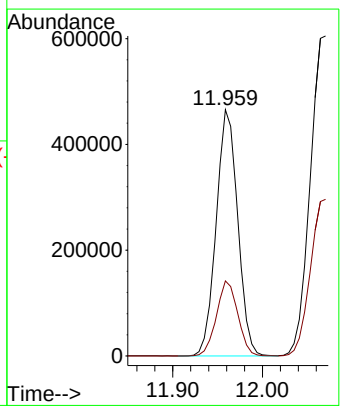


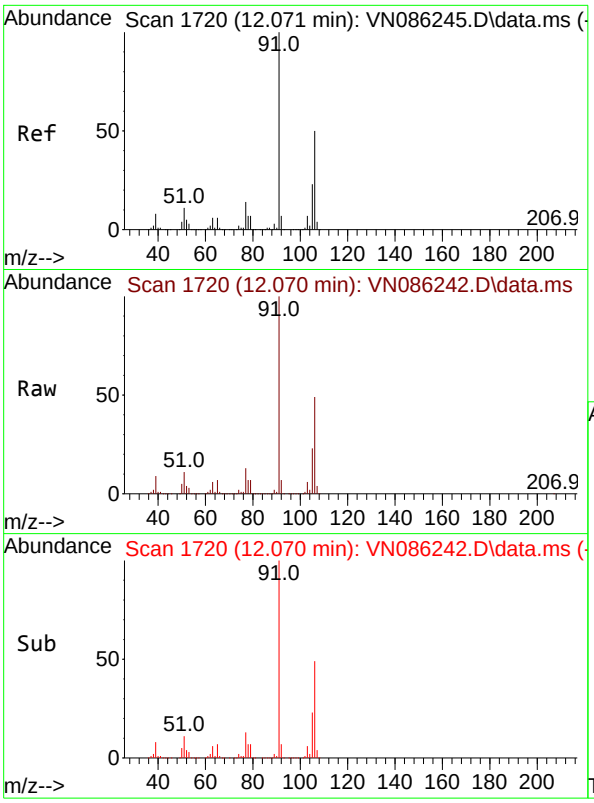


#66
Ethyl Benzene
Concen: 94.050 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 775657

Ion	Ratio	Lower	Upper
91	100		
106	30.5	23.4	35.0



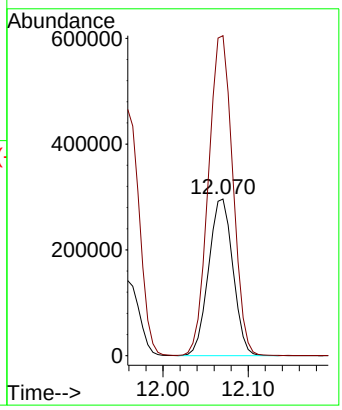


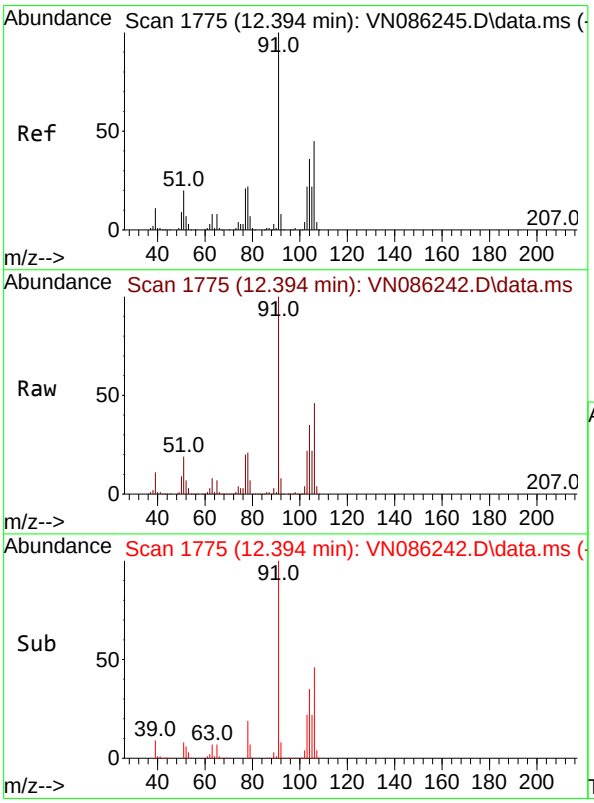
#67
m/p-Xylenes
Concen: 191.616 ug/l
RT: 12.070 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:106 Resp: 587623

Ion	Ratio	Lower	Upper
106	100		
91	204.2	164.5	246.7

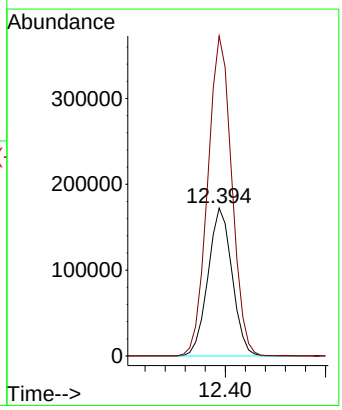


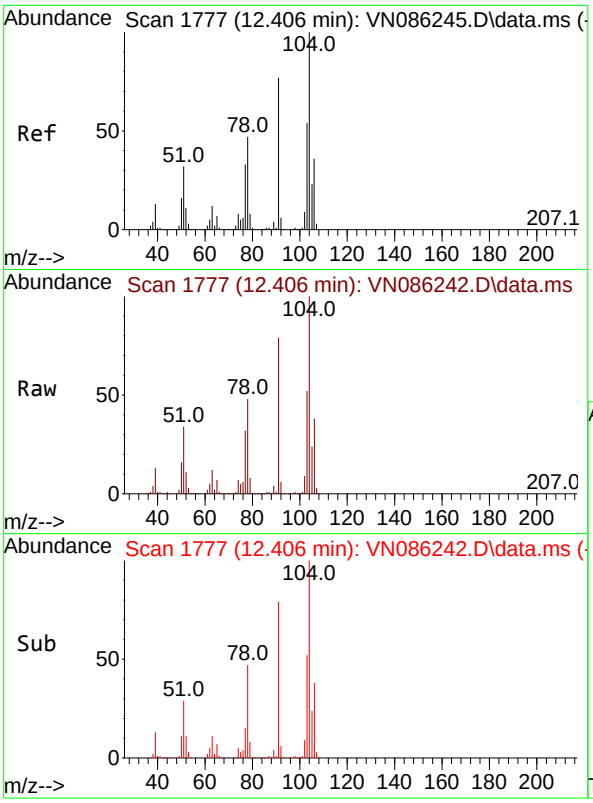


#68
o-Xylene
Concen: 95.205 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:106 Resp: 287174

Ion	Ratio	Lower	Upper
106	100		
91	216.6	109.8	329.4



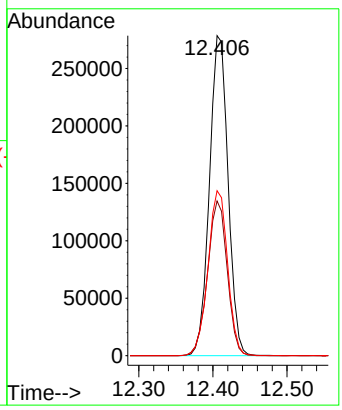


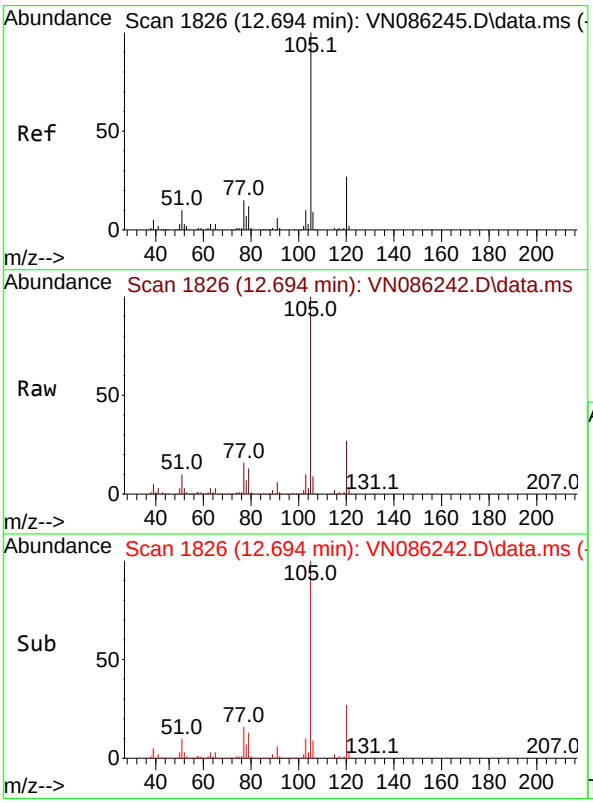
#69
Styrene
Concen: 95.537 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:104 Resp: 486004

Ion	Ratio	Lower	Upper
104	100		
78	50.9	41.4	62.0
103	54.3	44.2	66.4

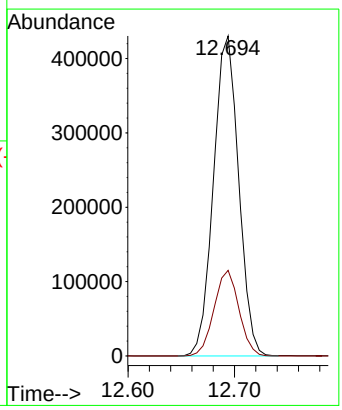


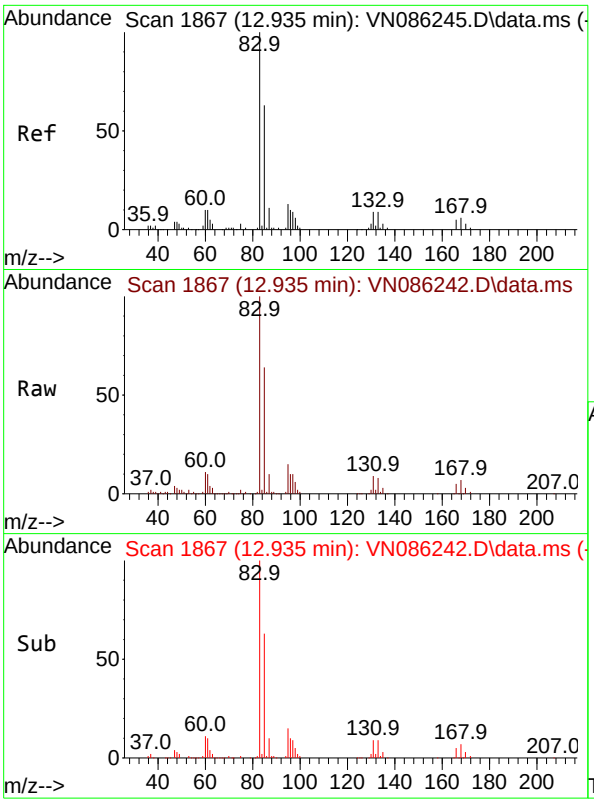


#70
Isopropylbenzene
Concen: 94.920 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 705950

Ion	Ratio	Lower	Upper
105	100		
120	26.4	18.3	34.1



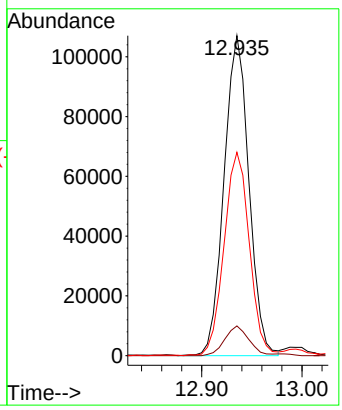


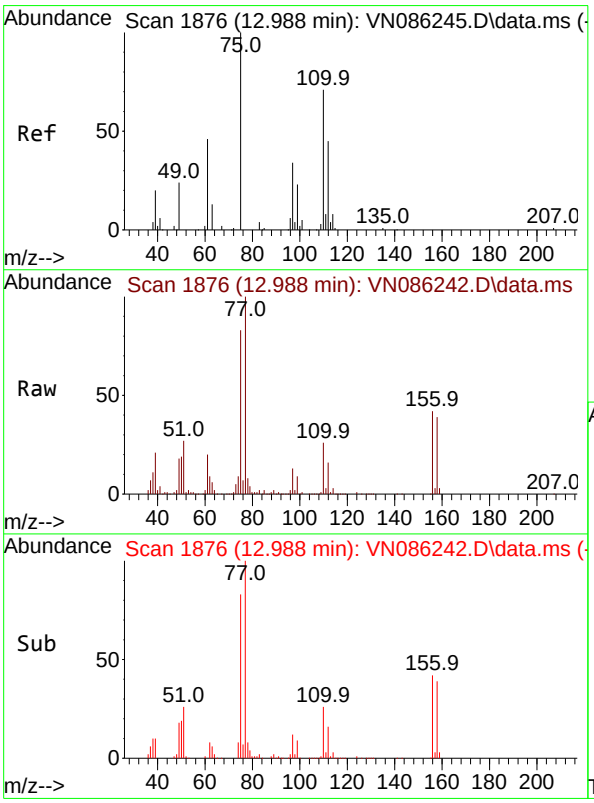
#71
1,1,2,2-Tetrachloroethane
Concen: 87.222 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 83 Resp: 184643

Ion	Ratio	Lower	Upper
83	100		
131	9.0	4.8	14.3
85	64.2	32.3	96.8

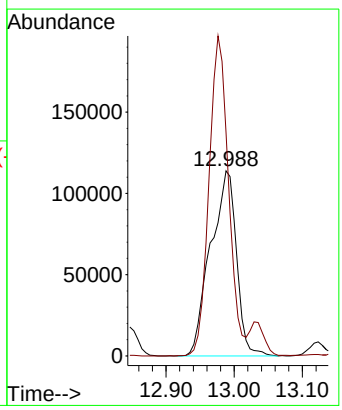


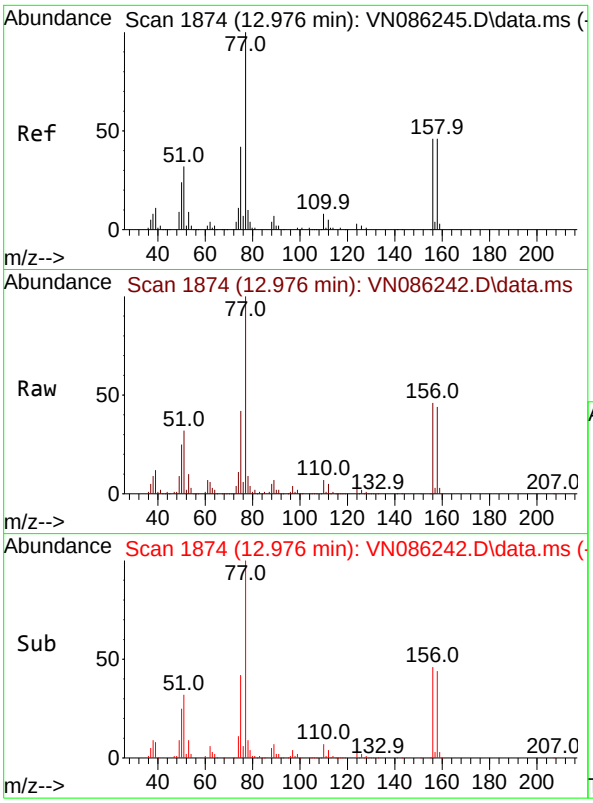


#72
1,2,3-Trichloropropane
Concen: 100.449 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 301047

Ion	Ratio	Lower	Upper
75	100		
77	130.7	0.0	380.0



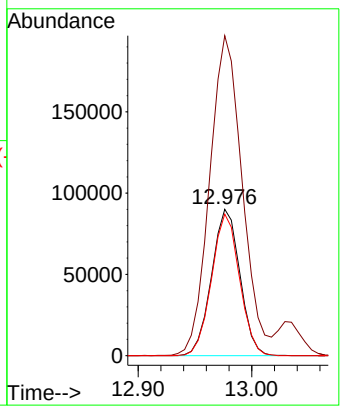


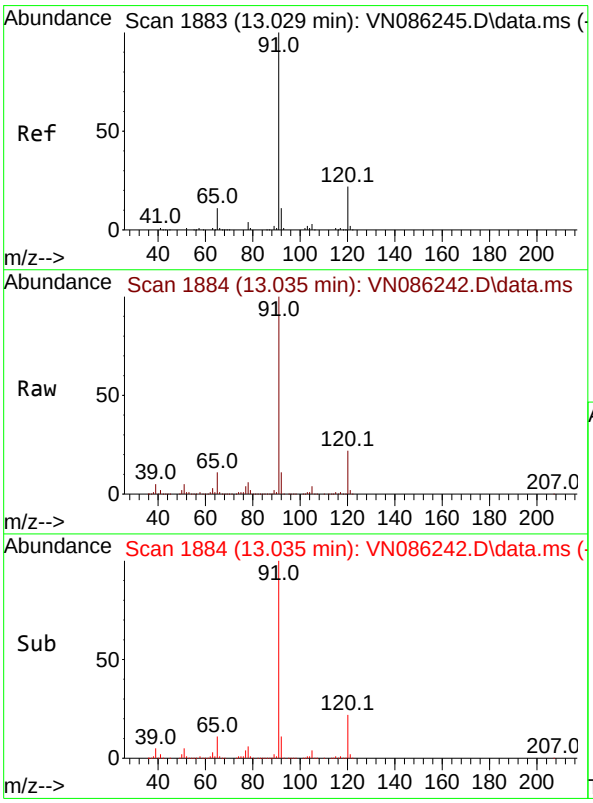
#73
Bromobenzene
Concen: 94.613 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:156 Resp: 155884

Ion	Ratio	Lower	Upper
156	100		
77	252.4	0.0	505.2
158	95.6	0.0	195.0

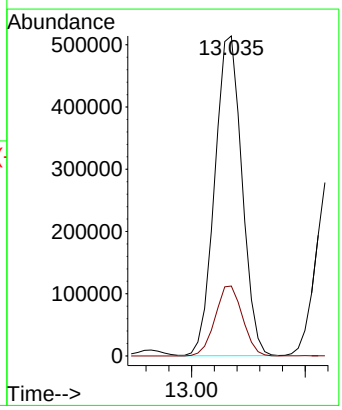


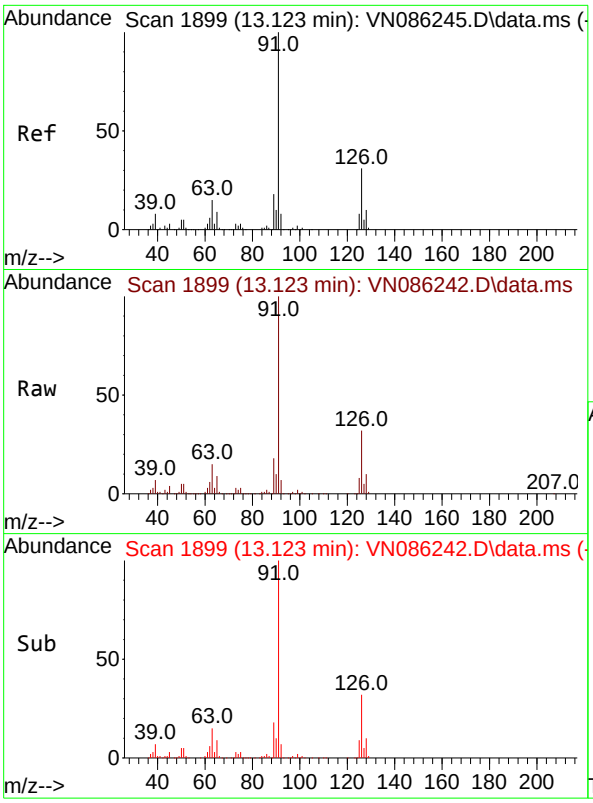


#74
n-propylbenzene
Concen: 96.989 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 854262

Ion	Ratio	Lower	Upper
91	100		
120	22.0	0.0	44.0



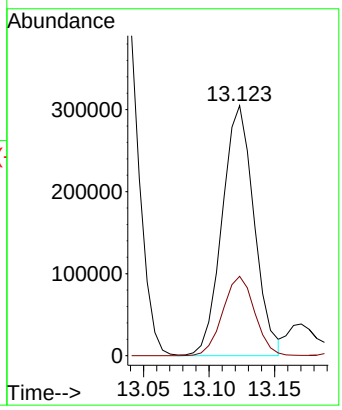


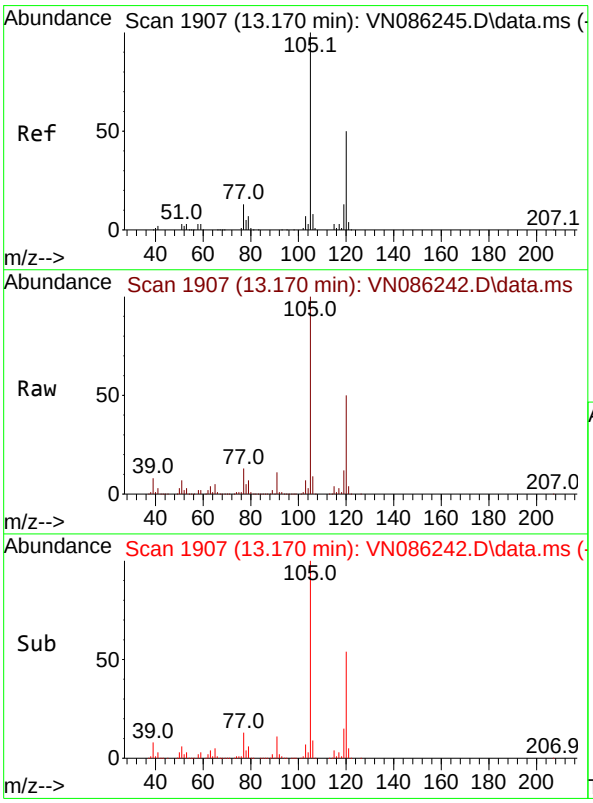
#75
2-Chlorotoluene
Concen: 93.916 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 91 Resp: 518416

Ion	Ratio	Lower	Upper
91	100		
126	31.6	0.0	63.4

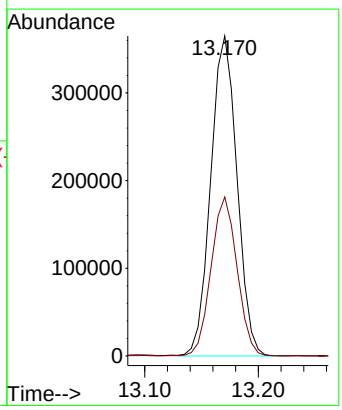


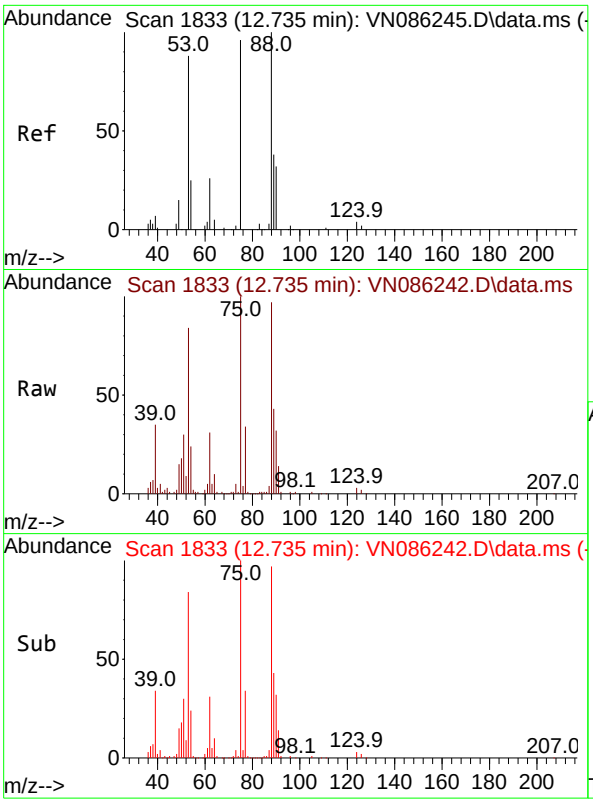


#76
1,3,5-Trimethylbenzene
Concen: 95.970 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 586325

Ion	Ratio	Lower	Upper
105	100		
120	49.1	0.0	98.0



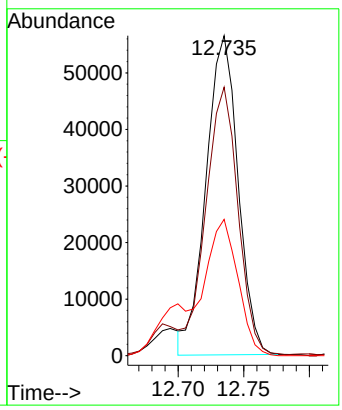


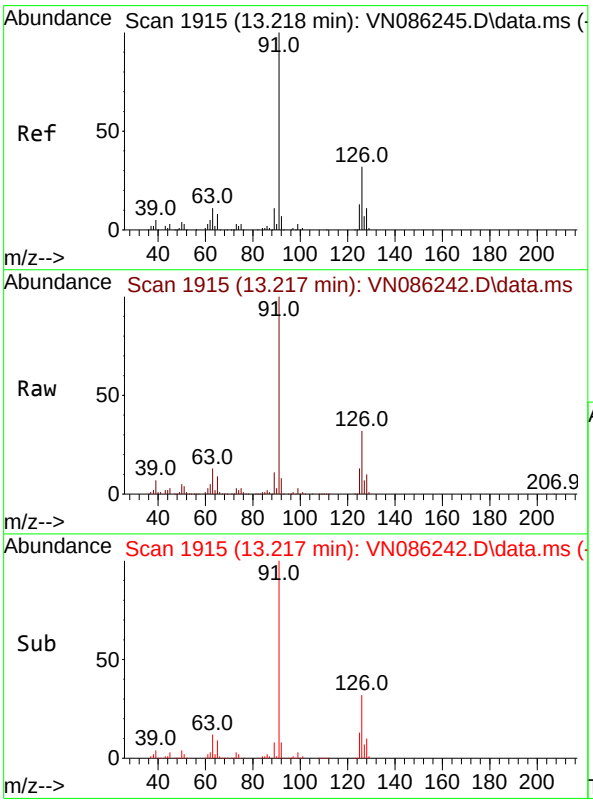
#77
t-1,4-Dichloro-2-butene
Concen: 94.184 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 75 Resp: 95696

Ion	Ratio	Lower	Upper
75	100		
53	83.6	46.4	139.2
89	42.8	22.5	67.5

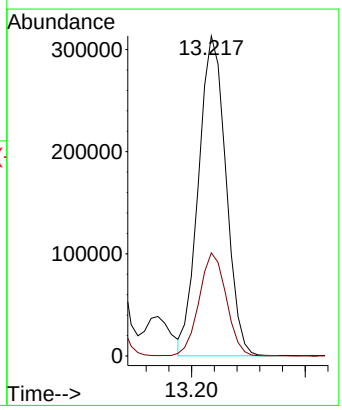


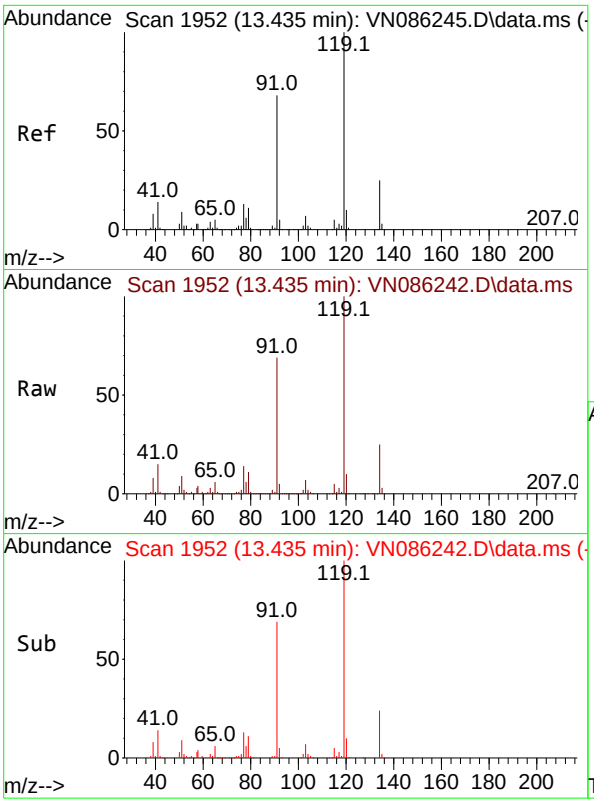


#78
4-Chlorotoluene
Concen: 95.194 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 91 Resp: 524792

Ion	Ratio	Lower	Upper
91	100		
126	32.0	0.0	63.2



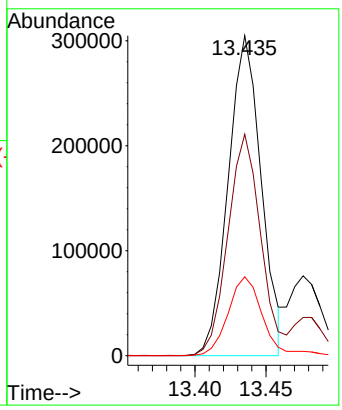


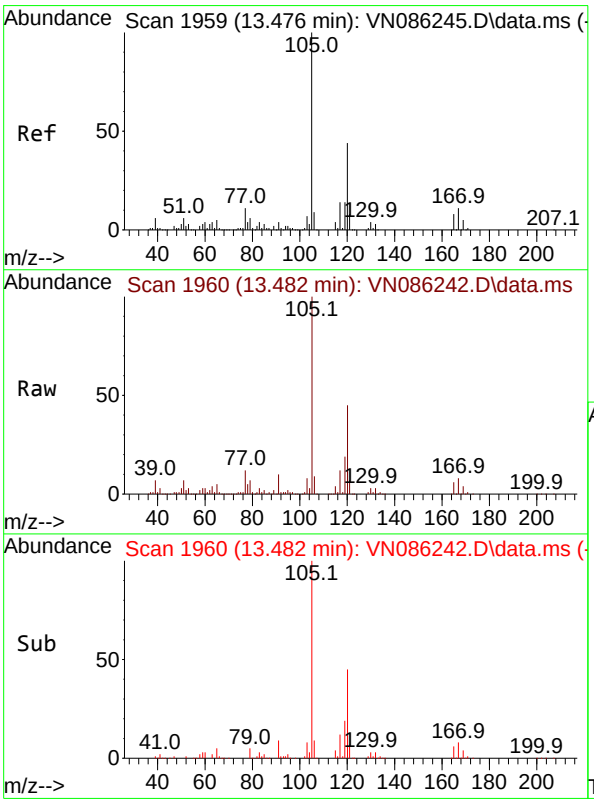
#79
tert-butylbenzene
Concen: 93.090 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:119 Resp: 492114

Ion	Ratio	Lower	Upper
119	100		
91	69.3	0.0	136.6
134	24.8	0.0	49.4

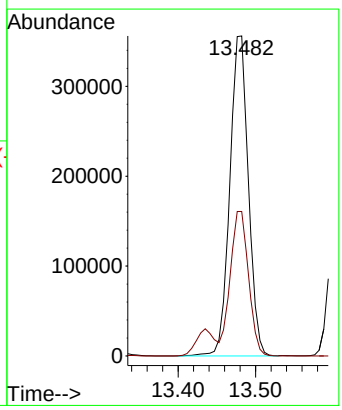


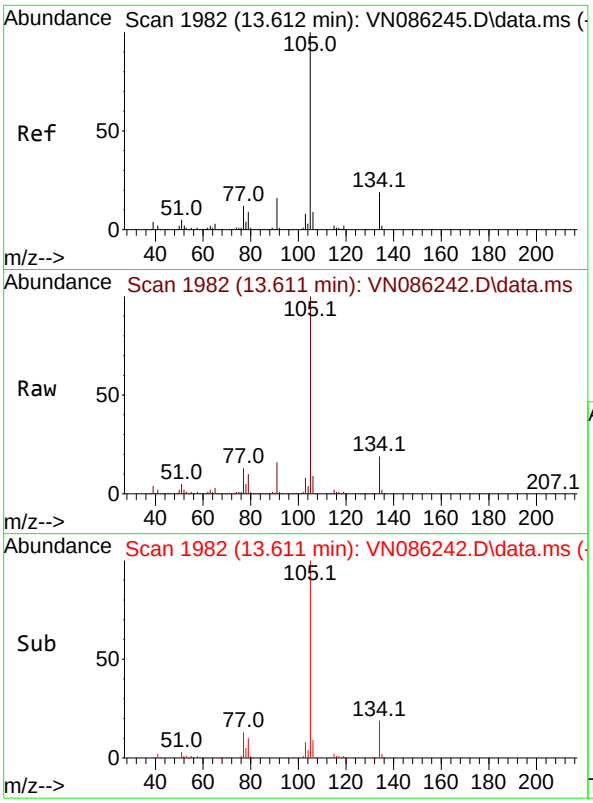


#80
1,2,4-Trimethylbenzene
Concen: 95.880 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.006 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:105 Resp: 593988

Ion	Ratio	Lower	Upper
105	100		
120	44.6	0.0	91.0



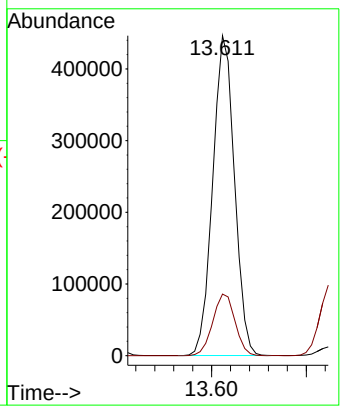


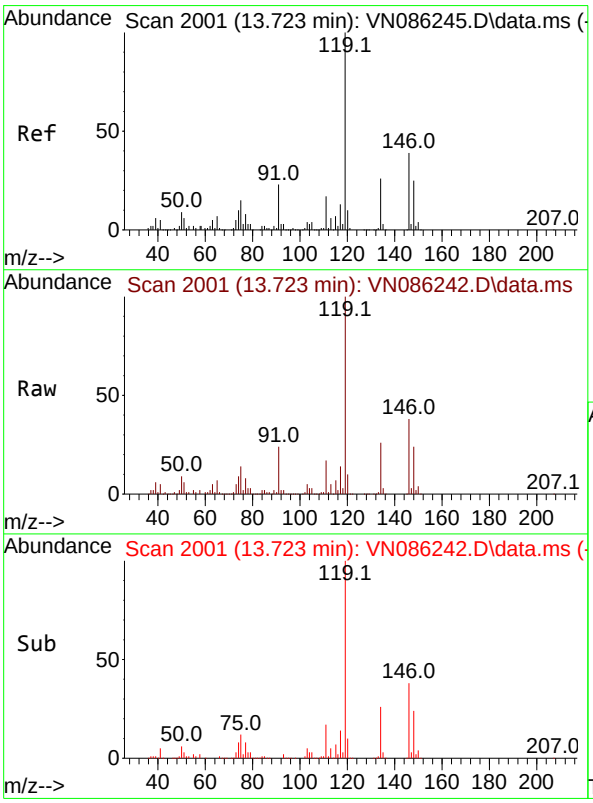
#81
sec-Butylbenzene
Concen: 96.423 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:105 Resp: 711037

Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	38.6

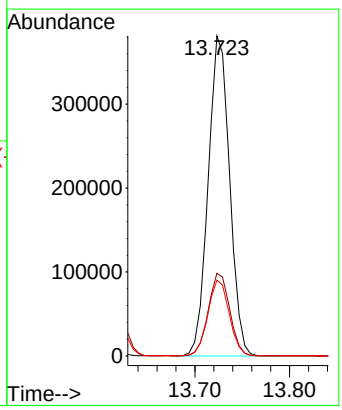


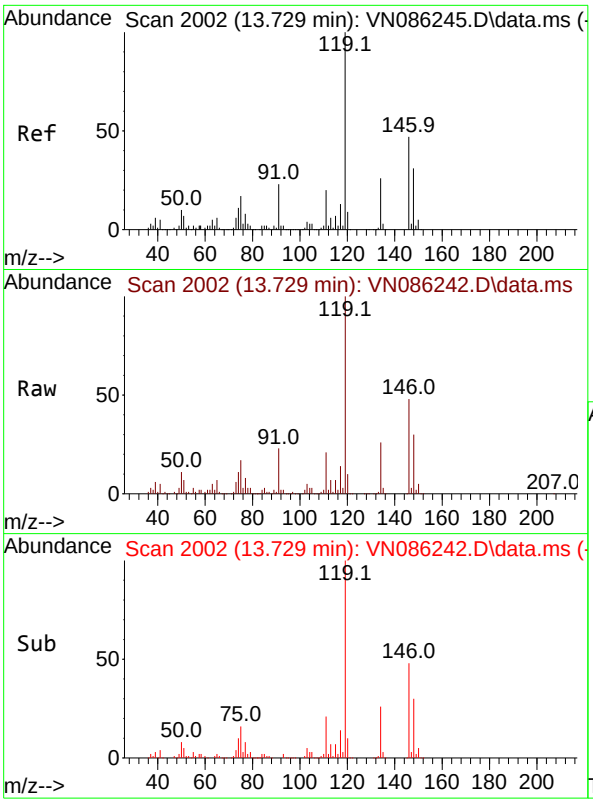


#82
p-Isopropyltoluene
Concen: 97.402 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:119 Resp: 599176

Ion	Ratio	Lower	Upper
119	100		
134	25.9	0.0	51.6
91	23.6	0.0	48.2



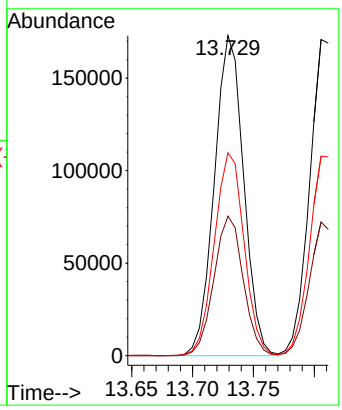


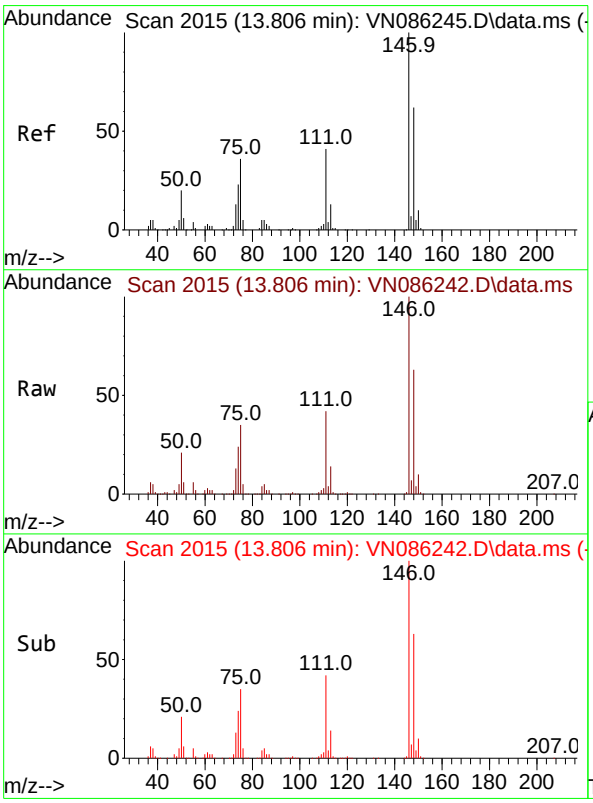
#83
1,3-Dichlorobenzene
Concen: 94.739 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:146 Resp: 290118

Ion	Ratio	Lower	Upper
146	100		
111	43.7	21.7	65.1
148	64.4	32.3	96.8

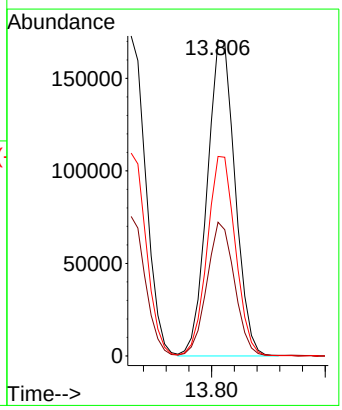


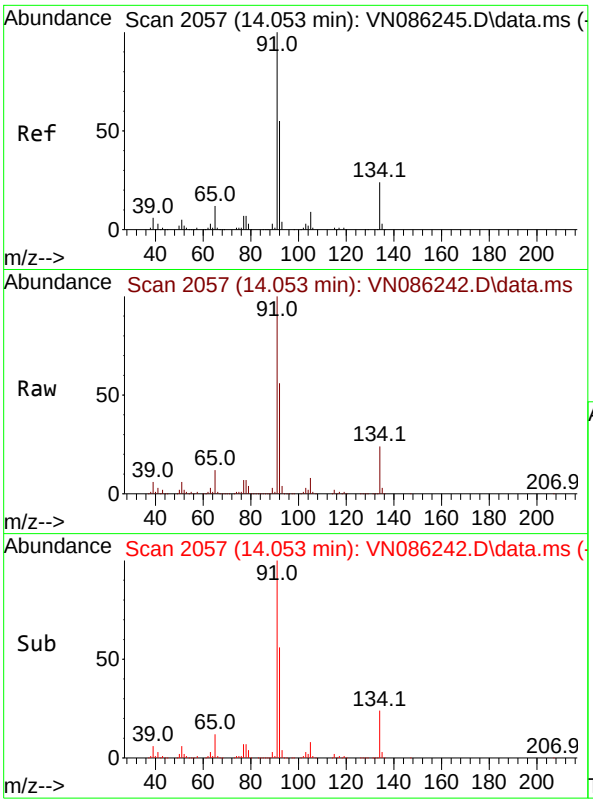


#84
1,4-Dichlorobenzene
Concen: 94.482 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:146 Resp: 290254

Ion	Ratio	Lower	Upper
146	100		
111	42.1	20.8	62.4
148	63.8	31.9	95.5



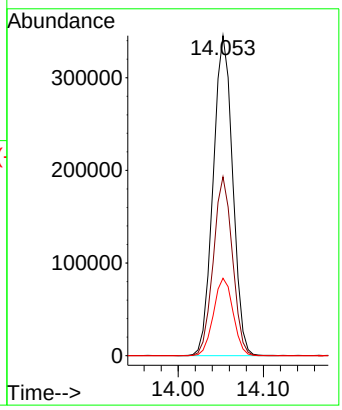


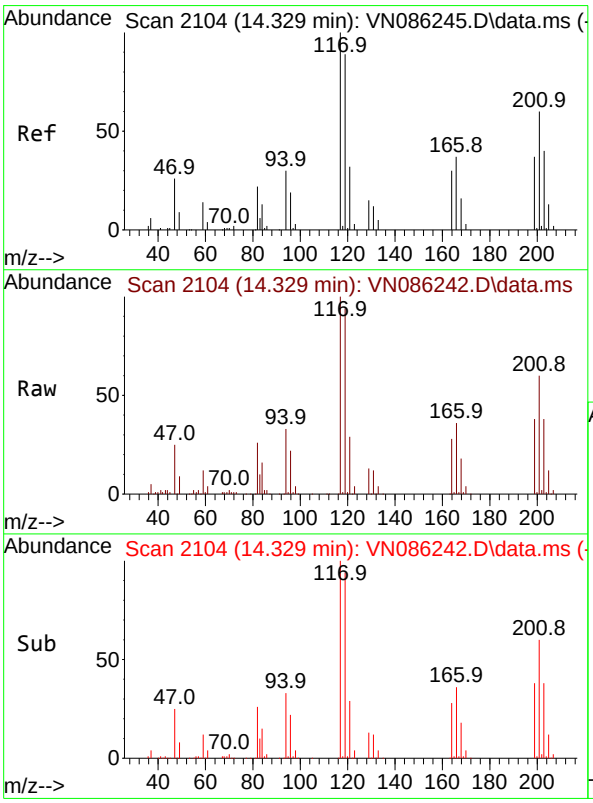
#85
n-Butylbenzene
Concen: 99.247 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion: 91 Resp: 550772

Ion	Ratio	Lower	Upper
91	100		
92	54.5	0.0	109.4
134	24.2	0.0	48.2

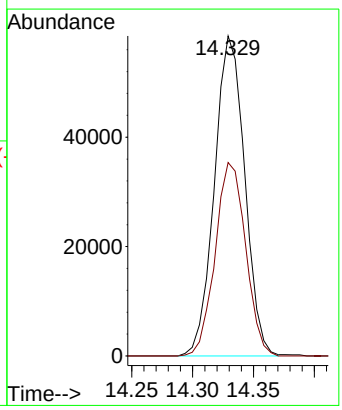


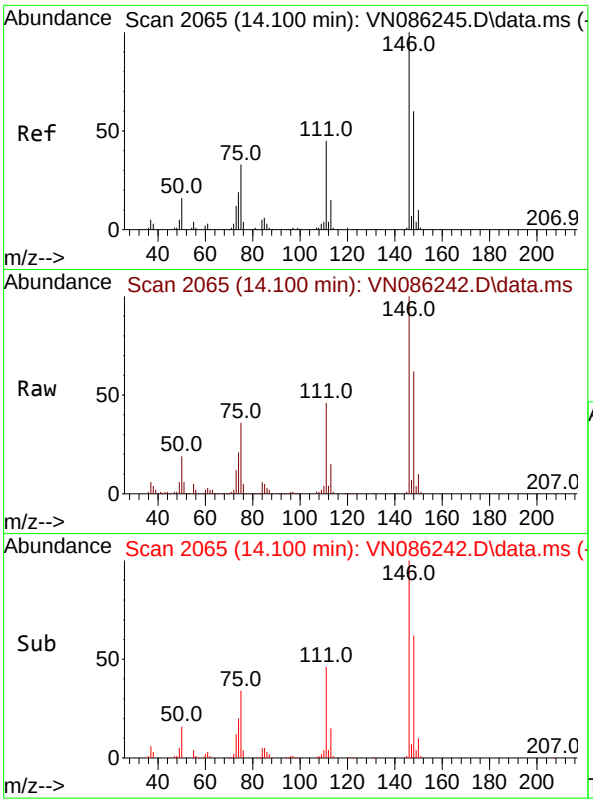


#86
Hexachloroethane
Concen: 97.469 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:117 Resp: 101143

Ion	Ratio	Lower	Upper
117	100		
201	60.7	30.9	92.8



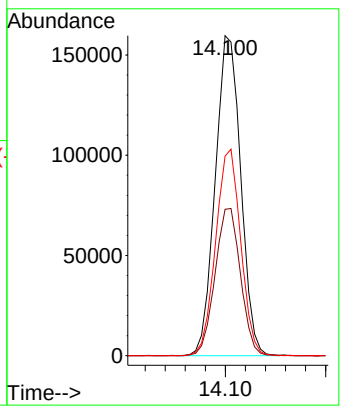


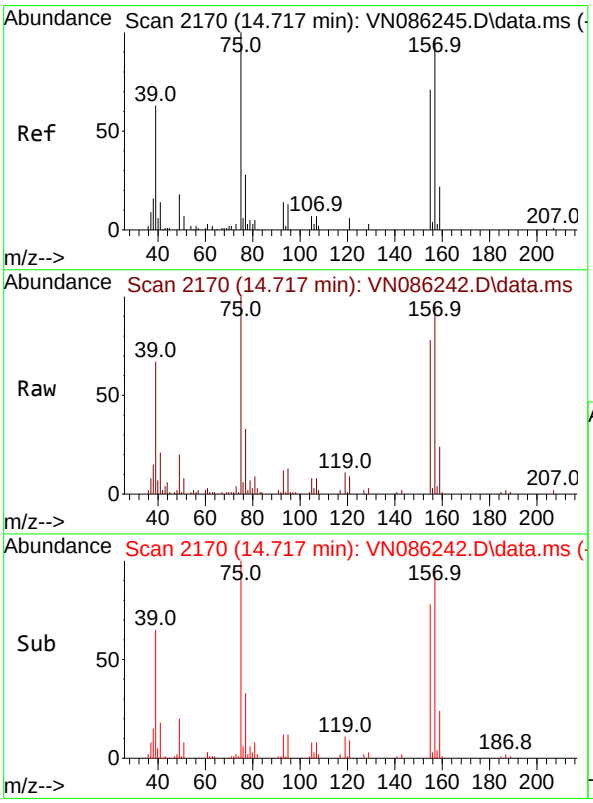
#87
1,2-Dichlorobenzene
Concen: 93.023 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:146 Resp: 281264

Ion	Ratio	Lower	Upper
146	100		
111	45.9	22.7	68.0
148	63.4	31.8	95.3

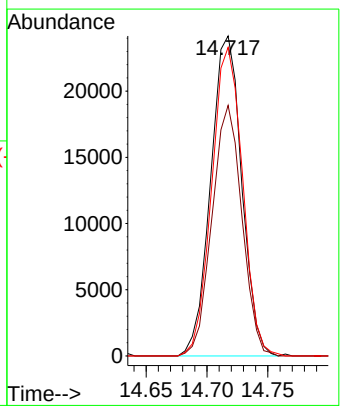


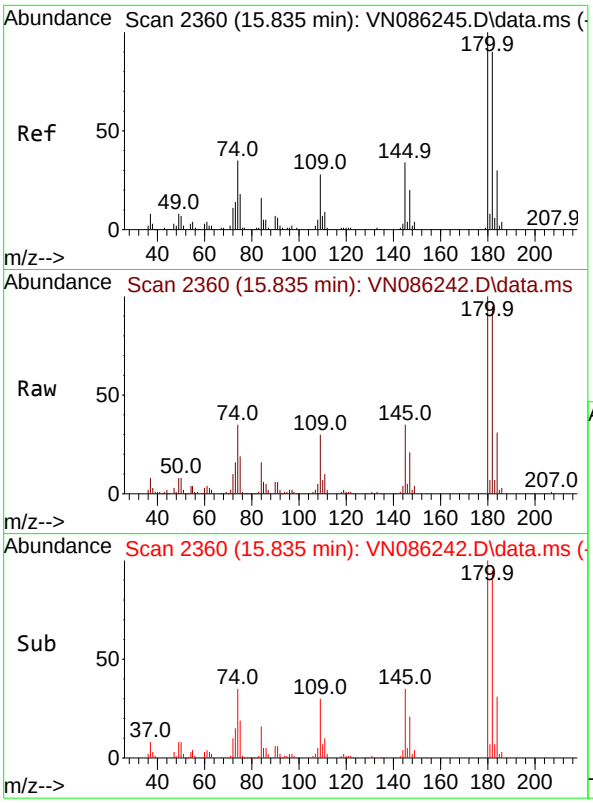


#88
1,2-Dibromo-3-Chloropropane
Concen: 88.876 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion: 75 Resp: 42853

Ion	Ratio	Lower	Upper
75	100		
155	75.5	60.3	90.5
157	95.8	79.0	118.4



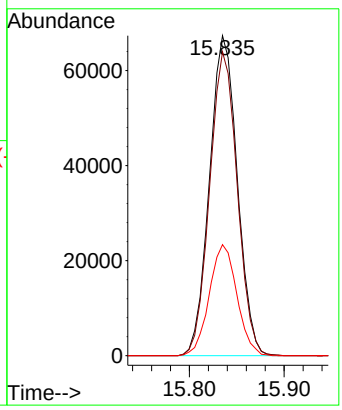


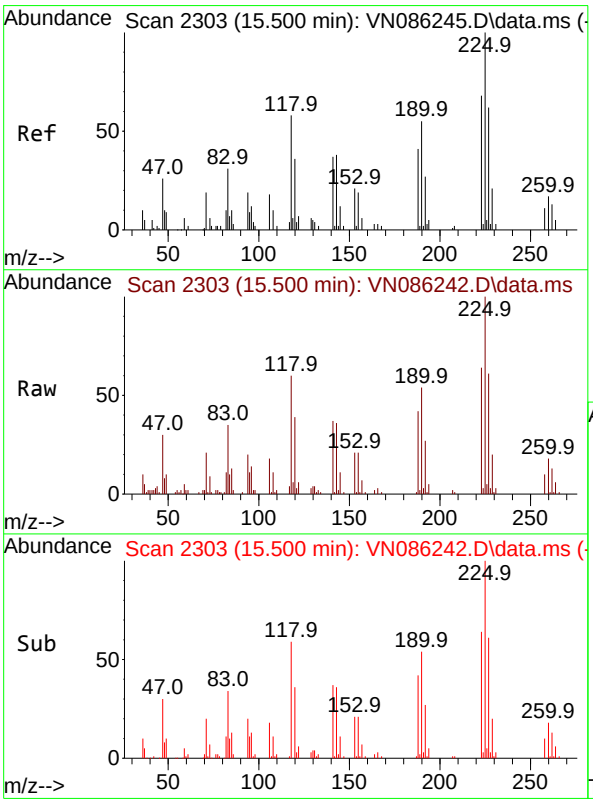
#89
1,2,4-Trichlorobenzene
Concen: 93.313 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:180 Resp: 137279

Ion	Ratio	Lower	Upper
180	100		
182	94.1	75.1	112.7
145	34.5	27.1	40.7

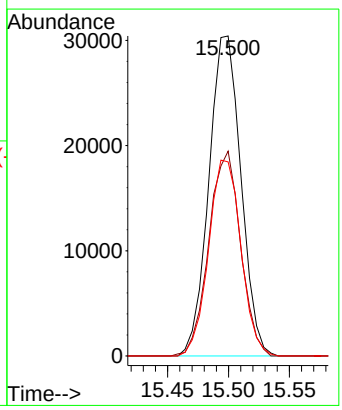


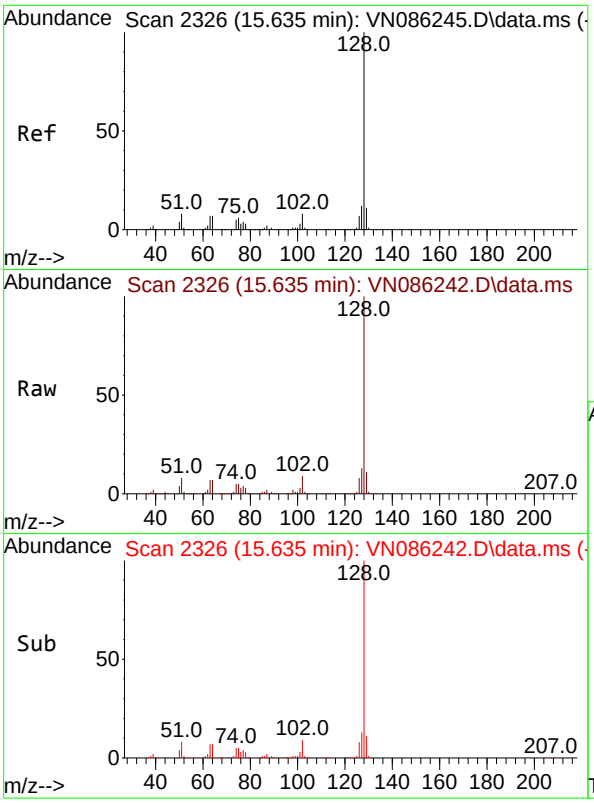


#90
Hexachlorobutadiene
Concen: 87.904 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:225 Resp: 55837

Ion	Ratio	Lower	Upper
225	100		
223	63.1	0.0	130.0
227	61.5	0.0	123.2



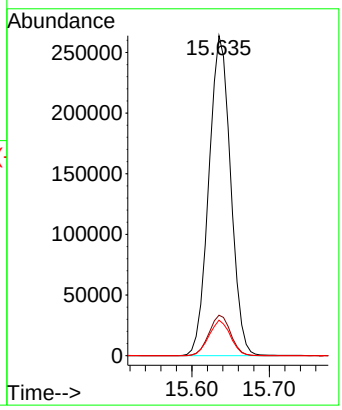


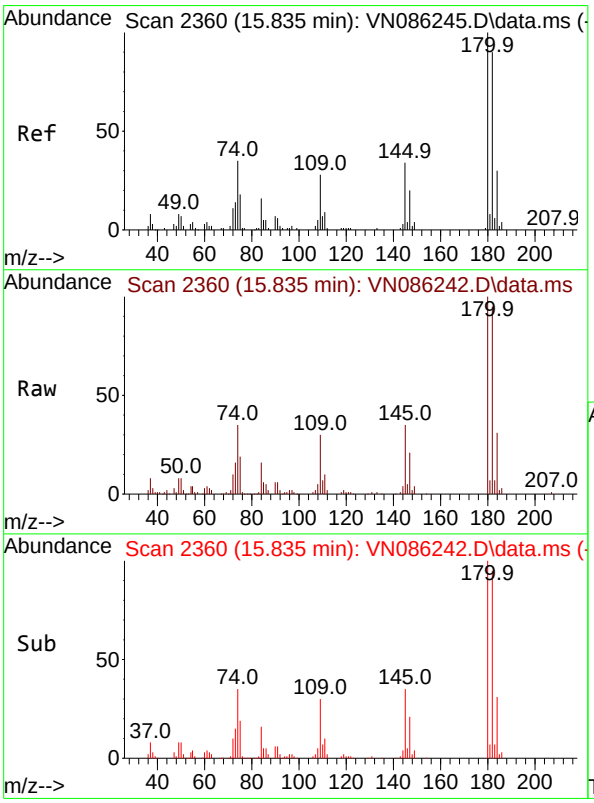
#91
Naphthalene
Concen: 88.964 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Tgt Ion:128 Resp: 516032

Ion	Ratio	Lower	Upper
128	100		
127	12.6	10.2	15.2
129	10.9	8.8	13.2

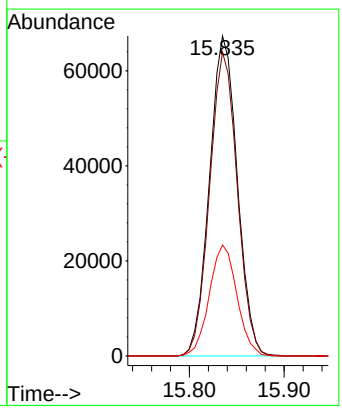




#92
1,2,3-Trichlorobenzene
Concen: 93.313 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086242.D
Acq: 11 Apr 2025 11:04

Tgt Ion:180 Resp: 137279

Ion	Ratio	Lower	Upper
180	100		
182	94.1	0.0	187.8
145	34.5	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086244.D
Acq On : 11 Apr 2025 11:52
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Quant Time: Apr 12 00:19:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	34719	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	212849	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	191848	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	101225	29.892	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 99.633%			
60) 4-Bromofluorobenzene	12.847	95	116379	30.469	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 101.567%			
63) Toluene-d8	10.565	98	321243	29.660	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.867%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	159577	57.365	ug/l	99
3) Chloromethane	2.359	50	209307	54.440	ug/l	98
4) Vinyl Chloride	2.512	62	204553	55.856	ug/l	98
5) Bromomethane	2.953	94	94764	51.877	ug/l	93
6) Chloroethane	3.118	64	126545	54.720	ug/l	98
7) Trichlorofluoromethane	3.495	101	224704	56.563	ug/l	99
8) Diethyl Ether	3.959	74	100444	54.826	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.365	101	137760	56.236	ug/l	97
10) 1,1-Dichloroethene	4.342	96	142552	53.920	ug/l	95
11) Methyl Iodide	4.583	142	172223	56.678	ug/l	98
12) Methyl Acetate	5.024	43	216174	57.904	ug/l	98
13) Acrolein	4.177	56	95048	223.977	ug/l	99
14) Acrylonitrile	5.712	53	435610	276.391	ug/l	98
15) Acetone	4.424	58	112588	281.504	ug/l	93
16) Carbon Disulfide	4.712	76	388287	51.220	ug/l	99
17) Allyl chloride	5.018	41	250898	54.451	ug/l	99
18) Methylene Chloride	5.277	84	160052	53.099	ug/l	97
19) trans-1,2-Dichloroethene	5.789	96	147953	62.042	ug/l	98
20) Diisopropyl ether	6.671	45	559920	56.516	ug/l	97
21) 1,1-Dichloroethane	6.571	63	294059	55.639	ug/l	98
22) cis-1,2-Dichloroethene	7.482	96	179457	54.098	ug/l	97
23) tert-Butyl Alcohol	5.512	59	185093	283.431	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	526838	55.313	ug/l	98
25) Chloroform	7.965	83	279630	55.484	ug/l	96
26) Cyclohexane	8.253	56	278241	56.272	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	210025	55.081	ug/l	99
30) 2-Butanone	7.477	43	596520	282.334	ug/l	99
31) 2,2-Dichloropropane	7.488	77	260037	55.404	ug/l	97
32) 1,1,1-Trichloroethane	8.165	97	240887	54.920	ug/l	99
33) Carbon Tetrachloride	8.359	117	199323	56.865	ug/l	97
34) Benzene	8.606	78	666877	54.974	ug/l	98
35) Methacrylonitrile	7.777	41	129688	54.448	ug/l	99
36) 1,2-Dichloroethane	8.665	62	209738	55.252	ug/l	97
37) Trichloroethene	9.347	130	164224	56.109	ug/l	90
38) Methylcyclohexane	9.600	83	253415	54.191	ug/l	99
39) 1,2-Dichloropropane	9.618	63	168378	55.783	ug/l	98
40) Dibromomethane	9.706	93	106697	54.730	ug/l	99
41) Bromodichloromethane	9.888	83	225600	53.865	ug/l	97
42) Vinyl Acetate	6.600	43	1937093	269.341	ug/l	100

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086244.D
Acq On : 11 Apr 2025 11:52
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Quant Time: Apr 12 00:19:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

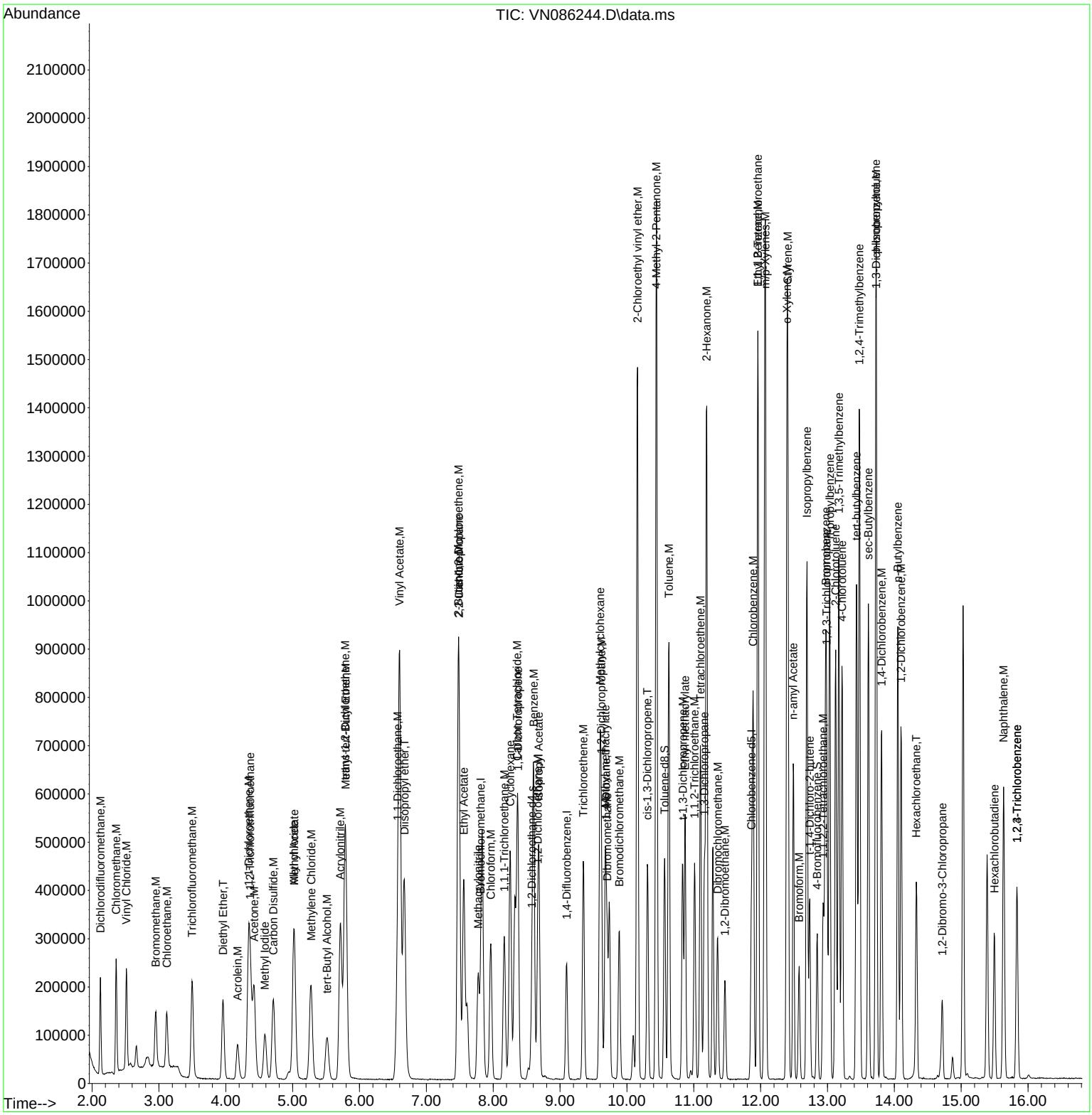
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	233433	54.775	ug/l		98
44) Isopropyl Acetate	8.682	43	419280	53.034	ug/l		99
45) 1,4-Dioxane	9.688	88	71351	1134.960	ug/l	#	95
46) Methyl methacrylate	9.676	41	197782	56.778	ug/l		99
47) n-amyl Acetate	12.488	43	354004	55.417	ug/l		99
48) t-1,3-Dichloropropene	10.835	75	264279	55.817	ug/l		99
49) cis-1,3-Dichloropropene	10.306	75	277506	55.377	ug/l		97
50) 1,1,2-Trichloroethane	11.012	97	149001	54.493	ug/l		98
51) Ethyl methacrylate	10.871	69	283112	55.717	ug/l		96
52) 1,3-Dichloropropane	11.159	76	271010	55.609	ug/l		100
53) Dibromochloromethane	11.359	129	166341	55.616	ug/l		99
54) 1,2-Dibromoethane	11.465	107	152197	55.141	ug/l		100
55) 2-Chloroethyl vinyl ether	10.159	63	685916	357.238	ug/l		99
56) Bromoform	12.576	173	110623	56.534	ug/l		100
58) 4-Methyl-2-Pentanone	10.441	43	1212140	278.421	ug/l		99
59) 2-Hexanone	11.194	43	912206	281.386	ug/l		99
61) Tetrachloroethene	11.100	164	160227	56.555	ug/l		98
62) Toluene	10.629	91	709533	55.140	ug/l		100
64) Chlorobenzene	11.888	112	434051	55.211	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	145468	56.068	ug/l		99
66) Ethyl Benzene	11.959	91	797966	55.917	ug/l		97
67) m/p-Xylenes	12.070	106	600484	113.164	ug/l		100
68) o-Xylene	12.394	106	294512	56.428	ug/l		99
69) Styrene	12.406	104	499886	56.790	ug/l		99
70) Isopropylbenzene	12.694	105	727241	56.511	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	194327	53.052	ug/l		99
72) 1,2,3-Trichloropropane	12.988	75	316585	61.048	ug/l		59
73) Bromobenzene	12.976	156	161325	56.588	ug/l		99
74) n-propylbenzene	13.035	91	865912	56.817	ug/l		100
75) 2-Chlorotoluene	13.123	91	539350	56.468	ug/l		100
76) 1,3,5-Trimethylbenzene	13.170	105	596201	56.398	ug/l		100
77) t-1,4-Dichloro-2-butene	12.735	75	100158	56.970	ug/l		92
78) 4-Chlorotoluene	13.217	91	541691	56.787	ug/l		100
79) tert-butylbenzene	13.435	119	506518	55.374	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	611389	57.035	ug/l		99
81) sec-Butylbenzene	13.612	105	714247	55.977	ug/l		99
82) p-Isopropyltoluene	13.723	119	604494	56.791	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	306241	57.795	ug/l		99
84) 1,4-Dichlorobenzene	13.812	146	303615	57.117	ug/l		100
85) n-Butylbenzene	14.053	91	536941	55.917	ug/l		99
86) Hexachloroethane	14.329	117	102084	56.854	ug/l		99
87) 1,2-Dichlorobenzene	14.100	146	301390	57.607	ug/l		100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	47464	56.890	ug/l		99
89) 1,2,4-Trichlorobenzene	15.835	180	140271	55.103	ug/l		98
90) Hexachlorobutadiene	15.500	225	56236	51.165	ug/l		99
91) Naphthalene	15.635	128	561578	55.953	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	140271	55.103	ug/l		98

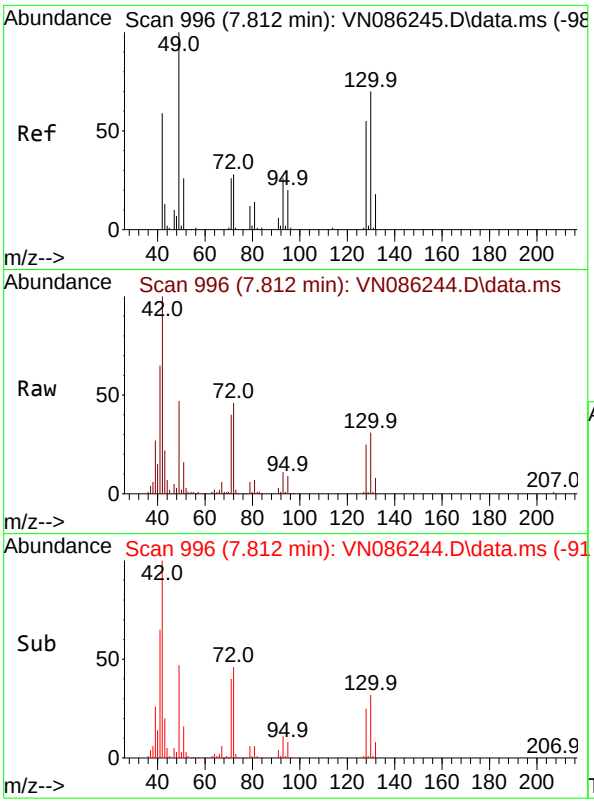
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086244.D
Acq On : 11 Apr 2025 11:52
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Quant Time: Apr 12 00:19:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration



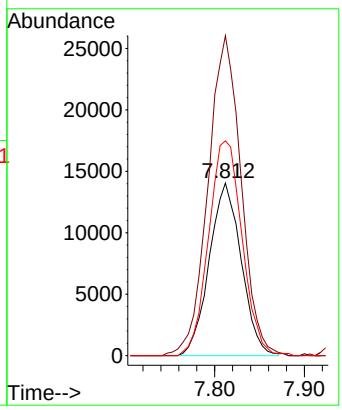


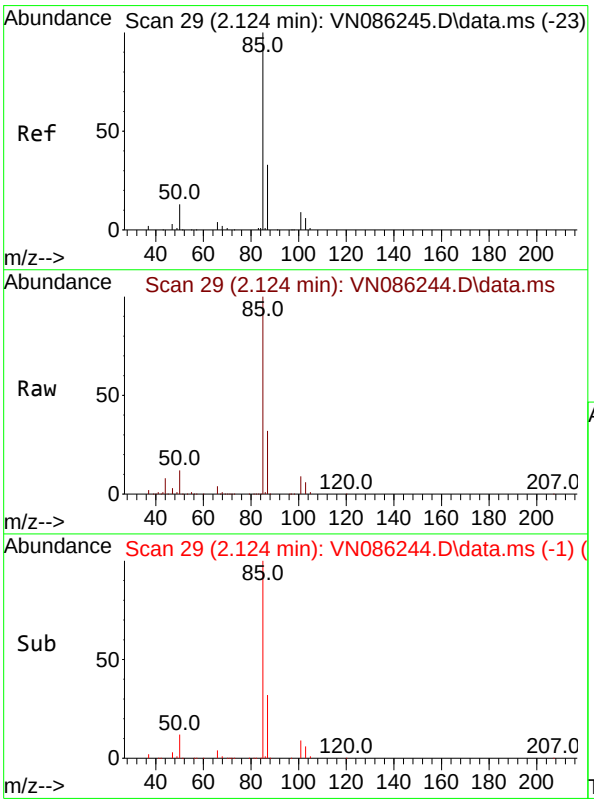
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:128 Resp: 34719

Ion	Ratio	Lower	Upper
128	100		
49	191.4	0.0	452.5
130	130.4	0.0	315.0

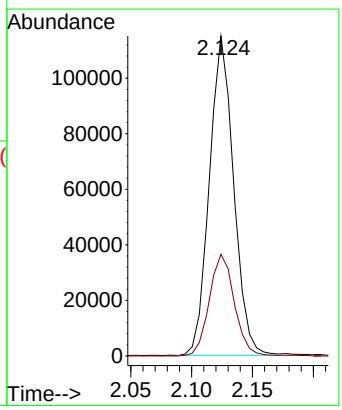


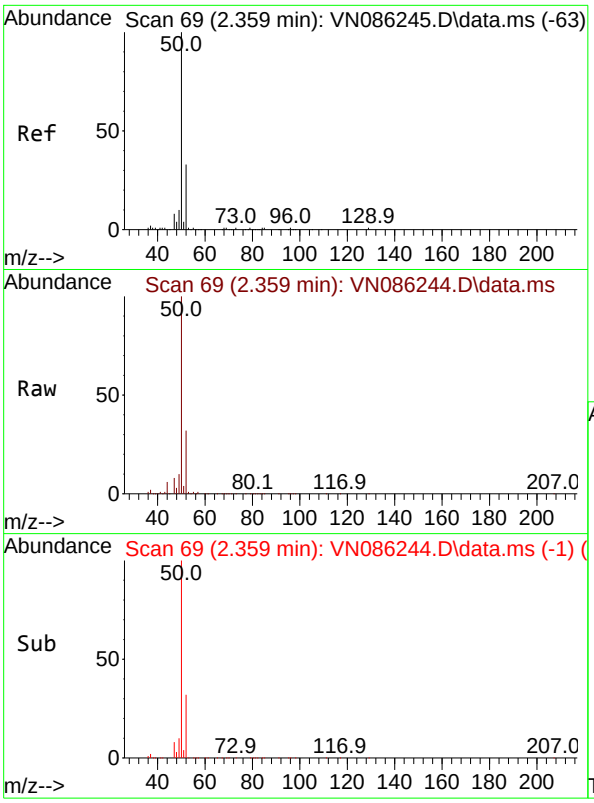


#2
Dichlorodifluoromethane
Concen: 57.365 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 85 Resp: 159577

Ion	Ratio	Lower	Upper
85	100		
87	31.8	16.3	48.9



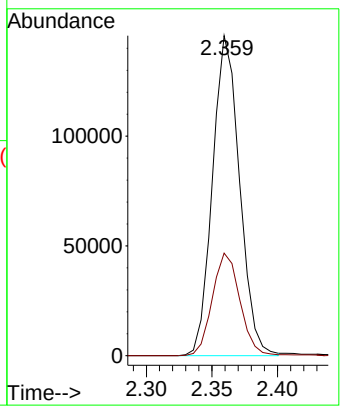


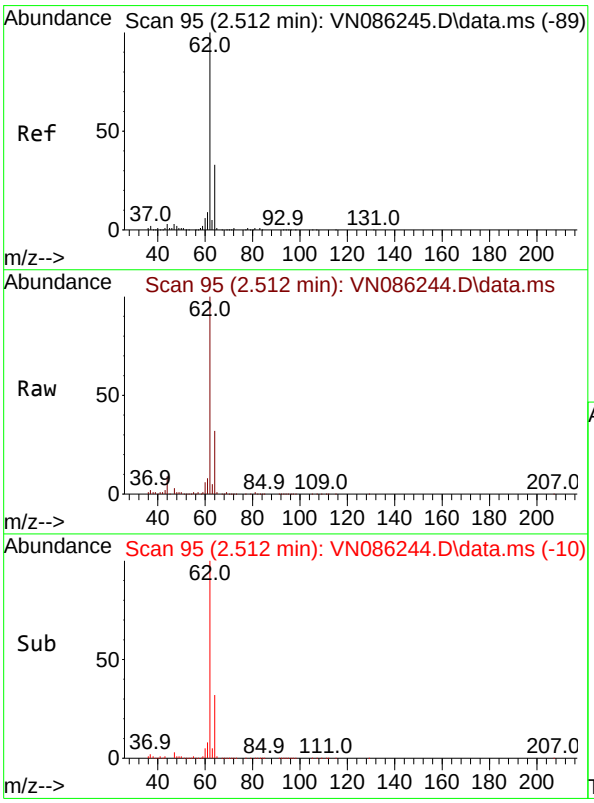
#3
Chloromethane
Concen: 54.440 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 50 Resp: 209307

Ion	Ratio	Lower	Upper
50	100		
52	32.1	26.4	39.6

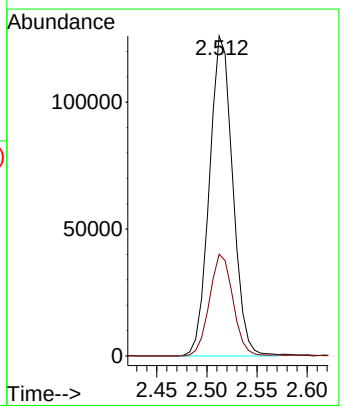


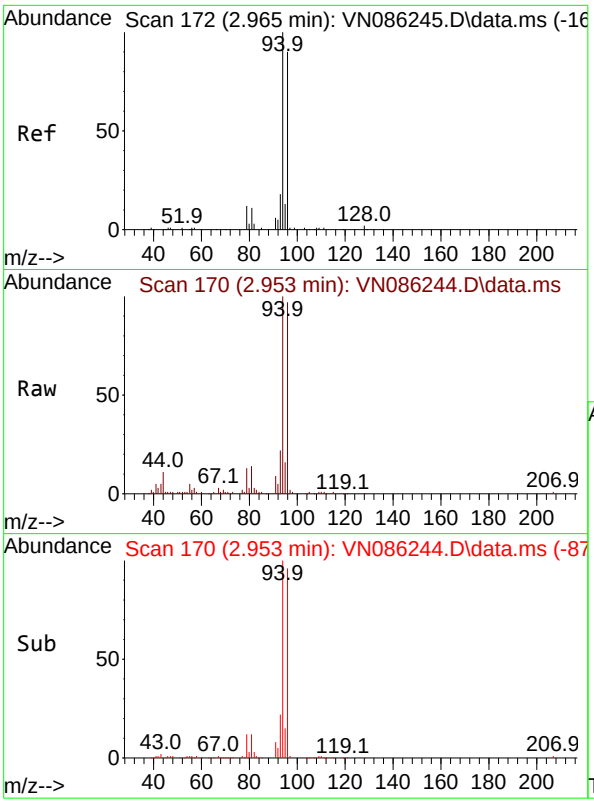


#4
Vinyl Chloride
Concen: 55.856 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 62 Resp: 204553

Ion	Ratio	Lower	Upper
62	100		
64	31.8	26.3	39.5



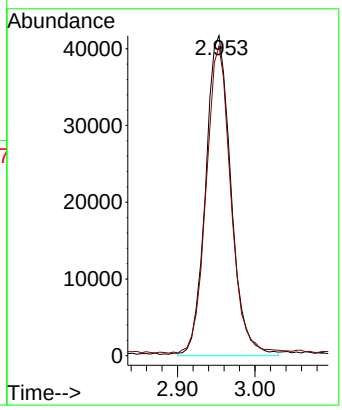


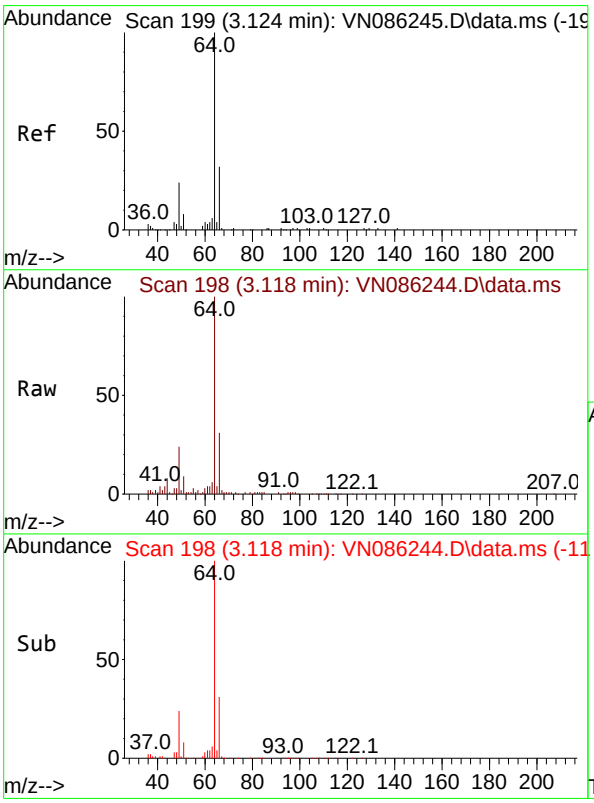
#5
Bromomethane
Concen: 51.877 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 94 Resp: 94764

Ion	Ratio	Lower	Upper
94	100		
96	96.6	72.2	108.2

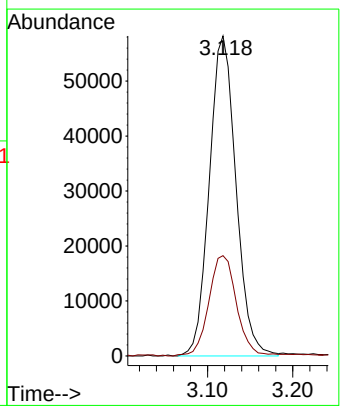


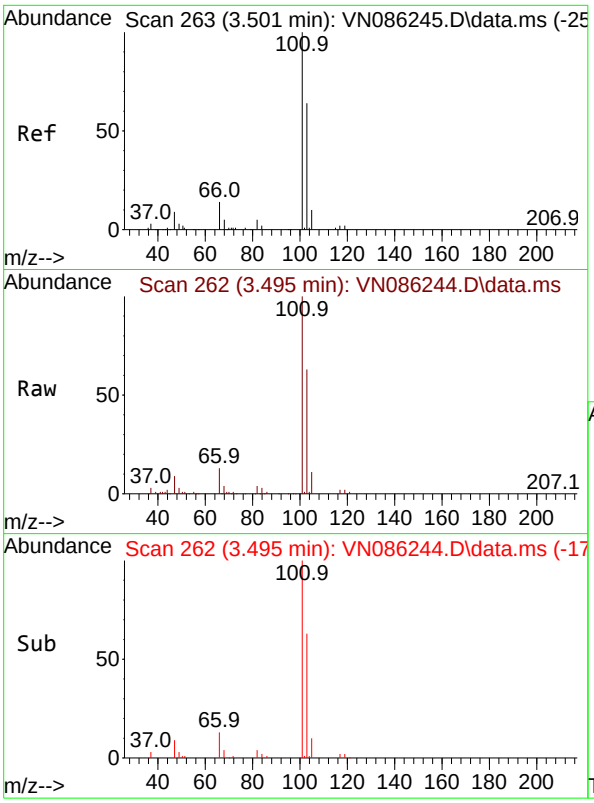


#6
Chloroethane
Concen: 54.720 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 64 Resp: 126545

Ion	Ratio	Lower	Upper
64	100		
66	31.0	25.7	38.5



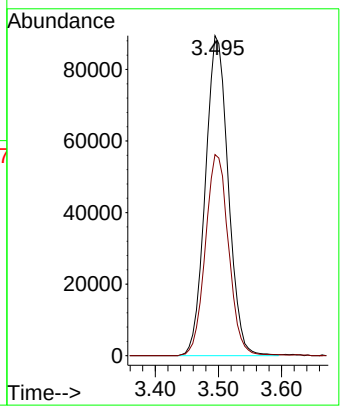


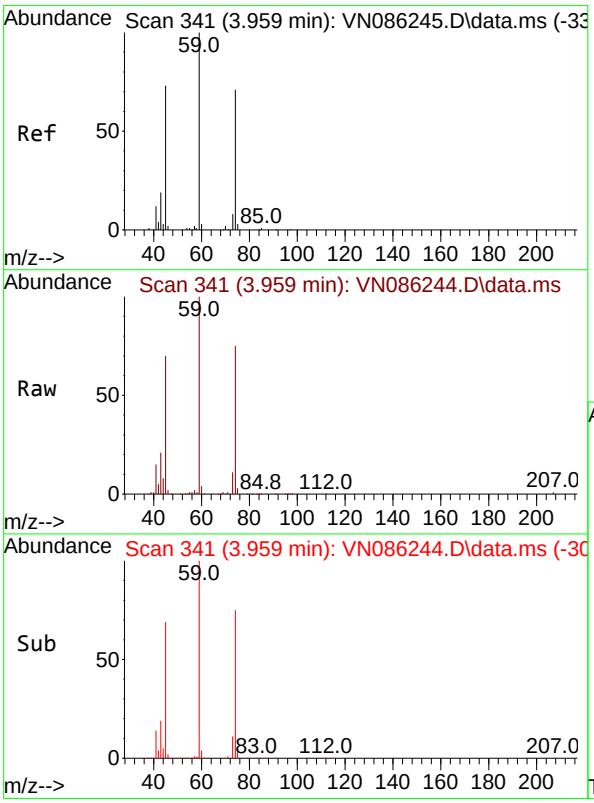
#7
Trichlorofluoromethane
Concen: 56.563 ug/l
RT: 3.495 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:101 Resp: 224704

Ion	Ratio	Lower	Upper
101	100		
103	62.8	51.2	76.8

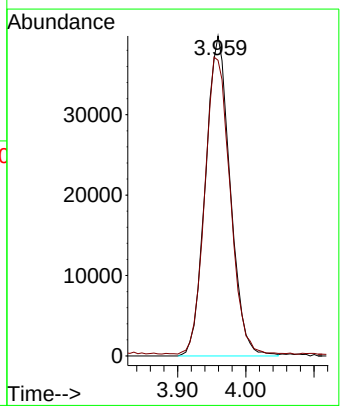


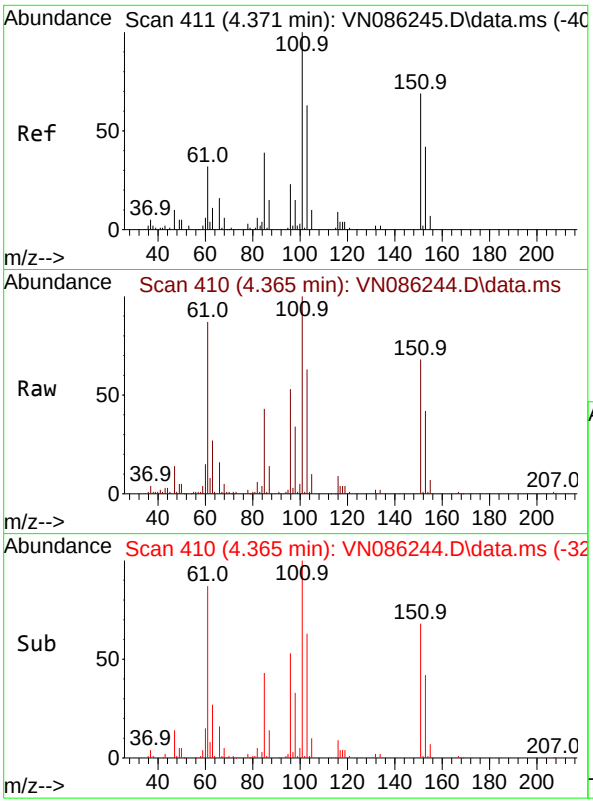


#8
Diethyl Ether
Concen: 54.826 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 74 Resp: 100444

Ion	Ratio	Lower	Upper
74	100		
45	94.8	19.2	173.2



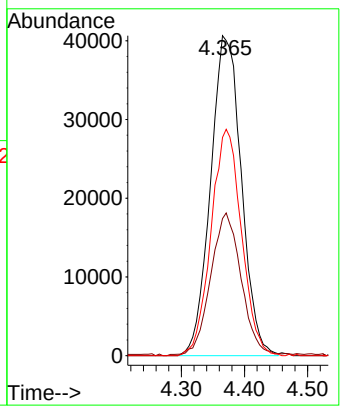


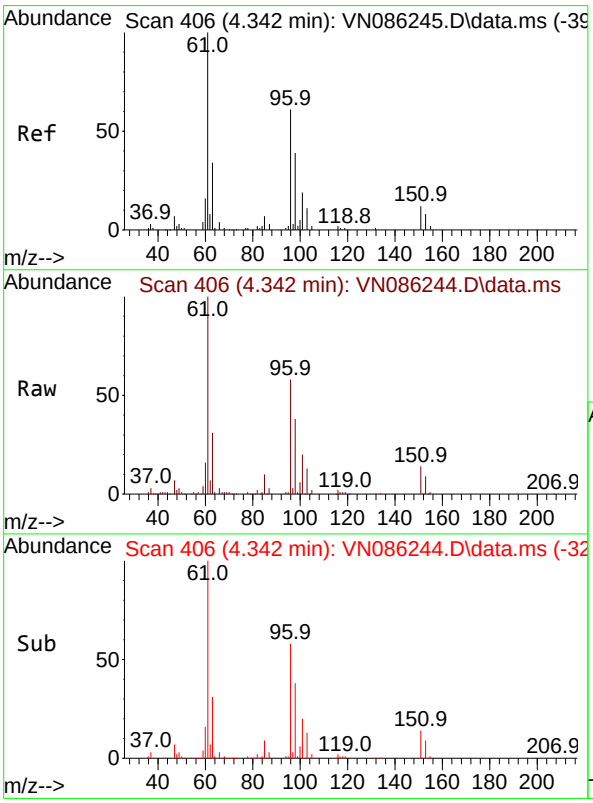
#9
1,1,2-Trichlorotrifluoroethane
Concen: 56.236 ug/l
RT: 4.365 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:101 Resp: 137760

Ion	Ratio	Lower	Upper
101	100		
85	43.0	0.0	93.0
151	69.8	0.0	138.6

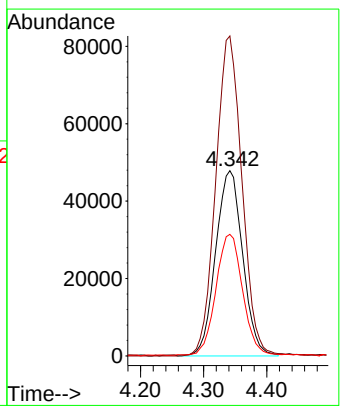


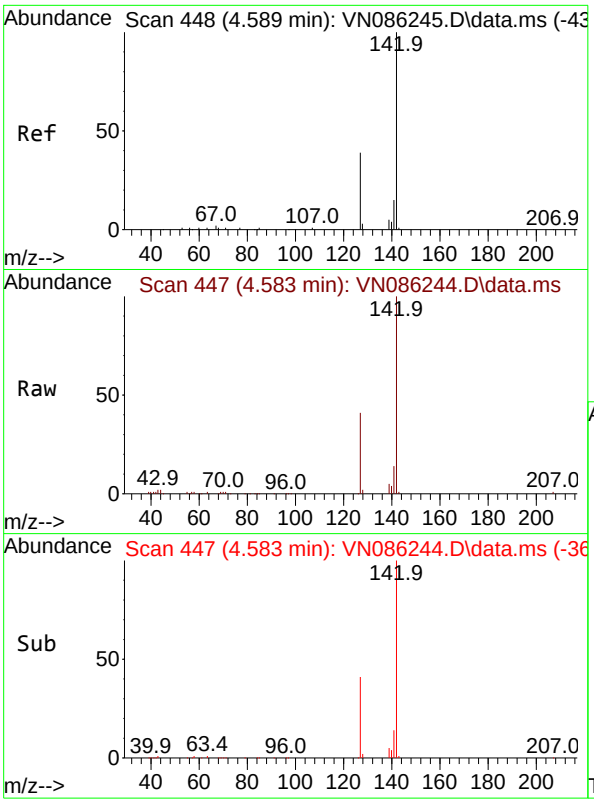


#10
1,1-Dichloroethene
Concen: 53.920 ug/l
RT: 4.342 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 96 Resp: 142552

Ion	Ratio	Lower	Upper
96	100		
61	172.7	131.1	196.7
98	64.9	51.6	77.4



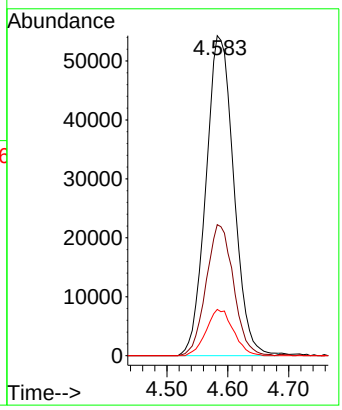


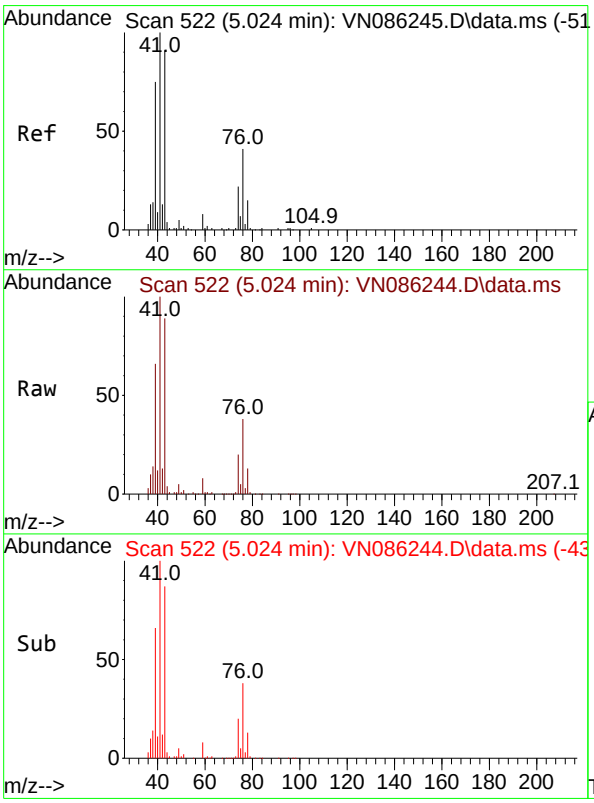
#11
Methyl Iodide
Concen: 56.678 ug/l
RT: 4.583 min Scan# 44
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:142 Resp: 172223

Ion	Ratio	Lower	Upper
142	100		
127	41.0	19.6	58.8
141	14.5	7.3	21.9

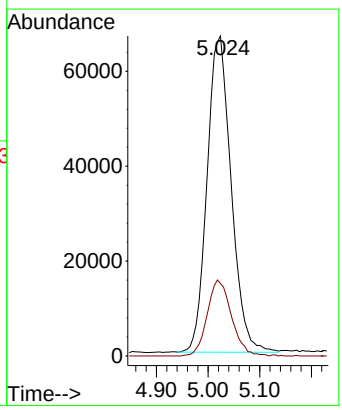


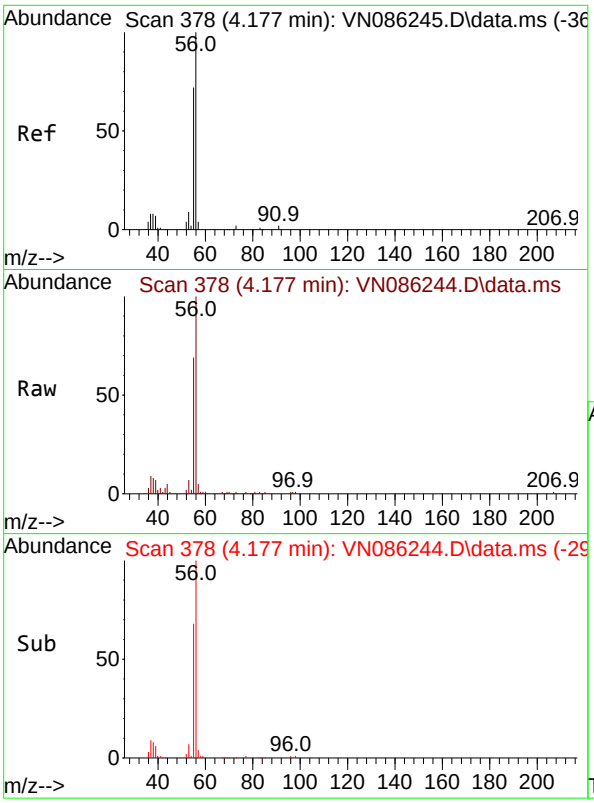


#12
Methyl Acetate
Concen: 57.904 ug/l
RT: 5.024 min Scan# 522
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 216174

Ion	Ratio	Lower	Upper
43	100		
74	22.9	19.1	28.7



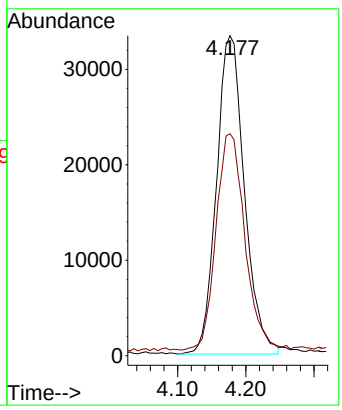


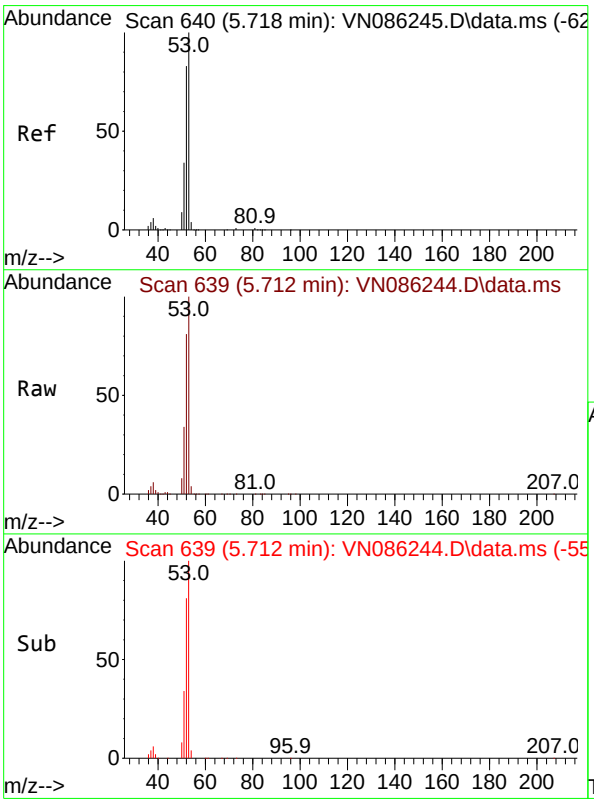
#13
Acrolein
Concen: 223.977 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 56 Resp: 95048

Ion	Ratio	Lower	Upper
56	100		
55	69.9	56.5	84.7

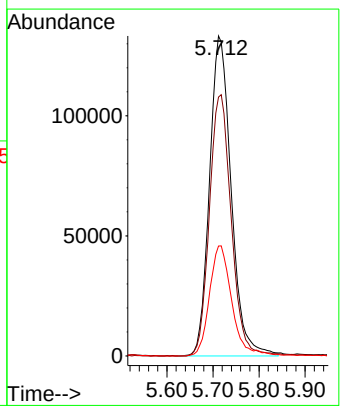


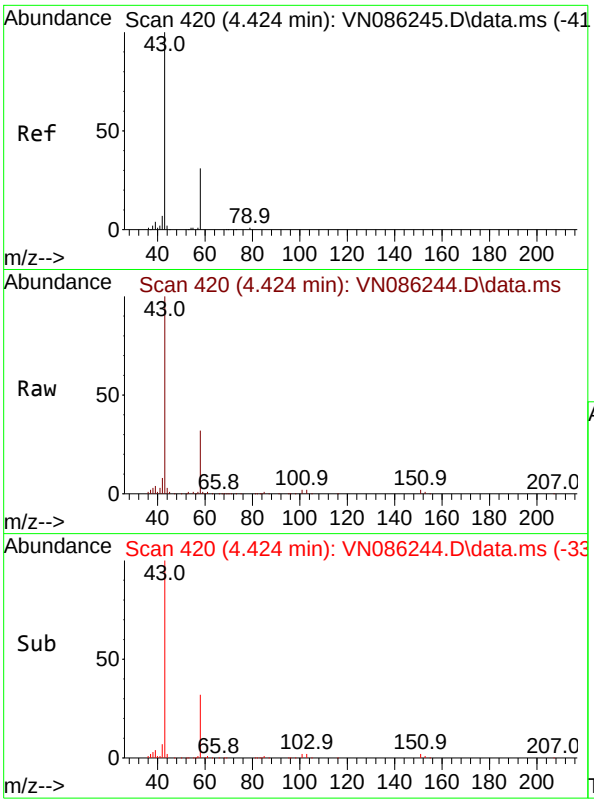


#14
Acrylonitrile
Concen: 276.391 ug/l
RT: 5.712 min Scan# 639
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 53 Resp: 435610

Ion	Ratio	Lower	Upper
53	100		
52	82.0	40.2	120.6
51	34.5	17.5	52.6



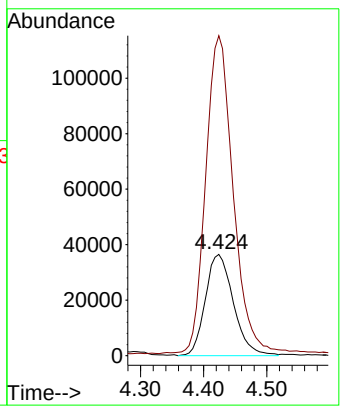


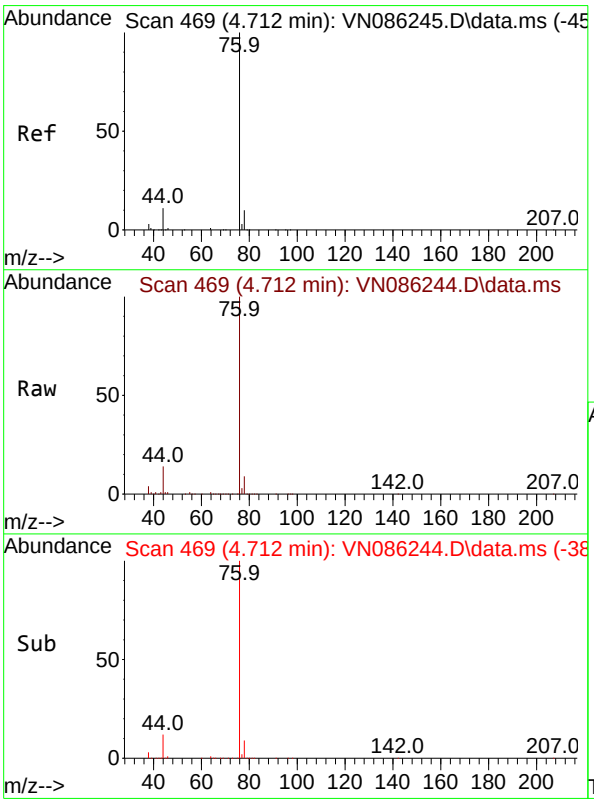
#15
Acetone
Concen: 281.504 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 58 Resp: 112588

Ion	Ratio	Lower	Upper
58	100		
43	312.3	261.8	392.8

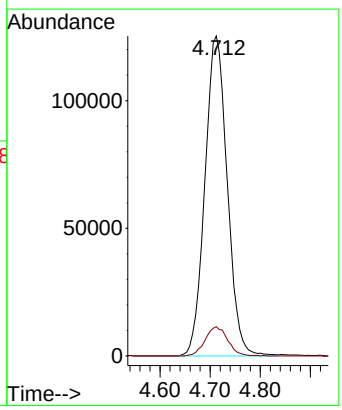


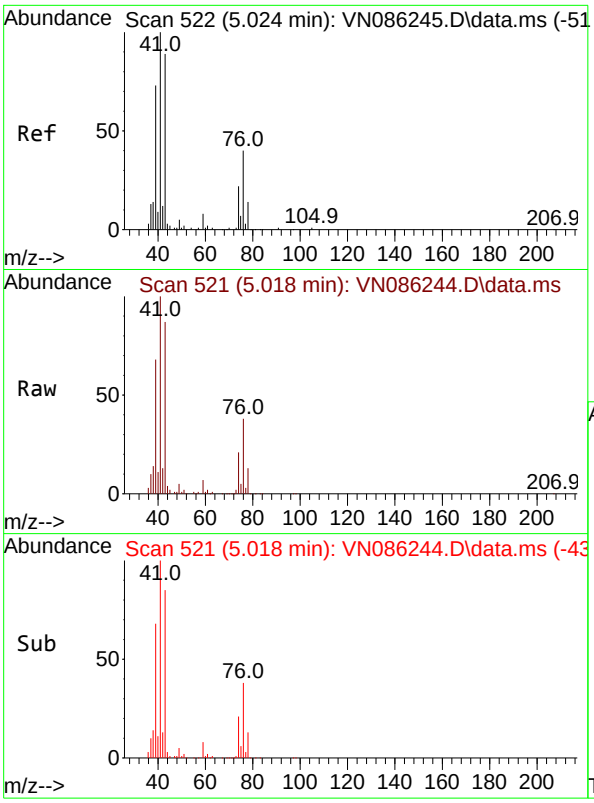


#16
Carbon Disulfide
Concen: 51.220 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 76 Resp: 388287

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.7	11.5



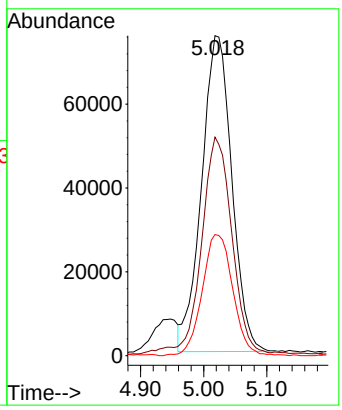


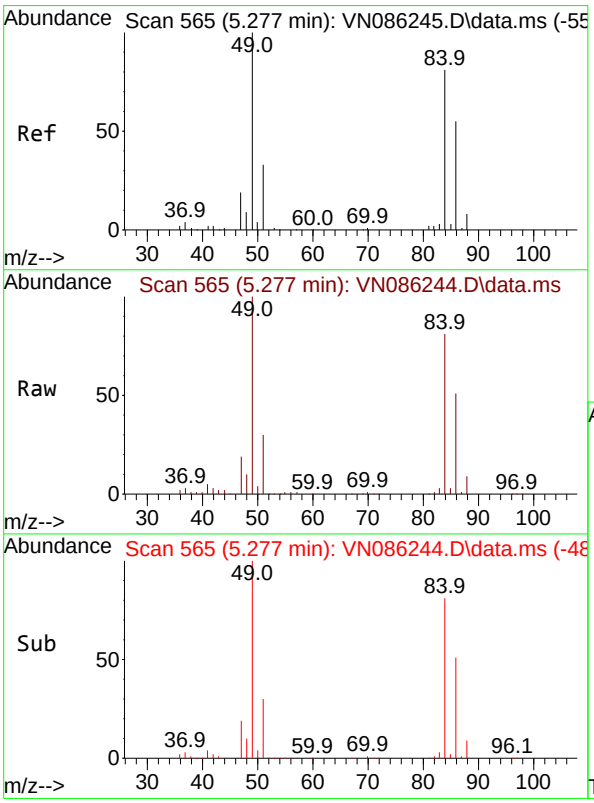
#17
Allyl chloride
Concen: 54.451 ug/l
RT: 5.018 min Scan# 5
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 41 Resp: 250898

Ion	Ratio	Lower	Upper
41	100		
39	68.2	34.4	103.2
76	38.1	18.8	56.3

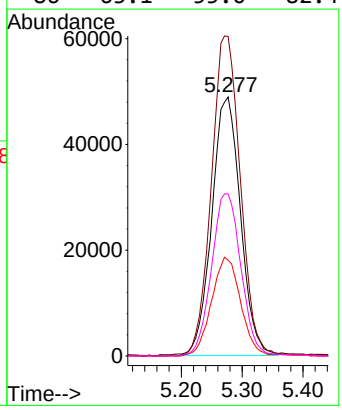


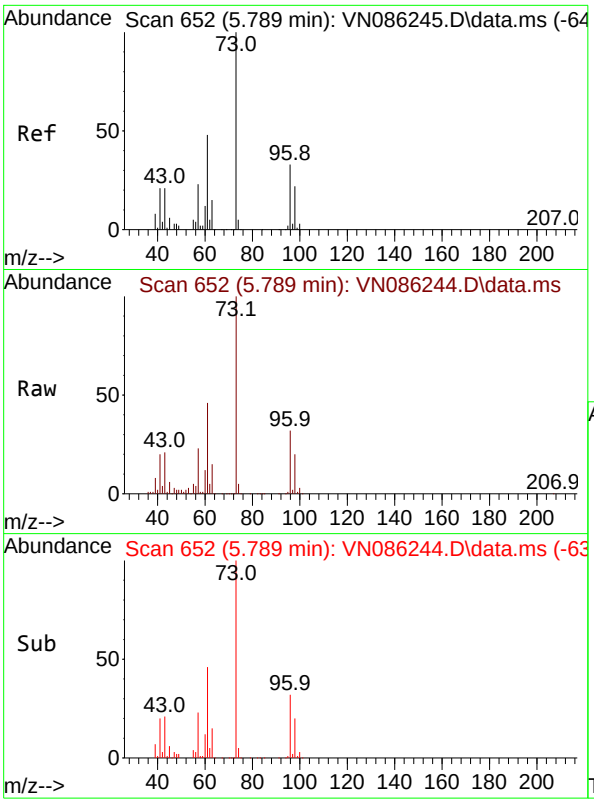


#18
Methylene Chloride
Concen: 53.099 ug/l
RT: 5.277 min Scan# 565
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 84 Resp: 160052

Ion	Ratio	Lower	Upper
84	100		
49	124.3	99.1	148.7
51	37.3	32.3	48.5
86	63.1	55.0	82.4



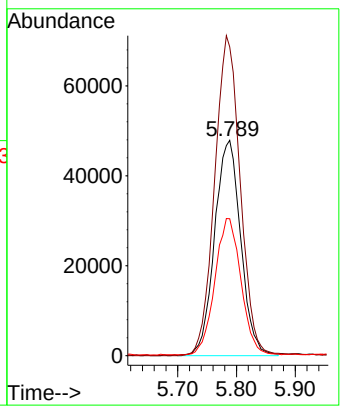


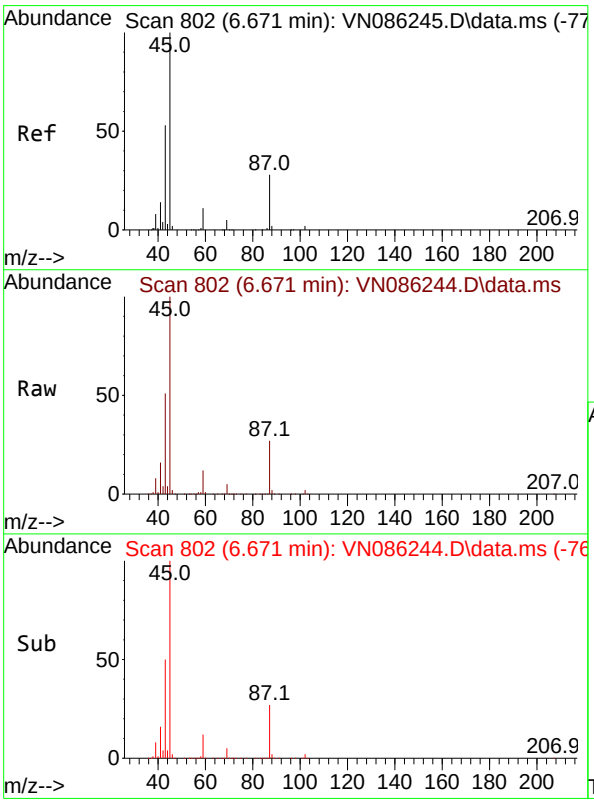
#19
trans-1,2-Dichloroethene
Concen: 62.042 ug/l
RT: 5.789 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 96 Resp: 147953

Ion	Ratio	Lower	Upper
96	100		
61	143.4	115.9	173.9
98	63.2	52.1	78.1

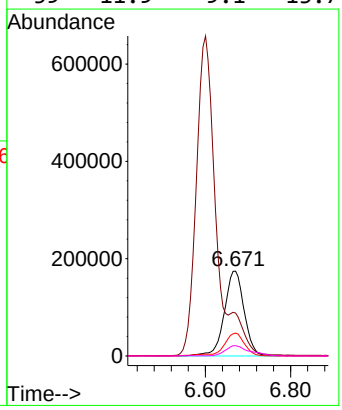


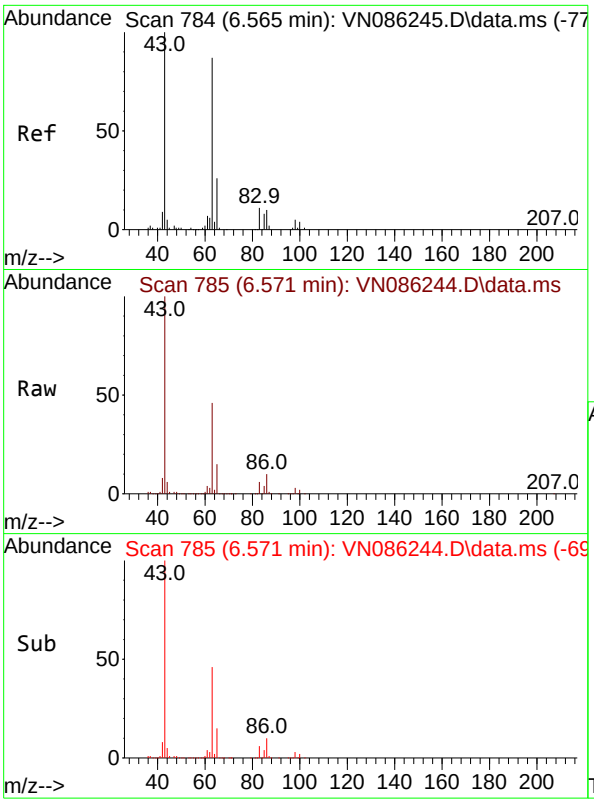


#20
Diisopropyl ether
Concen: 56.516 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 45 Resp: 559920

Ion	Ratio	Lower	Upper
45	100		
43	49.4	42.3	63.5
87	27.1	22.2	33.4
59	11.9	9.1	13.7



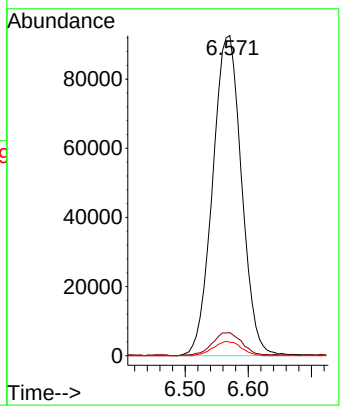


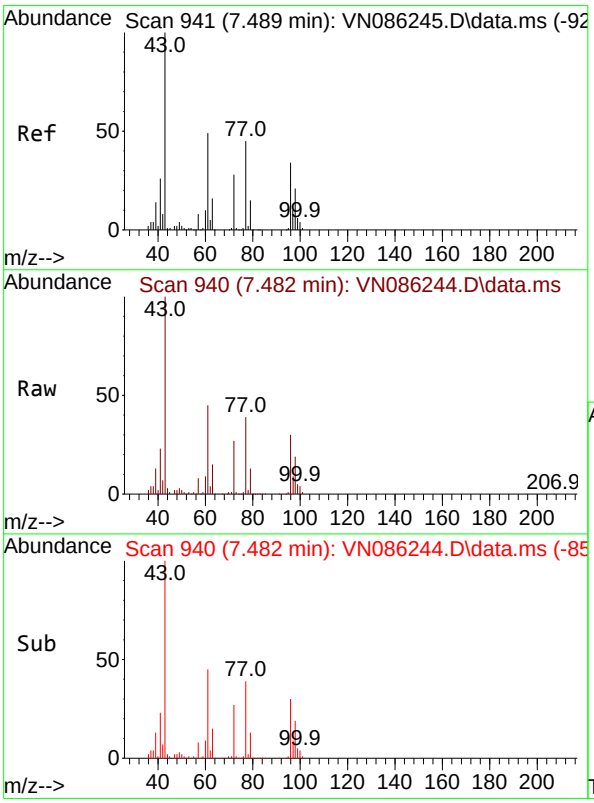
#21
1,1-Dichloroethane
Concen: 55.639 ug/l
RT: 6.571 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 63 Resp: 294059

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.1	9.3
100	4.2	2.3	6.9

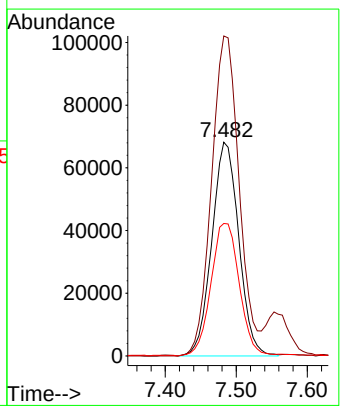


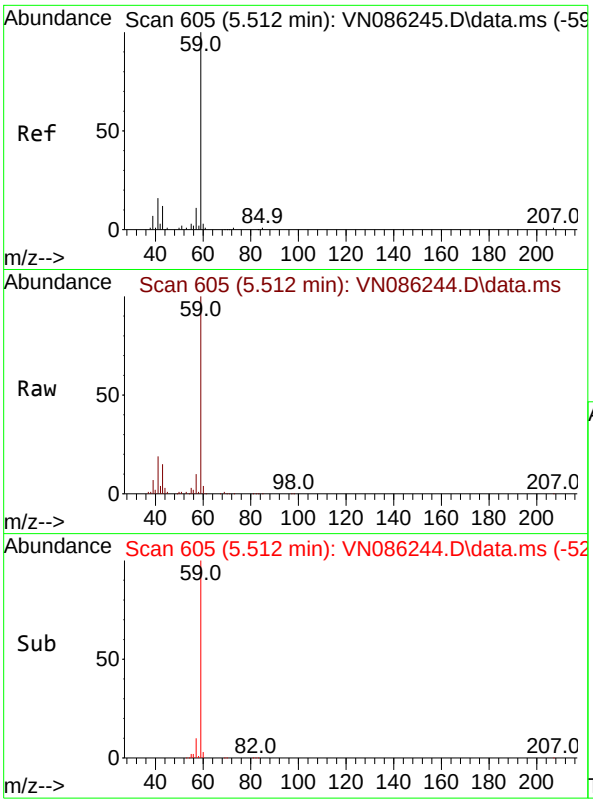


#22
cis-1,2-Dichloroethene
Concen: 54.098 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 96 Resp: 179457

Ion	Ratio	Lower	Upper
96	100		
61	153.7	119.5	179.3
98	65.1	51.0	76.6



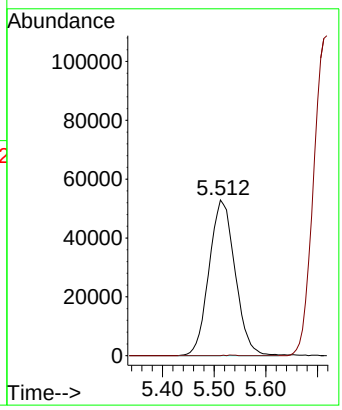


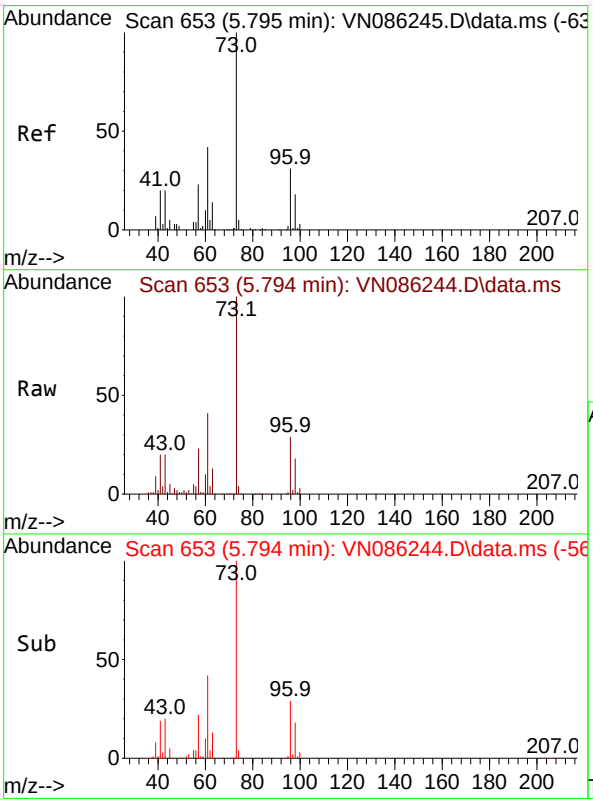
#23
tert-Butyl Alcohol
Concen: 283.431 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 59 Resp: 185093

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0#

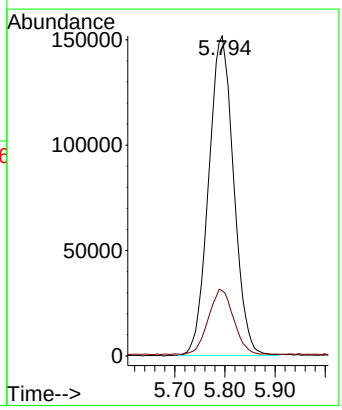


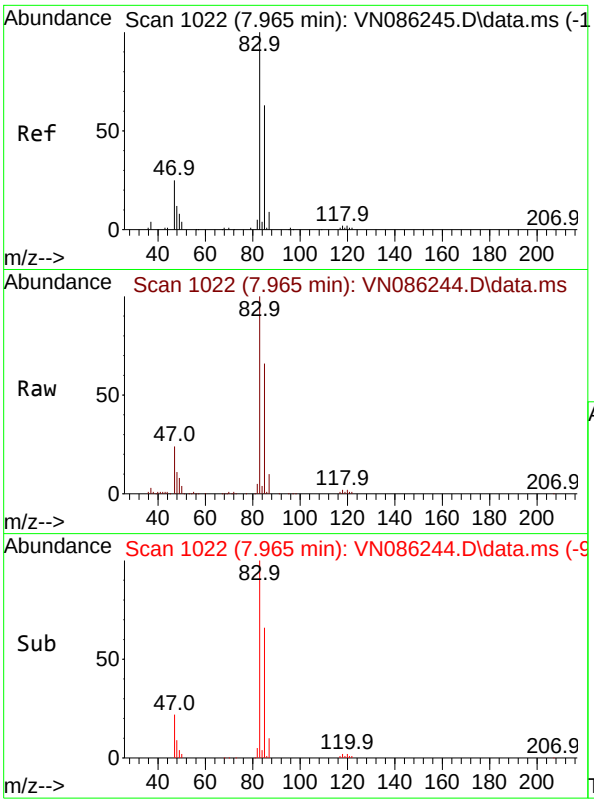


#24
Methyl tert-Butyl Ether
Concen: 55.313 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 73 Resp: 526838

Ion	Ratio	Lower	Upper
73	100		
43	20.3	16.8	25.2



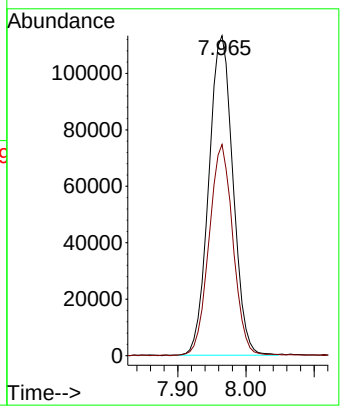


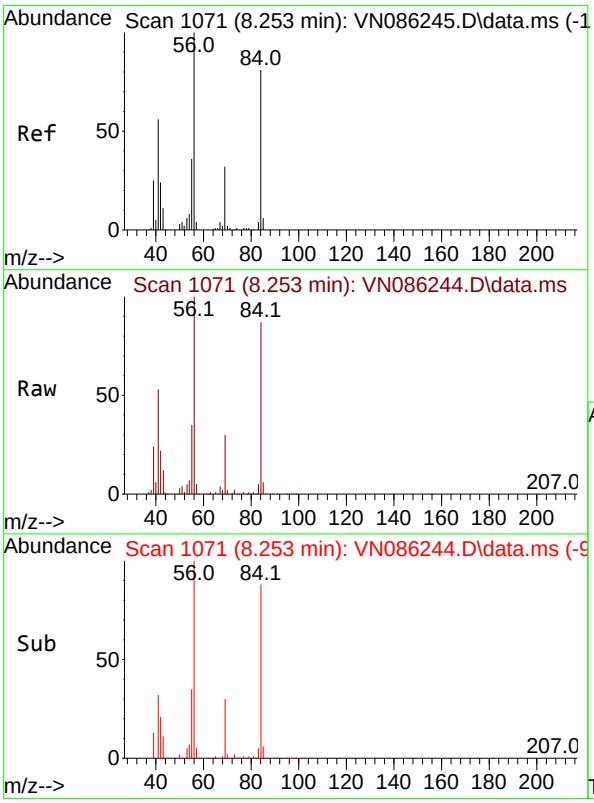
#25
Chloroform
Concen: 55.484 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 83 Resp: 279630

Ion	Ratio	Lower	Upper
83	100		
85	65.9	50.5	75.7

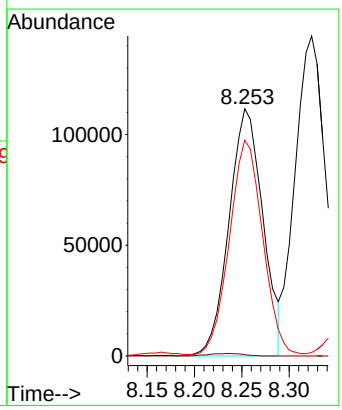


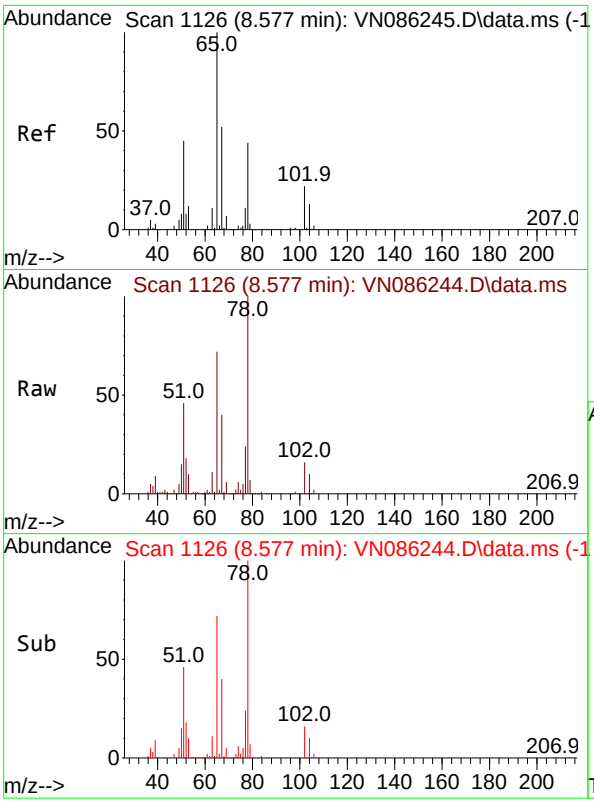


#26
Cyclohexane
Concen: 56.272 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 56 Resp: 278241

Ion	Ratio	Lower	Upper
56	100		
89	1.0	0.0	0.0#
84	86.0	69.0	103.4



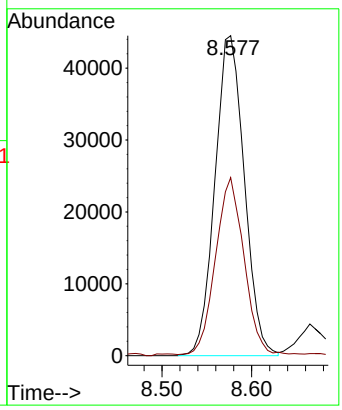


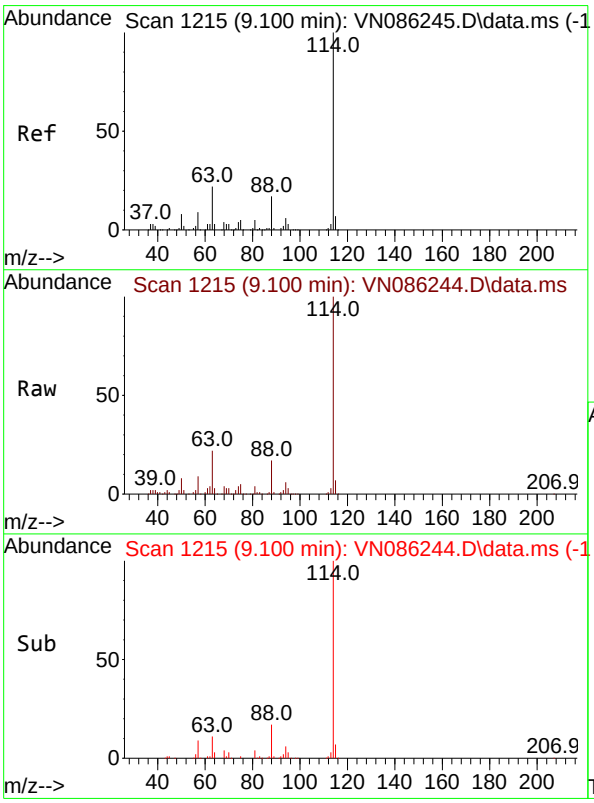
#27
1,2-Dichloroethane-d4
Concen: 29.892 ug/l
RT: 8.577 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 65 Resp: 101225

Ion	Ratio	Lower	Upper
65	100		
67	53.0	43.4	65.2

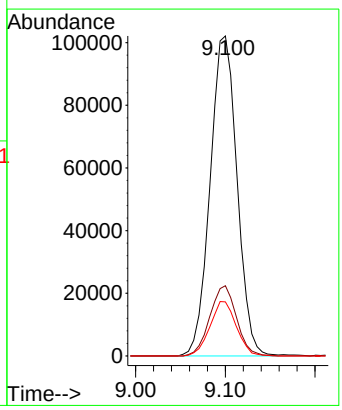


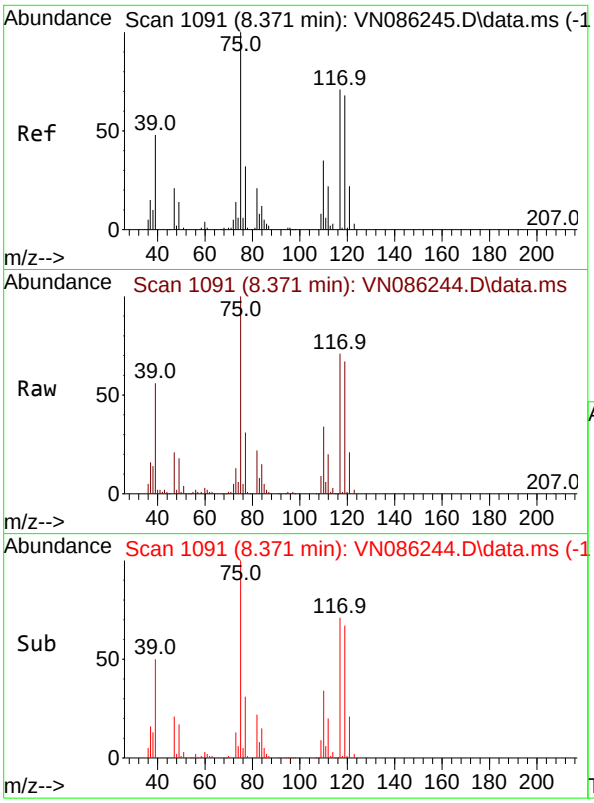


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:114 Resp: 212849

Ion	Ratio	Lower	Upper
114	100		
63	21.7	17.8	26.6
88	16.7	13.4	20.2



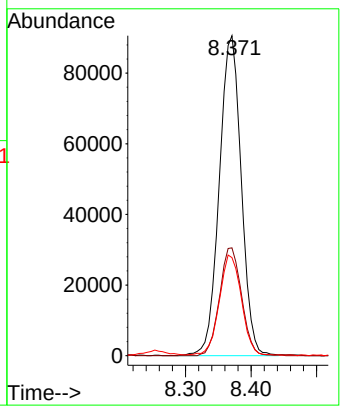


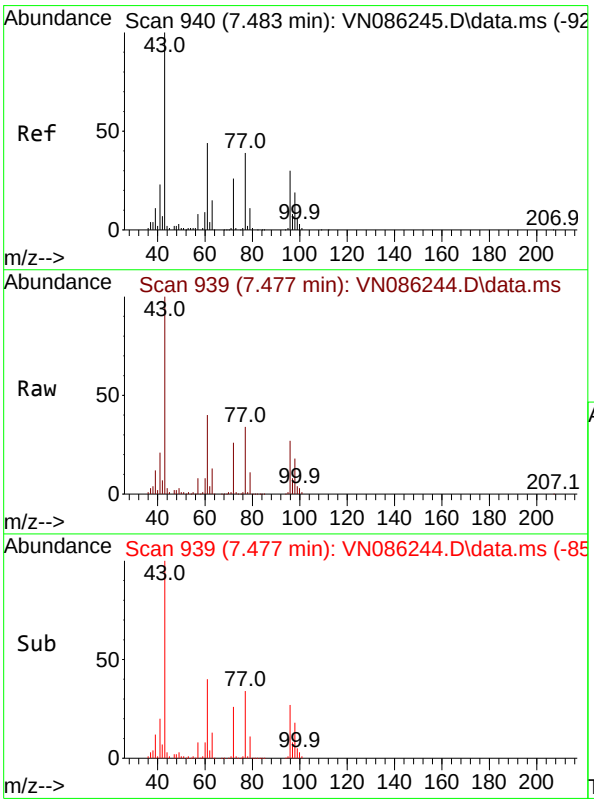
#29
1,1-Dichloropropene
Concen: 55.081 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 75 Resp: 210025

Ion	Ratio	Lower	Upper
75	100		
110	33.9	0.0	68.6
77	31.4	0.0	63.8

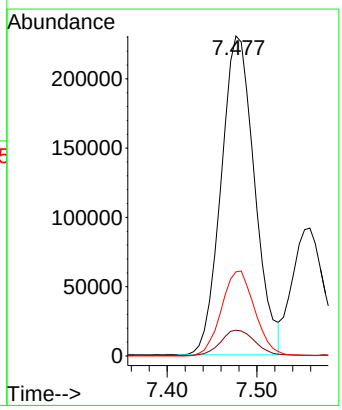


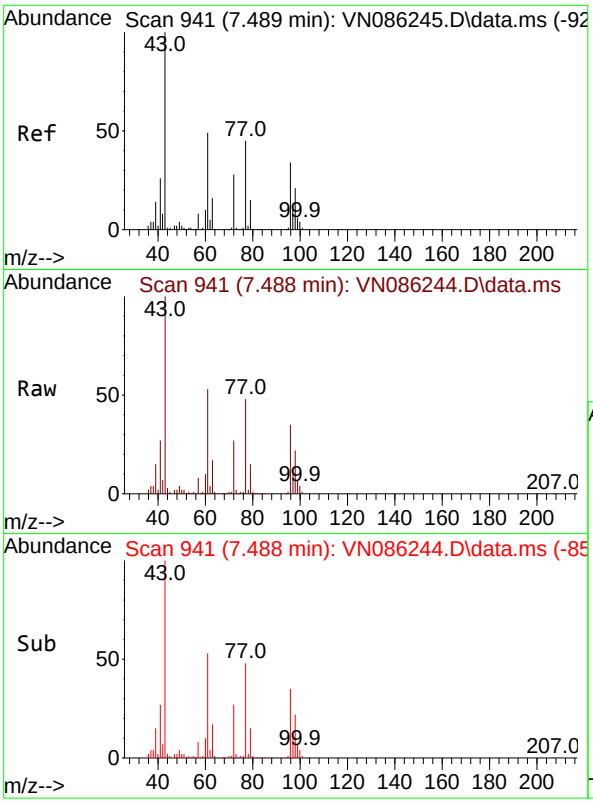


#30
2-Butanone
Concen: 282.334 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 596520

Ion	Ratio	Lower	Upper
43	100		
57	8.3	6.4	9.6
72	26.5	21.5	32.3



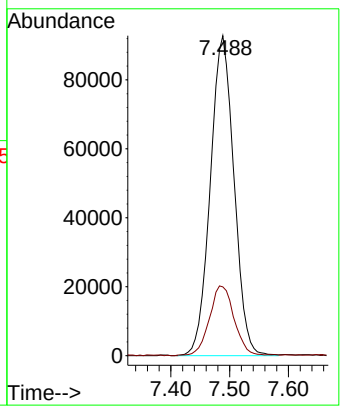


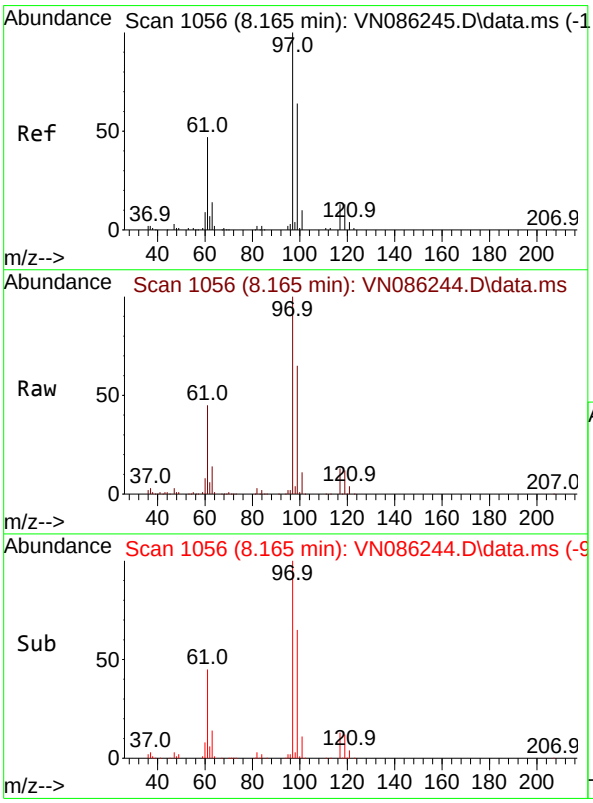
#31
2,2-Dichloropropane
Concen: 55.404 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 77 Resp: 260037

Ion	Ratio	Lower	Upper
77	100		
97	22.2	18.8	28.2

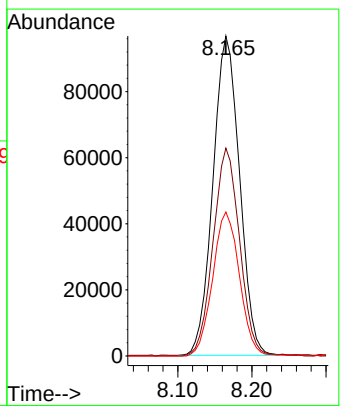


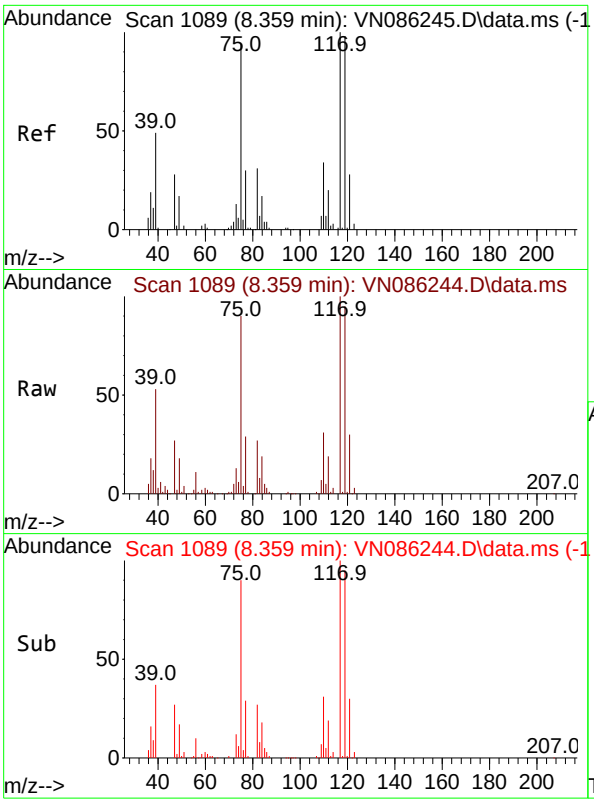


#32
1,1,1-Trichloroethane
Concen: 54.920 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 97 Resp: 240887

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.4	77.2
61	45.4	37.0	55.6



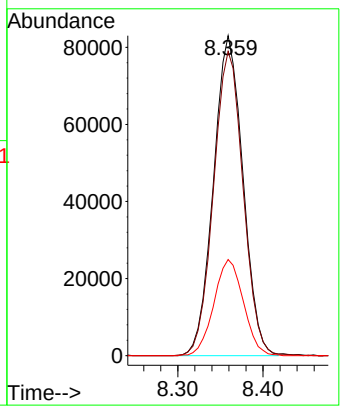


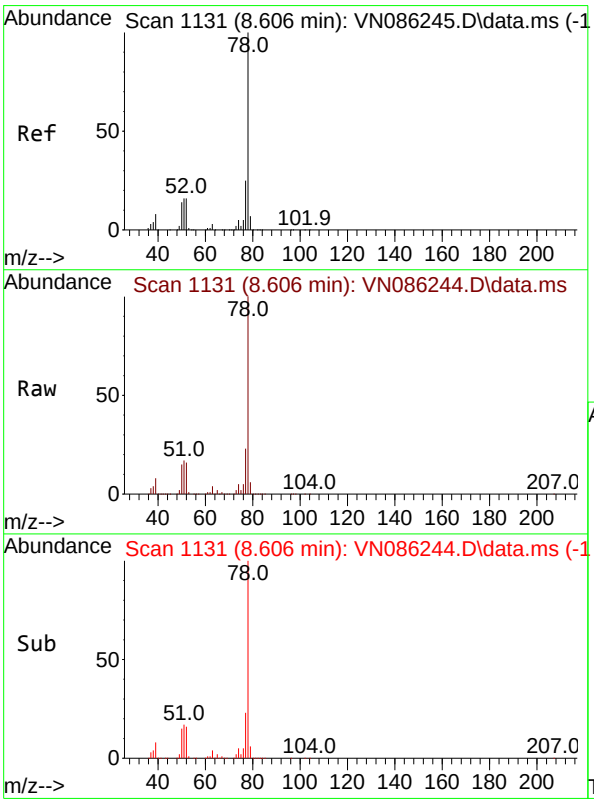
#33
Carbon Tetrachloride
Concen: 56.865 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:117 Resp: 199323

Ion	Ratio	Lower	Upper
117	100		
119	94.9	78.3	117.5
121	30.0	22.5	33.7

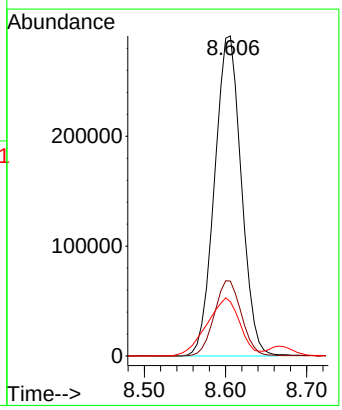


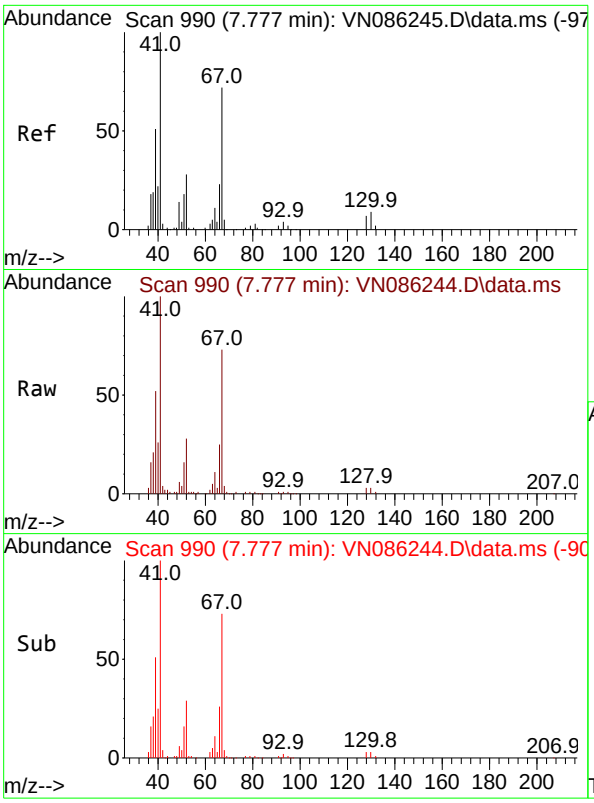


#34
Benzene
Concen: 54.974 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 78 Resp: 666877

Ion	Ratio	Lower	Upper
78	100		
77	23.4	20.0	30.0
51	16.4	12.9	19.3



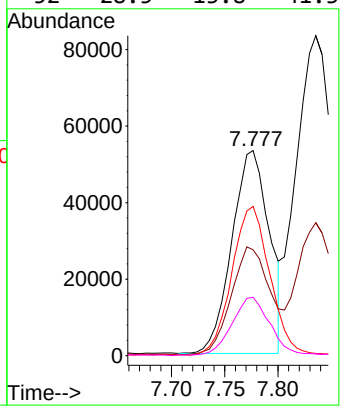


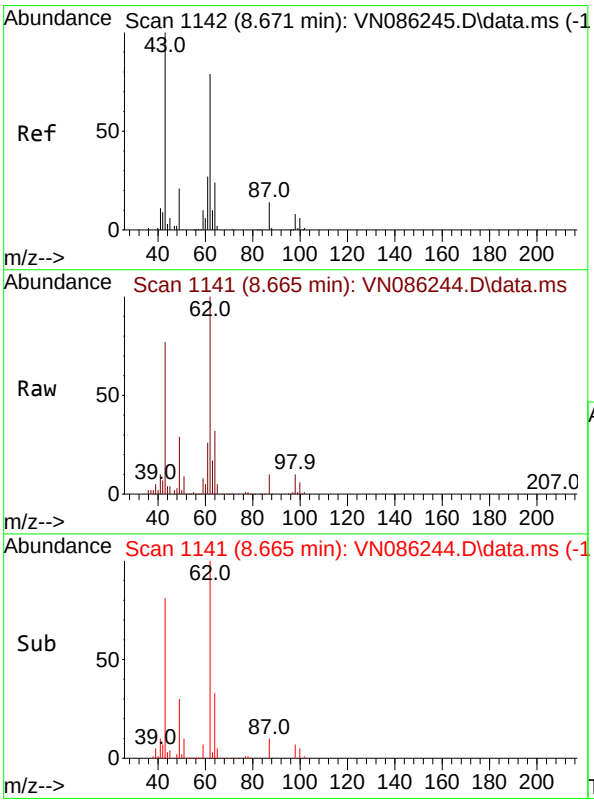
#35
Methacrylonitrile
Concen: 54.448 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 41 Resp: 129688

Ion	Ratio	Lower	Upper
41	100		
39	51.4	25.8	77.3
67	73.1	36.0	108.0
52	28.5	13.8	41.3

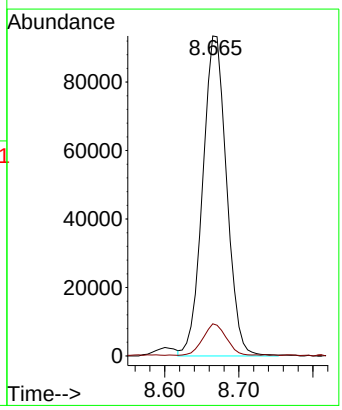


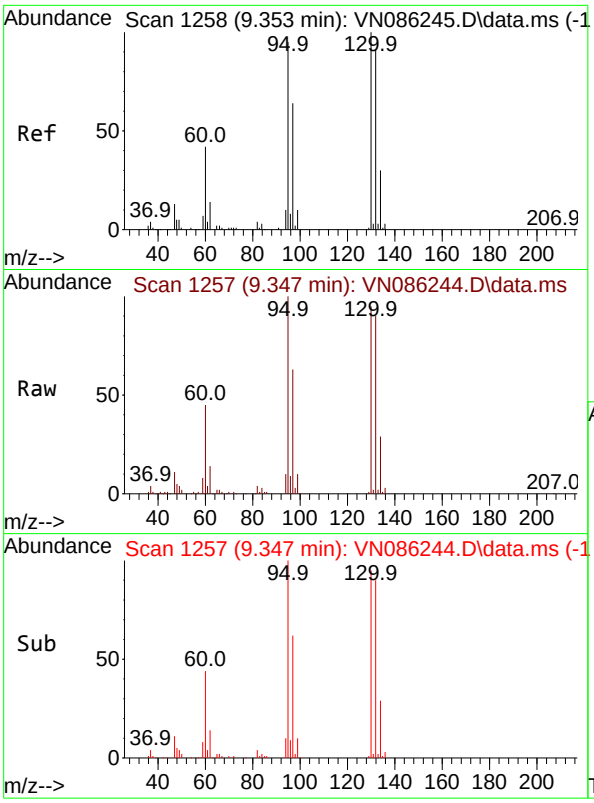


#36
1,2-Dichloroethane
Concen: 55.252 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 62 Resp: 209738

Ion	Ratio	Lower	Upper
62	100		
98	9.5	8.6	12.8



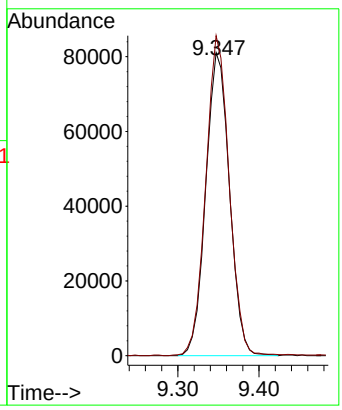


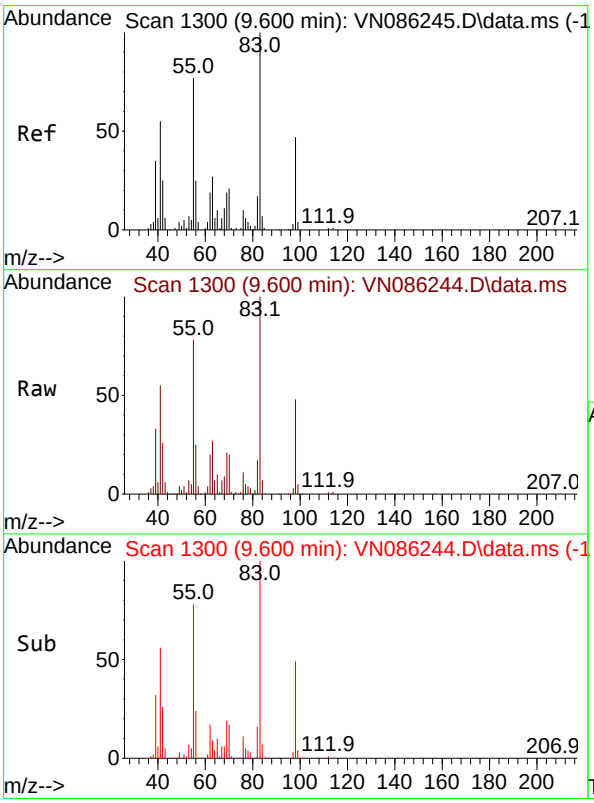
#37
Trichloroethene
Concen: 56.109 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:130 Resp: 164224

Ion	Ratio	Lower	Upper
130	100		
95	105.2	76.4	114.6

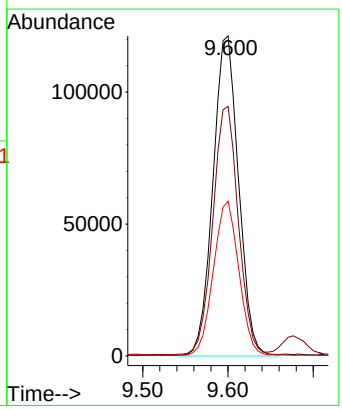


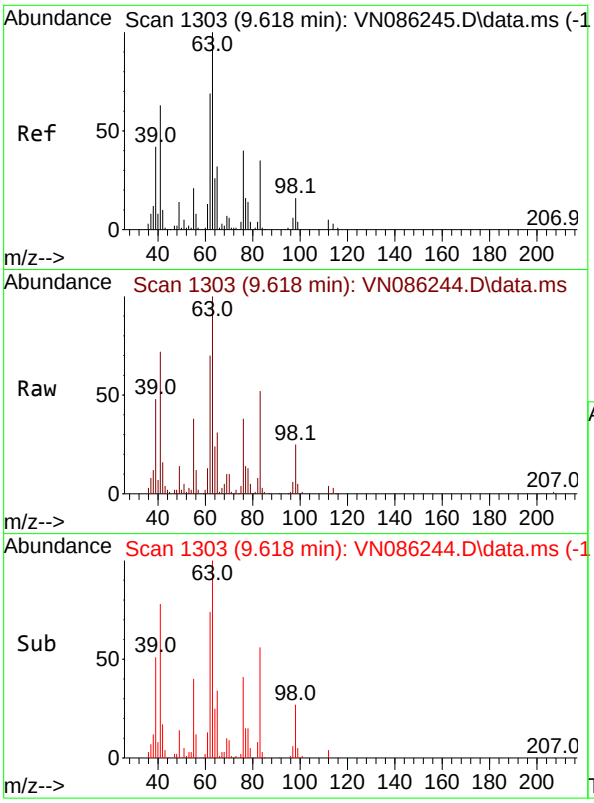


#38
Methylcyclohexane
Concen: 54.191 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 83 Resp: 253415

Ion	Ratio	Lower	Upper
83	100		
55	77.0	38.5	115.5
98	47.8	24.4	73.2



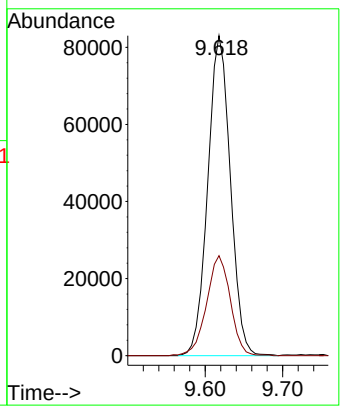


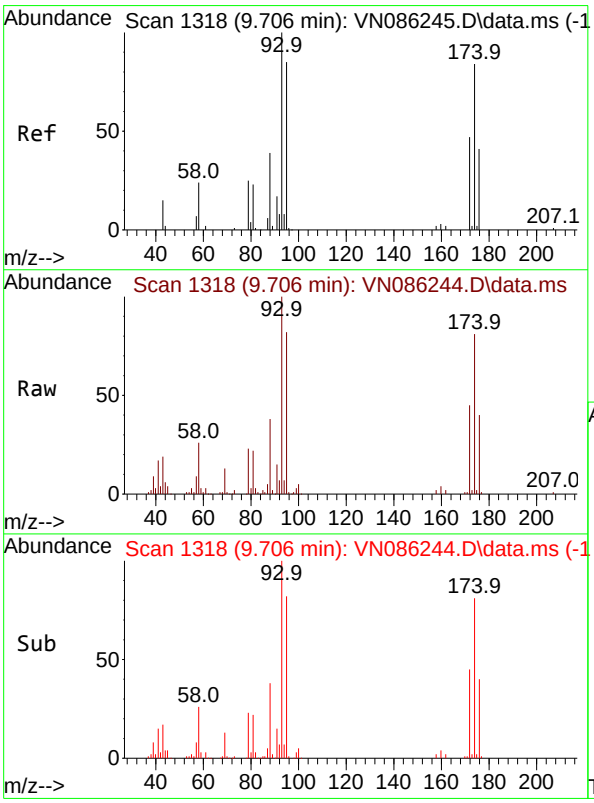
#39
1,2-Dichloropropane
Concen: 55.783 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 63 Resp: 168378

Ion	Ratio	Lower	Upper
63	100		
65	31.2	26.0	39.0

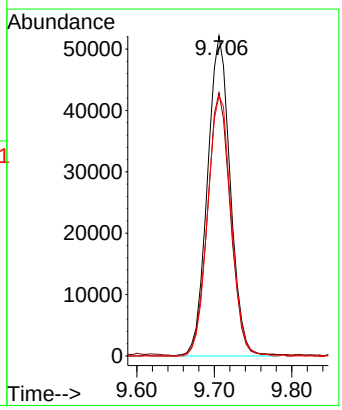


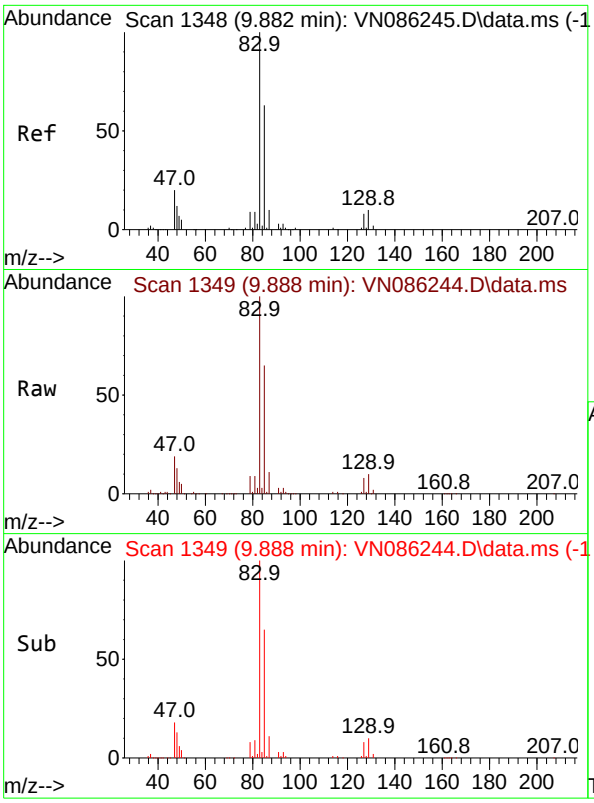


#40
Dibromomethane
Concen: 54.730 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 93 Resp: 106697

Ion	Ratio	Lower	Upper
93	100		
95	82.5	0.0	169.0
174	83.6	0.0	168.0



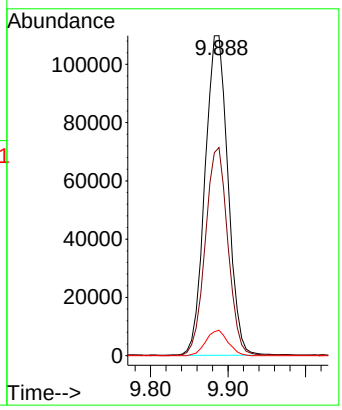


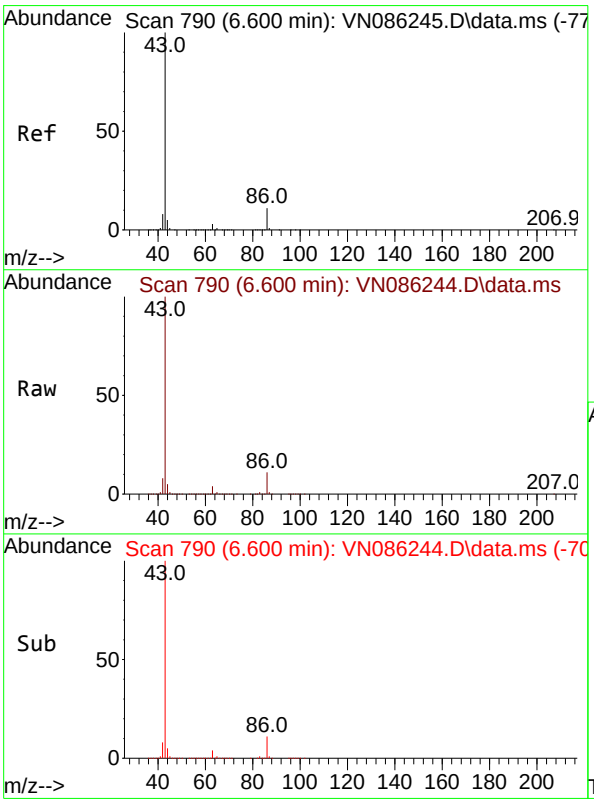
#41
Bromodichloromethane
Concen: 53.865 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 83 Resp: 225600

Ion	Ratio	Lower	Upper
83	100		
85	65.0	50.2	75.2
127	8.0	6.2	9.4

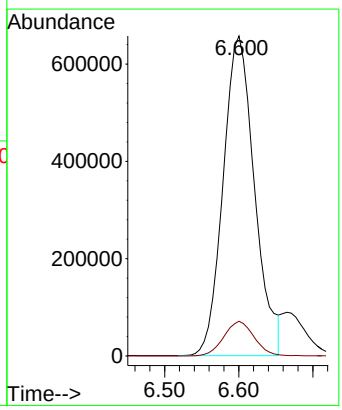


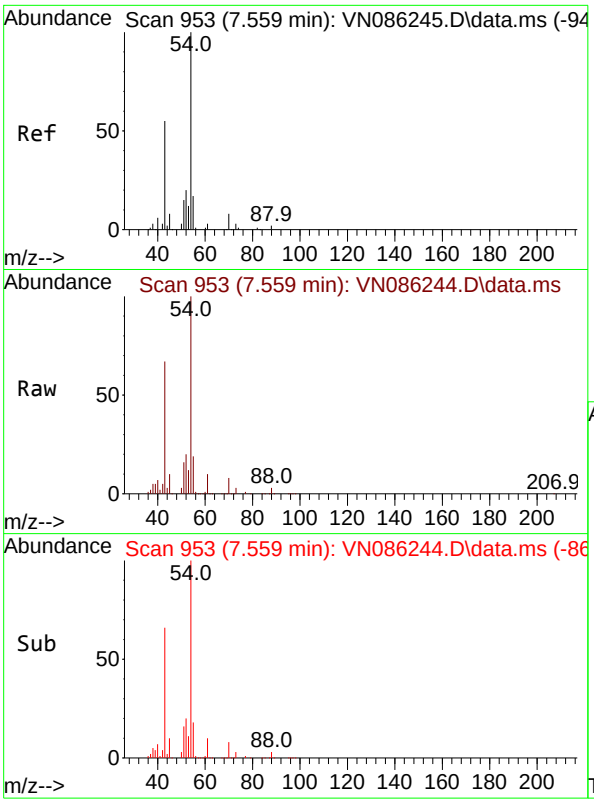


#42
Vinyl Acetate
Concen: 269.341 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 1937093

Ion	Ratio	Lower	Upper
43	100		
86	10.5	8.4	12.6



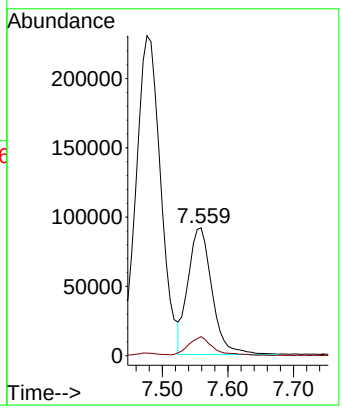


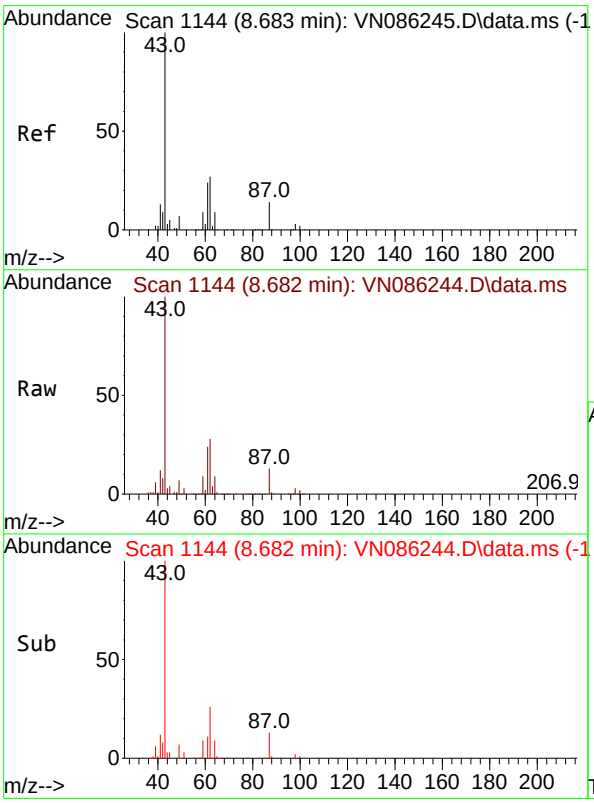
#43
Ethyl Acetate
Concen: 54.775 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 43 Resp: 233433

Ion	Ratio	Lower	Upper
43	100		
45	14.6	11.2	16.8

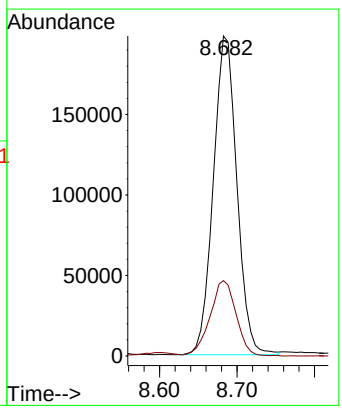


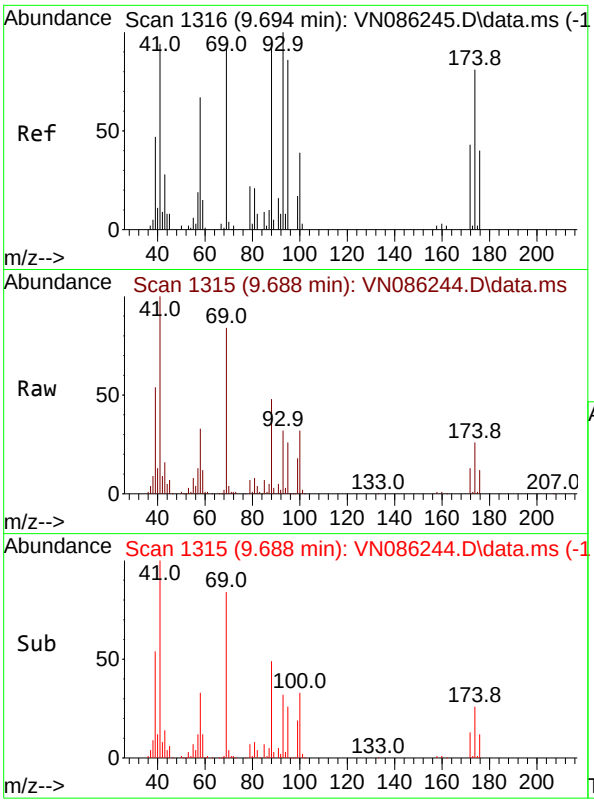


#44
Isopropyl Acetate
Concen: 53.034 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 419280

Ion	Ratio	Lower	Upper
43	100		
61	26.1	20.5	30.7



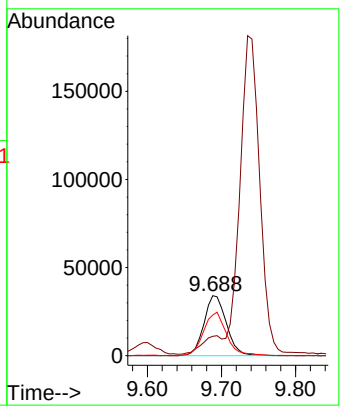


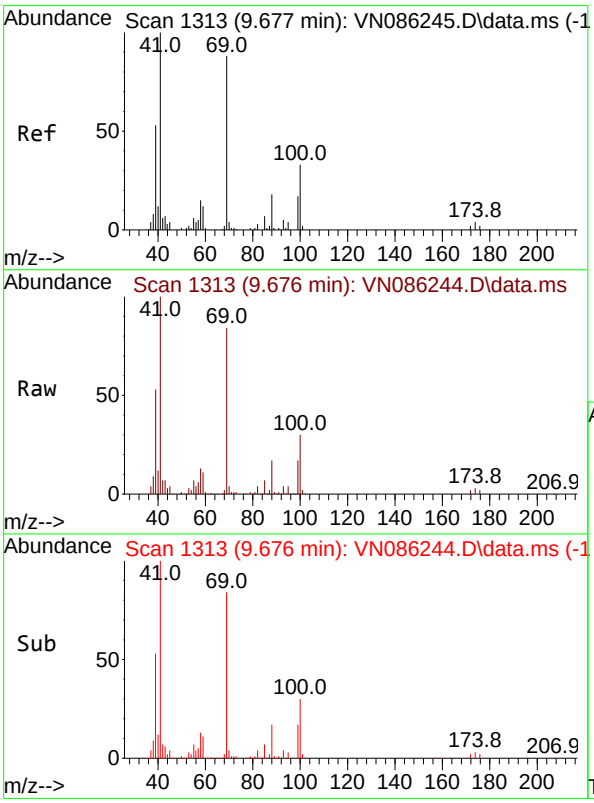
#45
1,4-Dioxane
Concen: 1134.960 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 88 Resp: 71351

Ion	Ratio	Lower	Upper
88	100		
43	27.1	14.4	21.6#
58	74.0	59.8	89.8

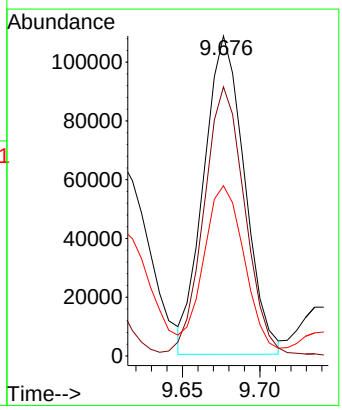


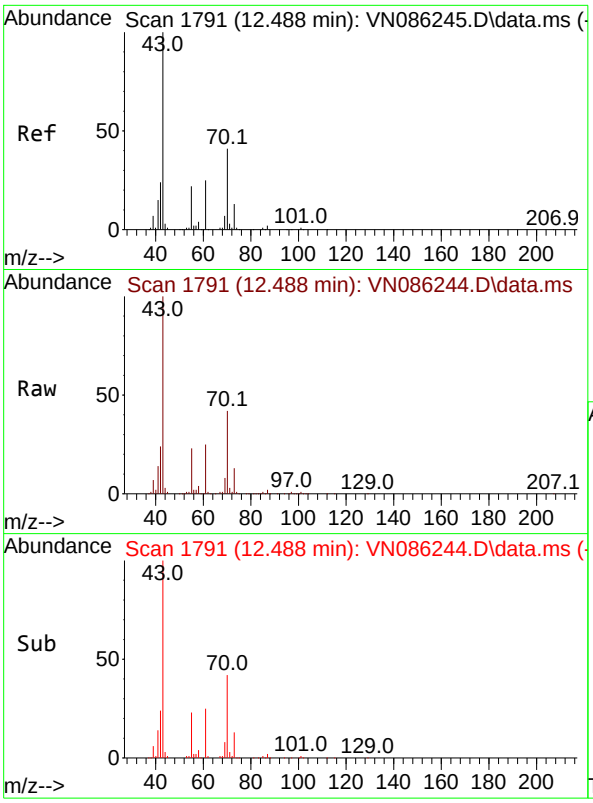


#46
Methyl methacrylate
Concen: 56.778 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 41 Resp: 197782

Ion	Ratio	Lower	Upper
41	100		
69	85.6	43.2	129.6
39	53.3	26.4	79.0



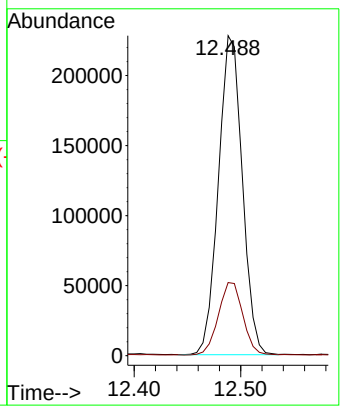


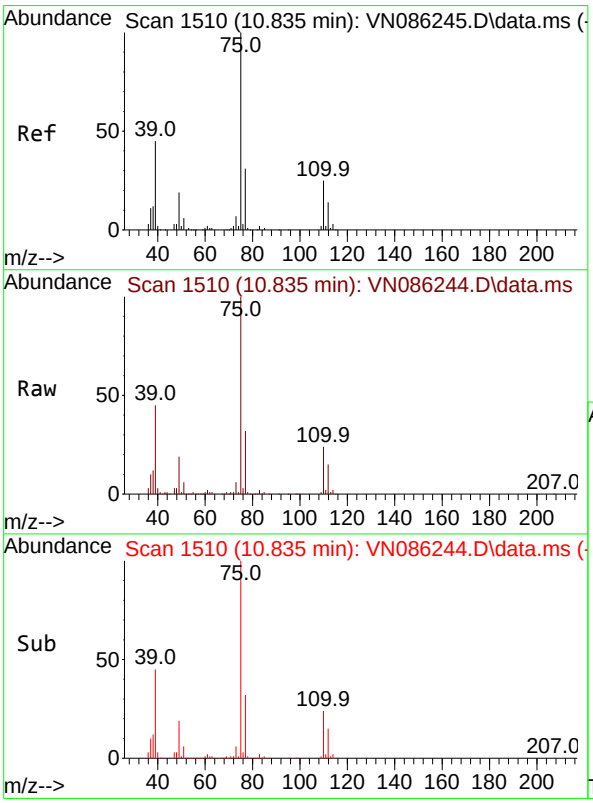
#47
n-amyl Acetate
Concen: 55.417 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 43 Resp: 354004

Ion	Ratio	Lower	Upper
43	100		
55	23.3	19.0	28.4

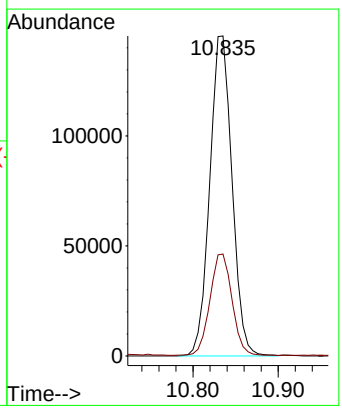


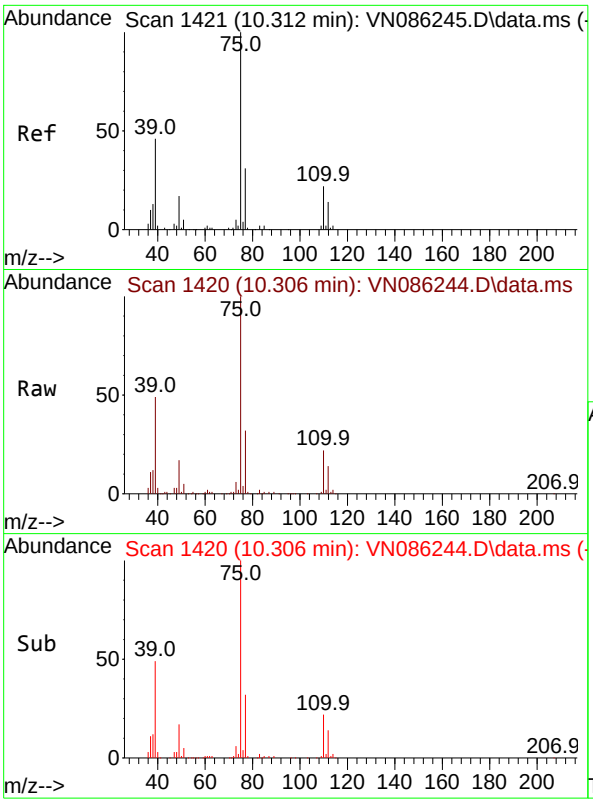


#48
t-1,3-Dichloropropene
Concen: 55.817 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 264279

Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.1	37.7



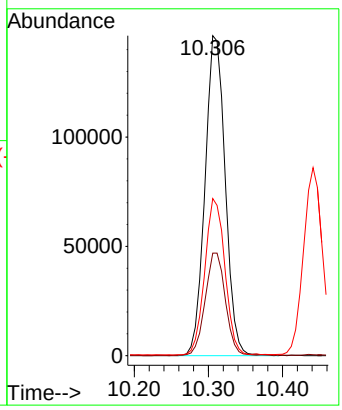


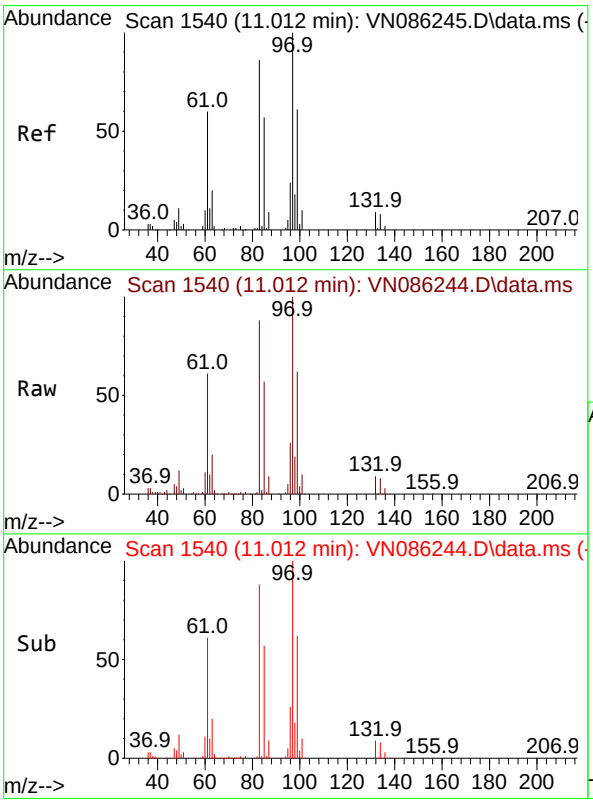
#49
cis-1,3-Dichloropropene
Concen: 55.377 ug/l
RT: 10.306 min Scan# 14
Delta R.T. -0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 75 Resp: 277506

Ion	Ratio	Lower	Upper
75	100		
77	31.9	25.0	37.4
39	48.8	36.7	55.1

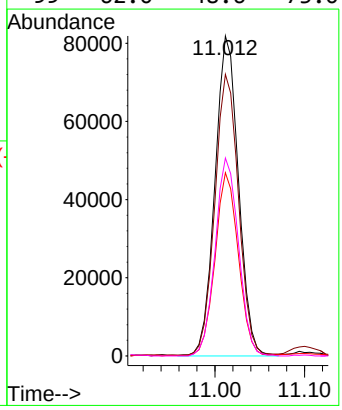


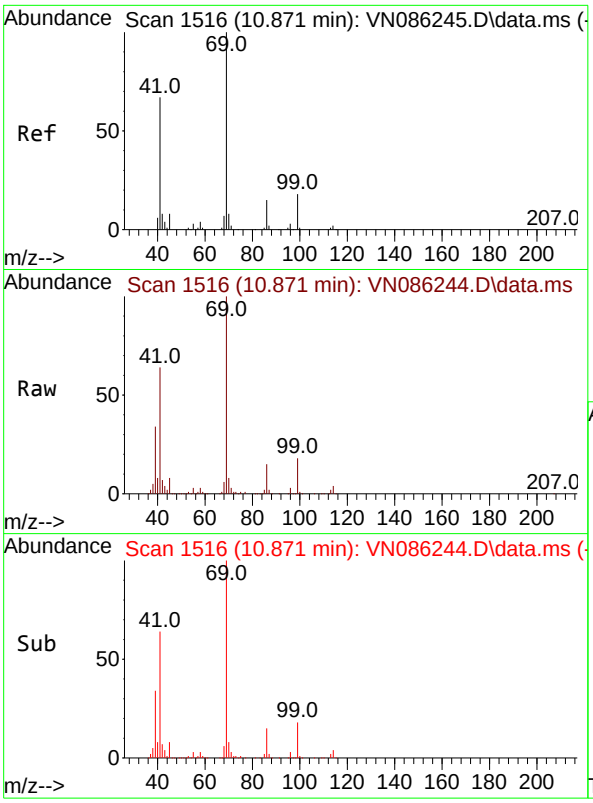


#50
1,1,2-Trichloroethane
Concen: 54.493 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 97 Resp: 149001

Ion	Ratio	Lower	Upper
97	100		
83	88.0	68.6	103.0
85	57.2	45.9	68.9
99	62.0	48.6	73.0



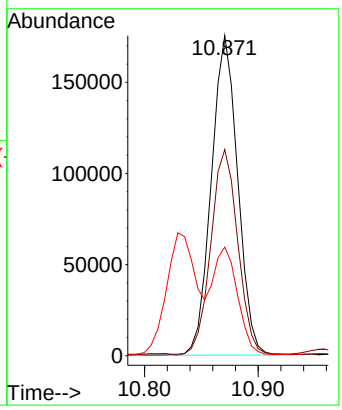


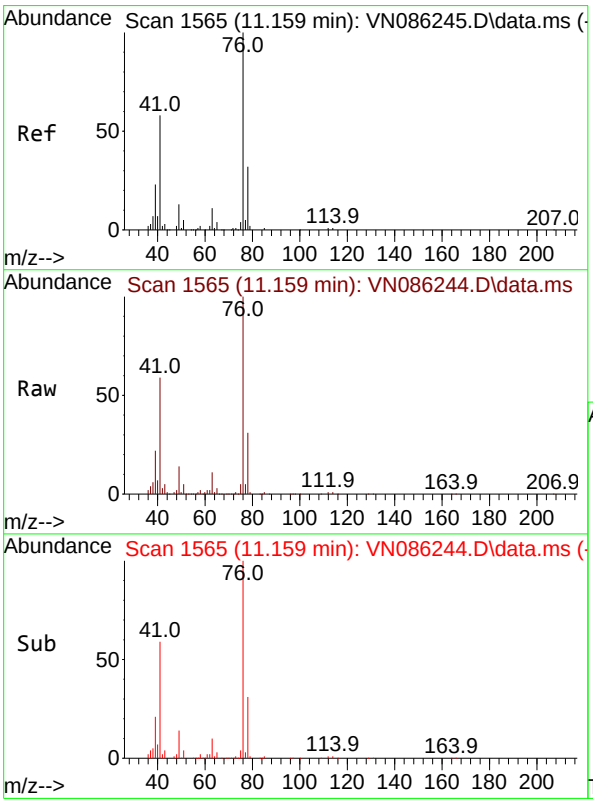
#51
Ethyl methacrylate
Concen: 55.717 ug/l
RT: 10.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 69 Resp: 283112

Ion	Ratio	Lower	Upper
69	100		
41	64.1	33.6	100.6
39	33.6	17.8	53.4

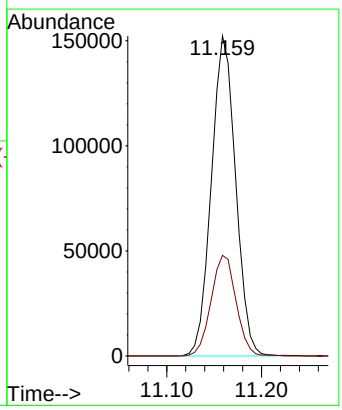


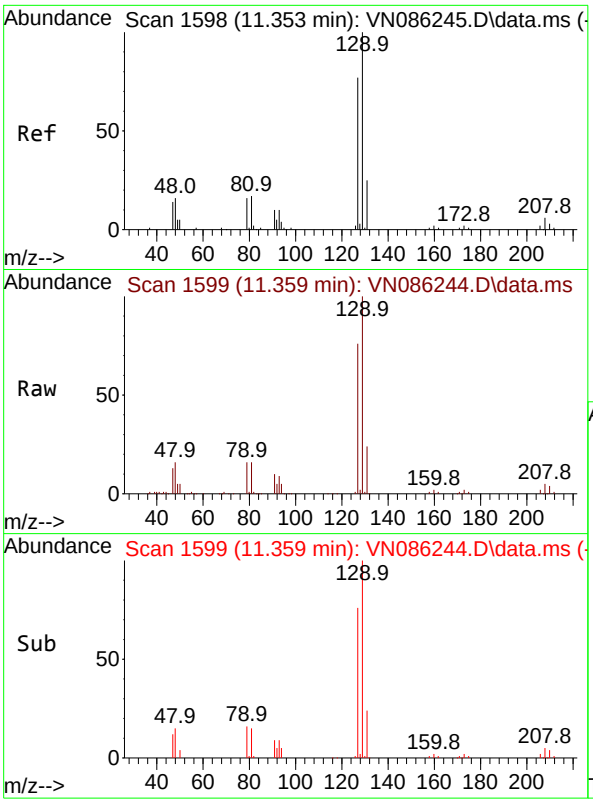


#52
1,3-Dichloropropane
Concen: 55.609 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 76 Resp: 271010

Ion	Ratio	Lower	Upper
76	100		
78	32.4	0.0	64.6



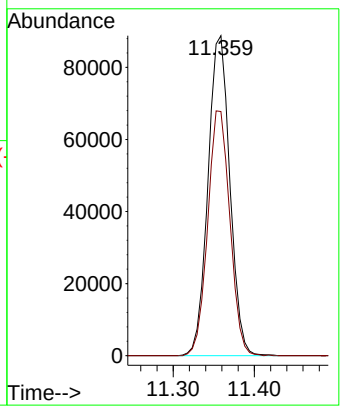


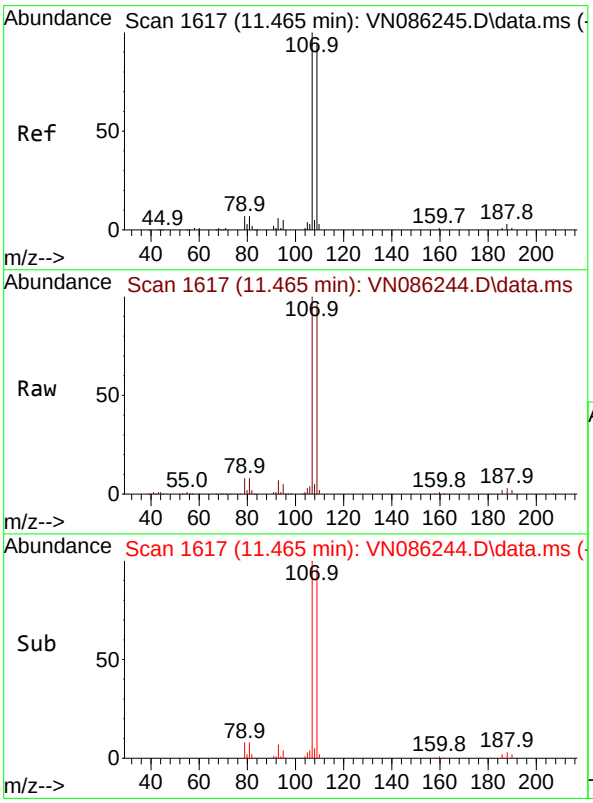
#53
Dibromochloromethane
Concen: 55.616 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:129 Resp: 166341

Ion	Ratio	Lower	Upper
129	100		
127	77.4	38.5	115.5

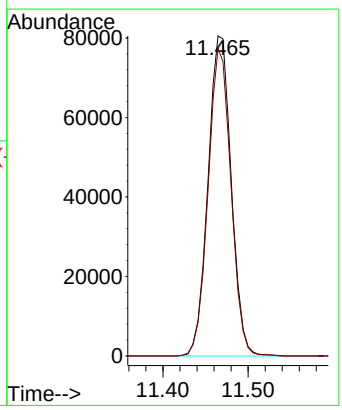


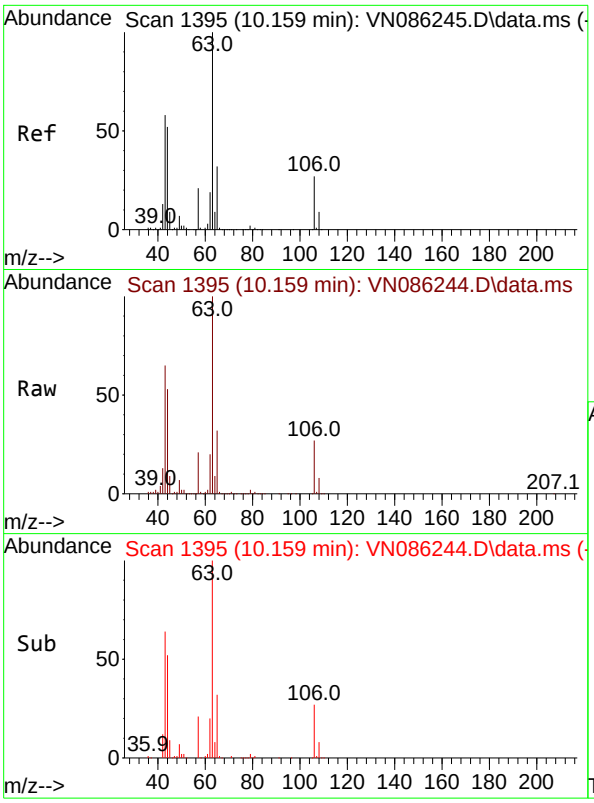


#54
1,2-Dibromoethane
Concen: 55.141 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:107 Resp: 152197

Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.2	112.8



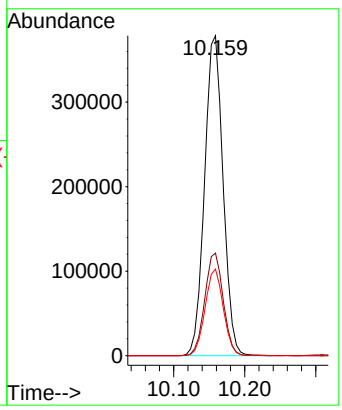


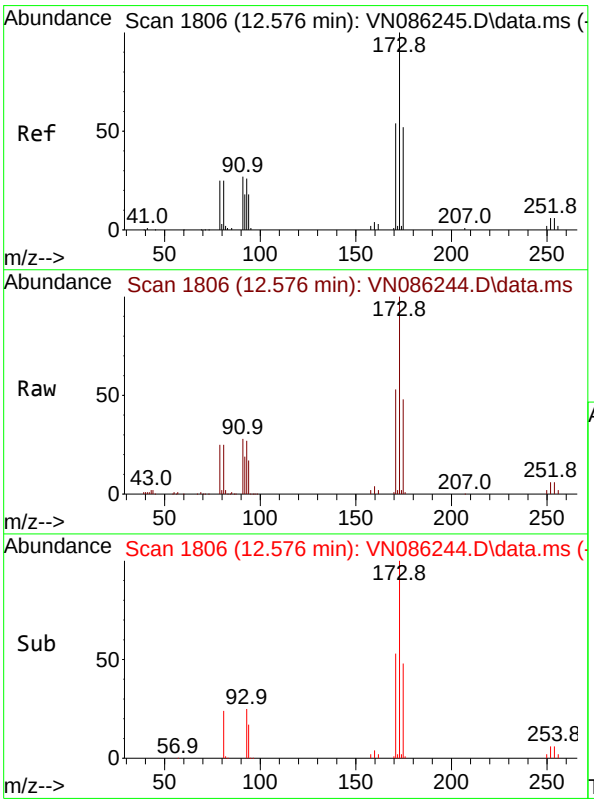
#55
2-Chloroethyl vinyl ether
Concen: 357.238 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 63 Resp: 685916

Ion	Ratio	Lower	Upper
63	100		
65	31.9	25.8	38.8
106	26.7	21.8	32.8

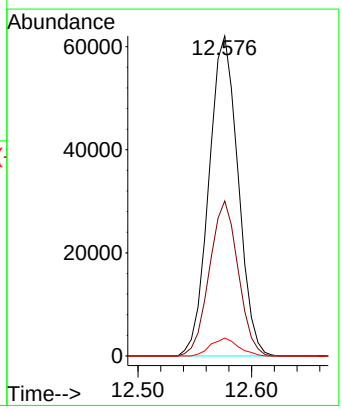


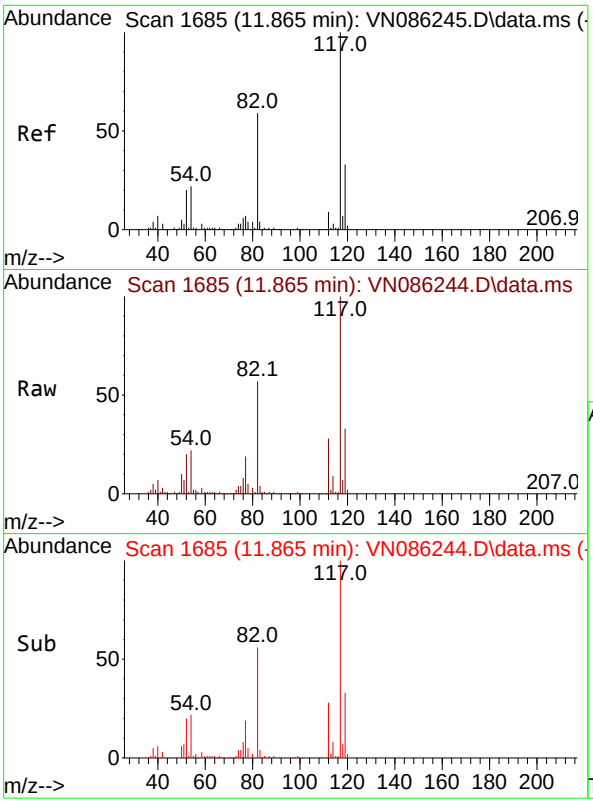


#56
Bromoform
Concen: 56.534 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:173 Resp: 110623

Ion	Ratio	Lower	Upper
173	100		
175	47.7	38.2	57.4
254	5.3	4.5	6.7



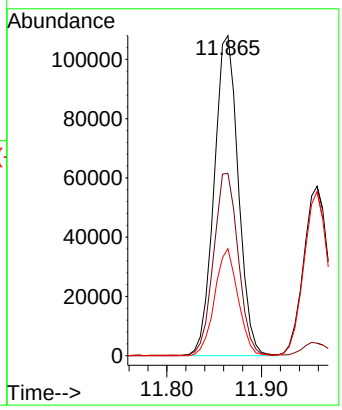


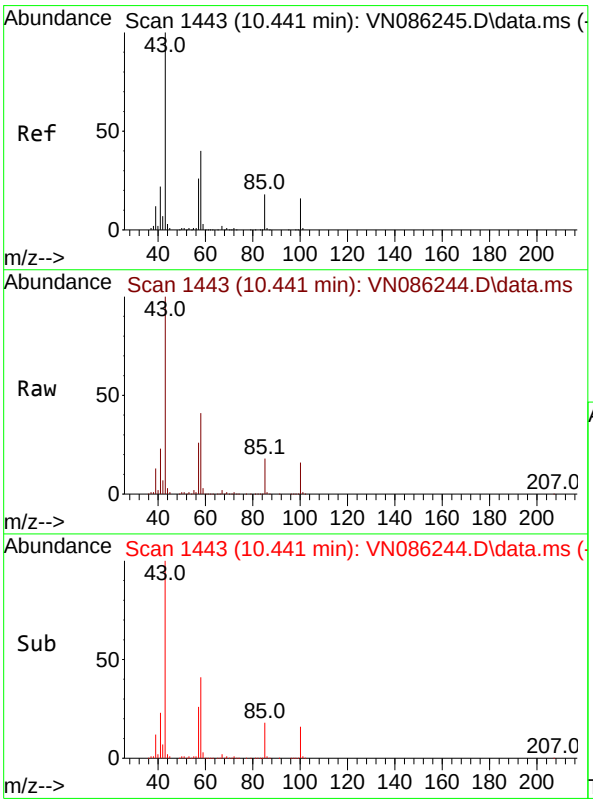
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:117 Resp: 191848

Ion	Ratio	Lower	Upper
117	100		
82	58.1	47.3	70.9
119	32.4	25.9	38.9

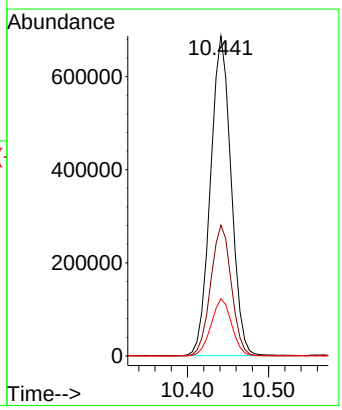


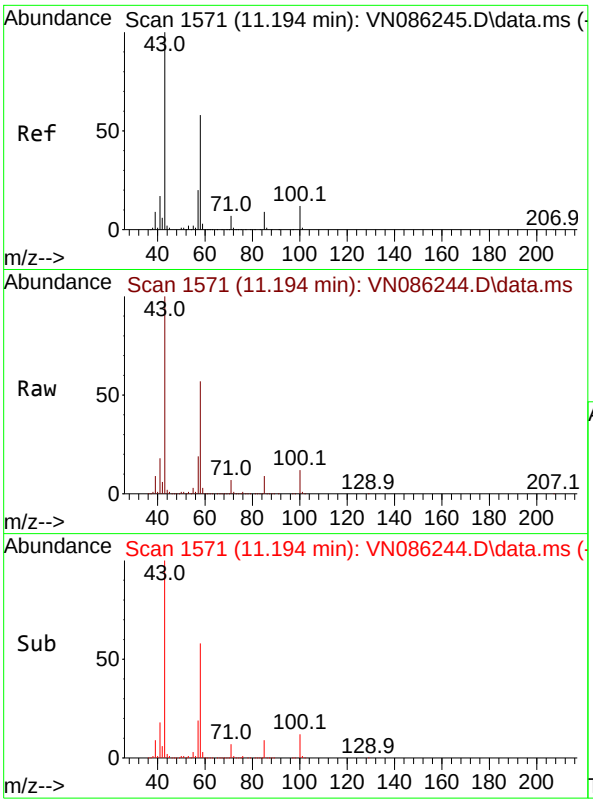


#58
4-Methyl-2-Pentanone
Concen: 278.421 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 43 Resp: 1212140

Ion	Ratio	Lower	Upper
43	100		
58	41.0	32.5	48.7
85	17.8	14.4	21.6



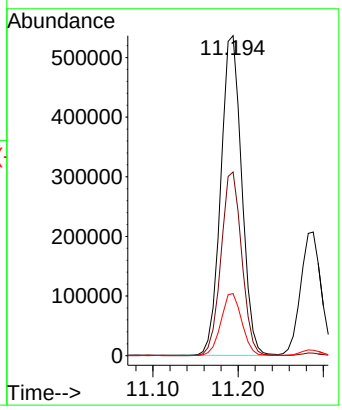


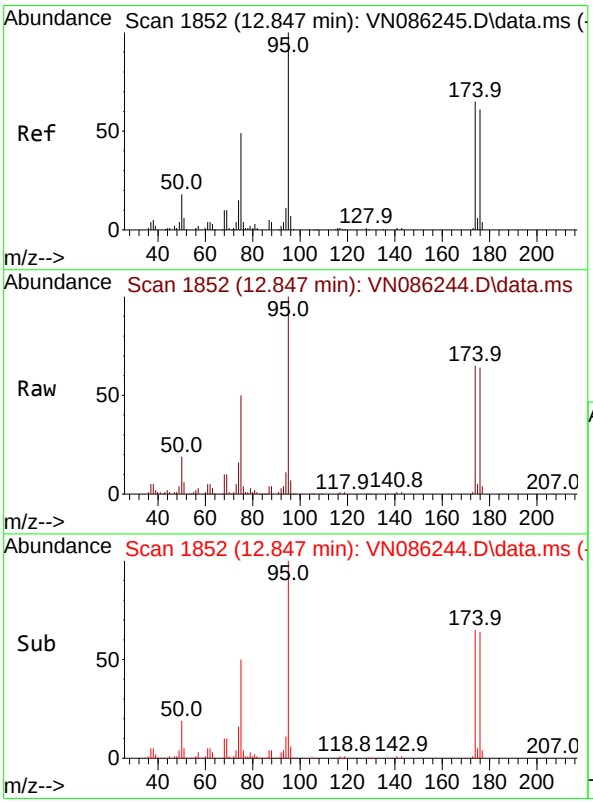
#59
2-Hexanone
Concen: 281.386 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 43 Resp: 912206

Ion	Ratio	Lower	Upper
43	100		
58	57.0	45.3	67.9
57	19.4	15.8	23.6

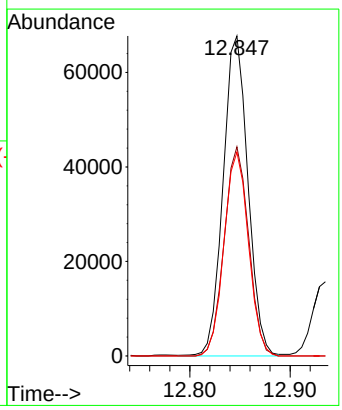


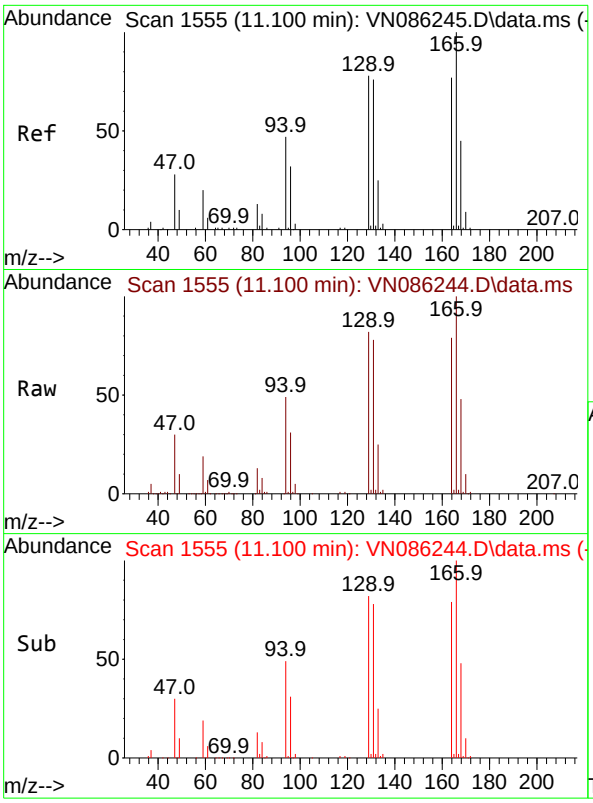


#60
4-Bromofluorobenzene
Concen: 30.469 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 95 Resp: 116379

Ion	Ratio	Lower	Upper
95	100		
174	64.5	52.7	79.1
176	62.7	49.8	74.8



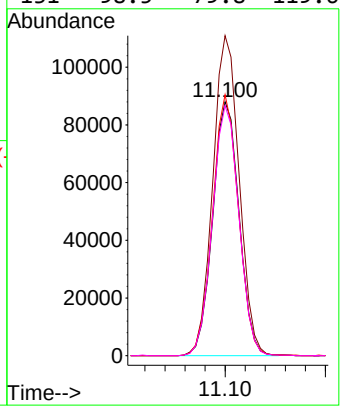


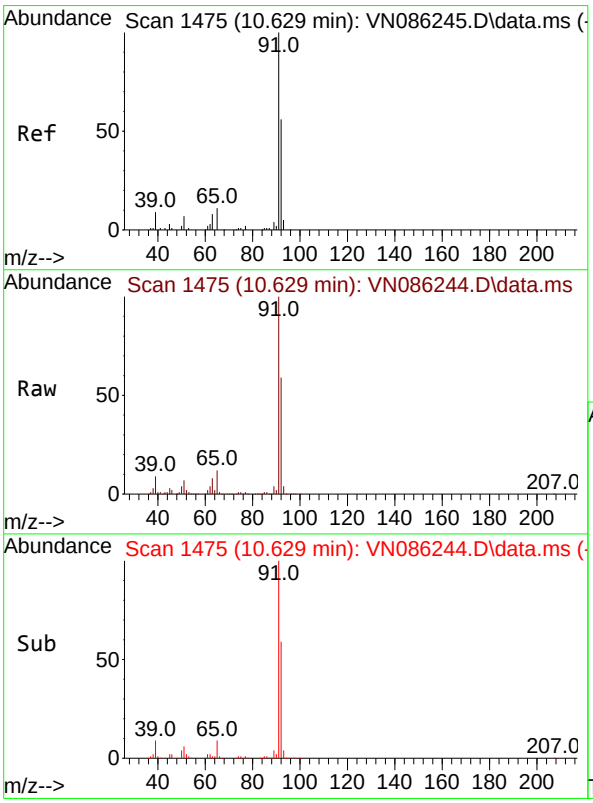
#61
Tetrachloroethene
Concen: 56.555 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:164 Resp: 160227

Ion	Ratio	Lower	Upper
164	100		
166	126.0	104.5	156.7
129	102.7	81.7	122.5
131	98.5	79.8	119.6

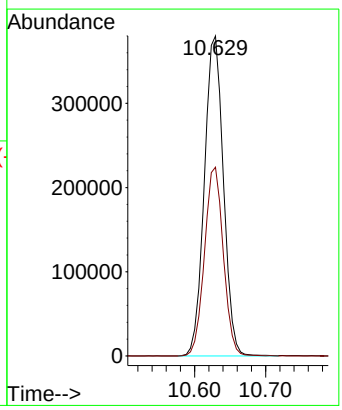


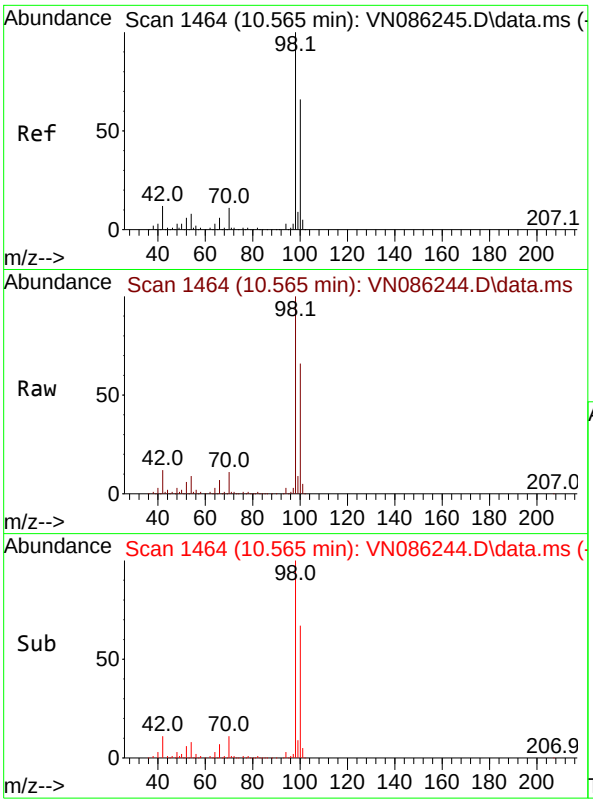


#62
Toluene
Concen: 55.140 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 709533

Ion	Ratio	Lower	Upper
91	100		
92	58.3	46.8	70.2



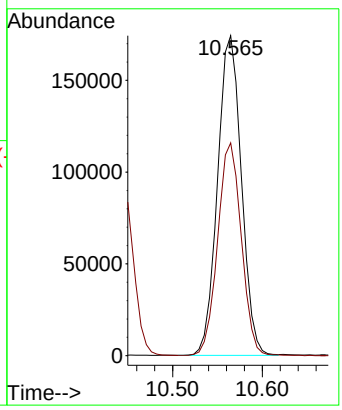


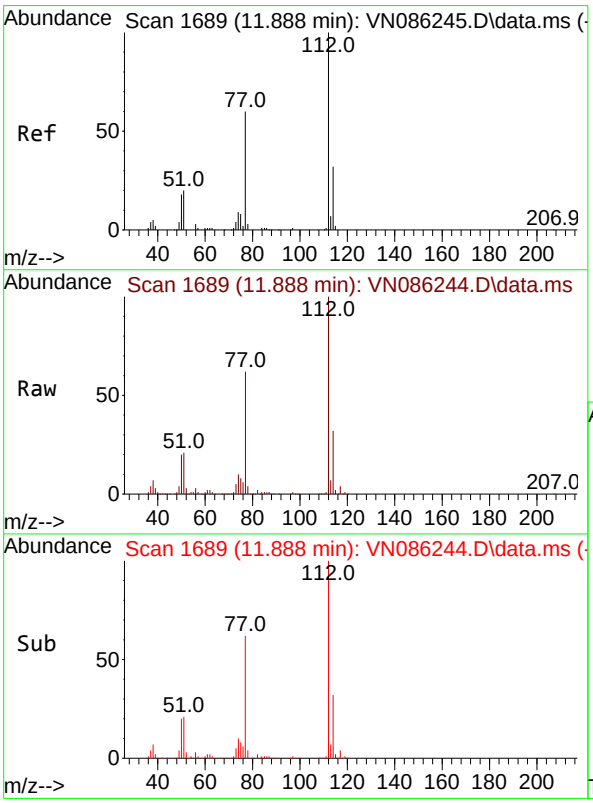
#63
Toluene-d8
Concen: 29.660 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 98 Resp: 321243

Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.3	78.5

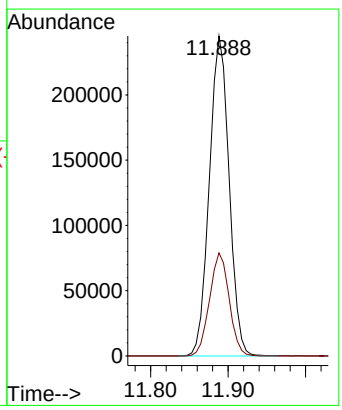


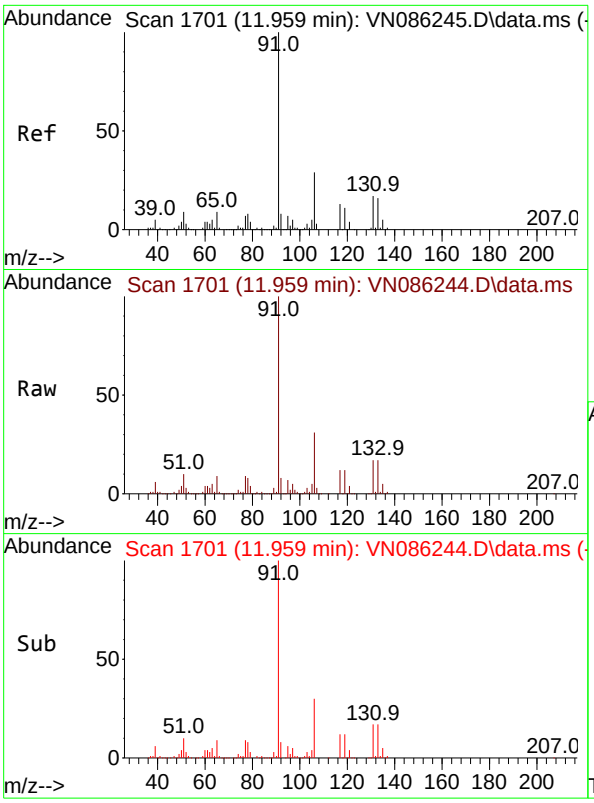


#64
Chlorobenzene
Concen: 55.211 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:112 Resp: 434051

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.6



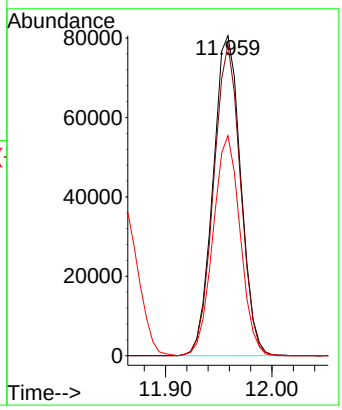


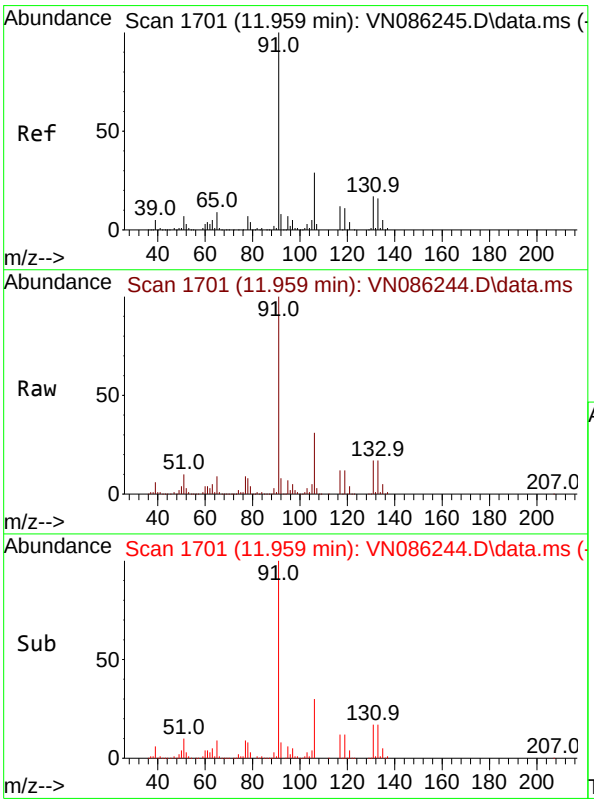
#65
1,1,1,2-Tetrachloroethane
Concen: 56.068 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:131 Resp: 145468

Ion	Ratio	Lower	Upper
131	100		
133	94.4	0.0	190.4
119	67.5	0.0	135.6

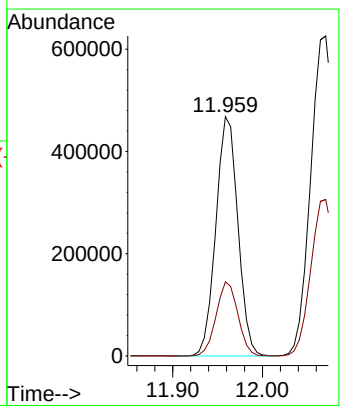


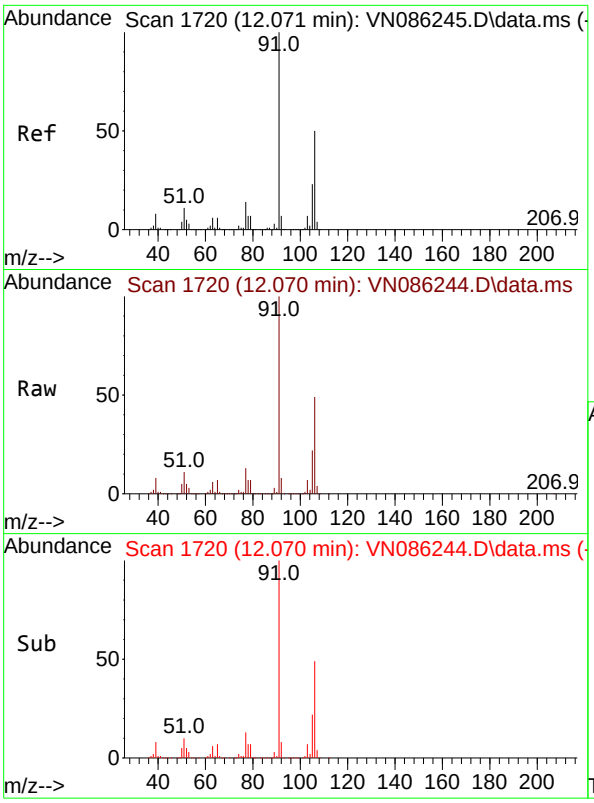


#66
Ethyl Benzene
Concen: 55.917 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 797966

Ion	Ratio	Lower	Upper
91	100		
106	30.9	23.4	35.0



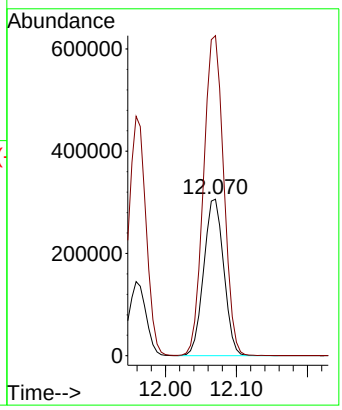


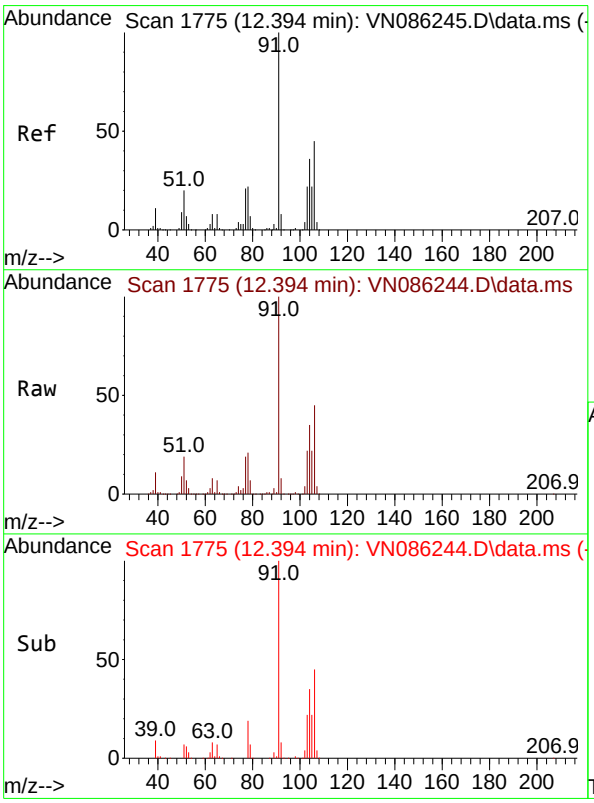
#67
m/p-Xylenes
Concen: 113.164 ug/l
RT: 12.070 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:106 Resp: 600484

Ion	Ratio	Lower	Upper
106	100		
91	205.7	164.5	246.7

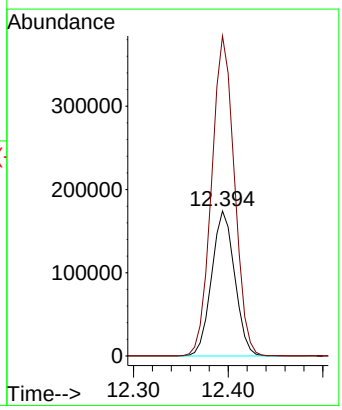


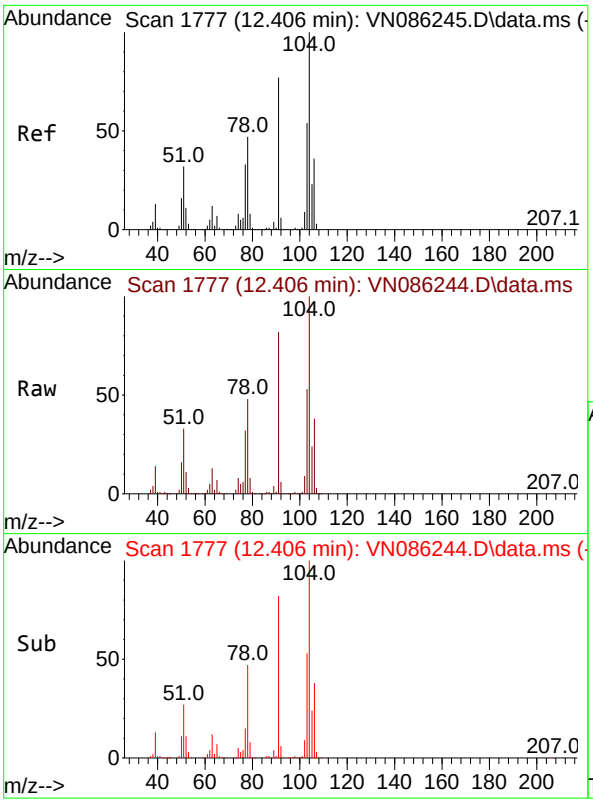


#68
o-Xylene
Concen: 56.428 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:106 Resp: 294512

Ion	Ratio	Lower	Upper
106	100		
91	218.4	109.8	329.4



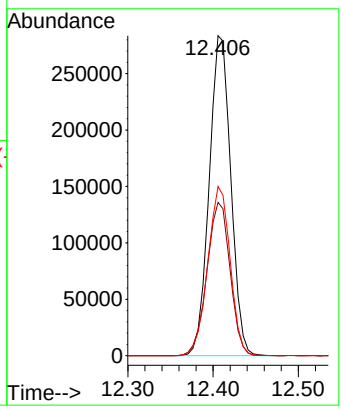


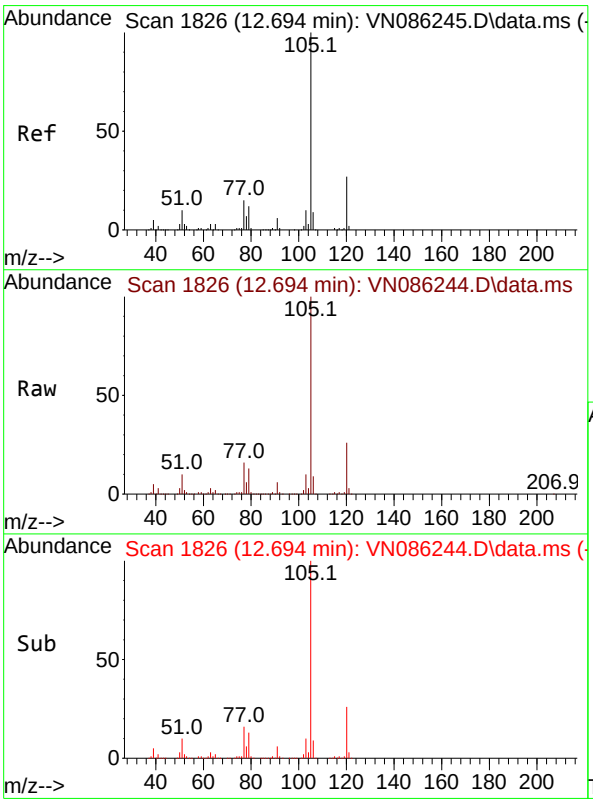
#69
Styrene
Concen: 56.790 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:104 Resp: 499886

Ion	Ratio	Lower	Upper
104	100		
78	51.3	41.4	62.0
103	54.8	44.2	66.4

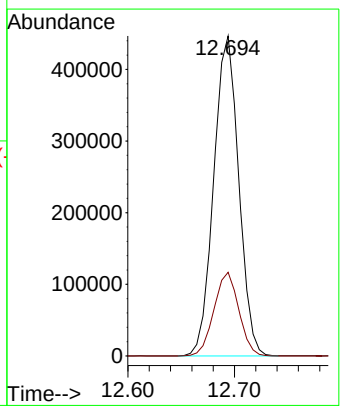


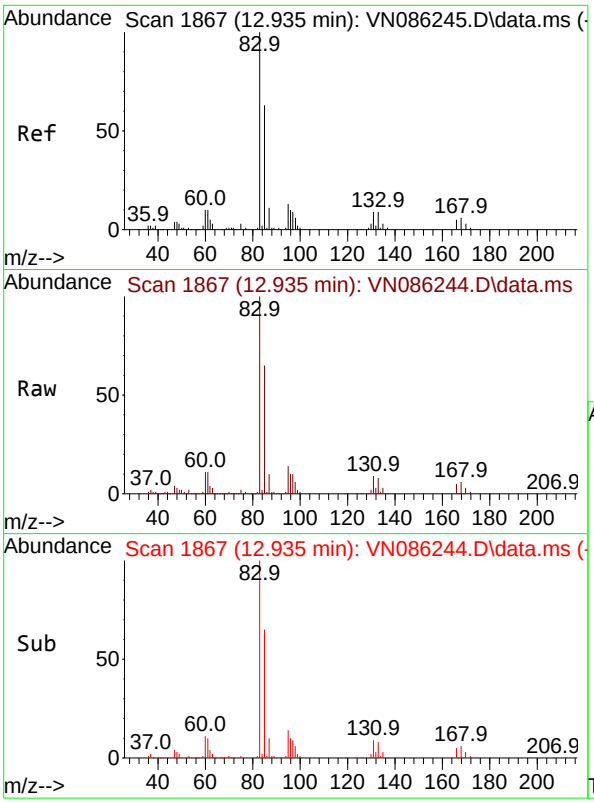


#70
Isopropylbenzene
Concen: 56.511 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 727241

Ion	Ratio	Lower	Upper
105	100		
120	26.0	18.3	34.1



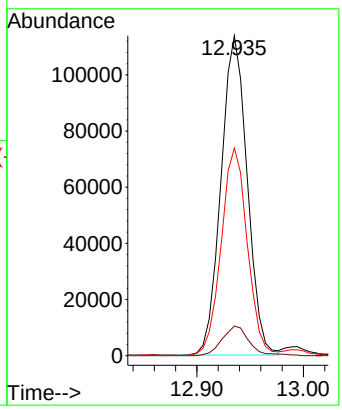


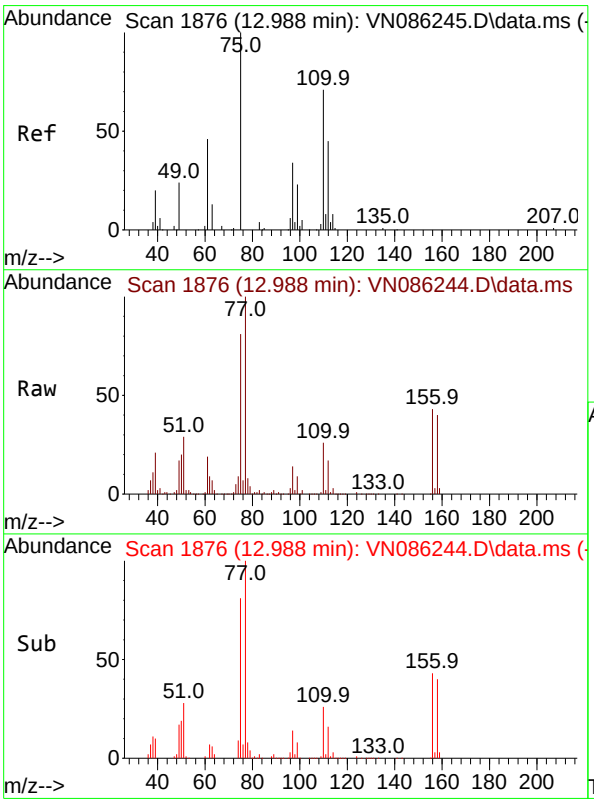
#71
1,1,2,2-Tetrachloroethane
Concen: 53.052 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 83 Resp: 194327

Ion	Ratio	Lower	Upper
83	100		
131	9.6	4.8	14.3
85	65.0	32.3	96.8

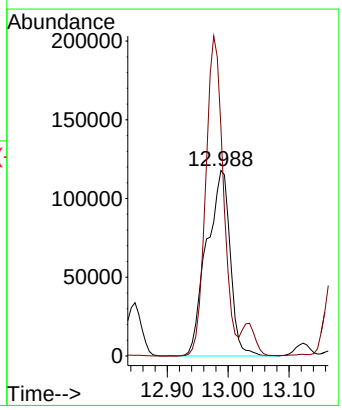


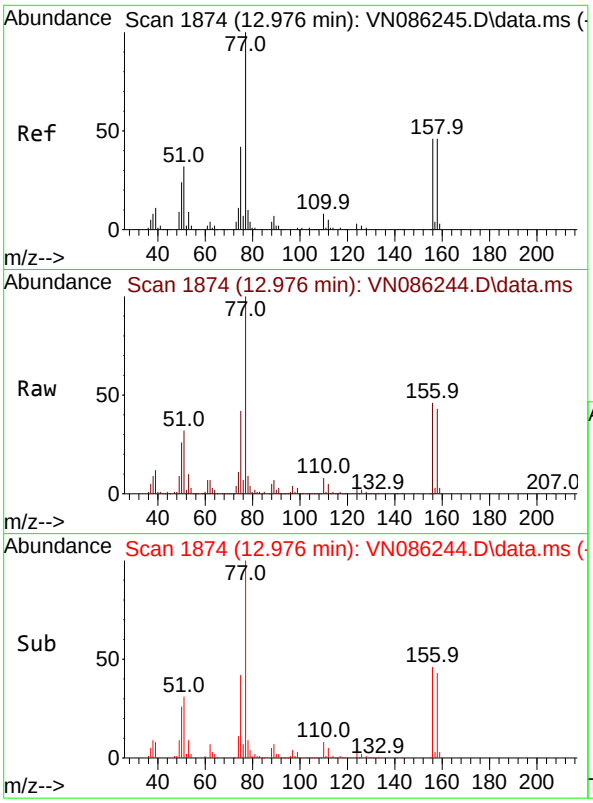


#72
1,2,3-Trichloropropane
Concen: 61.048 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 316585

Ion	Ratio	Lower	Upper
75	100		
77	129.2	0.0	380.0



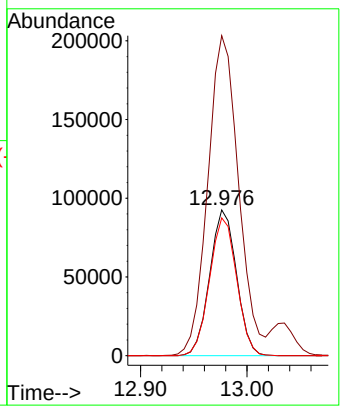


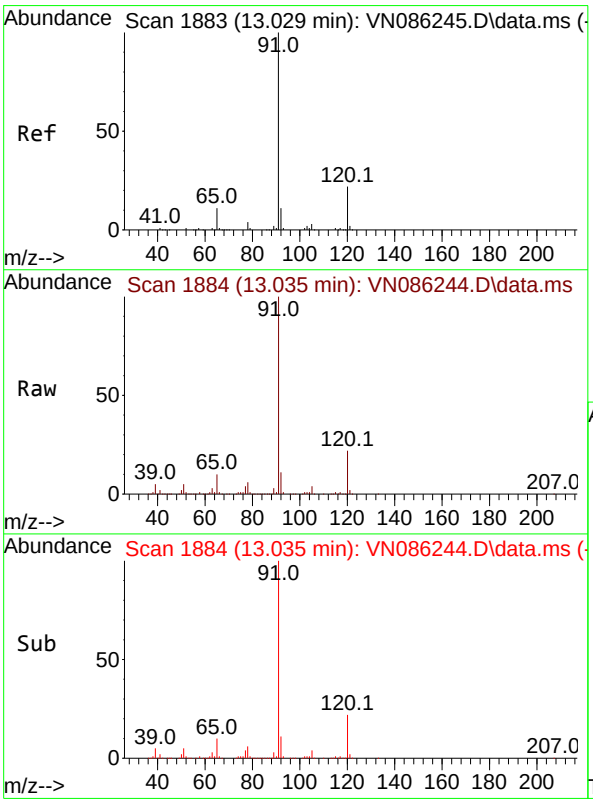
#73
Bromobenzene
Concen: 56.588 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:156 Resp: 161325

Ion	Ratio	Lower	Upper
156	100		
77	253.4	0.0	505.2
158	95.7	0.0	195.0

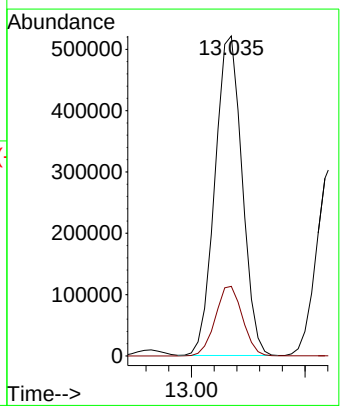


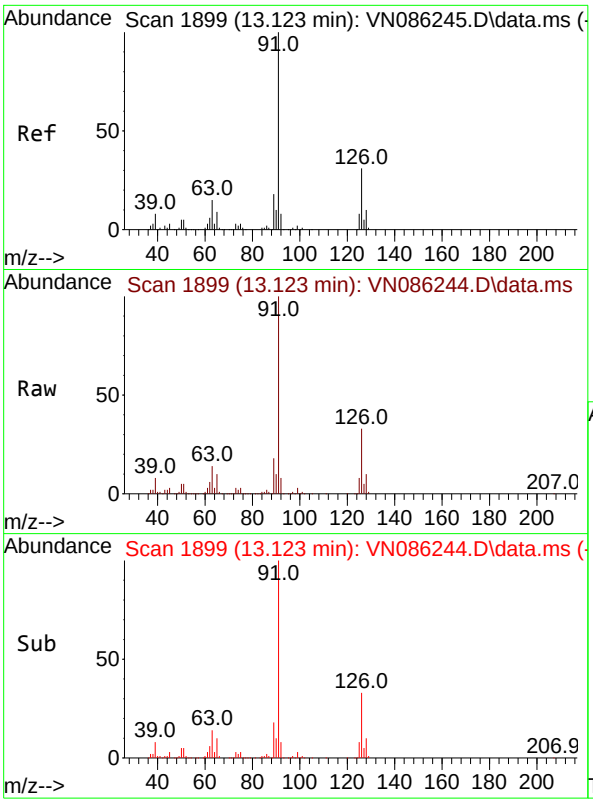


#74
n-propylbenzene
Concen: 56.817 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 865912

Ion	Ratio	Lower	Upper
91	100		
120	21.8	0.0	44.0



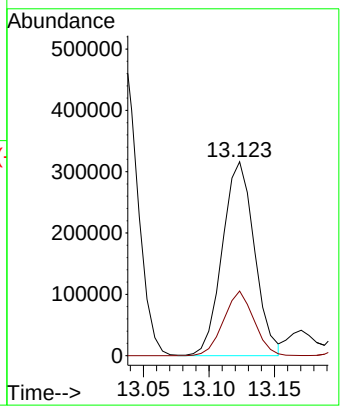


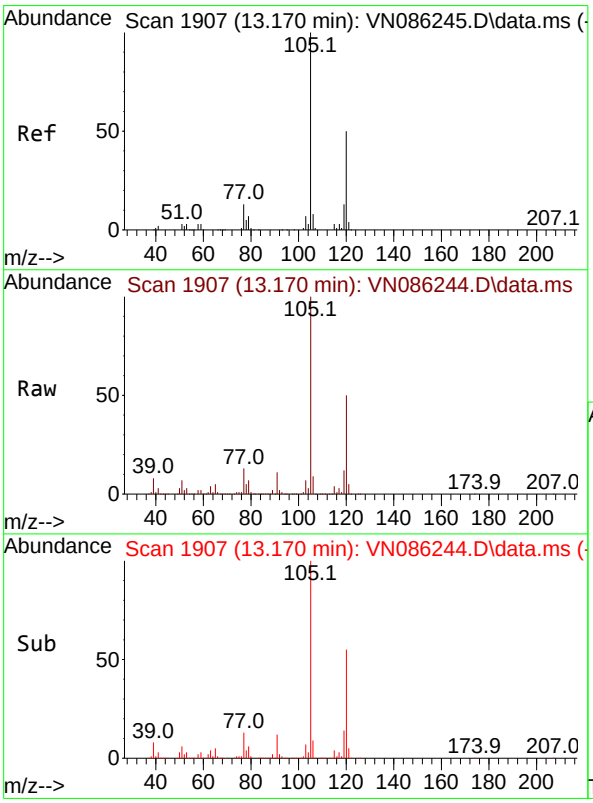
#75
2-Chlorotoluene
Concen: 56.468 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 91 Resp: 539350

Ion	Ratio	Lower	Upper
91	100		
126	31.5	0.0	63.4

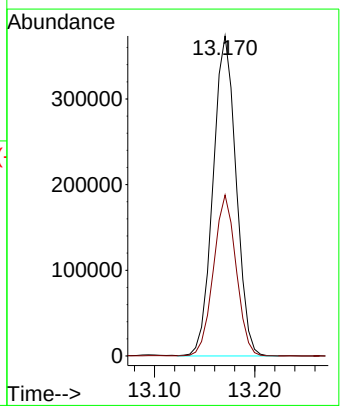


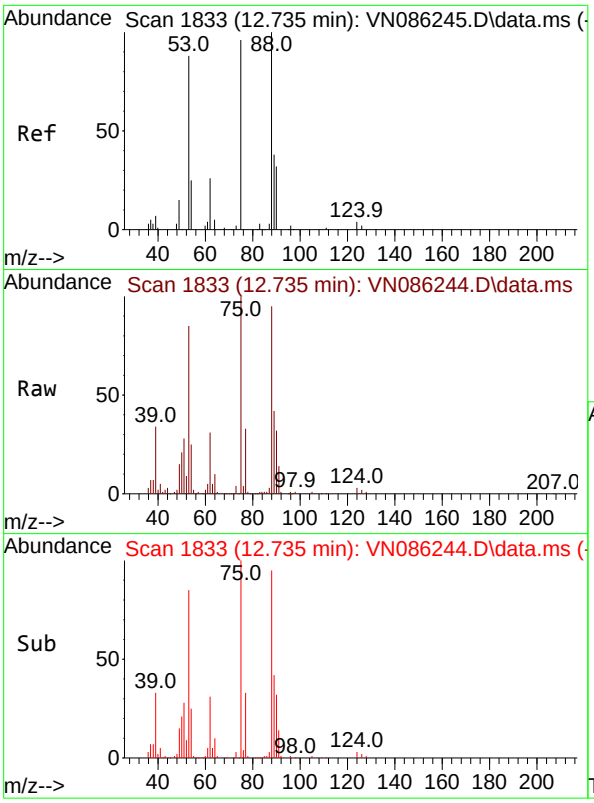


#76
1,3,5-Trimethylbenzene
Concen: 56.398 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 596201

Ion	Ratio	Lower	Upper
105	100		
120	49.3	0.0	98.0



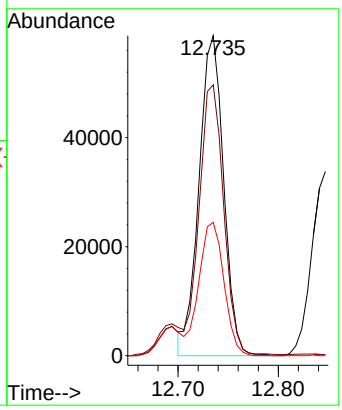


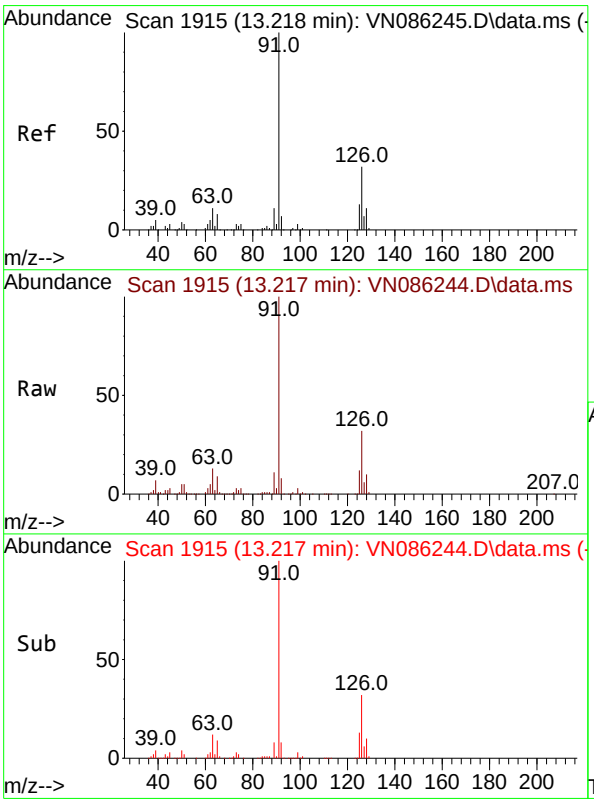
#77
t-1,4-Dichloro-2-butene
Concen: 56.970 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 75 Resp: 100158

Ion	Ratio	Lower	Upper
75	100		
53	84.3	46.4	139.2
89	41.7	22.5	67.5

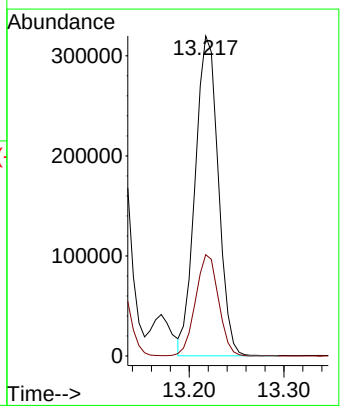


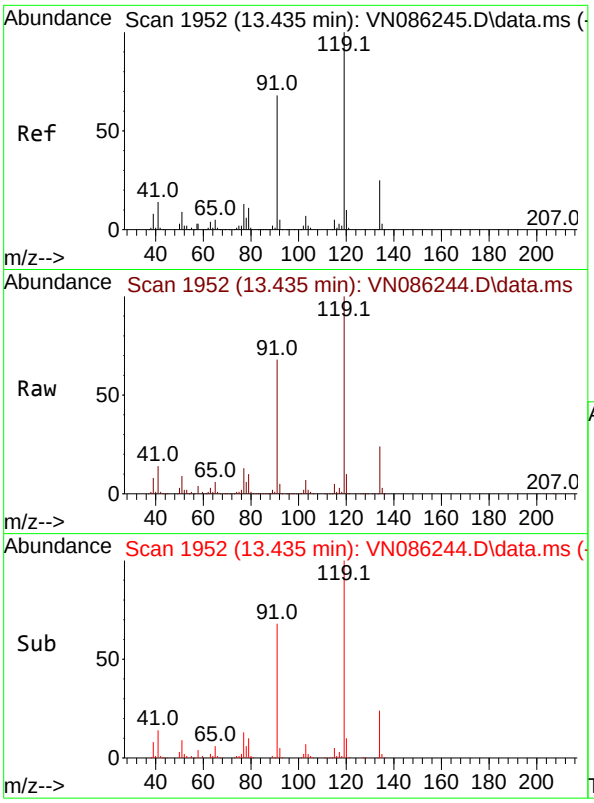


#78
4-Chlorotoluene
Concen: 56.787 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 91 Resp: 541691

Ion	Ratio	Lower	Upper
91	100		
126	31.6	0.0	63.2



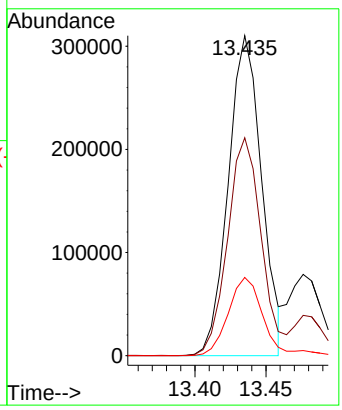


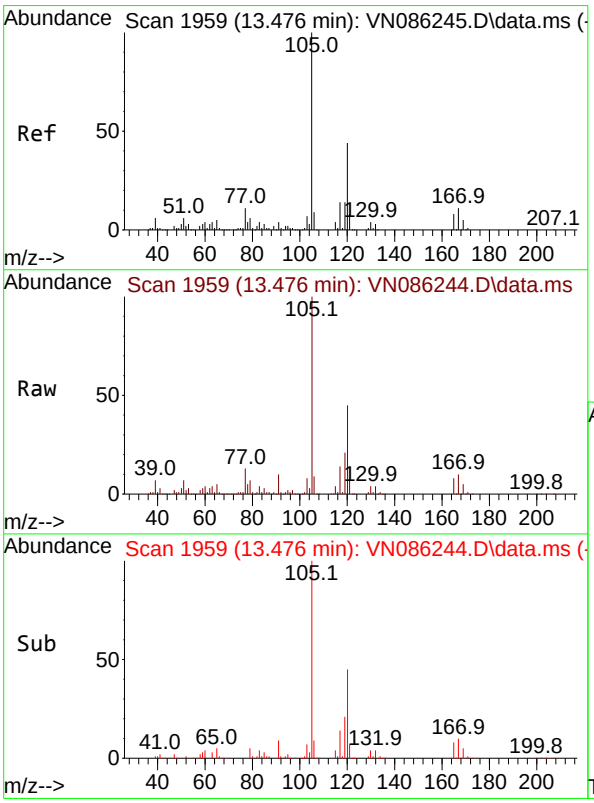
#79
tert-butylbenzene
Concen: 55.374 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:119 Resp: 506518

Ion	Ratio	Lower	Upper
119	100		
91	69.1	0.0	136.6
134	24.6	0.0	49.4

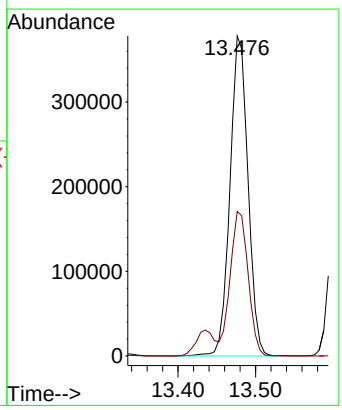


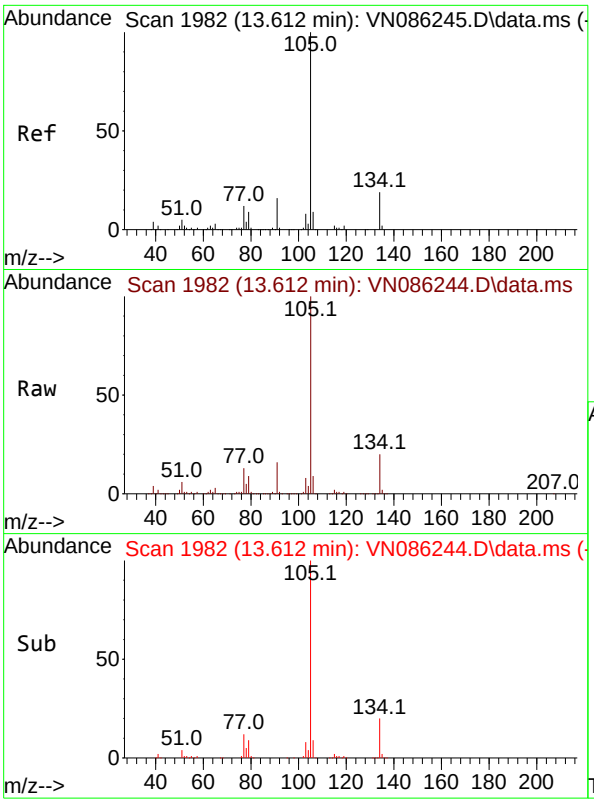


#80
1,2,4-Trimethylbenzene
Concen: 57.035 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:105 Resp: 611389

Ion	Ratio	Lower	Upper
105	100		
120	45.1	0.0	91.0



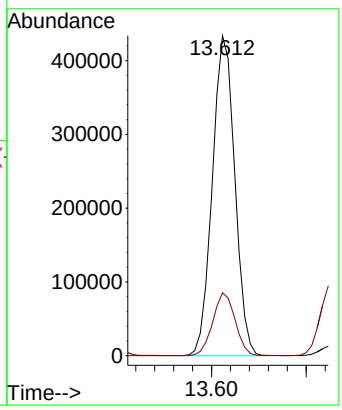


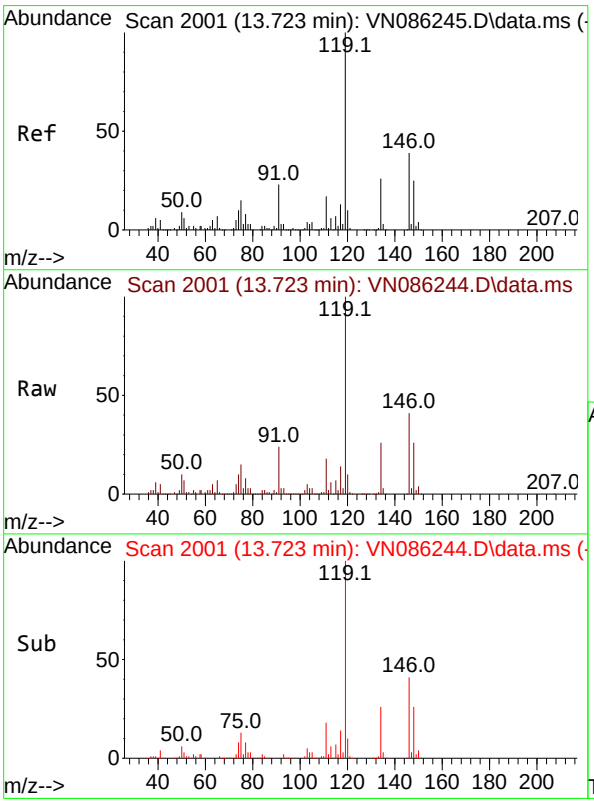
#81
sec-Butylbenzene
Concen: 55.977 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:105 Resp: 714247

Ion	Ratio	Lower	Upper
105	100		
134	19.5	0.0	38.6

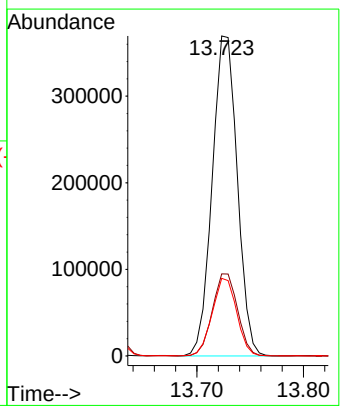


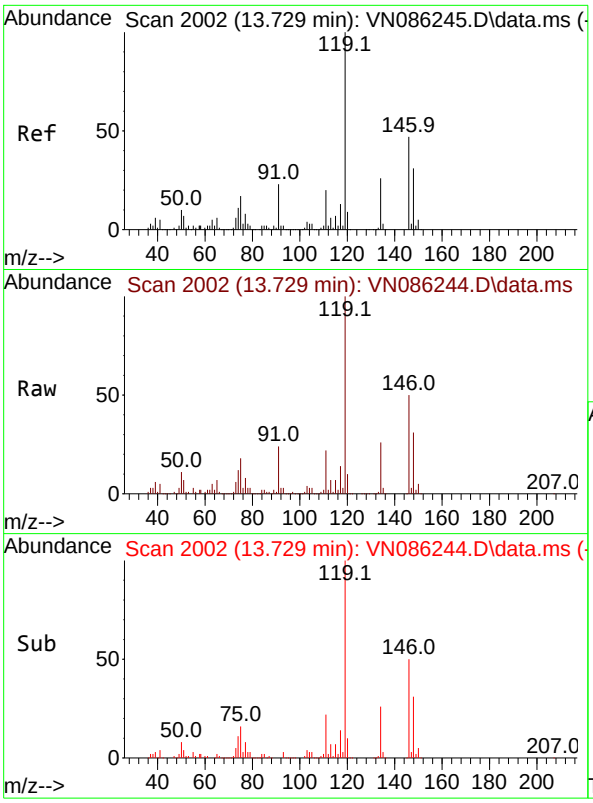


#82
p-Isopropyltoluene
Concen: 56.791 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:119 Resp: 604494

Ion	Ratio	Lower	Upper
119	100		
134	25.8	0.0	51.6
91	23.6	0.0	48.2



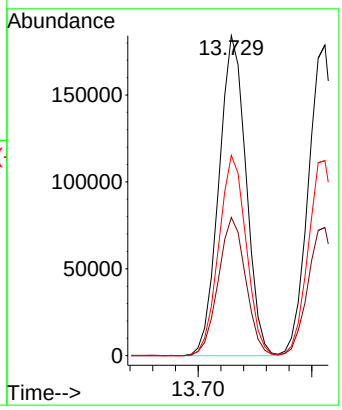


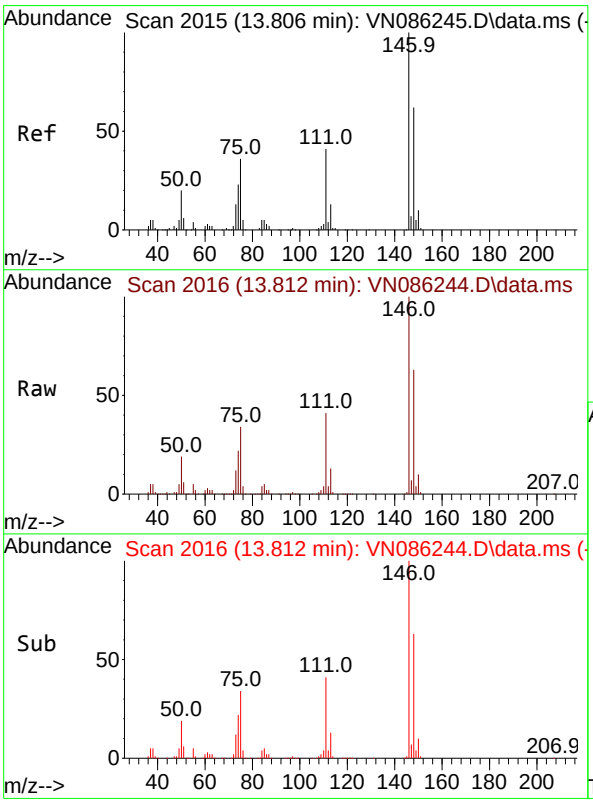
#83
1,3-Dichlorobenzene
Concen: 57.795 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:146 Resp: 306241

Ion	Ratio	Lower	Upper
146	100		
111	43.6	21.7	65.1
148	63.2	32.3	96.8

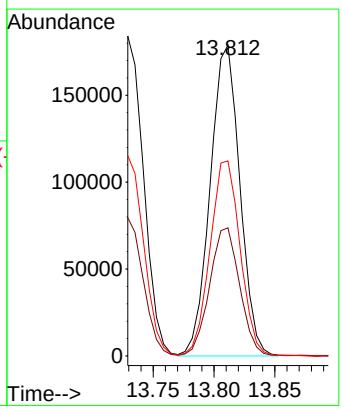


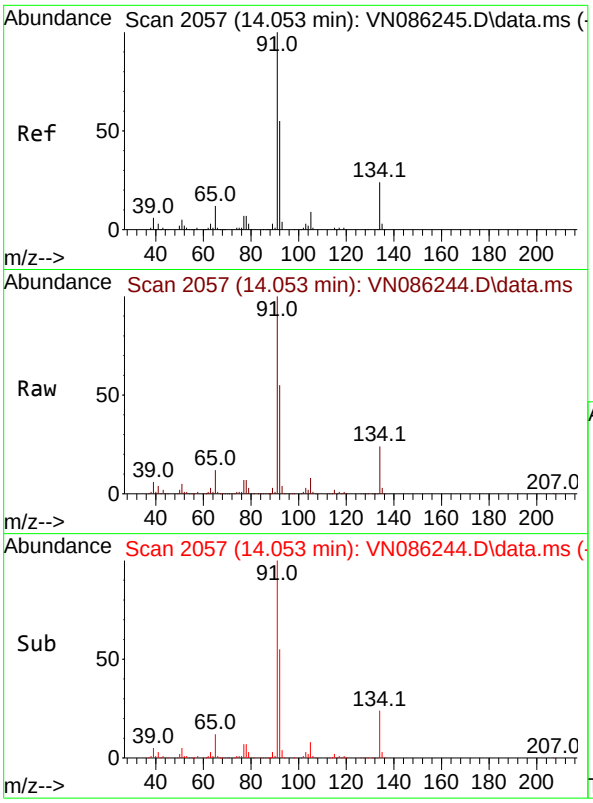


#84
1,4-Dichlorobenzene
Concen: 57.117 ug/l
RT: 13.812 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:146 Resp: 303615

Ion	Ratio	Lower	Upper
146	100		
111	41.6	20.8	62.4
148	63.7	31.9	95.5



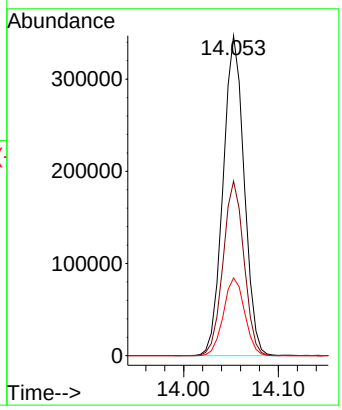


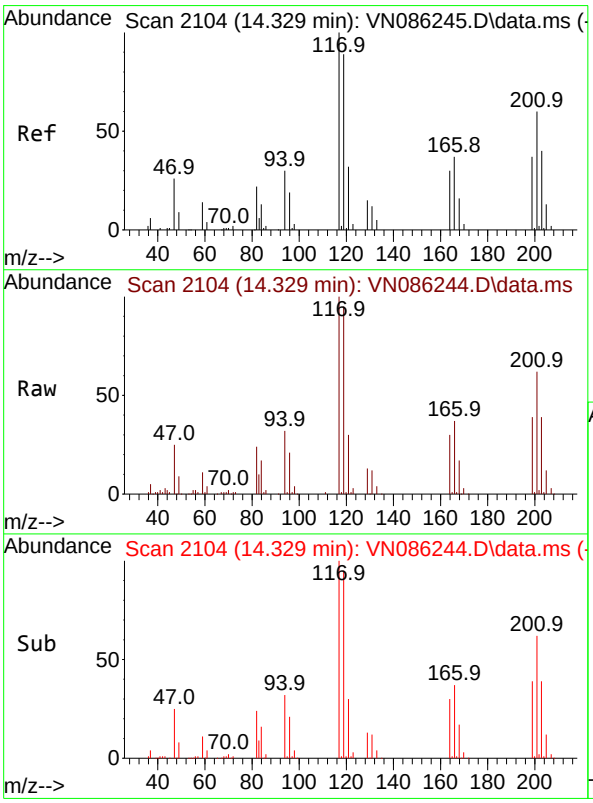
#85
n-Butylbenzene
Concen: 55.917 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion: 91 Resp: 536941

Ion	Ratio	Lower	Upper
91	100		
92	54.0	0.0	109.4
134	24.5	0.0	48.2

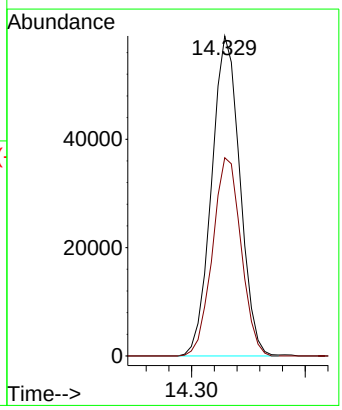


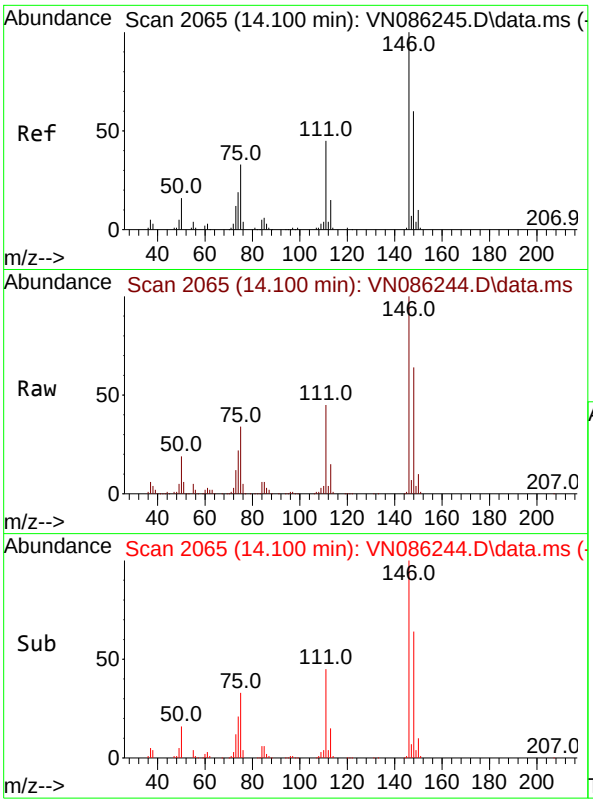


#86
Hexachloroethane
Concen: 56.854 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:117 Resp: 102084

Ion	Ratio	Lower	Upper
117	100		
201	62.6	30.9	92.8



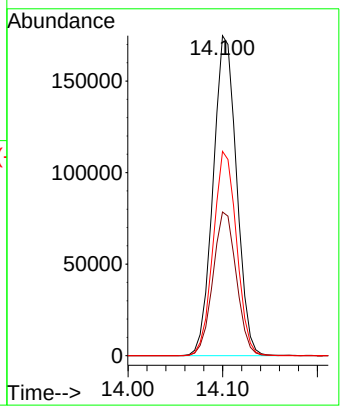


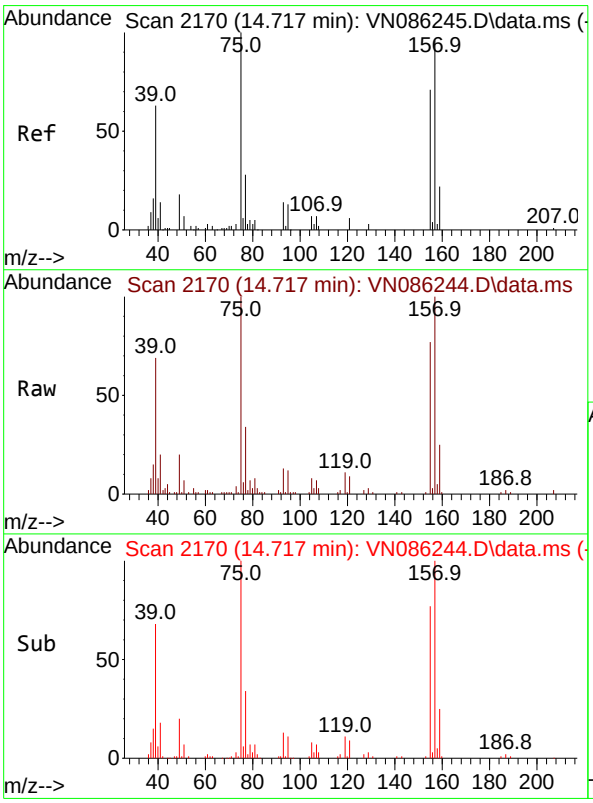
#87
1,2-Dichlorobenzene
Concen: 57.607 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:146 Resp: 301390

Ion	Ratio	Lower	Upper
146	100		
111	44.9	22.7	68.0
148	63.4	31.8	95.3

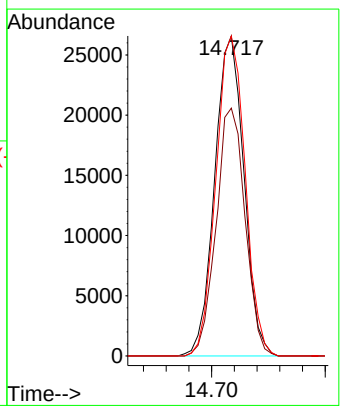


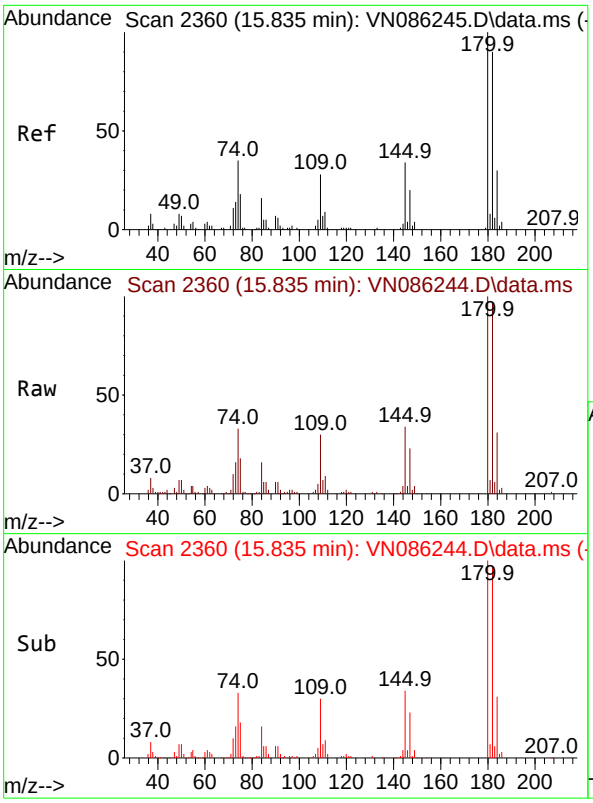


#88
1,2-Dibromo-3-Chloropropane
Concen: 56.890 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion: 75 Resp: 47464

Ion	Ratio	Lower	Upper
75	100		
155	76.8	60.3	90.5
157	99.9	79.0	118.4



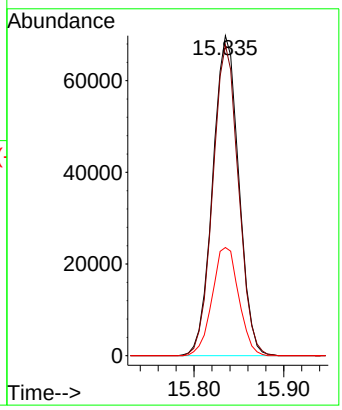


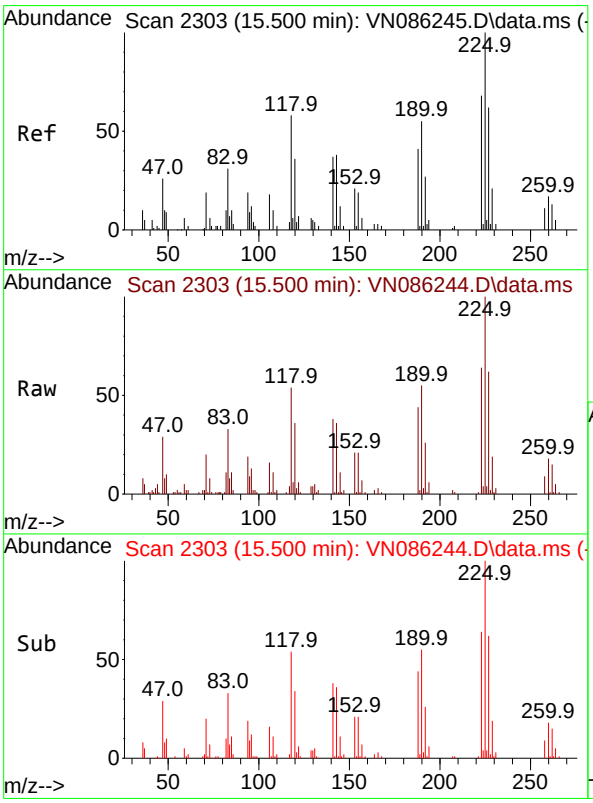
#89
1,2,4-Trichlorobenzene
Concen: 55.103 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:180 Resp: 140271

Ion	Ratio	Lower	Upper
180	100		
182	95.8	75.1	112.7
145	34.6	27.1	40.7

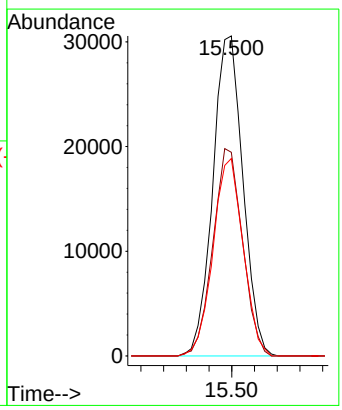


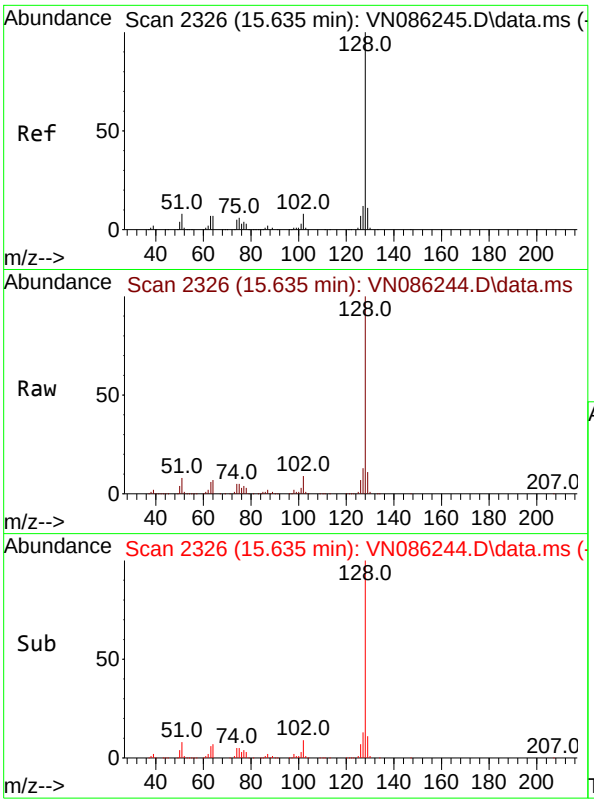


#90
Hexachlorobutadiene
Concen: 51.165 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:225 Resp: 56236

Ion	Ratio	Lower	Upper
225	100		
223	63.7	0.0	130.0
227	61.6	0.0	123.2



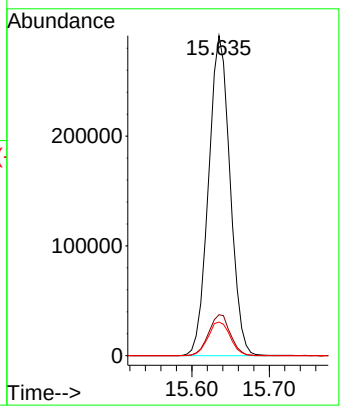


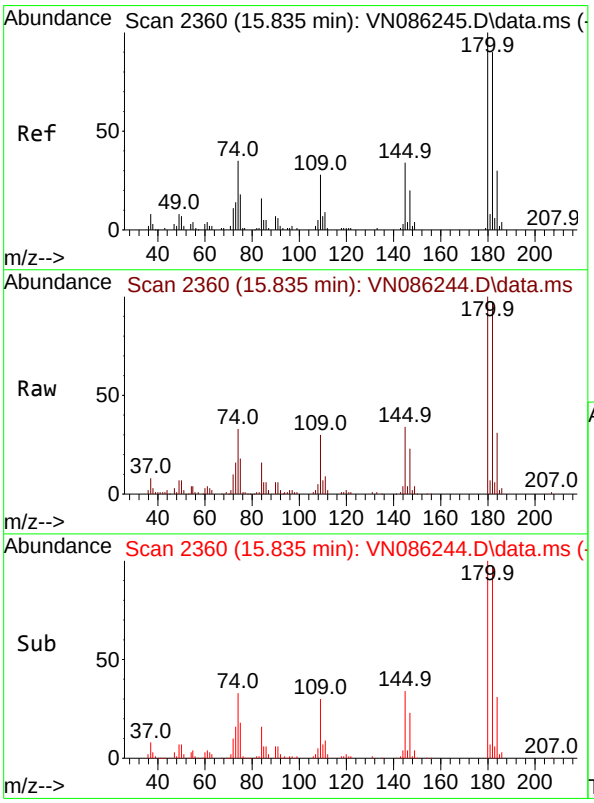
#91
Naphthalene
Concen: 55.953 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Tgt Ion:128 Resp: 561578

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.2	15.2
129	10.9	8.8	13.2

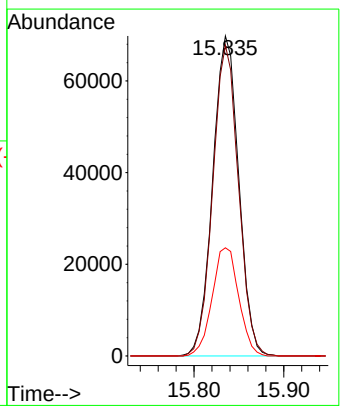




#92
1,2,3-Trichlorobenzene
Concen: 55.103 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086244.D
Acq: 11 Apr 2025 11:52

Tgt Ion:180 Resp: 140271

Ion	Ratio	Lower	Upper
180	100		
182	95.8	0.0	187.8
145	34.6	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086245.D
Acq On : 11 Apr 2025 12:16
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Quant Time: Apr 12 00:20:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	30974	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	185020	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	163907	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	89958	29.776	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 99.267%			
60) 4-Bromofluorobenzene	12.847	95	97314	29.820	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.400%			
63) Toluene-d8	10.565	98	281589	30.431	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.433%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	48008	19.345	ug/l	100
3) Chloromethane	2.359	50	63879	18.624	ug/l	100
4) Vinyl Chloride	2.512	62	62095	19.006	ug/l	100
5) Bromomethane	2.965	94	30452	18.686	ug/l	100
6) Chloroethane	3.124	64	38415	18.620	ug/l	100
7) Trichlorofluoromethane	3.501	101	66215	18.683	ug/l	100
8) Diethyl Ether	3.959	74	30487	18.653	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	41257	18.878	ug/l	100
10) 1,1-Dichloroethene	4.342	96	44299	18.782	ug/l	100
11) Methyl Iodide	4.589	142	50856	18.760	ug/l	100
12) Methyl Acetate	5.024	43	61331	18.414	ug/l	100
13) Acrolein	4.177	56	27873	73.623	ug/l	100
14) Acrylonitrile	5.718	53	132407	94.169	ug/l	100
15) Acetone	4.424	58	33967	95.196	ug/l	95
16) Carbon Disulfide	4.712	76	129547	19.155	ug/l	100
17) Allyl chloride	5.024	41	76657	18.648	ug/l	100
18) Methylene Chloride	5.277	84	49299	18.333	ug/l	100
19) trans-1,2-Dichloroethene	5.789	96	45854	21.553	ug/l	100
20) Diisopropyl ether	6.671	45	167099	18.905	ug/l	100
21) 1,1-Dichloroethane	6.565	63	89726	19.030	ug/l	100
22) cis-1,2-Dichloroethene	7.489	96	55538	18.766	ug/l	100
23) tert-Butyl Alcohol	5.512	59	56269	96.582	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	158818	18.690	ug/l	100
25) Chloroform	7.965	83	84511	18.796	ug/l	100
26) Cyclohexane	8.253	56	81442	18.462	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	63403	19.129	ug/l	100
30) 2-Butanone	7.483	43	178630	97.263	ug/l	100
31) 2,2-Dichloropropane	7.489	77	78733	19.298	ug/l	100
32) 1,1,1-Trichloroethane	8.165	97	72230	18.945	ug/l	100
33) Carbon Tetrachloride	8.359	117	58240	19.114	ug/l	100
34) Benzene	8.606	78	201431	19.103	ug/l	100
35) Methacrylonitrile	7.777	41	39241	18.953	ug/l	100
36) 1,2-Dichloroethane	8.671	62	63104	19.124	ug/l	100
37) Trichloroethene	9.353	130	48886	19.215	ug/l	100
38) Methylcyclohexane	9.600	83	75994	18.695	ug/l	100
39) 1,2-Dichloropropane	9.618	63	49925	19.028	ug/l	100
40) Dibromomethane	9.706	93	32130	18.960	ug/l	100
41) Bromodichloromethane	9.882	83	69713	19.149	ug/l	100
42) Vinyl Acetate	6.600	43	616622	98.633	ug/l	100

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086245.D
Acq On : 11 Apr 2025 12:16
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Quant Time: Apr 12 00:20:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

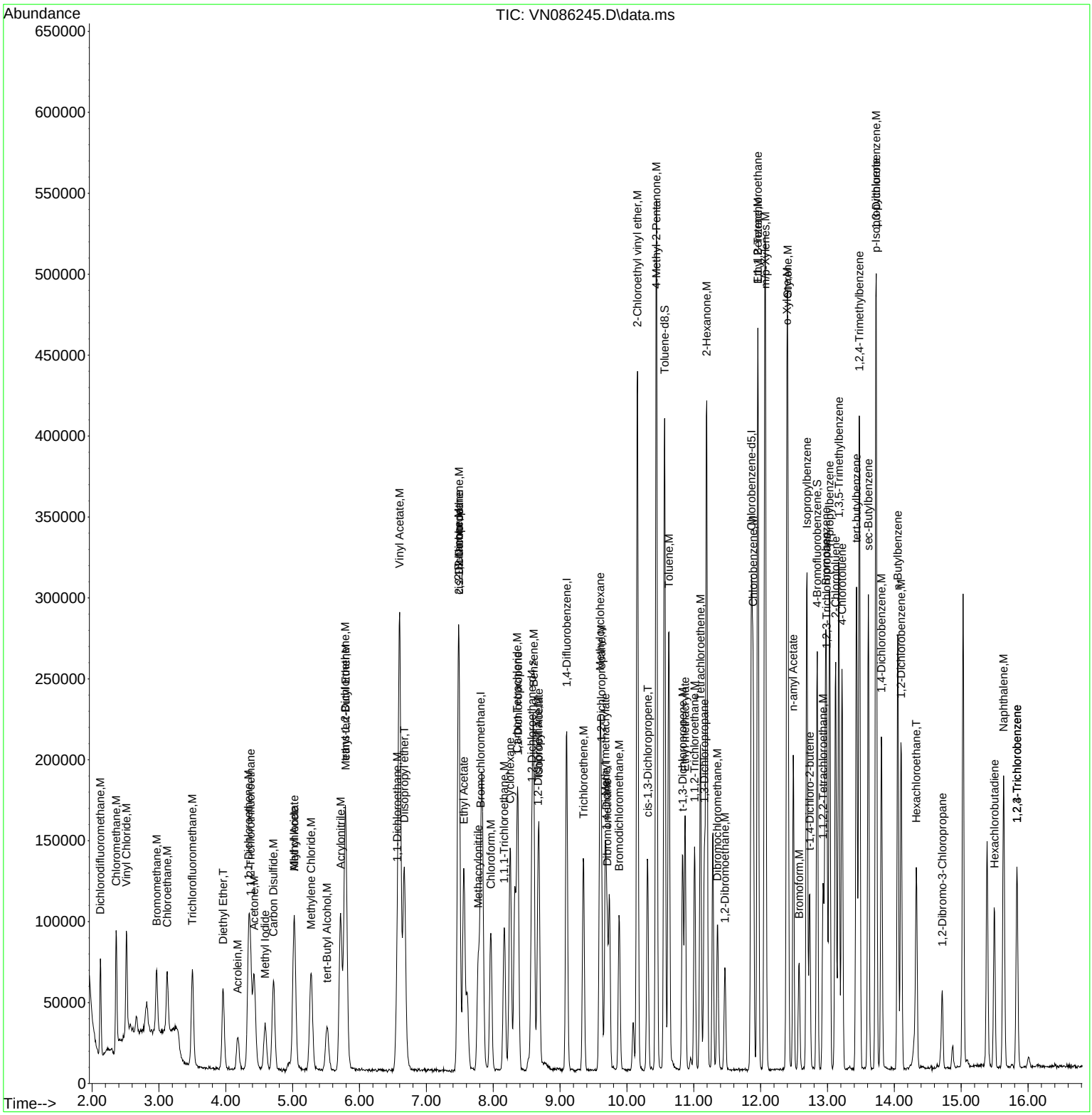
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	72635	19.607	ug/l	100
44) Isopropyl Acetate	8.683	43	129543	18.850	ug/l	100
45) 1,4-Dioxane	9.694	88	21134	386.736	ug/l	100
46) Methyl methacrylate	9.677	41	58112	19.192	ug/l	100
47) n-amyl Acetate	12.488	43	101635	18.304	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	78104	18.977	ug/l	100
49) cis-1,3-Dichloropropene	10.312	75	83505	19.170	ug/l	100
50) 1,1,2-Trichloroethane	11.012	97	45892	19.308	ug/l	100
51) Ethyl methacrylate	10.871	69	84042	19.027	ug/l	100
52) 1,3-Dichloropropane	11.159	76	79960	18.875	ug/l	100
53) Dibromochloromethane	11.353	129	49892	19.190	ug/l	100
54) 1,2-Dibromoethane	11.465	107	45668	19.034	ug/l	100
55) 2-Chloroethyl vinyl ether	10.159	63	199584	119.582	ug/l	100
56) Bromoform	12.576	173	32612	19.173	ug/l	100
58) 4-Methyl-2-Pentanone	10.441	43	366576	98.554	ug/l	100
59) 2-Hexanone	11.194	43	271384	97.984	ug/l	100
61) Tetrachloroethene	11.100	164	46313	19.134	ug/l	100
62) Toluene	10.629	91	212088	19.292	ug/l	100
64) Chlorobenzene	11.888	112	128877	19.188	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	42656	19.244	ug/l	100
66) Ethyl Benzene	11.959	91	233805	19.177	ug/l	100
67) m/p-Xylenes	12.071	106	172384	38.024	ug/l	100
68) o-Xylene	12.394	106	85173	19.101	ug/l	100
69) Styrene	12.406	104	141327	18.793	ug/l	100
70) Isopropylbenzene	12.694	105	209526	19.057	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.935	83	60936	19.472	ug/l	100
72) 1,2,3-Trichloropropane	12.988	75	91862	20.734	ug/l	58
73) Bromobenzene	12.976	156	46561	19.116	ug/l	100
74) n-propylbenzene	13.029	91	243573	18.707	ug/l	100
75) 2-Chlorotoluene	13.123	91	154341	18.914	ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	172014	19.046	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	28529	18.993	ug/l	100
78) 4-Chlorotoluene	13.218	91	151091	18.539	ug/l	100
79) tert-butylbenzene	13.435	119	147428	18.865	ug/l	100
80) 1,2,4-Trimethylbenzene	13.476	105	174827	19.089	ug/l	100
81) sec-Butylbenzene	13.612	105	208583	19.134	ug/l	100
82) p-Isopropyltoluene	13.723	119	173120	19.037	ug/l	100
83) 1,3-Dichlorobenzene	13.729	146	84482	18.662	ug/l	100
84) 1,4-Dichlorobenzene	13.806	146	84947	18.705	ug/l	100
85) n-Butylbenzene	14.053	91	155208	18.919	ug/l	100
86) Hexachloroethane	14.329	117	29008	18.910	ug/l	100
87) 1,2-Dichlorobenzene	14.100	146	85009	19.018	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.717	75	14031	19.684	ug/l	100
89) 1,2,4-Trichlorobenzene	15.835	180	43895	20.183	ug/l	100
90) Hexachlorobutadiene	15.500	225	18215	19.398	ug/l	100
91) Naphthalene	15.635	128	169118	19.722	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	43895	20.183	ug/l	100

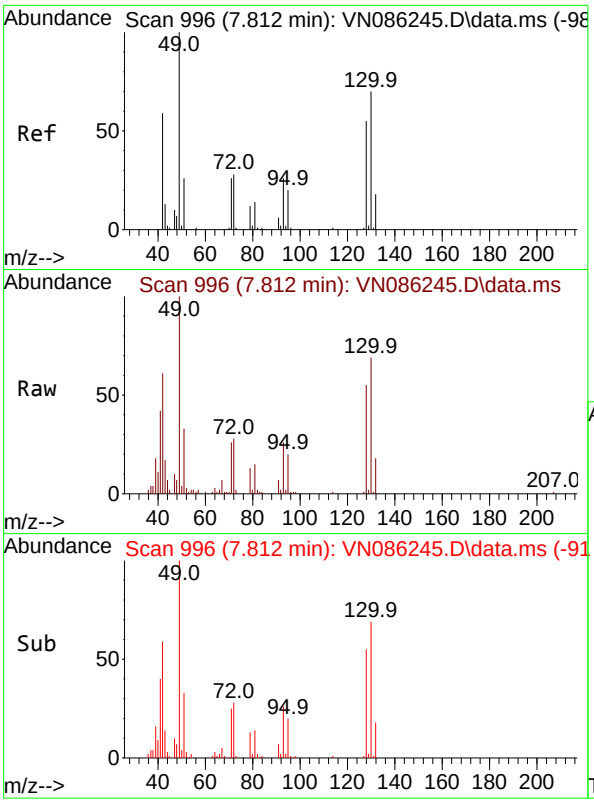
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086245.D
Acq On : 11 Apr 2025 12:16
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Quant Time: Apr 12 00:20:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration



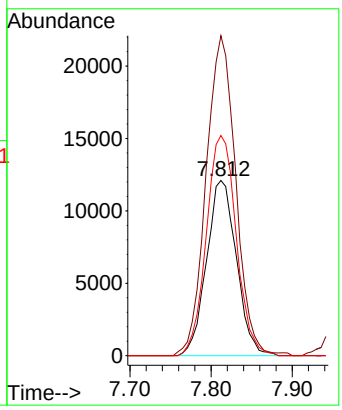


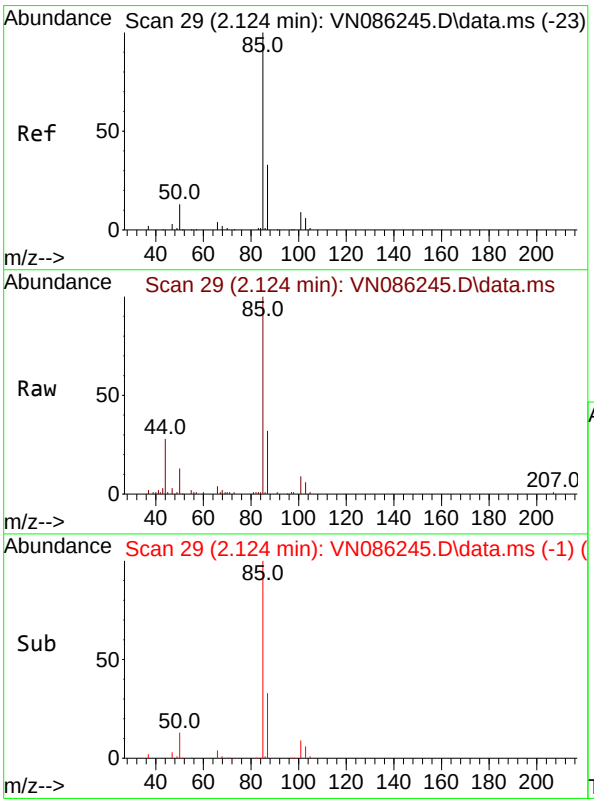
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:128 Resp: 30974

Ion	Ratio	Lower	Upper
128	100		
49	181.0	0.0	452.5
130	126.0	0.0	315.0

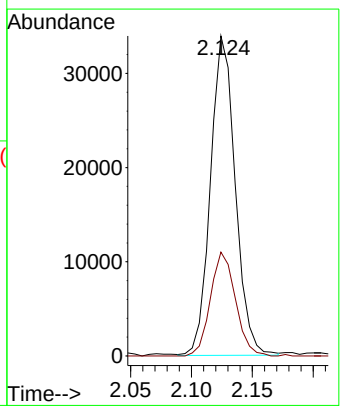


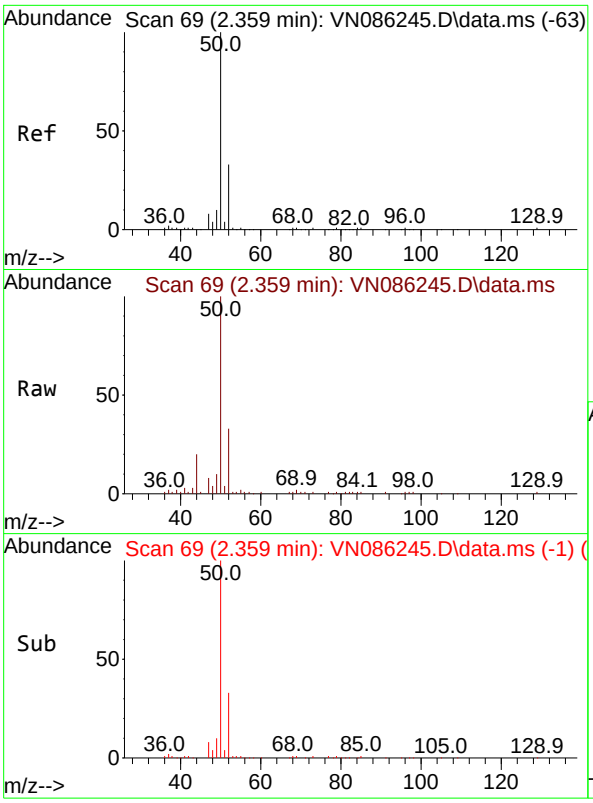


#2
Dichlorodifluoromethane
Concen: 19.345 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 85 Resp: 48008

Ion	Ratio	Lower	Upper
85	100		
87	32.6	16.3	48.9



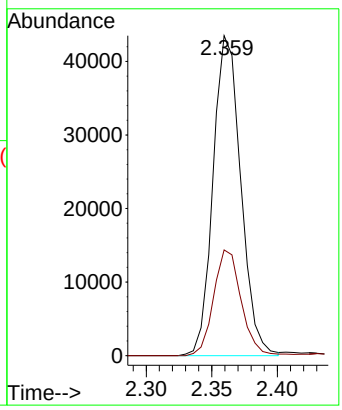


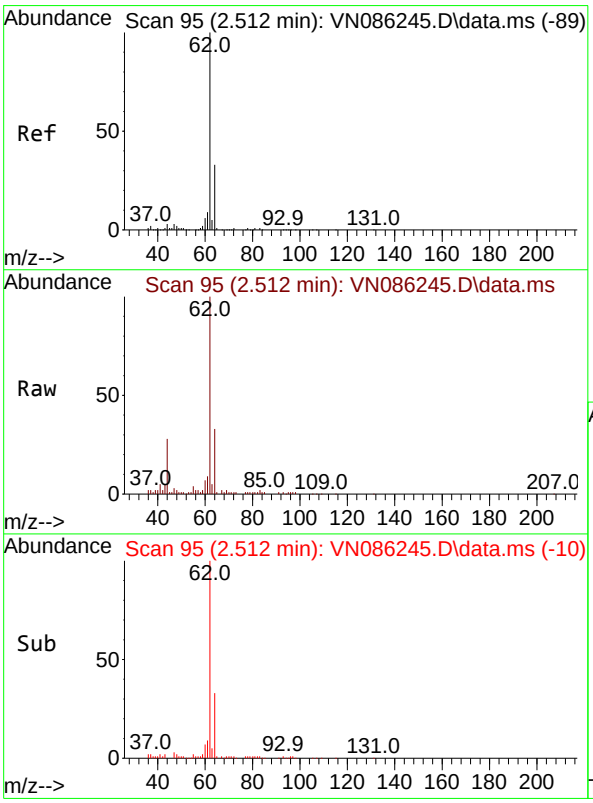
#3
Chloromethane
Concen: 18.624 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 50 Resp: 63879

Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.4	39.6

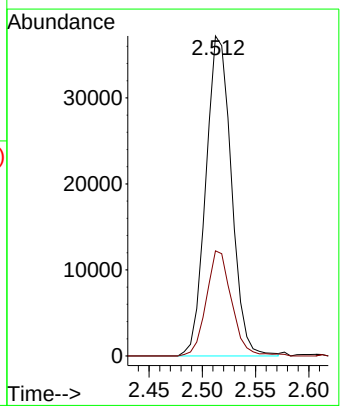


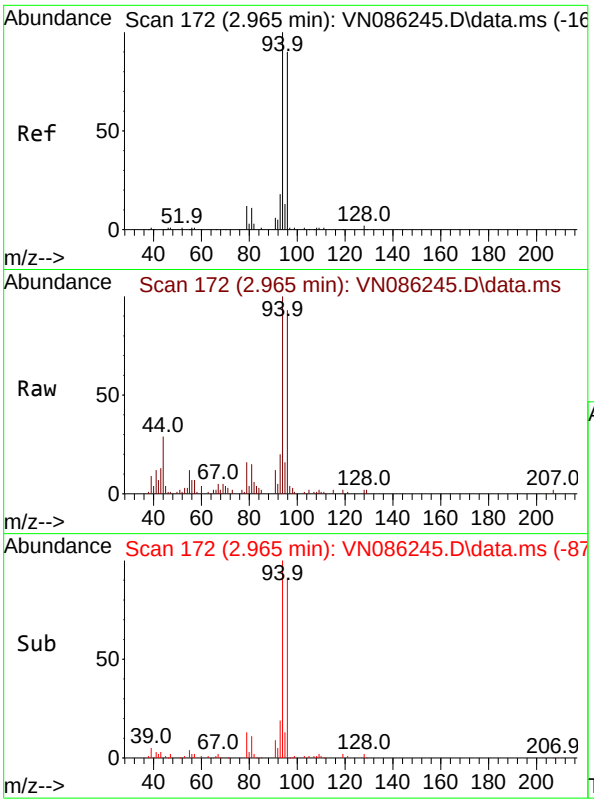


#4
Vinyl Chloride
Concen: 19.006 ug/l
RT: 2.512 min Scan# 95
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 62 Resp: 62095

Ion	Ratio	Lower	Upper
62	100		
64	32.9	26.3	39.5



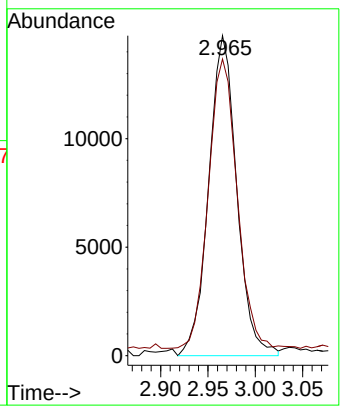


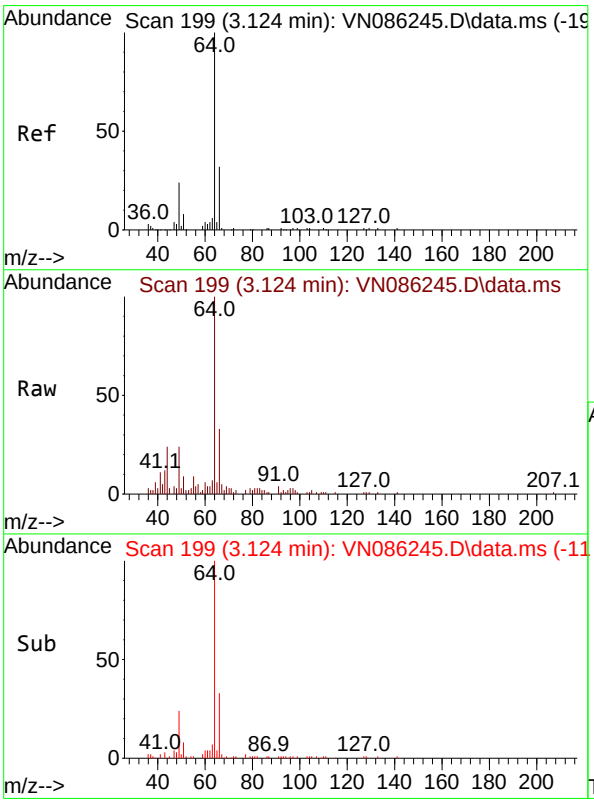
#5
Bromomethane
Concen: 18.686 ug/l
RT: 2.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 94 Resp: 30452

Ion	Ratio	Lower	Upper
94	100		
96	90.2	72.2	108.2

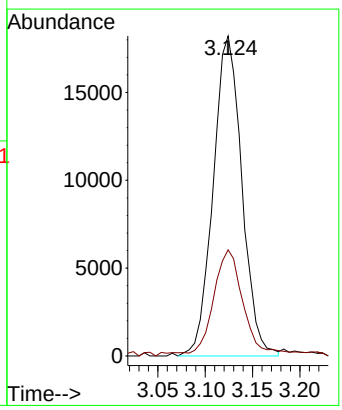


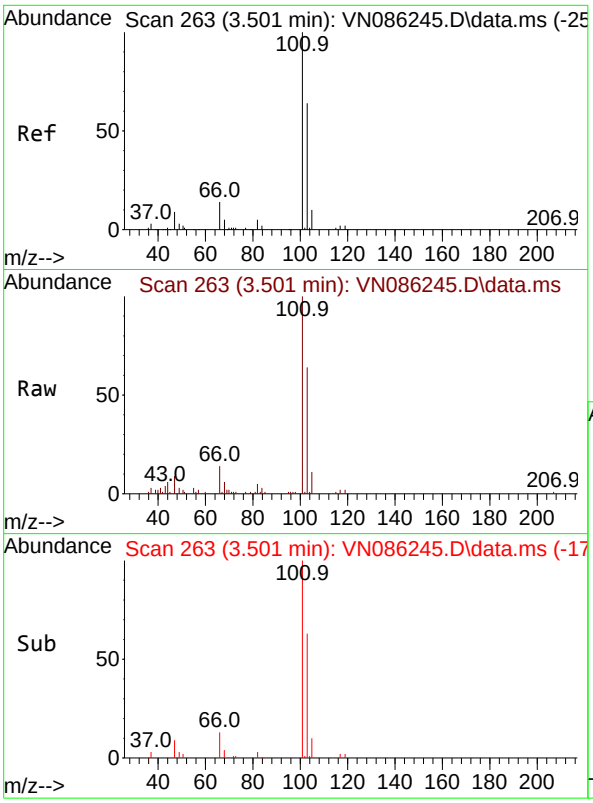


#6
Chloroethane
Concen: 18.620 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 64 Resp: 38415

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.7	38.5



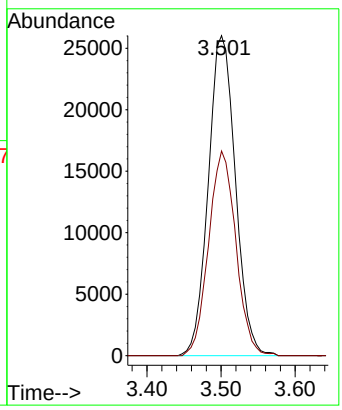


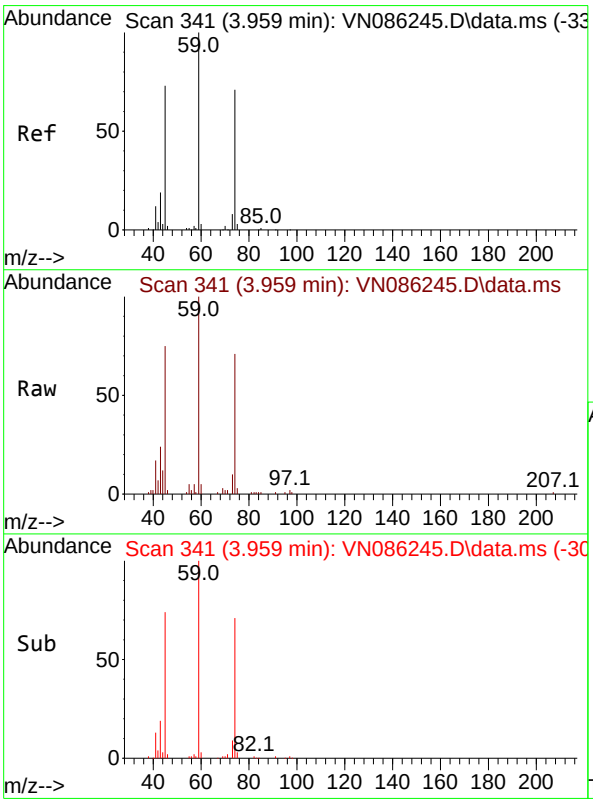
#7
Trichlorofluoromethane
Concen: 18.683 ug/l
RT: 3.501 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:101 Resp: 66215

Ion	Ratio	Lower	Upper
101	100		
103	64.0	51.2	76.8

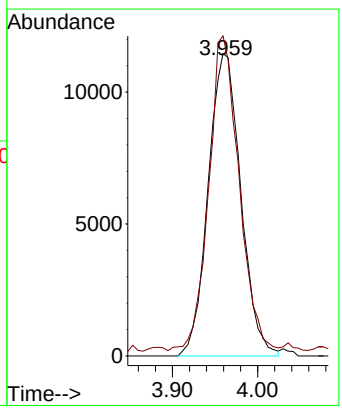


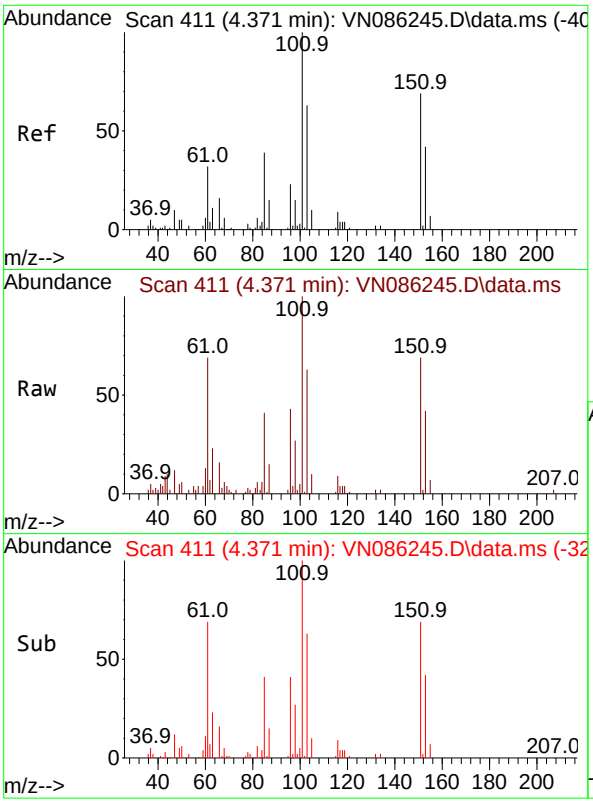


#8
Diethyl Ether
Concen: 18.653 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 74 Resp: 30487

Ion	Ratio	Lower	Upper
74	100		
45	96.2	19.2	173.2



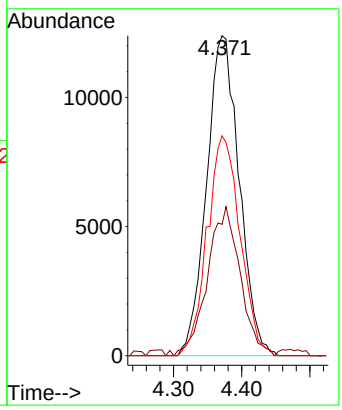


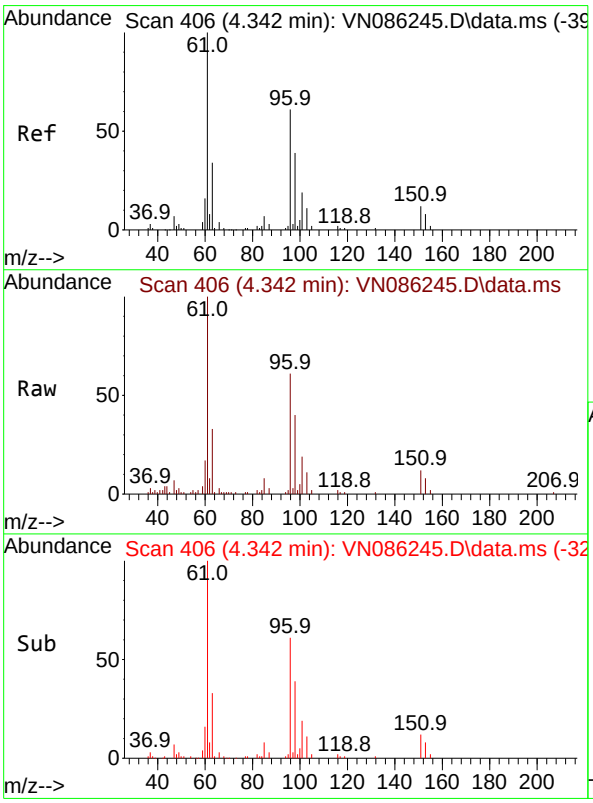
#9
1,1,2-Trichlorotrifluoroethane
Concen: 18.878 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:101 Resp: 41257

Ion	Ratio	Lower	Upper
101	100		
85	46.5	0.0	93.0
151	69.3	0.0	138.6

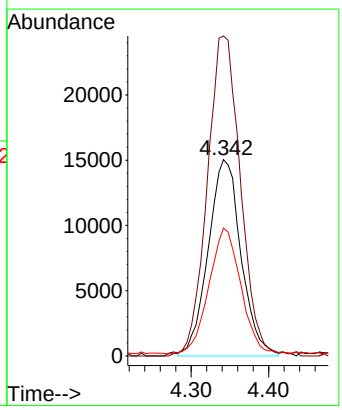


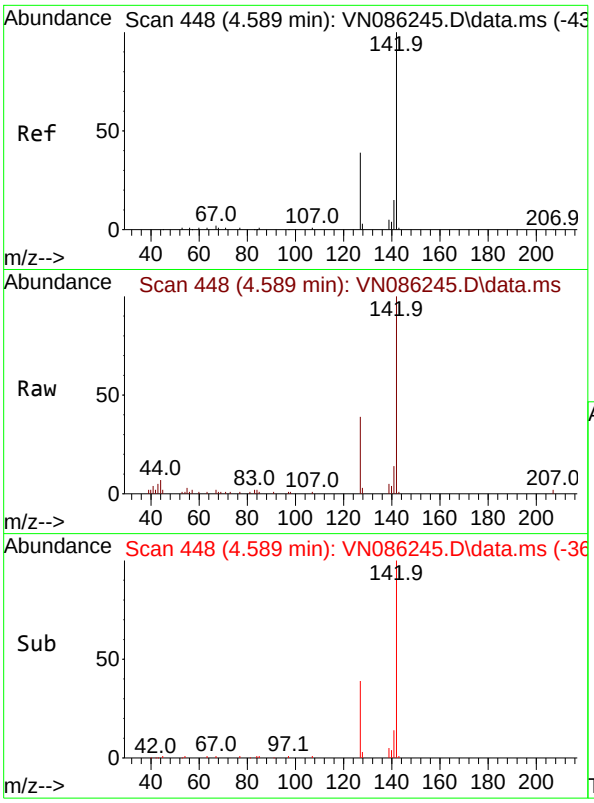


#10
1,1-Dichloroethene
Concen: 18.782 ug/l
RT: 4.342 min Scan# 406
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 96 Resp: 44299

Ion	Ratio	Lower	Upper
96	100		
61	163.9	131.1	196.7
98	64.5	51.6	77.4



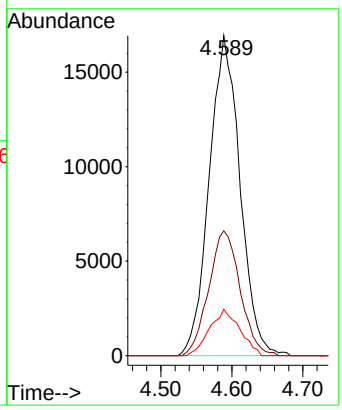


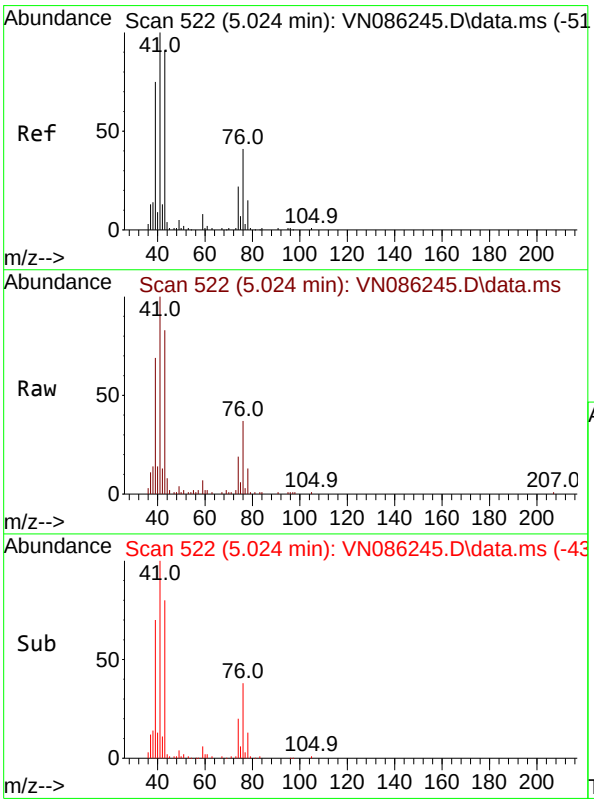
#11
Methyl Iodide
Concen: 18.760 ug/l
RT: 4.589 min Scan# 44
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:142 Resp: 50856

Ion	Ratio	Lower	Upper
142	100		
127	39.2	19.6	58.8
141	14.6	7.3	21.9

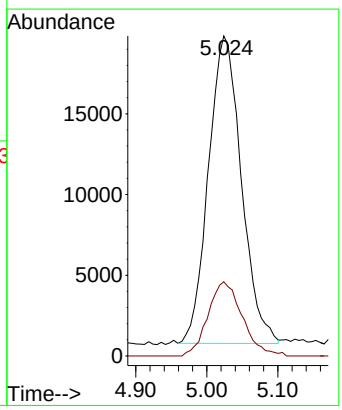


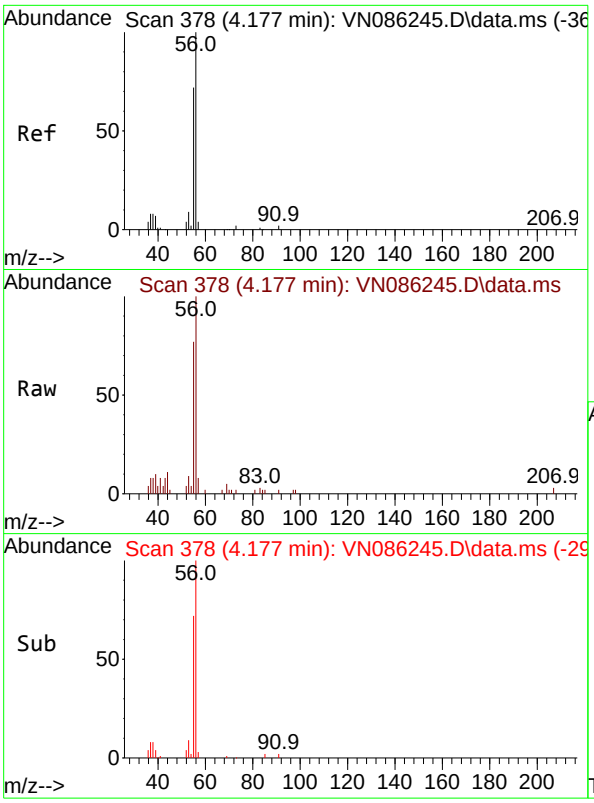


#12
Methyl Acetate
Concen: 18.414 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 61331

Ion	Ratio	Lower	Upper
43	100		
74	23.9	19.1	28.7



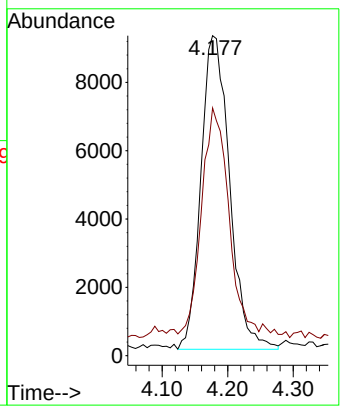


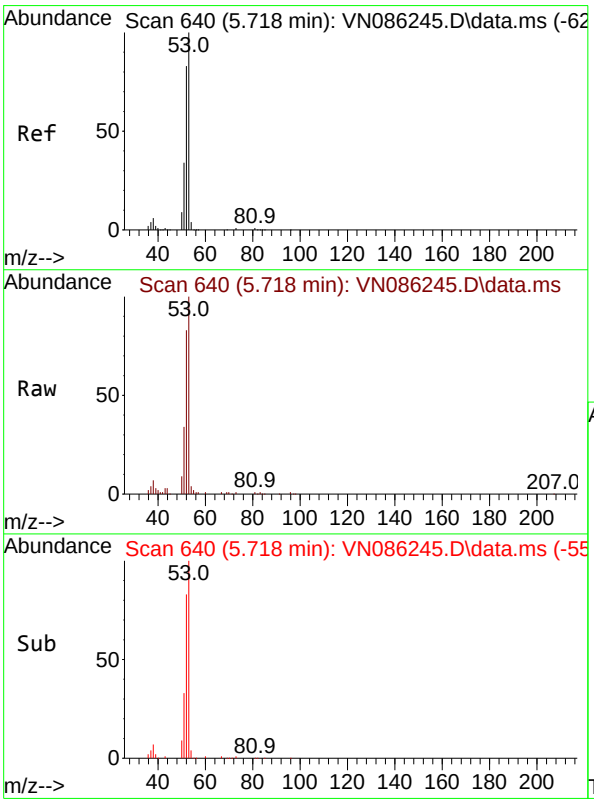
#13
Acrolein
Concen: 73.623 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 56 Resp: 27873

Ion	Ratio	Lower	Upper
56	100		
55	70.6	56.5	84.7

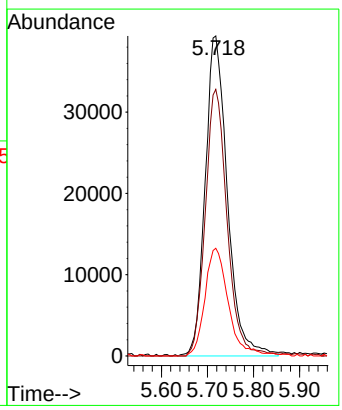


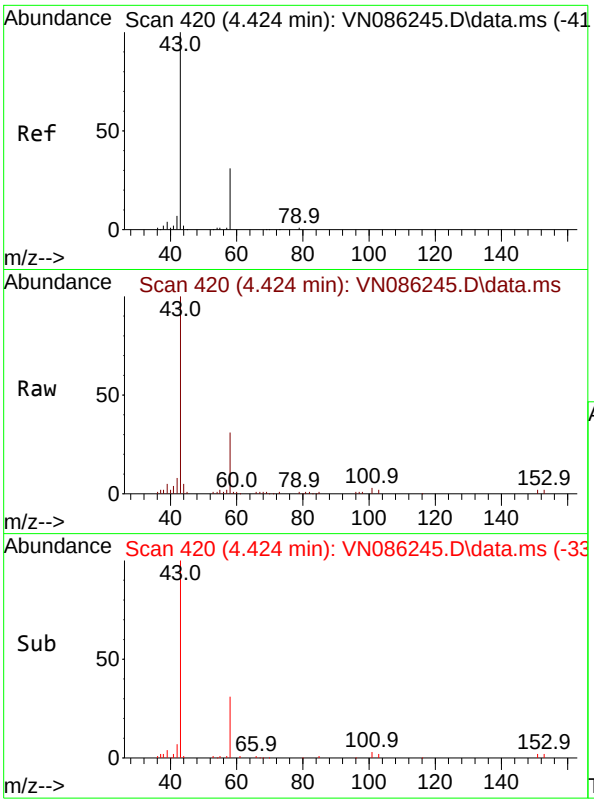


#14
Acrylonitrile
Concen: 94.169 ug/l
RT: 5.718 min Scan# 640
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 53 Resp: 132407

Ion	Ratio	Lower	Upper
53	100		
52	80.4	40.2	120.6
51	35.1	17.5	52.6



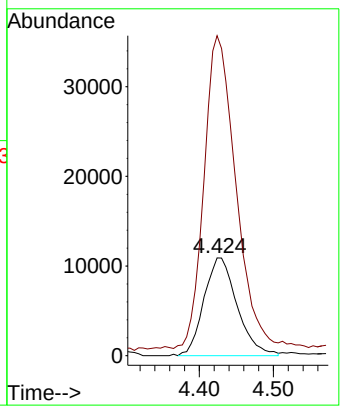


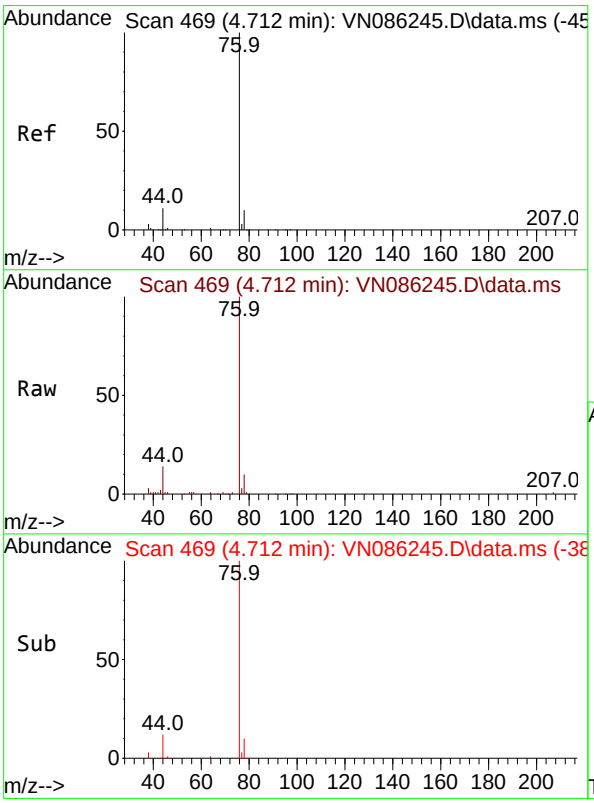
#15
Acetone
Concen: 95.196 ug/l
RT: 4.424 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 58 Resp: 33967

Ion	Ratio	Lower	Upper
58	100		
43	317.0	261.8	392.8

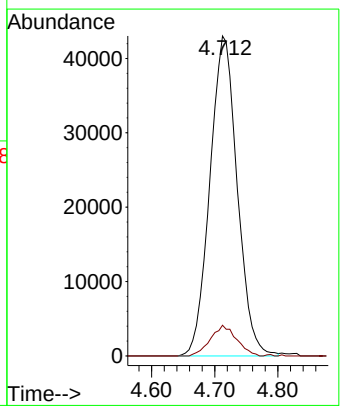


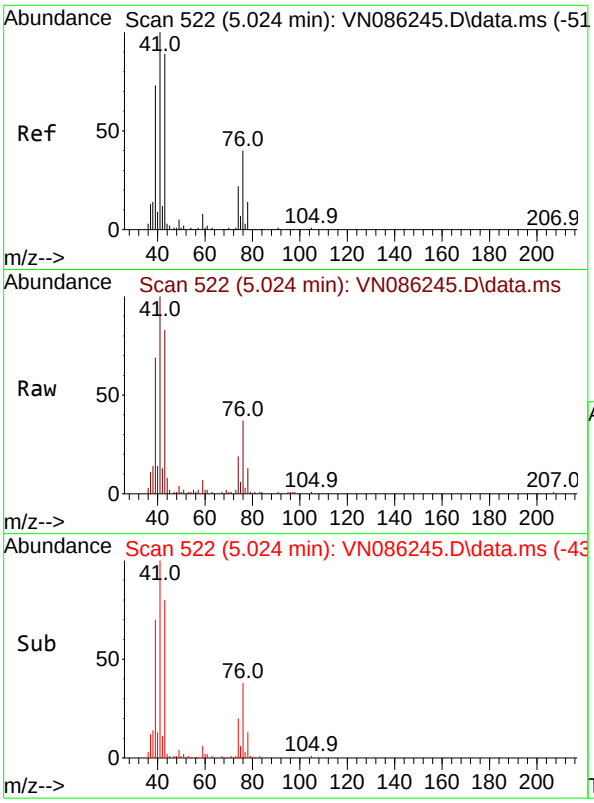


#16
Carbon Disulfide
Concen: 19.155 ug/l
RT: 4.712 min Scan# 469
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 76 Resp: 129547

Ion	Ratio	Lower	Upper
76	100		
78	9.6	7.7	11.5



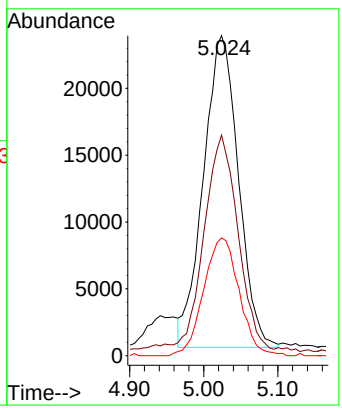


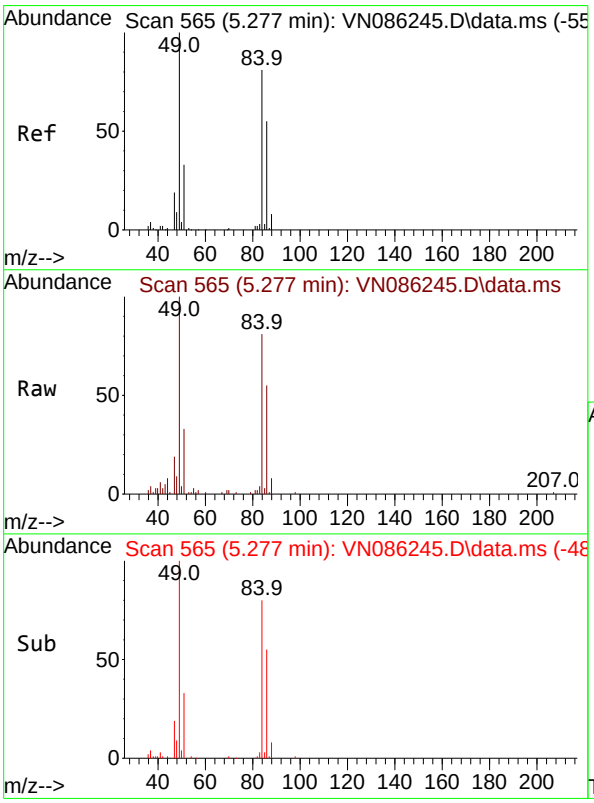
#17
Allyl chloride
Concen: 18.648 ug/l
RT: 5.024 min Scan# 5
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 41 Resp: 76657

Ion	Ratio	Lower	Upper
41	100		
39	68.8	34.4	103.2
76	37.5	18.8	56.3

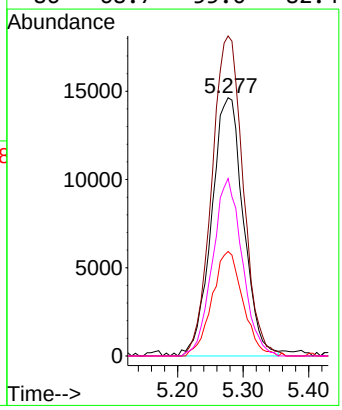


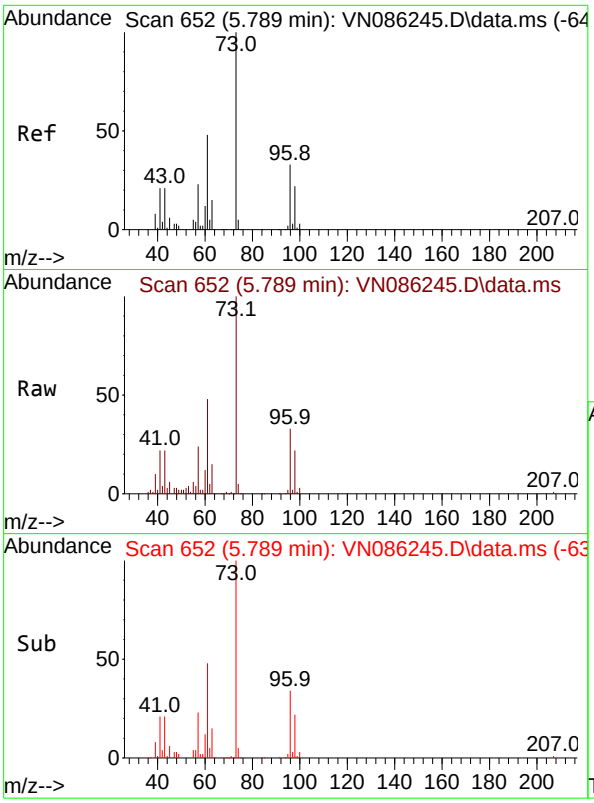


#18
Methylene Chloride
Concen: 18.333 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 84 Resp: 49299

Ion	Ratio	Lower	Upper
84	100		
49	123.9	99.1	148.7
51	40.4	32.3	48.5
86	68.7	55.0	82.4



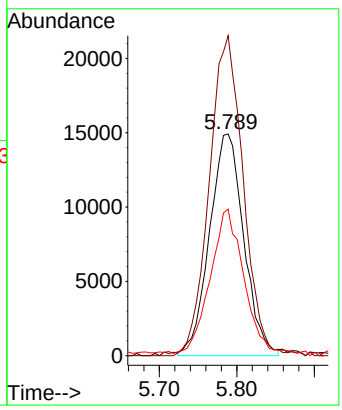


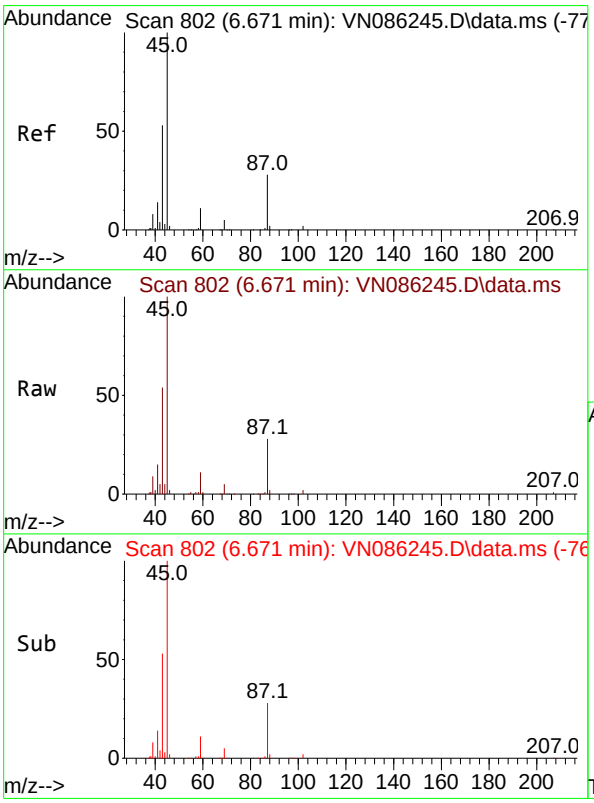
#19
trans-1,2-Dichloroethene
Concen: 21.553 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 96 Resp: 45854

Ion	Ratio	Lower	Upper
96	100		
61	144.9	115.9	173.9
98	65.1	52.1	78.1

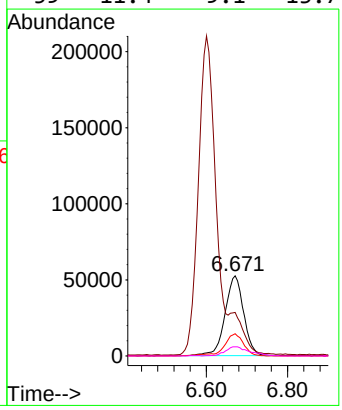


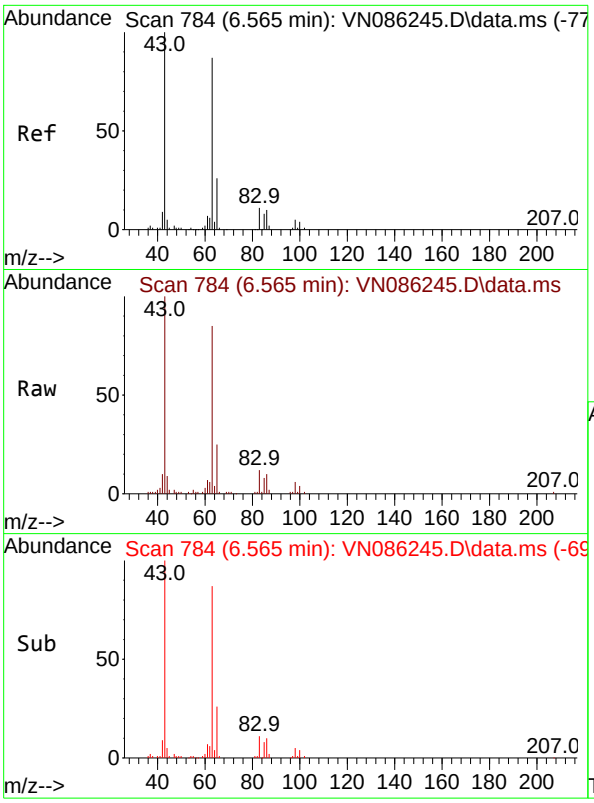


#20
Diisopropyl ether
Concen: 18.905 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 45 Resp: 167099

Ion	Ratio	Lower	Upper
45	100		
43	52.9	42.3	63.5
87	27.8	22.2	33.4
59	11.4	9.1	13.7



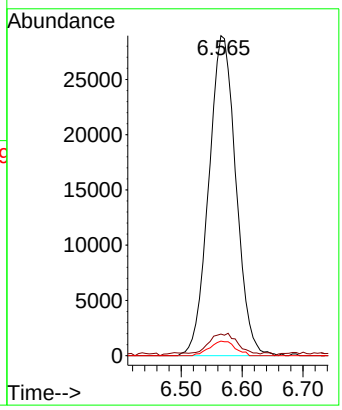


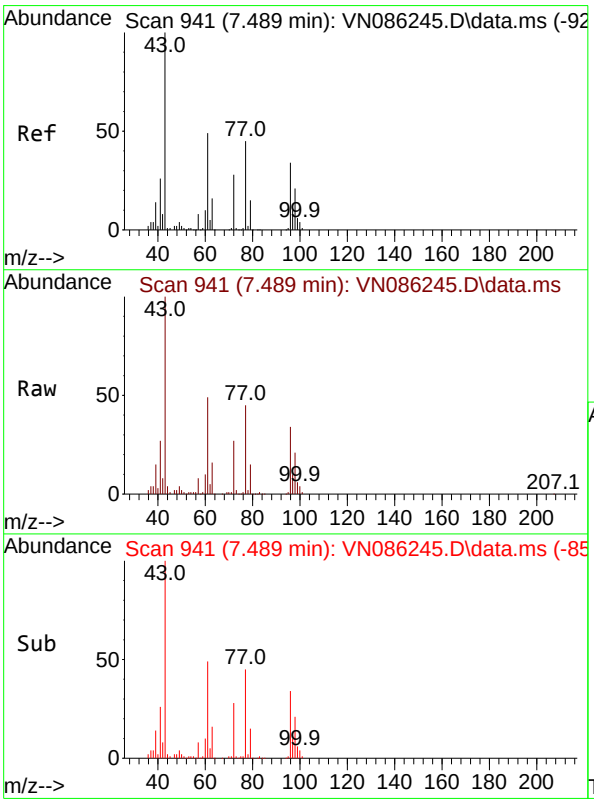
#21
1,1-Dichloroethane
Concen: 19.030 ug/l
RT: 6.565 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 63 Resp: 89726

Ion	Ratio	Lower	Upper
63	100		
98	6.2	3.1	9.3
100	4.6	2.3	6.9

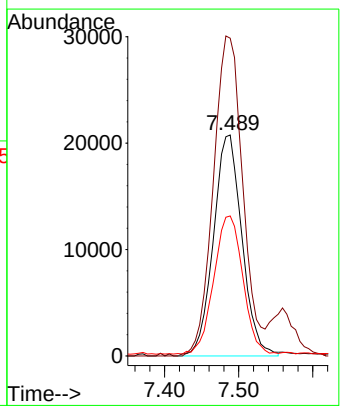


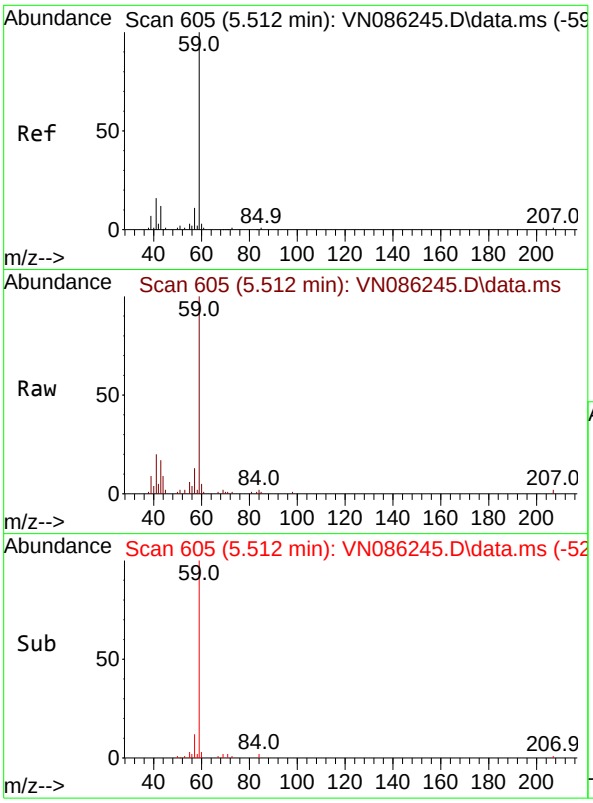


#22
cis-1,2-Dichloroethene
Concen: 18.766 ug/l
RT: 7.489 min Scan# 941
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 96 Resp: 55538

Ion	Ratio	Lower	Upper
96	100		
61	149.4	119.5	179.3
98	63.8	51.0	76.6



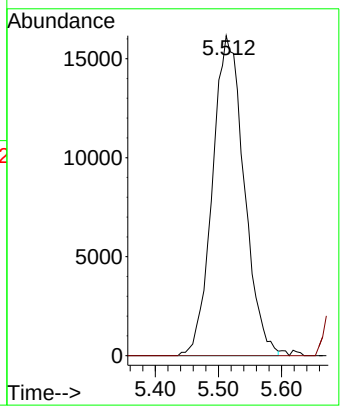


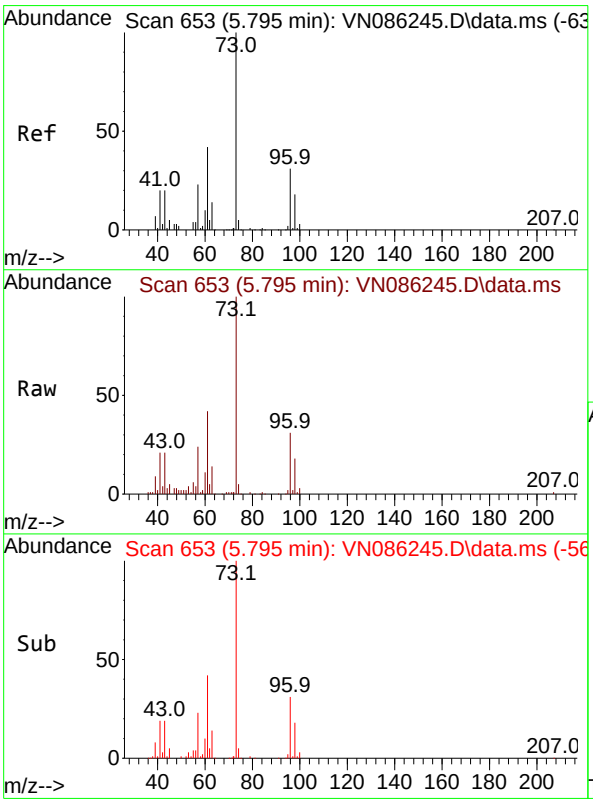
#23
tert-Butyl Alcohol
Concen: 96.582 ug/l
RT: 5.512 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 59 Resp: 56269

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0

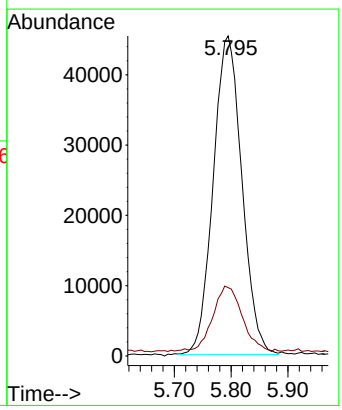


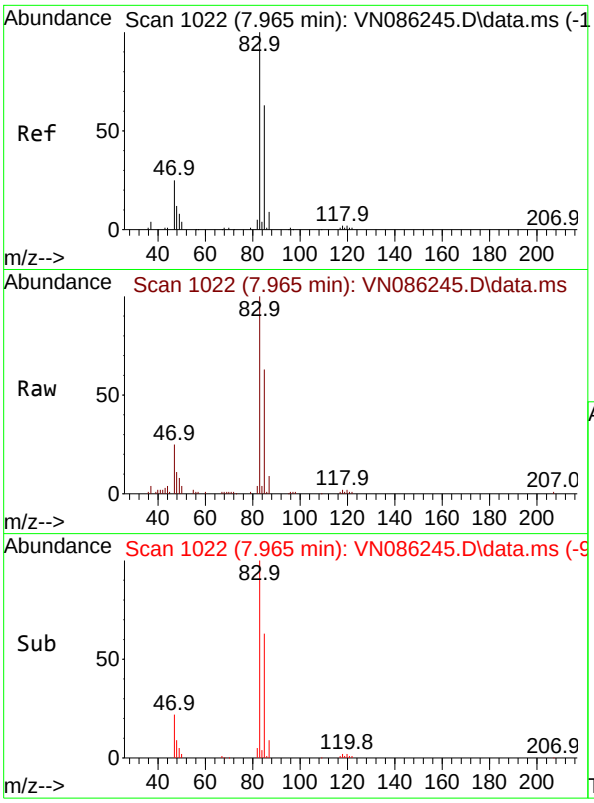


#24
Methyl tert-Butyl Ether
Concen: 18.690 ug/l
RT: 5.795 min Scan# 653
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 73 Resp: 158818

Ion	Ratio	Lower	Upper
73	100		
43	21.0	16.8	25.2



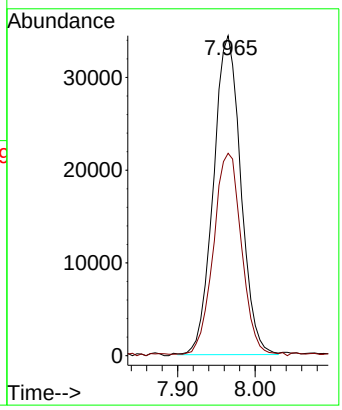


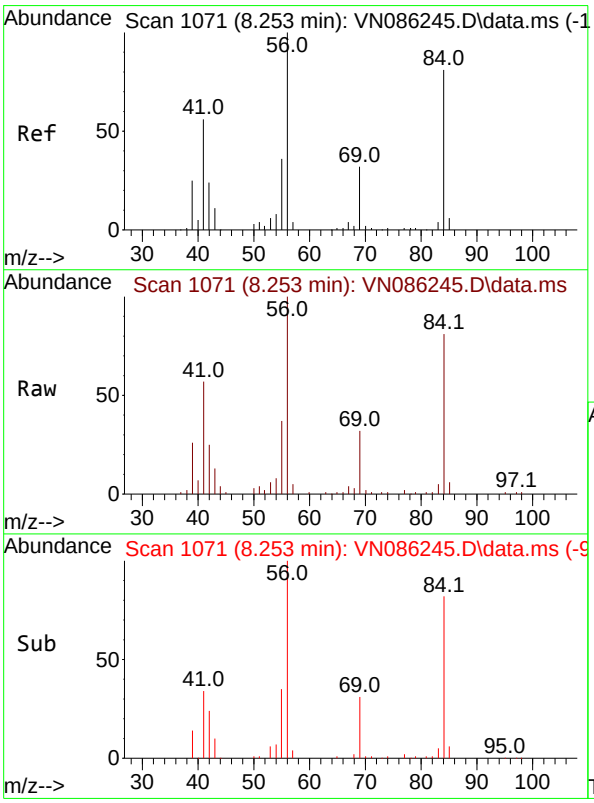
#25
Chloroform
Concen: 18.796 ug/l
RT: 7.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 83 Resp: 84511

Ion	Ratio	Lower	Upper
83	100		
85	63.1	50.5	75.7

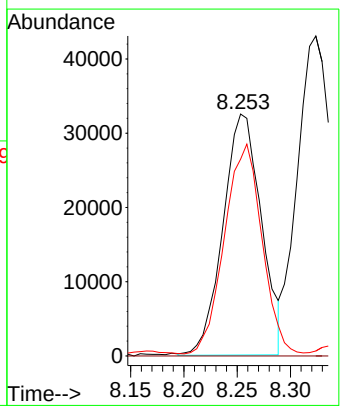


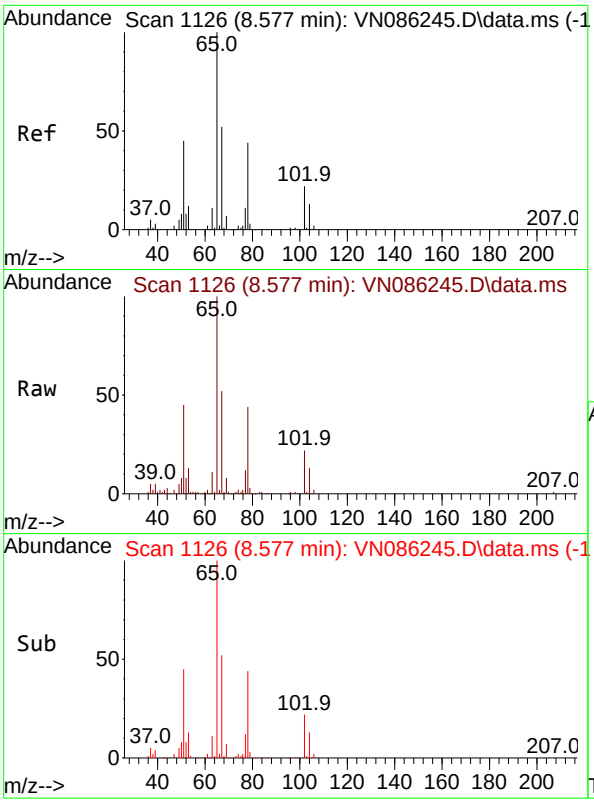


#26
Cyclohexane
Concen: 18.462 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 56 Resp: 81442

Ion	Ratio	Lower	Upper
56	100		
89	0.0	0.0	0.0
84	86.2	69.0	103.4



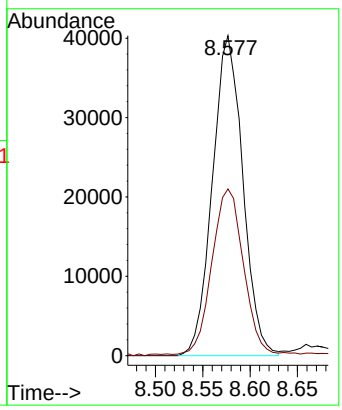


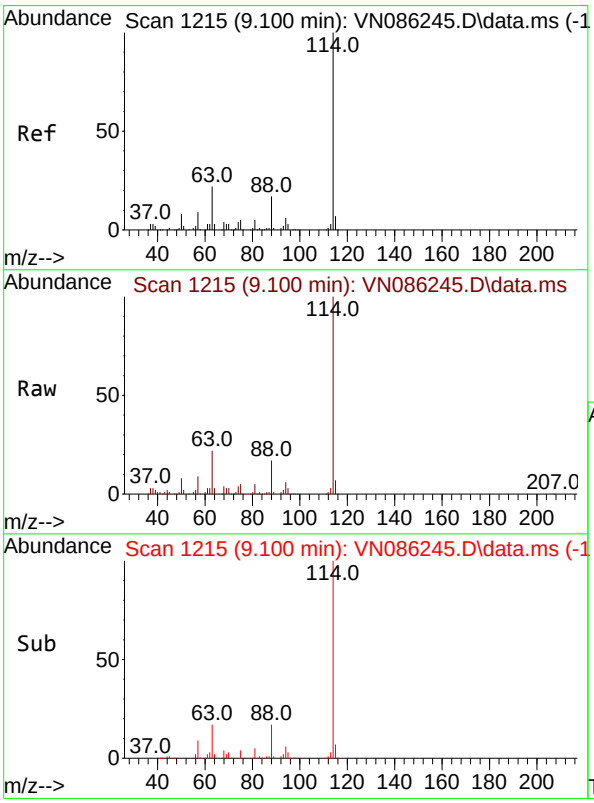
#27
1,2-Dichloroethane-d4
Concen: 29.776 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 65 Resp: 89958

Ion	Ratio	Lower	Upper
65	100		
67	54.3	43.4	65.2

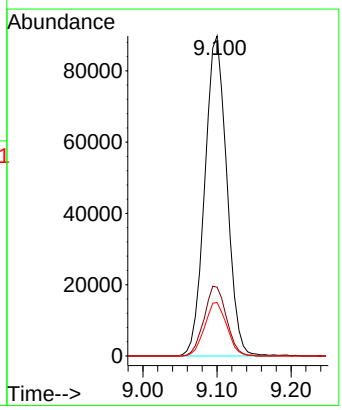


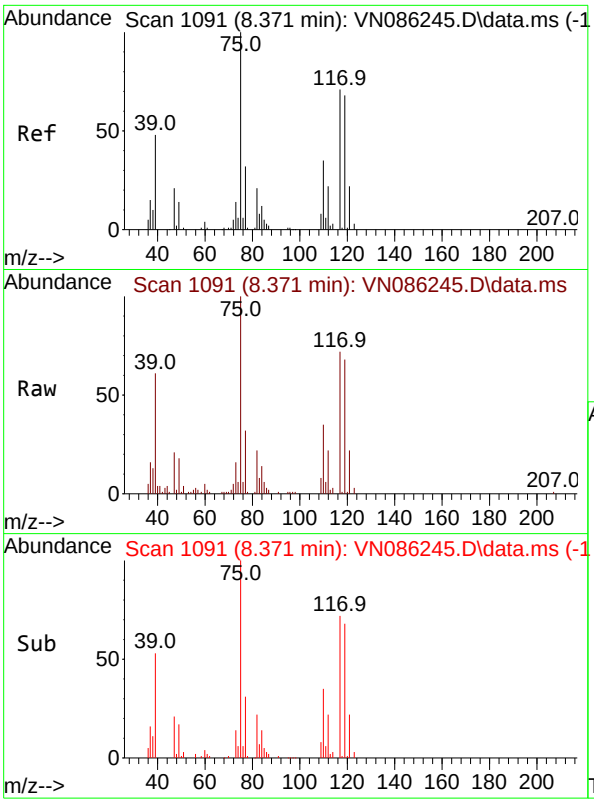


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:114 Resp: 185020

Ion	Ratio	Lower	Upper
114	100		
63	22.2	17.8	26.6
88	16.8	13.4	20.2



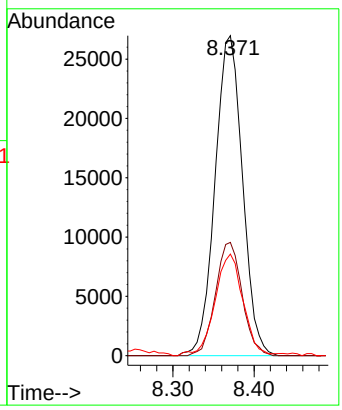


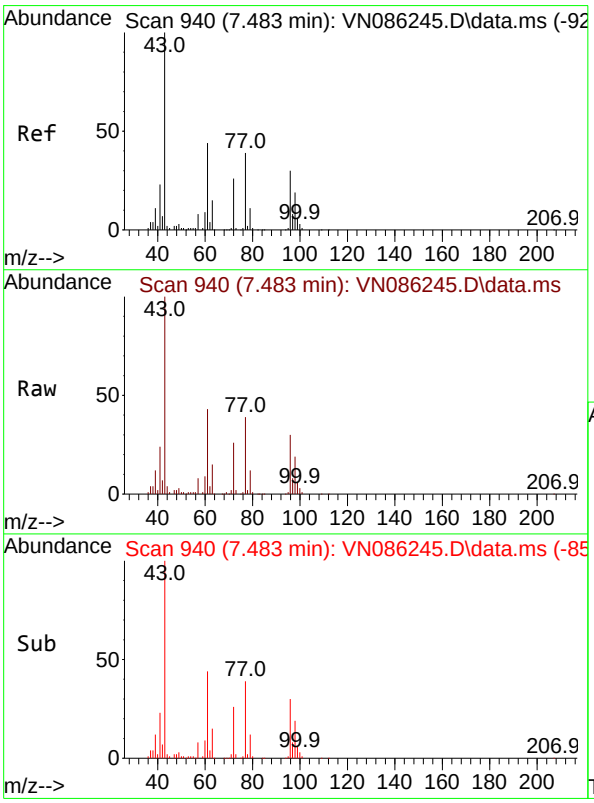
#29
1,1-Dichloropropene
Concen: 19.129 ug/l
RT: 8.371 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 75 Resp: 63403

Ion	Ratio	Lower	Upper
75	100		
110	34.3	0.0	68.6
77	31.9	0.0	63.8

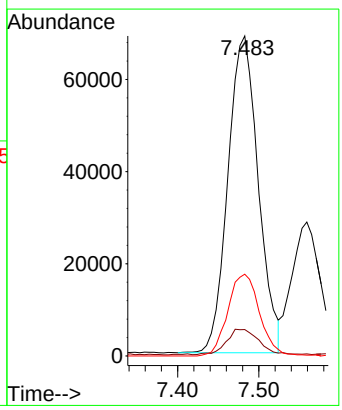


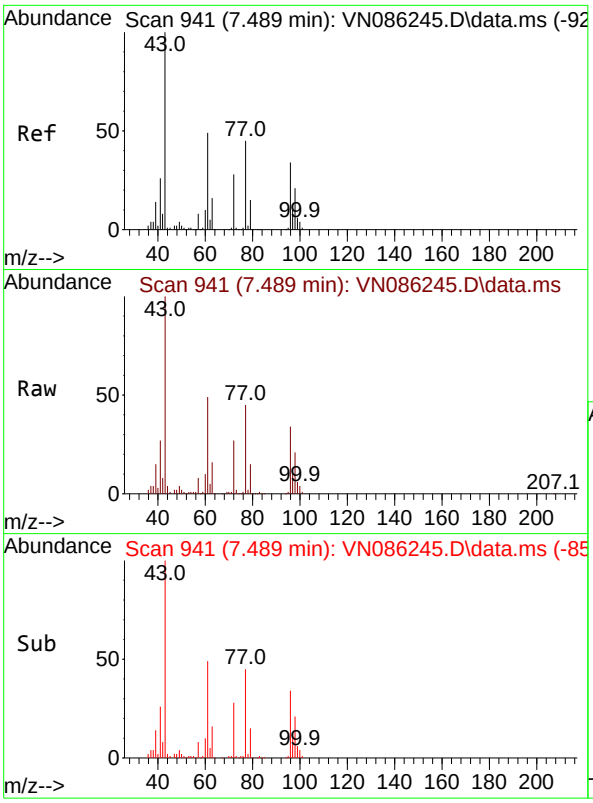


#30
2-Butanone
Concen: 97.263 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 178630

Ion	Ratio	Lower	Upper
43	100		
57	8.0	6.4	9.6
72	26.9	21.5	32.3



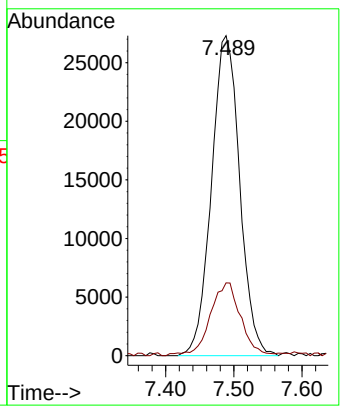


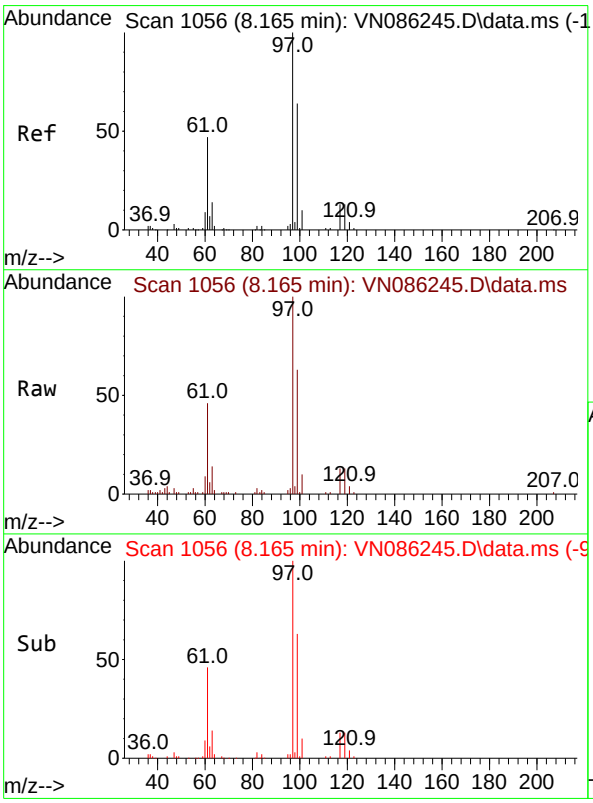
#31
2,2-Dichloropropane
Concen: 19.298 ug/l
RT: 7.489 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 77 Resp: 78733

Ion	Ratio	Lower	Upper
77	100		
97	23.5	18.8	28.2

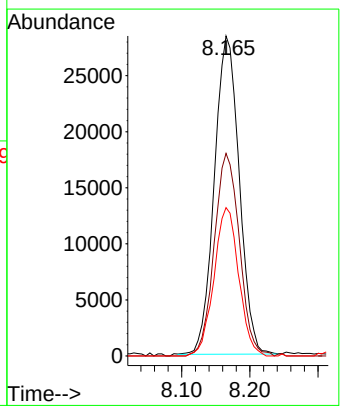


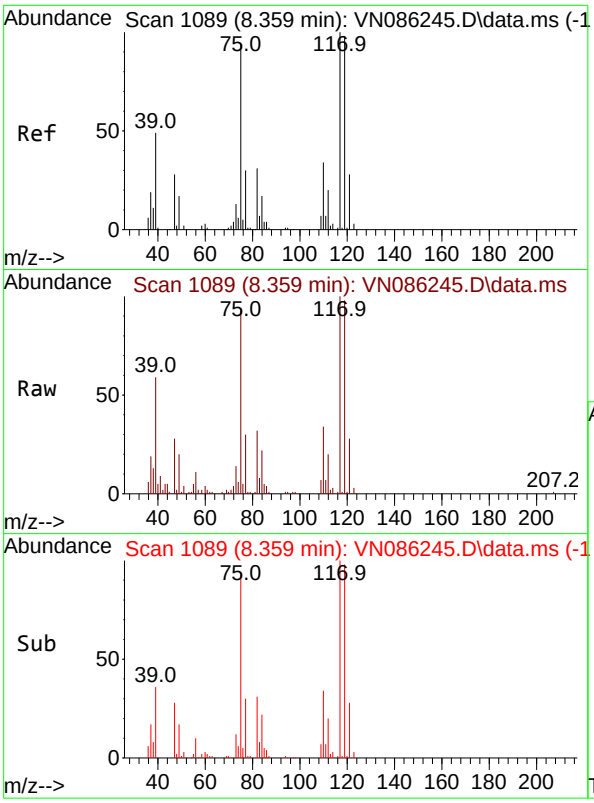


#32
1,1,1-Trichloroethane
Concen: 18.945 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 97 Resp: 72230

Ion	Ratio	Lower	Upper
97	100		
99	64.3	51.4	77.2
61	46.3	37.0	55.6



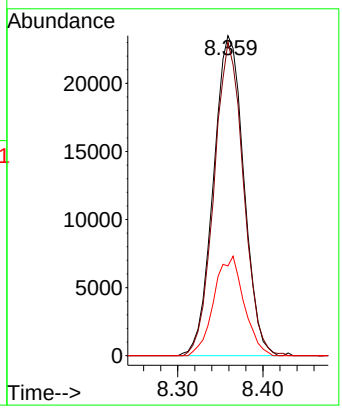


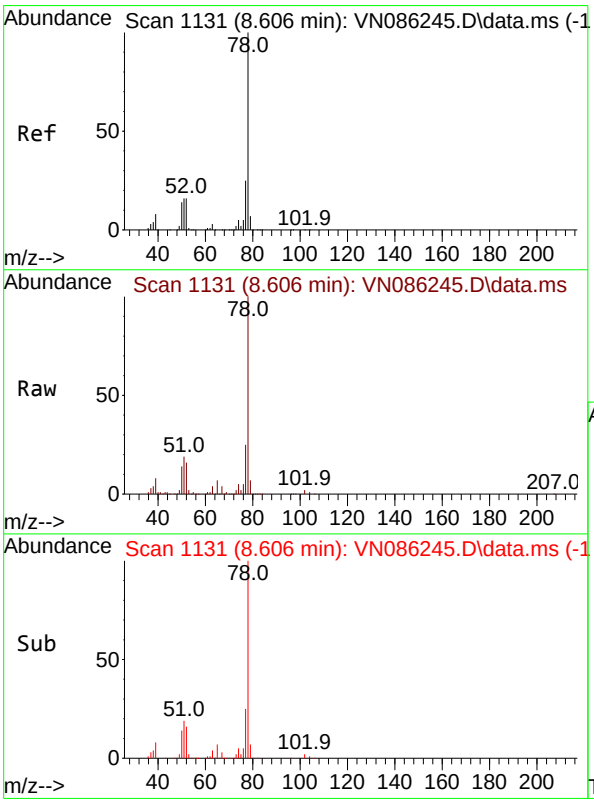
#33
Carbon Tetrachloride
Concen: 19.114 ug/l
RT: 8.359 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:117 Resp: 58240

Ion	Ratio	Lower	Upper
117	100		
119	97.9	78.3	117.5
121	28.1	22.5	33.7

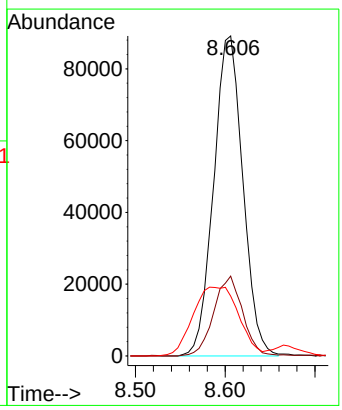


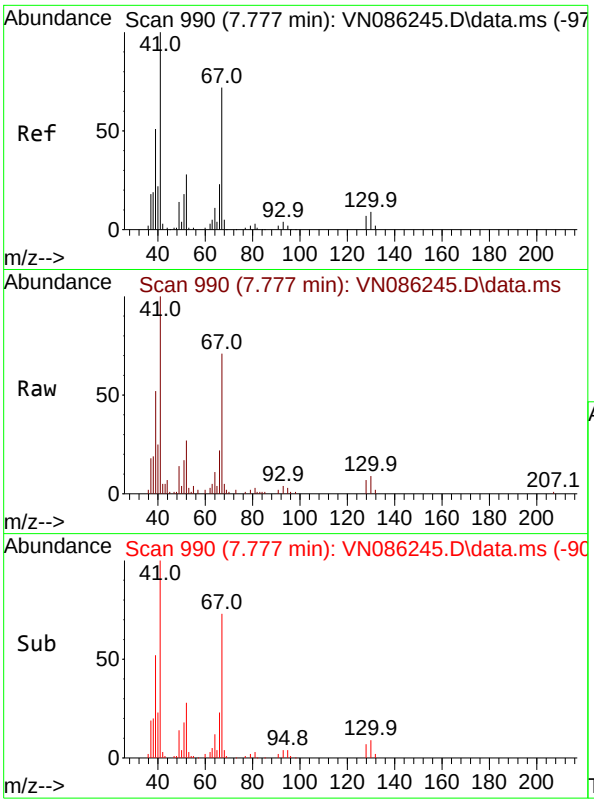


#34
Benzene
Concen: 19.103 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 78 Resp: 201431

Ion	Ratio	Lower	Upper
78	100		
77	25.0	20.0	30.0
51	16.1	12.9	19.3



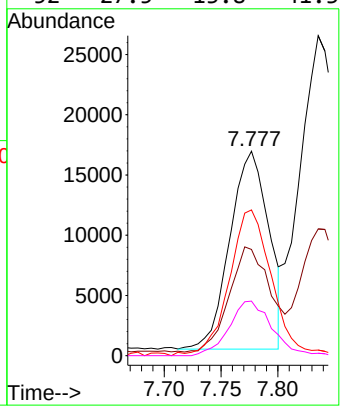


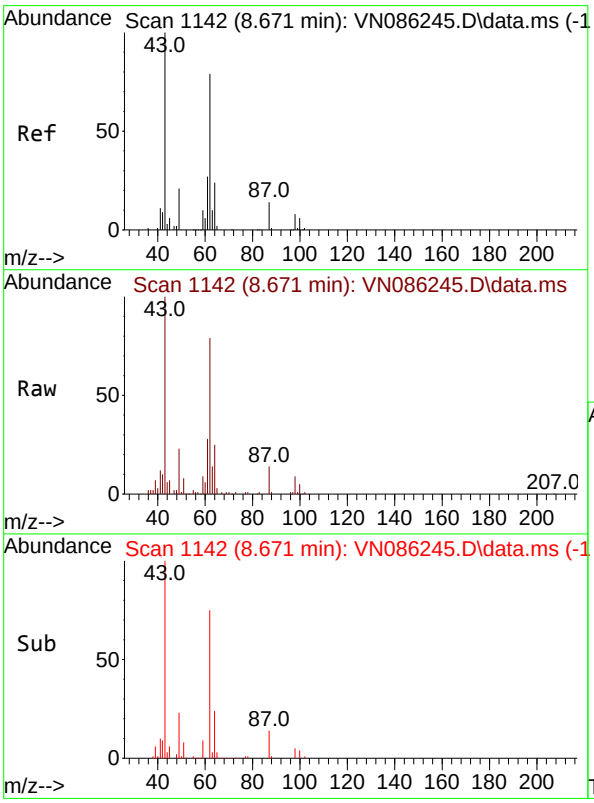
#35
Methacrylonitrile
Concen: 18.953 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 41 Resp: 39241

Ion	Ratio	Lower	Upper
41	100		
39	51.5	25.8	77.3
67	72.0	36.0	108.0
52	27.5	13.8	41.3

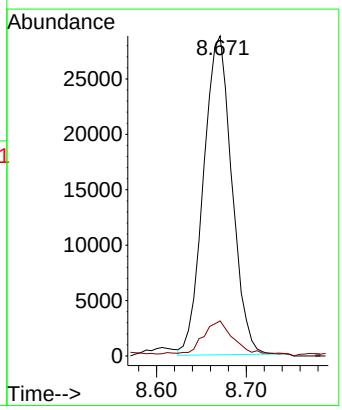


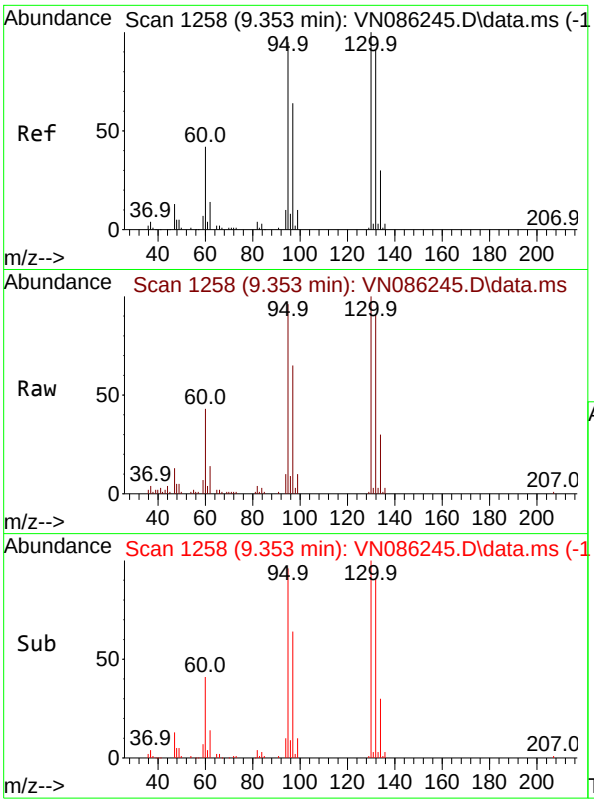


#36
1,2-Dichloroethane
Concen: 19.124 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 62 Resp: 63104

Ion	Ratio	Lower	Upper
62	100		
98	10.7	8.6	12.8



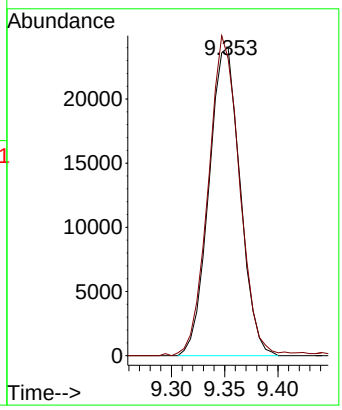


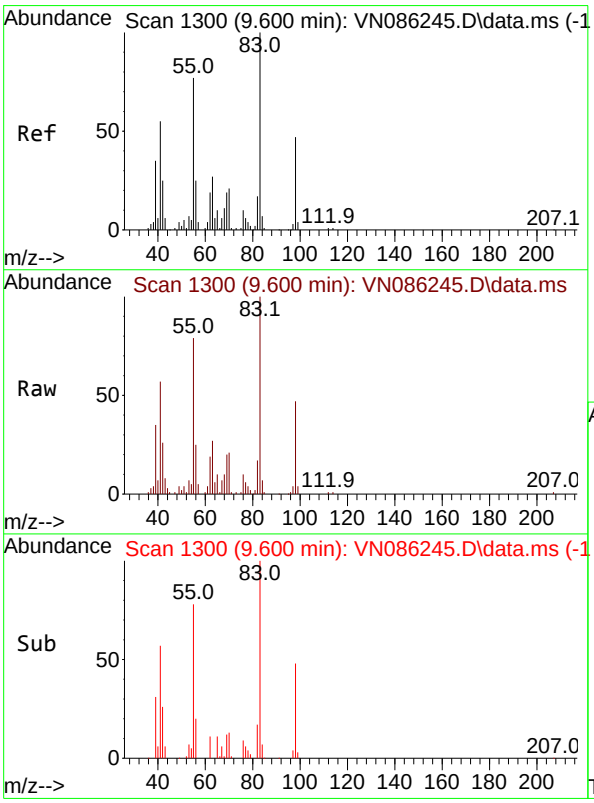
#37
Trichloroethene
Concen: 19.215 ug/l
RT: 9.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:130 Resp: 48886

Ion	Ratio	Lower	Upper
130	100		
95	95.5	76.4	114.6

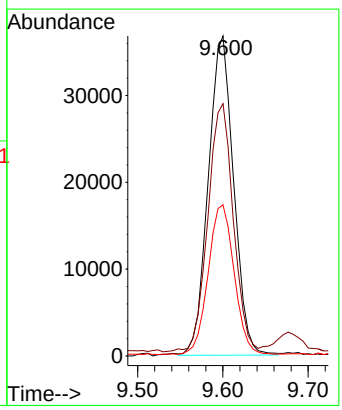


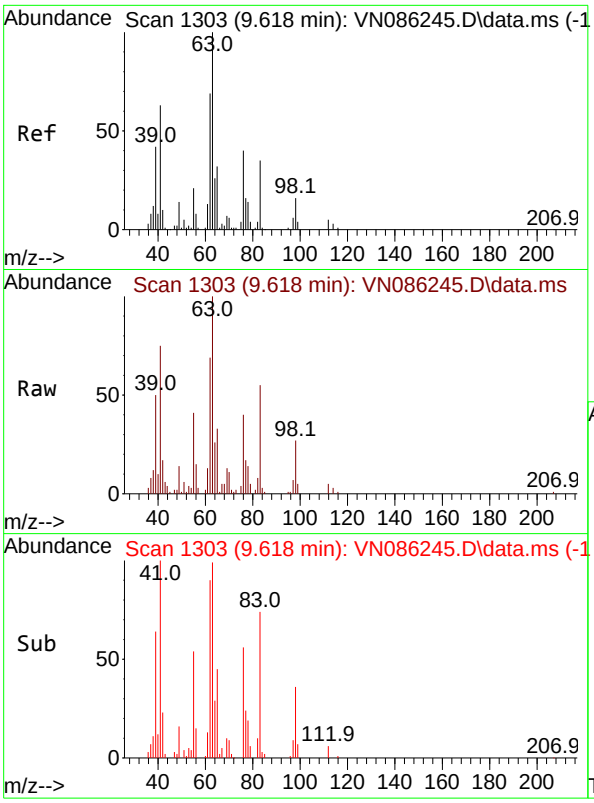


#38
Methylcyclohexane
Concen: 18.695 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 83 Resp: 75994

Ion	Ratio	Lower	Upper
83	100		
55	77.0	38.5	115.5
98	48.8	24.4	73.2



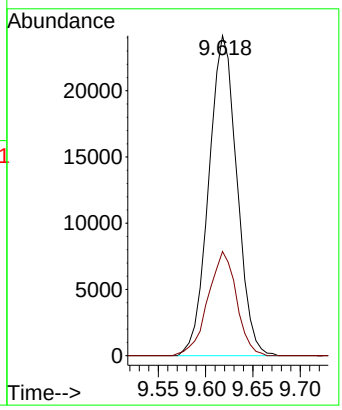


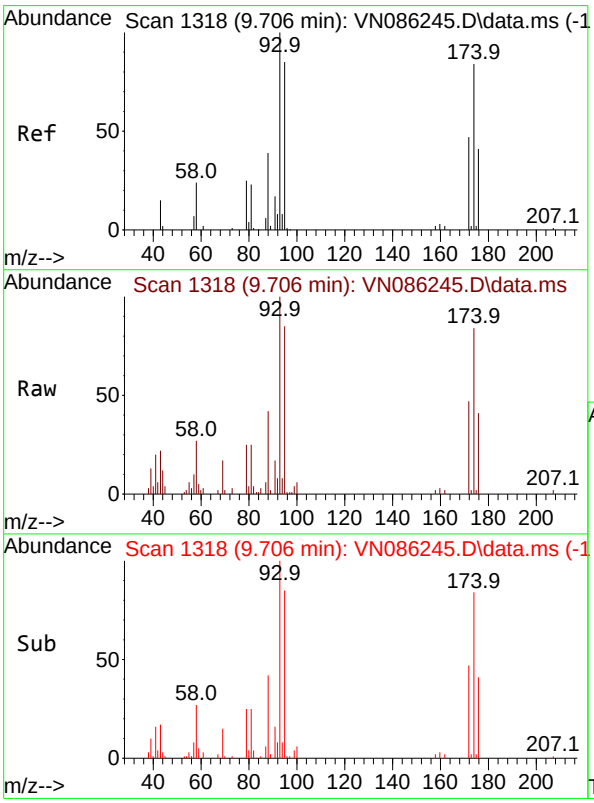
#39
1,2-Dichloropropane
Concen: 19.028 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 63 Resp: 49925

Ion	Ratio	Lower	Upper
63	100		
65	32.5	26.0	39.0

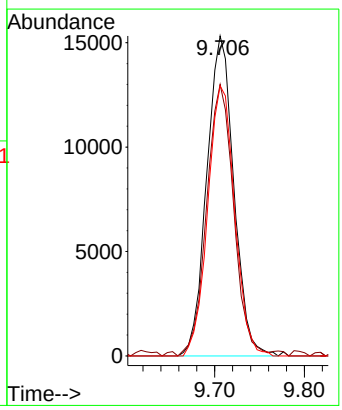


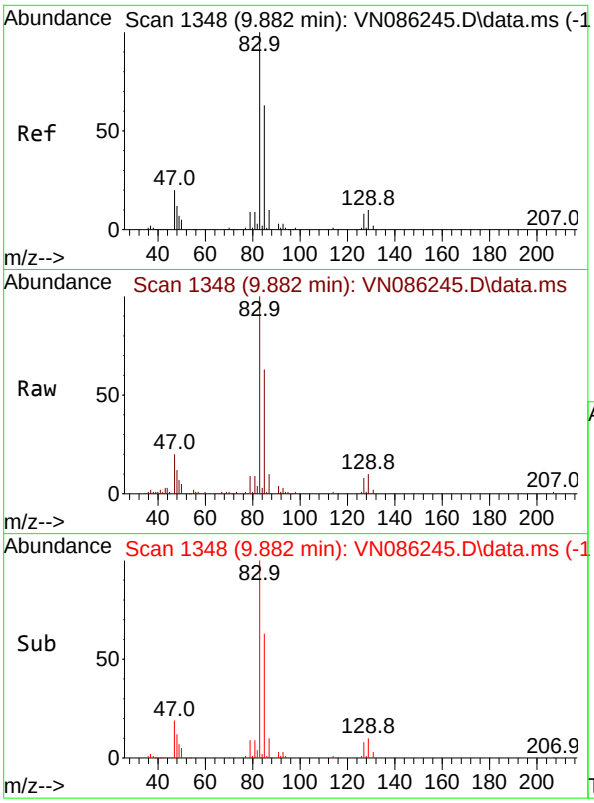


#40
Dibromomethane
Concen: 18.960 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 93 Resp: 32130

Ion	Ratio	Lower	Upper
93	100		
95	84.5	0.0	169.0
174	84.0	0.0	168.0



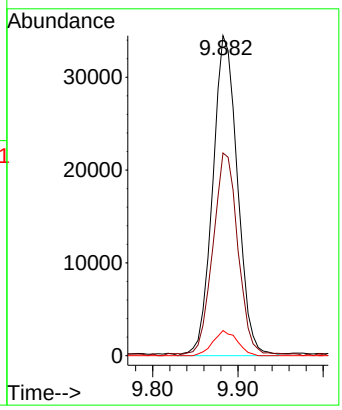


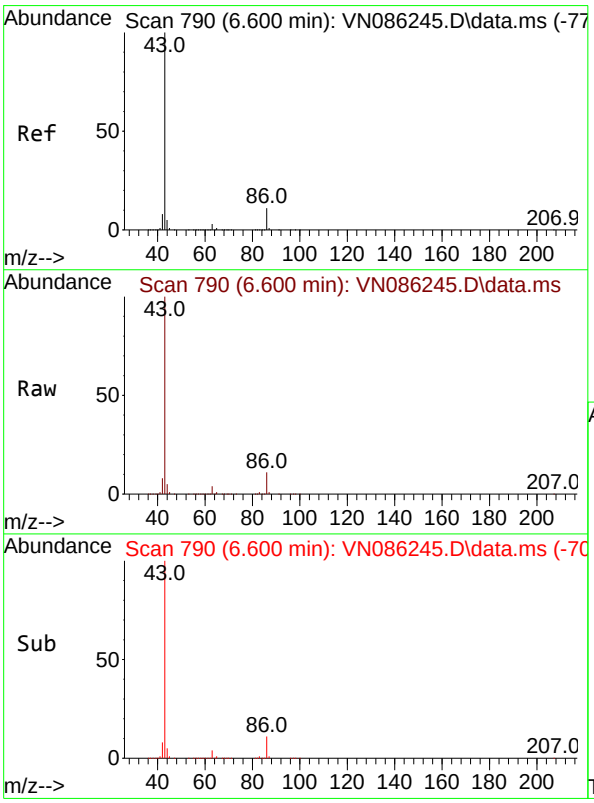
#41
Bromodichloromethane
Concen: 19.149 ug/l
RT: 9.882 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 83 Resp: 69713

Ion	Ratio	Lower	Upper
83	100		
85	62.7	50.2	75.2
127	7.8	6.2	9.4

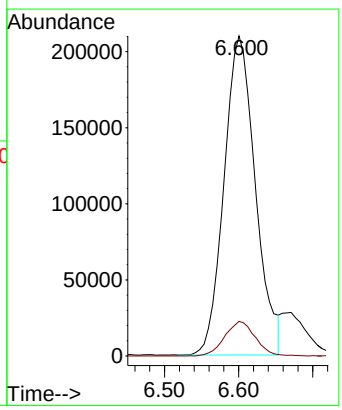


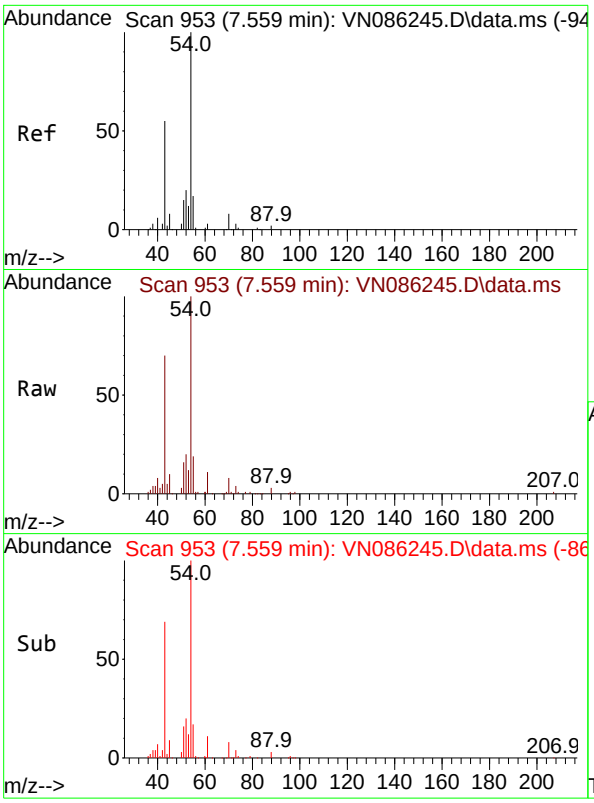


#42
Vinyl Acetate
Concen: 98.633 ug/l
RT: 6.600 min Scan# 790
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 616622

Ion	Ratio	Lower	Upper
43	100		
86	10.5	8.4	12.6



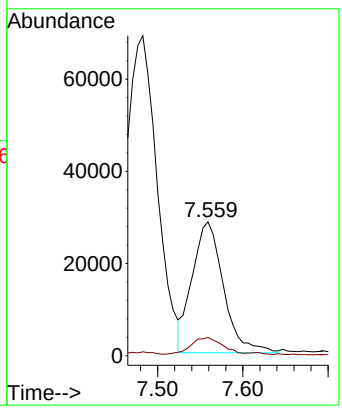


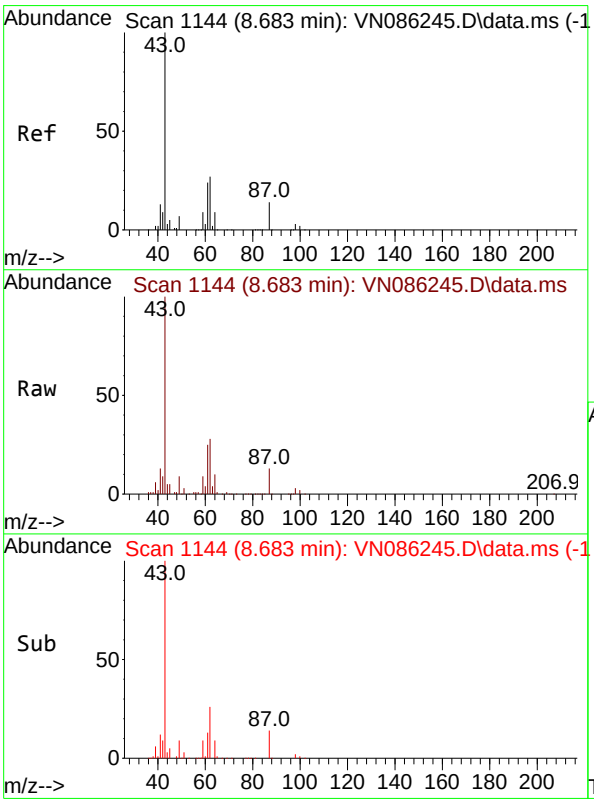
#43
Ethyl Acetate
Concen: 19.607 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 43 Resp: 72635

Ion	Ratio	Lower	Upper
43	100		
45	14.0	11.2	16.8

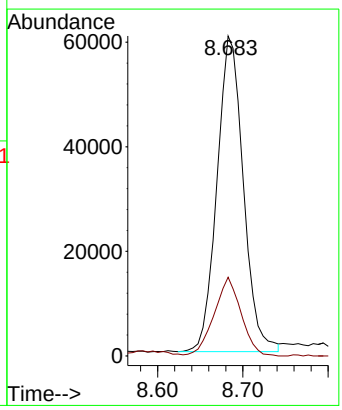


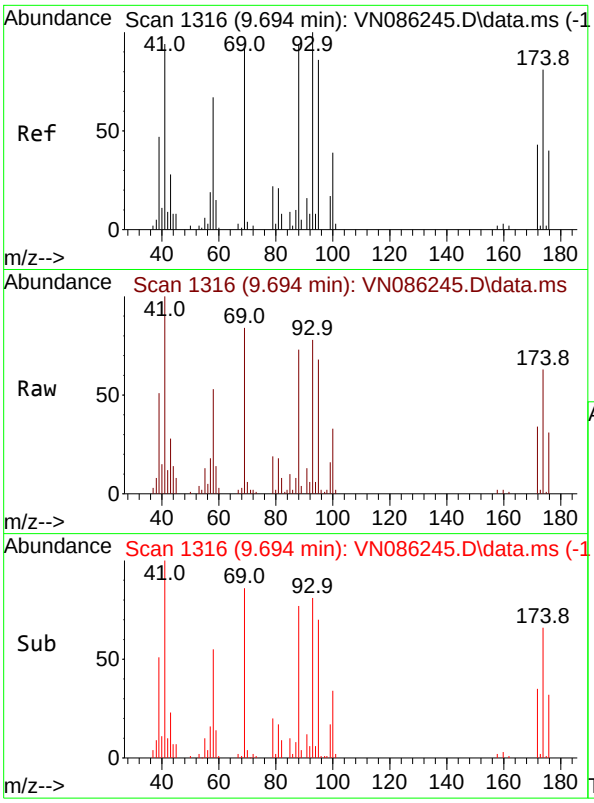


#44
Isopropyl Acetate
Concen: 18.850 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 129543

Ion	Ratio	Lower	Upper
43	100		
61	25.6	20.5	30.7



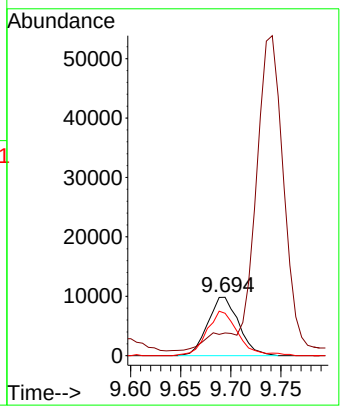


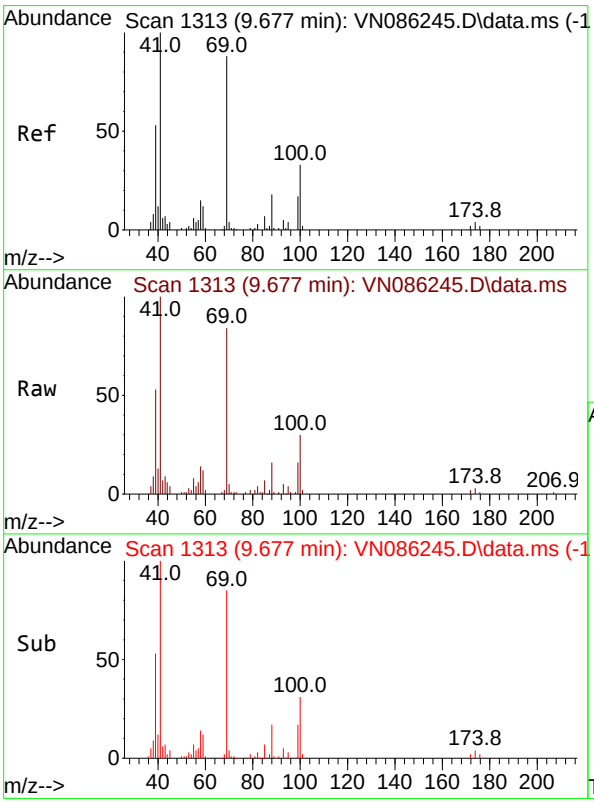
#45
1,4-Dioxane
Concen: 386.736 ug/l
RT: 9.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 88 Resp: 21134

Ion	Ratio	Lower	Upper
88	100		
43	18.0	14.4	21.6
58	74.8	59.8	89.8

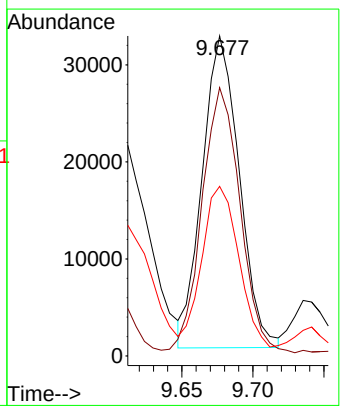


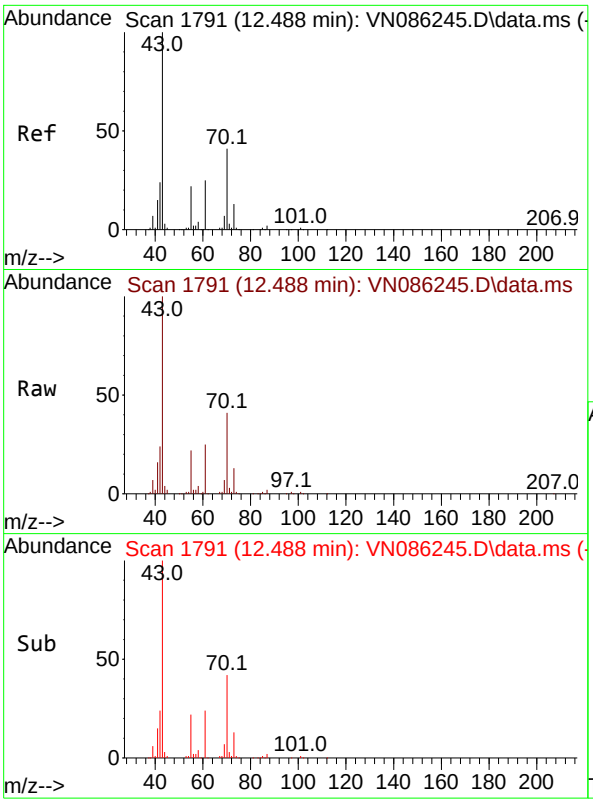


#46
Methyl methacrylate
Concen: 19.192 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 41 Resp: 58112

Ion	Ratio	Lower	Upper
41	100		
69	86.4	43.2	129.6
39	52.7	26.4	79.0



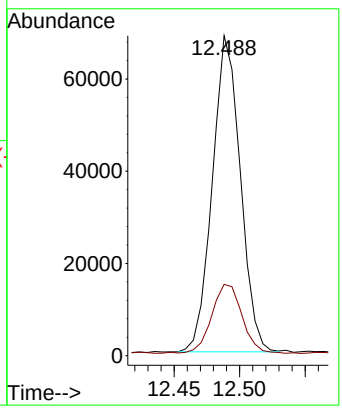


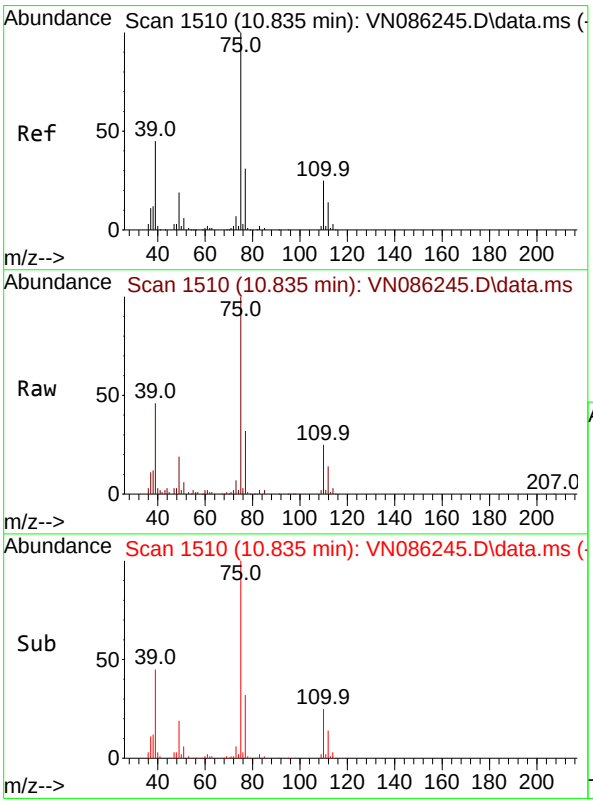
#47
n-amyl Acetate
Concen: 18.304 ug/l
RT: 12.488 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 43 Resp: 101635

Ion	Ratio	Lower	Upper
43	100		
55	23.7	19.0	28.4

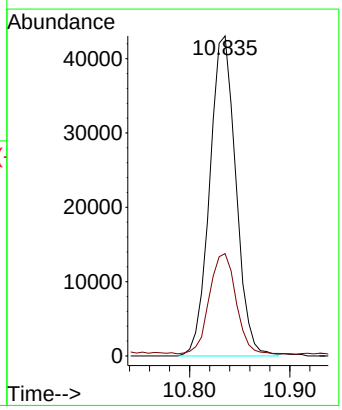


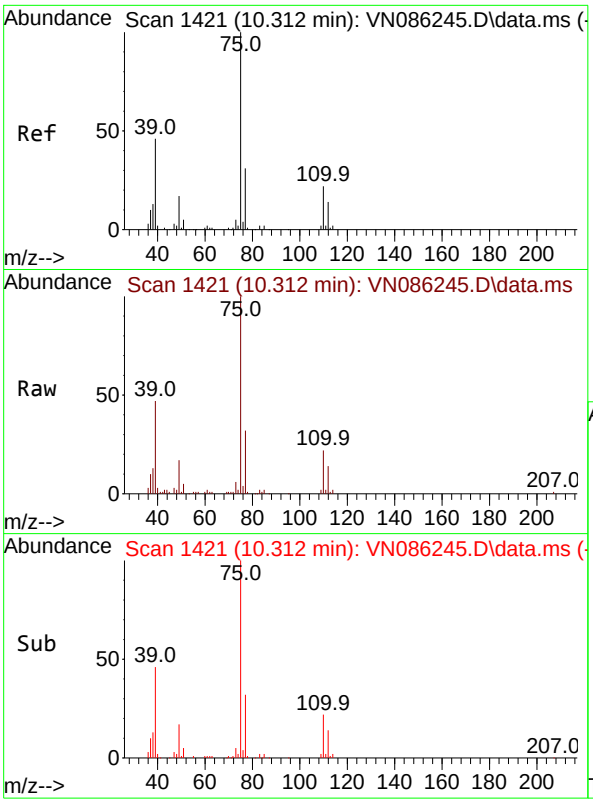


#48
t-1,3-Dichloropropene
Concen: 18.977 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 78104

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7



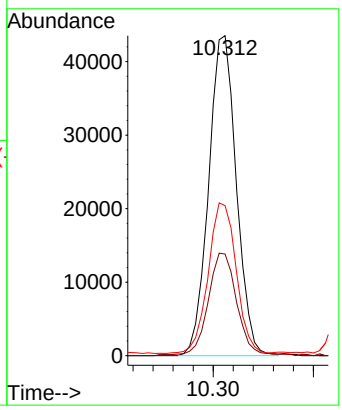


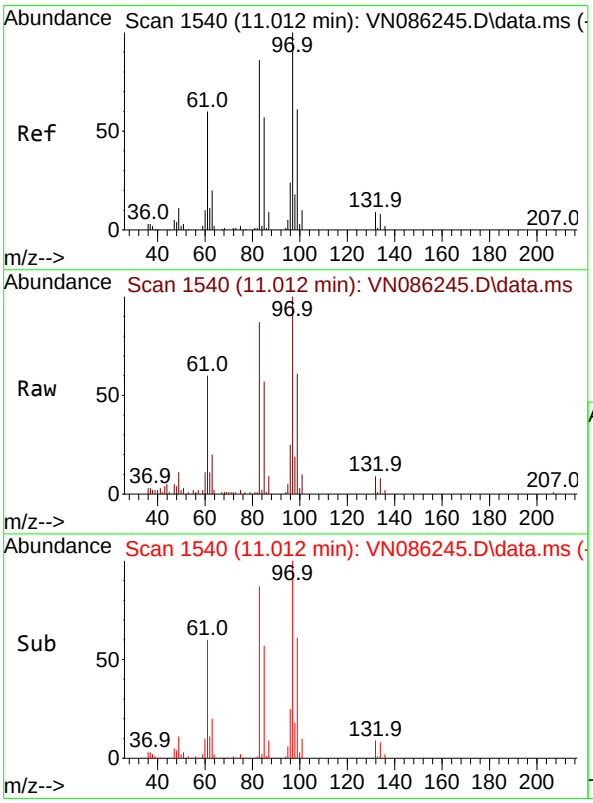
#49
cis-1,3-Dichloropropene
Concen: 19.170 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 75 Resp: 83505

Ion	Ratio	Lower	Upper
75	100		
77	31.2	25.0	37.4
39	45.9	36.7	55.1

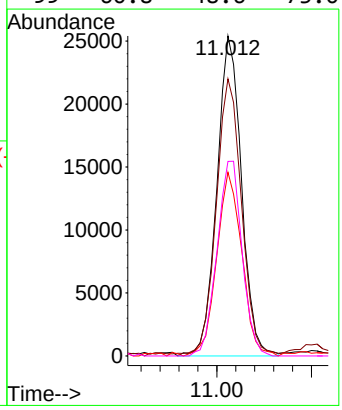


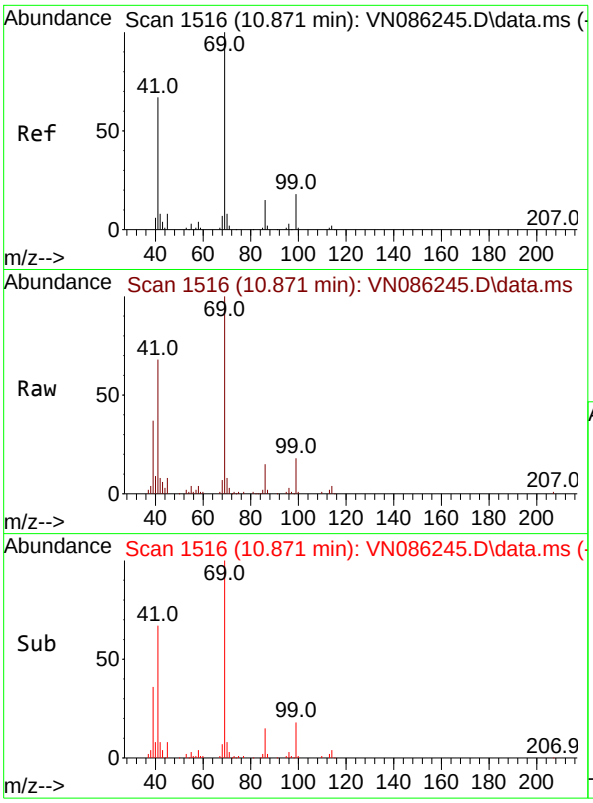


#50
1,1,2-Trichloroethane
Concen: 19.308 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 97 Resp: 45892

Ion	Ratio	Lower	Upper
97	100		
83	85.8	68.6	103.0
85	57.4	45.9	68.9
99	60.8	48.6	73.0



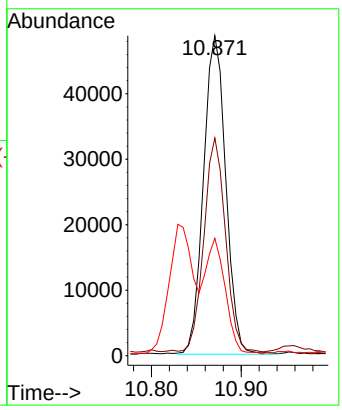


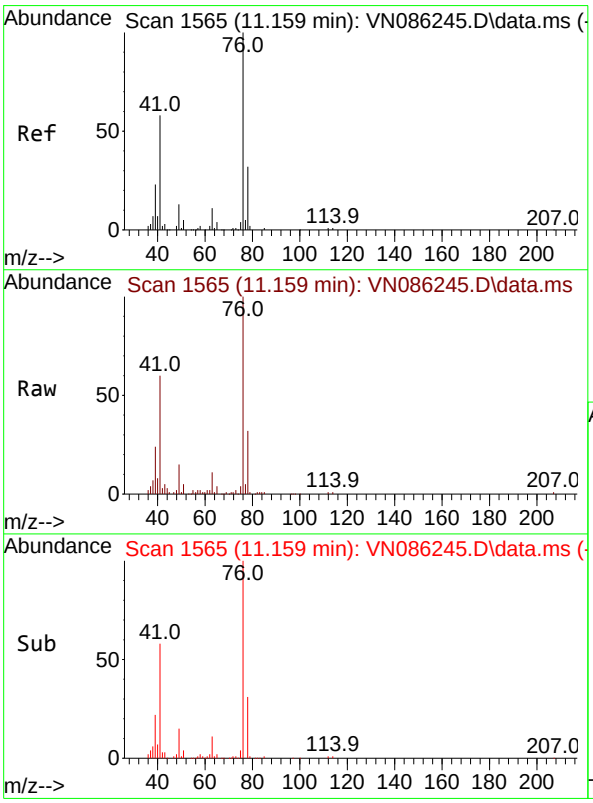
#51
Ethyl methacrylate
Concen: 19.027 ug/l
RT: 10.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 69 Resp: 84042

Ion	Ratio	Lower	Upper
69	100		
41	67.1	33.6	100.6
39	35.6	17.8	53.4

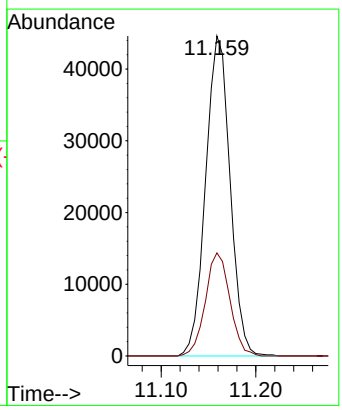


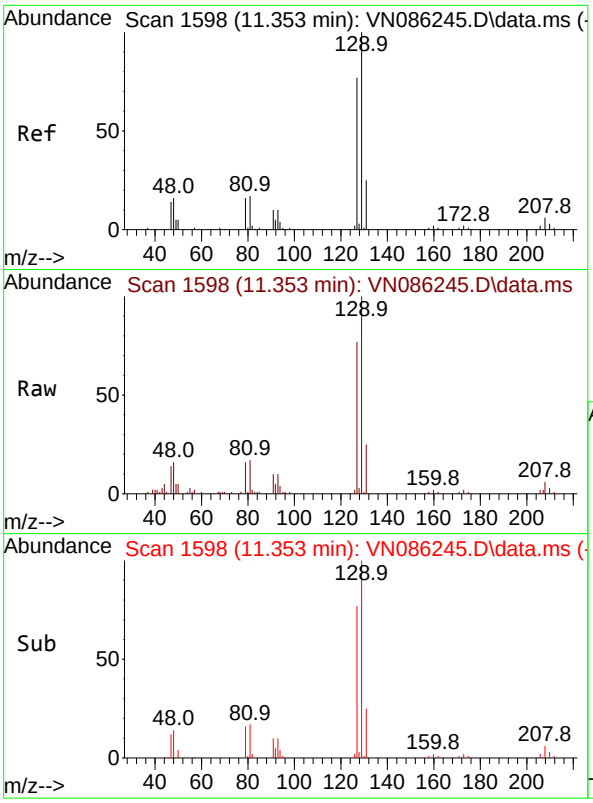


#52
1,3-Dichloropropane
Concen: 18.875 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 76 Resp: 79960

Ion	Ratio	Lower	Upper
76	100		
78	32.3	0.0	64.6



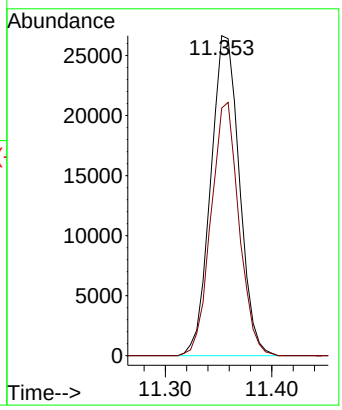


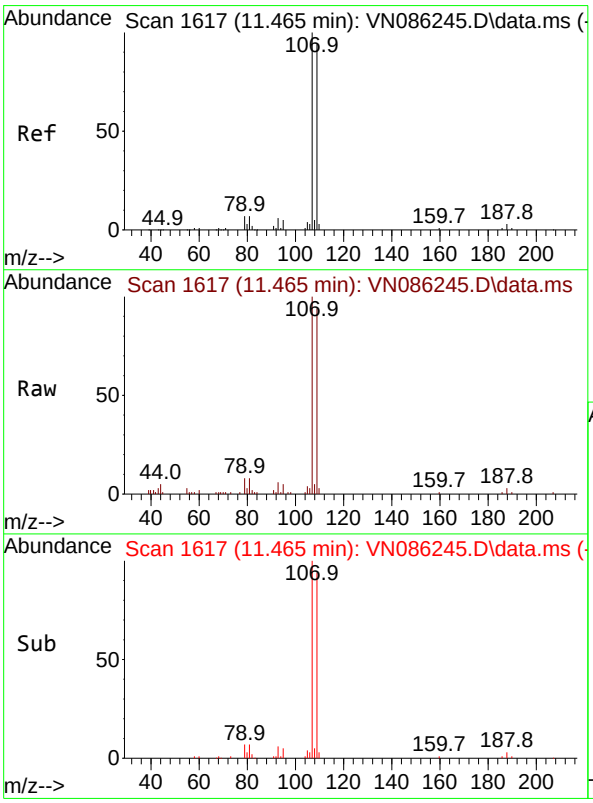
#53
Dibromochloromethane
Concen: 19.190 ug/l
RT: 11.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:129 Resp: 49892

Ion	Ratio	Lower	Upper
129	100		
127	77.0	38.5	115.5

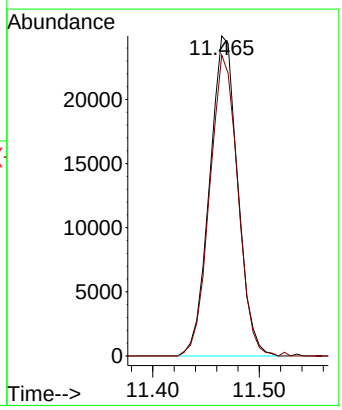


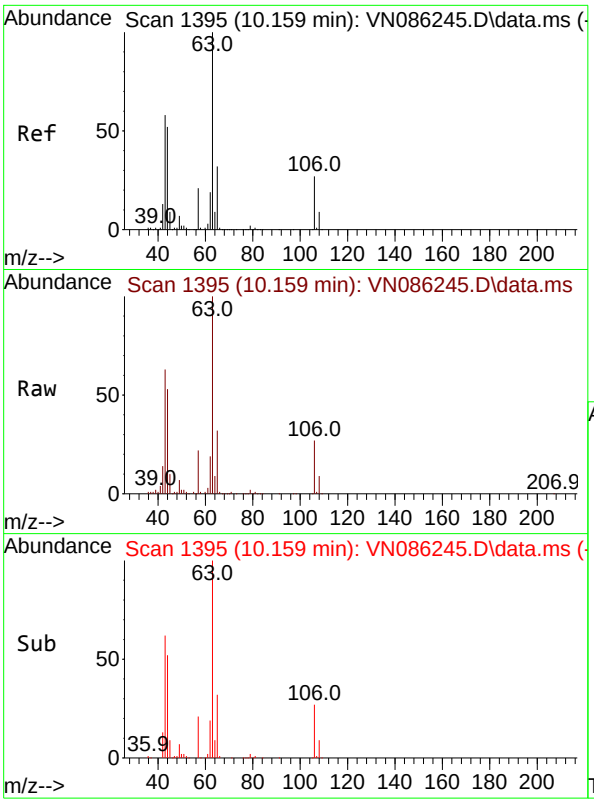


#54
1,2-Dibromoethane
Concen: 19.034 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:107 Resp: 45668

Ion	Ratio	Lower	Upper
107	100		
109	94.0	75.2	112.8



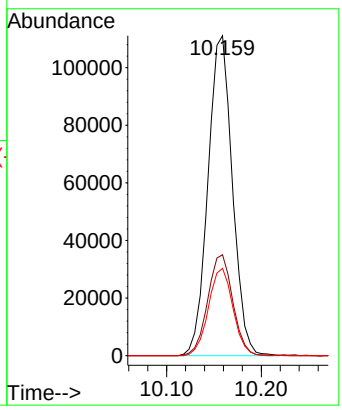


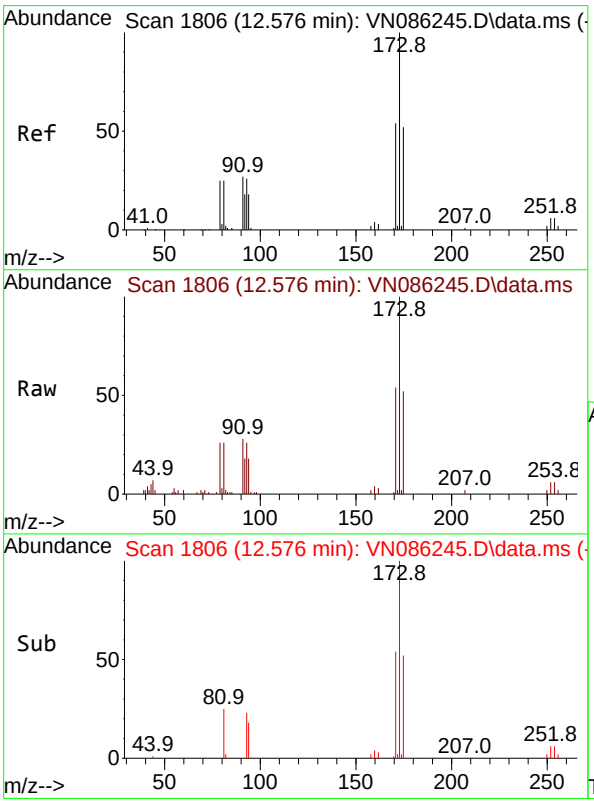
#55
2-Chloroethyl vinyl ether
Concen: 119.582 ug/l
RT: 10.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 63 Resp: 199584

Ion	Ratio	Lower	Upper
63	100		
65	32.3	25.8	38.8
106	27.3	21.8	32.8

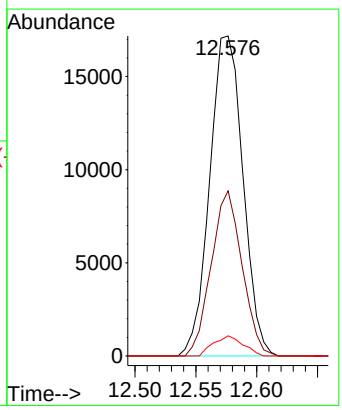


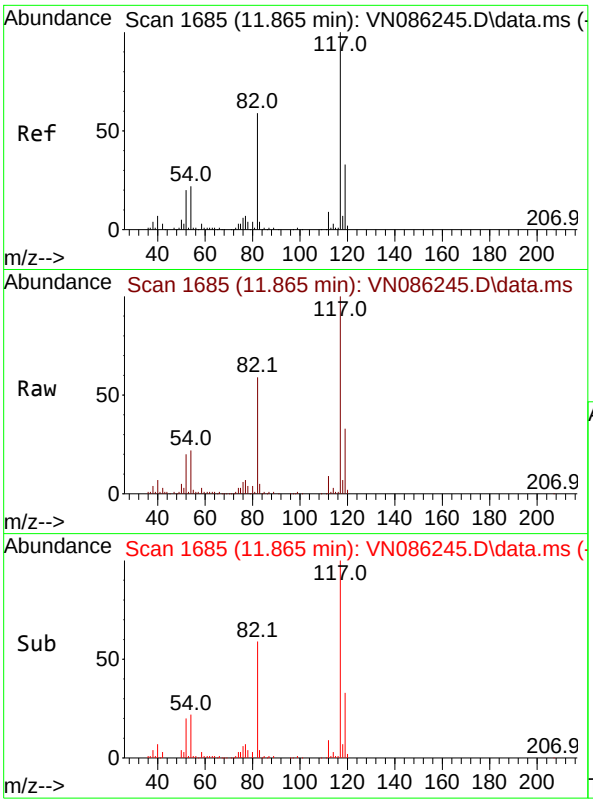


#56
Bromoform
Concen: 19.173 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:173 Resp: 32612

Ion	Ratio	Lower	Upper
173	100		
175	47.8	38.2	57.4
254	5.6	4.5	6.7



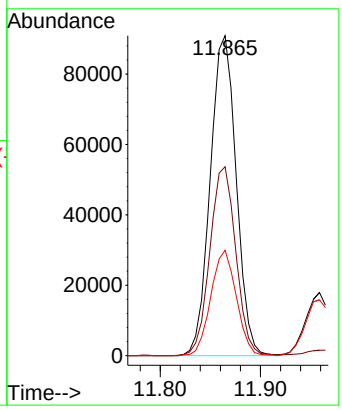


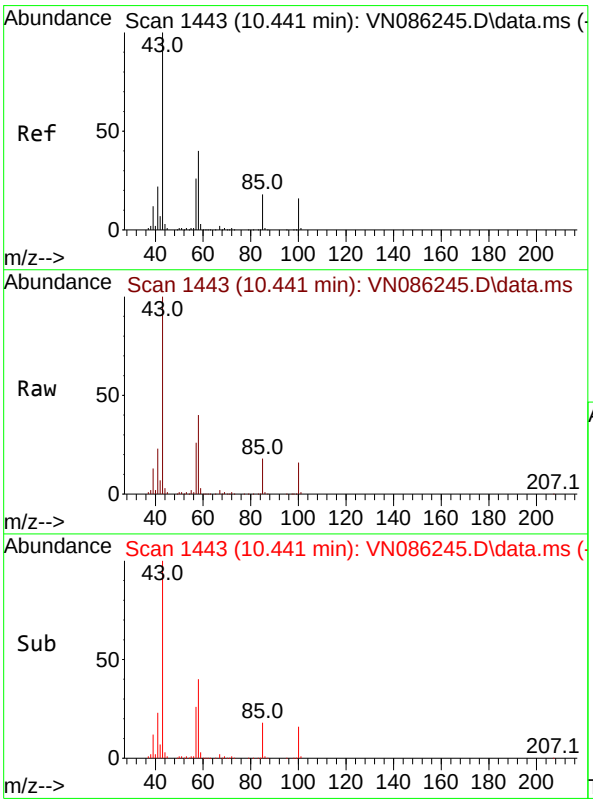
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:117 Resp: 163907

Ion	Ratio	Lower	Upper
117	100		
82	59.1	47.3	70.9
119	32.4	25.9	38.9

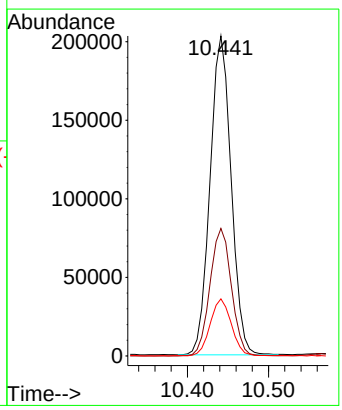


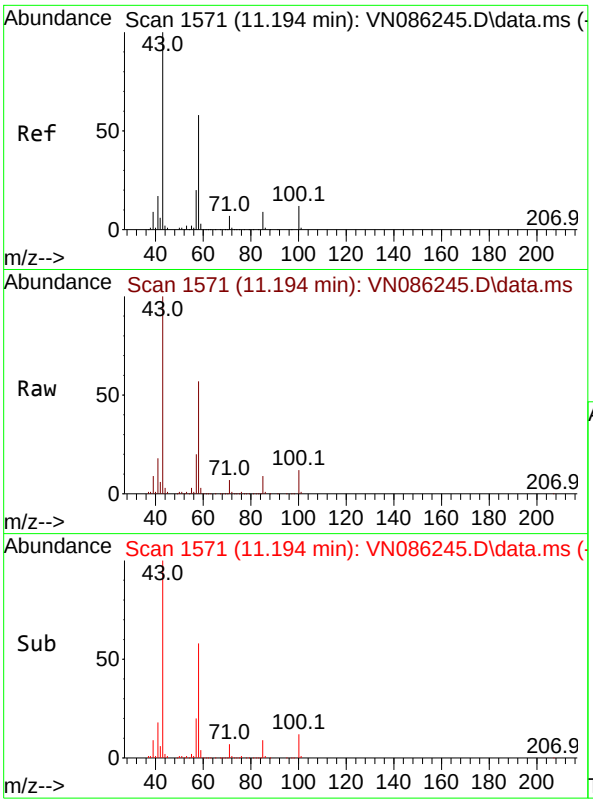


#58
4-Methyl-2-Pentanone
Concen: 98.554 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 43 Resp: 366576

Ion	Ratio	Lower	Upper
43	100		
58	40.6	32.5	48.7
85	18.0	14.4	21.6



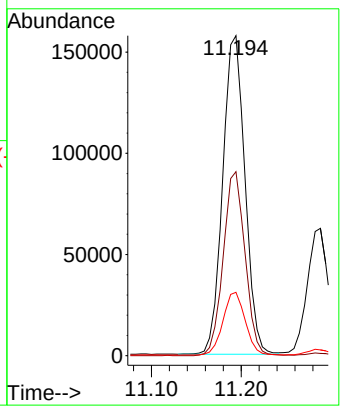


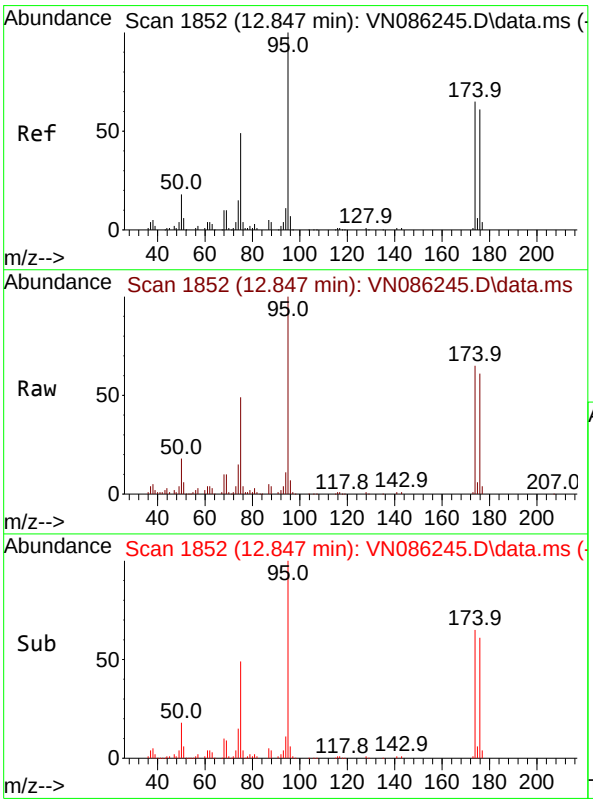
#59
2-Hexanone
Concen: 97.984 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 43 Resp: 271384

Ion	Ratio	Lower	Upper
43	100		
58	56.6	45.3	67.9
57	19.7	15.8	23.6

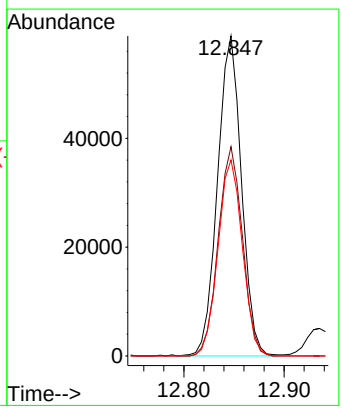


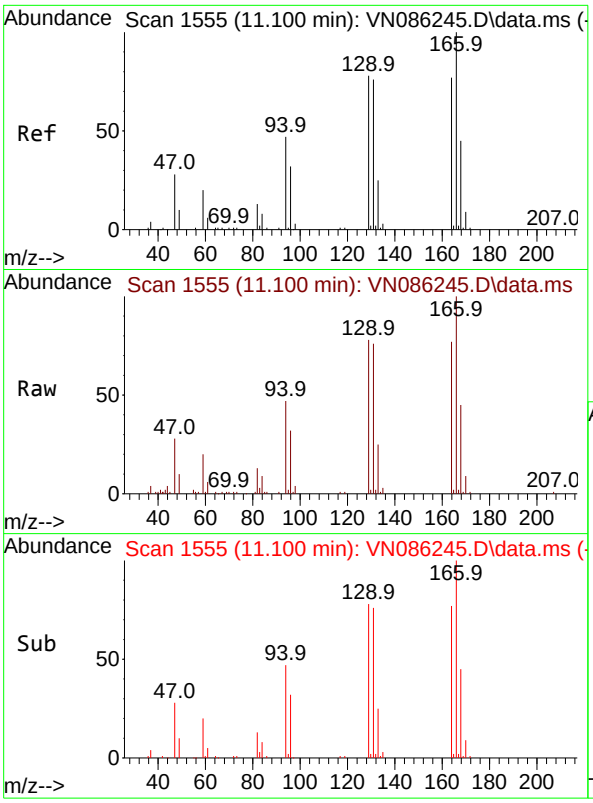


#60
4-Bromofluorobenzene
Concen: 29.820 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 95 Resp: 97314

Ion	Ratio	Lower	Upper
95	100		
174	65.9	52.7	79.1
176	62.3	49.8	74.8



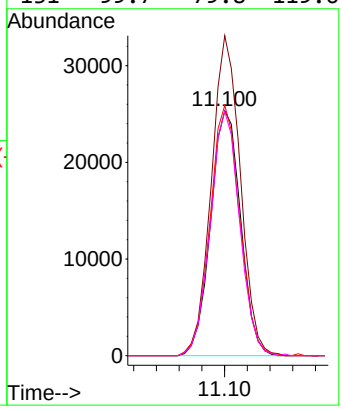


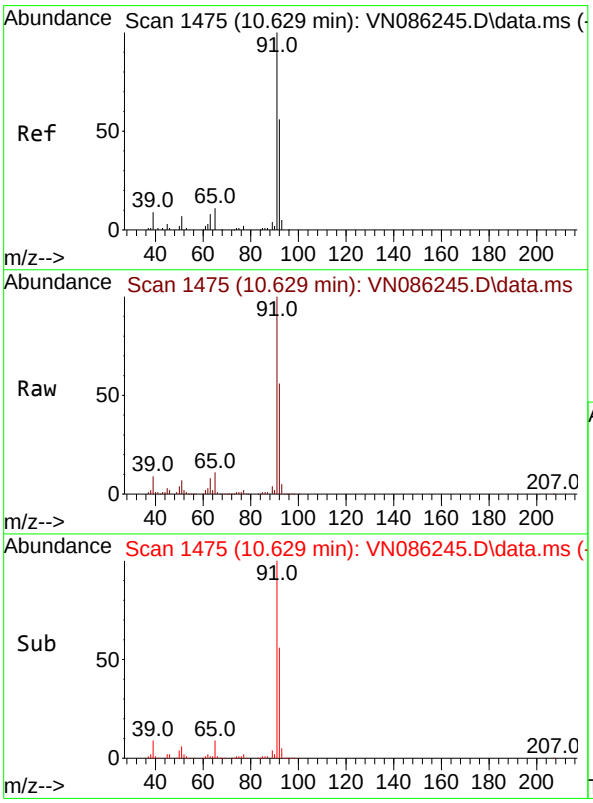
#61
Tetrachloroethene
Concen: 19.134 ug/l
RT: 11.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:164 Resp: 46313

Ion	Ratio	Lower	Upper
164	100		
166	130.6	104.5	156.7
129	102.1	81.7	122.5
131	99.7	79.8	119.6

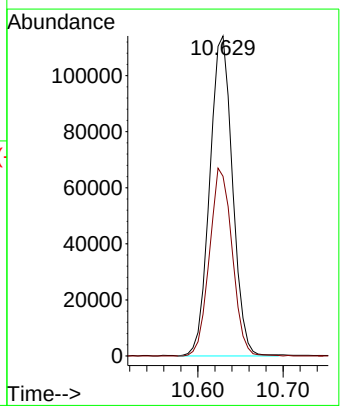


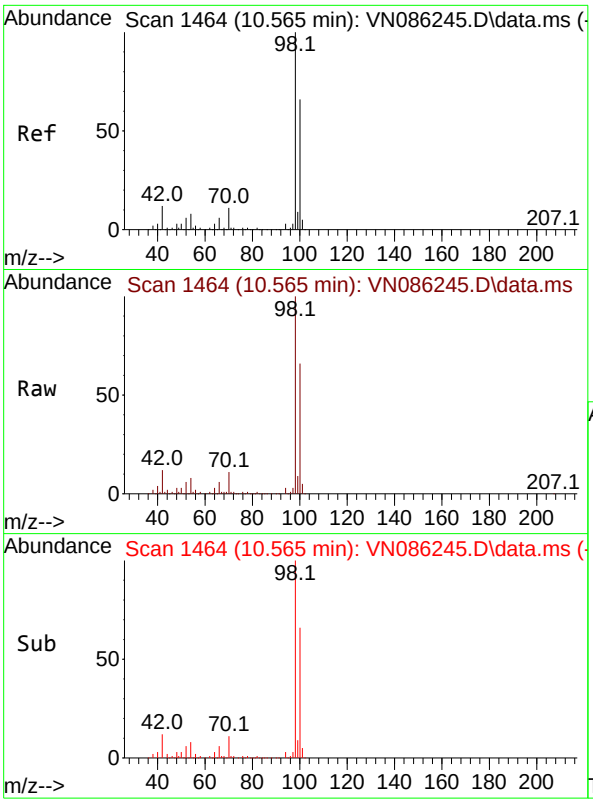


#62
Toluene
Concen: 19.292 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 212088

Ion	Ratio	Lower	Upper
91	100		
92	58.5	46.8	70.2



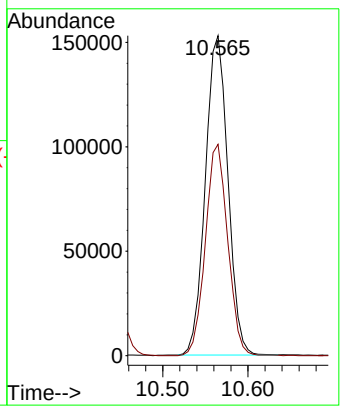


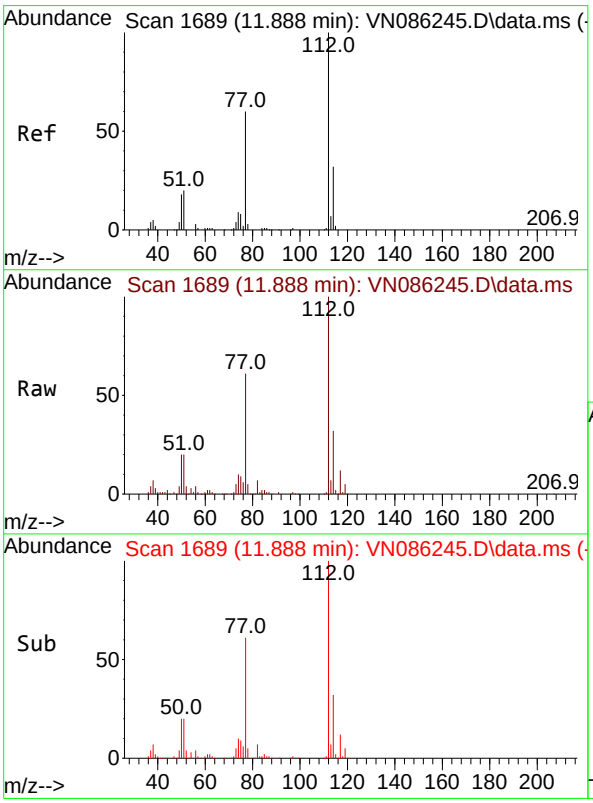
#63
Toluene-d8
Concen: 30.431 ug/l
RT: 10.565 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 98 Resp: 281589

Ion	Ratio	Lower	Upper
98	100		
100	65.4	52.3	78.5

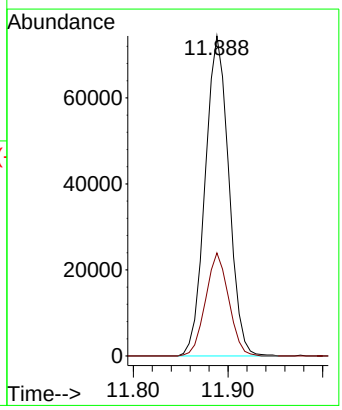


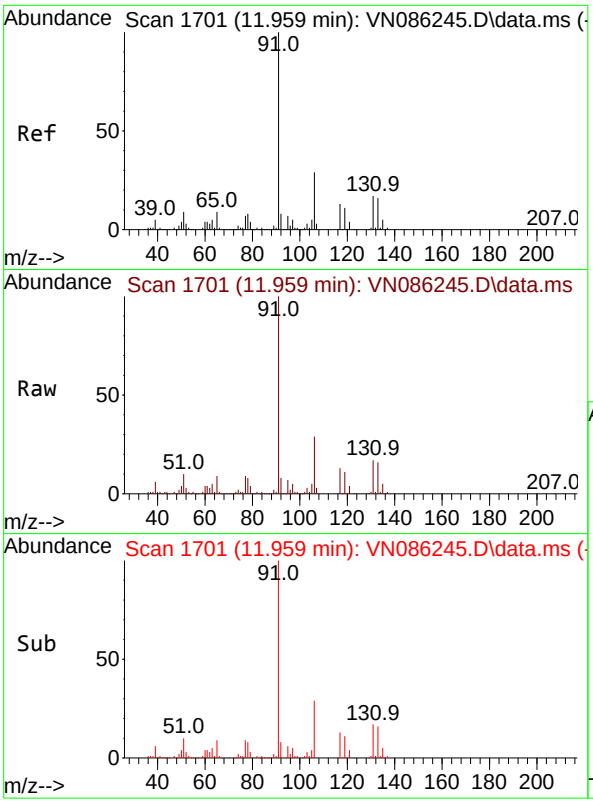


#64
Chlorobenzene
Concen: 19.188 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:112 Resp: 128877

Ion	Ratio	Lower	Upper
112	100		
114	32.2	25.8	38.6



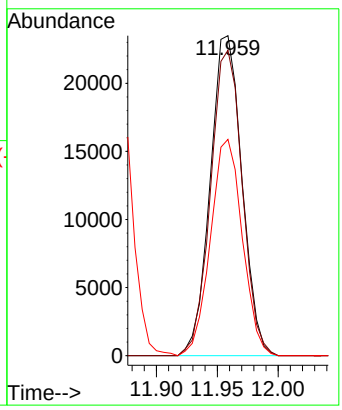


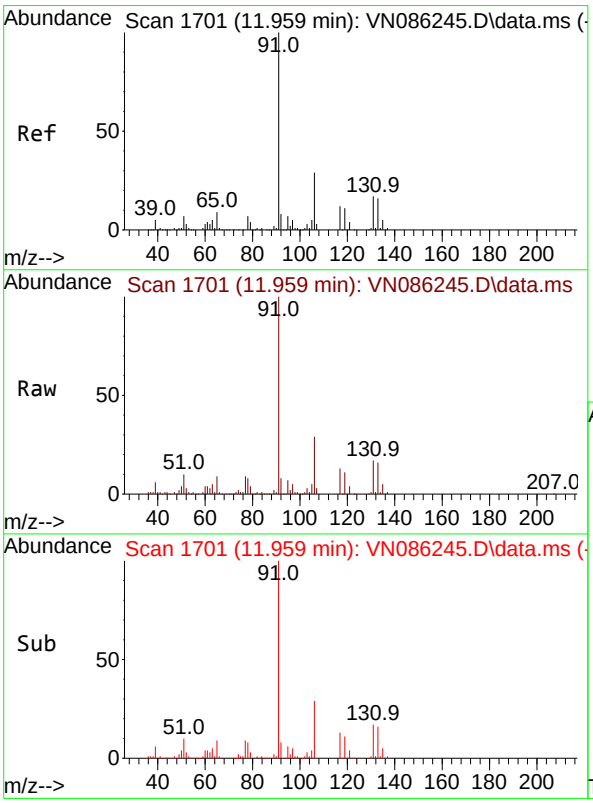
#65
1,1,1,2-Tetrachloroethane
Concen: 19.244 ug/l
RT: 11.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:131 Resp: 42656

Ion	Ratio	Lower	Upper
131	100		
133	95.2	0.0	190.4
119	67.8	0.0	135.6

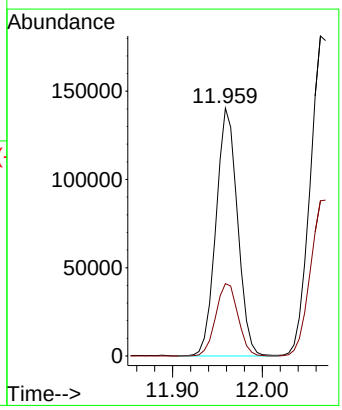


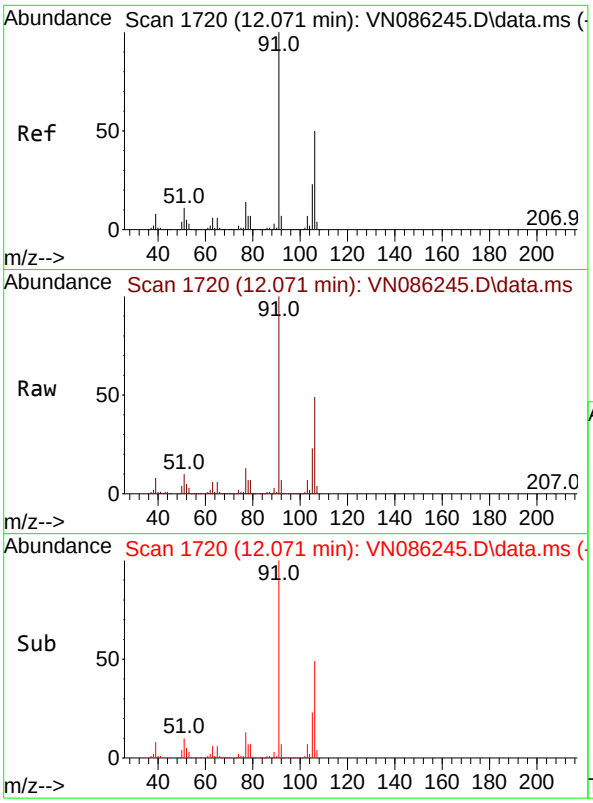


#66
Ethyl Benzene
Concen: 19.177 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 233805

Ion	Ratio	Lower	Upper
91	100		
106	29.2	23.4	35.0



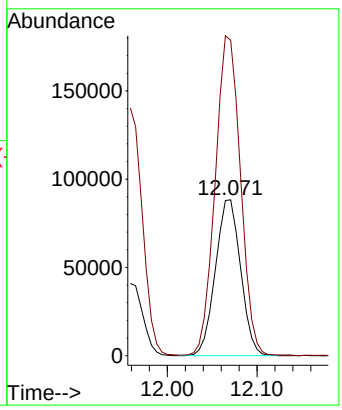


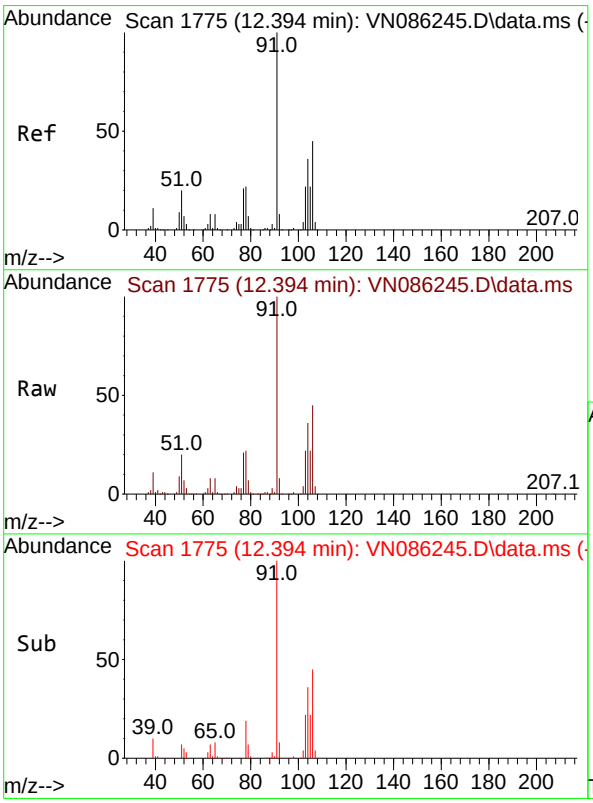
#67
m/p-Xylenes
Concen: 38.024 ug/l
RT: 12.071 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:106 Resp: 172384

Ion	Ratio	Lower	Upper
106	100		
91	205.6	164.5	246.7

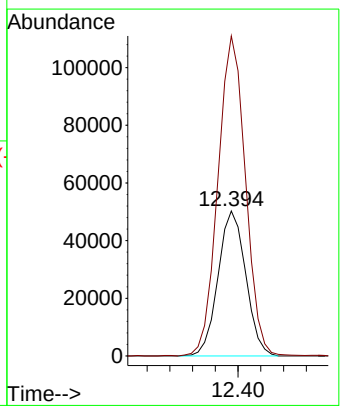


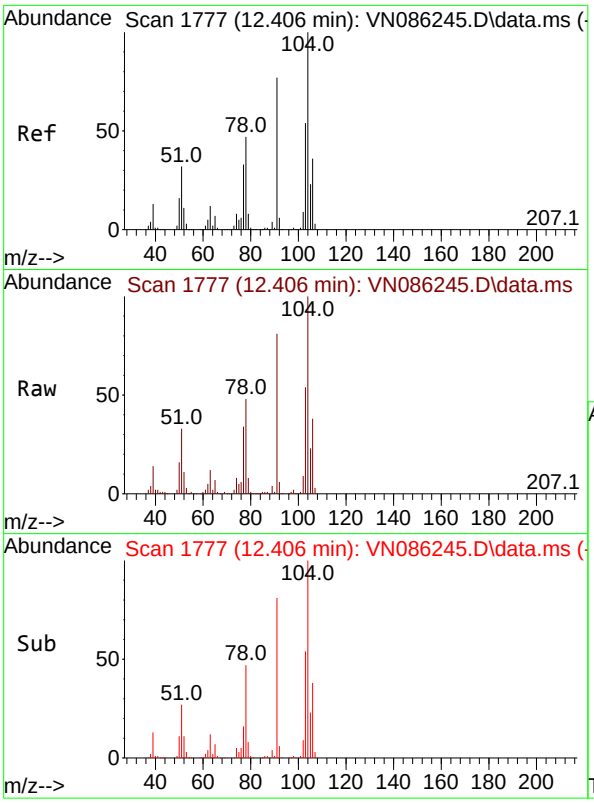


#68
o-Xylene
Concen: 19.101 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:106 Resp: 85173

Ion	Ratio	Lower	Upper
106	100		
91	219.6	109.8	329.4



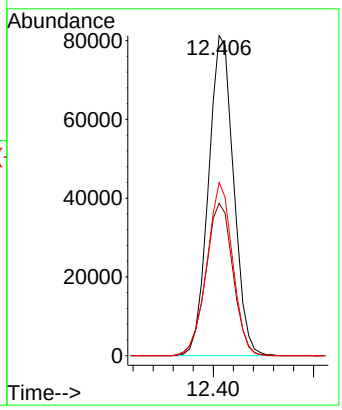


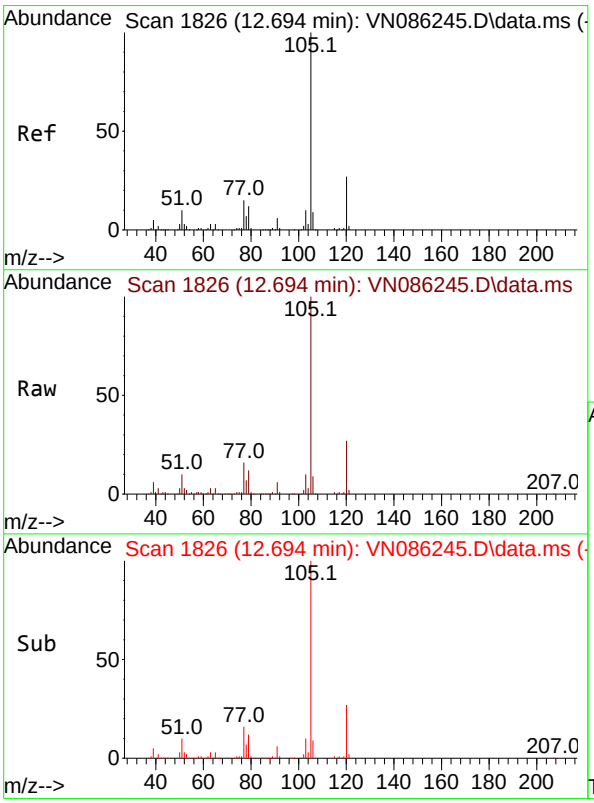
#69
Styrene
Concen: 18.793 ug/l
RT: 12.406 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:104 Resp: 141327

Ion	Ratio	Lower	Upper
104	100		
78	51.7	41.4	62.0
103	55.3	44.2	66.4

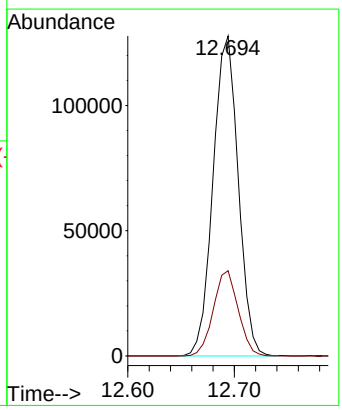


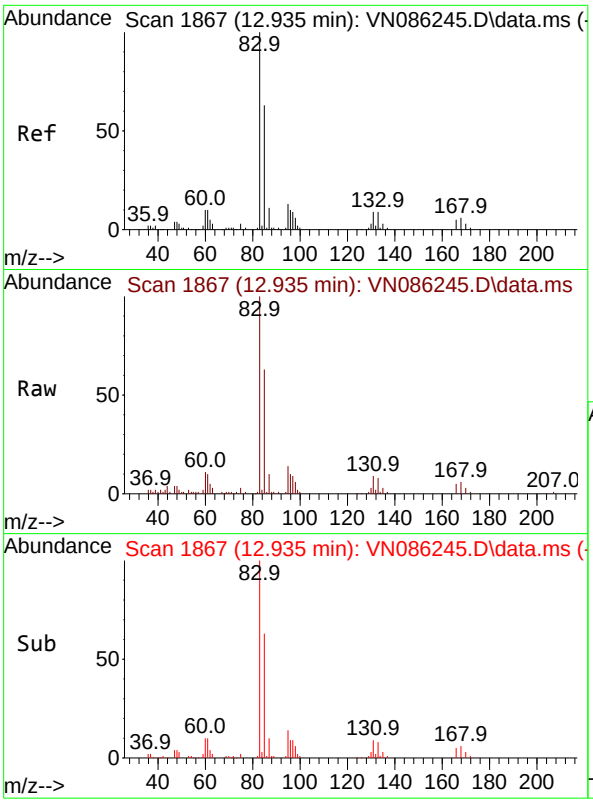


#70
Isopropylbenzene
Concen: 19.057 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 209526

Ion	Ratio	Lower	Upper
105	100		
120	26.2	18.3	34.1



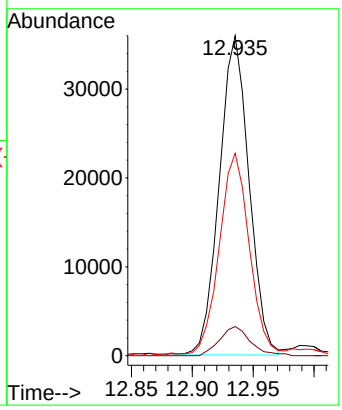


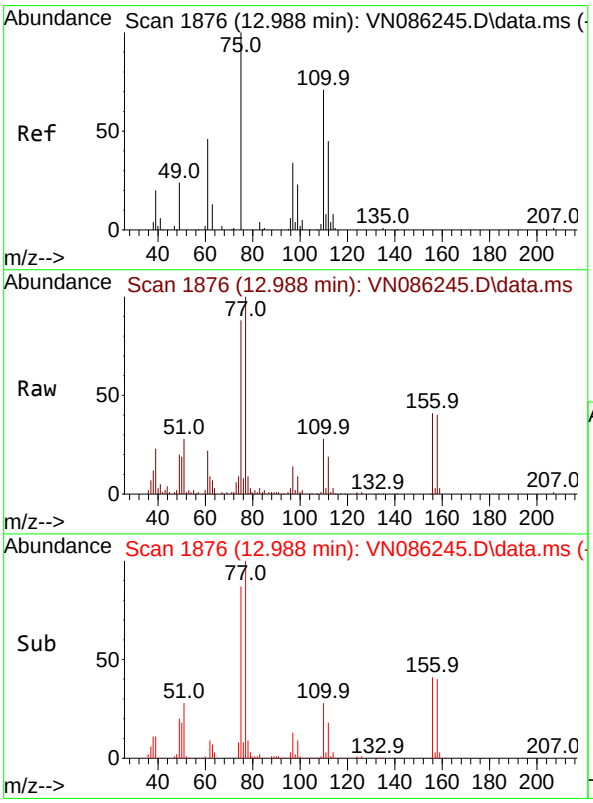
#71
1,1,2,2-Tetrachloroethane
Concen: 19.472 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 83 Resp: 60936

Ion	Ratio	Lower	Upper
83	100		
131	9.5	4.8	14.3
85	64.5	32.3	96.8

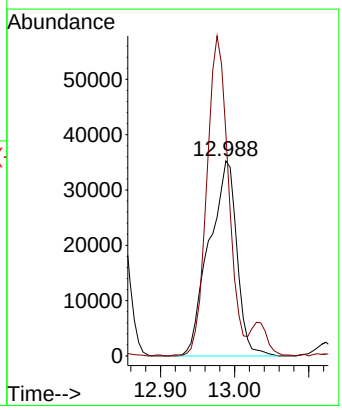


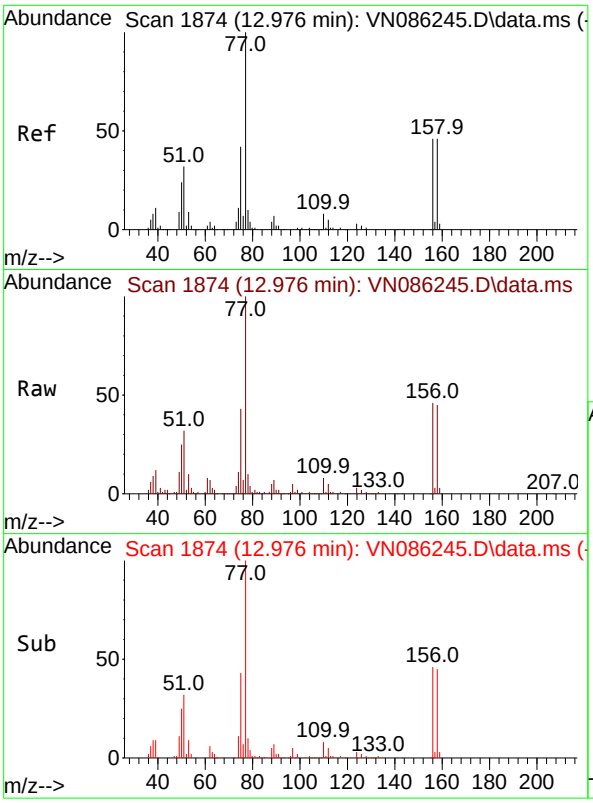


#72
1,2,3-Trichloropropane
Concen: 20.734 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 91862

Ion	Ratio	Lower	Upper
75	100		
77	128.0	0.0	380.0



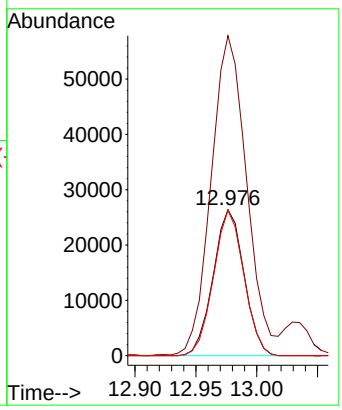


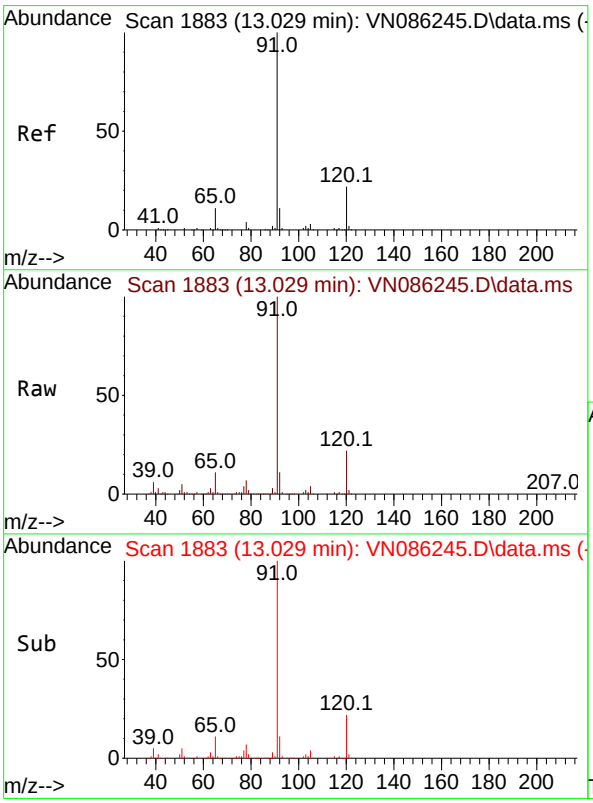
#73
Bromobenzene
Concen: 19.116 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:156 Resp: 46561

Ion	Ratio	Lower	Upper
156	100		
77	252.6	0.0	505.2
158	97.5	0.0	195.0

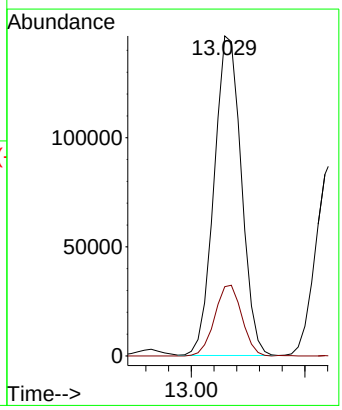


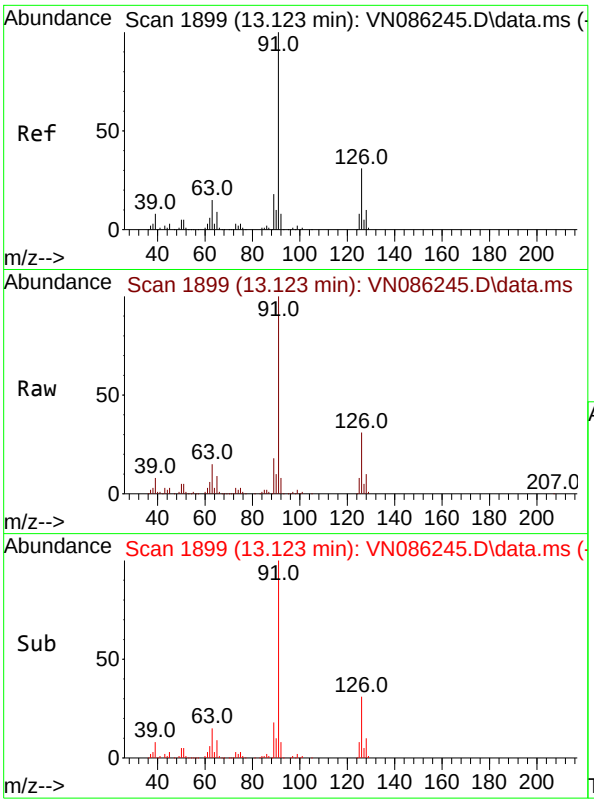


#74
n-propylbenzene
Concen: 18.707 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 243573

Ion	Ratio	Lower	Upper
91	100		
120	22.1	0.0	44.0



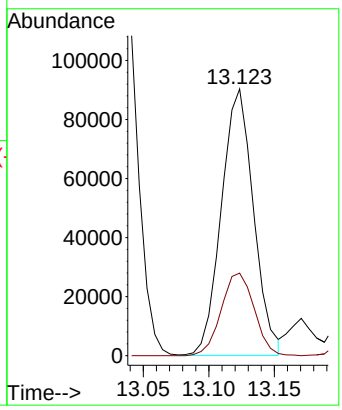


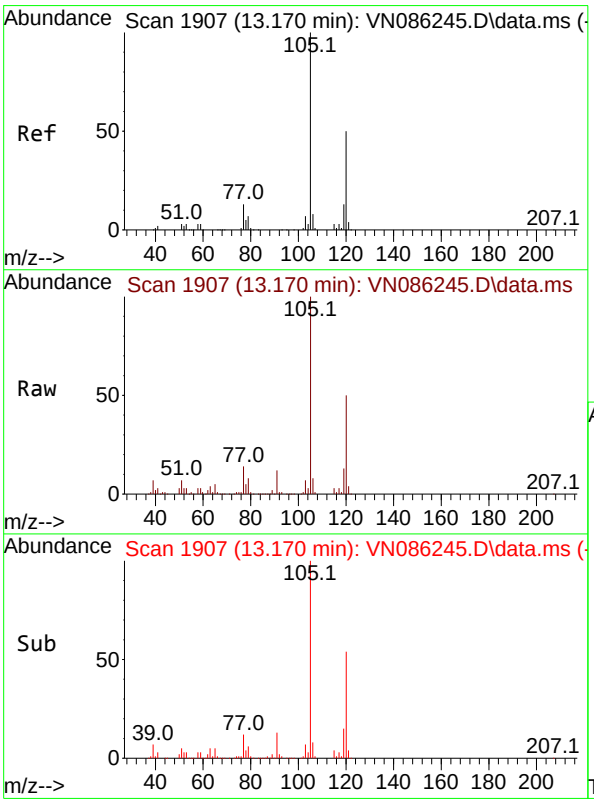
#75
2-Chlorotoluene
Concen: 18.914 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 91 Resp: 154341

Ion	Ratio	Lower	Upper
91	100		
126	31.7	0.0	63.4

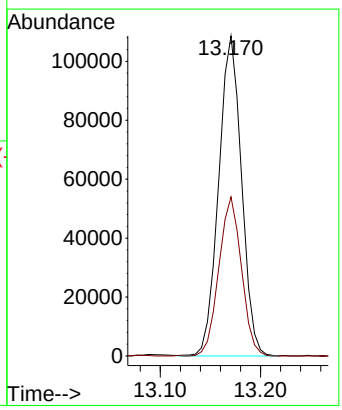


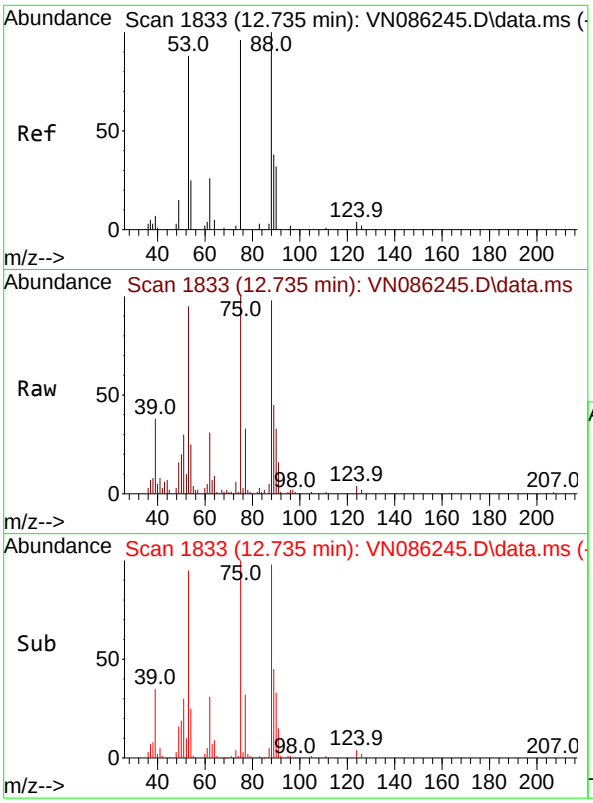


#76
1,3,5-Trimethylbenzene
Concen: 19.046 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 172014

Ion	Ratio	Lower	Upper
105	100		
120	49.0	0.0	98.0



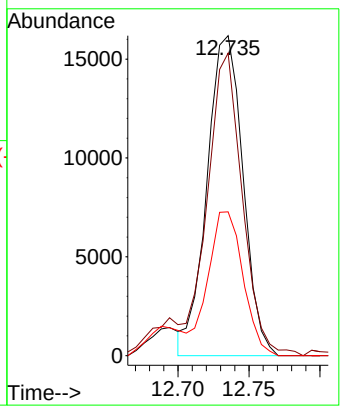


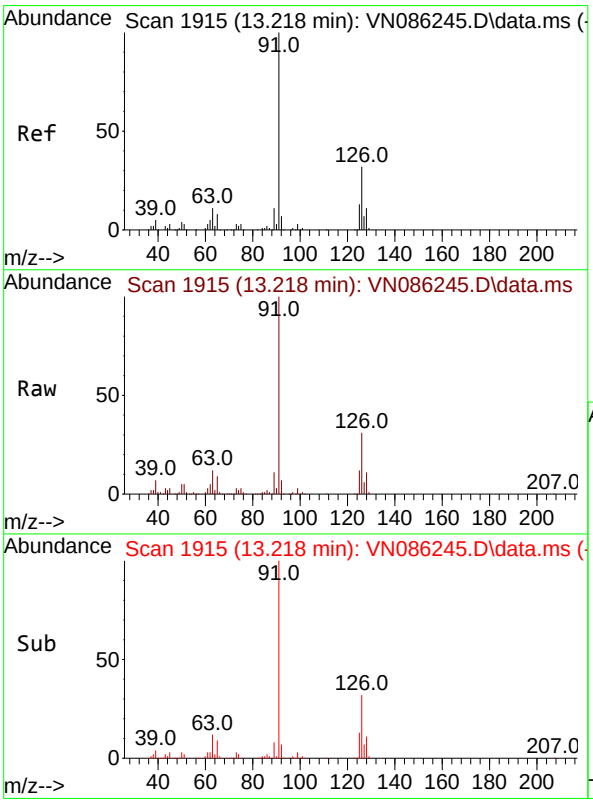
#77
t-1,4-Dichloro-2-butene
Concen: 18.993 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 75 Resp: 28529

Ion	Ratio	Lower	Upper
75	100		
53	92.8	46.4	139.2
89	45.0	22.5	67.5

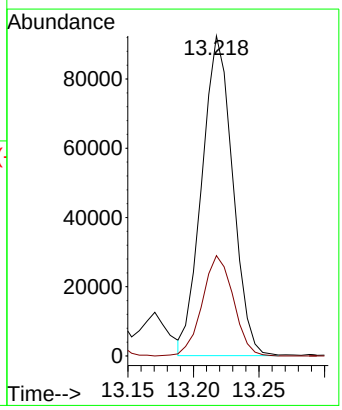


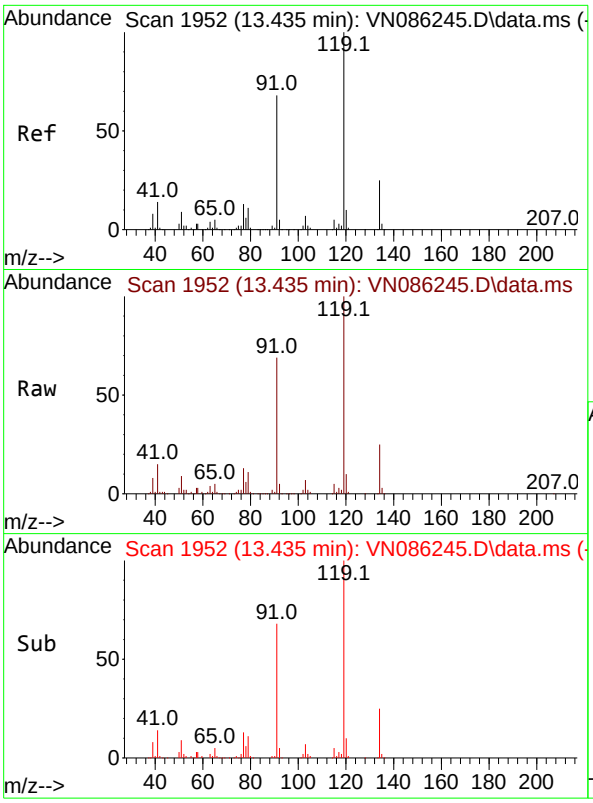


#78
4-Chlorotoluene
Concen: 18.539 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 91 Resp: 151091

Ion	Ratio	Lower	Upper
91	100		
126	31.6	0.0	63.2



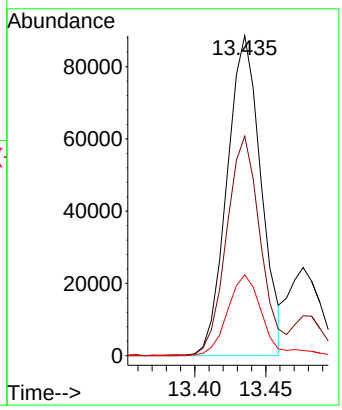


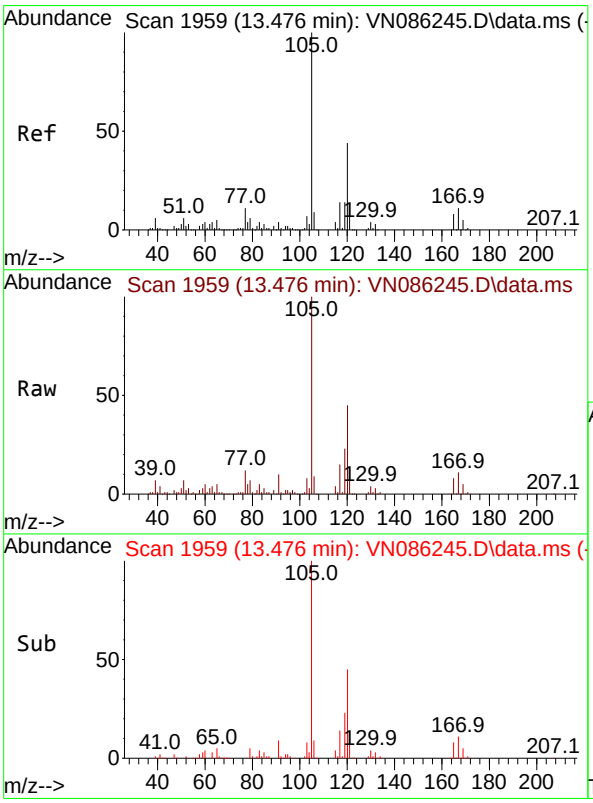
#79
tert-butylbenzene
Concen: 18.865 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:119 Resp: 147428

Ion	Ratio	Lower	Upper
119	100		
91	68.3	0.0	136.6
134	24.7	0.0	49.4

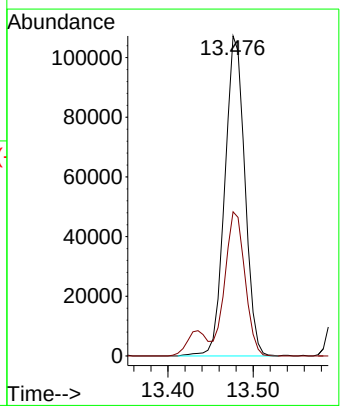


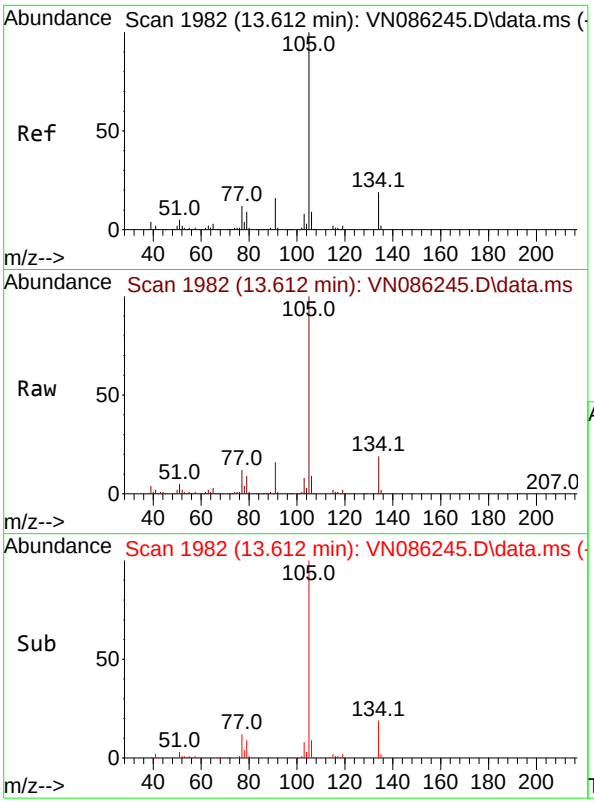


#80
1,2,4-Trimethylbenzene
Concen: 19.089 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:105 Resp: 174827

Ion	Ratio	Lower	Upper
105	100		
120	45.5	0.0	91.0



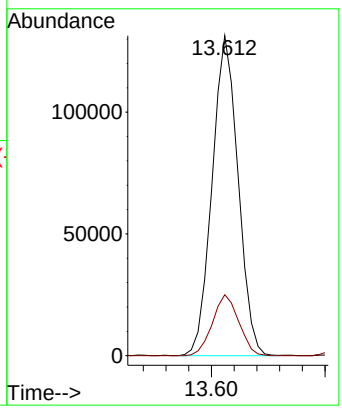


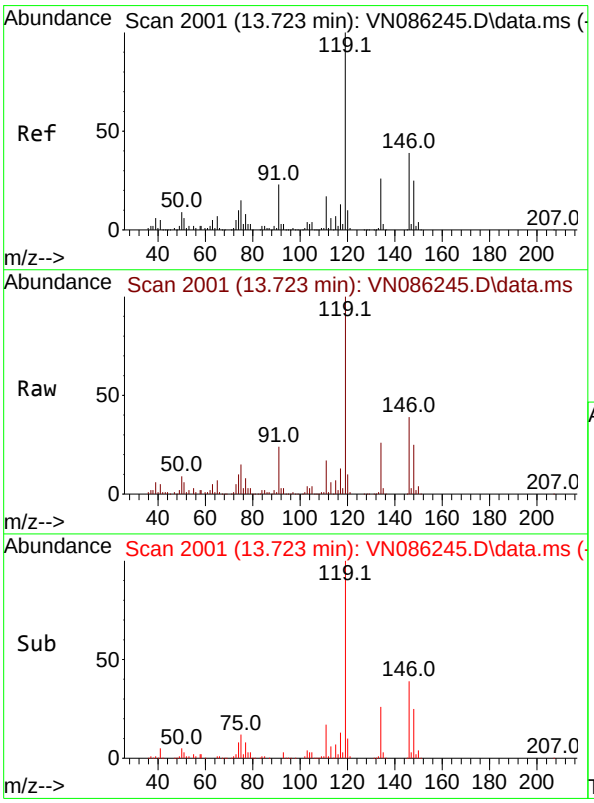
#81
sec-Butylbenzene
Concen: 19.134 ug/l
RT: 13.612 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:105 Resp: 208583

Ion	Ratio	Lower	Upper
105	100		
134	19.3	0.0	38.6

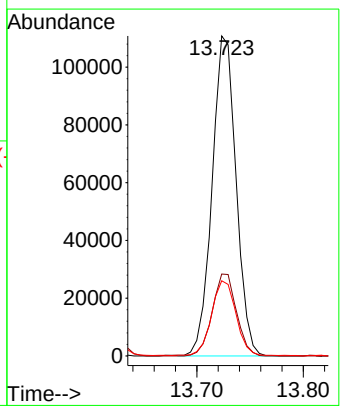


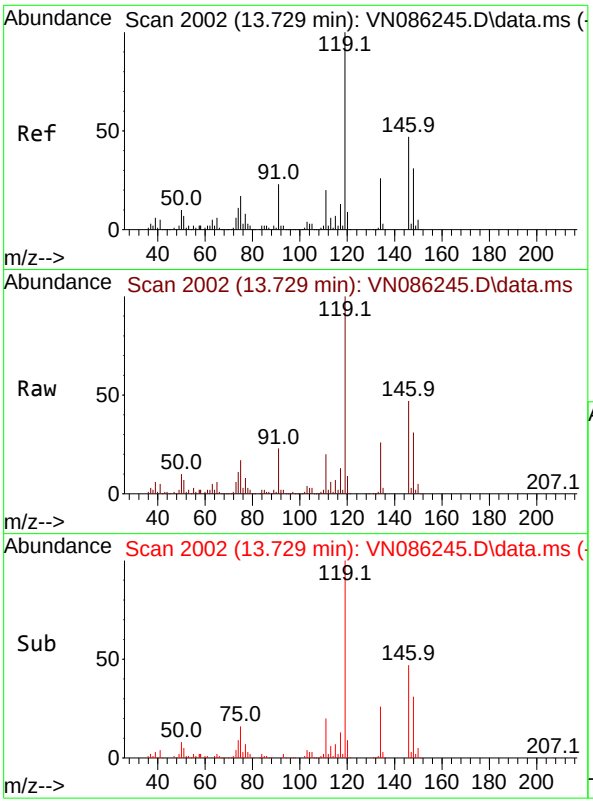


#82
p-Isopropyltoluene
Concen: 19.037 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:119 Resp: 173120

Ion	Ratio	Lower	Upper
119	100		
134	25.8	0.0	51.6
91	24.1	0.0	48.2



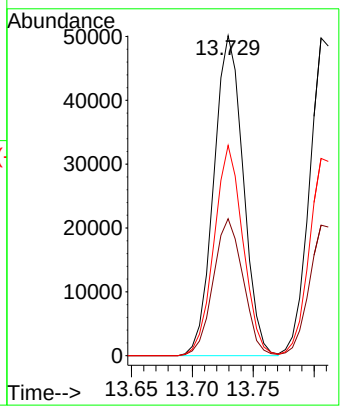


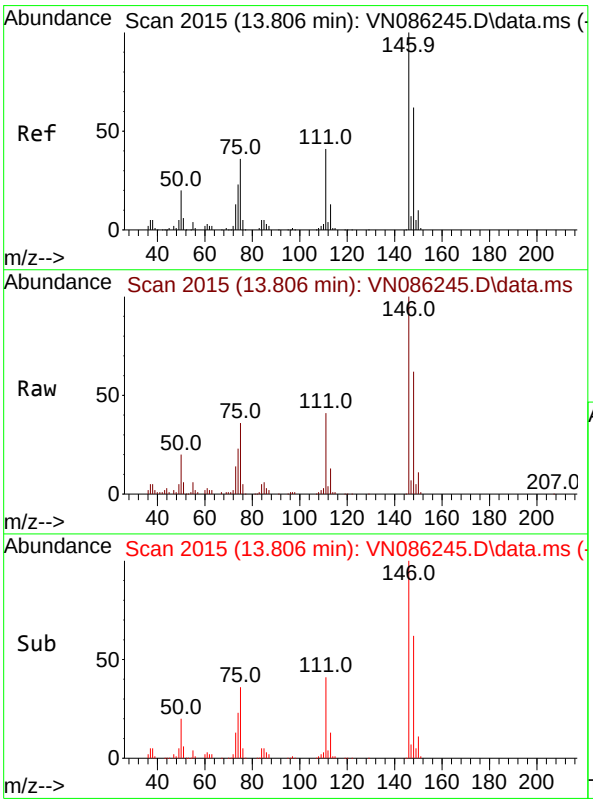
#83
1,3-Dichlorobenzene
Concen: 18.662 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:146 Resp: 84482

Ion	Ratio	Lower	Upper
146	100		
111	43.4	21.7	65.1
148	64.5	32.3	96.8

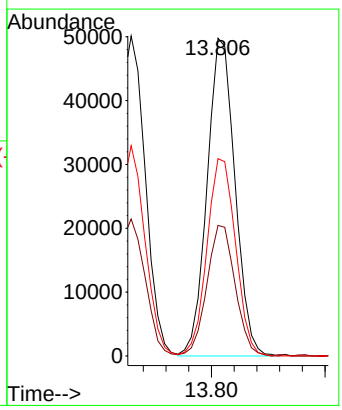


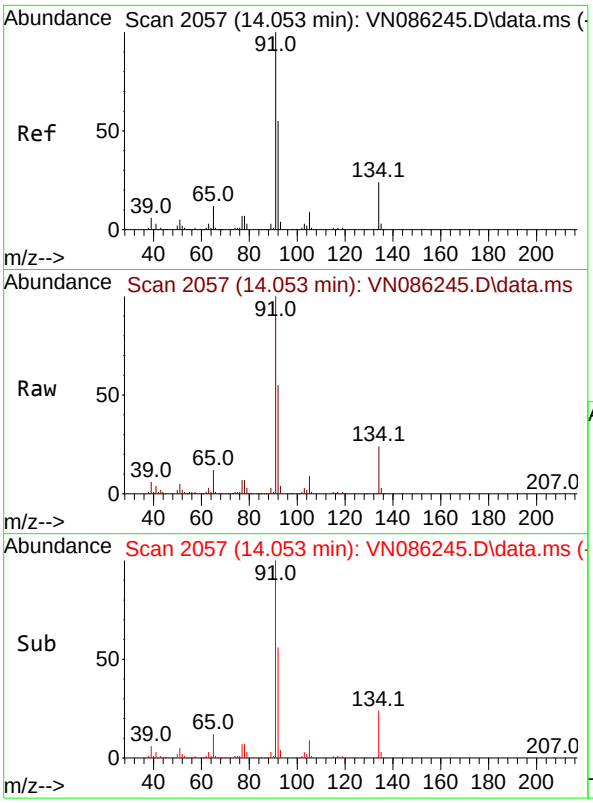


#84
1,4-Dichlorobenzene
Concen: 18.705 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:146 Resp: 84947

Ion	Ratio	Lower	Upper
146	100		
111	41.6	20.8	62.4
148	63.7	31.9	95.5



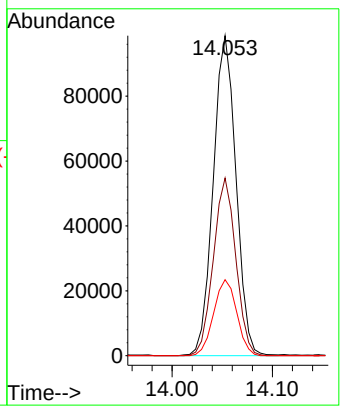


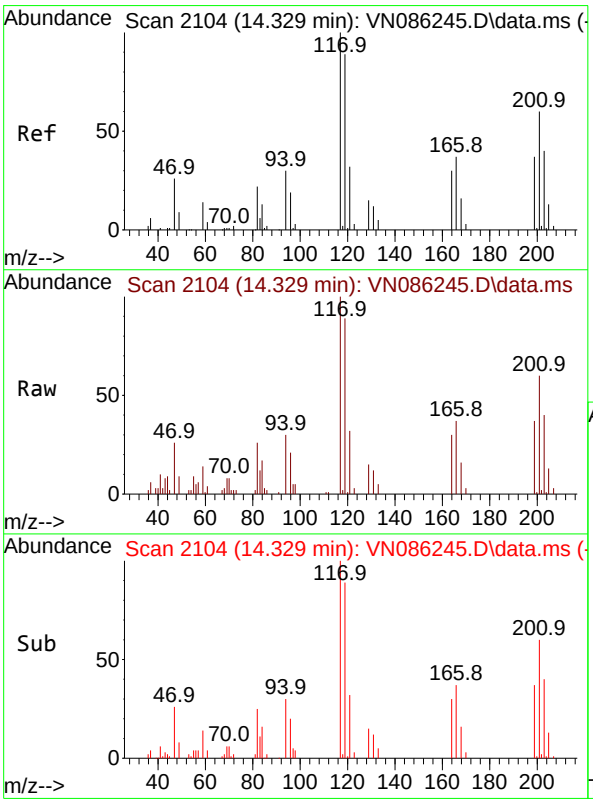
#85
n-Butylbenzene
Concen: 18.919 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion: 91 Resp: 155208

Ion	Ratio	Lower	Upper
91	100		
92	54.7	0.0	109.4
134	24.1	0.0	48.2

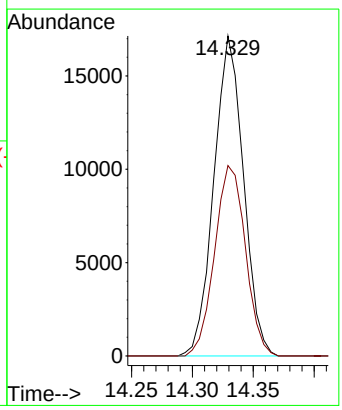


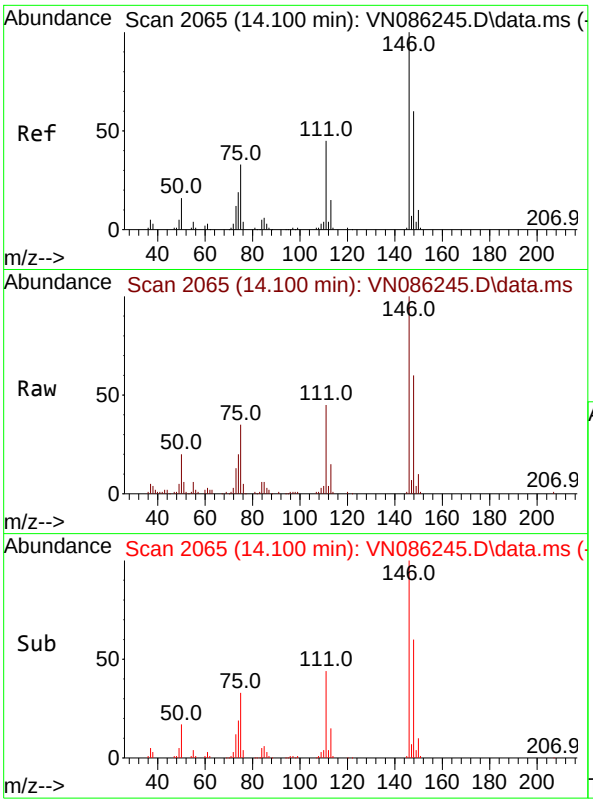


#86
Hexachloroethane
Concen: 18.910 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:117 Resp: 29008

Ion	Ratio	Lower	Upper
117	100		
201	61.9	30.9	92.8



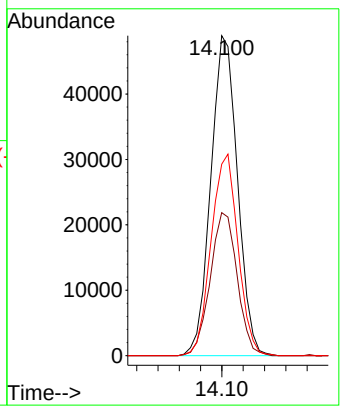


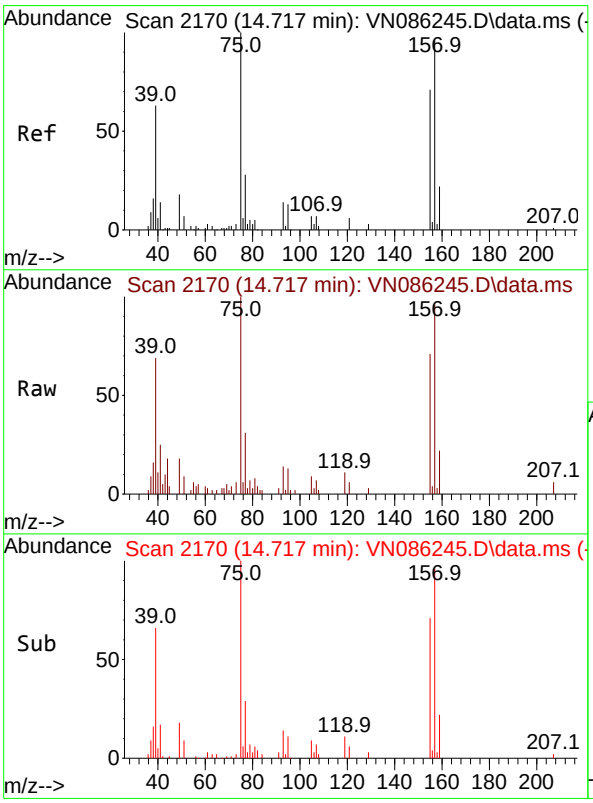
#87
1,2-Dichlorobenzene
Concen: 19.018 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:146 Resp: 85009

Ion	Ratio	Lower	Upper
146	100		
111	45.3	22.7	68.0
148	63.5	31.8	95.3

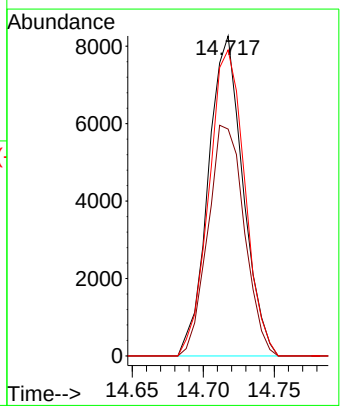


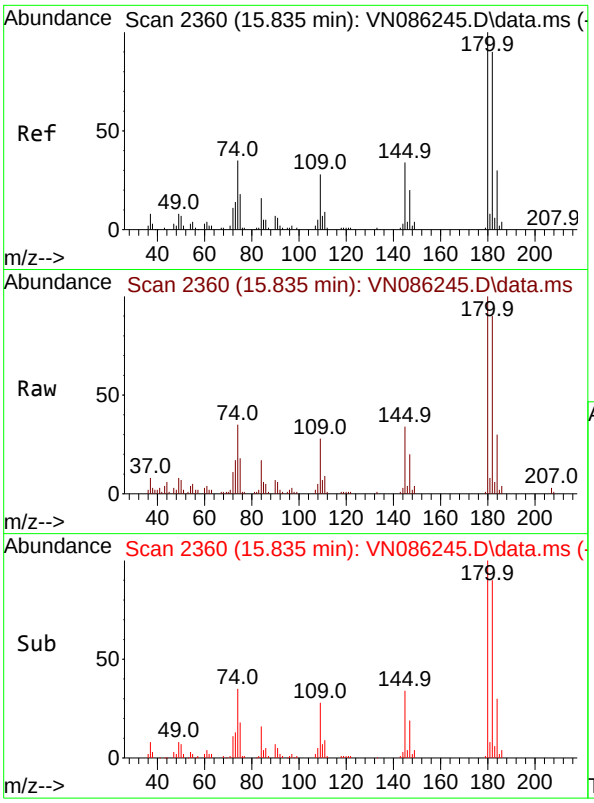


#88
1,2-Dibromo-3-Chloropropane
Concen: 19.684 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion: 75 Resp: 14031

Ion	Ratio	Lower	Upper
75	100		
155	75.4	60.3	90.5
157	98.7	79.0	118.4



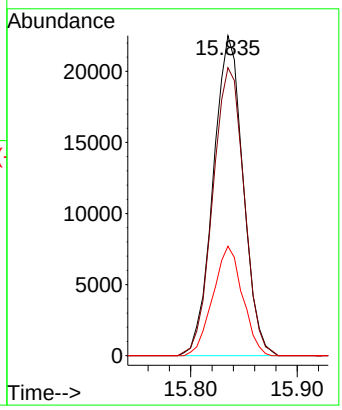


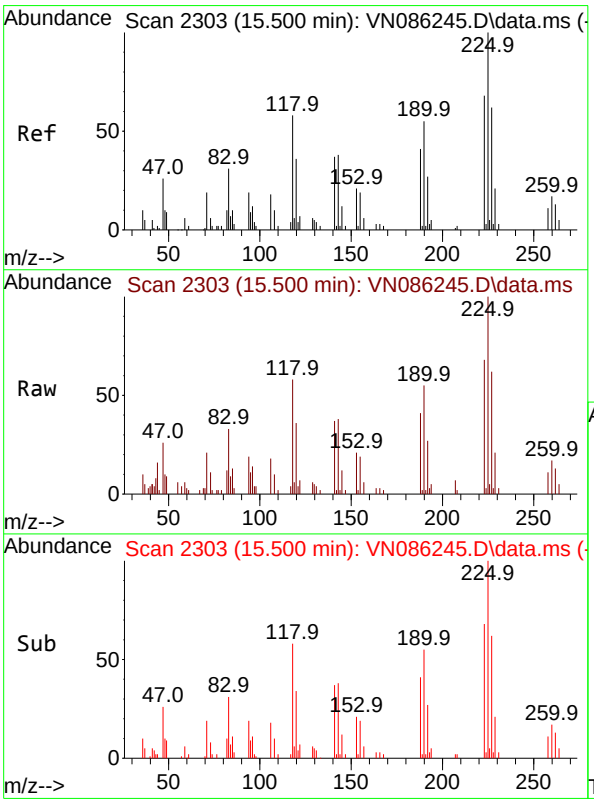
#89
1,2,4-Trichlorobenzene
Concen: 20.183 ug/l
RT: 15.835 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:180 Resp: 43895

Ion	Ratio	Lower	Upper
180	100		
182	93.9	75.1	112.7
145	33.9	27.1	40.7

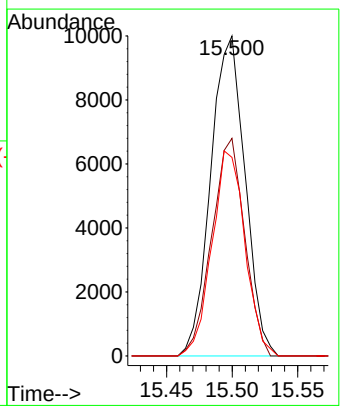


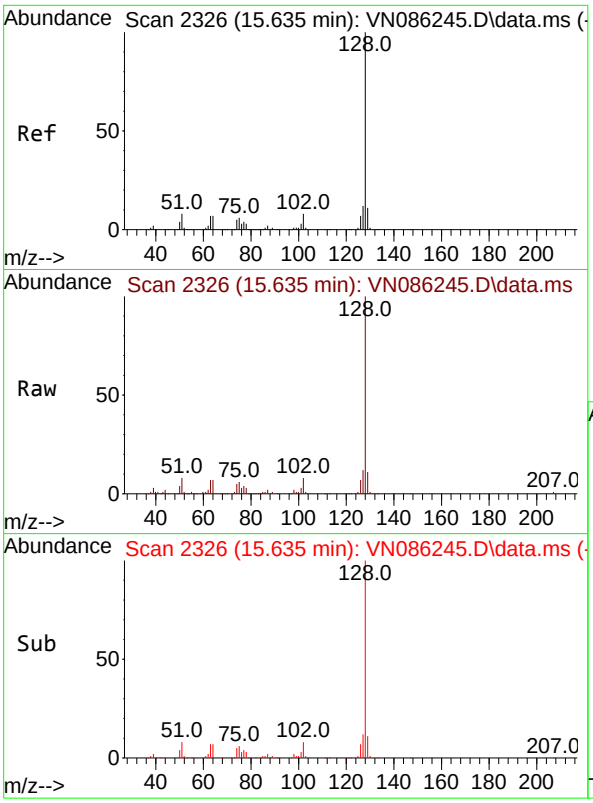


#90
Hexachlorobutadiene
Concen: 19.398 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:225 Resp: 18215

Ion	Ratio	Lower	Upper
225	100		
223	65.0	0.0	130.0
227	61.6	0.0	123.2



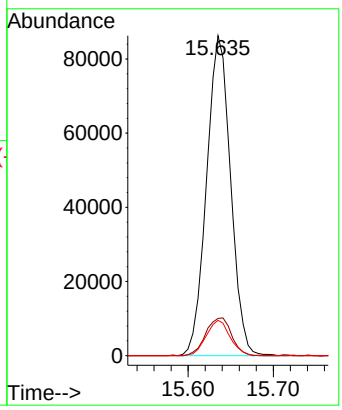


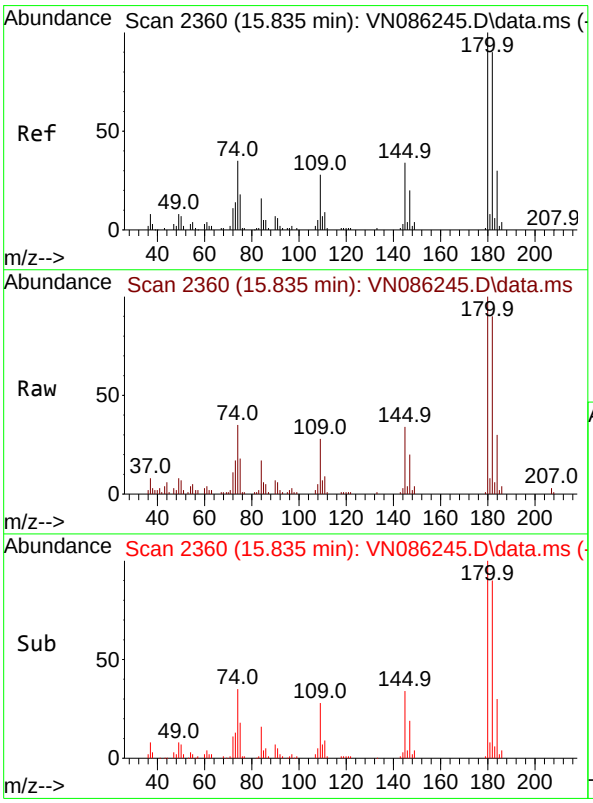
#91
Naphthalene
Concen: 19.722 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Tgt Ion:128 Resp: 169118

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2
129	11.0	8.8	13.2

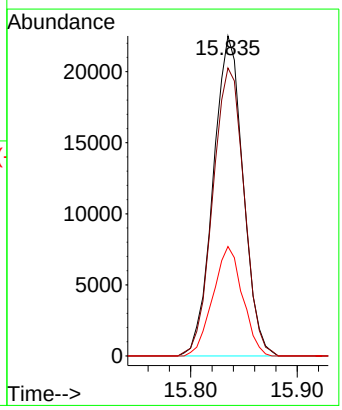




#92
1,2,3-Trichlorobenzene
Concen: 20.183 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN086245.D
Acq: 11 Apr 2025 12:16

Tgt Ion:180 Resp: 43895

Ion	Ratio	Lower	Upper
180	100		
182	93.9	0.0	187.8
145	33.9	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086246.D
Acq On : 11 Apr 2025 12:40
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Quant Time: Apr 12 00:21:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	26939	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	166827	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	146541	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	80888	30.785	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.600%			
60) 4-Bromofluorobenzene	12.847	95	86291	29.576	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 98.600%			
63) Toluene-d8	10.565	98	250531	30.283	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 100.933%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	9304	4.311	ug/l	99
3) Chloromethane	2.359	50	15004	5.030	ug/l	94
4) Vinyl Chloride	2.512	62	13469	4.740	ug/l	100
5) Bromomethane	2.965	94	8169	5.763	ug/l	98
6) Chloroethane	3.118	64	9245	5.152	ug/l	97
7) Trichlorofluoromethane	3.501	101	14867	4.823	ug/l	99
8) Diethyl Ether	3.959	74	7307	5.140	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.371	101	9194	4.837	ug/l	92
10) 1,1-Dichloroethene	4.336	96	10856	5.292	ug/l	98
11) Methyl Iodide	4.583	142	7449	3.159	ug/l	96
12) Methyl Acetate	5.024	43	14618	5.046	ug/l	97
13) Acrolein	4.177	56	10809	32.827	ug/l	99
14) Acrylonitrile	5.718	53	31353	25.638	ug/l	98
15) Acetone	4.436	58	8149	26.259	ug/l	77
16) Carbon Disulfide	4.712	76	32171	5.469	ug/l	100
17) Allyl chloride	5.024	41	18652	5.217	ug/l	96
18) Methylene Chloride	5.283	84	12832	5.487	ug/l	85
19) trans-1,2-Dichloroethene	5.777	96	5539	2.993	ug/l	85
20) Diisopropyl ether	6.671	45	37420	4.868	ug/l	96
21) 1,1-Dichloroethane	6.571	63	20024	4.883	ug/l	98
22) cis-1,2-Dichloroethene	7.488	96	13471	5.234	ug/l	95
23) tert-Butyl Alcohol	5.518	59	12793	25.247	ug/l #	100
25) Chloroform	7.959	83	19640	5.022	ug/l	93
26) Cyclohexane	8.253	56	19181	4.999	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	14353	4.803	ug/l	97
30) 2-Butanone	7.483	43	39891	24.089	ug/l	99
31) 2,2-Dichloropropane	7.483	77	17332	4.711	ug/l #	84
32) 1,1,1-Trichloroethane	8.165	97	17271	5.024	ug/l	98
33) Carbon Tetrachloride	8.365	117	12727	4.633	ug/l	95
34) Benzene	8.606	78	46065	4.845	ug/l #	88
35) Methacrylonitrile	7.777	41	9403	5.037	ug/l	96
36) 1,2-Dichloroethane	8.671	62	14350	4.823	ug/l #	87
37) Trichloroethene	9.353	130	10774	4.697	ug/l	97
38) Methylcyclohexane	9.600	83	18064	4.929	ug/l	97
39) 1,2-Dichloropropane	9.618	63	11201	4.735	ug/l	94
40) Dibromomethane	9.706	93	7704	5.042	ug/l	95
41) Bromodichloromethane	9.882	83	16772	5.109	ug/l	100
42) Vinyl Acetate	6.600	43	138739	24.613	ug/l	99
43) Ethyl Acetate	7.559	43	16850	5.045	ug/l #	79

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086246.D
Acq On : 11 Apr 2025 12:40
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Quant Time: Apr 12 00:21:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration

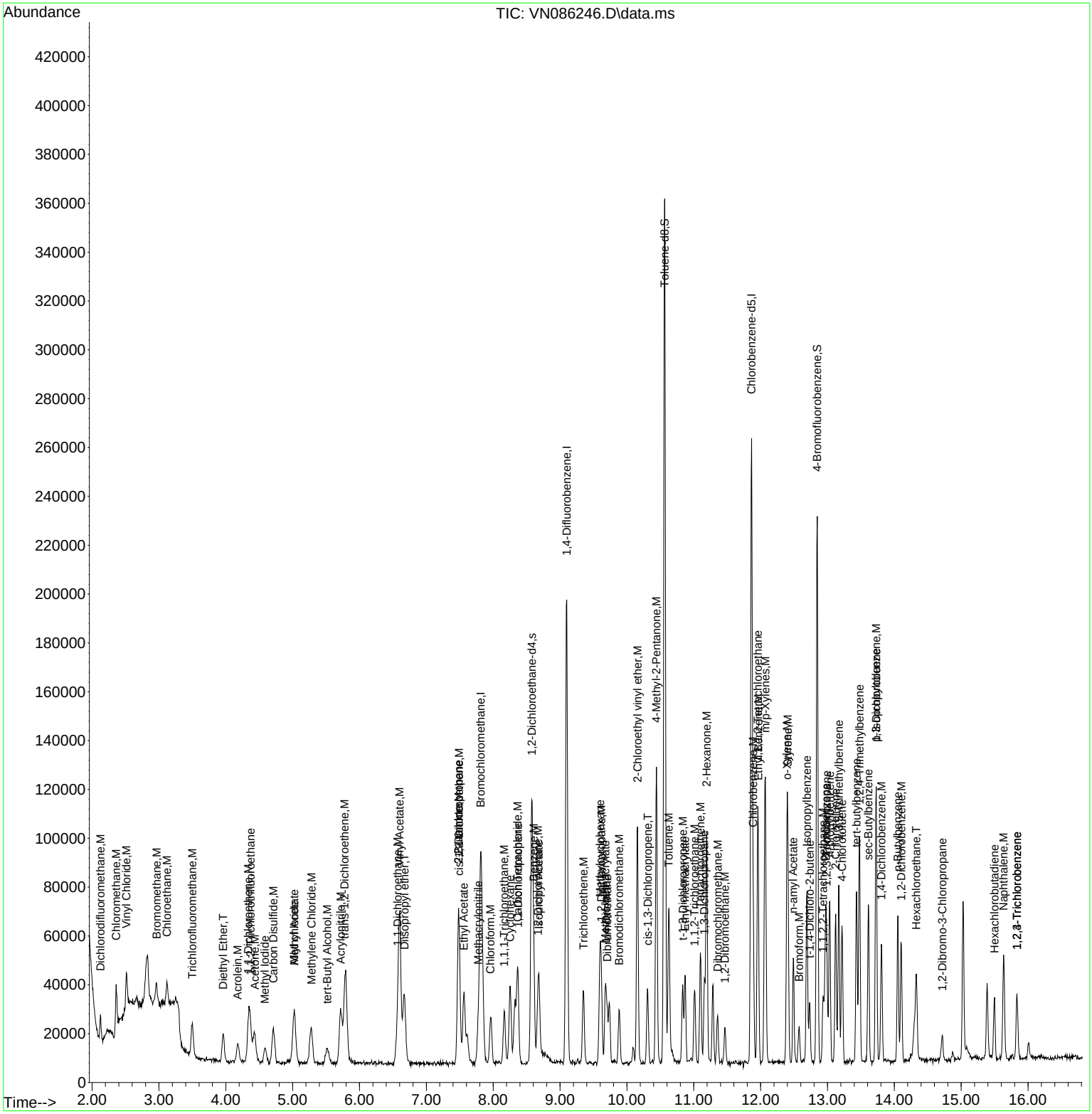
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Isopropyl Acetate	8.683	43	33849	5.463	ug/l		95
45) 1,4-Dioxane	9.688	88	4828	97.983	ug/l	#	86
46) Methyl methacrylate	9.677	41	12994	4.759	ug/l		95
47) n-amyl Acetate	12.488	43	24334	4.860	ug/l		98
48) t-1,3-Dichloropropene	10.835	75	17815	4.801	ug/l		100
49) cis-1,3-Dichloropropene	10.312	75	18616	4.740	ug/l		96
50) 1,1,2-Trichloroethane	11.012	97	10709	4.997	ug/l		96
51) Ethyl methacrylate	10.871	69	19475	4.890	ug/l		91
52) 1,3-Dichloropropane	11.159	76	18666	4.887	ug/l		95
53) Dibromochloromethane	11.359	129	11282	4.813	ug/l		100
54) 1,2-Dibromoethane	11.465	107	10742	4.965	ug/l		95
55) 2-Chloroethyl vinyl ether	10.159	63	44228	29.389	ug/l		99
56) Bromoform	12.576	173	7367	4.804	ug/l	#	98
58) 4-Methyl-2-Pentanone	10.441	43	81510	24.511	ug/l		99
59) 2-Hexanone	11.194	43	60580	24.465	ug/l		99
61) Tetrachloroethene	11.100	164	10135	4.683	ug/l		96
62) Toluene	10.624	91	48384	4.923	ug/l		99
64) Chlorobenzene	11.888	112	29905	4.980	ug/l		95
65) 1,1,1,2-Tetrachloroethane	11.959	131	9602	4.845	ug/l		96
66) Ethyl Benzene	11.965	91	53539	4.912	ug/l		98
67) m/p-Xylenes	12.071	106	38897	9.597	ug/l		97
68) o-Xylene	12.394	106	19223	4.822	ug/l		98
69) Styrene	12.406	104	32582	4.846	ug/l		100
70) Isopropylbenzene	12.694	105	47563	4.839	ug/l		98
71) 1,1,2,2-Tetrachloroethane	12.935	83	15293	5.466	ug/l		93
72) 1,2,3-Trichloropropane	12.988	75	21313	5.381	ug/l		58
73) Bromobenzene	12.976	156	10521	4.831	ug/l		96
74) n-propylbenzene	13.035	91	55104	4.734	ug/l		100
75) 2-Chlorotoluene	13.123	91	35960	4.929	ug/l		99
76) 1,3,5-Trimethylbenzene	13.170	105	38762	4.800	ug/l		100
77) t-1,4-Dichloro-2-butene	12.735	75	6507	4.845	ug/l		94
78) 4-Chlorotoluene	13.218	91	35898	4.927	ug/l		98
79) tert-butylbenzene	13.435	119	35578	5.092	ug/l		97
80) 1,2,4-Trimethylbenzene	13.482	105	38730	4.730	ug/l		99
81) sec-Butylbenzene	13.612	105	46761	4.798	ug/l		100
82) p-Isopropyltoluene	13.729	119	38146	4.692	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	19501	4.818	ug/l		98
84) 1,4-Dichlorobenzene	13.806	146	19847	4.888	ug/l		99
85) n-Butylbenzene	14.053	91	34592	4.716	ug/l		99
86) Hexachloroethane	14.329	117	6465	4.714	ug/l		97
87) 1,2-Dichlorobenzene	14.106	146	19316	4.834	ug/l		98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	3152	4.946	ug/l		94
89) 1,2,4-Trichlorobenzene	15.835	180	9291	4.778	ug/l		95
90) Hexachlorobutadiene	15.500	225	4734	5.639	ug/l		96
91) Naphthalene	15.635	128	38531	5.026	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	9291	4.778	ug/l		95

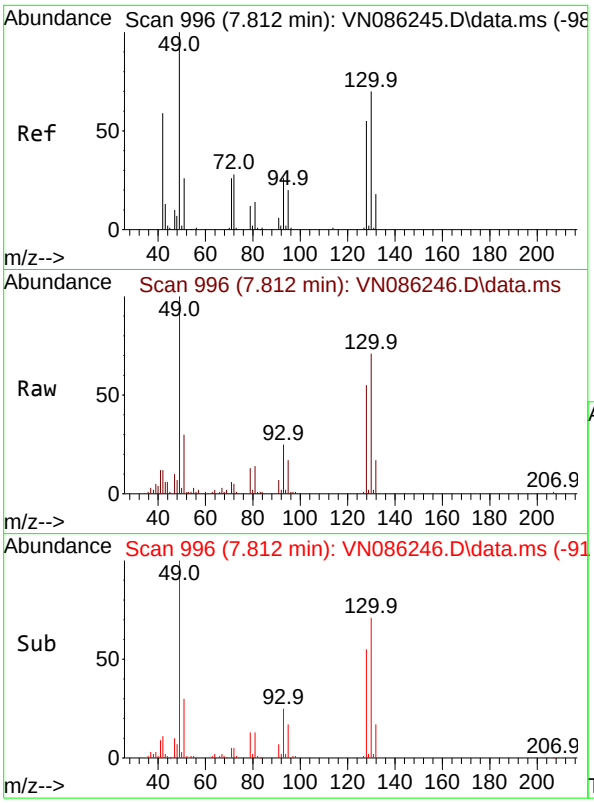
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086246.D
Acq On : 11 Apr 2025 12:40
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Quant Time: Apr 12 00:21:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 00:09:06 2025
Response via : Initial Calibration



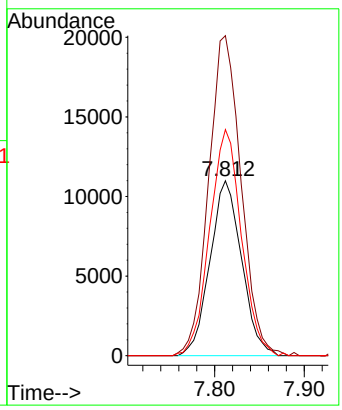


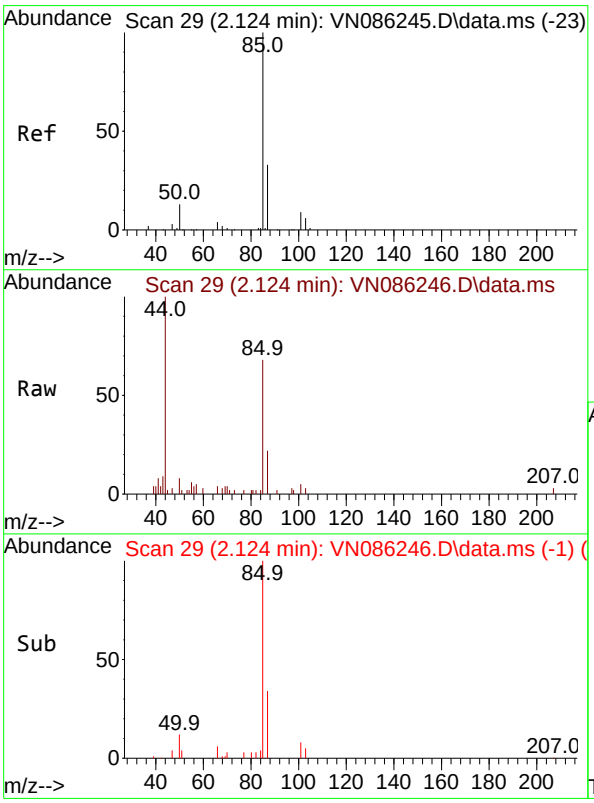
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:128 Resp: 26939

Ion	Ratio	Lower	Upper
128	100		
49	187.2	0.0	452.5
130	129.7	0.0	315.0

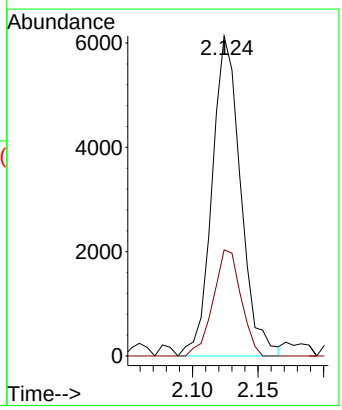


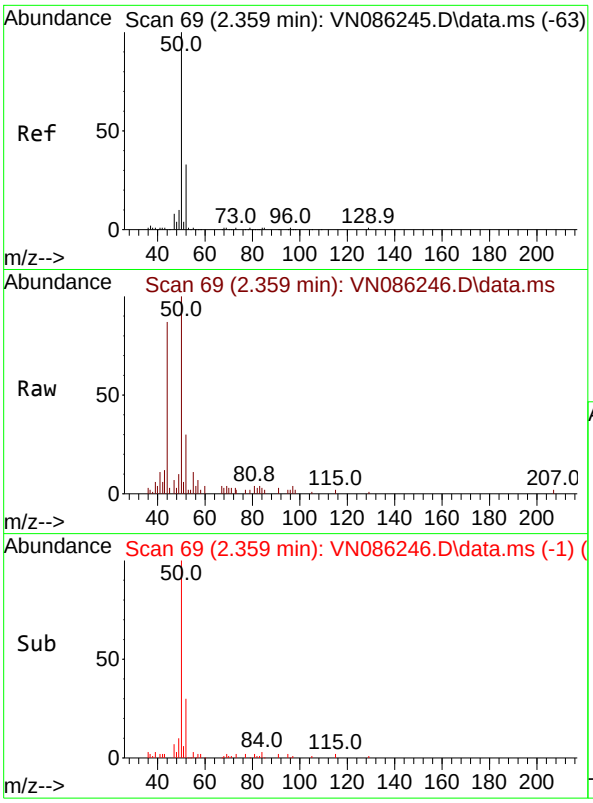


#2
Dichlorodifluoromethane
Concen: 4.311 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 85 Resp: 9304

Ion	Ratio	Lower	Upper
85	100		
87	33.1	16.3	48.9



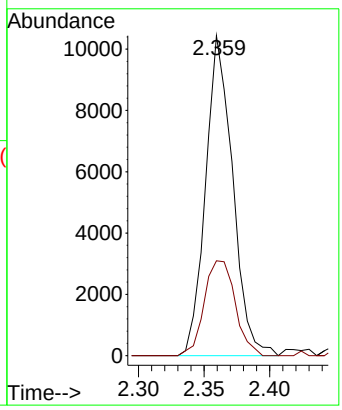


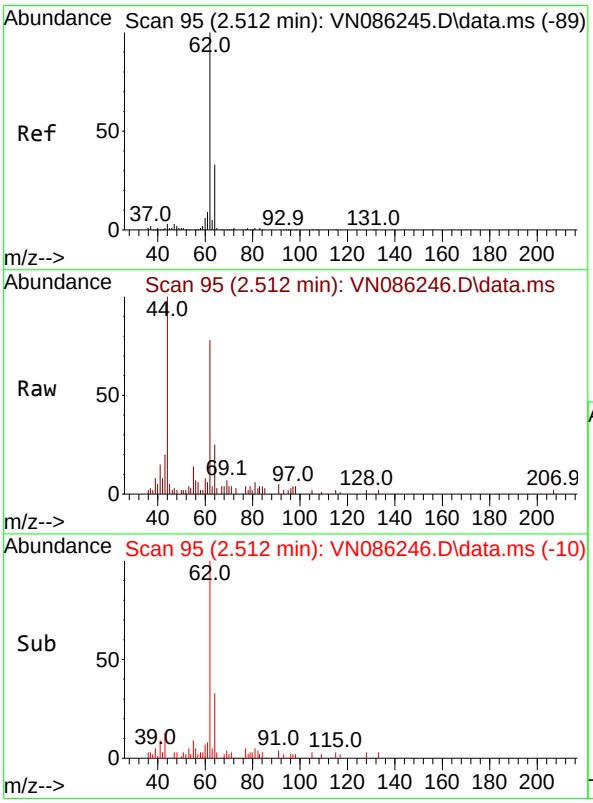
#3
Chloromethane
Concen: 5.030 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 50 Resp: 15004

Ion	Ratio	Lower	Upper
50	100		
52	29.7	26.4	39.6

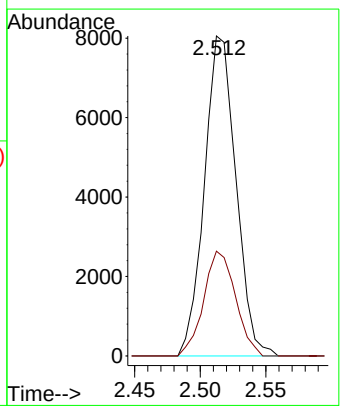


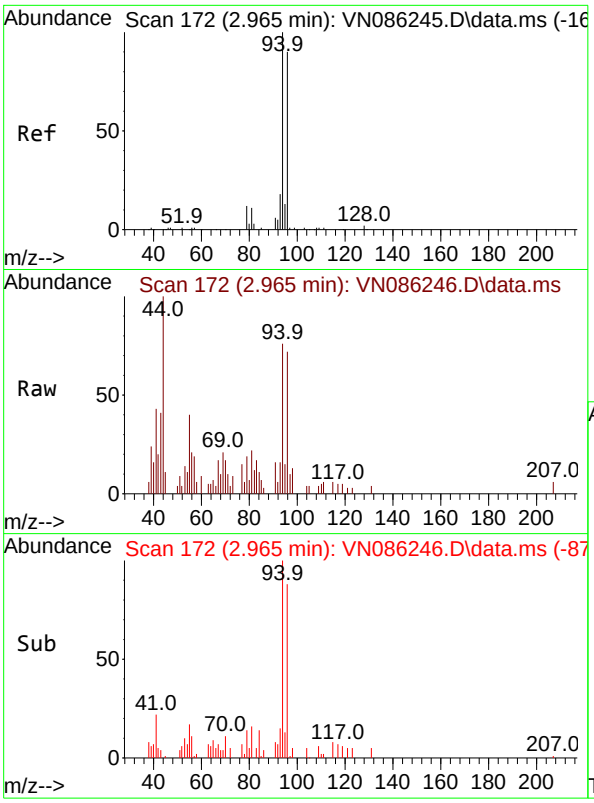


#4
Vinyl Chloride
Concen: 4.740 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 62 Resp: 13469

Ion	Ratio	Lower	Upper
62	100		
64	32.8	26.3	39.5



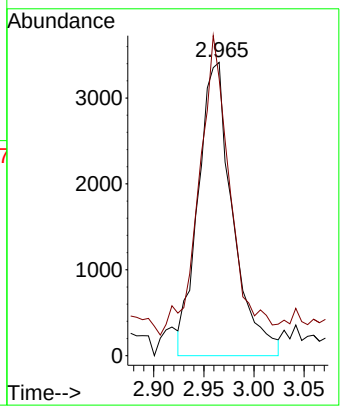


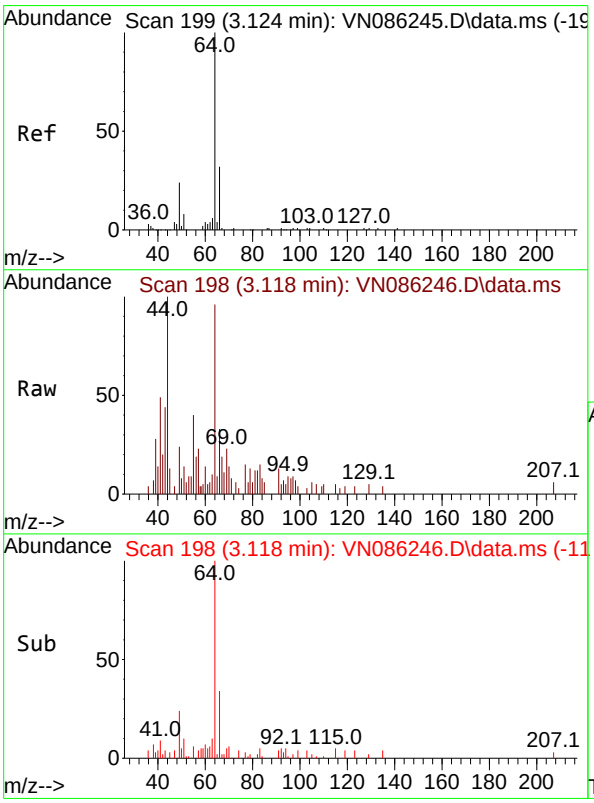
#5
Bromomethane
Concen: 5.763 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 94 Resp: 8169

Ion	Ratio	Lower	Upper
94	100		
96	88.5	72.2	108.2

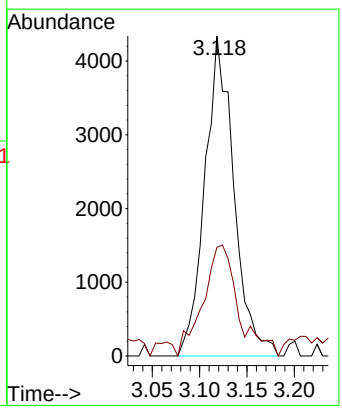


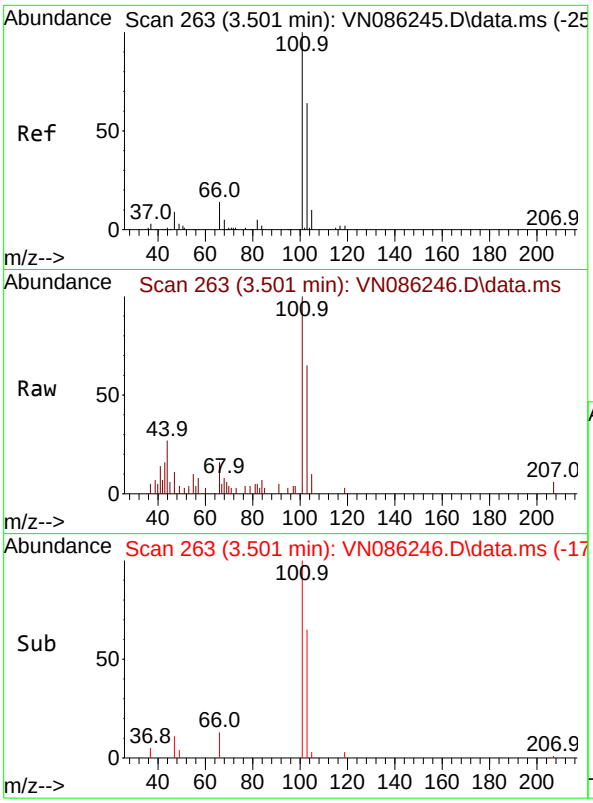


#6
Chloroethane
Concen: 5.152 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 64 Resp: 9245

Ion	Ratio	Lower	Upper
64	100		
66	34.0	25.7	38.5



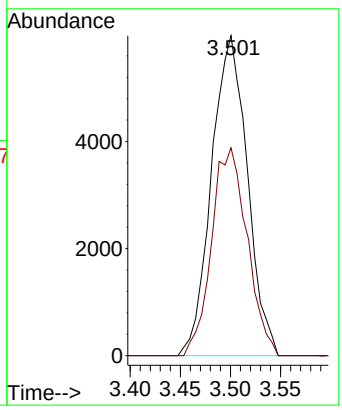


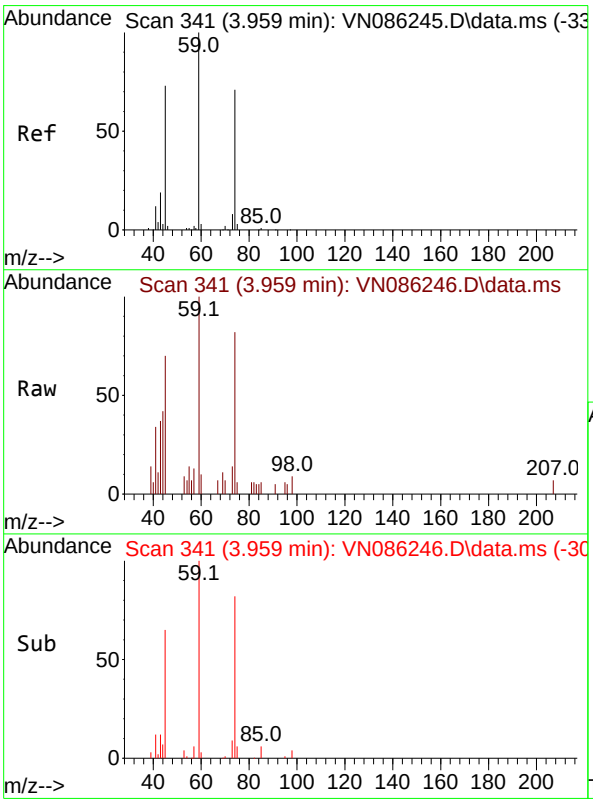
#7
Trichlorofluoromethane
Concen: 4.823 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:101 Resp: 14867

Ion	Ratio	Lower	Upper
101	100		
103	65.0	51.2	76.8

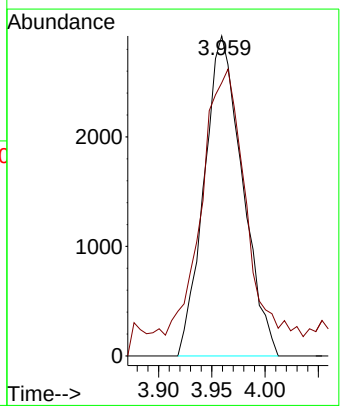


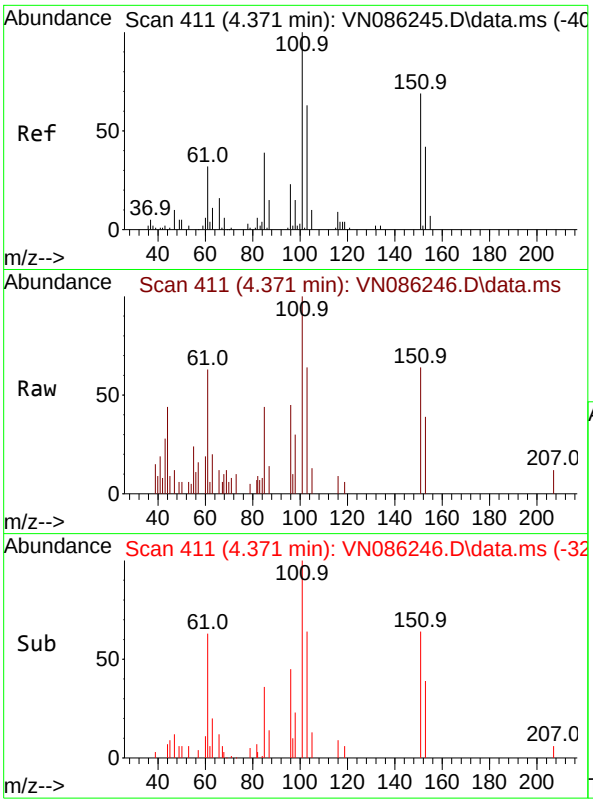


#8
Diethyl Ether
Concen: 5.140 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 74 Resp: 7307

Ion	Ratio	Lower	Upper
74	100		
45	92.1	19.2	173.2



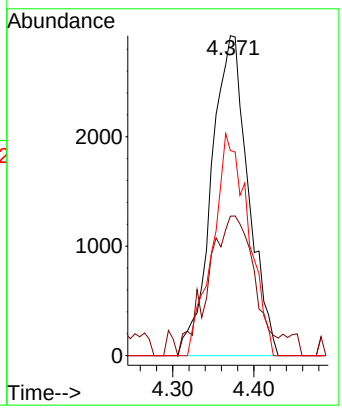


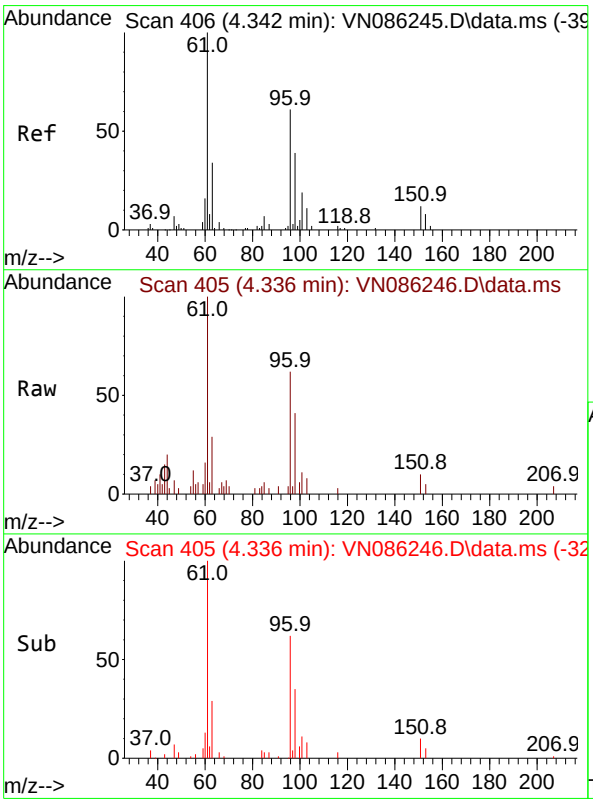
#9
1,1,2-Trichlorotrifluoroethane
Concen: 4.837 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:101 Resp: 9194

Ion	Ratio	Lower	Upper
101	100		
85	35.1	0.0	93.0
151	67.5	0.0	138.6

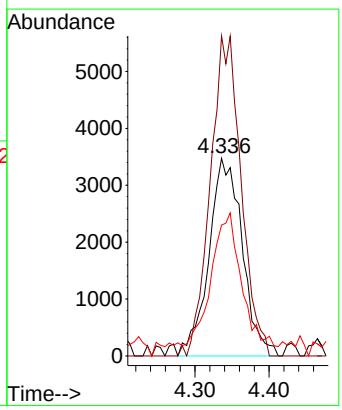


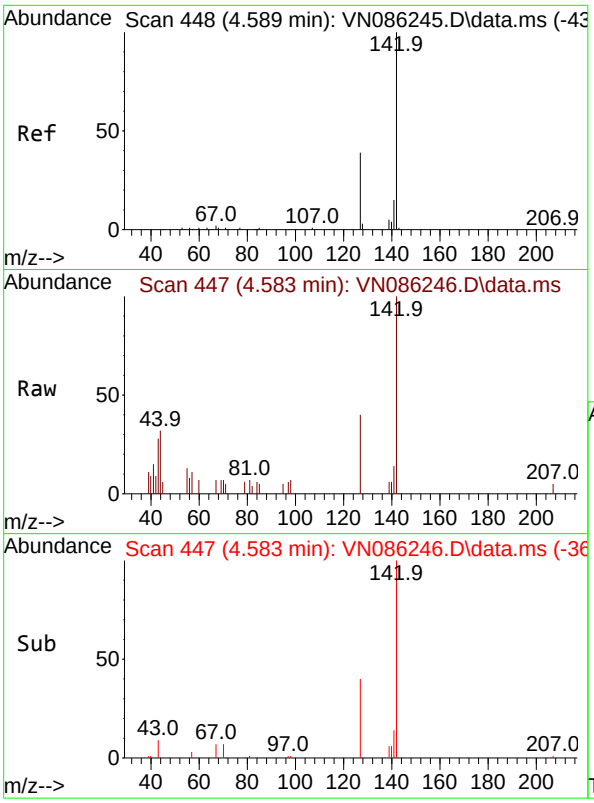


#10
1,1-Dichloroethene
Concen: 5.292 ug/l
RT: 4.336 min Scan# 405
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 96 Resp: 10856

Ion	Ratio	Lower	Upper
96	100		
61	161.9	131.1	196.7
98	61.6	51.6	77.4



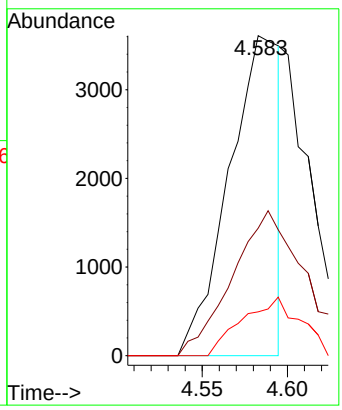


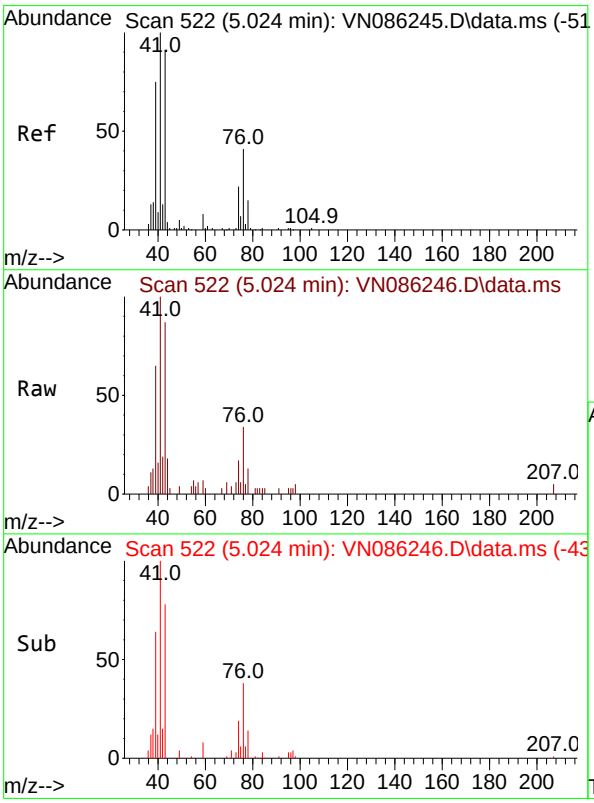
#11
Methyl Iodide
Concen: 3.159 ug/l
RT: 4.583 min Scan# 44
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:142 Resp: 7449

Ion	Ratio	Lower	Upper
142	100		
127	39.1	19.6	58.8
141	8.8	7.3	21.9

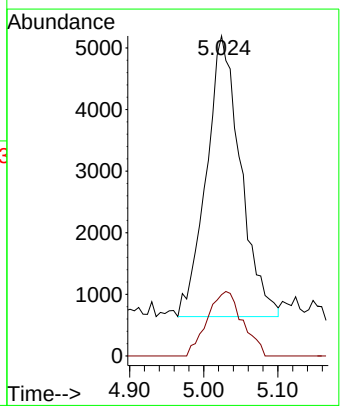


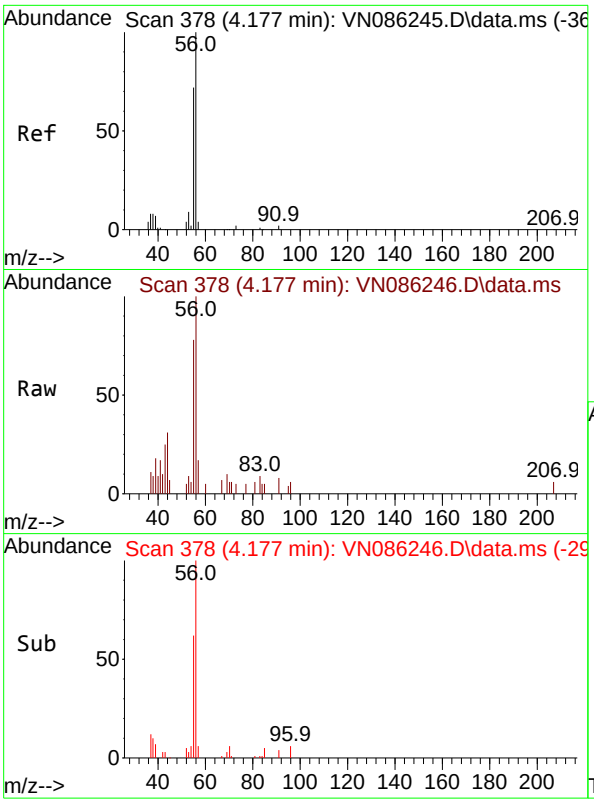


#12
Methyl Acetate
Concen: 5.046 ug/l
RT: 5.024 min Scan# 522
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 14618

Ion	Ratio	Lower	Upper
43	100		
74	22.2	19.1	28.7



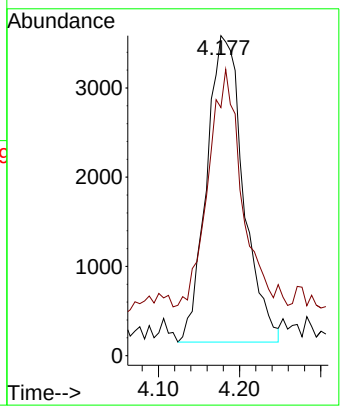


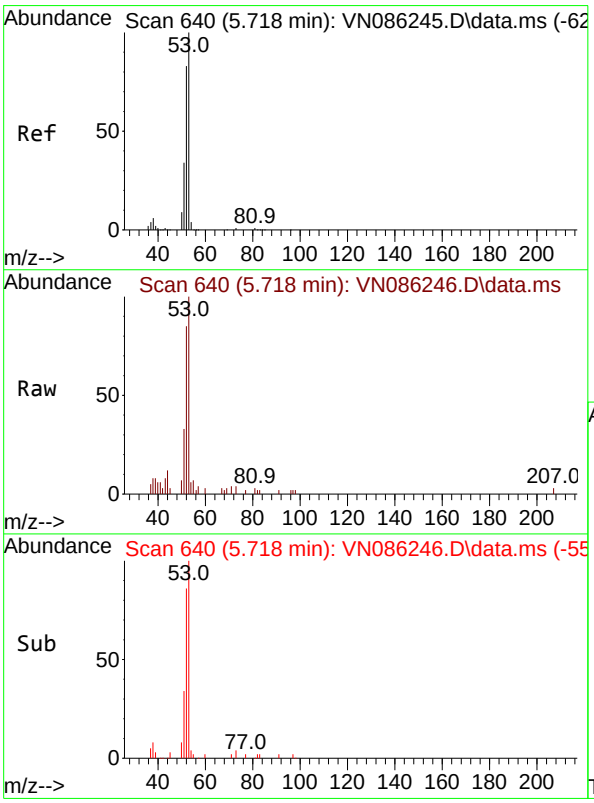
#13
Acrolein
Concen: 32.827 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 56 Resp: 10809

Ion	Ratio	Lower	Upper
56	100		
55	69.7	56.5	84.7

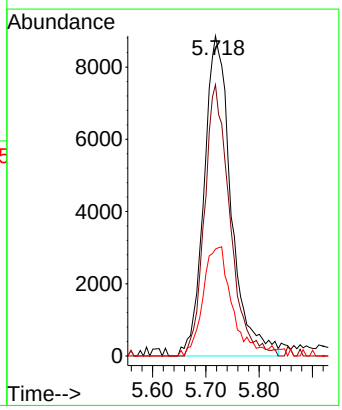


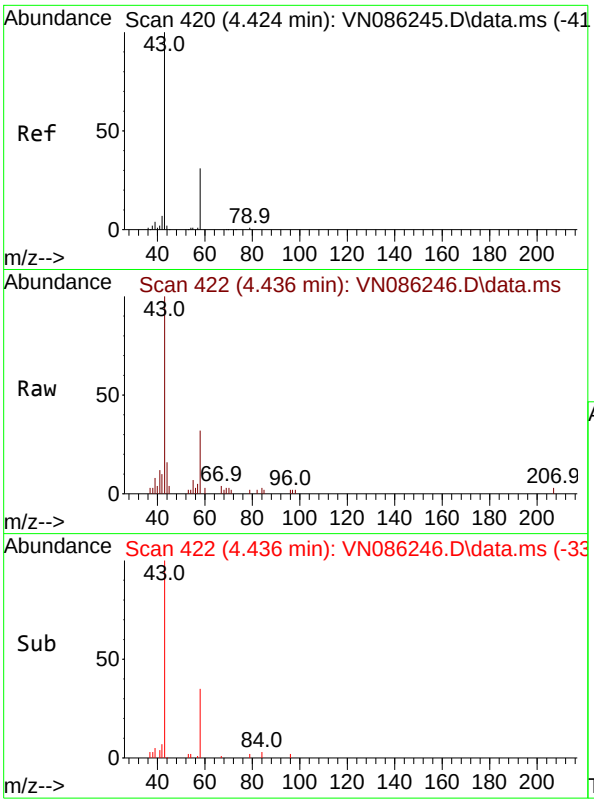


#14
Acrylonitrile
Concen: 25.638 ug/l
RT: 5.718 min Scan# 640
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 53 Resp: 31353

Ion	Ratio	Lower	Upper
53	100		
52	78.8	40.2	120.6
51	33.7	17.5	52.6



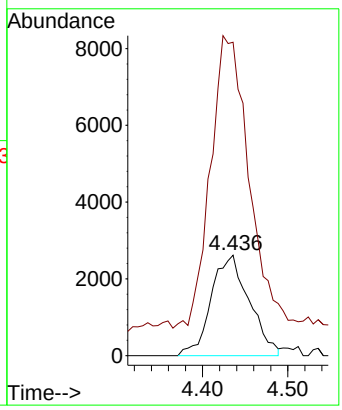


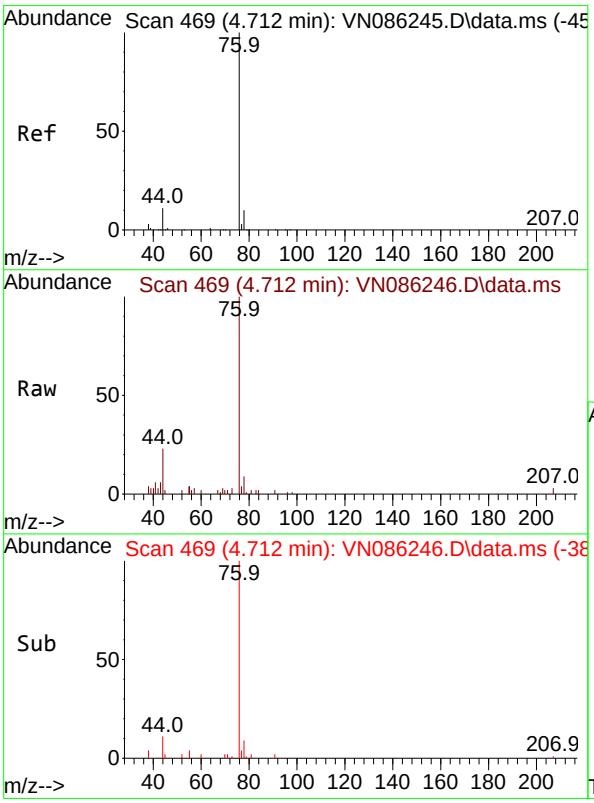
#15
Acetone
Concen: 26.259 ug/l
RT: 4.436 min Scan# 4
Delta R.T. 0.012 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 58 Resp: 8149

Ion	Ratio	Lower	Upper
58	100		
43	280.1	261.8	392.8

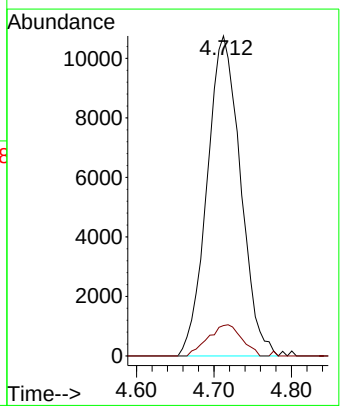


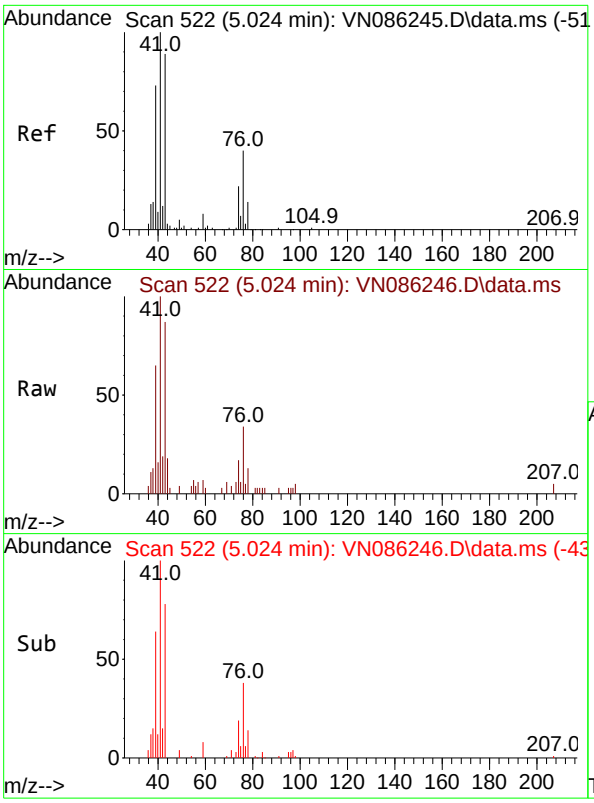


#16
Carbon Disulfide
Concen: 5.469 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 76 Resp: 32171

Ion	Ratio	Lower	Upper
76	100		
78	9.5	7.7	11.5



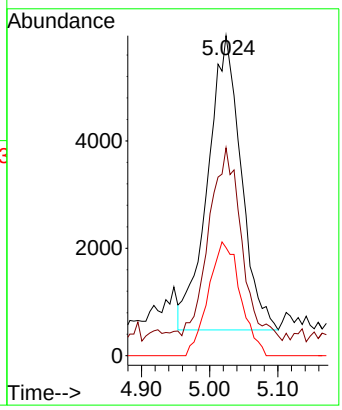


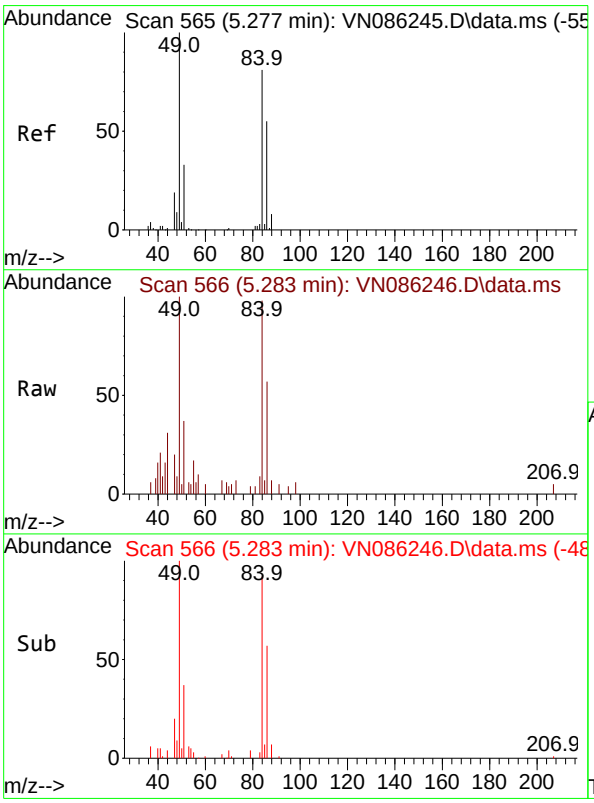
#17
Allyl chloride
Concen: 5.217 ug/l
RT: 5.024 min Scan# 5
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 41 Resp: 18652

Ion	Ratio	Lower	Upper
41	100		
39	63.8	34.4	103.2
76	36.7	18.8	56.3

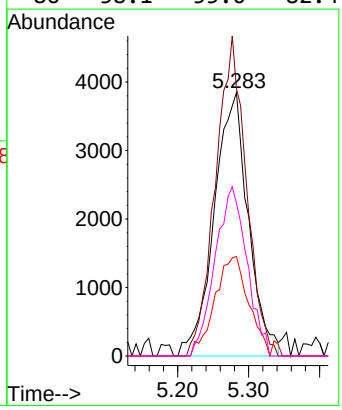


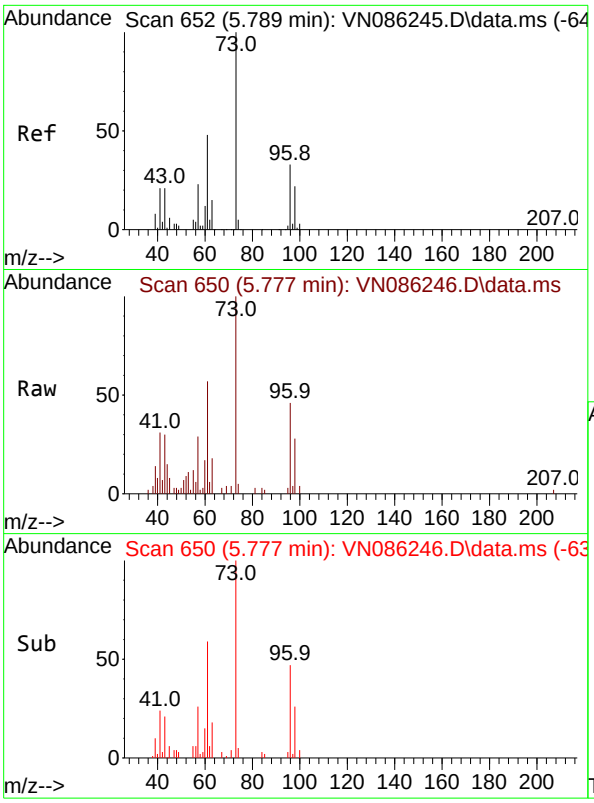


#18
Methylene Chloride
Concen: 5.487 ug/l
RT: 5.283 min Scan# 566
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 84 Resp: 12832

Ion	Ratio	Lower	Upper
84	100		
49	101.6	99.1	148.7
51	37.8	32.3	48.5
86	58.1	55.0	82.4



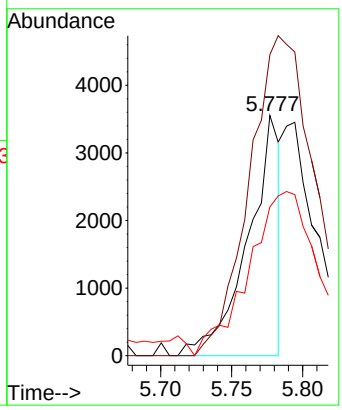


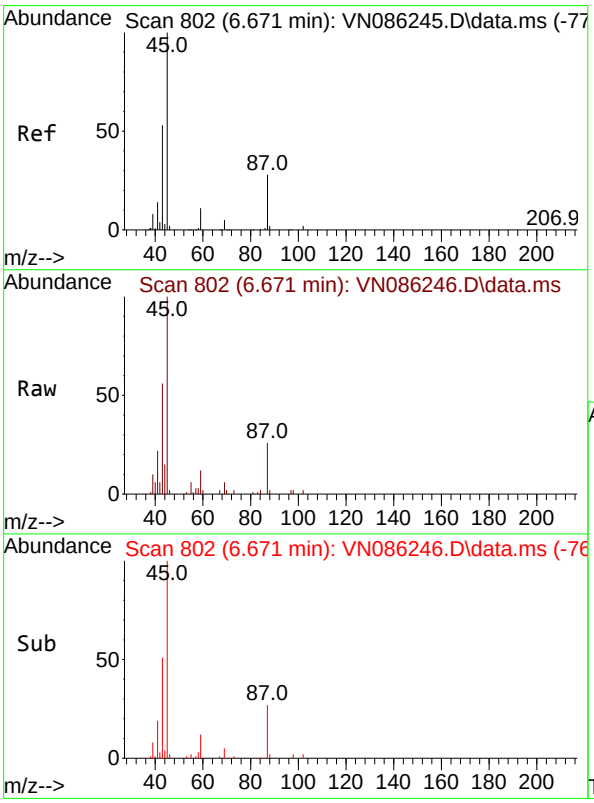
#19
trans-1,2-Dichloroethene
Concen: 2.993 ug/l
RT: 5.777 min Scan# 6
Delta R.T. -0.012 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 96 Resp: 5539

Ion	Ratio	Lower	Upper
96	100		
61	125.3	115.9	173.9
98	53.7	52.1	78.1

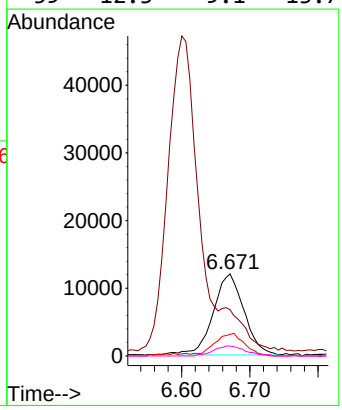


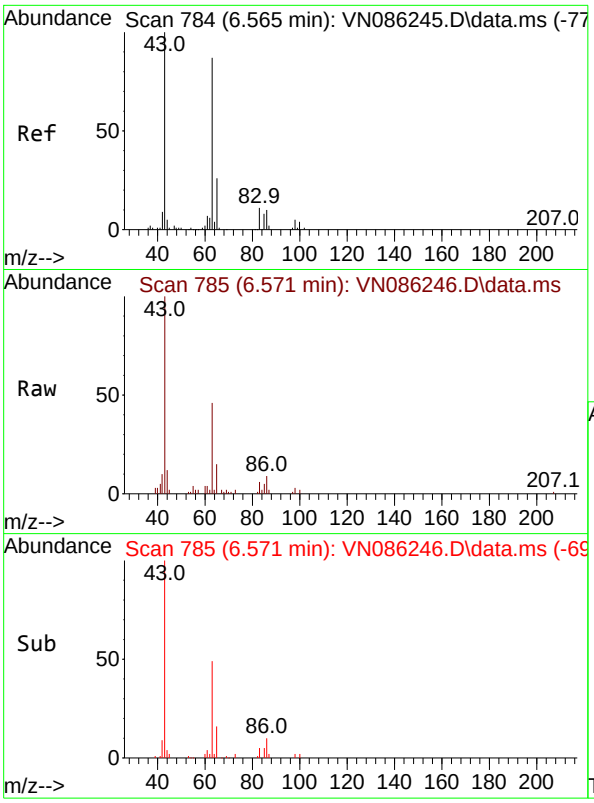


#20
Diisopropyl ether
Concen: 4.868 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 45 Resp: 37420

Ion	Ratio	Lower	Upper
45	100		
43	49.8	42.3	63.5
87	26.5	22.2	33.4
59	12.3	9.1	13.7



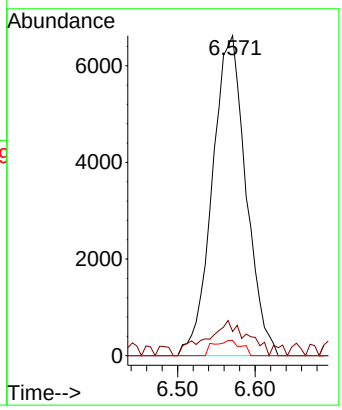


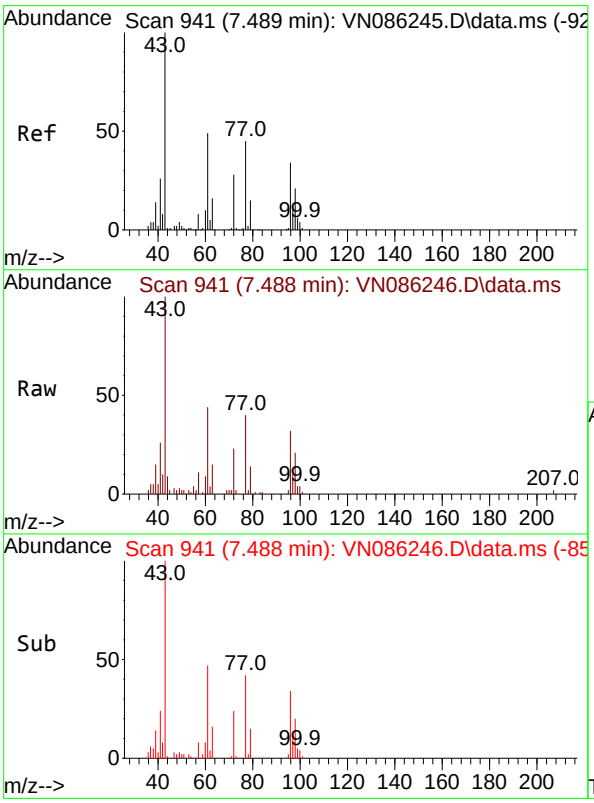
#21
1,1-Dichloroethane
Concen: 4.883 ug/l
RT: 6.571 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 63 Resp: 20024

Ion	Ratio	Lower	Upper
63	100		
98	7.6	3.1	9.3
100	4.7	2.3	6.9

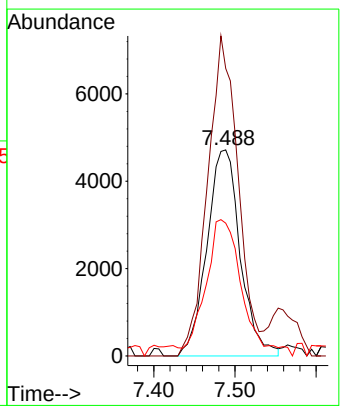


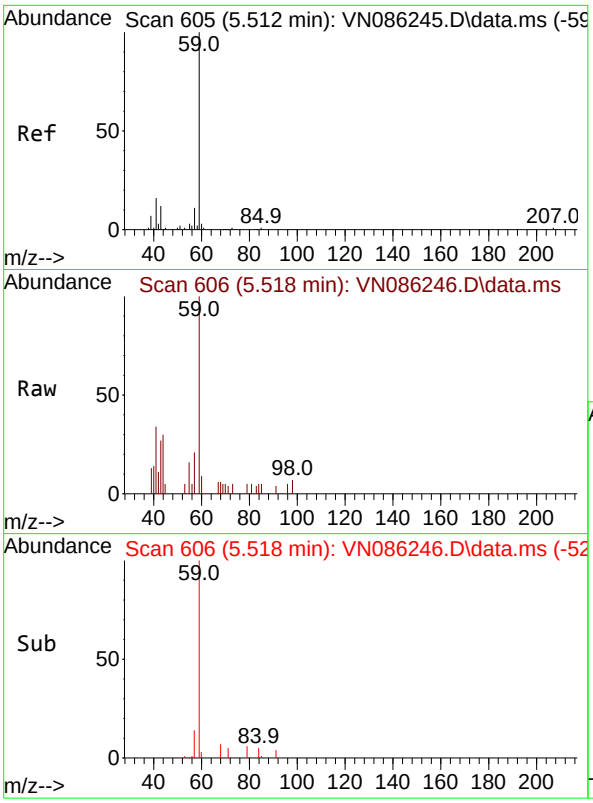


#22
cis-1,2-Dichloroethene
Concen: 5.234 ug/l
RT: 7.488 min Scan# 941
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 96 Resp: 13471

Ion	Ratio	Lower	Upper
96	100		
61	141.2	119.5	179.3
98	61.3	51.0	76.6



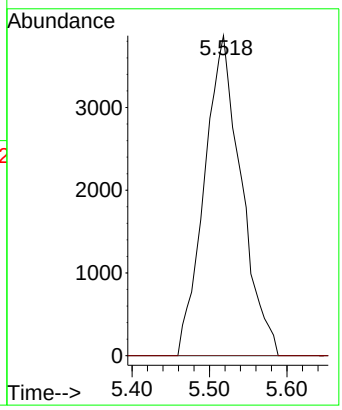


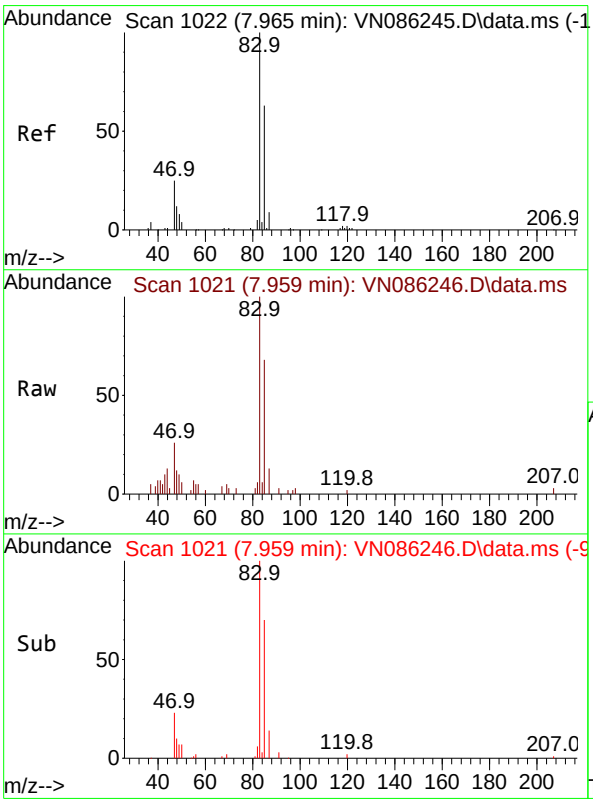
#23
tert-Butyl Alcohol
Concen: 25.247 ug/l
RT: 5.518 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 59 Resp: 12793

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0

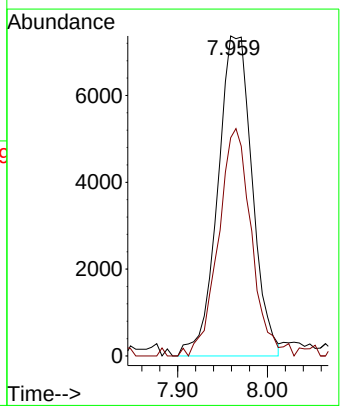


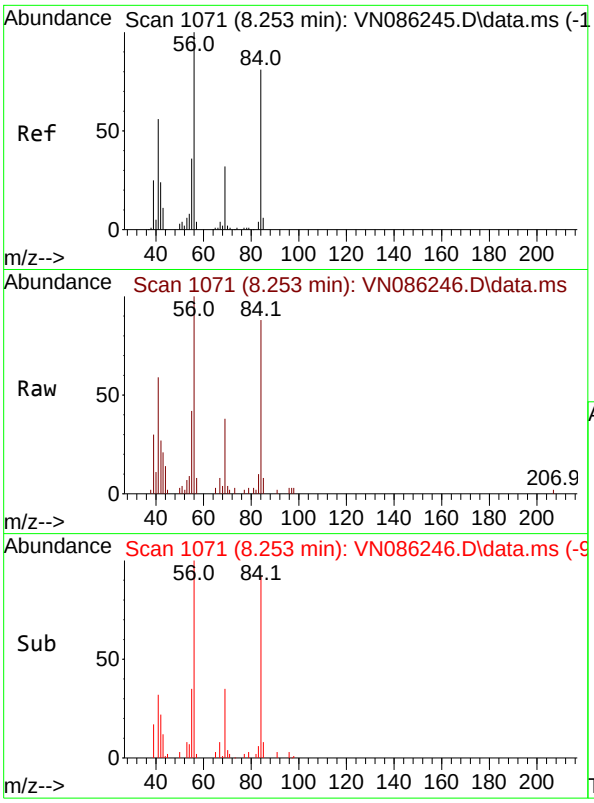


#25
Chloroform
Concen: 5.022 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 83 Resp: 19640

Ion	Ratio	Lower	Upper
83	100		
85	68.2	50.5	75.7



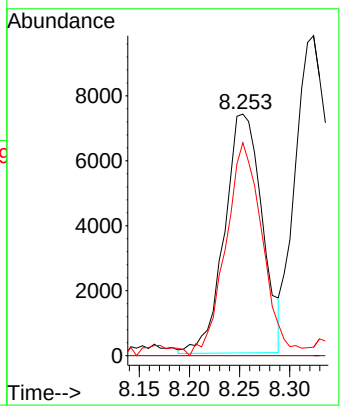


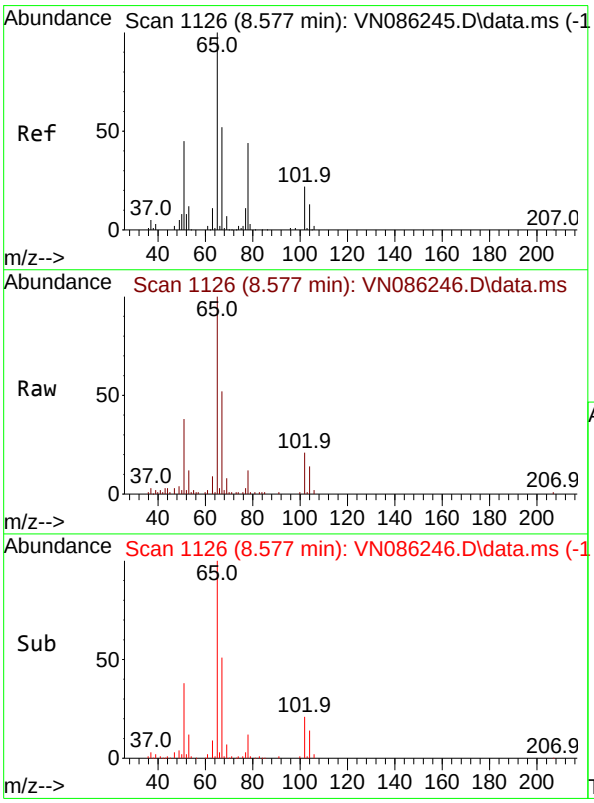
#26
Cyclohexane
Concen: 4.999 ug/l
RT: 8.253 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 56 Resp: 19181

Ion	Ratio	Lower	Upper
56	100		
89	0.0	0.0	0.0
84	86.6	69.0	103.4

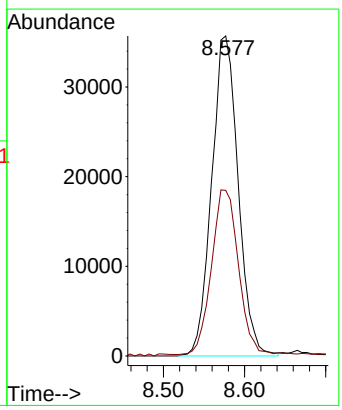


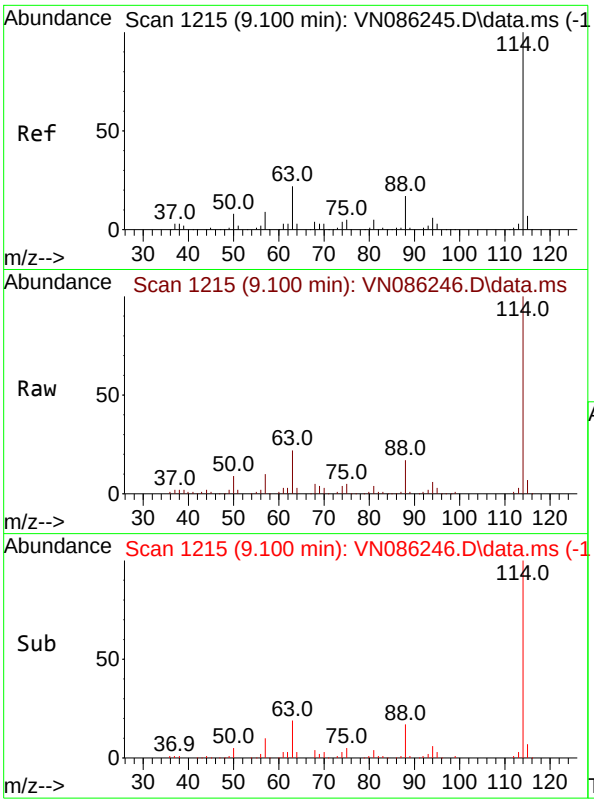


#27
1,2-Dichloroethane-d4
Concen: 30.785 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 65 Resp: 80888

Ion	Ratio	Lower	Upper
65	100		
67	52.0	43.4	65.2



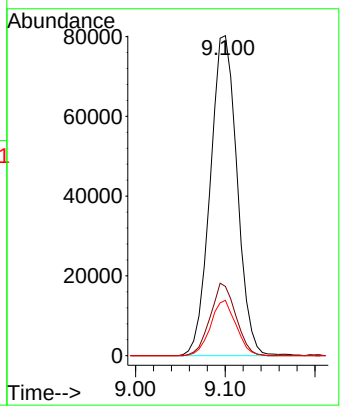


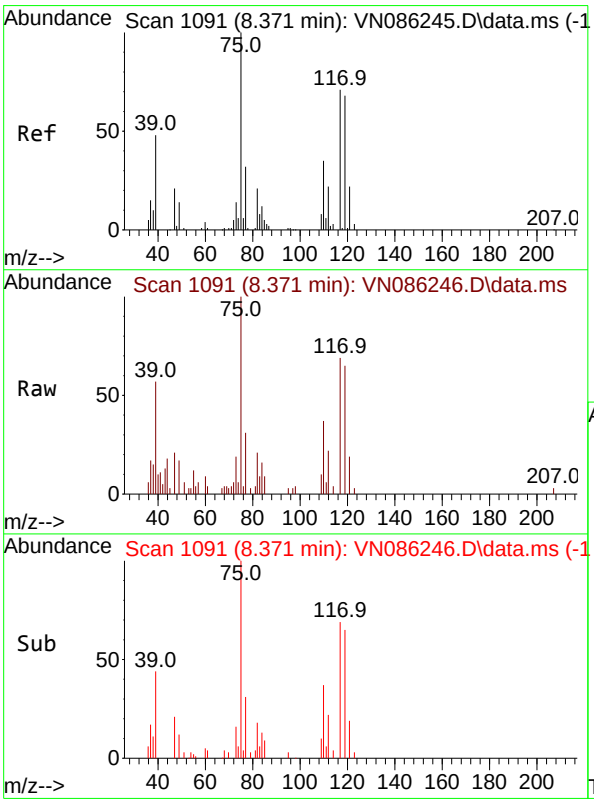
#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:114 Resp: 166827

Ion	Ratio	Lower	Upper
114	100		
63	21.5	17.8	26.6
88	16.4	13.4	20.2

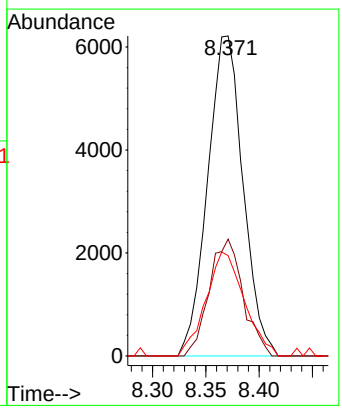


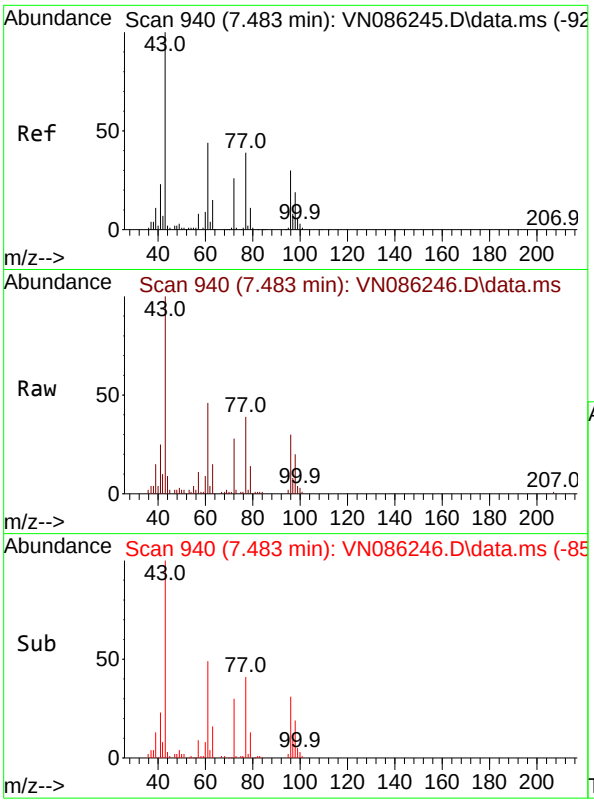


#29
1,1-Dichloropropene
Concen: 4.803 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 14353

Ion	Ratio	Lower	Upper
75	100		
110	34.9	0.0	68.6
77	35.2	0.0	63.8



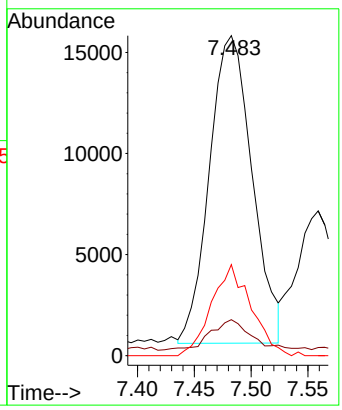


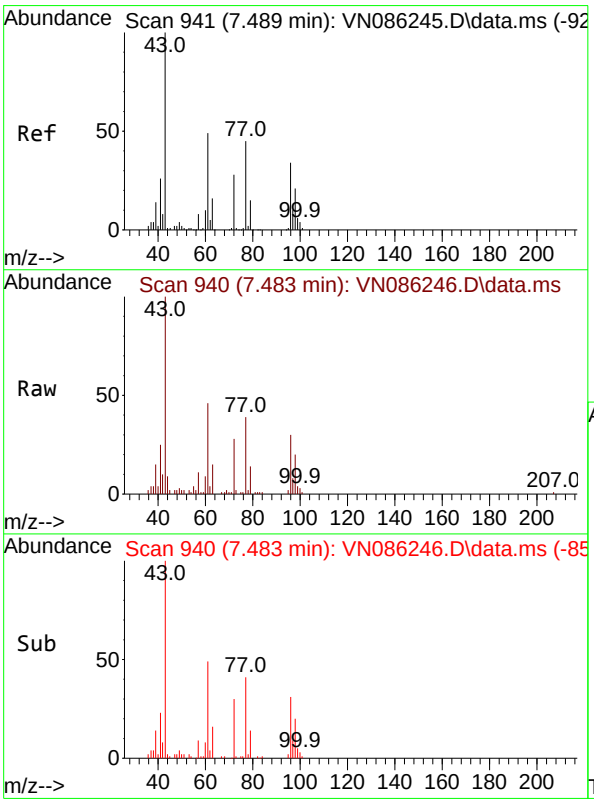
#30
2-Butanone
Concen: 24.089 ug/l
RT: 7.483 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 43 Resp: 39891

Ion	Ratio	Lower	Upper
43	100		
57	7.0	6.4	9.6
72	27.2	21.5	32.3

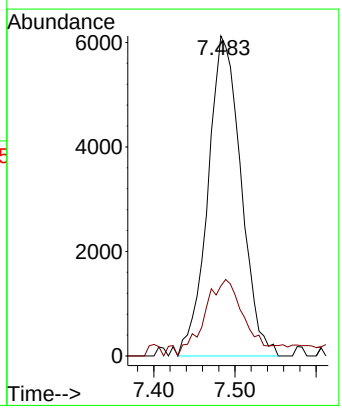


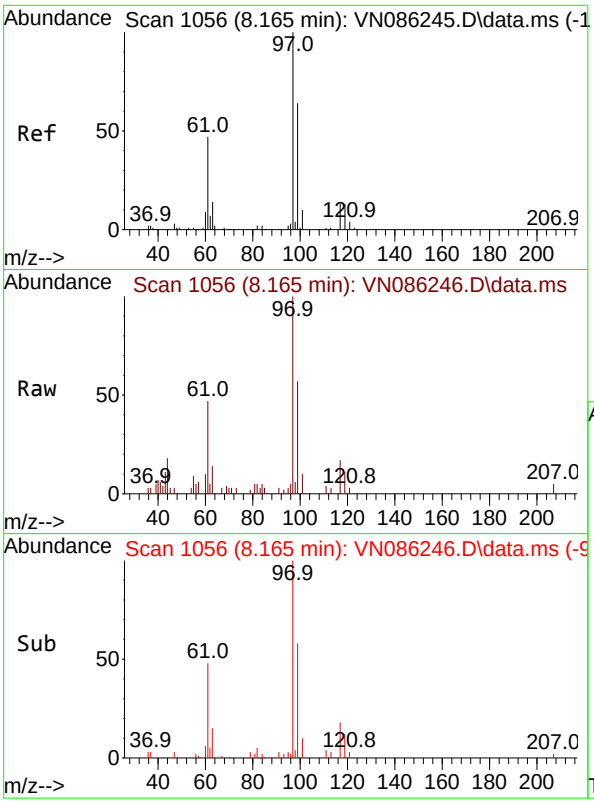


#31
2,2-Dichloropropane
Concen: 4.711 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 77 Resp: 17332

Ion	Ratio	Lower	Upper
77	100		
97	15.5	18.8	28.2#



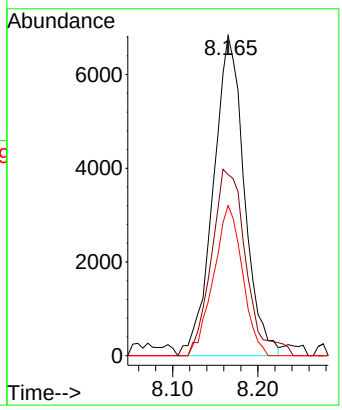


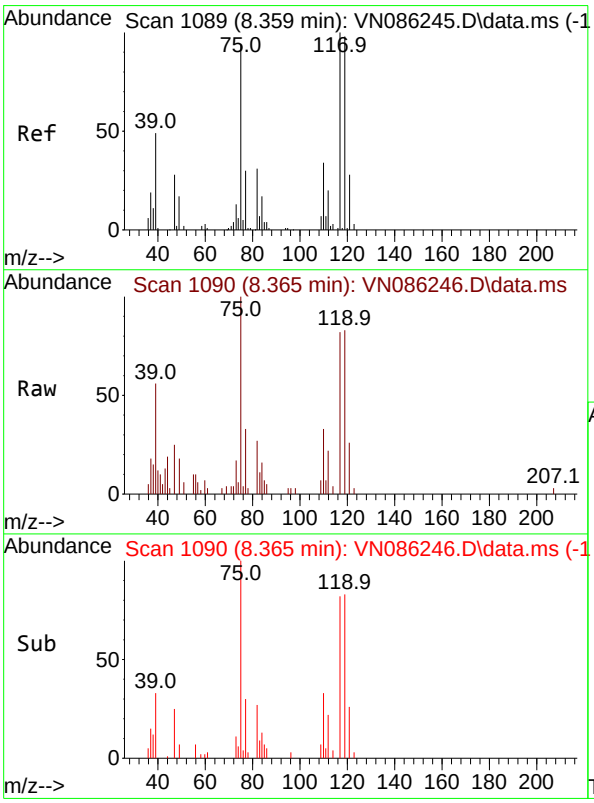
#32
1,1,1-Trichloroethane
Concen: 5.024 ug/l
RT: 8.165 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 97 Resp: 17271

Ion	Ratio	Lower	Upper
97	100		
99	64.2	51.4	77.2
61	43.9	37.0	55.6

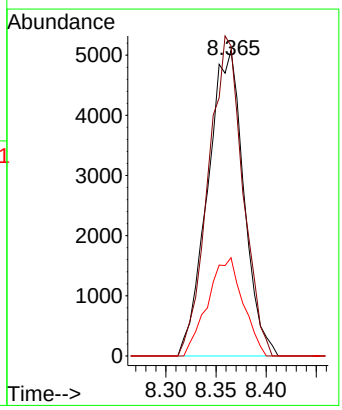


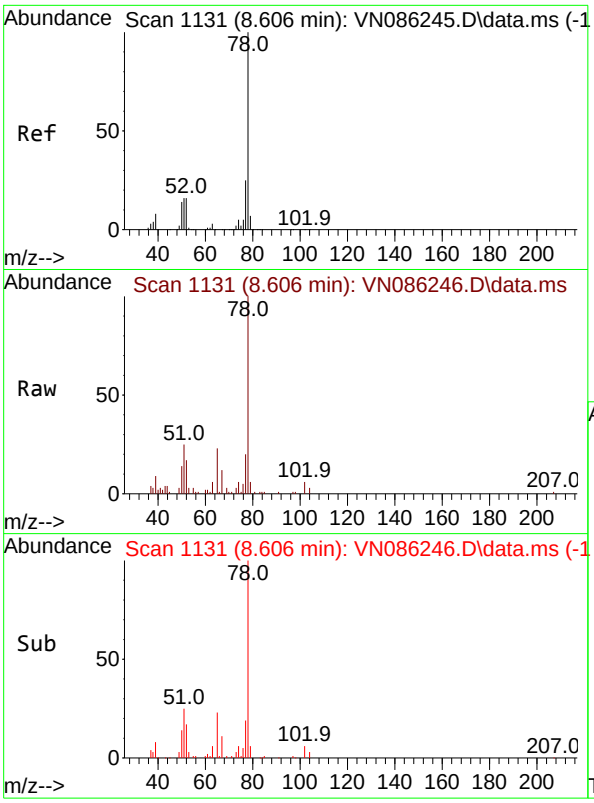


#33
Carbon Tetrachloride
Concen: 4.633 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:117 Resp: 12727

Ion	Ratio	Lower	Upper
117	100		
119	101.5	78.3	117.5
121	32.2	22.5	33.7



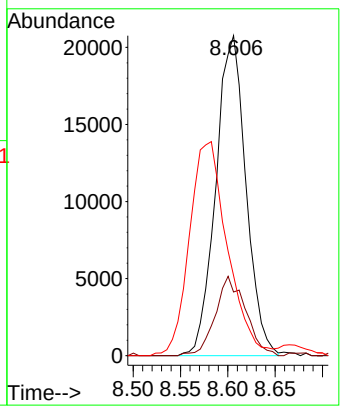


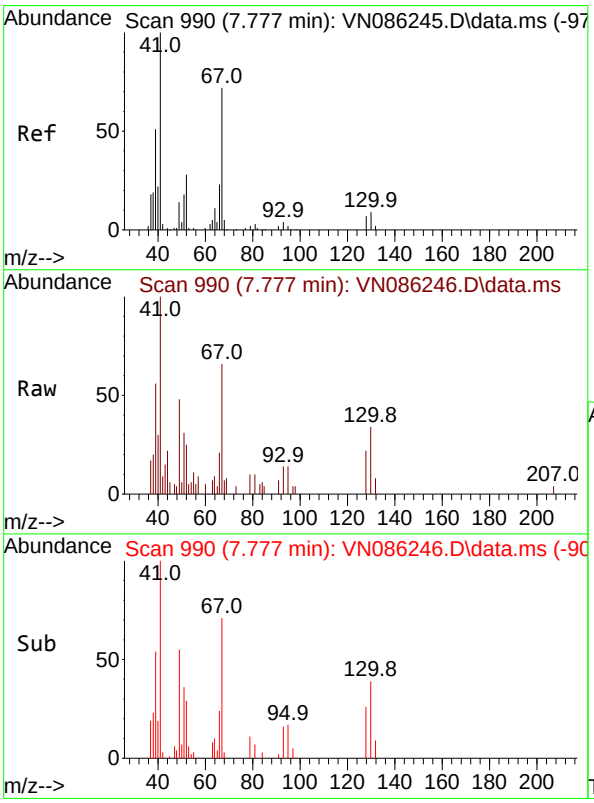
#34
Benzene
Concen: 4.845 ug/l
RT: 8.606 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 78 Resp: 46065

Ion	Ratio	Lower	Upper
78	100		
77	19.9	20.0	30.0#
51	22.7	12.9	19.3#

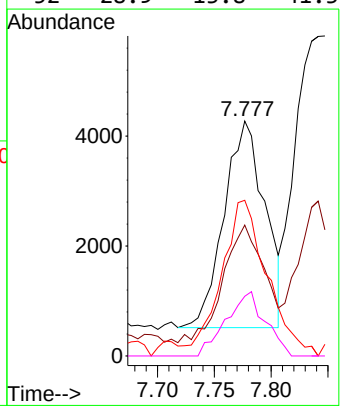


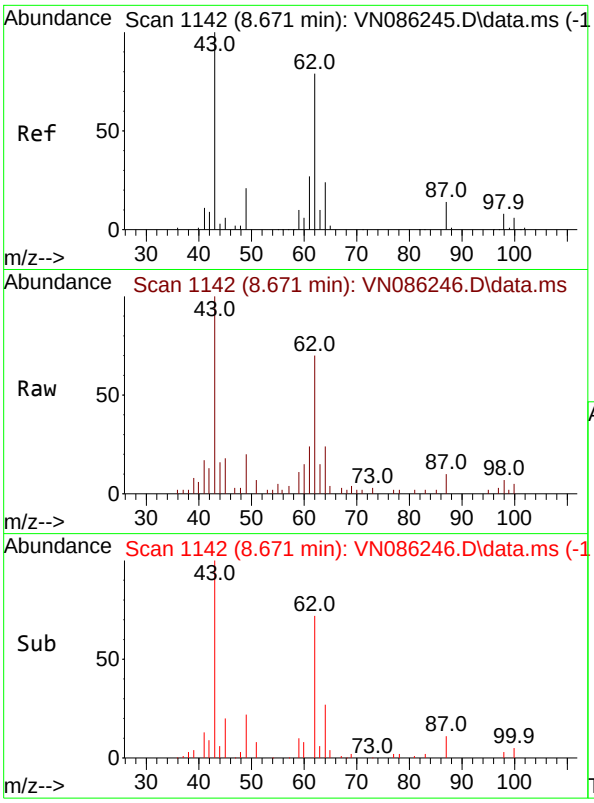


#35
Methacrylonitrile
Concen: 5.037 ug/l
RT: 7.777 min Scan# 990
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 41 Resp: 9403

Ion	Ratio	Lower	Upper
41	100		
39	57.0	25.8	77.3
67	70.6	36.0	108.0
52	28.9	13.8	41.3



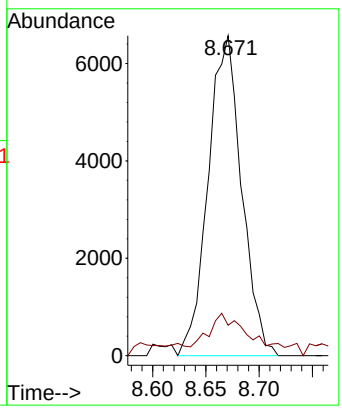


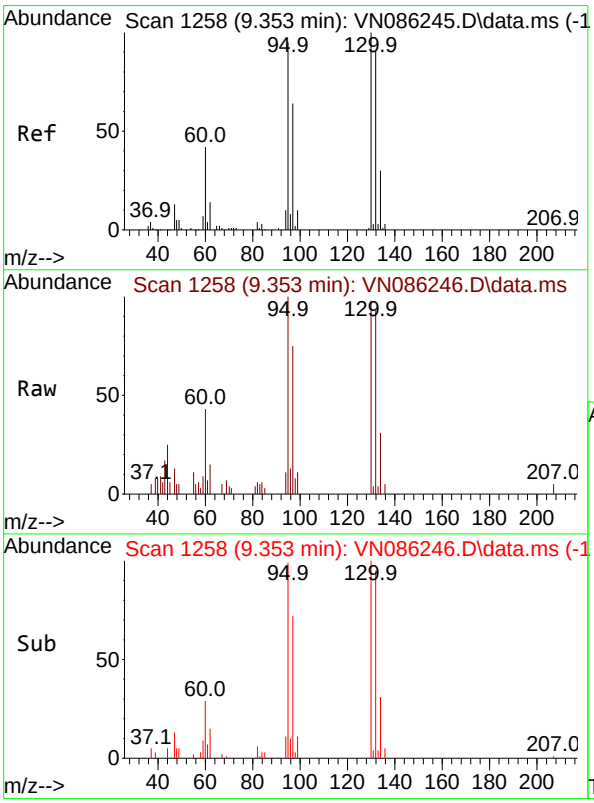
#36
1,2-Dichloroethane
Concen: 4.823 ug/l
RT: 8.671 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 62 Resp: 14350

Ion	Ratio	Lower	Upper
62	100		
98	5.6	8.6	12.8#

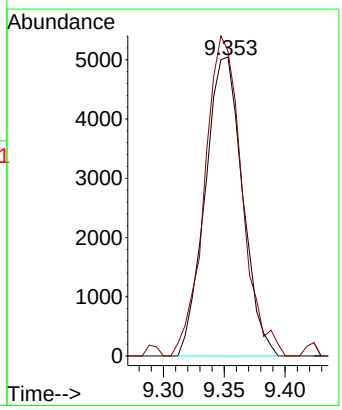


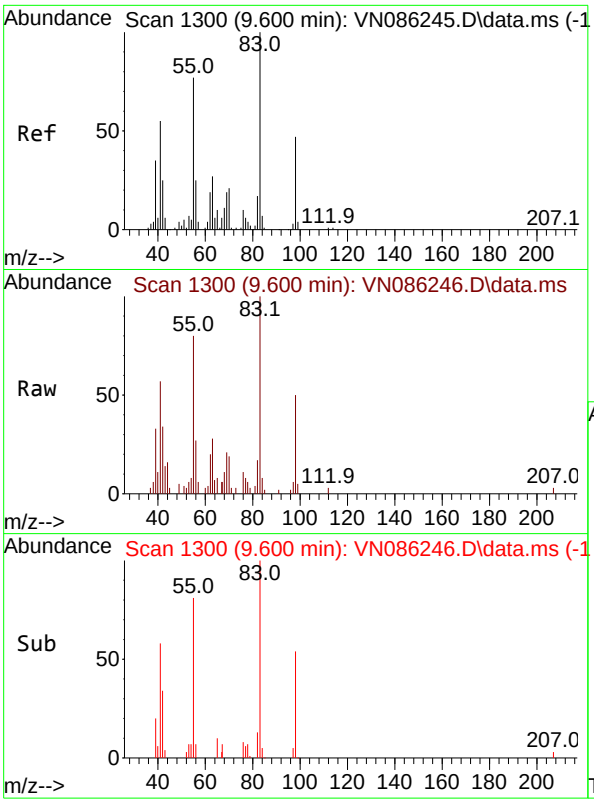


#37
Trichloroethene
Concen: 4.697 ug/l
RT: 9.353 min Scan# 1258
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:130 Resp: 10774

Ion	Ratio	Lower	Upper
130	100		
95	98.0	76.4	114.6



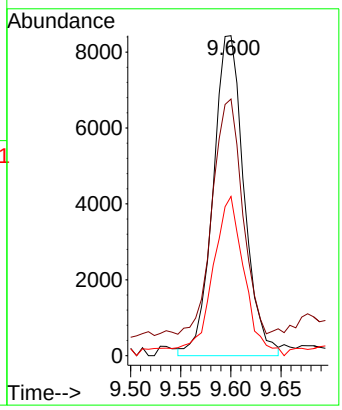


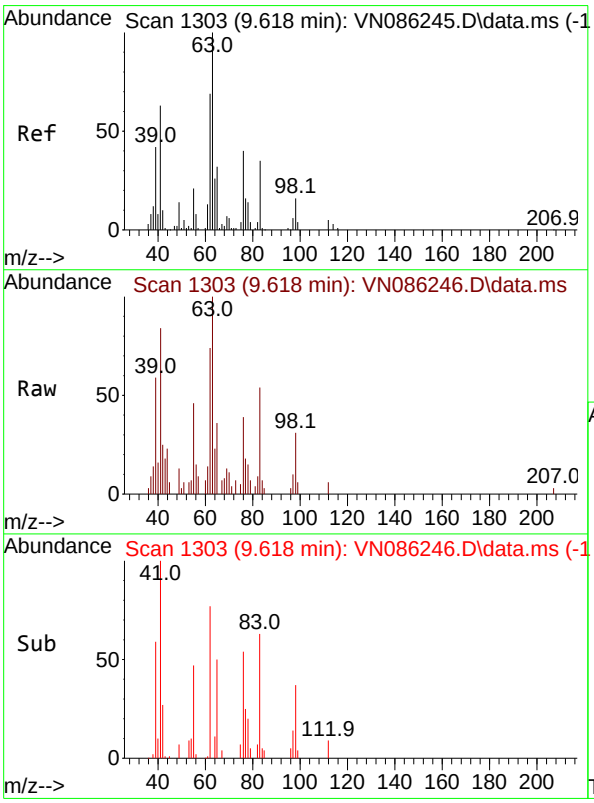
#38
Methylcyclohexane
Concen: 4.929 ug/l
RT: 9.600 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 83 Resp: 18064

Ion	Ratio	Lower	Upper
83	100		
55	74.6	38.5	115.5
98	50.9	24.4	73.2

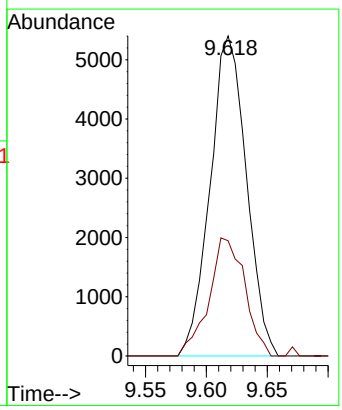


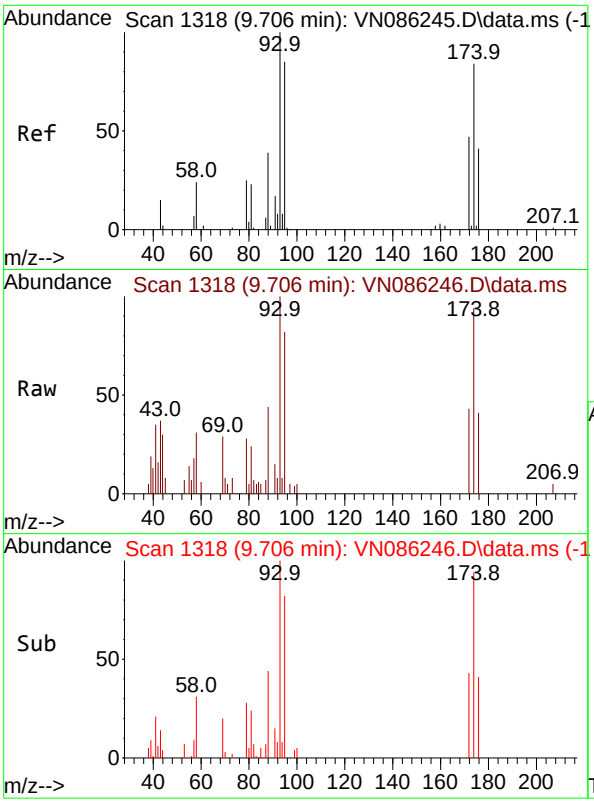


#39
1,2-Dichloropropane
Concen: 4.735 ug/l
RT: 9.618 min Scan# 1303
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 63 Resp: 11201

Ion	Ratio	Lower	Upper
63	100		
65	36.0	26.0	39.0



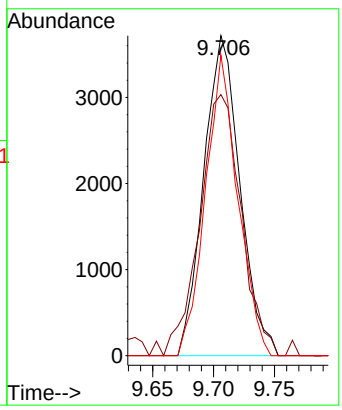


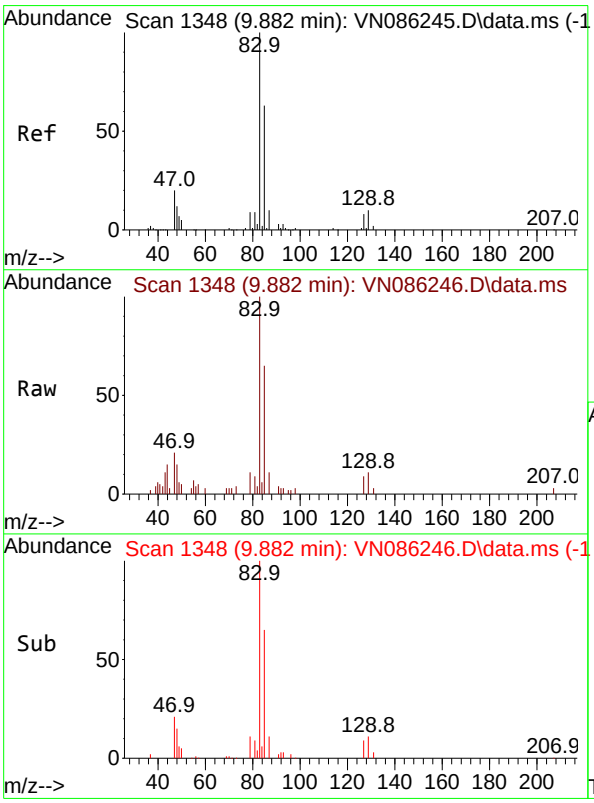
#40
Dibromomethane
Concen: 5.042 ug/l
RT: 9.706 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 93 Resp: 7704

Ion	Ratio	Lower	Upper
93	100		
95	93.0	0.0	169.0
174	83.9	0.0	168.0

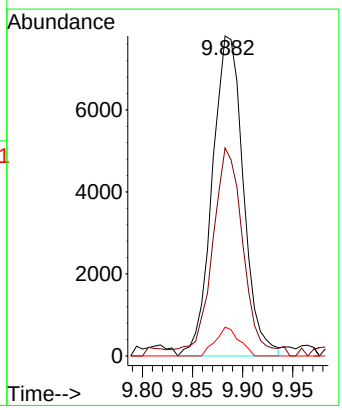


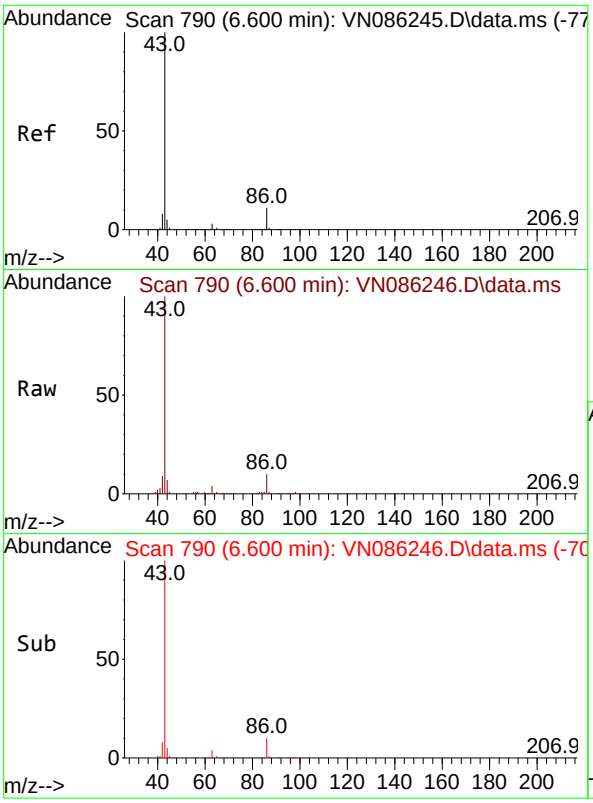


#41
Bromodichloromethane
Concen: 5.109 ug/l
RT: 9.882 min Scan# 1348
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 83 Resp: 16772

Ion	Ratio	Lower	Upper
83	100		
85	62.7	50.2	75.2
127	9.0	6.2	9.4



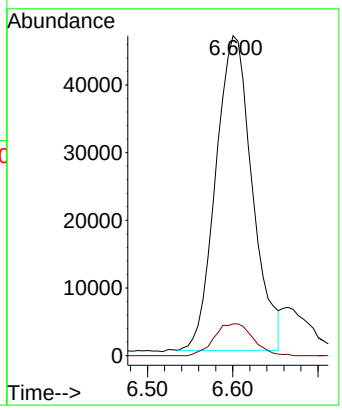


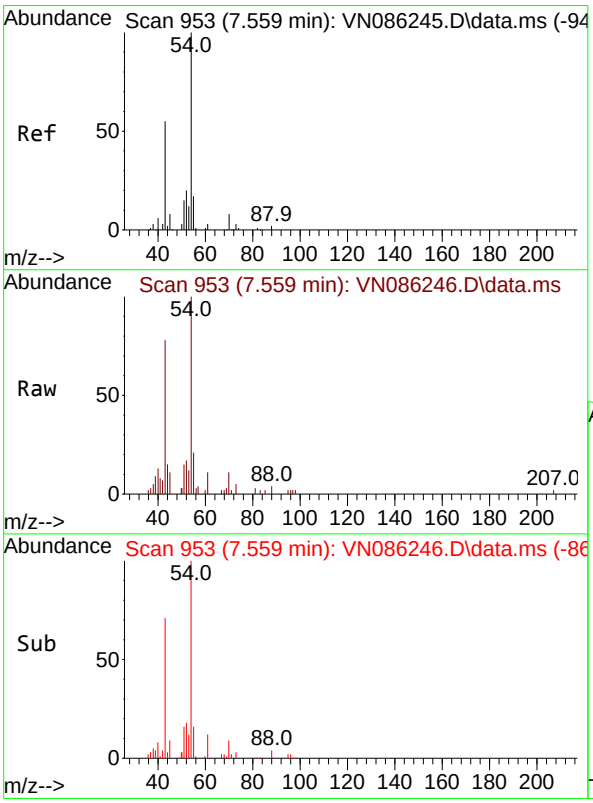
#42
Vinyl Acetate
Concen: 24.613 ug/l
RT: 6.600 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 43 Resp: 138739

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.4	12.6

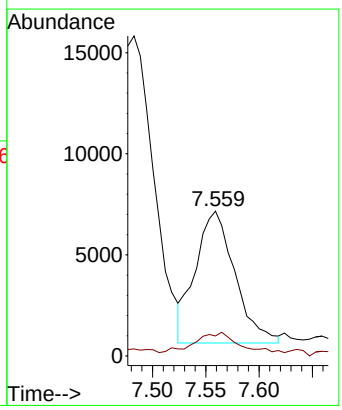


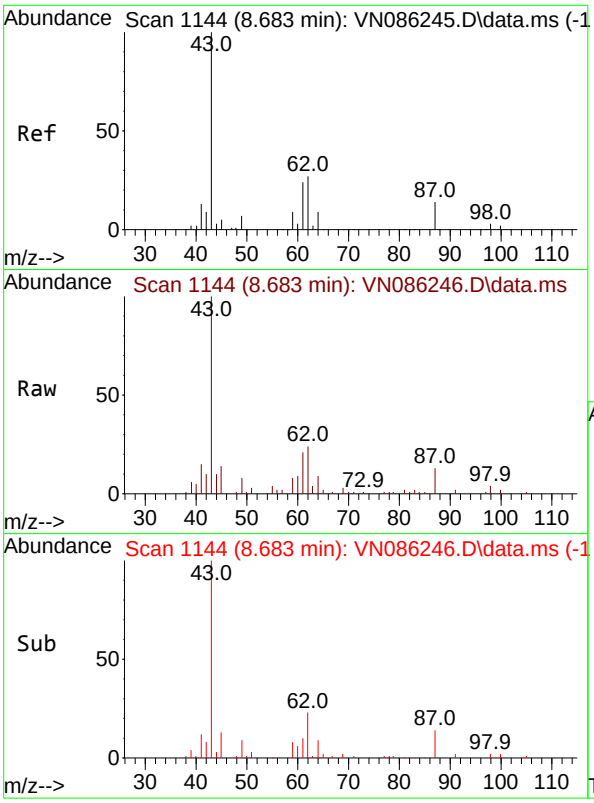


#43
Ethyl Acetate
Concen: 5.045 ug/l
RT: 7.559 min Scan# 953
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 16850

Ion	Ratio	Lower	Upper
43	100		
45	5.4	11.2	16.8#



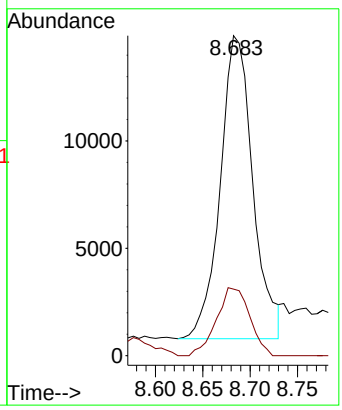


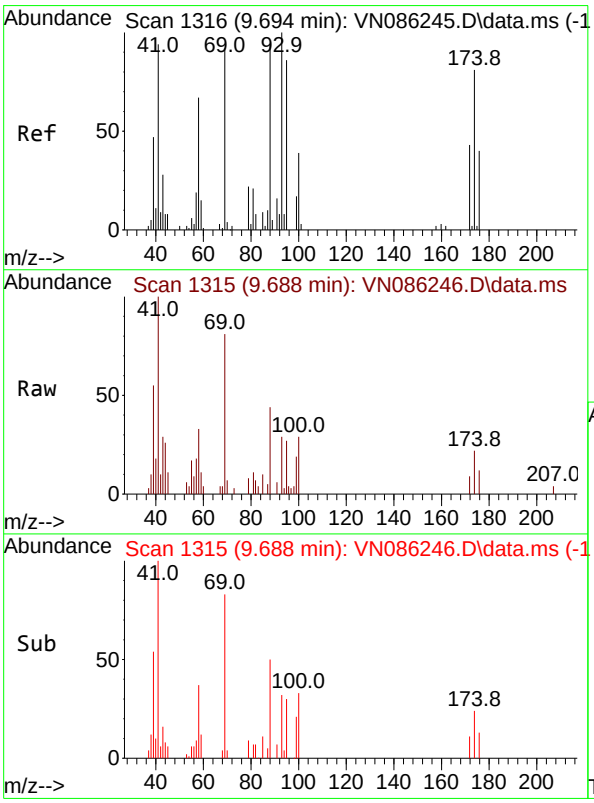
#44
Isopropyl Acetate
Concen: 5.463 ug/l
RT: 8.683 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 43 Resp: 33849

Ion	Ratio	Lower	Upper
43	100		
61	22.8	20.5	30.7

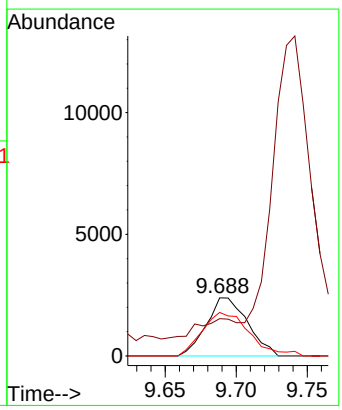


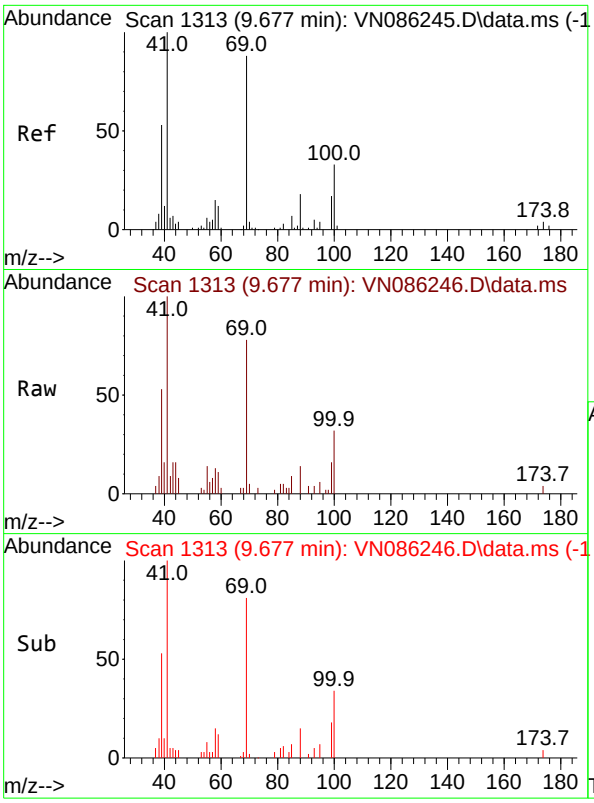


#45
1,4-Dioxane
Concen: 97.983 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 88 Resp: 4828

Ion	Ratio	Lower	Upper
88	100		
43	5.9	14.4	21.6#
58	84.2	59.8	89.8



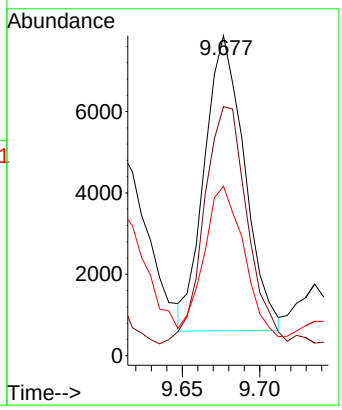


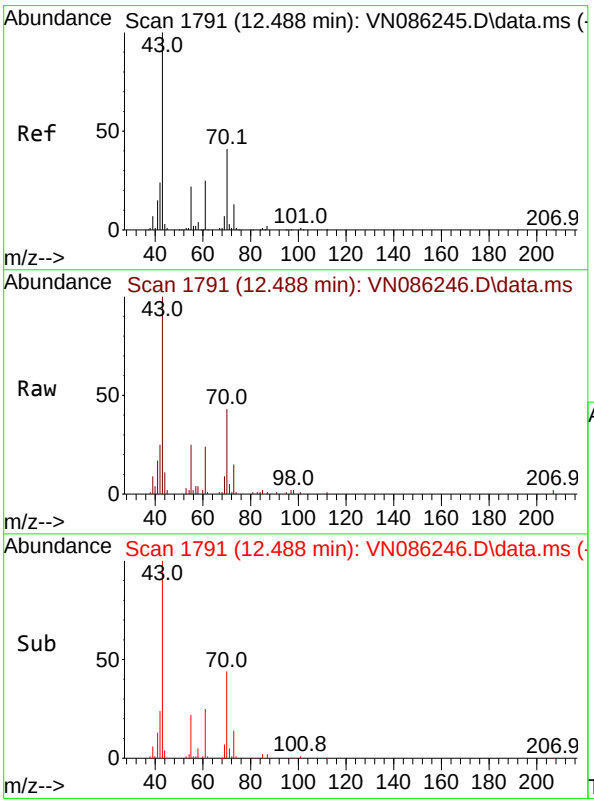
#46
Methyl methacrylate
Concen: 4.759 ug/l
RT: 9.677 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 41 Resp: 12994

Ion	Ratio	Lower	Upper
41	100		
69	79.8	43.2	129.6
39	53.4	26.4	79.0

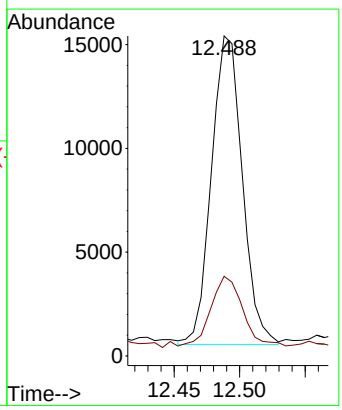


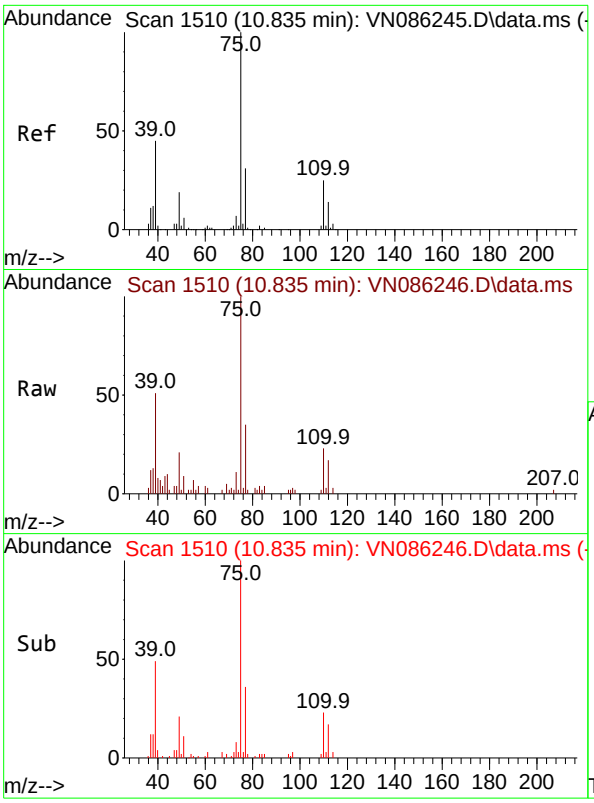


#47
n-amyl Acetate
Concen: 4.860 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 24334

Ion	Ratio	Lower	Upper
43	100		
55	22.9	19.0	28.4



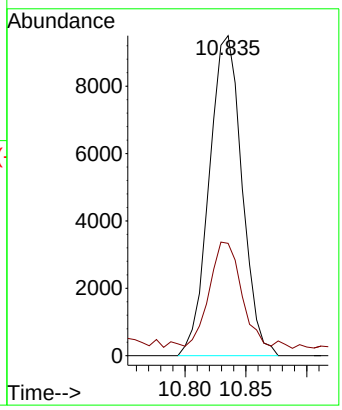


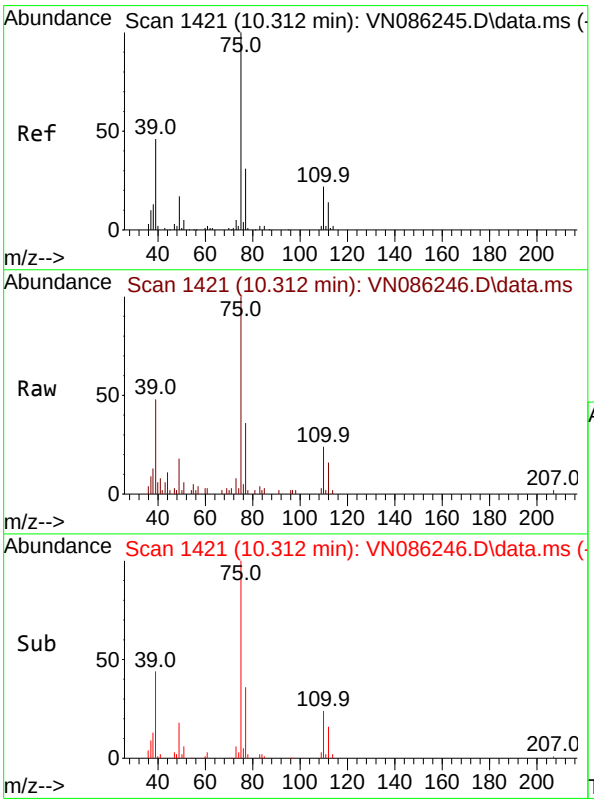
#48
t-1,3-Dichloropropene
Concen: 4.801 ug/l
RT: 10.835 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 75 Resp: 17815

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7

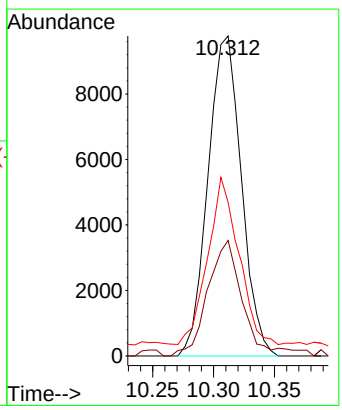


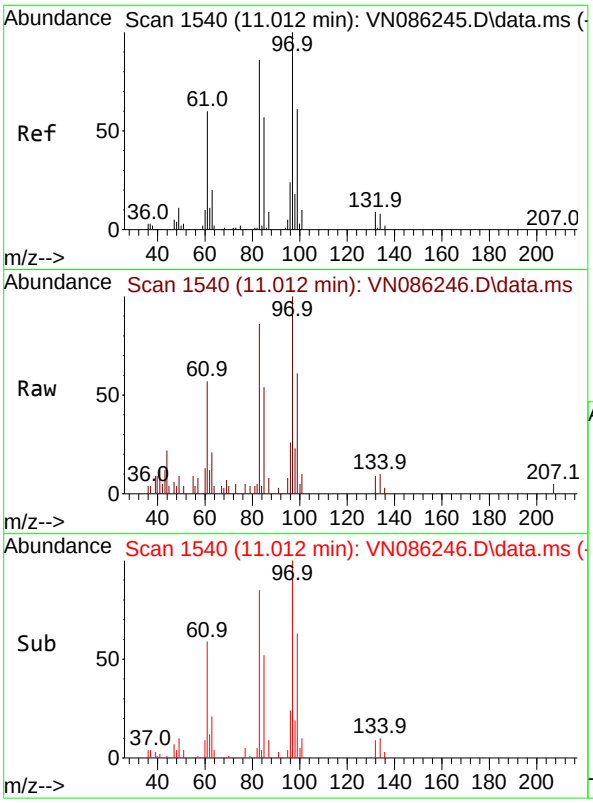


#49
cis-1,3-Dichloropropene
Concen: 4.740 ug/l
RT: 10.312 min Scan# 1421
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 18616

Ion	Ratio	Lower	Upper
75	100		
77	34.4	25.0	37.4
39	44.5	36.7	55.1



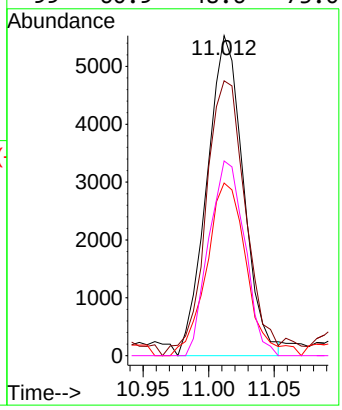


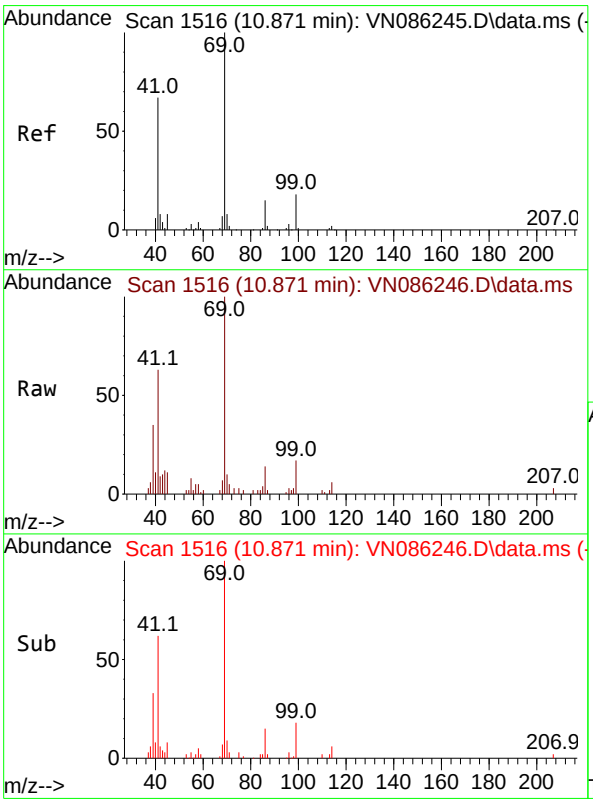
#50
1,1,2-Trichloroethane
Concen: 4.997 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 97 Resp: 10709

Ion	Ratio	Lower	Upper
97	100		
83	82.8	68.6	103.0
85	51.2	45.9	68.9
99	60.9	48.6	73.0

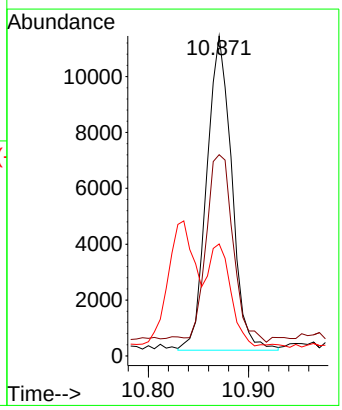


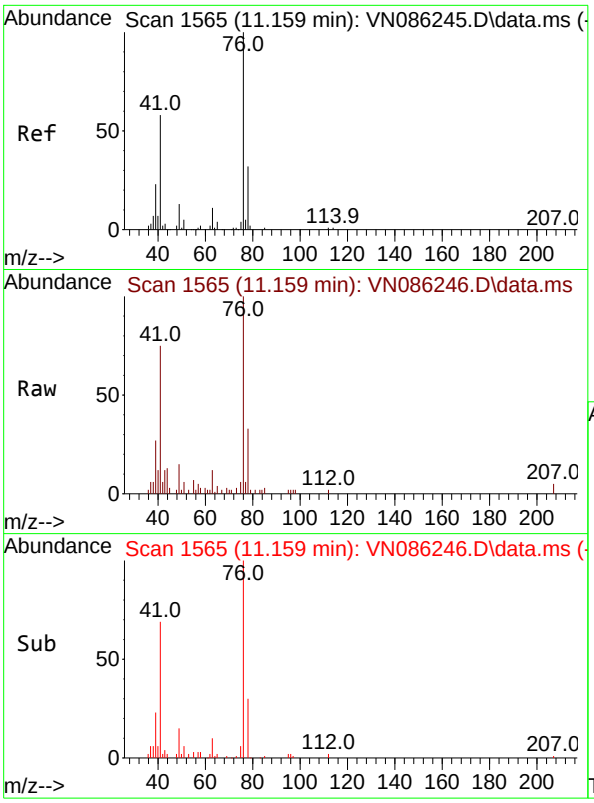


#51
Ethyl methacrylate
Concen: 4.890 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 69 Resp: 19475

Ion	Ratio	Lower	Upper
69	100		
41	58.5	33.6	100.6
39	32.2	17.8	53.4



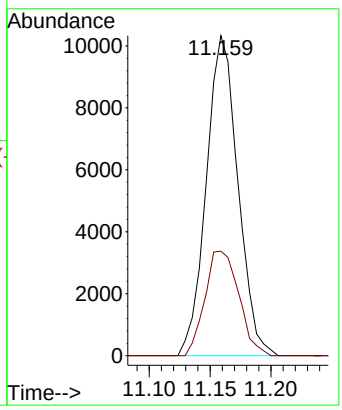


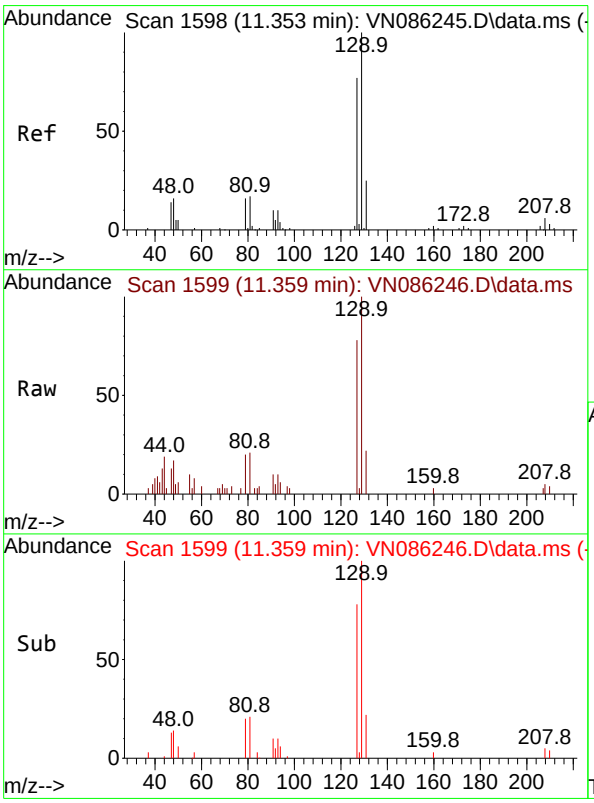
#52
1,3-Dichloropropane
Concen: 4.887 ug/l
RT: 11.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 76 Resp: 18666

Ion	Ratio	Lower	Upper
76	100		
78	35.0	0.0	64.6

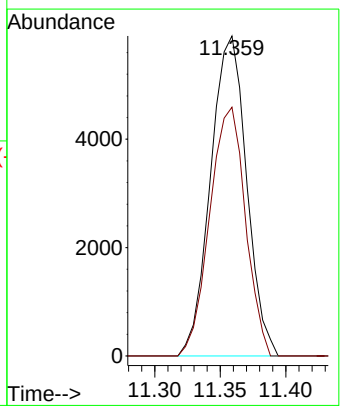


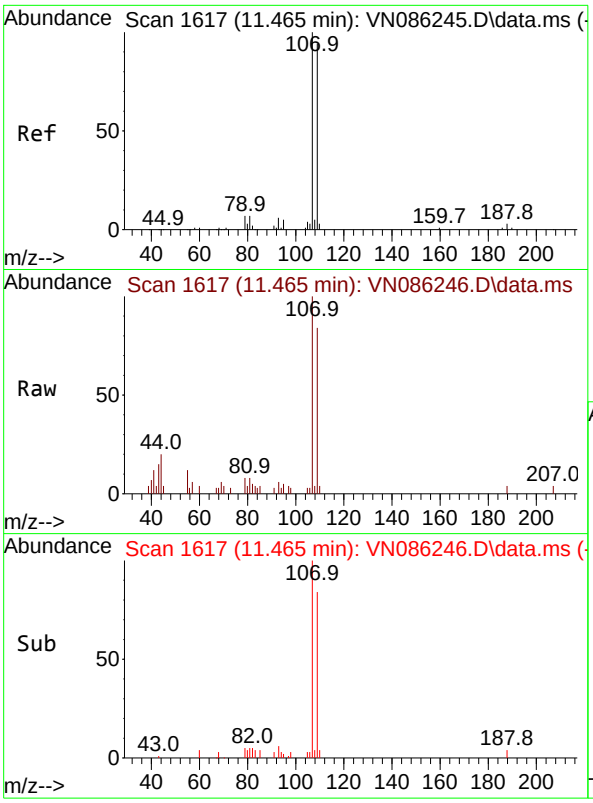


#53
Dibromochloromethane
Concen: 4.813 ug/l
RT: 11.359 min Scan# 1599
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:129 Resp: 11282

Ion	Ratio	Lower	Upper
129	100		
127	77.0	38.5	115.5



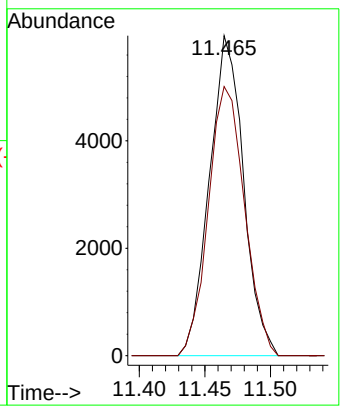


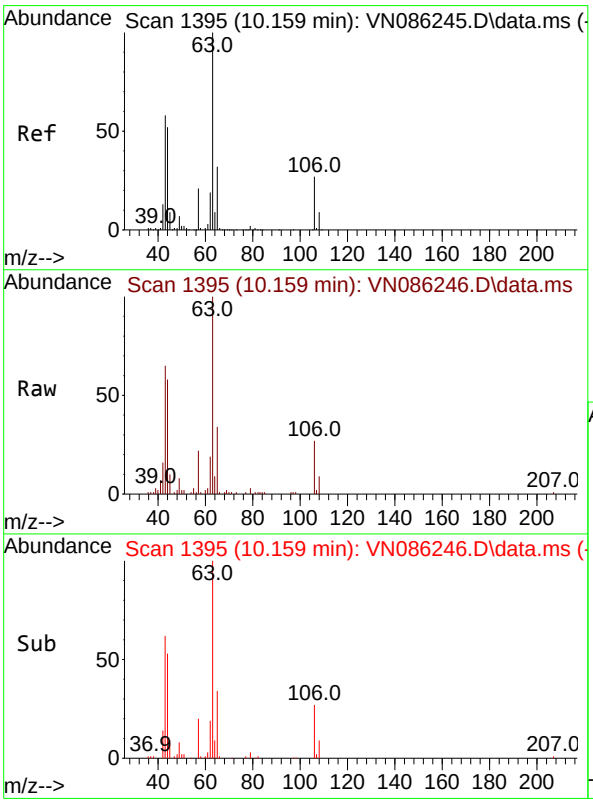
#54
1,2-Dibromoethane
Concen: 4.965 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:107 Resp: 10742

Ion	Ratio	Lower	Upper
107	100		
109	89.5	75.2	112.8

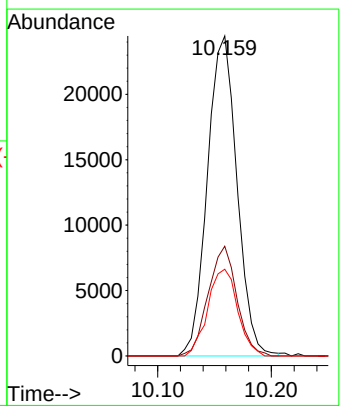


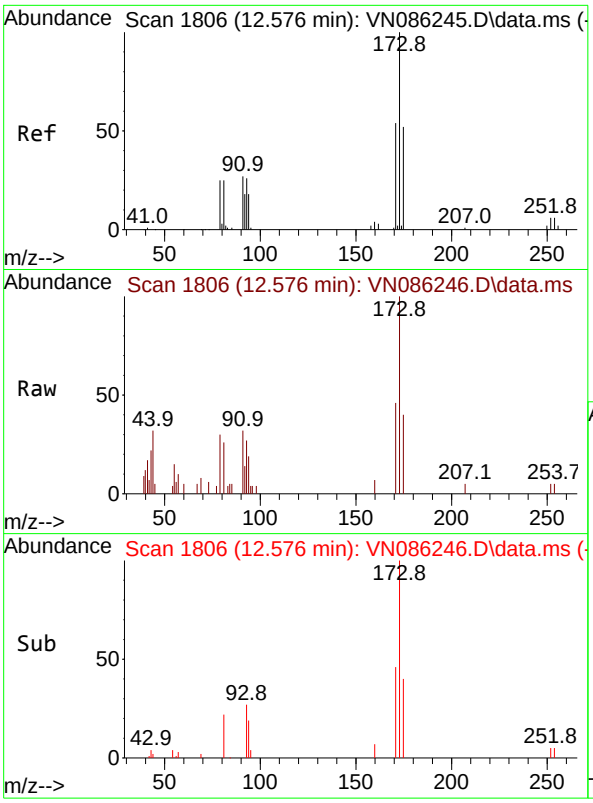


#55
2-Chloroethyl vinyl ether
Concen: 29.389 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 63 Resp: 44228

Ion	Ratio	Lower	Upper
63	100		
65	33.2	25.8	38.8
106	27.4	21.8	32.8



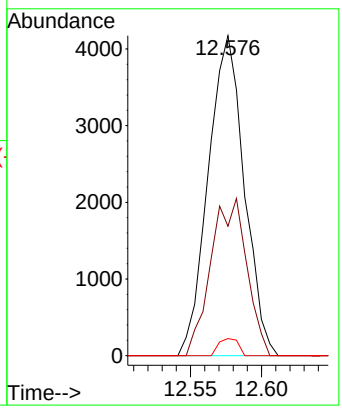


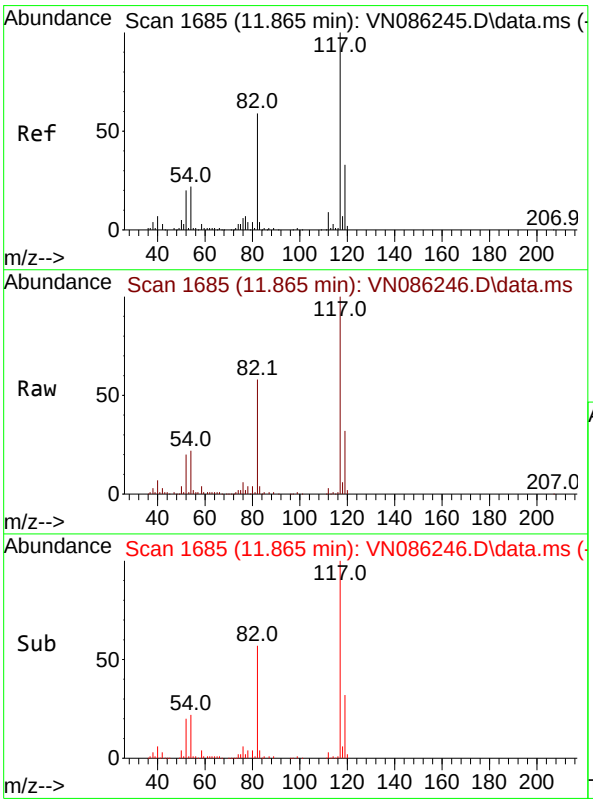
#56
Bromoform
Concen: 4.804 ug/l
RT: 12.576 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:173 Resp: 7367

Ion	Ratio	Lower	Upper
173	100		
175	48.9	38.2	57.4
254	2.9	4.5	6.7#

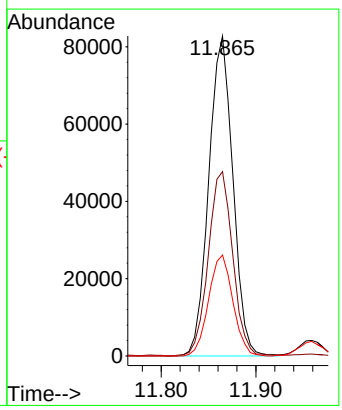


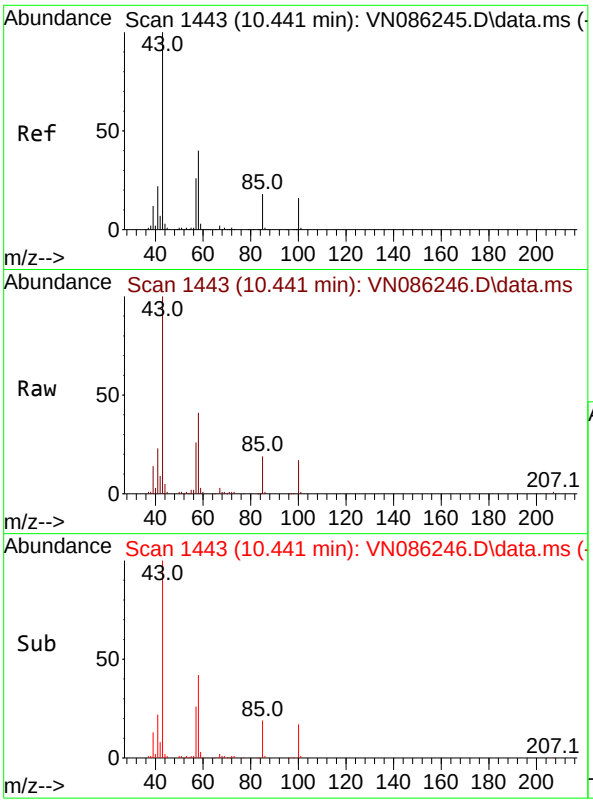


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:117 Resp: 146541

Ion	Ratio	Lower	Upper
117	100		
82	58.4	47.3	70.9
119	31.8	25.9	38.9



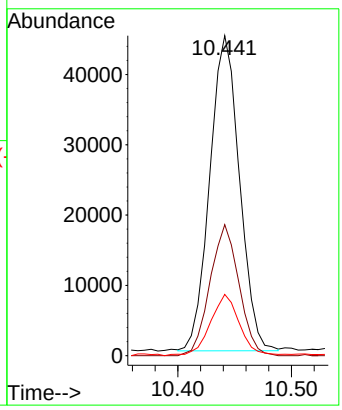


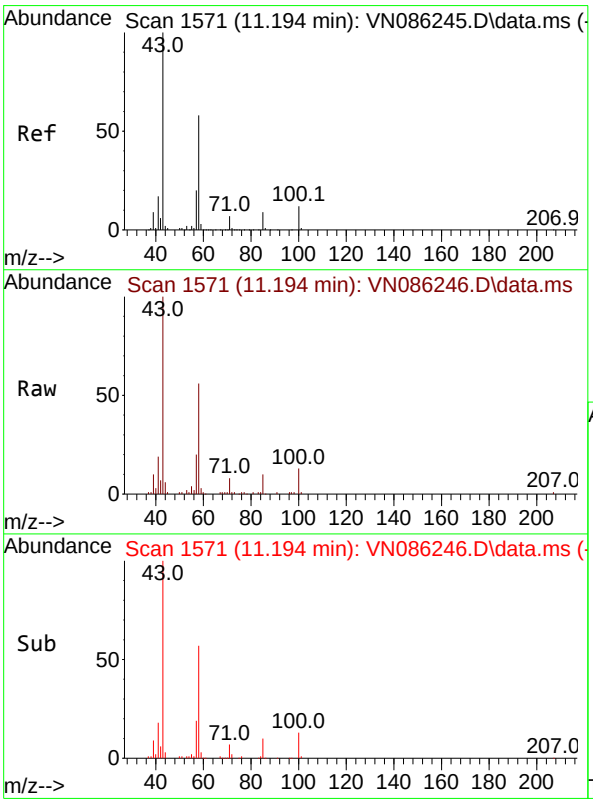
#58
4-Methyl-2-Pentanone
Concen: 24.511 ug/l
RT: 10.441 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 43 Resp: 81510

Ion	Ratio	Lower	Upper
43	100		
58	40.4	32.5	48.7
85	18.8	14.4	21.6

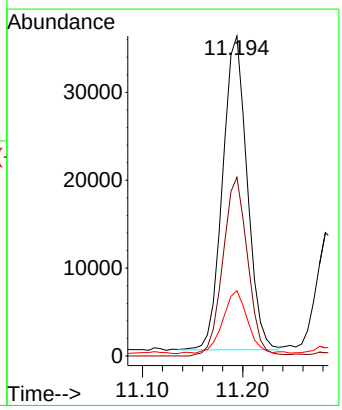


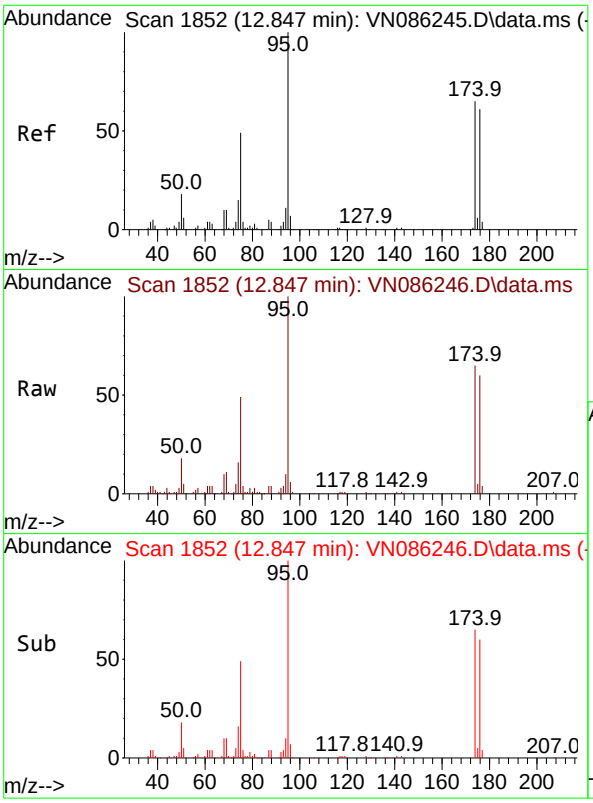


#59
2-Hexanone
Concen: 24.465 ug/l
RT: 11.194 min Scan# 1571
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 43 Resp: 60580

Ion	Ratio	Lower	Upper
43	100		
58	57.5	45.3	67.9
57	19.9	15.8	23.6



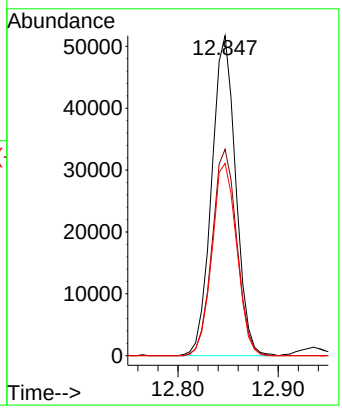


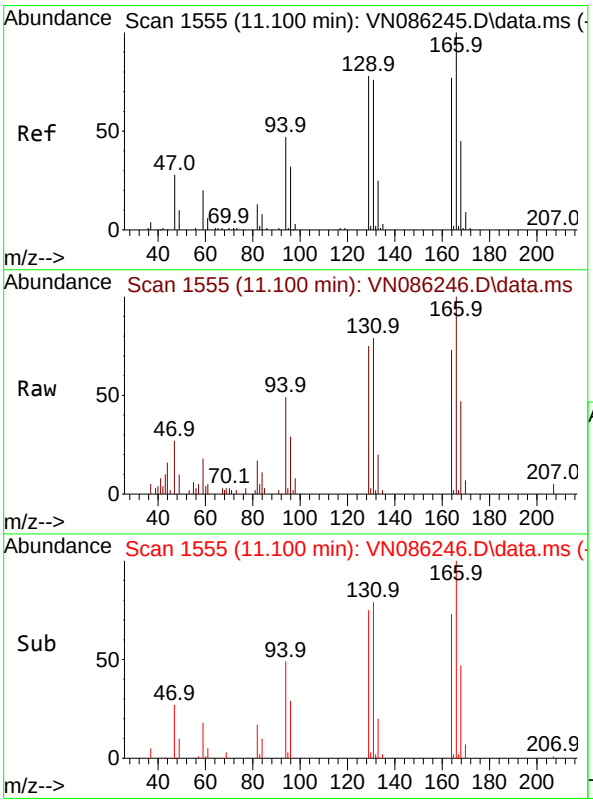
#60
4-Bromofluorobenzene
Concen: 29.576 ug/l
RT: 12.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 95 Resp: 86291

Ion	Ratio	Lower	Upper
95	100		
174	66.1	52.7	79.1
176	61.8	49.8	74.8

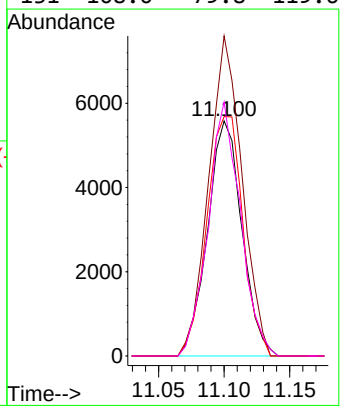


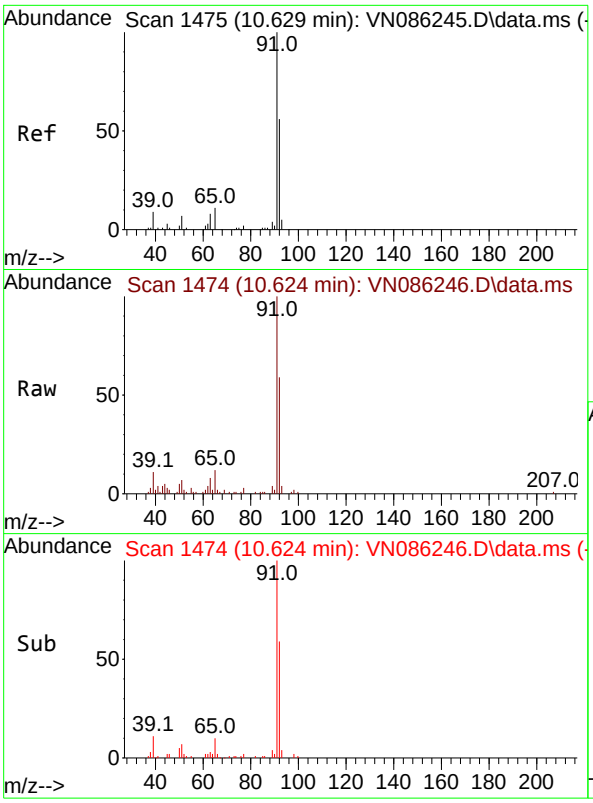


#61
Tetrachloroethene
Concen: 4.683 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:164 Resp: 10135

Ion	Ratio	Lower	Upper
164	100		
166	136.2	104.5	156.7
129	101.9	81.7	122.5
131	108.0	79.8	119.6



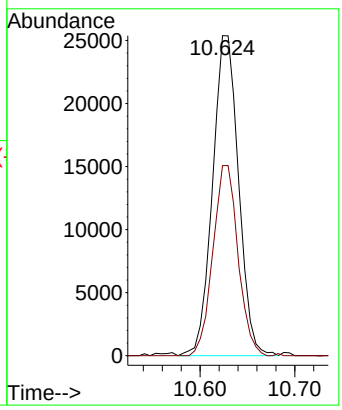


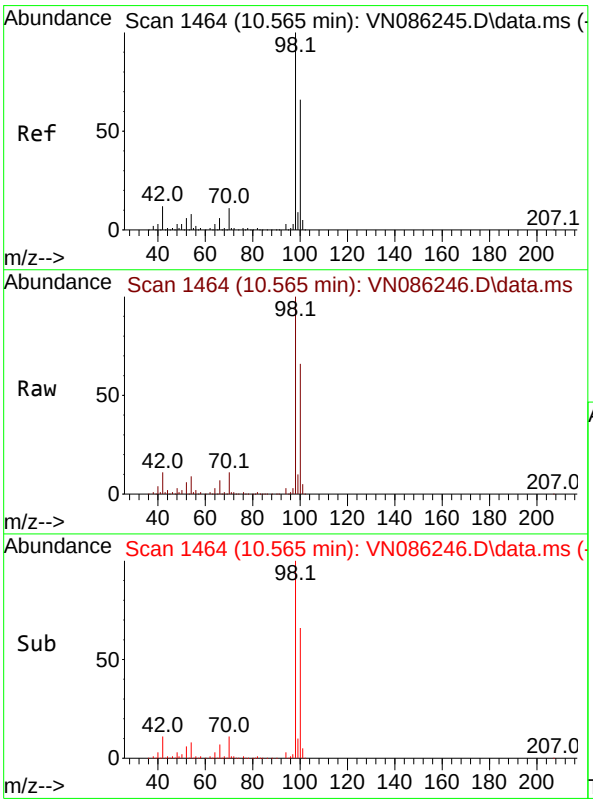
#62
Toluene
Concen: 4.923 ug/l
RT: 10.624 min Scan# 14
Delta R.T. -0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 91 Resp: 48384

Ion	Ratio	Lower	Upper
91	100		
92	57.5	46.8	70.2

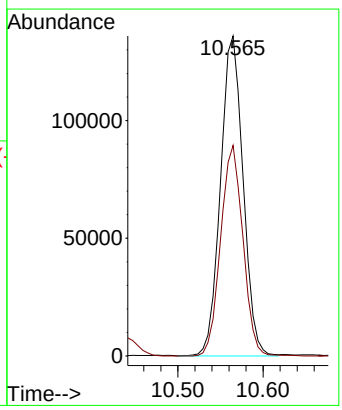


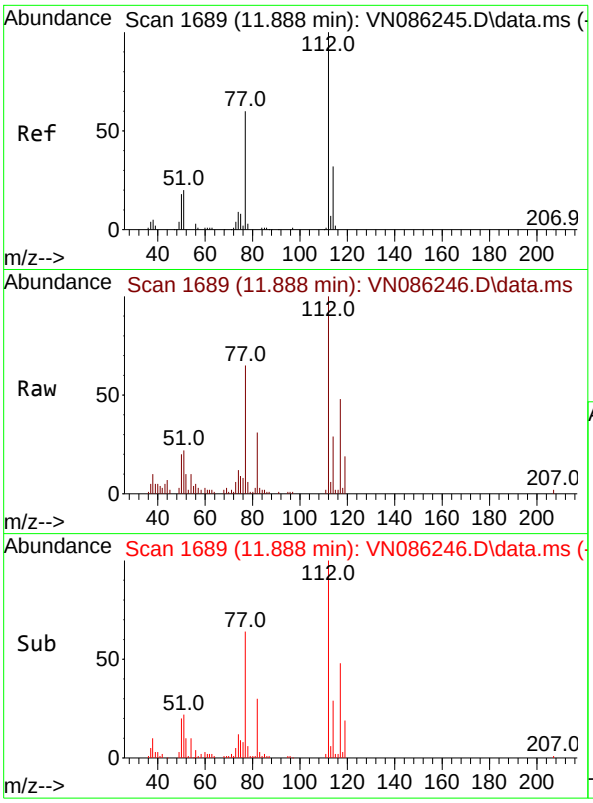


#63
Toluene-d8
Concen: 30.283 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 98 Resp: 250531

Ion	Ratio	Lower	Upper
98	100		
100	64.9	52.3	78.5



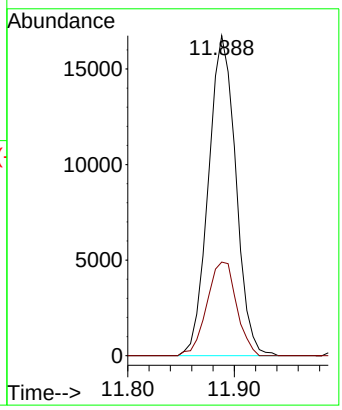


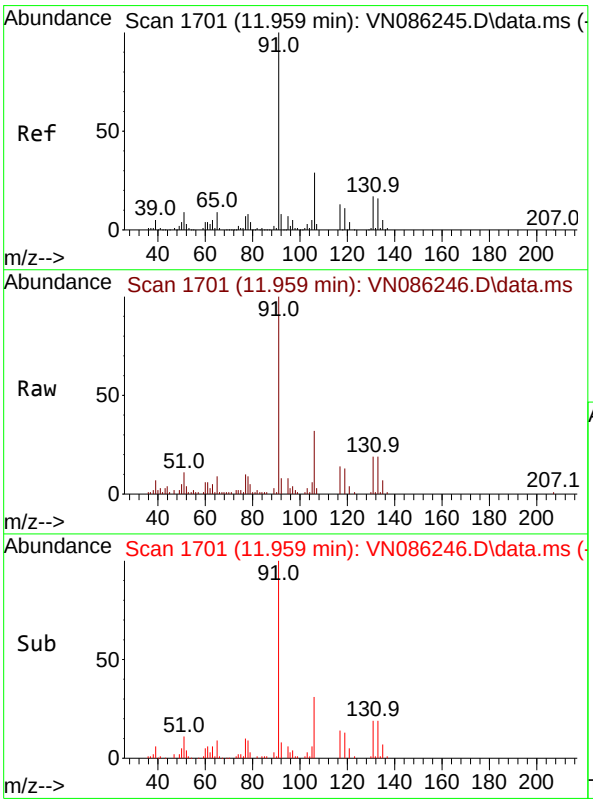
#64
Chlorobenzene
Concen: 4.980 ug/l
RT: 11.888 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:112 Resp: 29905

Ion	Ratio	Lower	Upper
112	100		
114	29.3	25.8	38.6

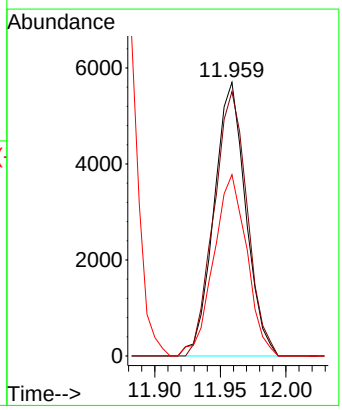


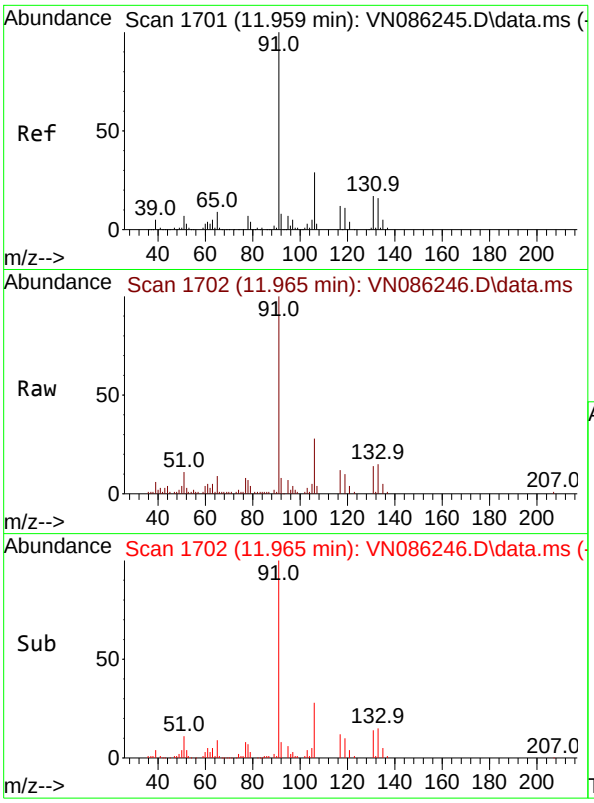


#65
1,1,1,2-Tetrachloroethane
Concen: 4.845 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:131 Resp: 9602

Ion	Ratio	Lower	Upper
131	100		
133	100.9	0.0	190.4
119	69.0	0.0	135.6



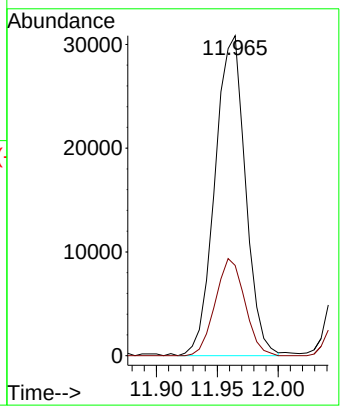


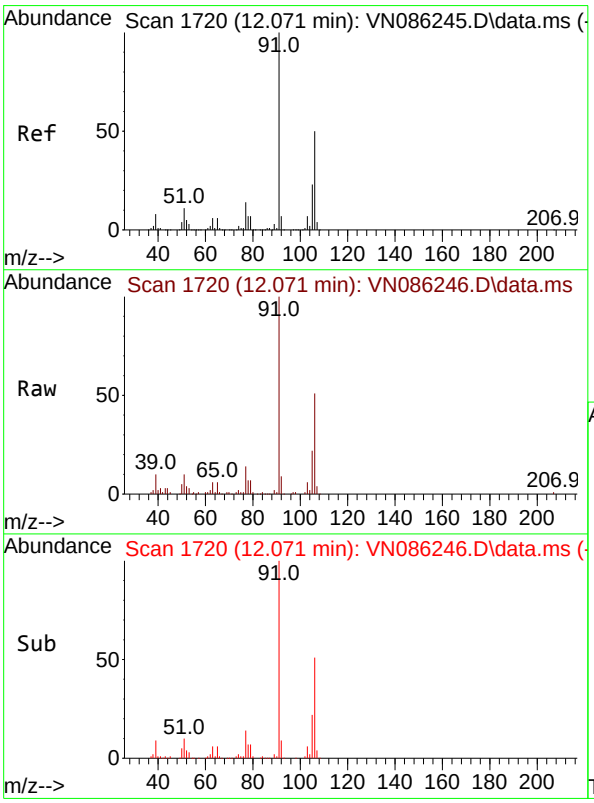
#66
Ethyl Benzene
Concen: 4.912 ug/l
RT: 11.965 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 91 Resp: 53539

Ion	Ratio	Lower	Upper
91	100		
106	28.2	23.4	35.0

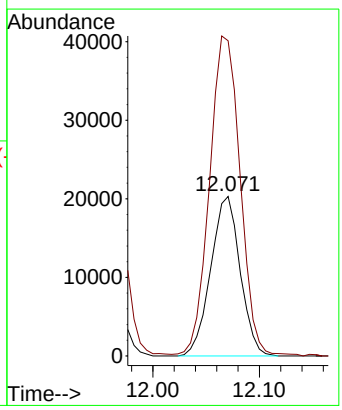


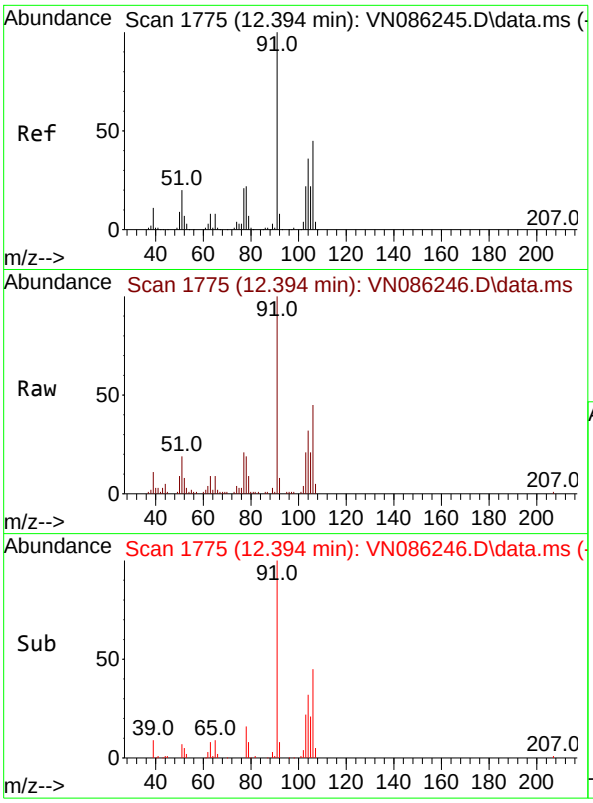


#67
m/p-Xylenes
Concen: 9.597 ug/l
RT: 12.071 min Scan# 1720
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:106 Resp: 38897

Ion	Ratio	Lower	Upper
106	100		
91	209.5	164.5	246.7



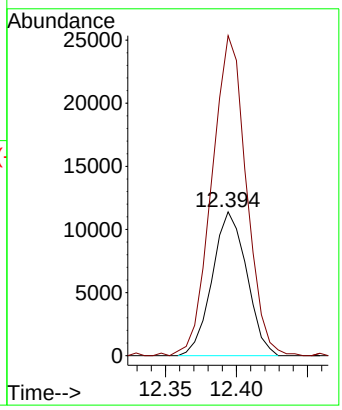


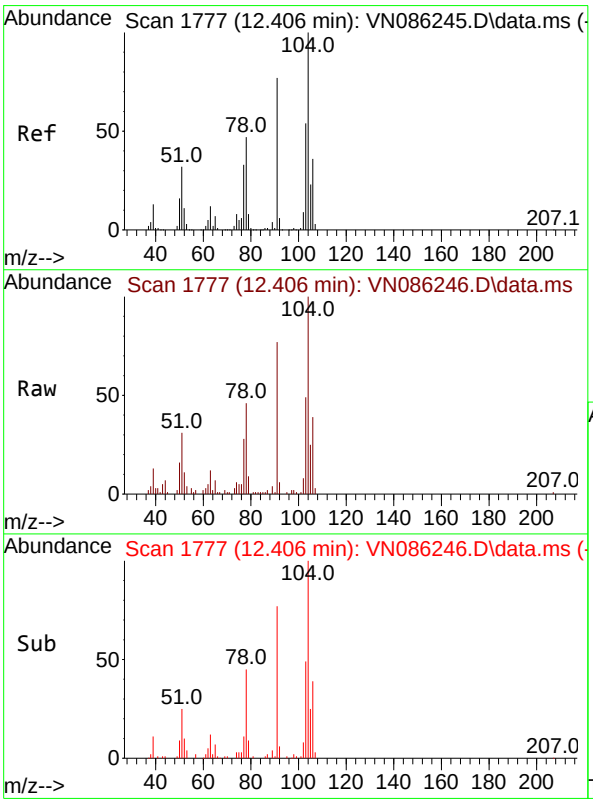
#68
o-Xylene
Concen: 4.822 ug/l
RT: 12.394 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:106 Resp: 19223

Ion	Ratio	Lower	Upper
106	100		
91	222.7	109.8	329.4

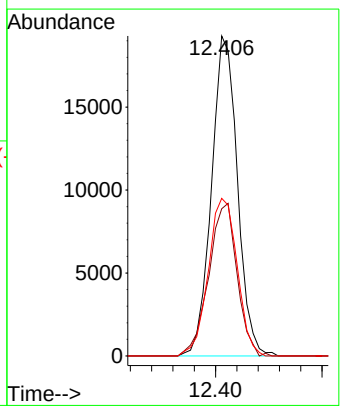


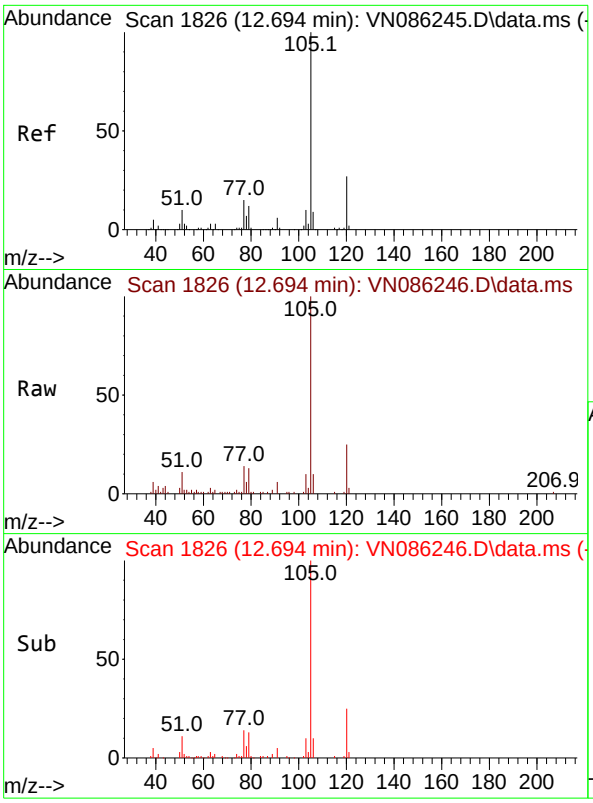


#69
Styrene
Concen: 4.846 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:104 Resp: 32582

Ion	Ratio	Lower	Upper
104	100		
78	51.8	41.4	62.0
103	54.8	44.2	66.4



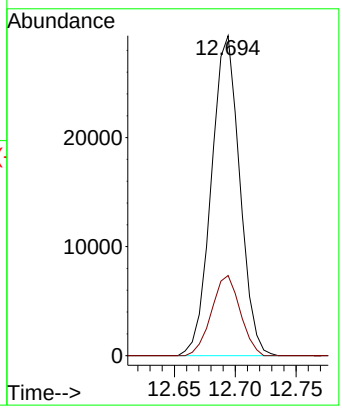


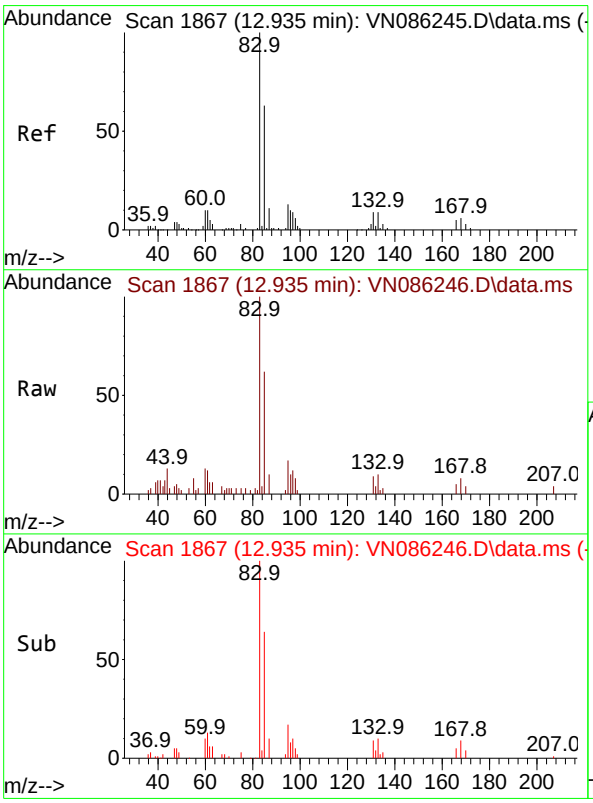
#70
Isopropylbenzene
Concen: 4.839 ug/l
RT: 12.694 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:105 Resp: 47563

Ion	Ratio	Lower	Upper
105	100		
120	25.3	18.3	34.1

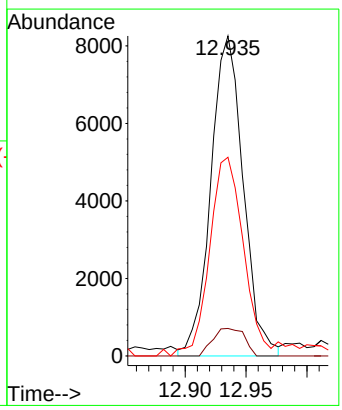


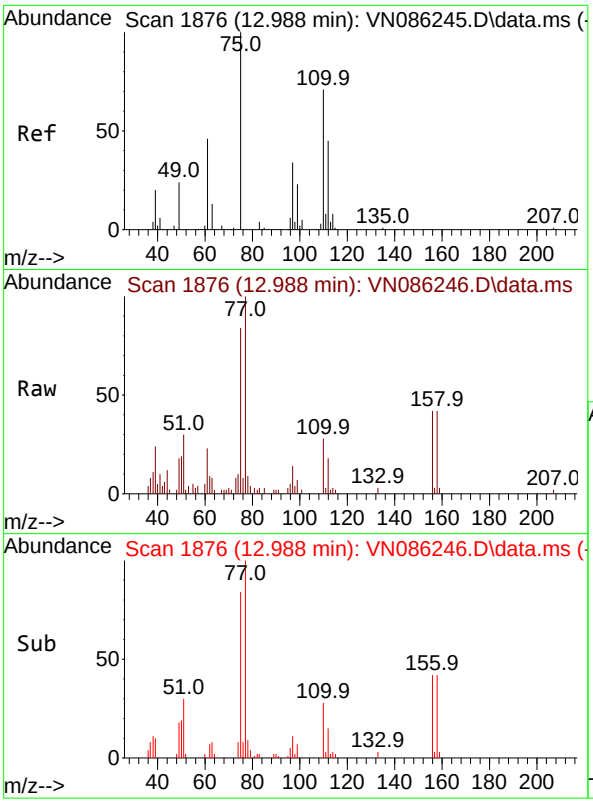


#71
1,1,2,2-Tetrachloroethane
Concen: 5.466 ug/l
RT: 12.935 min Scan# 1867
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 83 Resp: 15293

Ion	Ratio	Lower	Upper
83	100		
131	8.4	4.8	14.3
85	58.9	32.3	96.8



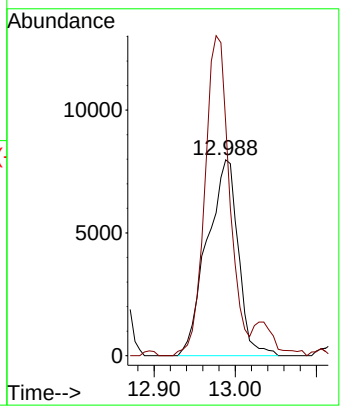


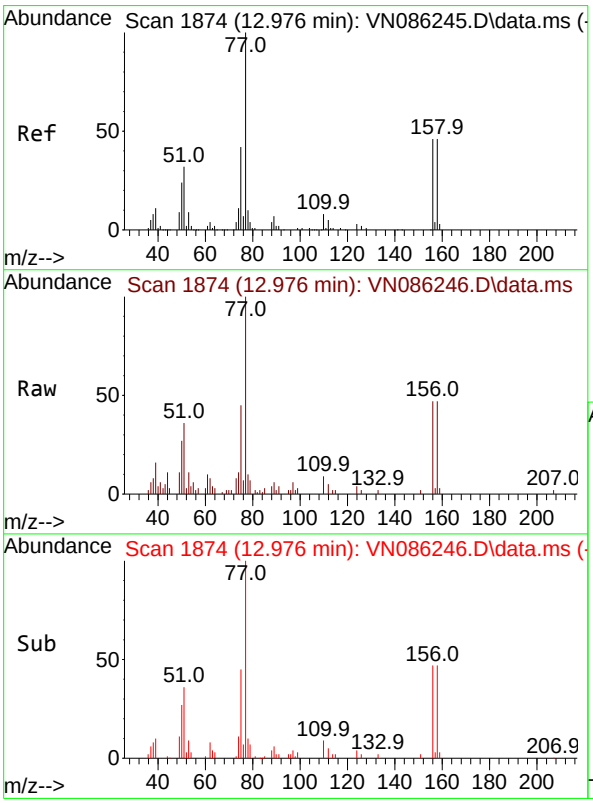
#72
1,2,3-Trichloropropane
Concen: 5.381 ug/l
RT: 12.988 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 75 Resp: 21313

Ion	Ratio	Lower	Upper
75	100		
77	128.9	0.0	380.0

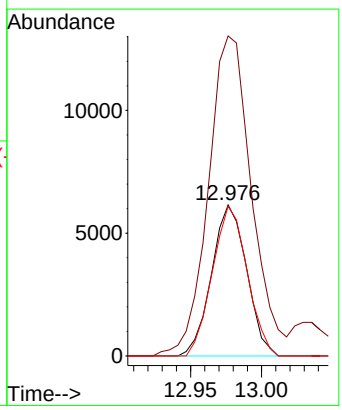


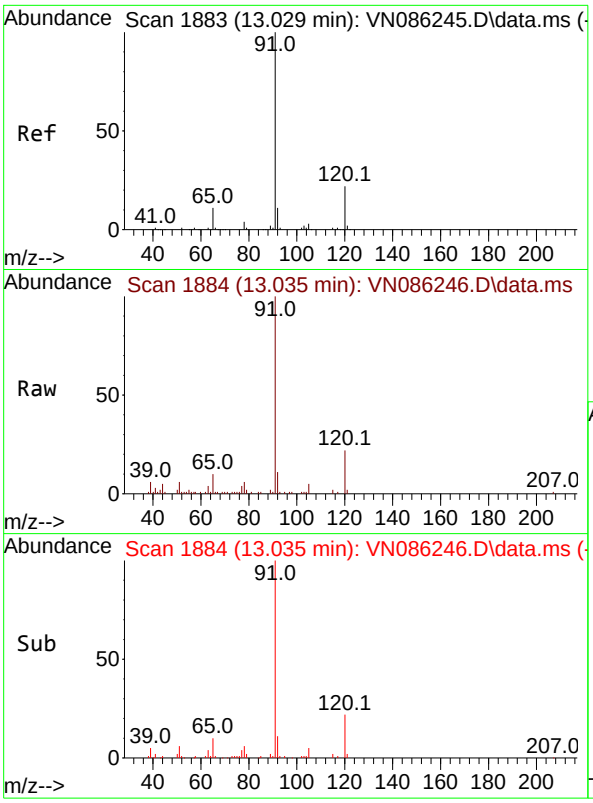


#73
Bromobenzene
Concen: 4.831 ug/l
RT: 12.976 min Scan# 1874
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:156 Resp: 10521

Ion	Ratio	Lower	Upper
156	100		
77	261.1	0.0	505.2
158	98.7	0.0	195.0



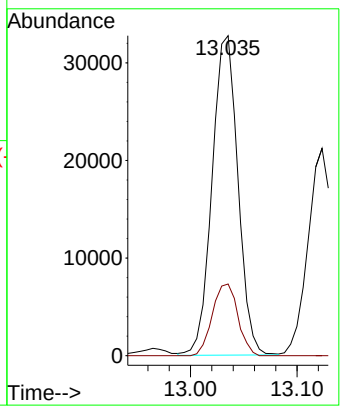


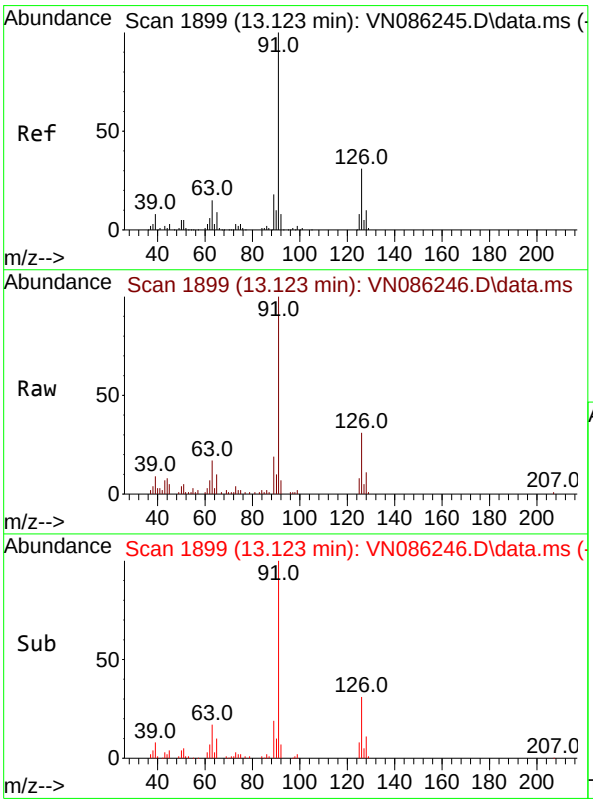
#74
n-propylbenzene
Concen: 4.734 ug/l
RT: 13.035 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 91 Resp: 55104

Ion	Ratio	Lower	Upper
91	100		
120	22.1	0.0	44.0

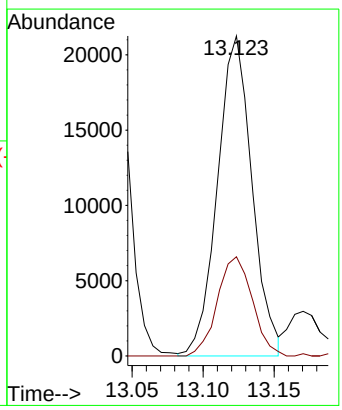


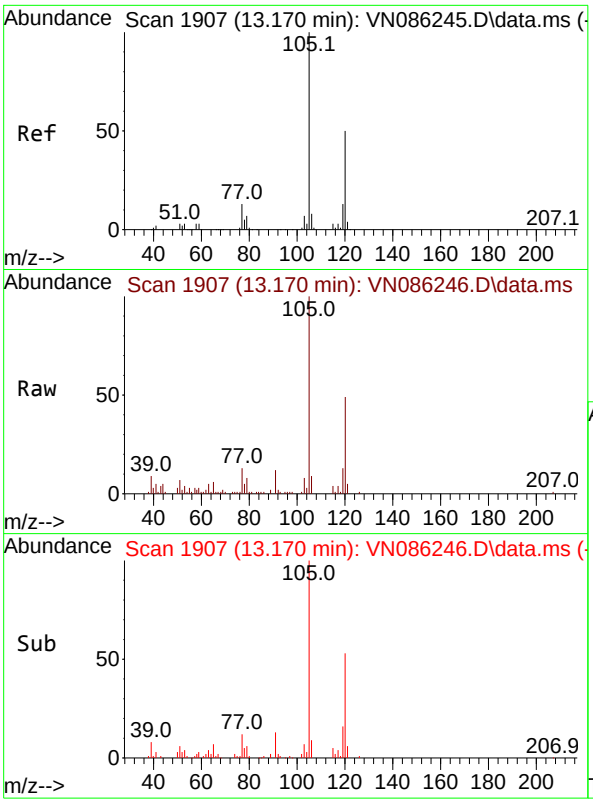


#75
2-Chlorotoluene
Concen: 4.929 ug/l
RT: 13.123 min Scan# 1899
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 35960

Ion	Ratio	Lower	Upper
91	100		
126	31.3	0.0	63.4



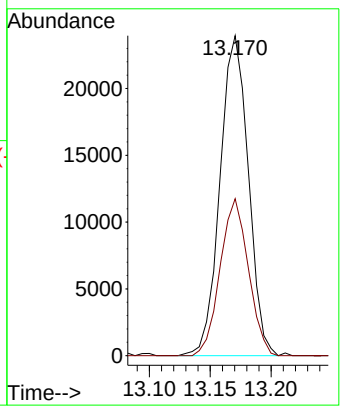


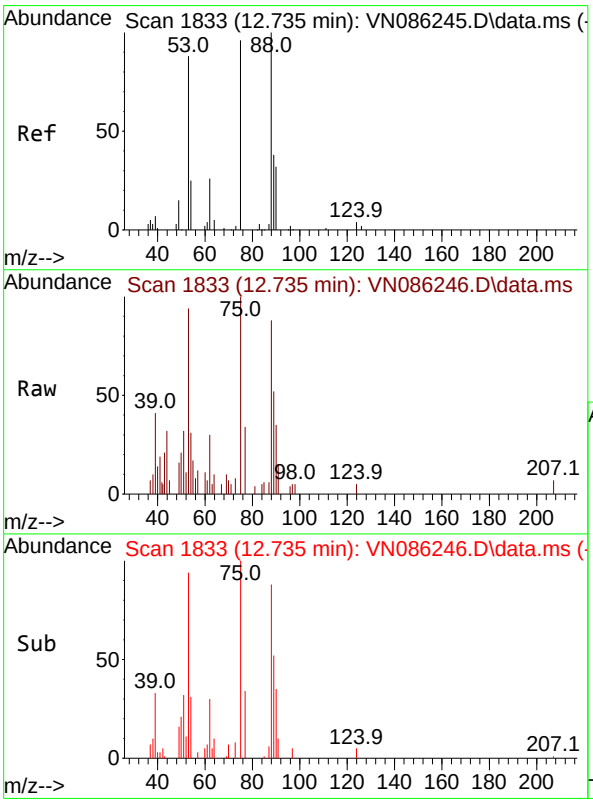
#76
1,3,5-Trimethylbenzene
Concen: 4.800 ug/l
RT: 13.170 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:105 Resp: 38762

Ion	Ratio	Lower	Upper
105	100		
120	48.8	0.0	98.0

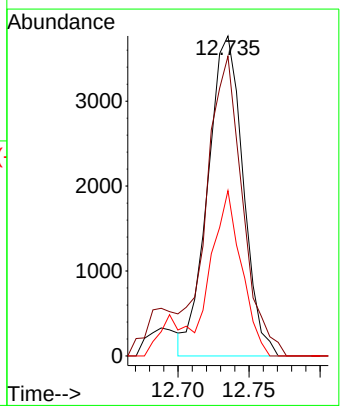


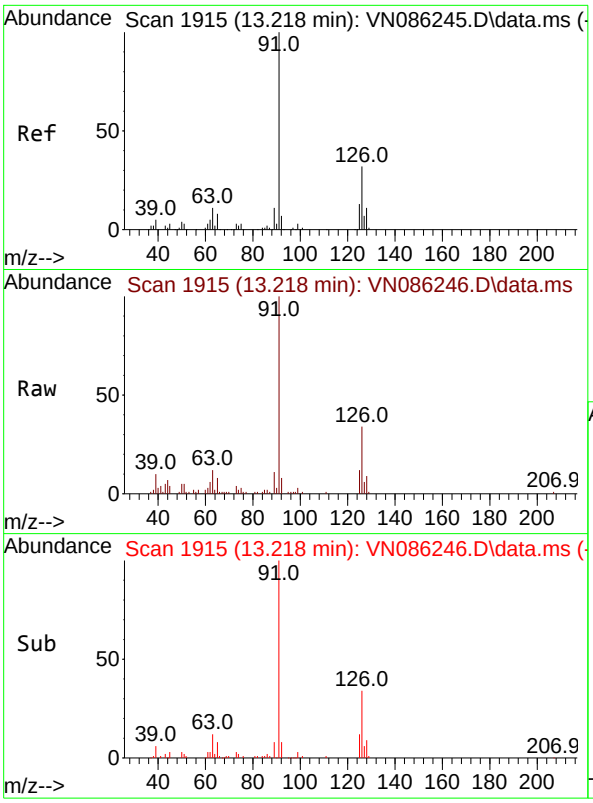


#77
t-1,4-Dichloro-2-butene
Concen: 4.845 ug/l
RT: 12.735 min Scan# 1833
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 75 Resp: 6507

Ion	Ratio	Lower	Upper
75	100		
53	89.4	46.4	139.2
89	51.6	22.5	67.5



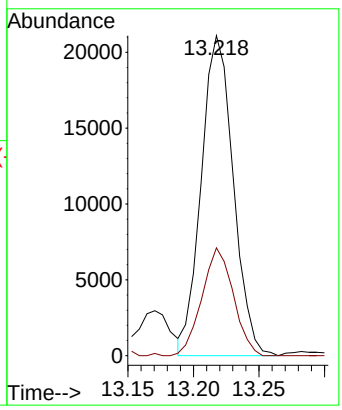


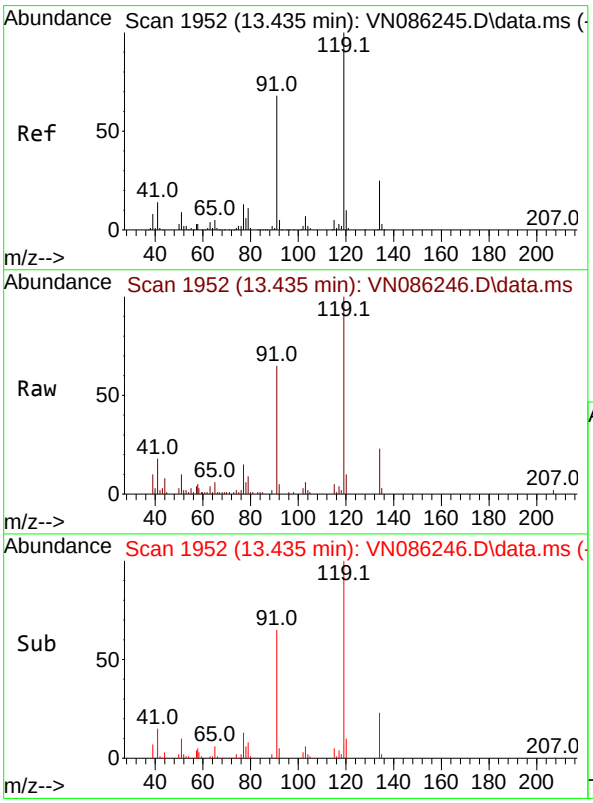
#78
4-Chlorotoluene
Concen: 4.927 ug/l
RT: 13.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 91 Resp: 35898

Ion	Ratio	Lower	Upper
91	100		
126	33.0	0.0	63.2

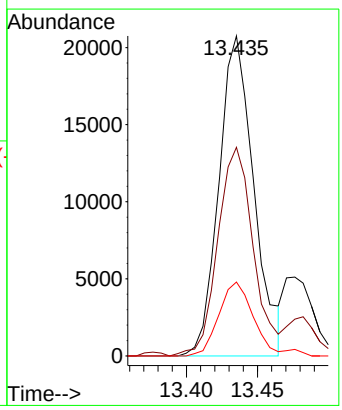


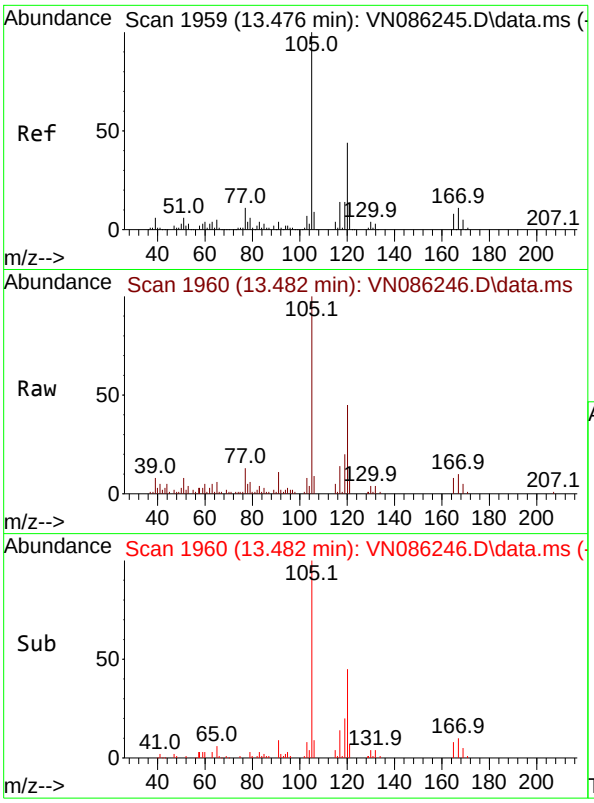


#79
tert-butylbenzene
Concen: 5.092 ug/l
RT: 13.435 min Scan# 1952
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:119 Resp: 35578

Ion	Ratio	Lower	Upper
119	100		
91	66.0	0.0	136.6
134	22.4	0.0	49.4



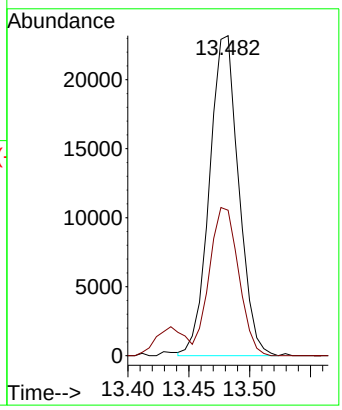


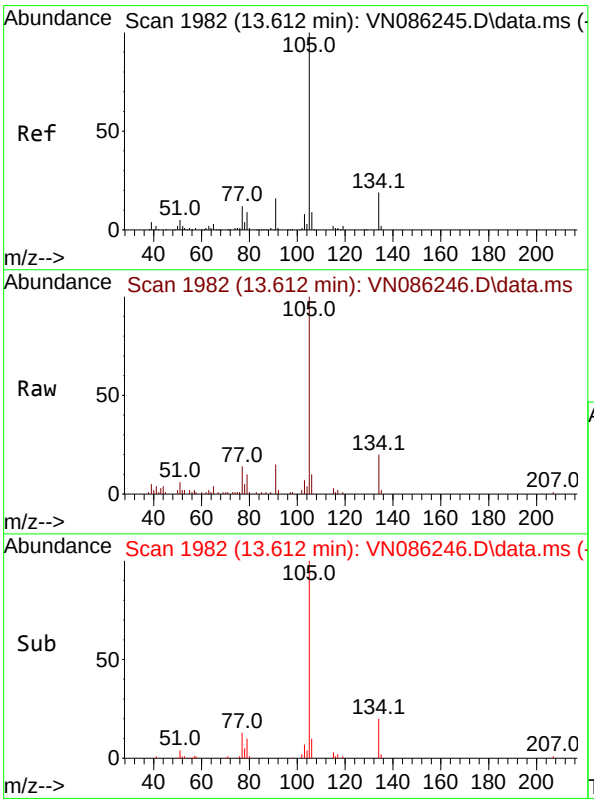
#80
1,2,4-Trimethylbenzene
Concen: 4.730 ug/l
RT: 13.482 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:105 Resp: 38730

Ion	Ratio	Lower	Upper
105	100		
120	46.3	0.0	91.0

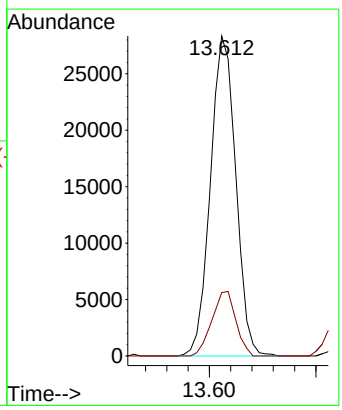


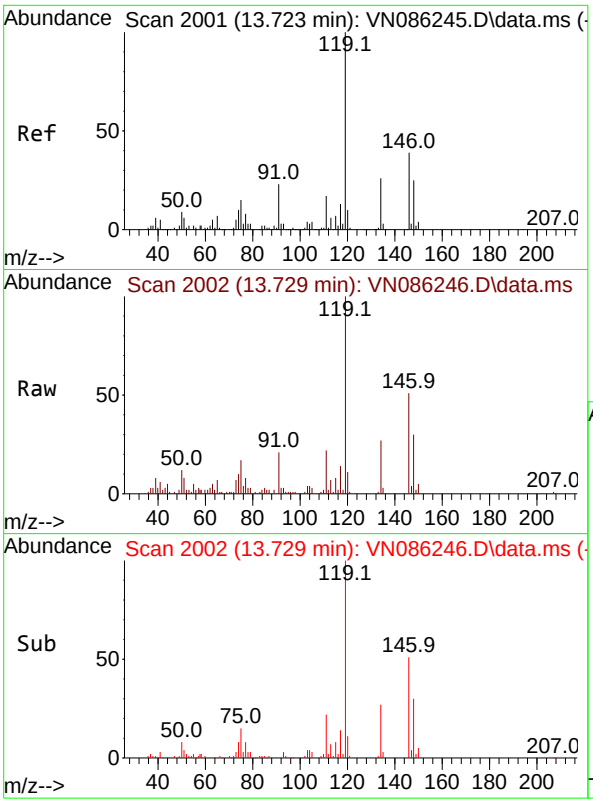


#81
sec-Butylbenzene
Concen: 4.798 ug/l
RT: 13.612 min Scan# 1982
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:105 Resp: 46761

Ion	Ratio	Lower	Upper
105	100		
134	19.1	0.0	38.6



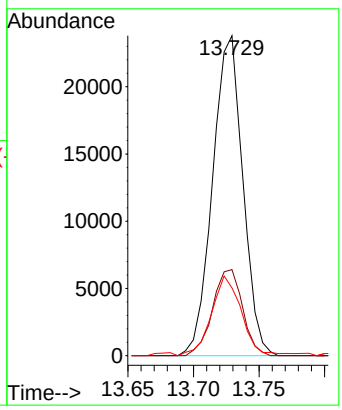


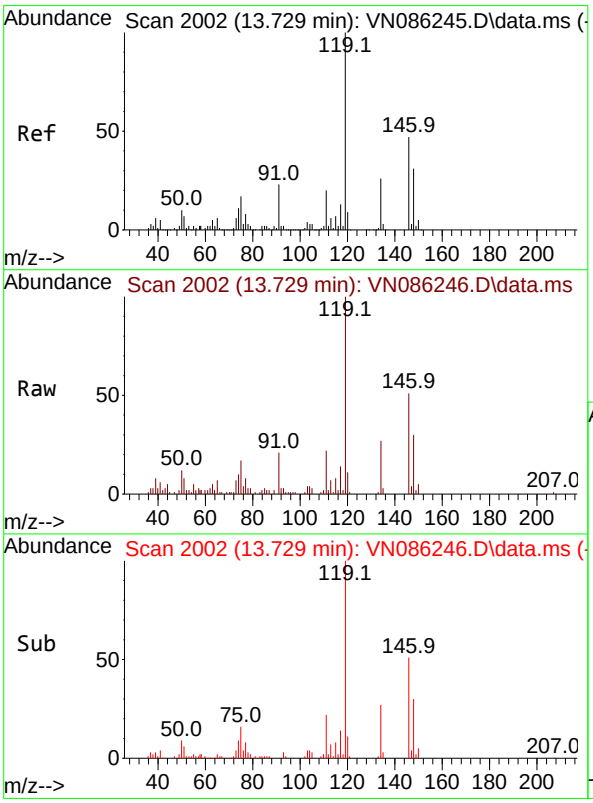
#82
p-Isopropyltoluene
Concen: 4.692 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:119 Resp: 38146

Ion	Ratio	Lower	Upper
119	100		
134	26.6	0.0	51.6
91	24.5	0.0	48.2

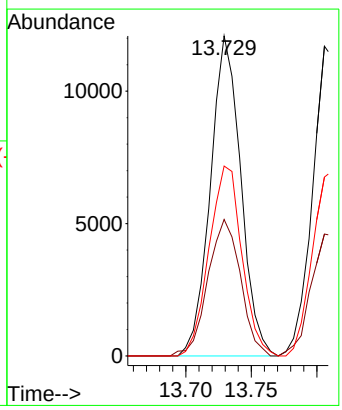


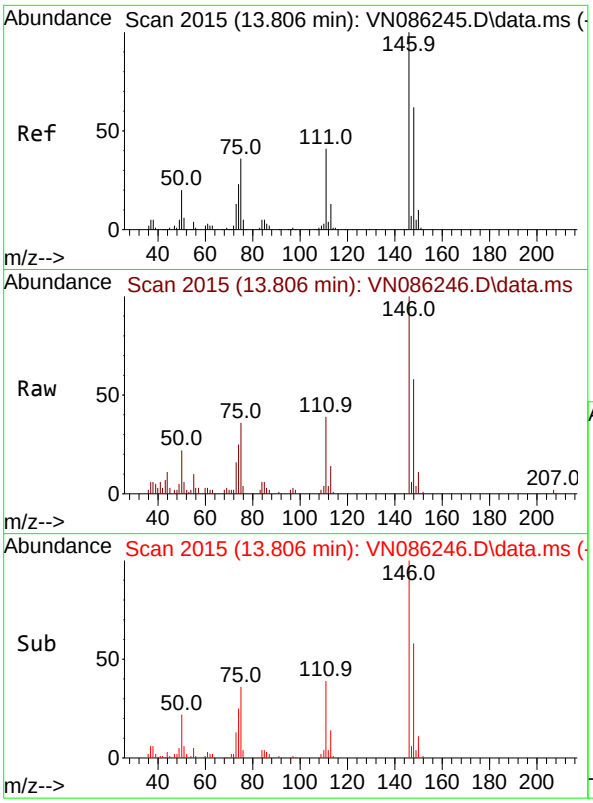


#83
1,3-Dichlorobenzene
Concen: 4.818 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:146 Resp: 19501

Ion	Ratio	Lower	Upper
146	100		
111	45.8	21.7	65.1
148	64.0	32.3	96.8



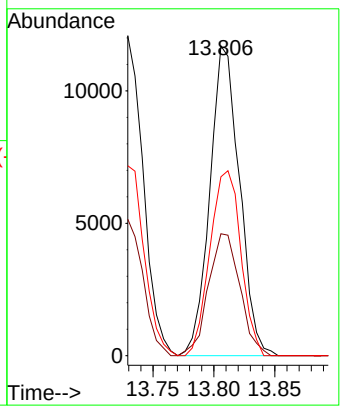


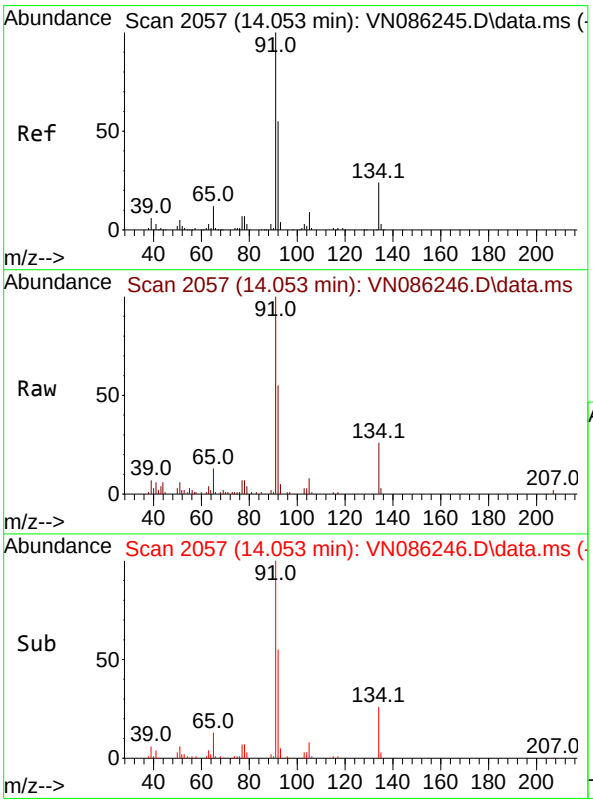
#84
1,4-Dichlorobenzene
Concen: 4.888 ug/l
RT: 13.806 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:146 Resp: 19847

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.8	62.4
148	62.3	31.9	95.5

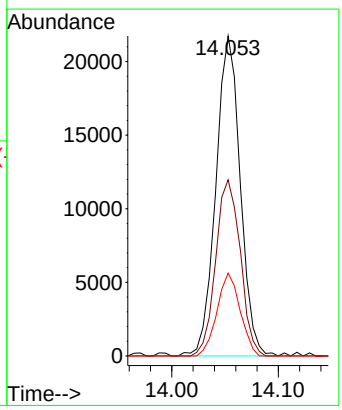


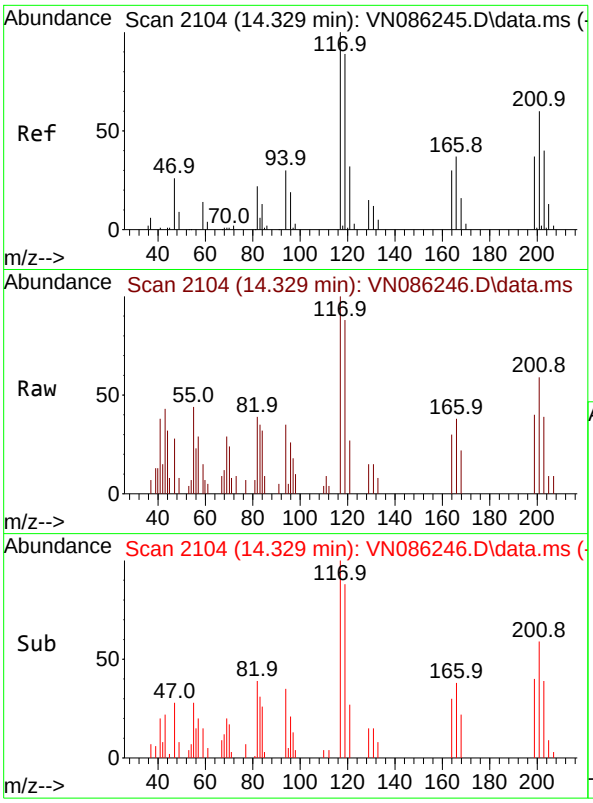


#85
n-Butylbenzene
Concen: 4.716 ug/l
RT: 14.053 min Scan# 2057
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion: 91 Resp: 34592

Ion	Ratio	Lower	Upper
91	100		
92	55.3	0.0	109.4
134	24.5	0.0	48.2



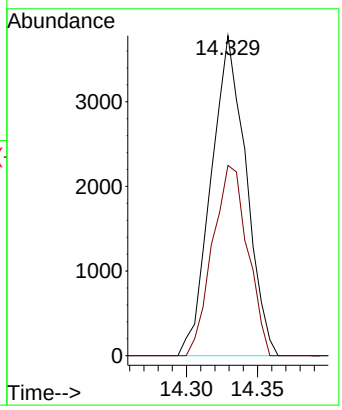


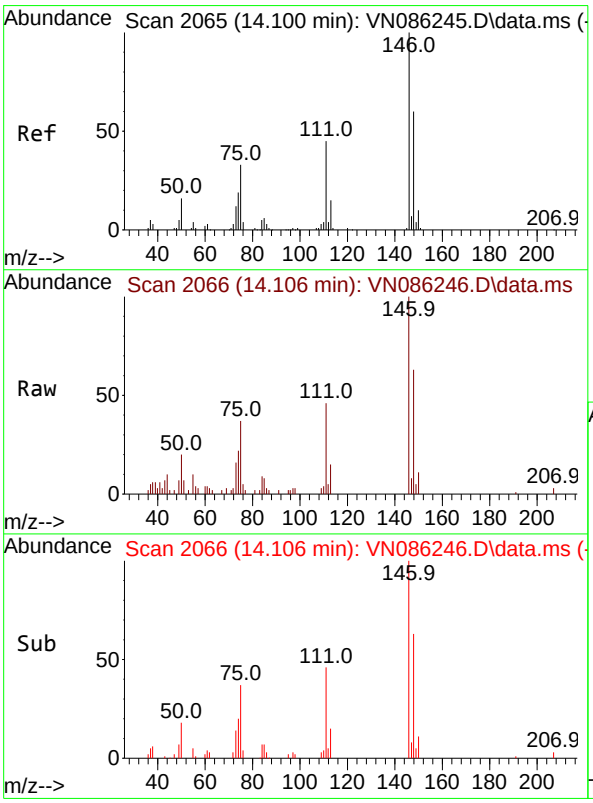
#86
Hexachloroethane
Concen: 4.714 ug/l
RT: 14.329 min Scan# 21
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:117 Resp: 6465

Ion	Ratio	Lower	Upper
117	100		
201	59.8	30.9	92.8

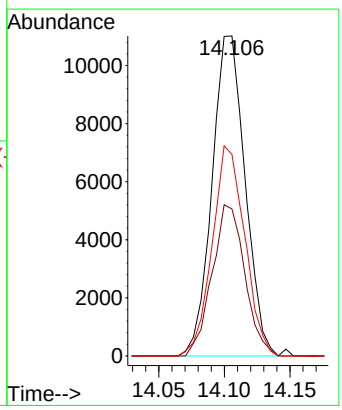


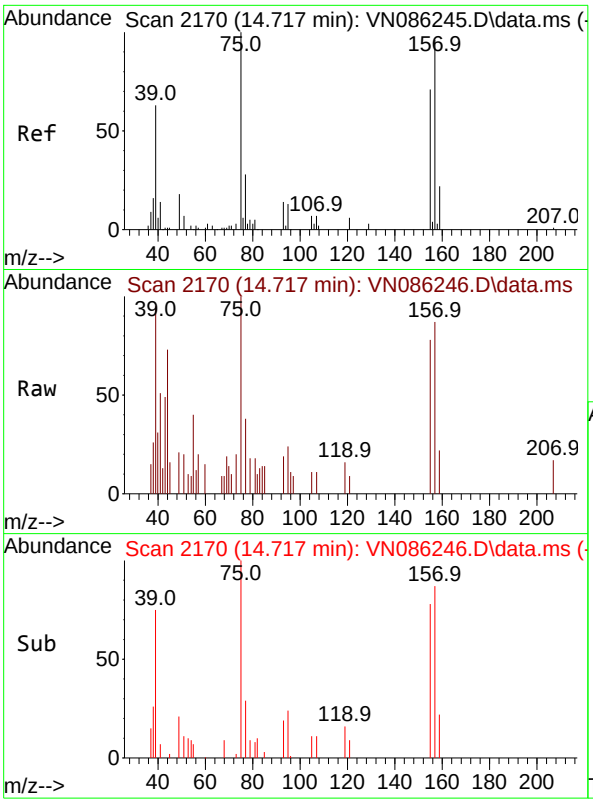


#87
1,2-Dichlorobenzene
Concen: 4.834 ug/l
RT: 14.106 min Scan# 2066
Delta R.T. 0.006 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:146 Resp: 19316

Ion	Ratio	Lower	Upper
146	100		
111	46.7	22.7	68.0
148	64.6	31.8	95.3



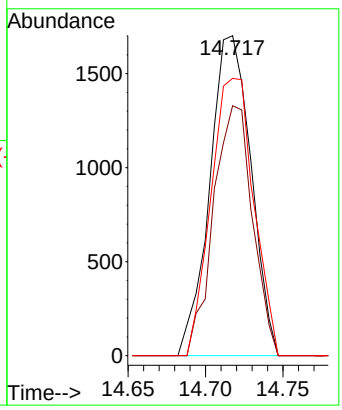


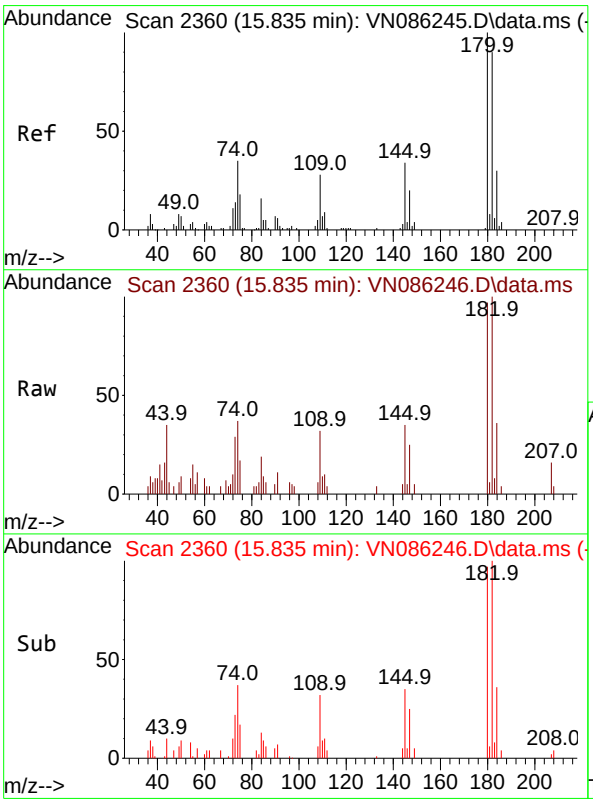
#88
1,2-Dibromo-3-Chloropropane
Concen: 4.946 ug/l
RT: 14.717 min Scan# 21
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion: 75 Resp: 3152

Ion	Ratio	Lower	Upper
75	100		
155	73.8	60.3	90.5
157	89.7	79.0	118.4

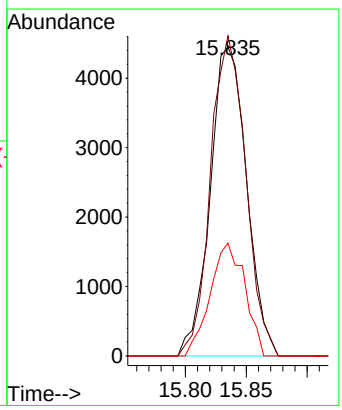


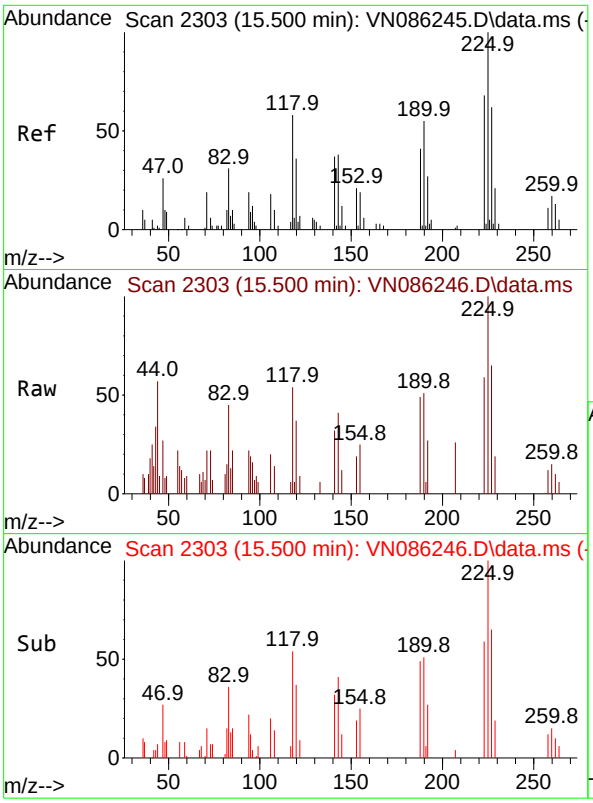


#89
1,2,4-Trichlorobenzene
Concen: 4.778 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:180 Resp: 9291

Ion	Ratio	Lower	Upper
180	100		
182	99.7	75.1	112.7
145	34.6	27.1	40.7



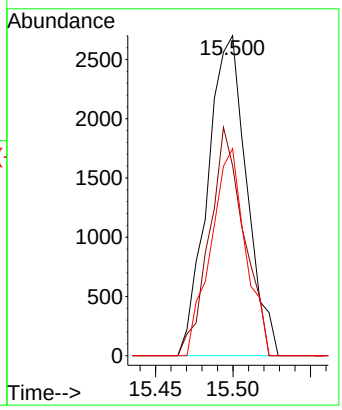


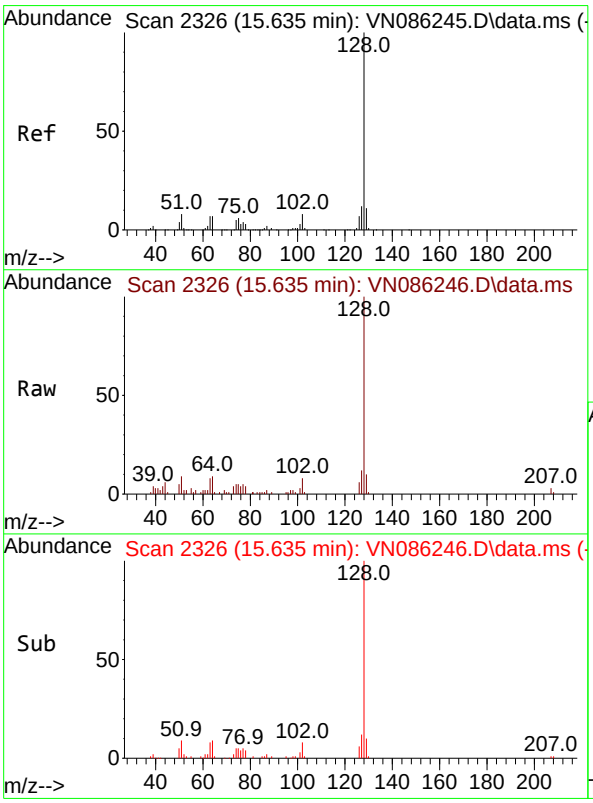
#90
Hexachlorobutadiene
Concen: 5.639 ug/l
RT: 15.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:225 Resp: 4734

Ion	Ratio	Lower	Upper
225	100		
223	62.9	0.0	130.0
227	57.5	0.0	123.2

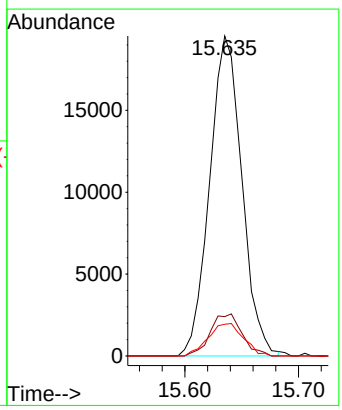


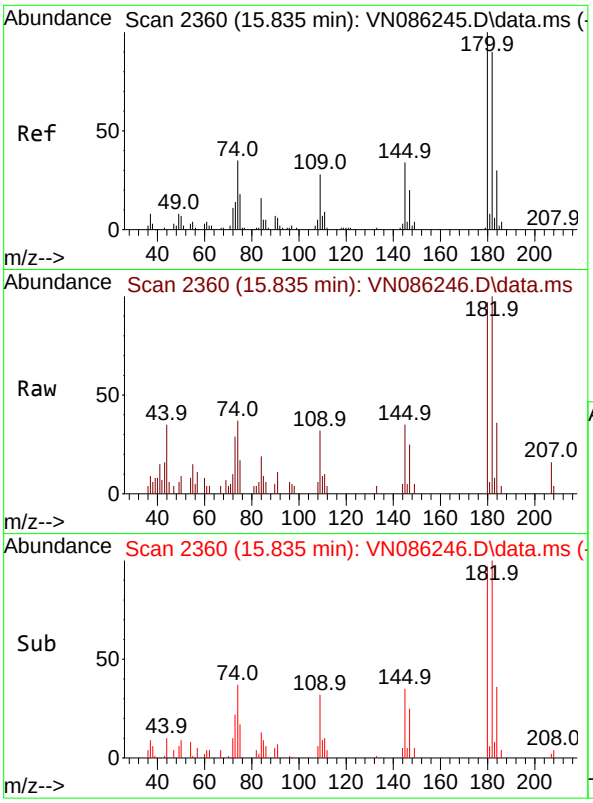


#91
Naphthalene
Concen: 5.026 ug/l
RT: 15.635 min Scan# 2326
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Tgt Ion:128 Resp: 38531

Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.2	15.2
129	11.1	8.8	13.2



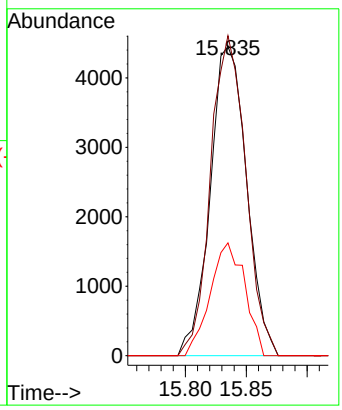


#92
1,2,3-Trichlorobenzene
Concen: 4.778 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086246.D
Acq: 11 Apr 2025 12:40

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Tgt Ion:180 Resp: 9291

Ion	Ratio	Lower	Upper
180	100		
182	99.7	0.0	187.8
145	34.6	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	31045	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	187987	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	165721	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	90166	29.777	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 99.267%			
60) 4-Bromofluorobenzene	12.847	95	97275	29.482	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 98.267%			
63) Toluene-d8	10.565	98	279650	29.890	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.633%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	53635	21.563	ug/l	100
3) Chloromethane	2.359	50	69535	20.226	ug/l	100
4) Vinyl Chloride	2.518	62	66222	20.223	ug/l	99
5) Bromomethane	2.965	94	32967	20.183	ug/l	98
6) Chloroethane	3.124	64	42684	20.642	ug/l	99
7) Trichlorofluoromethane	3.501	101	72724	20.473	ug/l	99
8) Diethyl Ether	3.959	74	33215	20.276	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	43944	20.062	ug/l	99
10) 1,1-Dichloroethene	4.348	96	47582	20.128	ug/l	99
11) Methyl Iodide	4.589	142	54740	20.148	ug/l	97
12) Methyl Acetate	5.024	43	64185	19.227	ug/l	98
13) Acrolein	4.177	56	33914	89.375	ug/l	98
14) Acrylonitrile	5.718	53	135274	95.988	ug/l	97
15) Acetone	4.424	58	33542	93.868	ug/l	92
16) Carbon Disulfide	4.712	76	138661	20.456	ug/l	100
17) Allyl chloride	5.024	41	85704	20.801	ug/l	98
18) Methylene Chloride	5.277	84	54353	20.166	ug/l	99
19) trans-1,2-Dichloroethene	5.789	96	48899	19.638	ug/l	96
20) Diisopropyl ether	6.665	45	183254	20.688	ug/l	99
21) 1,1-Dichloroethane	6.565	63	97247	20.578	ug/l	100
22) cis-1,2-Dichloroethene	7.483	96	59840	20.174	ug/l	98
23) tert-Butyl Alcohol	5.512	59	56480	96.723	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	172426	20.211	ug/l	98
25) Chloroform	7.965	83	93183	20.677	ug/l	100
26) Cyclohexane	8.253	56	88041	19.913	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	68608	20.373	ug/l	99
30) 2-Butanone	7.483	43	184728	98.995	ug/l	99
31) 2,2-Dichloropropane	7.489	77	87512	21.111	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	77645	20.044	ug/l	100
33) Carbon Tetrachloride	8.359	117	63029	20.360	ug/l	99
34) Benzene	8.600	78	219862	20.522	ug/l #	95
35) Methacrylonitrile	7.777	41	41577	19.764	ug/l	99
36) 1,2-Dichloroethane	8.671	62	68362	20.391	ug/l	100
37) Trichloroethene	9.353	130	51292	19.842	ug/l	94
38) Methylcyclohexane	9.594	83	83168	20.137	ug/l	98
39) 1,2-Dichloropropane	9.618	63	55116	20.675	ug/l	97
40) Dibromomethane	9.706	93	33887	19.681	ug/l	98
41) Bromodichloromethane	9.882	83	75048	20.289	ug/l	99
42) Vinyl Acetate	6.600	43	657878	103.572	ug/l	100

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

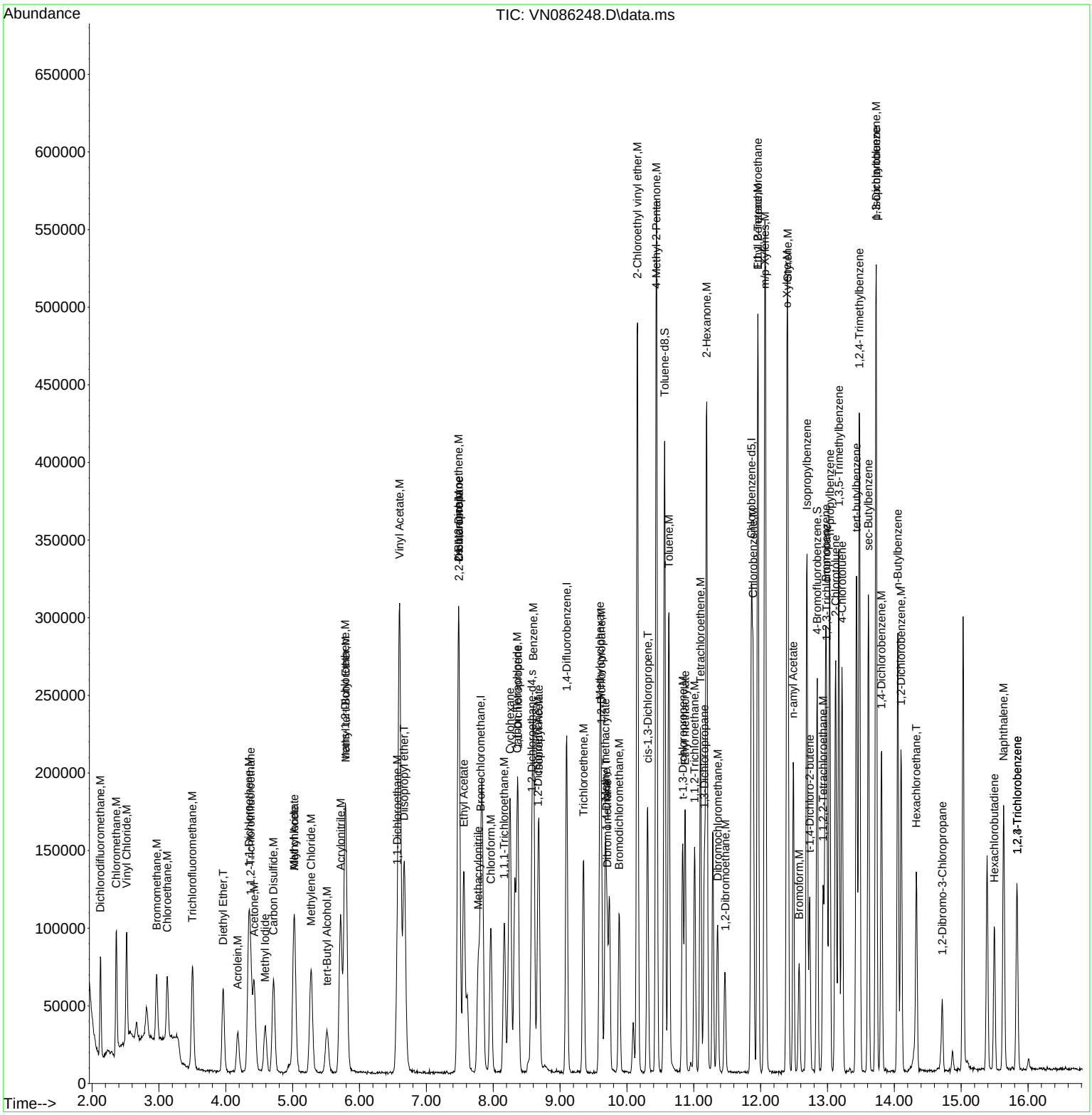
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	75482	20.054	ug/l		98
44) Isopropyl Acetate	8.683	43	141640	20.285	ug/l		99
45) 1,4-Dioxane	9.694	88	20541	369.952	ug/l	#	92
46) Methyl methacrylate	9.677	41	61396	19.956	ug/l		97
47) n-amyl Acetate	12.488	43	108446	19.589	ug/l		99
48) t-1,3-Dichloropropene	10.835	75	84428	20.190	ug/l		96
49) cis-1,3-Dichloropropene	10.312	75	91089	20.581	ug/l		98
50) 1,1,2-Trichloroethane	11.012	97	47672	19.741	ug/l		97
51) Ethyl methacrylate	10.871	69	90916	20.259	ug/l		95
52) 1,3-Dichloropropane	11.159	76	87015	20.216	ug/l		100
53) Dibromochloromethane	11.359	129	52628	19.923	ug/l		97
54) 1,2-Dibromoethane	11.471	107	48175	19.762	ug/l		98
55) 2-Chloroethyl vinyl ether	10.159	63	225521	132.990	ug/l		100
56) Bromoform	12.576	173	33456	19.359	ug/l		97
58) 4-Methyl-2-Pentanone	10.441	43	381072	101.329	ug/l		100
59) 2-Hexanone	11.194	43	284098	101.451	ug/l		99
61) Tetrachloroethene	11.100	164	49360	20.169	ug/l		96
62) Toluene	10.630	91	228625	20.568	ug/l		100
64) Chlorobenzene	11.888	112	138700	20.424	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	46048	20.546	ug/l		99
66) Ethyl Benzene	11.959	91	250686	20.336	ug/l		98
67) m/p-Xylenes	12.065	106	186247	40.633	ug/l		100
68) o-Xylene	12.394	106	92550	20.528	ug/l		98
69) Styrene	12.406	104	154208	20.281	ug/l		99
70) Isopropylbenzene	12.694	105	225389	20.275	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	64915	20.516	ug/l		99
72) 1,2,3-Trichloropropane	12.988	75	95136	28.885	ug/l		59
73) Bromobenzene	12.976	156	48932	19.870	ug/l		99
74) n-propylbenzene	13.035	91	265507	20.227	ug/l		100
75) 2-Chlorotoluene	13.123	91	164538	19.943	ug/l		99
76) 1,3,5-Trimethylbenzene	13.171	105	185869	20.354	ug/l		99
77) t-1,4-Dichloro-2-butene	12.735	75	29750	19.590	ug/l		93
78) 4-Chlorotoluene	13.218	91	160908	19.528	ug/l		99
79) tert-butylbenzene	13.435	119	158200	20.021	ug/l		100
80) 1,2,4-Trimethylbenzene	13.476	105	185022	19.981	ug/l		99
81) sec-Butylbenzene	13.612	105	222043	20.145	ug/l		99
82) p-Isopropyltoluene	13.729	119	183515	19.959	ug/l		100
83) 1,3-Dichlorobenzene	13.729	146	87179	19.047	ug/l		99
84) 1,4-Dichlorobenzene	13.806	146	86888	18.923	ug/l		99
85) n-Butylbenzene	14.053	91	164471	19.828	ug/l		99
86) Hexachloroethane	14.329	117	29849	19.245	ug/l		99
87) 1,2-Dichlorobenzene	14.100	146	84631	18.727	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	13051	18.109	ug/l		96
89) 1,2,4-Trichlorobenzene	15.841	180	41396	18.826	ug/l		98
90) Hexachlorobutadiene	15.494	225	16389	17.262	ug/l		99
91) Naphthalene	15.635	128	157404	18.155	ug/l		100
92) 1,2,3-Trichlorobenzene	15.841	180	41396	18.826	ug/l		98

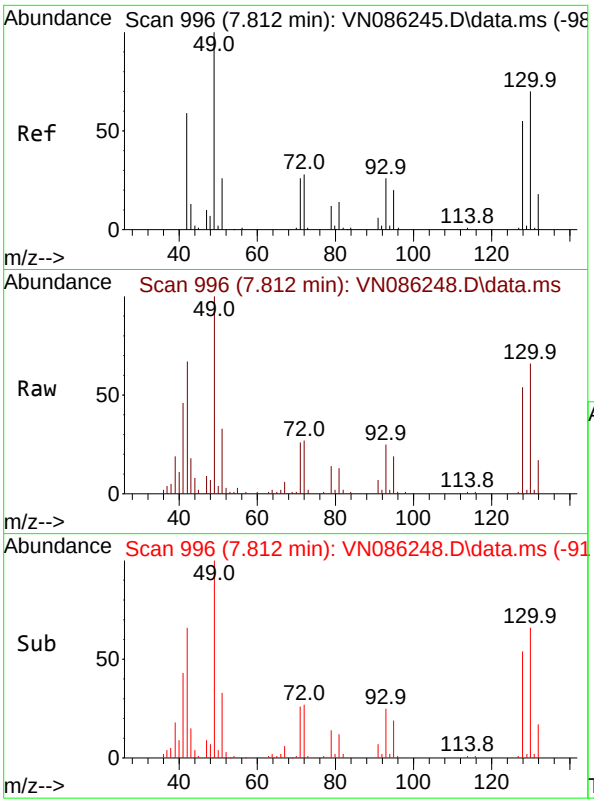
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086248.D
Acq On : 11 Apr 2025 13:34
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Quant Time: Apr 12 01:24:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



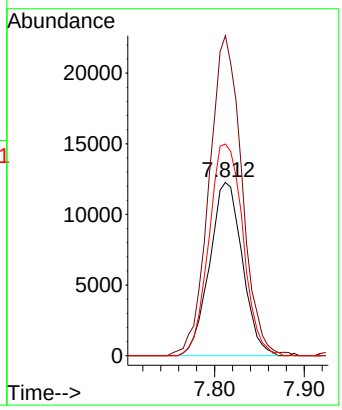


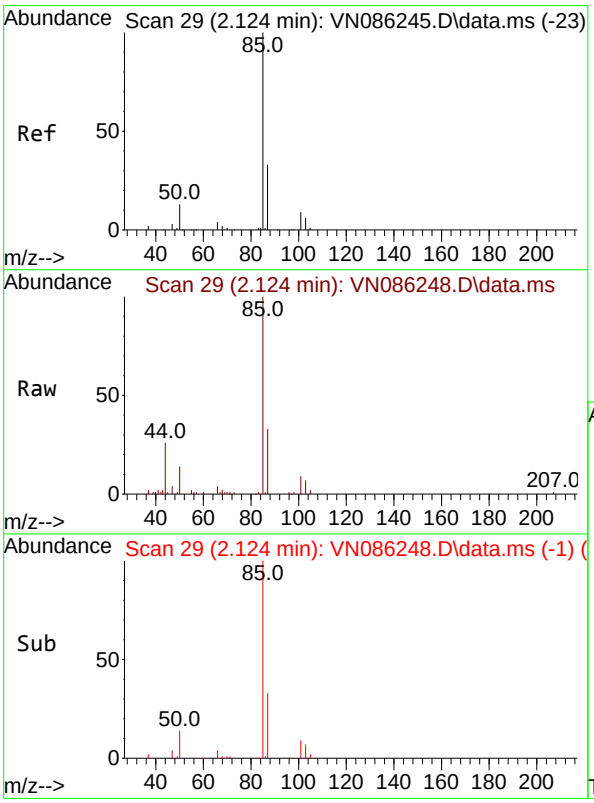
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:128 Resp: 31045

Ion	Ratio	Lower	Upper
128	100		
49	184.6	0.0	452.5
130	126.9	0.0	315.0

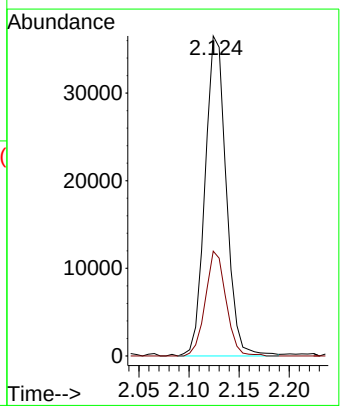


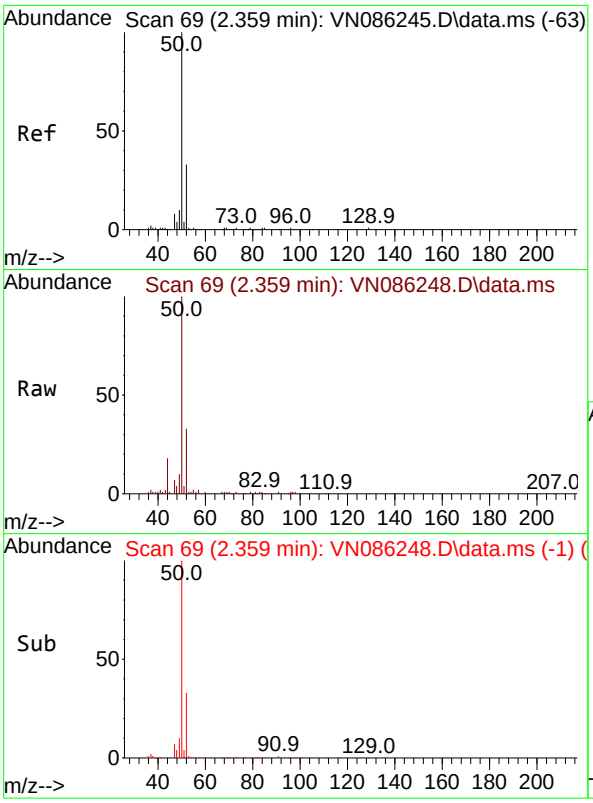


#2
Dichlorodifluoromethane
Concen: 21.563 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 85 Resp: 53635

Ion	Ratio	Lower	Upper
85	100		
87	32.7	16.3	48.9



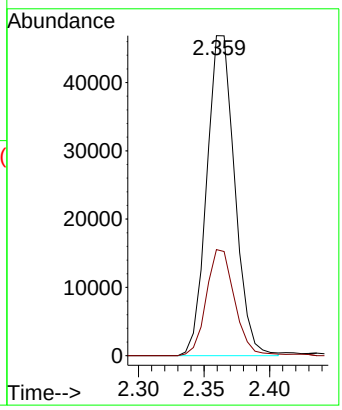


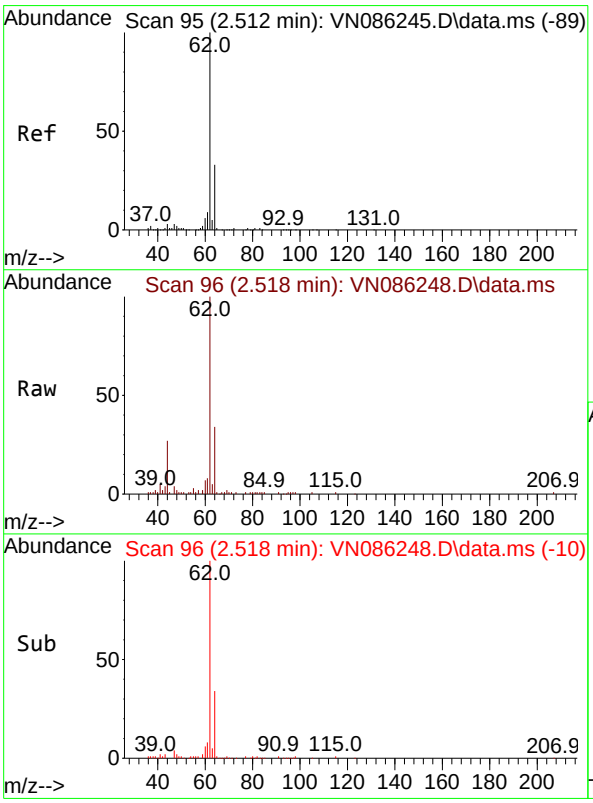
#3
Chloromethane
Concen: 20.226 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 50 Resp: 69535

Ion	Ratio	Lower	Upper
50	100		
52	33.2	26.4	39.6

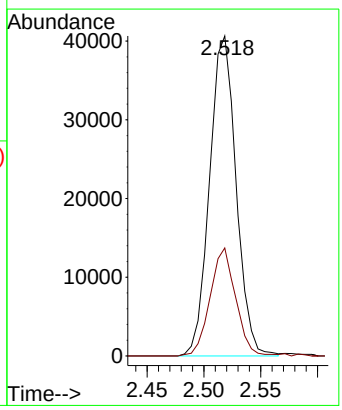


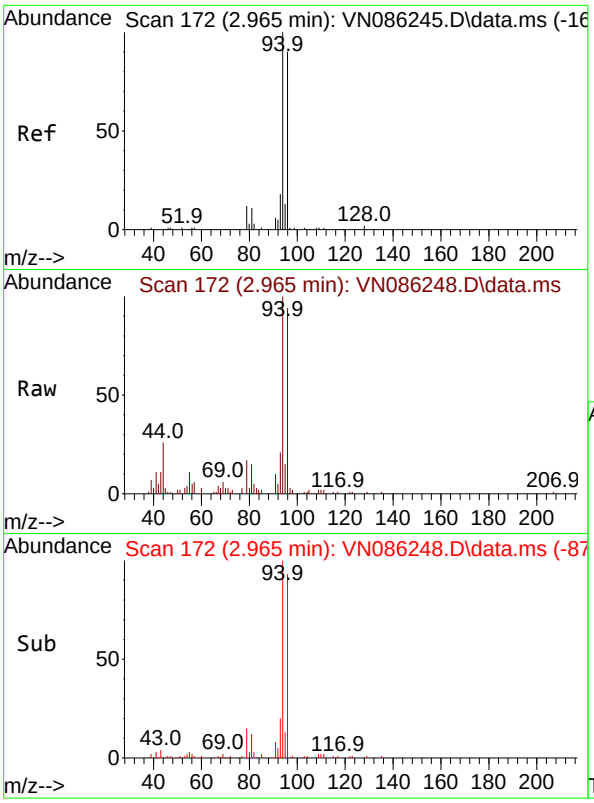


#4
Vinyl Chloride
Concen: 20.223 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 62 Resp: 66222

Ion	Ratio	Lower	Upper
62	100		
64	33.7	26.3	39.5



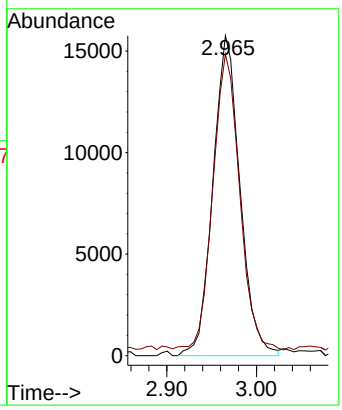


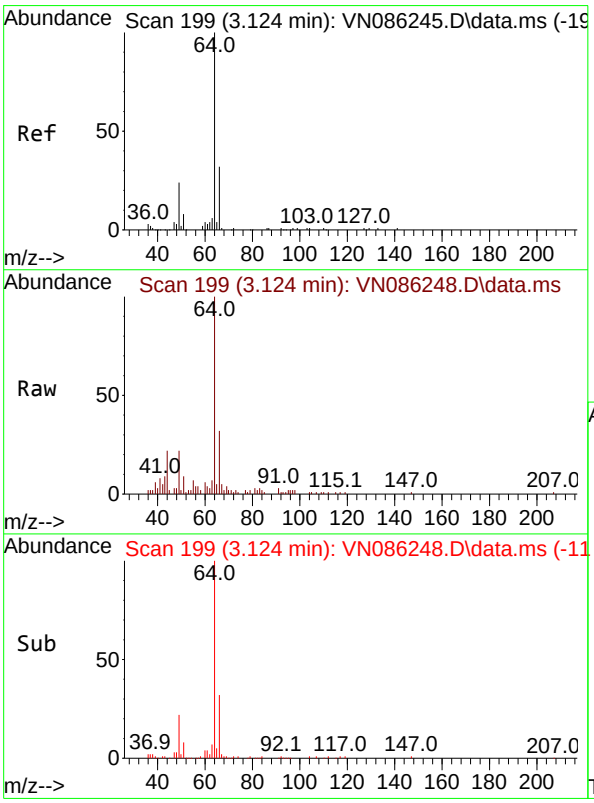
#5
Bromomethane
Concen: 20.183 ug/l
RT: 2.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 94 Resp: 32967

Ion	Ratio	Lower	Upper
94	100		
96	91.9	72.2	108.2

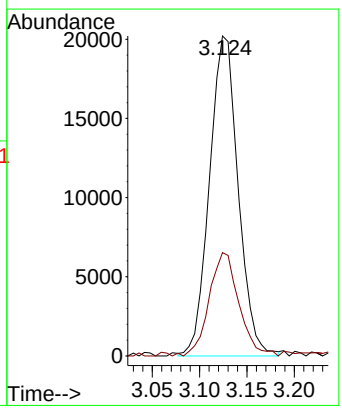


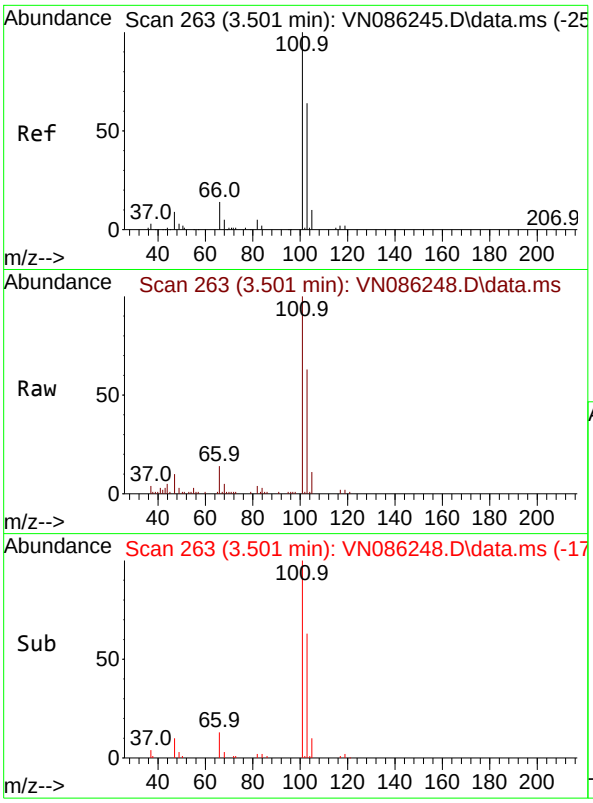


#6
Chloroethane
Concen: 20.642 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 64 Resp: 42684

Ion	Ratio	Lower	Upper
64	100		
66	32.6	25.7	38.5



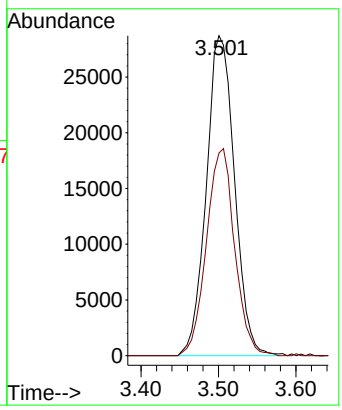


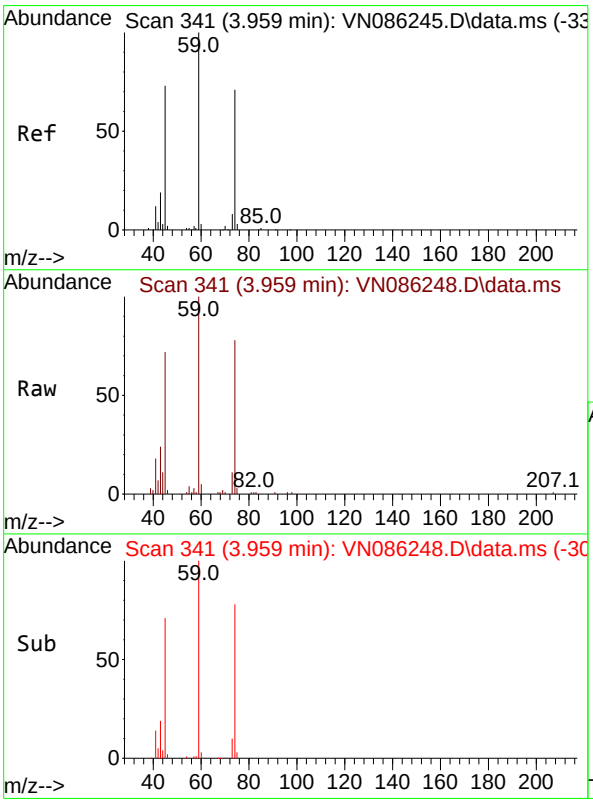
#7
Trichlorofluoromethane
Concen: 20.473 ug/l
RT: 3.501 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:101 Resp: 72724

Ion	Ratio	Lower	Upper
101	100		
103	63.4	51.2	76.8

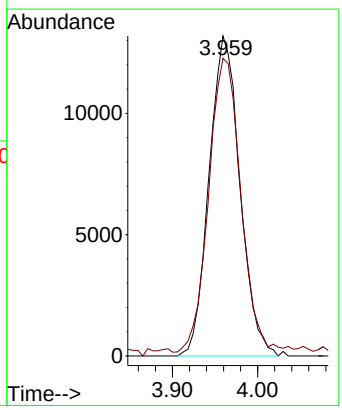


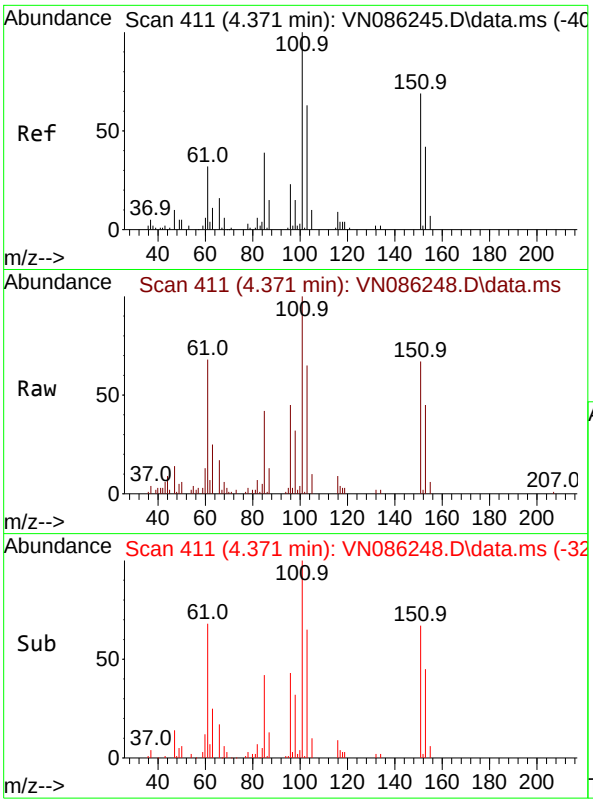


#8
Diethyl Ether
Concen: 20.276 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 74 Resp: 33215

Ion	Ratio	Lower	Upper
74	100		
45	96.4	19.2	173.2



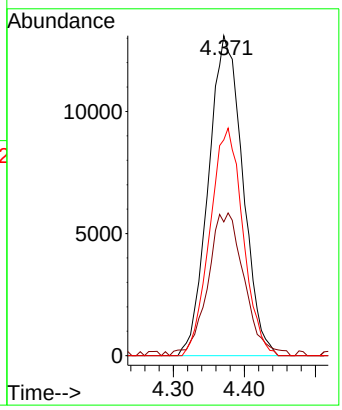


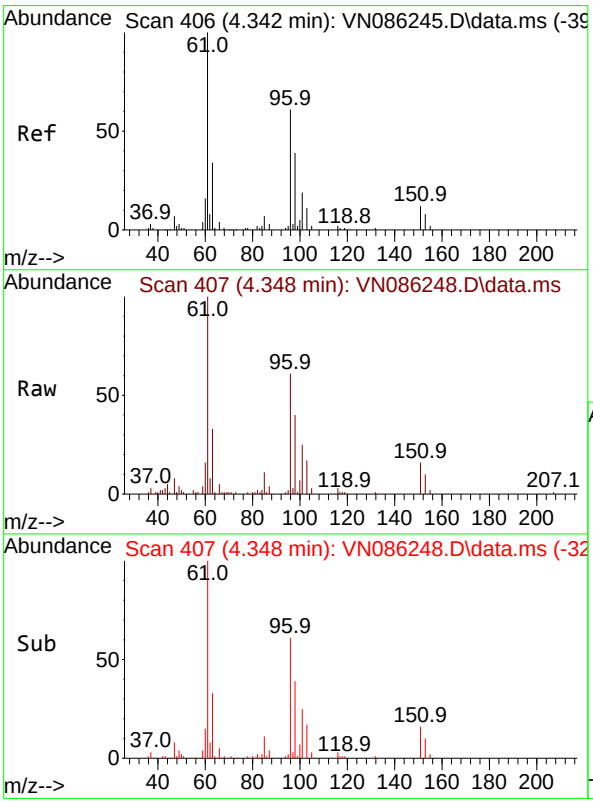
#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.062 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:101 Resp: 43944

Ion	Ratio	Lower	Upper
101	100		
85	46.6	0.0	93.0
151	68.6	0.0	138.6

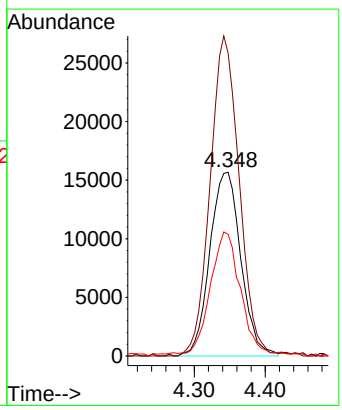


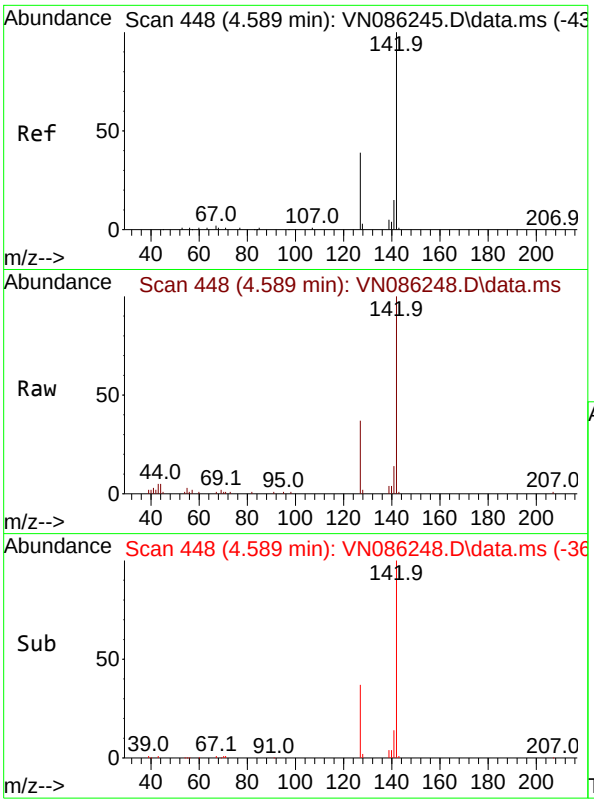


#10
1,1-Dichloroethene
Concen: 20.128 ug/l
RT: 4.348 min Scan# 407
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 96 Resp: 47582

Ion	Ratio	Lower	Upper
96	100		
61	164.7	131.1	196.7
98	64.7	51.6	77.4



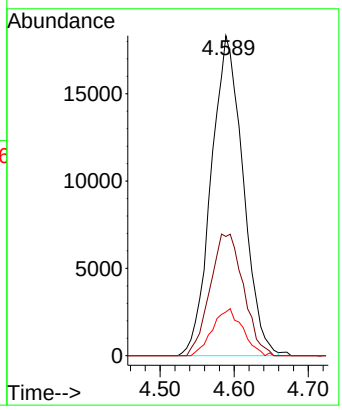


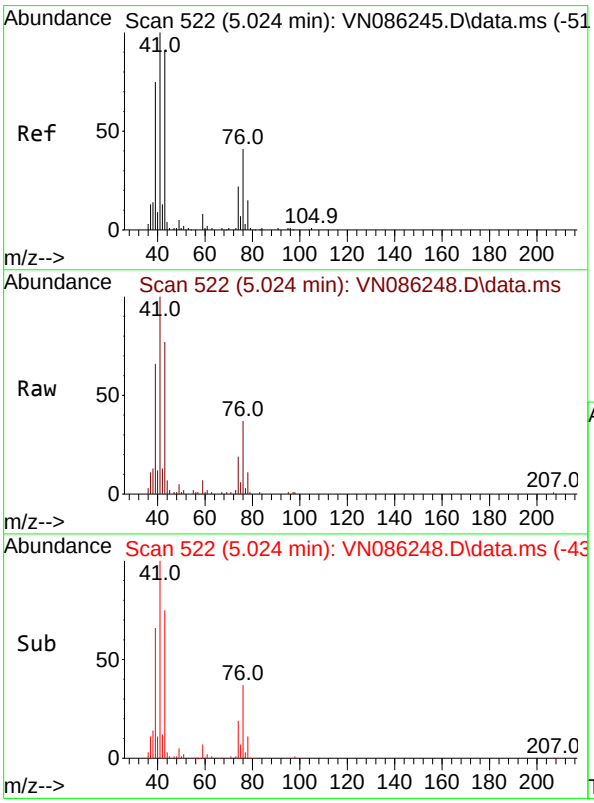
#11
Methyl Iodide
Concen: 20.148 ug/l
RT: 4.589 min Scan# 44
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:142 Resp: 54740

Ion	Ratio	Lower	Upper
142	100		
127	37.4	19.6	58.8
141	13.7	7.3	21.9

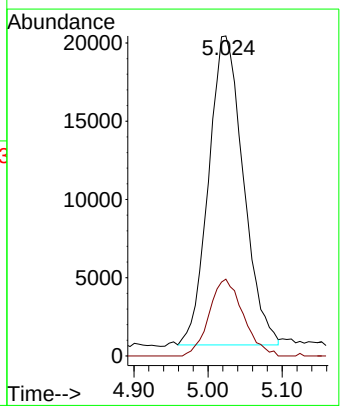


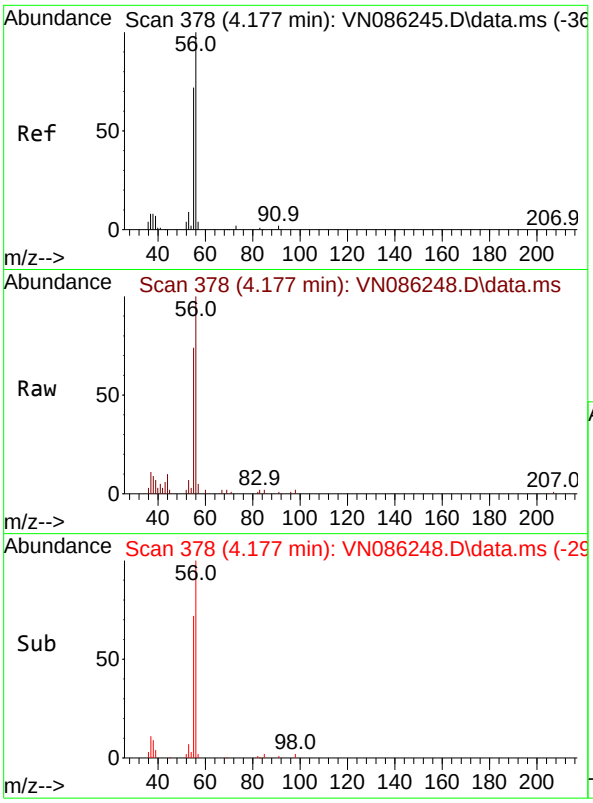


#12
Methyl Acetate
Concen: 19.227 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 64185

Ion	Ratio	Lower	Upper
43	100		
74	25.1	19.1	28.7



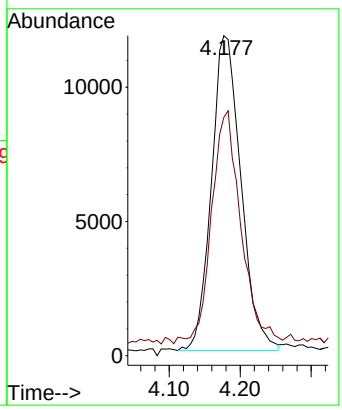


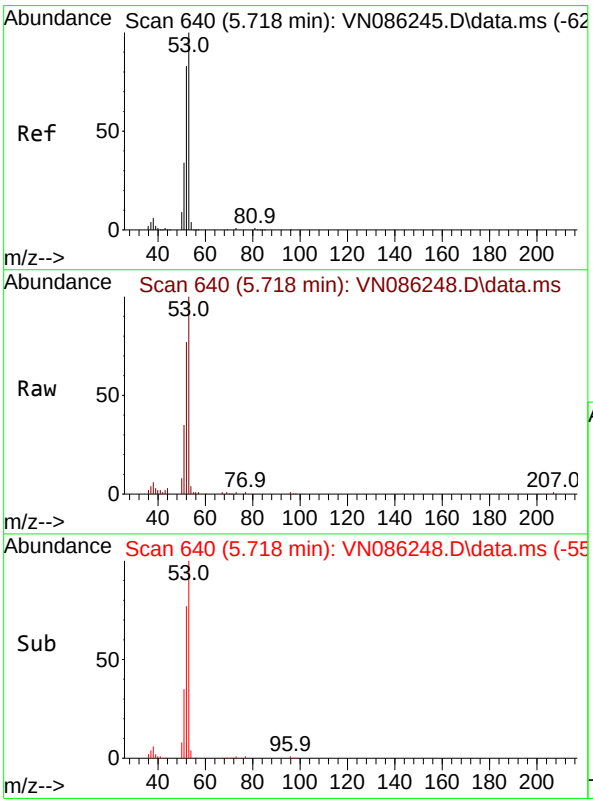
#13
Acrolein
Concen: 89.375 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 56 Resp: 33914

Ion	Ratio	Lower	Upper
56	100		
55	71.9	56.5	84.7

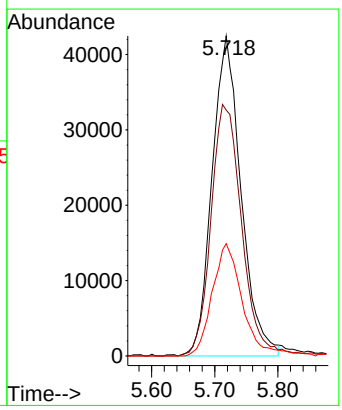


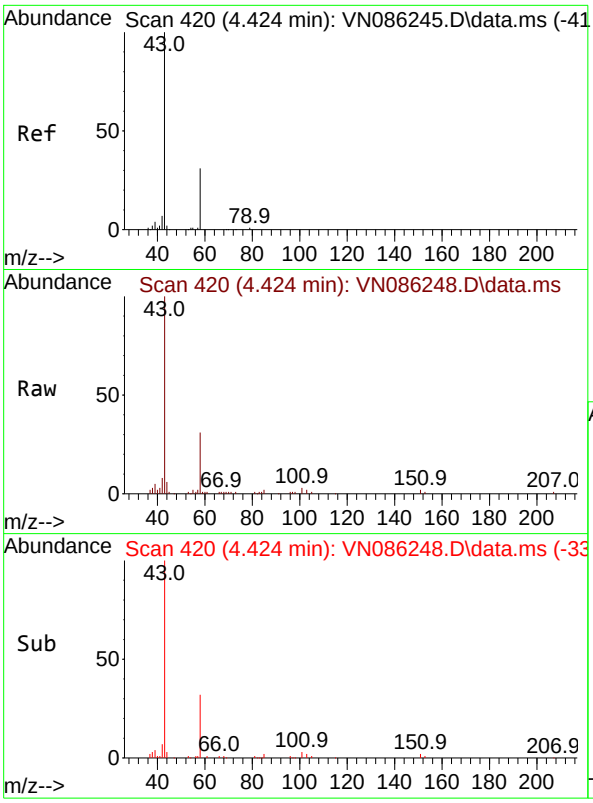


#14
Acrylonitrile
Concen: 95.988 ug/l
RT: 5.718 min Scan# 640
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 53 Resp: 135274

Ion	Ratio	Lower	Upper
53	100		
52	83.3	40.2	120.6
51	36.4	17.5	52.6



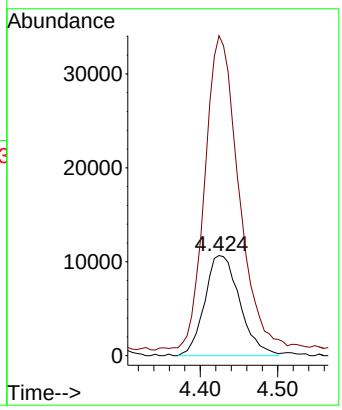


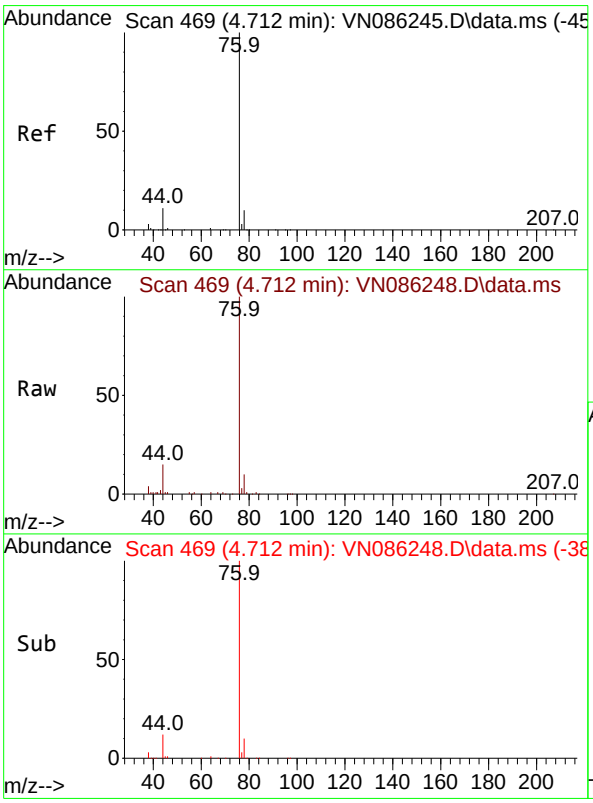
#15
Acetone
Concen: 93.868 ug/l
RT: 4.424 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 58 Resp: 33542

Ion	Ratio	Lower	Upper
58	100		
43	311.7	261.8	392.8

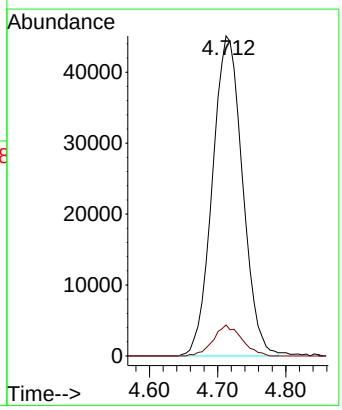


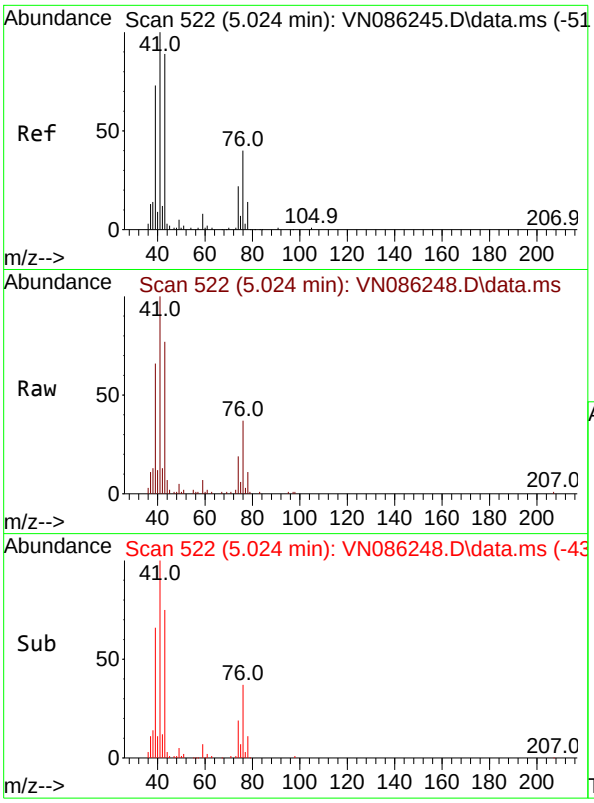


#16
Carbon Disulfide
Concen: 20.456 ug/l
RT: 4.712 min Scan# 469
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 76 Resp: 138661

Ion	Ratio	Lower	Upper
76	100		
78	9.7	7.7	11.5



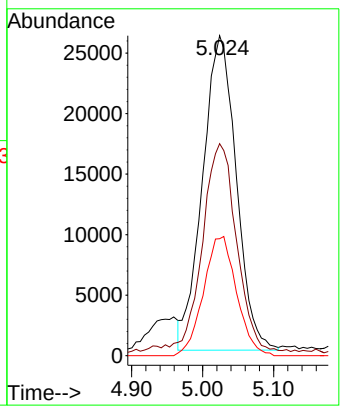


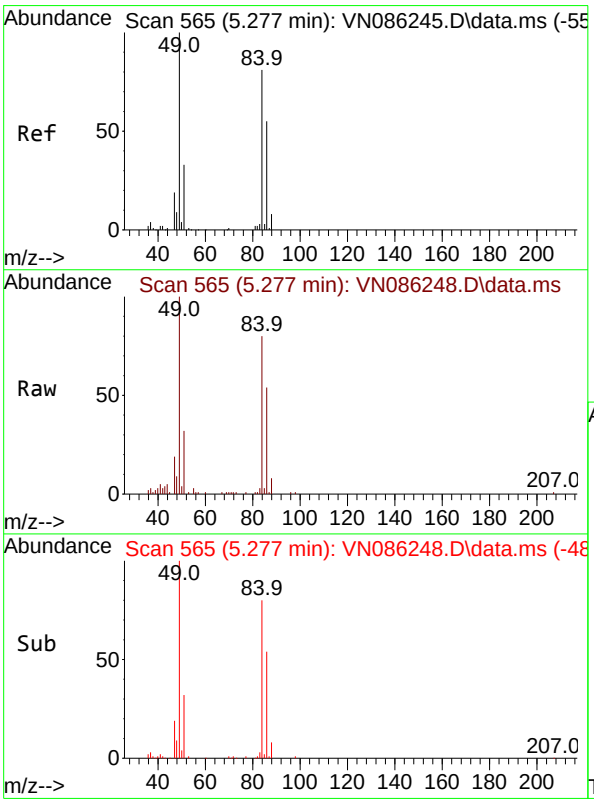
#17
Allyl chloride
Concen: 20.801 ug/l
RT: 5.024 min Scan# 5
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 41 Resp: 85704

Ion	Ratio	Lower	Upper
41	100		
39	66.3	34.4	103.2
76	37.5	18.8	56.3

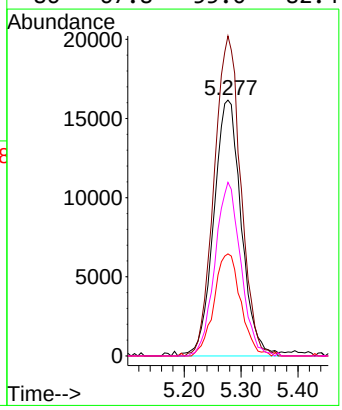


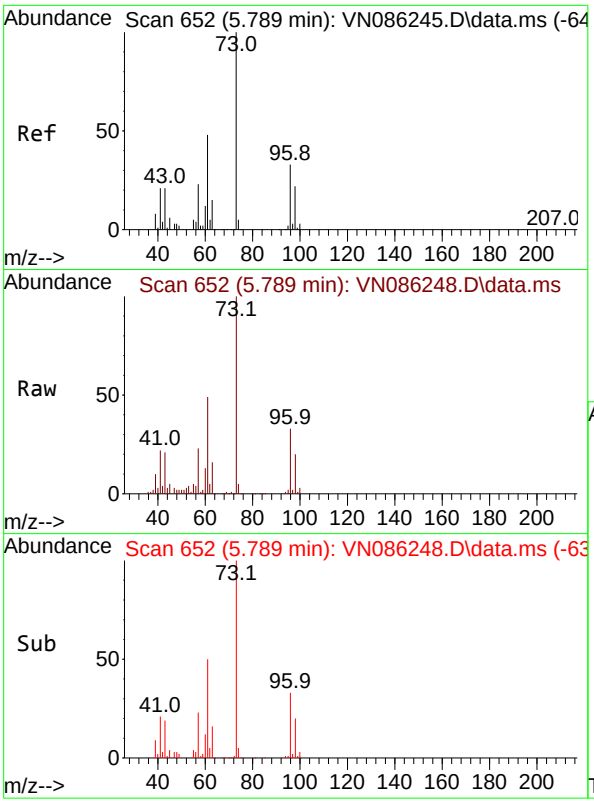


#18
Methylene Chloride
Concen: 20.166 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 84 Resp: 54353

Ion	Ratio	Lower	Upper
84	100		
49	125.0	99.1	148.7
51	39.9	32.3	48.5
86	67.8	55.0	82.4



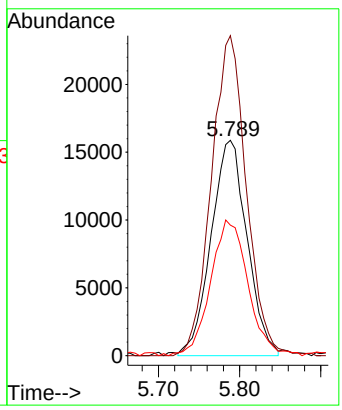


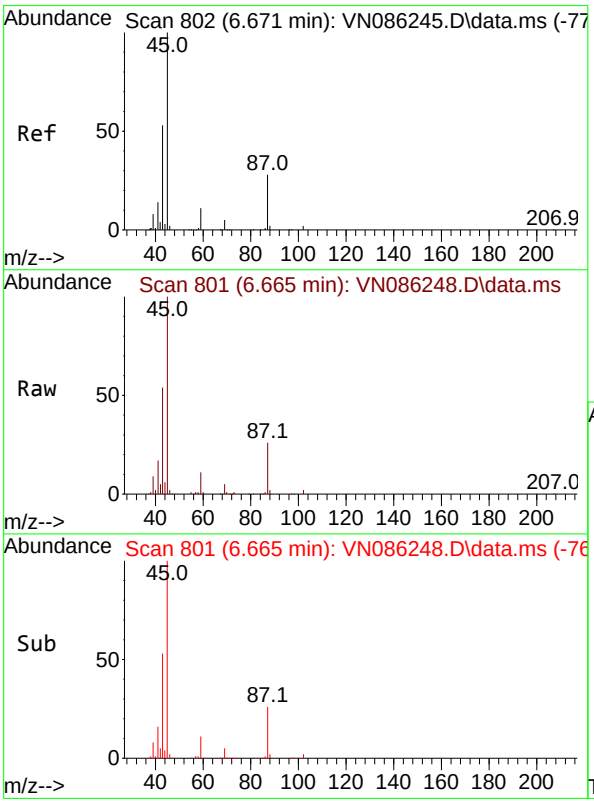
#19
trans-1,2-Dichloroethene
Concen: 19.638 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 96 Resp: 48899

Ion	Ratio	Lower	Upper
96	100		
61	149.0	115.9	173.9
98	60.0	52.1	78.1

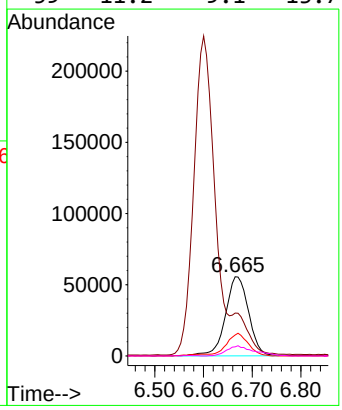


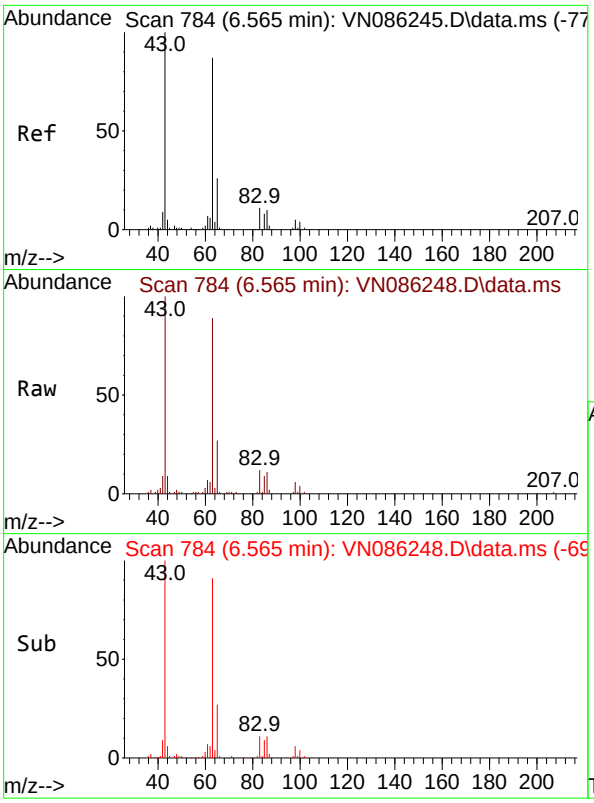


#20
Diisopropyl ether
Concen: 20.688 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 45 Resp: 183254

Ion	Ratio	Lower	Upper
45	100		
43	52.3	42.3	63.5
87	26.5	22.2	33.4
59	11.2	9.1	13.7



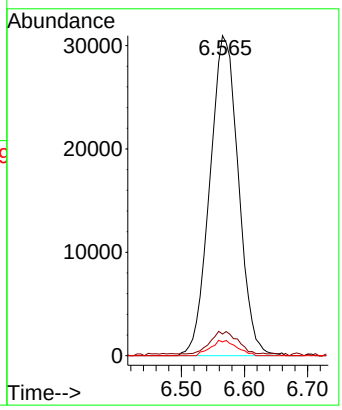


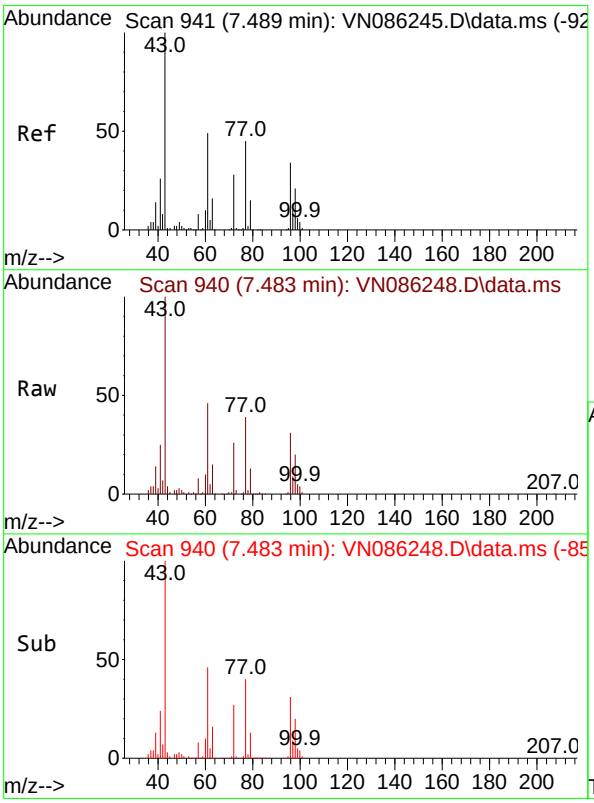
#21
1,1-Dichloroethane
Concen: 20.578 ug/l
RT: 6.565 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 63 Resp: 97247

Ion	Ratio	Lower	Upper
63	100		
98	6.2	3.1	9.3
100	4.3	2.3	6.9

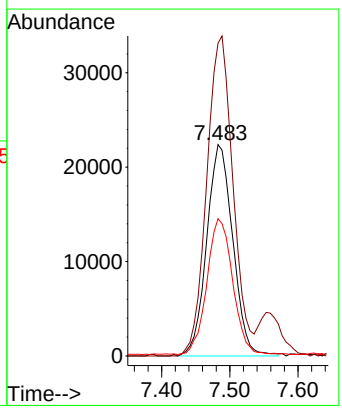


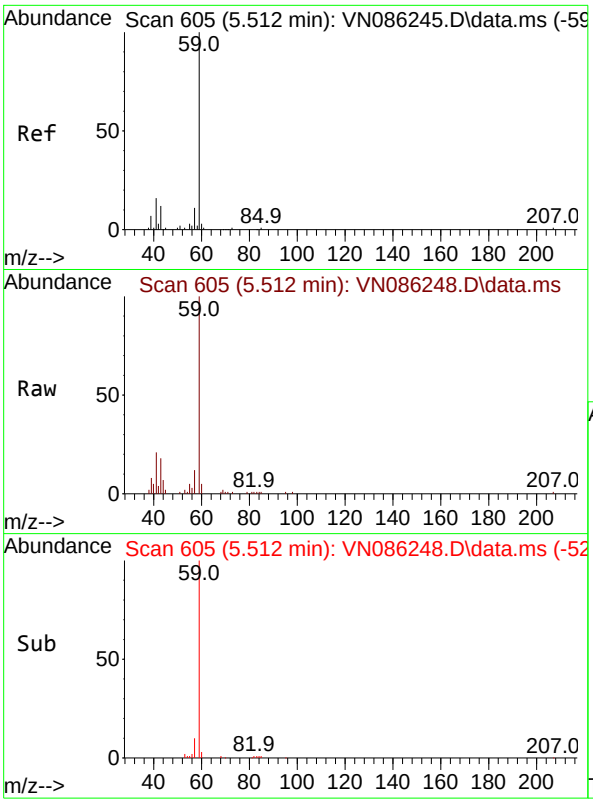


#22
cis-1,2-Dichloroethene
Concen: 20.174 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 96 Resp: 59840

Ion	Ratio	Lower	Upper
96	100		
61	152.2	119.5	179.3
98	63.0	51.0	76.6



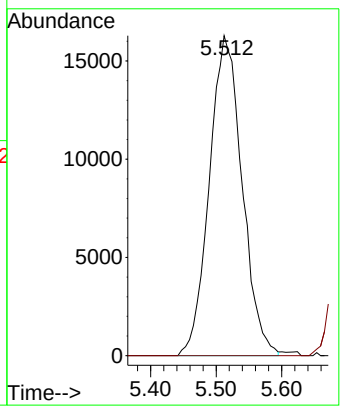


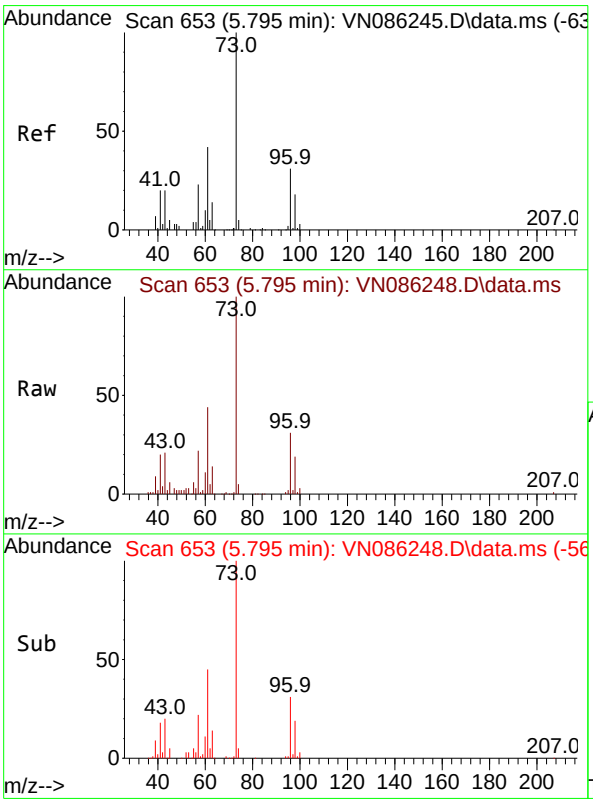
#23
tert-Butyl Alcohol
Concen: 96.723 ug/l
RT: 5.512 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 59 Resp: 56480

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0

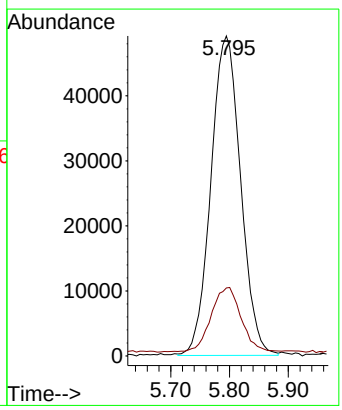


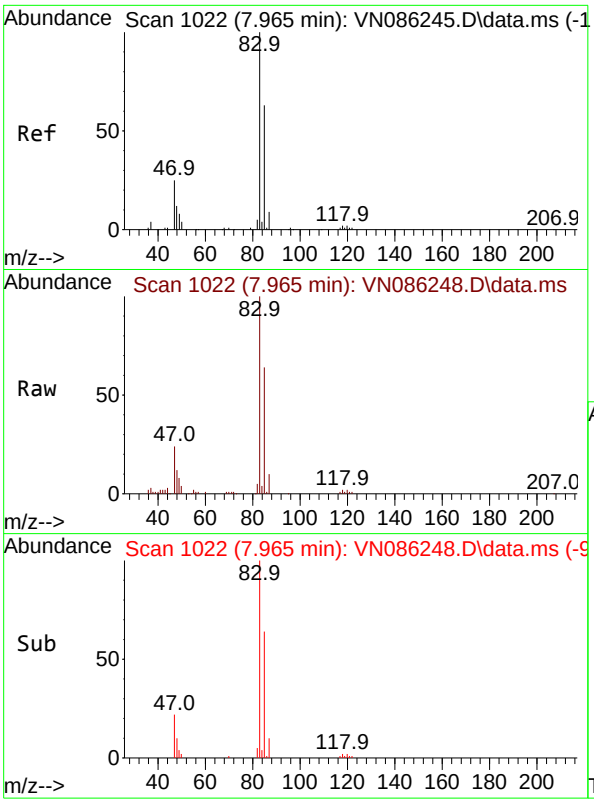


#24
Methyl tert-Butyl Ether
Concen: 20.211 ug/l
RT: 5.795 min Scan# 653
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 73 Resp: 172426

Ion	Ratio	Lower	Upper
73	100		
43	20.2	16.8	25.2



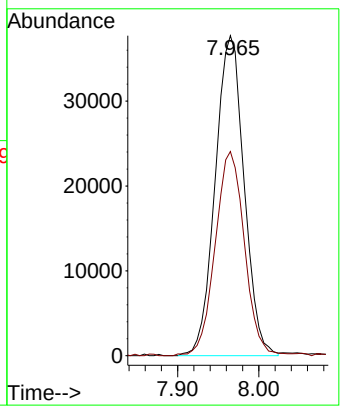


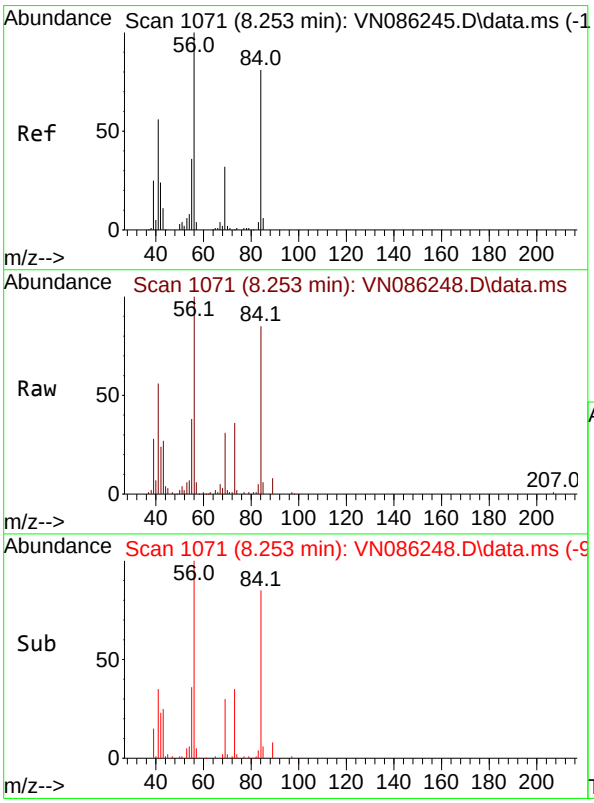
#25
Chloroform
Concen: 20.677 ug/l
RT: 7.965 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 83 Resp: 93183

Ion	Ratio	Lower	Upper
83	100		
85	63.3	50.5	75.7

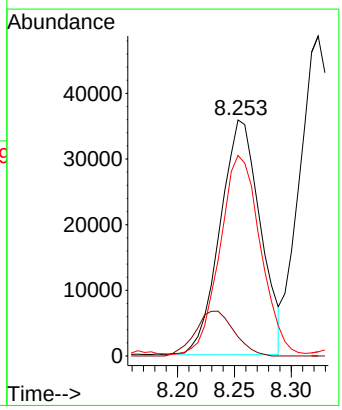


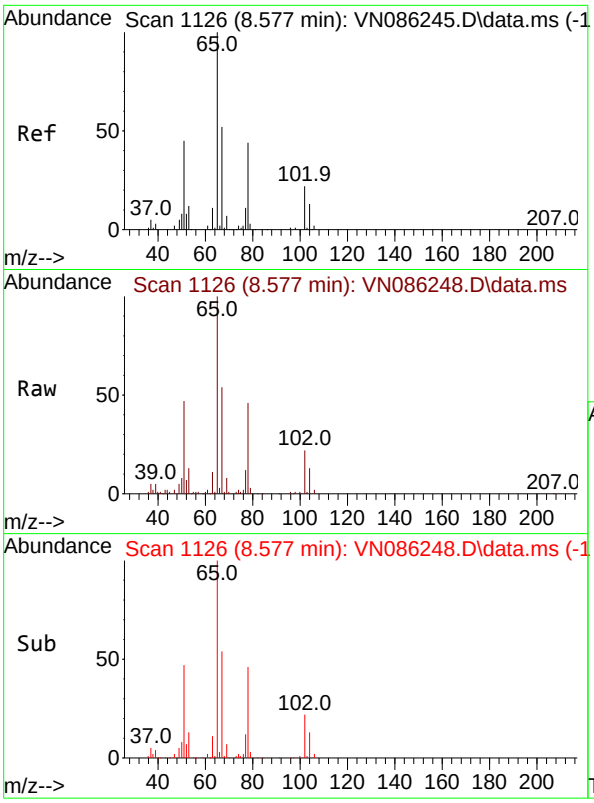


#26
Cyclohexane
Concen: 19.913 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 56 Resp: 88041

Ion	Ratio	Lower	Upper
56	100		
89	18.6	0.0	0.0#
84	86.2	69.0	103.4



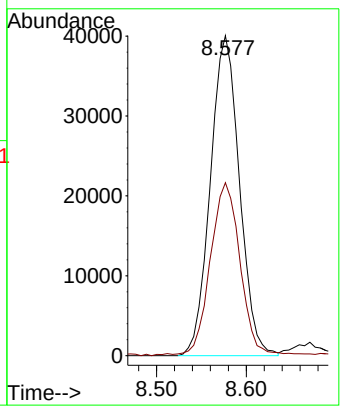


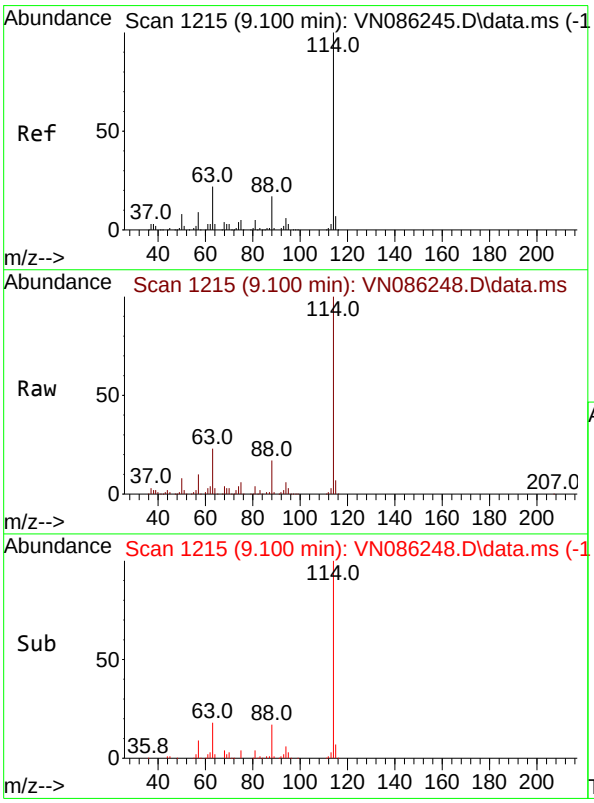
#27
1,2-Dichloroethane-d4
Concen: 29.777 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 65 Resp: 90166

Ion	Ratio	Lower	Upper
65	100		
67	54.6	43.4	65.2

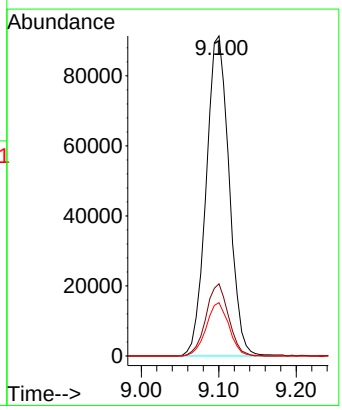


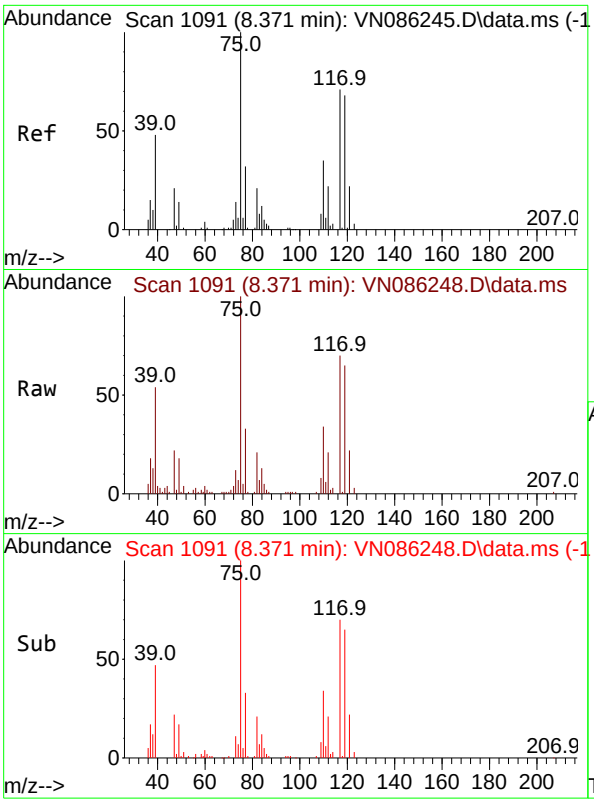


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:114 Resp: 187987

Ion	Ratio	Lower	Upper
114	100		
63	22.2	17.8	26.6
88	16.5	13.4	20.2



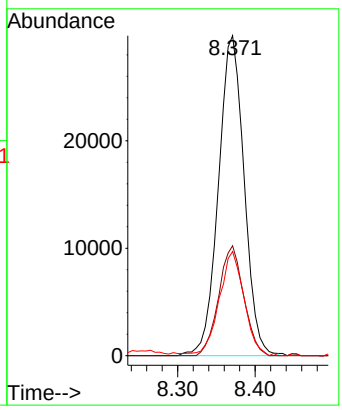


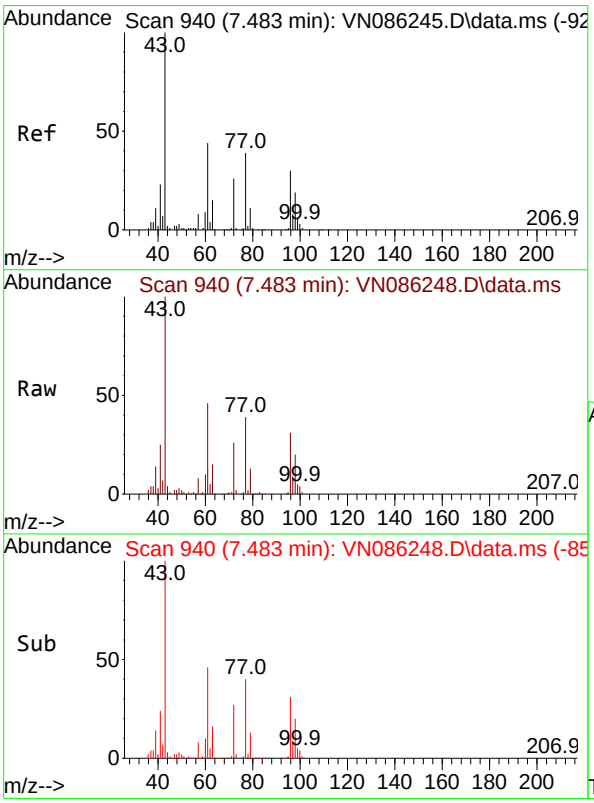
#29
1,1-Dichloropropene
Concen: 20.373 ug/l
RT: 8.371 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 75 Resp: 68608

Ion	Ratio	Lower	Upper
75	100		
110	33.4	0.0	68.6
77	31.4	0.0	63.8

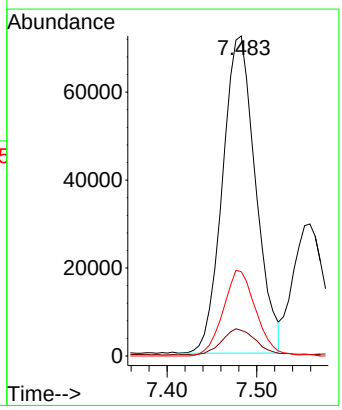


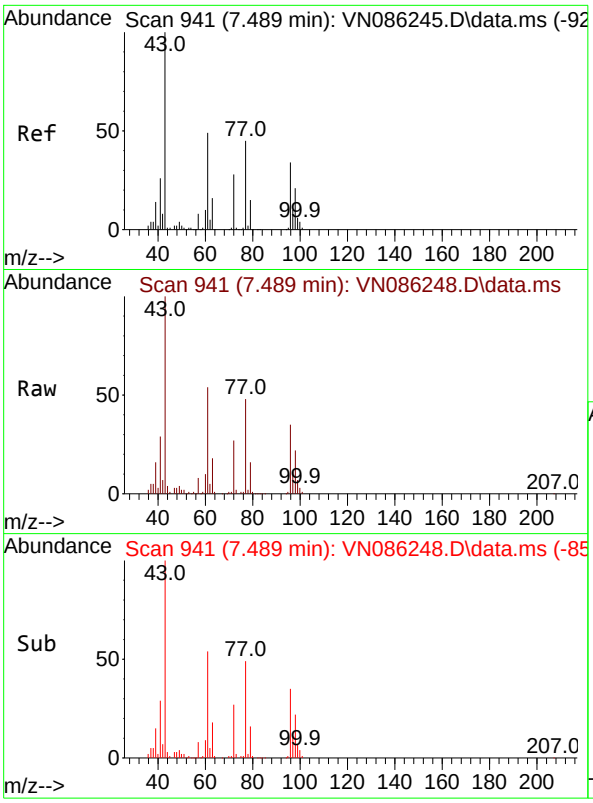


#30
2-Butanone
Concen: 98.995 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 184728

Ion	Ratio	Lower	Upper
43	100		
57	8.6	6.4	9.6
72	26.7	21.5	32.3



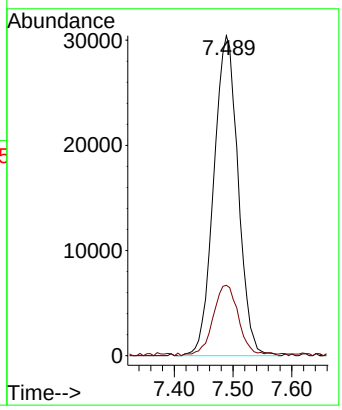


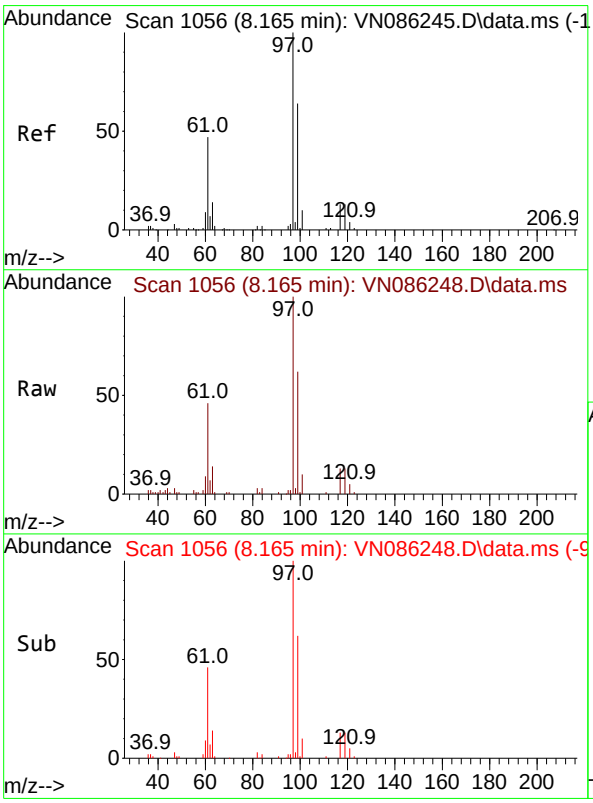
#31
2,2-Dichloropropane
Concen: 21.111 ug/l
RT: 7.489 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 77 Resp: 87512

Ion	Ratio	Lower	Upper
77	100		
97	22.7	18.8	28.2

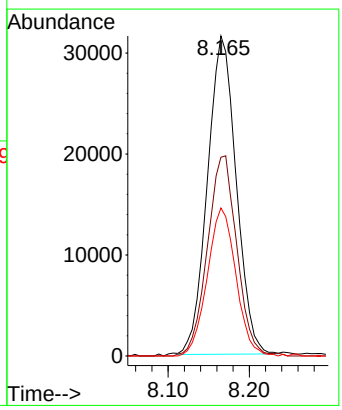


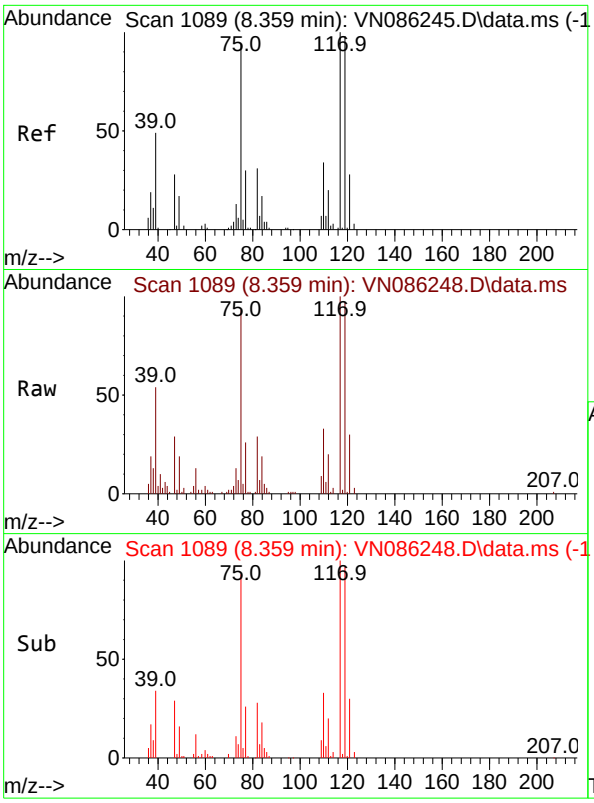


#32
1,1,1-Trichloroethane
Concen: 20.044 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 97 Resp: 77645

Ion	Ratio	Lower	Upper
97	100		
99	64.1	51.4	77.2
61	46.2	37.0	55.6



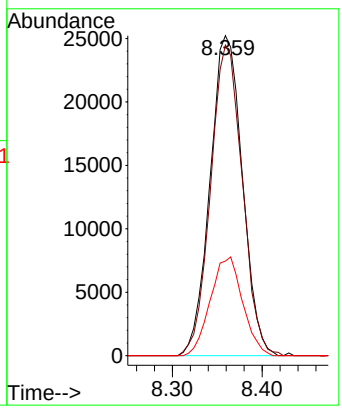


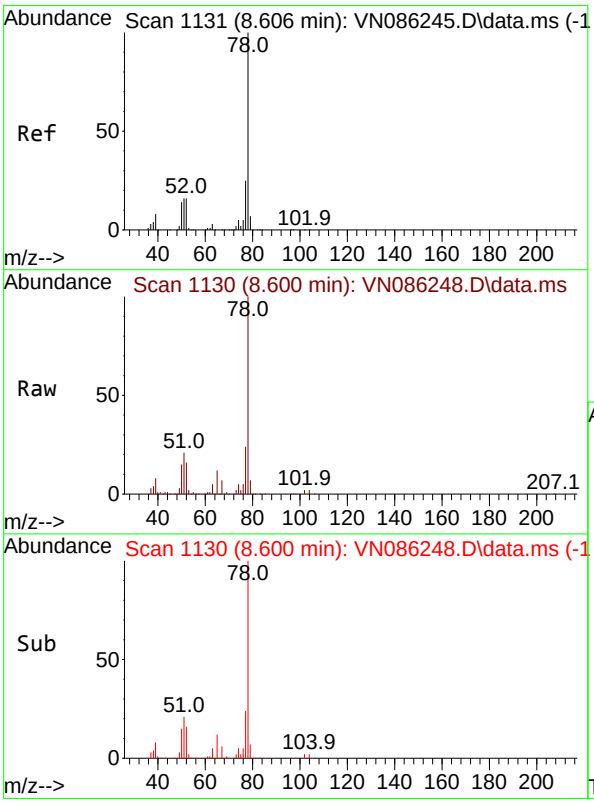
#33
Carbon Tetrachloride
Concen: 20.360 ug/l
RT: 8.359 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:117 Resp: 63029

Ion	Ratio	Lower	Upper
117	100		
119	97.1	78.3	117.5
121	29.6	22.5	33.7

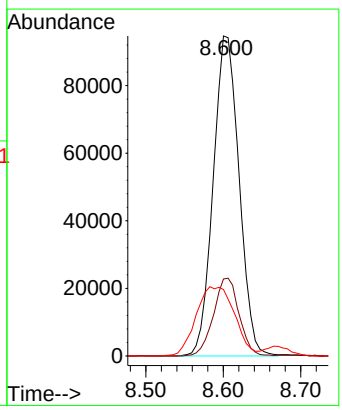


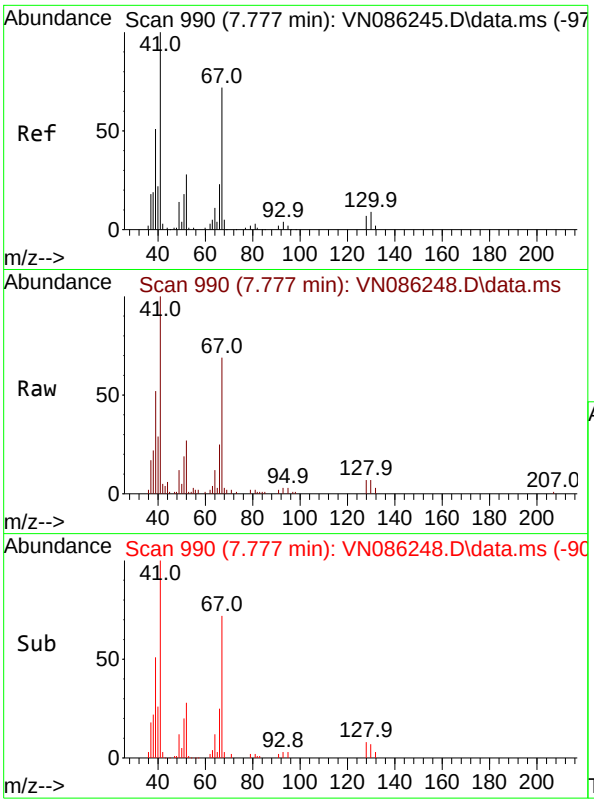


#34
Benzene
Concen: 20.522 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 78 Resp: 219862

Ion	Ratio	Lower	Upper
78	100		
77	24.1	20.0	30.0
51	19.8	12.9	19.3#



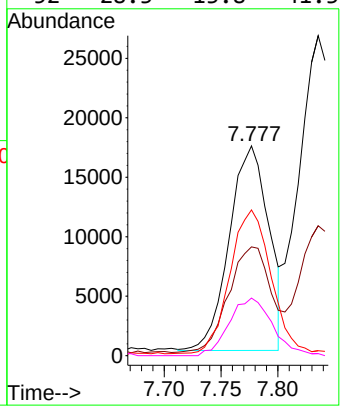


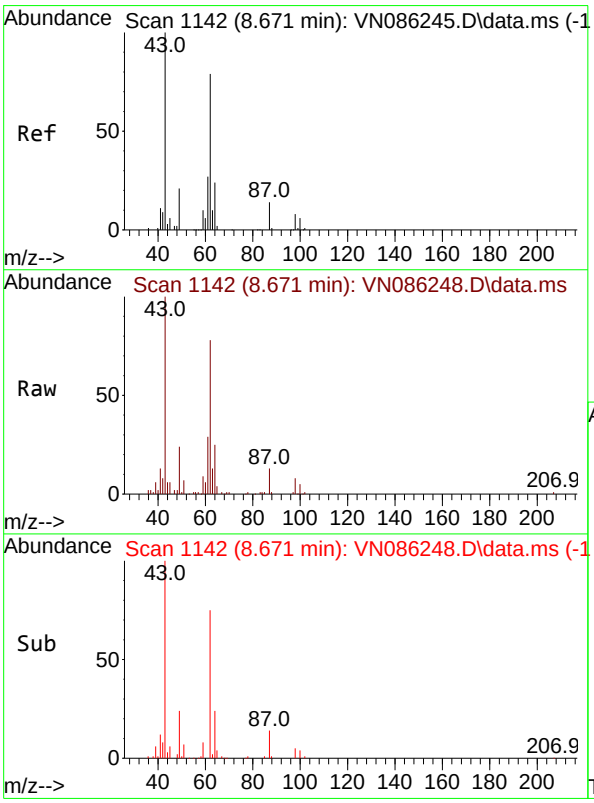
#35
Methacrylonitrile
Concen: 19.764 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 41 Resp: 41577

Ion	Ratio	Lower	Upper
41	100		
39	51.7	25.8	77.3
67	70.4	36.0	108.0
52	28.3	13.8	41.3

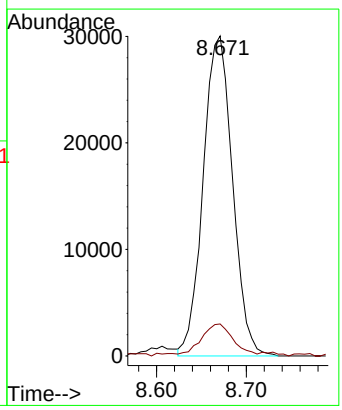


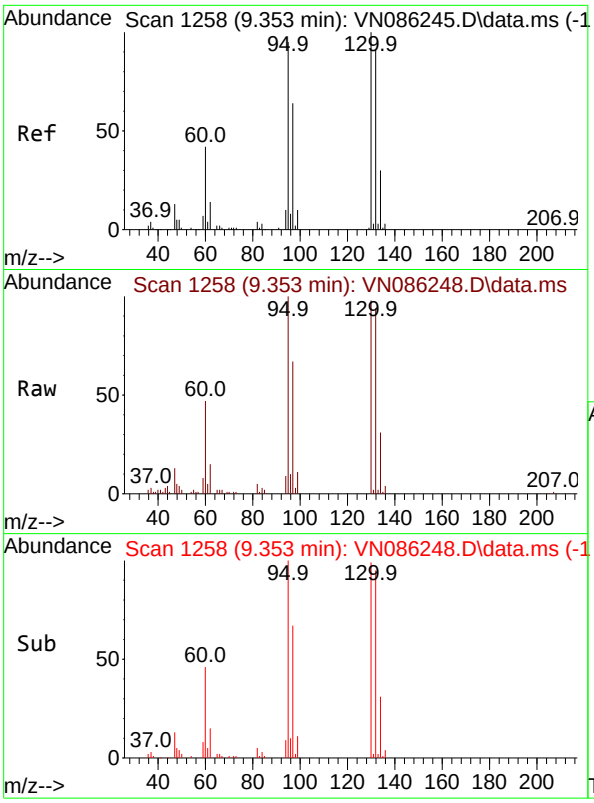


#36
1,2-Dichloroethane
Concen: 20.391 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 62 Resp: 68362

Ion	Ratio	Lower	Upper
62	100		
98	10.6	8.6	12.8



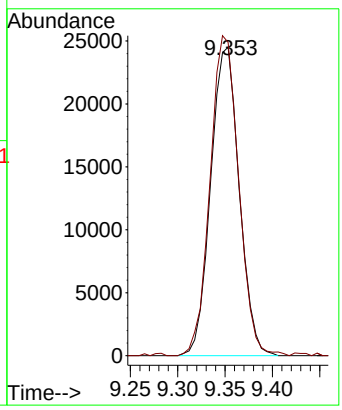


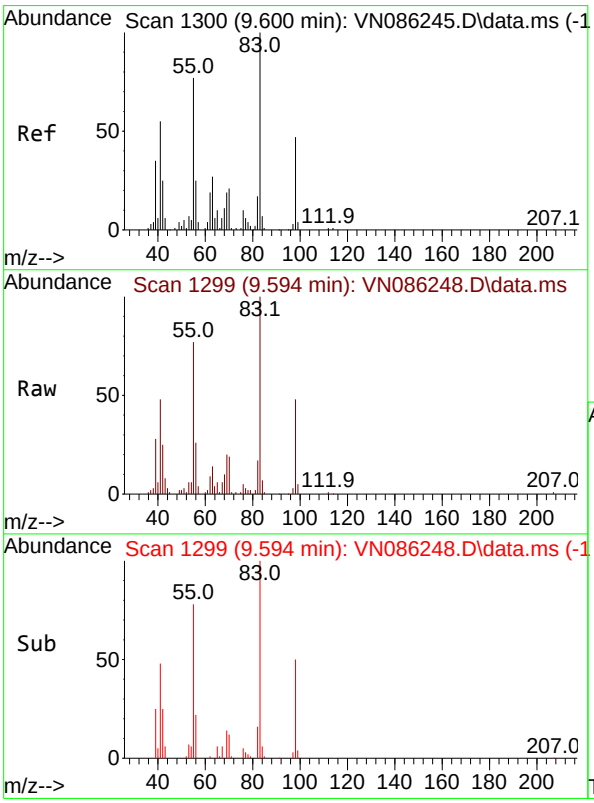
#37
Trichloroethene
Concen: 19.842 ug/l
RT: 9.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:130 Resp: 51292

Ion	Ratio	Lower	Upper
130	100		
95	101.6	76.4	114.6

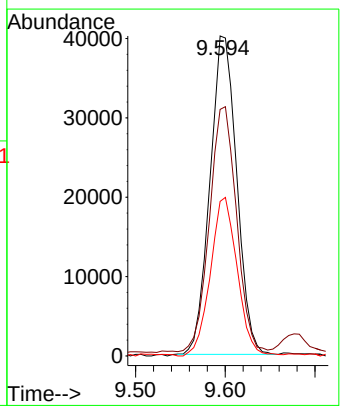


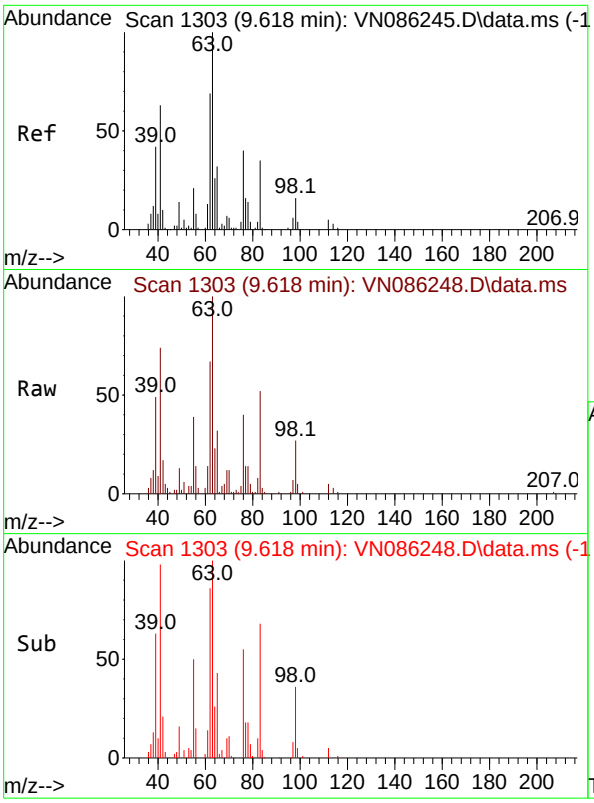


#38
Methylcyclohexane
Concen: 20.137 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 83 Resp: 83168

Ion	Ratio	Lower	Upper
83	100		
55	78.5	38.5	115.5
98	50.0	24.4	73.2



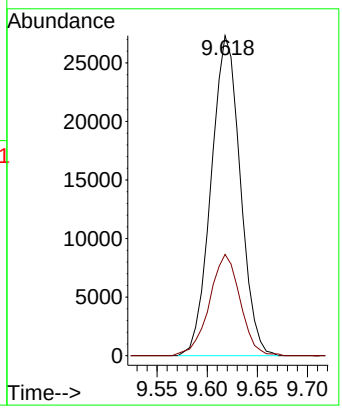


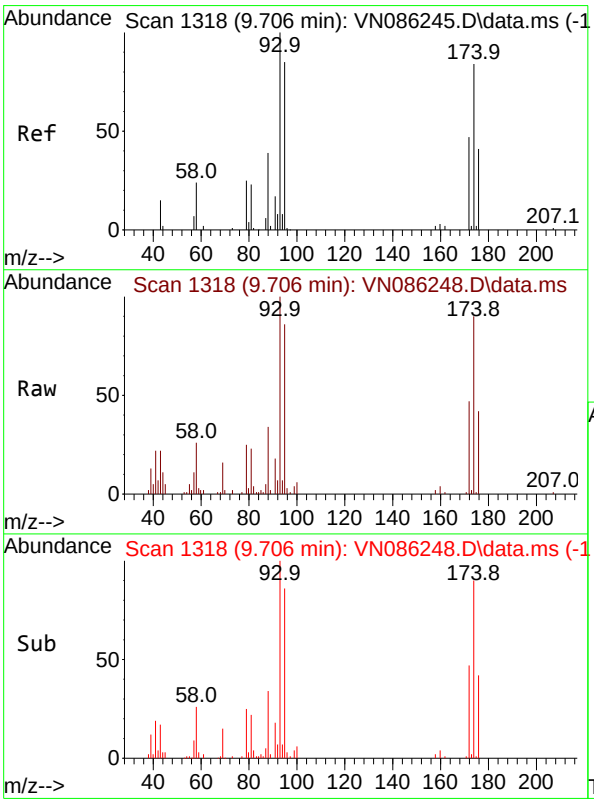
#39
1,2-Dichloropropane
Concen: 20.675 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 63 Resp: 55116

Ion	Ratio	Lower	Upper
63	100		
65	31.1	26.0	39.0

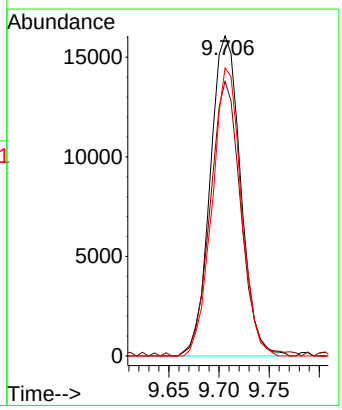


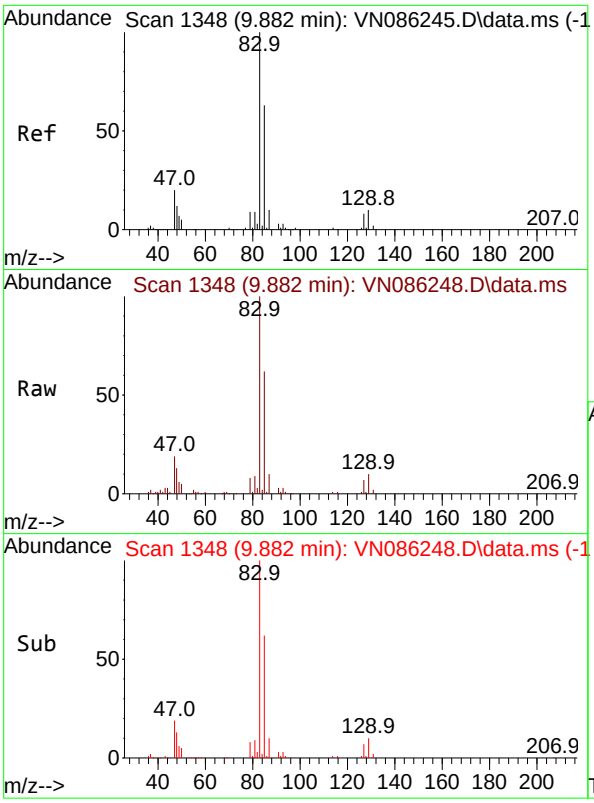


#40
Dibromomethane
Concen: 19.681 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 93 Resp: 33887

Ion	Ratio	Lower	Upper
93	100		
95	86.2	0.0	169.0
174	85.9	0.0	168.0



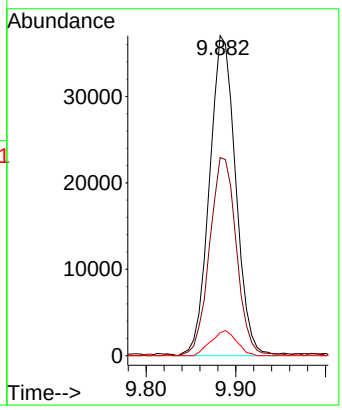


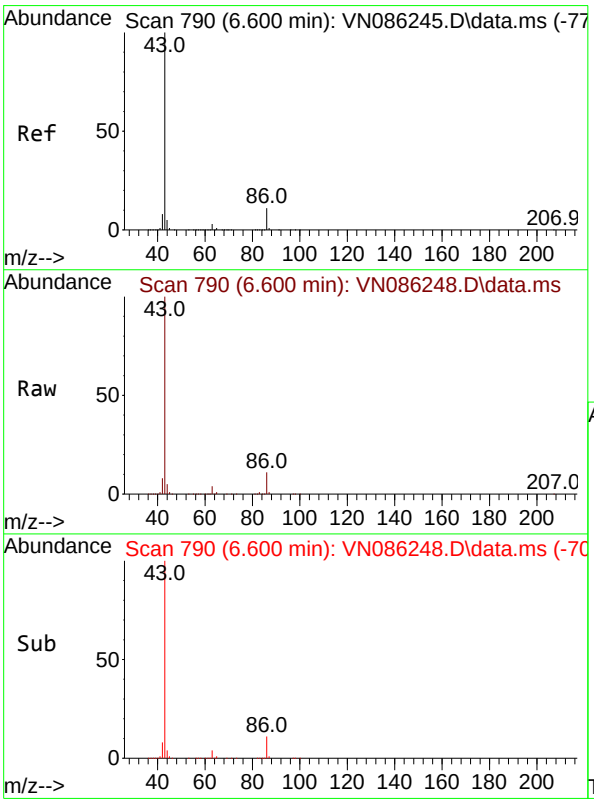
#41
Bromodichloromethane
Concen: 20.289 ug/l
RT: 9.882 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 83 Resp: 75048

Ion	Ratio	Lower	Upper
83	100		
85	61.9	50.2	75.2
127	7.1	6.2	9.4

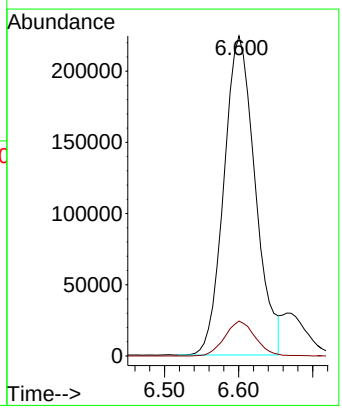


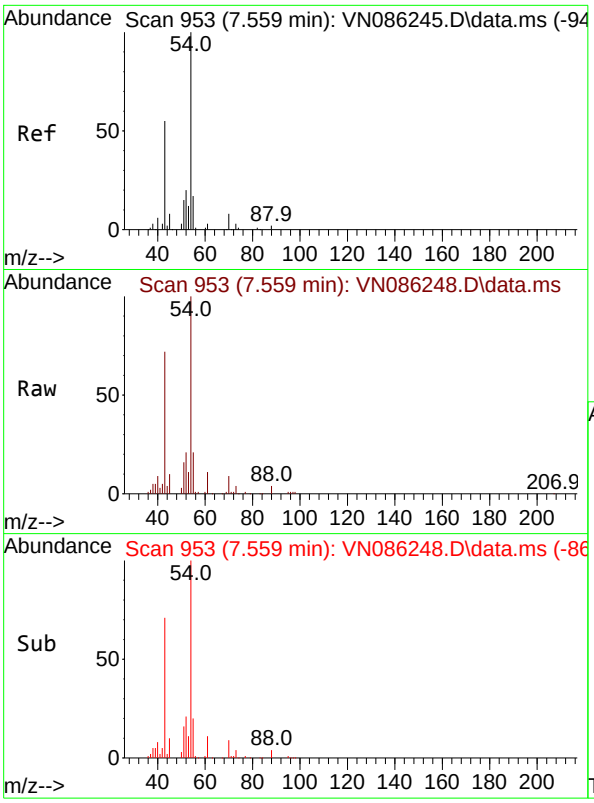


#42
Vinyl Acetate
Concen: 103.572 ug/l
RT: 6.600 min Scan# 790
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 657878

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.4	12.6



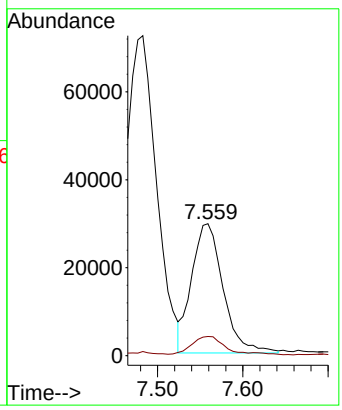


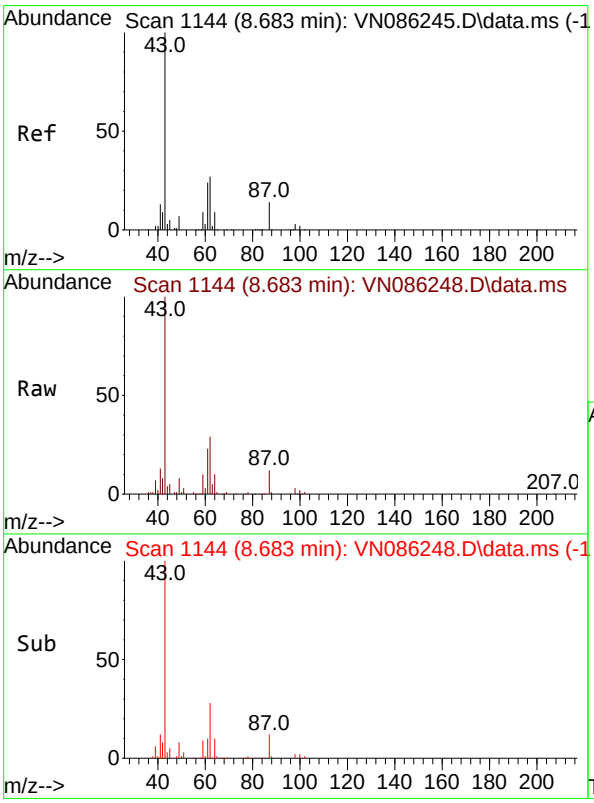
#43
Ethyl Acetate
Concen: 20.054 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 43 Resp: 75482

Ion	Ratio	Lower	Upper
43	100		
45	13.3	11.2	16.8

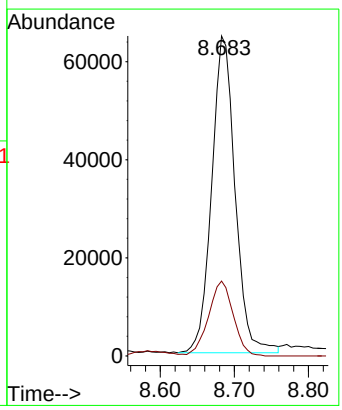


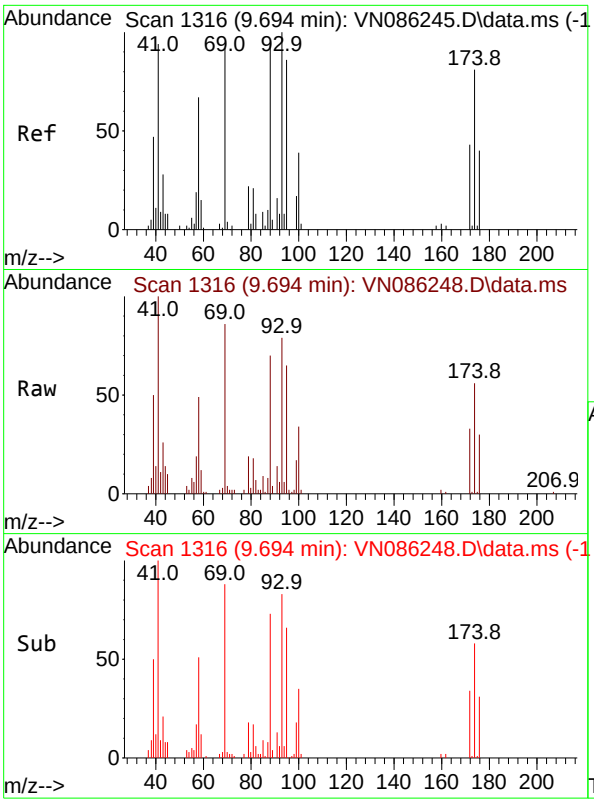


#44
Isopropyl Acetate
Concen: 20.285 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 141640

Ion	Ratio	Lower	Upper
43	100		
61	25.0	20.5	30.7



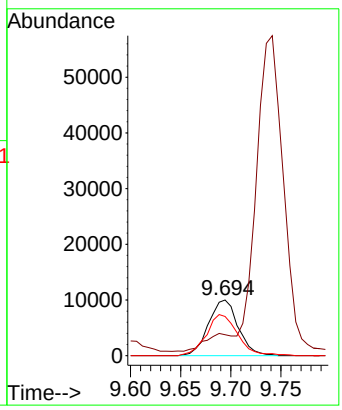


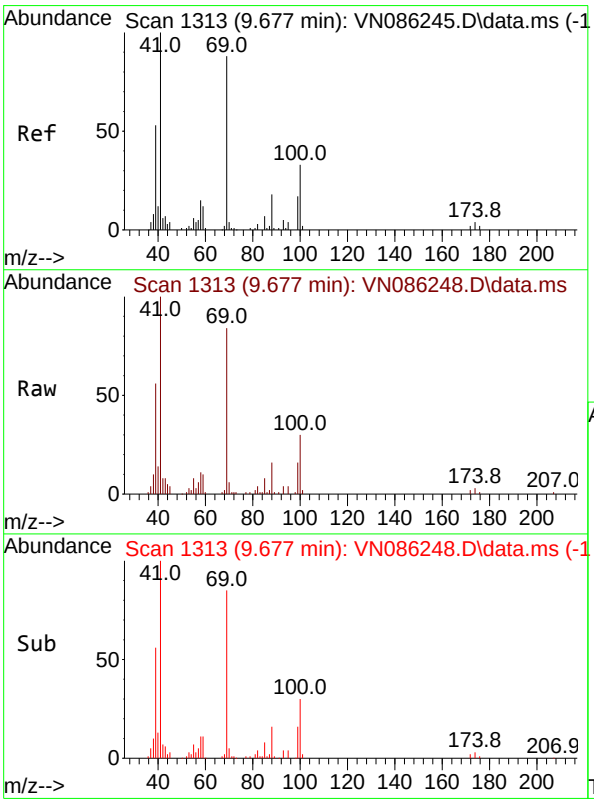
#45
1,4-Dioxane
Concen: 369.952 ug/l
RT: 9.694 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 88 Resp: 20541

Ion	Ratio	Lower	Upper
88	100		
43	32.9	14.4	21.6#
58	76.6	59.8	89.8

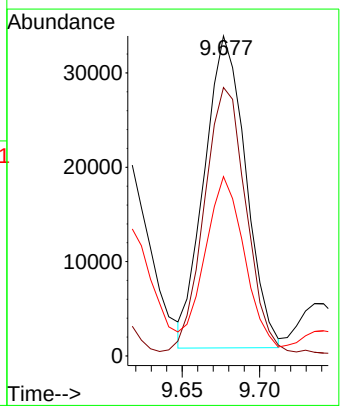


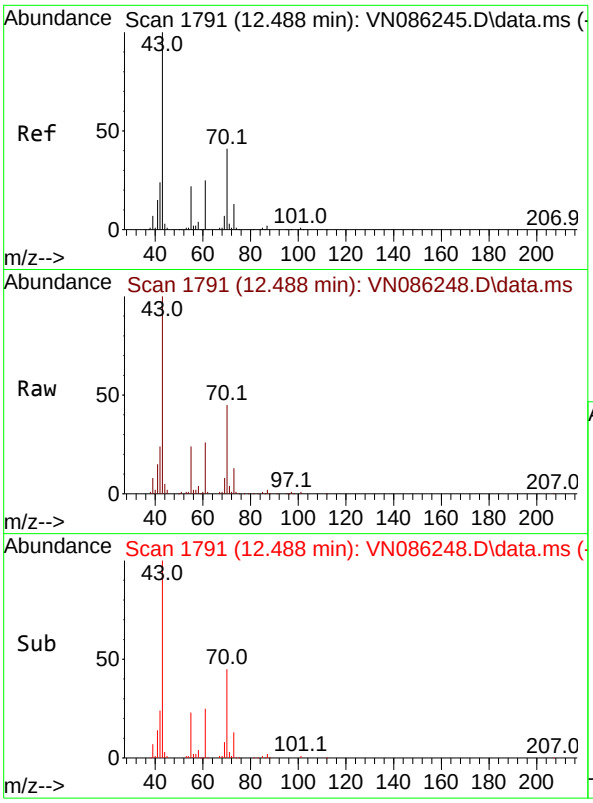


#46
Methyl methacrylate
Concen: 19.956 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 41 Resp: 61396

Ion	Ratio	Lower	Upper
41	100		
69	85.0	43.2	129.6
39	56.3	26.4	79.0



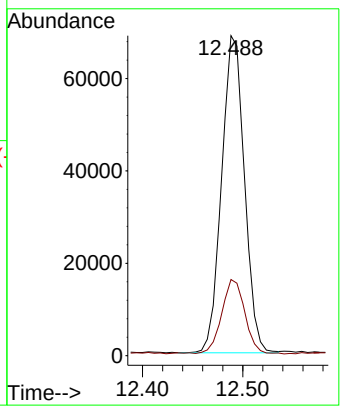


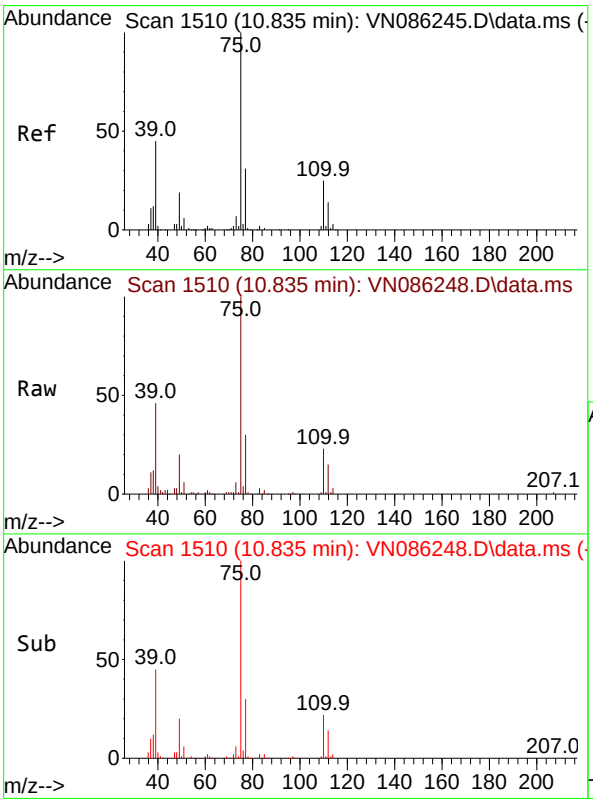
#47
n-amyl Acetate
Concen: 19.589 ug/l
RT: 12.488 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 43 Resp: 108446

Ion	Ratio	Lower	Upper
43	100		
55	23.4	19.0	28.4

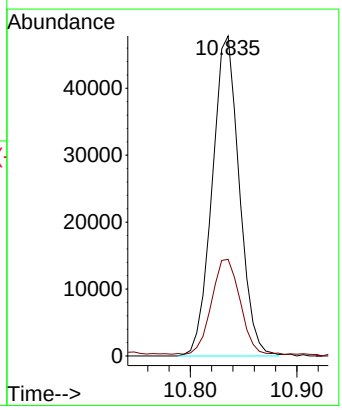


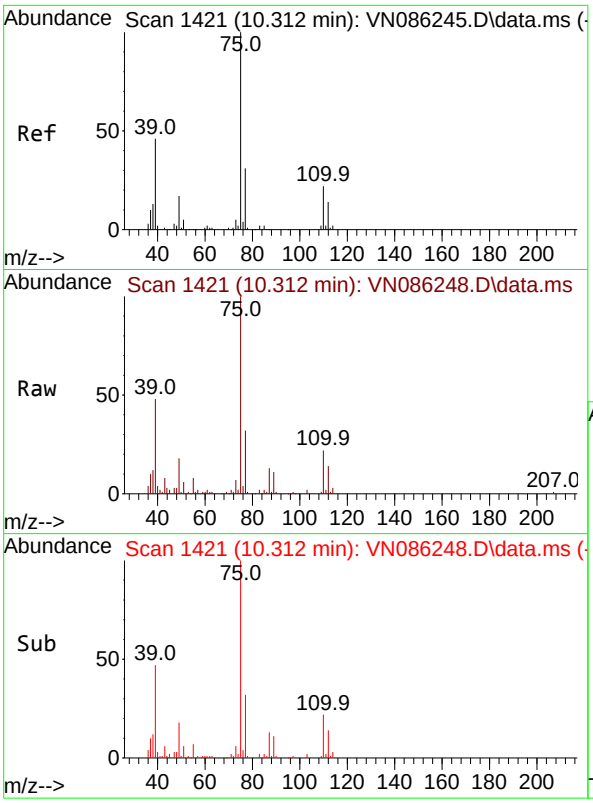


#48
t-1,3-Dichloropropene
Concen: 20.190 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 84428

Ion	Ratio	Lower	Upper
75	100		
77	29.4	25.1	37.7



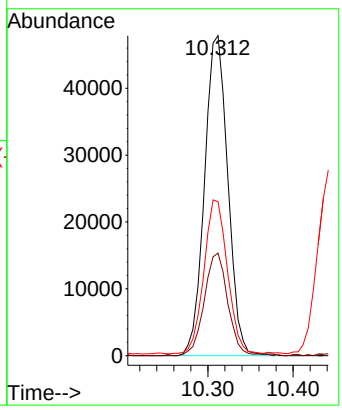


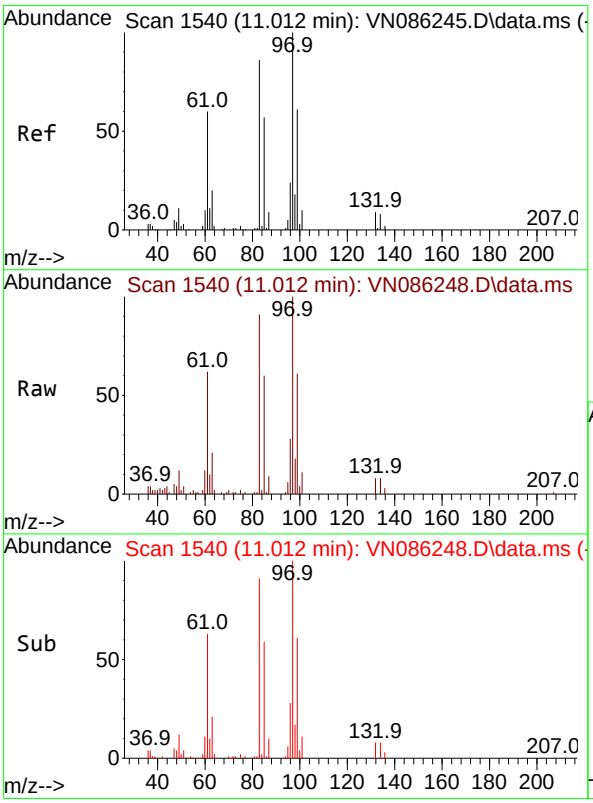
#49
cis-1,3-Dichloropropene
Concen: 20.581 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 75 Resp: 91089

Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.0	37.4
39	47.4	36.7	55.1

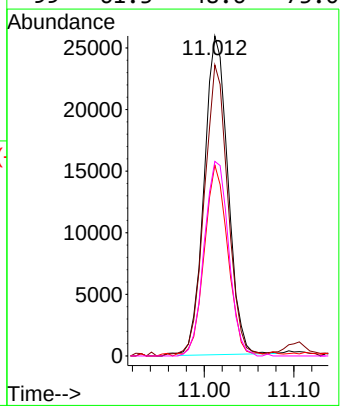


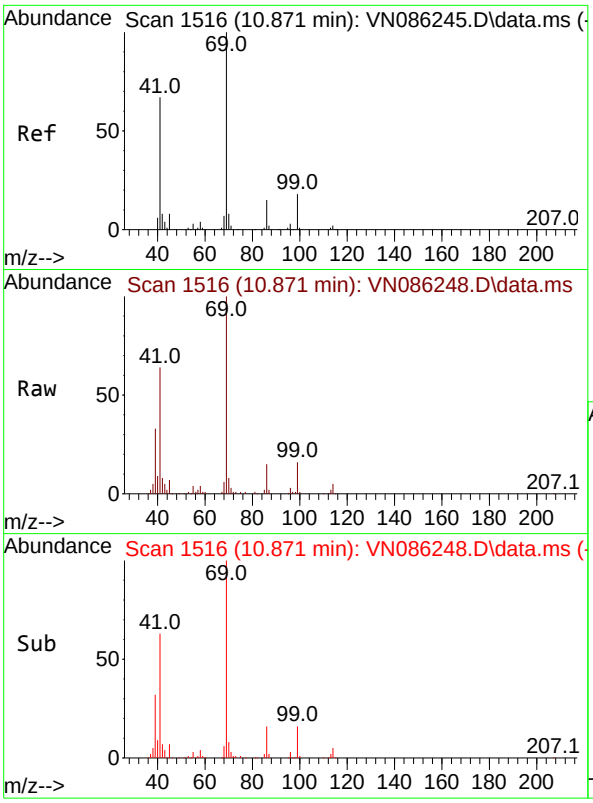


#50
1,1,2-Trichloroethane
Concen: 19.741 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 97 Resp: 47672

Ion	Ratio	Lower	Upper
97	100		
83	90.8	68.6	103.0
85	59.4	45.9	68.9
99	61.3	48.6	73.0



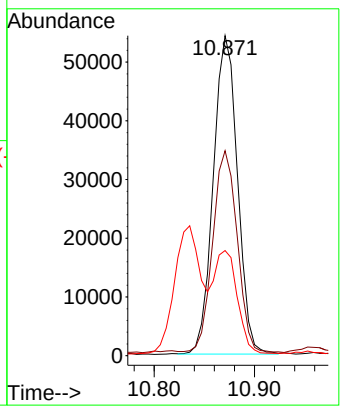


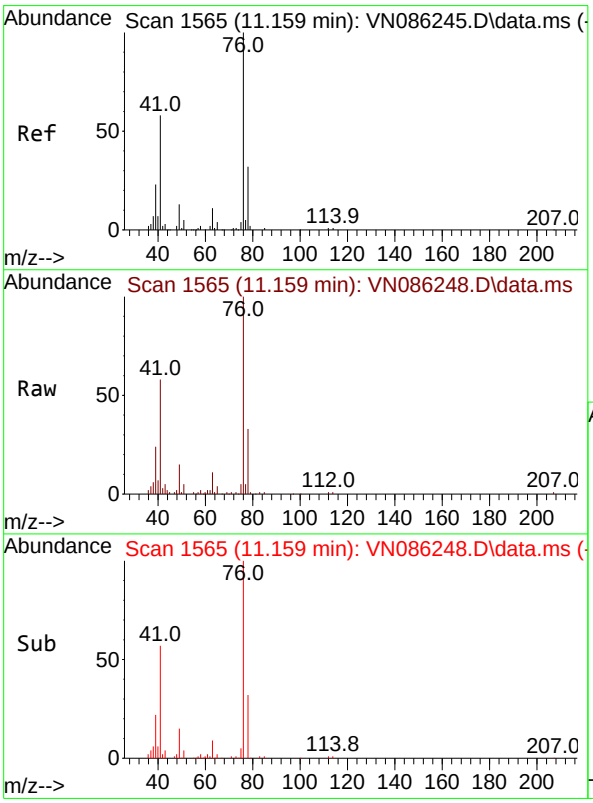
#51
Ethyl methacrylate
Concen: 20.259 ug/l
RT: 10.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 69 Resp: 90916

Ion	Ratio	Lower	Upper
69	100		
41	63.2	33.6	100.6
39	32.3	17.8	53.4

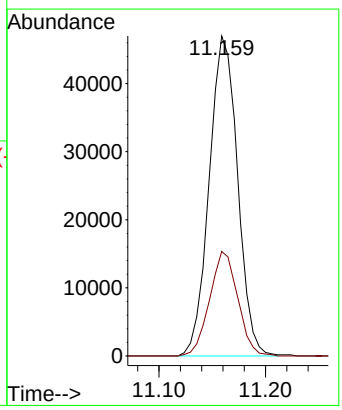


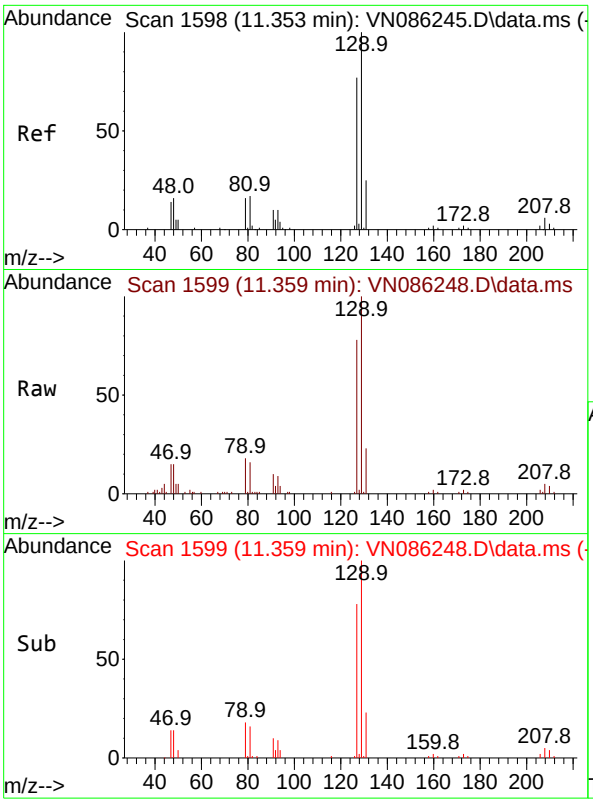


#52
1,3-Dichloropropane
Concen: 20.216 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 76 Resp: 87015

Ion	Ratio	Lower	Upper
76	100		
78	32.4	0.0	64.6



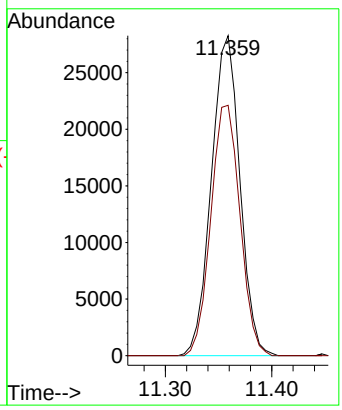


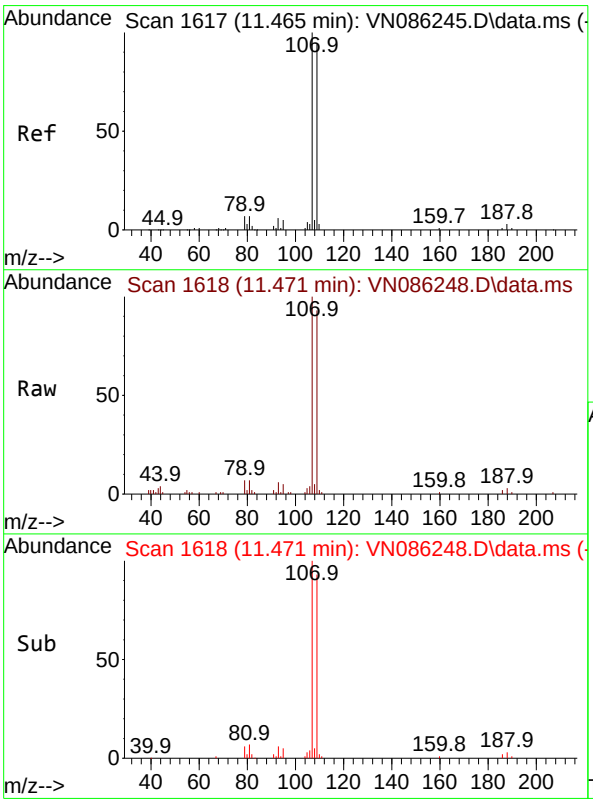
#53
Dibromochloromethane
Concen: 19.923 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:129 Resp: 52628

Ion	Ratio	Lower	Upper
129	100		
127	79.9	38.5	115.5

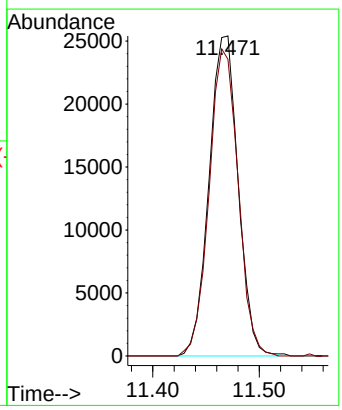


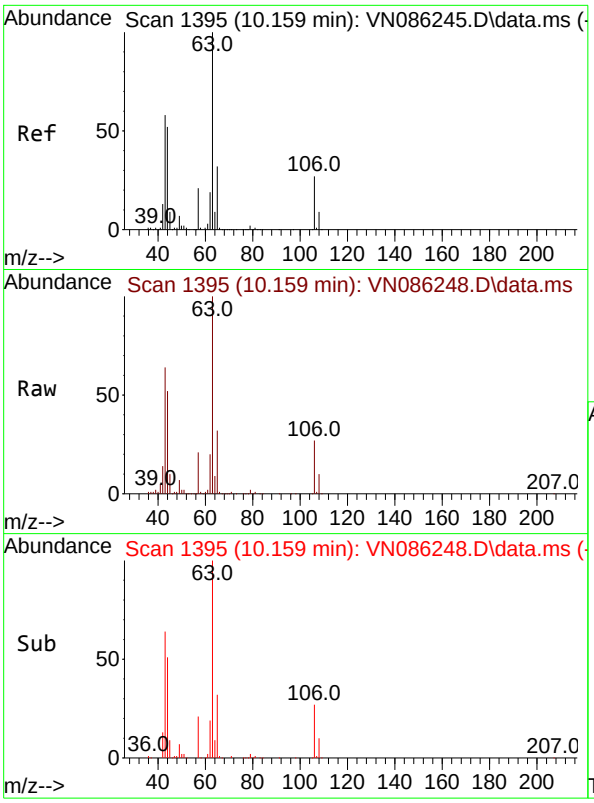


#54
1,2-Dibromoethane
Concen: 19.762 ug/l
RT: 11.471 min Scan# 1618
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:107 Resp: 48175

Ion	Ratio	Lower	Upper
107	100		
109	95.6	75.2	112.8



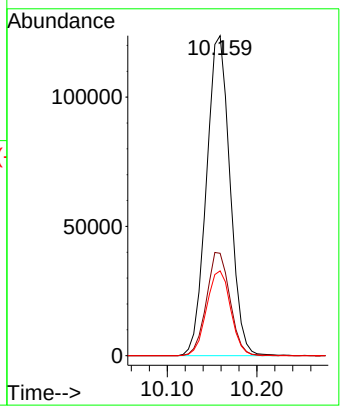


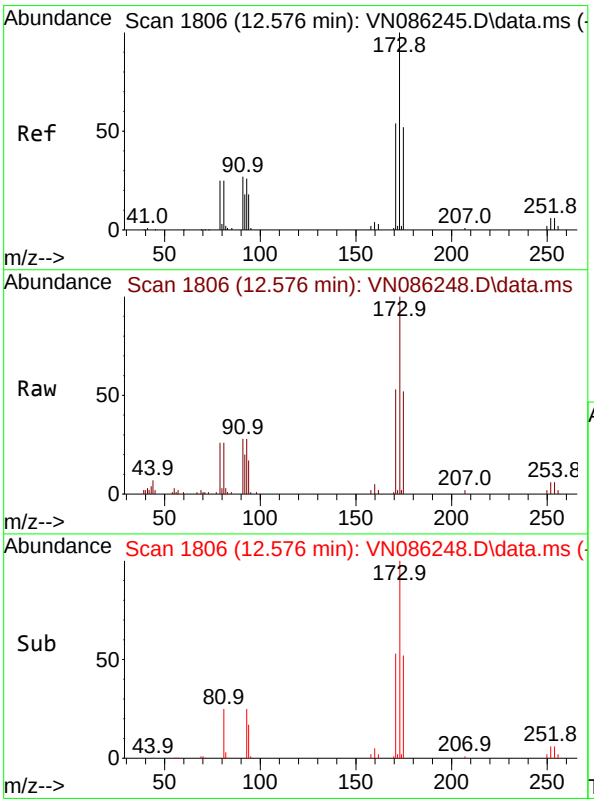
#55
2-Chloroethyl vinyl ether
Concen: 132.990 ug/l
RT: 10.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 63 Resp: 225521

Ion	Ratio	Lower	Upper
63	100		
65	32.2	25.8	38.8
106	27.0	21.8	32.8

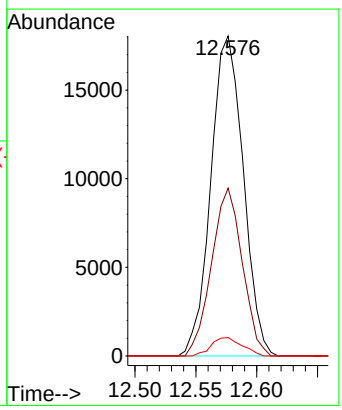


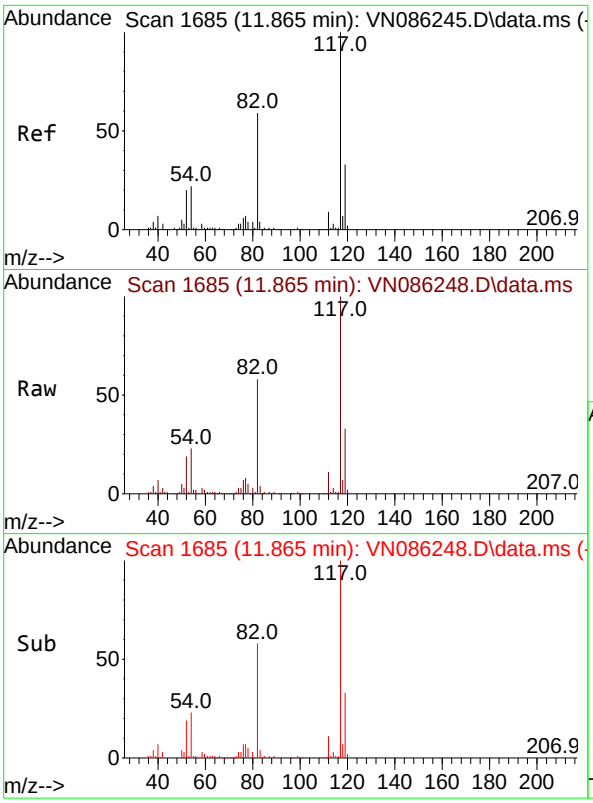


#56
Bromoform
Concen: 19.359 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:173 Resp: 33456

Ion	Ratio	Lower	Upper
173	100		
175	49.7	38.2	57.4
254	5.5	4.5	6.7



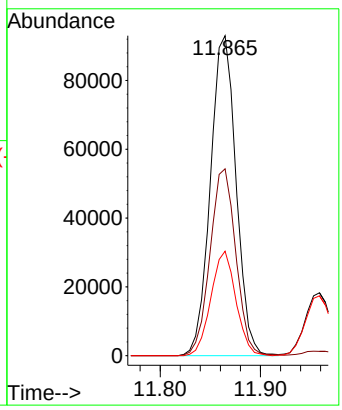


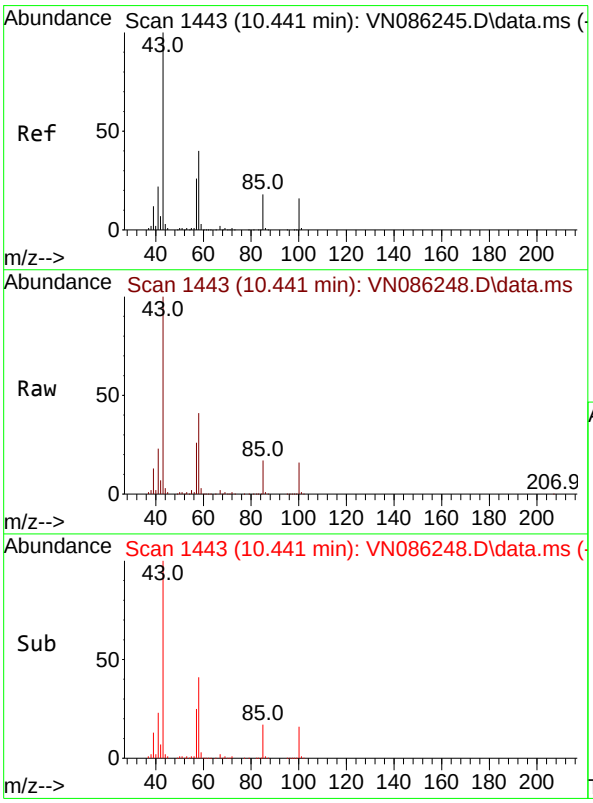
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:117 Resp: 165721

Ion	Ratio	Lower	Upper
117	100		
82	58.7	47.3	70.9
119	31.7	25.9	38.9

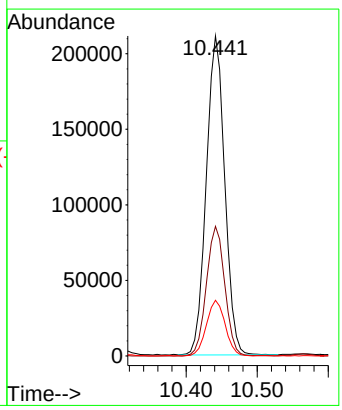


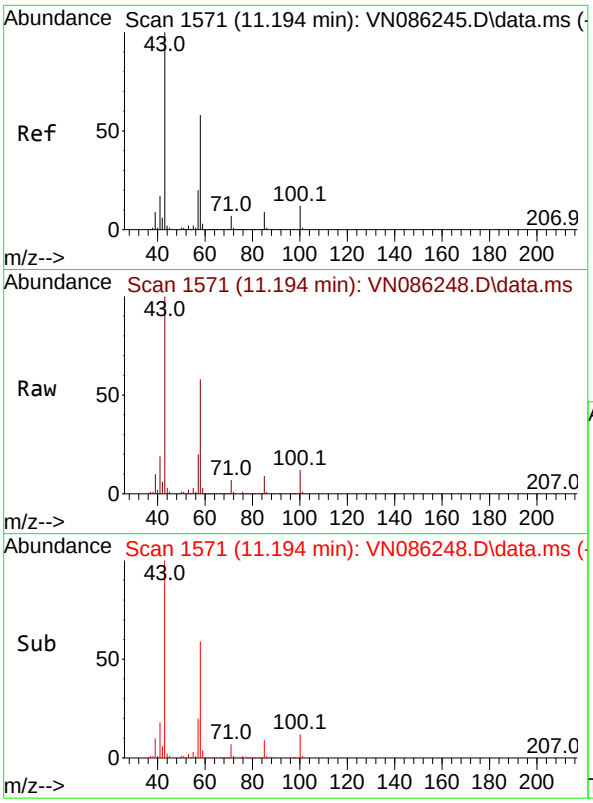


#58
4-Methyl-2-Pentanone
Concen: 101.329 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 43 Resp: 381072

Ion	Ratio	Lower	Upper
43	100		
58	40.6	32.5	48.7
85	17.8	14.4	21.6



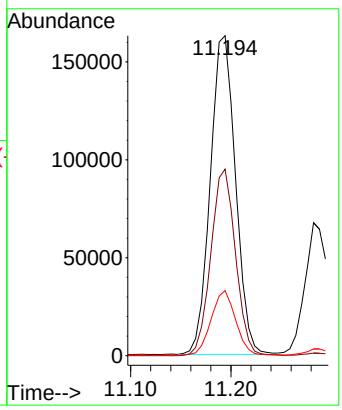


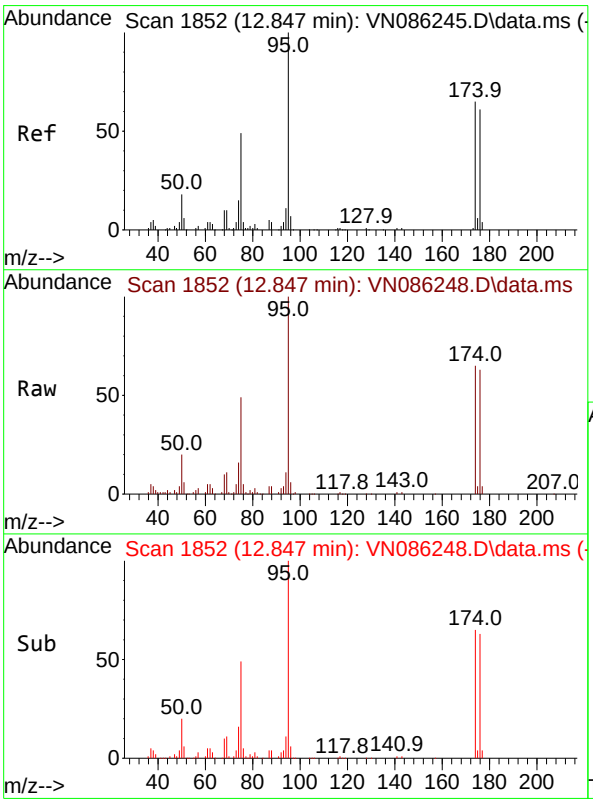
#59
2-Hexanone
Concen: 101.451 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 43 Resp: 284098

Ion	Ratio	Lower	Upper
43	100		
58	57.1	45.3	67.9
57	19.4	15.8	23.6

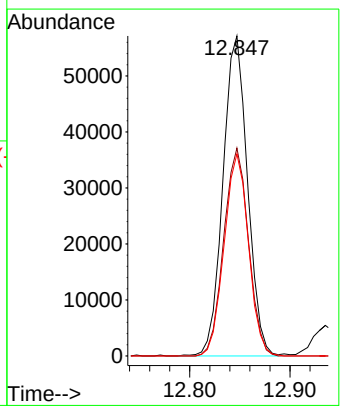


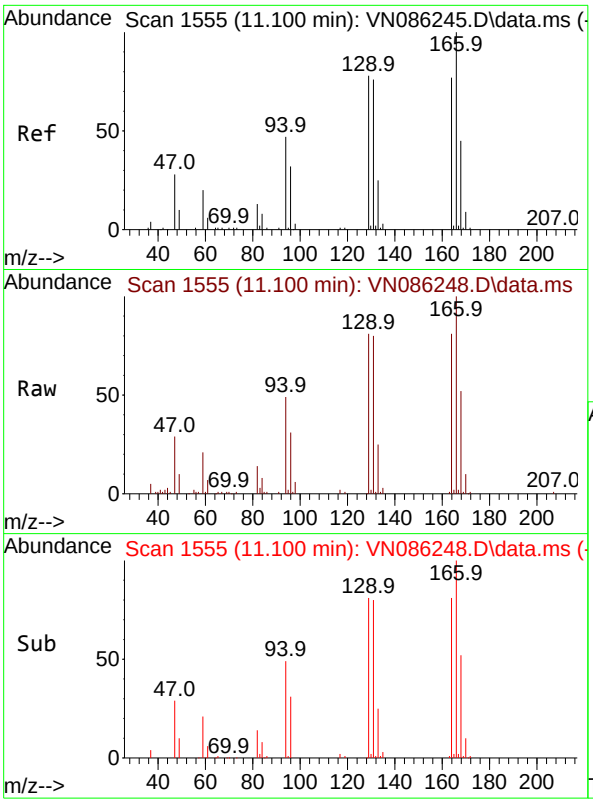


#60
4-Bromofluorobenzene
Concen: 29.482 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 95 Resp: 97275

Ion	Ratio	Lower	Upper
95	100		
174	65.2	52.7	79.1
176	62.4	49.8	74.8



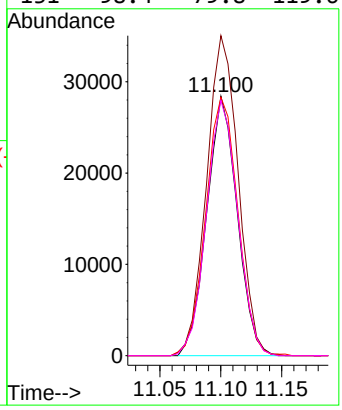


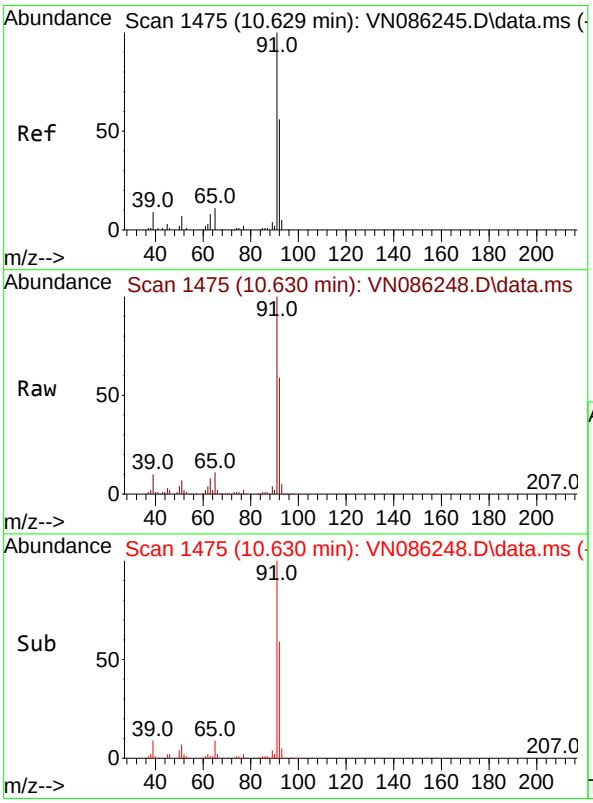
#61
Tetrachloroethene
Concen: 20.169 ug/l
RT: 11.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:164 Resp: 49360

Ion	Ratio	Lower	Upper
164	100		
166	122.8	104.5	156.7
129	99.1	81.7	122.5
131	98.4	79.8	119.6

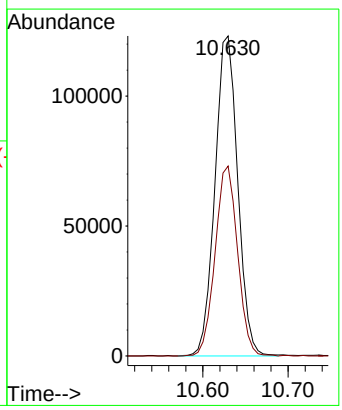


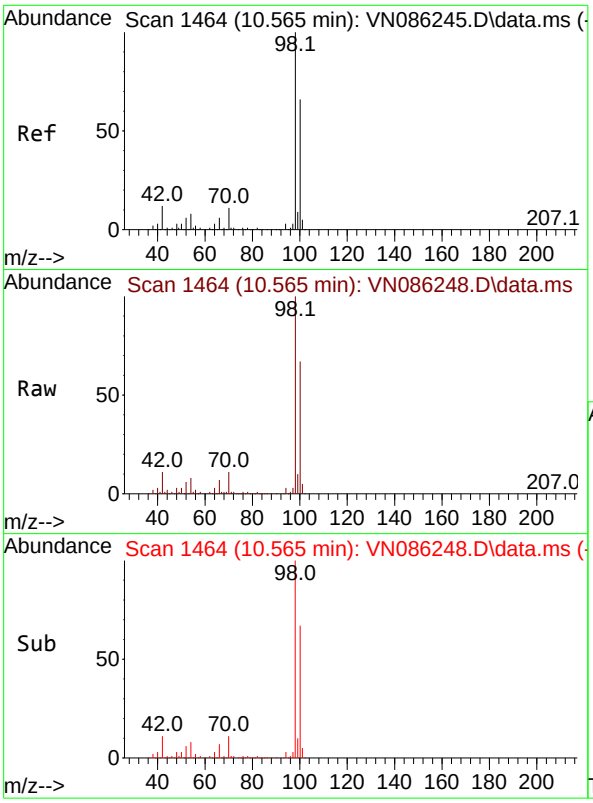


#62
Toluene
Concen: 20.568 ug/l
RT: 10.630 min Scan# 1475
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 228625

Ion	Ratio	Lower	Upper
91	100		
92	58.6	46.8	70.2



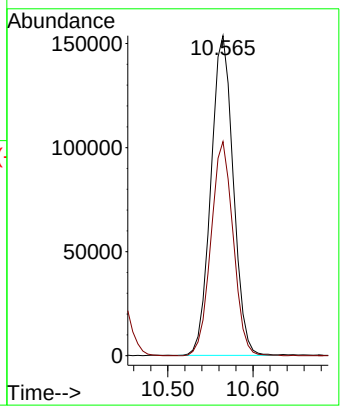


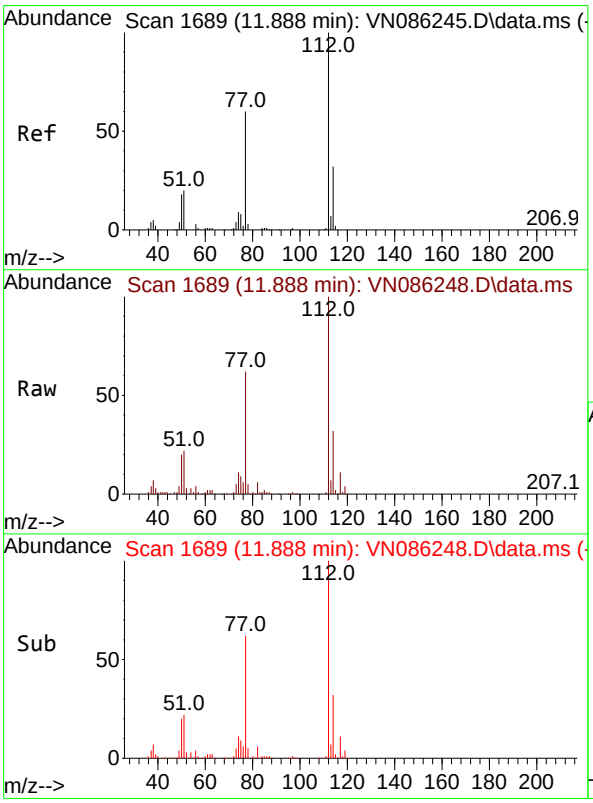
#63
Toluene-d8
Concen: 29.890 ug/l
RT: 10.565 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 98 Resp: 279650

Ion	Ratio	Lower	Upper
98	100		
100	66.6	52.3	78.5

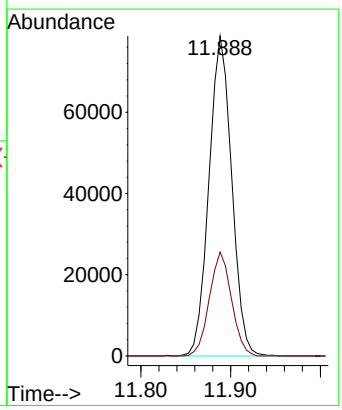


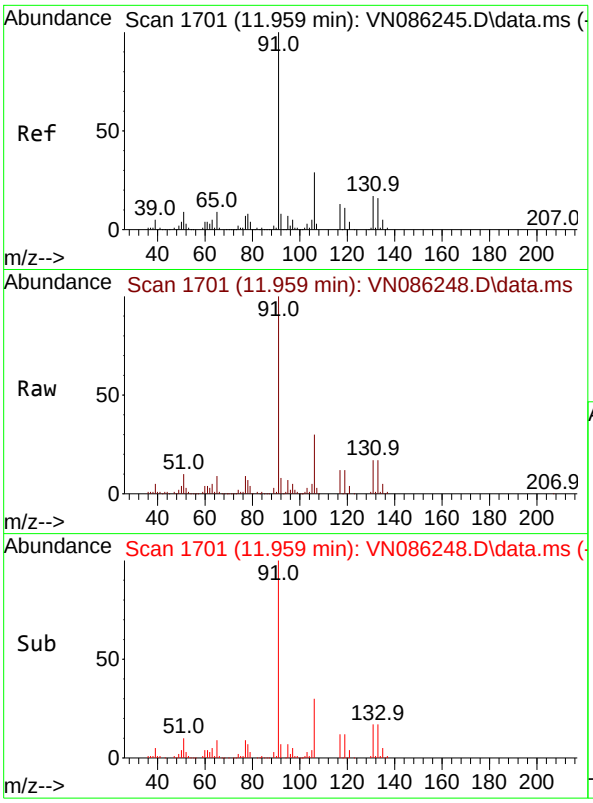


#64
Chlorobenzene
Concen: 20.424 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:112 Resp: 138700

Ion	Ratio	Lower	Upper
112	100		
114	32.5	25.8	38.6



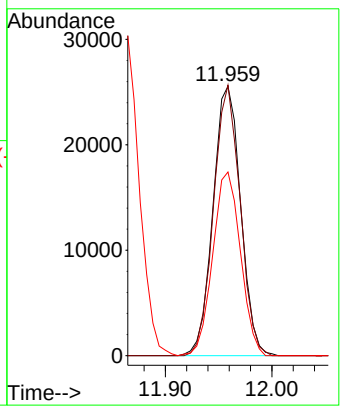


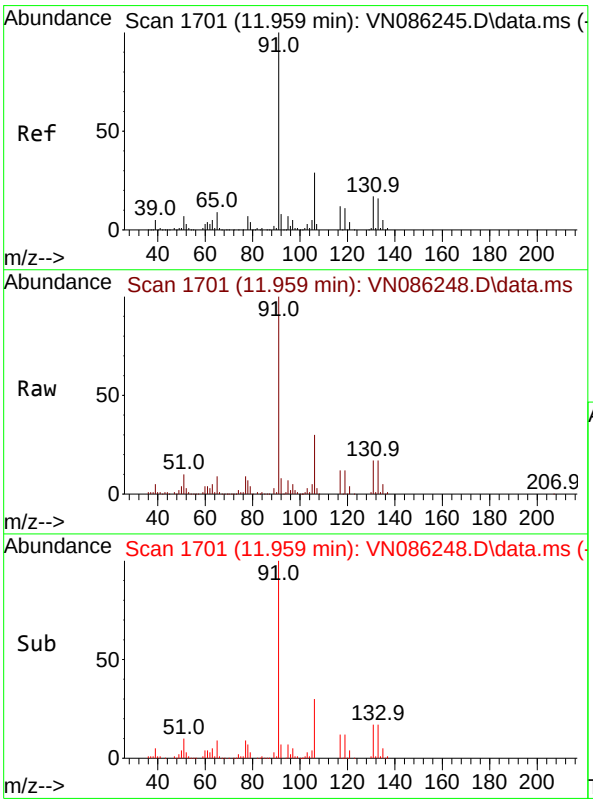
#65
1,1,1,2-Tetrachloroethane
Concen: 20.546 ug/l
RT: 11.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:131 Resp: 46048

Ion	Ratio	Lower	Upper
131	100		
133	96.3	0.0	190.4
119	68.4	0.0	135.6

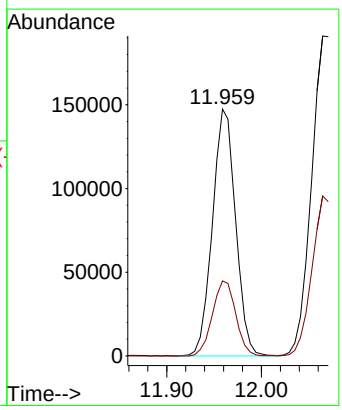


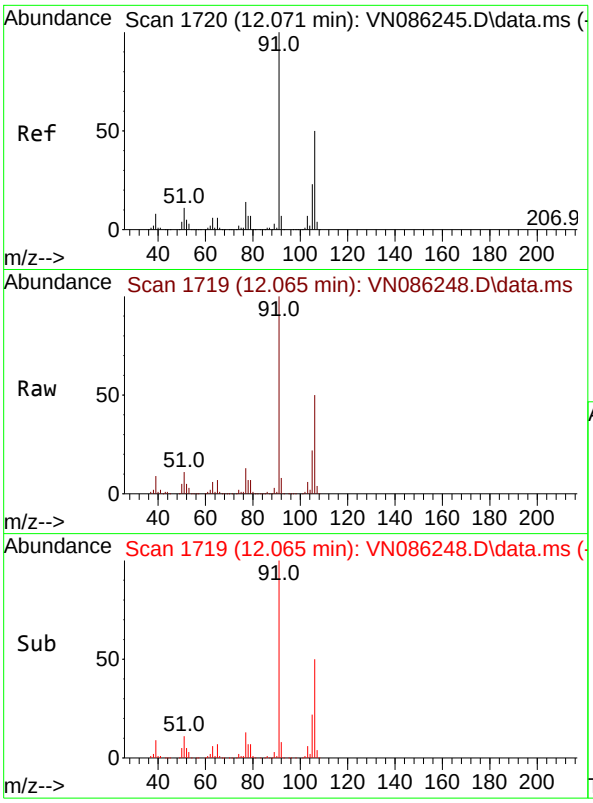


#66
Ethyl Benzene
Concen: 20.336 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 250686

Ion	Ratio	Lower	Upper
91	100		
106	30.4	23.4	35.0



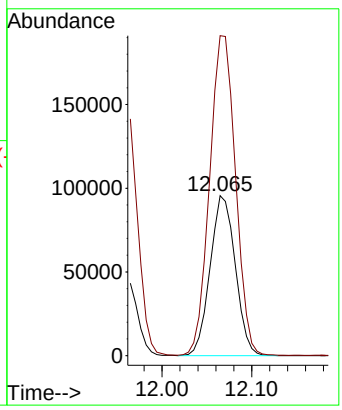


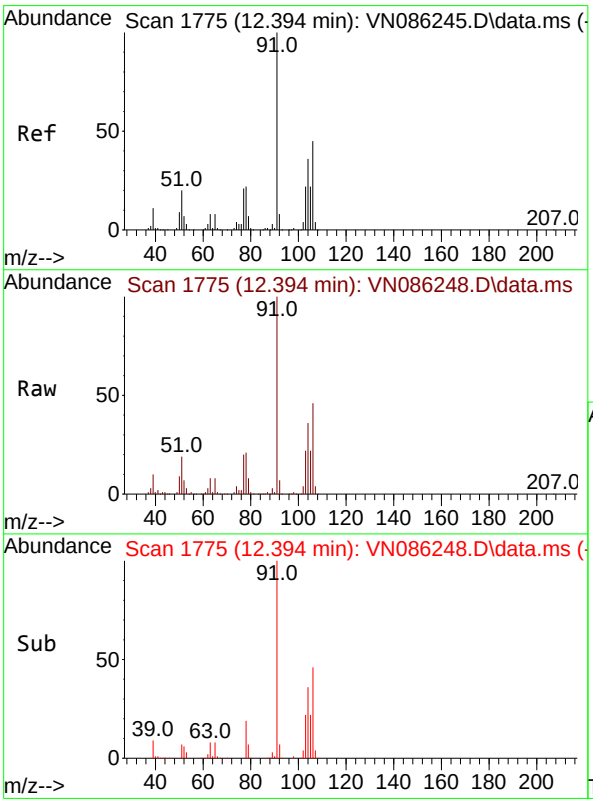
#67
m/p-Xylenes
Concen: 40.633 ug/l
RT: 12.065 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:106 Resp: 186247

Ion	Ratio	Lower	Upper
106	100		
91	205.6	164.5	246.7

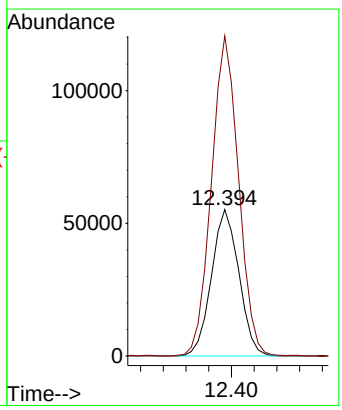


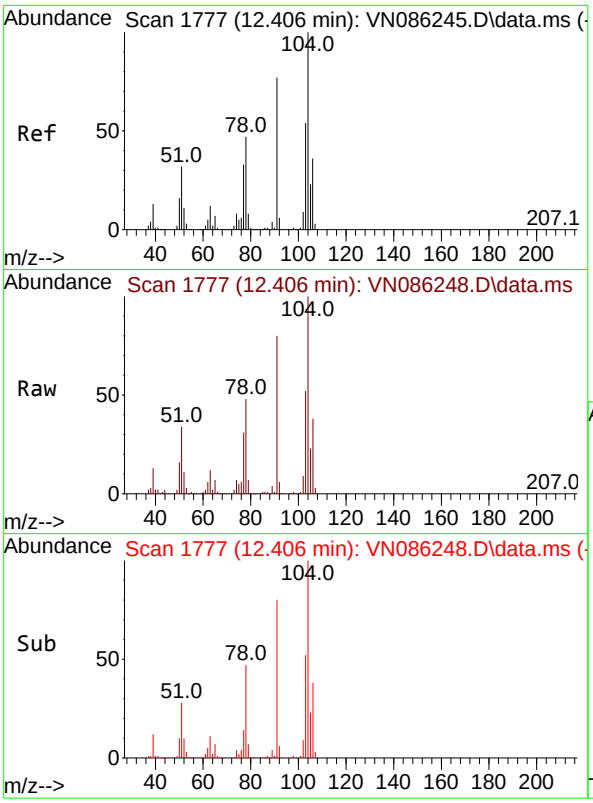


#68
o-Xylene
Concen: 20.528 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:106 Resp: 92550

Ion	Ratio	Lower	Upper
106	100		
91	216.2	109.8	329.4



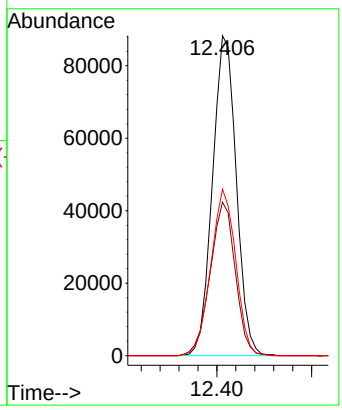


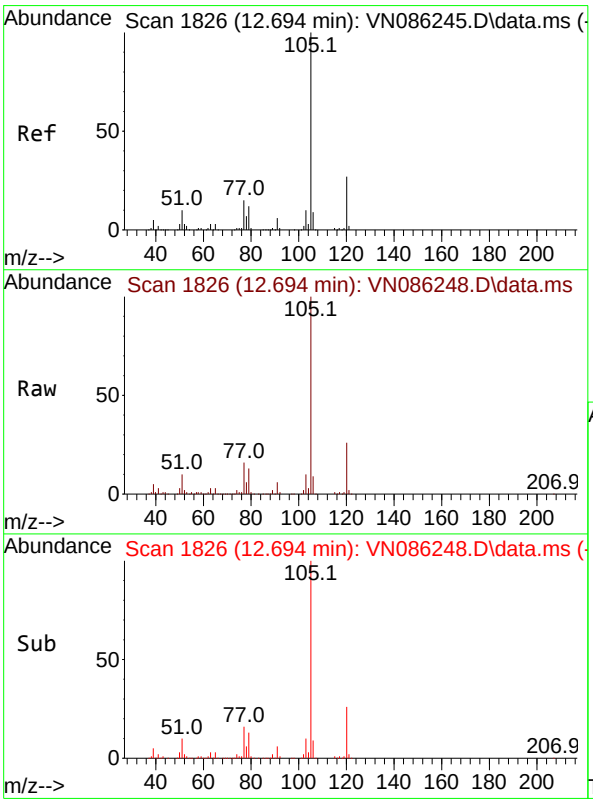
#69
Styrene
Concen: 20.281 ug/l
RT: 12.406 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:104 Resp: 154208

Ion	Ratio	Lower	Upper
104	100		
78	50.6	41.4	62.0
103	54.6	44.2	66.4

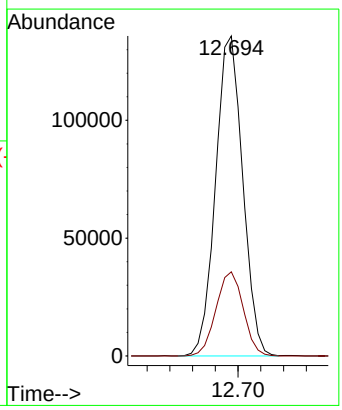


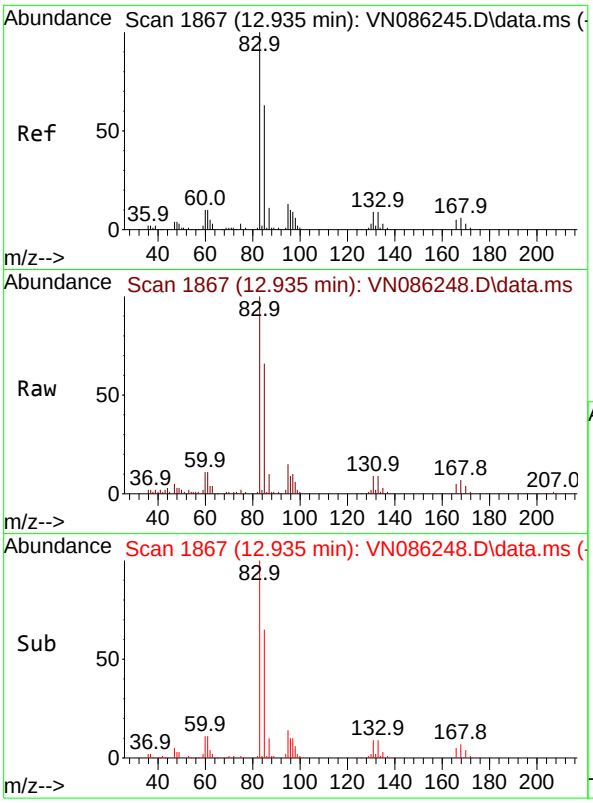


#70
Isopropylbenzene
Concen: 20.275 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 225389

Ion	Ratio	Lower	Upper
105	100		
120	26.4	18.3	34.1



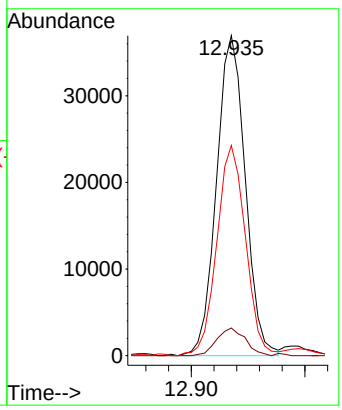


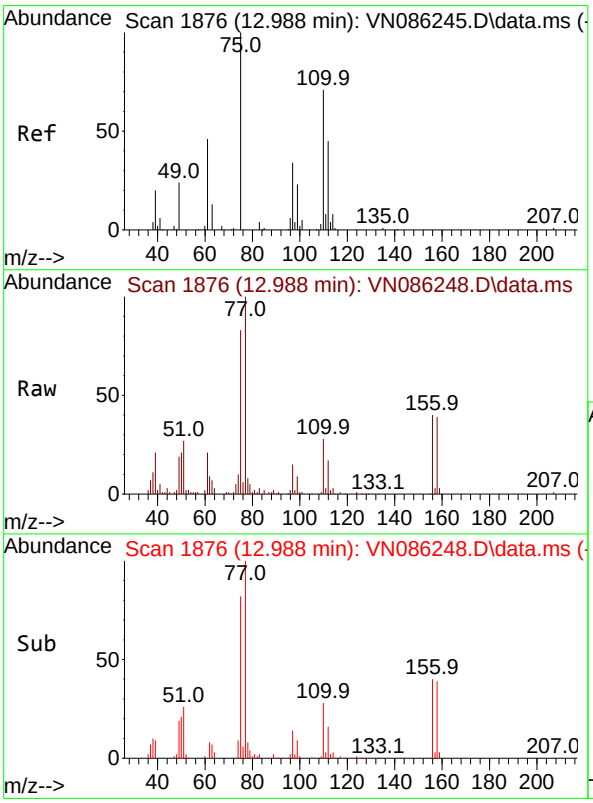
#71
1,1,2,2-Tetrachloroethane
Concen: 20.516 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 83 Resp: 64915

Ion	Ratio	Lower	Upper
83	100		
131	8.6	4.8	14.3
85	65.4	32.3	96.8

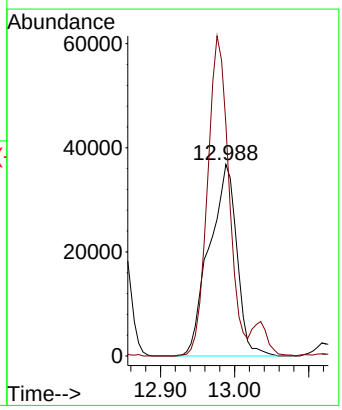


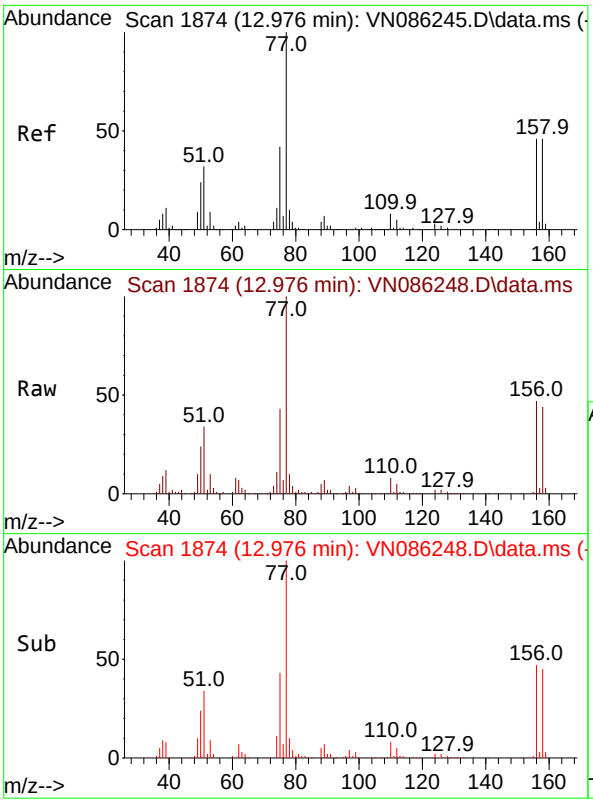


#72
1,2,3-Trichloropropane
Concen: 28.885 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 95136

Ion	Ratio	Lower	Upper
75	100		
77	129.4	0.0	380.0



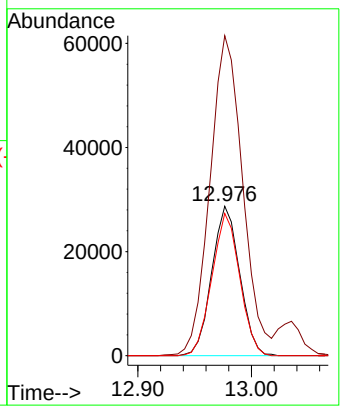


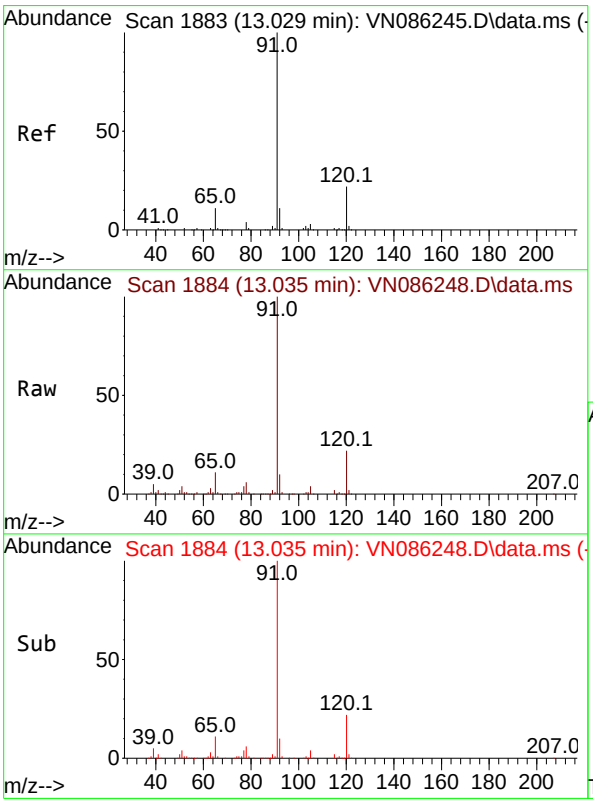
#73
Bromobenzene
Concen: 19.870 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:156 Resp: 48932

Ion	Ratio	Lower	Upper
156	100		
77	251.7	0.0	505.2
158	95.0	0.0	195.0

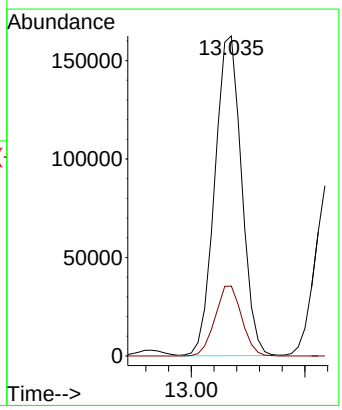


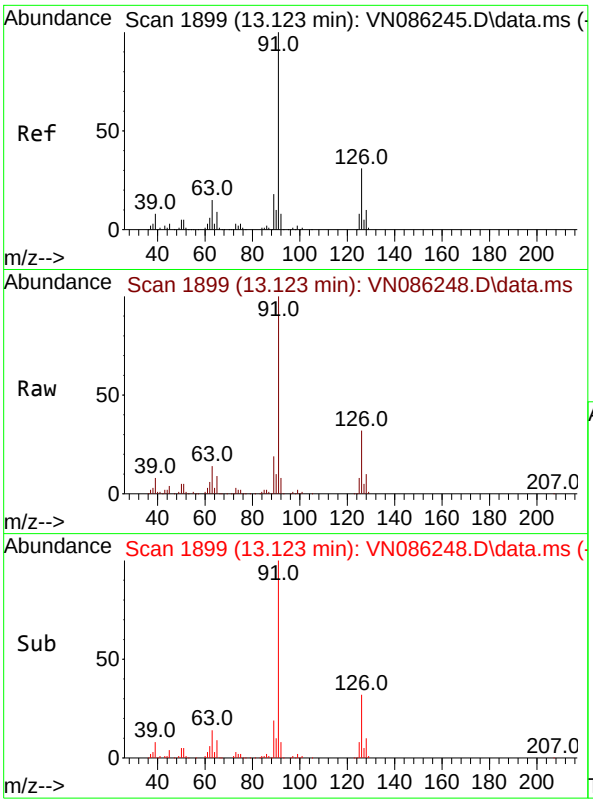


#74
n-propylbenzene
Concen: 20.227 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 265507

Ion	Ratio	Lower	Upper
91	100		
120	21.8	0.0	44.0



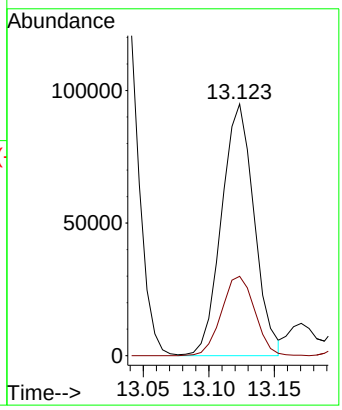


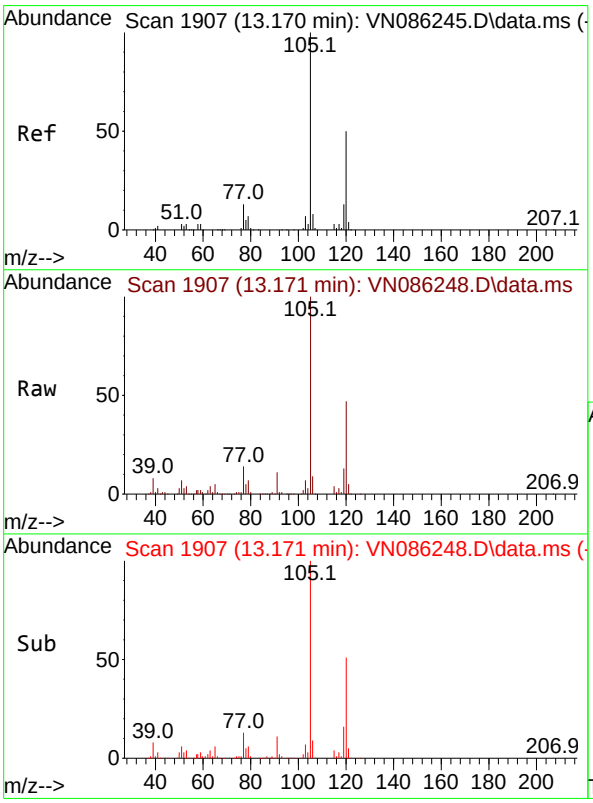
#75
2-Chlorotoluene
Concen: 19.943 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 91 Resp: 164538

Ion	Ratio	Lower	Upper
91	100		
126	32.1	0.0	63.4

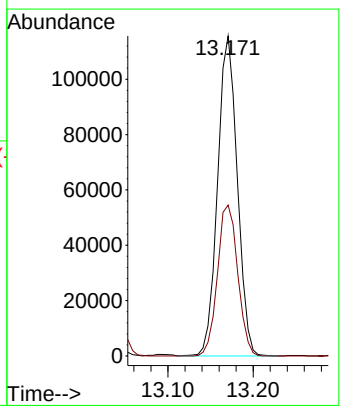


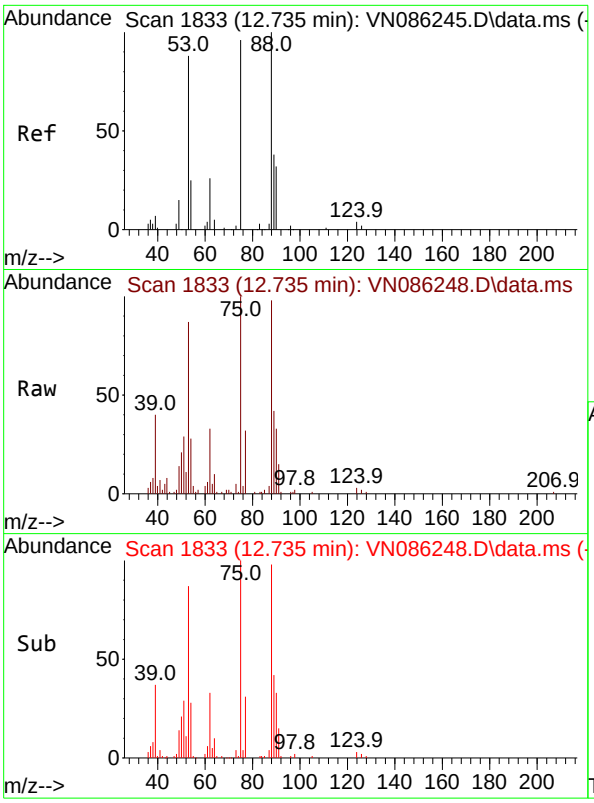


#76
1,3,5-Trimethylbenzene
Concen: 20.354 ug/l
RT: 13.171 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 185869

Ion	Ratio	Lower	Upper
105	100		
120	48.5	0.0	98.0



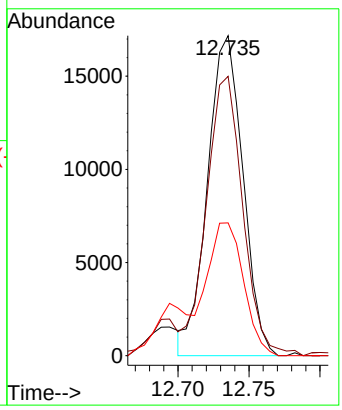


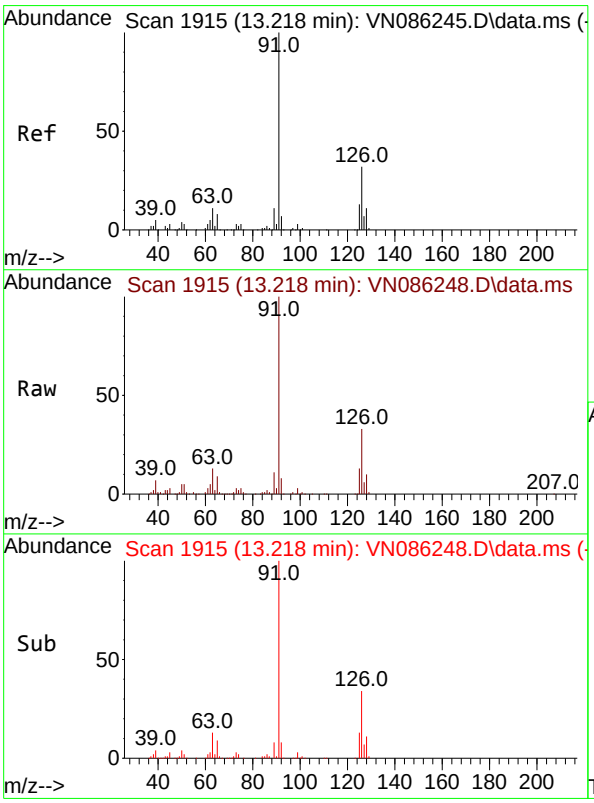
#77
t-1,4-Dichloro-2-butene
Concen: 19.590 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 75 Resp: 29750

Ion	Ratio	Lower	Upper
75	100		
53	85.0	46.4	139.2
89	41.5	22.5	67.5

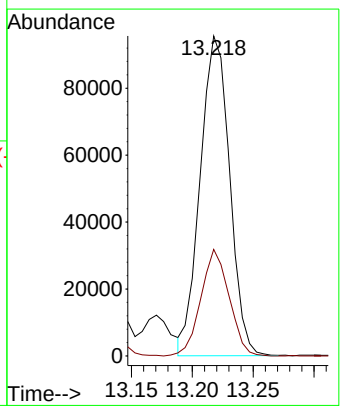


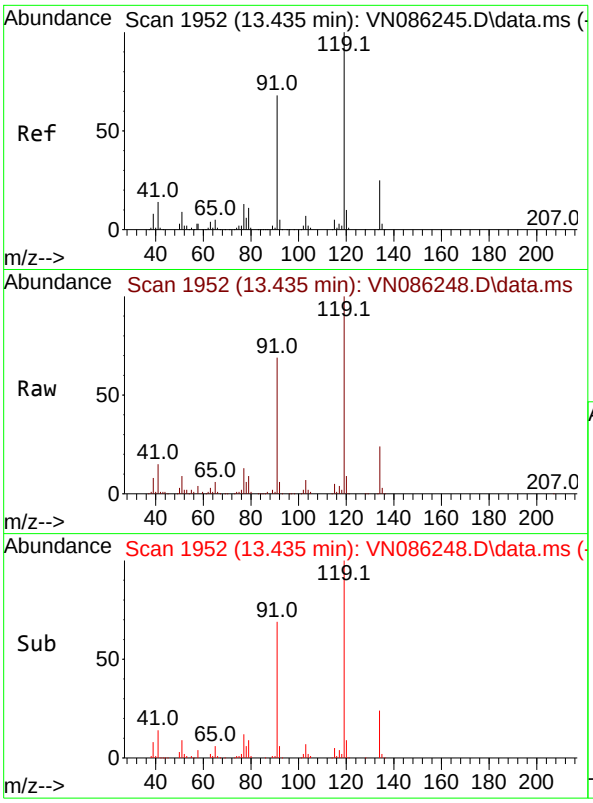


#78
4-Chlorotoluene
Concen: 19.528 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 91 Resp: 160908

Ion	Ratio	Lower	Upper
91	100		
126	31.9	0.0	63.2



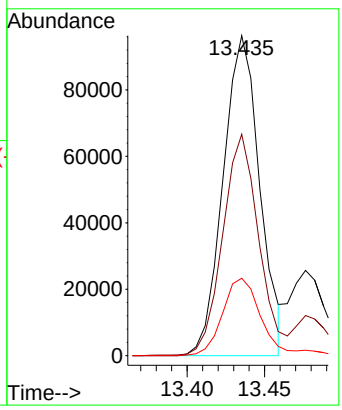


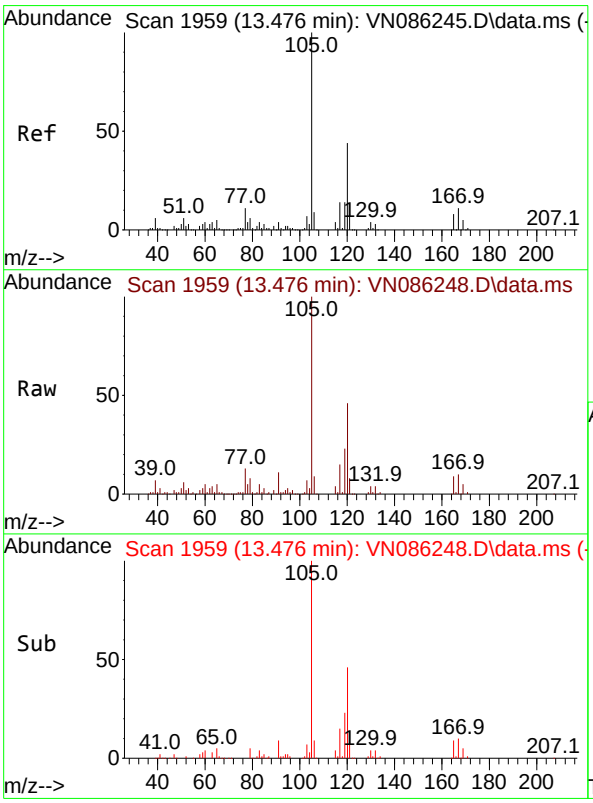
#79
tert-butylbenzene
Concen: 20.021 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:119 Resp: 158200

Ion	Ratio	Lower	Upper
119	100		
91	68.6	0.0	136.6
134	24.9	0.0	49.4

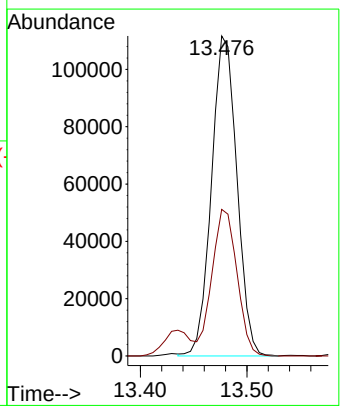


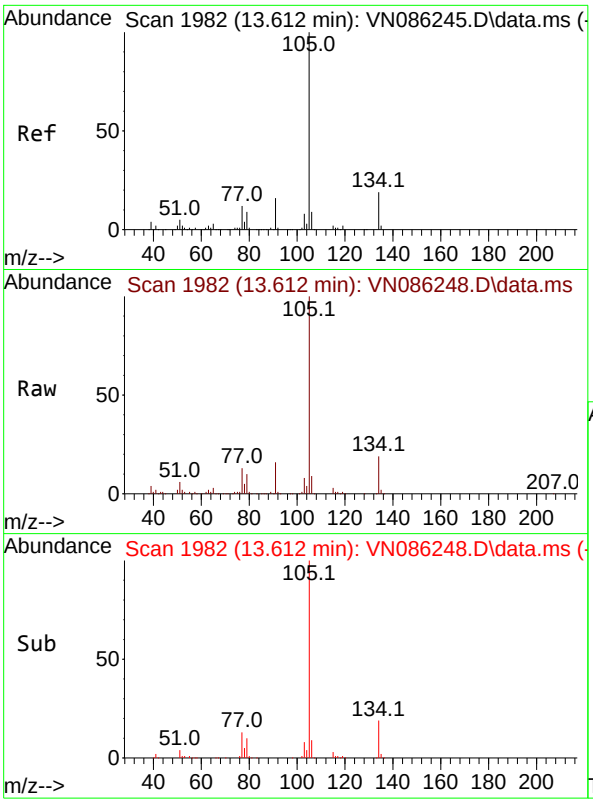


#80
1,2,4-Trimethylbenzene
Concen: 19.981 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:105 Resp: 185022

Ion	Ratio	Lower	Upper
105	100		
120	44.9	0.0	91.0



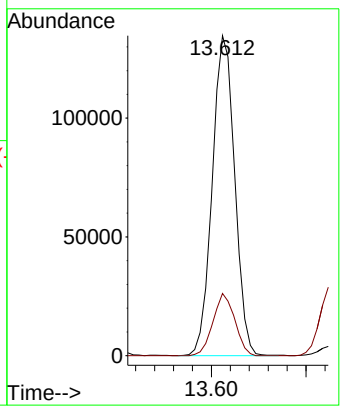


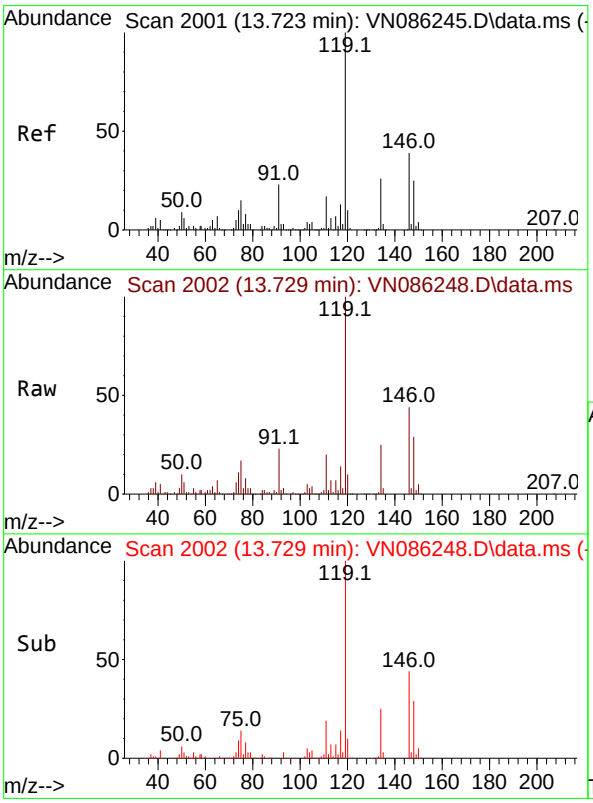
#81
sec-Butylbenzene
Concen: 20.145 ug/l
RT: 13.612 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:105 Resp: 222043

Ion	Ratio	Lower	Upper
105	100		
134	18.9	0.0	38.6

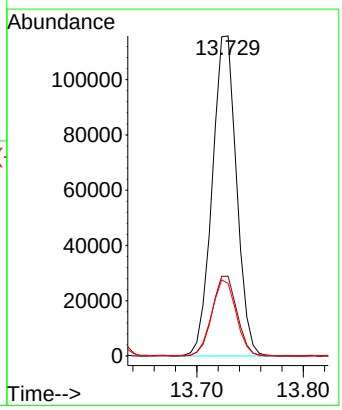


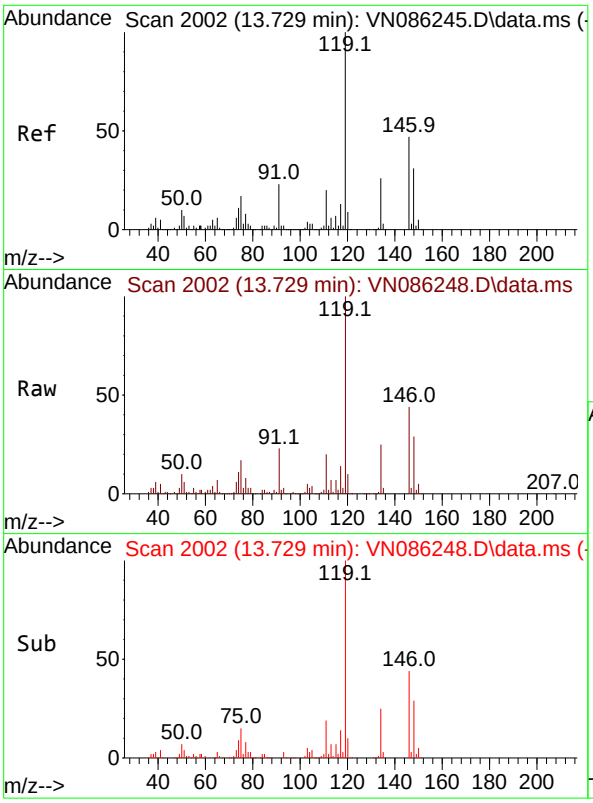


#82
p-Isopropyltoluene
Concen: 19.959 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:119 Resp: 183515

Ion	Ratio	Lower	Upper
119	100		
134	25.4	0.0	51.6
91	24.1	0.0	48.2



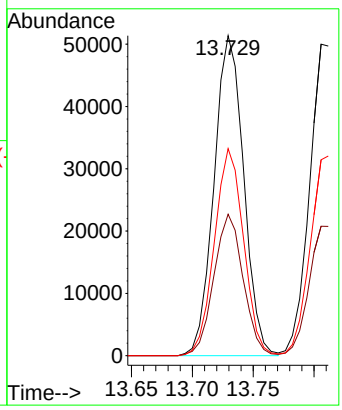


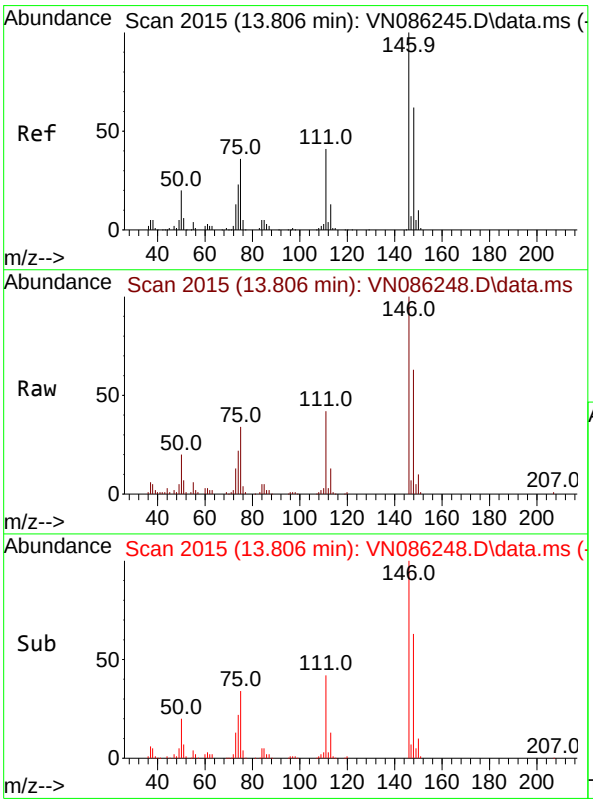
#83
1,3-Dichlorobenzene
Concen: 19.047 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:146 Resp: 87179

Ion	Ratio	Lower	Upper
146	100		
111	43.7	21.7	65.1
148	63.7	32.3	96.8

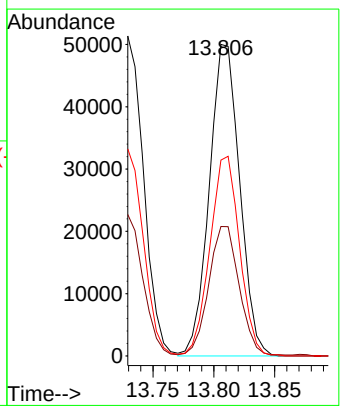


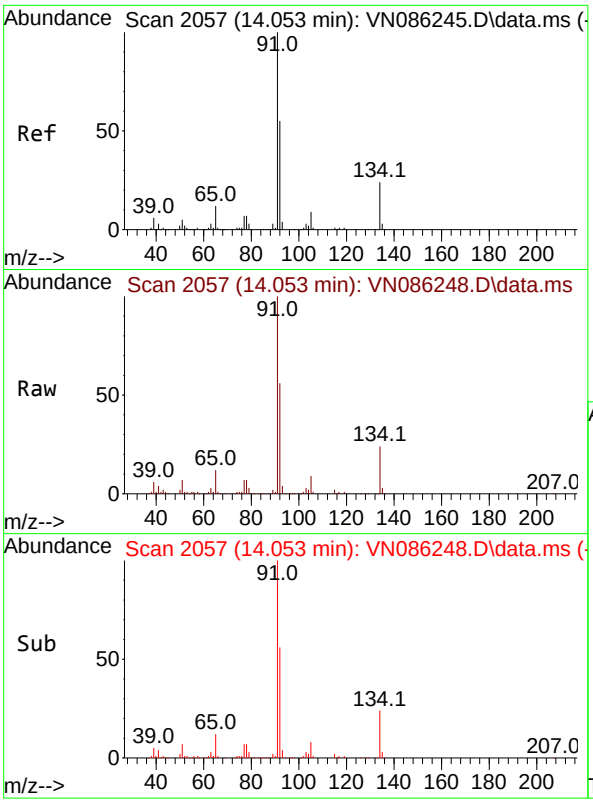


#84
1,4-Dichlorobenzene
Concen: 18.923 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:146 Resp: 86888

Ion	Ratio	Lower	Upper
146	100		
111	41.7	20.8	62.4
148	62.7	31.9	95.5



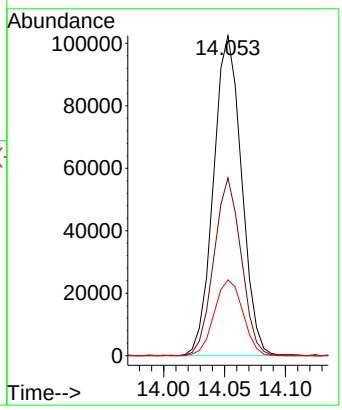


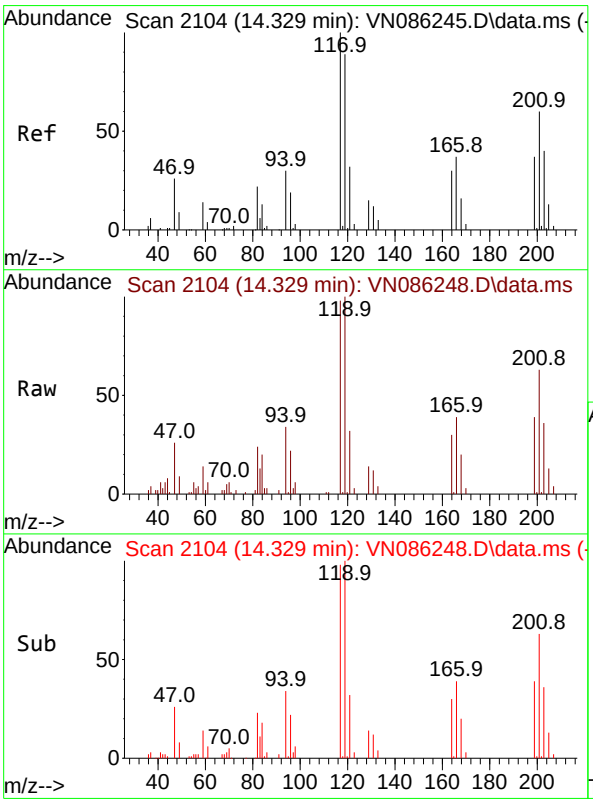
#85
n-Butylbenzene
Concen: 19.828 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion: 91 Resp: 164471

Ion	Ratio	Lower	Upper
91	100		
92	53.9	0.0	109.4
134	24.1	0.0	48.2

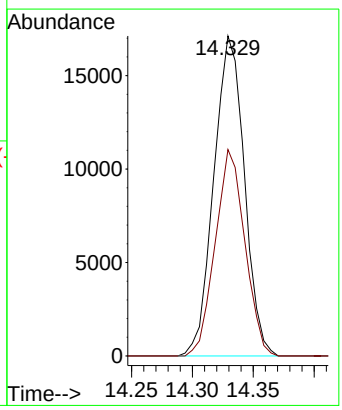


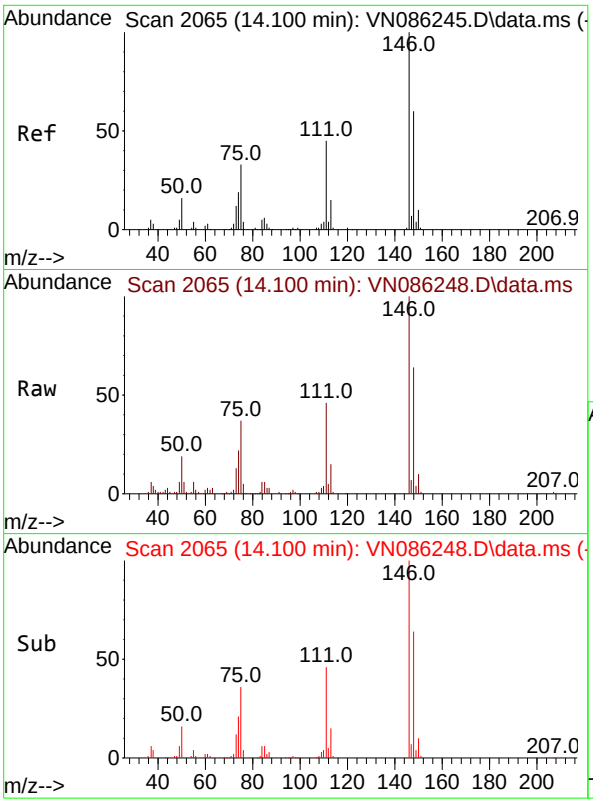


#86
Hexachloroethane
Concen: 19.245 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:117 Resp: 29849

Ion	Ratio	Lower	Upper
117	100		
201	62.7	30.9	92.8



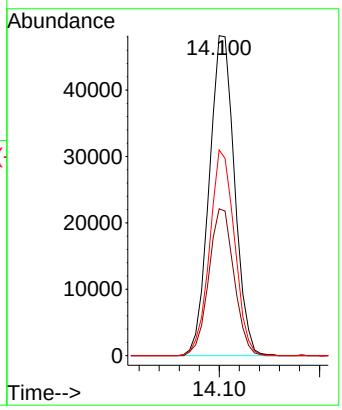


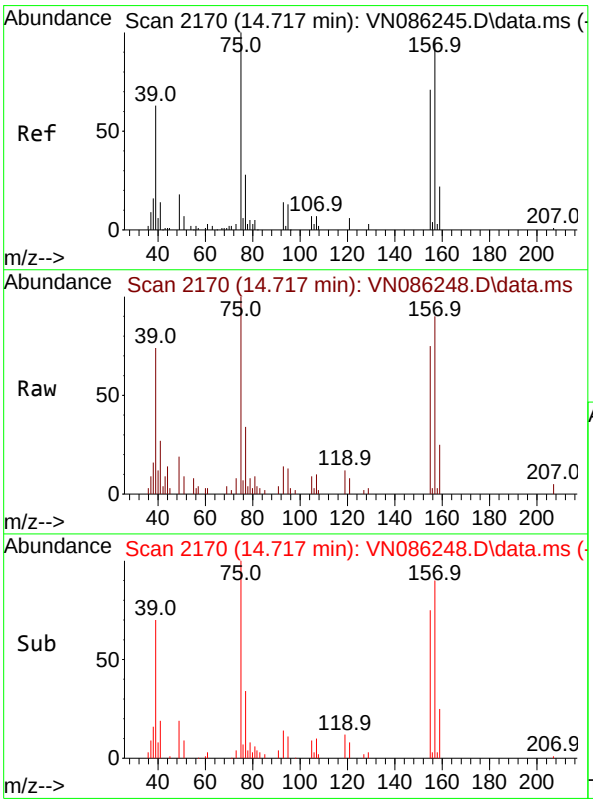
#87
1,2-Dichlorobenzene
Concen: 18.727 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:146 Resp: 84631

Ion	Ratio	Lower	Upper
146	100		
111	45.8	22.7	68.0
148	63.1	31.8	95.3

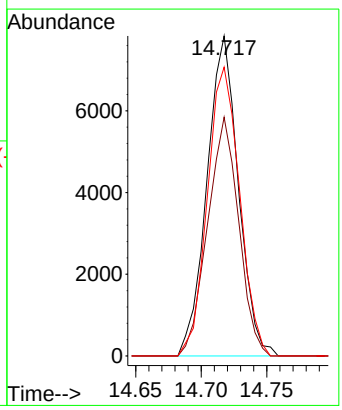


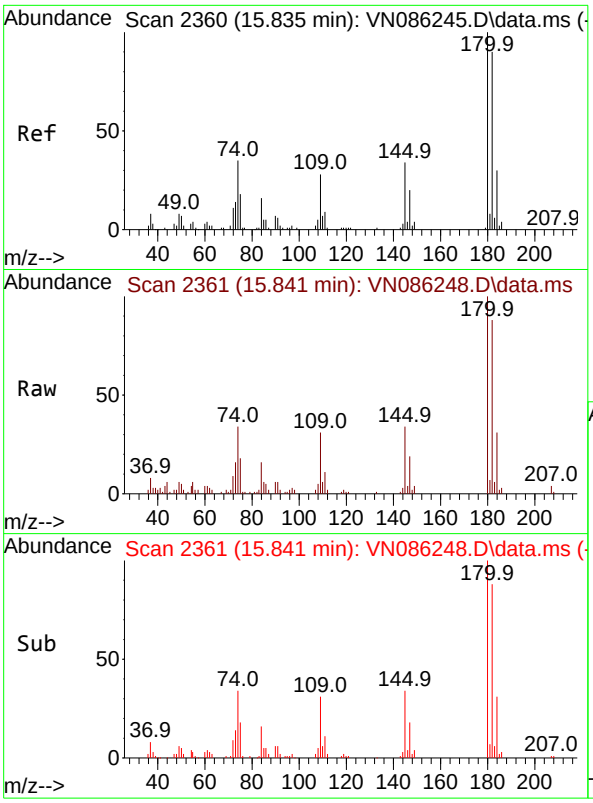


#88
1,2-Dibromo-3-Chloropropane
Concen: 18.109 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion: 75 Resp: 13051

Ion	Ratio	Lower	Upper
75	100		
155	73.8	60.3	90.5
157	92.5	79.0	118.4



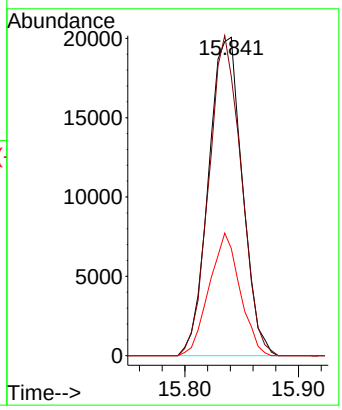


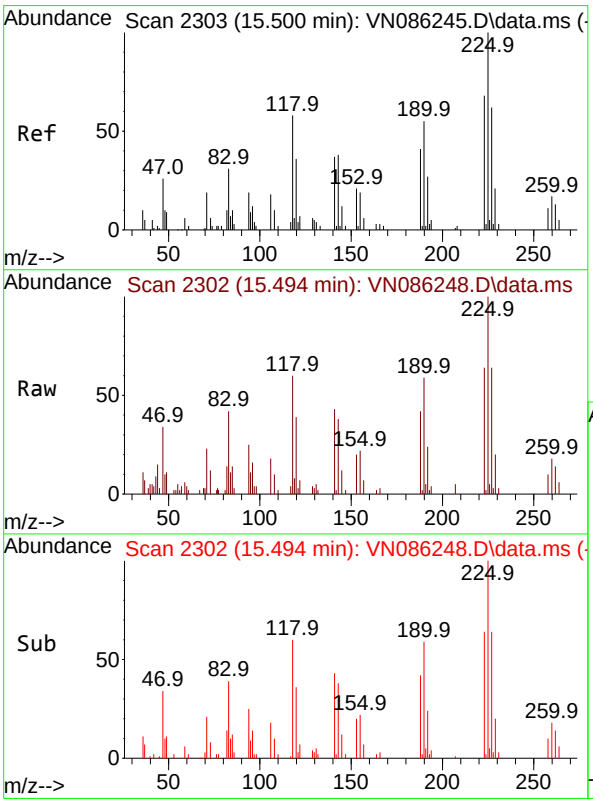
#89
1,2,4-Trichlorobenzene
Concen: 18.826 ug/l
RT: 15.841 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:180 Resp: 41396

Ion	Ratio	Lower	Upper
180	100		
182	96.3	75.1	112.7
145	35.2	27.1	40.7

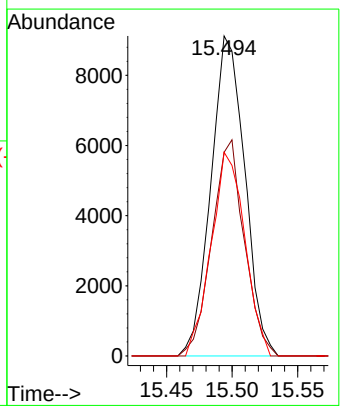


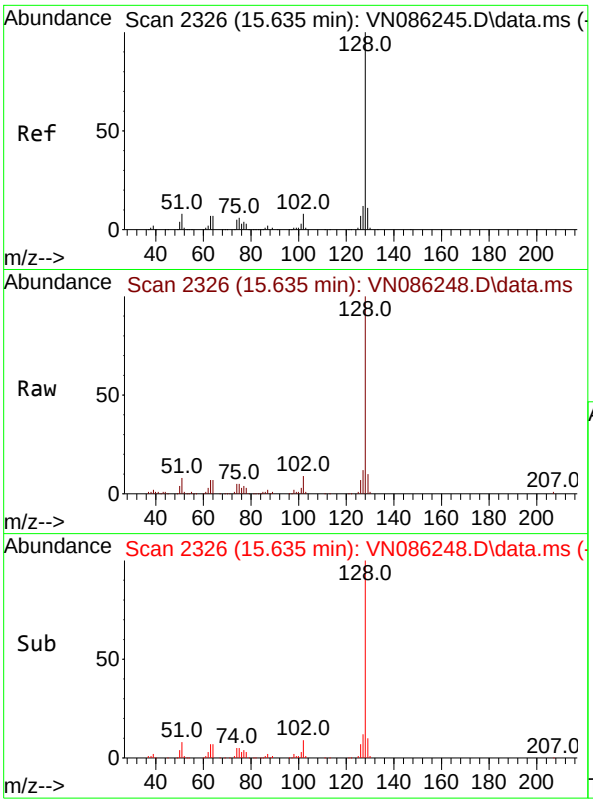


#90
Hexachlorobutadiene
Concen: 17.262 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:225 Resp: 16389

Ion	Ratio	Lower	Upper
225	100		
223	64.7	0.0	130.0
227	63.3	0.0	123.2



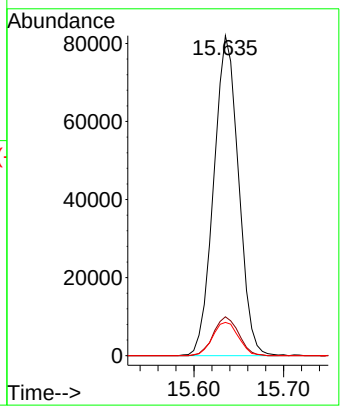


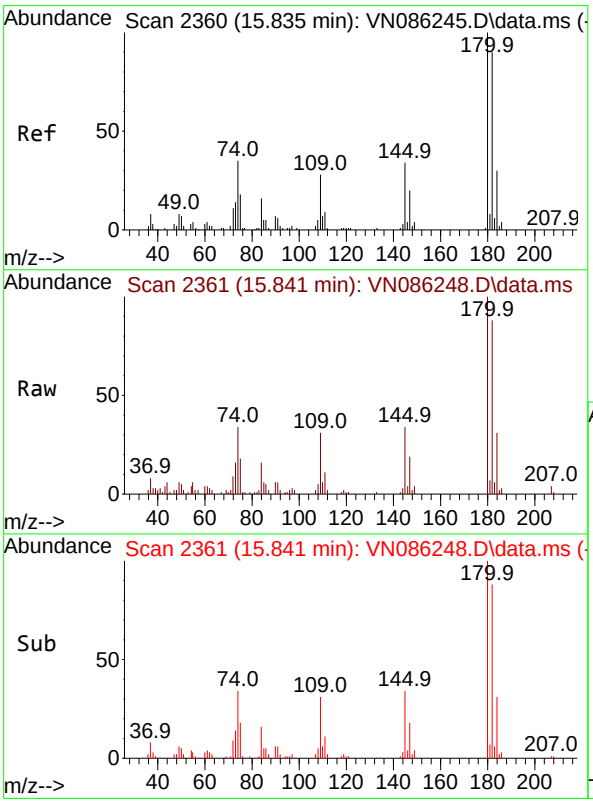
#91
Naphthalene
Concen: 18.155 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Instrument :
MSVOA_N
ClientSampleId :
ICVVN041125

Tgt Ion:128 Resp: 157404

Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.2
129	10.9	8.8	13.2

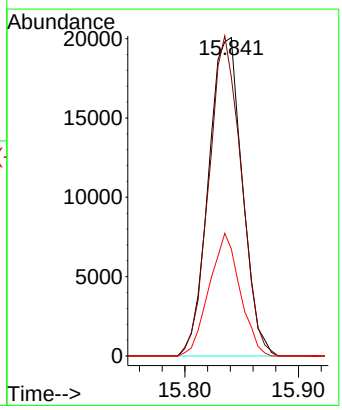




#92
1,2,3-Trichlorobenzene
Concen: 18.826 ug/l
RT: 15.841 min Scan# 2361
Delta R.T. 0.006 min
Lab File: VN086248.D
Acq: 11 Apr 2025 13:34

Tgt Ion:180 Resp: 41396

Ion	Ratio	Lower	Upper
180	100		
182	96.3	0.0	187.8
145	35.2	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086249.D
Acq On : 11 Apr 2025 14:38
Operator : JC\MD
Sample : VN0411WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Quant Time: Apr 12 01:48:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	32103	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	201467	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	175632	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	95625	30.539	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.800%			
60) 4-Bromofluorobenzene	12.847	95	104335	29.838	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.467%			
63) Toluene-d8	10.565	98	300690	30.325	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.100%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	58287	22.661	ug/l	99
3) Chloromethane	2.359	50	76833	21.612	ug/l	99
4) Vinyl Chloride	2.518	62	72960	21.546	ug/l	100
5) Bromomethane	2.965	94	34468	20.406	ug/l	92
6) Chloroethane	3.124	64	45142	21.111	ug/l	99
7) Trichlorofluoromethane	3.501	101	78964	21.497	ug/l	98
8) Diethyl Ether	3.959	74	35948	21.221	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	49466	21.838	ug/l	99
10) 1,1-Dichloroethene	4.342	96	52323	21.404	ug/l	97
11) Methyl Iodide	4.589	142	59569	21.202	ug/l	99
12) Methyl Acetate	5.024	43	69220	20.052	ug/l	98
13) Acrolein	4.177	56	30590	77.958	ug/l	99
14) Acrylonitrile	5.712	53	145157	99.606	ug/l	98
15) Acetone	4.424	58	35289	95.503	ug/l	93
16) Carbon Disulfide	4.712	76	153034	21.832	ug/l	99
17) Allyl chloride	5.024	41	91394	21.451	ug/l	98
18) Methylene Chloride	5.277	84	59182	21.234	ug/l	97
19) trans-1,2-Dichloroethene	5.783	96	53765	20.881	ug/l	99
20) Diisopropyl ether	6.665	45	200652	21.906	ug/l	98
21) 1,1-Dichloroethane	6.565	63	106184	21.728	ug/l	99
22) cis-1,2-Dichloroethene	7.483	96	65736	21.431	ug/l	98
23) tert-Butyl Alcohol	5.506	59	57260	94.827	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	187291	21.230	ug/l	99
25) Chloroform	7.965	83	101051	21.684	ug/l	98
26) Cyclohexane	8.253	56	98792	21.608	ug/l #	98
29) 1,1-Dichloropropene	8.371	75	75242	20.848	ug/l	98
30) 2-Butanone	7.477	43	193486	96.751	ug/l	99
31) 2,2-Dichloropropane	7.488	77	93697	21.091	ug/l	100
32) 1,1,1-Trichloroethane	8.165	97	85736	20.651	ug/l	99
33) Carbon Tetrachloride	8.359	117	69324	20.895	ug/l	97
34) Benzene	8.600	78	240800	20.972	ug/l	95
35) Methacrylonitrile	7.777	41	44549	19.760	ug/l	96
36) 1,2-Dichloroethane	8.665	62	75064	20.892	ug/l	99
37) Trichloroethene	9.347	130	55823	20.150	ug/l	92
38) Methylcyclohexane	9.594	83	92449	20.887	ug/l	99
39) 1,2-Dichloropropane	9.618	63	59643	20.876	ug/l	97
40) Dibromomethane	9.706	93	36945	20.021	ug/l	99
41) Bromodichloromethane	9.882	83	81655	20.598	ug/l	99
42) Vinyl Acetate	6.594	43	723573	106.292	ug/l	100

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086249.D
Acq On : 11 Apr 2025 14:38
Operator : JC\MD
Sample : VN0411WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Quant Time: Apr 12 01:48:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

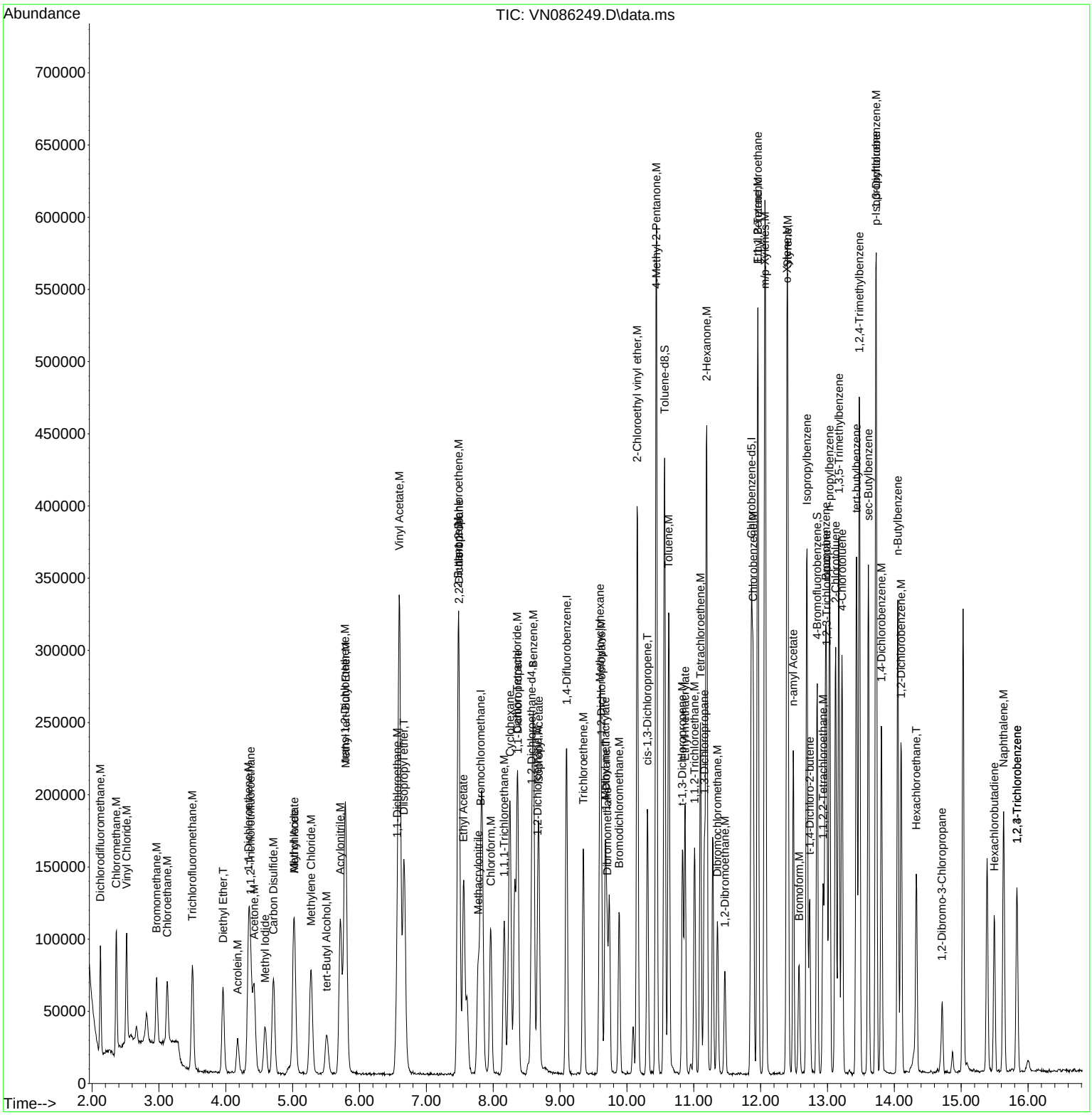
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.553	43	77965	19.328	ug/l		98
44) Isopropyl Acetate	8.683	43	150010	20.046	ug/l		99
45) 1,4-Dioxane	9.688	88	21831	366.878	ug/l	#	93
46) Methyl methacrylate	9.677	41	66579	20.193	ug/l		99
47) n-amyl Acetate	12.488	43	118327	19.943	ug/l		100
48) t-1,3-Dichloropropene	10.829	75	92056	20.541	ug/l		99
49) cis-1,3-Dichloropropene	10.306	75	98100	20.682	ug/l		95
50) 1,1,2-Trichloroethane	11.012	97	52750	20.382	ug/l		98
51) Ethyl methacrylate	10.871	69	97258	20.222	ug/l		98
52) 1,3-Dichloropropane	11.159	76	96585	20.938	ug/l		100
53) Dibromochloromethane	11.353	129	57663	20.369	ug/l		98
54) 1,2-Dibromoethane	11.465	107	52283	20.012	ug/l		99
55) 2-Chloroethyl vinyl ether	10.153	63	182299	100.309	ug/l		100
56) Bromoform	12.576	173	36790	19.864	ug/l		99
58) 4-Methyl-2-Pentanone	10.441	43	405618	101.770	ug/l		100
59) 2-Hexanone	11.194	43	298673	100.637	ug/l		100
61) Tetrachloroethene	11.100	164	54335	20.949	ug/l		98
62) Toluene	10.624	91	251566	21.355	ug/l		100
64) Chlorobenzene	11.888	112	148243	20.597	ug/l		99
65) 1,1,1,2-Tetrachloroethane	11.959	131	50696	21.344	ug/l		100
66) Ethyl Benzene	11.959	91	273823	20.960	ug/l		98
67) m/p-Xylenes	12.065	106	202596	41.705	ug/l		98
68) o-Xylene	12.394	106	100957	21.129	ug/l		99
69) Styrene	12.406	104	168655	20.929	ug/l		99
70) Isopropylbenzene	12.694	105	249762	21.200	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	69753	20.801	ug/l		99
72) 1,2,3-Trichloropropane	12.988	75	103838	29.748	ug/l		61
73) Bromobenzene	12.976	156	53692	20.572	ug/l		98
74) n-propylbenzene	13.029	91	295354	21.231	ug/l		99
75) 2-Chlorotoluene	13.123	91	183287	20.961	ug/l		99
76) 1,3,5-Trimethylbenzene	13.170	105	206643	21.352	ug/l		98
77) t-1,4-Dichloro-2-butene	12.735	75	31266	19.426	ug/l		94
78) 4-Chlorotoluene	13.218	91	179801	20.589	ug/l		99
79) tert-butylbenzene	13.435	119	173459	20.714	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	203945	20.782	ug/l		99
81) sec-Butylbenzene	13.612	105	249442	21.354	ug/l		99
82) p-Isopropyltoluene	13.723	119	207519	21.296	ug/l		100
83) 1,3-Dichlorobenzene	13.729	146	98830	20.374	ug/l		99
84) 1,4-Dichlorobenzene	13.806	146	99189	20.383	ug/l		99
85) n-Butylbenzene	14.053	91	191298	21.761	ug/l		99
86) Hexachloroethane	14.329	117	33590	20.435	ug/l		100
87) 1,2-Dichlorobenzene	14.100	146	95565	19.953	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.712	75	14160	18.539	ug/l		99
89) 1,2,4-Trichlorobenzene	15.835	180	45993	19.736	ug/l		99
90) Hexachlorobutadiene	15.494	225	19273	19.154	ug/l		96
91) Naphthalene	15.635	128	169515	18.449	ug/l		99
92) 1,2,3-Trichlorobenzene	15.835	180	45993	19.736	ug/l		99

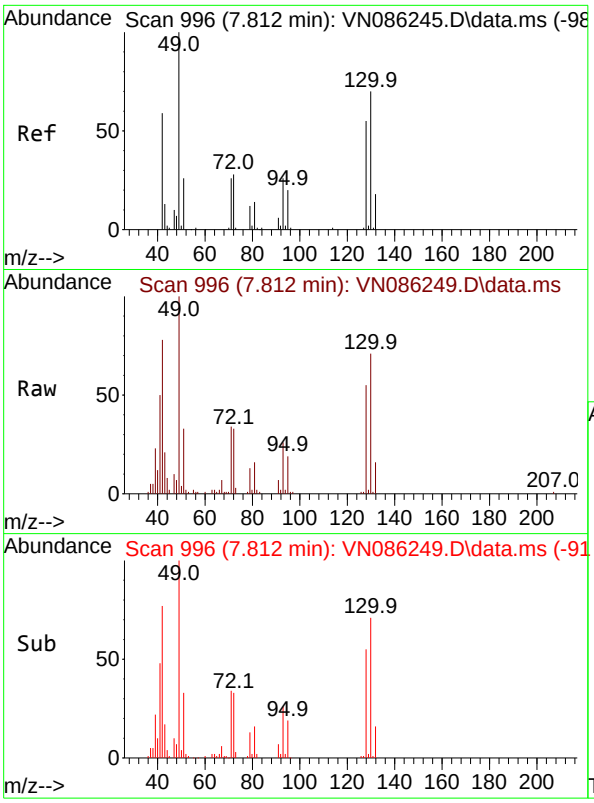
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086249.D
Acq On : 11 Apr 2025 14:38
Operator : JC\MD
Sample : VN0411WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Quant Time: Apr 12 01:48:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



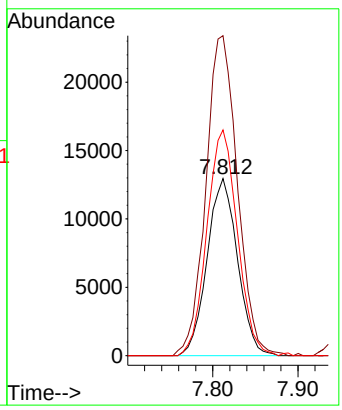


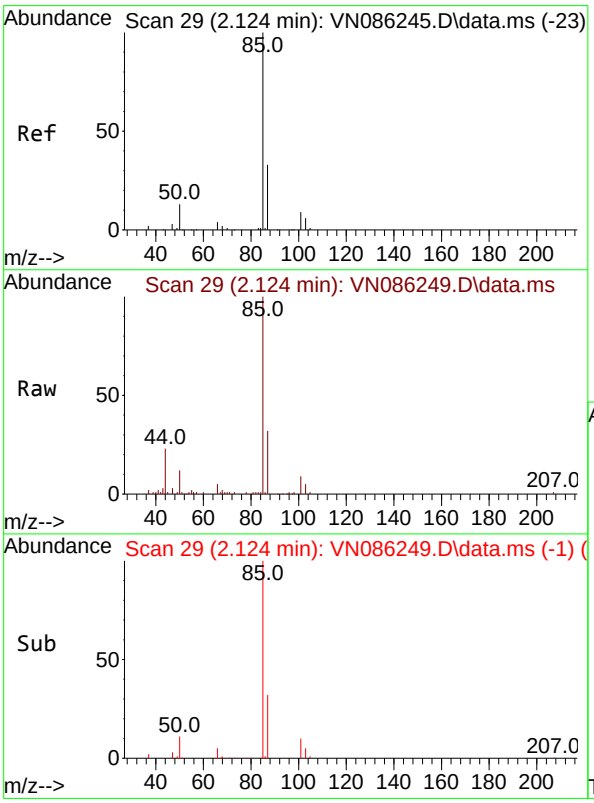
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:128 Resp: 32103

Ion	Ratio	Lower	Upper
128	100		
49	187.6	0.0	452.5
130	127.9	0.0	315.0

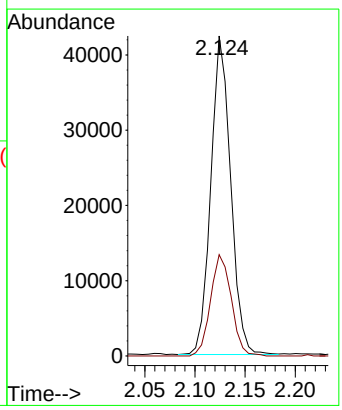


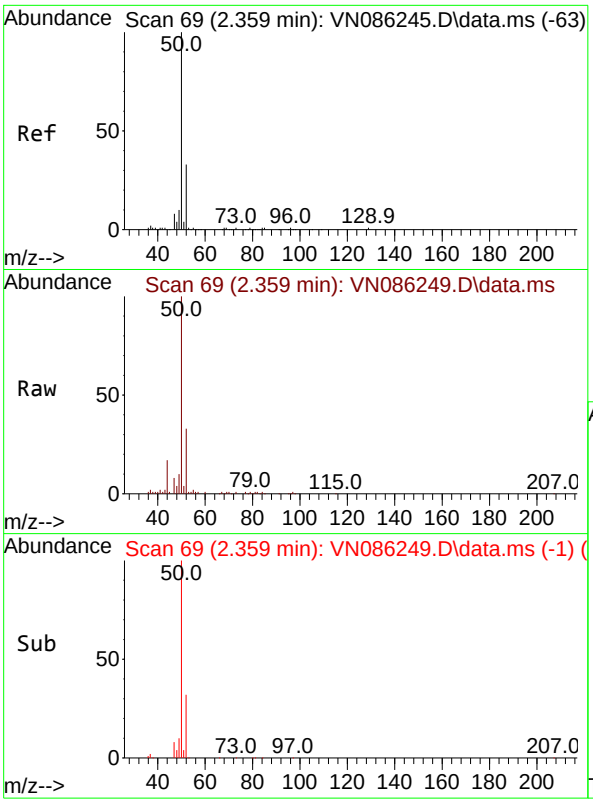


#2
Dichlorodifluoromethane
Concen: 22.661 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 85 Resp: 58287

Ion	Ratio	Lower	Upper
85	100		
87	31.8	16.3	48.9



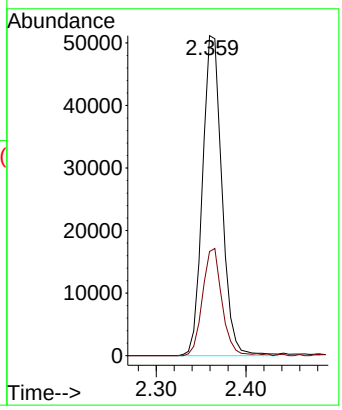


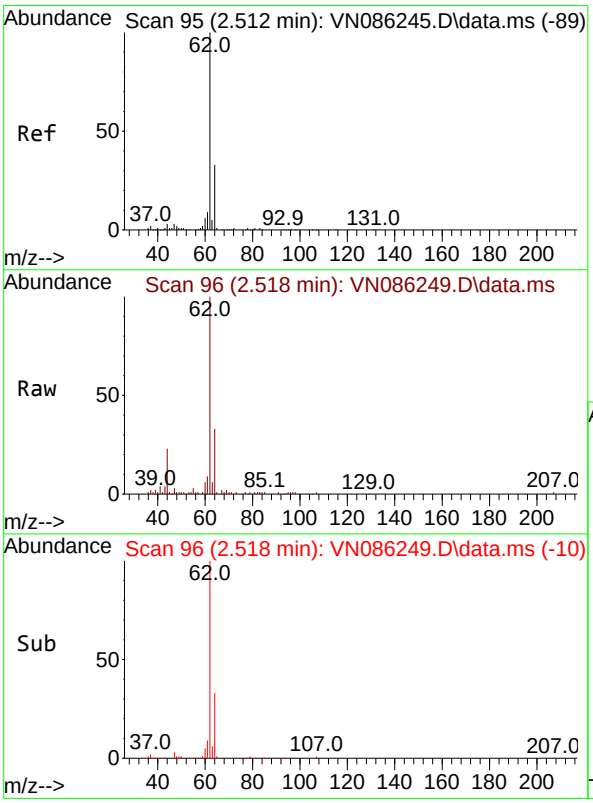
#3
Chloromethane
Concen: 21.612 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 50 Resp: 76833

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.4	39.6

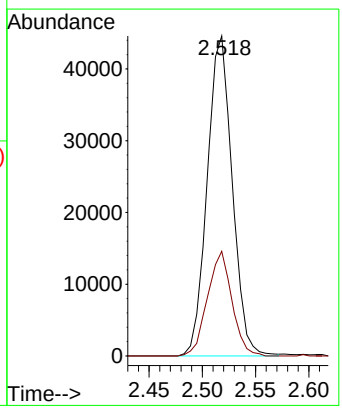


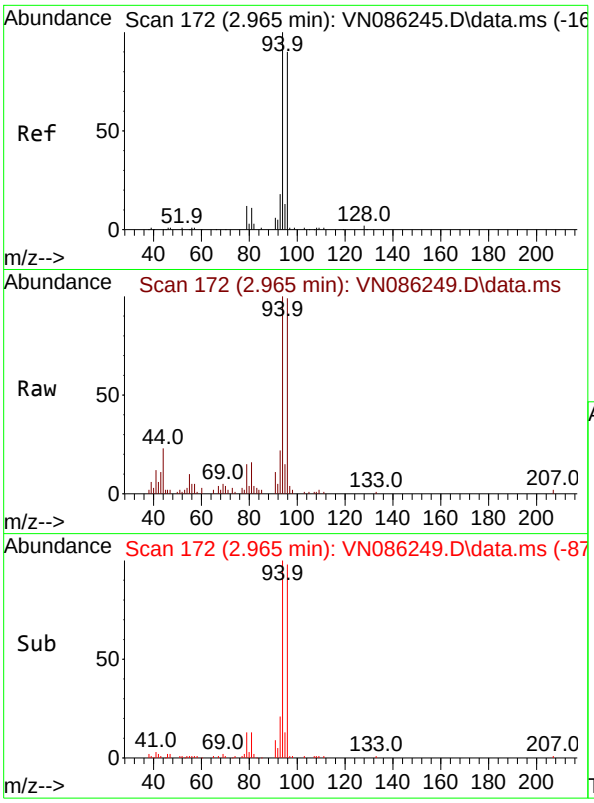


#4
Vinyl Chloride
Concen: 21.546 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 62 Resp: 72960

Ion	Ratio	Lower	Upper
62	100		
64	32.7	26.3	39.5



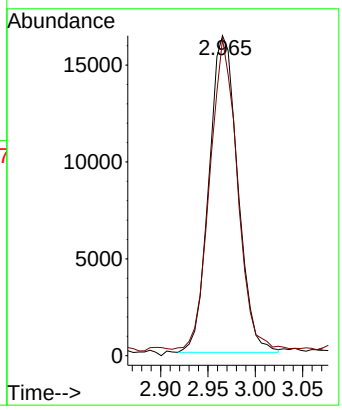


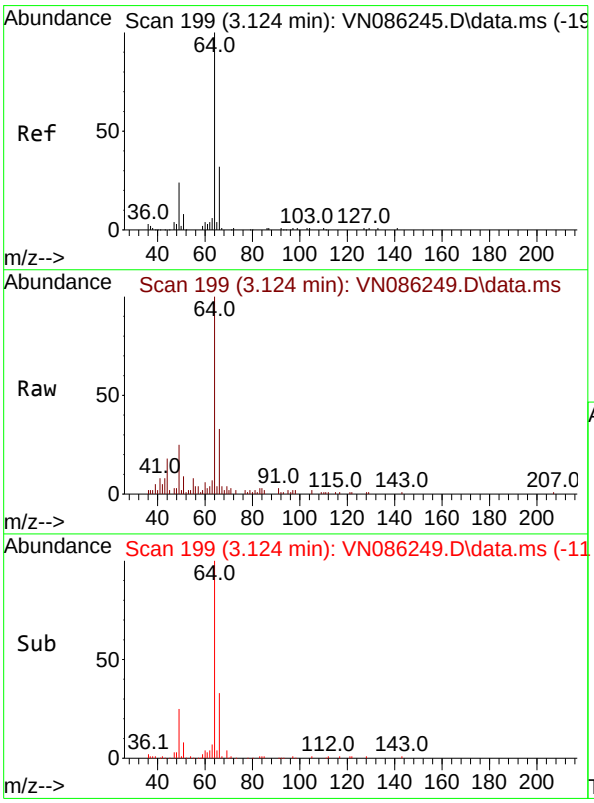
#5
Bromomethane
Concen: 20.406 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 94 Resp: 34468

Ion	Ratio	Lower	Upper
94	100		
96	97.5	72.2	108.2

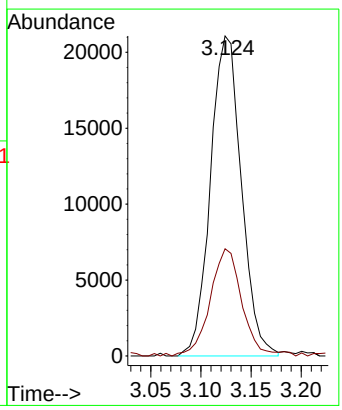


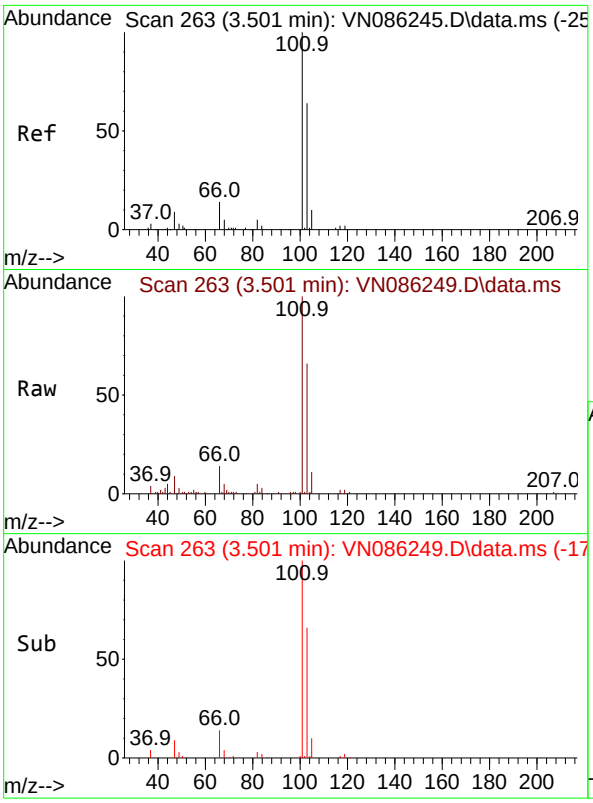


#6
Chloroethane
Concen: 21.111 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 64 Resp: 45142

Ion	Ratio	Lower	Upper
64	100		
66	32.7	25.7	38.5



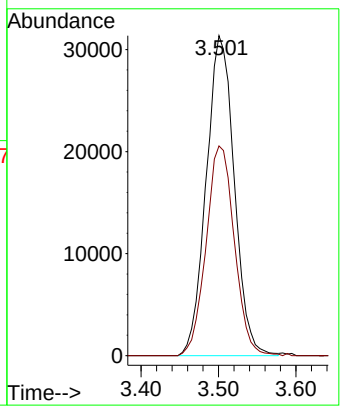


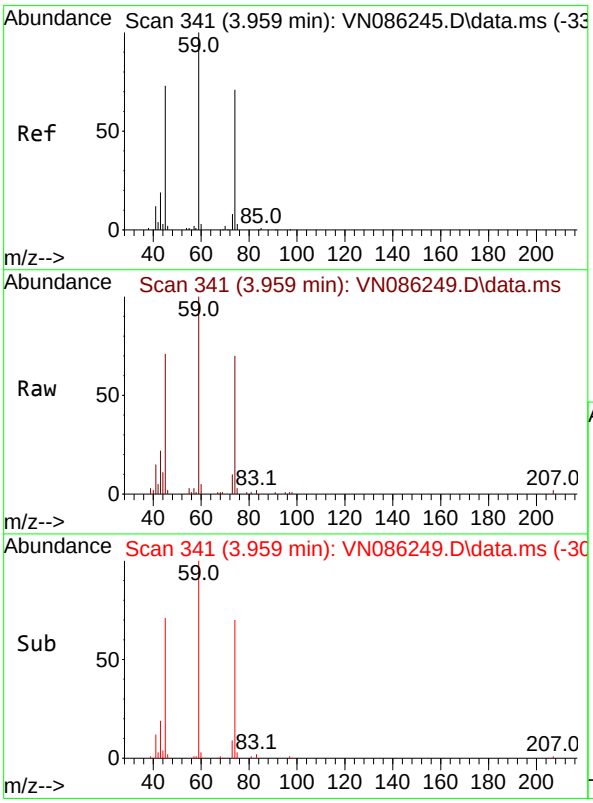
#7
Trichlorofluoromethane
Concen: 21.497 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:101 Resp: 78964

Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.2	76.8

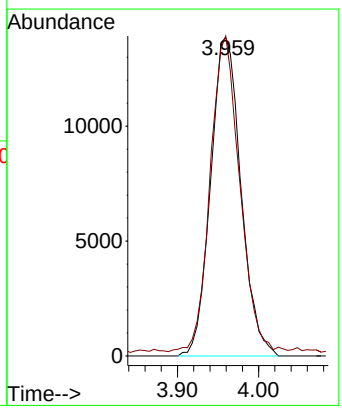


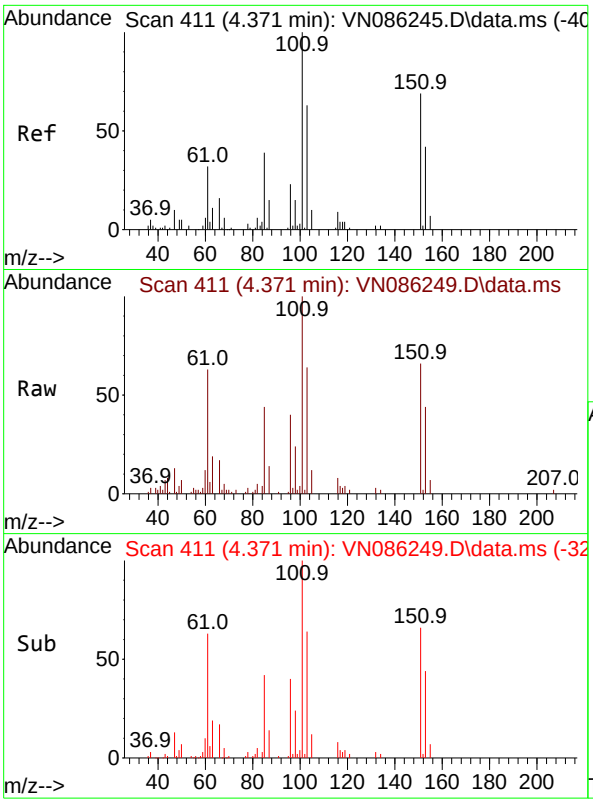


#8
Diethyl Ether
Concen: 21.221 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 74 Resp: 35948

Ion	Ratio	Lower	Upper
74	100		
45	95.7	19.2	173.2



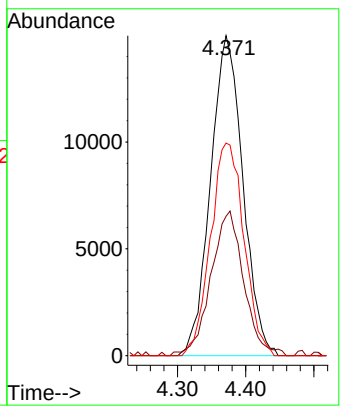


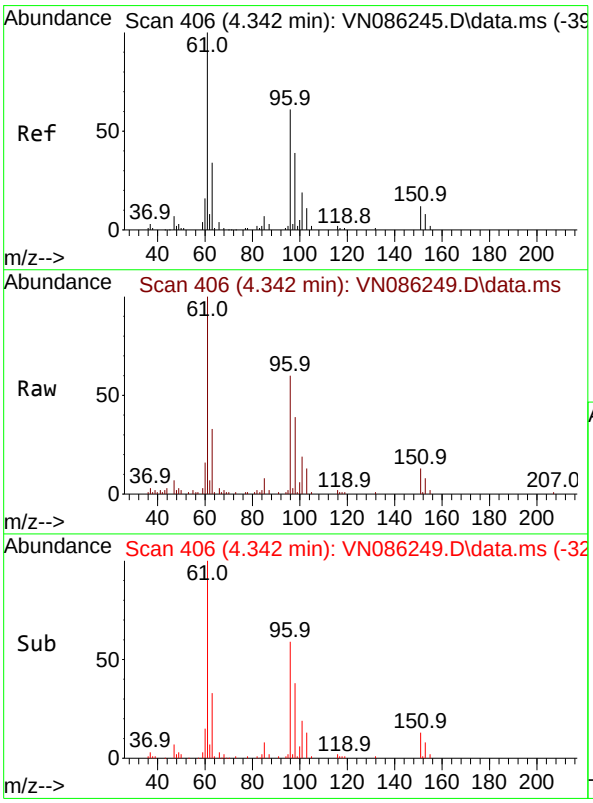
#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.838 ug/l
RT: 4.371 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:101 Resp: 49466

Ion	Ratio	Lower	Upper
101	100		
85	45.1	0.0	93.0
151	68.6	0.0	138.6

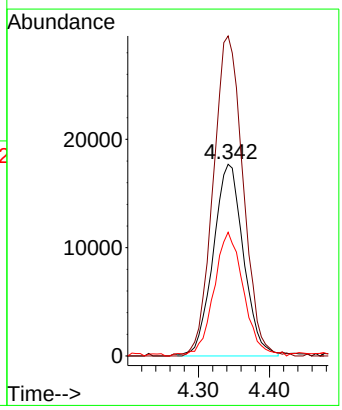


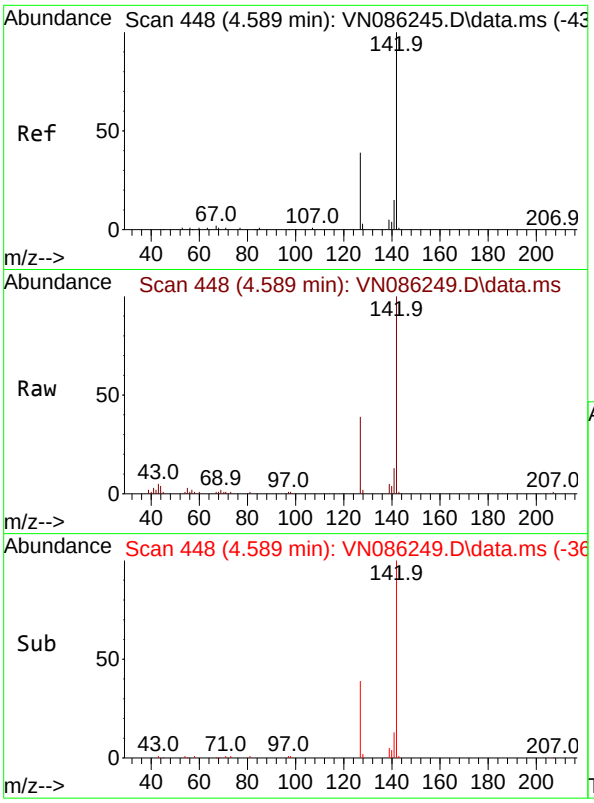


#10
1,1-Dichloroethene
Concen: 21.404 ug/l
RT: 4.342 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 96 Resp: 52323

Ion	Ratio	Lower	Upper
96	100		
61	168.3	131.1	196.7
98	63.8	51.6	77.4



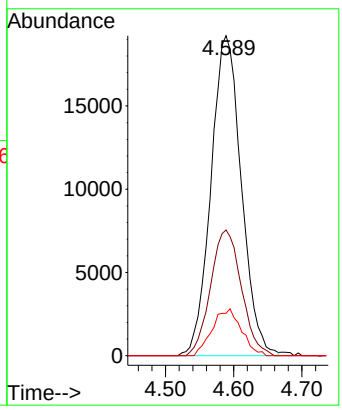


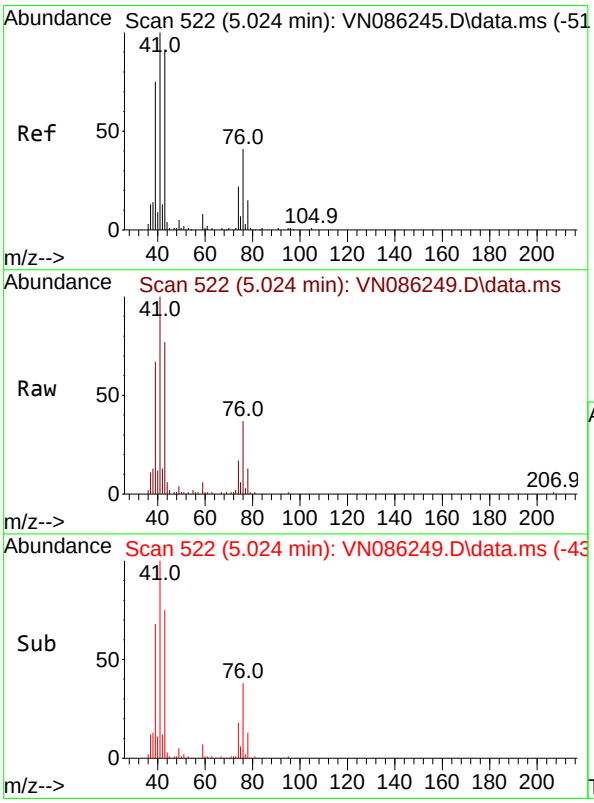
#11
Methyl Iodide
Concen: 21.202 ug/l
RT: 4.589 min Scan# 44
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:142 Resp: 59569

Ion	Ratio	Lower	Upper
142	100		
127	39.5	19.6	58.8
141	13.3	7.3	21.9

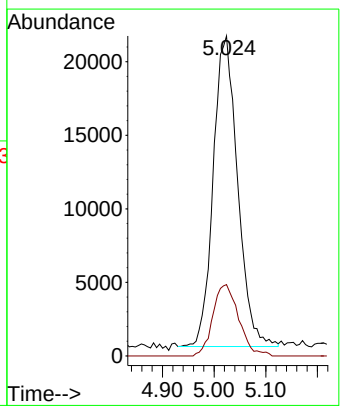


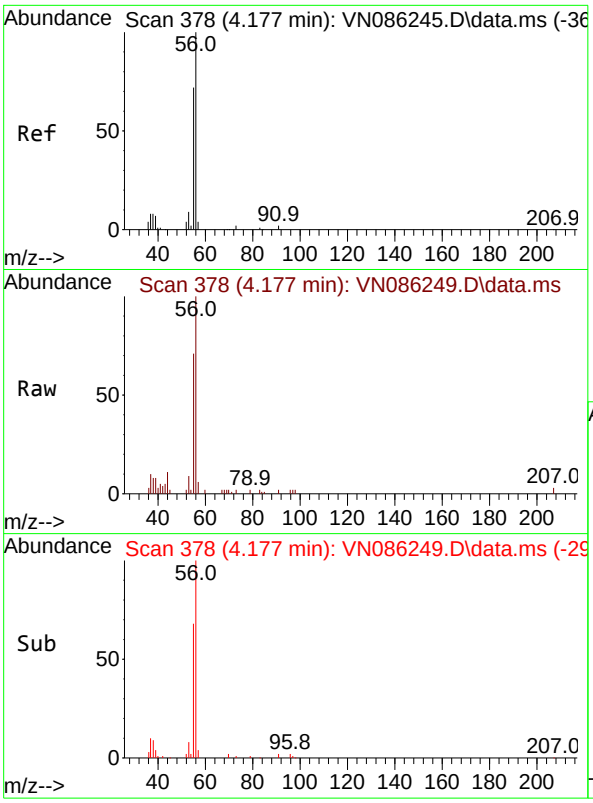


#12
Methyl Acetate
Concen: 20.052 ug/l
RT: 5.024 min Scan# 522
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 69220

Ion	Ratio	Lower	Upper
43	100		
74	23.1	19.1	28.7



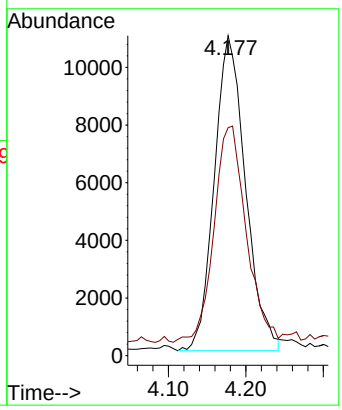


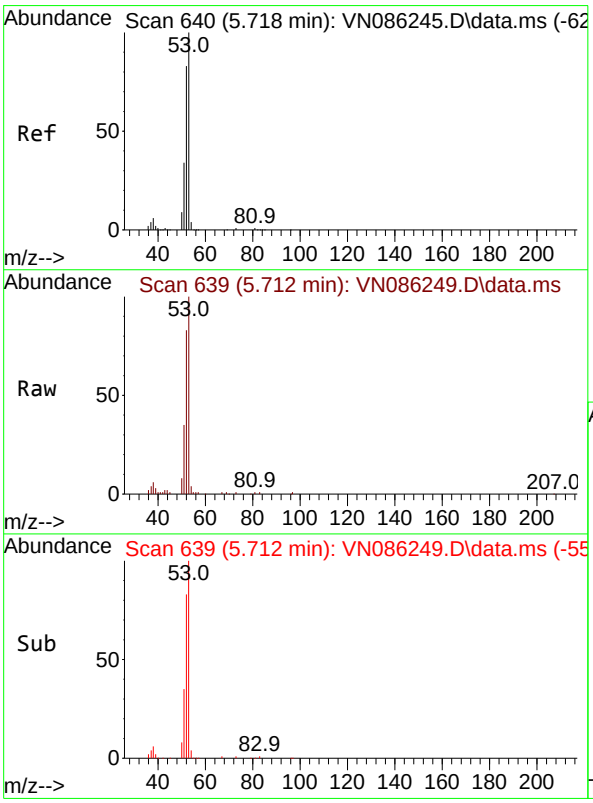
#13
Acrolein
Concen: 77.958 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 56 Resp: 30590

Ion	Ratio	Lower	Upper
56	100		
55	70.1	56.5	84.7

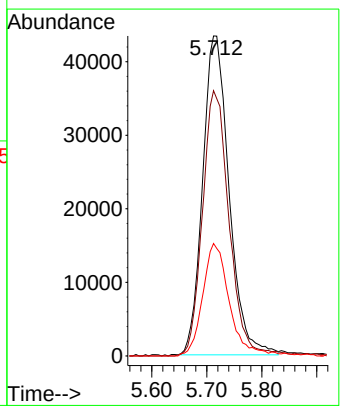


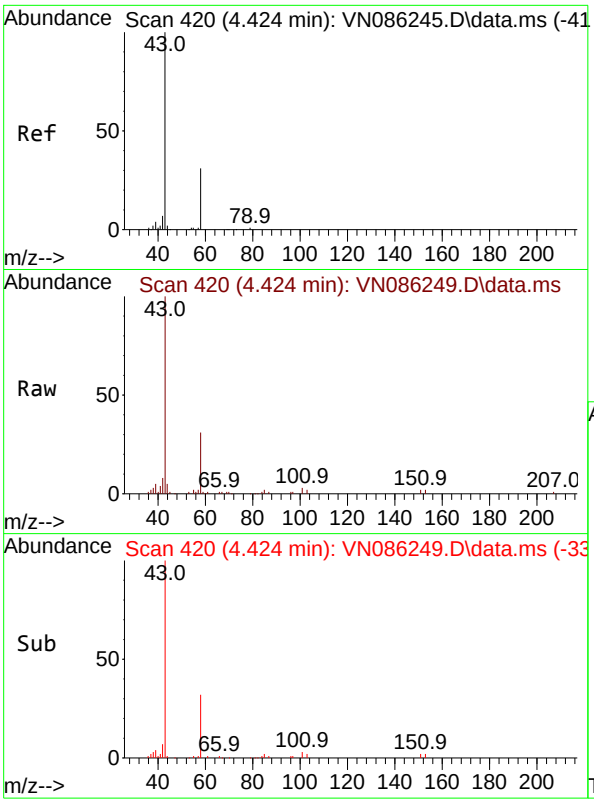


#14
Acrylonitrile
Concen: 99.606 ug/l
RT: 5.712 min Scan# 639
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 53 Resp: 145157

Ion	Ratio	Lower	Upper
53	100		
52	83.4	40.2	120.6
51	35.0	17.5	52.6



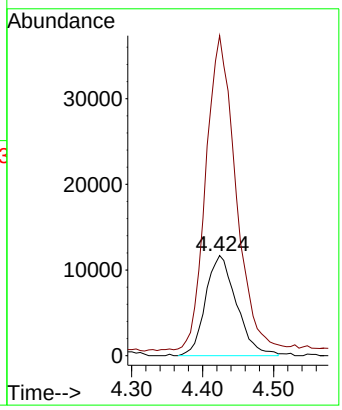


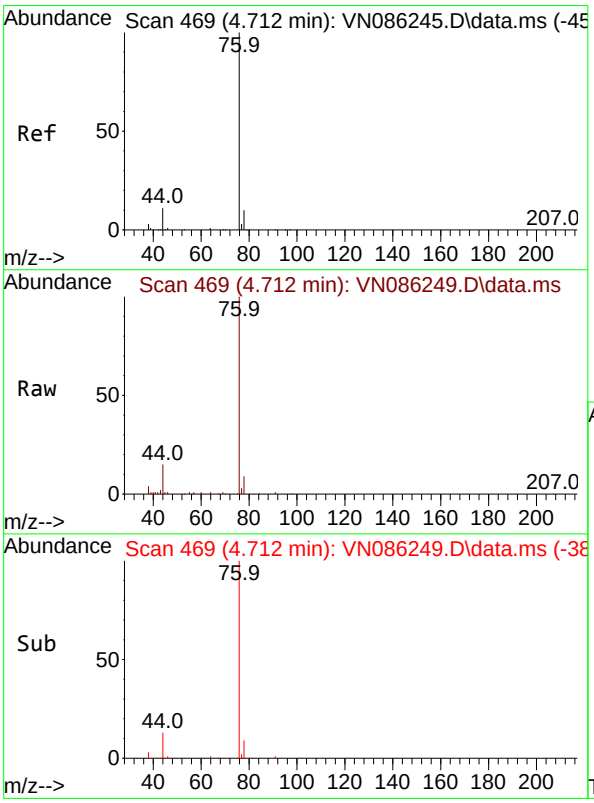
#15
Acetone
Concen: 95.503 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 58 Resp: 35289

Ion	Ratio	Lower	Upper
58	100		
43	313.0	261.8	392.8

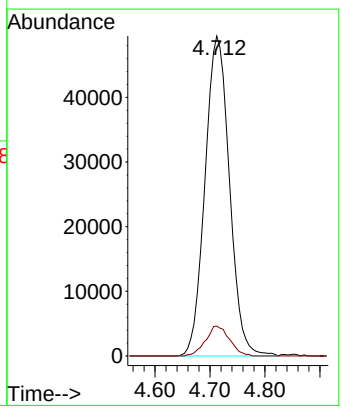


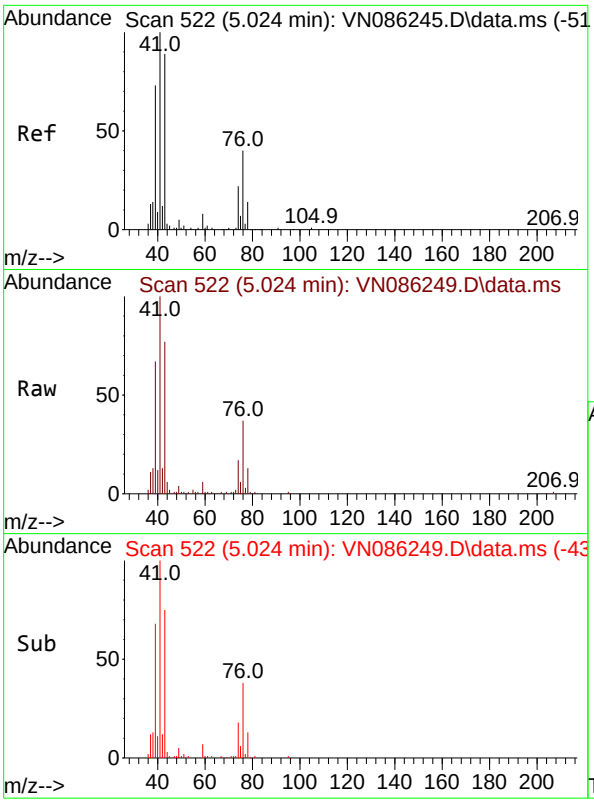


#16
Carbon Disulfide
Concen: 21.832 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 76 Resp: 153034

Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.7	11.5



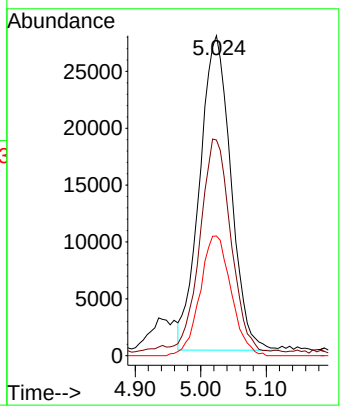


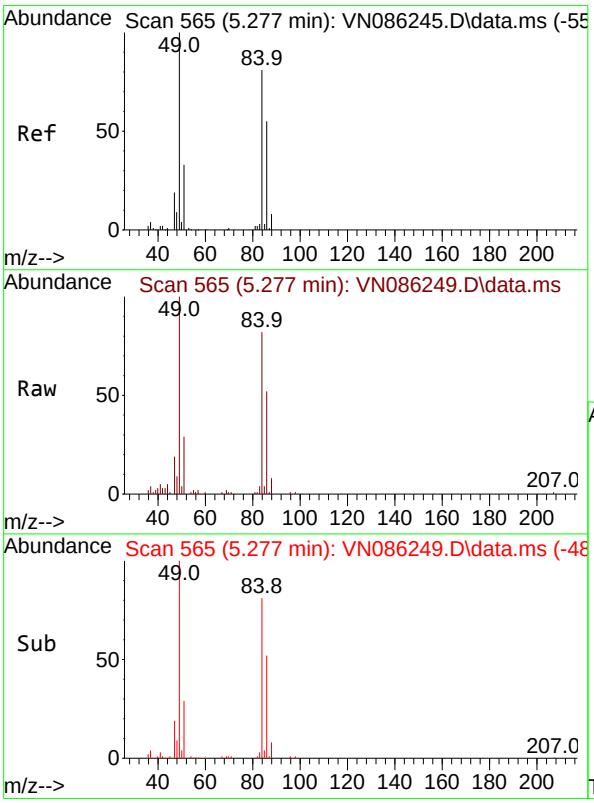
#17
Allyl chloride
Concen: 21.451 ug/l
RT: 5.024 min Scan# 5
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 41 Resp: 91394

Ion	Ratio	Lower	Upper
41	100		
39	67.2	34.4	103.2
76	38.3	18.8	56.3

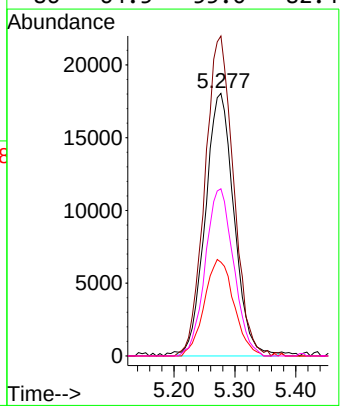


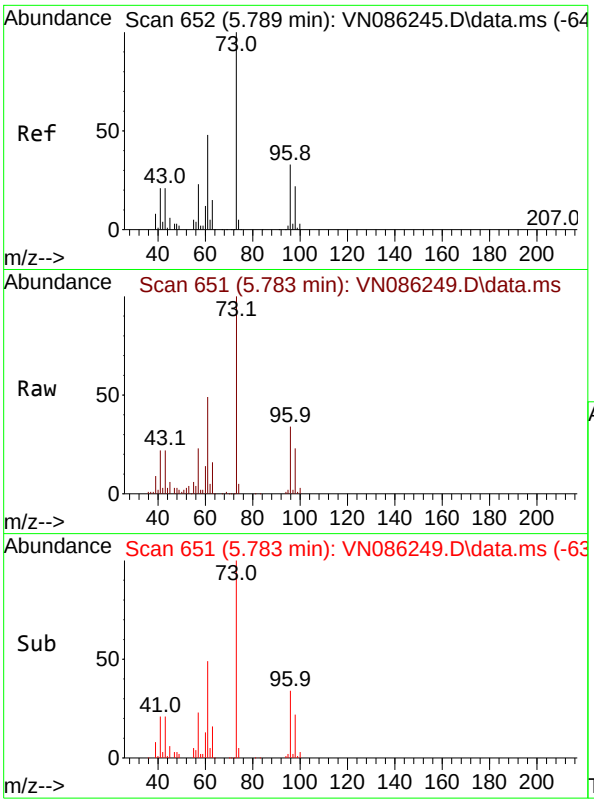


#18
Methylene Chloride
Concen: 21.234 ug/l
RT: 5.277 min Scan# 565
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 84 Resp: 59182

Ion	Ratio	Lower	Upper
84	100		
49	122.3	99.1	148.7
51	36.1	32.3	48.5
86	64.5	55.0	82.4



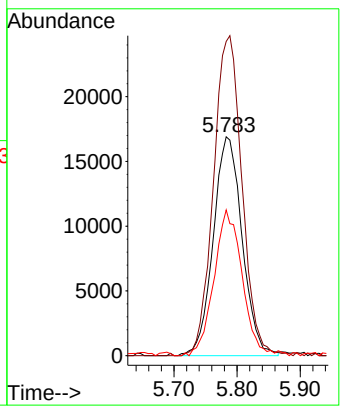


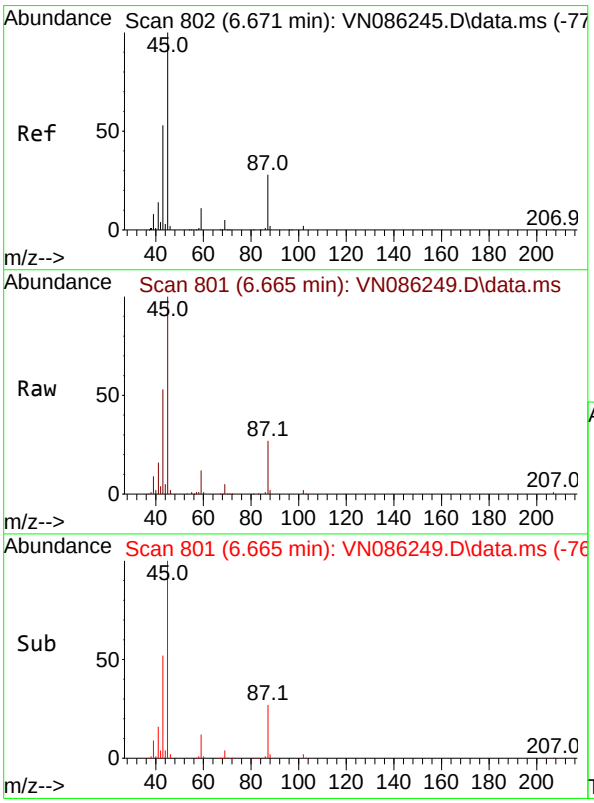
#19
trans-1,2-Dichloroethene
Concen: 20.881 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 96 Resp: 53765

Ion	Ratio	Lower	Upper
96	100		
61	143.6	115.9	173.9
98	66.6	52.1	78.1

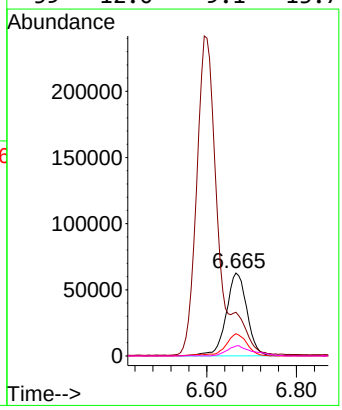


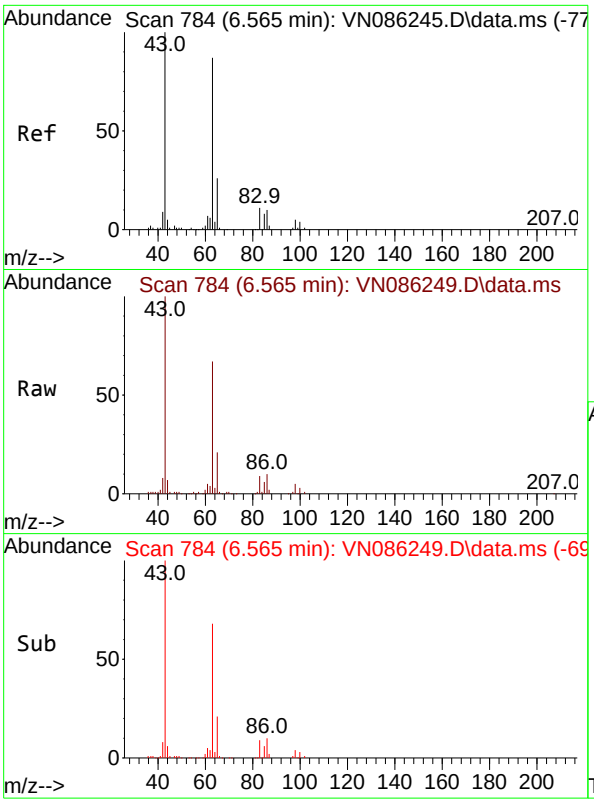


#20
Diisopropyl ether
Concen: 21.906 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 45 Resp: 200652

Ion	Ratio	Lower	Upper
45	100		
43	51.0	42.3	63.5
87	27.0	22.2	33.4
59	12.0	9.1	13.7



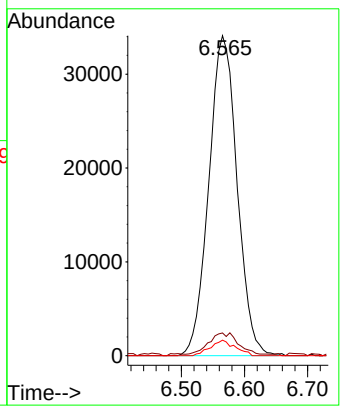


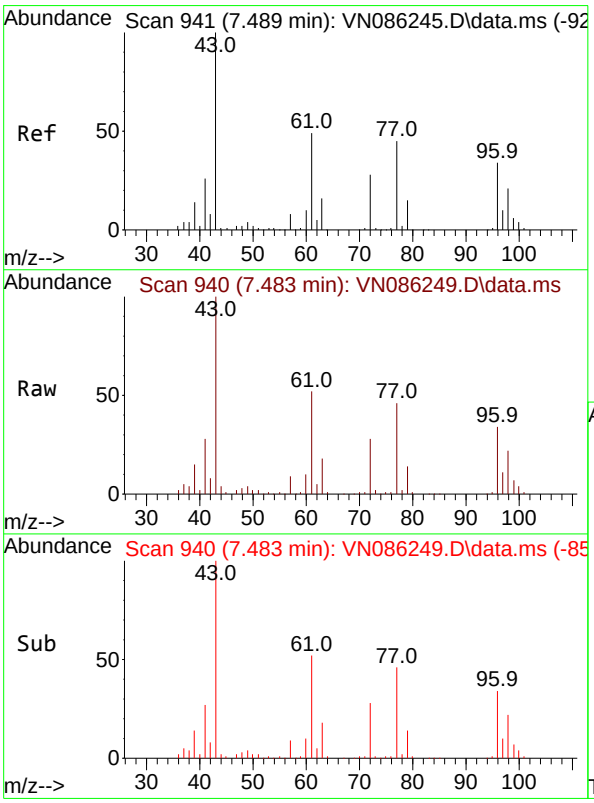
#21
1,1-Dichloroethane
Concen: 21.728 ug/l
RT: 6.565 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 63 Resp: 106184

Ion	Ratio	Lower	Upper
63	100		
98	6.5	3.1	9.3
100	4.9	2.3	6.9

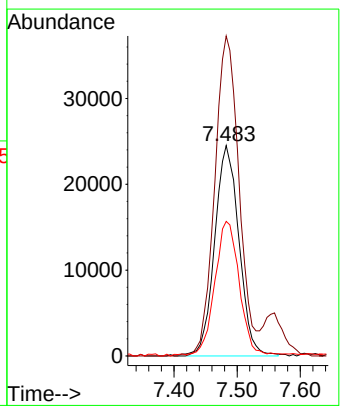


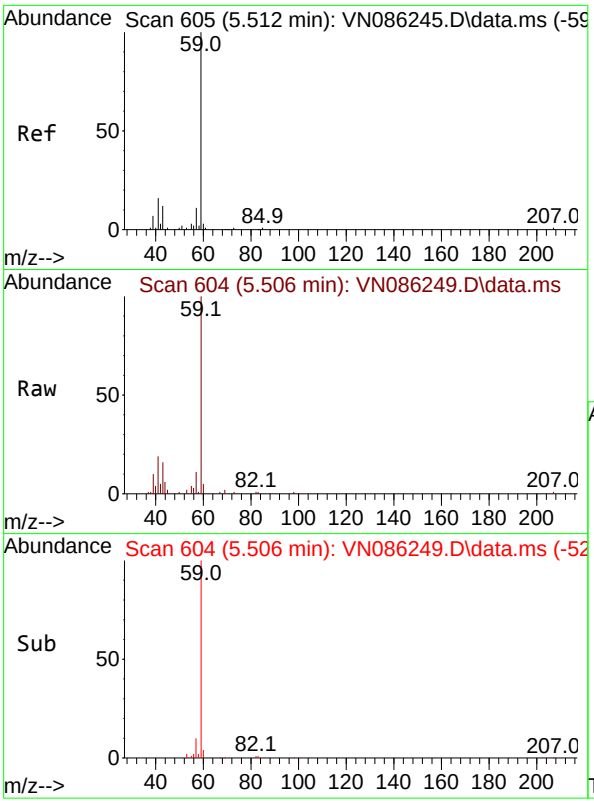


#22
cis-1,2-Dichloroethene
Concen: 21.431 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 96 Resp: 65736

Ion	Ratio	Lower	Upper
96	100		
61	152.3	119.5	179.3
98	64.7	51.0	76.6



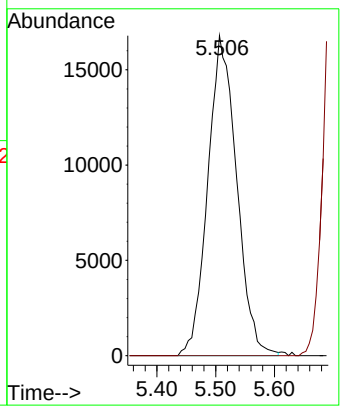


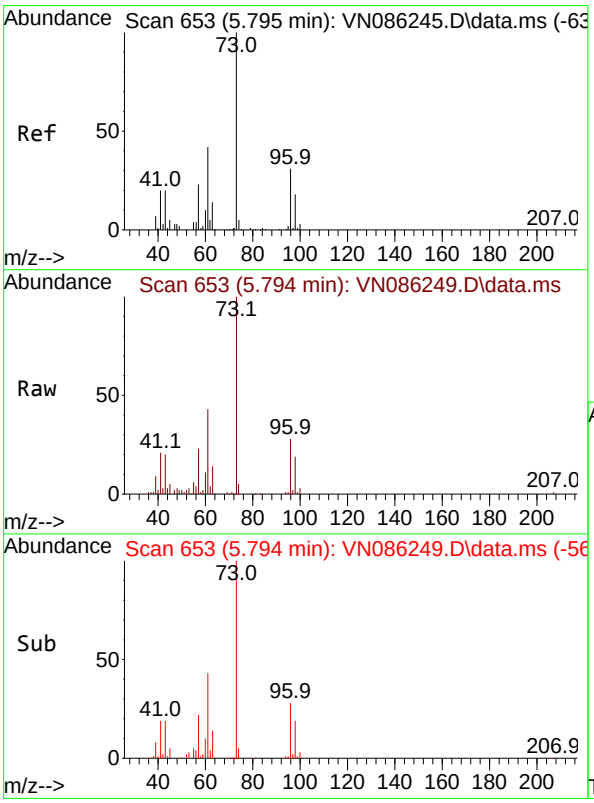
#23
tert-Butyl Alcohol
Concen: 94.827 ug/l
RT: 5.506 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 59 Resp: 57260

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0

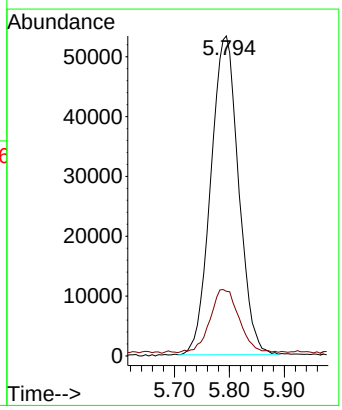


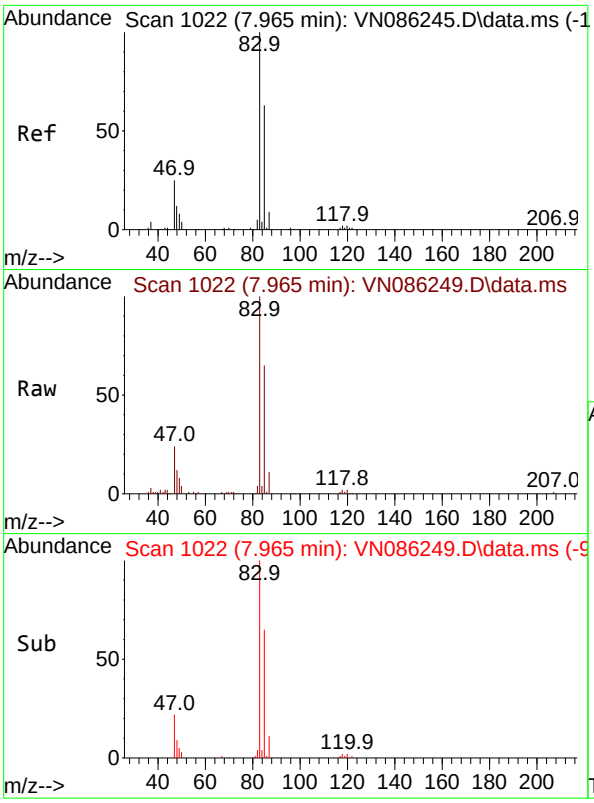


#24
Methyl tert-Butyl Ether
Concen: 21.230 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 73 Resp: 187291

Ion	Ratio	Lower	Upper
73	100		
43	20.4	16.8	25.2



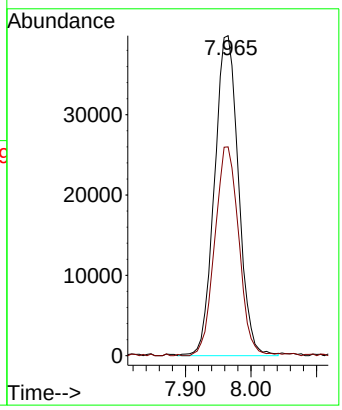


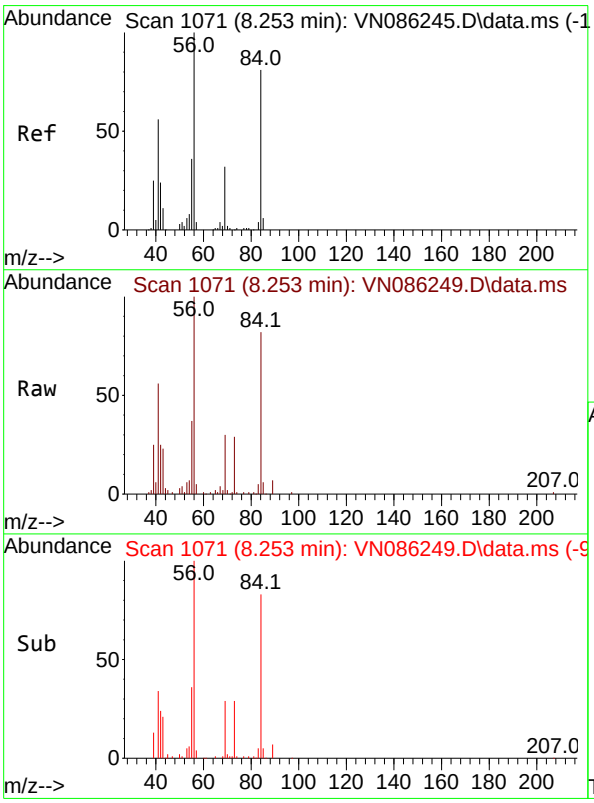
#25
Chloroform
Concen: 21.684 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 83 Resp: 101051

Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.5	75.7

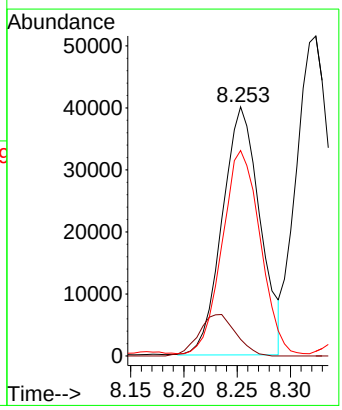


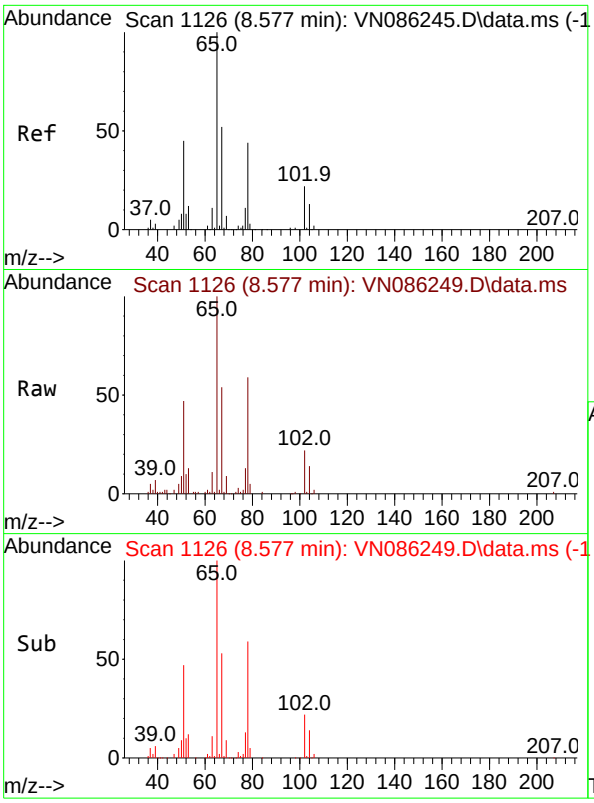


#26
Cyclohexane
Concen: 21.608 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 56 Resp: 98792

Ion	Ratio	Lower	Upper
56	100		
89	16.4	0.0	0.0#
84	84.4	69.0	103.4



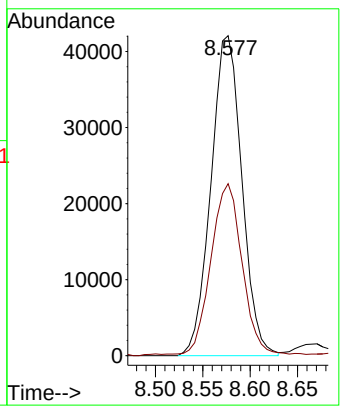


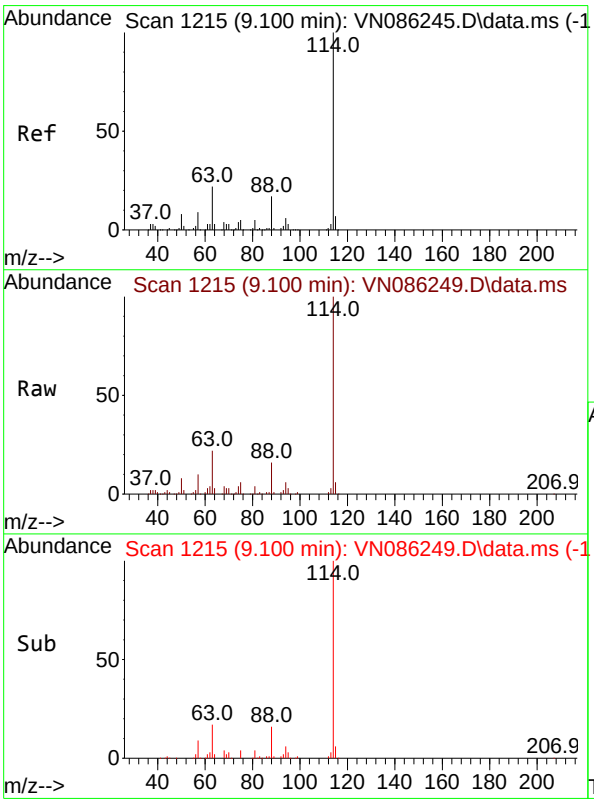
#27
1,2-Dichloroethane-d4
Concen: 30.539 ug/l
RT: 8.577 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 65 Resp: 95625

Ion	Ratio	Lower	Upper
65	100		
67	54.6	43.4	65.2

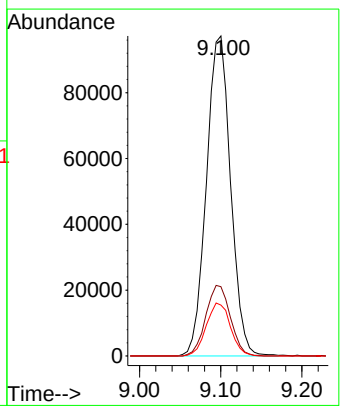


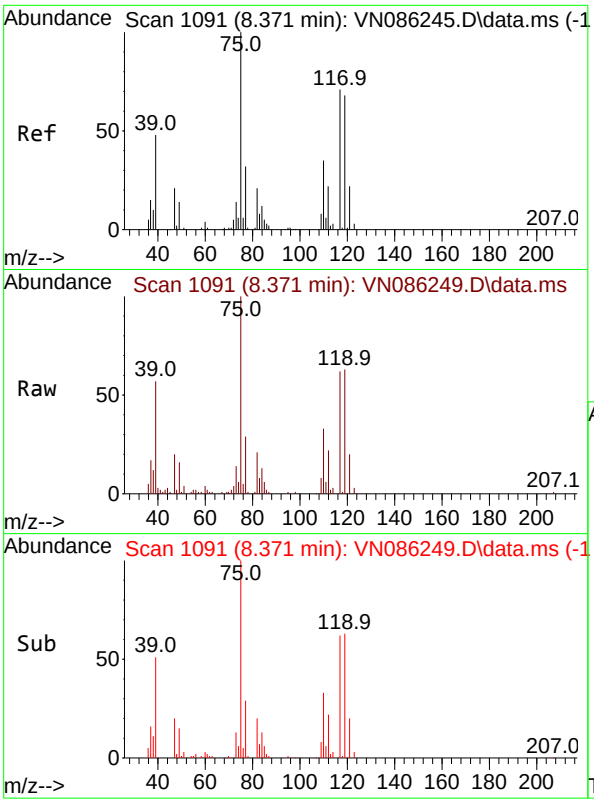


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:114 Resp: 201467

Ion	Ratio	Lower	Upper
114	100		
63	22.3	17.8	26.6
88	16.5	13.4	20.2



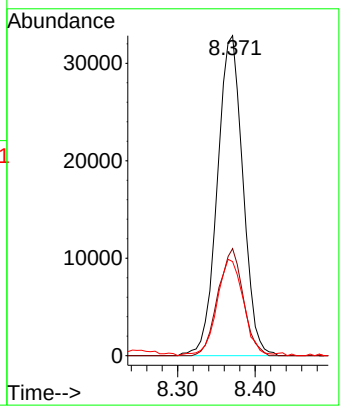


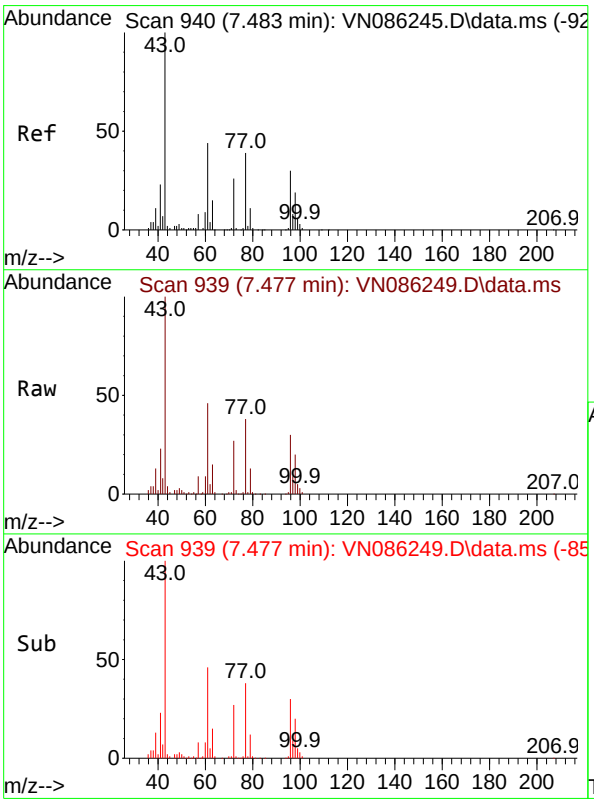
#29
1,1-Dichloropropene
Concen: 20.848 ug/l
RT: 8.371 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 75 Resp: 75242

Ion	Ratio	Lower	Upper
75	100		
110	33.1	0.0	68.6
77	31.4	0.0	63.8

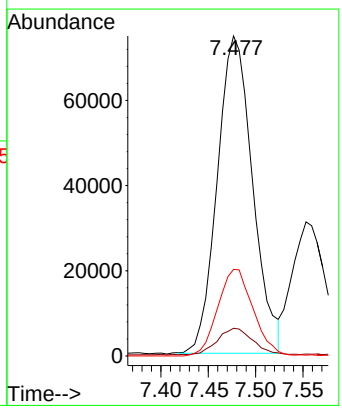


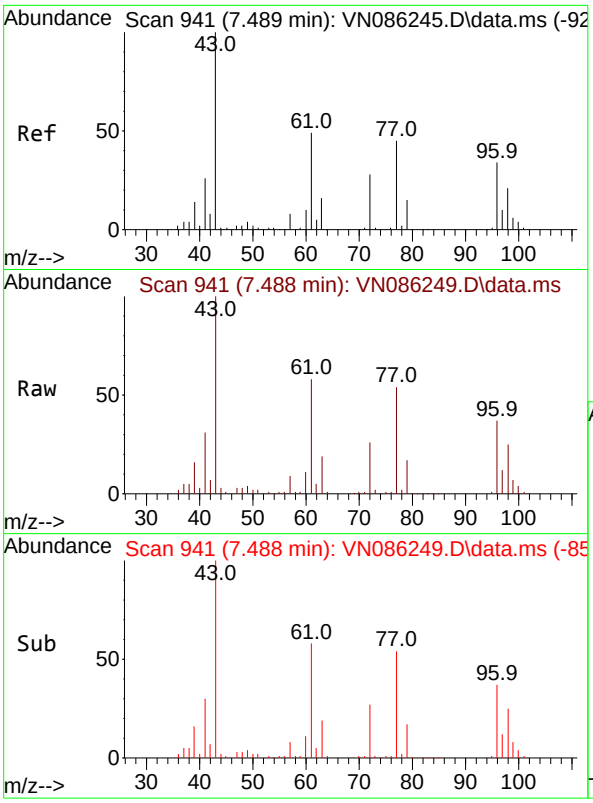


#30
2-Butanone
Concen: 96.751 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 193486

Ion	Ratio	Lower	Upper
43	100		
57	8.4	6.4	9.6
72	27.2	21.5	32.3



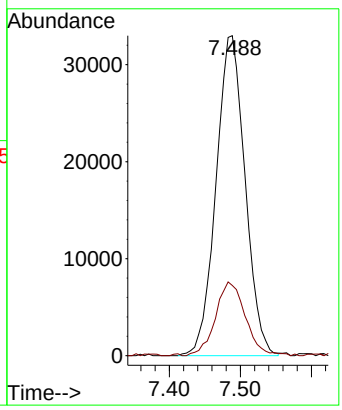


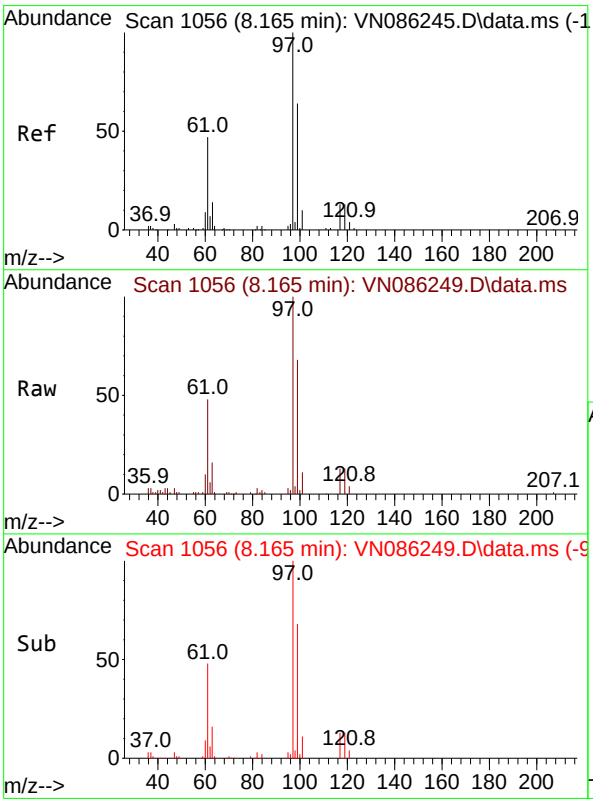
#31
2,2-Dichloropropane
Concen: 21.091 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 77 Resp: 93697

Ion	Ratio	Lower	Upper
77	100		
97	23.5	18.8	28.2

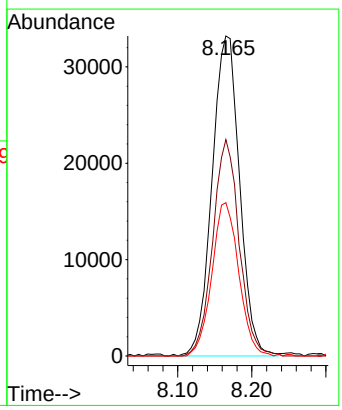


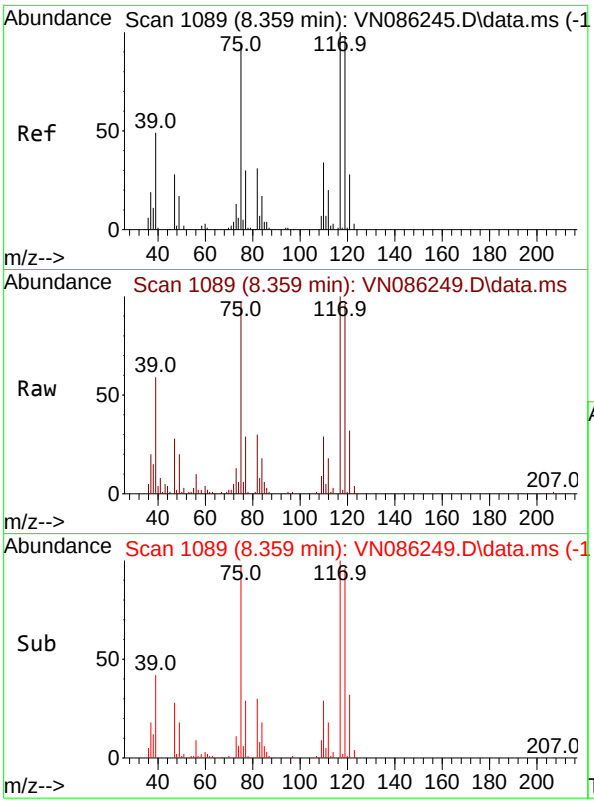


#32
1,1,1-Trichloroethane
Concen: 20.651 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 97 Resp: 85736

Ion	Ratio	Lower	Upper
97	100		
99	64.9	51.4	77.2
61	46.7	37.0	55.6



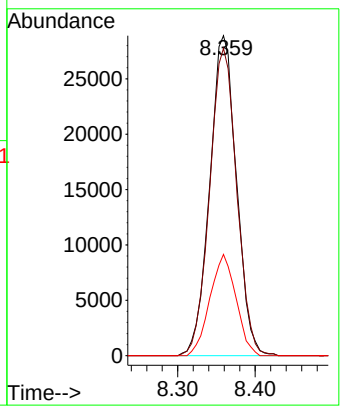


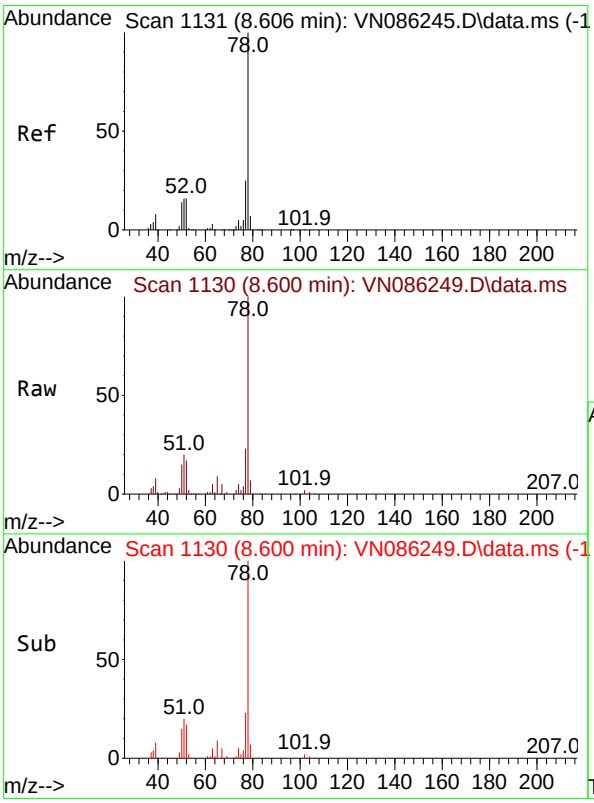
#33
Carbon Tetrachloride
Concen: 20.895 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:117 Resp: 69324

Ion	Ratio	Lower	Upper
117	100		
119	96.0	78.3	117.5
121	31.6	22.5	33.7

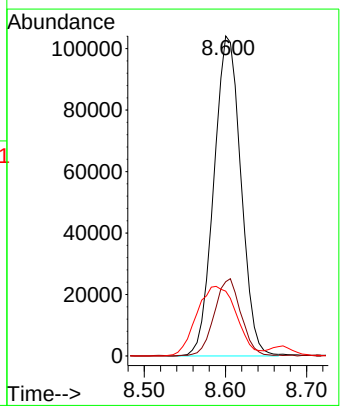


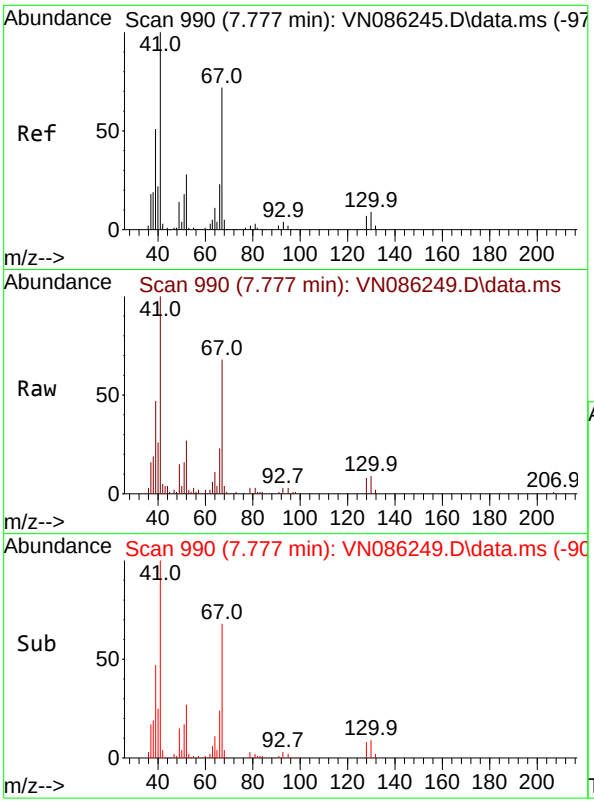


#34
Benzene
Concen: 20.972 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 78 Resp: 240800

Ion	Ratio	Lower	Upper
78	100		
77	23.0	20.0	30.0
51	19.1	12.9	19.3



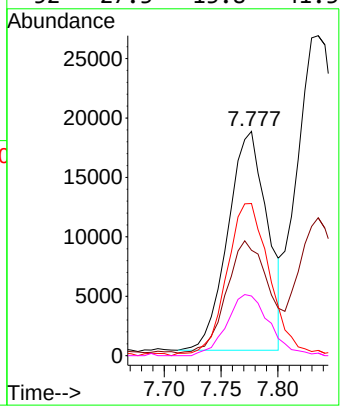


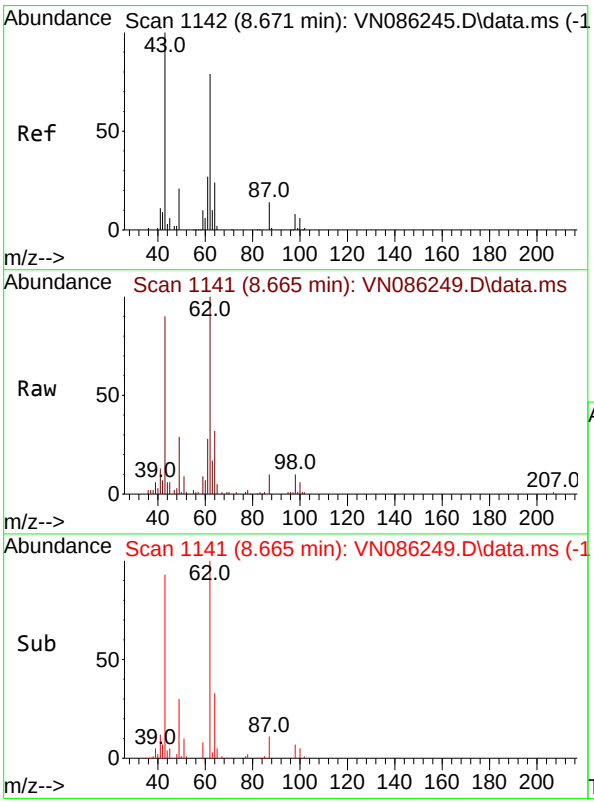
#35
Methacrylonitrile
Concen: 19.760 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 41 Resp: 44549

Ion	Ratio	Lower	Upper
41	100		
39	47.0	25.8	77.3
67	68.5	36.0	108.0
52	27.3	13.8	41.3

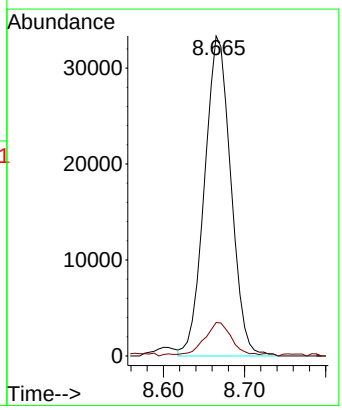


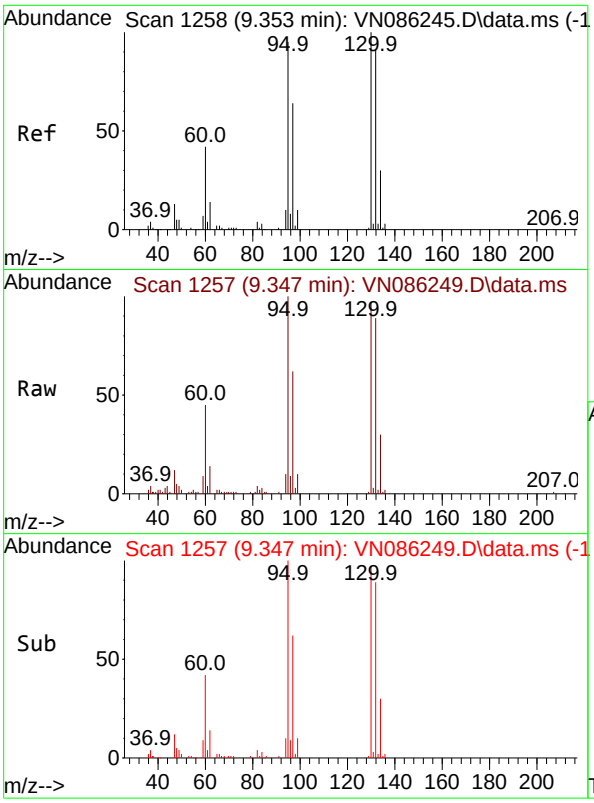


#36
1,2-Dichloroethane
Concen: 20.892 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 62 Resp: 75064

Ion	Ratio	Lower	Upper
62	100		
98	10.3	8.6	12.8



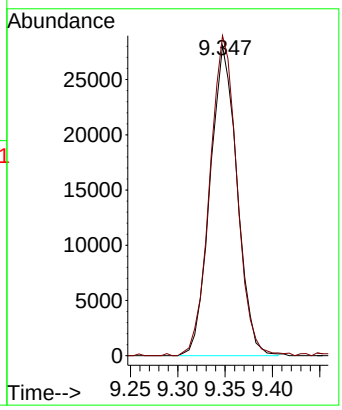


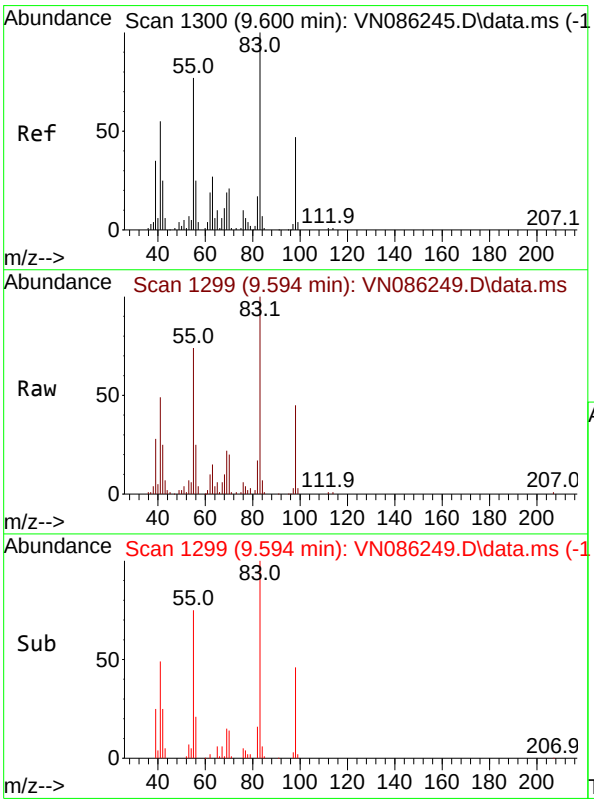
#37
Trichloroethene
Concen: 20.150 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:130 Resp: 55823

Ion	Ratio	Lower	Upper
130	100		
95	103.2	76.4	114.6

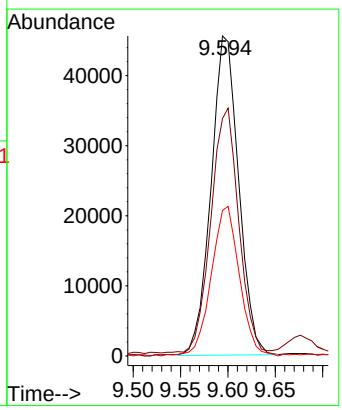


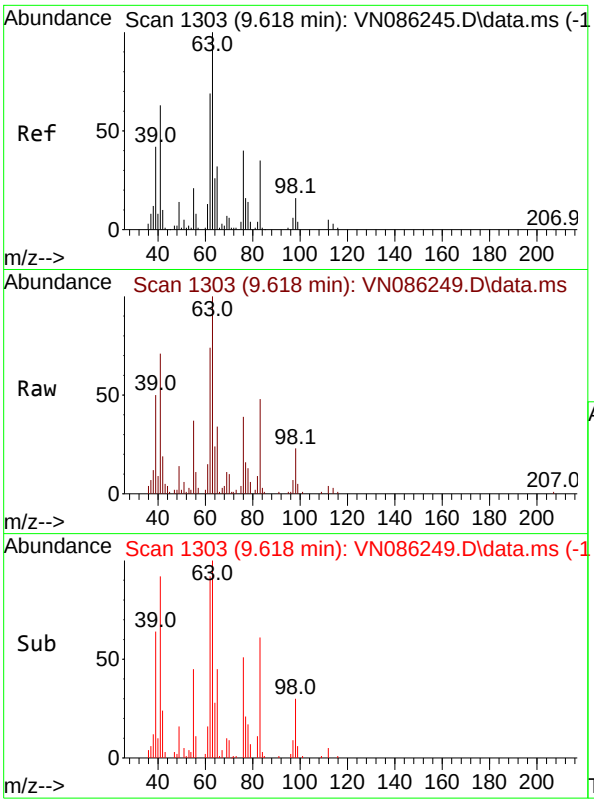


#38
Methylcyclohexane
Concen: 20.887 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 83 Resp: 92449

Ion	Ratio	Lower	Upper
83	100		
55	77.4	38.5	115.5
98	47.6	24.4	73.2



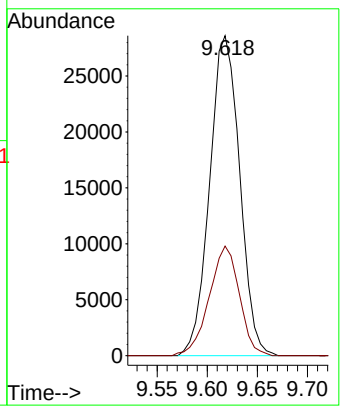


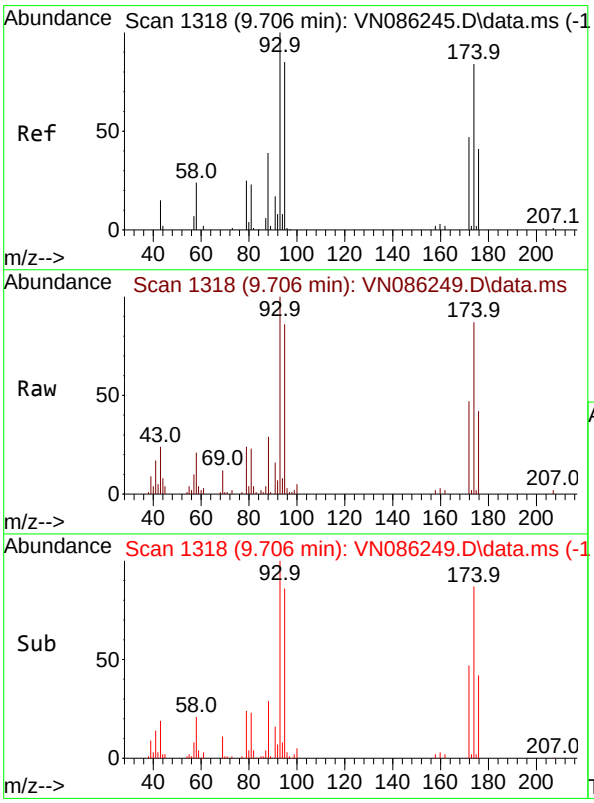
#39
1,2-Dichloropropane
Concen: 20.876 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 63 Resp: 59643

Ion	Ratio	Lower	Upper
63	100		
65	34.2	26.0	39.0

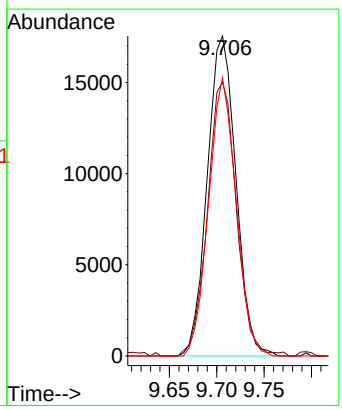


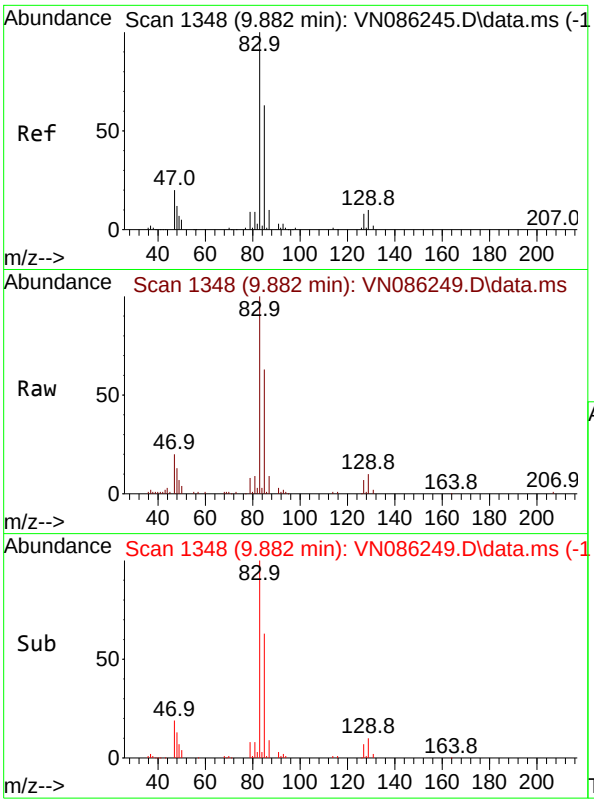


#40
Dibromomethane
Concen: 20.021 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 93 Resp: 36945

Ion	Ratio	Lower	Upper
93	100		
95	85.6	0.0	169.0
174	83.5	0.0	168.0



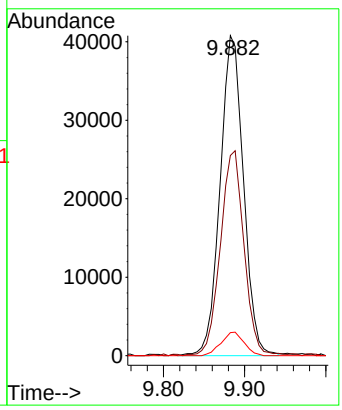


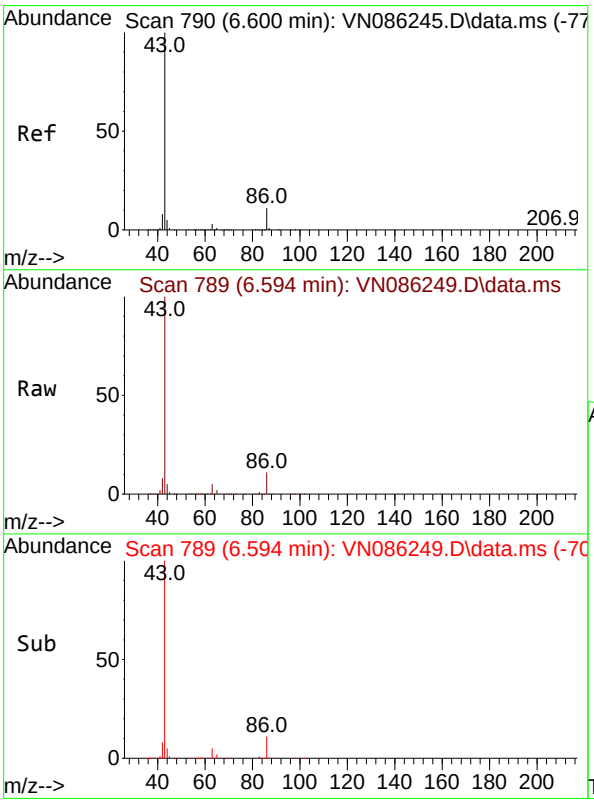
#41
Bromodichloromethane
Concen: 20.598 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 83 Resp: 81655

Ion	Ratio	Lower	Upper
83	100		
85	62.1	50.2	75.2
127	7.2	6.2	9.4

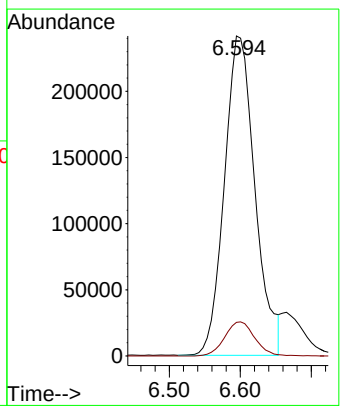


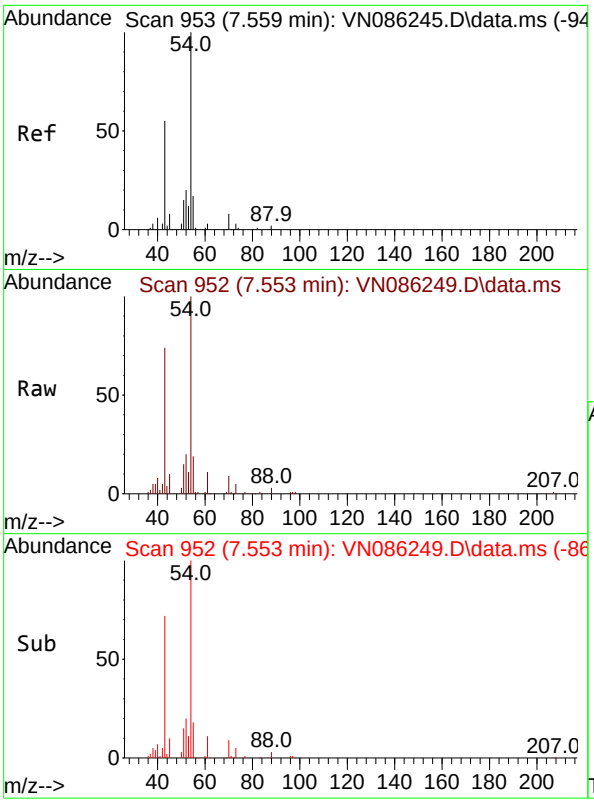


#42
Vinyl Acetate
Concen: 106.292 ug/l
RT: 6.594 min Scan# 789
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 723573

Ion	Ratio	Lower	Upper
43	100		
86	10.4	8.4	12.6



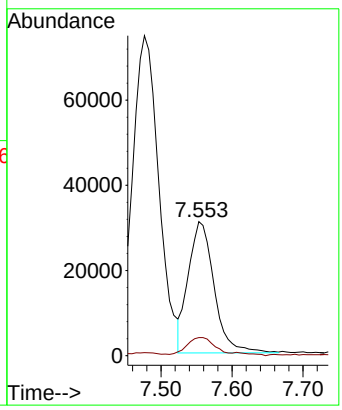


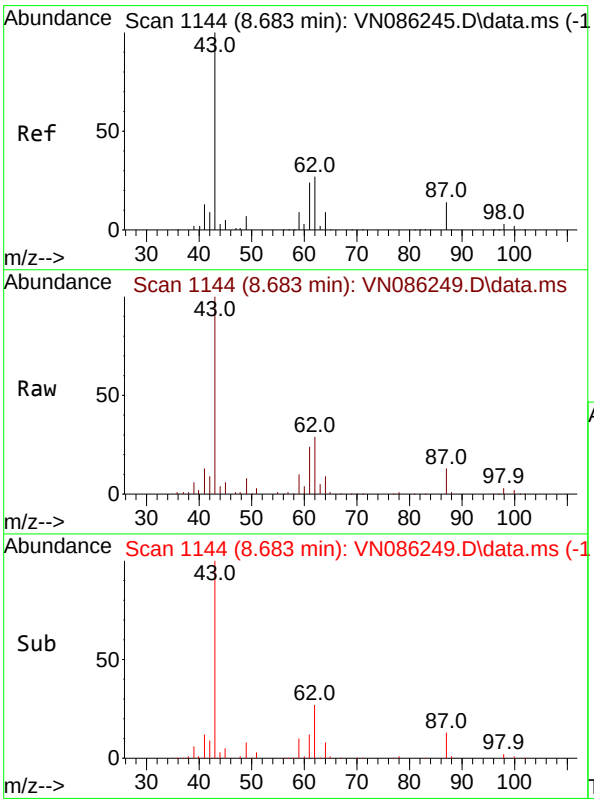
#43
Ethyl Acetate
Concen: 19.328 ug/l
RT: 7.553 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 43 Resp: 77965

Ion	Ratio	Lower	Upper
43	100		
45	13.2	11.2	16.8

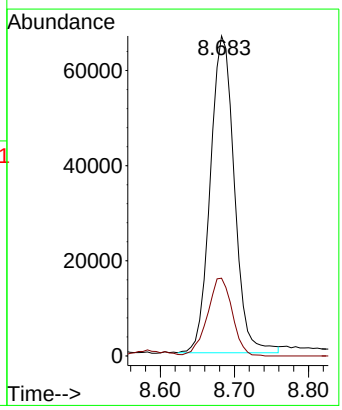


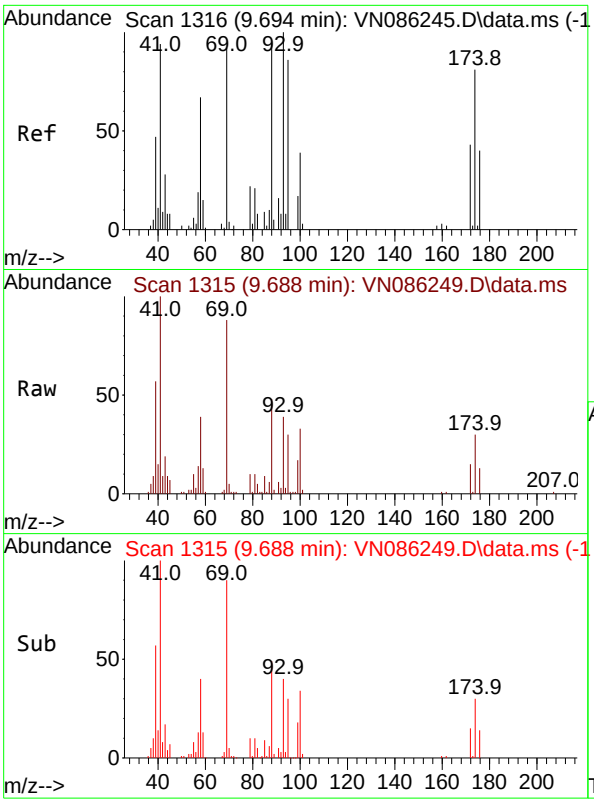


#44
Isopropyl Acetate
Concen: 20.046 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 150010

Ion	Ratio	Lower	Upper
43	100		
61	24.9	20.5	30.7



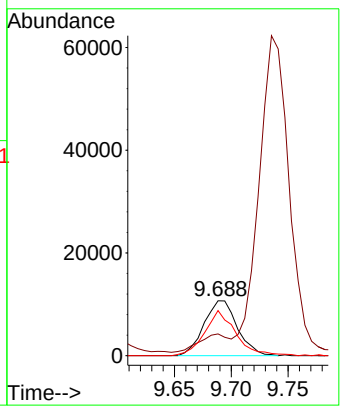


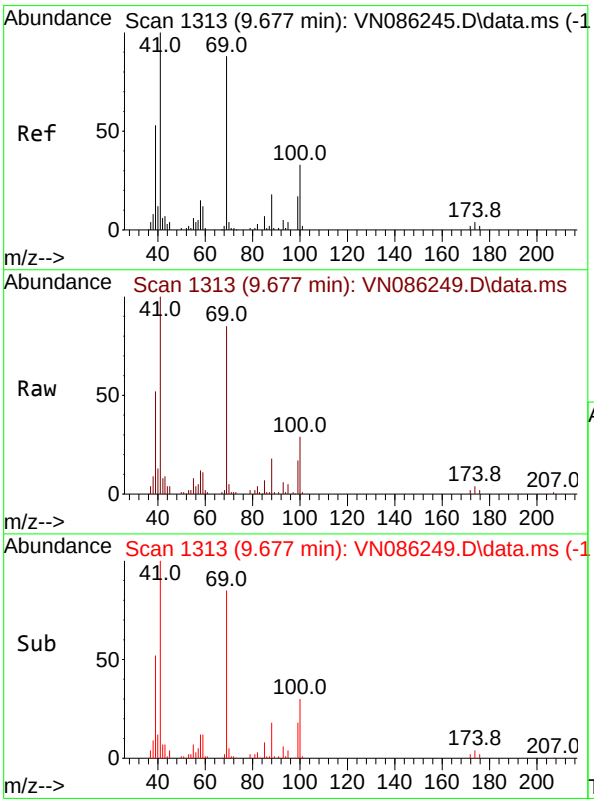
#45
1,4-Dioxane
Concen: 366.878 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 88 Resp: 21831

Ion	Ratio	Lower	Upper
88	100		
43	30.1	14.4	21.6#
58	76.8	59.8	89.8

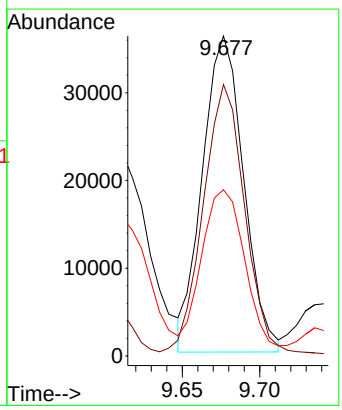


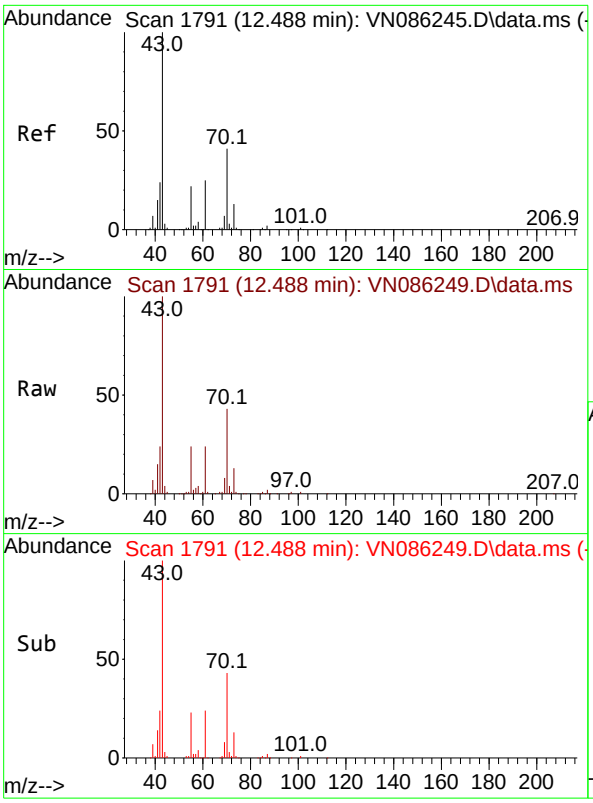


#46
Methyl methacrylate
Concen: 20.193 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 41 Resp: 66579

Ion	Ratio	Lower	Upper
41	100		
69	85.8	43.2	129.6
39	51.3	26.4	79.0



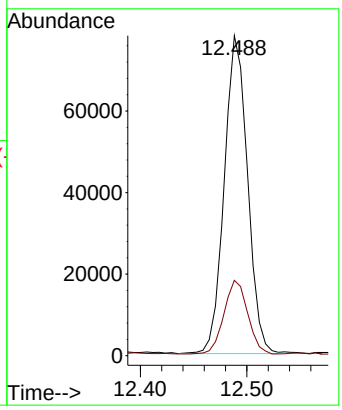


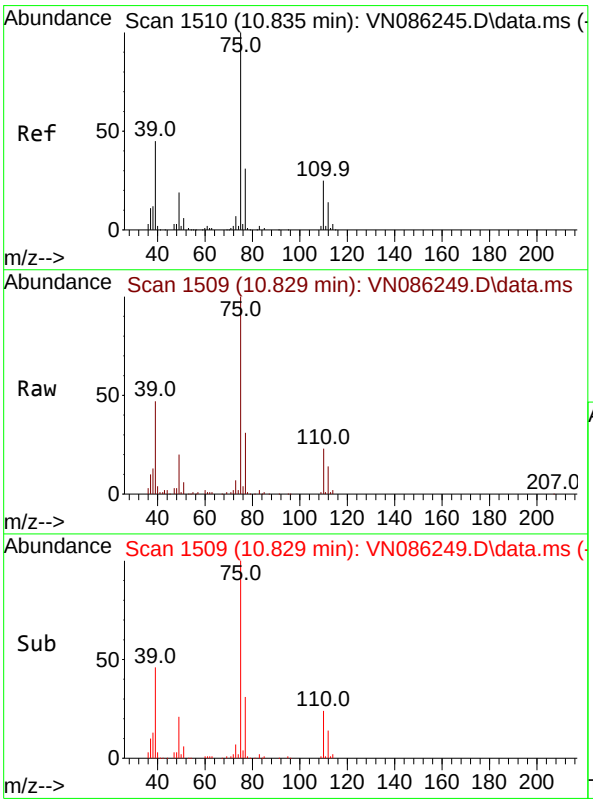
#47
n-amyl Acetate
Concen: 19.943 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 43 Resp: 118327

Ion	Ratio	Lower	Upper
43	100		
55	23.5	19.0	28.4

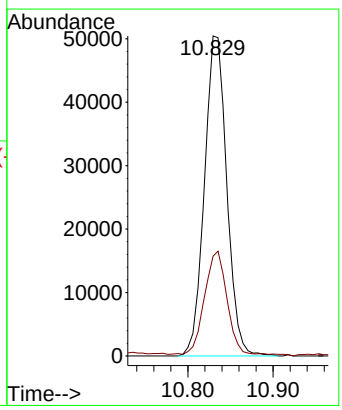


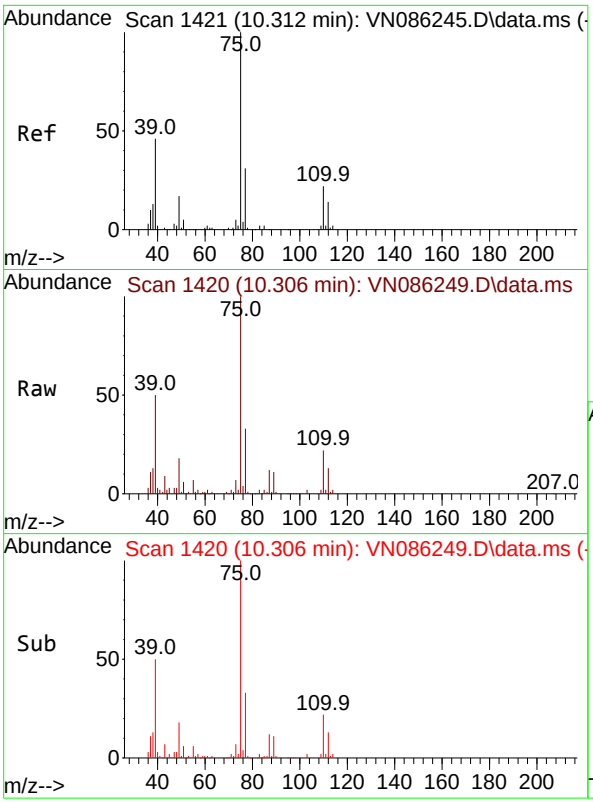


#48
t-1,3-Dichloropropene
Concen: 20.541 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 92056

Ion	Ratio	Lower	Upper
75	100		
77	30.7	25.1	37.7



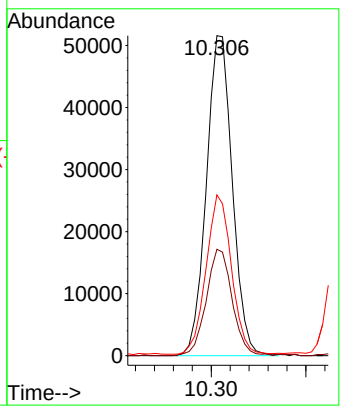


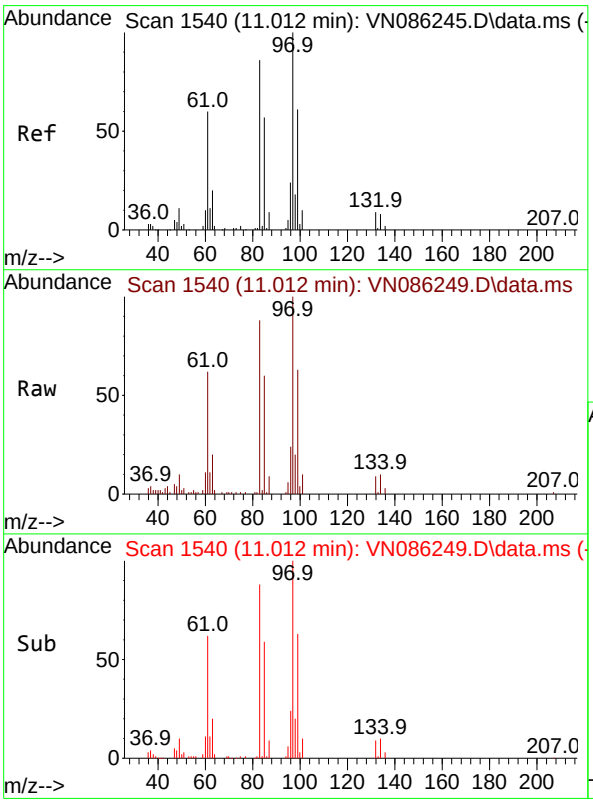
#49
cis-1,3-Dichloropropene
Concen: 20.682 ug/l
RT: 10.306 min Scan# 14
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 75 Resp: 98100

Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.0	37.4
39	49.8	36.7	55.1

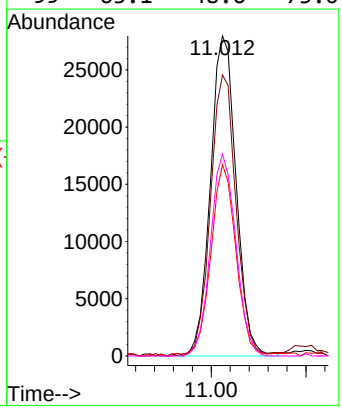


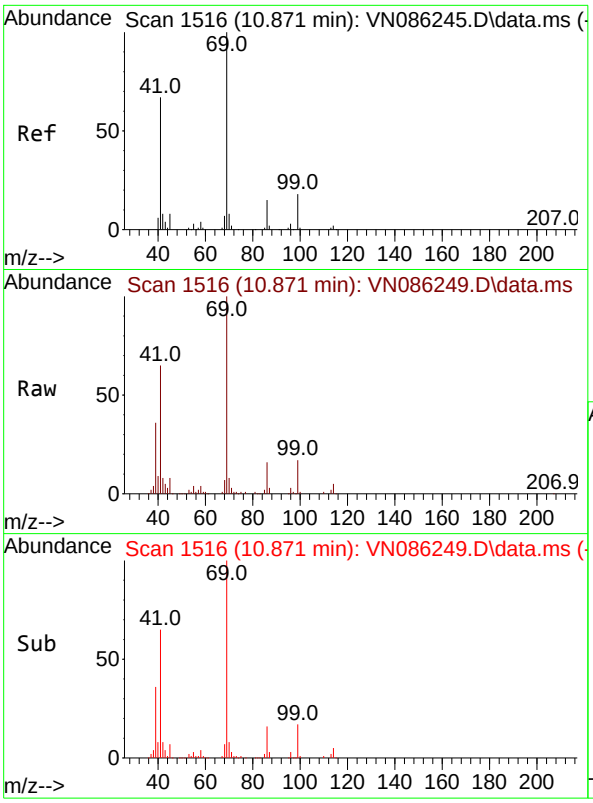


#50
1,1,2-Trichloroethane
Concen: 20.382 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 97 Resp: 52750

Ion	Ratio	Lower	Upper
97	100		
83	87.0	68.6	103.0
85	59.1	45.9	68.9
99	63.1	48.6	73.0



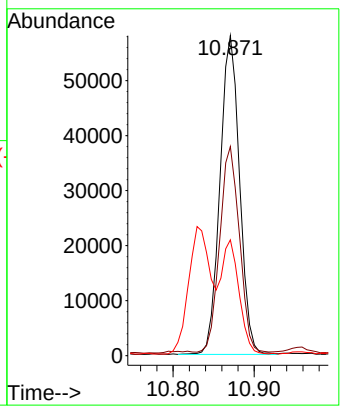


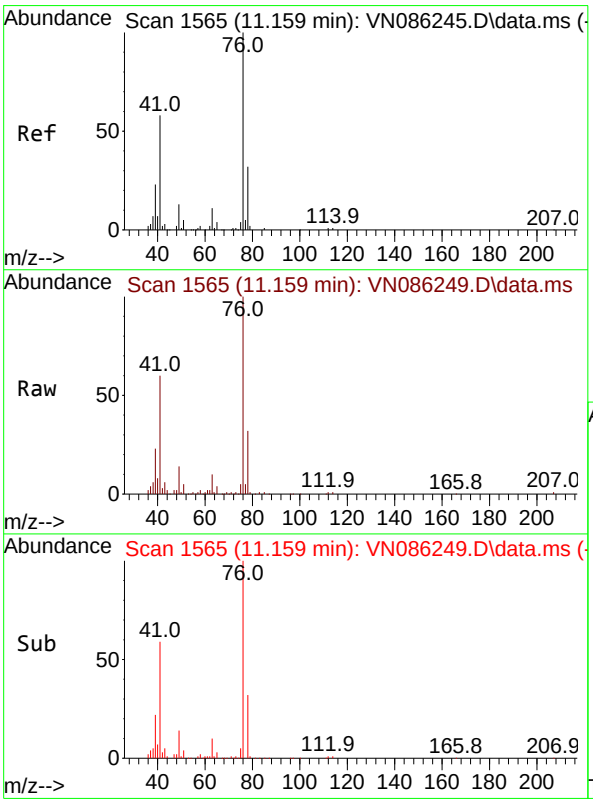
#51
Ethyl methacrylate
Concen: 20.222 ug/l
RT: 10.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 69 Resp: 97258

Ion	Ratio	Lower	Upper
69	100		
41	64.3	33.6	100.6
39	35.9	17.8	53.4

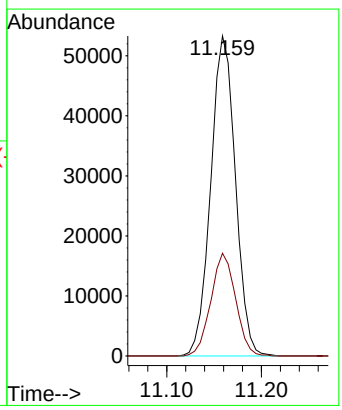


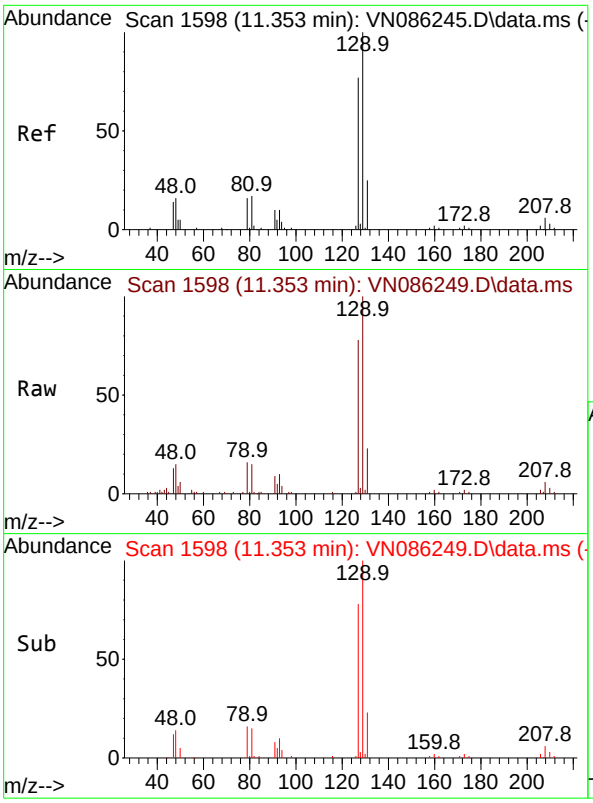


#52
1,3-Dichloropropane
Concen: 20.938 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 76 Resp: 96585

Ion	Ratio	Lower	Upper
76	100		
78	32.1	0.0	64.6



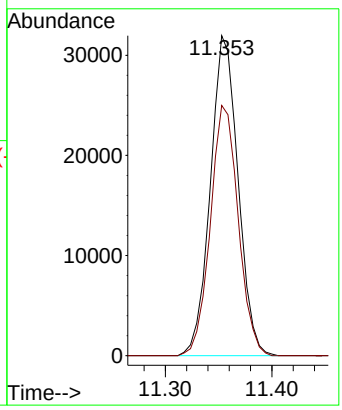


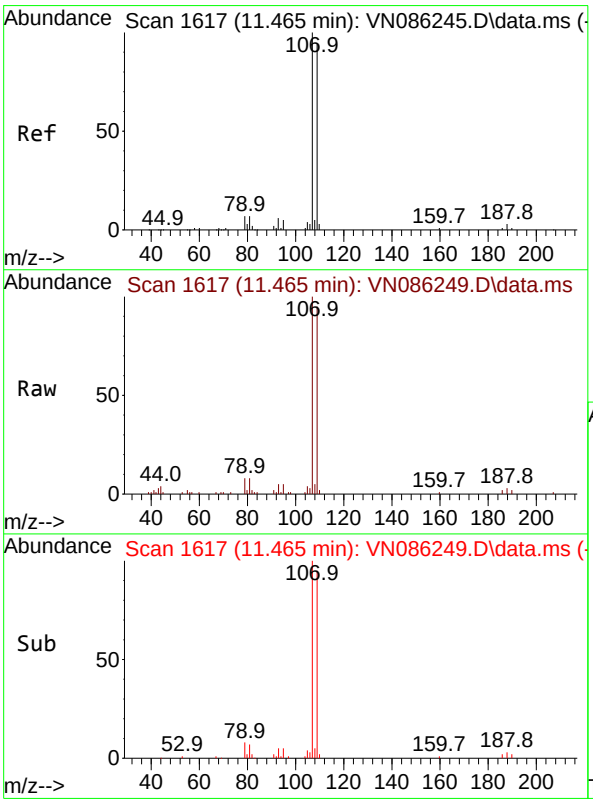
#53
Dibromochloromethane
Concen: 20.369 ug/l
RT: 11.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:129 Resp: 57663

Ion	Ratio	Lower	Upper
129	100		
127	78.7	38.5	115.5

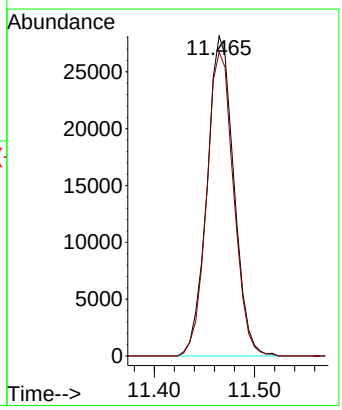


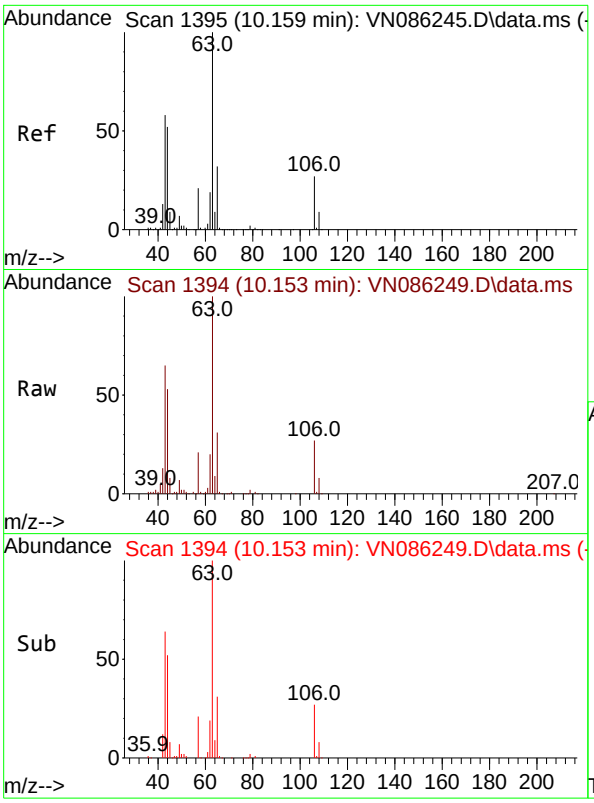


#54
1,2-Dibromoethane
Concen: 20.012 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:107 Resp: 52283

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.2	112.8



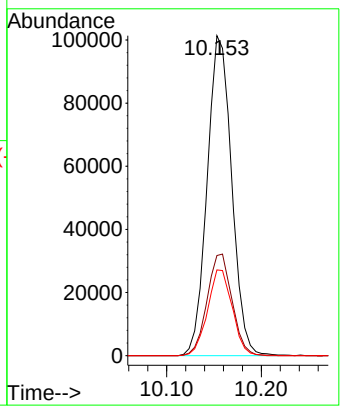


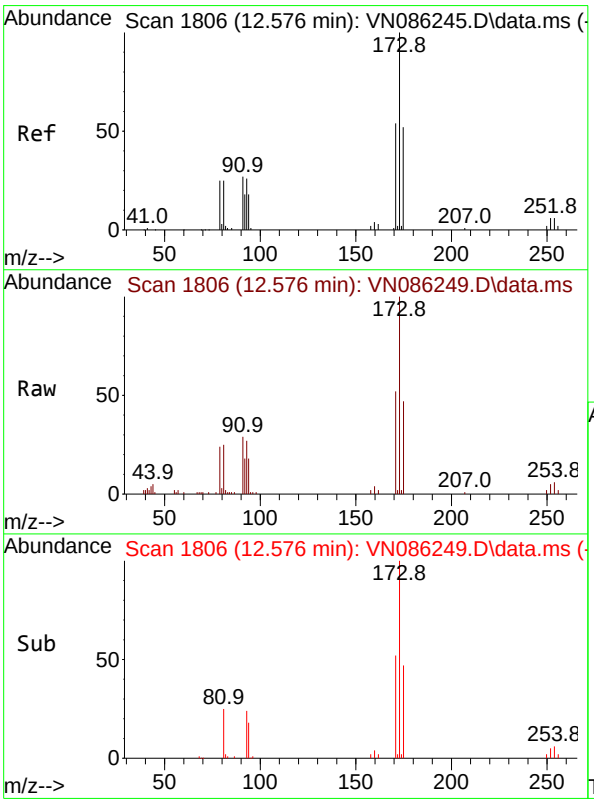
#55
2-Chloroethyl vinyl ether
Concen: 100.309 ug/l
RT: 10.153 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 63 Resp: 182299

Ion	Ratio	Lower	Upper
63	100		
65	32.2	25.8	38.8
106	27.0	21.8	32.8

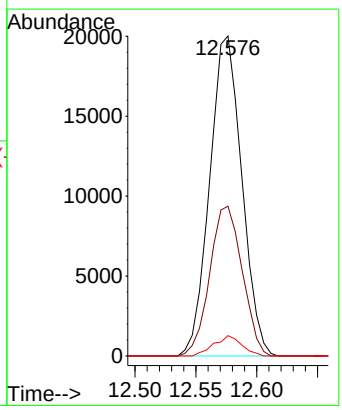


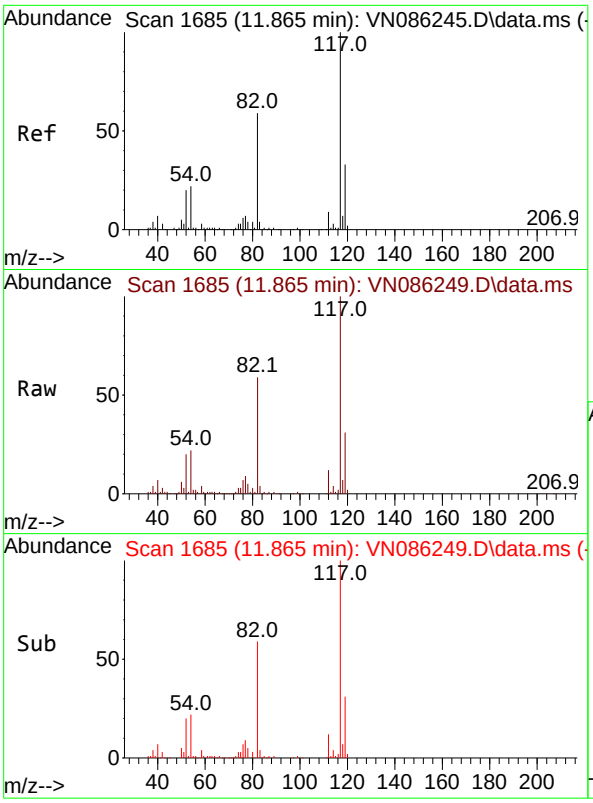


#56
Bromoform
Concen: 19.864 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:173 Resp: 36790

Ion	Ratio	Lower	Upper
173	100		
175	47.3	38.2	57.4
254	5.5	4.5	6.7



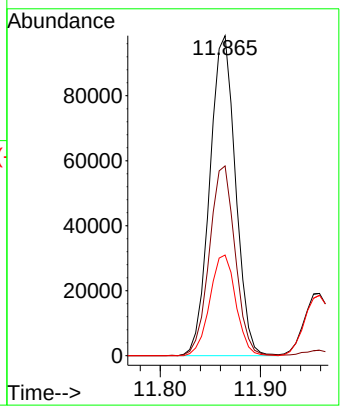


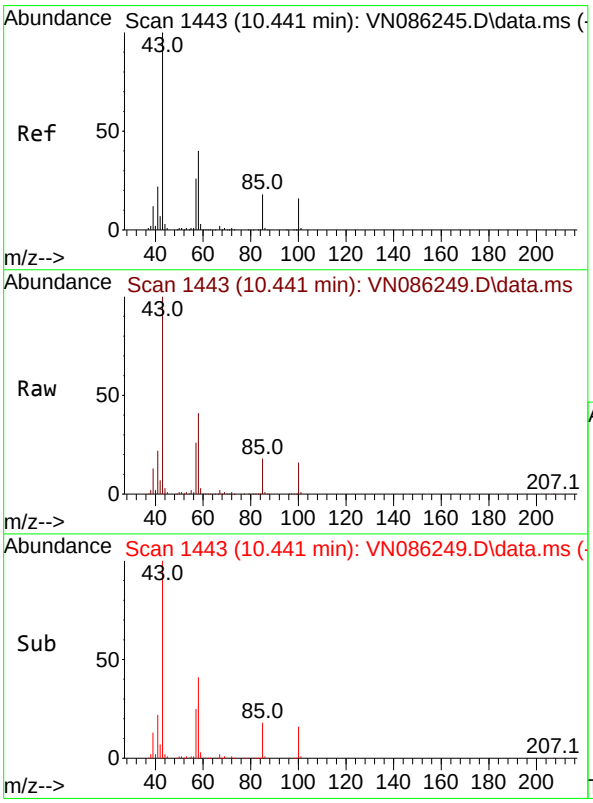
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:117 Resp: 175632

Ion	Ratio	Lower	Upper
117	100		
82	59.5	47.3	70.9
119	31.8	25.9	38.9

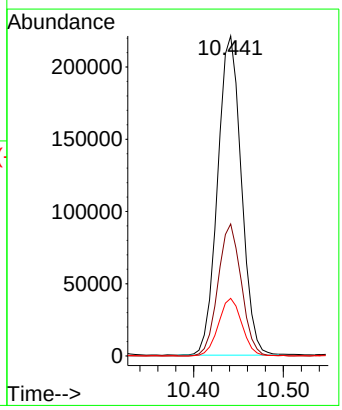


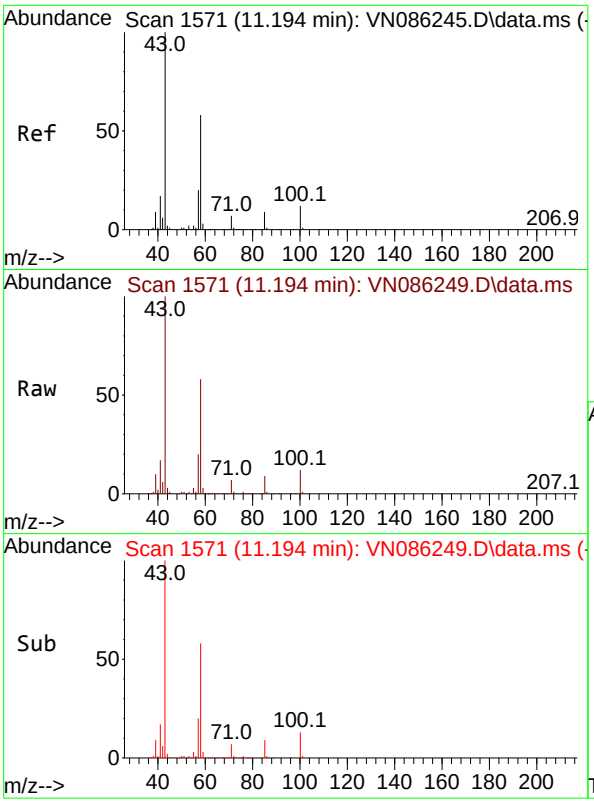


#58
4-Methyl-2-Pentanone
Concen: 101.770 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 43 Resp: 405618

Ion	Ratio	Lower	Upper
43	100		
58	40.6	32.5	48.7
85	17.9	14.4	21.6



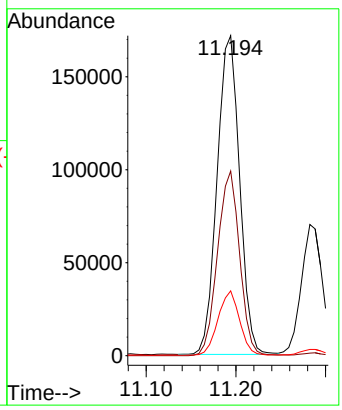


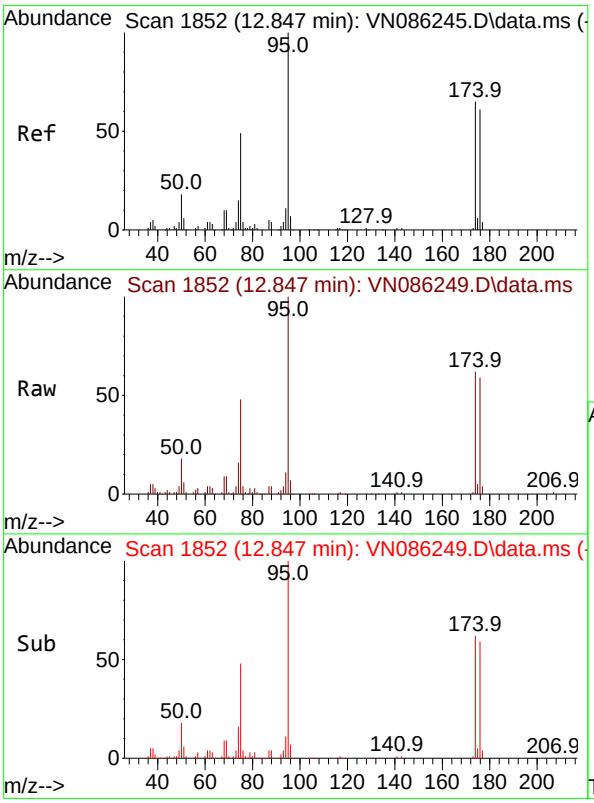
#59
2-Hexanone
Concen: 100.637 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 43 Resp: 298673

Ion	Ratio	Lower	Upper
43	100		
58	56.8	45.3	67.9
57	19.3	15.8	23.6

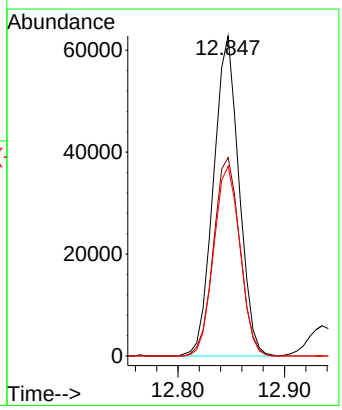


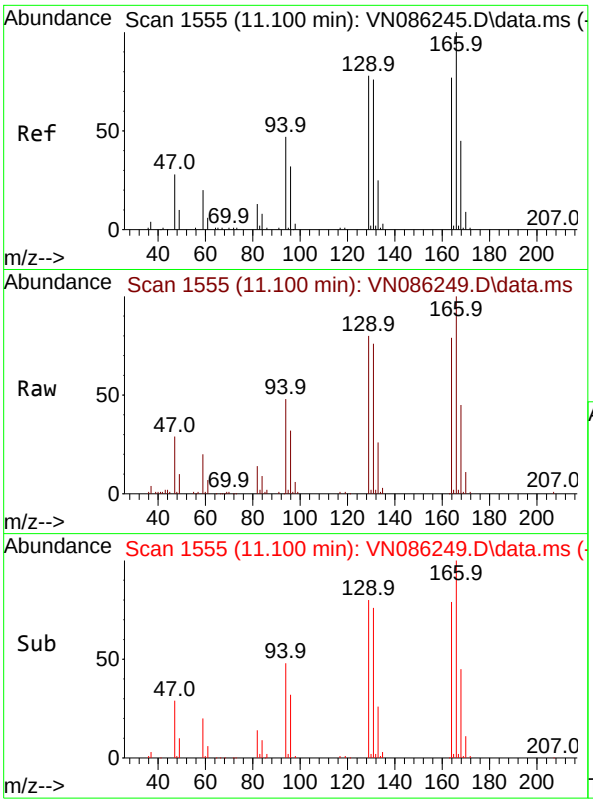


#60
4-Bromofluorobenzene
Concen: 29.838 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 95 Resp: 104335

Ion	Ratio	Lower	Upper
95	100		
174	63.9	52.7	79.1
176	61.2	49.8	74.8



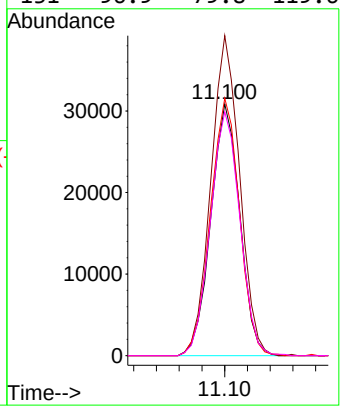


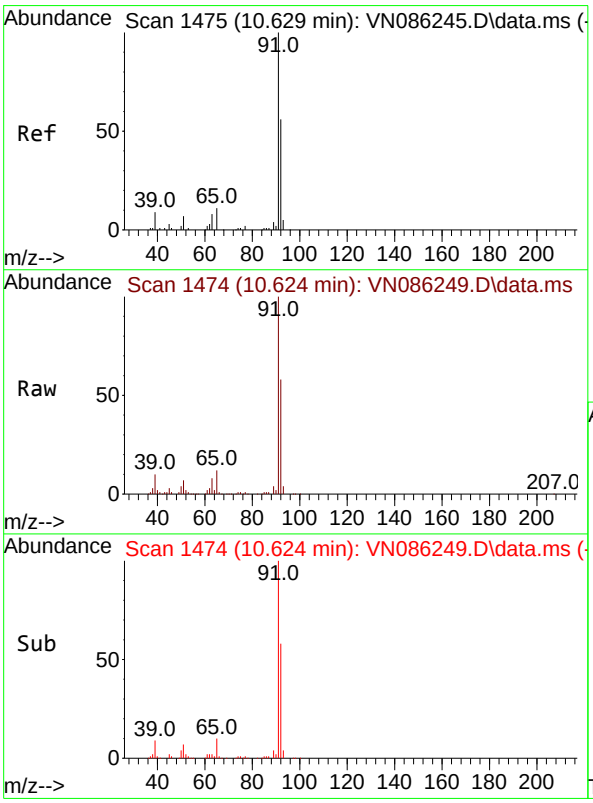
#61
Tetrachloroethene
Concen: 20.949 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:164 Resp: 54335

Ion	Ratio	Lower	Upper
164	100		
166	127.2	104.5	156.7
129	102.3	81.7	122.5
131	96.9	79.8	119.6

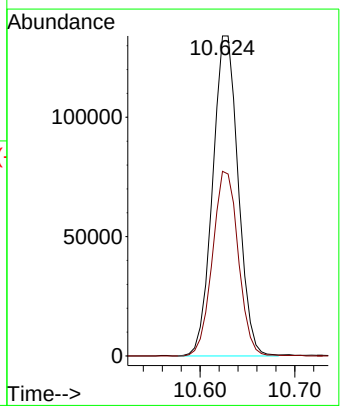


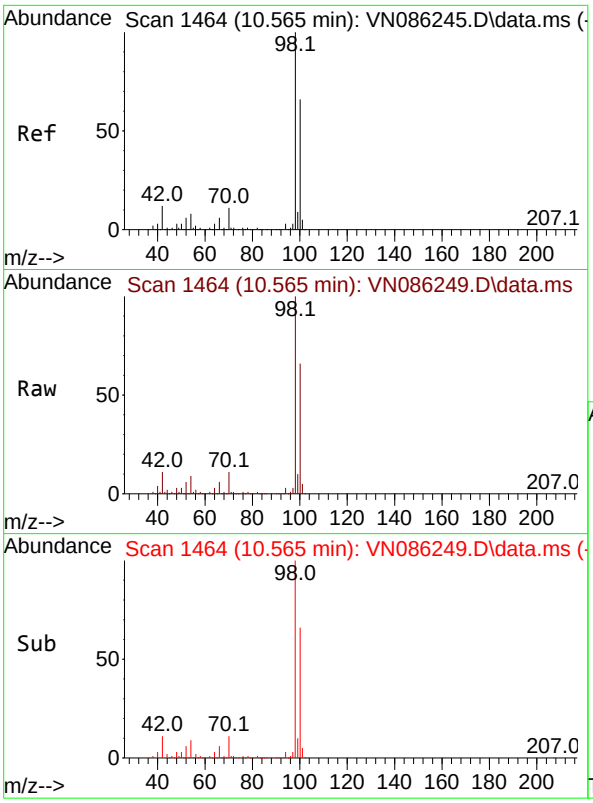


#62
Toluene
Concen: 21.355 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 251566

Ion	Ratio	Lower	Upper
91	100		
92	58.1	46.8	70.2



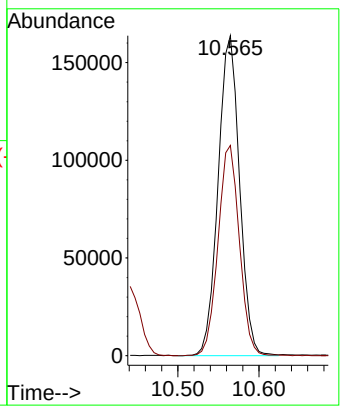


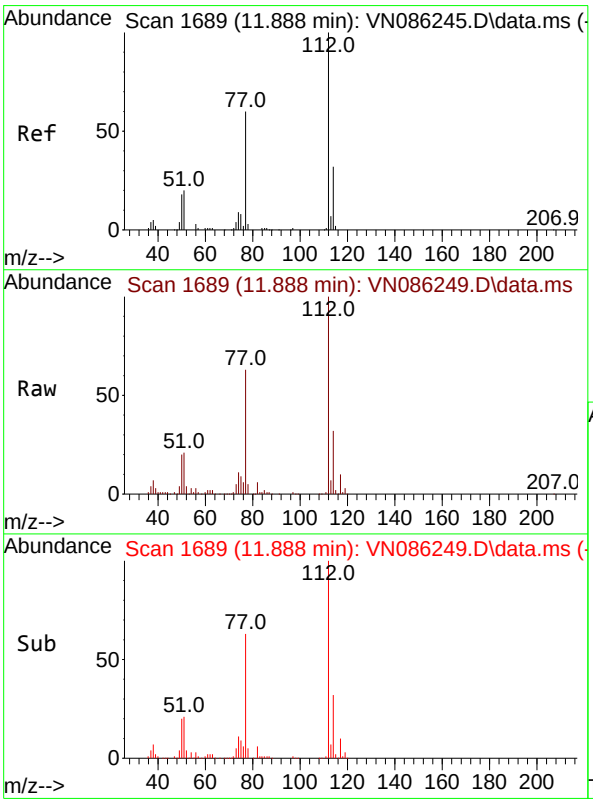
#63
Toluene-d8
Concen: 30.325 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 98 Resp: 300690

Ion	Ratio	Lower	Upper
98	100		
100	65.3	52.3	78.5

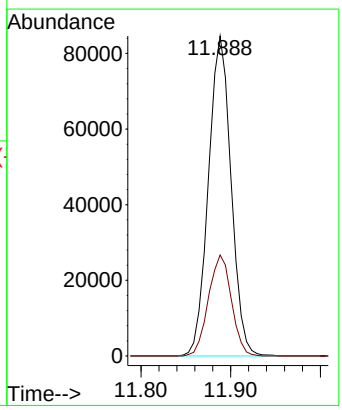


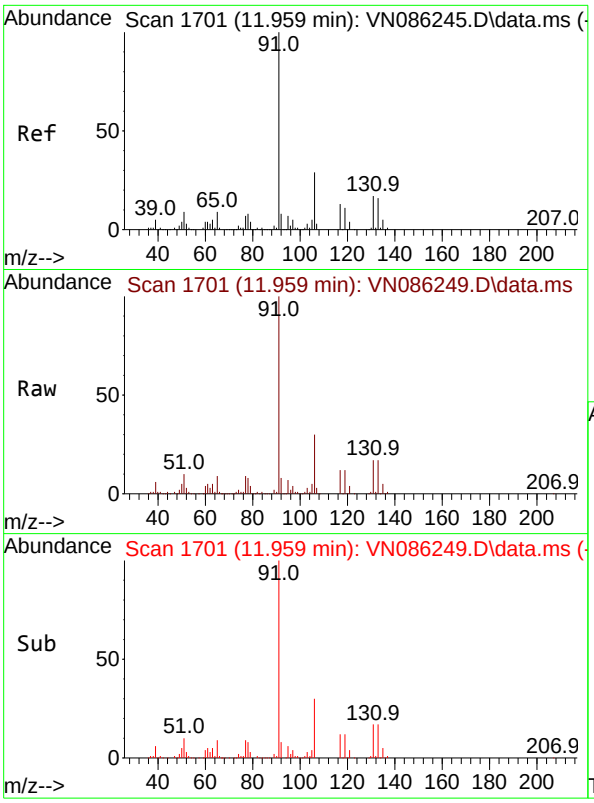


#64
Chlorobenzene
Concen: 20.597 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:112 Resp: 148243

Ion	Ratio	Lower	Upper
112	100		
114	31.5	25.8	38.6



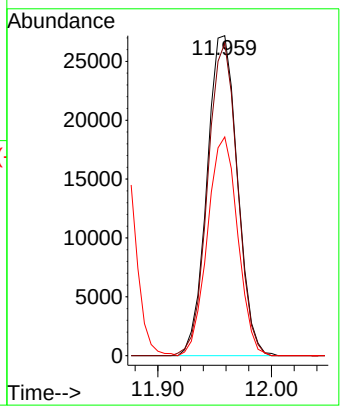


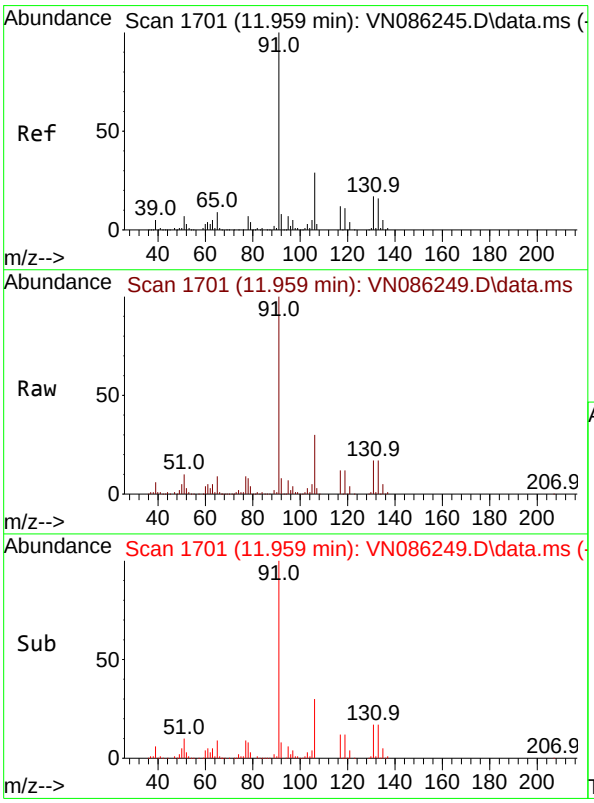
#65
1,1,1,2-Tetrachloroethane
Concen: 21.344 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:131 Resp: 50696

Ion	Ratio	Lower	Upper
131	100		
133	94.9	0.0	190.4
119	67.7	0.0	135.6

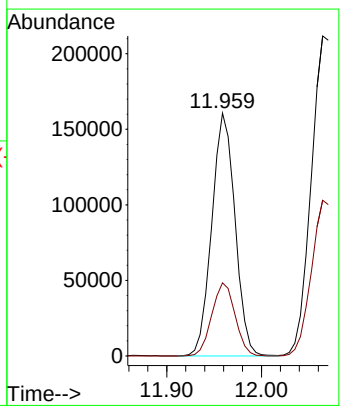


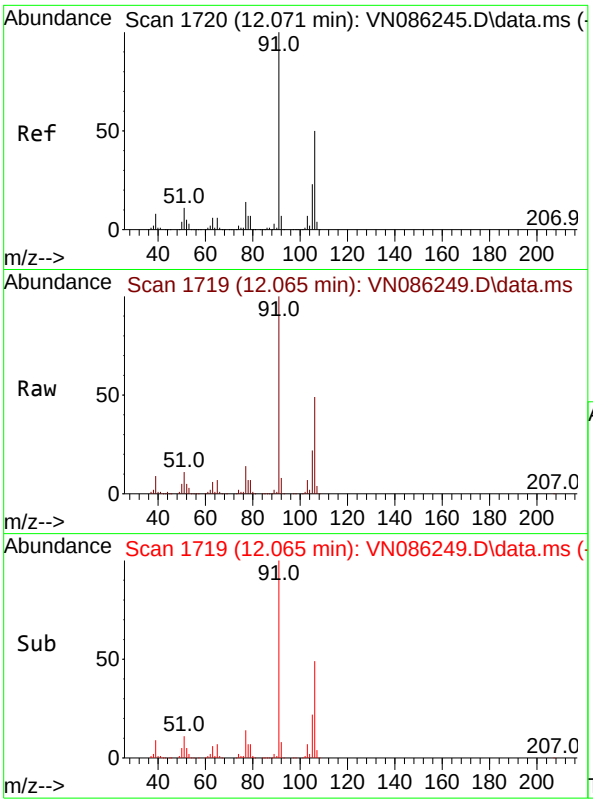


#66
Ethyl Benzene
Concen: 20.960 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 273823

Ion	Ratio	Lower	Upper
91	100		
106	30.1	23.4	35.0



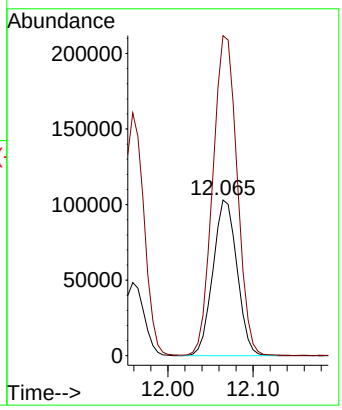


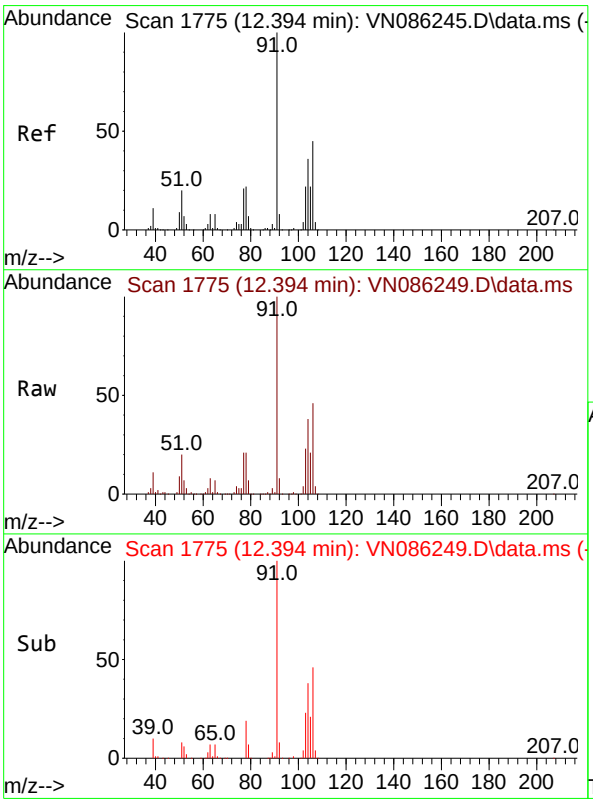
#67
m/p-Xylenes
Concen: 41.705 ug/l
RT: 12.065 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:106 Resp: 202596

Ion	Ratio	Lower	Upper
106	100		
91	208.3	164.5	246.7

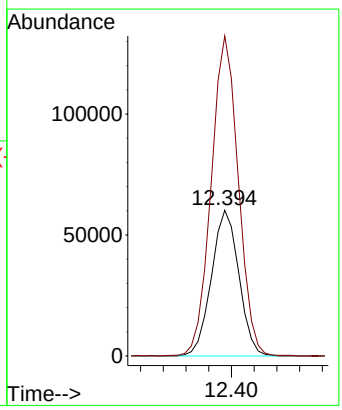


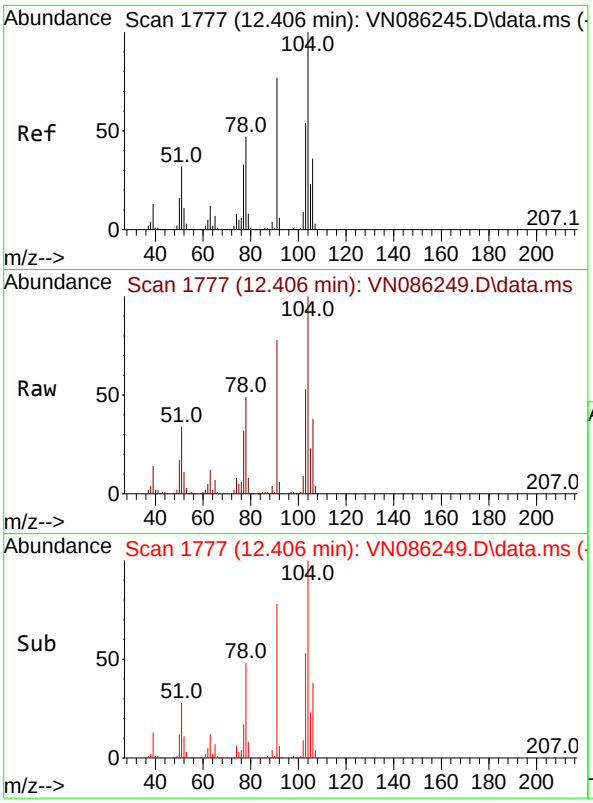


#68
o-Xylene
Concen: 21.129 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:106 Resp: 100957

Ion	Ratio	Lower	Upper
106	100		
91	217.4	109.8	329.4



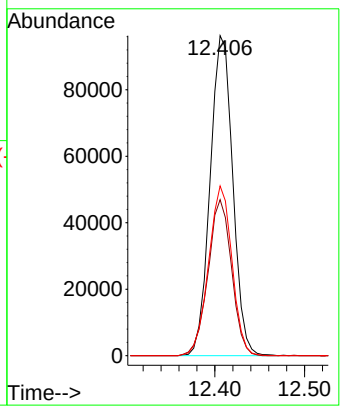


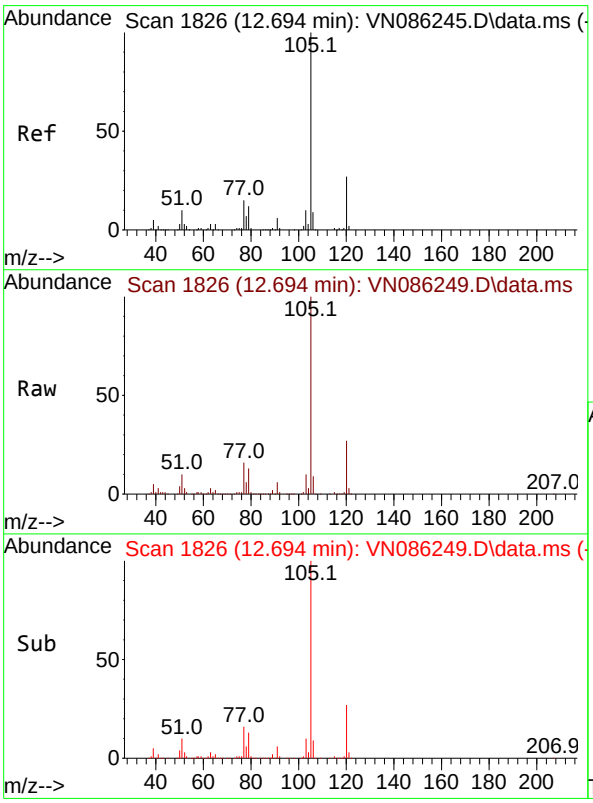
#69
Styrene
Concen: 20.929 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:104 Resp: 168655

Ion	Ratio	Lower	Upper
104	100		
78	50.7	41.4	62.0
103	54.8	44.2	66.4

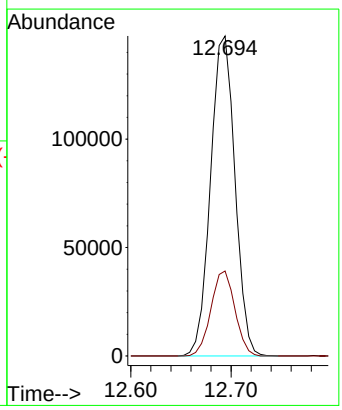


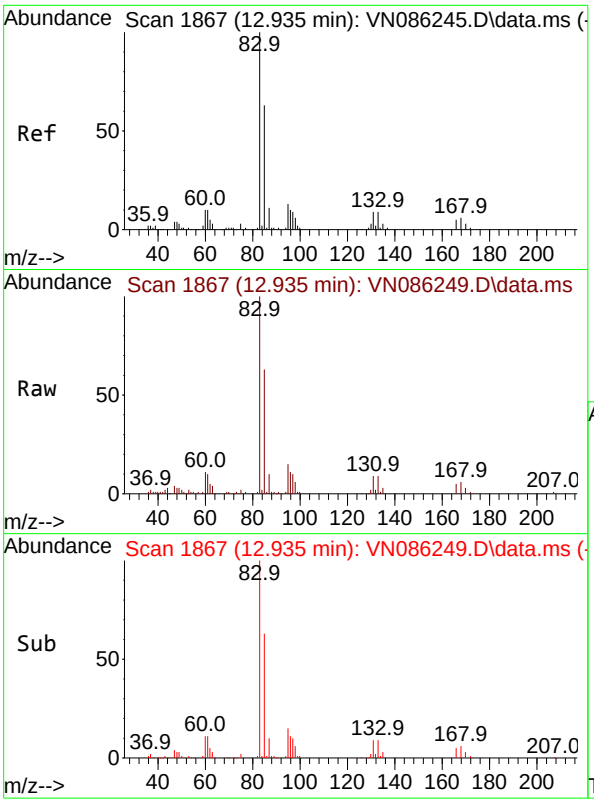


#70
Isopropylbenzene
Concen: 21.200 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 249762

Ion	Ratio	Lower	Upper
105	100		
120	26.0	18.3	34.1



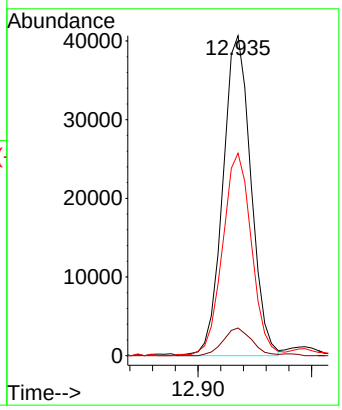


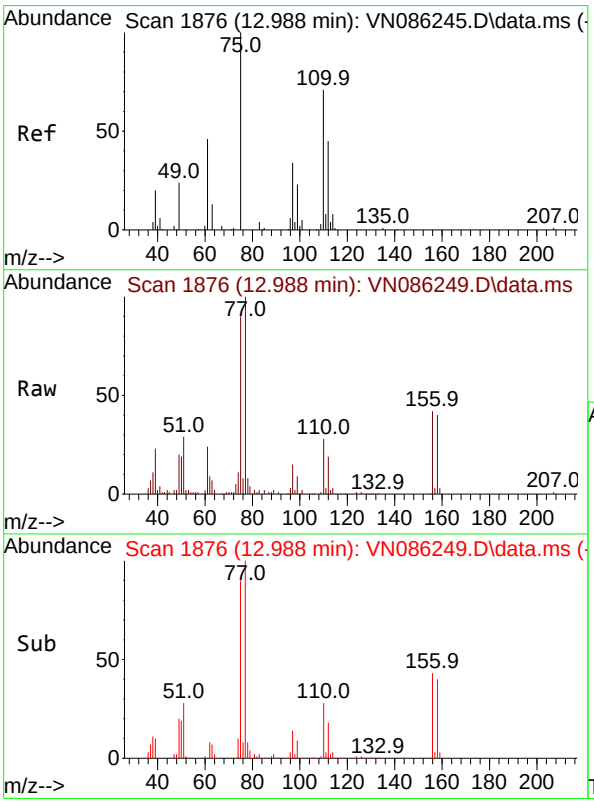
#71
1,1,2,2-Tetrachloroethane
Concen: 20.801 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 83 Resp: 69753

Ion	Ratio	Lower	Upper
83	100		
131	8.9	4.8	14.3
85	65.3	32.3	96.8

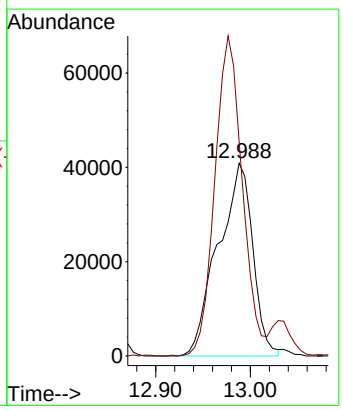


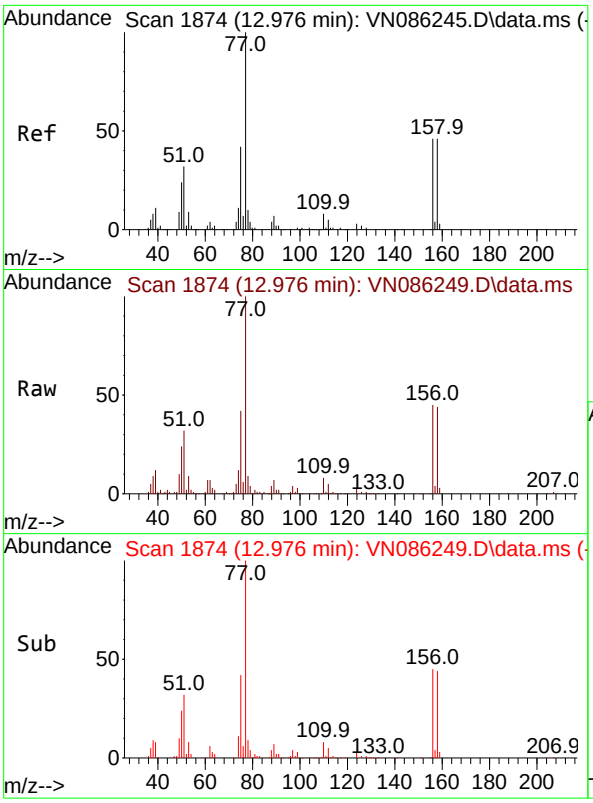


#72
1,2,3-Trichloropropane
Concen: 29.748 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 103838

Ion	Ratio	Lower	Upper
75	100		
77	132.3	0.0	380.0



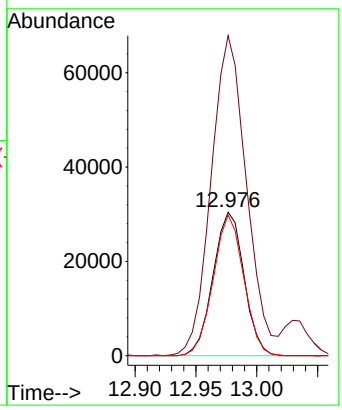


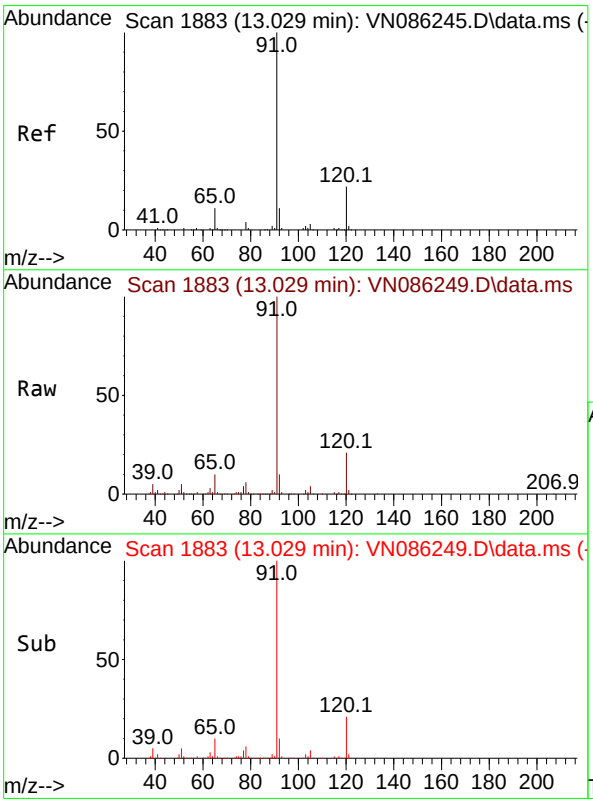
#73
Bromobenzene
Concen: 20.572 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:156 Resp: 53692

Ion	Ratio	Lower	Upper
156	100		
77	255.8	0.0	505.2
158	96.7	0.0	195.0

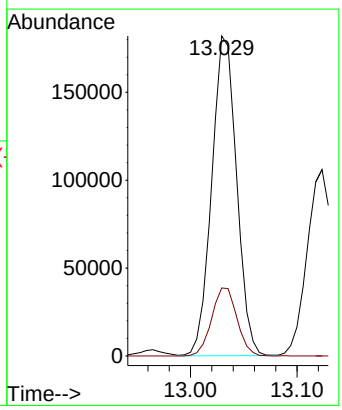


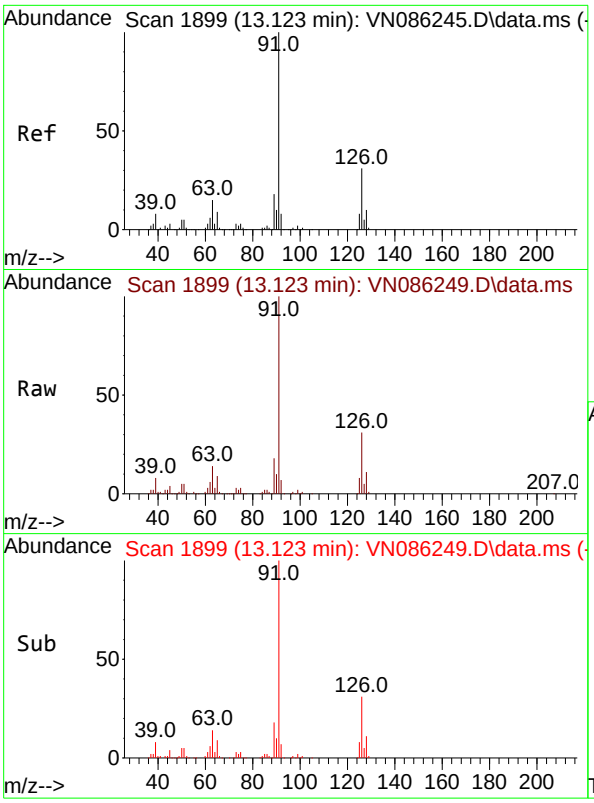


#74
n-propylbenzene
Concen: 21.231 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 295354

Ion	Ratio	Lower	Upper
91	100		
120	21.6	0.0	44.0



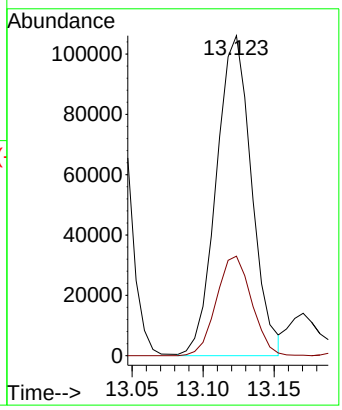


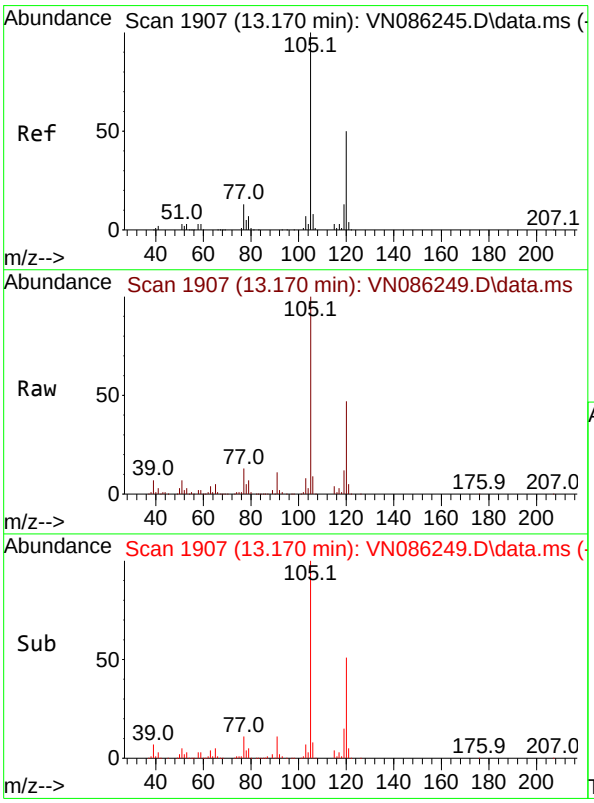
#75
2-Chlorotoluene
Concen: 20.961 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 91 Resp: 183287

Ion	Ratio	Lower	Upper
91	100		
126	31.0	0.0	63.4

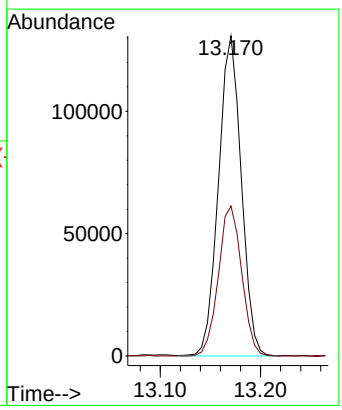


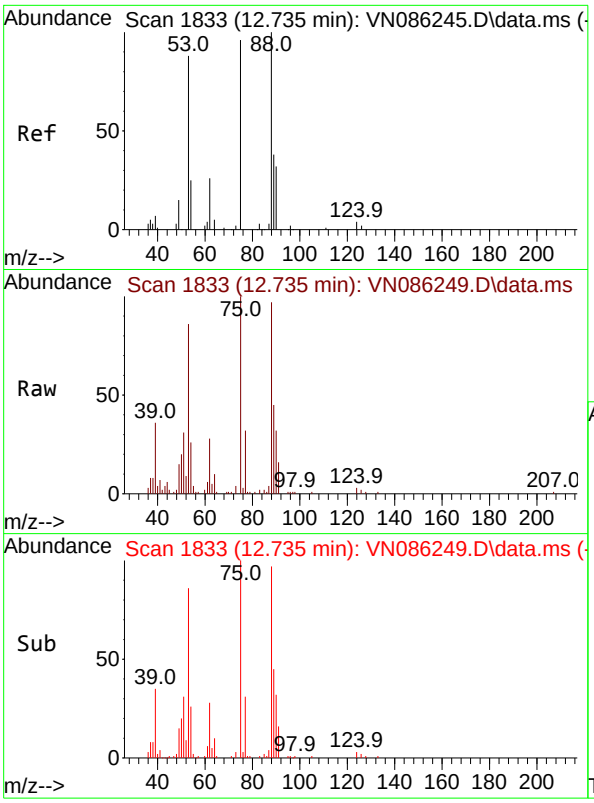


#76
1,3,5-Trimethylbenzene
Concen: 21.352 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 206643

Ion	Ratio	Lower	Upper
105	100		
120	47.8	0.0	98.0



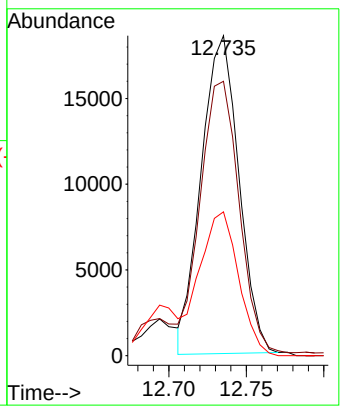


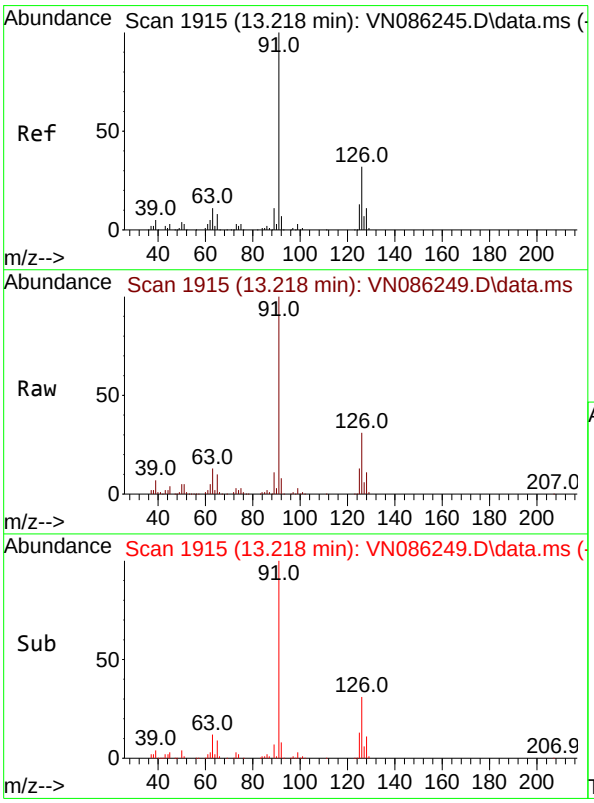
#77
t-1,4-Dichloro-2-butene
Concen: 19.426 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 75 Resp: 31266

Ion	Ratio	Lower	Upper
75	100		
53	85.1	46.4	139.2
89	45.4	22.5	67.5

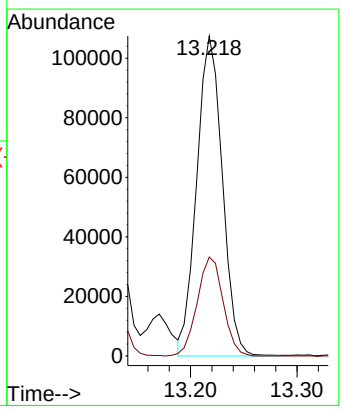


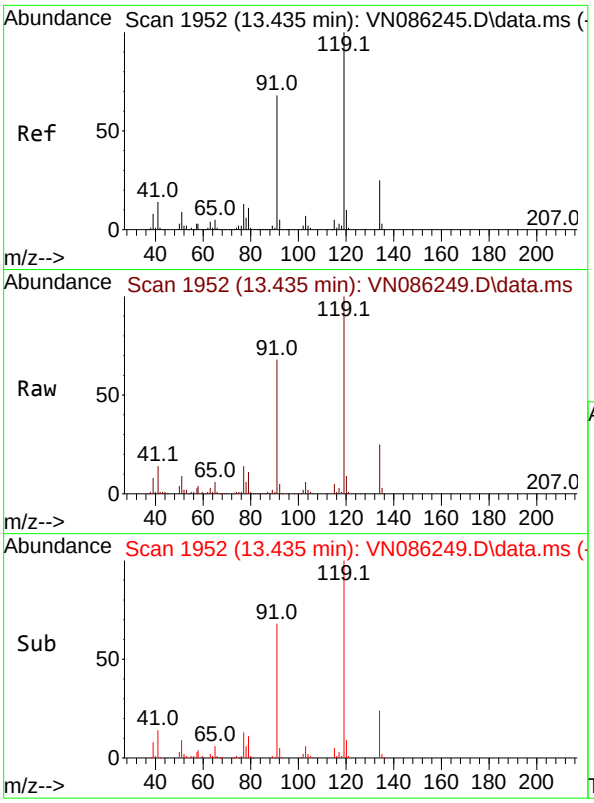


#78
4-Chlorotoluene
Concen: 20.589 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 91 Resp: 179801

Ion	Ratio	Lower	Upper
91	100		
126	31.2	0.0	63.2



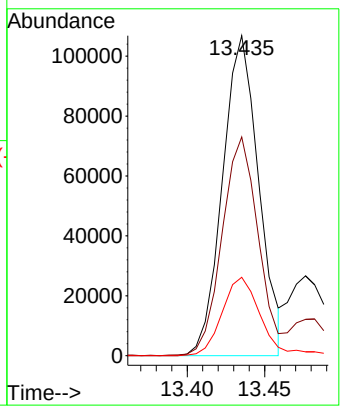


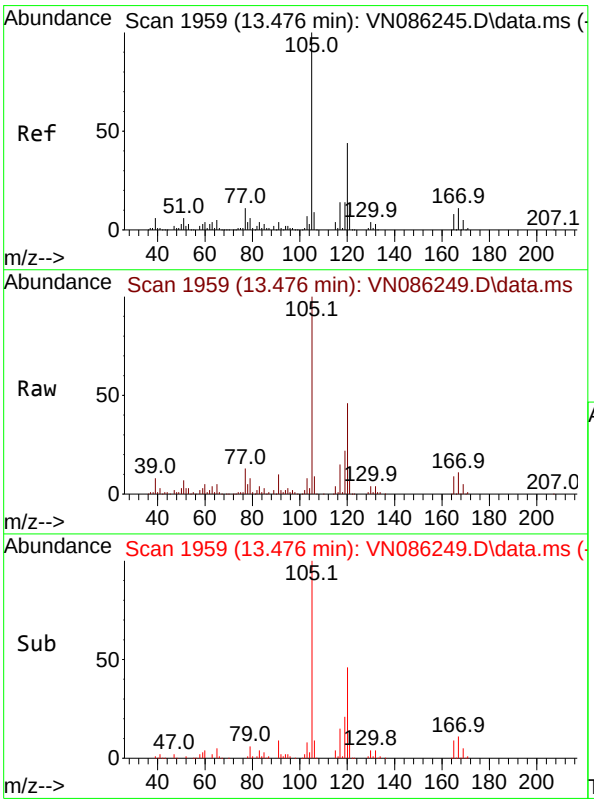
#79
tert-butylbenzene
Concen: 20.714 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:119 Resp: 173459

Ion	Ratio	Lower	Upper
119	100		
91	67.9	0.0	136.6
134	26.2	0.0	49.4

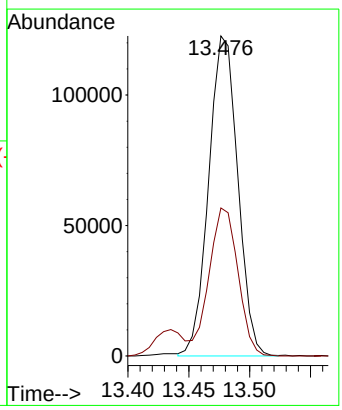


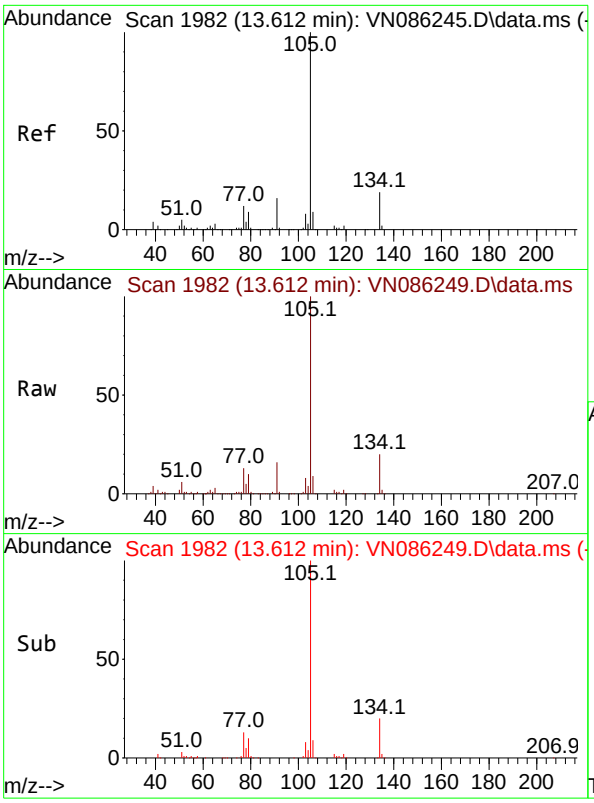


#80
1,2,4-Trimethylbenzene
Concen: 20.782 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:105 Resp: 203945

Ion	Ratio	Lower	Upper
105	100		
120	46.4	0.0	91.0



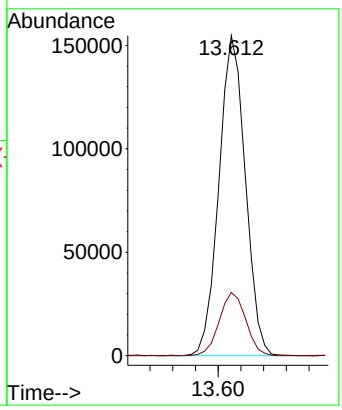


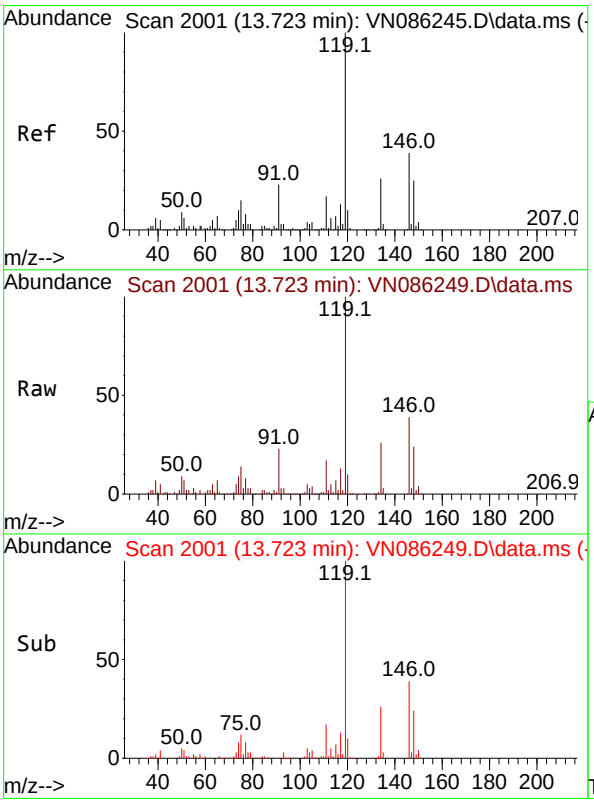
#81
sec-Butylbenzene
Concen: 21.354 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:105 Resp: 249442

Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	38.6

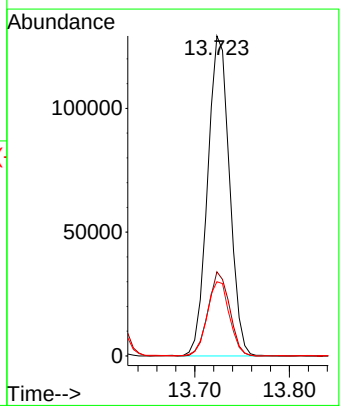


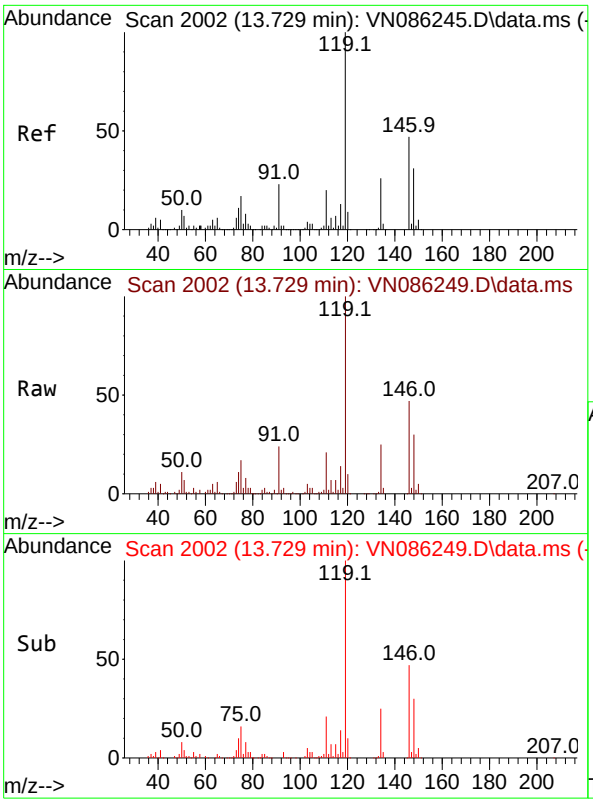


#82
p-Isopropyltoluene
Concen: 21.296 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:119 Resp: 207519

Ion	Ratio	Lower	Upper
119	100		
134	25.7	0.0	51.6
91	23.9	0.0	48.2



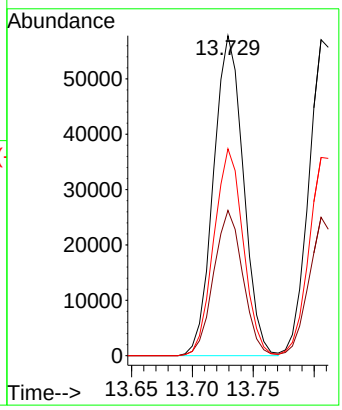


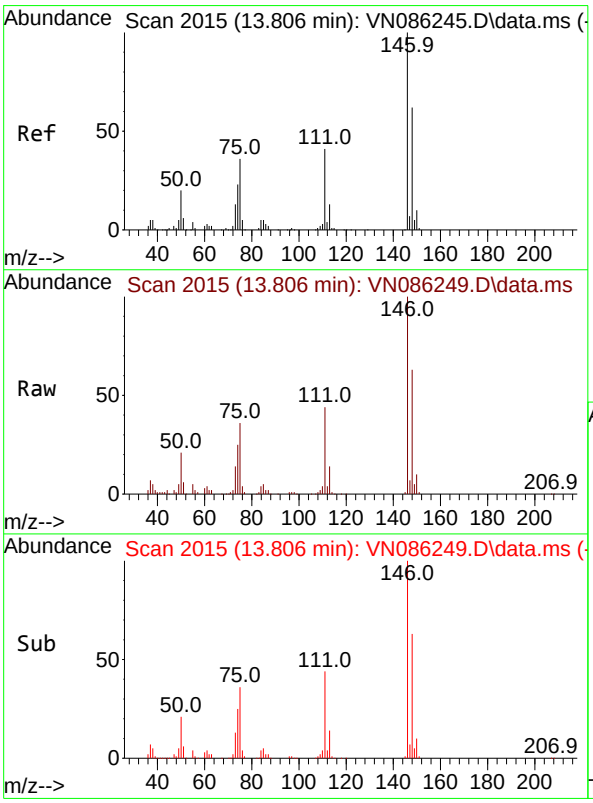
#83
1,3-Dichlorobenzene
Concen: 20.374 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:146 Resp: 98830

Ion	Ratio	Lower	Upper
146	100		
111	44.4	21.7	65.1
148	63.5	32.3	96.8

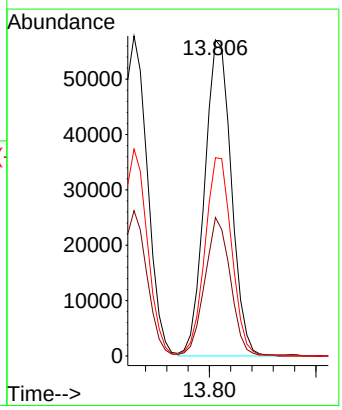


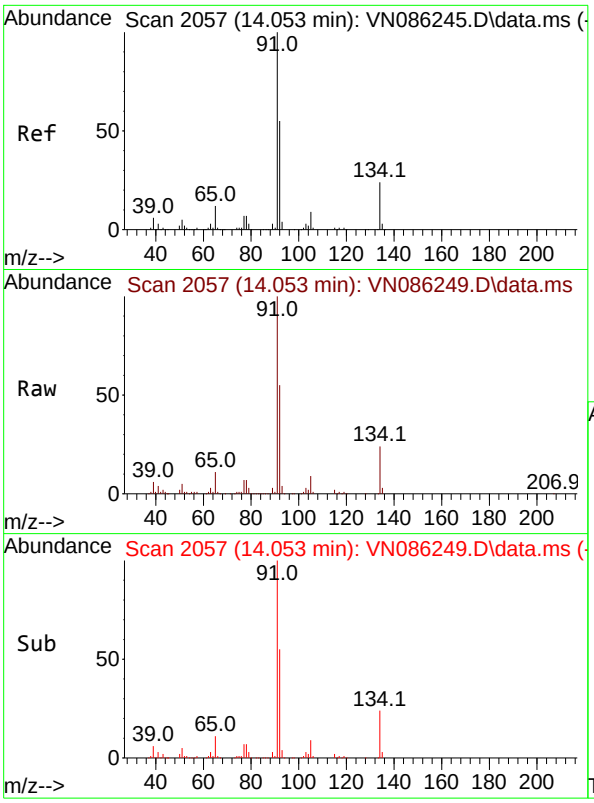


#84
1,4-Dichlorobenzene
Concen: 20.383 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:146 Resp: 99189

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.8	62.4
148	62.9	31.9	95.5



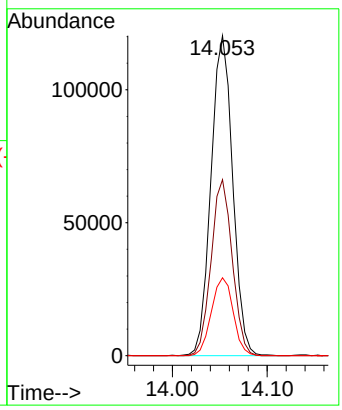


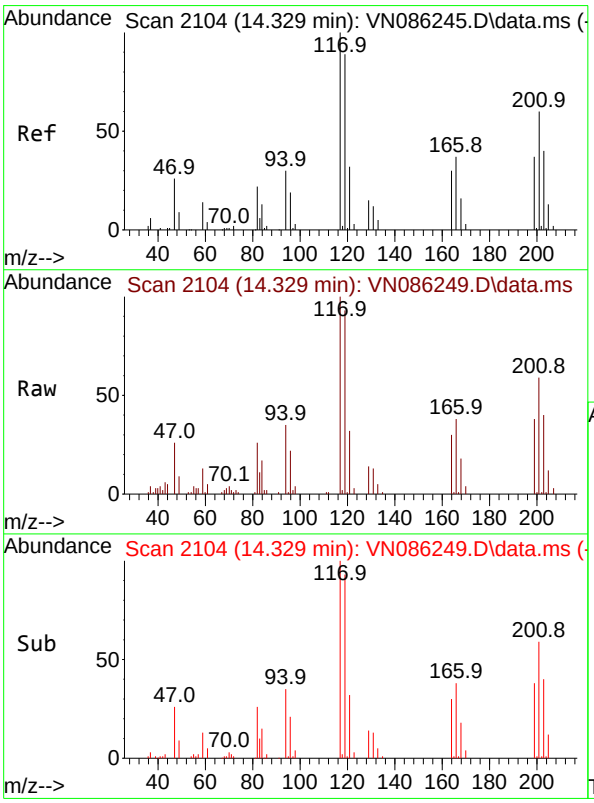
#85
n-Butylbenzene
Concen: 21.761 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion: 91 Resp: 191298

Ion	Ratio	Lower	Upper
91	100		
92	53.6	0.0	109.4
134	24.5	0.0	48.2

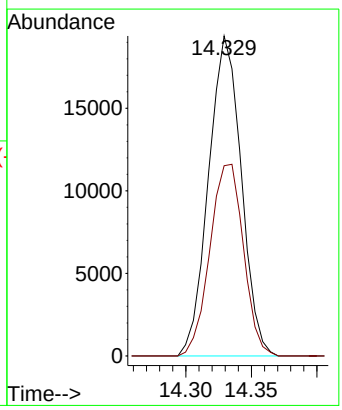


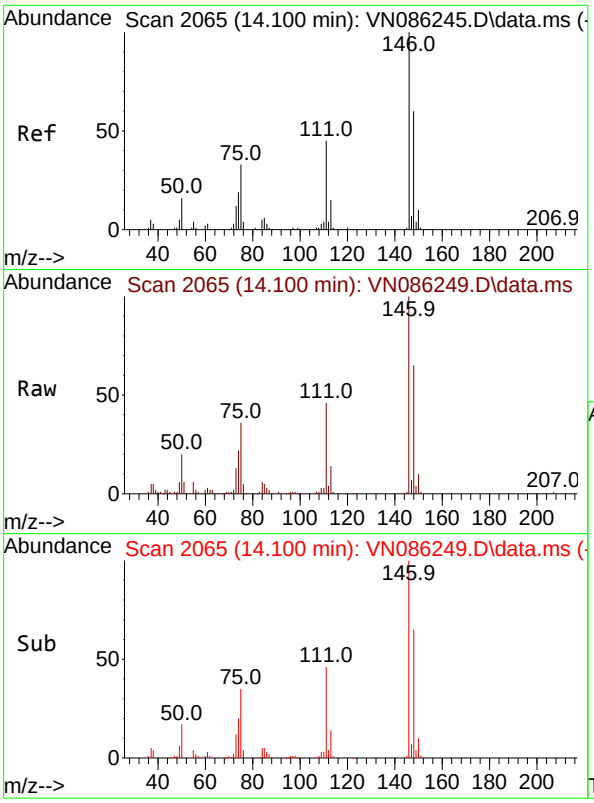


#86
Hexachloroethane
Concen: 20.435 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:117 Resp: 33590

Ion	Ratio	Lower	Upper
117	100		
201	61.5	30.9	92.8



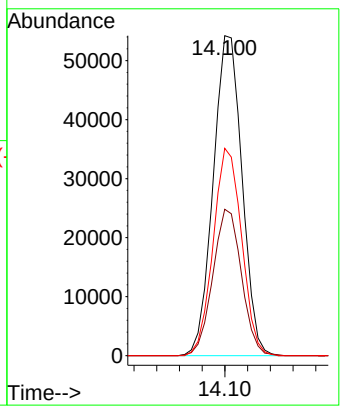


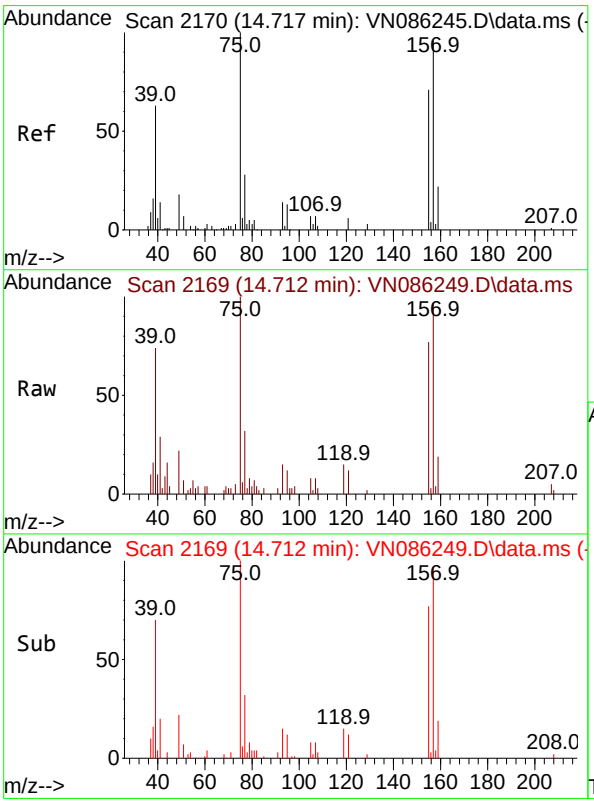
#87
1,2-Dichlorobenzene
Concen: 19.953 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:146 Resp: 95565

Ion	Ratio	Lower	Upper
146	100		
111	45.5	22.7	68.0
148	64.0	31.8	95.3

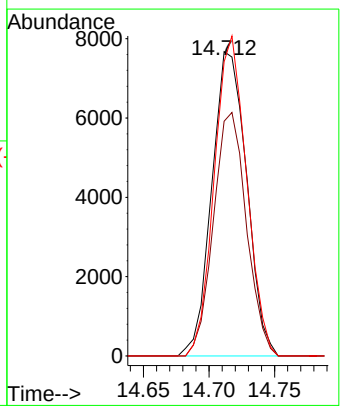


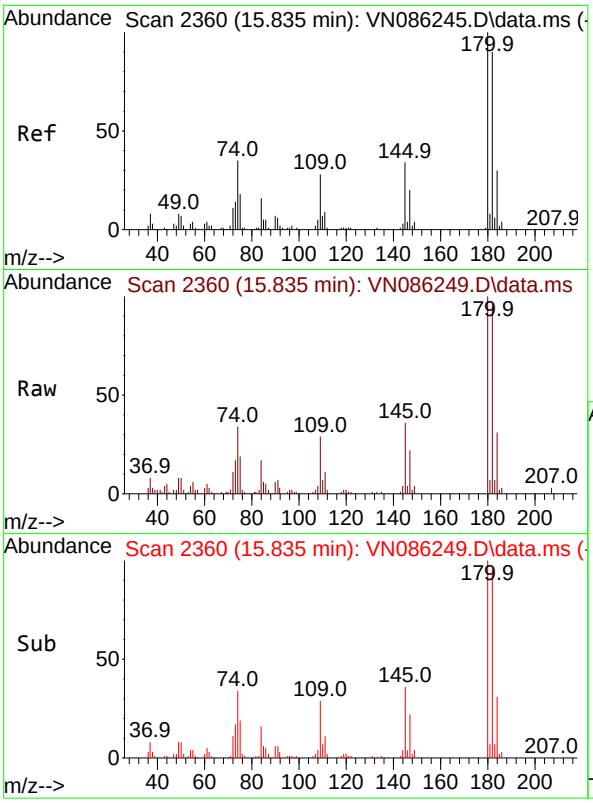


#88
1,2-Dibromo-3-Chloropropane
Concen: 18.539 ug/l
RT: 14.712 min Scan# 2169
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion: 75 Resp: 14160

Ion	Ratio	Lower	Upper
75	100		
155	75.9	60.3	90.5
157	97.1	79.0	118.4



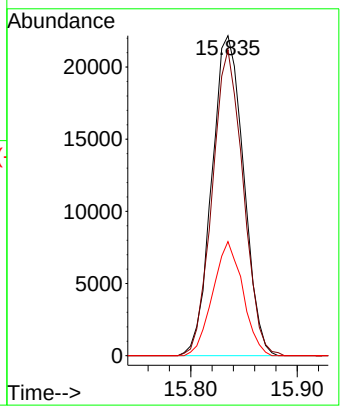


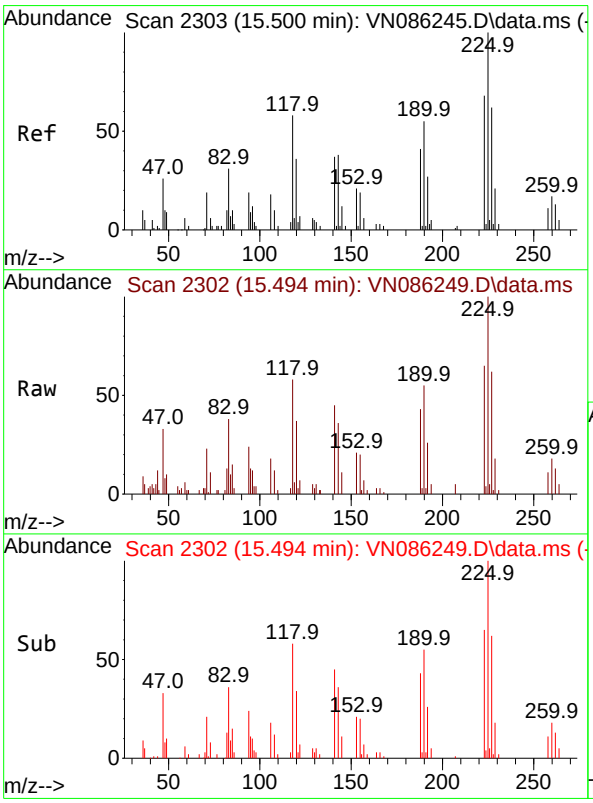
#89
1,2,4-Trichlorobenzene
Concen: 19.736 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:180 Resp: 45993

Ion	Ratio	Lower	Upper
180	100		
182	92.4	75.1	112.7
145	33.7	27.1	40.7

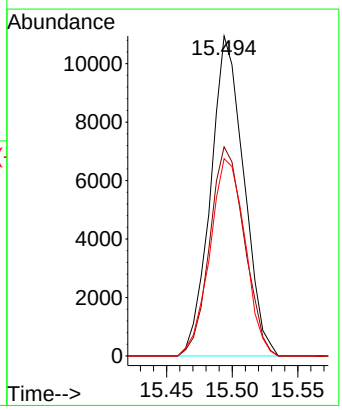


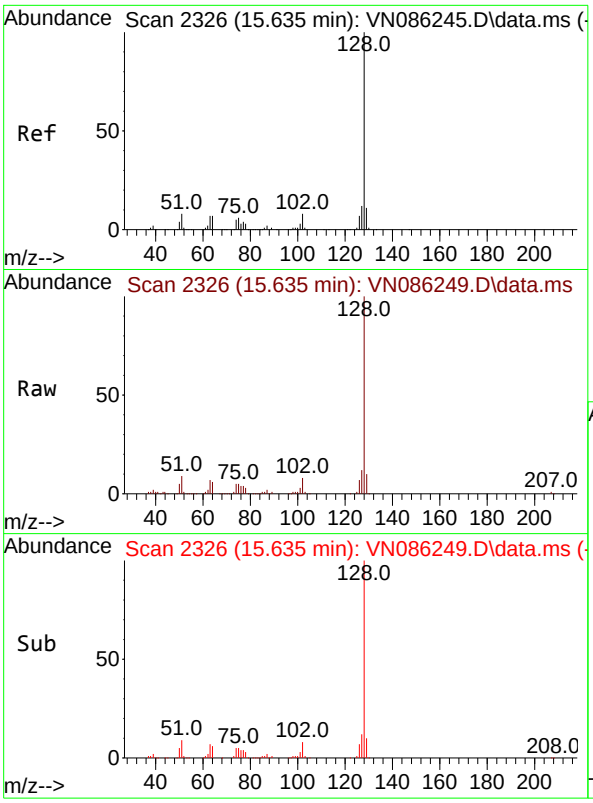


#90
Hexachlorobutadiene
Concen: 19.154 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:225 Resp: 19273

Ion	Ratio	Lower	Upper
225	100		
223	67.9	0.0	130.0
227	65.2	0.0	123.2



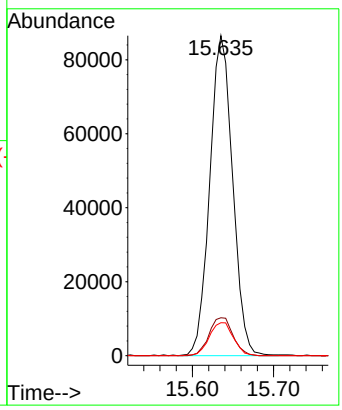


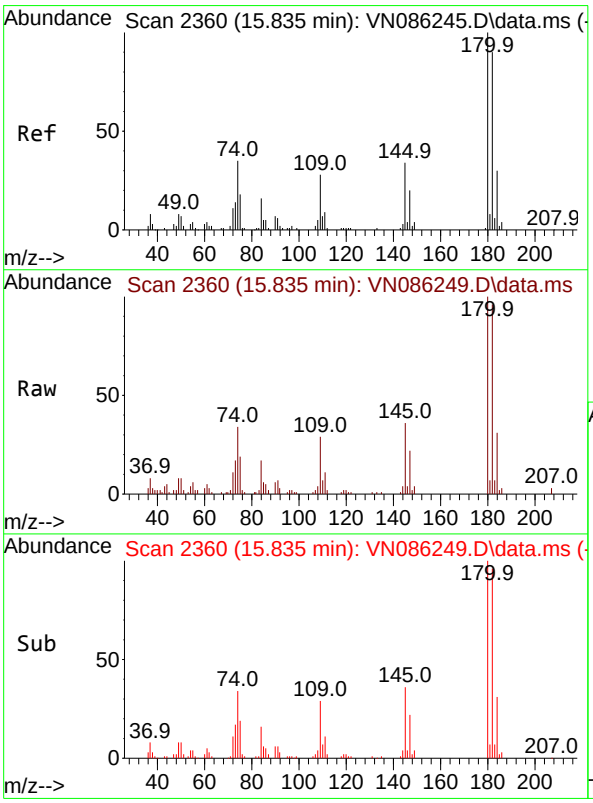
#91
Naphthalene
Concen: 18.449 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBS01

Tgt Ion:128 Resp: 169515

Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.2
129	10.9	8.8	13.2

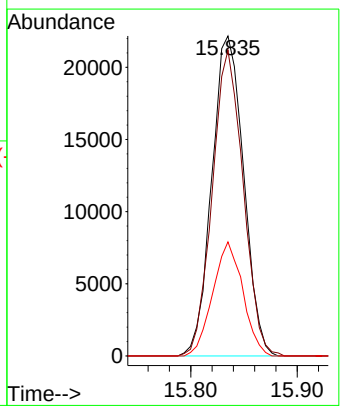




#92
1,2,3-Trichlorobenzene
Concen: 19.736 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086249.D
Acq: 11 Apr 2025 14:38

Tgt Ion:180 Resp: 45993

Ion	Ratio	Lower	Upper
180	100		
182	92.4	0.0	187.8
145	33.7	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086250.D
Acq On : 11 Apr 2025 15:16
Operator : JC\MD
Sample : VN0411WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Quant Time: Apr 12 01:49:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.812	128	34735	30.000	ug/l		0.00
28) 1,4-Difluorobenzene	9.100	114	202525	30.000	ug/l		0.00
57) Chlorobenzene-d5	11.859	117	180363	30.000	ug/l		0.00
System Monitoring Compounds							
27) 1,2-Dichloroethane-d4	8.576	65	102343	30.208	ug/l		0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.700%				
60) 4-Bromofluorobenzene	12.847	95	106256	29.590	ug/l		0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 98.633%				
63) Toluene-d8	10.565	98	303469	29.803	ug/l		0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.333%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.124	85	56086	20.153	ug/l		92
3) Chloromethane	2.359	50	73828	19.194	ug/l		98
4) Vinyl Chloride	2.518	62	70644	19.281	ug/l		93
5) Bromomethane	2.965	94	35079	19.194	ug/l		100
6) Chloroethane	3.124	64	44166	19.089	ug/l		96
7) Trichlorofluoromethane	3.500	101	77277	19.443	ug/l		96
8) Diethyl Ether	3.959	74	38725	21.128	ug/l		97
9) 1,1,2-Trichlorotrifluo...	4.371	101	48170	19.655	ug/l		98
10) 1,1-Dichloroethene	4.341	96	50453	19.075	ug/l		98
11) Methyl Iodide	4.589	142	58142	19.126	ug/l		99
12) Methyl Acetate	5.018	43	77938	20.867	ug/l		99
13) Acrolein	4.177	56	41459	97.652	ug/l		95
14) Acrylonitrile	5.718	53	157824	100.092	ug/l		98
15) Acetone	4.424	58	40914	102.336	ug/l		90
16) Carbon Disulfide	4.712	76	144392	19.038	ug/l		98
17) Allyl chloride	5.018	41	93530	20.289	ug/l		96
18) Methylene Chloride	5.271	84	60034	19.908	ug/l		94
19) trans-1,2-Dichloroethene	5.783	96	52359	18.794	ug/l		97
20) Diisopropyl ether	6.671	45	208832	21.072	ug/l		97
21) 1,1-Dichloroethane	6.565	63	106033	20.053	ug/l		97
22) cis-1,2-Dichloroethene	7.482	96	65216	19.651	ug/l		99
23) tert-Butyl Alcohol	5.512	59	63490	97.177	ug/l	#	100
24) Methyl tert-Butyl Ether	5.794	73	201155	21.074	ug/l		98
25) Chloroform	7.965	83	100265	19.885	ug/l		96
26) Cyclohexane	8.253	56	95525	19.310	ug/l	#	100
29) 1,1-Dichloropropene	8.365	75	74865	20.635	ug/l		98
30) 2-Butanone	7.477	43	214454	106.676	ug/l		100
31) 2,2-Dichloropropane	7.488	77	92014	20.604	ug/l		99
32) 1,1,1-Trichloroethane	8.165	97	84856	20.333	ug/l		99
33) Carbon Tetrachloride	8.359	117	68854	20.645	ug/l		98
34) Benzene	8.606	78	240477	20.834	ug/l		97
35) Methacrylonitrile	7.777	41	48115	21.230	ug/l		97
36) 1,2-Dichloroethane	8.671	62	77436	21.439	ug/l		99
37) Trichloroethene	9.347	130	57010	20.471	ug/l		97
38) Methylcyclohexane	9.600	83	89548	20.125	ug/l		99
39) 1,2-Dichloropropane	9.618	63	61439	21.392	ug/l		96
40) Dibromomethane	9.706	93	39298	21.185	ug/l		99
41) Bromodichloromethane	9.888	83	84468	21.197	ug/l		98
42) Vinyl Acetate	6.600	43	753748	110.147	ug/l		100

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086250.D
Acq On : 11 Apr 2025 15:16
Operator : JC\MD
Sample : VN0411WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Quant Time: Apr 12 01:49:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

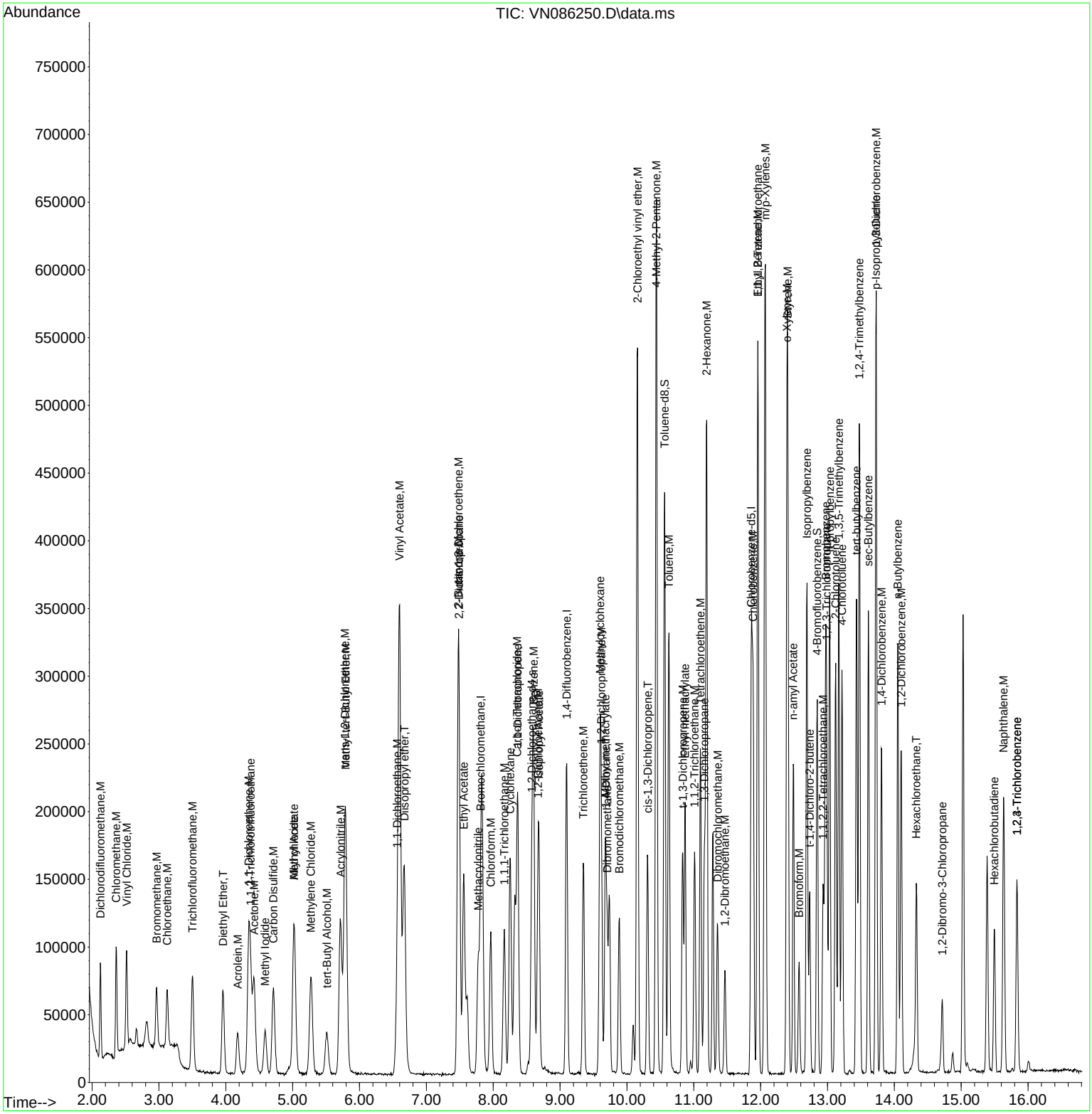
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	84905	20.939	ug/l		95
44) Isopropyl Acetate	8.682	43	160910	21.391	ug/l		99
45) 1,4-Dioxane	9.688	88	23420	391.526	ug/l	#	91
46) Methyl methacrylate	9.676	41	69895	21.088	ug/l		96
47) n-amyl Acetate	12.488	43	126575	21.222	ug/l		99
48) t-1,3-Dichloropropene	10.835	75	96458	21.411	ug/l		99
49) cis-1,3-Dichloropropene	10.312	75	102066	21.406	ug/l		99
50) 1,1,2-Trichloroethane	11.012	97	56096	21.561	ug/l		97
51) Ethyl methacrylate	10.870	69	105140	21.747	ug/l		97
52) 1,3-Dichloropropane	11.159	76	101323	21.850	ug/l		100
53) Dibromochloromethane	11.359	129	61771	21.706	ug/l		98
54) 1,2-Dibromoethane	11.465	107	56526	21.523	ug/l		100
55) 2-Chloroethyl vinyl ether	10.159	63	254446	139.276	ug/l		99
56) Bromoform	12.576	173	38804	20.842	ug/l		99
58) 4-Methyl-2-Pentanone	10.441	43	446372	109.058	ug/l		99
59) 2-Hexanone	11.194	43	321747	105.569	ug/l		100
61) Tetrachloroethene	11.100	164	53974	20.264	ug/l		97
62) Toluene	10.629	91	250492	20.706	ug/l		100
64) Chlorobenzene	11.888	112	152512	20.635	ug/l		100
65) 1,1,1,2-Tetrachloroethane	11.959	131	51756	21.219	ug/l		99
66) Ethyl Benzene	11.959	91	271487	20.236	ug/l		96
67) m/p-Xylenes	12.070	106	203138	40.720	ug/l		100
68) o-Xylene	12.394	106	102269	20.842	ug/l		97
69) Styrene	12.406	104	172721	20.872	ug/l		98
70) Isopropylbenzene	12.694	105	247015	20.417	ug/l		100
71) 1,1,2,2-Tetrachloroethane	12.935	83	74426	21.612	ug/l		98
72) 1,2,3-Trichloropropane	12.988	75	112068	31.263	ug/l		58
73) Bromobenzene	12.976	156	55372	20.660	ug/l		97
74) n-propylbenzene	13.035	91	290430	20.330	ug/l		99
75) 2-Chlorotoluene	13.123	91	180253	20.074	ug/l		100
76) 1,3,5-Trimethylbenzene	13.170	105	203242	20.450	ug/l		99
77) t-1,4-Dichloro-2-butene	12.735	75	33778	20.436	ug/l		92
78) 4-Chlorotoluene	13.217	91	179336	19.997	ug/l		99
79) tert-butylbenzene	13.435	119	170326	19.806	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	206236	20.464	ug/l		98
81) sec-Butylbenzene	13.611	105	242336	20.202	ug/l		100
82) p-Isopropyltoluene	13.723	119	201123	20.098	ug/l		100
83) 1,3-Dichlorobenzene	13.729	146	101287	20.332	ug/l		98
84) 1,4-Dichlorobenzene	13.811	146	100671	20.144	ug/l		99
85) n-Butylbenzene	14.053	91	183068	20.279	ug/l		99
86) Hexachloroethane	14.329	117	32907	19.494	ug/l		99
87) 1,2-Dichlorobenzene	14.106	146	100901	20.514	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	16110	20.539	ug/l		97
89) 1,2,4-Trichlorobenzene	15.835	180	48993	20.472	ug/l		99
90) Hexachlorobutadiene	15.494	225	19853	19.213	ug/l		99
91) Naphthalene	15.635	128	194900	20.655	ug/l		100
92) 1,2,3-Trichlorobenzene	15.835	180	48993	20.472	ug/l		99

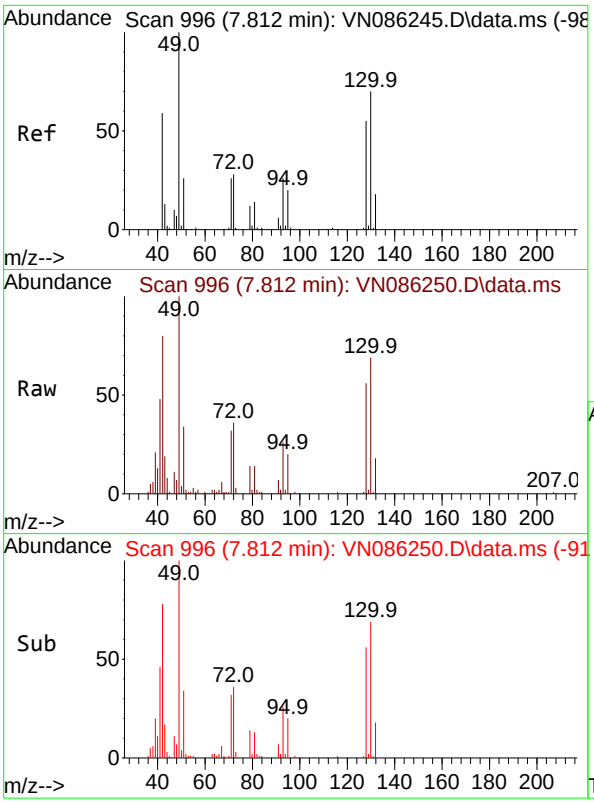
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086250.D
Acq On : 11 Apr 2025 15:16
Operator : JC\MD
Sample : VN0411WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Quant Time: Apr 12 01:49:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



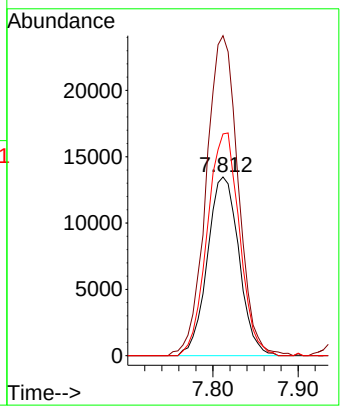


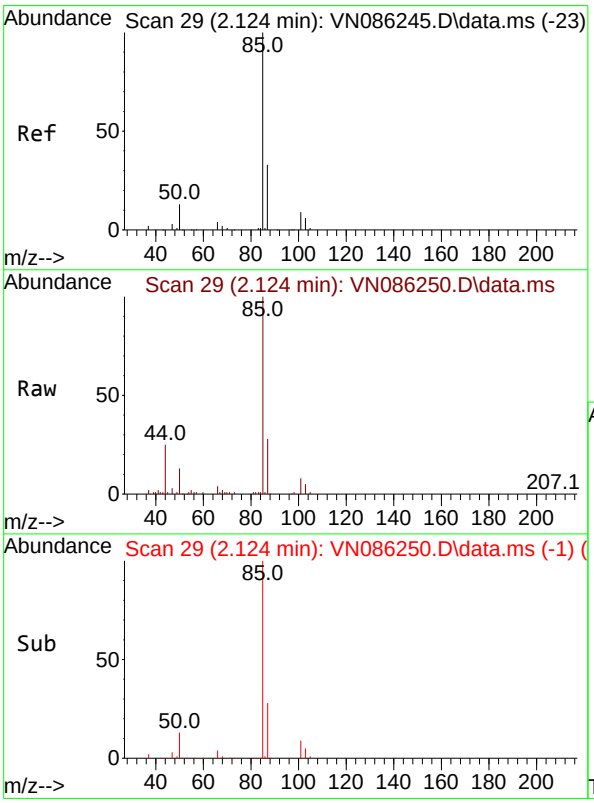
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:128 Resp: 34735

Ion	Ratio	Lower	Upper
128	100		
49	181.2	0.0	452.5
130	127.0	0.0	315.0

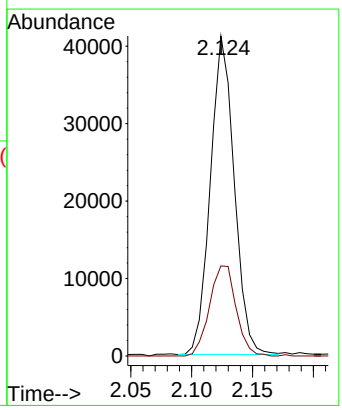


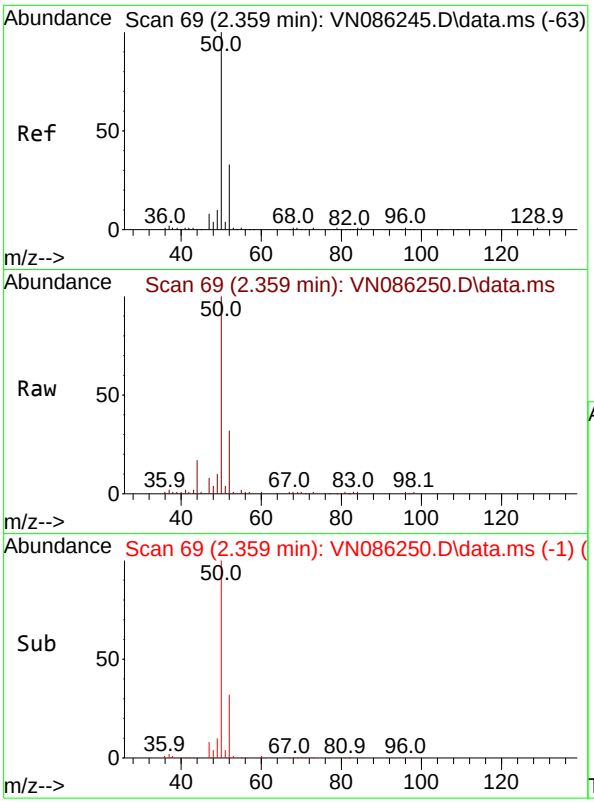


#2
Dichlorodifluoromethane
Concen: 20.153 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 85 Resp: 56086

Ion	Ratio	Lower	Upper
85	100		
87	28.3	16.3	48.9



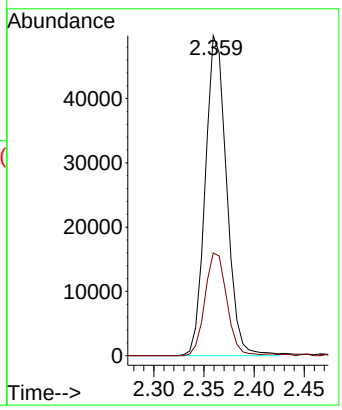


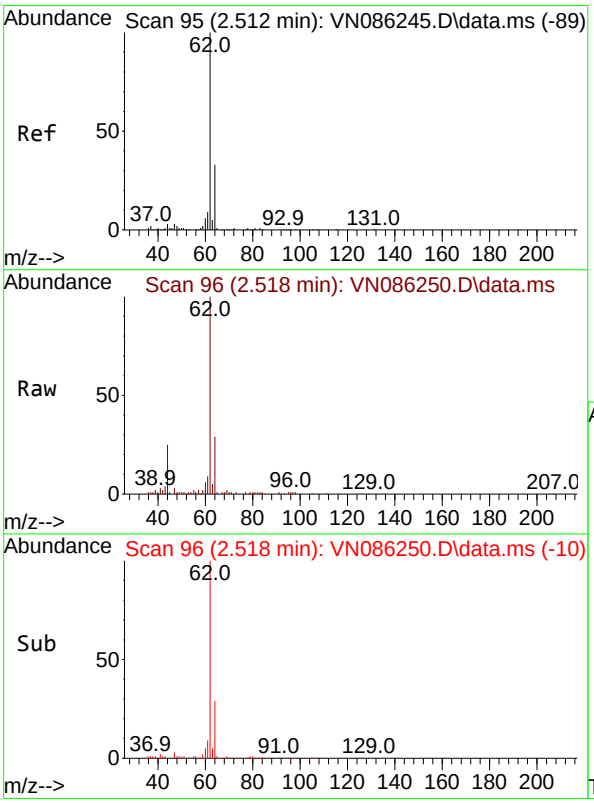
#3
Chloromethane
Concen: 19.194 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 50 Resp: 73828

Ion	Ratio	Lower	Upper
50	100		
52	32.1	26.4	39.6

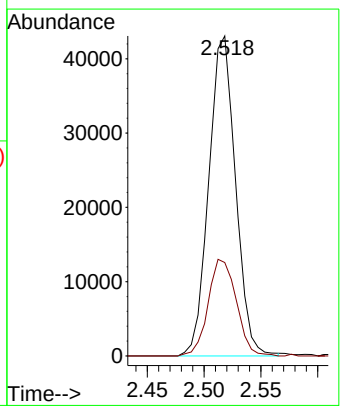


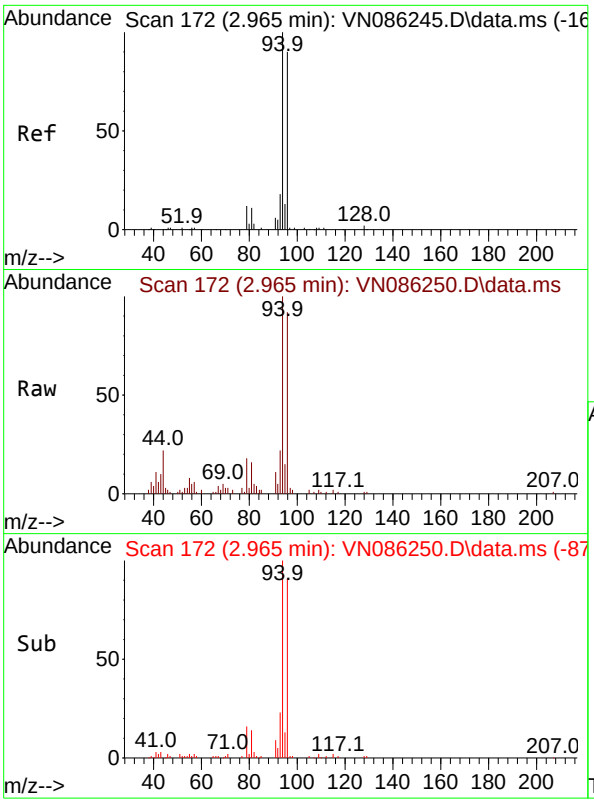


#4
Vinyl Chloride
Concen: 19.281 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 62 Resp: 70644

Ion	Ratio	Lower	Upper
62	100		
64	29.2	26.3	39.5



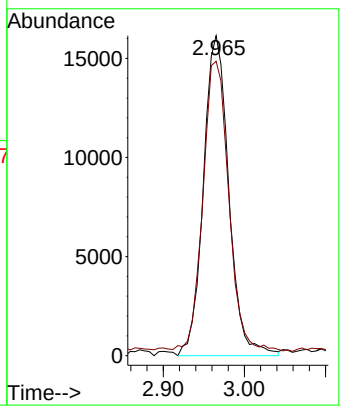


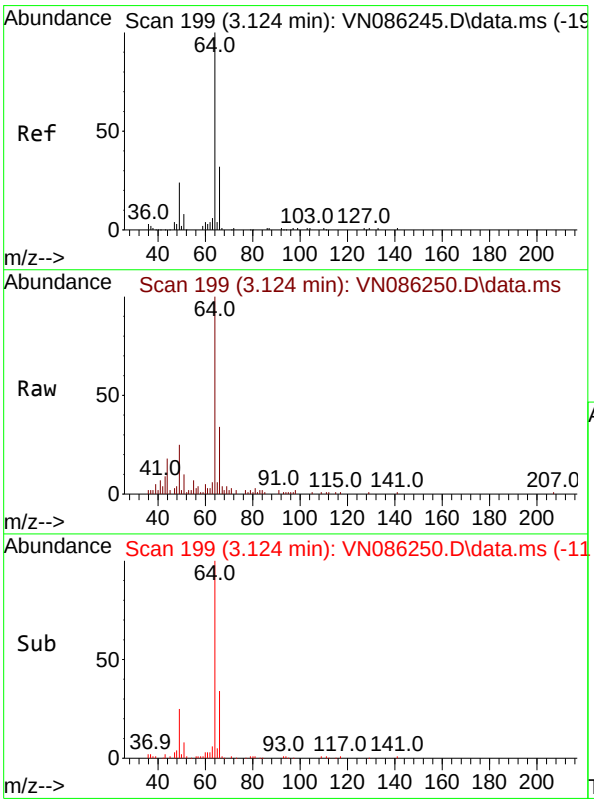
#5
Bromomethane
Concen: 19.194 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 94 Resp: 35079

Ion	Ratio	Lower	Upper
94	100		
96	90.0	72.2	108.2

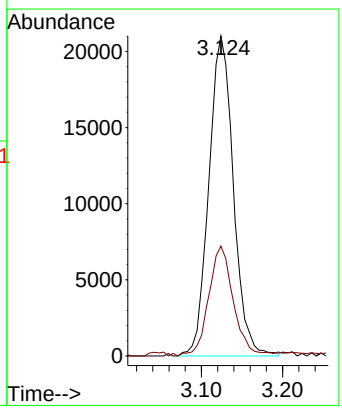


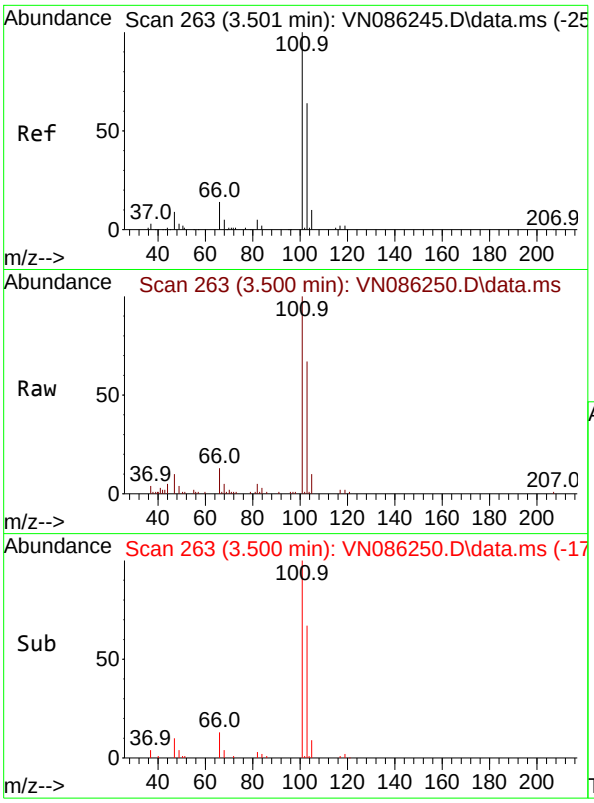


#6
Chloroethane
Concen: 19.089 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 64 Resp: 44166

Ion	Ratio	Lower	Upper
64	100		
66	34.3	25.7	38.5



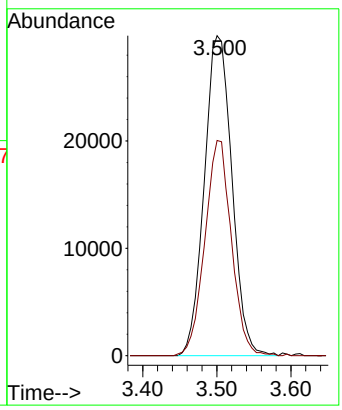


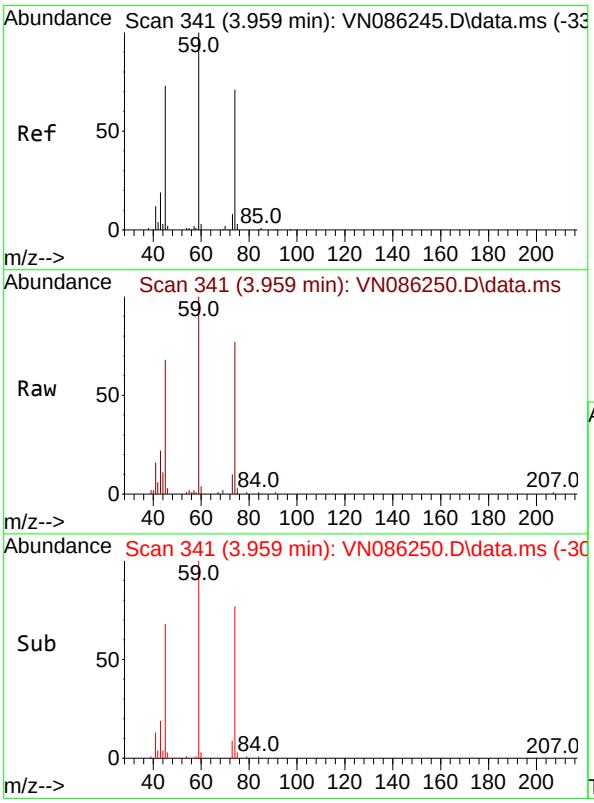
#7
Trichlorofluoromethane
Concen: 19.443 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:101 Resp: 77277

Ion	Ratio	Lower	Upper
101	100		
103	67.2	51.2	76.8

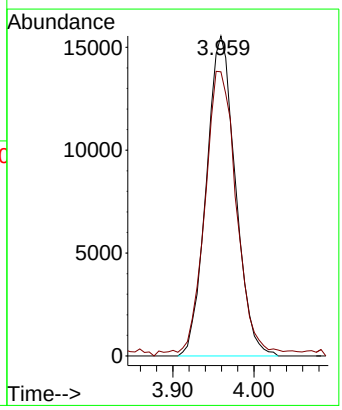


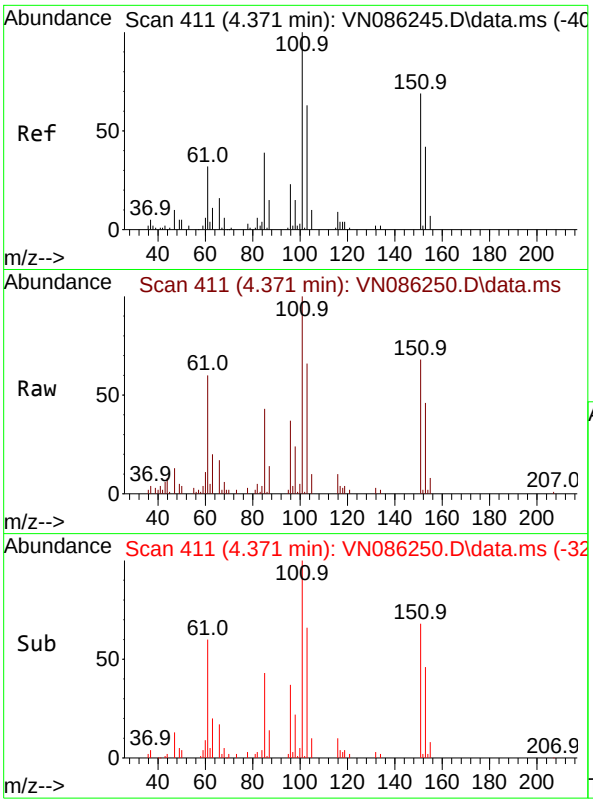


#8
Diethyl Ether
Concen: 21.128 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 74 Resp: 38725

Ion	Ratio	Lower	Upper
74	100		
45	93.7	19.2	173.2



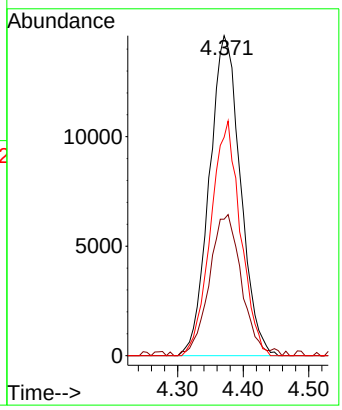


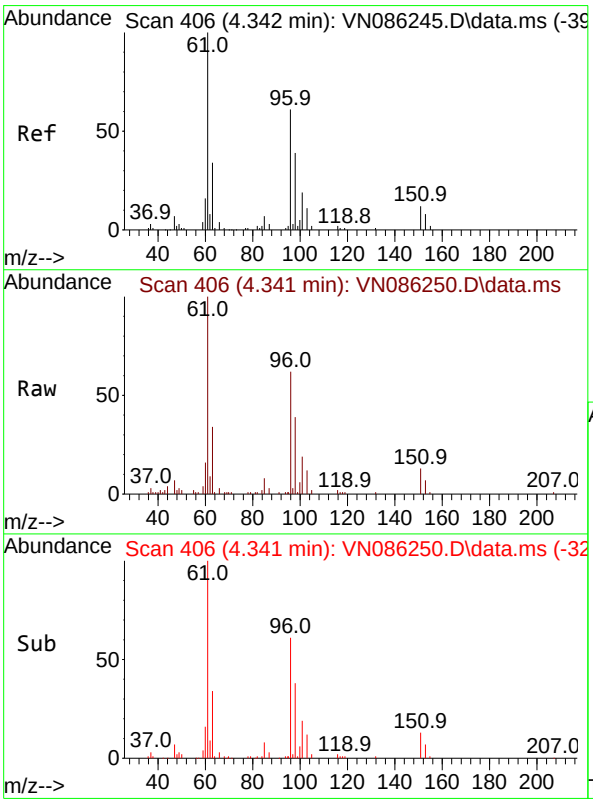
#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.655 ug/l
RT: 4.371 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:101 Resp: 48170

Ion	Ratio	Lower	Upper
101	100		
85	45.2	0.0	93.0
151	70.3	0.0	138.6

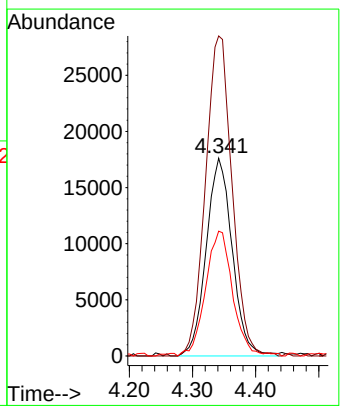


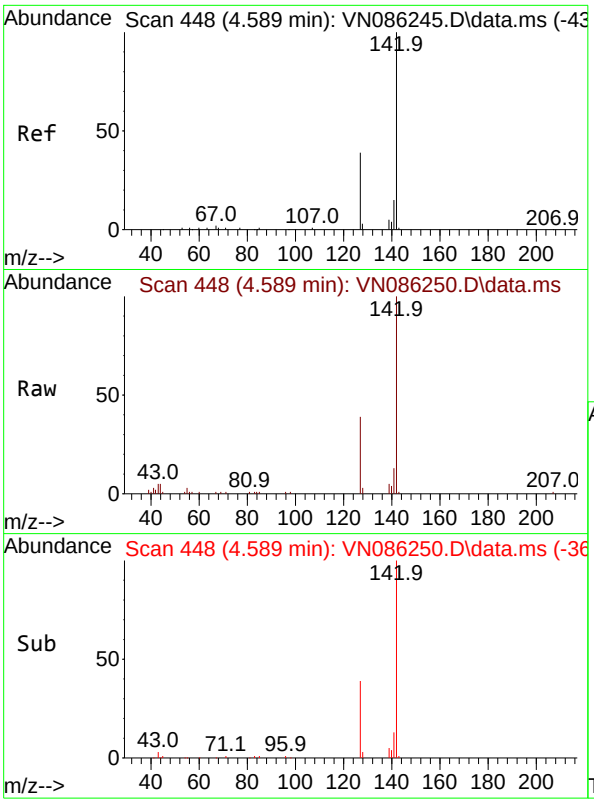


#10
1,1-Dichloroethene
Concen: 19.075 ug/l
RT: 4.341 min Scan# 406
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 96 Resp: 50453

Ion	Ratio	Lower	Upper
96	100		
61	161.8	131.1	196.7
98	63.1	51.6	77.4



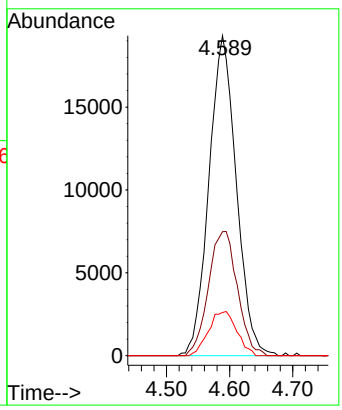


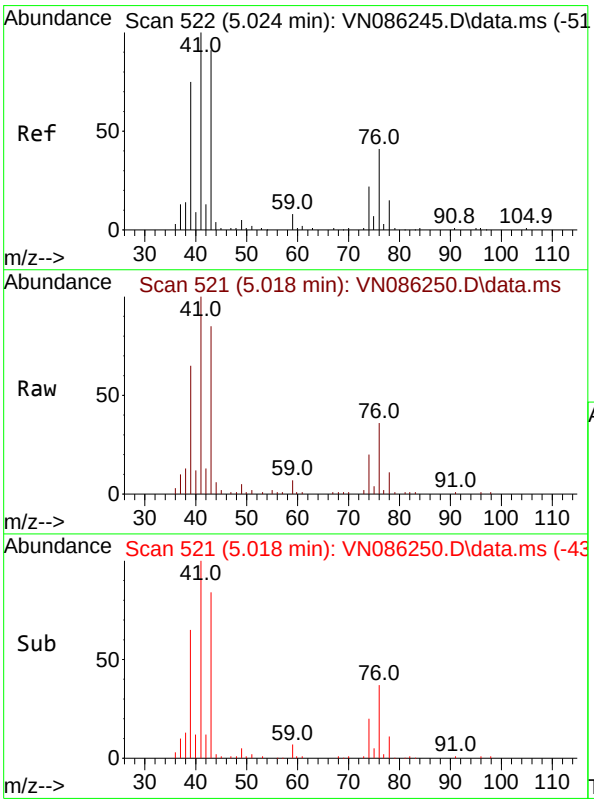
#11
Methyl Iodide
Concen: 19.126 ug/l
RT: 4.589 min Scan# 44
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:142 Resp: 58142

Ion	Ratio	Lower	Upper
142	100		
127	38.8	19.6	58.8
141	13.5	7.3	21.9

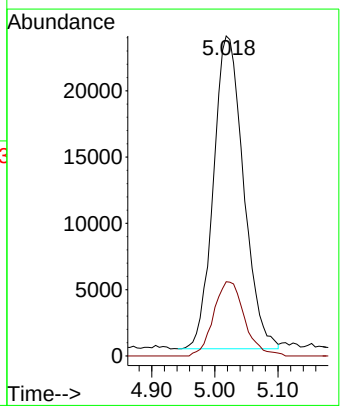


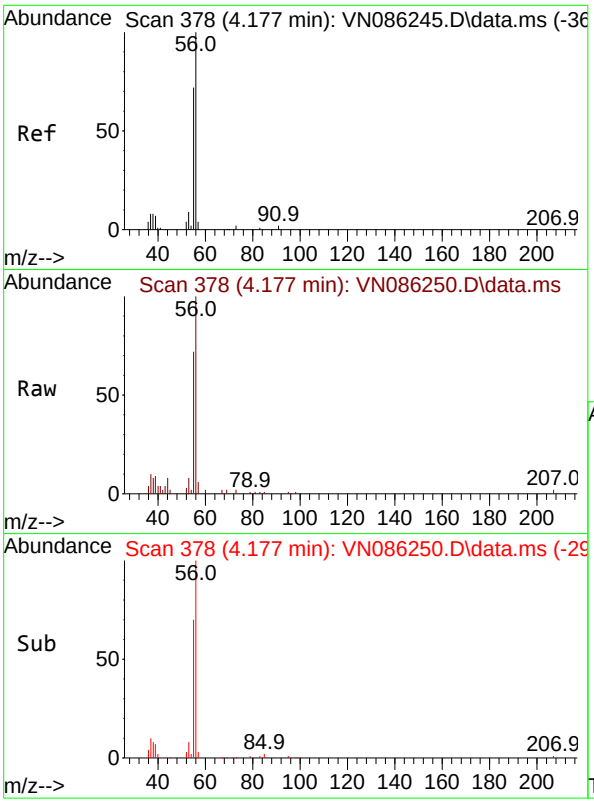


#12
Methyl Acetate
Concen: 20.867 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 77938

Ion	Ratio	Lower	Upper
43	100		
74	23.4	19.1	28.7



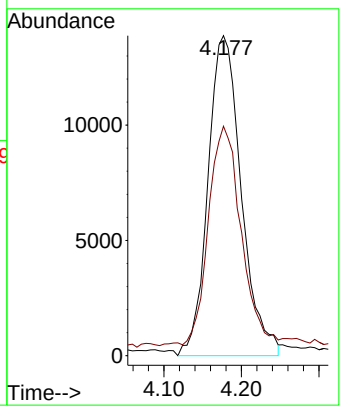


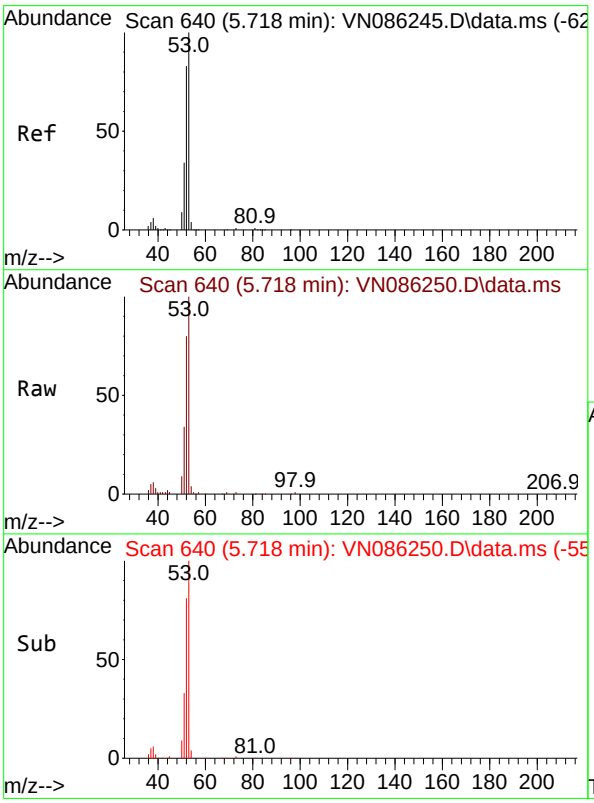
#13
Acrolein
Concen: 97.652 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 56 Resp: 41459

Ion	Ratio	Lower	Upper
56	100		
55	66.9	56.5	84.7

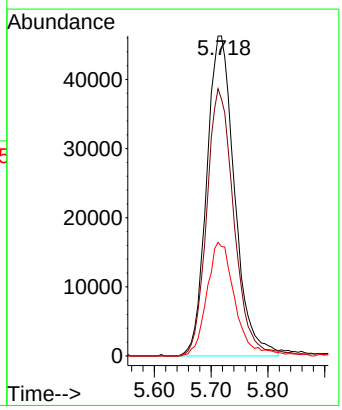


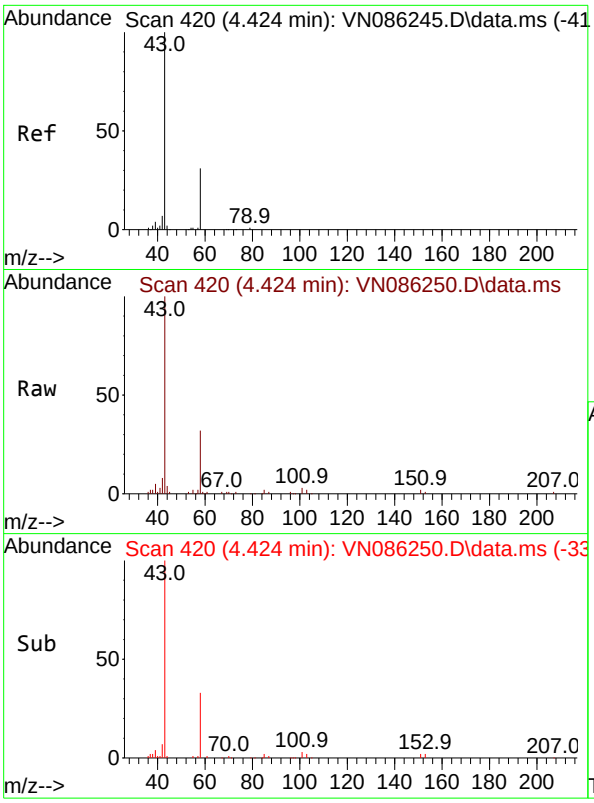


#14
Acrylonitrile
Concen: 100.092 ug/l
RT: 5.718 min Scan# 640
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 53 Resp: 157824

Ion	Ratio	Lower	Upper
53	100		
52	81.6	40.2	120.6
51	33.9	17.5	52.6



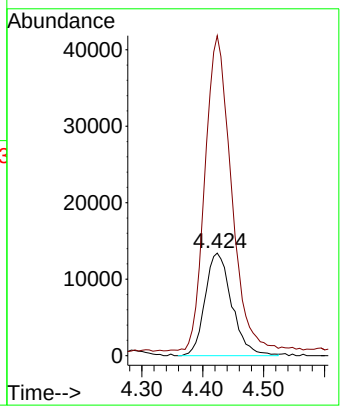


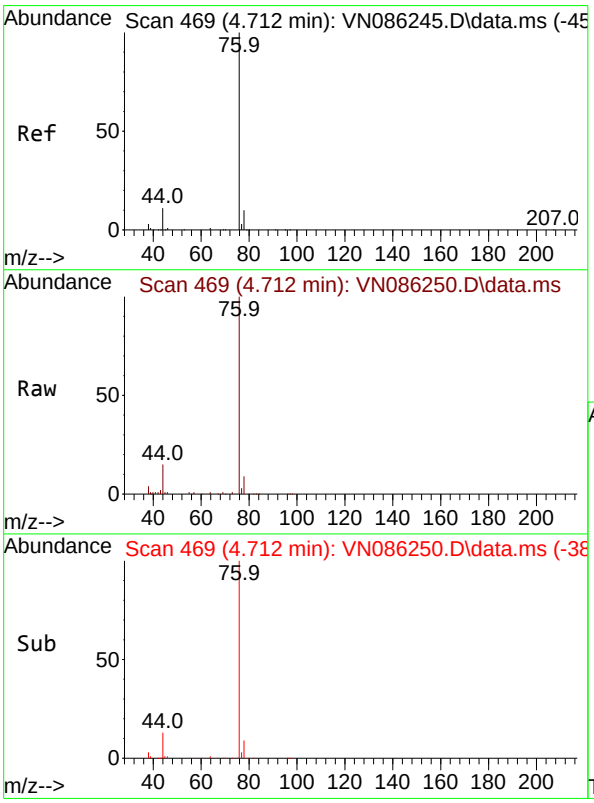
#15
Acetone
Concen: 102.336 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 58 Resp: 40914

Ion	Ratio	Lower	Upper
58	100		
43	306.6	261.8	392.8

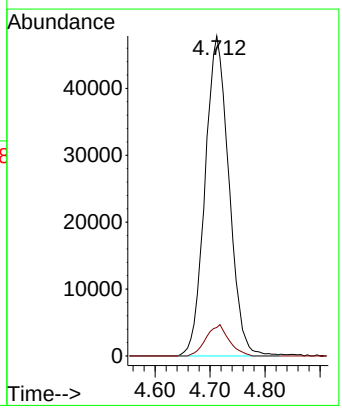


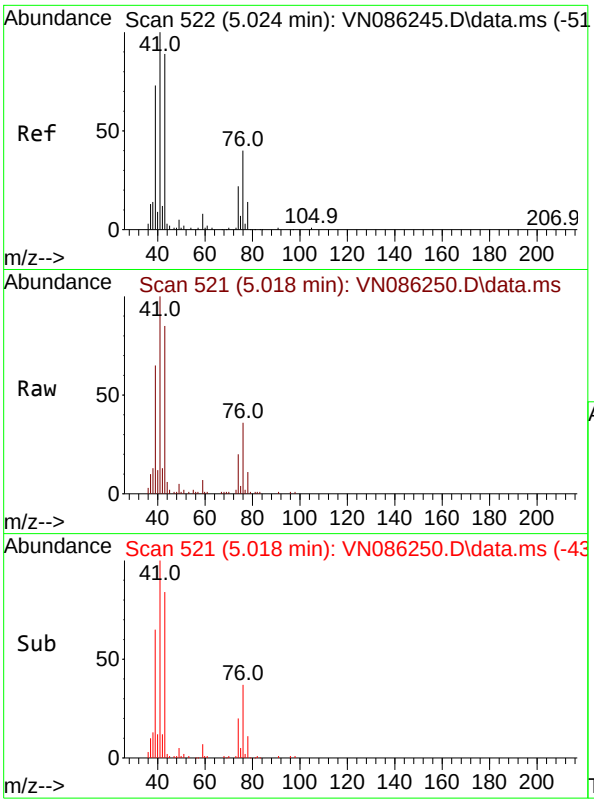


#16
Carbon Disulfide
Concen: 19.038 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 76 Resp: 144392

Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.7	11.5



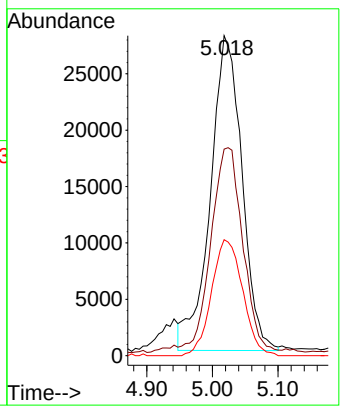


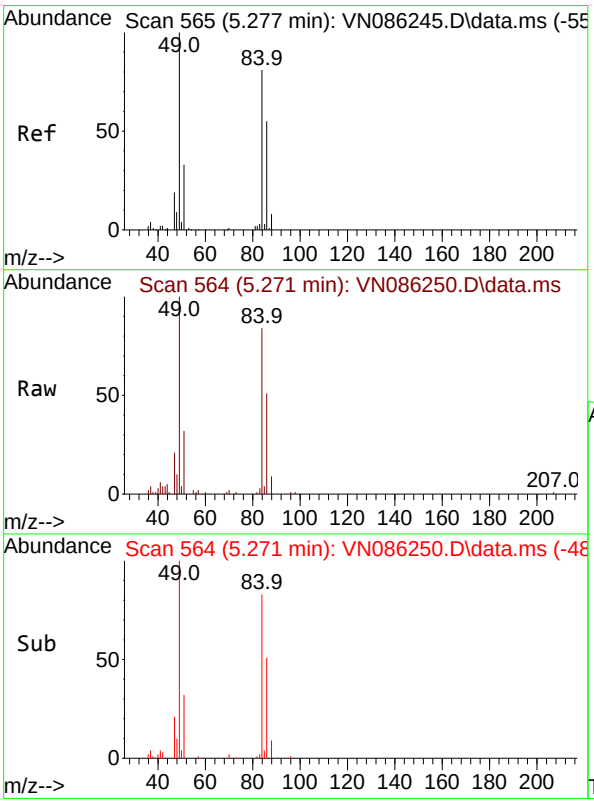
#17
Allyl chloride
Concen: 20.289 ug/l
RT: 5.018 min Scan# 5
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 41 Resp: 93530

Ion	Ratio	Lower	Upper
41	100		
39	64.5	34.4	103.2
76	37.2	18.8	56.3

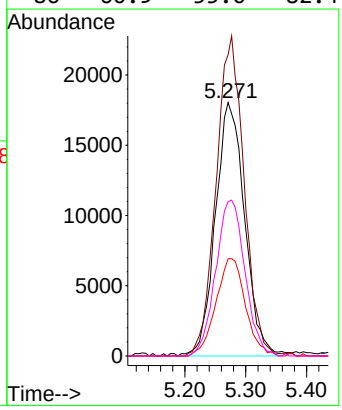


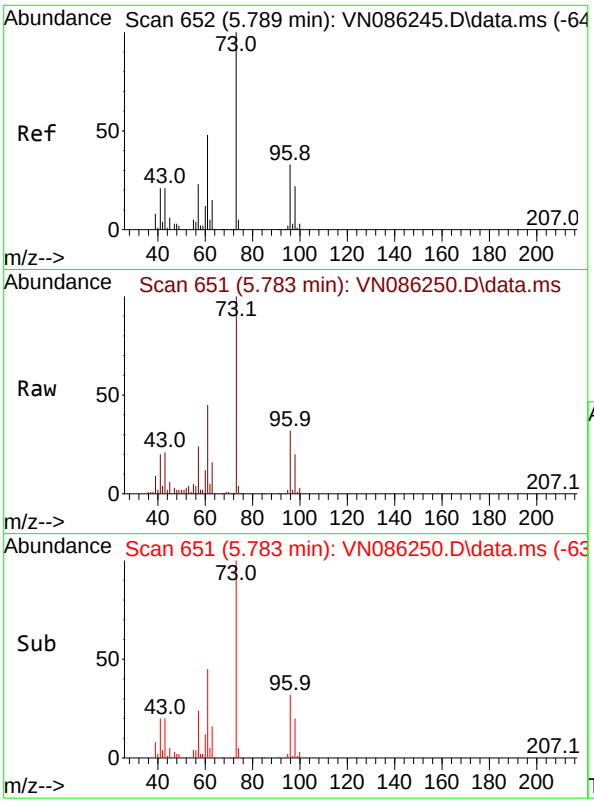


#18
Methylene Chloride
Concen: 19.908 ug/l
RT: 5.271 min Scan# 564
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 84 Resp: 60034

Ion	Ratio	Lower	Upper
84	100		
49	118.9	99.1	148.7
51	38.4	32.3	48.5
86	60.9	55.0	82.4



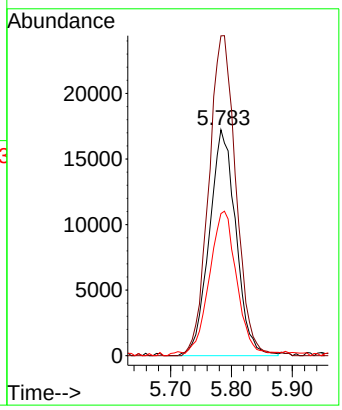


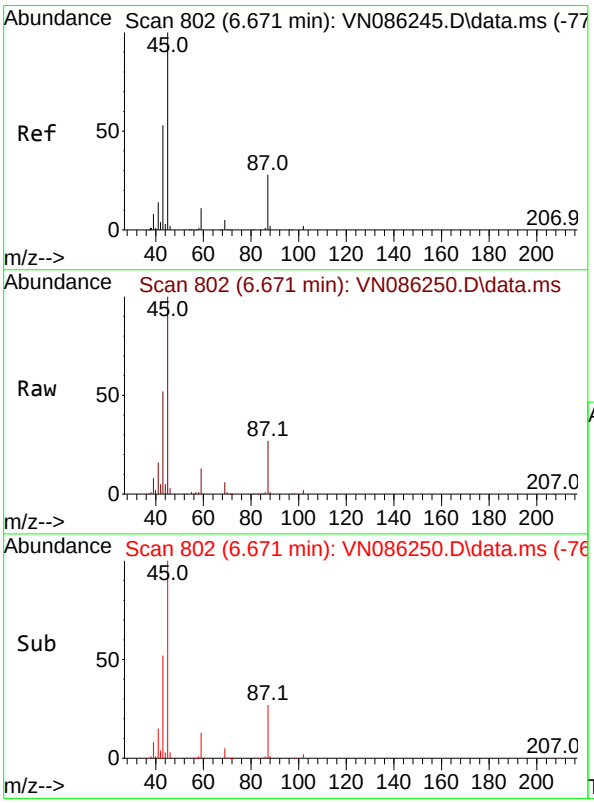
#19
trans-1,2-Dichloroethene
Concen: 18.794 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 96 Resp: 52359

Ion	Ratio	Lower	Upper
96	100		
61	141.6	115.9	173.9
98	61.4	52.1	78.1

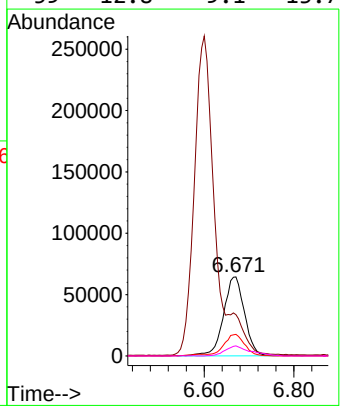


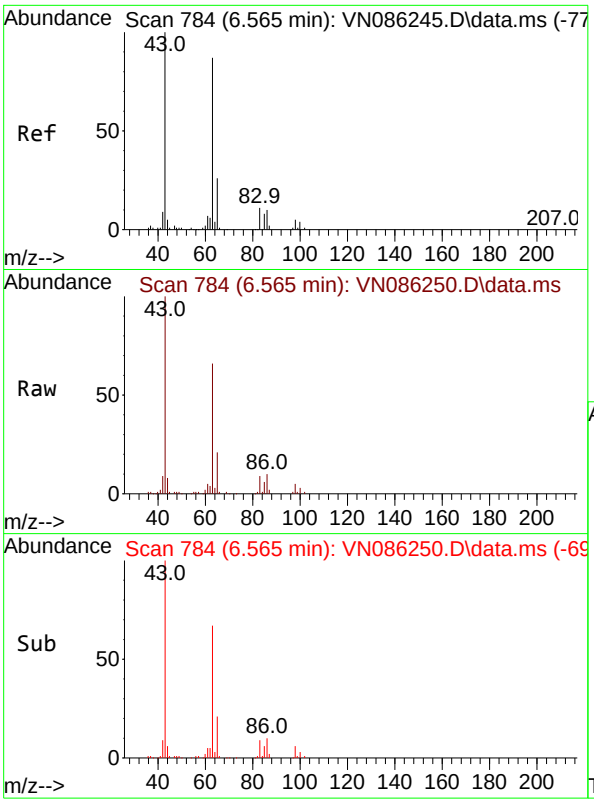


#20
Diisopropyl ether
Concen: 21.072 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 45 Resp: 208832

Ion	Ratio	Lower	Upper
45	100		
43	50.1	42.3	63.5
87	27.4	22.2	33.4
59	12.8	9.1	13.7



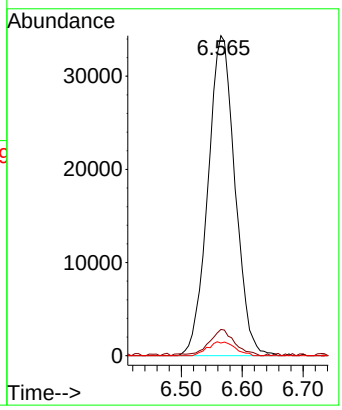


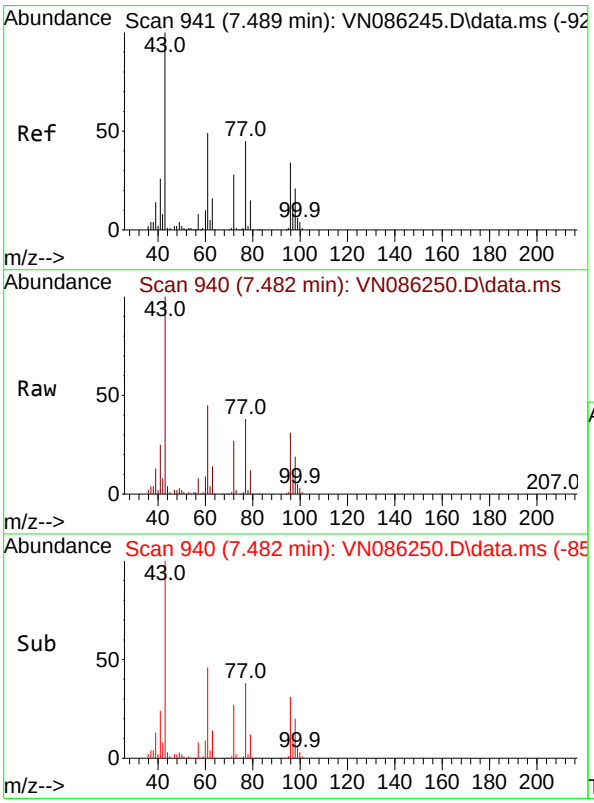
#21
1,1-Dichloroethane
Concen: 20.053 ug/l
RT: 6.565 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 63 Resp: 106033

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.1	9.3
100	4.0	2.3	6.9

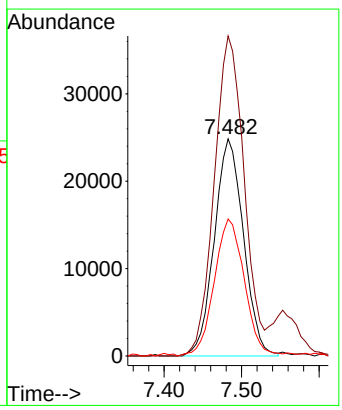


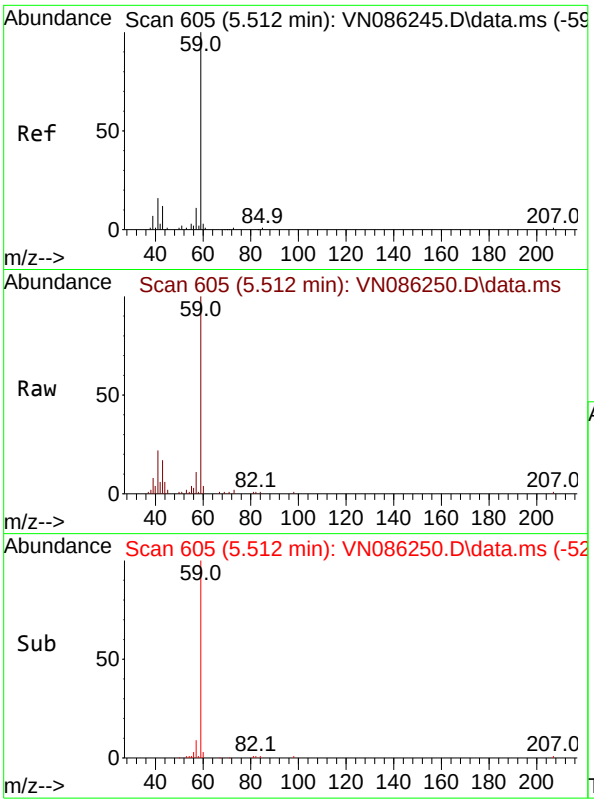


#22
cis-1,2-Dichloroethene
Concen: 19.651 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 96 Resp: 65216

Ion	Ratio	Lower	Upper
96	100		
61	150.4	119.5	179.3
98	64.8	51.0	76.6



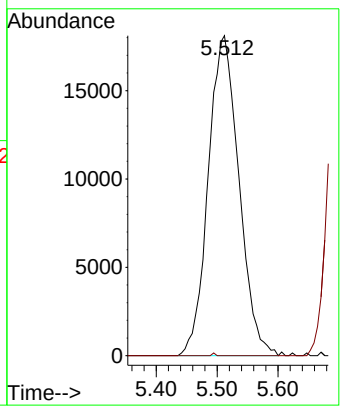


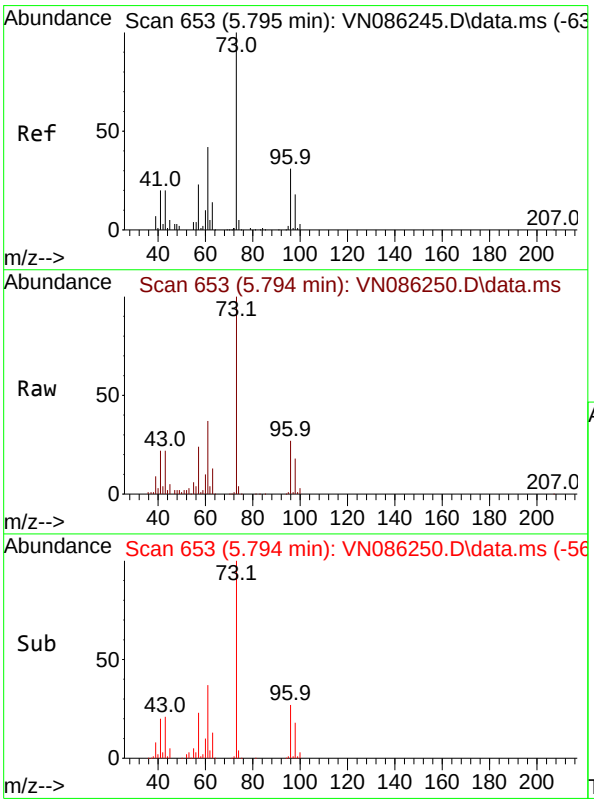
#23
tert-Butyl Alcohol
Concen: 97.177 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 59 Resp: 63490

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0

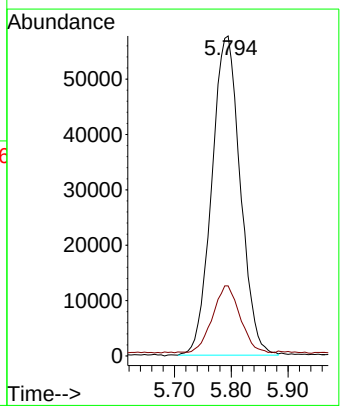


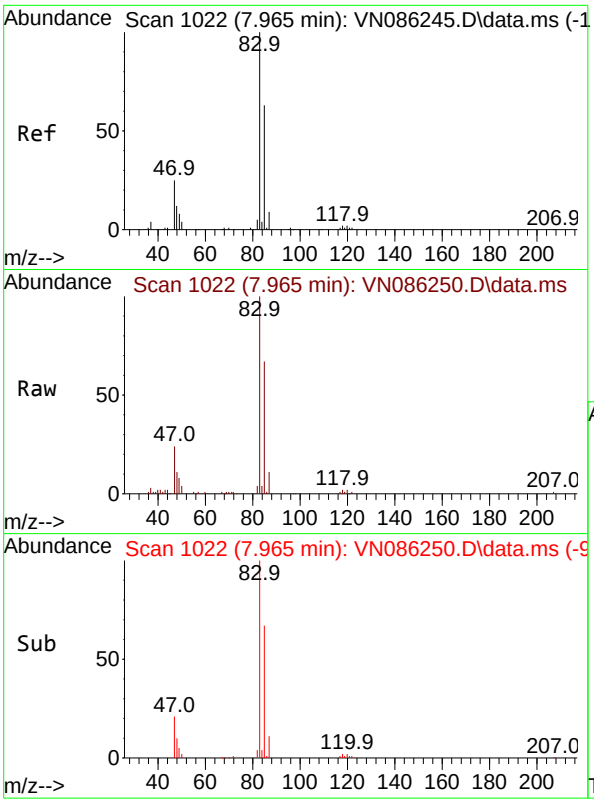


#24
Methyl tert-Butyl Ether
Concen: 21.074 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 73 Resp: 201155

Ion	Ratio	Lower	Upper
73	100		
43	20.2	16.8	25.2



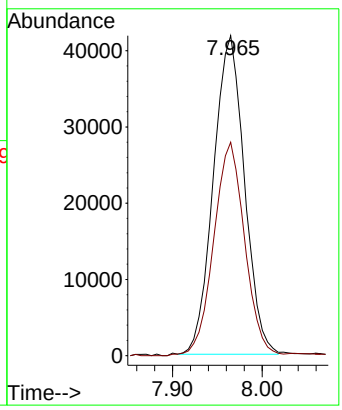


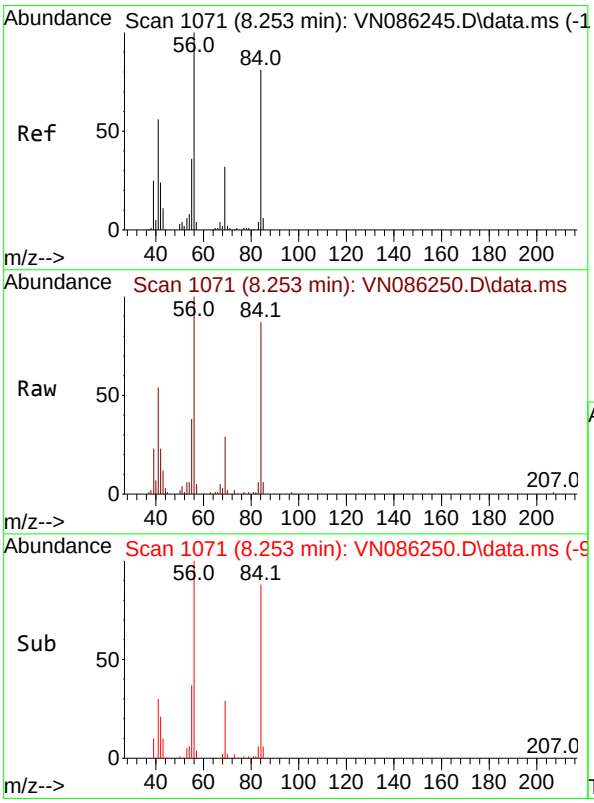
#25
Chloroform
Concen: 19.885 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 83 Resp: 100265

Ion	Ratio	Lower	Upper
83	100		
85	66.5	50.5	75.7

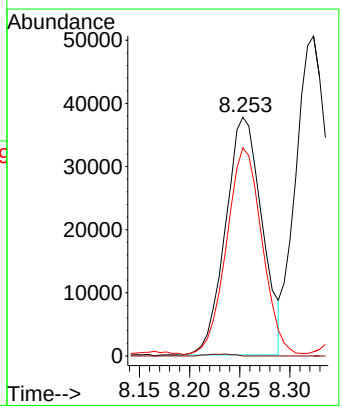


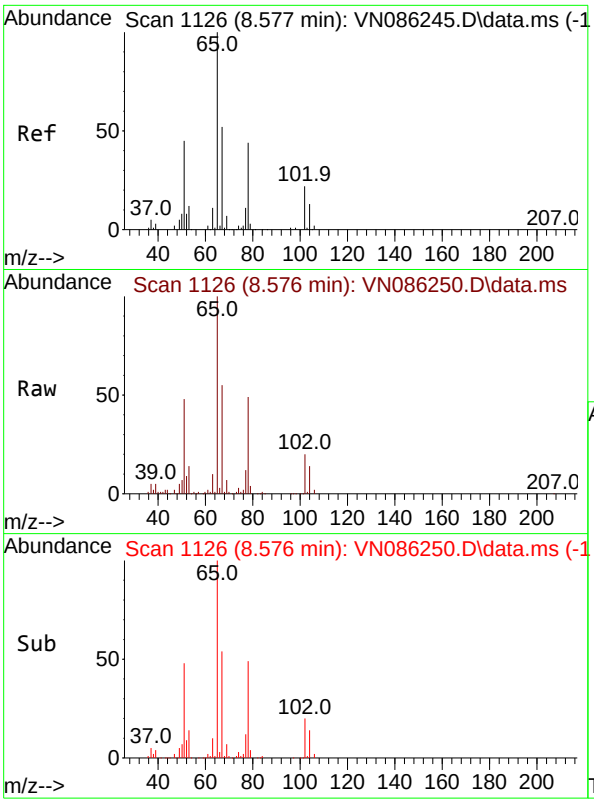


#26
Cyclohexane
Concen: 19.310 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 56 Resp: 95525

Ion	Ratio	Lower	Upper
56	100		
89	0.6	0.0	0.0#
84	85.9	69.0	103.4



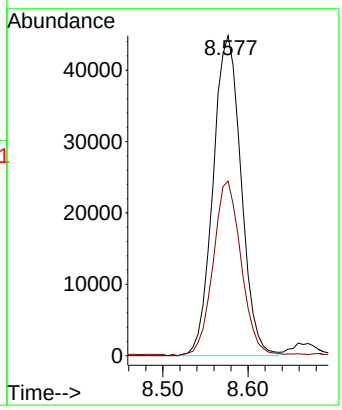


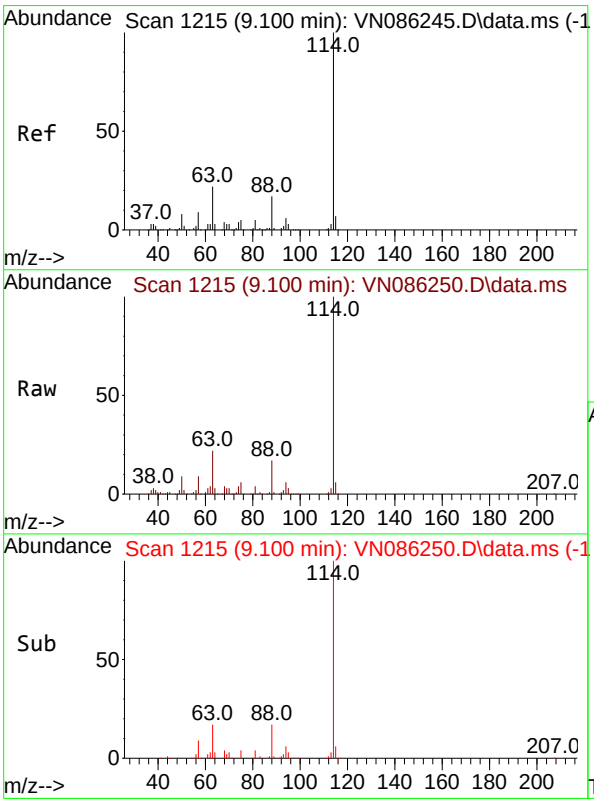
#27
1,2-Dichloroethane-d4
Concen: 30.208 ug/l
RT: 8.576 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 65 Resp: 102343

Ion	Ratio	Lower	Upper
65	100		
67	54.6	43.4	65.2

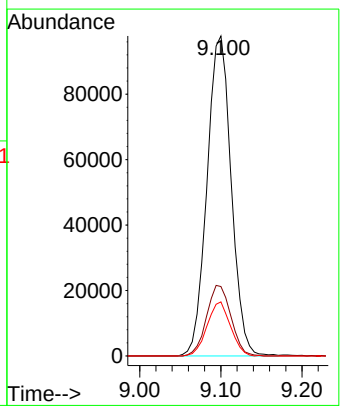


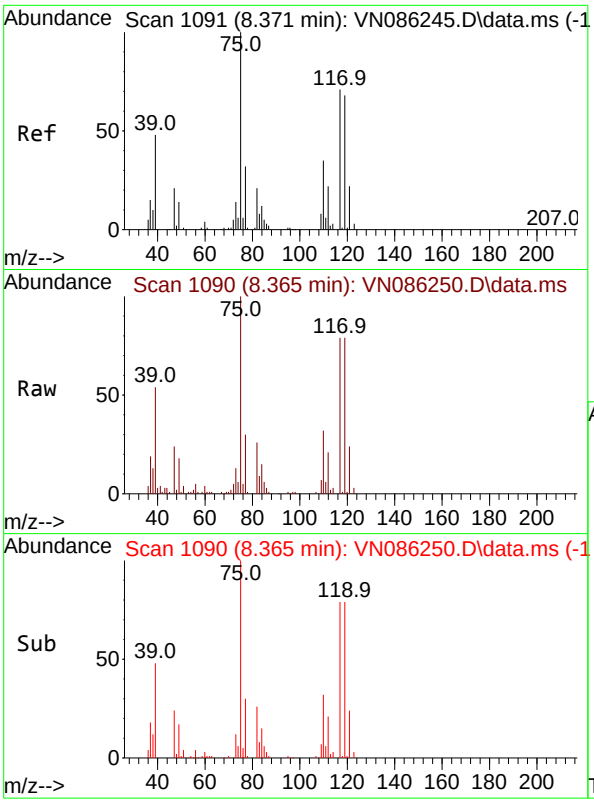


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:114 Resp: 202525

Ion	Ratio	Lower	Upper
114	100		
63	22.2	17.8	26.6
88	16.3	13.4	20.2



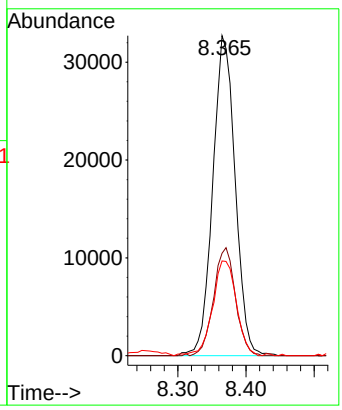


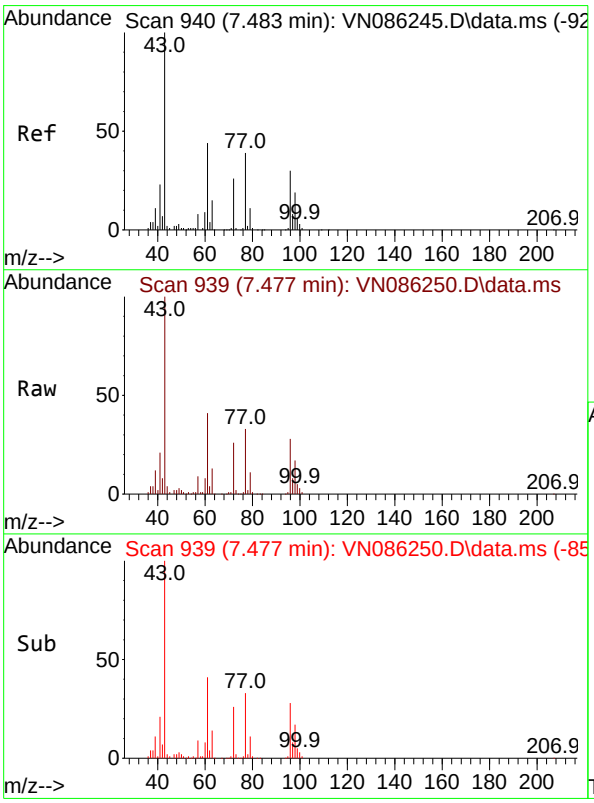
#29
1,1-Dichloropropene
Concen: 20.635 ug/l
RT: 8.365 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 75 Resp: 74865

Ion	Ratio	Lower	Upper
75	100		
110	32.9	0.0	68.6
77	31.3	0.0	63.8

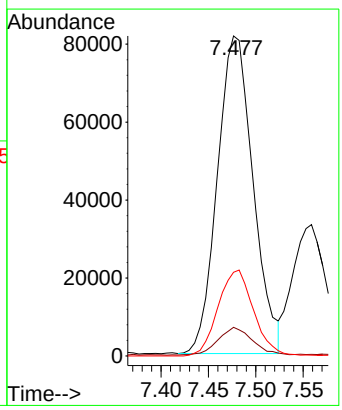


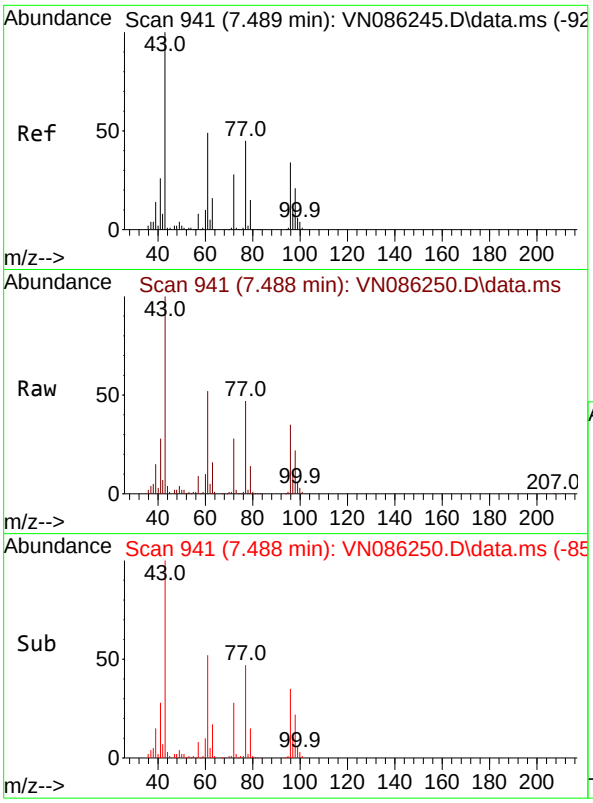


#30
2-Butanone
Concen: 106.676 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 214454

Ion	Ratio	Lower	Upper
43	100		
57	8.4	6.4	9.6
72	26.8	21.5	32.3



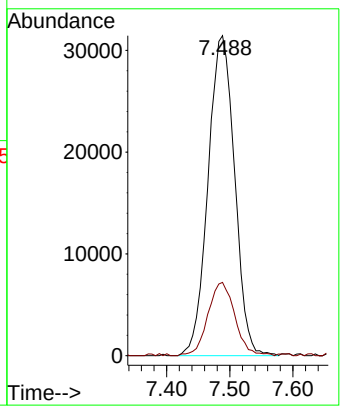


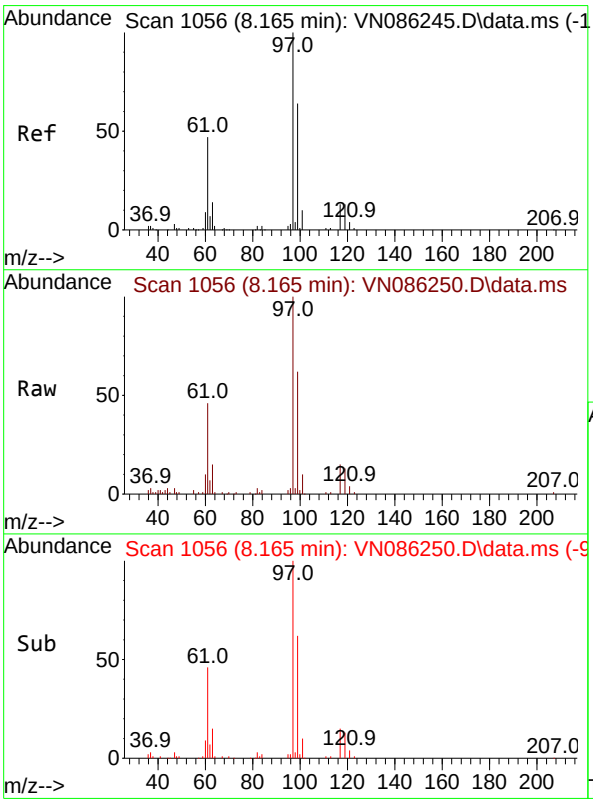
#31
2,2-Dichloropropane
Concen: 20.604 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 77 Resp: 92014

Ion	Ratio	Lower	Upper
77	100		
97	23.0	18.8	28.2

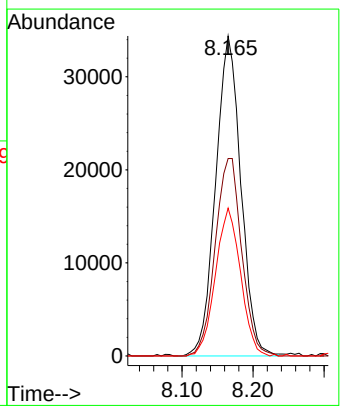


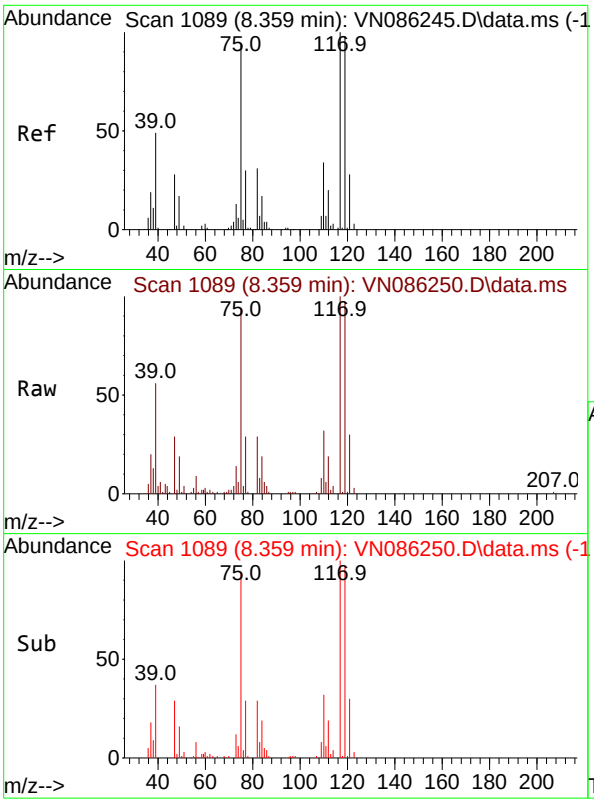


#32
1,1,1-Trichloroethane
Concen: 20.333 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 97 Resp: 84856

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.4	77.2
61	46.0	37.0	55.6



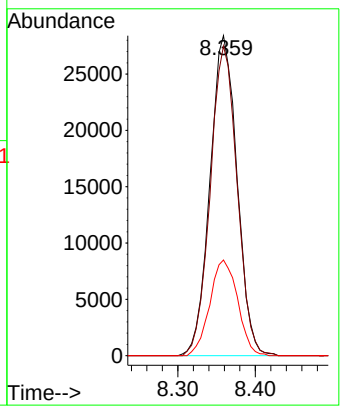


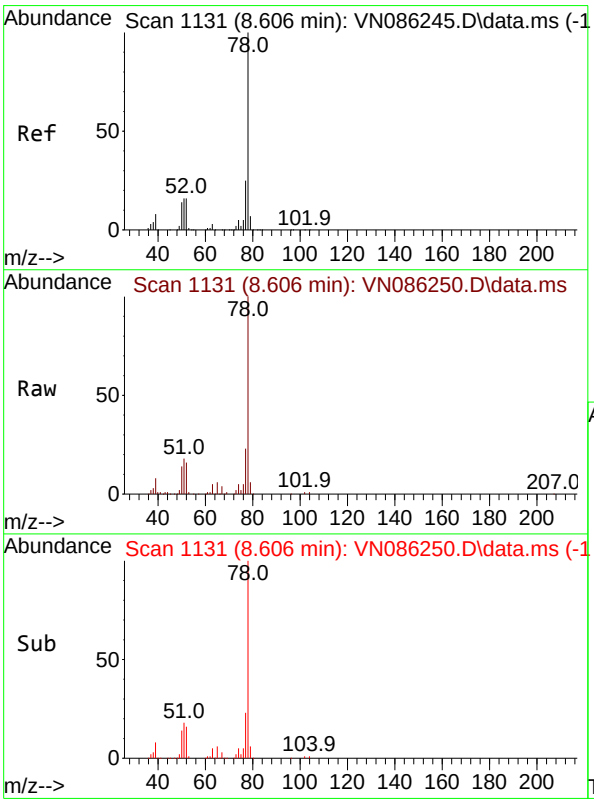
#33
Carbon Tetrachloride
Concen: 20.645 ug/l
RT: 8.359 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:117 Resp: 68854

Ion	Ratio	Lower	Upper
117	100		
119	96.8	78.3	117.5
121	29.9	22.5	33.7

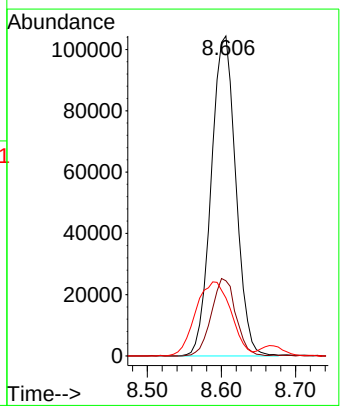


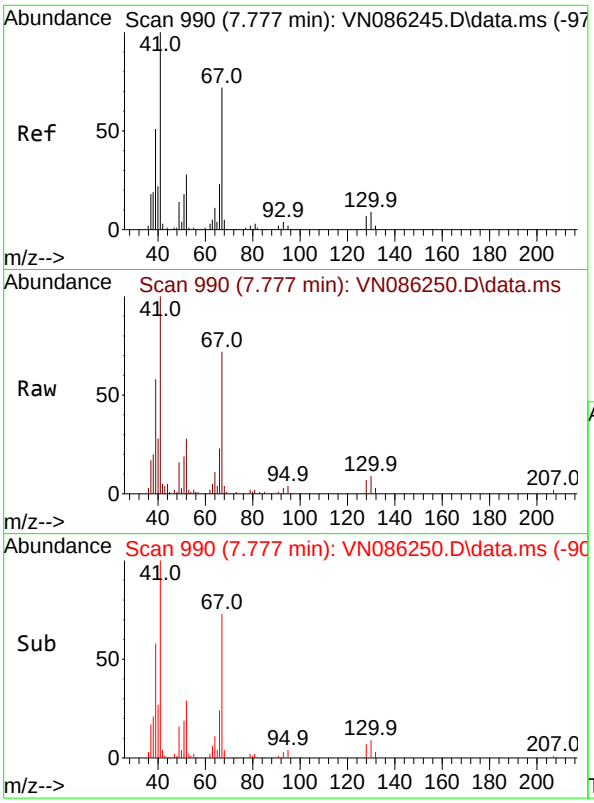


#34
Benzene
Concen: 20.834 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 78 Resp: 240477

Ion	Ratio	Lower	Upper
78	100		
77	23.5	20.0	30.0
51	16.9	12.9	19.3



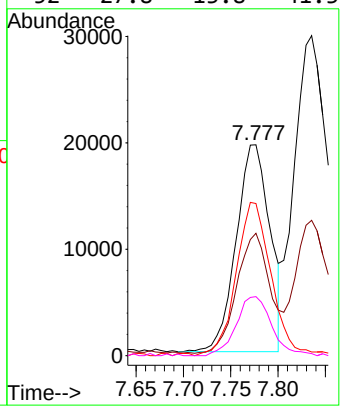


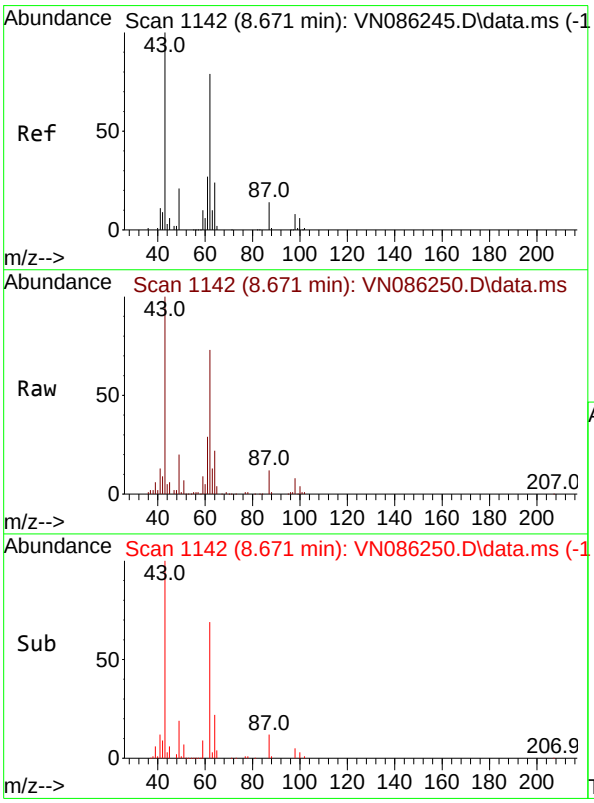
#35
Methacrylonitrile
Concen: 21.230 ug/l
RT: 7.777 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 41 Resp: 48115

Ion	Ratio	Lower	Upper
41	100		
39	57.6	25.8	77.3
67	72.6	36.0	108.0
52	27.8	13.8	41.3

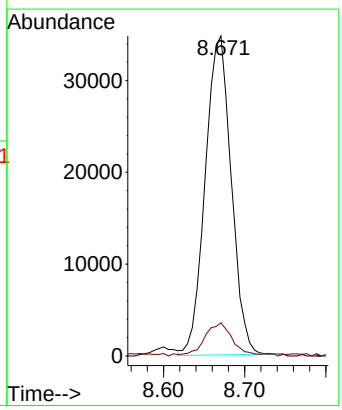


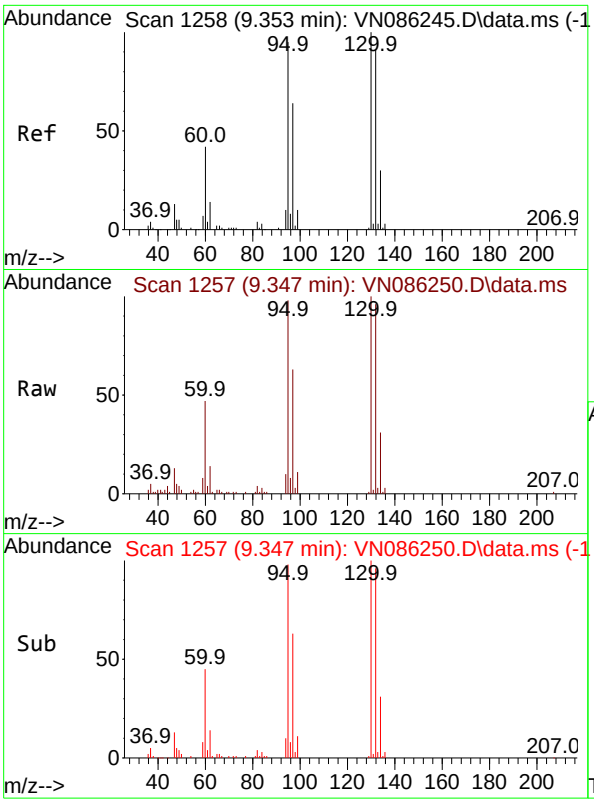


#36
1,2-Dichloroethane
Concen: 21.439 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 62 Resp: 77436

Ion	Ratio	Lower	Upper
62	100		
98	10.1	8.6	12.8



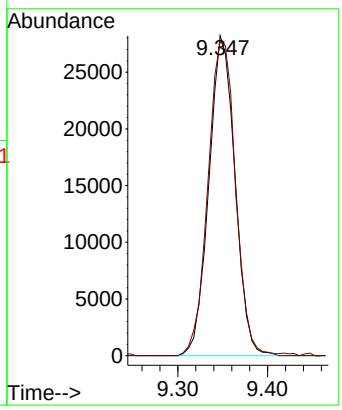


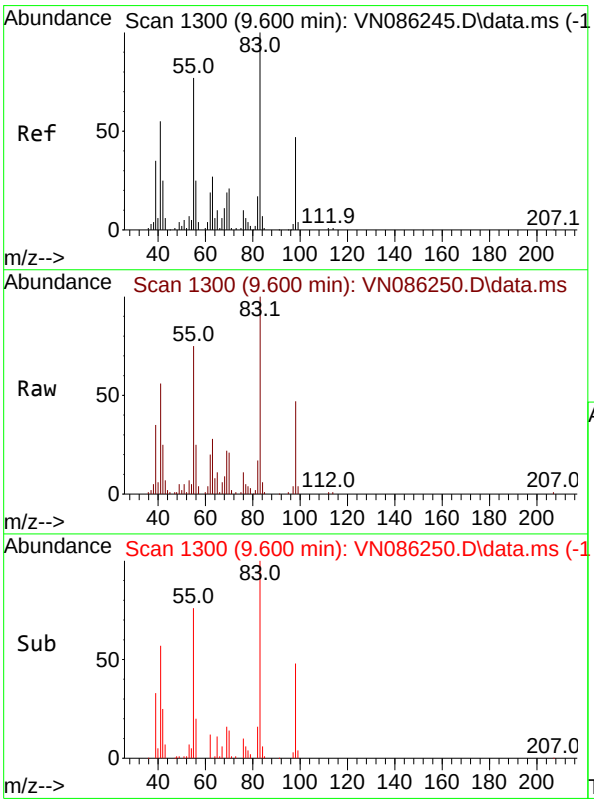
#37
Trichloroethene
Concen: 20.471 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:130 Resp: 57010

Ion	Ratio	Lower	Upper
130	100		
95	98.1	76.4	114.6

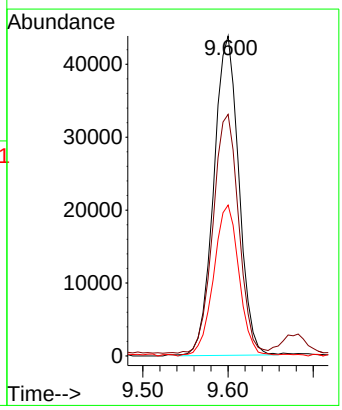


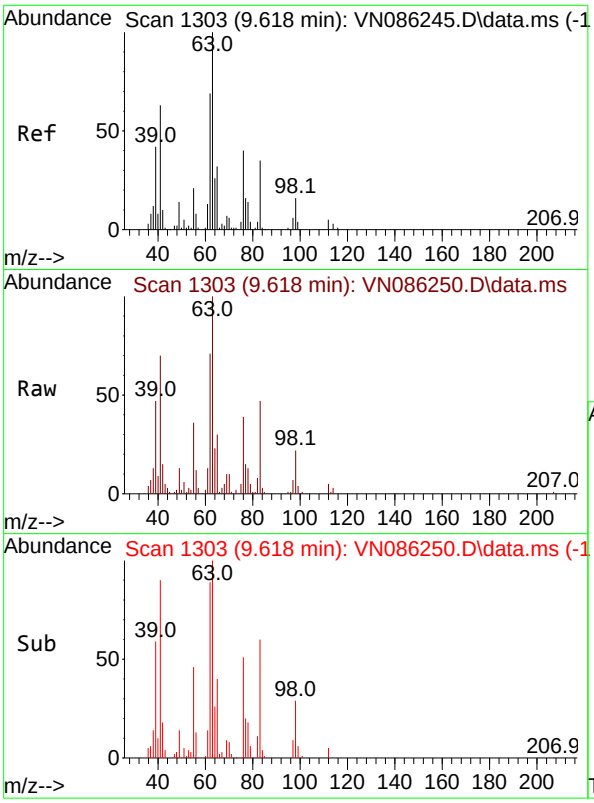


#38
Methylcyclohexane
Concen: 20.125 ug/l
RT: 9.600 min Scan# 1300
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 83 Resp: 89548

Ion	Ratio	Lower	Upper
83	100		
55	76.5	38.5	115.5
98	48.1	24.4	73.2



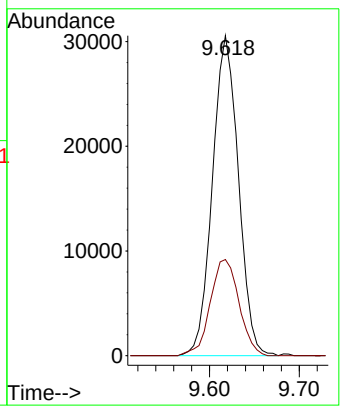


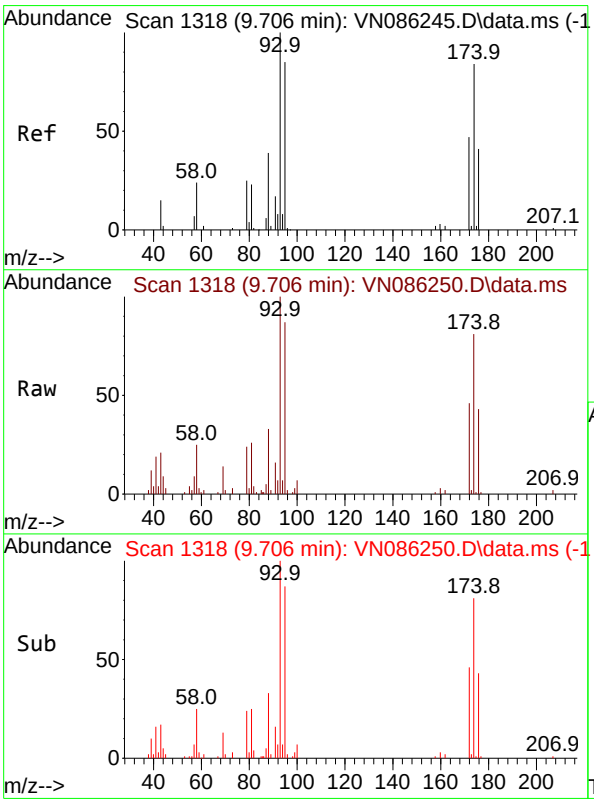
#39
1,2-Dichloropropane
Concen: 21.392 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 63 Resp: 61439

Ion	Ratio	Lower	Upper
63	100		
65	30.1	26.0	39.0

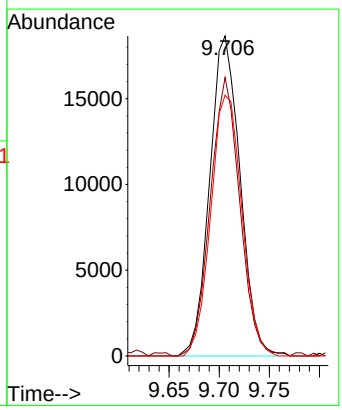


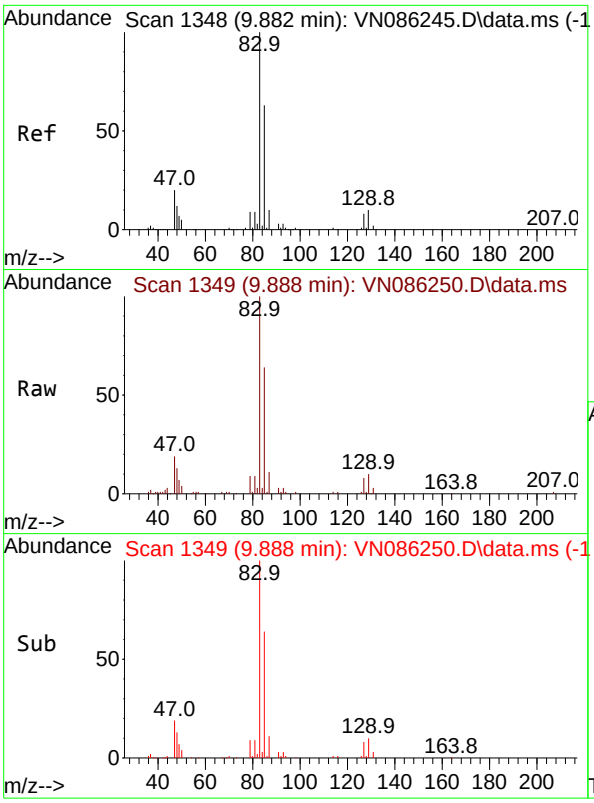


#40
Dibromomethane
Concen: 21.185 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 93 Resp: 39298

Ion	Ratio	Lower	Upper
93	100		
95	84.7	0.0	169.0
174	83.2	0.0	168.0



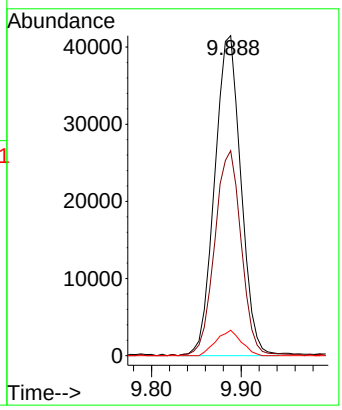


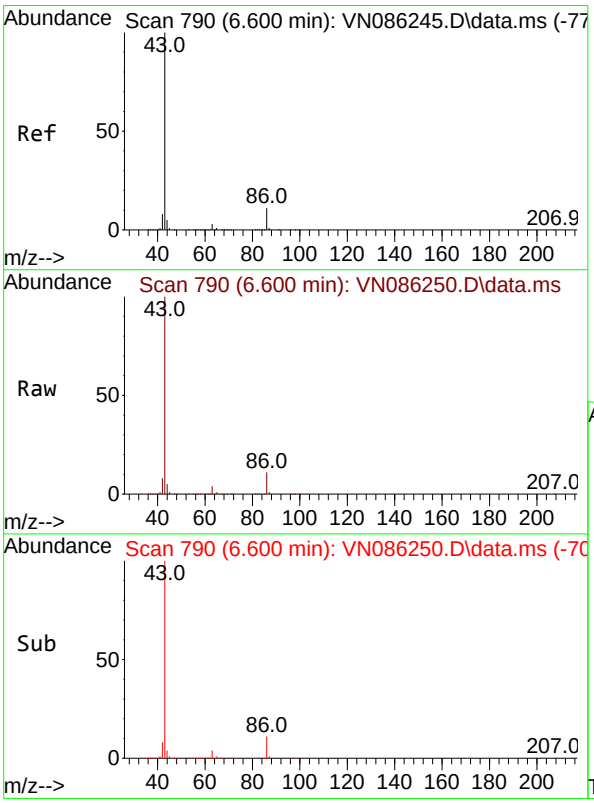
#41
Bromodichloromethane
Concen: 21.197 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 83 Resp: 84468

Ion	Ratio	Lower	Upper
83	100		
85	64.0	50.2	75.2
127	8.0	6.2	9.4

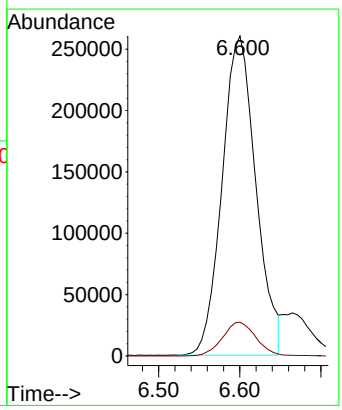


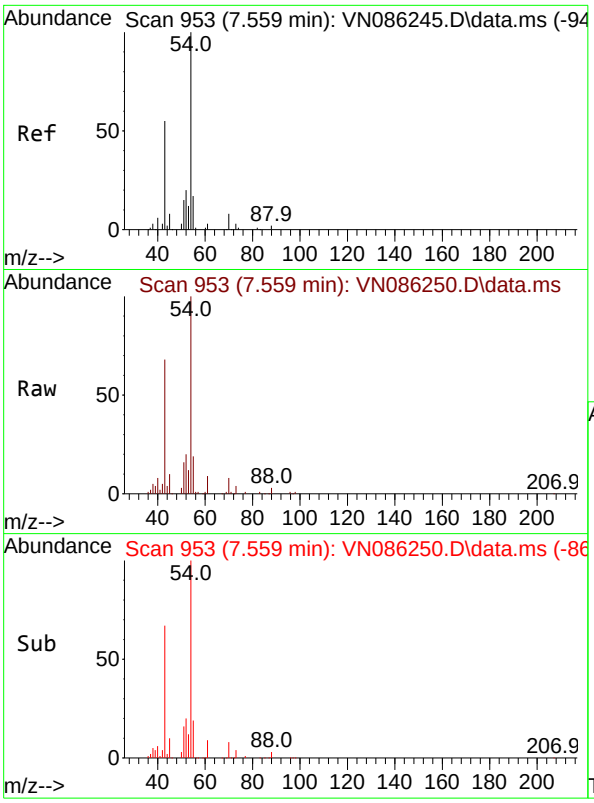


#42
Vinyl Acetate
Concen: 110.147 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 753748

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.4	12.6



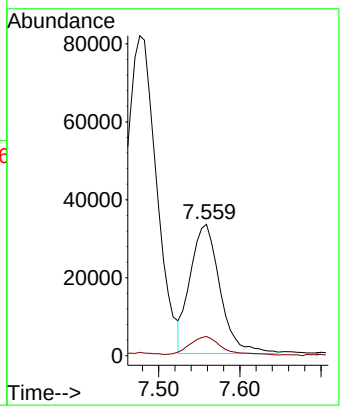


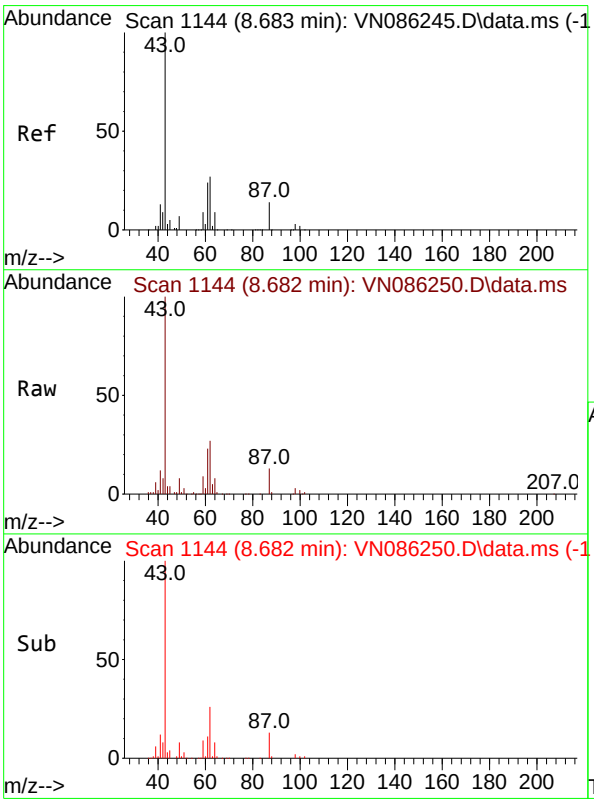
#43
Ethyl Acetate
Concen: 20.939 ug/l
RT: 7.559 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 43 Resp: 84905

Ion	Ratio	Lower	Upper
43	100		
45	15.9	11.2	16.8

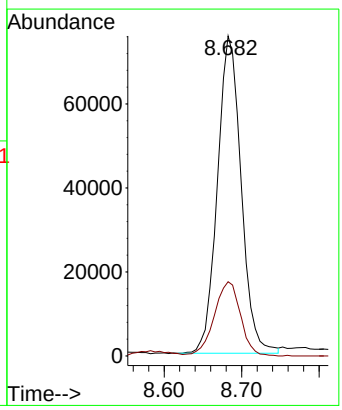


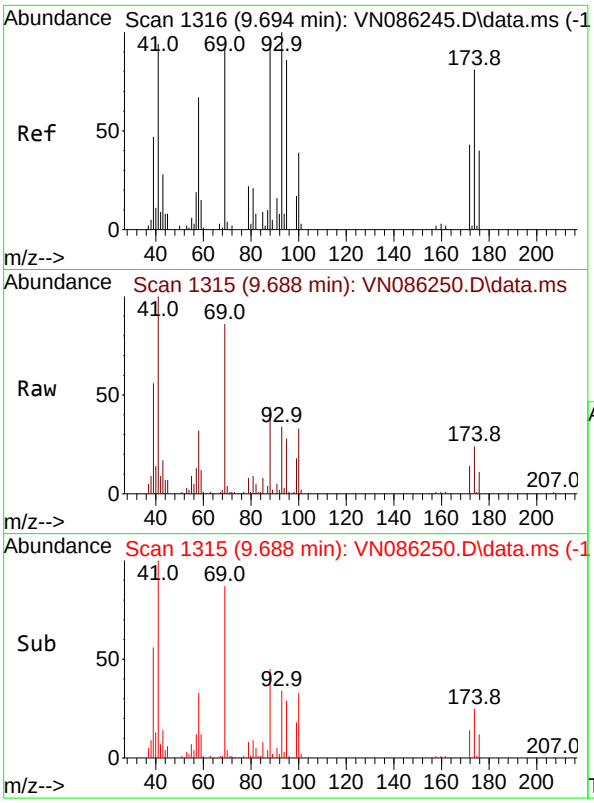


#44
Isopropyl Acetate
Concen: 21.391 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 160910

Ion	Ratio	Lower	Upper
43	100		
61	25.9	20.5	30.7



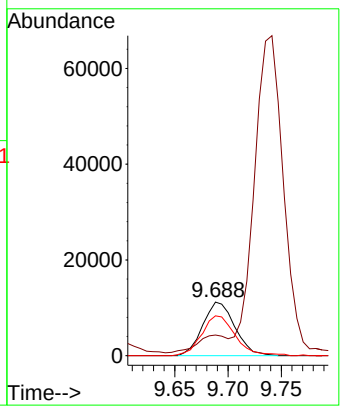


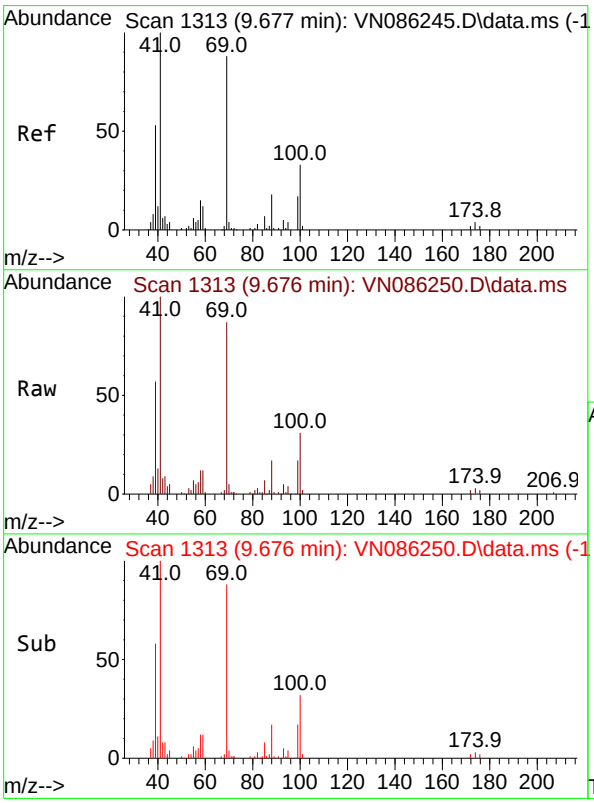
#45
1,4-Dioxane
Concen: 391.526 ug/l
RT: 9.688 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 88 Resp: 23420

Ion	Ratio	Lower	Upper
88	100		
43	30.8	14.4	21.6#
58	78.0	59.8	89.8

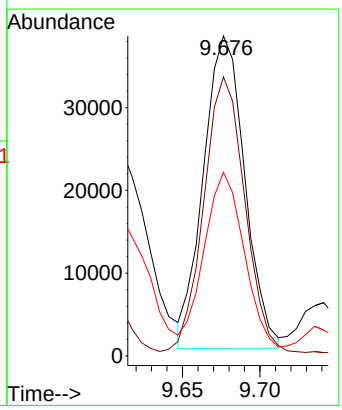


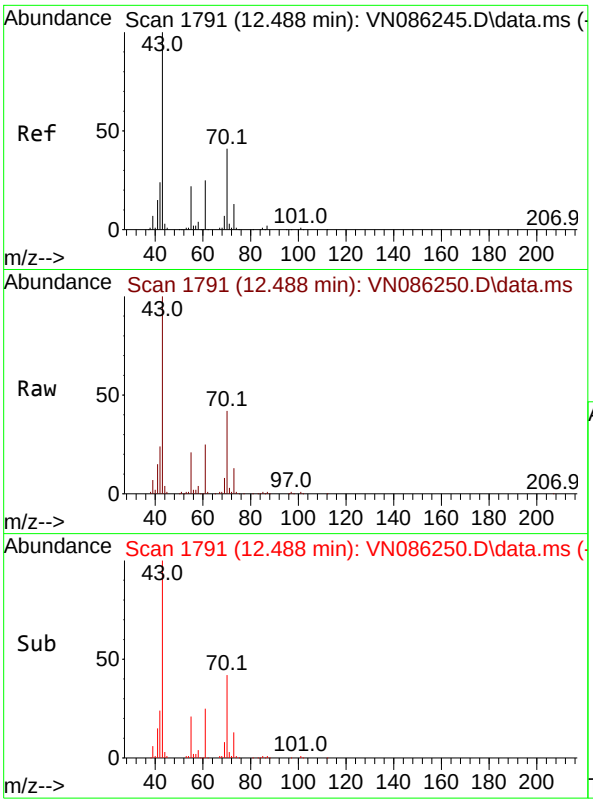


#46
Methyl methacrylate
Concen: 21.088 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 41 Resp: 69895

Ion	Ratio	Lower	Upper
41	100		
69	89.0	43.2	129.6
39	57.9	26.4	79.0



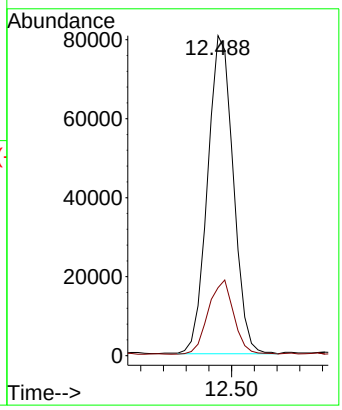


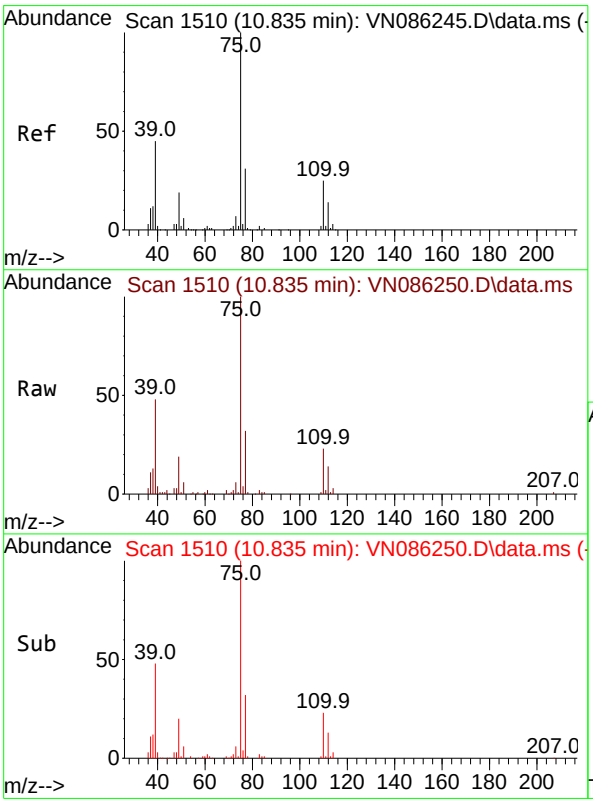
#47
n-amyl Acetate
Concen: 21.222 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 43 Resp: 126575

Ion	Ratio	Lower	Upper
43	100		
55	23.1	19.0	28.4

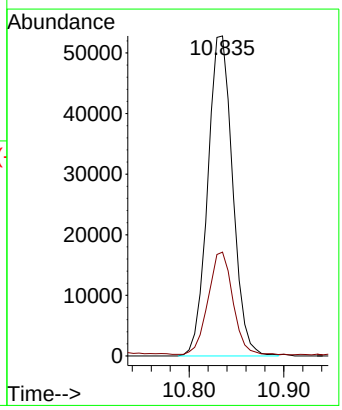


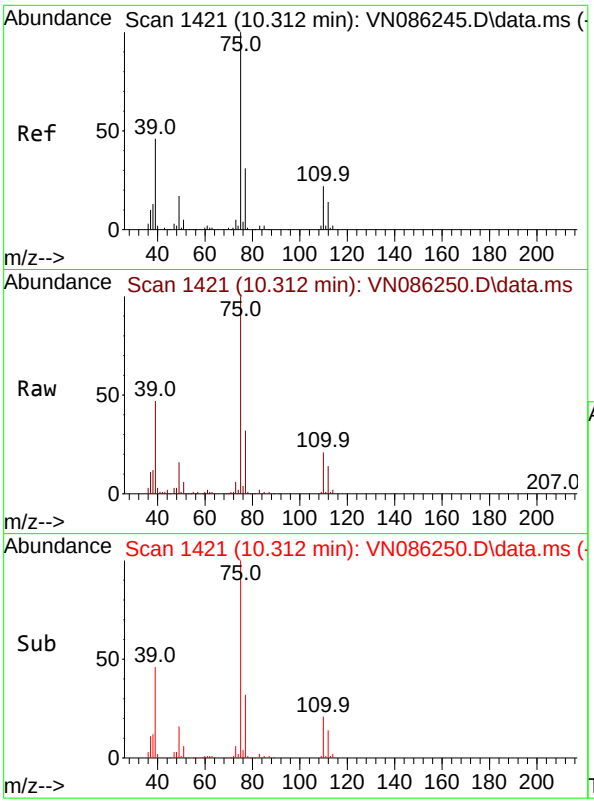


#48
t-1,3-Dichloropropene
Concen: 21.411 ug/l
RT: 10.835 min Scan# 1510
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 96458

Ion	Ratio	Lower	Upper
75	100		
77	32.0	25.1	37.7



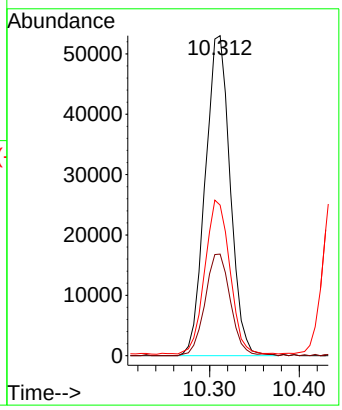


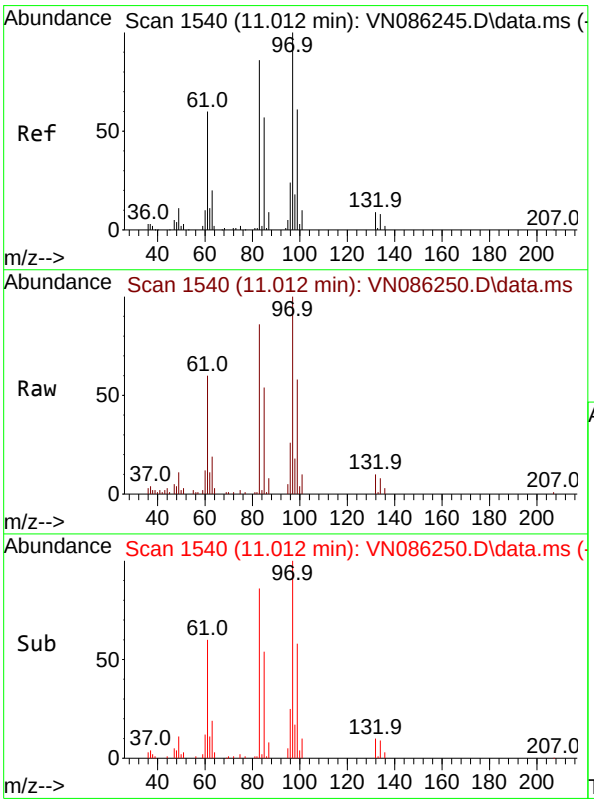
#49
cis-1,3-Dichloropropene
Concen: 21.406 ug/l
RT: 10.312 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 75 Resp: 102066

Ion	Ratio	Lower	Upper
75	100		
77	31.8	25.0	37.4
39	46.5	36.7	55.1

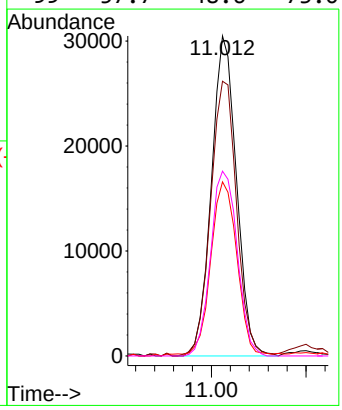


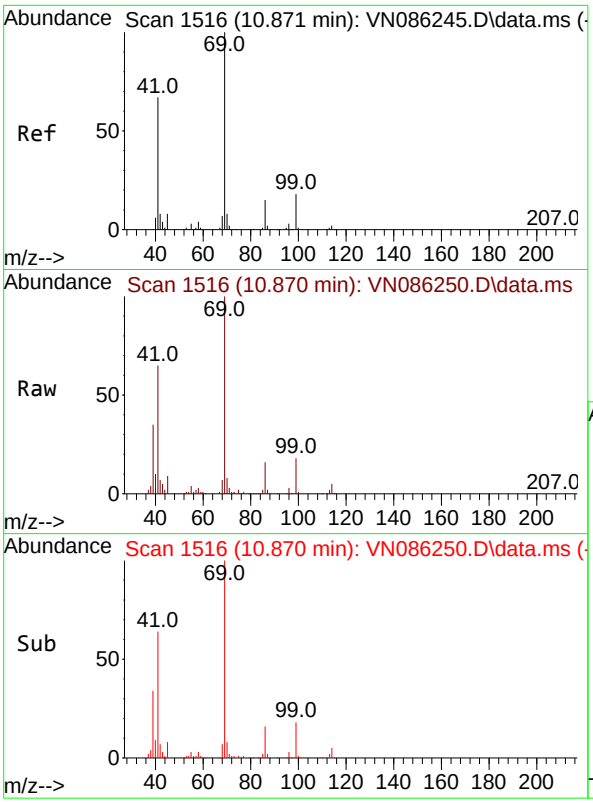


#50
1,1,2-Trichloroethane
Concen: 21.561 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 97 Resp: 56096

Ion	Ratio	Lower	Upper
97	100		
83	85.9	68.6	103.0
85	53.8	45.9	68.9
99	57.7	48.6	73.0



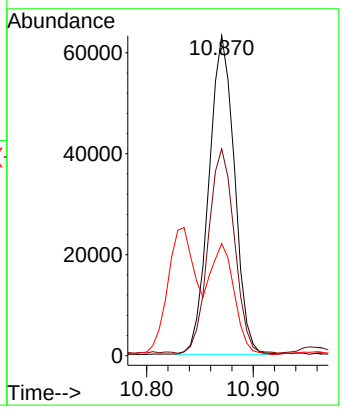


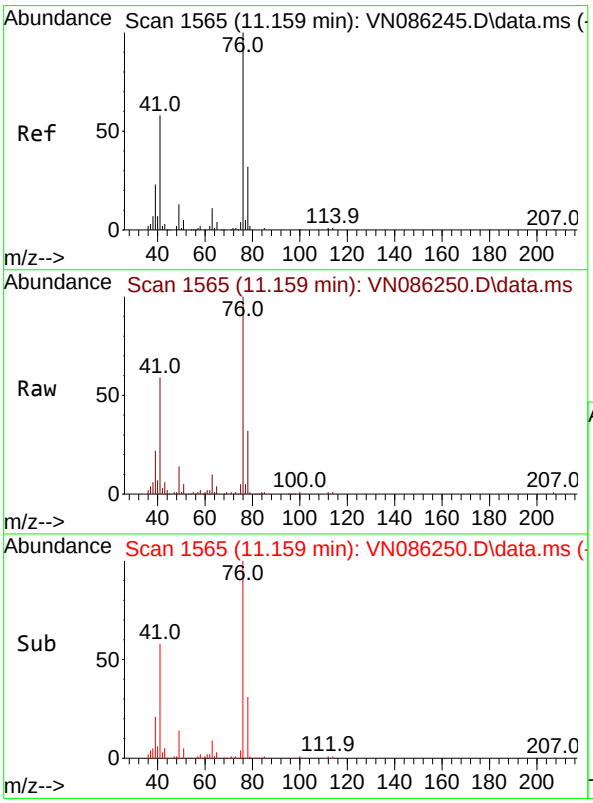
#51
Ethyl methacrylate
Concen: 21.747 ug/l
RT: 10.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 69 Resp: 105140

Ion	Ratio	Lower	Upper
69	100		
41	64.2	33.6	100.6
39	34.7	17.8	53.4

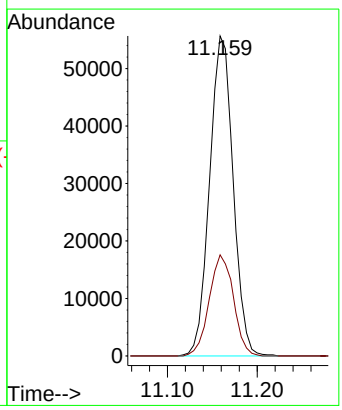


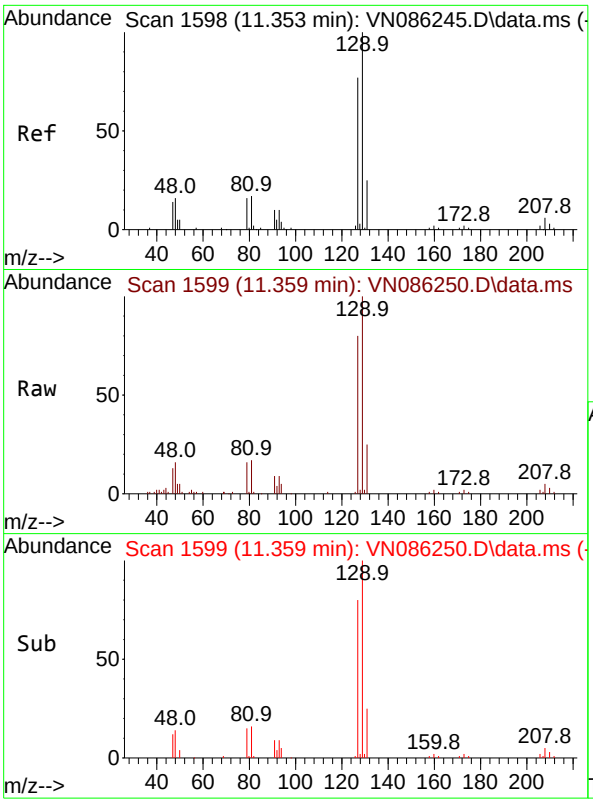


#52
1,3-Dichloropropane
Concen: 21.850 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 76 Resp: 101323

Ion	Ratio	Lower	Upper
76	100		
78	32.5	0.0	64.6



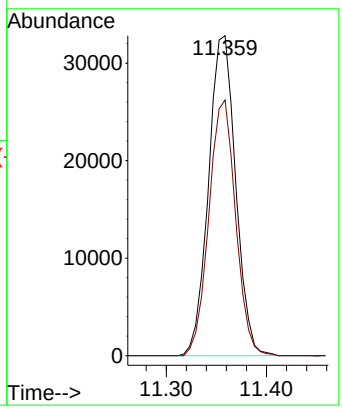


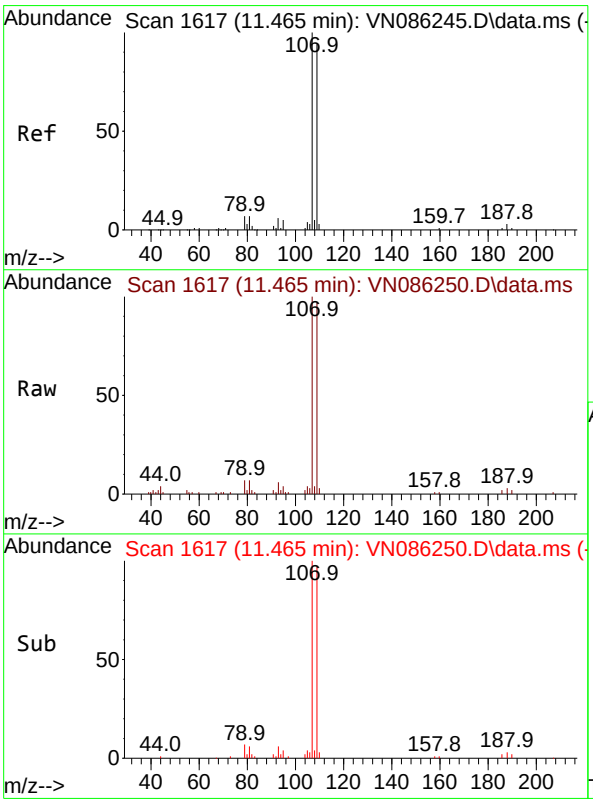
#53
Dibromochloromethane
Concen: 21.706 ug/l
RT: 11.359 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:129 Resp: 61771

Ion	Ratio	Lower	Upper
129	100		
127	78.6	38.5	115.5

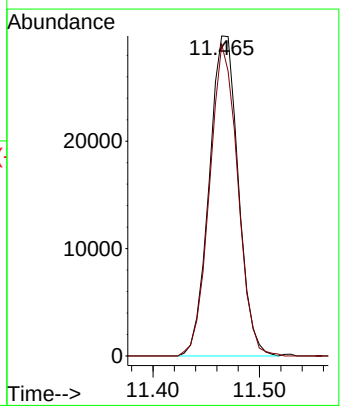


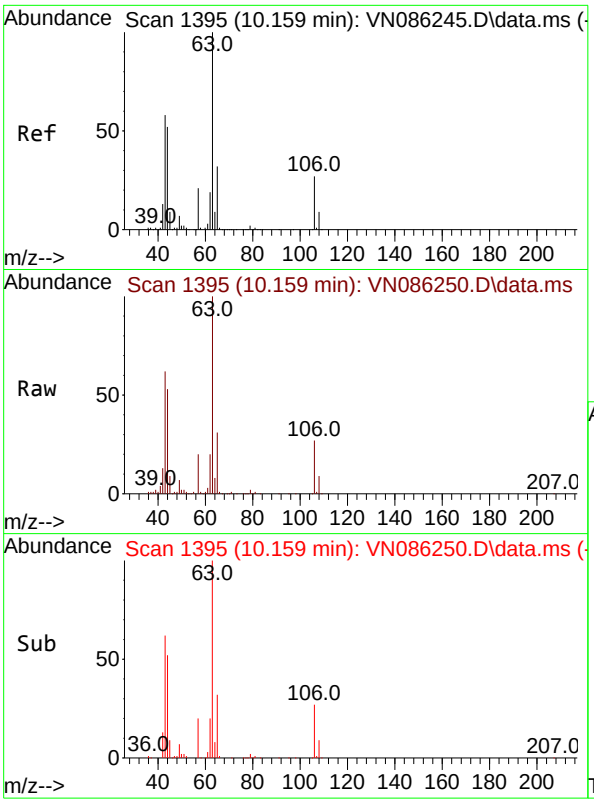


#54
1,2-Dibromoethane
Concen: 21.523 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:107 Resp: 56526

Ion	Ratio	Lower	Upper
107	100		
109	94.1	75.2	112.8



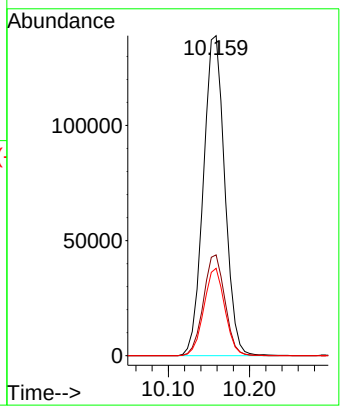


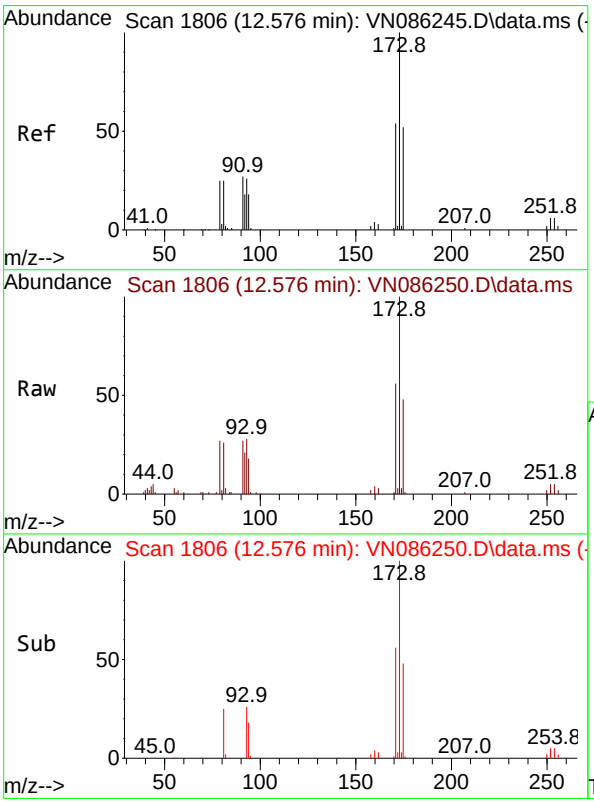
#55
2-Chloroethyl vinyl ether
Concen: 139.276 ug/l
RT: 10.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 63 Resp: 254446

Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.8	38.8
106	26.7	21.8	32.8

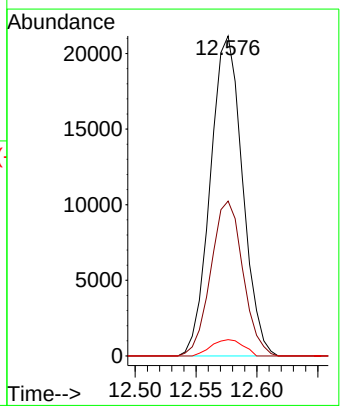


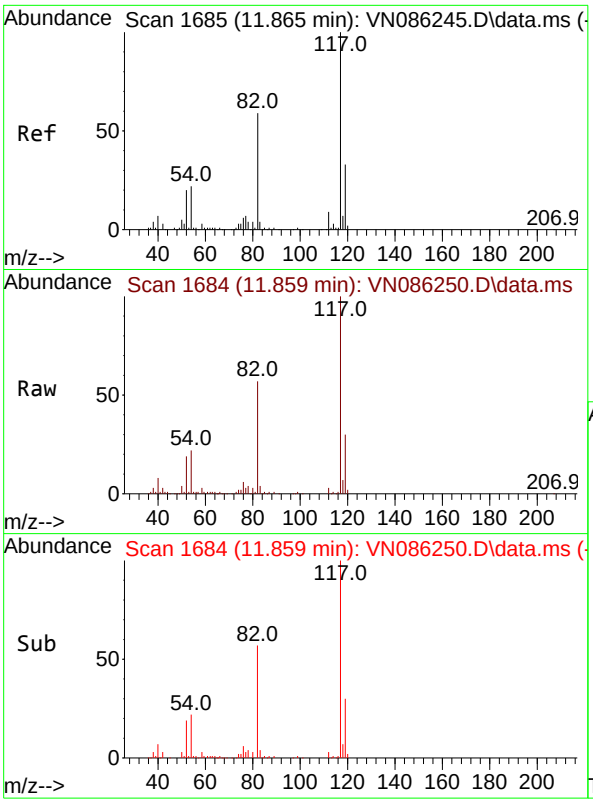


#56
Bromoform
Concen: 20.842 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:173 Resp: 38804

Ion	Ratio	Lower	Upper
173	100		
175	48.4	38.2	57.4
254	5.1	4.5	6.7



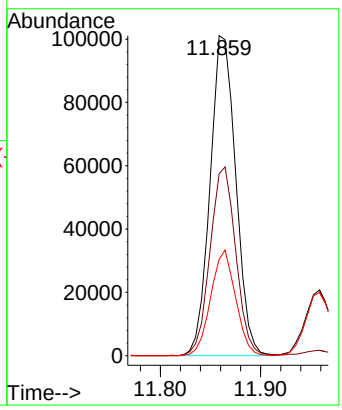


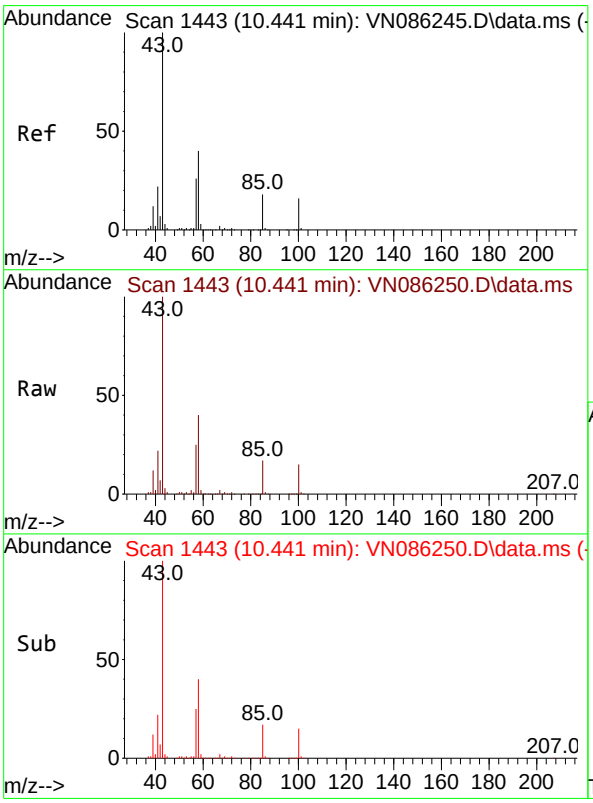
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:117 Resp: 180363

Ion	Ratio	Lower	Upper
117	100		
82	59.2	47.3	70.9
119	31.9	25.9	38.9

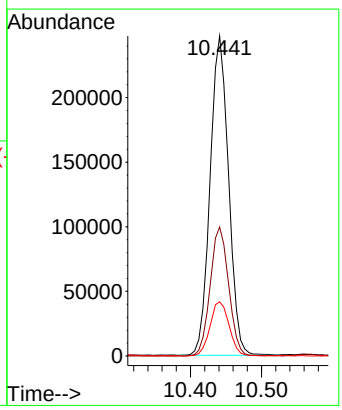


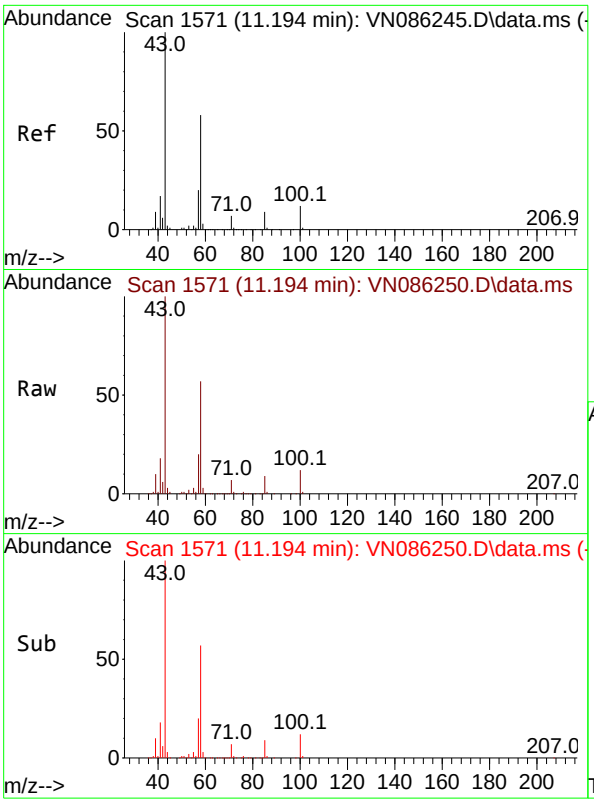


#58
4-Methyl-2-Pentanone
Concen: 109.058 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 43 Resp: 446372

Ion	Ratio	Lower	Upper
43	100		
58	40.3	32.5	48.7
85	17.6	14.4	21.6



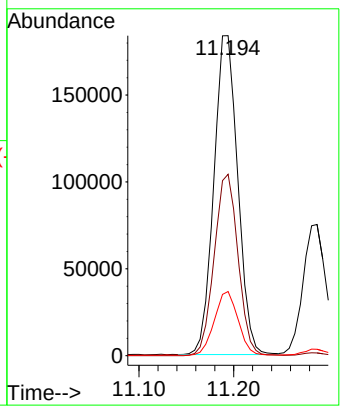


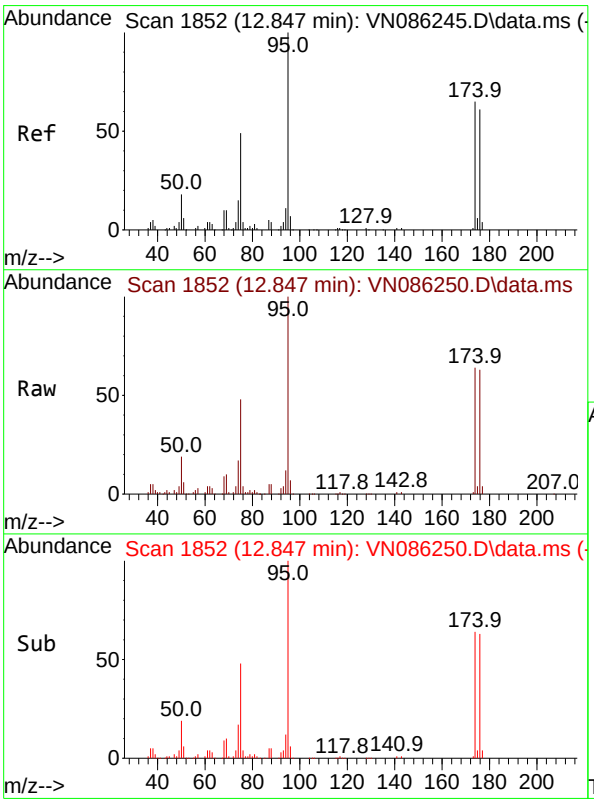
#59
2-Hexanone
Concen: 105.569 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 43 Resp: 321747

Ion	Ratio	Lower	Upper
43	100		
58	56.7	45.3	67.9
57	19.7	15.8	23.6

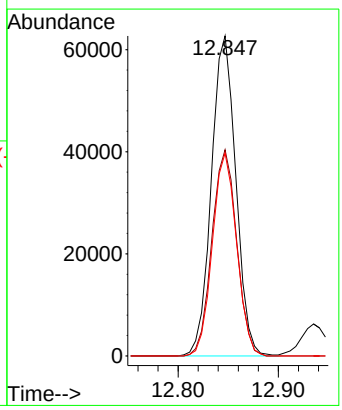


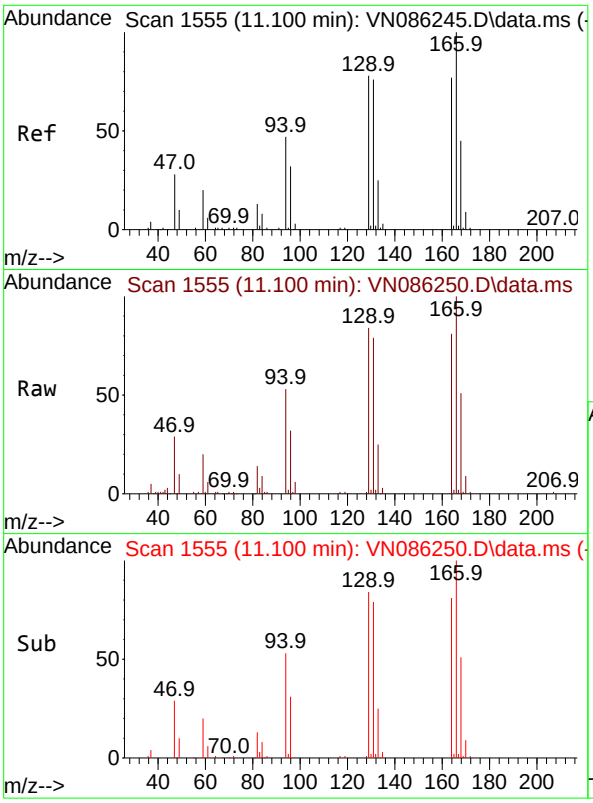


#60
4-Bromofluorobenzene
Concen: 29.590 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 95 Resp: 106256

Ion	Ratio	Lower	Upper
95	100		
174	65.0	52.7	79.1
176	62.5	49.8	74.8



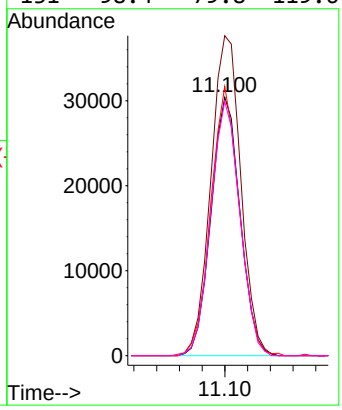


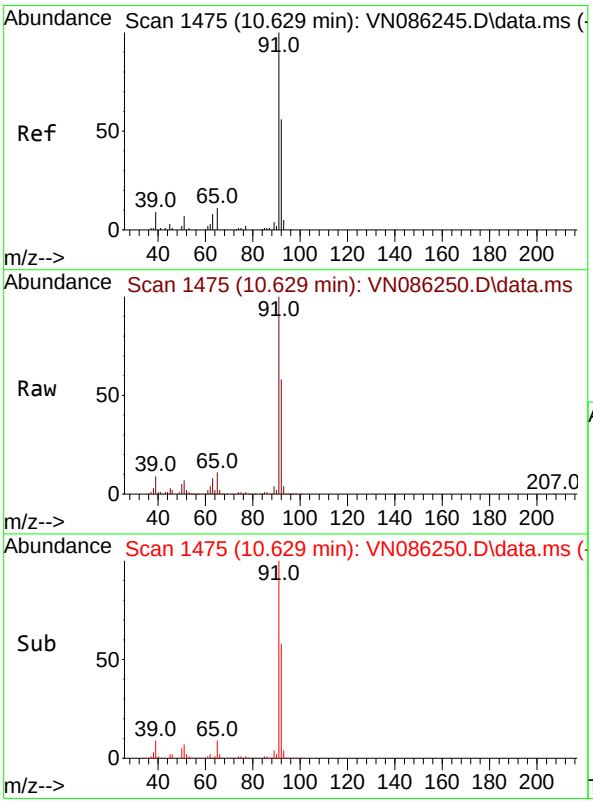
#61
Tetrachloroethene
Concen: 20.264 ug/l
RT: 11.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:164 Resp: 53974

Ion	Ratio	Lower	Upper
164	100		
166	123.9	104.5	156.7
129	103.6	81.7	122.5
131	98.4	79.8	119.6

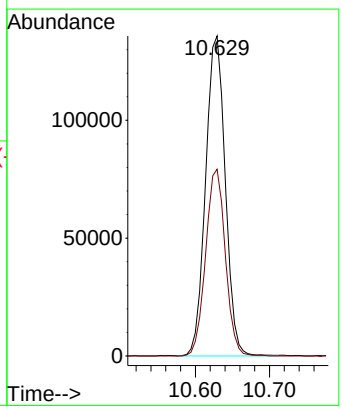


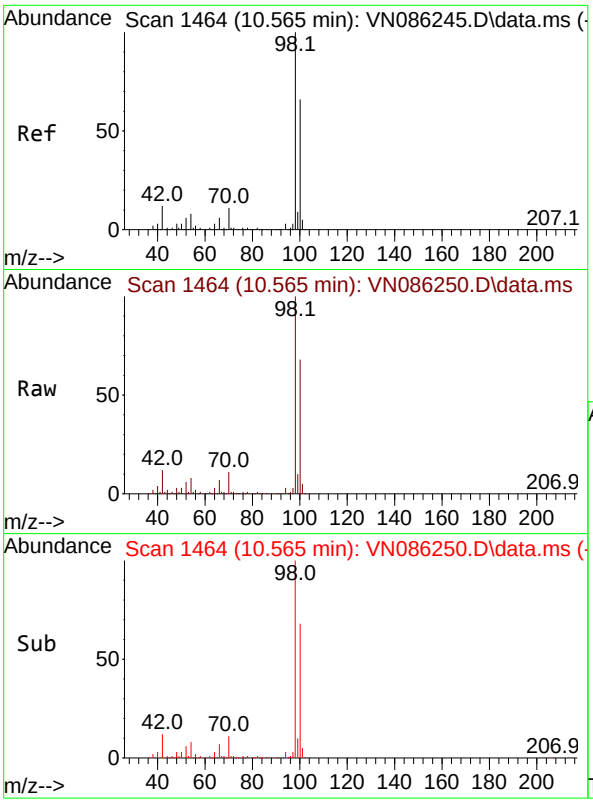


#62
Toluene
Concen: 20.706 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 250492

Ion	Ratio	Lower	Upper
91	100		
92	58.4	46.8	70.2



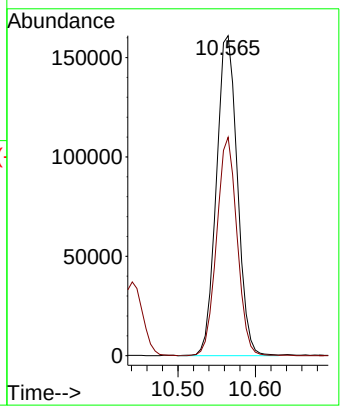


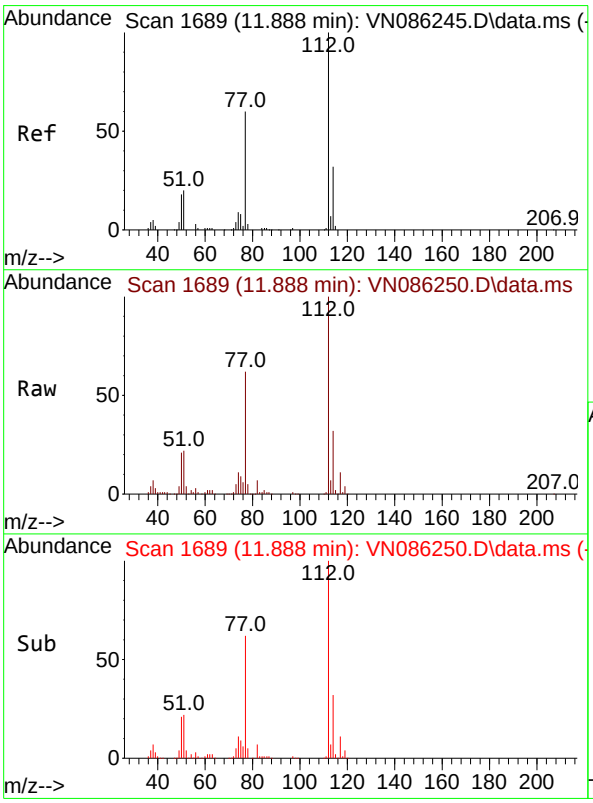
#63
Toluene-d8
Concen: 29.803 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 98 Resp: 303469

Ion	Ratio	Lower	Upper
98	100		
100	66.4	52.3	78.5

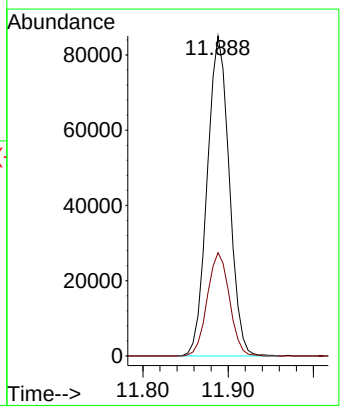


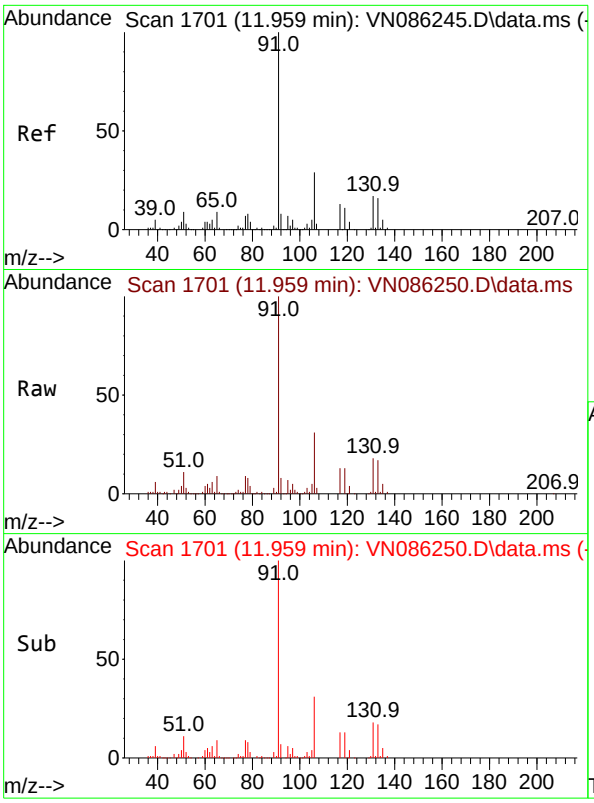


#64
Chlorobenzene
Concen: 20.635 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:112 Resp: 152512

Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.8	38.6



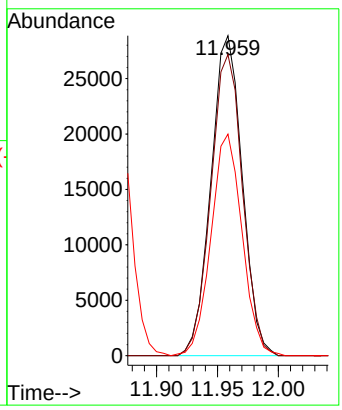


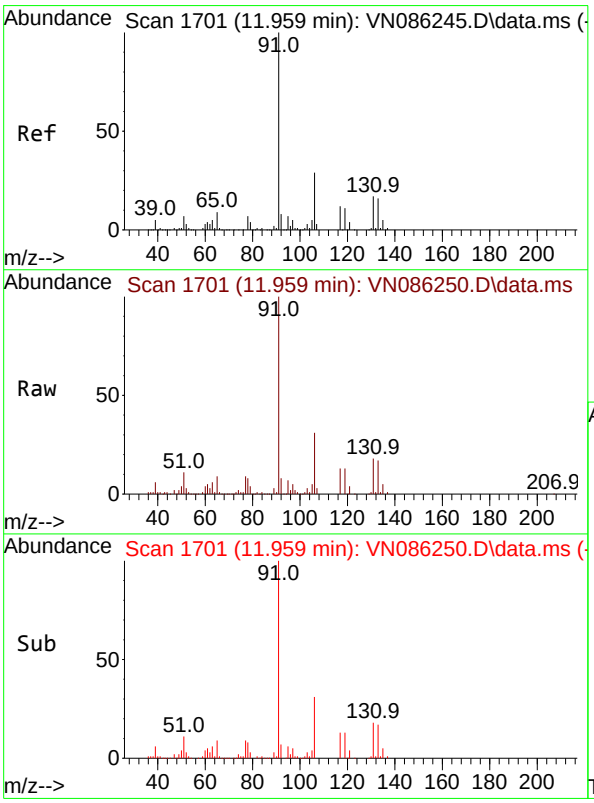
#65
1,1,1,2-Tetrachloroethane
Concen: 21.219 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:131 Resp: 51756

Ion	Ratio	Lower	Upper
131	100		
133	95.3	0.0	190.4
119	68.7	0.0	135.6

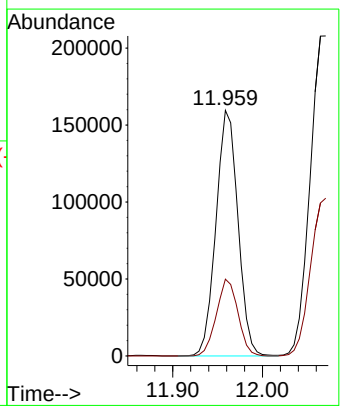


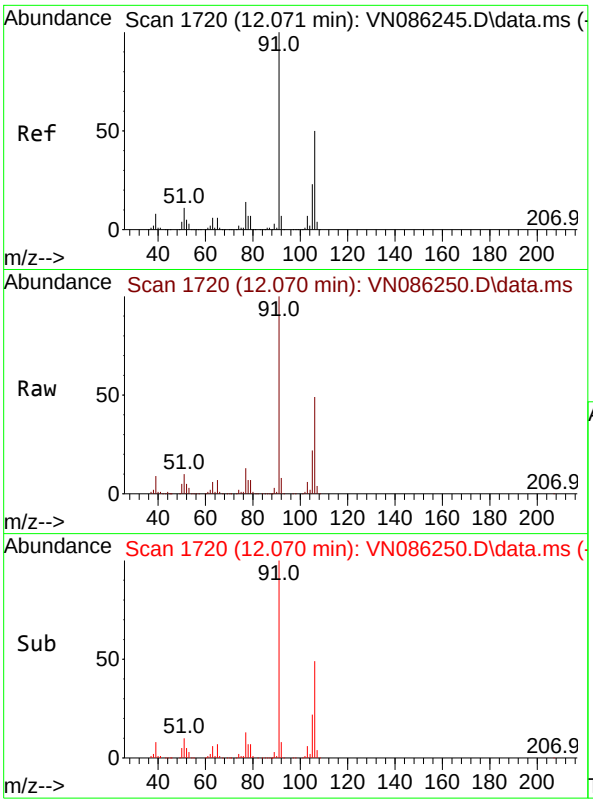


#66
Ethyl Benzene
Concen: 20.236 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 271487

Ion	Ratio	Lower	Upper
91	100		
106	31.3	23.4	35.0



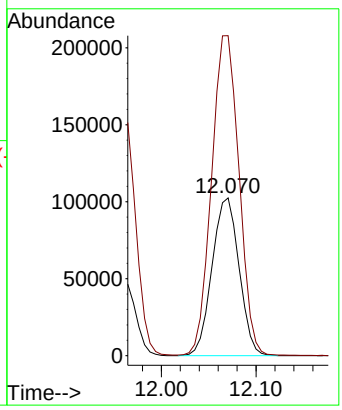


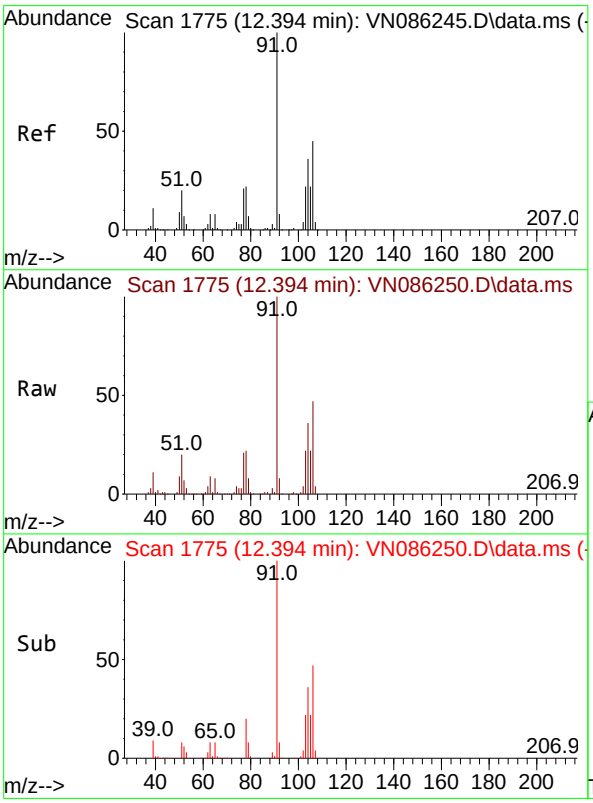
#67
m/p-Xylenes
Concen: 40.720 ug/l
RT: 12.070 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:106 Resp: 203138

Ion	Ratio	Lower	Upper
106	100		
91	205.7	164.5	246.7

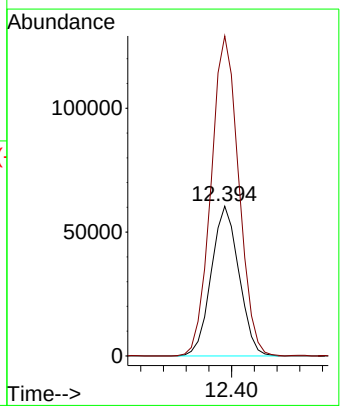


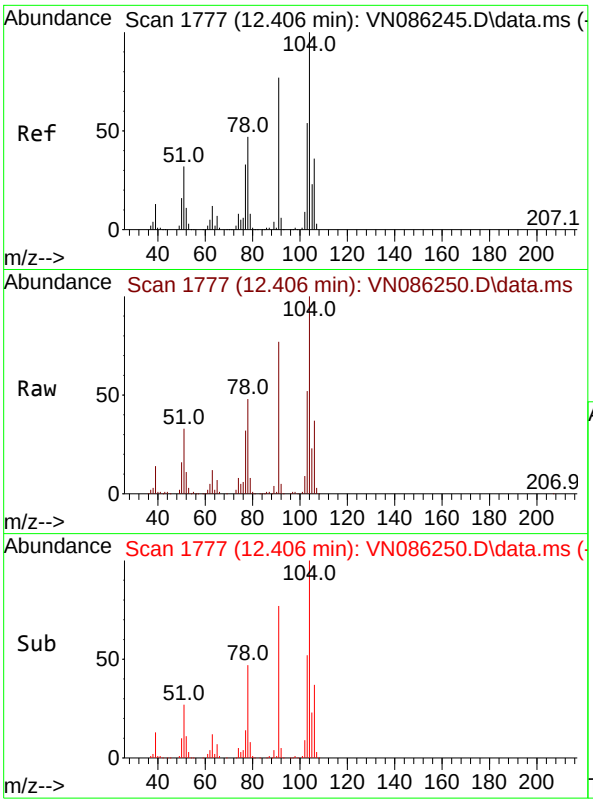


#68
o-Xylene
Concen: 20.842 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:106 Resp: 102269

Ion	Ratio	Lower	Upper
106	100		
91	214.0	109.8	329.4



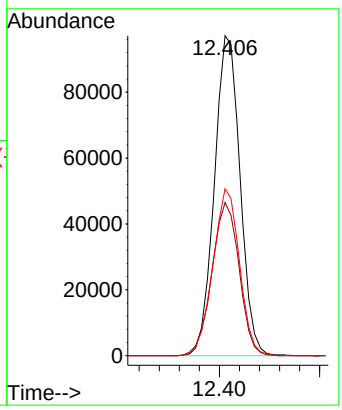


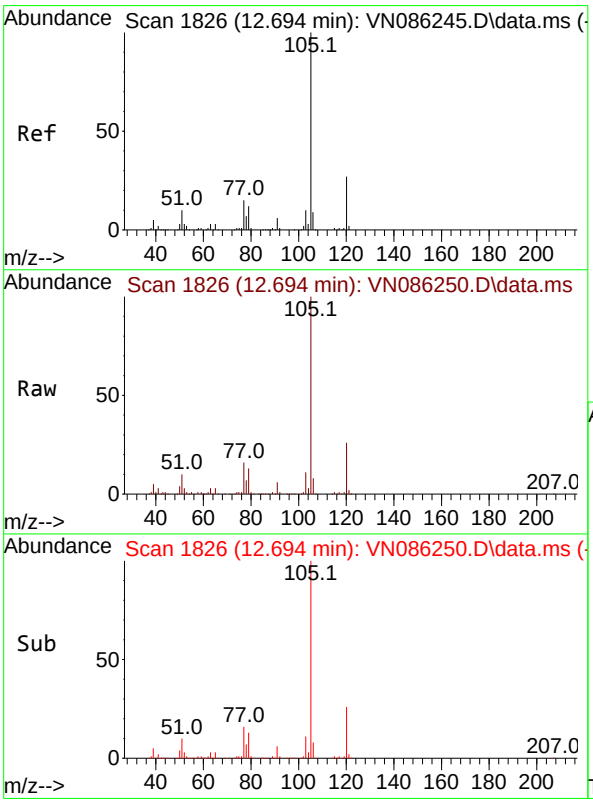
#69
Styrene
Concen: 20.872 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:104 Resp: 172721

Ion	Ratio	Lower	Upper
104	100		
78	50.6	41.4	62.0
103	54.0	44.2	66.4

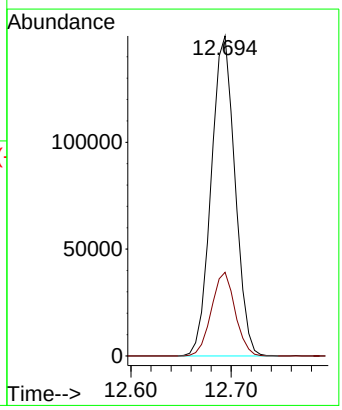


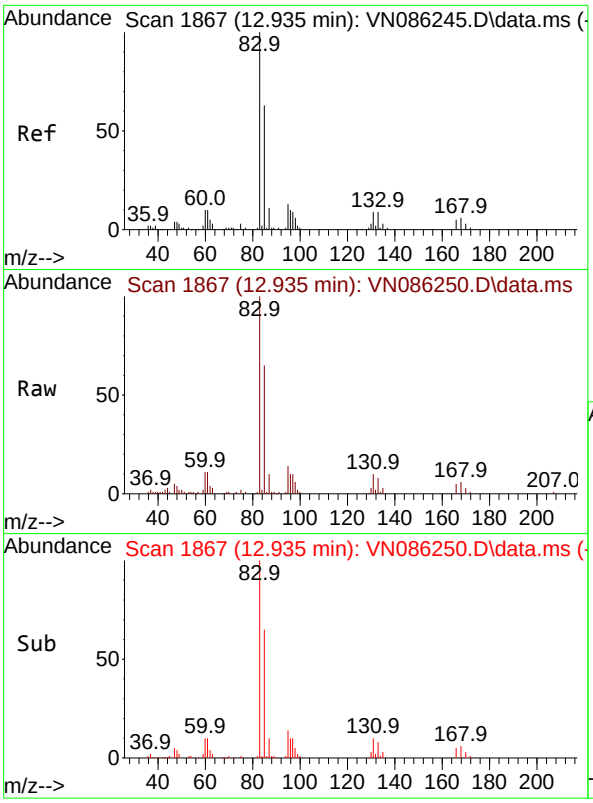


#70
Isopropylbenzene
Concen: 20.417 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 247015

Ion	Ratio	Lower	Upper
105	100		
120	25.9	18.3	34.1



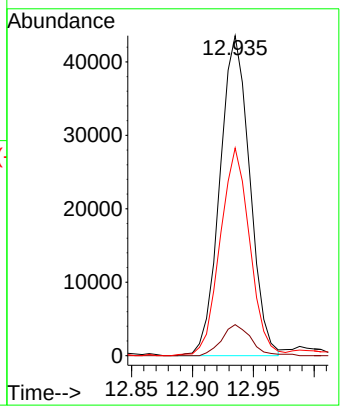


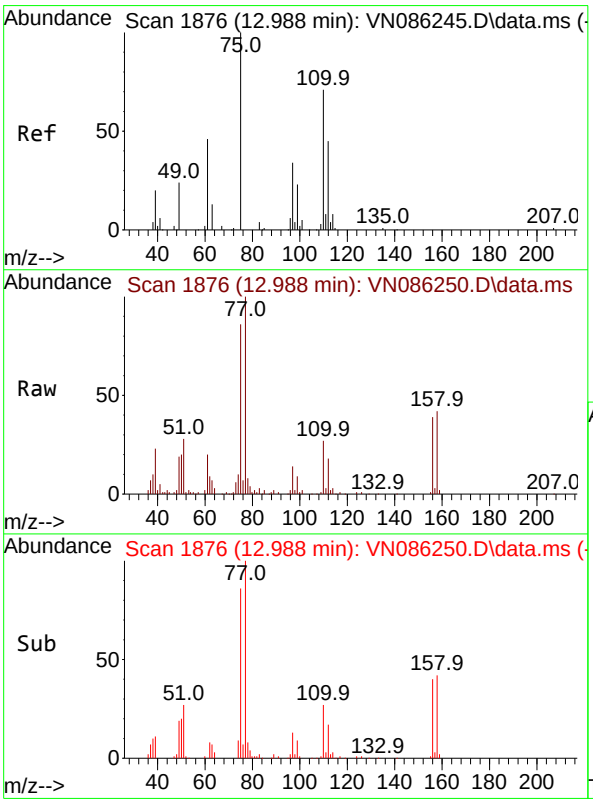
#71
1,1,2,2-Tetrachloroethane
Concen: 21.612 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 83 Resp: 74426

Ion	Ratio	Lower	Upper
83	100		
131	9.4	4.8	14.3
85	63.0	32.3	96.8

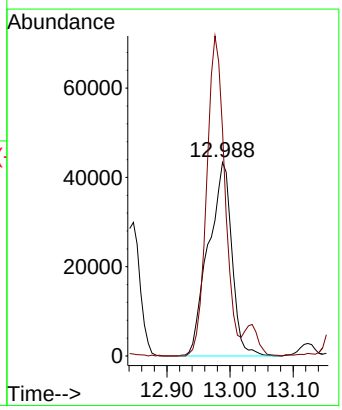


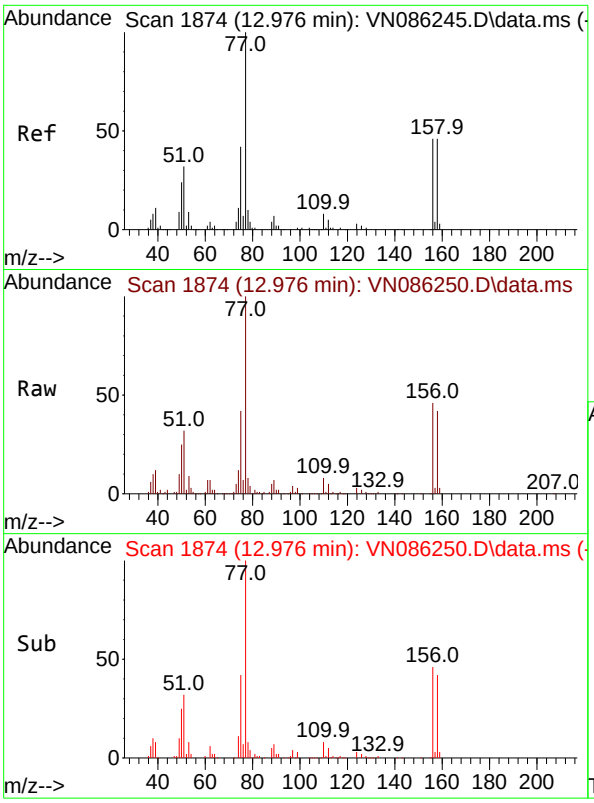


#72
1,2,3-Trichloropropane
Concen: 31.263 ug/l
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 112068

Ion	Ratio	Lower	Upper
75	100		
77	127.9	0.0	380.0



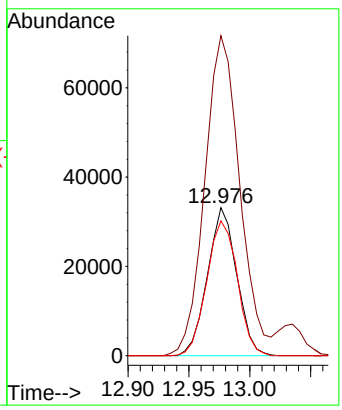


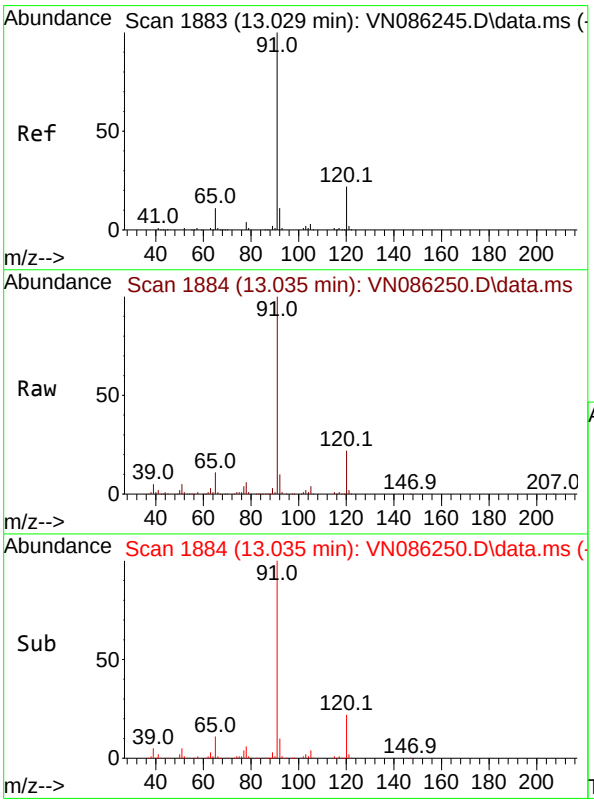
#73
Bromobenzene
Concen: 20.660 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:156 Resp: 55372

Ion	Ratio	Lower	Upper
156	100		
77	258.9	0.0	505.2
158	95.5	0.0	195.0

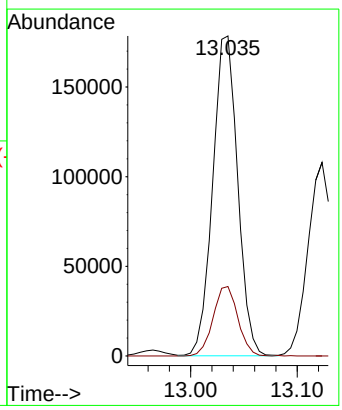


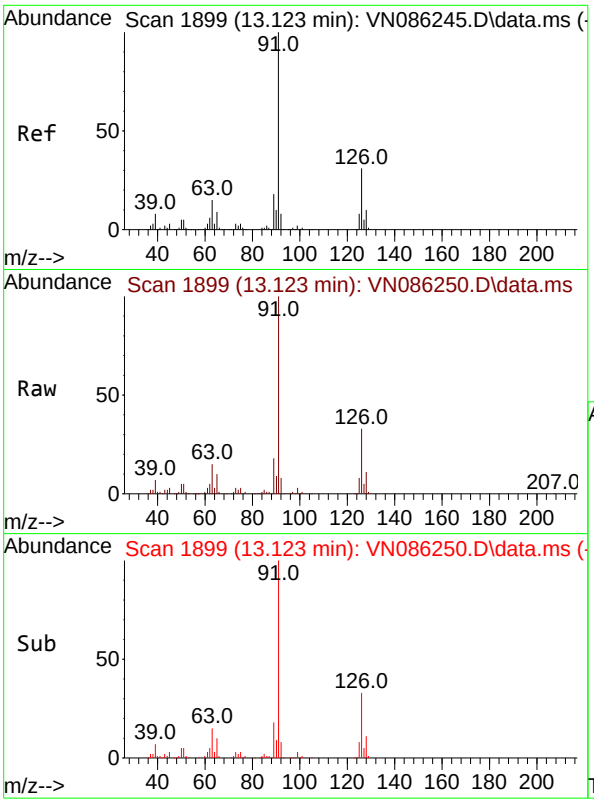


#74
n-propylbenzene
Concen: 20.330 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 290430

Ion	Ratio	Lower	Upper
91	100		
120	21.5	0.0	44.0



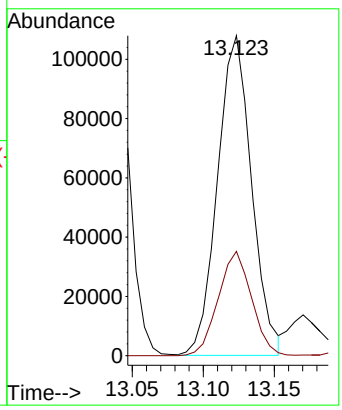


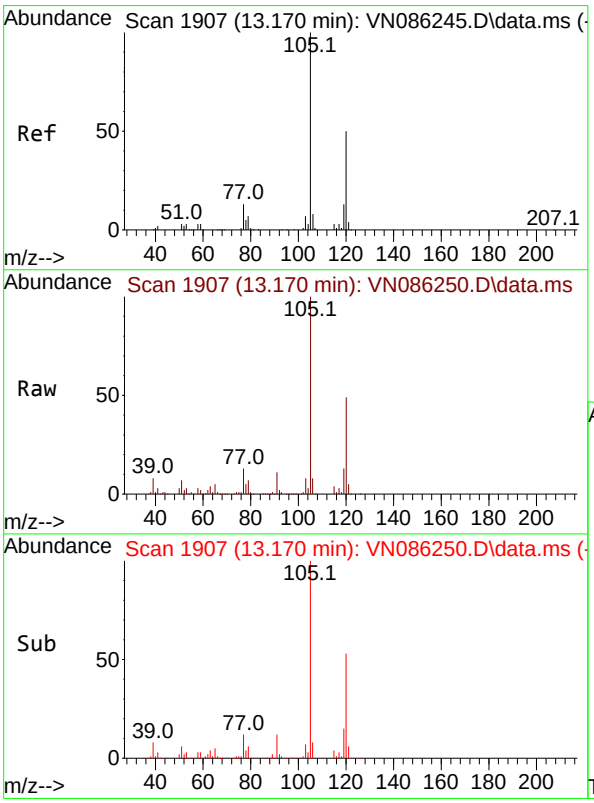
#75
2-Chlorotoluene
Concen: 20.074 ug/l
RT: 13.123 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 91 Resp: 180253

Ion	Ratio	Lower	Upper
91	100		
126	31.8	0.0	63.4

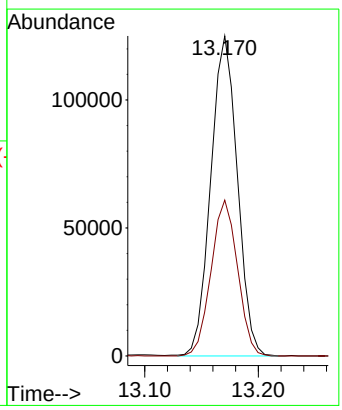


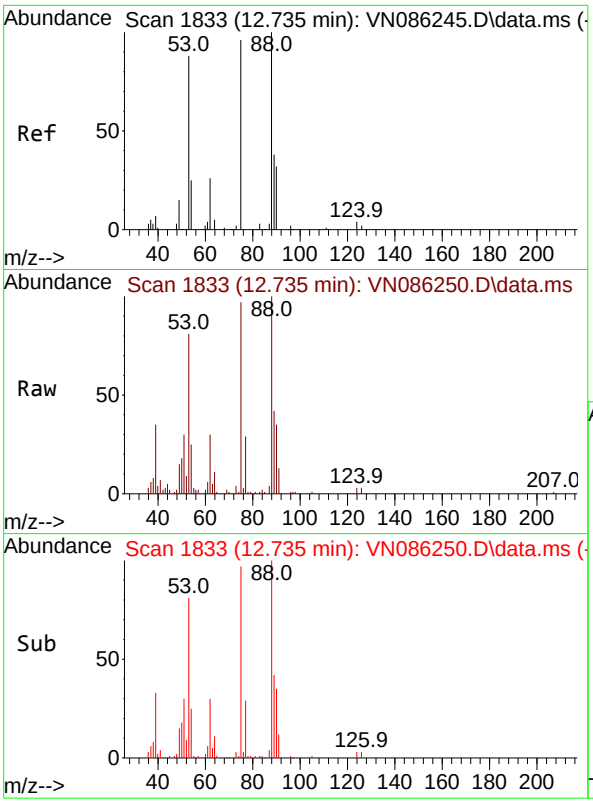


#76
1,3,5-Trimethylbenzene
Concen: 20.450 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 203242

Ion	Ratio	Lower	Upper
105	100		
120	48.5	0.0	98.0



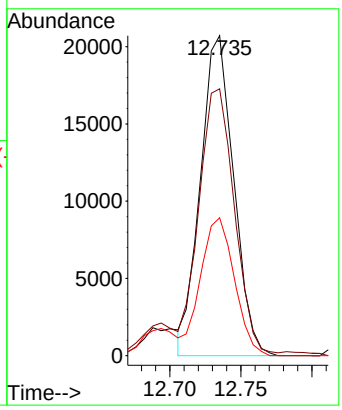


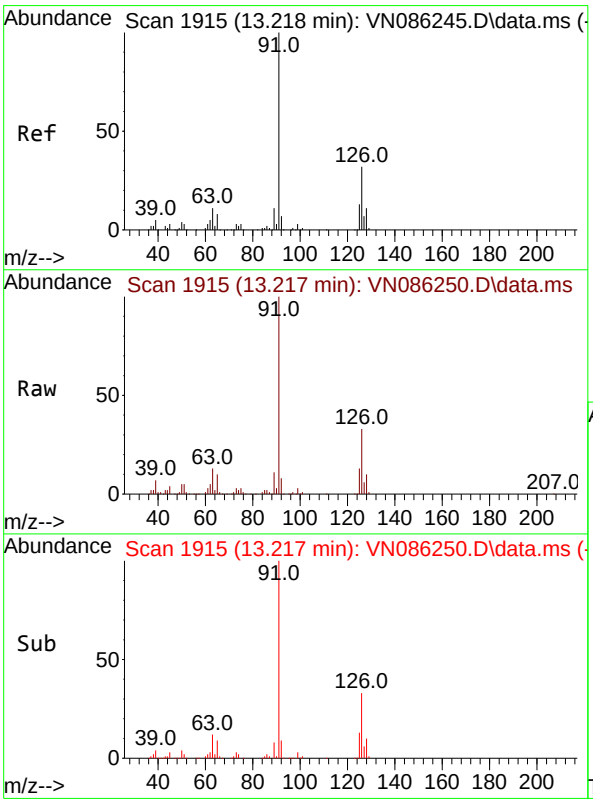
#77
t-1,4-Dichloro-2-butene
Concen: 20.436 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 75 Resp: 33778

Ion	Ratio	Lower	Upper
75	100		
53	82.5	46.4	139.2
89	43.1	22.5	67.5

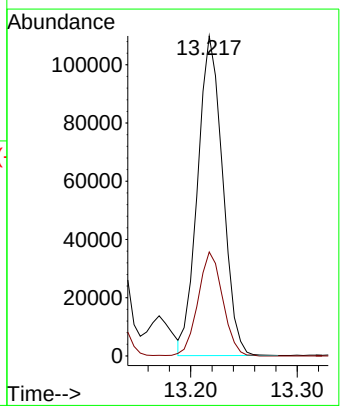


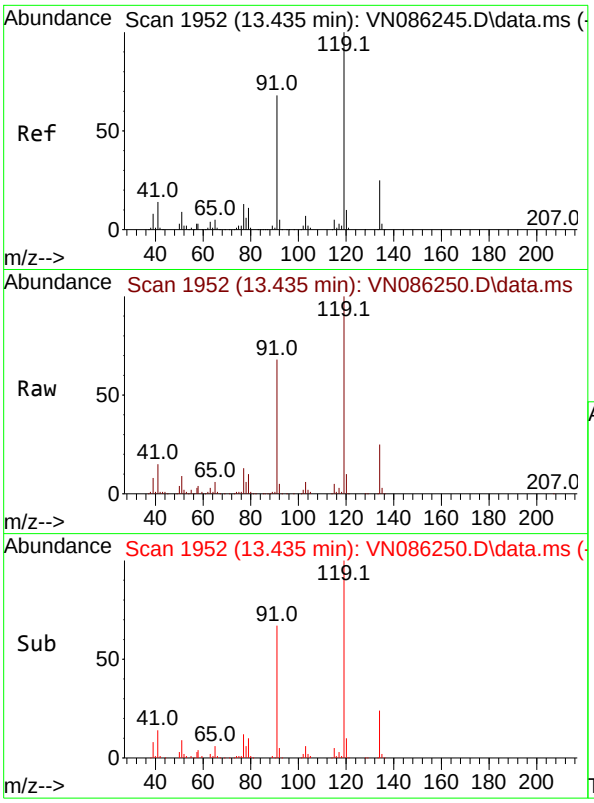


#78
4-Chlorotoluene
Concen: 19.997 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 91 Resp: 179336

Ion	Ratio	Lower	Upper
91	100		
126	32.1	0.0	63.2



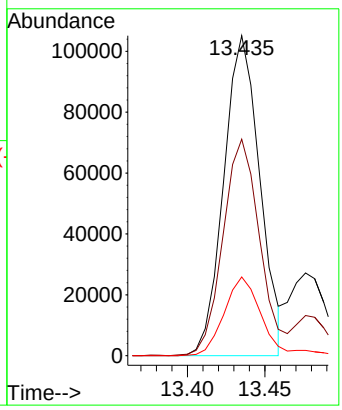


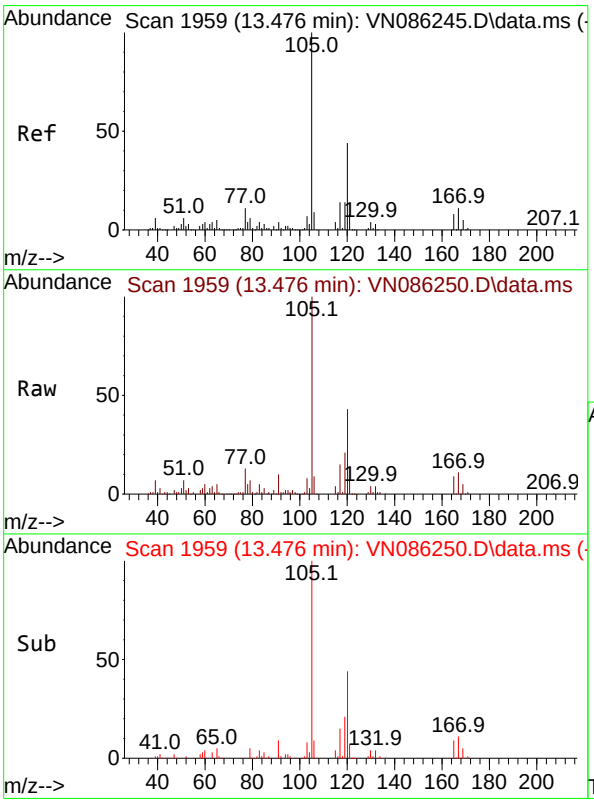
#79
tert-butylbenzene
Concen: 19.806 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:119 Resp: 170326

Ion	Ratio	Lower	Upper
119	100		
91	69.3	0.0	136.6
134	24.5	0.0	49.4

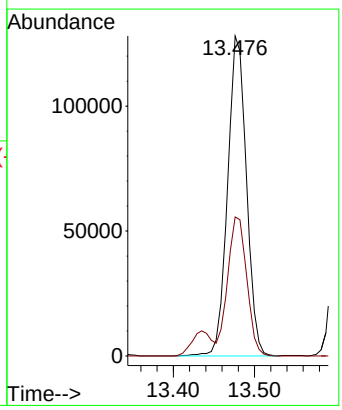


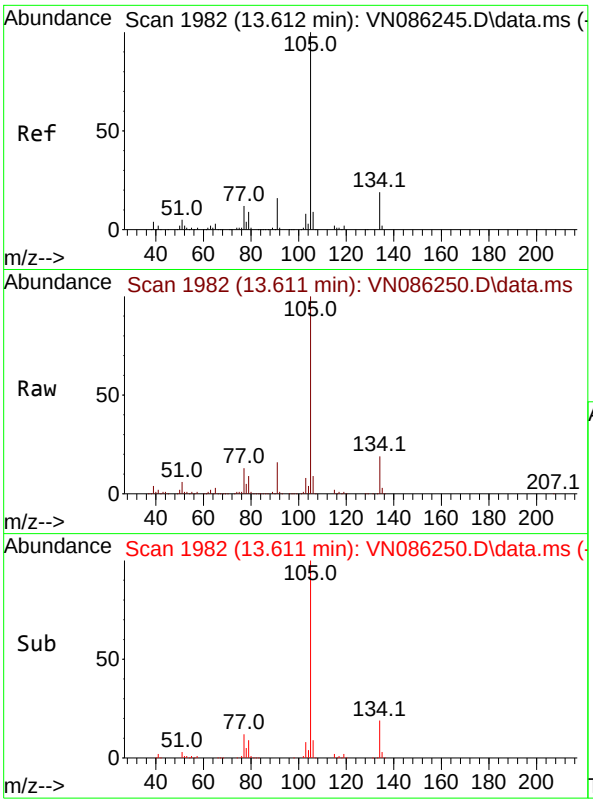


#80
1,2,4-Trimethylbenzene
Concen: 20.464 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:105 Resp: 206236

Ion	Ratio	Lower	Upper
105	100		
120	44.1	0.0	91.0



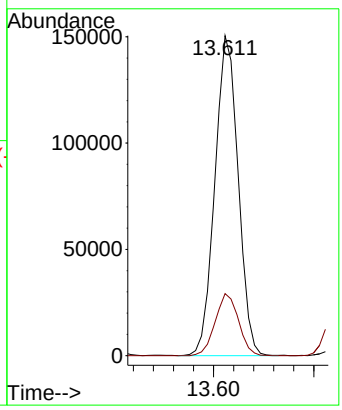


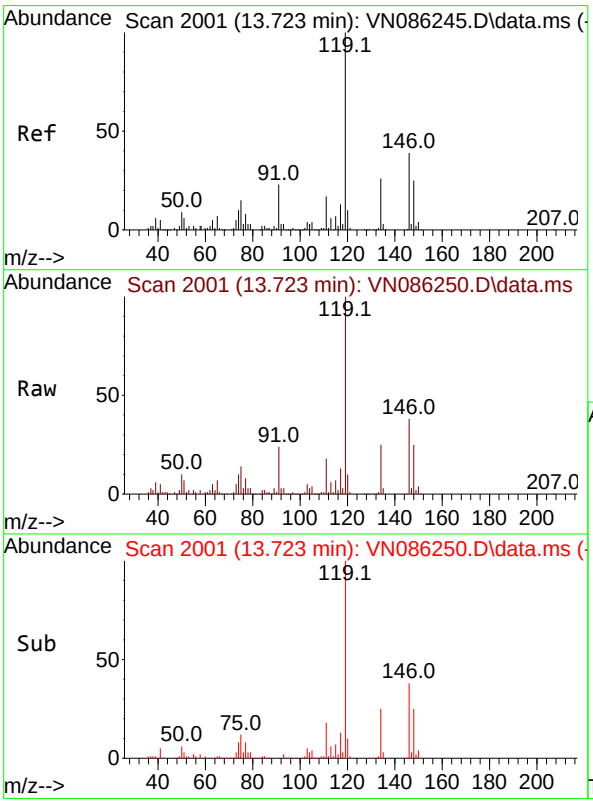
#81
sec-Butylbenzene
Concen: 20.202 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:105 Resp: 242336

Ion	Ratio	Lower	Upper
105	100		
134	19.4	0.0	38.6

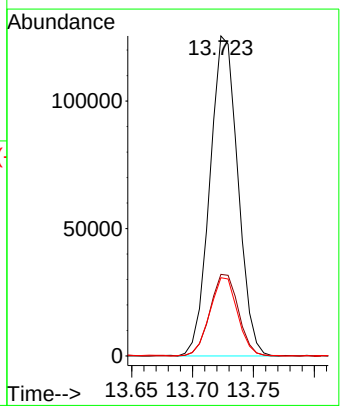


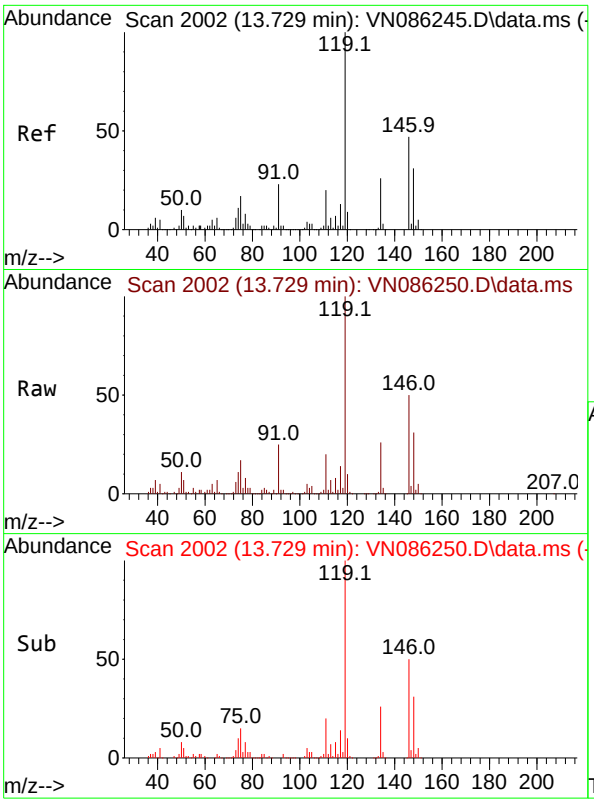


#82
p-Isopropyltoluene
Concen: 20.098 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:119 Resp: 201123

Ion	Ratio	Lower	Upper
119	100		
134	25.8	0.0	51.6
91	24.4	0.0	48.2



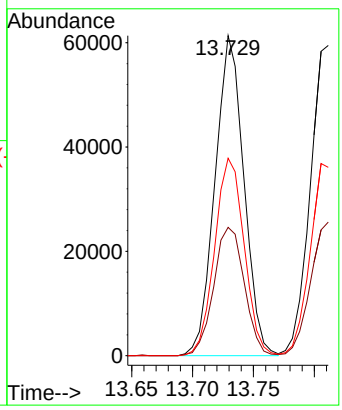


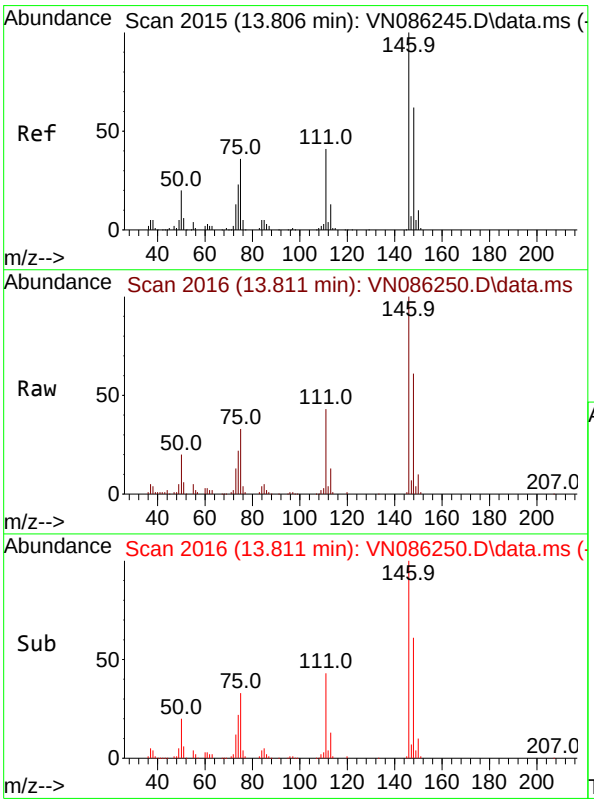
#83
1,3-Dichlorobenzene
Concen: 20.332 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:146 Resp: 101287

Ion	Ratio	Lower	Upper
146	100		
111	42.6	21.7	65.1
148	63.1	32.3	96.8

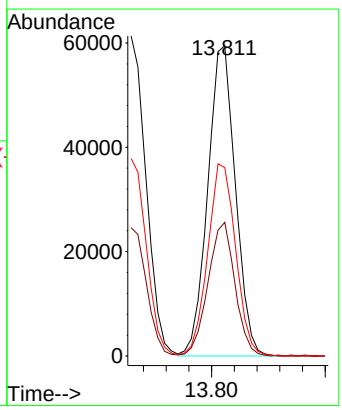


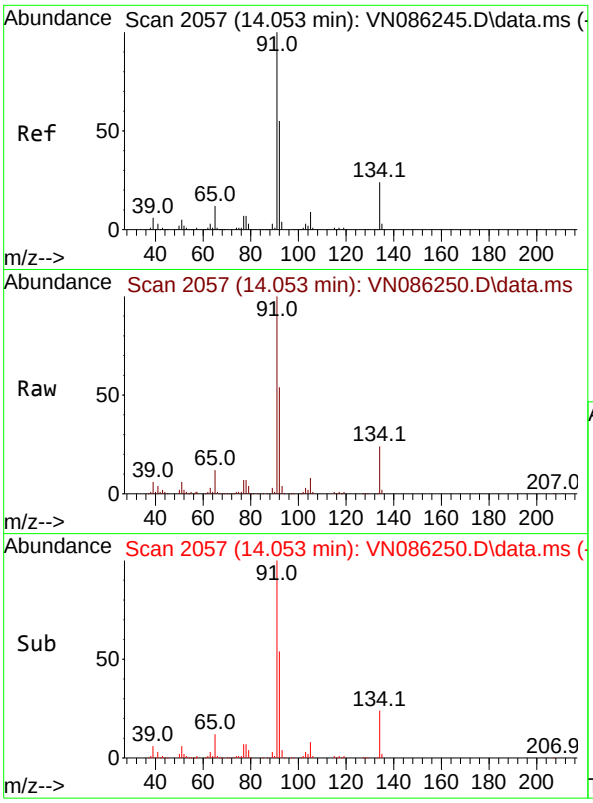


#84
1,4-Dichlorobenzene
Concen: 20.144 ug/l
RT: 13.811 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:146 Resp: 100671

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.8	62.4
148	62.5	31.9	95.5



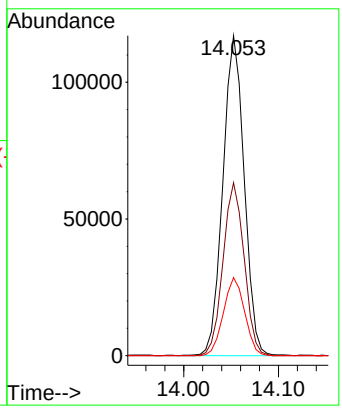


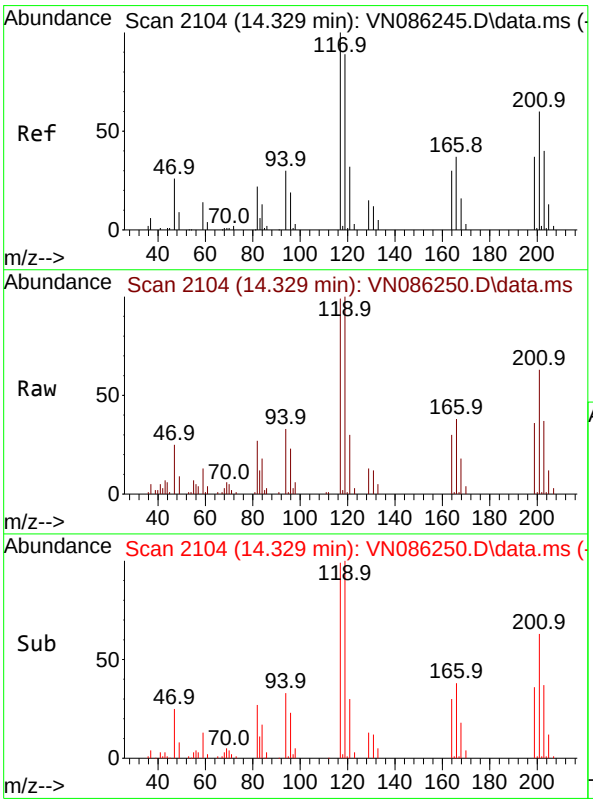
#85
n-Butylbenzene
Concen: 20.279 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion: 91 Resp: 183068

Ion	Ratio	Lower	Upper
91	100		
92	53.4	0.0	109.4
134	24.2	0.0	48.2

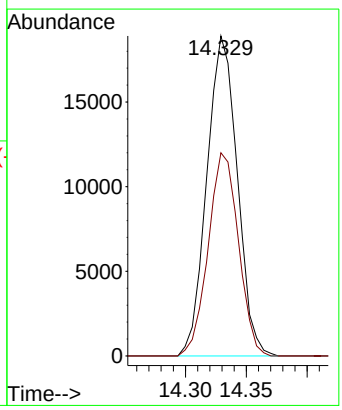


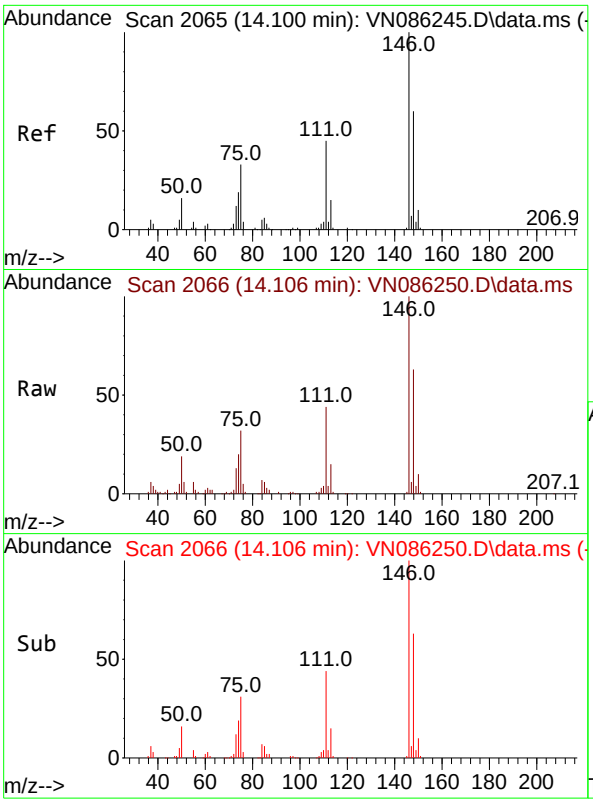


#86
Hexachloroethane
Concen: 19.494 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:117 Resp: 32907

Ion	Ratio	Lower	Upper
117	100		
201	63.0	30.9	92.8



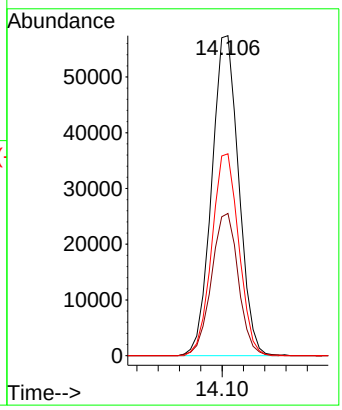


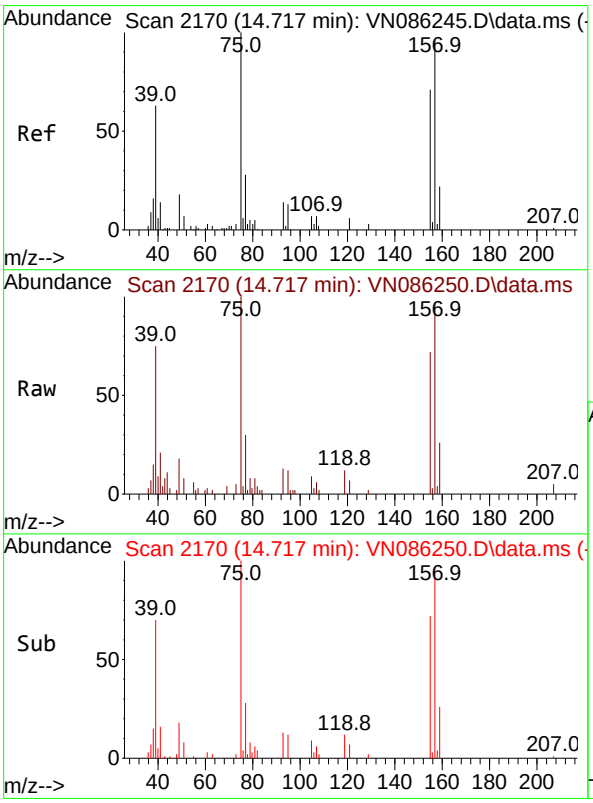
#87
1,2-Dichlorobenzene
Concen: 20.514 ug/l
RT: 14.106 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:146 Resp: 100901

Ion	Ratio	Lower	Upper
146	100		
111	44.3	22.7	68.0
148	63.1	31.8	95.3

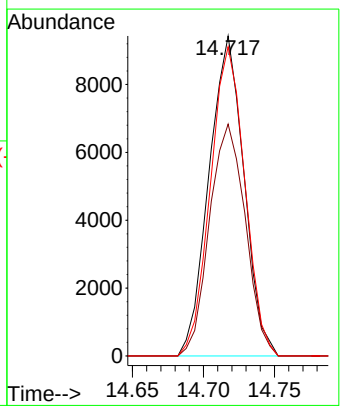


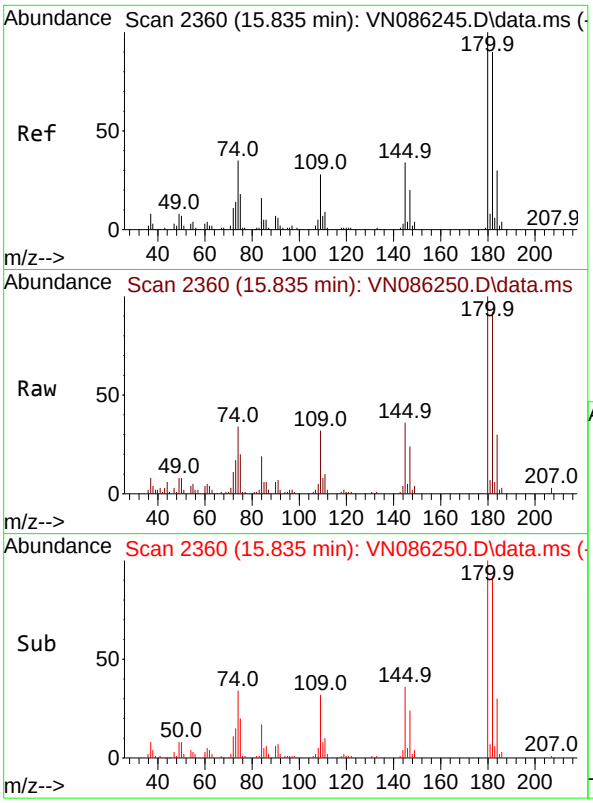


#88
1,2-Dibromo-3-Chloropropane
Concen: 20.539 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion: 75 Resp: 16110

Ion	Ratio	Lower	Upper
75	100		
155	74.4	60.3	90.5
157	95.2	79.0	118.4



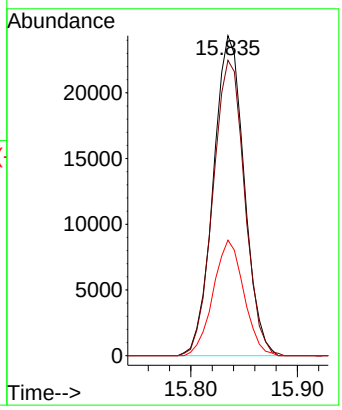


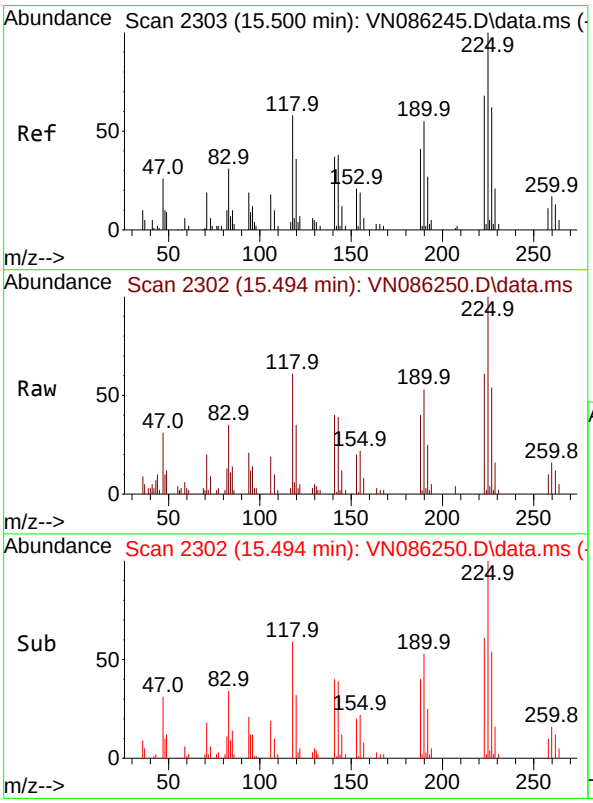
#89
1,2,4-Trichlorobenzene
Concen: 20.472 ug/l
RT: 15.835 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:180 Resp: 48993

Ion	Ratio	Lower	Upper
180	100		
182	94.3	75.1	112.7
145	35.7	27.1	40.7

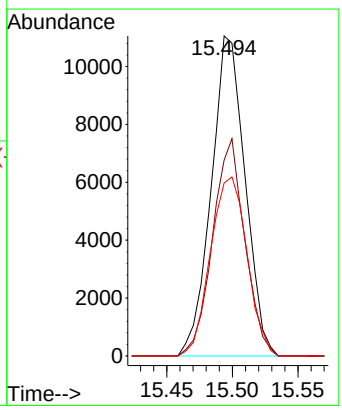


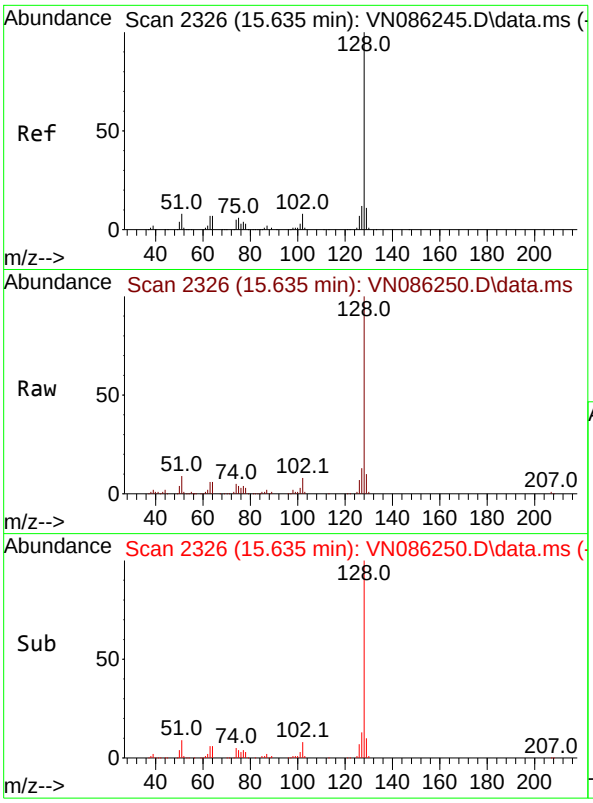


#90
Hexachlorobutadiene
Concen: 19.213 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:225 Resp: 19853

Ion	Ratio	Lower	Upper
225	100		
223	64.4	0.0	130.0
227	60.3	0.0	123.2



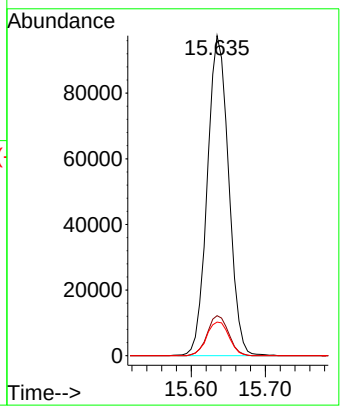


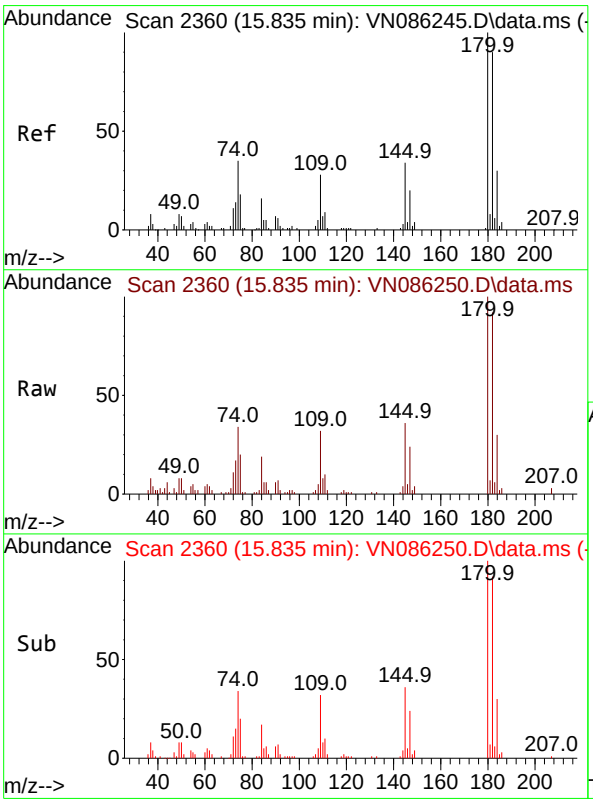
#91
Naphthalene
Concen: 20.655 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Instrument :
MSVOA_N
ClientSampleId :
VN0411WBSD01

Tgt Ion:128 Resp: 194900

Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.2	15.2
129	11.1	8.8	13.2

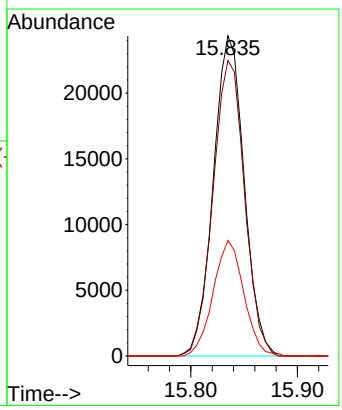




#92
1,2,3-Trichlorobenzene
Concen: 20.472 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN086250.D
Acq: 11 Apr 2025 15:16

Tgt Ion:180 Resp: 48993

Ion	Ratio	Lower	Upper
180	100		
182	94.3	0.0	187.8
145	35.7	0.0	67.8



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086253.D
Acq On : 11 Apr 2025 16:39
Operator : JC\MD
Sample : Q1774-03
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Quant Time: Apr 12 01:51:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

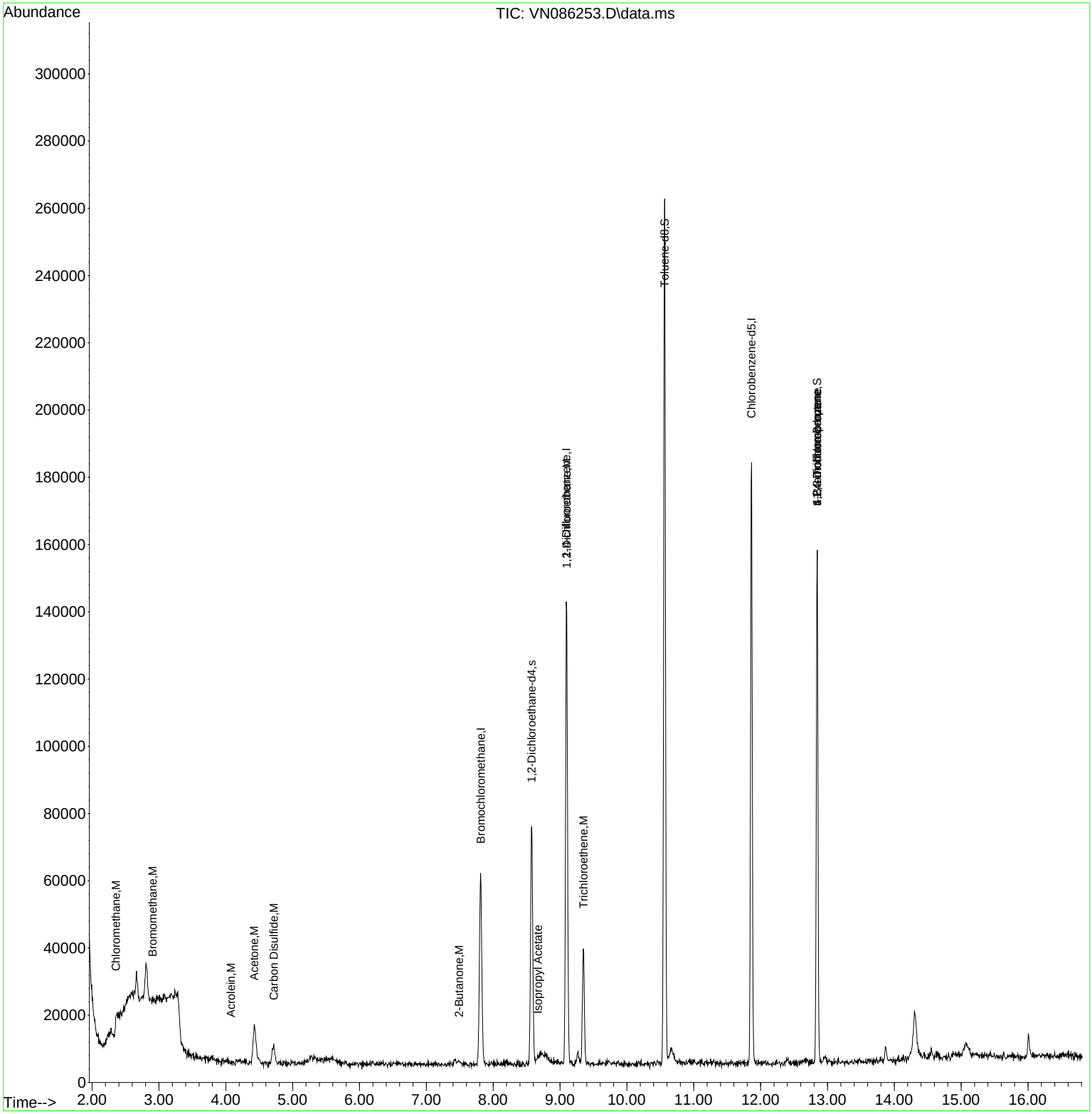
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.818	128	19774	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.094	114	120171	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	102960	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	58937	30.558	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.867%			
60) 4-Bromofluorobenzene	12.847	95	58540	28.558	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 95.200%			
63) Toluene-d8	10.565	98	179971	30.962	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 103.200%			
Target Compounds						Qvalue
3) Chloromethane	2.359	50	1598	0.730	ug/l #	67
5) Bromomethane	2.906	94	290	0.279	ug/l	90
13) Acrolein	4.077	56	204	0.844	ug/l	99
15) Acetone	4.424	58	3770	16.564	ug/l	87
16) Carbon Disulfide	4.718	76	1595	0.369	ug/l #	74
30) 2-Butanone	7.488	43	387	0.324	ug/l #	38
36) 1,2-Dichloroethane	9.100	62	4260	1.988	ug/l #	76
37) Trichloroethene	9.353	130	12262	7.420	ug/l	96
44) Isopropyl Acetate	8.671	43	1530	0.343	ug/l #	49
72) 1,2,3-Trichloropropane	12.847	75	29485	14.409	ug/l	1
77) t-1,4-Dichloro-2-butene	12.847	75	29485	31.250	ug/l #	12

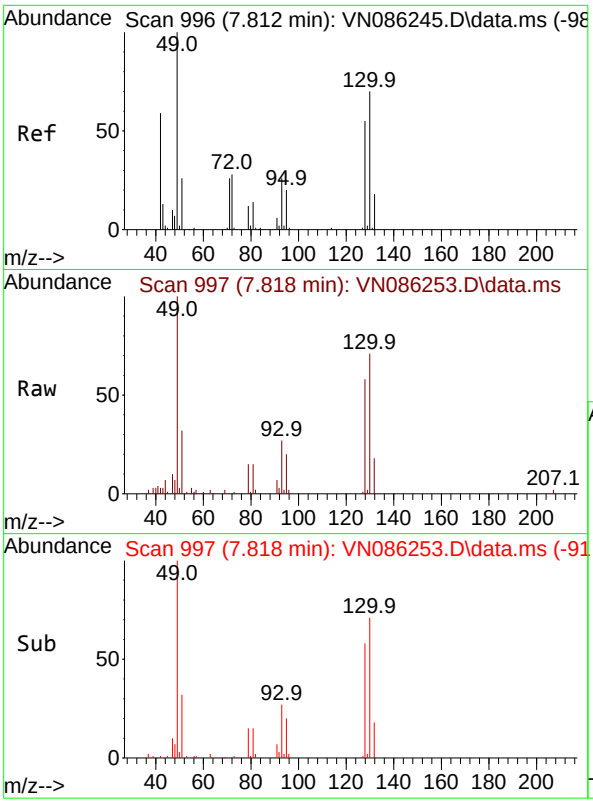
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086253.D
Acq On : 11 Apr 2025 16:39
Operator : JC\MD
Sample : Q1774-03
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Quant Time: Apr 12 01:51:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



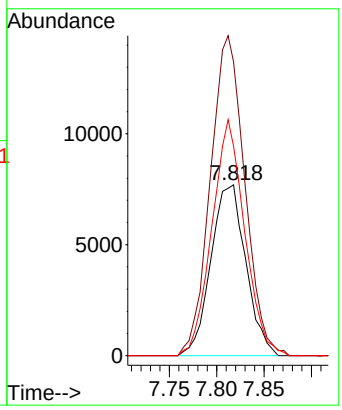


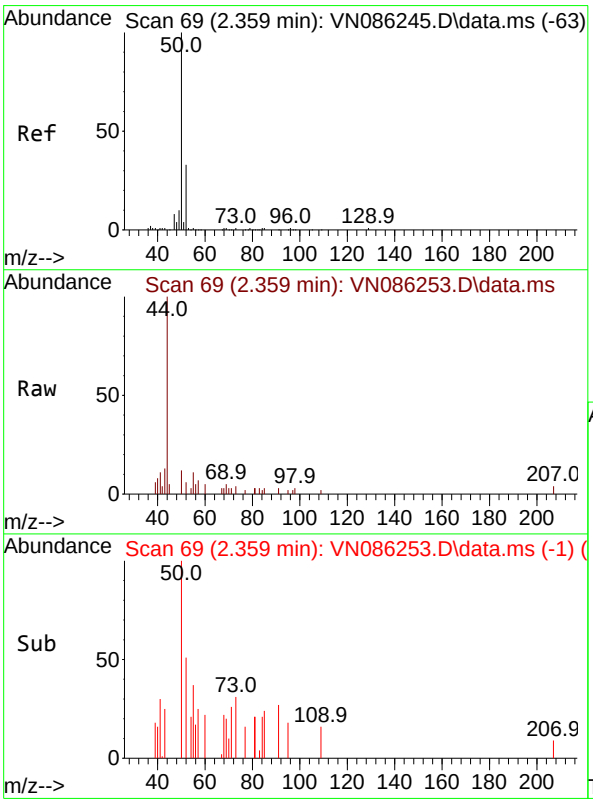
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.818 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion:128 Resp: 19774

Ion	Ratio	Lower	Upper
128	100		
49	184.1	0.0	452.5
130	129.7	0.0	315.0

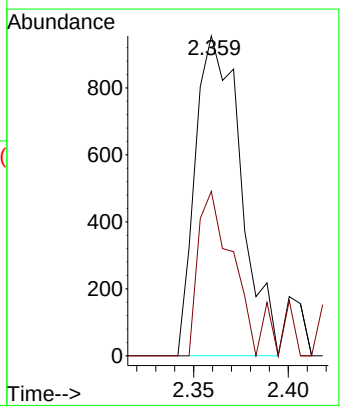


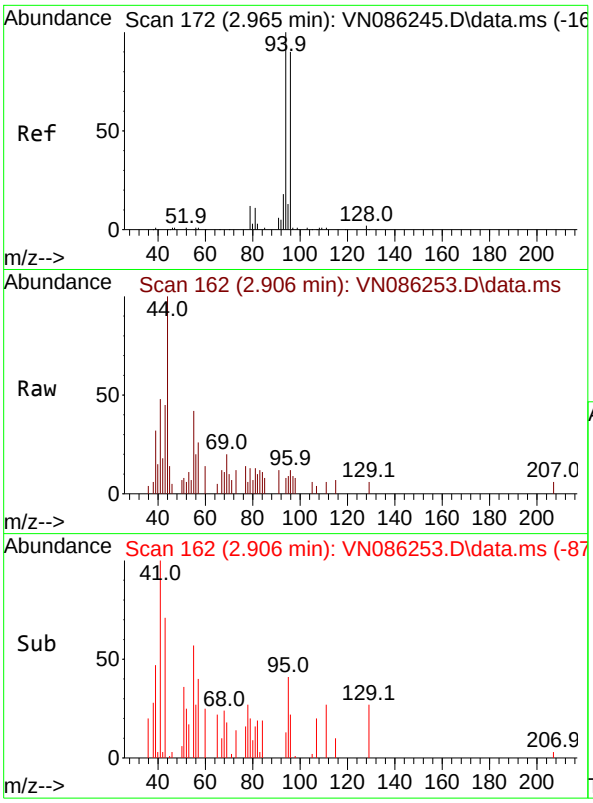


#3
Chloromethane
Concen: 0.730 ug/l
RT: 2.359 min Scan# 69
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 50 Resp: 1598

Ion	Ratio	Lower	Upper
50	100		
52	51.4	26.4	39.6#



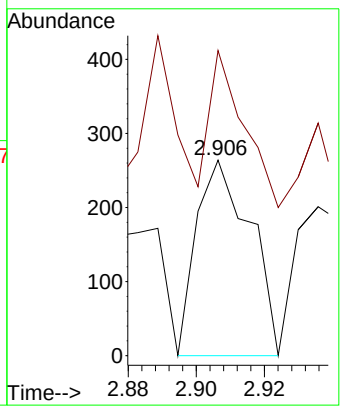


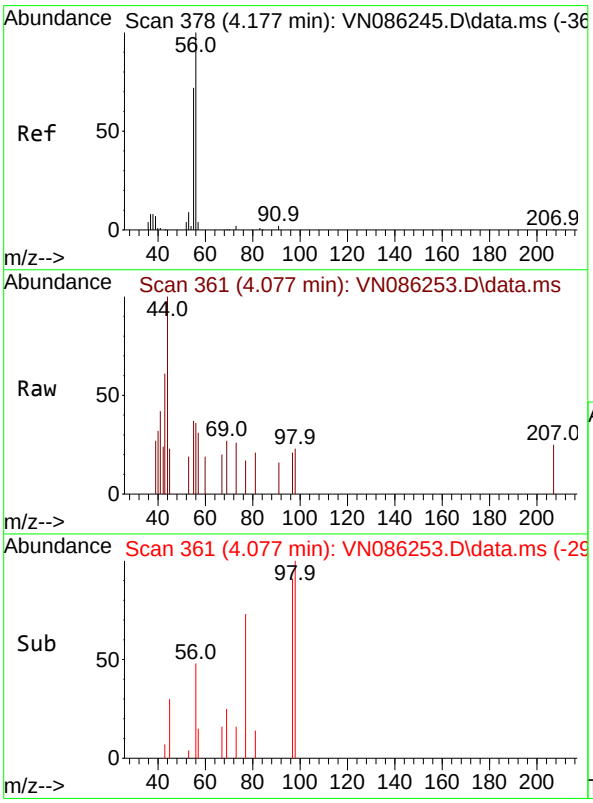
#5
Bromomethane
Concen: 0.279 ug/l
RT: 2.906 min Scan# 1
Delta R.T. -0.059 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion: 94 Resp: 290

Ion	Ratio	Lower	Upper
94	100		
96	80.3	72.2	108.2

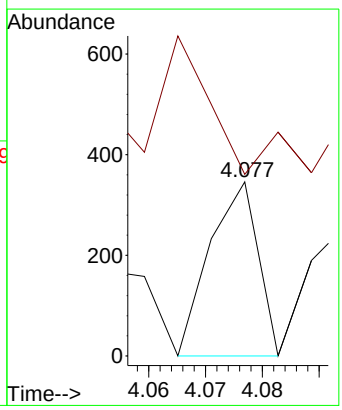


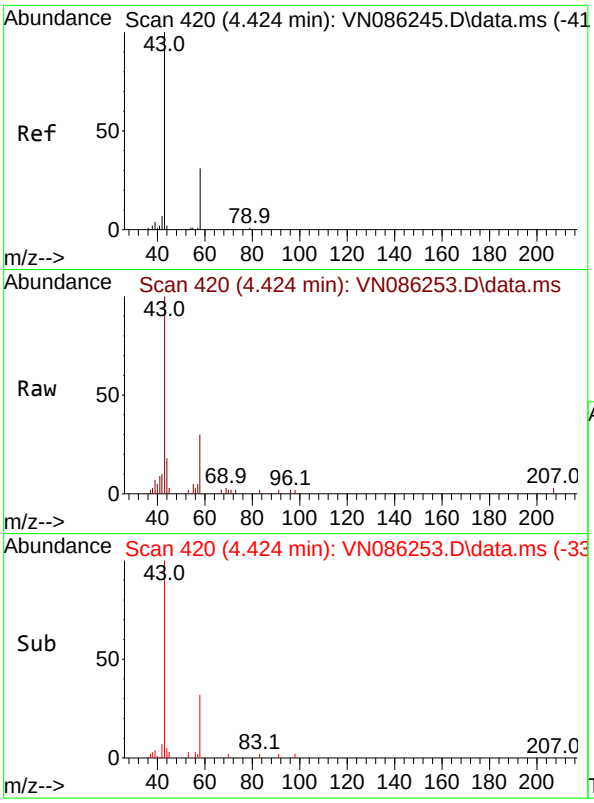


#13
Acrolein
Concen: 0.844 ug/l
RT: 4.077 min Scan# 361
Delta R.T. -0.100 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 56 Resp: 204

Ion	Ratio	Lower	Upper
56	100		
55	71.6	56.5	84.7



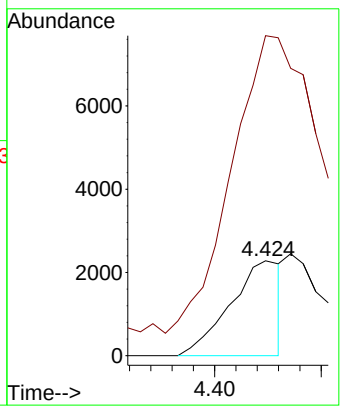


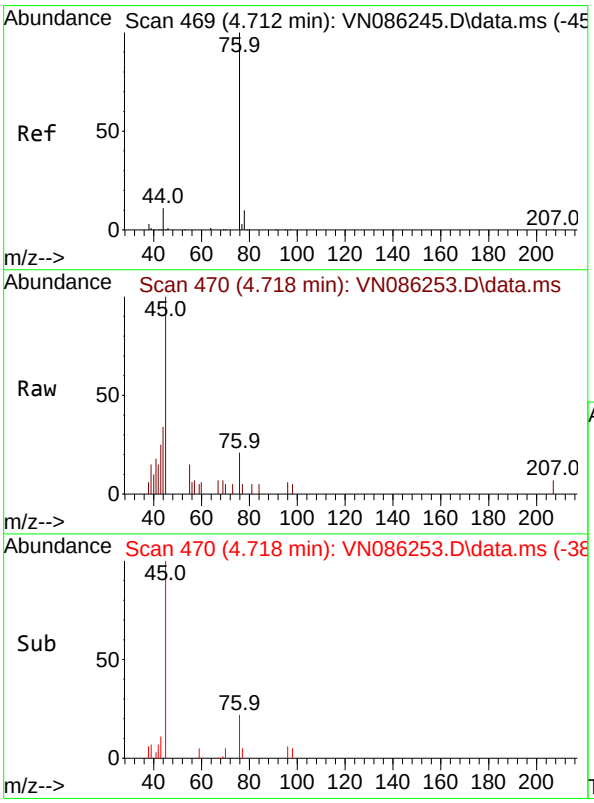
#15
Acetone
Concen: 16.564 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion: 58 Resp: 3770

Ion	Ratio	Lower	Upper
58	100		
43	300.8	261.8	392.8

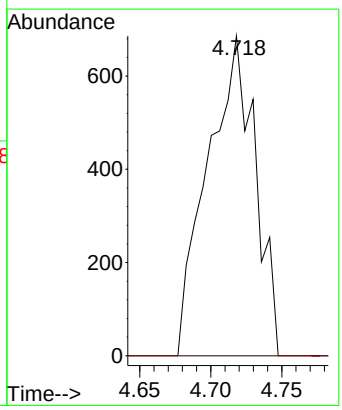


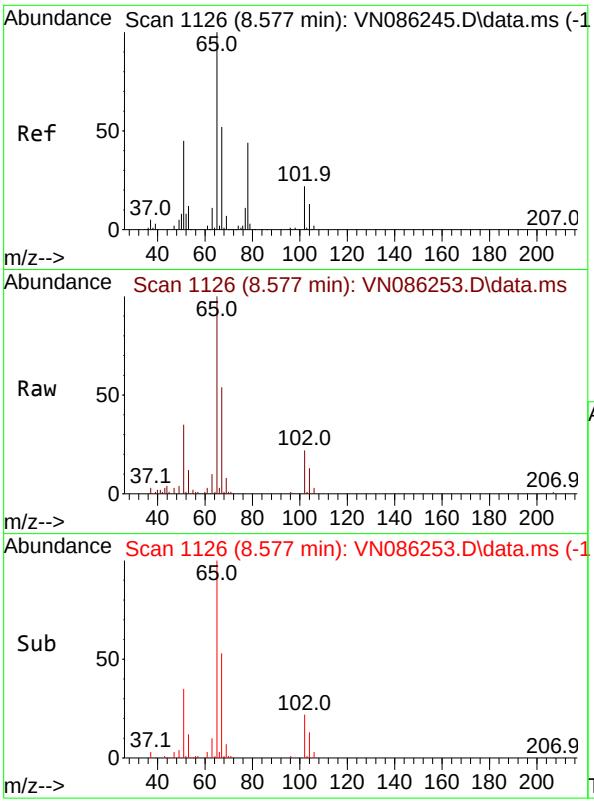


#16
Carbon Disulfide
Concen: 0.369 ug/l
RT: 4.718 min Scan# 470
Delta R.T. 0.006 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 76 Resp: 1595

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.7	11.5#



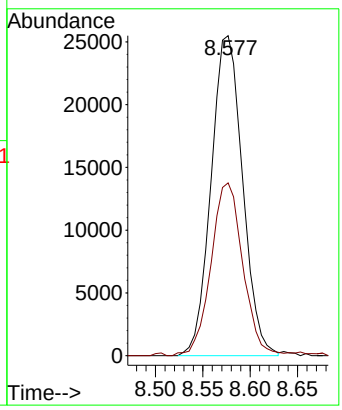


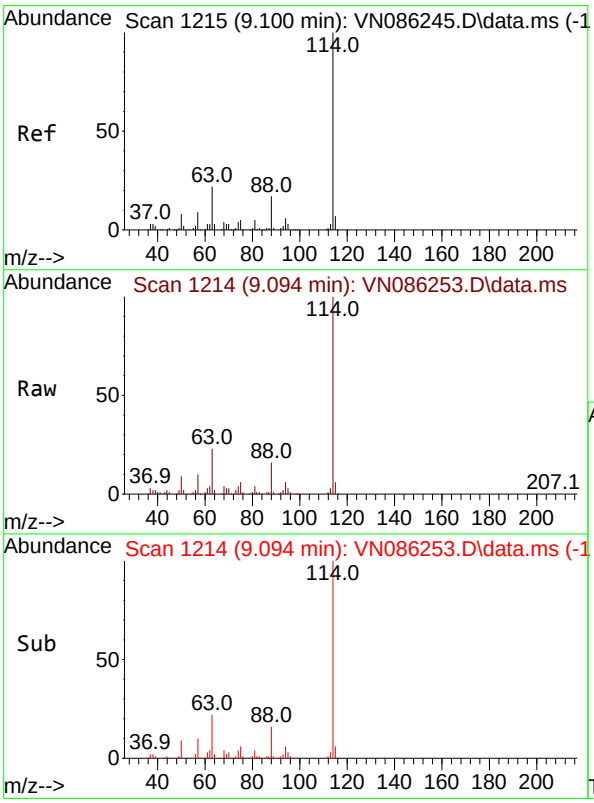
#27
1,2-Dichloroethane-d4
Concen: 30.558 ug/l
RT: 8.577 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion: 65 Resp: 58937

Ion	Ratio	Lower	Upper
65	100		
67	53.6	43.4	65.2

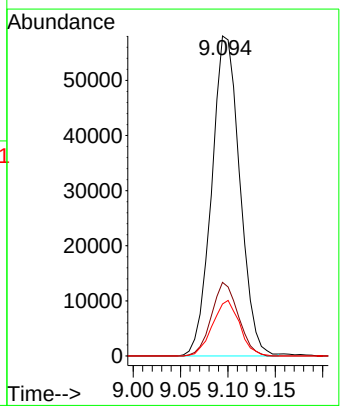


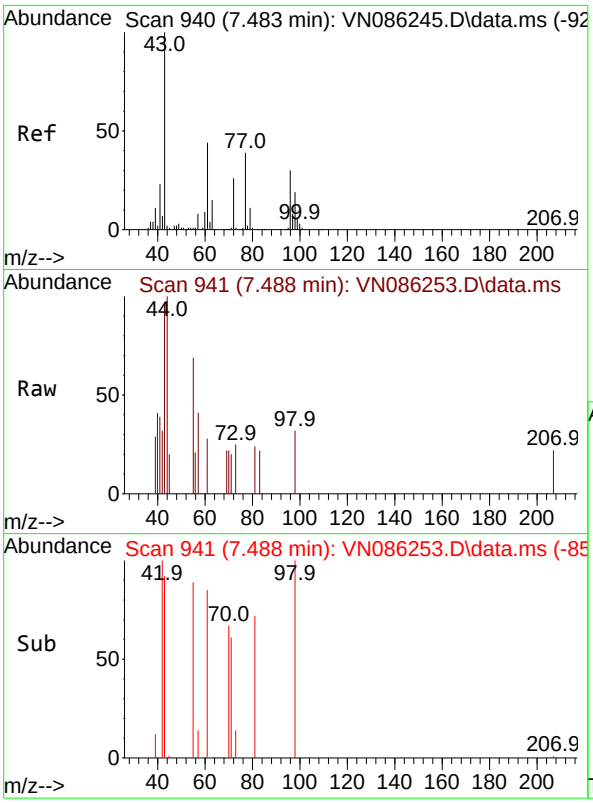


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. -0.006 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion:114 Resp: 120171

Ion	Ratio	Lower	Upper
114	100		
63	21.8	17.8	26.6
88	16.8	13.4	20.2



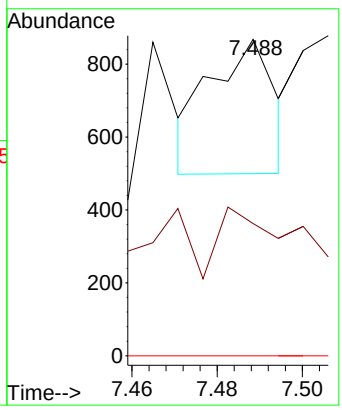


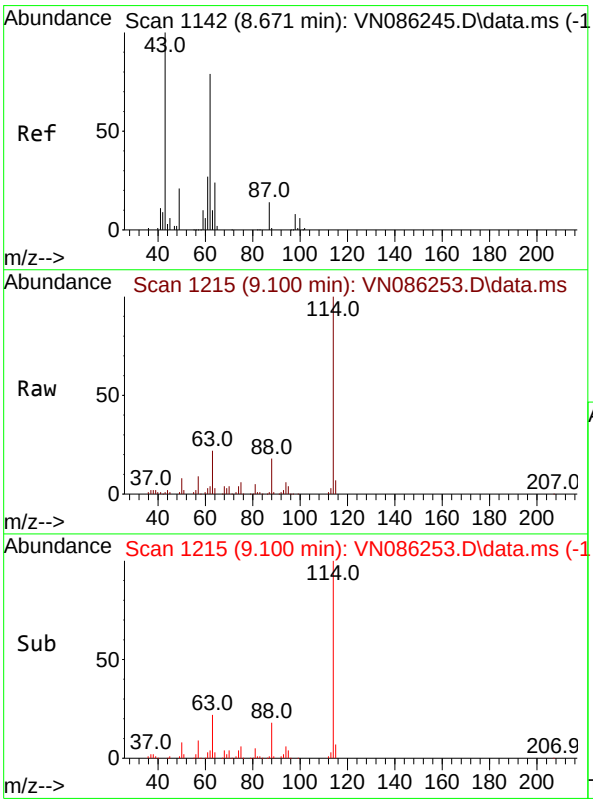
#30
2-Butanone
Concen: 0.324 ug/l
RT: 7.488 min Scan# 94
Delta R.T. 0.006 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion: 43 Resp: 387

Ion	Ratio	Lower	Upper
43	100		
57	41.9	6.4	9.6#
72	0.0	21.5	32.3#

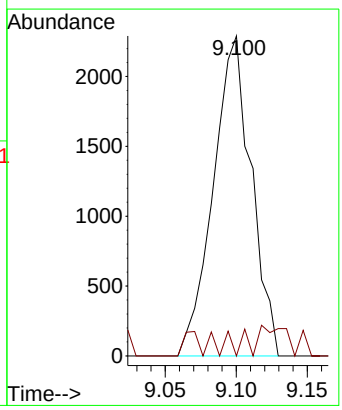


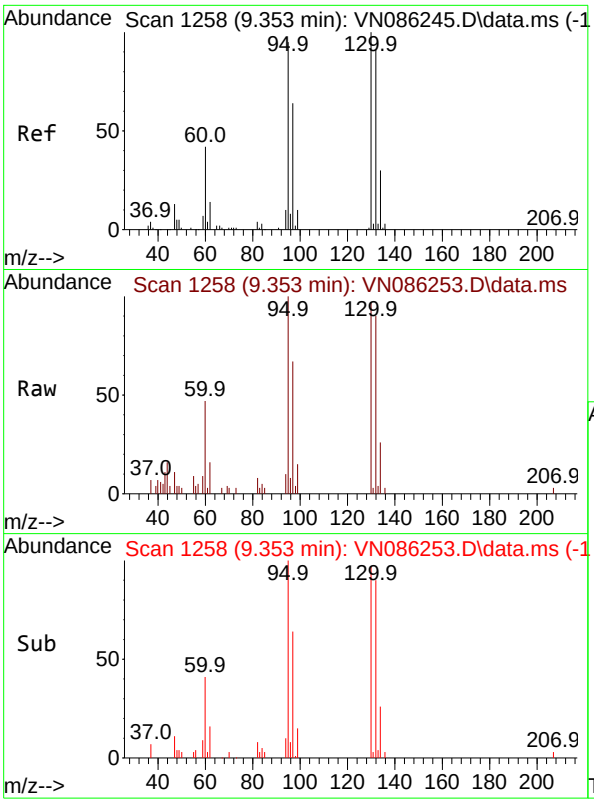


#36
1,2-Dichloroethane
Concen: 1.988 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.429 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 62 Resp: 4260

Ion	Ratio	Lower	Upper
62	100		
98	1.6	8.6	12.8#



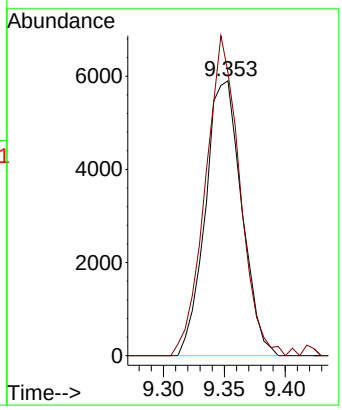


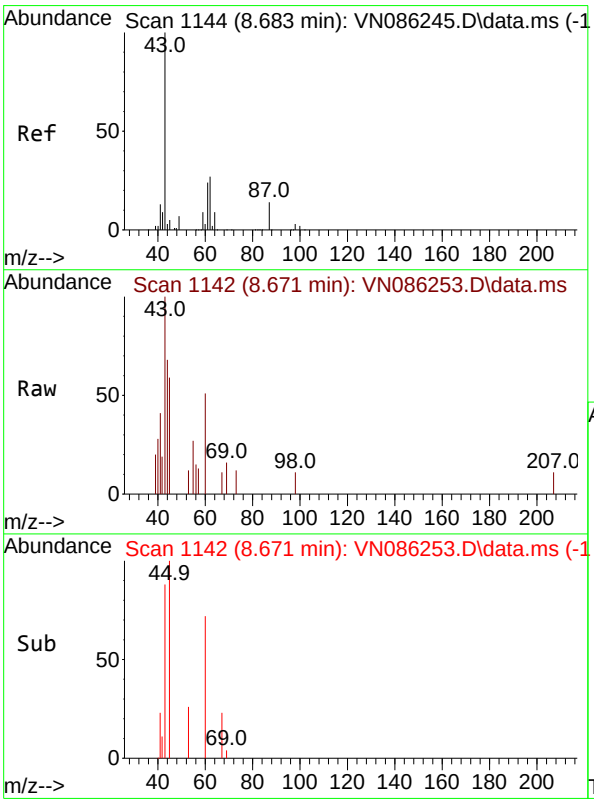
#37
Trichloroethene
Concen: 7.420 ug/l
RT: 9.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion:130 Resp: 12262

Ion	Ratio	Lower	Upper
130	100		
95	99.6	76.4	114.6

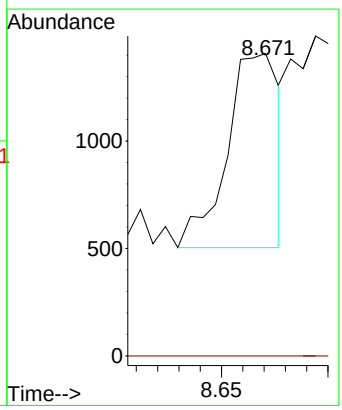


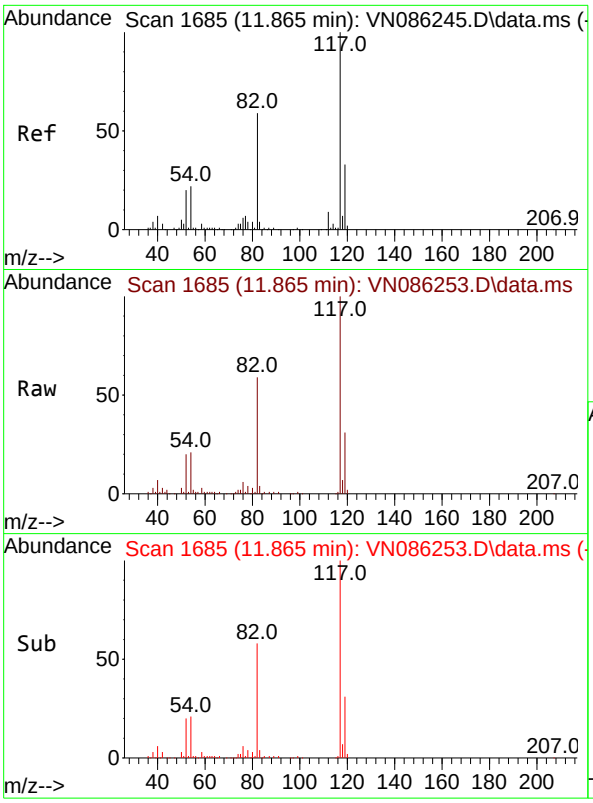


#44
Isopropyl Acetate
Concen: 0.343 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. -0.012 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 43 Resp: 1530

Ion	Ratio	Lower	Upper
43	100		
61	0.0	20.5	30.7#



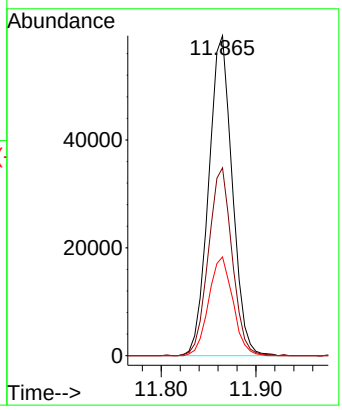


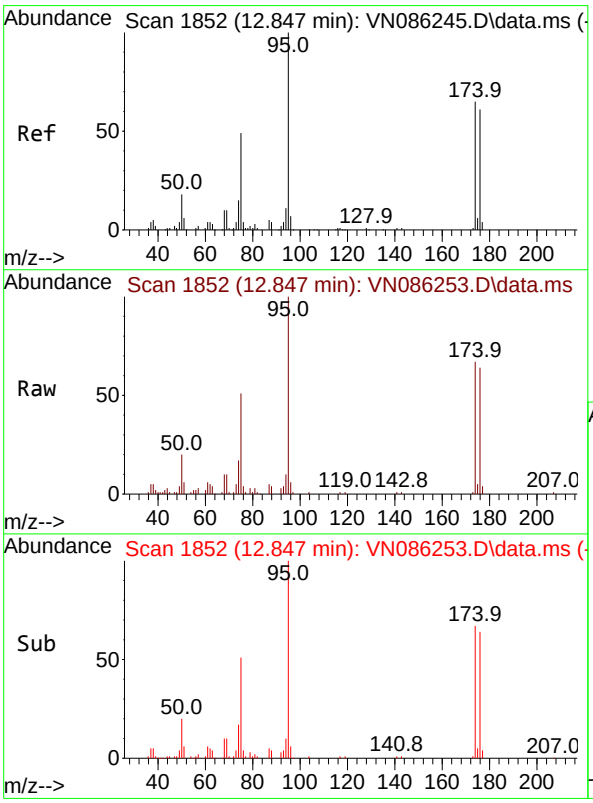
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion:117 Resp: 102960

Ion	Ratio	Lower	Upper
117	100		
82	59.0	47.3	70.9
119	31.6	25.9	38.9

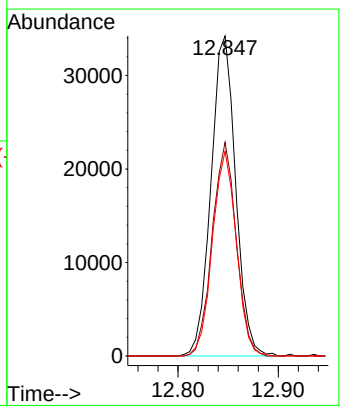


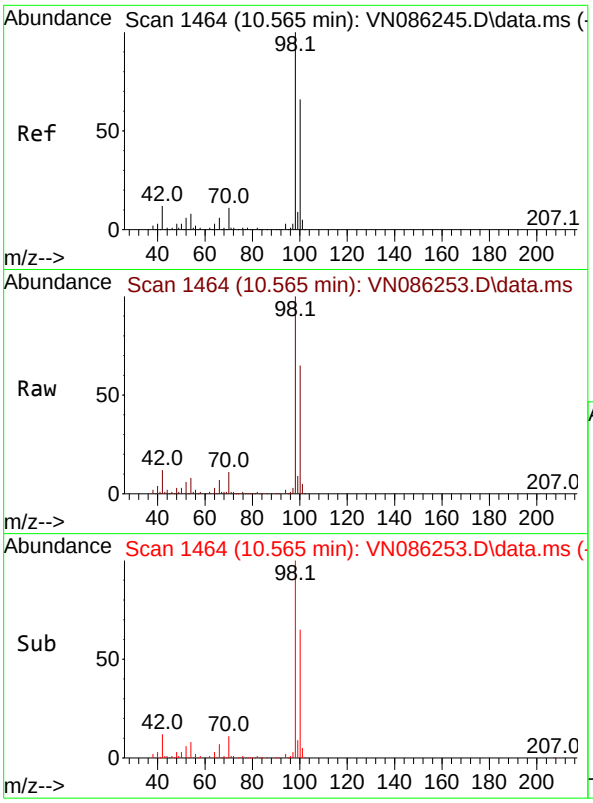


#60
4-Bromofluorobenzene
Concen: 28.558 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 95 Resp: 58540

Ion	Ratio	Lower	Upper
95	100		
174	64.8	52.7	79.1
176	61.9	49.8	74.8



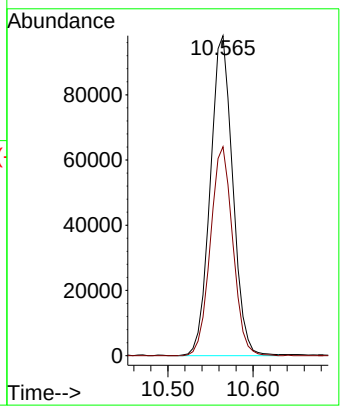


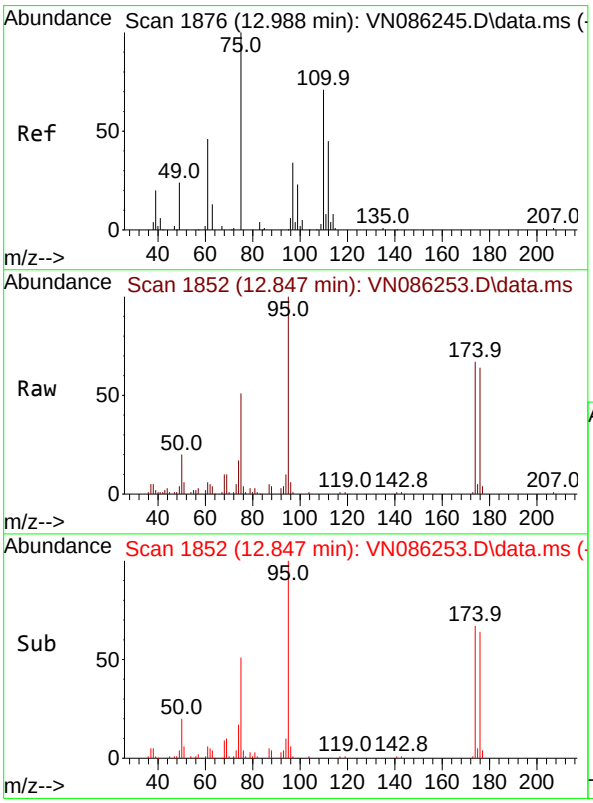
#63
Toluene-d8
Concen: 30.962 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion: 98 Resp: 179971

Ion	Ratio	Lower	Upper
98	100		
100	64.9	52.3	78.5

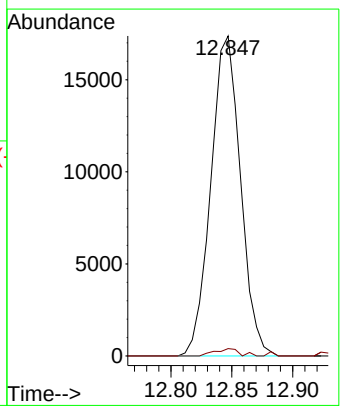


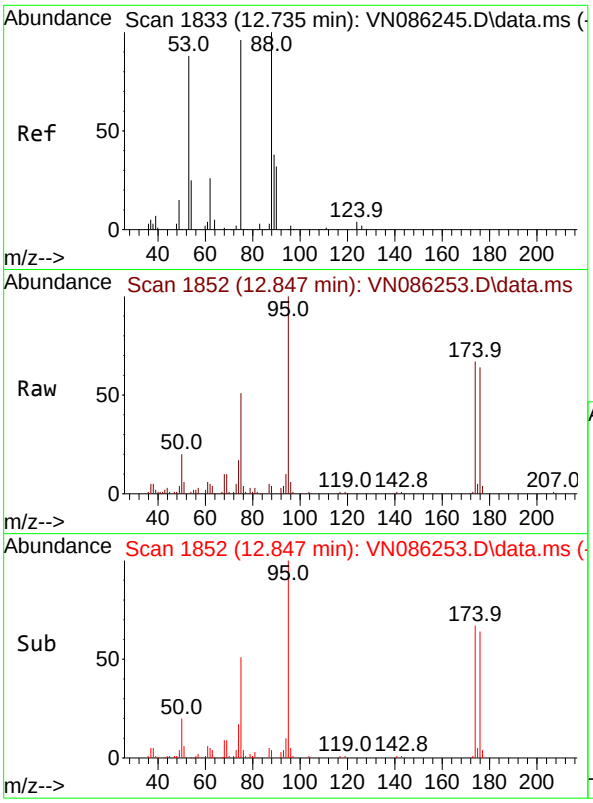


#72
1,2,3-Trichloropropane
Concen: 14.409 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.141 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Tgt Ion: 75 Resp: 29485

Ion	Ratio	Lower	Upper
75	100		
77	1.7	0.0	380.0



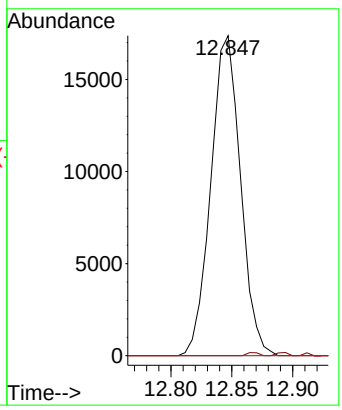


#77
t-1,4-Dichloro-2-butene
Concen: 31.250 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.112 min
Lab File: VN086253.D
Acq: 11 Apr 2025 16:39

Instrument :
MSVOA_N
ClientSampleId :
TT-074-IDWGW-20250409

Tgt Ion: 75 Resp: 29485

Ion	Ratio	Lower	Upper
75	100		
53	0.0	46.4	139.2#
89	0.0	22.5	67.5#



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086254.D
Acq On : 11 Apr 2025 17:03
Operator : JC\MD
Sample : Q1774-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Quant Time: Apr 12 01:51:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

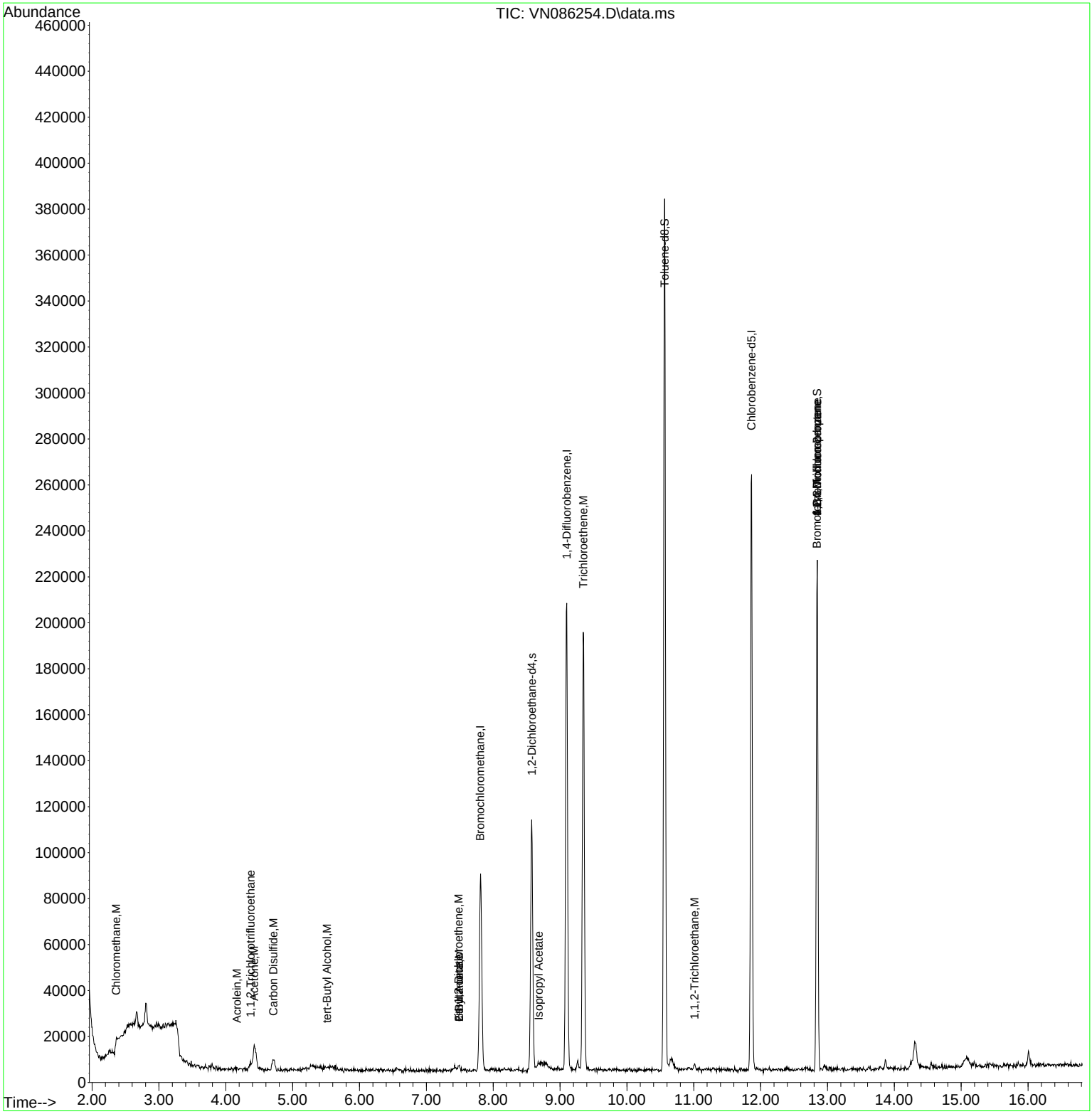
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.806	128	29637	30.000	ug/l		0.00
28) 1,4-Difluorobenzene	9.100	114	180090	30.000	ug/l		0.00
57) Chlorobenzene-d5	11.865	117	151244	30.000	ug/l		0.00
System Monitoring Compounds							
27) 1,2-Dichloroethane-d4	8.577	65	87305	30.202	ug/l		0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.667%				
60) 4-Bromofluorobenzene	12.847	95	86127	28.602	ug/l		0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 95.333%				
63) Toluene-d8	10.565	98	268466	31.442	ug/l		0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.800%				
Target Compounds							Qvalue
3) Chloromethane	2.359	50	1076	0.328	ug/l	#	80
9) 1,1,2-Trichlorotrifluo...	4.371	101	1292	0.618	ug/l	#	48
13) Acrolein	4.165	56	240	0.663	ug/l		91
15) Acetone	4.424	58	3507	10.281	ug/l		98
16) Carbon Disulfide	4.712	76	1356	0.210	ug/l	#	74
22) cis-1,2-Dichloroethene	7.483	96	1164	0.411	ug/l	#	73
23) tert-Butyl Alcohol	5.512	59	120	0.215	ug/l	#	100
30) 2-Butanone	7.488	43	1384	0.774	ug/l	#	56
37) Trichloroethene	9.347	130	69371	28.013	ug/l		92
43) Ethyl Acetate	7.488	43	1353	0.375	ug/l		94
44) Isopropyl Acetate	8.682	43	2269	0.339	ug/l	#	49
50) 1,1,2-Trichloroethane	11.012	97	1273	0.550	ug/l	#	83
56) Bromoform	12.841	173	334	0.202	ug/l	#	1
72) 1,2,3-Trichloropropane	12.847	75	42740	14.219	ug/l		1
77) t-1,4-Dichloro-2-butene	12.847	75	42740	30.837	ug/l	#	13

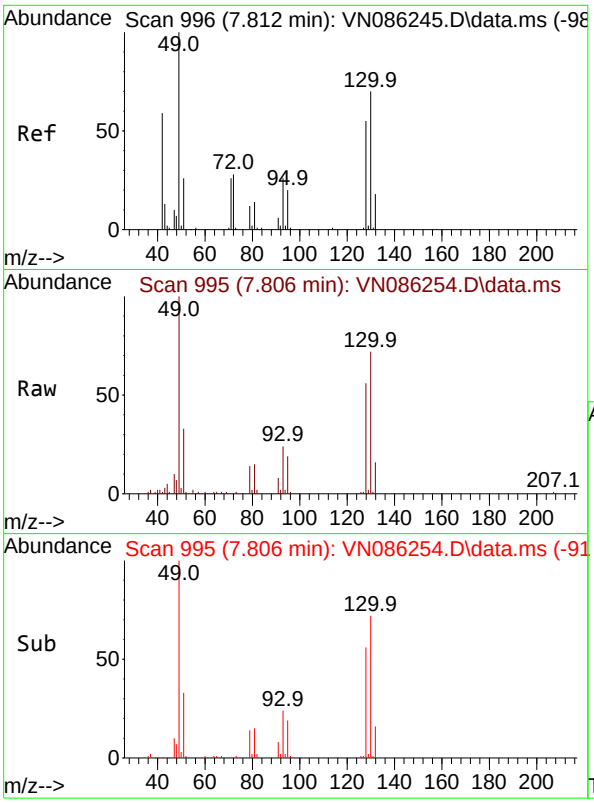
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086254.D
Acq On : 11 Apr 2025 17:03
Operator : JC\MD
Sample : Q1774-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Quant Time: Apr 12 01:51:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



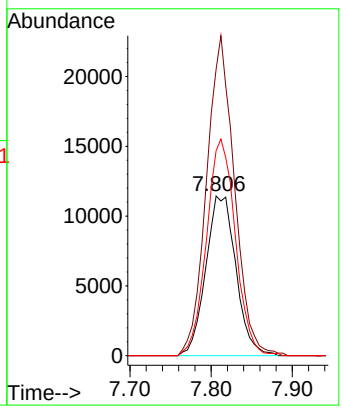


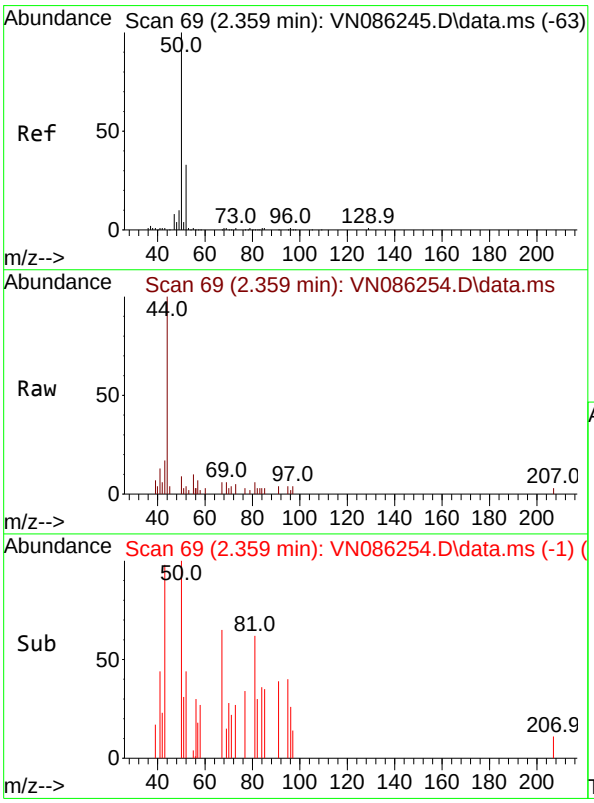
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion:128 Resp: 29637

Ion	Ratio	Lower	Upper
128	100		
49	185.0	0.0	452.5
130	129.5	0.0	315.0

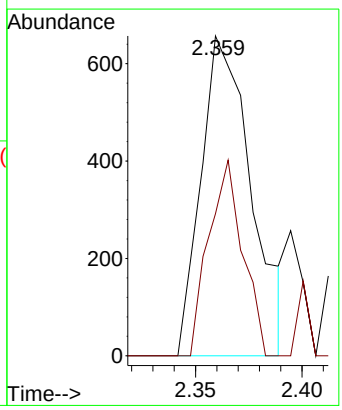


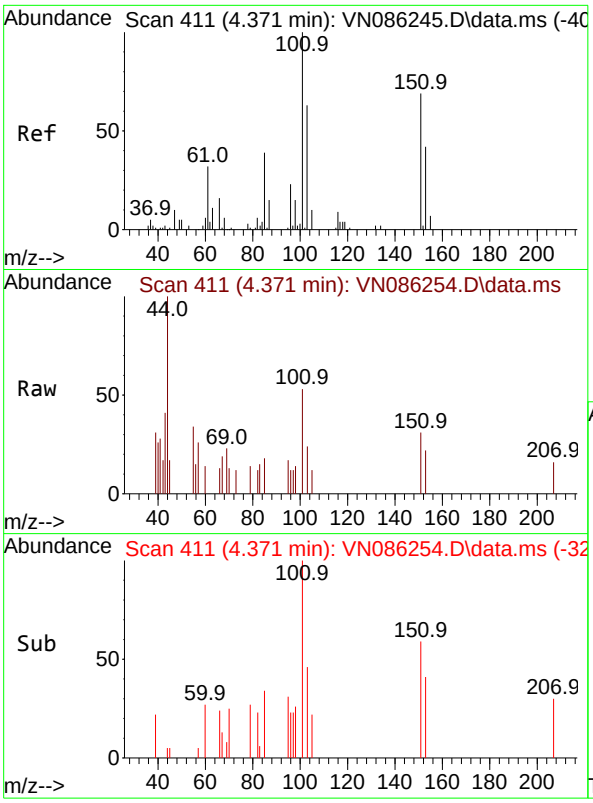


#3
Chloromethane
Concen: 0.328 ug/l
RT: 2.359 min Scan# 69
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 50 Resp: 1076

Ion	Ratio	Lower	Upper
50	100		
52	44.4	26.4	39.6#



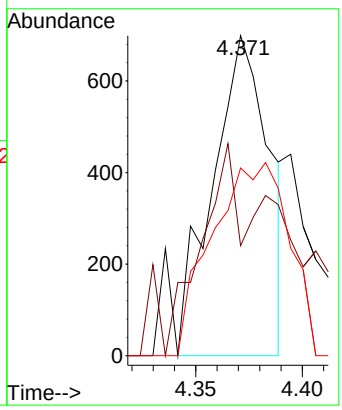


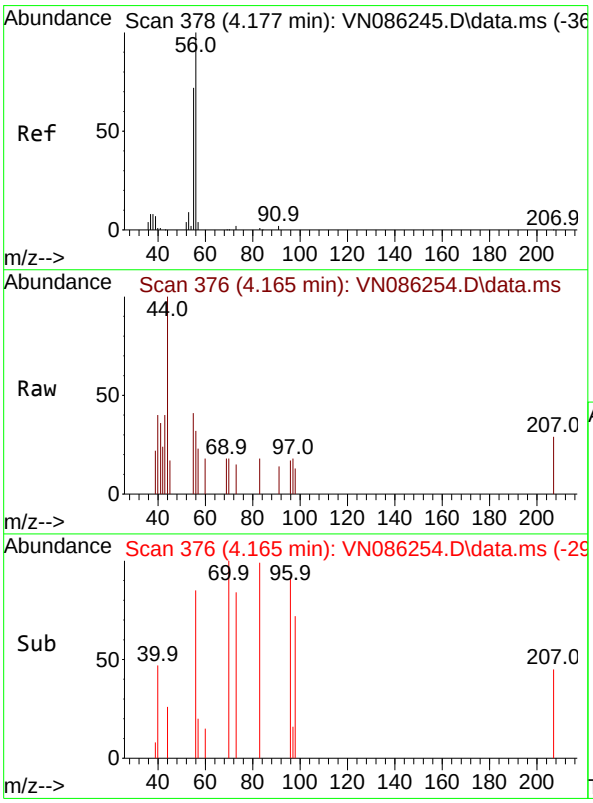
#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.618 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion:101 Resp: 1292

Ion	Ratio	Lower	Upper
101	100		
85	44.0	0.0	93.0
151	0.0	0.0	138.6

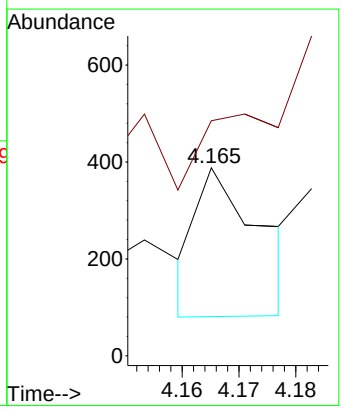


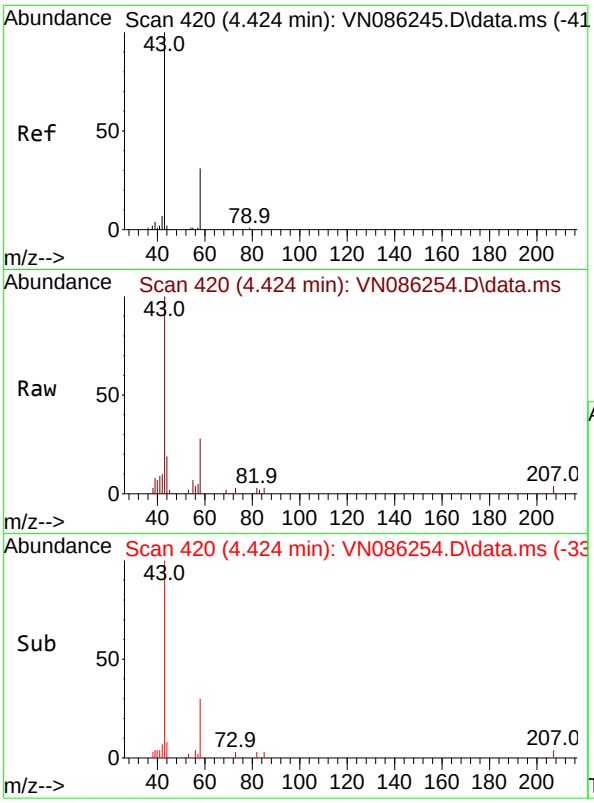


#13
Acrolein
Concen: 0.663 ug/l
RT: 4.165 min Scan# 376
Delta R.T. -0.012 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 56 Resp: 240

Ion	Ratio	Lower	Upper
56	100		
55	62.9	56.5	84.7



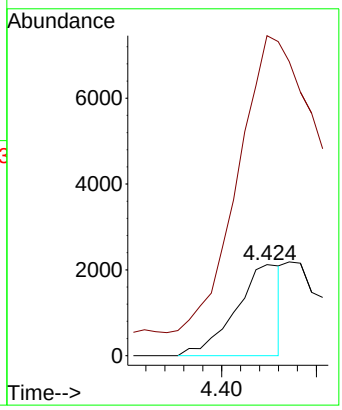


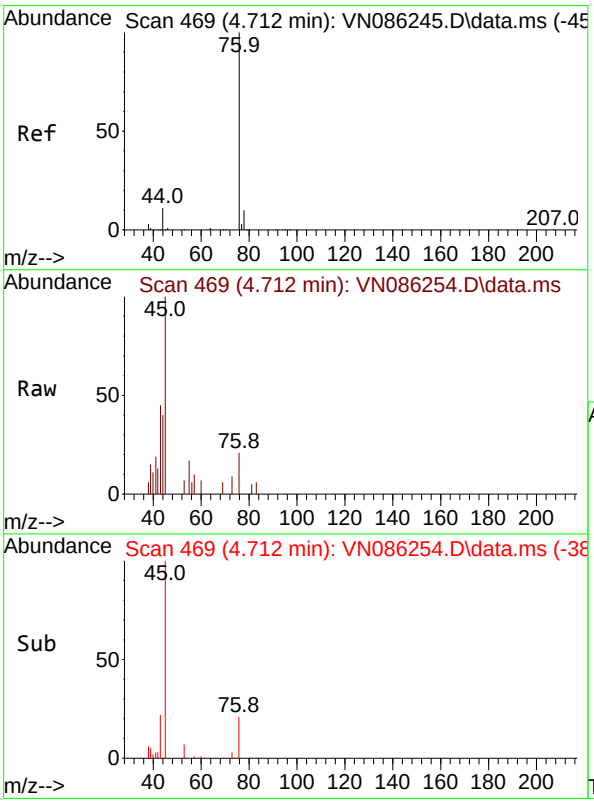
#15
Acetone
Concen: 10.281 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 58 Resp: 3507

Ion	Ratio	Lower	Upper
58	100		
43	323.7	261.8	392.8

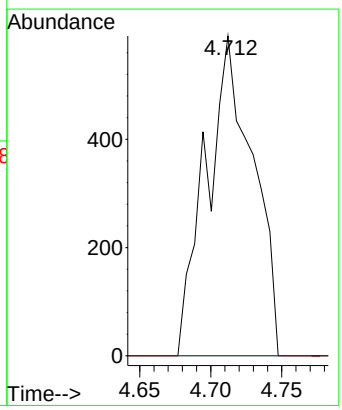


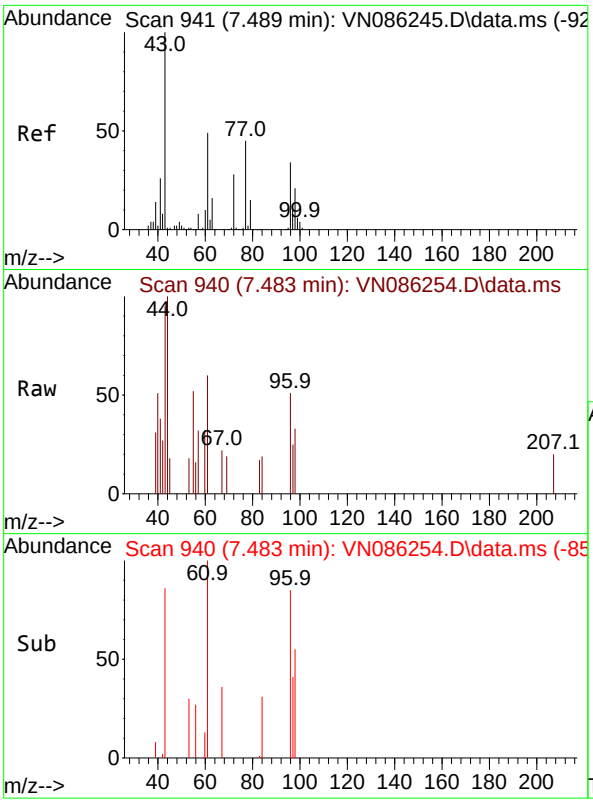


#16
Carbon Disulfide
Concen: 0.210 ug/l
RT: 4.712 min Scan# 469
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 76 Resp: 1356

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.7	11.5#



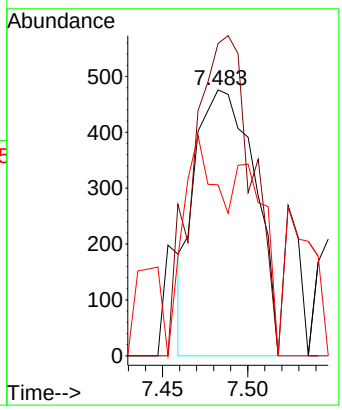


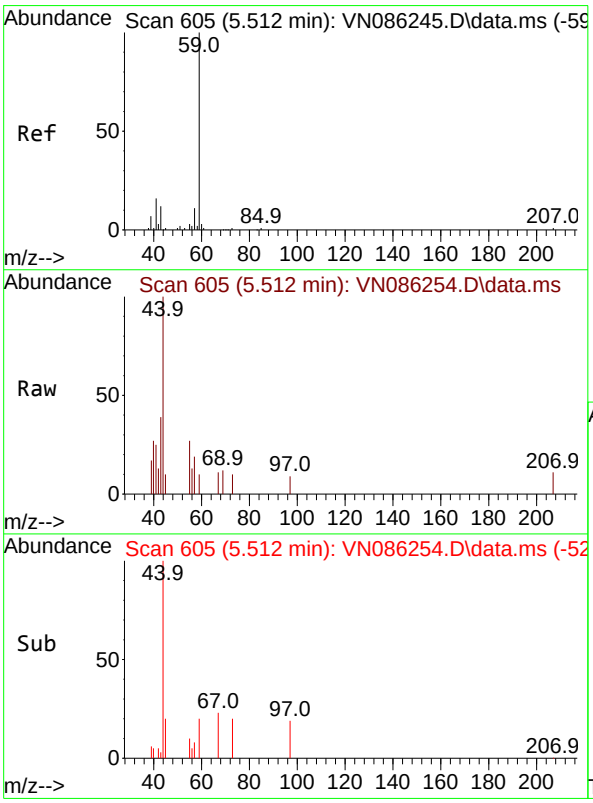
#22
cis-1,2-Dichloroethene
Concen: 0.411 ug/l
RT: 7.483 min Scan# 94
Delta R.T. -0.006 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 96 Resp: 1164

Ion	Ratio	Lower	Upper
96	100		
61	118.6	119.5	179.3#
98	37.1	51.0	76.6#

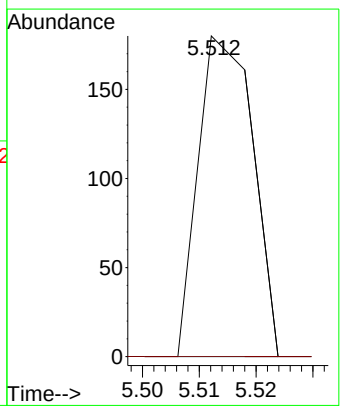


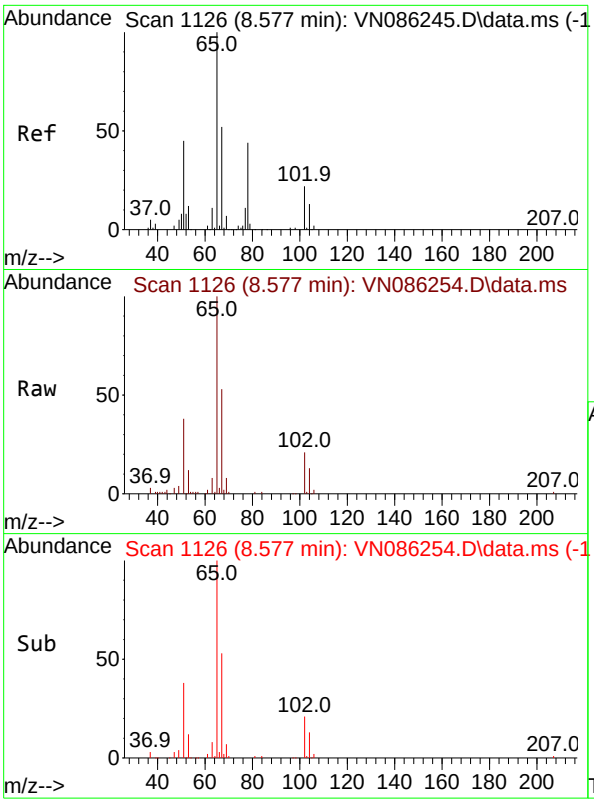


#23
tert-Butyl Alcohol
Concen: 0.215 ug/l
RT: 5.512 min Scan# 605
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 59 Resp: 120

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0



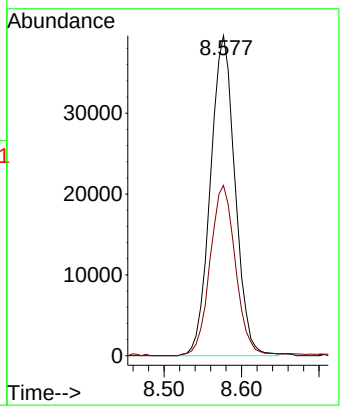


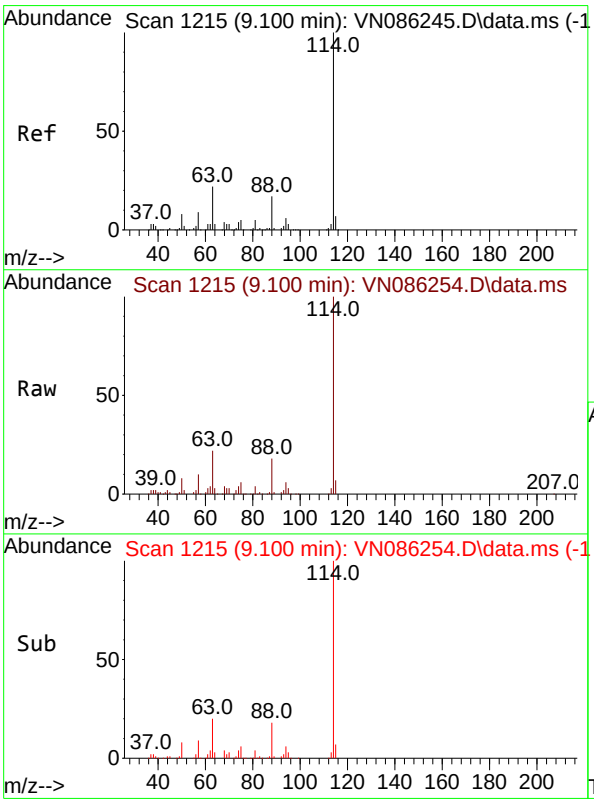
#27
1,2-Dichloroethane-d4
Concen: 30.202 ug/l
RT: 8.577 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 65 Resp: 87305

Ion	Ratio	Lower	Upper
65	100		
67	55.2	43.4	65.2

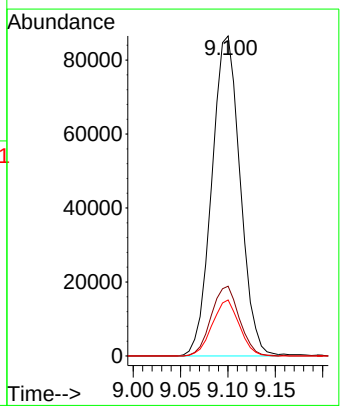


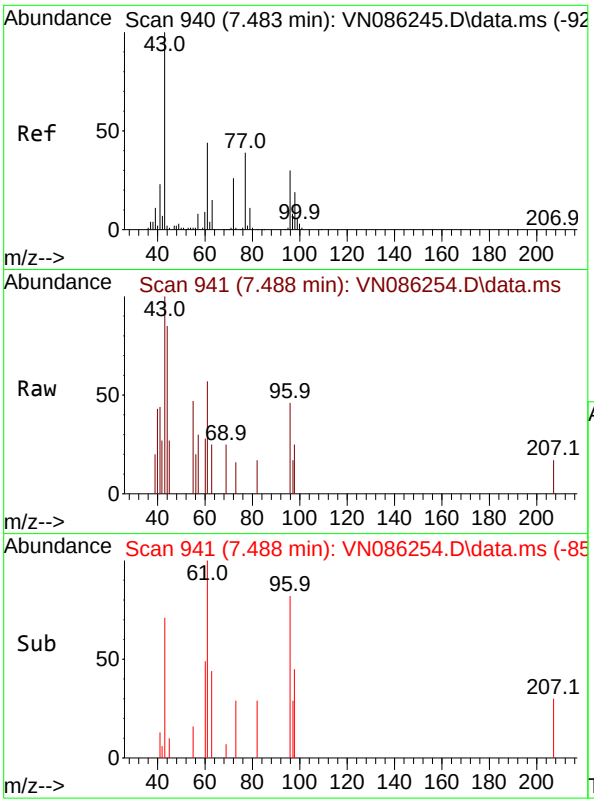


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:114 Resp: 180090

Ion	Ratio	Lower	Upper
114	100		
63	21.6	17.8	26.6
88	16.7	13.4	20.2



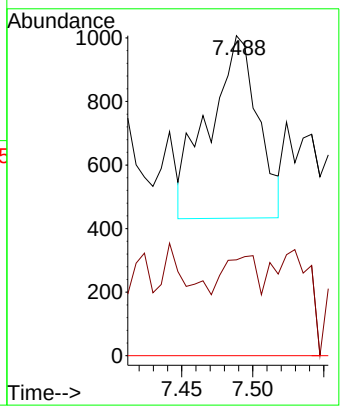


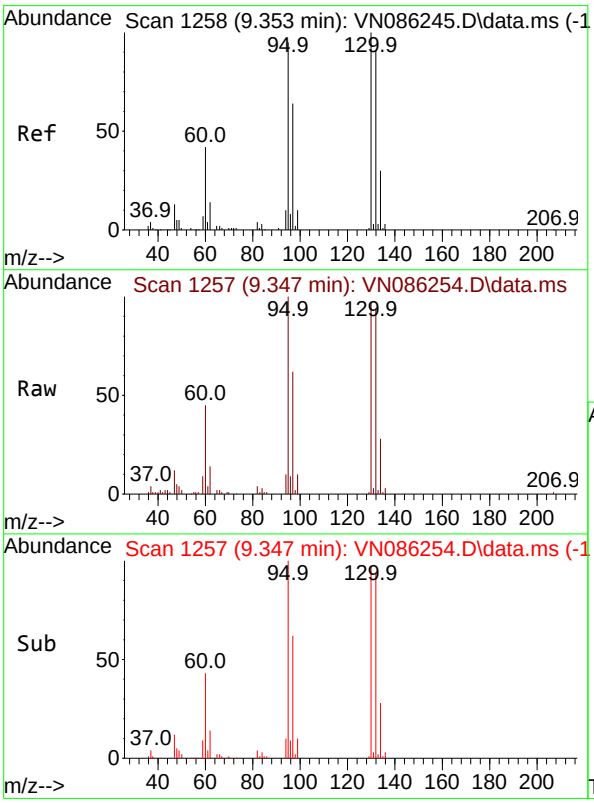
#30
2-Butanone
Concen: 0.774 ug/l
RT: 7.488 min Scan# 94
Delta R.T. 0.006 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 43 Resp: 1384

Ion	Ratio	Lower	Upper
43	100		
57	13.3	6.4	9.6#
72	0.0	21.5	32.3#

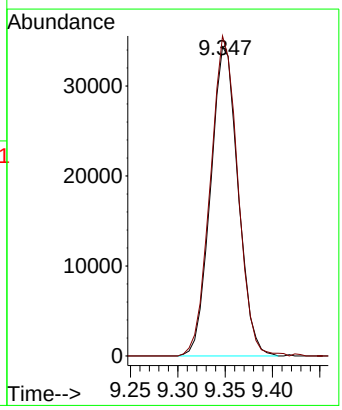


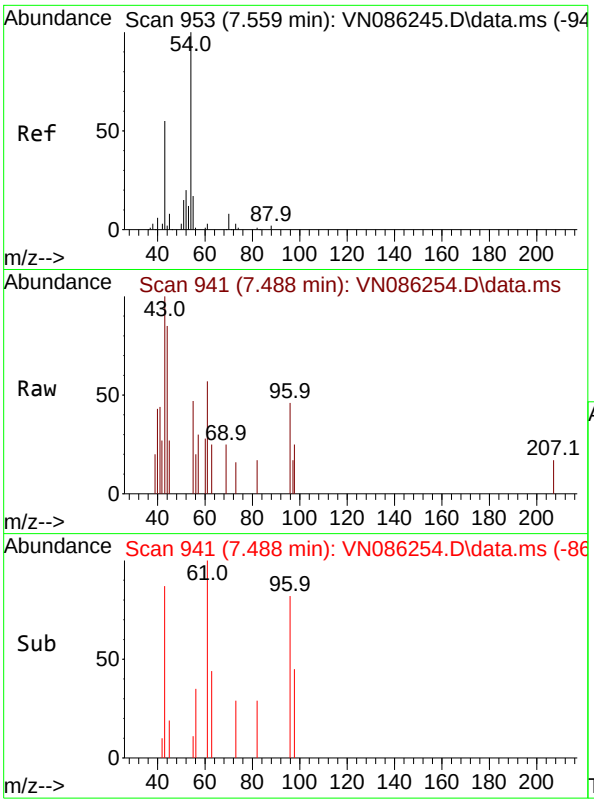


#37
Trichloroethene
Concen: 28.013 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.006 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:130 Resp: 69371

Ion	Ratio	Lower	Upper
130	100		
95	103.5	76.4	114.6



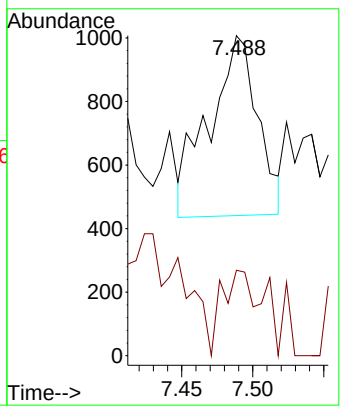


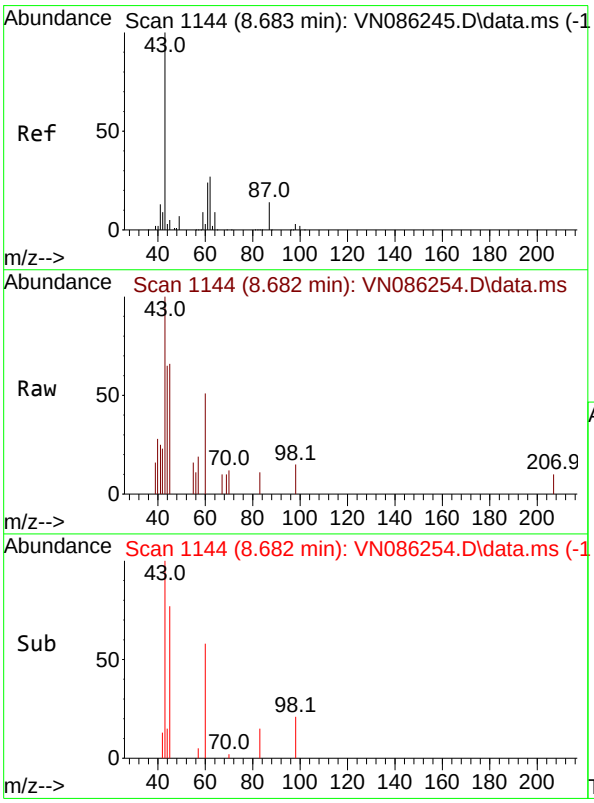
#43
Ethyl Acetate
Concen: 0.375 ug/l
RT: 7.488 min Scan# 94
Delta R.T. -0.071 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 43 Resp: 1353

Ion	Ratio	Lower	Upper
43	100		
45	11.7	11.2	16.8

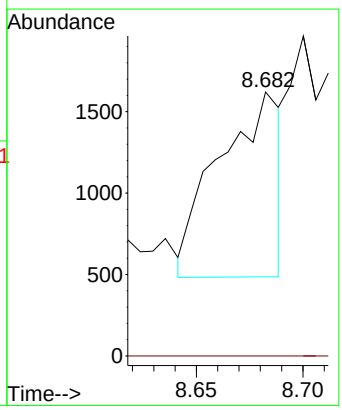


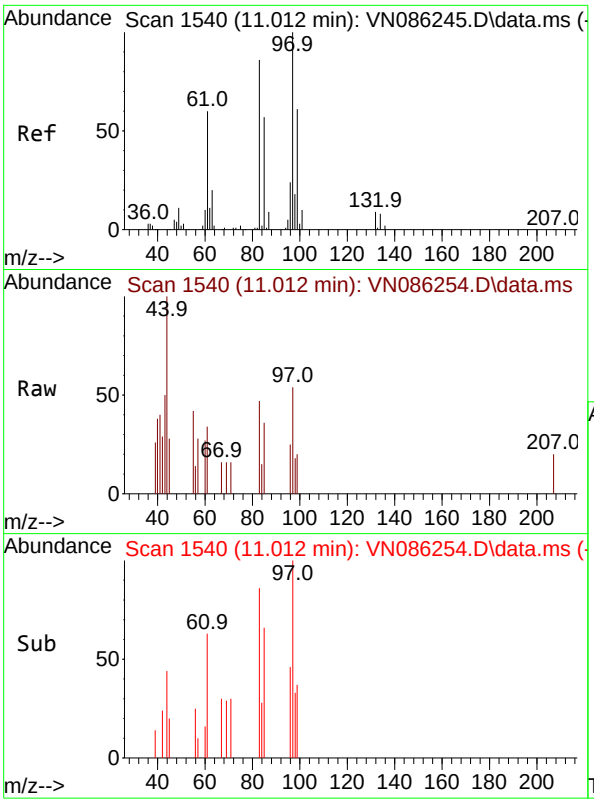


#44
Isopropyl Acetate
Concen: 0.339 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 43 Resp: 2269

Ion	Ratio	Lower	Upper
43	100		
61	0.0	20.5	30.7#



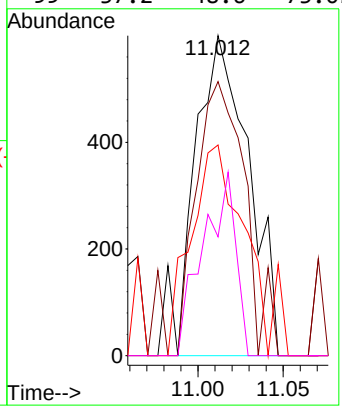


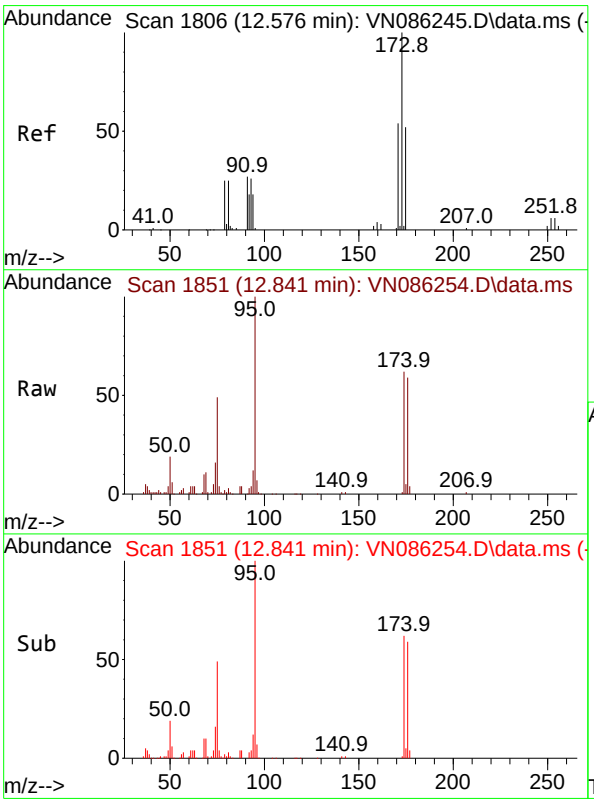
#50
1,1,2-Trichloroethane
Concen: 0.550 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 97 Resp: 1273

Ion	Ratio	Lower	Upper
97	100		
83	85.7	68.6	103.0
85	37.3	45.9	68.9#
99	37.2	48.6	73.0#

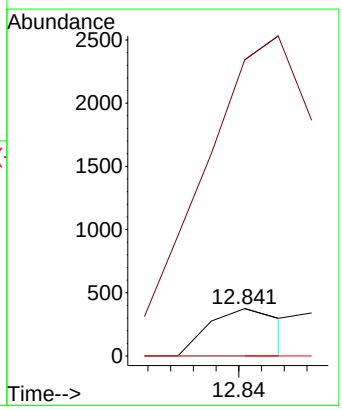


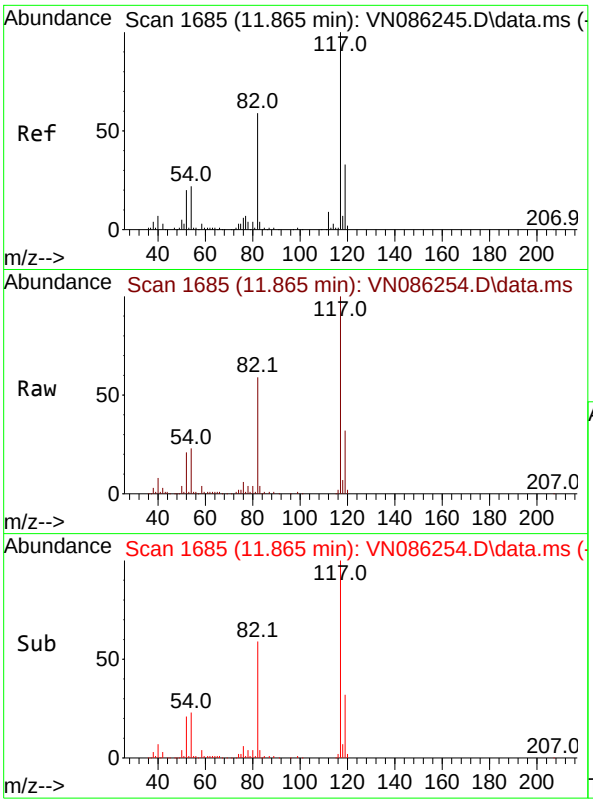


#56
Bromoform
Concen: 0.202 ug/l
RT: 12.841 min Scan# 1851
Delta R.T. 0.265 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion:173 Resp: 334

Ion	Ratio	Lower	Upper
173	100		
175	1224.3	38.2	57.4#
254	0.0	4.5	6.7#



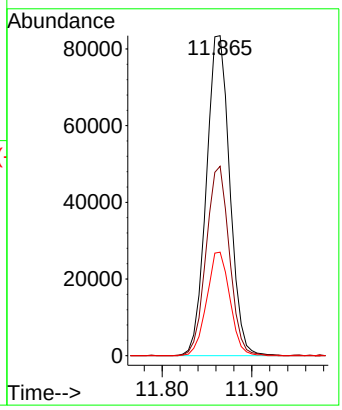


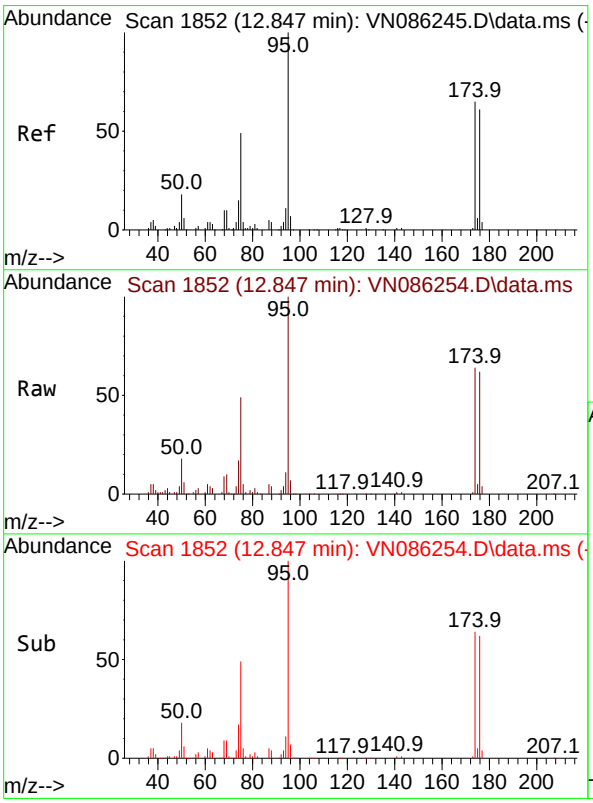
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion:117 Resp: 151244

Ion	Ratio	Lower	Upper
117	100		
82	59.0	47.3	70.9
119	32.2	25.9	38.9

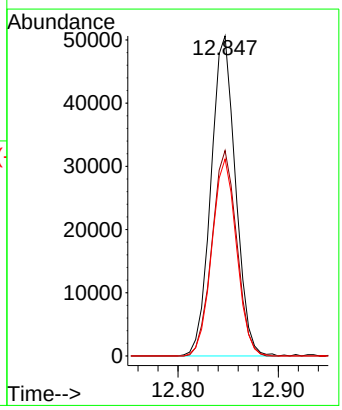


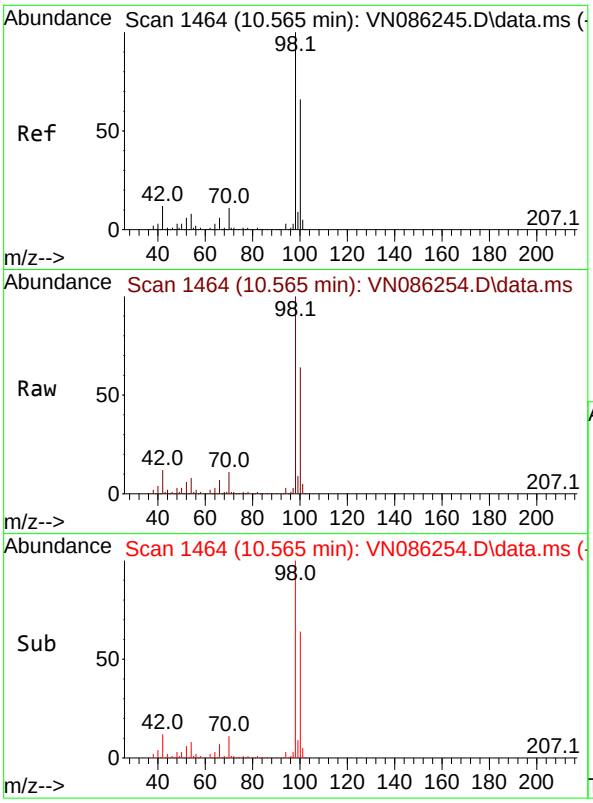


#60
4-Bromofluorobenzene
Concen: 28.602 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 95 Resp: 86127

Ion	Ratio	Lower	Upper
95	100		
174	64.8	52.7	79.1
176	61.8	49.8	74.8



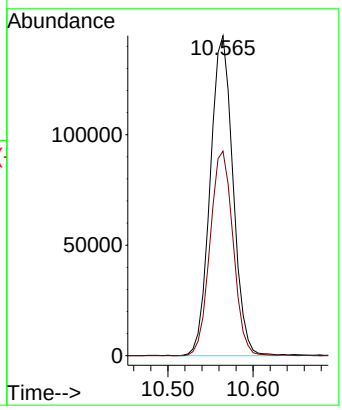


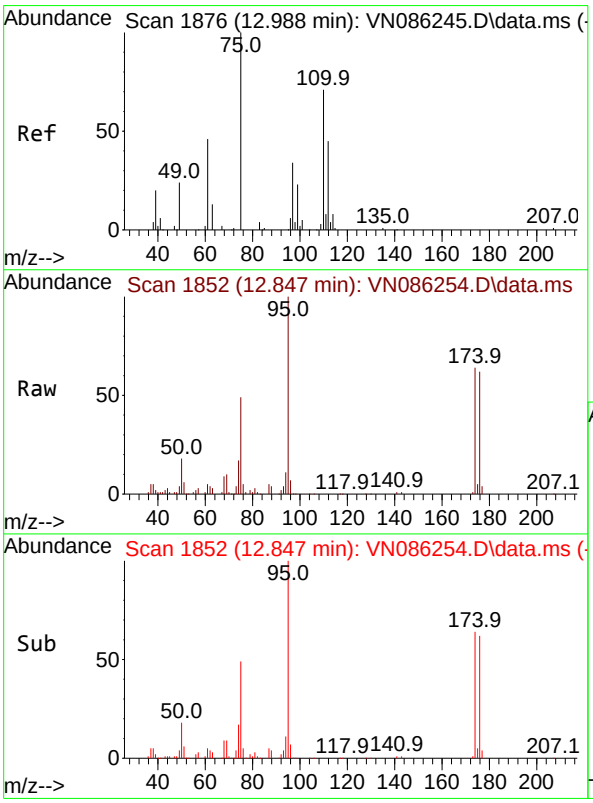
#63
Toluene-d8
Concen: 31.442 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 98 Resp: 268466

Ion	Ratio	Lower	Upper
98	100		
100	64.7	52.3	78.5

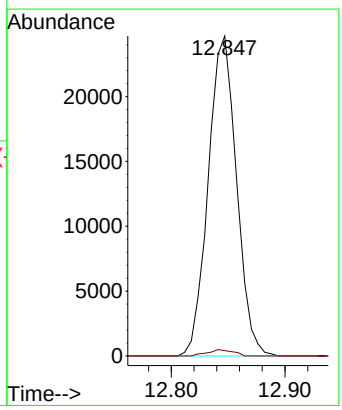


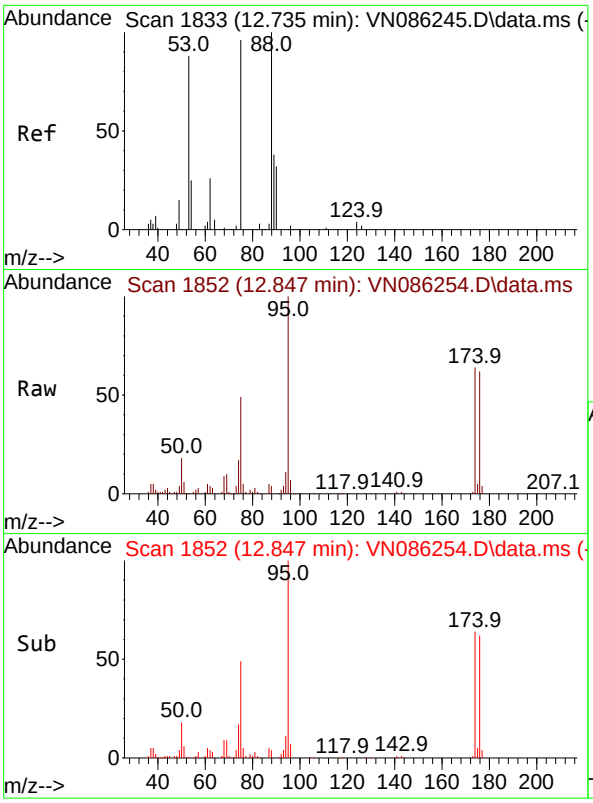


#72
1,2,3-Trichloropropane
Concen: 14.219 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.141 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Tgt Ion: 75 Resp: 42740

Ion	Ratio	Lower	Upper
75	100		
77	1.8	0.0	380.0



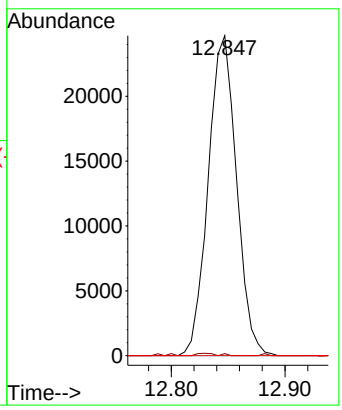


#77
t-1,4-Dichloro-2-butene
Concen: 30.837 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.112 min
Lab File: VN086254.D
Acq: 11 Apr 2025 17:03

Instrument :
MSVOA_N
ClientSampleId :
TT-075-IDWGW-20250409

Tgt Ion: 75 Resp: 42740

Ion	Ratio	Lower	Upper
75	100		
53	0.6	46.4	139.2#
89	0.0	22.5	67.5#



Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.812	128	18884	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	109876	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	95362	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	53571	29.085	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 96.933%			
60) 4-Bromofluorobenzene	12.847	95	56553	29.786	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.300%			
63) Toluene-d8	10.565	98	165558	30.752	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 102.500%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	29320	19.378	ug/l	99
3) Chloromethane	2.359	50	41417	19.805	ug/l	95
4) Vinyl Chloride	2.518	62	38937	19.548	ug/l	99
5) Bromomethane	2.971	94	19187	19.311	ug/l	99
6) Chloroethane	3.130	64	25042	19.909	ug/l	99
7) Trichlorofluoromethane	3.501	101	41794	19.342	ug/l	98
8) Diethyl Ether	3.965	74	18888	18.955	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.377	101	24936	18.715	ug/l	96
10) 1,1-Dichloroethene	4.348	96	26966	18.753	ug/l	98
11) Methyl Iodide	4.583	142	31641	19.145	ug/l	94
12) Methyl Acetate	5.030	43	37430	18.433	ug/l	97
13) Acrolein	4.183	56	19090	82.706	ug/l	97
14) Acrylonitrile	5.718	53	80784	94.238	ug/l	99
15) Acetone	4.424	58	19847	91.311	ug/l	90
16) Carbon Disulfide	4.718	76	78952	19.148	ug/l	97
17) Allyl chloride	5.030	41	49113	19.596	ug/l	95
18) Methylene Chloride	5.277	84	31167	19.010	ug/l	96
19) trans-1,2-Dichloroethene	5.789	96	28540	18.843	ug/l	99
20) Diisopropyl ether	6.671	45	95774	17.775	ug/l	97
21) 1,1-Dichloroethane	6.571	63	55465	19.295	ug/l	98
22) cis-1,2-Dichloroethene	7.483	96	34384	19.057	ug/l	99
23) tert-Butyl Alcohol	5.512	59	31875	89.739	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	97437	18.777	ug/l	98
25) Chloroform	7.965	83	53242	19.423	ug/l	93
26) Cyclohexane	8.253	56	50381	18.733	ug/l #	99
29) 1,1-Dichloropropene	8.371	75	39298	19.965	ug/l	99
30) 2-Butanone	7.477	43	105674	96.889	ug/l	99
31) 2,2-Dichloropropane	7.489	77	46144	19.045	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	44888	19.825	ug/l	99
33) Carbon Tetrachloride	8.359	117	35183	19.444	ug/l	96
34) Benzene	8.600	78	124673	19.909	ug/l	97
35) Methacrylonitrile	7.777	41	25486	20.728	ug/l	98
36) 1,2-Dichloroethane	8.671	62	38614	19.705	ug/l	97
37) Trichloroethene	9.347	130	28562	18.904	ug/l	95
38) Methylcyclohexane	9.594	83	45627	18.901	ug/l	99
39) 1,2-Dichloropropane	9.618	63	30685	19.693	ug/l	94
40) Dibromomethane	9.706	93	20002	19.875	ug/l	100
41) Bromodichloromethane	9.888	83	42242	19.539	ug/l	100
42) Vinyl Acetate	6.600	43	378299	101.896	ug/l	100

Quantitation Report (Not Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration

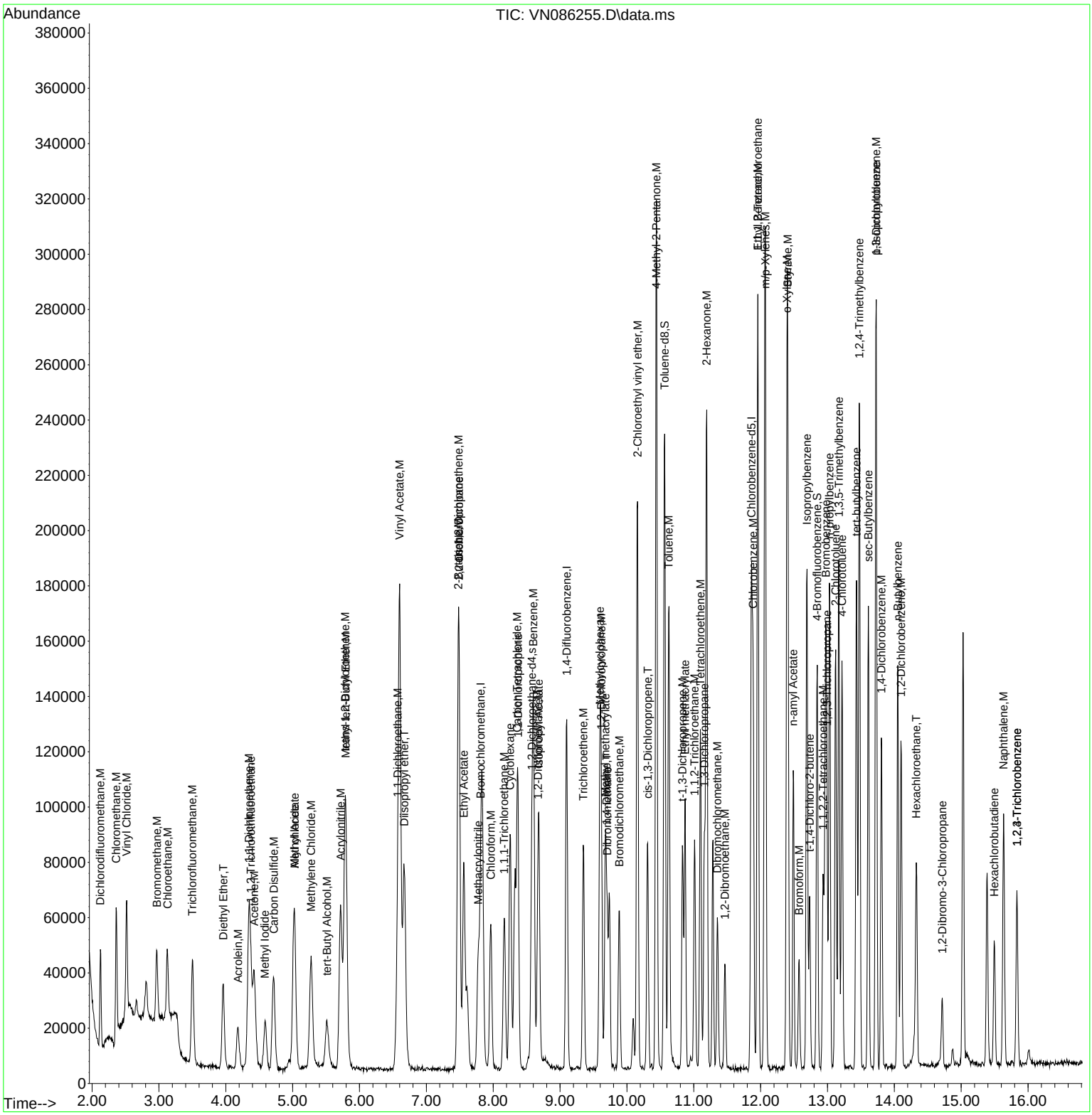
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) Ethyl Acetate	7.559	43	37557	17.072	ug/l	#	93
44) Isopropyl Acetate	8.683	43	79656	19.518	ug/l		100
45) 1,4-Dioxane	9.694	88	12723	392.047	ug/l	#	93
46) Methyl methacrylate	9.677	41	34286	19.067	ug/l		98
47) n-amyl Acetate	12.488	43	57635	17.812	ug/l		99
48) t-1,3-Dichloropropene	10.829	75	46804	19.149	ug/l		98
49) cis-1,3-Dichloropropene	10.312	75	51256	19.814	ug/l		96
50) 1,1,2-Trichloroethane	11.012	97	27268	19.319	ug/l		97
51) Ethyl methacrylate	10.871	69	49228	18.768	ug/l		95
52) 1,3-Dichloropropane	11.159	76	49662	19.740	ug/l		99
53) Dibromochloromethane	11.353	129	29962	19.406	ug/l		99
54) 1,2-Dibromoethane	11.465	107	27931	19.603	ug/l		99
55) 2-Chloroethyl vinyl ether	10.159	63	98312	99.189	ug/l		99
56) Bromoform	12.576	173	18754	18.566	ug/l		98
58) 4-Methyl-2-Pentanone	10.441	43	214641	99.184	ug/l		99
59) 2-Hexanone	11.194	43	158086	98.104	ug/l		99
61) Tetrachloroethene	11.100	164	27738	19.697	ug/l		98
62) Toluene	10.624	91	128682	20.118	ug/l		100
64) Chlorobenzene	11.888	112	77123	19.736	ug/l		99
65) 1,1,1,2-Tetrachloroethane	11.959	131	26021	20.177	ug/l		98
66) Ethyl Benzene	11.959	91	139309	19.639	ug/l		98
67) m/p-Xylenes	12.071	106	101714	38.563	ug/l		98
68) o-Xylene	12.394	106	52037	20.058	ug/l		98
69) Styrene	12.406	104	83949	19.187	ug/l		99
70) Isopropylbenzene	12.694	105	123201	19.260	ug/l		99
71) 1,1,2,2-Tetrachloroethane	12.935	83	37233	20.449	ug/l		98
72) 1,2,3-Trichloropropane	12.994	75	53607	28.285	ug/l		59
73) Bromobenzene	12.976	156	27272	19.245	ug/l		99
74) n-propylbenzene	13.029	91	143093	18.944	ug/l		100
75) 2-Chlorotoluene	13.123	91	92645	19.514	ug/l		99
76) 1,3,5-Trimethylbenzene	13.170	105	99973	19.025	ug/l		98
77) t-1,4-Dichloro-2-butene	12.735	75	16490	18.869	ug/l		92
78) 4-Chlorotoluene	13.218	91	90011	18.983	ug/l		98
79) tert-butylbenzene	13.435	119	86567	19.039	ug/l		99
80) 1,2,4-Trimethylbenzene	13.476	105	100765	18.911	ug/l		100
81) sec-Butylbenzene	13.612	105	119744	18.880	ug/l		99
82) p-Isopropyltoluene	13.729	119	97324	18.394	ug/l		99
83) 1,3-Dichlorobenzene	13.729	146	48725	18.499	ug/l		98
84) 1,4-Dichlorobenzene	13.806	146	47819	18.098	ug/l		98
85) n-Butylbenzene	14.053	91	84791	17.764	ug/l		98
86) Hexachloroethane	14.329	117	17164	19.231	ug/l		96
87) 1,2-Dichlorobenzene	14.100	146	48868	18.791	ug/l		99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	7385	17.808	ug/l		97
89) 1,2,4-Trichlorobenzene	15.835	180	21063	16.646	ug/l		98
90) Hexachlorobutadiene	15.494	225	8007	14.656	ug/l		96
91) Naphthalene	15.635	128	83203	16.677	ug/l		99
92) 1,2,3-Trichlorobenzene	15.835	180	21063	16.646	ug/l		98

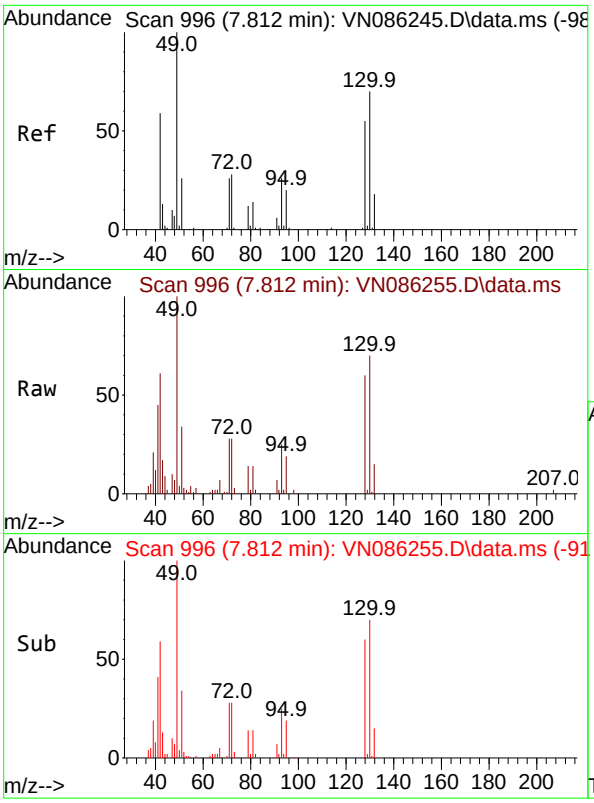
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN041125\
Data File : VN086255.D
Acq On : 11 Apr 2025 17:28
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Quant Time: Apr 12 01:51:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N041125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Apr 12 01:21:52 2025
Response via : Initial Calibration



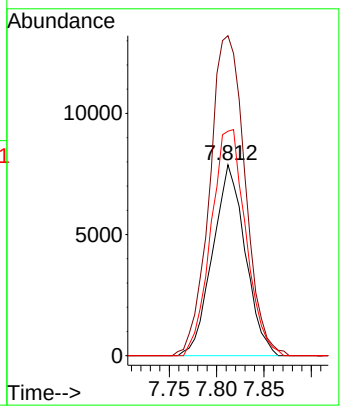


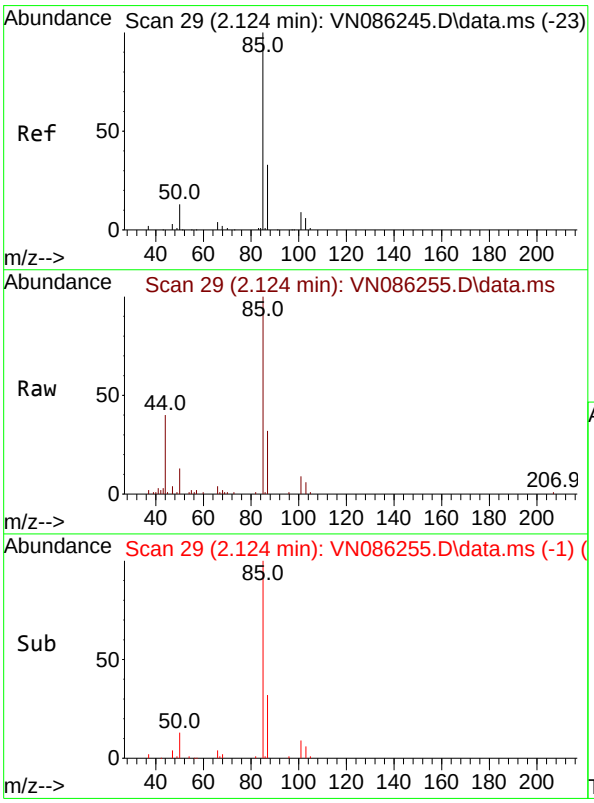
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:128 Resp: 18884

Ion	Ratio	Lower	Upper
128	100		
49	182.5	0.0	452.5
130	126.4	0.0	315.0

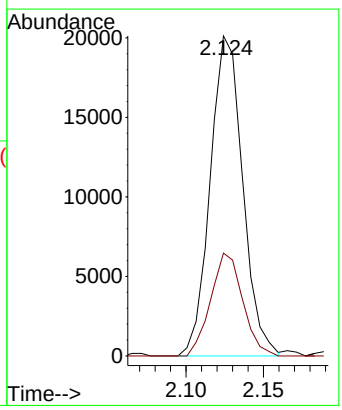


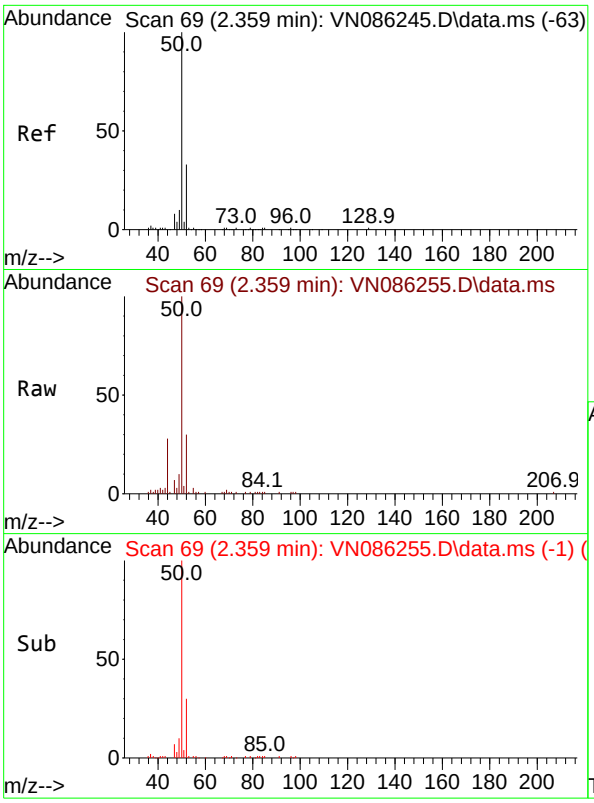


#2
Dichlorodifluoromethane
Concen: 19.378 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 85 Resp: 29320

Ion	Ratio	Lower	Upper
85	100		
87	32.1	16.3	48.9



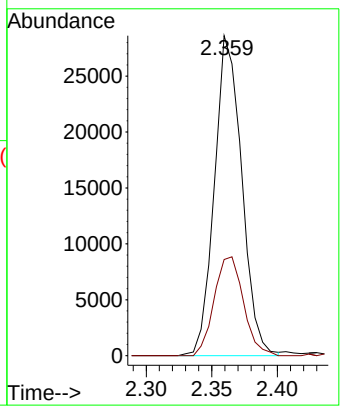


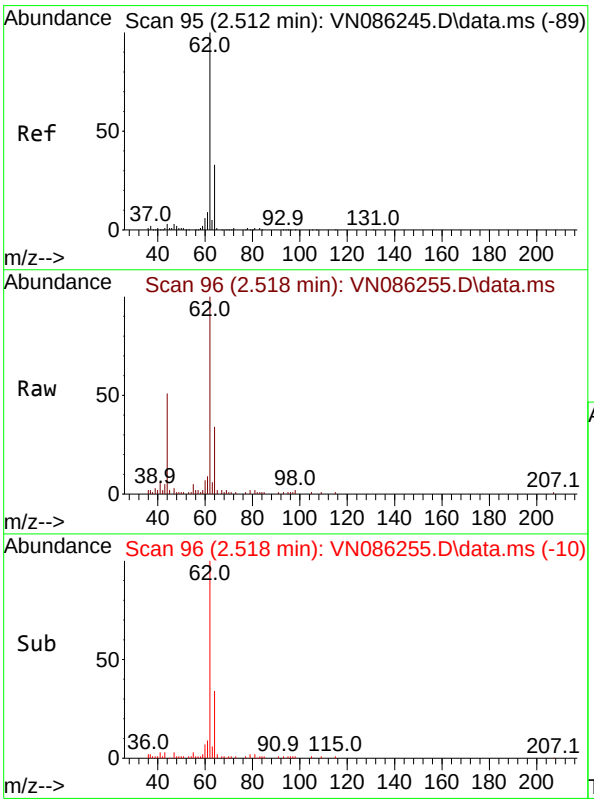
#3
Chloromethane
Concen: 19.805 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 50 Resp: 41417

Ion	Ratio	Lower	Upper
50	100		
52	30.1	26.4	39.6

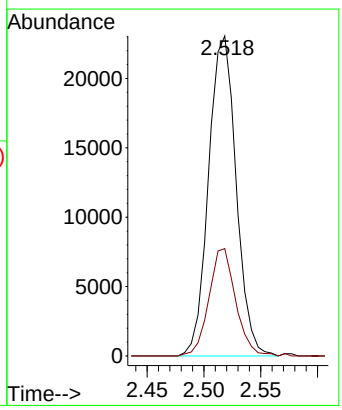


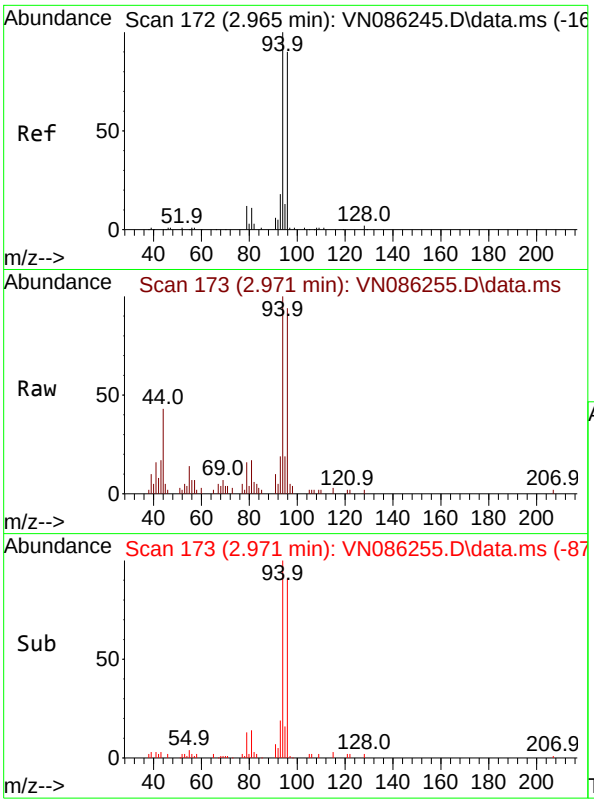


#4
Vinyl Chloride
Concen: 19.548 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 62 Resp: 38937

Ion	Ratio	Lower	Upper
62	100		
64	33.6	26.3	39.5



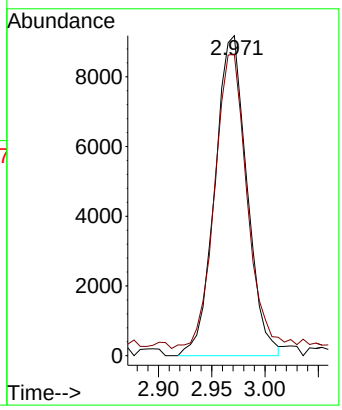


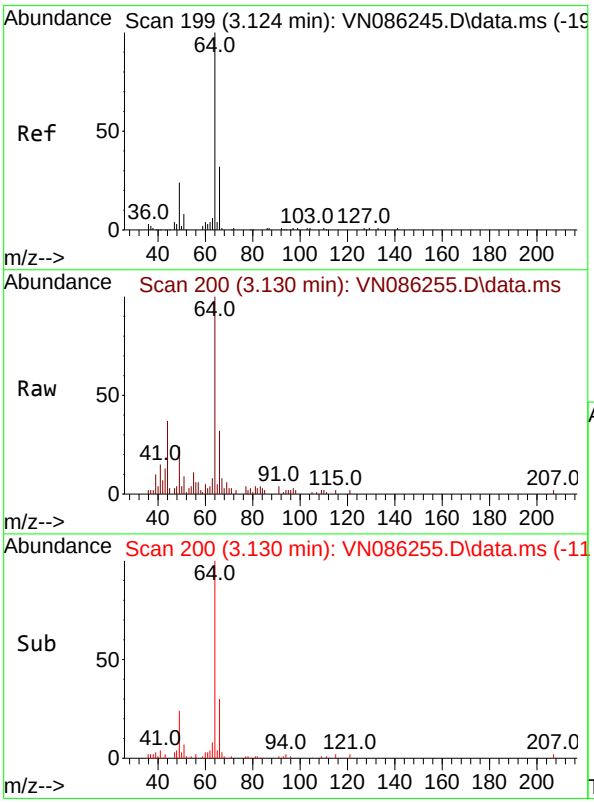
#5
Bromomethane
Concen: 19.311 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 94 Resp: 19187

Ion	Ratio	Lower	Upper
94	100		
96	90.8	72.2	108.2

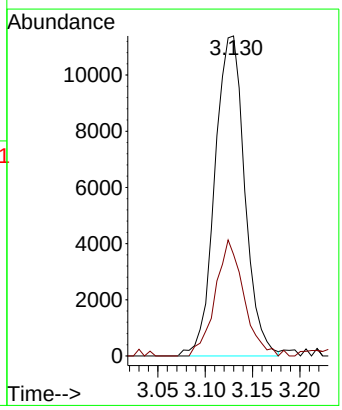


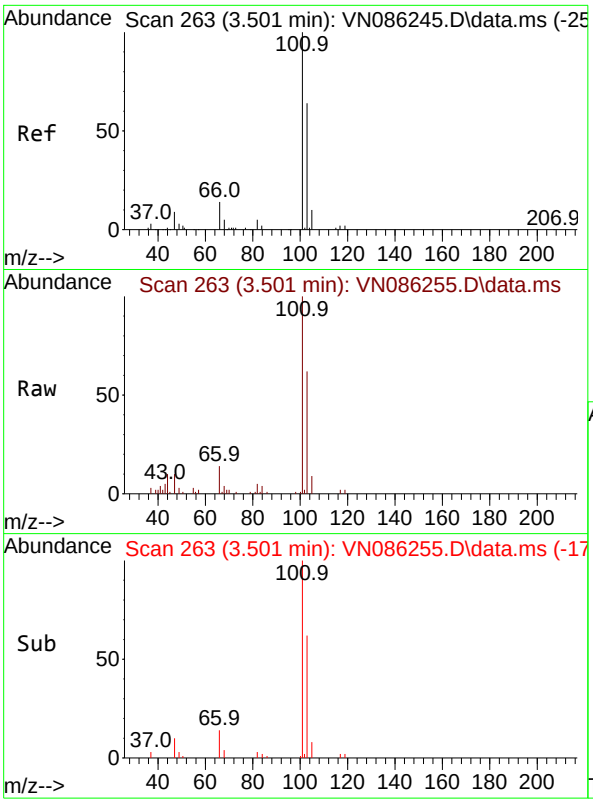


#6
Chloroethane
Concen: 19.909 ug/l
RT: 3.130 min Scan# 200
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 64 Resp: 25042

Ion	Ratio	Lower	Upper
64	100		
66	31.7	25.7	38.5



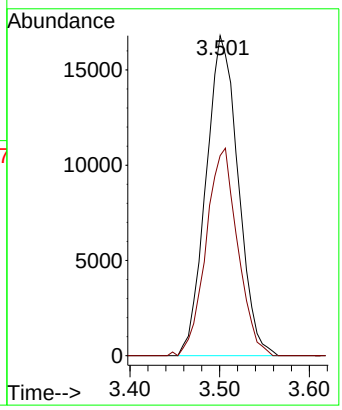


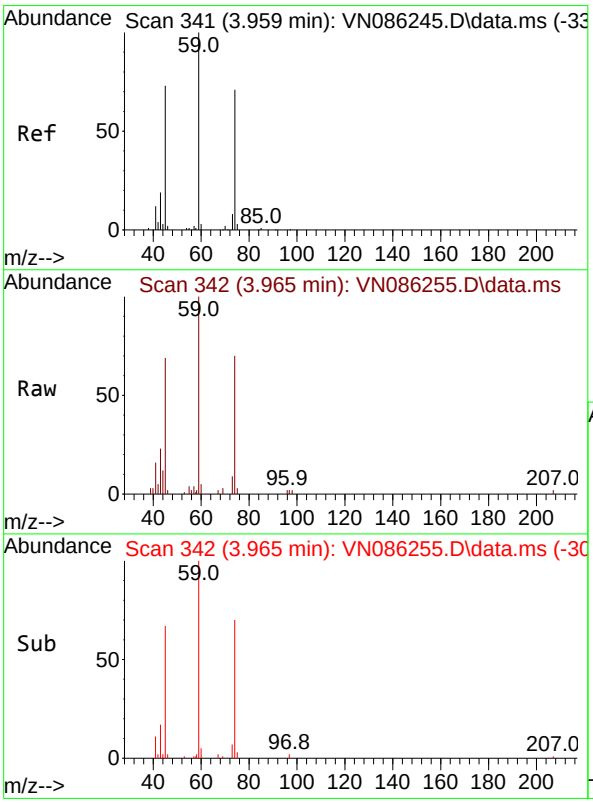
#7
Trichlorofluoromethane
Concen: 19.342 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:101 Resp: 41794

Ion	Ratio	Lower	Upper
101	100		
103	62.5	51.2	76.8

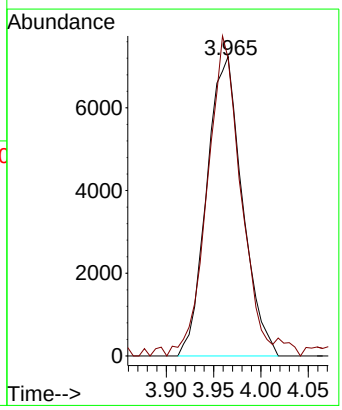


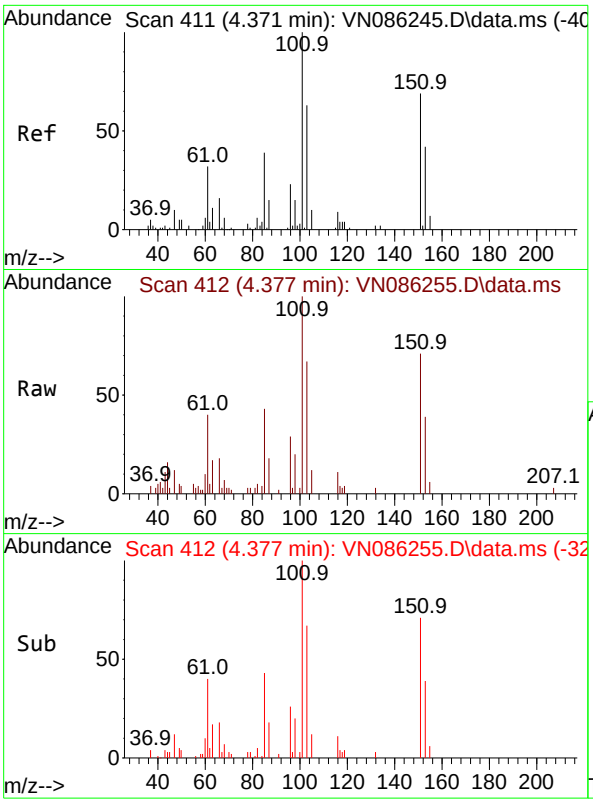


#8
Diethyl Ether
Concen: 18.955 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 74 Resp: 18888

Ion	Ratio	Lower	Upper
74	100		
45	99.8	19.2	173.2



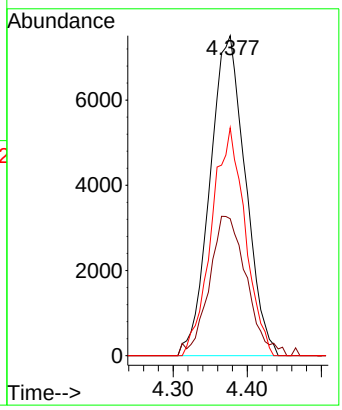


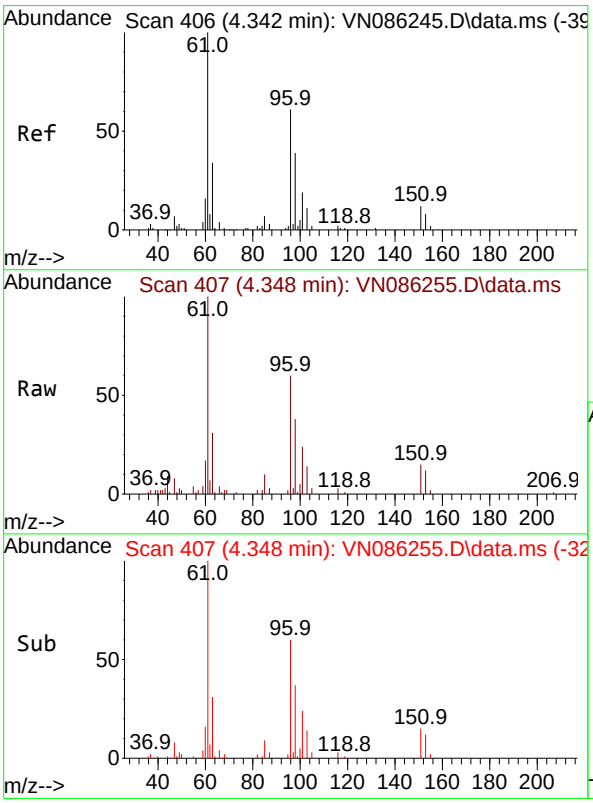
#9
1,1,2-Trichlorotrifluoroethane
Concen: 18.715 ug/l
RT: 4.377 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:101 Resp: 24936

Ion	Ratio	Lower	Upper
101	100		
85	41.9	0.0	93.0
151	67.7	0.0	138.6

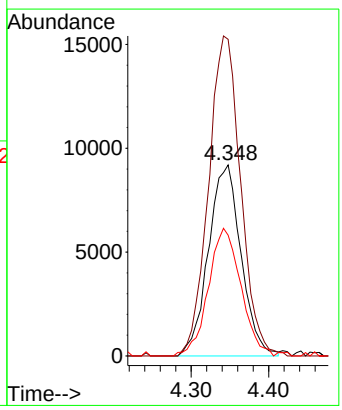


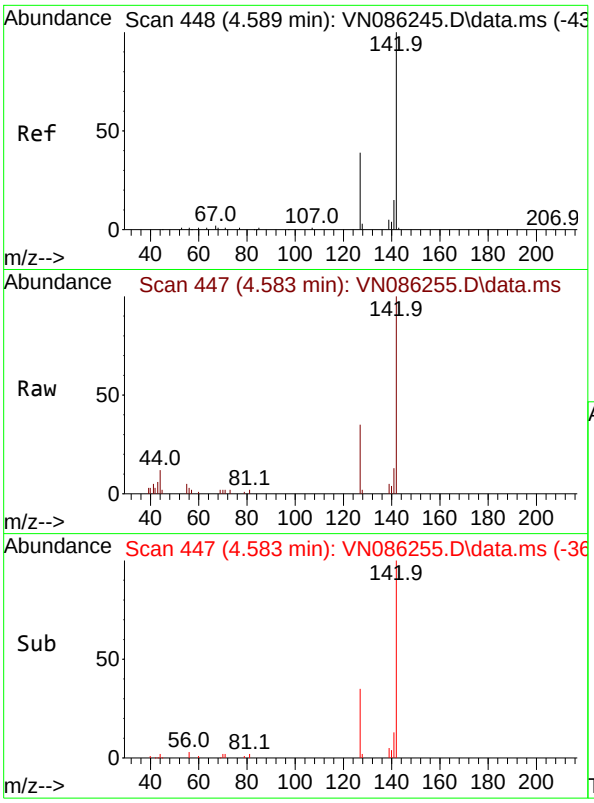


#10
1,1-Dichloroethene
Concen: 18.753 ug/l
RT: 4.348 min Scan# 407
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 96 Resp: 26966

Ion	Ratio	Lower	Upper
96	100		
61	165.8	131.1	196.7
98	61.5	51.6	77.4



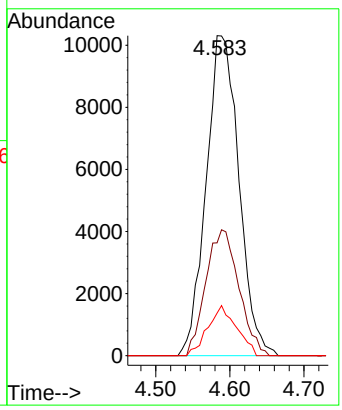


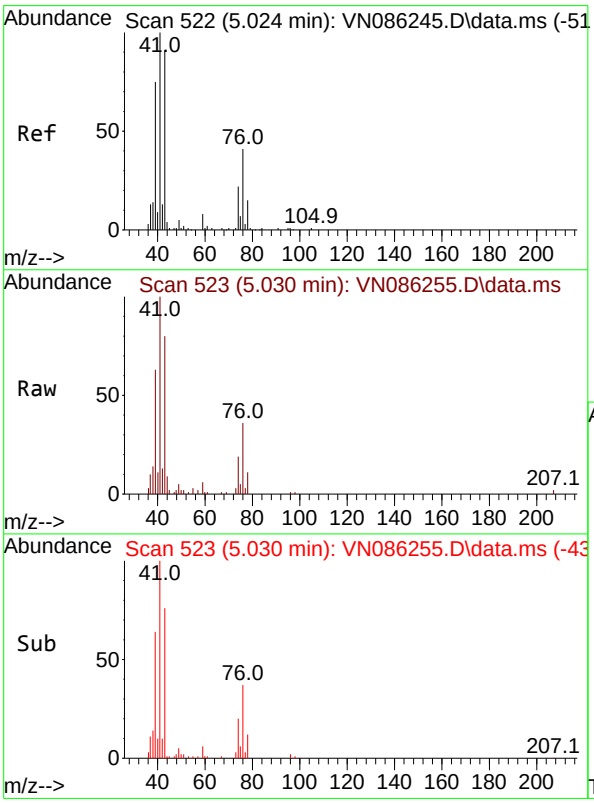
#11
Methyl Iodide
Concen: 19.145 ug/l
RT: 4.583 min Scan# 44
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:142 Resp: 31641

Ion	Ratio	Lower	Upper
142	100		
127	35.3	19.6	58.8
141	13.3	7.3	21.9

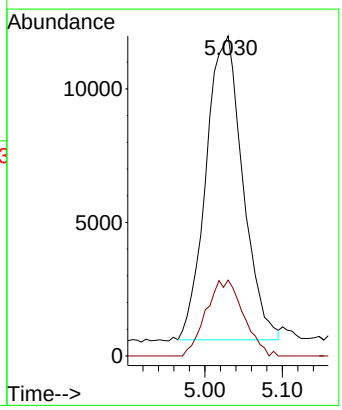


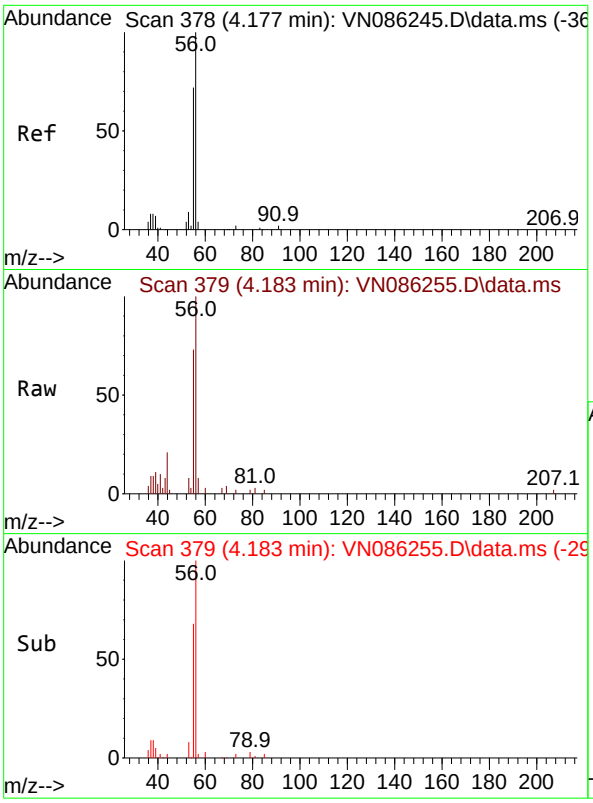


#12
Methyl Acetate
Concen: 18.433 ug/l
RT: 5.030 min Scan# 523
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 37430

Ion	Ratio	Lower	Upper
43	100		
74	25.4	19.1	28.7



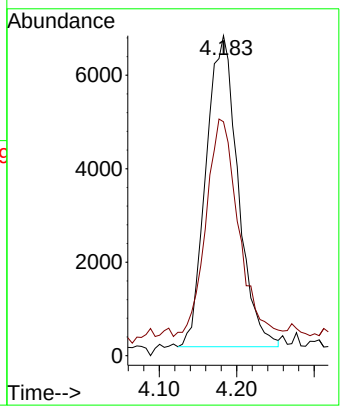


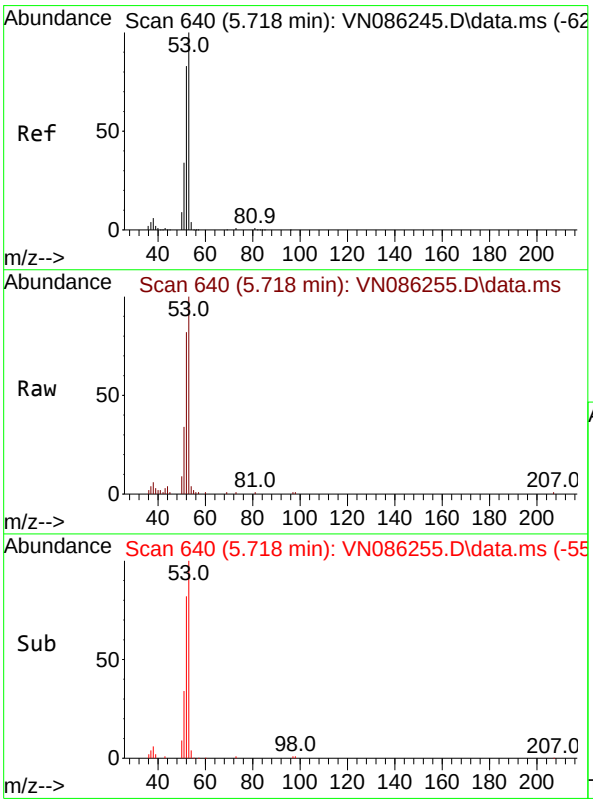
#13
Acrolein
Concen: 82.706 ug/l
RT: 4.183 min Scan# 3
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 56 Resp: 19090

Ion	Ratio	Lower	Upper
56	100		
55	73.3	56.5	84.7

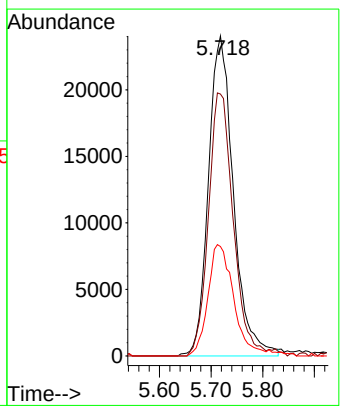


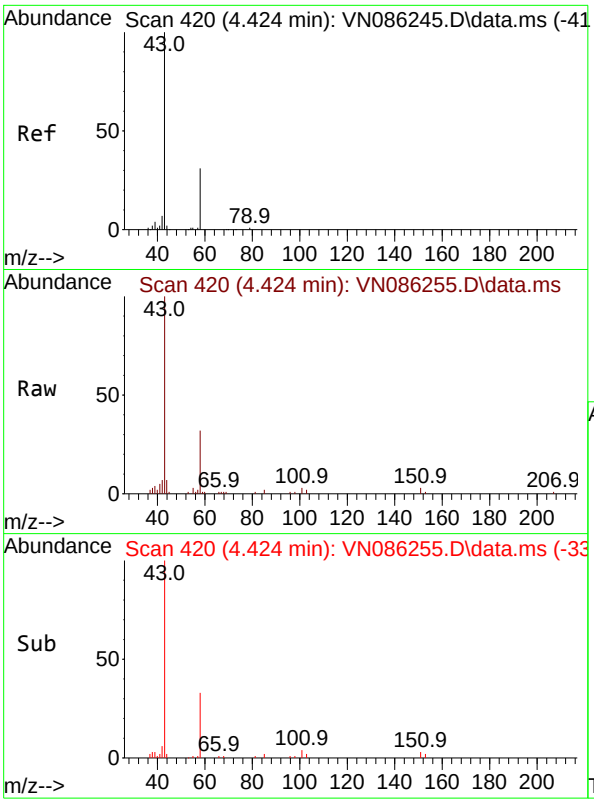


#14
Acrylonitrile
Concen: 94.238 ug/l
RT: 5.718 min Scan# 640
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 53 Resp: 80784

Ion	Ratio	Lower	Upper
53	100		
52	81.0	40.2	120.6
51	35.6	17.5	52.6



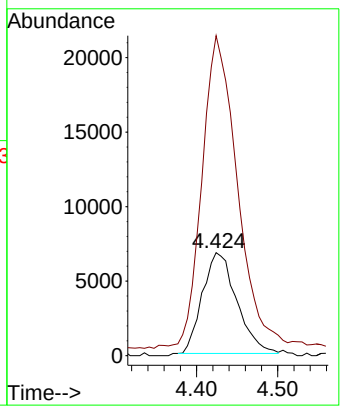


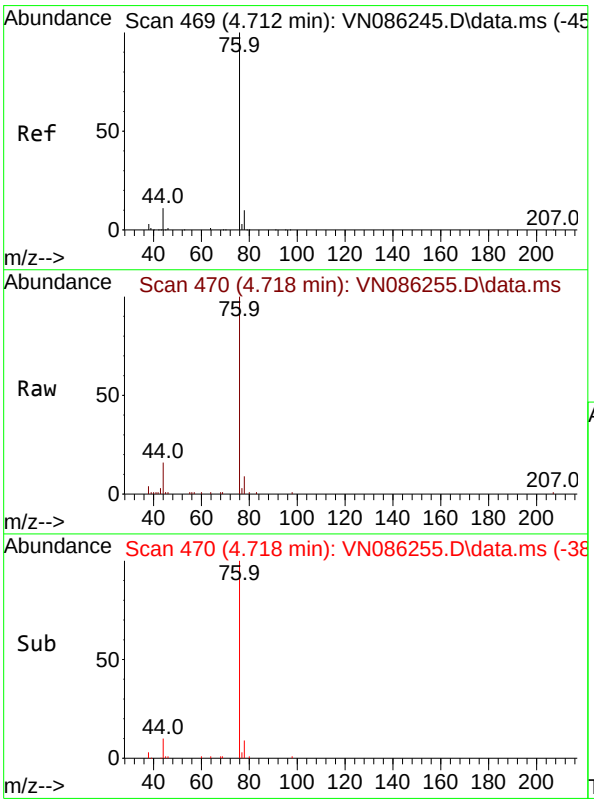
#15
Acetone
Concen: 91.311 ug/l
RT: 4.424 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 58 Resp: 19847

Ion	Ratio	Lower	Upper
58	100		
43	305.8	261.8	392.8

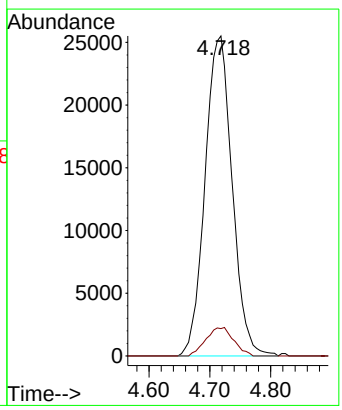


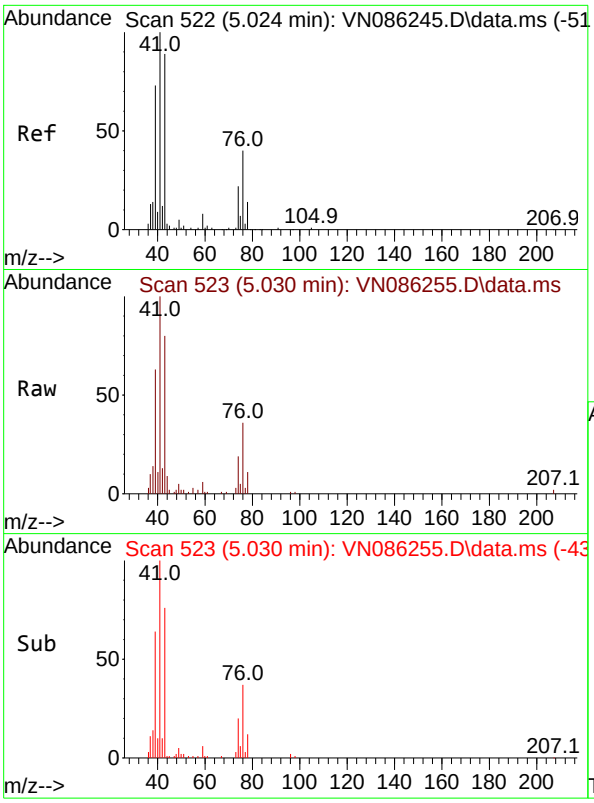


#16
Carbon Disulfide
Concen: 19.148 ug/l
RT: 4.718 min Scan# 470
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 76 Resp: 78952

Ion	Ratio	Lower	Upper
76	100		
78	8.6	7.7	11.5



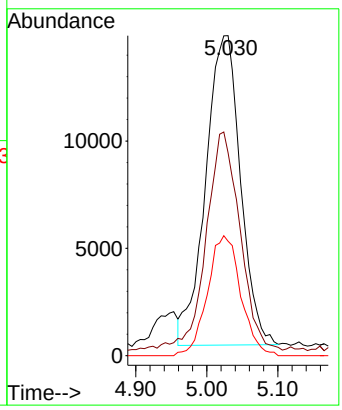


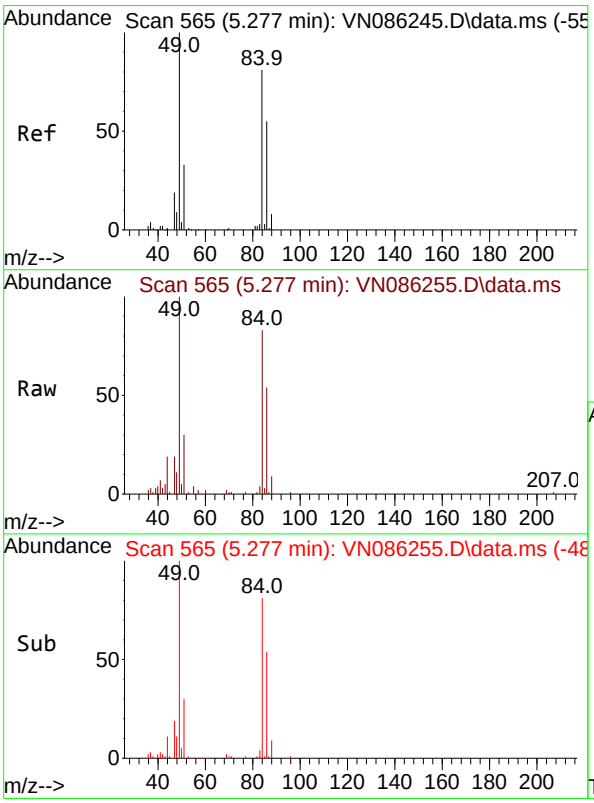
#17
Allyl chloride
Concen: 19.596 ug/l
RT: 5.030 min Scan# 5
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 41 Resp: 49113

Ion	Ratio	Lower	Upper
41	100		
39	63.0	34.4	103.2
76	37.1	18.8	56.3

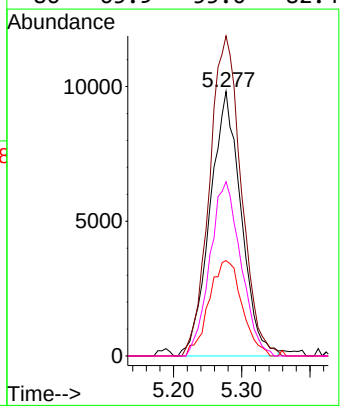


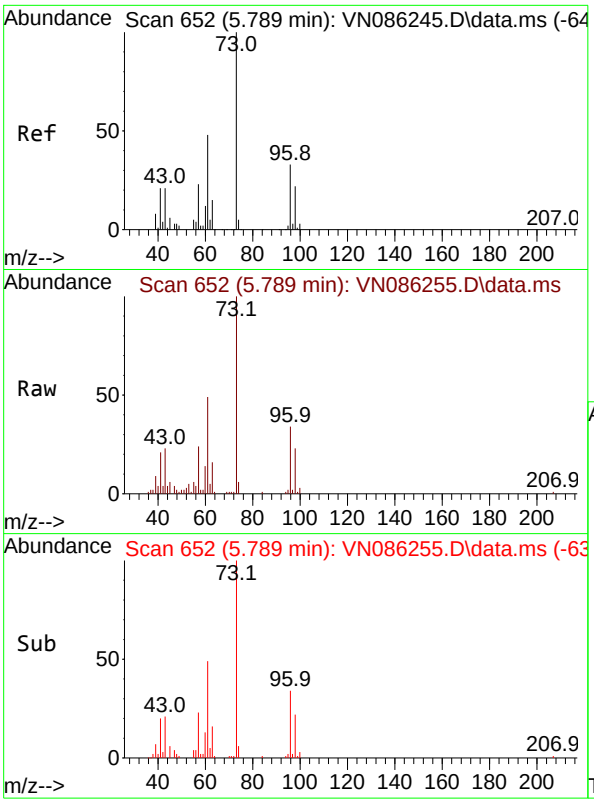


#18
Methylene Chloride
Concen: 19.010 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 84 Resp: 31167

Ion	Ratio	Lower	Upper
84	100		
49	121.0	99.1	148.7
51	36.1	32.3	48.5
86	65.9	55.0	82.4



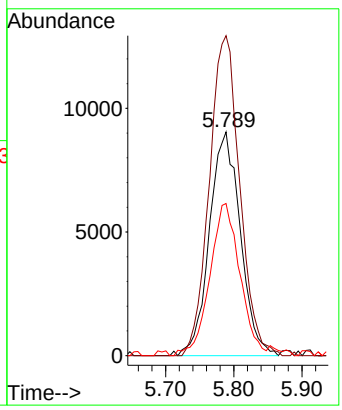


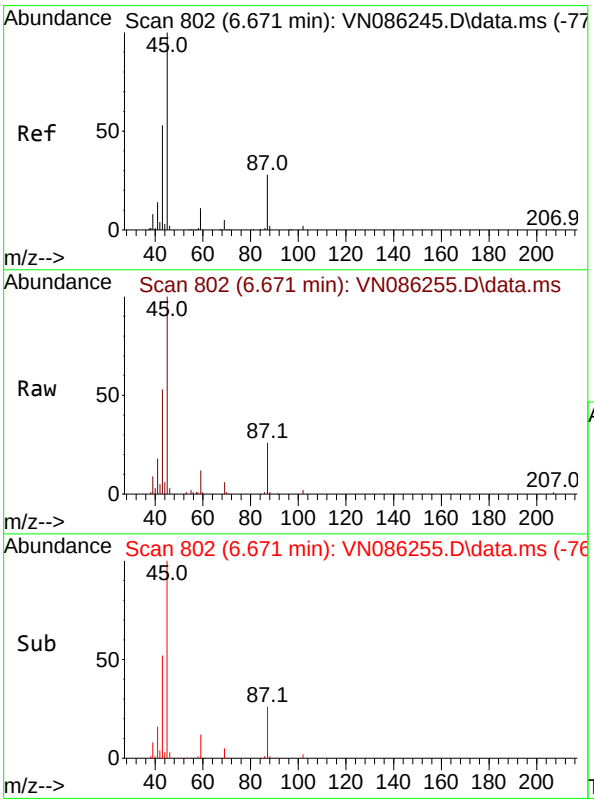
#19
trans-1,2-Dichloroethene
Concen: 18.843 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 96 Resp: 28540

Ion	Ratio	Lower	Upper
96	100		
61	143.1	115.9	173.9
98	65.6	52.1	78.1

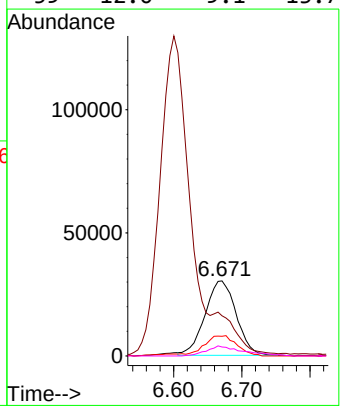


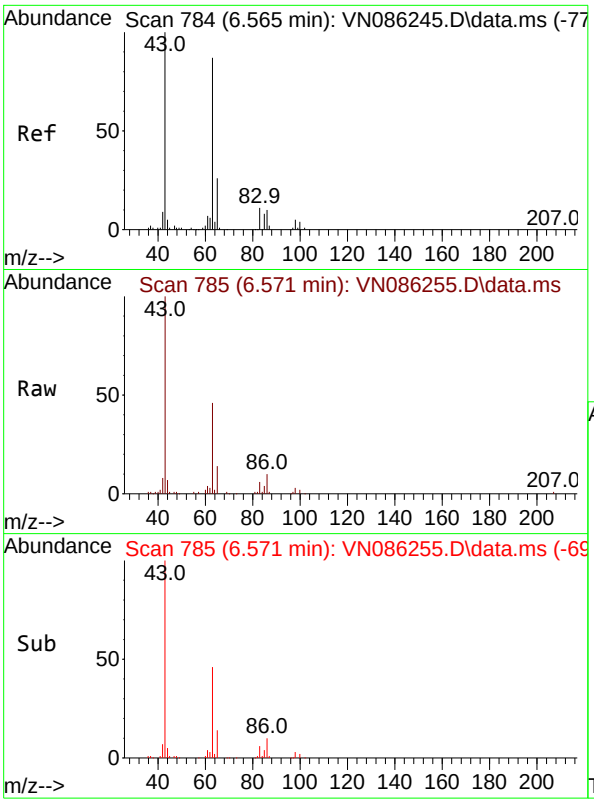


#20
Diisopropyl ether
Concen: 17.775 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 45 Resp: 95774

Ion	Ratio	Lower	Upper
45	100		
43	51.0	42.3	63.5
87	26.4	22.2	33.4
59	12.0	9.1	13.7



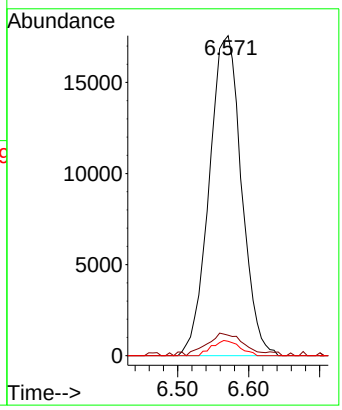


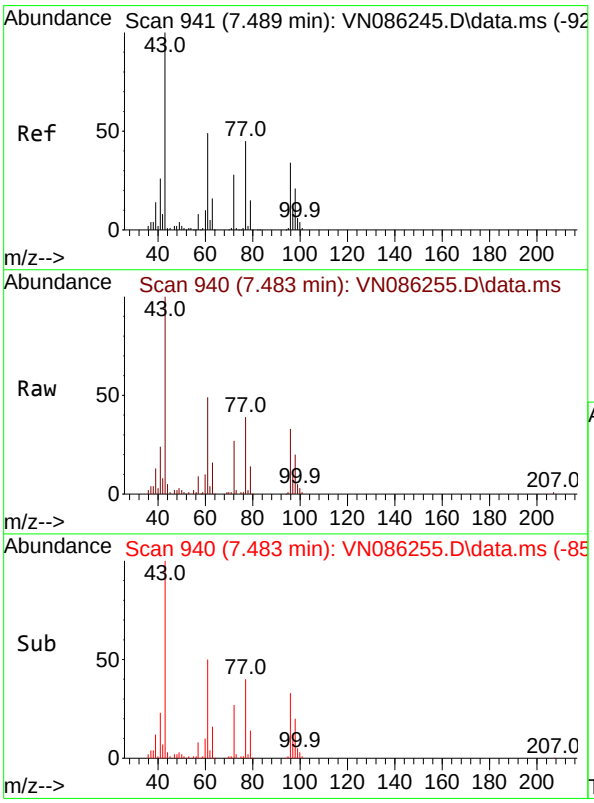
#21
1,1-Dichloroethane
Concen: 19.295 ug/l
RT: 6.571 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 63 Resp: 55465

Ion	Ratio	Lower	Upper
63	100		
98	5.3	3.1	9.3
100	4.5	2.3	6.9

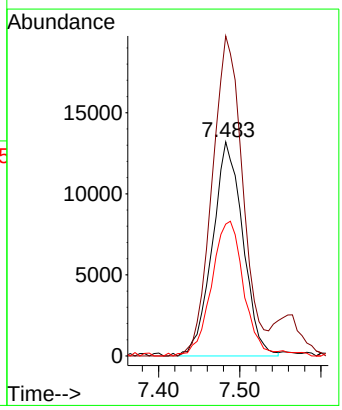


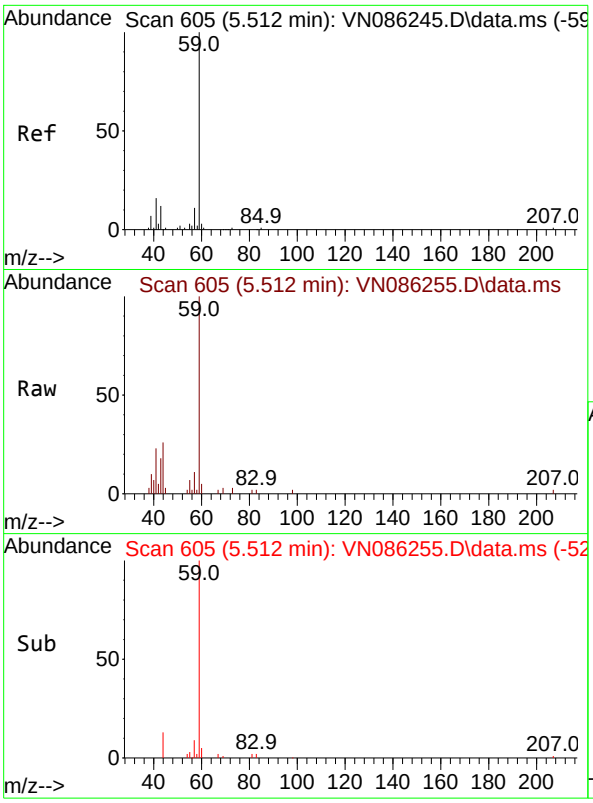


#22
cis-1,2-Dichloroethene
Concen: 19.057 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 96 Resp: 34384

Ion	Ratio	Lower	Upper
96	100		
61	150.8	119.5	179.3
98	62.9	51.0	76.6



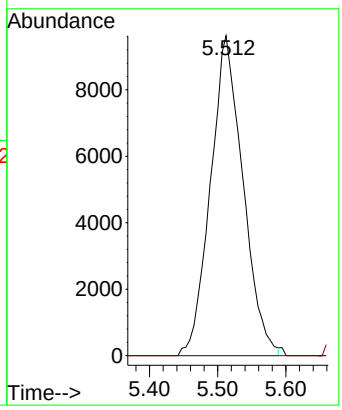


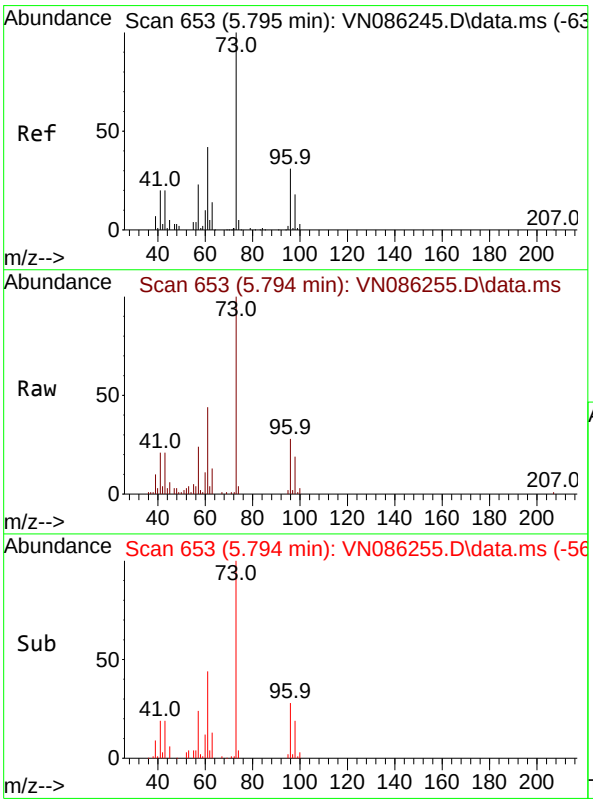
#23
tert-Butyl Alcohol
Concen: 89.739 ug/l
RT: 5.512 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 59 Resp: 31875

Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.0	0.0

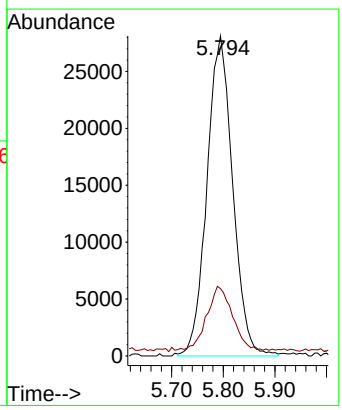


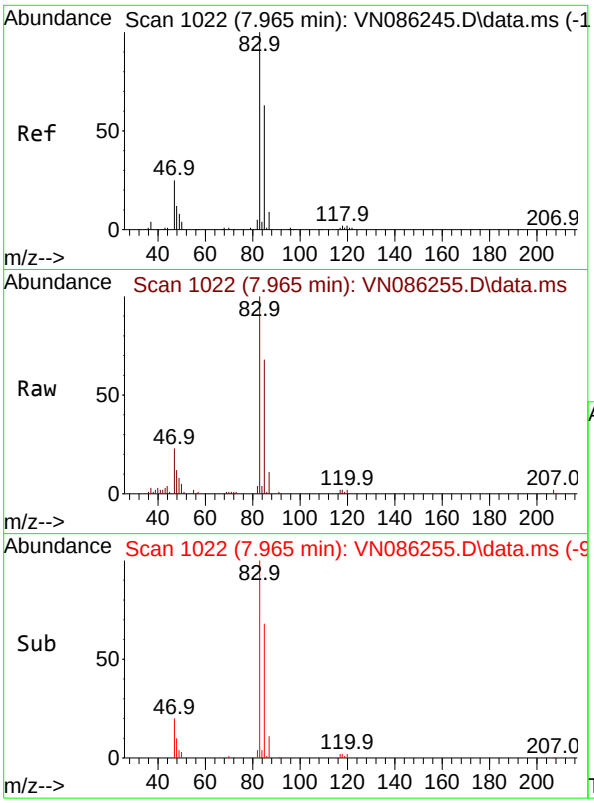


#24
Methyl tert-Butyl Ether
Concen: 18.777 ug/l
RT: 5.794 min Scan# 653
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 73 Resp: 97437

Ion	Ratio	Lower	Upper
73	100		
43	20.0	16.8	25.2



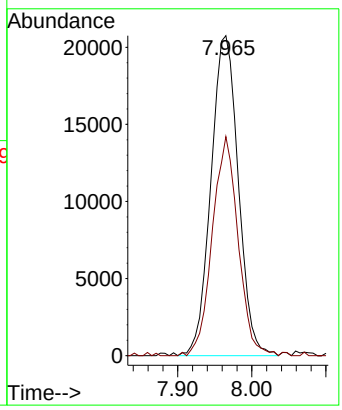


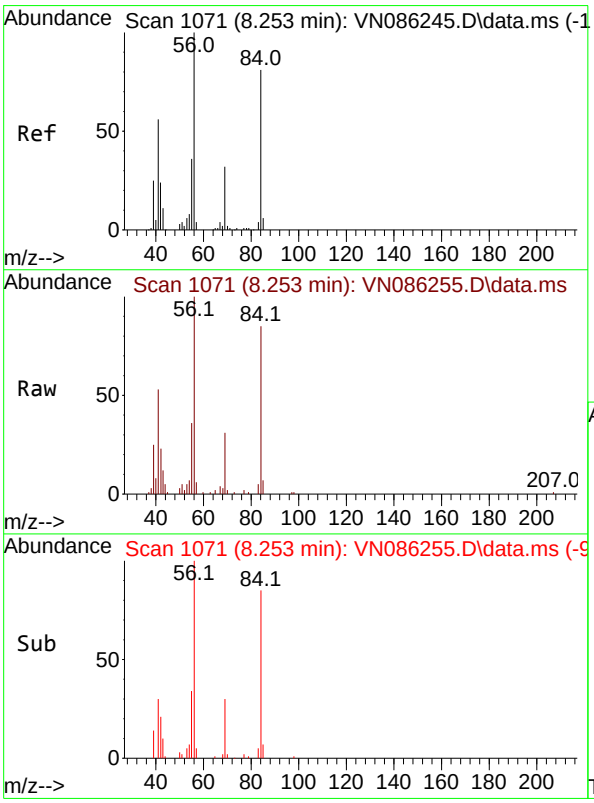
#25
Chloroform
Concen: 19.423 ug/l
RT: 7.965 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 83 Resp: 53242

Ion	Ratio	Lower	Upper
83	100		
85	68.5	50.5	75.7

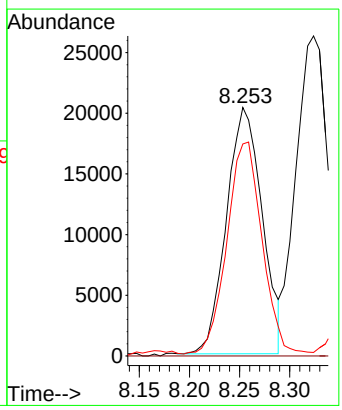


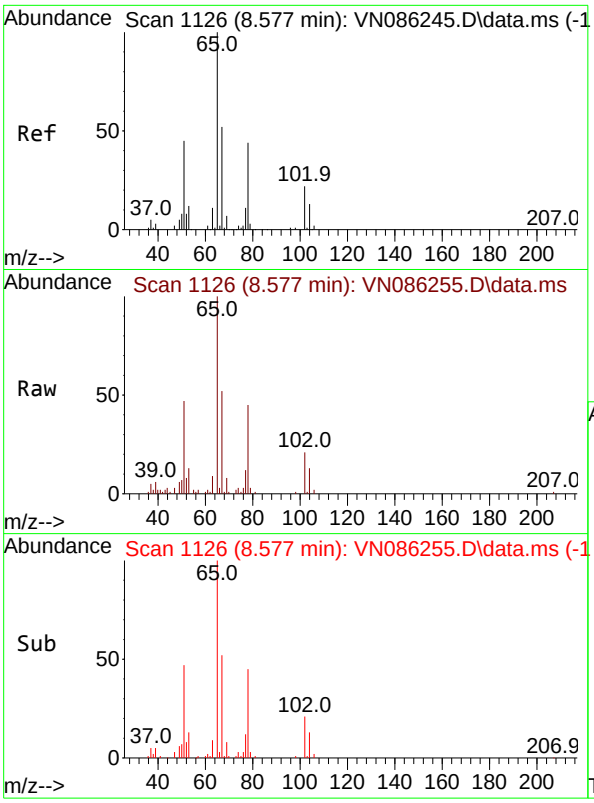


#26
Cyclohexane
Concen: 18.733 ug/l
RT: 8.253 min Scan# 1071
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 56 Resp: 50381

Ion	Ratio	Lower	Upper
56	100		
89	0.0	0.0	0.0
84	86.9	69.0	103.4



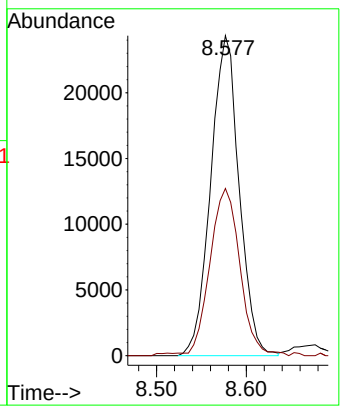


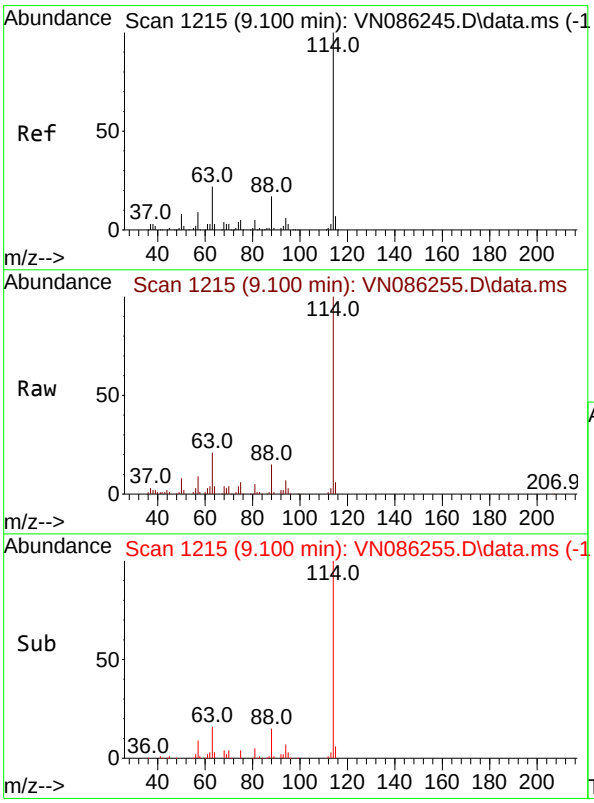
#27
1,2-Dichloroethane-d4
Concen: 29.085 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 65 Resp: 53571

Ion	Ratio	Lower	Upper
65	100		
67	54.5	43.4	65.2

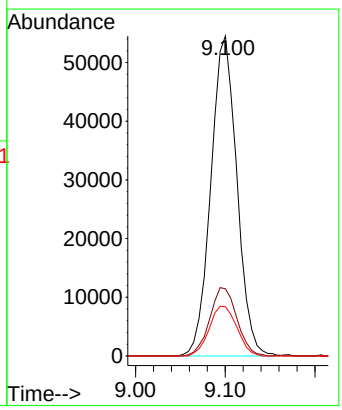


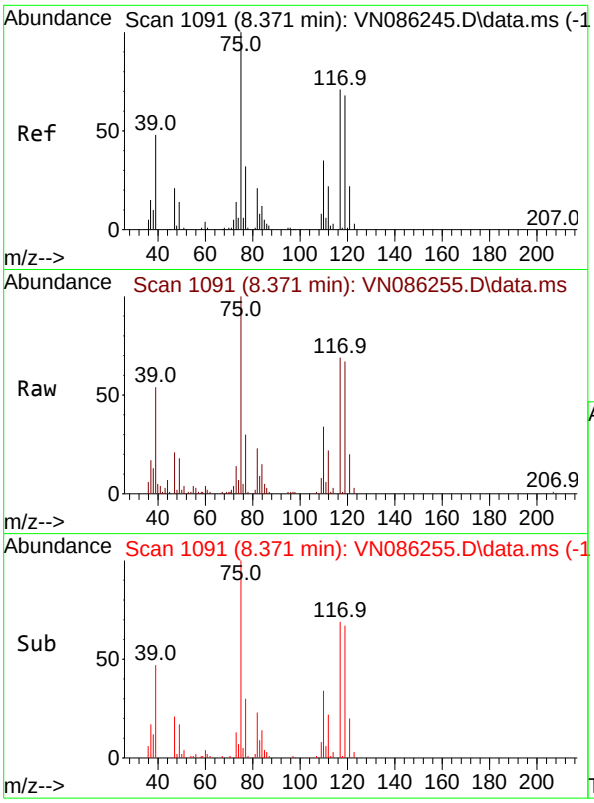


#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:114 Resp: 109876

Ion	Ratio	Lower	Upper
114	100		
63	22.3	17.8	26.6
88	16.5	13.4	20.2



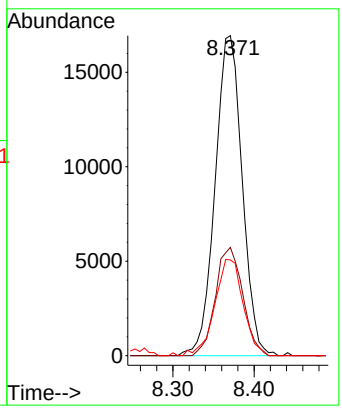


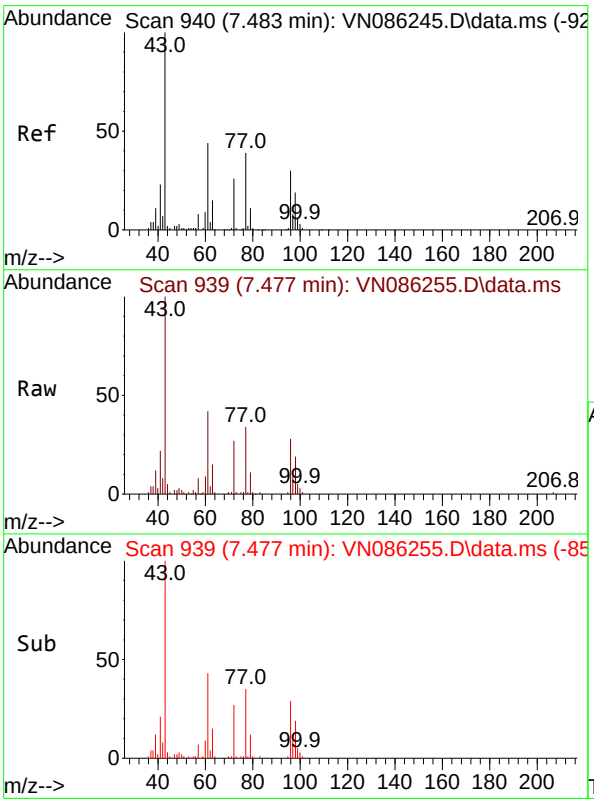
#29
1,1-Dichloropropene
Concen: 19.965 ug/l
RT: 8.371 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 75 Resp: 39298

Ion	Ratio	Lower	Upper
75	100		
110	34.1	0.0	68.6
77	31.5	0.0	63.8

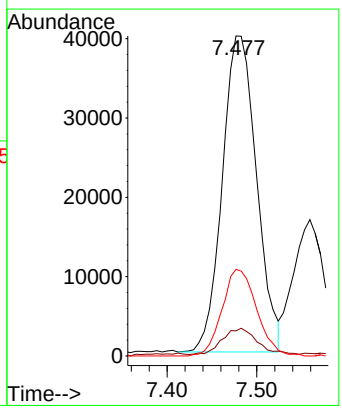


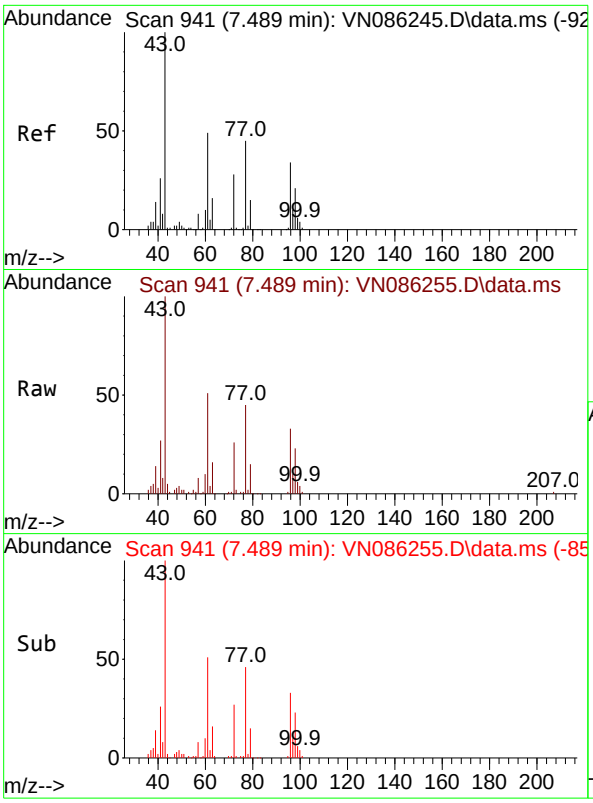


#30
2-Butanone
Concen: 96.889 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 105674

Ion	Ratio	Lower	Upper
43	100		
57	8.0	6.4	9.6
72	27.4	21.5	32.3



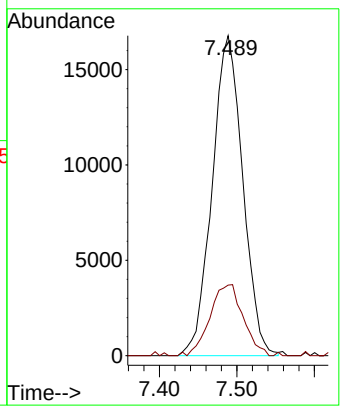


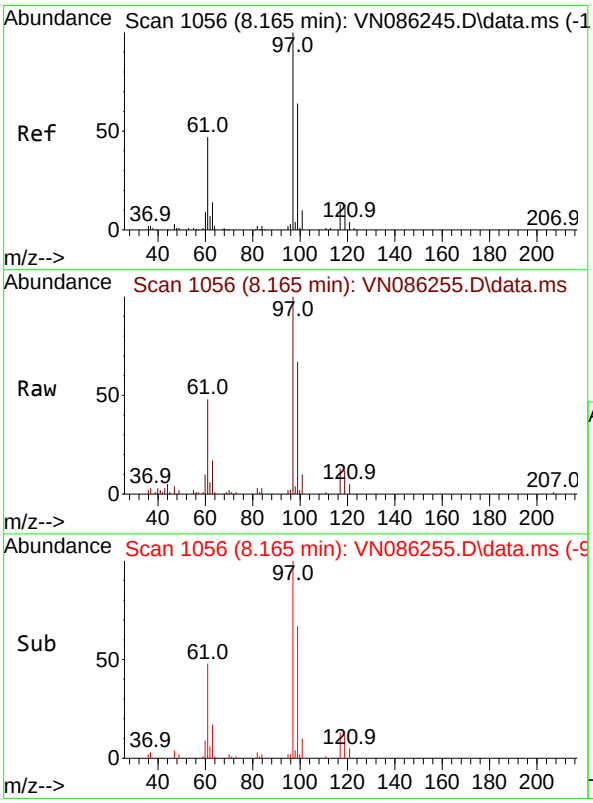
#31
2,2-Dichloropropane
Concen: 19.045 ug/l
RT: 7.489 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 77 Resp: 46144

Ion	Ratio	Lower	Upper
77	100		
97	23.9	18.8	28.2

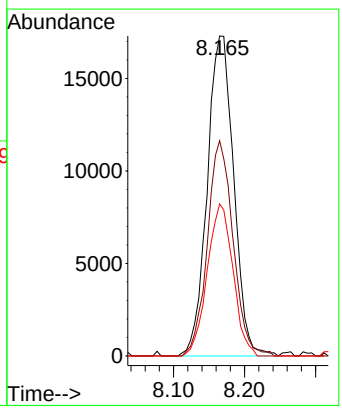


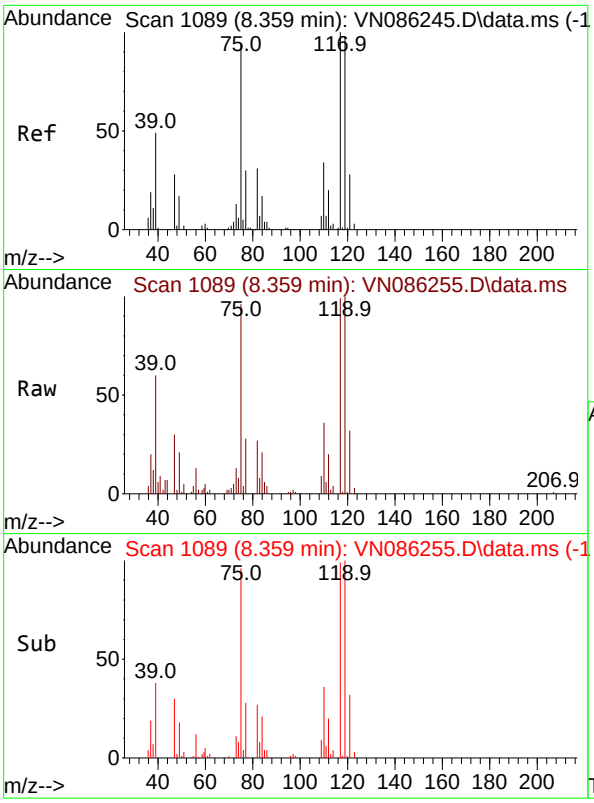


#32
1,1,1-Trichloroethane
Concen: 19.825 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 97 Resp: 44888

Ion	Ratio	Lower	Upper
97	100		
99	65.1	51.4	77.2
61	46.0	37.0	55.6



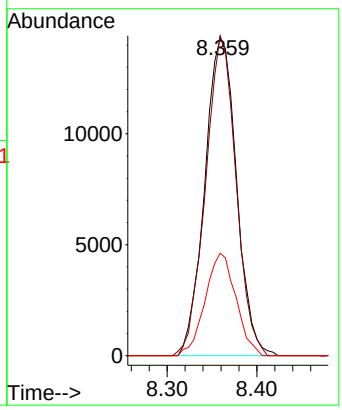


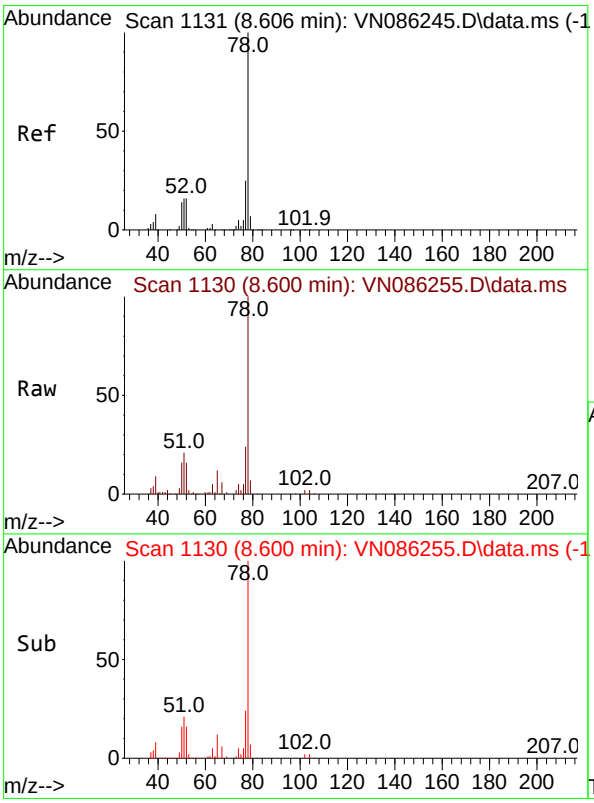
#33
Carbon Tetrachloride
Concen: 19.444 ug/l
RT: 8.359 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:117 Resp: 35183

Ion	Ratio	Lower	Upper
117	100		
119	100.7	78.3	117.5
121	32.2	22.5	33.7

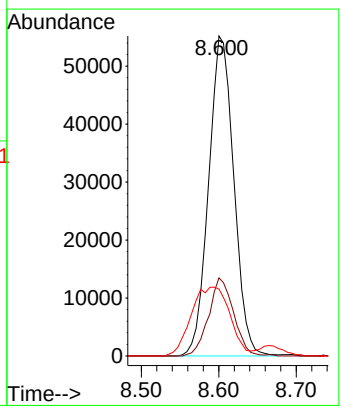


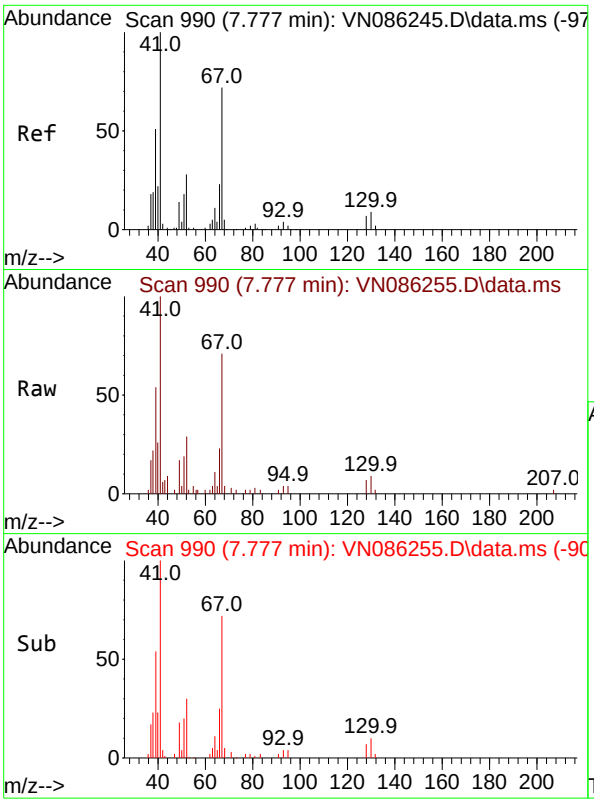


#34
Benzene
Concen: 19.909 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 78 Resp: 124673

Ion	Ratio	Lower	Upper
78	100		
77	24.4	20.0	30.0
51	18.5	12.9	19.3



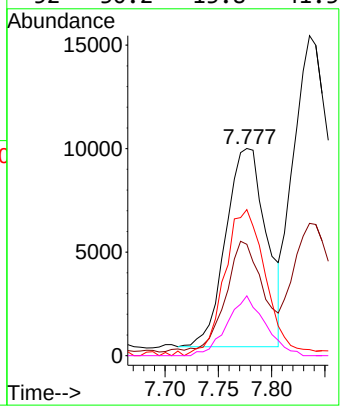


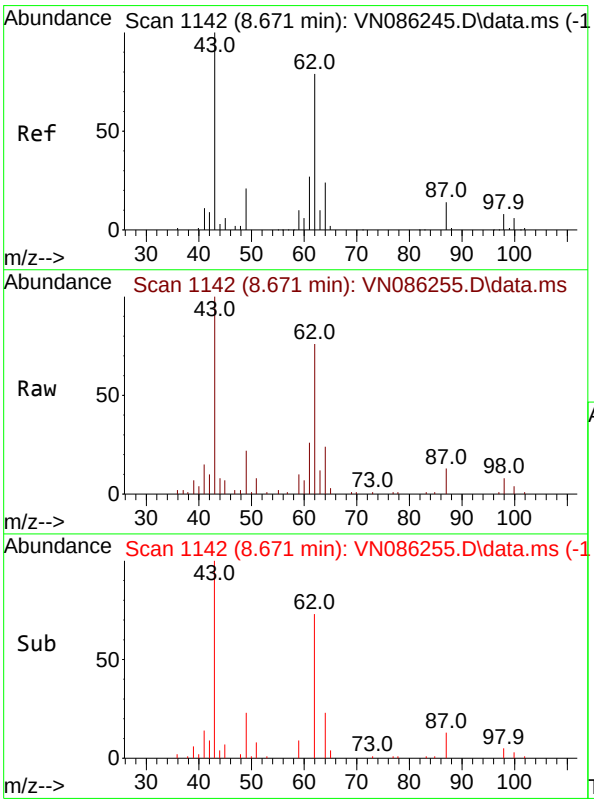
#35
Methacrylonitrile
Concen: 20.728 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 41 Resp: 25486

Ion	Ratio	Lower	Upper
41	100		
39	52.8	25.8	77.3
67	71.4	36.0	108.0
52	30.2	13.8	41.3

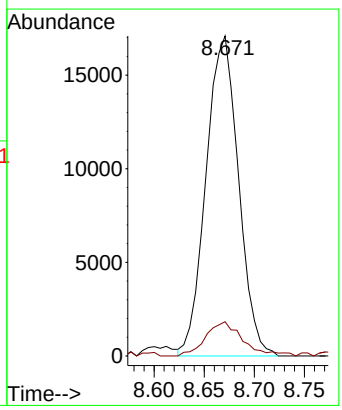


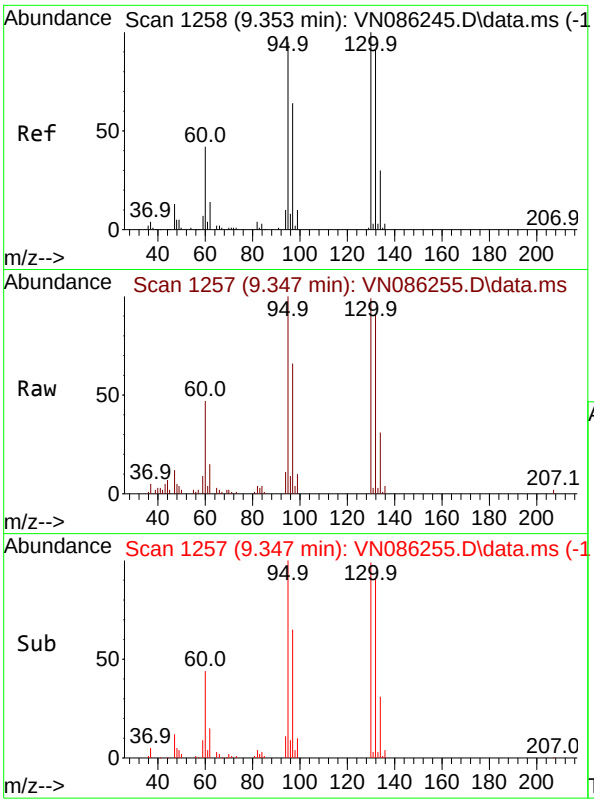


#36
1,2-Dichloroethane
Concen: 19.705 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 62 Resp: 38614

Ion	Ratio	Lower	Upper
62	100		
98	11.9	8.6	12.8



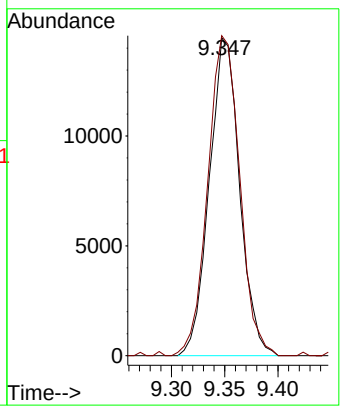


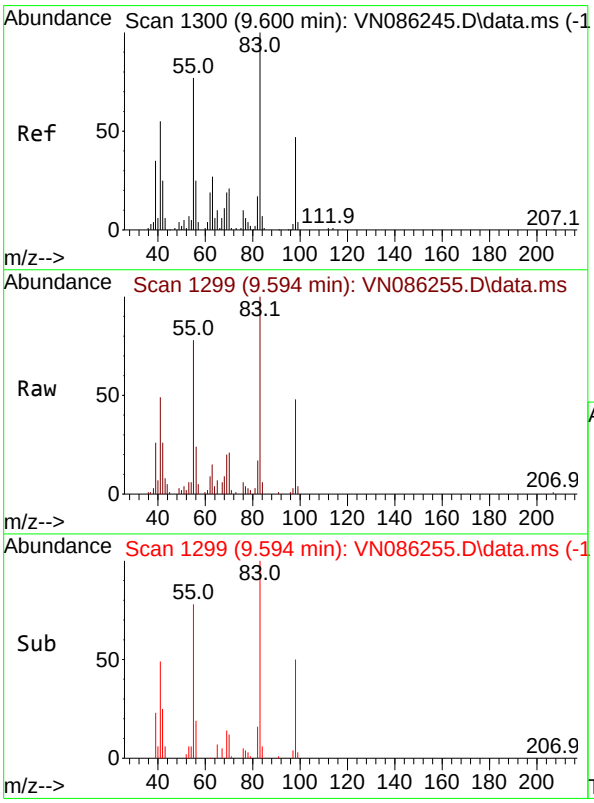
#37
Trichloroethene
Concen: 18.904 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:130 Resp: 28562

Ion	Ratio	Lower	Upper
130	100		
95	100.7	76.4	114.6

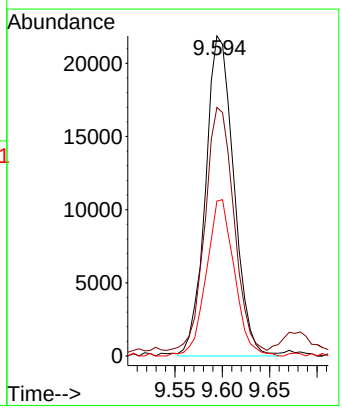


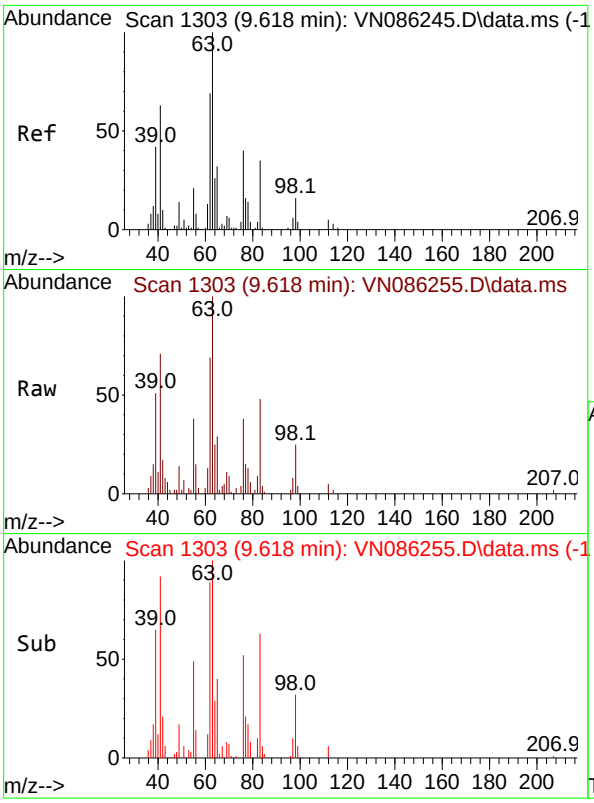


#38
Methylcyclohexane
Concen: 18.901 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 83 Resp: 45627

Ion	Ratio	Lower	Upper
83	100		
55	77.7	38.5	115.5
98	48.0	24.4	73.2



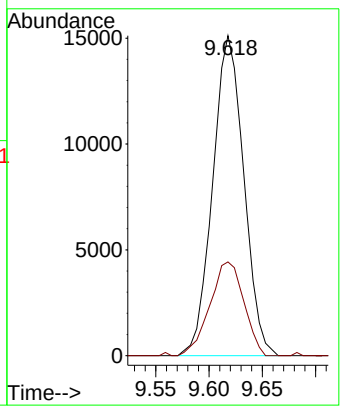


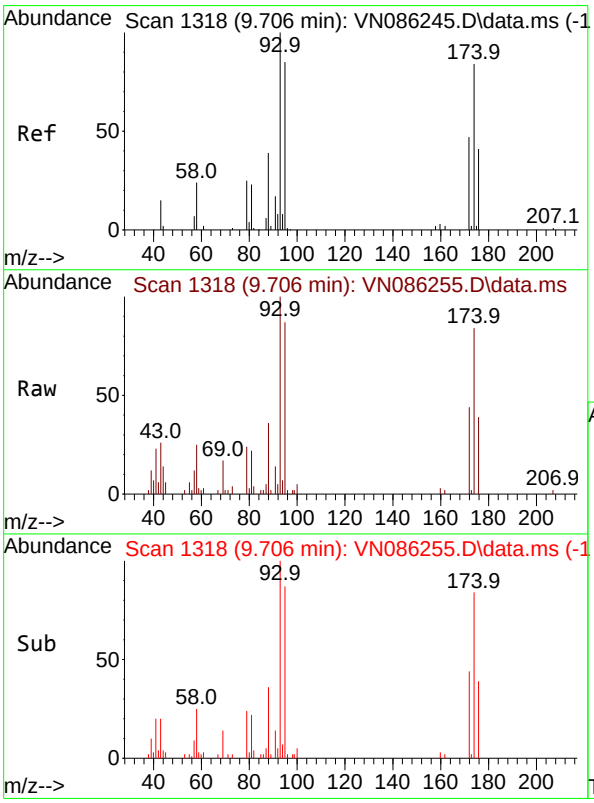
#39
1,2-Dichloropropane
Concen: 19.693 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 63 Resp: 30685

Ion	Ratio	Lower	Upper
63	100		
65	29.3	26.0	39.0

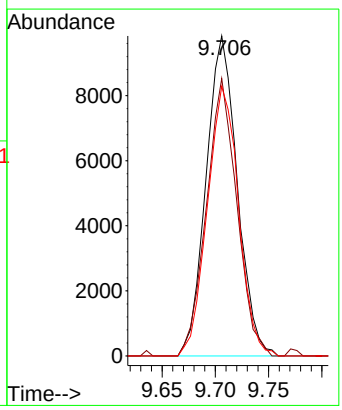


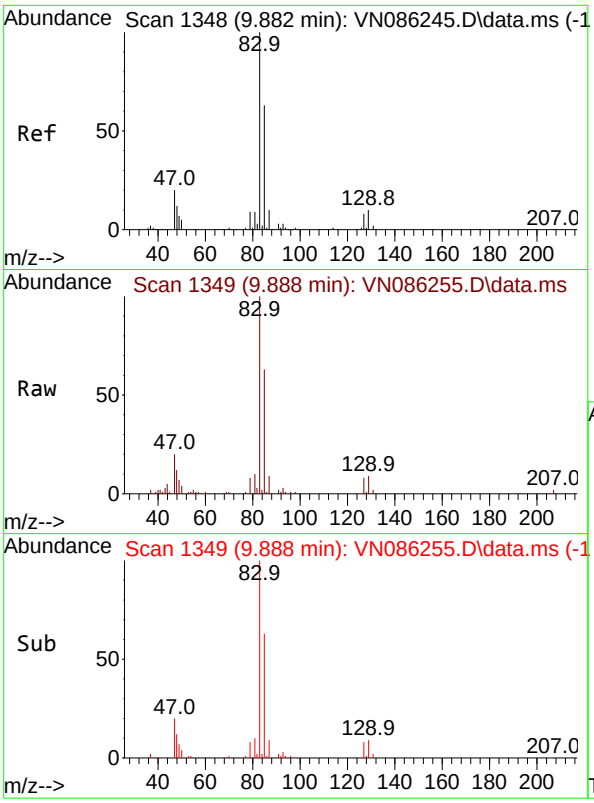


#40
Dibromomethane
Concen: 19.875 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 93 Resp: 20002

Ion	Ratio	Lower	Upper
93	100		
95	84.4	0.0	169.0
174	84.5	0.0	168.0



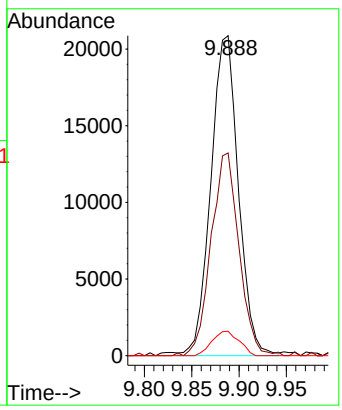


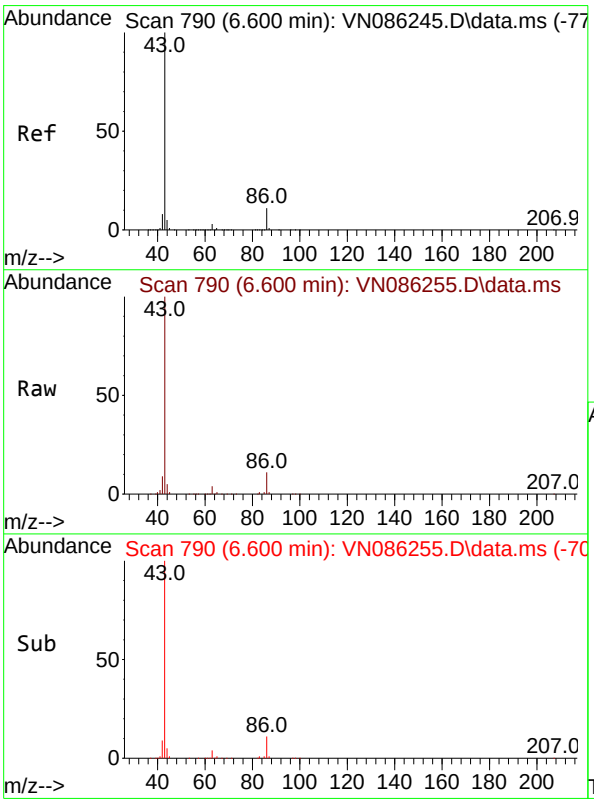
#41
Bromodichloromethane
Concen: 19.539 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 83 Resp: 42242

Ion	Ratio	Lower	Upper
83	100		
85	63.0	50.2	75.2
127	7.7	6.2	9.4

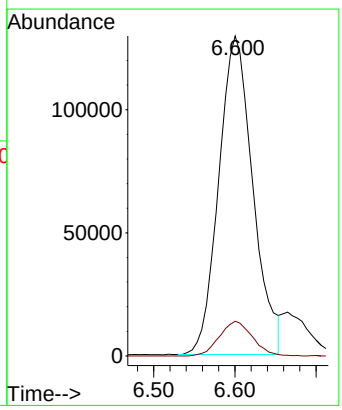


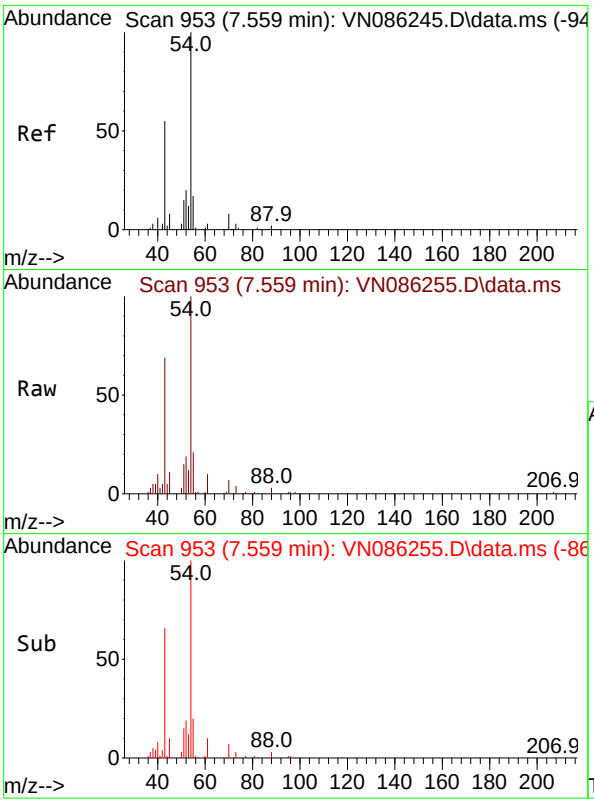


#42
Vinyl Acetate
Concen: 101.896 ug/l
RT: 6.600 min Scan# 790
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 378299

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.4	12.6



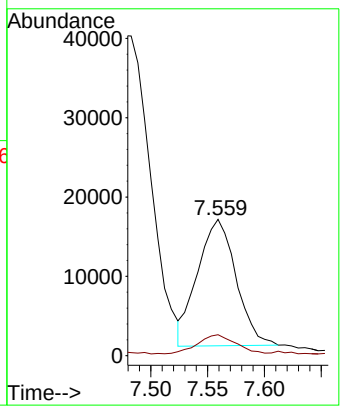


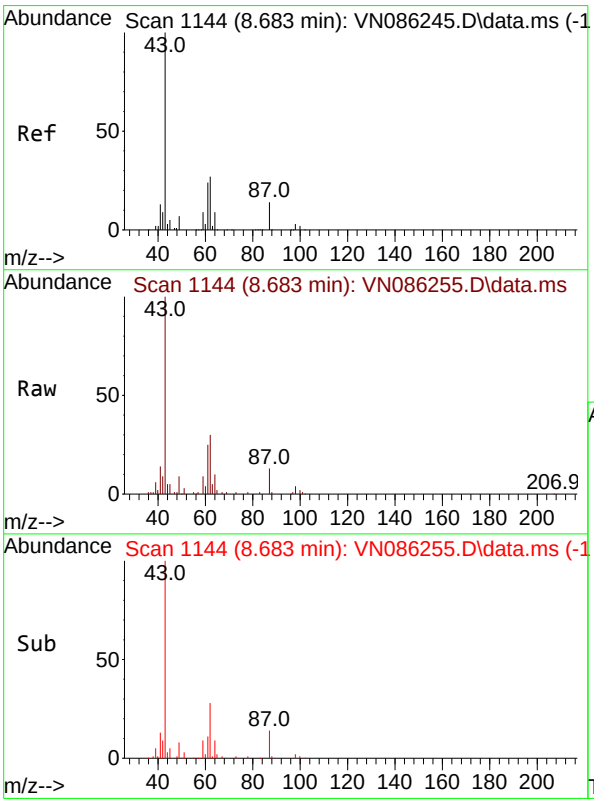
#43
Ethyl Acetate
Concen: 17.072 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 43 Resp: 37557

Ion	Ratio	Lower	Upper
43	100		
45	16.9	11.2	16.8#

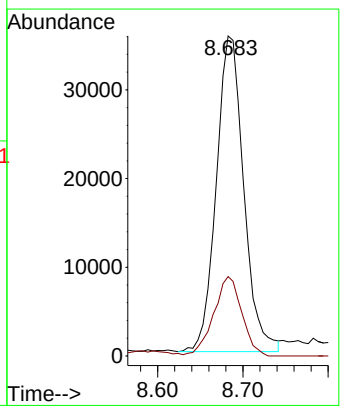


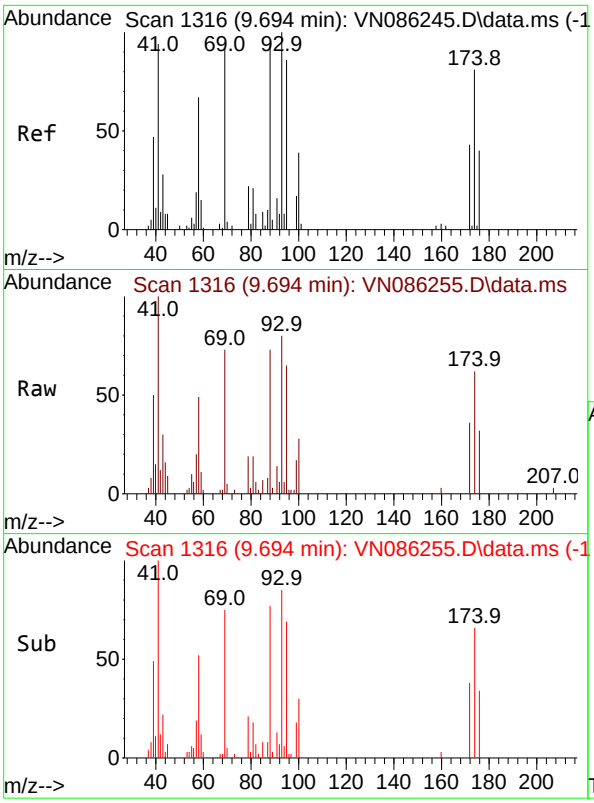


#44
Isopropyl Acetate
Concen: 19.518 ug/l
RT: 8.683 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 79656

Ion	Ratio	Lower	Upper
43	100		
61	25.7	20.5	30.7



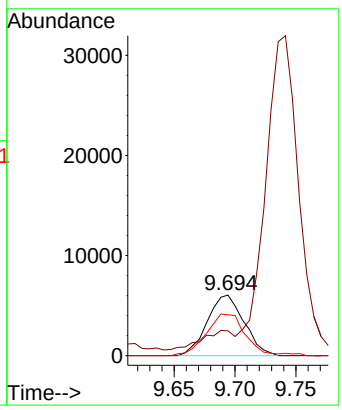


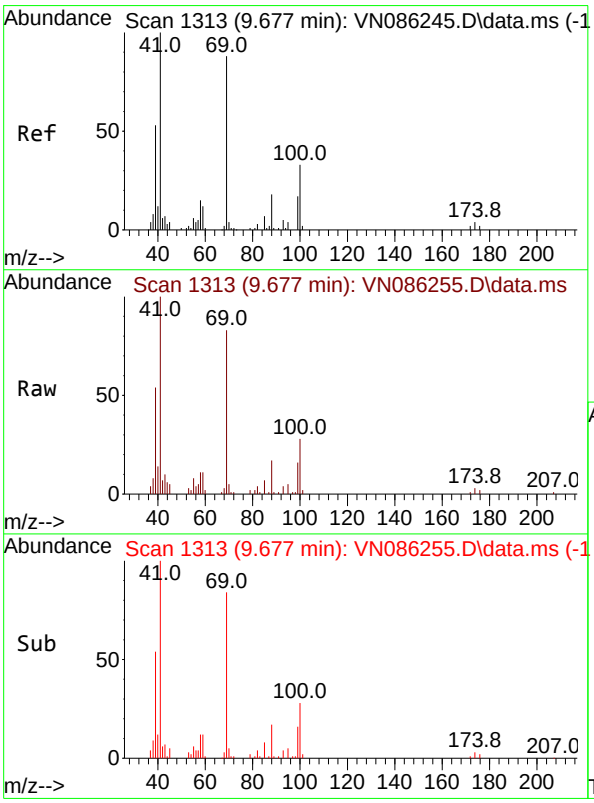
#45
1,4-Dioxane
Concen: 392.047 ug/l
RT: 9.694 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 88 Resp: 12723

Ion	Ratio	Lower	Upper
88	100		
43	28.1	14.4	21.6#
58	72.3	59.8	89.8

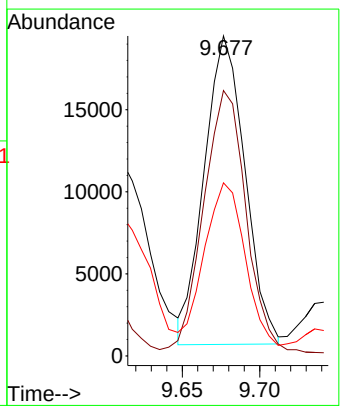


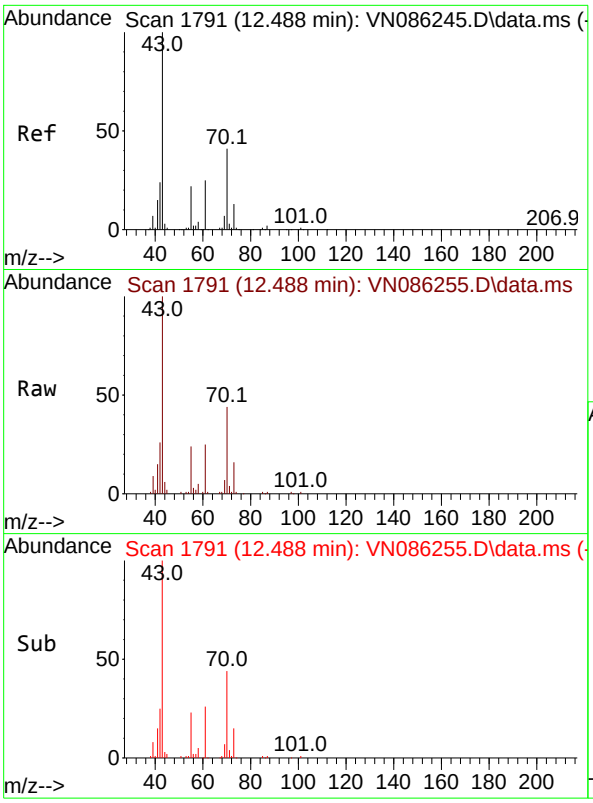


#46
Methyl methacrylate
Concen: 19.067 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 41 Resp: 34286

Ion	Ratio	Lower	Upper
41	100		
69	84.2	43.2	129.6
39	54.0	26.4	79.0



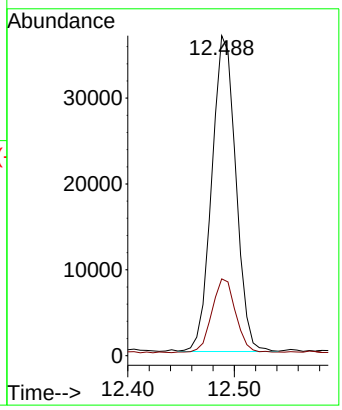


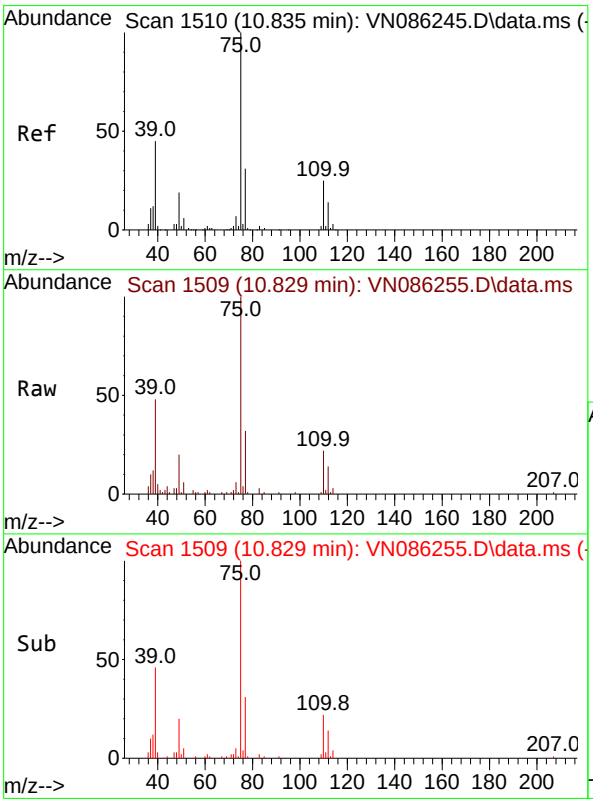
#47
n-amyl Acetate
Concen: 17.812 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 43 Resp: 57635

Ion	Ratio	Lower	Upper
43	100		
55	23.2	19.0	28.4

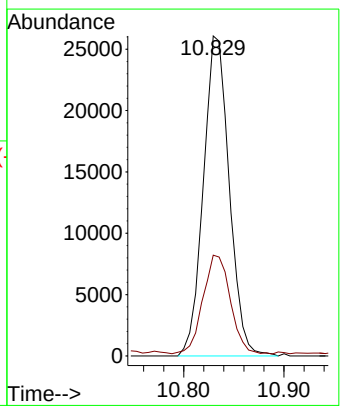


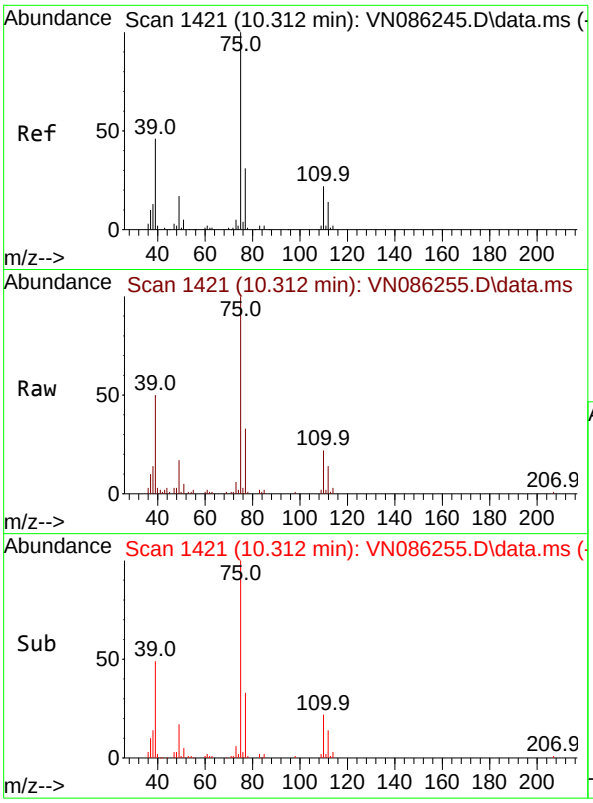


#48
t-1,3-Dichloropropene
Concen: 19.149 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 46804

Ion	Ratio	Lower	Upper
75	100		
77	30.4	25.1	37.7



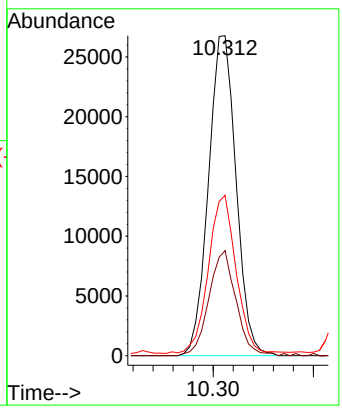


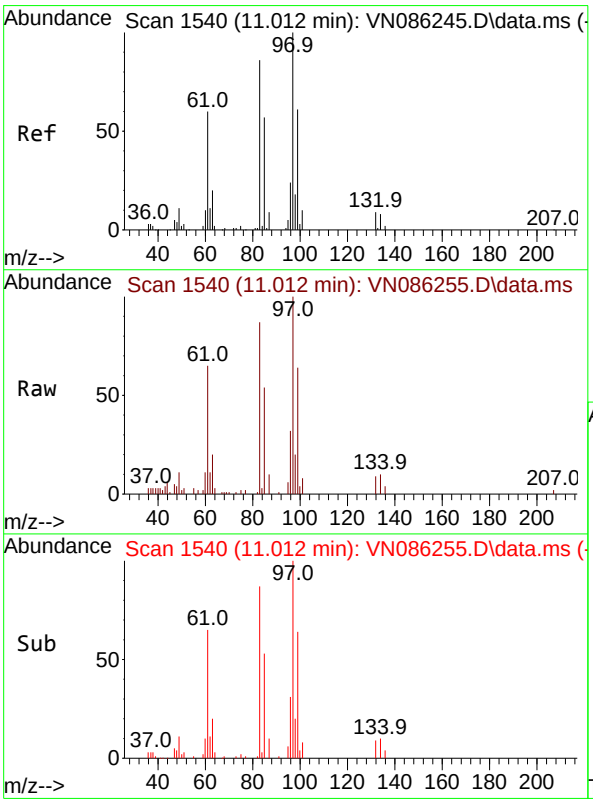
#49
cis-1,3-Dichloropropene
Concen: 19.814 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 75 Resp: 51256

Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.0	37.4
39	49.2	36.7	55.1

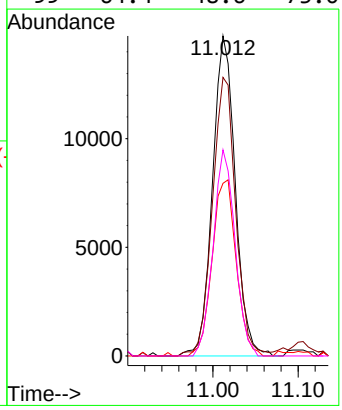


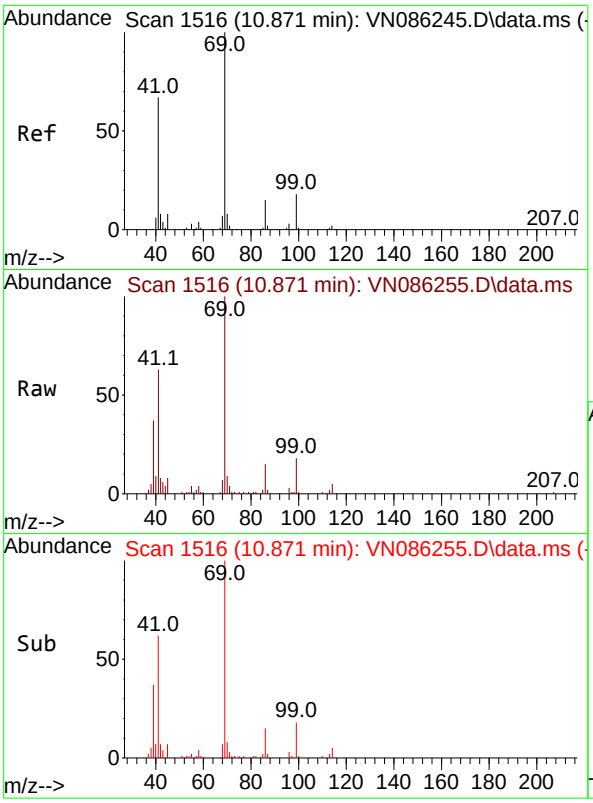


#50
1,1,2-Trichloroethane
Concen: 19.319 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 97 Resp: 27268

Ion	Ratio	Lower	Upper
97	100		
83	87.0	68.6	103.0
85	54.0	45.9	68.9
99	64.4	48.6	73.0



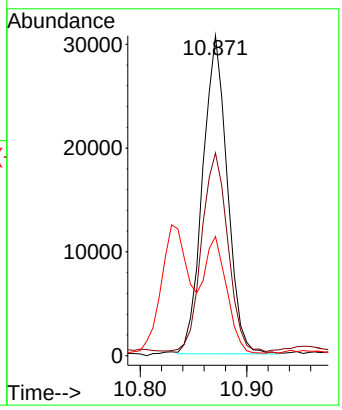


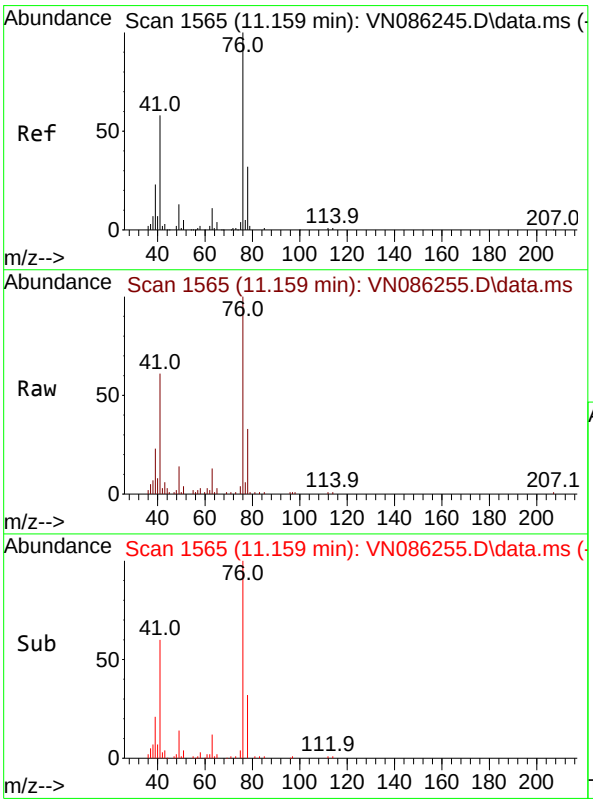
#51
Ethyl methacrylate
Concen: 18.768 ug/l
RT: 10.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 69 Resp: 49228

Ion	Ratio	Lower	Upper
69	100		
41	62.0	33.6	100.6
39	36.8	17.8	53.4

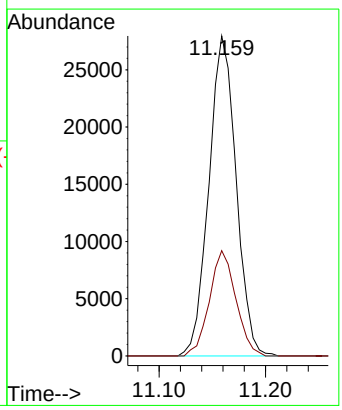


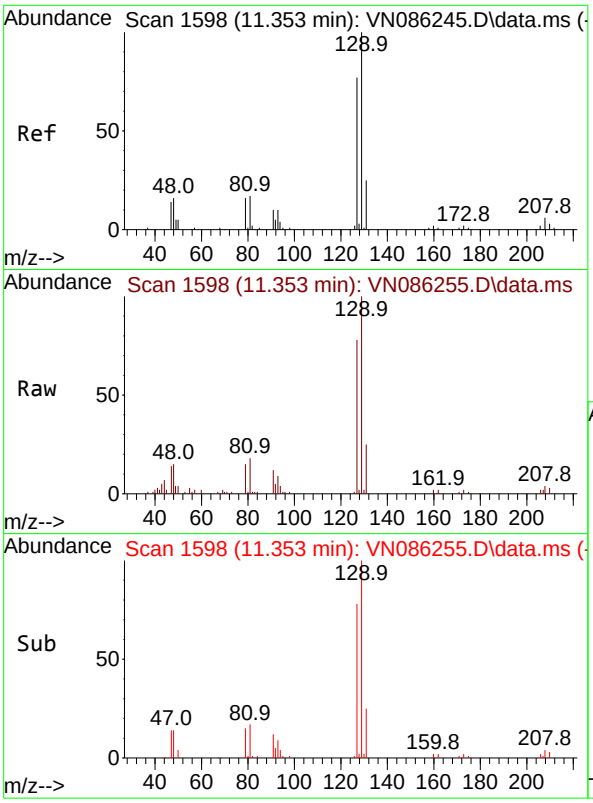


#52
1,3-Dichloropropane
Concen: 19.740 ug/l
RT: 11.159 min Scan# 1565
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 76 Resp: 49662

Ion	Ratio	Lower	Upper
76	100		
78	32.0	0.0	64.6



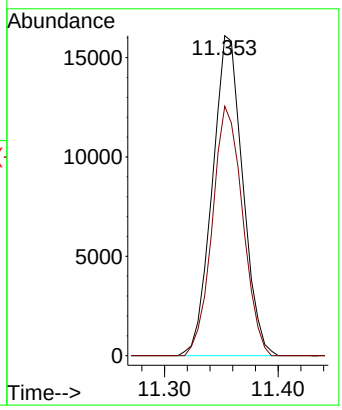


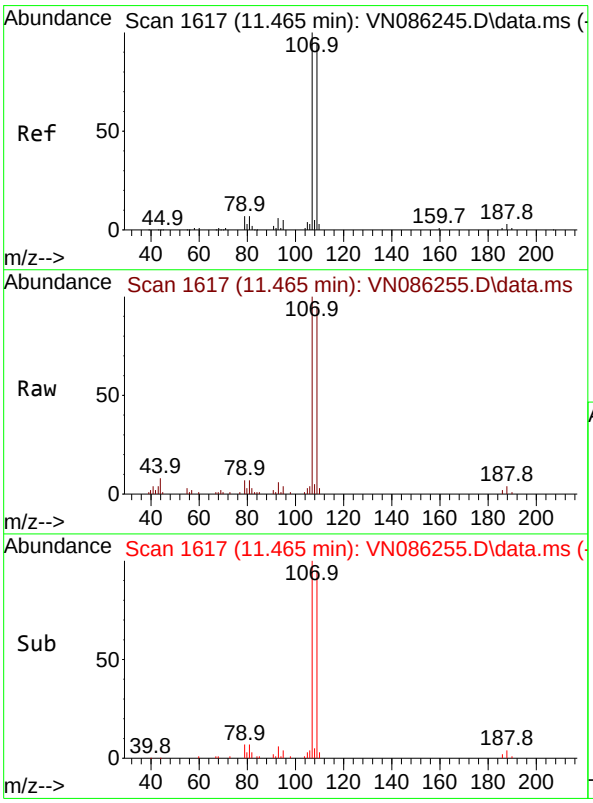
#53
Dibromochloromethane
Concen: 19.406 ug/l
RT: 11.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:129 Resp: 29962

Ion	Ratio	Lower	Upper
129	100		
127	77.7	38.5	115.5

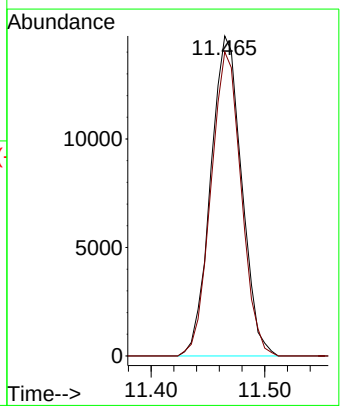


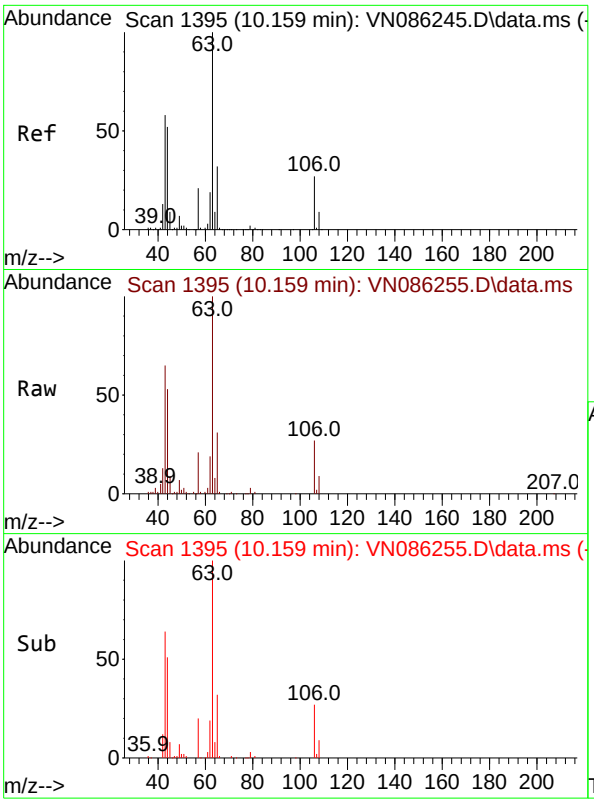


#54
1,2-Dibromoethane
Concen: 19.603 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:107 Resp: 27931

Ion	Ratio	Lower	Upper
107	100		
109	92.9	75.2	112.8



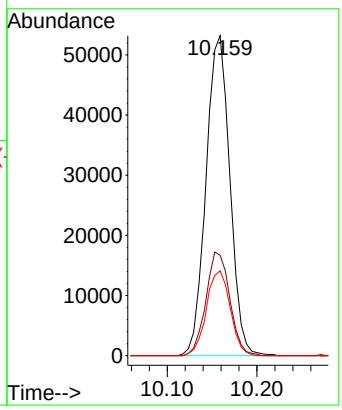


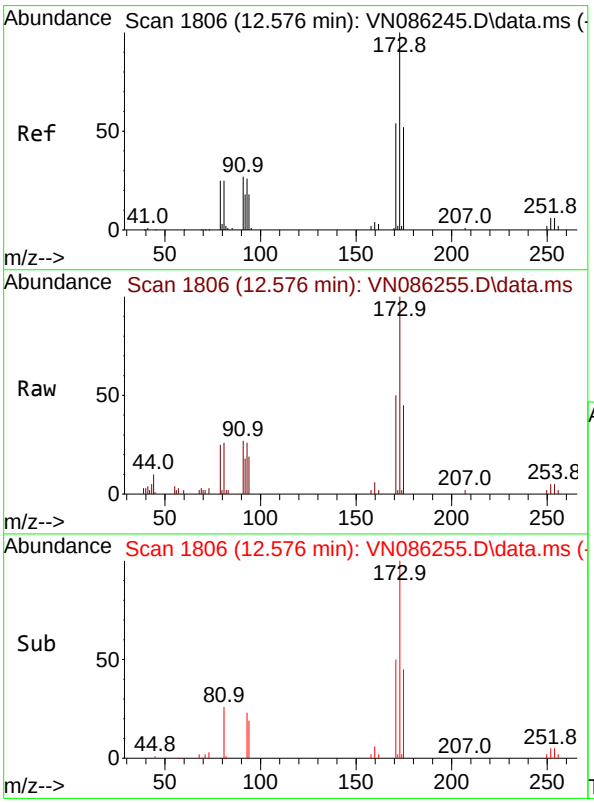
#55
2-Chloroethyl vinyl ether
Concen: 99.189 ug/l
RT: 10.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 63 Resp: 98312

Ion	Ratio	Lower	Upper
63	100		
65	32.4	25.8	38.8
106	26.4	21.8	32.8

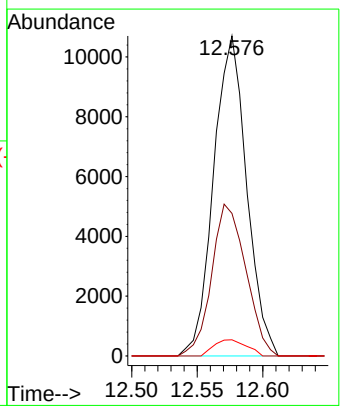


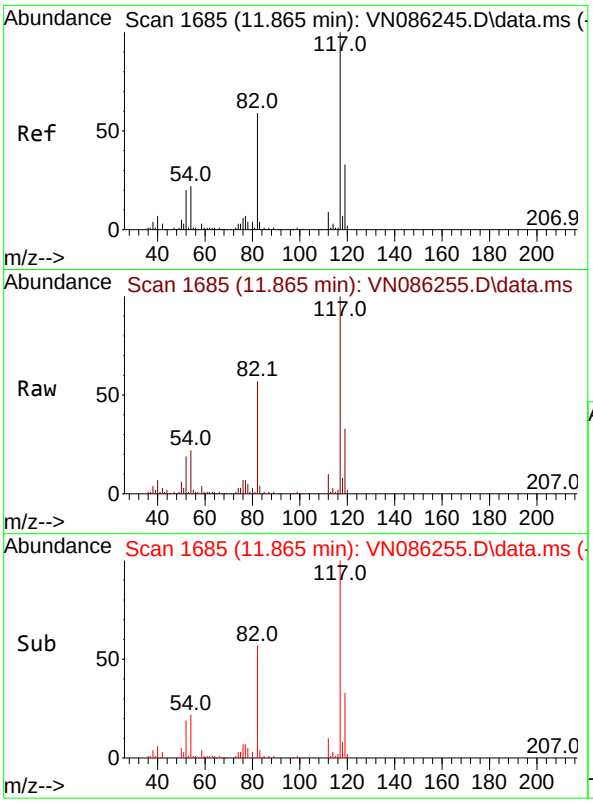


#56
Bromoform
Concen: 18.566 ug/l
RT: 12.576 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:173 Resp: 18754

Ion	Ratio	Lower	Upper
173	100		
175	49.1	38.2	57.4
254	5.0	4.5	6.7



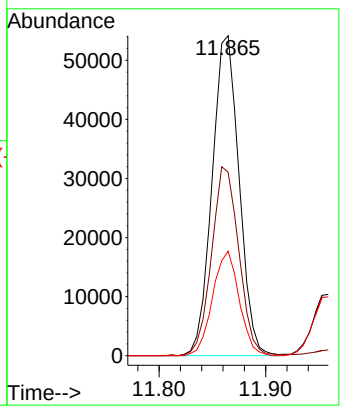


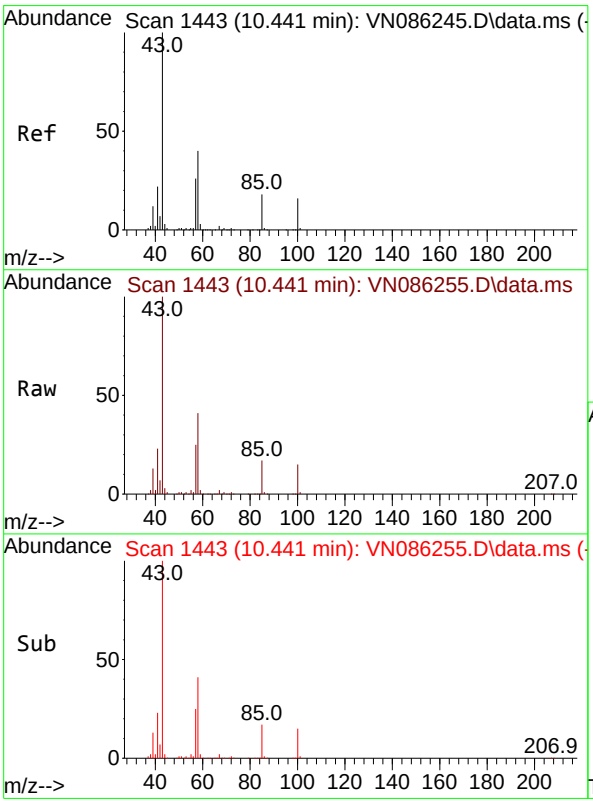
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:117 Resp: 95362

Ion	Ratio	Lower	Upper
117	100		
82	59.6	47.3	70.9
119	32.2	25.9	38.9

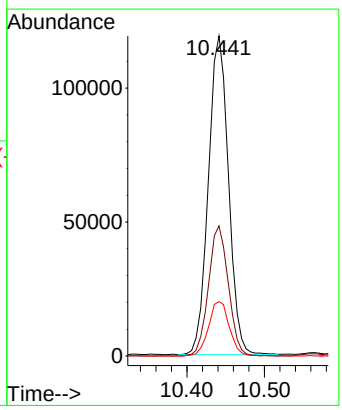


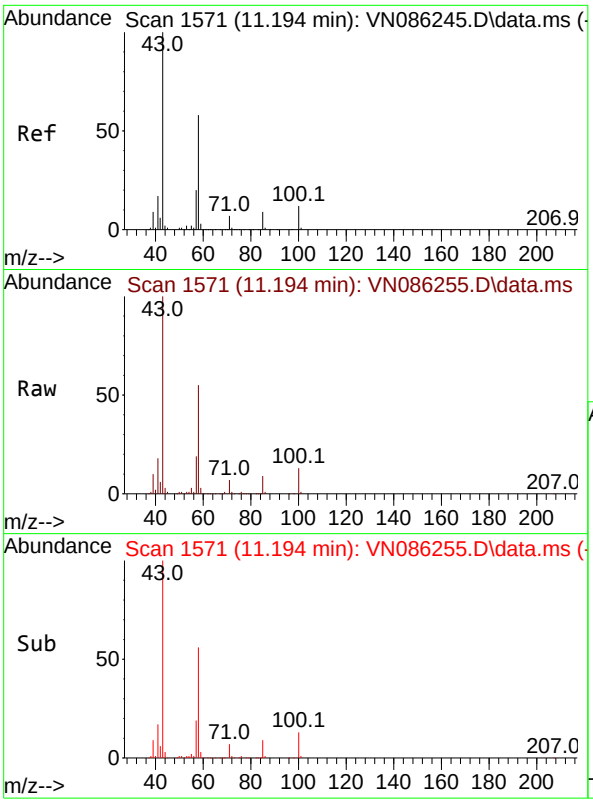


#58
4-Methyl-2-Pentanone
Concen: 99.184 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 43 Resp: 214641

Ion	Ratio	Lower	Upper
43	100		
58	40.3	32.5	48.7
85	17.5	14.4	21.6



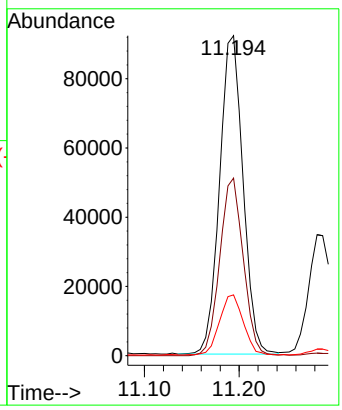


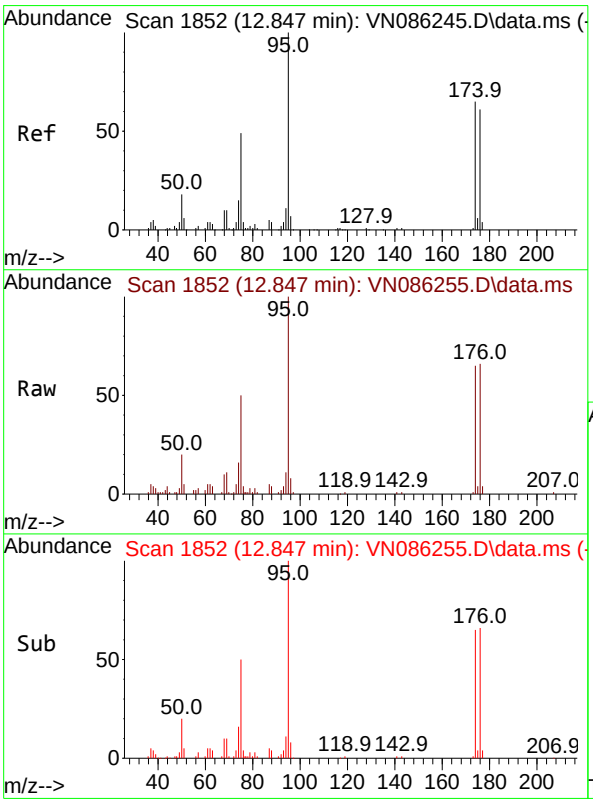
#59
2-Hexanone
Concen: 98.104 ug/l
RT: 11.194 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 43 Resp: 158086

Ion	Ratio	Lower	Upper
43	100		
58	55.9	45.3	67.9
57	19.1	15.8	23.6

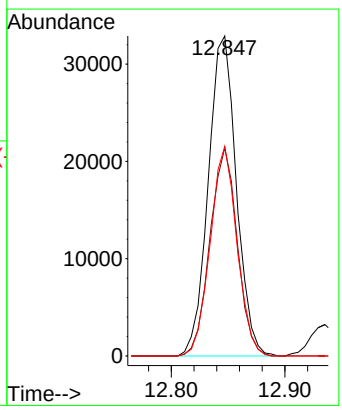


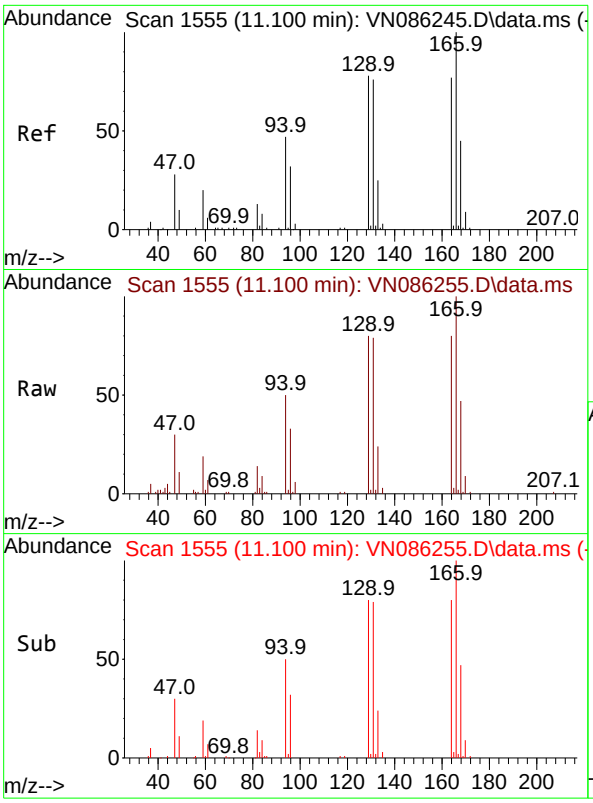


#60
4-Bromofluorobenzene
Concen: 29.786 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 95 Resp: 56553

Ion	Ratio	Lower	Upper
95	100		
174	63.1	52.7	79.1
176	62.3	49.8	74.8



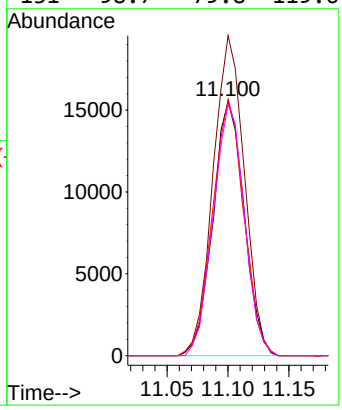


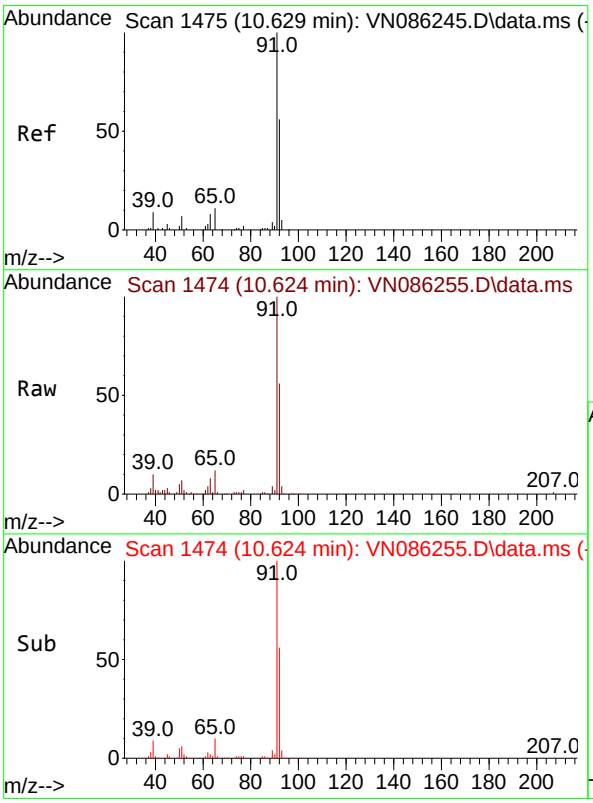
#61
Tetrachloroethene
Concen: 19.697 ug/l
RT: 11.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:164 Resp: 27738

Ion	Ratio	Lower	Upper
164	100		
166	125.7	104.5	156.7
129	100.7	81.7	122.5
131	98.7	79.8	119.6

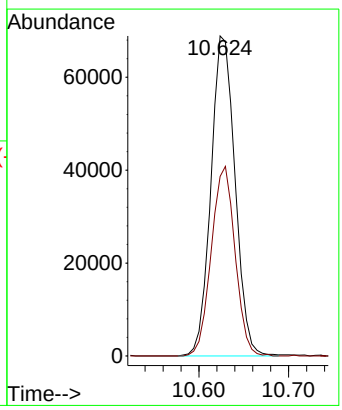


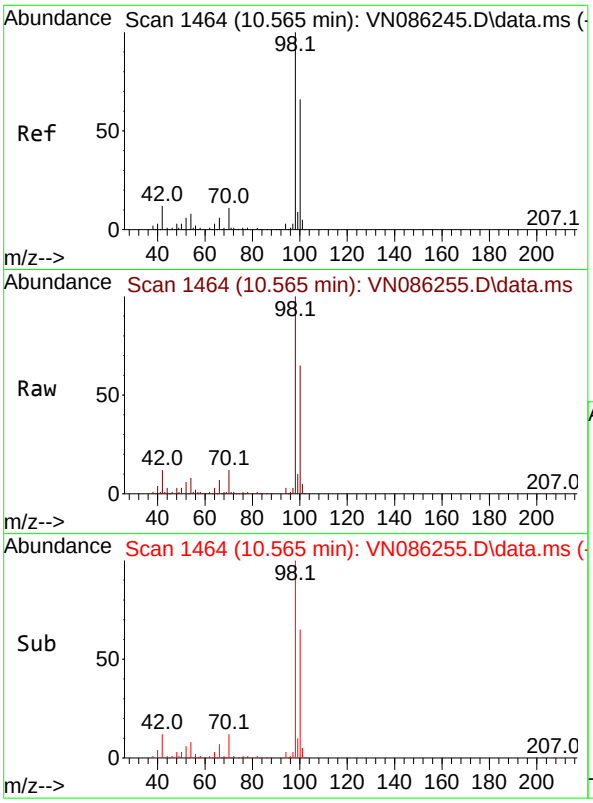


#62
Toluene
Concen: 20.118 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 128682

Ion	Ratio	Lower	Upper
91	100		
92	58.2	46.8	70.2



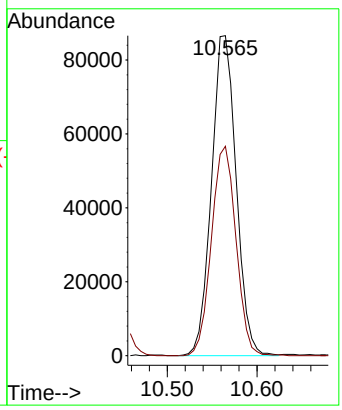


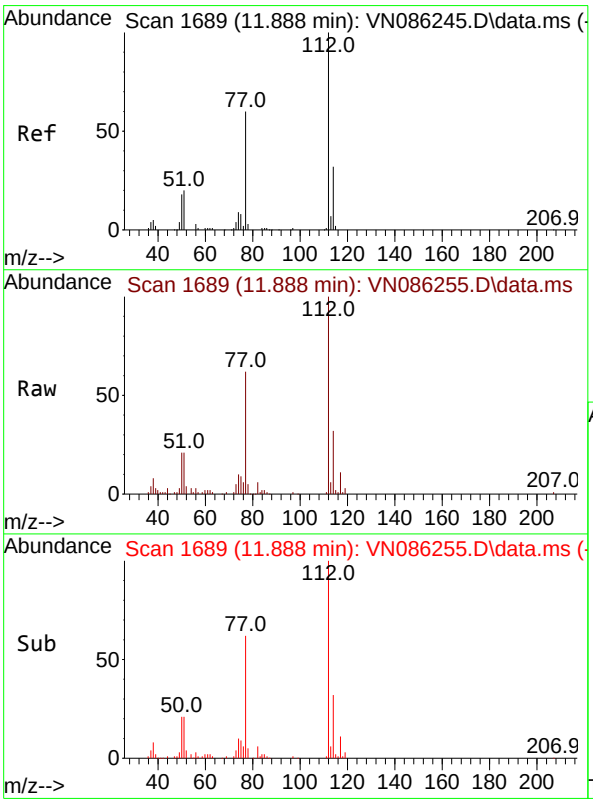
#63
Toluene-d8
Concen: 30.752 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 98 Resp: 165558

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.3	78.5

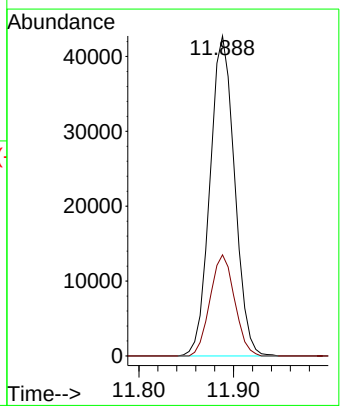


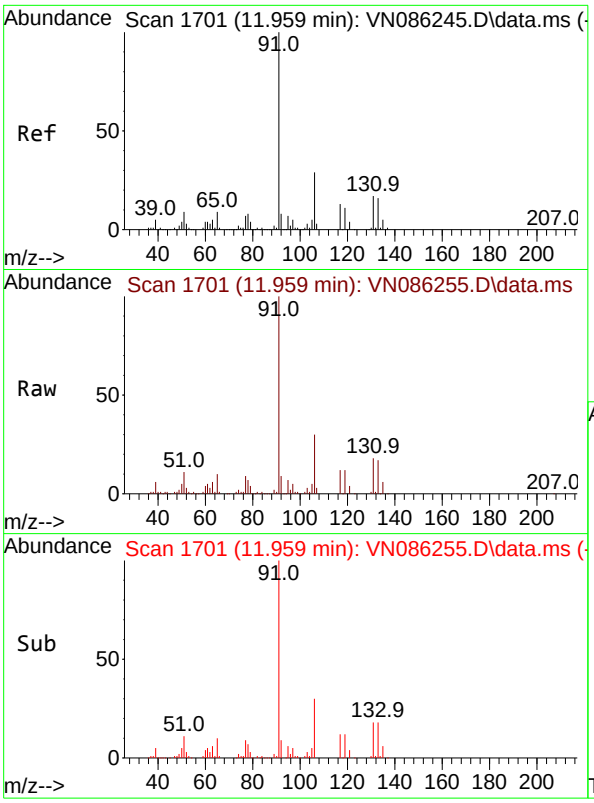


#64
Chlorobenzene
Concen: 19.736 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:112 Resp: 77123

Ion	Ratio	Lower	Upper
112	100		
114	31.6	25.8	38.6



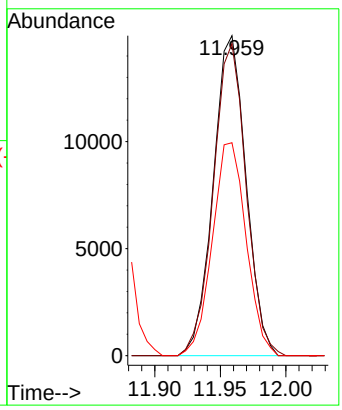


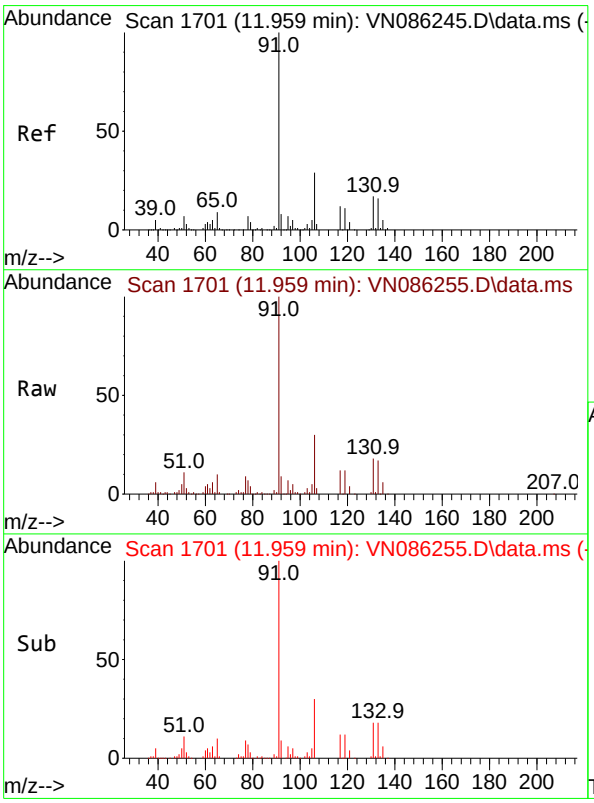
#65
1,1,1,2-Tetrachloroethane
Concen: 20.177 ug/l
RT: 11.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:131 Resp: 26021

Ion	Ratio	Lower	Upper
131	100		
133	97.4	0.0	190.4
119	68.5	0.0	135.6

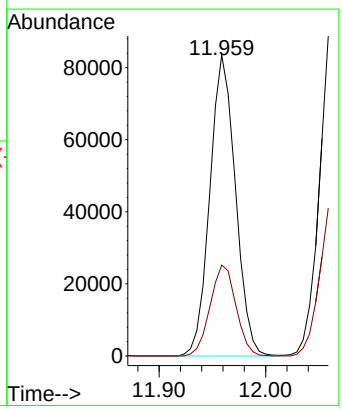


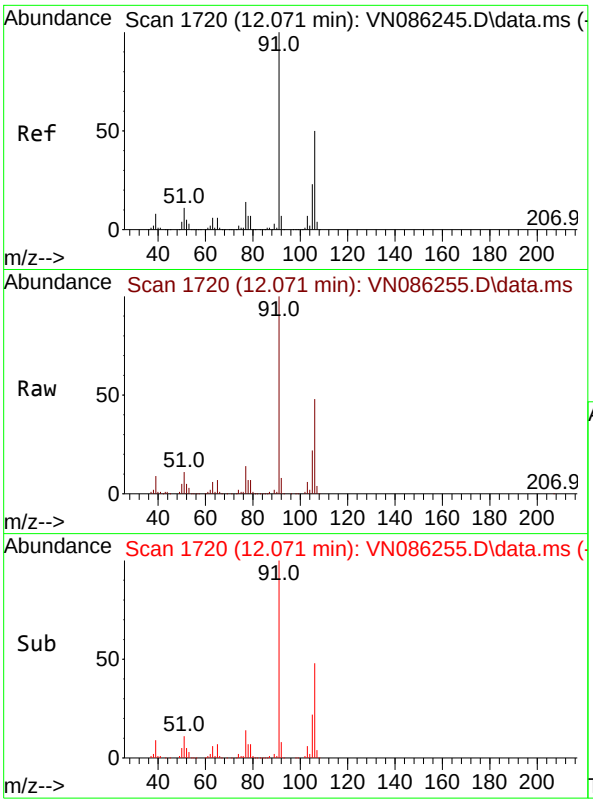


#66
Ethyl Benzene
Concen: 19.639 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 139309

Ion	Ratio	Lower	Upper
91	100		
106	30.2	23.4	35.0



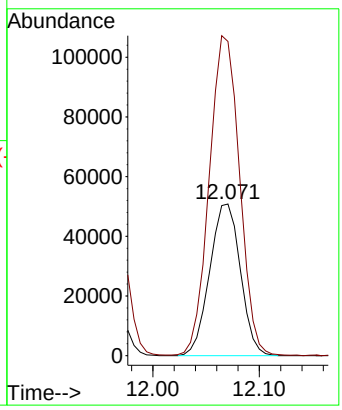


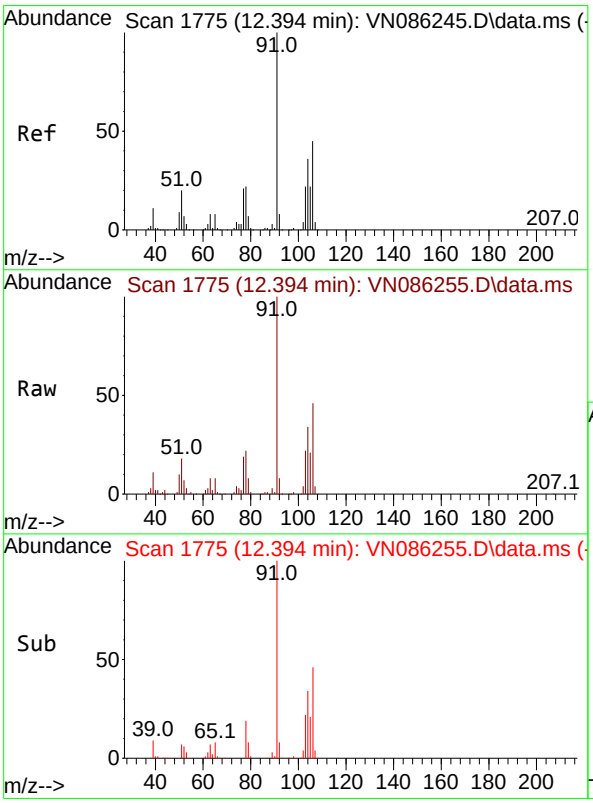
#67
m/p-Xylenes
Concen: 38.563 ug/l
RT: 12.071 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:106 Resp: 101714

Ion	Ratio	Lower	Upper
106	100		
91	208.9	164.5	246.7

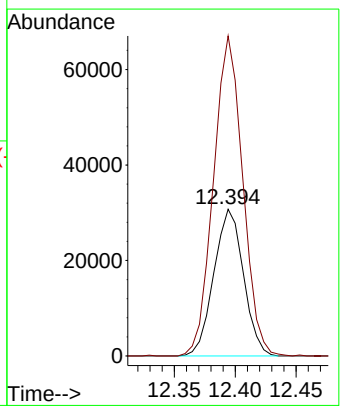


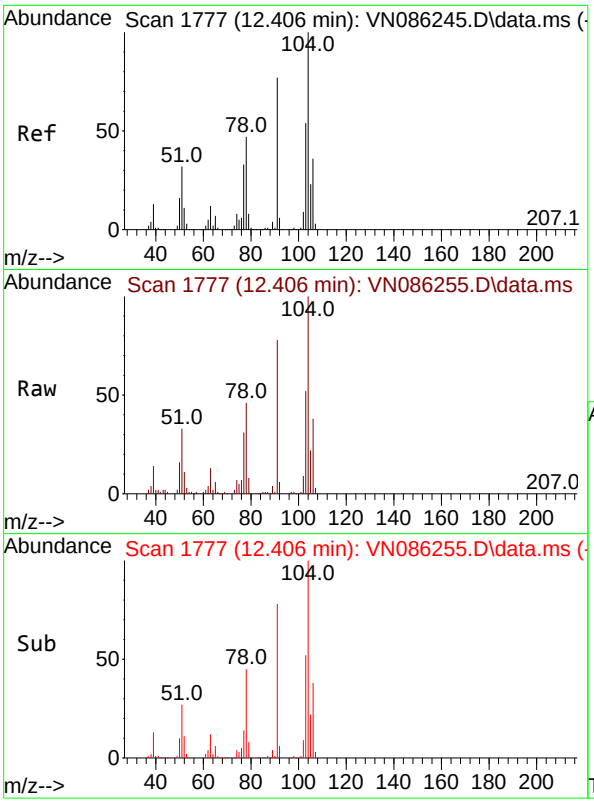


#68
o-Xylene
Concen: 20.058 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:106 Resp: 52037

Ion	Ratio	Lower	Upper
106	100		
91	215.7	109.8	329.4



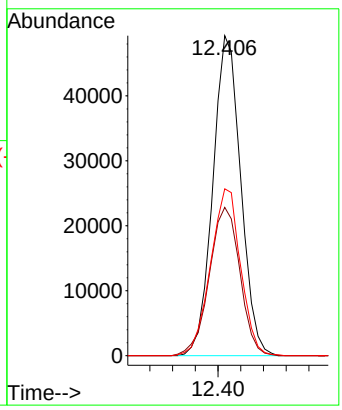


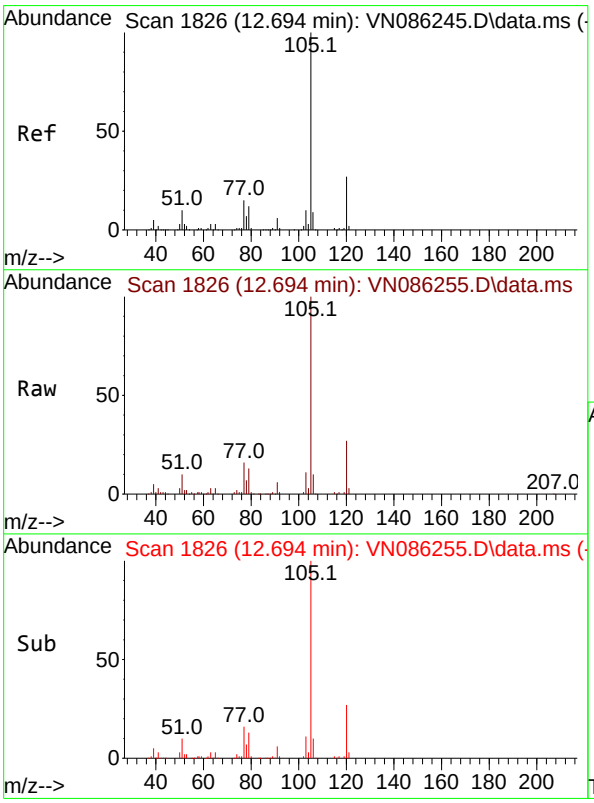
#69
Styrene
Concen: 19.187 ug/l
RT: 12.406 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:104 Resp: 83949

Ion	Ratio	Lower	Upper
104	100		
78	50.8	41.4	62.0
103	56.2	44.2	66.4

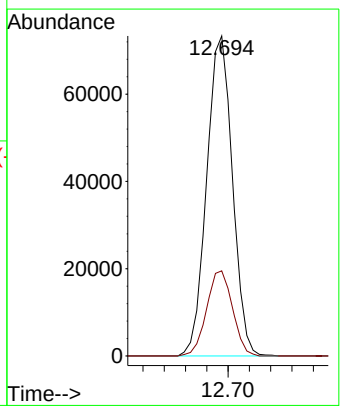


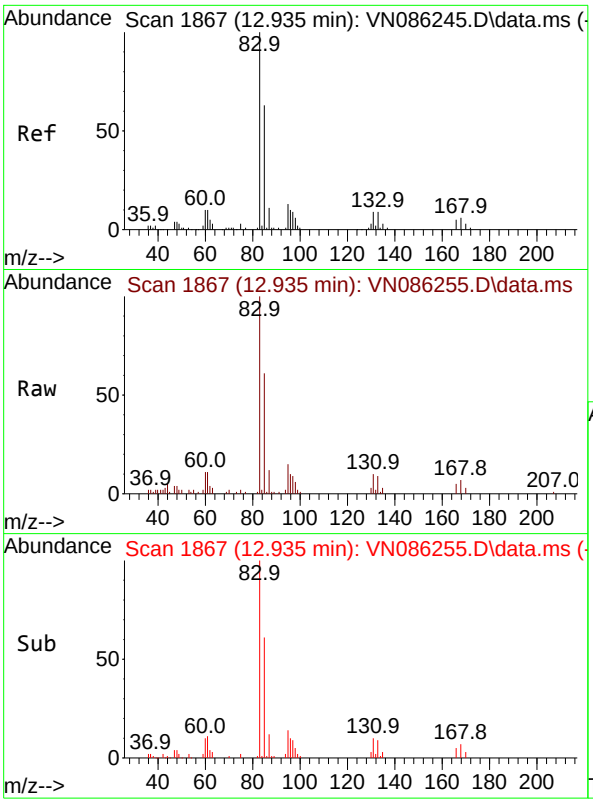


#70
Isopropylbenzene
Concen: 19.260 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 123201

Ion	Ratio	Lower	Upper
105	100		
120	26.7	18.3	34.1



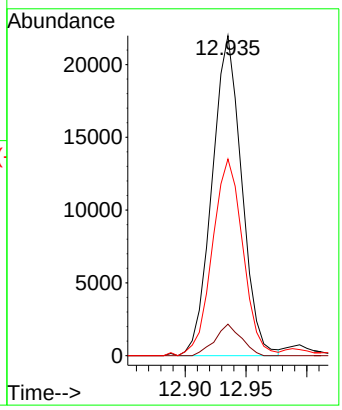


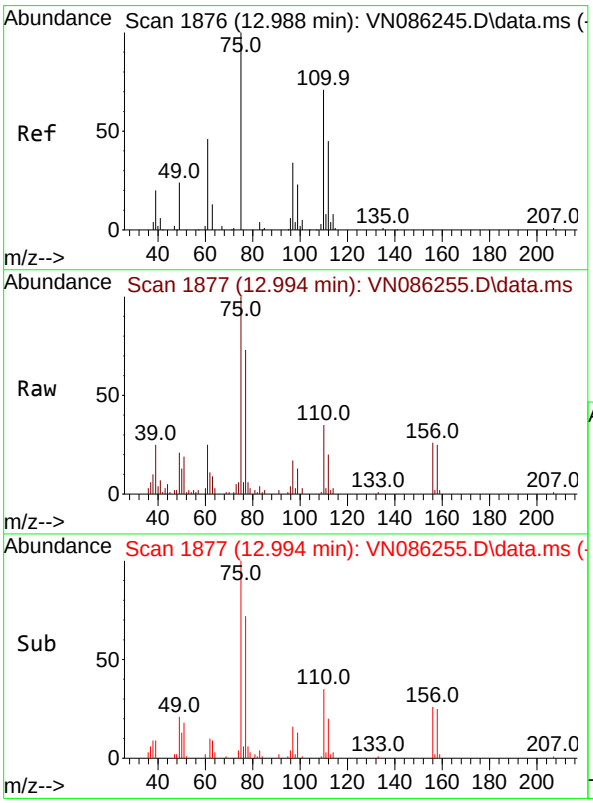
#71
1,1,2,2-Tetrachloroethane
Concen: 20.449 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 83 Resp: 37233

Ion	Ratio	Lower	Upper
83	100		
131	8.7	4.8	14.3
85	63.2	32.3	96.8

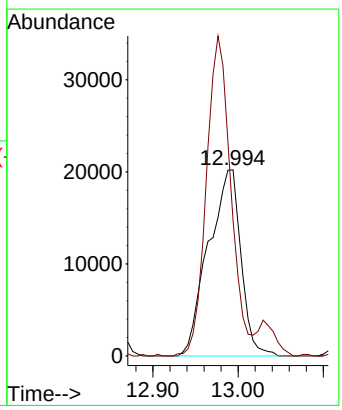


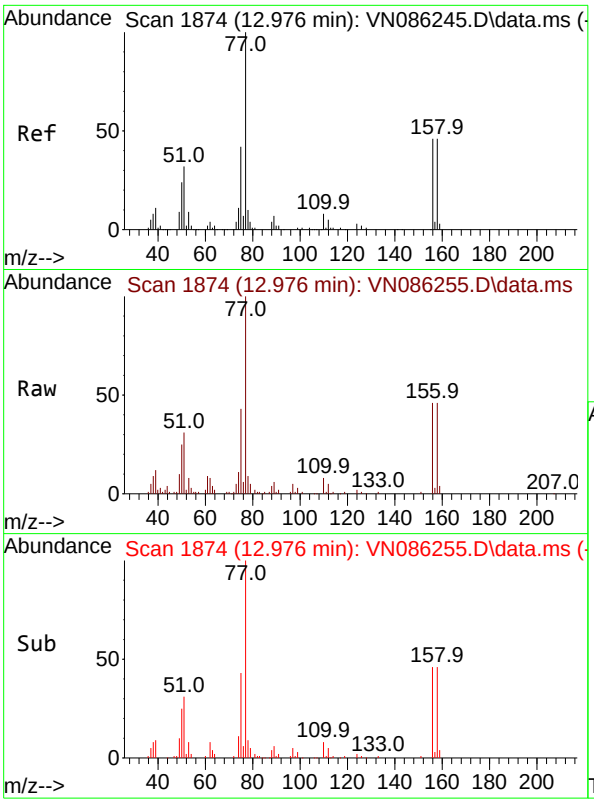


#72
1,2,3-Trichloropropane
Concen: 28.285 ug/l
RT: 12.994 min Scan# 1877
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 53607

Ion	Ratio	Lower	Upper
75	100		
77	129.8	0.0	380.0



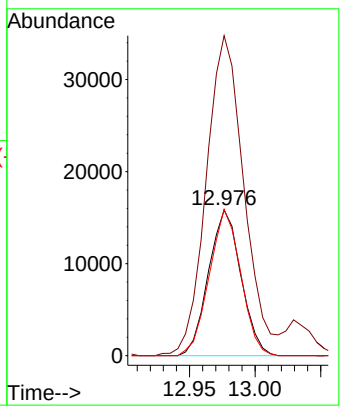


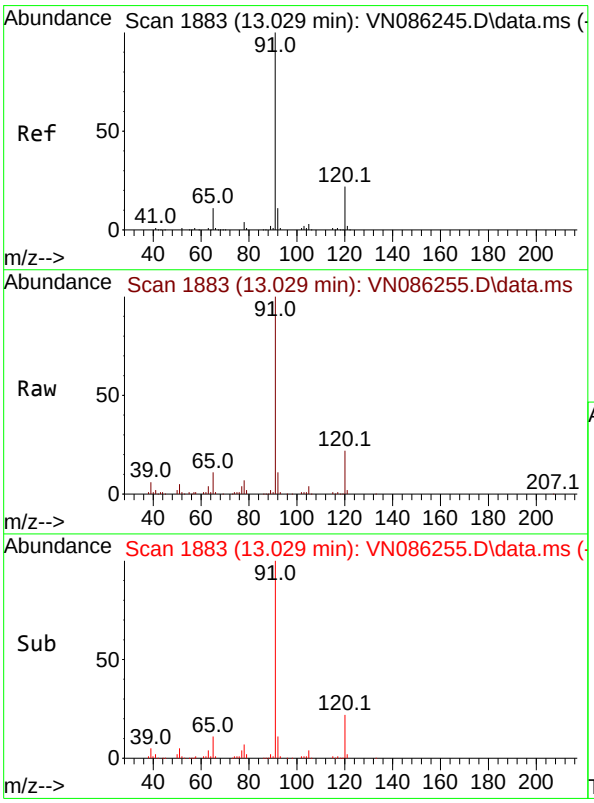
#73
Bromobenzene
Concen: 19.245 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:156 Resp: 27272

Ion	Ratio	Lower	Upper
156	100		
77	255.1	0.0	505.2
158	97.0	0.0	195.0

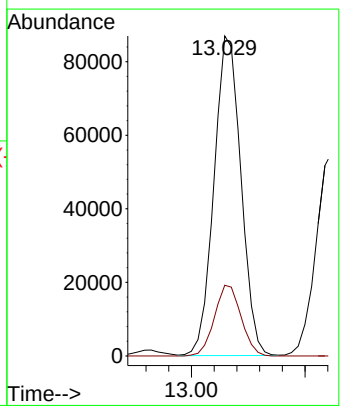


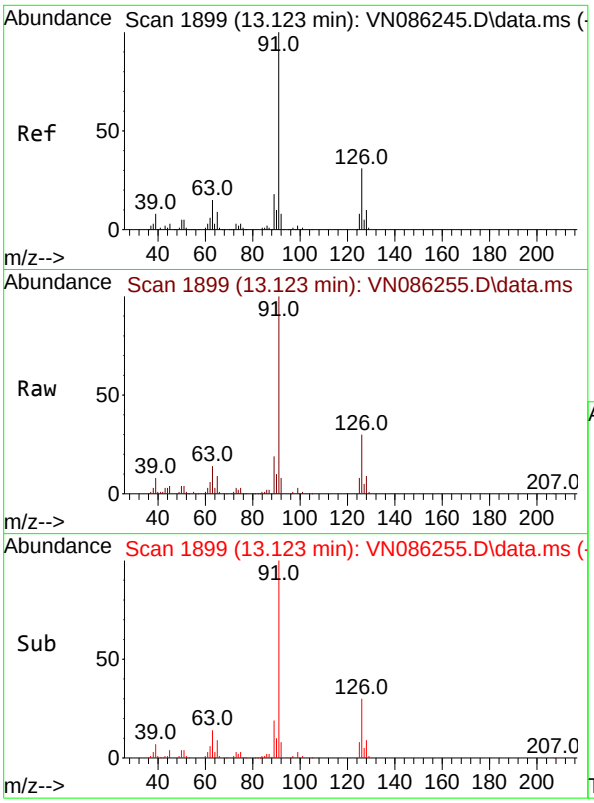


#74
n-propylbenzene
Concen: 18.944 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 143093

Ion	Ratio	Lower	Upper
91	100		
120	21.9	0.0	44.0



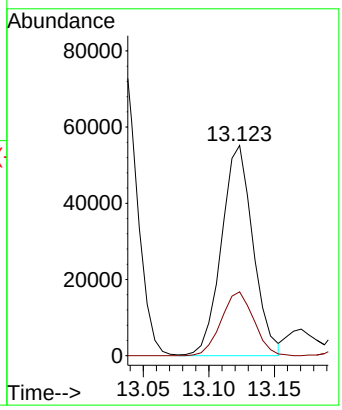


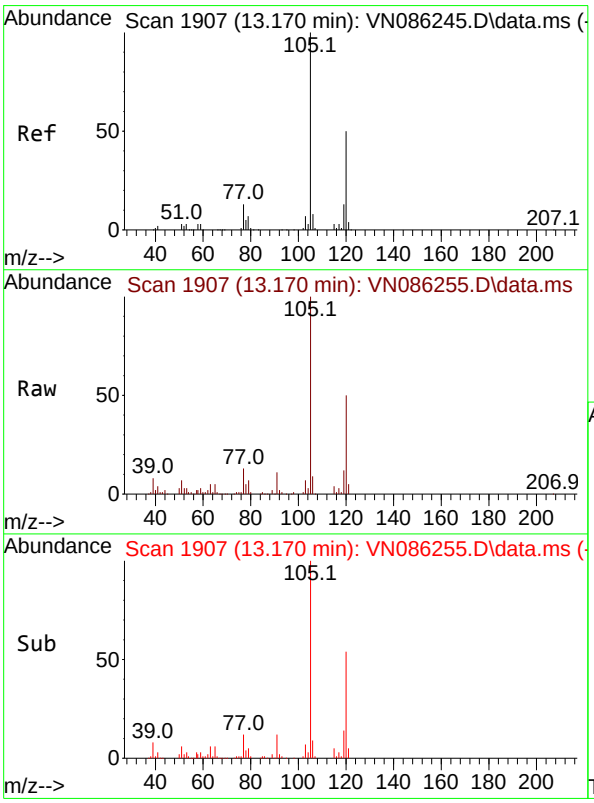
#75
2-Chlorotoluene
Concen: 19.514 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 91 Resp: 92645

Ion	Ratio	Lower	Upper
91	100		
126	31.3	0.0	63.4

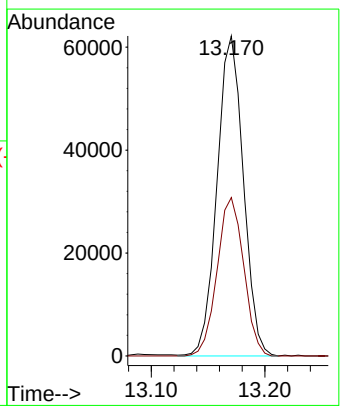


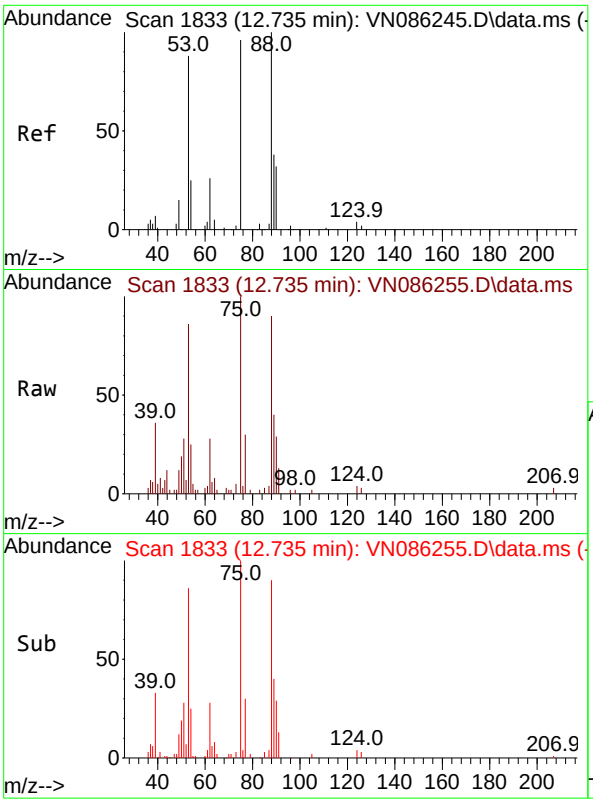


#76
1,3,5-Trimethylbenzene
Concen: 19.025 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 99973

Ion	Ratio	Lower	Upper
105	100		
120	50.0	0.0	98.0



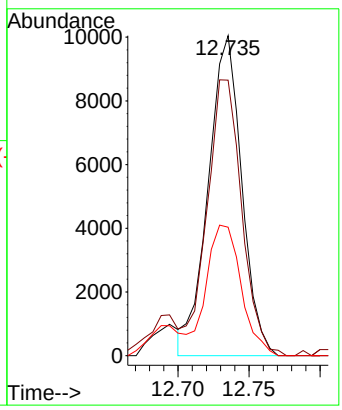


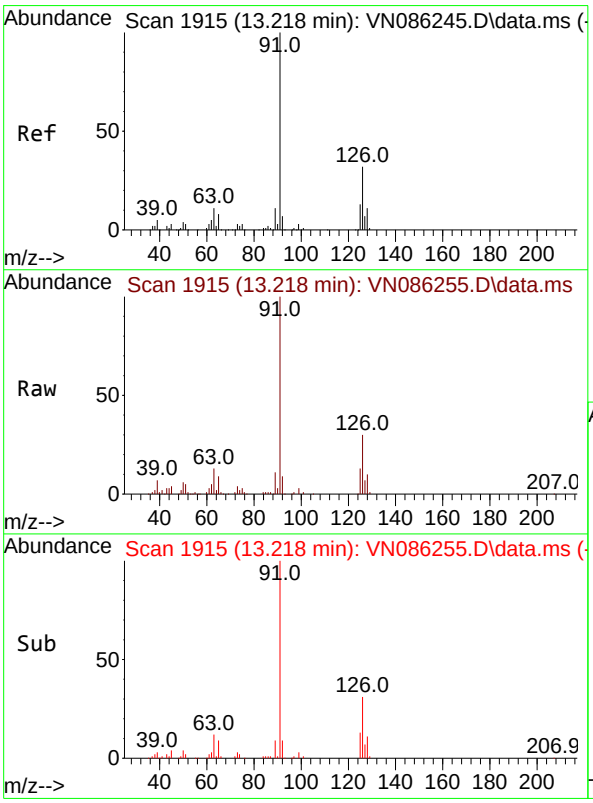
#77
t-1,4-Dichloro-2-butene
Concen: 18.869 ug/l
RT: 12.735 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 75 Resp: 16490

Ion	Ratio	Lower	Upper
75	100		
53	84.4	46.4	139.2
89	40.2	22.5	67.5

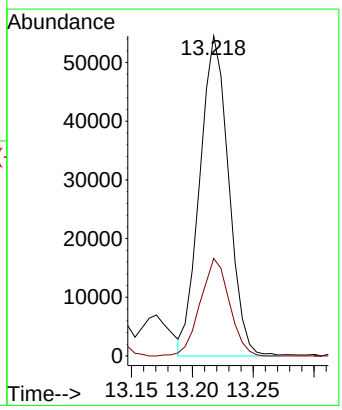


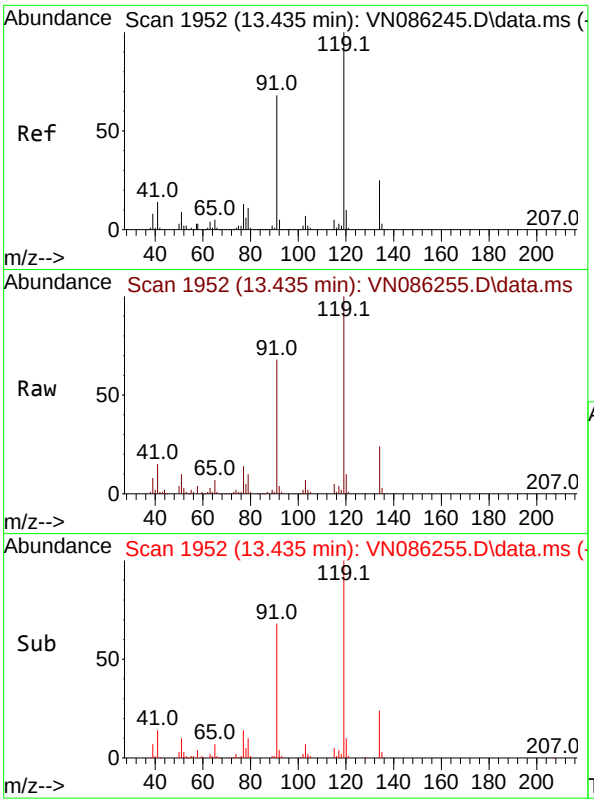


#78
4-Chlorotoluene
Concen: 18.983 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 91 Resp: 90011

Ion	Ratio	Lower	Upper
91	100		
126	30.7	0.0	63.2



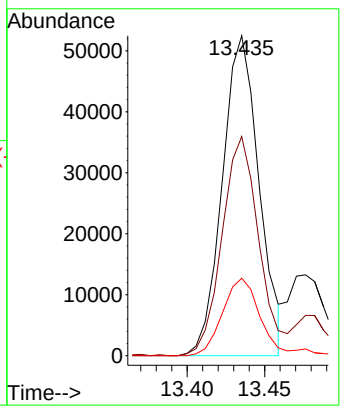


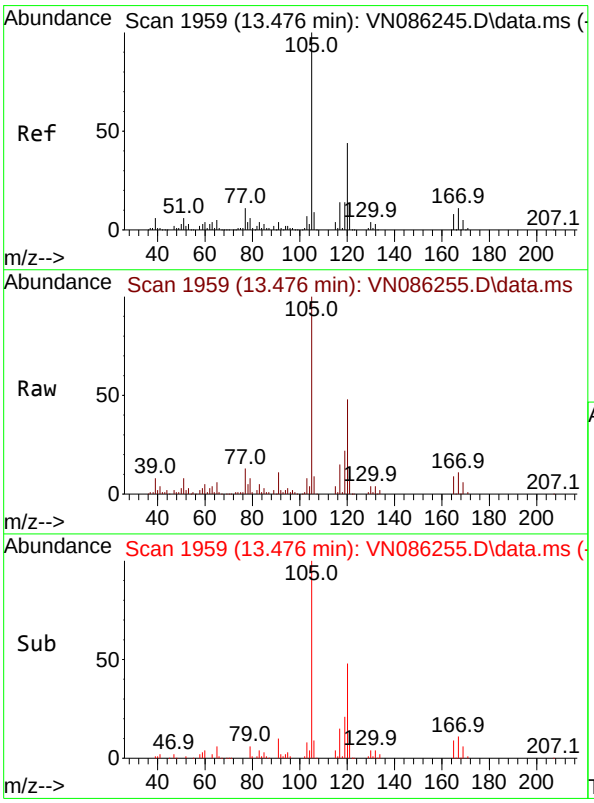
#79
tert-butylbenzene
Concen: 19.039 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:119 Resp: 86567

Ion	Ratio	Lower	Upper
119	100		
91	68.8	0.0	136.6
134	24.1	0.0	49.4

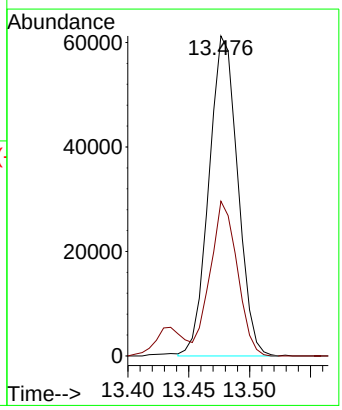


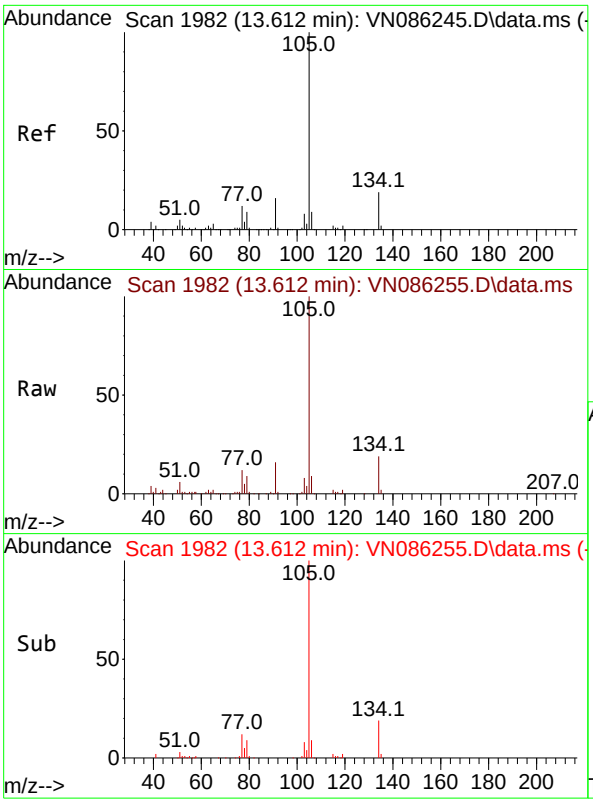


#80
1,2,4-Trimethylbenzene
Concen: 18.911 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:105 Resp: 100765

Ion	Ratio	Lower	Upper
105	100		
120	45.4	0.0	91.0



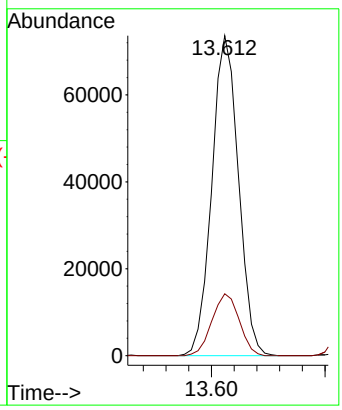


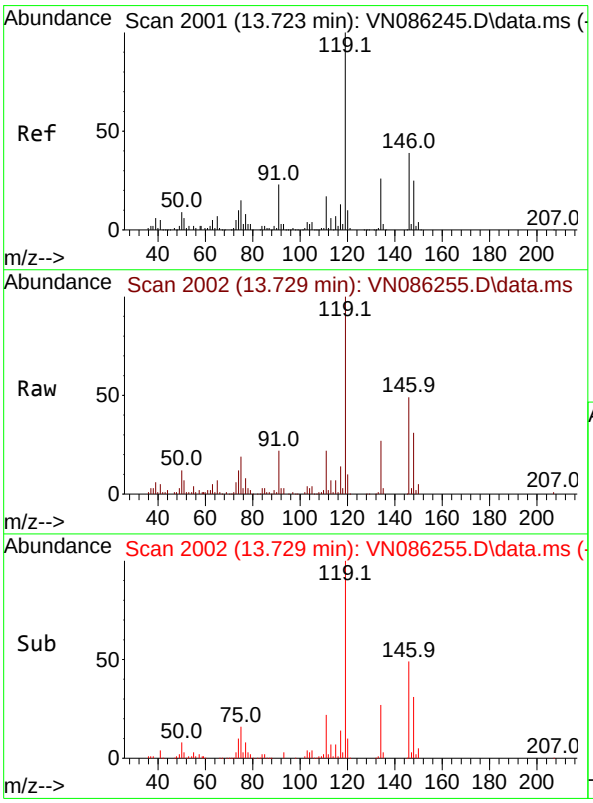
#81
sec-Butylbenzene
Concen: 18.880 ug/l
RT: 13.612 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:105 Resp: 119744

Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	38.6

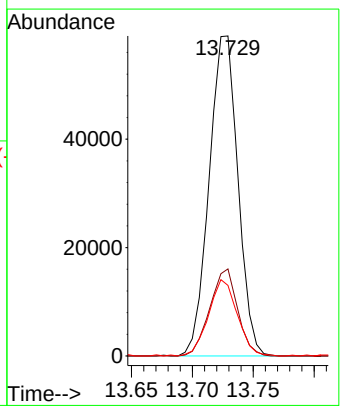


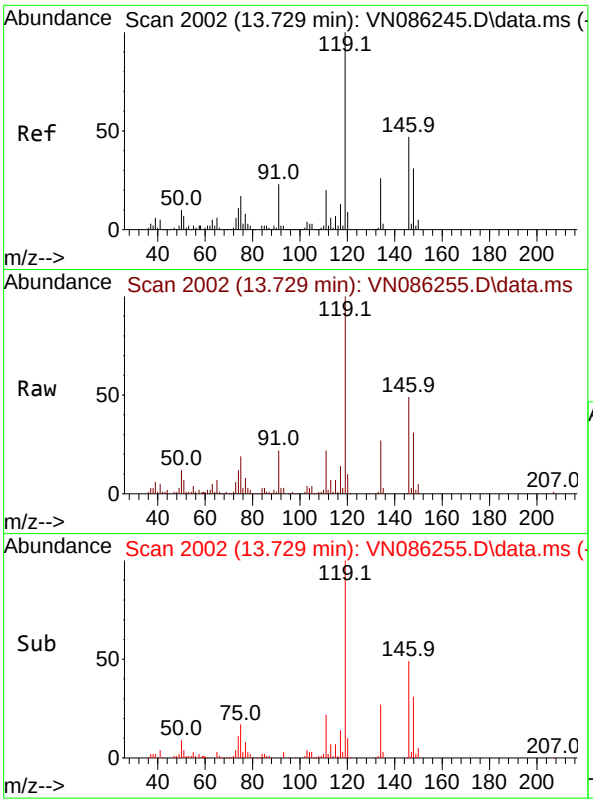


#82
p-Isopropyltoluene
Concen: 18.394 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:119 Resp: 97324

Ion	Ratio	Lower	Upper
119	100		
134	26.2	0.0	51.6
91	23.8	0.0	48.2



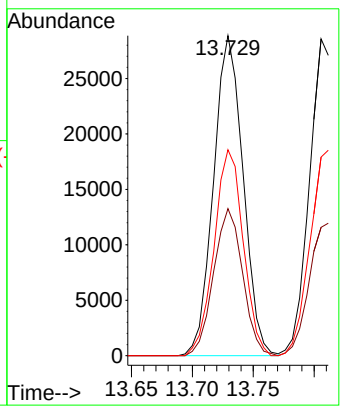


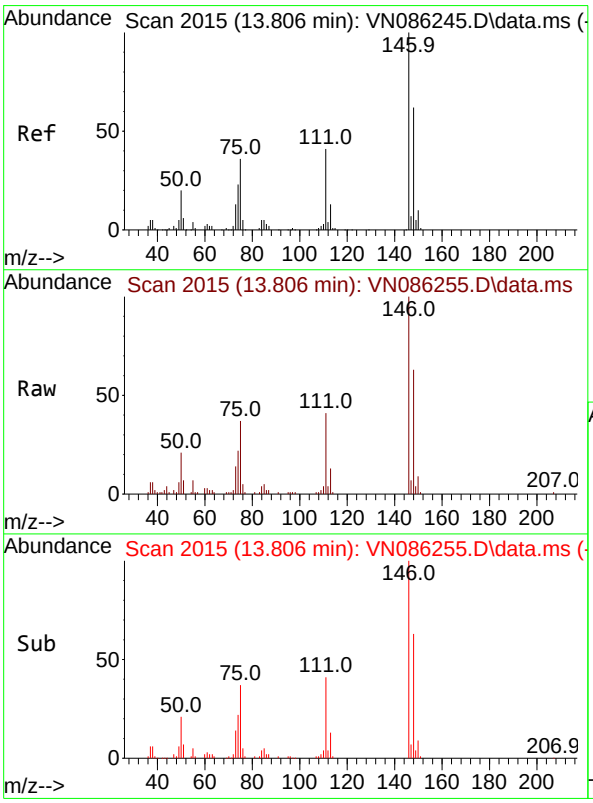
#83
1,3-Dichlorobenzene
Concen: 18.499 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:146 Resp: 48725

Ion	Ratio	Lower	Upper
146	100		
111	45.1	21.7	65.1
148	63.5	32.3	96.8

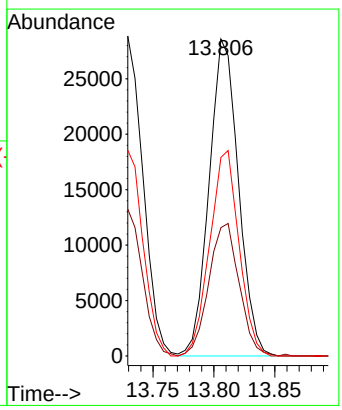


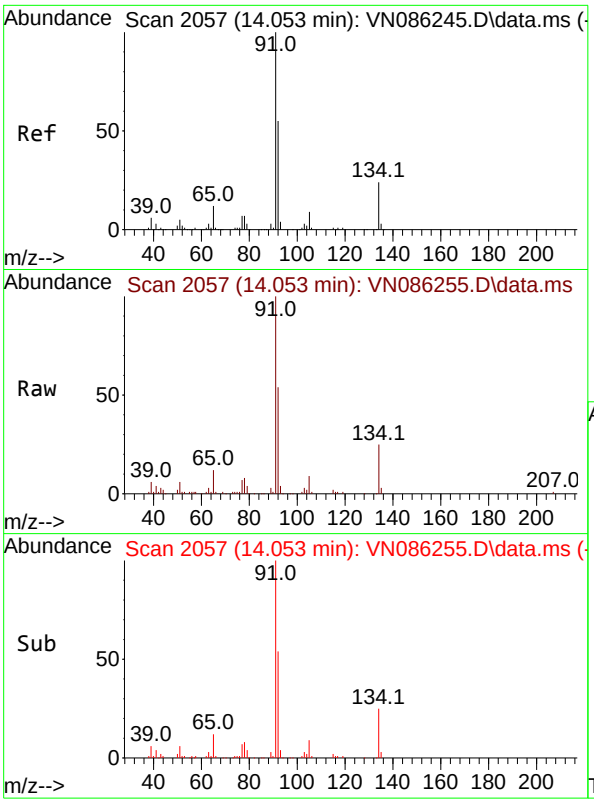


#84
1,4-Dichlorobenzene
Concen: 18.098 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:146 Resp: 47819

Ion	Ratio	Lower	Upper
146	100		
111	43.4	20.8	62.4
148	64.8	31.9	95.5



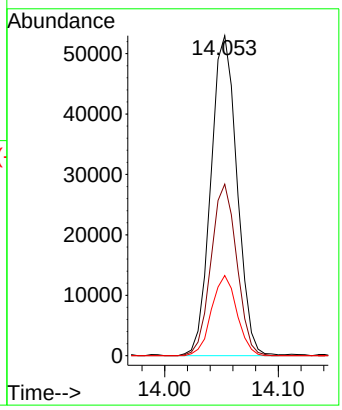


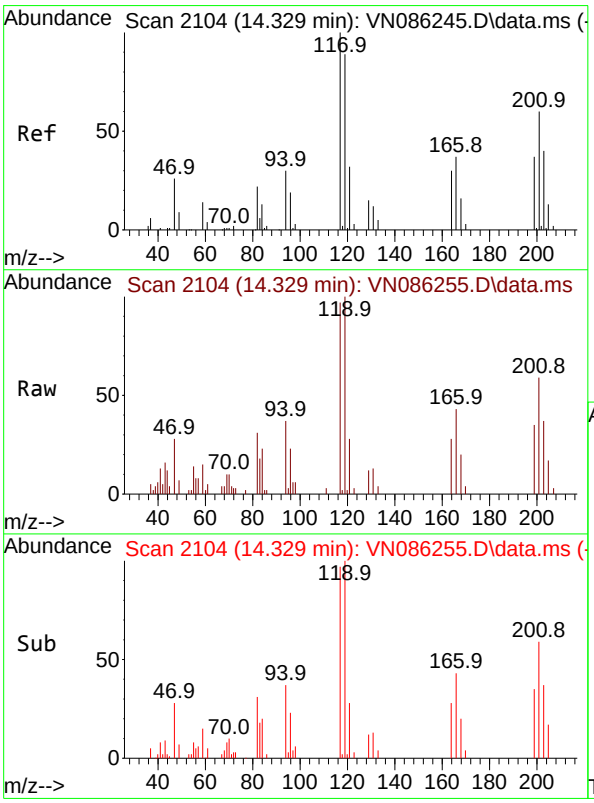
#85
n-Butylbenzene
Concen: 17.764 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 91 Resp: 84791

Ion	Ratio	Lower	Upper
91	100		
92	52.7	0.0	109.4
134	24.3	0.0	48.2

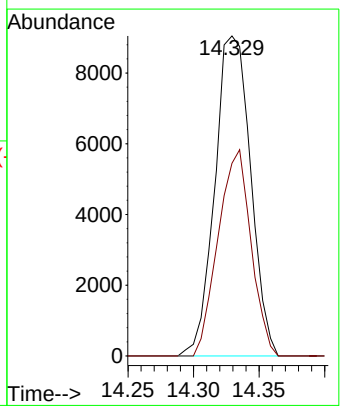


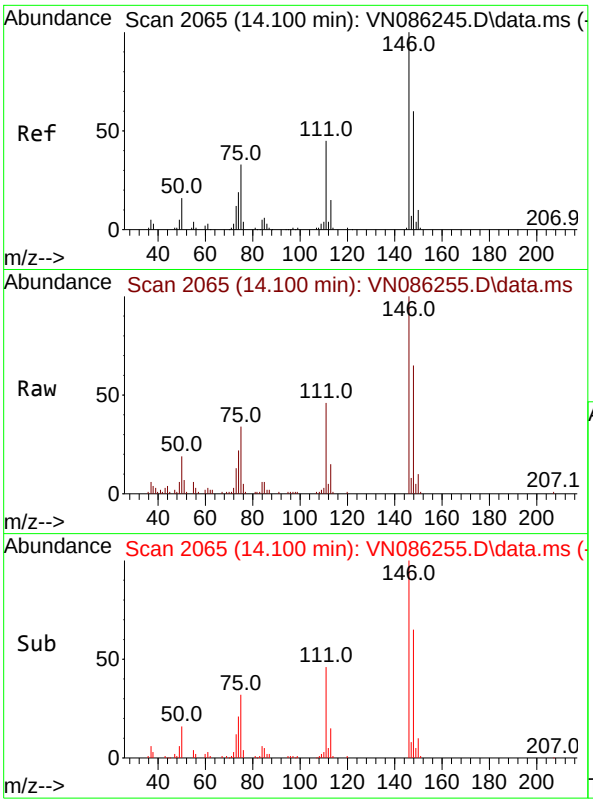


#86
Hexachloroethane
Concen: 19.231 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:117 Resp: 17164

Ion	Ratio	Lower	Upper
117	100		
201	59.2	30.9	92.8



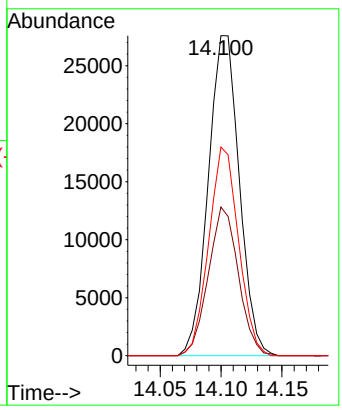


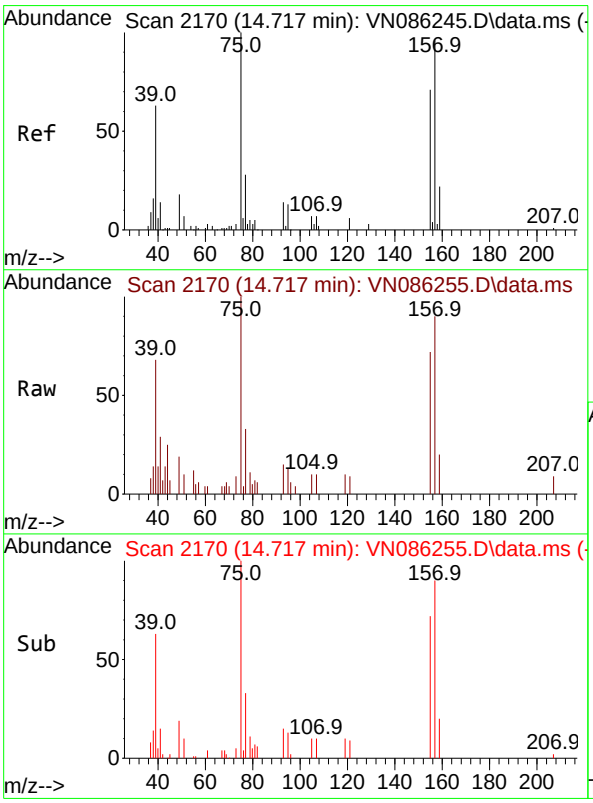
#87
1,2-Dichlorobenzene
Concen: 18.791 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:146 Resp: 48868

Ion	Ratio	Lower	Upper
146	100		
111	45.1	22.7	68.0
148	62.7	31.8	95.3

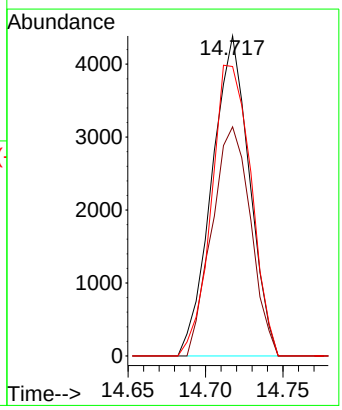


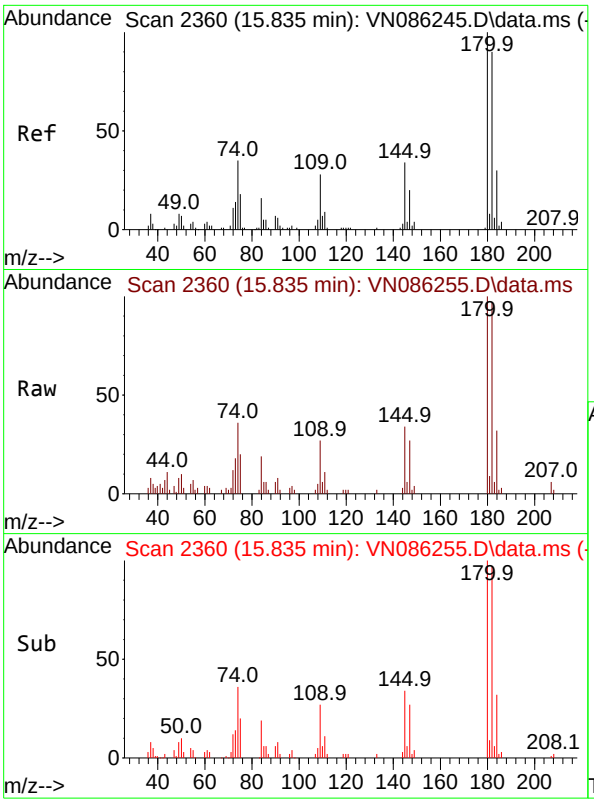


#88
1,2-Dibromo-3-Chloropropane
Concen: 17.808 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. -0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion: 75 Resp: 7385

Ion	Ratio	Lower	Upper
75	100		
155	73.8	60.3	90.5
157	95.7	79.0	118.4



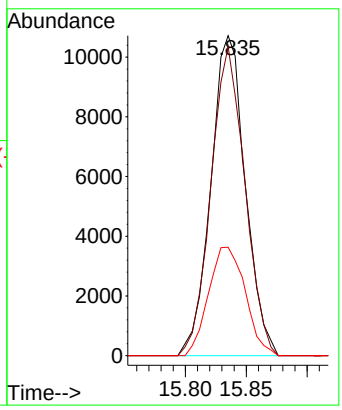


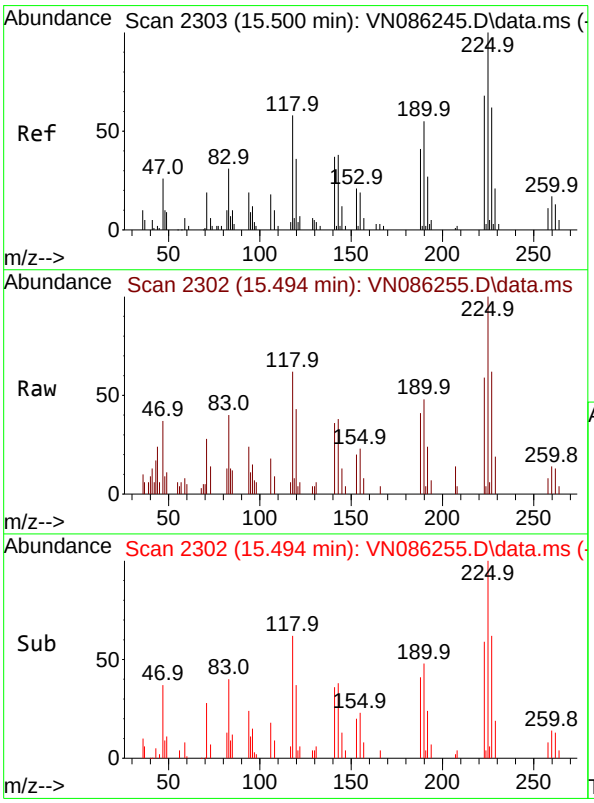
#89
1,2,4-Trichlorobenzene
Concen: 16.646 ug/l
RT: 15.835 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:180 Resp: 21063

Ion	Ratio	Lower	Upper
180	100		
182	95.2	75.1	112.7
145	36.2	27.1	40.7

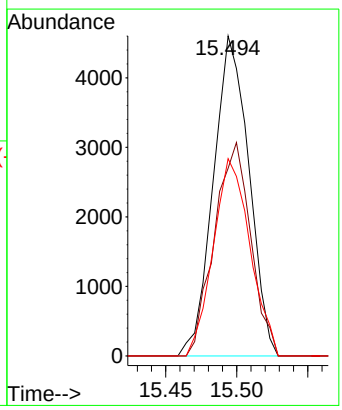


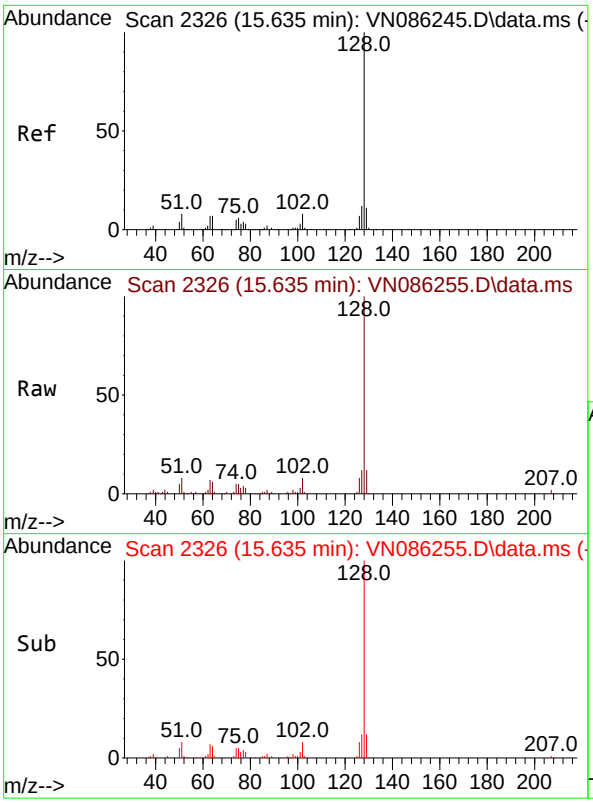


#90
Hexachlorobutadiene
Concen: 14.656 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.006 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:225 Resp: 8007

Ion	Ratio	Lower	Upper
225	100		
223	68.3	0.0	130.0
227	63.9	0.0	123.2



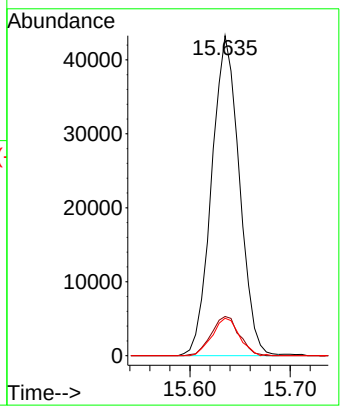


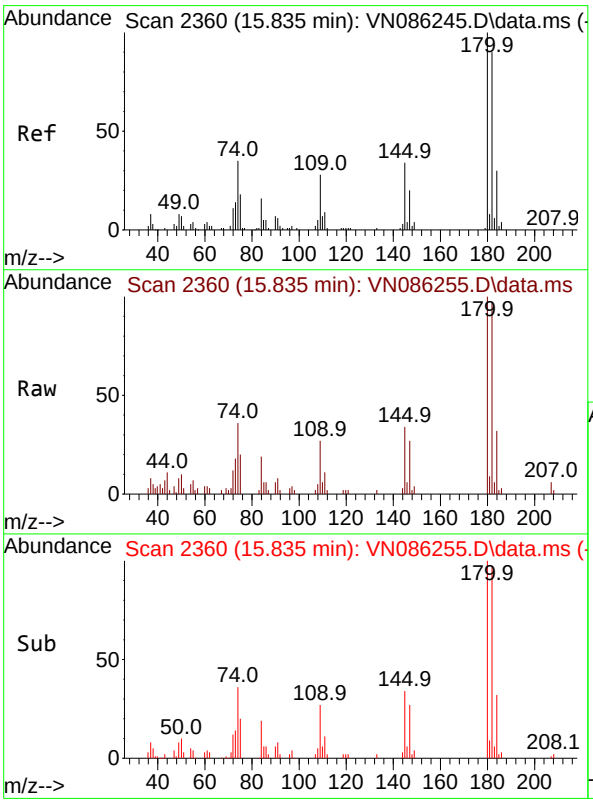
#91
Naphthalene
Concen: 16.677 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:128 Resp: 83203

Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.2
129	11.3	8.8	13.2





#92
1,2,3-Trichlorobenzene
Concen: 16.646 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN086255.D
Acq: 11 Apr 2025 17:28

Tgt Ion:180 Resp: 21063

Ion	Ratio	Lower	Upper
180	100		
182	95.2	0.0	187.8
145	36.2	0.0	67.8