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

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : RFP 905A

WESTON SOLUTIONS, INC.

1090 King Georges Post Road

Suite 201

Edison, NJ - 08837-3703

Phone No: 732-585-4410

ORDER ID : Q2641

ATTENTION : Smita Sumbaly

Laboratory Certification ID # 20012

Alliance TECHNICAL GROUP

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Cover Page

Order ID : Q2641

Project ID : RFP 905A

Client : Weston Solutions, Inc.

Lab Sample Number	Client Sample Number
Q2641-01	P001-CONCRETE001-01
Q2641-02	P001-CONCRETE001-01

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

Signature : _____

Date: 7/29/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions, Inc.
Project Name: RFP 905A
Project # N/A
Order ID # Q2641
Test Name: TCLP VOA

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 07/18/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: TCLP VOA. This data package contains results for TCLP VOA.

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 TCLP VOA was based on method 8260D and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis.
The Internal Standards Areas were met for all analysis.
The Retention Times were met for all analysis.

The RPD were met for all analysis.
The Blank Spike met requirements for all compounds.
The Blank Spike Duplicate met requirements for all compounds.
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. Calculation:
Water Calculation in ug/L

$$\frac{(A_x)(I_s)(Df)}{(Ais)(RRF)(V0)}$$

Where,
Ax = Area for the compound to be measured
Ais = Area for the specific internal standard
Is = Amount of internal standard added in nanograms (ng)
RRF = Relative response factor of the initial calibration curve standard.

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Vo = Volume of water purged in milliliters (mL)
Df = Dilution factor.

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

Trip Blank was not provided with this set of samples.
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 <20% 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 > 20% for the Initial Calibration curve for SW-846 analysis.

G. 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_____

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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

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

ORDER ID: Q2641 MATRIX: TCLP

METHOD: 8260D

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The 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.			✓
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓
9.	Internal Standard Area/Retention Time Shift Meet Criteria Comments:			✓
10.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:			✓

ADDITIONAL COMMENTS:

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

Trip Blank was not provided with this set of samples.

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

NA NO YES

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 <20% 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 > 20% for the Initial Calibration curve for SW-846 analysis.

_____ _____

QA REVIEW Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2641

	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:** 07/29/2025

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LAB CHRONICLE

OrderID:	Q2641	**OrderDate:**	7/18/2025 10:44:13 AM
Client:	Weston Solutions, Inc.	**Project:**	RFP 905A
Contact:	Smita Sumbaly	**Location:**	O22

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2641-02	**P001-CONCRETE001-01**	**TCLP**			**07/16/25**			**07/18/25**
			TCLP VOA	8260D			07/21/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2641

Client: Weston Solutions, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:								
				0				

Total Voc :

Total Concentration:

QC SUMMARY

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Surrogate Summary

SDG No.: Q2641

Client: Weston Solutions, Inc.

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q2641-02	P001-CONCRETE001-01	1,2-Dichloroethane-d4	50	57.0	114		74	125
		Dibromofluoromethane	50	43.1	86		75	124
		Toluene-d8	50	50.9	102		86	113
		4-Bromofluorobenzene	50	47.8	96		77	121
VN0721WBL01	VN0721WBL01	1,2-Dichloroethane-d4	50	54.7	109		74	125
		Dibromofluoromethane	50	51.4	103		75	124
		Toluene-d8	50	51.0	102		86	113
		4-Bromofluorobenzene	50	46.4	93		77	121
VN0721WBS01	VN0721WBS01	1,2-Dichloroethane-d4	50	47.3	95		74	125
		Dibromofluoromethane	50	48.8	98		75	124
		Toluene-d8	50	50.4	101		86	113
		4-Bromofluorobenzene	50	49.9	100		77	121
VN0721WBSD0	VN0721WBSD01	1,2-Dichloroethane-d4	50	47.2	94		74	125
		Dibromofluoromethane	50	50.3	101		75	124
		Toluene-d8	50	50.6	101		86	113
		4-Bromofluorobenzene	50	50.0	100		77	121

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2641 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087371.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0721WBS01	Vinyl chloride	20	19.0	ug/L	95			65	117	
	1,1-Dichloroethene	20	18.1	ug/L	91			74	110	
	2-Butanone	100	86.4	ug/L	86			65	122	
	Carbon Tetrachloride	20	19.6	ug/L	98			77	113	
	Chloroform	20	17.9	ug/L	90			79	113	
	Benzene	20	19.4	ug/L	97			82	109	
	1,2-Dichloroethane	20	18.3	ug/L	92			80	115	
	Trichloroethene	20	18.8	ug/L	94			77	113	
	Tetrachloroethene	20	18.3	ug/L	92			67	123	
	Chlorobenzene	20	18.6	ug/L	93			82	109	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	**Q2641**	**Analytical Method:**	**SW8260D**
Client:	**Weston Solutions, Inc.**	**Datafile :**	VN087372.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0721WBSD01	Vinyl chloride	20	19.0	ug/L	95	0		65	117	19
	1,1-Dichloroethene	20	17.6	ug/L	88	3		74	110	20
	2-Butanone	100	88.2	ug/L	88	2		65	122	26
	Carbon Tetrachloride	20	19.8	ug/L	99	1		77	113	15
	Chloroform	20	18.4	ug/L	92	2		79	113	20
	Benzene	20	19.2	ug/L	96	1		82	109	15
	1,2-Dichloroethane	20	18.8	ug/L	94	2		80	115	20
	Trichloroethene	20	18.8	ug/L	94	0		77	113	15
	Tetrachloroethene	20	19.3	ug/L	97	5		67	123	15
	Chlorobenzene	20	18.6	ug/L	93	0		82	109	15

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VOLATILE METHOD BLANK SUMMARY

Client ID: VN0721WBL01

Lab Name: Alliance | Contract: ROYF02

Lab Code: ACE | SDG NO.: Q2641

Lab File ID: VN087370.D | Lab Sample ID: VN0721WBL01

Date Analyzed: 07/21/2025 | Time Analyzed: 11:34

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
VN0721WBS01	VN0721WBS01	VN087371.D	07/21/2025
VN0721WBSD01	VN0721WBSD01	VN087372.D	07/21/2025
P001-CONCRETE001-01	Q2641-02	VN087376.D	07/21/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance | Contract: ROYF02

Lab Code: ACE | SDG NO.: Q2641

Lab File ID: VN087327.D | BFB Injection Date: 07/16/2025

Instrument ID: MSVOA_N | BFB Injection Time: 16:10

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	19.8
75	30.0 - 60.0% of mass 95	50.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.6 (0.8) 1
174	50.0 - 100.0% of mass 95	70.9
175	5.0 - 9.0% of mass 174	3.6 (5.1) 1
176	95.0 - 101.0% of mass 174	68.7 (96.9) 1
177	5.0 - 9.0% of mass 176	4.8 (7) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN087328.D	07/16/2025	17:05
VSTDICC005	VSTDICC005	VN087329.D	07/16/2025	17:27
VSTDICC020	VSTDICC020	VN087330.D	07/16/2025	17:49
VSTDICCC050	VSTDICCC050	VN087331.D	07/16/2025	18:11
VSTDICC100	VSTDICC100	VN087332.D	07/16/2025	18:32
VSTDICC150	VSTDICC150	VN087333.D	07/16/2025	18:54

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance | Contract: ROYF02

Lab Code: ACE | SDG NO.: Q2641

Lab File ID: VN087367.D | BFB Injection Date: 07/21/2025

Instrument ID: MSVOA_N | BFB Injection Time: 10:05

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	21.1
75	30.0 - 60.0% of mass 95	52.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	1.5 (1.9) 1
174	50.0 - 100.0% of mass 95	75.2
175	5.0 - 9.0% of mass 174	6 (8) 1
176	95.0 - 101.0% of mass 174	72.4 (96.3) 1
177	5.0 - 9.0% of mass 176	5 (6.9) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN087368.D	07/21/2025	10:38
VN0721WBL01	VN0721WBL01	VN087370.D	07/21/2025	11:34
VN0721WBS01	VN0721WBS01	VN087371.D	07/21/2025	11:55
VN0721WBSD01	VN0721WBSD01	VN087372.D	07/21/2025	12:30
P001-CONCRETE001-01	Q2641-02	VN087376.D	07/21/2025	13:55

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: ROYF02

Lab Code: ACE SDG NO.: Q2641

Lab File ID: VN087368.D Date Analyzed: 07/21/2025

Instrument ID: MSVOA_N Time Analyzed: 10:38

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	202357	8.21	342303	9.08	307825	11.85
UPPER LIMIT	404714	8.706	684606	9.583	615650	12.347
LOWER LIMIT	101179	7.706	171152	8.583	153913	11.347
EPA SAMPLE NO.						
P001-CONCRETE001-01	166203	8.21	349406	9.08	328154	11.85
VN0721WBL01	164239	8.21	328305	9.08	300772	11.85
VN0721WBS01	195078	8.21	337215	9.09	308523	11.85
VN0721WBSD01	190787	8.21	328848	9.08	296338	11.85

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

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

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: ROYF02

Lab Code: ACE SDG NO.: Q2641

Lab File ID: VN087368.D Date Analyzed: 07/21/2025

Instrument ID: MSVOA_N Time Analyzed: 10:38

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

	IS4 AREA #	RT #				
12 HOUR STD	162263	13.77				
UPPER LIMIT	324526	14.27				
LOWER LIMIT	81131.5	13.27				
EPA SAMPLE NO.						
P001-CONCRETE001-01	160877	13.77				
VN0721WBL01	133337	13.77				
VN0721WBS01	161452	13.77				
VN0721WBSD01	158557	13.77				

IS4 = 1,4-Dichlorobenzene-d4

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

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

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	07/16/25
Project:	RFP 905A	Date Received:	07/18/25
Client Sample ID:	P001-CONCRETE001-01	SDG No.:	Q2641
Lab Sample ID:	Q2641-02	Matrix:	TCLP
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087376.D	1	07/21/25 13:55	VN072125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	5.00	ug/L
71-43-2	Benzene	0.15	U	0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	5.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	5.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	5.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.0		74 - 125	114%	SPK: 50
1868-53-7	Dibromofluoromethane	43.1		75 - 124	86%	SPK: 50
2037-26-5	Toluene-d8	50.9		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.8		77 - 121	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	166000	8.212			
540-36-3	1,4-Difluorobenzene	349000	9.082			
3114-55-4	Chlorobenzene-d5	328000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	161000	13.77			

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\VN072125\
Data File : VN087376.D
Acq On : 21 Jul 2025 13:55
Operator : JC\MD
Sample : Q2641-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Quant Time: Jul 22 03:07:31 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

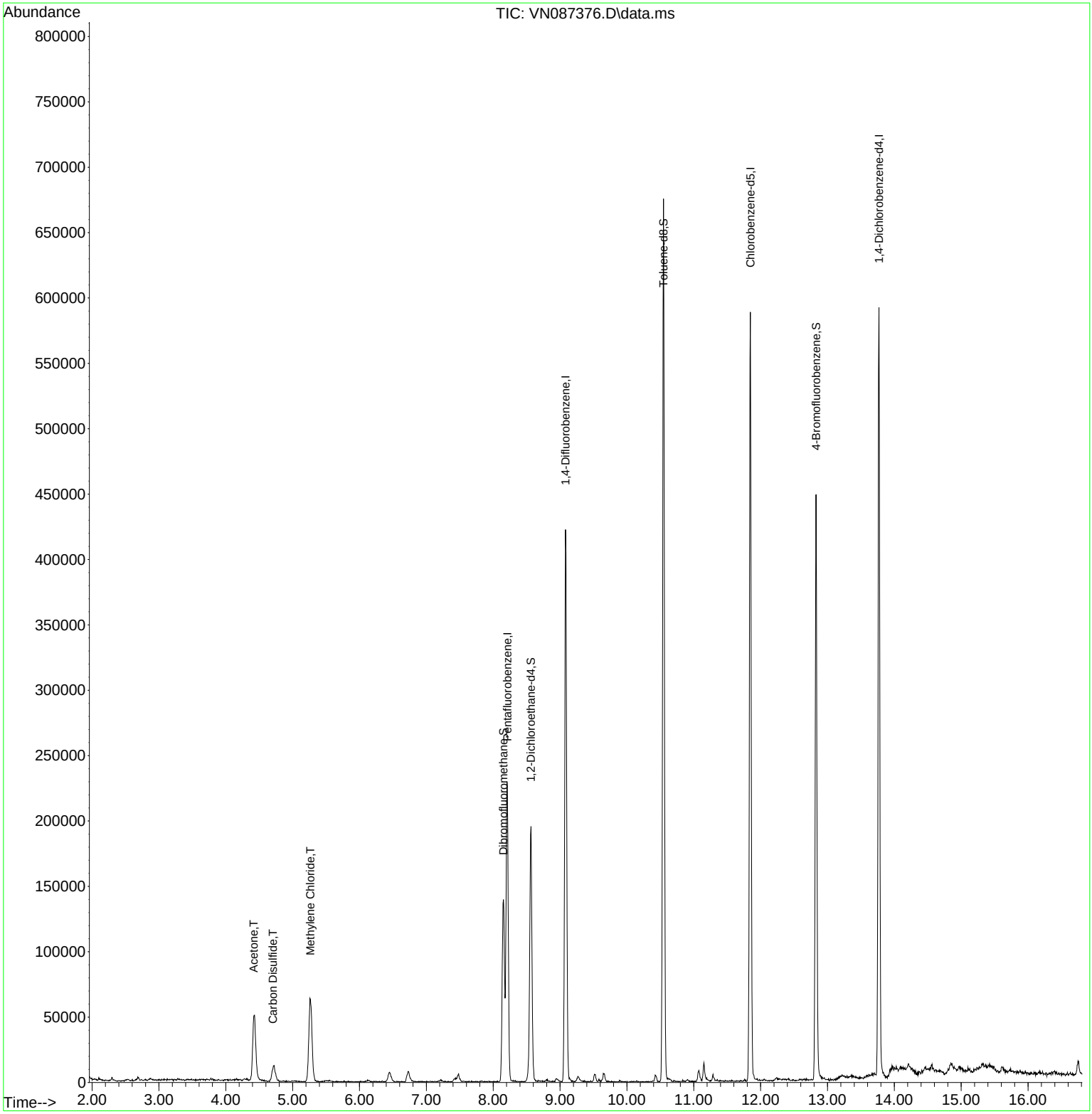
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	166203	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	349406	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	328154	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	160877	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	160661	56.970	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 113.940%			
35) Dibromofluoromethane	8.153	113	103816	43.074	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 86.140%			
50) Toluene-d8	10.547	98	437299	50.864	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.720%			
62) 4-Bromofluorobenzene	12.829	95	151913	47.826	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 95.660%			
Target Compounds						Qvalue
16) Acetone	4.418	43	101556	76.804	ug/l	98
17) Carbon Disulfide	4.706	76	6479	1.152	ug/l	99
20) Methylene Chloride	5.265	84	50001	22.011	ug/l	94

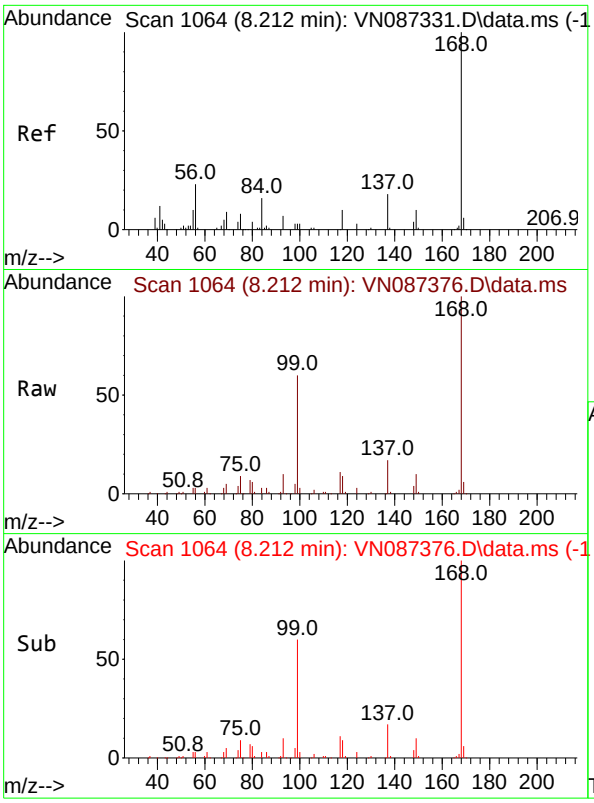
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087376.D
Acq On : 21 Jul 2025 13:55
Operator : JC\MD
Sample : Q2641-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Quant Time: Jul 22 03:07:31 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration



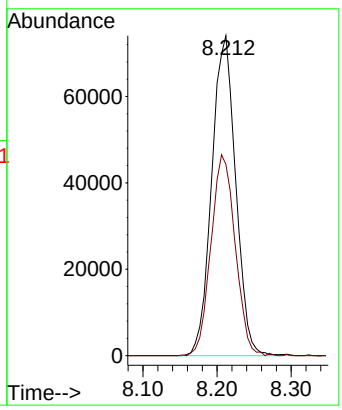


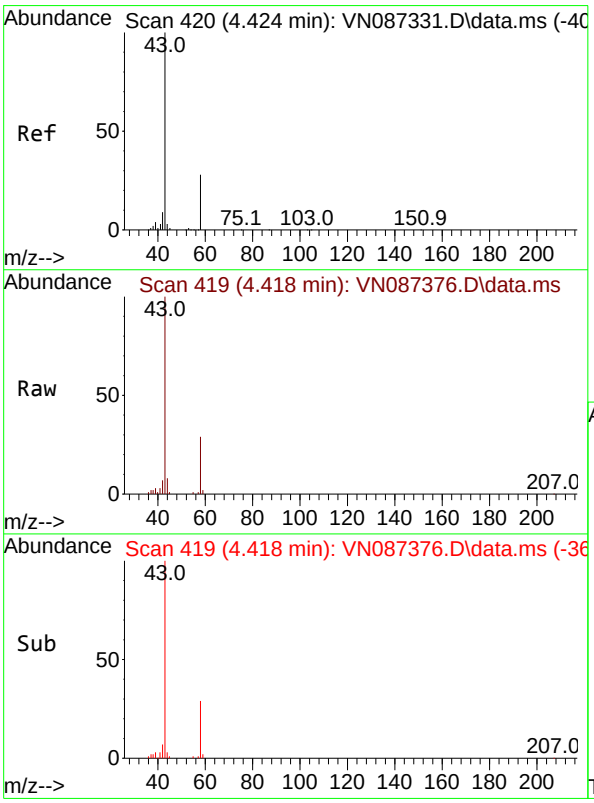
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Tgt Ion:168 Resp: 166203

Ion	Ratio	Lower	Upper
168	100		
99	59.8	47.9	71.9

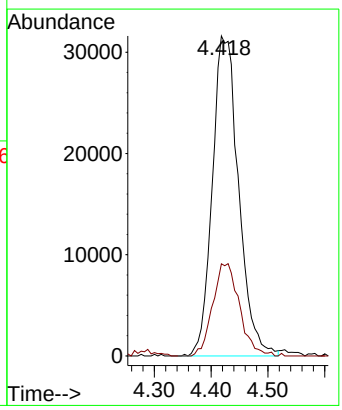


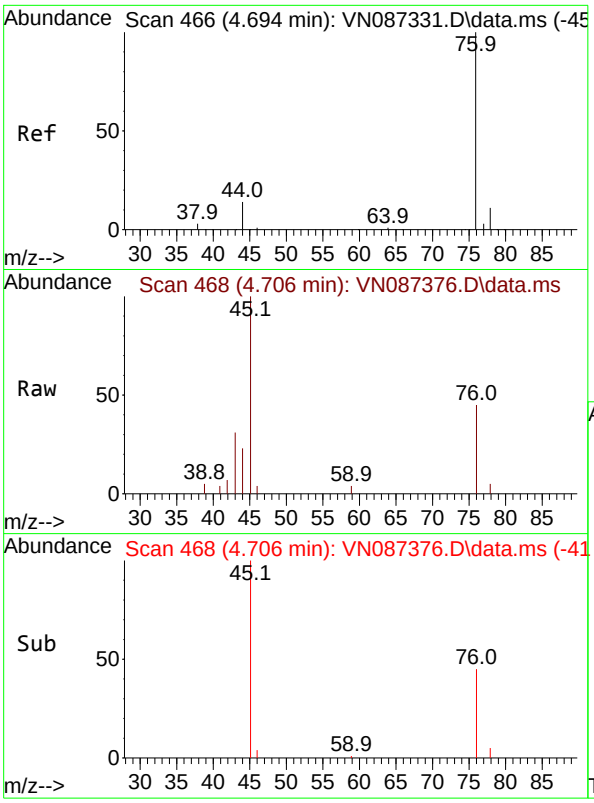


#16
Acetone
Concen: 76.804 ug/l
RT: 4.418 min Scan# 419
Delta R.T. -0.006 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Tgt Ion: 43 Resp: 101556

Ion	Ratio	Lower	Upper
43	100		
58	28.8	22.3	33.5



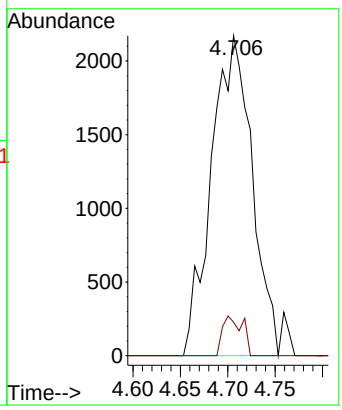


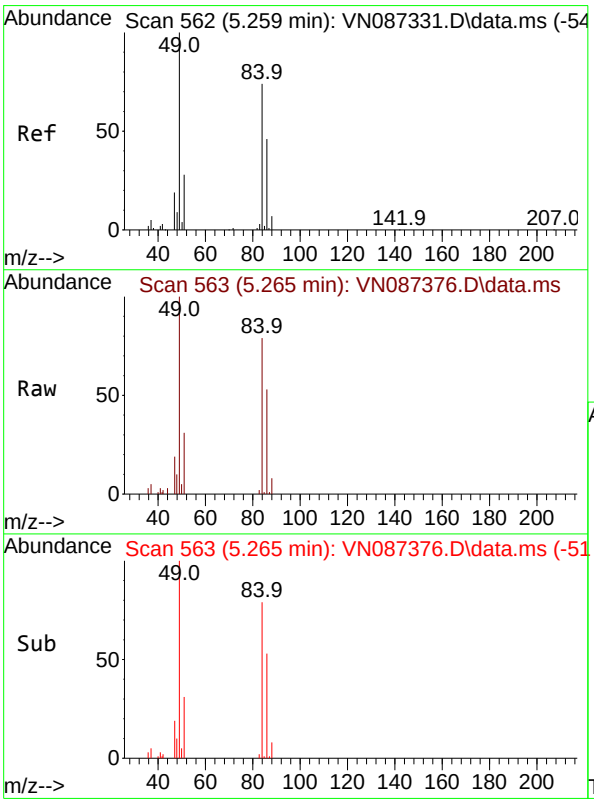
#17
Carbon Disulfide
Concen: 1.152 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.012 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Tgt Ion: 76 Resp: 6479

Ion	Ratio	Lower	Upper
76	100		
78	10.5	8.6	13.0

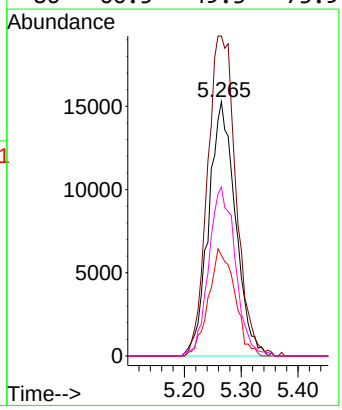


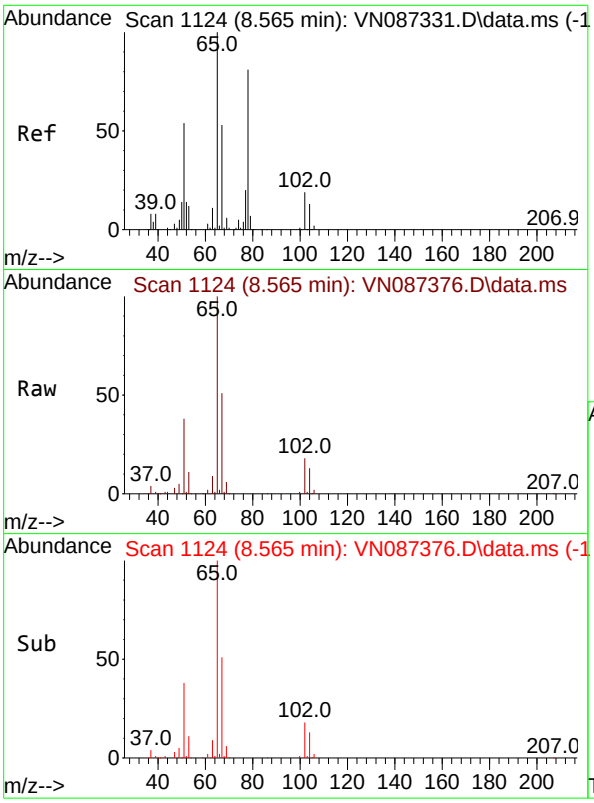


#20
Methylene Chloride
Concen: 22.011 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.006 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Tgt Ion: 84 Resp: 50001

Ion	Ratio	Lower	Upper
84	100		
49	125.8	107.5	161.3
51	39.6	30.2	45.2
86	66.5	49.3	73.9



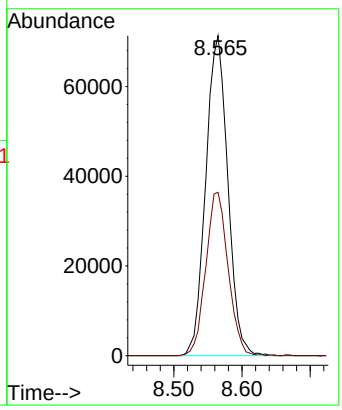


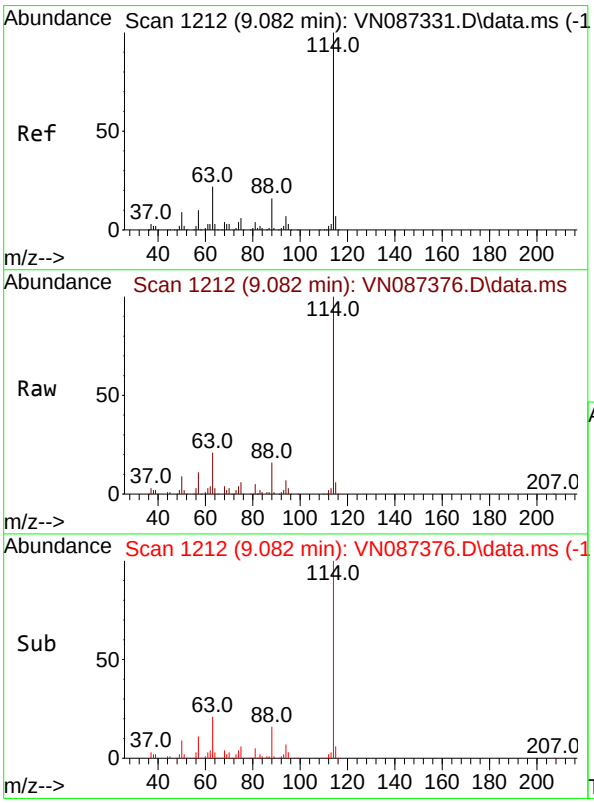
#33
1,2-Dichloroethane-d4
Concen: 56.970 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Tgt Ion: 65 Resp: 160661

Ion	Ratio	Lower	Upper
65	100		
67	51.8	0.0	104.0

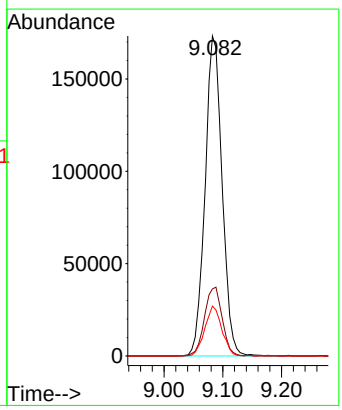


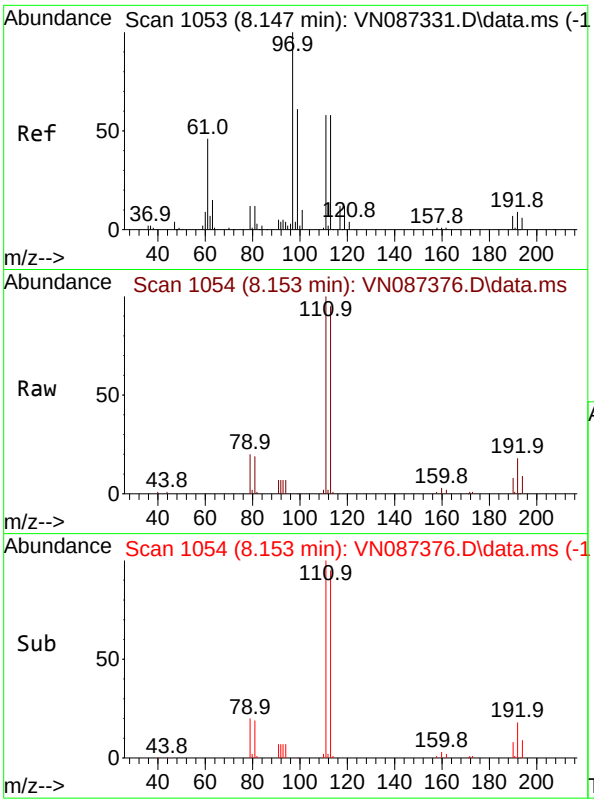


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Tgt Ion:114 Resp: 349406

Ion	Ratio	Lower	Upper
114	100		
63	21.0	0.0	44.6
88	15.6	0.0	32.8



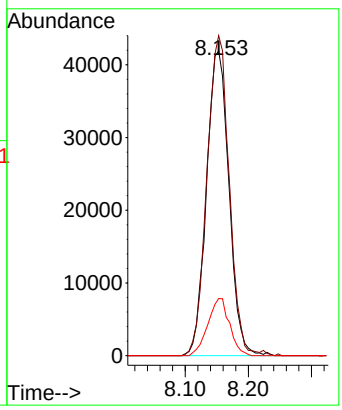


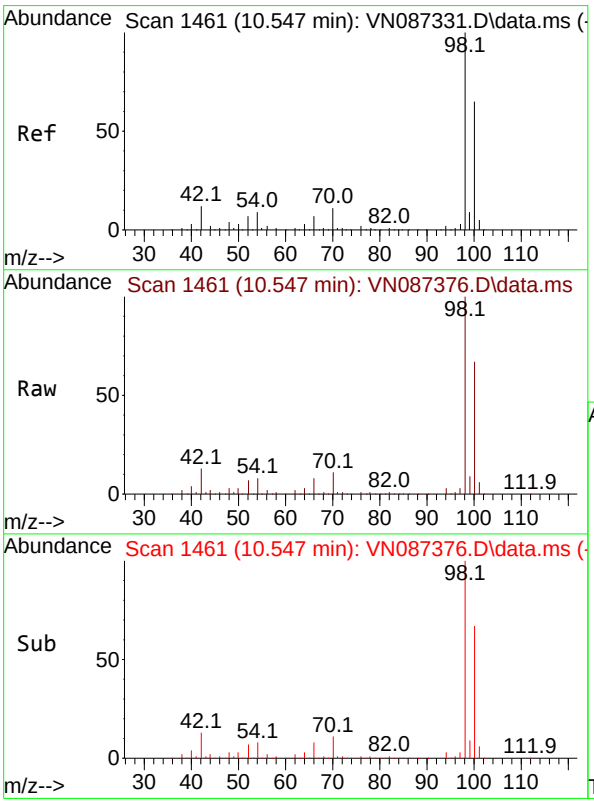
#35
Dibromofluoromethane
Concen: 43.074 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Tgt Ion:113 Resp: 103816

Ion	Ratio	Lower	Upper
113	100		
111	104.1	82.5	123.7
192	18.1	13.7	20.5

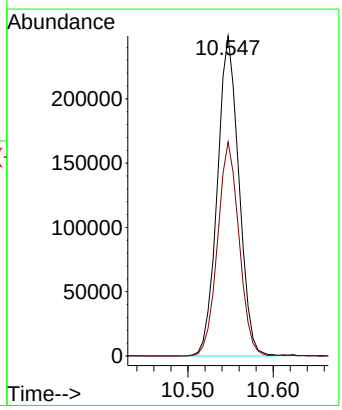


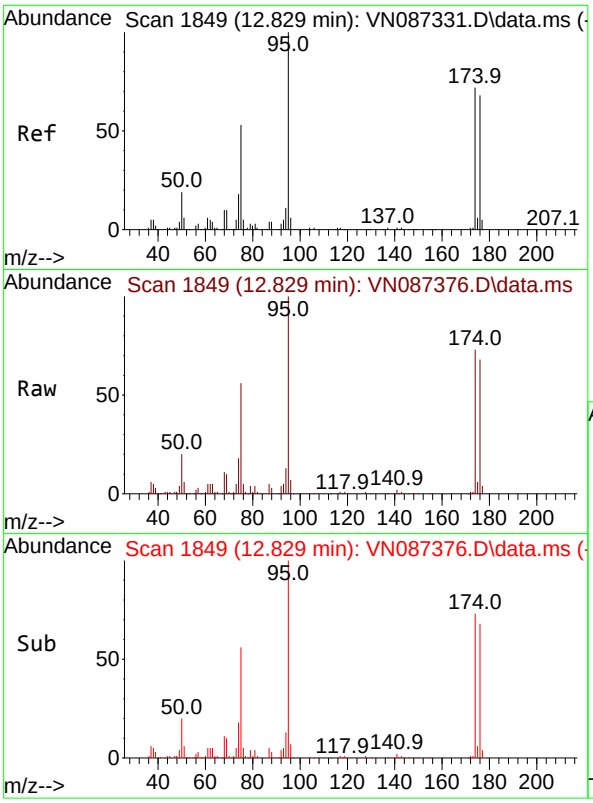


#50
Toluene-d8
Concen: 50.864 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Tgt Ion: 98 Resp: 437299

Ion	Ratio	Lower	Upper
98	100		
100	66.7	52.1	78.1



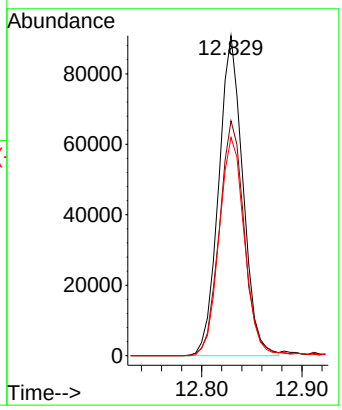


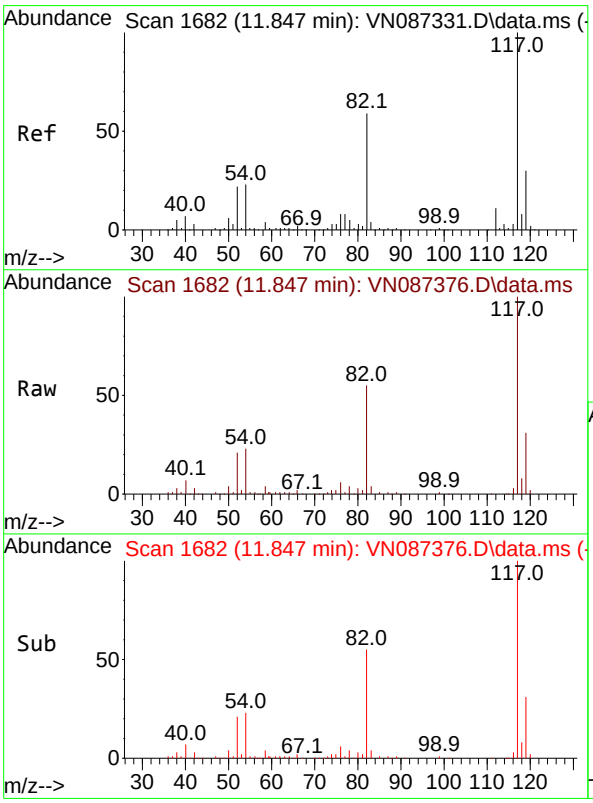
#62
4-Bromofluorobenzene
Concen: 47.826 ug/l
RT: 12.829 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Tgt Ion: 95 Resp: 151913

Ion	Ratio	Lower	Upper
95	100		
174	76.1	0.0	149.4
176	72.0	0.0	141.2

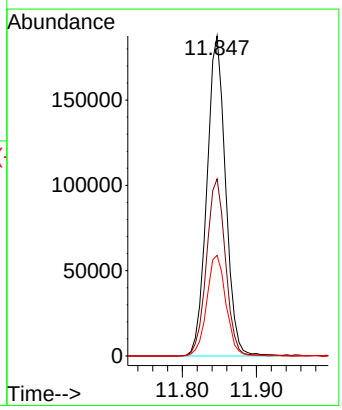


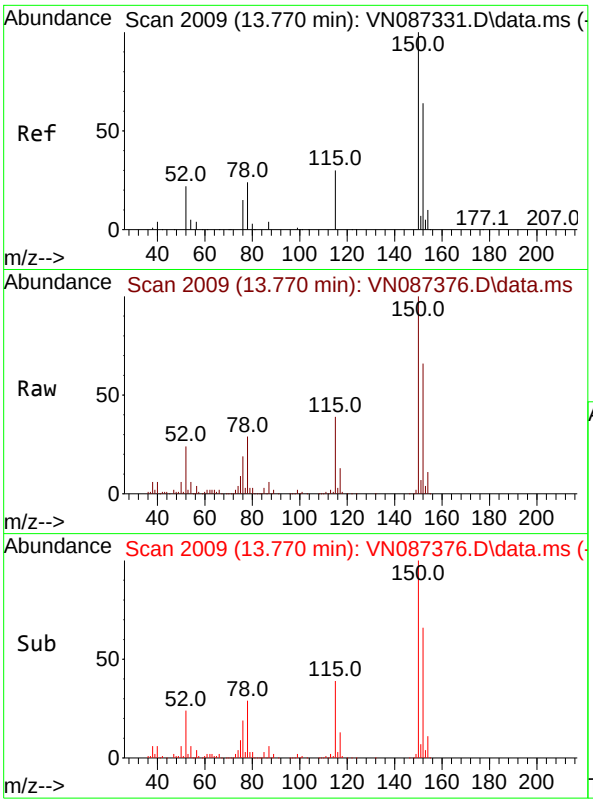


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1682
Delta R.T. -0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Tgt Ion:117 Resp: 328154

Ion	Ratio	Lower	Upper
117	100		
82	55.3	47.4	71.2
119	31.4	23.8	35.8



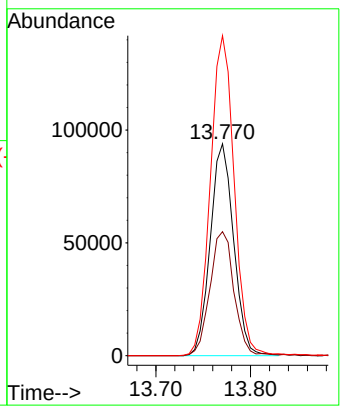


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087376.D
Acq: 21 Jul 2025 13:55

Instrument :
MSVOA_N
ClientSampleId :
P001-CONCRETE001-01

Tgt Ion:152 Resp: 160877

Ion	Ratio	Lower	Upper
152	100		
115	60.8	31.1	93.5
150	153.8	0.0	349.0



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: Alliance Contract: ROYF02

Lab Code: ACE SDG No.: Q2641

Instrument ID: MSVOA_N Calibration Date(s): 07/16/2025 07/16/2025

Heated Purge: (Y/N) N Calibration Time(s): 17:05 18:54

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

LAB FILE ID: RRF001 = VN087328.D RRF005 = VN087329.D RRF020 = VN087330.D
RRF050 = VN087331.D RRF100 = VN087332.D RRF150 = VN087333.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Vinyl Chloride	0.554	0.665	0.623	0.728	0.692	0.720	0.664	9.9
1,1-Dichloroethene	0.635	0.641	0.553	0.545	0.514	0.537	0.571	9.4
2-Butanone	0.552	0.608	0.650	0.643	0.617	0.618	0.615	5.7
Carbon Tetrachloride	0.453	0.523	0.498	0.517	0.504	0.518	0.502	5.1
Chloroform	1.181	1.299	1.303	1.279	1.214	1.234	1.251	4
Benzene	1.370	1.430	1.502	1.553	1.483	1.499	1.473	4.3
1,2-Dichloroethane	0.553	0.565	0.569	0.567	0.544	0.552	0.558	1.8
Trichloroethene	0.373	0.330	0.337	0.356	0.339	0.352	0.348	4.5
Tetrachloroethene	0.329	0.338	0.317	0.320	0.310	0.317	0.322	3.2
Chlorobenzene	1.139	1.131	1.133	1.119	1.092	1.122	1.123	1.5
1,2-Dichloroethane-d4		0.939	0.820	0.802	0.818	0.863	0.848	6.6
Dibromofluoromethane		0.347	0.341	0.332	0.348	0.356	0.345	2.6
Toluene-d8		1.180	1.176	1.224	1.255	1.316	1.230	4.7
4-Bromofluorobenzene		0.405	0.433	0.455	0.476	0.505	0.455	8.5

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report MSVOA_N_NEW

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N071625W.M
Title : SW846 8260
Last Update : Thu Jul 17 02:56:13 2025
Response Via : Initial Calibration

Calibration Files
1 =VN087328.D 5 =VN087329.D 20 =VN087330.D 50 =VN087331.D 100 =VN087332.D 150 =VN087333.D

		Compound	1	5	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluo...	0.447	0.443	0.443	0.623	0.606	0.625	0.531	17.98
3)	P	Chloromethane	0.714	0.659	0.588	0.690	0.659	0.698	0.668	6.70
4)	C	Vinyl Chloride	0.554	0.665	0.623	0.728	0.692	0.720	0.664	9.93#
5)	T	Bromomethane		0.328	0.308	0.355	0.356	0.370	0.344	7.22
6)	T	Chloroethane	0.396	0.485	0.431	0.441	0.415	0.429	0.433	6.96
7)	T	Trichlorofluor...	0.959	0.975	0.963	1.025	0.960	1.007	0.981	2.83
8)	T	Diethyl Ether	0.335	0.391	0.399	0.395	0.371	0.393	0.381	6.40
9)	T	1,1,2-Trichlor...	0.463	0.495	0.539	0.525	0.491	0.509	0.504	5.34
10)	T	Methyl Iodide		0.288	0.360	0.494	0.554	0.564	0.452	27.17
11)	T	Tert butyl alc...		0.164	0.155	0.161	0.161	0.164	0.161	2.41
12)	CM	1,1-Dichloroet...	0.635	0.641	0.553	0.545	0.514	0.537	0.571	9.41#
13)	T	Acrolein		0.140	0.112	0.121	0.130	0.143	0.129	9.85
14)	T	Allyl chloride	0.949	0.978	1.134	1.002	0.995	1.141	1.033	8.02
15)	T	Acrylonitrile	0.419	0.419	0.455	0.453	0.436	0.440	0.437	3.57
16)	T	Acetone	0.455	0.426	0.393	0.387	0.361	0.366	0.398	9.15
17)	T	Carbon Disulfide	1.686	1.685	1.669	1.733	1.643	1.739	1.693	2.20
18)	T	Methyl Acetate	1.007	1.052	0.991	0.991	0.962	0.993	0.999	2.99
19)	T	Methyl tert-bu...	1.911	2.099	2.106	2.167	2.129	2.213	2.104	4.93
20)	T	Methylene Chlo...	1.107	0.788	0.700	0.672	0.655	0.672	0.766	22.70
21)	T	trans-1,2-Dich...	0.667	0.669	0.643	0.653	0.618	0.613	0.644	3.69
22)	T	Diisopropyl ether	1.797	2.199	2.353	2.286	2.165	2.201	2.167	8.94
23)	T	Vinyl Acetate	1.421	1.685	2.101	2.114	2.007	2.044	1.895	14.81
24)	P	1,1-Dichloroet...	1.304	1.325	1.254	1.222	1.185	1.212	1.250	4.38
25)	T	2-Butanone	0.552	0.608	0.650	0.643	0.617	0.618	0.615	5.65
26)	T	2,2-Dichloropr...	1.013	0.963	1.001	0.982	0.933	0.941	0.972	3.34
27)	T	cis-1,2-Dichlo...	0.704	0.737	0.747	0.767	0.740	0.751	0.741	2.83
28)	T	Bromochloromet...	0.596	0.640	0.578	0.595	0.597	0.584	0.598	3.64
29)	T	Tetrahydrofuran	0.360	0.397	0.413	0.425	0.400	0.401	0.399	5.52
30)	C	Chloroform	1.181	1.299	1.303	1.279	1.214	1.234	1.251	3.97#
31)	T	Cyclohexane		1.148	1.039	1.046	0.981	1.002	1.043	6.16
32)	T	1,1,1-Trichlor...	1.043	1.146	1.096	1.084	1.049	1.085	1.084	3.42
33)	S	1,2-Dichloroet...		0.939	0.820	0.802	0.818	0.863	0.848	6.56
34)	I	1,4-Difluorobenzene	----------ISTD----------							
35)	S	Dibromofluorom...		0.347	0.341	0.332	0.348	0.356	0.345	2.55
36)	T	1,1-Dichloropr...	0.387	0.437	0.459	0.487	0.477	0.487	0.456	8.47
37)	T	Ethyl Acetate	0.587	0.671	0.655	0.706	0.660	0.669	0.658	5.94
38)	T	Carbon Tetrach...	0.453	0.523	0.498	0.517	0.504	0.518	0.502	5.10
39)	T	Methylcyclohexane	0.447	0.442	0.482	0.529	0.519	0.541	0.493	8.62
40)	TM	Benzene	1.370	1.430	1.502	1.553	1.483	1.499	1.473	4.34
41)	T	Methacrylonitrile	0.289	0.330	0.362	0.368	0.353	0.363	0.344	8.81
42)	TM	1,2-Dichloroet...	0.553	0.565	0.569	0.567	0.544	0.552	0.558	1.78
43)	T	Isopropyl Acetate	0.938	0.999	1.029	1.071	1.038	1.055	1.022	4.64
44)	TM	Trichloroethene	0.373	0.330	0.337	0.356	0.339	0.352	0.348	4.49
45)	C	1,2-Dichloropr...	0.335	0.367	0.395	0.395	0.376	0.378	0.374	5.90#
46)	T	Dibromomethane	0.265	0.296	0.279	0.289	0.274	0.278	0.280	3.94
47)	T	Bromodichlorom...	0.568	0.572	0.559	0.569	0.553	0.565	0.564	1.21
48)	T	Methyl methacr...	0.372	0.412	0.475	0.505	0.493	0.503	0.460	12.06
49)	T	1,4-Dioxane	0.006	0.007	0.007	0.008	0.008	0.008	0.007	12.52
50)	S	Toluene-d8		1.180	1.176	1.224	1.255	1.316	1.230	4.72
51)	T	4-Methyl-2-Pen...	0.551	0.641	0.685	0.689	0.658	0.652	0.646	7.79
52)	CM	Toluene	0.774	0.849	0.940	0.963	0.916	0.929	0.895	7.93#
53)	T	t-1,3-Dichloro...	0.459	0.536	0.586	0.621	0.607	0.619	0.571	11.08
54)	T	cis-1,3-Dichlo...	0.489	0.564	0.602	0.632	0.620	0.632	0.590	9.40
55)	T	1,1,2-Trichlor...	0.367	0.364	0.365	0.367	0.357	0.354	0.362	1.57
56)	T	Ethyl methacry...	0.348	0.486	0.567	0.627	0.626	0.656	0.552	21.20

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N071625W.M

57)	T	1,3-Dichloropr...	0.556	0.621	0.652	0.655	0.636	0.640	0.627	5.82
58)	T	2-Chloroethyl ...	0.220	0.273	0.303	0.346	0.310	0.332	0.297	15.20
59)	T	2-Hexanone	0.279	0.373	0.465	0.495	0.481	0.479	0.429	19.95
60)	T	Dibromochlorom...	0.352	0.416	0.425	0.430	0.424	0.433	0.413	7.39
61)	T	1,2-Dibromoethane	0.367	0.373	0.391	0.385	0.381	0.389	0.381	2.49
62)	S	4-Bromofluorob...		0.405	0.433	0.455	0.476	0.505	0.455	8.46
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.329	0.338	0.317	0.320	0.310	0.317	0.322	3.16
65)	PM	Chlorobenzene	1.139	1.131	1.133	1.119	1.092	1.122	1.123	1.48
66)	T	1,1,1,2-Tetrac...	0.324	0.406	0.393	0.393	0.381	0.394	0.382	7.64
67)	C	Ethyl Benzene	1.643	1.738	1.882	1.942	1.905	1.979	1.848	7.04#
68)	T	m/p-Xylenes	0.541	0.646	0.717	0.758	0.734	0.756	0.692	12.20
69)	T	o-Xylene	0.491	0.606	0.702	0.723	0.710	0.734	0.661	14.39
70)	T	Styrene	0.726	1.032	1.186	1.255	1.217	1.257	1.112	18.59
71)	P	Bromoform	0.246	0.302	0.314	0.328	0.322	0.337	0.308	10.69
72)	I	1,4-Dichlorobenzen...	----------ISTD----------							
73)	T	Isopropylbenzene	2.524	2.889	3.242	3.396	3.302	3.529	3.147	11.86
74)	T	N-amyl acetate	1.309	1.256	1.249	1.138	1.378	1.515	1.307	9.83
75)	P	1,1,2,2-Tetrac...	1.159	1.181	1.228	1.207	1.156	1.174	1.184	2.37
76)	T	1,2,3-Trichlor...	1.208	1.238	1.101	1.191	0.969	1.019	1.121	9.79
77)	T	Bromobenzene	0.669	0.791	0.862	0.869	0.830	0.876	0.816	9.63
78)	T	n-propylbenzene	3.252	3.716	4.089	4.294	4.109	4.295	3.959	10.25
79)	T	2-Chlorotoluene	2.085	2.348	2.535	2.533	2.493	2.605	2.433	7.84
80)	T	1,3,5-Trimethy...	2.069	2.517	2.816	2.928	2.799	2.959	2.681	12.62
81)	T	trans-1,4-Dich...		0.327	0.448	0.404	0.417	0.453	0.410	12.30
82)	T	4-Chlorotoluene	2.225	2.460	2.618	2.647	2.552	2.699	2.533	6.79
83)	T	tert-Butylbenzene	1.781	2.068	2.303	2.423	2.376	2.485	2.239	11.92
84)	T	1,2,4-Trimethy...	2.201	2.411	2.906	3.003	2.872	3.034	2.738	12.64
85)	T	sec-Butylbenzene	3.120	3.136	3.460	3.565	3.387	3.570	3.373	5.98
86)	T	p-Isopropyltol...	2.081	2.417	2.806	2.991	2.893	3.032	2.703	13.90
87)	T	1,3-Dichlorobe...	1.448	1.592	1.651	1.657	1.588	1.674	1.602	5.19
88)	T	1,4-Dichlorobe...	1.807	1.709	1.742	1.703	1.627	1.677	1.711	3.56
89)	T	n-Butylbenzene	2.278	2.425	2.648	2.761	2.614	2.762	2.581	7.49
90)	T	Hexachloroethane	0.593	0.564	0.562	0.576	0.552	0.590	0.573	2.86
91)	T	1,2-Dichlorobe...	1.303	1.534	1.596	1.577	1.510	1.583	1.517	7.23
92)	T	1,2-Dibromo-3-...	0.339	0.325	0.304	0.302	0.290	0.305	0.311	5.76
93)	T	1,2,4-Trichlor...	0.761	0.860	0.875	0.937	0.921	0.994	0.891	8.94
94)	T	Hexachlorobuta...	0.351	0.337	0.324	0.329	0.316	0.331	0.331	3.57
95)	T	Naphthalene	2.486	2.658	3.113	3.441	3.451	3.797	3.158	16.01
96)	T	1,2,3-Trichlor...	0.803	0.844	0.887	0.922	0.917	0.992	0.894	7.37

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087328.D
Acq On : 16 Jul 2025 17:05
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 17 02:16:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	166177	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	312474	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	274838	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	128808	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l	
Spiked Amount 50.000	Range 74 - 125		Recovery =	0.000%#		
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l	
Spiked Amount 50.000	Range 75 - 124		Recovery =	0.000%#		
50) Toluene-d8	0.000	98	0d	0.000	ug/l	
Spiked Amount 50.000	Range 86 - 113		Recovery =	0.000%#		
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l	
Spiked Amount 50.000	Range 77 - 121		Recovery =	0.000%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	1484	0.841	ug/l	98
3) Chloromethane	2.389	50	2372	1.069	ug/l	96
4) Vinyl Chloride	2.542	62	1841	0.835	ug/l #	68
6) Chloroethane	3.153	64	1316	0.915	ug/l	93
7) Trichlorofluoromethane	3.506	101	3187	0.977	ug/l	92
8) Diethyl Ether	3.965	74	1114	0.880	ug/l	79
9) 1,1,2-Trichlorotrifluo...	4.371	101	1539	0.919	ug/l #	31
12) 1,1-Dichloroethene	4.347	96	2112	1.113	ug/l #	53
14) Allyl chloride	5.012	41	3155m	0.919	ug/l	
15) Acrylonitrile	5.712	53	6965	4.794	ug/l #	80
16) Acetone	4.430	43	7566m	5.660	ug/l	
17) Carbon Disulfide	4.700	76	5602	0.996	ug/l #	71
18) Methyl Acetate	5.018	43	3347	1.008	ug/l #	74
19) Methyl tert-butyl Ether	5.789	73	6351m	0.908	ug/l	
20) Methylene Chloride	5.271	84	3679	1.019	ug/l #	74
21) trans-1,2-Dichloroethene	5.777	96	2216	1.036	ug/l #	53
22) Diisopropyl ether	6.659	45	5973	0.829	ug/l #	75
23) Vinyl Acetate	6.600	43	23617	3.749	ug/l #	93
24) 1,1-Dichloroethane	6.547	63	4333	1.043	ug/l #	83
25) 2-Butanone	7.477	43	9174	4.491	ug/l	99
26) 2,2-Dichloropropane	7.471	77	3368	1.043	ug/l #	67
27) cis-1,2-Dichloroethene	7.471	96	2340	0.950	ug/l	99
28) Bromochloromethane	7.794	49	1982	0.997	ug/l #	85
29) Tetrahydrofuran	7.835	42	5981	4.507	ug/l	94
30) Chloroform	7.953	83	3924	0.943	ug/l #	71
32) 1,1,1-Trichloroethane	8.165	97	3468	0.963	ug/l #	45
36) 1,1-Dichloropropene	8.353	75	2421	0.850	ug/l	96
37) Ethyl Acetate	7.547	43	3670	0.892	ug/l #	82
38) Carbon Tetrachloride	8.341	117	2833	0.903	ug/l #	83
39) Methylcyclohexane	9.588	83	2794	0.906	ug/l #	86
40) Benzene	8.588	78	8561	0.930	ug/l	97
41) Methacrylonitrile	7.771	41	1805	0.839	ug/l #	87
42) 1,2-Dichloroethane	8.653	62	3456	0.990	ug/l	89
43) Isopropyl Acetate	8.677	43	5865	0.919	ug/l #	95
44) Trichloroethene	9.341	130	2331	1.072	ug/l	70
45) 1,2-Dichloropropane	9.606	63	2094	0.895	ug/l #	86

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087328.D
Acq On : 16 Jul 2025 17:05
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Quant Time: Jul 17 02:16:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Dibromomethane	9.694	93	1657	0.946	ug/l	#	87
47) Bromodichloromethane	9.871	83	3549	1.006	ug/l	#	91
48) Methyl methacrylate	9.671	41	2322	0.808	ug/l		94
49) 1,4-Dioxane	9.682	88	696	15.810	ug/l	#	53
51) 4-Methyl-2-Pentanone	10.429	43	17216	4.263	ug/l		91
52) Toluene	10.612	92	4834	0.864	ug/l		91
53) t-1,3-Dichloropropene	10.818	75	2869	0.804	ug/l	#	56
54) cis-1,3-Dichloropropene	10.294	75	3059	0.830	ug/l		94
55) 1,1,2-Trichloroethane	11.000	97	2294	1.013	ug/l	#	83
56) Ethyl methacrylate	10.859	69	2173	1.217	ug/l	#	90
57) 1,3-Dichloropropane	11.141	76	3477	0.888	ug/l		95
58) 2-Chloroethyl Vinyl ether	10.141	63	6887	3.707	ug/l		96
59) 2-Hexanone	11.182	43	8707	3.250	ug/l		87
60) Dibromochloromethane	11.347	129	2200	0.852	ug/l		82
61) 1,2-Dibromoethane	11.459	107	2291	0.962	ug/l		90
64) Tetrachloroethene	11.088	164	1807	1.022	ug/l	#	75
65) Chlorobenzene	11.870	112	6259	1.014	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.941	131	1783	0.850	ug/l	#	50
67) Ethyl Benzene	11.941	91	9031	0.889	ug/l		92
68) m/p-Xylenes	12.053	106	5952	1.565	ug/l		97
69) o-Xylene	12.388	106	2700	0.743	ug/l		91
70) Styrene	12.400	104	3989	0.653	ug/l		91
71) Bromoform	12.559	173	1351	0.797	ug/l	#	94
73) Isopropylbenzene	12.682	105	6501	0.802	ug/l		95
74) N-amyl acetate	12.841	43	3372m	1.065	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.917	83	2986	0.979	ug/l	#	78
76) 1,2,3-Trichloropropane	12.976	75	3113m	1.089	ug/l		
77) Bromobenzene	12.953	156	1724	0.820	ug/l		79
78) n-propylbenzene	13.017	91	8378	0.821	ug/l		95
79) 2-Chlorotoluene	13.100	91	5372	0.857	ug/l		93
80) 1,3,5-Trimethylbenzene	13.147	105	5329	0.772	ug/l		93
82) 4-Chlorotoluene	13.200	91	5733	0.878	ug/l		96
83) tert-Butylbenzene	13.412	119	4588	0.795	ug/l		90
84) 1,2,4-Trimethylbenzene	13.464	105	5671	0.804	ug/l		87
85) sec-Butylbenzene	13.594	105	8037	0.925	ug/l		97
86) p-Isopropyltoluene	13.712	119	5360	0.770	ug/l		92
87) 1,3-Dichlorobenzene	13.712	146	3731	0.904	ug/l		89
88) 1,4-Dichlorobenzene	13.794	146	4655m	1.056	ug/l		
89) n-Butylbenzene	14.035	91	5869	0.883	ug/l		91
90) Hexachloroethane	14.317	117	1527	1.035	ug/l		87
91) 1,2-Dichlorobenzene	14.088	146	3358	0.859	ug/l		85
92) 1,2-Dibromo-3-Chloropr...	14.711	75	874	1.091	ug/l	#	56
93) 1,2,4-Trichlorobenzene	15.376	180	1960	0.854	ug/l		78
94) Hexachlorobutadiene	15.476	225	903	1.058	ug/l		76
95) Naphthalene	15.611	128	6404	0.787	ug/l	#	95
96) 1,2,3-Trichlorobenzene	15.806	180	2068	0.898	ug/l		99

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

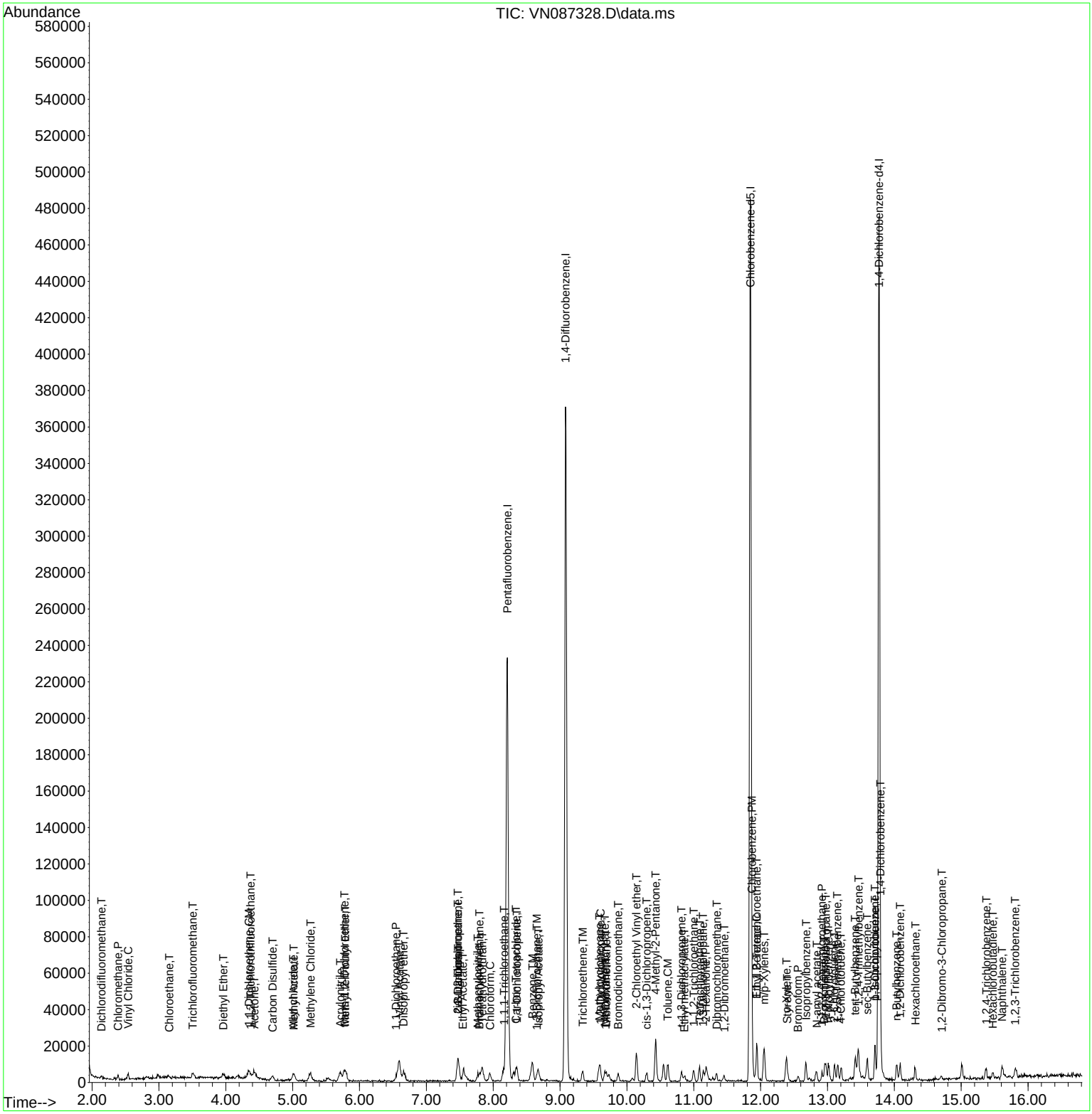
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087328.D
Acq On : 16 Jul 2025 17:05
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

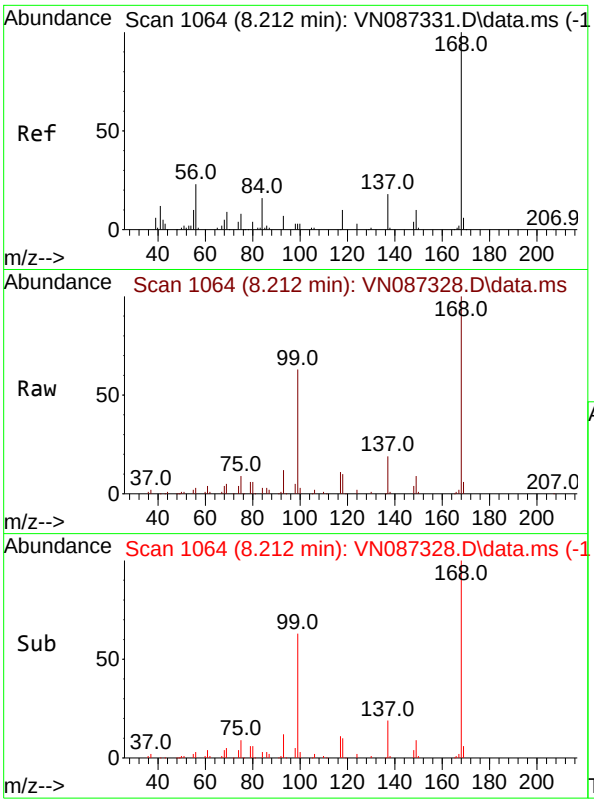
Quant Time: Jul 17 02:16:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

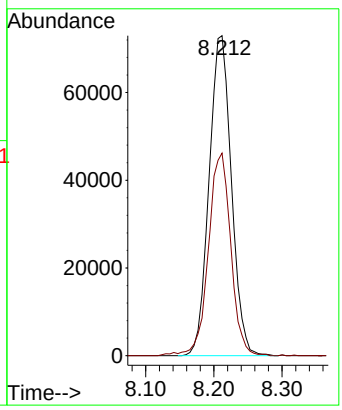




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:168 Resp: 16617

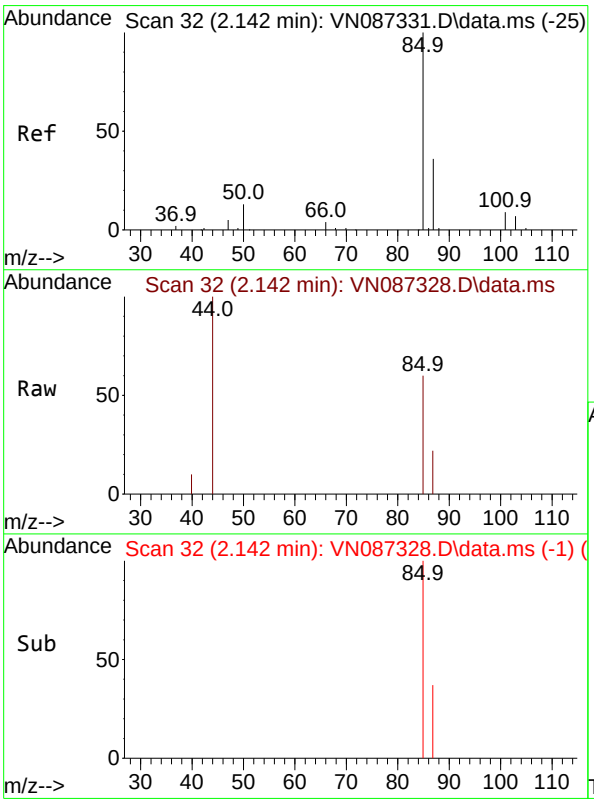
Ion	Ratio	Lower	Upper
168	100		
99	63.3	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

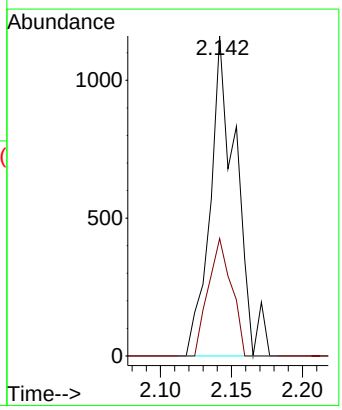
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

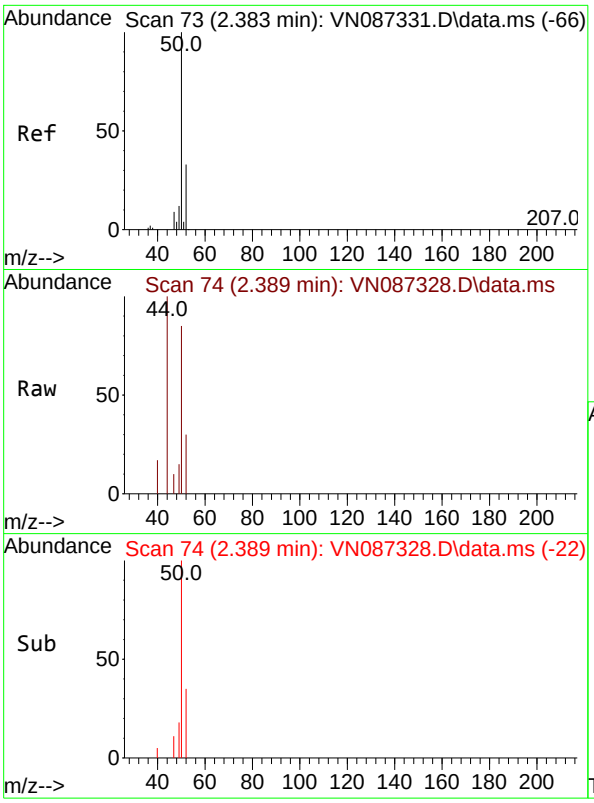


#2
Dichlorodifluoromethane
Concen: 0.841 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 85 Resp: 1484

Ion	Ratio	Lower	Upper
85	100		
87	36.7	17.8	53.3

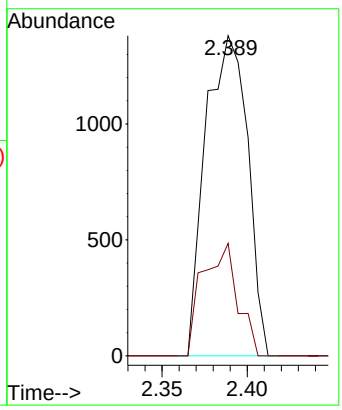




#3
Chloromethane
Concen: 1.069 ug/l
RT: 2.389 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 50 Resp: 237

Ion	Ratio	Lower	Upper
50	100		
52	35.1	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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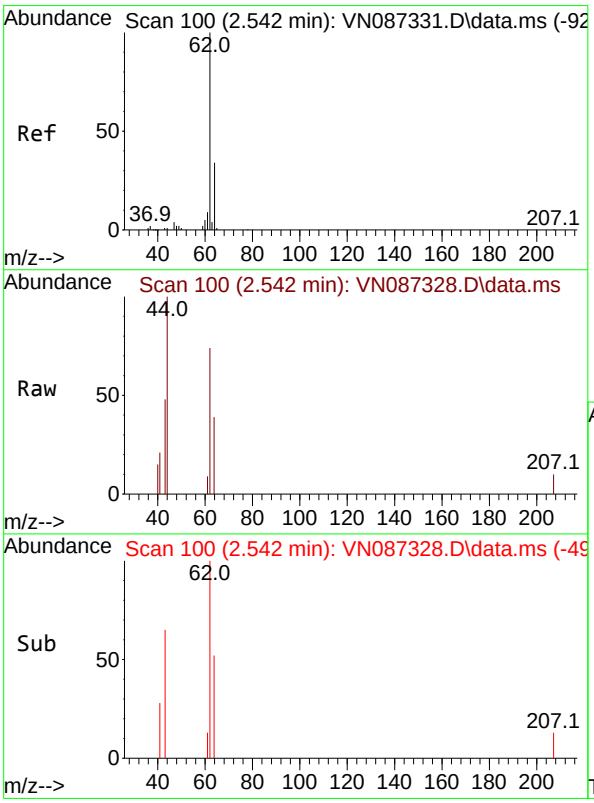
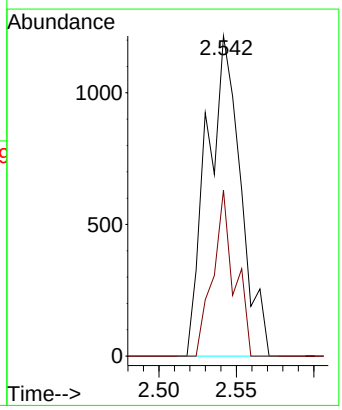
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

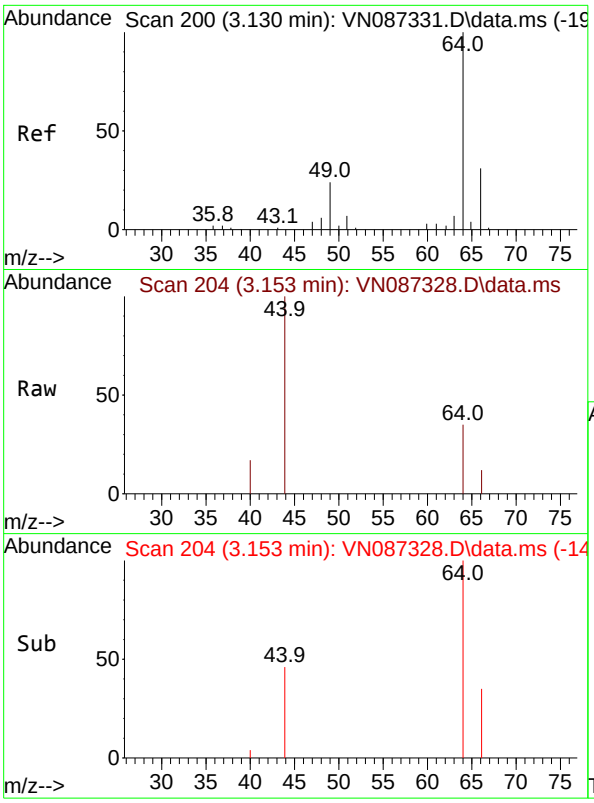


#4
Vinyl Chloride
Concen: 0.835 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 62 Resp: 1841

Ion	Ratio	Lower	Upper
62	100		
64	51.9	27.0	40.6#

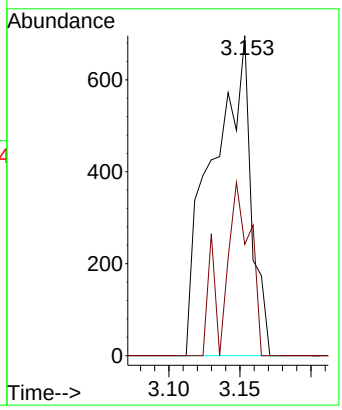




#6
Chloroethane
Concen: 0.915 ug/l
RT: 3.153 min Scan# 2(
Delta R.T. 0.024 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 64 Resp: 131(

Ion	Ratio	Lower	Upper
64	100		
66	34.8	24.6	36.8



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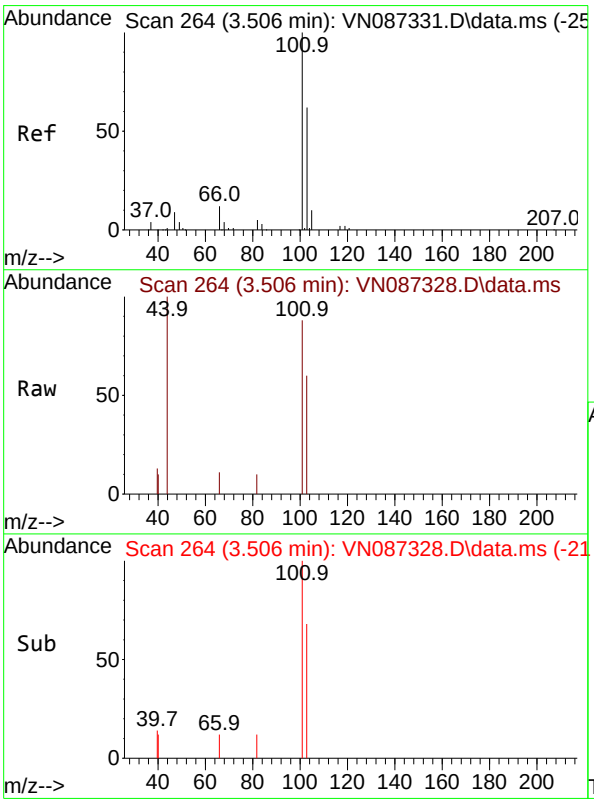
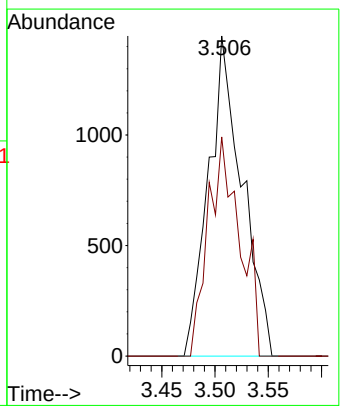
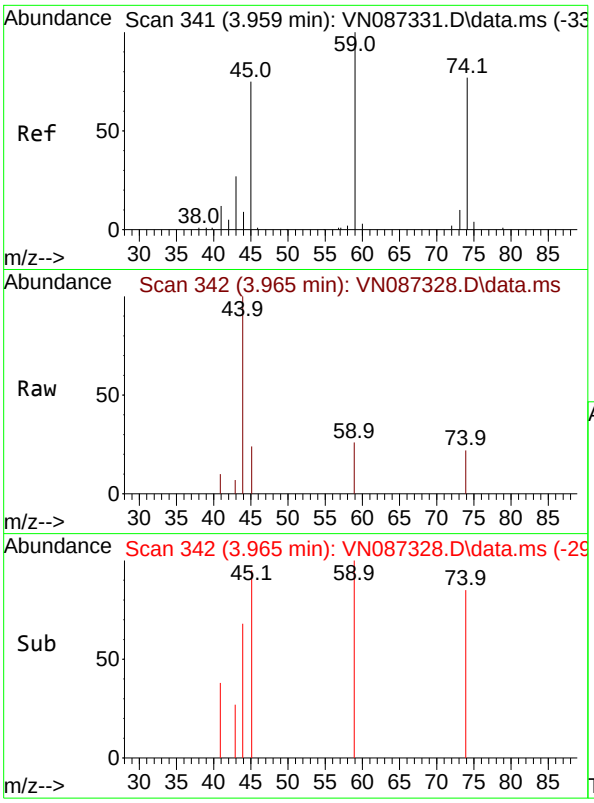


#7
Trichlorofluoromethane
Concen: 0.977 ug/l
RT: 3.506 min Scan# 264
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:101 Resp: 3187

Ion	Ratio	Lower	Upper
101	100		
103	68.4	49.8	74.6





#8
Diethyl Ether
Concen: 0.880 ug/l
RT: 3.965 min Scan# 34
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 74 Resp: 111

Ion	Ratio	Lower	Upper
74	100		
45	122.6	50.8	152.5

Instrument :
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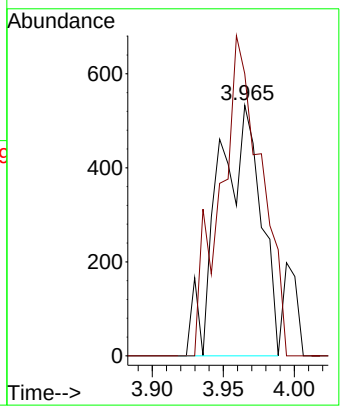
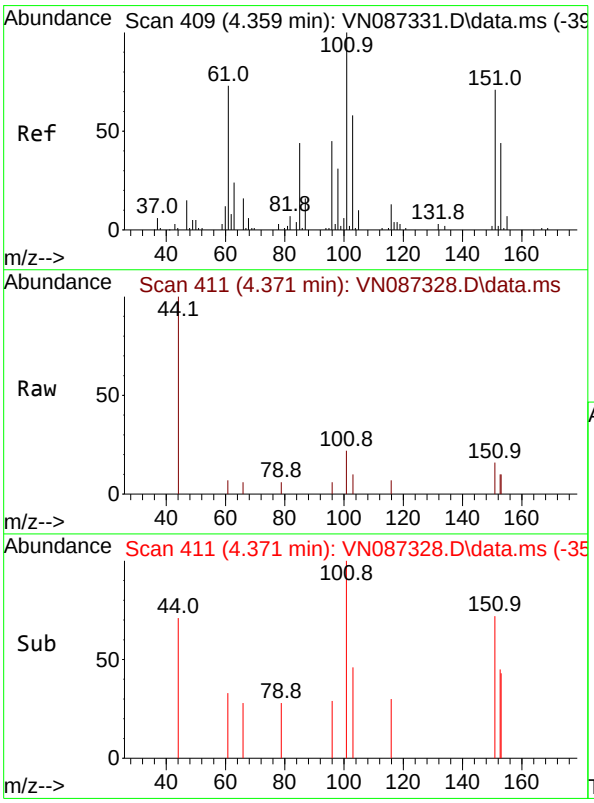
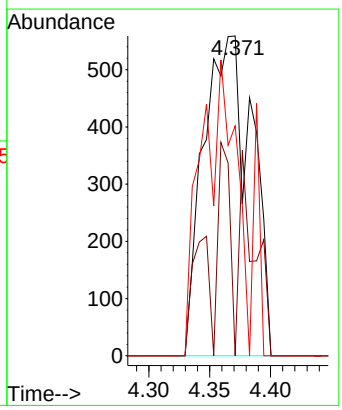


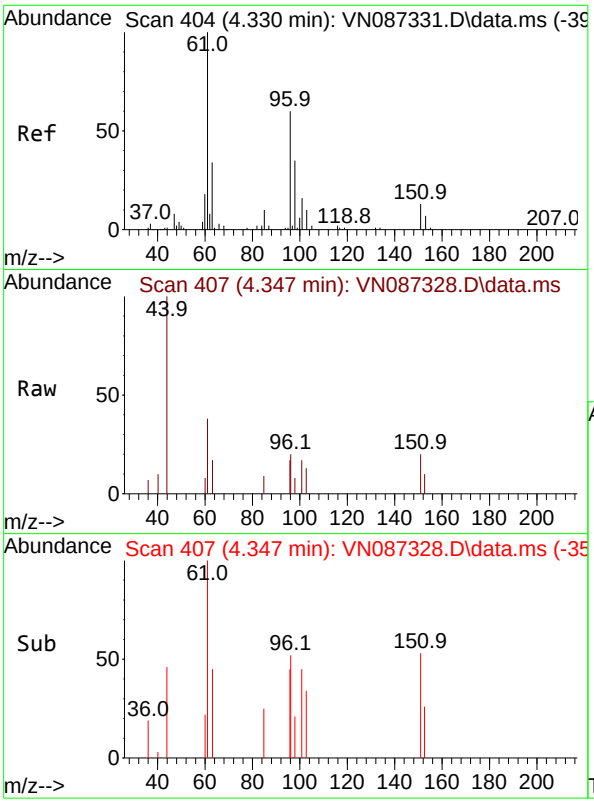


#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.919 ug/l
RT: 4.371 min Scan# 411
Delta R.T. 0.012 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:101 Resp: 1539

Ion	Ratio	Lower	Upper
101	100		
85	20.5	37.3	55.9#
151	0.0	58.9	88.3#

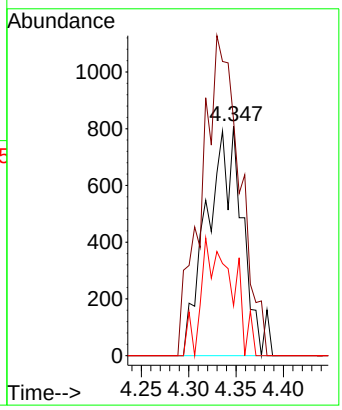




#12
1,1-Dichloroethene
Concen: 1.113 ug/l
RT: 4.347 min Scan# 4(
Delta R.T. 0.018 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 96 Resp: 211

Ion	Ratio	Lower	Upper
96	100		
61	102.7	132.3	198.5#
98	21.8	46.8	70.2#



Instrument :
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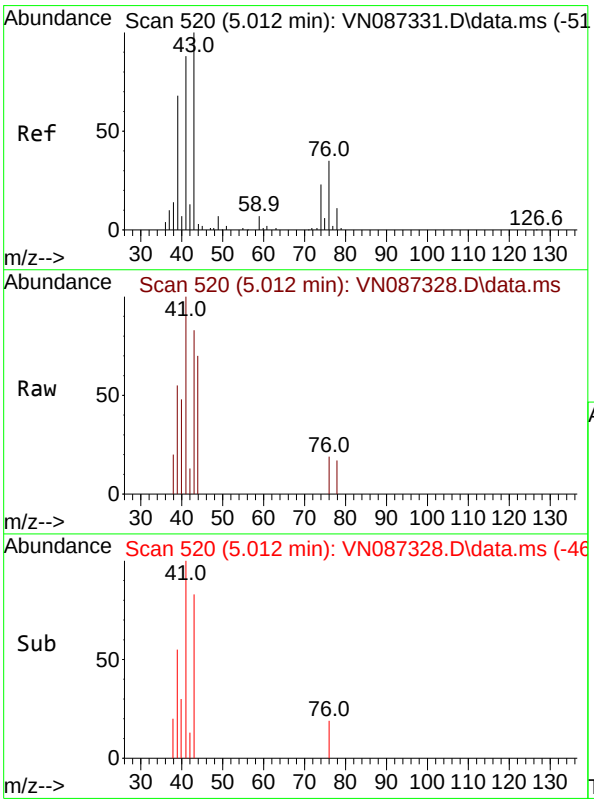
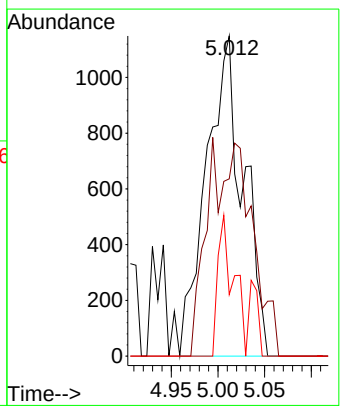
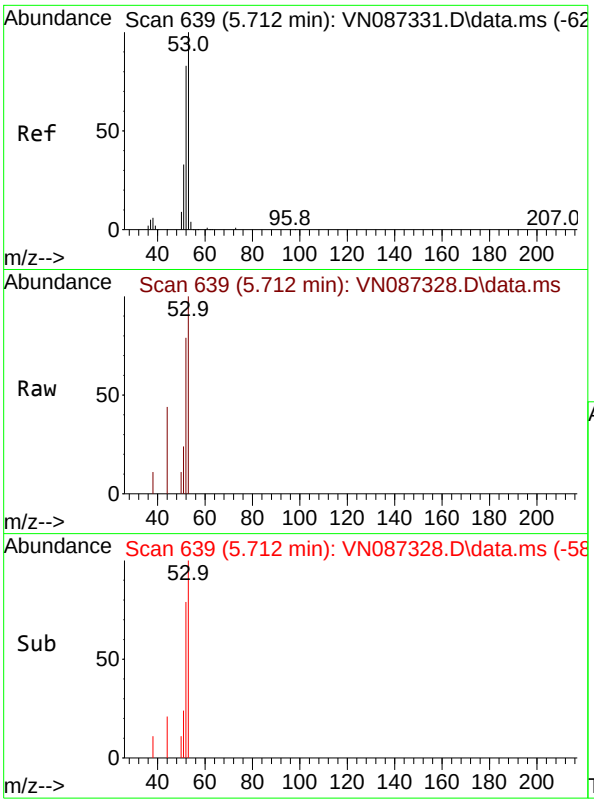


#14
Allyl chloride
Concen: 0.919 ug/l m
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 41 Resp: 3155

Ion	Ratio	Lower	Upper
41	100		
39	46.1	59.0	88.6#
76	18.6	28.7	43.1#

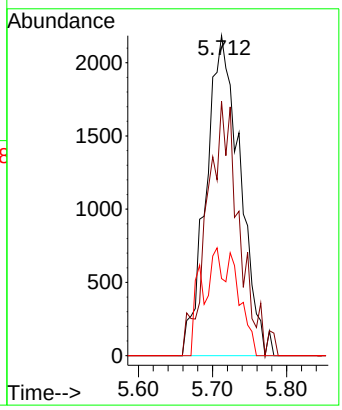




#15
Acrylonitrile
Concen: 4.794 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 53 Resp: 696

Ion	Ratio	Lower	Upper
53	100		
52	75.2	65.5	98.3
51	7.2	28.7	43.1#



Instrument :
MSVOA_N
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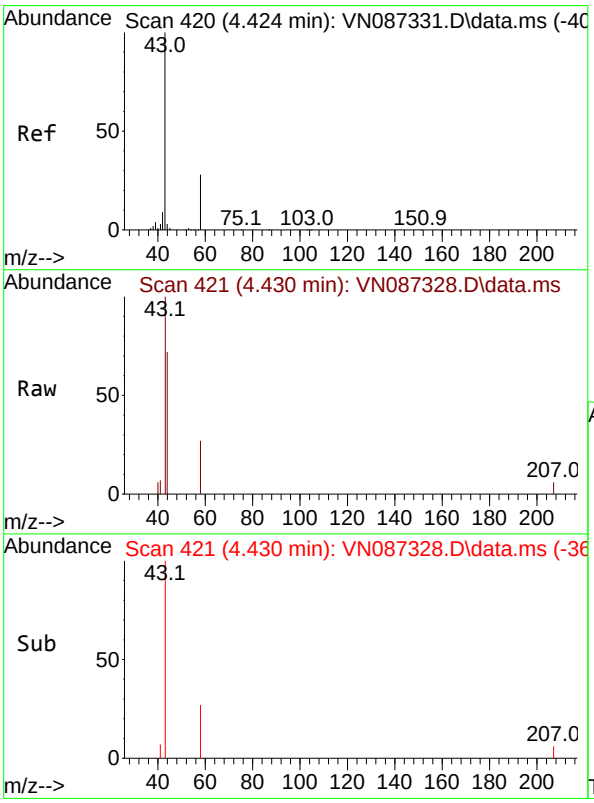
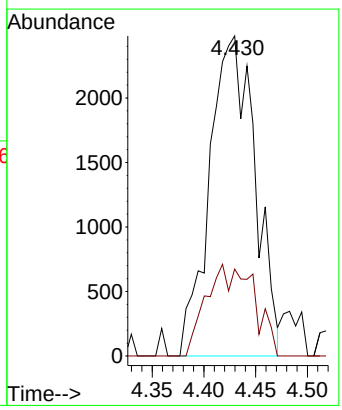
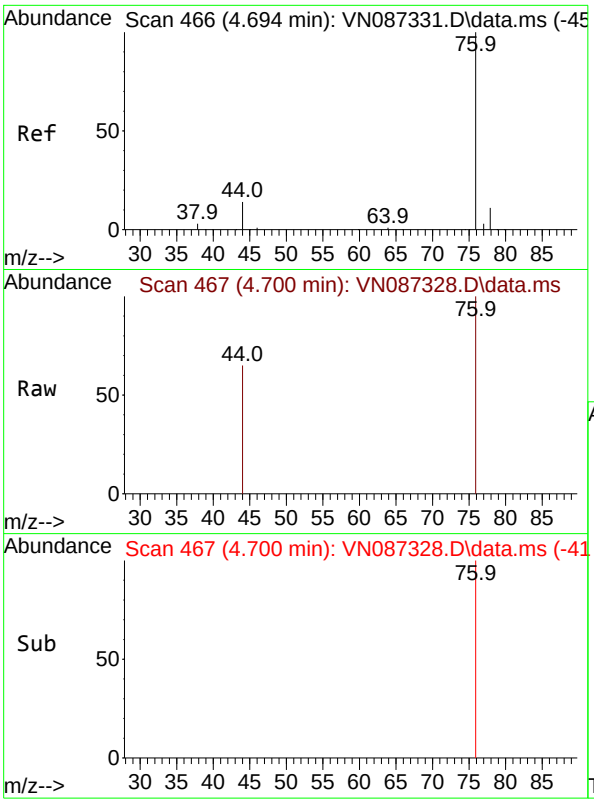


#16
Acetone
Concen: 5.660 ug/l m
RT: 4.430 min Scan# 421
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 7566

Ion	Ratio	Lower	Upper
43	100		
58	27.2	22.3	33.5





#17
Carbon Disulfide
Concen: 0.996 ug/l
RT: 4.700 min Scan# 4(
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 76 Resp: 560

Ion	Ratio	Lower	Upper
76	100		
78	0.0	8.6	13.0#

Instrument :
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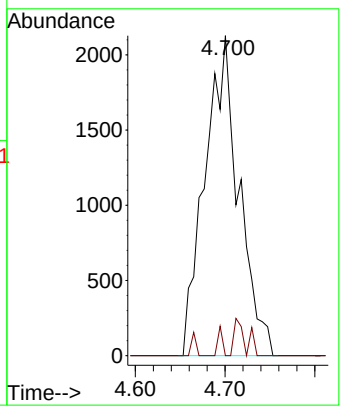
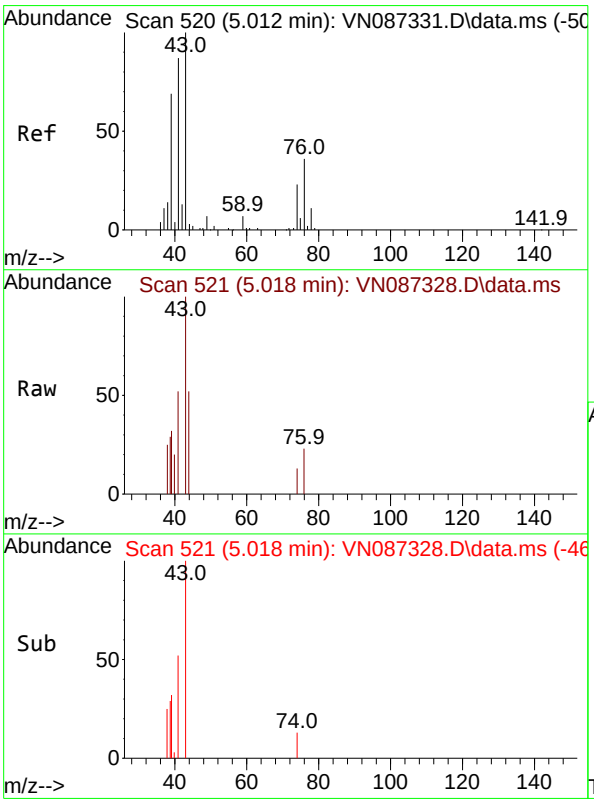
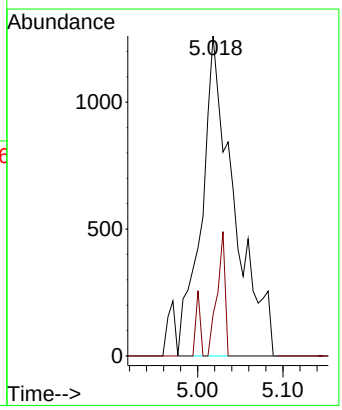


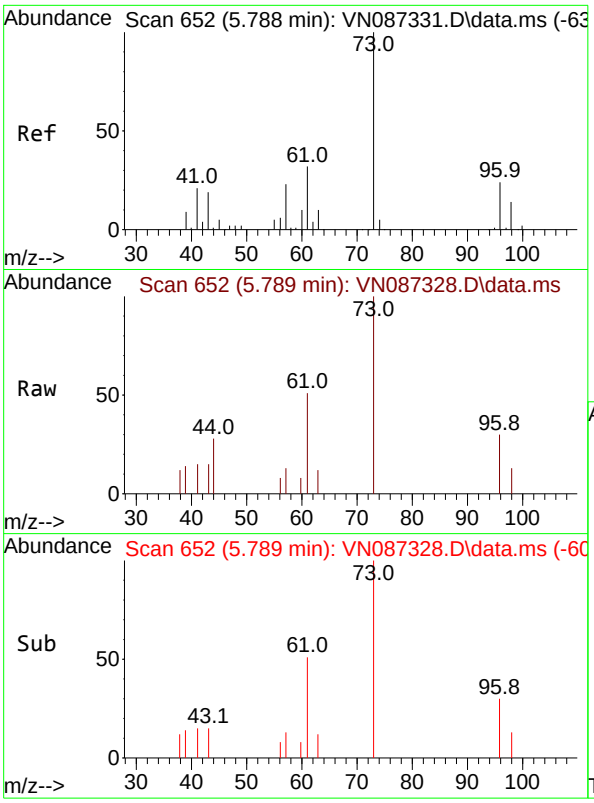


#18
Methyl Acetate
Concen: 1.008 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 3347

Ion	Ratio	Lower	Upper
43	100		
74	9.5	17.8	26.6#

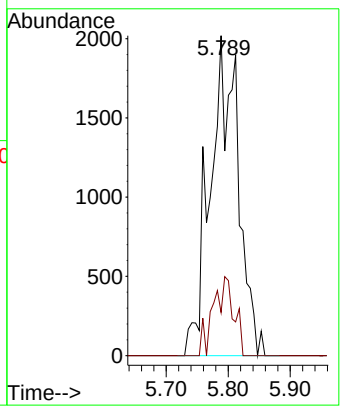




#19
Methyl tert-butyl Ether
Concen: 0.908 ug/l m
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 73 Resp: 635

Ion	Ratio	Lower	Upper
73	100		
57	13.5	18.6	27.8#



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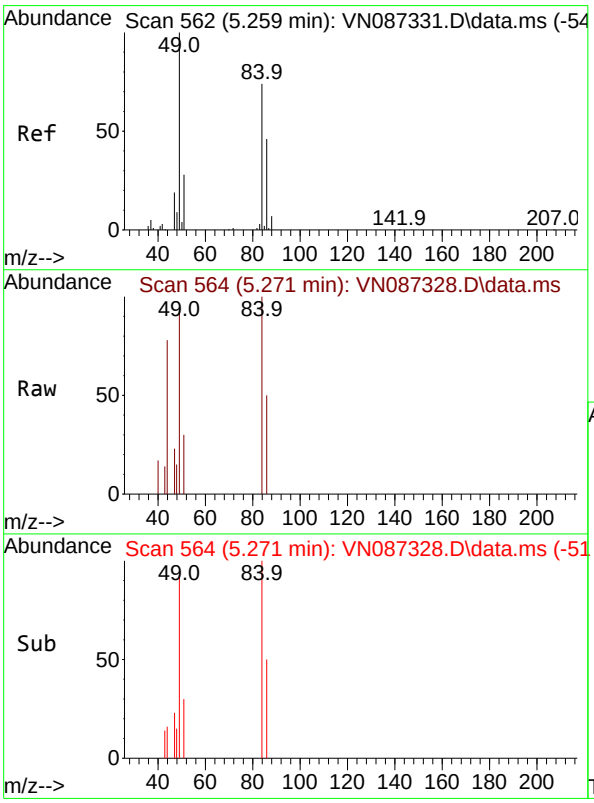
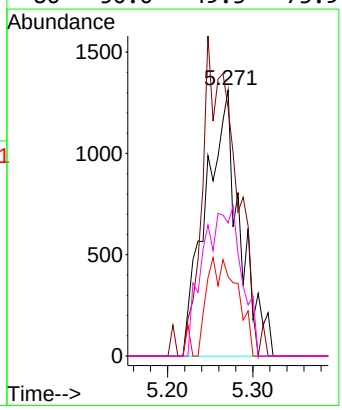
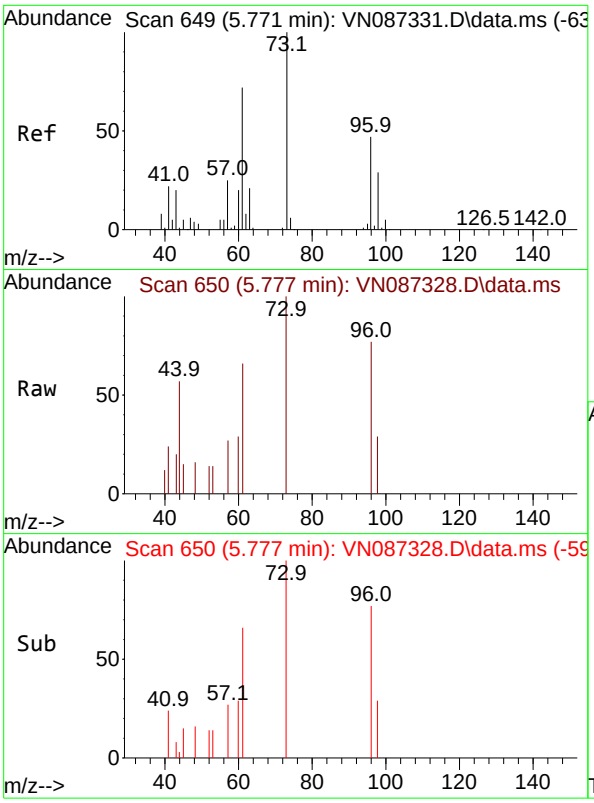


#20
Methylene Chloride
Concen: 1.019 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.012 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 84 Resp: 3679

Ion	Ratio	Lower	Upper
84	100		
49	93.3	107.5	161.3#
51	29.8	30.2	45.2#
86	50.0	49.3	73.9





#21
trans-1,2-Dichloroethene
Concen: 1.036 ug/l
RT: 5.777 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 96 Resp: 221

Ion	Ratio	Lower	Upper
96	100		
61	85.5	122.0	183.0#
98	37.1	50.0	75.0#

Instrument :
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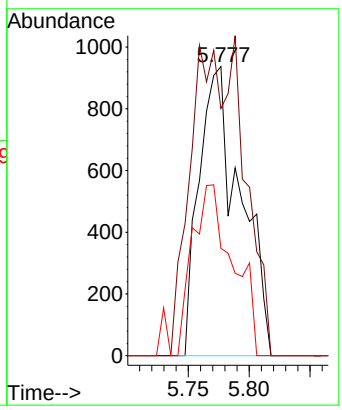
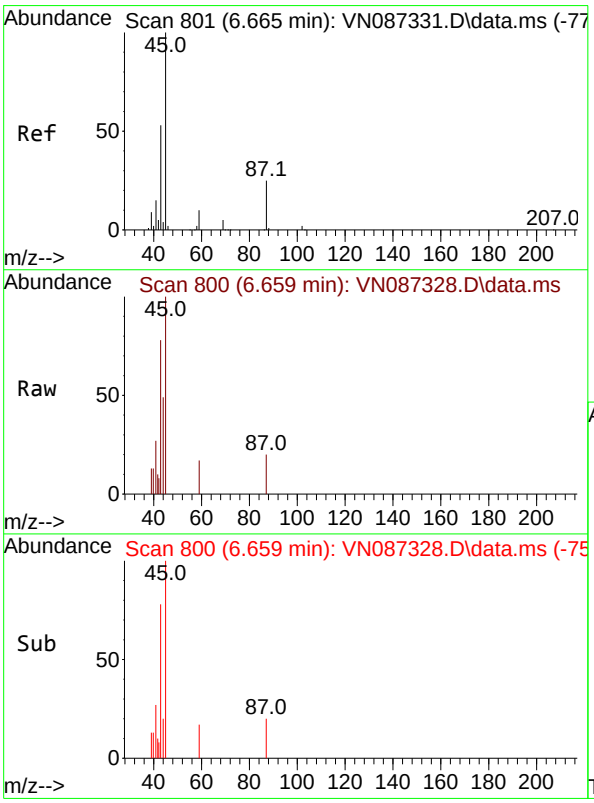
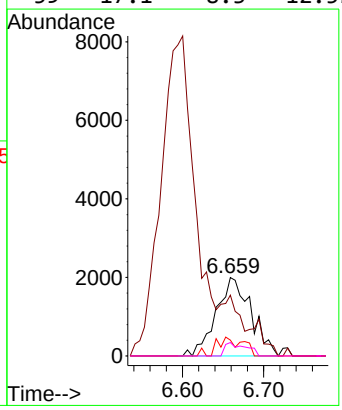


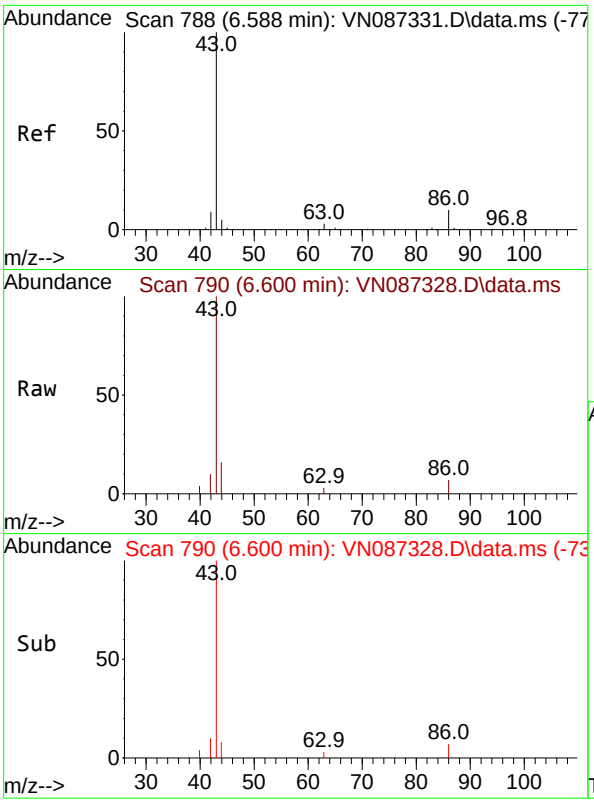


#22
Diisopropyl ether
Concen: 0.829 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 45 Resp: 5973

Ion	Ratio	Lower	Upper
45	100		
43	77.6	42.8	64.2#
87	20.3	19.8	29.6
59	17.1	8.3	12.5#





#23
Vinyl Acetate
Concen: 3.749 ug/l
RT: 6.600 min Scan# 7
Delta R.T. 0.012 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 2361

Ion	Ratio	Lower	Upper
43	100		
86	7.1	7.7	11.5#

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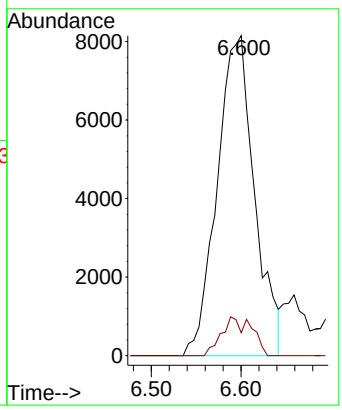
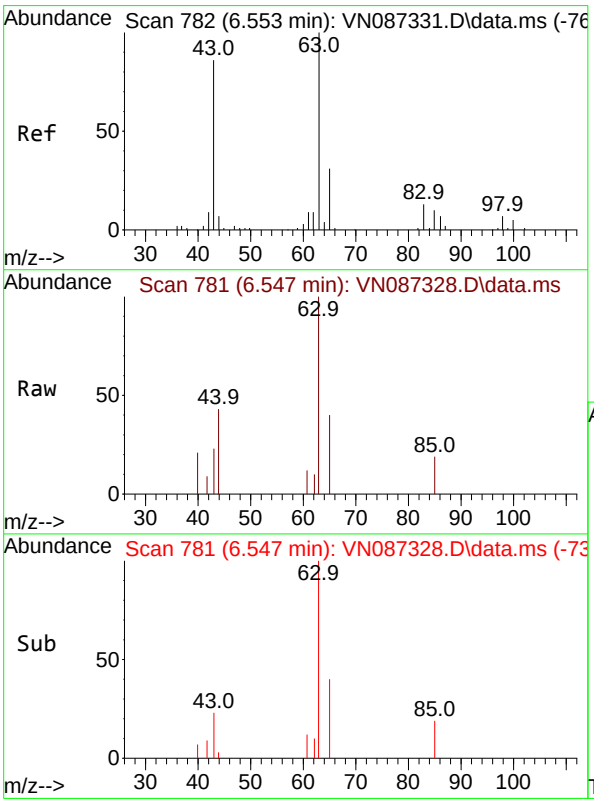
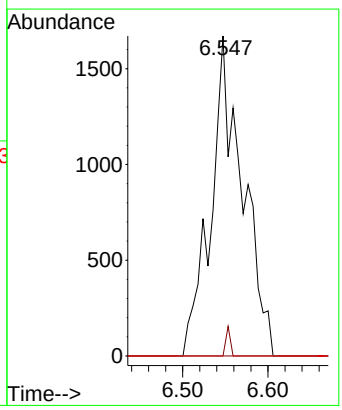


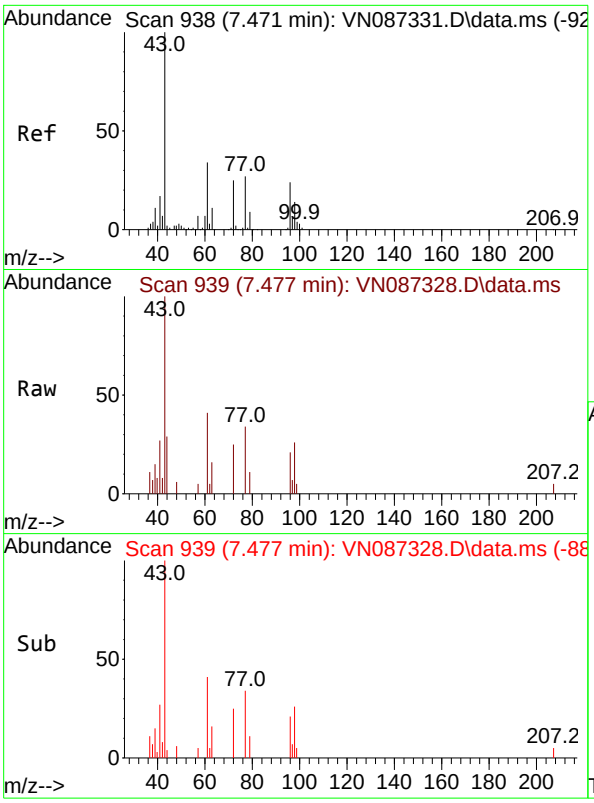


#24
1,1-Dichloroethane
Concen: 1.043 ug/l
RT: 6.547 min Scan# 781
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 63 Resp: 4333

Ion	Ratio	Lower	Upper
63	100		
98	0.0	3.3	9.9#
100	0.0	2.5	7.4#

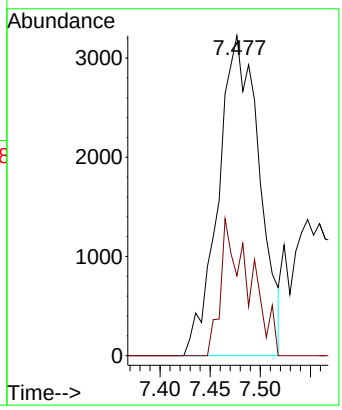




#25
2-Butanone
Concen: 4.491 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 917

Ion	Ratio	Lower	Upper
43	100		
72	24.9	19.6	29.4



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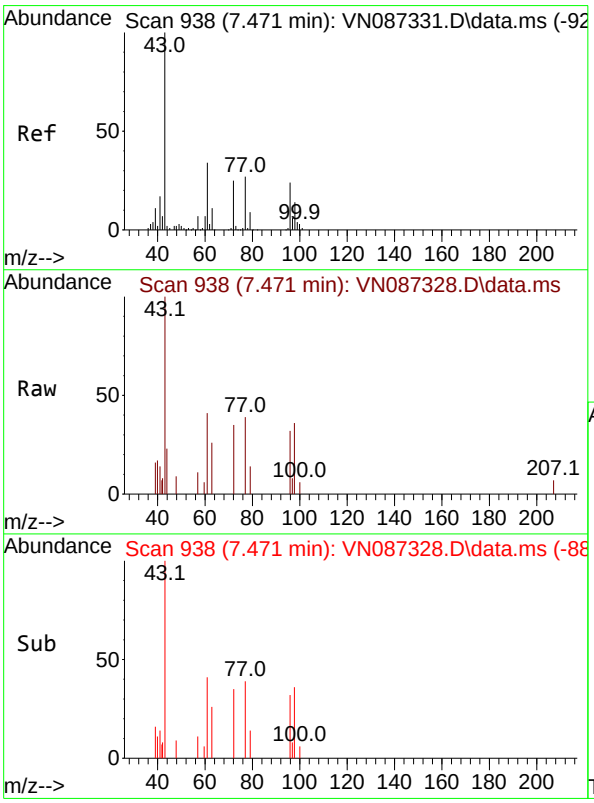
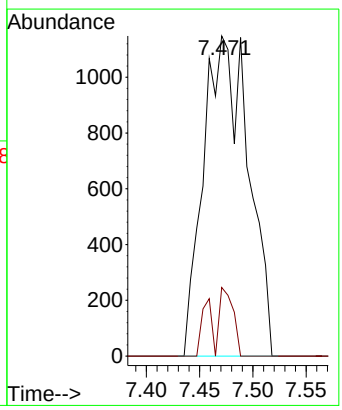
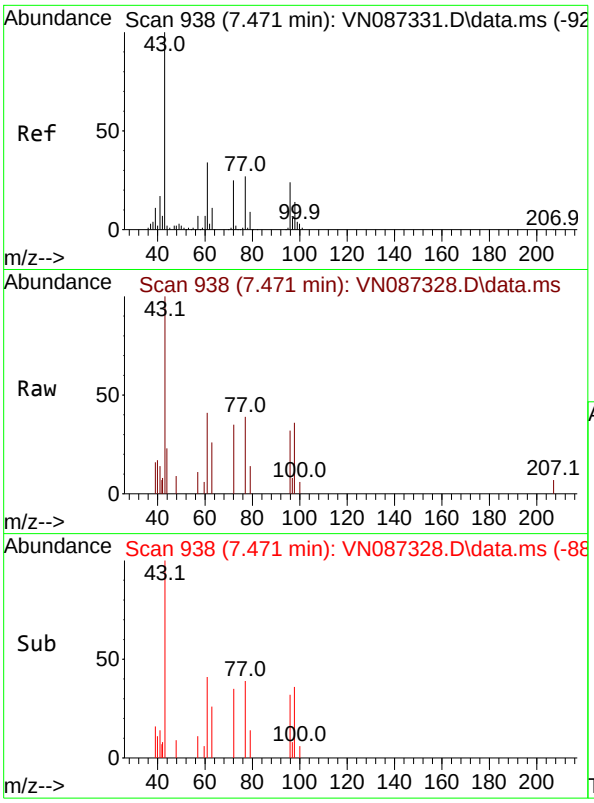


#26
2,2-Dichloropropane
Concen: 1.043 ug/l
RT: 7.471 min Scan# 938
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 77 Resp: 3368

Ion	Ratio	Lower	Upper
77	100		
97	6.5	11.1	33.1#

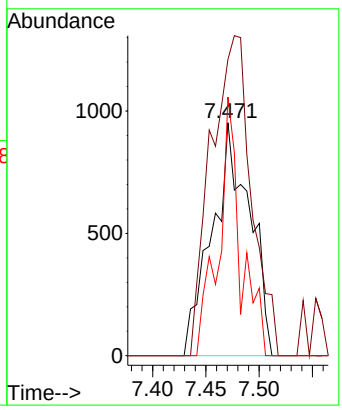




#27
cis-1,2-Dichloroethene
Concen: 0.950 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 96 Resp: 234

Ion	Ratio	Lower	Upper
96	100		
61	147.9	0.0	297.8
98	65.5	0.0	132.4



Instrument :
MSVOA_N
ClientSampleId :
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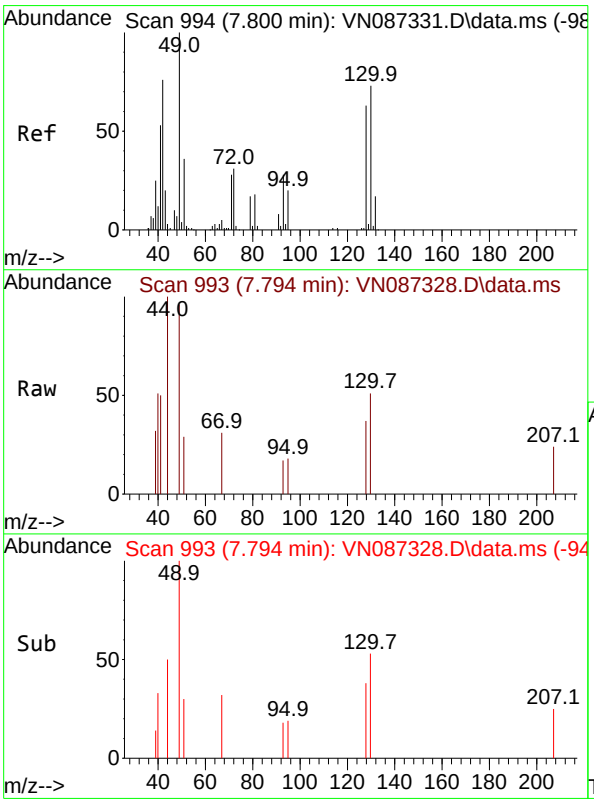
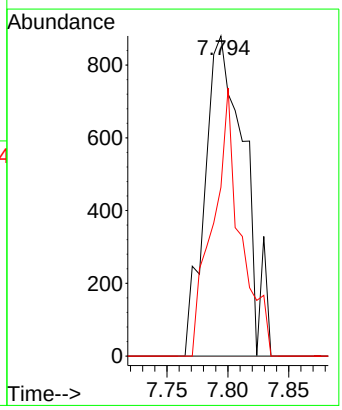
Supervised By :Semsettin Yesilyurt 07/17/2025

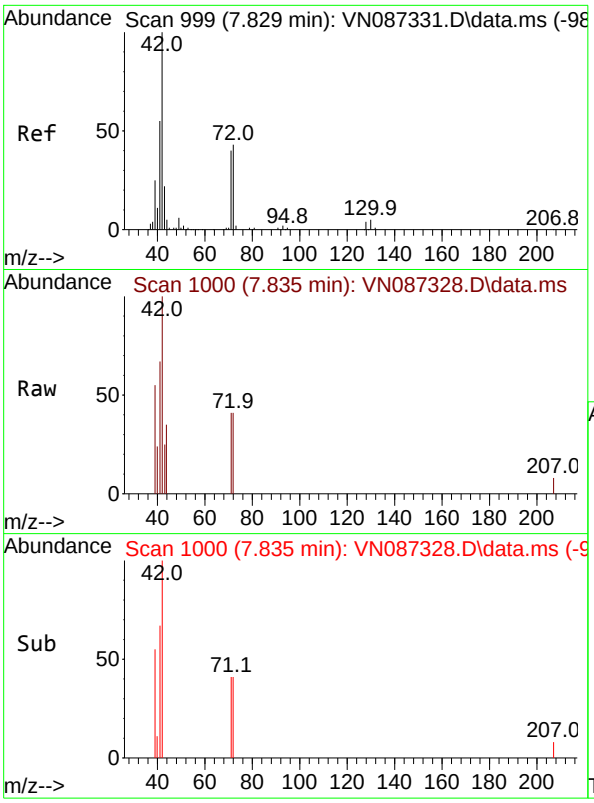


#28
Bromochloromethane
Concen: 0.997 ug/l
RT: 7.794 min Scan# 993
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 49 Resp: 1982

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	4.2
130	58.7	57.3	85.9





#29
Tetrahydrofuran
Concen: 4.507 ug/l
RT: 7.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 42 Resp: 598

Ion	Ratio	Lower	Upper
42	100		
72	37.1	33.4	50.0
71	36.3	31.2	46.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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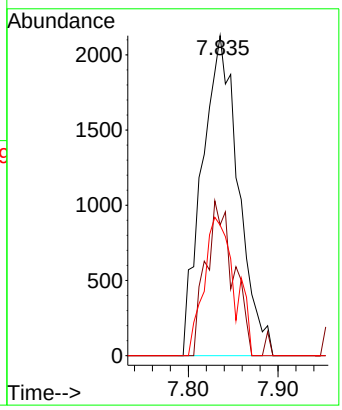
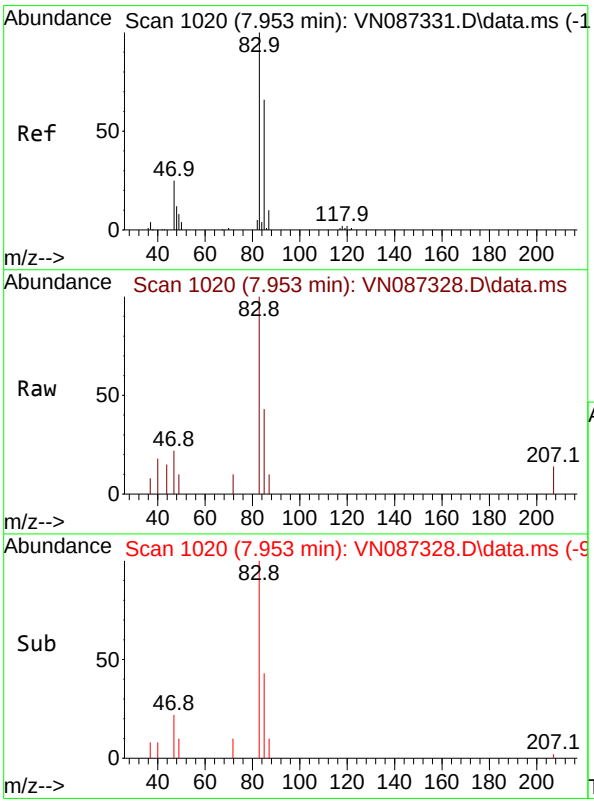
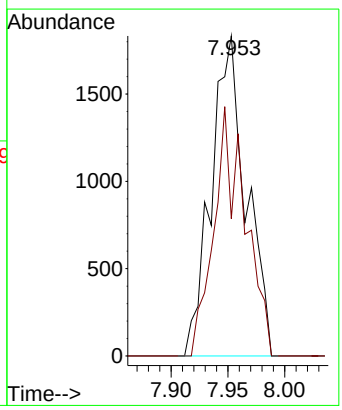


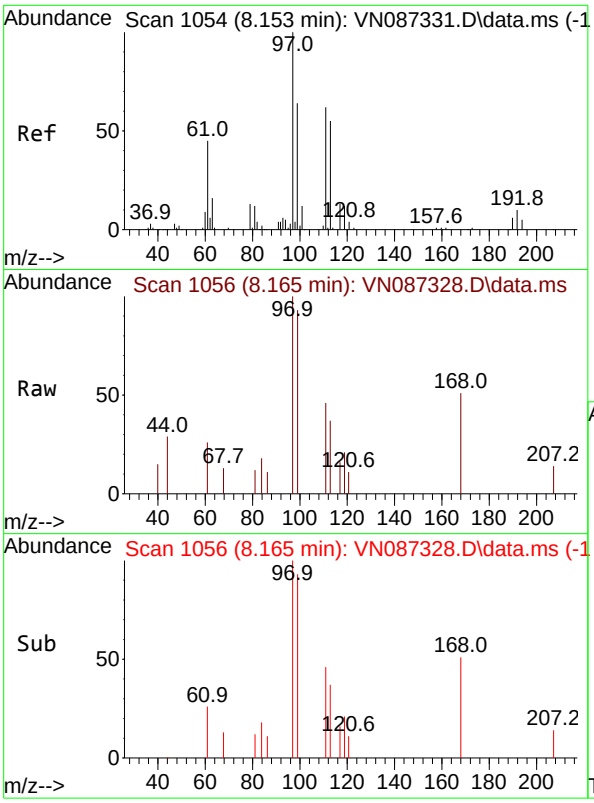


#30
Chloroform
Concen: 0.943 ug/l
RT: 7.953 min Scan# 1020
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 83 Resp: 3924

Ion	Ratio	Lower	Upper
83	100		
85	42.9	52.7	79.1#

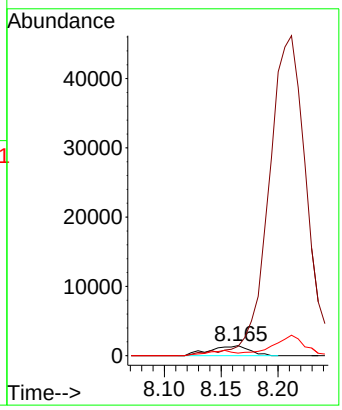




#32
1,1,1-Trichloroethane
Concen: 0.963 ug/l
RT: 8.165 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 97 Resp: 346

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.8	77.8#
61	36.3	38.7	58.1#



Instrument :
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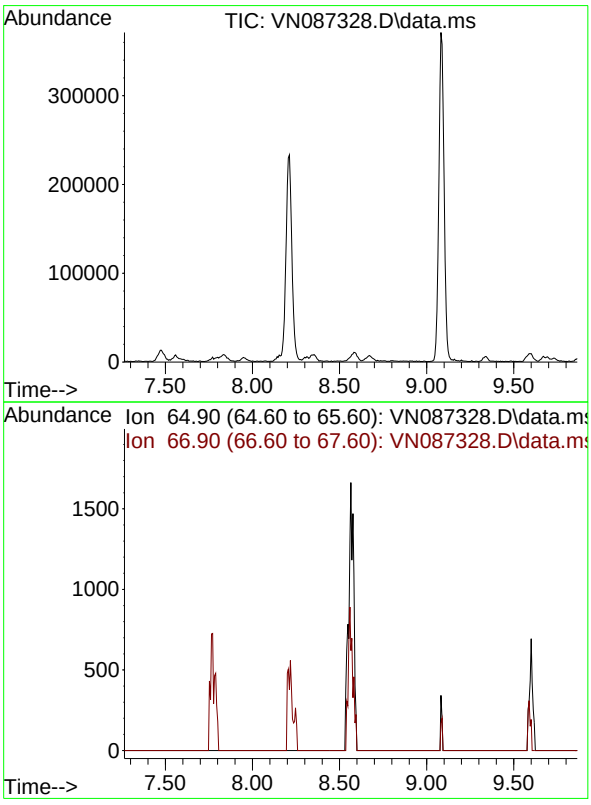
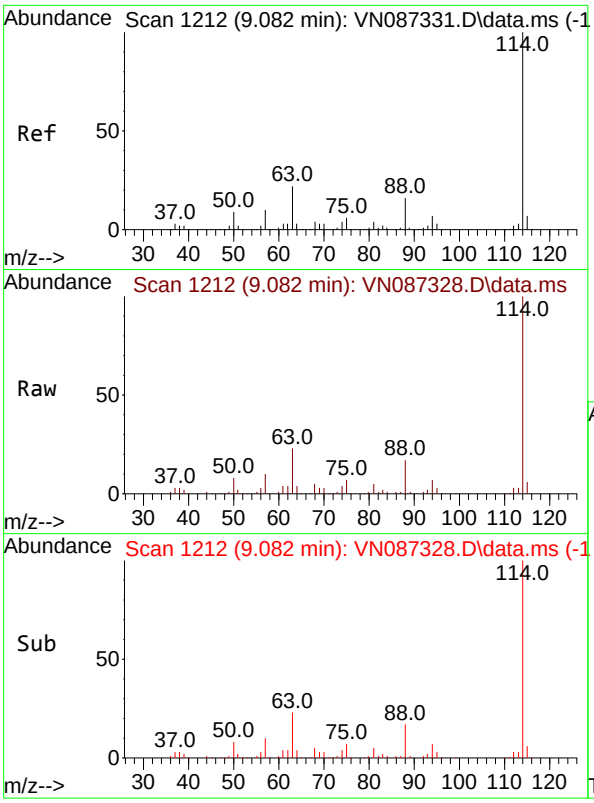


#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 8.56 min

Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 65

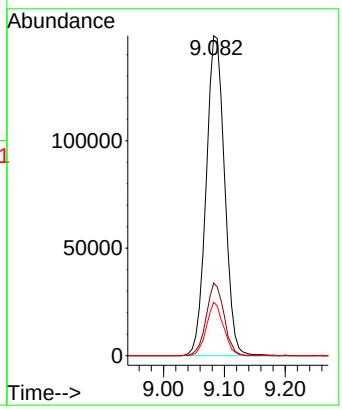
Sig	Exp Ratio
65	100
67	52.0



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:114 Resp: 31247

Ion	Ratio	Lower	Upper
114	100		
63	22.7	0.0	44.6
88	16.7	0.0	32.8



Instrument :
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ClientSampleId :
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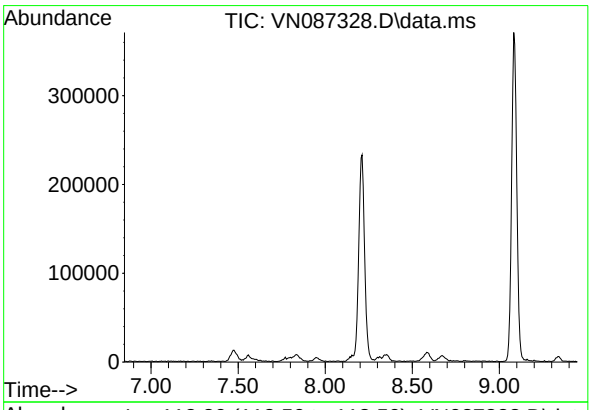
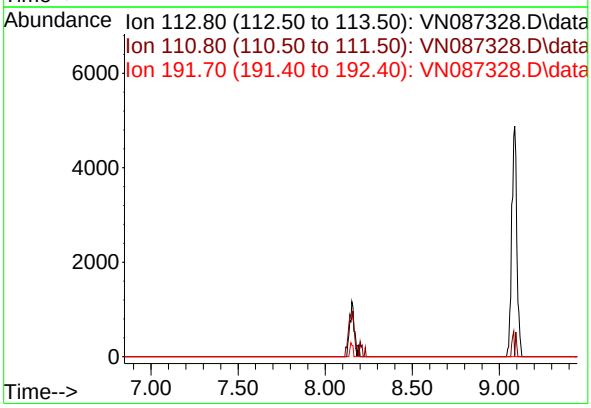


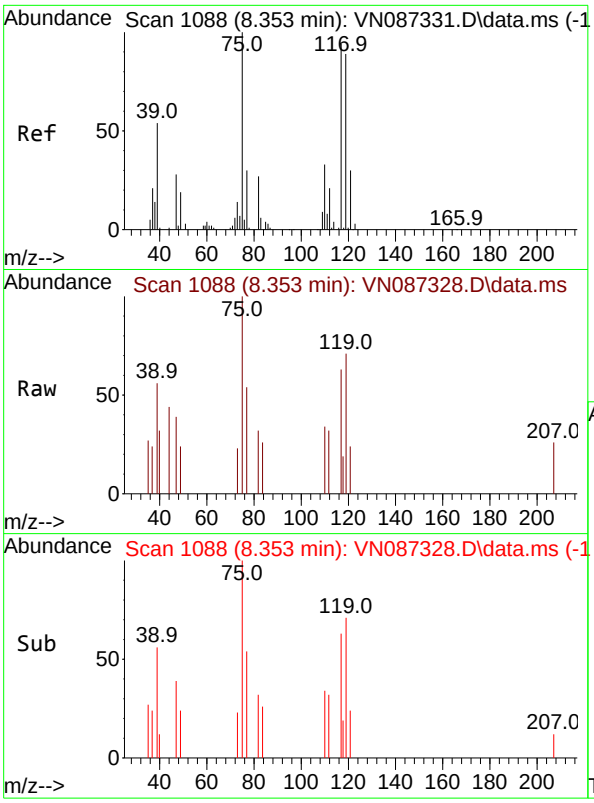
#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 8.15 min

Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 113

Sig	Exp Ratio
113	100
111	103.1
192	17.1

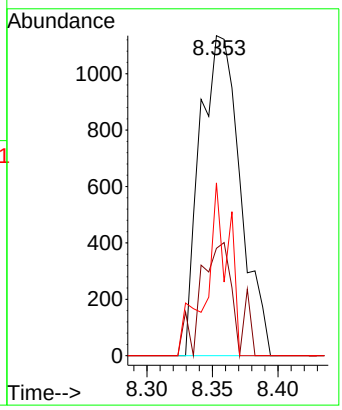




#36
1,1-Dichloropropene
Concen: 0.850 ug/l
RT: 8.353 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 75 Resp: 242

Ion	Ratio	Lower	Upper
75	100		
110	29.6	16.7	50.1
77	30.6	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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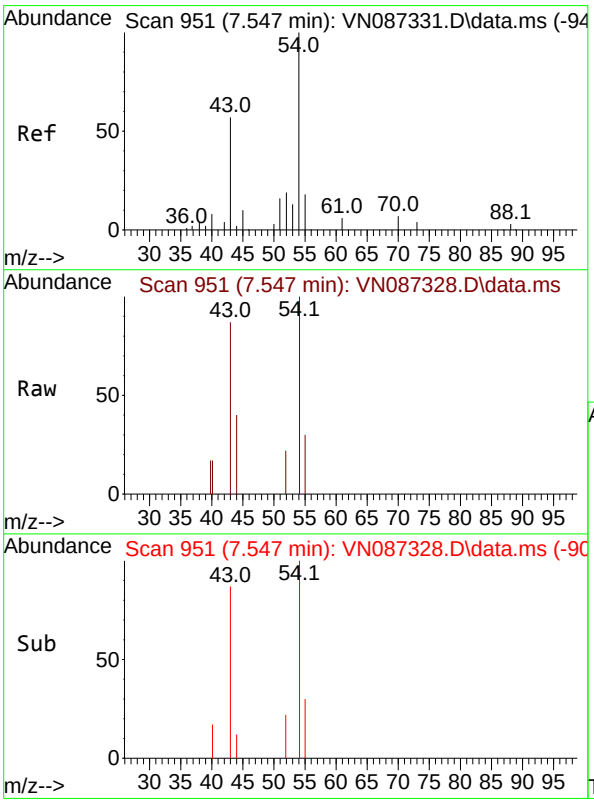
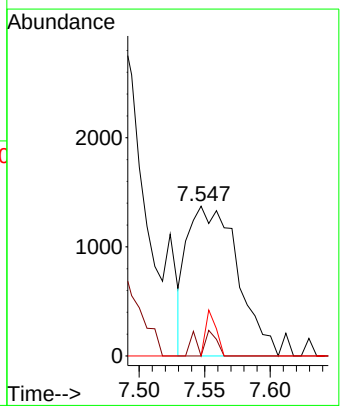
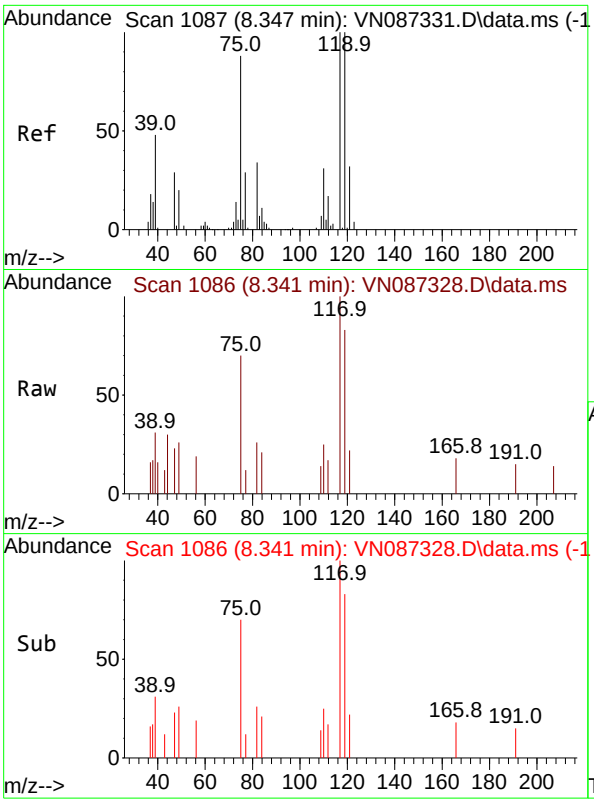


#37
Ethyl Acetate
Concen: 0.892 ug/l
RT: 7.547 min Scan# 951
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 3670

Ion	Ratio	Lower	Upper
43	100		
61	3.7	10.9	16.3#
70	6.5	7.4	11.0#

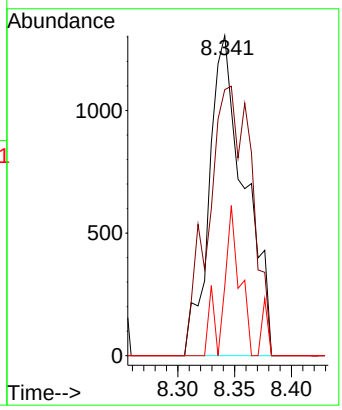




#38
Carbon Tetrachloride
Concen: 0.903 ug/l
RT: 8.341 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:117 Resp: 283

Ion	Ratio	Lower	Upper
117	100		
119	83.1	80.2	120.2
121	21.7	25.4	38.2#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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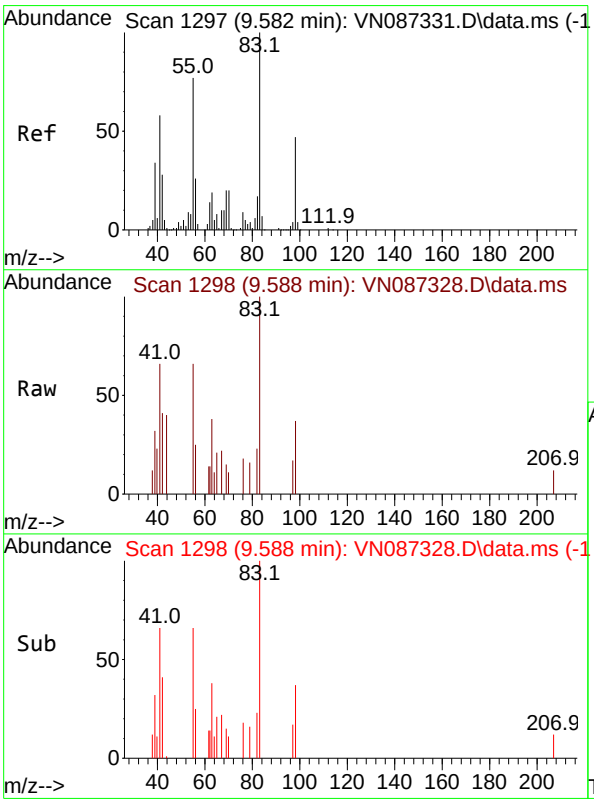
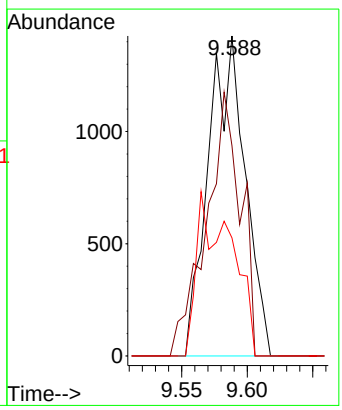
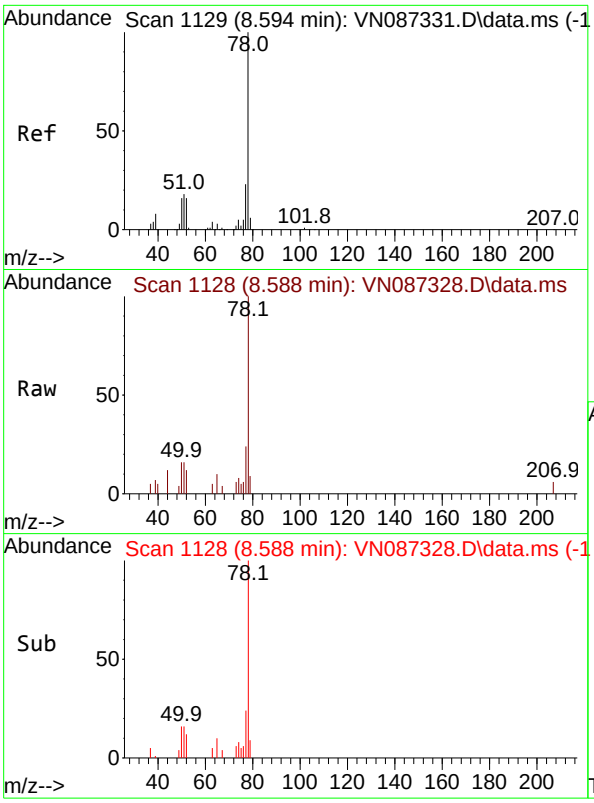


#39
Methylcyclohexane
Concen: 0.906 ug/l
RT: 9.588 min Scan# 1298
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 83 Resp: 2794

Ion	Ratio	Lower	Upper
83	100		
55	65.7	61.3	91.9
98	36.9	37.9	56.9#

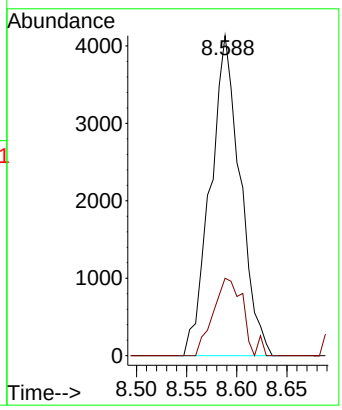




#40
Benzene
Concen: 0.930 ug/l
RT: 8.588 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 78 Resp: 856

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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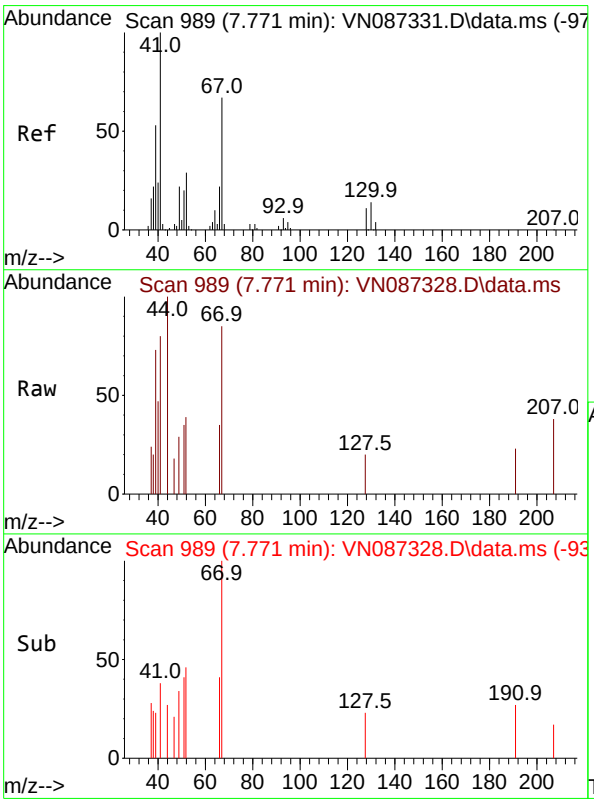
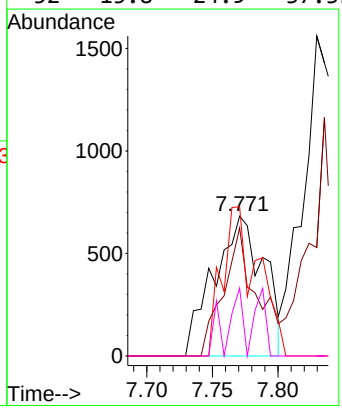
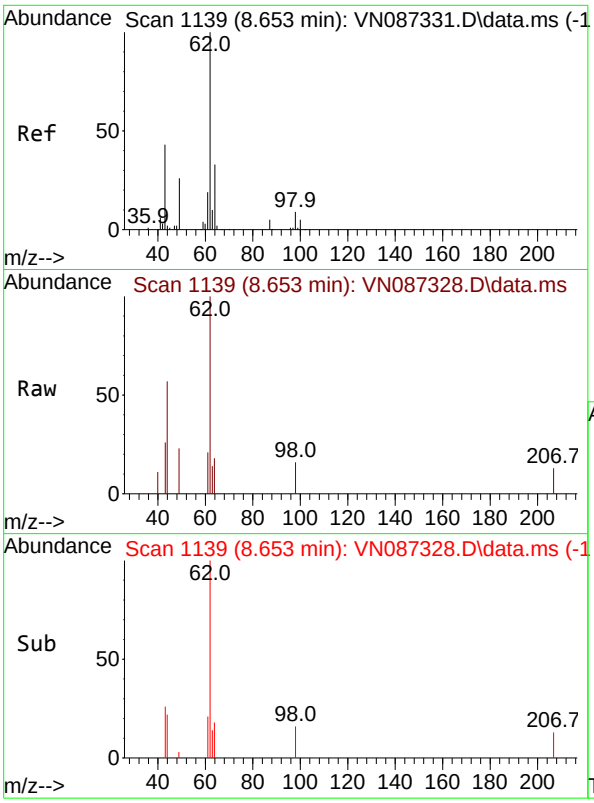


#41
Methacrylonitrile
Concen: 0.839 ug/l
RT: 7.771 min Scan# 989
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 41 Resp: 1805

Ion	Ratio	Lower	Upper
41	100		
39	60.9	43.4	65.0
67	76.1	55.1	82.7
52	15.8	24.9	37.3#

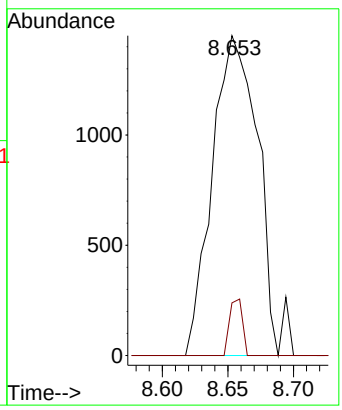




#42
1,2-Dichloroethane
Concen: 0.990 ug/l
RT: 8.653 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 62 Resp: 345

Ion	Ratio	Lower	Upper
62	100		
98	5.1	0.0	18.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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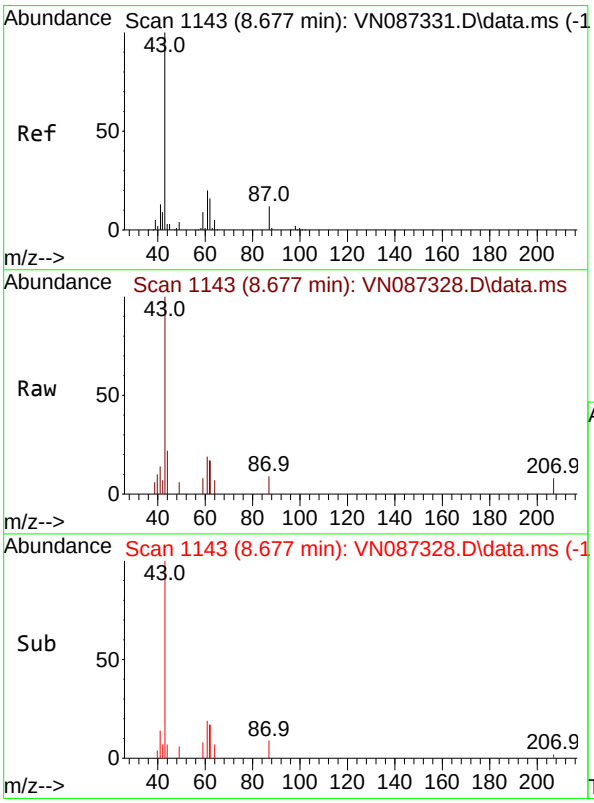
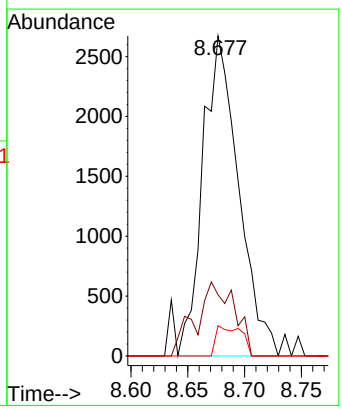
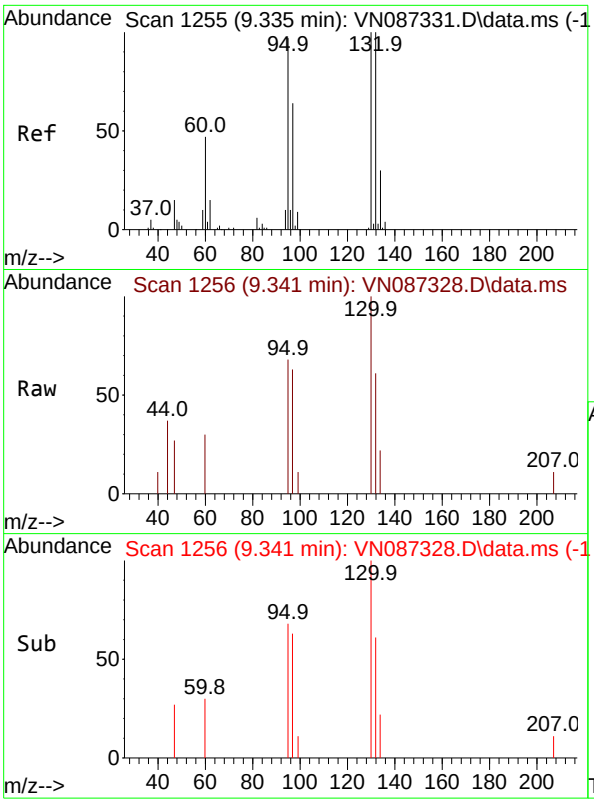


#43
Isopropyl Acetate
Concen: 0.919 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 5865

Ion	Ratio	Lower	Upper
43	100		
61	24.8	19.8	29.8
87	6.6	9.8	14.6#





#44
Trichloroethene
Concen: 1.072 ug/l
RT: 9.341 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:130 Resp: 233

Ion	Ratio	Lower	Upper
130	100		
95	68.2	0.0	195.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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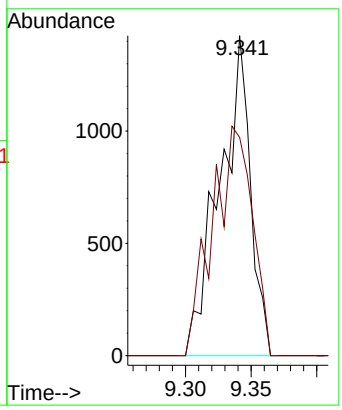
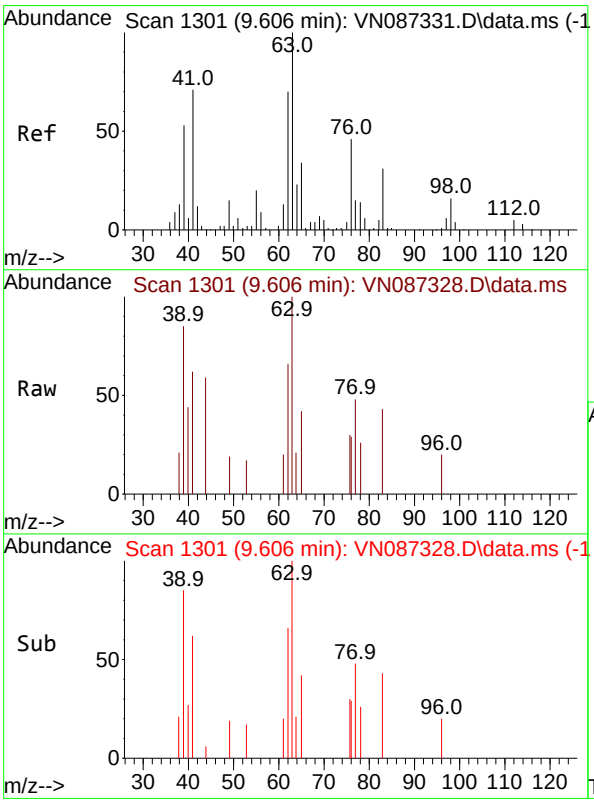
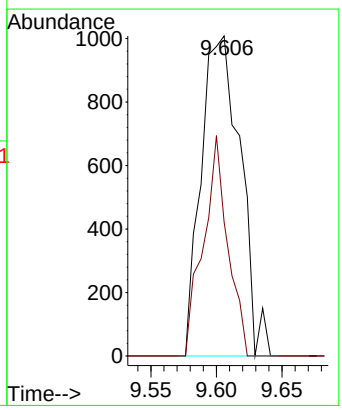


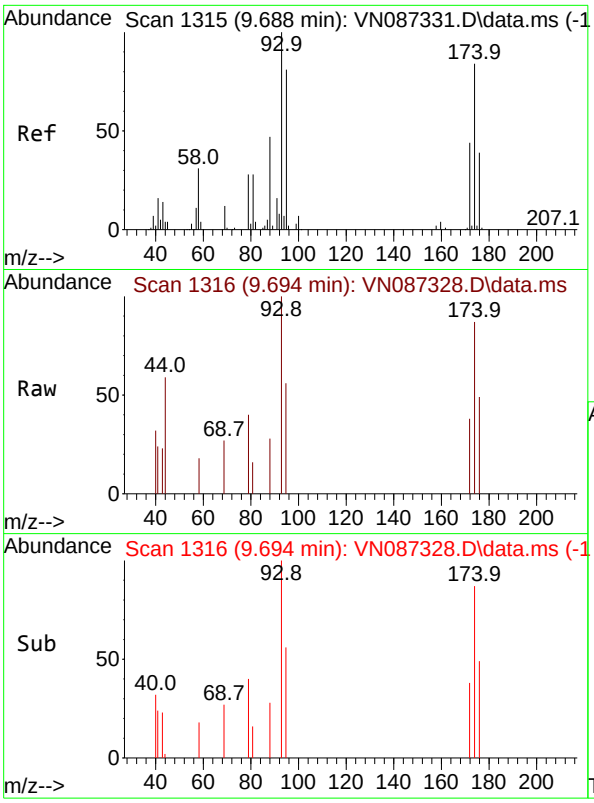


#45
1,2-Dichloropropane
Concen: 0.895 ug/l
RT: 9.606 min Scan# 1301
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 63 Resp: 2094

Ion	Ratio	Lower	Upper
63	100		
65	41.9	27.0	40.4#

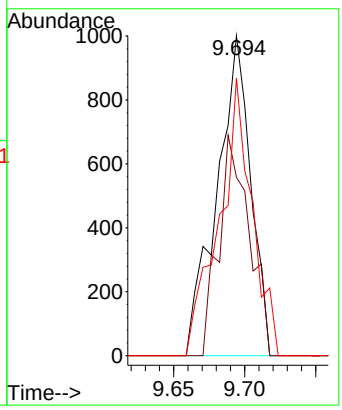




#46
Dibromomethane
Concen: 0.946 ug/l
RT: 9.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 93 Resp: 165

Ion	Ratio	Lower	Upper
93	100		
95	62.2	65.8	98.8#
174	84.2	69.9	104.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
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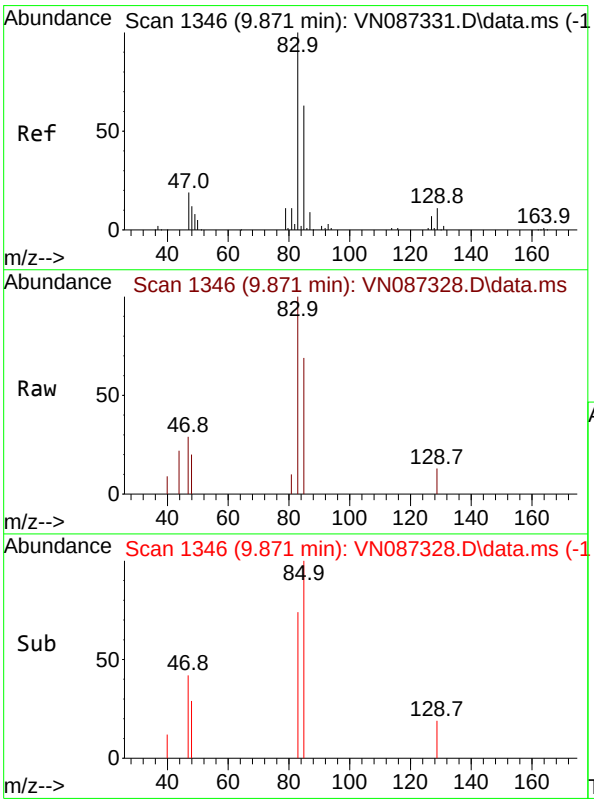
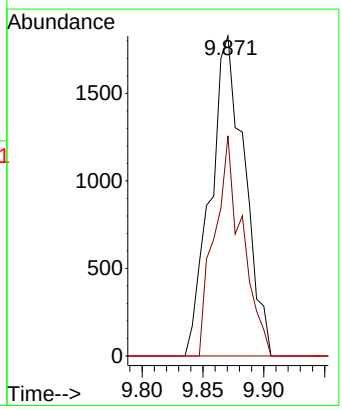
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

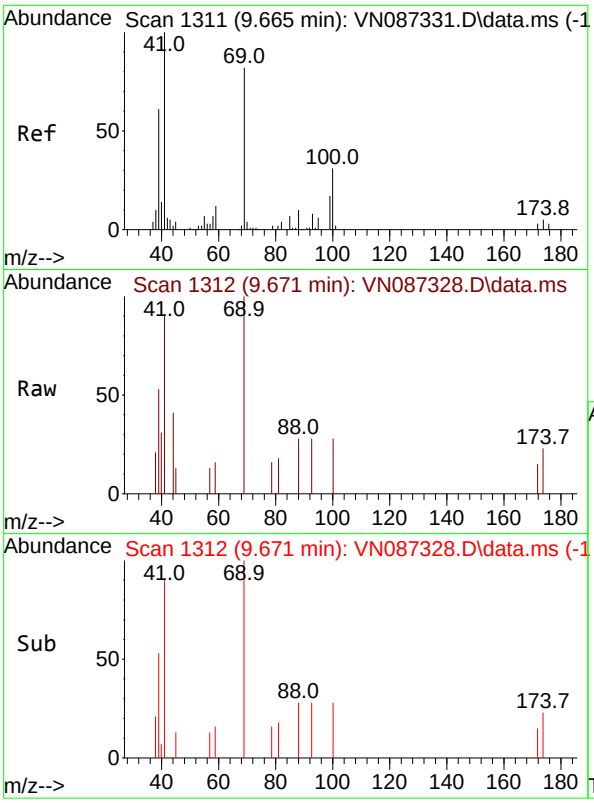


#47
Bromodichloromethane
Concen: 1.006 ug/l
RT: 9.871 min Scan# 1346
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 83 Resp: 3549

Ion	Ratio	Lower	Upper
83	100		
85	68.8	50.4	75.6
127	0.0	5.8	8.8#





#48
Methyl methacrylate
Concen: 0.808 ug/l
RT: 9.671 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 41 Resp: 232

Ion	Ratio	Lower	Upper
41	100		
69	87.9	64.1	96.1
39	56.1	45.5	68.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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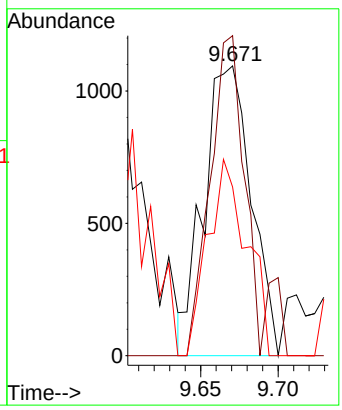
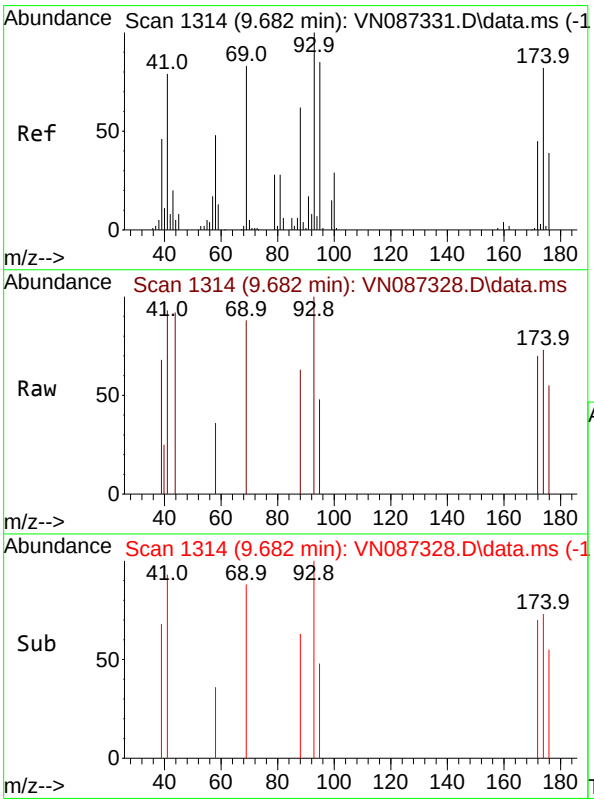
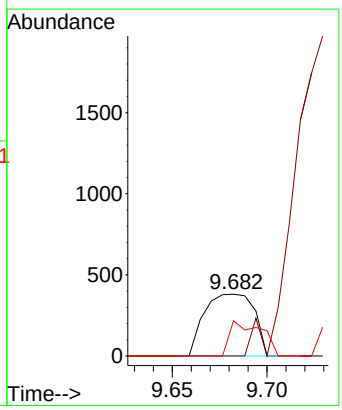


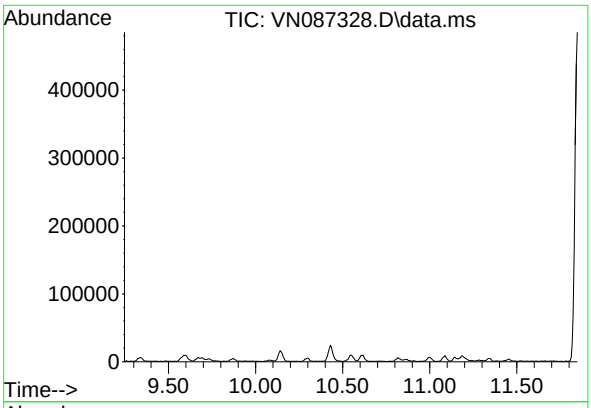


#49
1,4-Dioxane
Concen: 15.810 ug/l
RT: 9.682 min Scan# 1314
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 88 Resp: 696

Ion	Ratio	Lower	Upper
88	100		
43	0.0	0.0	0.0
58	35.9	61.1	91.7#





#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 10.55 min

Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 98

Sig	Exp Ratio
98	100
100	65.1

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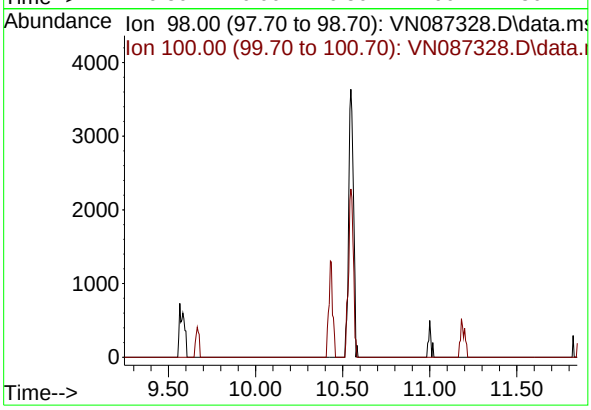
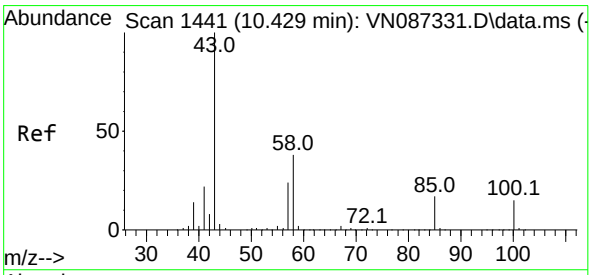
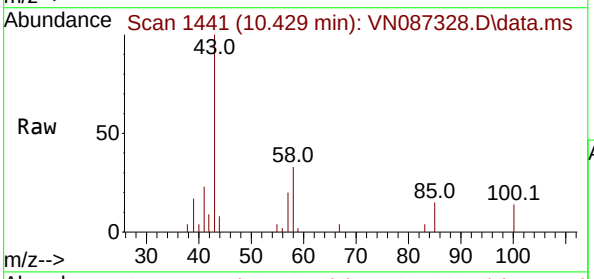


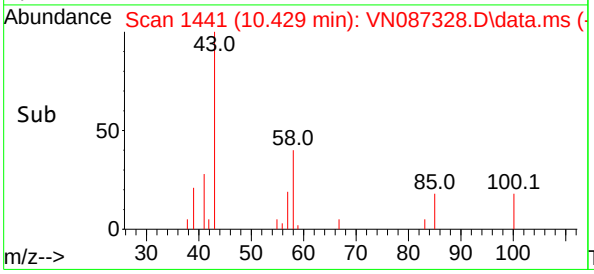


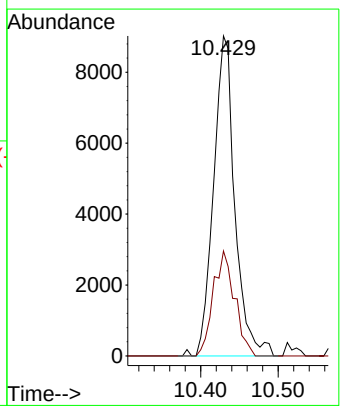
#51
4-Methyl-2-Pentanone
Concen: 4.263 ug/l
RT: 10.429 min Scan# 1441
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

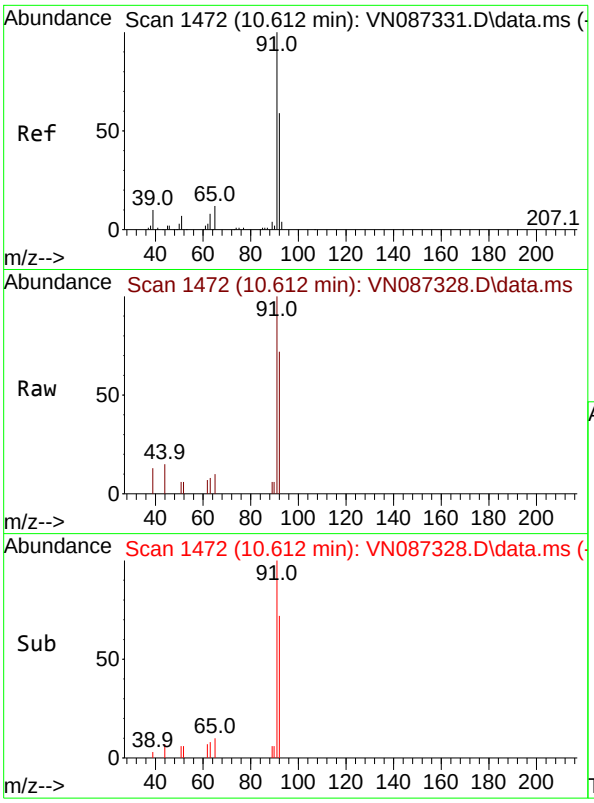
Tgt Ion: 43 Resp: 17216

Ion	Ratio	Lower	Upper
43	100		
58	33.0	30.8	46.2









#52
Toluene
Concen: 0.864 ug/l
RT: 10.612 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 92 Resp: 483

Ion	Ratio	Lower	Upper
92	100		
91	157.1	135.1	202.7

Instrument :
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ClientSampleId :
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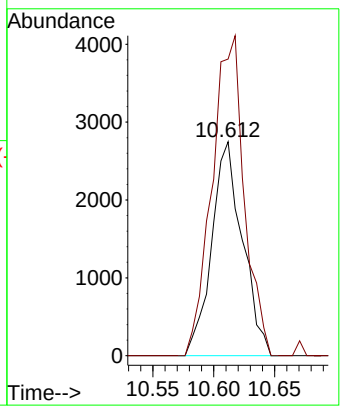
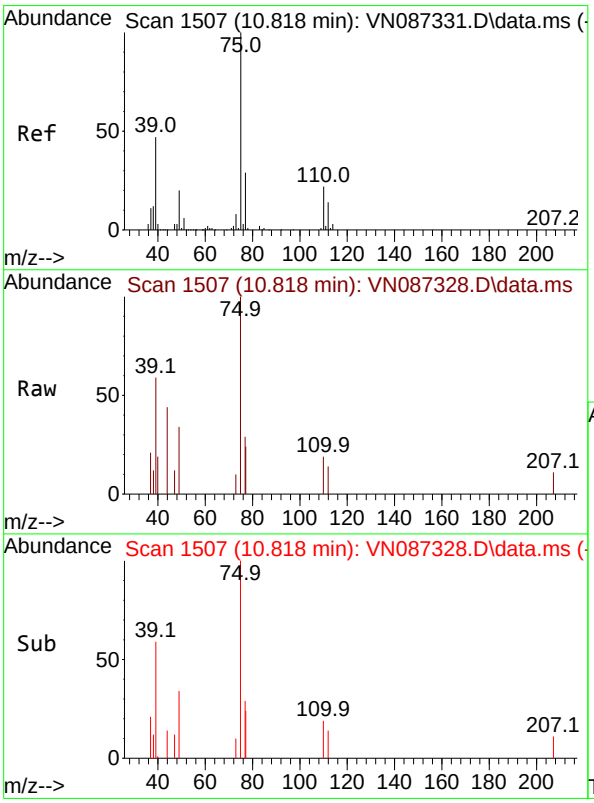
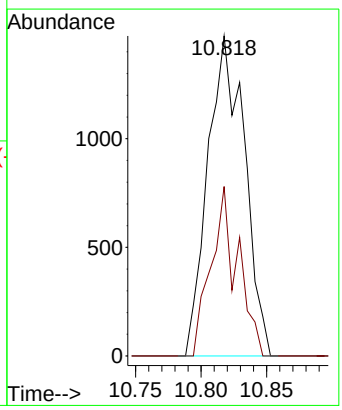


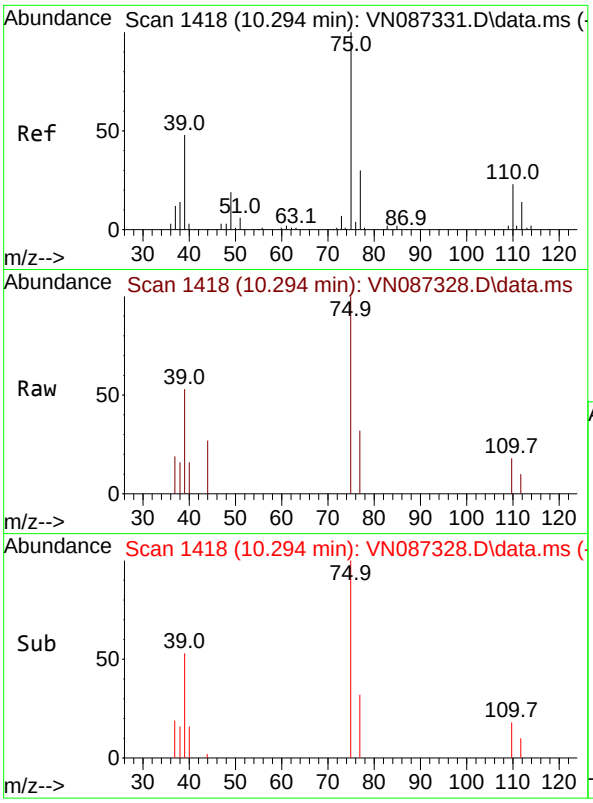


#53
t-1,3-Dichloropropene
Concen: 0.804 ug/l
RT: 10.818 min Scan# 1507
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 75 Resp: 2869

Ion	Ratio	Lower	Upper
75	100		
77	53.0	23.6	35.4#

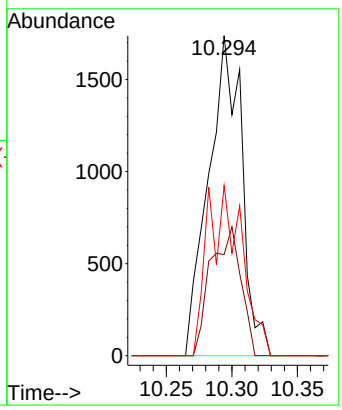




#54
cis-1,3-Dichloropropene
Concen: 0.830 ug/l
RT: 10.294 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 75 Resp: 305

Ion	Ratio	Lower	Upper
75	100		
77	31.6	24.2	36.2
39	53.2	38.4	57.6



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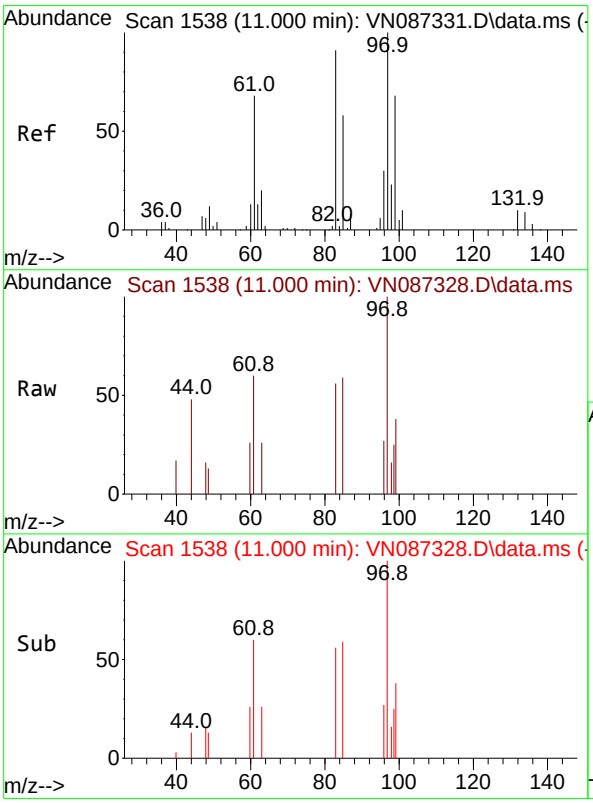
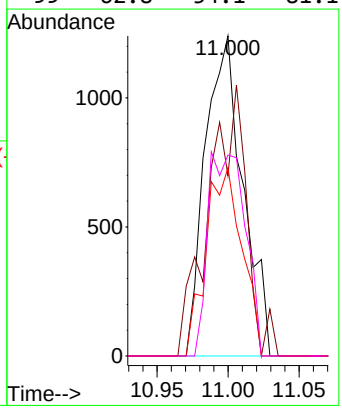
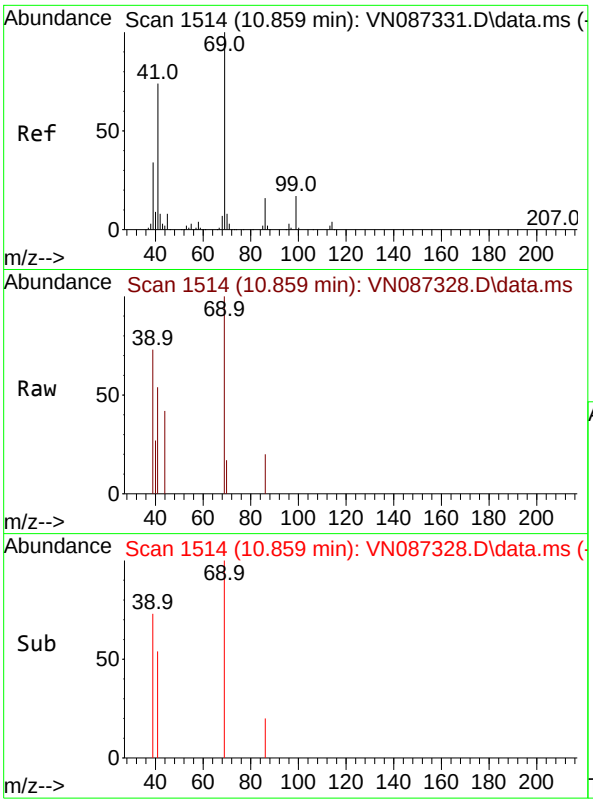


#55
1,1,2-Trichloroethane
Concen: 1.013 ug/l
RT: 11.000 min Scan# 1538
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 97 Resp: 2294

Ion	Ratio	Lower	Upper
97	100		
83	56.4	72.6	109.0#
85	58.9	46.7	70.1
99	62.8	54.1	81.1

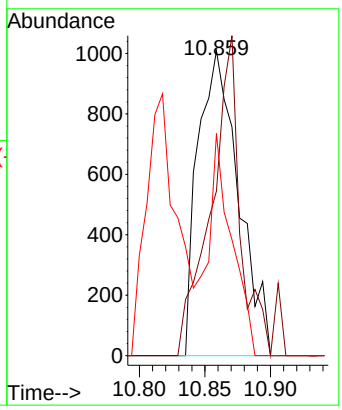




#56
Ethyl methacrylate
Concen: 1.217 ug/l
RT: 10.859 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 69 Resp: 217

Ion	Ratio	Lower	Upper
69	100		
41	75.4	55.1	82.7
39	42.6	27.9	41.9



Instrument :
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ClientSampleId :
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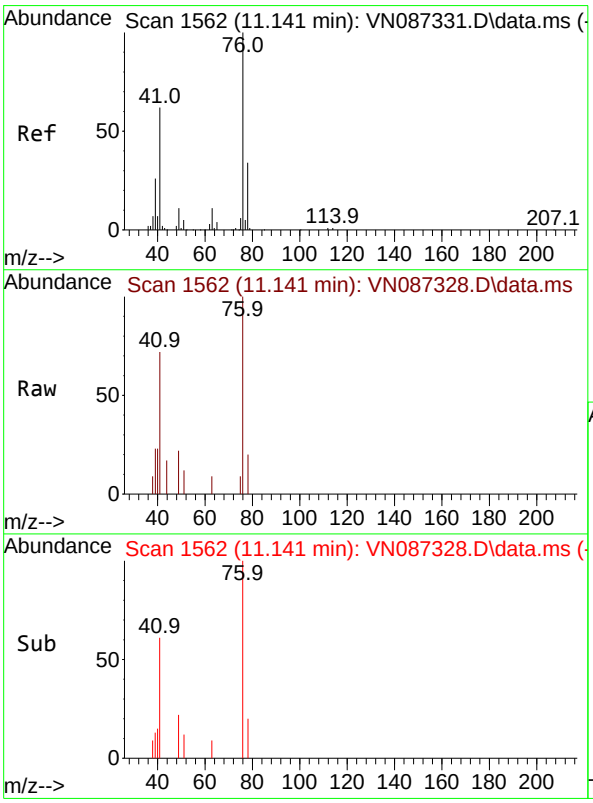
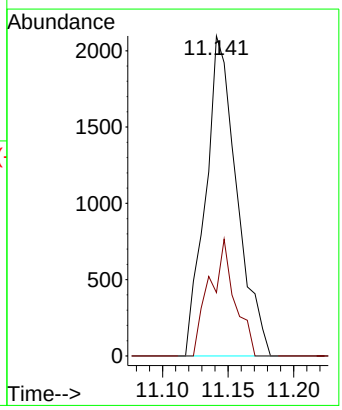
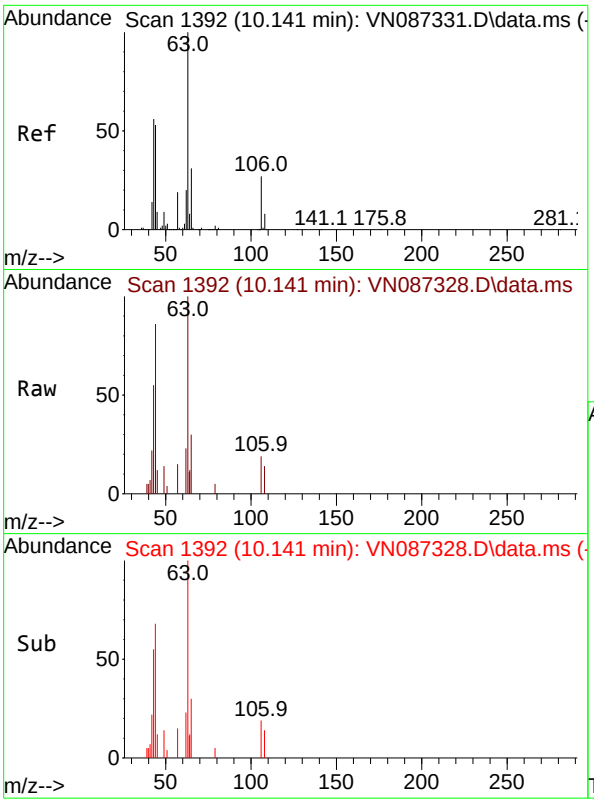


#57
1,3-Dichloropropane
Concen: 0.888 ug/l
RT: 11.141 min Scan# 1562
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 76 Resp: 3477

Ion	Ratio	Lower	Upper
76	100		
78	29.5	26.0	39.0





#58
2-Chloroethyl Vinyl ether
Concen: 3.707 ug/l
RT: 10.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 63 Resp: 688

Ion	Ratio	Lower	Upper
63	100		
106	24.9	21.7	32.5

Instrument :
MSVOA_N
ClientSampleId :
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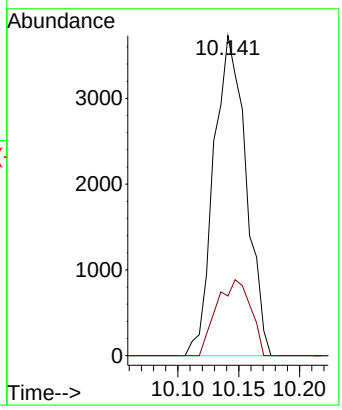
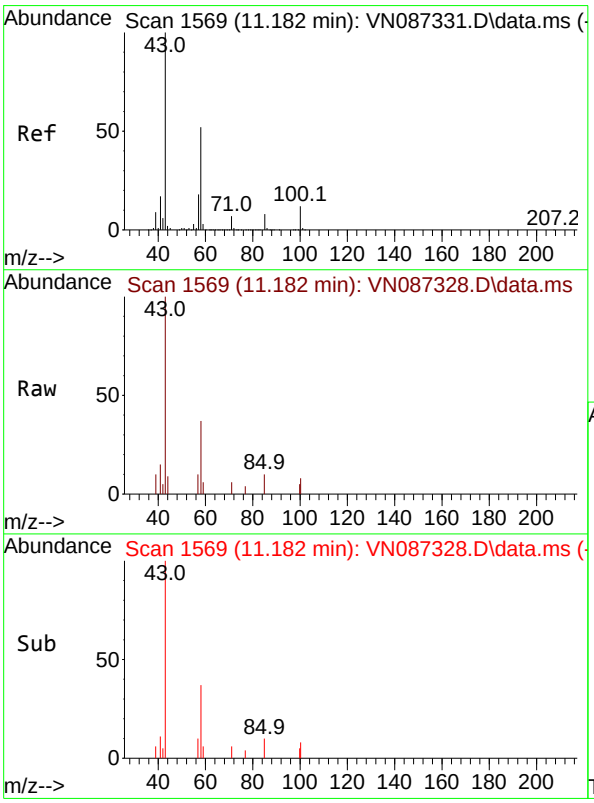
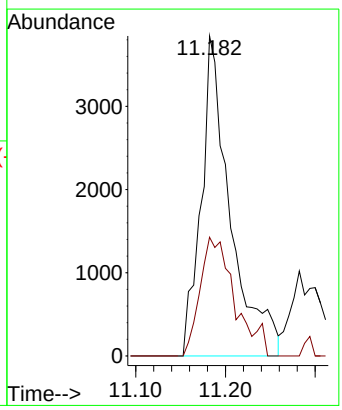


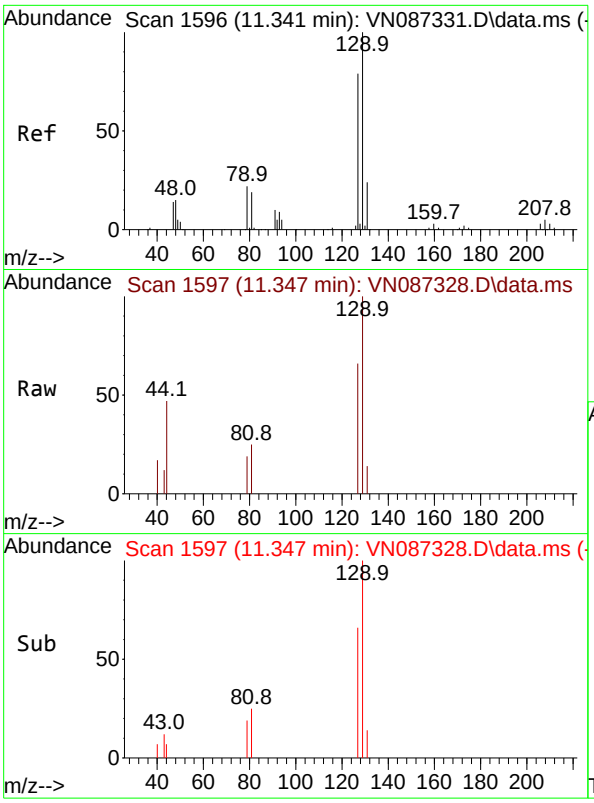


#59
2-Hexanone
Concen: 3.250 ug/l
RT: 11.182 min Scan# 1569
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 8707

Ion	Ratio	Lower	Upper
43	100		
58	43.8	26.7	80.0

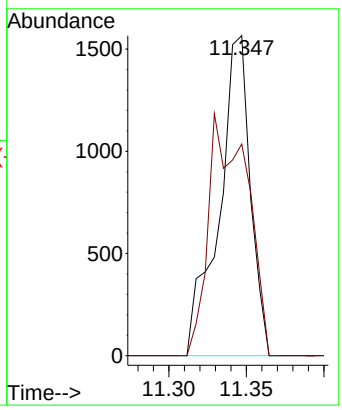




#60
Dibromochloromethane
Concen: 0.852 ug/l
RT: 11.347 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:129 Resp: 220

Ion	Ratio	Lower	Upper
129	100		
127	93.6	39.1	117.5



Instrument :
MSVOA_N
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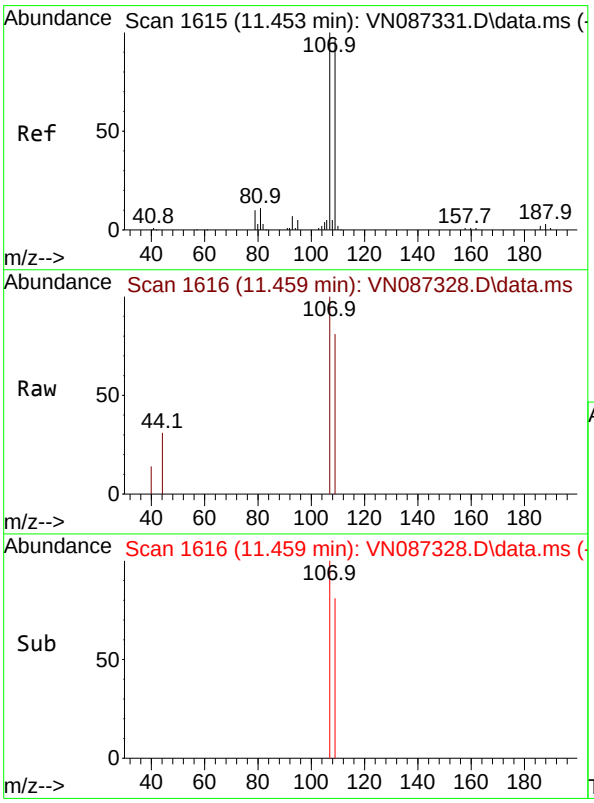
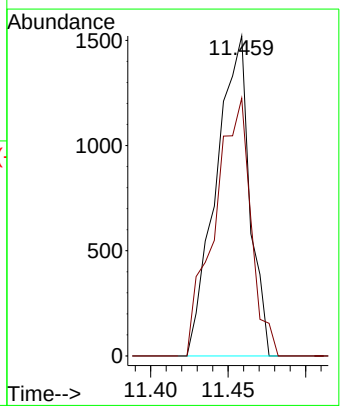
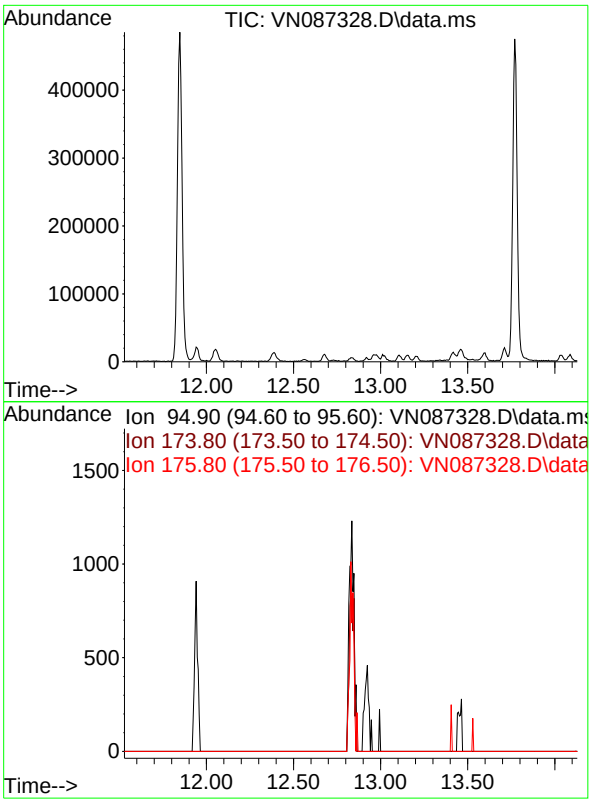


#61
1,2-Dibromoethane
Concen: 0.962 ug/l
RT: 11.459 min Scan# 1616
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:107 Resp: 2291

Ion	Ratio	Lower	Upper
107	100		
109	87.3	77.5	116.3





#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 12.83 min

Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 95

Sig	Exp Ratio
95	100
174	74.7
176	70.6

Instrument :
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ClientSampleId :
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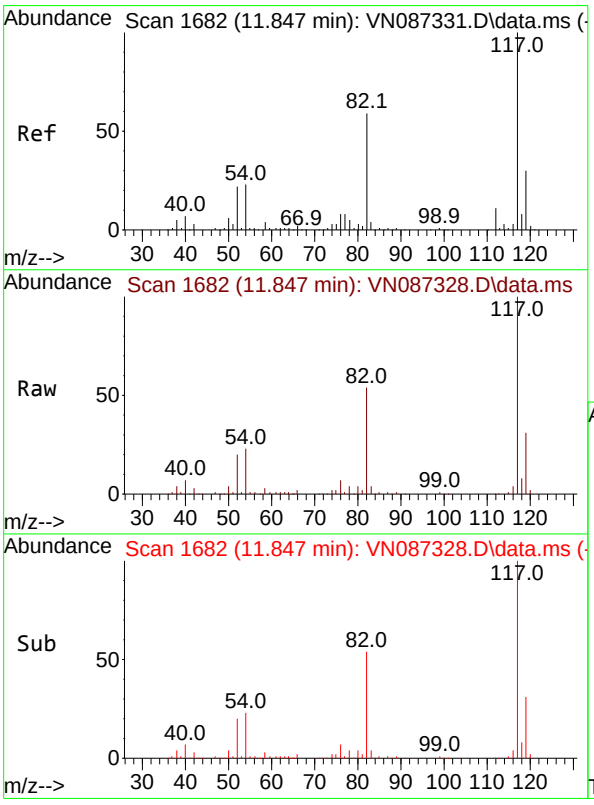
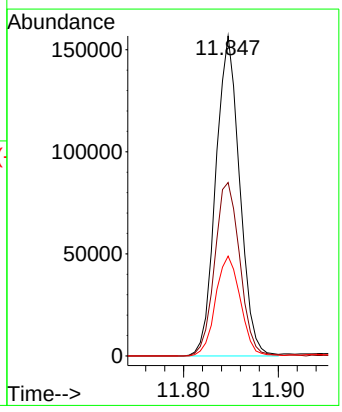
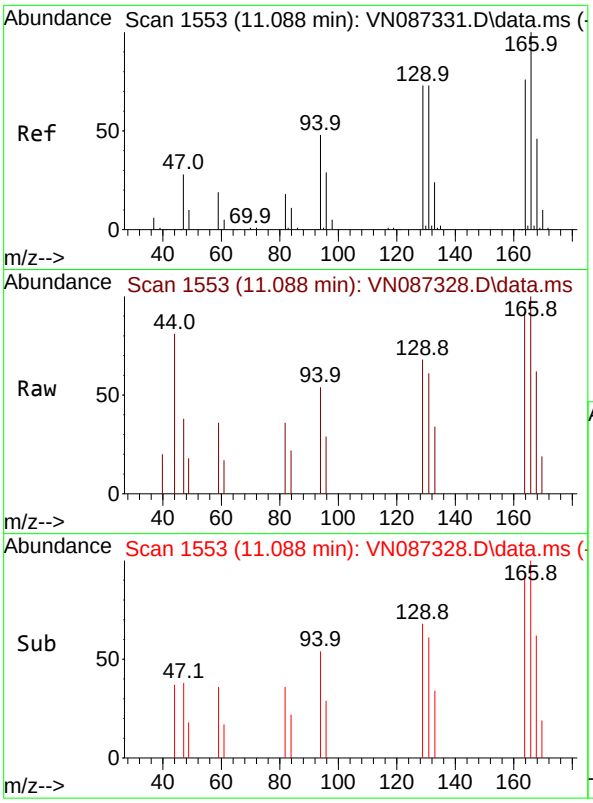


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1682
Delta R.T. -0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:117 Resp: 274838

Ion	Ratio	Lower	Upper
117	100		
82	54.2	47.4	71.2
119	31.2	23.8	35.8

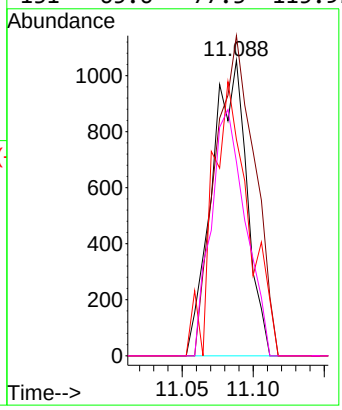




#64
Tetrachloroethene
Concen: 1.022 ug/l
RT: 11.088 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:164 Resp: 180

Ion	Ratio	Lower	Upper
164	100		
166	108.3	105.5	158.3
129	73.2	77.4	116.2#
131	65.6	77.3	115.9#



Instrument :
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VSTDICC001

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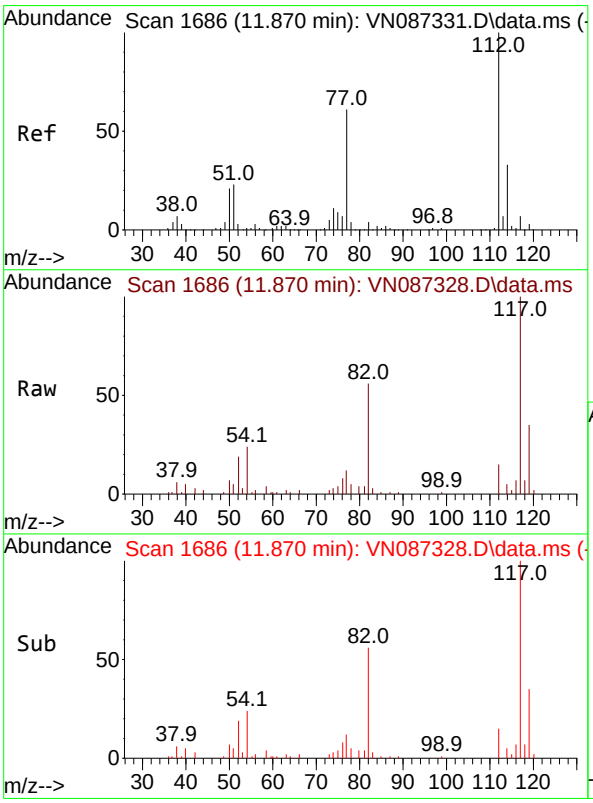
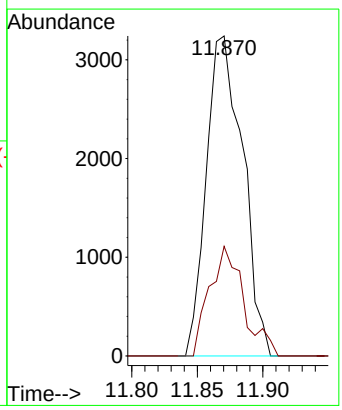
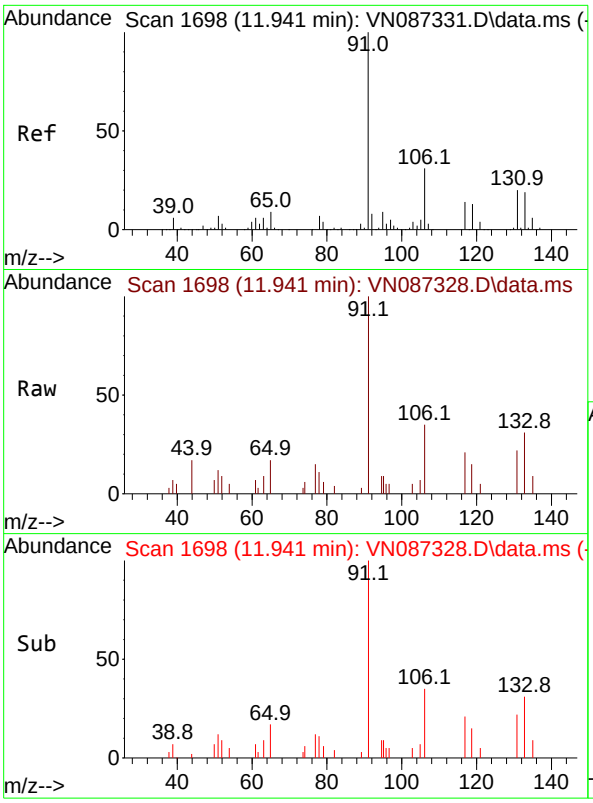


#65
Chlorobenzene
Concen: 1.014 ug/l
RT: 11.870 min Scan# 1686
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:112 Resp: 6259

Ion	Ratio	Lower	Upper
112	100		
114	34.3	26.5	39.7

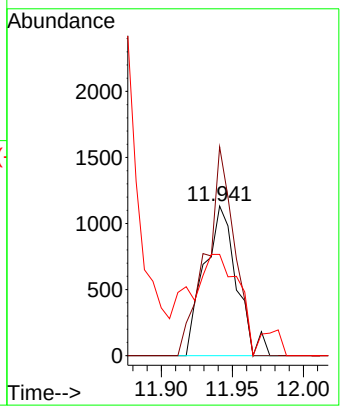




#66
1,1,1,2-Tetrachloroethane
Concen: 0.850 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:131 Resp: 178

Ion	Ratio	Lower	Upper
131	100		
133	120.9	47.4	142.3
119	0.0	33.1	99.2



Instrument :
MSVOA_N
ClientSampleId :
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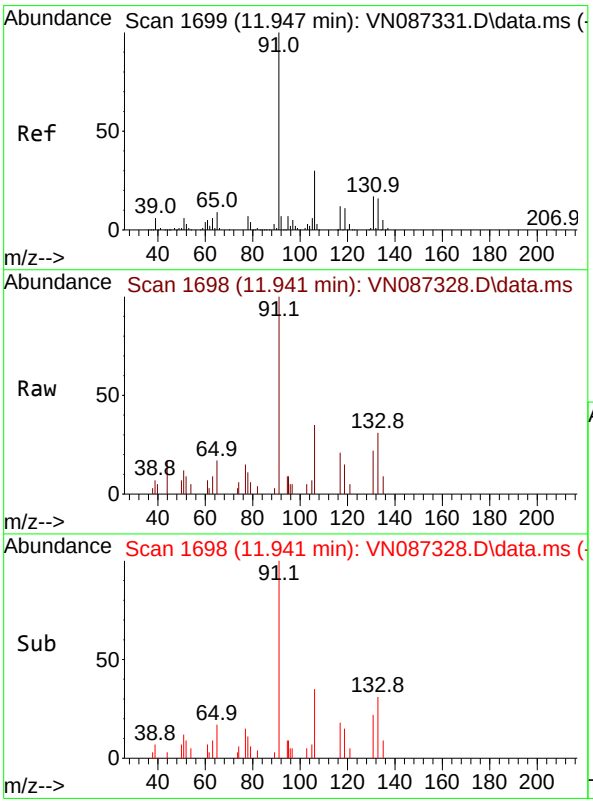
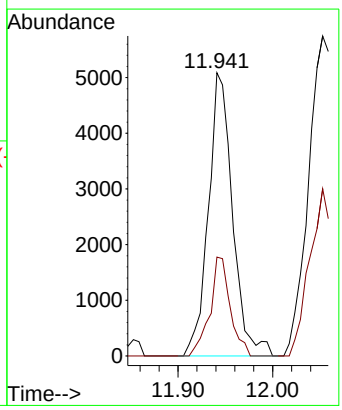
Supervised By :Semsettin Yesilyurt 07/17/2025

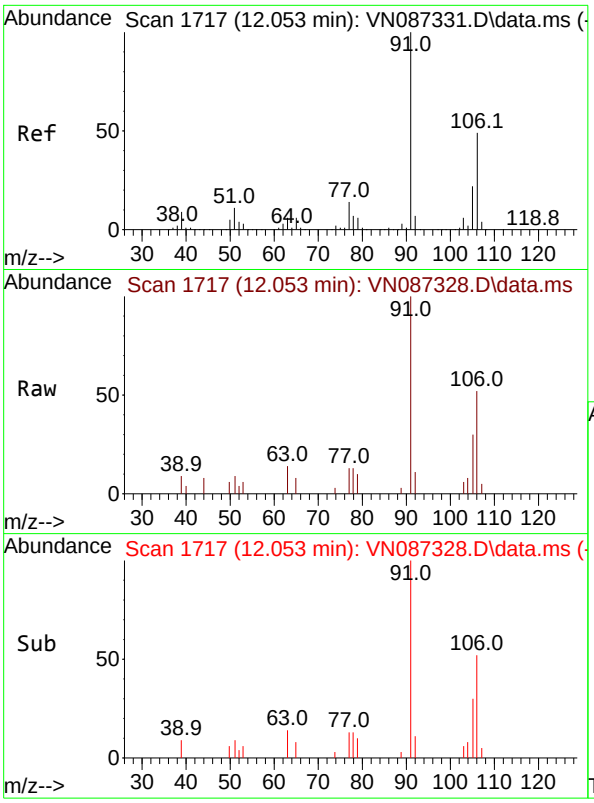


#67
Ethyl Benzene
Concen: 0.889 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 91 Resp: 9031

Ion	Ratio	Lower	Upper
91	100		
106	34.9	24.3	36.5





#68
m/p-Xylenes
Concen: 1.565 ug/l
RT: 12.053 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:106 Resp: 595

Ion	Ratio	Lower	Upper
106	100		
91	198.2	162.0	243.0

Instrument :
MSVOA_N
ClientSampleId :
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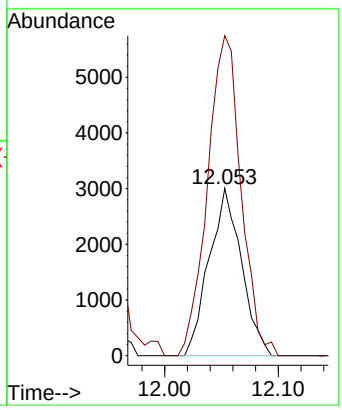
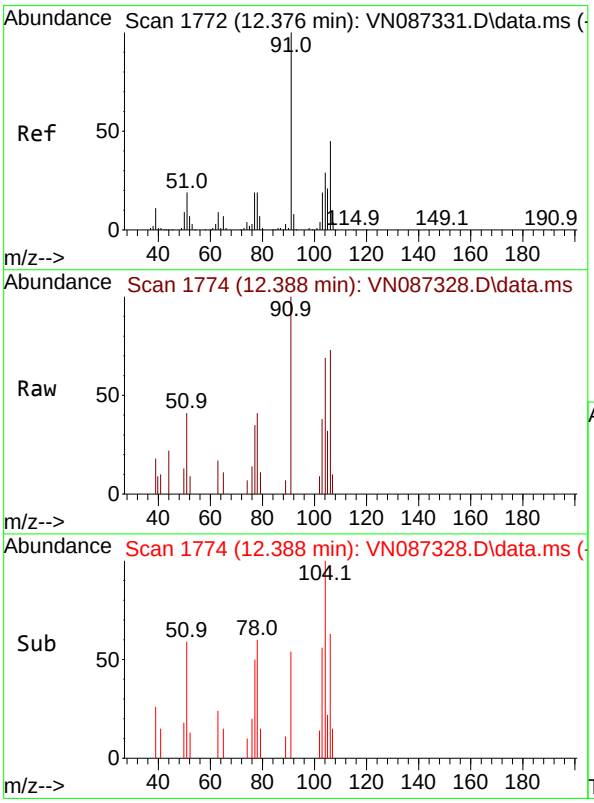
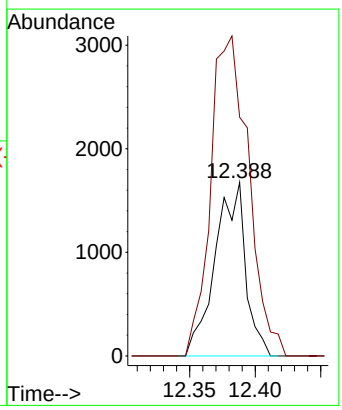


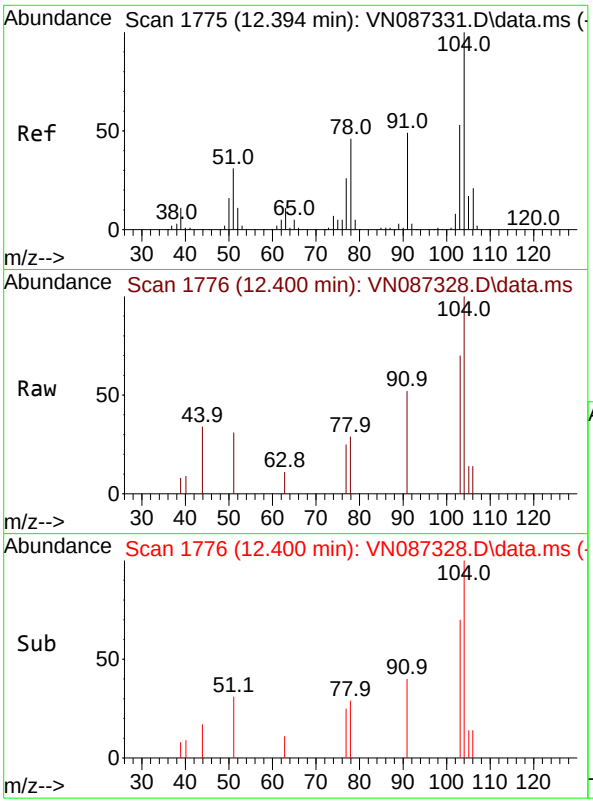


#69
o-Xylene
Concen: 0.743 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.012 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:106 Resp: 2700

Ion	Ratio	Lower	Upper
106	100		
91	229.8	107.7	323.3

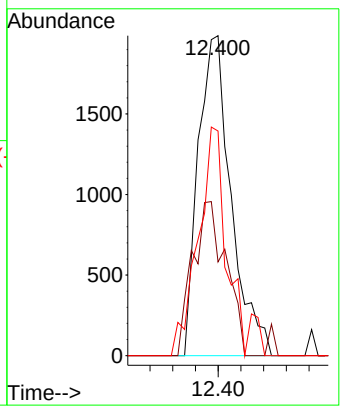




#70
Styrene
Concen: 0.653 ug/l
RT: 12.400 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:104 Resp: 398

Ion	Ratio	Lower	Upper
104	100		
78	48.8	41.0	61.6
103	64.6	43.9	65.9



Instrument :
MSVOA_N
ClientSampleId :
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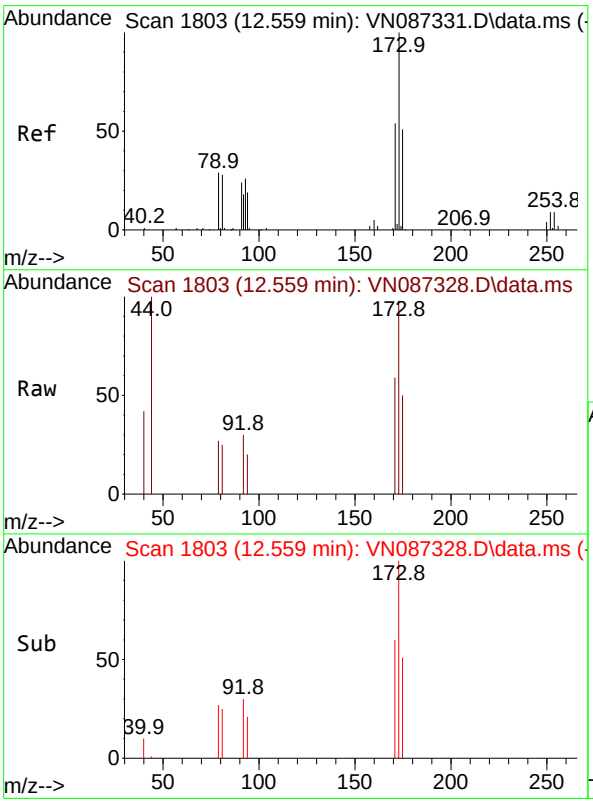
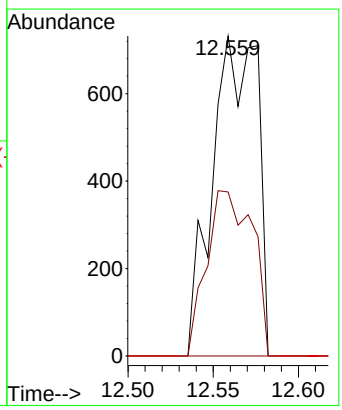
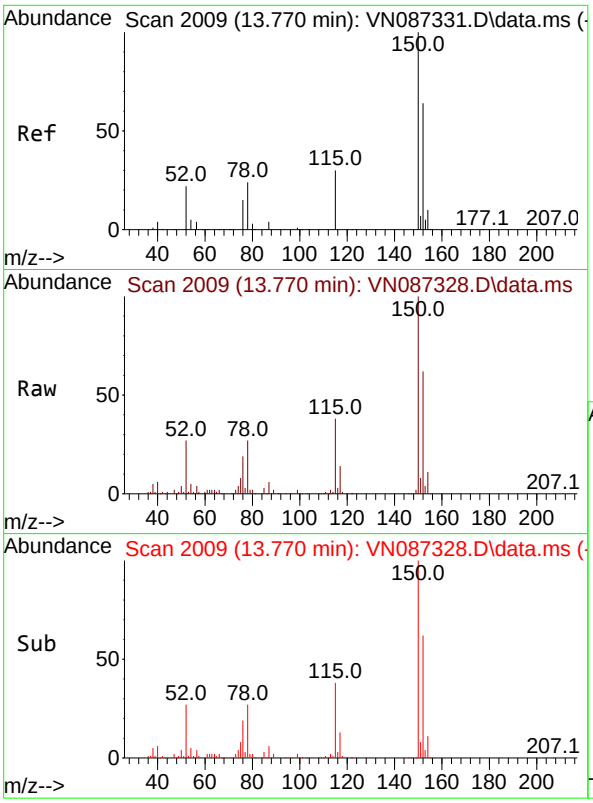


#71
Bromoform
Concen: 0.797 ug/l
RT: 12.559 min Scan# 1803
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:173 Resp: 1351

Ion	Ratio	Lower	Upper
173	100		
175	52.5	24.1	72.3
254	0.0	0.0	0.0

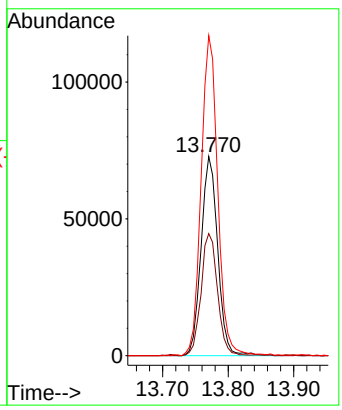




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:152 Resp: 12880

Ion	Ratio	Lower	Upper
152	100		
115	61.0	31.1	93.5
150	160.6	0.0	349.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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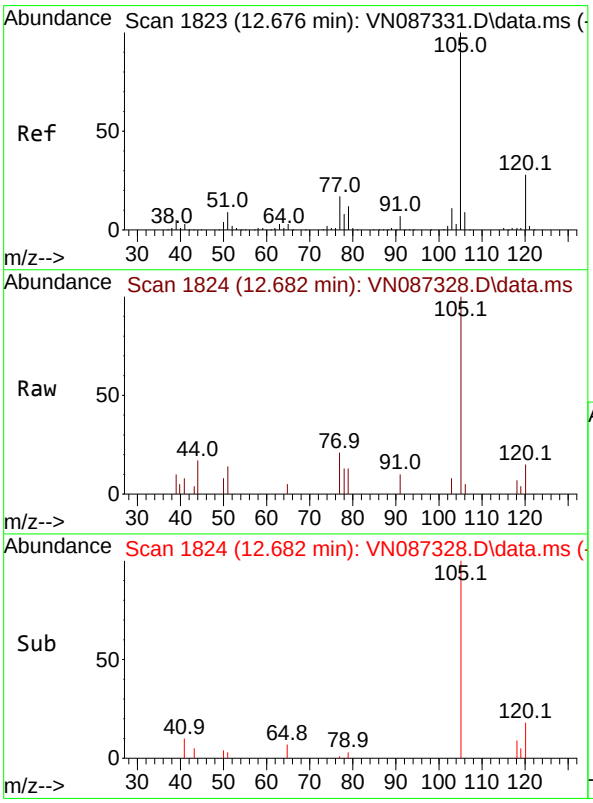
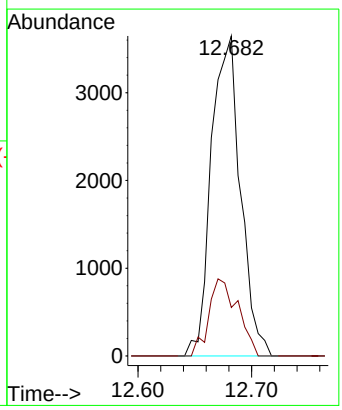
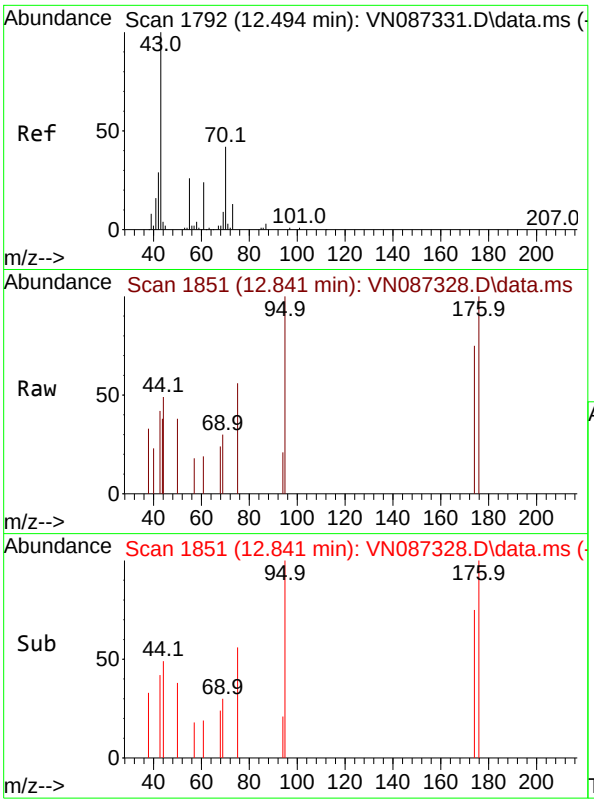


#73
Isopropylbenzene
Concen: 0.802 ug/l
RT: 12.682 min Scan# 1824
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:105 Resp: 6501

Ion	Ratio	Lower	Upper
105	100		
120	24.0	13.4	40.1

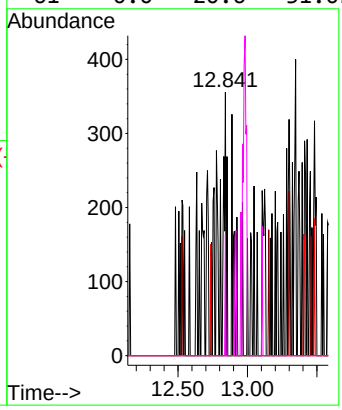




#74
N-amyl acetate
Concen: 1.065 ug/l m
RT: 12.841 min Scan# 1
Delta R.T. 0.347 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 43 Resp: 337

Ion	Ratio	Lower	Upper
43	100		
70	0.0	37.6	56.4#
55	0.0	19.6	29.4#
61	0.0	20.6	31.0#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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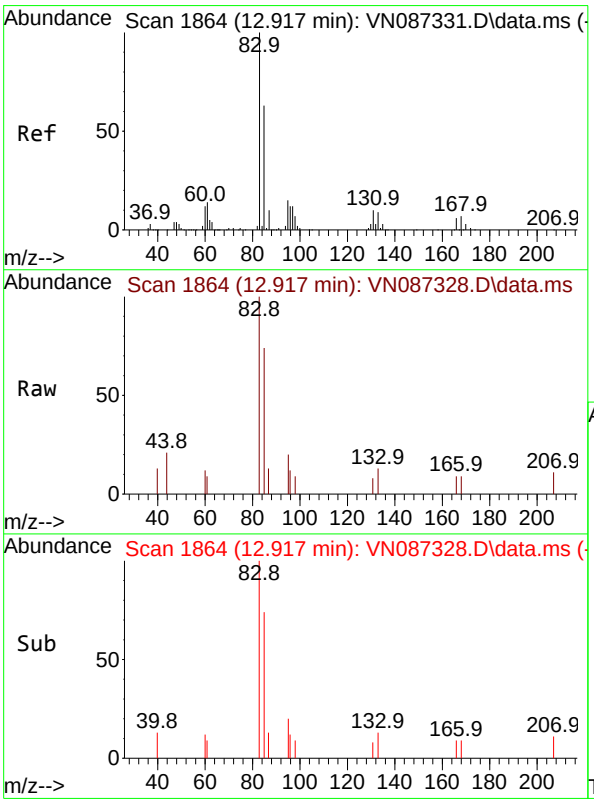
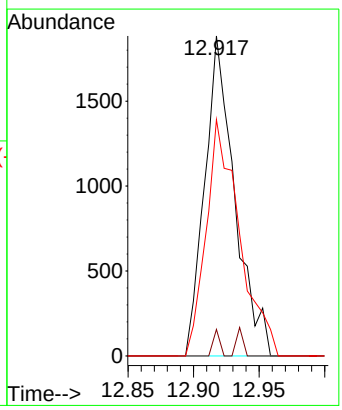
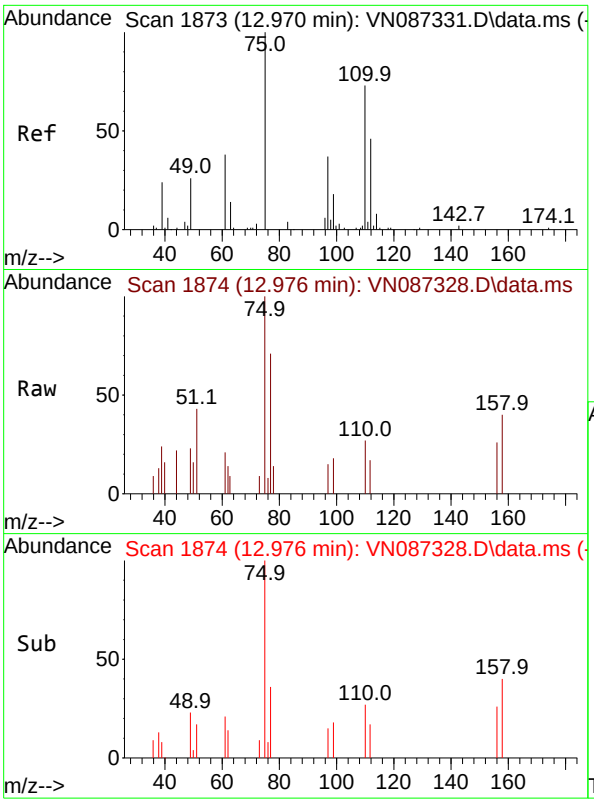


#75
1,1,2,2-Tetrachloroethane
Concen: 0.979 ug/l
RT: 12.917 min Scan# 1864
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 83 Resp: 2986

Ion	Ratio	Lower	Upper
83	100		
131	1.8	5.1	15.3#
85	82.1	32.5	97.4





#76
1,2,3-Trichloropropane
Concen: 1.089 ug/l m
RT: 12.976 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 75 Resp: 311

Ion	Ratio	Lower	Upper
75	100		
77	153.5	94.5	283.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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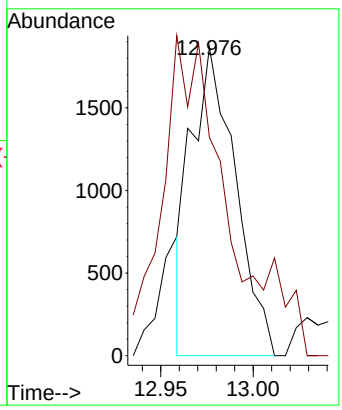
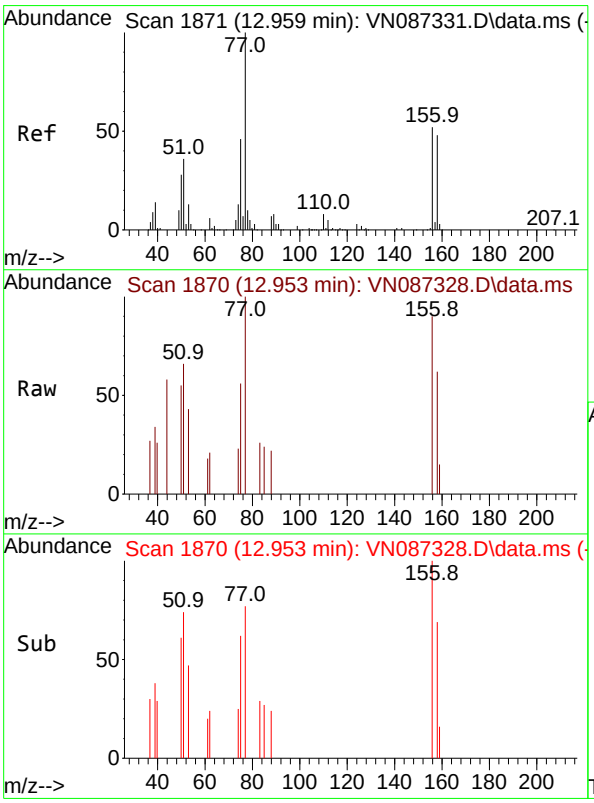
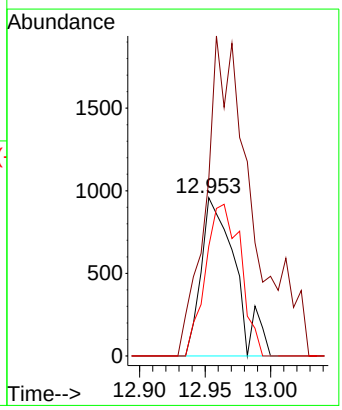


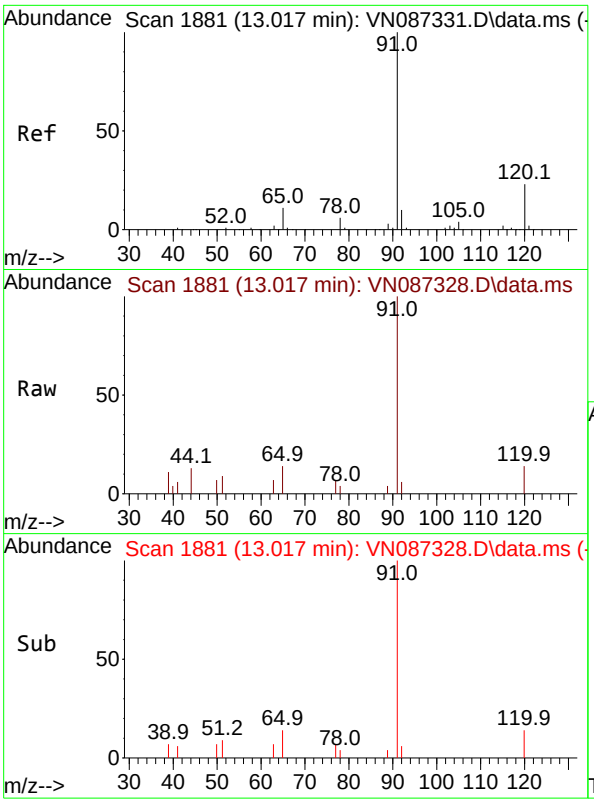


#77
Bromobenzene
Concen: 0.820 ug/l
RT: 12.953 min Scan# 1870
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:156 Resp: 1724

Ion	Ratio	Lower	Upper
156	100		
77	277.2	114.9	344.6
158	99.6	48.5	145.5





#78
n-propylbenzene
Concen: 0.821 ug/l
RT: 13.017 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 91 Resp: 837

Ion	Ratio	Lower	Upper
91	100		
120	19.9	11.3	33.8

Instrument :
MSVOA_N
ClientSampleId :
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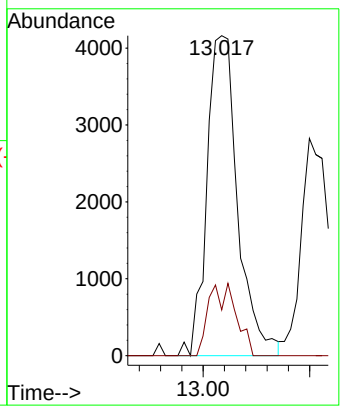
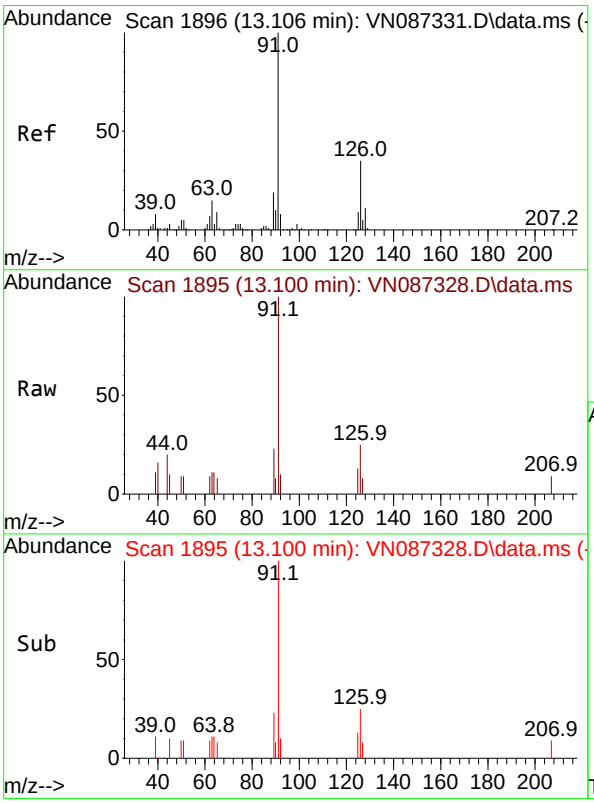
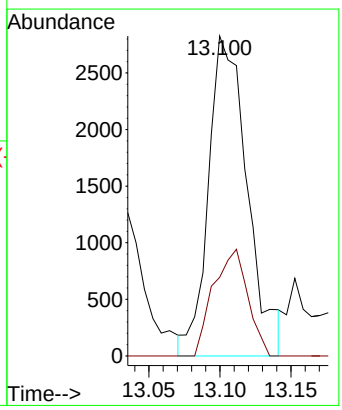


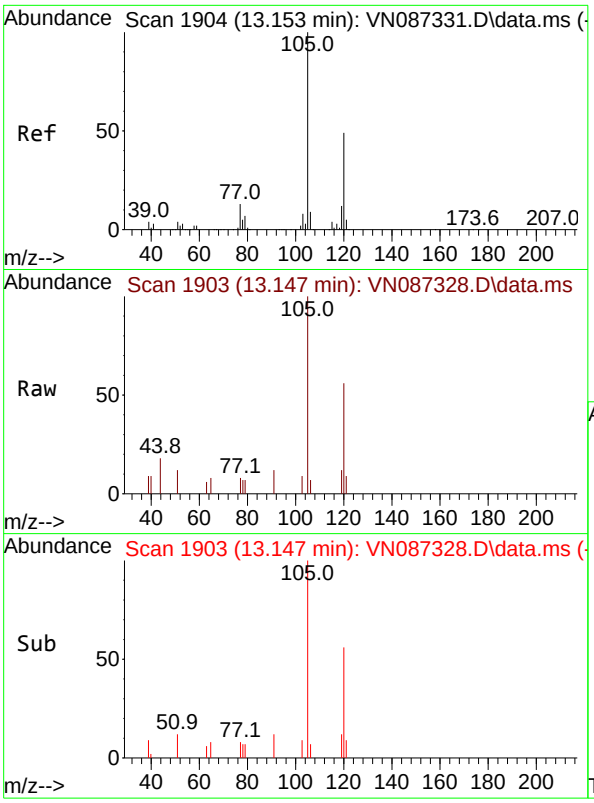


#79
2-Chlorotoluene
Concen: 0.857 ug/l
RT: 13.100 min Scan# 1895
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 91 Resp: 5372

Ion	Ratio	Lower	Upper
91	100		
126	29.6	16.9	50.6

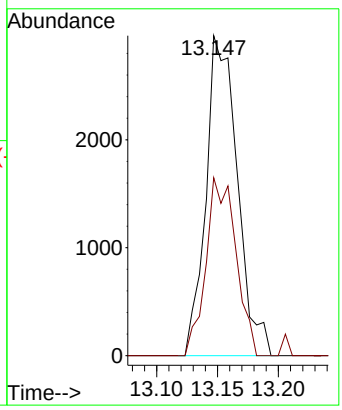




#80
1,3,5-Trimethylbenzene
Concen: 0.772 ug/l
RT: 13.147 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:105 Resp: 532

Ion	Ratio	Lower	Upper
105	100		
120	52.9	24.3	72.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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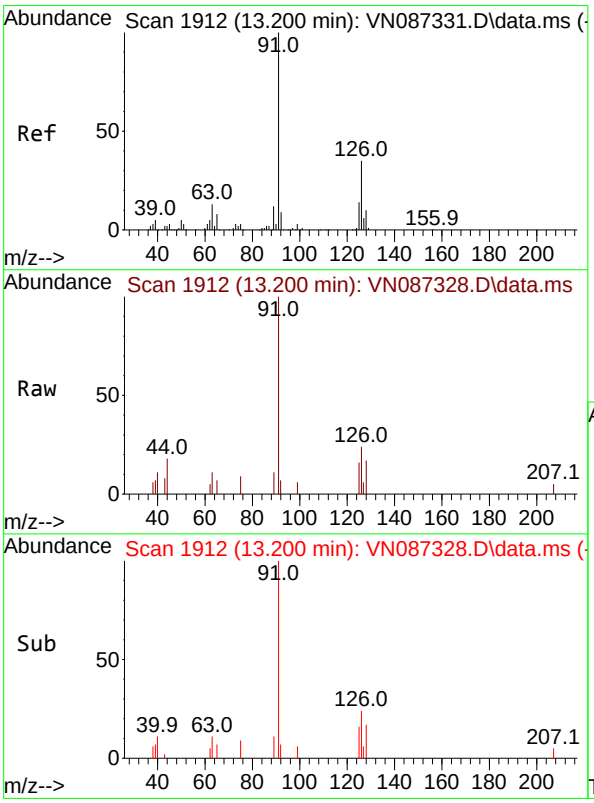
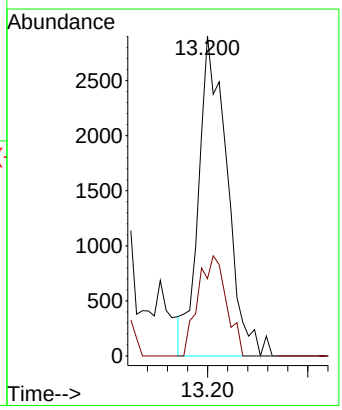
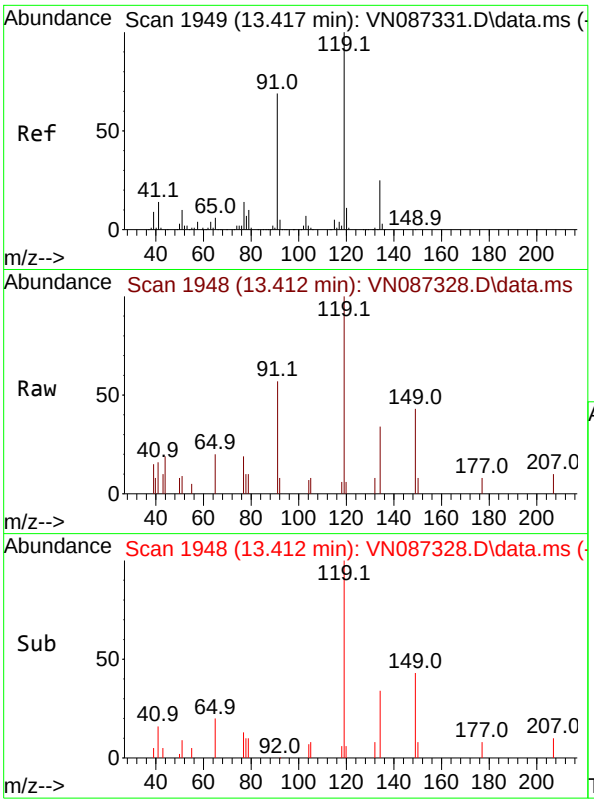


#82
4-Chlorotoluene
Concen: 0.878 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 91 Resp: 5733

Ion	Ratio	Lower	Upper
91	100		
126	31.1	16.6	49.7

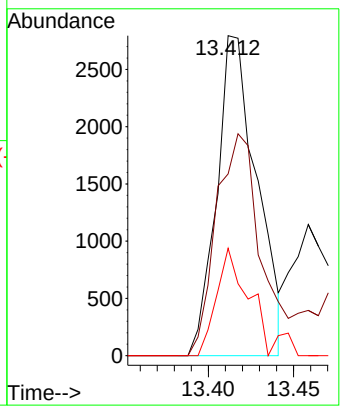




#83
tert-Butylbenzene
Concen: 0.795 ug/l
RT: 13.412 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:119 Resp: 458

Ion	Ratio	Lower	Upper
119	100		
91	79.4	35.0	105.1
134	29.0	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
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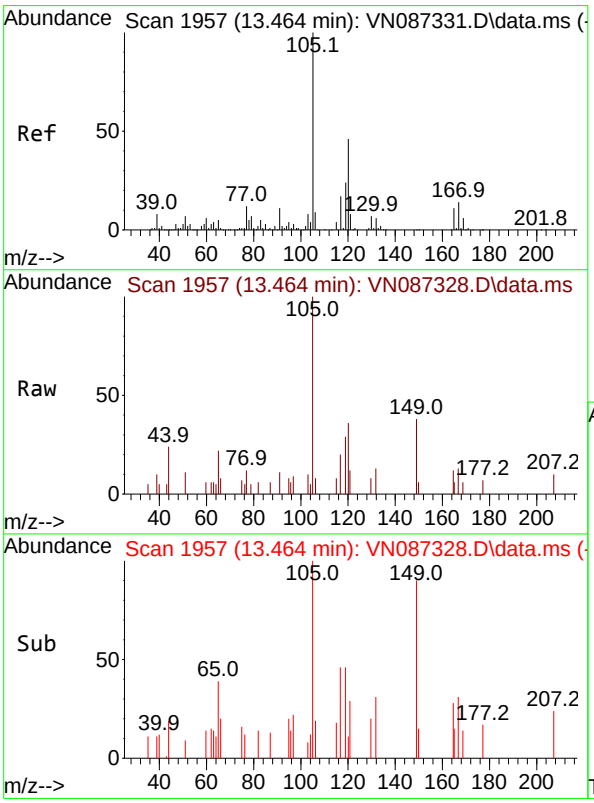
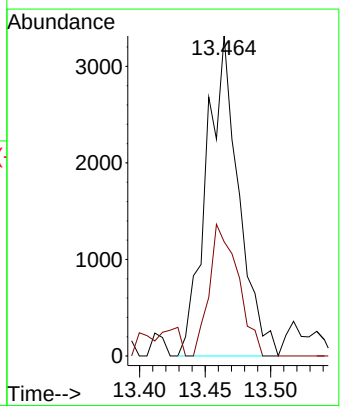
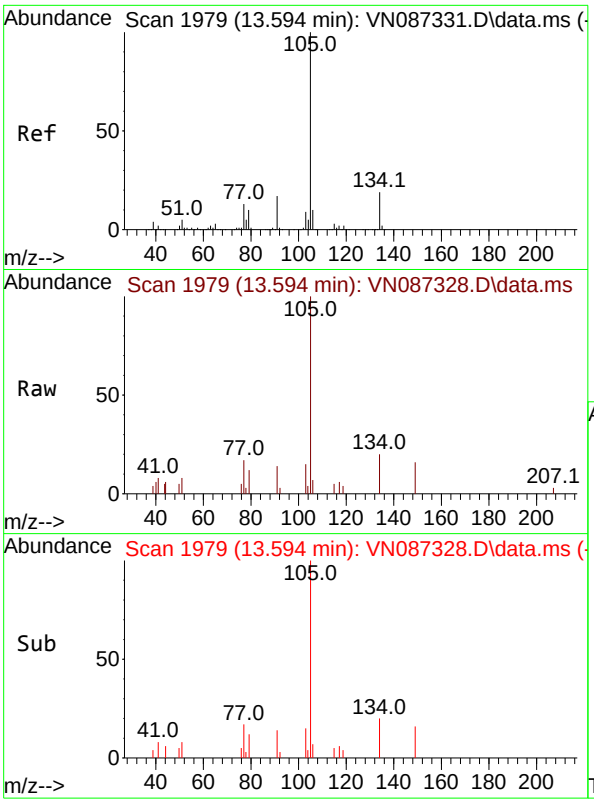


#84
1,2,4-Trimethylbenzene
Concen: 0.804 ug/l
RT: 13.464 min Scan# 1957
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:105 Resp: 5671

Ion	Ratio	Lower	Upper
105	100		
120	36.8	22.8	68.3

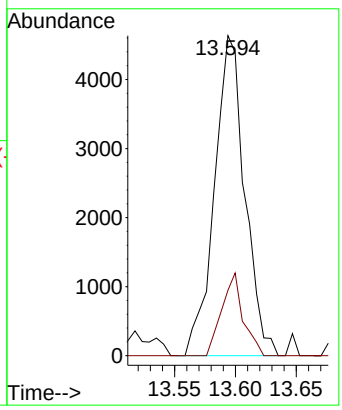




#85
sec-Butylbenzene
Concen: 0.925 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:105 Resp: 803

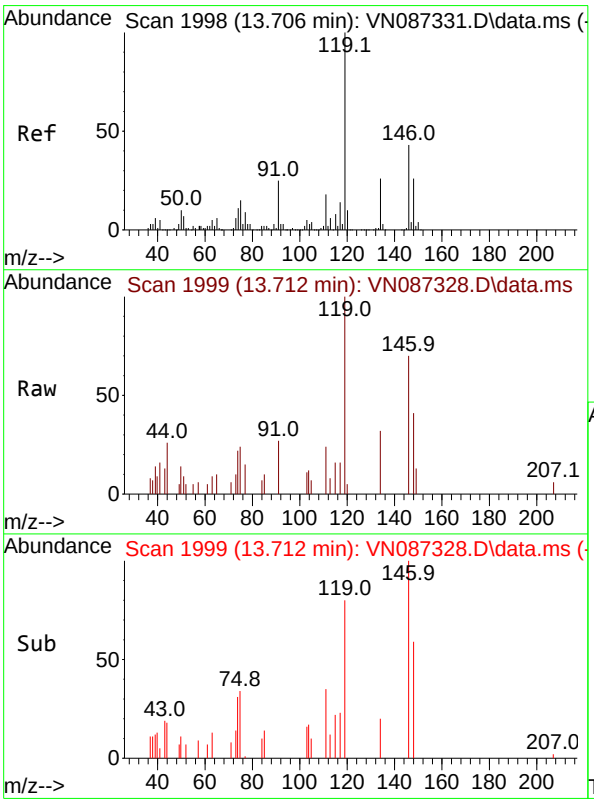
Ion	Ratio	Lower	Upper
105	100		
134	18.1	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

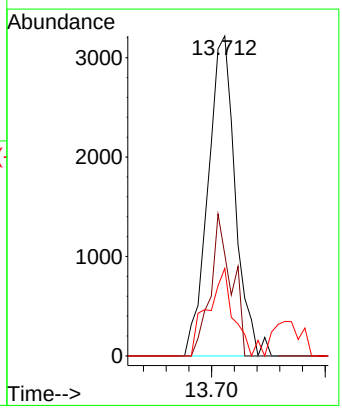
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

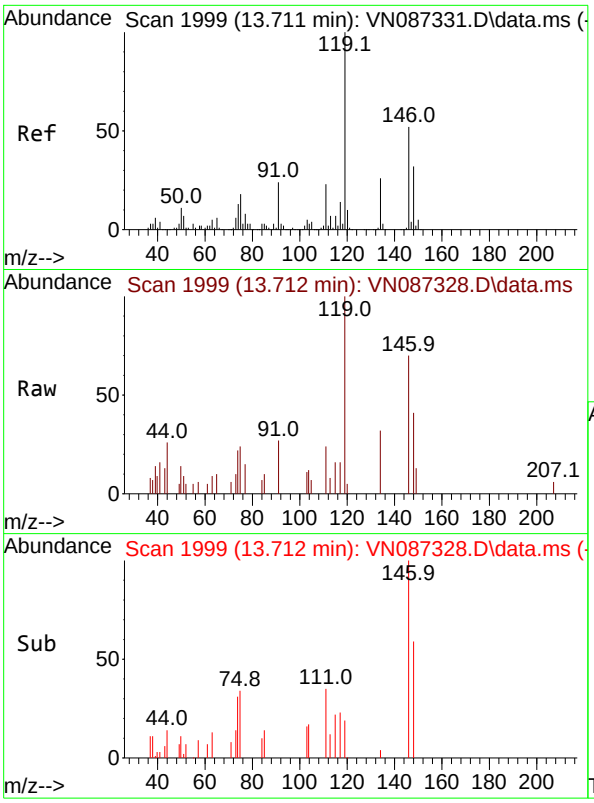


#86
p-Isopropyltoluene
Concen: 0.770 ug/l
RT: 13.712 min Scan# 1999
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:119 Resp: 5360

Ion	Ratio	Lower	Upper
119	100		
134	34.2	13.5	40.5
91	25.4	12.2	36.6

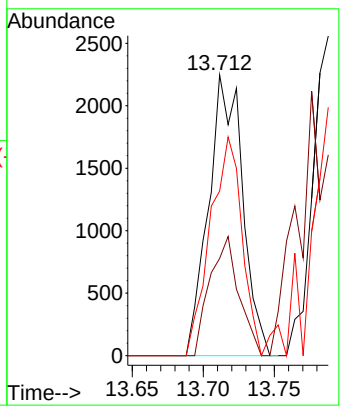




#87
1,3-Dichlorobenzene
Concen: 0.904 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:146 Resp: 373

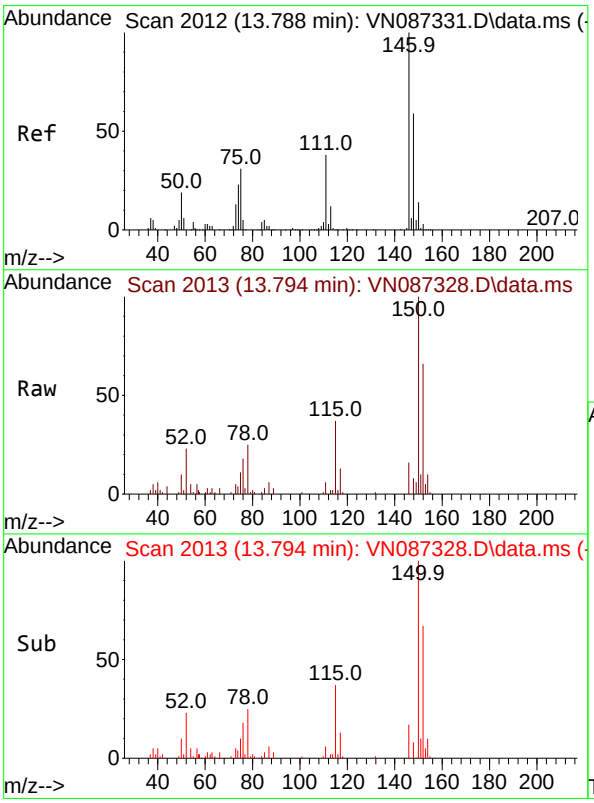
Ion	Ratio	Lower	Upper
146	100		
111	36.5	21.4	64.3
148	72.6	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

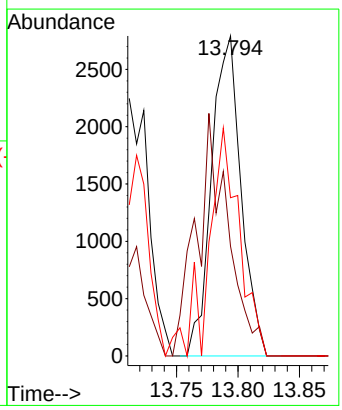
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

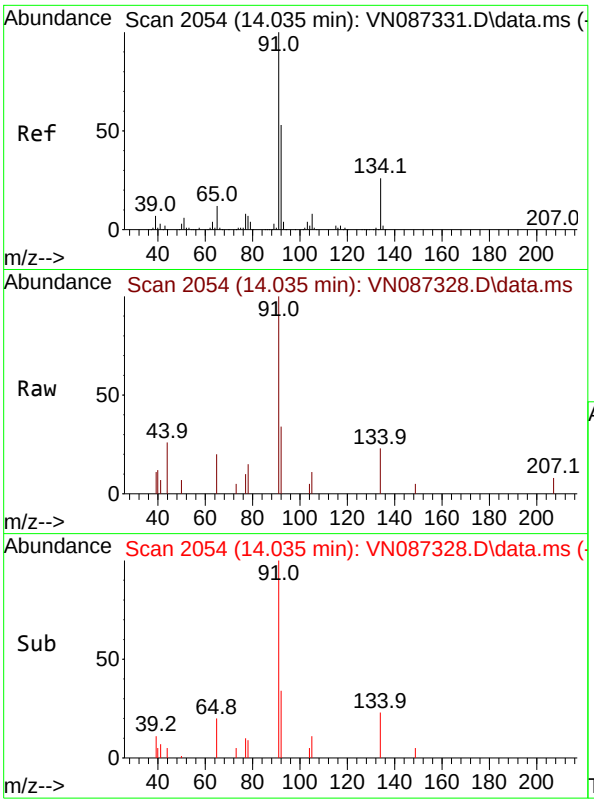


#88
1,4-Dichlorobenzene
Concen: 1.056 ug/l m
RT: 13.794 min Scan# 2013
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:146 Resp: 4655

Ion	Ratio	Lower	Upper
146	100		
111	29.2	19.6	58.7
148	58.2	31.4	94.0

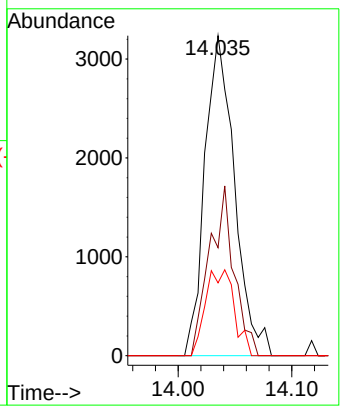




#89
n-Butylbenzene
Concen: 0.883 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 91 Resp: 586

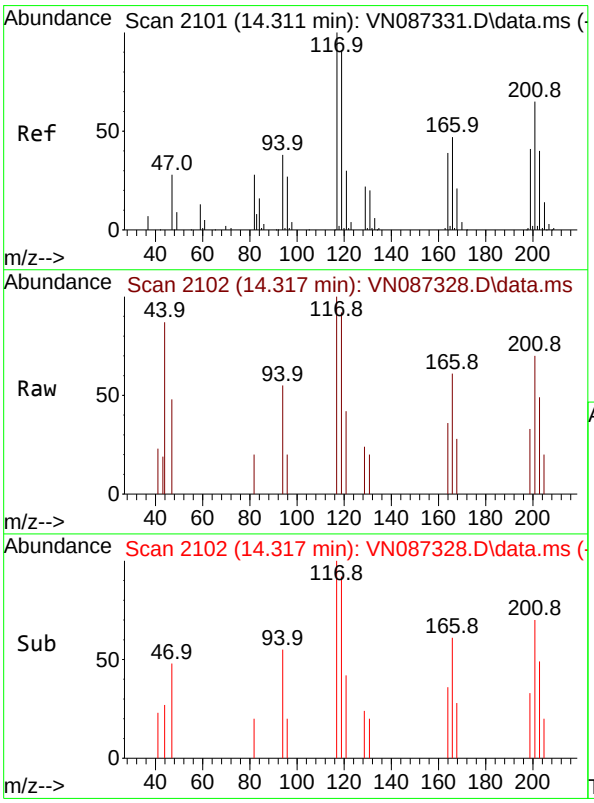
Ion	Ratio	Lower	Upper
91	100		
92	44.0	26.2	78.6
134	25.9	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

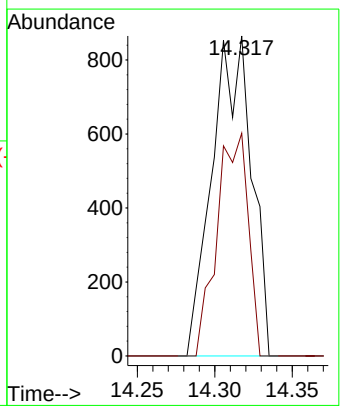
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

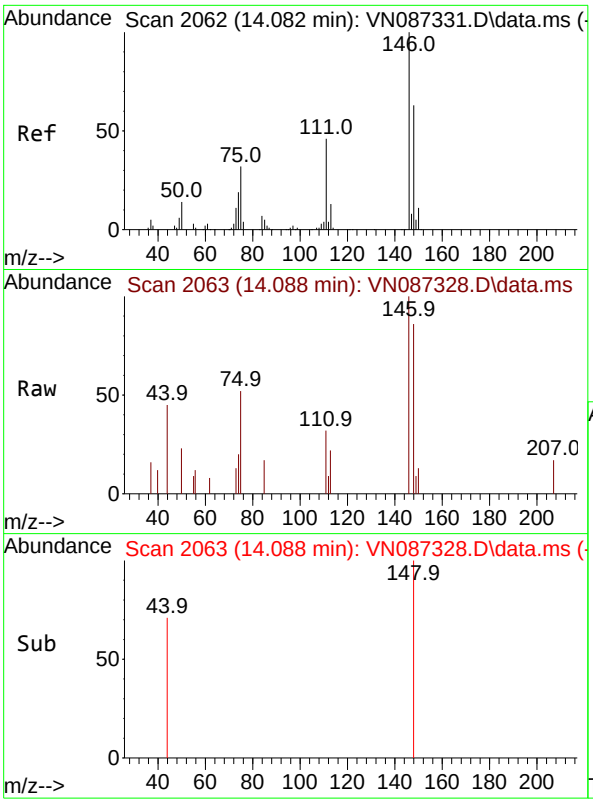


#90
Hexachloroethane
Concen: 1.035 ug/l
RT: 14.317 min Scan# 2102
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:117 Resp: 1527

Ion	Ratio	Lower	Upper
117	100		
201	55.1	32.8	98.4

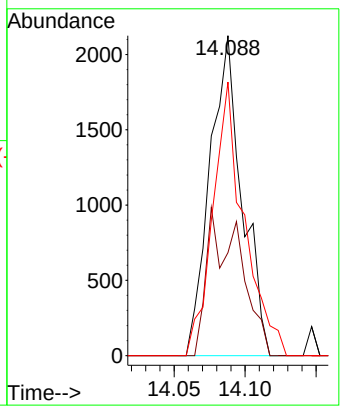




#91
1,2-Dichlorobenzene
Concen: 0.859 ug/l
RT: 14.088 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:146 Resp: 335

Ion	Ratio	Lower	Upper
146	100		
111	47.6	22.0	66.0
148	82.7	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
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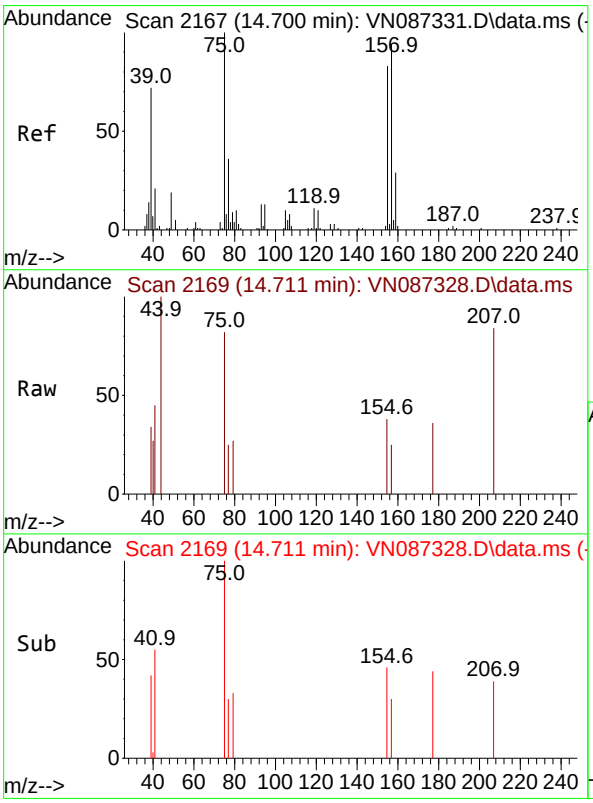
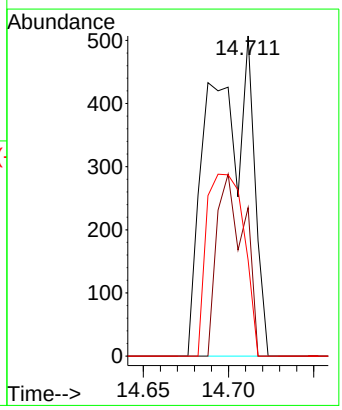
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

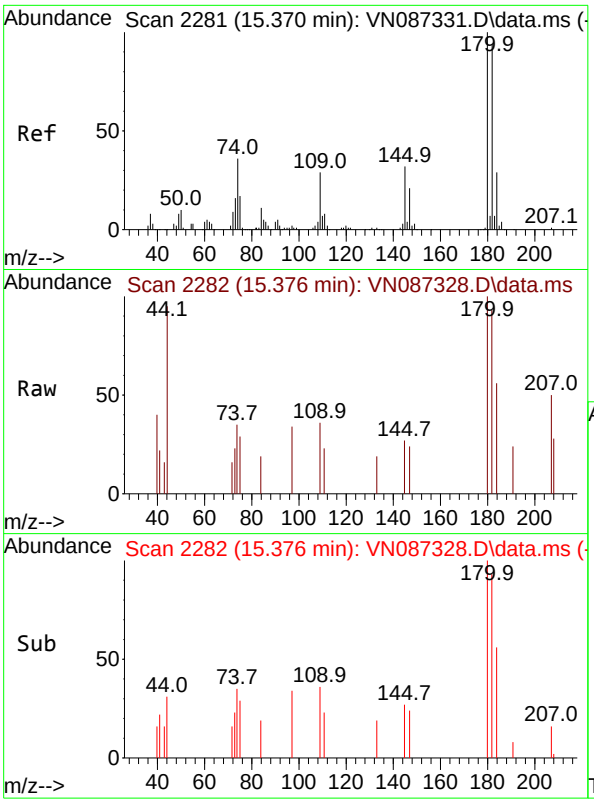


#92
1,2-Dibromo-3-Chloropropane
Concen: 1.091 ug/l
RT: 14.711 min Scan# 2169
Delta R.T. 0.012 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion: 75 Resp: 874

Ion	Ratio	Lower	Upper
75	100		
155	37.2	37.3	111.8#
157	50.2	46.2	138.6

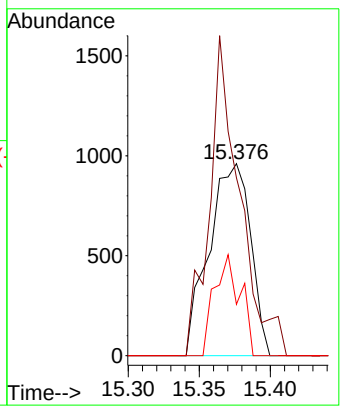




#93
1,2,4-Trichlorobenzene
Concen: 0.854 ug/l
RT: 15.376 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:180 Resp: 196

Ion	Ratio	Lower	Upper
180	100		
182	121.8	47.3	141.8
145	32.6	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

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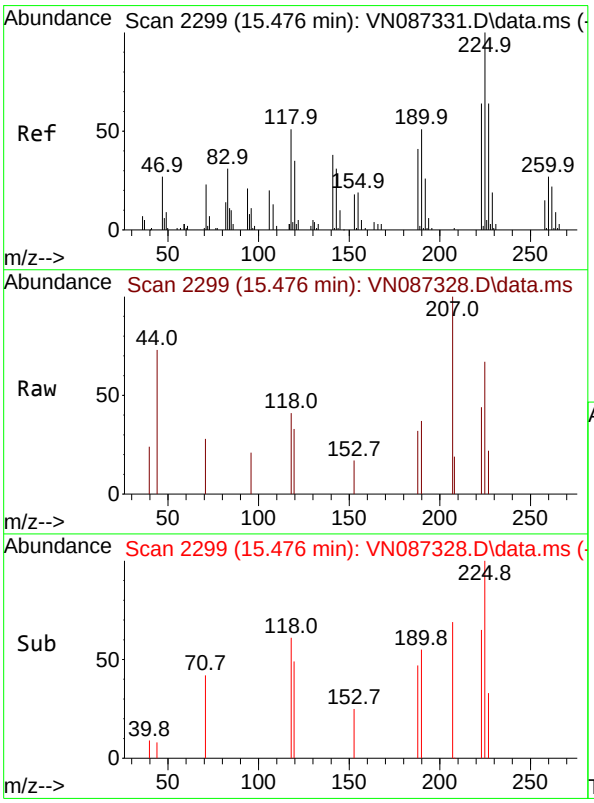
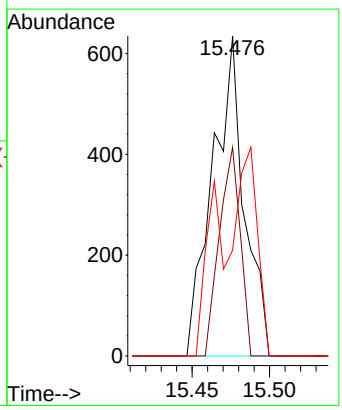
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

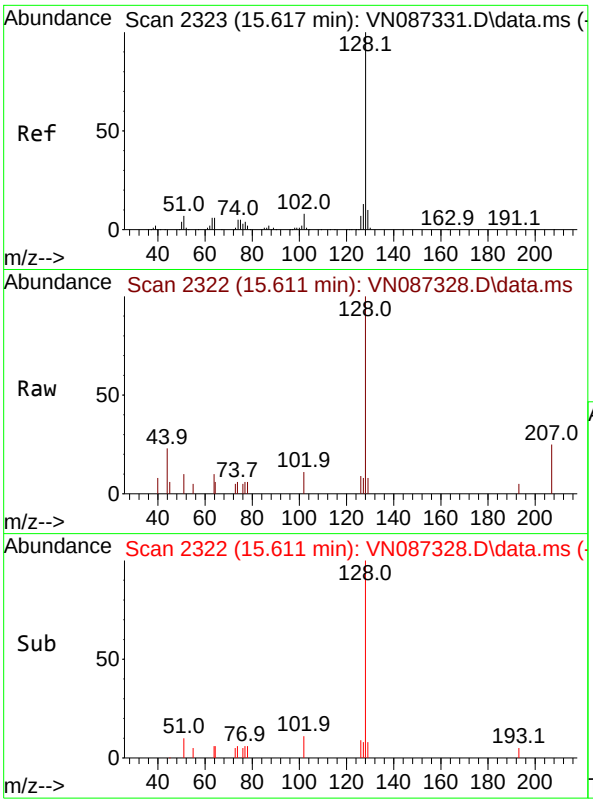


#94
Hexachlorobutadiene
Concen: 1.058 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:225 Resp: 903

Ion	Ratio	Lower	Upper
225	100		
223	42.9	32.1	96.3
227	46.0	31.3	93.9

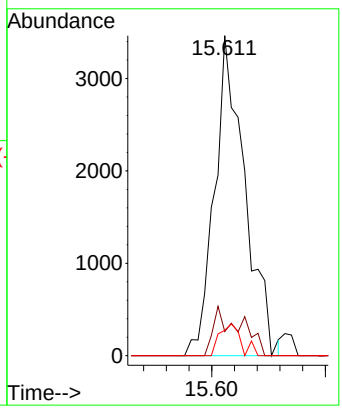




#95
Naphthalene
Concen: 0.787 ug/l
RT: 15.611 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:128 Resp: 640

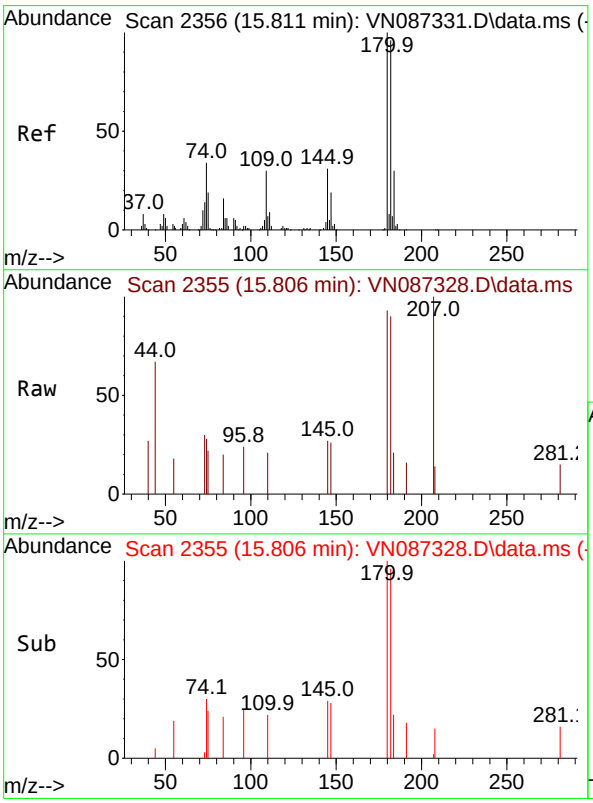
Ion	Ratio	Lower	Upper
128	100		
127	13.7	10.5	15.7
129	7.0	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

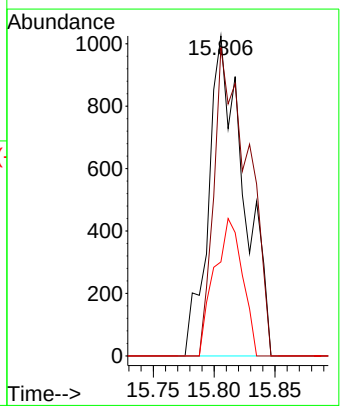
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025



#96
1,2,3-Trichlorobenzene
Concen: 0.898 ug/l
RT: 15.806 min Scan# 2355
Delta R.T. -0.006 min
Lab File: VN087328.D
Acq: 16 Jul 2025 17:05

Tgt Ion:180 Resp: 2068

Ion	Ratio	Lower	Upper
180	100		
182	93.6	47.1	141.4
145	34.1	16.9	50.6



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087329.D
Acq On : 16 Jul 2025 17:27
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 17 02:17:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.206	168	172217	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.088	114	319926	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.847	117	285583	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	146494	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.565	65	16177	5.536	ug/l		0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 11.080%#				
35) Dibromofluoromethane	8.153	113	11111	5.035	ug/l		0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 10.060%#				
50) Toluene-d8	10.547	98	37751	4.796	ug/l		0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 9.600%#				
62) 4-Bromofluorobenzene	12.829	95	12943	4.450	ug/l		0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 8.900%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.142	85	7633	4.173	ug/l		90
3) Chloromethane	2.383	50	11350	4.934	ug/l		96
4) Vinyl Chloride	2.536	62	11459	5.013	ug/l		98
5) Bromomethane	2.971	94	5657	4.779	ug/l		87
6) Chloroethane	3.124	64	8358	5.606	ug/l	#	81
7) Trichlorofluoromethane	3.506	101	16796	4.969	ug/l	#	83
8) Diethyl Ether	3.959	74	6731	5.133	ug/l		91
9) 1,1,2-Trichlorotrifluo...	4.371	101	8532	4.917	ug/l	#	19
10) Methyl Iodide	4.577	142	4952m	8.093	ug/l		
11) Tert butyl alcohol	5.536	59	14147	25.497	ug/l		98
12) 1,1-Dichloroethene	4.330	96	11037	5.613	ug/l	#	83
13) Acrolein	4.177	56	12045	27.050	ug/l		96
14) Allyl chloride	5.006	41	16836	4.731	ug/l		97
15) Acrylonitrile	5.718	53	36114	23.986	ug/l		92
16) Acetone	4.430	43	36648	26.455	ug/l		96
17) Carbon Disulfide	4.695	76	29024	4.979	ug/l		94
18) Methyl Acetate	5.006	43	18125	5.265	ug/l		99
19) Methyl tert-butyl Ether	5.800	73	36155	4.989	ug/l		95
20) Methylene Chloride	5.259	84	13570	5.286	ug/l	#	86
21) trans-1,2-Dichloroethene	5.765	96	11514	5.193	ug/l		81
22) Diisopropyl ether	6.671	45	37879	5.075	ug/l	#	97
23) Vinyl Acetate	6.594	43	145089	22.225	ug/l	#	94
24) 1,1-Dichloroethane	6.547	63	22819	5.299	ug/l		95
25) 2-Butanone	7.477	43	52336	24.722	ug/l		95
26) 2,2-Dichloropropane	7.483	77	16583	4.953	ug/l		100
27) cis-1,2-Dichloroethene	7.471	96	12690	4.972	ug/l		99
28) Bromochloromethane	7.789	49	11022	5.348	ug/l	#	16
29) Tetrahydrofuran	7.830	42	34146	24.829	ug/l		99
30) Chloroform	7.959	83	22369	5.190	ug/l		84
31) Cyclohexane	8.236	56	19764	5.502	ug/l		87
32) 1,1,1-Trichloroethane	8.153	97	19739	5.287	ug/l	#	51
36) 1,1-Dichloropropene	8.347	75	13965	4.790	ug/l		98
37) Ethyl Acetate	7.553	43	21482	5.102	ug/l		97
38) Carbon Tetrachloride	8.341	117	16718	5.205	ug/l	#	89
39) Methylcyclohexane	9.582	83	14154	4.484	ug/l		86
40) Benzene	8.583	78	45748	4.855	ug/l		94

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087329.D
Acq On : 16 Jul 2025 17:27
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 17 02:17:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	10551	4.792	ug/l		97
42) 1,2-Dichloroethane	8.653	62	18086	5.061	ug/l		96
43) Isopropyl Acetate	8.677	43	31964	4.890	ug/l		100
44) Trichloroethene	9.335	130	10573	4.748	ug/l		79
45) 1,2-Dichloropropane	9.606	63	11728	4.898	ug/l		95
46) Dibromomethane	9.694	93	9473	5.284	ug/l		96
47) Bromodichloromethane	9.865	83	18300	5.068	ug/l	#	82
48) Methyl methacrylate	9.665	41	13169	4.475	ug/l		95
49) 1,4-Dioxane	9.682	88	4176	92.653	ug/l	#	87
51) 4-Methyl-2-Pentanone	10.430	43	102519	24.797	ug/l		97
52) Toluene	10.612	92	27158	4.742	ug/l		96
53) t-1,3-Dichloropropene	10.824	75	17133	4.688	ug/l	#	87
54) cis-1,3-Dichloropropene	10.294	75	18046	4.780	ug/l		97
55) 1,1,2-Trichloroethane	11.000	97	11643	5.021	ug/l	#	88
56) Ethyl methacrylate	10.859	69	15548	4.693	ug/l		95
57) 1,3-Dichloropropane	11.141	76	19868	4.956	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.147	63	43690	22.968	ug/l		94
59) 2-Hexanone	11.182	43	59736	21.778	ug/l		99
60) Dibromochloromethane	11.335	129	13321	5.037	ug/l		100
61) 1,2-Dibromoethane	11.453	107	11942	4.898	ug/l		89
64) Tetrachloroethene	11.082	164	9660	5.256	ug/l		95
65) Chlorobenzene	11.871	112	32304	5.038	ug/l		96
66) 1,1,1,2-Tetrachloroethane	11.941	131	11581	5.312	ug/l		96
67) Ethyl Benzene	11.947	91	49622	4.701	ug/l		92
68) m/p-Xylenes	12.059	106	36883	9.332	ug/l		98
69) o-Xylene	12.376	106	17293	4.580	ug/l		97
70) Styrene	12.394	104	29462	4.639	ug/l		99
71) Bromoform	12.559	173	8628	4.899	ug/l	#	96
73) Isopropylbenzene	12.676	105	42320	4.590	ug/l		98
74) N-amyl acetate	12.647	43	18405m	5.113	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	17305	4.988	ug/l		95
76) 1,2,3-Trichloropropane	12.976	75	18135m	5.580	ug/l		
77) Bromobenzene	12.965	156	11589	4.847	ug/l		84
78) n-propylbenzene	13.018	91	54443	4.693	ug/l		99
79) 2-Chlorotoluene	13.106	91	34400	4.825	ug/l		99
80) 1,3,5-Trimethylbenzene	13.153	105	36874	4.694	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.718	75	4795	3.994	ug/l	#	80
82) 4-Chlorotoluene	13.200	91	36031	4.854	ug/l		98
83) tert-Butylbenzene	13.418	119	30293	4.617	ug/l		96
84) 1,2,4-Trimethylbenzene	13.465	105	35326	4.403	ug/l		99
85) sec-Butylbenzene	13.594	105	45947	4.649	ug/l		98
86) p-Isopropyltoluene	13.706	119	35413	4.471	ug/l		97
87) 1,3-Dichlorobenzene	13.718	146	23326	4.970	ug/l		95
88) 1,4-Dichlorobenzene	13.794	146	25031	4.994	ug/l		90
89) n-Butylbenzene	14.035	91	35522	4.697	ug/l		95
90) Hexachloroethane	14.312	117	8261	4.923	ug/l		98
91) 1,2-Dichlorobenzene	14.088	146	22474	5.055	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	4757	5.223	ug/l		87
93) 1,2,4-Trichlorobenzene	15.364	180	12595	4.823	ug/l		97
94) Hexachlorobutadiene	15.476	225	4936	5.087	ug/l		98
95) Naphthalene	15.617	128	38936	4.208	ug/l		99
96) 1,2,3-Trichlorobenzene	15.812	180	12368	4.721	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087329.D
Acq On : 16 Jul 2025 17:27
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 17 02:17:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087329.D
Acq On : 16 Jul 2025 17:27
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 17 02:17:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
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ClientSampleId :
VSTDICC005

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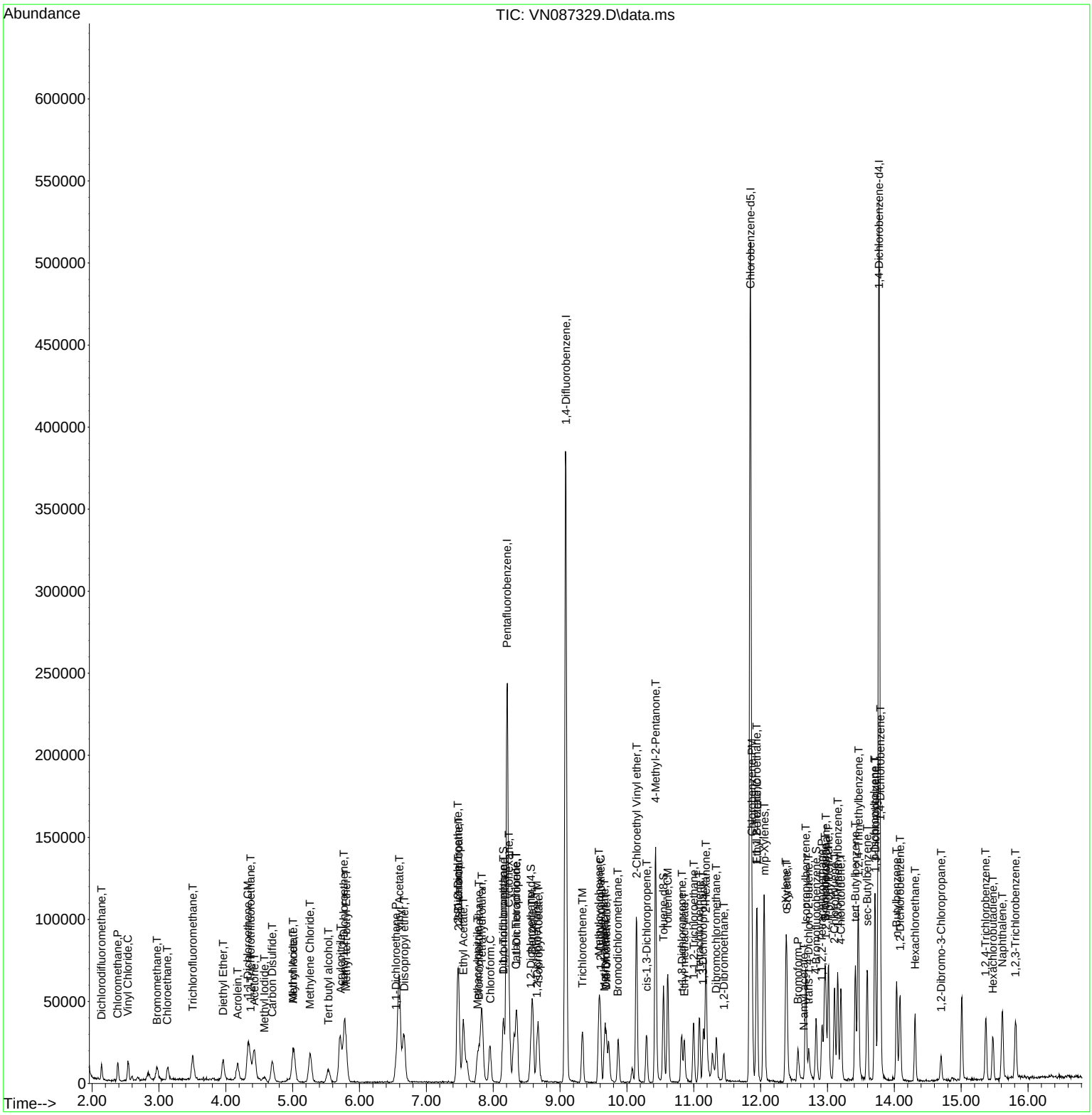
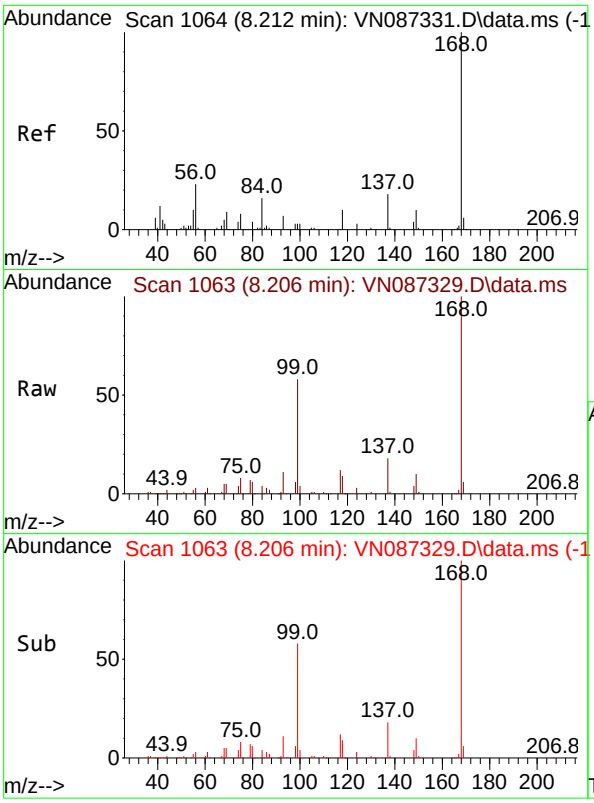
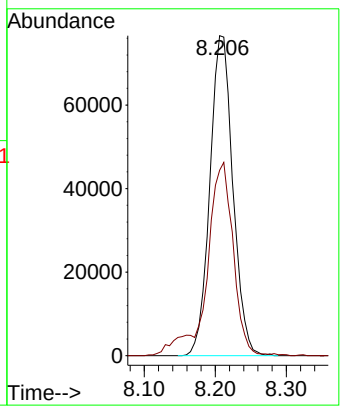




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:168 Resp: 17221

Ion	Ratio	Lower	Upper
168	100		
99	57.7	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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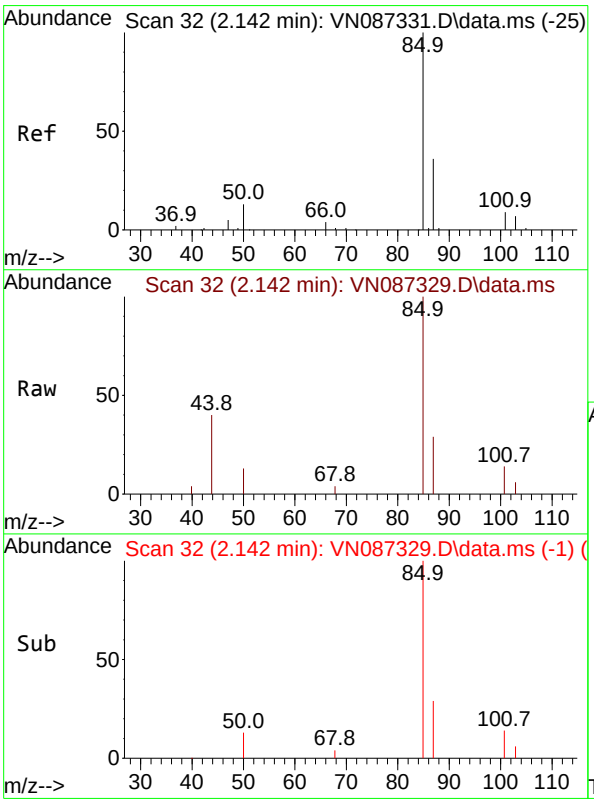
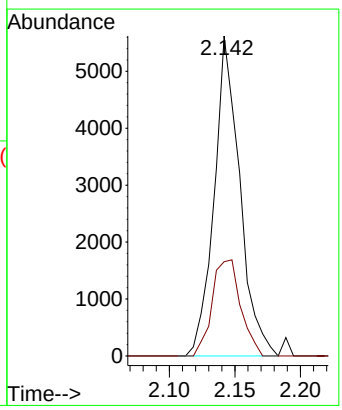
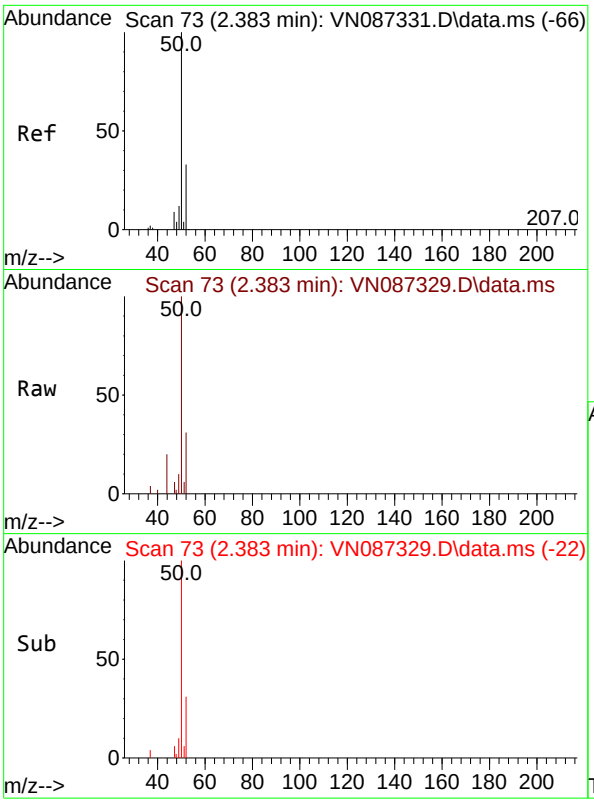


#2
Dichlorodifluoromethane
Concen: 4.173 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 85 Resp: 7633

Ion	Ratio	Lower	Upper
85	100		
87	29.4	17.8	53.3

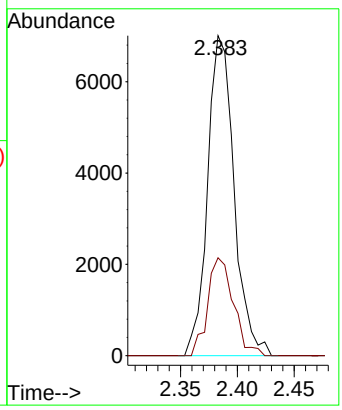




#3
Chloromethane
Concen: 4.934 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 50 Resp: 1135

Ion	Ratio	Lower	Upper
50	100		
52	30.6	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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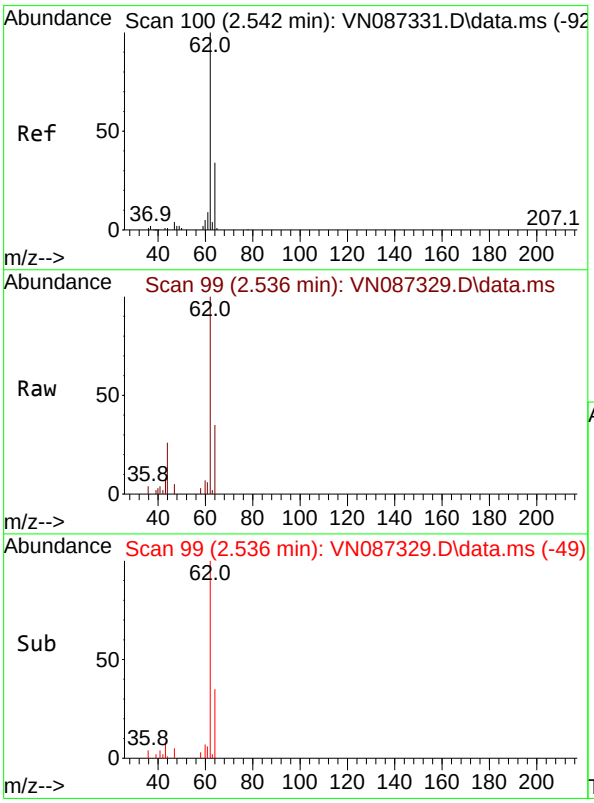
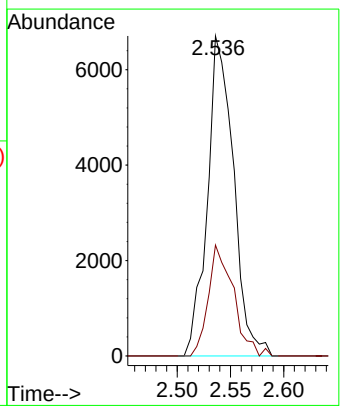
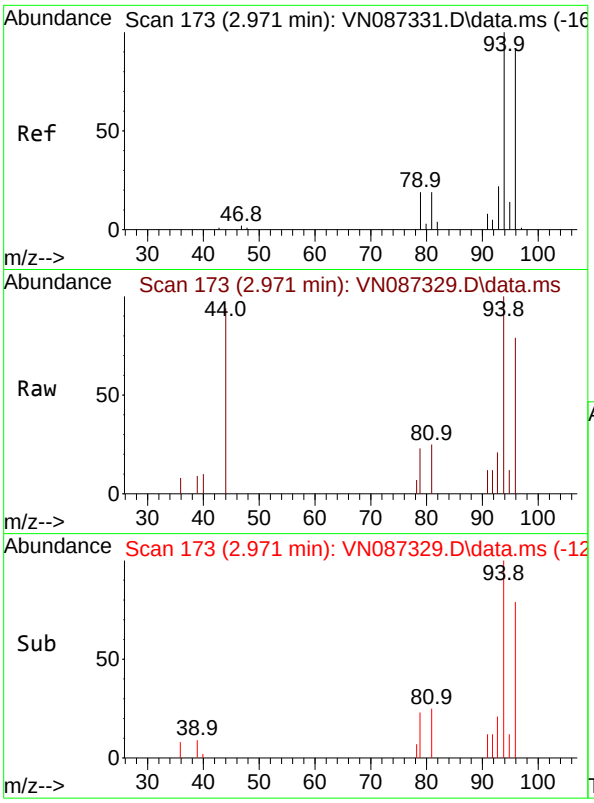


#4
Vinyl Chloride
Concen: 5.013 ug/l
RT: 2.536 min Scan# 99
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 62 Resp: 11459

Ion	Ratio	Lower	Upper
62	100		
64	34.7	27.0	40.6

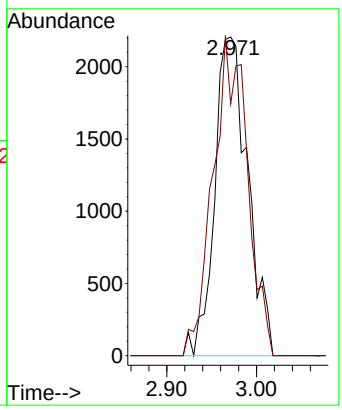




#5
Bromomethane
Concen: 4.779 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 94 Resp: 565

Ion	Ratio	Lower	Upper
94	100		
96	79.0	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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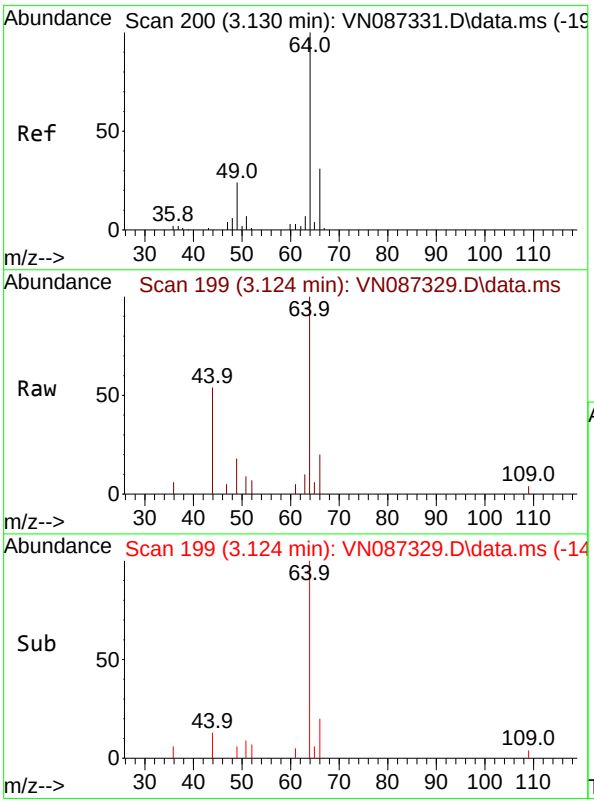
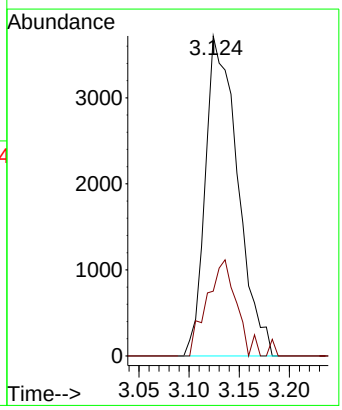
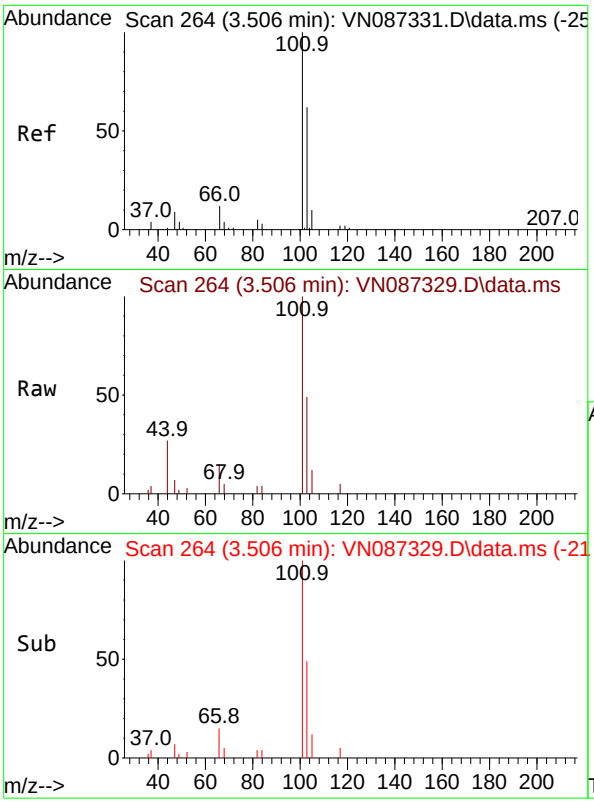


#6
Chloroethane
Concen: 5.606 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 64 Resp: 8358

Ion	Ratio	Lower	Upper
64	100		
66	20.2	24.6	36.8#

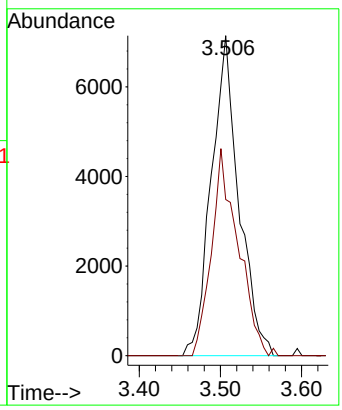




#7
Trichlorofluoromethane
Concen: 4.969 ug/l
RT: 3.506 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:101 Resp: 1679

Ion	Ratio	Lower	Upper
101	100		
103	48.8	49.8	74.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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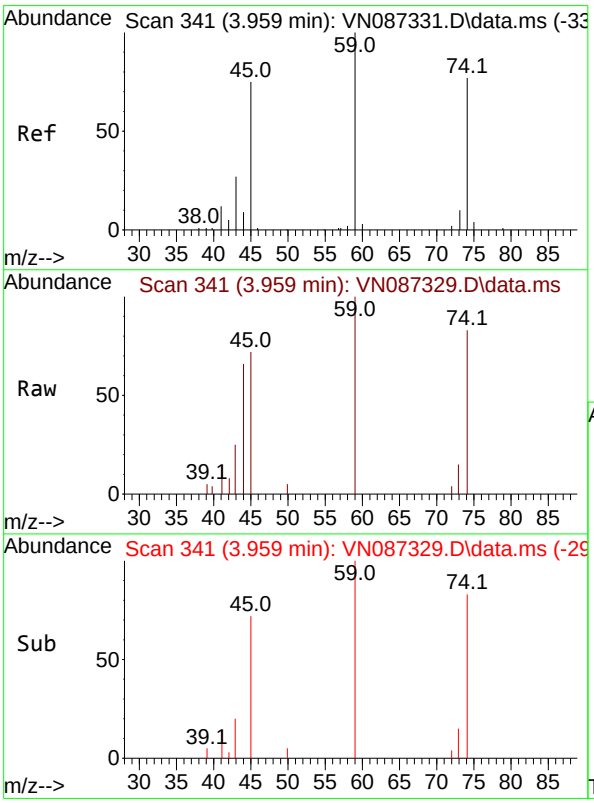
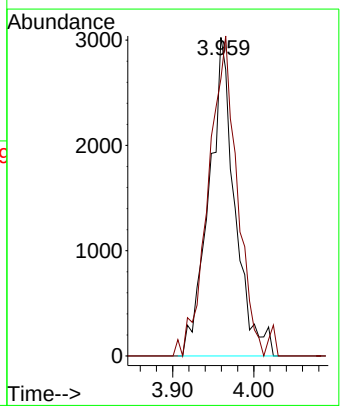
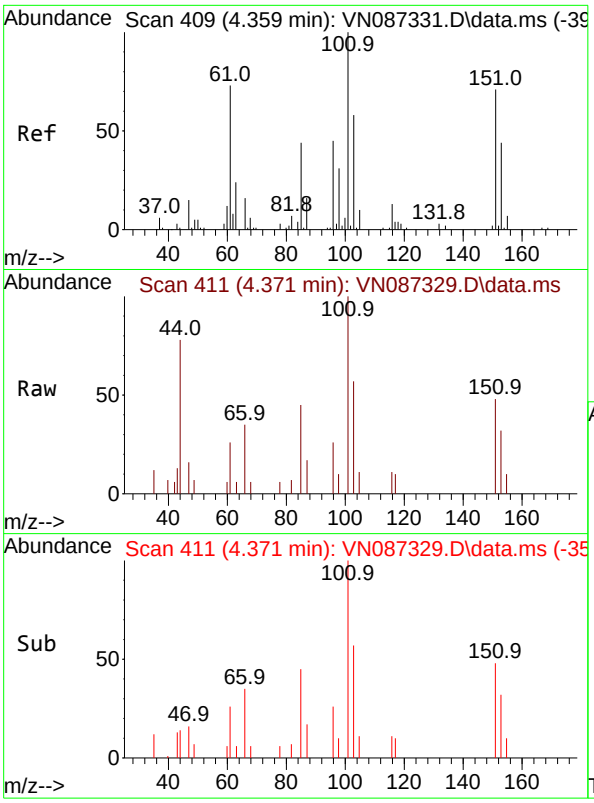


#8
Diethyl Ether
Concen: 5.133 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 74 Resp: 6731

Ion	Ratio	Lower	Upper
74	100		
45	111.0	50.8	152.5

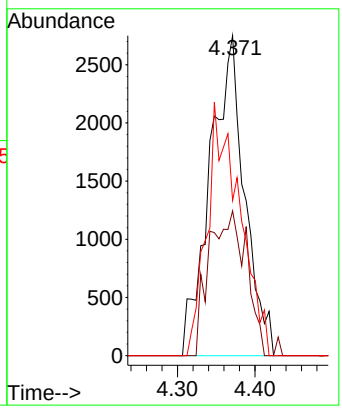




#9
1,1,2-Trichlorotrifluoroethane
Concen: 4.917 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.012 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:101 Resp: 853

Ion	Ratio	Lower	Upper
101	100		
85	0.0	37.3	55.9#
151	0.0	58.9	88.3#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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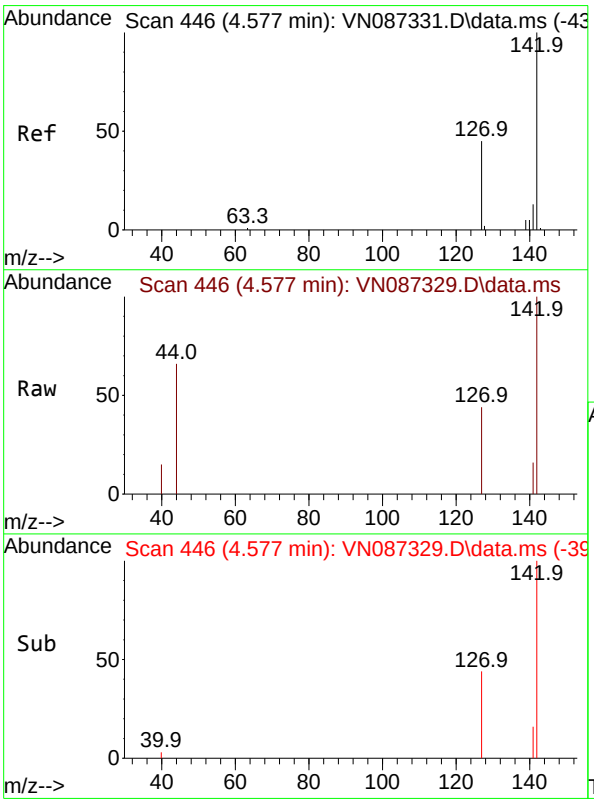
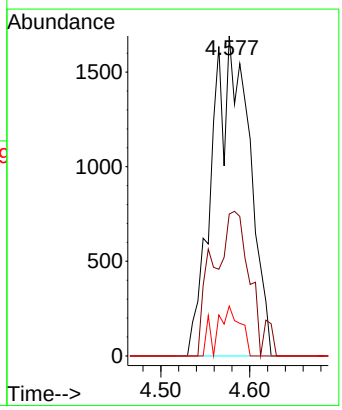
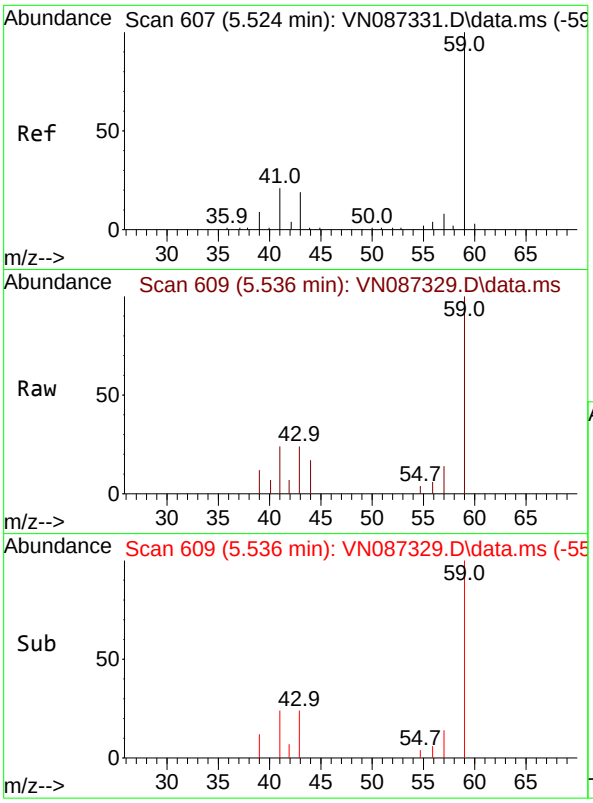


#10
Methyl Iodide
Concen: 8.093 ug/l m
RT: 4.577 min Scan# 446
Delta R.T. -0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:142 Resp: 4952

Ion	Ratio	Lower	Upper
142	100		
127	44.4	35.7	53.5
141	15.6	10.4	15.6#





#11
Tert butyl alcohol
Concen: 25.497 ug/l
RT: 5.536 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 59 Resp: 1414

Ion	Ratio	Lower	Upper
59	100		
57	9.7	8.3	12.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
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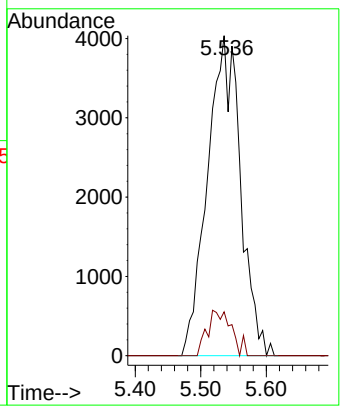
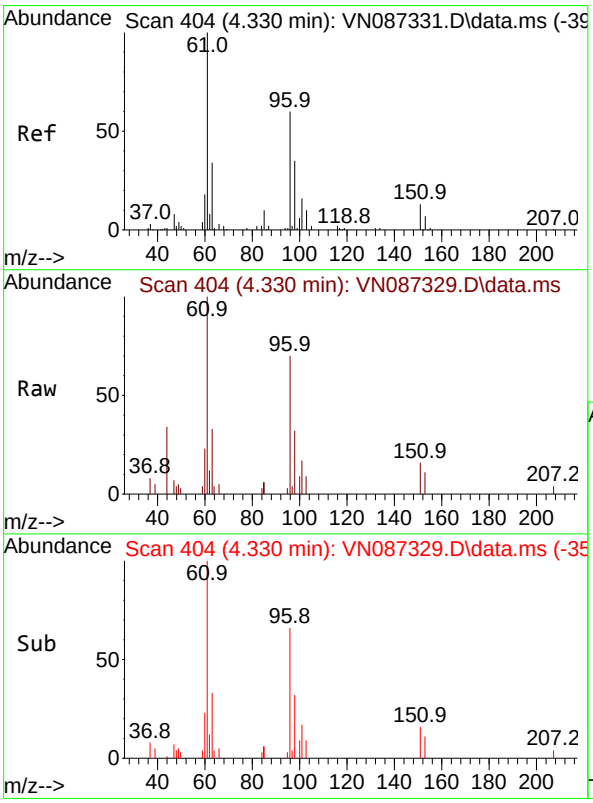
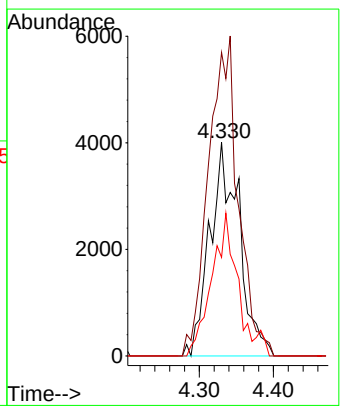


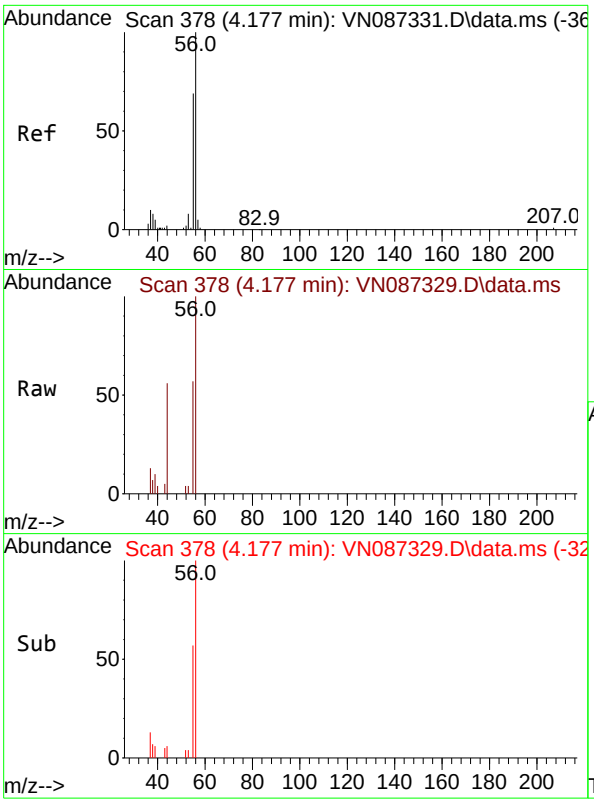


#12
1,1-Dichloroethene
Concen: 5.613 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 96 Resp: 11037

Ion	Ratio	Lower	Upper
96	100		
61	142.2	132.3	198.5
98	46.1	46.8	70.2#

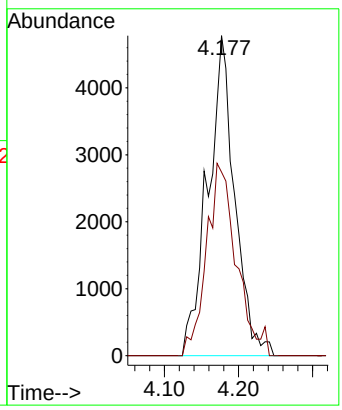




#13
Acrolein
Concen: 27.050 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 56 Resp: 1204

Ion	Ratio	Lower	Upper
56	100		
55	66.7	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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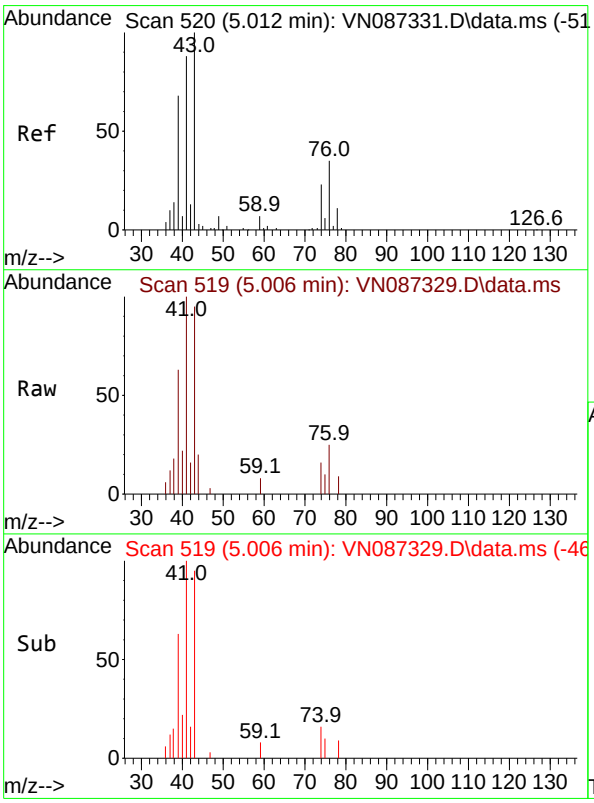
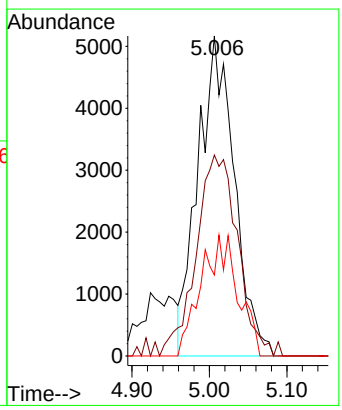
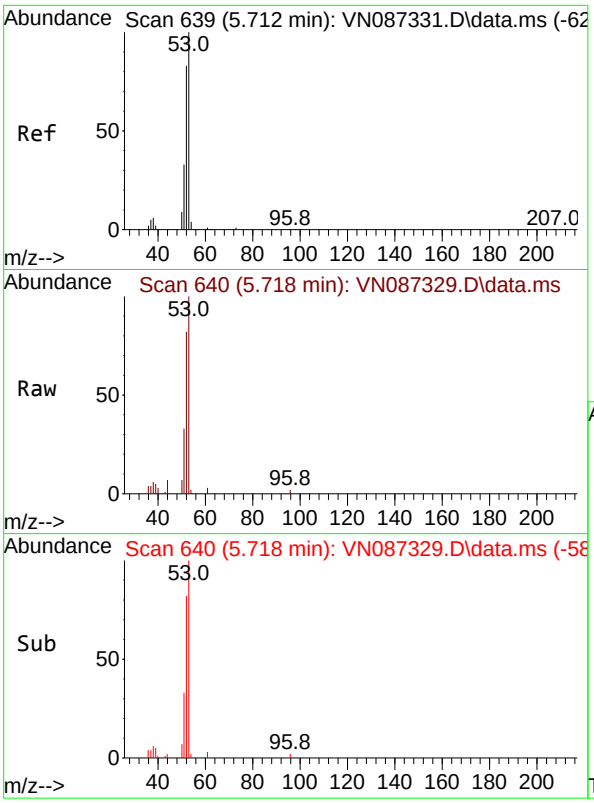


#14
Allyl chloride
Concen: 4.731 ug/l
RT: 5.006 min Scan# 519
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 41 Resp: 16836

Ion	Ratio	Lower	Upper
41	100		
39	71.9	59.0	88.6
76	38.3	28.7	43.1

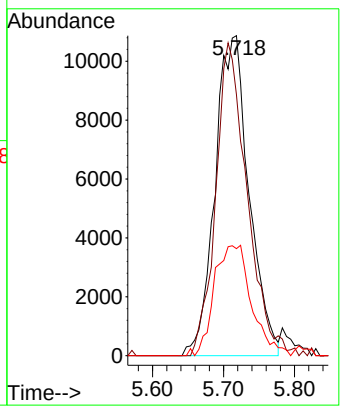




#15
Acrylonitrile
Concen: 23.986 ug/l
RT: 5.718 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 53 Resp: 3611

Ion	Ratio	Lower	Upper
53	100		
52	90.3	65.5	98.3
51	37.7	28.7	43.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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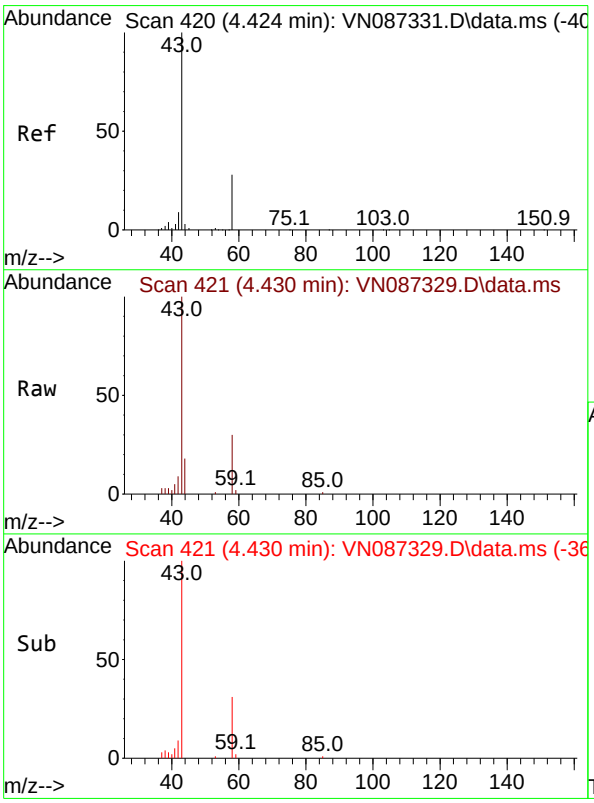
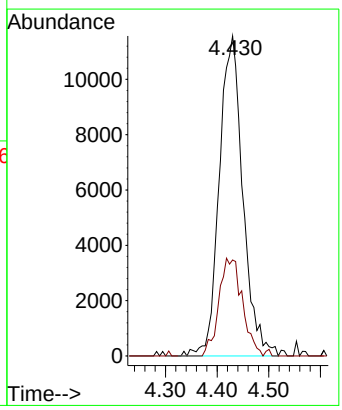
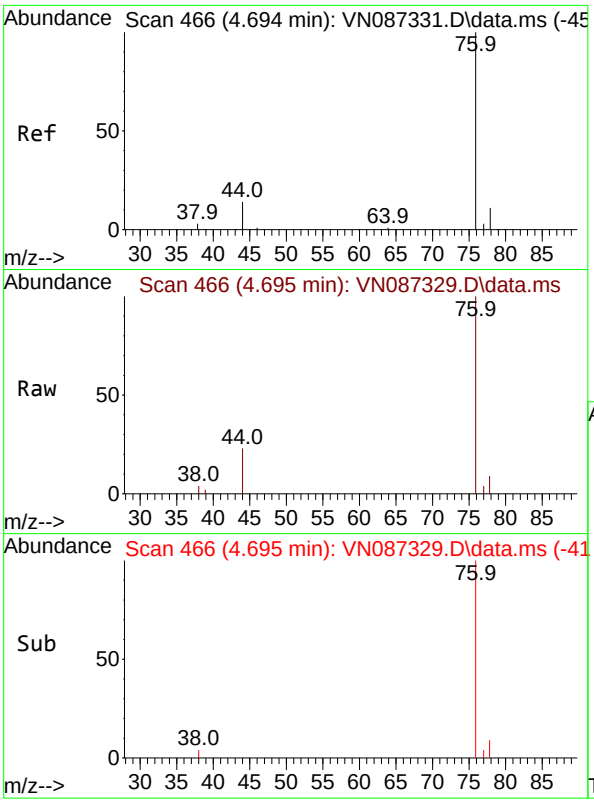


#16
Acetone
Concen: 26.455 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 36648

Ion	Ratio	Lower	Upper
43	100		
58	30.0	22.3	33.5

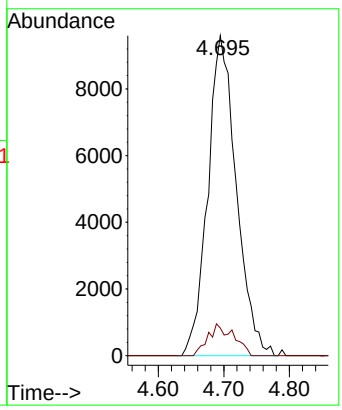




#17
Carbon Disulfide
Concen: 4.979 ug/l
RT: 4.695 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 76 Resp: 2902

Ion	Ratio	Lower	Upper
76	100		
78	8.6	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
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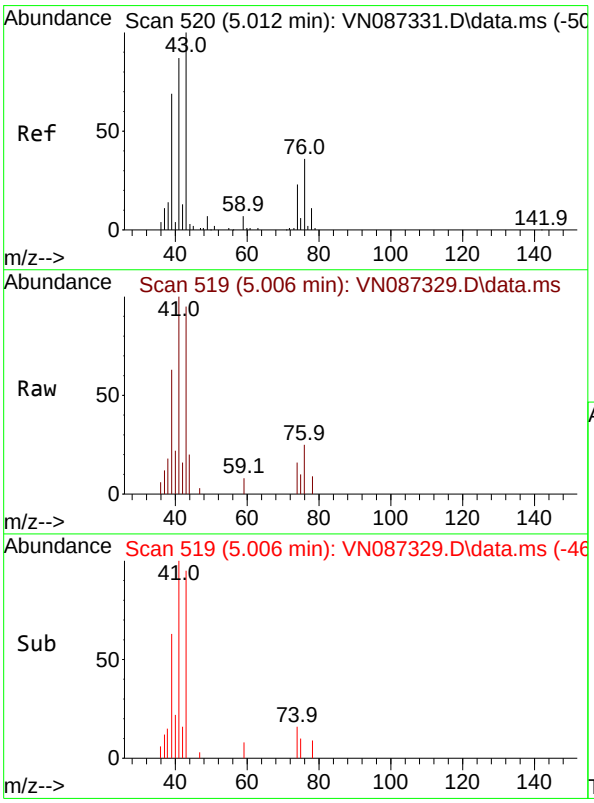
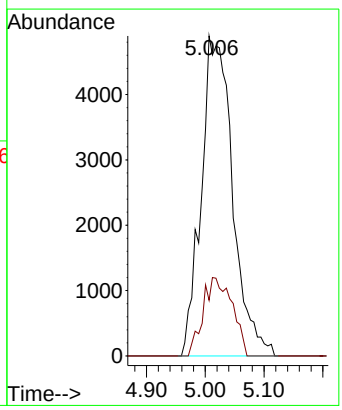
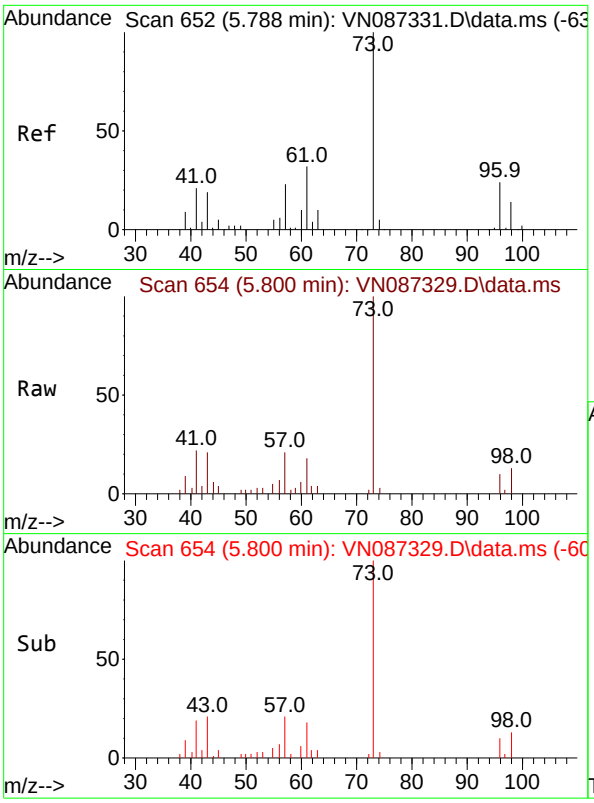


#18
Methyl Acetate
Concen: 5.265 ug/l
RT: 5.006 min Scan# 519
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 18125

Ion	Ratio	Lower	Upper
43	100		
74	22.8	17.8	26.6

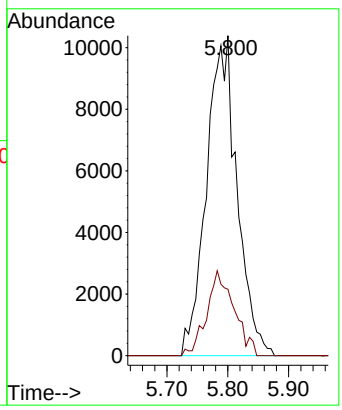




#19
Methyl tert-butyl Ether
Concen: 4.989 ug/l
RT: 5.800 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 73 Resp: 3615

Ion	Ratio	Lower	Upper
73	100		
57	20.7	18.6	27.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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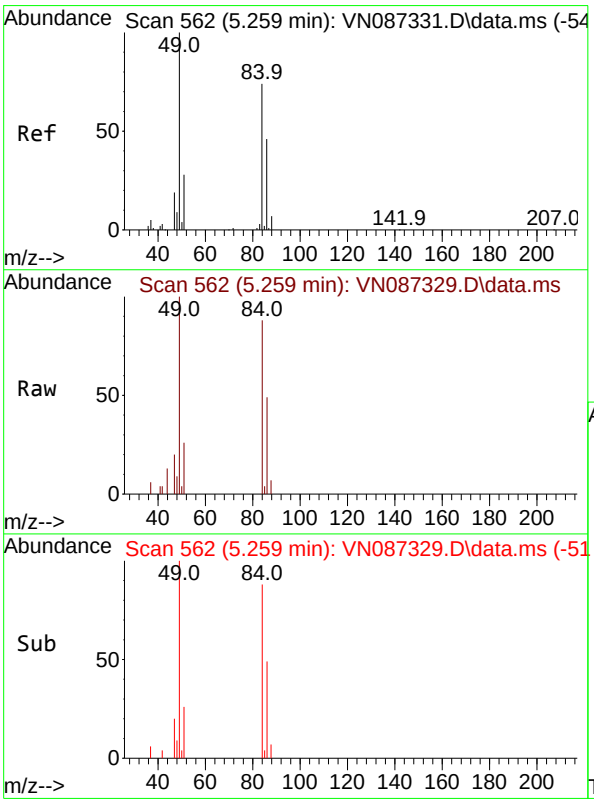
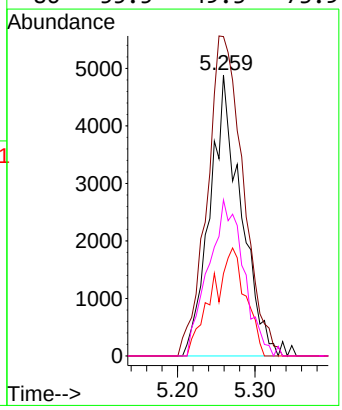
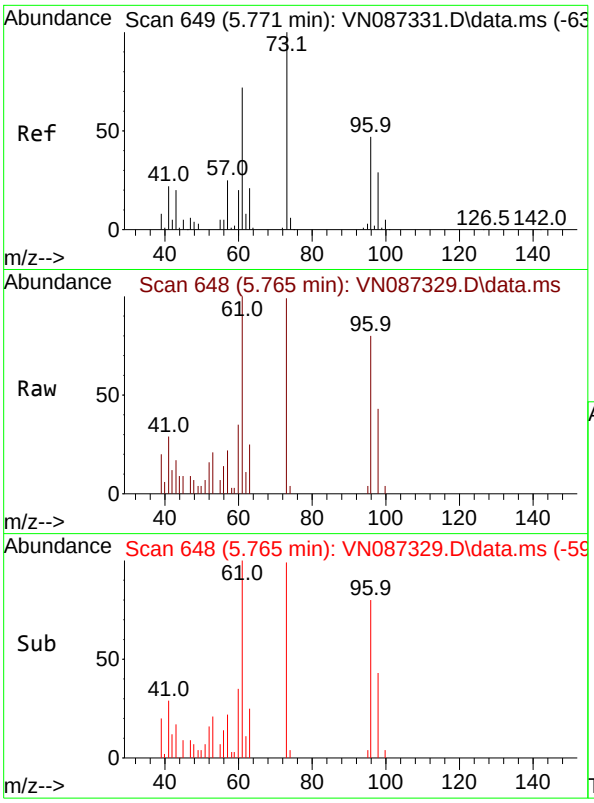


#20
Methylene Chloride
Concen: 5.286 ug/l
RT: 5.259 min Scan# 562
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 84 Resp: 13570

Ion	Ratio	Lower	Upper
84	100		
49	113.7	107.5	161.3
51	29.3	30.2	45.2#
86	55.5	49.3	73.9





#21
trans-1,2-Dichloroethene
Concen: 5.193 ug/l
RT: 5.765 min Scan# 64
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 96 Resp: 1151

Ion	Ratio	Lower	Upper
96	100		
61	124.3	122.0	183.0
98	53.3	50.0	75.0

Instrument :
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ClientSampleId :
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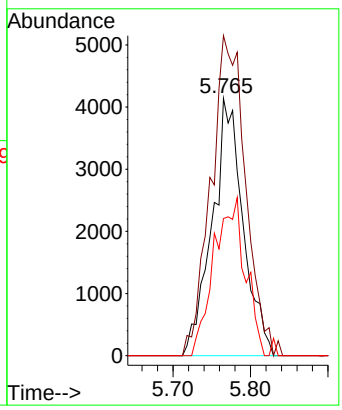
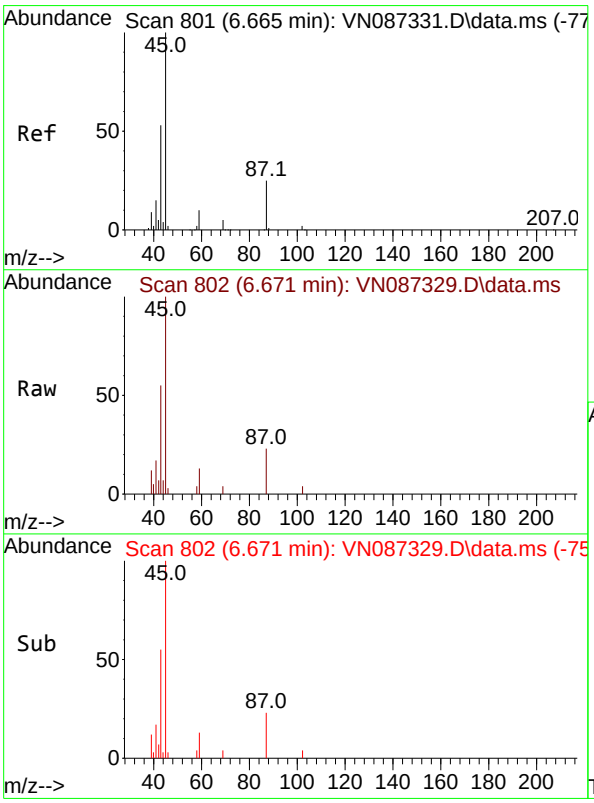
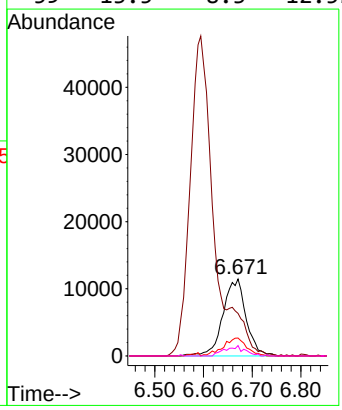


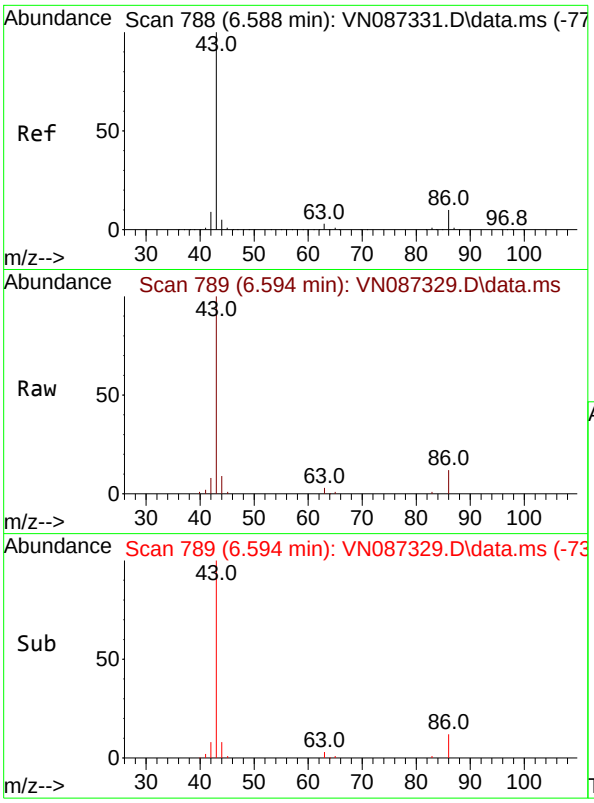


#22
Diisopropyl ether
Concen: 5.075 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 45 Resp: 37879

Ion	Ratio	Lower	Upper
45	100		
43	55.4	42.8	64.2
87	23.4	19.8	29.6
59	13.5	8.3	12.5#





#23
Vinyl Acetate
Concen: 22.225 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 14508

Ion	Ratio	Lower	Upper
43	100		
86	11.8	7.7	11.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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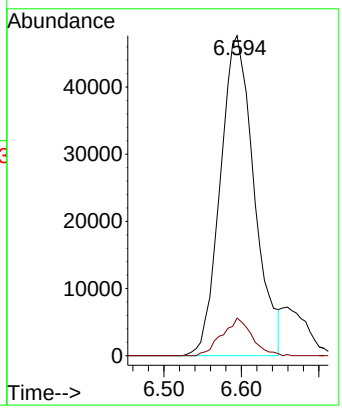
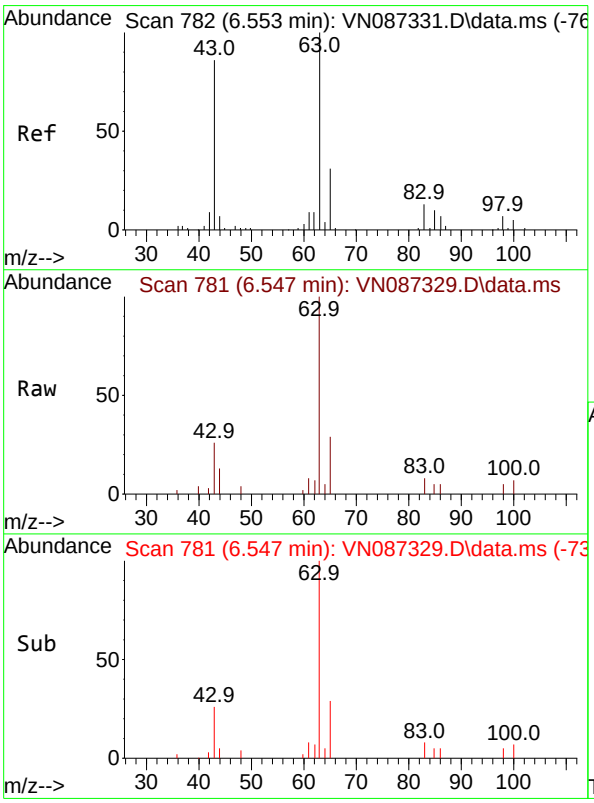
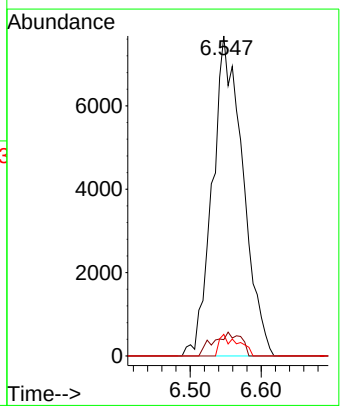


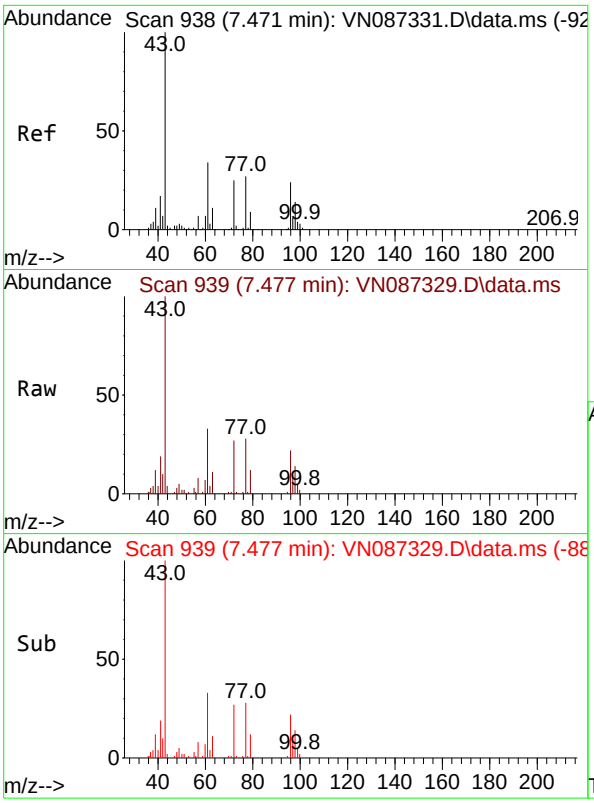


#24
1,1-Dichloroethane
Concen: 5.299 ug/l
RT: 6.547 min Scan# 781
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 63 Resp: 22819

Ion	Ratio	Lower	Upper
63	100		
98	5.1	3.3	9.9
100	6.7	2.5	7.4

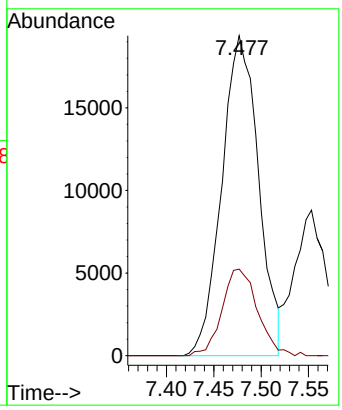




#25
2-Butanone
Concen: 24.722 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 5233

Ion	Ratio	Lower	Upper
43	100		
72	27.0	19.6	29.4



Instrument :
MSVOA_N
ClientSampleId :
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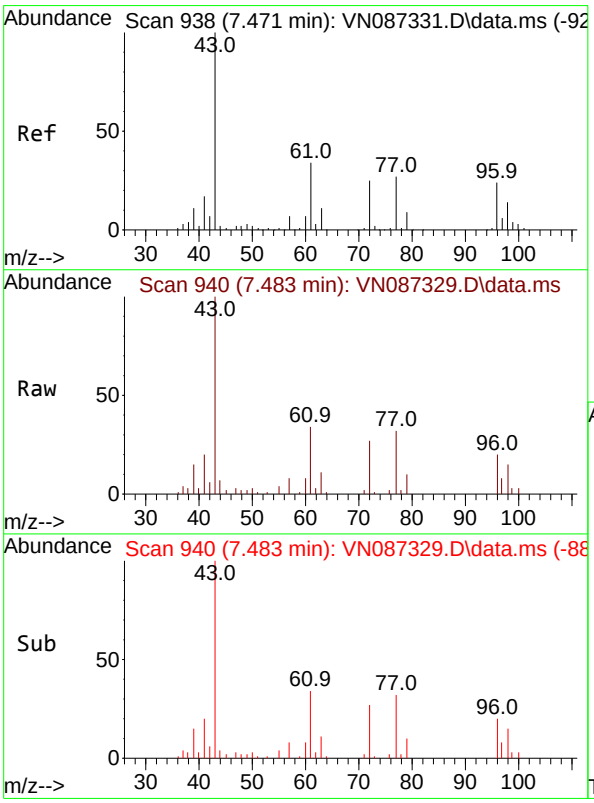
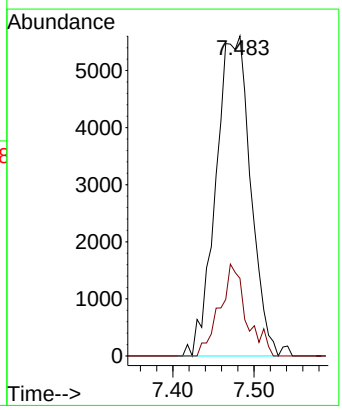
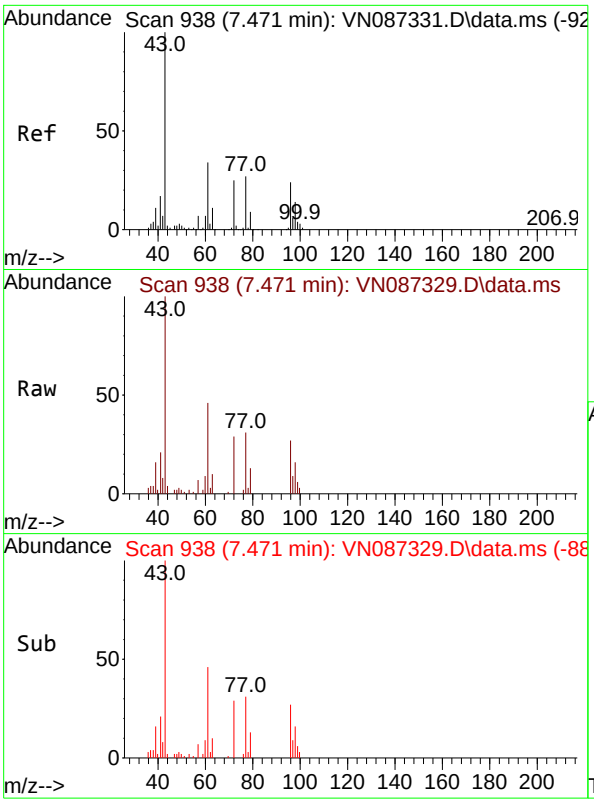


#26
2,2-Dichloropropane
Concen: 4.953 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.012 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 77 Resp: 16583

Ion	Ratio	Lower	Upper
77	100		
97	22.2	11.1	33.1

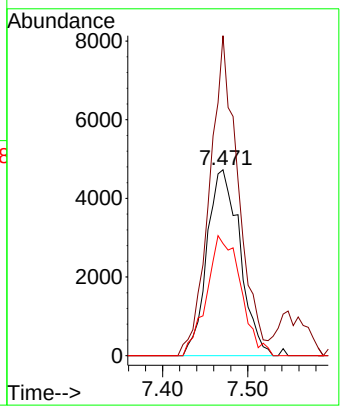




#27
cis-1,2-Dichloroethene
Concen: 4.972 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 96 Resp: 1269

Ion	Ratio	Lower	Upper
96	100		
61	150.3	0.0	297.8
98	66.8	0.0	132.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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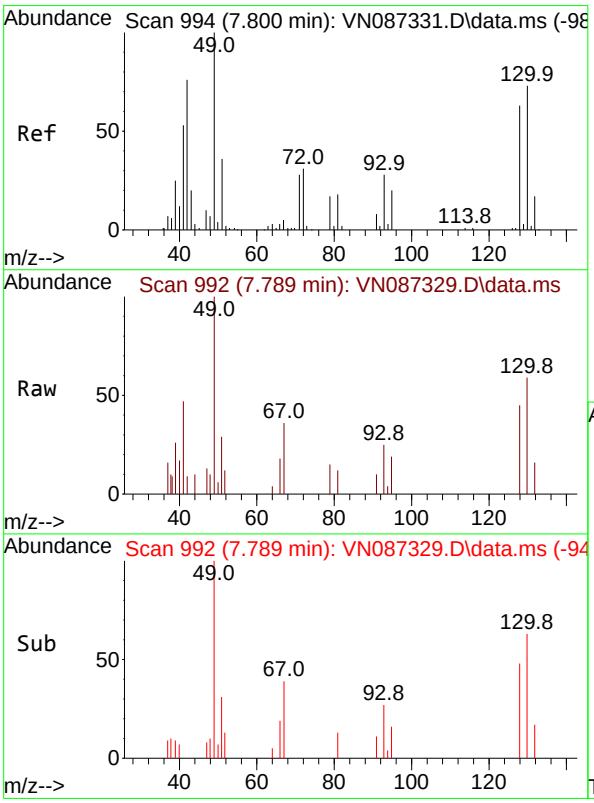
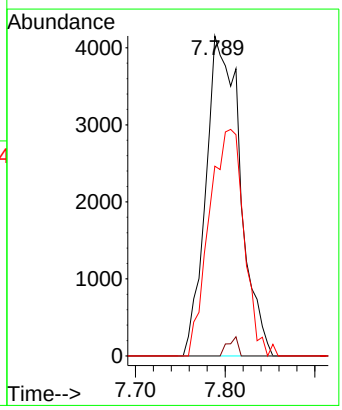
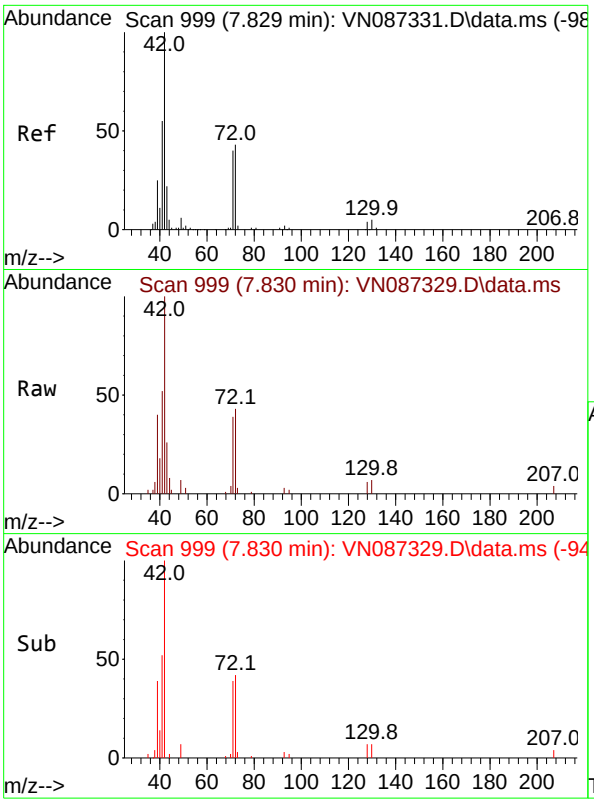


#28
Bromochloromethane
Concen: 5.348 ug/l
RT: 7.789 min Scan# 992
Delta R.T. -0.012 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 49 Resp: 11022

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	4.2
130	0.0	57.3	85.9#





#29
Tetrahydrofuran
Concen: 24.829 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 42 Resp: 3414

Ion	Ratio	Lower	Upper
42	100		
72	42.1	33.4	50.0
71	37.6	31.2	46.8

Instrument :
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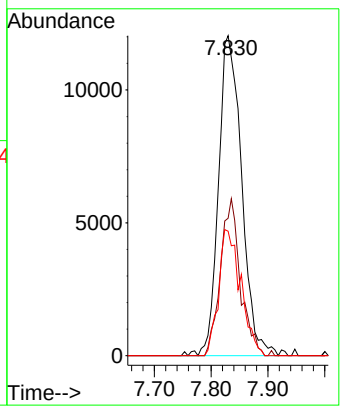
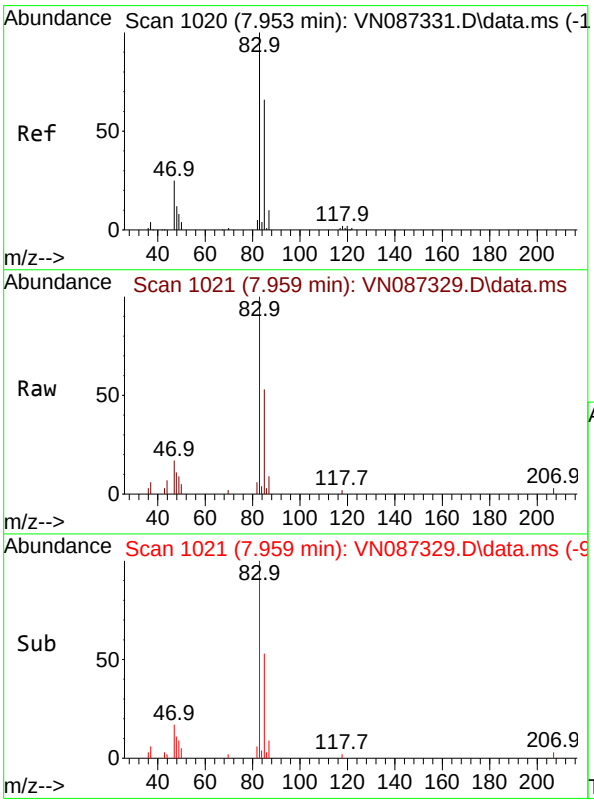
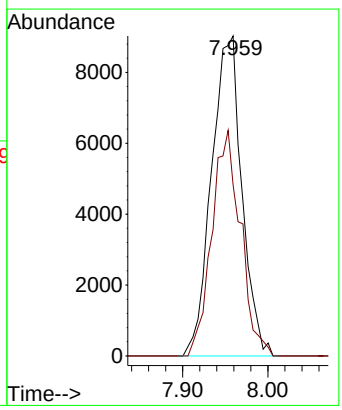


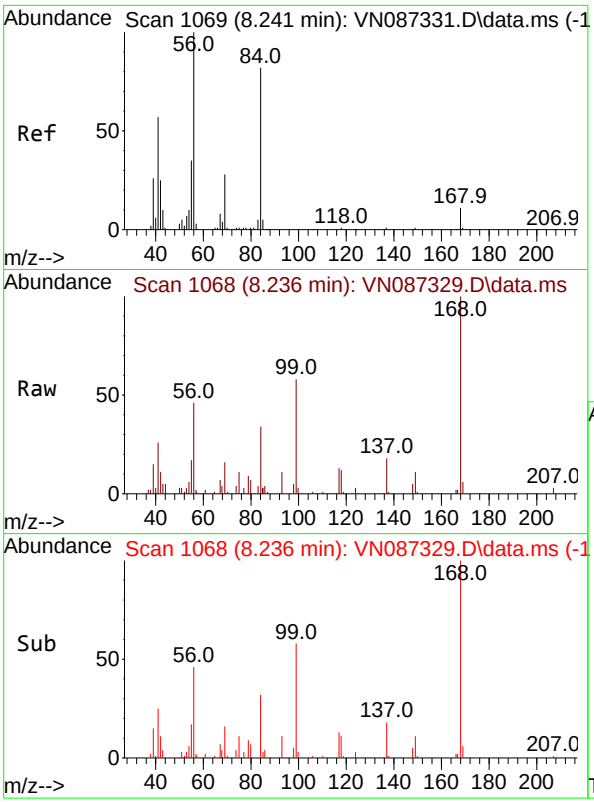


#30
Chloroform
Concen: 5.190 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 83 Resp: 22369

Ion	Ratio	Lower	Upper
83	100		
85	53.5	52.7	79.1

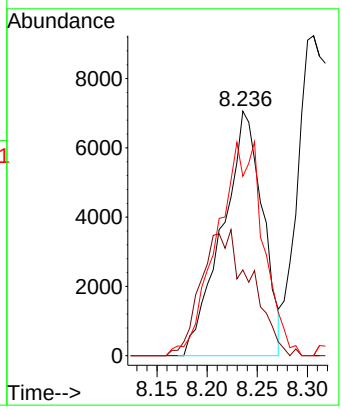




#31
Cyclohexane
Concen: 5.502 ug/l
RT: 8.236 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 56 Resp: 1976

Ion	Ratio	Lower	Upper
56	100		
69	32.8	22.7	34.1
84	69.3	65.8	98.6



Instrument :
MSVOA_N
ClientSampleId :
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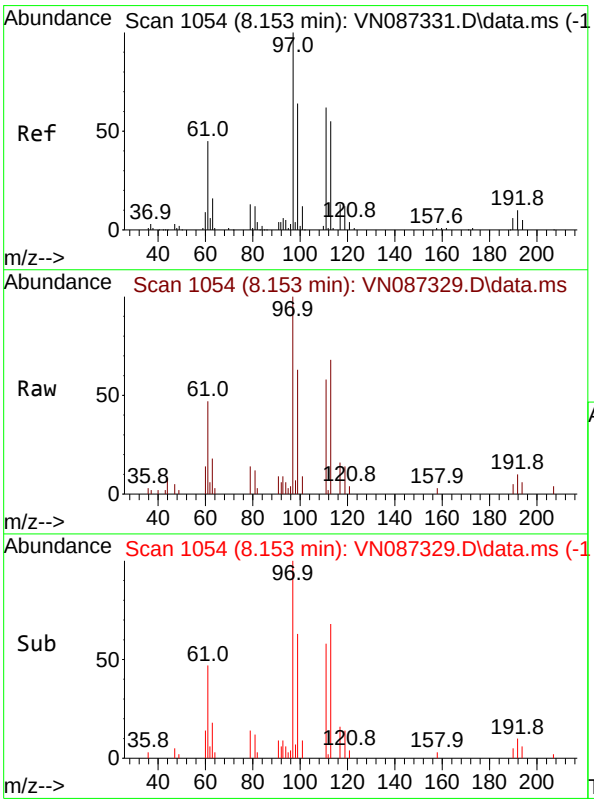
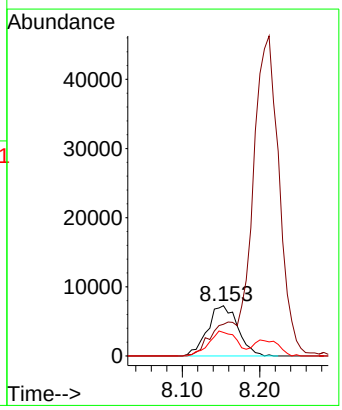
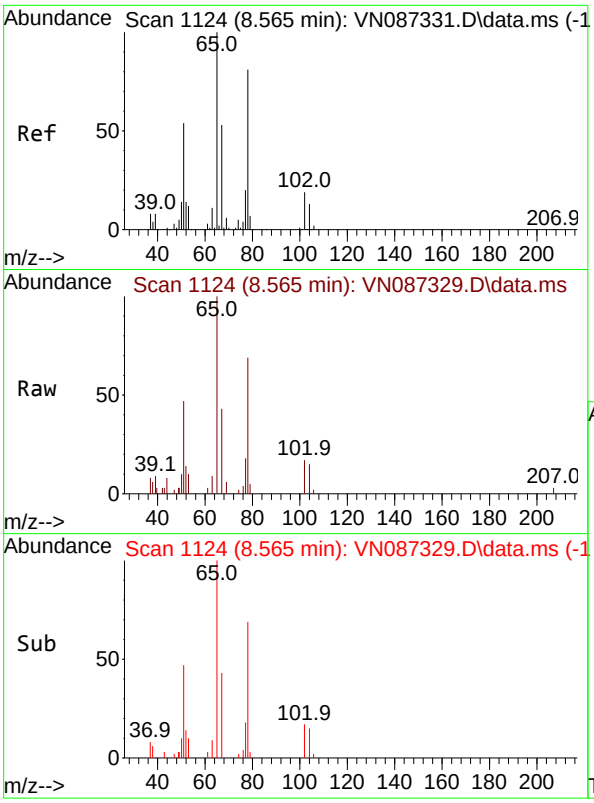


#32
1,1,1-Trichloroethane
Concen: 5.287 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 97 Resp: 19739

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.8	77.8#
61	45.3	38.7	58.1

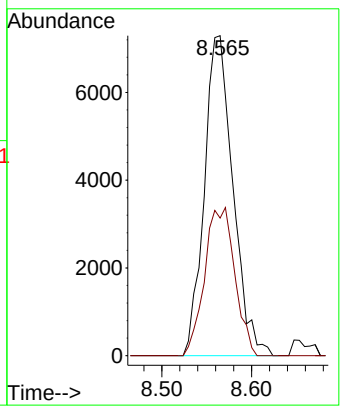




#33
1,2-Dichloroethane-d4
Concen: 5.536 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 65 Resp: 1617

Ion	Ratio	Lower	Upper
65	100		
67	48.6	0.0	104.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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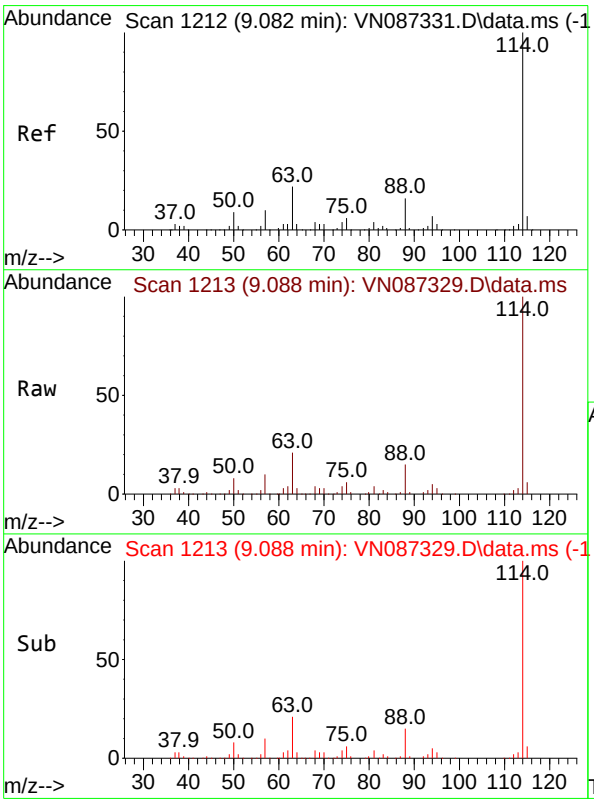
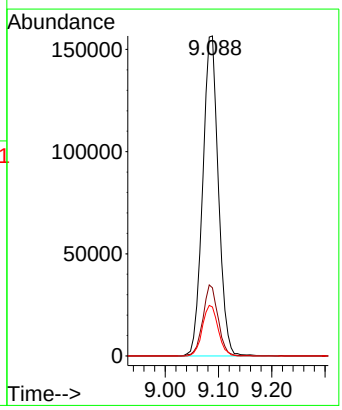
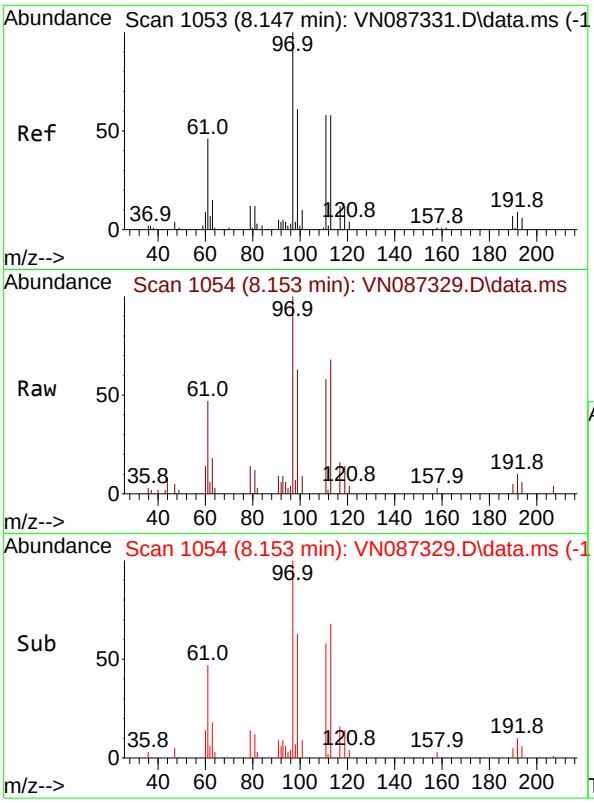


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.088 min Scan# 1213
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:114 Resp: 319926

Ion	Ratio	Lower	Upper
114	100		
63	21.3	0.0	44.6
88	15.3	0.0	32.8

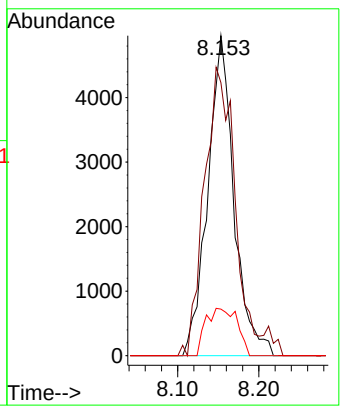




#35
Dibromofluoromethane
Concen: 5.035 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:113 Resp: 1111

Ion	Ratio	Lower	Upper
113	100		
111	104.4	82.5	123.7
192	17.7	13.7	20.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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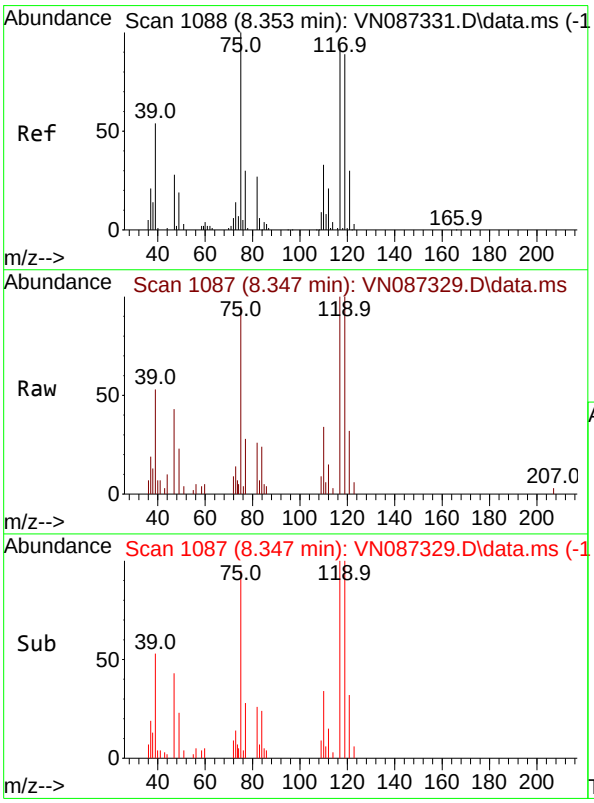
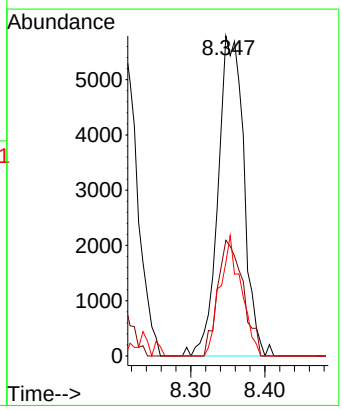
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

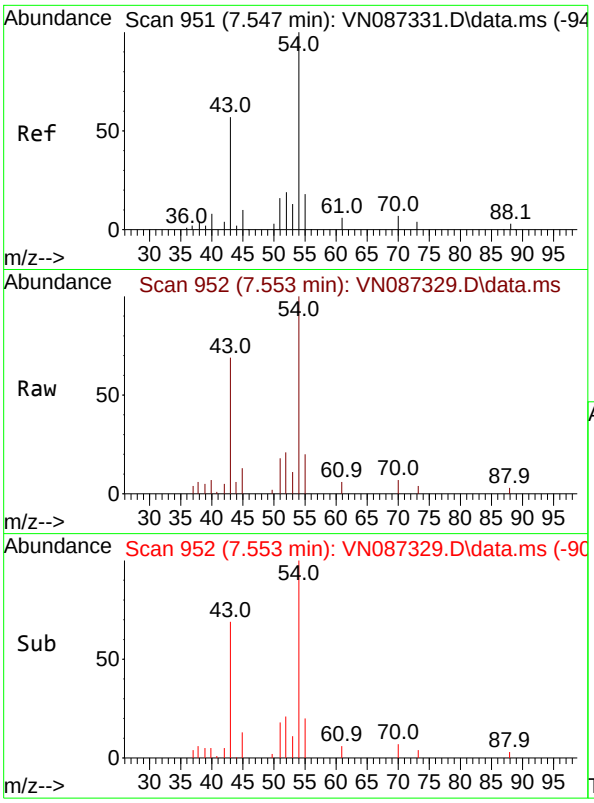


#36
1,1-Dichloropropene
Concen: 4.790 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 75 Resp: 13965

Ion	Ratio	Lower	Upper
75	100		
110	35.8	16.7	50.1
77	31.2	25.2	37.8





#37
Ethyl Acetate
Concen: 5.102 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 2148

Ion	Ratio	Lower	Upper
43	100		
61	12.2	10.9	16.3
70	8.5	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
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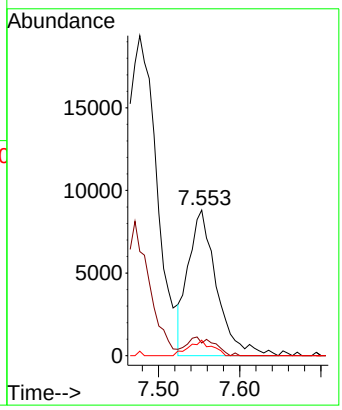
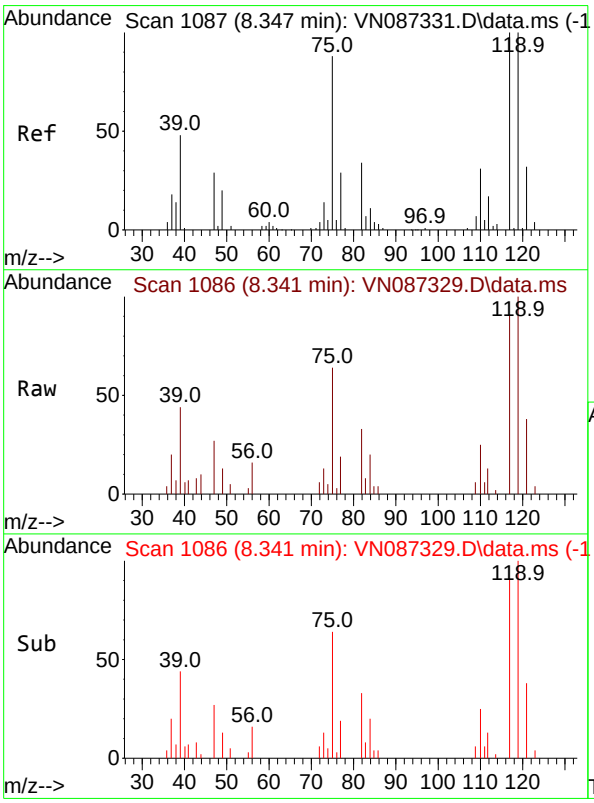
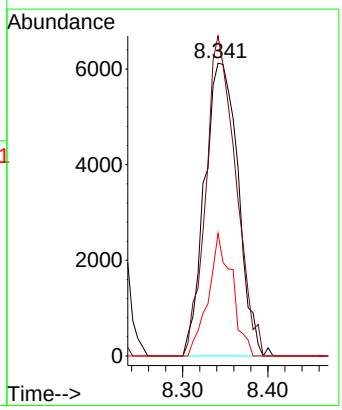


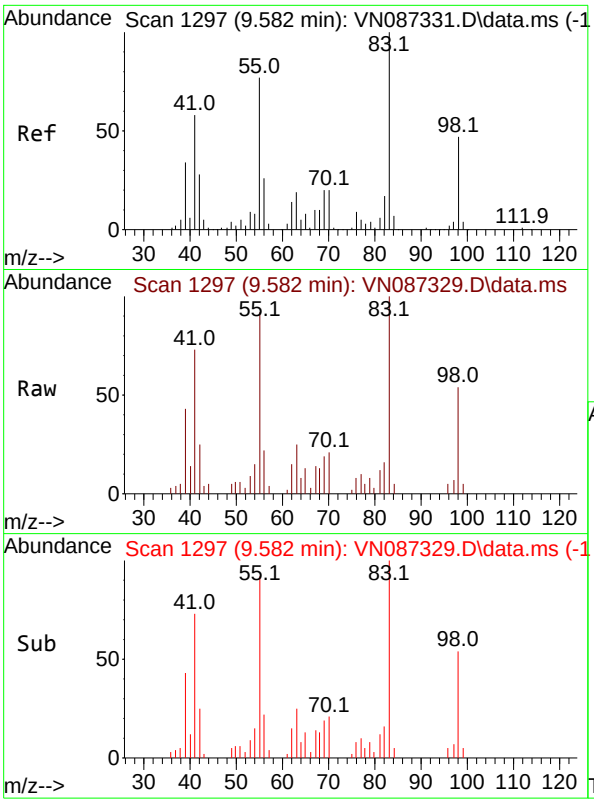


#38
Carbon Tetrachloride
Concen: 5.205 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:117 Resp: 16718

Ion	Ratio	Lower	Upper
117	100		
119	109.3	80.2	120.2
121	41.8	25.4	38.2#





#39
Methylcyclohexane
Concen: 4.484 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 83 Resp: 1415

Ion	Ratio	Lower	Upper
83	100		
55	91.6	61.3	91.9
98	53.8	37.9	56.9

Instrument :
MSVOA_N
ClientSampleId :
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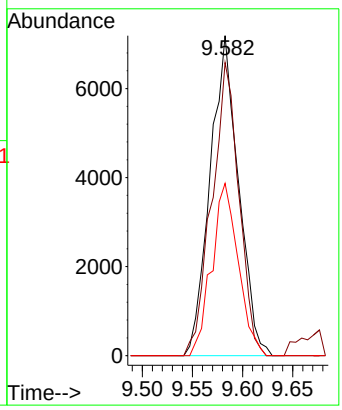
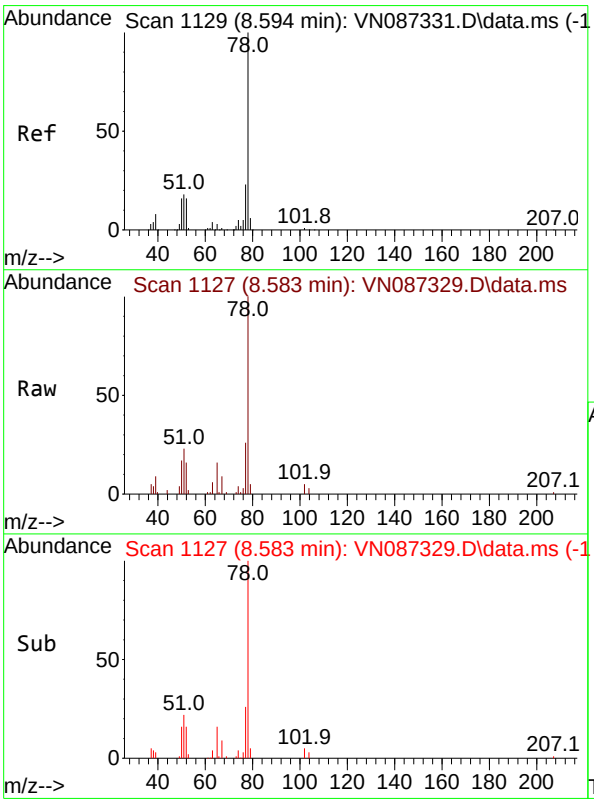
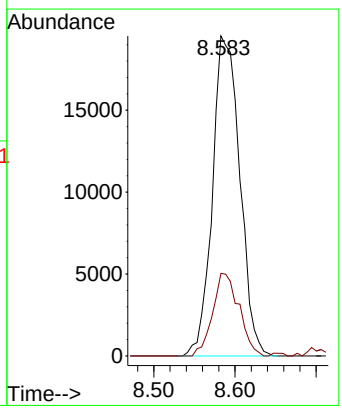


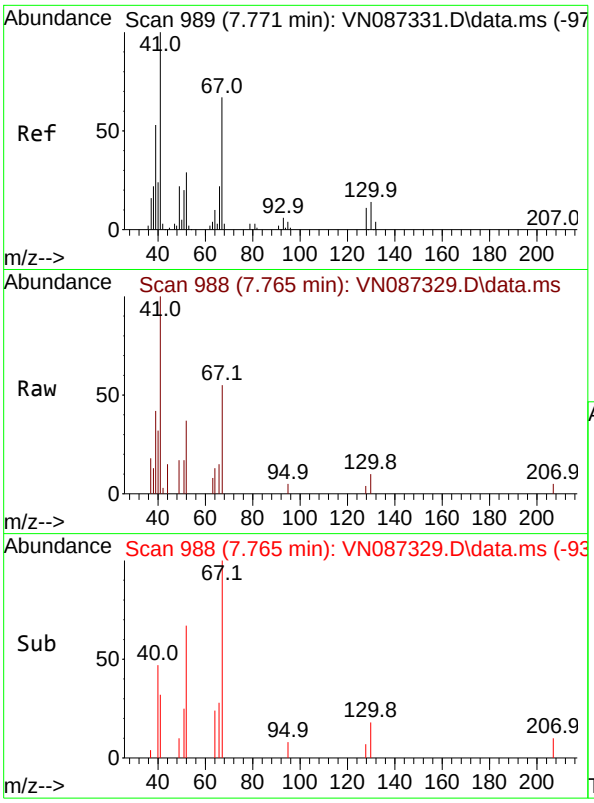


#40
Benzene
Concen: 4.855 ug/l
RT: 8.583 min Scan# 1127
Delta R.T. -0.012 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 78 Resp: 45748

Ion	Ratio	Lower	Upper
78	100		
77	25.8	18.2	27.2

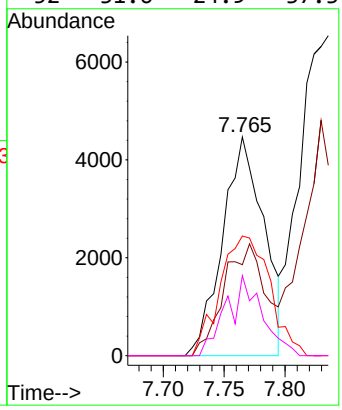




#41
Methacrylonitrile
Concen: 4.792 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 41 Resp: 1055

Ion	Ratio	Lower	Upper
41	100		
39	52.1	43.4	65.0
67	65.8	55.1	82.7
52	31.6	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
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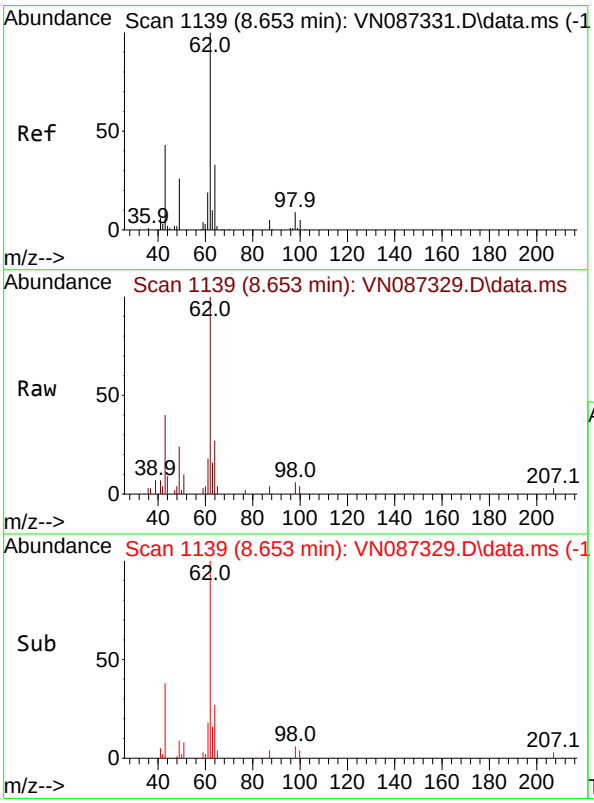
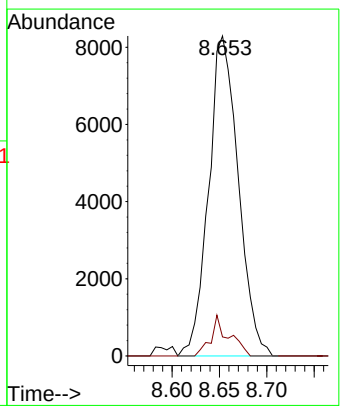
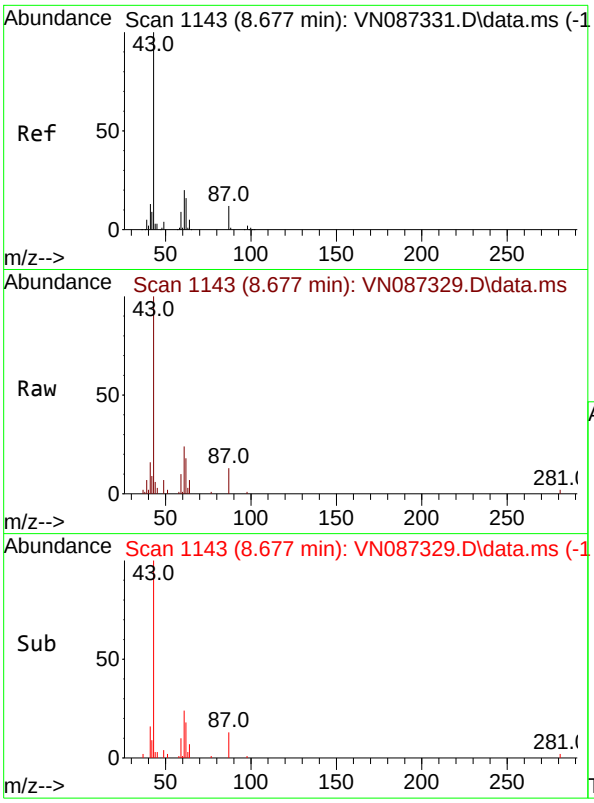


#42
1,2-Dichloroethane
Concen: 5.061 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 62 Resp: 18086

Ion	Ratio	Lower	Upper
62	100		
98	7.7	0.0	18.0

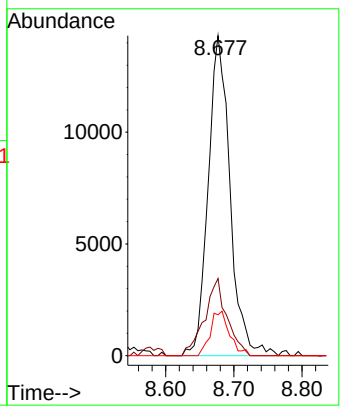




#43
Isopropyl Acetate
Concen: 4.890 ug/l
RT: 8.677 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 3196

Ion	Ratio	Lower	Upper
43	100		
61	24.7	19.8	29.8
87	12.2	9.8	14.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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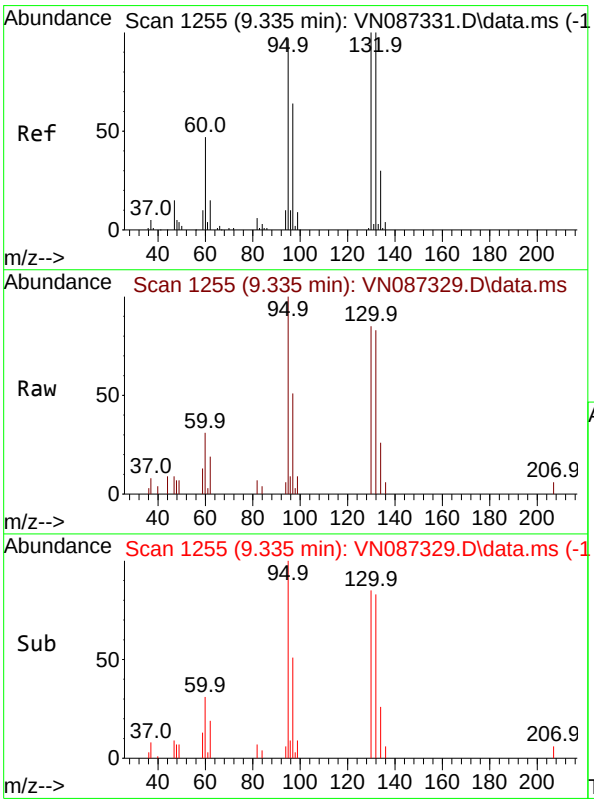
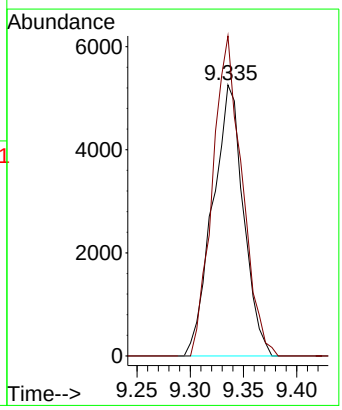
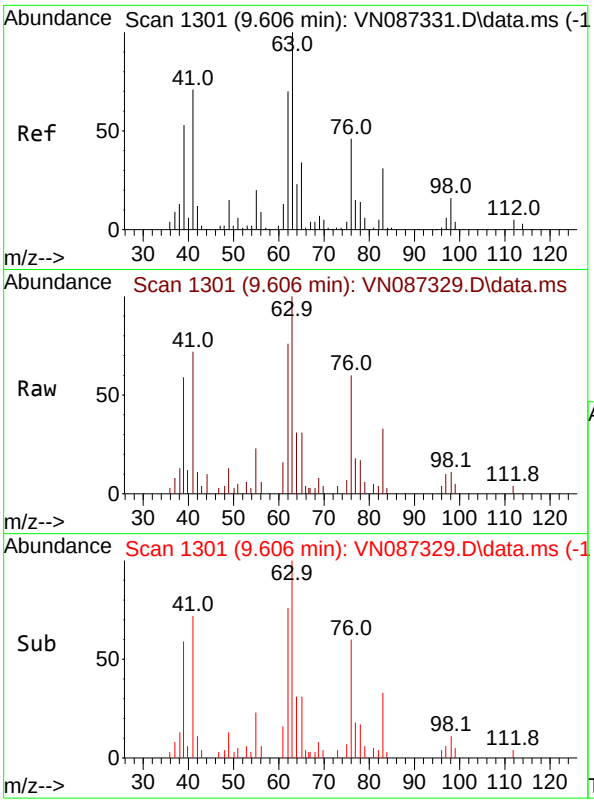


#44
Trichloroethene
Concen: 4.748 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:130 Resp: 10573

Ion	Ratio	Lower	Upper
130	100		
95	118.0	0.0	195.2

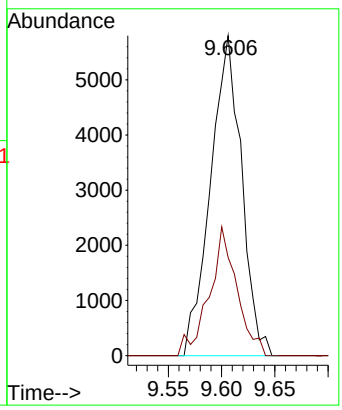




#45
1,2-Dichloropropane
Concen: 4.898 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 63 Resp: 1172

Ion	Ratio	Lower	Upper
63	100		
65	30.7	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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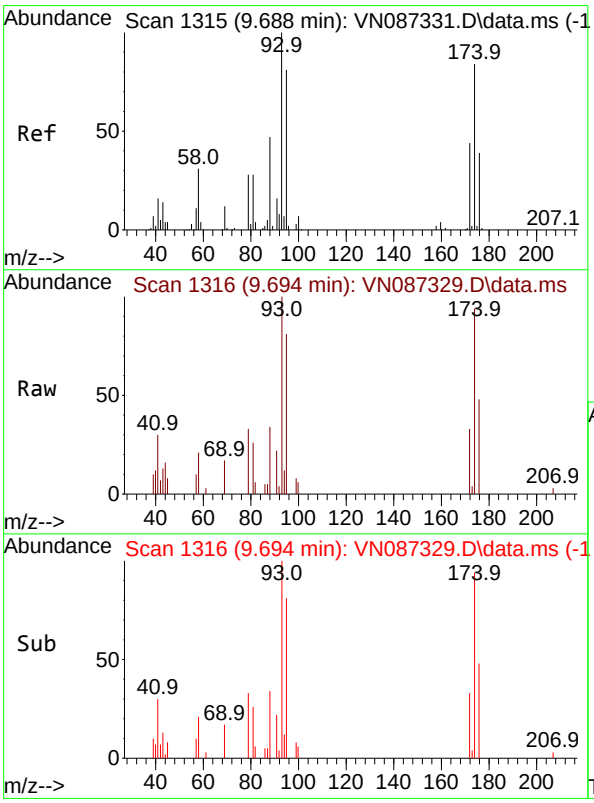
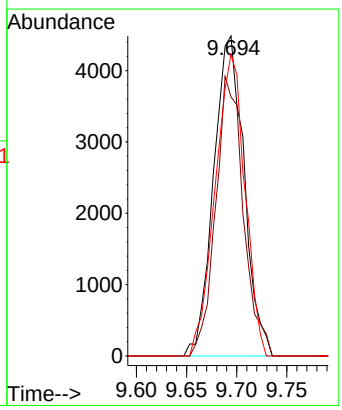
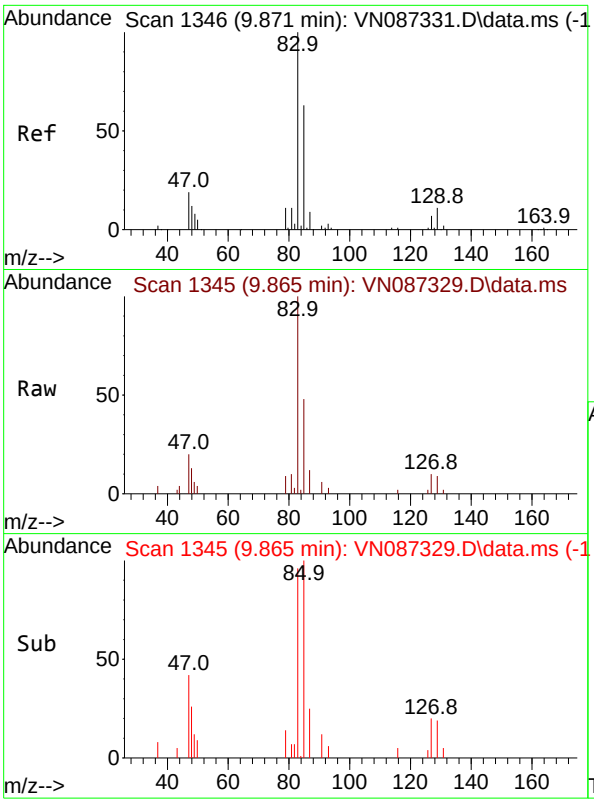


#46
Dibromomethane
Concen: 5.284 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 93 Resp: 9473

Ion	Ratio	Lower	Upper
93	100		
95	79.6	65.8	98.8
174	92.1	69.9	104.9

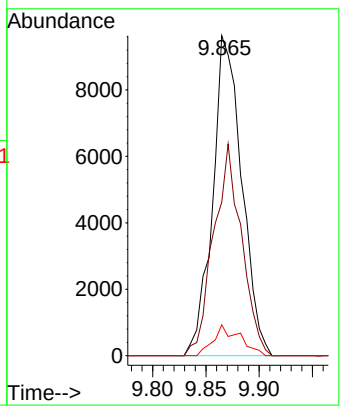




#47
Bromodichloromethane
Concen: 5.068 ug/l
RT: 9.865 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 83 Resp: 1830

Ion	Ratio	Lower	Upper
83	100		
85	47.9	50.4	75.6#
127	9.7	5.8	8.8#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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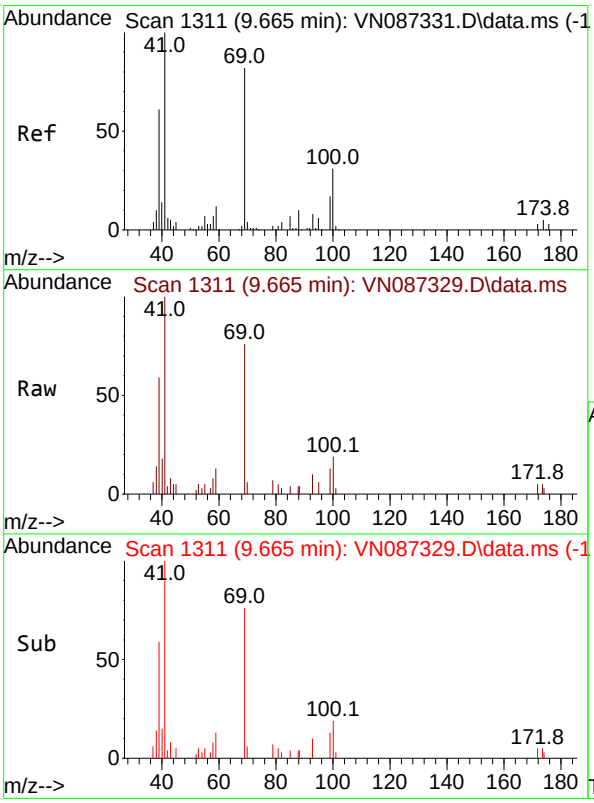
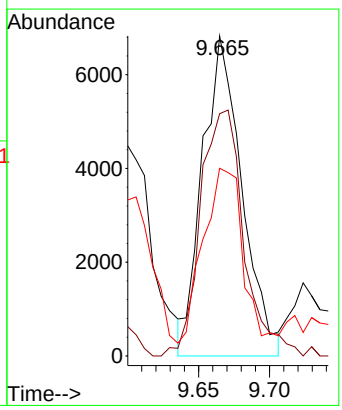
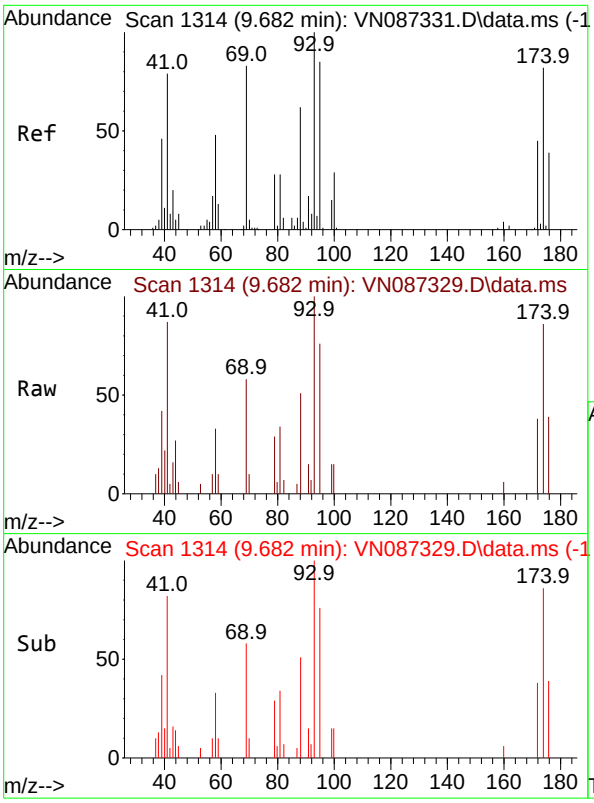


#48
Methyl methacrylate
Concen: 4.475 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 41 Resp: 13169

Ion	Ratio	Lower	Upper
41	100		
69	84.9	64.1	96.1
39	54.4	45.5	68.3

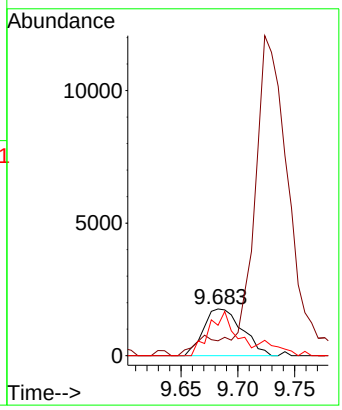




#49
1,4-Dioxane
Concen: 92.653 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 88 Resp: 417

Ion	Ratio	Lower	Upper
88	100		
43	25.3	0.0	0.0
58	65.4	61.1	91.7



Instrument :
MSVOA_N
ClientSampleId :
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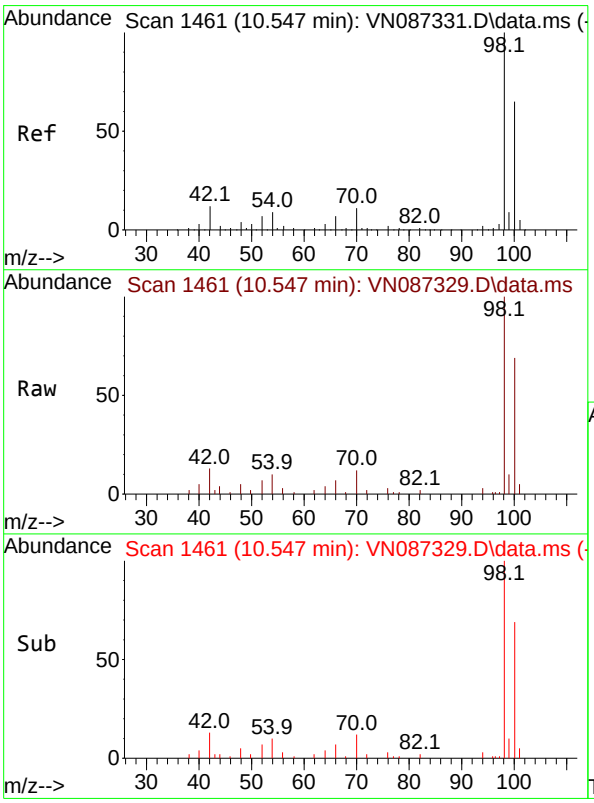
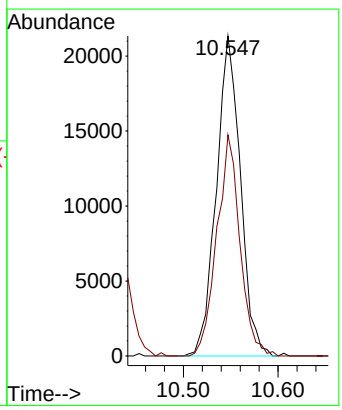
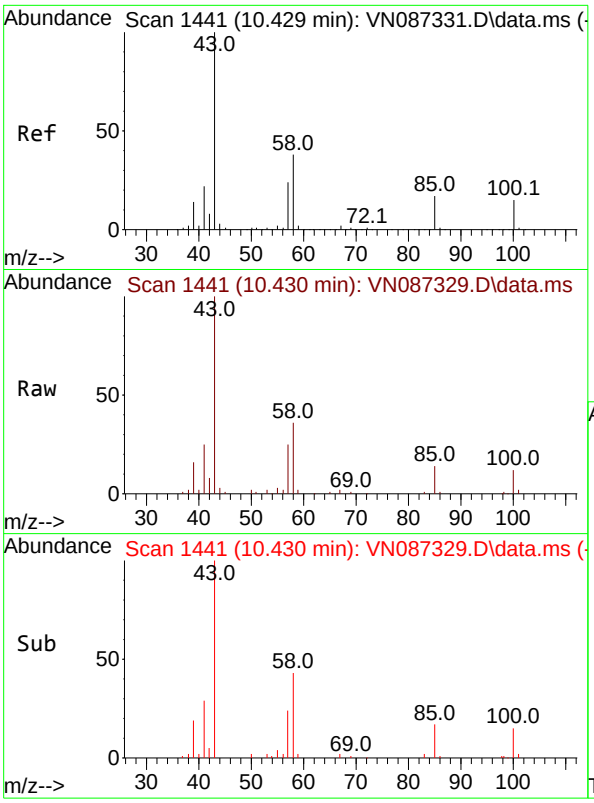


#50
Toluene-d8
Concen: 4.796 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 98 Resp: 37751

Ion	Ratio	Lower	Upper
98	100		
100	66.6	52.1	78.1

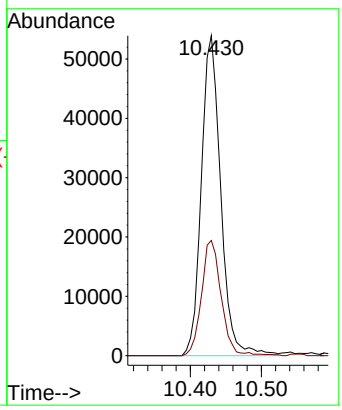




#51
4-Methyl-2-Pentanone
Concen: 24.797 ug/l
RT: 10.430 min Scan# 14
Delta R.T. 0.001 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 10251

Ion	Ratio	Lower	Upper
43	100		
58	36.6	30.8	46.2



Instrument :
MSVOA_N
ClientSampleId :
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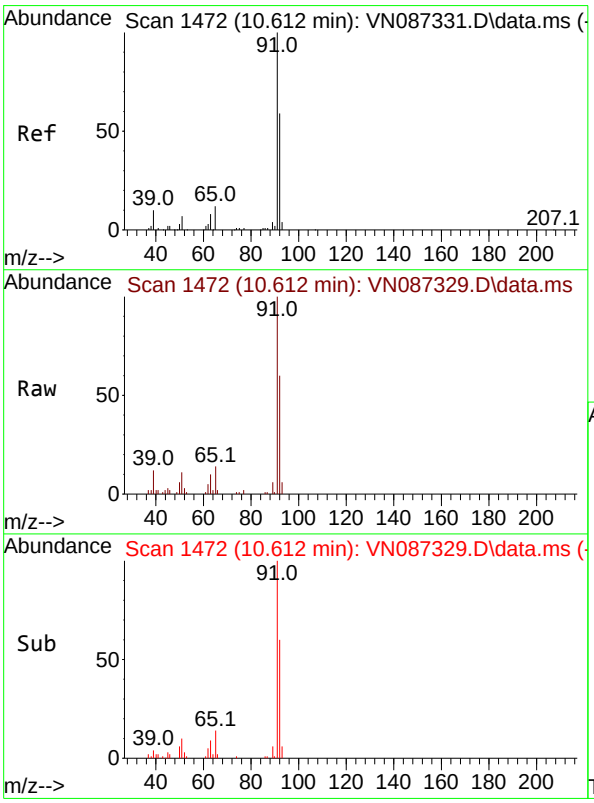
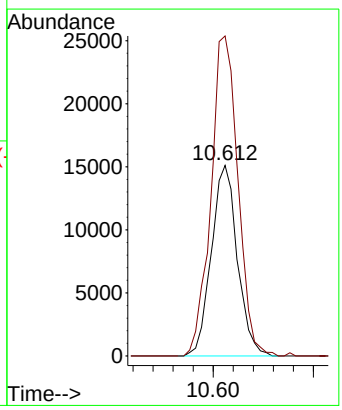
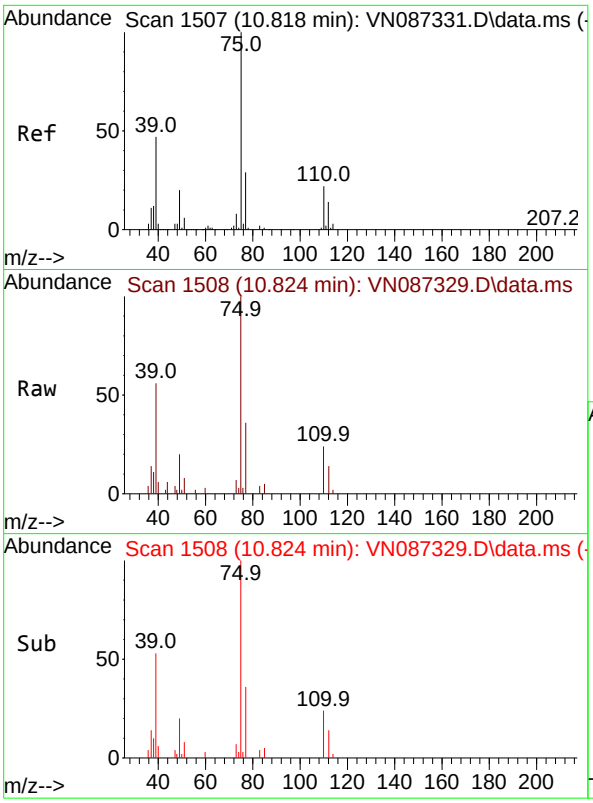


#52
Toluene
Concen: 4.742 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 92 Resp: 27158

Ion	Ratio	Lower	Upper
92	100		
91	174.6	135.1	202.7

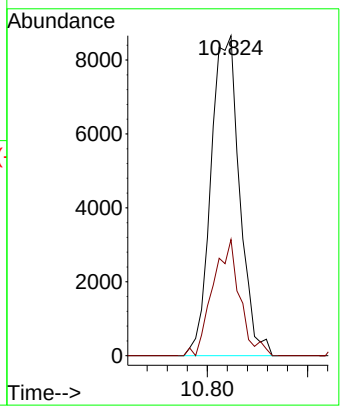




#53
t-1,3-Dichloropropene
Concen: 4.688 ug/l
RT: 10.824 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 75 Resp: 1713

Ion	Ratio	Lower	Upper
75	100		
77	36.3	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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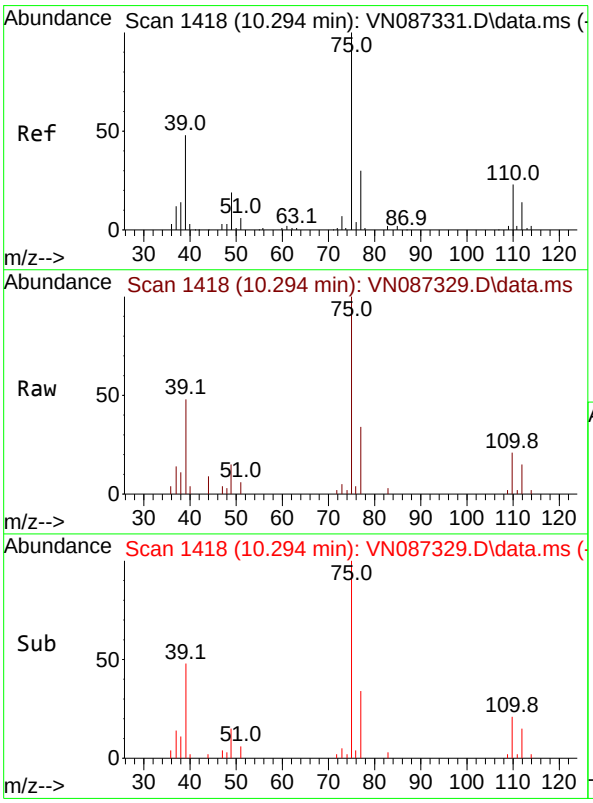
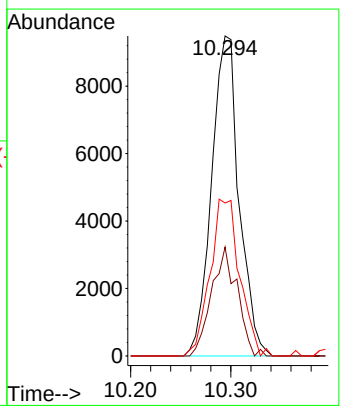
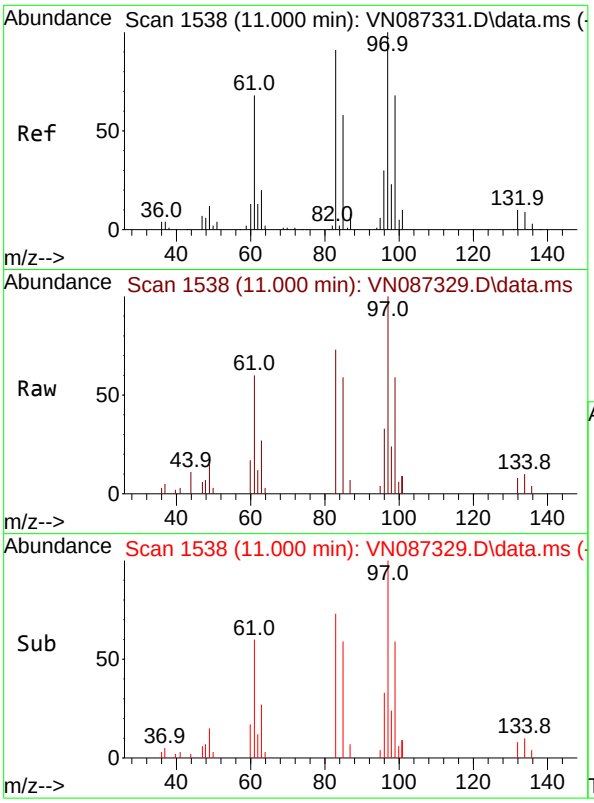


#54
cis-1,3-Dichloropropene
Concen: 4.780 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 75 Resp: 18046

Ion	Ratio	Lower	Upper
75	100		
77	34.0	24.2	36.2
39	47.8	38.4	57.6

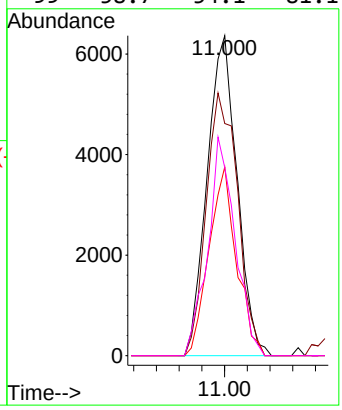




#55
1,1,2-Trichloroethane
Concen: 5.021 ug/l
RT: 11.000 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 97 Resp: 1164

Ion	Ratio	Lower	Upper
97	100		
83	72.6	72.6	109.0#
85	59.0	46.7	70.1
99	58.7	54.1	81.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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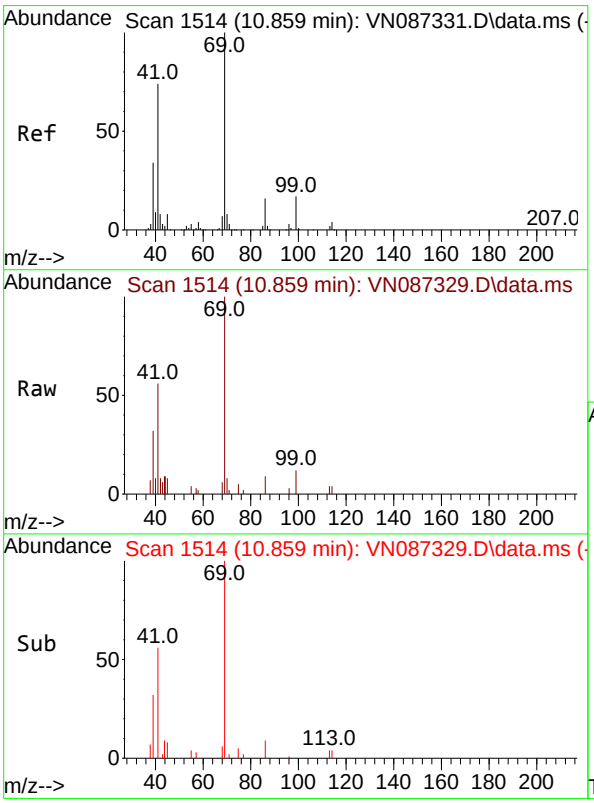
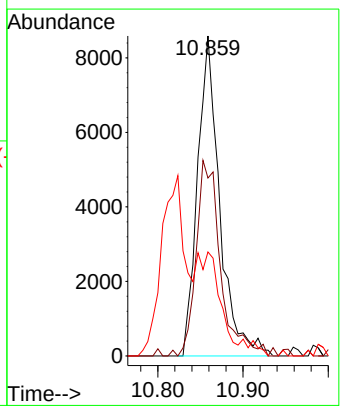
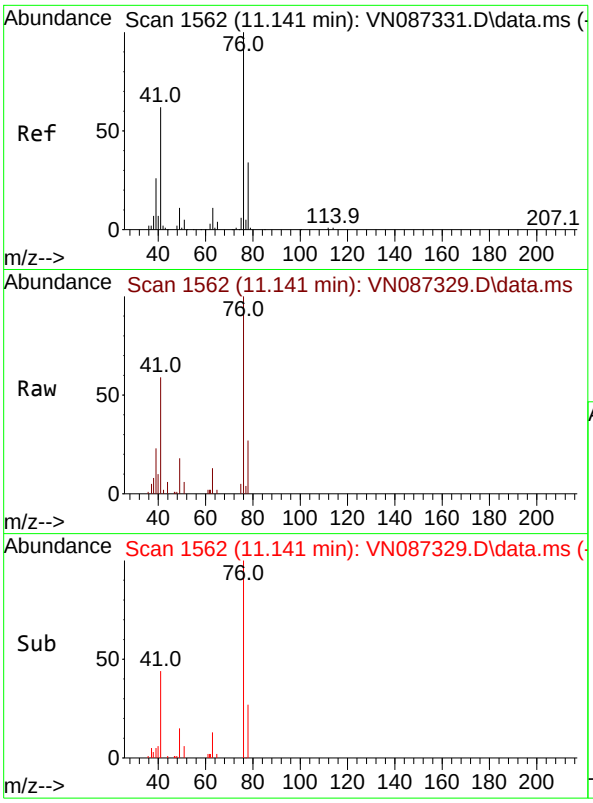


#56
Ethyl methacrylate
Concen: 4.693 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 69 Resp: 15548

Ion	Ratio	Lower	Upper
69	100		
41	67.5	55.1	82.7
39	28.8	27.9	41.9

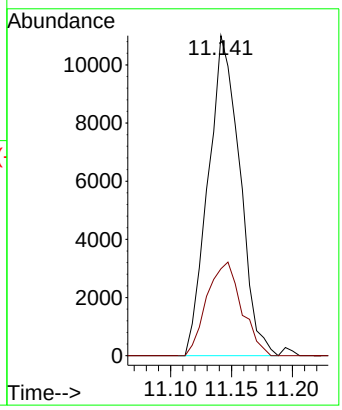




#57
1,3-Dichloropropane
Concen: 4.956 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 76 Resp: 1986

Ion	Ratio	Lower	Upper
76	100		
78	32.1	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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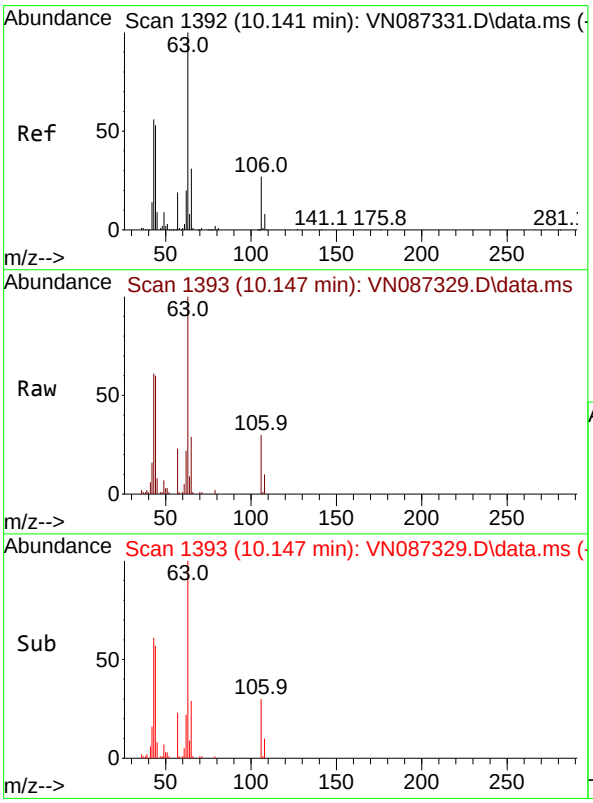
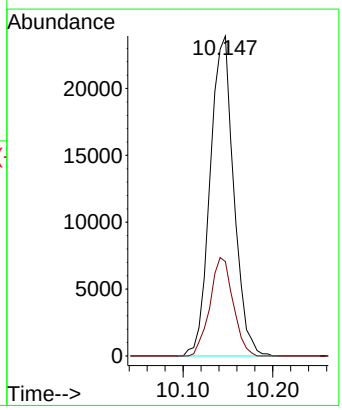
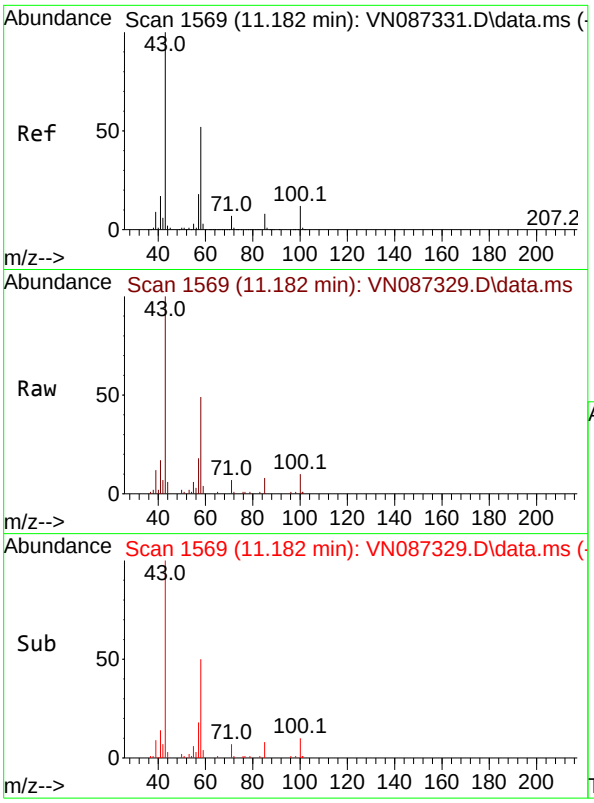


#58
2-Chloroethyl Vinyl ether
Concen: 22.968 ug/l
RT: 10.147 min Scan# 1393
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 63 Resp: 43690

Ion	Ratio	Lower	Upper
63	100		
106	30.2	21.7	32.5





#59
2-Hexanone
Concen: 21.778 ug/l
RT: 11.182 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 5973

Ion	Ratio	Lower	Upper
43	100		
58	52.6	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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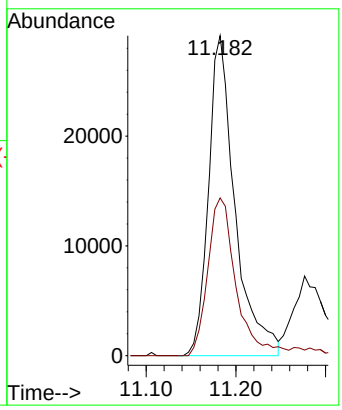
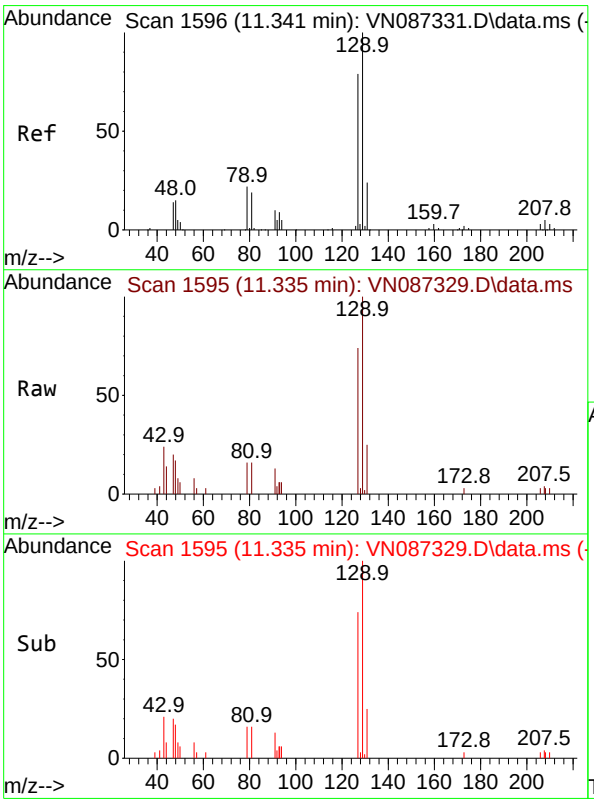
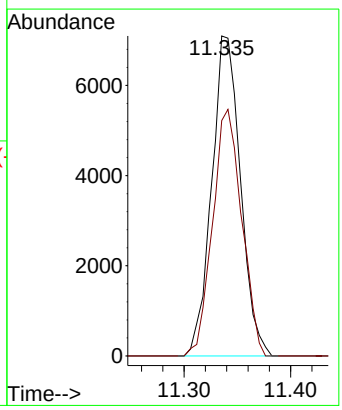


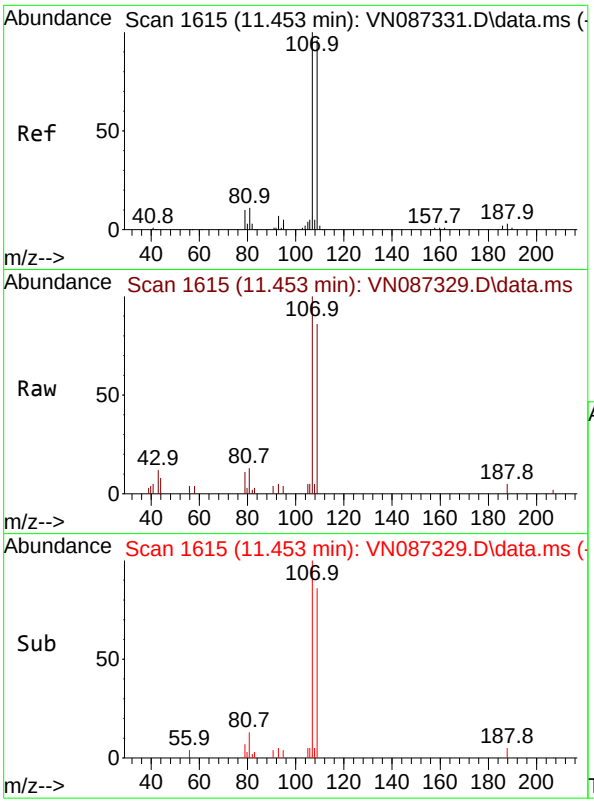


#60
Dibromochloromethane
Concen: 5.037 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:129 Resp: 13321

Ion	Ratio	Lower	Upper
129	100		
127	77.9	39.1	117.5





#61
1,2-Dibromoethane
Concen: 4.898 ug/l
RT: 11.453 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:107 Resp: 1194

Ion	Ratio	Lower	Upper
107	100		
109	86.3	77.5	116.3

Instrument :
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VSTDICC005

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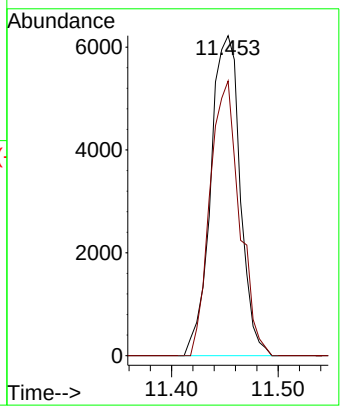
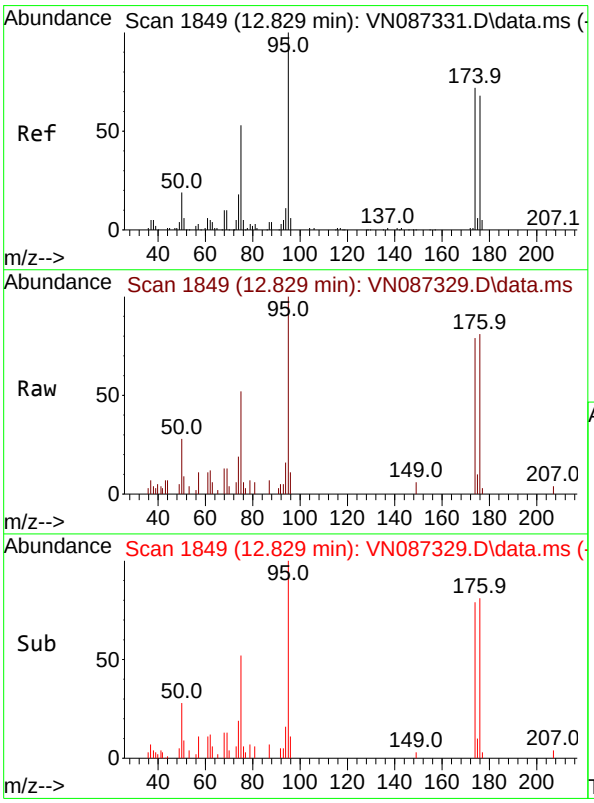
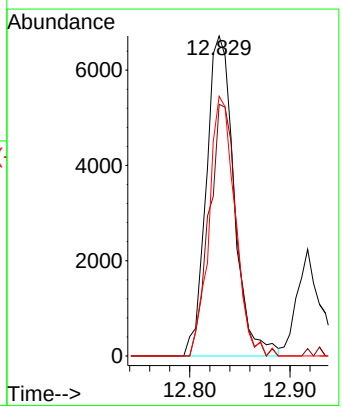


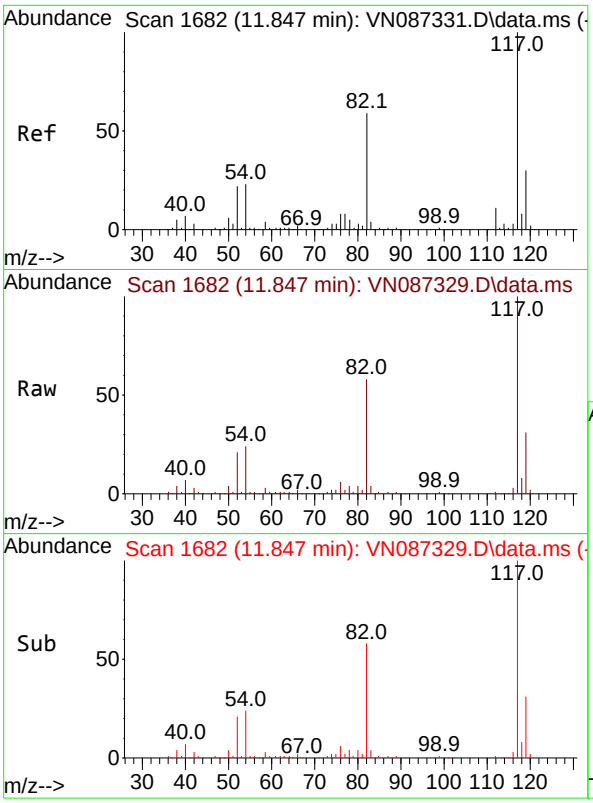


#62
4-Bromofluorobenzene
Concen: 4.450 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 95 Resp: 12943

Ion	Ratio	Lower	Upper
95	100		
174	76.6	0.0	149.4
176	76.1	0.0	141.2

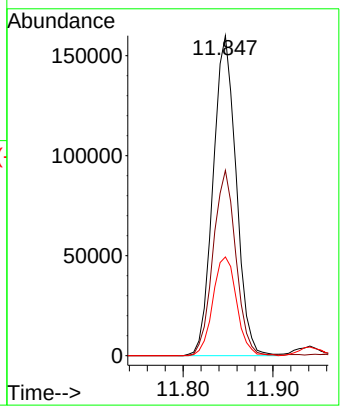




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:117 Resp: 28558

Ion	Ratio	Lower	Upper
117	100		
82	57.9	47.4	71.2
119	30.8	23.8	35.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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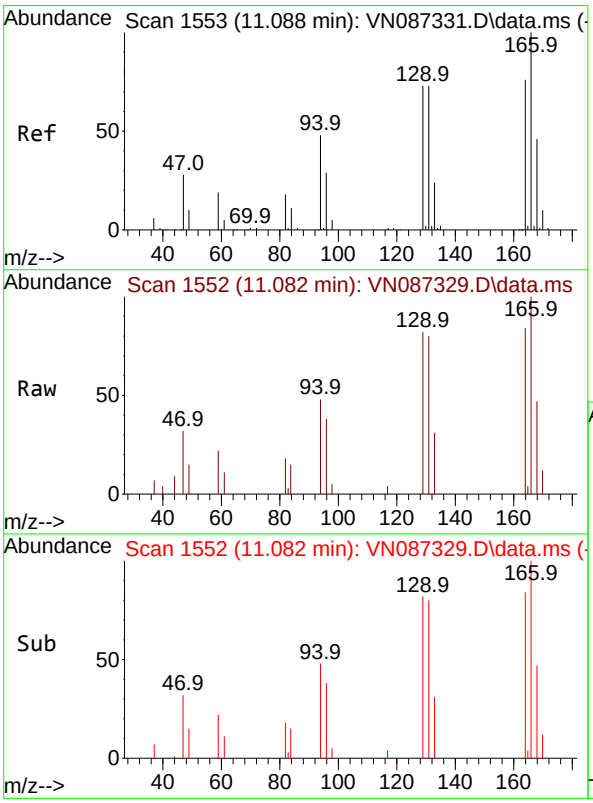
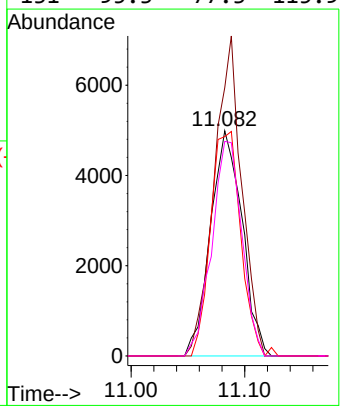
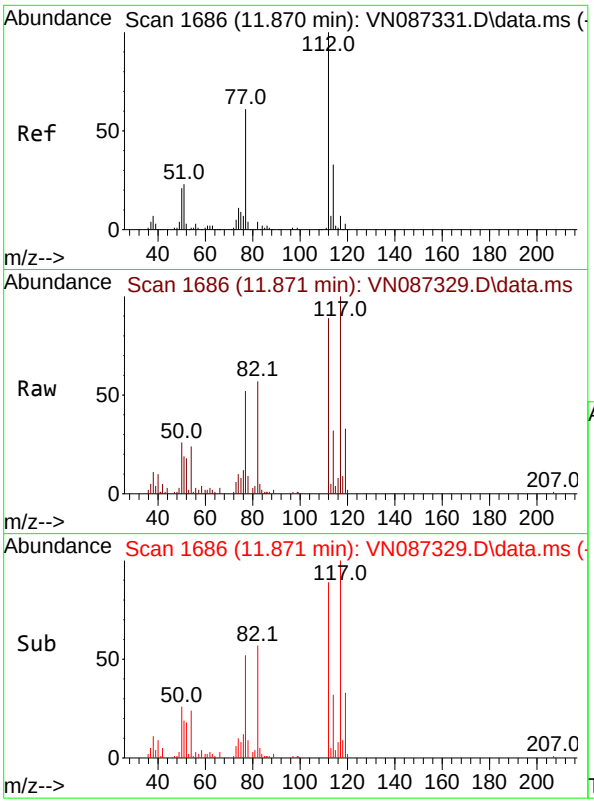


#64
Tetrachloroethene
Concen: 5.256 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:164 Resp: 9660

Ion	Ratio	Lower	Upper
164	100		
166	119.2	105.5	158.3
129	97.5	77.4	116.2
131	95.3	77.3	115.9

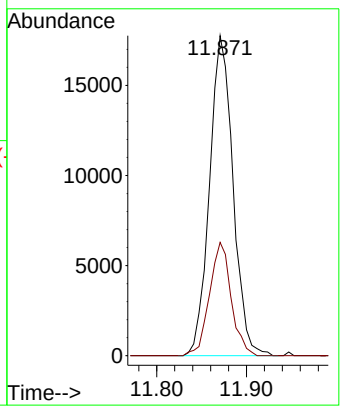




#65
Chlorobenzene
Concen: 5.038 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:112 Resp: 3230

Ion	Ratio	Lower	Upper
112	100		
114	35.4	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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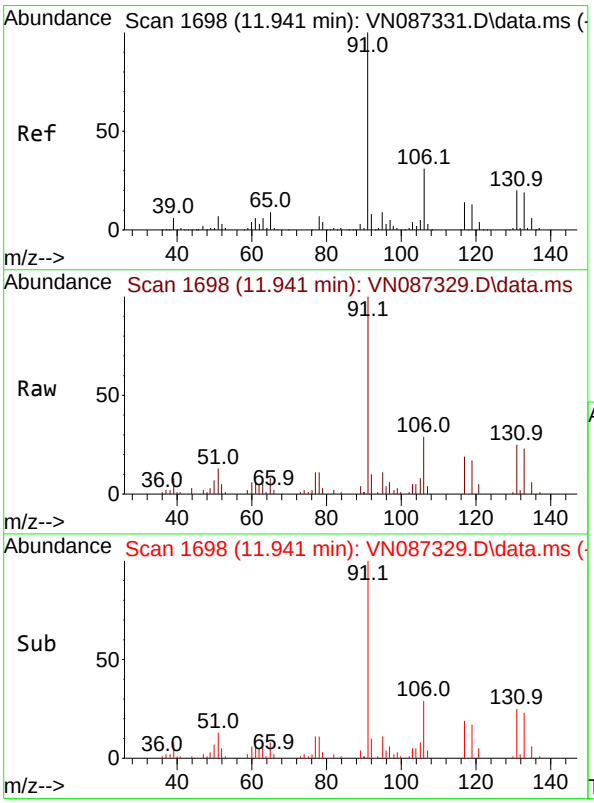
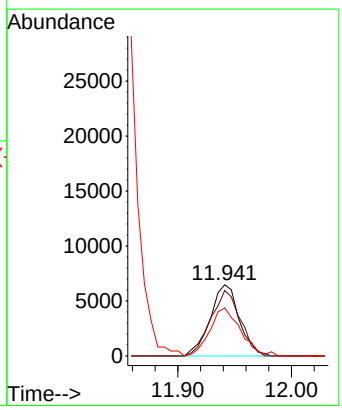
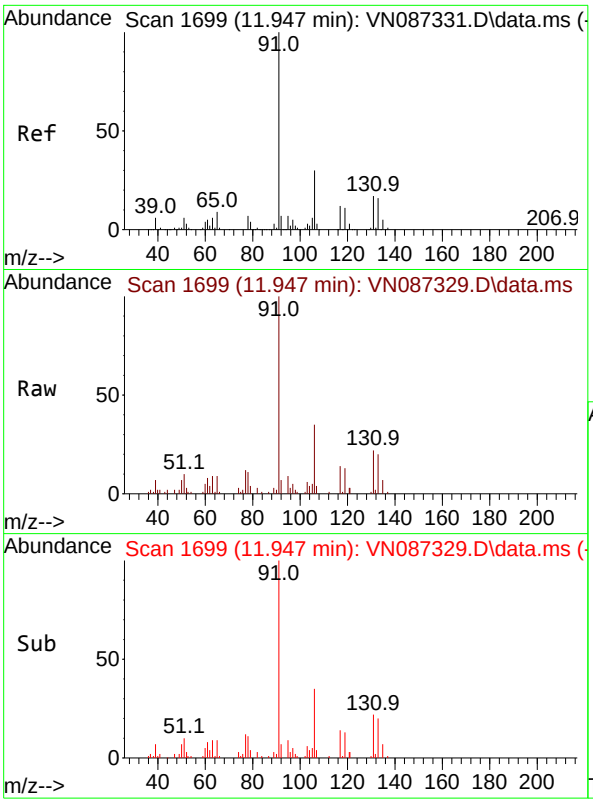


#66
1,1,1,2-Tetrachloroethane
Concen: 5.312 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:131 Resp: 11581

Ion	Ratio	Lower	Upper
131	100		
133	92.2	47.4	142.3
119	70.7	33.1	99.2





#67
Ethyl Benzene
Concen: 4.701 ug/l
RT: 11.947 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 91 Resp: 4962

Ion	Ratio	Lower	Upper
91	100		
106	34.6	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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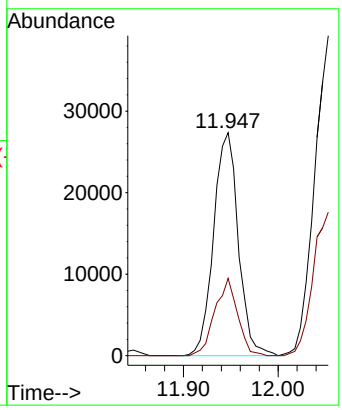
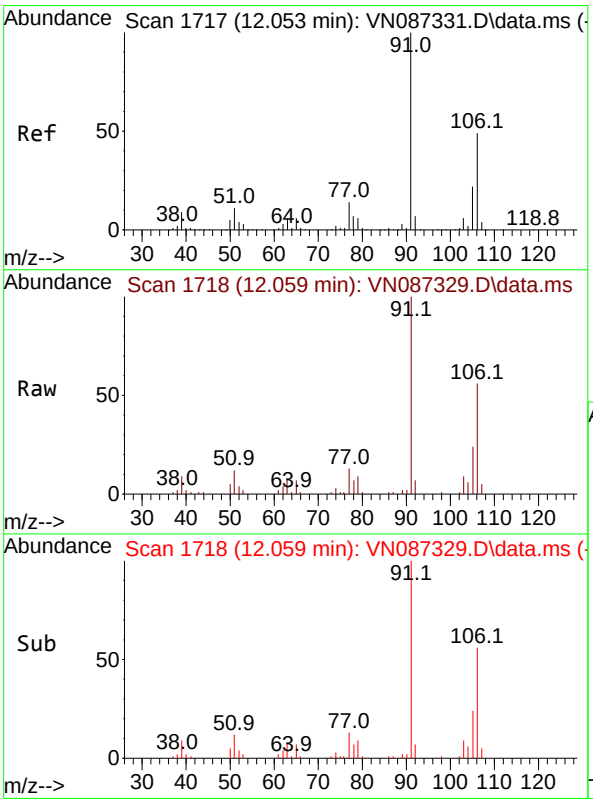
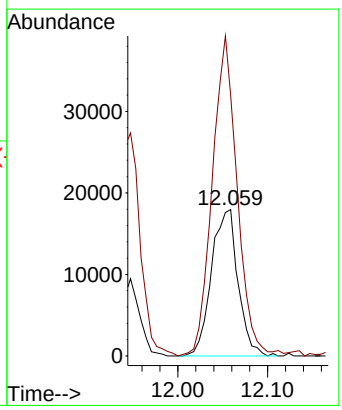


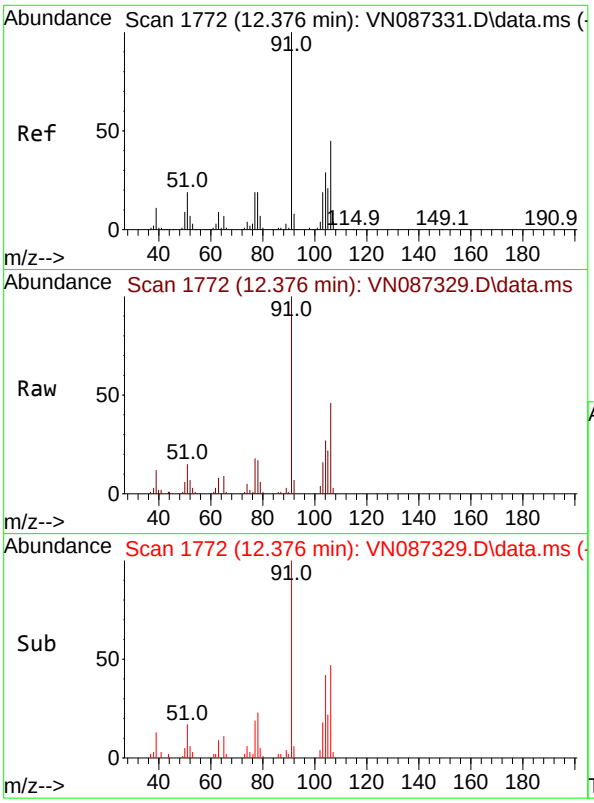


#68
m/p-Xylenes
Concen: 9.332 ug/l
RT: 12.059 min Scan# 1718
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:106 Resp: 36883

Ion	Ratio	Lower	Upper
106	100		
91	205.1	162.0	243.0





#69
o-Xylene
Concen: 4.580 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:106 Resp: 1729

Ion	Ratio	Lower	Upper
106	100		
91	219.7	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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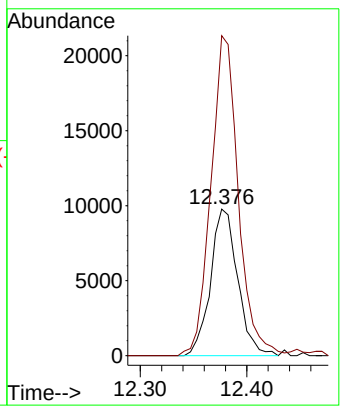
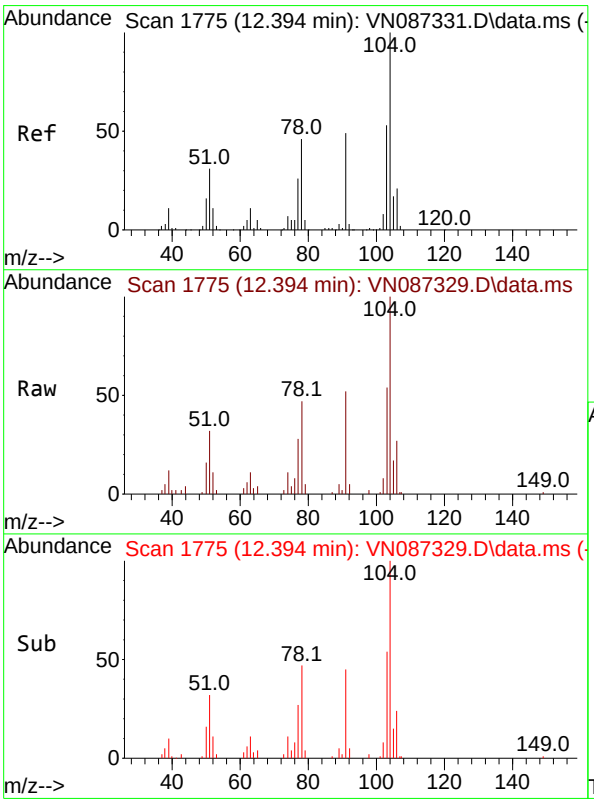
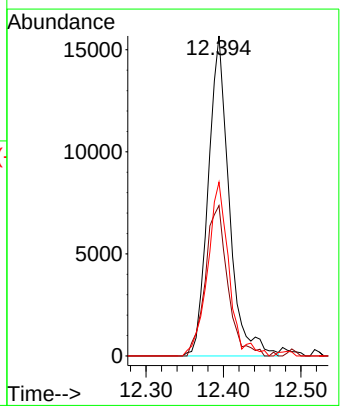


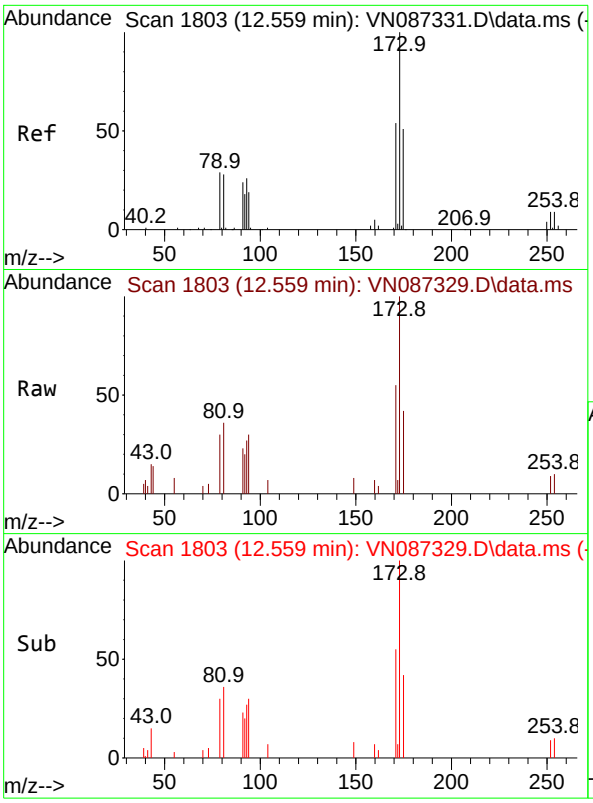


#70
Styrene
Concen: 4.639 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:104 Resp: 29462

Ion	Ratio	Lower	Upper
104	100		
78	50.2	41.0	61.6
103	55.1	43.9	65.9

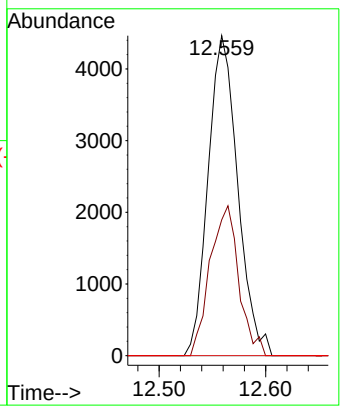




#71
Bromoform
Concen: 4.899 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:173 Resp: 862

Ion	Ratio	Lower	Upper
173	100		
175	45.5	24.1	72.3
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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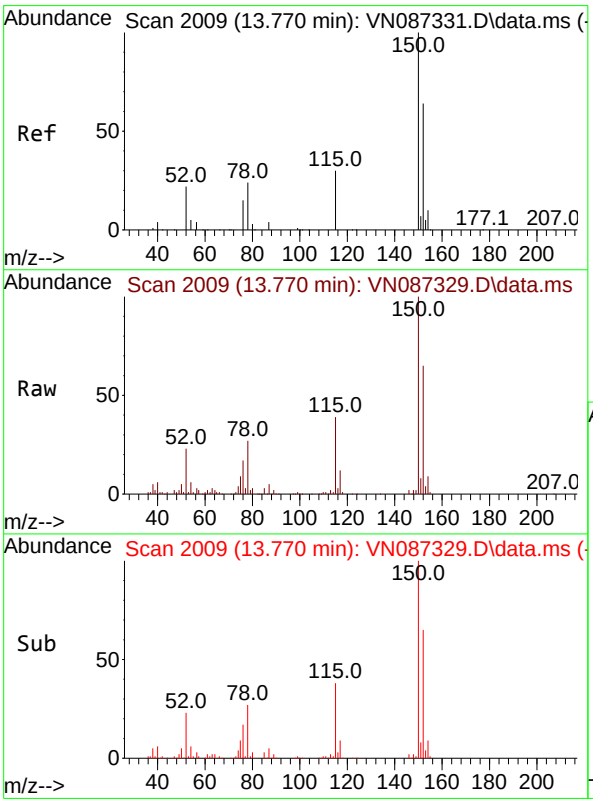
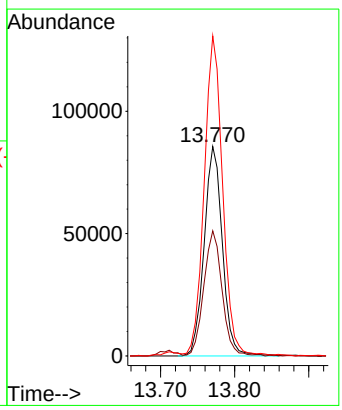
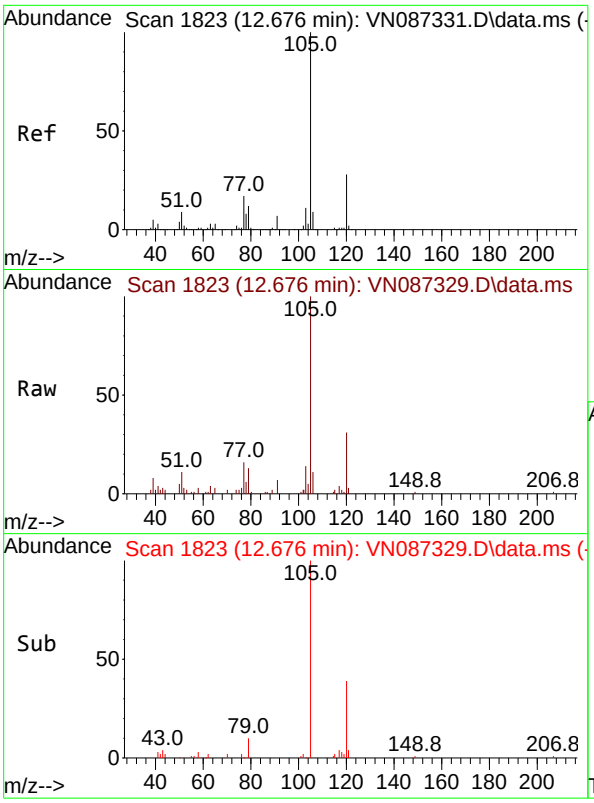


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:152 Resp: 146494

Ion	Ratio	Lower	Upper
152	100		
115	60.1	31.1	93.5
150	152.1	0.0	349.0

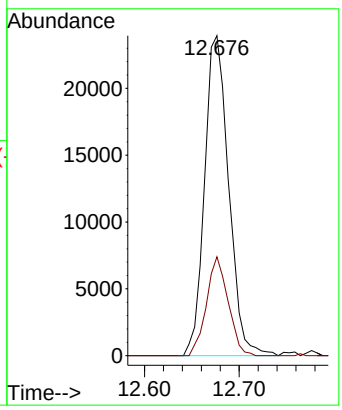




#73
Isopropylbenzene
Concen: 4.590 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:105 Resp: 4232

Ion	Ratio	Lower	Upper
105	100		
120	27.7	13.4	40.1



Instrument :
MSVOA_N
ClientSampleId :
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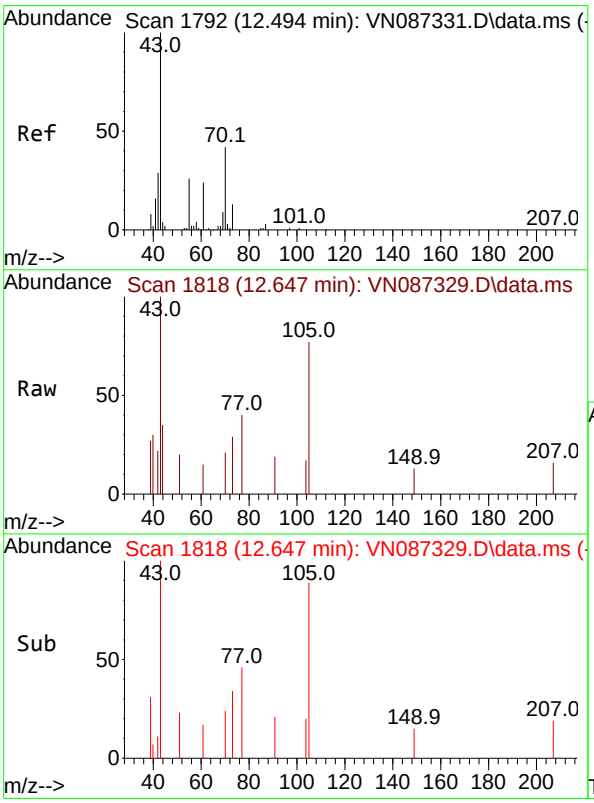
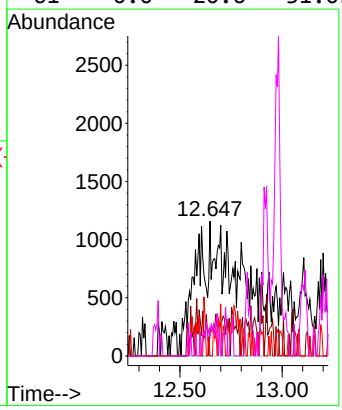
Supervised By :Semsettin Yesilyurt 07/17/2025

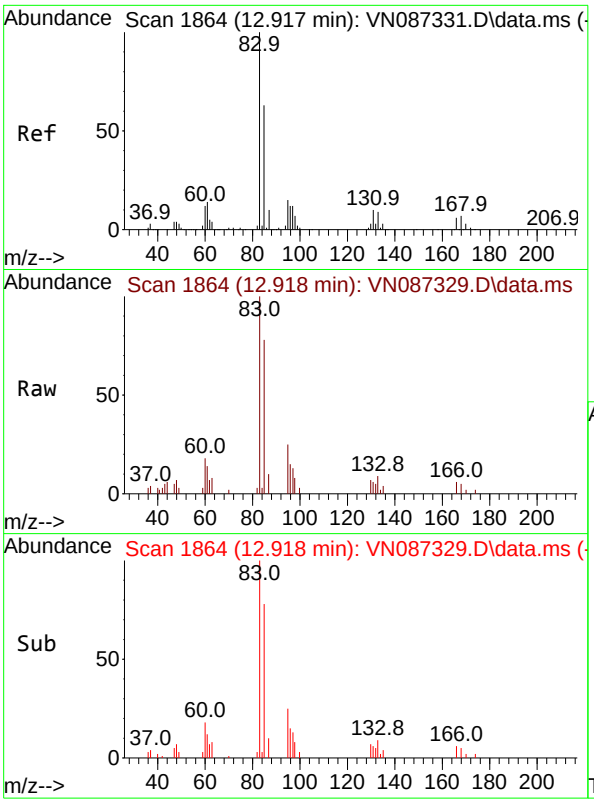


#74
N-amyl acetate
Concen: 5.113 ug/l m
RT: 12.647 min Scan# 1818
Delta R.T. 0.153 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 43 Resp: 18405

Ion	Ratio	Lower	Upper
43	100		
70	0.0	37.6	56.4#
55	0.0	19.6	29.4#
61	0.0	20.6	31.0#

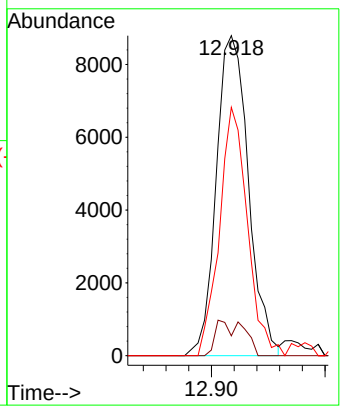




#75
1,1,2,2-Tetrachloroethane
Concen: 4.988 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 83 Resp: 1730

Ion	Ratio	Lower	Upper
83	100		
131	5.3	5.1	15.3
85	67.4	32.5	97.4



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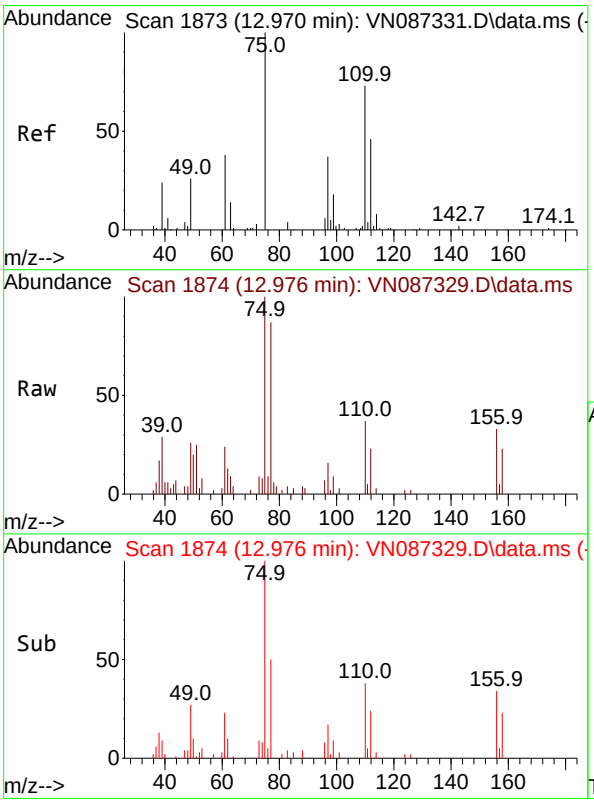
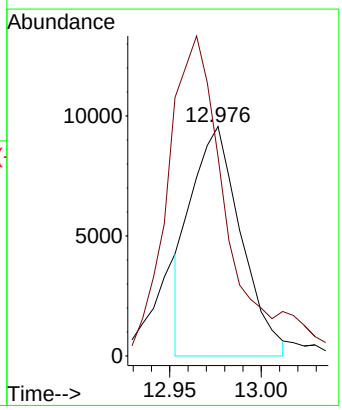
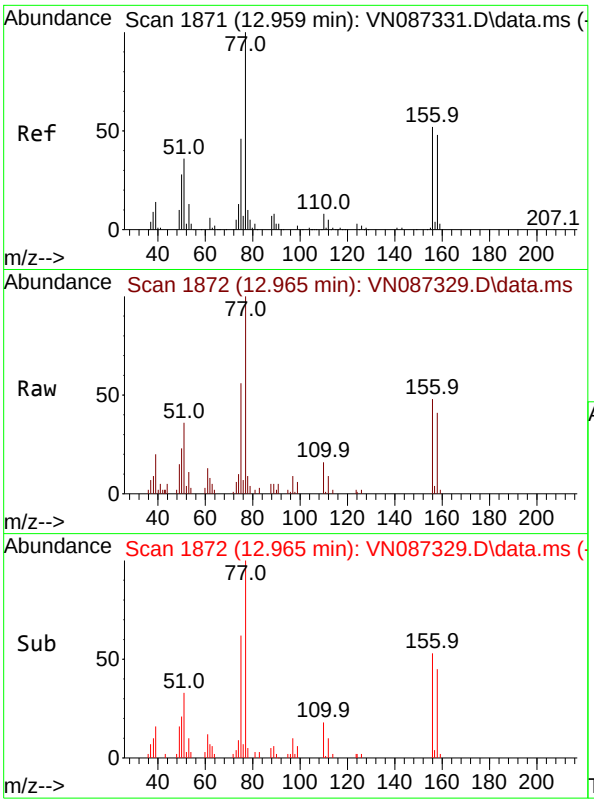


#76
1,2,3-Trichloropropane
Concen: 5.580 ug/l m
RT: 12.976 min Scan# 1874
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 75 Resp: 18135

Ion	Ratio	Lower	Upper
75	100		
77	170.2	94.5	283.6

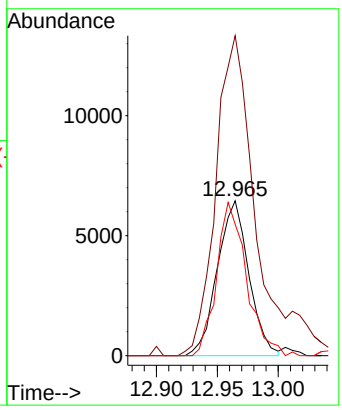




#77
Bromobenzene
Concen: 4.847 ug/l
RT: 12.965 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:156 Resp: 1158

Ion	Ratio	Lower	Upper
156	100		
77	266.3	114.9	344.6
158	94.4	48.5	145.5



Instrument :
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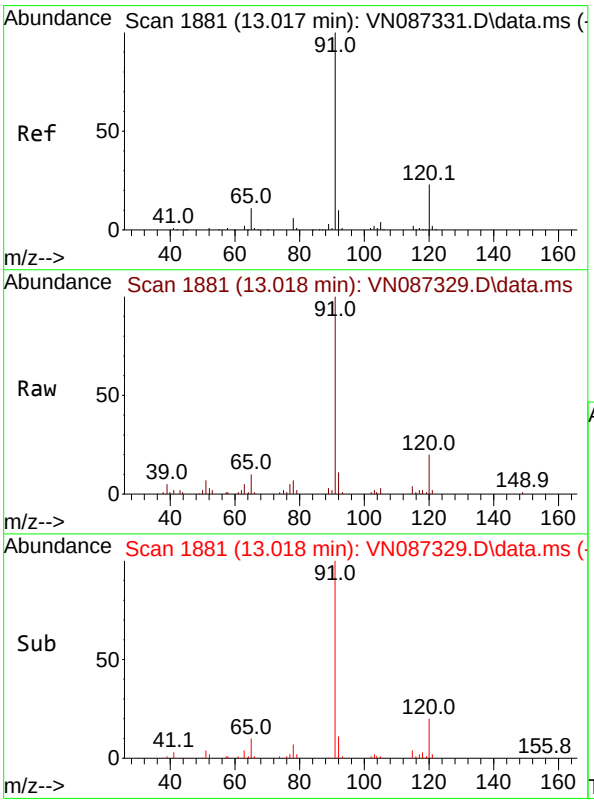
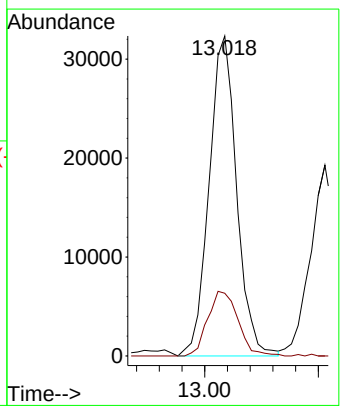
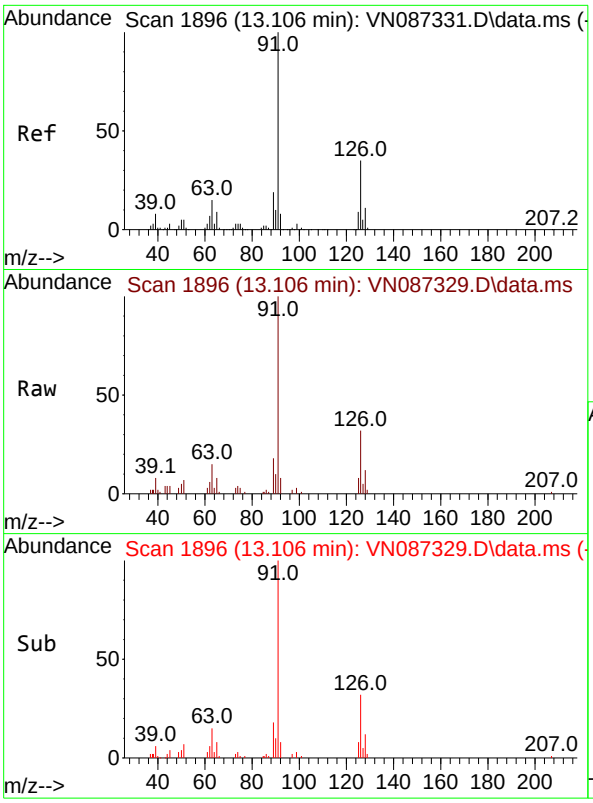


#78
n-propylbenzene
Concen: 4.693 ug/l
RT: 13.018 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 91 Resp: 54443

Ion	Ratio	Lower	Upper
91	100		
120	22.2	11.3	33.8

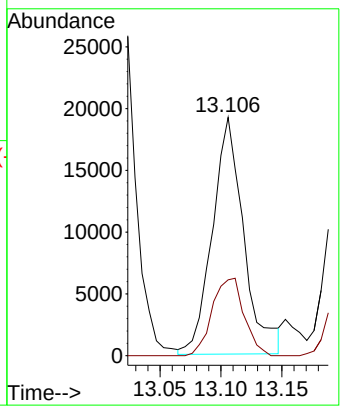




#79
2-Chlorotoluene
Concen: 4.825 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 91 Resp: 3440

Ion	Ratio	Lower	Upper
91	100		
126	33.2	16.9	50.6



Instrument :
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ClientSampleId :
VSTDICC005

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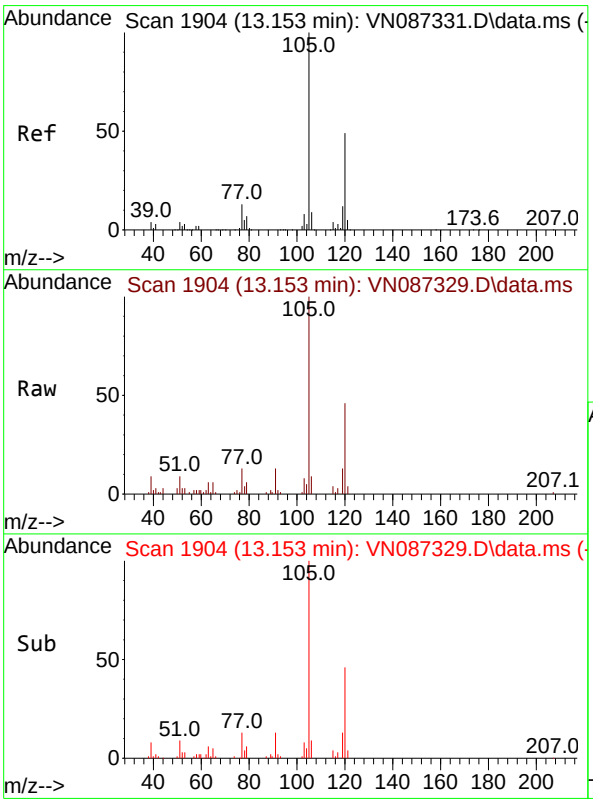
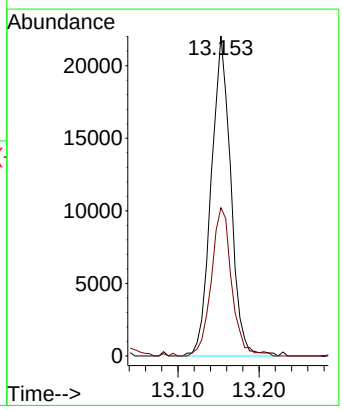
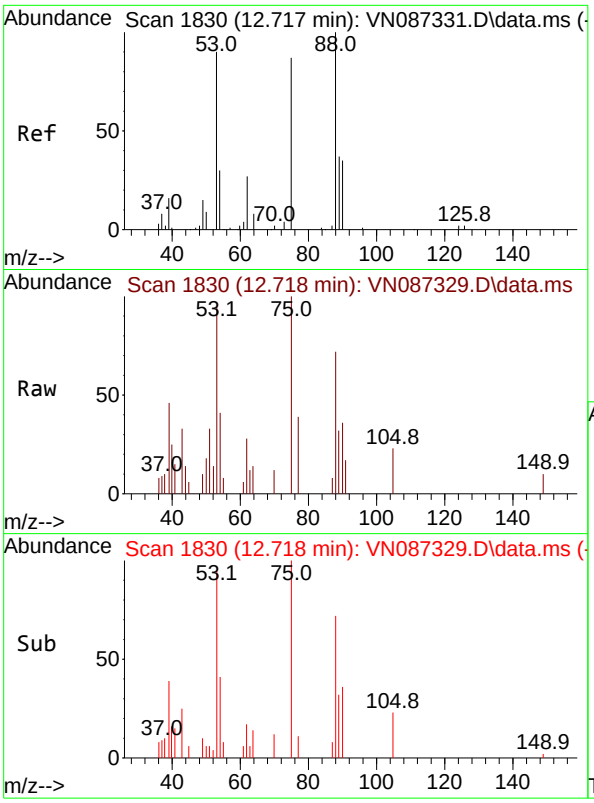


#80
1,3,5-Trimethylbenzene
Concen: 4.694 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:105 Resp: 36874

Ion	Ratio	Lower	Upper
105	100		
120	48.3	24.3	72.8





#81
trans-1,4-Dichloro-2-butene
Concen: 3.994 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 75 Resp: 479

Ion	Ratio	Lower	Upper
75	100		
53	83.4	83.5	125.3#
89	34.7	38.4	57.6#

Instrument :
MSVOA_N
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VSTDICC005

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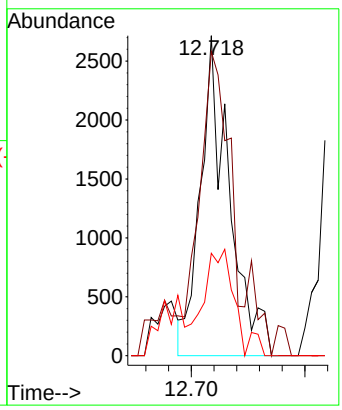
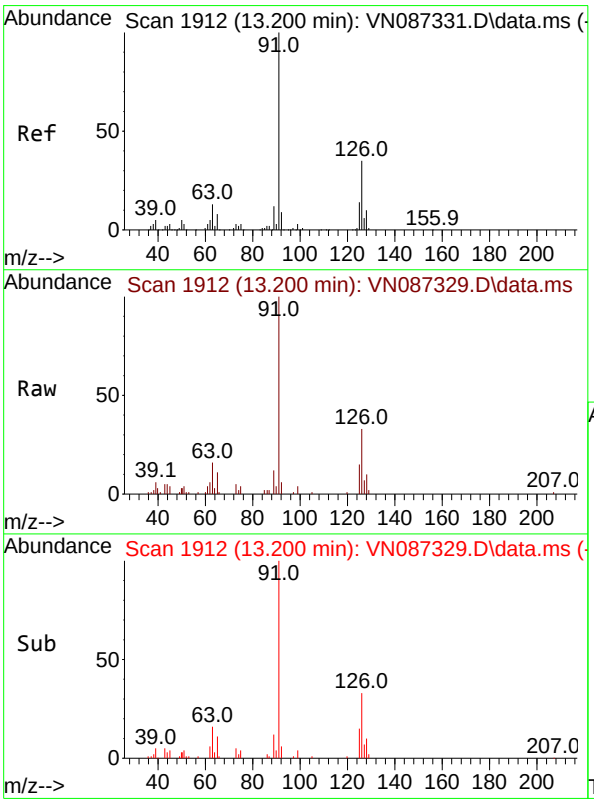
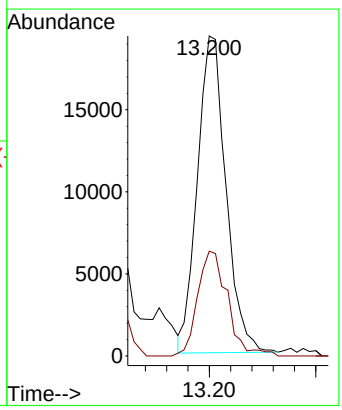


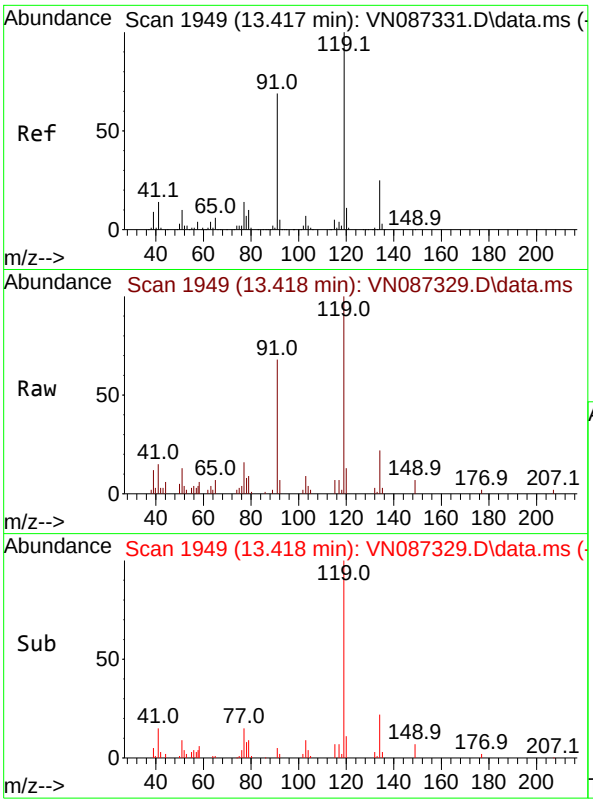


#82
4-Chlorotoluene
Concen: 4.854 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 91 Resp: 36031

Ion	Ratio	Lower	Upper
91	100		
126	34.5	16.6	49.7

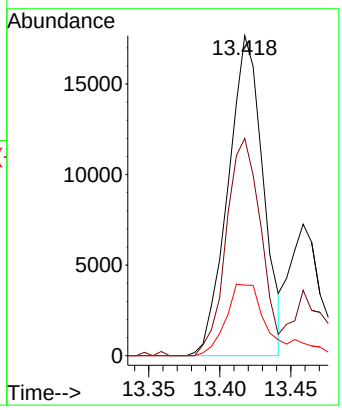




#83
tert-Butylbenzene
Concen: 4.617 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:119 Resp: 3029

Ion	Ratio	Lower	Upper
119	100		
91	67.0	35.0	105.1
134	27.7	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

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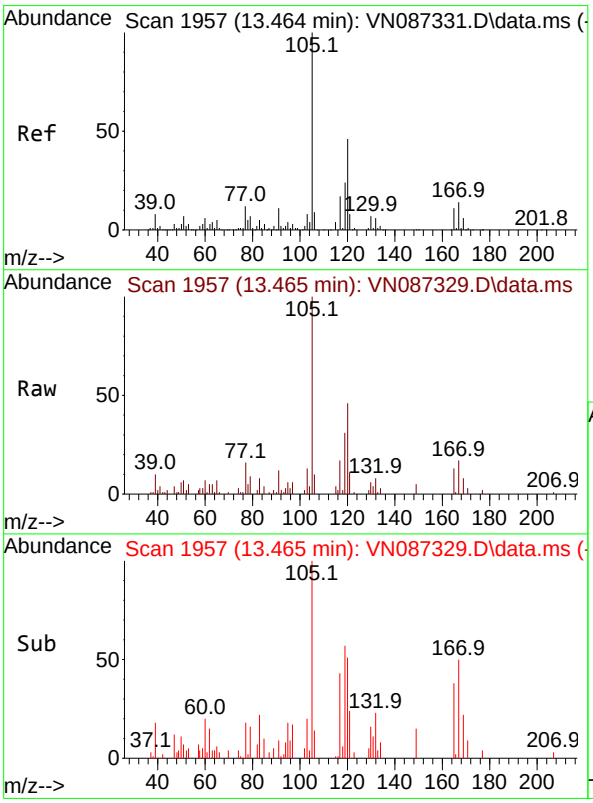
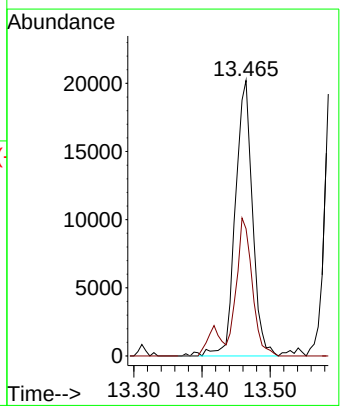
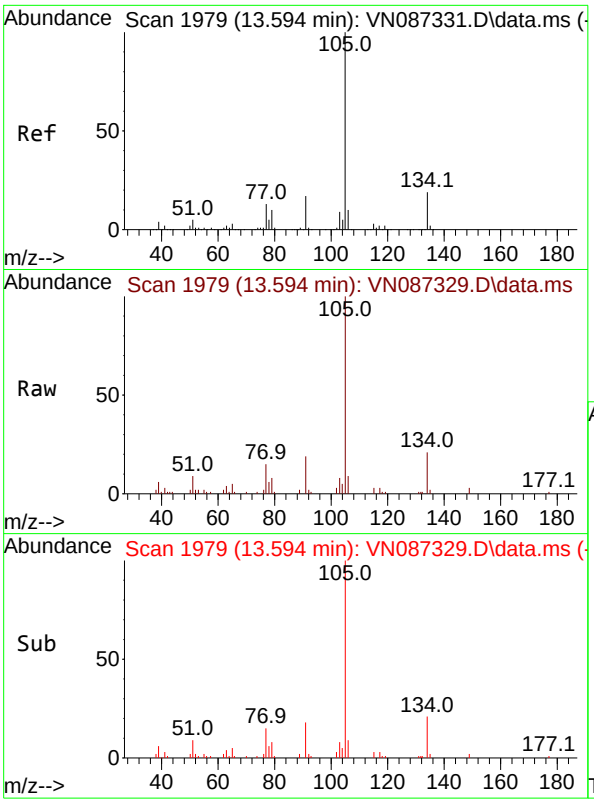


#84
1,2,4-Trimethylbenzene
Concen: 4.403 ug/l
RT: 13.465 min Scan# 1957
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:105 Resp: 35326

Ion	Ratio	Lower	Upper
105	100		
120	45.9	22.8	68.3

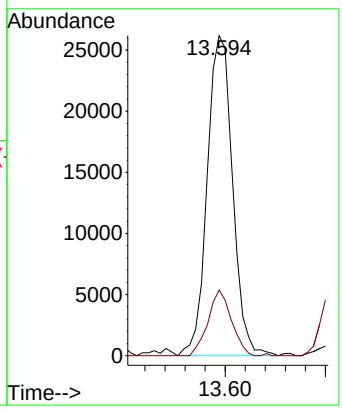




#85
sec-Butylbenzene
Concen: 4.649 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:105 Resp: 4594

Ion	Ratio	Lower	Upper
105	100		
134	18.9	9.8	29.4



Instrument :
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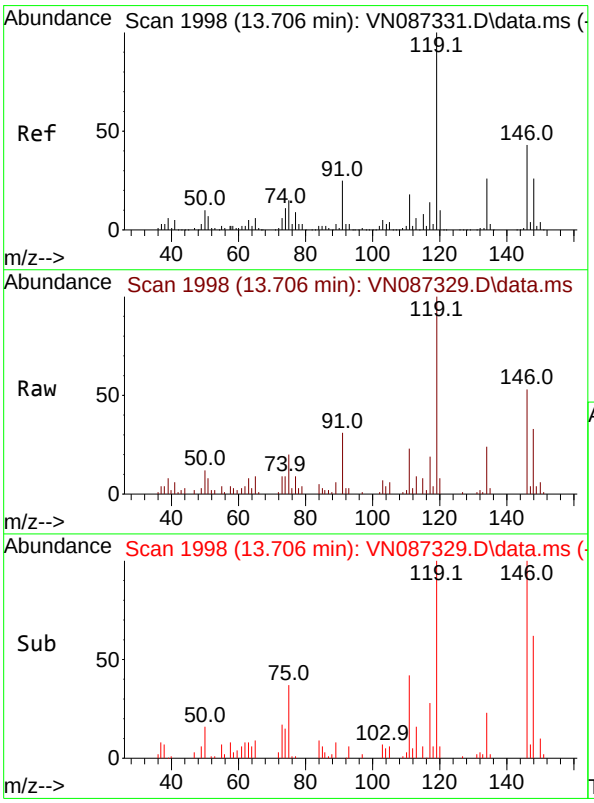
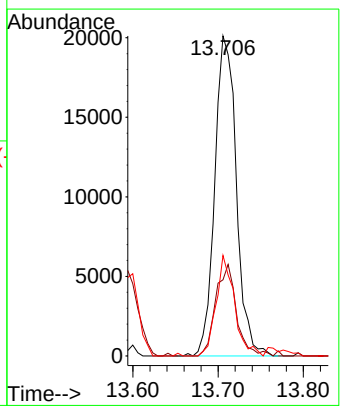
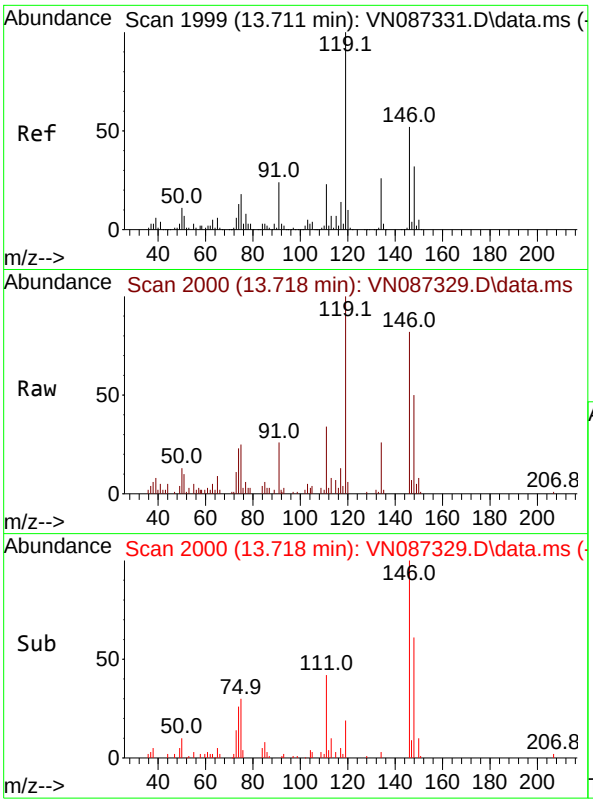


#86
p-Isopropyltoluene
Concen: 4.471 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:119 Resp: 35413

Ion	Ratio	Lower	Upper
119	100		
134	27.6	13.5	40.5
91	26.8	12.2	36.6

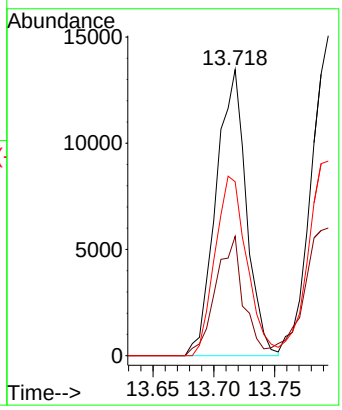




#87
1,3-Dichlorobenzene
Concen: 4.970 ug/l
RT: 13.718 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:146 Resp: 2332

Ion	Ratio	Lower	Upper
146	100		
111	38.8	21.4	64.3
148	66.1	31.6	95.0



Instrument :
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ClientSampleId :
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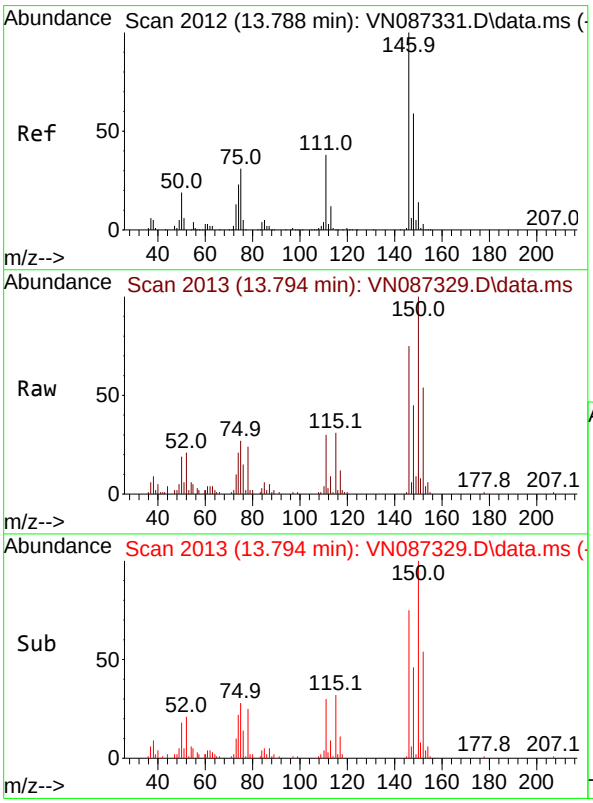
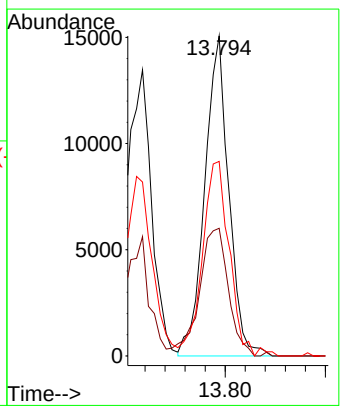
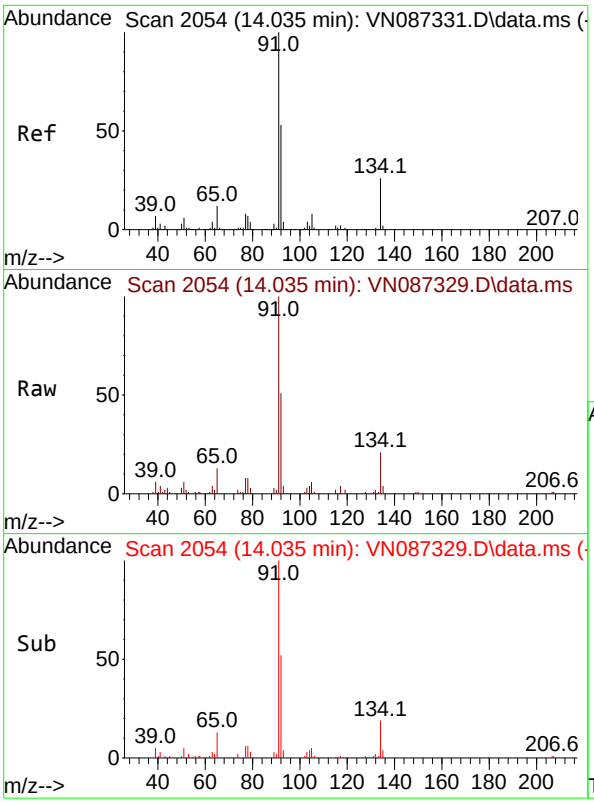


#88
1,4-Dichlorobenzene
Concen: 4.994 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:146 Resp: 25031

Ion	Ratio	Lower	Upper
146	100		
111	48.2	19.6	58.7
148	68.2	31.4	94.0

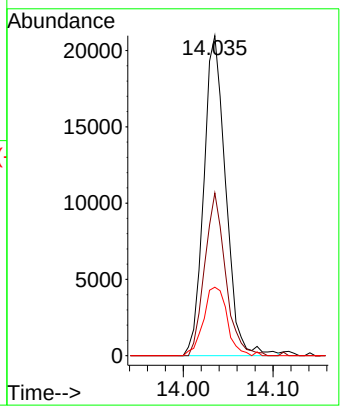




#89
n-Butylbenzene
Concen: 4.697 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 91 Resp: 3552

Ion	Ratio	Lower	Upper
91	100		
92	48.5	26.2	78.6
134	23.0	12.4	37.2



Instrument :
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ClientSampleId :
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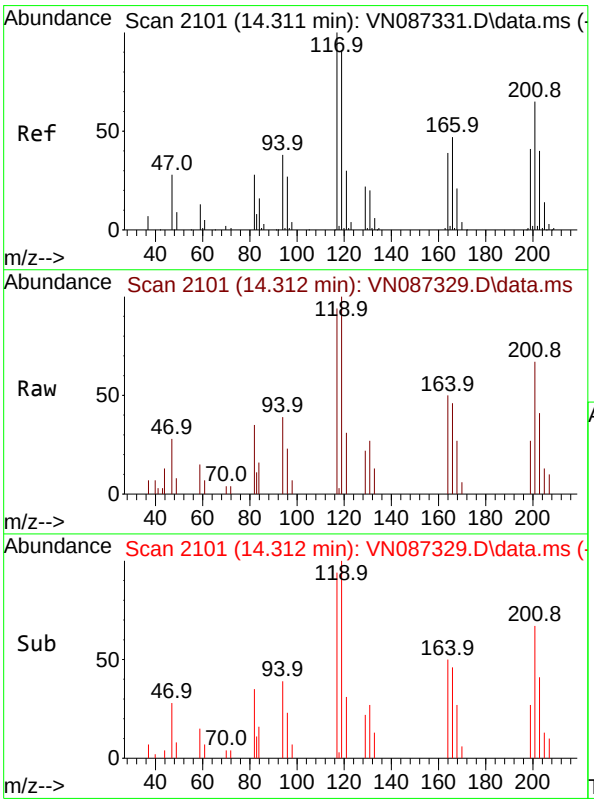
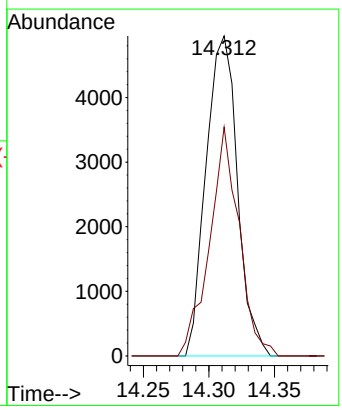
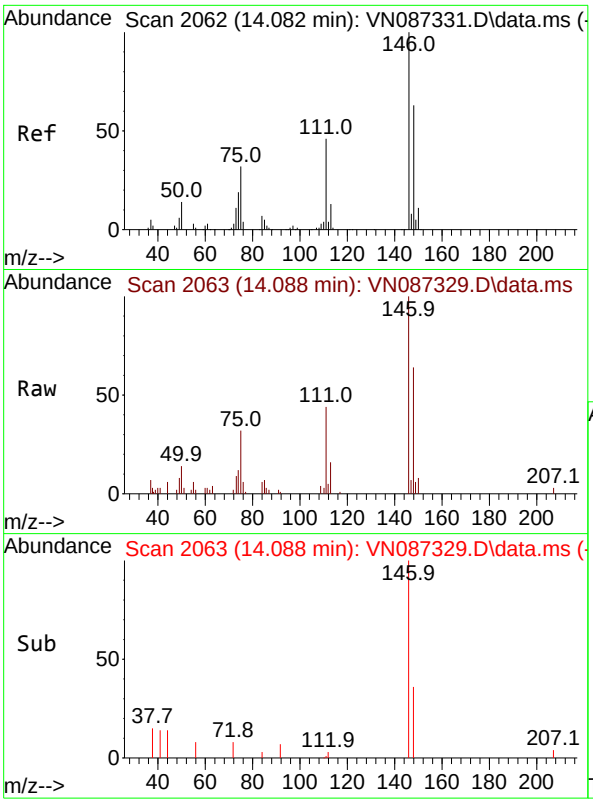


#90
Hexachloroethane
Concen: 4.923 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:117 Resp: 8261

Ion	Ratio	Lower	Upper
117	100		
201	67.1	32.8	98.4

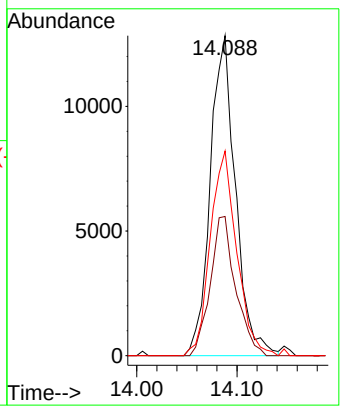




#91
1,2-Dichlorobenzene
Concen: 5.055 ug/l
RT: 14.088 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:146 Resp: 2247

Ion	Ratio	Lower	Upper
146	100		
111	43.7	22.0	66.0
148	67.1	32.7	98.1



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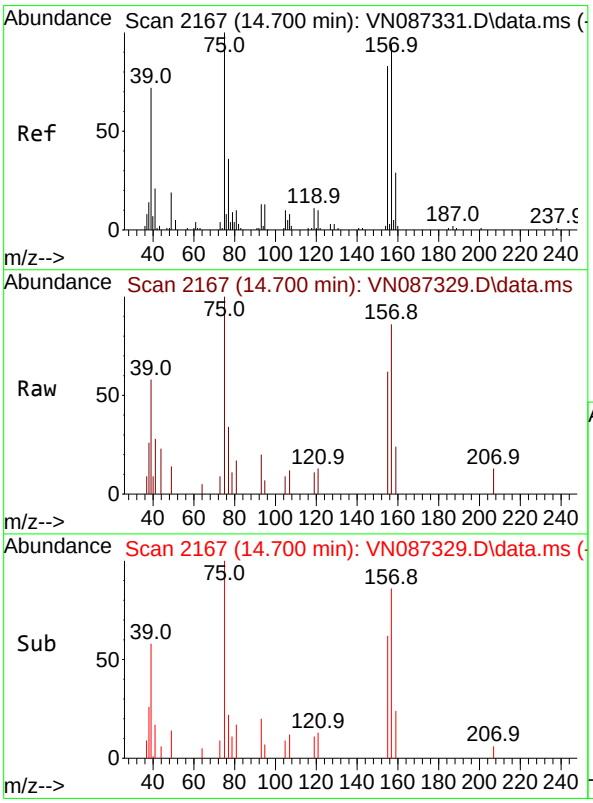
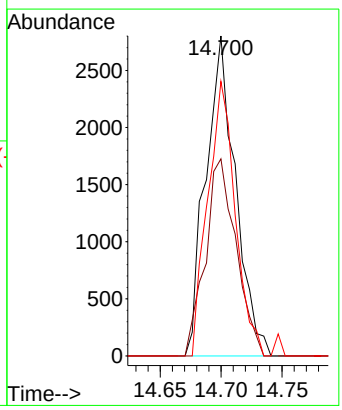
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

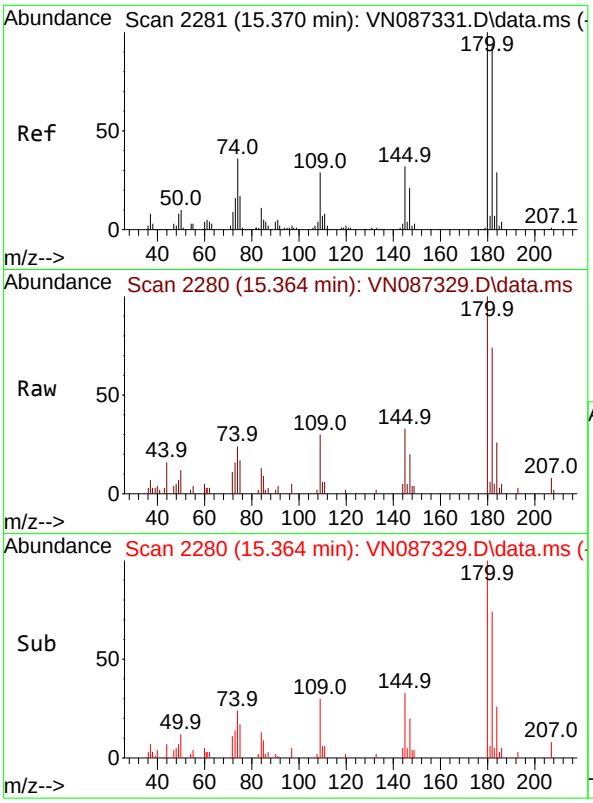


#92
1,2-Dibromo-3-Chloropropane
Concen: 5.223 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion: 75 Resp: 4757

Ion	Ratio	Lower	Upper
75	100		
155	63.8	37.3	111.8
157	79.5	46.2	138.6

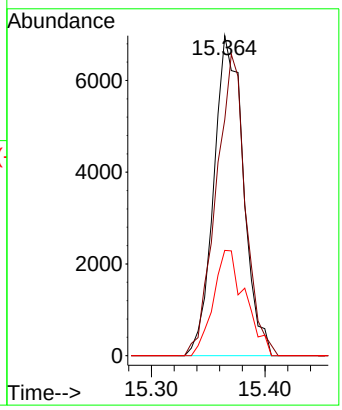




#93
1,2,4-Trichlorobenzene
Concen: 4.823 ug/l
RT: 15.364 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:180 Resp: 1259

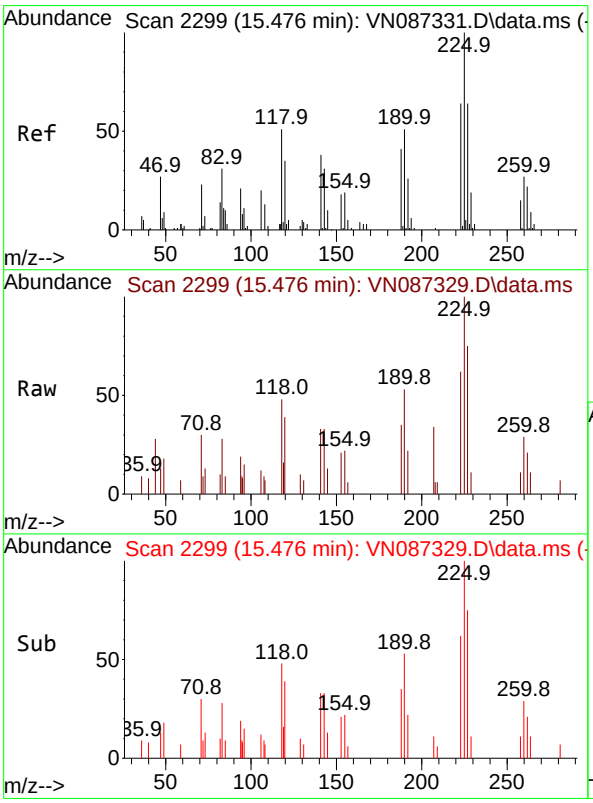
Ion	Ratio	Lower	Upper
180	100		
182	93.5	47.3	141.8
145	35.6	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

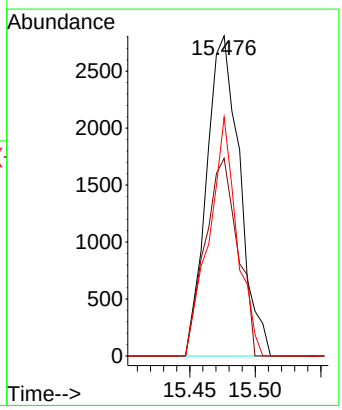
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

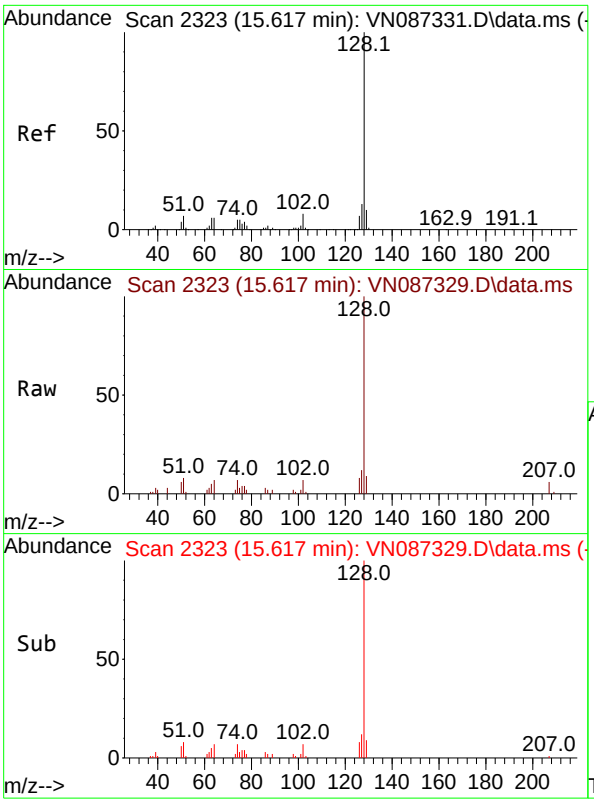


#94
Hexachlorobutadiene
Concen: 5.087 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:225 Resp: 4936

Ion	Ratio	Lower	Upper
225	100		
223	60.9	32.1	96.3
227	63.0	31.3	93.9

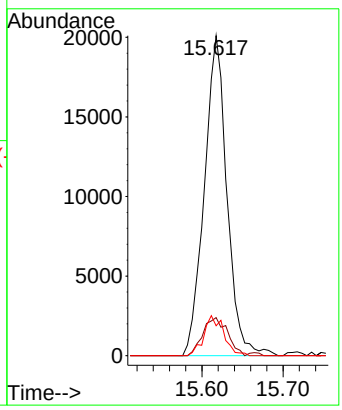




#95
Naphthalene
Concen: 4.208 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:128 Resp: 3893

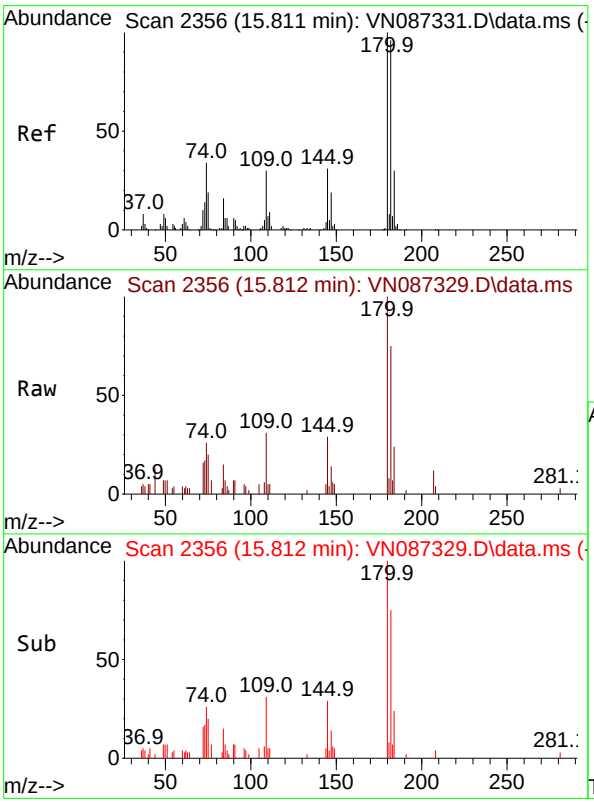
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.5	15.7
129	11.1	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

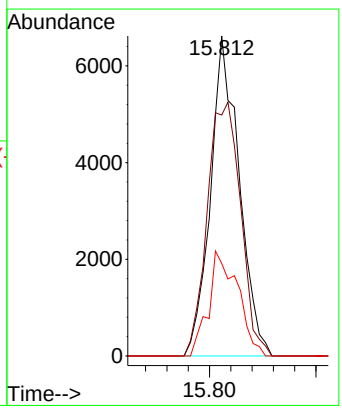
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025



#96
1,2,3-Trichlorobenzene
Concen: 4.721 ug/l
RT: 15.812 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087329.D
Acq: 16 Jul 2025 17:27

Tgt Ion:180 Resp: 12368

Ion	Ratio	Lower	Upper
180	100		
182	92.4	47.1	141.4
145	33.5	16.9	50.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087330.D
Acq On : 16 Jul 2025 17:49
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Quant Time: Jul 17 02:18:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	178514	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.088	114	328159	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	297202	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	156249	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	58584	19.341	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	38.680%#		
35) Dibromofluoromethane	8.153	113	44726	19.758	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	39.520%#		
50) Toluene-d8	10.547	98	154381	19.119	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	38.240%#		
62) 4-Bromofluorobenzene	12.829	95	56832	19.051	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	38.100%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	31604	16.669	ug/l	86
3) Chloromethane	2.383	50	41982	17.608	ug/l	94
4) Vinyl Chloride	2.542	62	44508	18.784	ug/l	99
5) Bromomethane	2.971	94	22025	17.950	ug/l	98
6) Chloroethane	3.130	64	30785	19.922	ug/l	100
7) Trichlorofluoromethane	3.506	101	68764	19.626	ug/l	97
8) Diethyl Ether	3.959	74	28520	20.984	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.365	101	38516	21.414	ug/l	95
10) Methyl Iodide	4.577	142	25698	17.955	ug/l	97
11) Tert butyl alcohol	5.530	59	55298	96.147	ug/l	99
12) 1,1-Dichloroethene	4.330	96	39480	19.370	ug/l	96
13) Acrolein	4.177	56	40135	86.954	ug/l	98
14) Allyl chloride	5.006	41	80983	21.955	ug/l	88
15) Acrylonitrile	5.712	53	162325	104.007	ug/l	99
16) Acetone	4.424	43	140161	97.607	ug/l	93
17) Carbon Disulfide	4.700	76	119191	19.725	ug/l #	93
18) Methyl Acetate	5.012	43	70735	19.824	ug/l	99
19) Methyl tert-butyl Ether	5.794	73	150385	20.018	ug/l	97
20) Methylene Chloride	5.265	84	49951	20.427	ug/l	87
21) trans-1,2-Dichloroethene	5.771	96	45917	19.980	ug/l	90
22) Diisopropyl ether	6.659	45	168043	21.719	ug/l	97
23) Vinyl Acetate	6.594	43	750202	110.863	ug/l	98
24) 1,1-Dichloroethane	6.559	63	89552	20.062	ug/l	95
25) 2-Butanone	7.477	43	231983	105.718	ug/l	96
26) 2,2-Dichloropropane	7.483	77	71478	20.596	ug/l	97
27) cis-1,2-Dichloroethene	7.471	96	53347	20.162	ug/l	98
28) Bromochloromethane	7.794	49	41285	19.325	ug/l	100
29) Tetrahydrofuran	7.830	42	147436	103.426	ug/l	99
30) Chloroform	7.953	83	93018	20.819	ug/l	100
31) Cyclohexane	8.241	56	74161	19.915	ug/l	98
32) 1,1,1-Trichloroethane	8.153	97	78235	20.217	ug/l	97
36) 1,1-Dichloropropene	8.359	75	60302	20.163	ug/l	98
37) Ethyl Acetate	7.553	43	85921	19.893	ug/l	98
38) Carbon Tetrachloride	8.347	117	65336	19.832	ug/l	95
39) Methylcyclohexane	9.588	83	63264	19.539	ug/l	95
40) Benzene	8.588	78	197187	20.400	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087330.D
Acq On : 16 Jul 2025 17:49
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 17 02:18:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.771	41	47550	21.054 ug/l		97
42) 1,2-Dichloroethane	8.659	62	74680	20.374 ug/l		99
43) Isopropyl Acetate	8.677	43	135010	20.136 ug/l		99
44) Trichloroethene	9.335	130	44202	19.354 ug/l		98
45) 1,2-Dichloropropane	9.606	63	51786	21.086 ug/l		97
46) Dibromomethane	9.688	93	36673	19.943 ug/l		96
47) Bromodichloromethane	9.871	83	73409	19.819 ug/l		93
48) Methyl methacrylate	9.665	41	62316	20.645 ug/l		99
49) 1,4-Dioxane	9.682	88	18509	400.357 ug/l	#	100
51) 4-Methyl-2-Pentanone	10.429	43	449710	106.046 ug/l		99
52) Toluene	10.612	92	123391	21.002 ug/l		98
53) t-1,3-Dichloropropene	10.818	75	76959	20.530 ug/l		92
54) cis-1,3-Dichloropropene	10.294	75	79019	20.407 ug/l		96
55) 1,1,2-Trichloroethane	11.000	97	47960	20.164 ug/l		94
56) Ethyl methacrylate	10.859	69	74408	19.384 ug/l		99
57) 1,3-Dichloropropane	11.147	76	85537	20.800 ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	198704	101.839 ug/l		100
59) 2-Hexanone	11.182	43	305342	108.526 ug/l		99
60) Dibromochloromethane	11.341	129	55783	20.564 ug/l		98
61) 1,2-Dibromoethane	11.447	107	51292	20.509 ug/l		97
64) Tetrachloroethene	11.082	164	37655	19.686 ug/l		93
65) Chlorobenzene	11.871	112	134668	20.183 ug/l		95
66) 1,1,1,2-Tetrachloroethane	11.941	131	46671	20.570 ug/l		98
67) Ethyl Benzene	11.947	91	223715	20.367 ug/l		100
68) m/p-Xylenes	12.053	106	170590	41.473 ug/l		98
69) o-Xylene	12.376	106	83415	21.230 ug/l		98
70) Styrene	12.388	104	140937	21.323 ug/l		100
71) Bromoform	12.559	173	37362	20.383 ug/l	#	99
73) Isopropylbenzene	12.676	105	202595	20.601 ug/l		100
74) N-amyl acetate	12.512	43	78074m	20.334 ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	76720	20.733 ug/l		98
76) 1,2,3-Trichloropropane	12.976	75	68839m	19.858 ug/l		
77) Bromobenzene	12.959	156	53881	21.127 ug/l		97
78) n-propylbenzene	13.017	91	255577	20.656 ug/l		99
79) 2-Chlorotoluene	13.106	91	158436	20.836 ug/l		96
80) 1,3,5-Trimethylbenzene	13.153	105	176006	21.006 ug/l		99
81) trans-1,4-Dichloro-2-b...	12.717	75	27975	21.846 ug/l		90
82) 4-Chlorotoluene	13.200	91	163615	20.667 ug/l		99
83) tert-Butylbenzene	13.417	119	143954	20.571 ug/l		98
84) 1,2,4-Trimethylbenzene	13.465	105	181623	21.226 ug/l		100
85) sec-Butylbenzene	13.594	105	216256	20.516 ug/l		99
86) p-Isopropyltoluene	13.706	119	175352	20.758 ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	103157	20.609 ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	108898	20.370 ug/l		98
89) n-Butylbenzene	14.035	91	165484	20.516 ug/l		99
90) Hexachloroethane	14.312	117	35108	19.615 ug/l		96
91) 1,2-Dichlorobenzene	14.088	146	99750	21.036 ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.700	75	19015	19.573 ug/l		98
93) 1,2,4-Trichlorobenzene	15.370	180	54714	19.643 ug/l		99
94) Hexachlorobutadiene	15.476	225	20248	19.563 ug/l		96
95) Naphthalene	15.617	128	194574	19.718 ug/l		100
96) 1,2,3-Trichlorobenzene	15.811	180	55463	19.850 ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087330.D
Acq On : 16 Jul 2025 17:49
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 17 02:18:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087330.D
Acq On : 16 Jul 2025 17:49
Operator : JC\MD
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Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
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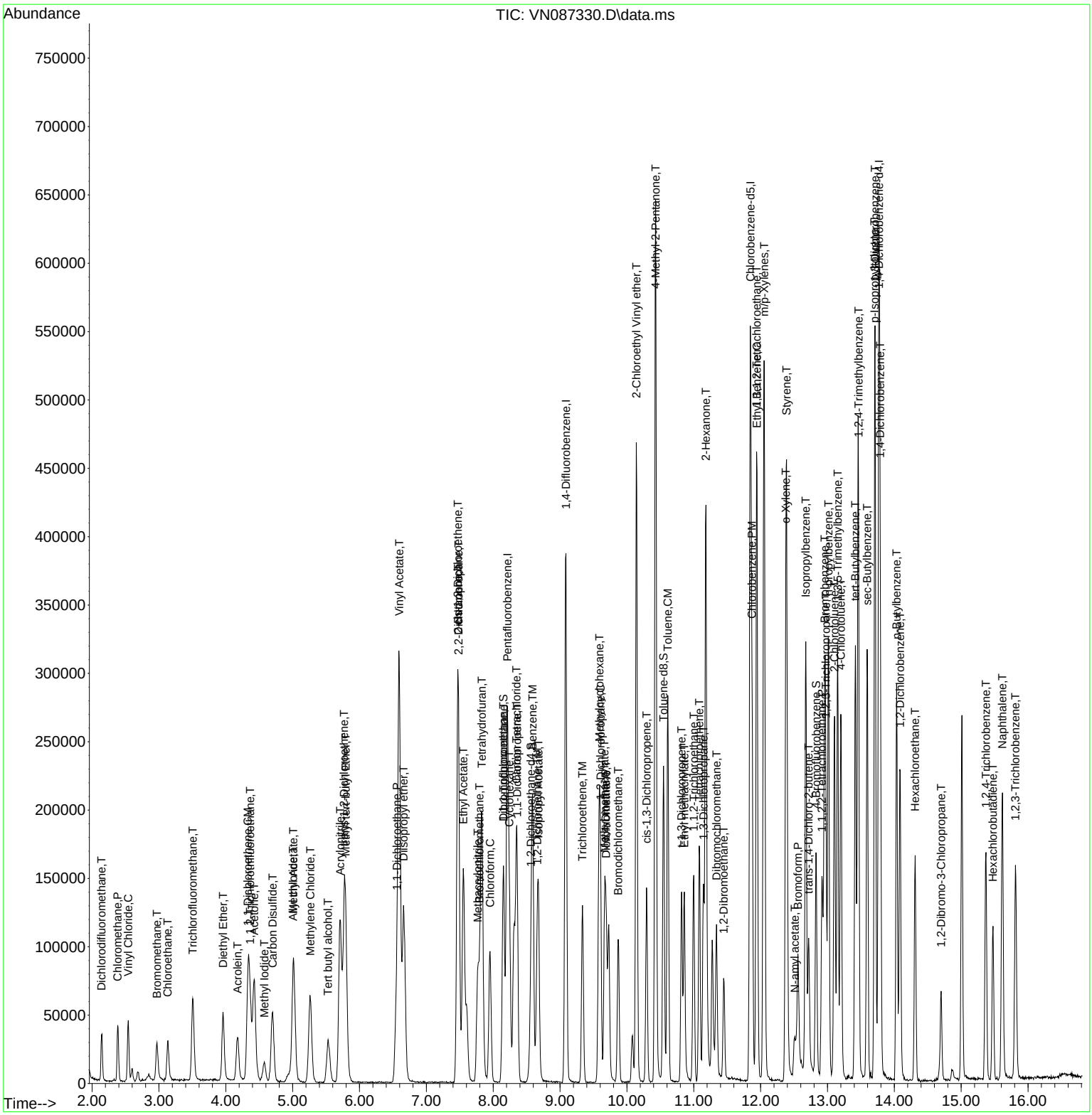
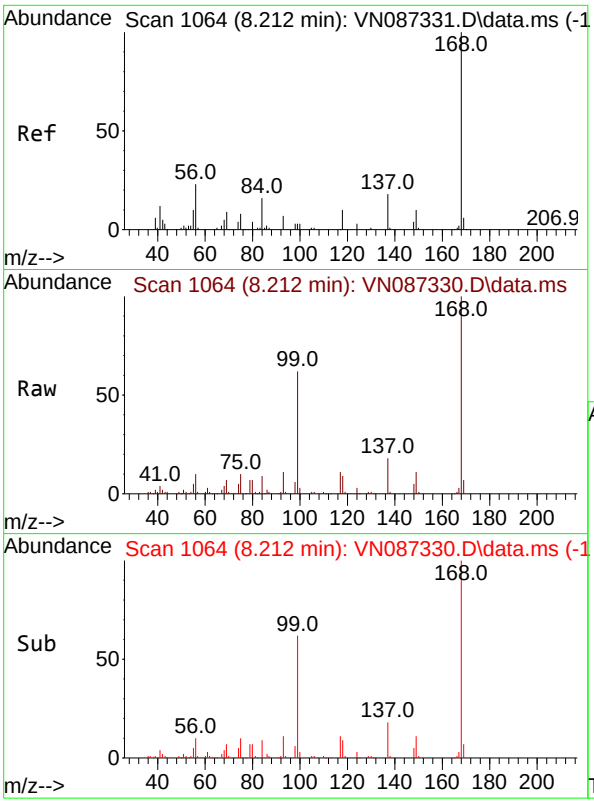
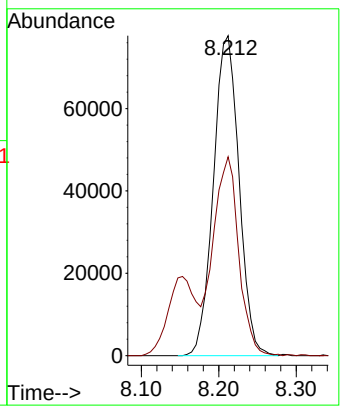




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:168 Resp: 17851

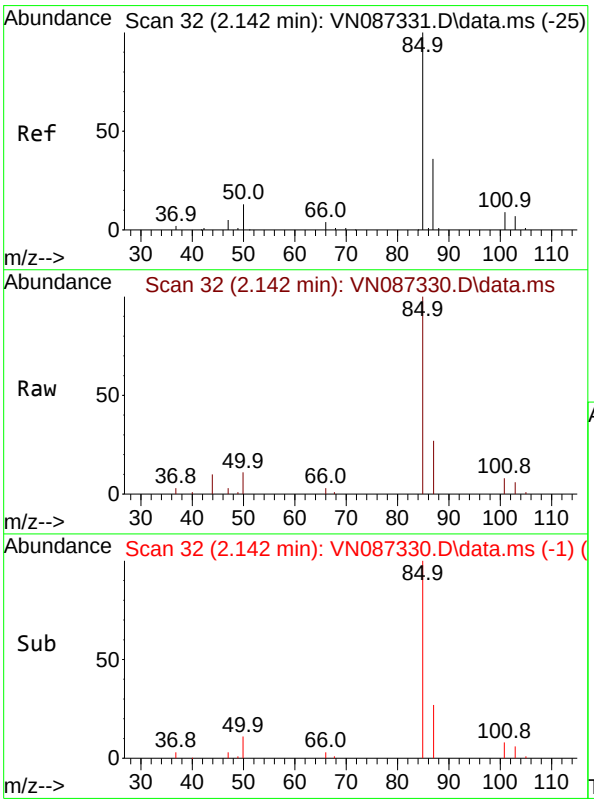
Ion	Ratio	Lower	Upper
168	100		
99	61.7	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

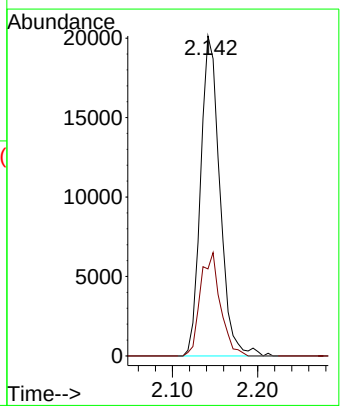
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

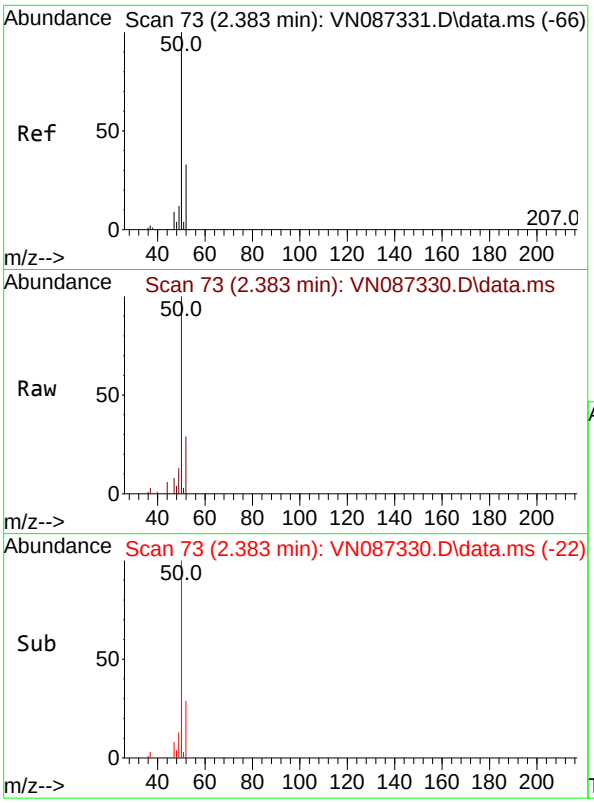


#2
Dichlorodifluoromethane
Concen: 16.669 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 85 Resp: 31604

Ion	Ratio	Lower	Upper
85	100		
87	27.2	17.8	53.3

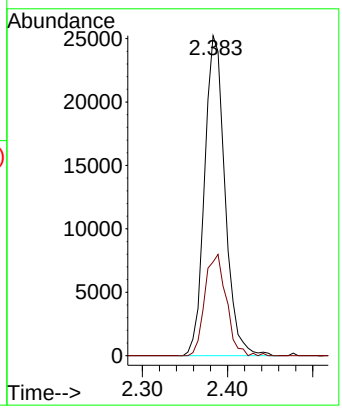




#3
Chloromethane
Concen: 17.608 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 50 Resp: 4198

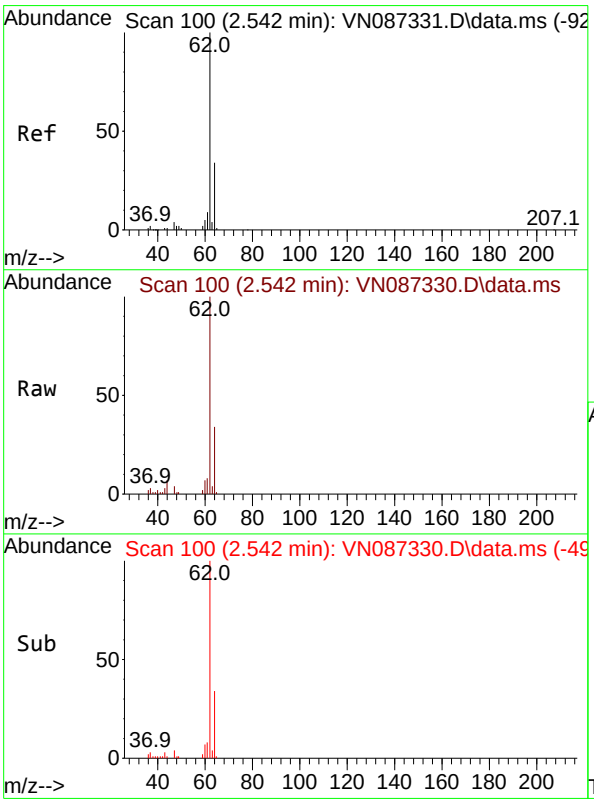
Ion	Ratio	Lower	Upper
50	100		
52	29.3	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

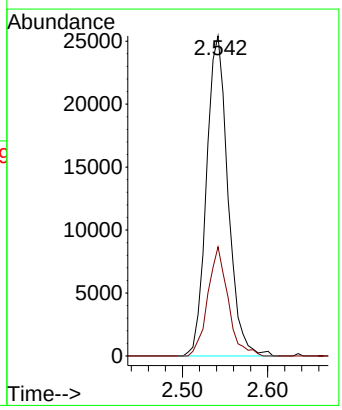
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

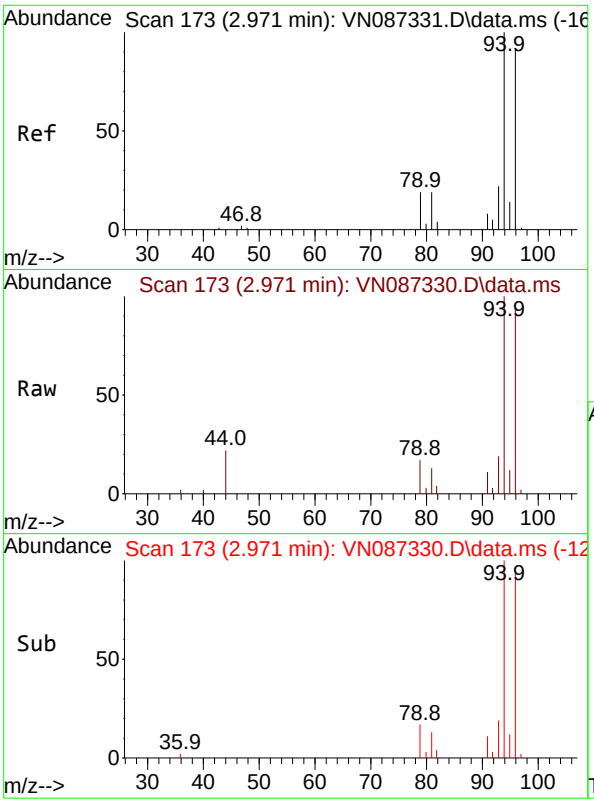


#4
Vinyl Chloride
Concen: 18.784 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 62 Resp: 44508

Ion	Ratio	Lower	Upper
62	100		
64	34.1	27.0	40.6

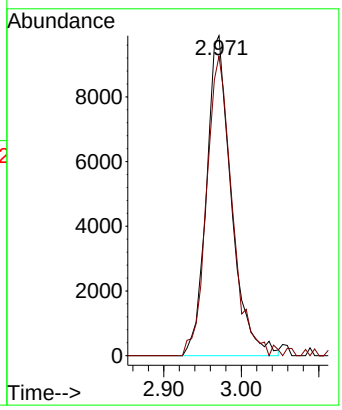




#5
Bromomethane
Concen: 17.950 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 94 Resp: 2202

Ion	Ratio	Lower	Upper
94	100		
96	93.6	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
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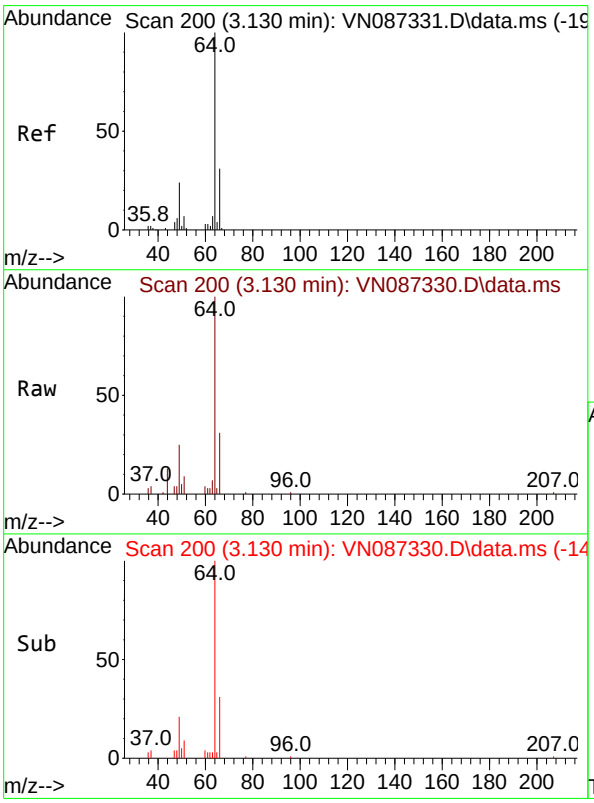
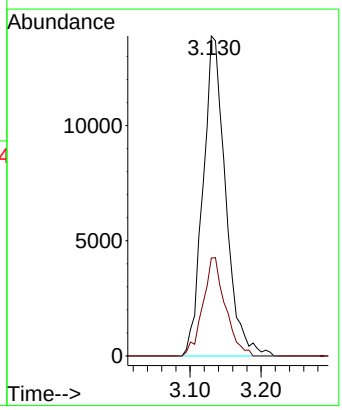
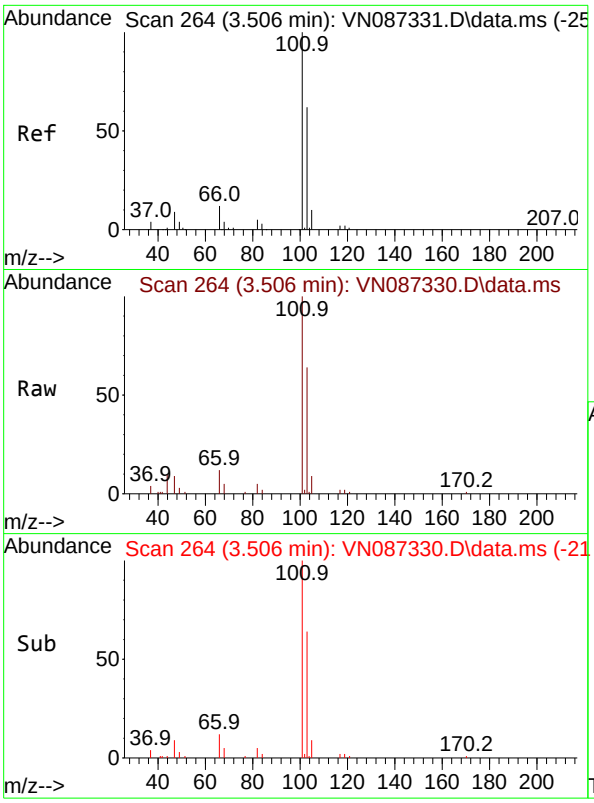


#6
Chloroethane
Concen: 19.922 ug/l
RT: 3.130 min Scan# 200
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 64 Resp: 30785

Ion	Ratio	Lower	Upper
64	100		
66	30.6	24.6	36.8

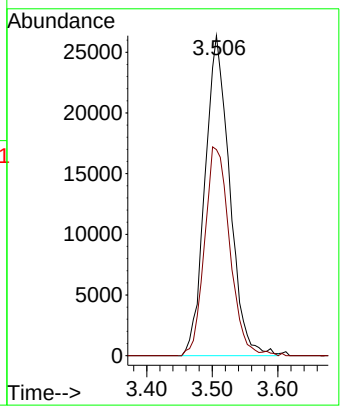




#7
Trichlorofluoromethane
Concen: 19.626 ug/l
RT: 3.506 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:101 Resp: 6876

Ion	Ratio	Lower	Upper
101	100		
103	64.4	49.8	74.6



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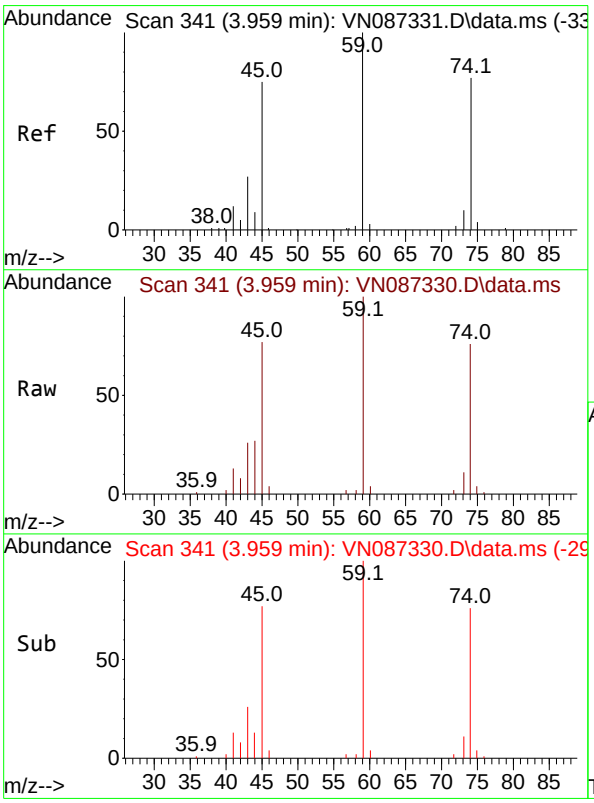
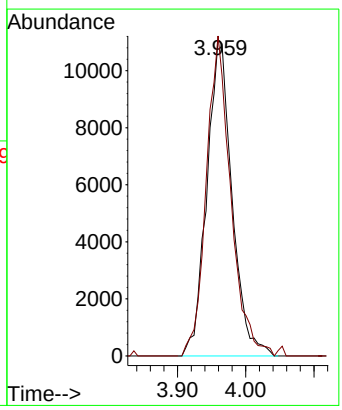
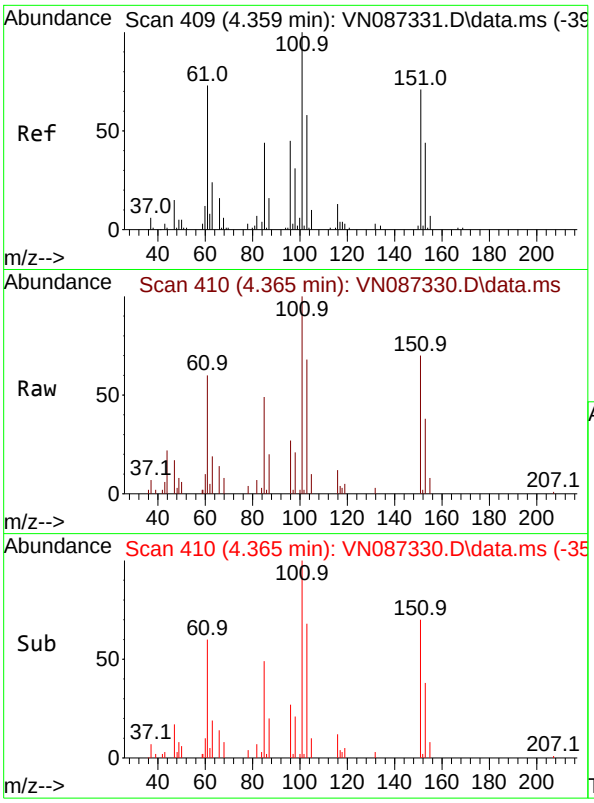


#8
Diethyl Ether
Concen: 20.984 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 74 Resp: 28520

Ion	Ratio	Lower	Upper
74	100		
45	98.3	50.8	152.5





#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.414 ug/l
RT: 4.365 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:101 Resp: 3851

Ion	Ratio	Lower	Upper
101	100		
85	44.0	37.3	55.9
151	69.3	58.9	88.3

Instrument :
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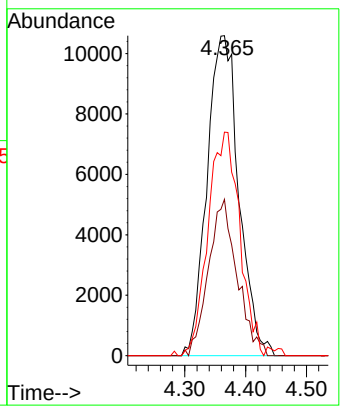
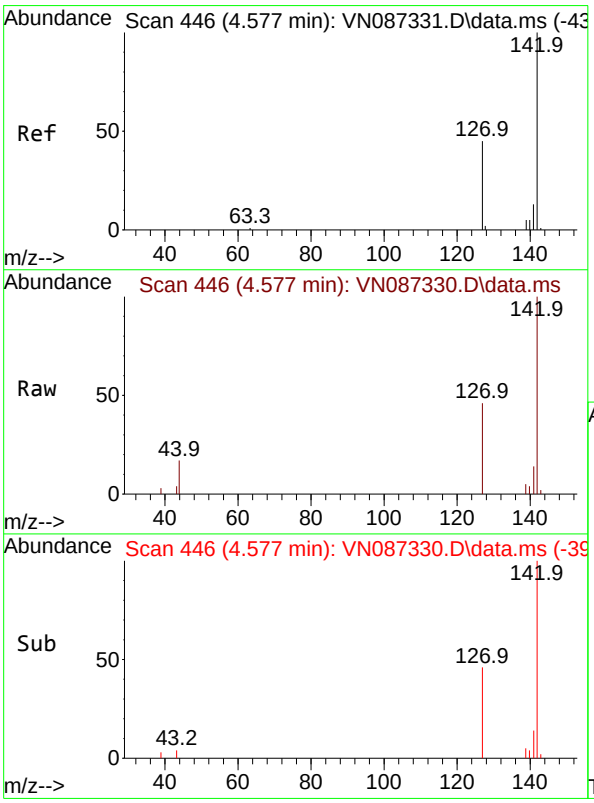
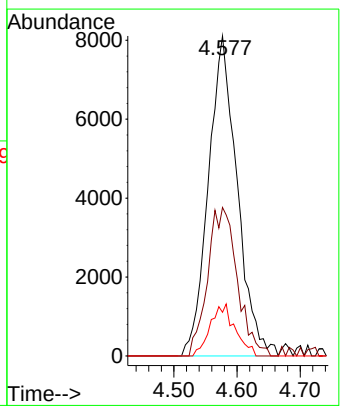


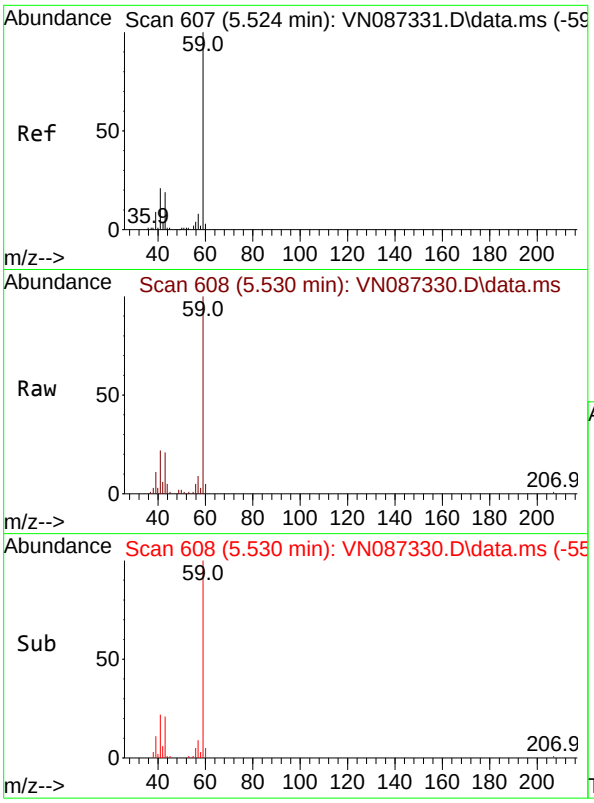


#10
Methyl Iodide
Concen: 17.955 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:142 Resp: 25698

Ion	Ratio	Lower	Upper
142	100		
127	46.4	35.7	53.5
141	13.7	10.4	15.6

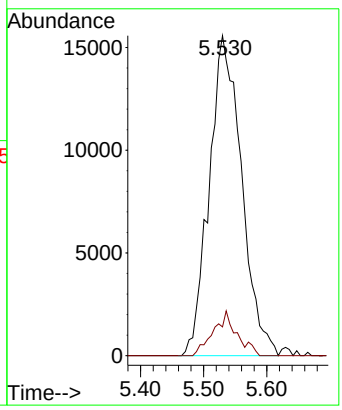




#11
Tert butyl alcohol
Concen: 96.147 ug/l
RT: 5.530 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 59 Resp: 5529

Ion	Ratio	Lower	Upper
59	100		
57	10.1	8.3	12.5



Instrument :
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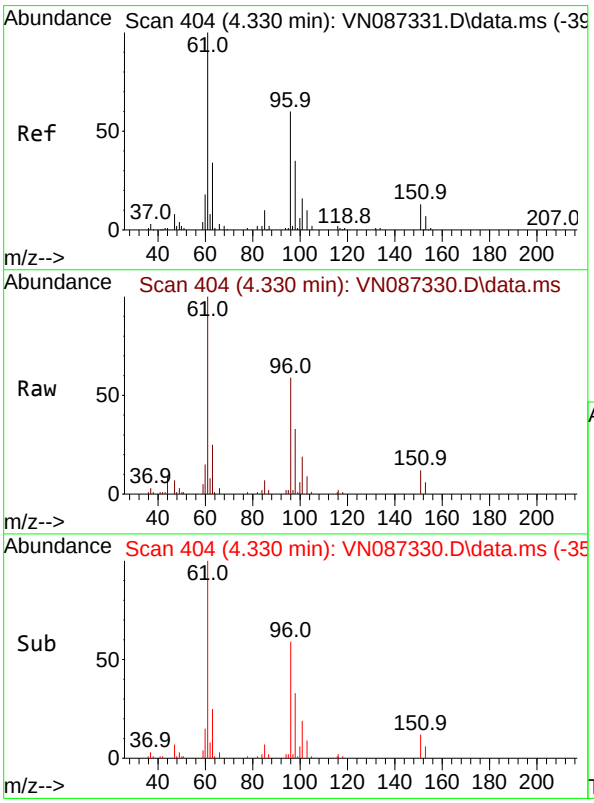
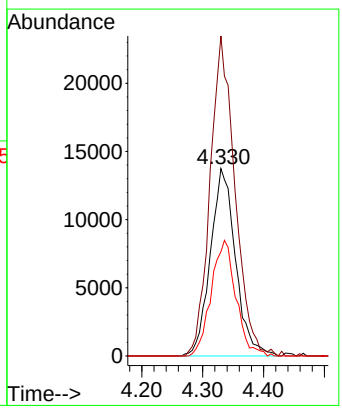
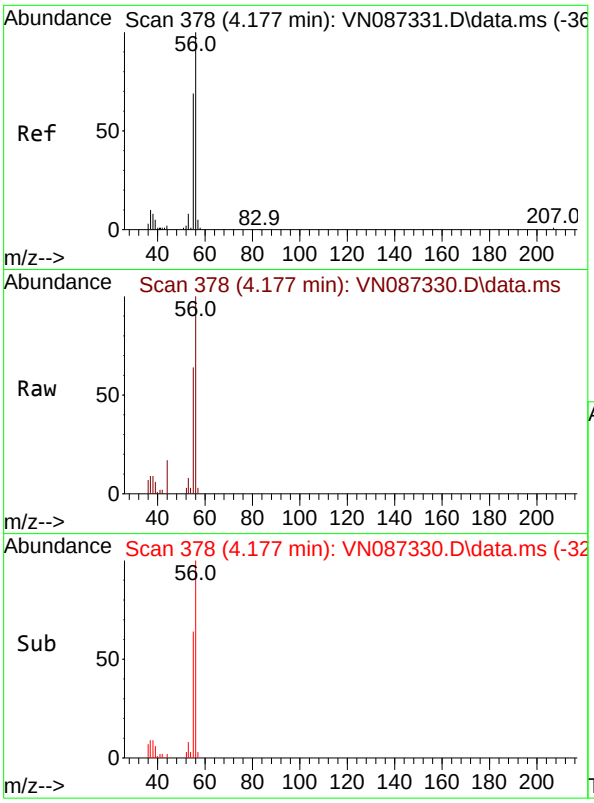


#12
1,1-Dichloroethene
Concen: 19.370 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 96 Resp: 39480

Ion	Ratio	Lower	Upper
96	100		
61	170.8	132.3	198.5
98	55.6	46.8	70.2

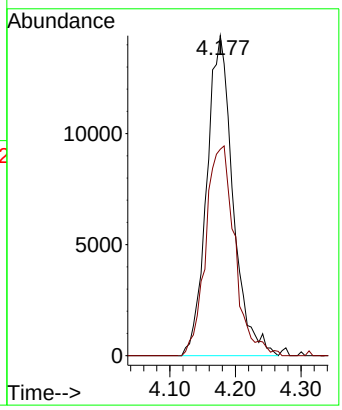




#13
Acrolein
Concen: 86.954 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 56 Resp: 4013

Ion	Ratio	Lower	Upper
56	100		
55	72.2	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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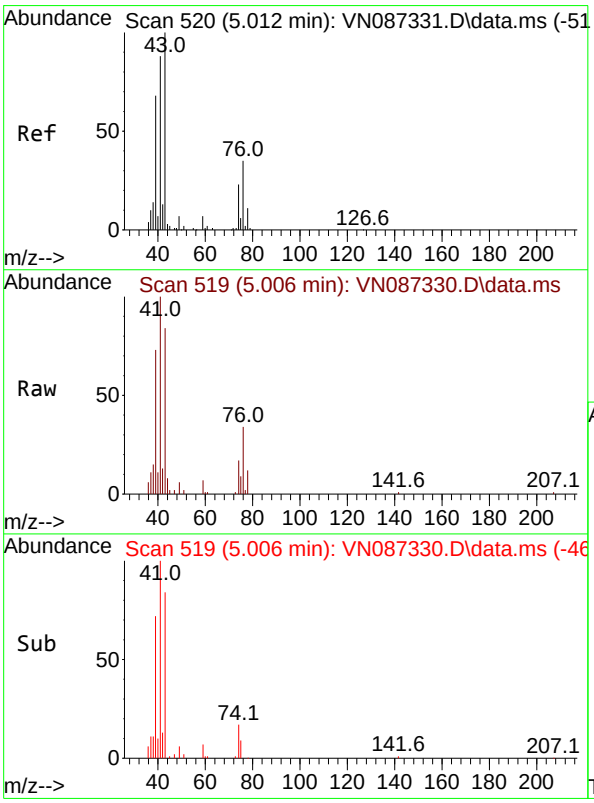
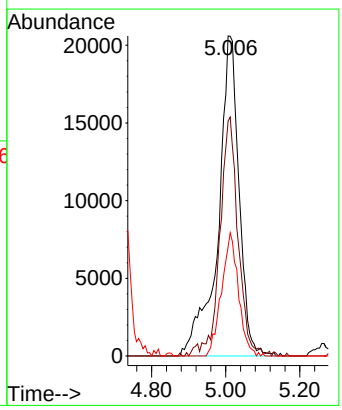
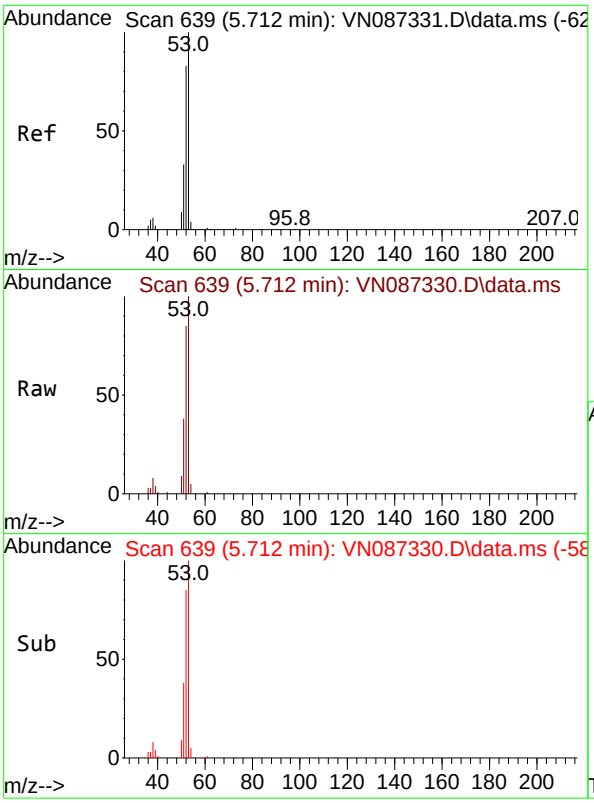


#14
Allyl chloride
Concen: 21.955 ug/l
RT: 5.006 min Scan# 519
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 41 Resp: 80983

Ion	Ratio	Lower	Upper
41	100		
39	62.3	59.0	88.6
76	31.0	28.7	43.1

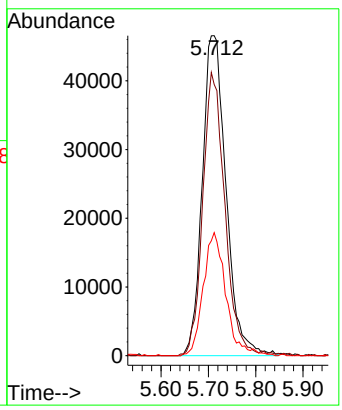




#15
Acrylonitrile
Concen: 104.007 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 53 Resp: 16232

Ion	Ratio	Lower	Upper
53	100		
52	81.8	65.5	98.3
51	36.7	28.7	43.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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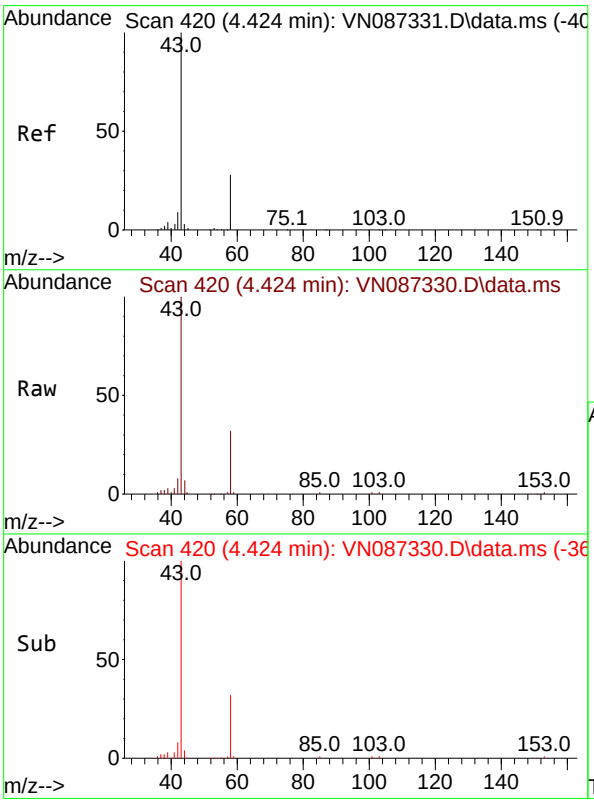
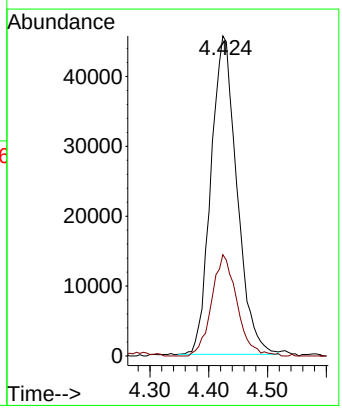
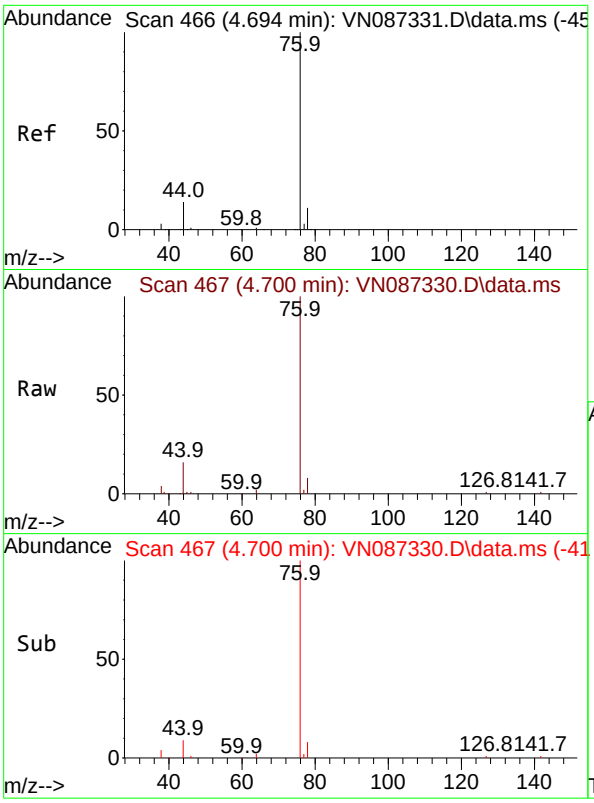


#16
Acetone
Concen: 97.607 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 140161

Ion	Ratio	Lower	Upper
43	100		
58	31.8	22.3	33.5





#17
Carbon Disulfide
Concen: 19.725 ug/l
RT: 4.700 min Scan# 4(
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 76 Resp: 11919

Ion	Ratio	Lower	Upper
76	100		
78	8.2	8.6	13.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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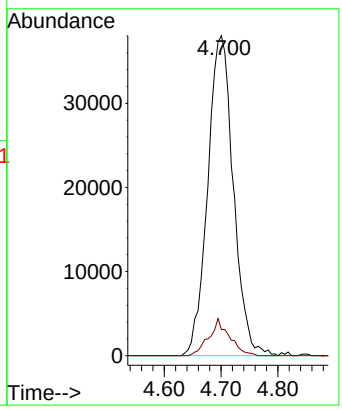
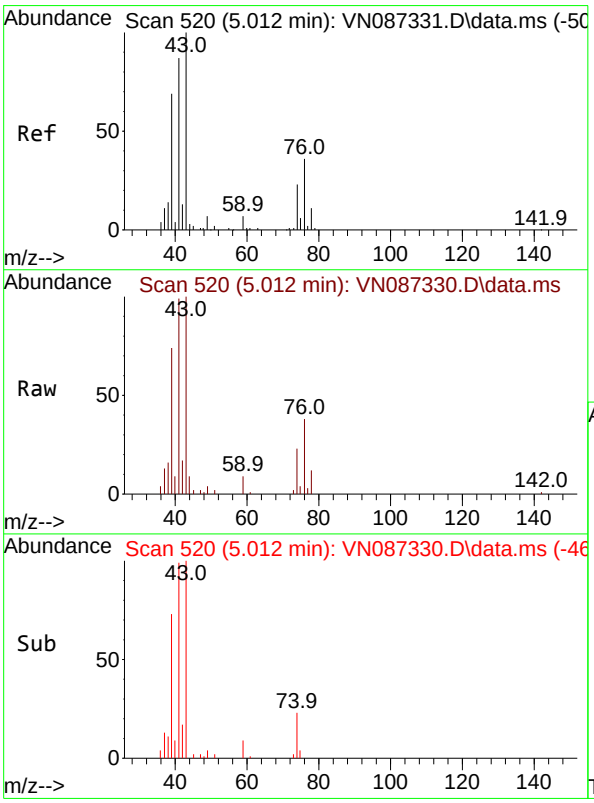
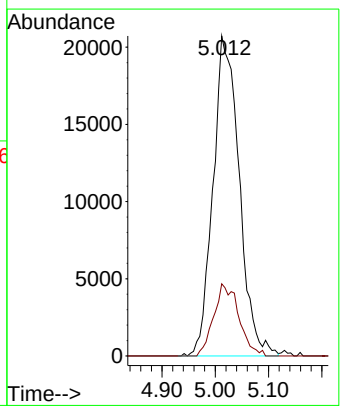


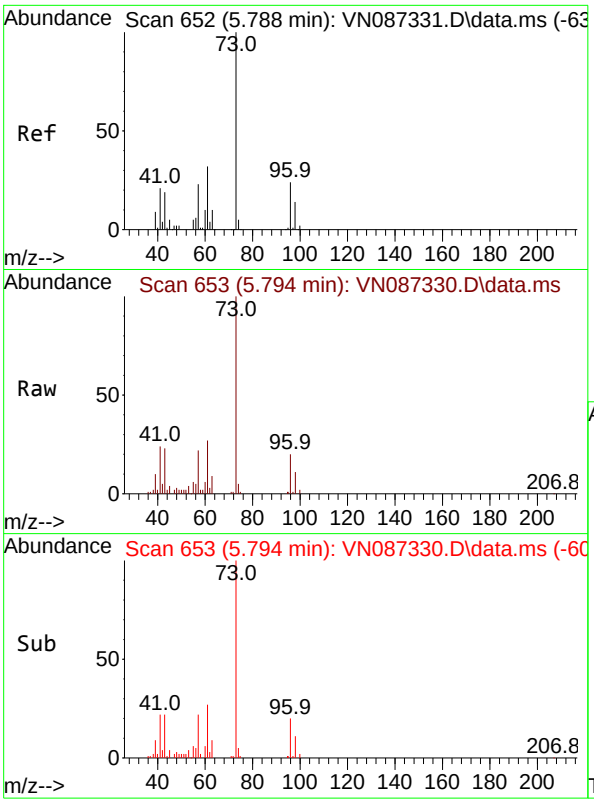


#18
Methyl Acetate
Concen: 19.824 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 70735

Ion	Ratio	Lower	Upper
43	100		
74	21.6	17.8	26.6





#19
Methyl tert-butyl Ether
Concen: 20.018 ug/l
RT: 5.794 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 73 Resp: 15038

Ion	Ratio	Lower	Upper
73	100		
57	21.5	18.6	27.8

Instrument :
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ClientSampleId :
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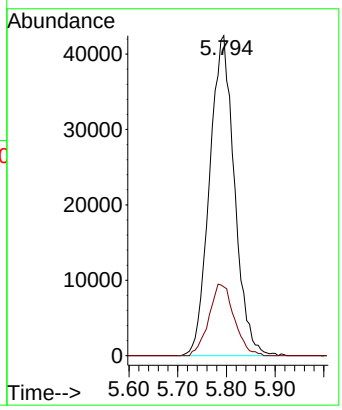
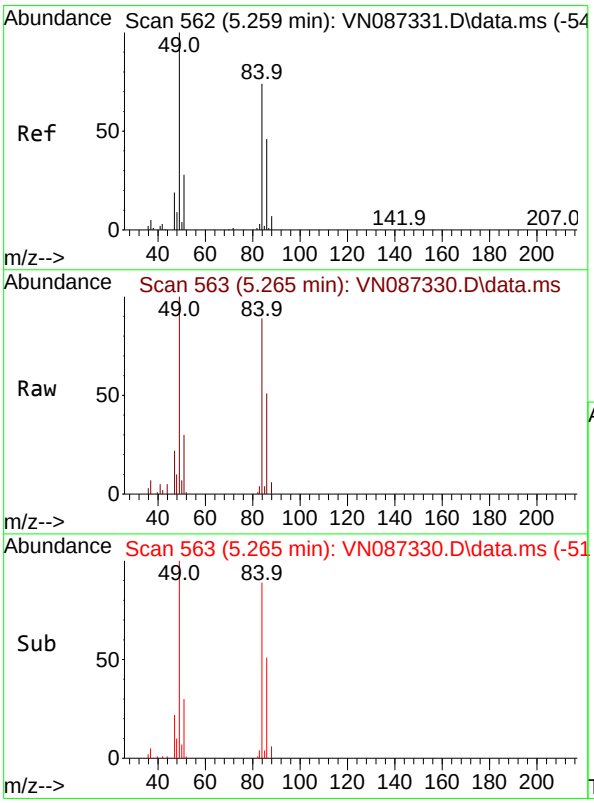
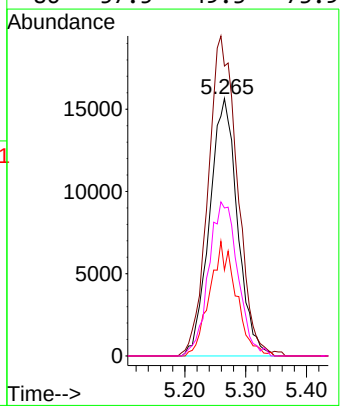


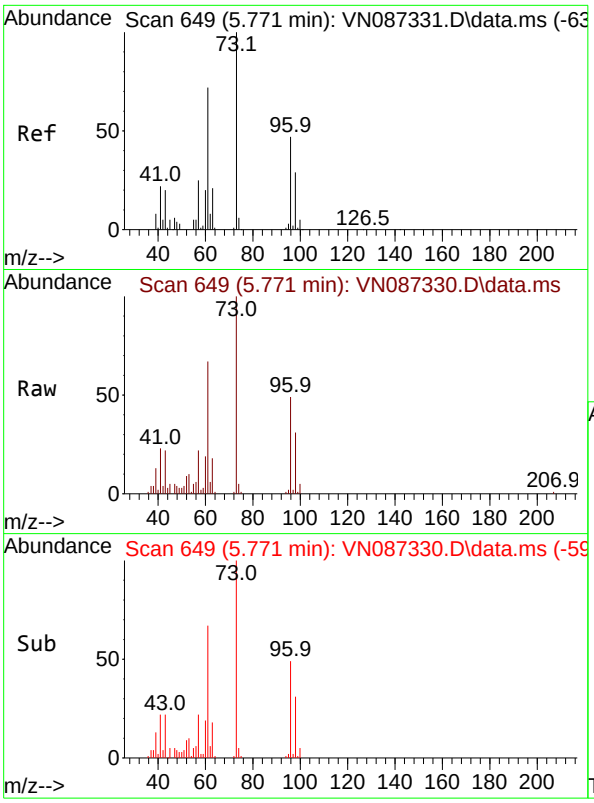


#20
Methylene Chloride
Concen: 20.427 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 84 Resp: 49951

Ion	Ratio	Lower	Upper
84	100		
49	112.6	107.5	161.3
51	33.4	30.2	45.2
86	57.5	49.3	73.9

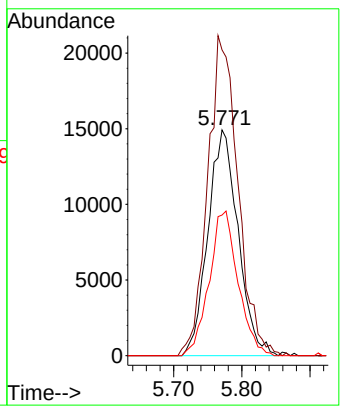




#21
trans-1,2-Dichloroethene
Concen: 19.980 ug/l
RT: 5.771 min Scan# 64
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 96 Resp: 4591

Ion	Ratio	Lower	Upper
96	100		
61	135.4	122.0	183.0
98	62.3	50.0	75.0



Instrument :
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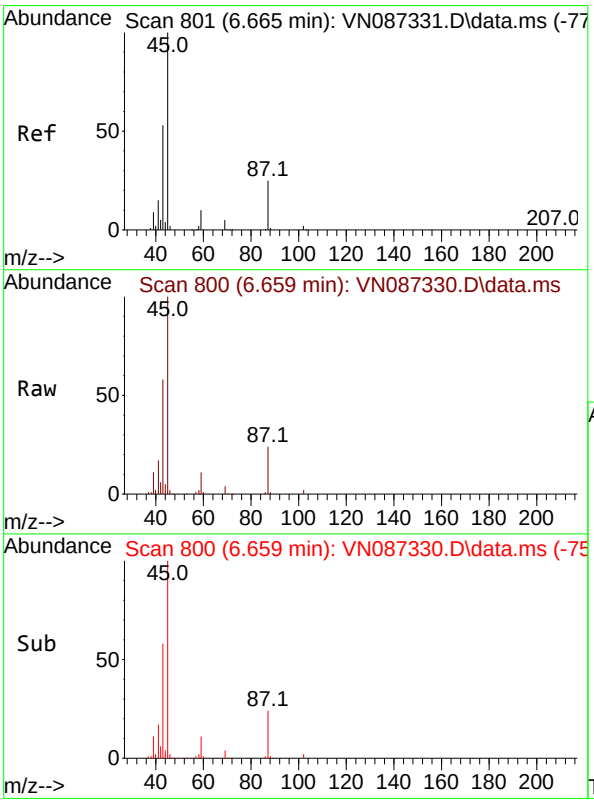
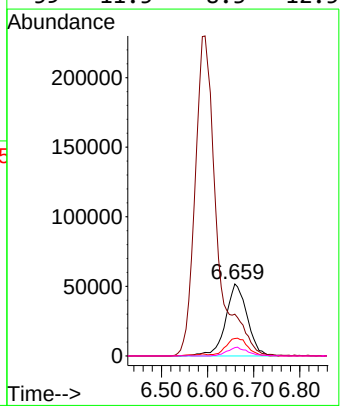
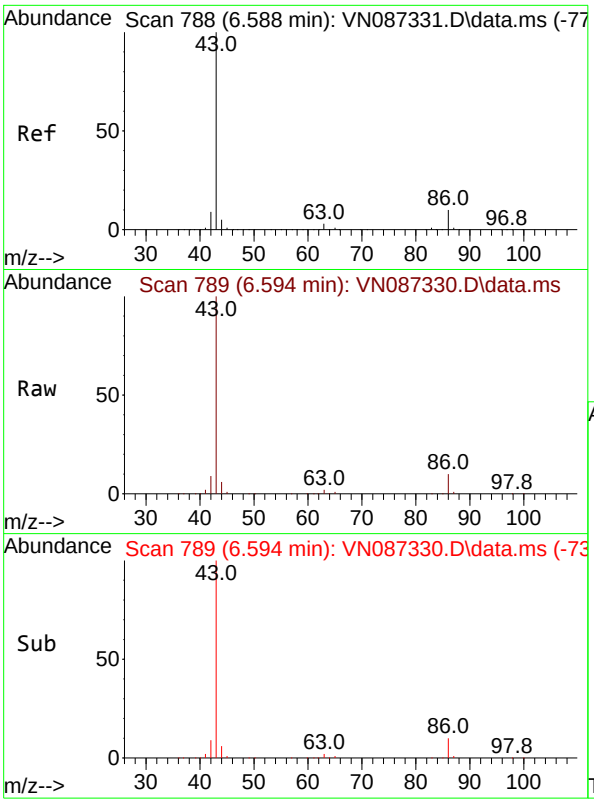


#22
Diisopropyl ether
Concen: 21.719 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 45 Resp: 168043

Ion	Ratio	Lower	Upper
45	100		
43	56.8	42.8	64.2
87	24.3	19.8	29.6
59	11.5	8.3	12.5





#23
Vinyl Acetate
Concen: 110.863 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 75020

Ion	Ratio	Lower	Upper
43	100		
86	10.4	7.7	11.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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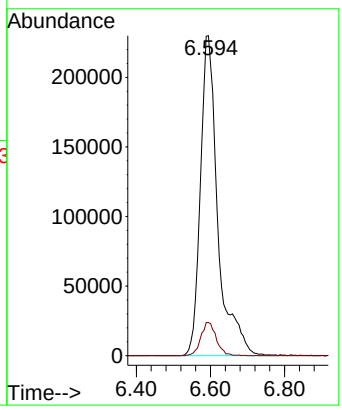
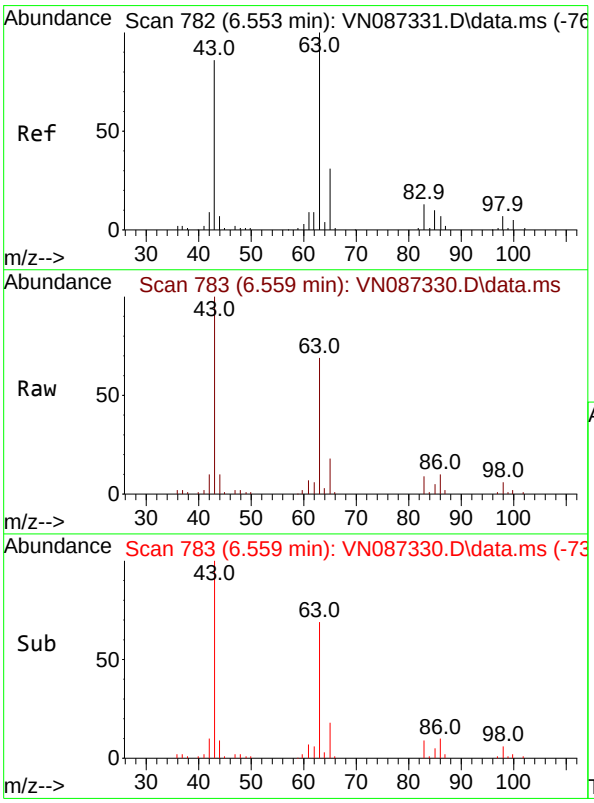
Supervised By :Semsettin Yesilyurt 07/17/2025

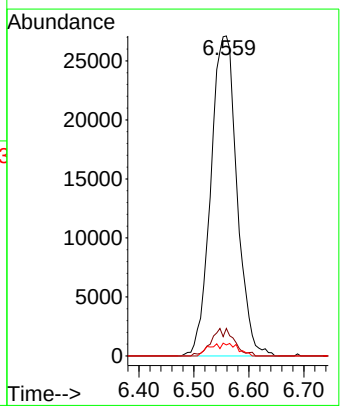


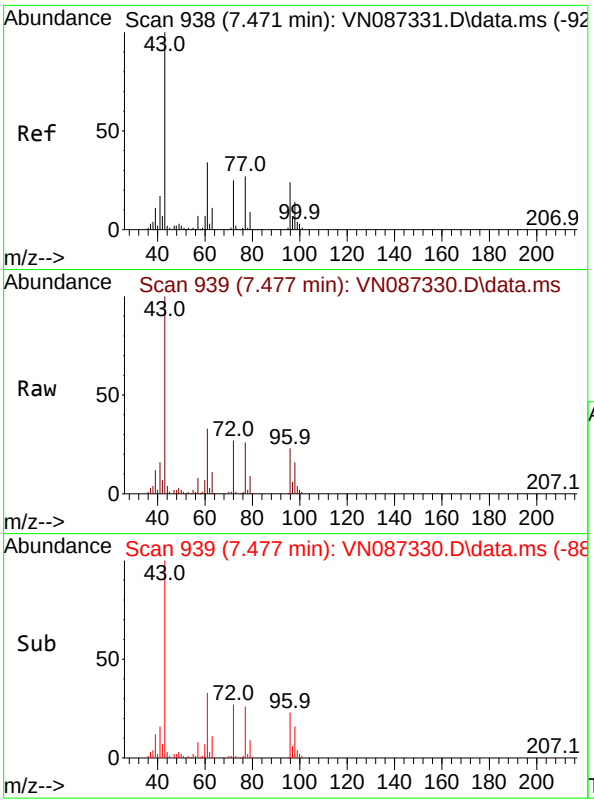


#24
1,1-Dichloroethane
Concen: 20.062 ug/l
RT: 6.559 min Scan# 783
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 63 Resp: 89552

Ion	Ratio	Lower	Upper
63	100		
98	8.6	3.3	9.9
100	3.4	2.5	7.4

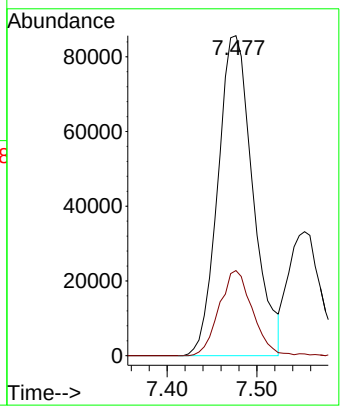




#25
2-Butanone
Concen: 105.718 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 23198

Ion	Ratio	Lower	Upper
43	100		
72	26.6	19.6	29.4



Instrument :
MSVOA_N
ClientSampleId :
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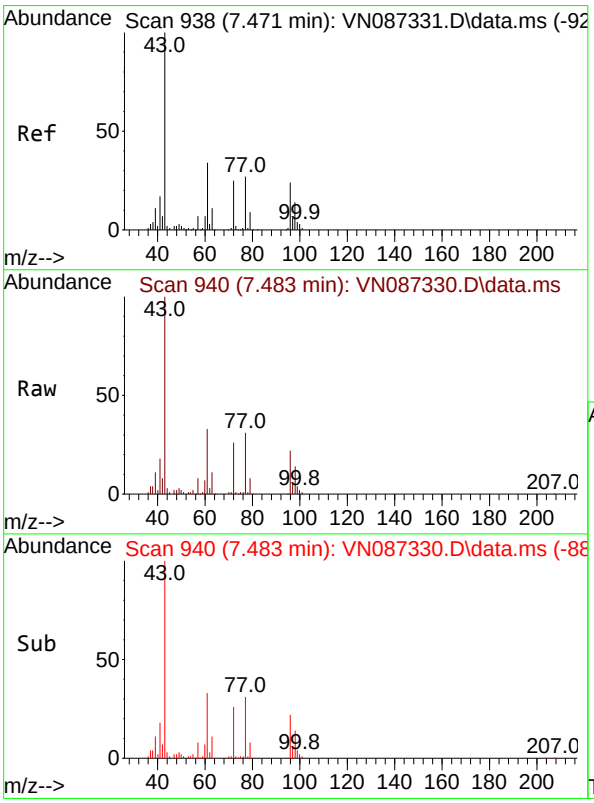
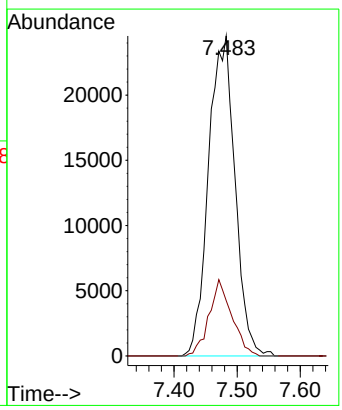
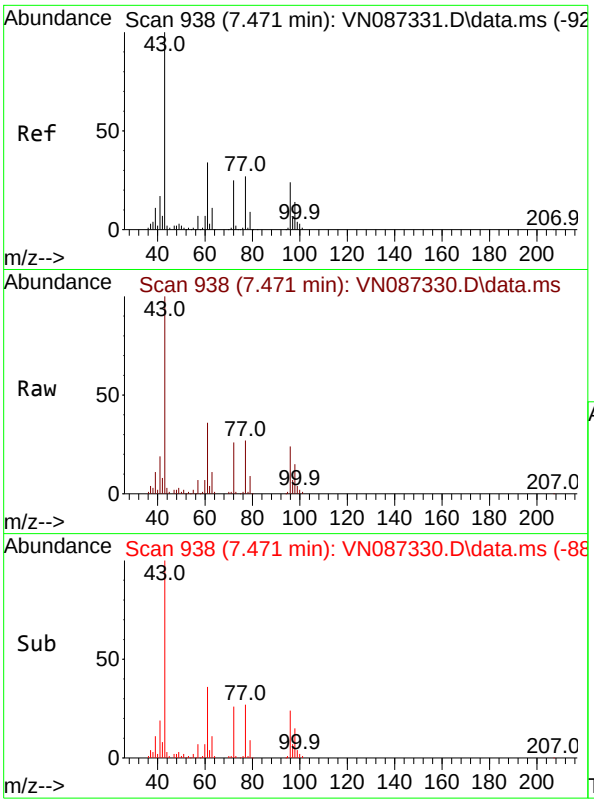


#26
2,2-Dichloropropane
Concen: 20.596 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.012 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 77 Resp: 71478

Ion	Ratio	Lower	Upper
77	100		
97	20.5	11.1	33.1





#27
cis-1,2-Dichloroethene
Concen: 20.162 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 96 Resp: 5334

Ion	Ratio	Lower	Upper
96	100		
61	151.5	0.0	297.8
98	67.4	0.0	132.4

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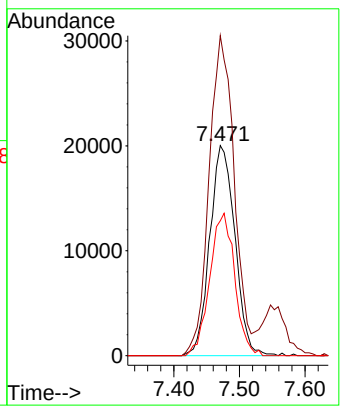
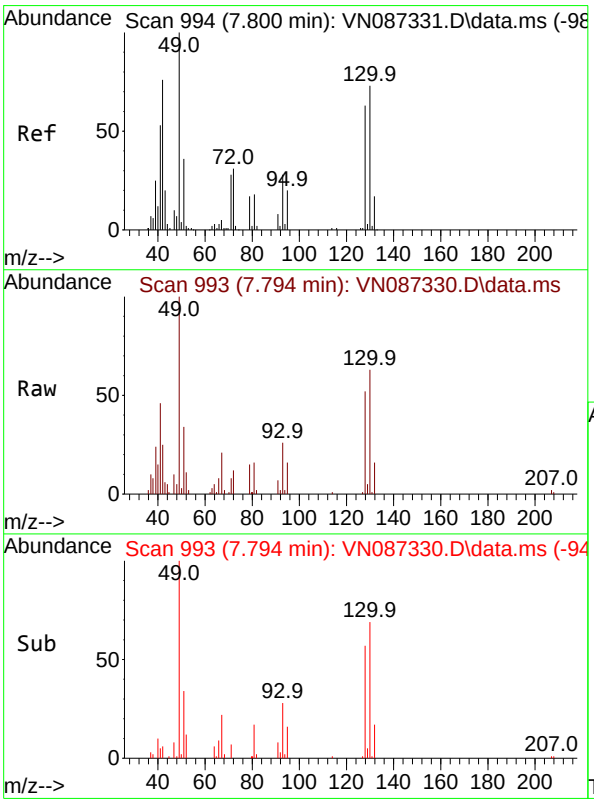
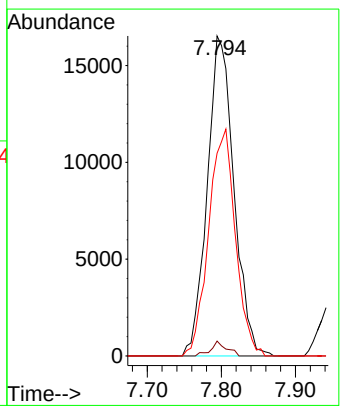


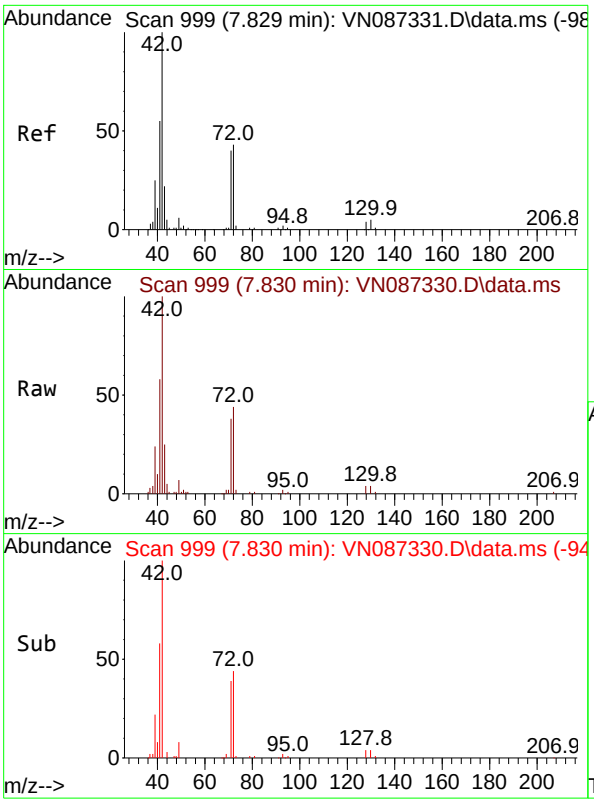


#28
Bromochloromethane
Concen: 19.325 ug/l
RT: 7.794 min Scan# 993
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 49 Resp: 41285

Ion	Ratio	Lower	Upper
49	100		
129	2.7	0.0	4.2
130	71.2	57.3	85.9

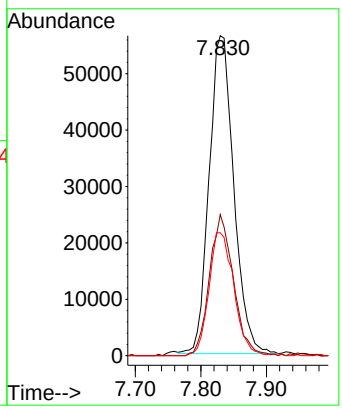




#29
Tetrahydrofuran
Concen: 103.426 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 42 Resp: 14743

Ion	Ratio	Lower	Upper
42	100		
72	43.1	33.4	50.0
71	39.0	31.2	46.8



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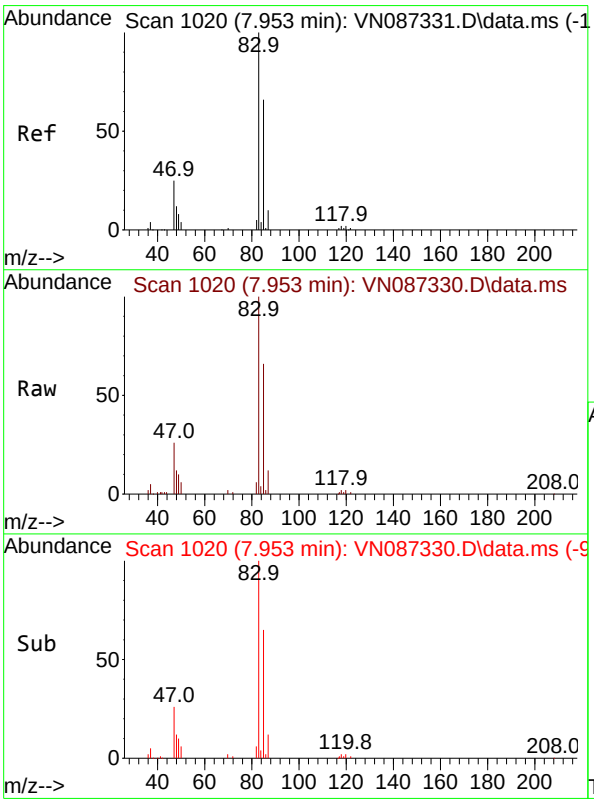
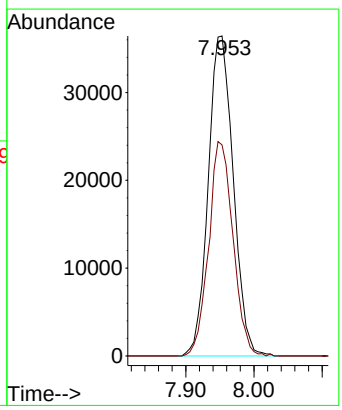
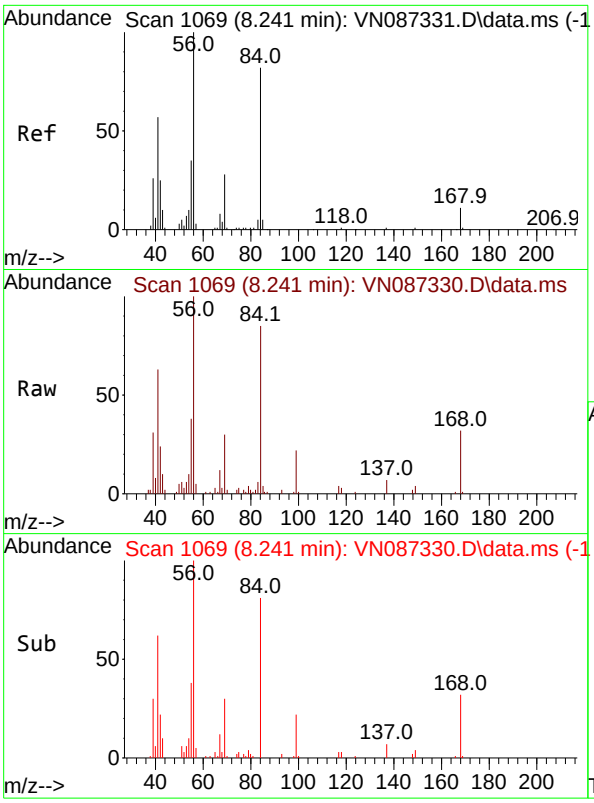


#30
Chloroform
Concen: 20.819 ug/l
RT: 7.953 min Scan# 1020
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 83 Resp: 93018

Ion	Ratio	Lower	Upper
83	100		
85	66.0	52.7	79.1

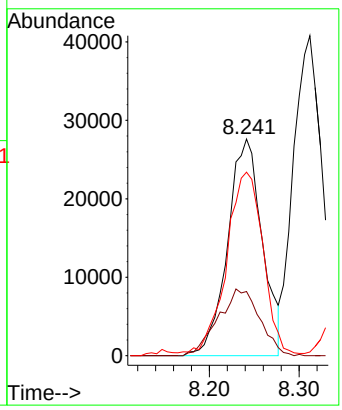




#31
Cyclohexane
Concen: 19.915 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 56 Resp: 7416

Ion	Ratio	Lower	Upper
56	100		
69	29.6	22.7	34.1
84	83.3	65.8	98.6



Instrument :
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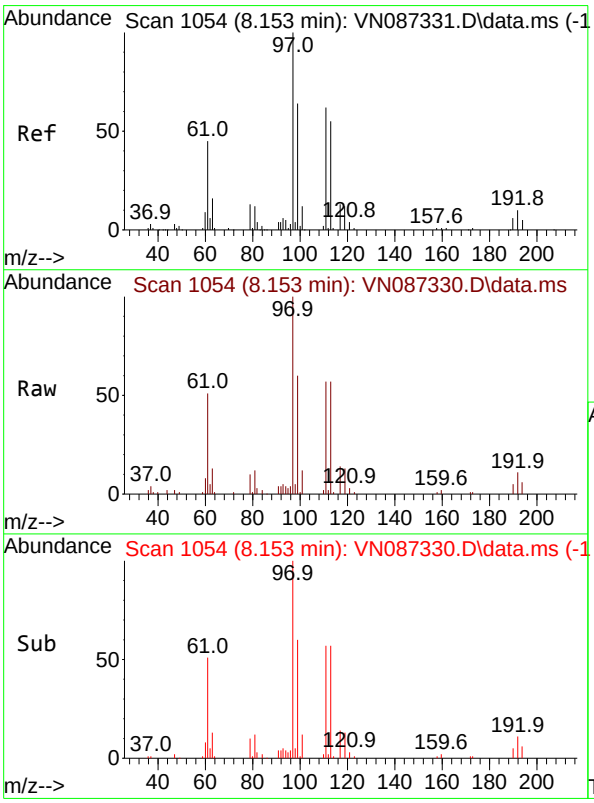
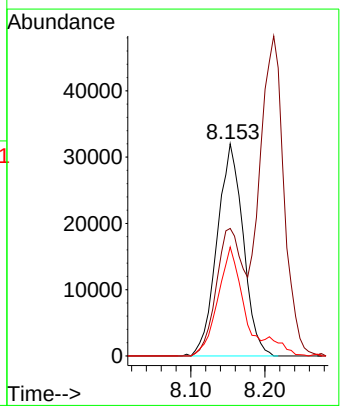
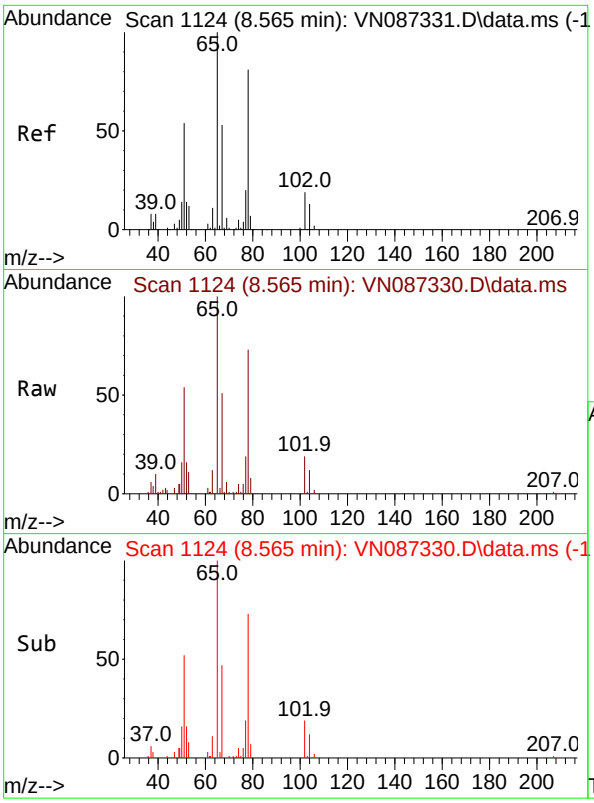


#32
1,1,1-Trichloroethane
Concen: 20.217 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 97 Resp: 78235

Ion	Ratio	Lower	Upper
97	100		
99	62.3	51.8	77.8
61	49.8	38.7	58.1

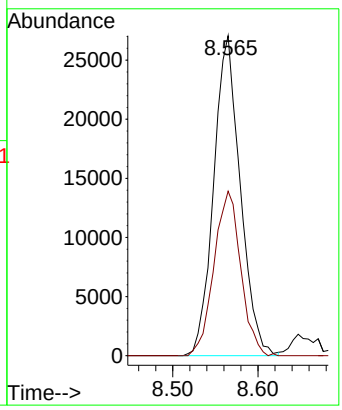




#33
1,2-Dichloroethane-d4
Concen: 19.341 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 65 Resp: 5858

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	104.0



Instrument :
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ClientSampleId :
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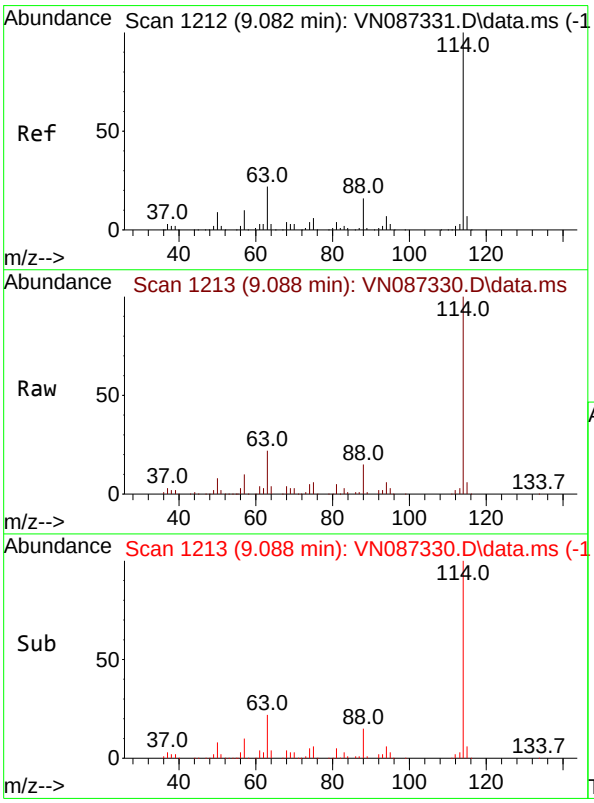
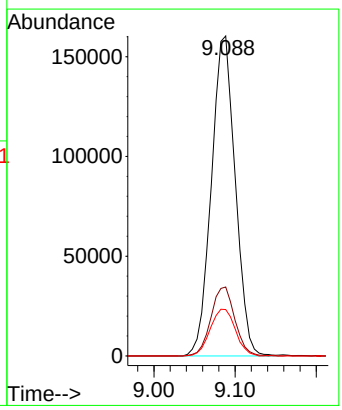
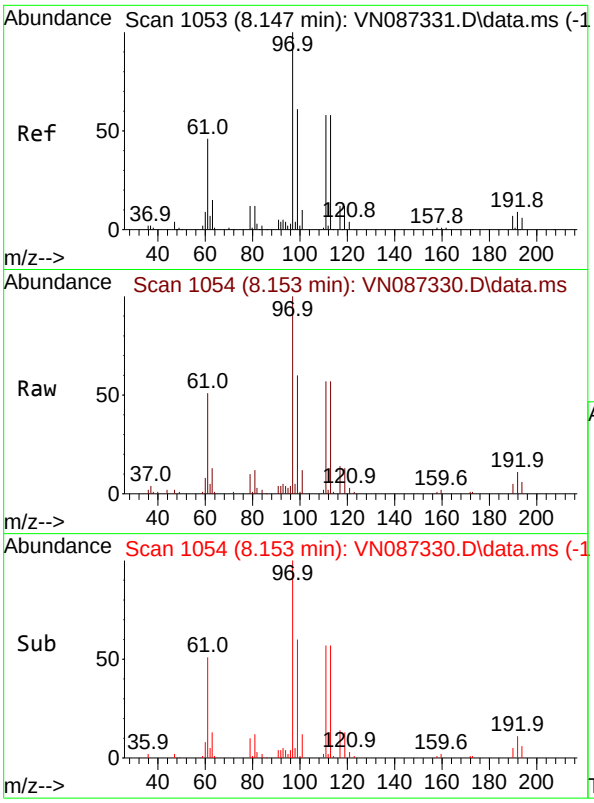


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.088 min Scan# 1213
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:114 Resp: 328159

Ion	Ratio	Lower	Upper
114	100		
63	21.5	0.0	44.6
88	14.5	0.0	32.8

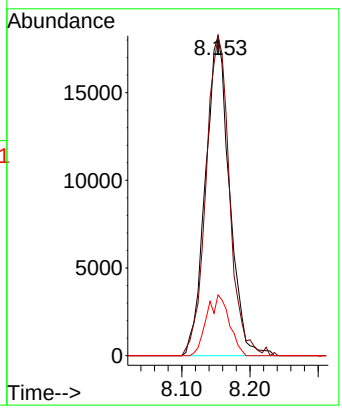




#35
Dibromofluoromethane
Concen: 19.758 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:113 Resp: 4472

Ion	Ratio	Lower	Upper
113	100		
111	97.7	82.5	123.7
192	17.8	13.7	20.5



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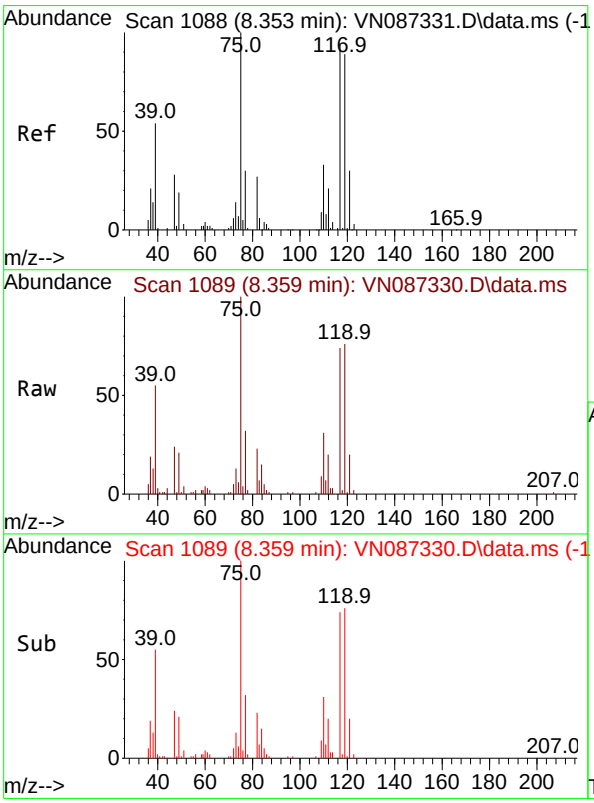
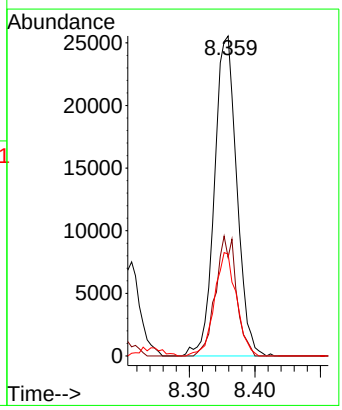
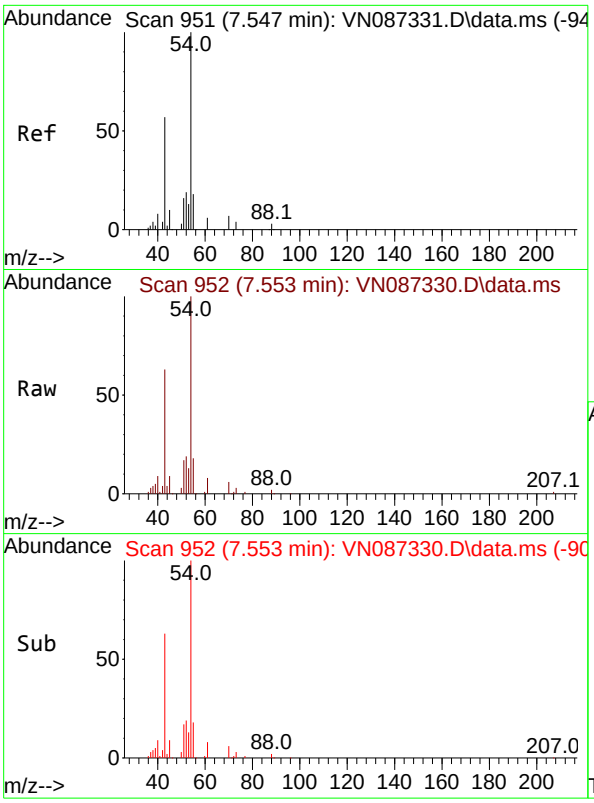


#36
1,1-Dichloropropene
Concen: 20.163 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 75 Resp: 60302

Ion	Ratio	Lower	Upper
75	100		
110	34.9	16.7	50.1
77	31.9	25.2	37.8





#37
Ethyl Acetate
Concen: 19.893 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 8592

Ion	Ratio	Lower	Upper
43	100		
61	14.0	10.9	16.3
70	10.1	7.4	11.0

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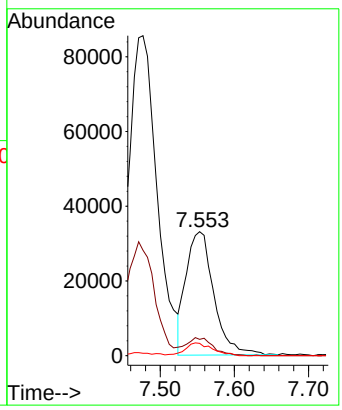
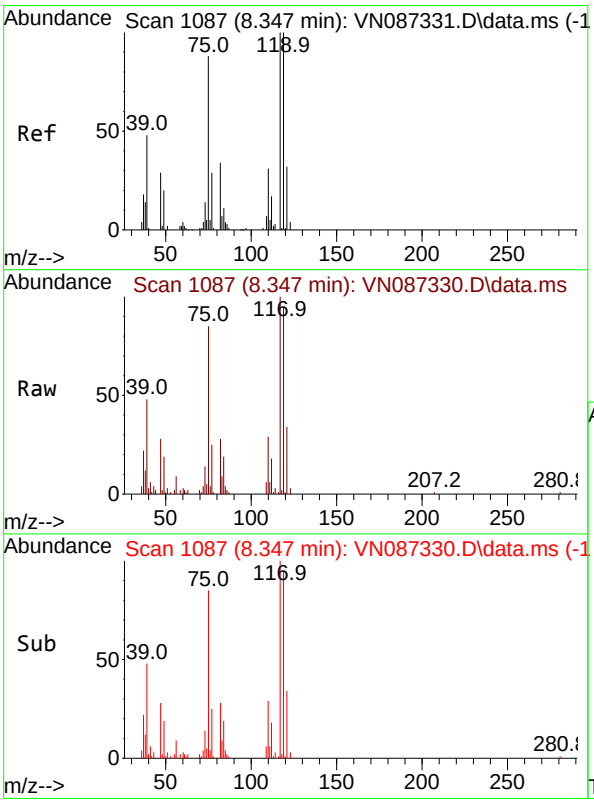
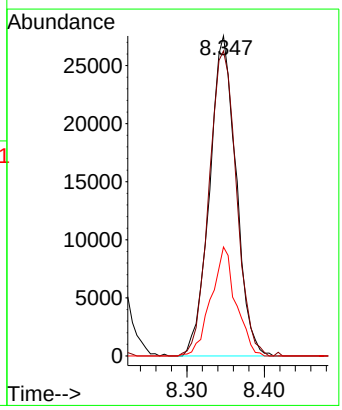


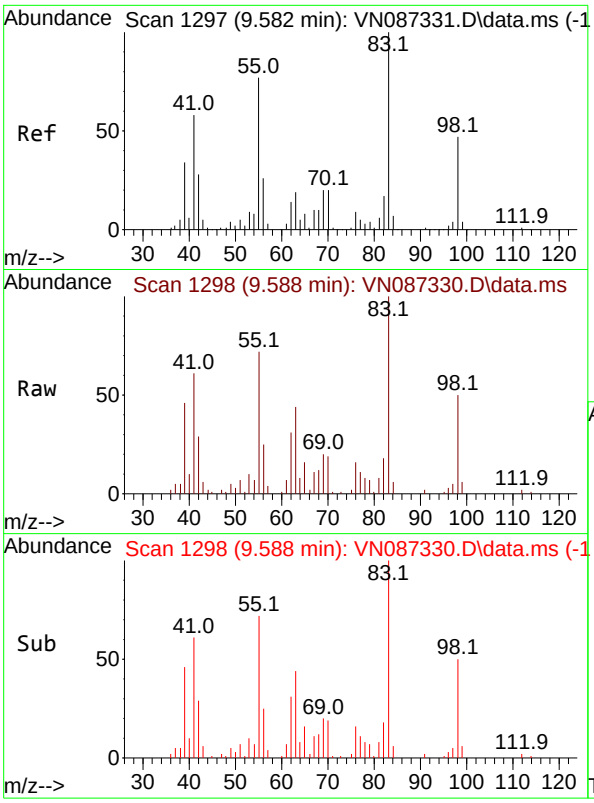


#38
Carbon Tetrachloride
Concen: 19.832 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:117 Resp: 65336

Ion	Ratio	Lower	Upper
117	100		
119	95.3	80.2	120.2
121	34.1	25.4	38.2

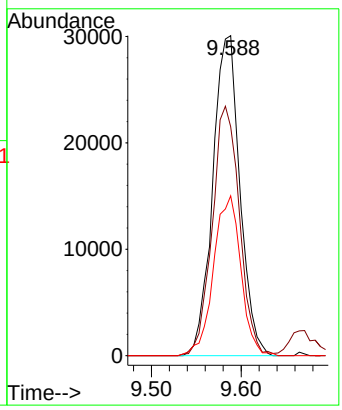




#39
Methylcyclohexane
Concen: 19.539 ug/l
RT: 9.588 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 83 Resp: 6326

Ion	Ratio	Lower	Upper
83	100		
55	71.5	61.3	91.9
98	50.0	37.9	56.9



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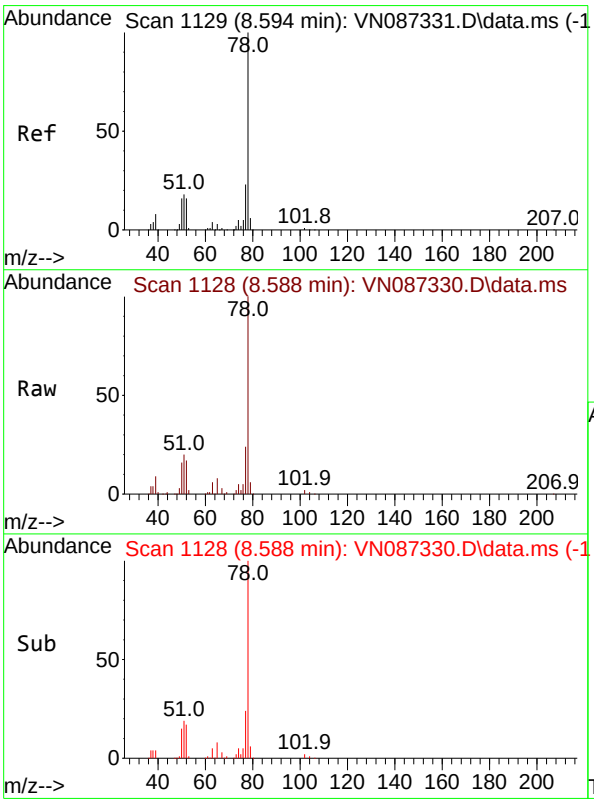
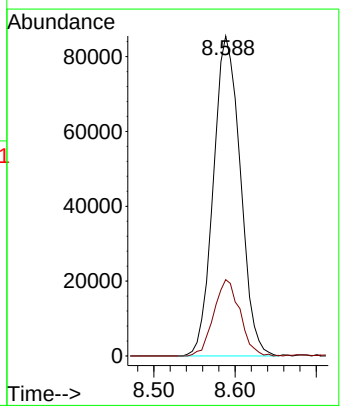
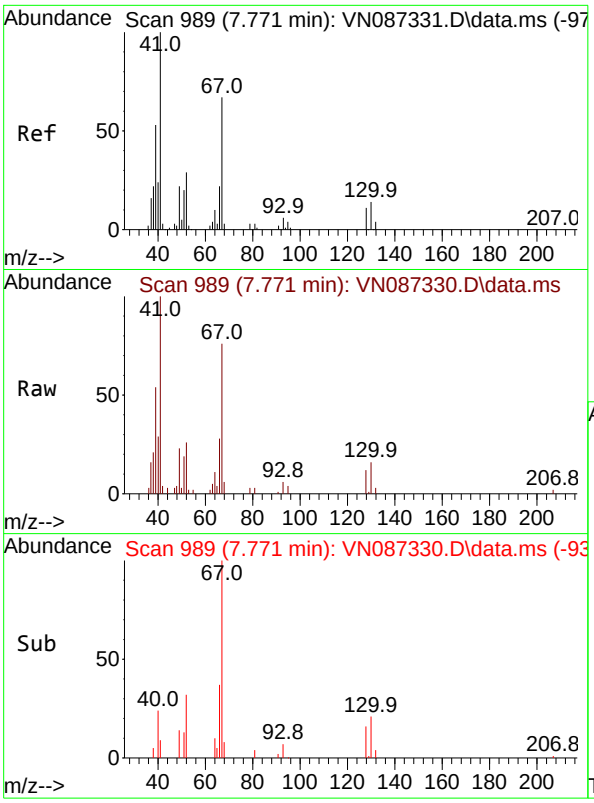


#40
Benzene
Concen: 20.400 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 78 Resp: 197187

Ion	Ratio	Lower	Upper
78	100		
77	23.9	18.2	27.2

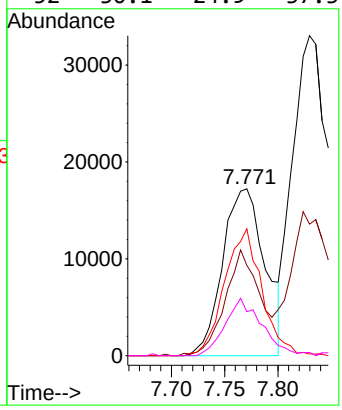




#41
Methacrylonitrile
Concen: 21.054 ug/l
RT: 7.771 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 41 Resp: 4755

Ion	Ratio	Lower	Upper
41	100		
39	51.7	43.4	65.0
67	67.2	55.1	82.7
52	30.1	24.9	37.3



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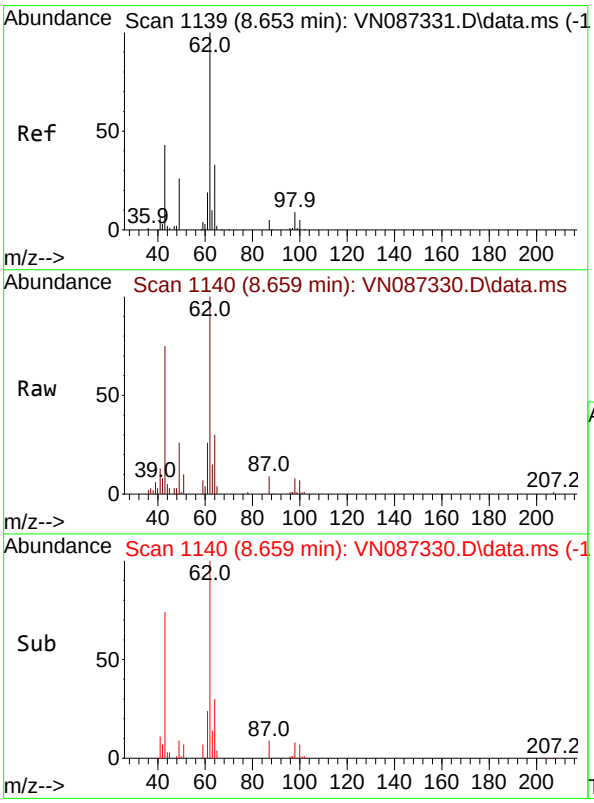
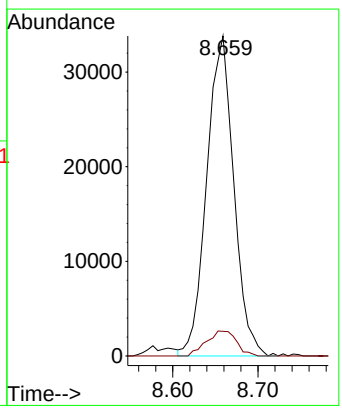
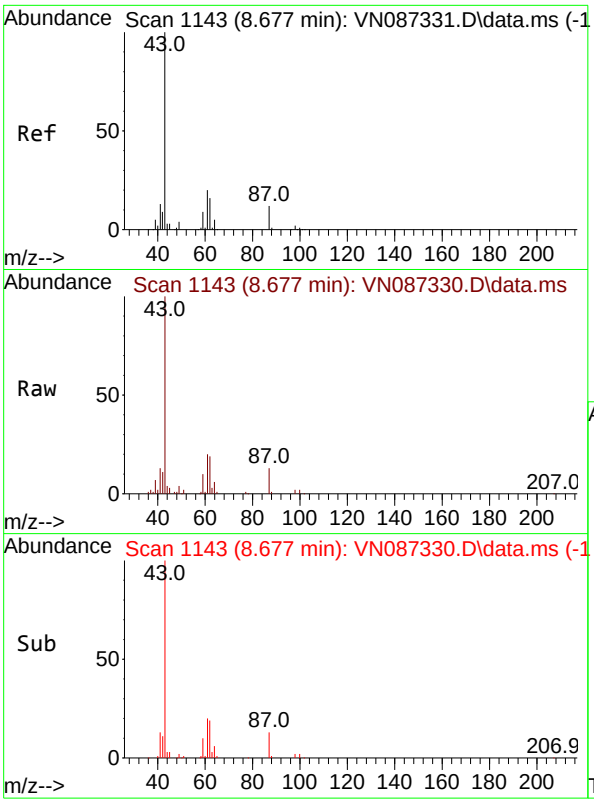


#42
1,2-Dichloroethane
Concen: 20.374 ug/l
RT: 8.659 min Scan# 1140
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 62 Resp: 74680

Ion	Ratio	Lower	Upper
62	100		
98	8.7	0.0	18.0





#43
Isopropyl Acetate
Concen: 20.136 ug/l
RT: 8.677 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 13501

Ion	Ratio	Lower	Upper
43	100		
61	25.0	19.8	29.8
87	13.2	9.8	14.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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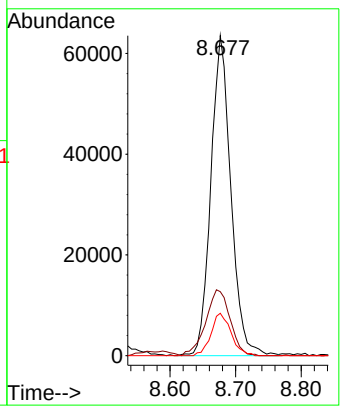
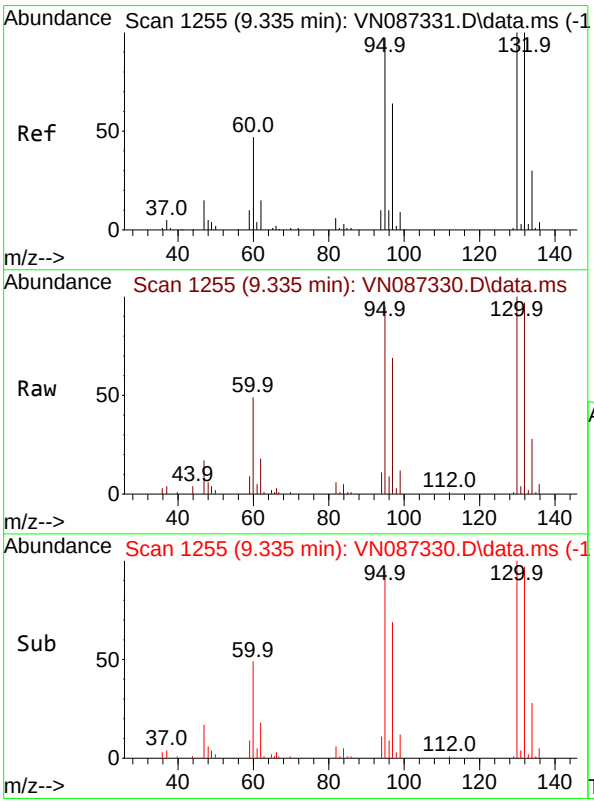
Supervised By :Semsettin Yesilyurt 07/17/2025

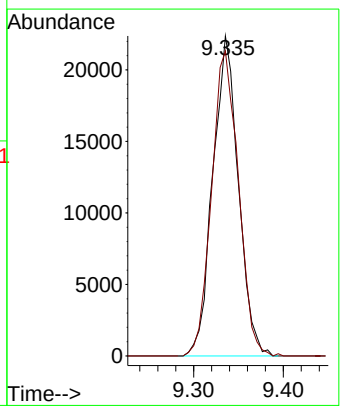


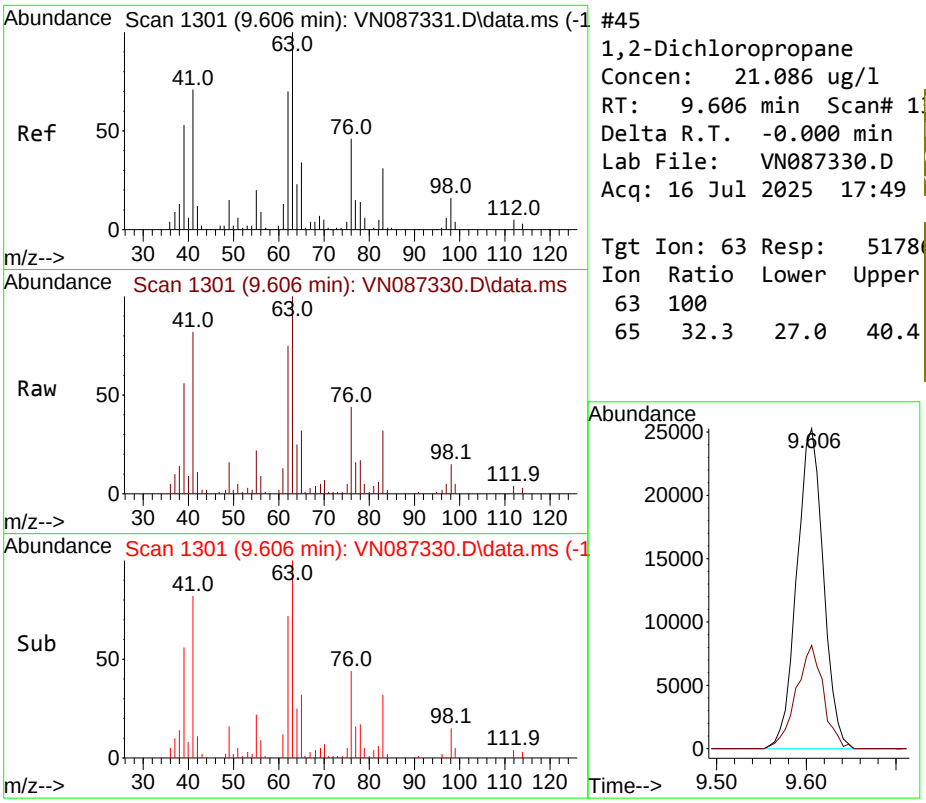


#44
Trichloroethene
Concen: 19.354 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:130 Resp: 44202

Ion	Ratio	Lower	Upper
130	100		
95	95.4	0.0	195.2





#45
1,2-Dichloropropane
Concen: 21.086 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 63 Resp: 5178

Ion	Ratio	Lower	Upper
63	100		
65	32.3	27.0	40.4

Instrument :
MSVOA_N
ClientSampleId :
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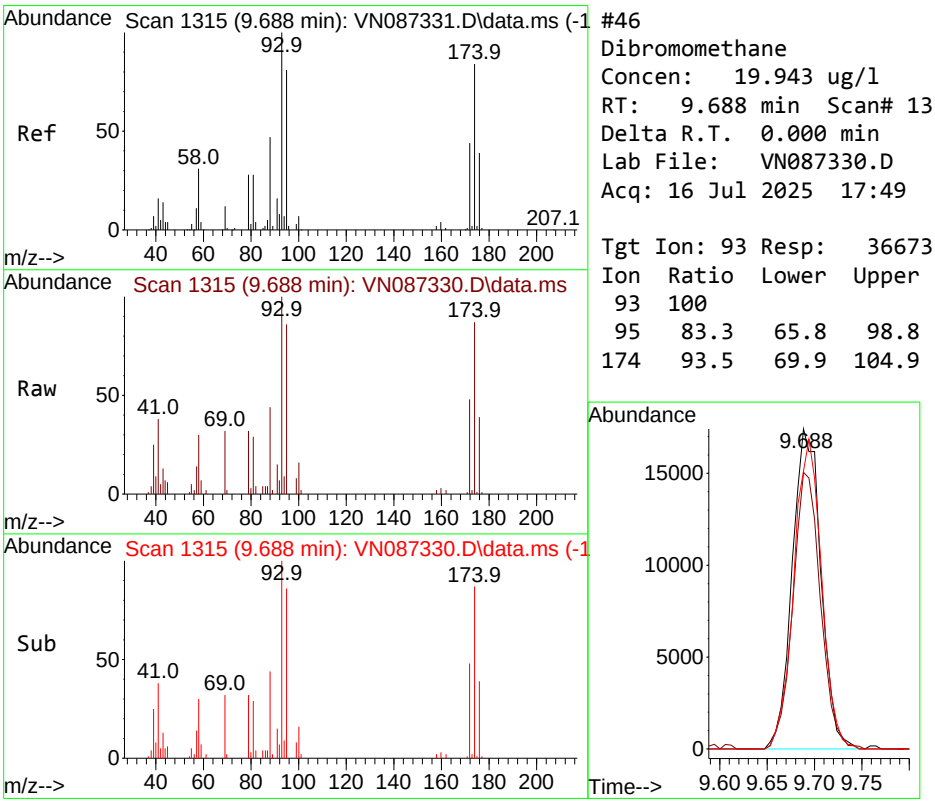
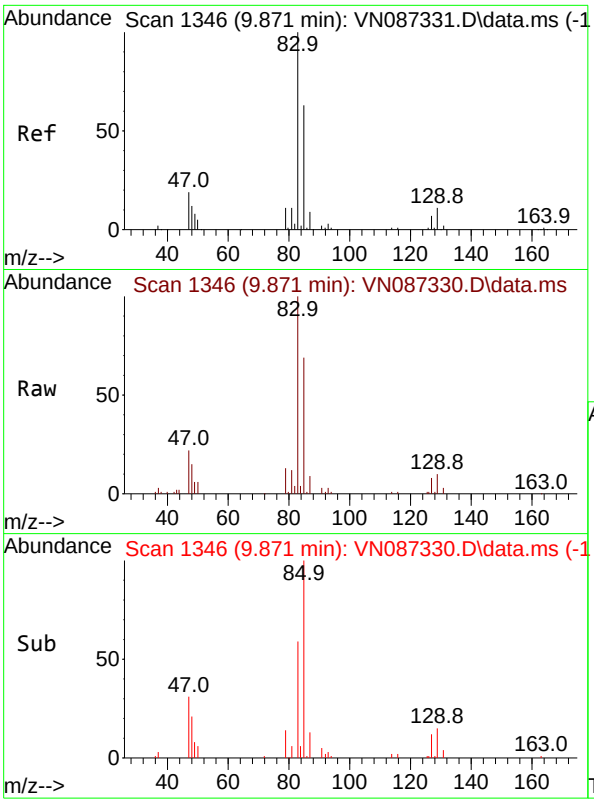


#46
Dibromomethane
Concen: 19.943 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 93 Resp: 36673

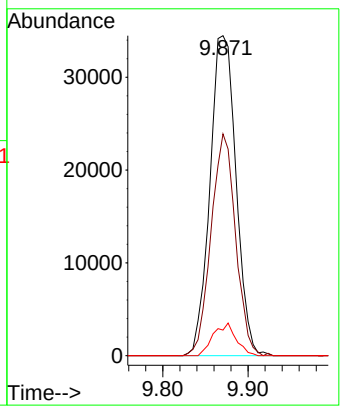
Ion	Ratio	Lower	Upper
93	100		
95	83.3	65.8	98.8
174	93.5	69.9	104.9



#47
Bromodichloromethane
Concen: 19.819 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 83 Resp: 7340

Ion	Ratio	Lower	Upper
83	100		
85	69.3	50.4	75.6
127	8.0	5.8	8.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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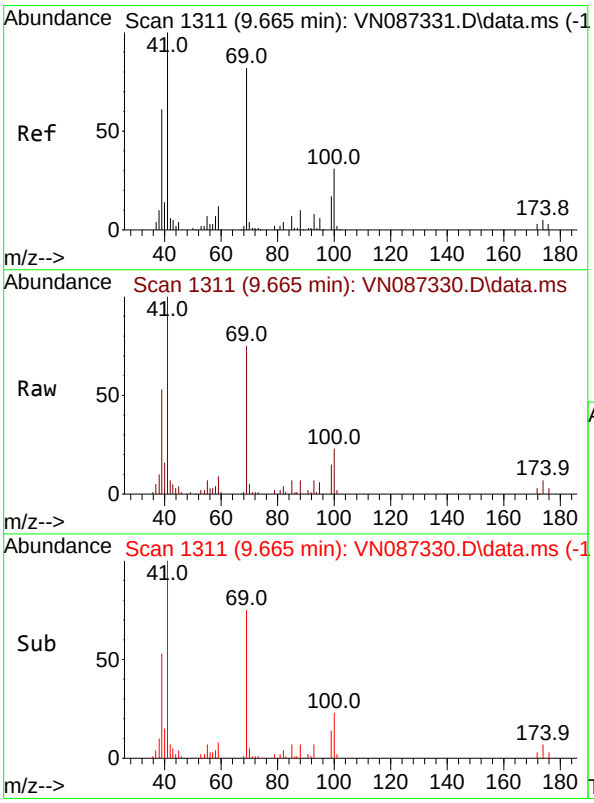
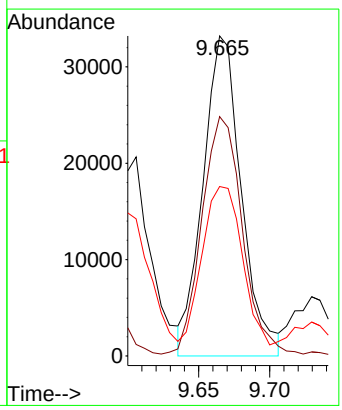
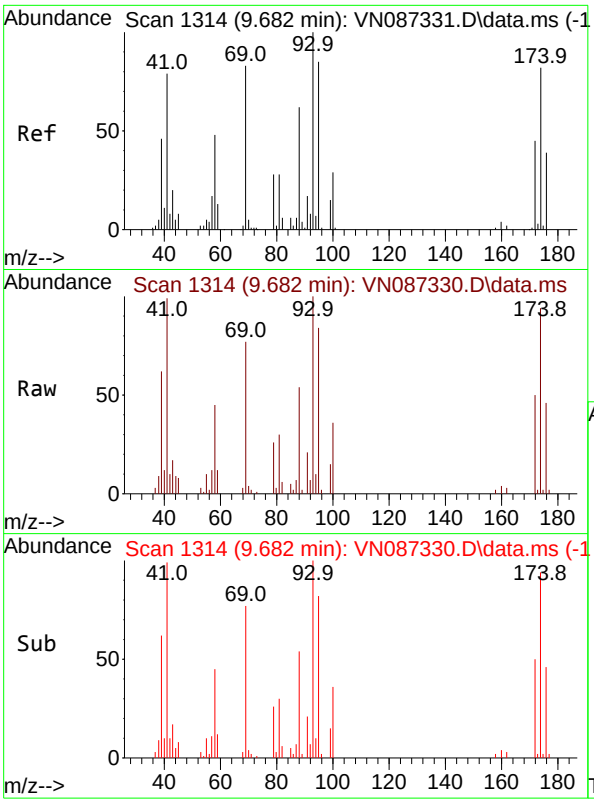


#48
Methyl methacrylate
Concen: 20.645 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 41 Resp: 62316

Ion	Ratio	Lower	Upper
41	100		
69	78.3	64.1	96.1
39	57.4	45.5	68.3

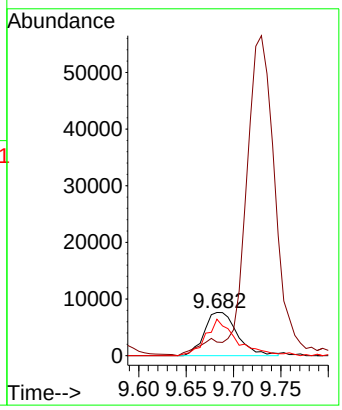




#49
1,4-Dioxane
Concen: 400.357 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 88 Resp: 1850

Ion	Ratio	Lower	Upper
88	100		
43	28.0	0.0	0.0
58	76.8	61.1	91.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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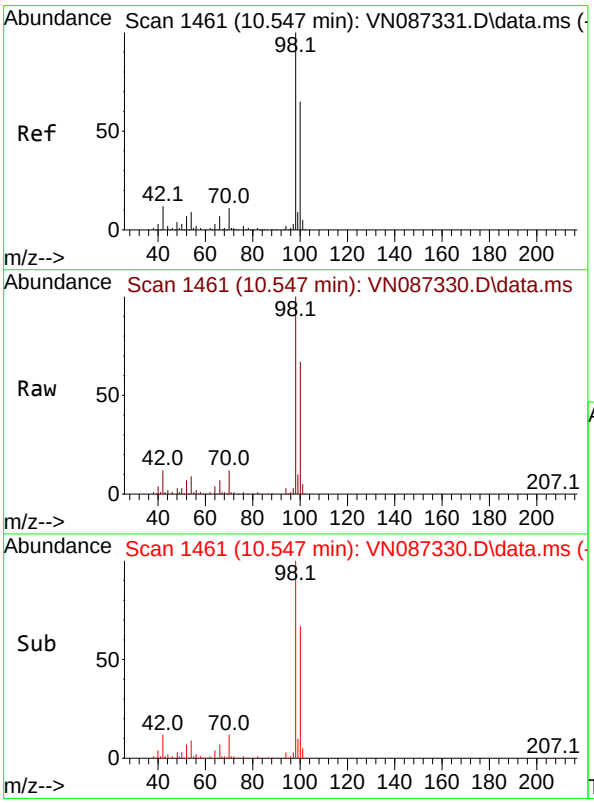
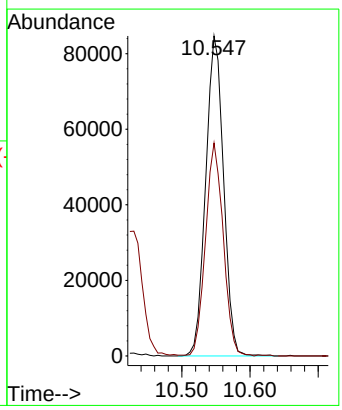
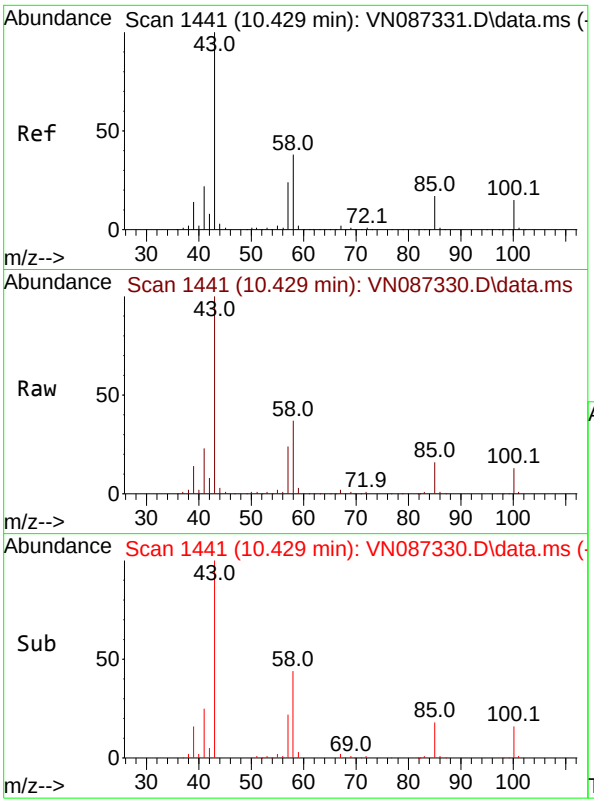


#50
Toluene-d8
Concen: 19.119 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 98 Resp: 154381

Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.1	78.1

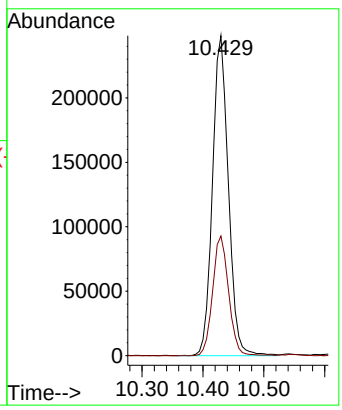




#51
4-Methyl-2-Pentanone
Concen: 106.046 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 44971

Ion	Ratio	Lower	Upper
43	100		
58	37.6	30.8	46.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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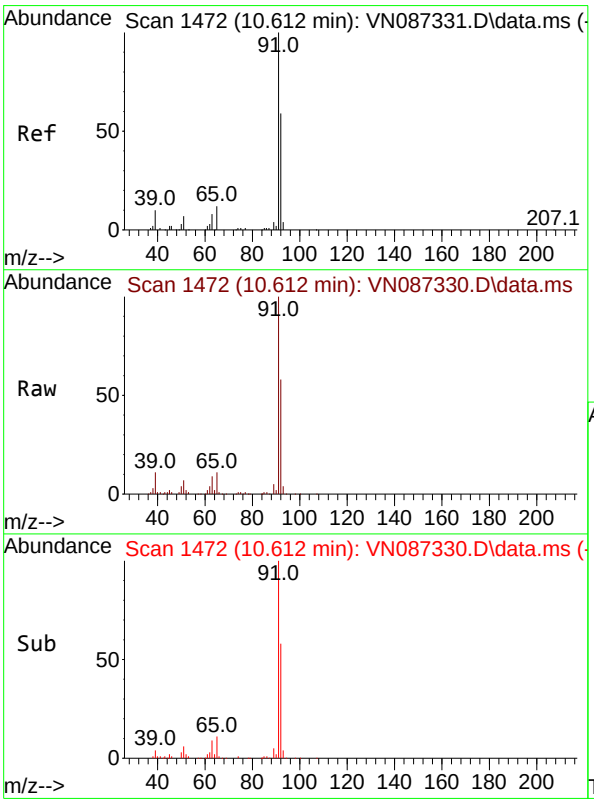
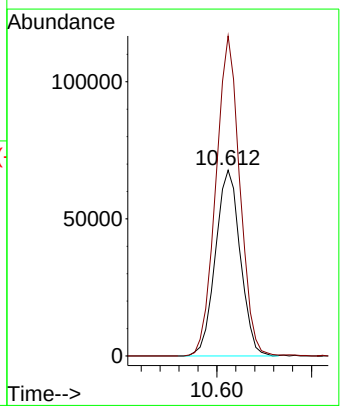
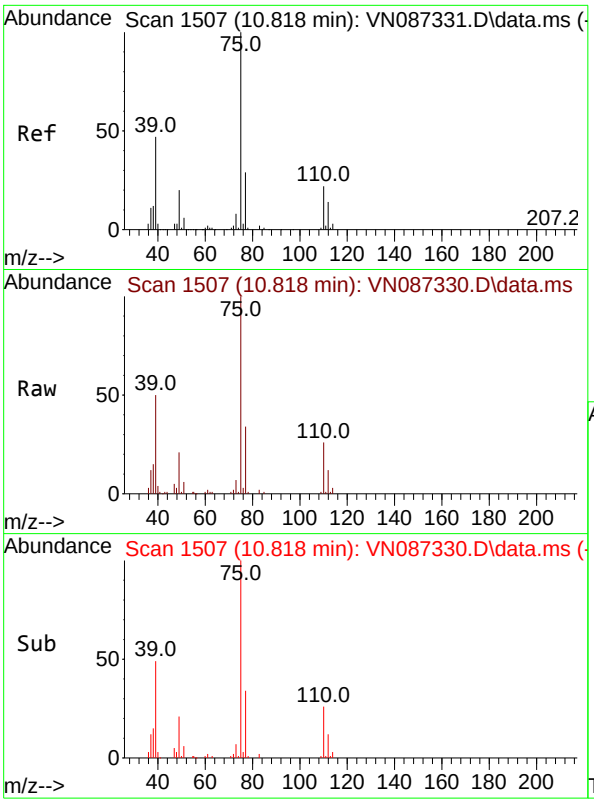


#52
Toluene
Concen: 21.002 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 92 Resp: 123391

Ion	Ratio	Lower	Upper
92	100		
91	166.7	135.1	202.7

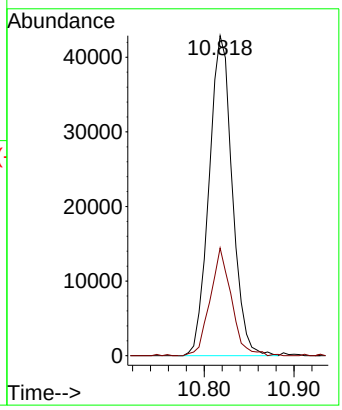




#53
t-1,3-Dichloropropene
Concen: 20.530 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 75 Resp: 7695

Ion	Ratio	Lower	Upper
75	100		
77	33.6	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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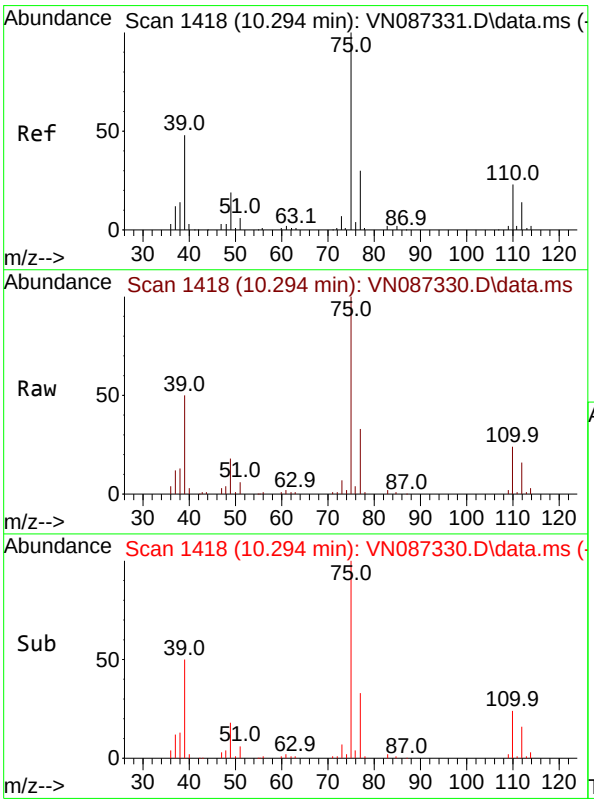
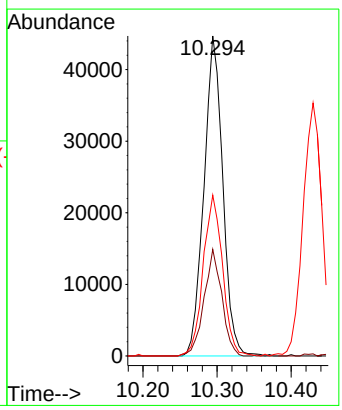
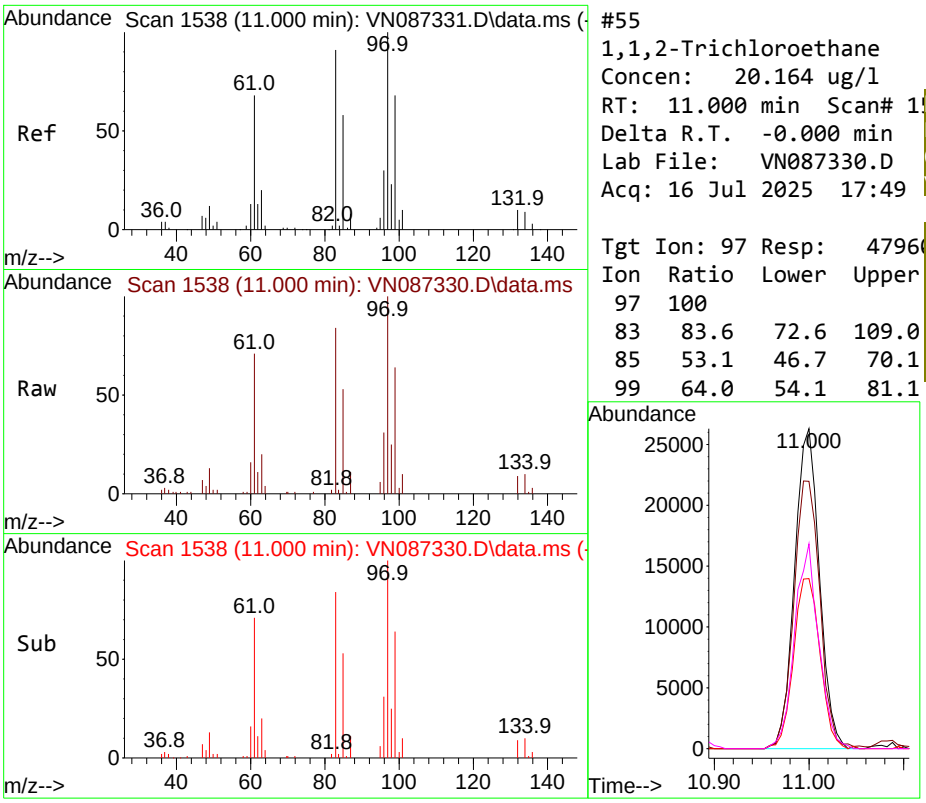


#54
cis-1,3-Dichloropropene
Concen: 20.407 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 75 Resp: 79019

Ion	Ratio	Lower	Upper
75	100		
77	33.3	24.2	36.2
39	50.3	38.4	57.6





#55
1,1,2-Trichloroethane
Concen: 20.164 ug/l
RT: 11.000 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 97 Resp: 4796

Ion	Ratio	Lower	Upper
97	100		
83	83.6	72.6	109.0
85	53.1	46.7	70.1
99	64.0	54.1	81.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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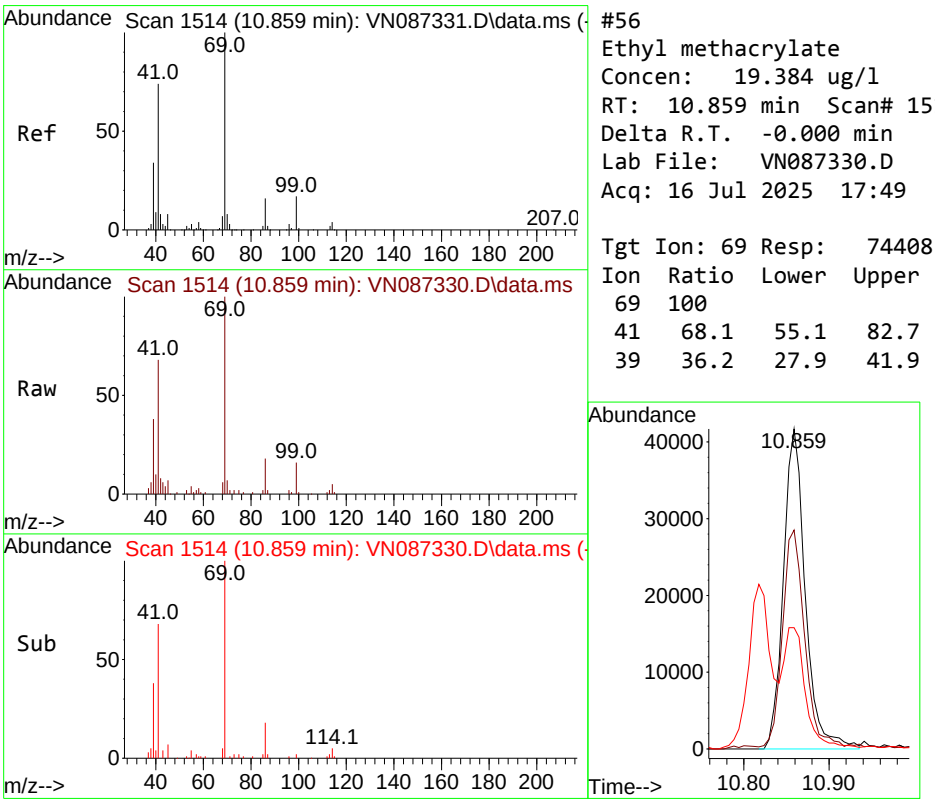
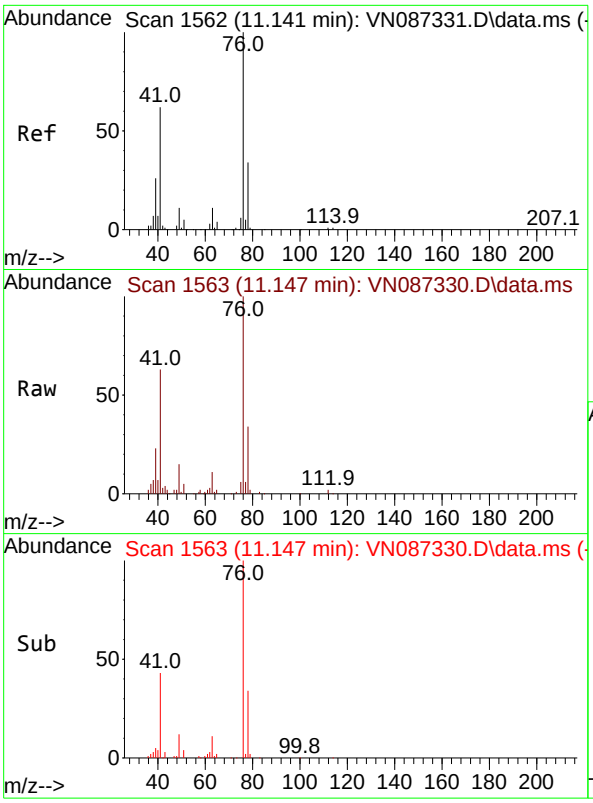


#56
Ethyl methacrylate
Concen: 19.384 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 69 Resp: 74408

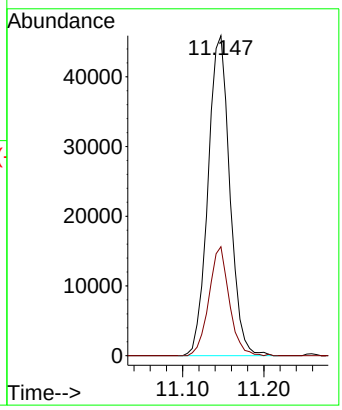
Ion	Ratio	Lower	Upper
69	100		
41	68.1	55.1	82.7
39	36.2	27.9	41.9



#57
1,3-Dichloropropane
Concen: 20.800 ug/l
RT: 11.147 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 76 Resp: 8553

Ion	Ratio	Lower	Upper
76	100		
78	31.7	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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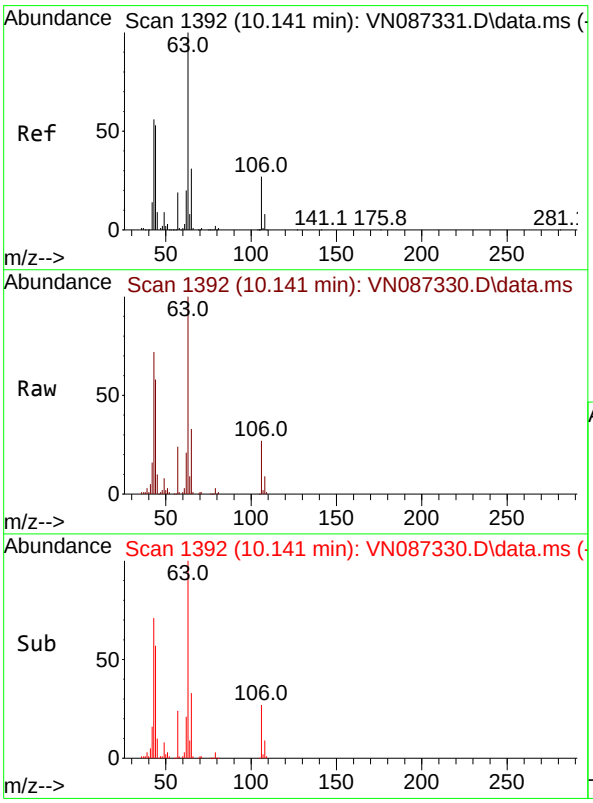
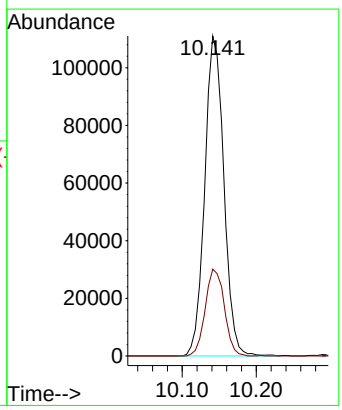
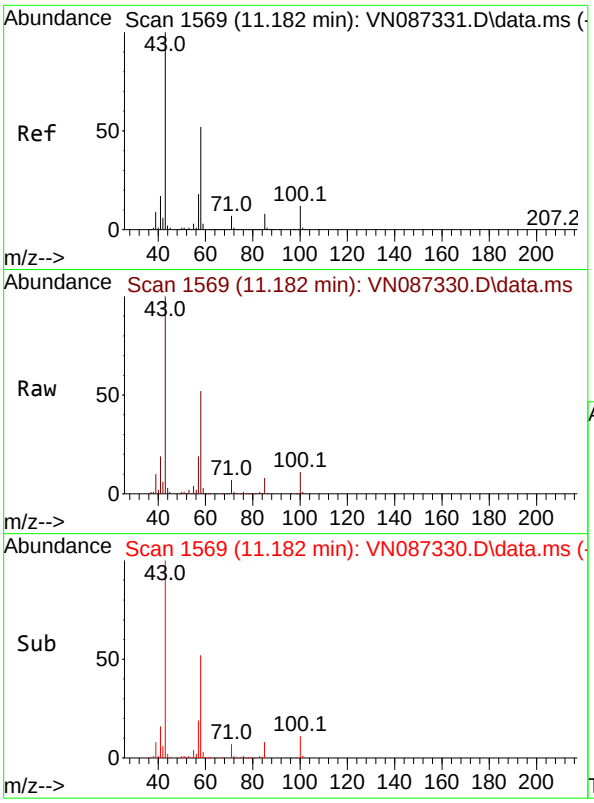


#58
2-Chloroethyl Vinyl ether
Concen: 101.839 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 63 Resp: 198704

Ion	Ratio	Lower	Upper
63	100		
106	27.1	21.7	32.5





#59
2-Hexanone
Concen: 108.526 ug/l
RT: 11.182 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 30534

Ion	Ratio	Lower	Upper
43	100		
58	52.8	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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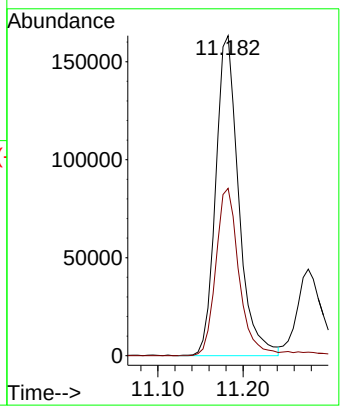
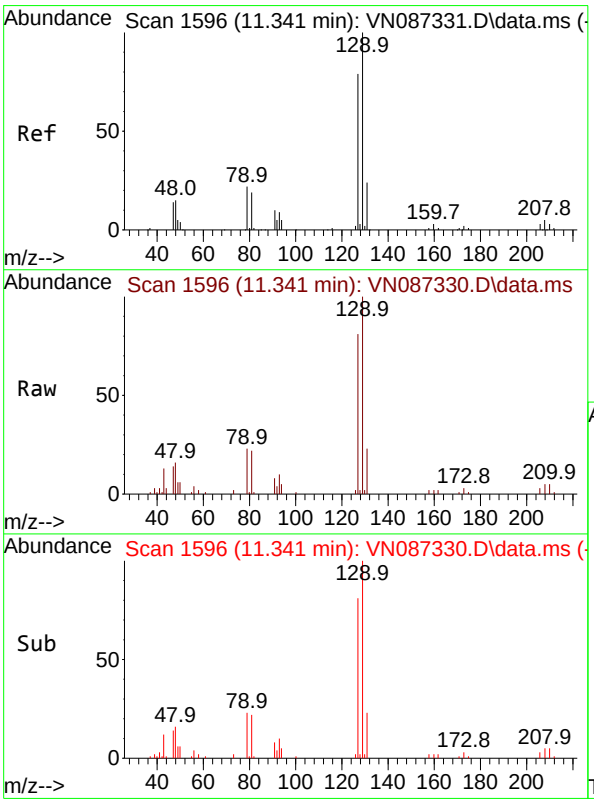
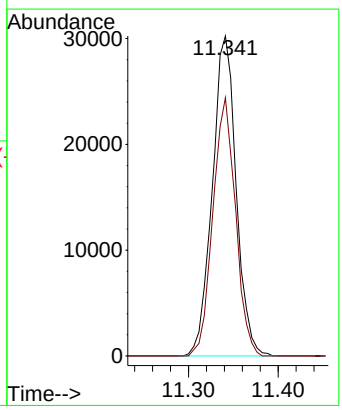


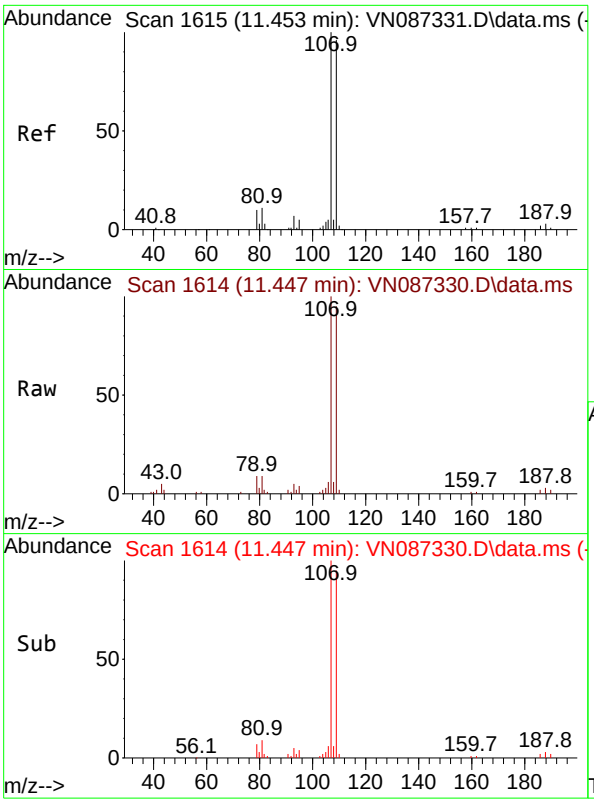


#60
Dibromochloromethane
Concen: 20.564 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:129 Resp: 55783

Ion	Ratio	Lower	Upper
129	100		
127	76.4	39.1	117.5

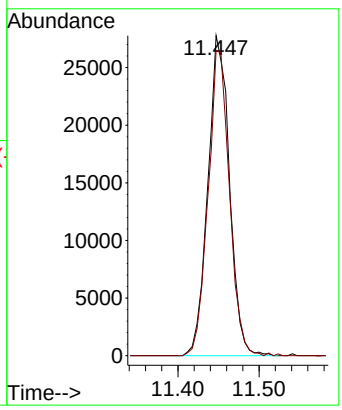




#61
1,2-Dibromoethane
Concen: 20.509 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:107 Resp: 5129

Ion	Ratio	Lower	Upper
107	100		
109	94.2	77.5	116.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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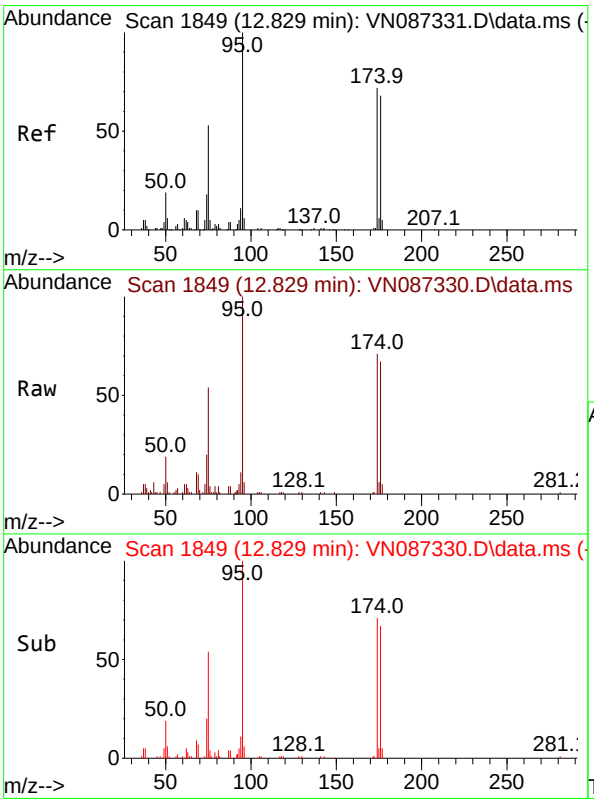
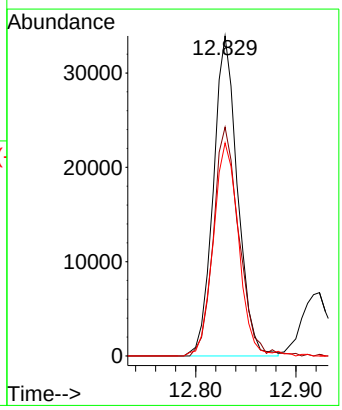
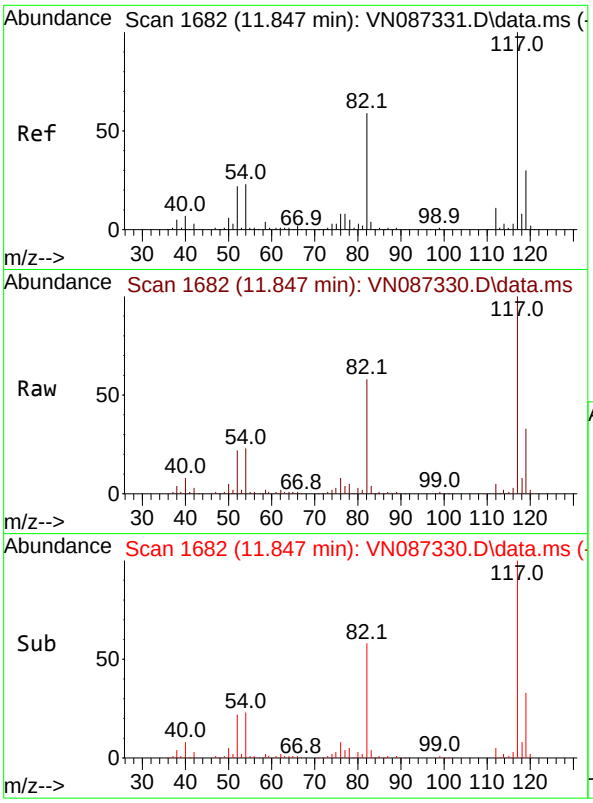


#62
4-Bromofluorobenzene
Concen: 19.051 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 95 Resp: 56832

Ion	Ratio	Lower	Upper
95	100		
174	75.9	0.0	149.4
176	70.0	0.0	141.2

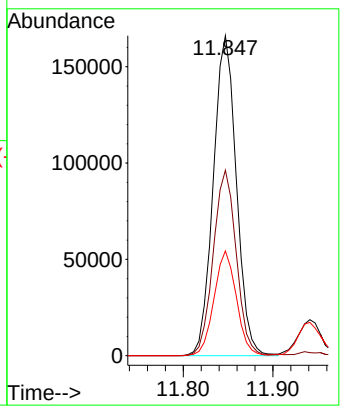




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:117 Resp: 29720

Ion	Ratio	Lower	Upper
117	100		
82	58.0	47.4	71.2
119	32.7	23.8	35.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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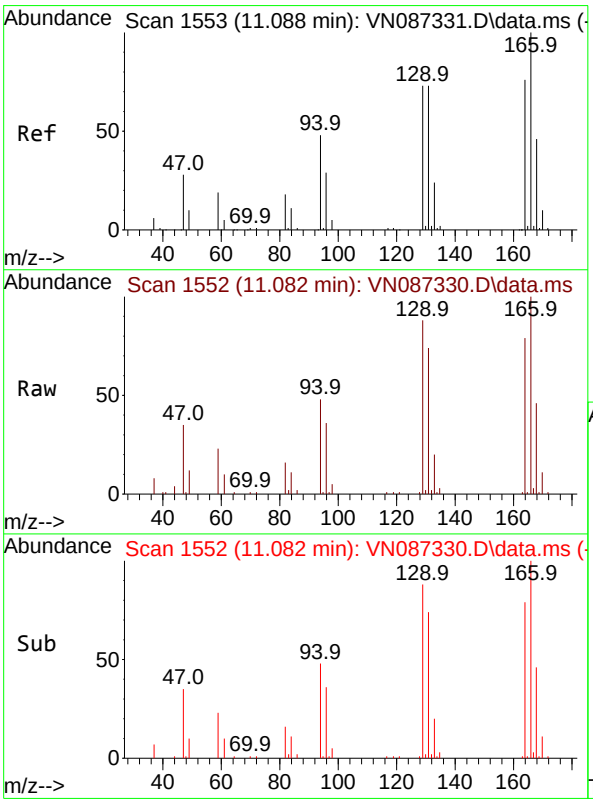
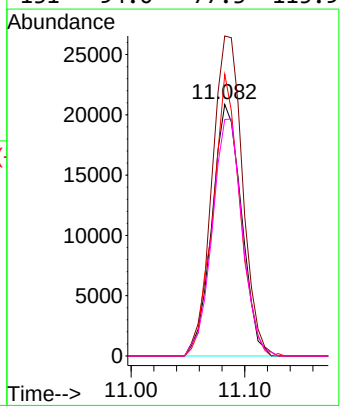
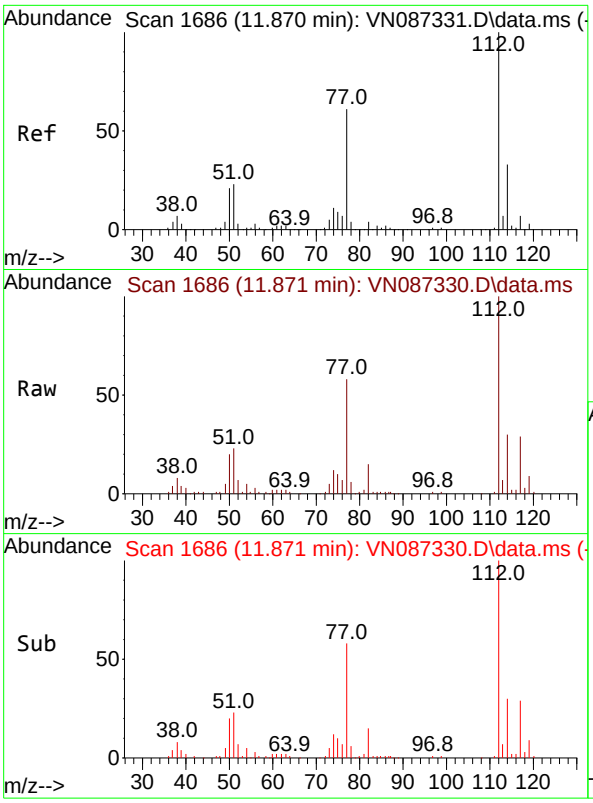


#64
Tetrachloroethene
Concen: 19.686 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:164 Resp: 37655

Ion	Ratio	Lower	Upper
164	100		
166	127.2	105.5	158.3
129	112.0	77.4	116.2
131	94.0	77.3	115.9

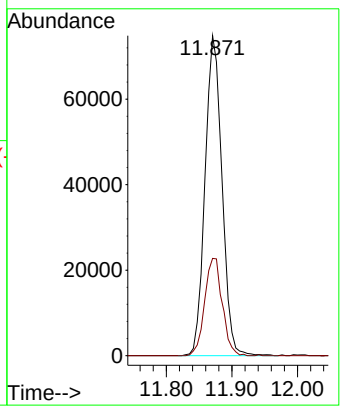




#65
Chlorobenzene
Concen: 20.183 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:112 Resp: 13466

Ion	Ratio	Lower	Upper
112	100		
114	30.4	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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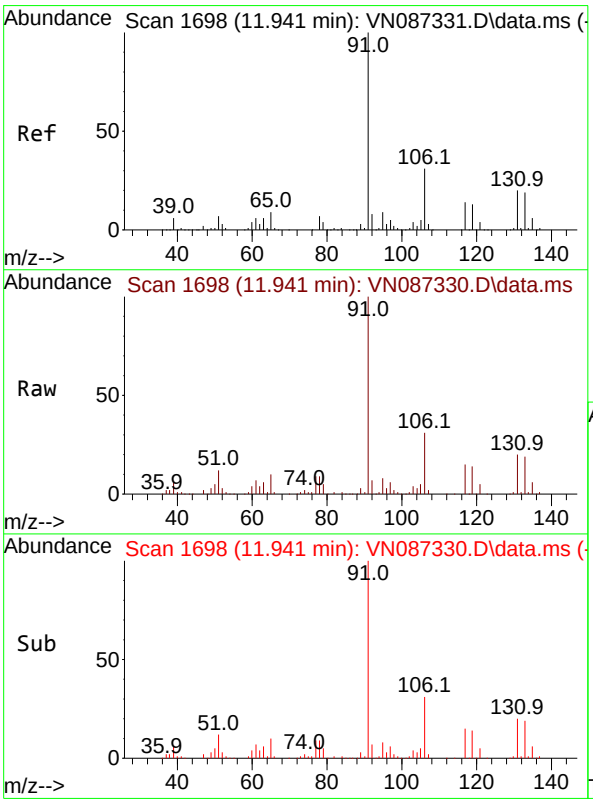
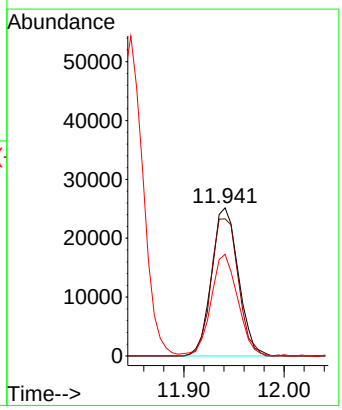
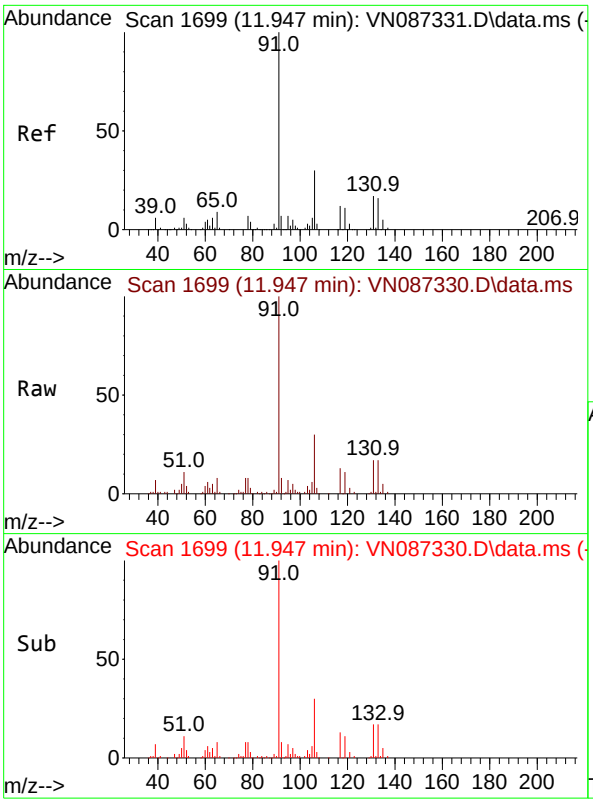


#66
1,1,1,2-Tetrachloroethane
Concen: 20.570 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:131 Resp: 46671

Ion	Ratio	Lower	Upper
131	100		
133	94.6	47.4	142.3
119	68.8	33.1	99.2





#67
Ethyl Benzene
Concen: 20.367 ug/l
RT: 11.947 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 91 Resp: 22371

Ion	Ratio	Lower	Upper
91	100		
106	30.4	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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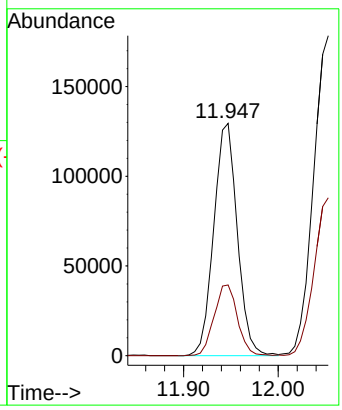
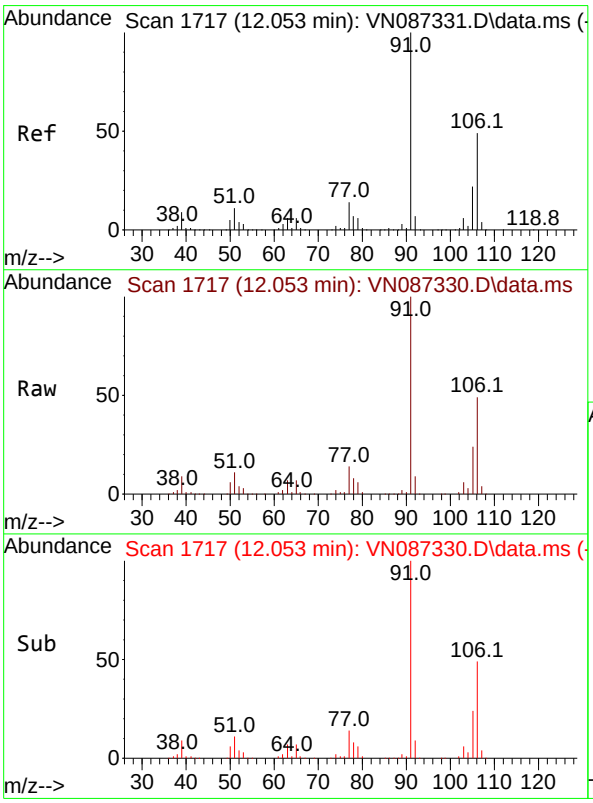
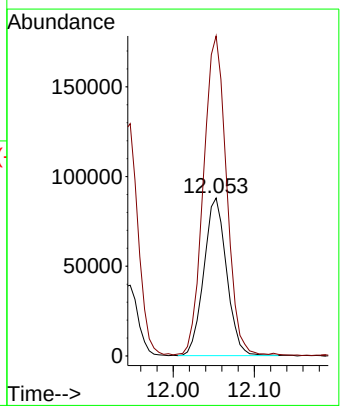


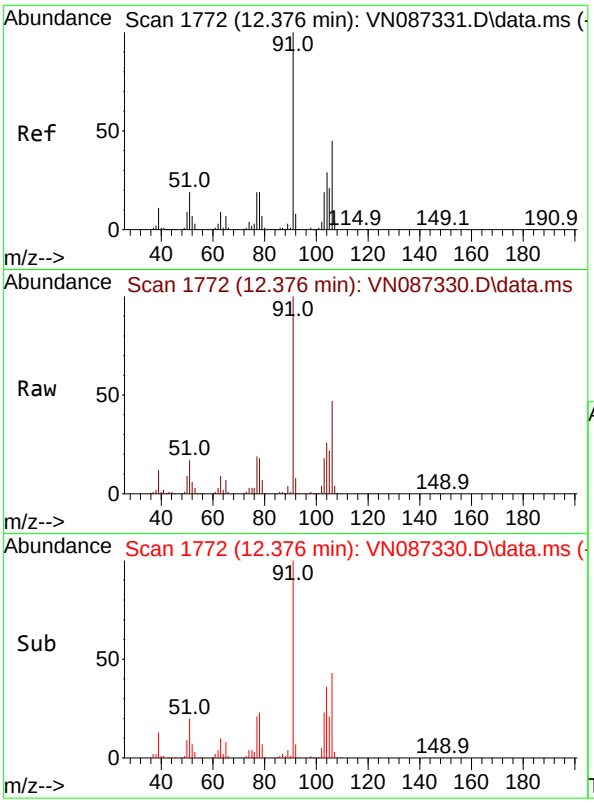


#68
m/p-Xylenes
Concen: 41.473 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:106 Resp: 170590

Ion	Ratio	Lower	Upper
106	100		
91	205.1	162.0	243.0





#69
o-Xylene
Concen: 21.230 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:106 Resp: 8341

Ion	Ratio	Lower	Upper
106	100		
91	212.7	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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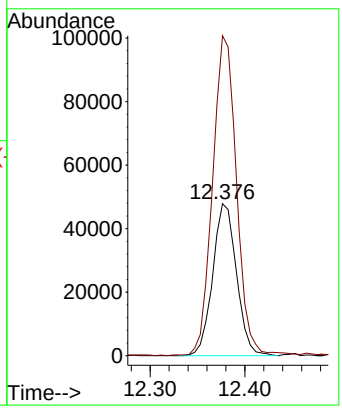
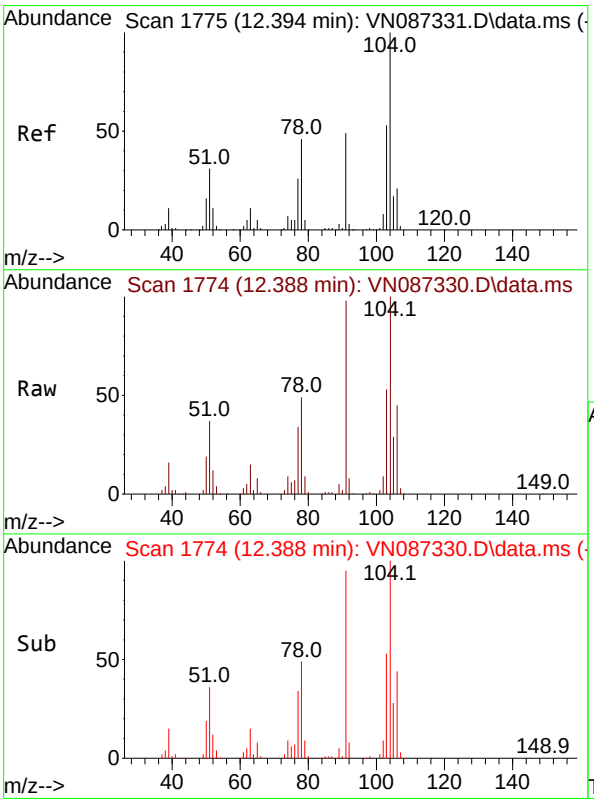
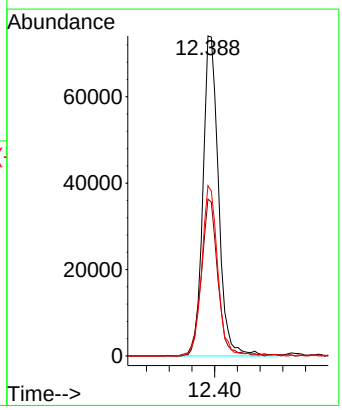


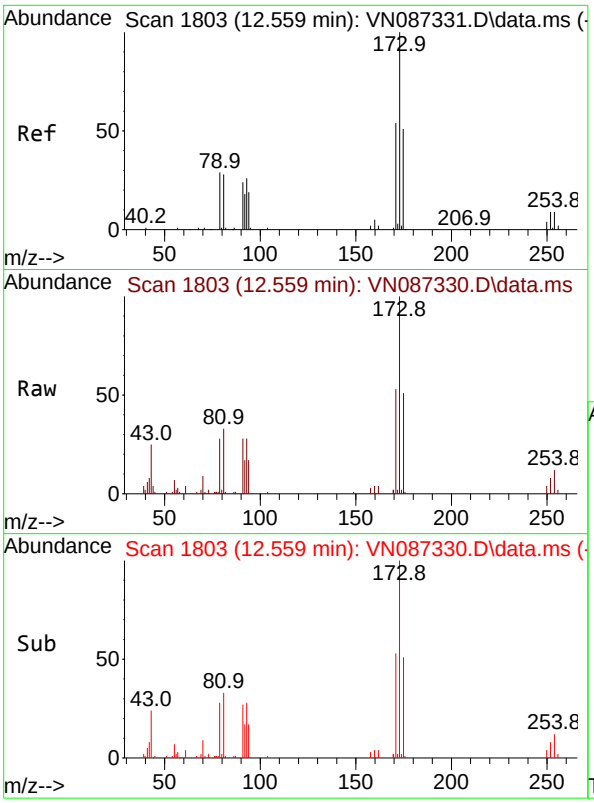


#70
Styrene
Concen: 21.323 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. -0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:104 Resp: 140937

Ion	Ratio	Lower	Upper
104	100		
78	51.6	41.0	61.6
103	54.8	43.9	65.9

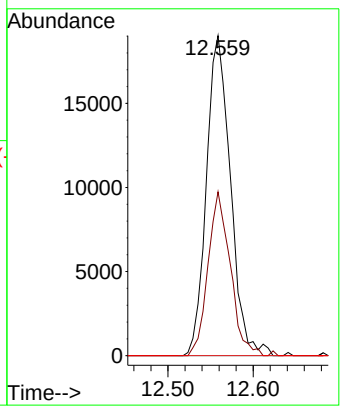




#71
Bromoform
Concen: 20.383 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:173 Resp: 3736

Ion	Ratio	Lower	Upper
173	100		
175	47.3	24.1	72.3
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
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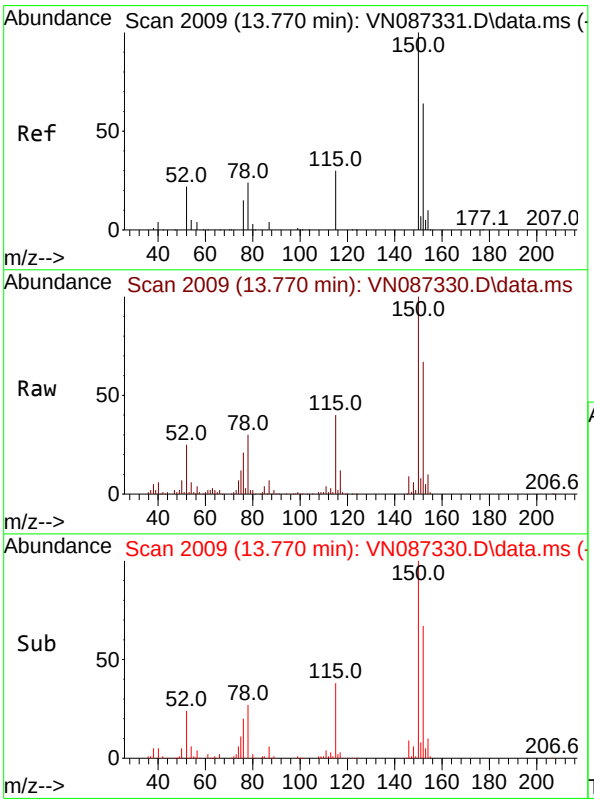
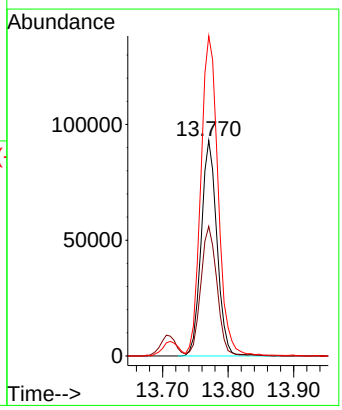
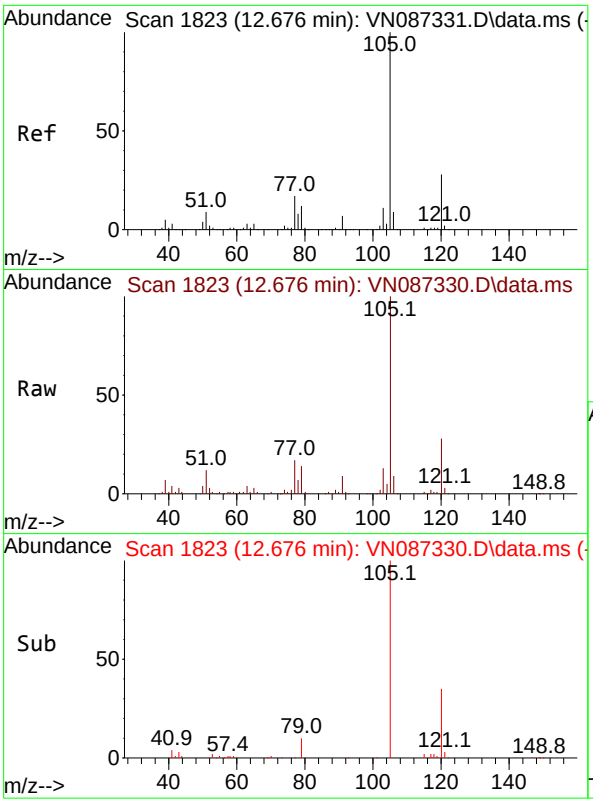


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:152 Resp: 156249

Ion	Ratio	Lower	Upper
152	100		
115	61.9	31.1	93.5
150	162.0	0.0	349.0





#73
Isopropylbenzene
Concen: 20.601 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:105 Resp: 20259

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.4	40.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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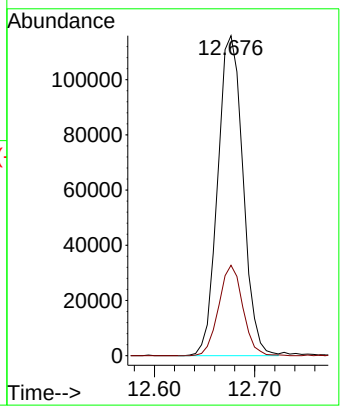
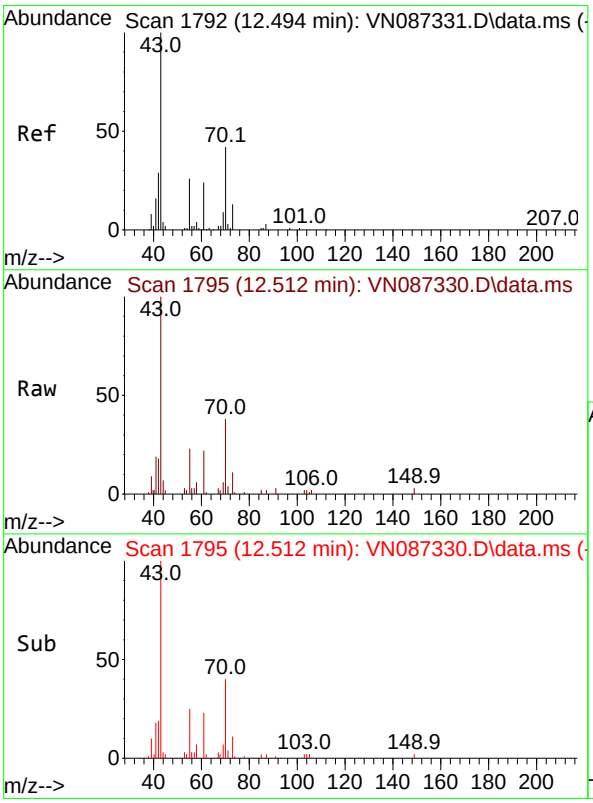
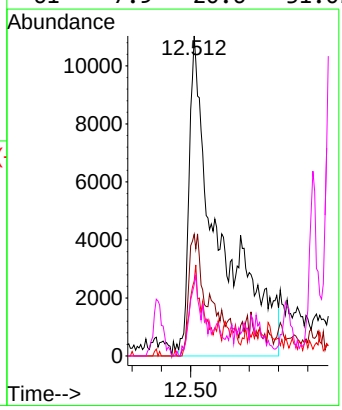


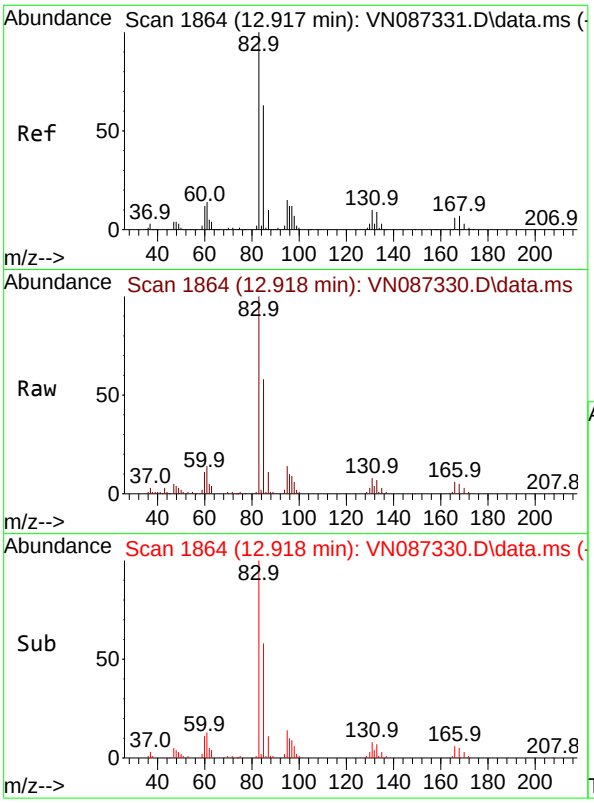


#74
N-amyl acetate
Concen: 20.334 ug/l m
RT: 12.512 min Scan# 1795
Delta R.T. 0.018 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 43 Resp: 78074

Ion	Ratio	Lower	Upper
43	100		
70	17.4	37.6	56.4#
55	12.3	19.6	29.4#
61	7.9	20.6	31.0#

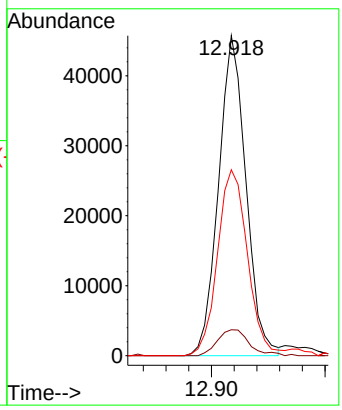




#75
1,1,2,2-Tetrachloroethane
Concen: 20.733 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 83 Resp: 7672

Ion	Ratio	Lower	Upper
83	100		
131	9.4	5.1	15.3
85	63.6	32.5	97.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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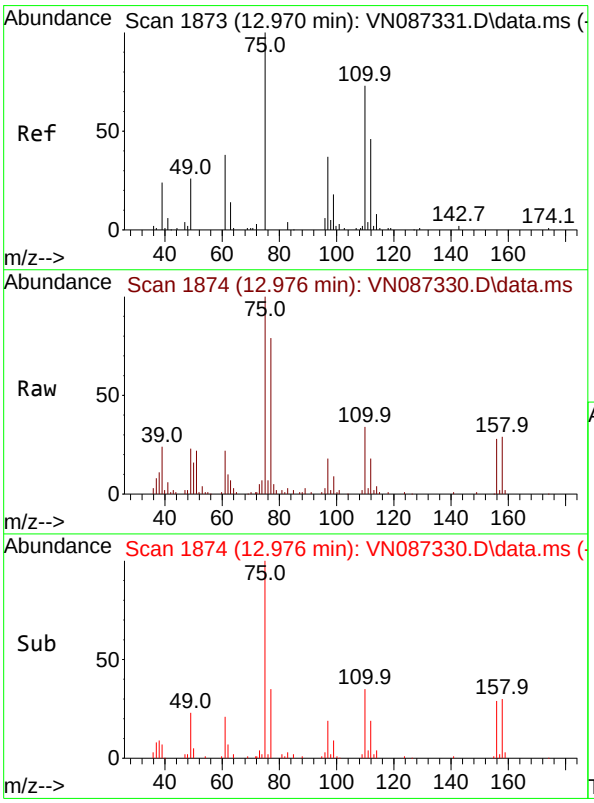
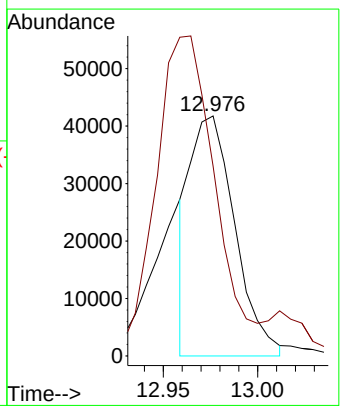
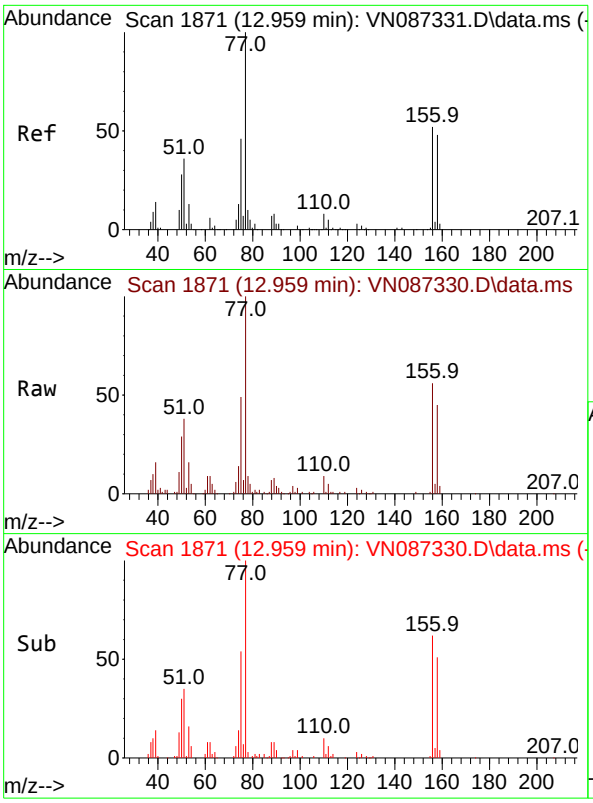


#76
1,2,3-Trichloropropane
Concen: 19.858 ug/l m
RT: 12.976 min Scan# 1874
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 75 Resp: 68839

Ion	Ratio	Lower	Upper
75	100		
77	176.6	94.5	283.6

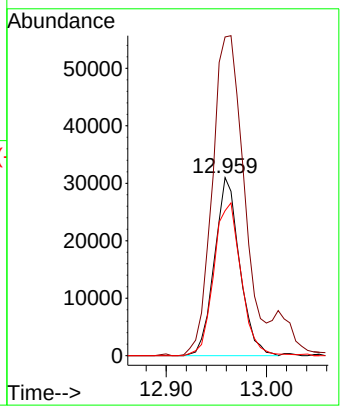




#77
Bromobenzene
Concen: 21.127 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:156 Resp: 5388

Ion	Ratio	Lower	Upper
156	100		
77	225.6	114.9	344.6
158	93.0	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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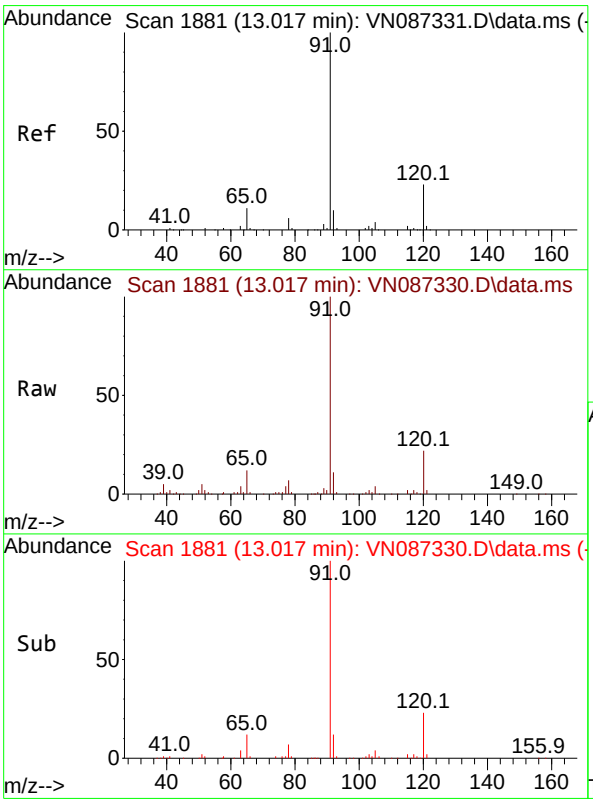
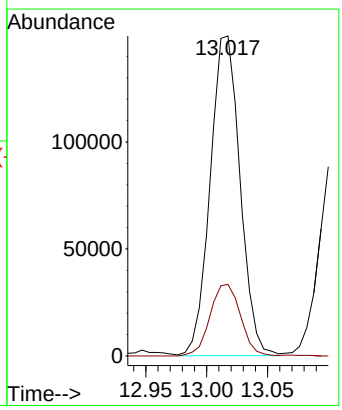
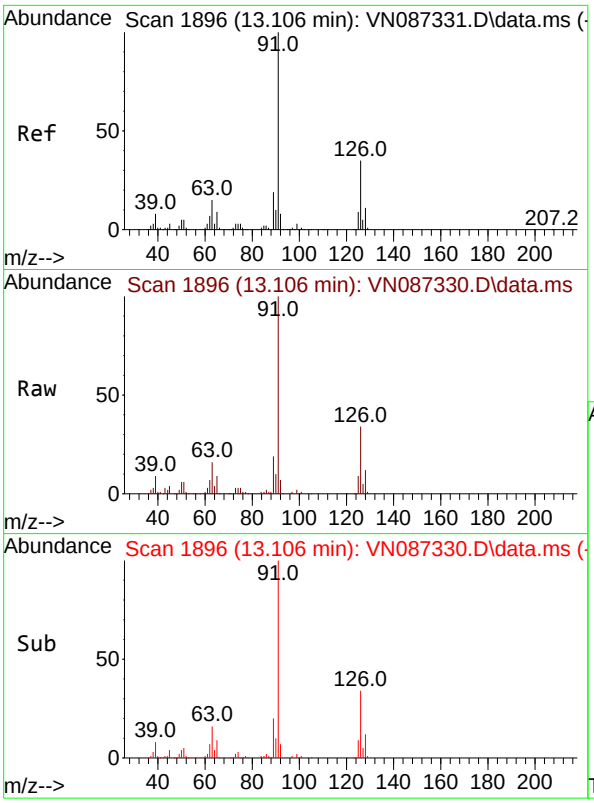


#78
n-propylbenzene
Concen: 20.656 ug/l
RT: 13.017 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 91 Resp: 255577

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.3	33.8

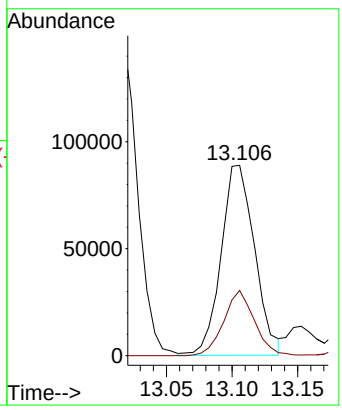




#79
2-Chlorotoluene
Concen: 20.836 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 91 Resp: 15843

Ion	Ratio	Lower	Upper
91	100		
126	31.5	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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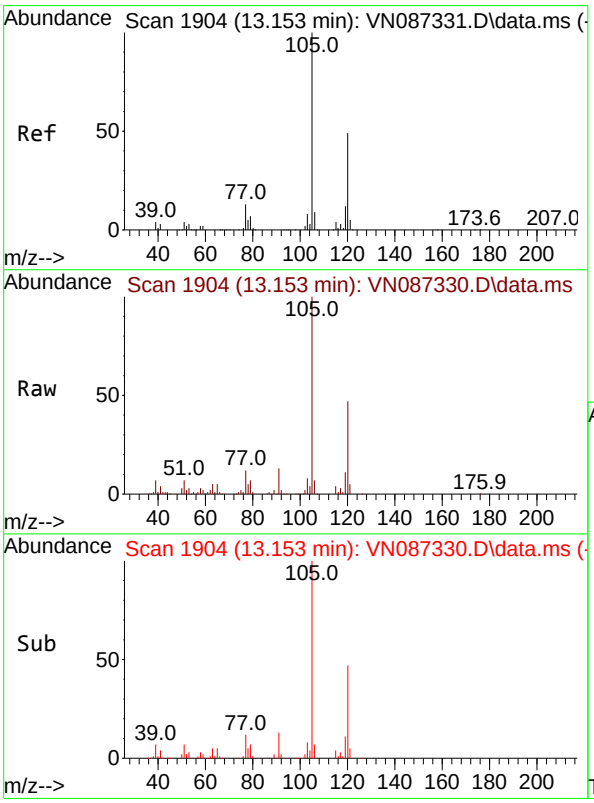
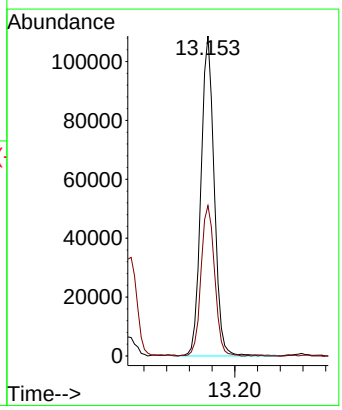
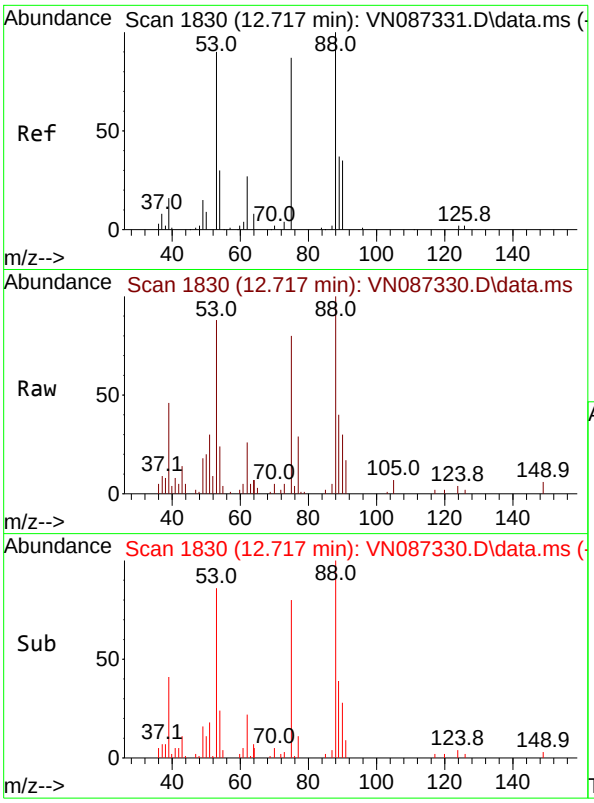


#80
1,3,5-Trimethylbenzene
Concen: 21.006 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:105 Resp: 176006

Ion	Ratio	Lower	Upper
105	100		
120	48.1	24.3	72.8





#81
trans-1,4-Dichloro-2-butene
Concen: 21.846 ug/l
RT: 12.717 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

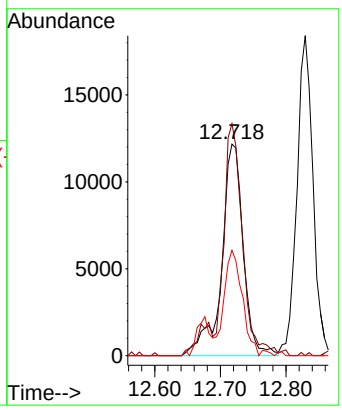
Tgt Ion: 75 Resp: 2797

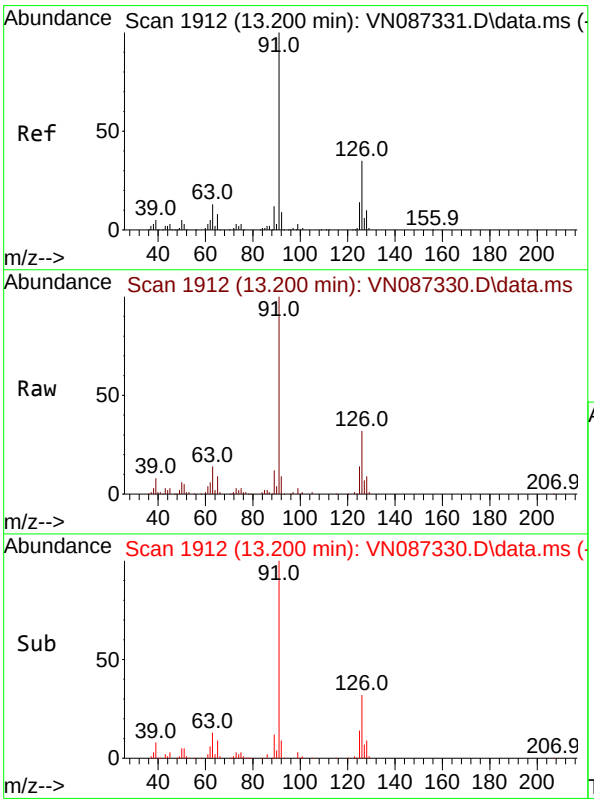
Ion	Ratio	Lower	Upper
75	100		
53	93.5	83.5	125.3
89	42.7	38.4	57.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

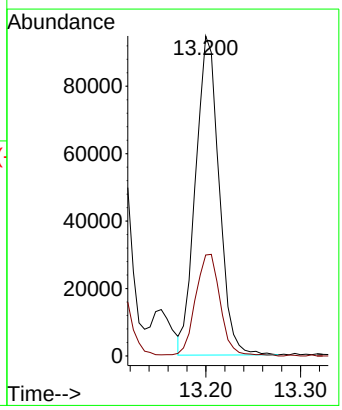


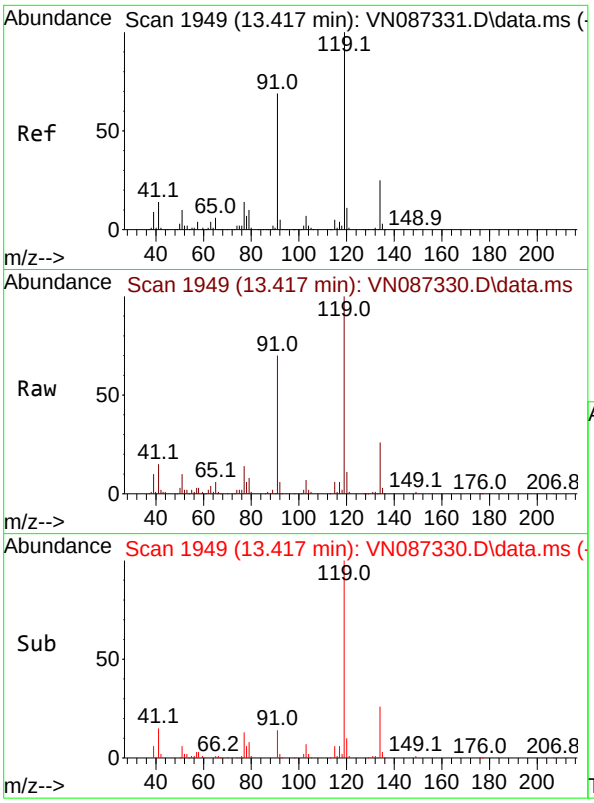


#82
4-Chlorotoluene
Concen: 20.667 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 91 Resp: 163615

Ion	Ratio	Lower	Upper
91	100		
126	33.7	16.6	49.7

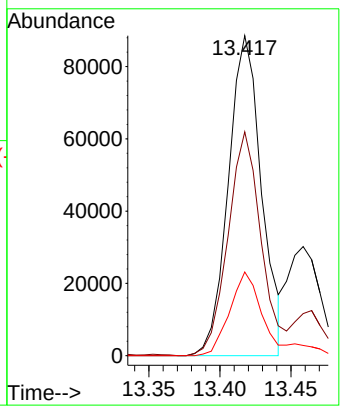




#83
tert-Butylbenzene
Concen: 20.571 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:119 Resp: 14395

Ion	Ratio	Lower	Upper
119	100		
91	70.2	35.0	105.1
134	27.9	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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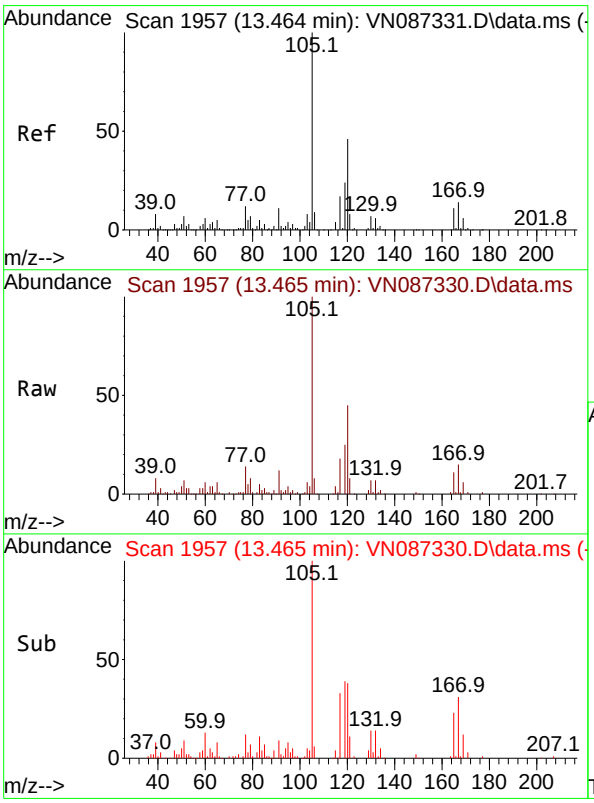
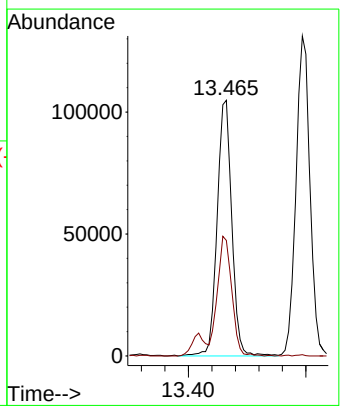
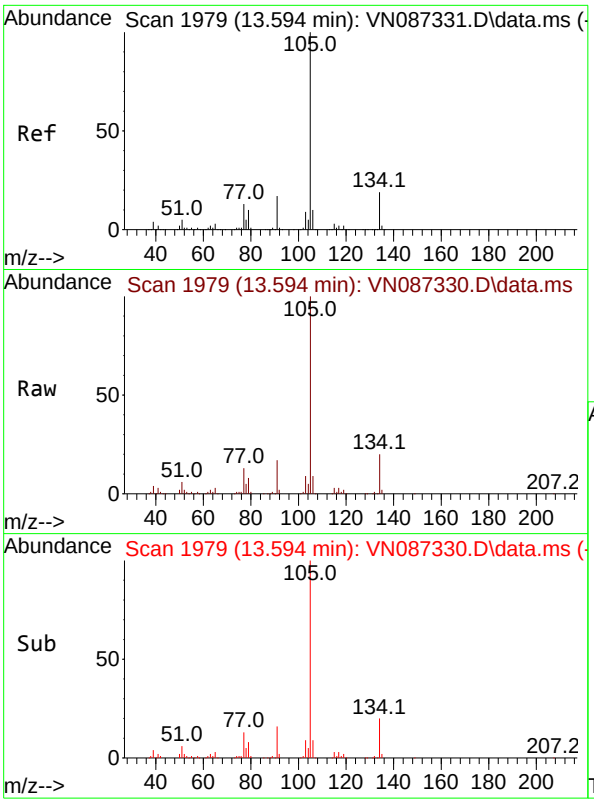


#84
1,2,4-Trimethylbenzene
Concen: 21.226 ug/l
RT: 13.465 min Scan# 1957
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:105 Resp: 181623

Ion	Ratio	Lower	Upper
105	100		
120	45.6	22.8	68.3





#85
sec-Butylbenzene
Concen: 20.516 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:105 Resp: 21625

Ion	Ratio	Lower	Upper
105	100		
134	19.9	9.8	29.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

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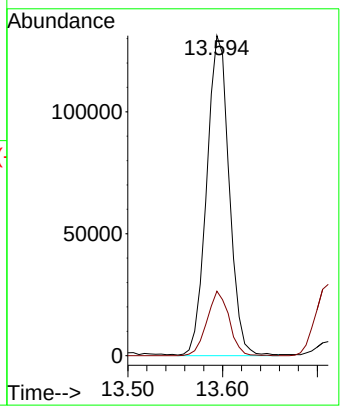
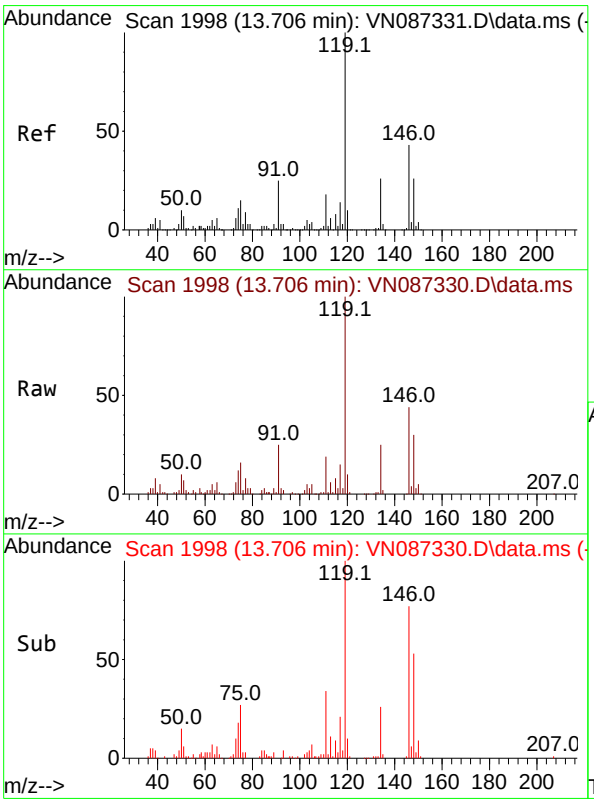
Supervised By :Semsettin Yesilyurt 07/17/2025

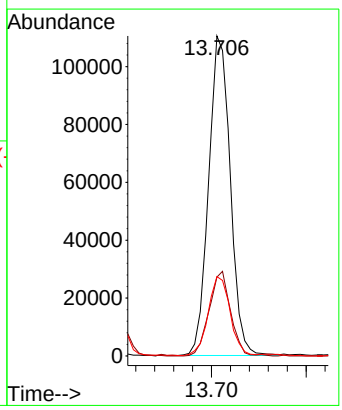


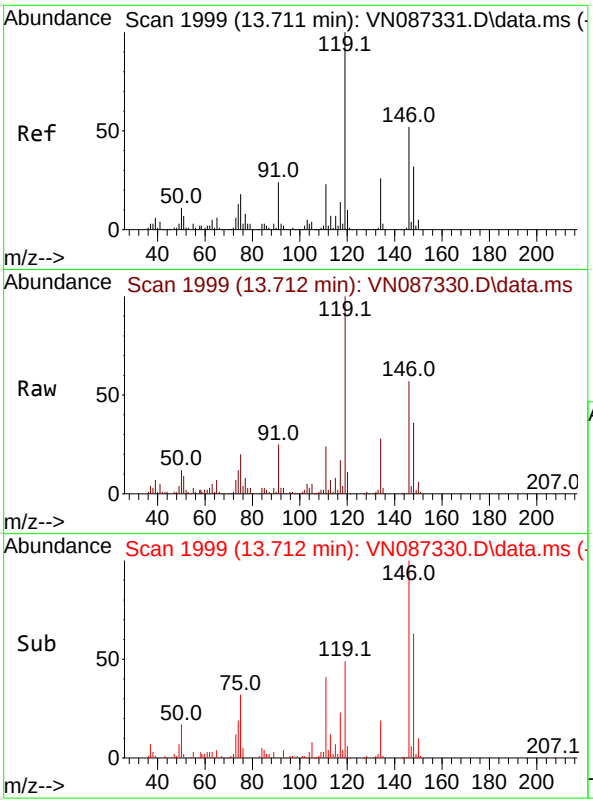


#86
p-Isopropyltoluene
Concen: 20.758 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:119 Resp: 175352

Ion	Ratio	Lower	Upper
119	100		
134	26.2	13.5	40.5
91	25.0	12.2	36.6

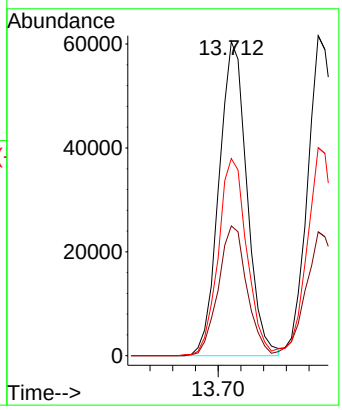




#87
1,3-Dichlorobenzene
Concen: 20.609 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:146 Resp: 10315

Ion	Ratio	Lower	Upper
146	100		
111	42.3	21.4	64.3
148	63.9	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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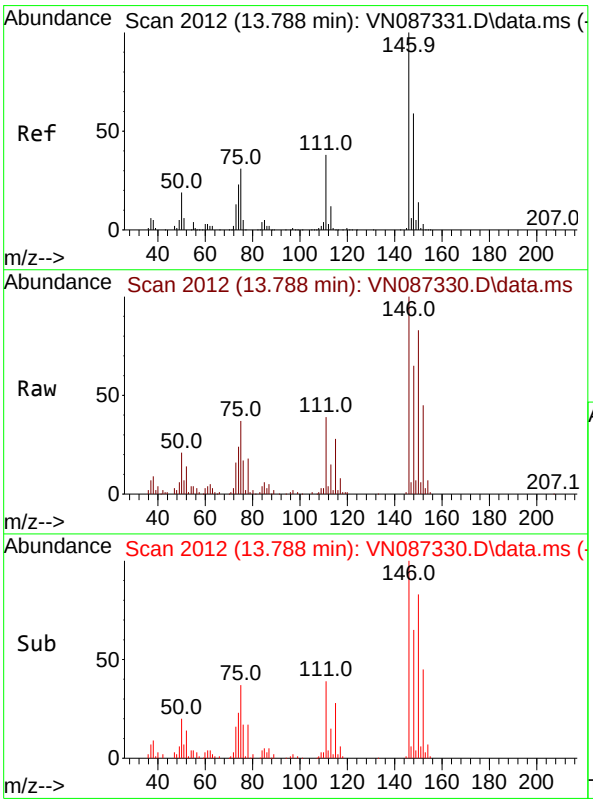
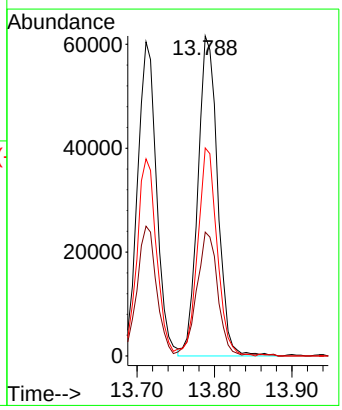
Supervised By :Semsettin Yesilyurt 07/17/2025

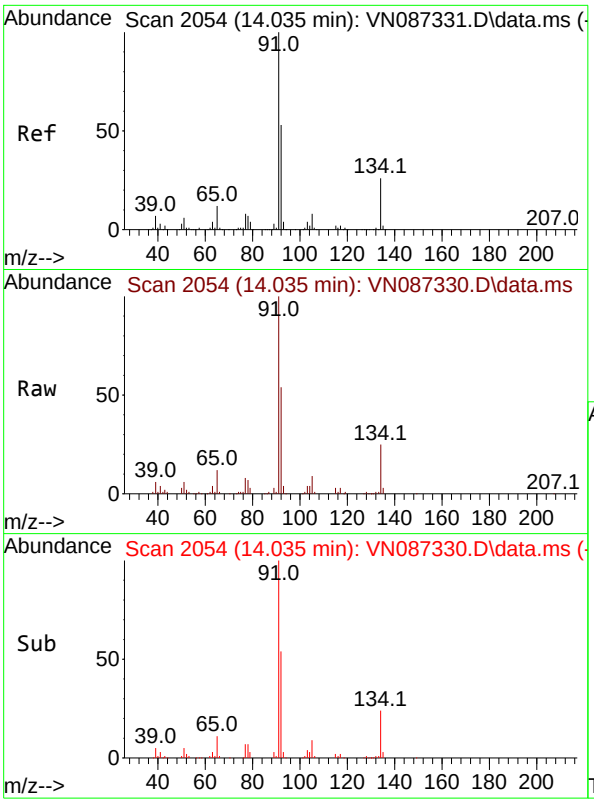


#88
1,4-Dichlorobenzene
Concen: 20.370 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:146 Resp: 108898

Ion	Ratio	Lower	Upper
146	100		
111	40.3	19.6	58.7
148	63.9	31.4	94.0

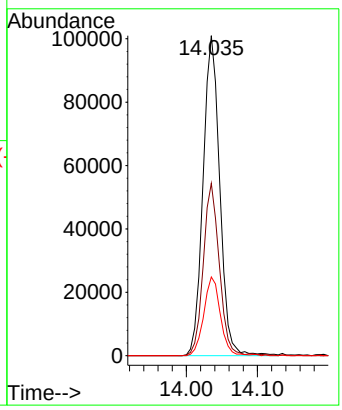




#89
n-Butylbenzene
Concen: 20.516 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 91 Resp: 16548

Ion	Ratio	Lower	Upper
91	100		
92	51.8	26.2	78.6
134	24.5	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

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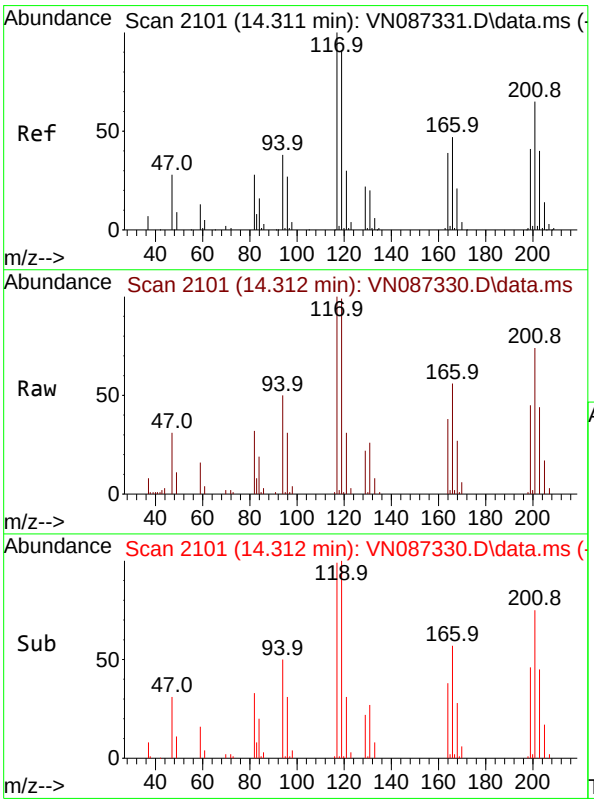
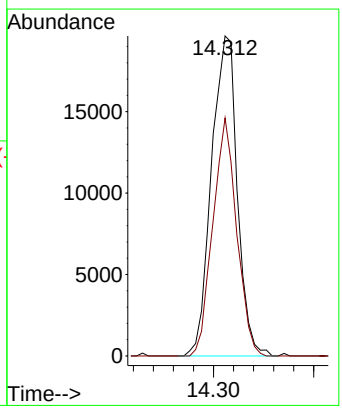
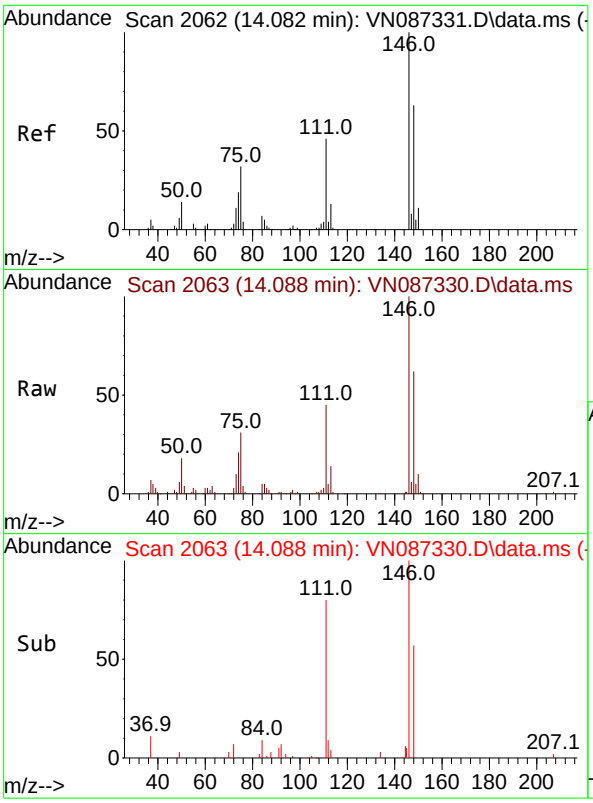


#90
Hexachloroethane
Concen: 19.615 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:117 Resp: 35108

Ion	Ratio	Lower	Upper
117	100		
201	68.6	32.8	98.4

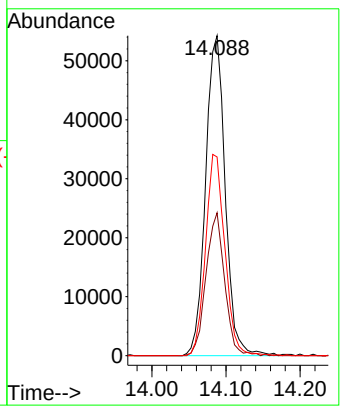




#91
1,2-Dichlorobenzene
Concen: 21.036 ug/l
RT: 14.088 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:146 Resp: 9975

Ion	Ratio	Lower	Upper
146	100		
111	42.6	22.0	66.0
148	62.0	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
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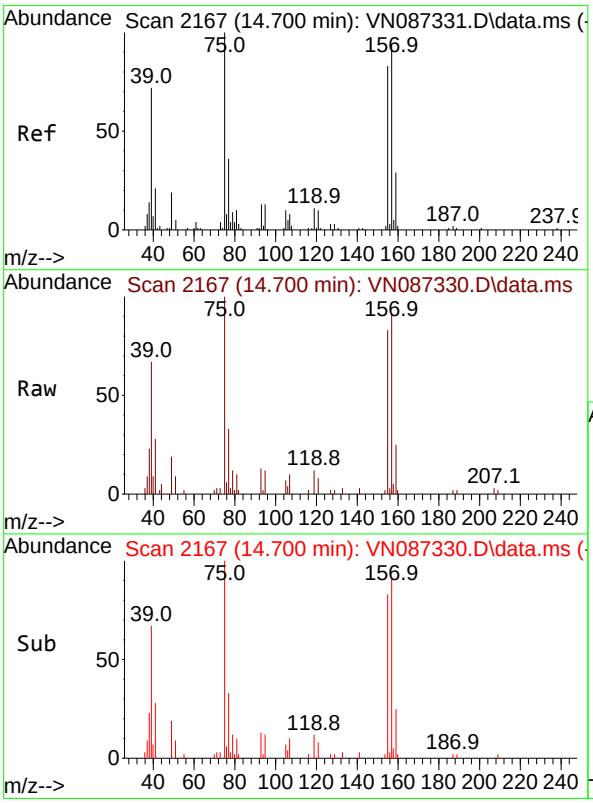
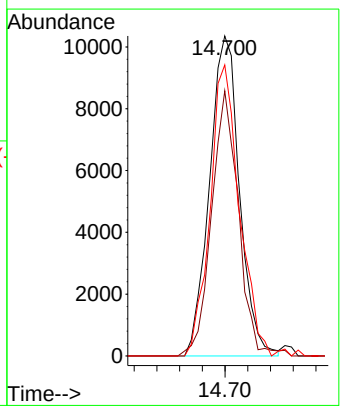
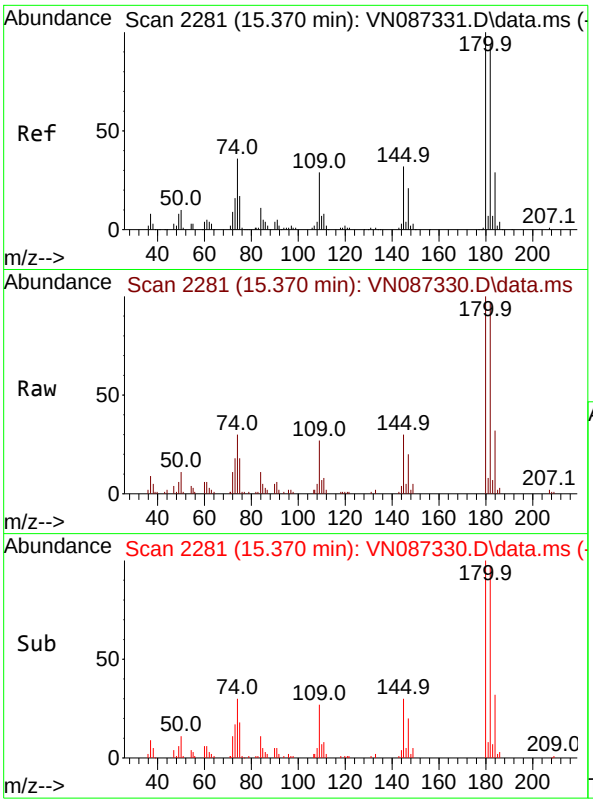


#92
1,2-Dibromo-3-Chloropropane
Concen: 19.573 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion: 75 Resp: 19015

Ion	Ratio	Lower	Upper
75	100		
155	74.2	37.3	111.8
157	89.0	46.2	138.6





#93
1,2,4-Trichlorobenzene
Concen: 19.643 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:180 Resp: 5471

Ion	Ratio	Lower	Upper
180	100		
182	95.4	47.3	141.8
145	31.3	15.4	46.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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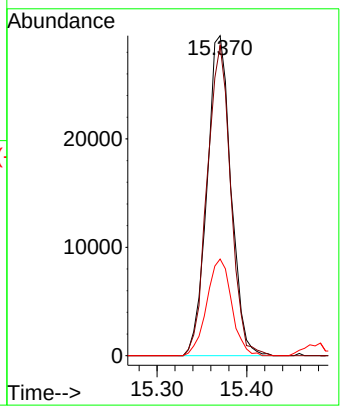
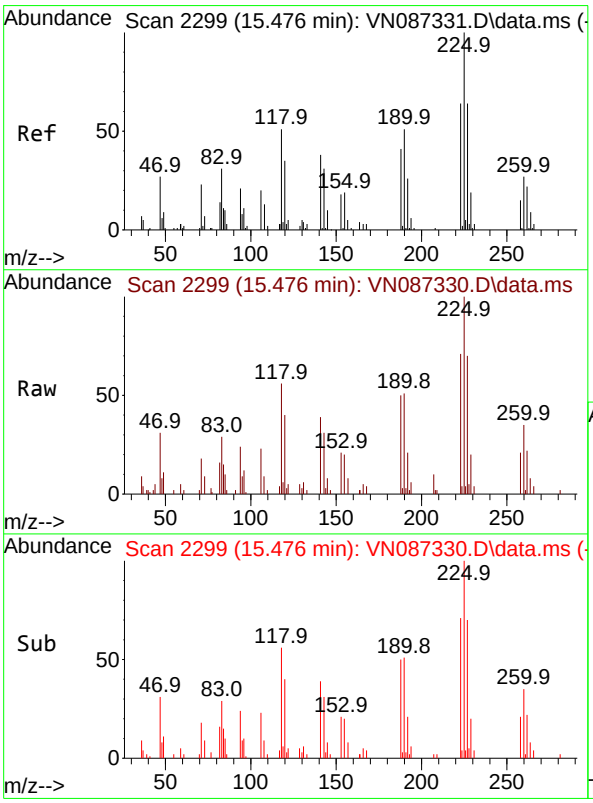
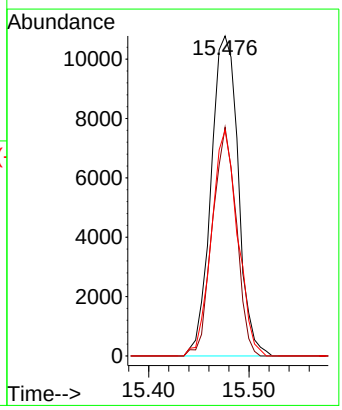


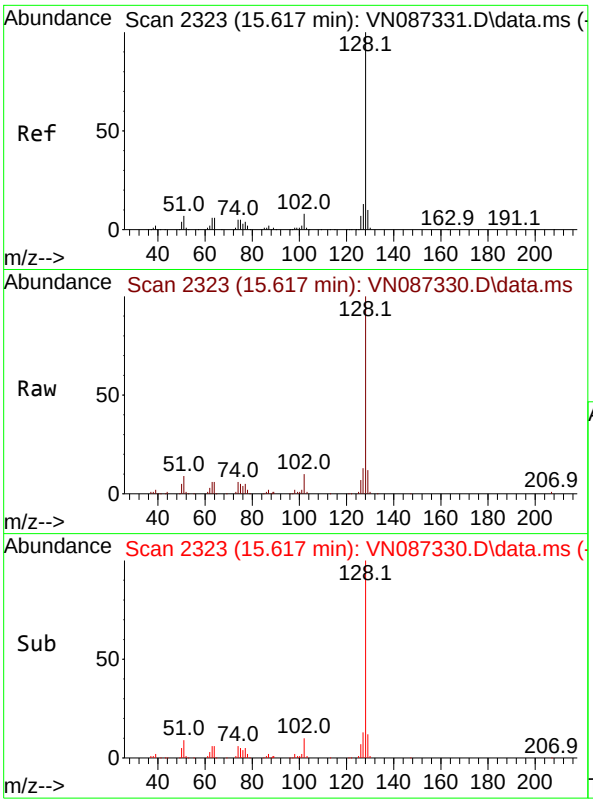


#94
Hexachlorobutadiene
Concen: 19.563 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:225 Resp: 20248

Ion	Ratio	Lower	Upper
225	100		
223	62.9	32.1	96.3
227	68.0	31.3	93.9

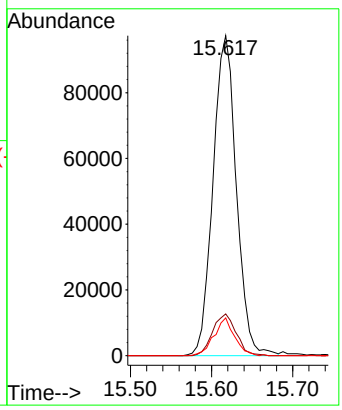




#95
Naphthalene
Concen: 19.718 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:128 Resp: 19457

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.5	15.7
129	10.5	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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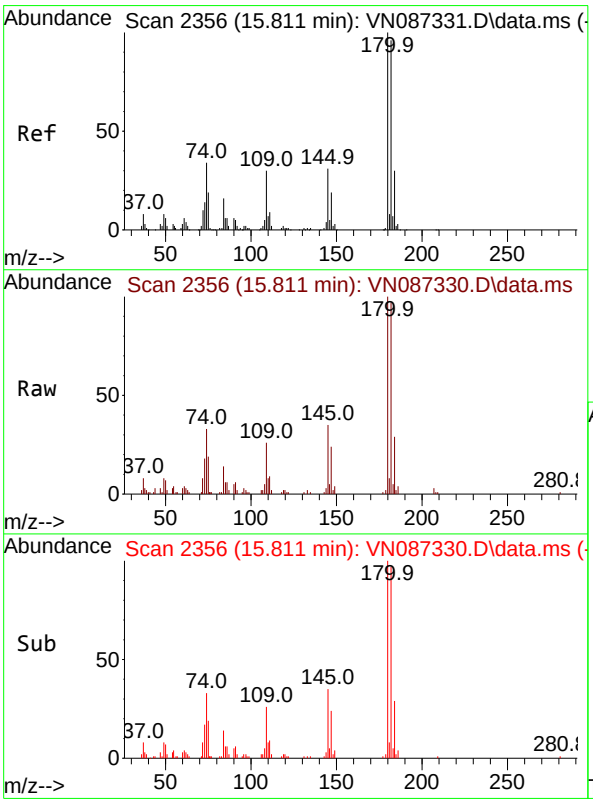
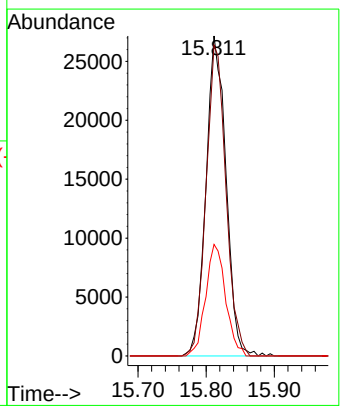


#96
1,2,3-Trichlorobenzene
Concen: 19.850 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087330.D
Acq: 16 Jul 2025 17:49

Tgt Ion:180 Resp: 55463

Ion	Ratio	Lower	Upper
180	100		
182	96.4	47.1	141.4
145	34.8	16.9	50.6



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087331.D
Acq On : 16 Jul 2025 18:11
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 17 02:19:33 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	182792	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	325711	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	300150	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	158477	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	146559	47.253	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 94.500%			
35) Dibromofluoromethane	8.147	113	108271	48.190	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 96.380%			
50) Toluene-d8	10.547	98	398776	49.757	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 99.520%			
62) 4-Bromofluorobenzene	12.829	95	148158	50.037	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 100.080%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	113853	58.643	ug/l	100
3) Chloromethane	2.383	50	126054	51.631	ug/l	100
4) Vinyl Chloride	2.542	62	132985	54.810	ug/l	100
5) Bromomethane	2.971	94	64982	51.719	ug/l	100
6) Chloroethane	3.130	64	80606	50.942	ug/l	100
7) Trichlorofluoromethane	3.506	101	187302	52.206	ug/l	100
8) Diethyl Ether	3.959	74	72151	51.843	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.359	101	95895	52.068	ug/l	100
10) Methyl Iodide	4.577	142	90277	47.912	ug/l	100
11) Tert butyl alcohol	5.524	59	146939	249.504	ug/l	100
12) 1,1-Dichloroethene	4.330	96	99569	47.708	ug/l	100
13) Acrolein	4.177	56	110711	234.247	ug/l	100
14) Allyl chloride	5.012	41	183089	48.475	ug/l	100
15) Acrylonitrile	5.712	53	414273	259.227	ug/l	100
16) Acetone	4.424	43	353373	240.328	ug/l	100
17) Carbon Disulfide	4.694	76	316833	51.205	ug/l	100
18) Methyl Acetate	5.012	43	181199	49.594	ug/l	100
19) Methyl tert-butyl Ether	5.788	73	396133	51.495	ug/l	100
20) Methylene Chloride	5.259	84	122921	50.001	ug/l	100
21) trans-1,2-Dichloroethene	5.771	96	119278	50.687	ug/l	100
22) Diisopropyl ether	6.665	45	417843	52.740	ug/l	100
23) Vinyl Acetate	6.588	43	1931809	278.796	ug/l	100
24) 1,1-Dichloroethane	6.553	63	223298	48.853	ug/l	100
25) 2-Butanone	7.471	43	588032	261.702	ug/l	100
26) 2,2-Dichloropropane	7.471	77	179431	50.492	ug/l	100
27) cis-1,2-Dichloroethene	7.471	96	140194	51.746	ug/l	100
28) Bromochloromethane	7.800	49	108748	49.713	ug/l	100
29) Tetrahydrofuran	7.829	42	388704	266.294	ug/l	100
30) Chloroform	7.953	83	233747	51.092	ug/l	100
31) Cyclohexane	8.241	56	191116	50.122	ug/l	100
32) 1,1,1-Trichloroethane	8.153	97	198135	50.002	ug/l	100
36) 1,1-Dichloropropene	8.353	75	158563	53.418	ug/l	100
37) Ethyl Acetate	7.547	43	230005	53.652	ug/l	100
38) Carbon Tetrachloride	8.347	117	168403	51.501	ug/l	100
39) Methylcyclohexane	9.582	83	172297	53.614	ug/l	100
40) Benzene	8.594	78	505723	52.714	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087331.D
Acq On : 16 Jul 2025 18:11
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 17 02:19:33 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.771	41	119895	53.486	ug/l		100
42) 1,2-Dichloroethane	8.653	62	184670	50.759	ug/l		100
43) Isopropyl Acetate	8.677	43	348709	52.399	ug/l		100
44) Trichloroethene	9.335	130	115974	51.160	ug/l		100
45) 1,2-Dichloropropane	9.606	63	128530	52.726	ug/l		100
46) Dibromomethane	9.688	93	94179	51.601	ug/l		100
47) Bromodichloromethane	9.871	83	185222	50.382	ug/l		100
48) Methyl methacrylate	9.665	41	164476	54.899	ug/l		100
49) 1,4-Dioxane	9.682	88	52072	1134.802	ug/l	#	100
51) 4-Methyl-2-Pentanone	10.429	43	1122857	266.771	ug/l		100
52) Toluene	10.612	92	313806	53.814	ug/l		100
53) t-1,3-Dichloropropene	10.818	75	202129	54.327	ug/l		100
54) cis-1,3-Dichloropropene	10.294	75	205720	53.529	ug/l		100
55) 1,1,2-Trichloroethane	11.000	97	119612	50.666	ug/l		100
56) Ethyl methacrylate	10.859	69	204376	51.427	ug/l		100
57) 1,3-Dichloropropane	11.141	76	213343	52.267	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	562790	290.607	ug/l		100
59) 2-Hexanone	11.182	43	806824	288.920	ug/l		100
60) Dibromochloromethane	11.341	129	139955	51.982	ug/l		100
61) 1,2-Dibromoethane	11.453	107	125416	50.525	ug/l		100
64) Tetrachloroethene	11.088	164	96176	49.786	ug/l		100
65) Chlorobenzene	11.870	112	335833	49.837	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.941	131	117833	51.425	ug/l		100
67) Ethyl Benzene	11.947	91	582851	52.540	ug/l		100
68) m/p-Xylenes	12.053	106	455017	109.536	ug/l		100
69) o-Xylene	12.376	106	217121	54.717	ug/l		100
70) Styrene	12.394	104	376745	56.440	ug/l		100
71) Bromoform	12.559	173	98549	53.237	ug/l	#	100
73) Isopropylbenzene	12.676	105	538245	53.964	ug/l		100
74) N-amyl acetate	12.494	43	180343m	46.310	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.917	83	191273	50.964	ug/l		100
76) 1,2,3-Trichloropropane	12.970	75	188824m	53.705	ug/l		
77) Bromobenzene	12.959	156	137669	53.221	ug/l		100
78) n-propylbenzene	13.017	91	680506	54.227	ug/l		100
79) 2-Chlorotoluene	13.106	91	401444	52.051	ug/l		100
80) 1,3,5-Trimethylbenzene	13.153	105	464063	54.607	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.717	75	63993	49.271	ug/l		100
82) 4-Chlorotoluene	13.200	91	419474	52.240	ug/l		100
83) tert-Butylbenzene	13.417	119	383986	54.099	ug/l		100
84) 1,2,4-Trimethylbenzene	13.464	105	475982	54.846	ug/l		100
85) sec-Butylbenzene	13.594	105	565038	52.851	ug/l		100
86) p-Isopropyltoluene	13.706	119	473942	55.316	ug/l		100
87) 1,3-Dichlorobenzene	13.711	146	262675	51.740	ug/l		100
88) 1,4-Dichlorobenzene	13.788	146	269881	49.773	ug/l		100
89) n-Butylbenzene	14.035	91	437514	53.478	ug/l		100
90) Hexachloroethane	14.311	117	91313	50.301	ug/l		100
91) 1,2-Dichlorobenzene	14.082	146	249988	51.977	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.700	75	47931	48.643	ug/l		100
93) 1,2,4-Trichlorobenzene	15.370	180	148472	52.553	ug/l		100
94) Hexachlorobutadiene	15.476	225	52130	49.659	ug/l		100
95) Naphthalene	15.617	128	545367	54.490	ug/l		100
96) 1,2,3-Trichlorobenzene	15.811	180	146080	51.547	ug/l		100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087331.D
Acq On : 16 Jul 2025 18:11
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 17 02:19:33 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087331.D
Acq On : 16 Jul 2025 18:11
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 17 02:19:33 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
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ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

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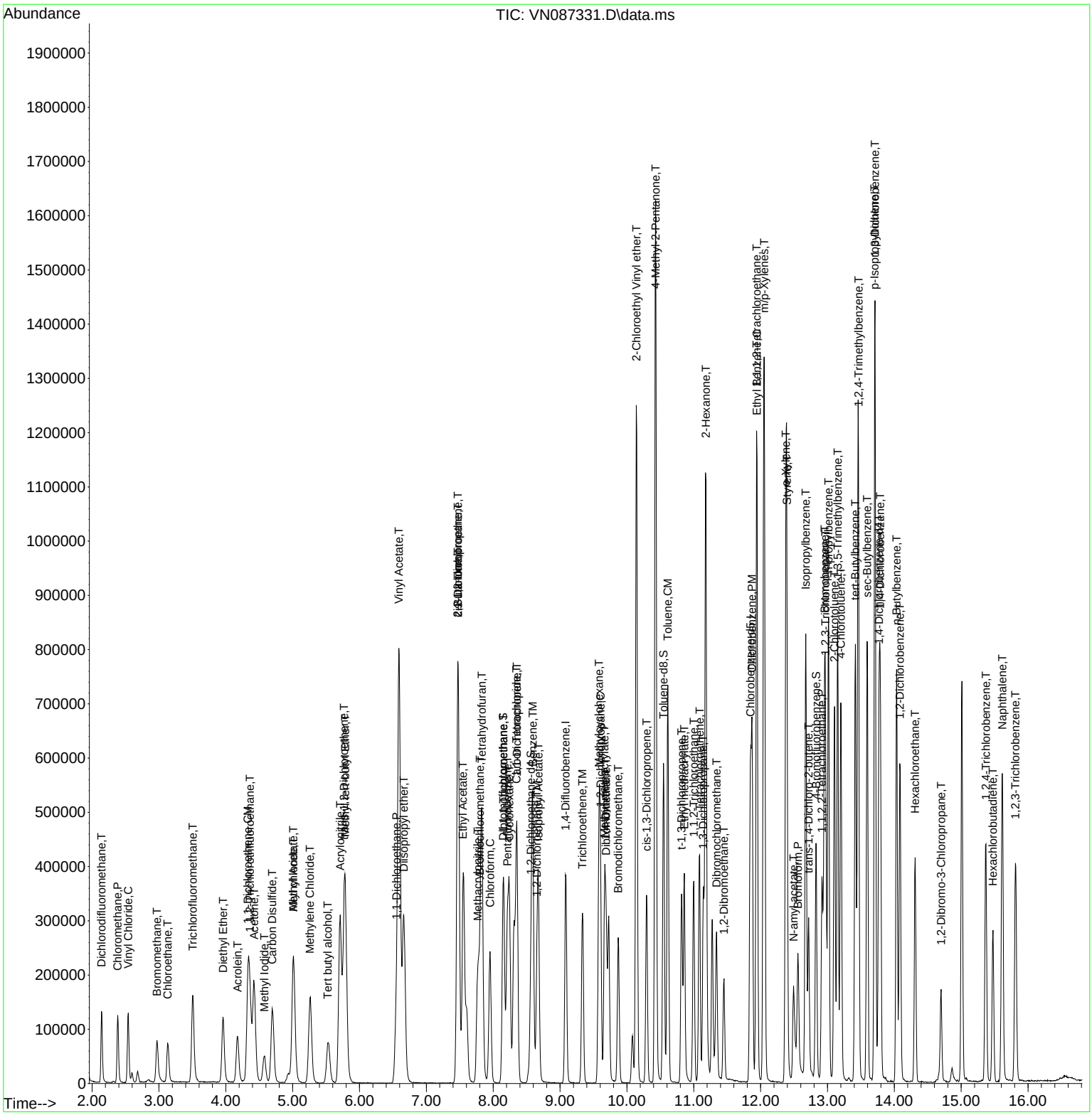
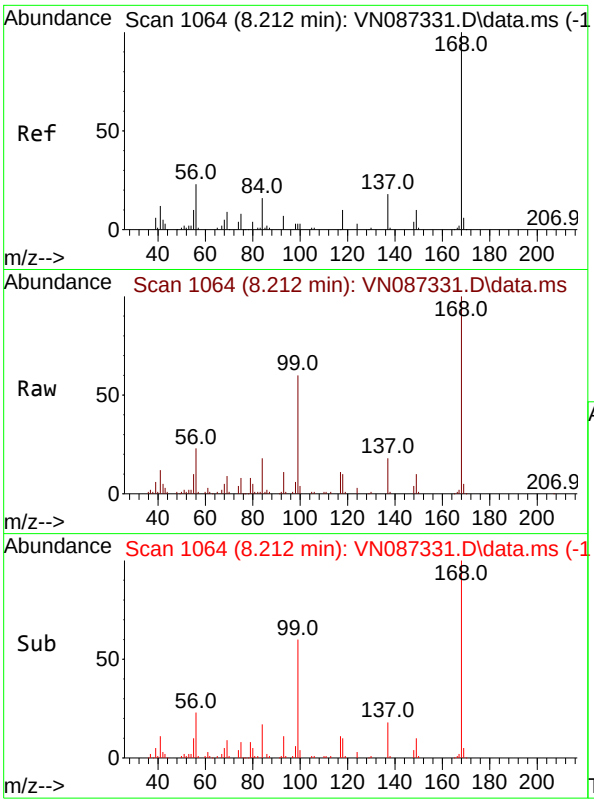
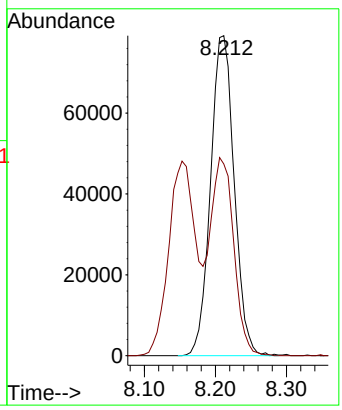




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:168 Resp: 18279

Ion	Ratio	Lower	Upper
168	100		
99	59.9	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
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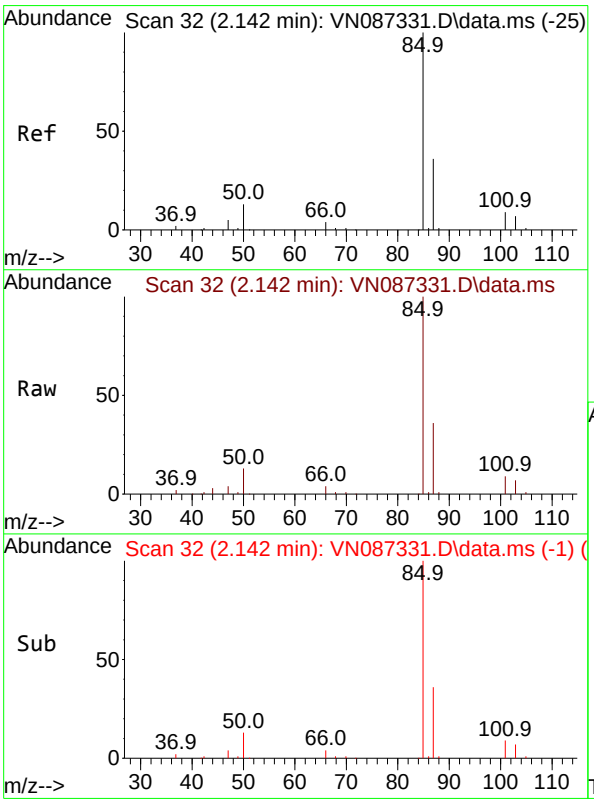
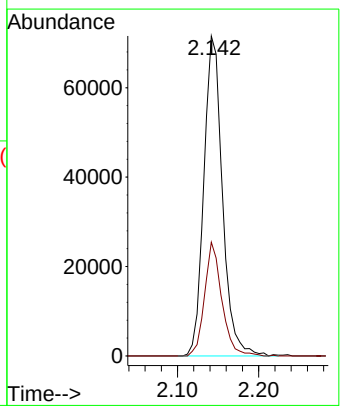
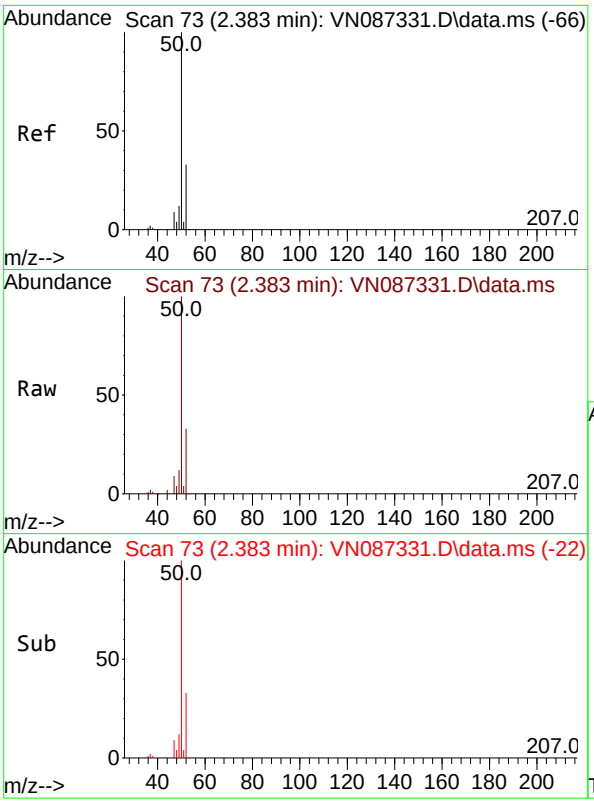


#2
Dichlorodifluoromethane
Concen: 58.643 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 85 Resp: 113853

Ion	Ratio	Lower	Upper
85	100		
87	35.5	17.8	53.3

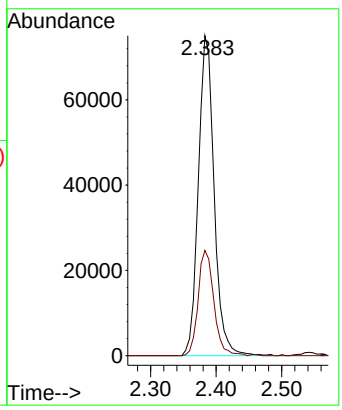




#3
Chloromethane
Concen: 51.631 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 50 Resp: 12605

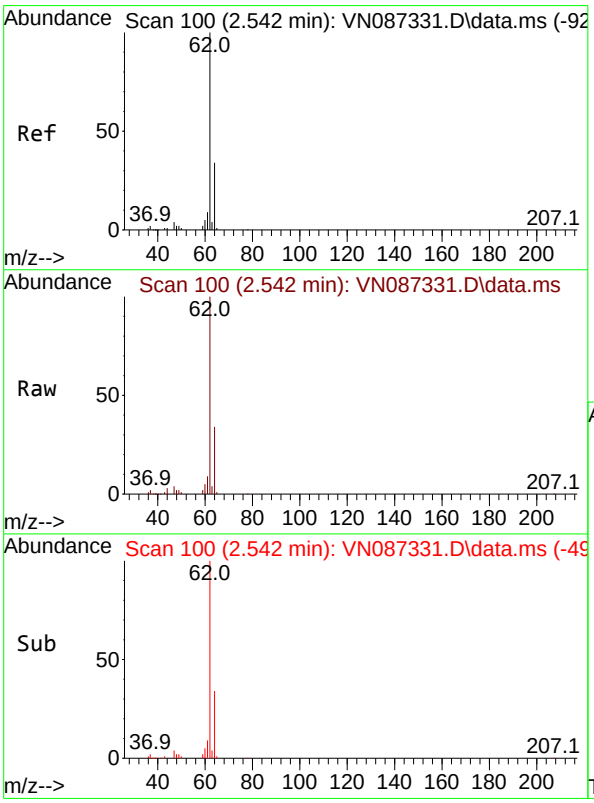
Ion	Ratio	Lower	Upper
50	100		
52	32.9	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

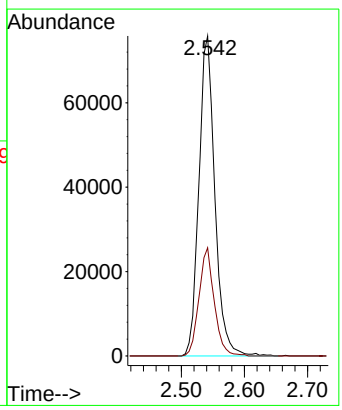
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

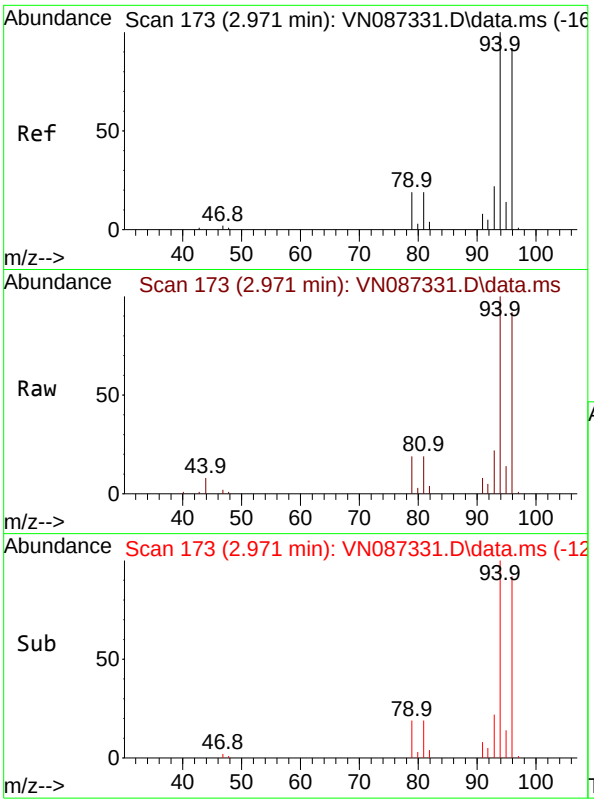


#4
Vinyl Chloride
Concen: 54.810 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 62 Resp: 132985

Ion	Ratio	Lower	Upper
62	100		
64	33.8	27.0	40.6

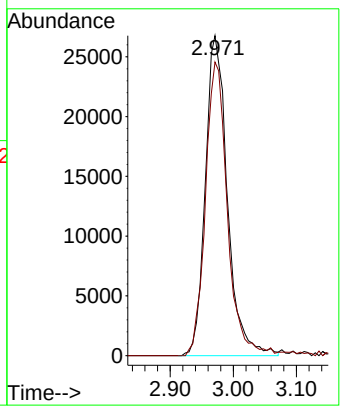




#5
Bromomethane
Concen: 51.719 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 94 Resp: 6498

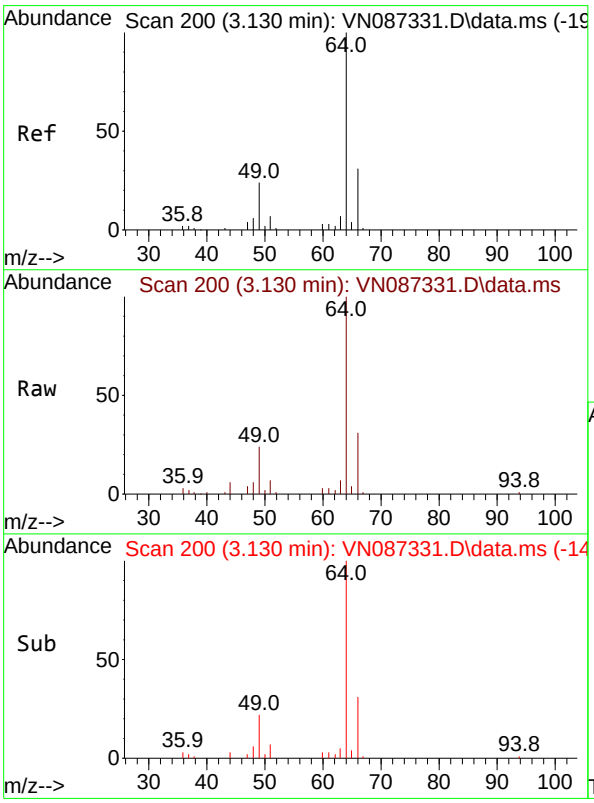
Ion	Ratio	Lower	Upper
94	100		
96	91.8	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

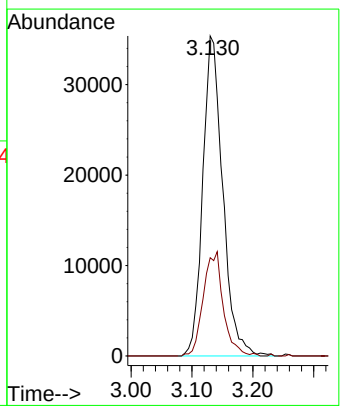
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

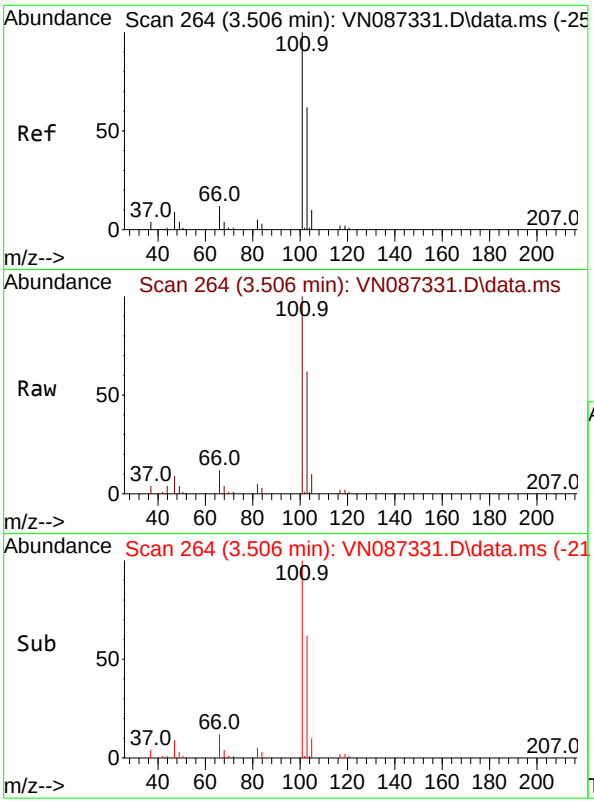


#6
Chloroethane
Concen: 50.942 ug/l
RT: 3.130 min Scan# 200
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 64 Resp: 80606

Ion	Ratio	Lower	Upper
64	100		
66	30.7	24.6	36.8

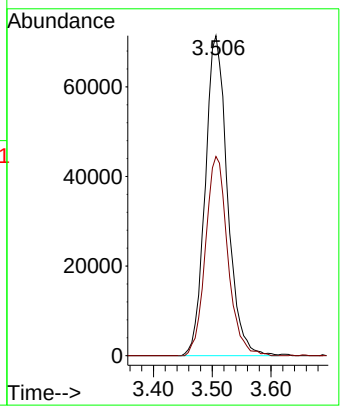




#7
Trichlorofluoromethane
Concen: 52.206 ug/l
RT: 3.506 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:101 Resp: 18730

Ion	Ratio	Lower	Upper
101	100		
103	62.2	49.8	74.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
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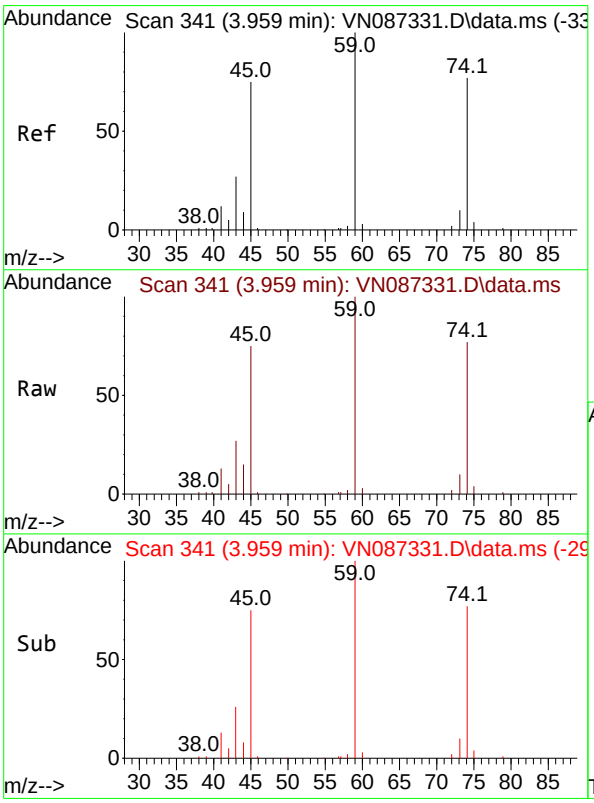
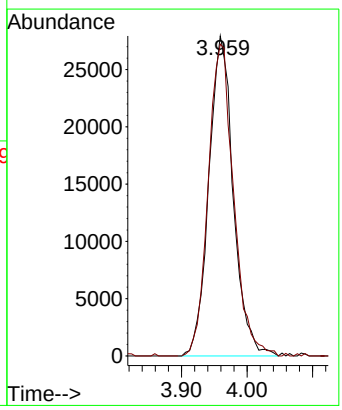
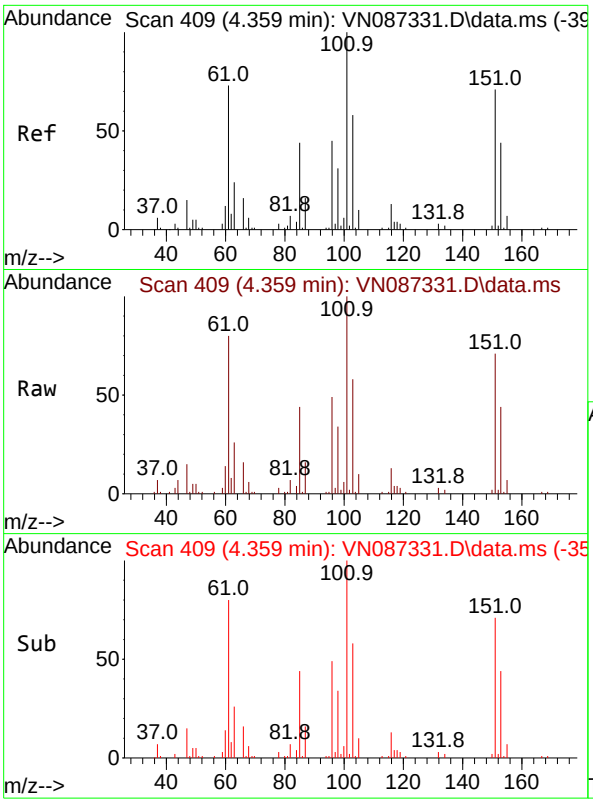


#8
Diethyl Ether
Concen: 51.843 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 74 Resp: 72151

Ion	Ratio	Lower	Upper
74	100		
45	101.7	50.8	152.5





#9
1,1,2-Trichlorotrifluoroethane
Concen: 52.068 ug/l
RT: 4.359 min Scan# 4(
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:101 Resp: 9589

Ion	Ratio	Lower	Upper
101	100		
85	46.6	37.3	55.9
151	73.6	58.9	88.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
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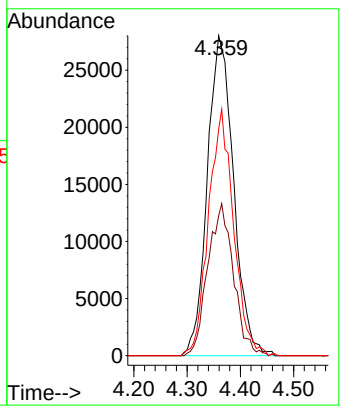
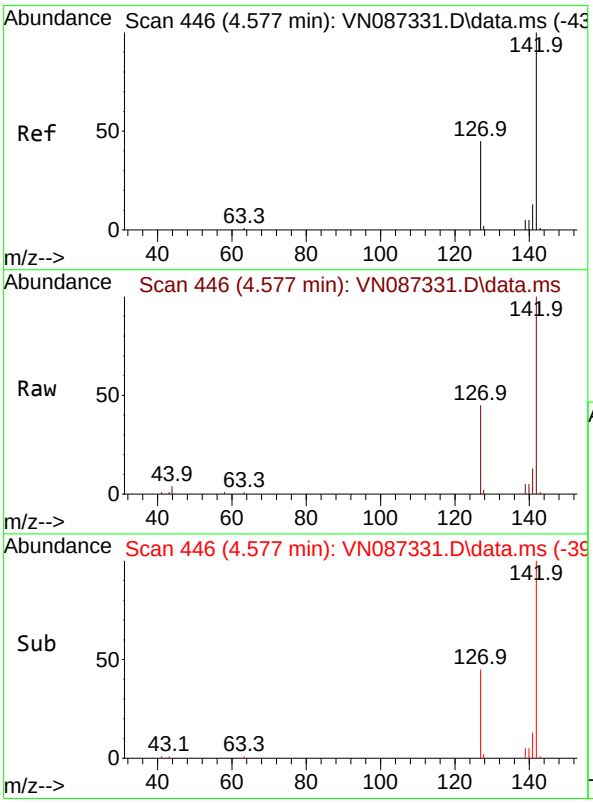
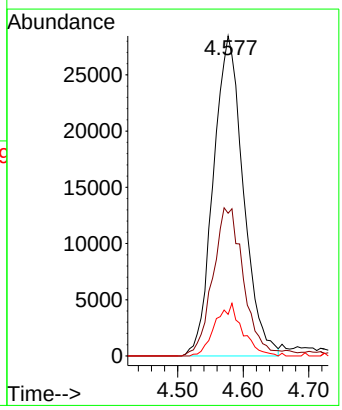


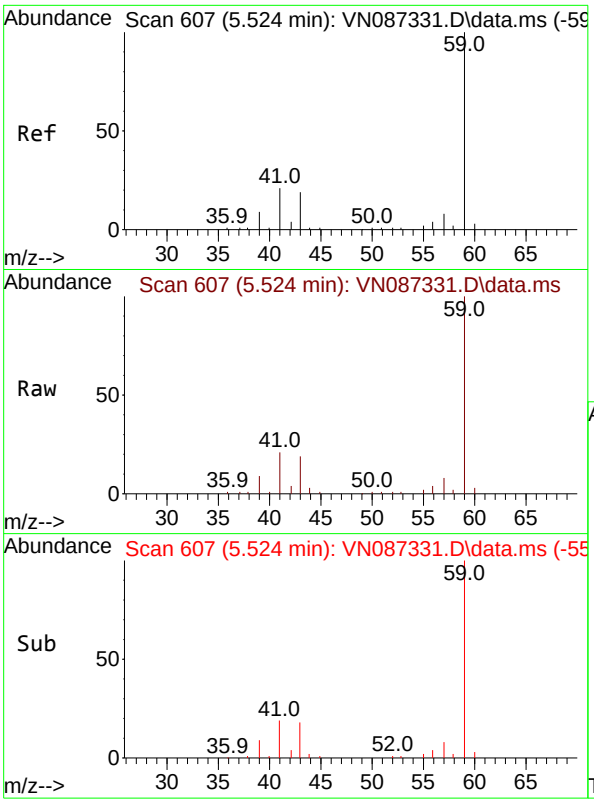


#10
Methyl Iodide
Concen: 47.912 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:142 Resp: 90277

Ion	Ratio	Lower	Upper
142	100		
127	44.6	35.7	53.5
141	13.0	10.4	15.6

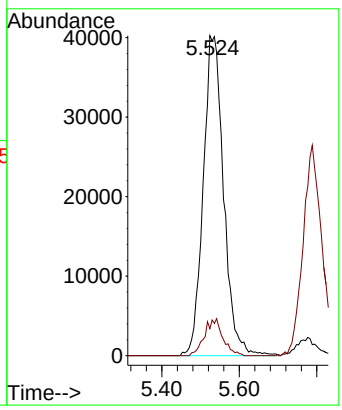




#11
Tert butyl alcohol
Concen: 249.504 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 59 Resp: 14693

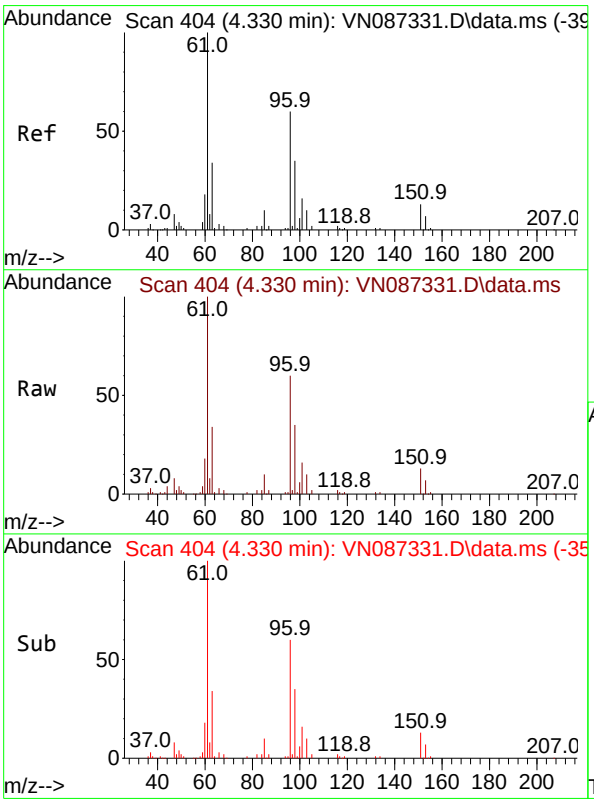
Ion	Ratio	Lower	Upper
59	100		
57	10.4	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

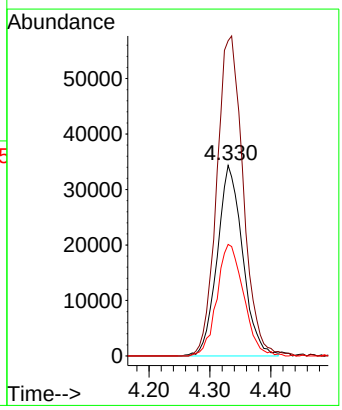
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

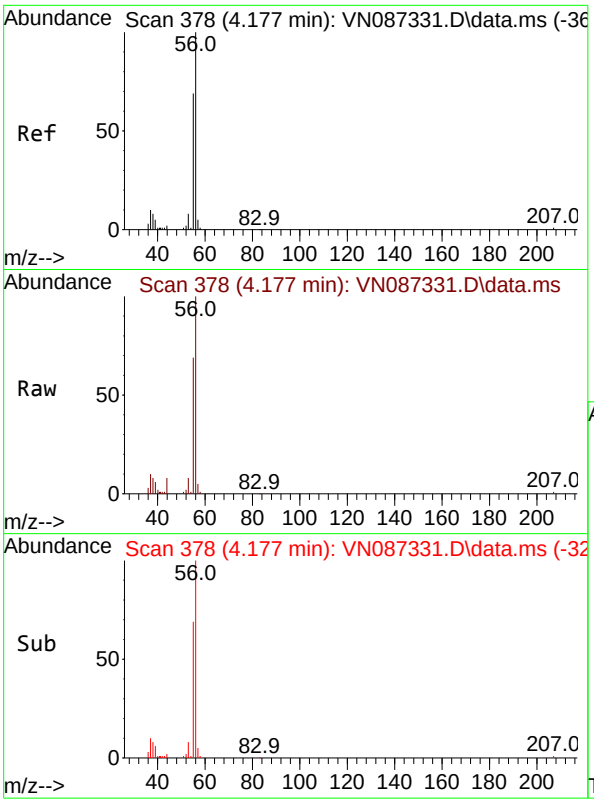


#12
1,1-Dichloroethene
Concen: 47.708 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 96 Resp: 99569

Ion	Ratio	Lower	Upper
96	100		
61	165.4	132.3	198.5
98	58.5	46.8	70.2

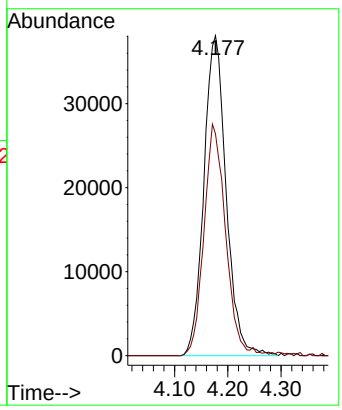




#13
Acrolein
Concen: 234.247 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 56 Resp: 11071

Ion	Ratio	Lower	Upper
56	100		
55	70.3	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
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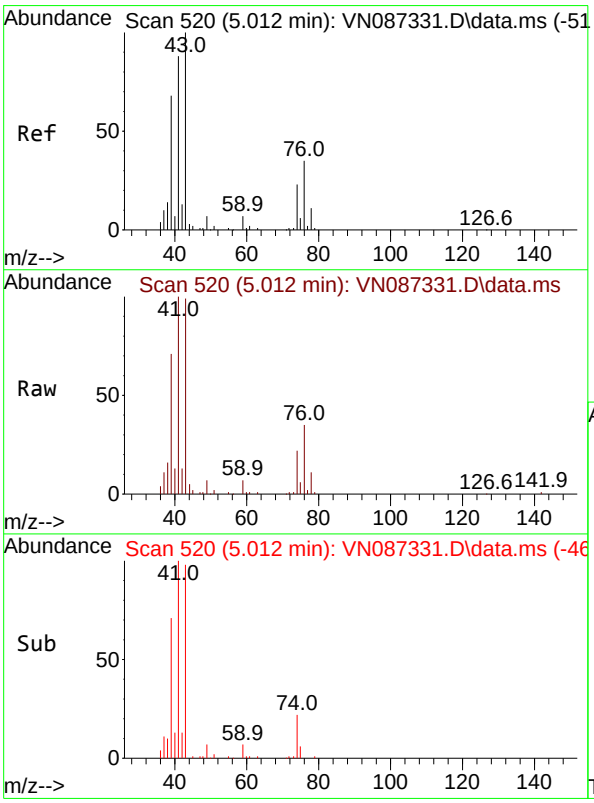
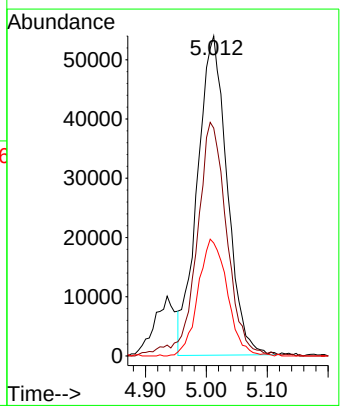
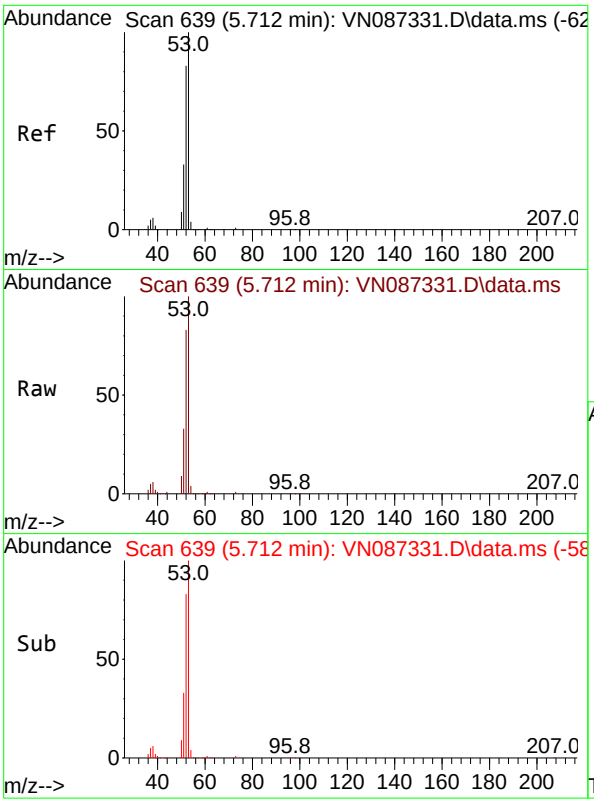


#14
Allyl chloride
Concen: 48.475 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 41 Resp: 183089

Ion	Ratio	Lower	Upper
41	100		
39	73.8	59.0	88.6
76	35.9	28.7	43.1

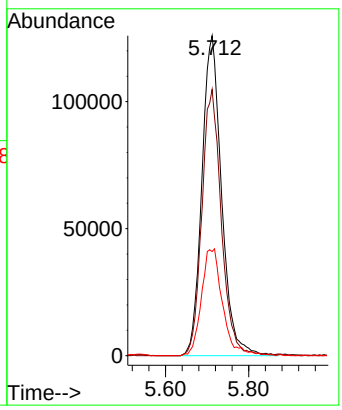




#15
Acrylonitrile
Concen: 259.227 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 53 Resp: 41427

Ion	Ratio	Lower	Upper
53	100		
52	81.9	65.5	98.3
51	35.9	28.7	43.1



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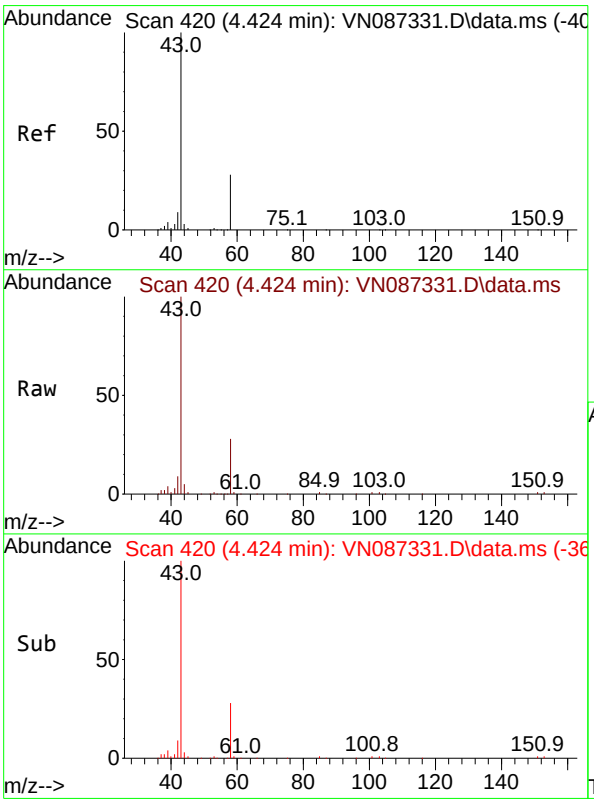
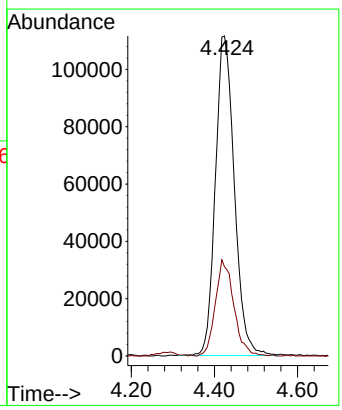
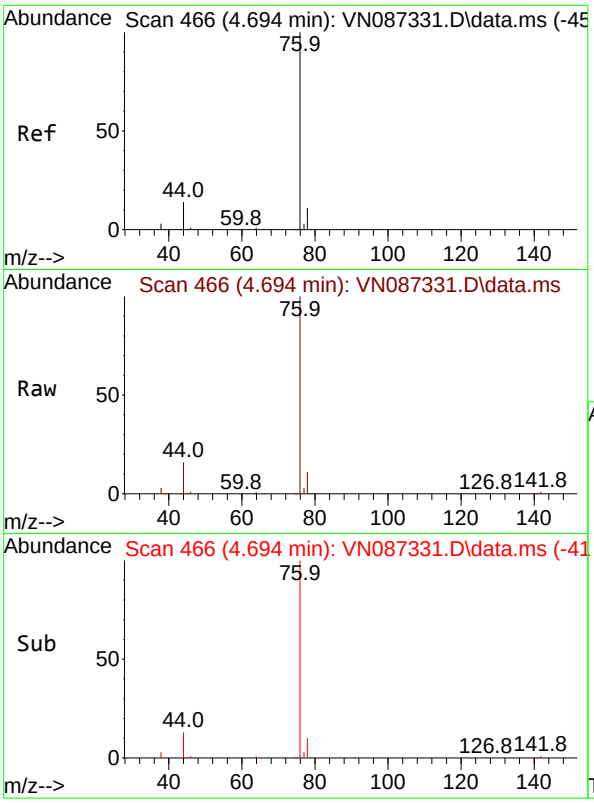


#16
Acetone
Concen: 240.328 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 353373

Ion	Ratio	Lower	Upper
43	100		
58	27.9	22.3	33.5

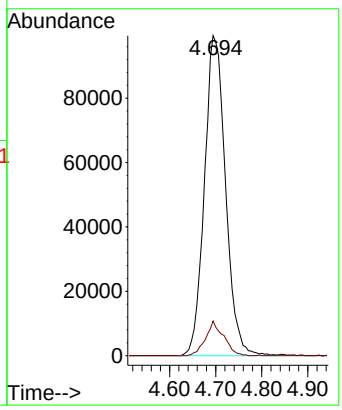




#17
Carbon Disulfide
Concen: 51.205 ug/l
RT: 4.694 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 76 Resp: 31683

Ion	Ratio	Lower	Upper
76	100		
78	10.8	8.6	13.0



Instrument :
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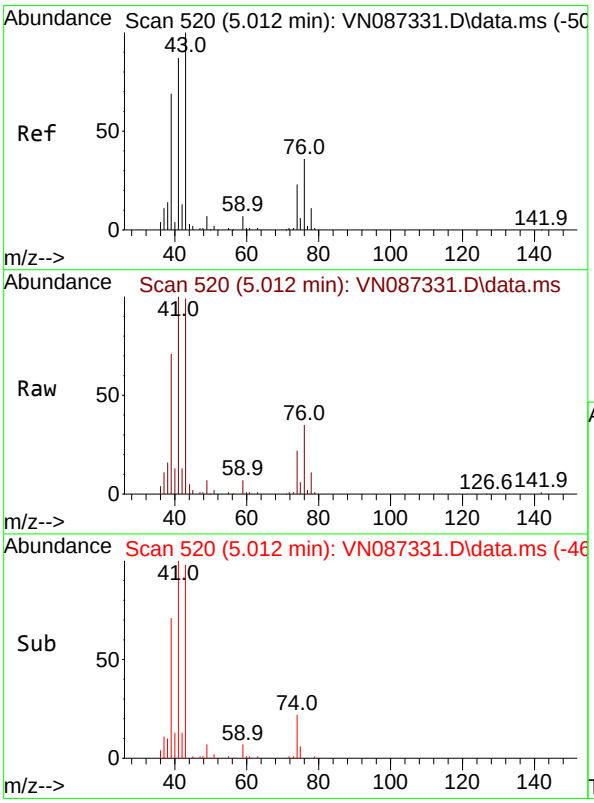
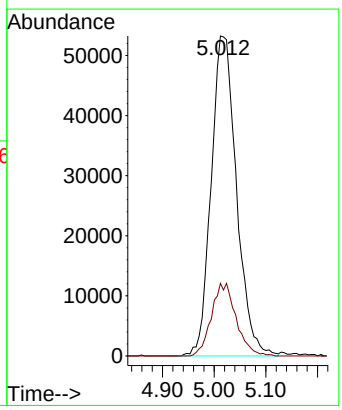
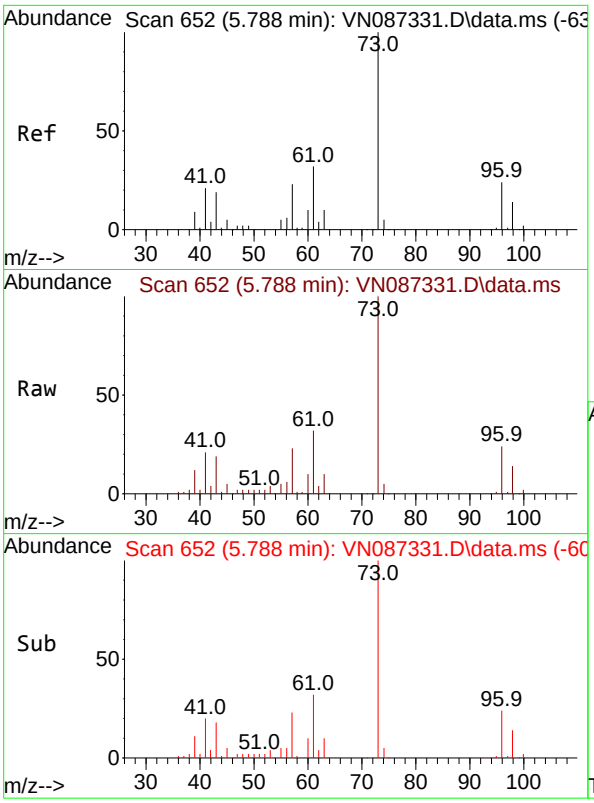


#18
Methyl Acetate
Concen: 49.594 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 181199

Ion	Ratio	Lower	Upper
43	100		
74	22.2	17.8	26.6





#19
Methyl tert-butyl Ether
Concen: 51.495 ug/l
RT: 5.788 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 73 Resp: 39613

Ion	Ratio	Lower	Upper
73	100		
57	23.2	18.6	27.8

Instrument :
MSVOA_N
ClientSampleId :
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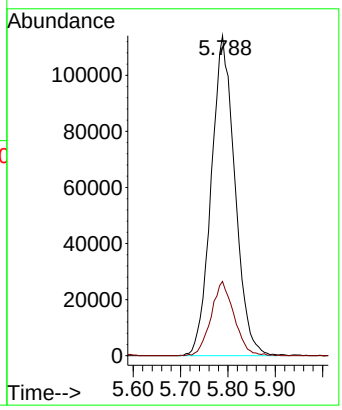
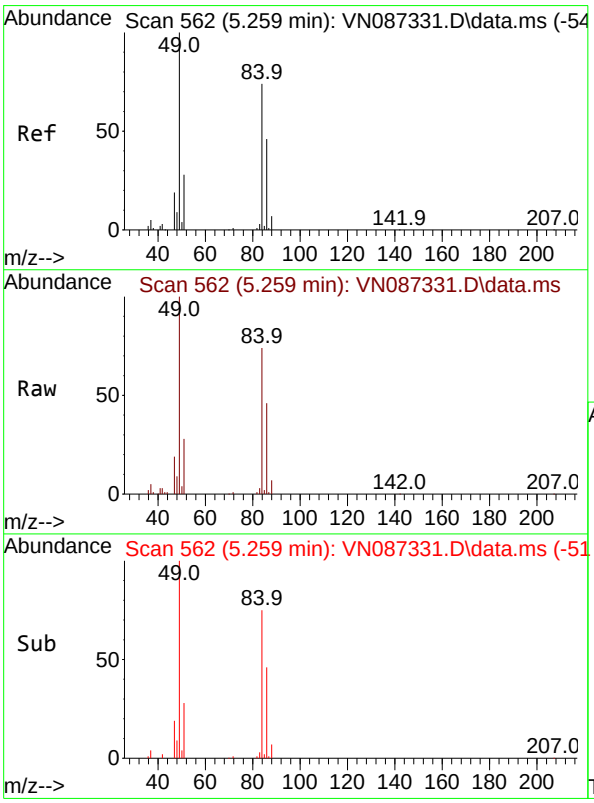
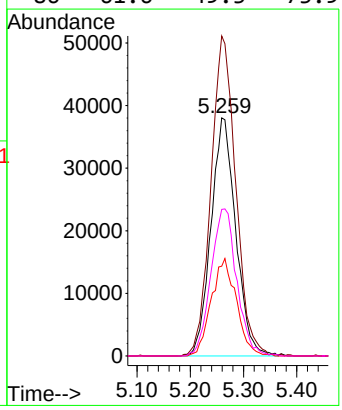


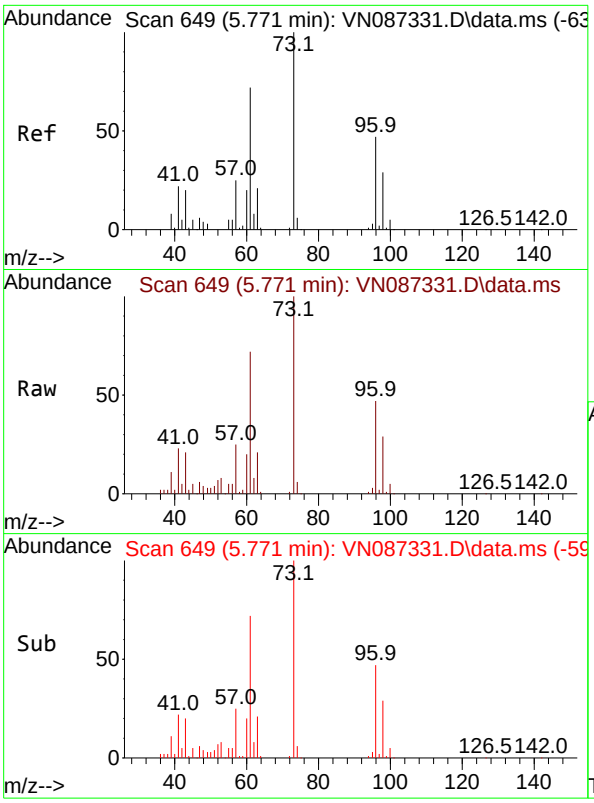


#20
Methylene Chloride
Concen: 50.001 ug/l
RT: 5.259 min Scan# 562
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 84 Resp: 122921

Ion	Ratio	Lower	Upper
84	100		
49	134.4	107.5	161.3
51	37.7	30.2	45.2
86	61.6	49.3	73.9

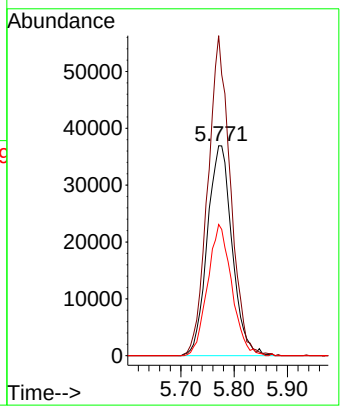




#21
trans-1,2-Dichloroethene
Concen: 50.687 ug/l
RT: 5.771 min Scan# 64
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 96 Resp: 11927

Ion	Ratio	Lower	Upper
96	100		
61	152.5	122.0	183.0
98	62.5	50.0	75.0



Instrument :
MSVOA_N
ClientSampleId :
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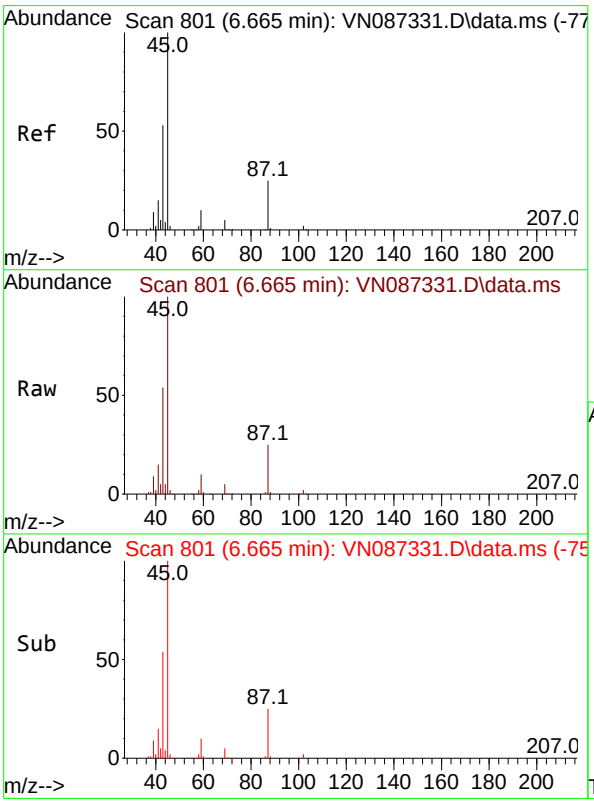
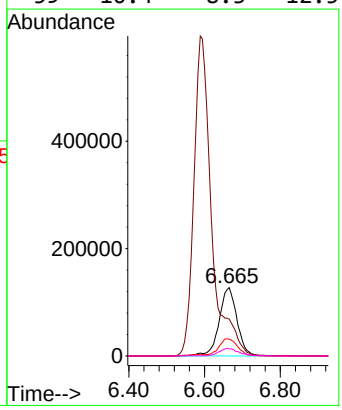
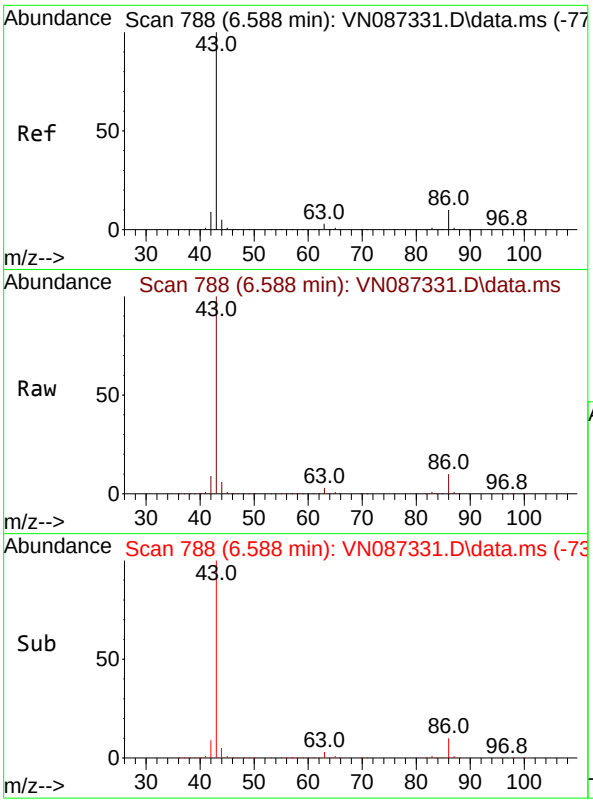


#22
Diisopropyl ether
Concen: 52.740 ug/l
RT: 6.665 min Scan# 801
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 45 Resp: 417843

Ion	Ratio	Lower	Upper
45	100		
43	53.5	42.8	64.2
87	24.7	19.8	29.6
59	10.4	8.3	12.5





#23
Vinyl Acetate
Concen: 278.796 ug/l
RT: 6.588 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 193180

Ion	Ratio	Lower	Upper
43	100		
86	9.6	7.7	11.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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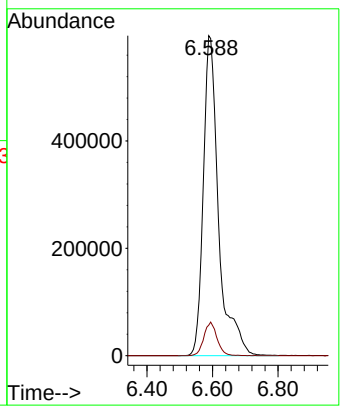
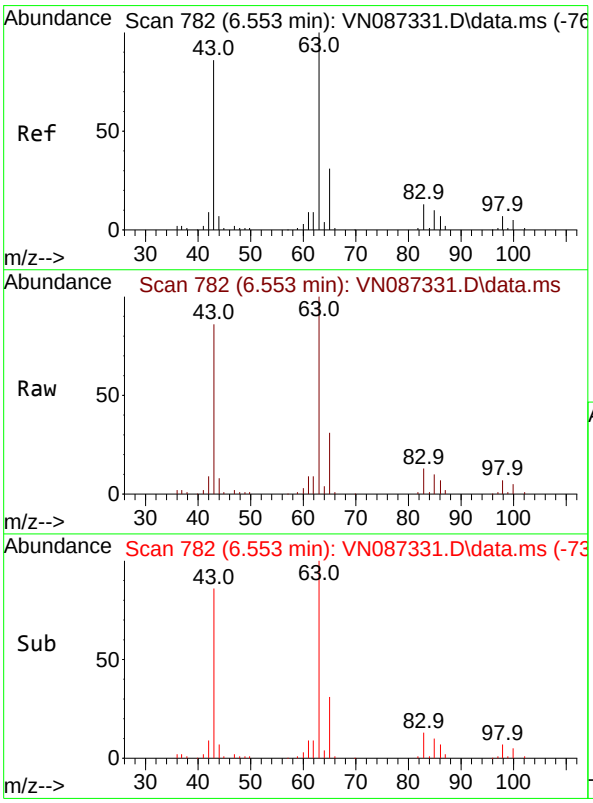
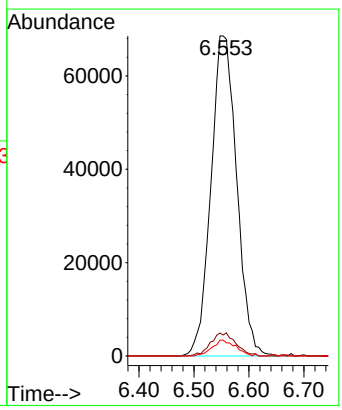


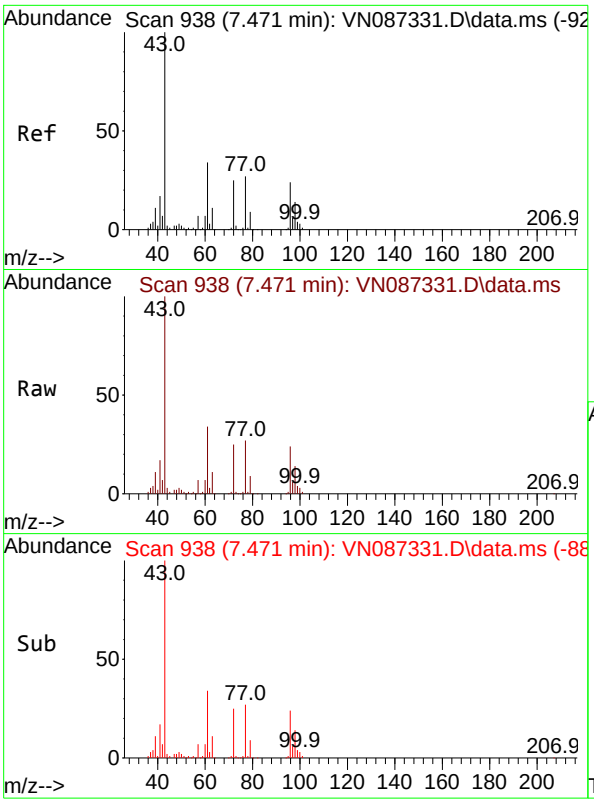


#24
1,1-Dichloroethane
Concen: 48.853 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 63 Resp: 223298

Ion	Ratio	Lower	Upper
63	100		
98	6.6	3.3	9.9
100	4.9	2.5	7.4





#25
2-Butanone
Concen: 261.702 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 58803

Ion	Ratio	Lower	Upper
43	100		
72	24.5	19.6	29.4

Instrument :
MSVOA_N
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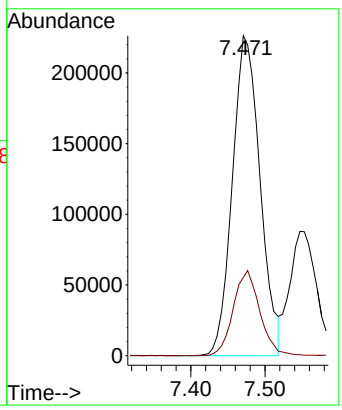
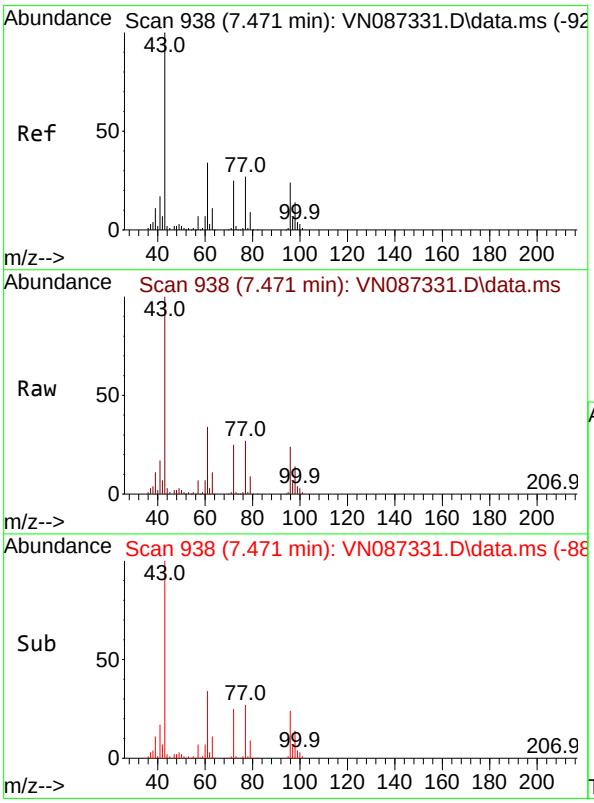
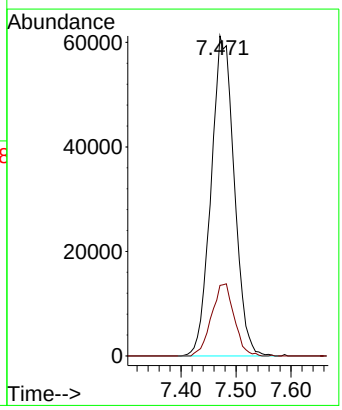


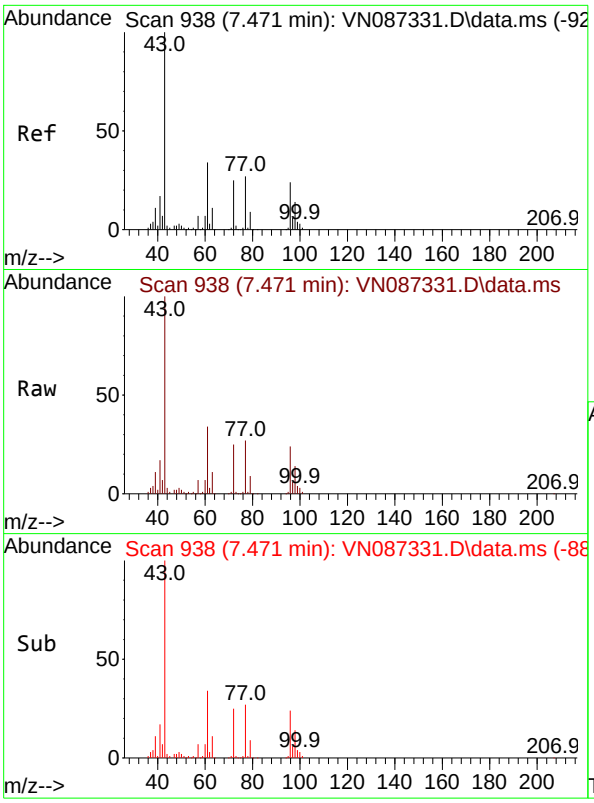


#26
2,2-Dichloropropane
Concen: 50.492 ug/l
RT: 7.471 min Scan# 938
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 77 Resp: 179431

Ion	Ratio	Lower	Upper
77	100		
97	22.1	11.1	33.1

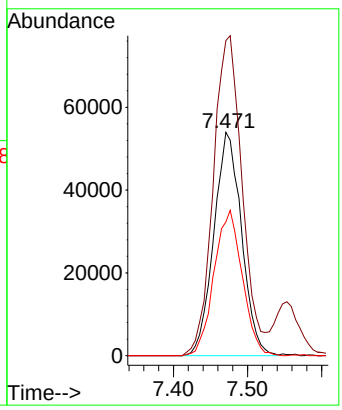




#27
cis-1,2-Dichloroethene
Concen: 51.746 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 96 Resp: 14019

Ion	Ratio	Lower	Upper
96	100		
61	148.9	0.0	297.8
98	66.2	0.0	132.4



Instrument :
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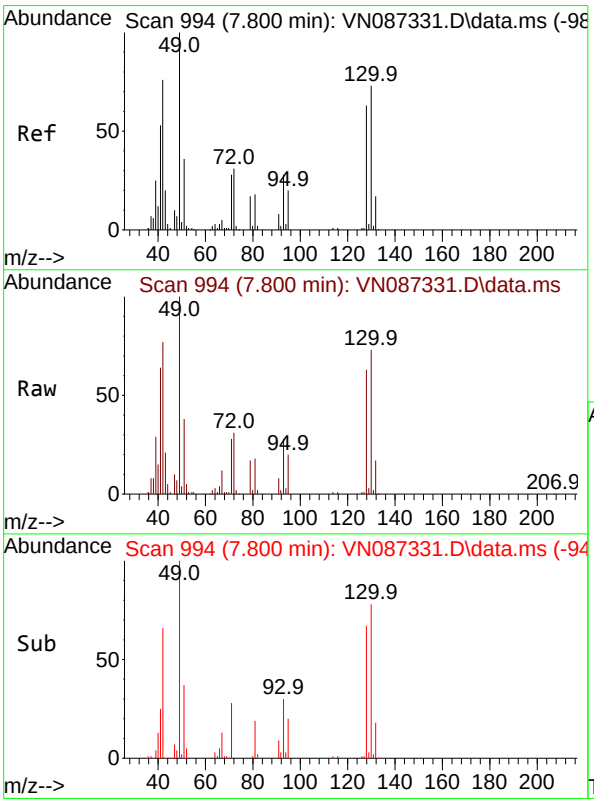
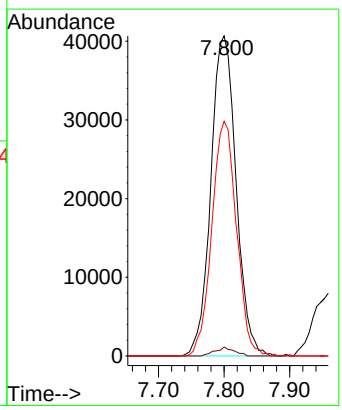
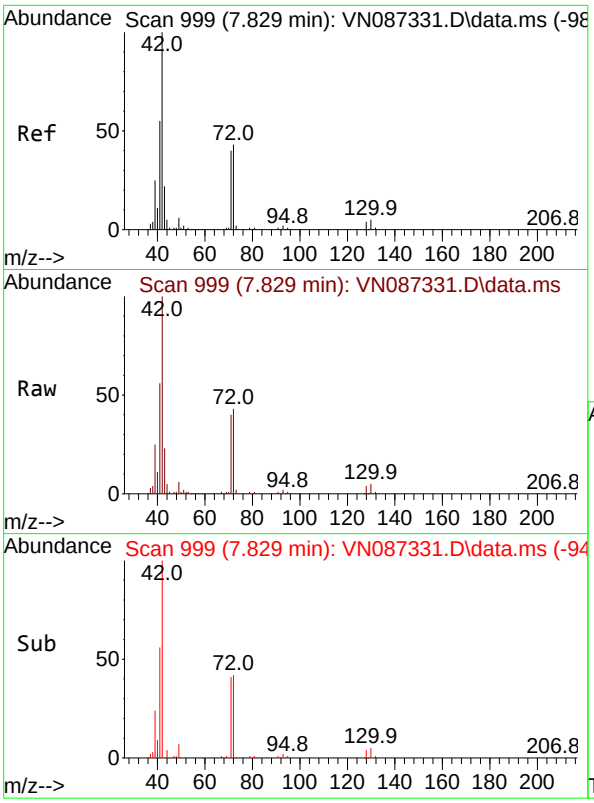


#28
Bromochloromethane
Concen: 49.713 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 49 Resp: 108748

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	4.2
130	71.6	57.3	85.9

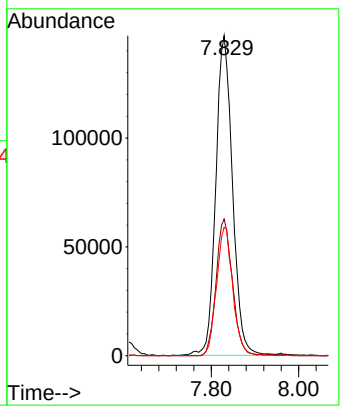




#29
Tetrahydrofuran
Concen: 266.294 ug/l
RT: 7.829 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 42 Resp: 38870

Ion	Ratio	Lower	Upper
42	100		
72	41.7	33.4	50.0
71	39.0	31.2	46.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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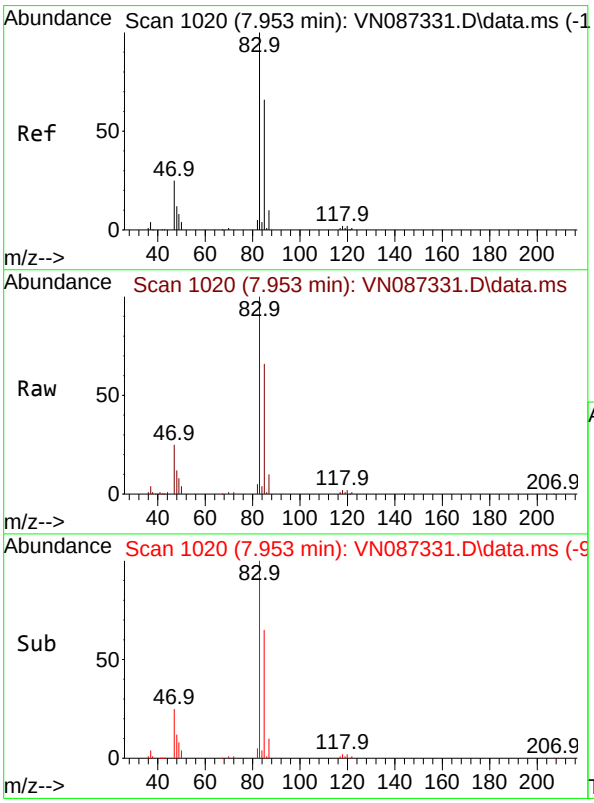
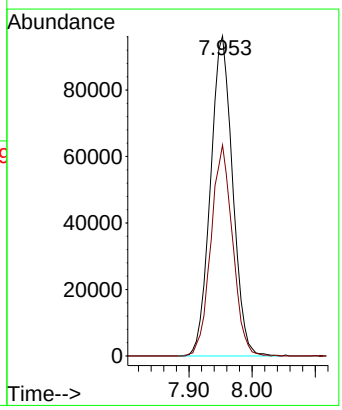
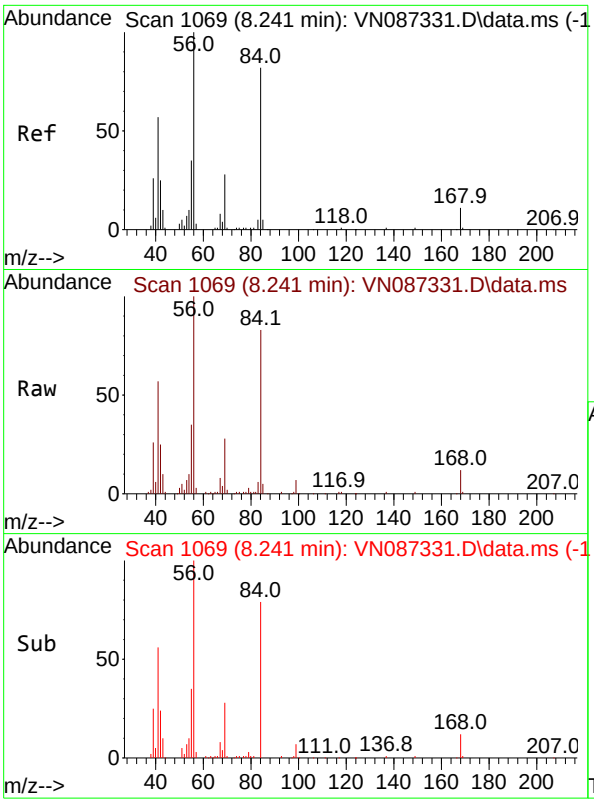


#30
Chloroform
Concen: 51.092 ug/l
RT: 7.953 min Scan# 1020
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 83 Resp: 233747

Ion	Ratio	Lower	Upper
83	100		
85	65.9	52.7	79.1

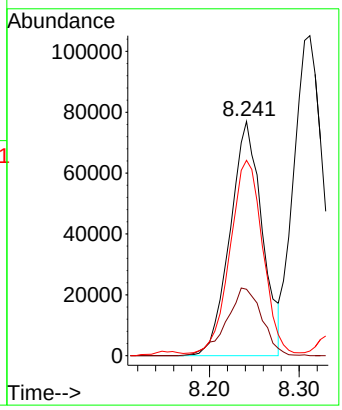




#31
Cyclohexane
Concen: 50.122 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 56 Resp: 19111

Ion	Ratio	Lower	Upper
56	100		
69	28.4	22.7	34.1
84	82.2	65.8	98.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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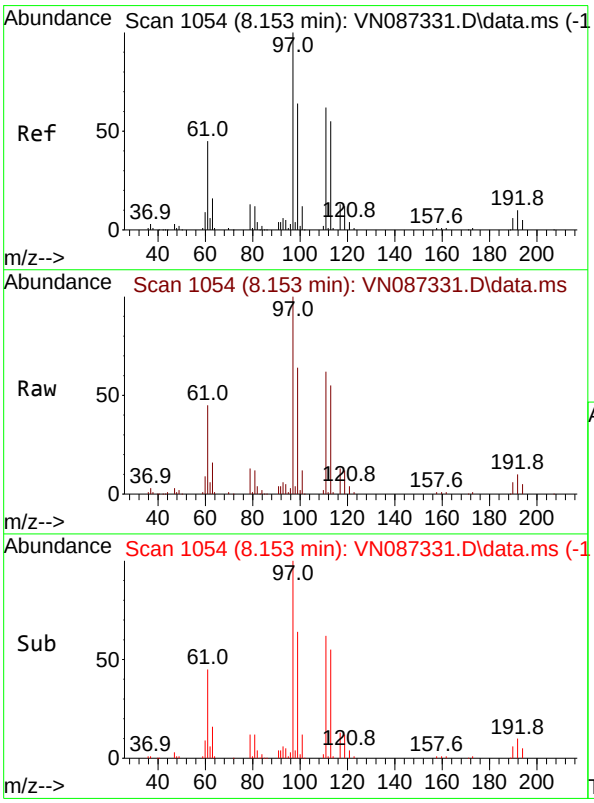
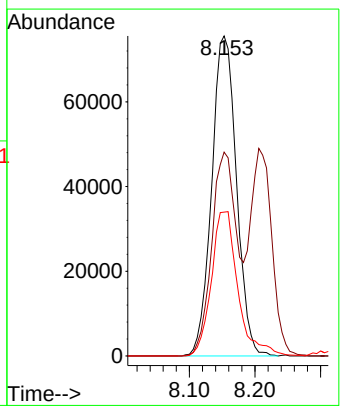
Supervised By :Semsettin Yesilyurt 07/17/2025

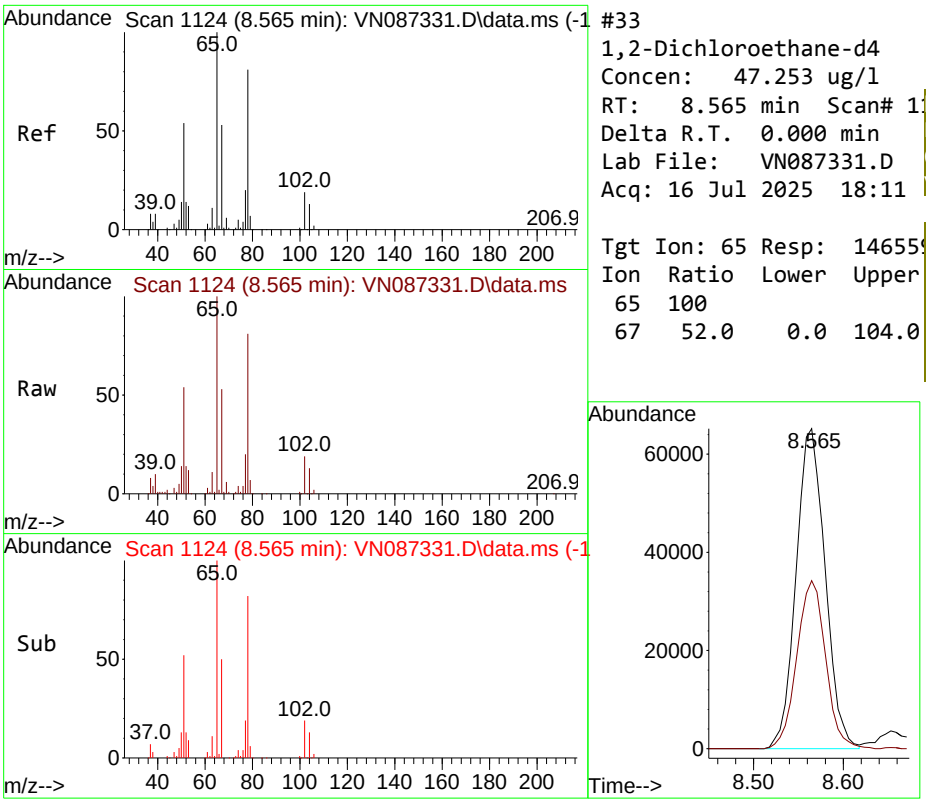


#32
1,1,1-Trichloroethane
Concen: 50.002 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 97 Resp: 198135

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.8	77.8
61	48.4	38.7	58.1





#33
1,2-Dichloroethane-d4
Concen: 47.253 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 65 Resp: 14655

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	104.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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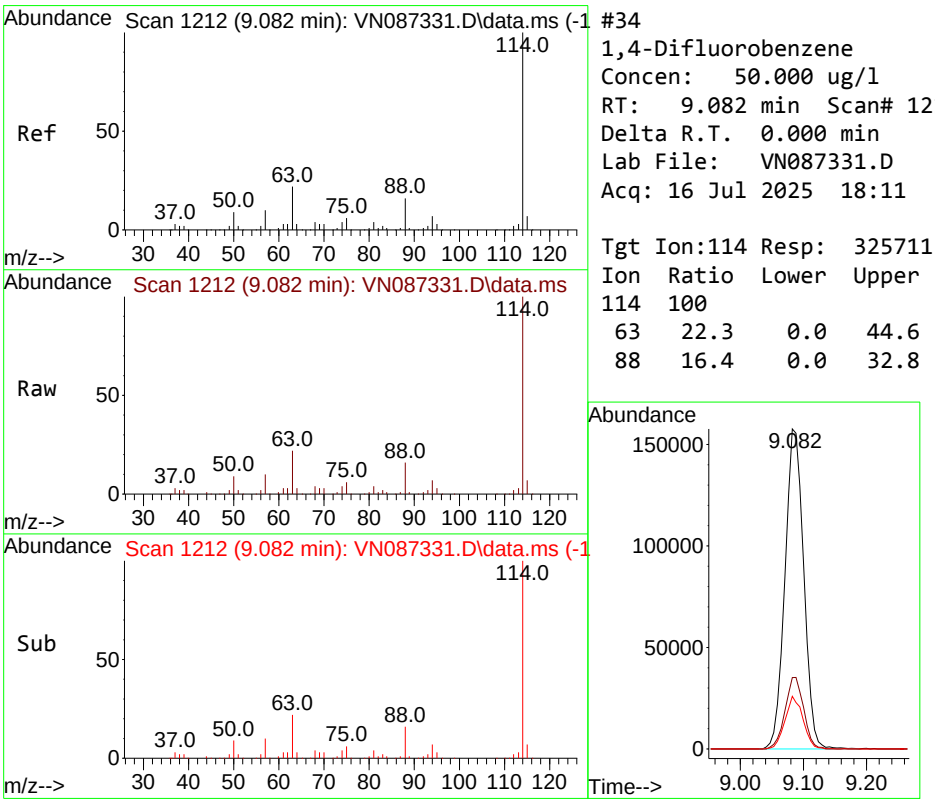
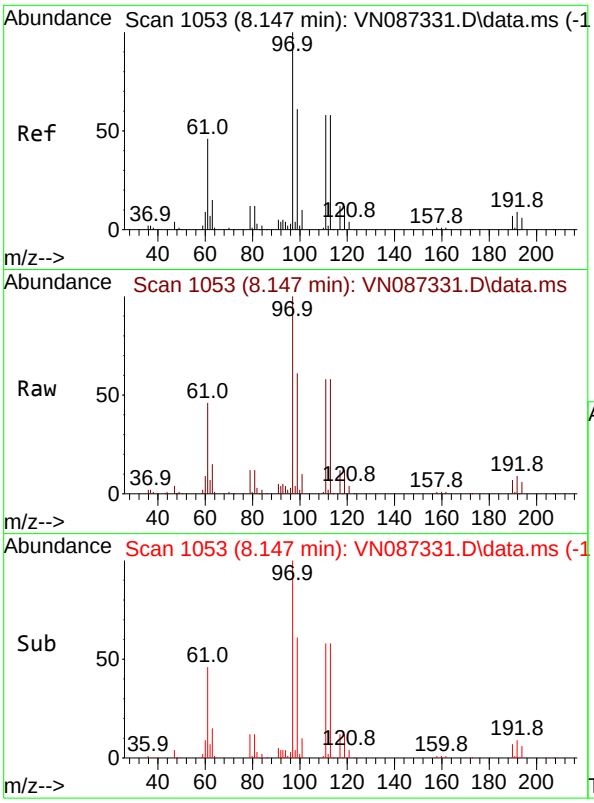


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:114 Resp: 325711

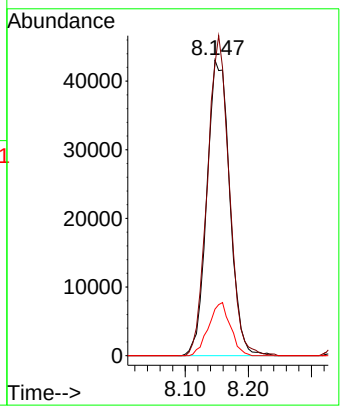
Ion	Ratio	Lower	Upper
114	100		
63	22.3	0.0	44.6
88	16.4	0.0	32.8



#35
Dibromofluoromethane
Concen: 48.190 ug/l
RT: 8.147 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:113 Resp: 10827

Ion	Ratio	Lower	Upper
113	100		
111	103.1	82.5	123.7
192	17.1	13.7	20.5



Instrument :
MSVOA_N
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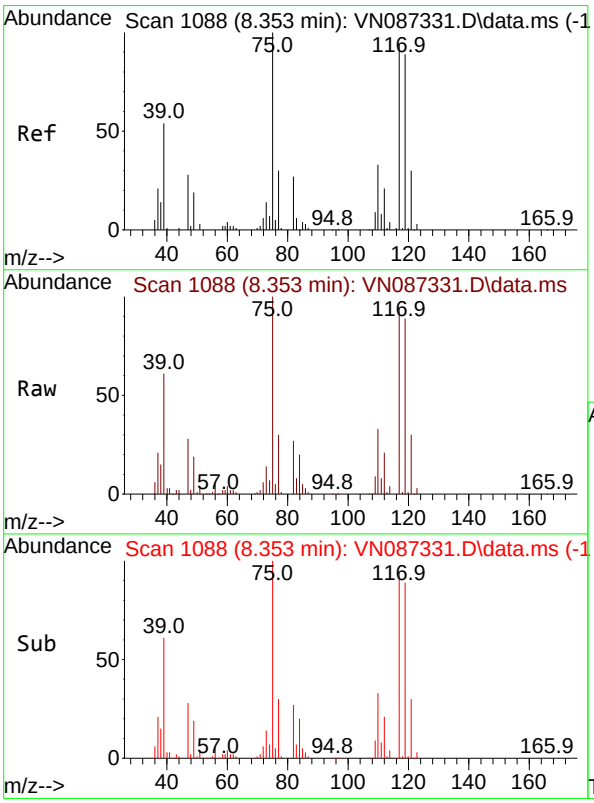
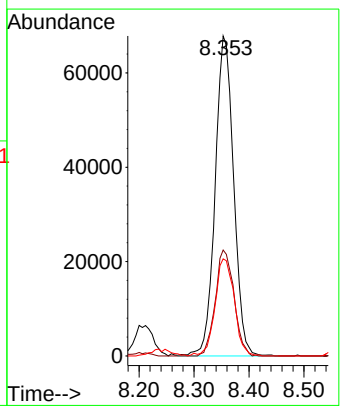
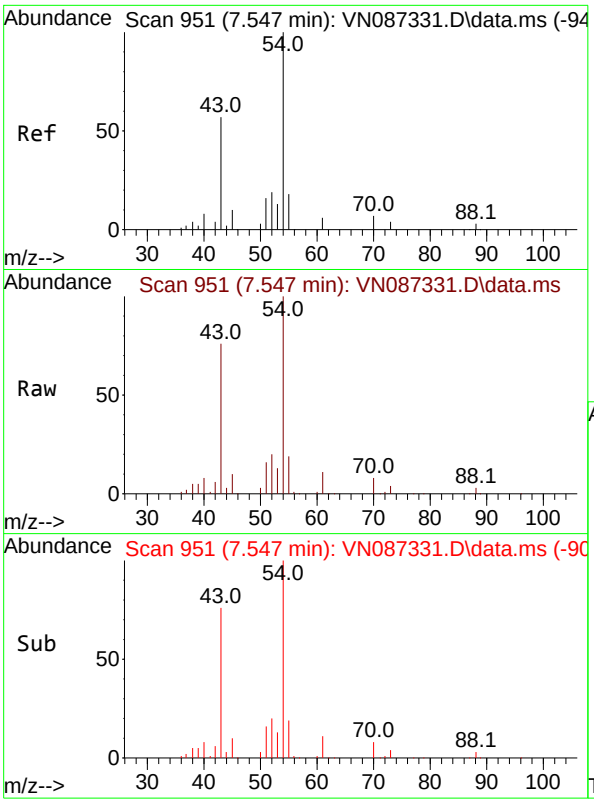


#36
1,1-Dichloropropene
Concen: 53.418 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 75 Resp: 158563

Ion	Ratio	Lower	Upper
75	100		
110	33.4	16.7	50.1
77	31.5	25.2	37.8

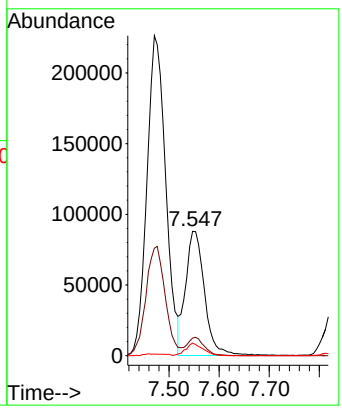




#37
Ethyl Acetate
Concen: 53.652 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 23000

Ion	Ratio	Lower	Upper
43	100		
61	13.6	10.9	16.3
70	9.2	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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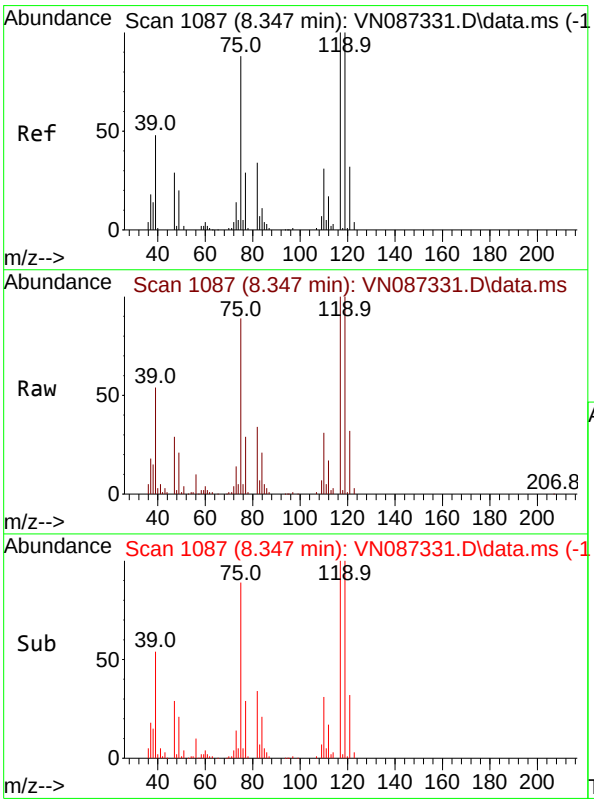
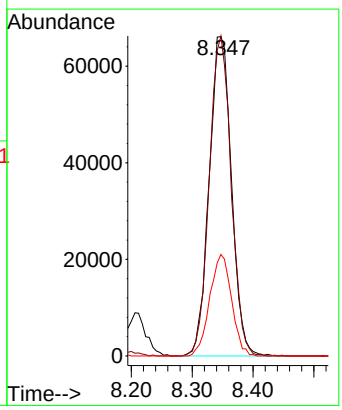
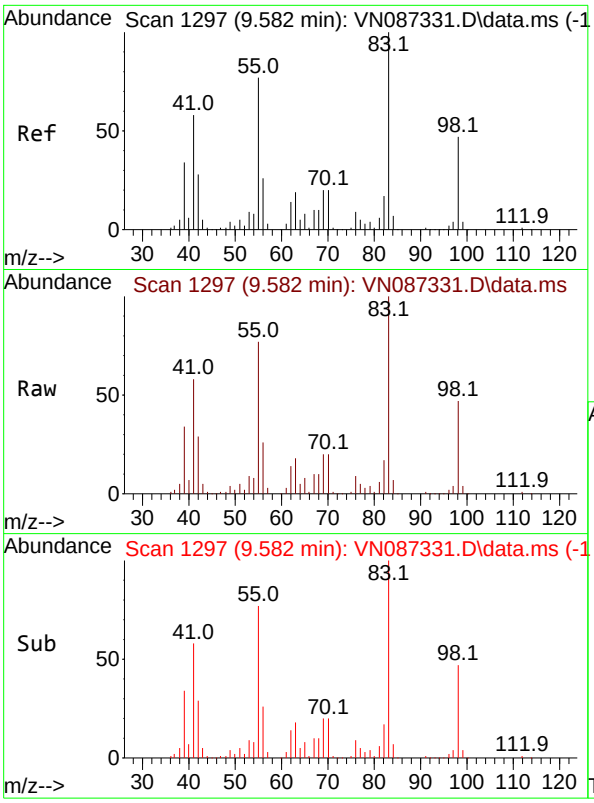


#38
Carbon Tetrachloride
Concen: 51.501 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:117 Resp: 168403

Ion	Ratio	Lower	Upper
117	100		
119	100.2	80.2	120.2
121	31.8	25.4	38.2

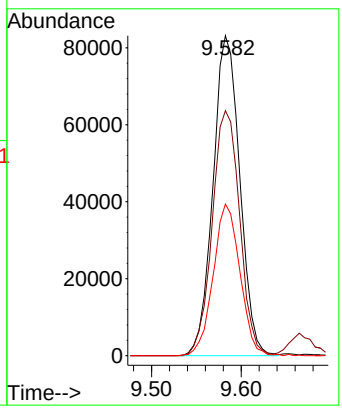




#39
Methylcyclohexane
Concen: 53.614 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 83 Resp: 17229

Ion	Ratio	Lower	Upper
83	100		
55	76.6	61.3	91.9
98	47.4	37.9	56.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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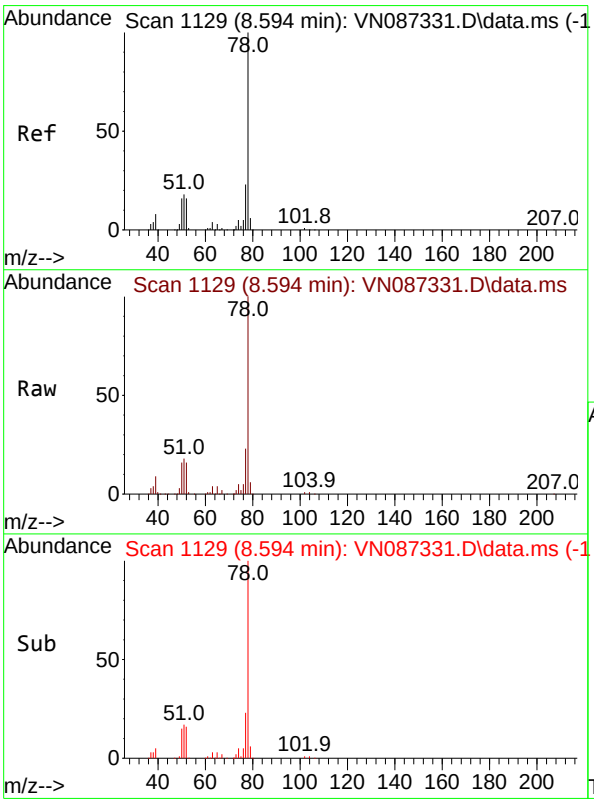
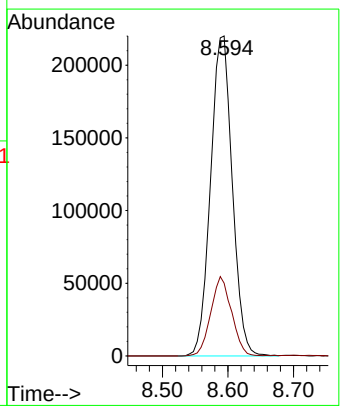
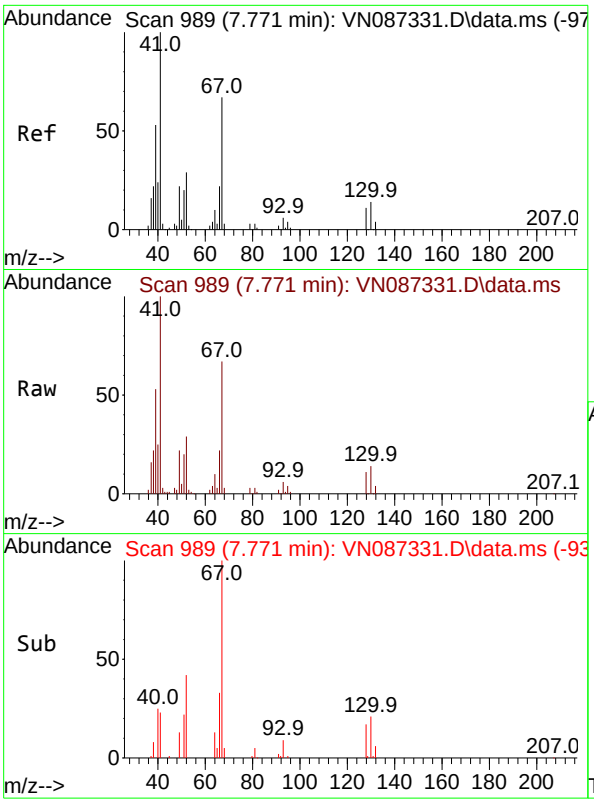


#40
Benzene
Concen: 52.714 ug/l
RT: 8.594 min Scan# 1129
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 78 Resp: 505723

Ion	Ratio	Lower	Upper
78	100		
77	22.7	18.2	27.2

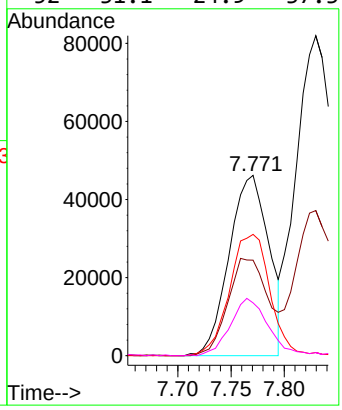




#41
Methacrylonitrile
Concen: 53.486 ug/l
RT: 7.771 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 41 Resp: 11989

Ion	Ratio	Lower	Upper
41	100		
39	54.2	43.4	65.0
67	68.9	55.1	82.7
52	31.1	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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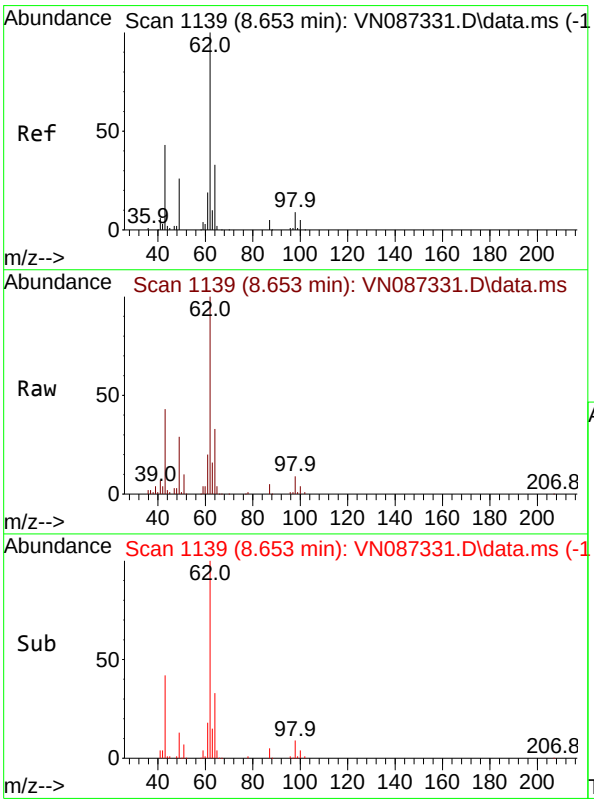
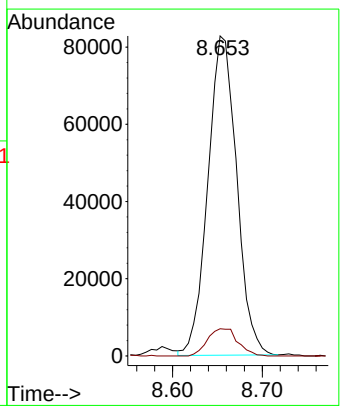
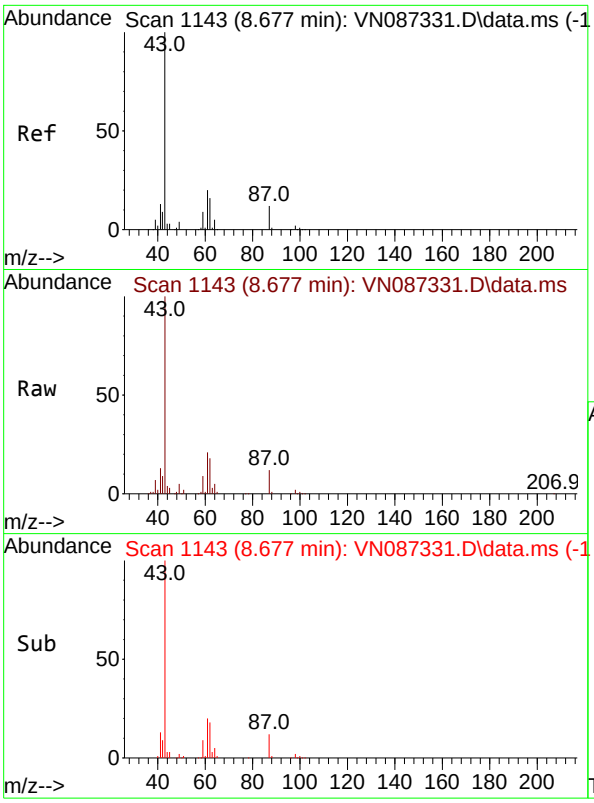


#42
1,2-Dichloroethane
Concen: 50.759 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 62 Resp: 184670

Ion	Ratio	Lower	Upper
62	100		
98	9.0	0.0	18.0





#43
Isopropyl Acetate
Concen: 52.399 ug/l
RT: 8.677 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 34870

Ion	Ratio	Lower	Upper
43	100		
61	24.8	19.8	29.8
87	12.2	9.8	14.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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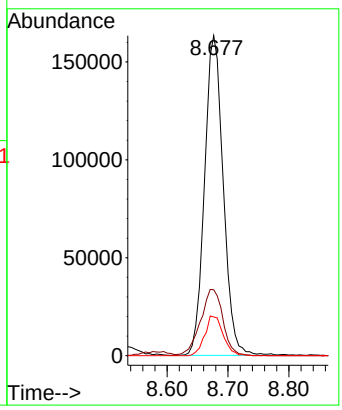
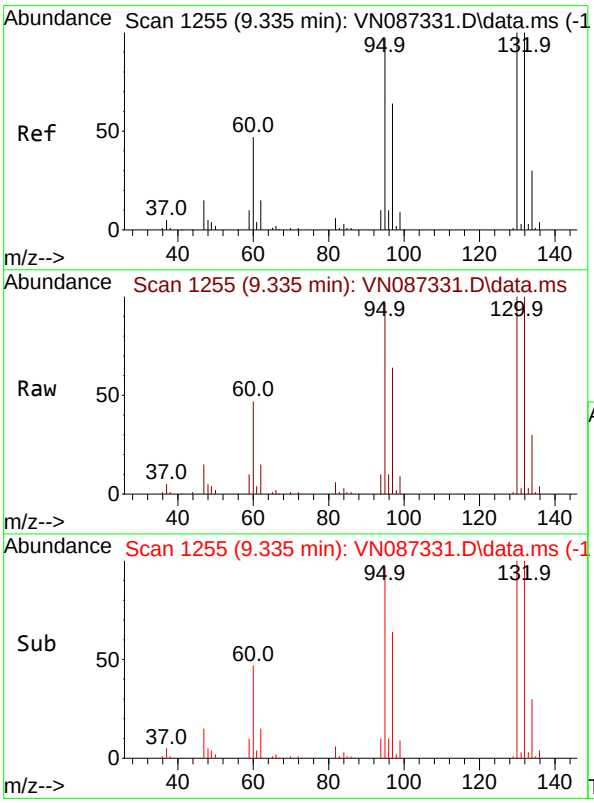
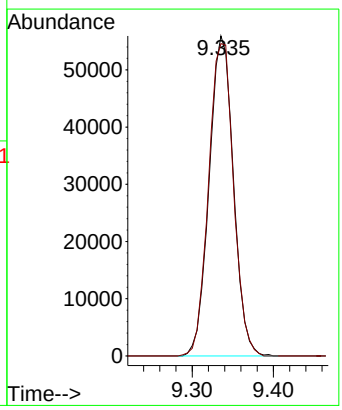


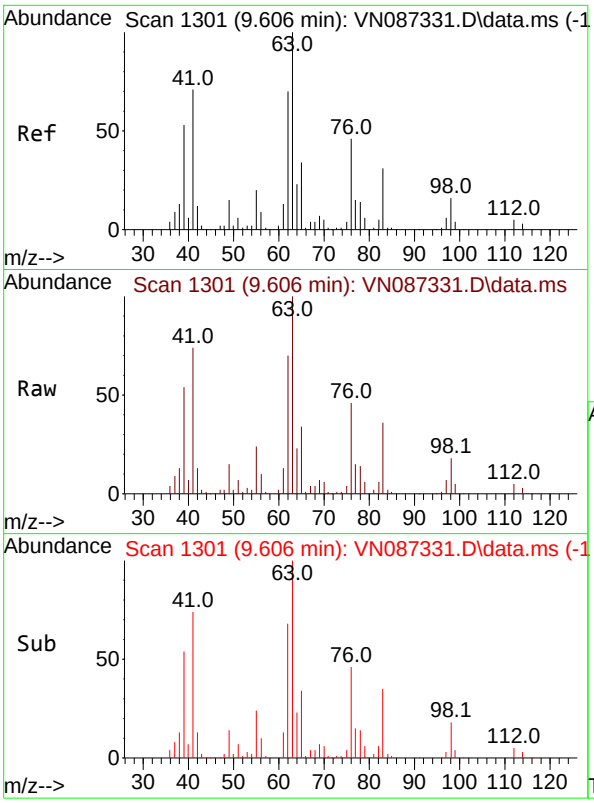


#44
Trichloroethene
Concen: 51.160 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:130 Resp: 115974

Ion	Ratio	Lower	Upper
130	100		
95	97.6	0.0	195.2

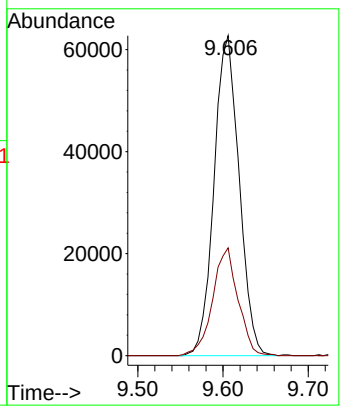




#45
1,2-Dichloropropane
Concen: 52.726 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 63 Resp: 12853

Ion	Ratio	Lower	Upper
63	100		
65	33.7	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
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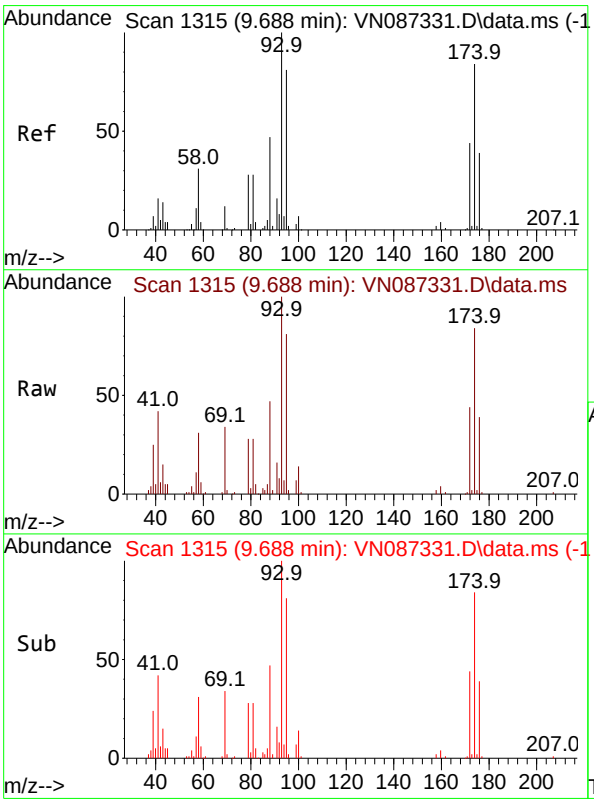
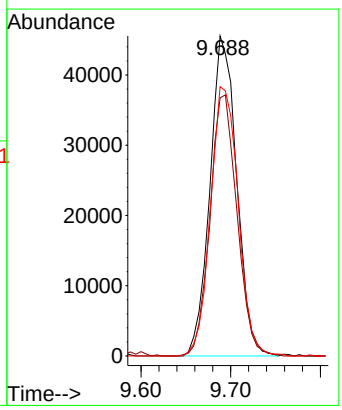
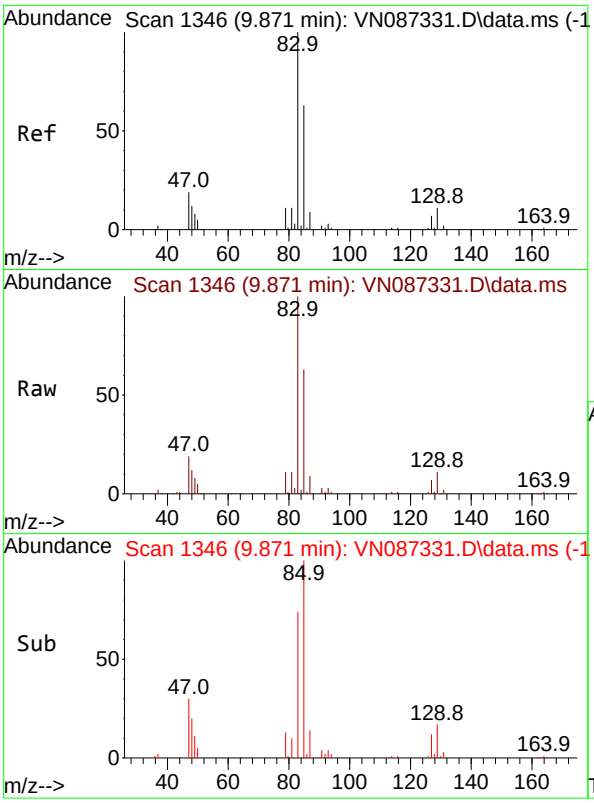


#46
Dibromomethane
Concen: 51.601 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 93 Resp: 94179

Ion	Ratio	Lower	Upper
93	100		
95	82.3	65.8	98.8
174	87.4	69.9	104.9

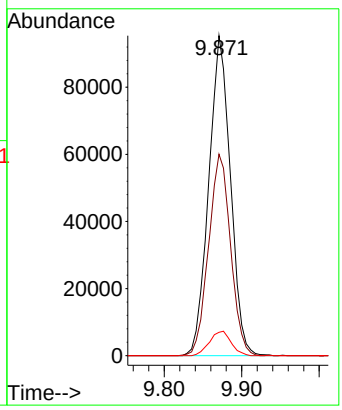




#47
Bromodichloromethane
Concen: 50.382 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 83 Resp: 18522

Ion	Ratio	Lower	Upper
83	100		
85	63.0	50.4	75.6
127	7.3	5.8	8.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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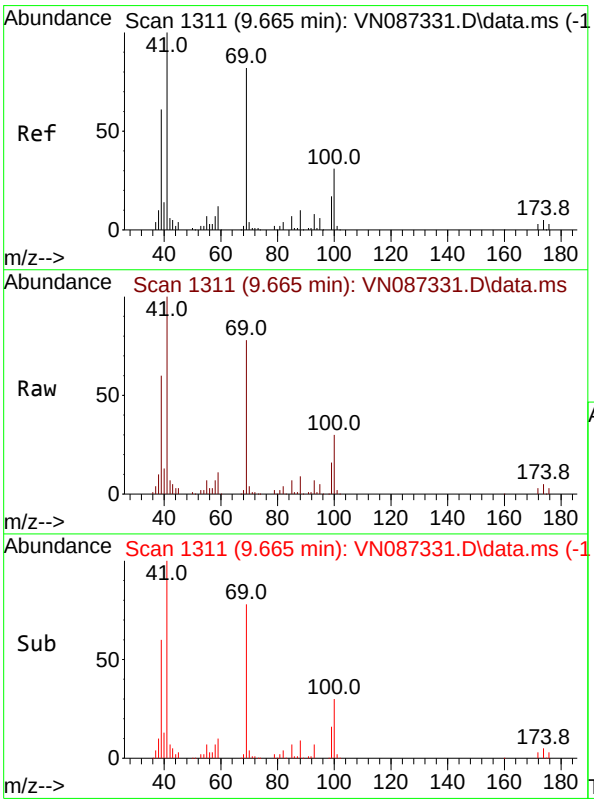
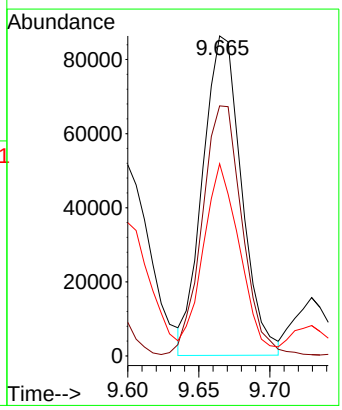
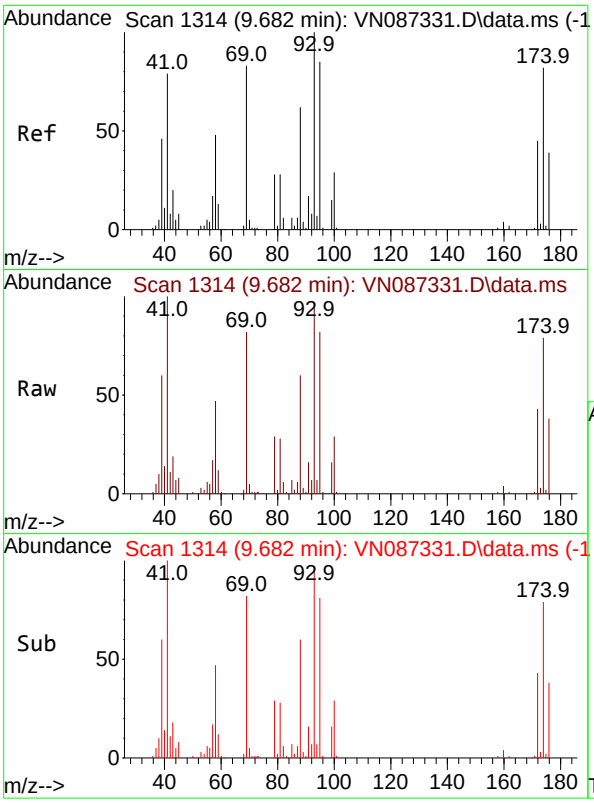


#48
Methyl methacrylate
Concen: 54.899 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 41 Resp: 164476

Ion	Ratio	Lower	Upper
41	100		
69	80.1	64.1	96.1
39	56.9	45.5	68.3

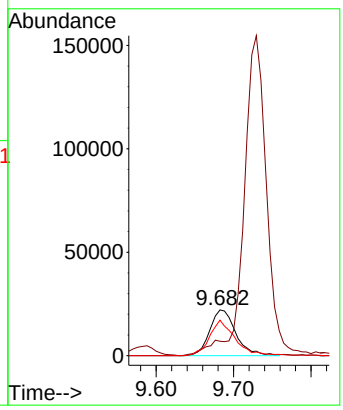




#49
1,4-Dioxane
Concen: 1134.802 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 88 Resp: 5207

Ion	Ratio	Lower	Upper
88	100		
43	0.0	0.0	0.0
58	76.4	61.1	91.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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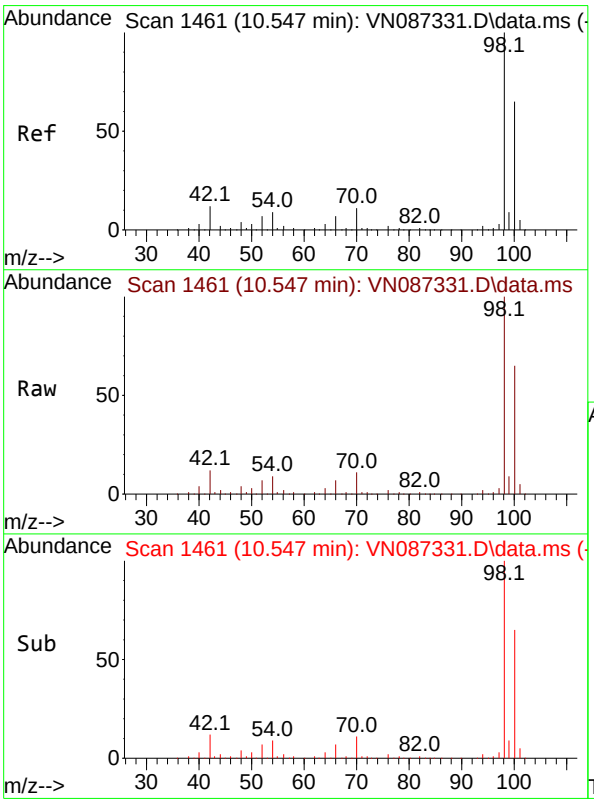
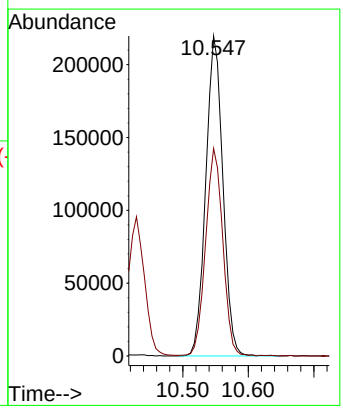
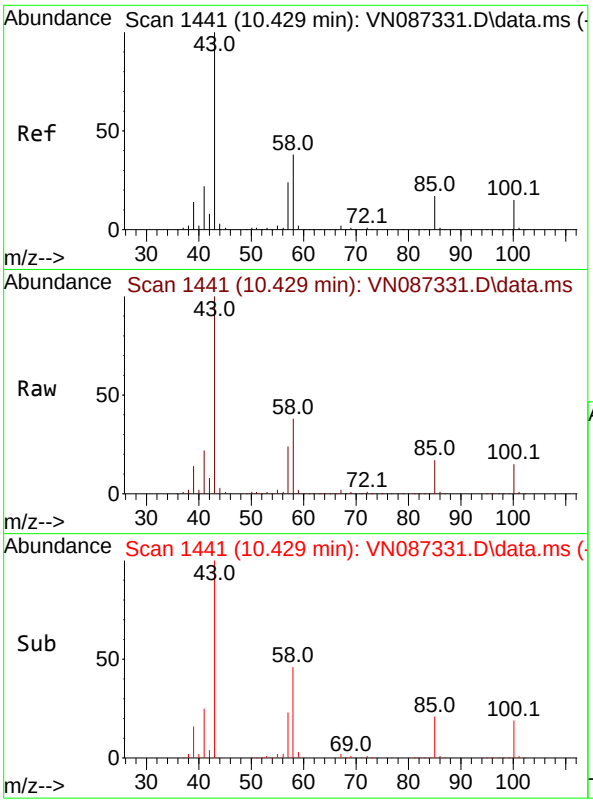


#50
Toluene-d8
Concen: 49.757 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 98 Resp: 398776

Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.1	78.1

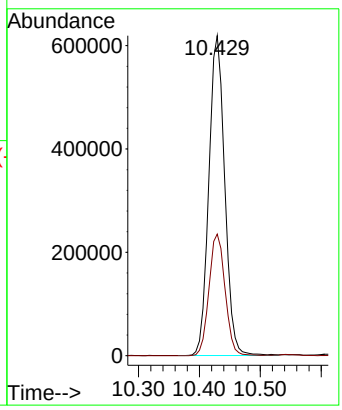




#51
4-Methyl-2-Pentanone
Concen: 266.771 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 112285

Ion	Ratio	Lower	Upper
43	100		
58	38.5	30.8	46.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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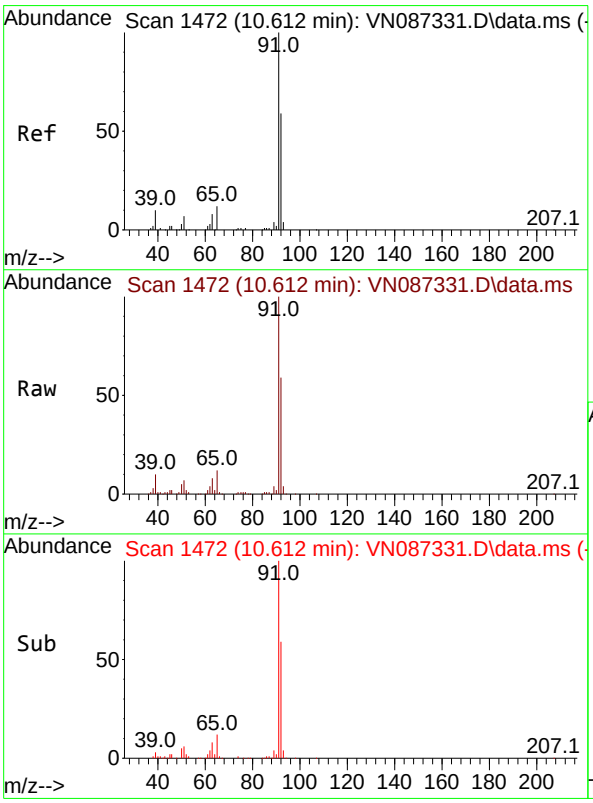
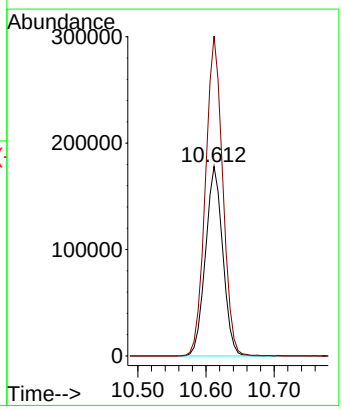
Supervised By :Semsettin Yesilyurt 07/17/2025

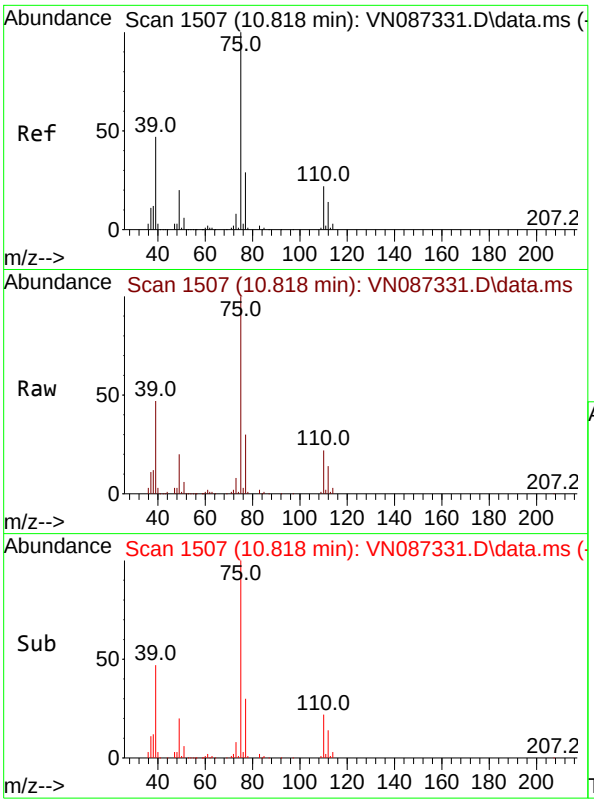


#52
Toluene
Concen: 53.814 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 92 Resp: 313806

Ion	Ratio	Lower	Upper
92	100		
91	168.9	135.1	202.7

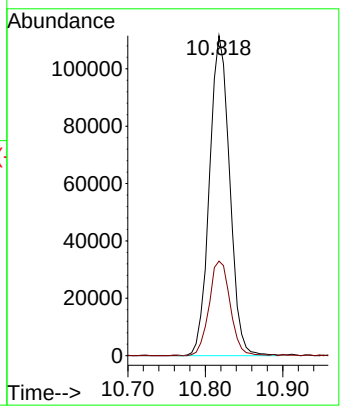




#53
t-1,3-Dichloropropene
Concen: 54.327 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 75 Resp: 20212

Ion	Ratio	Lower	Upper
75	100		
77	29.5	23.6	35.4



Instrument :
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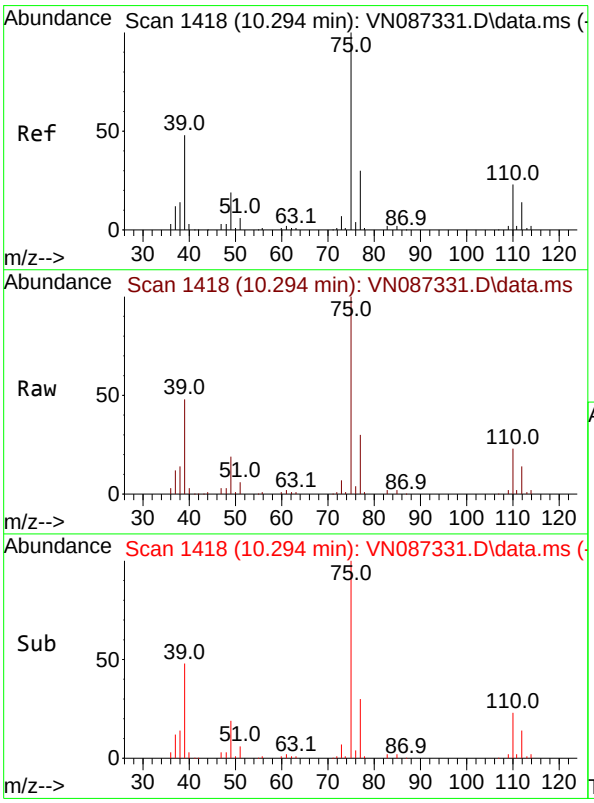
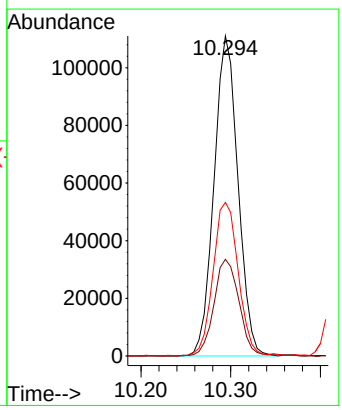
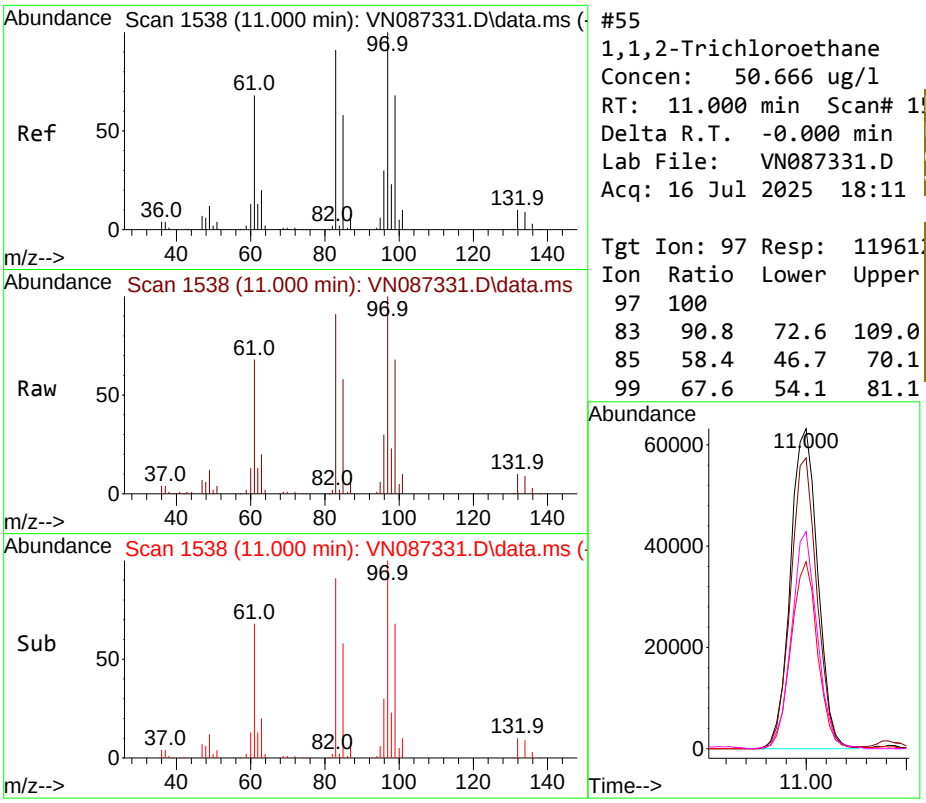


#54
cis-1,3-Dichloropropene
Concen: 53.529 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 75 Resp: 205720

Ion	Ratio	Lower	Upper
75	100		
77	30.2	24.2	36.2
39	48.0	38.4	57.6





#55
1,1,2-Trichloroethane
Concen: 50.666 ug/l
RT: 11.000 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 97 Resp: 11961

Ion	Ratio	Lower	Upper
97	100		
83	90.8	72.6	109.0
85	58.4	46.7	70.1
99	67.6	54.1	81.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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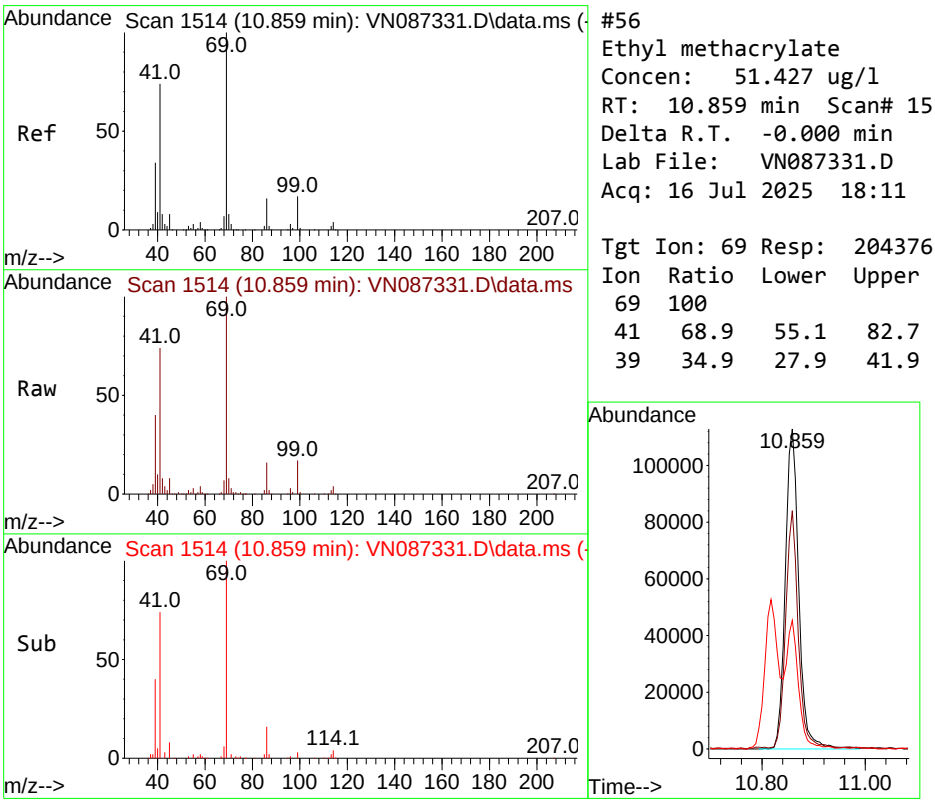
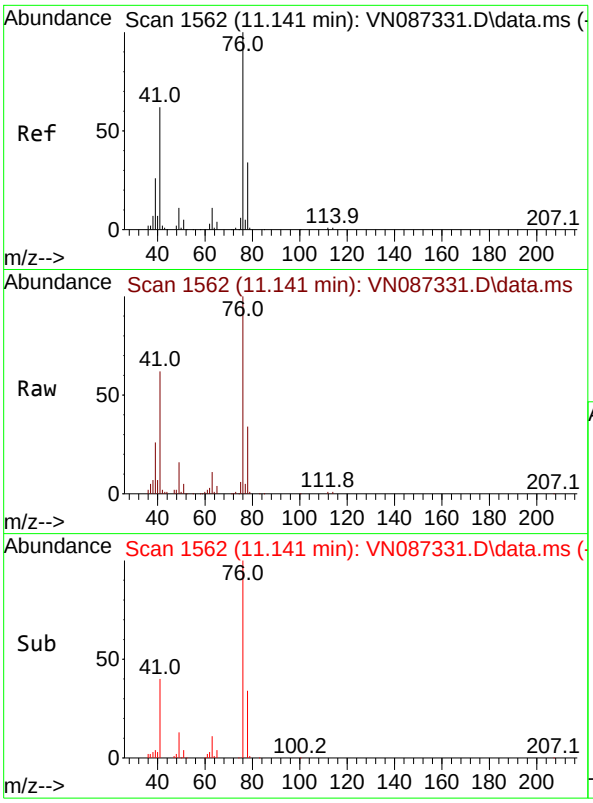


#56
Ethyl methacrylate
Concen: 51.427 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 69 Resp: 204376

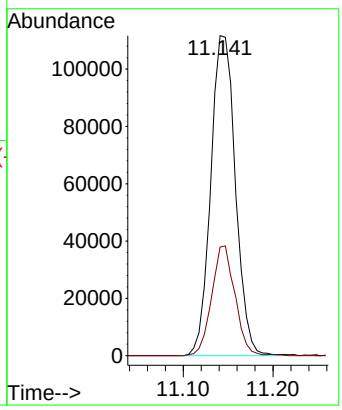
Ion	Ratio	Lower	Upper
69	100		
41	68.9	55.1	82.7
39	34.9	27.9	41.9



#57
1,3-Dichloropropane
Concen: 52.267 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 76 Resp: 21334

Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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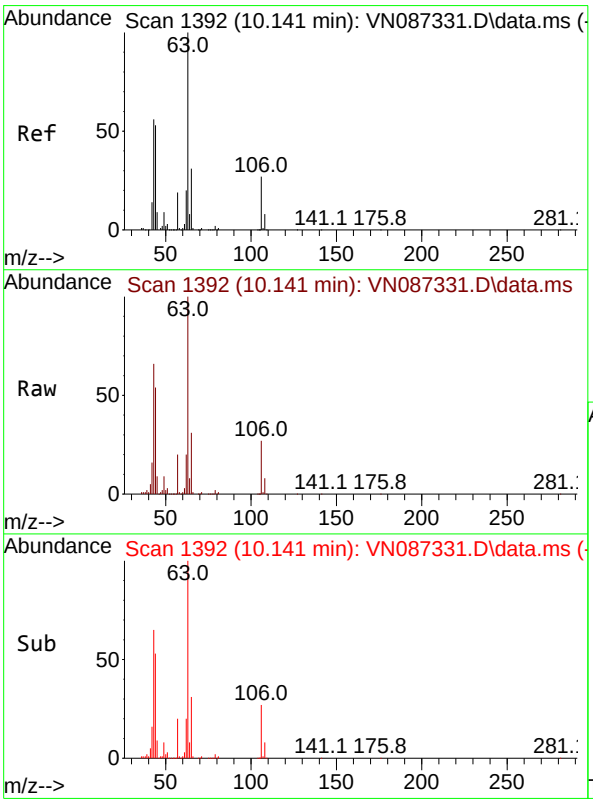
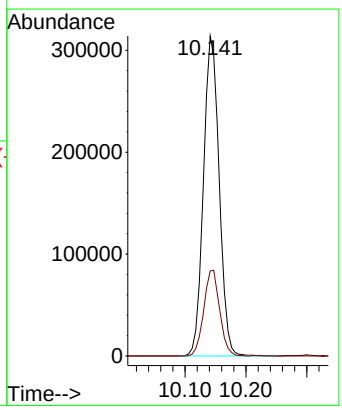
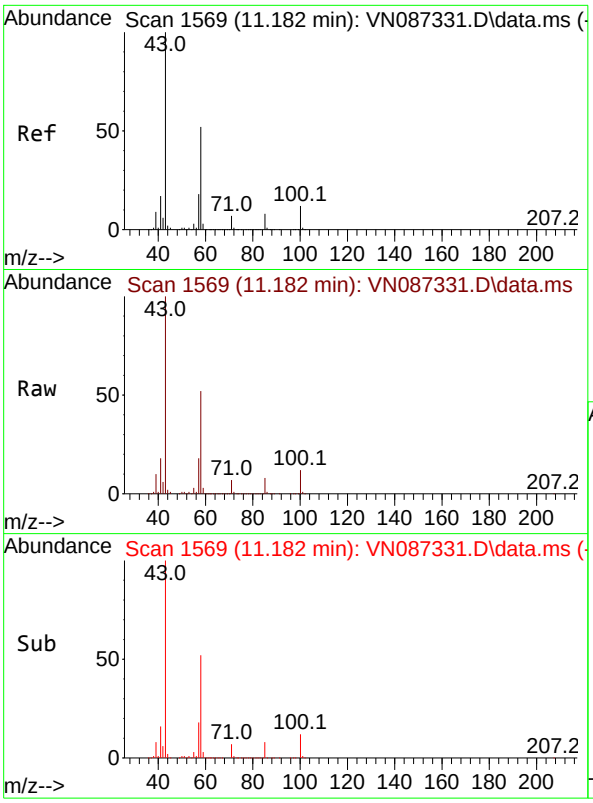


#58
2-Chloroethyl Vinyl ether
Concen: 290.607 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 63 Resp: 562790

Ion	Ratio	Lower	Upper
63	100		
106	27.1	21.7	32.5





#59
2-Hexanone
Concen: 288.920 ug/l
RT: 11.182 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 80682

Ion	Ratio	Lower	Upper
43	100		
58	53.3	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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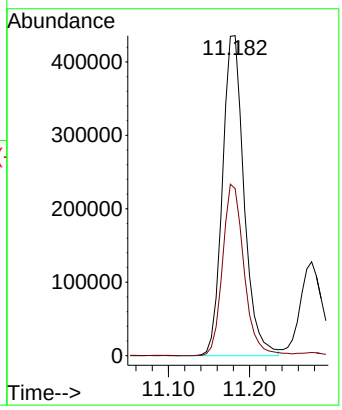
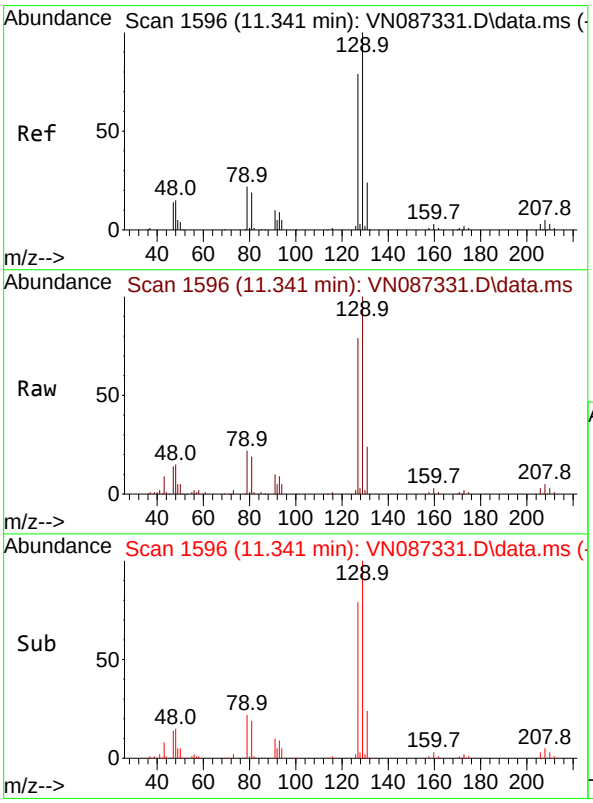
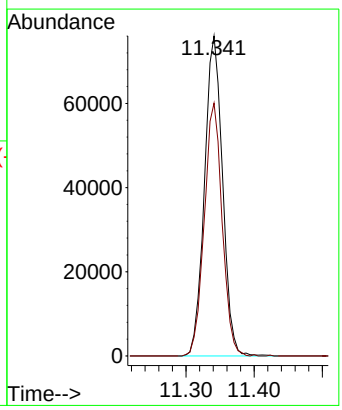


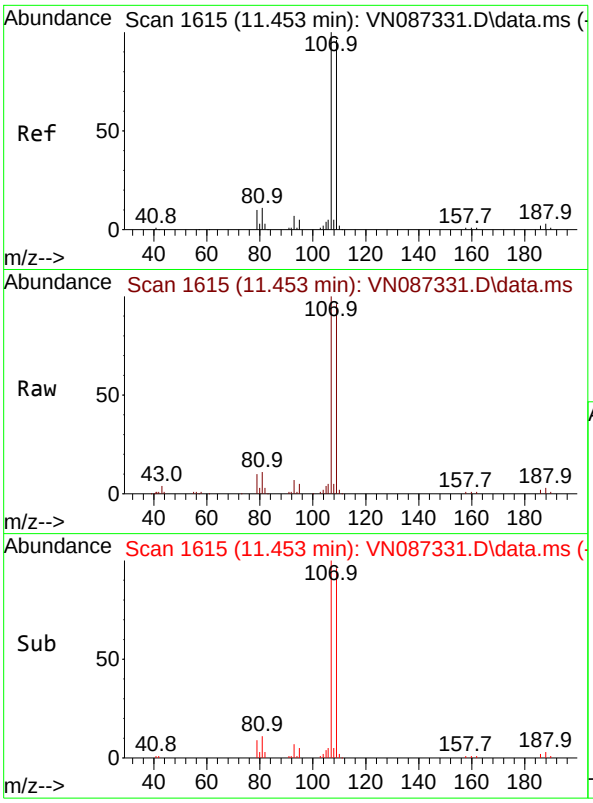


#60
Dibromochloromethane
Concen: 51.982 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:129 Resp: 139955

Ion	Ratio	Lower	Upper
129	100		
127	78.3	39.1	117.5

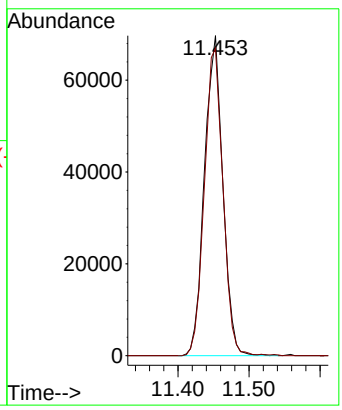




#61
1,2-Dibromoethane
Concen: 50.525 ug/l
RT: 11.453 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:107 Resp: 12541

Ion	Ratio	Lower	Upper
107	100		
109	96.9	77.5	116.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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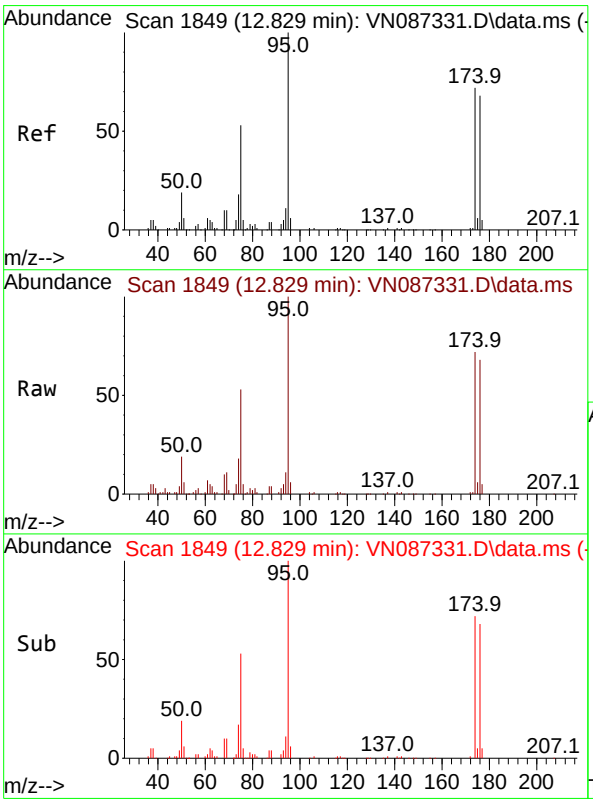
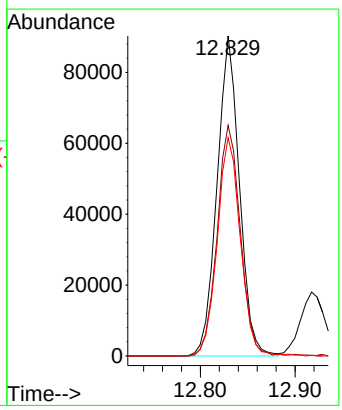
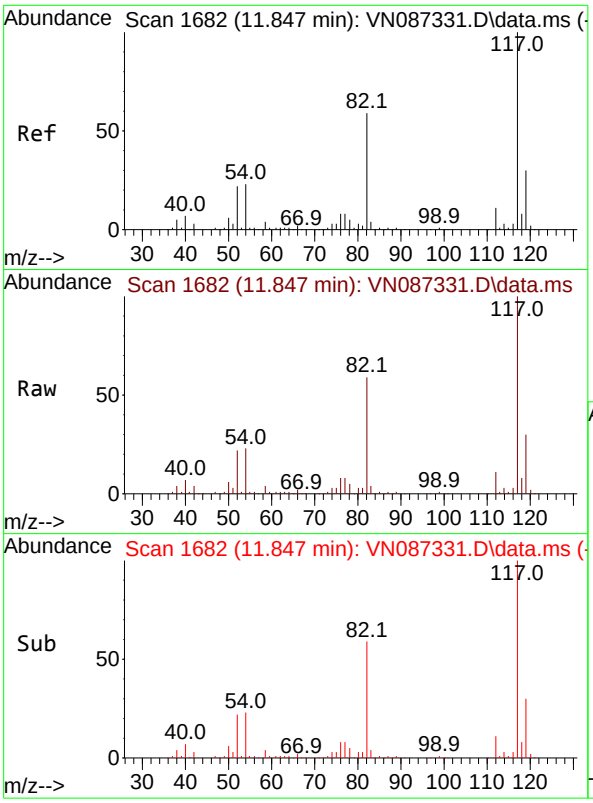


#62
4-Bromofluorobenzene
Concen: 50.037 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 95 Resp: 148158

Ion	Ratio	Lower	Upper
95	100		
174	74.7	0.0	149.4
176	70.6	0.0	141.2





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:117 Resp: 30015

Ion	Ratio	Lower	Upper
117	100		
82	59.3	47.4	71.2
119	29.8	23.8	35.8

Instrument :
MSVOA_N
ClientSampleId :
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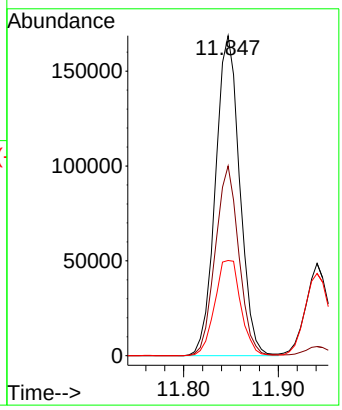
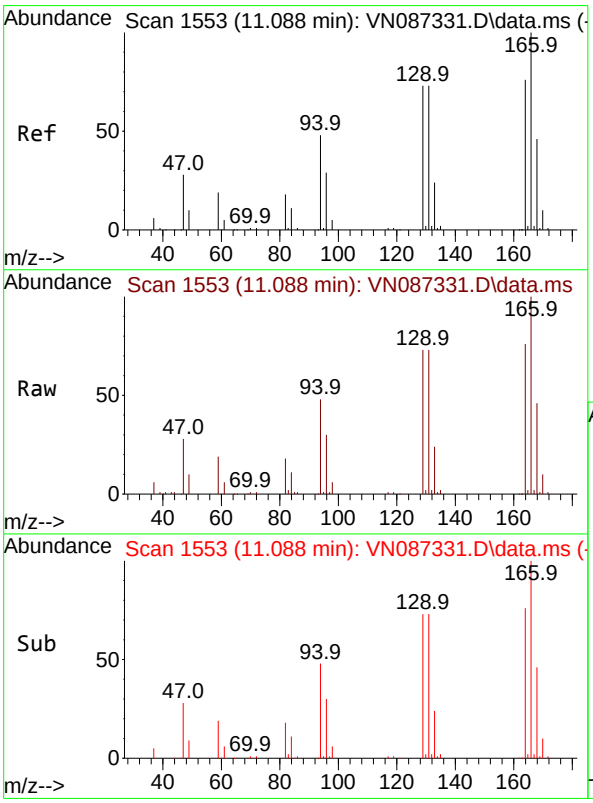
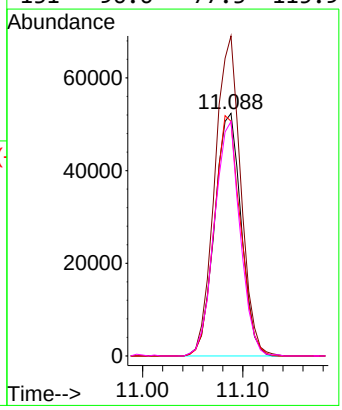


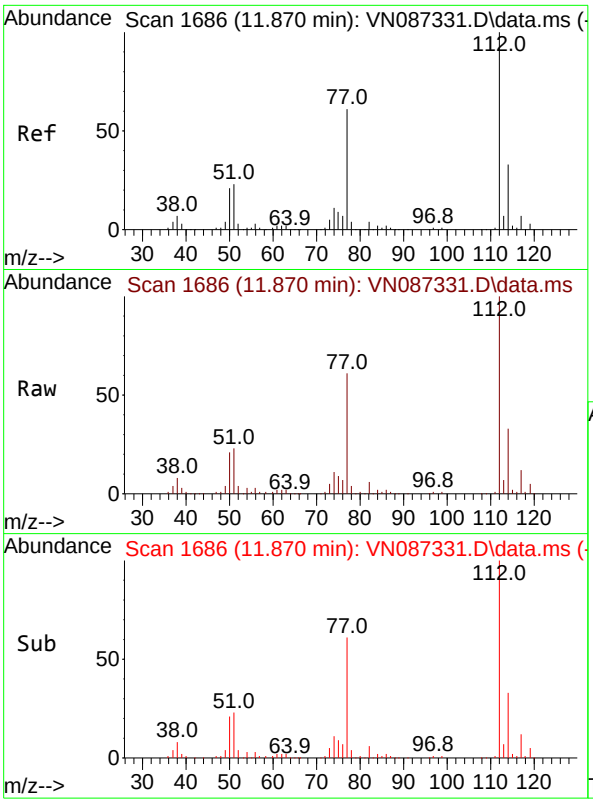


#64
Tetrachloroethene
Concen: 49.786 ug/l
RT: 11.088 min Scan# 1553
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:164 Resp: 96176

Ion	Ratio	Lower	Upper
164	100		
166	131.9	105.5	158.3
129	96.8	77.4	116.2
131	96.6	77.3	115.9

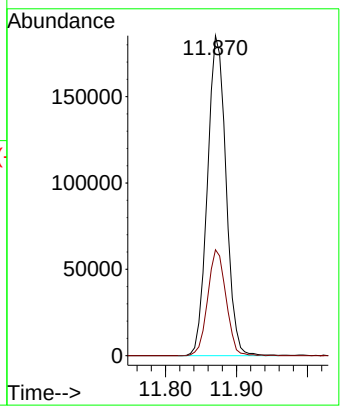




#65
Chlorobenzene
Concen: 49.837 ug/l
RT: 11.870 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:112 Resp: 33583

Ion	Ratio	Lower	Upper
112	100		
114	33.1	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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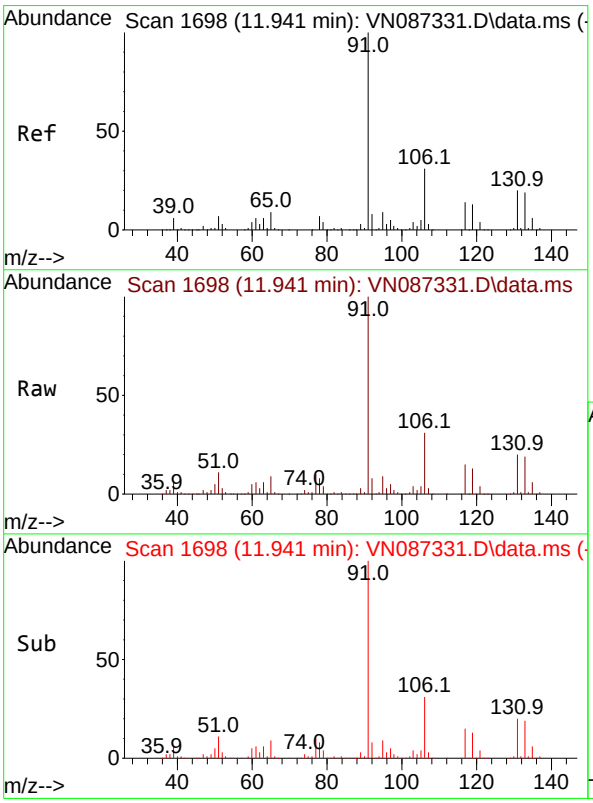
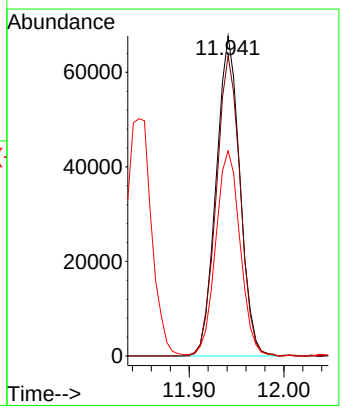
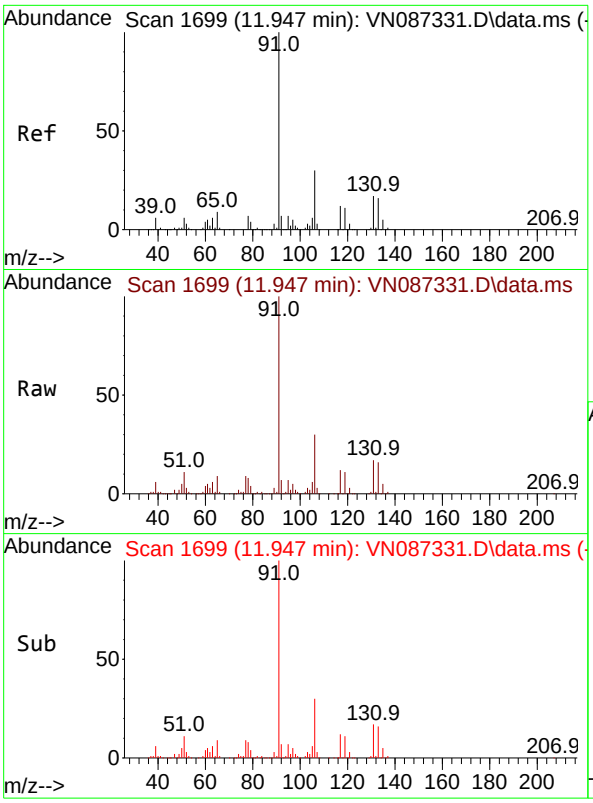


#66
1,1,1,2-Tetrachloroethane
Concen: 51.425 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:131 Resp: 117833

Ion	Ratio	Lower	Upper
131	100		
133	94.9	47.4	142.3
119	66.1	33.1	99.2





#67
Ethyl Benzene
Concen: 52.540 ug/l
RT: 11.947 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 91 Resp: 58285

Ion	Ratio	Lower	Upper
91	100		
106	30.4	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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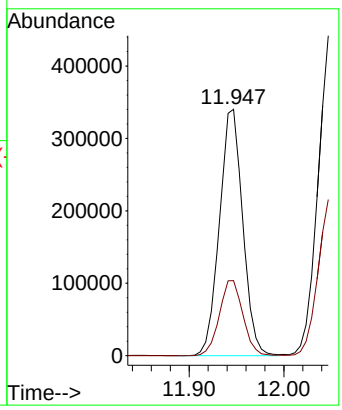
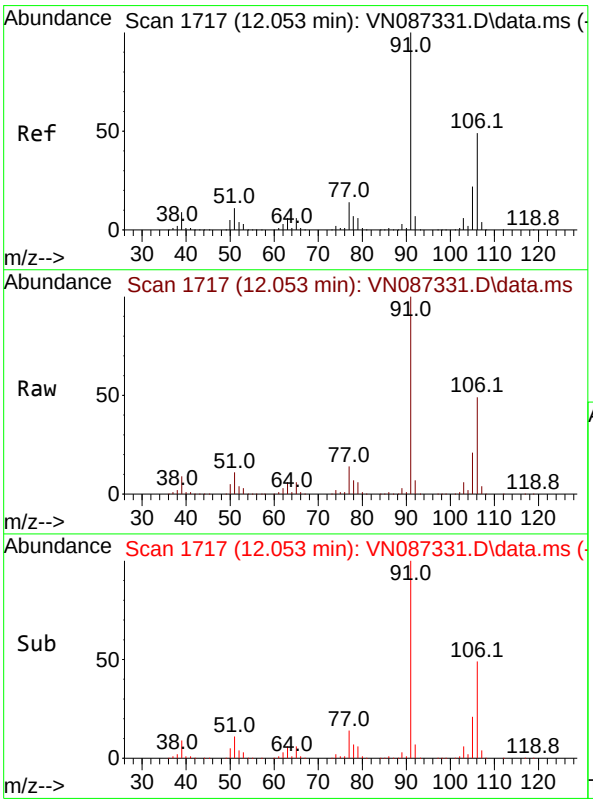
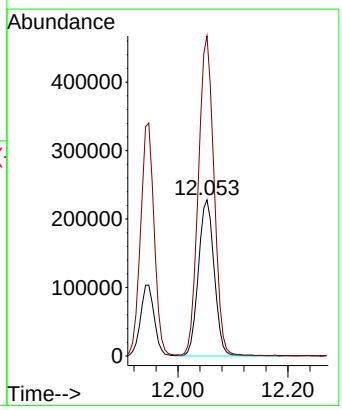


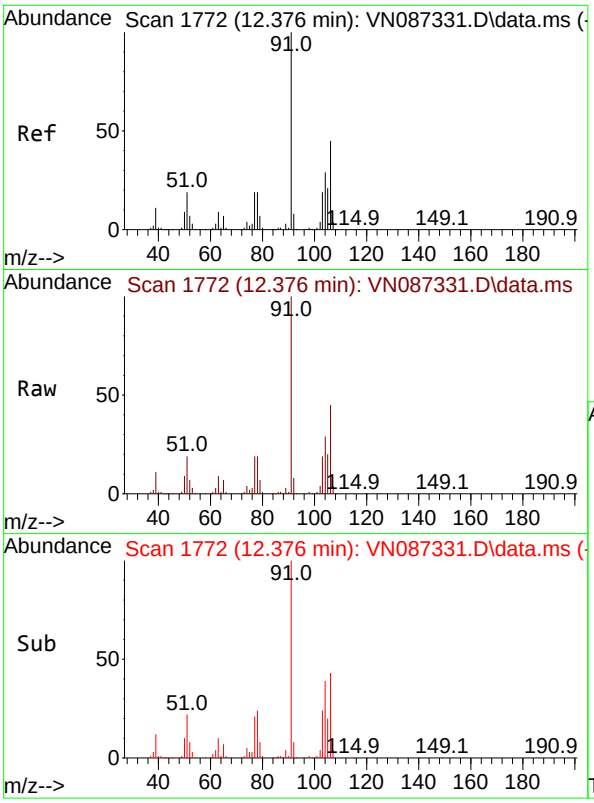


#68
m/p-Xylenes
Concen: 109.536 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:106 Resp: 455017

Ion	Ratio	Lower	Upper
106	100		
91	202.5	162.0	243.0





#69
o-Xylene
Concen: 54.717 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:106 Resp: 21712

Ion	Ratio	Lower	Upper
106	100		
91	215.5	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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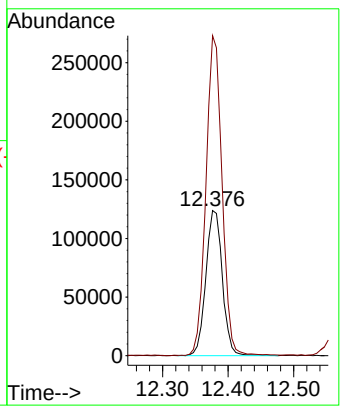
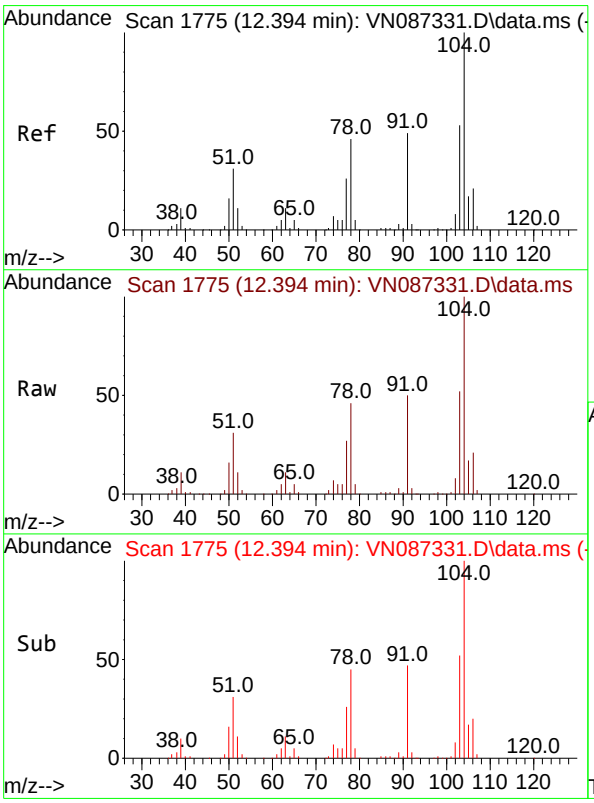
Supervised By :Semsettin Yesilyurt 07/17/2025

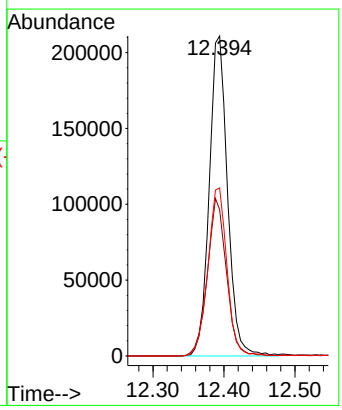


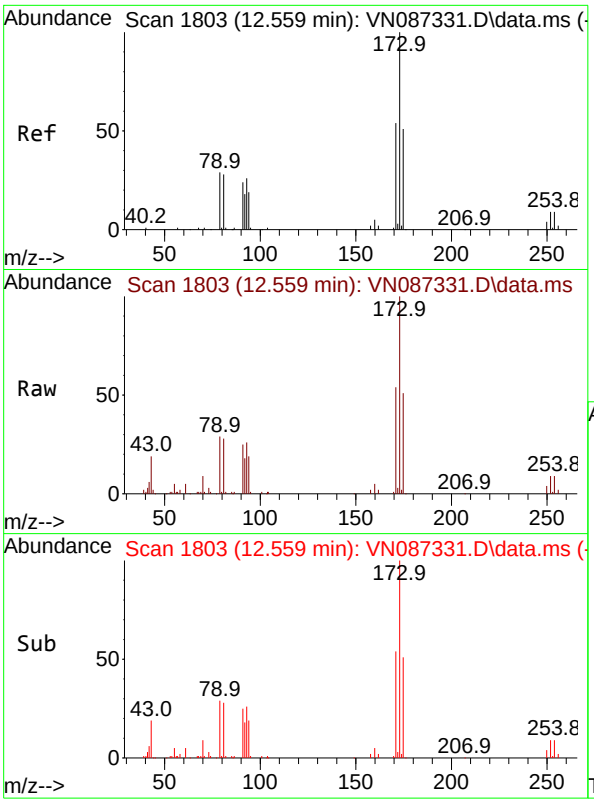


#70
Styrene
Concen: 56.440 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:104 Resp: 376745

Ion	Ratio	Lower	Upper
104	100		
78	51.3	41.0	61.6
103	54.9	43.9	65.9

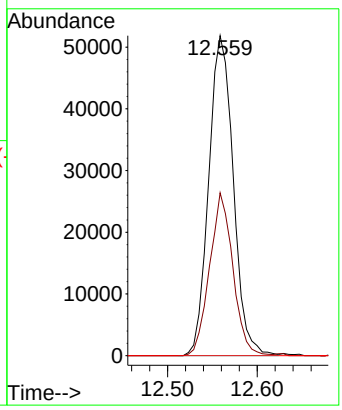




#71
Bromoform
Concen: 53.237 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:173 Resp: 9854

Ion	Ratio	Lower	Upper
173	100		
175	48.2	24.1	72.3
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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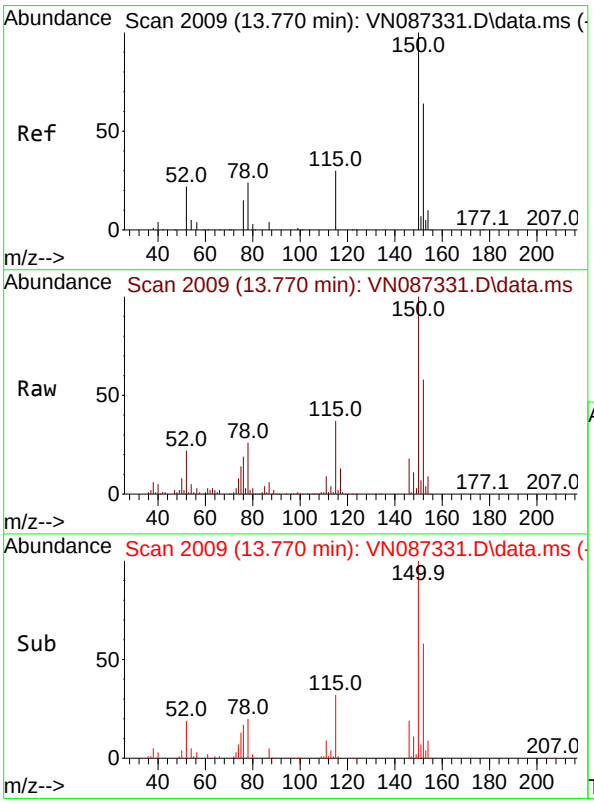
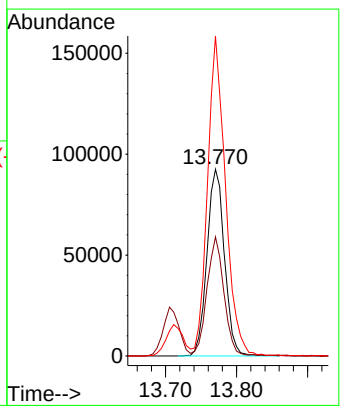
Supervised By :Semsettin Yesilyurt 07/17/2025

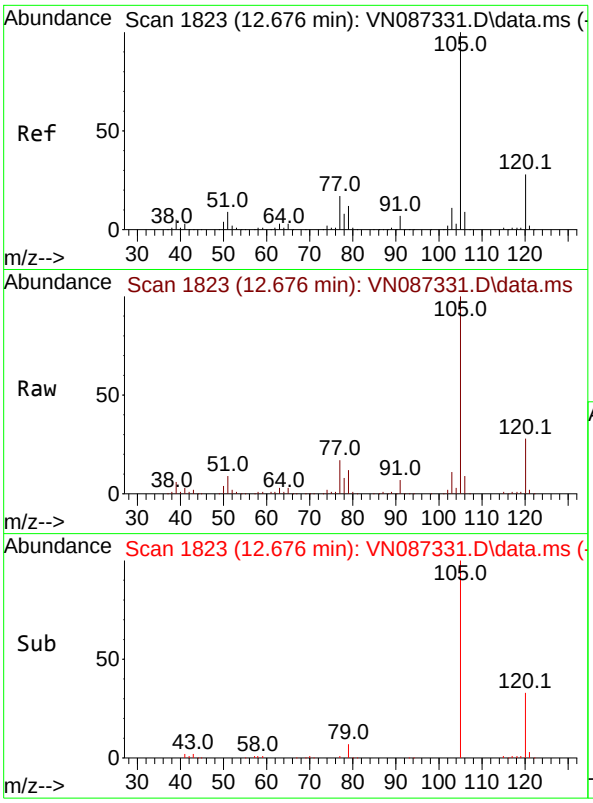


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:152 Resp: 158477

Ion	Ratio	Lower	Upper
152	100		
115	62.3	31.1	93.5
150	174.5	0.0	349.0

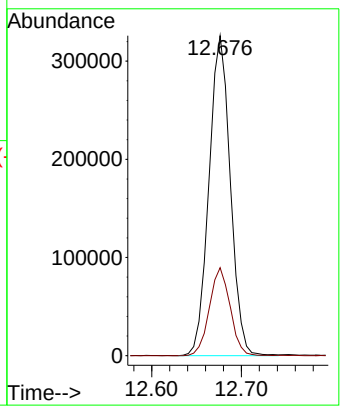




#73
Isopropylbenzene
Concen: 53.964 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:105 Resp: 53824

Ion	Ratio	Lower	Upper
105	100		
120	26.7	13.4	40.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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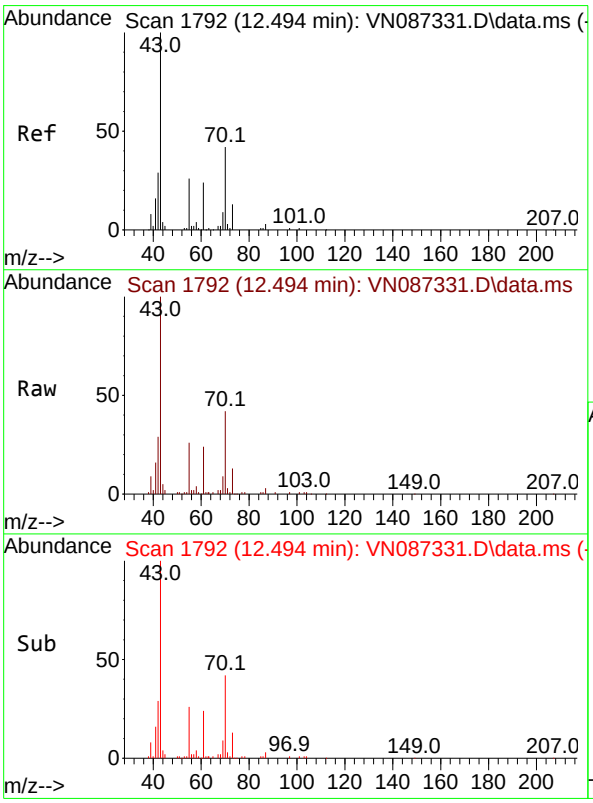
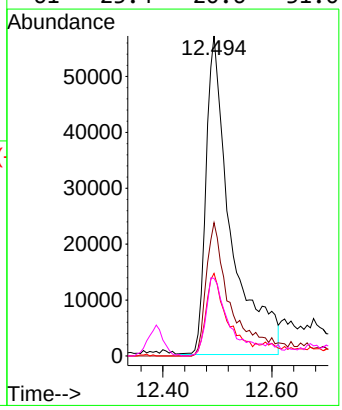
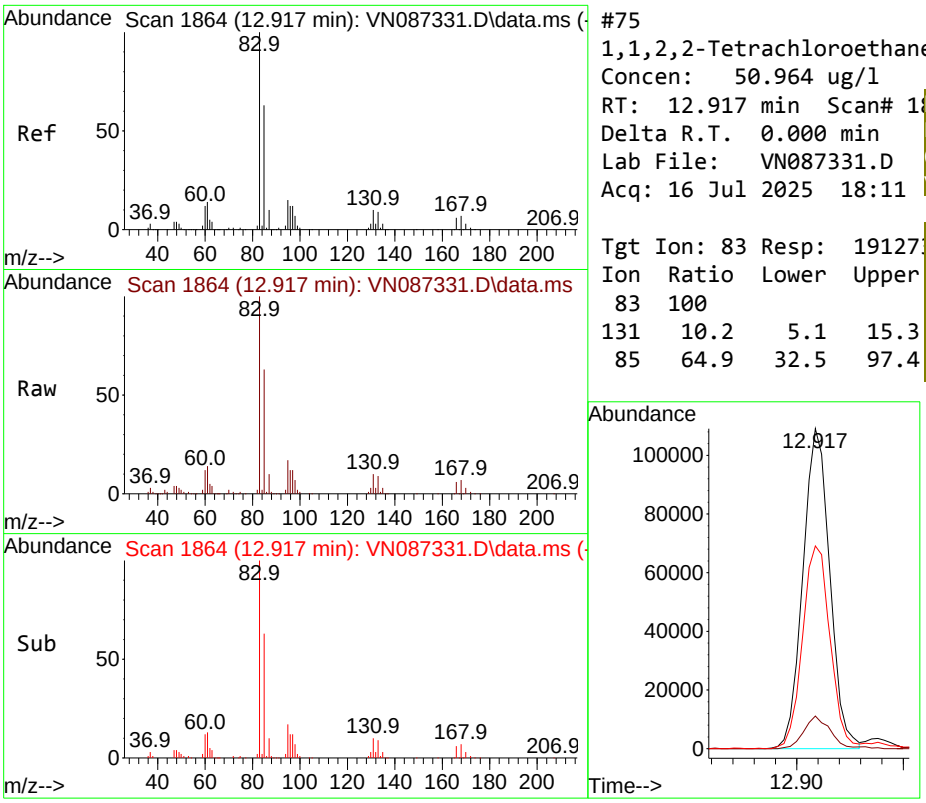


#74
N-amyl acetate
Concen: 46.310 ug/l m
RT: 12.494 min Scan# 1792
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 43 Resp: 180343

Ion	Ratio	Lower	Upper
43	100		
70	42.5	37.6	56.4
55	22.2	19.6	29.4
61	23.4	20.6	31.0





#75
1,1,2,2-Tetrachloroethane
Concen: 50.964 ug/l
RT: 12.917 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 83 Resp: 19127

Ion	Ratio	Lower	Upper
83	100		
131	10.2	5.1	15.3
85	64.9	32.5	97.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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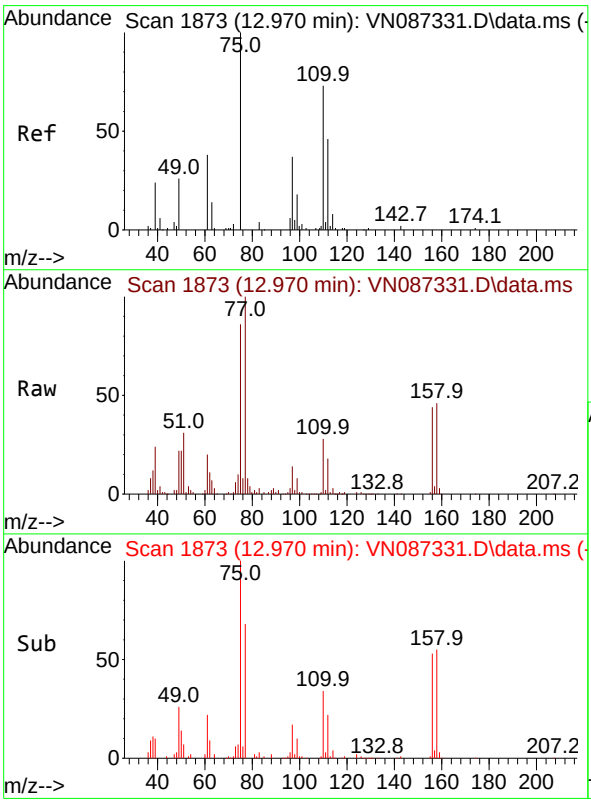
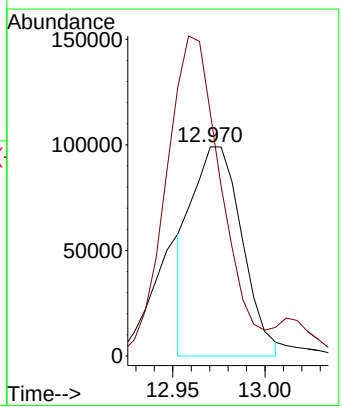
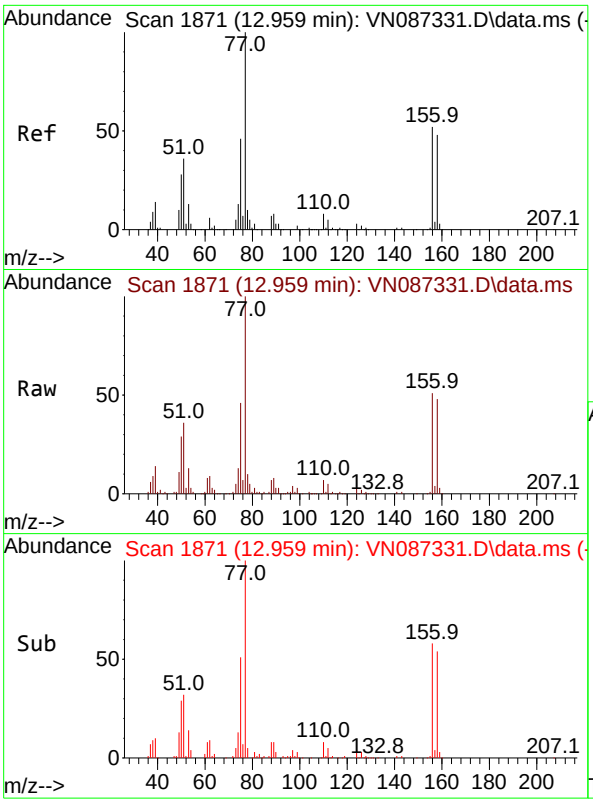


#76
1,2,3-Trichloropropane
Concen: 53.705 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 75 Resp: 188824

Ion	Ratio	Lower	Upper
75	100		
77	167.4	94.5	283.6

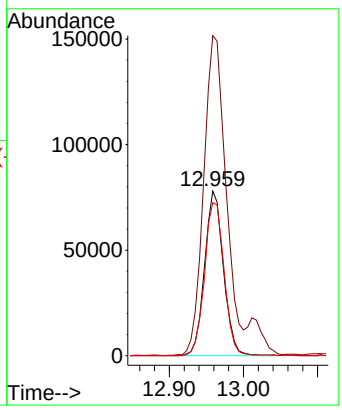




#77
Bromobenzene
Concen: 53.221 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:156 Resp: 13766

Ion	Ratio	Lower	Upper
156	100		
77	229.7	114.9	344.6
158	97.0	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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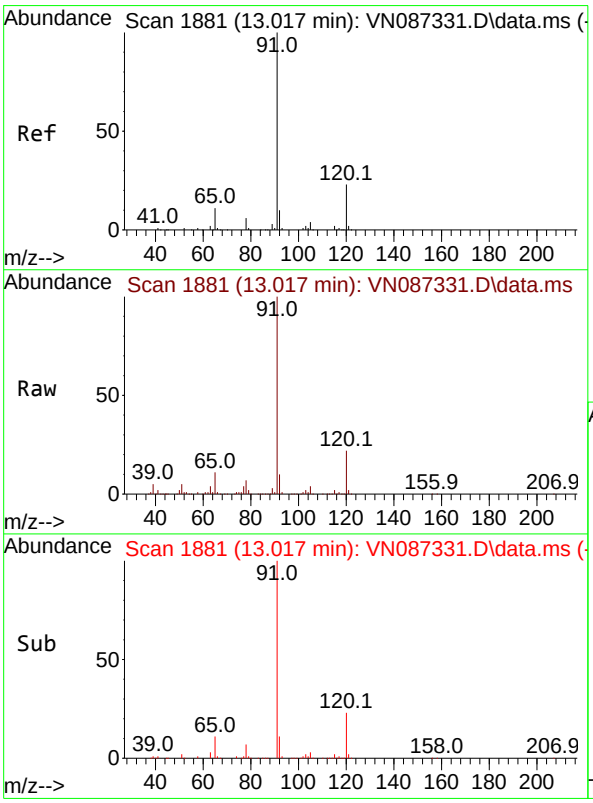
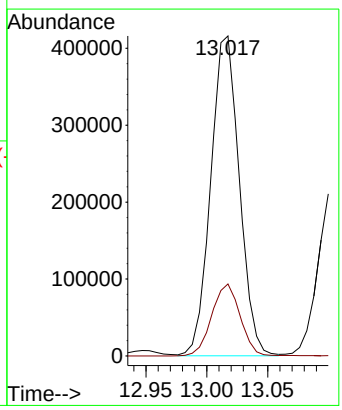
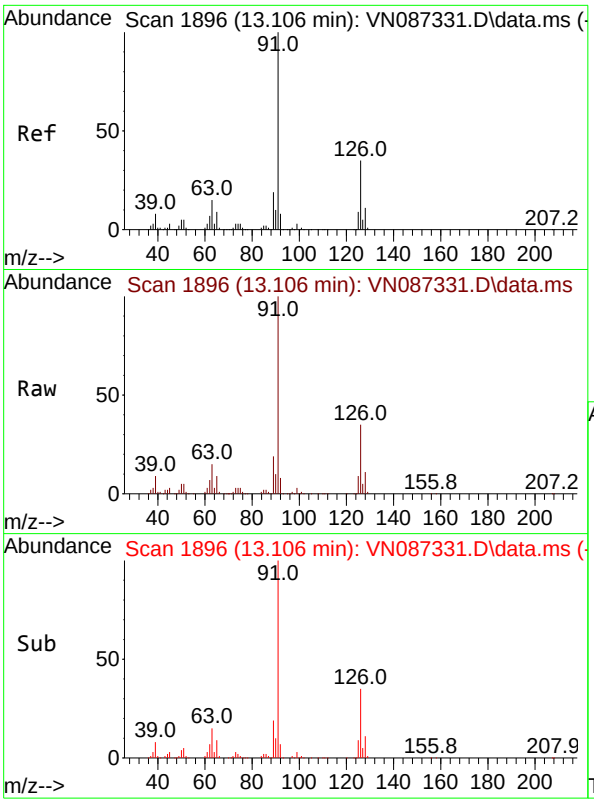


#78
n-propylbenzene
Concen: 54.227 ug/l
RT: 13.017 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 91 Resp: 680506

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.3	33.8

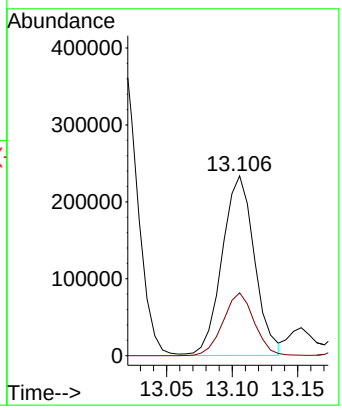




#79
2-Chlorotoluene
Concen: 52.051 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 91 Resp: 40144

Ion	Ratio	Lower	Upper
91	100		
126	33.7	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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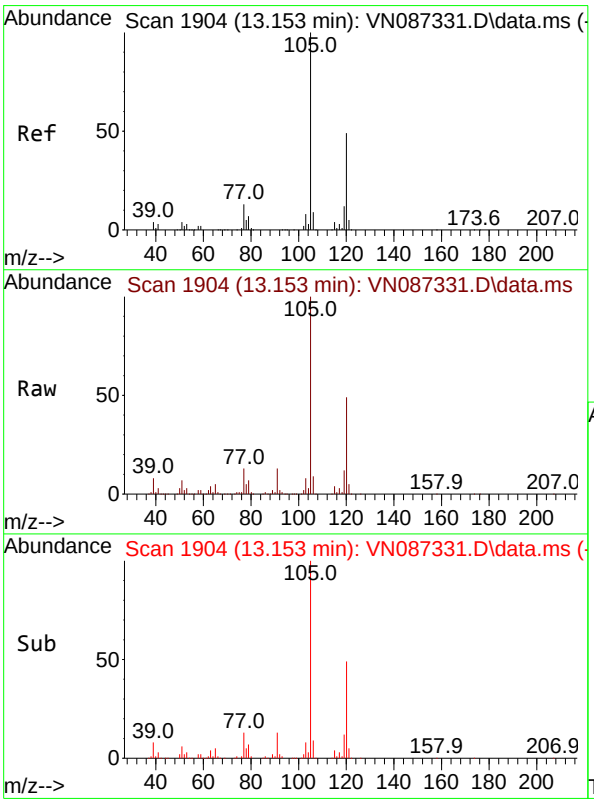
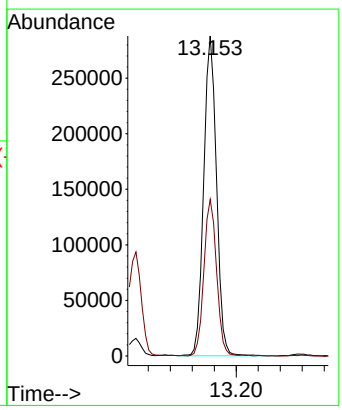
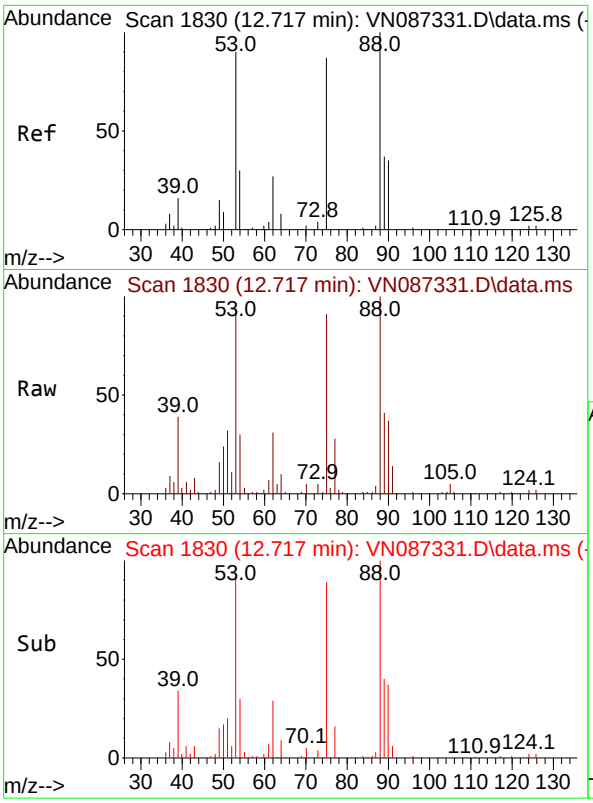


#80
1,3,5-Trimethylbenzene
Concen: 54.607 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:105 Resp: 464063

Ion	Ratio	Lower	Upper
105	100		
120	48.5	24.3	72.8





#81
trans-1,4-Dichloro-2-butene
Concen: 49.271 ug/l
RT: 12.717 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 75 Resp: 6399

Ion	Ratio	Lower	Upper
75	100		
53	104.5	83.5	125.3
89	48.0	38.4	57.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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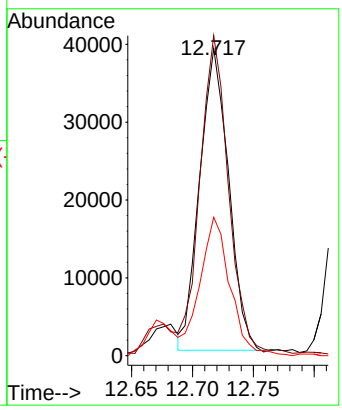
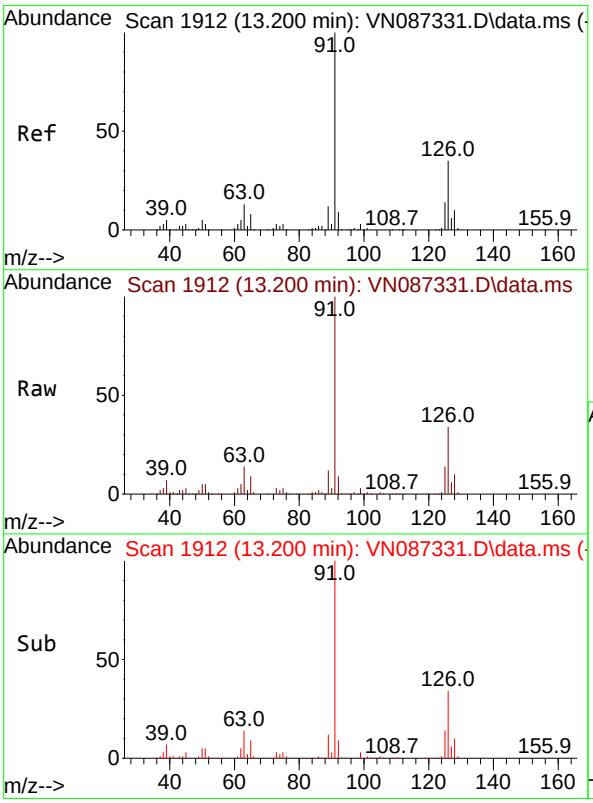
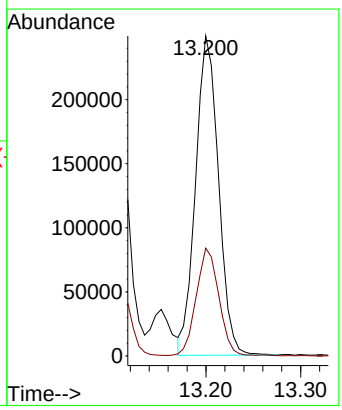


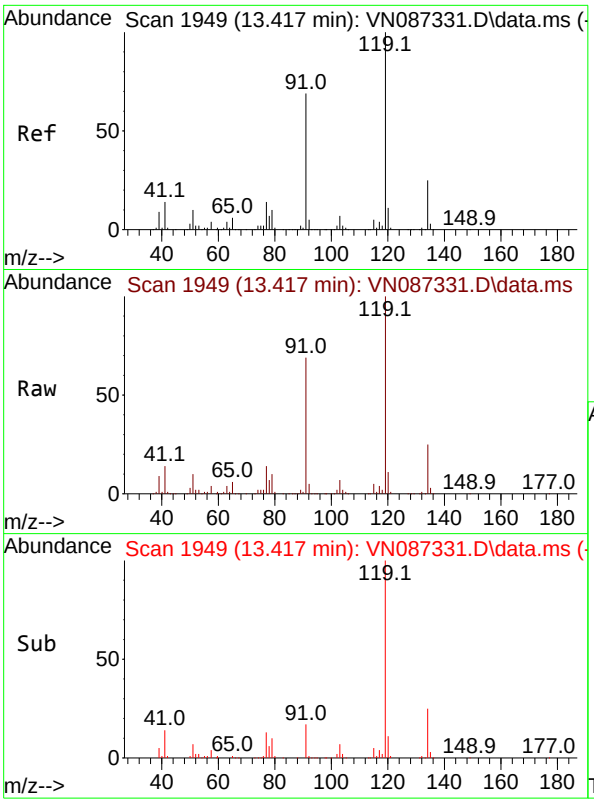


#82
4-Chlorotoluene
Concen: 52.240 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 91 Resp: 419474

Ion	Ratio	Lower	Upper
91	100		
126	33.1	16.6	49.7

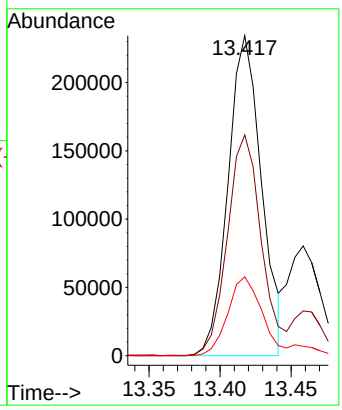




#83
tert-Butylbenzene
Concen: 54.099 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:119 Resp: 38398

Ion	Ratio	Lower	Upper
119	100		
91	70.1	35.0	105.1
134	25.1	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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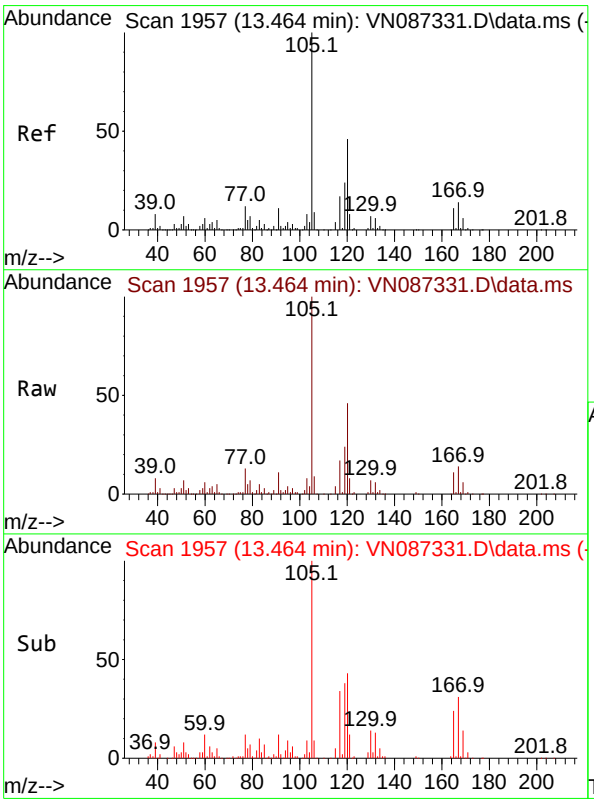
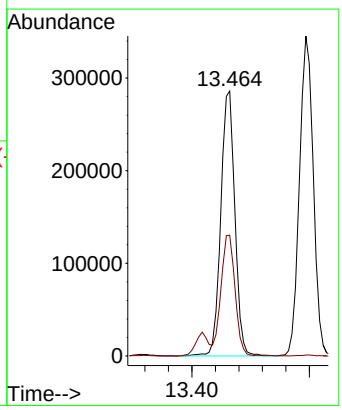
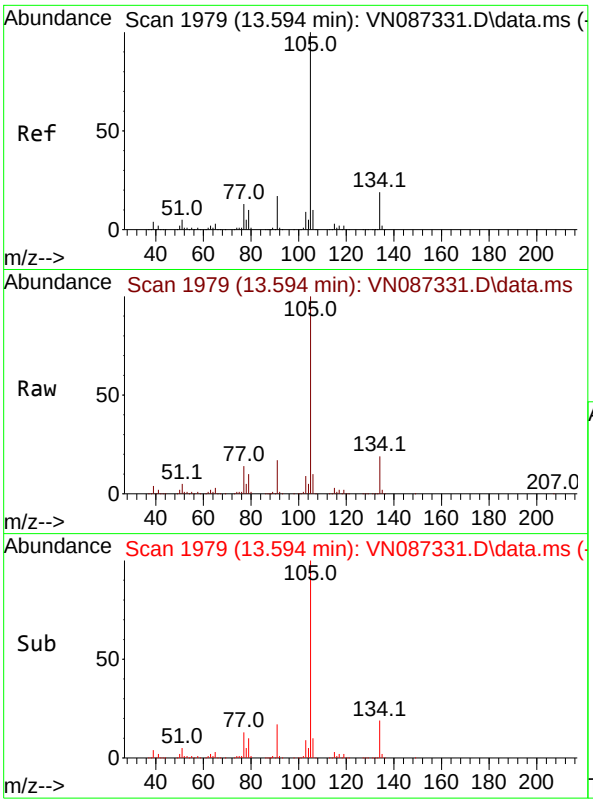


#84
1,2,4-Trimethylbenzene
Concen: 54.846 ug/l
RT: 13.464 min Scan# 1957
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:105 Resp: 475982

Ion	Ratio	Lower	Upper
105	100		
120	45.5	22.8	68.3

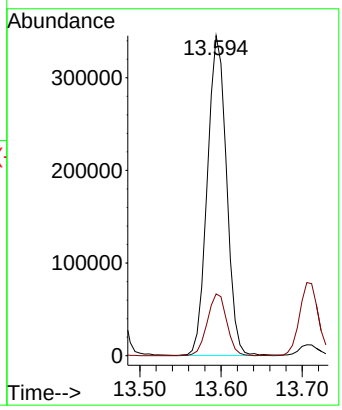




#85
sec-Butylbenzene
Concen: 52.851 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:105 Resp: 56503

Ion	Ratio	Lower	Upper
105	100		
134	19.6	9.8	29.4



Instrument :
MSVOA_N
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VSTDICCC050

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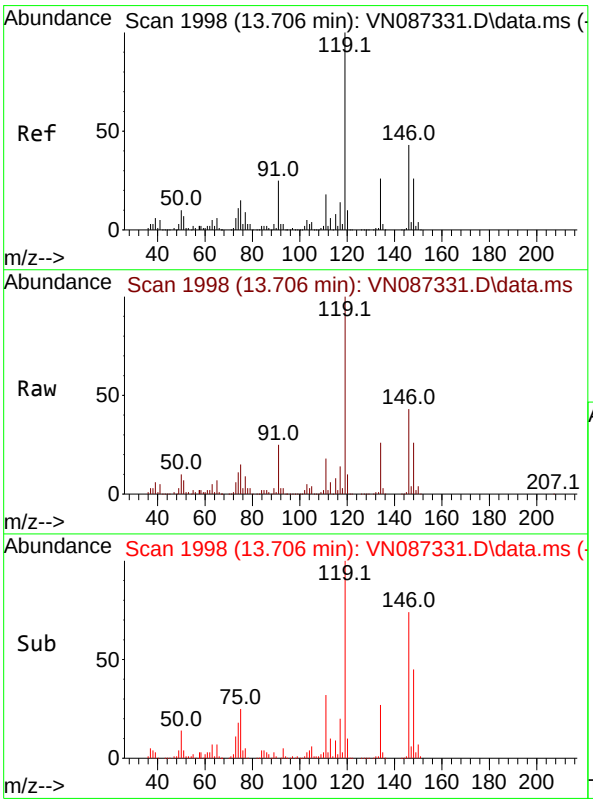
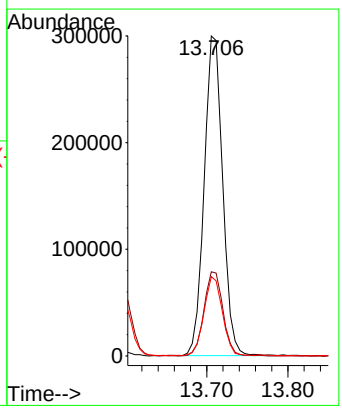
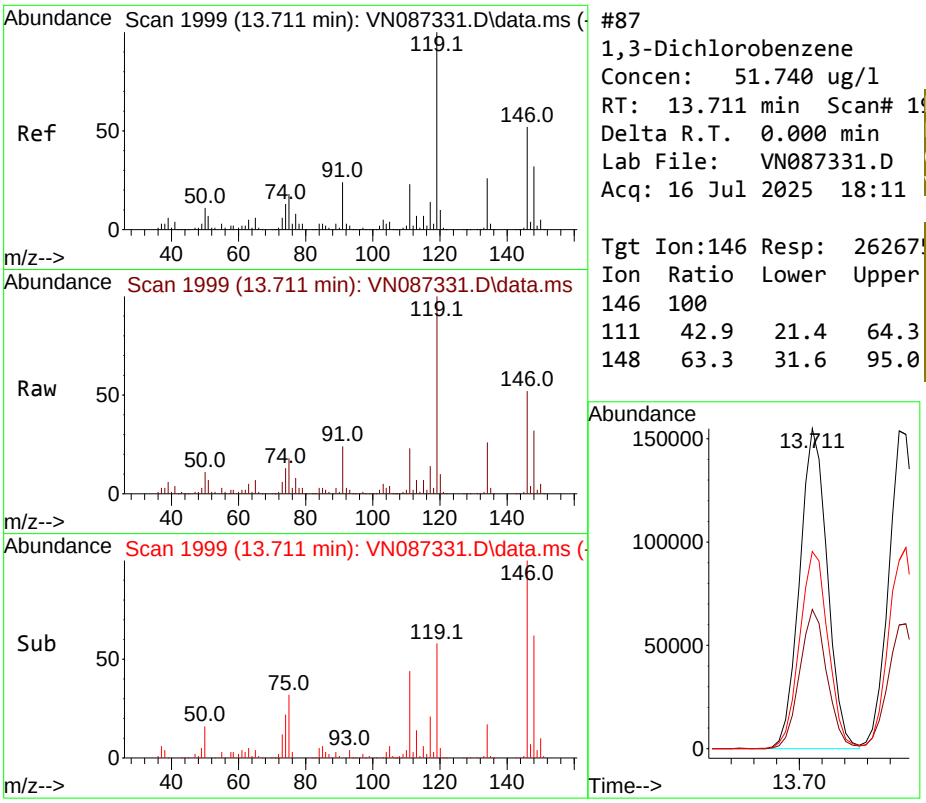


#86
p-Isopropyltoluene
Concen: 55.316 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:119 Resp: 473942

Ion	Ratio	Lower	Upper
119	100		
134	27.0	13.5	40.5
91	24.4	12.2	36.6





#87
1,3-Dichlorobenzene
Concen: 51.740 ug/l
RT: 13.711 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:146 Resp: 26267

Ion	Ratio	Lower	Upper
146	100		
111	42.9	21.4	64.3
148	63.3	31.6	95.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

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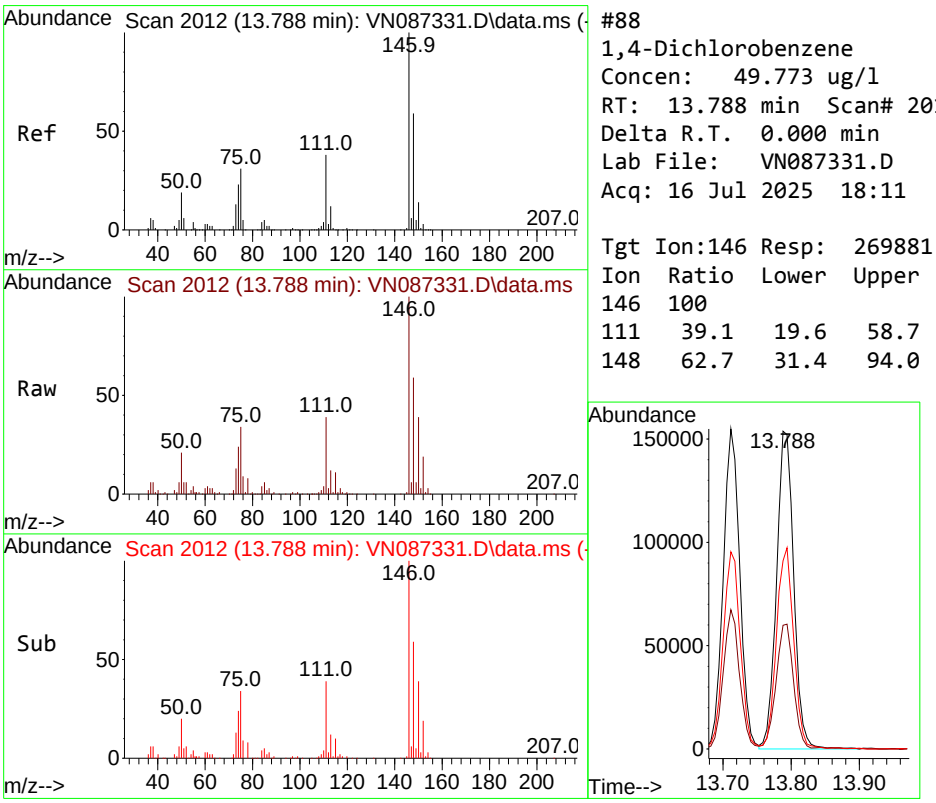
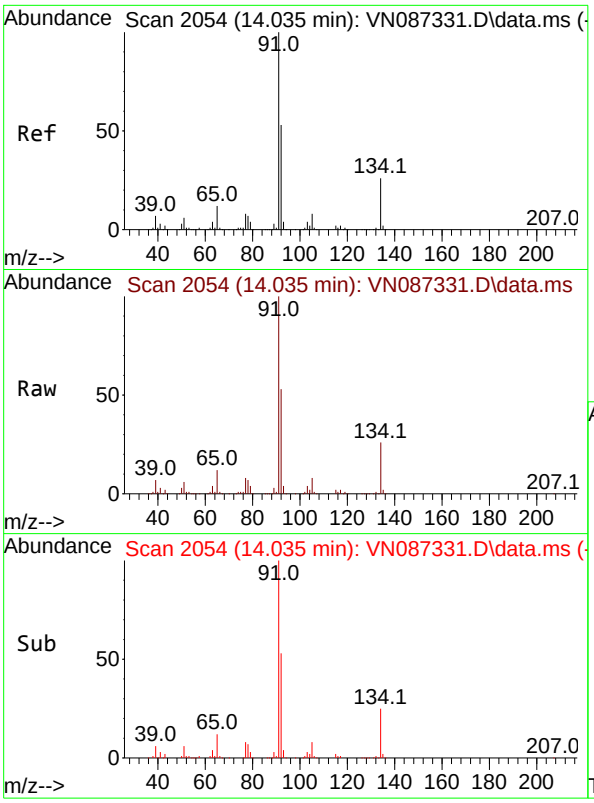


#88
1,4-Dichlorobenzene
Concen: 49.773 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:146 Resp: 269881

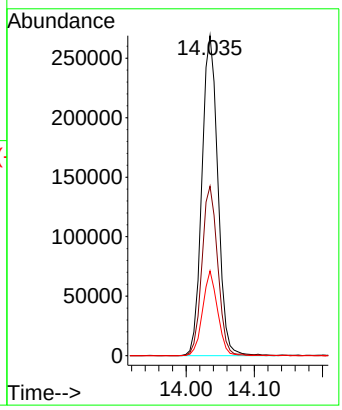
Ion	Ratio	Lower	Upper
146	100		
111	39.1	19.6	58.7
148	62.7	31.4	94.0



#89
n-Butylbenzene
Concen: 53.478 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 91 Resp: 43751

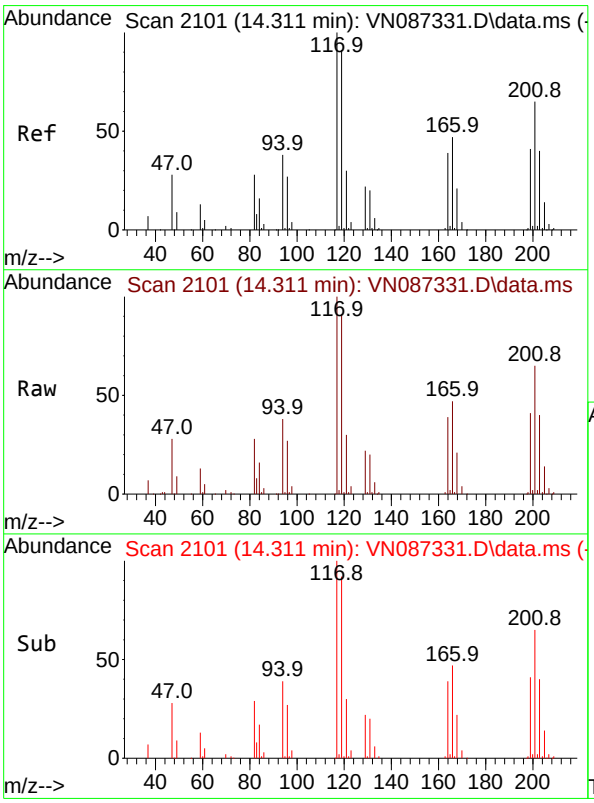
Ion	Ratio	Lower	Upper
91	100		
92	52.4	26.2	78.6
134	24.8	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

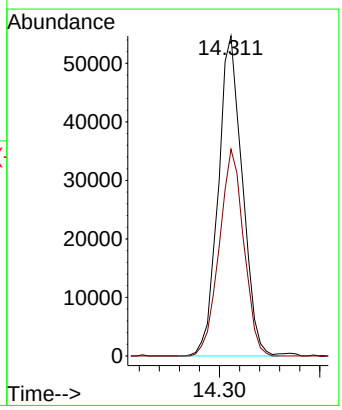
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

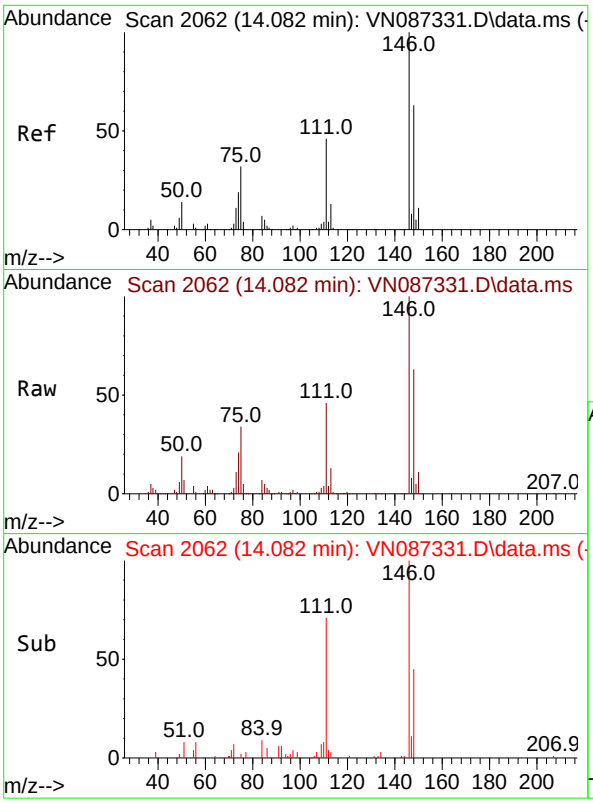


#90
Hexachloroethane
Concen: 50.301 ug/l
RT: 14.311 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:117 Resp: 91313

Ion	Ratio	Lower	Upper
117	100		
201	65.6	32.8	98.4

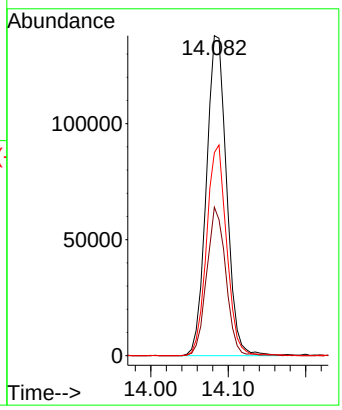




#91
1,2-Dichlorobenzene
Concen: 51.977 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:146 Resp: 24998

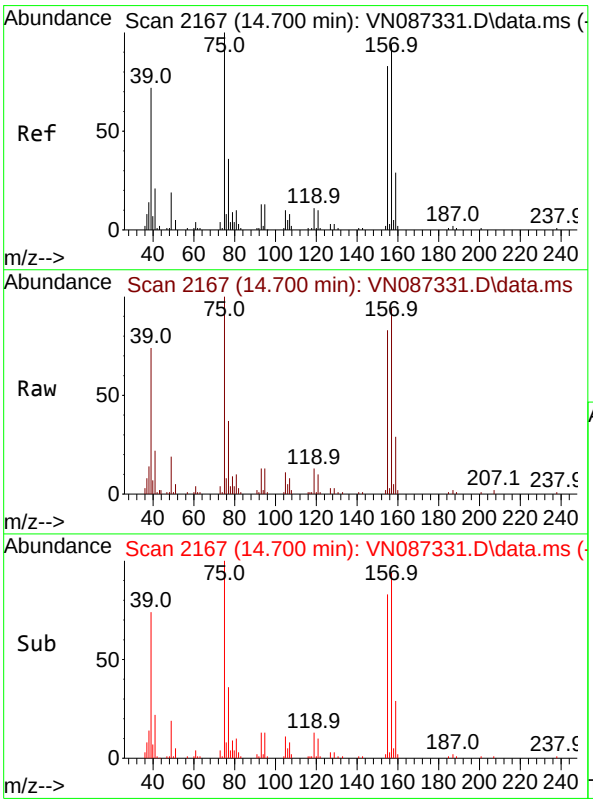
Ion	Ratio	Lower	Upper
146	100		
111	44.0	22.0	66.0
148	65.4	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

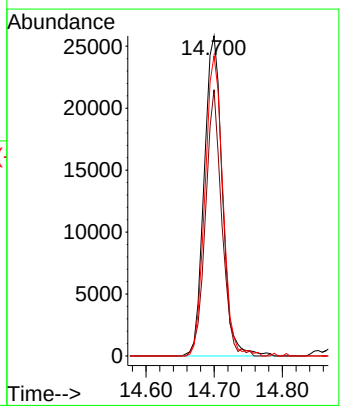
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

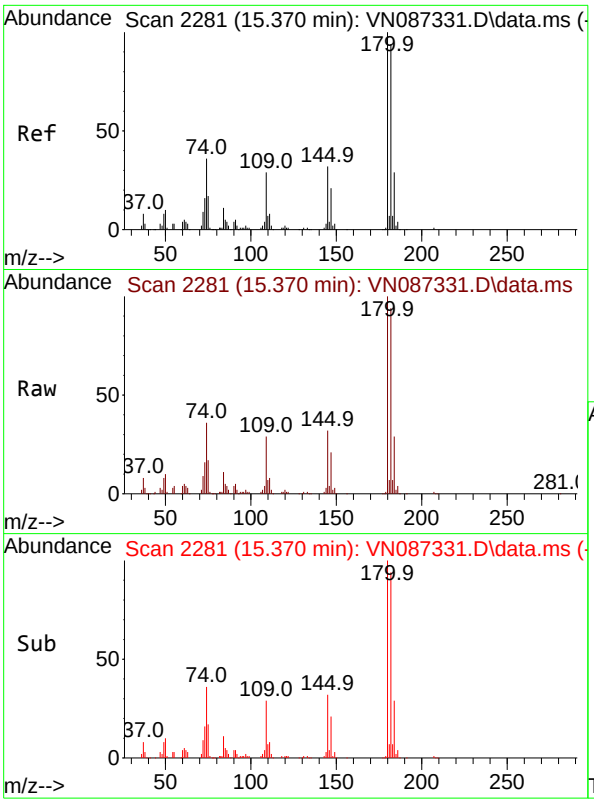


#92
1,2-Dibromo-3-Chloropropane
Concen: 48.643 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion: 75 Resp: 47931

Ion	Ratio	Lower	Upper
75	100		
155	74.5	37.3	111.8
157	92.4	46.2	138.6

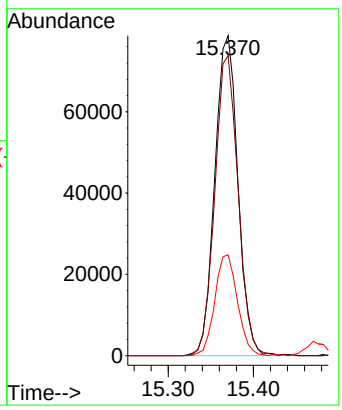




#93
1,2,4-Trichlorobenzene
Concen: 52.553 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:180 Resp: 14847

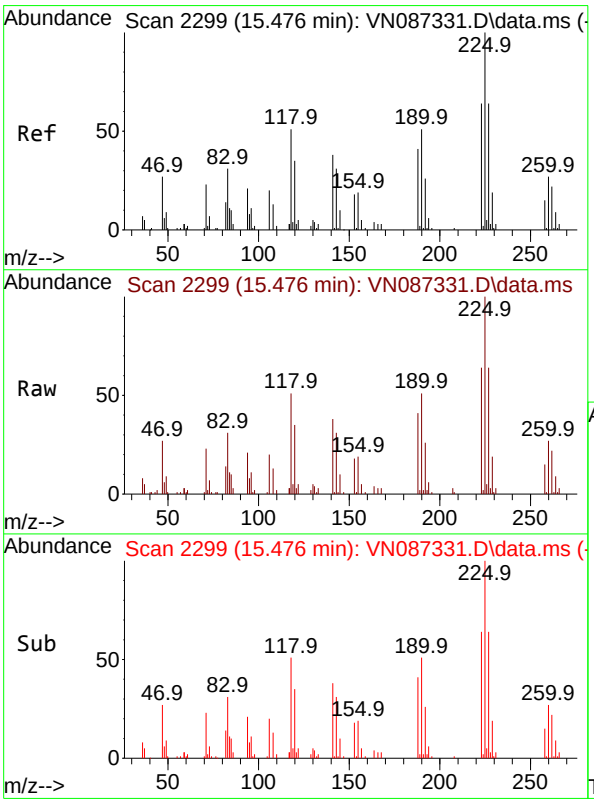
Ion	Ratio	Lower	Upper
180	100		
182	94.5	47.3	141.8
145	30.9	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

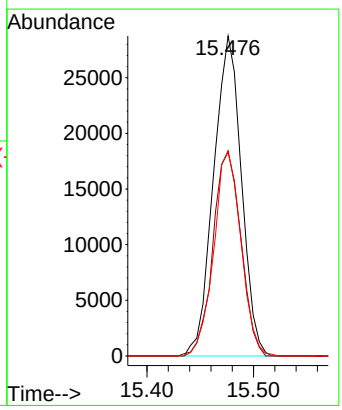
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

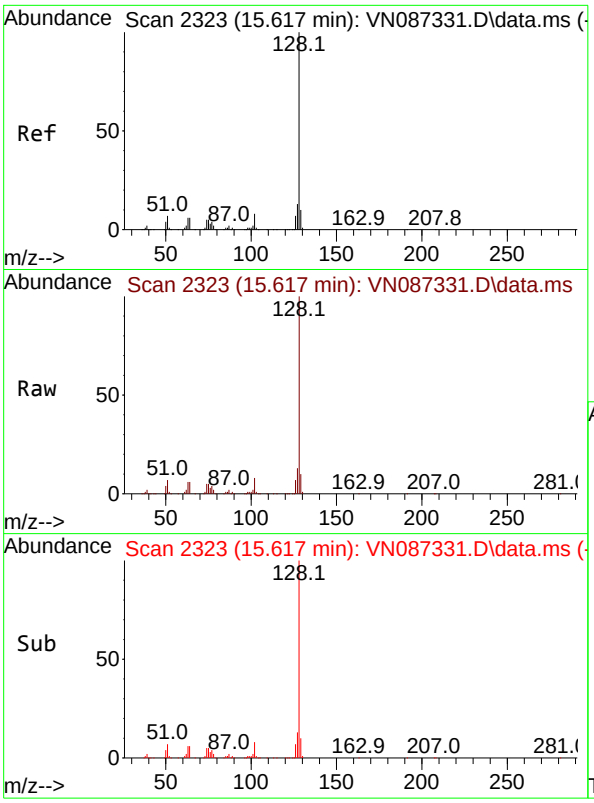


#94
Hexachlorobutadiene
Concen: 49.659 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:225 Resp: 52130

Ion	Ratio	Lower	Upper
225	100		
223	64.2	32.1	96.3
227	62.6	31.3	93.9

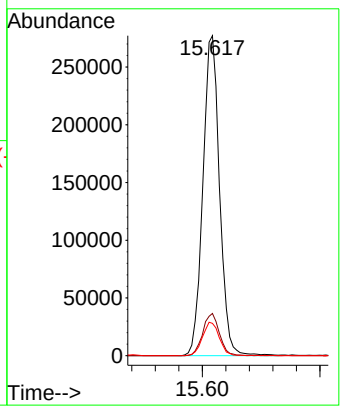




#95
Naphthalene
Concen: 54.490 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:128 Resp: 54536

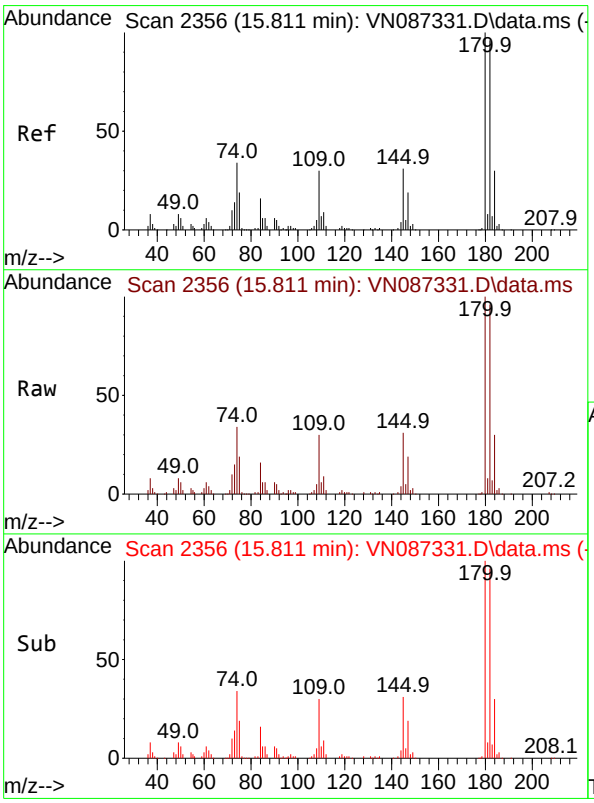
Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.5	15.7
129	10.5	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

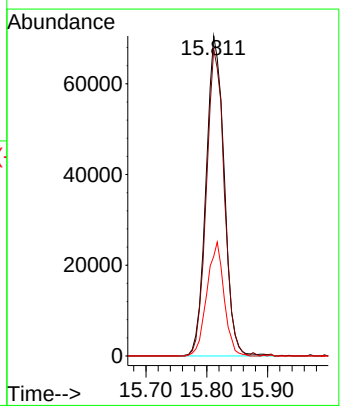
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025



#96
1,2,3-Trichlorobenzene
Concen: 51.547 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087331.D
Acq: 16 Jul 2025 18:11

Tgt Ion:180 Resp: 146080

Ion	Ratio	Lower	Upper
180	100		
182	94.3	47.1	141.4
145	33.7	16.9	50.6



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087332.D
Acq On : 16 Jul 2025 18:32
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 17 02:20:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	192275	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.088	114	339591	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	314849	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	168489	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	314416	96.373	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 192.740%#			
35) Dibromofluoromethane	8.153	113	236468	100.947	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 201.900%#			
50) Toluene-d8	10.547	98	852301	101.999	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 204.000%#			
62) 4-Bromofluorobenzene	12.829	95	323070	104.650	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 209.300%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	233197	114.190	ug/l	92
3) Chloromethane	2.383	50	253369	98.660	ug/l	98
4) Vinyl Chloride	2.542	62	266221	104.312	ug/l	94
5) Bromomethane	2.959	94	136793	103.503	ug/l	96
6) Chloroethane	3.124	64	159422	95.783	ug/l	92
7) Trichlorofluoromethane	3.501	101	369032	97.786	ug/l	98
8) Diethyl Ether	3.959	74	142652	97.445	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.353	101	188841	97.477	ug/l	100
10) Methyl Iodide	4.571	142	213127	100.524	ug/l	99
11) Tert butyl alcohol	5.536	59	309615	499.800	ug/l	99
12) 1,1-Dichloroethene	4.336	96	197760	90.083	ug/l	95
13) Acrolein	4.177	56	250115	503.102	ug/l	99
14) Allyl chloride	5.006	41	382812	96.355	ug/l	100
15) Acrylonitrile	5.706	53	839080	499.150	ug/l	100
16) Acetone	4.424	43	693485	448.375	ug/l	96
17) Carbon Disulfide	4.695	76	631695	97.056	ug/l	95
18) Methyl Acetate	5.012	43	369894	96.247	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	818763	101.186	ug/l	98
20) Methylene Chloride	5.259	84	251830	98.001	ug/l	97
21) trans-1,2-Dichloroethene	5.771	96	237704	96.030	ug/l	94
22) Diisopropyl ether	6.659	45	832709	99.921	ug/l	96
23) Vinyl Acetate	6.594	43	3859420	529.516	ug/l	97
24) 1,1-Dichloroethane	6.553	63	455820	94.807	ug/l	100
25) 2-Butanone	7.471	43	1185700	501.667	ug/l	98
26) 2,2-Dichloropropane	7.477	77	358596	95.932	ug/l	99
27) cis-1,2-Dichloroethene	7.477	96	284578	99.858	ug/l	98
28) Bromochloromethane	7.800	49	229544	99.757	ug/l	100
29) Tetrahydrofuran	7.830	42	768521	500.532	ug/l	98
30) Chloroform	7.953	83	466838	97.008	ug/l	99
31) Cyclohexane	8.241	56	377159	94.035	ug/l	95
32) 1,1,1-Trichloroethane	8.153	97	403445	96.794	ug/l	97
36) 1,1-Dichloropropene	8.353	75	324047	104.705	ug/l	99
37) Ethyl Acetate	7.547	43	448428	100.326	ug/l	99
38) Carbon Tetrachloride	8.347	117	342043	100.328	ug/l	99
39) Methylcyclohexane	9.582	83	352211	105.118	ug/l	96
40) Benzene	8.588	78	1007257	100.700	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087332.D
Acq On : 16 Jul 2025 18:32
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 17 02:20:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	239659	102.544	ug/l		99
42) 1,2-Dichloroethane	8.653	62	369731	97.472	ug/l		99
43) Isopropyl Acetate	8.677	43	704936	101.598	ug/l		99
44) Trichloroethene	9.335	130	230373	97.472	ug/l		93
45) 1,2-Dichloropropane	9.606	63	255369	100.478	ug/l		96
46) Dibromomethane	9.694	93	185908	97.696	ug/l		98
47) Bromodichloromethane	9.871	83	375910	98.072	ug/l		97
48) Methyl methacrylate	9.665	41	334941	107.228	ug/l		97
49) 1,4-Dioxane	9.688	88	102159	2135.348	ug/l	#	95
51) 4-Methyl-2-Pentanone	10.429	43	2234274	509.127	ug/l		100
52) Toluene	10.612	92	622259	102.349	ug/l		97
53) t-1,3-Dichloropropene	10.818	75	412142	106.245	ug/l		100
54) cis-1,3-Dichloropropene	10.294	75	421386	105.164	ug/l		98
55) 1,1,2-Trichloroethane	11.000	97	242683	98.595	ug/l		97
56) Ethyl methacrylate	10.859	69	425458	98.980	ug/l		98
57) 1,3-Dichloropropane	11.147	76	431753	101.453	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	1052628	521.327	ug/l		99
59) 2-Hexanone	11.176	43	1631949	560.508	ug/l		99
60) Dibromochloromethane	11.341	129	287682	102.484	ug/l		99
61) 1,2-Dibromoethane	11.453	107	258936	100.051	ug/l		98
64) Tetrachloroethene	11.082	164	195044	96.252	ug/l		97
65) Chlorobenzene	11.871	112	687696	97.289	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.941	131	239722	99.736	ug/l		99
67) Ethyl Benzene	11.947	91	1199510	103.080	ug/l		99
68) m/p-Xylenes	12.053	106	924069	212.065	ug/l		99
69) o-Xylene	12.376	106	447092	107.413	ug/l		100
70) Styrene	12.394	104	766471	109.464	ug/l		98
71) Bromoform	12.559	173	202915	104.498	ug/l	#	99
73) Isopropylbenzene	12.676	105	1112821	104.940	ug/l		100
74) N-amyl acetate	12.482	43	464246	112.129	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.918	83	389392	97.587	ug/l		98
76) 1,2,3-Trichloropropane	12.970	75	326434m	87.327	ug/l		
77) Bromobenzene	12.959	156	279589	101.662	ug/l		100
78) n-propylbenzene	13.018	91	1384517	103.771	ug/l		99
79) 2-Chlorotoluene	13.106	91	840073	102.452	ug/l		98
80) 1,3,5-Trimethylbenzene	13.153	105	943119	104.383	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.718	75	140673	101.874	ug/l		96
82) 4-Chlorotoluene	13.200	91	859965	100.734	ug/l		99
83) tert-Butylbenzene	13.418	119	800700	106.106	ug/l		99
84) 1,2,4-Trimethylbenzene	13.459	105	967878	104.898	ug/l		100
85) sec-Butylbenzene	13.594	105	1141320	100.410	ug/l		98
86) p-Isopropyltoluene	13.706	119	975014	107.037	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	535172	99.151	ug/l		100
88) 1,4-Dichlorobenzene	13.788	146	548212	95.097	ug/l		99
89) n-Butylbenzene	14.035	91	880763	101.260	ug/l		99
90) Hexachloroethane	14.312	117	185973	96.358	ug/l		98
91) 1,2-Dichlorobenzene	14.082	146	508902	99.523	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	97572	93.137	ug/l		94
93) 1,2,4-Trichlorobenzene	15.364	180	310448	103.357	ug/l		99
94) Hexachlorobutadiene	15.476	225	106429	95.360	ug/l		98
95) Naphthalene	15.611	128	1162930	109.289	ug/l		99
96) 1,2,3-Trichlorobenzene	15.811	180	308888	102.519	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087332.D
Acq On : 16 Jul 2025 18:32
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 17 02:20:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

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

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

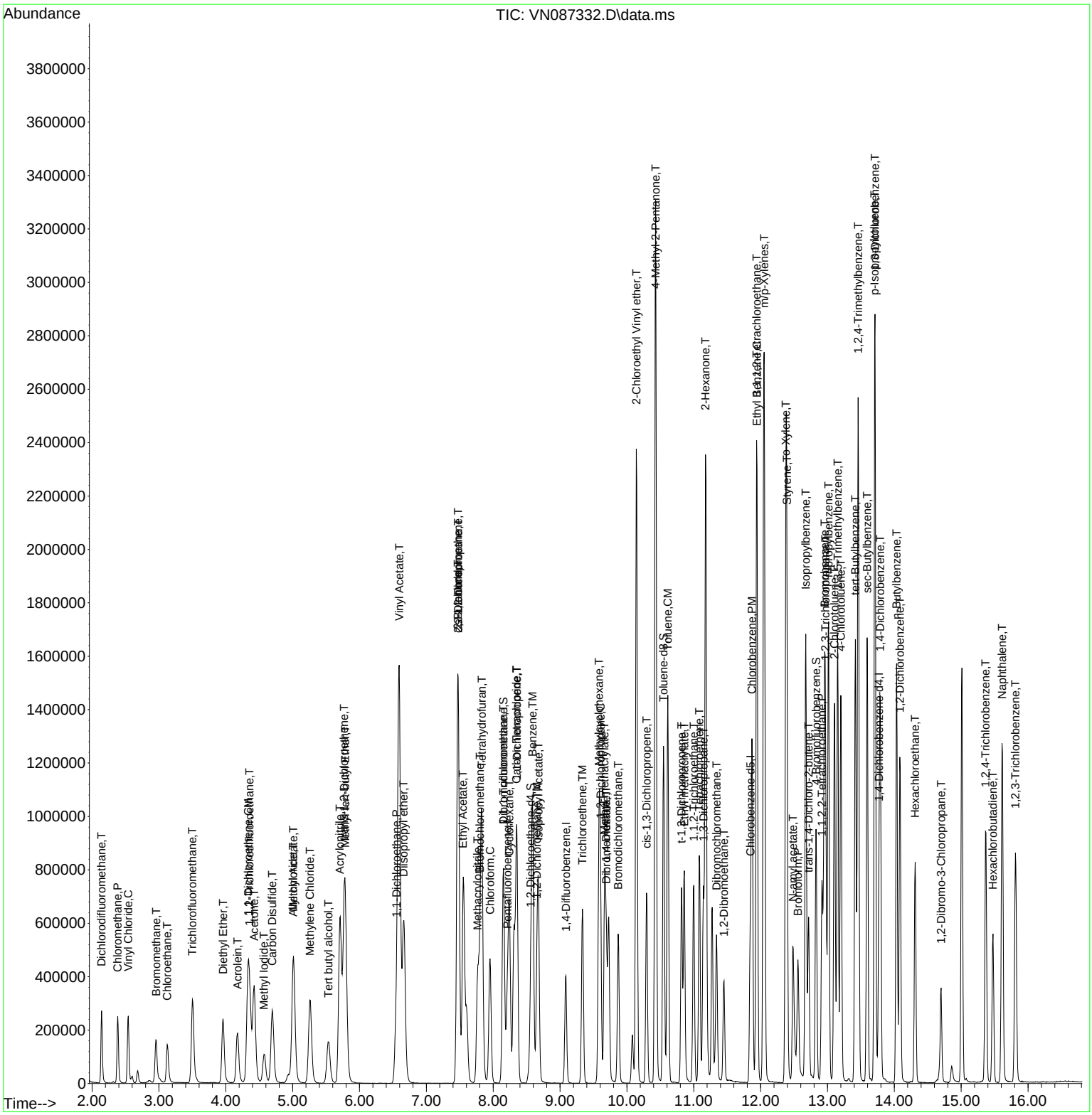
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087332.D
Acq On : 16 Jul 2025 18:32
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

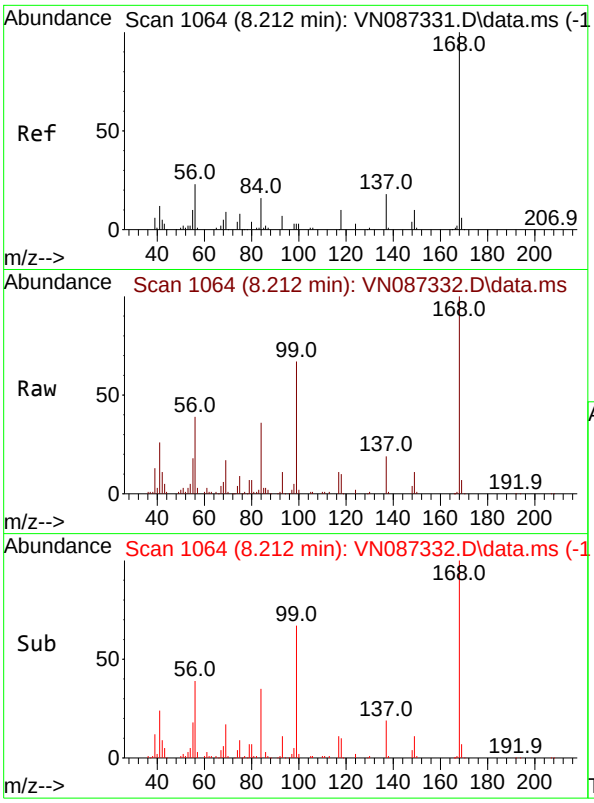
Quant Time: Jul 17 02:20:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

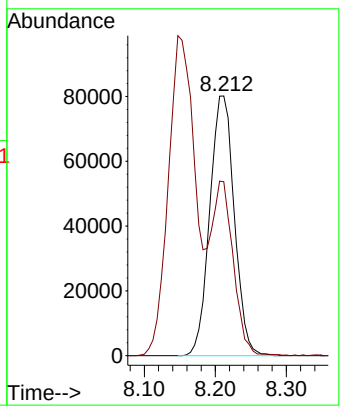




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:168 Resp: 19227

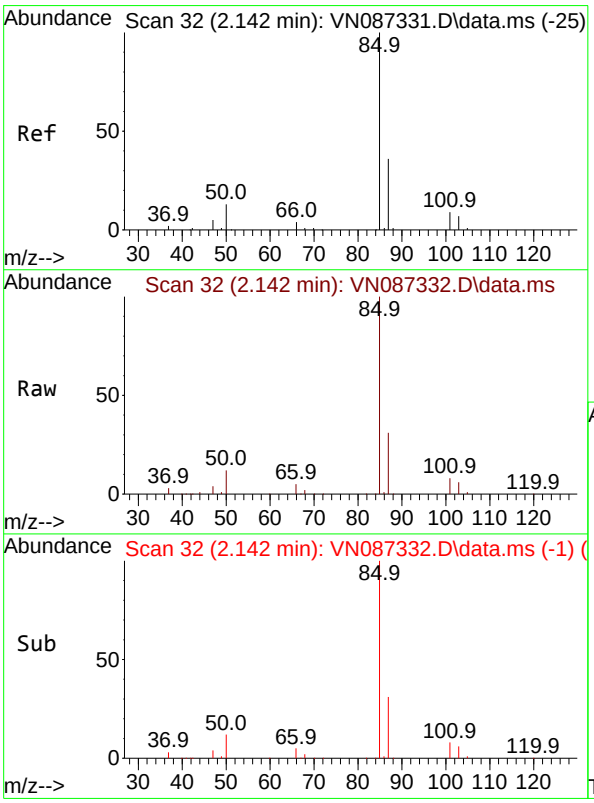
Ion	Ratio	Lower	Upper
168	100		
99	66.5	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

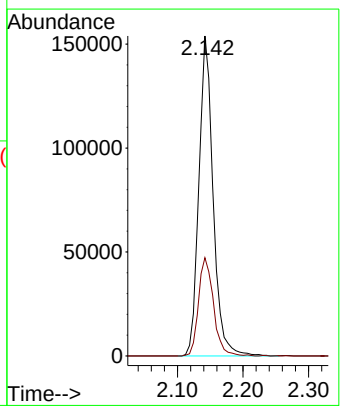
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

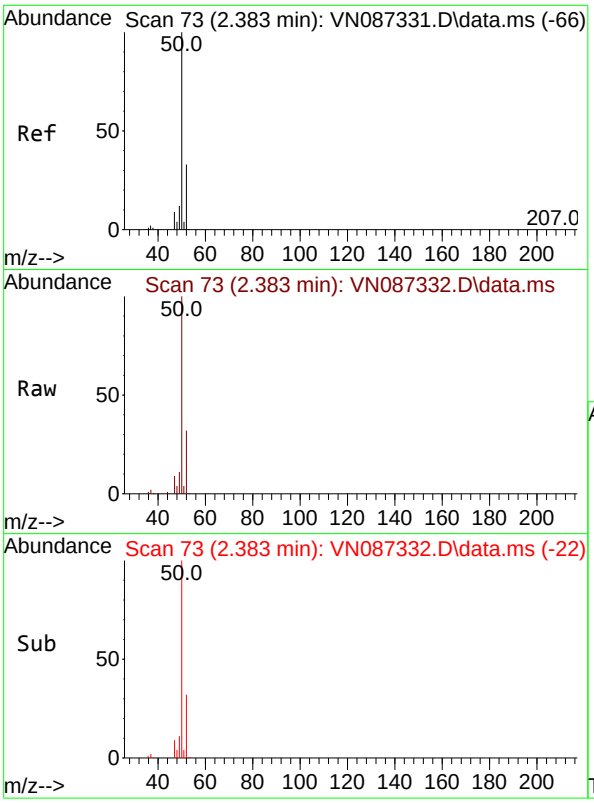


#2
Dichlorodifluoromethane
Concen: 114.190 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 85 Resp: 233197

Ion	Ratio	Lower	Upper
85	100		
87	30.7	17.8	53.3

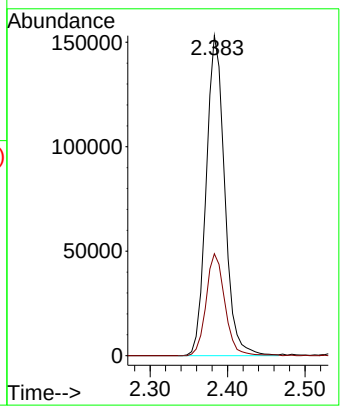




#3
Chloromethane
Concen: 98.660 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 50 Resp: 25336

Ion	Ratio	Lower	Upper
50	100		
52	31.8	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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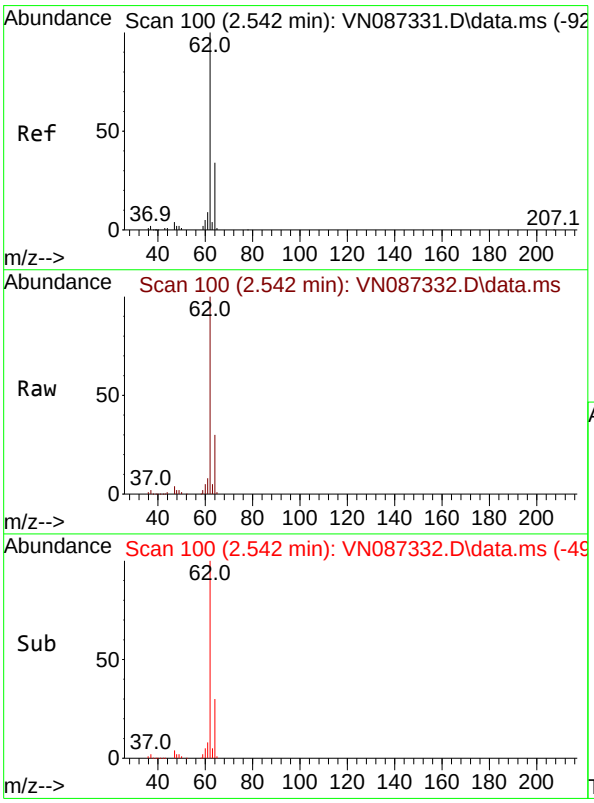
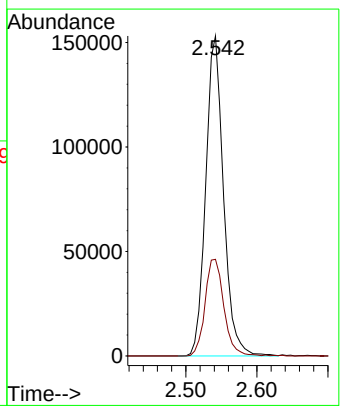
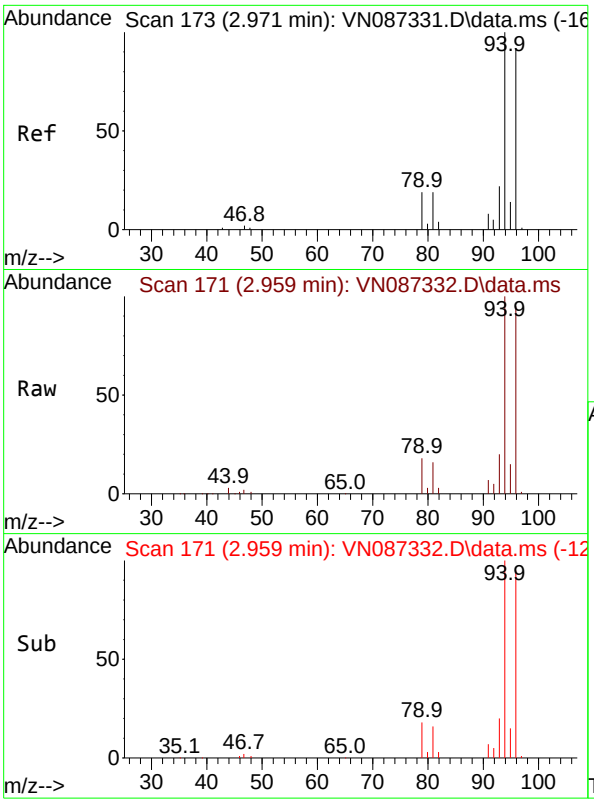


#4
Vinyl Chloride
Concen: 104.312 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 62 Resp: 266221

Ion	Ratio	Lower	Upper
62	100		
64	30.2	27.0	40.6

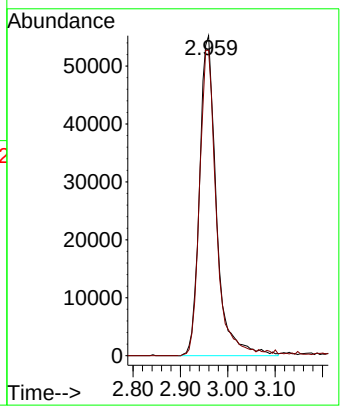




#5
Bromomethane
Concen: 103.503 ug/l
RT: 2.959 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 94 Resp: 13679

Ion	Ratio	Lower	Upper
94	100		
96	95.4	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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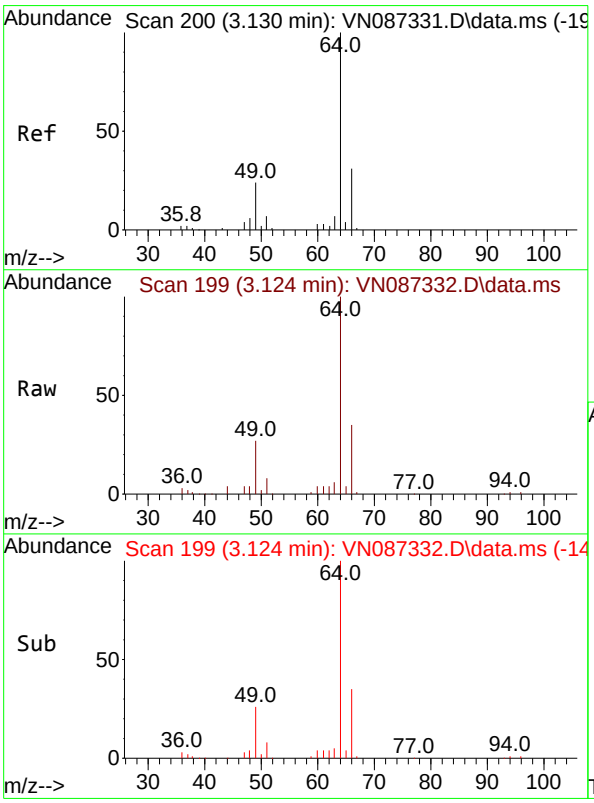
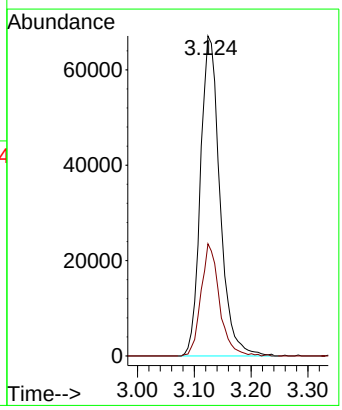
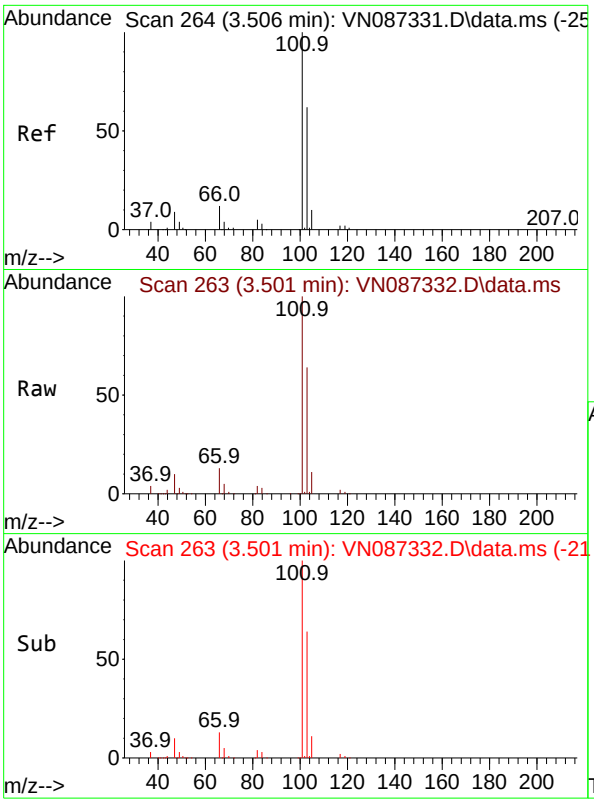


#6
Chloroethane
Concen: 95.783 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 64 Resp: 159422

Ion	Ratio	Lower	Upper
64	100		
66	35.0	24.6	36.8

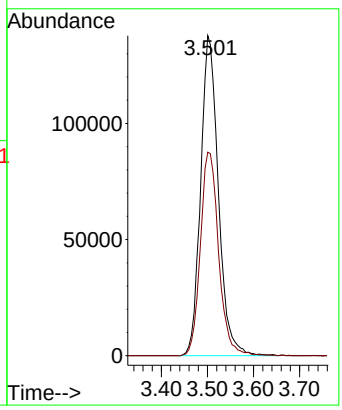




#7
Trichlorofluoromethane
Concen: 97.786 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:101 Resp: 36903

Ion	Ratio	Lower	Upper
101	100		
103	63.6	49.8	74.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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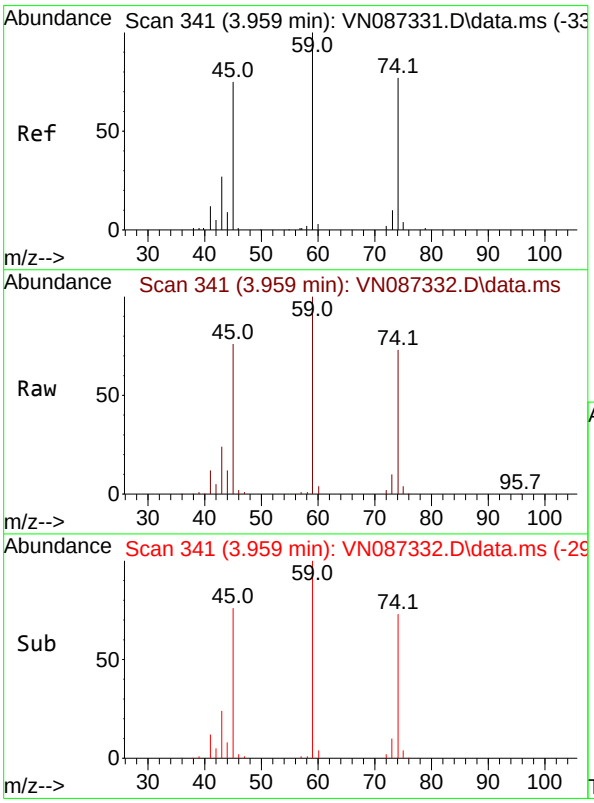
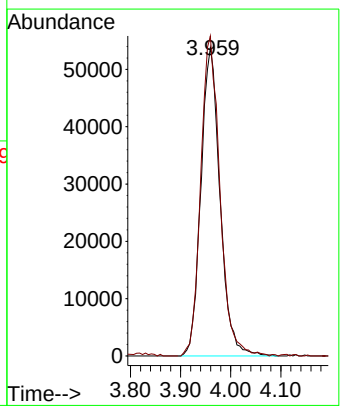
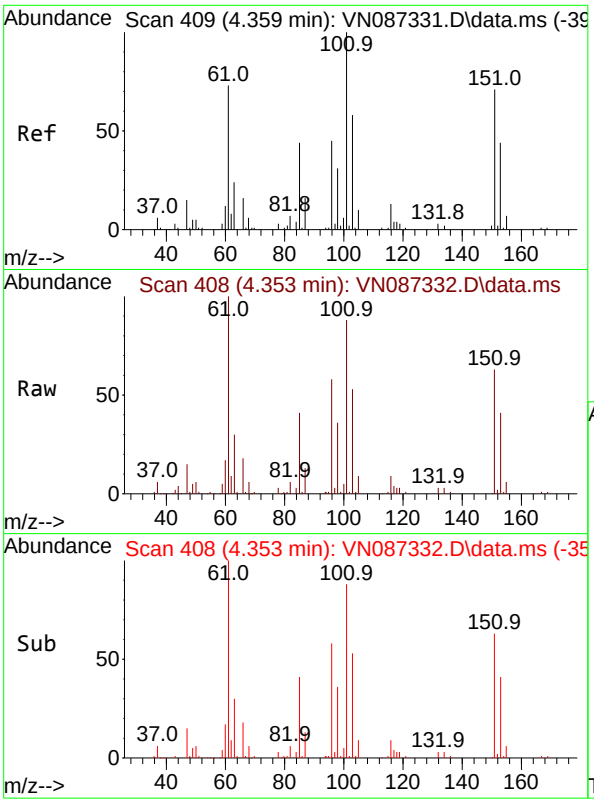


#8
Diethyl Ether
Concen: 97.445 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 74 Resp: 142652

Ion	Ratio	Lower	Upper
74	100		
45	104.3	50.8	152.5

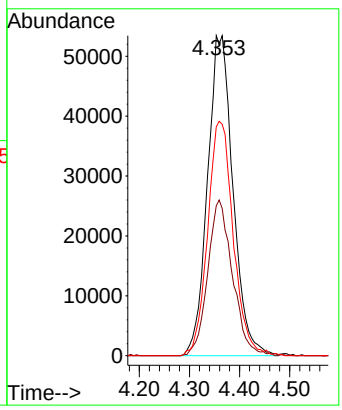




#9
1,1,2-Trichlorotrifluoroethane
Concen: 97.477 ug/l
RT: 4.353 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:101 Resp: 18884

Ion	Ratio	Lower	Upper
101	100		
85	47.3	37.3	55.9
151	73.6	58.9	88.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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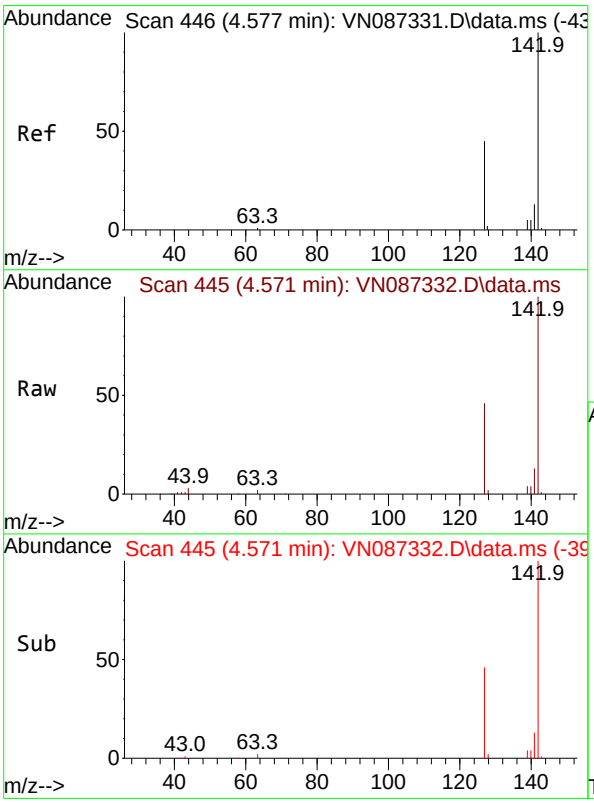
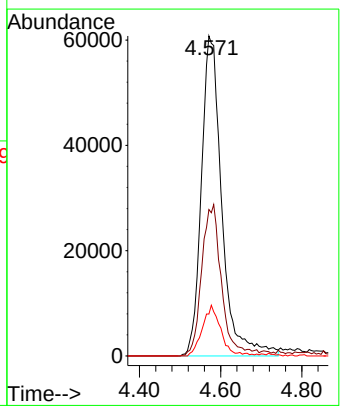
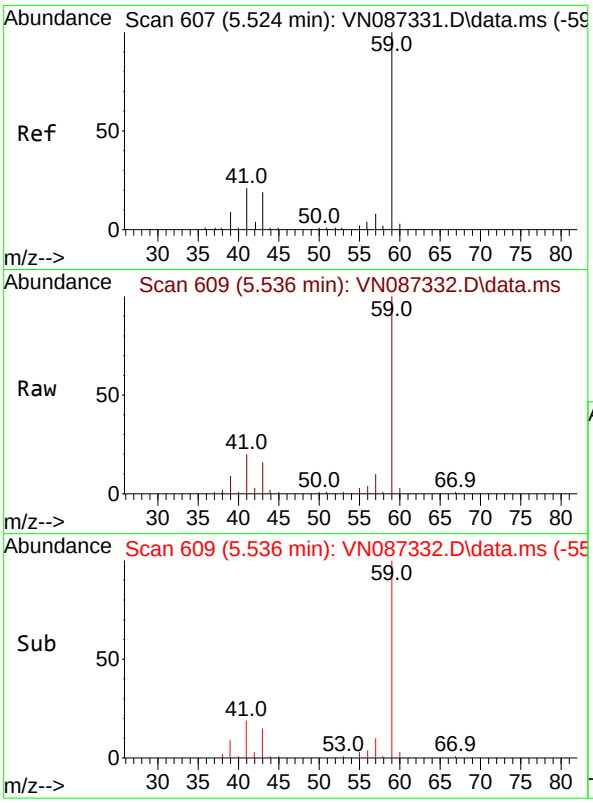


#10
Methyl Iodide
Concen: 100.524 ug/l
RT: 4.571 min Scan# 445
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:142 Resp: 213127

Ion	Ratio	Lower	Upper
142	100		
127	45.8	35.7	53.5
141	13.1	10.4	15.6

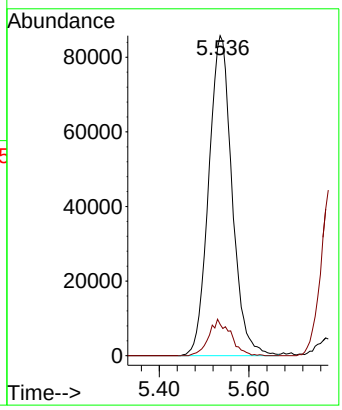




#11
Tert butyl alcohol
Concen: 499.800 ug/l
RT: 5.536 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 59 Resp: 30961

Ion	Ratio	Lower	Upper
59	100		
57	10.7	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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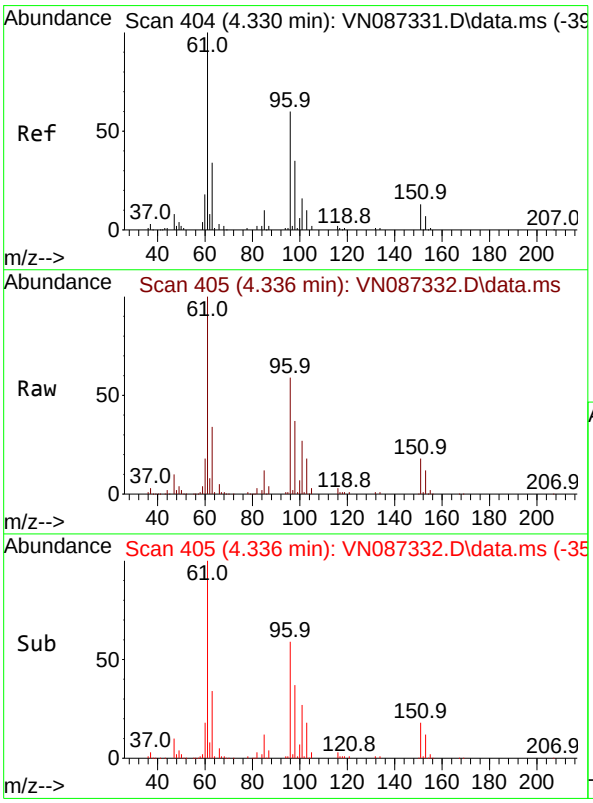
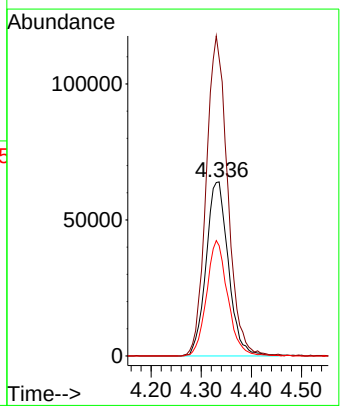
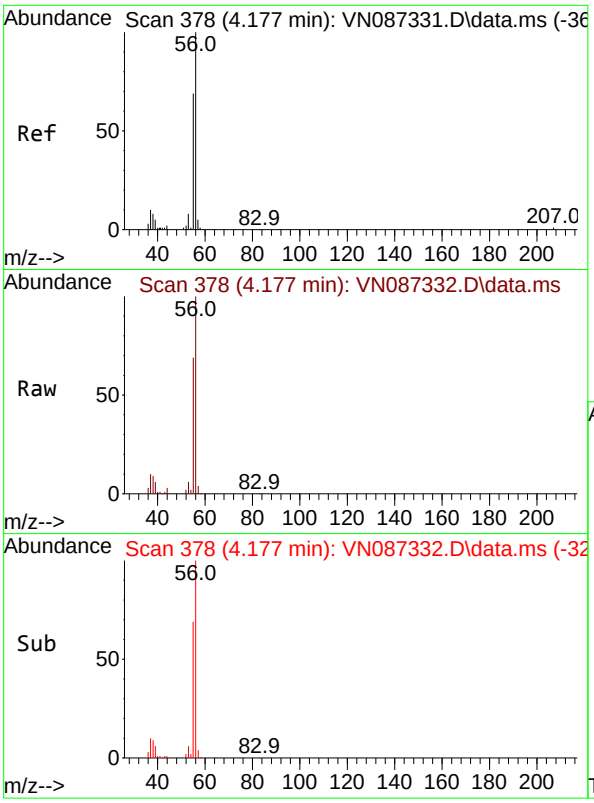


#12
1,1-Dichloroethene
Concen: 90.083 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 96 Resp: 197760

Ion	Ratio	Lower	Upper
96	100		
61	170.8	132.3	198.5
98	63.3	46.8	70.2

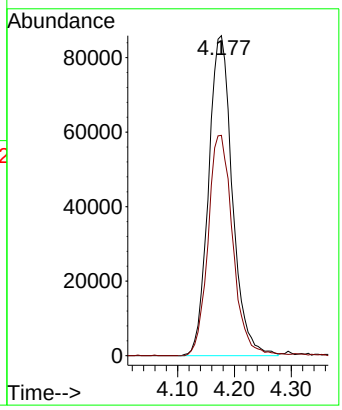




#13
Acrolein
Concen: 503.102 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 56 Resp: 25011

Ion	Ratio	Lower	Upper
56	100		
55	71.3	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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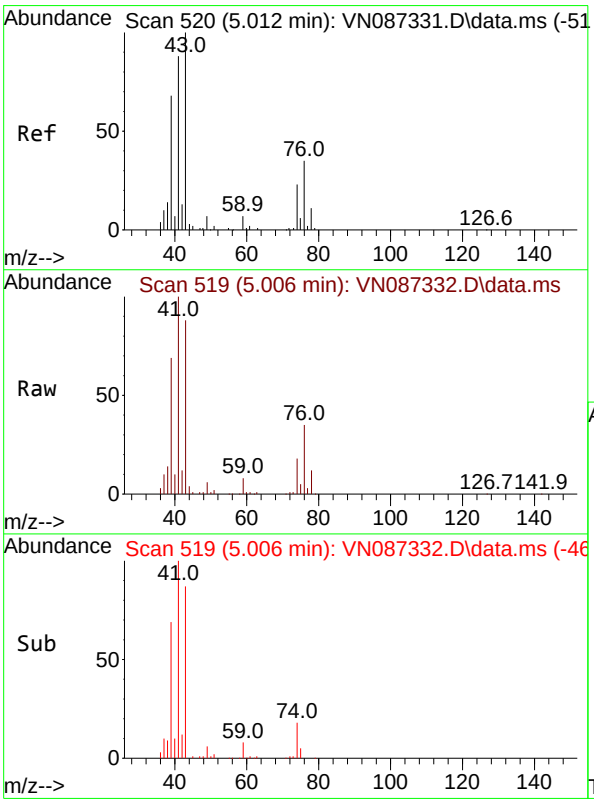
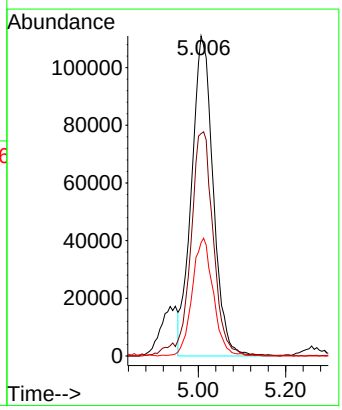
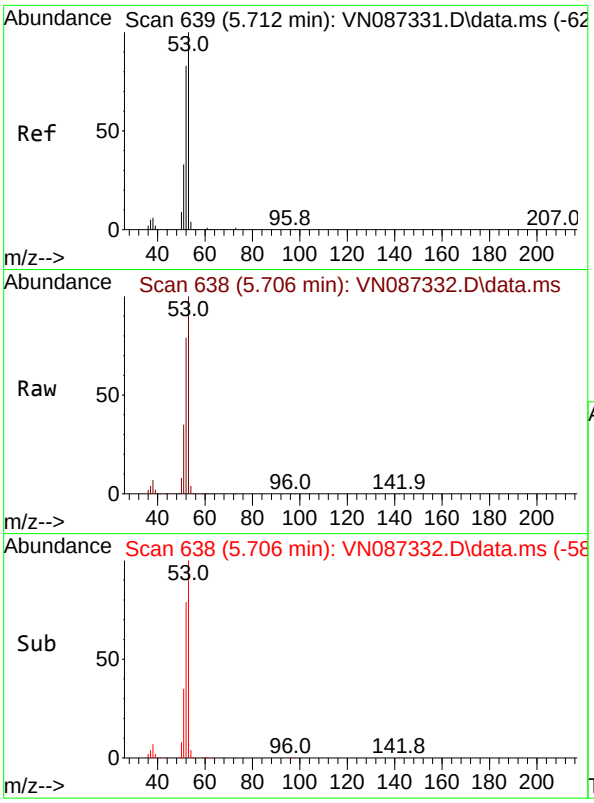


#14
Allyl chloride
Concen: 96.355 ug/l
RT: 5.006 min Scan# 519
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 41 Resp: 382812

Ion	Ratio	Lower	Upper
41	100		
39	73.3	59.0	88.6
76	35.9	28.7	43.1

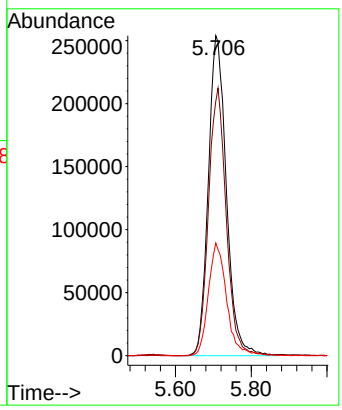




#15
Acrylonitrile
Concen: 499.150 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 53 Resp: 83908

Ion	Ratio	Lower	Upper
53	100		
52	82.1	65.5	98.3
51	35.6	28.7	43.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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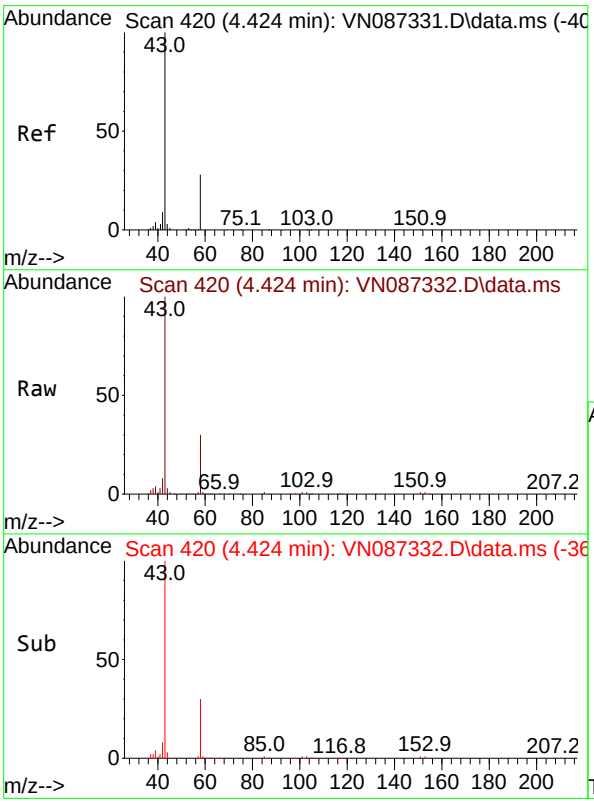
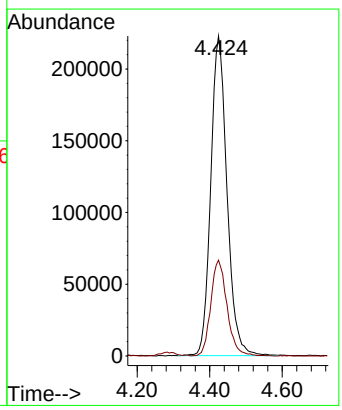
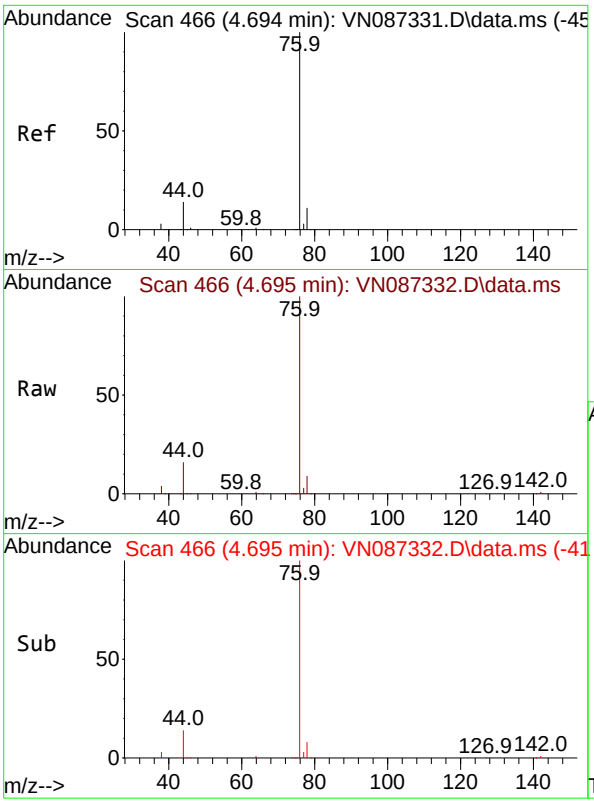


#16
Acetone
Concen: 448.375 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 693485

Ion	Ratio	Lower	Upper
43	100		
58	30.0	22.3	33.5





#17
Carbon Disulfide
Concen: 97.056 ug/l
RT: 4.695 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 76 Resp: 63169

Ion	Ratio	Lower	Upper
76	100		
78	8.8	8.6	13.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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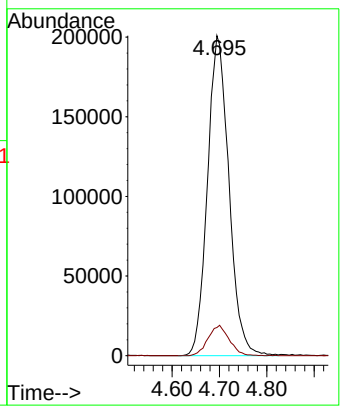
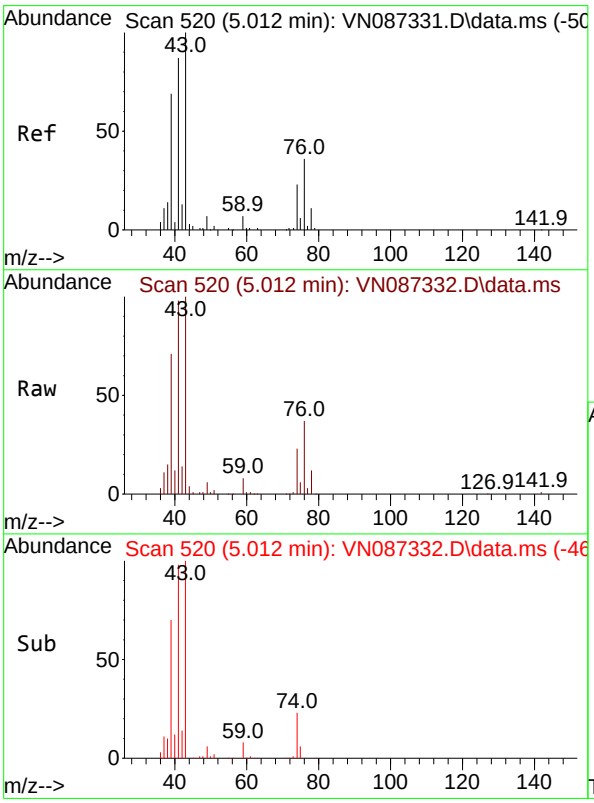
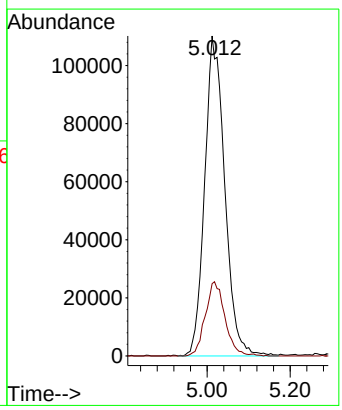


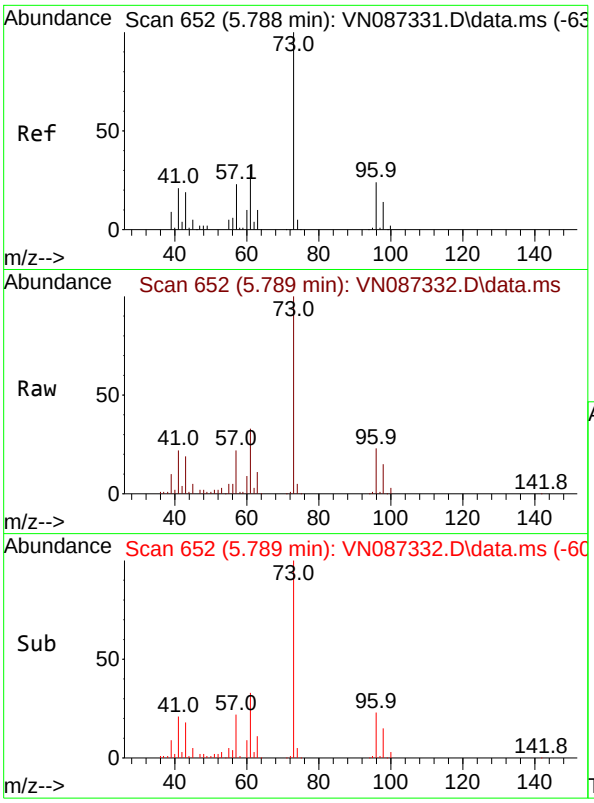


#18
Methyl Acetate
Concen: 96.247 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 369894

Ion	Ratio	Lower	Upper
43	100		
74	22.5	17.8	26.6

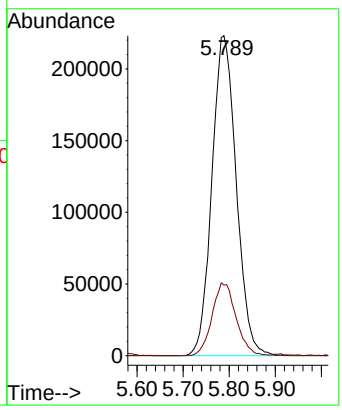




#19
Methyl tert-butyl Ether
Concen: 101.186 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 73 Resp: 81876

Ion	Ratio	Lower	Upper
73	100		
57	22.1	18.6	27.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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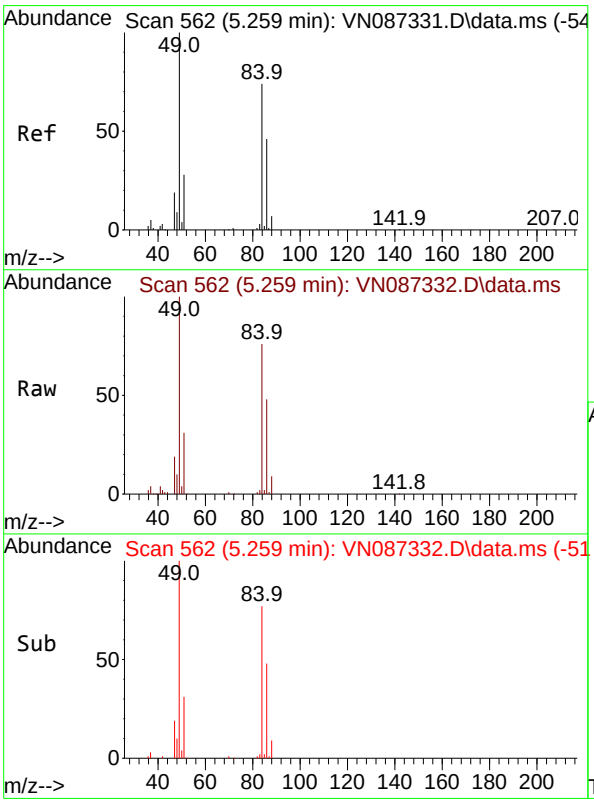
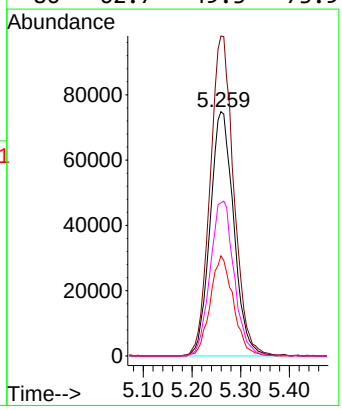
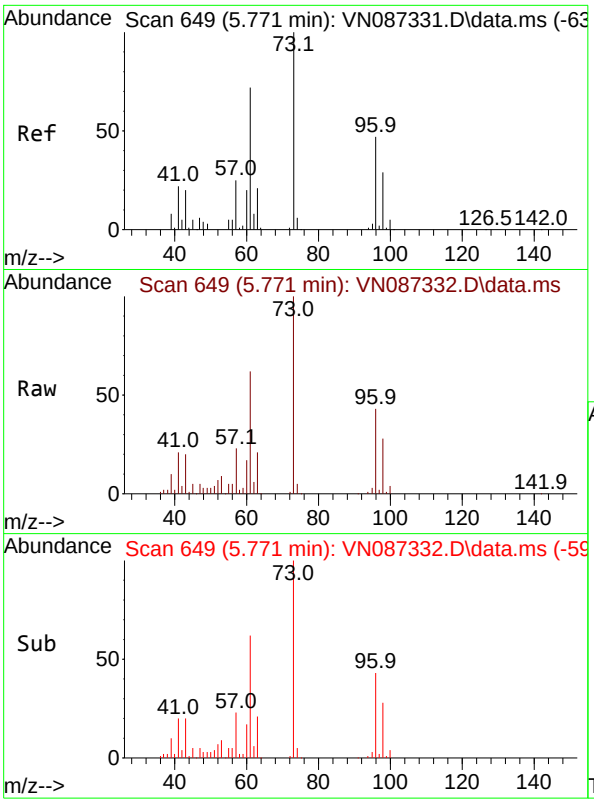


#20
Methylene Chloride
Concen: 98.001 ug/l
RT: 5.259 min Scan# 562
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 84 Resp: 251830

Ion	Ratio	Lower	Upper
84	100		
49	131.0	107.5	161.3
51	41.0	30.2	45.2
86	62.7	49.3	73.9

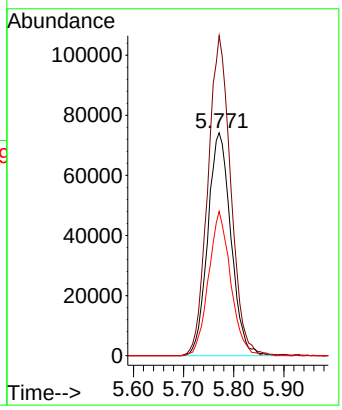




#21
trans-1,2-Dichloroethene
Concen: 96.030 ug/l
RT: 5.771 min Scan# 64
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 96 Resp: 23770

Ion	Ratio	Lower	Upper
96	100		
61	143.5	122.0	183.0
98	64.7	50.0	75.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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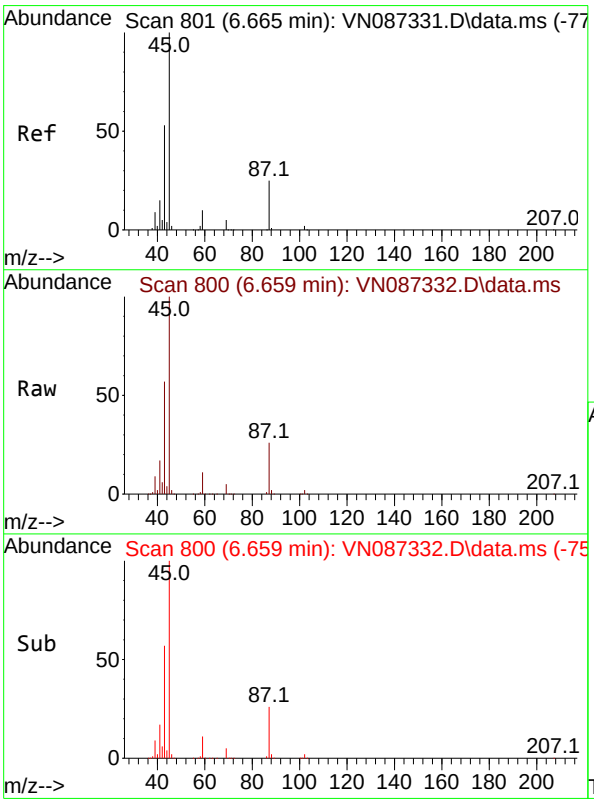
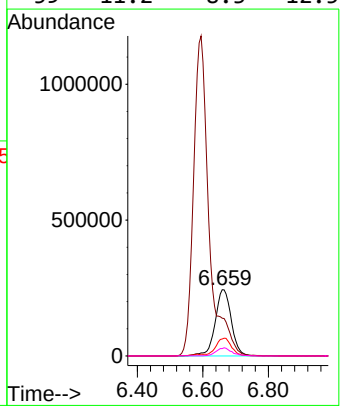
Supervised By :Semsettin Yesilyurt 07/17/2025

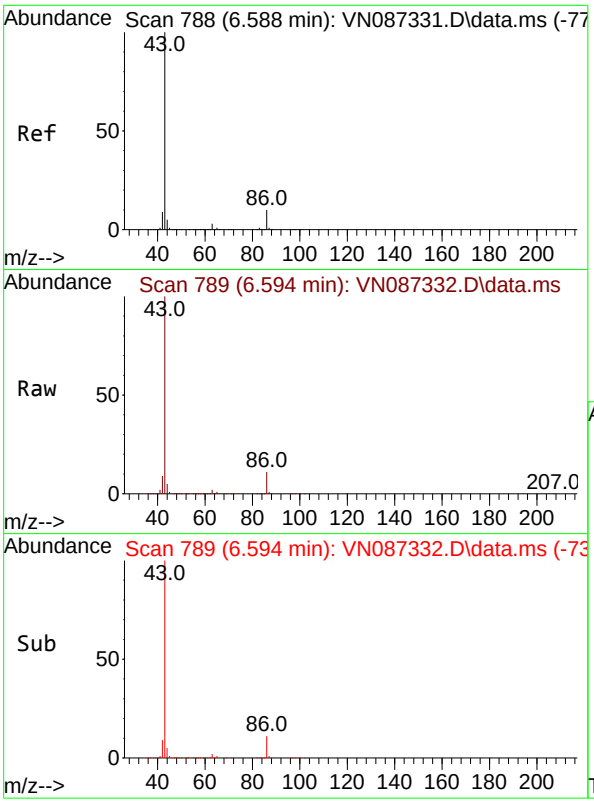


#22
Diisopropyl ether
Concen: 99.921 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 45 Resp: 832709

Ion	Ratio	Lower	Upper
45	100		
43	56.9	42.8	64.2
87	25.7	19.8	29.6
59	11.2	8.3	12.5

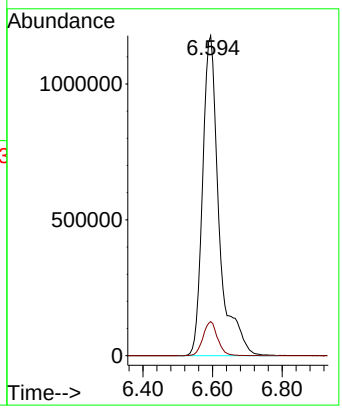




#23
Vinyl Acetate
Concen: 529.516 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 385942

Ion	Ratio	Lower	Upper
43	100		
86	10.7	7.7	11.5



Instrument :
MSVOA_N
ClientSampleId :
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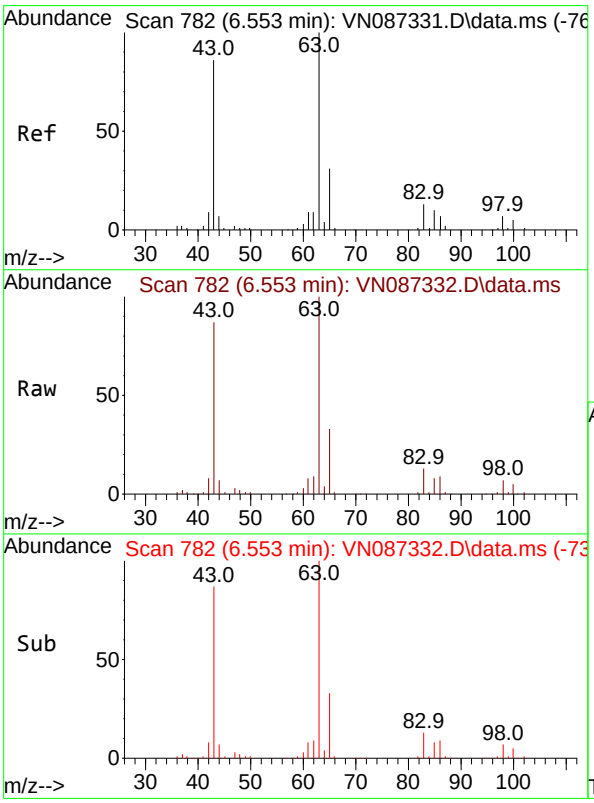
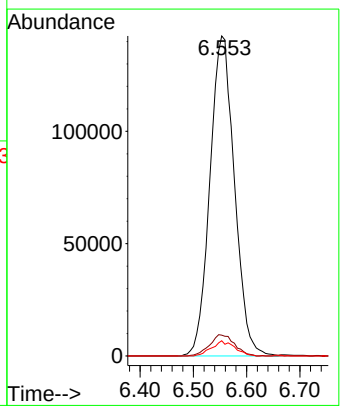
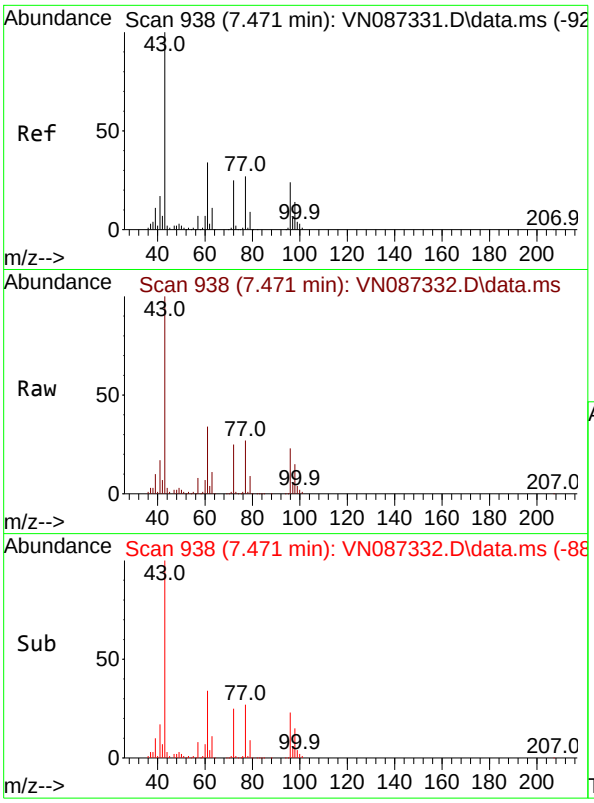


#24
1,1-Dichloroethane
Concen: 94.807 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 63 Resp: 455820

Ion	Ratio	Lower	Upper
63	100		
98	6.5	3.3	9.9
100	4.7	2.5	7.4

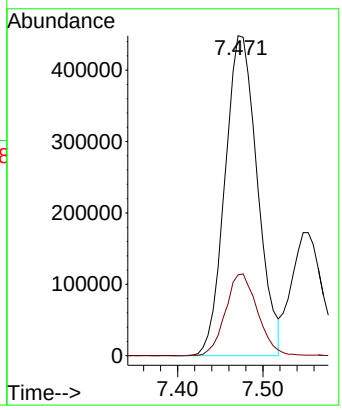




#25
2-Butanone
Concen: 501.667 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 118570

Ion	Ratio	Lower	Upper
43	100		
72	25.3	19.6	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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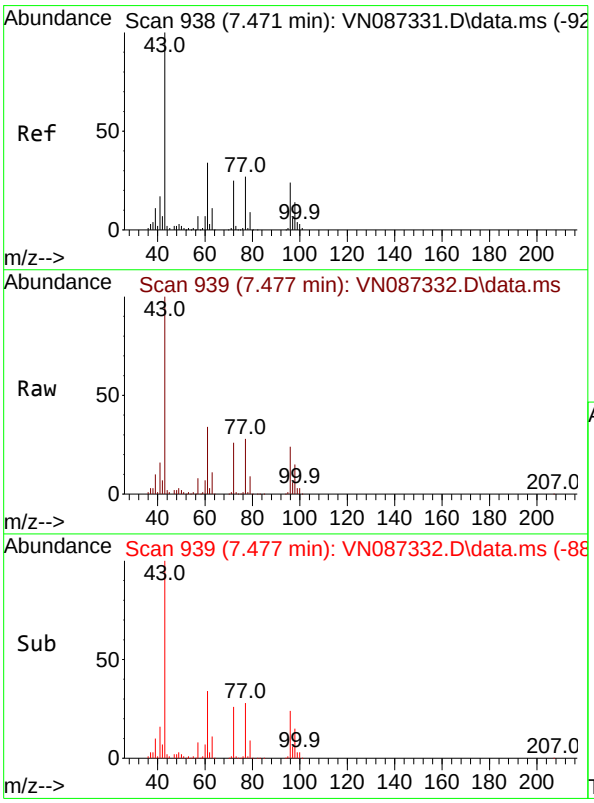
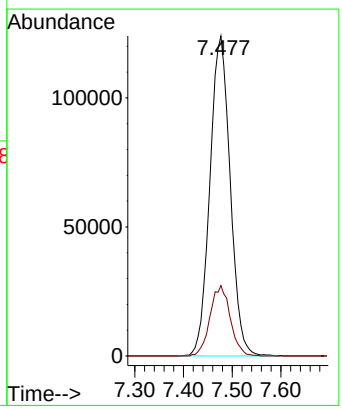
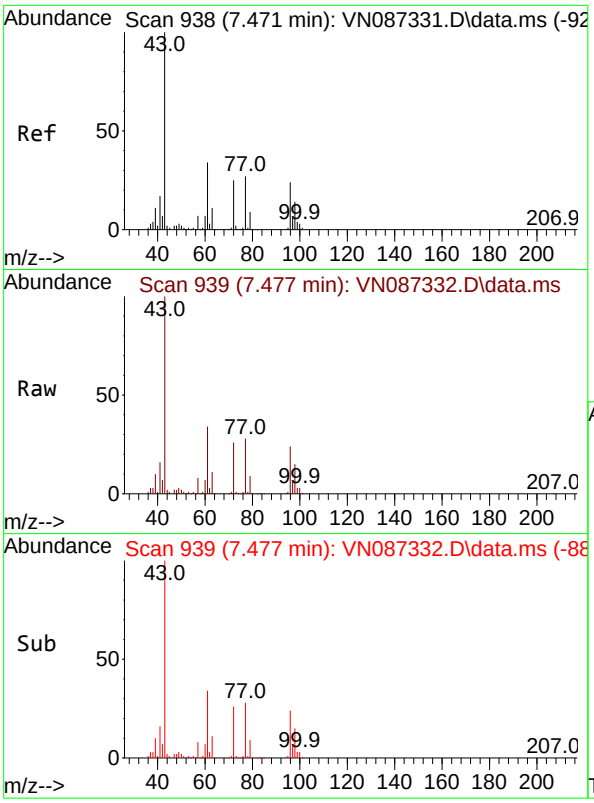


#26
2,2-Dichloropropane
Concen: 95.932 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 77 Resp: 358596

Ion	Ratio	Lower	Upper
77	100		
97	21.9	11.1	33.1





#27
cis-1,2-Dichloroethene
Concen: 99.858 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 96 Resp: 28457

Ion	Ratio	Lower	Upper
96	100		
61	147.5	0.0	297.8
98	63.9	0.0	132.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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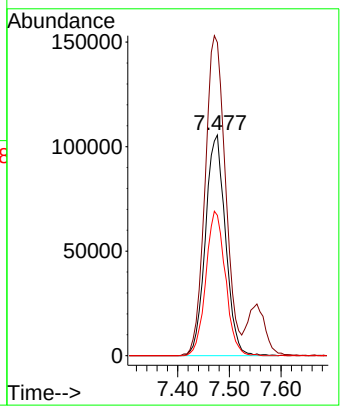
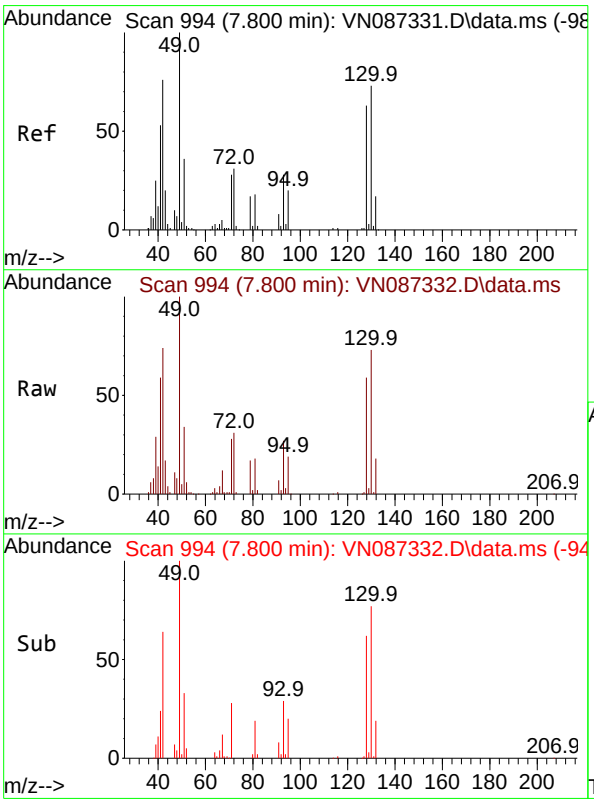
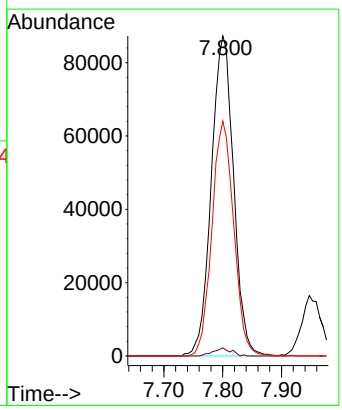


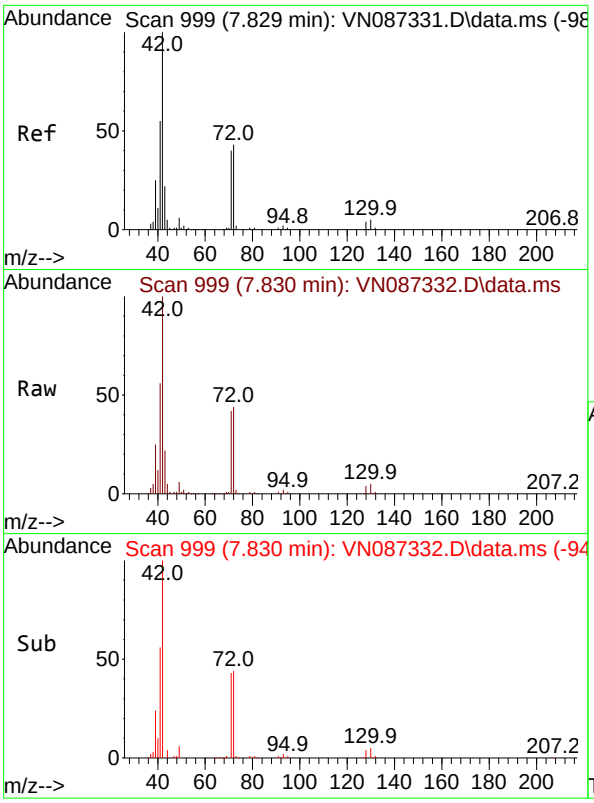


#28
Bromochloromethane
Concen: 99.757 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 49 Resp: 229544

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	4.2
130	71.8	57.3	85.9

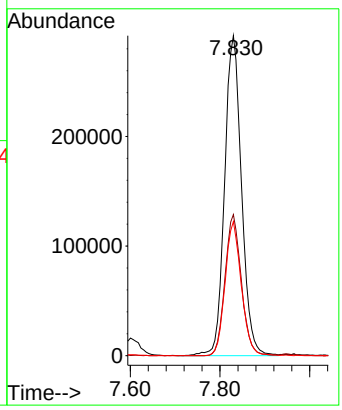




#29
Tetrahydrofuran
Concen: 500.532 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 42 Resp: 76852

Ion	Ratio	Lower	Upper
42	100		
72	42.4	33.4	50.0
71	40.2	31.2	46.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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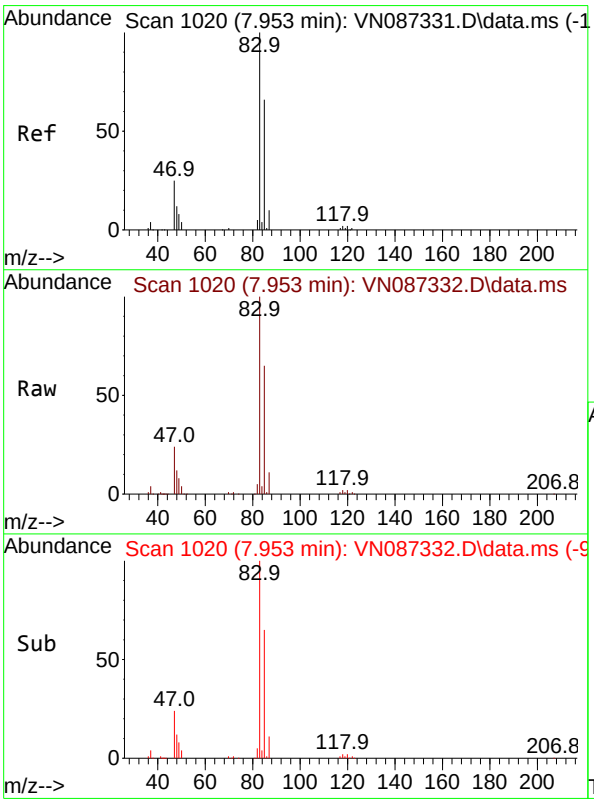
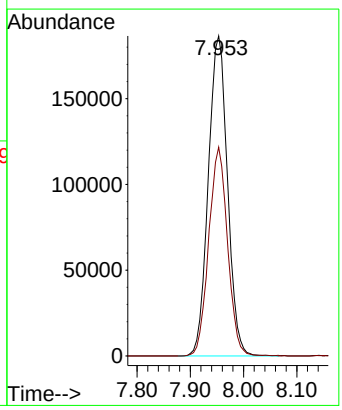
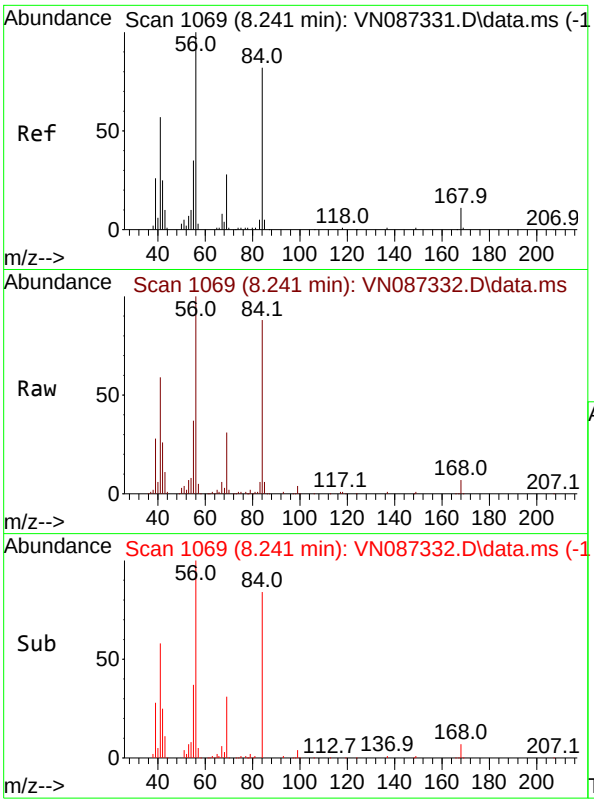


#30
Chloroform
Concen: 97.008 ug/l
RT: 7.953 min Scan# 1020
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 83 Resp: 466838

Ion	Ratio	Lower	Upper
83	100		
85	65.3	52.7	79.1

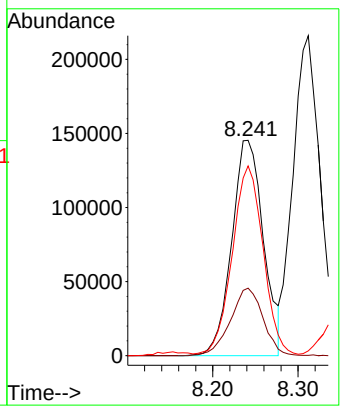




#31
Cyclohexane
Concen: 94.035 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 56 Resp: 37715

Ion	Ratio	Lower	Upper
56	100		
69	31.4	22.7	34.1
84	86.8	65.8	98.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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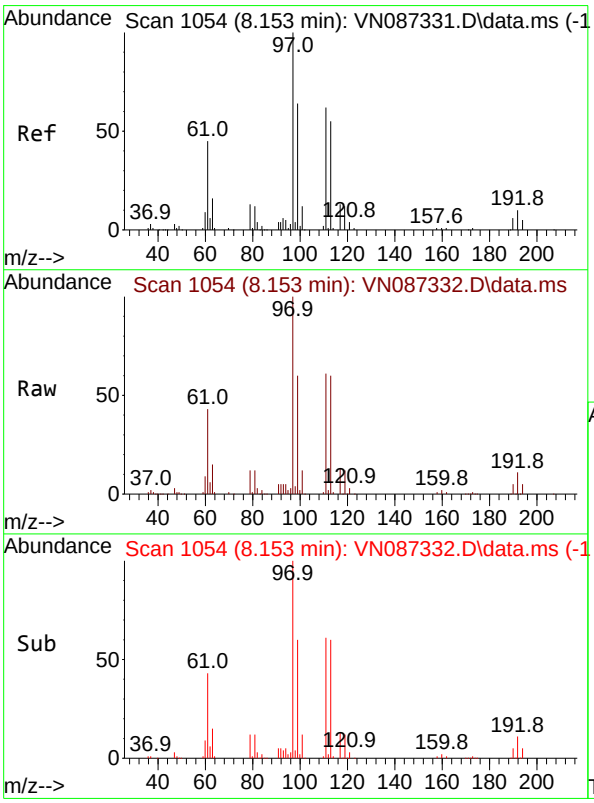
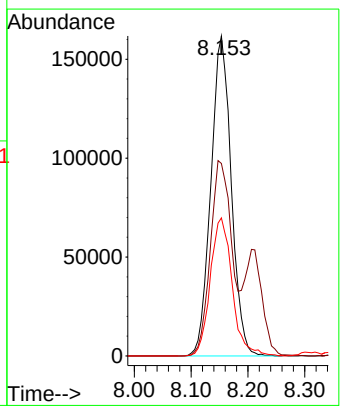
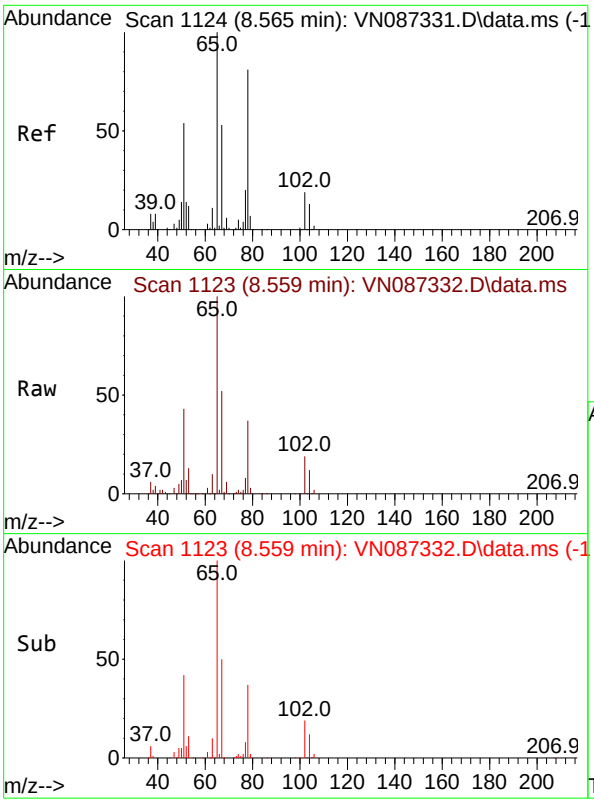


#32
1,1,1-Trichloroethane
Concen: 96.794 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 97 Resp: 403445

Ion	Ratio	Lower	Upper
97	100		
99	62.9	51.8	77.8
61	46.4	38.7	58.1

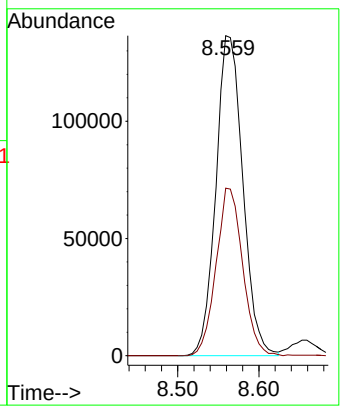




#33
1,2-Dichloroethane-d4
Concen: 96.373 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 65 Resp: 31441

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	104.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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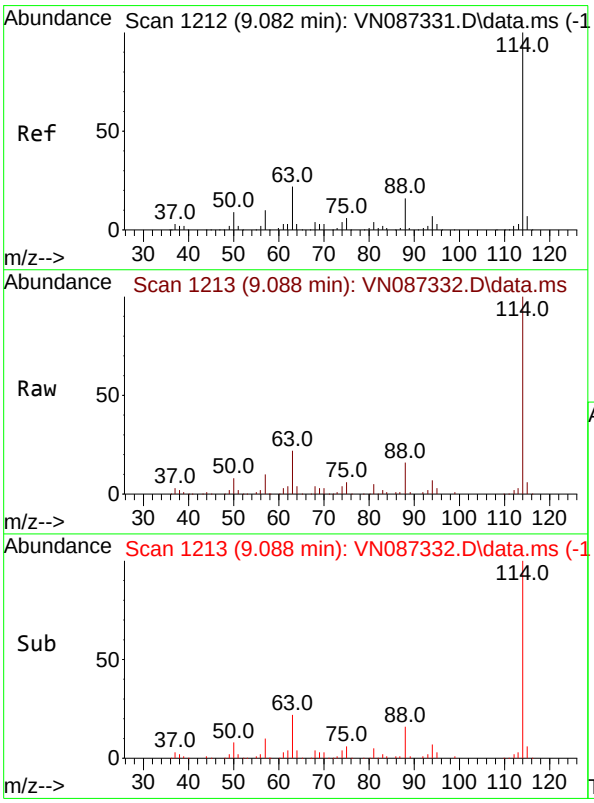
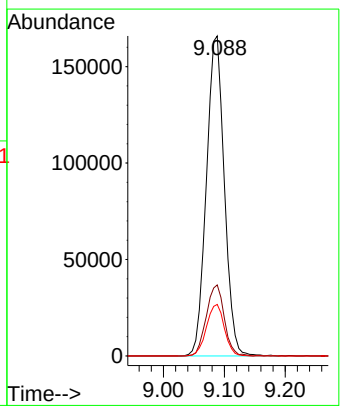
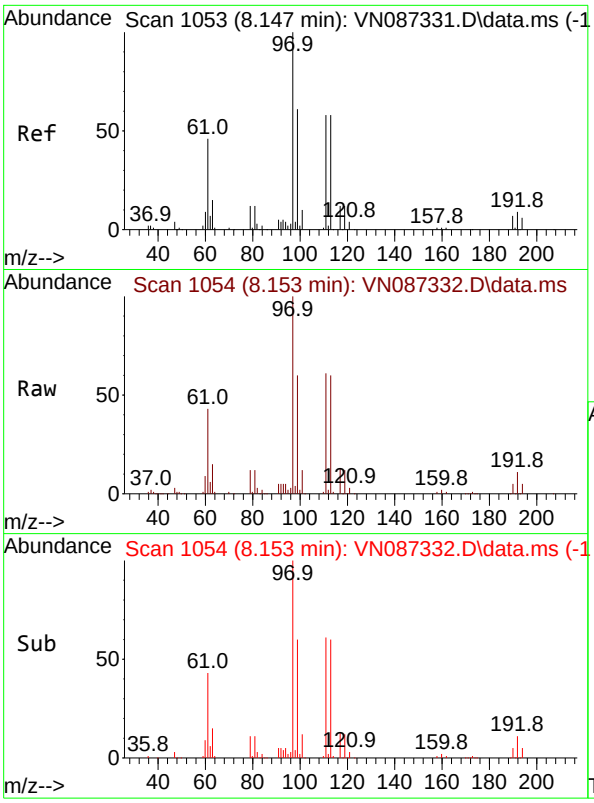


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.088 min Scan# 1213
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:114 Resp: 339591

Ion	Ratio	Lower	Upper
114	100		
63	22.2	0.0	44.6
88	16.1	0.0	32.8

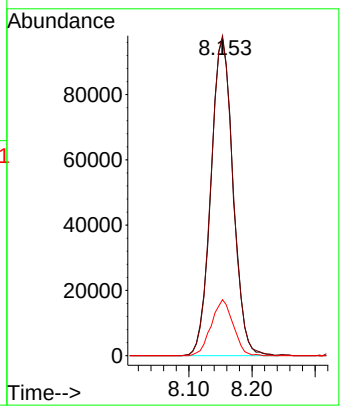




#35
Dibromofluoromethane
Concen: 100.947 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:113 Resp: 23646

Ion	Ratio	Lower	Upper
113	100		
111	100.2	82.5	123.7
192	17.5	13.7	20.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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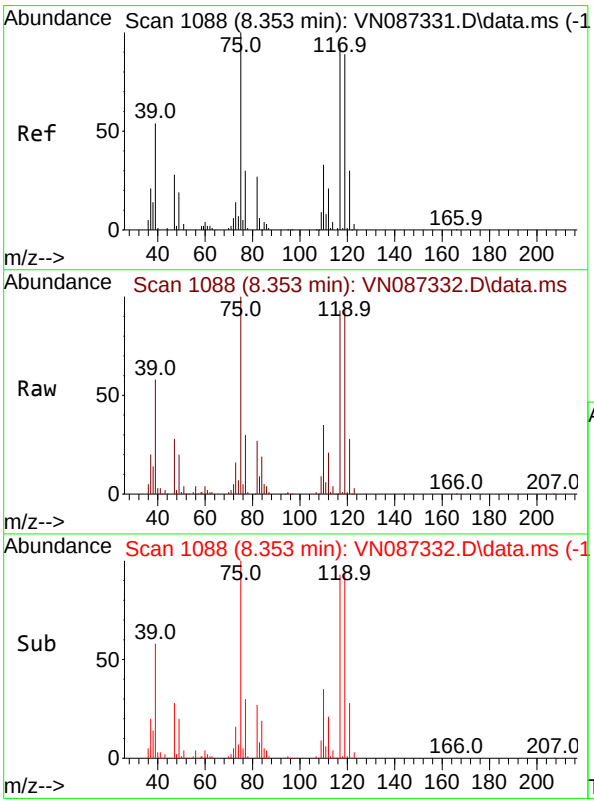
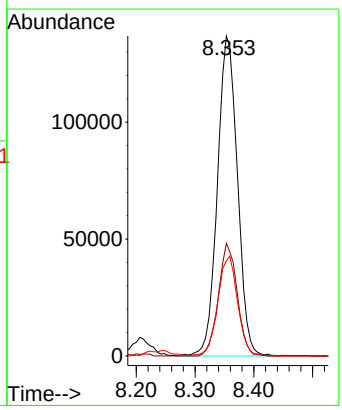
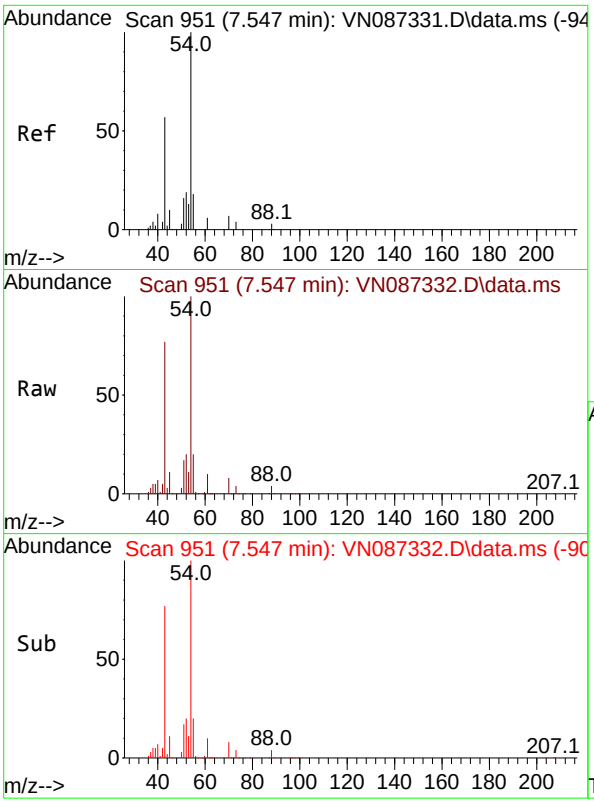


#36
1,1-Dichloropropene
Concen: 104.705 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 75 Resp: 324047

Ion	Ratio	Lower	Upper
75	100		
110	32.9	16.7	50.1
77	30.9	25.2	37.8

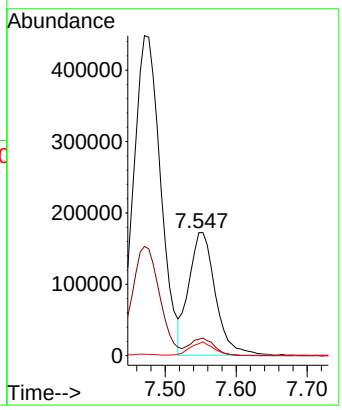




#37
Ethyl Acetate
Concen: 100.326 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 44842

Ion	Ratio	Lower	Upper
43	100		
61	13.3	10.9	16.3
70	10.1	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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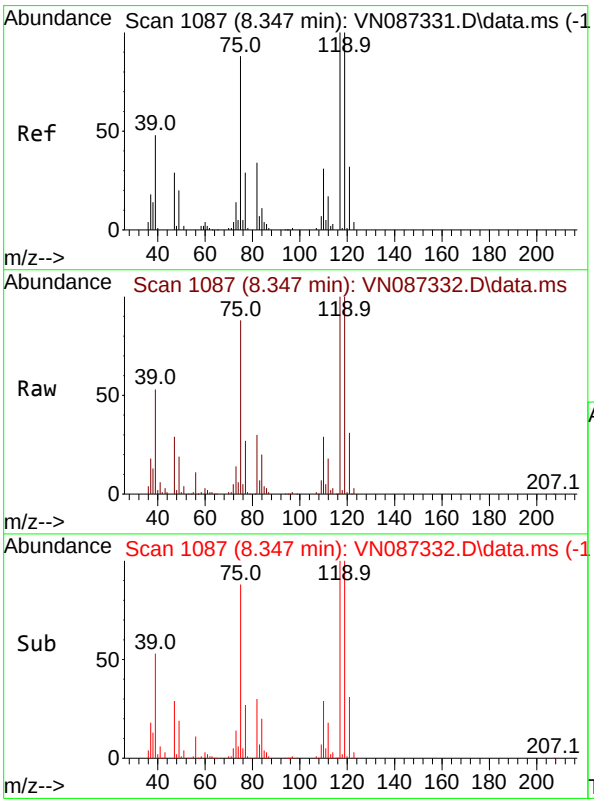
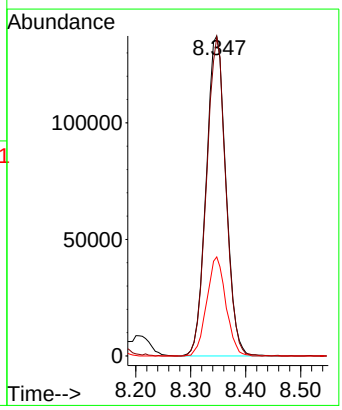
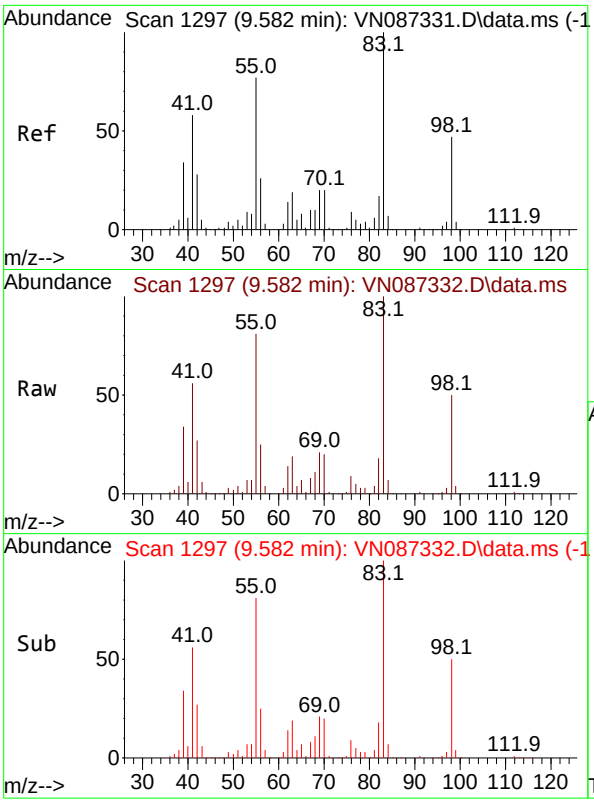


#38
Carbon Tetrachloride
Concen: 100.328 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:117 Resp: 342043

Ion	Ratio	Lower	Upper
117	100		
119	99.6	80.2	120.2
121	31.0	25.4	38.2





#39
Methylcyclohexane
Concen: 105.118 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 83 Resp: 35221

Ion	Ratio	Lower	Upper
83	100		
55	80.6	61.3	91.9
98	50.1	37.9	56.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
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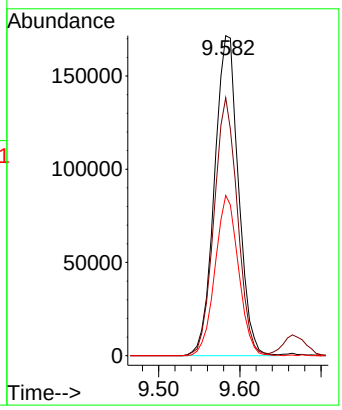
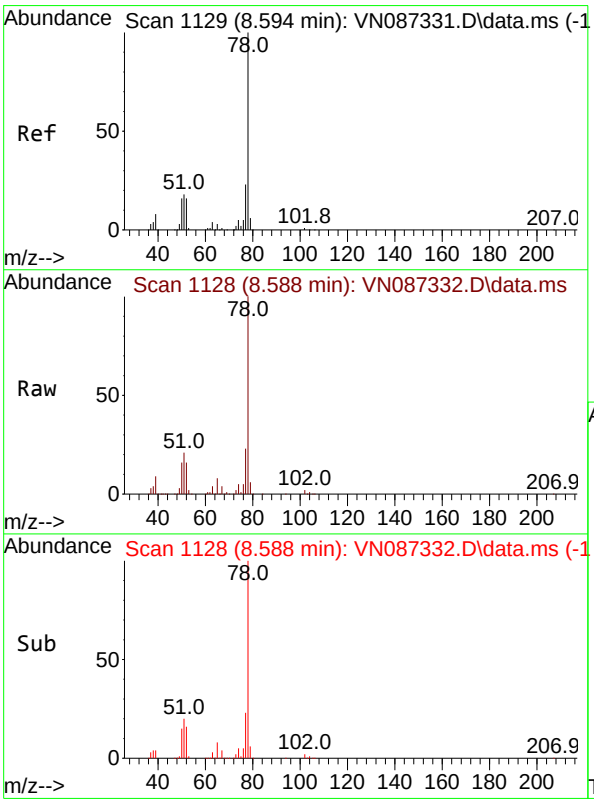
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

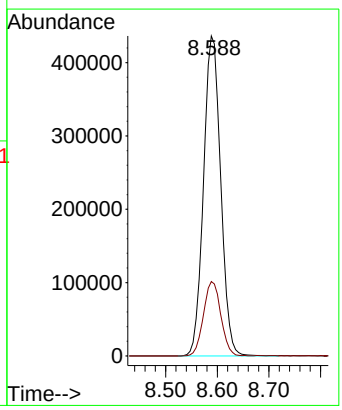


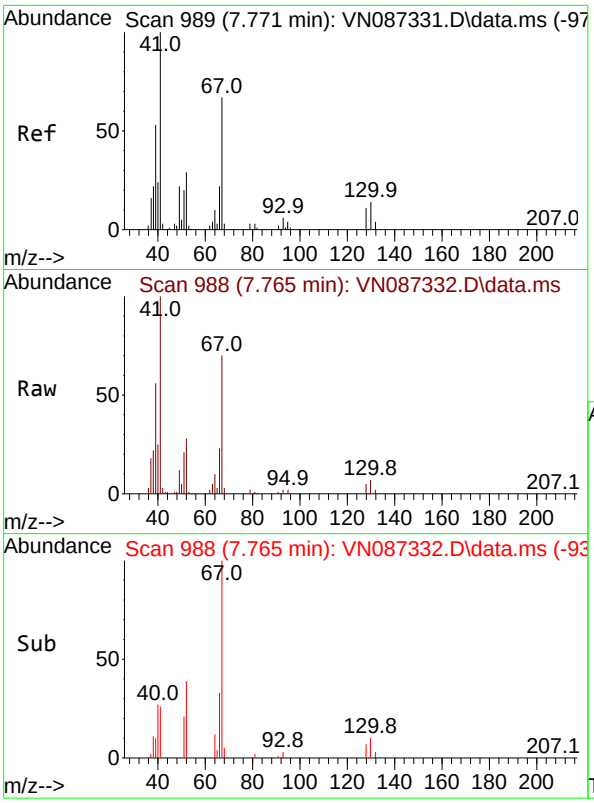


#40
Benzene
Concen: 100.700 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 78 Resp: 1007257

Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.2	27.2

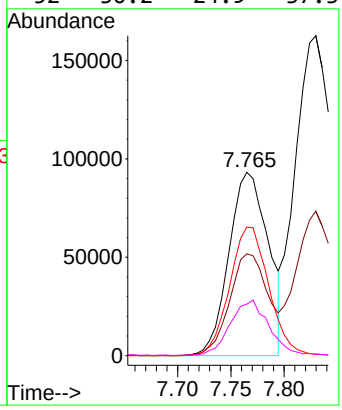




#41
Methacrylonitrile
Concen: 102.544 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 41 Resp: 23965

Ion	Ratio	Lower	Upper
41	100		
39	54.5	43.4	65.0
67	69.8	55.1	82.7
52	30.2	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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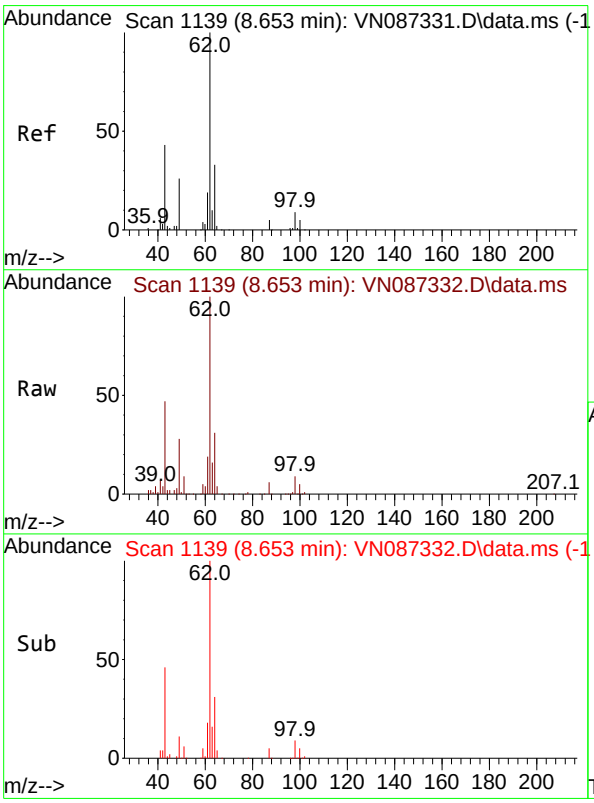
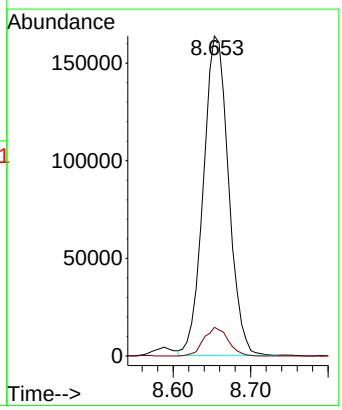
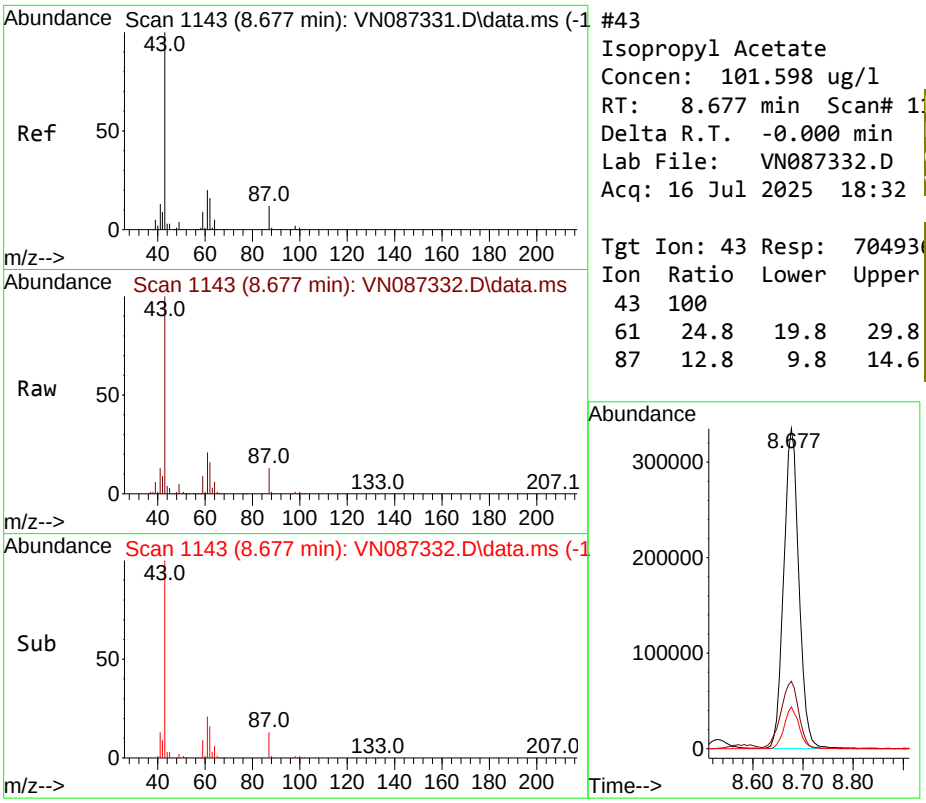


#42
1,2-Dichloroethane
Concen: 97.472 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 62 Resp: 369731

Ion	Ratio	Lower	Upper
62	100		
98	8.6	0.0	18.0





#43
Isopropyl Acetate
Concen: 101.598 ug/l
RT: 8.677 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 70493

Ion	Ratio	Lower	Upper
43	100		
61	24.8	19.8	29.8
87	12.8	9.8	14.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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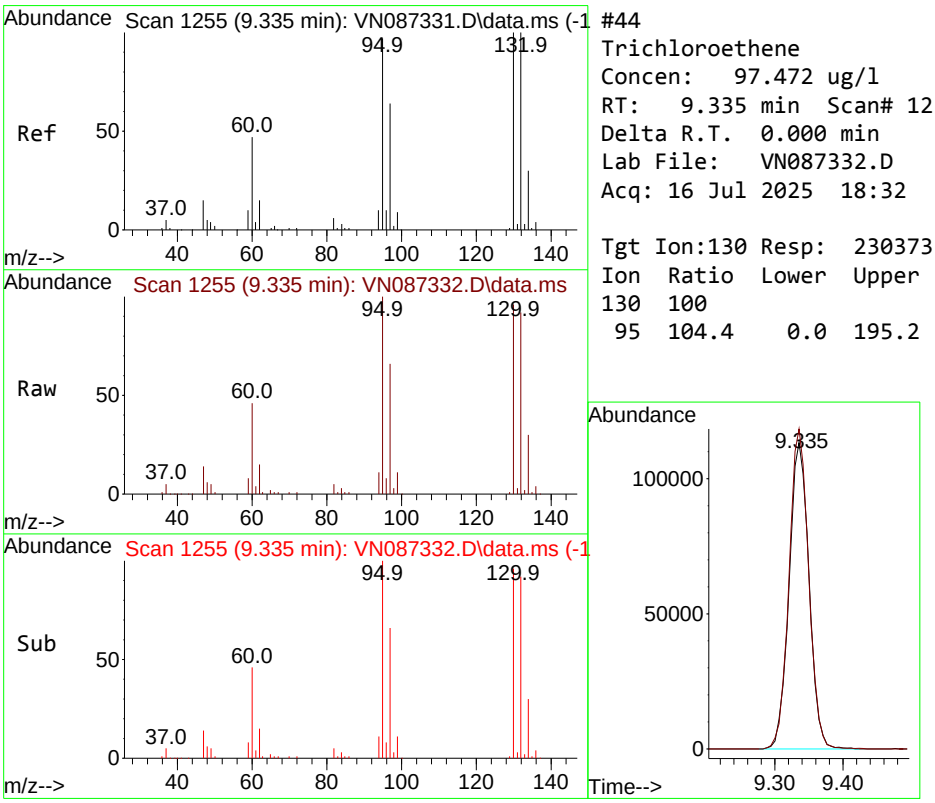
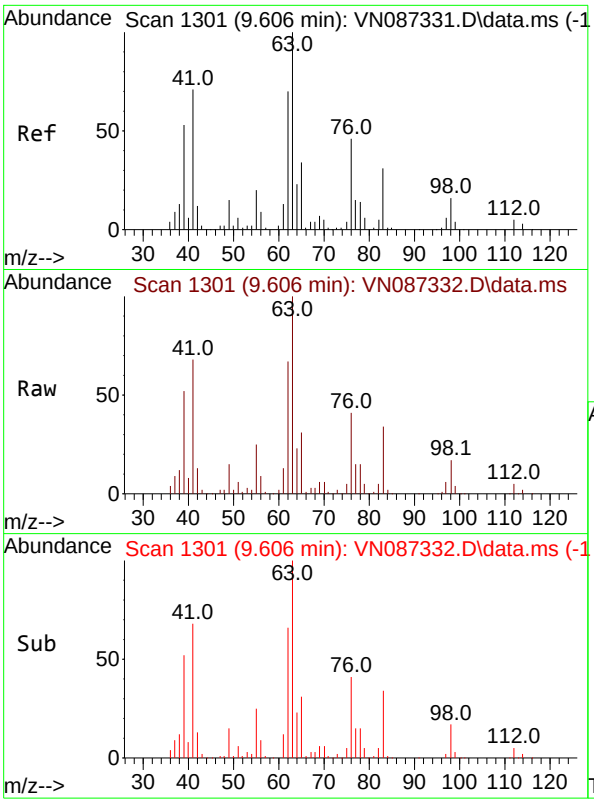


#44
Trichloroethene
Concen: 97.472 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:130 Resp: 230373

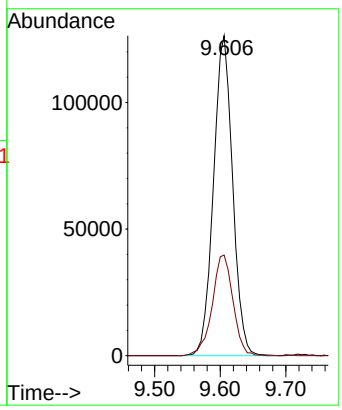
Ion	Ratio	Lower	Upper
130	100		
95	104.4	0.0	195.2



#45
1,2-Dichloropropane
Concen: 100.478 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 63 Resp: 25536

Ion	Ratio	Lower	Upper
63	100		
65	31.4	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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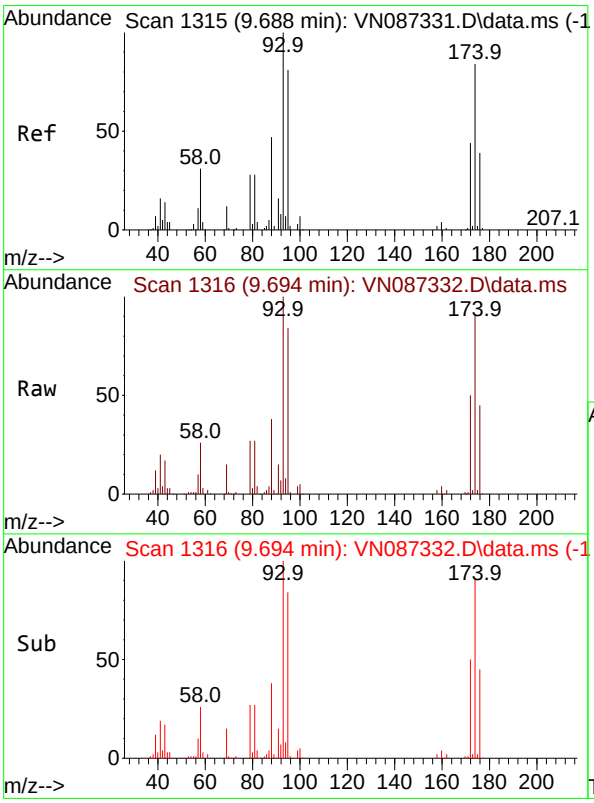
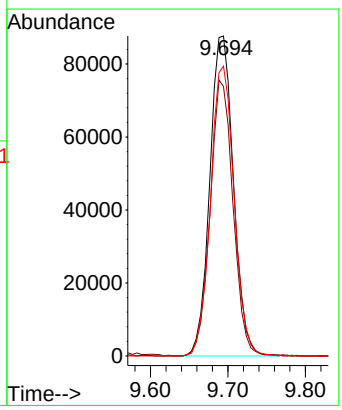
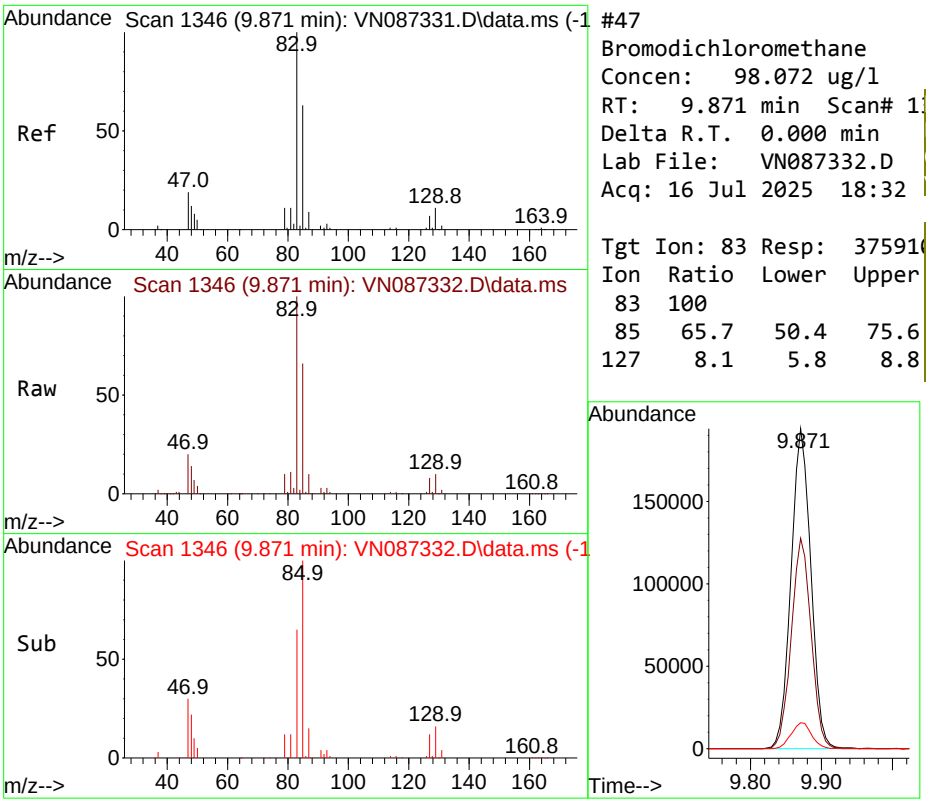


#46
Dibromomethane
Concen: 97.696 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 93 Resp: 185908

Ion	Ratio	Lower	Upper
93	100		
95	83.5	65.8	98.8
174	90.3	69.9	104.9





#47
Bromodichloromethane
Concen: 98.072 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 83 Resp: 37591

Ion	Ratio	Lower	Upper
83	100		
85	65.7	50.4	75.6
127	8.1	5.8	8.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
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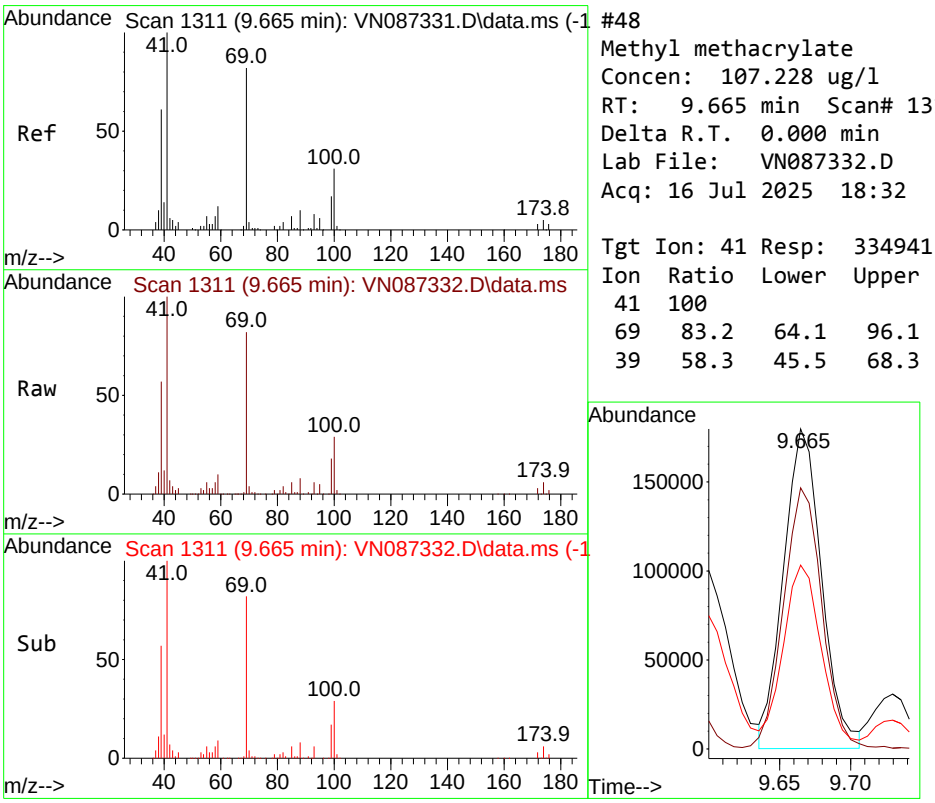
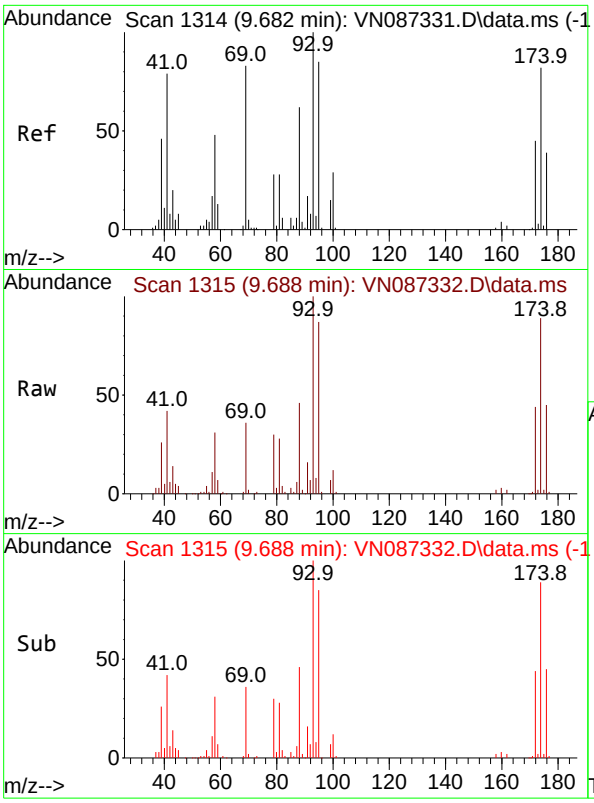


#48
Methyl methacrylate
Concen: 107.228 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 41 Resp: 334941

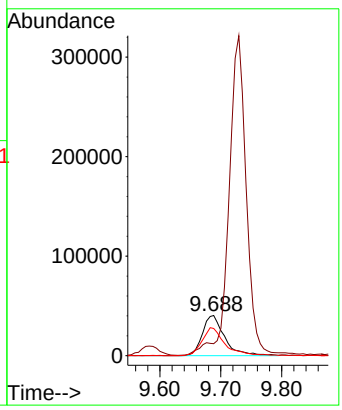
Ion	Ratio	Lower	Upper
41	100		
69	83.2	64.1	96.1
39	58.3	45.5	68.3



#49
1,4-Dioxane
Concen: 2135.348 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 88 Resp: 10215

Ion	Ratio	Lower	Upper
88	100		
43	0.0	0.0	0.0
58	72.4	61.1	91.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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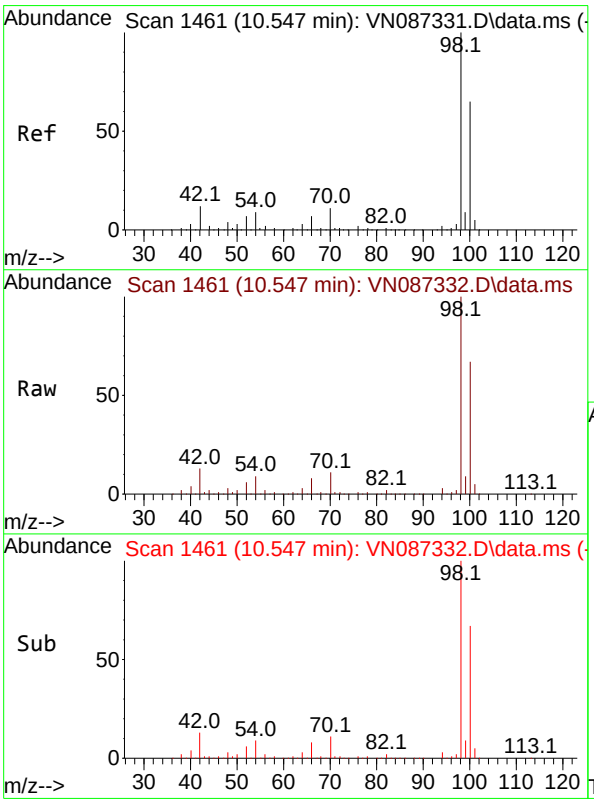
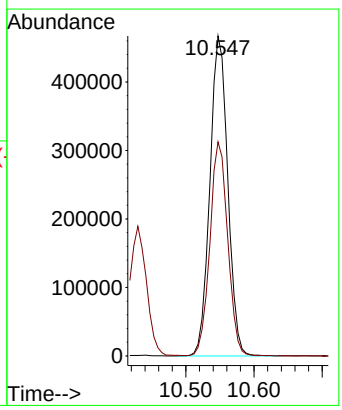
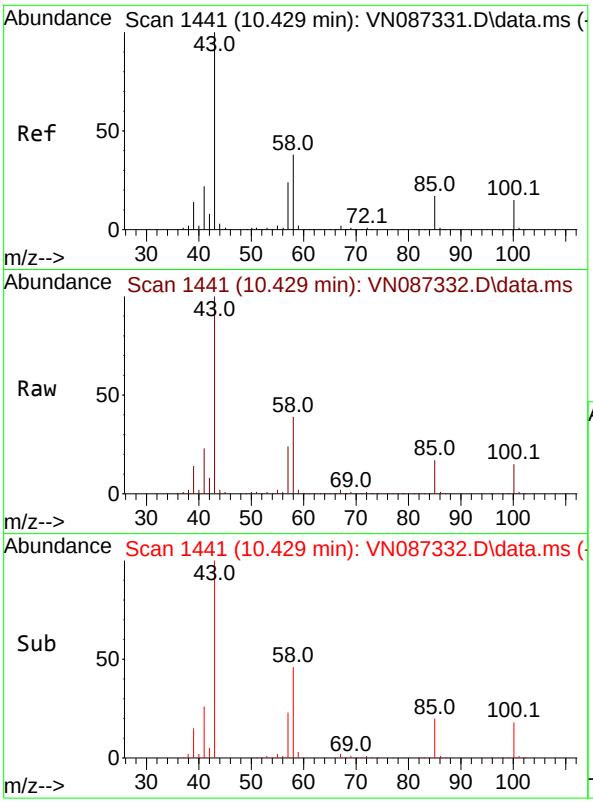


#50
Toluene-d8
Concen: 101.999 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 98 Resp: 852301

Ion	Ratio	Lower	Upper
98	100		
100	66.6	52.1	78.1

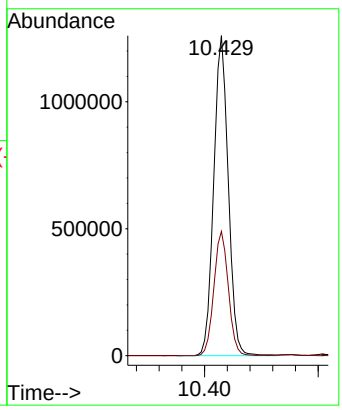




#51
4-Methyl-2-Pentanone
Concen: 509.127 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 223427

Ion	Ratio	Lower	Upper
43	100		
58	38.7	30.8	46.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
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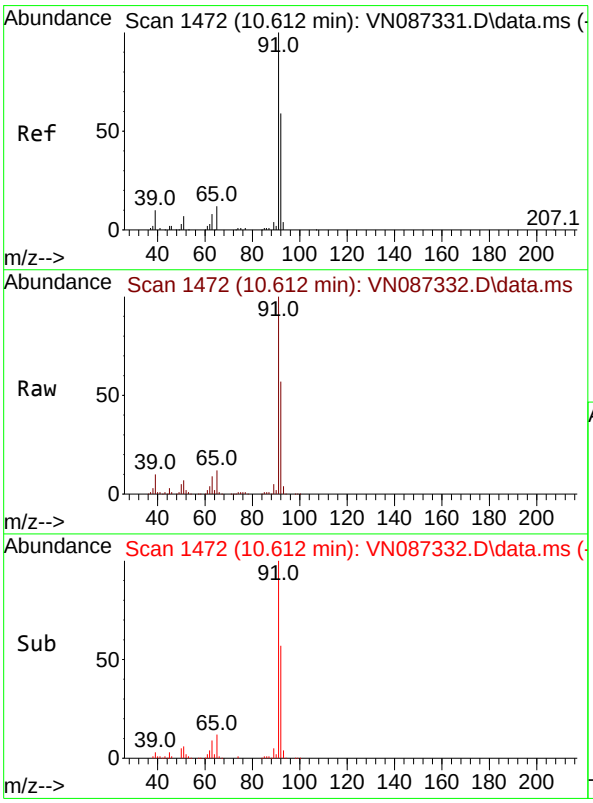
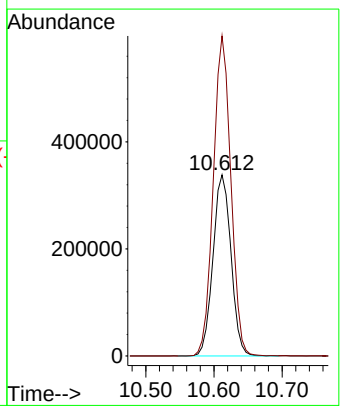
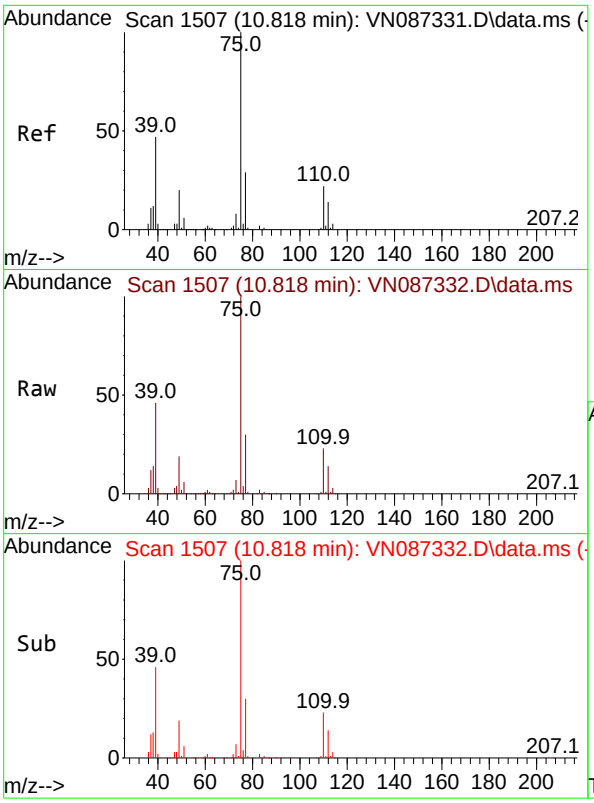


#52
Toluene
Concen: 102.349 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 92 Resp: 622259

Ion	Ratio	Lower	Upper
92	100		
91	172.5	135.1	202.7

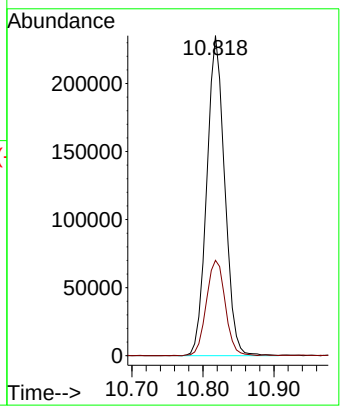




#53
t-1,3-Dichloropropene
Concen: 106.245 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 75 Resp: 41214

Ion	Ratio	Lower	Upper
75	100		
77	29.7	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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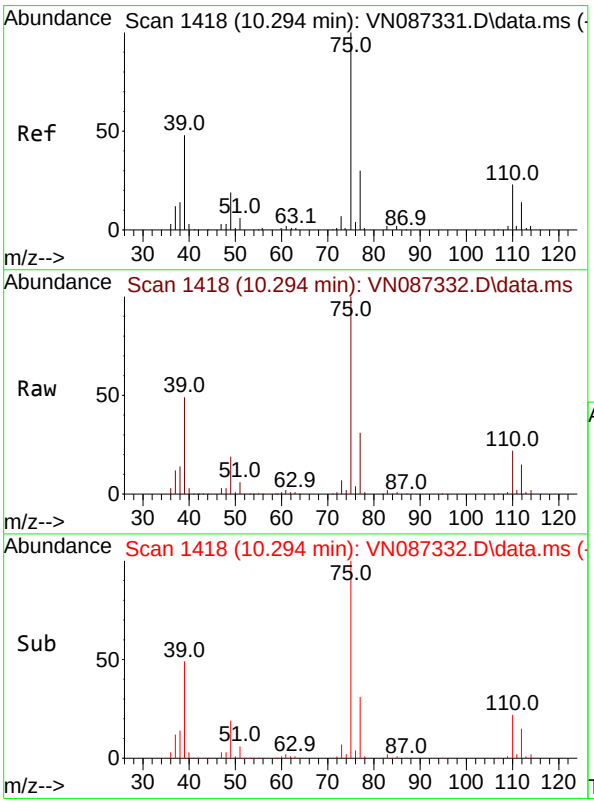
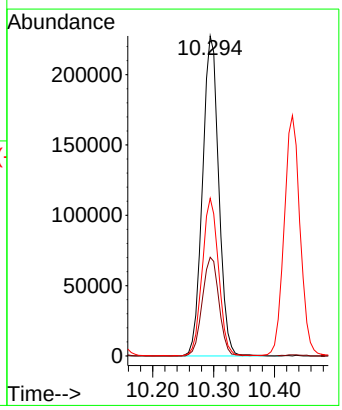
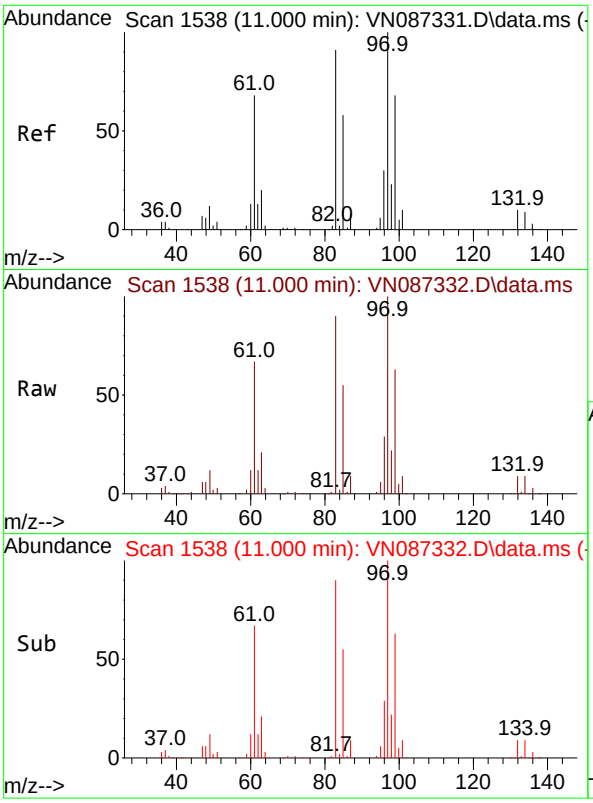


#54
cis-1,3-Dichloropropene
Concen: 105.164 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 75 Resp: 421386

Ion	Ratio	Lower	Upper
75	100		
77	30.9	24.2	36.2
39	49.1	38.4	57.6

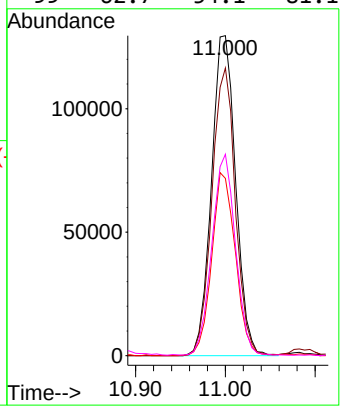




#55
1,1,2-Trichloroethane
Concen: 98.595 ug/l
RT: 11.000 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 97 Resp: 24268

Ion	Ratio	Lower	Upper
97	100		
83	89.9	72.6	109.0
85	55.4	46.7	70.1
99	62.7	54.1	81.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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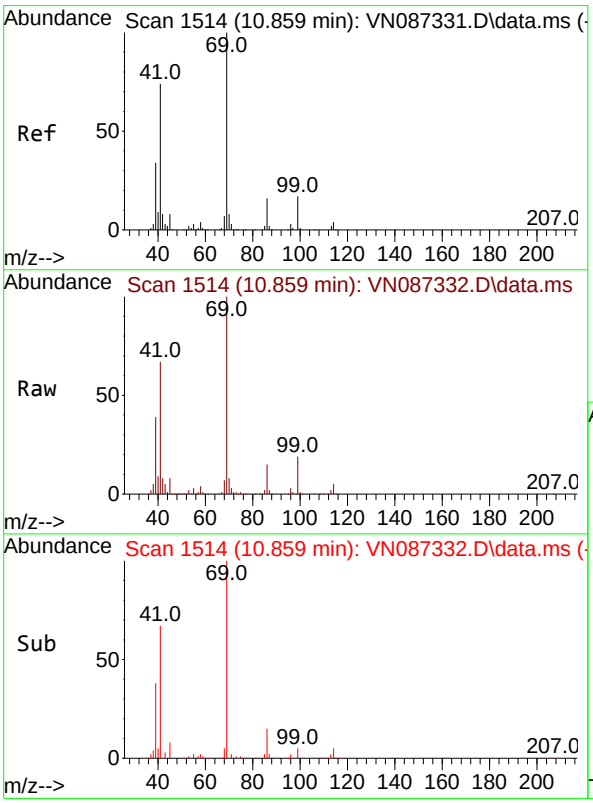
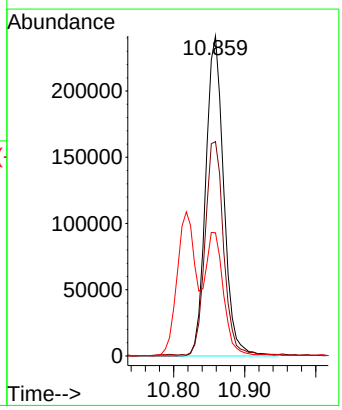
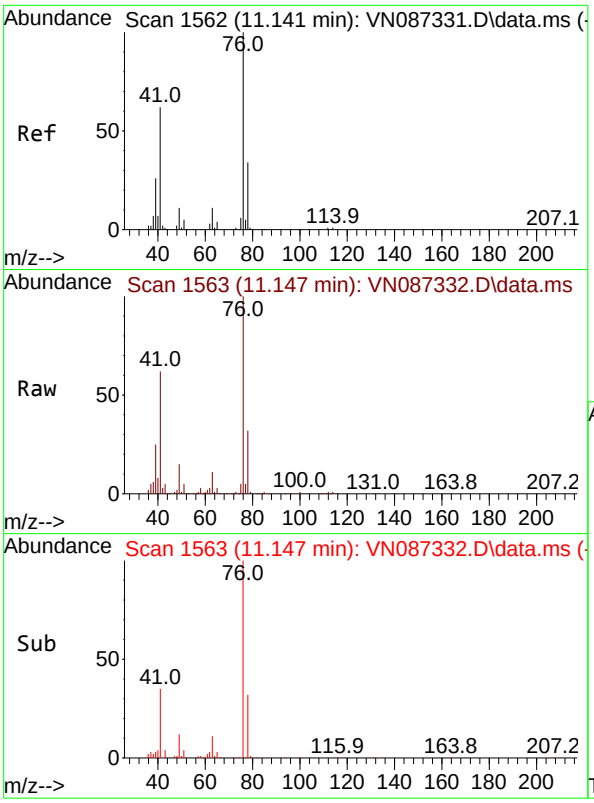


#56
Ethyl methacrylate
Concen: 98.980 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 69 Resp: 425458

Ion	Ratio	Lower	Upper
69	100		
41	69.0	55.1	82.7
39	38.9	27.9	41.9

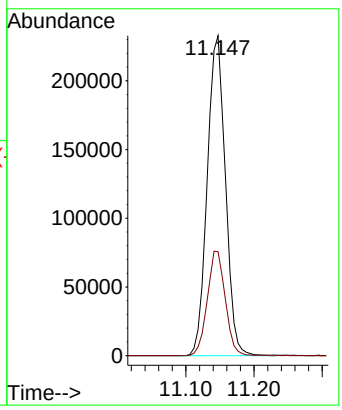




#57
1,3-Dichloropropane
Concen: 101.453 ug/l
RT: 11.147 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 76 Resp: 43175

Ion	Ratio	Lower	Upper
76	100		
78	32.3	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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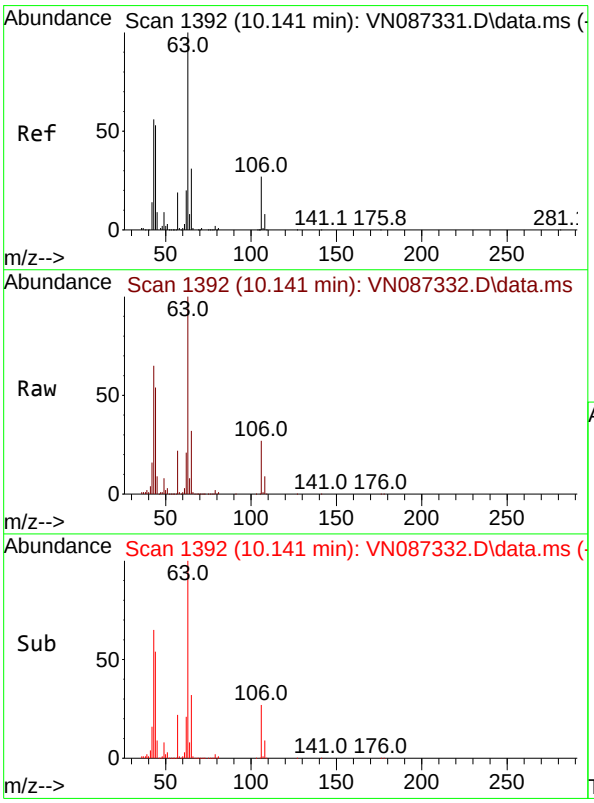
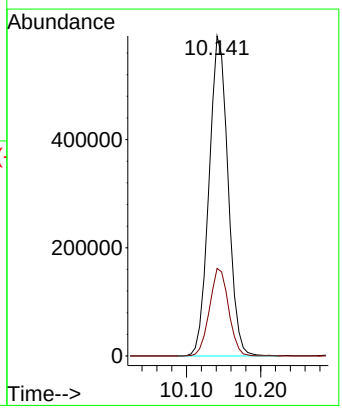
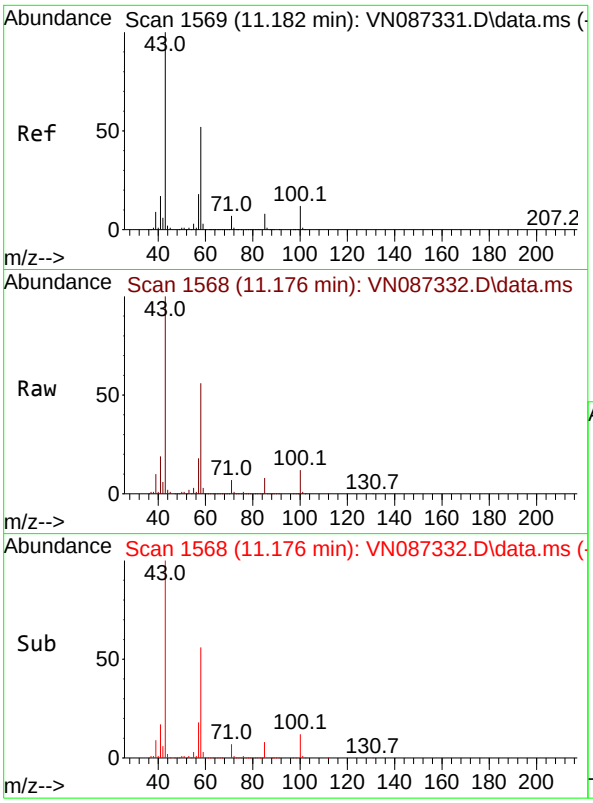


#58
2-Chloroethyl Vinyl ether
Concen: 521.327 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 63 Resp: 1052628

Ion	Ratio	Lower	Upper
63	100		
106	27.5	21.7	32.5

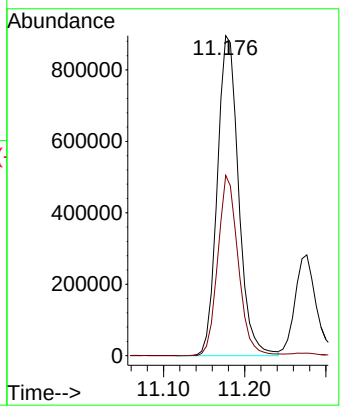




#59
2-Hexanone
Concen: 560.508 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 163194

Ion	Ratio	Lower	Upper
43	100		
58	54.1	26.7	80.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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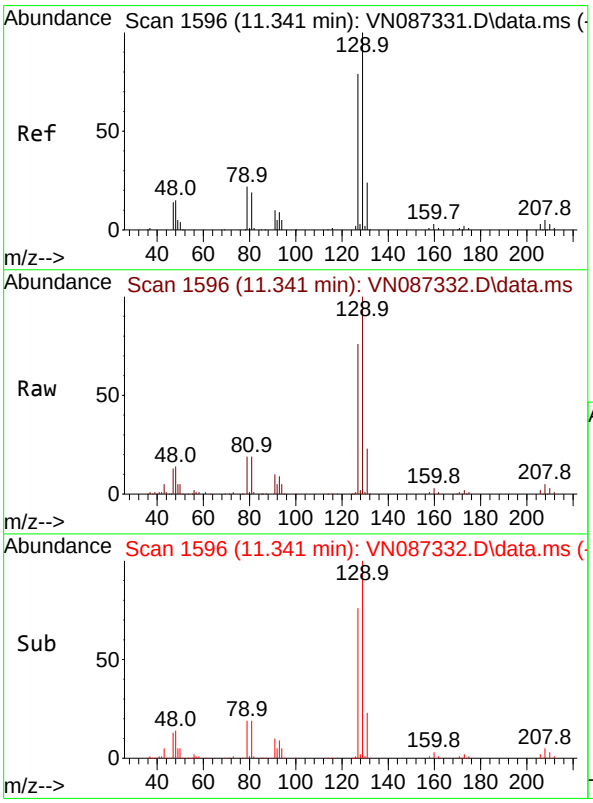
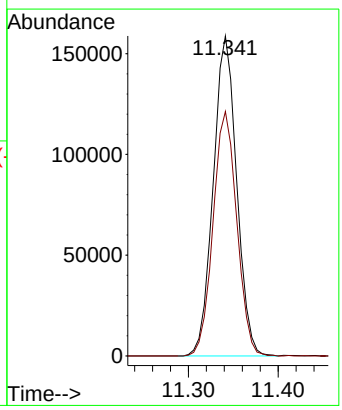
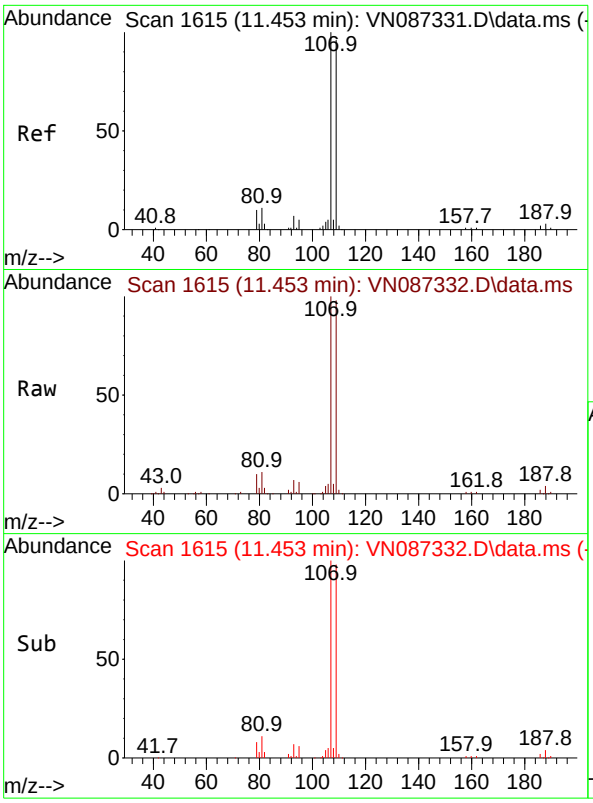


#60
Dibromochloromethane
Concen: 102.484 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:129 Resp: 287682

Ion	Ratio	Lower	Upper
129	100		
127	77.3	39.1	117.5

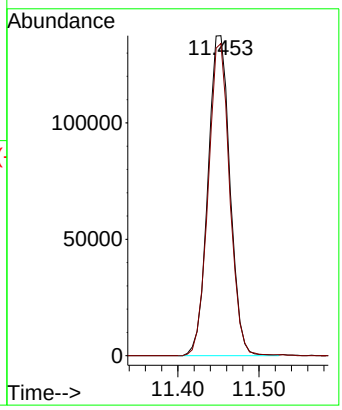




#61
1,2-Dibromoethane
Concen: 100.051 ug/l
RT: 11.453 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:107 Resp: 25893

Ion	Ratio	Lower	Upper
107	100		
109	94.9	77.5	116.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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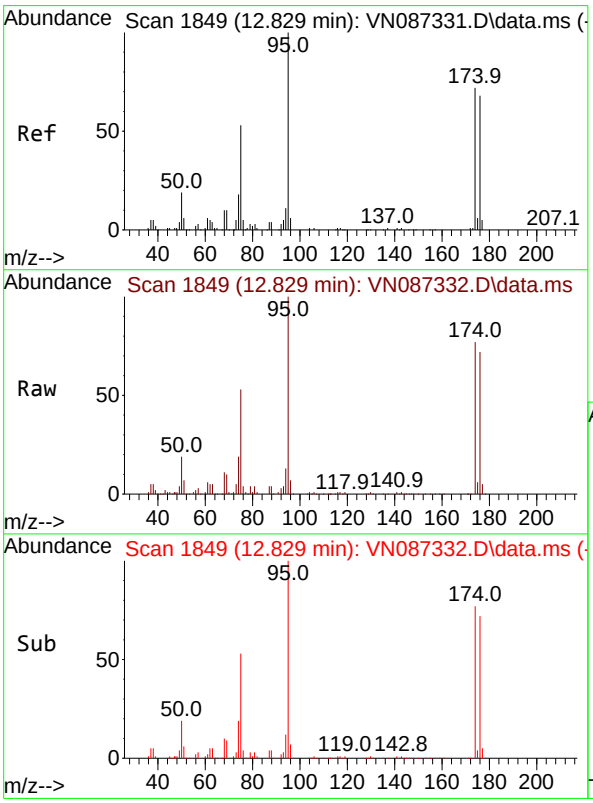
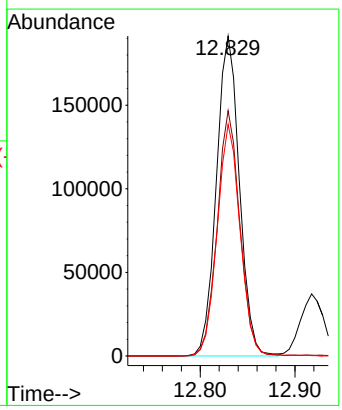
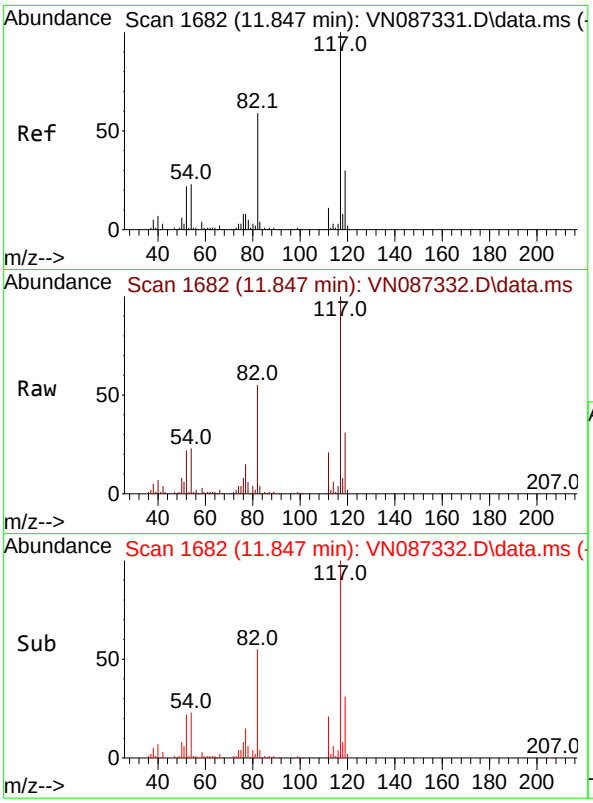


#62
4-Bromofluorobenzene
Concen: 104.650 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 95 Resp: 323070

Ion	Ratio	Lower	Upper
95	100		
174	75.5	0.0	149.4
176	72.2	0.0	141.2

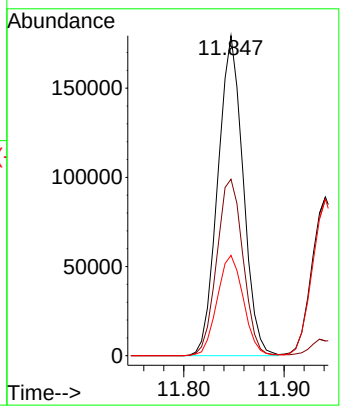




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:117 Resp: 31484

Ion	Ratio	Lower	Upper
117	100		
82	55.1	47.4	71.2
119	31.4	23.8	35.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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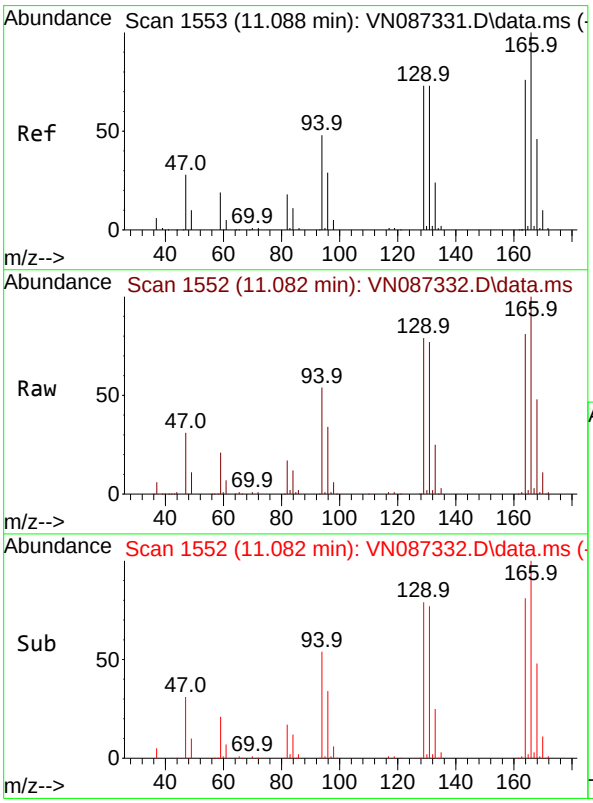
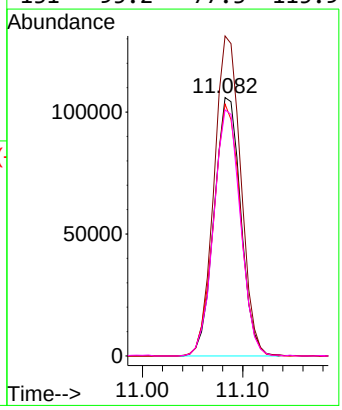
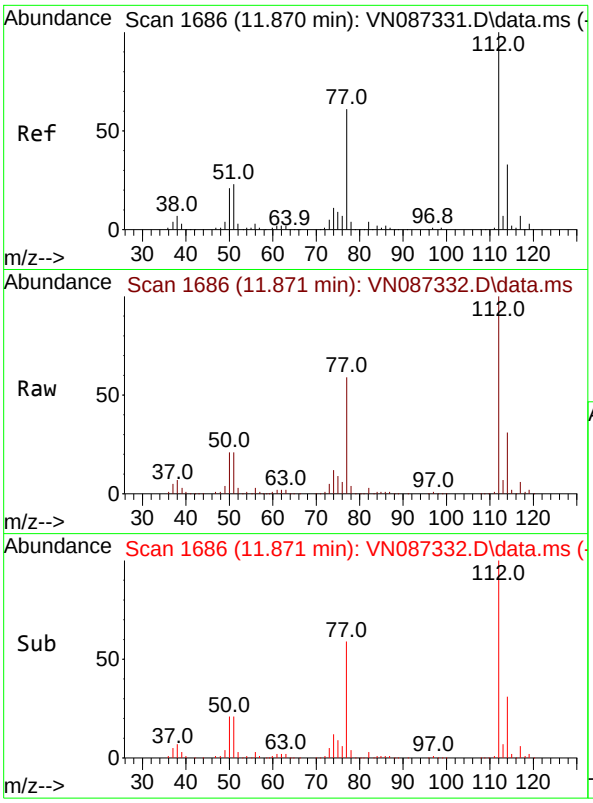


#64
Tetrachloroethene
Concen: 96.252 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:164 Resp: 195044

Ion	Ratio	Lower	Upper
164	100		
166	123.8	105.5	158.3
129	97.4	77.4	116.2
131	95.2	77.3	115.9

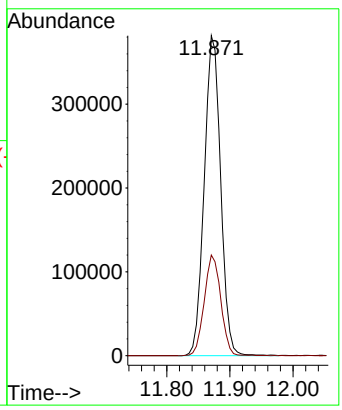




#65
Chlorobenzene
Concen: 97.289 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:112 Resp: 68769

Ion	Ratio	Lower	Upper
112	100		
114	31.5	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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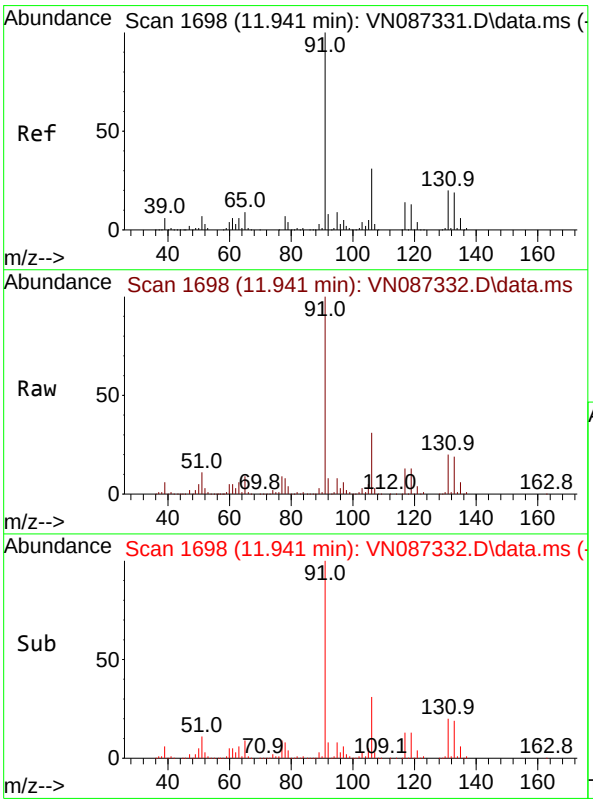
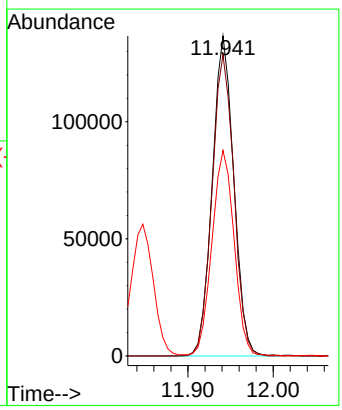
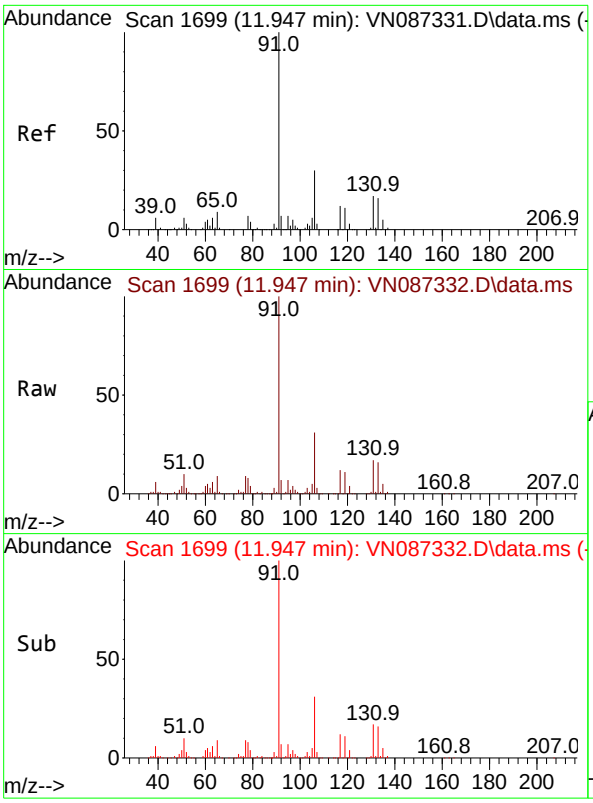


#66
1,1,1,2-Tetrachloroethane
Concen: 99.736 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:131 Resp: 239722

Ion	Ratio	Lower	Upper
131	100		
133	95.7	47.4	142.3
119	66.2	33.1	99.2





#67
Ethyl Benzene
Concen: 103.080 ug/l
RT: 11.947 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 91 Resp: 119951

Ion	Ratio	Lower	Upper
91	100		
106	30.9	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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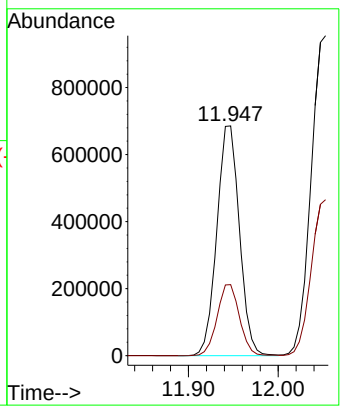
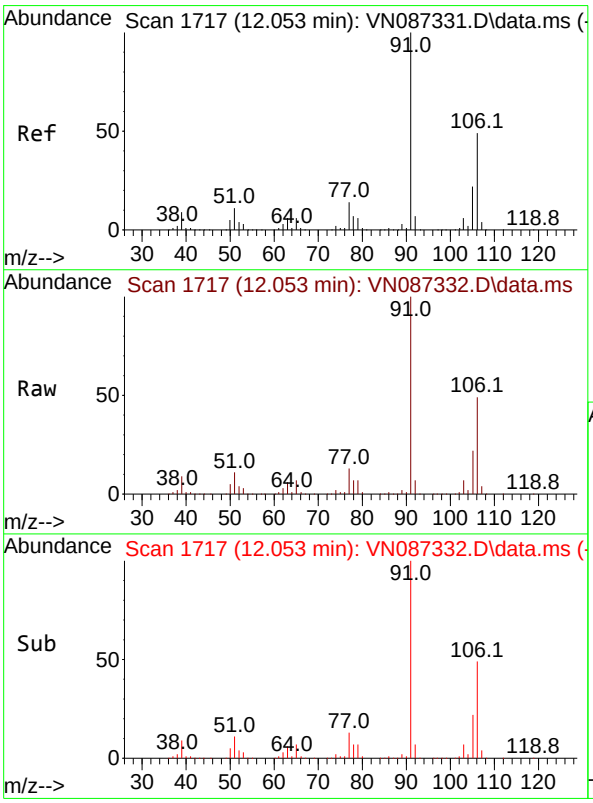
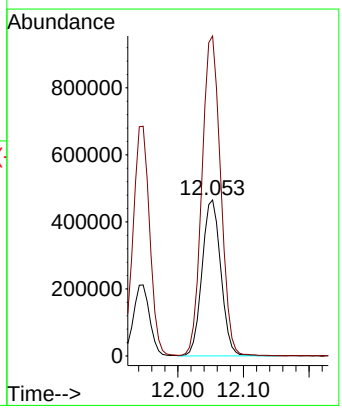


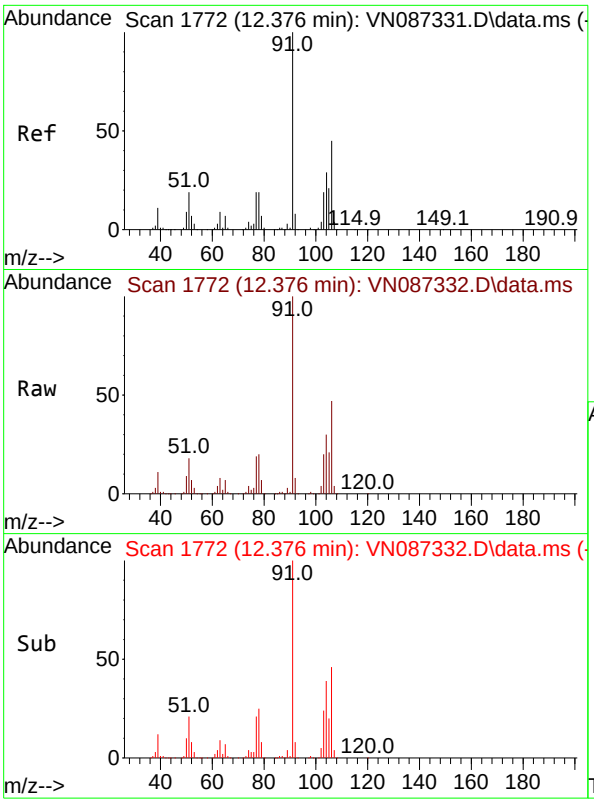


#68
m/p-Xylenes
Concen: 212.065 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:106 Resp: 924069

Ion	Ratio	Lower	Upper
106	100		
91	204.6	162.0	243.0





#69
o-Xylene
Concen: 107.413 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:106 Resp: 44709

Ion	Ratio	Lower	Upper
106	100		
91	216.0	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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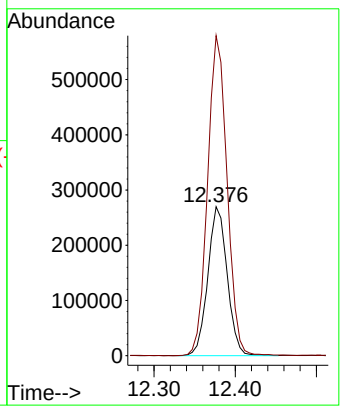
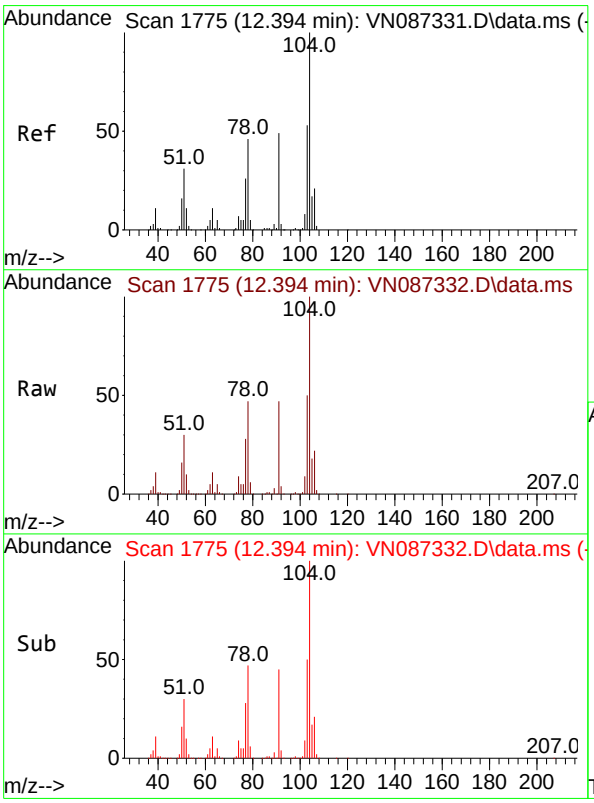
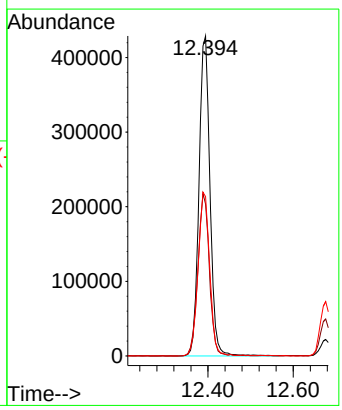


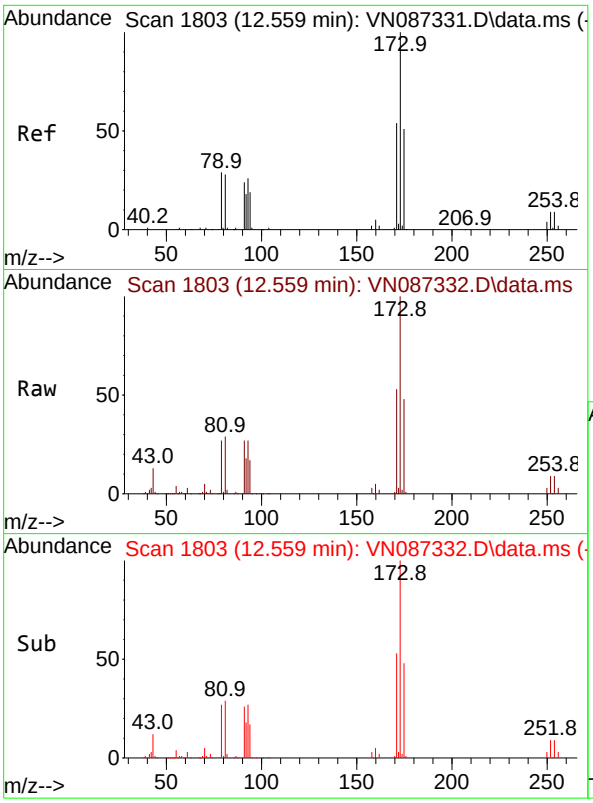


#70
Styrene
Concen: 109.464 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:104 Resp: 766471

Ion	Ratio	Lower	Upper
104	100		
78	53.0	41.0	61.6
103	54.0	43.9	65.9

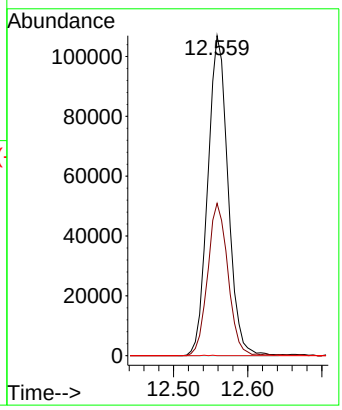




#71
Bromoform
Concen: 104.498 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:173 Resp: 20291

Ion	Ratio	Lower	Upper
173	100		
175	47.7	24.1	72.3
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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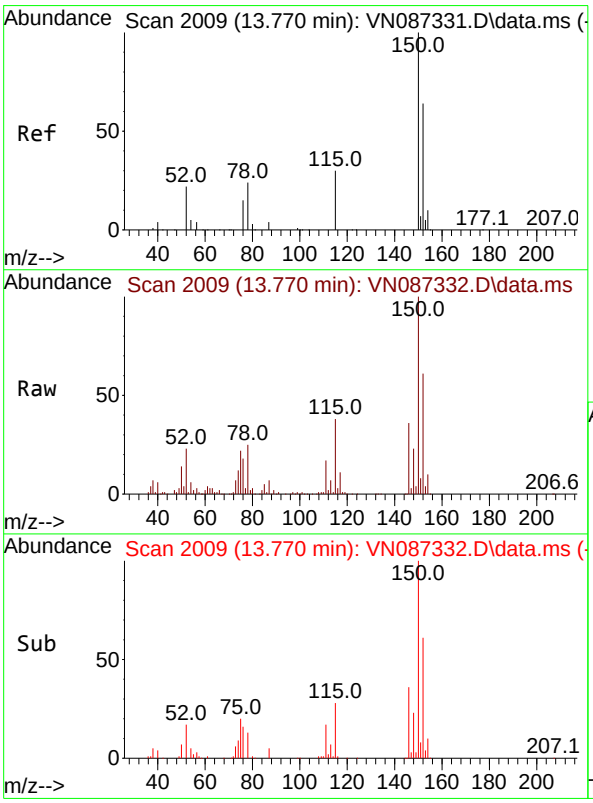
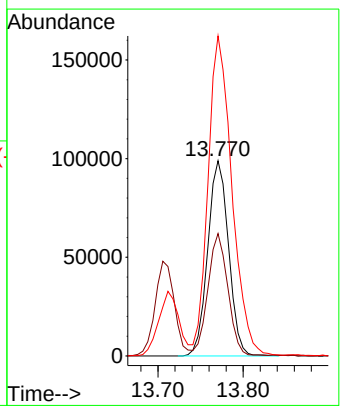
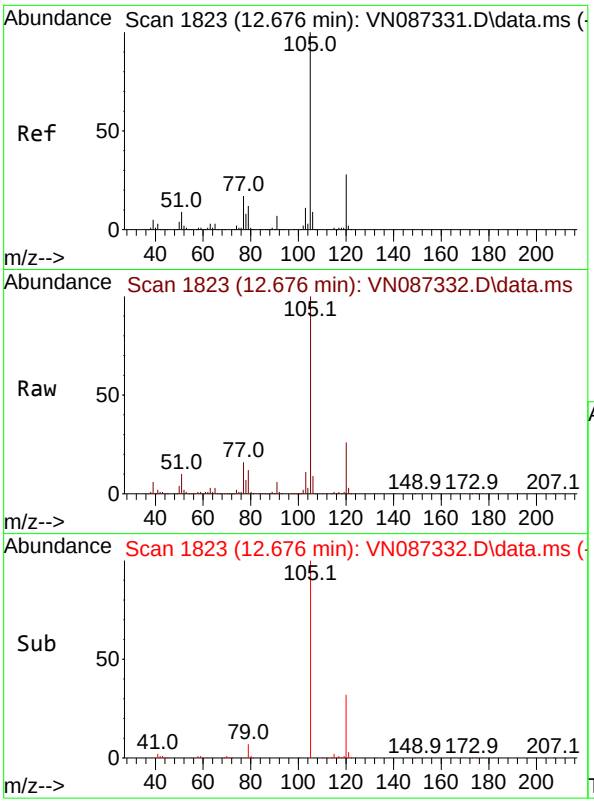


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:152 Resp: 168489

Ion	Ratio	Lower	Upper
152	100		
115	59.2	31.1	93.5
150	186.3	0.0	349.0





#73
Isopropylbenzene
Concen: 104.940 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:105 Resp: 111282

Ion	Ratio	Lower	Upper
105	100		
120	26.5	13.4	40.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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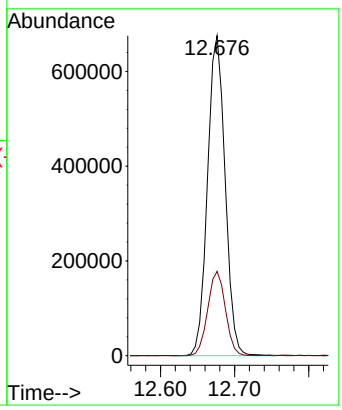
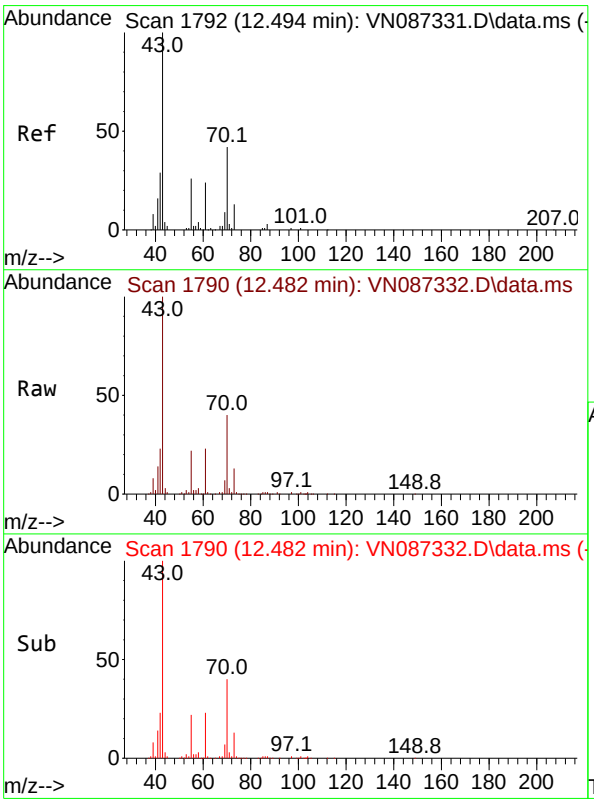
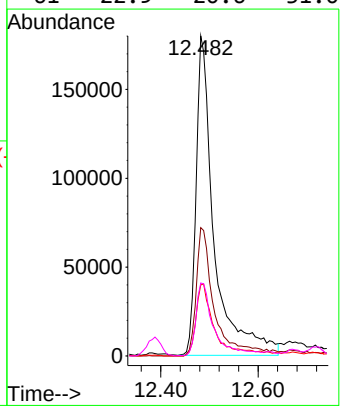


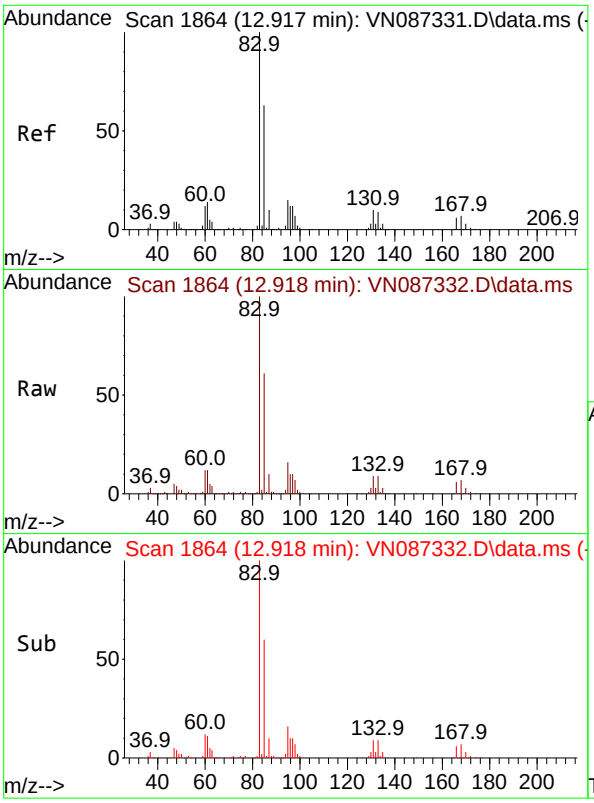


#74
N-amyl acetate
Concen: 112.129 ug/l
RT: 12.482 min Scan# 1790
Delta R.T. -0.012 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 43 Resp: 464246

Ion	Ratio	Lower	Upper
43	100		
70	41.1	37.6	56.4
55	23.5	19.6	29.4
61	22.9	20.6	31.0

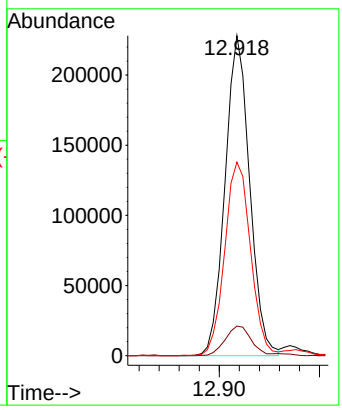




#75
1,1,2,2-Tetrachloroethane
Concen: 97.587 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 83 Resp: 38939

Ion	Ratio	Lower	Upper
83	100		
131	10.2	5.1	15.3
85	63.5	32.5	97.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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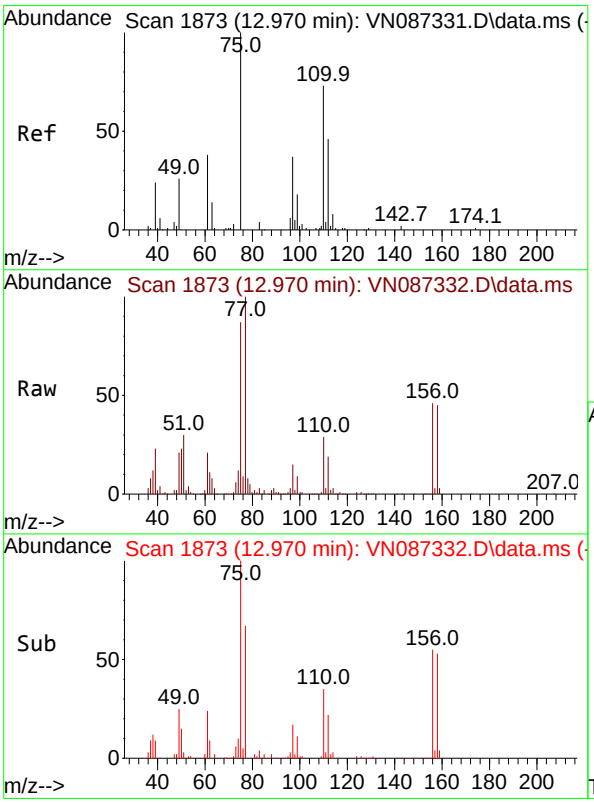
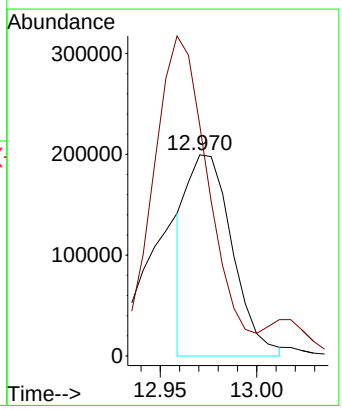
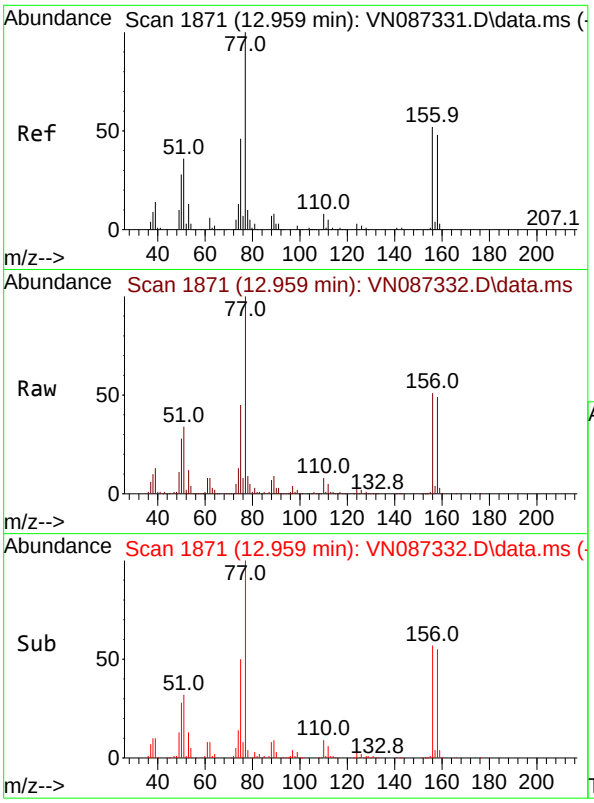


#76
1,2,3-Trichloropropane
Concen: 87.327 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 75 Resp: 326434

Ion	Ratio	Lower	Upper
75	100		
77	196.5	94.5	283.6

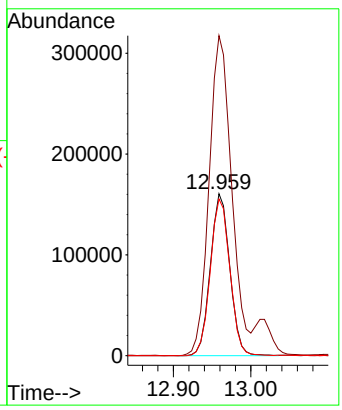




#77
Bromobenzene
Concen: 101.662 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:156 Resp: 27958

Ion	Ratio	Lower	Upper
156	100		
77	229.4	114.9	344.6
158	97.6	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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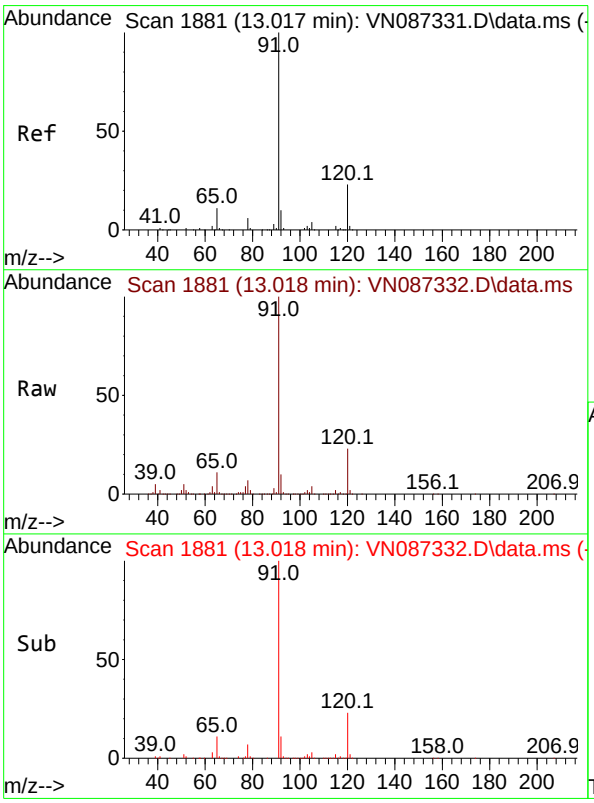
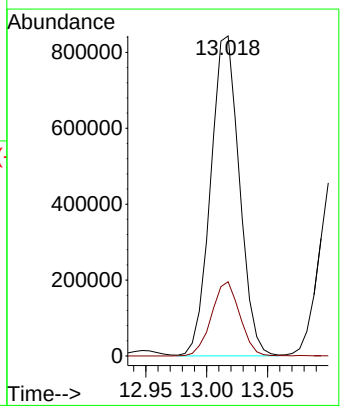
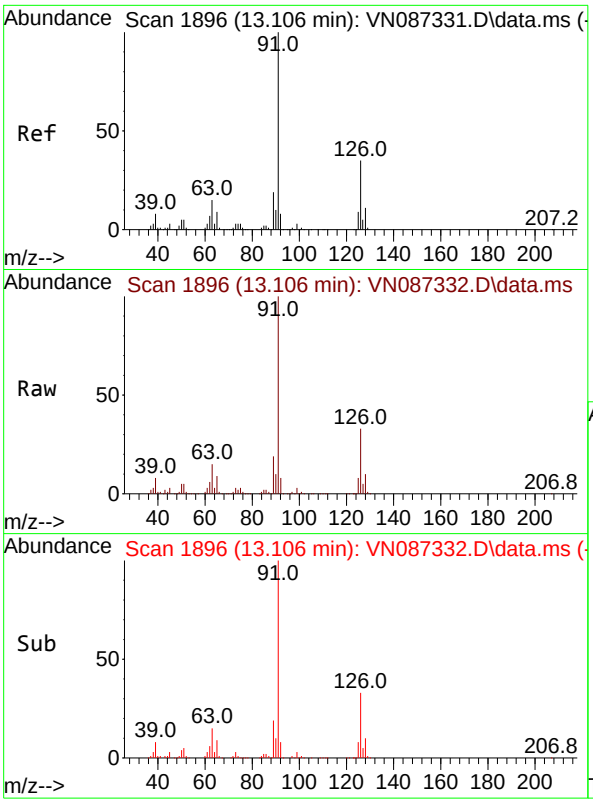


#78
n-propylbenzene
Concen: 103.771 ug/l
RT: 13.018 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 91 Resp: 1384517

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.3	33.8

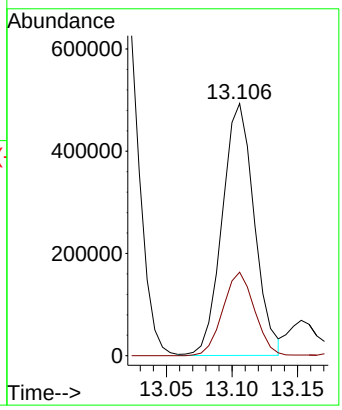




#79
2-Chlorotoluene
Concen: 102.452 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 91 Resp: 84007

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
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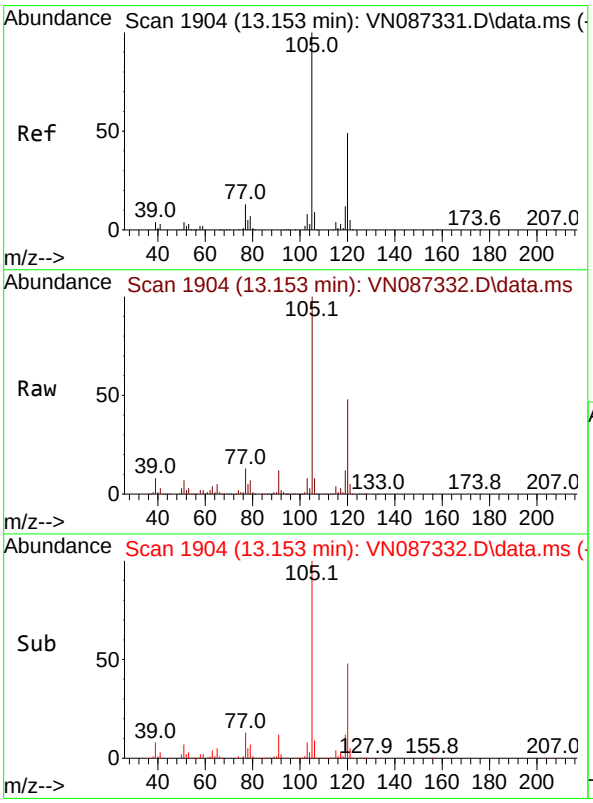
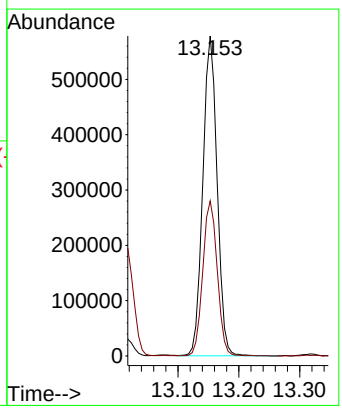
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

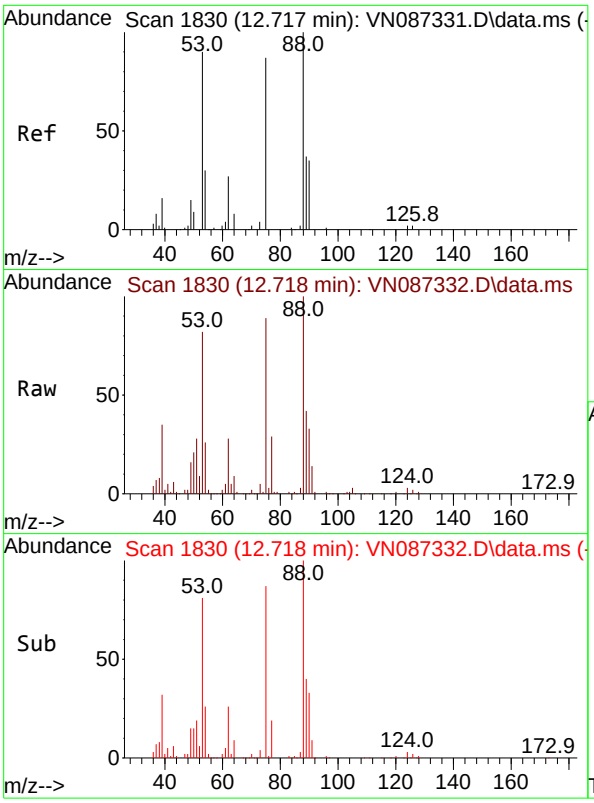


#80
1,3,5-Trimethylbenzene
Concen: 104.383 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:105 Resp: 943119

Ion	Ratio	Lower	Upper
105	100		
120	48.7	24.3	72.8

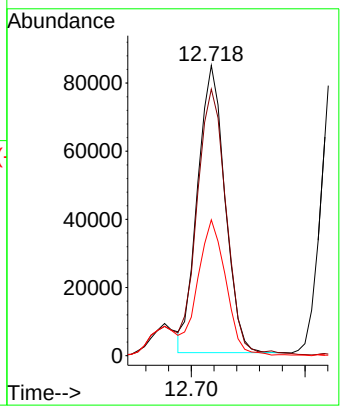




#81
trans-1,4-Dichloro-2-butene
Concen: 101.874 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 75 Resp: 14067

Ion	Ratio	Lower	Upper
75	100		
53	110.2	83.5	125.3
89	49.1	38.4	57.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
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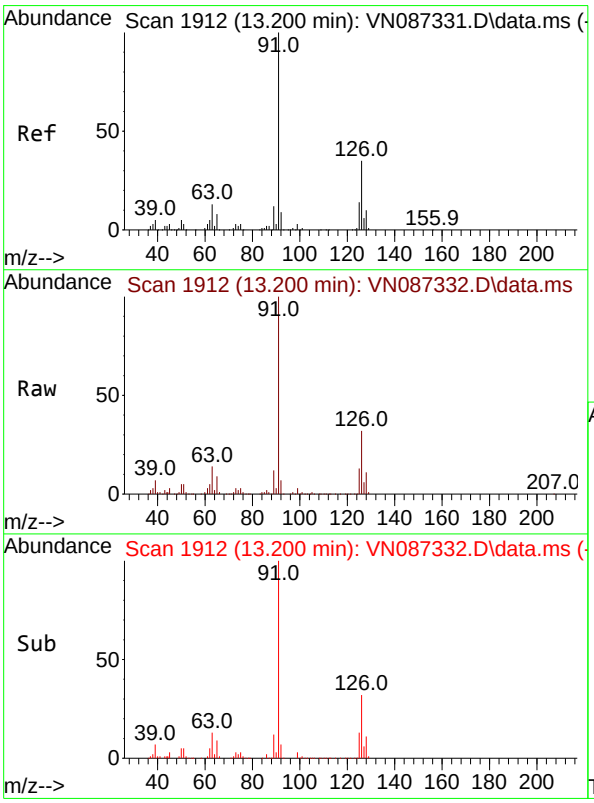
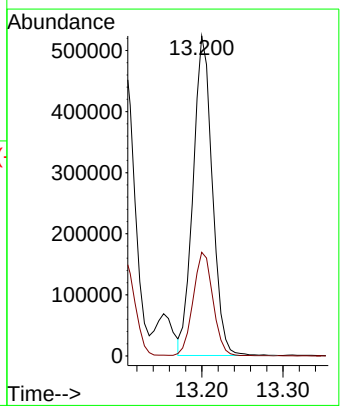
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

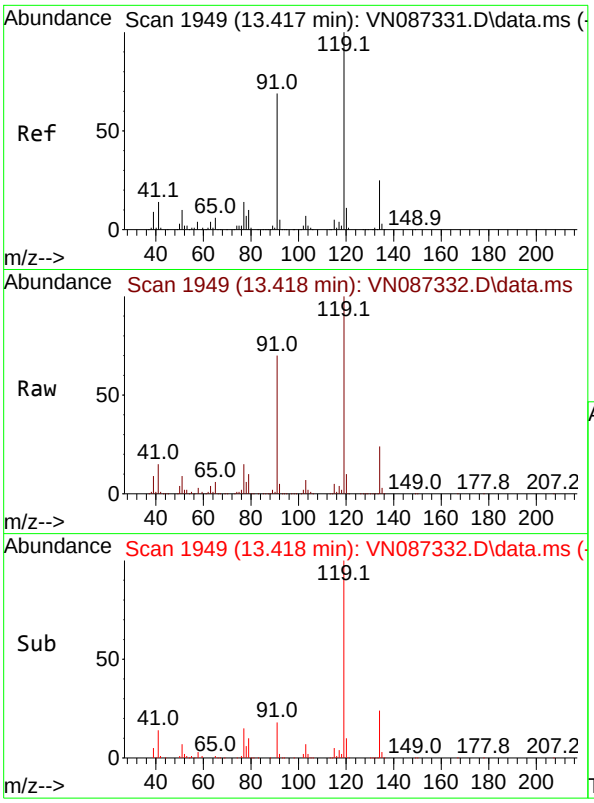


#82
4-Chlorotoluene
Concen: 100.734 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 91 Resp: 859965

Ion	Ratio	Lower	Upper
91	100		
126	33.8	16.6	49.7

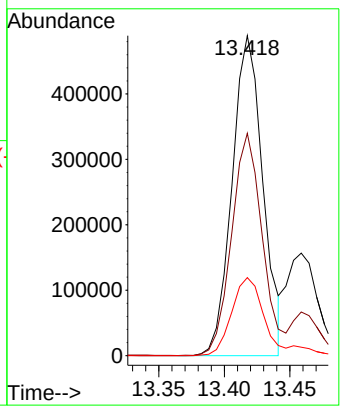




#83
tert-Butylbenzene
Concen: 106.106 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:119 Resp: 80070

Ion	Ratio	Lower	Upper
119	100		
91	69.4	35.0	105.1
134	24.9	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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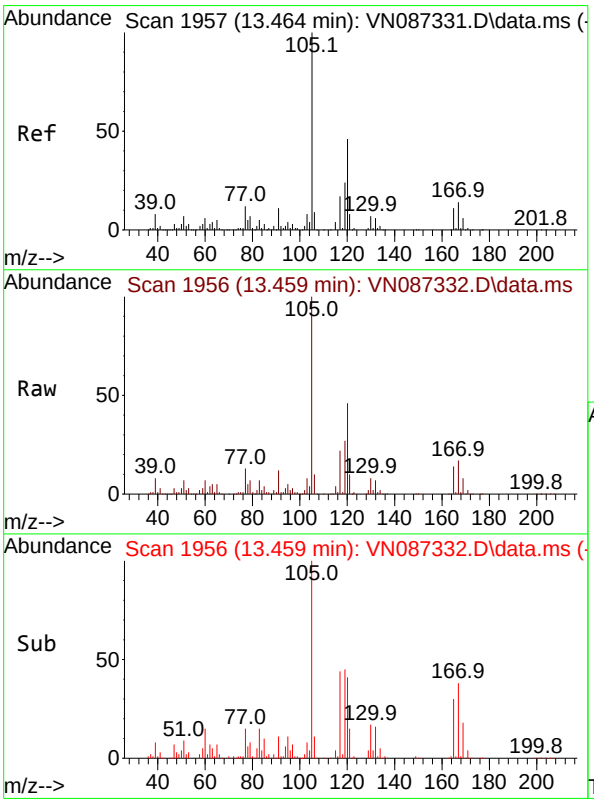
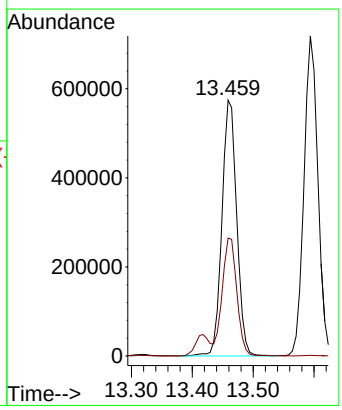
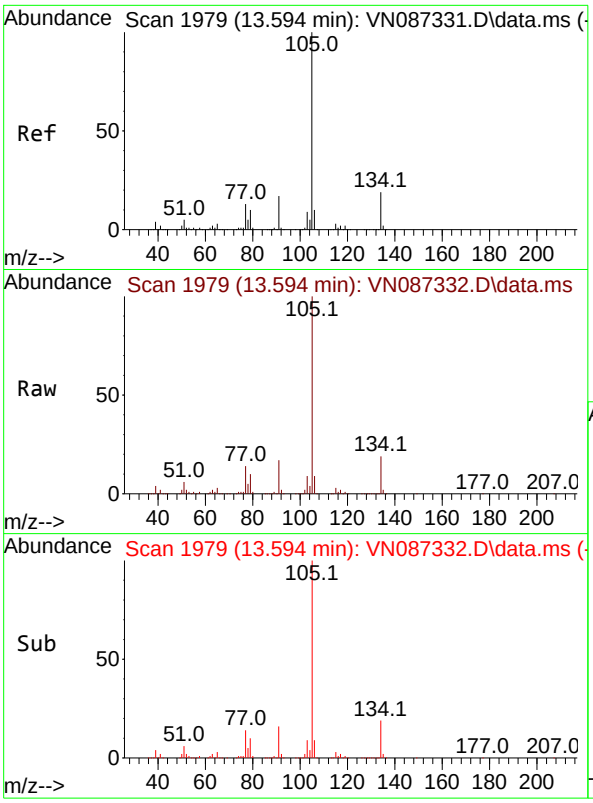


#84
1,2,4-Trimethylbenzene
Concen: 104.898 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:105 Resp: 967878

Ion	Ratio	Lower	Upper
105	100		
120	45.5	22.8	68.3

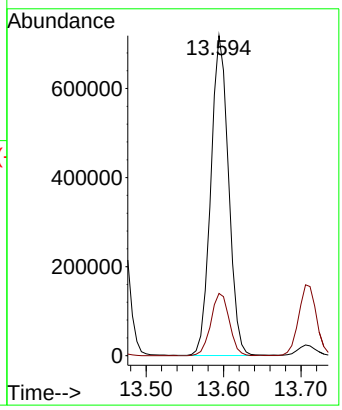




#85
sec-Butylbenzene
Concen: 100.410 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:105 Resp: 114132

Ion	Ratio	Lower	Upper
105	100		
134	20.3	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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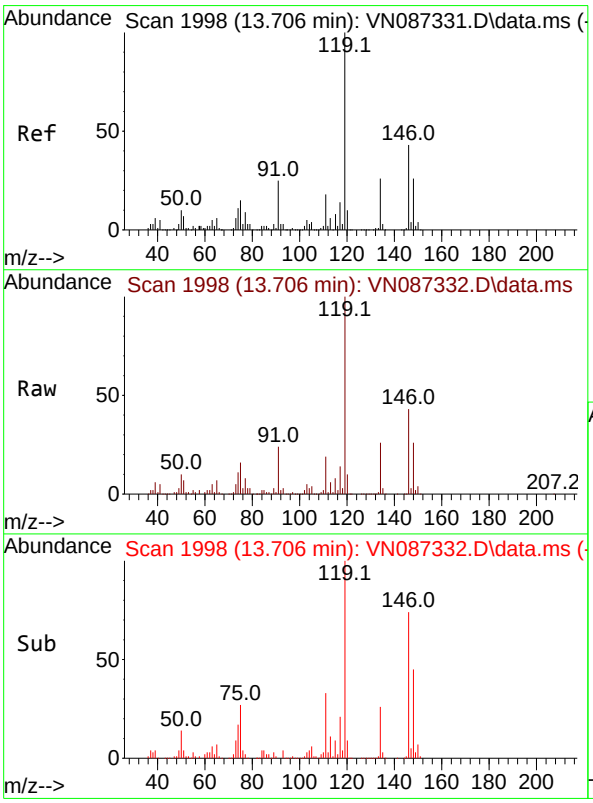
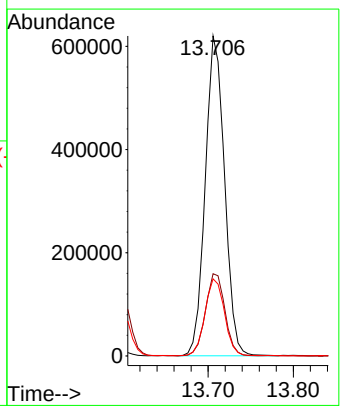
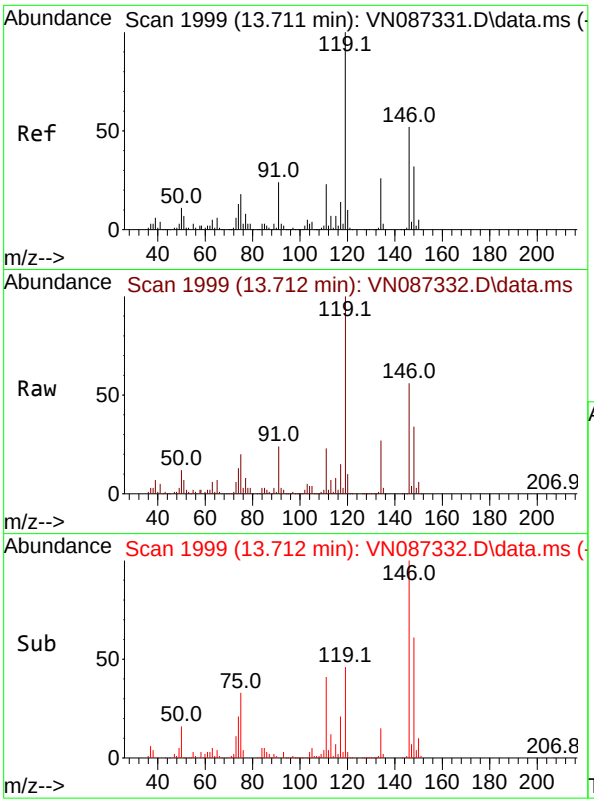


#86
p-Isopropyltoluene
Concen: 107.037 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:119 Resp: 975014

Ion	Ratio	Lower	Upper
119	100		
134	26.0	13.5	40.5
91	24.5	12.2	36.6

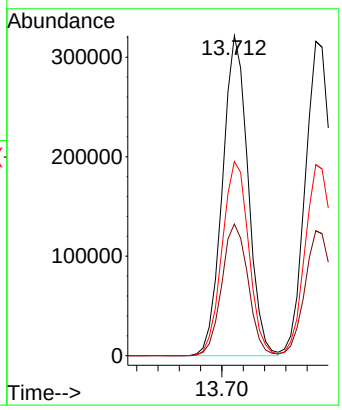




#87
1,3-Dichlorobenzene
Concen: 99.151 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:146 Resp: 53517

Ion	Ratio	Lower	Upper
146	100		
111	42.4	21.4	64.3
148	63.2	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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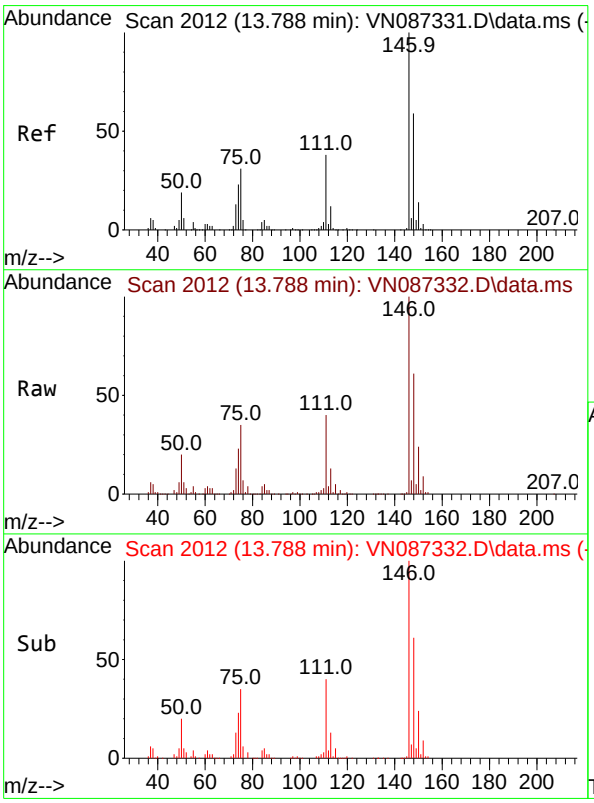
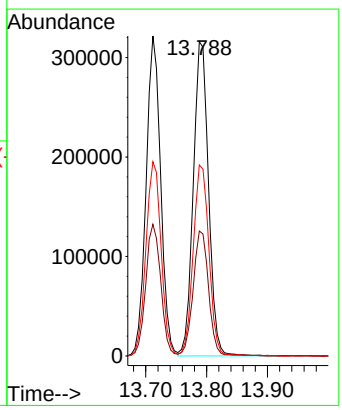
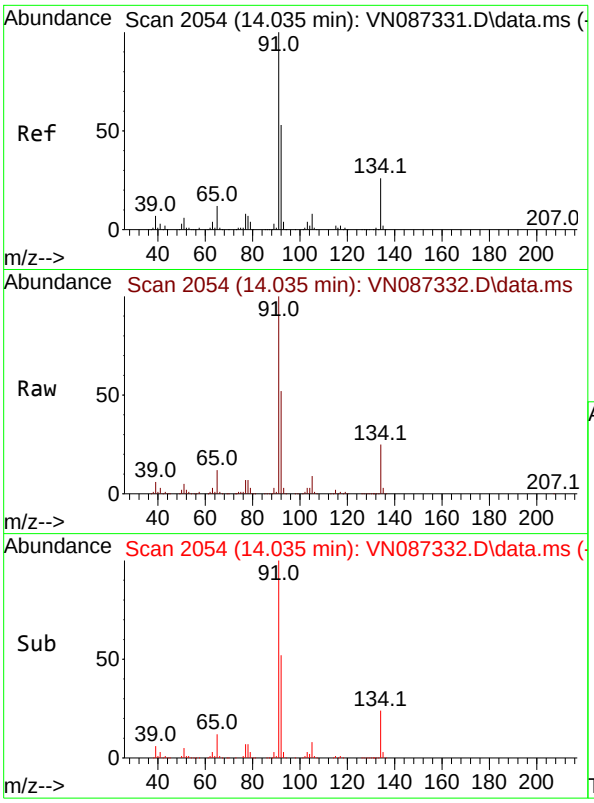


#88
1,4-Dichlorobenzene
Concen: 95.097 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:146 Resp: 548212

Ion	Ratio	Lower	Upper
146	100		
111	40.6	19.6	58.7
148	62.7	31.4	94.0

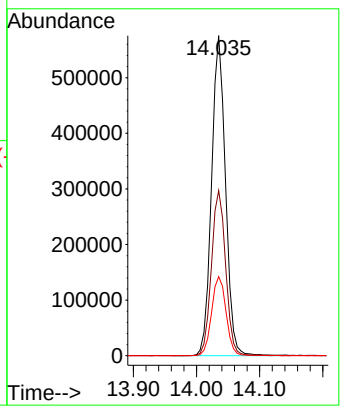




#89
n-Butylbenzene
Concen: 101.260 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 91 Resp: 88076

Ion	Ratio	Lower	Upper
91	100		
92	52.7	26.2	78.6
134	25.7	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
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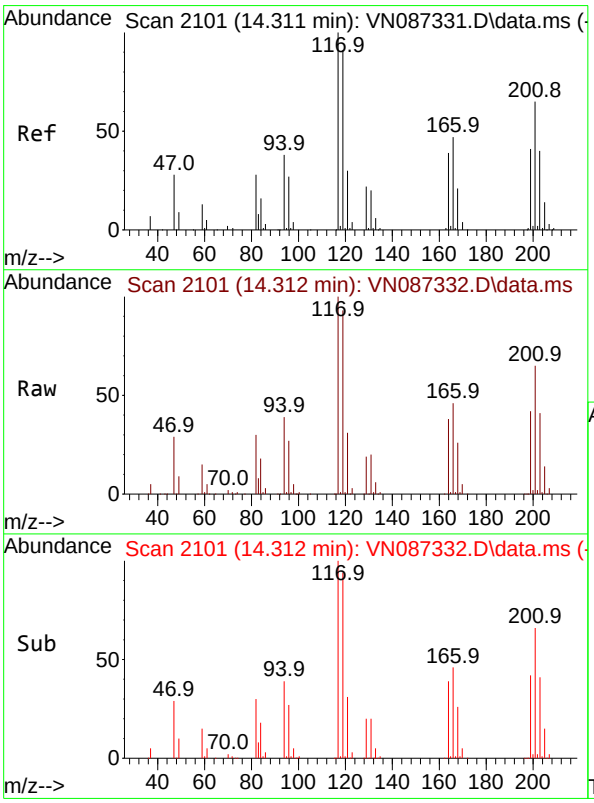
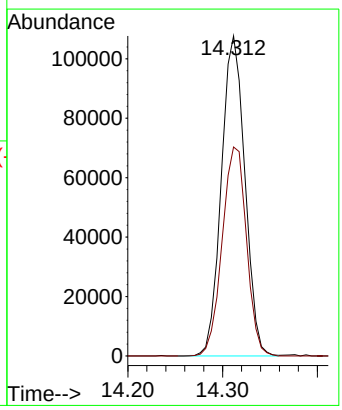
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

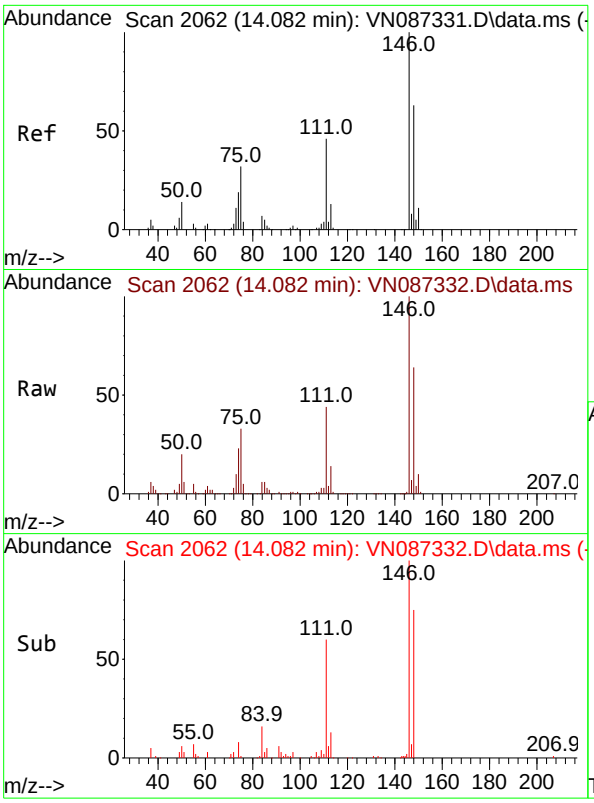


#90
Hexachloroethane
Concen: 96.358 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:117 Resp: 185973

Ion	Ratio	Lower	Upper
117	100		
201	67.5	32.8	98.4

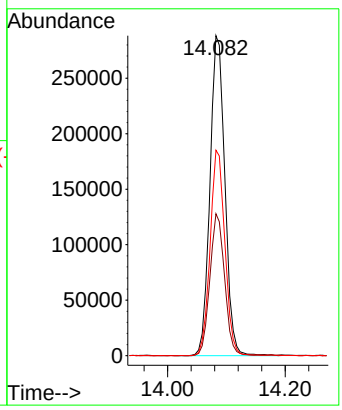




#91
1,2-Dichlorobenzene
Concen: 99.523 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:146 Resp: 50890

Ion	Ratio	Lower	Upper
146	100		
111	43.8	22.0	66.0
148	63.6	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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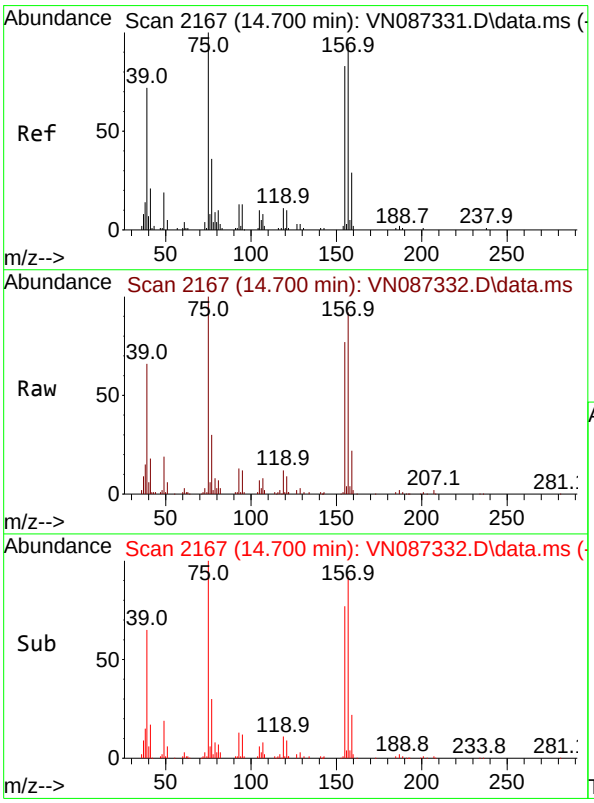
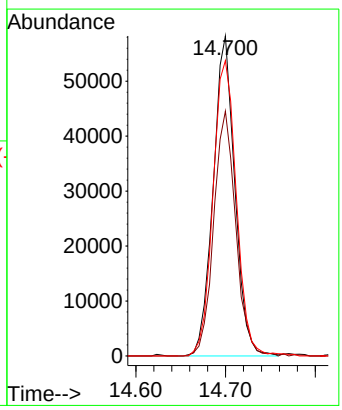
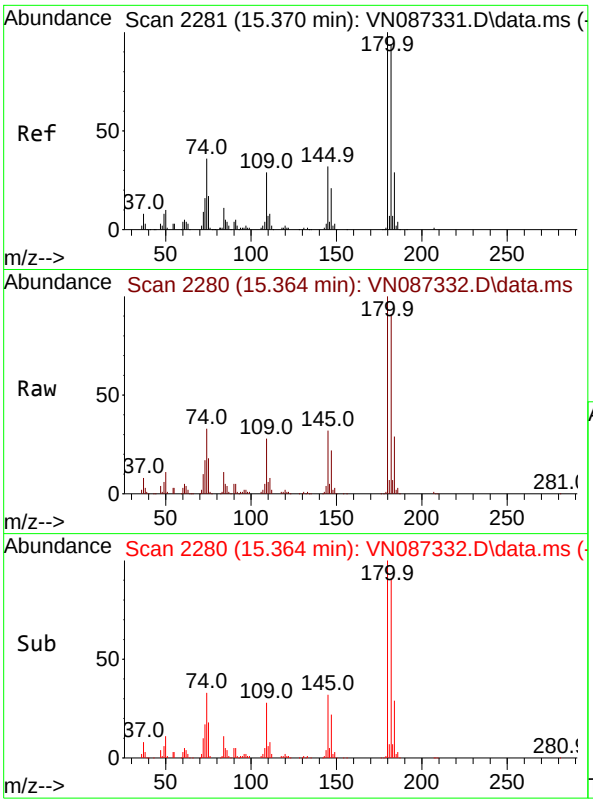


#92
1,2-Dibromo-3-Chloropropane
Concen: 93.137 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion: 75 Resp: 97572

Ion	Ratio	Lower	Upper
75	100		
155	78.0	37.3	111.8
157	99.6	46.2	138.6

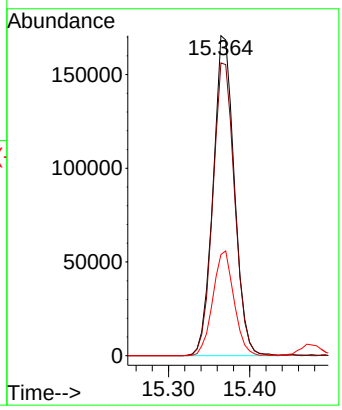




#93
1,2,4-Trichlorobenzene
Concen: 103.357 ug/l
RT: 15.364 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:180 Resp: 31044

Ion	Ratio	Lower	Upper
180	100		
182	93.8	47.3	141.8
145	32.7	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

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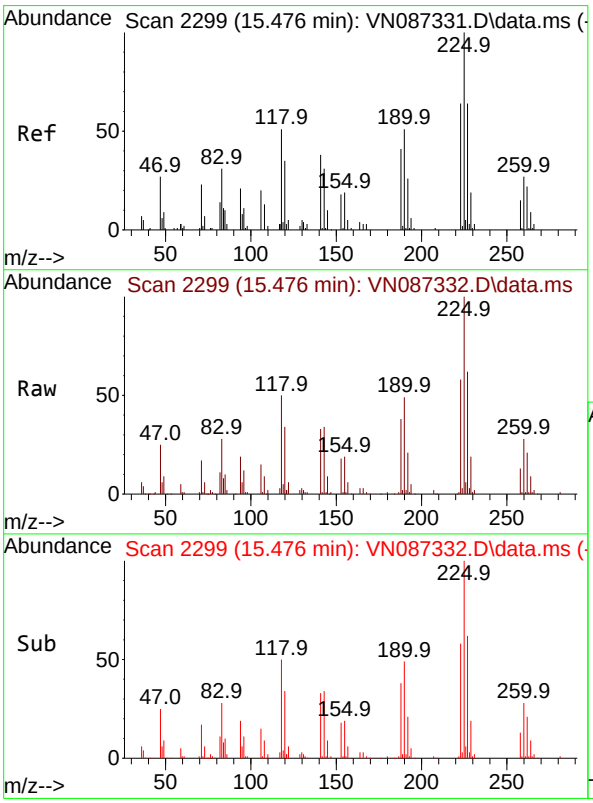
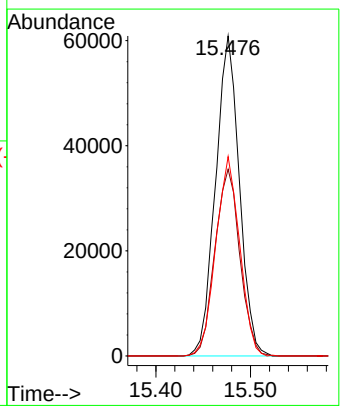
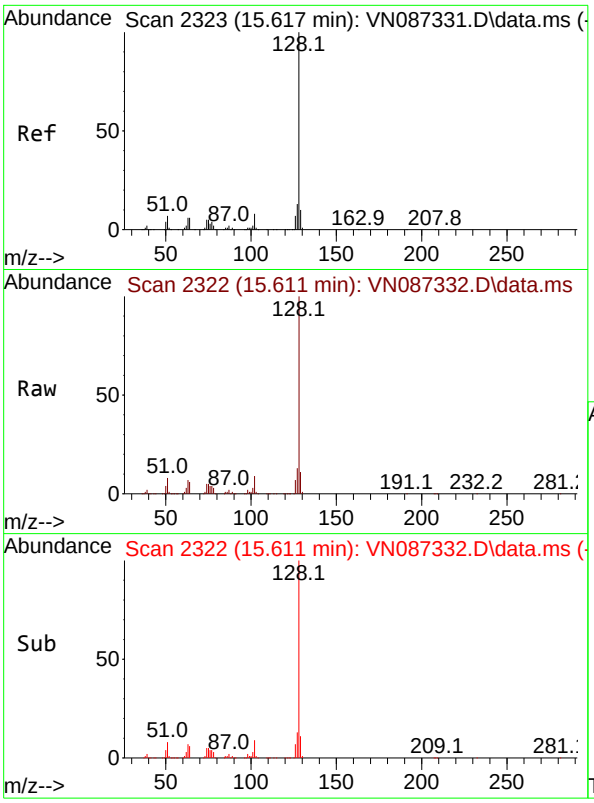


#94
Hexachlorobutadiene
Concen: 95.360 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:225 Resp: 106429

Ion	Ratio	Lower	Upper
225	100		
223	61.0	32.1	96.3
227	62.4	31.3	93.9

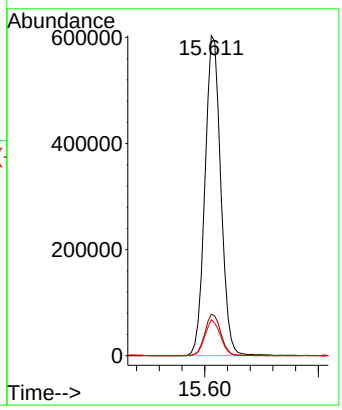




#95
Naphthalene
Concen: 109.289 ug/l
RT: 15.611 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:128 Resp: 116293

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.5	15.7
129	11.0	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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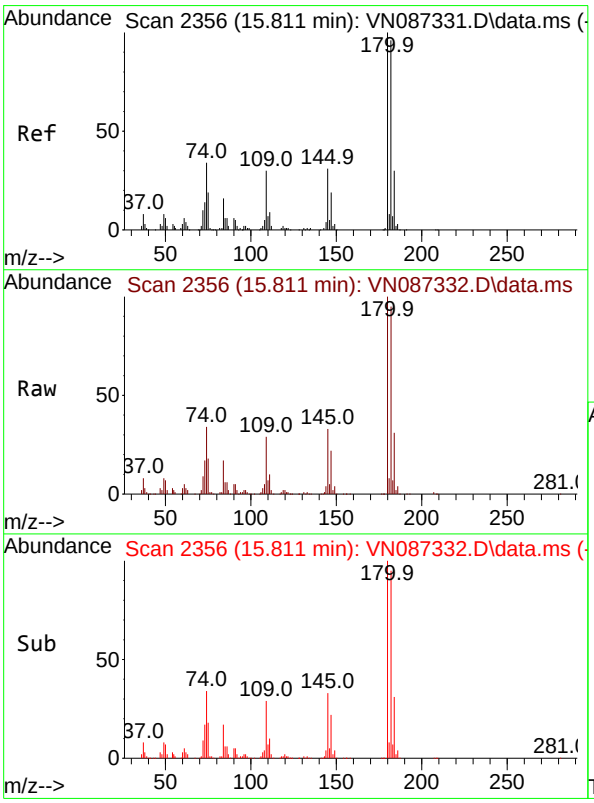
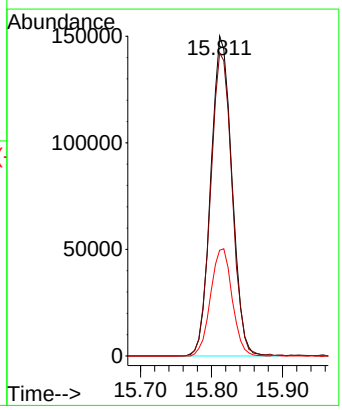
Supervised By :Semsettin Yesilyurt 07/17/2025



#96
1,2,3-Trichlorobenzene
Concen: 102.519 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087332.D
Acq: 16 Jul 2025 18:32

Tgt Ion:180 Resp: 308888

Ion	Ratio	Lower	Upper
180	100		
182	96.2	47.1	141.4
145	34.2	16.9	50.6



Quantitation Report (QT Reviewed)

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Data File : VN087333.D
Acq On : 16 Jul 2025 18:54
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 17 02:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	193853	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.083	114	344966	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	317026	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.771	152	165077	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	501760	152.545	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 305.080%#			
35) Dibromofluoromethane	8.153	113	368306	154.778	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 309.560%#			
50) Toluene-d8	10.547	98	1362098	160.469	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 320.940%#			
62) 4-Bromofluorobenzene	12.829	95	522221	166.525	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 333.040%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	363327	176.463	ug/l	95
3) Chloromethane	2.383	50	405800	156.728	ug/l	99
4) Vinyl Chloride	2.542	62	418507	162.646	ug/l	94
5) Bromomethane	2.942	94	215335	161.604	ug/l	95
6) Chloroethane	3.118	64	249466	148.663	ug/l	100
7) Trichlorofluoromethane	3.501	101	585457	153.872	ug/l	97
8) Diethyl Ether	3.959	74	228544	154.847	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.353	101	296076	151.587	ug/l	99
10) Methyl Iodide	4.571	142	328079	150.516	ug/l	99
11) Tert butyl alcohol	5.536	59	478279	765.784	ug/l	100
12) 1,1-Dichloroethene	4.330	96	312325	141.111	ug/l	97
13) Acrolein	4.177	56	415488	828.945	ug/l	100
14) Allyl chloride	5.006	41	663403	165.621	ug/l	91
15) Acrylonitrile	5.706	53	1279363	754.869	ug/l	100
16) Acetone	4.424	43	1064061	682.373	ug/l	96
17) Carbon Disulfide	4.695	76	1011315	154.118	ug/l	95
18) Methyl Acetate	5.012	43	577536	149.052	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	1286728	157.724	ug/l	95
20) Methylene Chloride	5.259	84	390988	151.266	ug/l	94
21) trans-1,2-Dichloroethene	5.765	96	356549	142.870	ug/l	96
22) Diisopropyl ether	6.659	45	1280267	152.375	ug/l	99
23) Vinyl Acetate	6.589	43	5943020	808.750	ug/l	98
24) 1,1-Dichloroethane	6.553	63	704727	145.384	ug/l	98
25) 2-Butanone	7.477	43	1797146	754.179	ug/l	98
26) 2,2-Dichloropropane	7.477	77	547190	145.193	ug/l	100
27) cis-1,2-Dichloroethene	7.471	96	437021	152.102	ug/l	99
28) Bromochloromethane	7.800	49	339529	146.355	ug/l	100
29) Tetrahydrofuran	7.830	42	1166702	753.679	ug/l	98
30) Chloroform	7.953	83	717424	147.865	ug/l	98
31) Cyclohexane	8.241	56	582988	144.170	ug/l	94
32) 1,1,1-Trichloroethane	8.153	97	630986	150.152	ug/l	98
36) 1,1-Dichloropropene	8.353	75	503793	160.248	ug/l	99
37) Ethyl Acetate	7.553	43	692256	152.464	ug/l	98
38) Carbon Tetrachloride	8.347	117	535575	154.647	ug/l	98
39) Methylcyclohexane	9.583	83	559851	164.485	ug/l	98
40) Benzene	8.588	78	1550984	152.642	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087333.D
Acq On : 16 Jul 2025 18:54
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 17 02:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	375482	158.156	ug/l		99
42) 1,2-Dichloroethane	8.653	62	571634	148.352	ug/l		100
43) Isopropyl Acetate	8.677	43	1091736	154.893	ug/l		99
44) Trichloroethene	9.335	130	364760	151.927	ug/l		96
45) 1,2-Dichloropropane	9.606	63	391676	151.708	ug/l		97
46) Dibromomethane	9.694	93	287252	148.602	ug/l		98
47) Bromodichloromethane	9.871	83	584546	150.128	ug/l		99
48) Methyl methacrylate	9.665	41	520990	164.191	ug/l		99
49) 1,4-Dioxane	9.688	88	157400	3238.745	ug/l	#	93
51) 4-Methyl-2-Pentanone	10.430	43	3375607	757.219	ug/l		99
52) Toluene	10.612	92	961314	155.654	ug/l		99
53) t-1,3-Dichloropropene	10.818	75	640188	162.462	ug/l		94
54) cis-1,3-Dichloropropene	10.294	75	654301	160.747	ug/l		96
55) 1,1,2-Trichloroethane	11.000	97	365858	146.322	ug/l		99
56) Ethyl methacrylate	10.859	69	679202	150.296	ug/l		96
57) 1,3-Dichloropropane	11.147	76	662154	153.168	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	1717427	837.324	ug/l		100
59) 2-Hexanone	11.177	43	2477578	837.689	ug/l		98
60) Dibromochloromethane	11.341	129	448307	157.217	ug/l		99
61) 1,2-Dibromoethane	11.453	107	402978	153.282	ug/l		97
64) Tetrachloroethene	11.082	164	301404	147.718	ug/l		97
65) Chlorobenzene	11.871	112	1066757	149.878	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.941	131	375162	155.013	ug/l		98
67) Ethyl Benzene	11.941	91	1881920	160.613	ug/l		99
68) m/p-Xylenes	12.053	106	1437290	327.579	ug/l		98
69) o-Xylene	12.376	106	698363	166.628	ug/l		98
70) Styrene	12.394	104	1195068	169.502	ug/l		99
71) Bromoform	12.559	173	320960	164.154	ug/l	#	99
73) Isopropylbenzene	12.676	105	1747567	168.203	ug/l		100
74) N-amyl acetate	12.482	43	750104	184.917	ug/l		91
75) 1,1,2,2-Tetrachloroethane	12.918	83	581568	148.761	ug/l		100
76) 1,2,3-Trichloropropane	12.971	75	504791m	137.832	ug/l		
77) Bromobenzene	12.959	156	433814	161.001	ug/l		99
78) n-propylbenzene	13.018	91	2127215	162.733	ug/l		100
79) 2-Chlorotoluene	13.106	91	1290205	160.600	ug/l		98
80) 1,3,5-Trimethylbenzene	13.153	105	1465159	165.514	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.718	75	224191	165.713	ug/l		95
82) 4-Chlorotoluene	13.200	91	1336462	159.785	ug/l		100
83) tert-Butylbenzene	13.418	119	1230683	166.457	ug/l		98
84) 1,2,4-Trimethylbenzene	13.459	105	1502651	166.222	ug/l		100
85) sec-Butylbenzene	13.594	105	1767949	158.754	ug/l		99
86) p-Isopropyltoluene	13.706	119	1501303	168.219	ug/l		98
87) 1,3-Dichlorobenzene	13.712	146	828885	156.742	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	830255	147.000	ug/l		99
89) n-Butylbenzene	14.035	91	1367813	160.505	ug/l		98
90) Hexachloroethane	14.312	117	292183	154.518	ug/l		97
91) 1,2-Dichlorobenzene	14.082	146	784106	156.513	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.694	75	151090	147.203	ug/l		93
93) 1,2,4-Trichlorobenzene	15.370	180	492237	167.266	ug/l		99
94) Hexachlorobutadiene	15.476	225	163922	149.909	ug/l		99
95) Naphthalene	15.612	128	1880423	180.370	ug/l		99
96) 1,2,3-Trichlorobenzene	15.812	180	491195	166.396	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087333.D
Acq On : 16 Jul 2025 18:54
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 17 02:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:09:29 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
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ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

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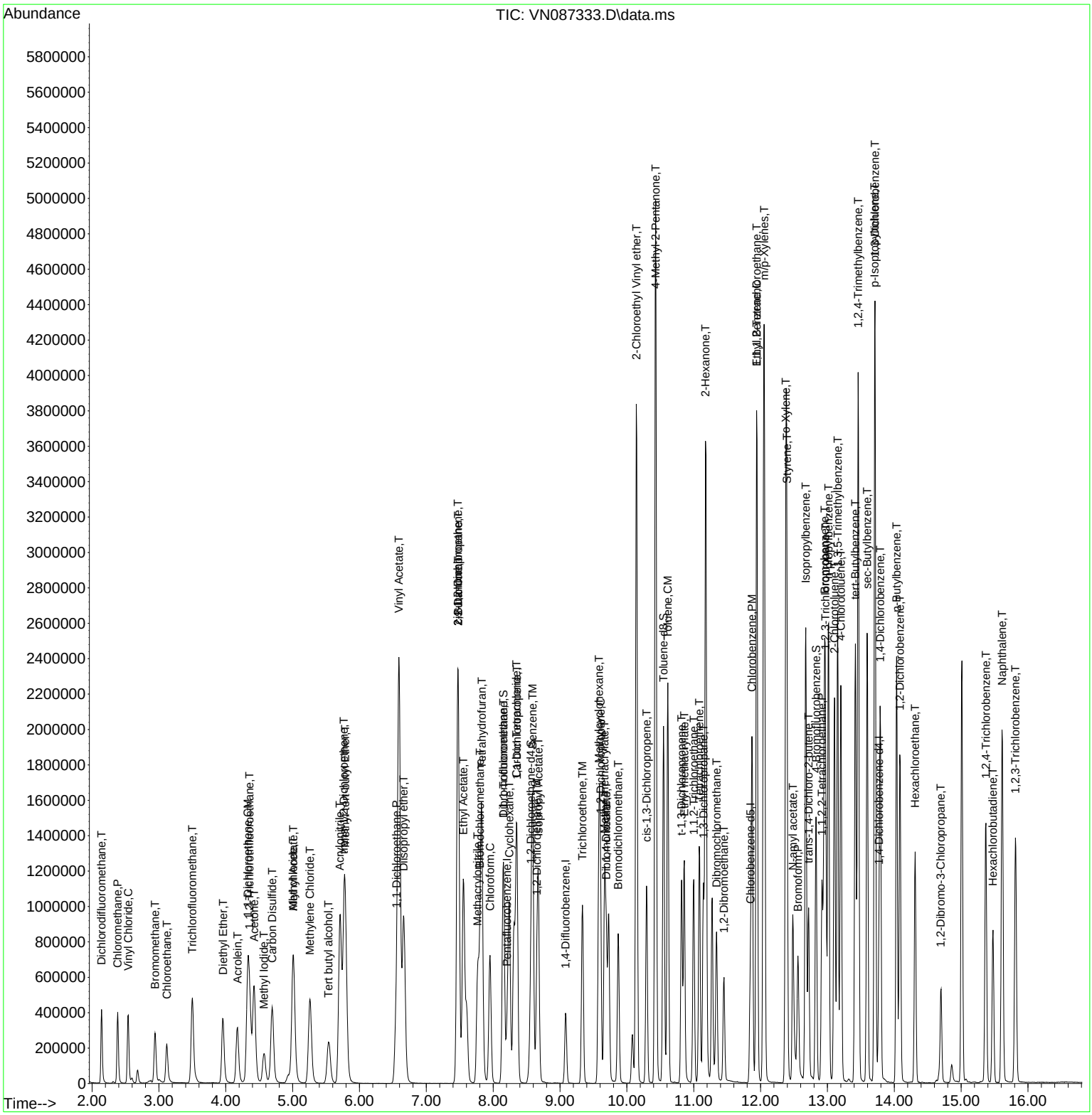
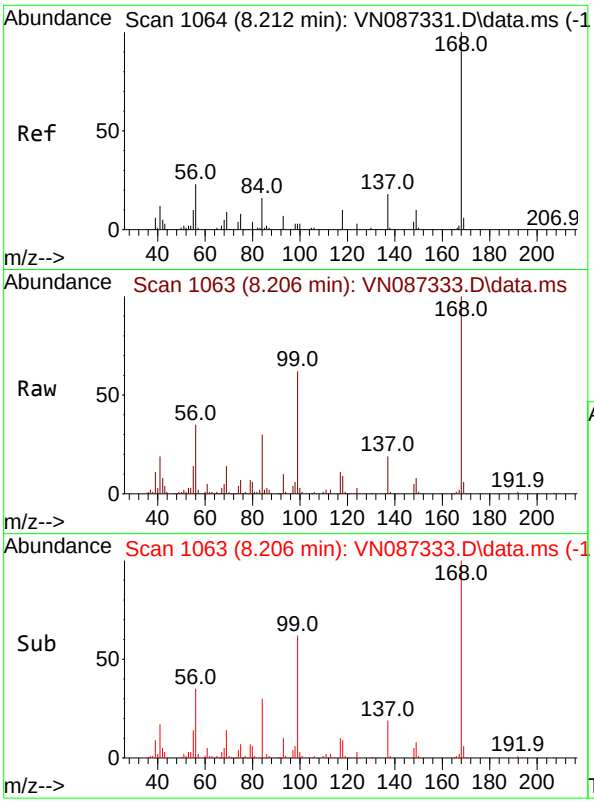
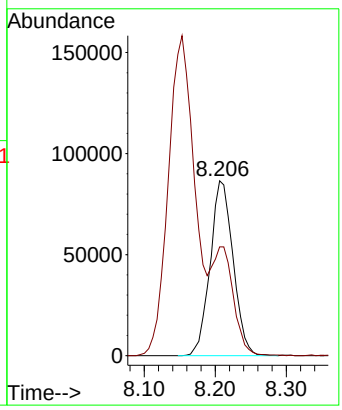




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:168 Resp: 19385

Ion	Ratio	Lower	Upper
168	100		
99	61.8	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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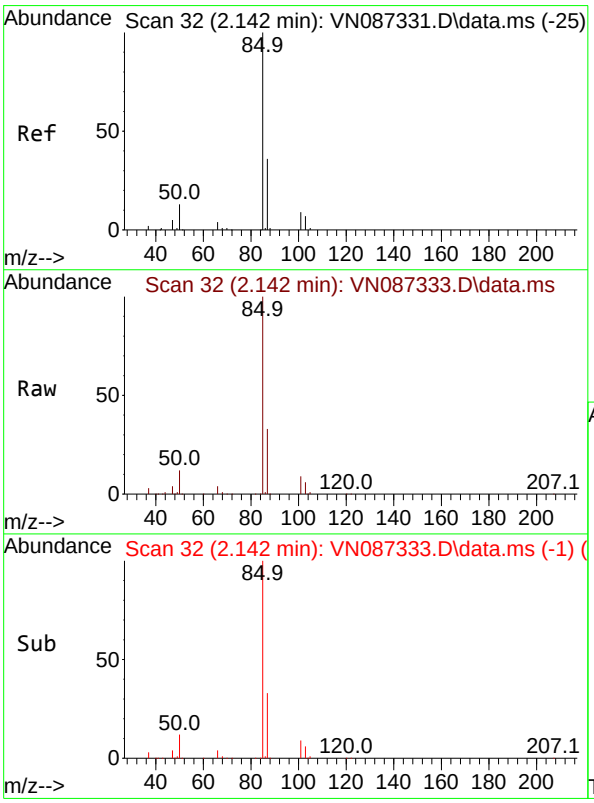
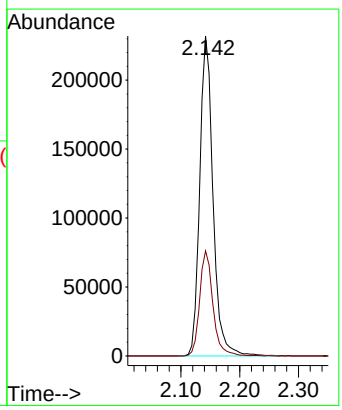
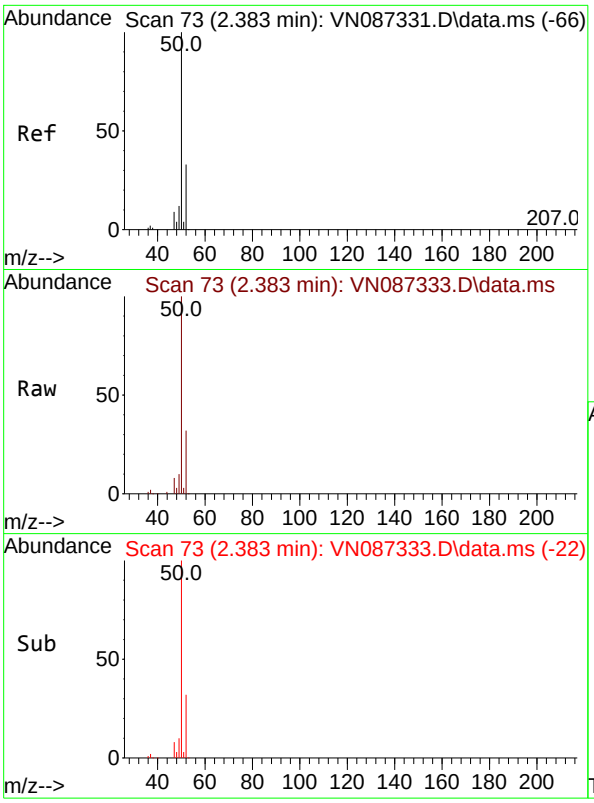


#2
Dichlorodifluoromethane
Concen: 176.463 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 85 Resp: 363327

Ion	Ratio	Lower	Upper
85	100		
87	32.9	17.8	53.3

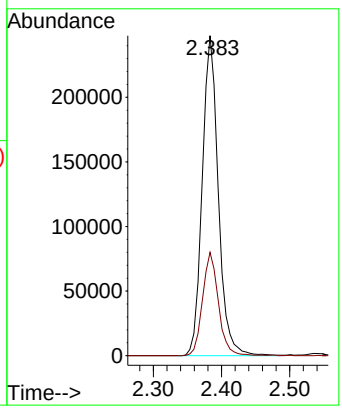




#3
Chloromethane
Concen: 156.728 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 50 Resp: 40580

Ion	Ratio	Lower	Upper
50	100		
52	32.3	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
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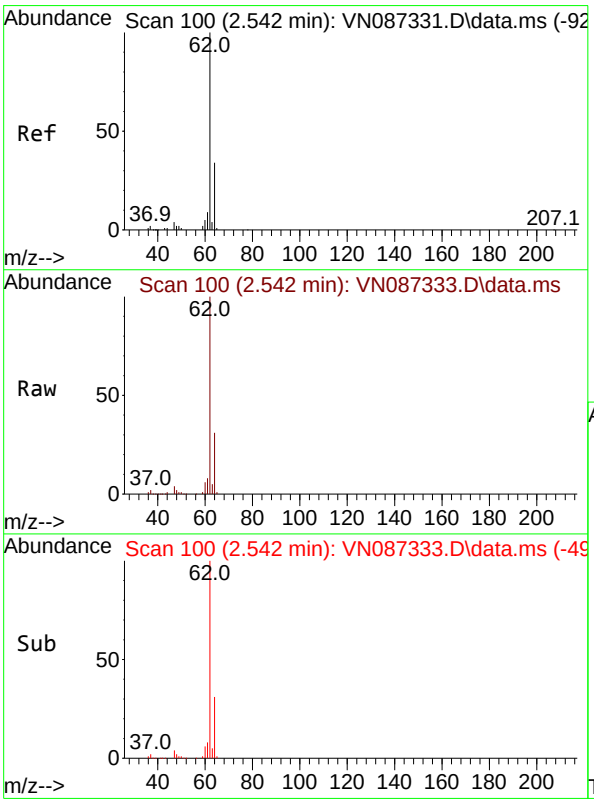
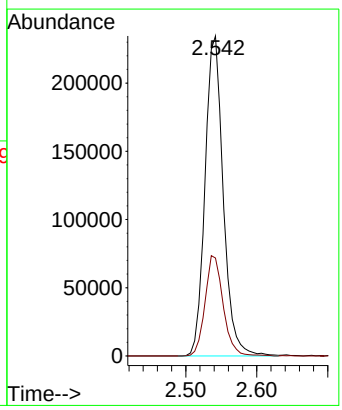
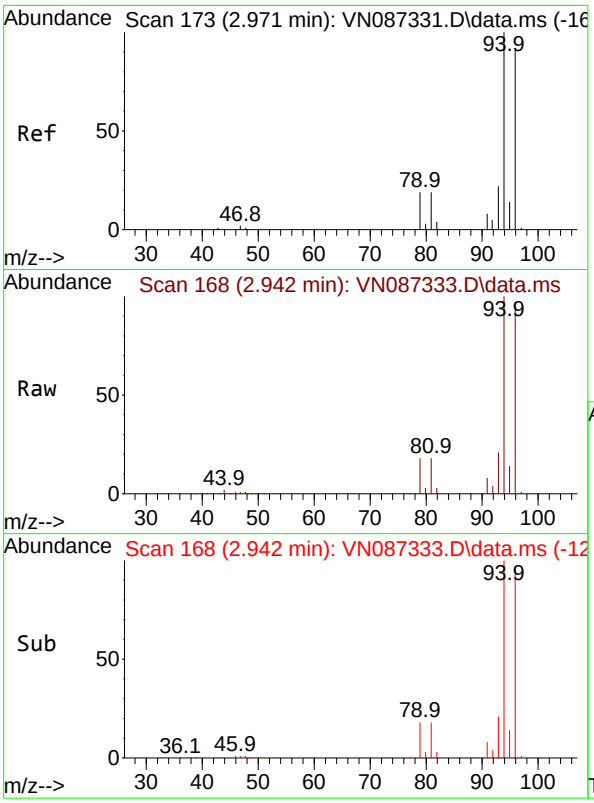


#4
Vinyl Chloride
Concen: 162.646 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 62 Resp: 418507

Ion	Ratio	Lower	Upper
62	100		
64	30.6	27.0	40.6





#5
Bromomethane
Concen: 161.604 ug/l
RT: 2.942 min Scan# 1
Delta R.T. -0.029 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 94 Resp: 21533

Ion	Ratio	Lower	Upper
94	100		
96	96.7	73.4	110.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
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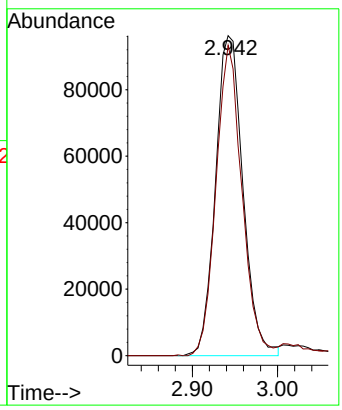
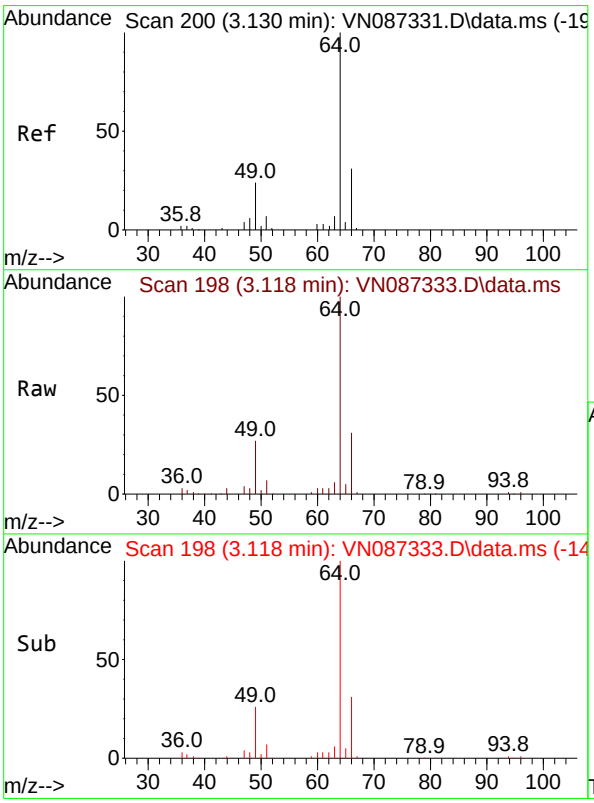
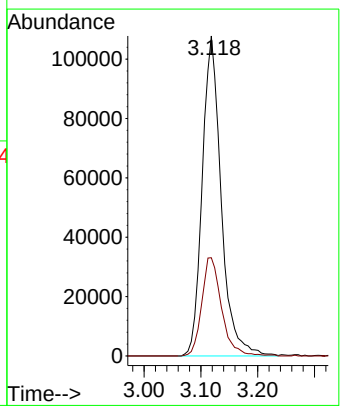


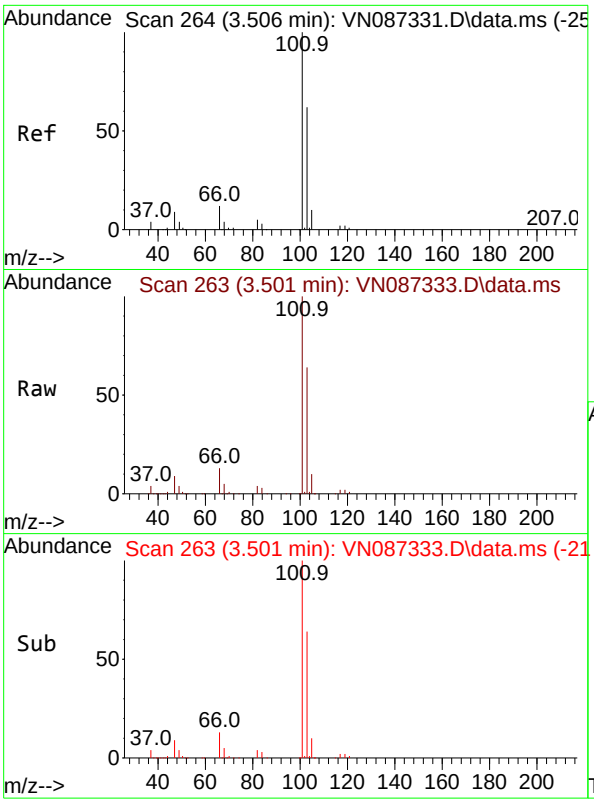


#6
Chloroethane
Concen: 148.663 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.012 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 64 Resp: 249466

Ion	Ratio	Lower	Upper
64	100		
66	30.7	24.6	36.8





#7
Trichlorofluoromethane
Concen: 153.872 ug/l
RT: 3.501 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:101 Resp: 58545

Ion	Ratio	Lower	Upper
101	100		
103	64.5	49.8	74.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
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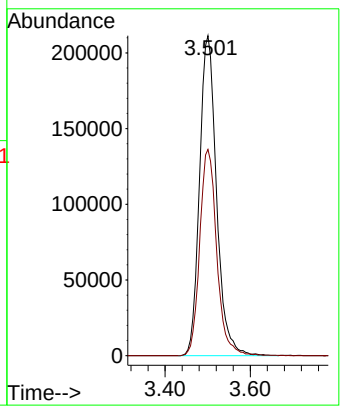
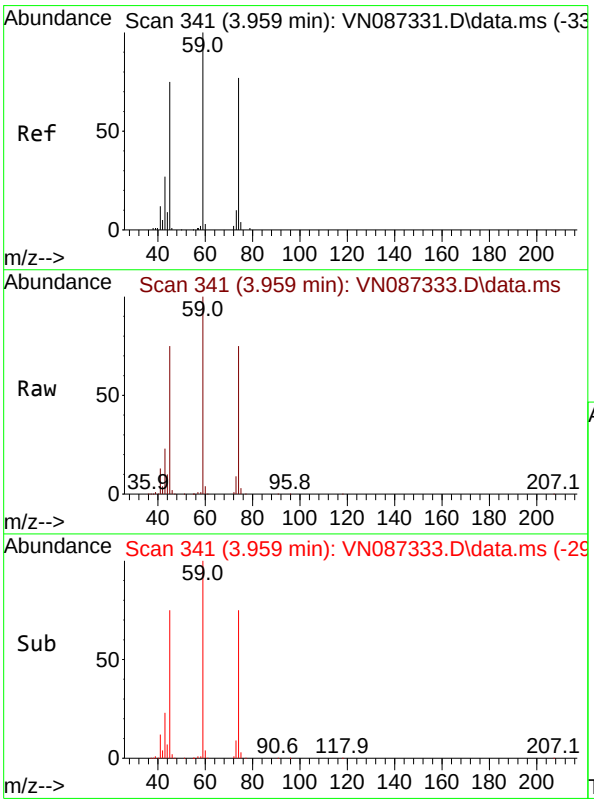
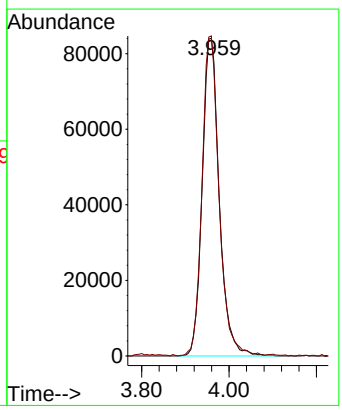


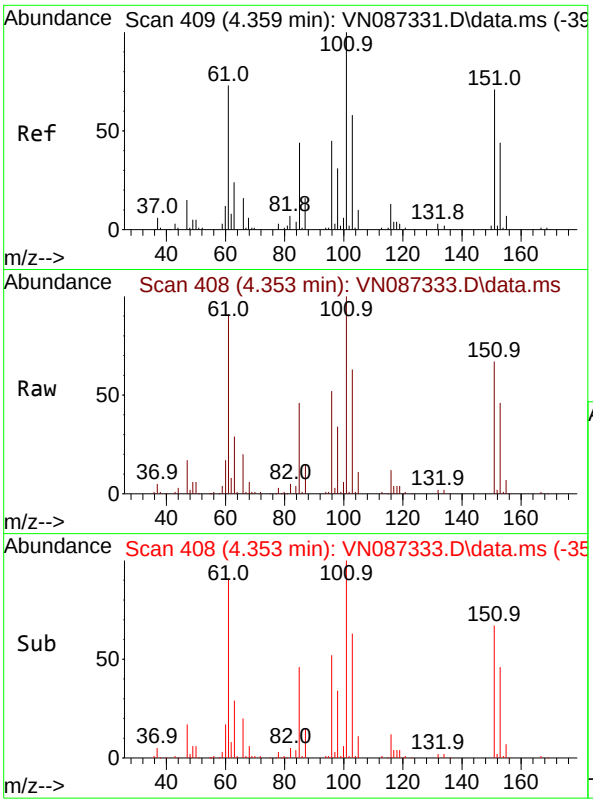


#8
Diethyl Ether
Concen: 154.847 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 74 Resp: 228544

Ion	Ratio	Lower	Upper
74	100		
45	100.7	50.8	152.5





#9
1,1,2-Trichlorotrifluoroethane
Concen: 151.587 ug/l
RT: 4.353 min Scan# 4(
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:101 Resp: 29607(

Ion	Ratio	Lower	Upper
101	100		
85	46.1	37.3	55.9
151	73.1	58.9	88.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
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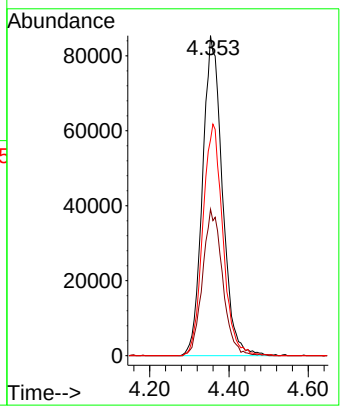
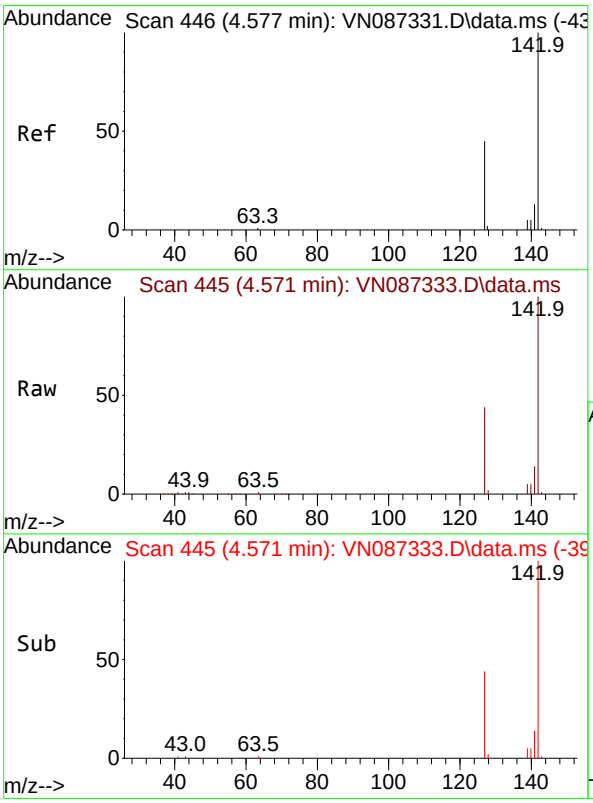
Supervised By :Semsettin Yesilyurt 07/17/2025

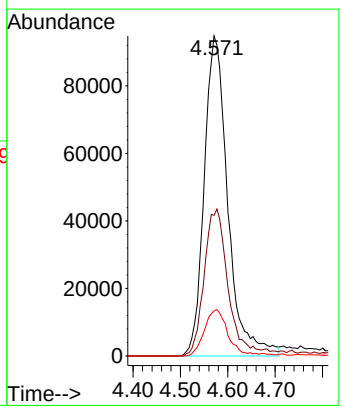


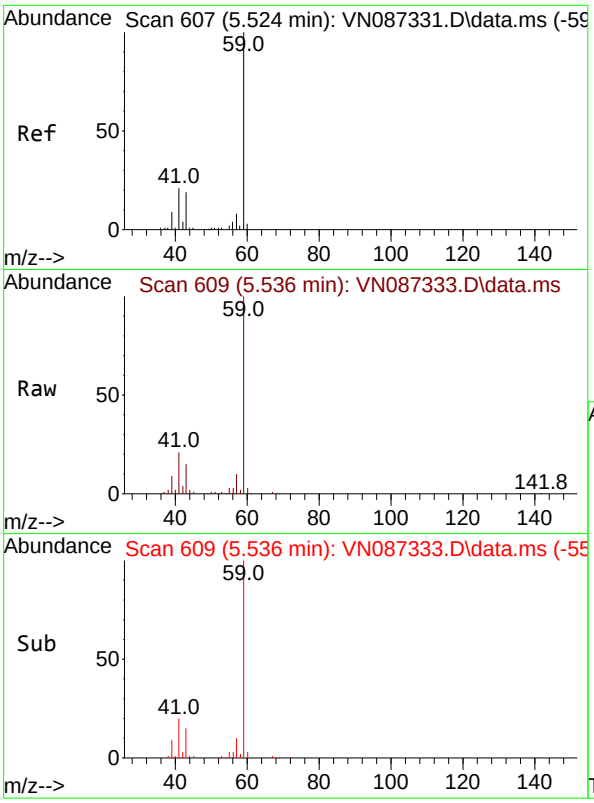


#10
Methyl Iodide
Concen: 150.516 ug/l
RT: 4.571 min Scan# 445
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:142 Resp: 328079

Ion	Ratio	Lower	Upper
142	100		
127	44.0	35.7	53.5
141	14.1	10.4	15.6





#11
Tert butyl alcohol
Concen: 765.784 ug/l
RT: 5.536 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 59 Resp: 47827

Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.3	12.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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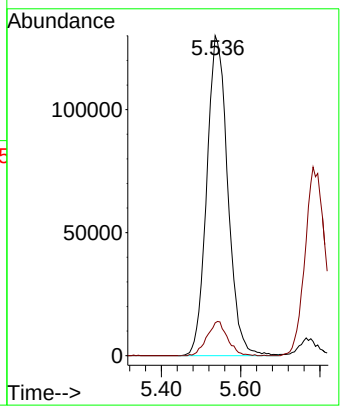
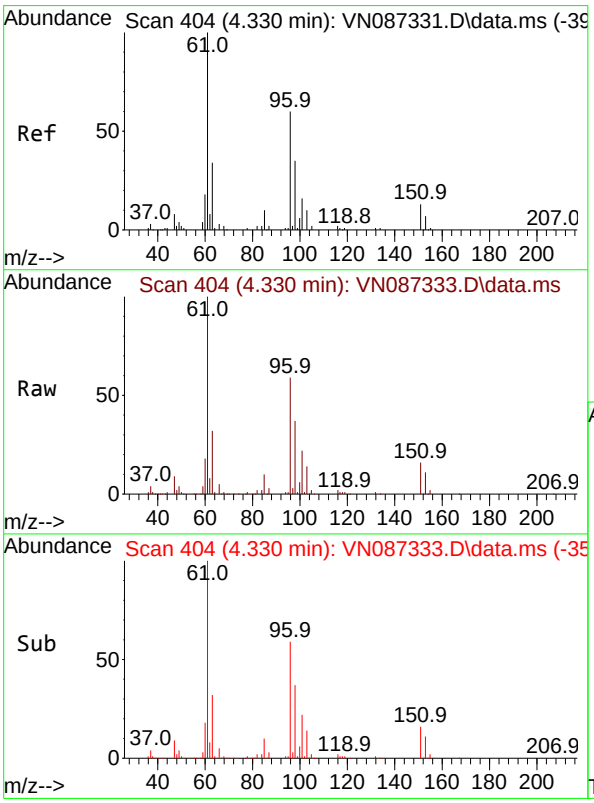
Supervised By :Semsettin Yesilyurt 07/17/2025

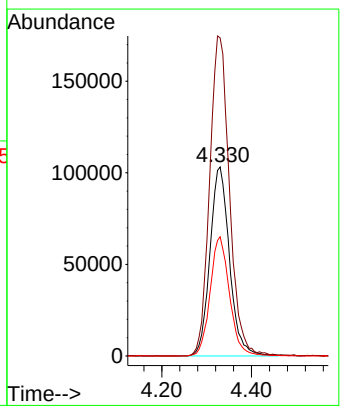


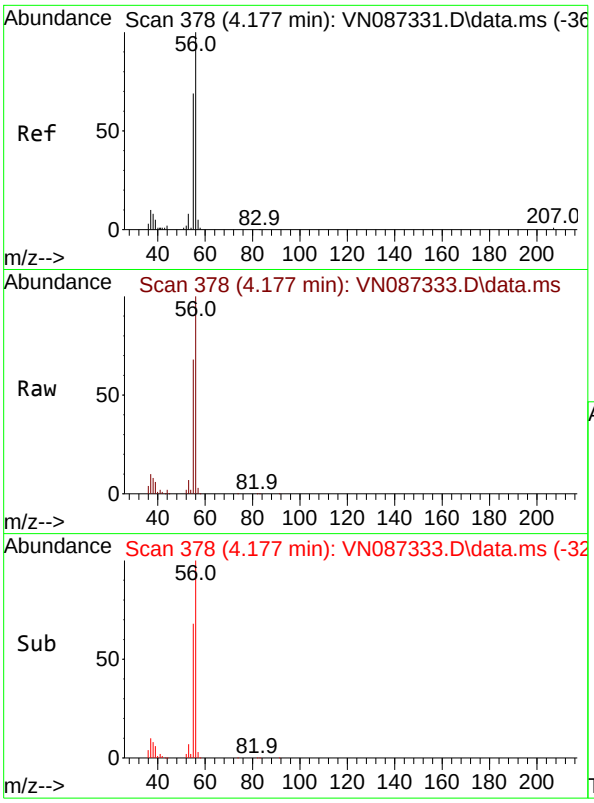


#12
1,1-Dichloroethene
Concen: 141.111 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 96 Resp: 312325

Ion	Ratio	Lower	Upper
96	100		
61	168.2	132.3	198.5
98	63.0	46.8	70.2

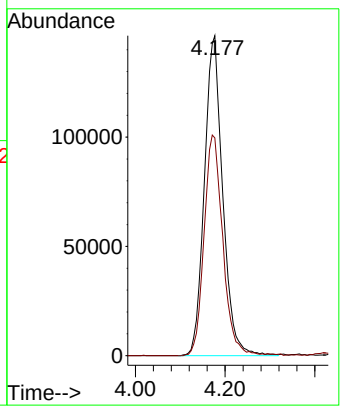




#13
Acrolein
Concen: 828.945 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 56 Resp: 41548

Ion	Ratio	Lower	Upper
56	100		
55	70.4	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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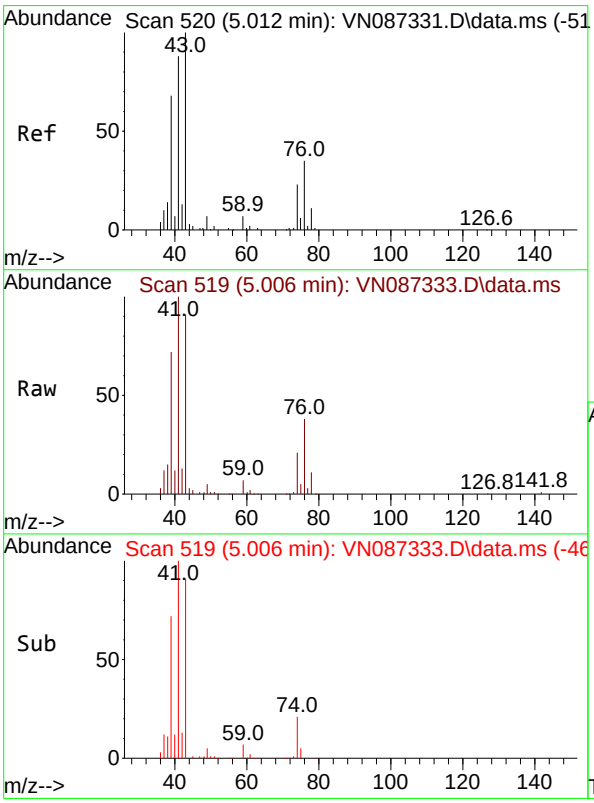
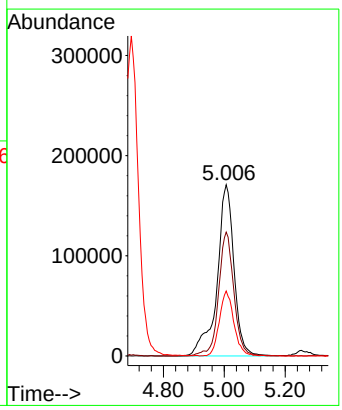
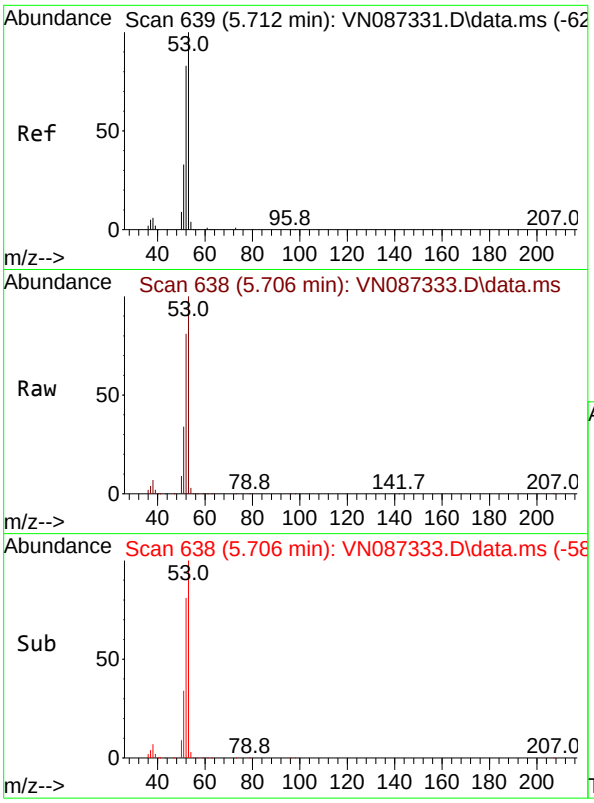


#14
Allyl chloride
Concen: 165.621 ug/l
RT: 5.006 min Scan# 519
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 41 Resp: 663403

Ion	Ratio	Lower	Upper
41	100		
39	64.9	59.0	88.6
76	32.4	28.7	43.1

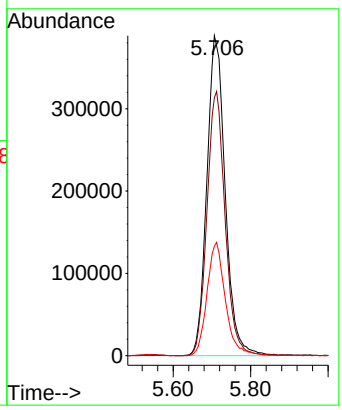




#15
Acrylonitrile
Concen: 754.869 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 53 Resp: 127936

Ion	Ratio	Lower	Upper
53	100		
52	81.7	65.5	98.3
51	35.5	28.7	43.1



Instrument :
MSVOA_N
ClientSampleId :
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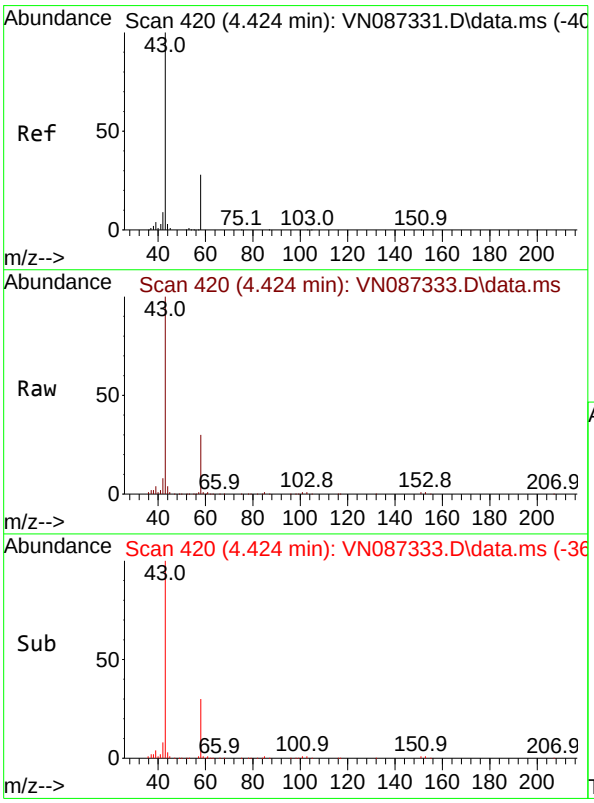
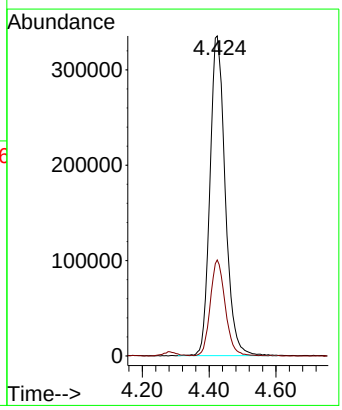
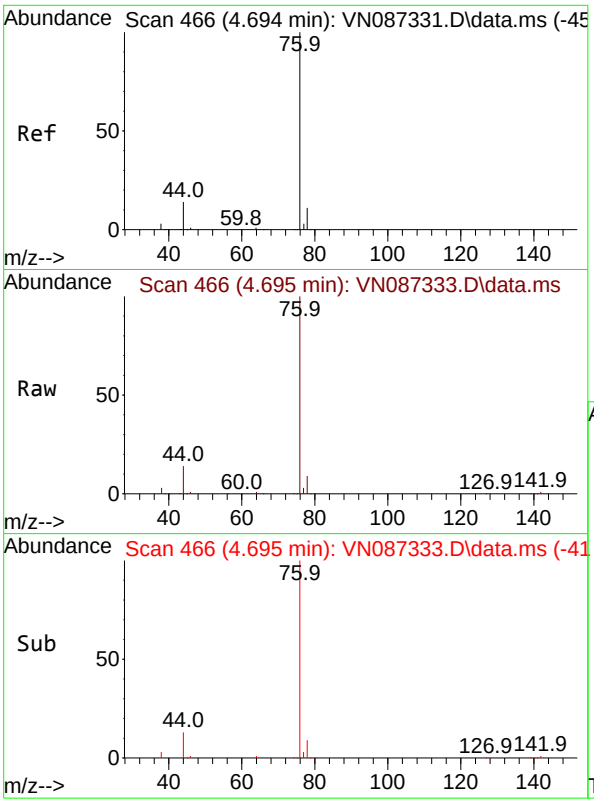


#16
Acetone
Concen: 682.373 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 1064061

Ion	Ratio	Lower	Upper
43	100		
58	29.9	22.3	33.5

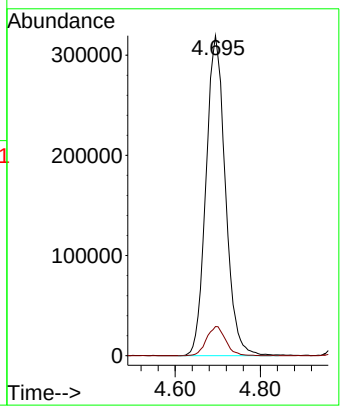




#17
Carbon Disulfide
Concen: 154.118 ug/l
RT: 4.695 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 76 Resp: 101131

Ion	Ratio	Lower	Upper
76	100		
78	9.1	8.6	13.0



Instrument :
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ClientSampleId :
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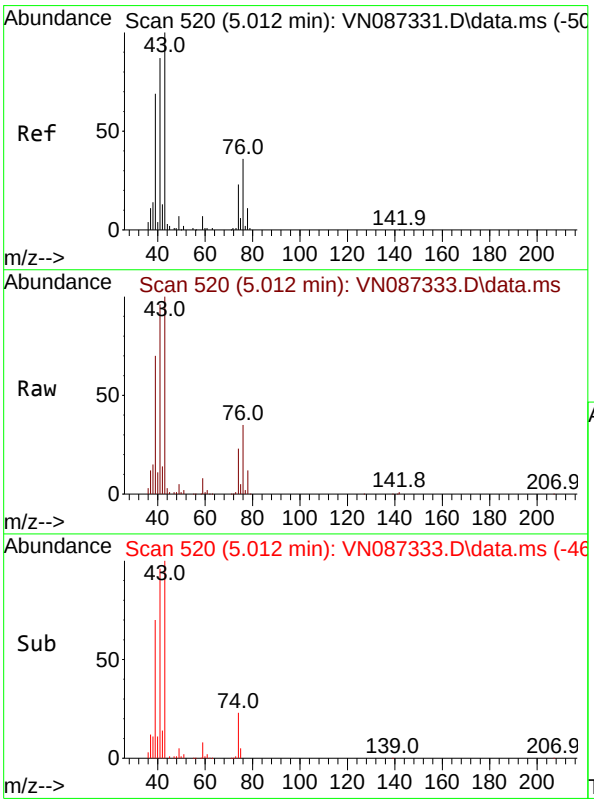
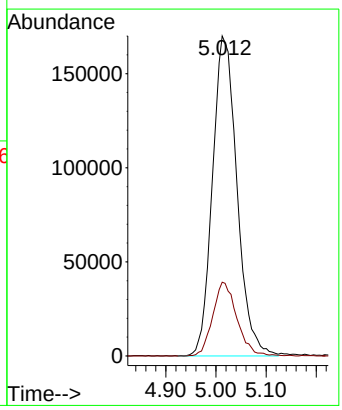
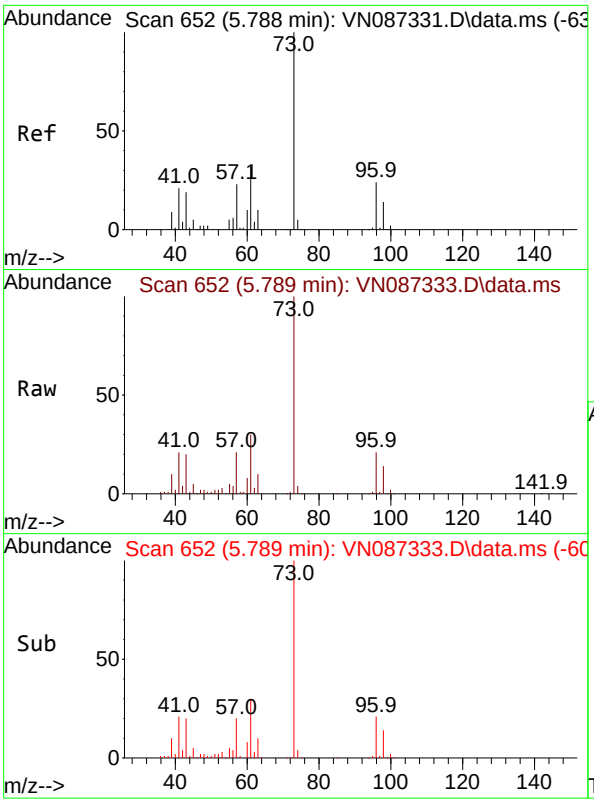


#18
Methyl Acetate
Concen: 149.052 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 577536

Ion	Ratio	Lower	Upper
43	100		
74	22.7	17.8	26.6

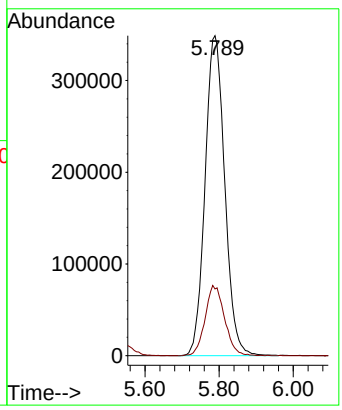




#19
Methyl tert-butyl Ether
Concen: 157.724 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 73 Resp: 128672

Ion	Ratio	Lower	Upper
73	100		
57	20.8	18.6	27.8



Instrument :
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ClientSampleId :
VSTDICC150

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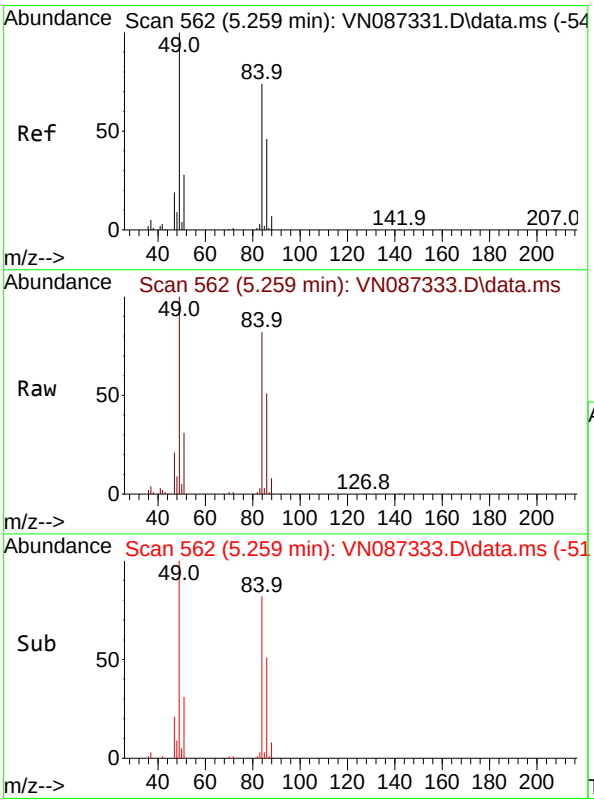
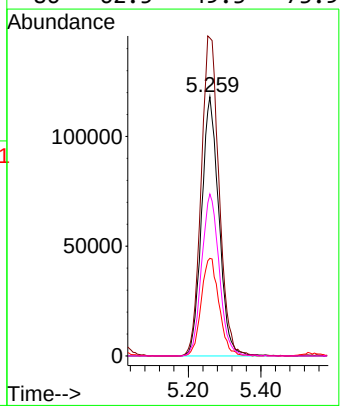
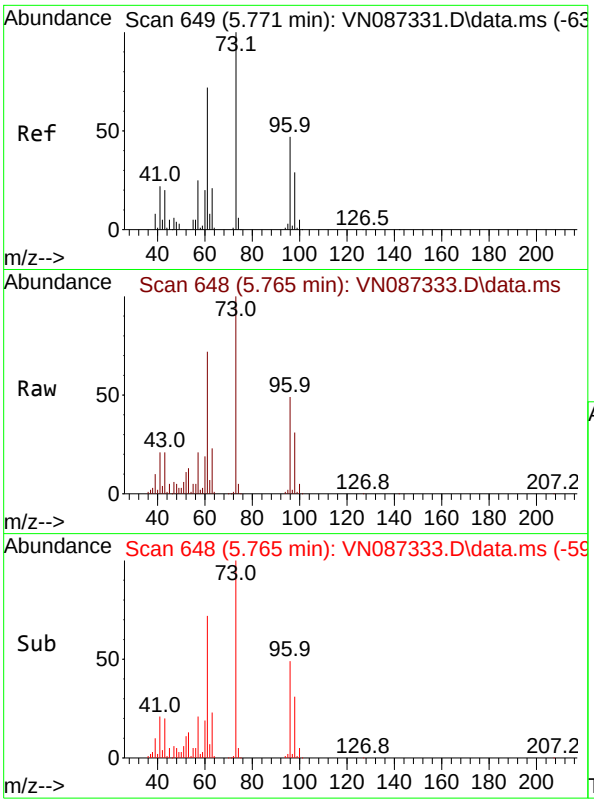


#20
Methylene Chloride
Concen: 151.266 ug/l
RT: 5.259 min Scan# 562
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 84 Resp: 390988

Ion	Ratio	Lower	Upper
84	100		
49	122.7	107.5	161.3
51	37.7	30.2	45.2
86	62.5	49.3	73.9

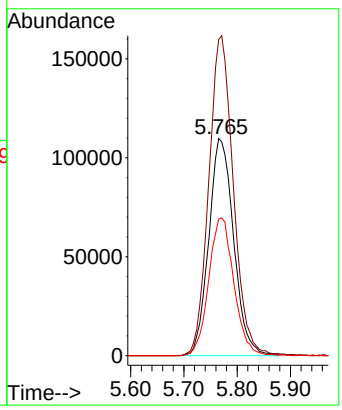




#21
trans-1,2-Dichloroethene
Concen: 142.870 ug/l
RT: 5.765 min Scan# 64
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 96 Resp: 35654

Ion	Ratio	Lower	Upper
96	100		
61	145.5	122.0	183.0
98	62.9	50.0	75.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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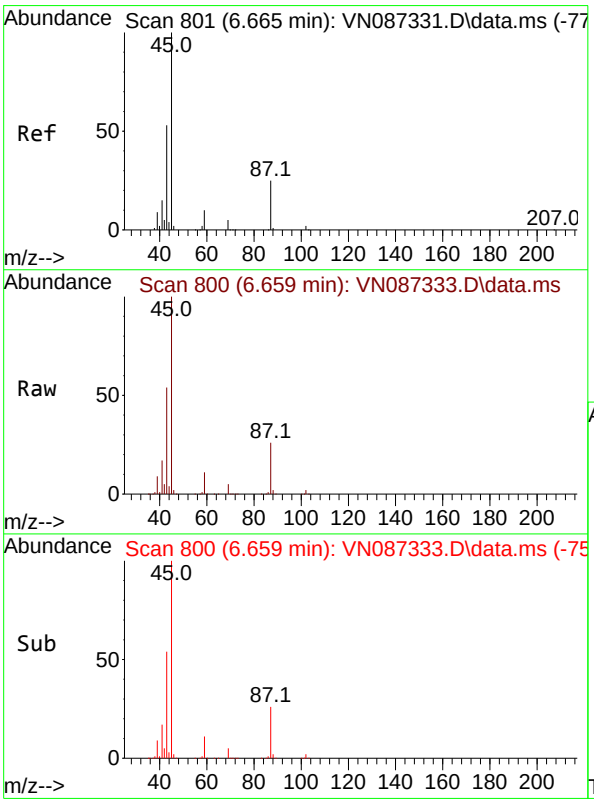
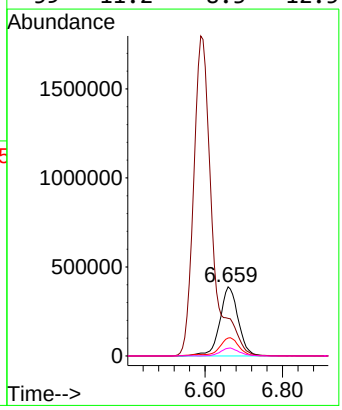
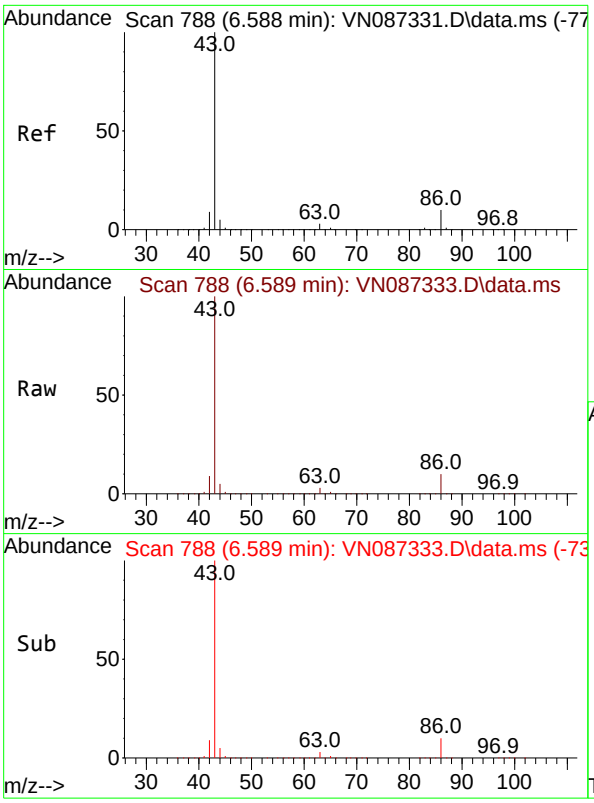


#22
Diisopropyl ether
Concen: 152.375 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 45 Resp: 1280267

Ion	Ratio	Lower	Upper
45	100		
43	53.9	42.8	64.2
87	25.9	19.8	29.6
59	11.2	8.3	12.5

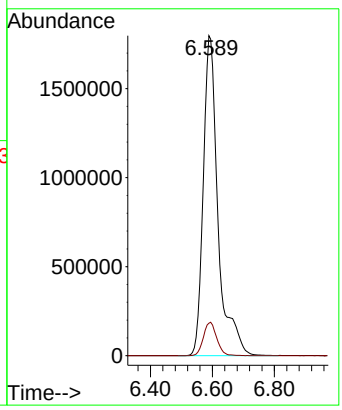




#23
Vinyl Acetate
Concen: 808.750 ug/l
RT: 6.589 min Scan# 7
Delta R.T. 0.001 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 594302

Ion	Ratio	Lower	Upper
43	100		
86	10.2	7.7	11.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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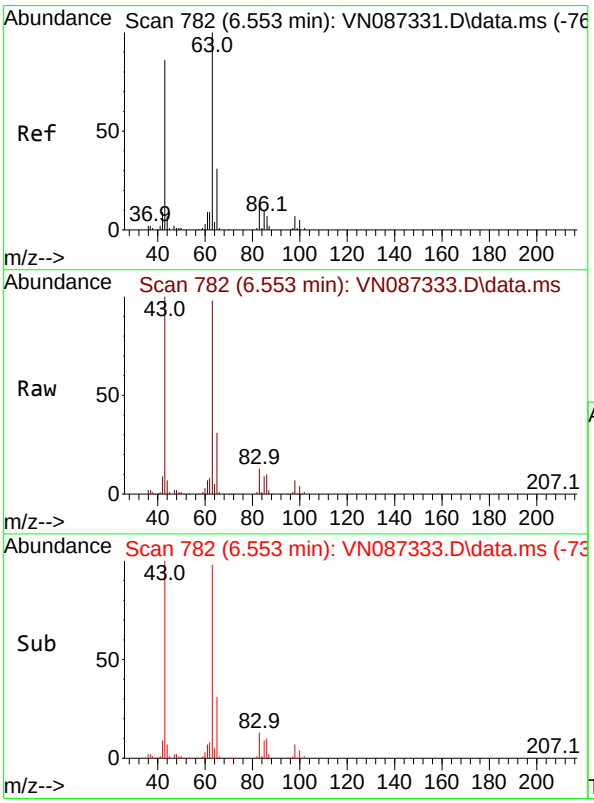
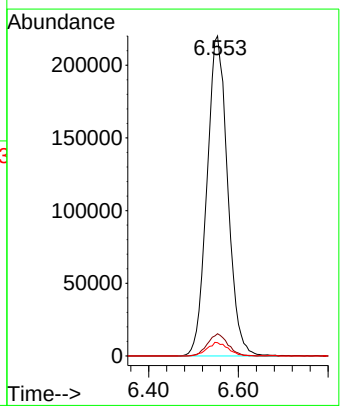
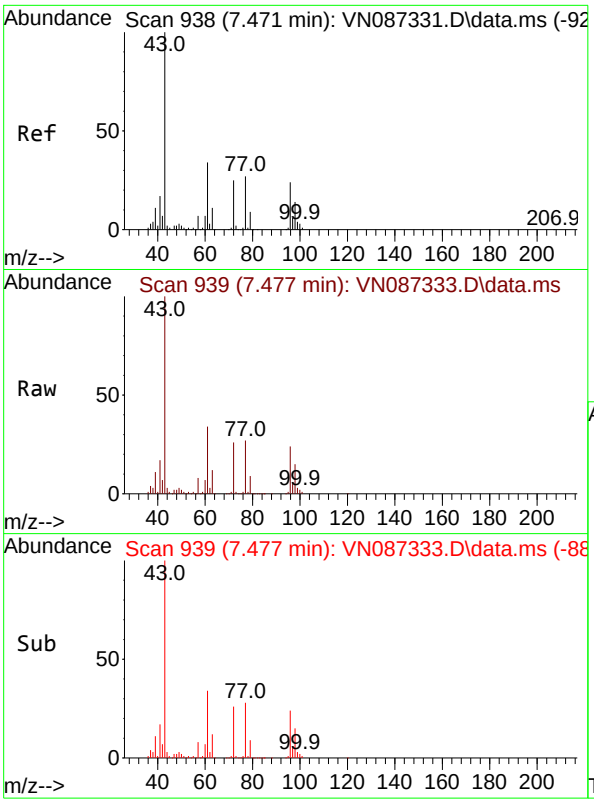


#24
1,1-Dichloroethane
Concen: 145.384 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 63 Resp: 704727

Ion	Ratio	Lower	Upper
63	100		
98	7.0	3.3	9.9
100	4.2	2.5	7.4

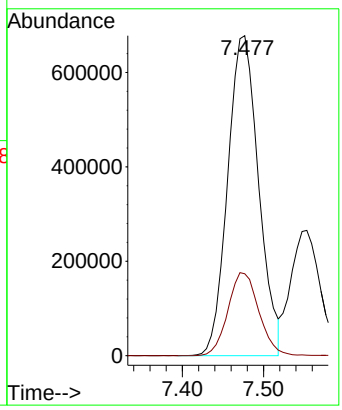




#25
2-Butanone
Concen: 754.179 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 179714

Ion	Ratio	Lower	Upper
43	100		
72	25.6	19.6	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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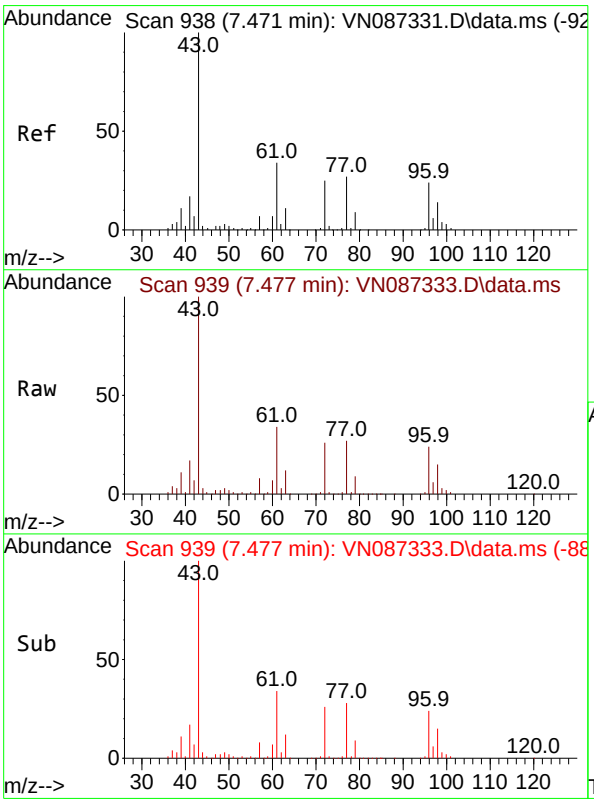
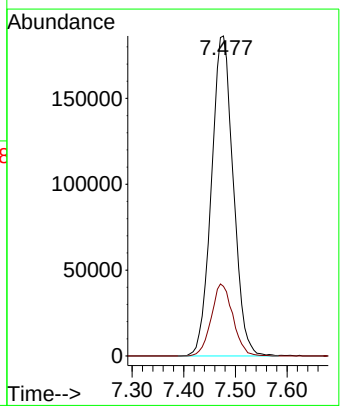
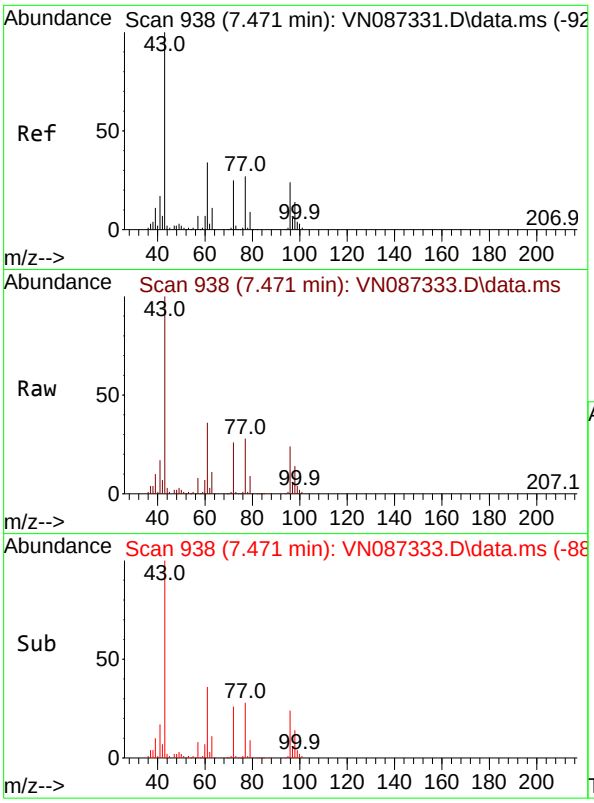


#26
2,2-Dichloropropane
Concen: 145.193 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 77 Resp: 547190

Ion	Ratio	Lower	Upper
77	100		
97	22.2	11.1	33.1





#27
cis-1,2-Dichloroethene
Concen: 152.102 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 96 Resp: 43702

Ion	Ratio	Lower	Upper
96	100		
61	149.1	0.0	297.8
98	63.7	0.0	132.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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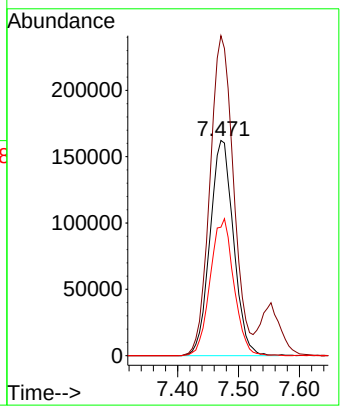
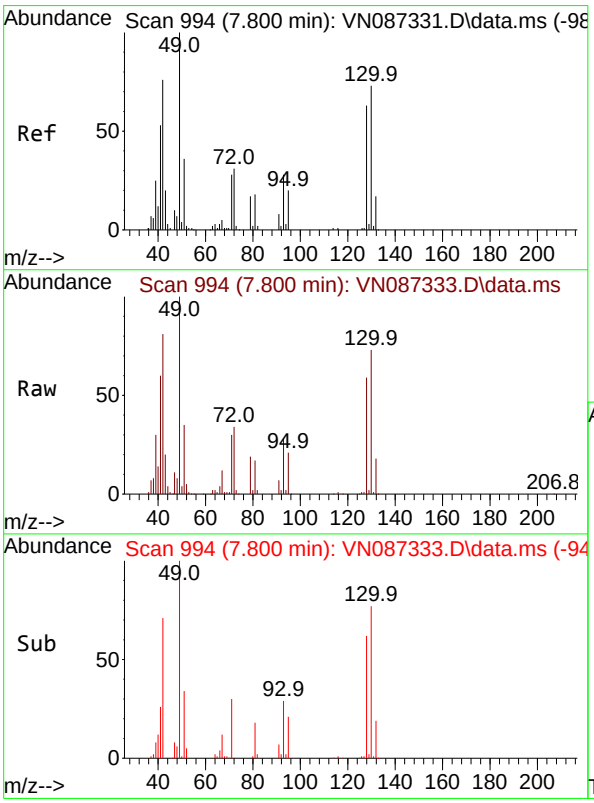
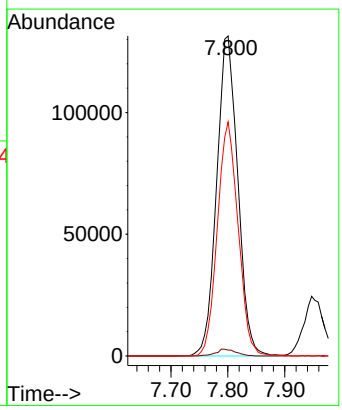


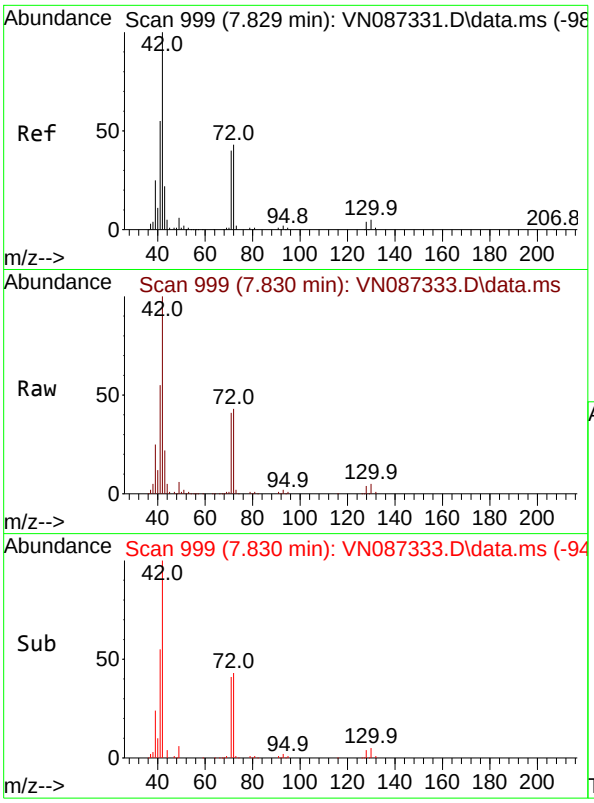


#28
Bromochloromethane
Concen: 146.355 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 49 Resp: 339529

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	4.2
130	71.9	57.3	85.9

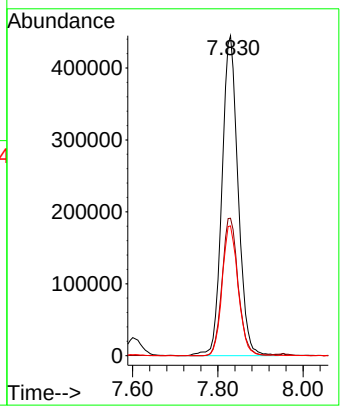




#29
Tetrahydrofuran
Concen: 753.679 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 42 Resp: 116670

Ion	Ratio	Lower	Upper
42	100		
72	43.0	33.4	50.0
71	40.3	31.2	46.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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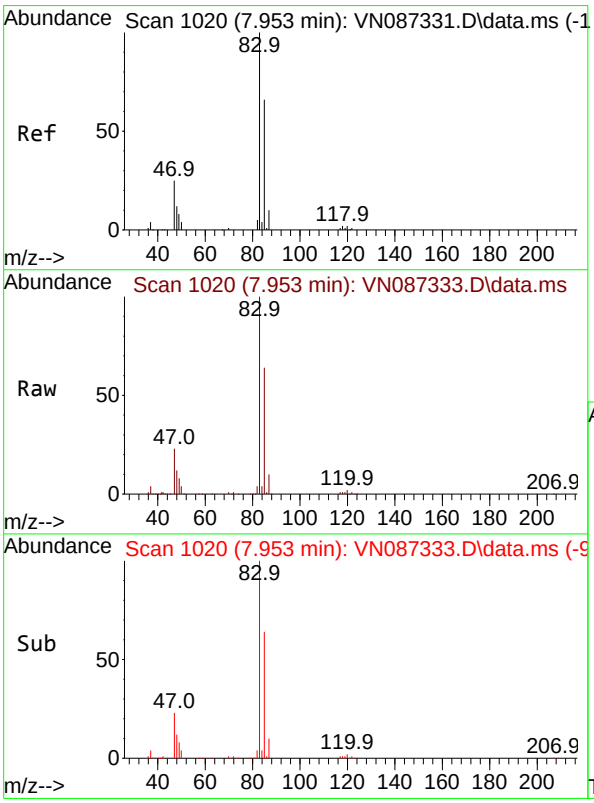
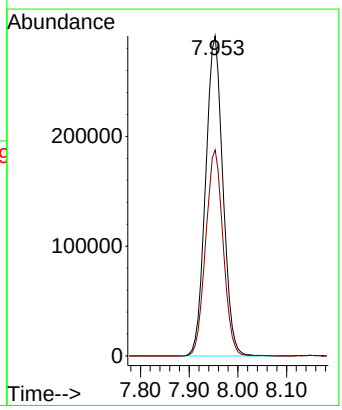
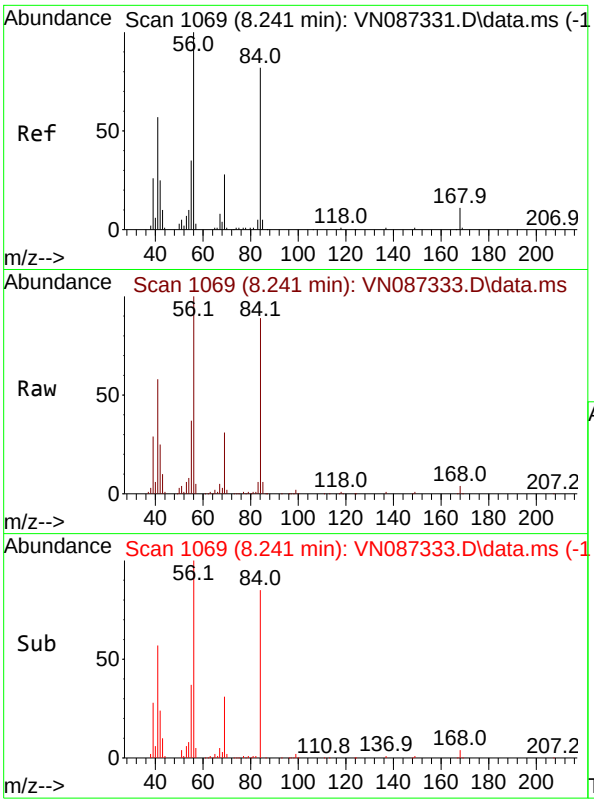


#30
Chloroform
Concen: 147.865 ug/l
RT: 7.953 min Scan# 1020
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 83 Resp: 717424

Ion	Ratio	Lower	Upper
83	100		
85	64.4	52.7	79.1

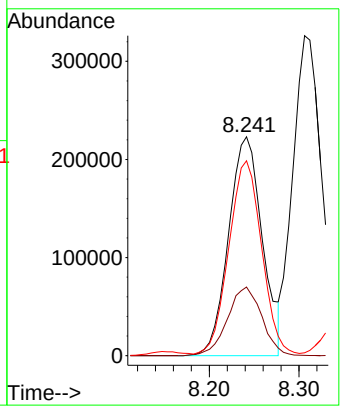




#31
Cyclohexane
Concen: 144.170 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 56 Resp: 58298

Ion	Ratio	Lower	Upper
56	100		
69	31.4	22.7	34.1
84	87.7	65.8	98.6



Instrument :
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ClientSampleId :
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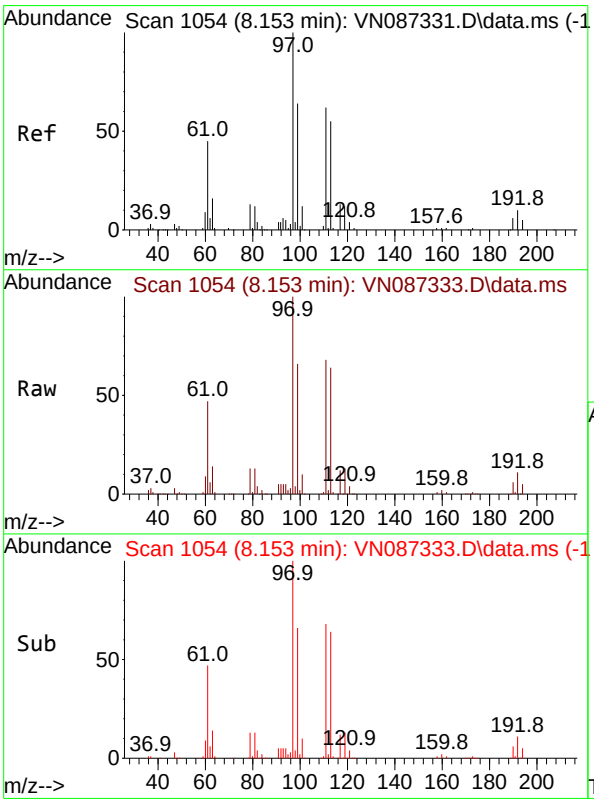
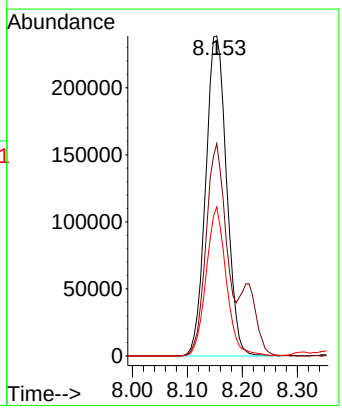
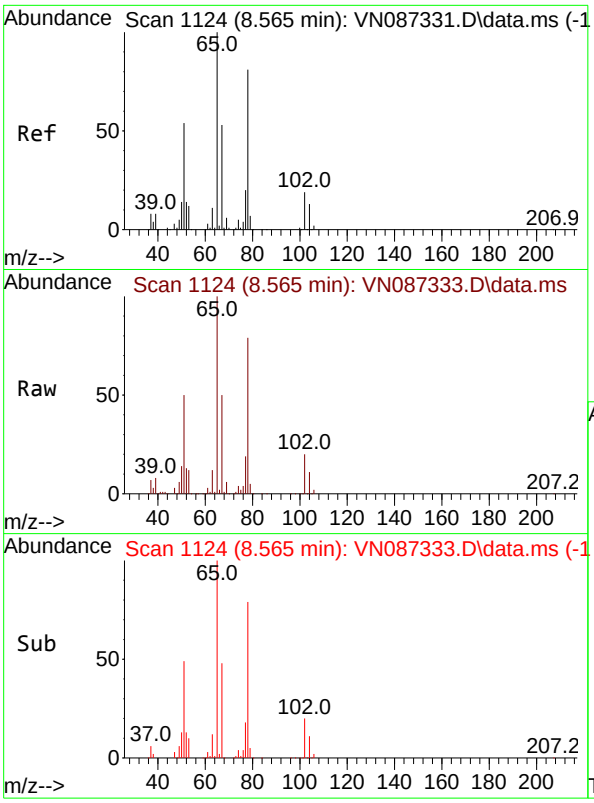


#32
1,1,1-Trichloroethane
Concen: 150.152 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 97 Resp: 630986

Ion	Ratio	Lower	Upper
97	100		
99	64.9	51.8	77.8
61	45.0	38.7	58.1

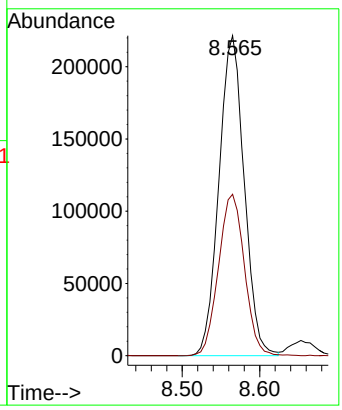




#33
1,2-Dichloroethane-d4
Concen: 152.545 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 65 Resp: 50176

Ion	Ratio	Lower	Upper
65	100		
67	51.9	0.0	104.0



Instrument :
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ClientSampleId :
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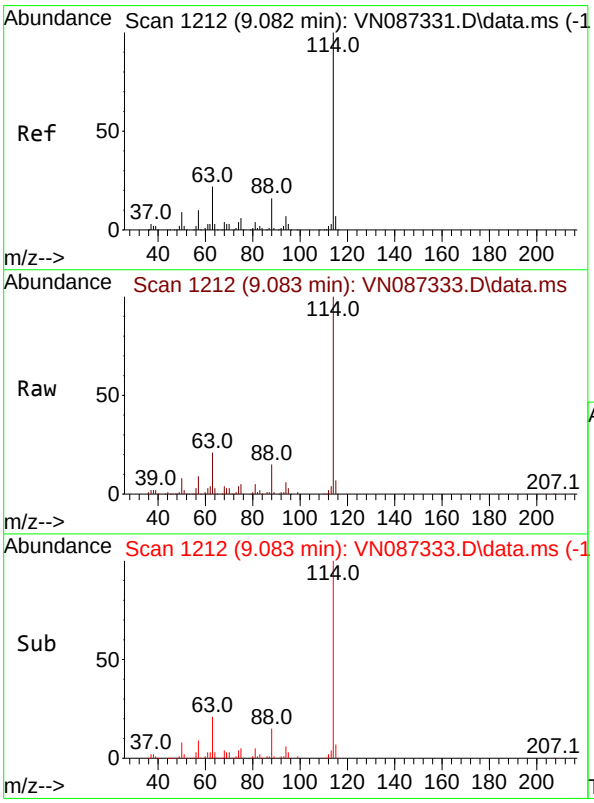
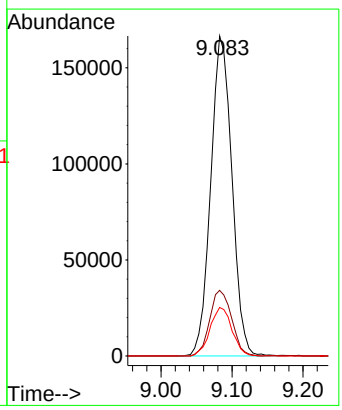
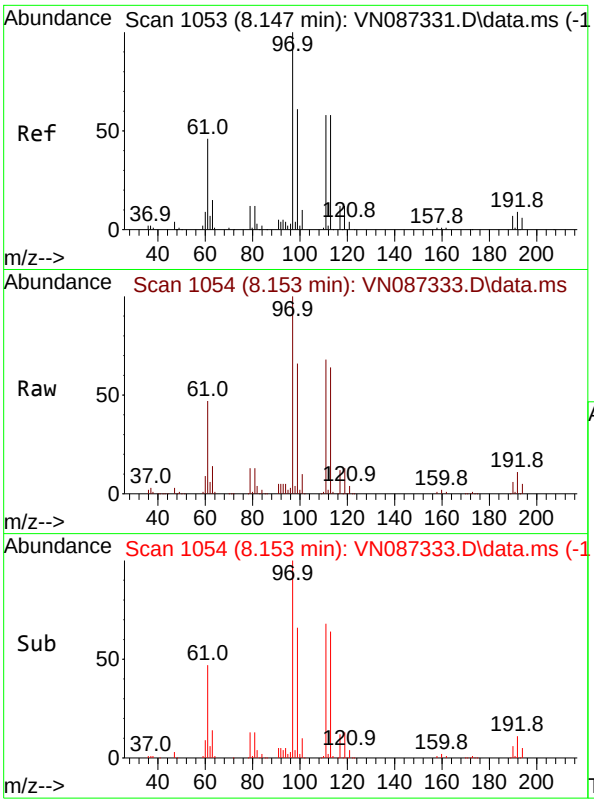


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.083 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:114 Resp: 344966

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	44.6
88	15.2	0.0	32.8

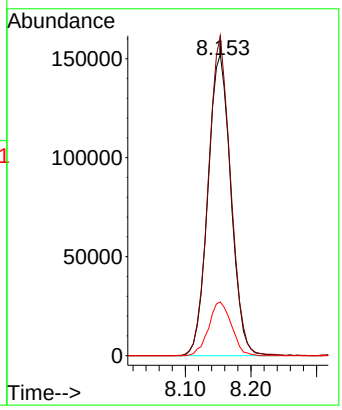




#35
Dibromofluoromethane
Concen: 154.778 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:113 Resp: 36830

Ion	Ratio	Lower	Upper
113	100		
111	103.8	82.5	123.7
192	17.8	13.7	20.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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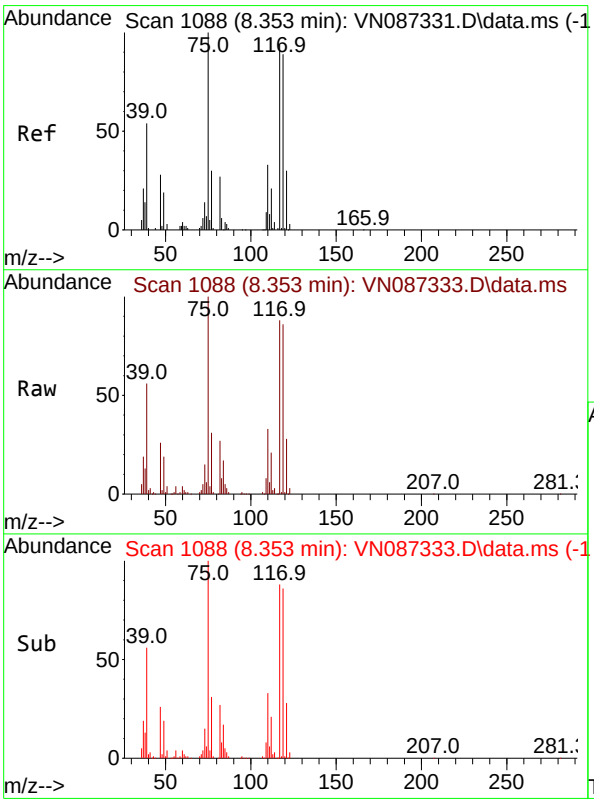
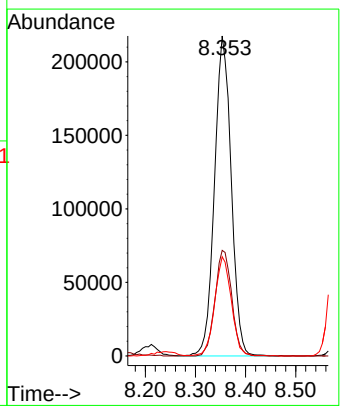
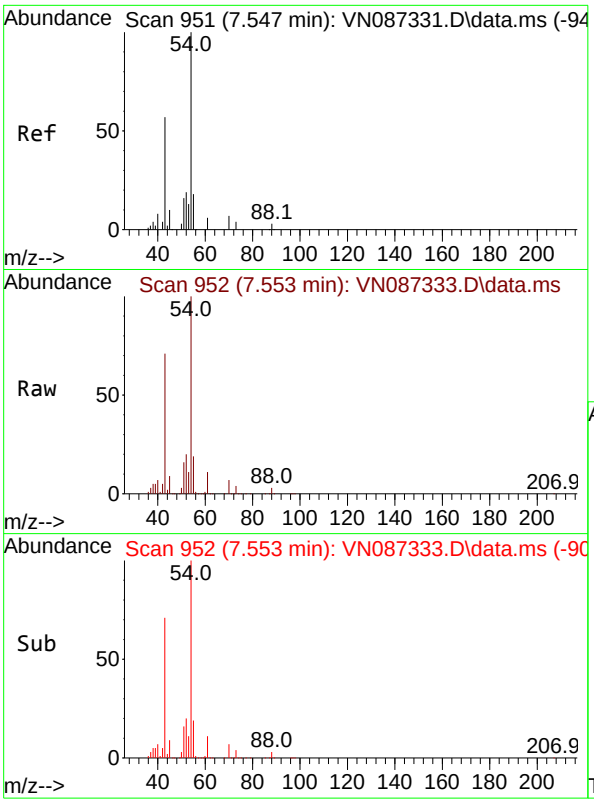


#36
1,1-Dichloropropene
Concen: 160.248 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 75 Resp: 503793

Ion	Ratio	Lower	Upper
75	100		
110	33.1	16.7	50.1
77	30.9	25.2	37.8

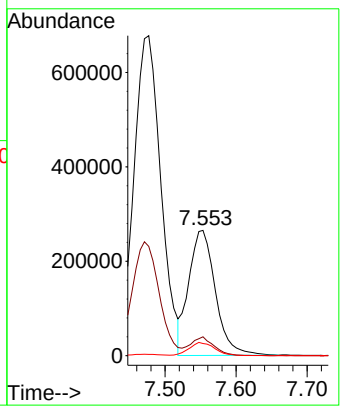




#37
Ethyl Acetate
Concen: 152.464 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 69225

Ion	Ratio	Lower	Upper
43	100		
61	13.2	10.9	16.3
70	10.1	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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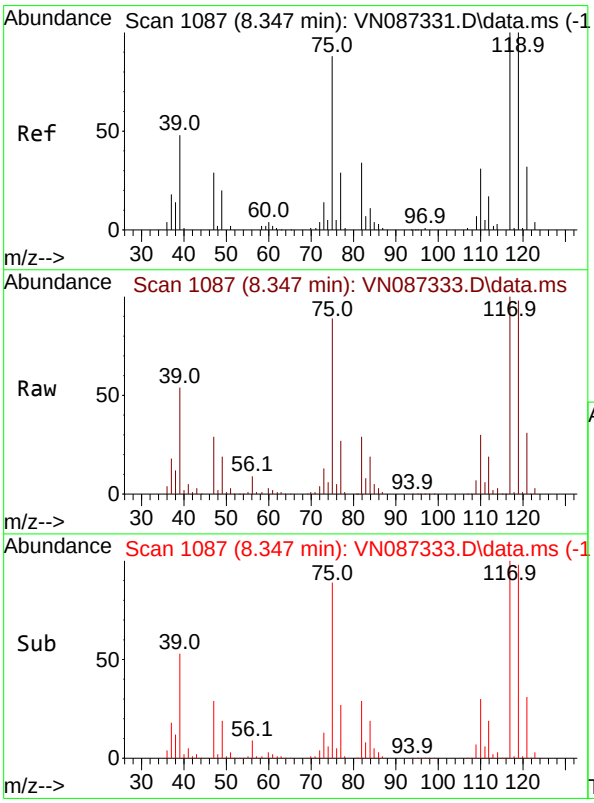
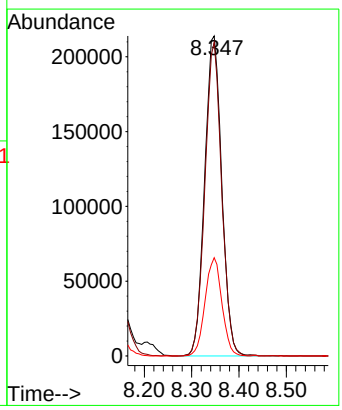
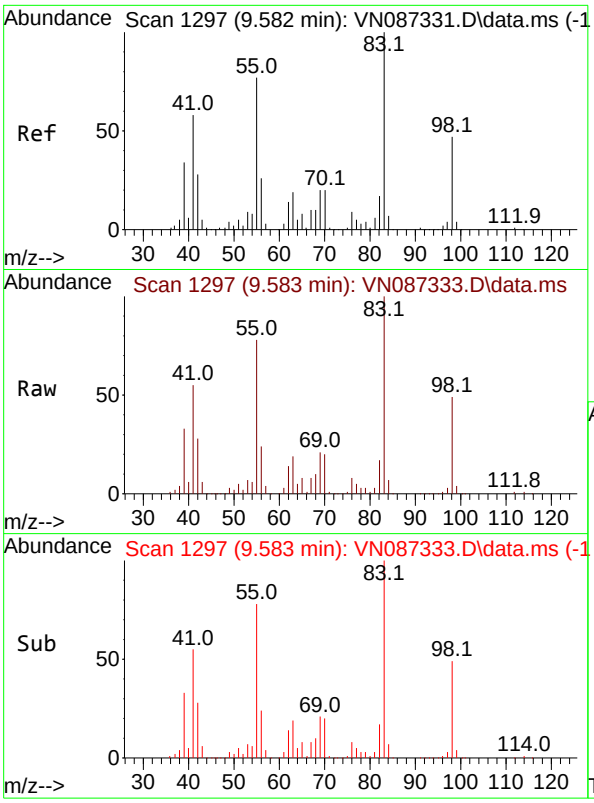


#38
Carbon Tetrachloride
Concen: 154.647 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:117 Resp: 535575

Ion	Ratio	Lower	Upper
117	100		
119	98.0	80.2	120.2
121	30.7	25.4	38.2

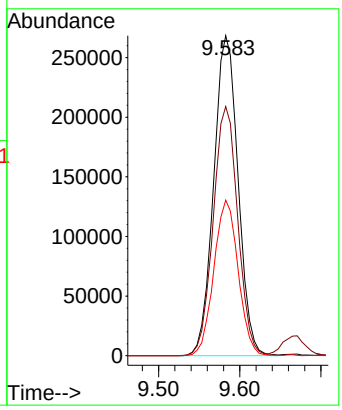




#39
Methylcyclohexane
Concen: 164.485 ug/l
RT: 9.583 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 83 Resp: 55985

Ion	Ratio	Lower	Upper
83	100		
55	77.8	61.3	91.9
98	48.6	37.9	56.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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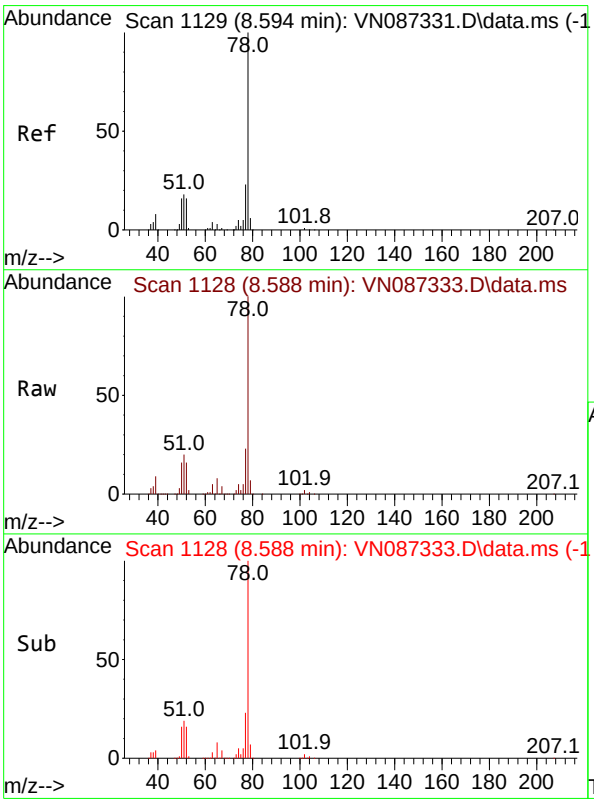
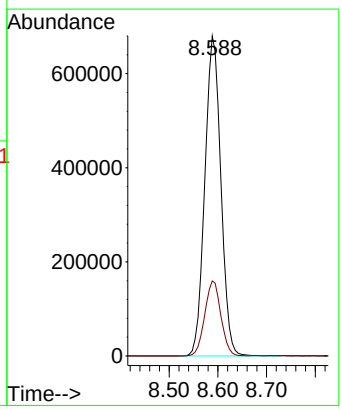
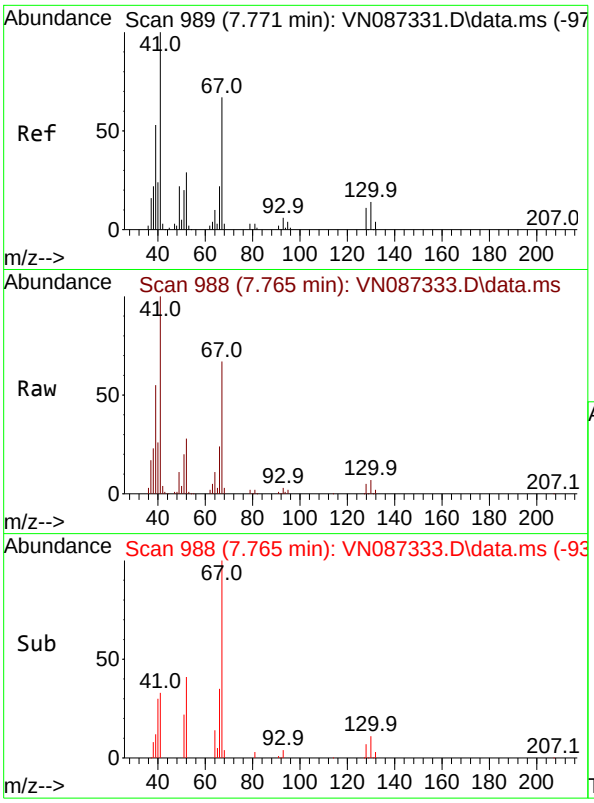


#40
Benzene
Concen: 152.642 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 78 Resp: 1550984

Ion	Ratio	Lower	Upper
78	100		
77	23.5	18.2	27.2

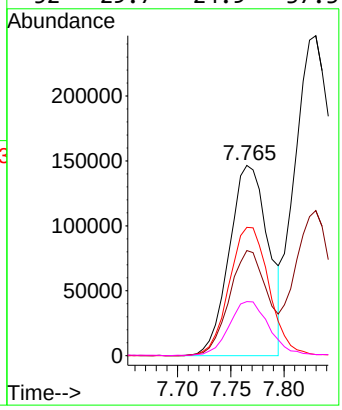




#41
Methacrylonitrile
Concen: 158.156 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 41 Resp: 37548

Ion	Ratio	Lower	Upper
41	100		
39	53.7	43.4	65.0
67	68.5	55.1	82.7
52	29.7	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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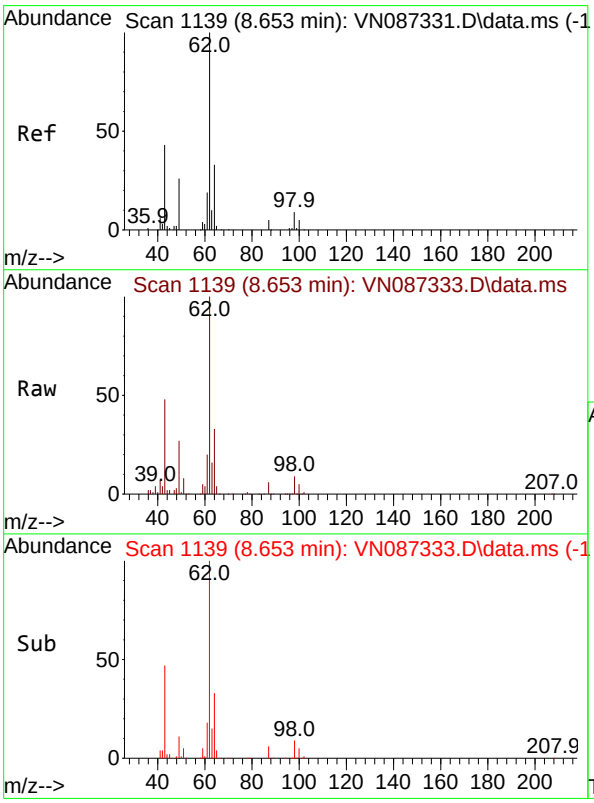
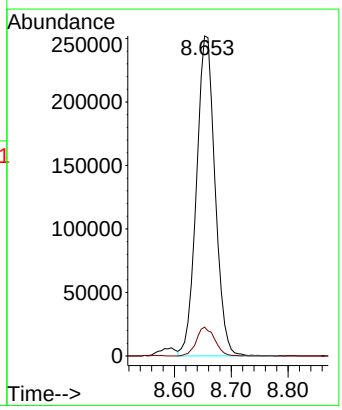
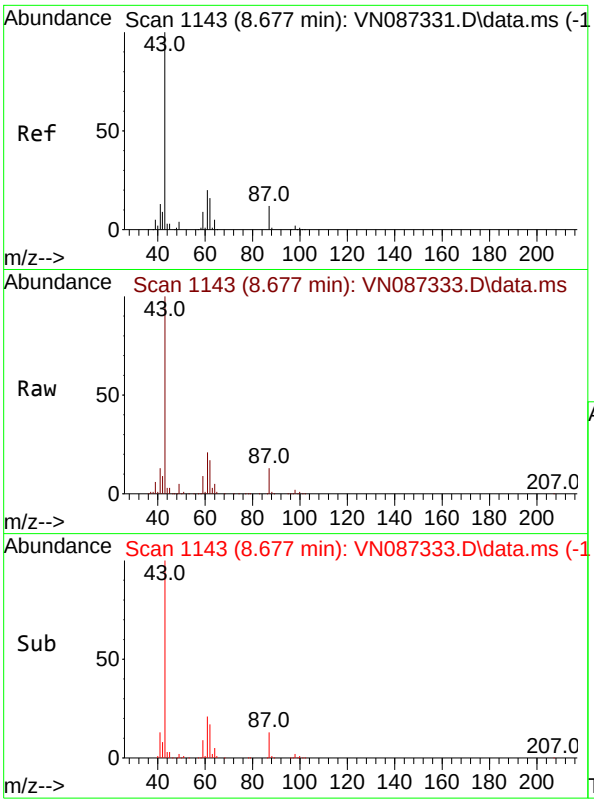


#42
1,2-Dichloroethane
Concen: 148.352 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 62 Resp: 571634

Ion	Ratio	Lower	Upper
62	100		
98	9.0	0.0	18.0





#43
Isopropyl Acetate
Concen: 154.893 ug/l
RT: 8.677 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 109173

Ion	Ratio	Lower	Upper
43	100		
61	24.8	19.8	29.8
87	12.8	9.8	14.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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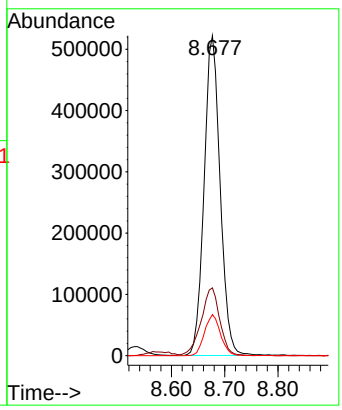
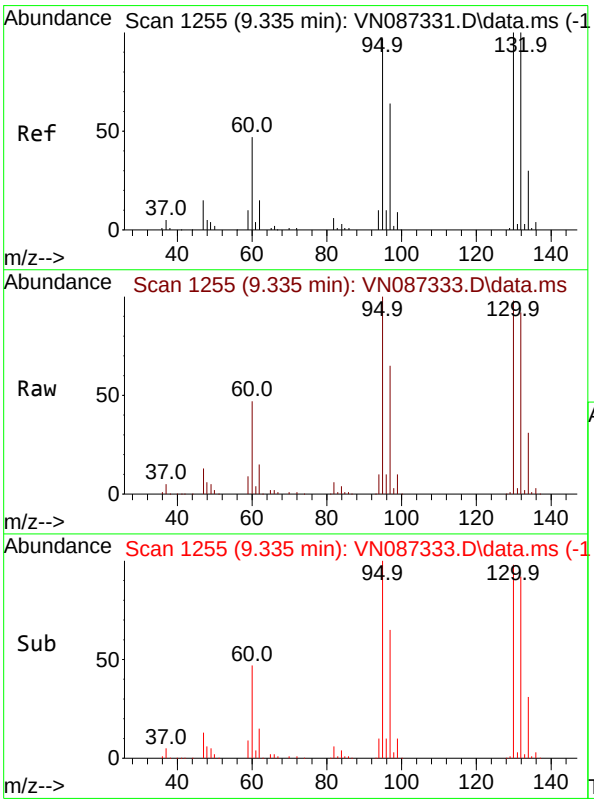
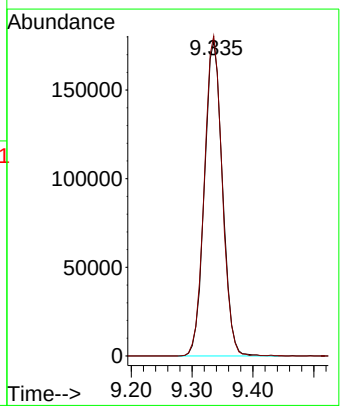


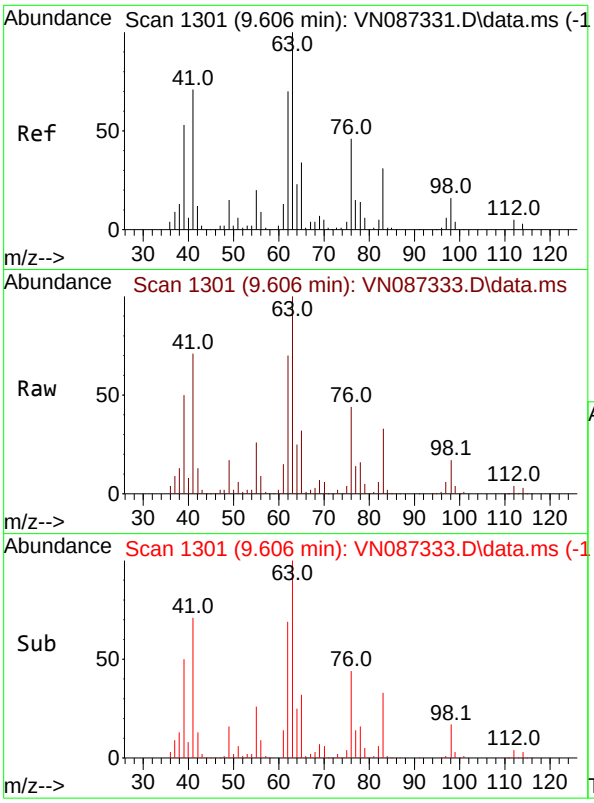


#44
Trichloroethene
Concen: 151.927 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:130 Resp: 364760

Ion	Ratio	Lower	Upper
130	100		
95	101.7	0.0	195.2

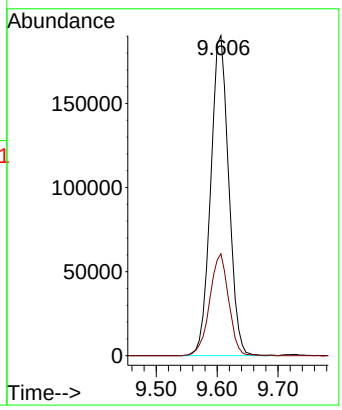




#45
1,2-Dichloropropane
Concen: 151.708 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 63 Resp: 39167

Ion	Ratio	Lower	Upper
63	100		
65	31.9	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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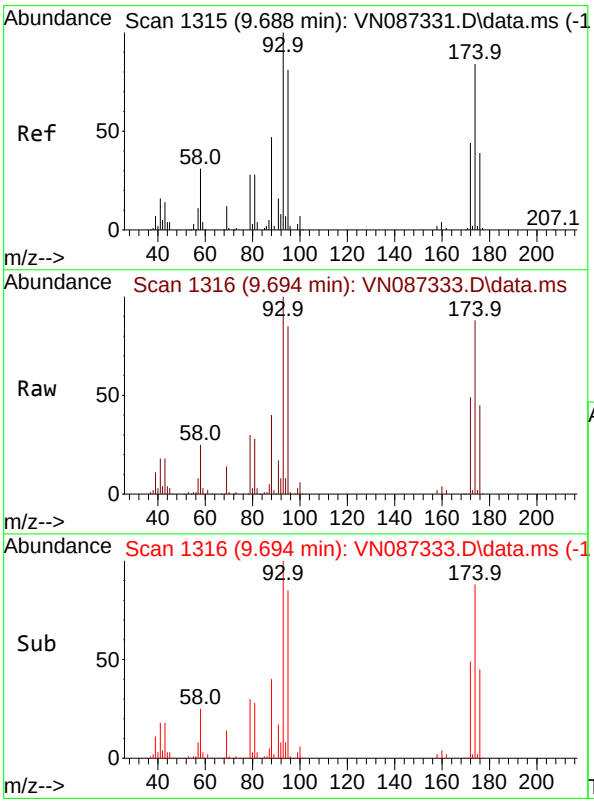
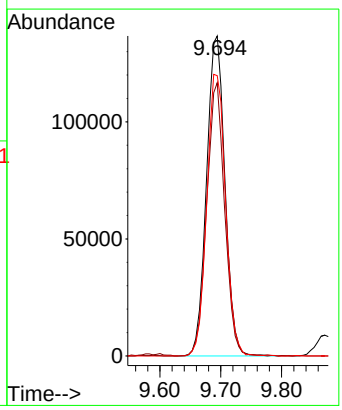
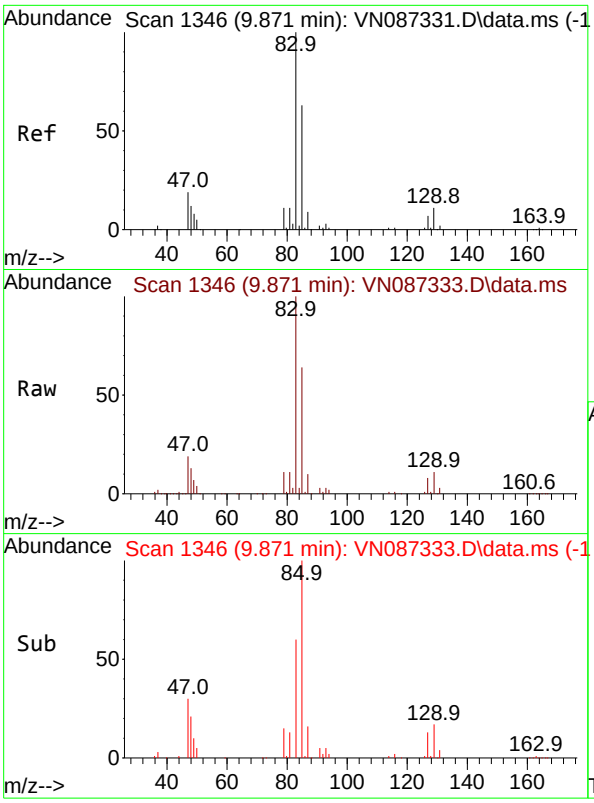


#46
Dibromomethane
Concen: 148.602 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 93 Resp: 287252

Ion	Ratio	Lower	Upper
93	100		
95	83.3	65.8	98.8
174	89.7	69.9	104.9

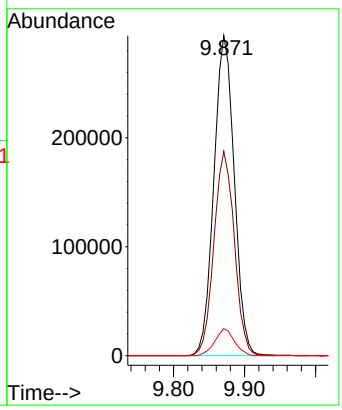




#47
Bromodichloromethane
Concen: 150.128 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 83 Resp: 58454

Ion	Ratio	Lower	Upper
83	100		
85	63.8	50.4	75.6
127	8.4	5.8	8.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
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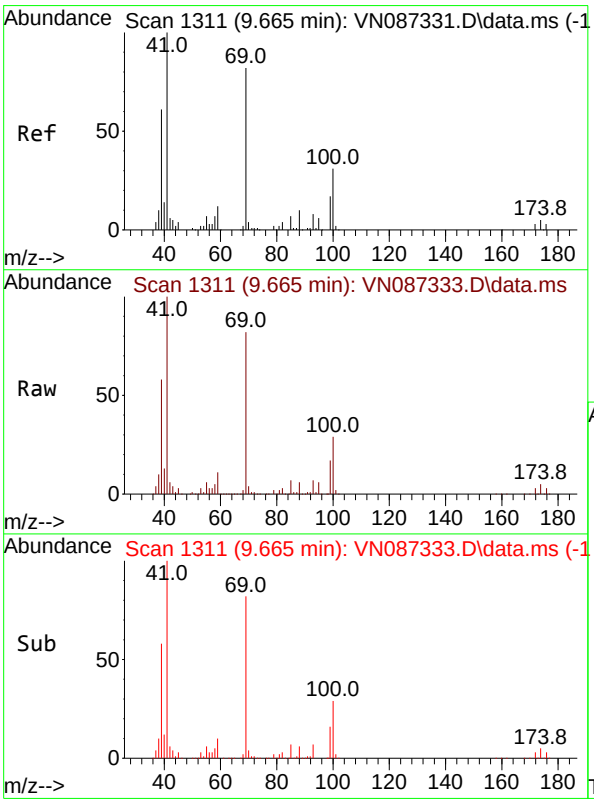
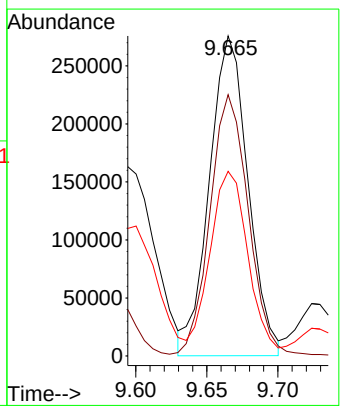
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

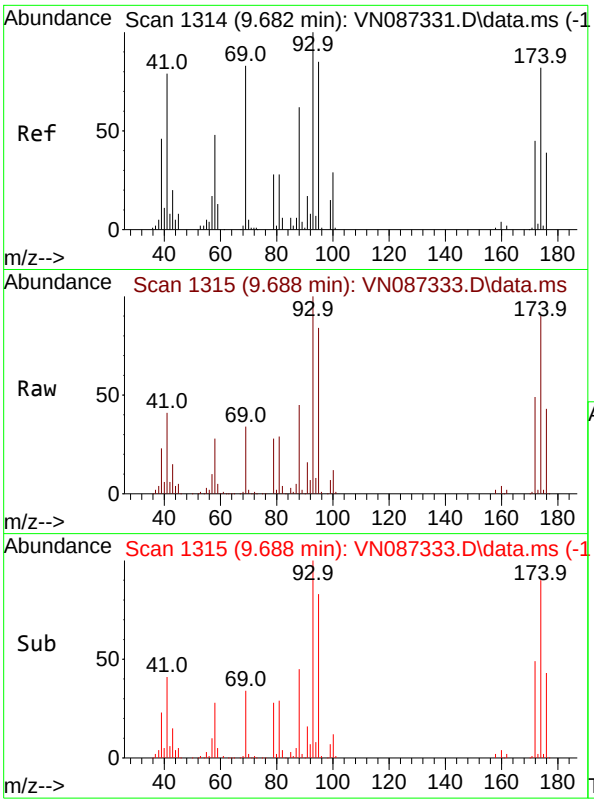


#48
Methyl methacrylate
Concen: 164.191 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 41 Resp: 520990

Ion	Ratio	Lower	Upper
41	100		
69	81.7	64.1	96.1
39	57.0	45.5	68.3

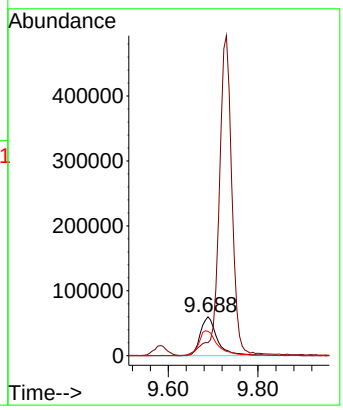




#49
1,4-Dioxane
Concen: 3238.745 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 88 Resp: 15740

Ion	Ratio	Lower	Upper
88	100		
43	0.0	0.0	0.0
58	70.5	61.1	91.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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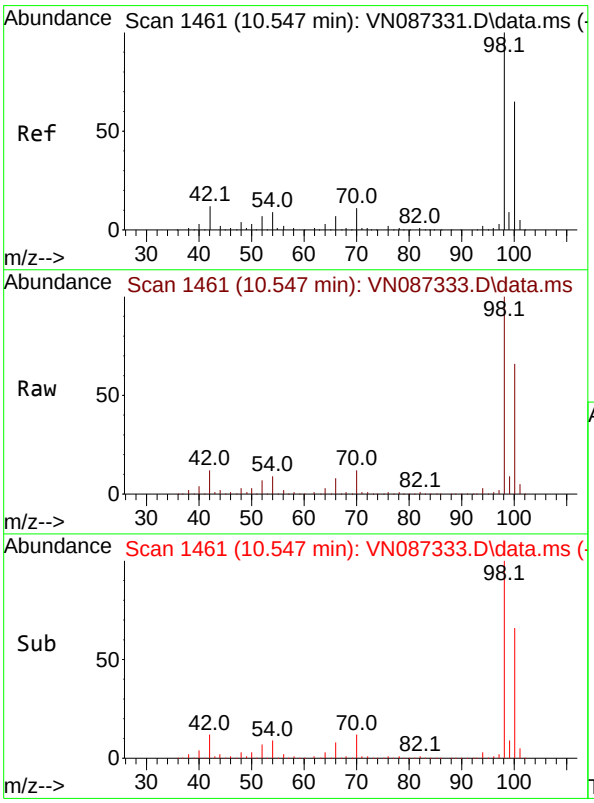
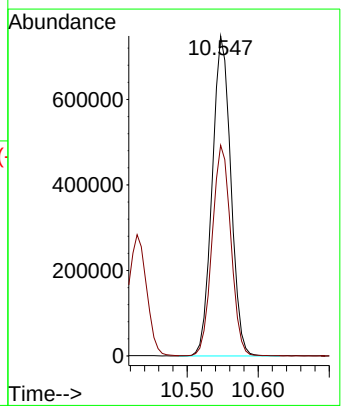
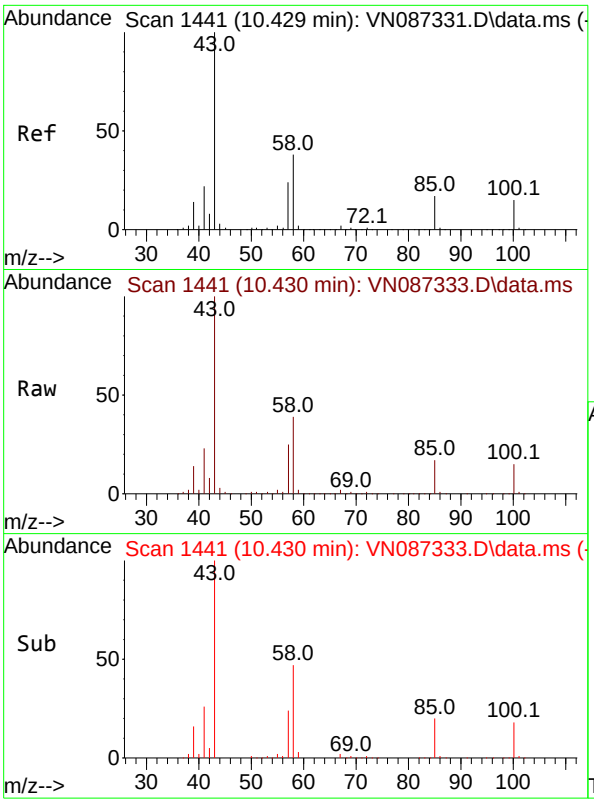


#50
Toluene-d8
Concen: 160.469 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 98 Resp: 1362098

Ion	Ratio	Lower	Upper
98	100		
100	66.2	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 757.219 ug/l
RT: 10.430 min Scan# 14
Delta R.T. 0.001 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 337560

Ion	Ratio	Lower	Upper
43	100		
58	38.8	30.8	46.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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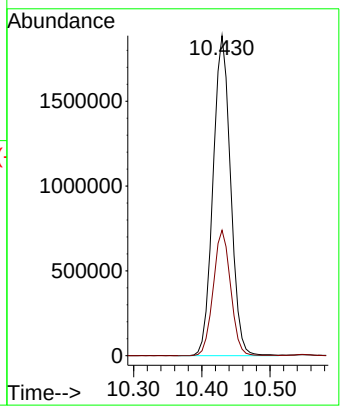
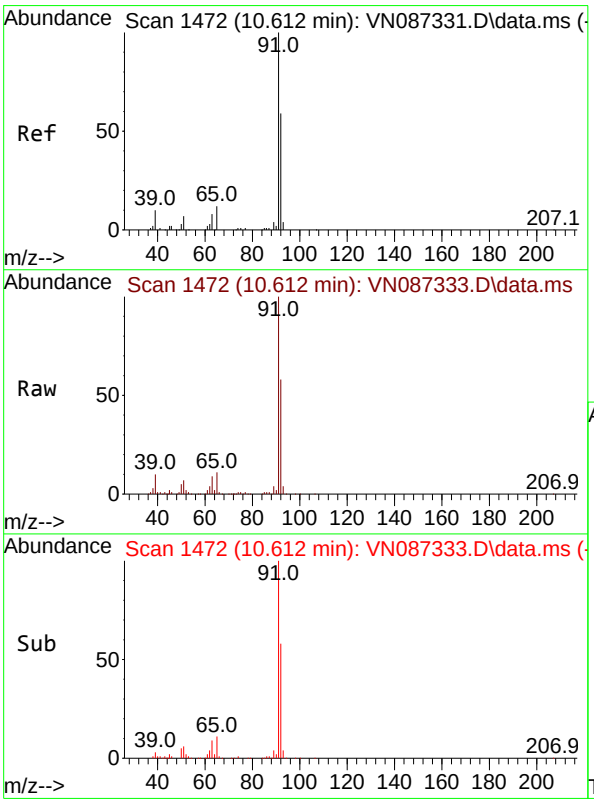
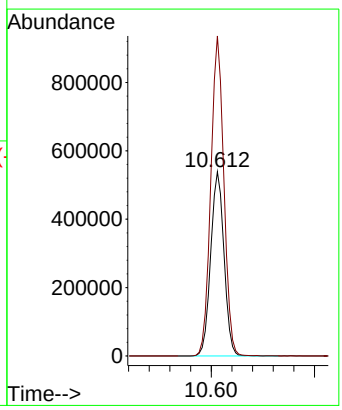


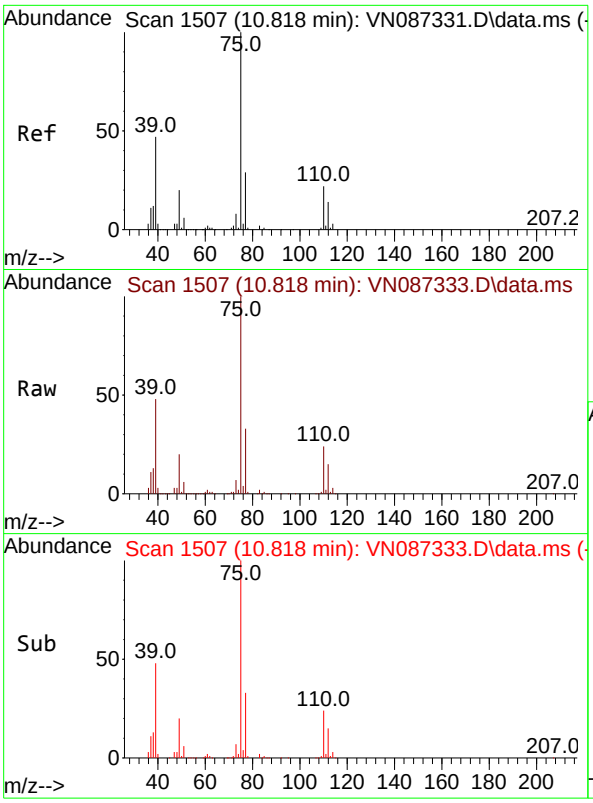


#52
Toluene
Concen: 155.654 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 92 Resp: 961314

Ion	Ratio	Lower	Upper
92	100		
91	170.6	135.1	202.7

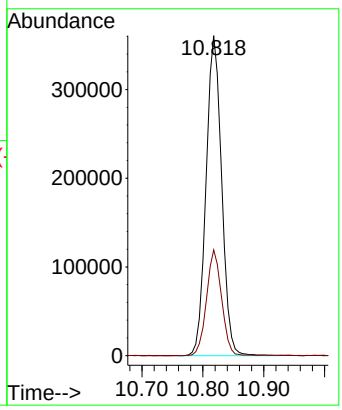




#53
t-1,3-Dichloropropene
Concen: 162.462 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 75 Resp: 64018

Ion	Ratio	Lower	Upper
75	100		
77	33.0	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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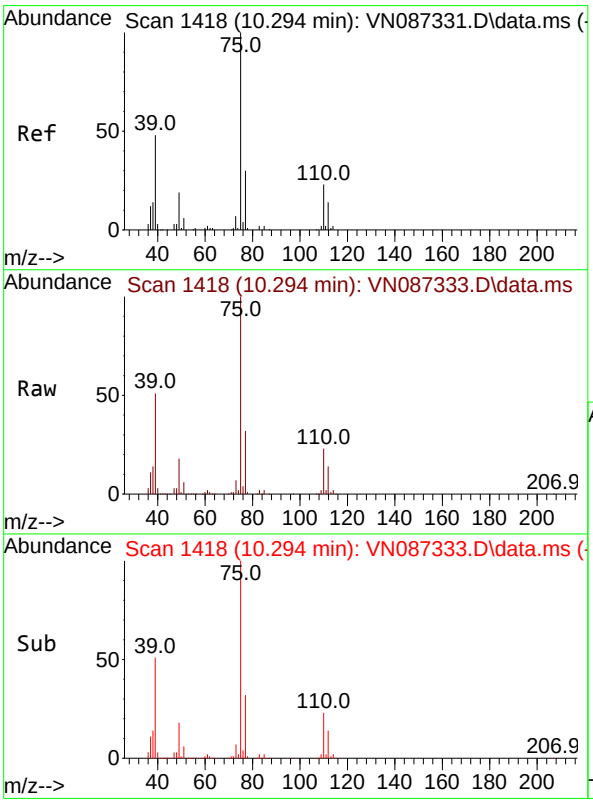
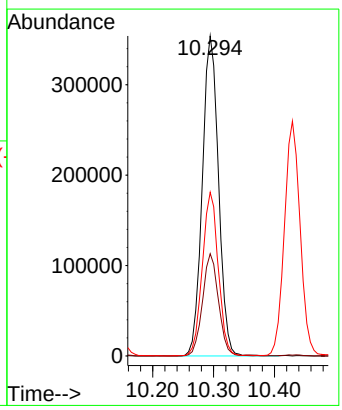
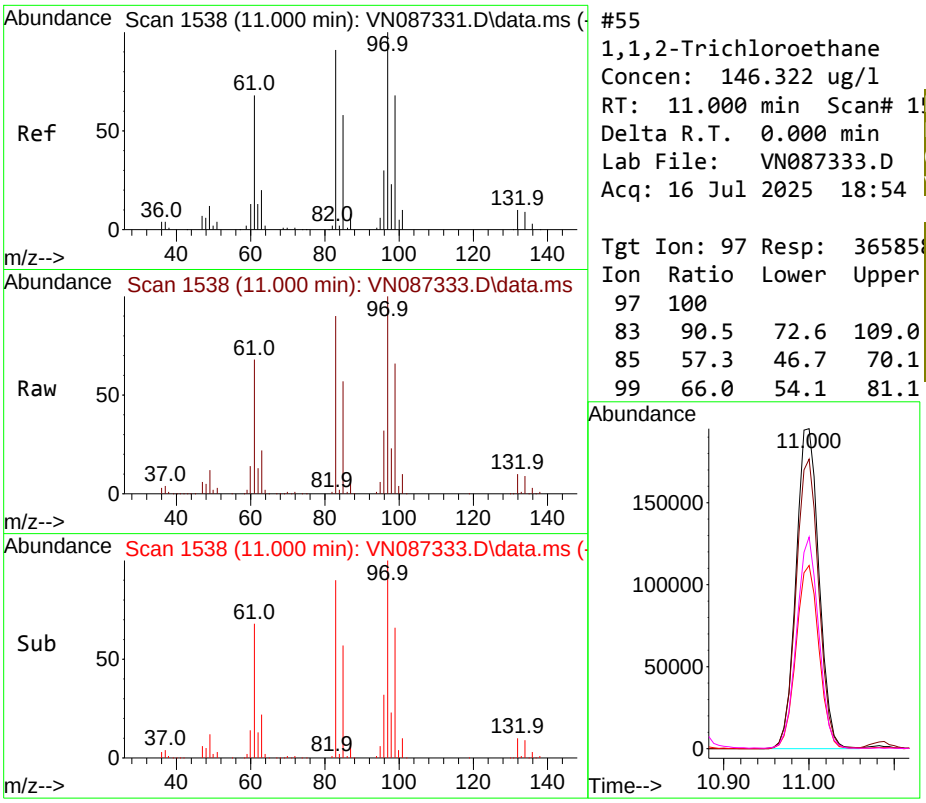


#54
cis-1,3-Dichloropropene
Concen: 160.747 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 75 Resp: 654301

Ion	Ratio	Lower	Upper
75	100		
77	32.0	24.2	36.2
39	51.0	38.4	57.6





#55
1,1,2-Trichloroethane
Concen: 146.322 ug/l
RT: 11.000 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 97 Resp: 36585

Ion	Ratio	Lower	Upper
97	100		
83	90.5	72.6	109.0
85	57.3	46.7	70.1
99	66.0	54.1	81.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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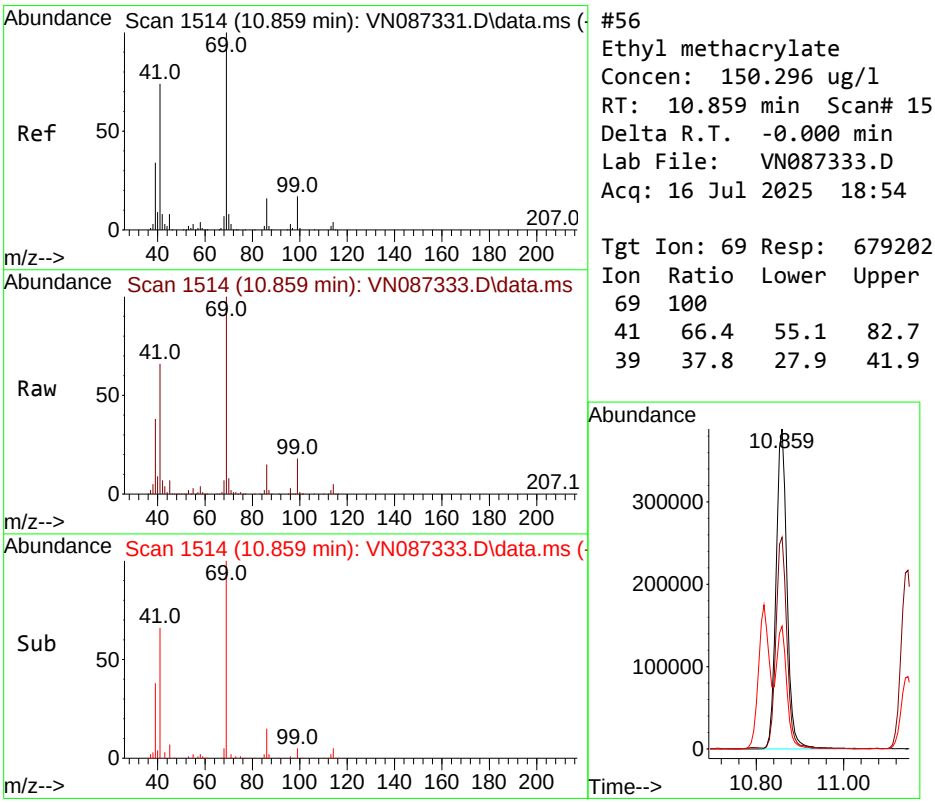
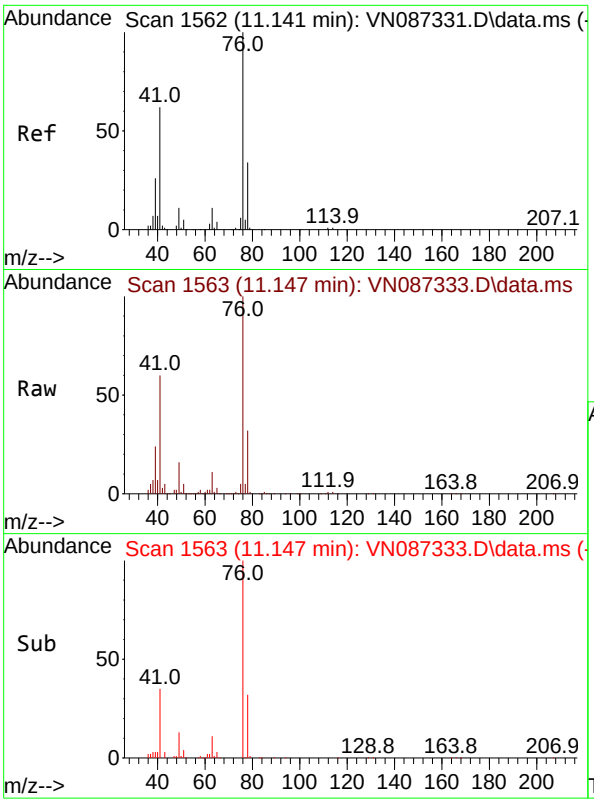


#56
Ethyl methacrylate
Concen: 150.296 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 69 Resp: 679202

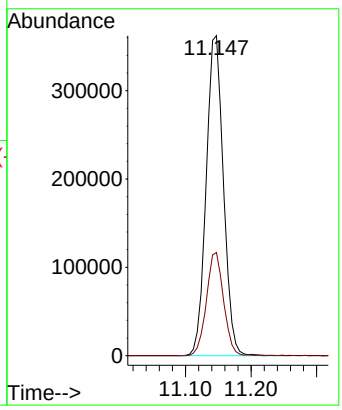
Ion	Ratio	Lower	Upper
69	100		
41	66.4	55.1	82.7
39	37.8	27.9	41.9



#57
1,3-Dichloropropane
Concen: 153.168 ug/l
RT: 11.147 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 76 Resp: 66215

Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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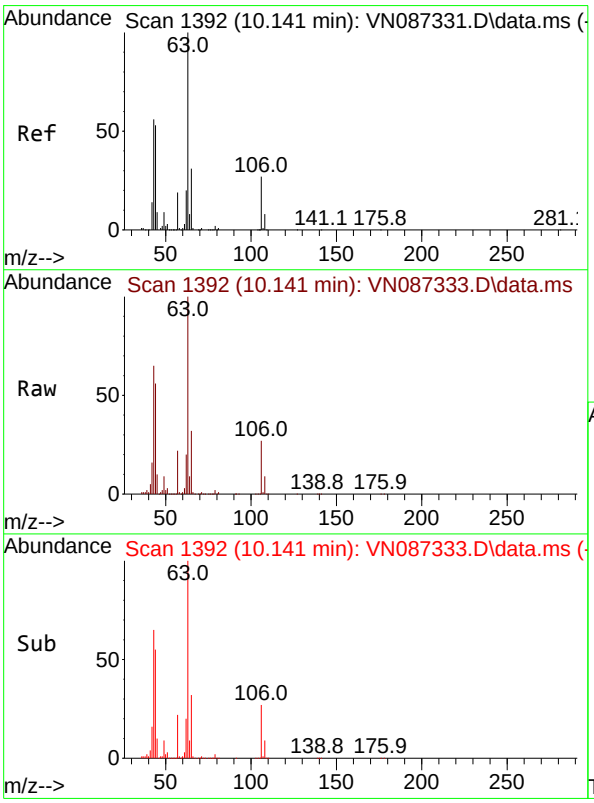
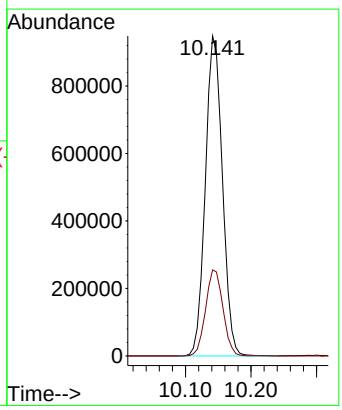
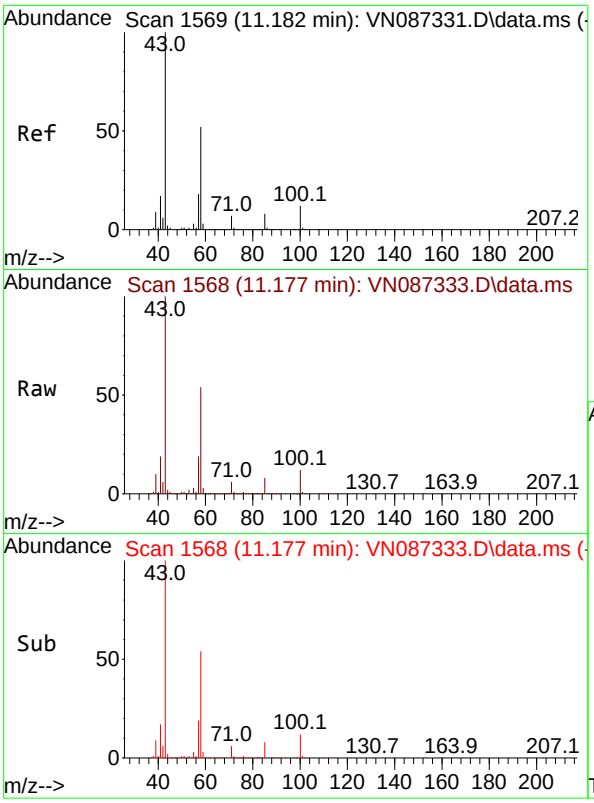


#58
2-Chloroethyl Vinyl ether
Concen: 837.324 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 63 Resp: 1717427

Ion	Ratio	Lower	Upper
63	100		
106	27.4	21.7	32.5





#59
2-Hexanone
Concen: 837.689 ug/l
RT: 11.177 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 247757

Ion	Ratio	Lower	Upper
43	100		
58	54.4	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
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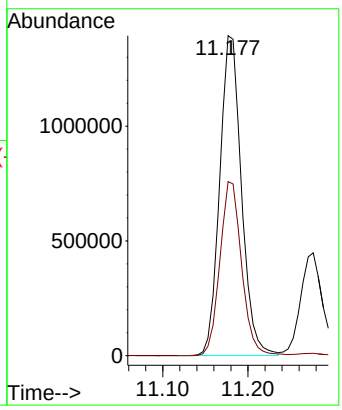
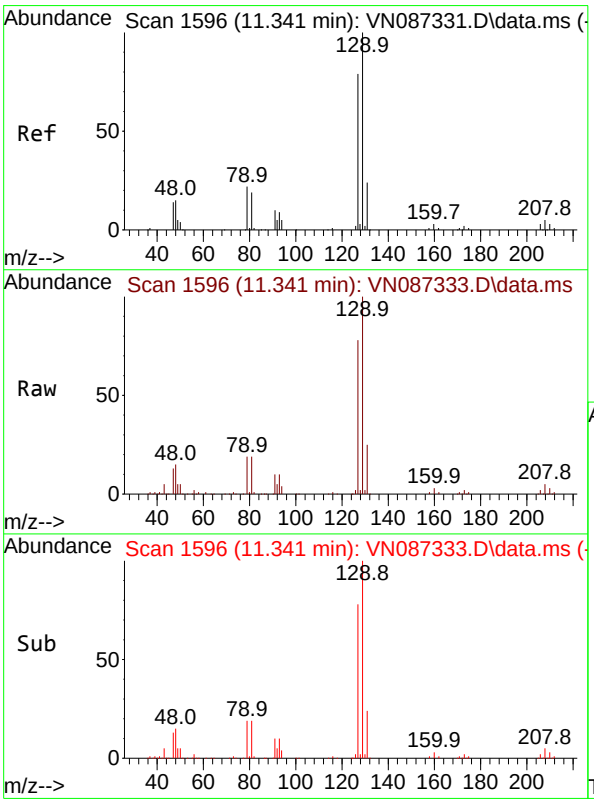
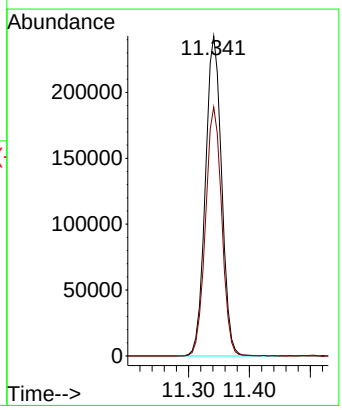


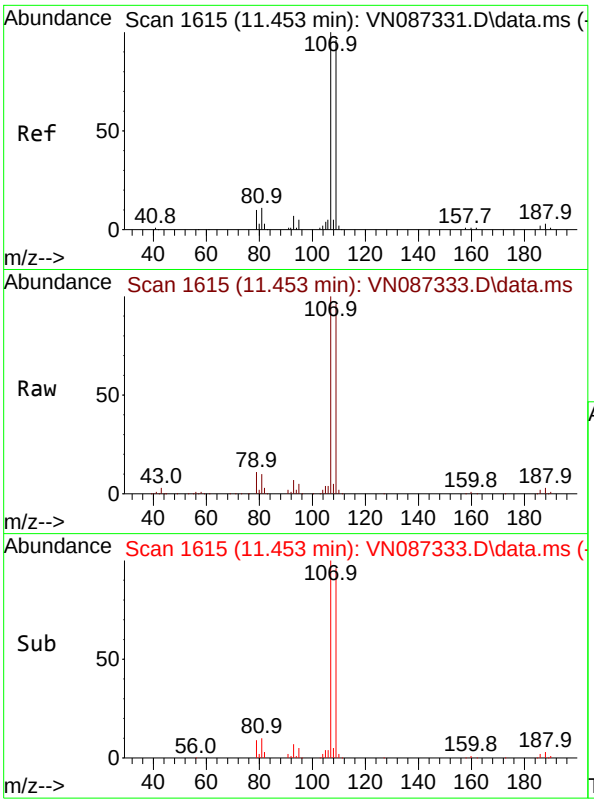


#60
Dibromochloromethane
Concen: 157.217 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:129 Resp: 448307

Ion	Ratio	Lower	Upper
129	100		
127	77.8	39.1	117.5





#61
1,2-Dibromoethane
Concen: 153.282 ug/l
RT: 11.453 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:107 Resp: 40297

Ion	Ratio	Lower	Upper
107	100		
109	94.2	77.5	116.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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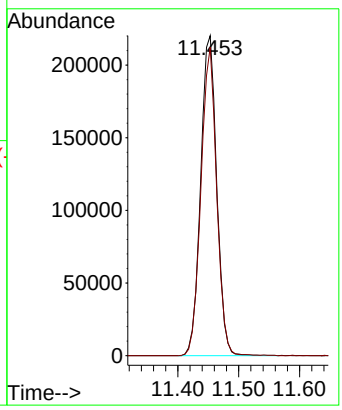
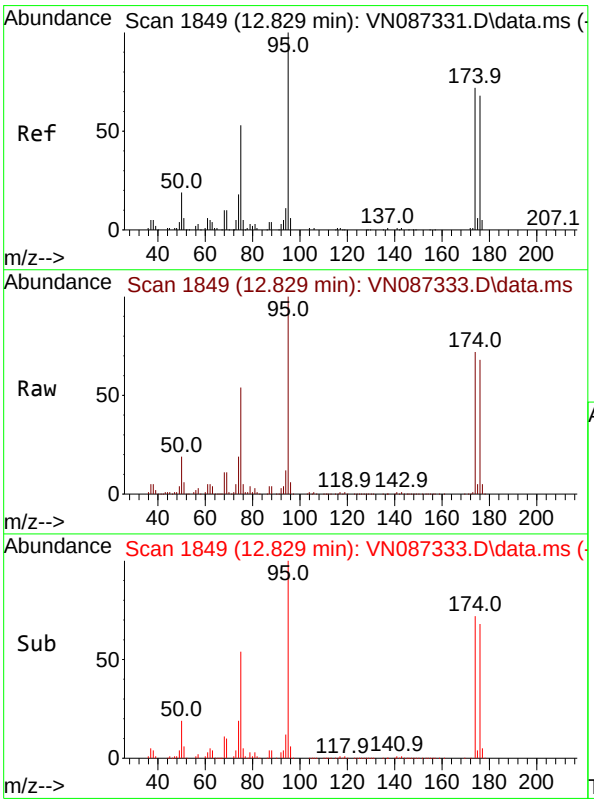
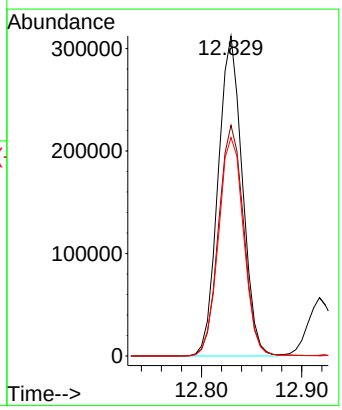


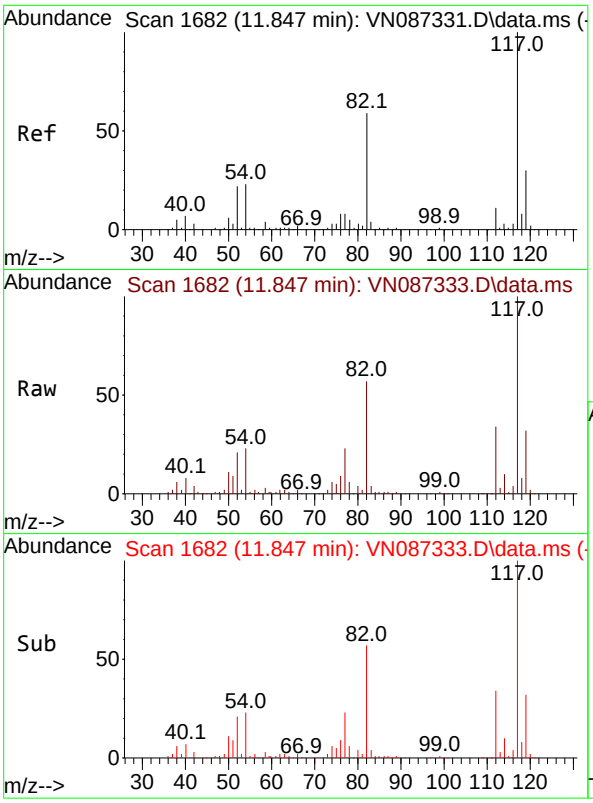


#62
4-Bromofluorobenzene
Concen: 166.525 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 95 Resp: 522221

Ion	Ratio	Lower	Upper
95	100		
174	74.8	0.0	149.4
176	71.2	0.0	141.2

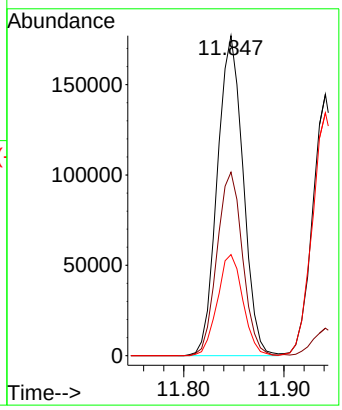




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:117 Resp: 31702

Ion	Ratio	Lower	Upper
117	100		
82	57.3	47.4	71.2
119	31.6	23.8	35.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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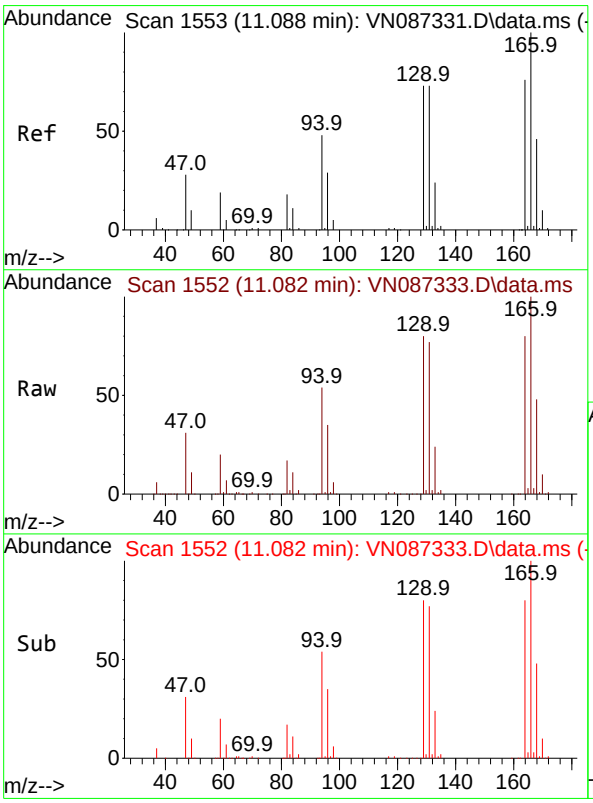
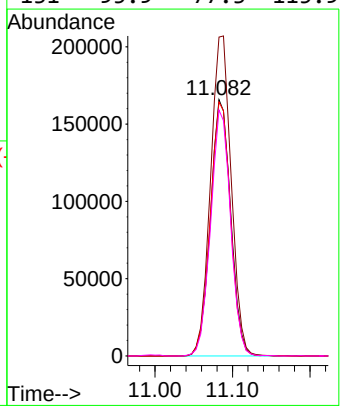
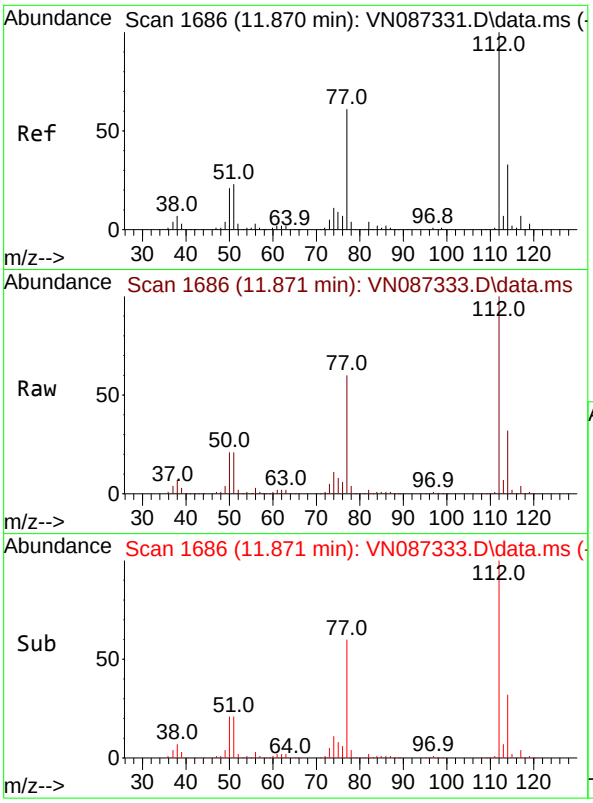


#64
Tetrachloroethene
Concen: 147.718 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:164 Resp: 301404

Ion	Ratio	Lower	Upper
164	100		
166	124.4	105.5	158.3
129	99.0	77.4	116.2
131	95.9	77.3	115.9

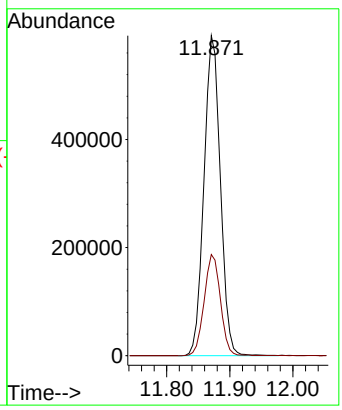




#65
Chlorobenzene
Concen: 149.878 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:112 Resp: 106675

Ion	Ratio	Lower	Upper
112	100		
114	31.6	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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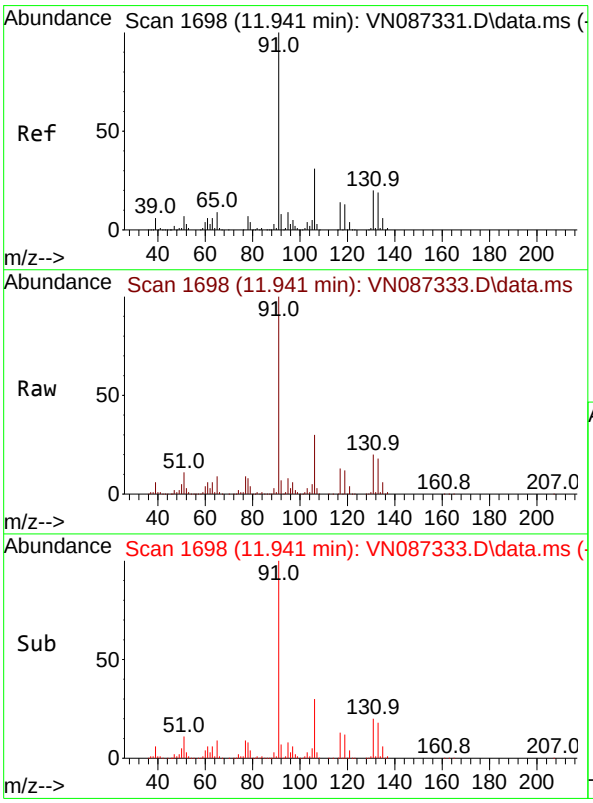
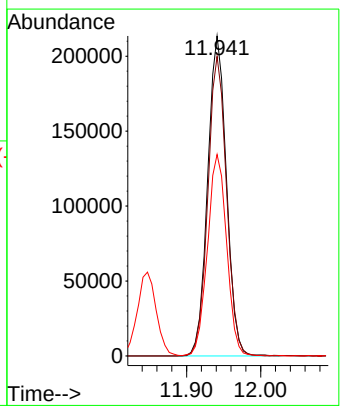
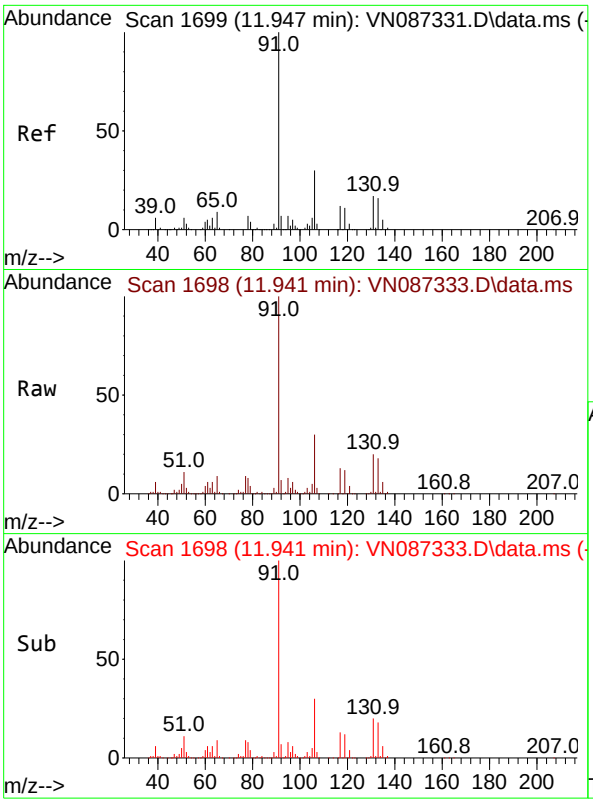


#66
1,1,1,2-Tetrachloroethane
Concen: 155.013 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:131 Resp: 375162

Ion	Ratio	Lower	Upper
131	100		
133	93.5	47.4	142.3
119	64.4	33.1	99.2





#67
Ethyl Benzene
Concen: 160.613 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 91 Resp: 188192

Ion	Ratio	Lower	Upper
91	100		
106	29.9	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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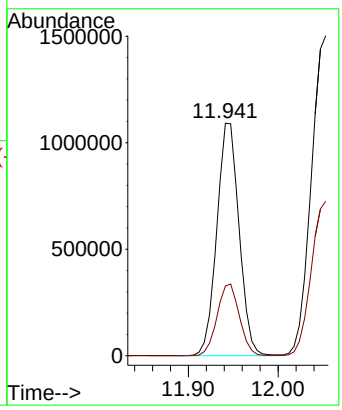
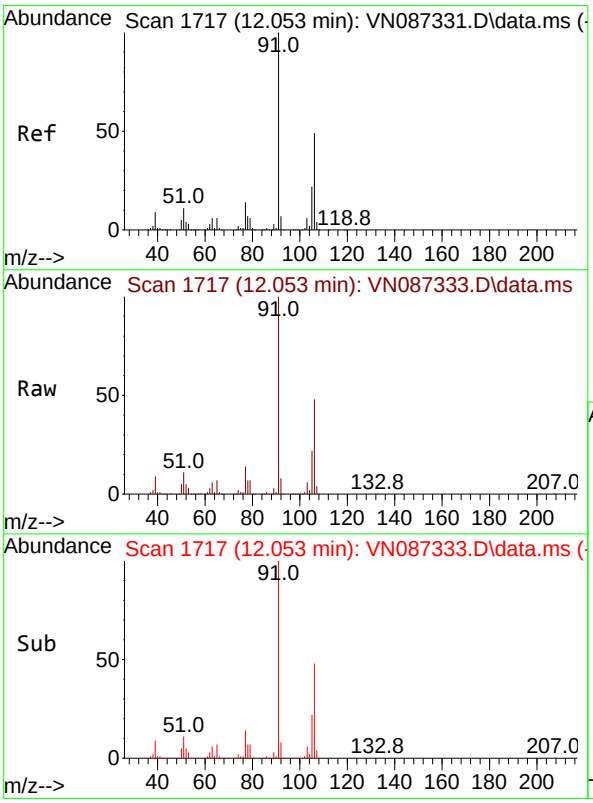
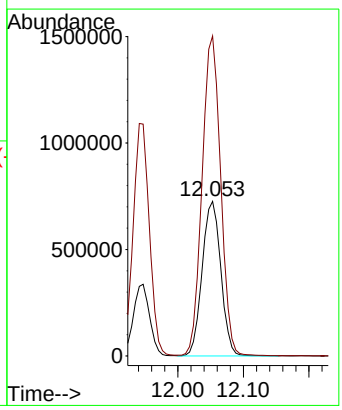


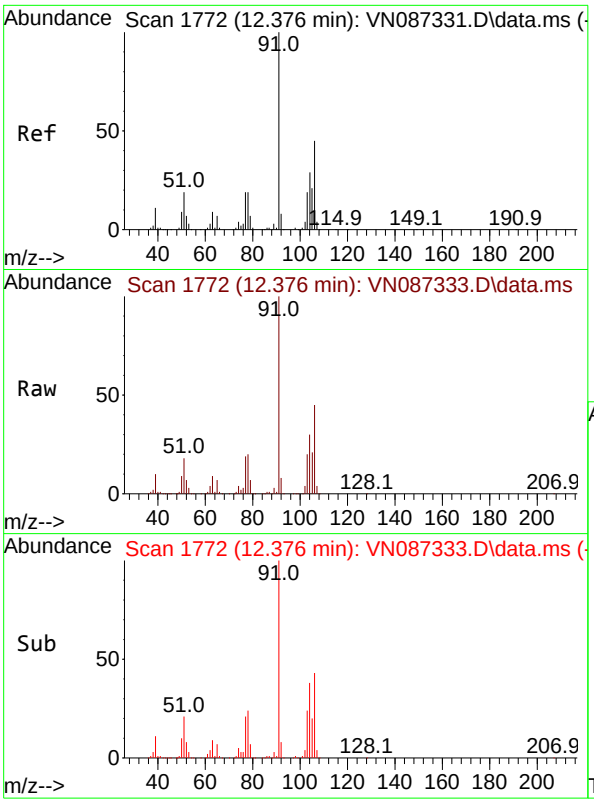


#68
m/p-Xylenes
Concen: 327.579 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:106 Resp: 1437290

Ion	Ratio	Lower	Upper
106	100		
91	206.0	162.0	243.0





#69
o-Xylene
Concen: 166.628 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:106 Resp: 69836

Ion	Ratio	Lower	Upper
106	100		
91	218.8	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
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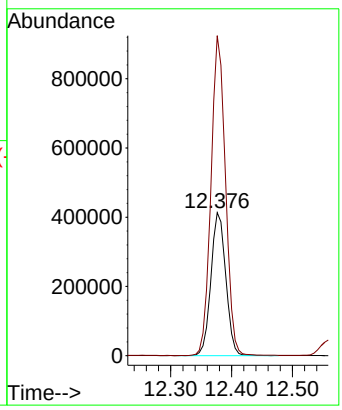
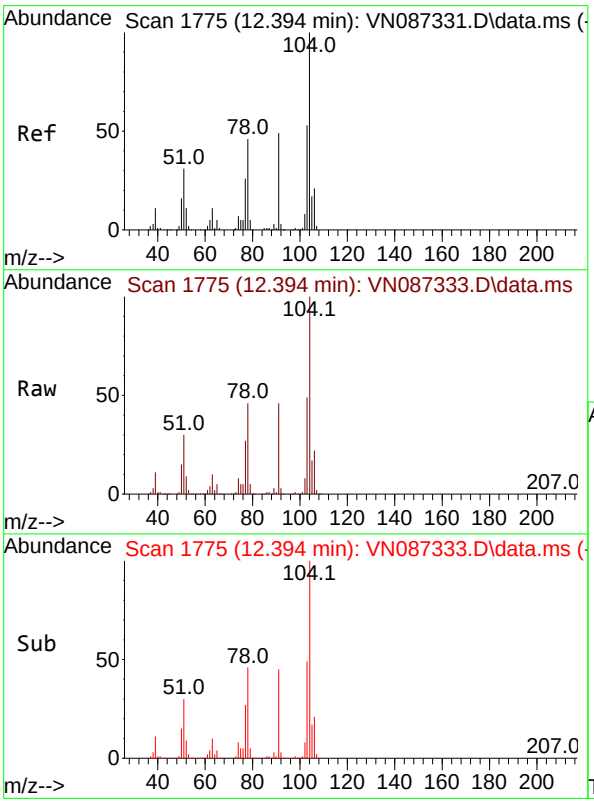
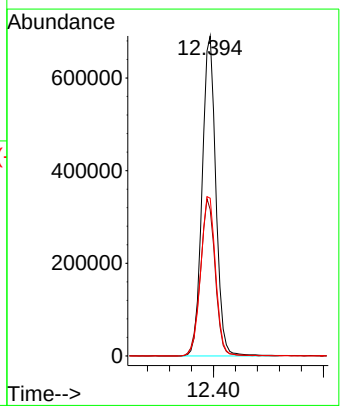


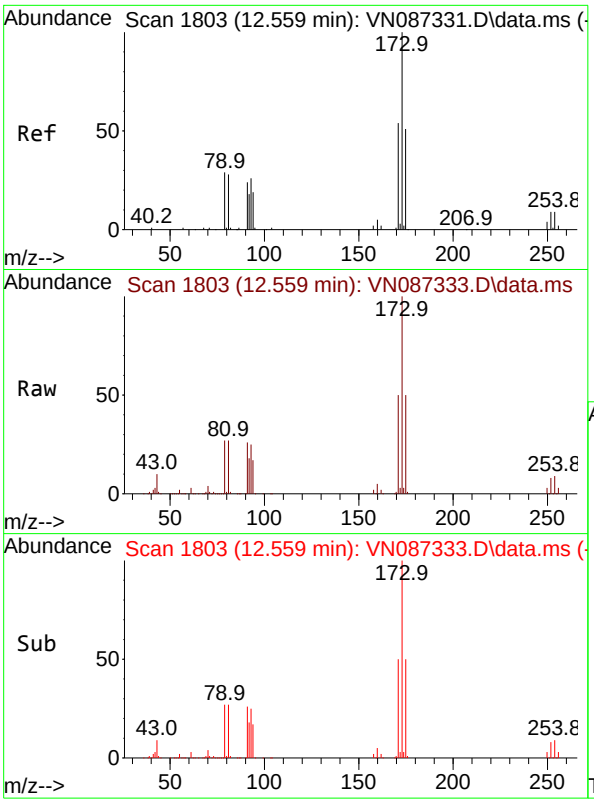


#70
Styrene
Concen: 169.502 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:104 Resp: 1195068

Ion	Ratio	Lower	Upper
104	100		
78	52.6	41.0	61.6
103	54.2	43.9	65.9

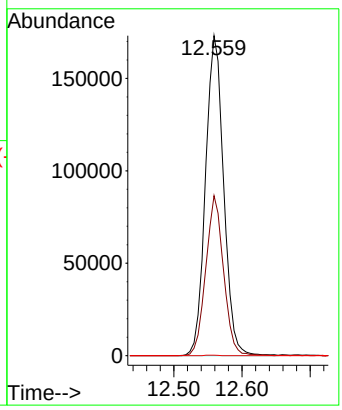




#71
Bromoform
Concen: 164.154 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:173 Resp: 32096

Ion	Ratio	Lower	Upper
173	100		
175	49.0	24.1	72.3
254	0.1	0.0	0.0



Instrument :
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ClientSampleId :
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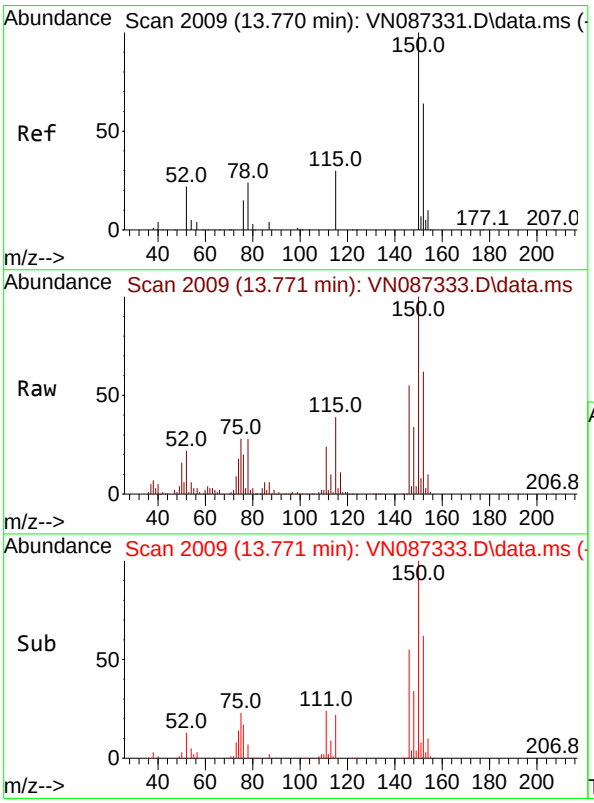
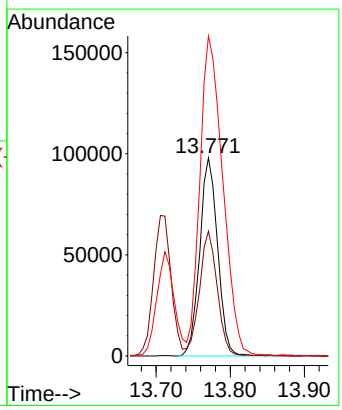
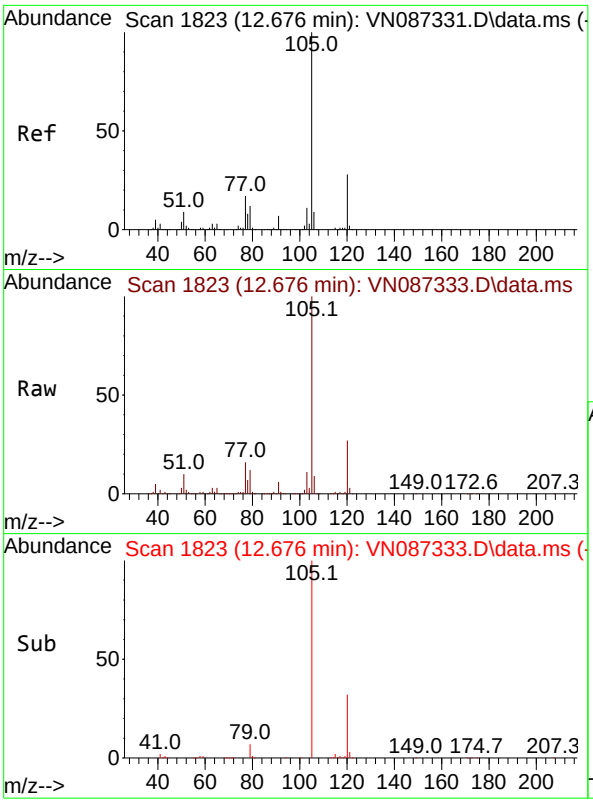


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.771 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:152 Resp: 165077

Ion	Ratio	Lower	Upper
152	100		
115	62.1	31.1	93.5
150	205.0	0.0	349.0

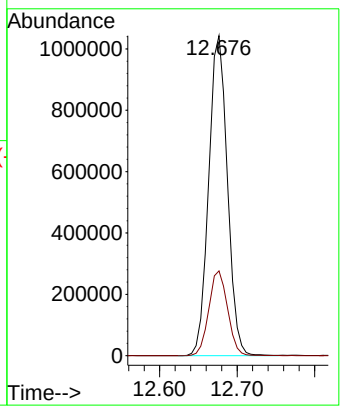




#73
Isopropylbenzene
Concen: 168.203 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:105 Resp: 174756

Ion	Ratio	Lower	Upper
105	100		
120	26.7	13.4	40.1



Instrument :
MSVOA_N
ClientSampleId :
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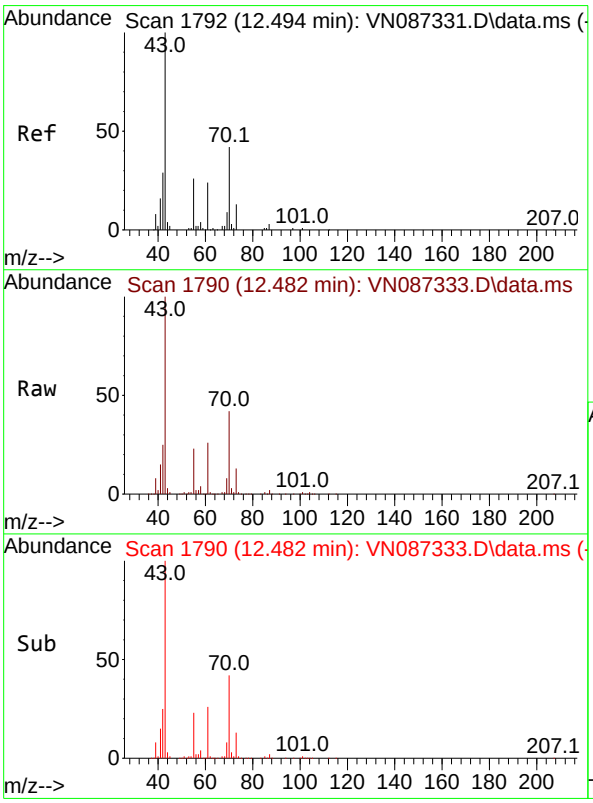
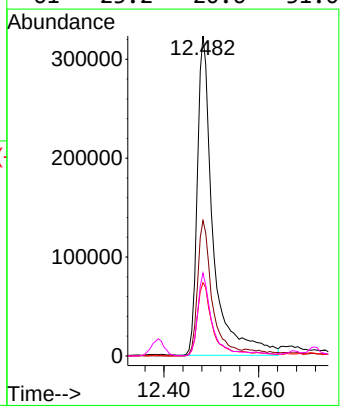
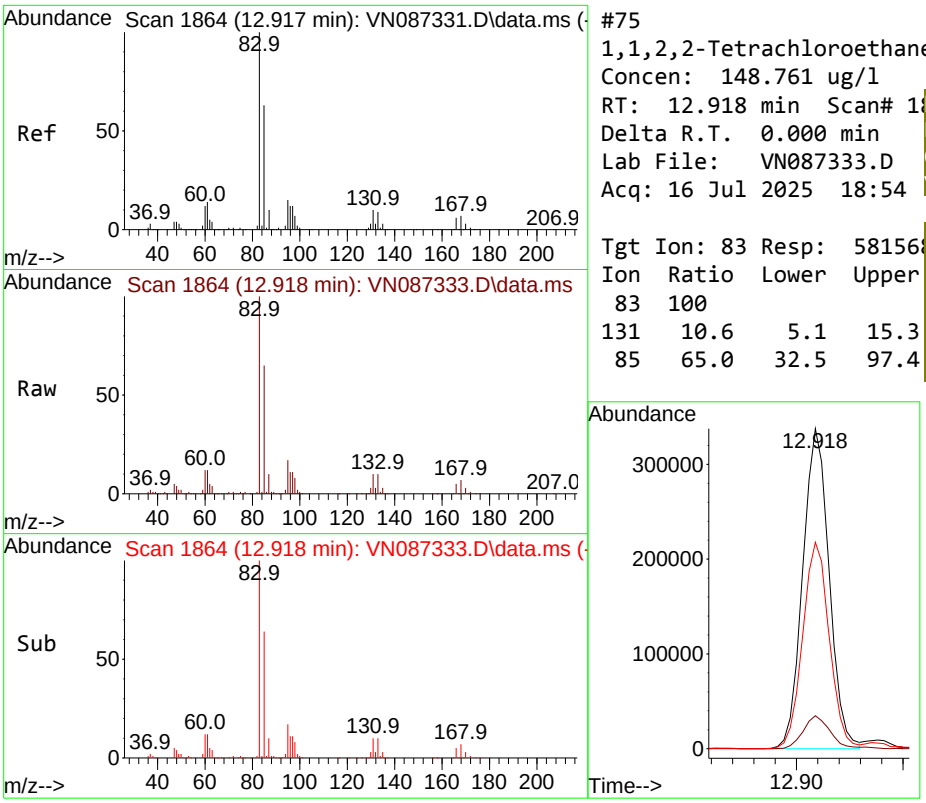


#74
N-amyl acetate
Concen: 184.917 ug/l
RT: 12.482 min Scan# 1790
Delta R.T. -0.012 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 43 Resp: 750104

Ion	Ratio	Lower	Upper
43	100		
70	38.7	37.6	56.4
55	21.4	19.6	29.4
61	23.2	20.6	31.0





#75
1,1,2,2-Tetrachloroethane
Concen: 148.761 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 83 Resp: 58156

Ion	Ratio	Lower	Upper
83	100		
131	10.6	5.1	15.3
85	65.0	32.5	97.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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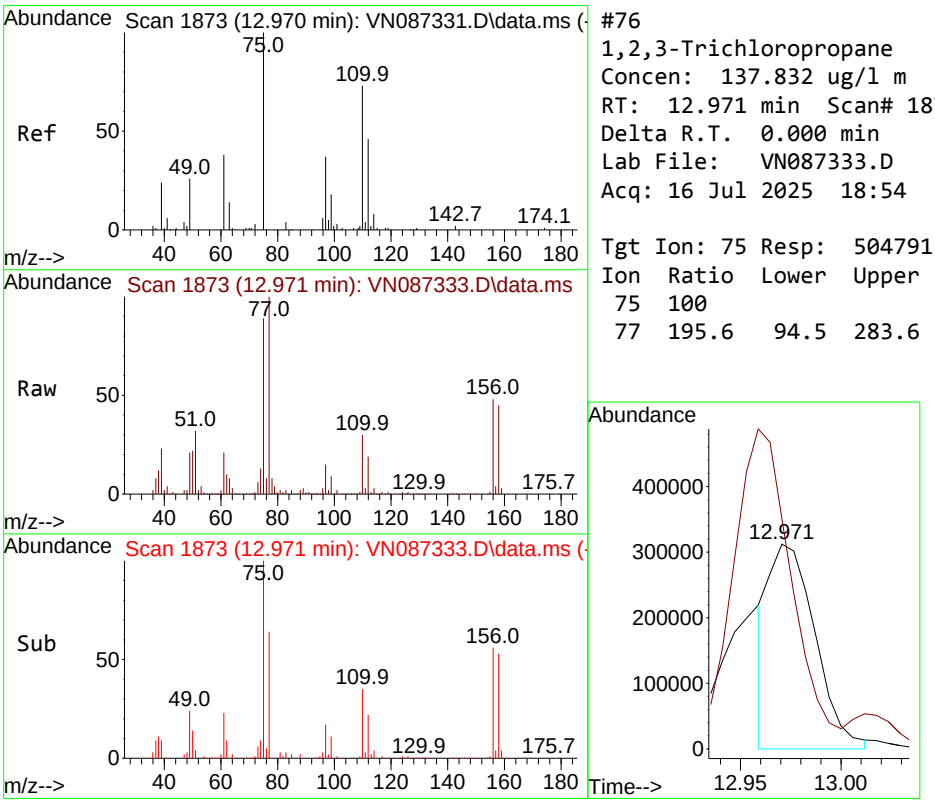
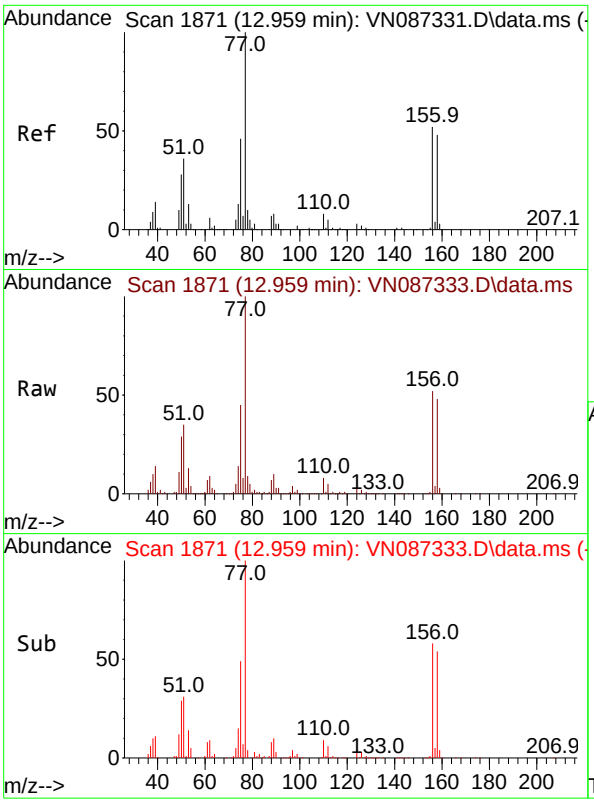


#76
1,2,3-Trichloropropane
Concen: 137.832 ug/l m
RT: 12.971 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 75 Resp: 504791

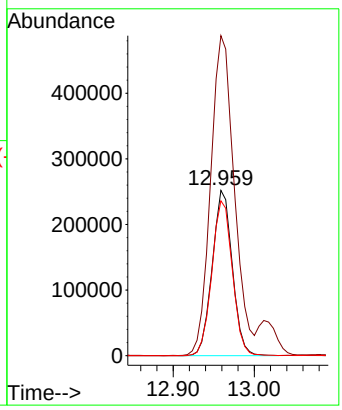
Ion	Ratio	Lower	Upper
75	100		
77	195.6	94.5	283.6



#77
Bromobenzene
Concen: 161.001 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:156 Resp: 43381

Ion	Ratio	Lower	Upper
156	100		
77	227.6	114.9	344.6
158	95.5	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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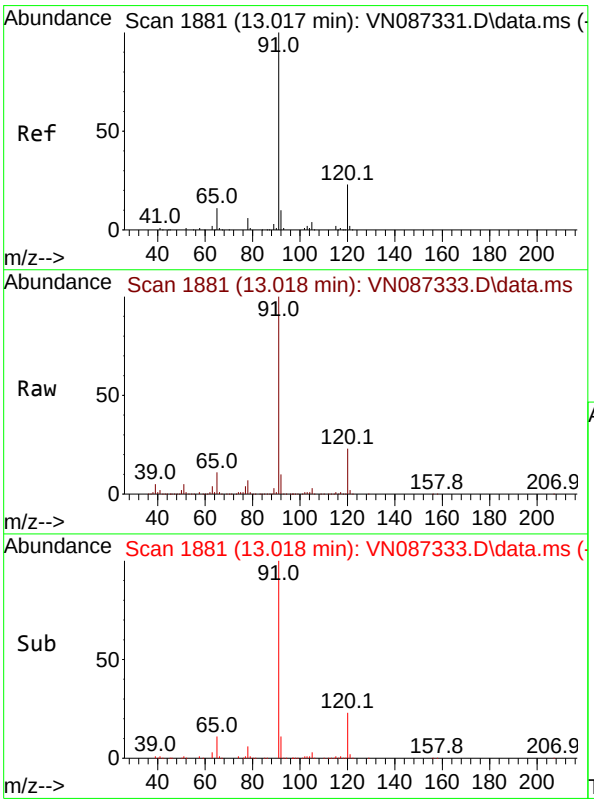
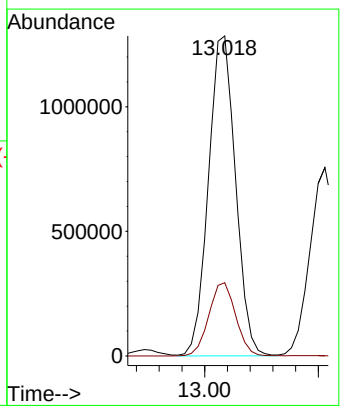
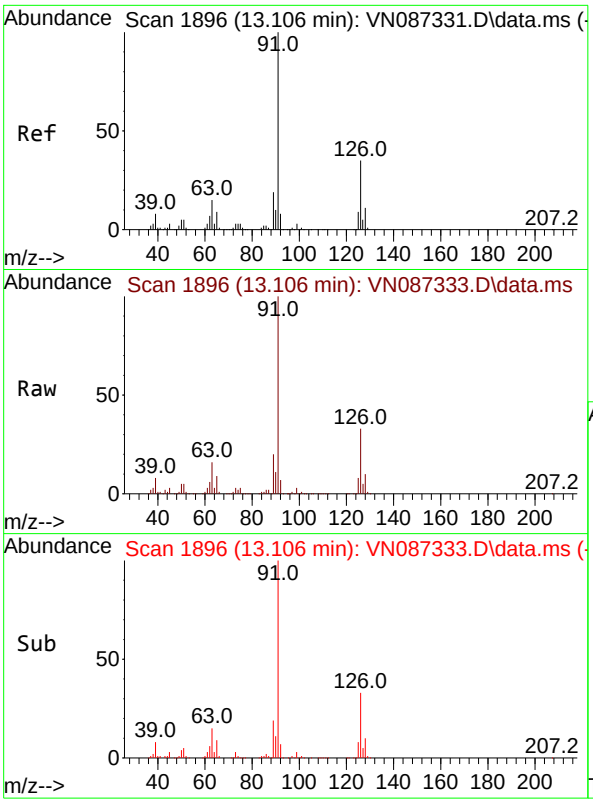


#78
n-propylbenzene
Concen: 162.733 ug/l
RT: 13.018 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 91 Resp: 2127215

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.3	33.8

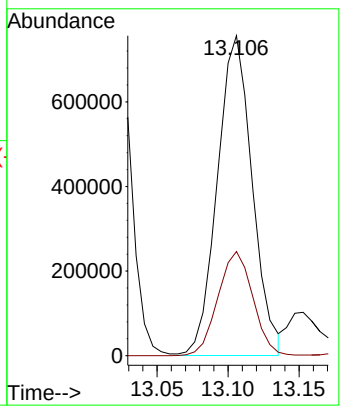




#79
2-Chlorotoluene
Concen: 160.600 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 91 Resp: 129020

Ion	Ratio	Lower	Upper
91	100		
126	32.6	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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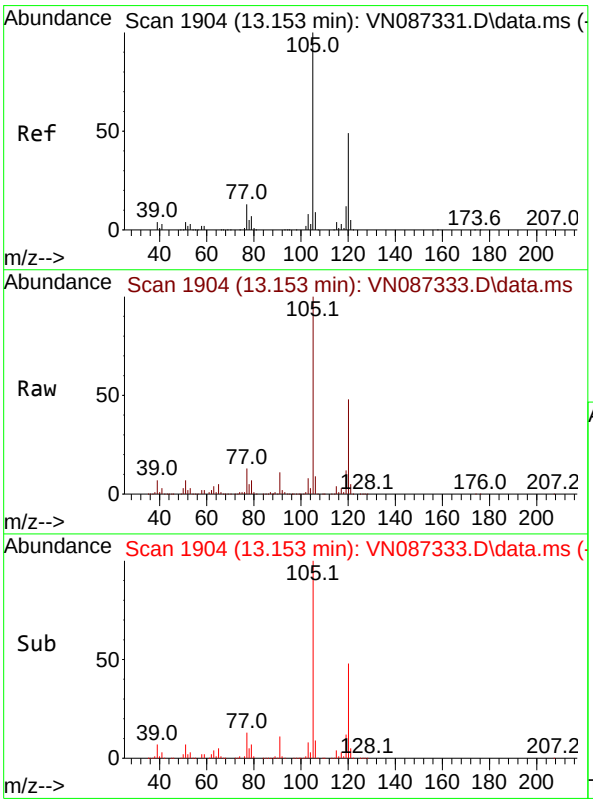
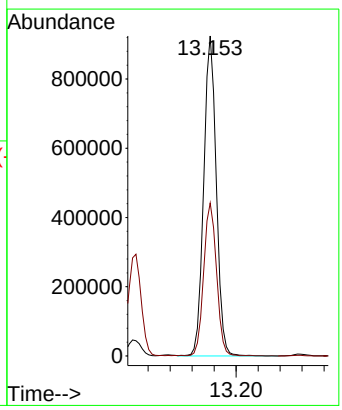
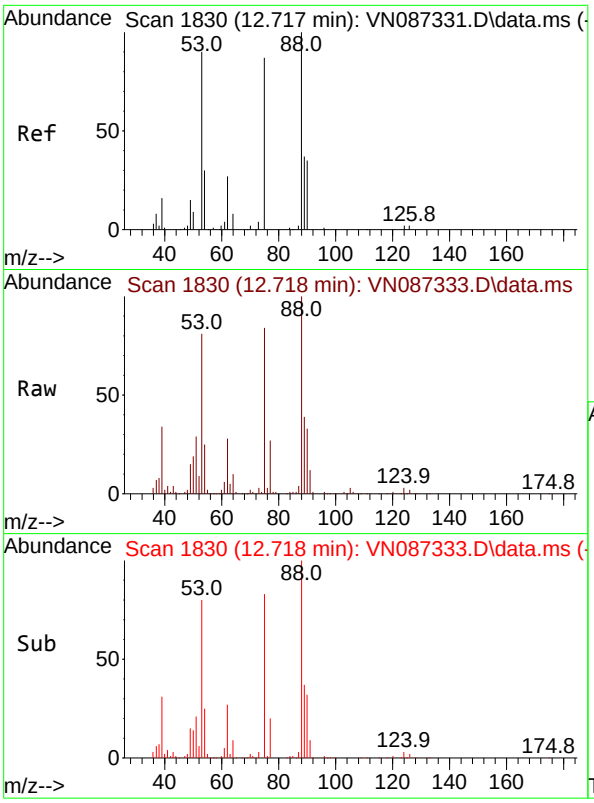


#80
1,3,5-Trimethylbenzene
Concen: 165.514 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:105 Resp: 1465159

Ion	Ratio	Lower	Upper
105	100		
120	48.8	24.3	72.8

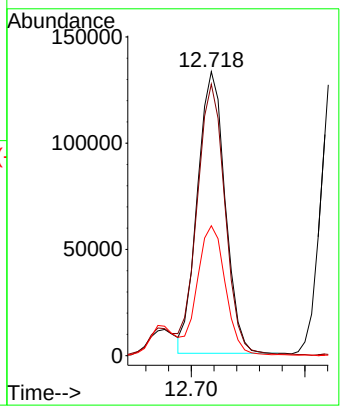




#81
trans-1,4-Dichloro-2-butene
Concen: 165.713 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 75 Resp: 22419

Ion	Ratio	Lower	Upper
75	100		
53	97.9	83.5	125.3
89	47.3	38.4	57.6



Instrument :
MSVOA_N
ClientSampleId :
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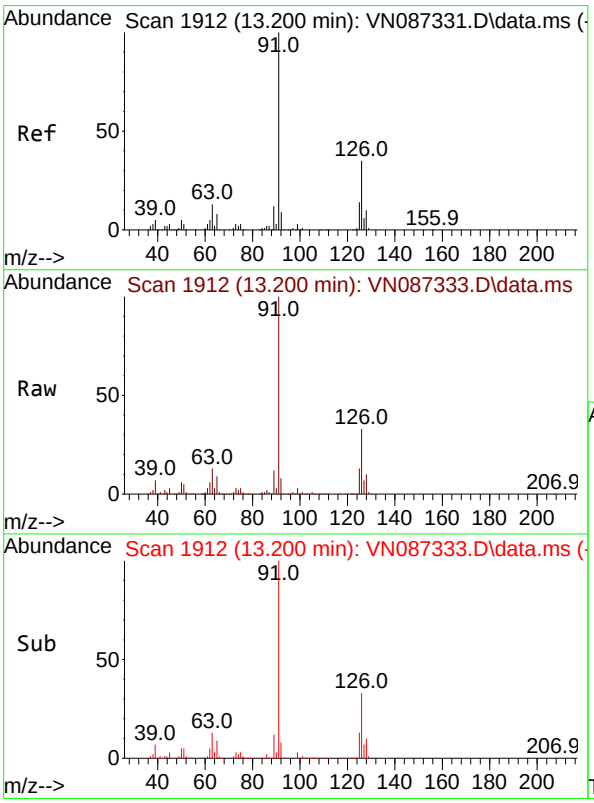
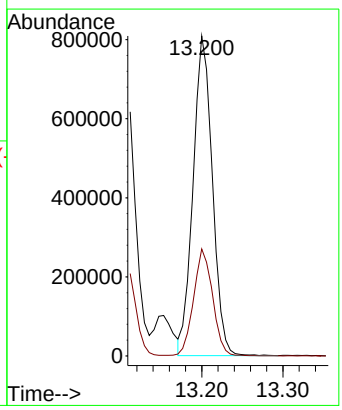
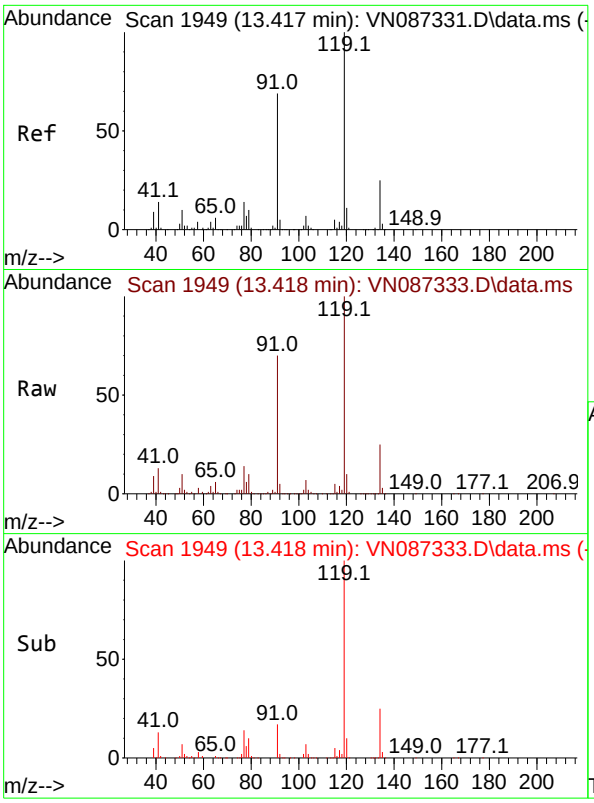


#82
4-Chlorotoluene
Concen: 159.785 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 91 Resp: 1336462

Ion	Ratio	Lower	Upper
91	100		
126	33.1	16.6	49.7

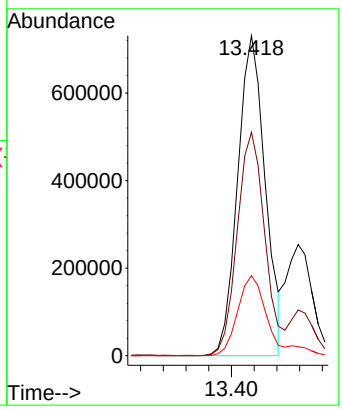




#83
tert-Butylbenzene
Concen: 166.457 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:119 Resp: 123068

Ion	Ratio	Lower	Upper
119	100		
91	70.4	35.0	105.1
134	27.7	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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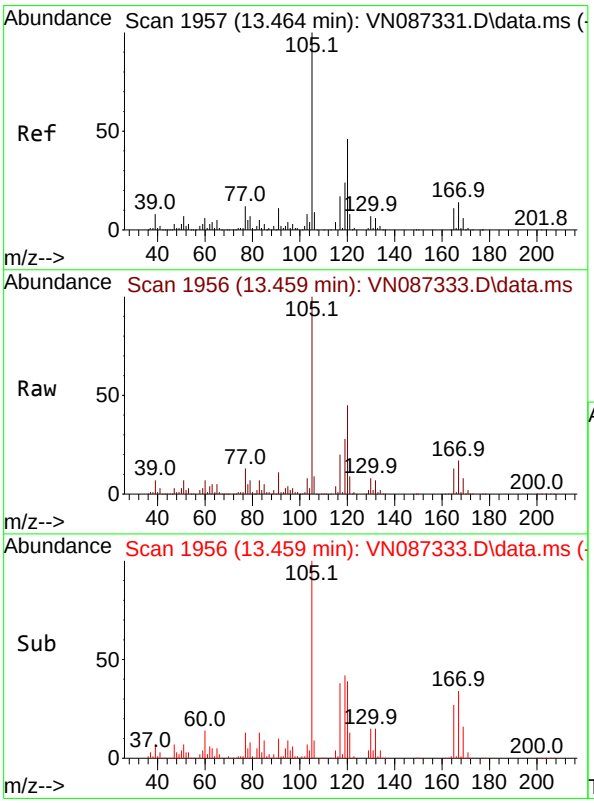
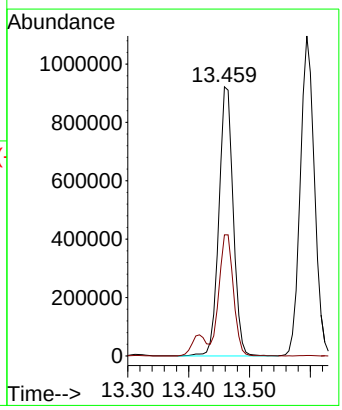
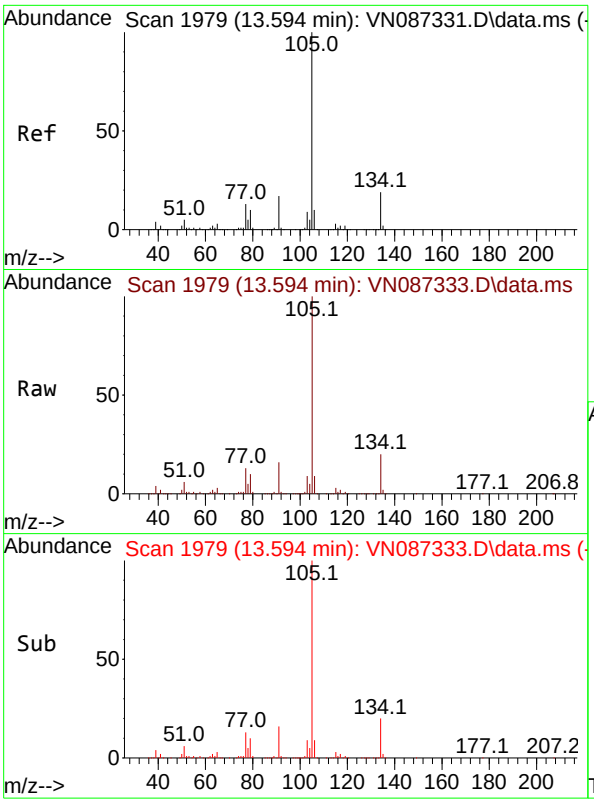


#84
1,2,4-Trimethylbenzene
Concen: 166.222 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:105 Resp: 1502651

Ion	Ratio	Lower	Upper
105	100		
120	45.2	22.8	68.3

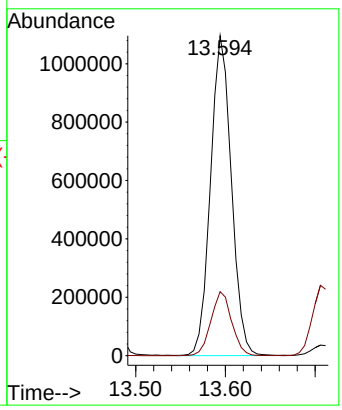




#85
sec-Butylbenzene
Concen: 158.754 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:105 Resp: 176794

Ion	Ratio	Lower	Upper
105	100		
134	19.9	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

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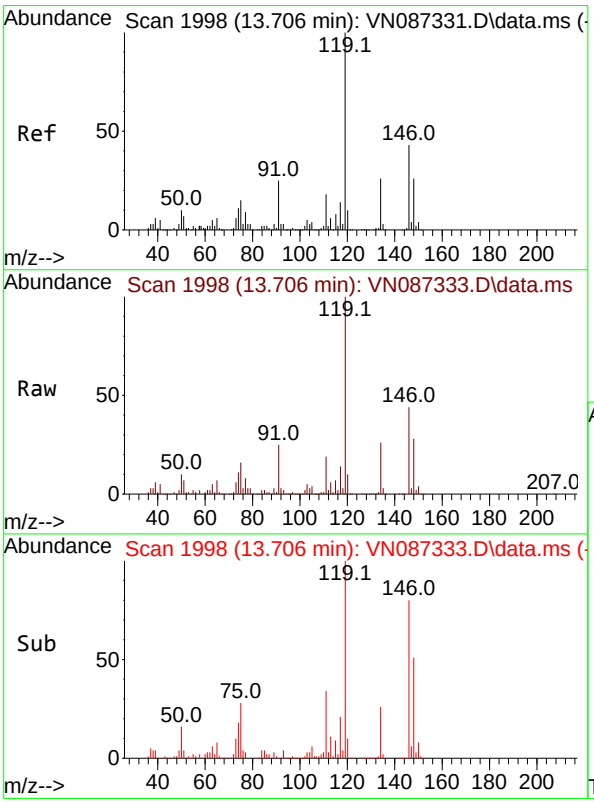
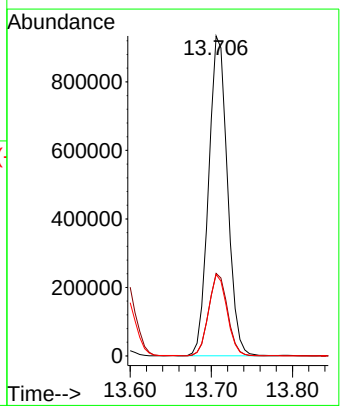
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

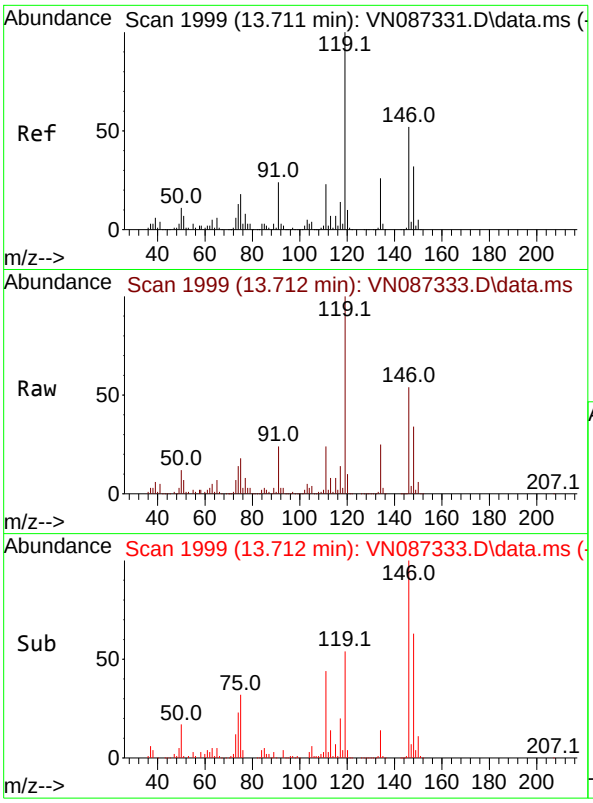


#86
p-Isopropyltoluene
Concen: 168.219 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:119 Resp: 1501303

Ion	Ratio	Lower	Upper
119	100		
134	25.8	13.5	40.5
91	25.0	12.2	36.6

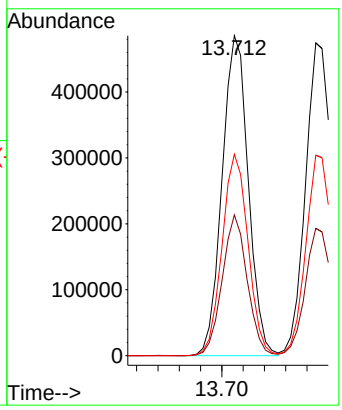




#87
1,3-Dichlorobenzene
Concen: 156.742 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:146 Resp: 82888

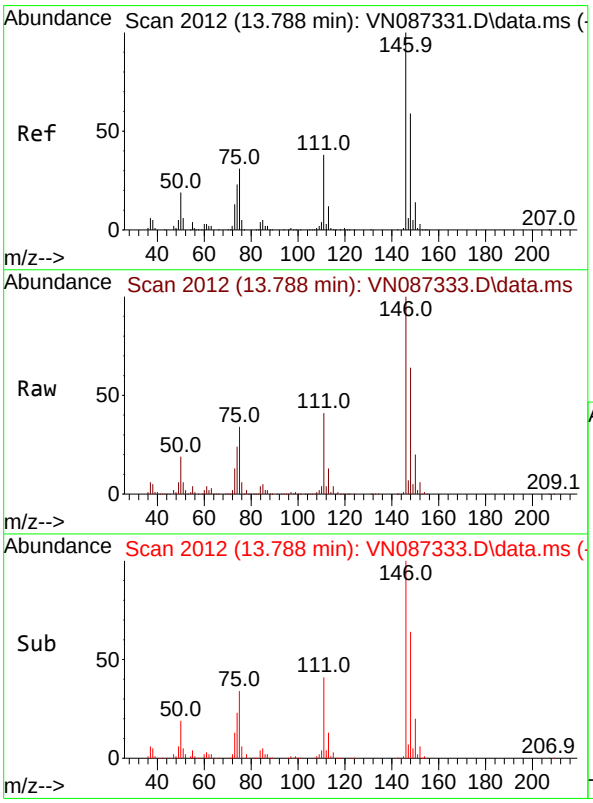
Ion	Ratio	Lower	Upper
146	100		
111	42.0	21.4	64.3
148	62.5	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

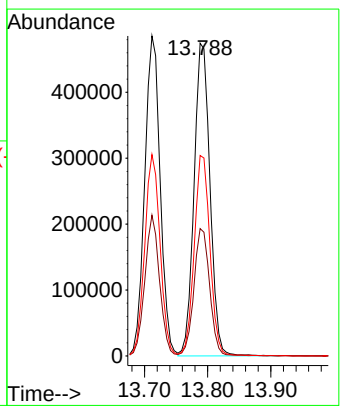
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

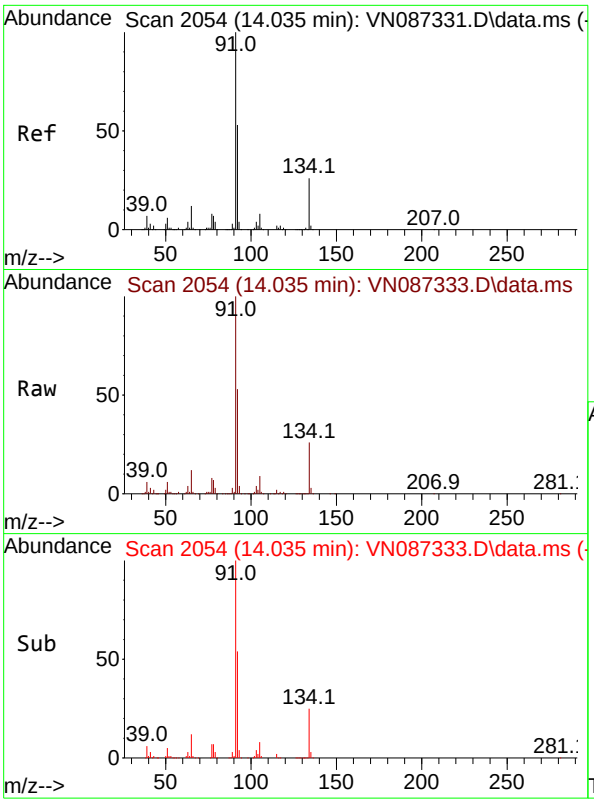


#88
1,4-Dichlorobenzene
Concen: 147.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:146 Resp: 830255

Ion	Ratio	Lower	Upper
146	100		
111	40.5	19.6	58.7
148	63.1	31.4	94.0

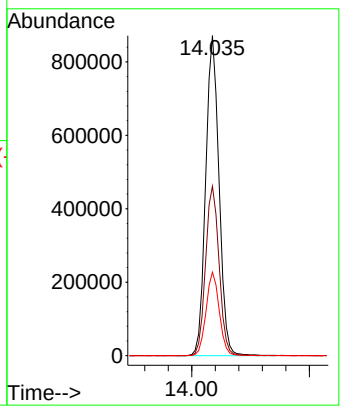




#89
n-Butylbenzene
Concen: 160.505 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 91 Resp: 136781

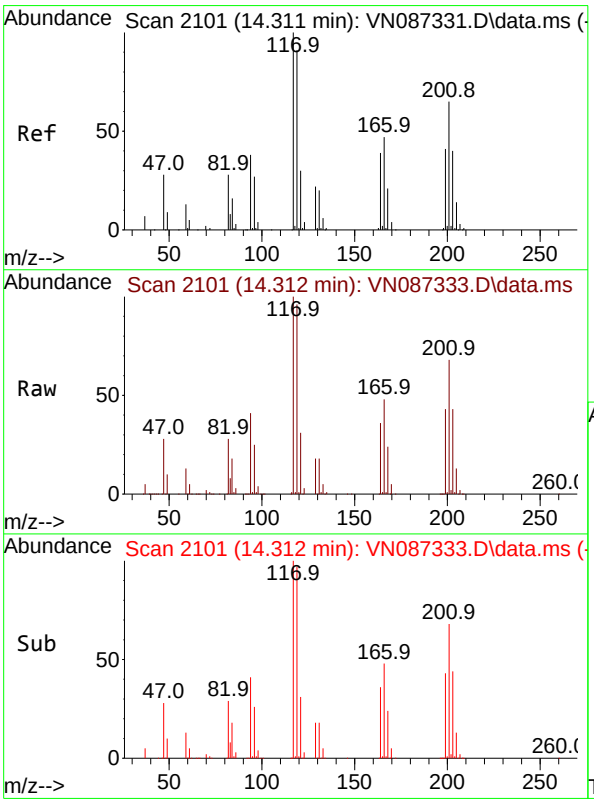
Ion	Ratio	Lower	Upper
91	100		
92	53.7	26.2	78.6
134	25.8	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

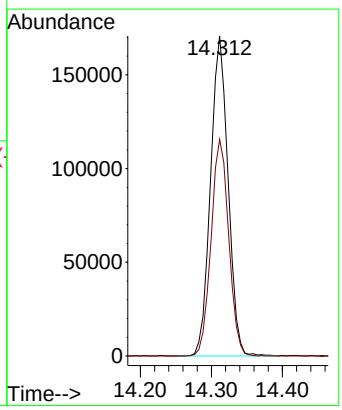
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

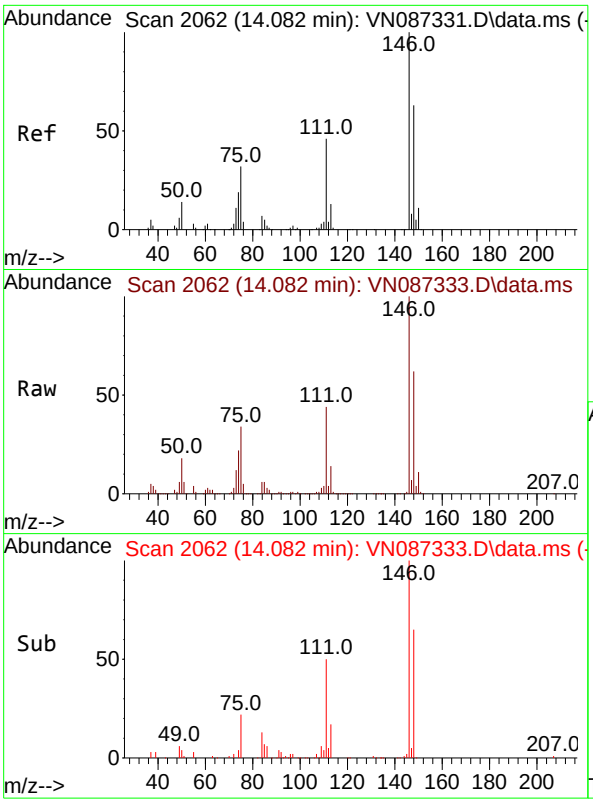


#90
Hexachloroethane
Concen: 154.518 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:117 Resp: 292183

Ion	Ratio	Lower	Upper
117	100		
201	68.0	32.8	98.4

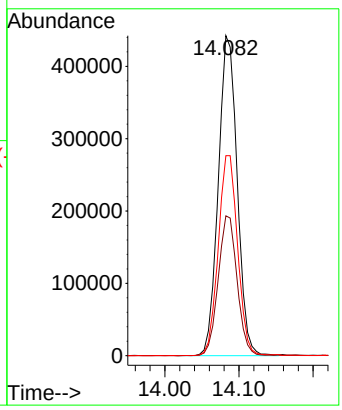




#91
1,2-Dichlorobenzene
Concen: 156.513 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:146 Resp: 78410

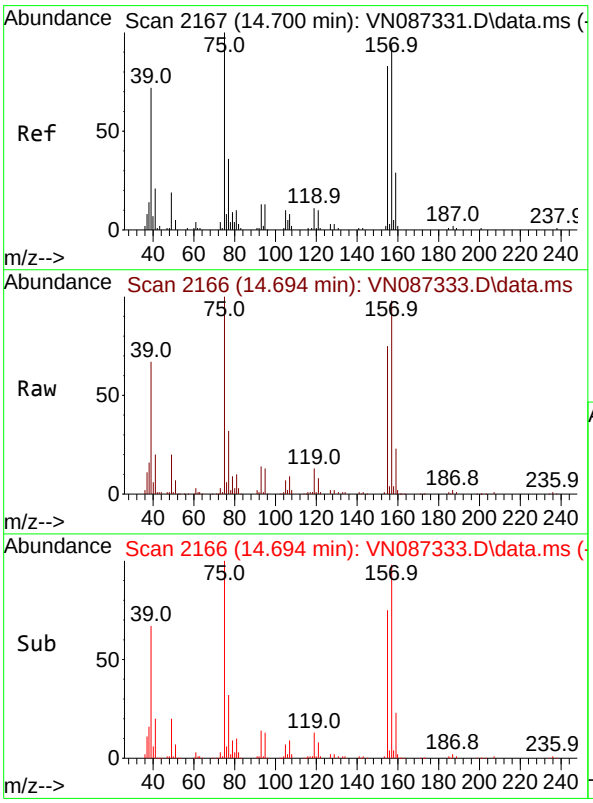
Ion	Ratio	Lower	Upper
146	100		
111	43.9	22.0	66.0
148	64.1	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

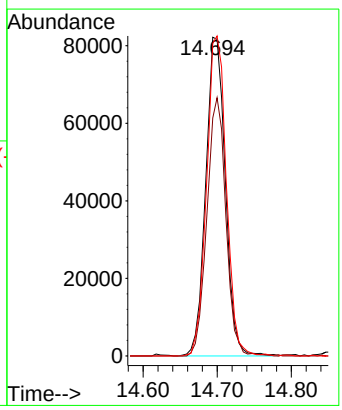
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

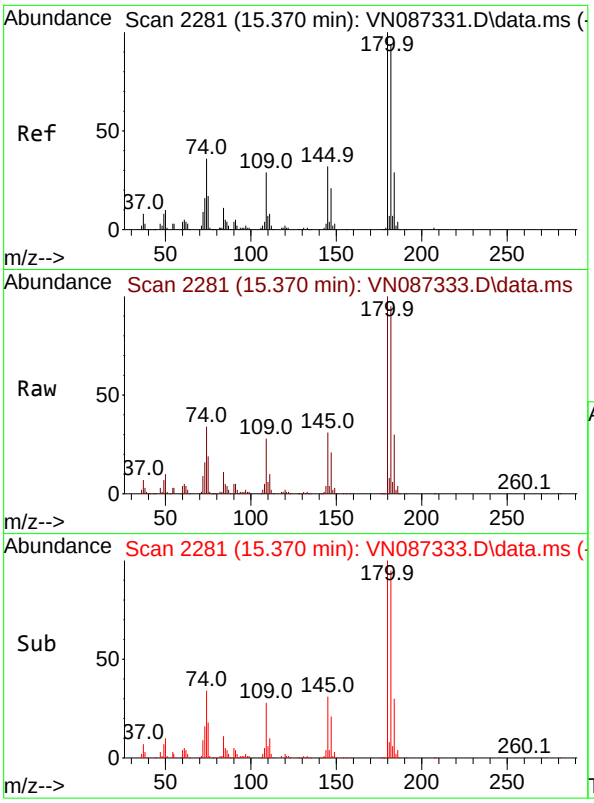


#92
1,2-Dibromo-3-Chloropropane
Concen: 147.203 ug/l
RT: 14.694 min Scan# 2166
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion: 75 Resp: 151090

Ion	Ratio	Lower	Upper
75	100		
155	78.4	37.3	111.8
157	101.0	46.2	138.6

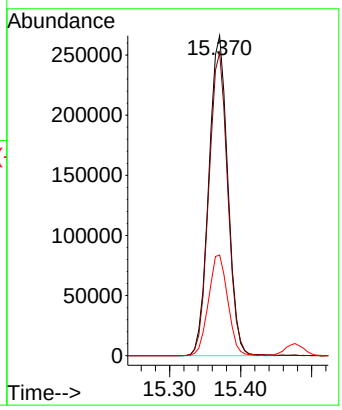




#93
1,2,4-Trichlorobenzene
Concen: 167.266 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:180 Resp: 49223

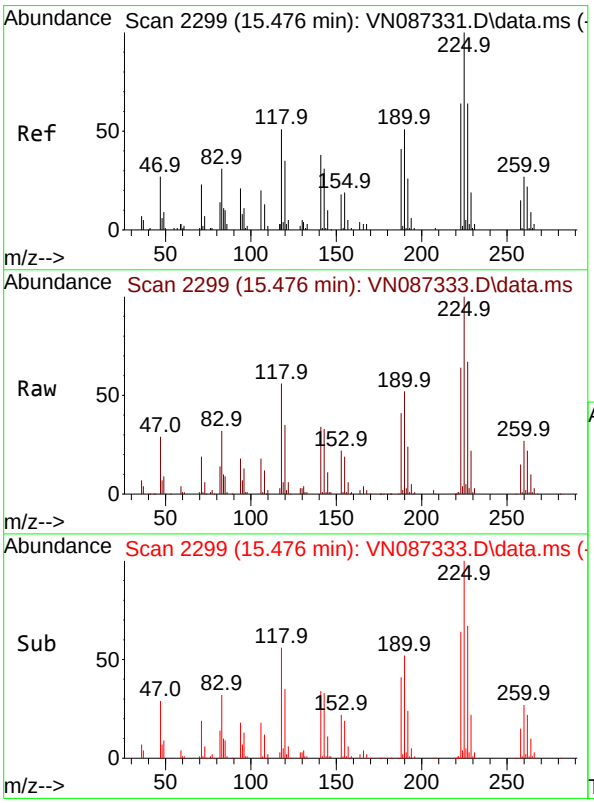
Ion	Ratio	Lower	Upper
180	100		
182	94.3	47.3	141.8
145	32.1	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

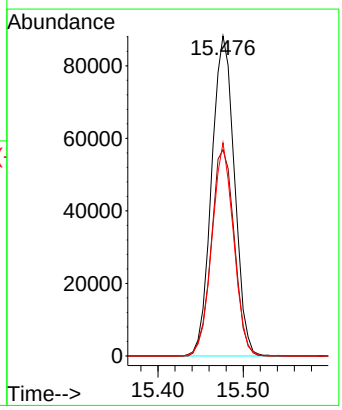
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

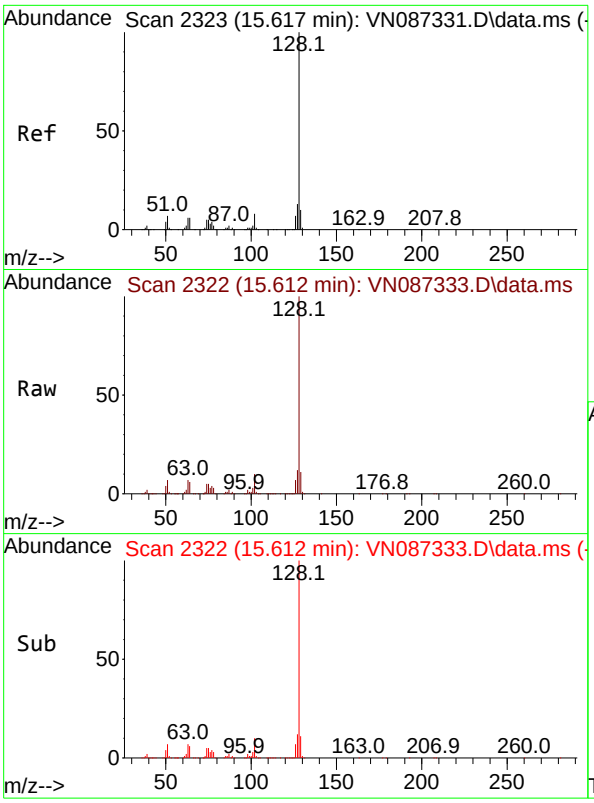


#94
Hexachlorobutadiene
Concen: 149.909 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:225 Resp: 163922

Ion	Ratio	Lower	Upper
225	100		
223	65.1	32.1	96.3
227	63.1	31.3	93.9

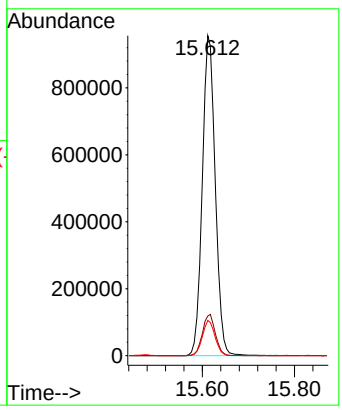




#95
Naphthalene
Concen: 180.370 ug/l
RT: 15.612 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:128 Resp: 188042

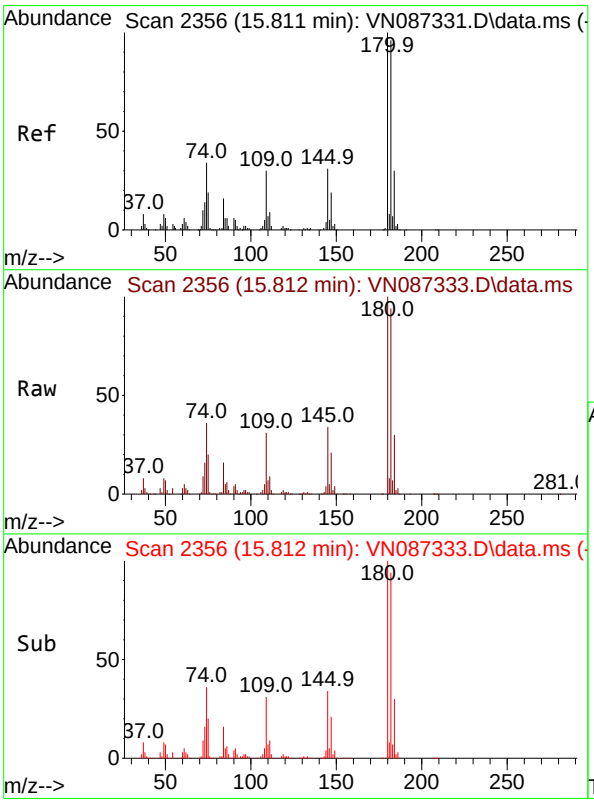
Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.5	15.7
129	10.8	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

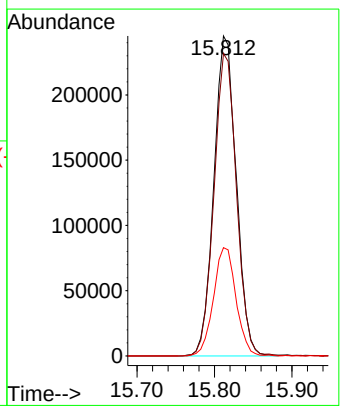
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025



#96
1,2,3-Trichlorobenzene
Concen: 166.396 ug/l
RT: 15.812 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087333.D
Acq: 16 Jul 2025 18:54

Tgt Ion:180 Resp: 491195

Ion	Ratio	Lower	Upper
180	100		
182	95.2	47.1	141.4
145	34.2	16.9	50.6



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	198299	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	343165	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	319692	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	166959	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	162194	48.204	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 96.400%			
35) Dibromofluoromethane	8.153	113	118201	49.934	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 99.860%			
50) Toluene-d8	10.547	98	435474	51.573	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.140%			
62) 4-Bromofluorobenzene	12.829	95	165160	52.942	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 105.880%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	122218	58.029	ug/l	94
3) Chloromethane	2.383	50	135040	50.986	ug/l	99
4) Vinyl Chloride	2.542	62	141054	53.589	ug/l	93
5) Bromomethane	2.971	94	79496	58.322	ug/l	100
6) Chloroethane	3.130	64	84406	49.172	ug/l	97
7) Trichlorofluoromethane	3.506	101	192022	49.336	ug/l	93
8) Diethyl Ether	3.959	74	76789	50.861	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.365	101	98940	49.520	ug/l	99
10) Methyl Iodide	4.577	142	103627	50.369	ug/l	98
11) Tert butyl alcohol	5.530	59	167953	262.884	ug/l	99
12) 1,1-Dichloroethene	4.330	96	102861	45.432	ug/l	97
13) Acrolein	4.171	56	142098	277.145	ug/l	97
14) Allyl chloride	5.006	41	200790	49.004	ug/l	99
15) Acrylonitrile	5.706	53	437956	252.616	ug/l	99
16) Acetone	4.424	43	375335	237.913	ug/l	100
17) Carbon Disulfide	4.700	76	335264	49.947	ug/l	96
18) Methyl Acetate	5.018	43	194657	49.111	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	425099	50.939	ug/l	94
20) Methylene Chloride	5.265	84	131885	49.445	ug/l	93
21) trans-1,2-Dichloroethene	5.771	96	120707	47.283	ug/l	97
22) Diisopropyl ether	6.659	45	439978	51.191	ug/l	97
23) Vinyl Acetate	6.594	43	2052885	273.101	ug/l	98
24) 1,1-Dichloroethane	6.553	63	238854	48.170	ug/l	99
25) 2-Butanone	7.477	43	622581	255.411	ug/l	98
26) 2,2-Dichloropropane	7.477	77	176180	45.700	ug/l	100
27) cis-1,2-Dichloroethene	7.471	96	148552	50.543	ug/l	96
28) Bromochloromethane	7.800	49	116494	49.089	ug/l	98
29) Tetrahydrofuran	7.830	42	412353	260.404	ug/l	100
30) Chloroform	7.947	83	239752	48.306	ug/l	100
31) Cyclohexane	8.241	56	202863	49.042	ug/l	96
32) 1,1,1-Trichloroethane	8.153	97	212405	49.412	ug/l	99
36) 1,1-Dichloropropene	8.353	75	167912	53.690	ug/l	99
37) Ethyl Acetate	7.553	43	241759	53.525	ug/l	99
38) Carbon Tetrachloride	8.347	117	181974	52.821	ug/l	90
39) Methylcyclohexane	9.582	83	179820	53.109	ug/l	96
40) Benzene	8.588	78	529446	52.380	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	127286	53.895	ug/l		98
42) 1,2-Dichloroethane	8.653	62	194804	50.821	ug/l		98
43) Isopropyl Acetate	8.677	43	374957	53.477	ug/l		100
44) Trichloroethene	9.335	130	118775	49.731	ug/l		95
45) 1,2-Dichloropropane	9.606	63	135864	52.900	ug/l		99
46) Dibromomethane	9.688	93	98534	51.241	ug/l		98
47) Bromodichloromethane	9.871	83	200236	51.696	ug/l		97
48) Methyl methacrylate	9.665	41	177068	56.096	ug/l		99
49) 1,4-Dioxane	9.682	88	56917	1177.300	ug/l	#	97
51) 4-Methyl-2-Pentanone	10.429	43	1192765	268.966	ug/l		99
52) Toluene	10.612	92	320922	52.236	ug/l		97
53) t-1,3-Dichloropropene	10.818	75	214141	54.628	ug/l		97
54) cis-1,3-Dichloropropene	10.294	75	216023	53.351	ug/l		96
55) 1,1,2-Trichloroethane	11.000	97	124090	49.889	ug/l		97
56) Ethyl methacrylate	10.859	69	222410	53.042	ug/l		98
57) 1,3-Dichloropropane	11.147	76	224493	52.202	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	581689	285.088	ug/l		99
59) 2-Hexanone	11.176	43	849057	288.579	ug/l		100
60) Dibromochloromethane	11.341	129	149449	52.685	ug/l		100
61) 1,2-Dibromoethane	11.447	107	135330	51.746	ug/l		94
64) Tetrachloroethene	11.082	164	98391	47.819	ug/l		97
65) Chlorobenzene	11.870	112	347934	48.477	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.941	131	123321	50.530	ug/l		99
67) Ethyl Benzene	11.947	91	608779	51.523	ug/l		99
68) m/p-Xylenes	12.053	106	465762	105.269	ug/l		97
69) o-Xylene	12.376	106	224934	53.221	ug/l		99
70) Styrene	12.394	104	387319	54.477	ug/l		98
71) Bromoform	12.559	173	102502	51.987	ug/l	#	99
73) Isopropylbenzene	12.676	105	573938	54.619	ug/l		100
74) N-amyl acetate	12.494	43	218170m	49.972	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.917	83	203947	51.580	ug/l		98
76) 1,2,3-Trichloropropane	12.976	75	175797m	46.955	ug/l		
77) Bromobenzene	12.959	156	142714	52.368	ug/l		99
78) n-propylbenzene	13.012	91	709437	53.661	ug/l		99
79) 2-Chlorotoluene	13.106	91	426373	52.475	ug/l		99
80) 1,3,5-Trimethylbenzene	13.153	105	484100	54.071	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.717	75	69894	51.080	ug/l		97
82) 4-Chlorotoluene	13.200	91	443817	52.464	ug/l		99
83) tert-Butylbenzene	13.417	119	413882	55.349	ug/l		98
84) 1,2,4-Trimethylbenzene	13.459	105	500792	54.773	ug/l		99
85) sec-Butylbenzene	13.594	105	594712	52.800	ug/l		98
86) p-Isopropyltoluene	13.706	119	496291	54.982	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	277102	51.809	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	282084	49.381	ug/l		99
89) n-Butylbenzene	14.035	91	458964	53.250	ug/l		99
90) Hexachloroethane	14.312	117	93464	48.870	ug/l		95
91) 1,2-Dichlorobenzene	14.088	146	260874	51.485	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	50904	49.035	ug/l		97
93) 1,2,4-Trichlorobenzene	15.370	180	155818	52.351	ug/l		99
94) Hexachlorobutadiene	15.476	225	55599	50.273	ug/l		98
95) Naphthalene	15.617	128	586097	55.585	ug/l		98
96) 1,2,3-Trichlorobenzene	15.811	180	157909	52.890	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED

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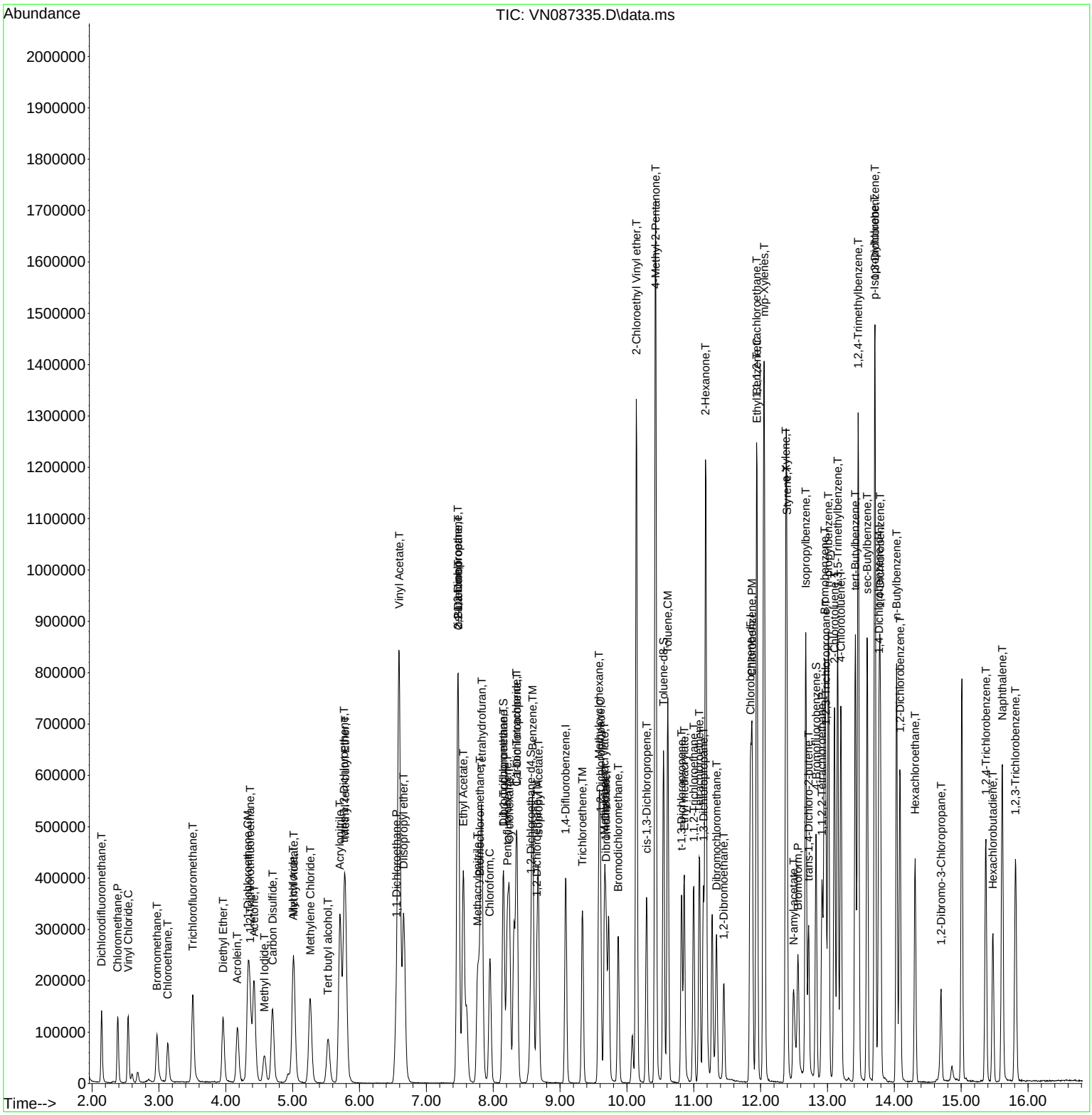
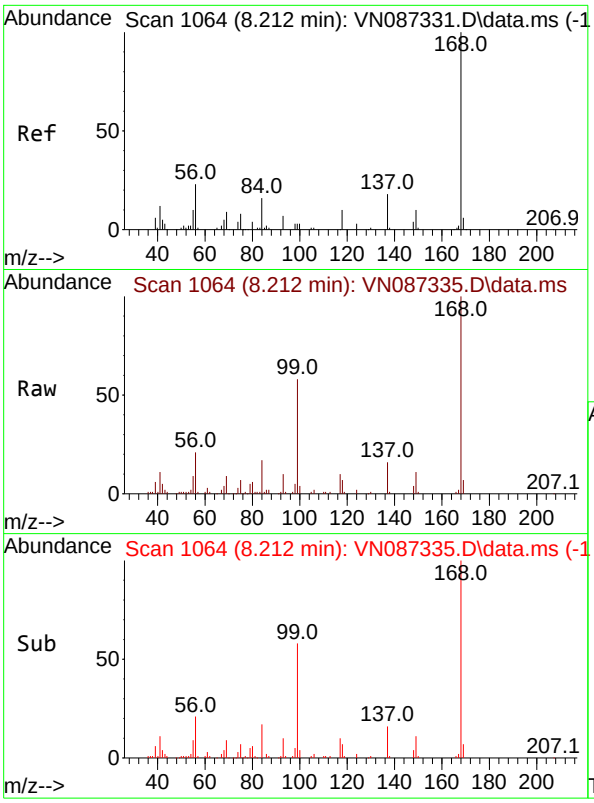
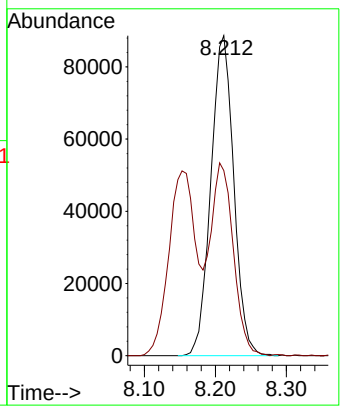




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:168 Resp: 19829

Ion	Ratio	Lower	Upper
168	100		
99	57.5	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED

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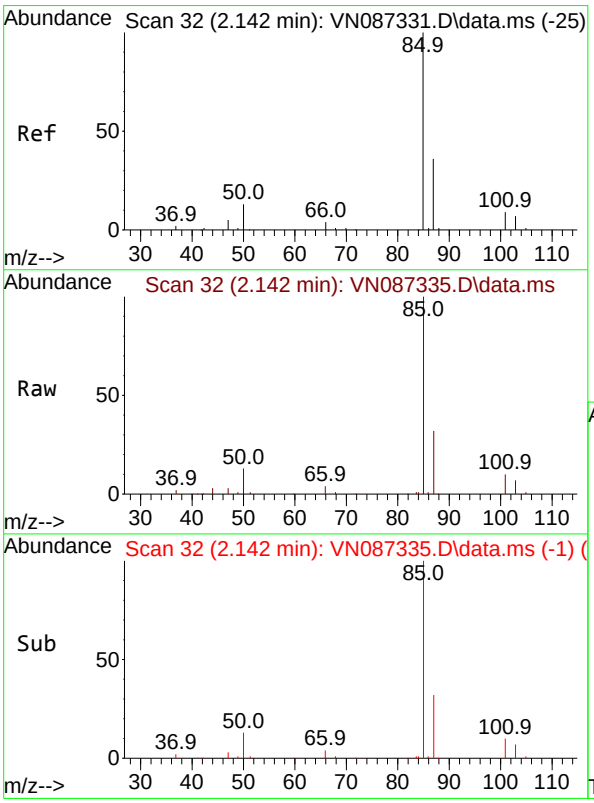
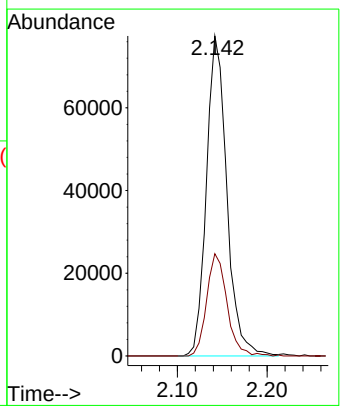
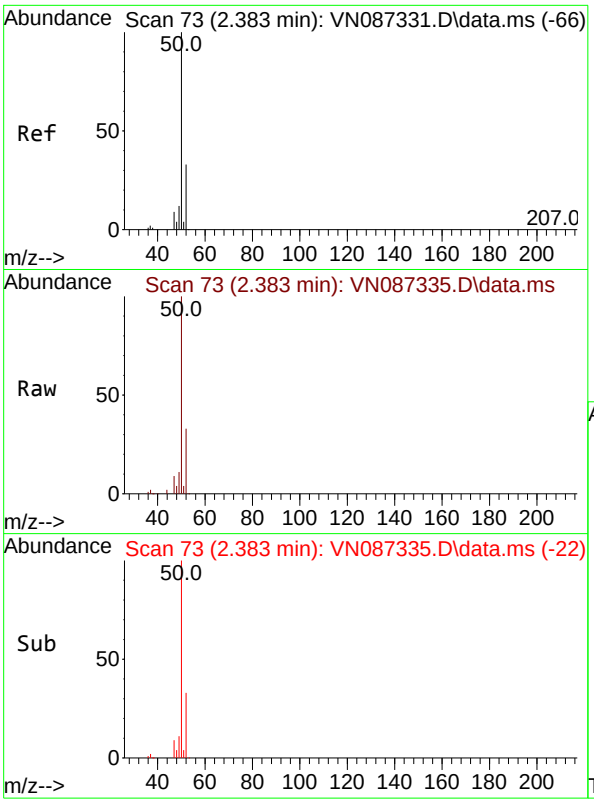


#2
Dichlorodifluoromethane
Concen: 58.029 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 85 Resp: 122218

Ion	Ratio	Lower	Upper
85	100		
87	32.0	17.8	53.3

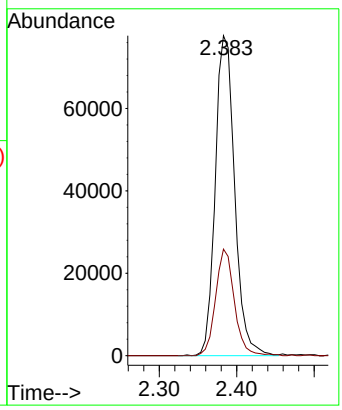




#3
Chloromethane
Concen: 50.986 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 50 Resp: 13504

Ion	Ratio	Lower	Upper
50	100		
52	33.3	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
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Reviewed By :Mahesh Dadoda 07/17/2025
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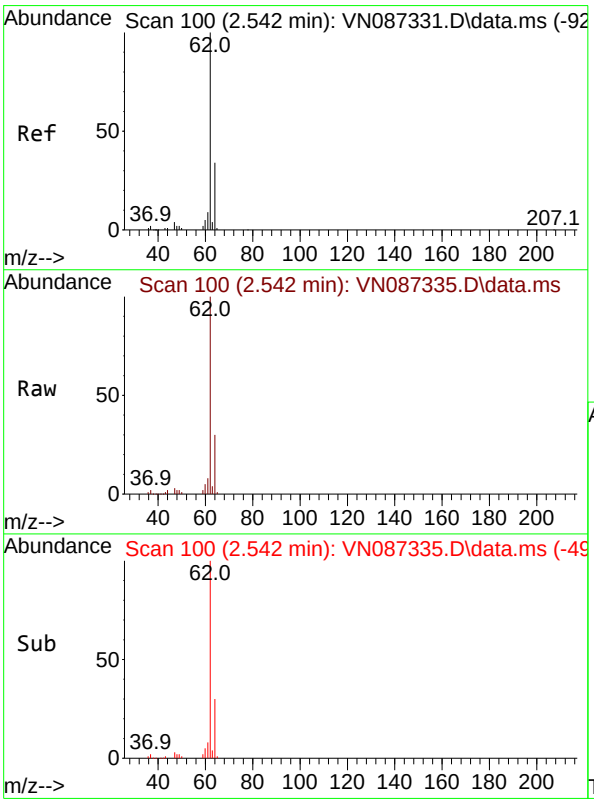
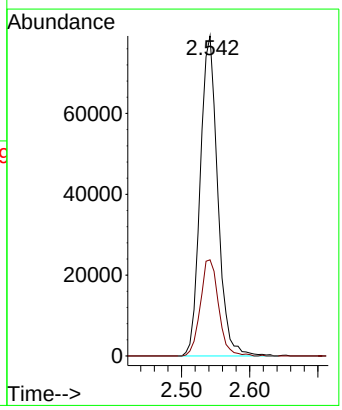
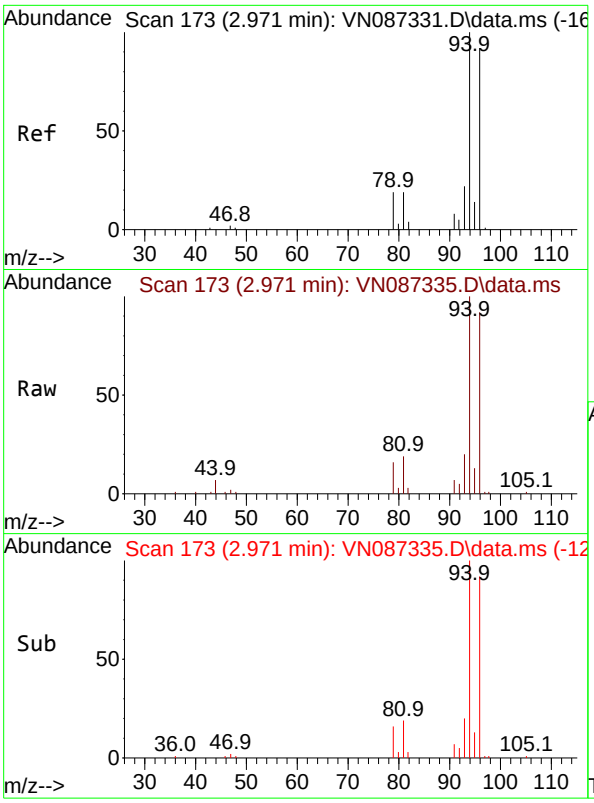


#4
Vinyl Chloride
Concen: 53.589 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 62 Resp: 141054

Ion	Ratio	Lower	Upper
62	100		
64	30.0	27.0	40.6

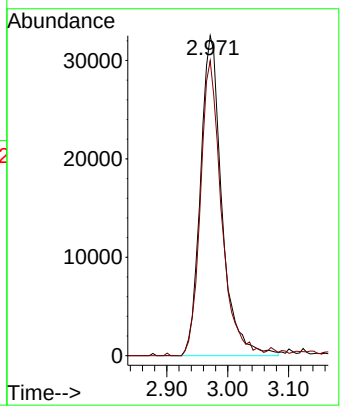




#5
Bromomethane
Concen: 58.322 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 94 Resp: 7949

Ion	Ratio	Lower	Upper
94	100		
96	92.2	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
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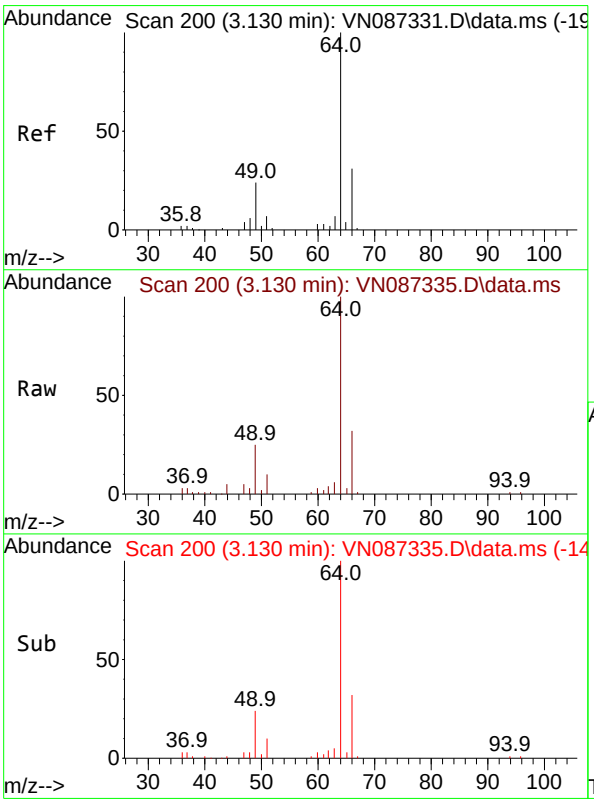
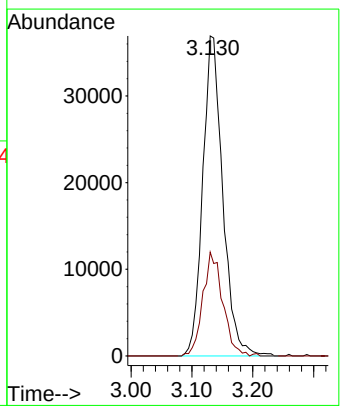
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

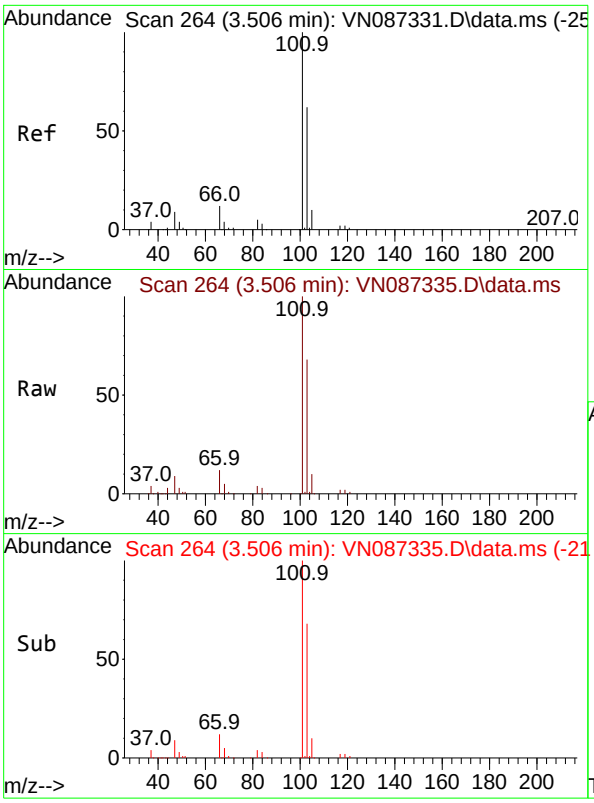


#6
Chloroethane
Concen: 49.172 ug/l
RT: 3.130 min Scan# 200
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 64 Resp: 84406

Ion	Ratio	Lower	Upper
64	100		
66	32.5	24.6	36.8

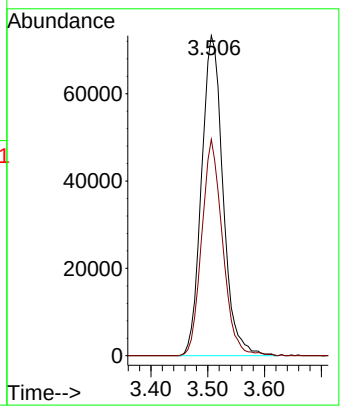




#7
Trichlorofluoromethane
Concen: 49.336 ug/l
RT: 3.506 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:101 Resp: 19202

Ion	Ratio	Lower	Upper
101	100		
103	67.6	49.8	74.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED

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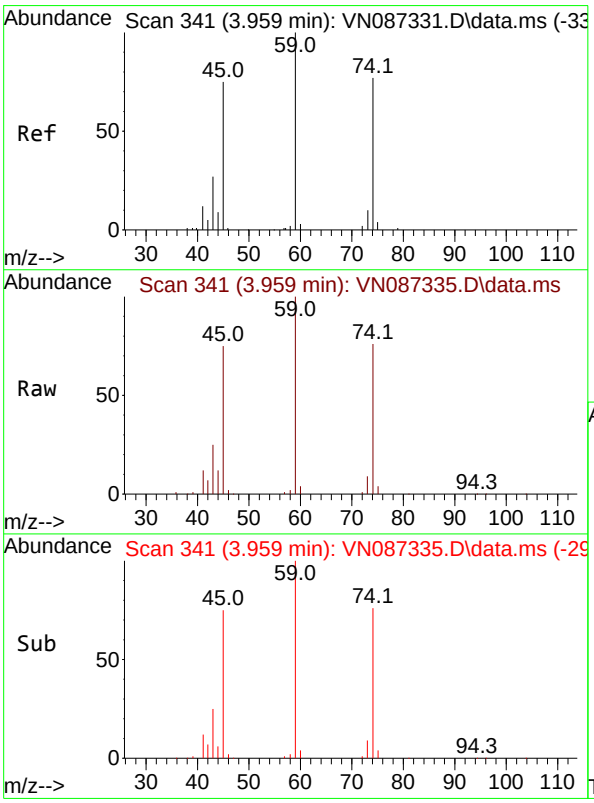
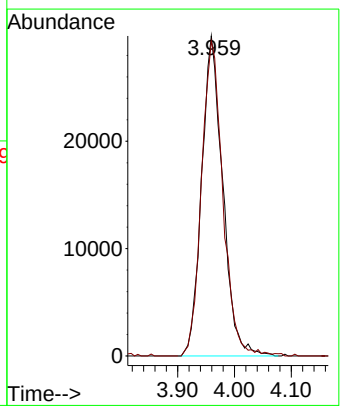
Supervised By :Semsettin Yesilyurt 07/17/2025

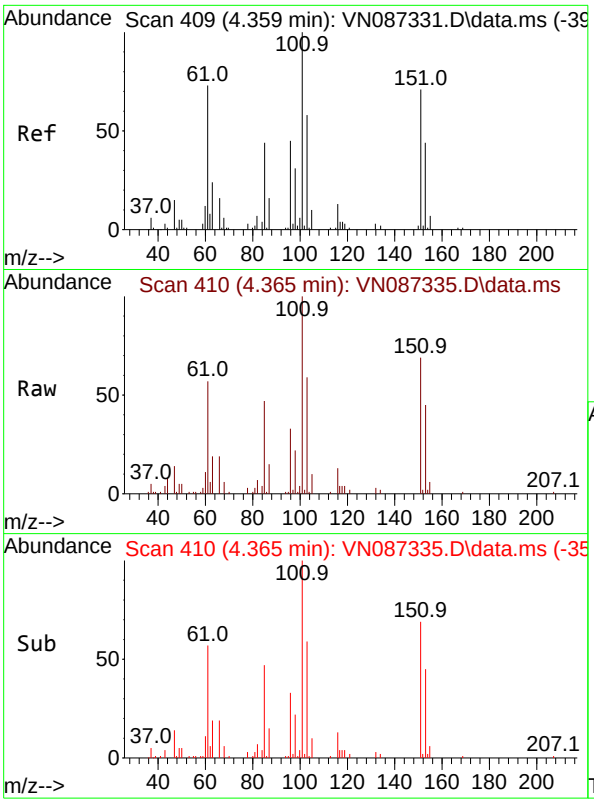


#8
Diethyl Ether
Concen: 50.861 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 74 Resp: 76789

Ion	Ratio	Lower	Upper
74	100		
45	99.6	50.8	152.5





#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.520 ug/l
RT: 4.365 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:101 Resp: 9894

Ion	Ratio	Lower	Upper
101	100		
85	46.6	37.3	55.9
151	72.5	58.9	88.3

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
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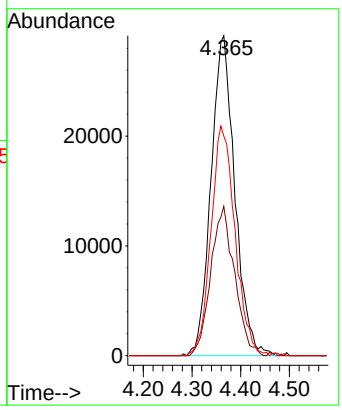
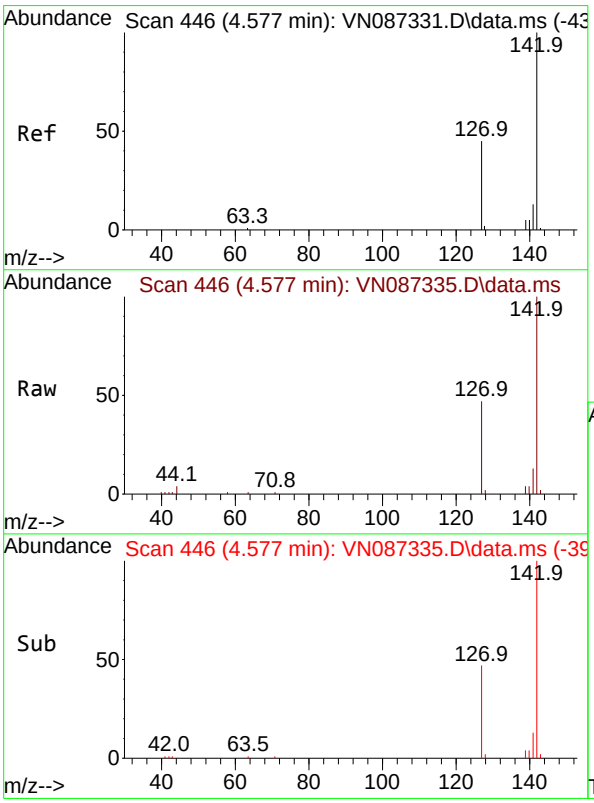
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

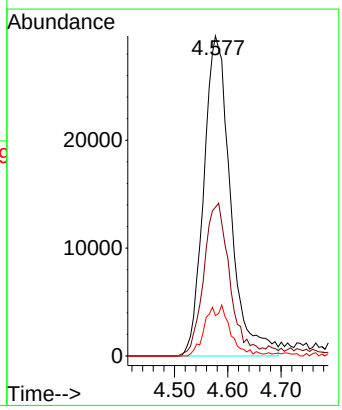


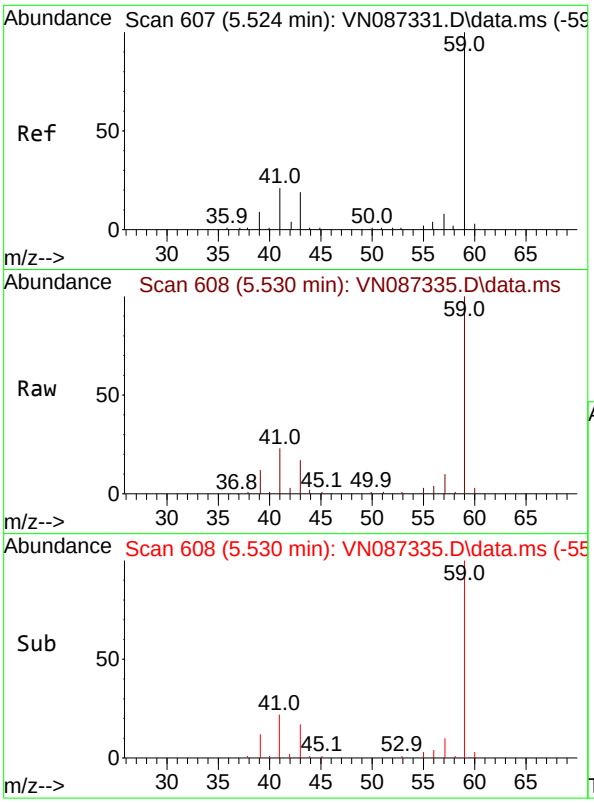


#10
Methyl Iodide
Concen: 50.369 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:142 Resp: 103627

Ion	Ratio	Lower	Upper
142	100		
127	46.5	35.7	53.5
141	12.6	10.4	15.6

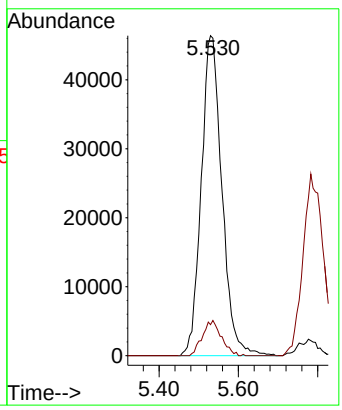




#11
Tert butyl alcohol
Concen: 262.884 ug/l
RT: 5.530 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 59 Resp: 16795

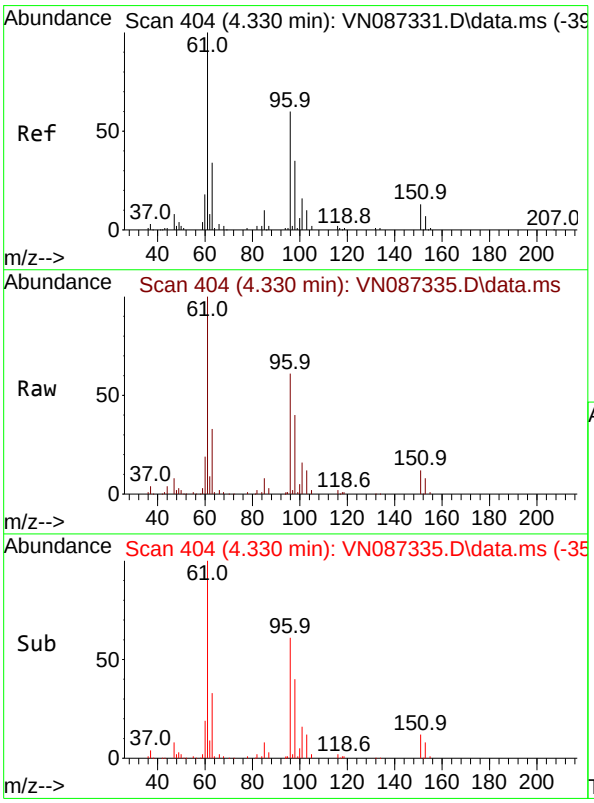
Ion	Ratio	Lower	Upper
59	100		
57	10.0	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations APPROVED

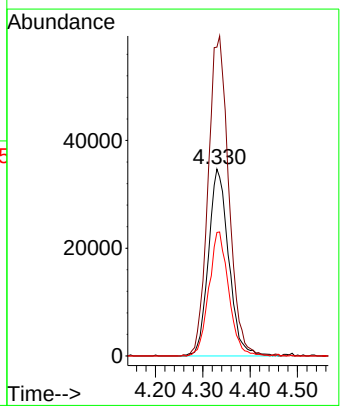
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

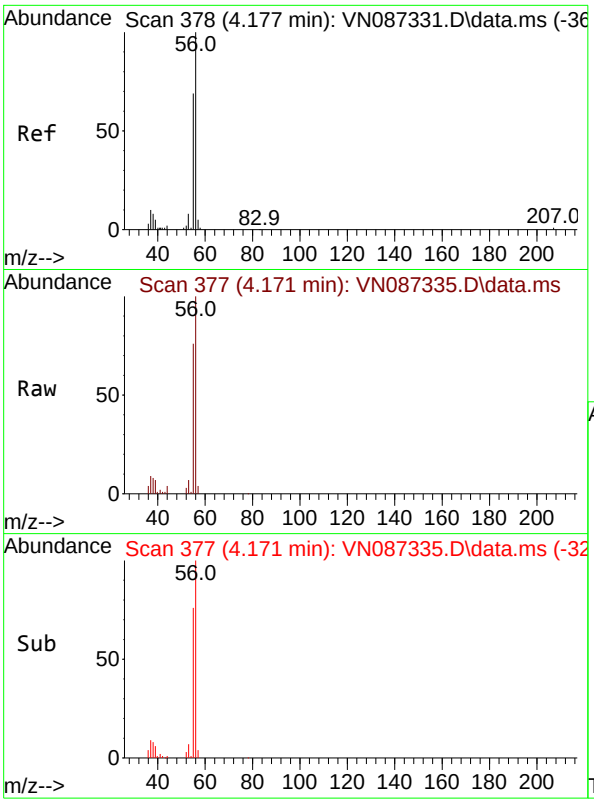


#12
1,1-Dichloroethene
Concen: 45.432 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 96 Resp: 102861

Ion	Ratio	Lower	Upper
96	100		
61	165.3	132.3	198.5
98	66.1	46.8	70.2

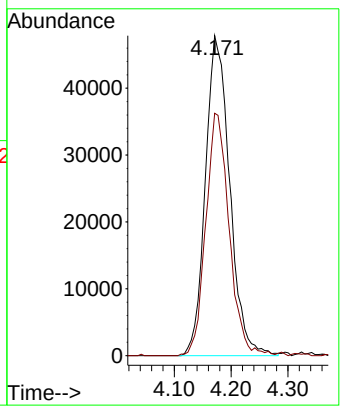




#13
Acrolein
Concen: 277.145 ug/l
RT: 4.171 min Scan# 3
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 56 Resp: 14209

Ion	Ratio	Lower	Upper
56	100		
55	72.9	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
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Reviewed By :Mahesh Dadoda 07/17/2025
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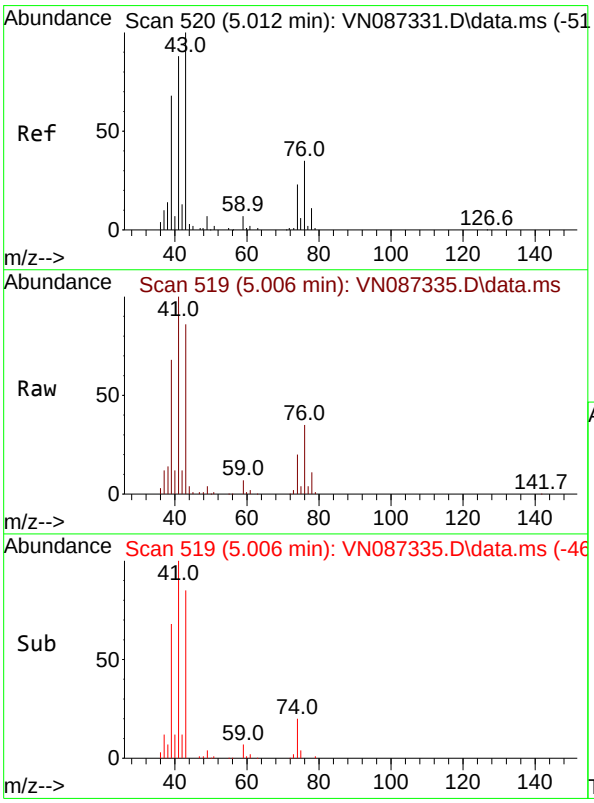
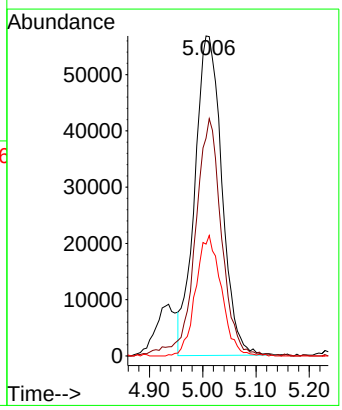
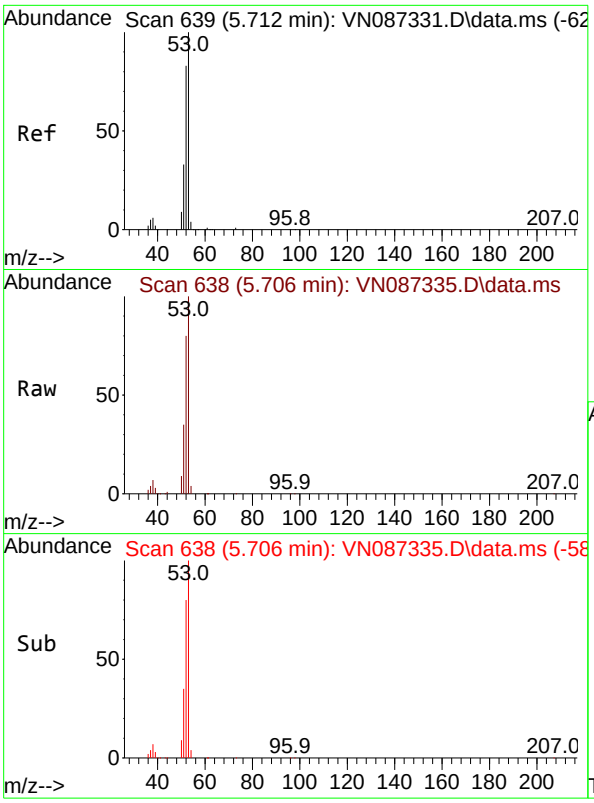


#14
Allyl chloride
Concen: 49.004 ug/l
RT: 5.006 min Scan# 519
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 41 Resp: 200790

Ion	Ratio	Lower	Upper
41	100		
39	72.4	59.0	88.6
76	35.6	28.7	43.1





#15
Acrylonitrile
Concen: 252.616 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 53 Resp: 43795

Ion	Ratio	Lower	Upper
53	100		
52	82.7	65.5	98.3
51	36.6	28.7	43.1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
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Reviewed By :Mahesh Dadoda 07/17/2025
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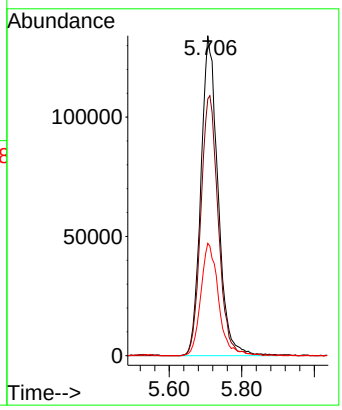
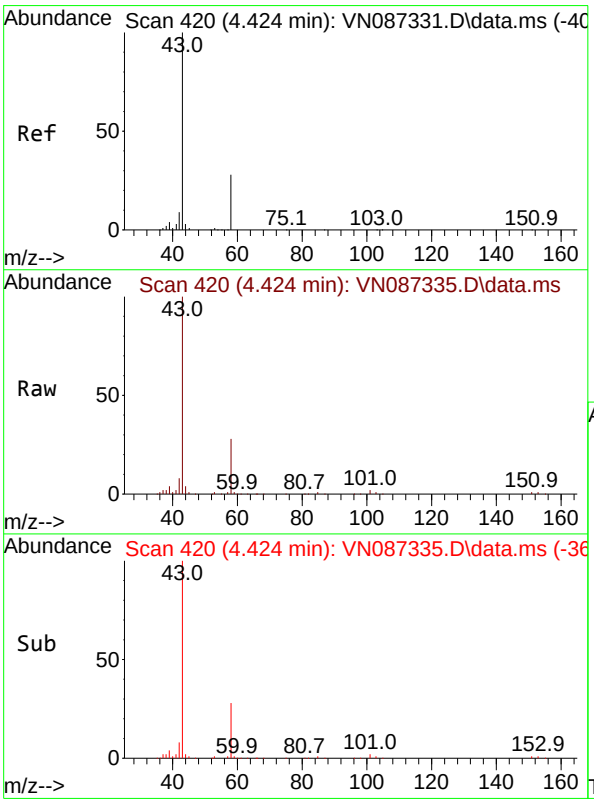
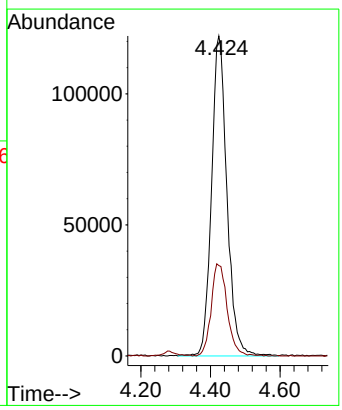


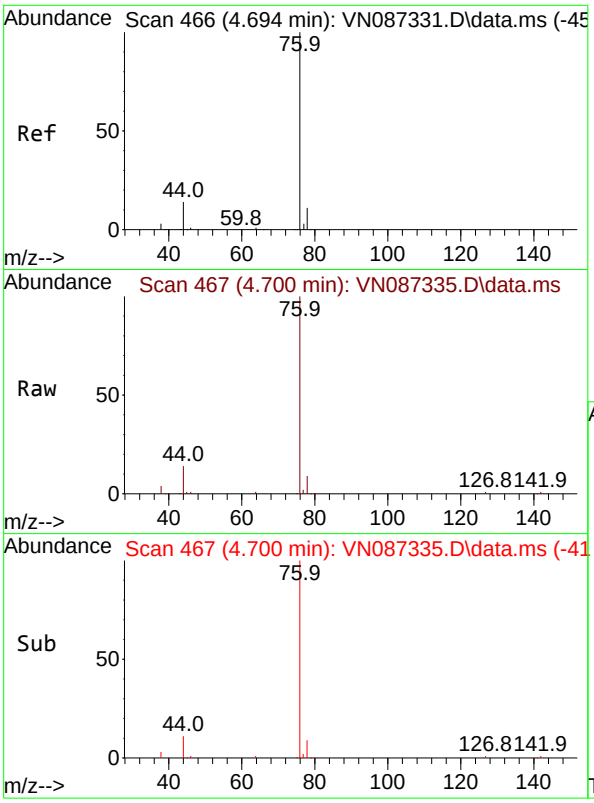


#16
Acetone
Concen: 237.913 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 375335

Ion	Ratio	Lower	Upper
43	100		
58	28.1	22.3	33.5

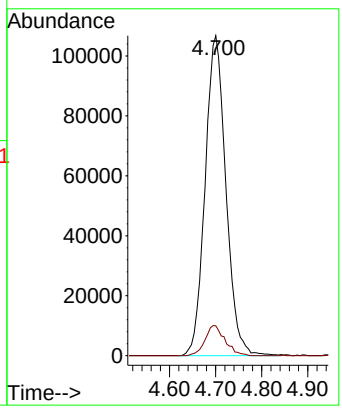




#17
Carbon Disulfide
Concen: 49.947 ug/l
RT: 4.700 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 76 Resp: 33526

Ion	Ratio	Lower	Upper
76	100		
78	9.3	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
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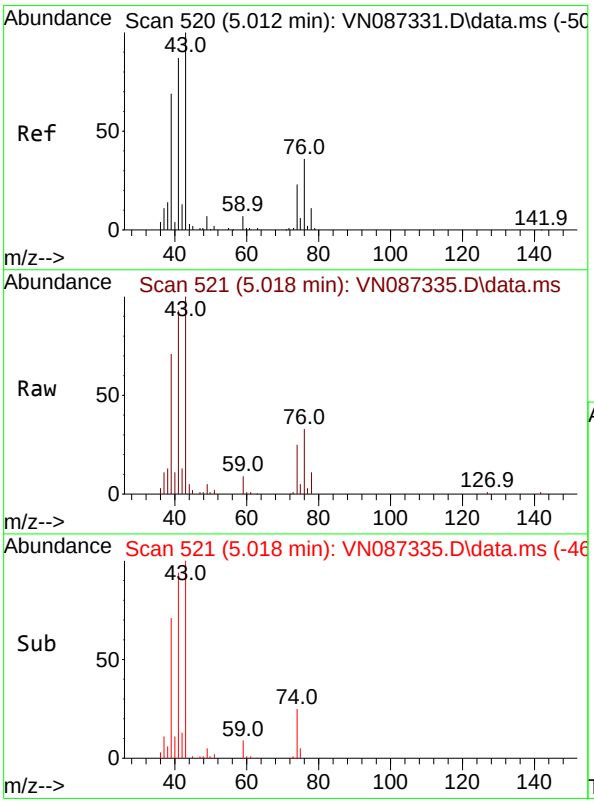
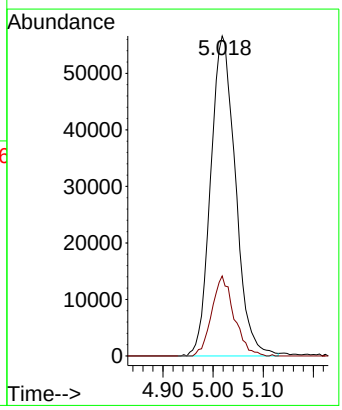
Supervised By :Semsettin Yesilyurt 07/17/2025

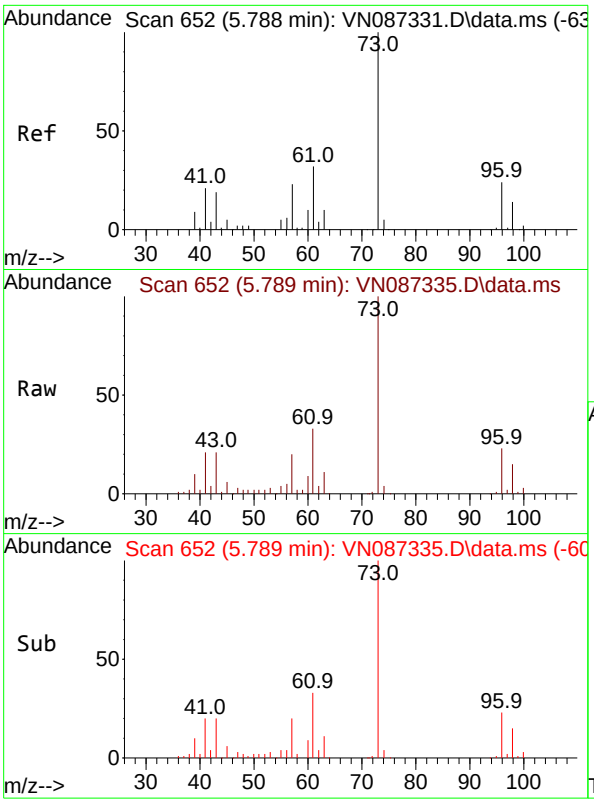


#18
Methyl Acetate
Concen: 49.111 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 194657

Ion	Ratio	Lower	Upper
43	100		
74	22.5	17.8	26.6

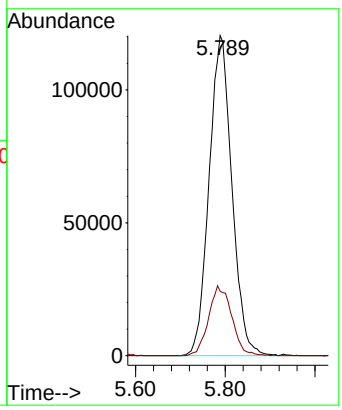




#19
Methyl tert-butyl Ether
Concen: 50.939 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 73 Resp: 42509

Ion	Ratio	Lower	Upper
73	100		
57	20.2	18.6	27.8



Instrument :
MSVOA_N
ClientSampleId :
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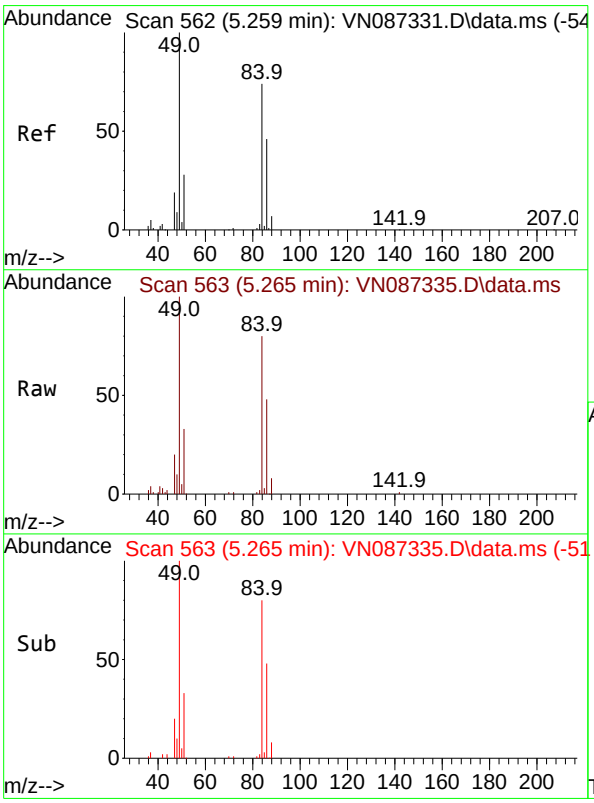
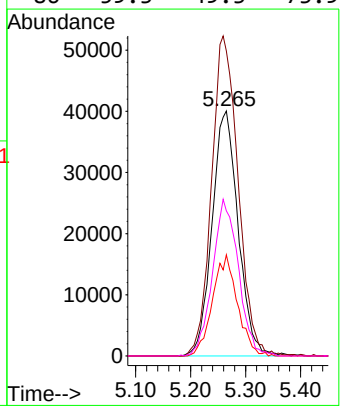
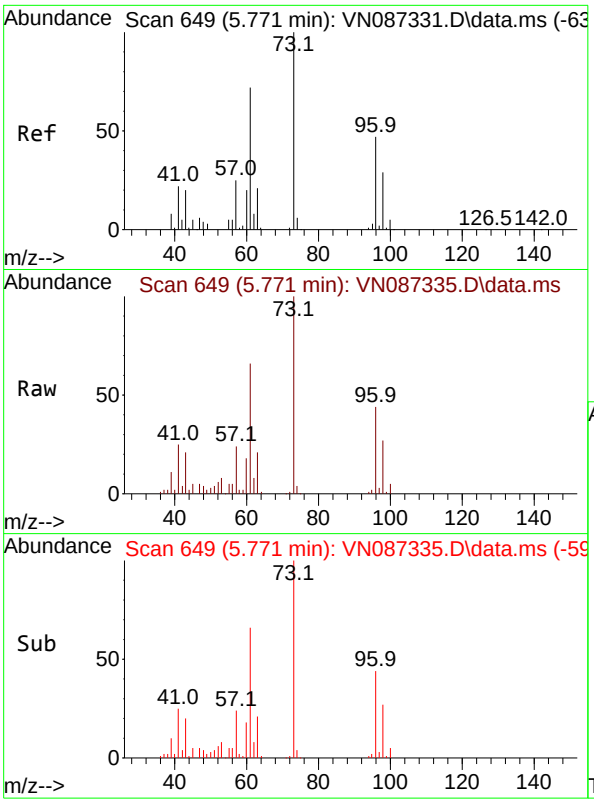


#20
Methylene Chloride
Concen: 49.445 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 84 Resp: 131885

Ion	Ratio	Lower	Upper
84	100		
49	124.5	107.5	161.3
51	41.3	30.2	45.2
86	59.3	49.3	73.9

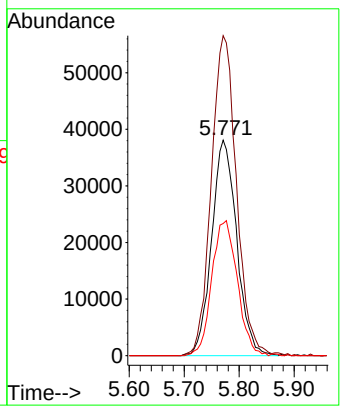




#21
trans-1,2-Dichloroethene
Concen: 47.283 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 96 Resp: 12070

Ion	Ratio	Lower	Upper
96	100		
61	148.5	122.0	183.0
98	61.3	50.0	75.0



Instrument :
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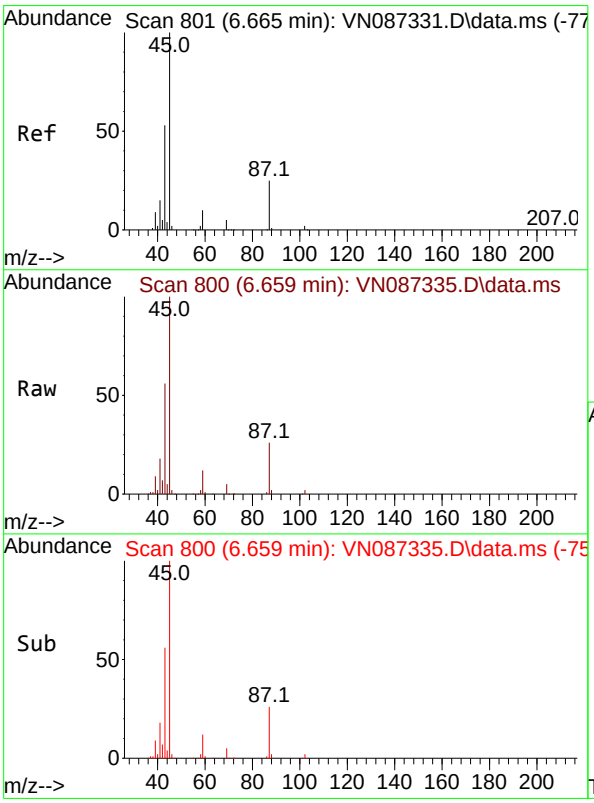
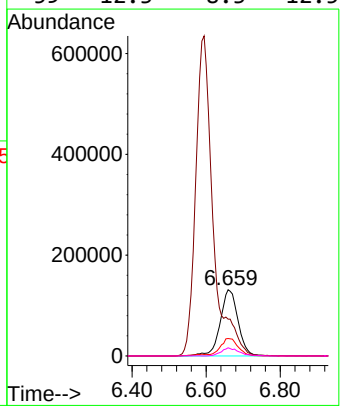
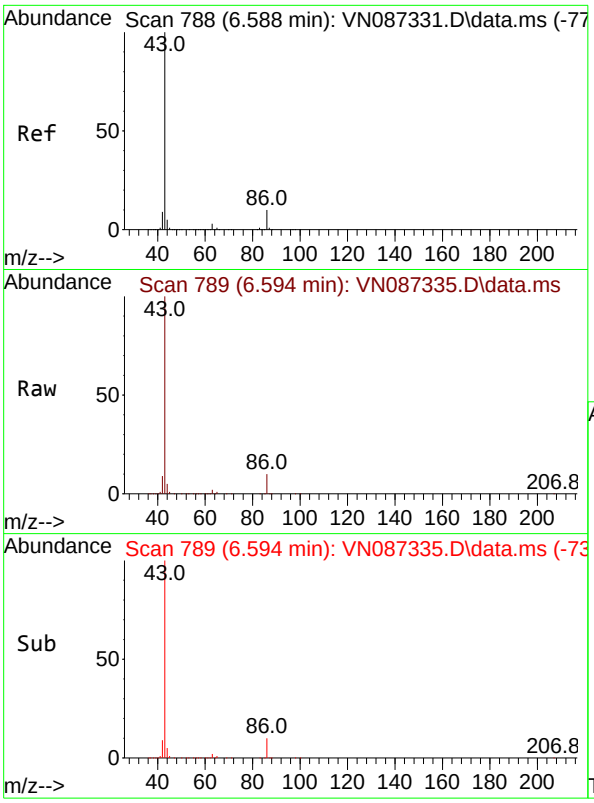


#22
Diisopropyl ether
Concen: 51.191 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 45 Resp: 439978

Ion	Ratio	Lower	Upper
45	100		
43	55.2	42.8	64.2
87	26.3	19.8	29.6
59	12.3	8.3	12.5

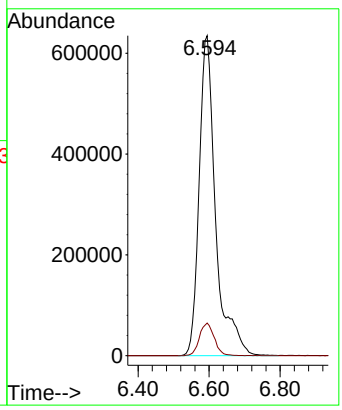




#23
Vinyl Acetate
Concen: 273.101 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 205288

Ion	Ratio	Lower	Upper
43	100		
86	10.2	7.7	11.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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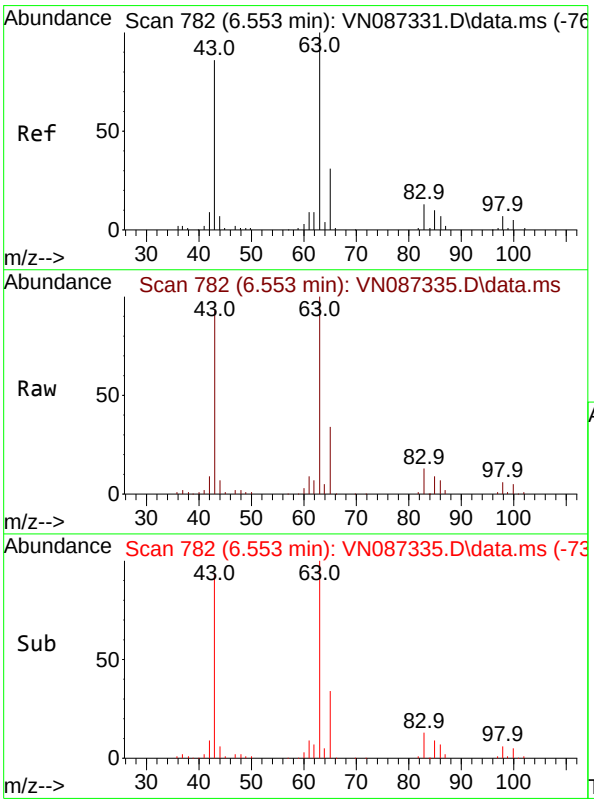
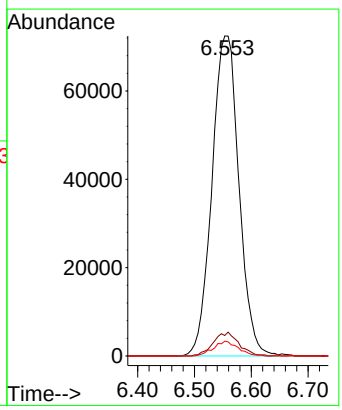
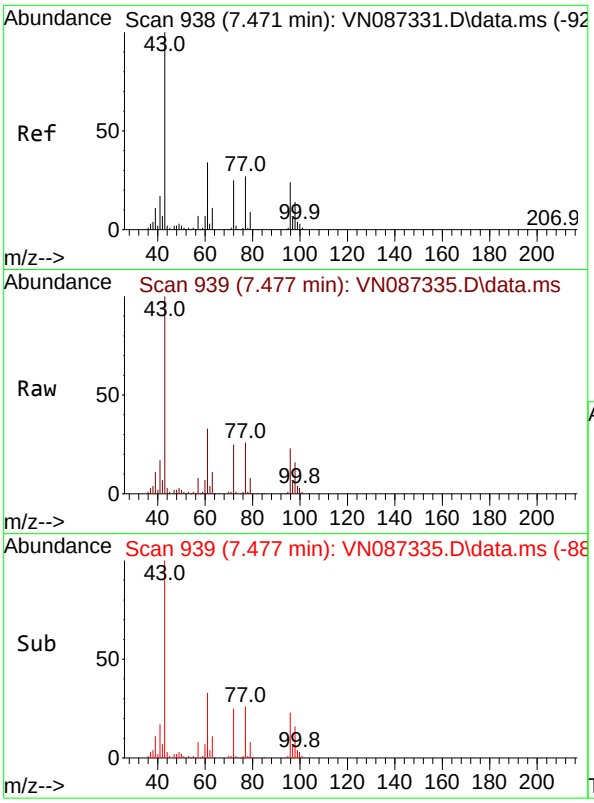


#24
1,1-Dichloroethane
Concen: 48.170 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 63 Resp: 238854

Ion	Ratio	Lower	Upper
63	100		
98	6.4	3.3	9.9
100	4.6	2.5	7.4

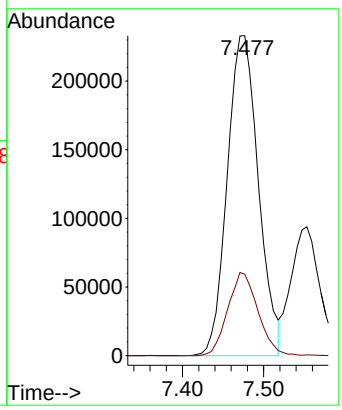




#25
2-Butanone
Concen: 255.411 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 62258

Ion	Ratio	Lower	Upper
43	100		
72	25.4	19.6	29.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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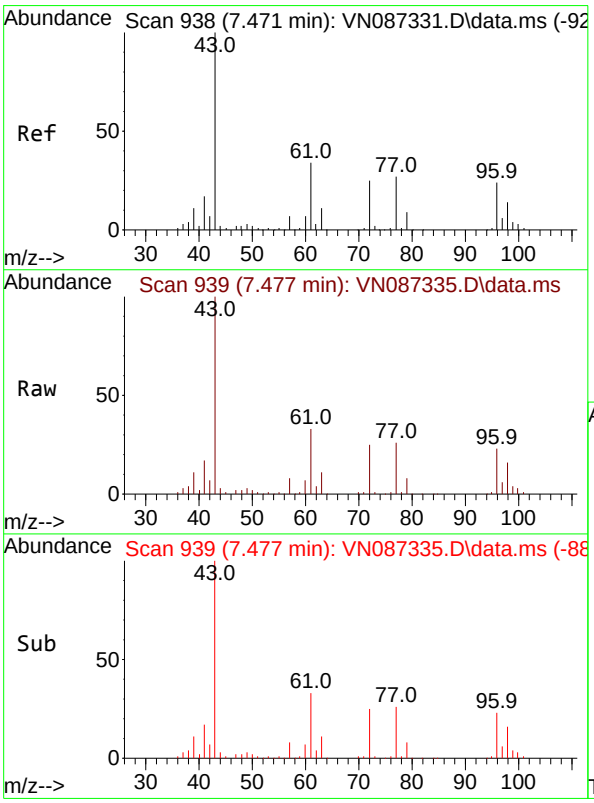
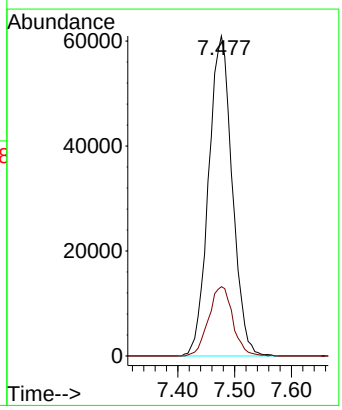
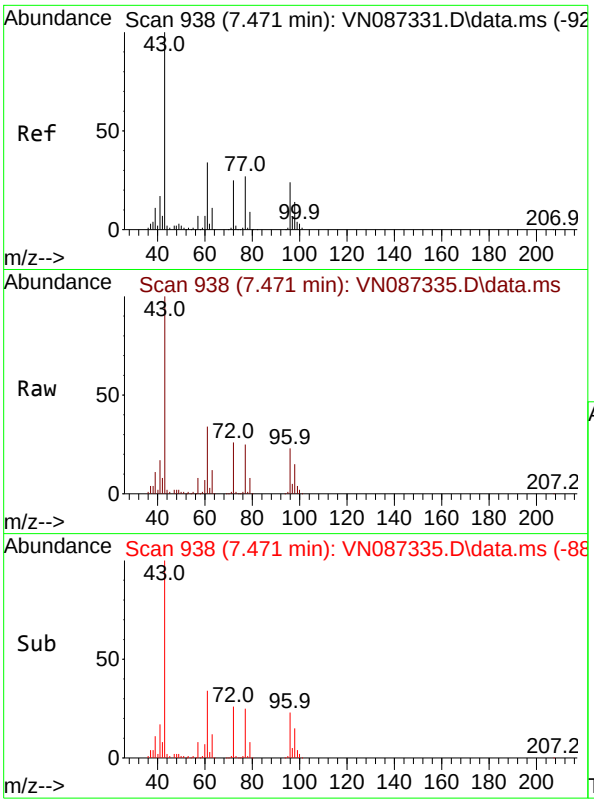


#26
2,2-Dichloropropane
Concen: 45.700 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 77 Resp: 176180

Ion	Ratio	Lower	Upper
77	100		
97	22.2	11.1	33.1

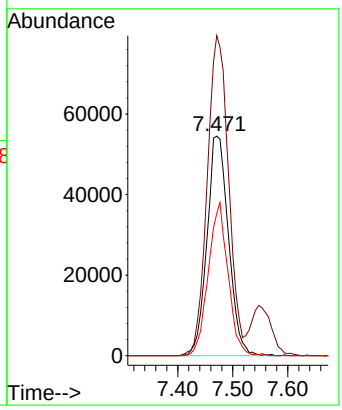




#27
cis-1,2-Dichloroethene
Concen: 50.543 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 96 Resp: 14855

Ion	Ratio	Lower	Upper
96	100		
61	144.0	0.0	297.8
98	63.7	0.0	132.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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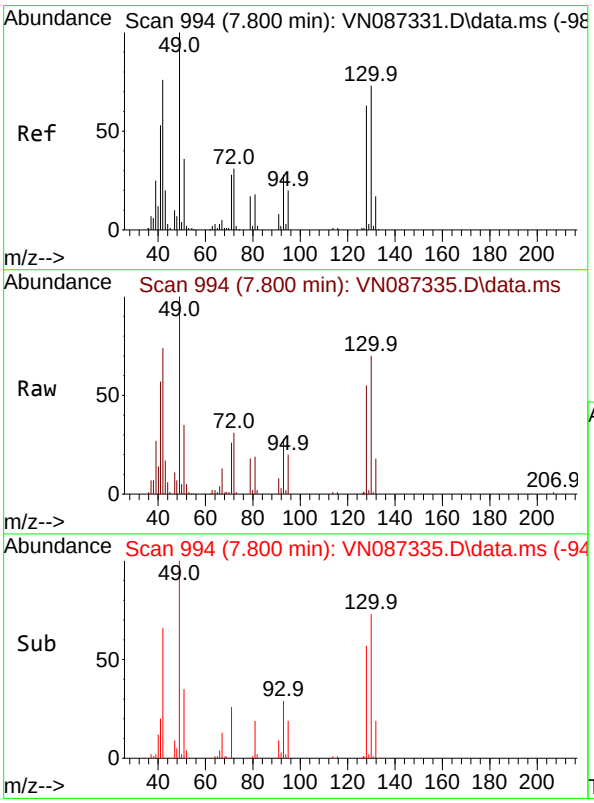
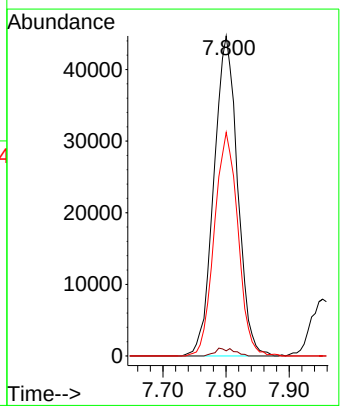
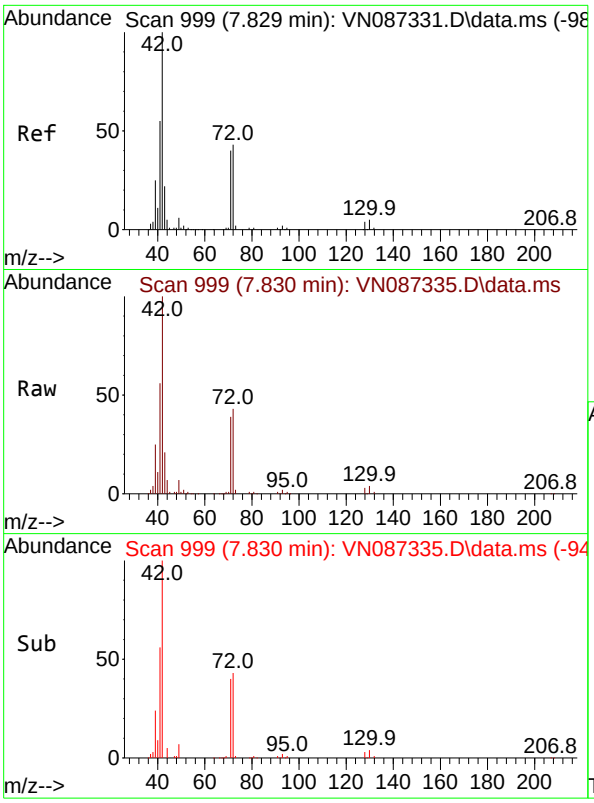


#28
Bromochloromethane
Concen: 49.089 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 49 Resp: 116494

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	4.2
130	69.6	57.3	85.9

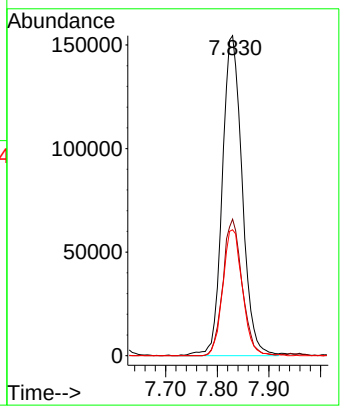




#29
Tetrahydrofuran
Concen: 260.404 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 42 Resp: 41235

Ion	Ratio	Lower	Upper
42	100		
72	41.3	33.4	50.0
71	38.9	31.2	46.8



Instrument :
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ClientSampleId :
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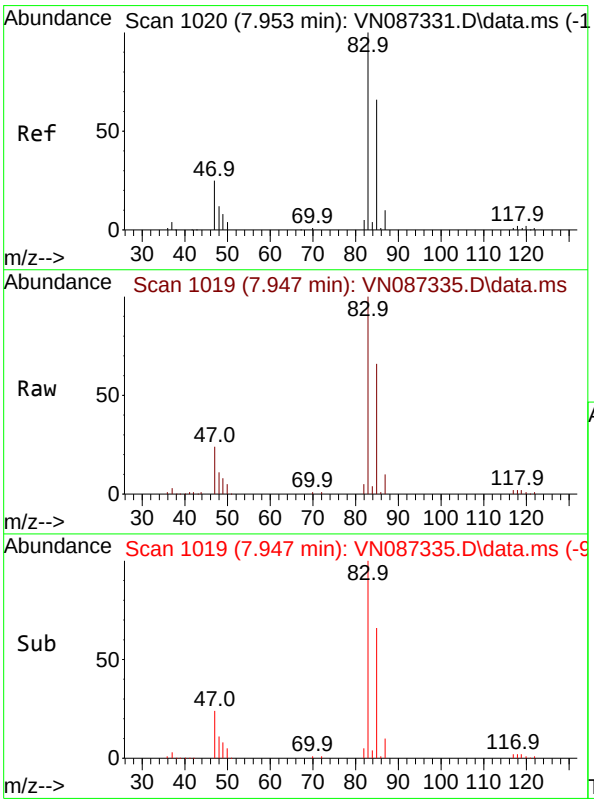
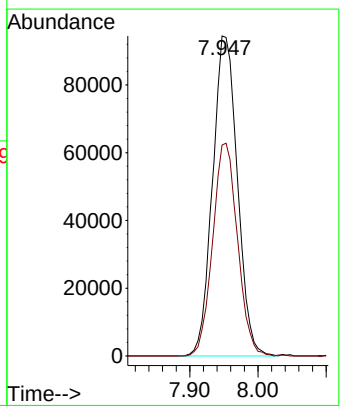
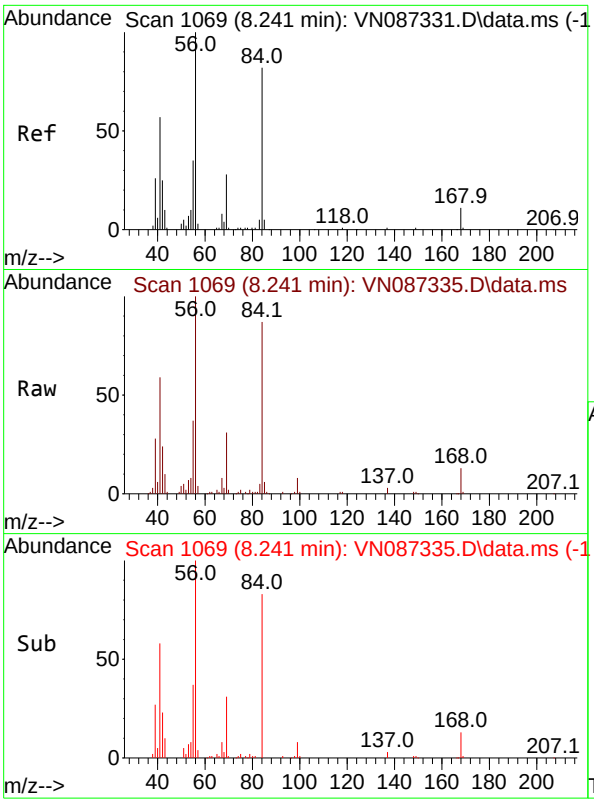


#30
Chloroform
Concen: 48.306 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 83 Resp: 239752

Ion	Ratio	Lower	Upper
83	100		
85	65.9	52.7	79.1

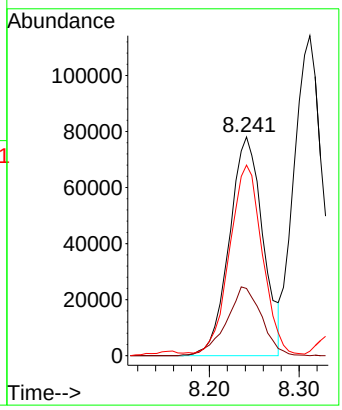




#31
Cyclohexane
Concen: 49.042 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 56 Resp: 20286

Ion	Ratio	Lower	Upper
56	100		
69	30.0	22.7	34.1
84	85.9	65.8	98.6



Instrument :
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ClientSampleId :
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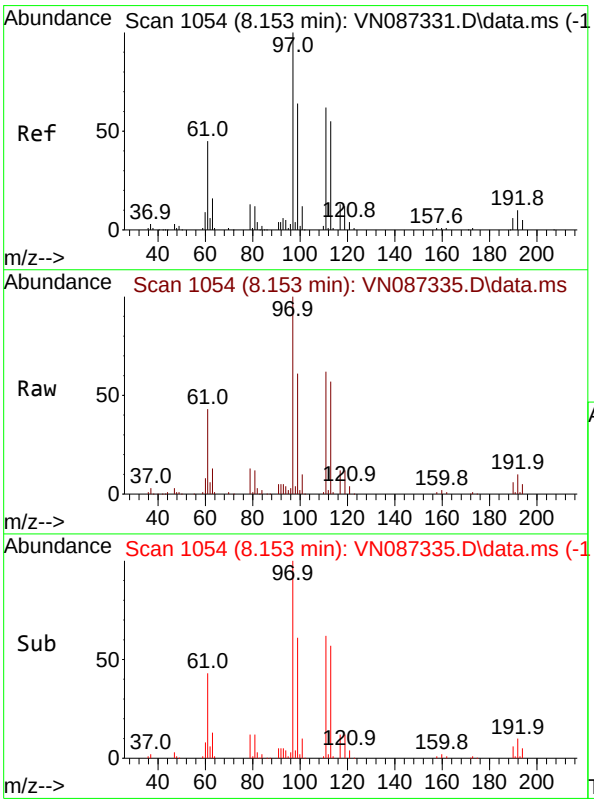
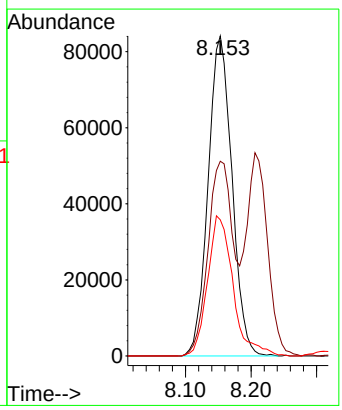
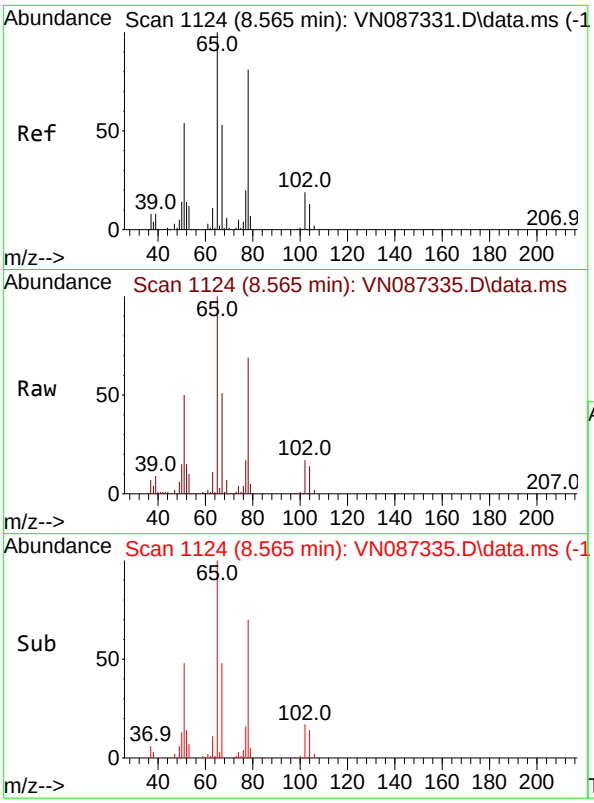


#32
1,1,1-Trichloroethane
Concen: 49.412 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 97 Resp: 212405

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.8	77.8
61	46.8	38.7	58.1

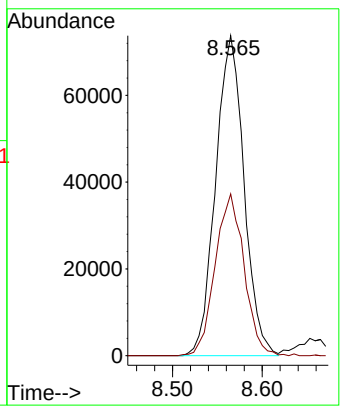




#33
1,2-Dichloroethane-d4
Concen: 48.204 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 65 Resp: 16219

Ion	Ratio	Lower	Upper
65	100		
67	51.3	0.0	104.0



Instrument :
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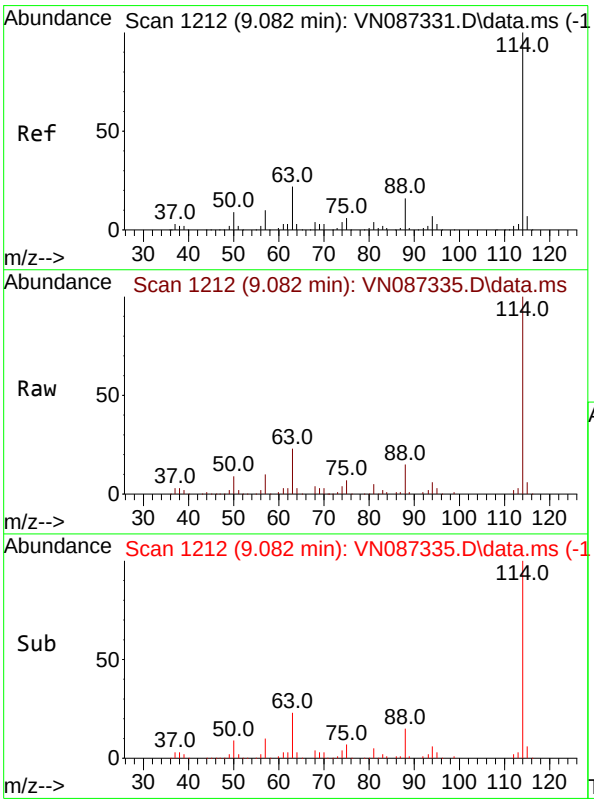
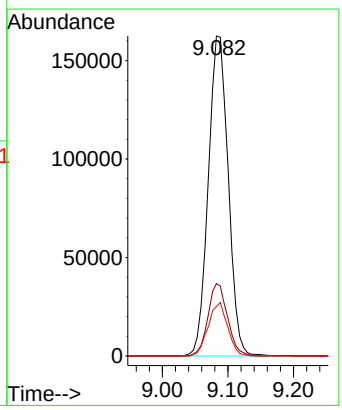
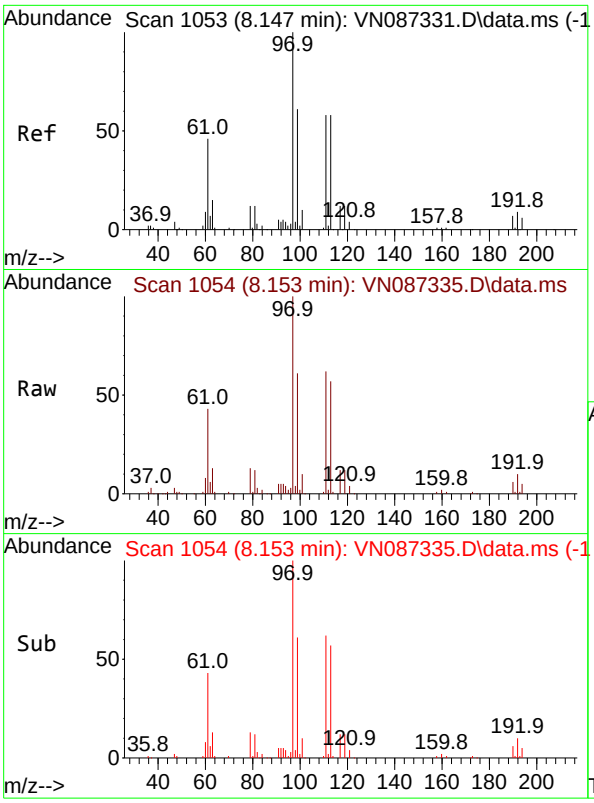


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:114 Resp: 343165

Ion	Ratio	Lower	Upper
114	100		
63	22.6	0.0	44.6
88	15.4	0.0	32.8

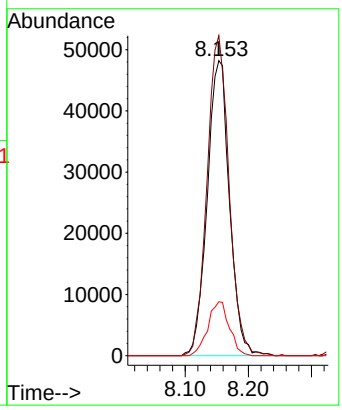




#35
Dibromofluoromethane
Concen: 49.934 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:113 Resp: 11820

Ion	Ratio	Lower	Upper
113	100		
111	107.2	82.5	123.7
192	17.6	13.7	20.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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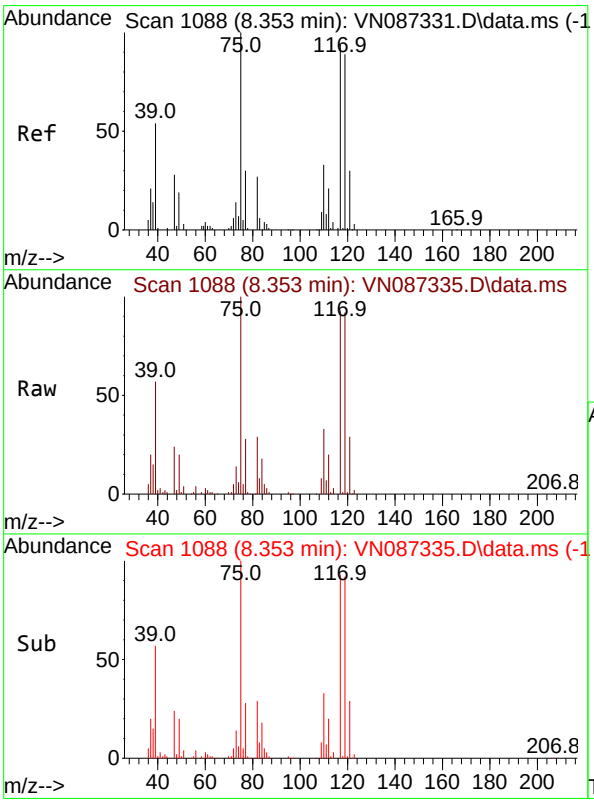
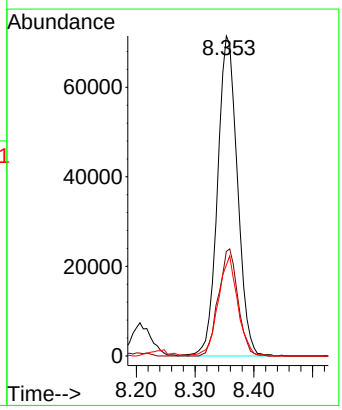
Supervised By :Semsettin Yesilyurt 07/17/2025

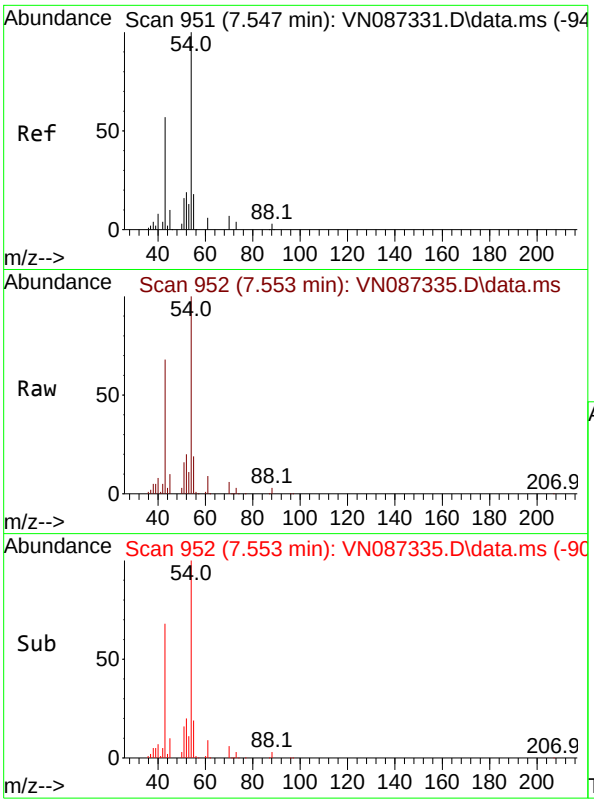


#36
1,1-Dichloropropene
Concen: 53.690 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 75 Resp: 167912

Ion	Ratio	Lower	Upper
75	100		
110	32.7	16.7	50.1
77	30.7	25.2	37.8

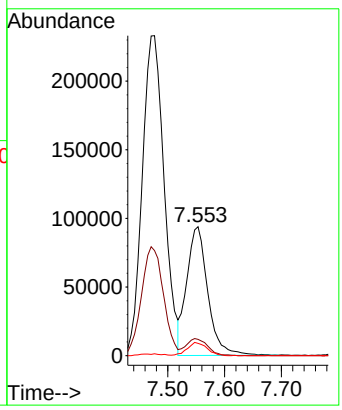




#37
Ethyl Acetate
Concen: 53.525 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 24175

Ion	Ratio	Lower	Upper
43	100		
61	12.9	10.9	16.3
70	9.6	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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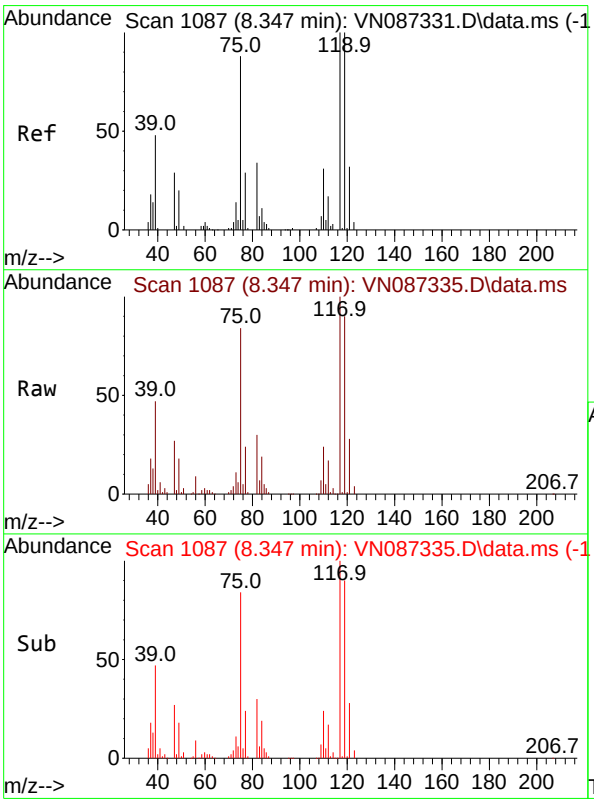
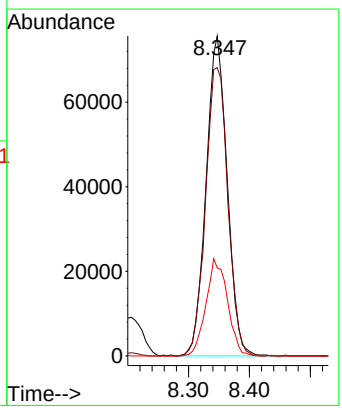
Supervised By :Semsettin Yesilyurt 07/17/2025

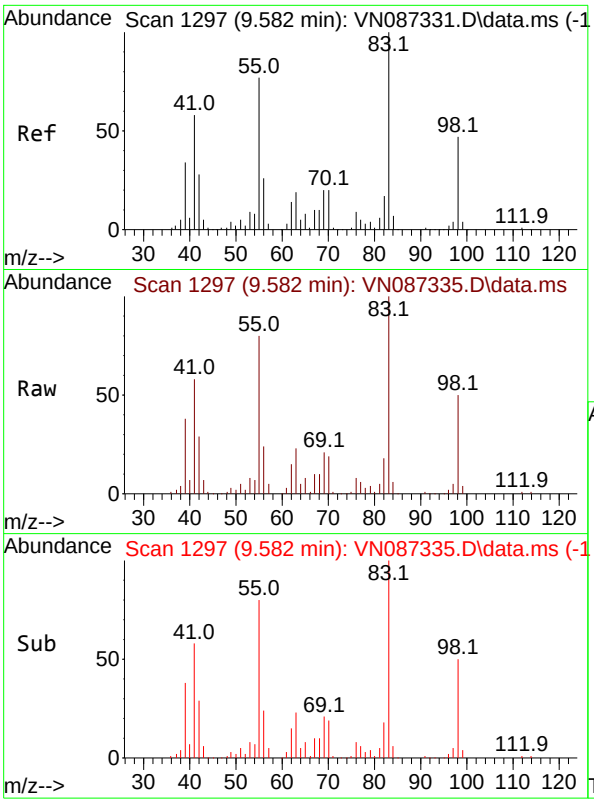


#38
Carbon Tetrachloride
Concen: 52.821 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:117 Resp: 181974

Ion	Ratio	Lower	Upper
117	100		
119	90.1	80.2	120.2
121	27.5	25.4	38.2

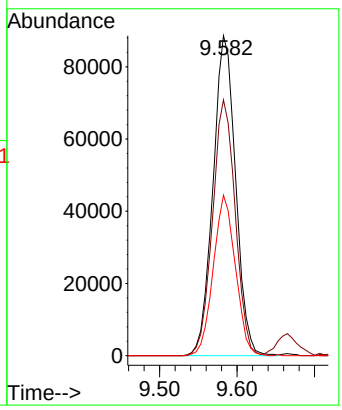




#39
Methylcyclohexane
Concen: 53.109 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 83 Resp: 17982

Ion	Ratio	Lower	Upper
83	100		
55	79.9	61.3	91.9
98	50.2	37.9	56.9



Instrument :
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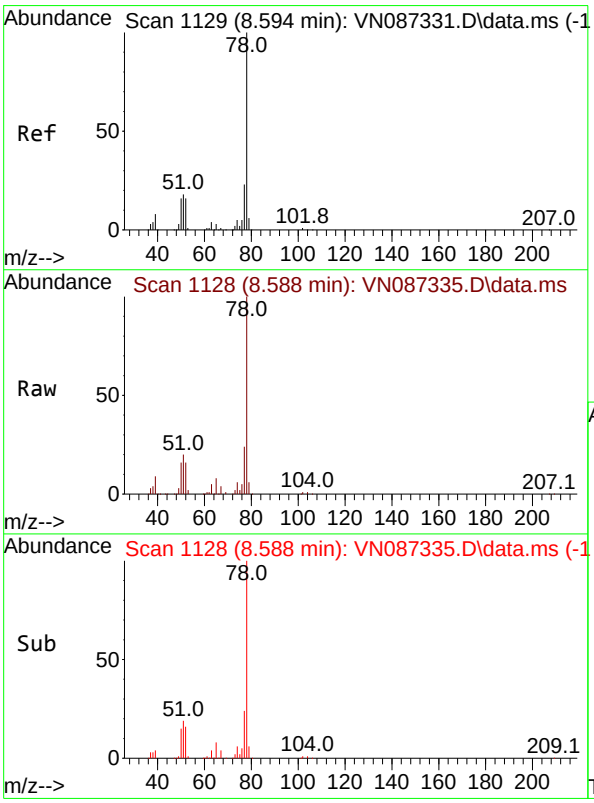
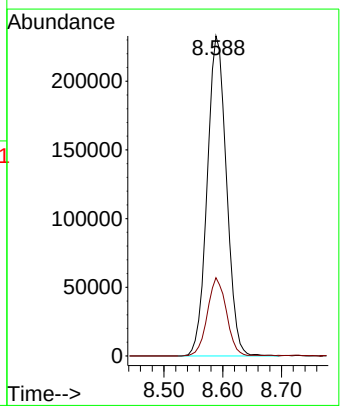
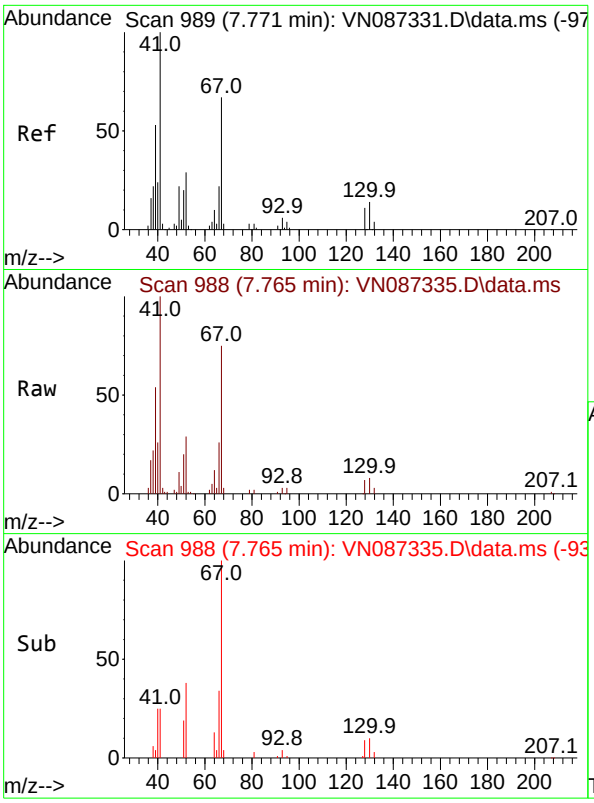


#40
Benzene
Concen: 52.380 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 78 Resp: 529446

Ion	Ratio	Lower	Upper
78	100		
77	24.4	18.2	27.2

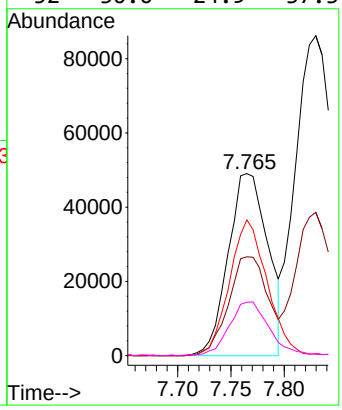




#41
Methacrylonitrile
Concen: 53.895 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 41 Resp: 12728

Ion	Ratio	Lower	Upper
41	100		
39	53.9	43.4	65.0
67	71.0	55.1	82.7
52	30.0	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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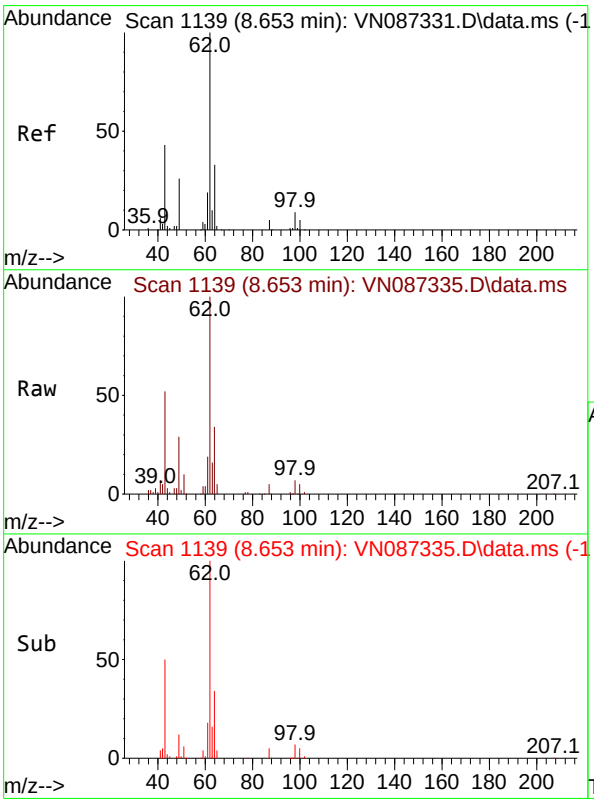
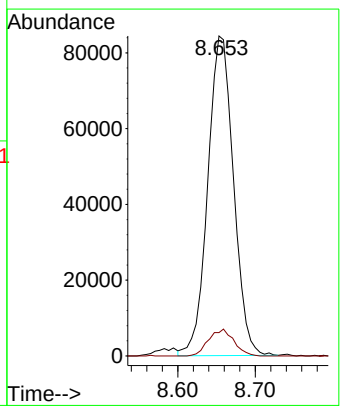
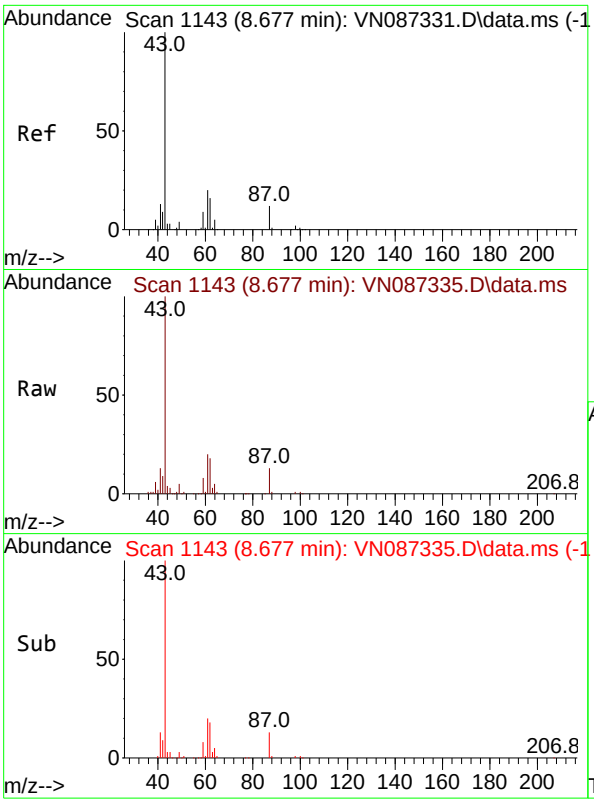


#42
1,2-Dichloroethane
Concen: 50.821 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 62 Resp: 194804

Ion	Ratio	Lower	Upper
62	100		
98	8.2	0.0	18.0





#43
Isopropyl Acetate
Concen: 53.477 ug/l
RT: 8.677 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 37495

Ion	Ratio	Lower	Upper
43	100		
61	24.9	19.8	29.8
87	12.1	9.8	14.6

Instrument :
MSVOA_N
ClientSampleId :
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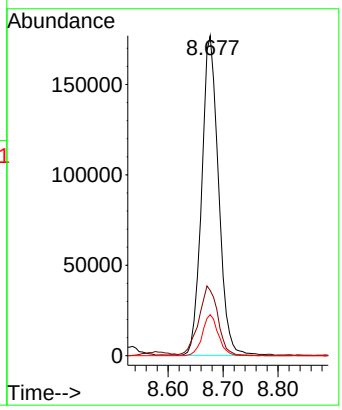
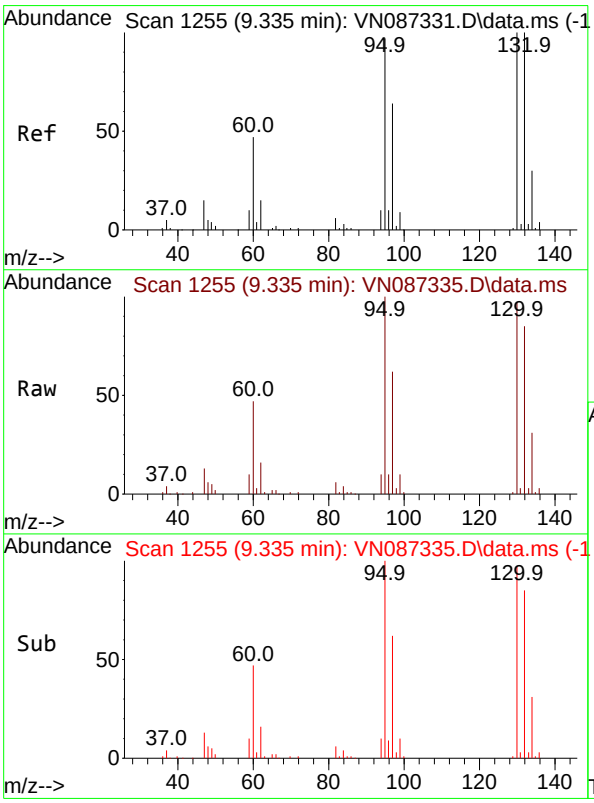
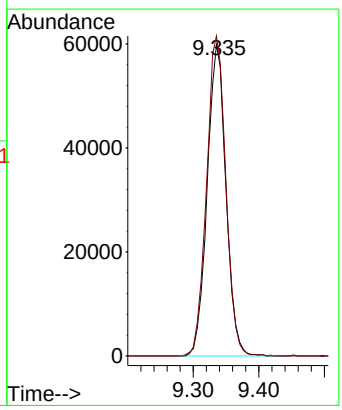


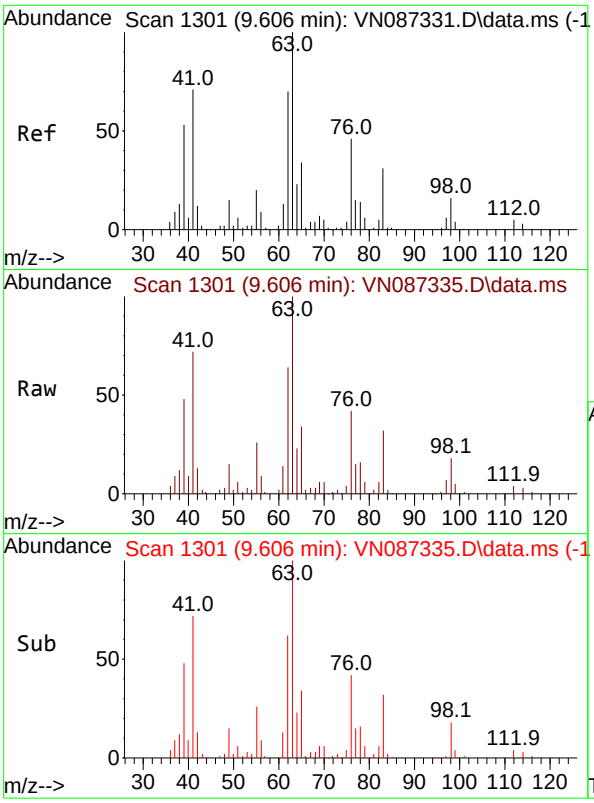


#44
Trichloroethene
Concen: 49.731 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:130 Resp: 118775

Ion	Ratio	Lower	Upper
130	100		
95	102.8	0.0	195.2

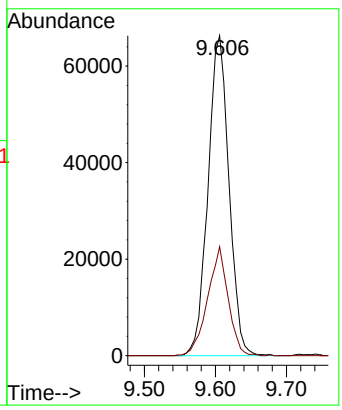




#45
1,2-Dichloropropane
Concen: 52.900 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 63 Resp: 13586

Ion	Ratio	Lower	Upper
63	100		
65	34.0	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
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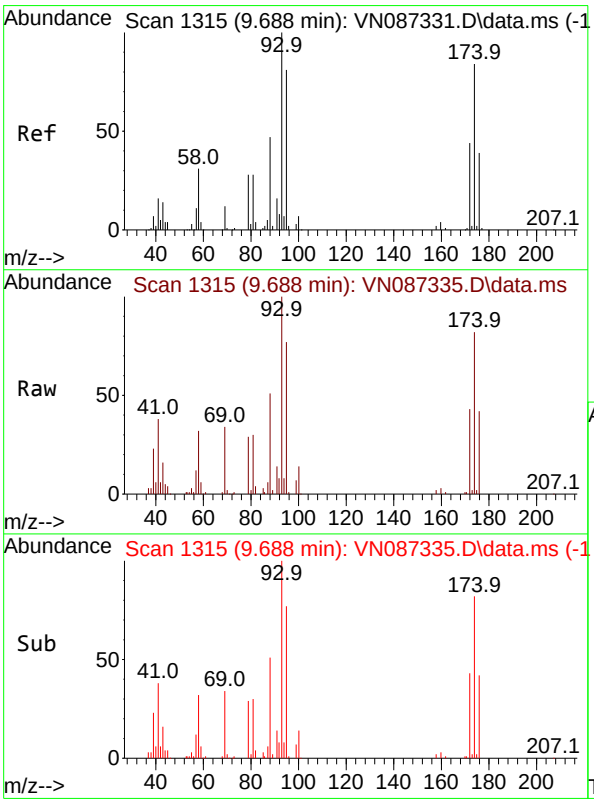
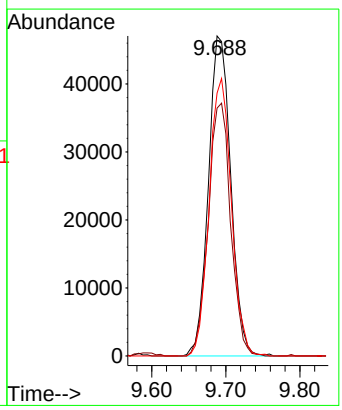
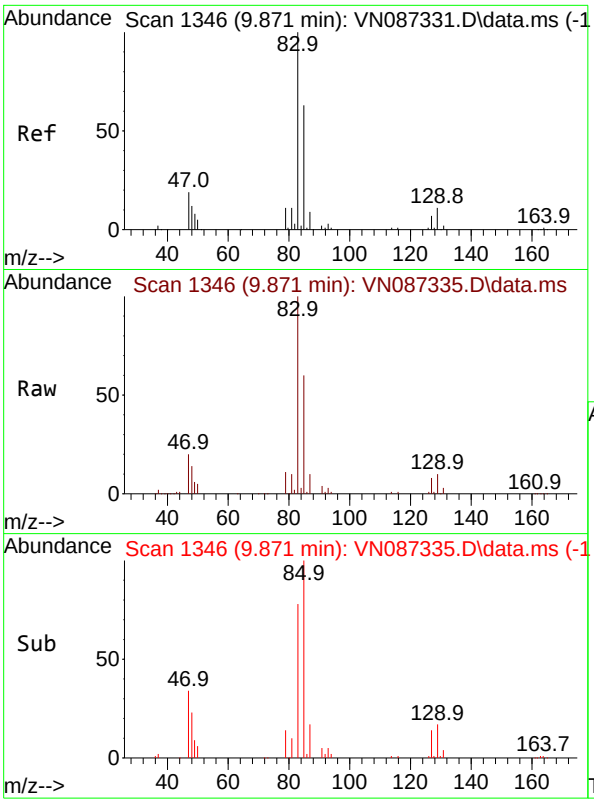


#46
Dibromomethane
Concen: 51.241 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 93 Resp: 98534

Ion	Ratio	Lower	Upper
93	100		
95	79.2	65.8	98.8
174	86.5	69.9	104.9

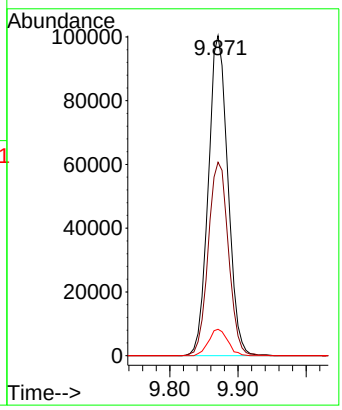




#47
Bromodichloromethane
Concen: 51.696 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 83 Resp: 20023

Ion	Ratio	Lower	Upper
83	100		
85	60.5	50.4	75.6
127	8.2	5.8	8.8



Instrument :
MSVOA_N
ClientSampleId :
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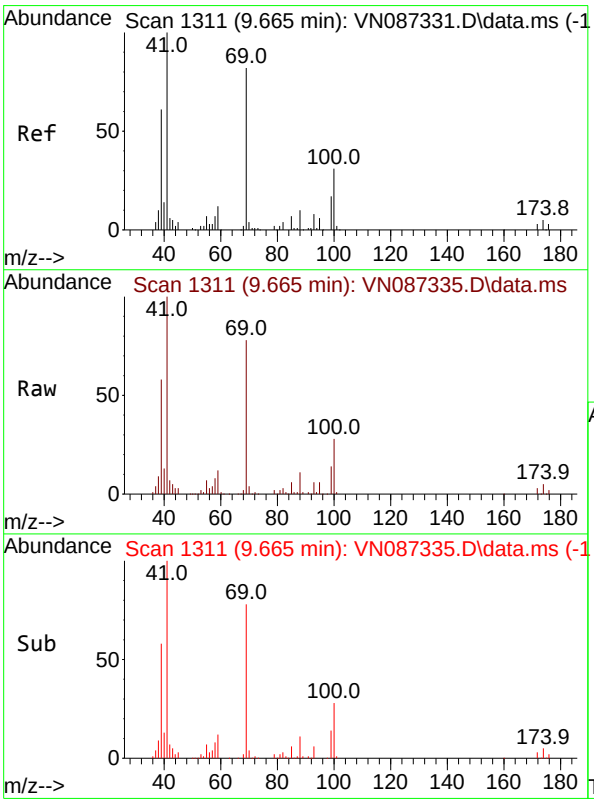
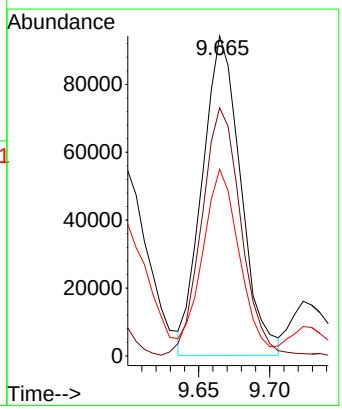
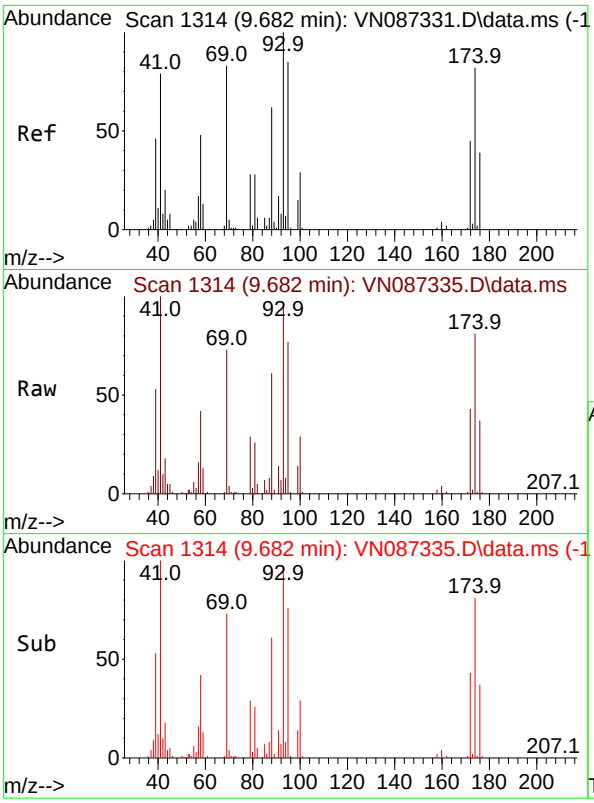


#48
Methyl methacrylate
Concen: 56.096 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 41 Resp: 177068

Ion	Ratio	Lower	Upper
41	100		
69	79.9	64.1	96.1
39	56.0	45.5	68.3

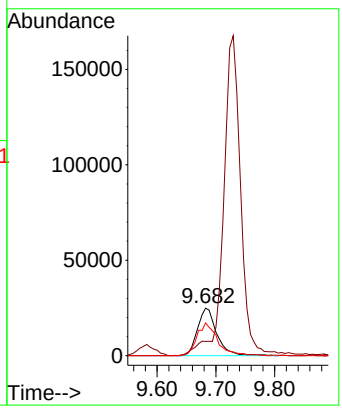




#49
1,4-Dioxane
Concen: 1177.300 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 88 Resp: 5691

Ion	Ratio	Lower	Upper
88	100		
43	0.0	0.0	0.0
58	73.7	61.1	91.7



Instrument :
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ClientSampleId :
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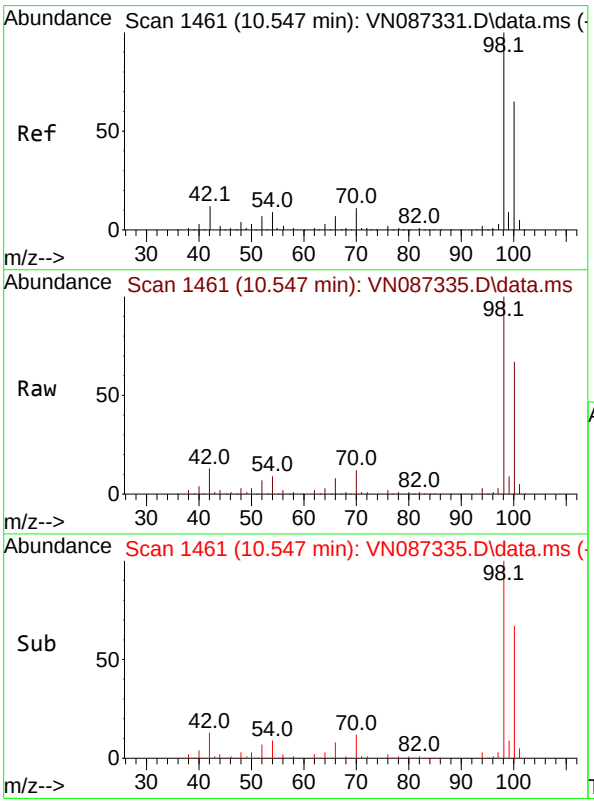
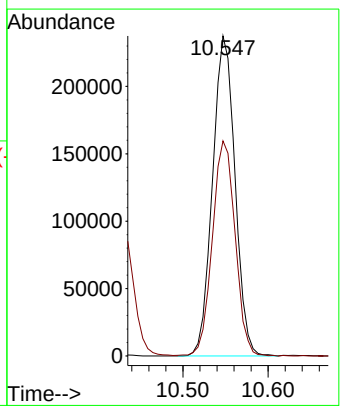
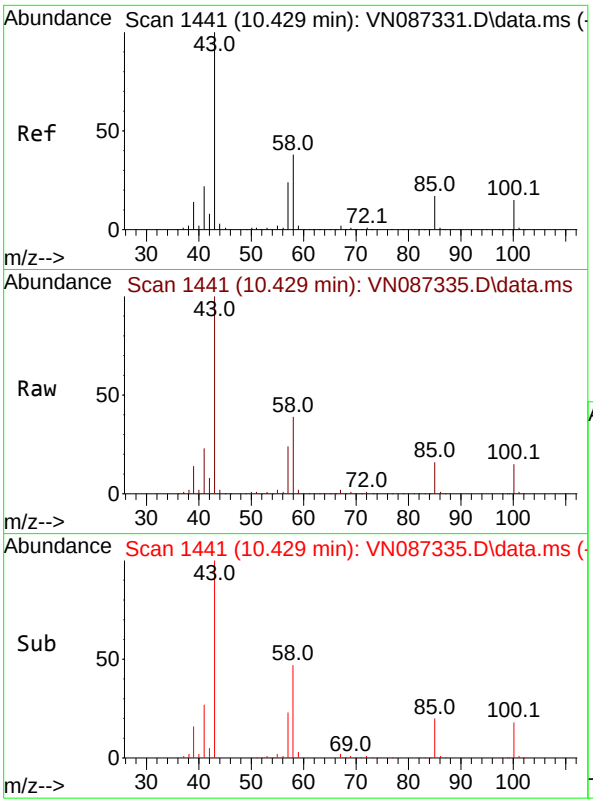


#50
Toluene-d8
Concen: 51.573 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 98 Resp: 435474

Ion	Ratio	Lower	Upper
98	100		
100	68.2	52.1	78.1

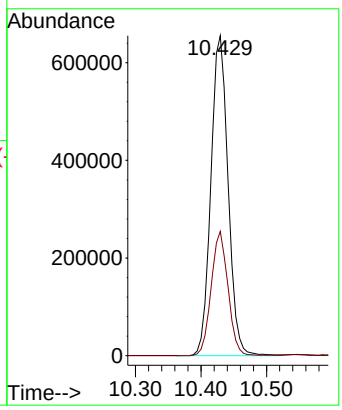




#51
4-Methyl-2-Pentanone
Concen: 268.966 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 119276

Ion	Ratio	Lower	Upper
43	100		
58	38.0	30.8	46.2



Instrument :
MSVOA_N
ClientSampleId :
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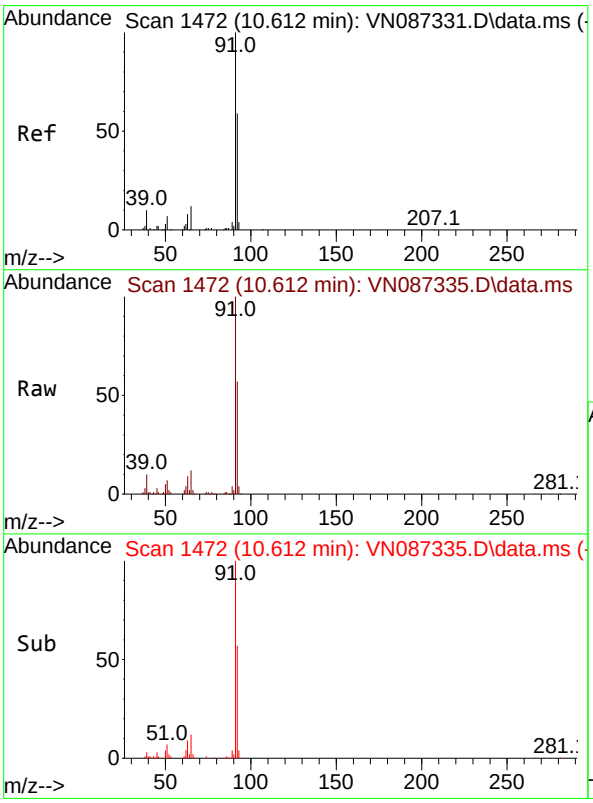
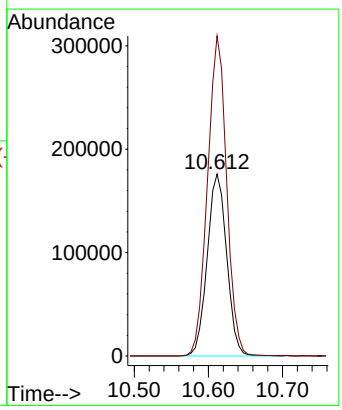
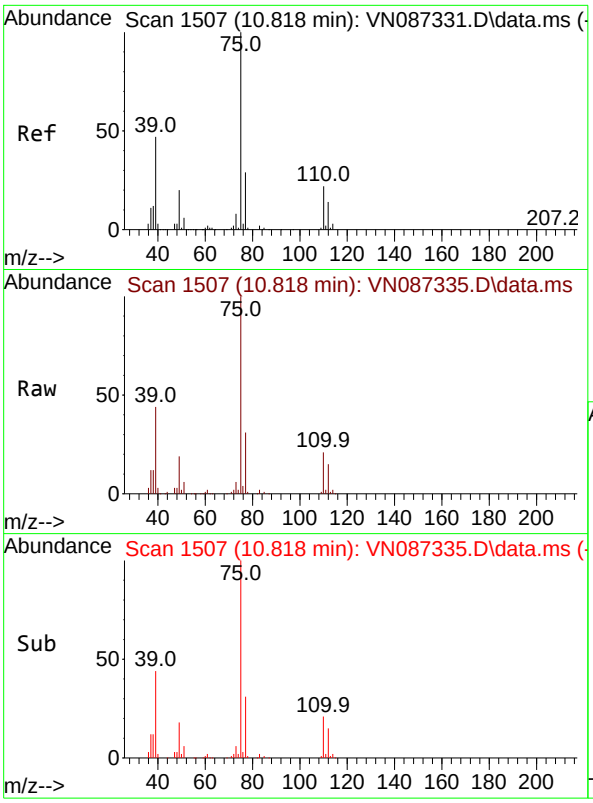


#52
Toluene
Concen: 52.236 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 92 Resp: 320922

Ion	Ratio	Lower	Upper
92	100		
91	173.1	135.1	202.7

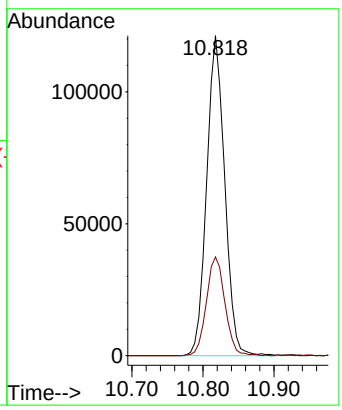




#53
t-1,3-Dichloropropene
Concen: 54.628 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 75 Resp: 21414

Ion	Ratio	Lower	Upper
75	100		
77	30.9	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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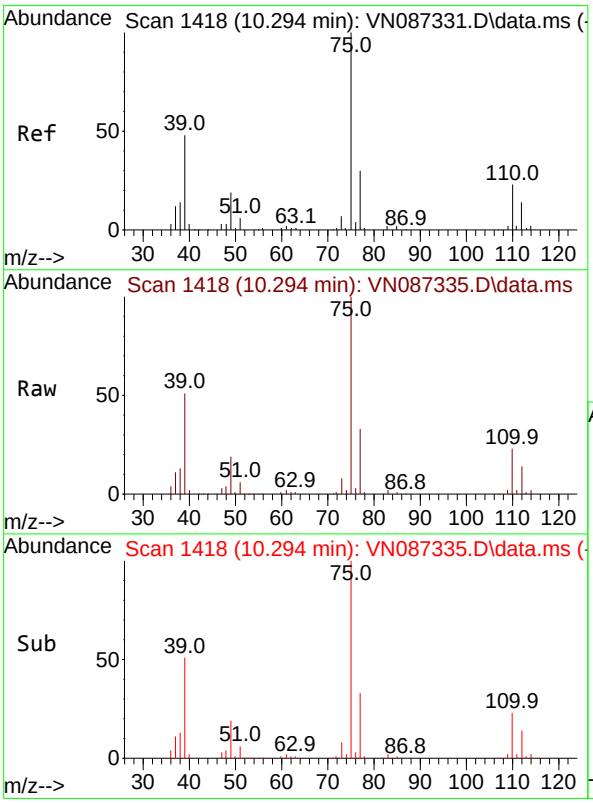
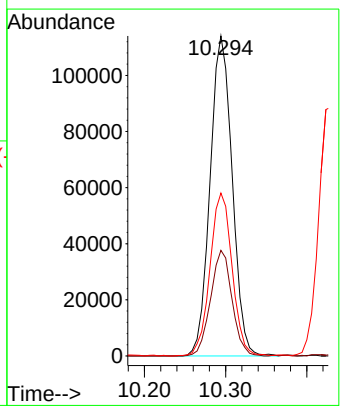
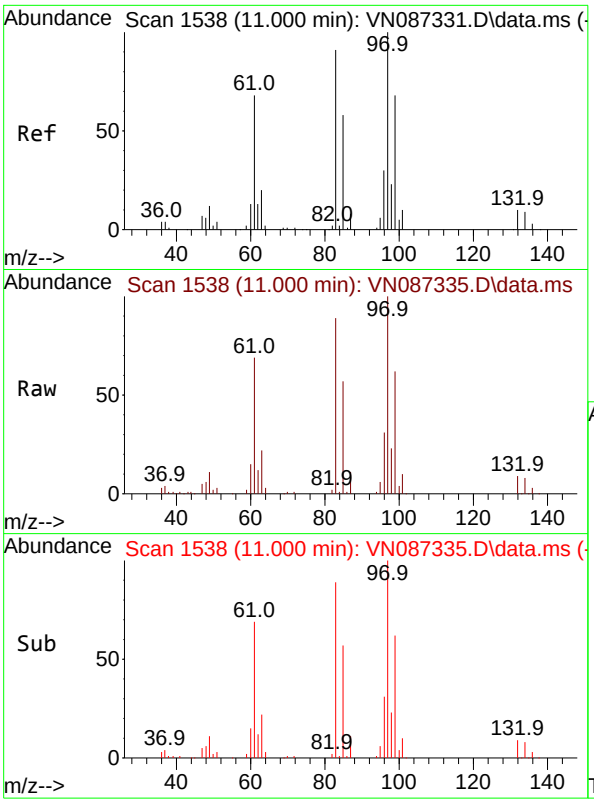


#54
cis-1,3-Dichloropropene
Concen: 53.351 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 75 Resp: 216023

Ion	Ratio	Lower	Upper
75	100		
77	33.0	24.2	36.2
39	50.8	38.4	57.6

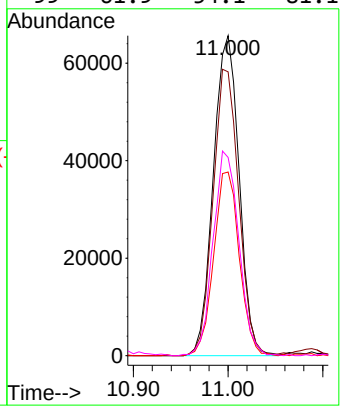




#55
1,1,2-Trichloroethane
Concen: 49.889 ug/l
RT: 11.000 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 97 Resp: 12409

Ion	Ratio	Lower	Upper
97	100		
83	88.7	72.6	109.0
85	57.4	46.7	70.1
99	61.9	54.1	81.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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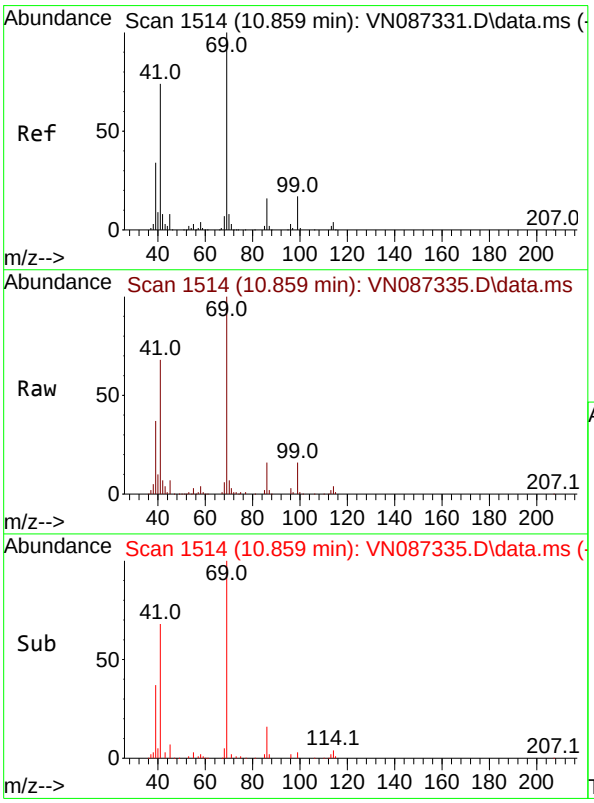
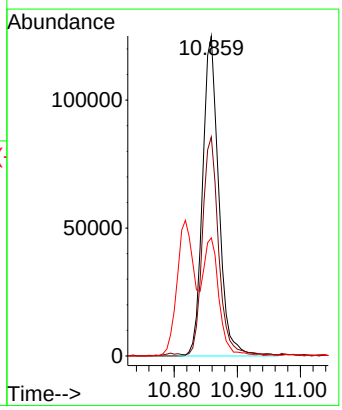
Supervised By :Semsettin Yesilyurt 07/17/2025

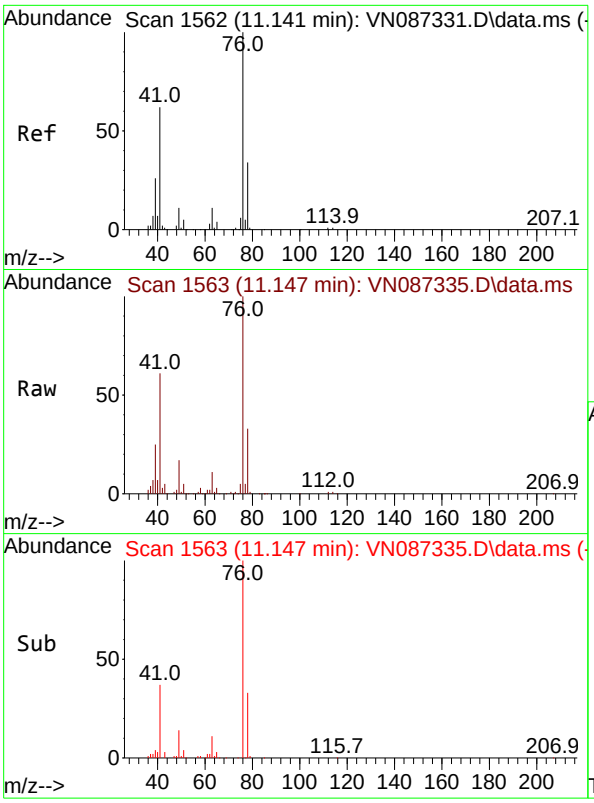


#56
Ethyl methacrylate
Concen: 53.042 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 69 Resp: 222410

Ion	Ratio	Lower	Upper
69	100		
41	67.6	55.1	82.7
39	34.0	27.9	41.9

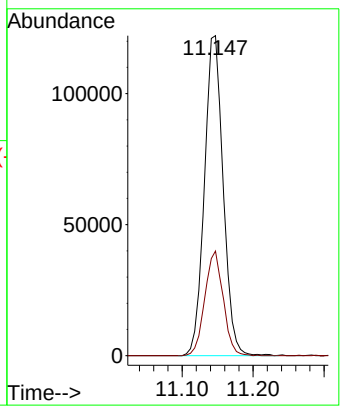




#57
1,3-Dichloropropane
Concen: 52.202 ug/l
RT: 11.147 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 76 Resp: 22449

Ion	Ratio	Lower	Upper
76	100		
78	31.9	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
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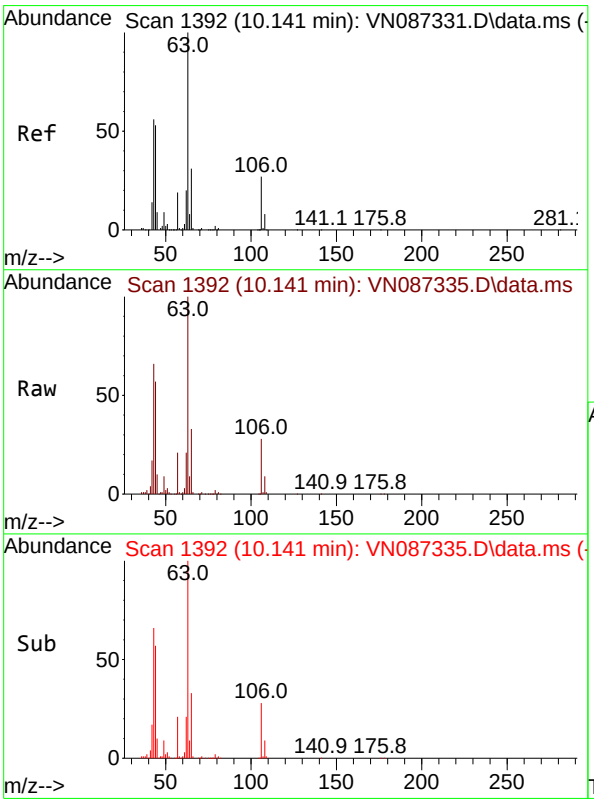
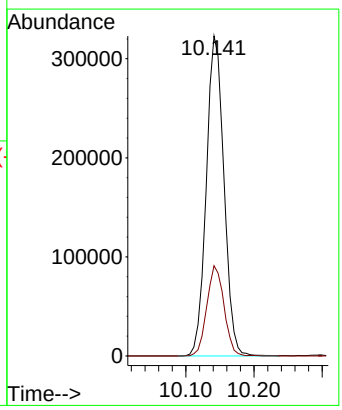
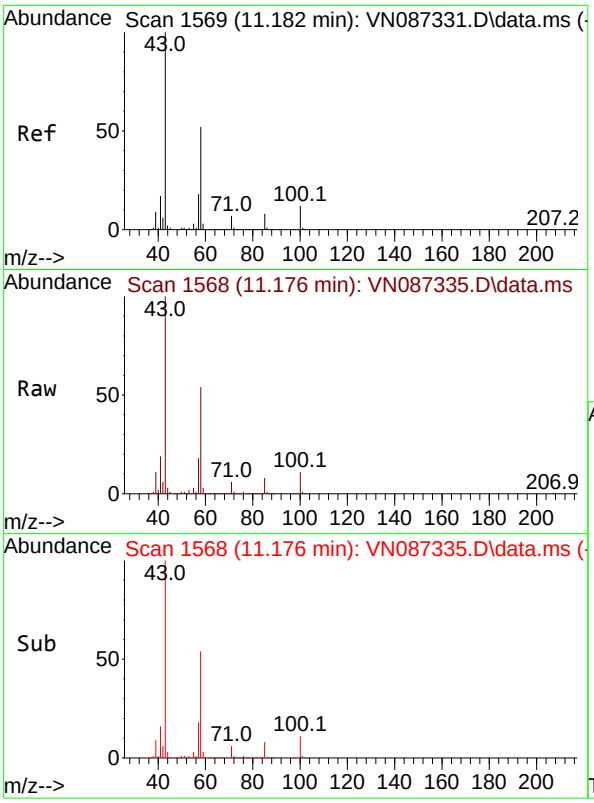


#58
2-Chloroethyl Vinyl ether
Concen: 285.088 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 63 Resp: 581689

Ion	Ratio	Lower	Upper
63	100		
106	27.5	21.7	32.5





#59
2-Hexanone
Concen: 288.579 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 84905

Ion	Ratio	Lower	Upper
43	100		
58	53.4	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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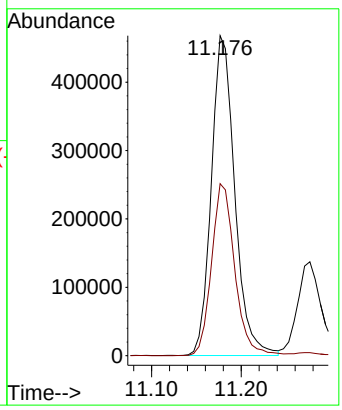
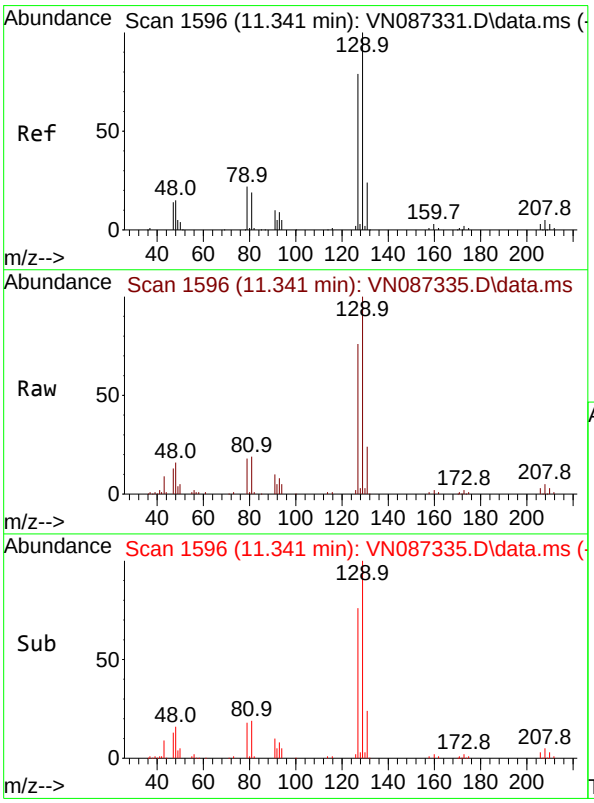
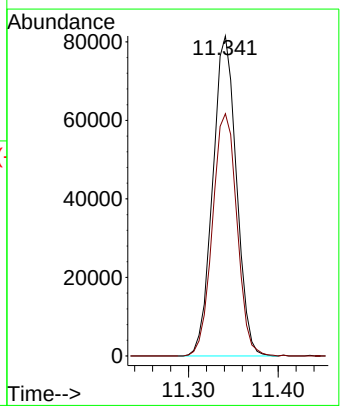


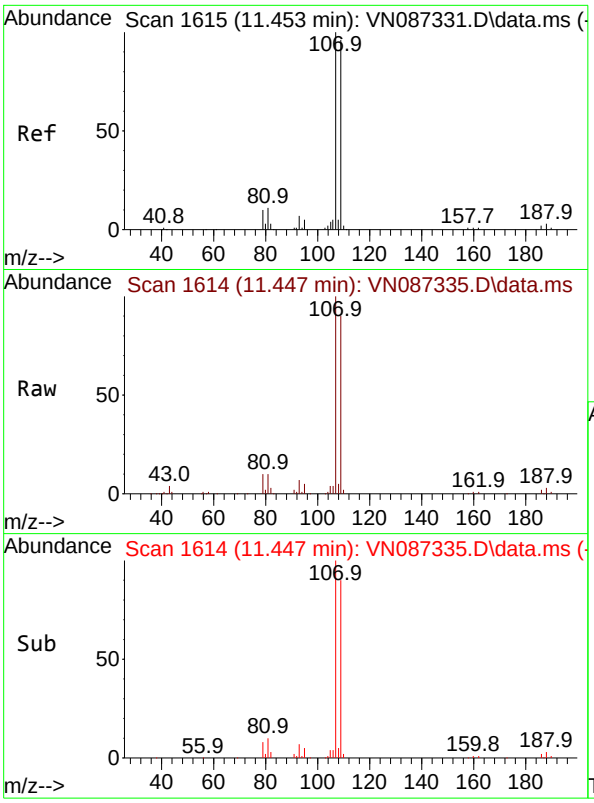


#60
Dibromochloromethane
Concen: 52.685 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:129 Resp: 149449

Ion	Ratio	Lower	Upper
129	100		
127	78.0	39.1	117.5

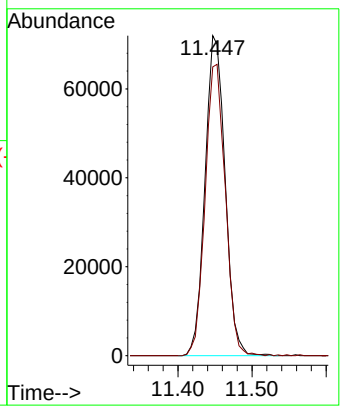




#61
1,2-Dibromoethane
Concen: 51.746 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:107 Resp: 13533

Ion	Ratio	Lower	Upper
107	100		
109	91.4	77.5	116.3



Instrument :
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ClientSampleId :
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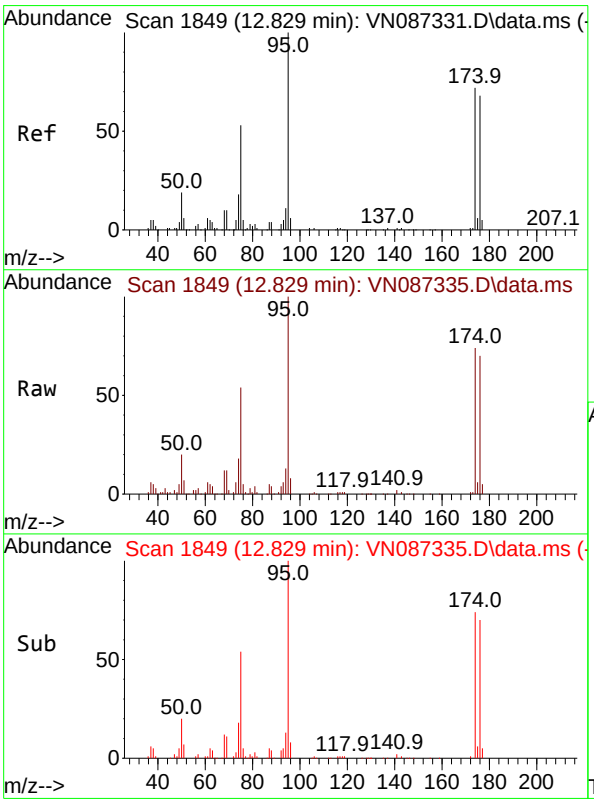
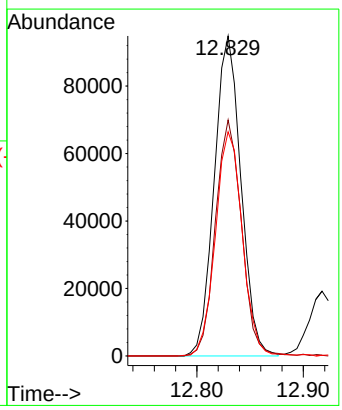
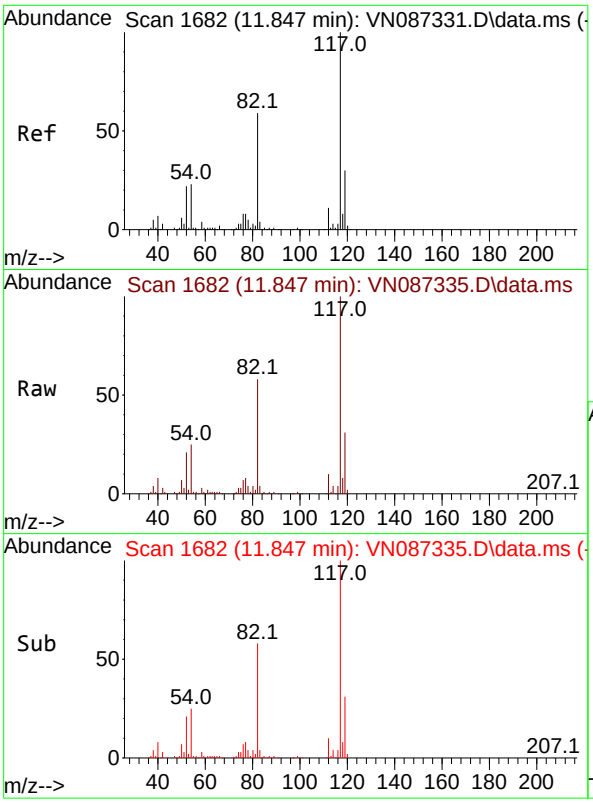


#62
4-Bromofluorobenzene
Concen: 52.942 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 95 Resp: 165160

Ion	Ratio	Lower	Upper
95	100		
174	71.8	0.0	149.4
176	70.6	0.0	141.2

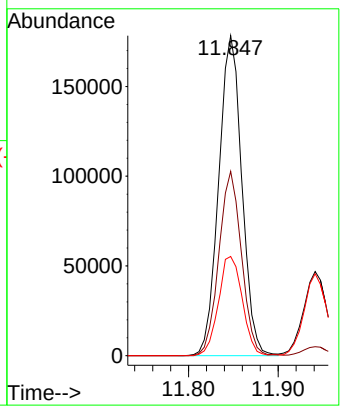




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:117 Resp: 31969

Ion	Ratio	Lower	Upper
117	100		
82	57.6	47.4	71.2
119	31.0	23.8	35.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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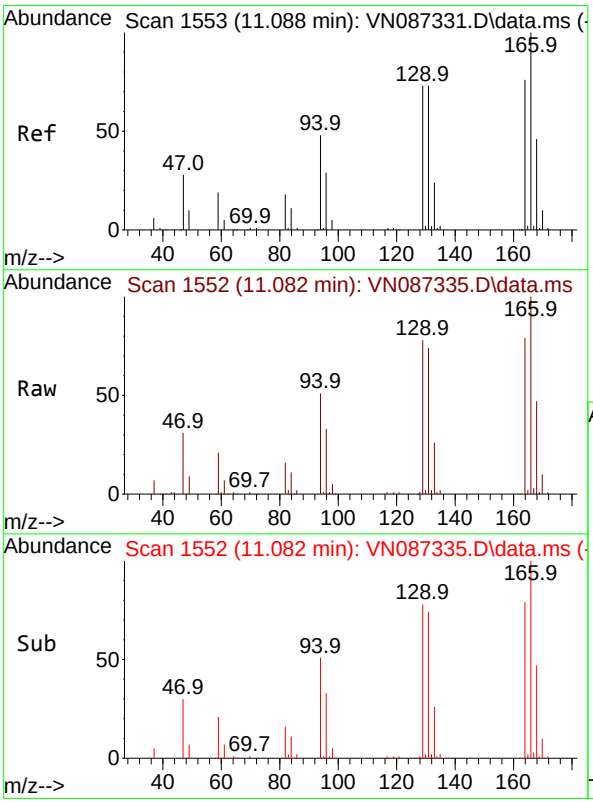
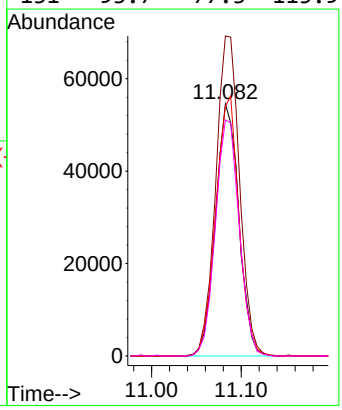
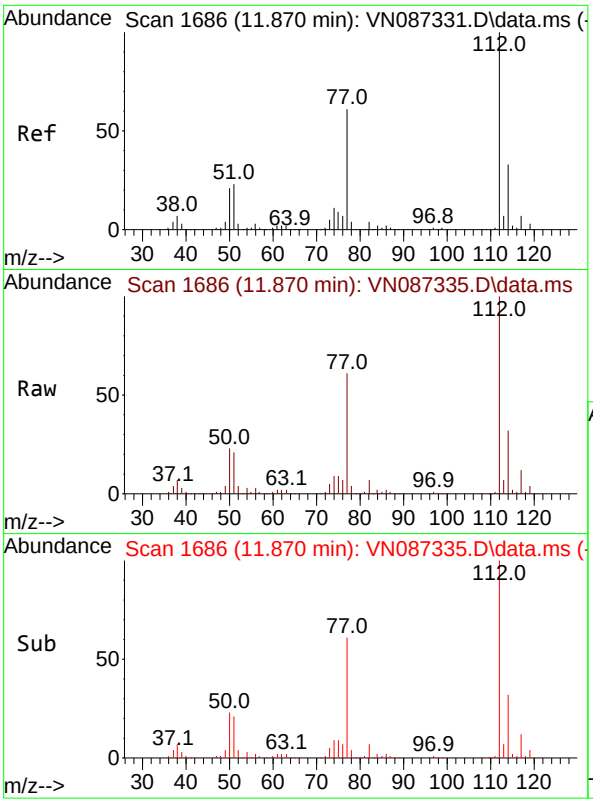


#64
Tetrachloroethene
Concen: 47.819 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:164 Resp: 98391

Ion	Ratio	Lower	Upper
164	100		
166	127.0	105.5	158.3
129	99.0	77.4	116.2
131	93.7	77.3	115.9

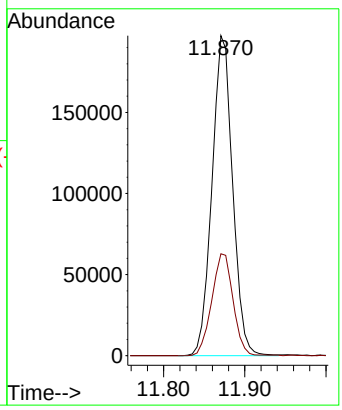




#65
Chlorobenzene
Concen: 48.477 ug/l
RT: 11.870 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:112 Resp: 34793

Ion	Ratio	Lower	Upper
112	100		
114	31.8	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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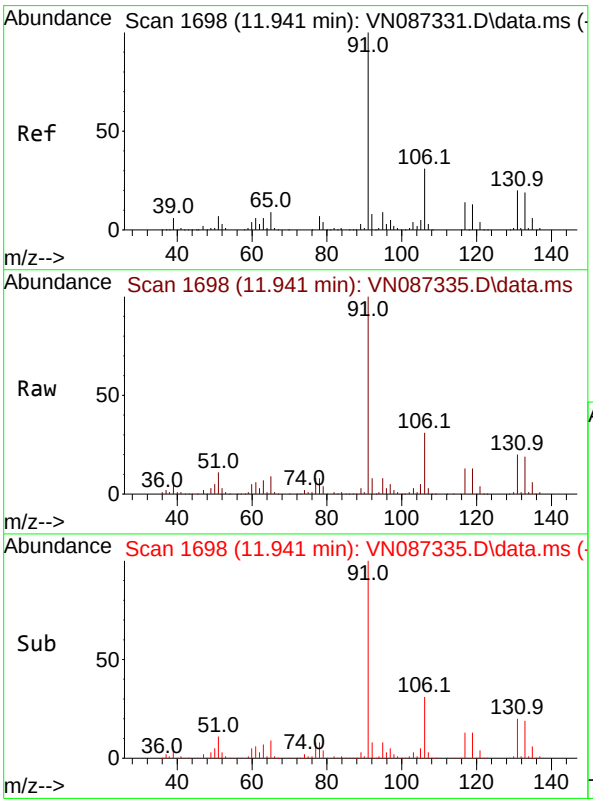
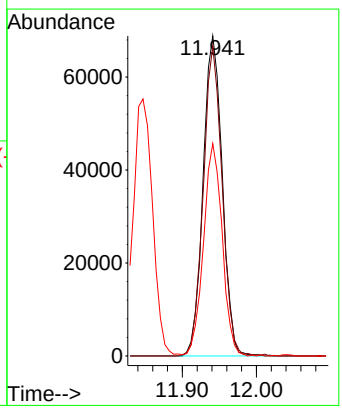
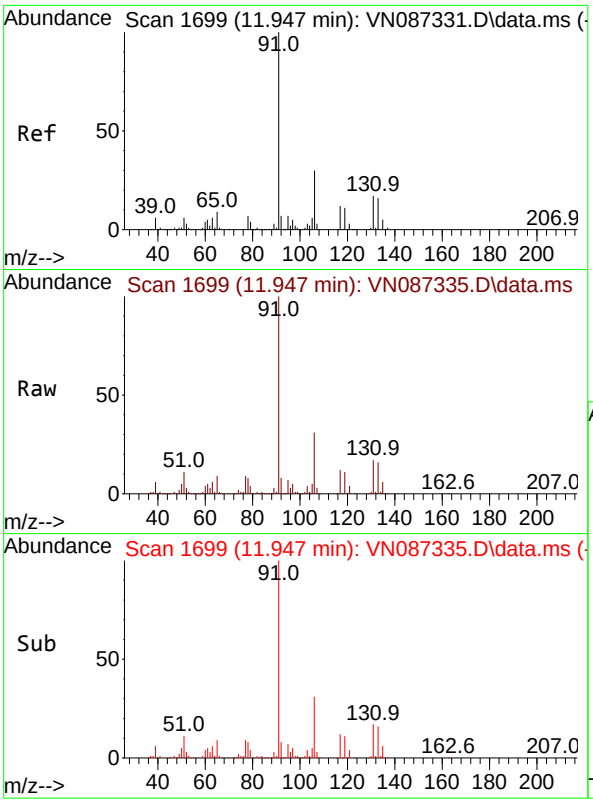


#66
1,1,1,2-Tetrachloroethane
Concen: 50.530 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:131 Resp: 123321

Ion	Ratio	Lower	Upper
131	100		
133	95.5	47.4	142.3
119	65.0	33.1	99.2

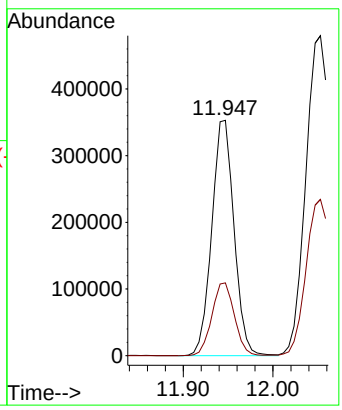




#67
Ethyl Benzene
Concen: 51.523 ug/l
RT: 11.947 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 91 Resp: 60877

Ion	Ratio	Lower	Upper
91	100		
106	30.9	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
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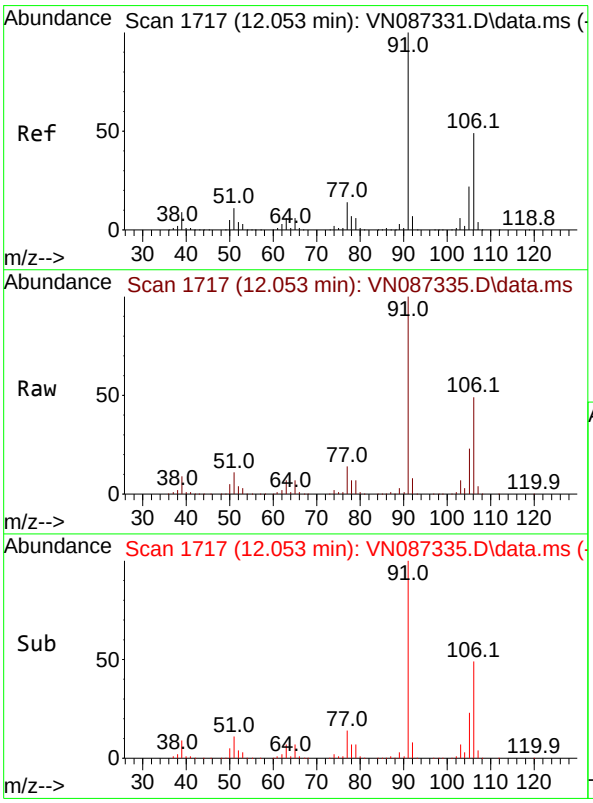
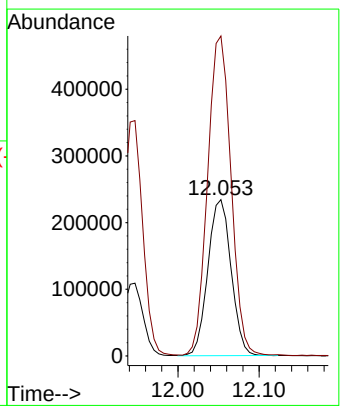
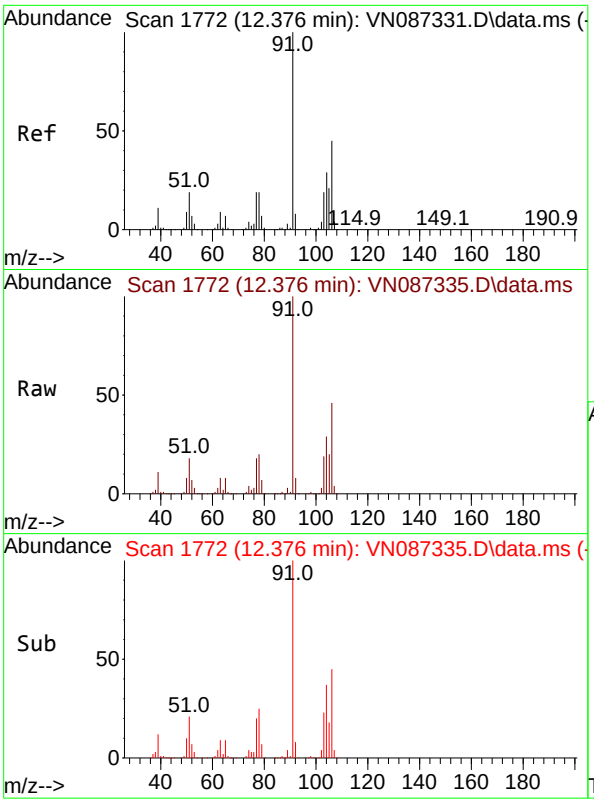


#68
m/p-Xylenes
Concen: 105.269 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:106 Resp: 465762

Ion	Ratio	Lower	Upper
106	100		
91	206.7	162.0	243.0





#69
o-Xylene
Concen: 53.221 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:106 Resp: 22493

Ion	Ratio	Lower	Upper
106	100		
91	217.3	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
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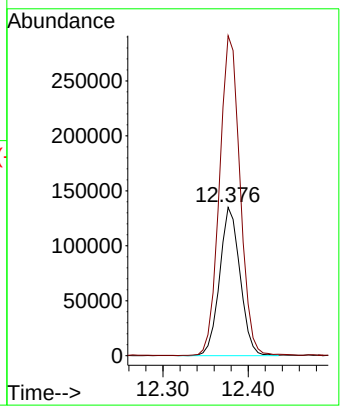
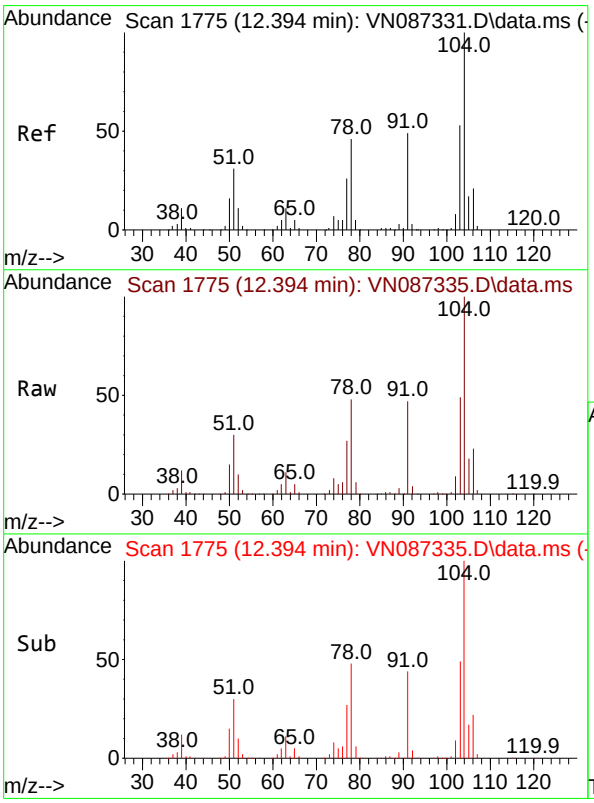
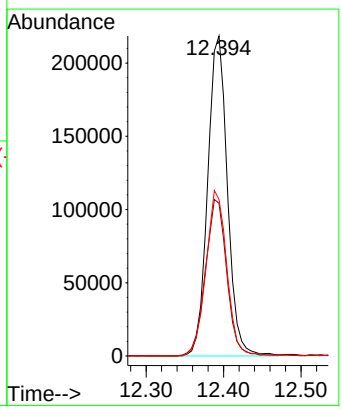


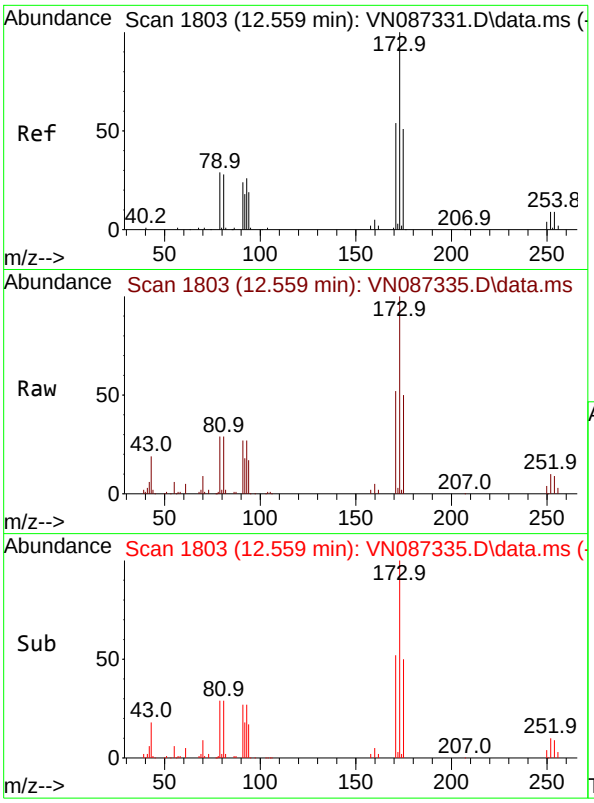


#70
Styrene
Concen: 54.477 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:104 Resp: 387319

Ion	Ratio	Lower	Upper
104	100		
78	53.1	41.0	61.6
103	54.5	43.9	65.9

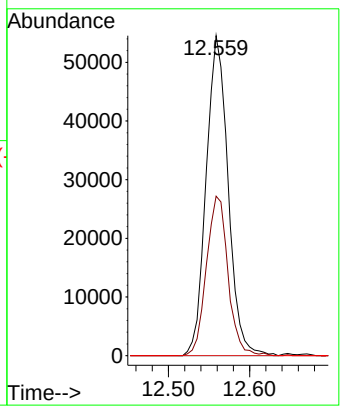




#71
Bromoform
Concen: 51.987 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:173 Resp: 10250

Ion	Ratio	Lower	Upper
173	100		
175	49.0	24.1	72.3
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
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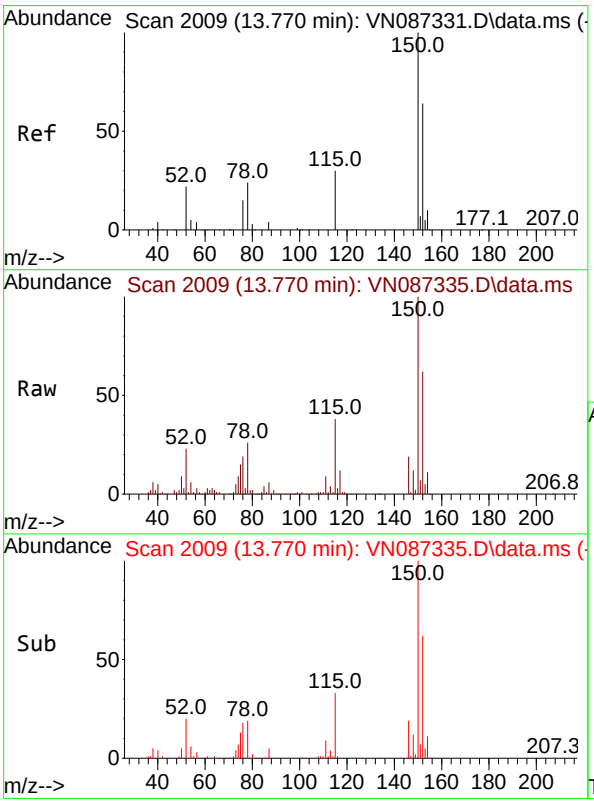
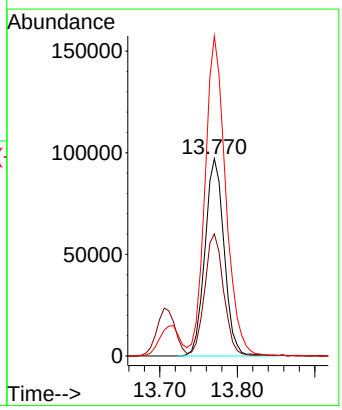
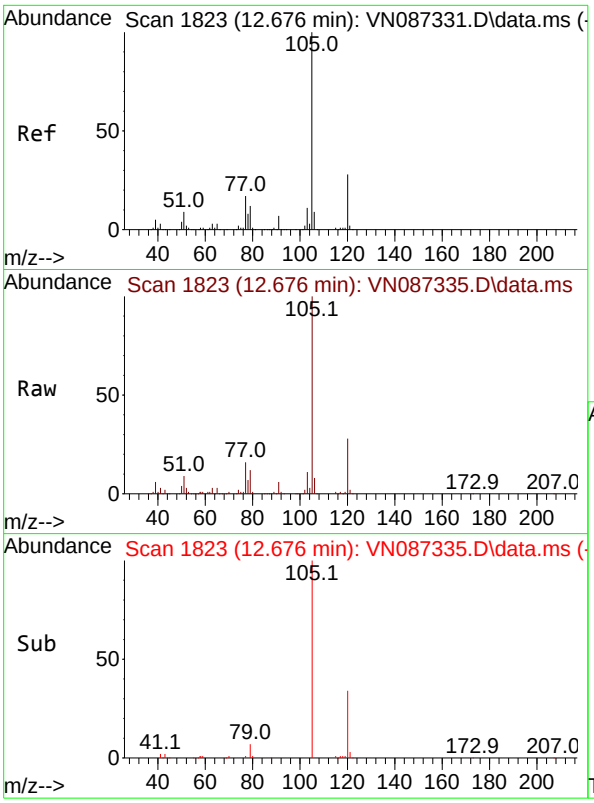


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:152 Resp: 166959

Ion	Ratio	Lower	Upper
152	100		
115	60.2	31.1	93.5
150	174.4	0.0	349.0

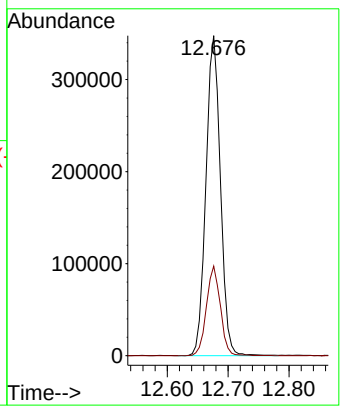




#73
Isopropylbenzene
Concen: 54.619 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:105 Resp: 57393

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.4	40.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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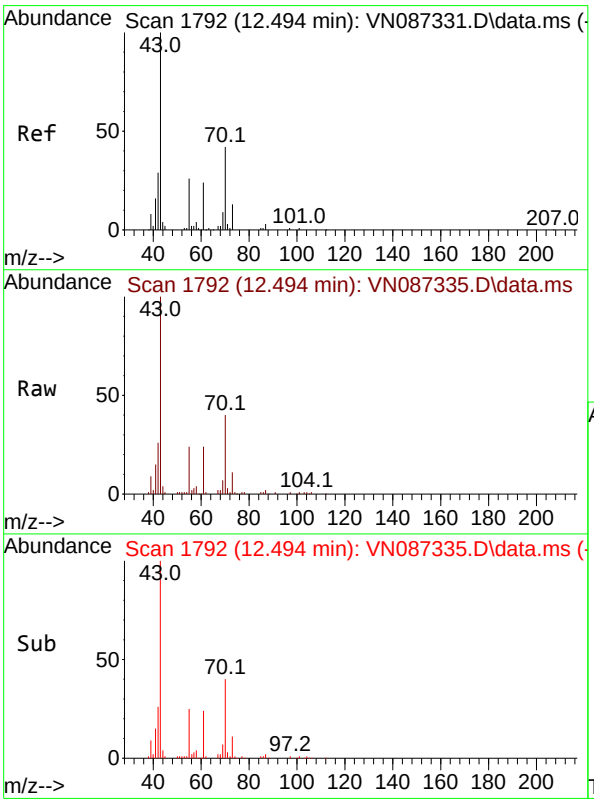
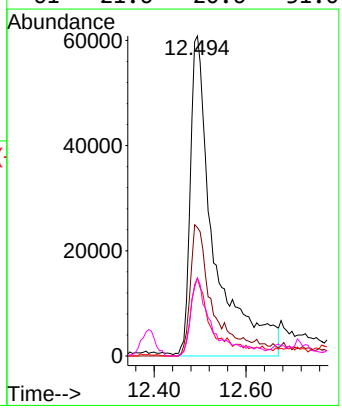
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

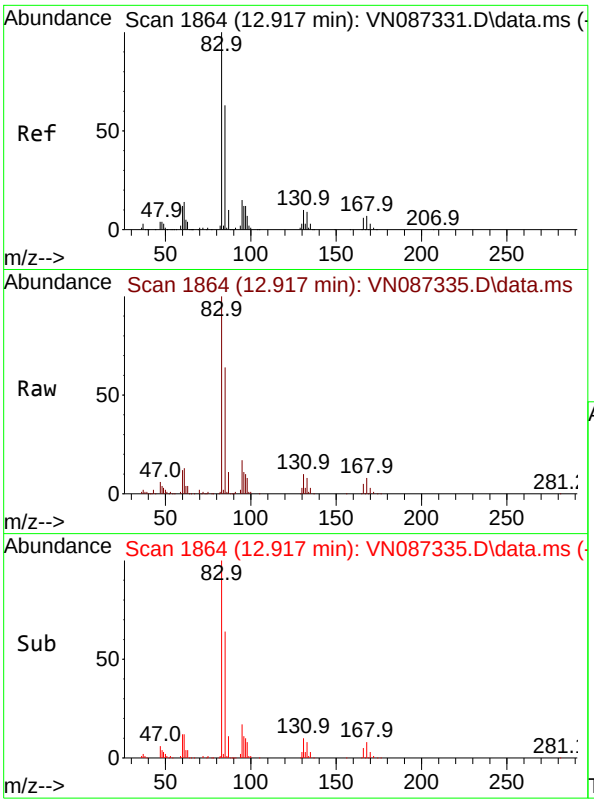


#74
N-amyl acetate
Concen: 49.972 ug/l m
RT: 12.494 min Scan# 1792
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 43 Resp: 218170

Ion	Ratio	Lower	Upper
43	100		
70	37.9	37.6	56.4
55	19.4	19.6	29.4#
61	21.6	20.6	31.0

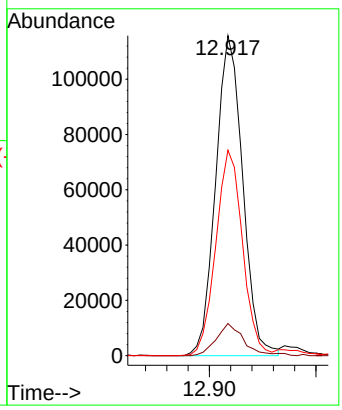




#75
1,1,2,2-Tetrachloroethane
Concen: 51.580 ug/l
RT: 12.917 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 83 Resp: 20394

Ion	Ratio	Lower	Upper
83	100		
131	10.2	5.1	15.3
85	63.4	32.5	97.4



Instrument :
MSVOA_N
ClientSampleId :
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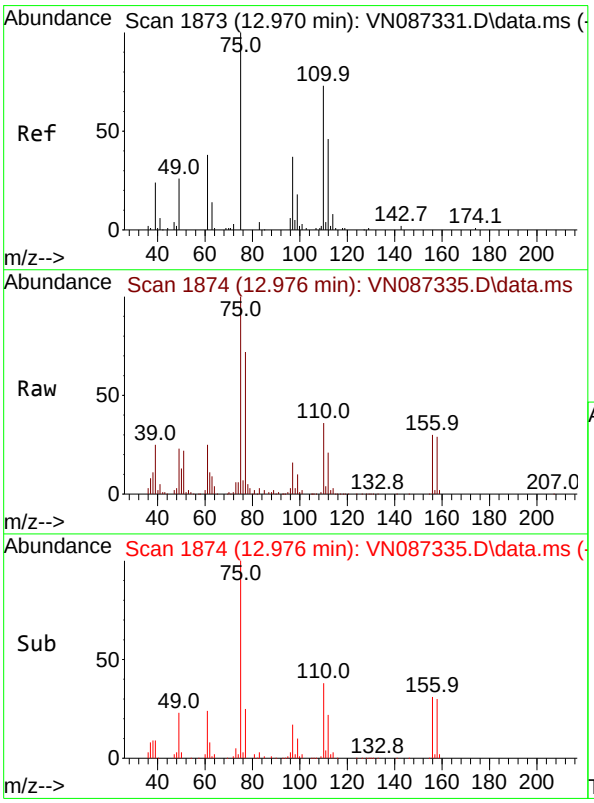
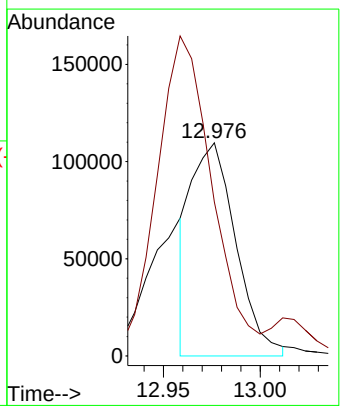
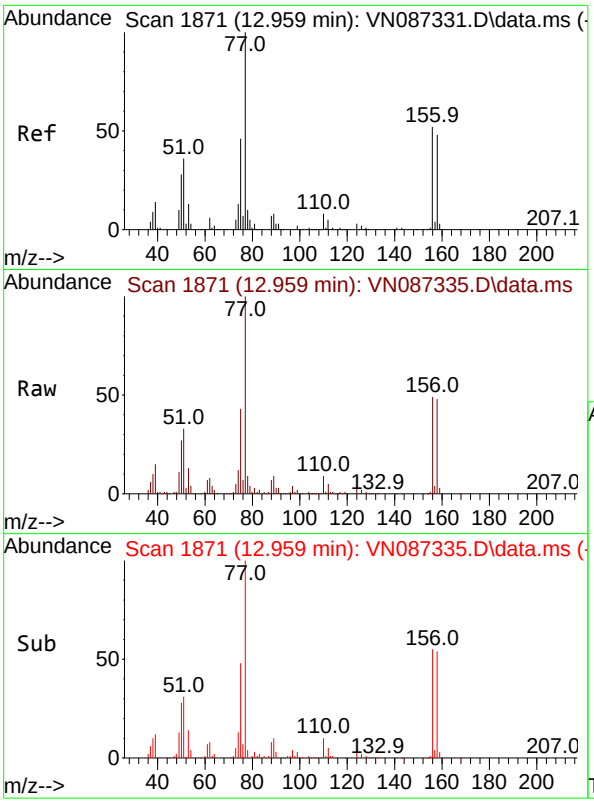


#76
1,2,3-Trichloropropane
Concen: 46.955 ug/l m
RT: 12.976 min Scan# 1874
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 75 Resp: 175797

Ion	Ratio	Lower	Upper
75	100		
77	187.3	94.5	283.6

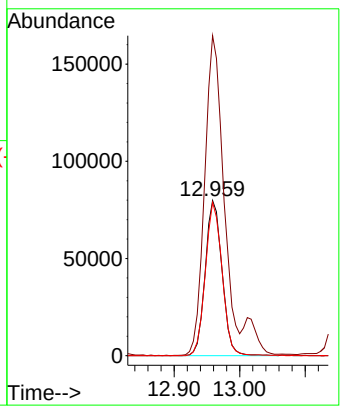




#77
Bromobenzene
Concen: 52.368 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:156 Resp: 14271

Ion	Ratio	Lower	Upper
156	100		
77	230.7	114.9	344.6
158	98.1	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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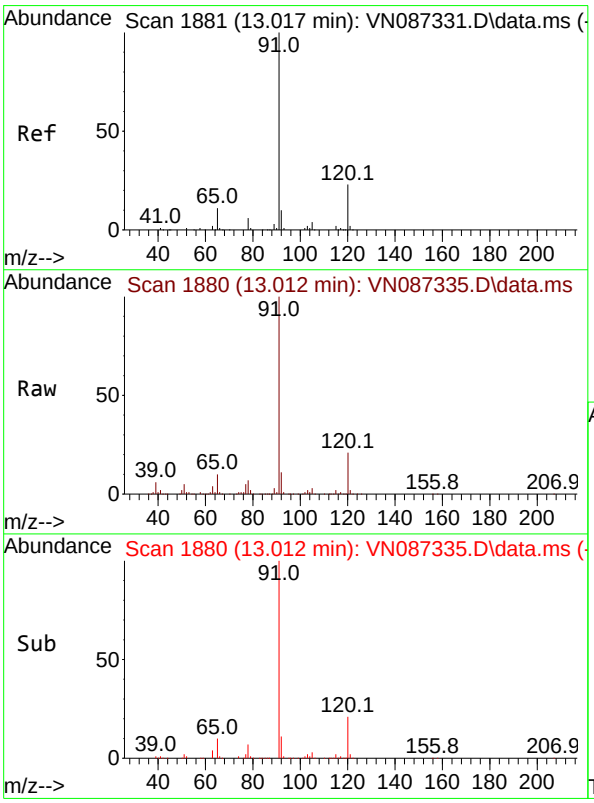
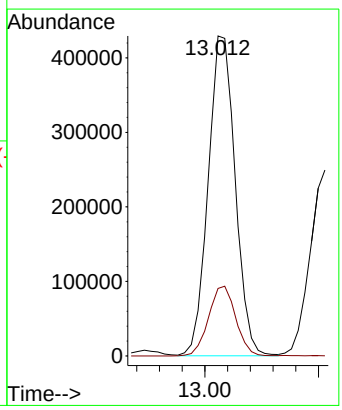
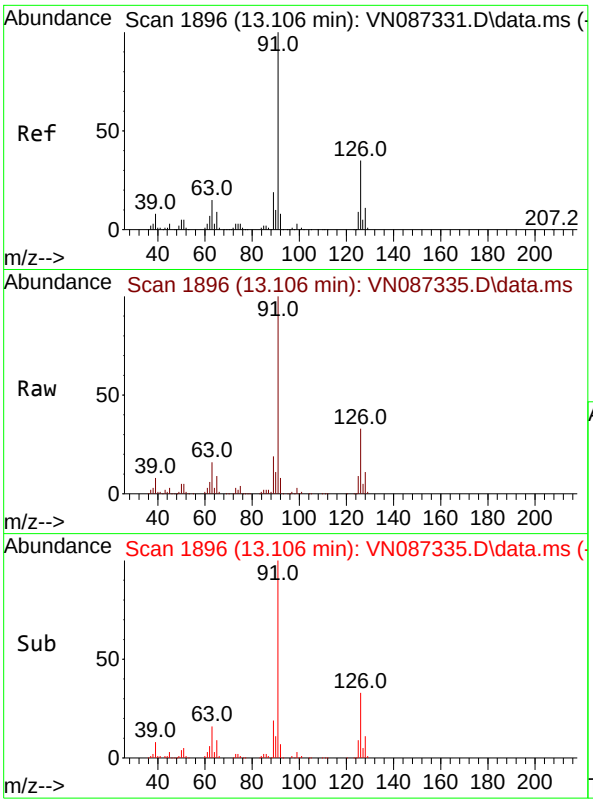


#78
n-propylbenzene
Concen: 53.661 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 91 Resp: 709437

Ion	Ratio	Lower	Upper
91	100		
120	21.9	11.3	33.8

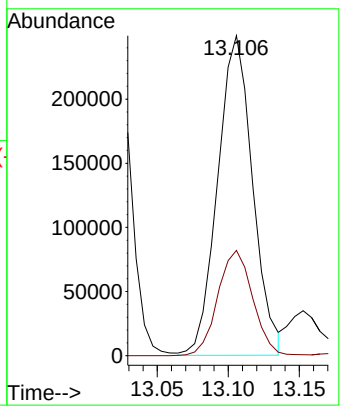




#79
2-Chlorotoluene
Concen: 52.475 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 91 Resp: 42637

Ion	Ratio	Lower	Upper
91	100		
126	33.1	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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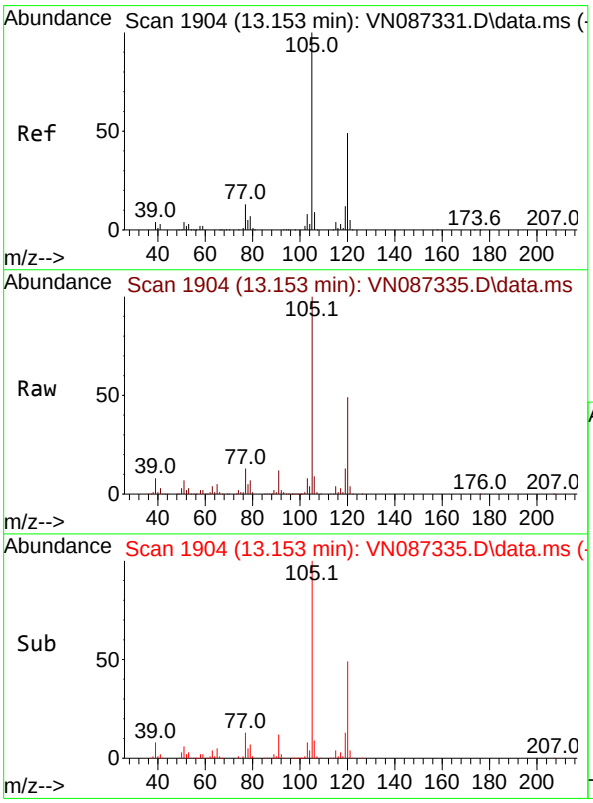
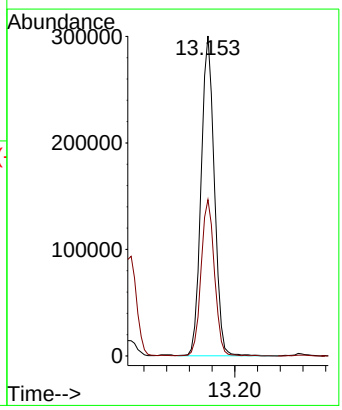
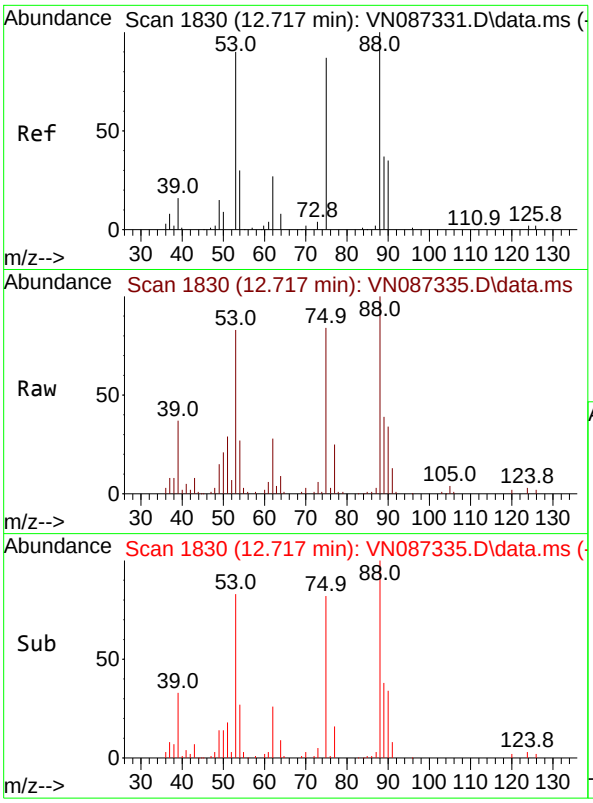


#80
1,3,5-Trimethylbenzene
Concen: 54.071 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:105 Resp: 484100

Ion	Ratio	Lower	Upper
105	100		
120	49.5	24.3	72.8





#81
trans-1,4-Dichloro-2-butene
Concen: 51.080 ug/l
RT: 12.717 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 75 Resp: 6989

Ion	Ratio	Lower	Upper
75	100		
53	100.2	83.5	125.3
89	48.6	38.4	57.6

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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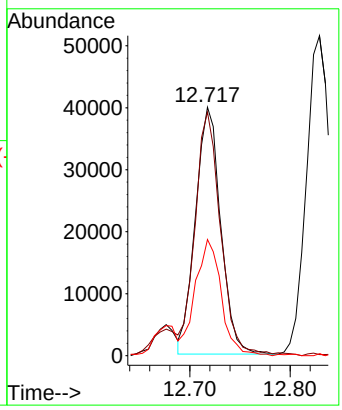
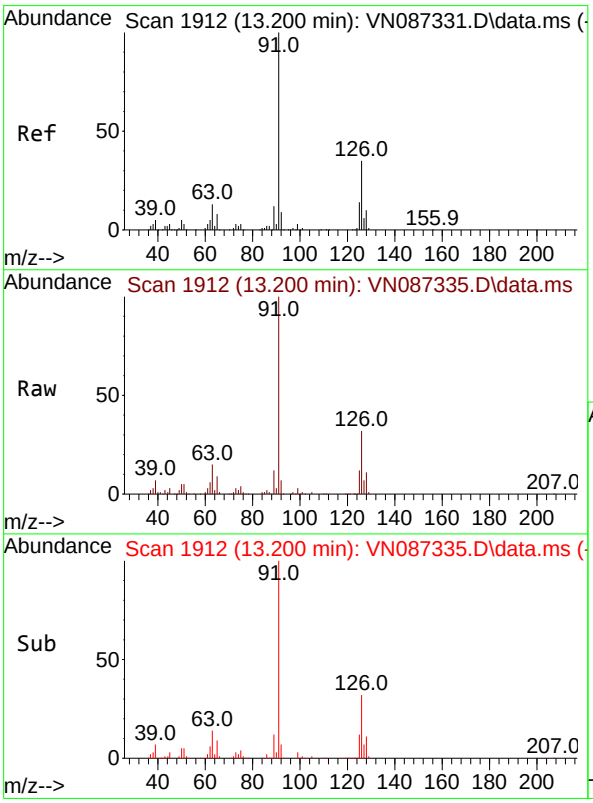
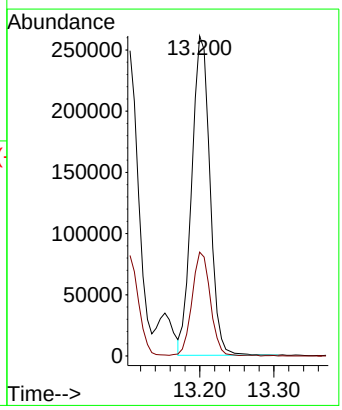


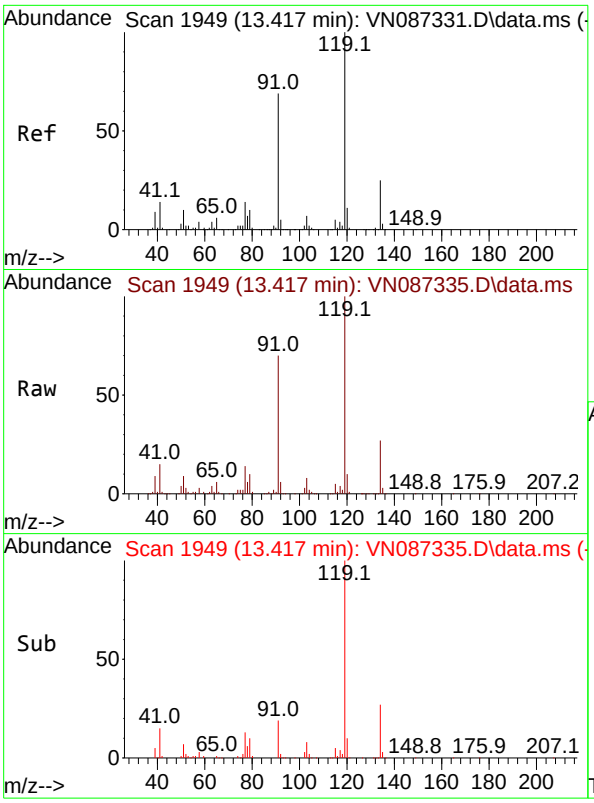


#82
4-Chlorotoluene
Concen: 52.464 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 91 Resp: 443817

Ion	Ratio	Lower	Upper
91	100		
126	32.4	16.6	49.7

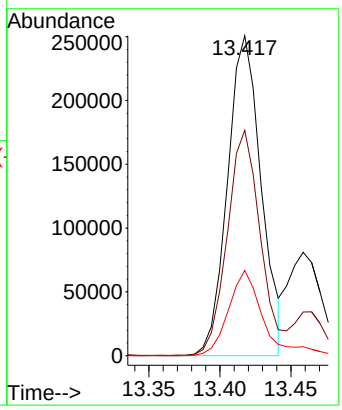




#83
tert-Butylbenzene
Concen: 55.349 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:119 Resp: 41388

Ion	Ratio	Lower	Upper
119	100		
91	69.7	35.0	105.1
134	27.6	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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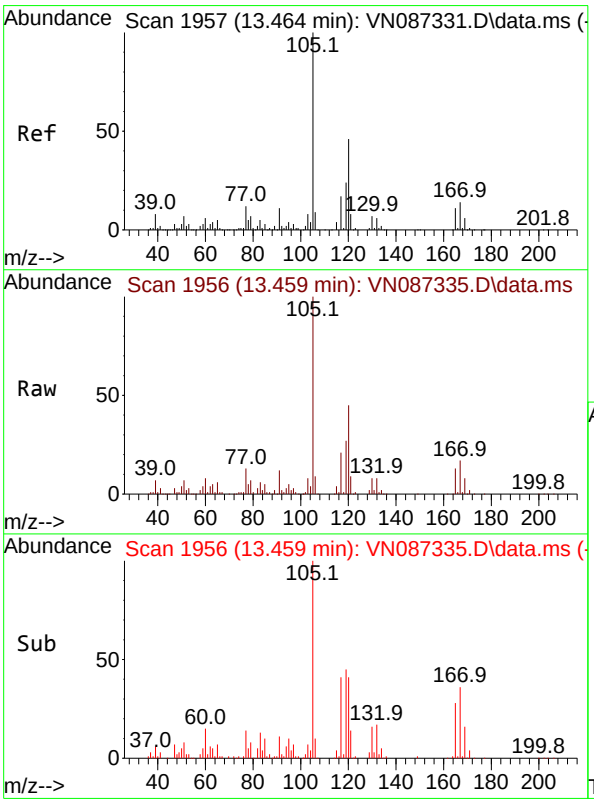
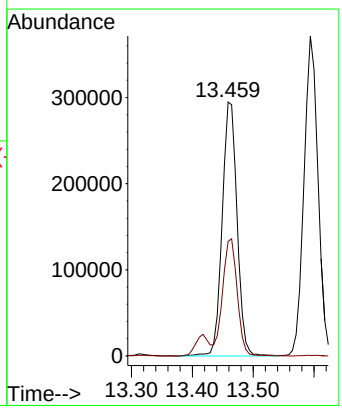
Supervised By :Semsettin Yesilyurt 07/17/2025

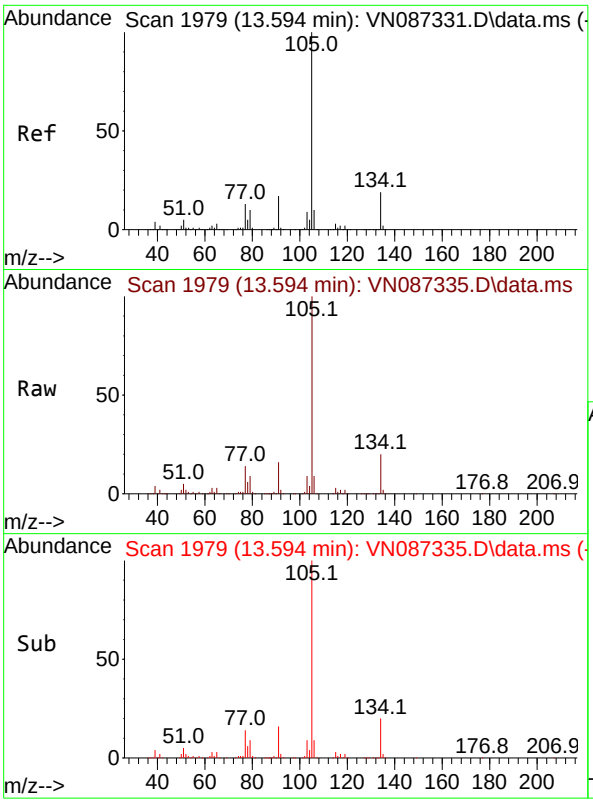


#84
1,2,4-Trimethylbenzene
Concen: 54.773 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:105 Resp: 500792

Ion	Ratio	Lower	Upper
105	100		
120	46.0	22.8	68.3

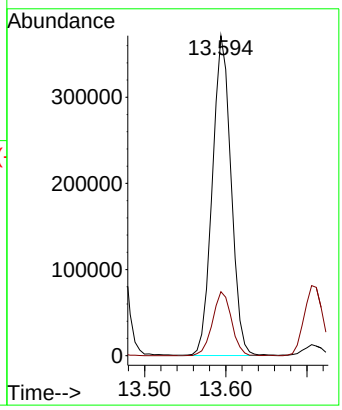




#85
sec-Butylbenzene
Concen: 52.800 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:105 Resp: 59471

Ion	Ratio	Lower	Upper
105	100		
134	20.4	9.8	29.4



Instrument :
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ClientSampleId :
ICVVN071625

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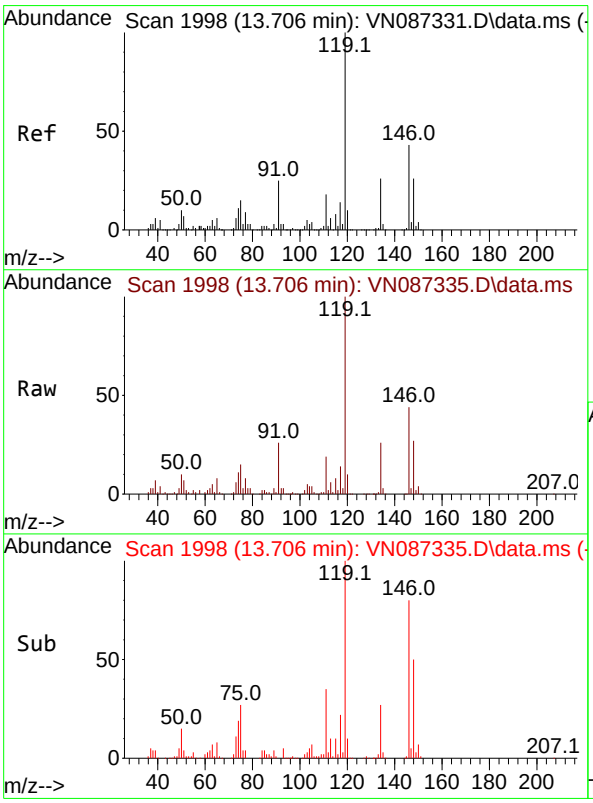
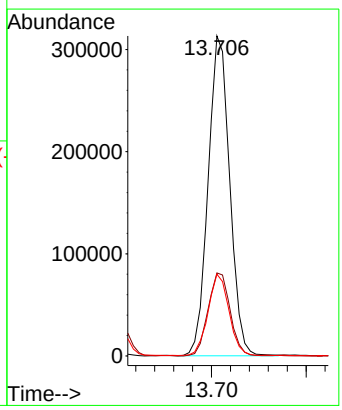
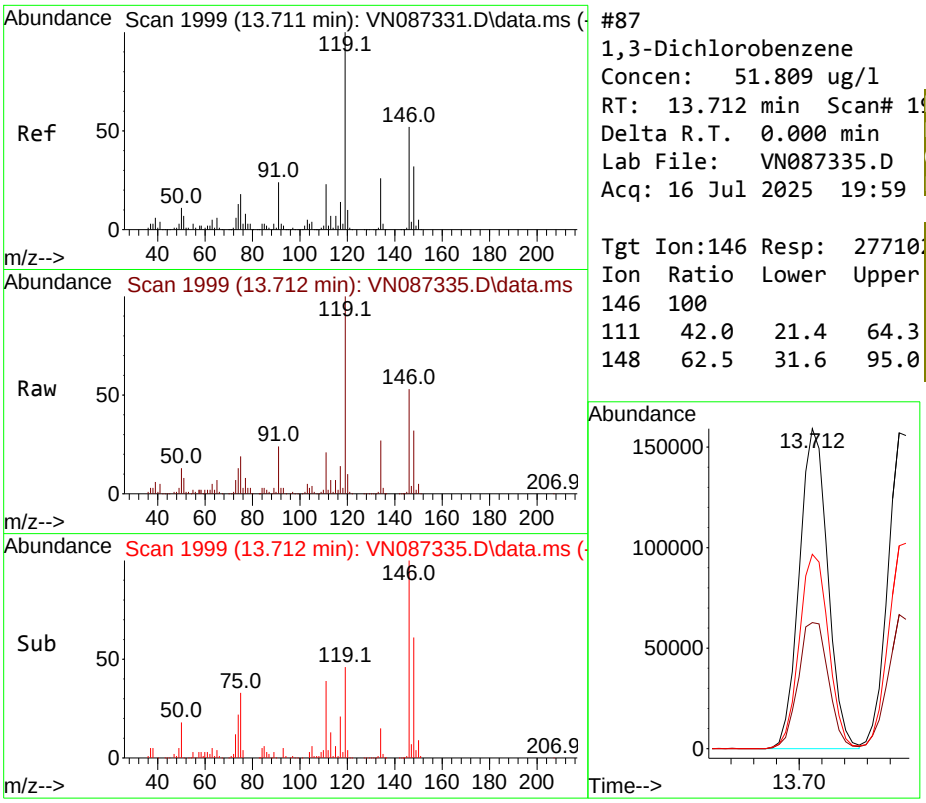


#86
p-Isopropyltoluene
Concen: 54.982 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:119 Resp: 496291

Ion	Ratio	Lower	Upper
119	100		
134	26.5	13.5	40.5
91	24.6	12.2	36.6





#87
1,3-Dichlorobenzene
Concen: 51.809 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:146 Resp: 27710

Ion	Ratio	Lower	Upper
146	100		
111	42.0	21.4	64.3
148	62.5	31.6	95.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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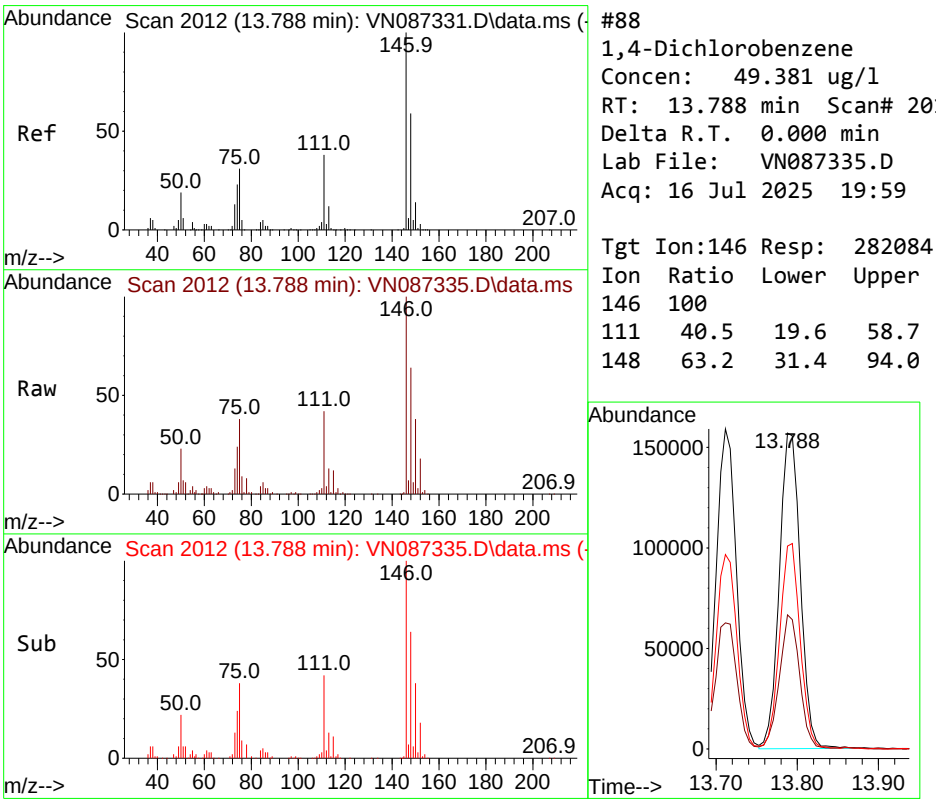
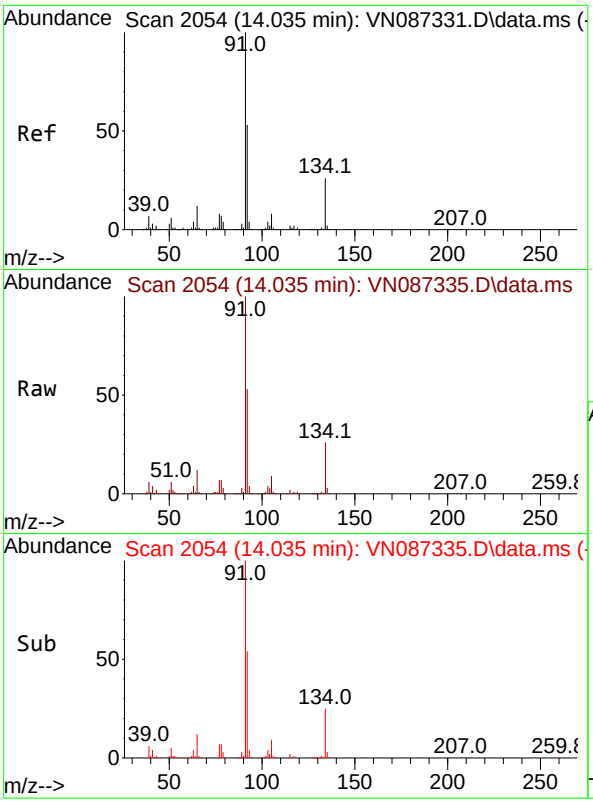


#88
1,4-Dichlorobenzene
Concen: 49.381 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:146 Resp: 282084

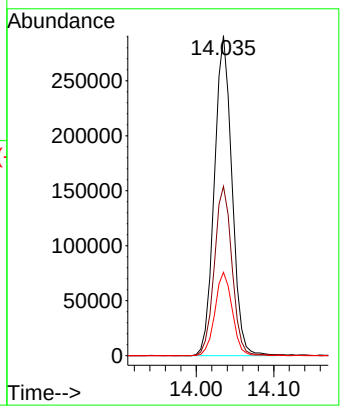
Ion	Ratio	Lower	Upper
146	100		
111	40.5	19.6	58.7
148	63.2	31.4	94.0



#89
n-Butylbenzene
Concen: 53.250 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 91 Resp: 45896

Ion	Ratio	Lower	Upper
91	100		
92	53.0	26.2	78.6
134	25.7	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

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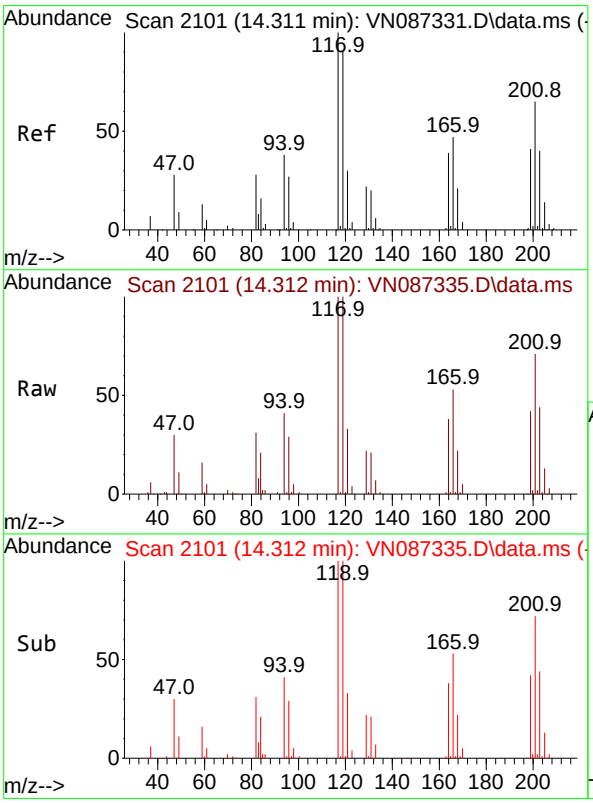
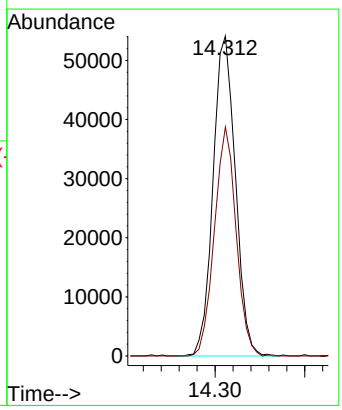
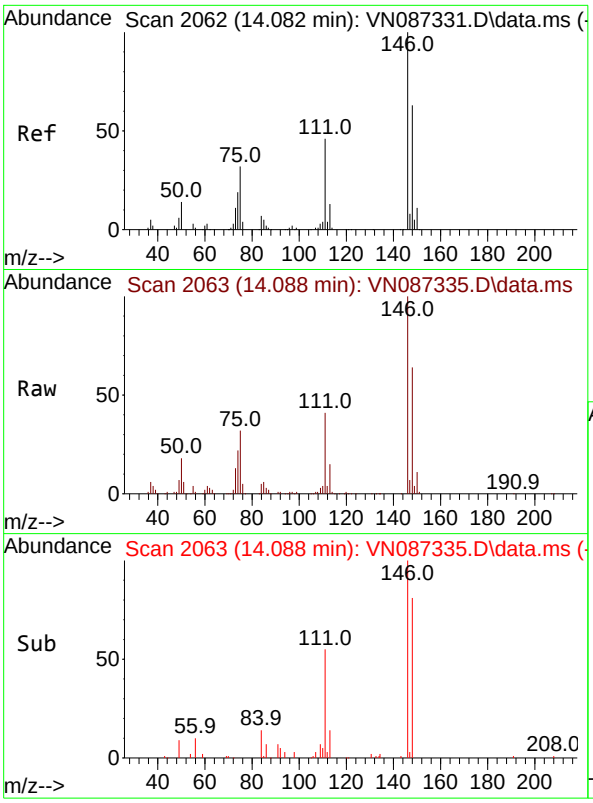


#90
Hexachloroethane
Concen: 48.870 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:117 Resp: 93464

Ion	Ratio	Lower	Upper
117	100		
201	69.6	32.8	98.4

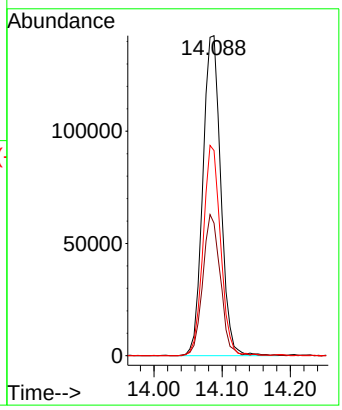




#91
1,2-Dichlorobenzene
Concen: 51.485 ug/l
RT: 14.088 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:146 Resp: 26087

Ion	Ratio	Lower	Upper
146	100		
111	43.4	22.0	66.0
148	64.0	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
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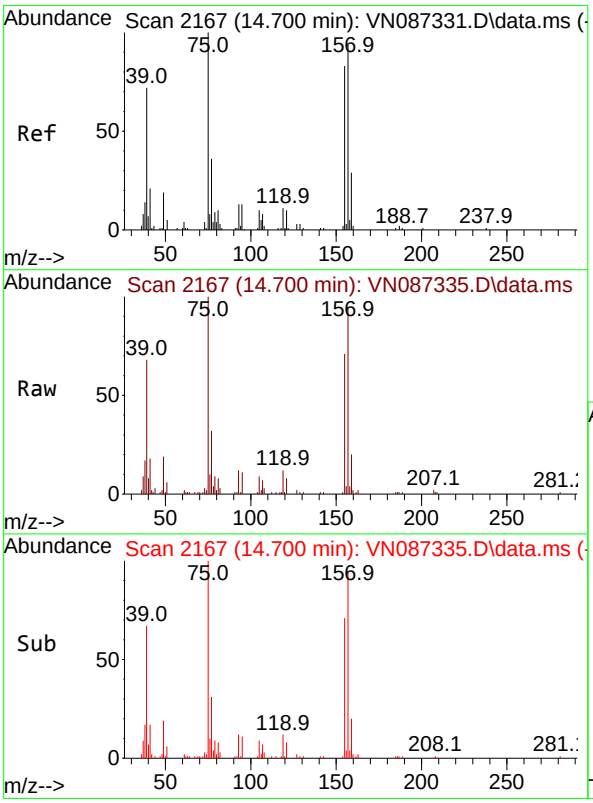
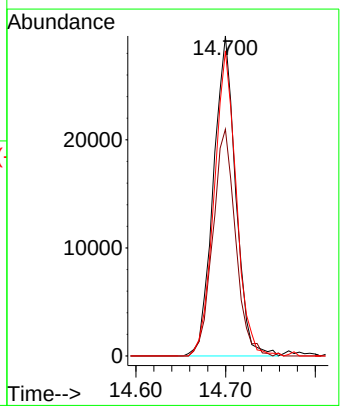
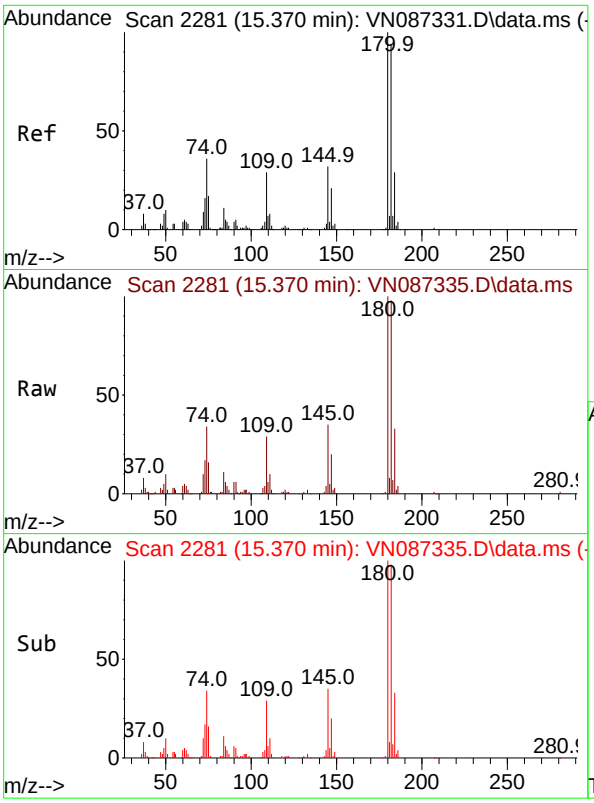


#92
1,2-Dibromo-3-Chloropropane
Concen: 49.035 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion: 75 Resp: 50904

Ion	Ratio	Lower	Upper
75	100		
155	72.3	37.3	111.8
157	95.1	46.2	138.6

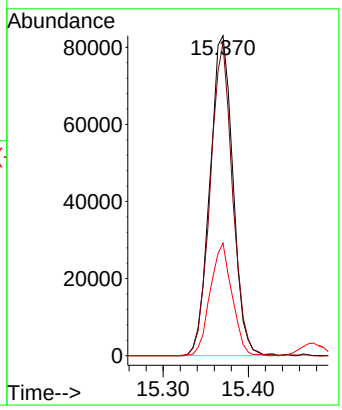




#93
1,2,4-Trichlorobenzene
Concen: 52.351 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:180 Resp: 15581

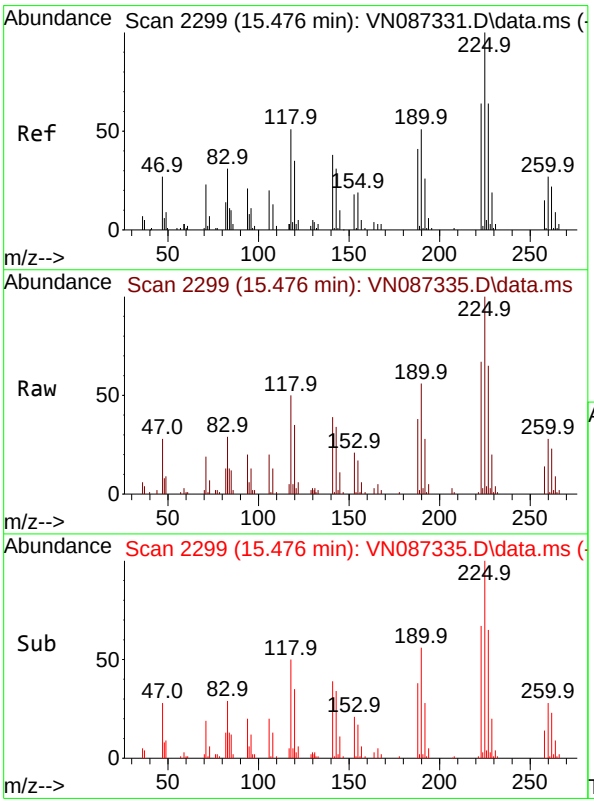
Ion	Ratio	Lower	Upper
180	100		
182	94.5	47.3	141.8
145	33.3	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
APPROVED

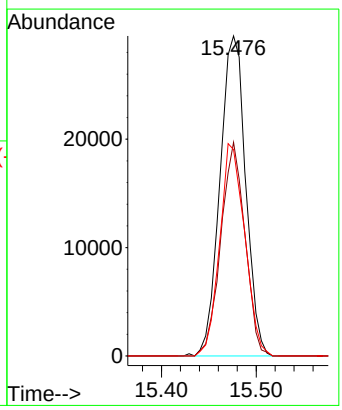
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025

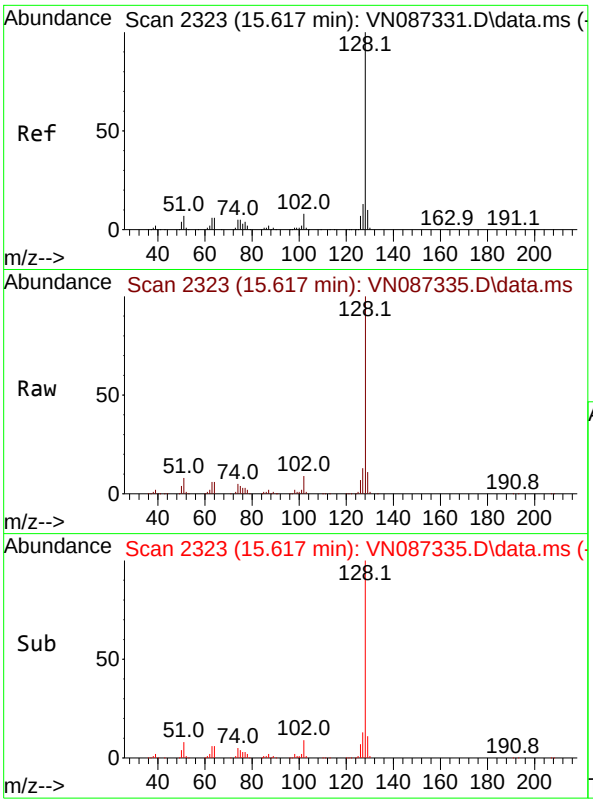


#94
Hexachlorobutadiene
Concen: 50.273 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:225 Resp: 55599

Ion	Ratio	Lower	Upper
225	100		
223	62.7	32.1	96.3
227	64.6	31.3	93.9

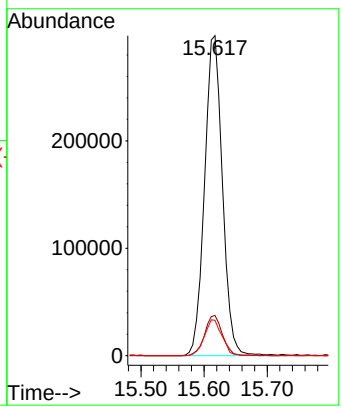




#95
Naphthalene
Concen: 55.585 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:128 Resp: 58609

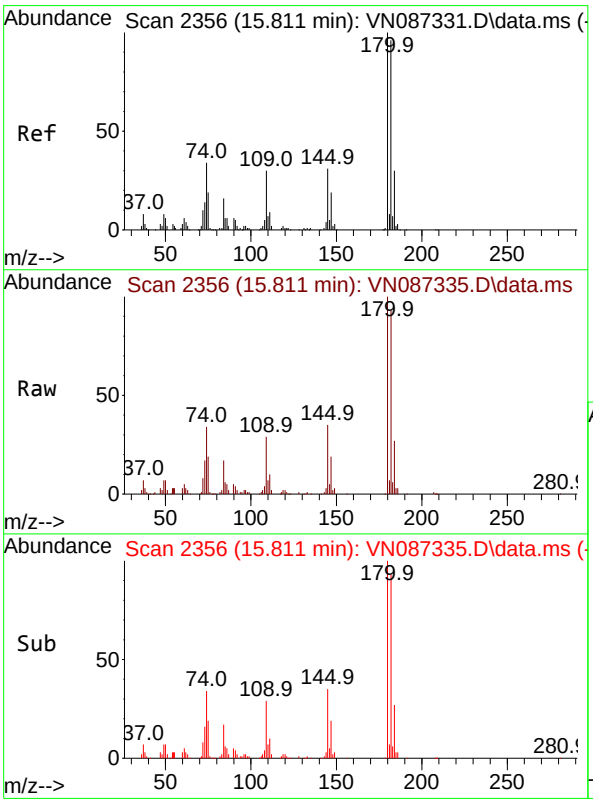
Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.5	15.7
129	11.1	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Manual Integrations
APPROVED

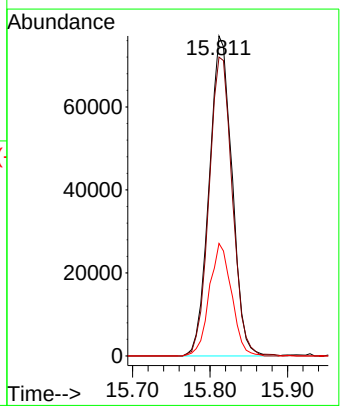
Reviewed By :Mahesh Dadoda 07/17/2025
Supervised By :Semsettin Yesilyurt 07/17/2025



#96
1,2,3-Trichlorobenzene
Concen: 52.890 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087335.D
Acq: 16 Jul 2025 19:59

Tgt Ion:180 Resp: 157909

Ion	Ratio	Lower	Upper
180	100		
182	94.8	47.1	141.4
145	34.2	16.9	50.6



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	Pentafluorobenzene	1.000	1.000	0.0	108	0.00
2	T	Dichlorodifluoromethane	0.531	0.616	-16.0	107	0.00
3	P	Chloromethane	0.668	0.681	-1.9	107	0.00
4	C	Vinyl Chloride	0.664	0.711	-7.1#	106	0.00
5	T	Bromomethane	0.344	0.401	-16.6	122	0.00
6	T	Chloroethane	0.433	0.426	1.6	105	0.00
7	T	Trichlorofluoromethane	0.981	0.968	1.3	103	0.00
8	T	Diethyl Ether	0.381	0.387	-1.6	106	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.504	0.499	1.0	103	0.00
10	T	Methyl Iodide	0.452	0.523	-15.7	115	0.00
11	T	Tert butyl alcohol	0.161	0.169	-5.0	114	0.00
12	CM	1,1-Dichloroethene	0.571	0.519	9.1#	103	0.00
13	T	Acrolein	0.129	0.143	-10.9	128	0.00
14	T	Allyl chloride	1.033	1.013	1.9	110	0.00
15	T	Acrylonitrile	0.437	0.442	-1.1	106	0.00
16	T	Acetone	0.398	0.379	4.8	106	0.00
17	T	Carbon Disulfide	1.693	1.691	0.1	106	0.00
18	T	Methyl Acetate	0.999	0.982	1.7	107	0.00
19	T	Methyl tert-butyl Ether	2.104	2.144	-1.9	107	0.00
20	T	Methylene Chloride	0.766	0.665	13.2	107	0.00
21	T	trans-1,2-Dichloroethene	0.644	0.609	5.4	101	0.00
22	T	Diisopropyl ether	2.167	2.219	-2.4	105	0.00
23	T	Vinyl Acetate	1.895	2.070	-9.2	106	0.00
24	P	1,1-Dichloroethane	1.250	1.205	3.6	107	0.00
25	T	2-Butanone	0.615	0.628	-2.1	106	0.00
26	T	2,2-Dichloropropane	0.972	0.888	8.6	98	0.00
27	T	cis-1,2-Dichloroethene	0.741	0.749	-1.1	106	0.00
28	T	Bromochloromethane	0.598	0.587	1.8	107	0.00
29	T	Tetrahydrofuran	0.399	0.416	-4.3	106	0.00
30	C	Chloroform	1.251	1.209	3.4#	103	0.00
31	T	Cyclohexane	1.043	1.023	1.9	106	0.00
32	T	1,1,1-Trichloroethane	1.084	1.071	1.2	107	0.00
33	S	1,2-Dichloroethane-d4	0.848	0.818	3.5	111	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
35	S	Dibromofluoromethane	0.345	0.344	0.3	109	0.00
36	T	1,1-Dichloropropene	0.456	0.489	-7.2	106	0.00
37	T	Ethyl Acetate	0.658	0.704	-7.0	105	0.00
38	T	Carbon Tetrachloride	0.502	0.530	-5.6	108	0.00
39	T	Methylcyclohexane	0.493	0.524	-6.3	104	0.00
40	TM	Benzene	1.473	1.543	-4.8	105	0.00
41	T	Methacrylonitrile	0.344	0.371	-7.8	106	0.00
42	TM	1,2-Dichloroethane	0.558	0.568	-1.8	105	0.00
43	T	Isopropyl Acetate	1.022	1.093	-6.9	108	0.00
44	TM	Trichloroethene	0.348	0.346	0.6	102	0.00
45	C	1,2-Dichloropropane	0.374	0.396	-5.9#	106	0.00
46	T	Dibromomethane	0.280	0.287	-2.5	105	0.00
47	T	Bromodichloromethane	0.564	0.583	-3.4	108	0.00
48	T	Methyl methacrylate	0.460	0.516	-12.2	108	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	1,4-Dioxane	0.007	0.008	-14.3	109	0.00
50	S	Toluene-d8	1.230	1.269	-3.2	109	0.00
51	T	4-Methyl-2-Pentanone	0.646	0.695	-7.6	106	0.00
52	CM	Toluene	0.895	0.935	-4.5#	102	0.00
53	T	t-1,3-Dichloropropene	0.571	0.624	-9.3	106	0.00
54	T	cis-1,3-Dichloropropene	0.590	0.630	-6.8	105	0.00
55	T	1,1,2-Trichloroethane	0.362	0.362	0.0	104	0.00
56	T	Ethyl methacrylate	0.552	0.648	-17.4	109	0.00
57	T	1,3-Dichloropropane	0.627	0.654	-4.3	105	0.00
58	T	2-Chloroethyl Vinyl ether	0.297	0.339	-14.1	103	0.00
59	T	2-Hexanone	0.429	0.495	-15.4	105	0.00
60	T	Dibromochloromethane	0.413	0.436	-5.6	107	0.00
61	T	1,2-Dibromoethane	0.381	0.394	-3.4	108	0.00
62	S	4-Bromofluorobenzene	0.455	0.481	-5.7	111	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	107	0.00
64	T	Tetrachloroethene	0.322	0.308	4.3	102	0.00
65	PM	Chlorobenzene	1.123	1.088	3.1	104	0.00
66	T	1,1,1,2-Tetrachloroethane	0.382	0.386	-1.0	105	0.00
67	C	Ethyl Benzene	1.848	1.904	-3.0#	104	0.00
68	T	m/p-Xylenes	0.692	0.728	-5.2	102	0.00
69	T	o-Xylene	0.661	0.704	-6.5	104	0.00
70	T	Styrene	1.112	1.212	-9.0	103	0.00
71	P	Bromoform	0.308	0.321	-4.2	104	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
73	T	Isopropylbenzene	3.147	3.438	-9.2	107	0.00
74	T	N-amyl acetate	1.307	1.307	0.0	121	0.00
75	P	1,1,2,2-Tetrachloroethane	1.184	1.222	-3.2	107	0.00
76	T	1,2,3-Trichloropropane	1.121	1.053	6.1	93	0.00
77	T	Bromobenzene	0.816	0.855	-4.8	104	0.00
78	T	n-propylbenzene	3.959	4.249	-7.3	104	0.00
79	T	2-Chlorotoluene	2.433	2.554	-5.0	106	0.00
80	T	1,3,5-Trimethylbenzene	2.681	2.900	-8.2	104	0.00
81	T	trans-1,4-Dichloro-2-butene	0.410	0.419	-2.2	109	0.00
82	T	4-Chlorotoluene	2.533	2.658	-4.9	106	0.00
83	T	tert-Butylbenzene	2.239	2.479	-10.7	108	0.00
84	T	1,2,4-Trimethylbenzene	2.738	2.999	-9.5	105	0.00
85	T	sec-Butylbenzene	3.373	3.562	-5.6	105	0.00
86	T	p-Isopropyltoluene	2.703	2.973	-10.0	105	0.00
87	T	1,3-Dichlorobenzene	1.602	1.660	-3.6	105	0.00
88	T	1,4-Dichlorobenzene	1.711	1.690	1.2	105	0.00
89	T	n-Butylbenzene	2.581	2.749	-6.5	105	0.00
90	T	Hexachloroethane	0.573	0.560	2.3	102	0.00
91	T	1,2-Dichlorobenzene	1.517	1.563	-3.0	104	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.311	0.305	1.9	106	0.00
93	T	1,2,4-Trichlorobenzene	0.891	0.933	-4.7	105	0.00
94	T	Hexachlorobutadiene	0.331	0.333	-0.6	107	0.00
95	T	Naphthalene	3.158	3.510	-11.1	107	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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)
96 T	1,2,3-Trichlorobenzene	0.894	0.946	-5.8	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	Pentafluorobenzene	50.000	50.000	0.0	108	0.00
2	T	Dichlorodifluoromethane	50.000	58.029	-16.1	107	0.00
3	P	Chloromethane	50.000	50.986	-2.0	107	0.00
4	C	Vinyl Chloride	50.000	53.589	-7.2#	106	0.00
5	T	Bromomethane	50.000	58.322	-16.6	122	0.00
6	T	Chloroethane	50.000	49.172	1.7	105	0.00
7	T	Trichlorofluoromethane	50.000	49.336	1.3	103	0.00
8	T	Diethyl Ether	50.000	50.861	-1.7	106	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.520	1.0	103	0.00
10	T	Methyl Iodide	50.000	50.369	-0.7	115	0.00
11	T	Tert butyl alcohol	250.000	262.884	-5.2	114	0.00
12	CM	1,1-Dichloroethene	50.000	45.432	9.1#	103	0.00
13	T	Acrolein	250.000	277.145	-10.9	128	0.00
14	T	Allyl chloride	50.000	49.004	2.0	110	0.00
15	T	Acrylonitrile	250.000	252.616	-1.0	106	0.00
16	T	Acetone	250.000	237.913	4.8	106	0.00
17	T	Carbon Disulfide	50.000	49.947	0.1	106	0.00
18	T	Methyl Acetate	50.000	49.111	1.8	107	0.00
19	T	Methyl tert-butyl Ether	50.000	50.939	-1.9	107	0.00
20	T	Methylene Chloride	50.000	49.445	1.1	107	0.00
21	T	trans-1,2-Dichloroethene	50.000	47.283	5.4	101	0.00
22	T	Diisopropyl ether	50.000	51.191	-2.4	105	0.00
23	T	Vinyl Acetate	250.000	273.101	-9.2	106	0.00
24	P	1,1-Dichloroethane	50.000	48.170	3.7	107	0.00
25	T	2-Butanone	250.000	255.411	-2.2	106	0.00
26	T	2,2-Dichloropropane	50.000	45.700	8.6	98	0.00
27	T	cis-1,2-Dichloroethene	50.000	50.543	-1.1	106	0.00
28	T	Bromochloromethane	50.000	49.089	1.8	107	0.00
29	T	Tetrahydrofuran	250.000	260.404	-4.2	106	0.00
30	C	Chloroform	50.000	48.306	3.4#	103	0.00
31	T	Cyclohexane	50.000	49.042	1.9	106	0.00
32	T	1,1,1-Trichloroethane	50.000	49.412	1.2	107	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.204	3.6	111	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	105	0.00
35	S	Dibromofluoromethane	50.000	49.934	0.1	109	0.00
36	T	1,1-Dichloropropene	50.000	53.690	-7.4	106	0.00
37	T	Ethyl Acetate	50.000	53.525	-7.0	105	0.00
38	T	Carbon Tetrachloride	50.000	52.821	-5.6	108	0.00
39	T	Methylcyclohexane	50.000	53.109	-6.2	104	0.00
40	TM	Benzene	50.000	52.380	-4.8	105	0.00
41	T	Methacrylonitrile	50.000	53.895	-7.8	106	0.00
42	TM	1,2-Dichloroethane	50.000	50.821	-1.6	105	0.00
43	T	Isopropyl Acetate	50.000	53.477	-7.0	108	0.00
44	TM	Trichloroethene	50.000	49.731	0.5	102	0.00
45	C	1,2-Dichloropropane	50.000	52.900	-5.8#	106	0.00
46	T	Dibromomethane	50.000	51.241	-2.5	105	0.00
47	T	Bromodichloromethane	50.000	51.696	-3.4	108	0.00
48	T	Methyl methacrylate	50.000	56.096	-12.2	108	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	1,4-Dioxane	1000.000	1177.300	-17.7	109	0.00
50	S	Toluene-d8	50.000	51.573	-3.1	109	0.00
51	T	4-Methyl-2-Pentanone	250.000	268.966	-7.6	106	0.00
52	CM	Toluene	50.000	52.236	-4.5#	102	0.00
53	T	t-1,3-Dichloropropene	50.000	54.628	-9.3	106	0.00
54	T	cis-1,3-Dichloropropene	50.000	53.351	-6.7	105	0.00
55	T	1,1,2-Trichloroethane	50.000	49.889	0.2	104	0.00
56	T	Ethyl methacrylate	50.000	53.042	-6.1	109	0.00
57	T	1,3-Dichloropropane	50.000	52.202	-4.4	105	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	285.088	-14.0	103	0.00
59	T	2-Hexanone	250.000	288.579	-15.4	105	0.00
60	T	Dibromochloromethane	50.000	52.685	-5.4	107	0.00
61	T	1,2-Dibromoethane	50.000	51.746	-3.5	108	0.00
62	S	4-Bromofluorobenzene	50.000	52.942	-5.9	111	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	107	0.00
64	T	Tetrachloroethene	50.000	47.819	4.4	102	0.00
65	PM	Chlorobenzene	50.000	48.477	3.0	104	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	50.530	-1.1	105	0.00
67	C	Ethyl Benzene	50.000	51.523	-3.0#	104	0.00
68	T	m/p-Xylenes	100.000	105.269	-5.3	102	0.00
69	T	o-Xylene	50.000	53.221	-6.4	104	0.00
70	T	Styrene	50.000	54.477	-9.0	103	0.00
71	P	Bromoform	50.000	51.987	-4.0	104	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	105	0.00
73	T	Isopropylbenzene	50.000	54.619	-9.2	107	0.00
74	T	N-amyl acetate	50.000	49.972	0.1	121	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	51.580	-3.2	107	0.00
76	T	1,2,3-Trichloropropane	50.000	46.955	6.1	93	0.00
77	T	Bromobenzene	50.000	52.368	-4.7	104	0.00
78	T	n-propylbenzene	50.000	53.661	-7.3	104	0.00
79	T	2-Chlorotoluene	50.000	52.475	-5.0	106	0.00
80	T	1,3,5-Trimethylbenzene	50.000	54.071	-8.1	104	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	51.080	-2.2	109	0.00
82	T	4-Chlorotoluene	50.000	52.464	-4.9	106	0.00
83	T	tert-Butylbenzene	50.000	55.349	-10.7	108	0.00
84	T	1,2,4-Trimethylbenzene	50.000	54.773	-9.5	105	0.00
85	T	sec-Butylbenzene	50.000	52.800	-5.6	105	0.00
86	T	p-Isopropyltoluene	50.000	54.982	-10.0	105	0.00
87	T	1,3-Dichlorobenzene	50.000	51.809	-3.6	105	0.00
88	T	1,4-Dichlorobenzene	50.000	49.381	1.2	105	0.00
89	T	n-Butylbenzene	50.000	53.250	-6.5	105	0.00
90	T	Hexachloroethane	50.000	48.870	2.3	102	0.00
91	T	1,2-Dichlorobenzene	50.000	51.485	-3.0	104	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	49.035	1.9	106	0.00
93	T	1,2,4-Trichlorobenzene	50.000	52.351	-4.7	105	0.00
94	T	Hexachlorobutadiene	50.000	50.273	-0.5	107	0.00
95	T	Naphthalene	50.000	55.585	-11.2	107	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087335.D
Acq On : 16 Jul 2025 19:59
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN071625

Quant Time: Jul 17 03:00:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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)
96 T	1,2,3-Trichlorobenzene	50.000	52.890	-5.8	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance
Contract: ROYF02
Lab Code: ACE
SDG No.: Q2641
Instrument ID: MSVOA_N
Calibration Date/Time: 07/21/2025 10:38
Lab File ID: VN087368.D
Init. Calib. Date(s): 07/16/2025 07/16/2025
Heated Purge: (Y/N) N
Init. Calib. Time(s): 17:05 18:54
GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.664	0.725		9.19	20
1,1-Dichloroethene	0.571	0.556		-2.63	20
2-Butanone	0.615	0.586		-4.72	20
Carbon Tetrachloride	0.502	0.596		18.73	20
Chloroform	1.251	1.287		2.88	20
Benzene	1.473	1.638		11.2	20
1,2-Dichloroethane	0.558	0.595		6.63	20
Trichloroethene	0.348	0.383		10.06	20
Tetrachloroethene	0.322	0.364		13.04	20
Chlorobenzene	1.123	1.199	0.3	6.77	20
1,2-Dichloroethane-d4	0.848	0.831		-2.01	20
Dibromofluoromethane	0.345	0.356		3.19	20
Toluene-d8	1.230	1.321		7.4	20
4-Bromofluorobenzene	0.455	0.481		5.71	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	202357	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.083	114	342303	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	307825	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	162263	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	168127	48.966	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 97.940%			
35) Dibromofluoromethane	8.147	113	121755	51.565	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.120%			
50) Toluene-d8	10.547	98	452056	53.671	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 107.340%			
62) 4-Bromofluorobenzene	12.829	95	164788	52.956	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 105.920%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	132620	61.705	ug/l	93
3) Chloromethane	2.383	50	137176	50.754	ug/l	97
4) Vinyl Chloride	2.536	62	146742	54.632	ug/l	93
5) Bromomethane	2.971	94	67780	48.730	ug/l	95
6) Chloroethane	3.136	64	89560	51.128	ug/l	95
7) Trichlorofluoromethane	3.512	101	218623	55.045	ug/l	99
8) Diethyl Ether	3.965	74	77841	50.524	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.359	101	116922	57.347	ug/l	97
10) Methyl Iodide	4.583	142	94184	45.477	ug/l	94
11) Tert butyl alcohol	5.518	59	150479	230.810	ug/l	100
12) 1,1-Dichloroethene	4.336	96	112586	48.730	ug/l	87
13) Acrolein	4.177	56	128290	245.196	ug/l	99
14) Allyl chloride	5.012	41	207234	49.562	ug/l	96
15) Acrylonitrile	5.706	53	424364	239.867	ug/l	99
16) Acetone	4.424	43	358096	222.434	ug/l	100
17) Carbon Disulfide	4.706	76	361501	52.775	ug/l	98
18) Methyl Acetate	5.012	43	192630	47.625	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	438021	51.435	ug/l	98
20) Methylene Chloride	5.265	84	137601	50.568	ug/l	96
21) trans-1,2-Dichloroethene	5.771	96	129240	49.610	ug/l	98
22) Diisopropyl ether	6.659	45	465975	53.129	ug/l	98
23) Vinyl Acetate	6.589	43	2092358	272.771	ug/l	100
24) 1,1-Dichloroethane	6.553	63	252113	49.825	ug/l	98
25) 2-Butanone	7.471	43	592505	238.198	ug/l	97
26) 2,2-Dichloropropane	7.477	77	229345	58.298	ug/l	98
27) cis-1,2-Dichloroethene	7.471	96	154887	51.642	ug/l	98
28) Bromochloromethane	7.794	49	121917	50.344	ug/l	97
29) Tetrahydrofuran	7.824	42	391085	242.020	ug/l	99
30) Chloroform	7.947	83	260496	51.433	ug/l	95
31) Cyclohexane	8.241	56	230222	54.540	ug/l	98
32) 1,1,1-Trichloroethane	8.147	97	229476	52.312	ug/l	99
36) 1,1-Dichloropropene	8.353	75	185889	59.588	ug/l	99
37) Ethyl Acetate	7.547	43	239416	53.140	ug/l	98
38) Carbon Tetrachloride	8.347	117	203929	59.343	ug/l	94
39) Methylcyclohexane	9.582	83	219730	65.059	ug/l	100
40) Benzene	8.588	78	560613	55.603	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.759	41	127502	54.123	ug/l		98
42) 1,2-Dichloroethane	8.653	62	203545	53.235	ug/l		98
43) Isopropyl Acetate	8.671	43	366496	52.402	ug/l		99
44) Trichloroethene	9.335	130	131220	55.080	ug/l		98
45) 1,2-Dichloropropane	9.606	63	144201	56.288	ug/l		95
46) Dibromomethane	9.688	93	99408	51.826	ug/l		97
47) Bromodichloromethane	9.871	83	203072	52.560	ug/l		100
48) Methyl methacrylate	9.665	41	170300	54.088	ug/l		97
49) 1,4-Dioxane	9.682	88	49240	1021.070	ug/l	#	100
51) 4-Methyl-2-Pentanone	10.430	43	1149631	259.892	ug/l		100
52) Toluene	10.612	92	344604	56.232	ug/l		98
53) t-1,3-Dichloropropene	10.818	75	217085	55.519	ug/l		98
54) cis-1,3-Dichloropropene	10.294	75	228121	56.480	ug/l		98
55) 1,1,2-Trichloroethane	11.000	97	129044	52.012	ug/l		93
56) Ethyl methacrylate	10.859	69	219636	52.536	ug/l		96
57) 1,3-Dichloropropane	11.141	76	229926	53.600	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	578951	284.461	ug/l		100
59) 2-Hexanone	11.177	43	805849	274.584	ug/l		100
60) Dibromochloromethane	11.341	129	151360	53.493	ug/l		100
61) 1,2-Dibromoethane	11.447	107	136698	52.401	ug/l		95
64) Tetrachloroethene	11.082	164	112075	56.570	ug/l		92
65) Chlorobenzene	11.871	112	369122	53.411	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.941	131	129020	54.903	ug/l		99
67) Ethyl Benzene	11.941	91	650111	57.142	ug/l		99
68) m/p-Xylenes	12.053	106	509171	119.516	ug/l		100
69) o-Xylene	12.376	106	240930	59.204	ug/l		99
70) Styrene	12.394	104	409701	59.847	ug/l		99
71) Bromoform	12.559	173	102120	53.790	ug/l	#	100
73) Isopropylbenzene	12.676	105	625743	61.272	ug/l		100
74) N-amyl acetate	12.494	43	201002	47.372	ug/l		90
75) 1,1,2,2-Tetrachloroethane	12.918	83	196891	51.237	ug/l		100
76) 1,2,3-Trichloropropane	12.971	75	196300m	53.949	ug/l		
77) Bromobenzene	12.959	156	149559	56.468	ug/l		98
78) n-propylbenzene	13.012	91	777876	60.540	ug/l		99
79) 2-Chlorotoluene	13.106	91	447756	56.702	ug/l		99
80) 1,3,5-Trimethylbenzene	13.153	105	524279	60.253	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.718	75	71257	53.584	ug/l		95
82) 4-Chlorotoluene	13.200	91	458601	55.780	ug/l		99
83) tert-Butylbenzene	13.418	119	455752	62.712	ug/l		98
84) 1,2,4-Trimethylbenzene	13.459	105	536180	60.341	ug/l		99
85) sec-Butylbenzene	13.594	105	681159	62.226	ug/l		100
86) p-Isopropyltoluene	13.706	119	575261	65.575	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	289139	55.624	ug/l		100
88) 1,4-Dichlorobenzene	13.788	146	295512	53.229	ug/l		99
89) n-Butylbenzene	14.035	91	534390	63.795	ug/l		99
90) Hexachloroethane	14.312	117	108610	58.433	ug/l		96
91) 1,2-Dichlorobenzene	14.082	146	272418	55.319	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	47578	47.158	ug/l		98
93) 1,2,4-Trichlorobenzene	15.370	180	168911	58.393	ug/l		98
94) Hexachlorobutadiene	15.476	225	70795	65.866	ug/l		98
95) Naphthalene	15.617	128	564590	55.095	ug/l		99
96) 1,2,3-Trichlorobenzene	15.817	180	165516	57.042	ug/l		100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

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

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

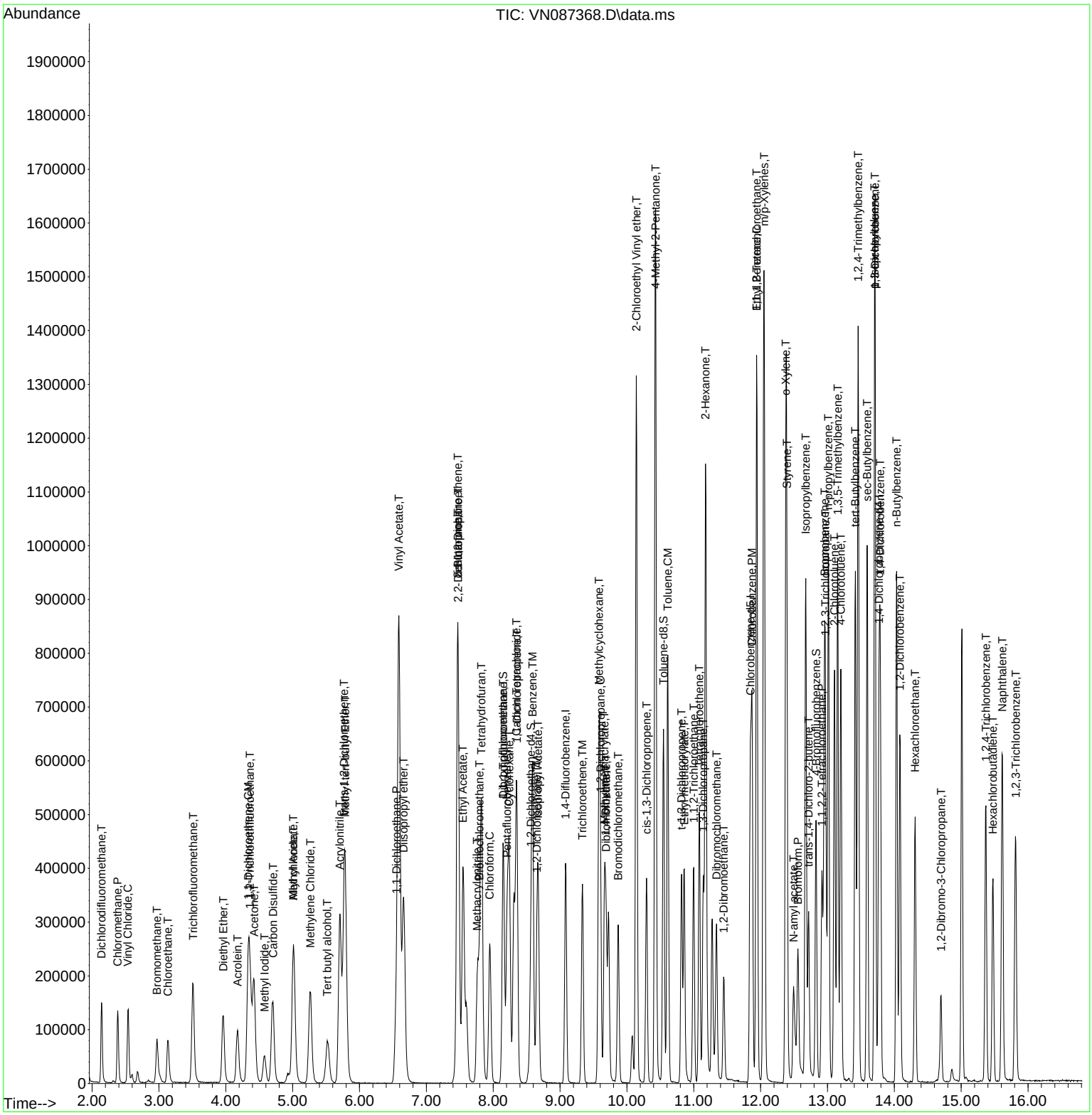
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

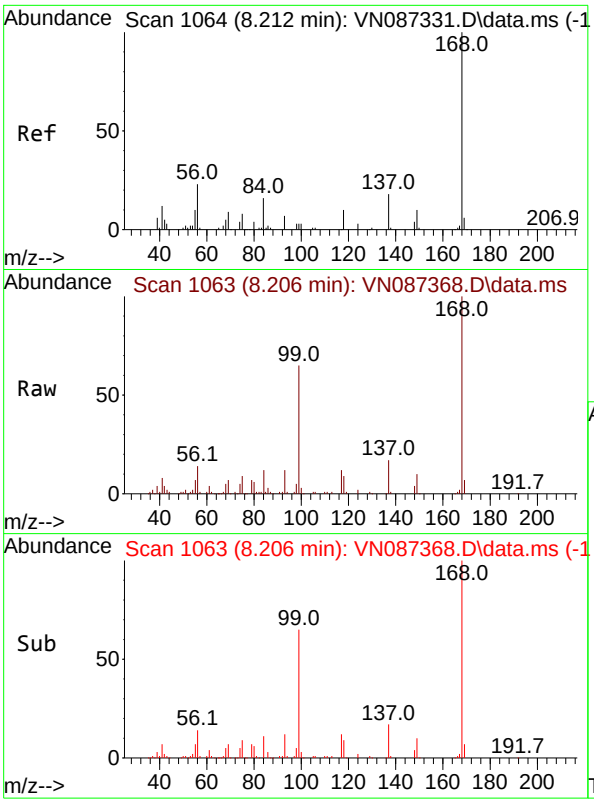
Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

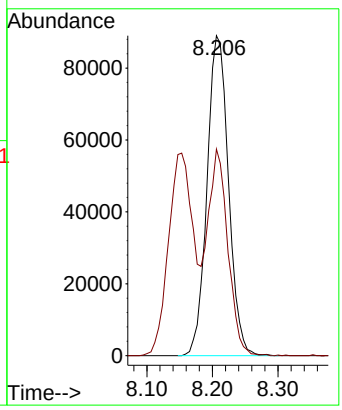




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:168 Resp: 20235

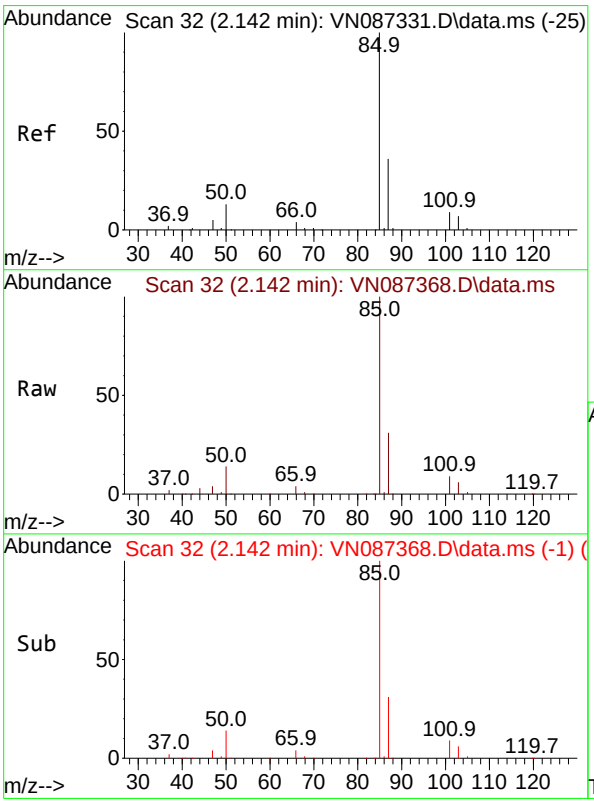
Ion	Ratio	Lower	Upper
168	100		
99	64.4	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

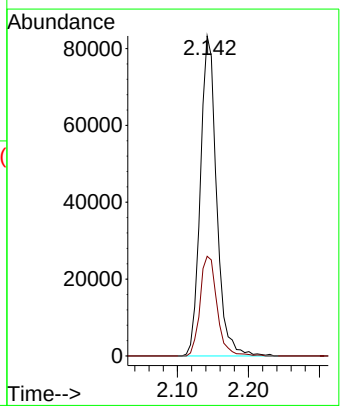
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

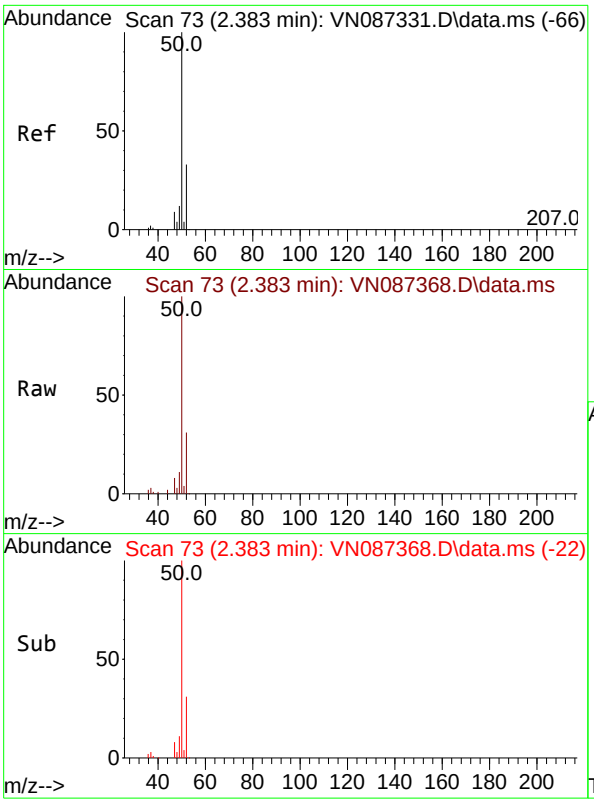


#2
Dichlorodifluoromethane
Concen: 61.705 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 85 Resp: 132620

Ion	Ratio	Lower	Upper
85	100		
87	31.2	17.8	53.3

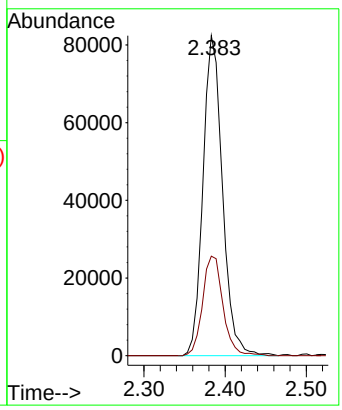




#3
Chloromethane
Concen: 50.754 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 50 Resp: 13717

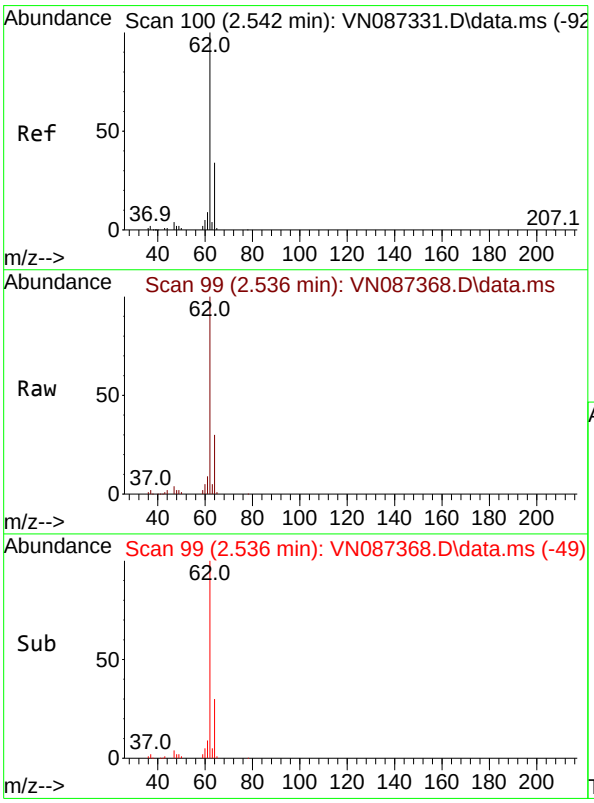
Ion	Ratio	Lower	Upper
50	100		
52	31.1	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

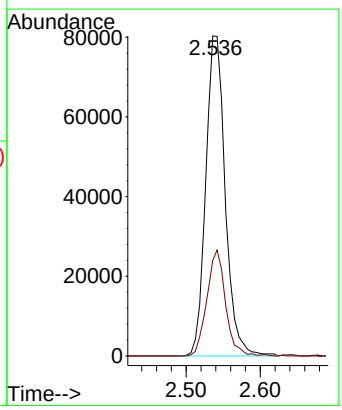
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

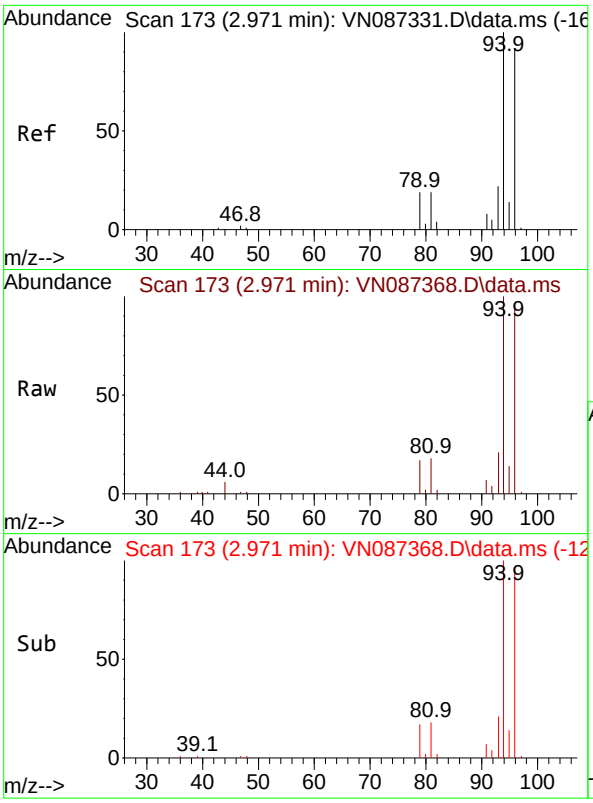


#4
Vinyl Chloride
Concen: 54.632 ug/l
RT: 2.536 min Scan# 99
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 62 Resp: 146742

Ion	Ratio	Lower	Upper
62	100		
64	29.9	27.0	40.6

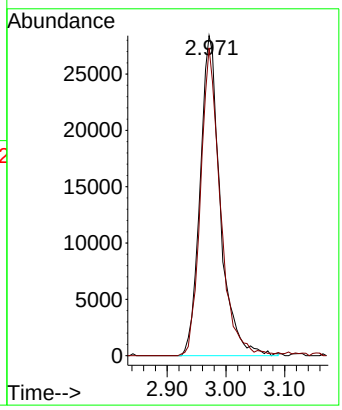




#5
Bromomethane
Concen: 48.730 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 94 Resp: 6778

Ion	Ratio	Lower	Upper
94	100		
96	96.2	73.4	110.2



Instrument :
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ClientSampleId :
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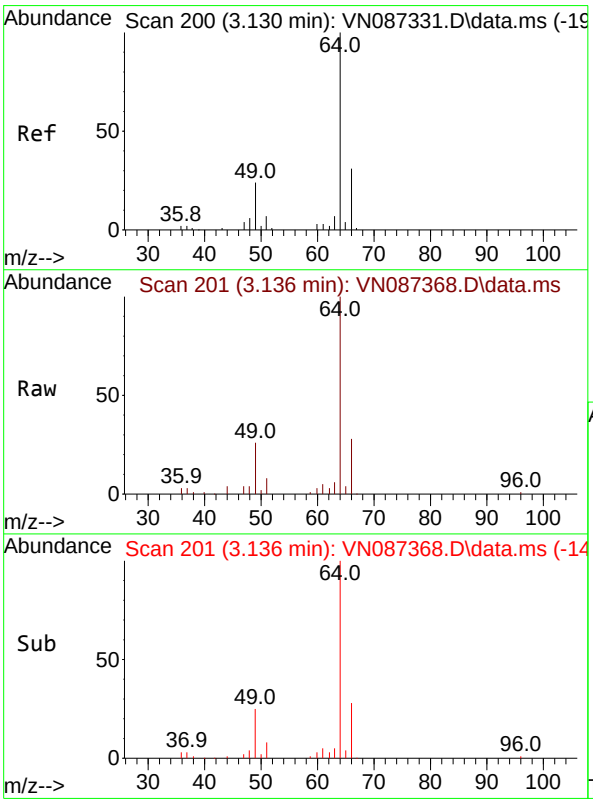
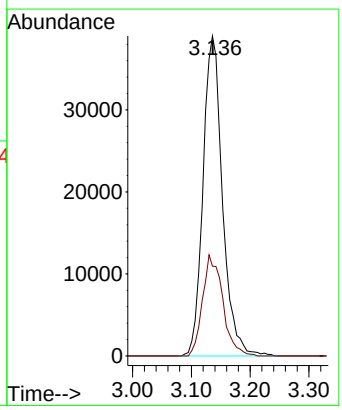
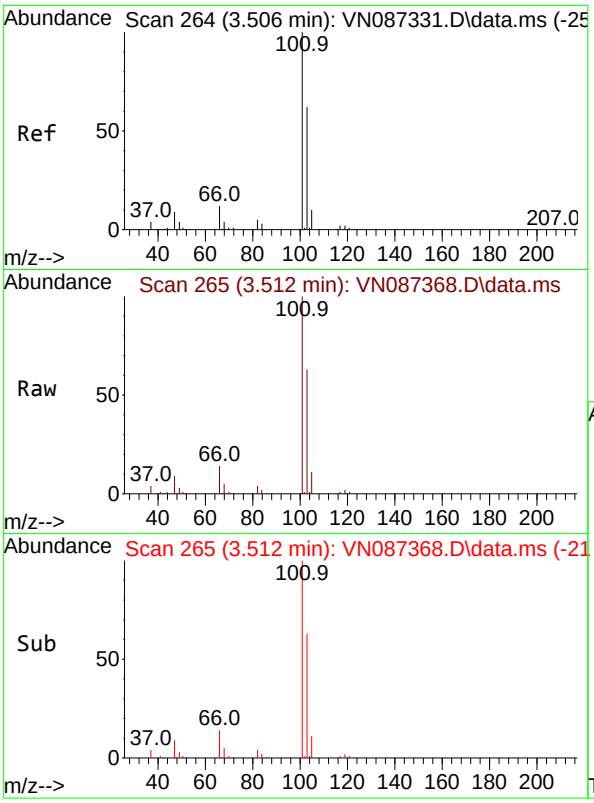


#6
Chloroethane
Concen: 51.128 ug/l
RT: 3.136 min Scan# 201
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 64 Resp: 89560

Ion	Ratio	Lower	Upper
64	100		
66	28.0	24.6	36.8

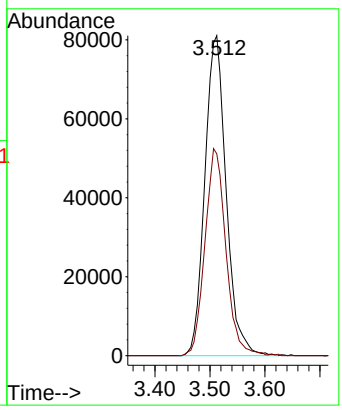




#7
Trichlorofluoromethane
Concen: 55.045 ug/l
RT: 3.512 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:101 Resp: 21862

Ion	Ratio	Lower	Upper
101	100		
103	63.1	49.8	74.6



Instrument :
MSVOA_N
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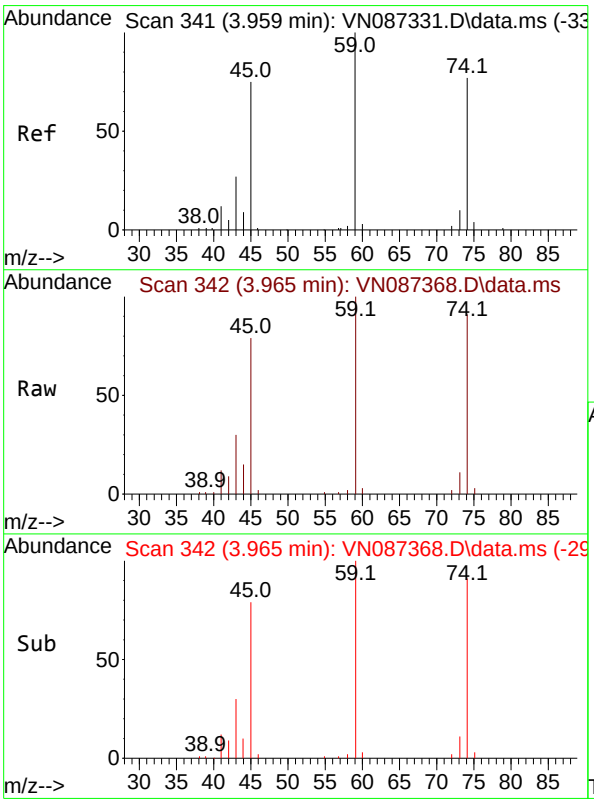
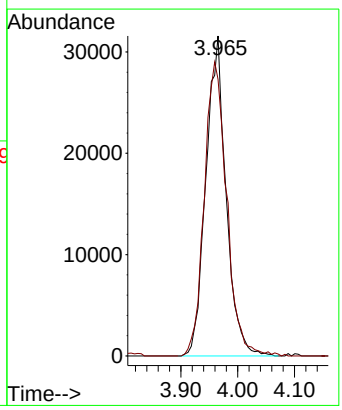
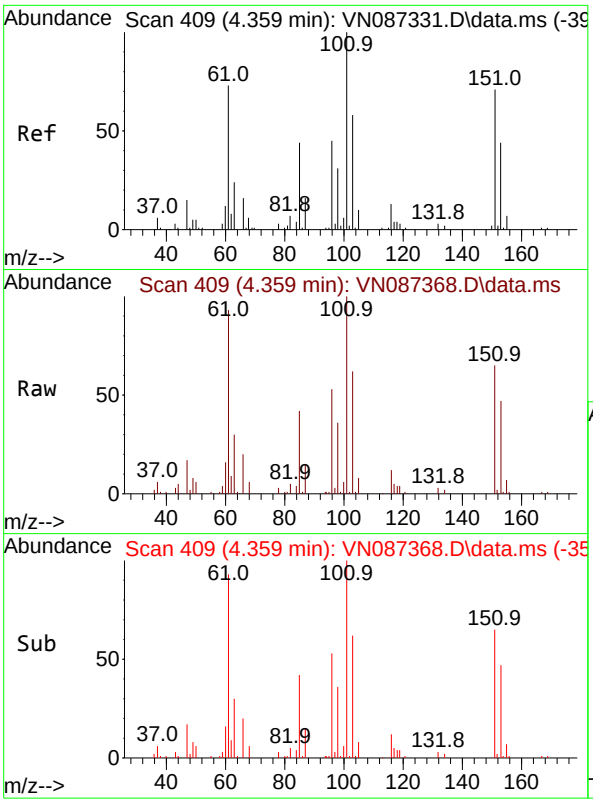


#8
Diethyl Ether
Concen: 50.524 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 74 Resp: 77841

Ion	Ratio	Lower	Upper
74	100		
45	102.1	50.8	152.5





#9
1,1,2-Trichlorotrifluoroethane
Concen: 57.347 ug/l
RT: 4.359 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:101 Resp: 11692

Ion	Ratio	Lower	Upper
101	100		
85	46.6	37.3	55.9
151	70.1	58.9	88.3

Instrument :
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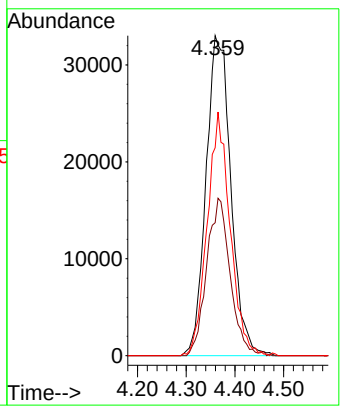
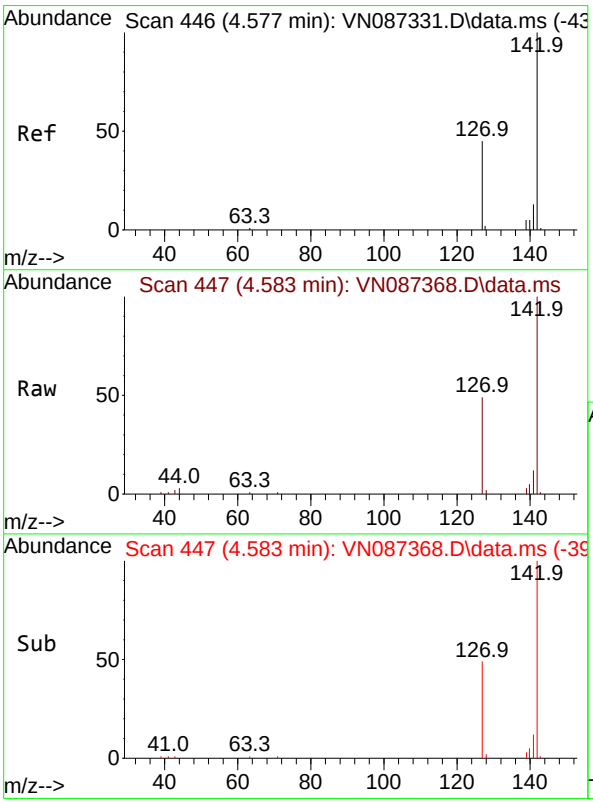
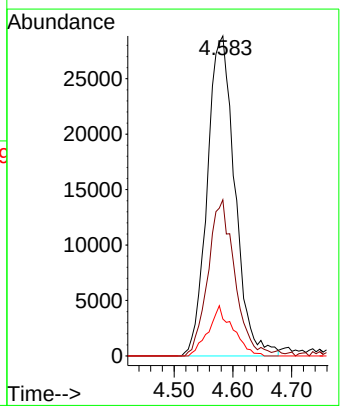


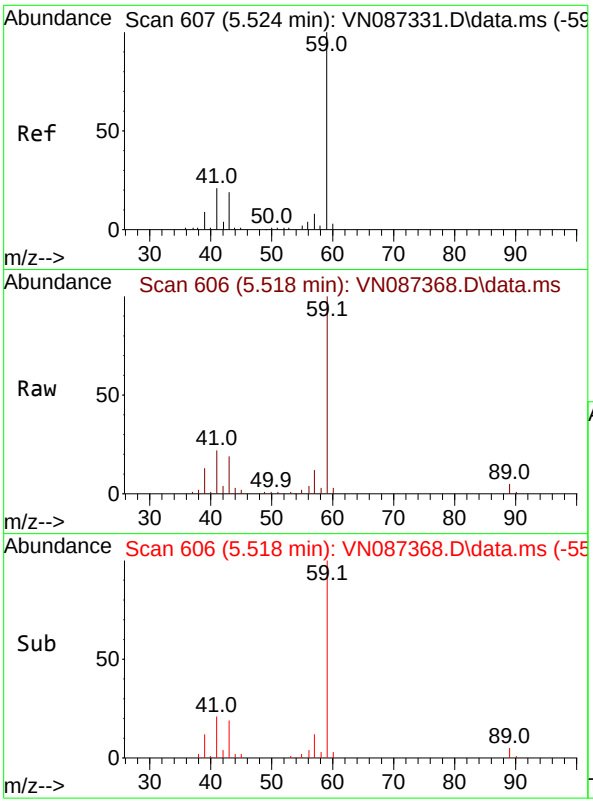


#10
Methyl Iodide
Concen: 45.477 ug/l
RT: 4.583 min Scan# 447
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:142 Resp: 94184

Ion	Ratio	Lower	Upper
142	100		
127	48.8	35.7	53.5
141	11.6	10.4	15.6





#11
Tert butyl alcohol
Concen: 230.810 ug/l
RT: 5.518 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 59 Resp: 15047

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.3	12.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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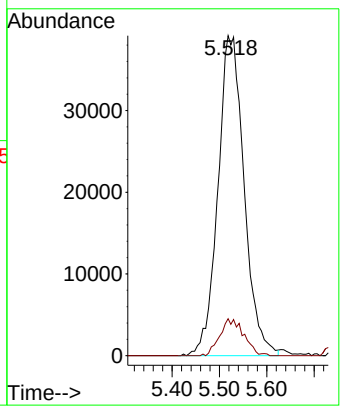
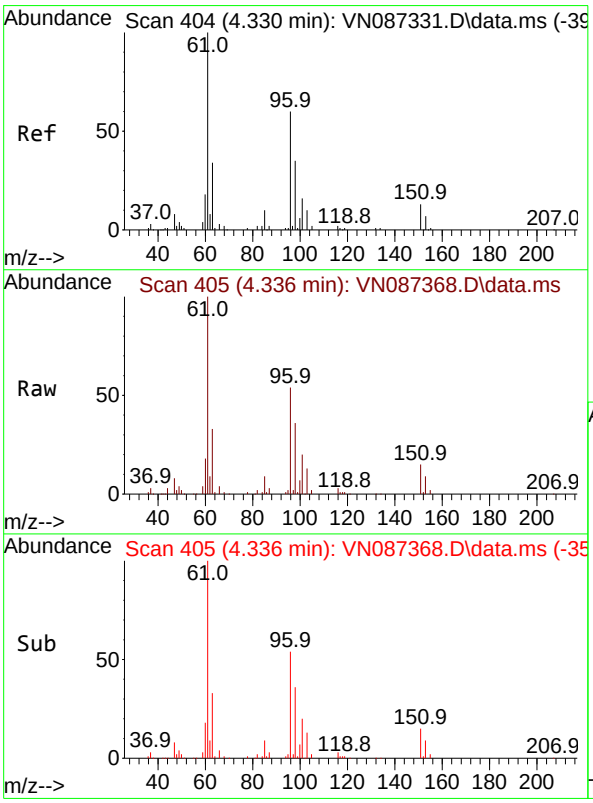
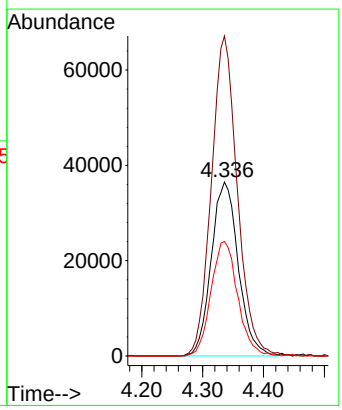


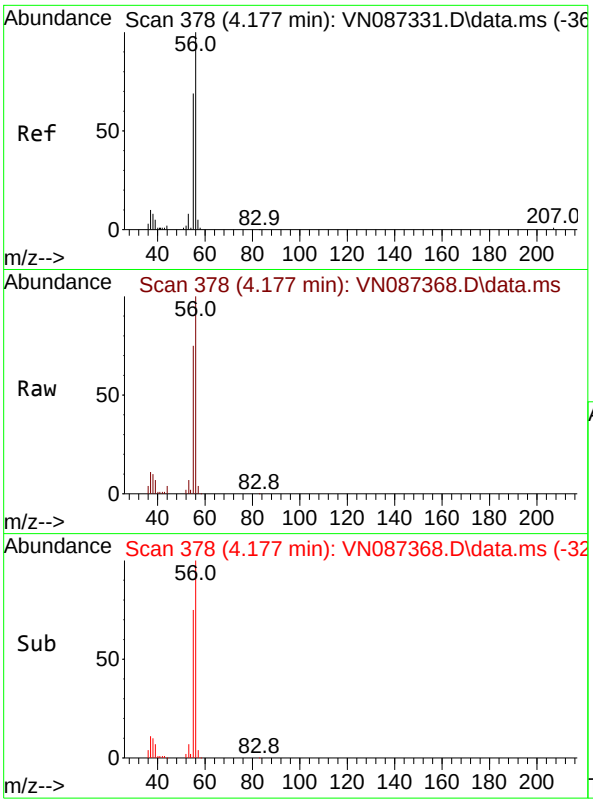


#12
1,1-Dichloroethene
Concen: 48.730 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 96 Resp: 112586

Ion	Ratio	Lower	Upper
96	100		
61	183.9	132.3	198.5
98	65.8	46.8	70.2

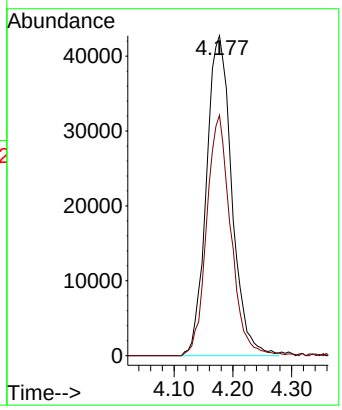




#13
Acrolein
Concen: 245.196 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 56 Resp: 12829

Ion	Ratio	Lower	Upper
56	100		
55	71.1	56.2	84.4



Instrument :
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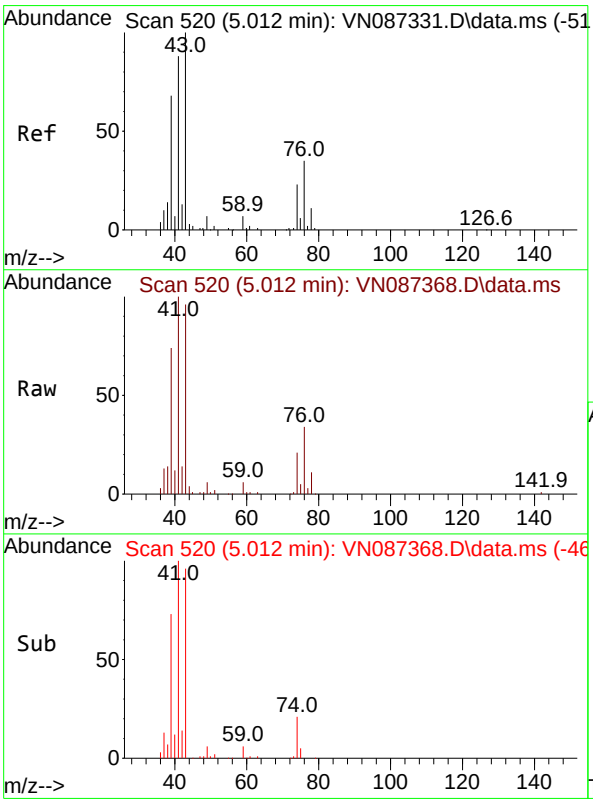
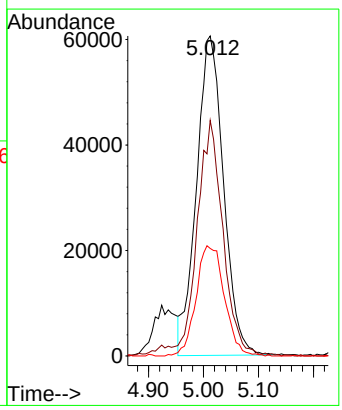
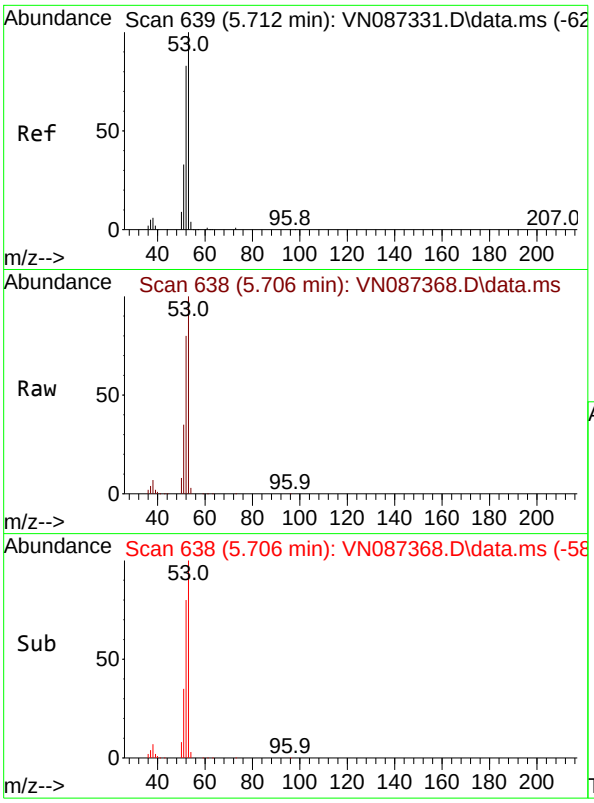


#14
Allyl chloride
Concen: 49.562 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 41 Resp: 207234

Ion	Ratio	Lower	Upper
41	100		
39	68.5	59.0	88.6
76	36.1	28.7	43.1

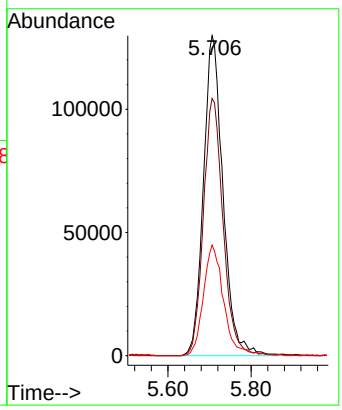




#15
Acrylonitrile
Concen: 239.867 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 53 Resp: 42436

Ion	Ratio	Lower	Upper
53	100		
52	80.8	65.5	98.3
51	35.8	28.7	43.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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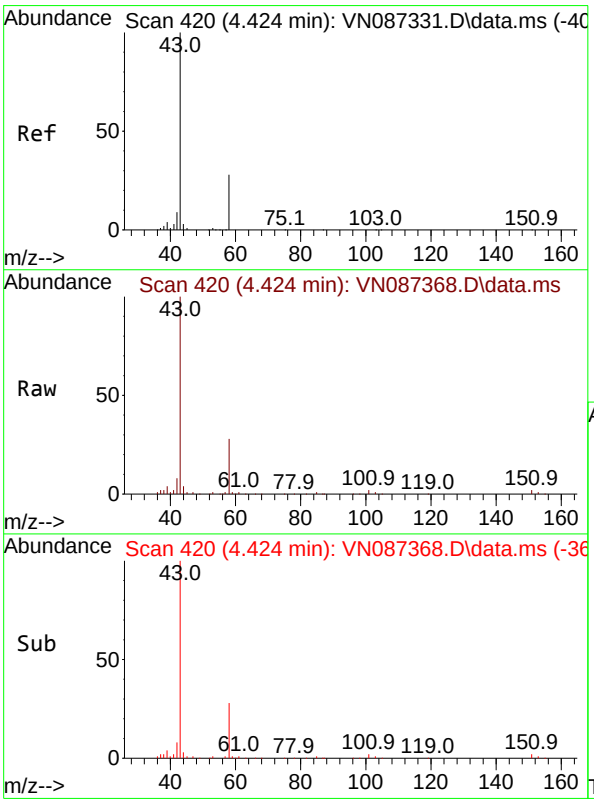
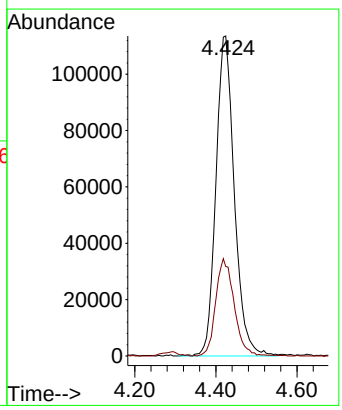
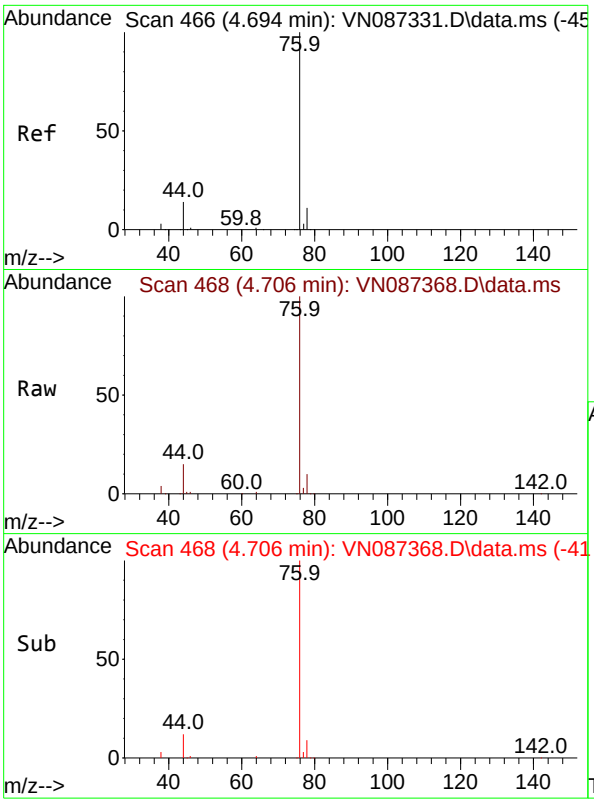


#16
Acetone
Concen: 222.434 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 358096

Ion	Ratio	Lower	Upper
43	100		
58	27.8	22.3	33.5





#17
Carbon Disulfide
Concen: 52.775 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.012 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 76 Resp: 36150

Ion	Ratio	Lower	Upper
76	100		
78	9.9	8.6	13.0

Instrument :
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ClientSampleId :
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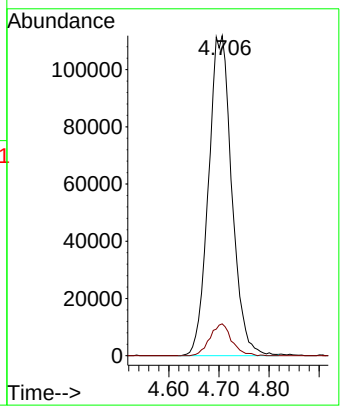
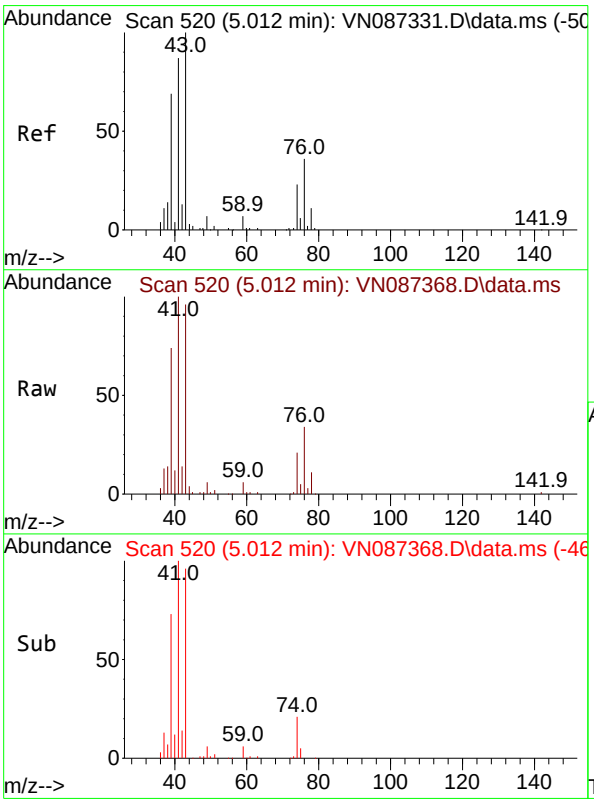
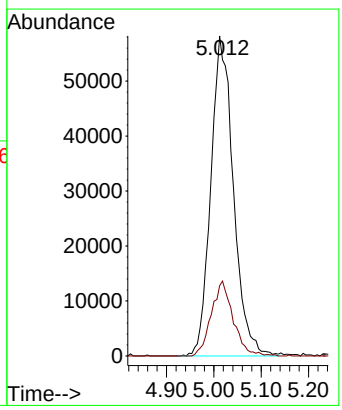


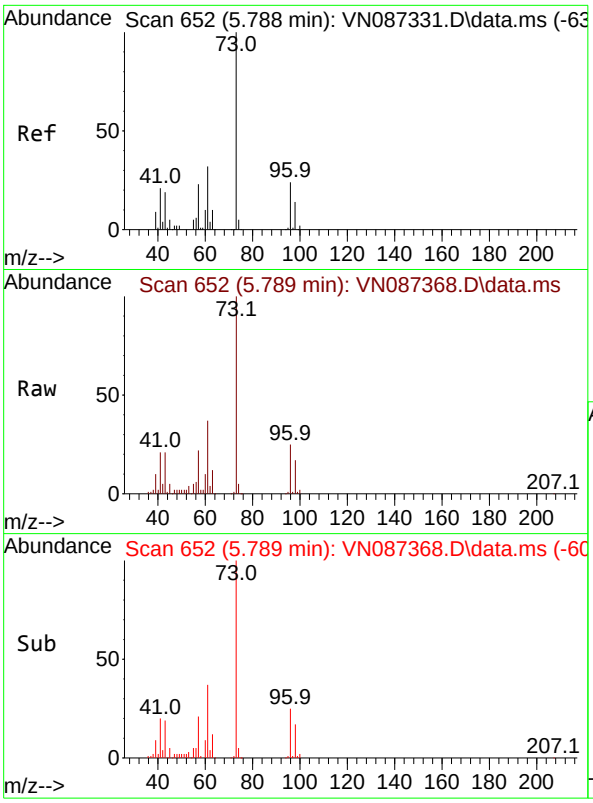


#18
Methyl Acetate
Concen: 47.625 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 192630

Ion	Ratio	Lower	Upper
43	100		
74	22.7	17.8	26.6

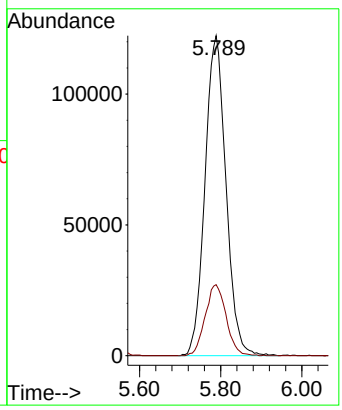




#19
Methyl tert-butyl Ether
Concen: 51.435 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 73 Resp: 43802

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.6	27.8



Instrument :
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ClientSampleId :
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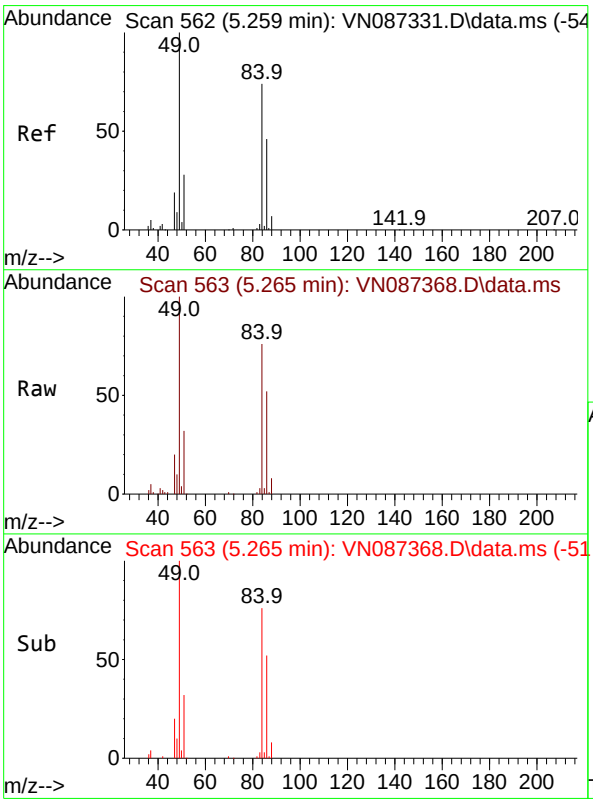
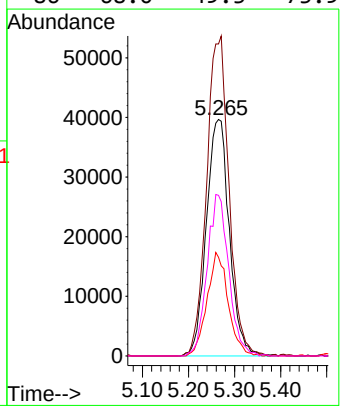
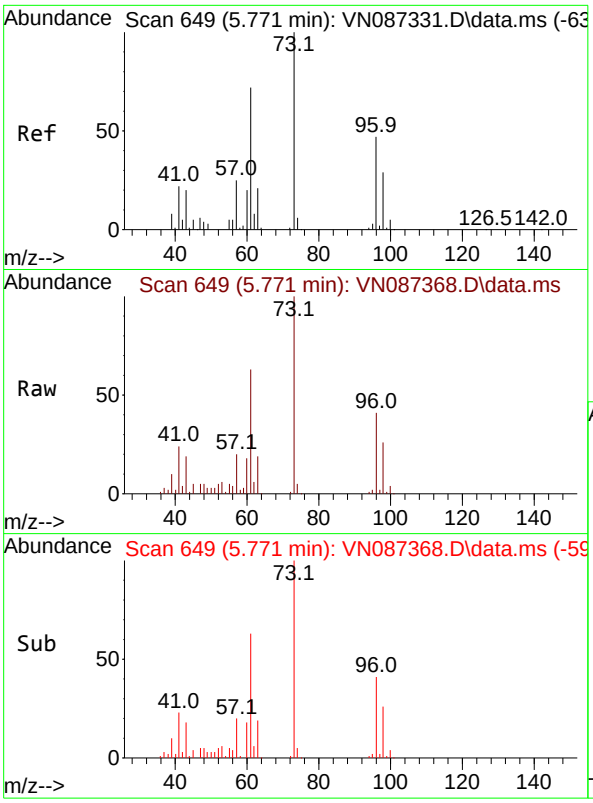


#20
Methylene Chloride
Concen: 50.568 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 84 Resp: 137601

Ion	Ratio	Lower	Upper
84	100		
49	131.9	107.5	161.3
51	41.7	30.2	45.2
86	68.0	49.3	73.9

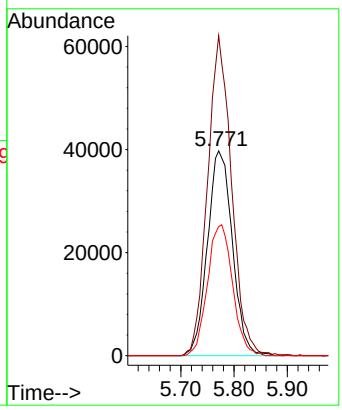




#21
trans-1,2-Dichloroethene
Concen: 49.610 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 96 Resp: 12924

Ion	Ratio	Lower	Upper
96	100		
61	156.3	122.0	183.0
98	63.0	50.0	75.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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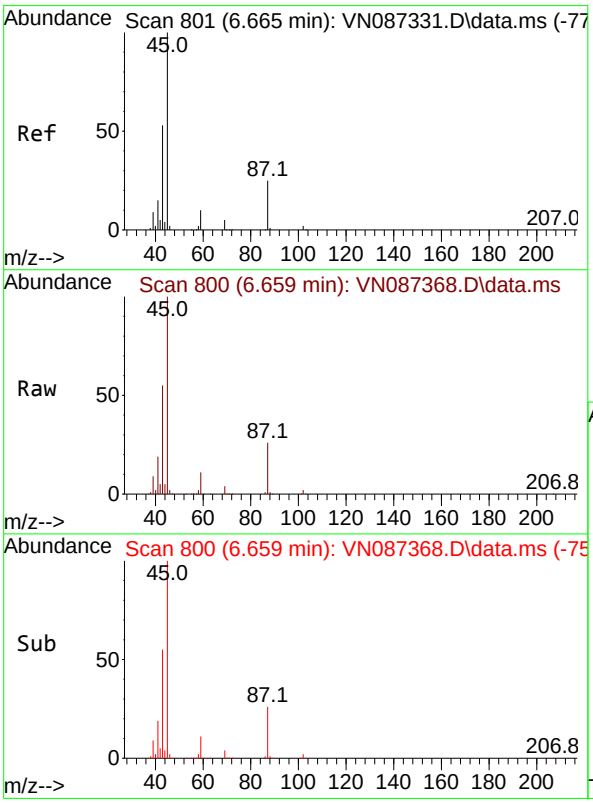
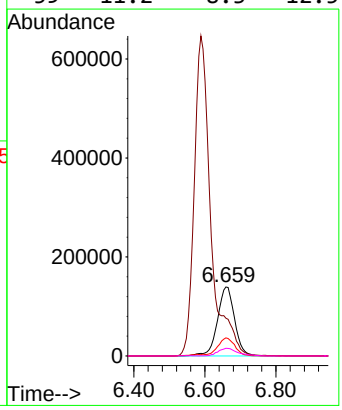
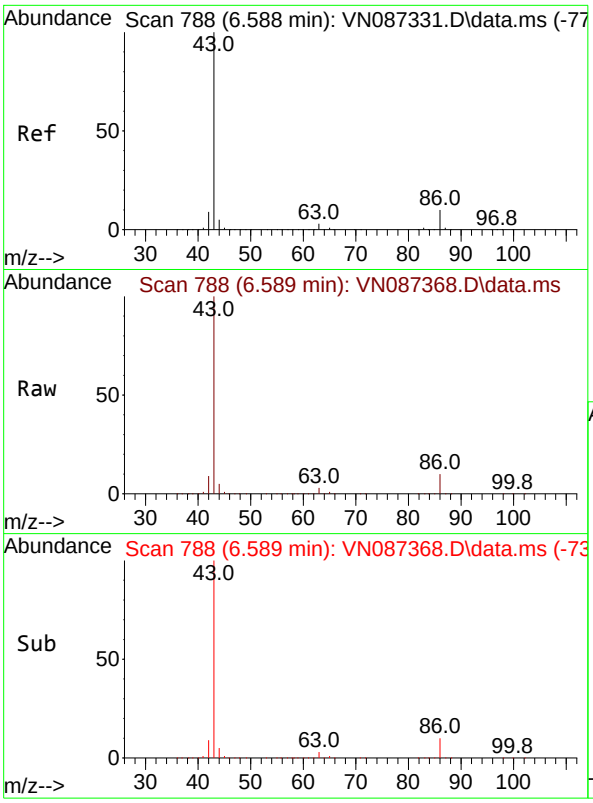


#22
Diisopropyl ether
Concen: 53.129 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 45 Resp: 465975

Ion	Ratio	Lower	Upper
45	100		
43	54.3	42.8	64.2
87	26.1	19.8	29.6
59	11.2	8.3	12.5

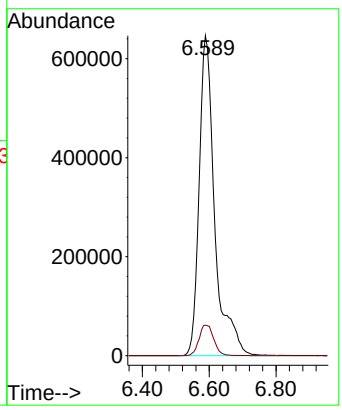




#23
Vinyl Acetate
Concen: 272.771 ug/l
RT: 6.589 min Scan# 7
Delta R.T. 0.001 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 209235

Ion	Ratio	Lower	Upper
43	100		
86	9.5	7.7	11.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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Reviewed By :John Carlone 07/22/2025
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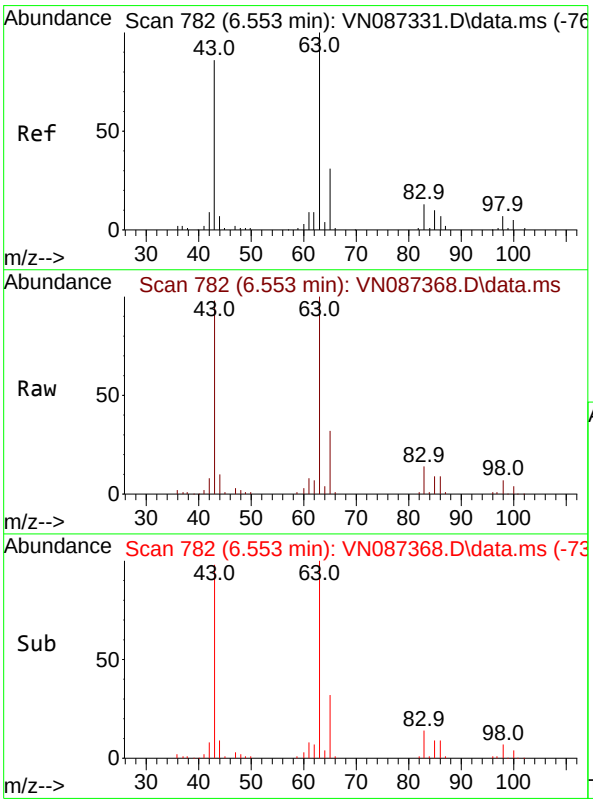
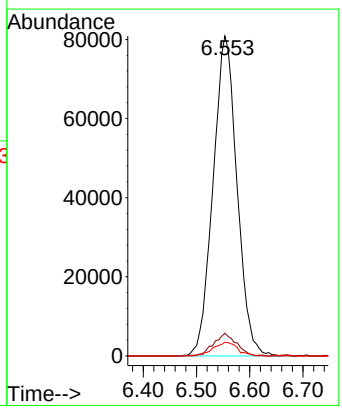
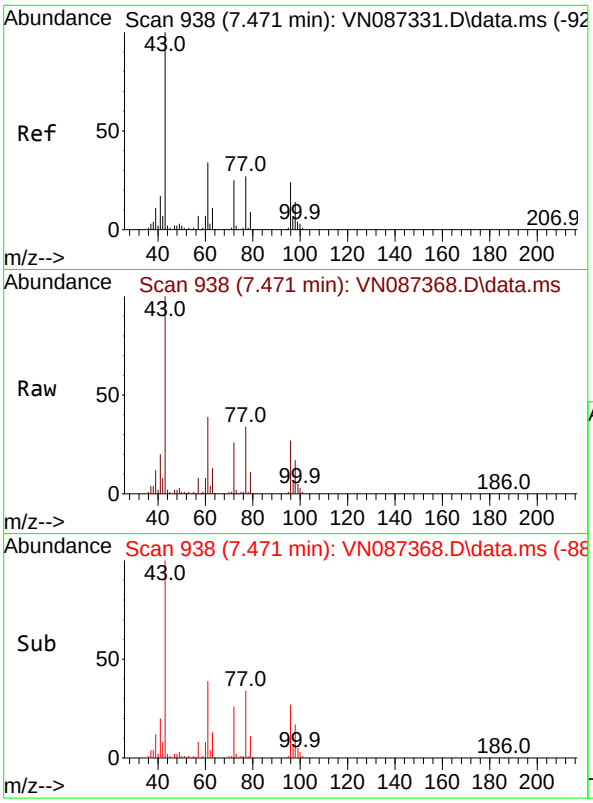


#24
1,1-Dichloroethane
Concen: 49.825 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 63 Resp: 252113

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.3	9.9
100	4.3	2.5	7.4





#25
2-Butanone
Concen: 238.198 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 59250

Ion	Ratio	Lower	Upper
43	100		
72	25.9	19.6	29.4

Instrument :
MSVOA_N
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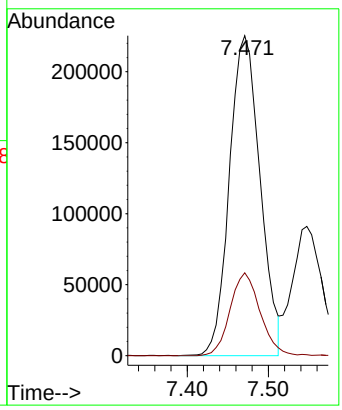
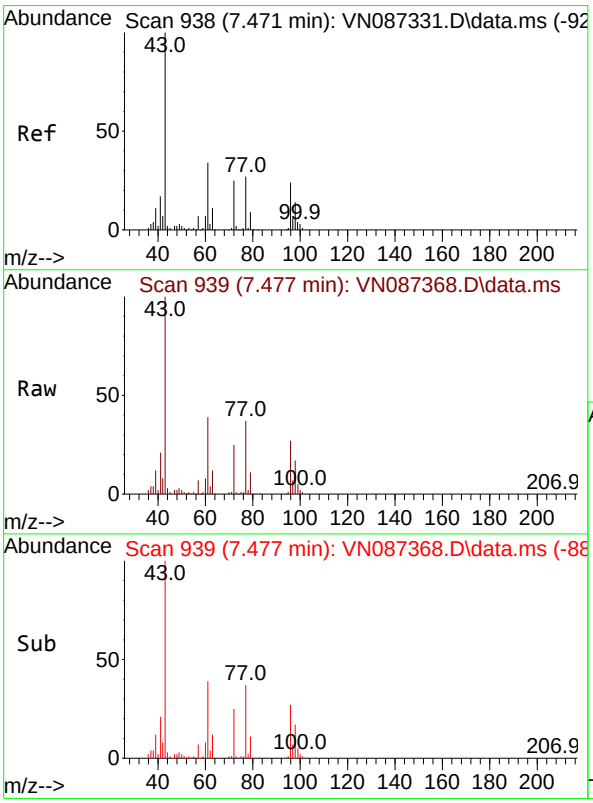
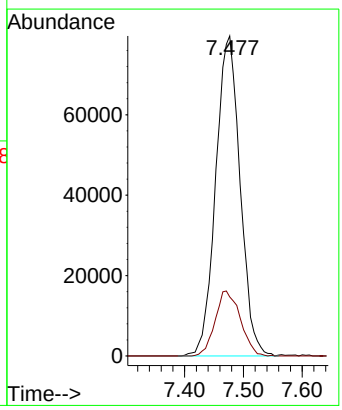


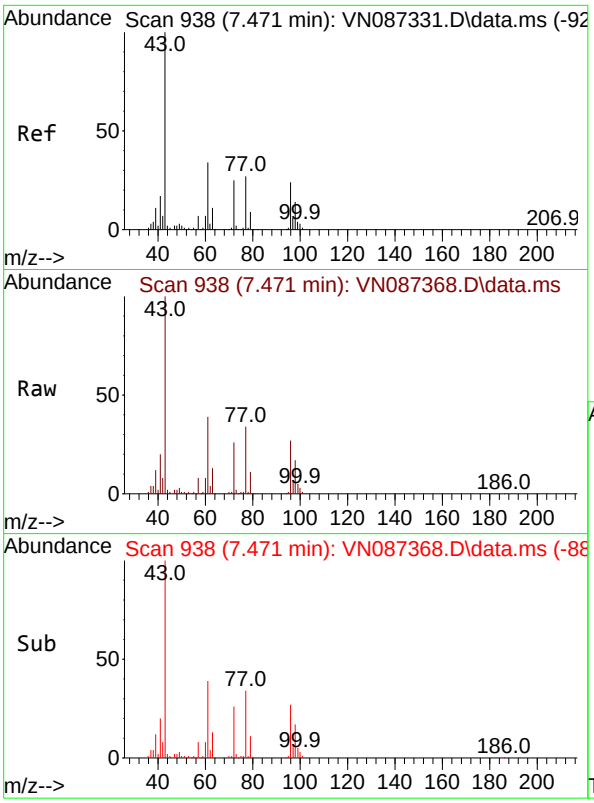


#26
2,2-Dichloropropane
Concen: 58.298 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 77 Resp: 229345

Ion	Ratio	Lower	Upper
77	100		
97	21.0	11.1	33.1





#27
cis-1,2-Dichloroethene
Concen: 51.642 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 96 Resp: 15488

Ion	Ratio	Lower	Upper
96	100		
61	152.5	0.0	297.8
98	65.0	0.0	132.4

Instrument :
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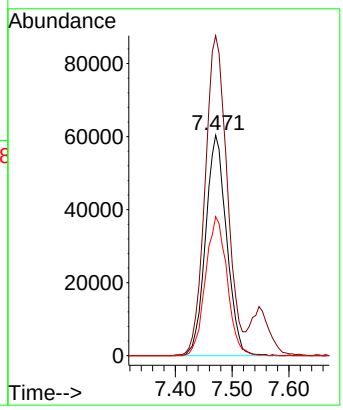
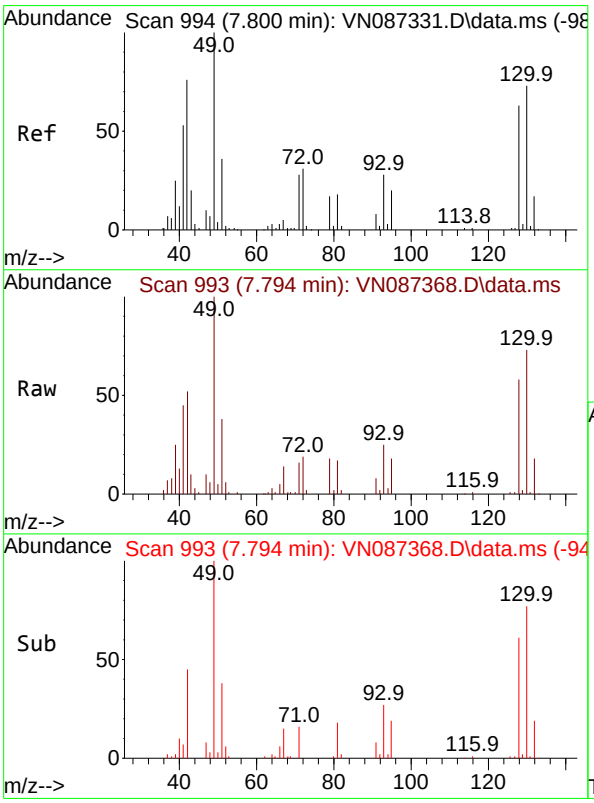
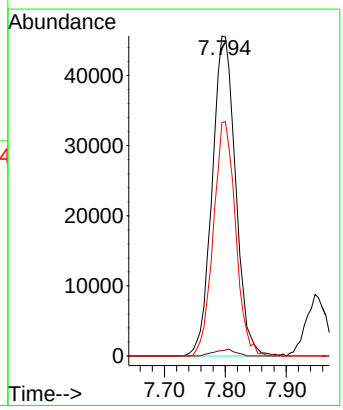


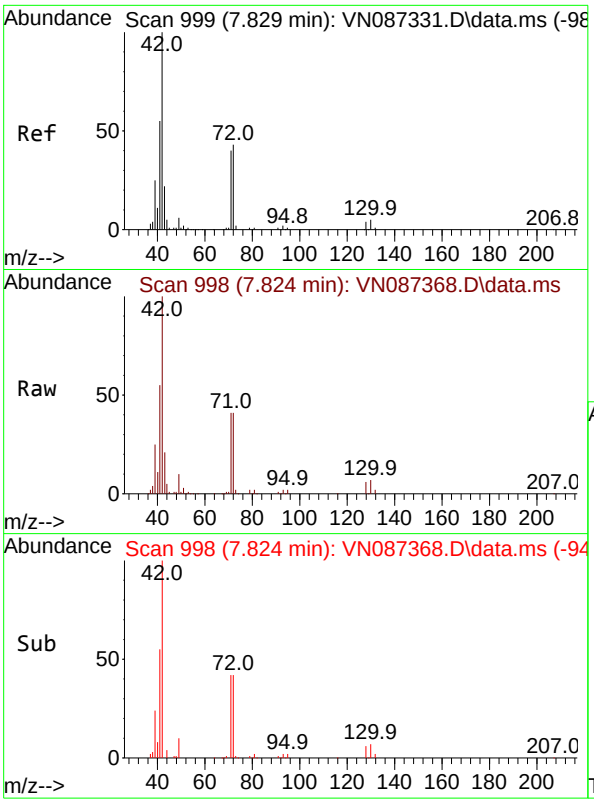


#28
Bromochloromethane
Concen: 50.344 ug/l
RT: 7.794 min Scan# 993
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 49 Resp: 121917

Ion	Ratio	Lower	Upper
49	100		
129	1.9	0.0	4.2
130	69.3	57.3	85.9





#29
Tetrahydrofuran
Concen: 242.020 ug/l
RT: 7.824 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 42 Resp: 39108

Ion	Ratio	Lower	Upper
42	100		
72	42.1	33.4	50.0
71	39.3	31.2	46.8

Instrument :
MSVOA_N
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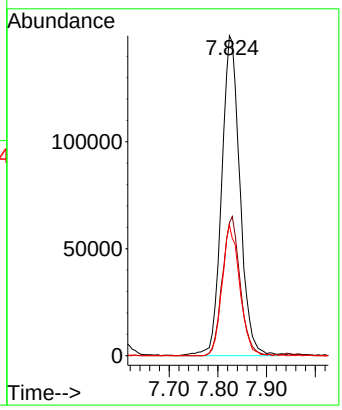
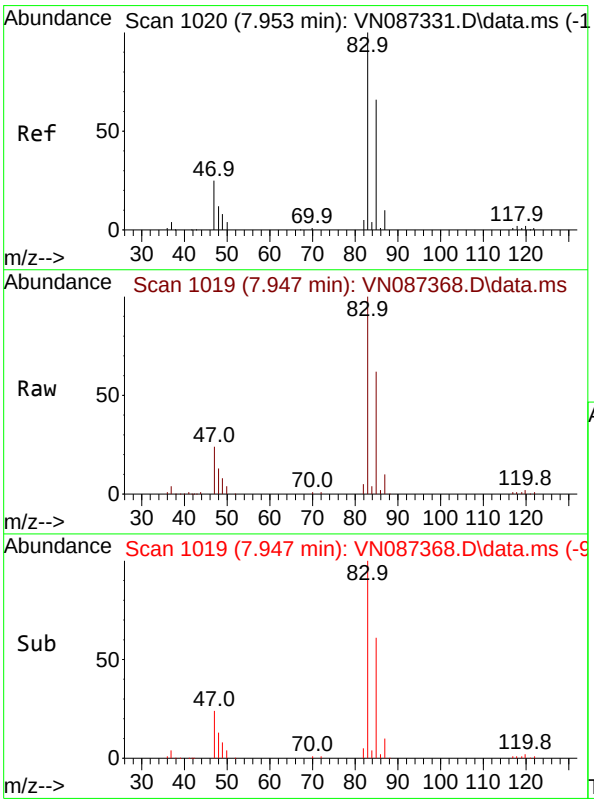
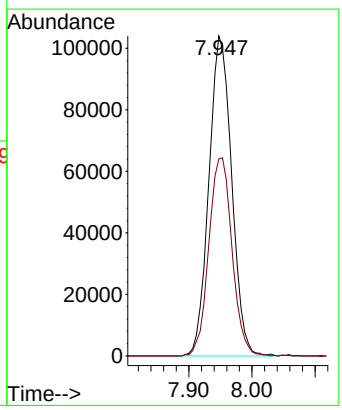


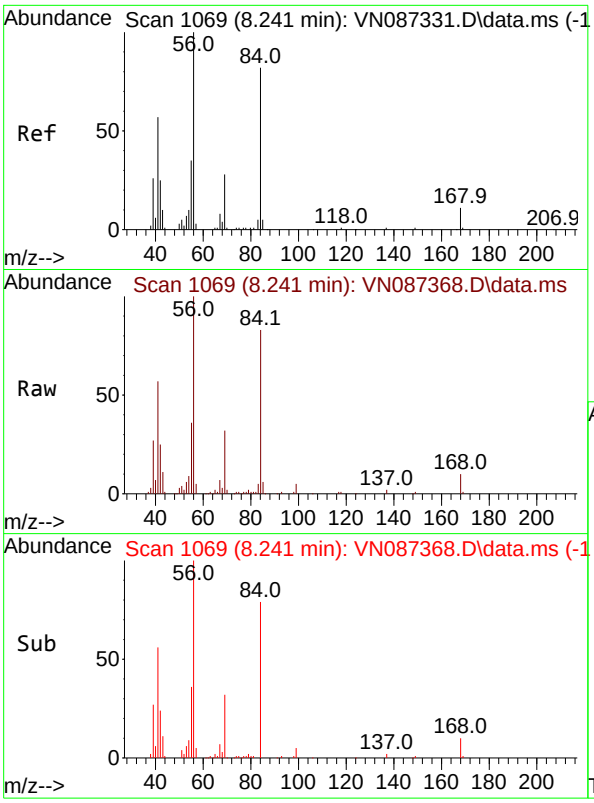


#30
Chloroform
Concen: 51.433 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 83 Resp: 260496

Ion	Ratio	Lower	Upper
83	100		
85	61.7	52.7	79.1

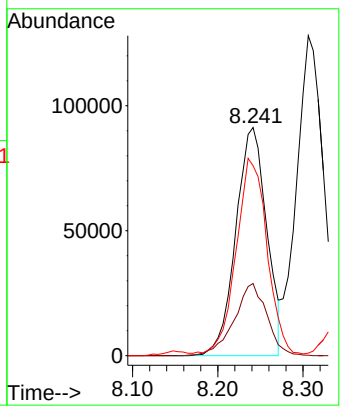




#31
Cyclohexane
Concen: 54.540 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 56 Resp: 23022

Ion	Ratio	Lower	Upper
56	100		
69	31.6	22.7	34.1
84	81.5	65.8	98.6



Instrument :
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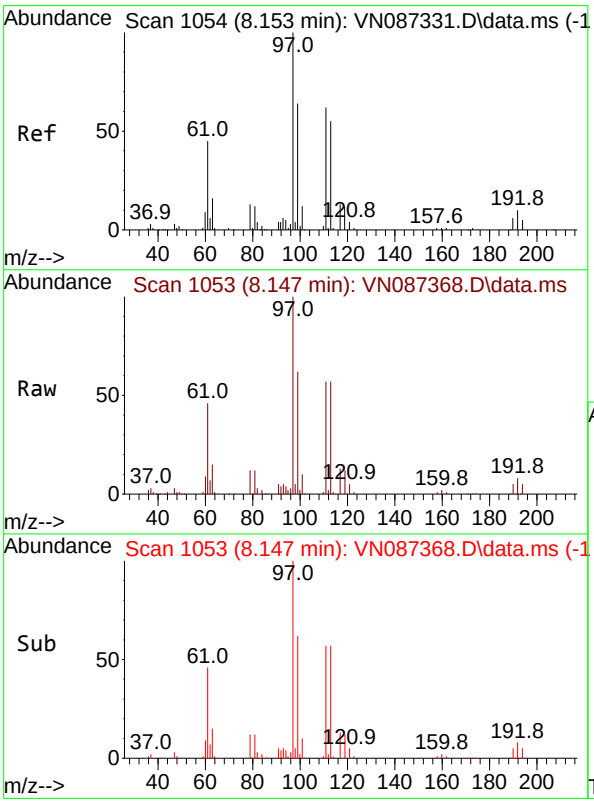
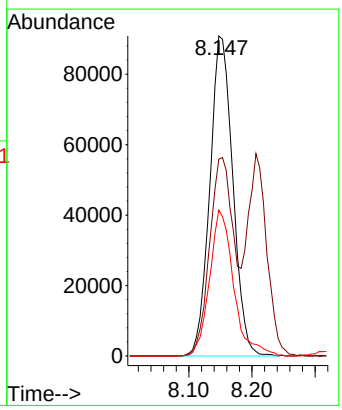
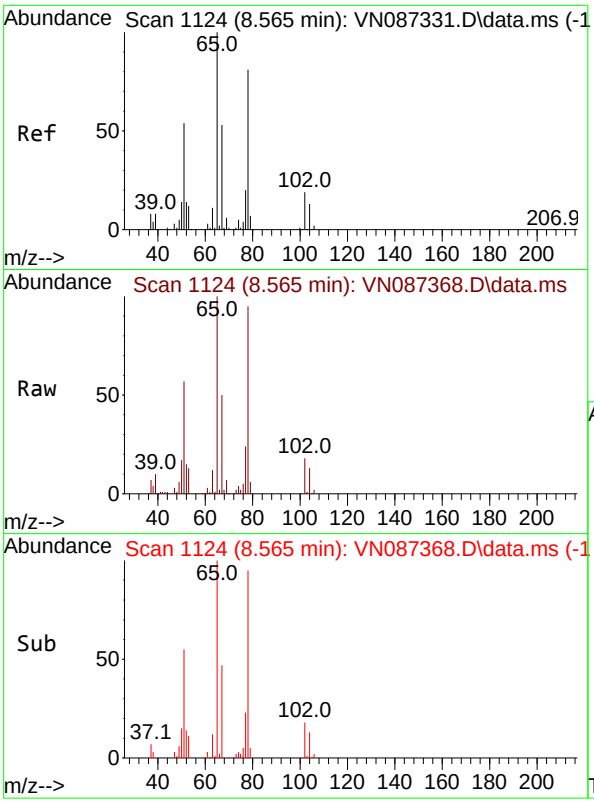


#32
1,1,1-Trichloroethane
Concen: 52.312 ug/l
RT: 8.147 min Scan# 1053
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 97 Resp: 229476

Ion	Ratio	Lower	Upper
97	100		
99	66.2	51.8	77.8
61	47.9	38.7	58.1

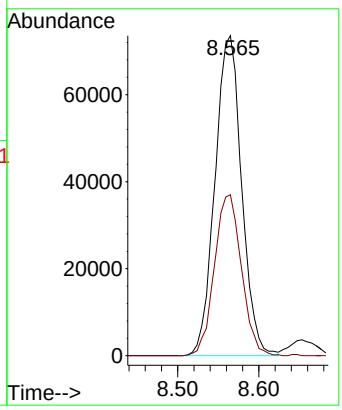




#33
1,2-Dichloroethane-d4
Concen: 48.966 ug/l
RT: 8.565 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 65 Resp: 16812

Ion	Ratio	Lower	Upper
65	100		
67	50.9	0.0	104.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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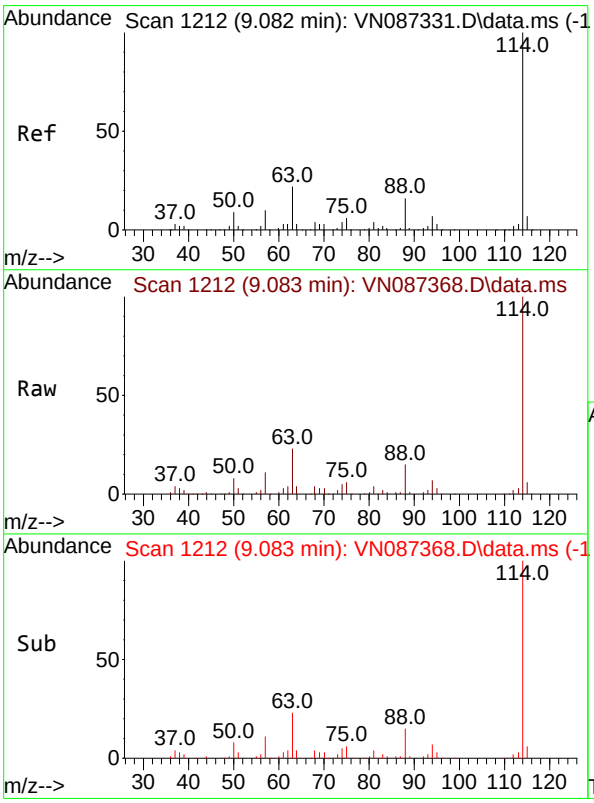
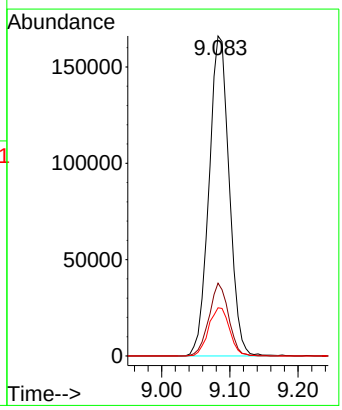
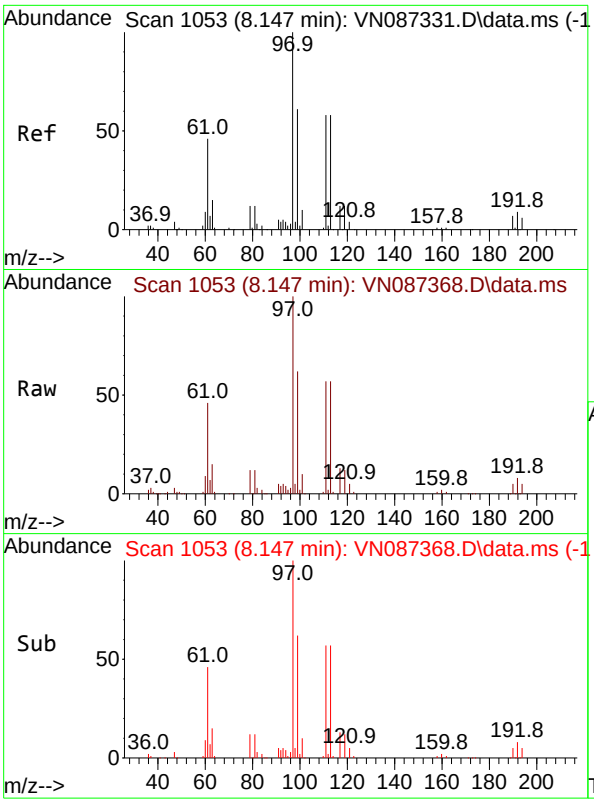


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.083 min Scan# 1212
Delta R.T. 0.001 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:114 Resp: 342303

Ion	Ratio	Lower	Upper
114	100		
63	22.8	0.0	44.6
88	15.1	0.0	32.8

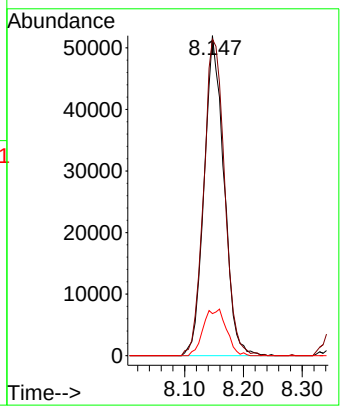




#35
Dibromofluoromethane
Concen: 51.565 ug/l
RT: 8.147 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:113 Resp: 12175

Ion	Ratio	Lower	Upper
113	100		
111	104.0	82.5	123.7
192	17.0	13.7	20.5



Instrument :
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ClientSampleId :
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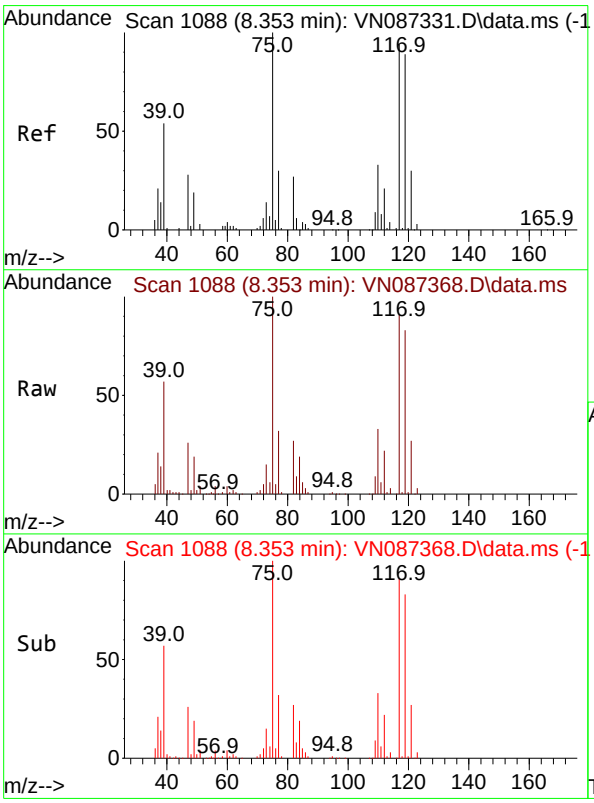
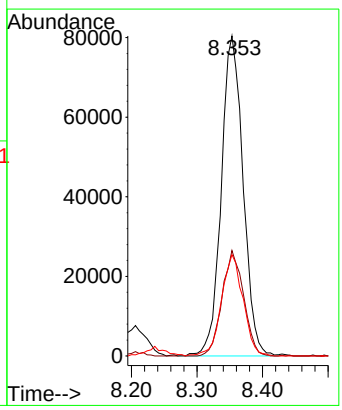
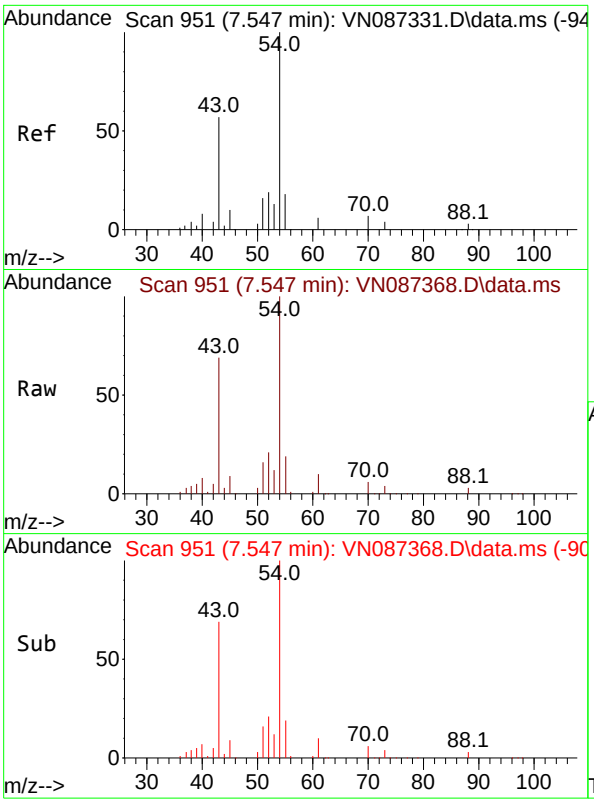


#36
1,1-Dichloropropene
Concen: 59.588 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 75 Resp: 185889

Ion	Ratio	Lower	Upper
75	100		
110	32.5	16.7	50.1
77	31.4	25.2	37.8





#37
Ethyl Acetate
Concen: 53.140 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 23941

Ion	Ratio	Lower	Upper
43	100		
61	12.6	10.9	16.3
70	9.7	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
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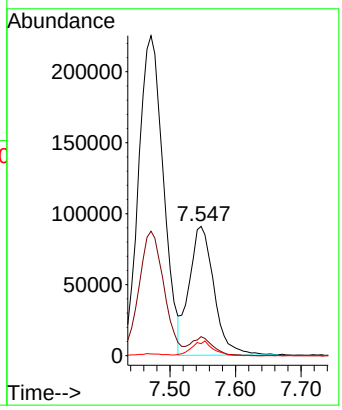
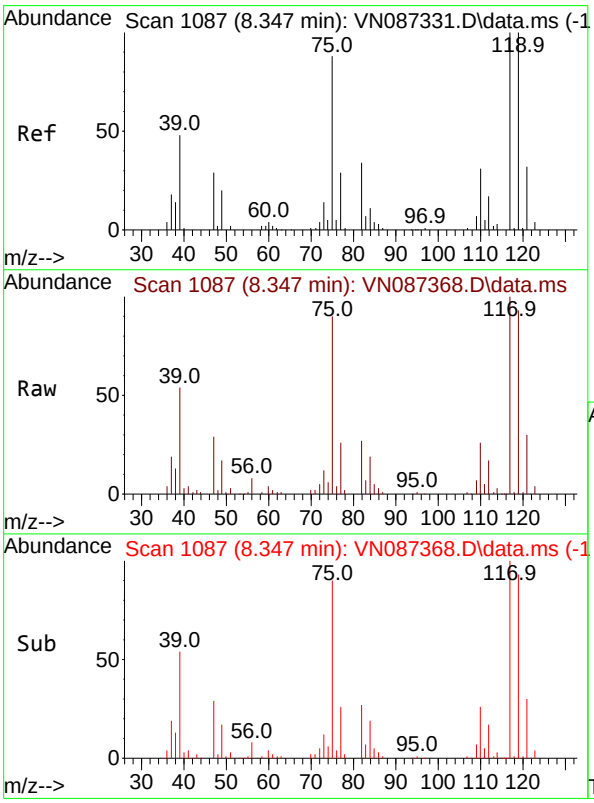
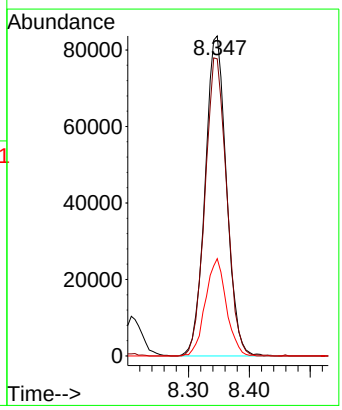


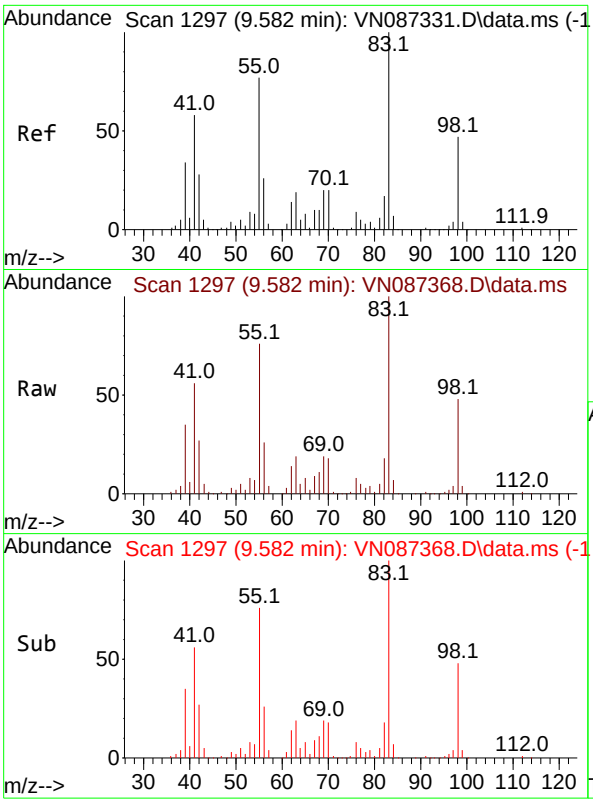


#38
Carbon Tetrachloride
Concen: 59.343 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:117 Resp: 203929

Ion	Ratio	Lower	Upper
117	100		
119	92.9	80.2	120.2
121	30.4	25.4	38.2

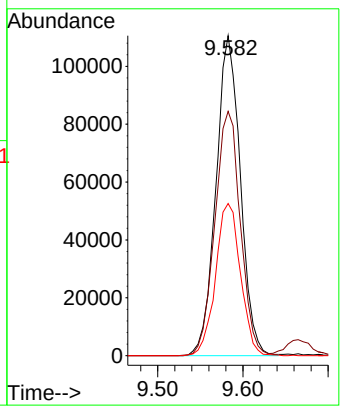




#39
Methylcyclohexane
Concen: 65.059 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 83 Resp: 21973

Ion	Ratio	Lower	Upper
83	100		
55	76.3	61.3	91.9
98	47.6	37.9	56.9



Instrument :
MSVOA_N
ClientSampleId :
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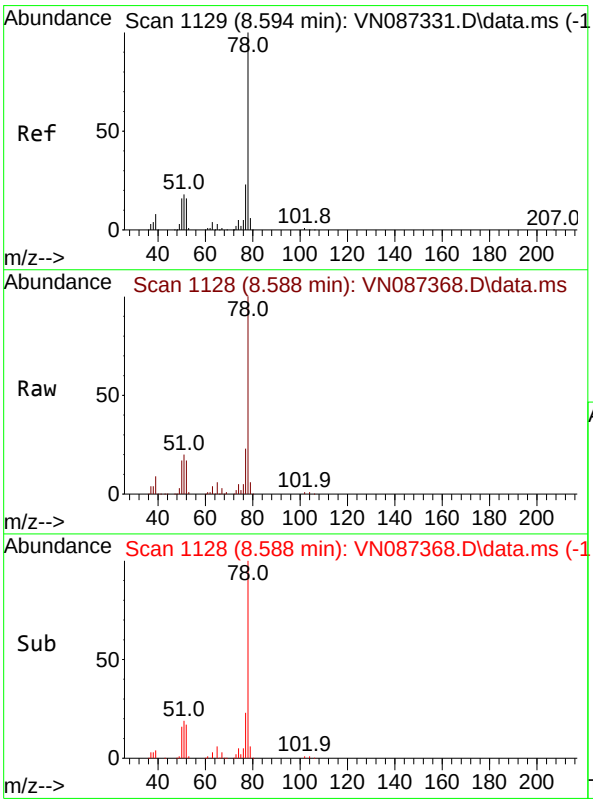
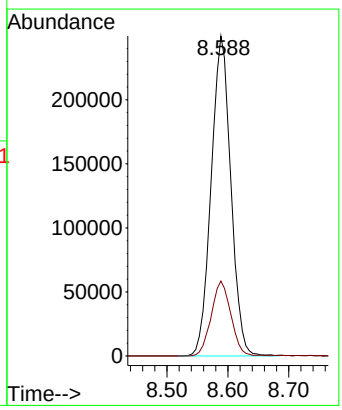
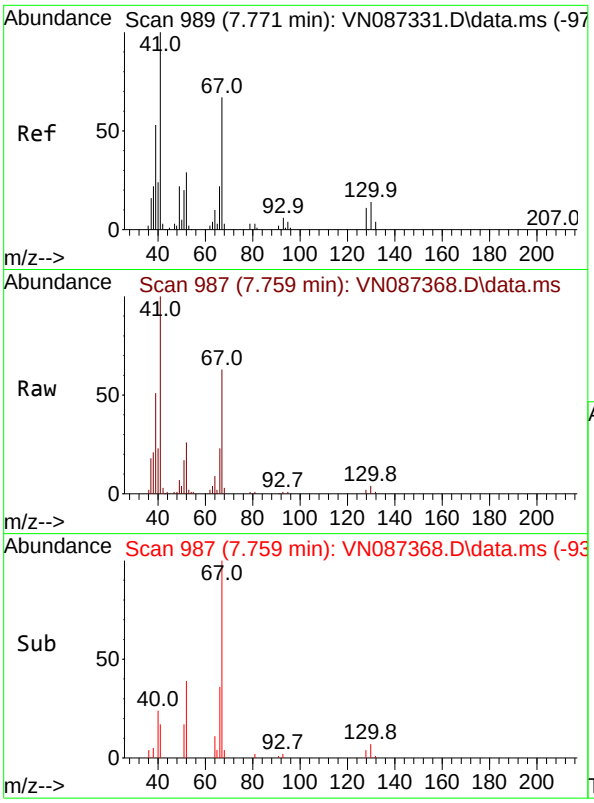


#40
Benzene
Concen: 55.603 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 78 Resp: 560613

Ion	Ratio	Lower	Upper
78	100		
77	23.4	18.2	27.2

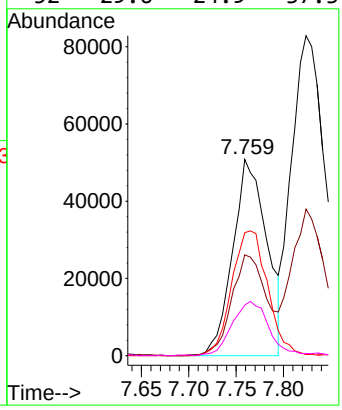




#41
Methacrylonitrile
Concen: 54.123 ug/l
RT: 7.759 min Scan# 9
Delta R.T. -0.012 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 41 Resp: 12750

Ion	Ratio	Lower	Upper
41	100		
39	53.1	43.4	65.0
67	66.8	55.1	82.7
52	29.6	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
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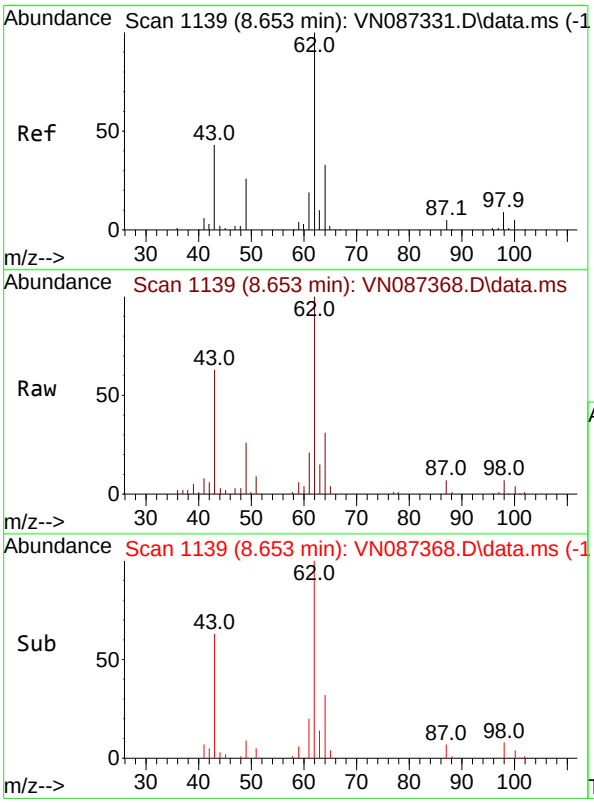
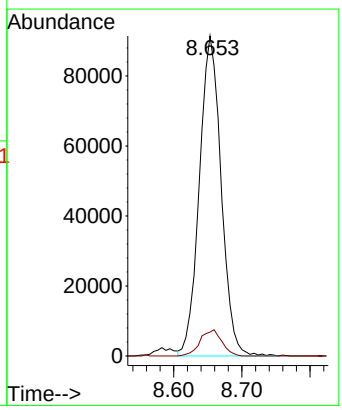
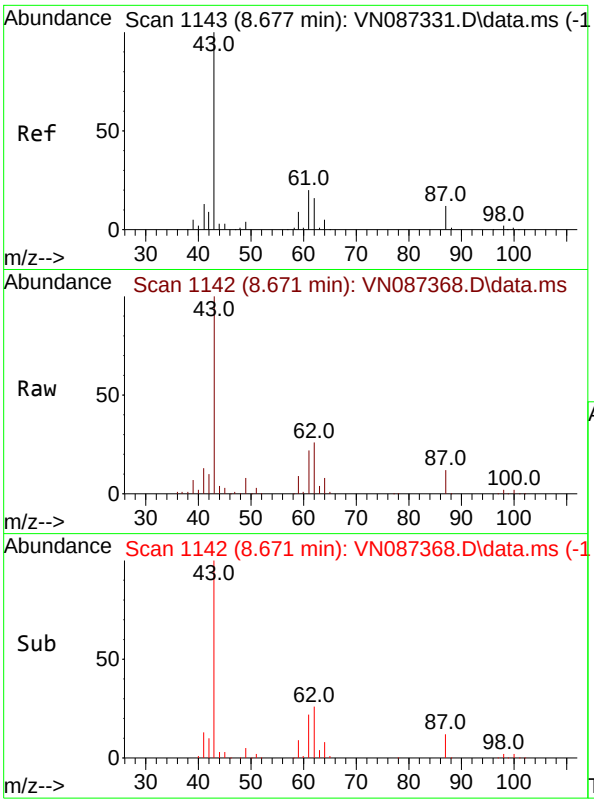


#42
1,2-Dichloroethane
Concen: 53.235 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 62 Resp: 203545

Ion	Ratio	Lower	Upper
62	100		
98	8.1	0.0	18.0

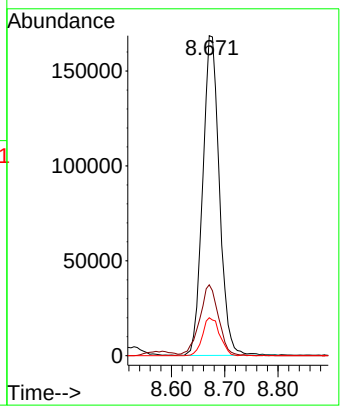




#43
Isopropyl Acetate
Concen: 52.402 ug/l
RT: 8.671 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 36649

Ion	Ratio	Lower	Upper
43	100		
61	25.2	19.8	29.8
87	12.3	9.8	14.6



Instrument :
MSVOA_N
ClientSampleId :
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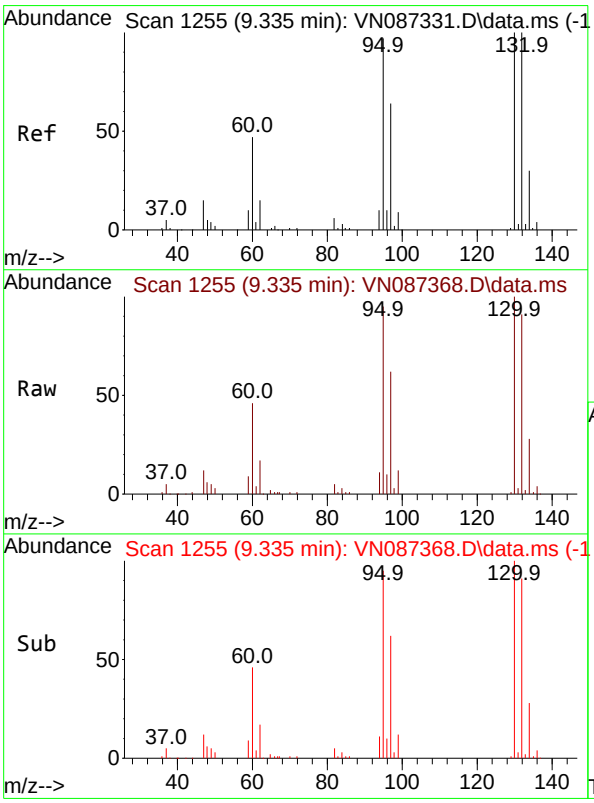
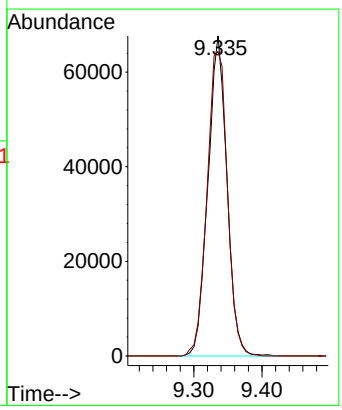
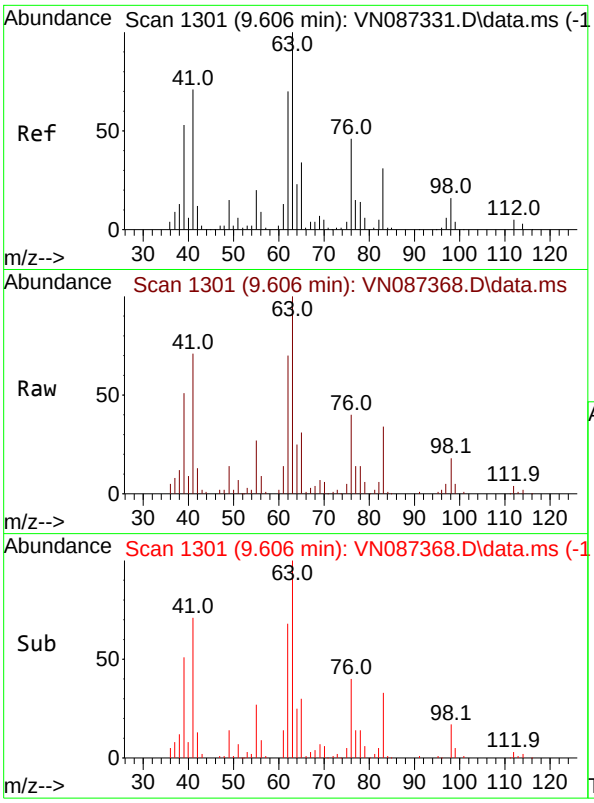


#44
Trichloroethene
Concen: 55.080 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:130 Resp: 131220

Ion	Ratio	Lower	Upper
130	100		
95	95.2	0.0	195.2

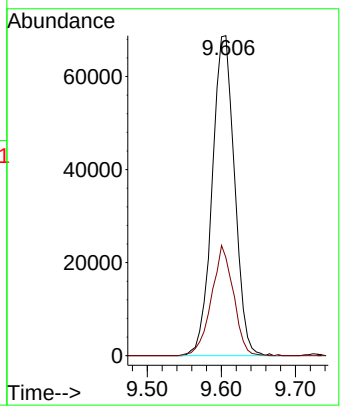




#45
1,2-Dichloropropane
Concen: 56.288 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 63 Resp: 14420

Ion	Ratio	Lower	Upper
63	100		
65	30.7	27.0	40.4



Instrument :
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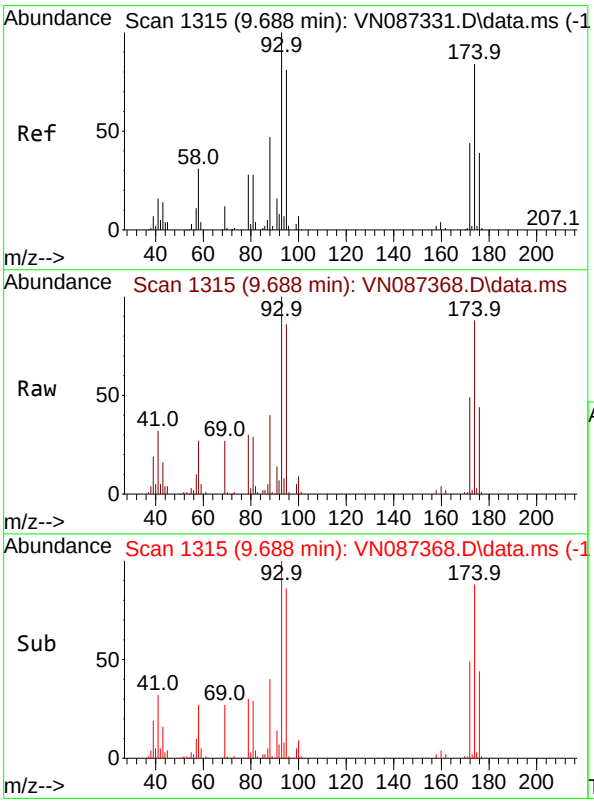
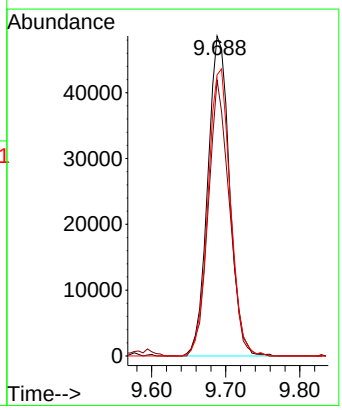
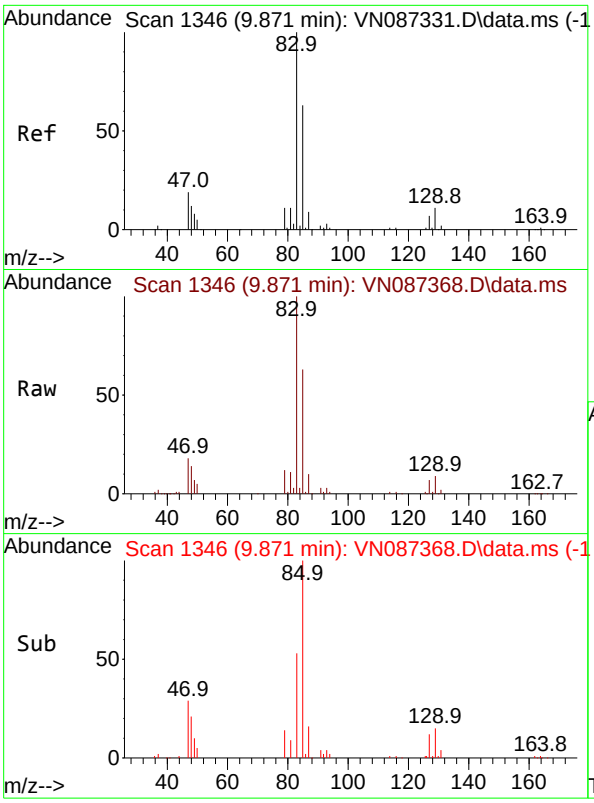


#46
Dibromomethane
Concen: 51.826 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 93 Resp: 99408

Ion	Ratio	Lower	Upper
93	100		
95	83.0	65.8	98.8
174	91.9	69.9	104.9

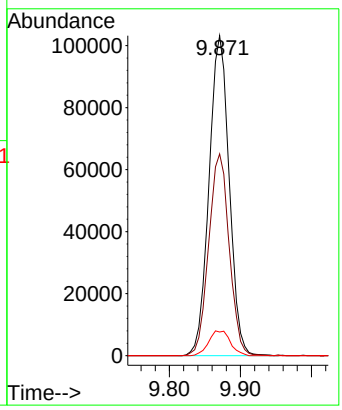




#47
Bromodichloromethane
Concen: 52.560 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 83 Resp: 20307

Ion	Ratio	Lower	Upper
83	100		
85	63.0	50.4	75.6
127	7.4	5.8	8.8



Instrument :
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ClientSampleId :
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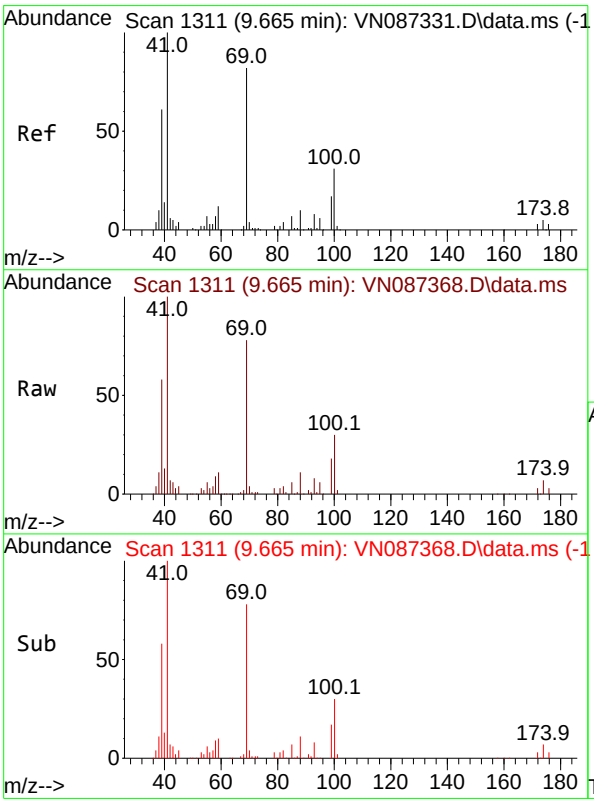
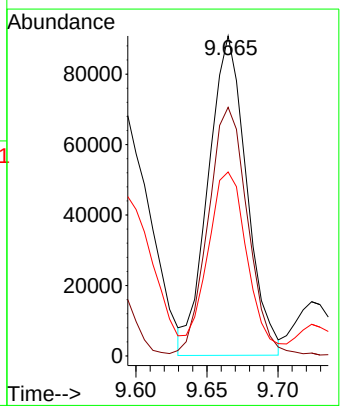
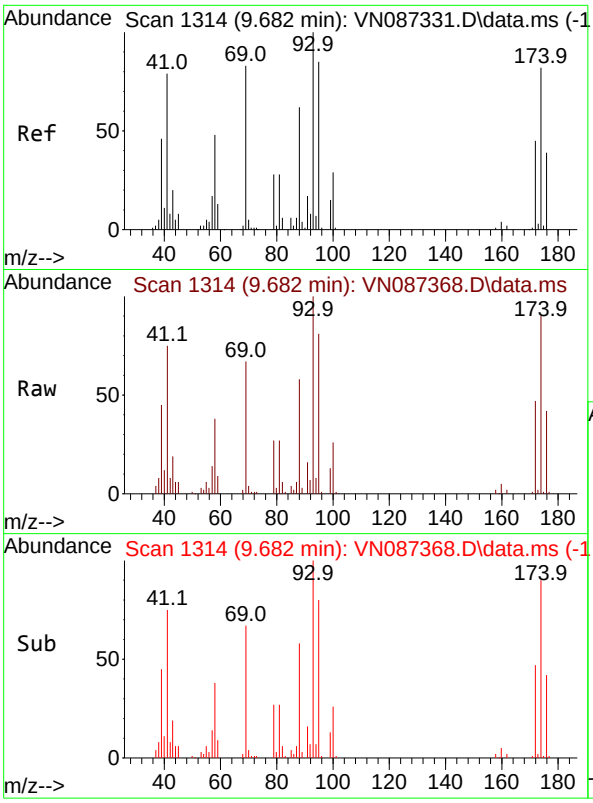


#48
Methyl methacrylate
Concen: 54.088 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 41 Resp: 170300

Ion	Ratio	Lower	Upper
41	100		
69	81.4	64.1	96.1
39	61.3	45.5	68.3





#49
1,4-Dioxane
Concen: 1021.070 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 88 Resp: 4924

Ion	Ratio	Lower	Upper
88	100		
43	0.0	0.0	0.0
58	76.5	61.1	91.7

Instrument :
MSVOA_N
ClientSampleId :
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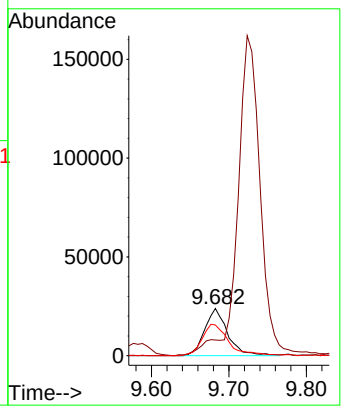
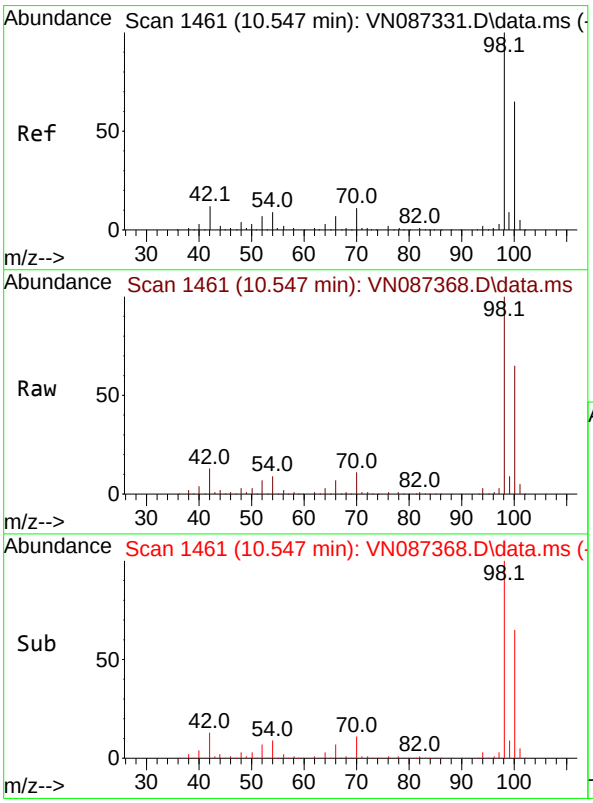
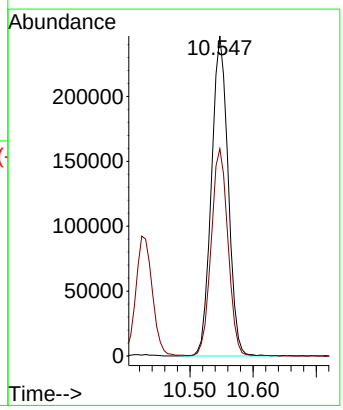


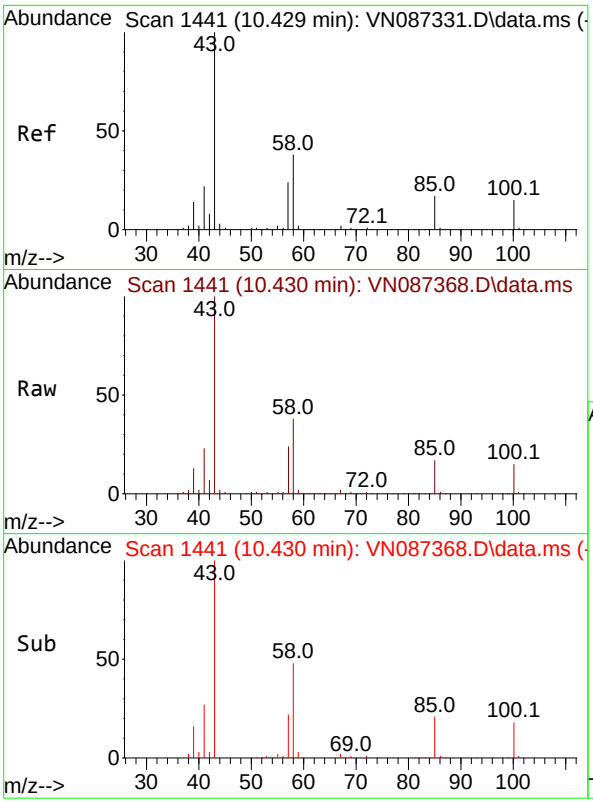


#50
Toluene-d8
Concen: 53.671 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 98 Resp: 452056

Ion	Ratio	Lower	Upper
98	100		
100	65.3	52.1	78.1

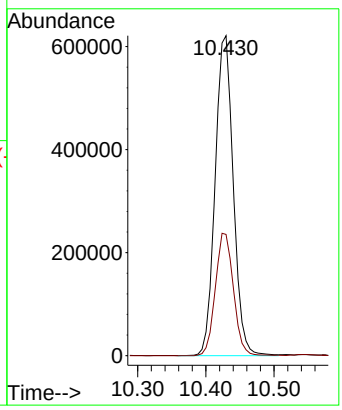




#51
4-Methyl-2-Pentanone
Concen: 259.892 ug/l
RT: 10.430 min Scan# 14
Delta R.T. 0.001 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 114963

Ion	Ratio	Lower	Upper
43	100		
58	38.3	30.8	46.2



Instrument :
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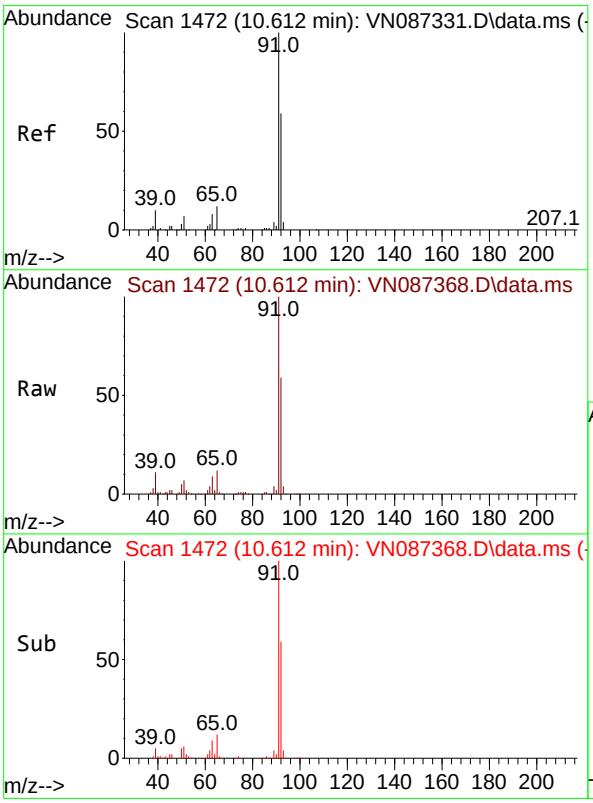
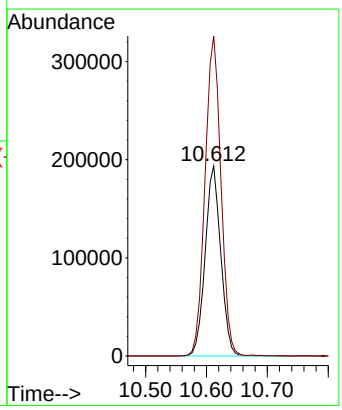
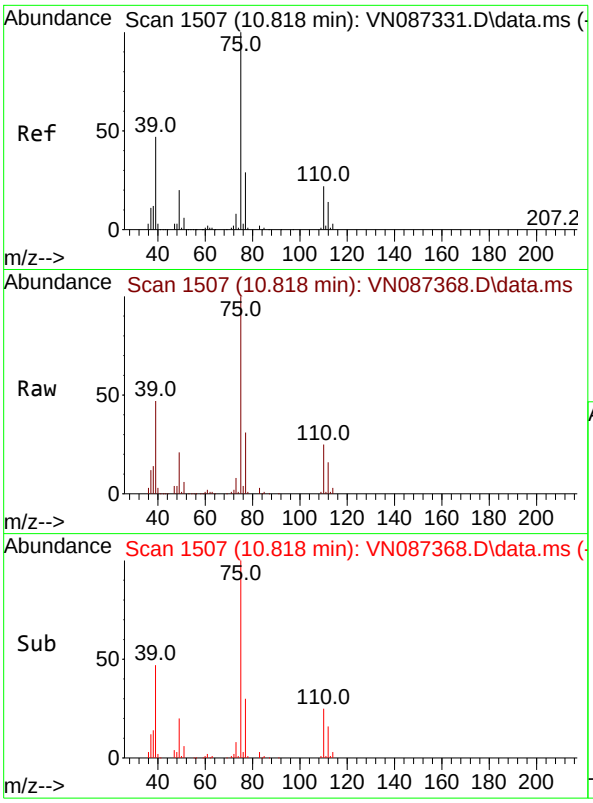


#52
Toluene
Concen: 56.232 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 92 Resp: 344604

Ion	Ratio	Lower	Upper
92	100		
91	171.4	135.1	202.7

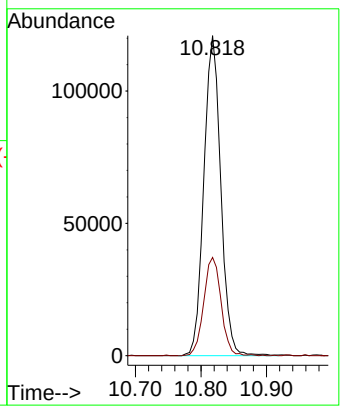




#53
t-1,3-Dichloropropene
Concen: 55.519 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 75 Resp: 21708

Ion	Ratio	Lower	Upper
75	100		
77	30.7	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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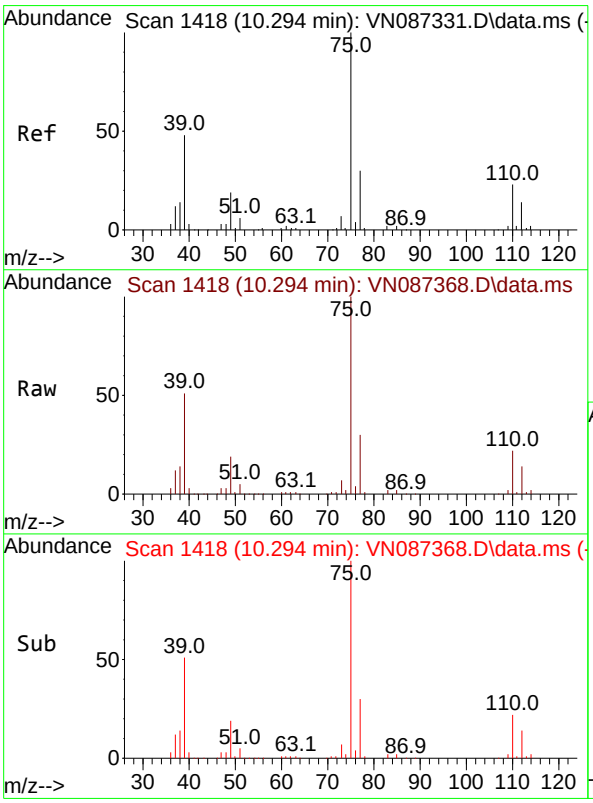
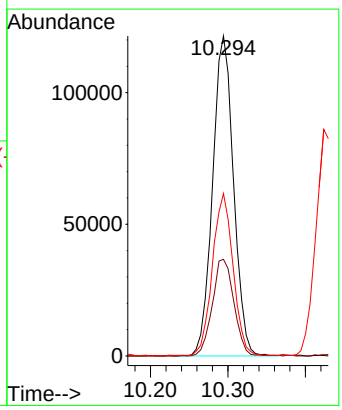
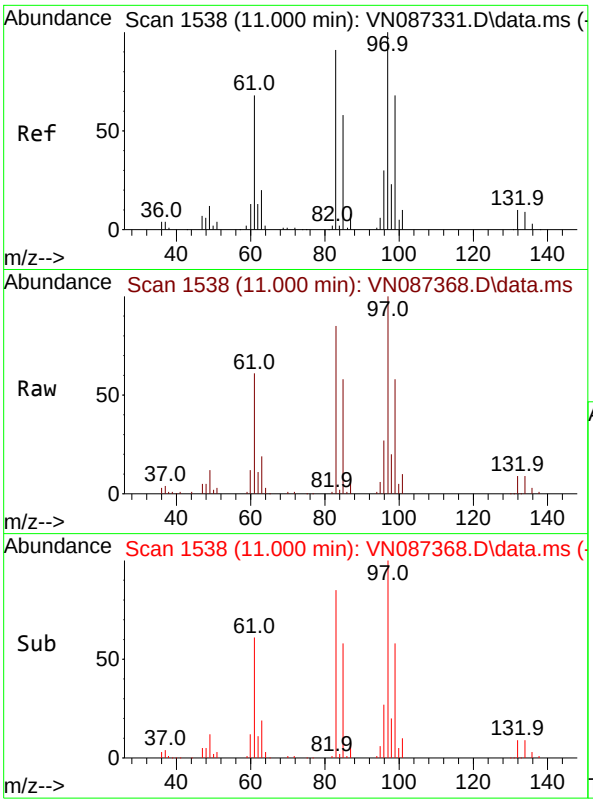


#54
cis-1,3-Dichloropropene
Concen: 56.480 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 75 Resp: 228121

Ion	Ratio	Lower	Upper
75	100		
77	30.2	24.2	36.2
39	50.6	38.4	57.6

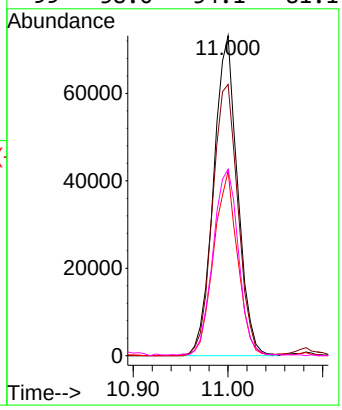




#55
1,1,2-Trichloroethane
Concen: 52.012 ug/l
RT: 11.000 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 97 Resp: 12904

Ion	Ratio	Lower	Upper
97	100		
83	84.8	72.6	109.0
85	57.7	46.7	70.1
99	58.0	54.1	81.1



Instrument :
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ClientSampleId :
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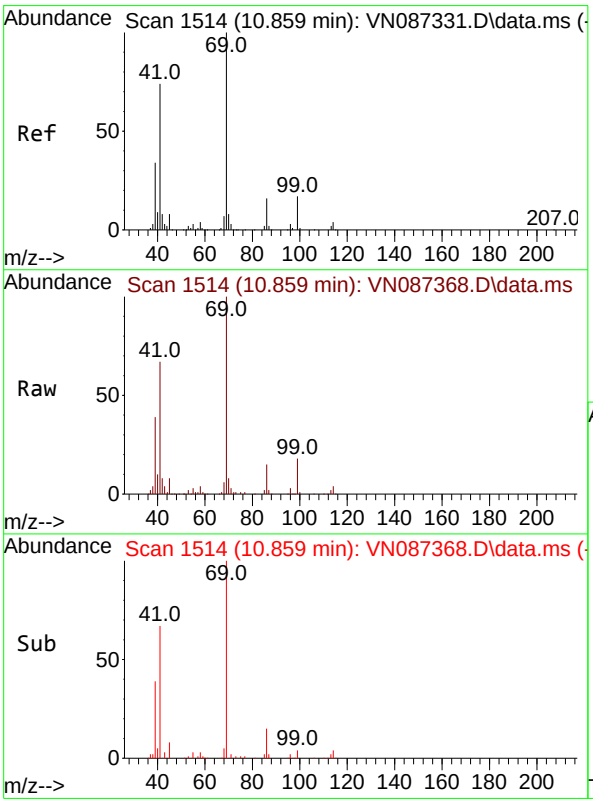
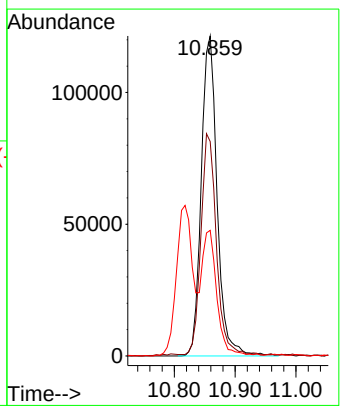
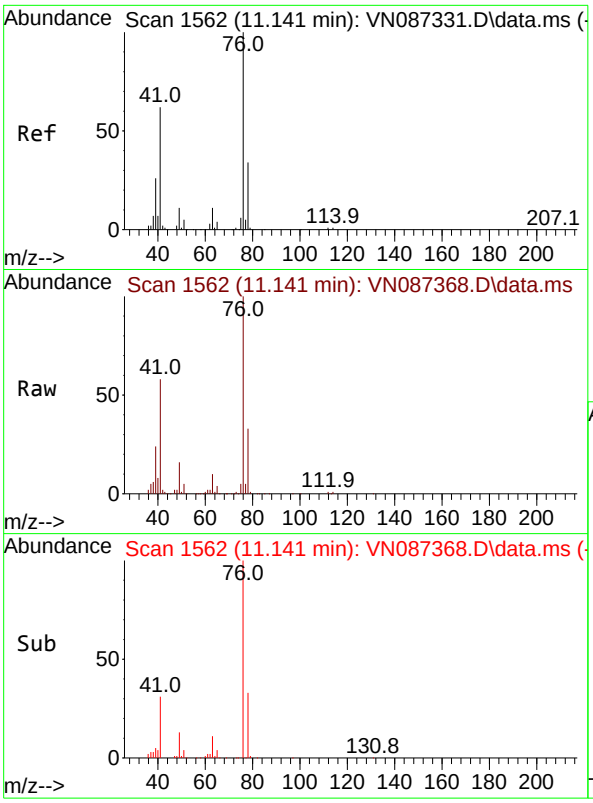


#56
Ethyl methacrylate
Concen: 52.536 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 69 Resp: 219636

Ion	Ratio	Lower	Upper
69	100		
41	66.6	55.1	82.7
39	38.4	27.9	41.9

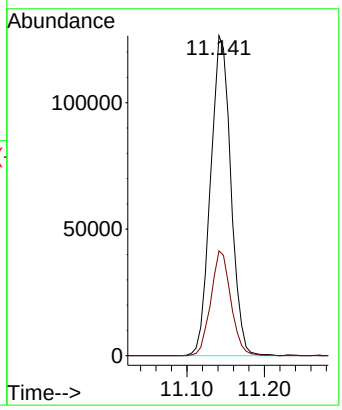




#57
1,3-Dichloropropane
Concen: 53.600 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 76 Resp: 22992

Ion	Ratio	Lower	Upper
76	100		
78	32.4	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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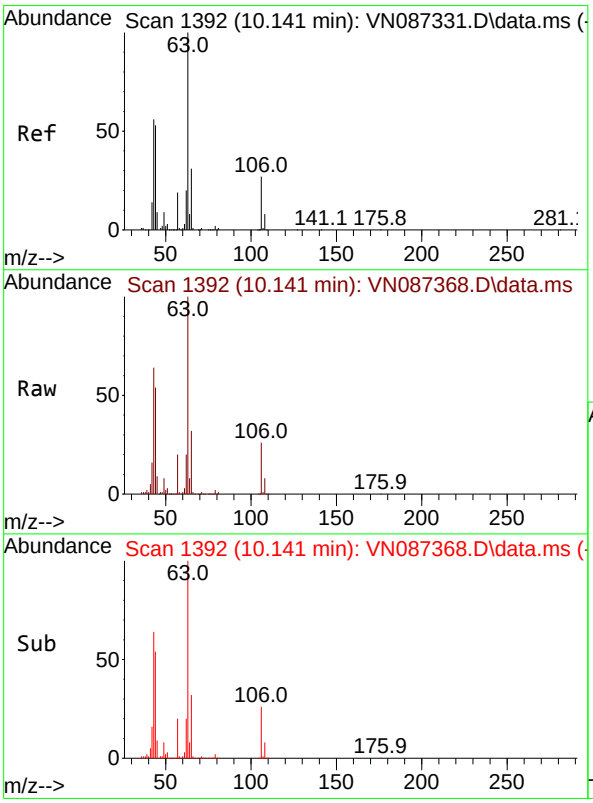
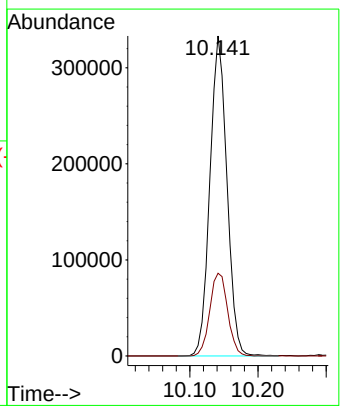
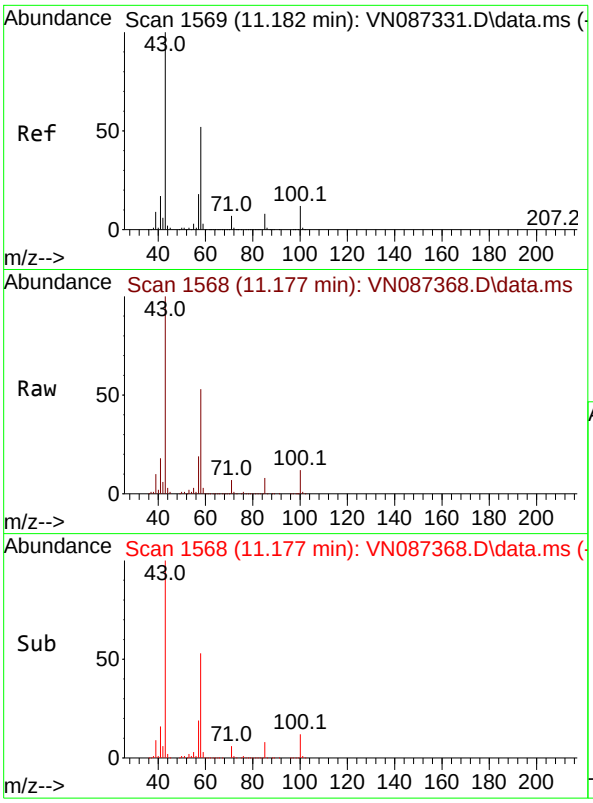


#58
2-Chloroethyl Vinyl ether
Concen: 284.461 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 63 Resp: 578951

Ion	Ratio	Lower	Upper
63	100		
106	27.2	21.7	32.5





#59
2-Hexanone
Concen: 274.584 ug/l
RT: 11.177 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 80584

Ion	Ratio	Lower	Upper
43	100		
58	53.2	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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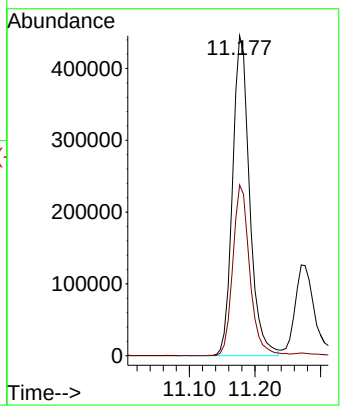
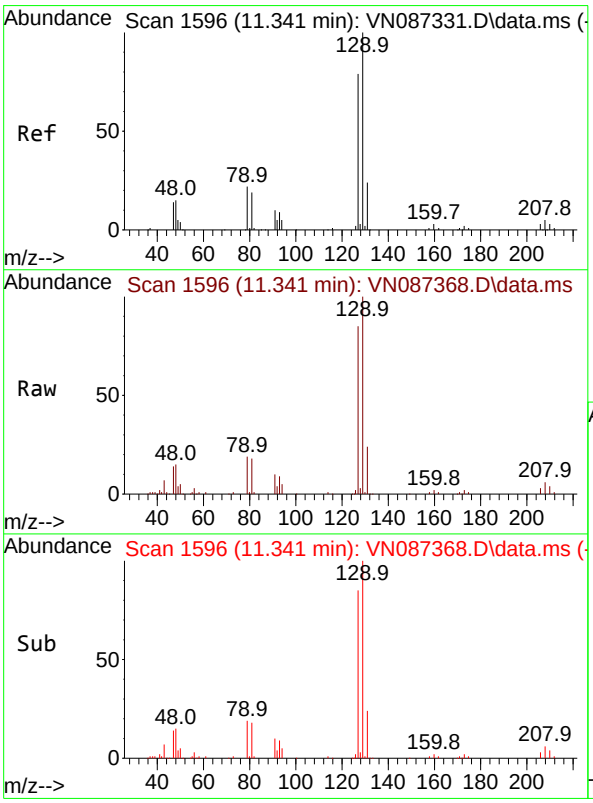
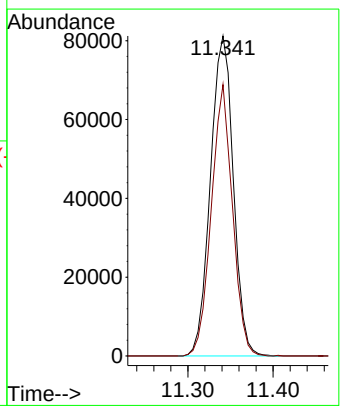


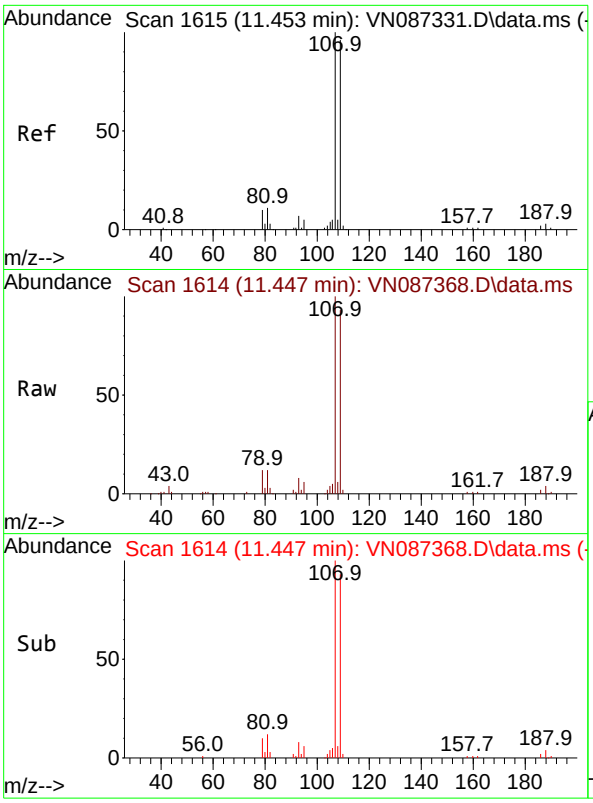


#60
Dibromochloromethane
Concen: 53.493 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:129 Resp: 151360

Ion	Ratio	Lower	Upper
129	100		
127	78.4	39.1	117.5





#61
1,2-Dibromoethane
Concen: 52.401 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:107 Resp: 13669

Ion	Ratio	Lower	Upper
107	100		
109	92.0	77.5	116.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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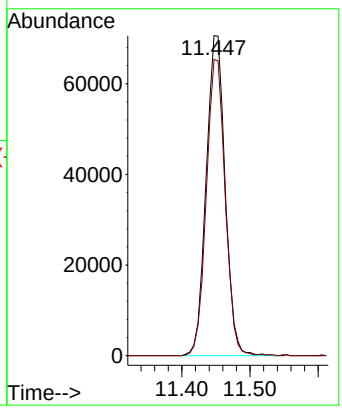
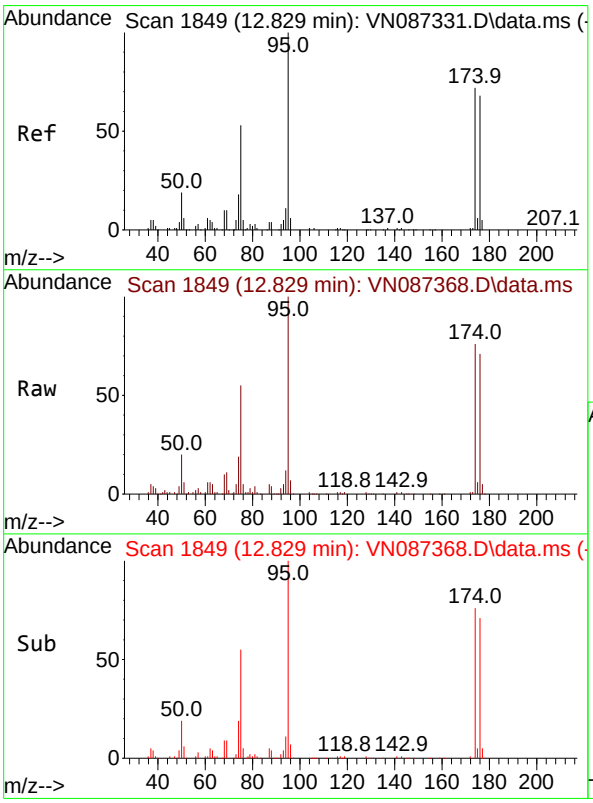
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

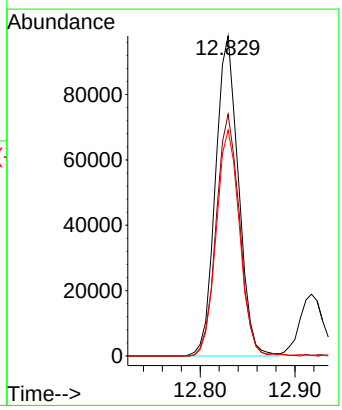


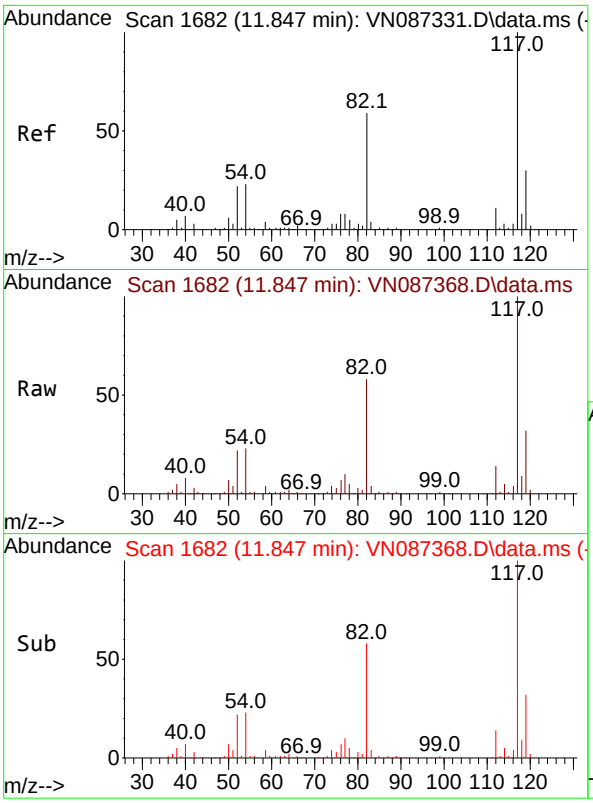


#62
4-Bromofluorobenzene
Concen: 52.956 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 95 Resp: 164788

Ion	Ratio	Lower	Upper
95	100		
174	76.7	0.0	149.4
176	72.1	0.0	141.2

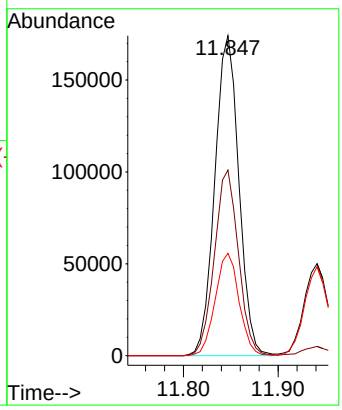




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:117 Resp: 30782

Ion	Ratio	Lower	Upper
117	100		
82	58.0	47.4	71.2
119	32.0	23.8	35.8



Instrument :
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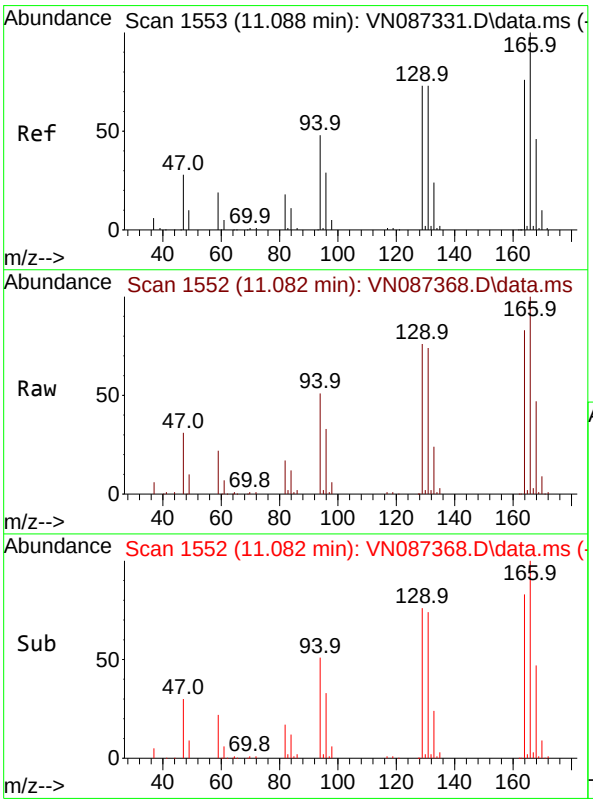
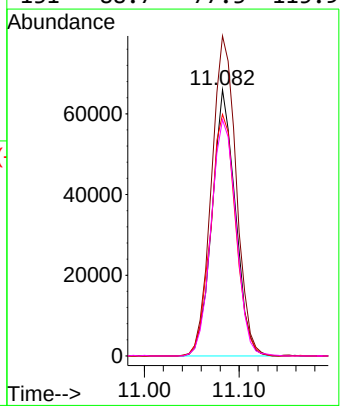
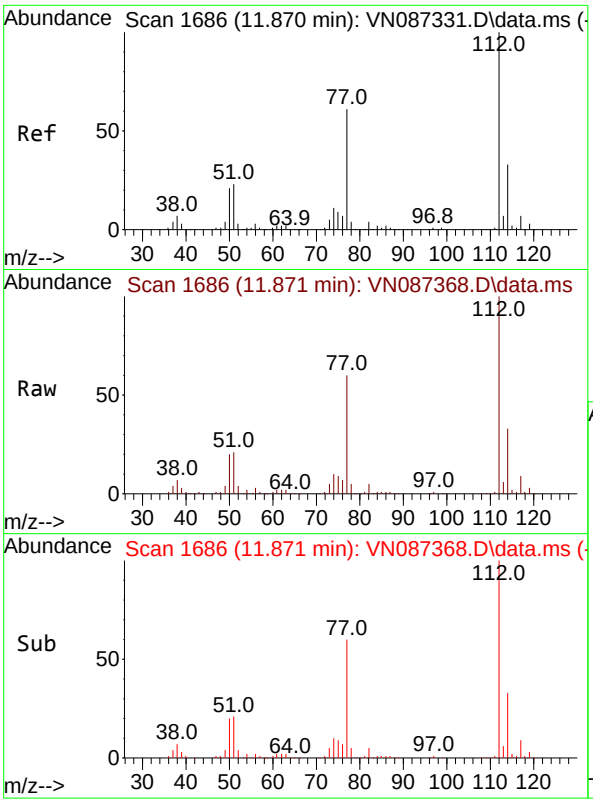


#64
Tetrachloroethene
Concen: 56.570 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:164 Resp: 112075

Ion	Ratio	Lower	Upper
164	100		
166	120.2	105.5	158.3
129	90.8	77.4	116.2
131	88.7	77.3	115.9

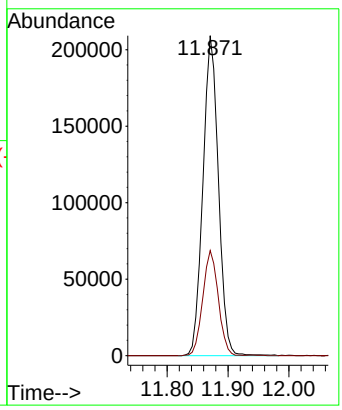




#65
Chlorobenzene
Concen: 53.411 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:112 Resp: 36912

Ion	Ratio	Lower	Upper
112	100		
114	32.9	26.5	39.7



Instrument :
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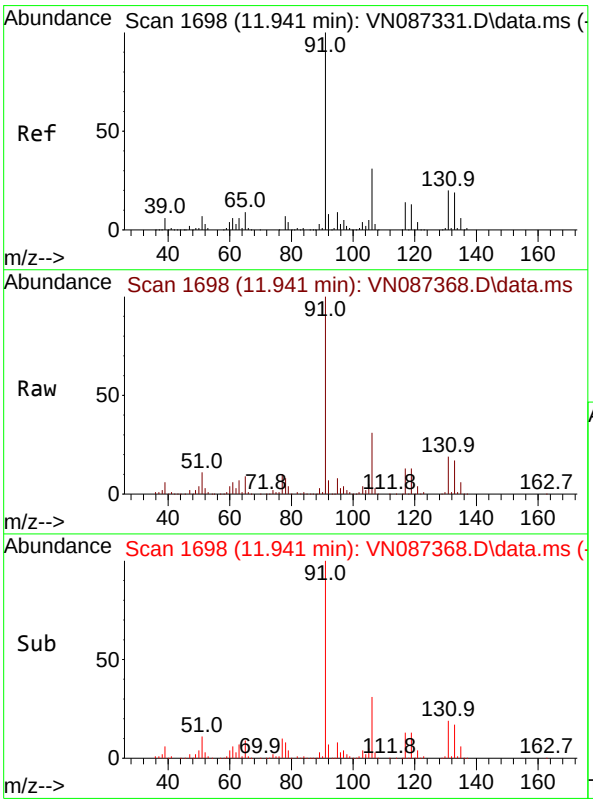
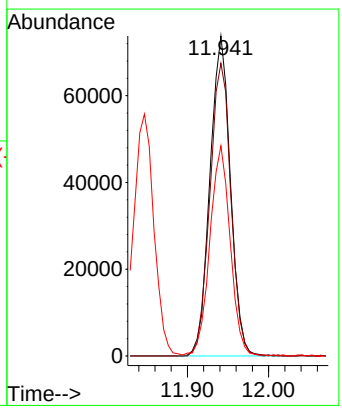
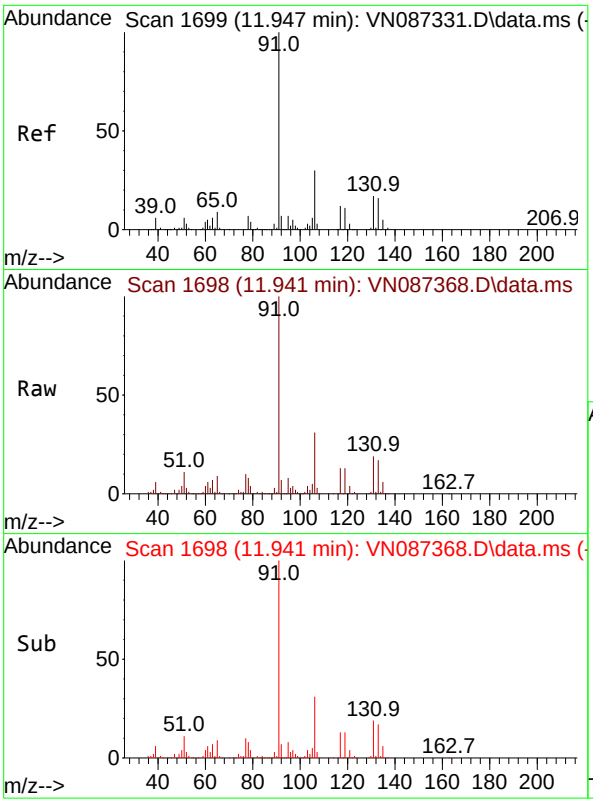


#66
1,1,1,2-Tetrachloroethane
Concen: 54.903 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:131 Resp: 129020

Ion	Ratio	Lower	Upper
131	100		
133	94.1	47.4	142.3
119	65.4	33.1	99.2





#67
Ethyl Benzene
Concen: 57.142 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 91 Resp: 65011

Ion	Ratio	Lower	Upper
91	100		
106	31.0	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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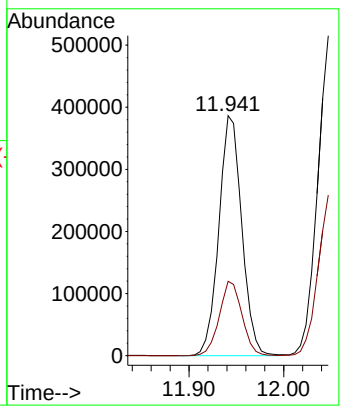
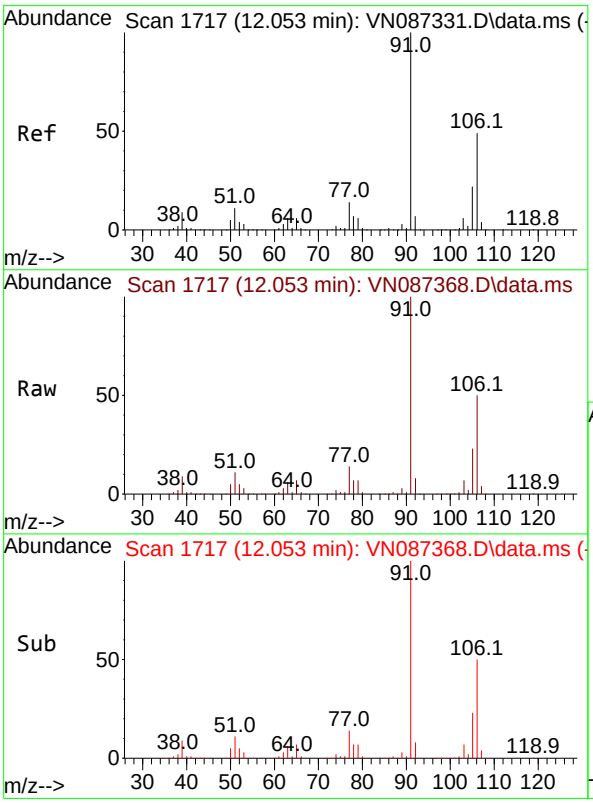
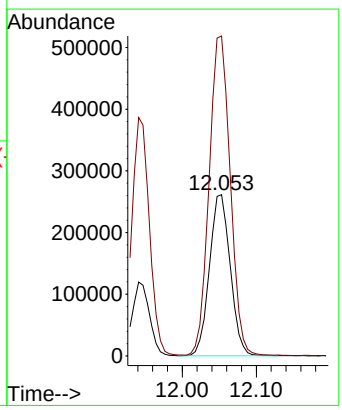


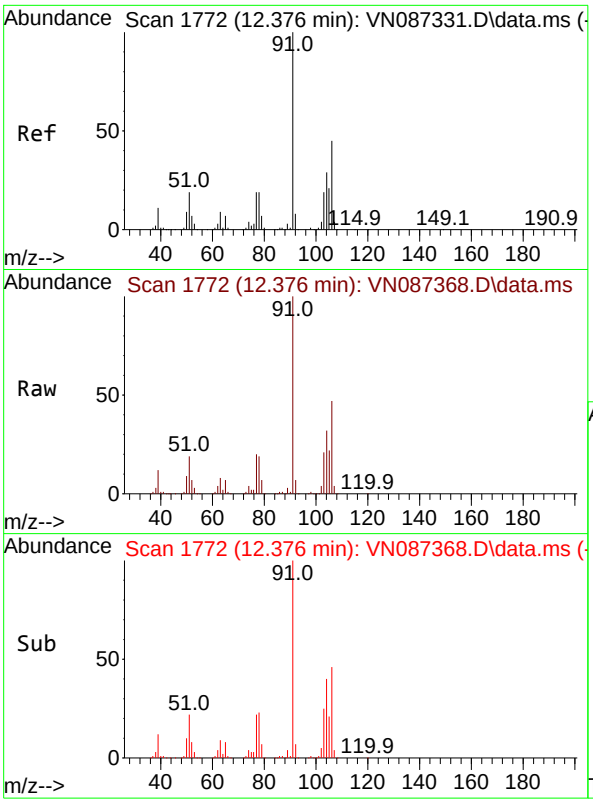


#68
m/p-Xylenes
Concen: 119.516 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:106 Resp: 509171

Ion	Ratio	Lower	Upper
106	100		
91	202.3	162.0	243.0





#69
o-Xylene
Concen: 59.204 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:106 Resp: 24093

Ion	Ratio	Lower	Upper
106	100		
91	213.2	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
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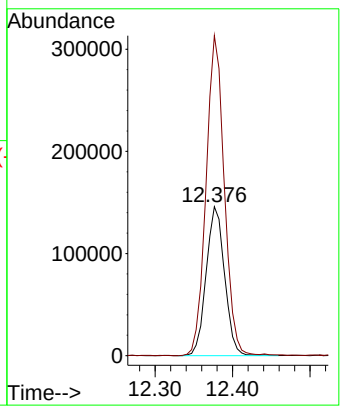
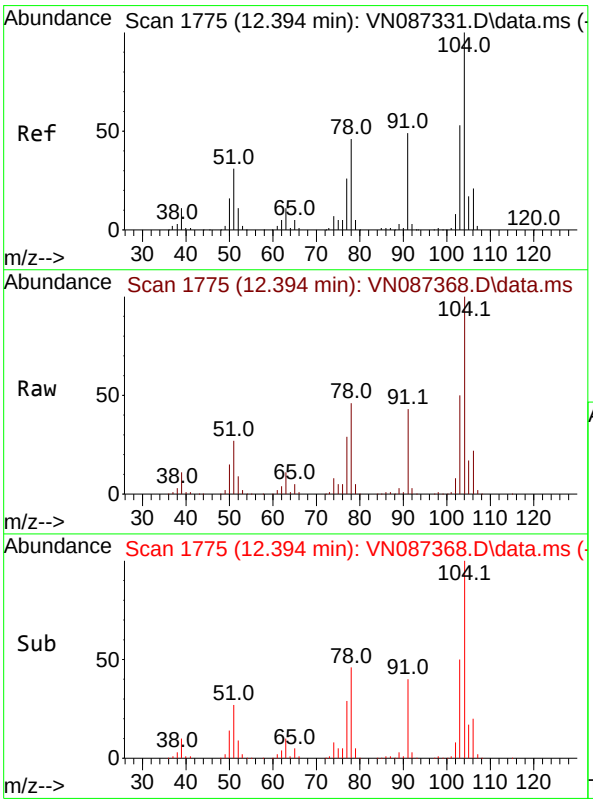
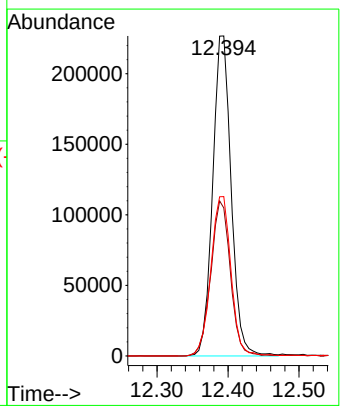


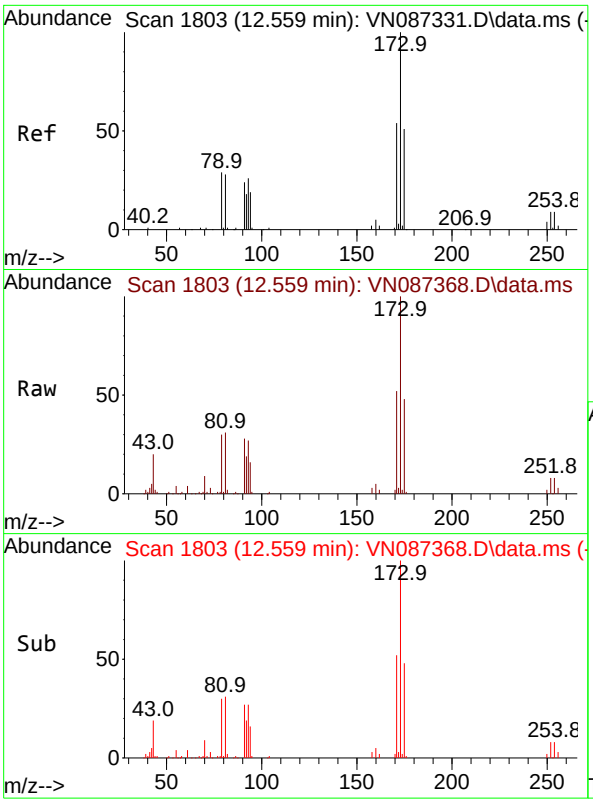


#70
Styrene
Concen: 59.847 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:104 Resp: 409701

Ion	Ratio	Lower	Upper
104	100		
78	51.4	41.0	61.6
103	54.1	43.9	65.9

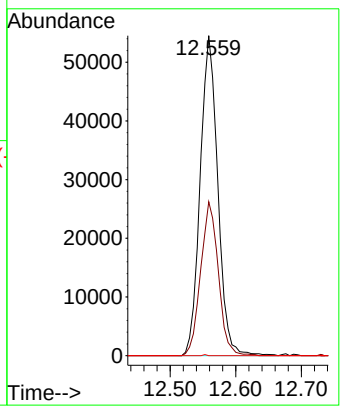




#71
Bromoform
Concen: 53.790 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:173 Resp: 10212

Ion	Ratio	Lower	Upper
173	100		
175	48.2	24.1	72.3
254	0.1	0.0	0.0



Instrument :
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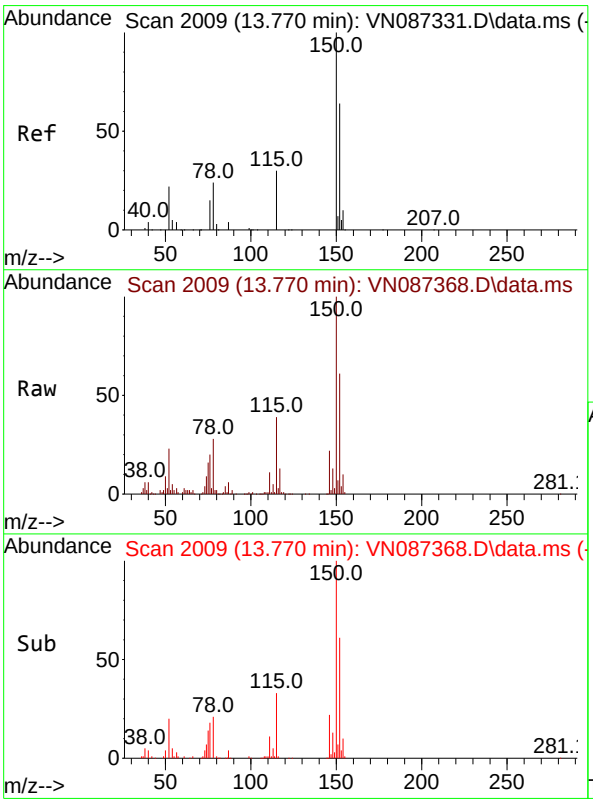
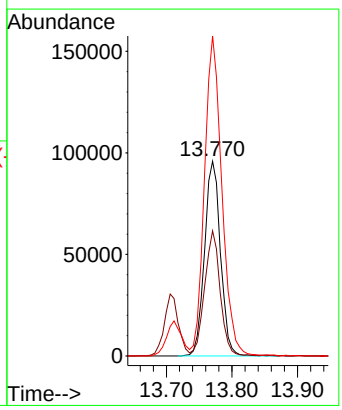
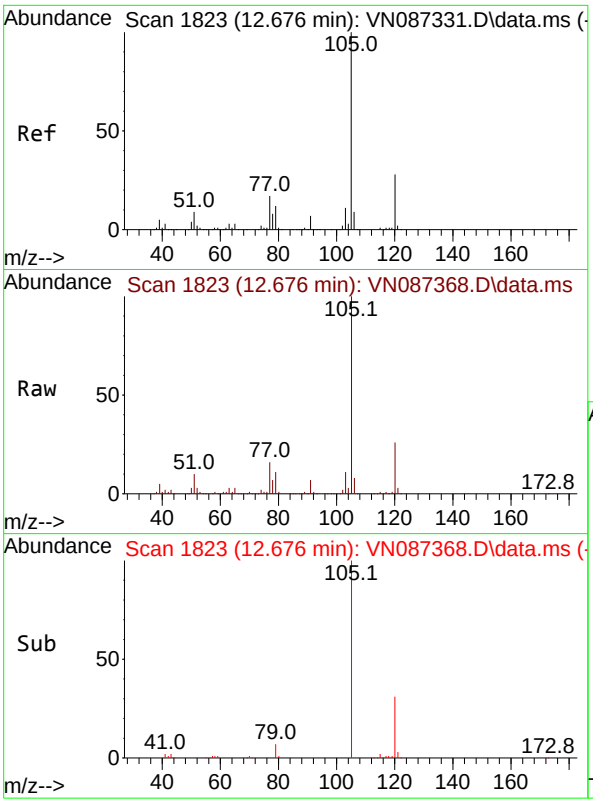


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:152 Resp: 162263

Ion	Ratio	Lower	Upper
152	100		
115	62.2	31.1	93.5
150	177.9	0.0	349.0





#73
Isopropylbenzene
Concen: 61.272 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:105 Resp: 62574

Ion	Ratio	Lower	Upper
105	100		
120	26.6	13.4	40.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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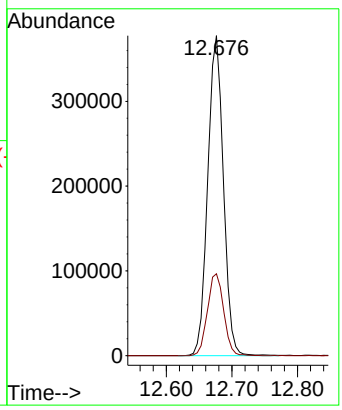
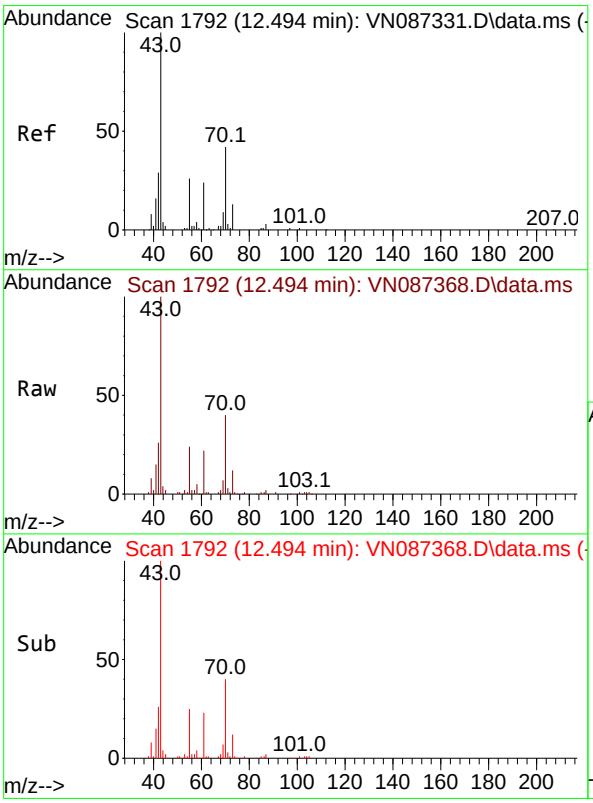
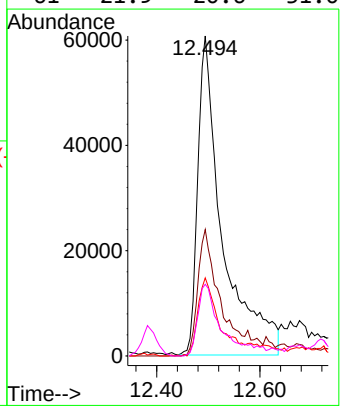


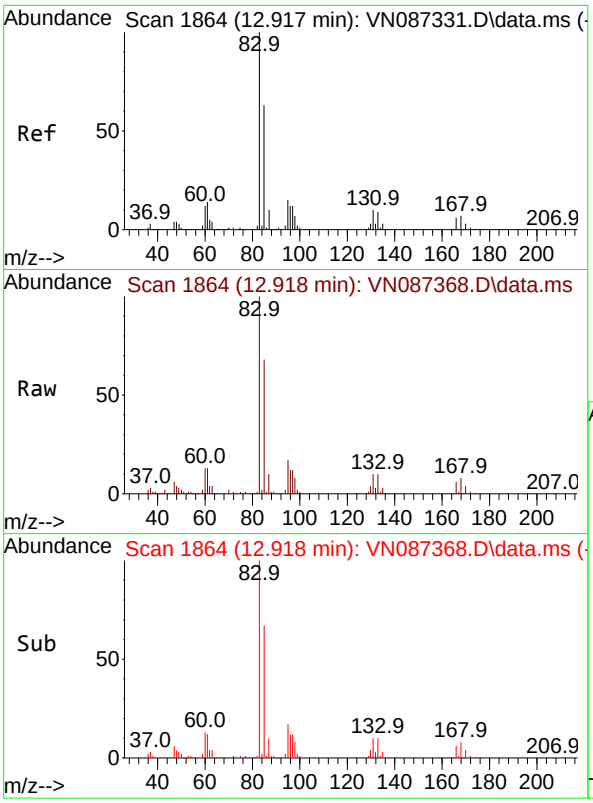


#74
N-amyl acetate
Concen: 47.372 ug/l
RT: 12.494 min Scan# 1792
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 43 Resp: 201002

Ion	Ratio	Lower	Upper
43	100		
70	37.9	37.6	56.4
55	21.1	19.6	29.4
61	21.9	20.6	31.0

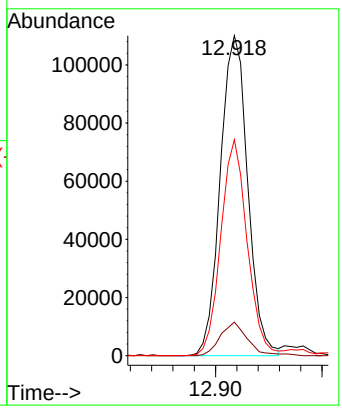




#75
1,1,2,2-Tetrachloroethane
Concen: 51.237 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 83 Resp: 19689

Ion	Ratio	Lower	Upper
83	100		
131	10.5	5.1	15.3
85	64.8	32.5	97.4



Instrument :
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ClientSampleId :
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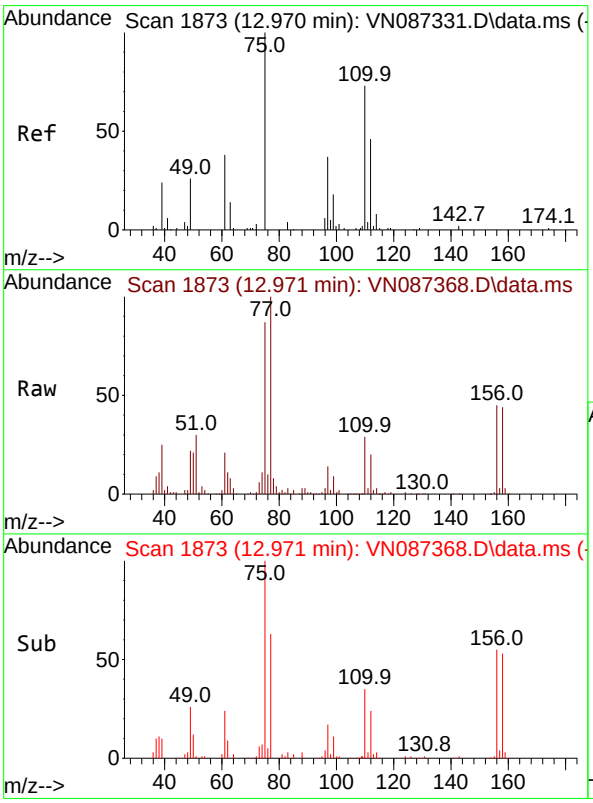
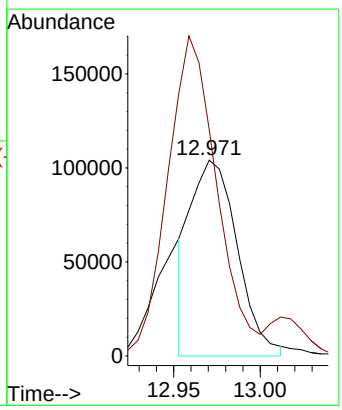
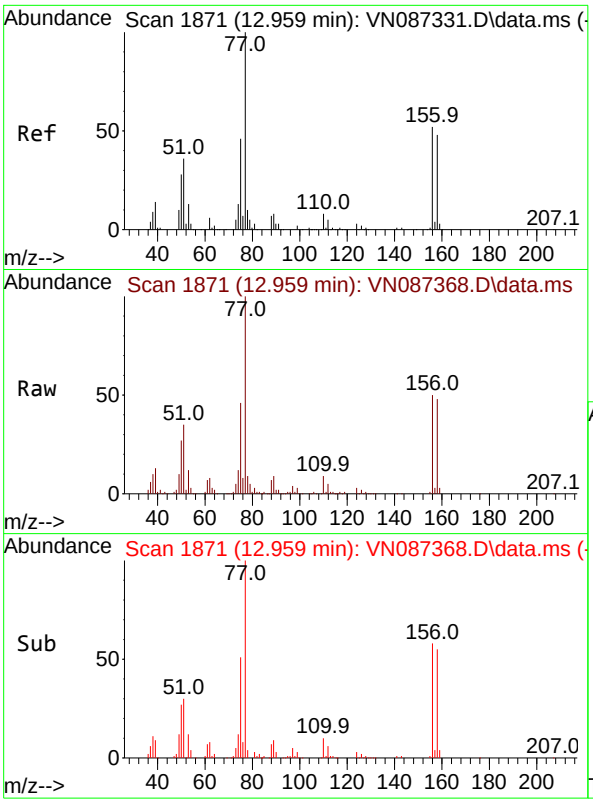


#76
1,2,3-Trichloropropane
Concen: 53.949 ug/l m
RT: 12.971 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 75 Resp: 196300

Ion	Ratio	Lower	Upper
75	100		
77	172.1	94.5	283.6

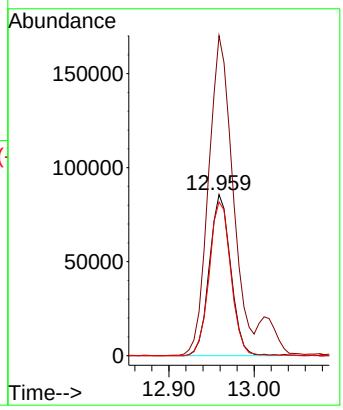




#77
Bromobenzene
Concen: 56.468 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:156 Resp: 14955

Ion	Ratio	Lower	Upper
156	100		
77	225.9	114.9	344.6
158	96.4	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
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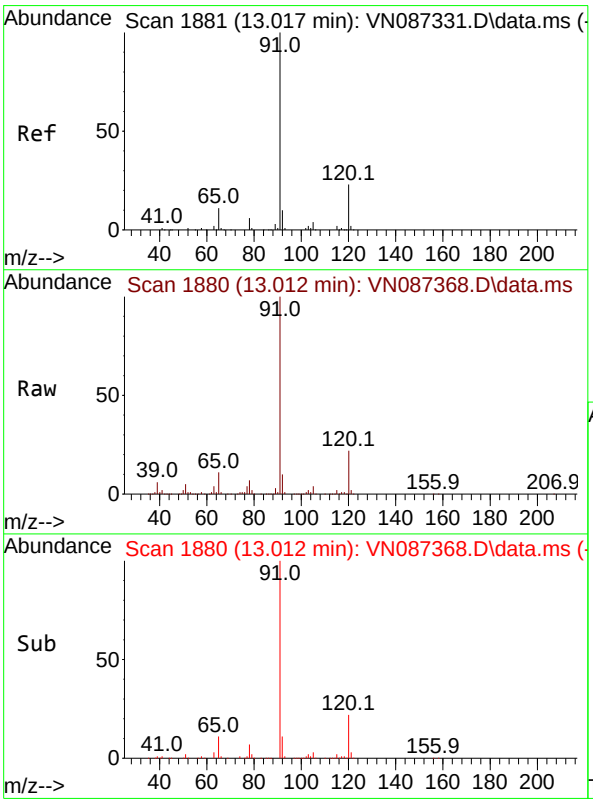
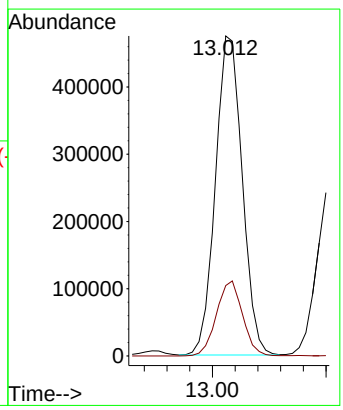
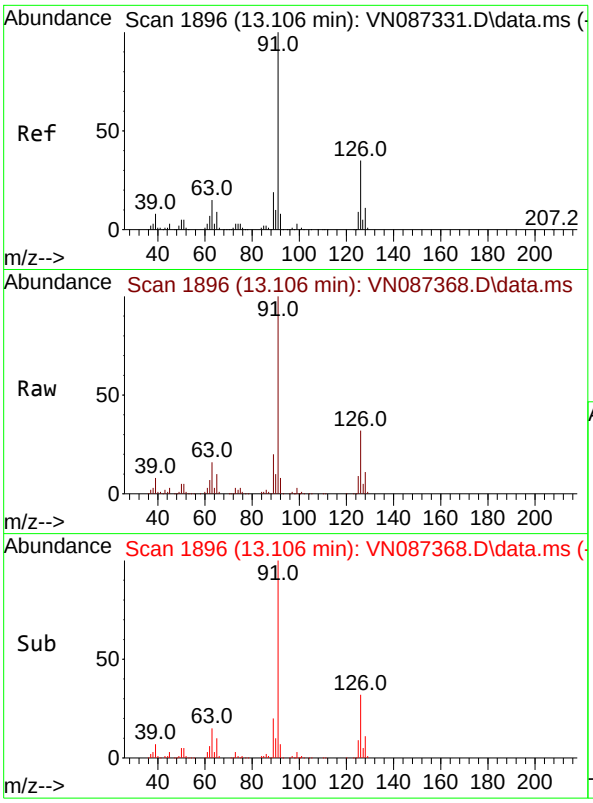


#78
n-propylbenzene
Concen: 60.540 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 91 Resp: 777876

Ion	Ratio	Lower	Upper
91	100		
120	22.9	11.3	33.8

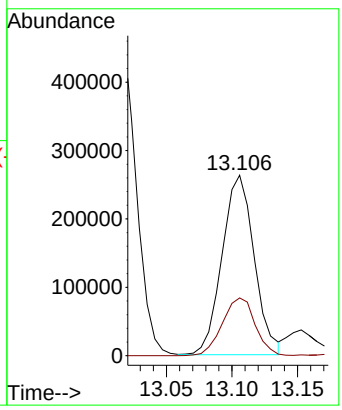




#79
2-Chlorotoluene
Concen: 56.702 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 91 Resp: 44775

Ion	Ratio	Lower	Upper
91	100		
126	32.9	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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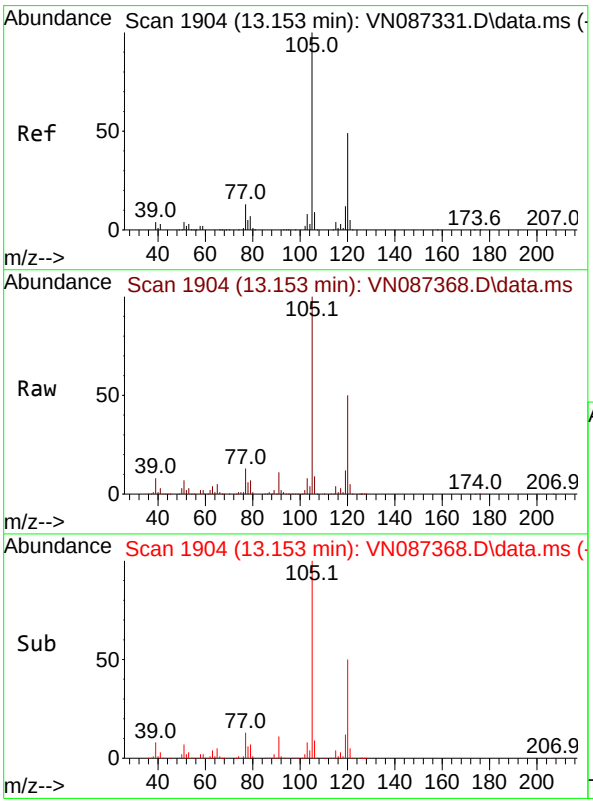
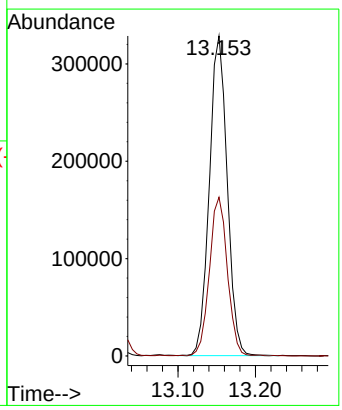
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

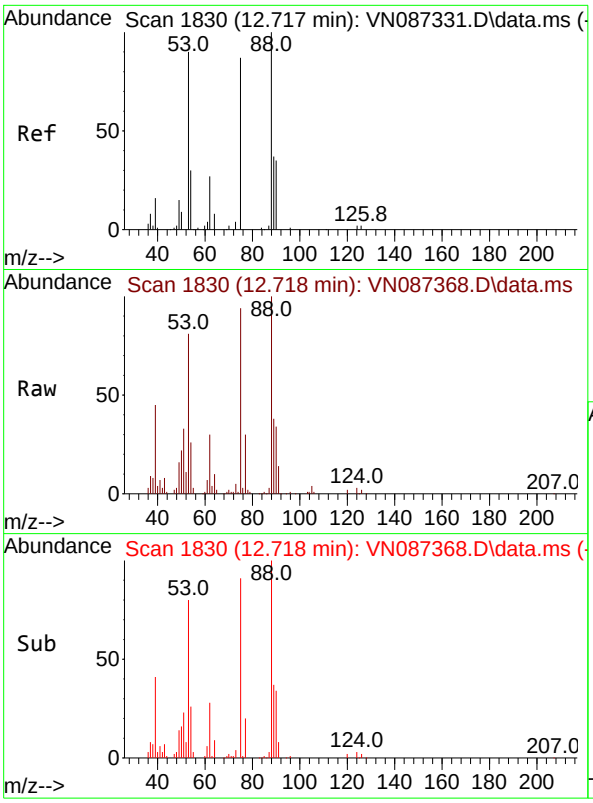


#80
1,3,5-Trimethylbenzene
Concen: 60.253 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:105 Resp: 524279

Ion	Ratio	Lower	Upper
105	100		
120	49.9	24.3	72.8

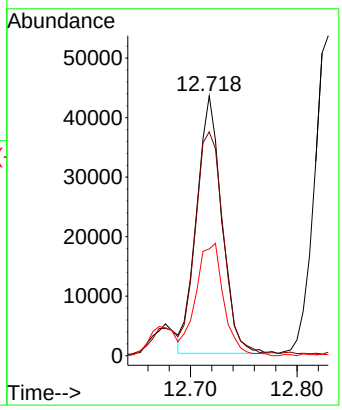




#81
trans-1,4-Dichloro-2-butene
Concen: 53.584 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 75 Resp: 7125

Ion	Ratio	Lower	Upper
75	100		
53	96.5	83.5	125.3
89	48.2	38.4	57.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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Reviewed By :John Carlone 07/22/2025
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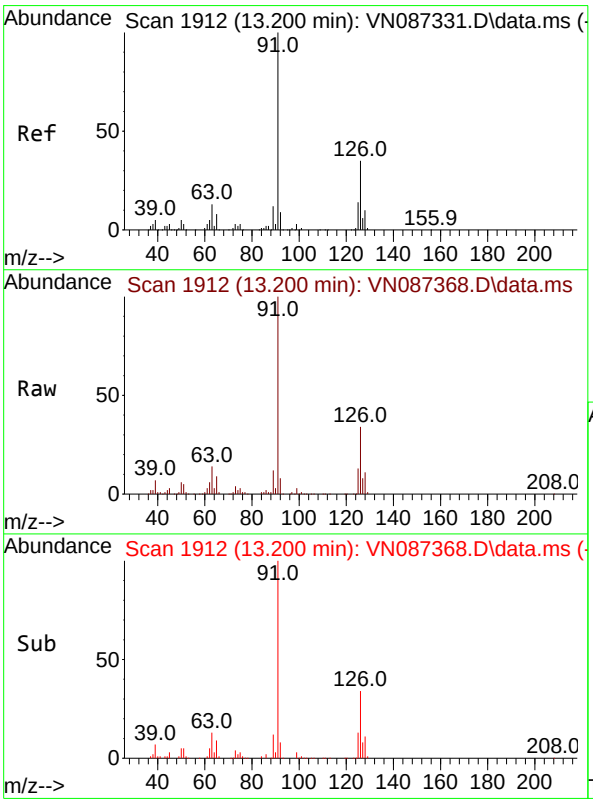
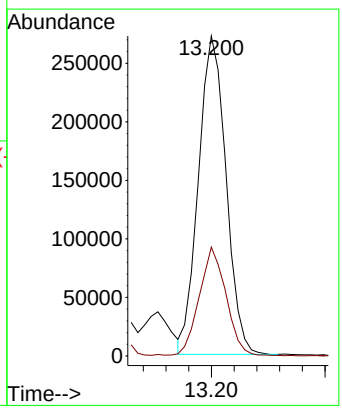
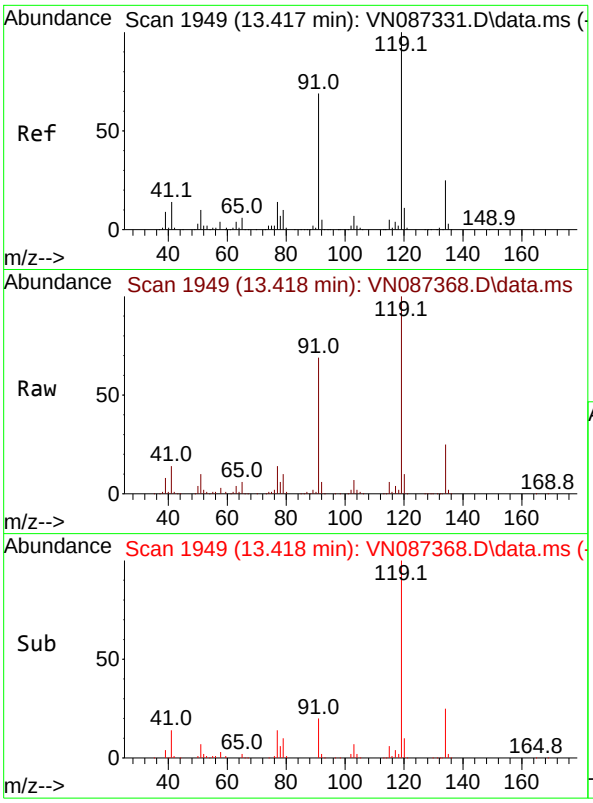


#82
4-Chlorotoluene
Concen: 55.780 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 91 Resp: 458601

Ion	Ratio	Lower	Upper
91	100		
126	33.4	16.6	49.7





#83
tert-Butylbenzene
Concen: 62.712 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:119 Resp: 45575

Ion	Ratio	Lower	Upper
119	100		
91	69.8	35.0	105.1
134	27.7	12.6	37.6

Instrument :
MSVOA_N
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VSTDCCC050

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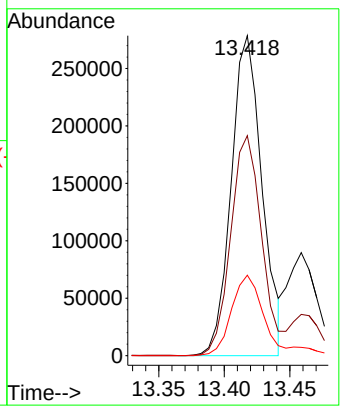
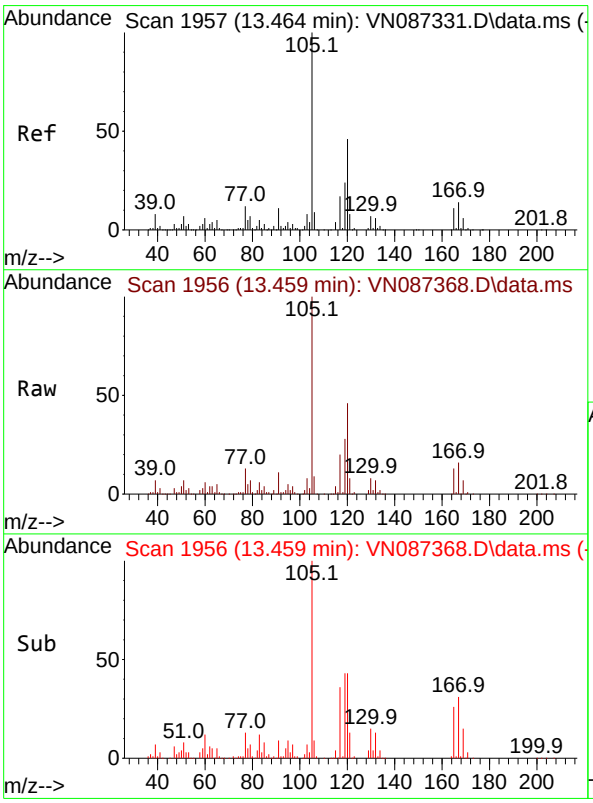
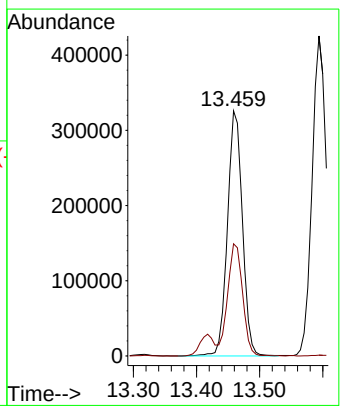


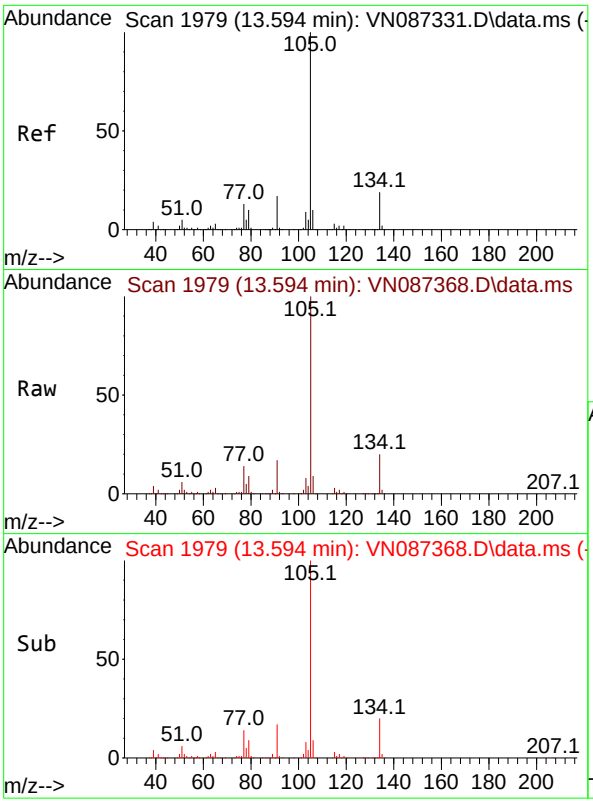


#84
1,2,4-Trimethylbenzene
Concen: 60.341 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:105 Resp: 536180

Ion	Ratio	Lower	Upper
105	100		
120	46.4	22.8	68.3





#85
sec-Butylbenzene
Concen: 62.226 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:105 Resp: 68115

Ion	Ratio	Lower	Upper
105	100		
134	19.4	9.8	29.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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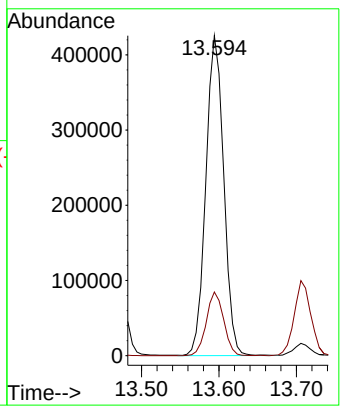
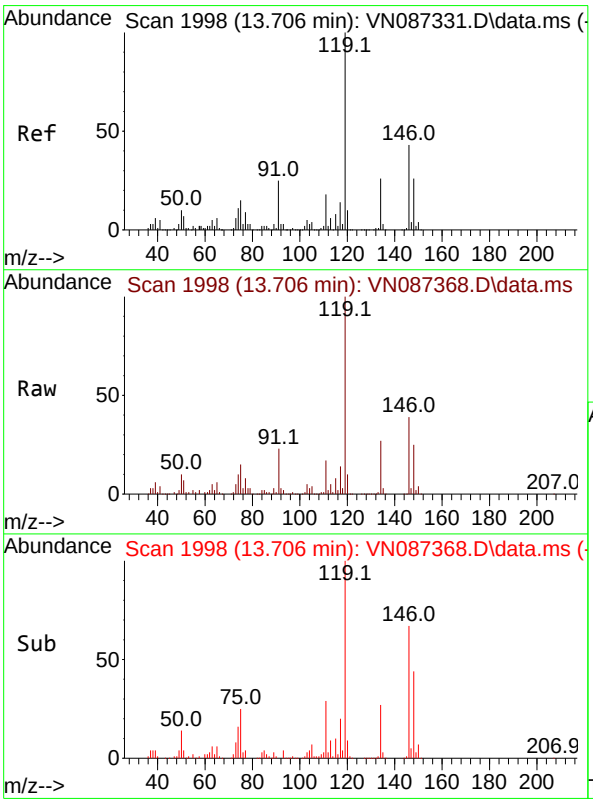
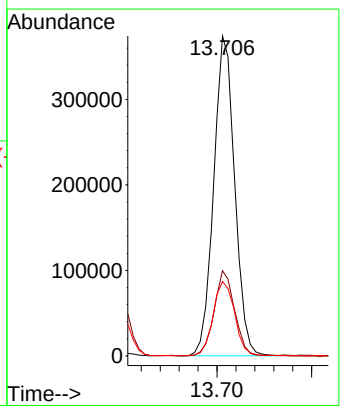


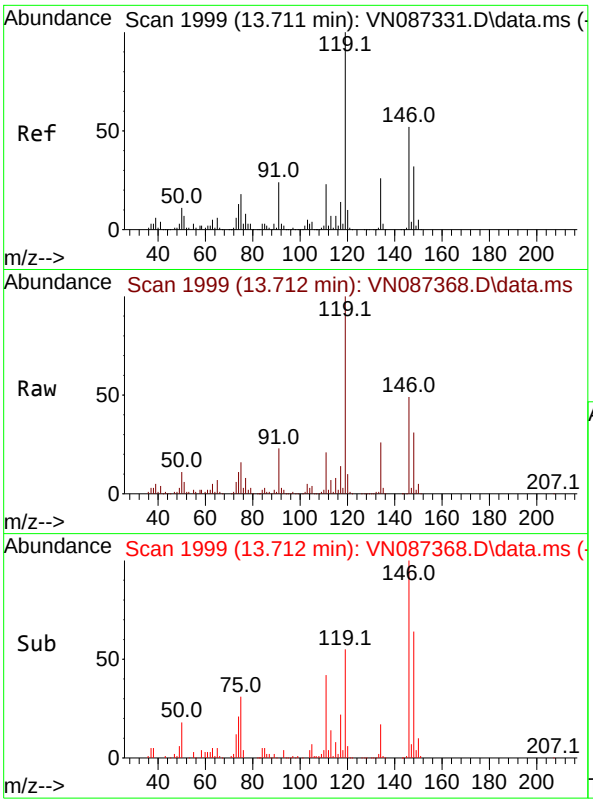


#86
p-Isopropyltoluene
Concen: 65.575 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:119 Resp: 575261

Ion	Ratio	Lower	Upper
119	100		
134	26.1	13.5	40.5
91	23.9	12.2	36.6

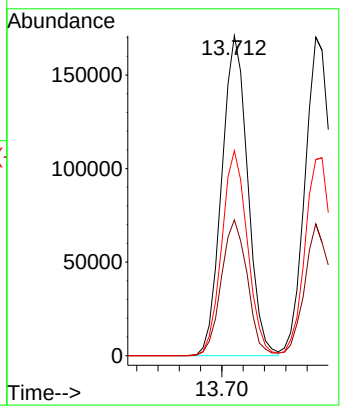




#87
1,3-Dichlorobenzene
Concen: 55.624 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:146 Resp: 28913

Ion	Ratio	Lower	Upper
146	100		
111	42.4	21.4	64.3
148	63.5	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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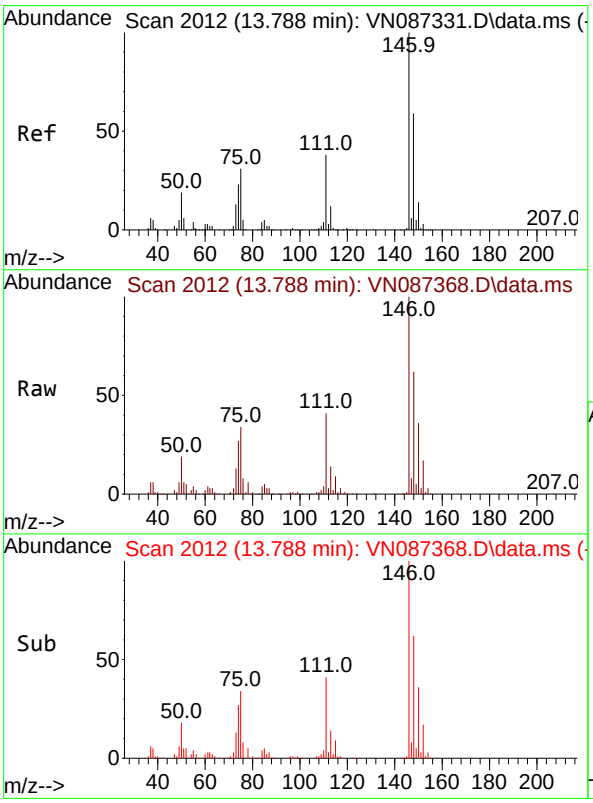
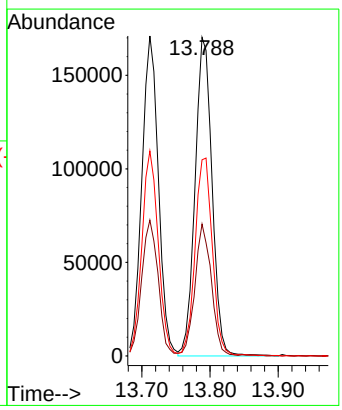
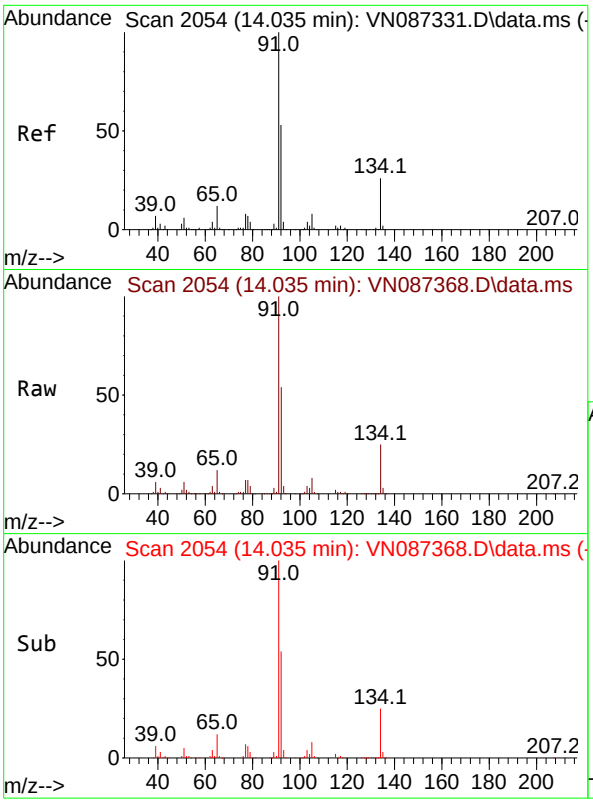


#88
1,4-Dichlorobenzene
Concen: 53.229 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:146 Resp: 295512

Ion	Ratio	Lower	Upper
146	100		
111	40.0	19.6	58.7
148	63.4	31.4	94.0

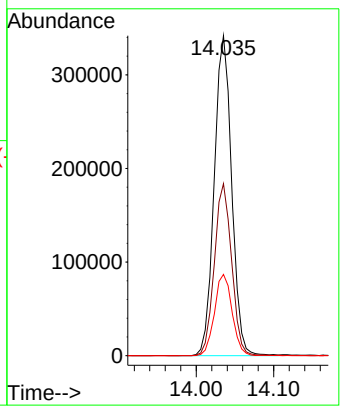




#89
n-Butylbenzene
Concen: 63.795 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 91 Resp: 53439

Ion	Ratio	Lower	Upper
91	100		
92	53.2	26.2	78.6
134	25.8	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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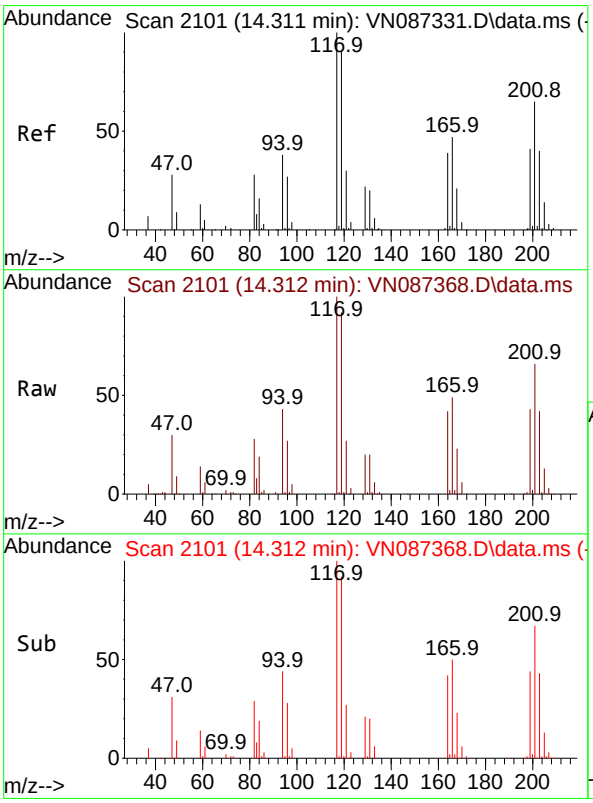
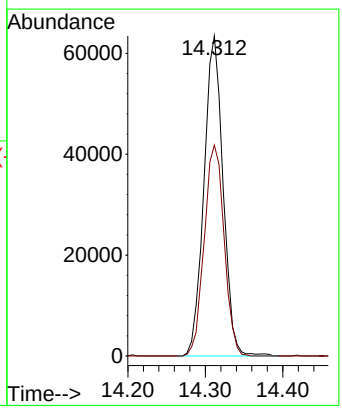
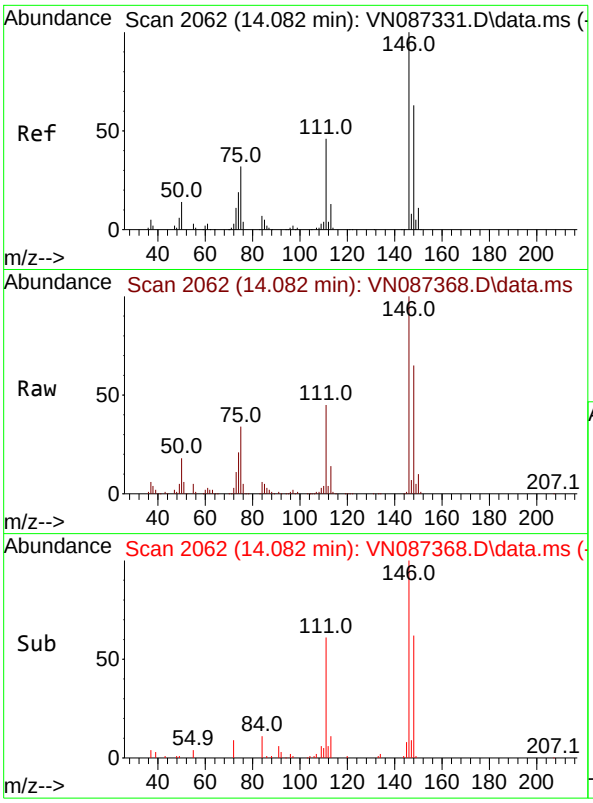


#90
Hexachloroethane
Concen: 58.433 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:117 Resp: 108610

Ion	Ratio	Lower	Upper
117	100		
201	68.6	32.8	98.4

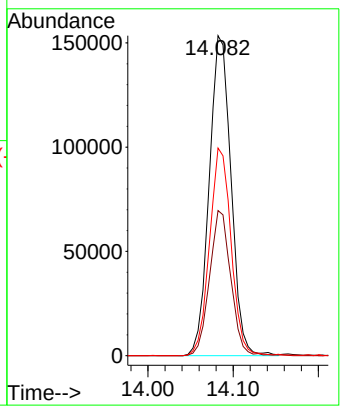




#91
1,2-Dichlorobenzene
Concen: 55.319 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:146 Resp: 27241

Ion	Ratio	Lower	Upper
146	100		
111	44.1	22.0	66.0
148	64.3	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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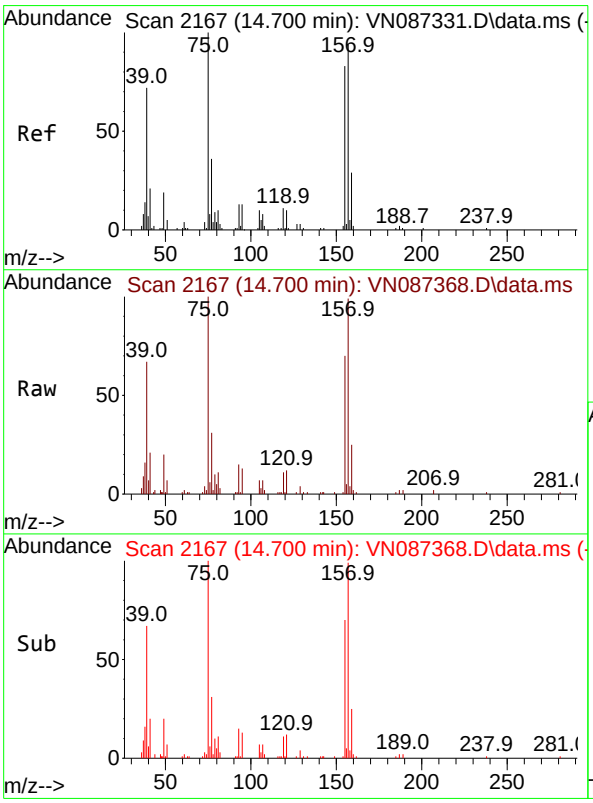
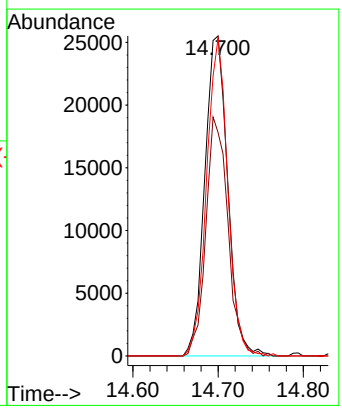
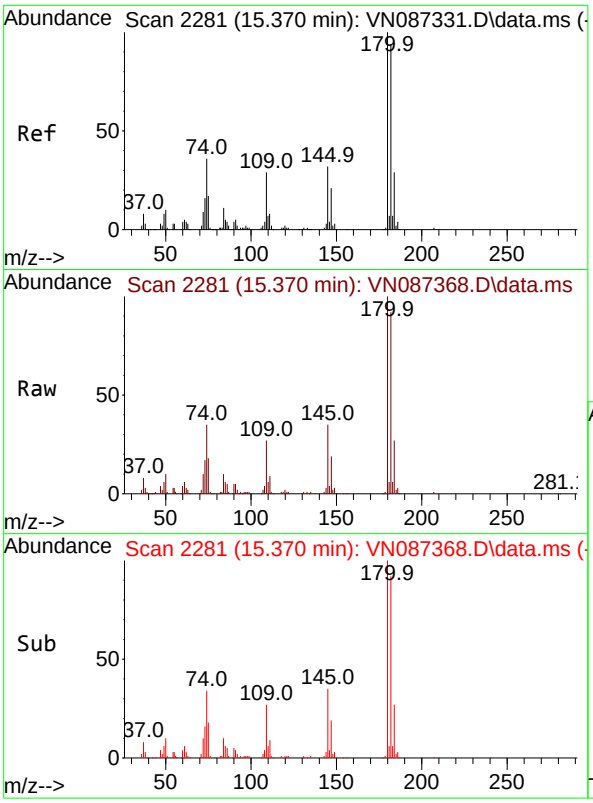


#92
1,2-Dibromo-3-Chloropropane
Concen: 47.158 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion: 75 Resp: 47578

Ion	Ratio	Lower	Upper
75	100		
155	72.1	37.3	111.8
157	92.0	46.2	138.6

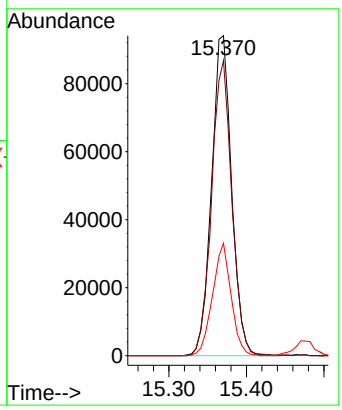




#93
1,2,4-Trichlorobenzene
Concen: 58.393 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:180 Resp: 16891

Ion	Ratio	Lower	Upper
180	100		
182	93.3	47.3	141.8
145	32.7	15.4	46.4



Instrument :
MSVOA_N
ClientSampleId :
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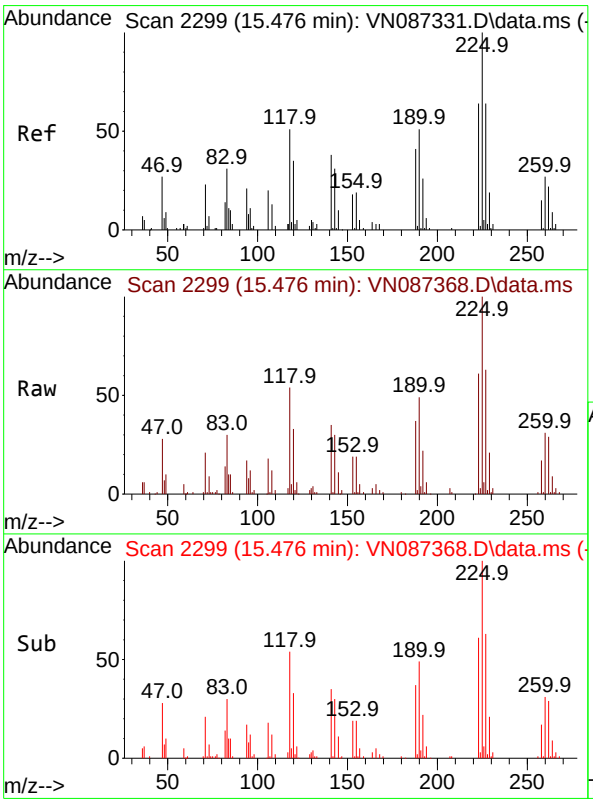
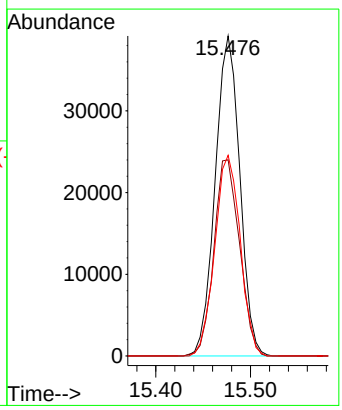
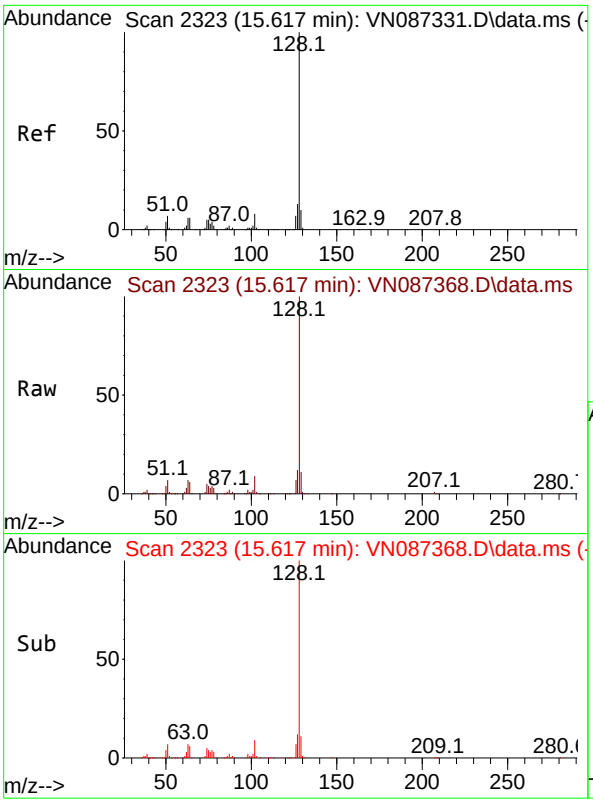


#94
Hexachlorobutadiene
Concen: 65.866 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:225 Resp: 70795

Ion	Ratio	Lower	Upper
225	100		
223	63.8	32.1	96.3
227	64.7	31.3	93.9

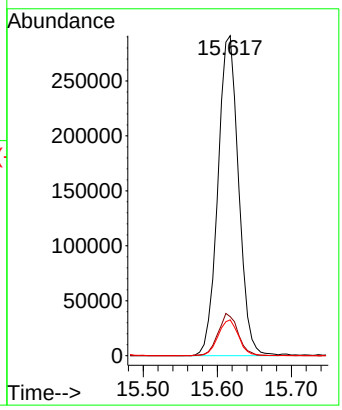




#95
Naphthalene
Concen: 55.095 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:128 Resp: 56459

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.5	15.7
129	11.1	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

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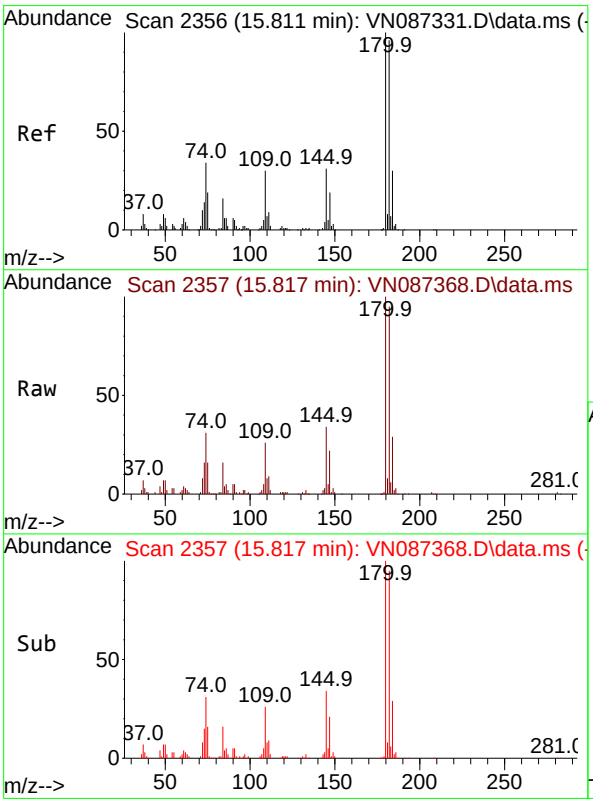
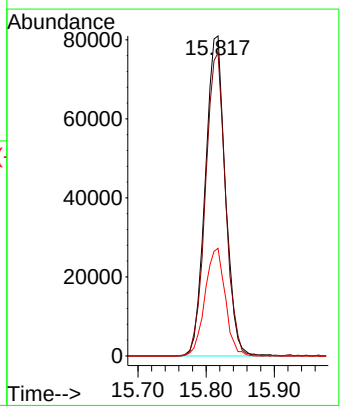


#96
1,2,3-Trichlorobenzene
Concen: 57.042 ug/l
RT: 15.817 min Scan# 2357
Delta R.T. 0.006 min
Lab File: VN087368.D
Acq: 21 Jul 2025 10:38

Tgt Ion:180 Resp: 165516

Ion	Ratio	Lower	Upper
180	100		
182	94.4	47.1	141.4
145	34.0	16.9	50.6



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Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	Pentafluorobenzene	1.000	1.000	0.0	111	0.00
2	T	Dichlorodifluoromethane	0.531	0.655	-23.4	116	0.00
3	P	Chloromethane	0.668	0.678	-1.5	109	0.00
4	C	Vinyl Chloride	0.664	0.725	-9.2#	110	0.00
5	T	Bromomethane	0.344	0.335	2.6	104	0.00
6	T	Chloroethane	0.433	0.443	-2.3	111	0.00
7	T	Trichlorofluoromethane	0.981	1.080	-10.1	117	0.00
8	T	Diethyl Ether	0.381	0.385	-1.0	108	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.504	0.578	-14.7	122	0.00
10	T	Methyl Iodide	0.452	0.465	-2.9	104	0.00
11	T	Tert butyl alcohol	0.161	0.149	7.5	102	0.00
12	CM	1,1-Dichloroethene	0.571	0.556	2.6#	113	0.00
13	T	Acrolein	0.129	0.127	1.6	116	0.00
14	T	Allyl chloride	1.033	1.024	0.9	113	0.00
15	T	Acrylonitrile	0.437	0.419	4.1	102	0.00
16	T	Acetone	0.398	0.354	11.1	101	0.00
17	T	Carbon Disulfide	1.693	1.786	-5.5	114	0.01
18	T	Methyl Acetate	0.999	0.952	4.7	106	0.00
19	T	Methyl tert-butyl Ether	2.104	2.165	-2.9	111	0.00
20	T	Methylene Chloride	0.766	0.680	11.2	112	0.00
21	T	trans-1,2-Dichloroethene	0.644	0.639	0.8	108	0.00
22	T	Diisopropyl ether	2.167	2.303	-6.3	112	0.00
23	T	Vinyl Acetate	1.895	2.068	-9.1	108	0.00
24	P	1,1-Dichloroethane	1.250	1.246	0.3	113	0.00
25	T	2-Butanone	0.615	0.586	4.7	101	0.00
26	T	2,2-Dichloropropane	0.972	1.133	-16.6	128	0.00
27	T	cis-1,2-Dichloroethene	0.741	0.765	-3.2	110	0.00
28	T	Bromochloromethane	0.598	0.602	-0.7	112	0.00
29	T	Tetrahydrofuran	0.399	0.387	3.0	101	0.00
30	C	Chloroform	1.251	1.287	-2.9#	111	0.00
31	T	Cyclohexane	1.043	1.138	-9.1	120	0.00
32	T	1,1,1-Trichloroethane	1.084	1.134	-4.6	116	0.00
33	S	1,2-Dichloroethane-d4	0.848	0.831	2.0	115	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
35	S	Dibromofluoromethane	0.345	0.356	-3.2	112	0.00
36	T	1,1-Dichloropropene	0.456	0.543	-19.1	117	0.00
37	T	Ethyl Acetate	0.658	0.699	-6.2	104	0.00
38	T	Carbon Tetrachloride	0.502	0.596	-18.7	121	0.00
39	T	Methylcyclohexane	0.493	0.642	-30.2#	128	0.00
40	TM	Benzene	1.473	1.638	-11.2	111	0.00
41	T	Methacrylonitrile	0.344	0.372	-8.1	106	-0.01
42	TM	1,2-Dichloroethane	0.558	0.595	-6.6	110	0.00
43	T	Isopropyl Acetate	1.022	1.071	-4.8	105	0.00
44	TM	Trichloroethene	0.348	0.383	-10.1	113	0.00
45	C	1,2-Dichloropropane	0.374	0.421	-12.6#	112	0.00
46	T	Dibromomethane	0.280	0.290	-3.6	106	0.00
47	T	Bromodichloromethane	0.564	0.593	-5.1	110	0.00
48	T	Methyl methacrylate	0.460	0.498	-8.3	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	1,4-Dioxane	0.007	0.007	0.0	95	0.00
50	S	Toluene-d8	1.230	1.321	-7.4	113	0.00
51	T	4-Methyl-2-Pentanone	0.646	0.672	-4.0	102	0.00
52	CM	Toluene	0.895	1.007	-12.5#	110	0.00
53	T	t-1,3-Dichloropropene	0.571	0.634	-11.0	107	0.00
54	T	cis-1,3-Dichloropropene	0.590	0.666	-12.9	111	0.00
55	T	1,1,2-Trichloroethane	0.362	0.377	-4.1	108	0.00
56	T	Ethyl methacrylate	0.552	0.642	-16.3	107	0.00
57	T	1,3-Dichloropropane	0.627	0.672	-7.2	108	0.00
58	T	2-Chloroethyl Vinyl ether	0.297	0.338	-13.8	103	0.00
59	T	2-Hexanone	0.429	0.471	-9.8	100	0.00
60	T	Dibromochloromethane	0.413	0.442	-7.0	108	0.00
61	T	1,2-Dibromoethane	0.381	0.399	-4.7	109	0.00
62	S	4-Bromofluorobenzene	0.455	0.481	-5.7	111	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
64	T	Tetrachloroethene	0.322	0.364	-13.0	117	0.00
65	PM	Chlorobenzene	1.123	1.199	-6.8	110	0.00
66	T	1,1,1,2-Tetrachloroethane	0.382	0.419	-9.7	109	0.00
67	C	Ethyl Benzene	1.848	2.112	-14.3#	112	0.00
68	T	m/p-Xylenes	0.692	0.827	-19.5	112	0.00
69	T	o-Xylene	0.661	0.783	-18.5	111	0.00
70	T	Styrene	1.112	1.331	-19.7	109	0.00
71	P	Bromoform	0.308	0.332	-7.8	104	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00
73	T	Isopropylbenzene	3.147	3.856	-22.5	116	0.00
74	T	N-amyl acetate	1.307	1.239	5.2	111	0.00
75	P	1,1,2,2-Tetrachloroethane	1.184	1.213	-2.4	103	0.00
76	T	1,2,3-Trichloropropane	1.121	1.210	-7.9	104	0.00
77	T	Bromobenzene	0.816	0.922	-13.0	109	0.00
78	T	n-propylbenzene	3.959	4.794	-21.1	114	0.00
79	T	2-Chlorotoluene	2.433	2.759	-13.4	112	0.00
80	T	1,3,5-Trimethylbenzene	2.681	3.231	-20.5	113	0.00
81	T	trans-1,4-Dichloro-2-butene	0.410	0.439	-7.1	111	0.00
82	T	4-Chlorotoluene	2.533	2.826	-11.6	109	0.00
83	T	tert-Butylbenzene	2.239	2.809	-25.5#	119	0.00
84	T	1,2,4-Trimethylbenzene	2.738	3.304	-20.7	113	0.00
85	T	sec-Butylbenzene	3.373	4.198	-24.5	121	0.00
86	T	p-Isopropyltoluene	2.703	3.545	-31.2#	121	0.00
87	T	1,3-Dichlorobenzene	1.602	1.782	-11.2	110	0.00
88	T	1,4-Dichlorobenzene	1.711	1.821	-6.4	109	0.00
89	T	n-Butylbenzene	2.581	3.293	-27.6#	122	0.00
90	T	Hexachloroethane	0.573	0.669	-16.8	119	0.00
91	T	1,2-Dichlorobenzene	1.517	1.679	-10.7	109	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.311	0.293	5.8	99	0.00
93	T	1,2,4-Trichlorobenzene	0.891	1.041	-16.8	114	0.00
94	T	Hexachlorobutadiene	0.331	0.436	-31.7#	136	0.00
95	T	Naphthalene	3.158	3.479	-10.2	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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)
96 T	1,2,3-Trichlorobenzene	0.894	1.020	-14.1	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	Pentafluorobenzene	50.000	50.000	0.0	111	0.00
2	T	Dichlorodifluoromethane	50.000	61.705	-23.4	116	0.00
3	P	Chloromethane	50.000	50.754	-1.5	109	0.00
4	C	Vinyl Chloride	50.000	54.632	-9.3#	110	0.00
5	T	Bromomethane	50.000	48.730	2.5	104	0.00
6	T	Chloroethane	50.000	51.128	-2.3	111	0.00
7	T	Trichlorofluoromethane	50.000	55.045	-10.1	117	0.00
8	T	Diethyl Ether	50.000	50.524	-1.0	108	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	57.347	-14.7	122	0.00
10	T	Methyl Iodide	50.000	45.477	9.0	104	0.00
11	T	Tert butyl alcohol	250.000	230.810	7.7	102	0.00
12	CM	1,1-Dichloroethene	50.000	48.730	2.5#	113	0.00
13	T	Acrolein	250.000	245.196	1.9	116	0.00
14	T	Allyl chloride	50.000	49.562	0.9	113	0.00
15	T	Acrylonitrile	250.000	239.867	4.1	102	0.00
16	T	Acetone	250.000	222.434	11.0	101	0.00
17	T	Carbon Disulfide	50.000	52.775	-5.5	114	0.01
18	T	Methyl Acetate	50.000	47.625	4.8	106	0.00
19	T	Methyl tert-butyl Ether	50.000	51.435	-2.9	111	0.00
20	T	Methylene Chloride	50.000	50.568	-1.1	112	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.610	0.8	108	0.00
22	T	Diisopropyl ether	50.000	53.129	-6.3	112	0.00
23	T	Vinyl Acetate	250.000	272.771	-9.1	108	0.00
24	P	1,1-Dichloroethane	50.000	49.825	0.3	113	0.00
25	T	2-Butanone	250.000	238.198	4.7	101	0.00
26	T	2,2-Dichloropropane	50.000	58.298	-16.6	128	0.00
27	T	cis-1,2-Dichloroethene	50.000	51.642	-3.3	110	0.00
28	T	Bromochloromethane	50.000	50.344	-0.7	112	0.00
29	T	Tetrahydrofuran	250.000	242.020	3.2	101	0.00
30	C	Chloroform	50.000	51.433	-2.9#	111	0.00
31	T	Cyclohexane	50.000	54.540	-9.1	120	0.00
32	T	1,1,1-Trichloroethane	50.000	52.312	-4.6	116	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.966	2.1	115	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	105	0.00
35	S	Dibromofluoromethane	50.000	51.565	-3.1	112	0.00
36	T	1,1-Dichloropropene	50.000	59.588	-19.2	117	0.00
37	T	Ethyl Acetate	50.000	53.140	-6.3	104	0.00
38	T	Carbon Tetrachloride	50.000	59.343	-18.7	121	0.00
39	T	Methylcyclohexane	50.000	65.059	-30.1#	128	0.00
40	TM	Benzene	50.000	55.603	-11.2	111	0.00
41	T	Methacrylonitrile	50.000	54.123	-8.2	106	-0.01
42	TM	1,2-Dichloroethane	50.000	53.235	-6.5	110	0.00
43	T	Isopropyl Acetate	50.000	52.402	-4.8	105	0.00
44	TM	Trichloroethene	50.000	55.080	-10.2	113	0.00
45	C	1,2-Dichloropropane	50.000	56.288	-12.6#	112	0.00
46	T	Dibromomethane	50.000	51.826	-3.7	106	0.00
47	T	Bromodichloromethane	50.000	52.560	-5.1	110	0.00
48	T	Methyl methacrylate	50.000	54.088	-8.2	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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	1,4-Dioxane	1000.000	1021.070	-2.1	95	0.00
50	S	Toluene-d8	50.000	53.671	-7.3	113	0.00
51	T	4-Methyl-2-Pentanone	250.000	259.892	-4.0	102	0.00
52	CM	Toluene	50.000	56.232	-12.5#	110	0.00
53	T	t-1,3-Dichloropropene	50.000	55.519	-11.0	107	0.00
54	T	cis-1,3-Dichloropropene	50.000	56.480	-13.0	111	0.00
55	T	1,1,2-Trichloroethane	50.000	52.012	-4.0	108	0.00
56	T	Ethyl methacrylate	50.000	52.536	-5.1	107	0.00
57	T	1,3-Dichloropropane	50.000	53.600	-7.2	108	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	284.461	-13.8	103	0.00
59	T	2-Hexanone	250.000	274.584	-9.8	100	0.00
60	T	Dibromochloromethane	50.000	53.493	-7.0	108	0.00
61	T	1,2-Dibromoethane	50.000	52.401	-4.8	109	0.00
62	S	4-Bromofluorobenzene	50.000	52.956	-5.9	111	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	103	0.00
64	T	Tetrachloroethene	50.000	56.570	-13.1	117	0.00
65	PM	Chlorobenzene	50.000	53.411	-6.8	110	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	54.903	-9.8	109	0.00
67	C	Ethyl Benzene	50.000	57.142	-14.3#	112	0.00
68	T	m/p-Xylenes	100.000	119.516	-19.5	112	0.00
69	T	o-Xylene	50.000	59.204	-18.4	111	0.00
70	T	Styrene	50.000	59.847	-19.7	109	0.00
71	P	Bromoform	50.000	53.790	-7.6	104	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	102	0.00
73	T	Isopropylbenzene	50.000	61.272	-22.5	116	0.00
74	T	N-amyl acetate	50.000	47.372	5.3	111	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	51.237	-2.5	103	0.00
76	T	1,2,3-Trichloropropane	50.000	53.949	-7.9	104	0.00
77	T	Bromobenzene	50.000	56.468	-12.9	109	0.00
78	T	n-propylbenzene	50.000	60.540	-21.1	114	0.00
79	T	2-Chlorotoluene	50.000	56.702	-13.4	112	0.00
80	T	1,3,5-Trimethylbenzene	50.000	60.253	-20.5	113	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	53.584	-7.2	111	0.00
82	T	4-Chlorotoluene	50.000	55.780	-11.6	109	0.00
83	T	tert-Butylbenzene	50.000	62.712	-25.4#	119	0.00
84	T	1,2,4-Trimethylbenzene	50.000	60.341	-20.7	113	0.00
85	T	sec-Butylbenzene	50.000	62.226	-24.5	121	0.00
86	T	p-Isopropyltoluene	50.000	65.575	-31.2#	121	0.00
87	T	1,3-Dichlorobenzene	50.000	55.624	-11.2	110	0.00
88	T	1,4-Dichlorobenzene	50.000	53.229	-6.5	109	0.00
89	T	n-Butylbenzene	50.000	63.795	-27.6#	122	0.00
90	T	Hexachloroethane	50.000	58.433	-16.9	119	0.00
91	T	1,2-Dichlorobenzene	50.000	55.319	-10.6	109	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	47.158	5.7	99	0.00
93	T	1,2,4-Trichlorobenzene	50.000	58.393	-16.8	114	0.00
94	T	Hexachlorobutadiene	50.000	65.866	-31.7#	136	0.00
95	T	Naphthalene	50.000	55.095	-10.2	104	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087368.D
Acq On : 21 Jul 2025 10:38
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Jul 22 03:02:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 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)
96 T	1,2,3-Trichlorobenzene	50.000	57.042	-14.1	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

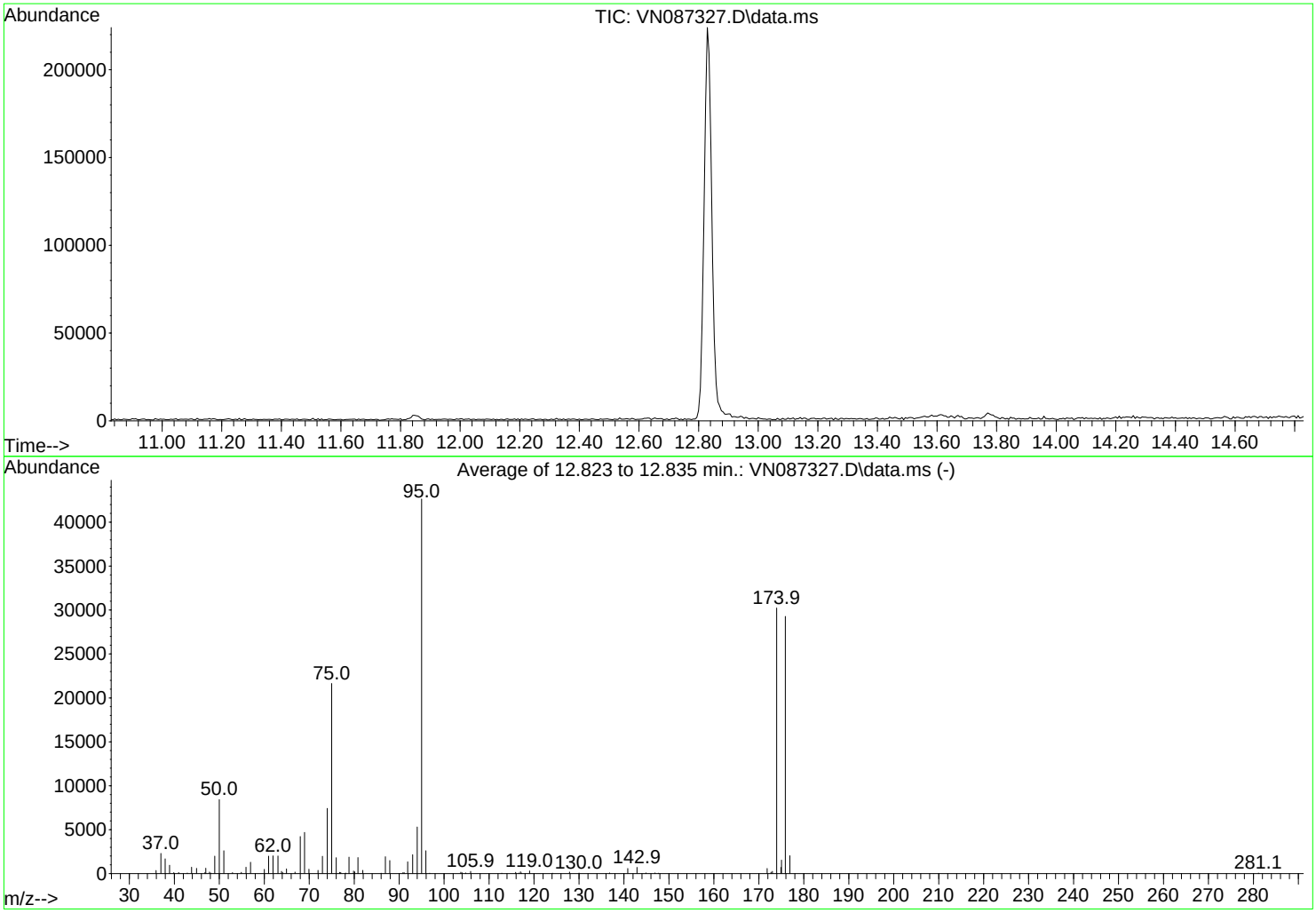
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN071625\
Data File : VN087327.D
Acq On : 16 Jul 2025 16:10
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\82N071625W.M
Title : SW846 8260
Last Update : Thu Jul 17 02:56:13 2025



AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1839

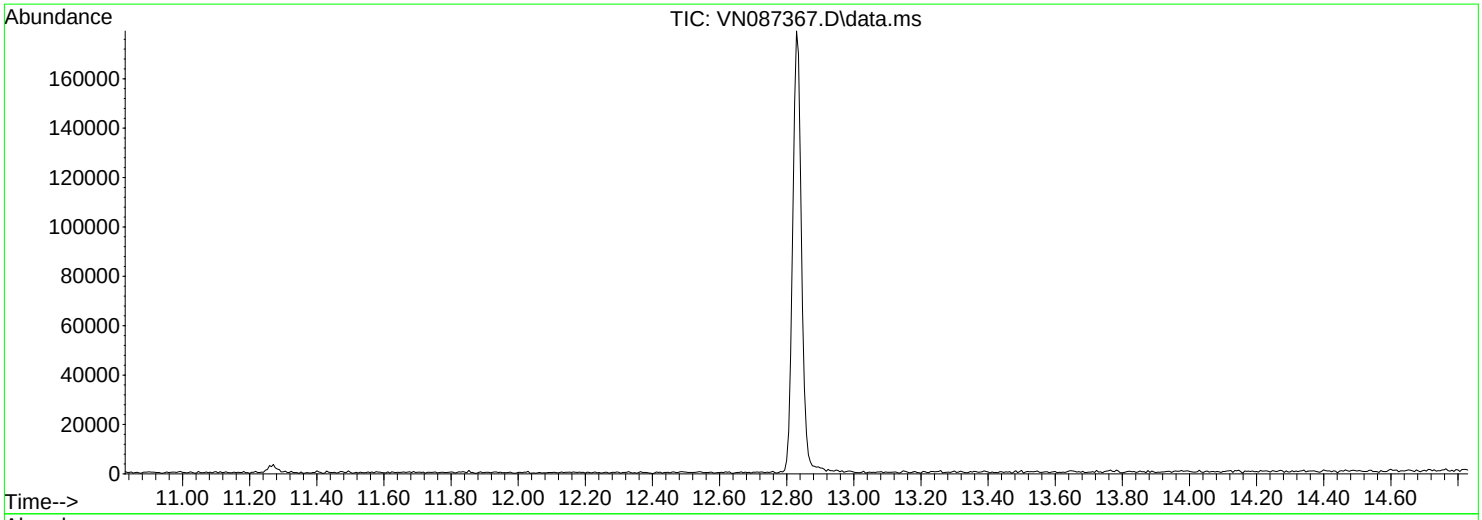
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	8426	PASS
75	95	30	60	50.8	21643	PASS
95	95	100	100	100.0	42640	PASS
96	95	5	9	6.1	2612	PASS
173	174	0.00	2	0.8	255	PASS
174	95	50	100	70.9	30229	PASS
175	174	5	9	5.1	1538	PASS
176	174	95	101	96.9	29285	PASS
177	176	5	9	7.0	2046	PASS

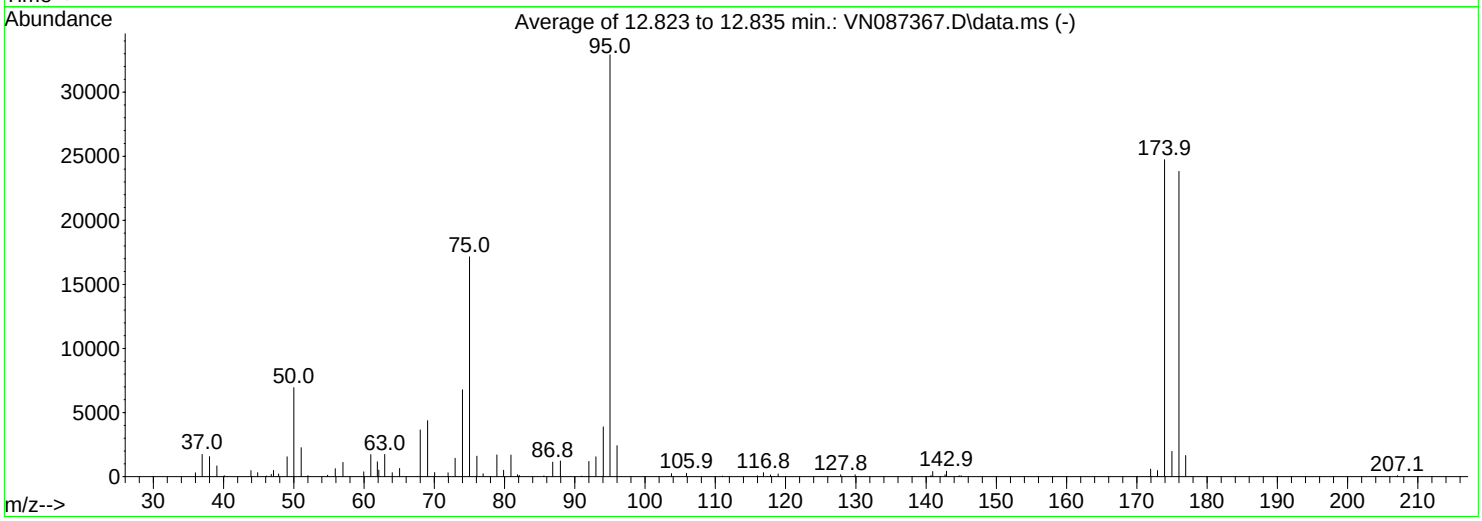
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087367.D
Acq On : 21 Jul 2025 10:05
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Title : SW846 8260
Last Update : Thu Jul 17 02:56:13 2025





AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1840

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	6948	PASS
75	95	30	60	52.1	17152	PASS
95	95	100	100	100.0	32912	PASS
96	95	5	9	7.4	2423	PASS
173	174	0.00	2	1.9	479	PASS
174	95	50	100	75.2	24736	PASS
175	174	5	9	8.0	1975	PASS
176	174	95	101	96.3	23816	PASS
177	176	5	9	6.9	1646	PASS

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

Report of Analysis

Client:	Weston Solutions, Inc.		Date Collected:		
Project:	RFP 905A		Date Received:		
Client Sample ID:	VN0721WBL01		SDG No.:	Q2641	
Lab Sample ID:	VN0721WBL01		Matrix:	TCLP	
Analytical Method:	8260D		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087370.D	1	07/21/25 11:34	VN072125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	5.00	ug/L
71-43-2	Benzene	0.15	U	0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	5.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	5.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	5.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.7		74 - 125	109%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	51.0		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		77 - 121	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	164000	8.212			
540-36-3	1,4-Difluorobenzene	328000	9.083			
3114-55-4	Chlorobenzene-d5	301000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	133000	13.771			

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\VN072125\
Data File : VN087370.D
Acq On : 21 Jul 2025 11:34
Operator : JC\MD
Sample : VN0721WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBL01

Quant Time: Jul 22 03:04:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

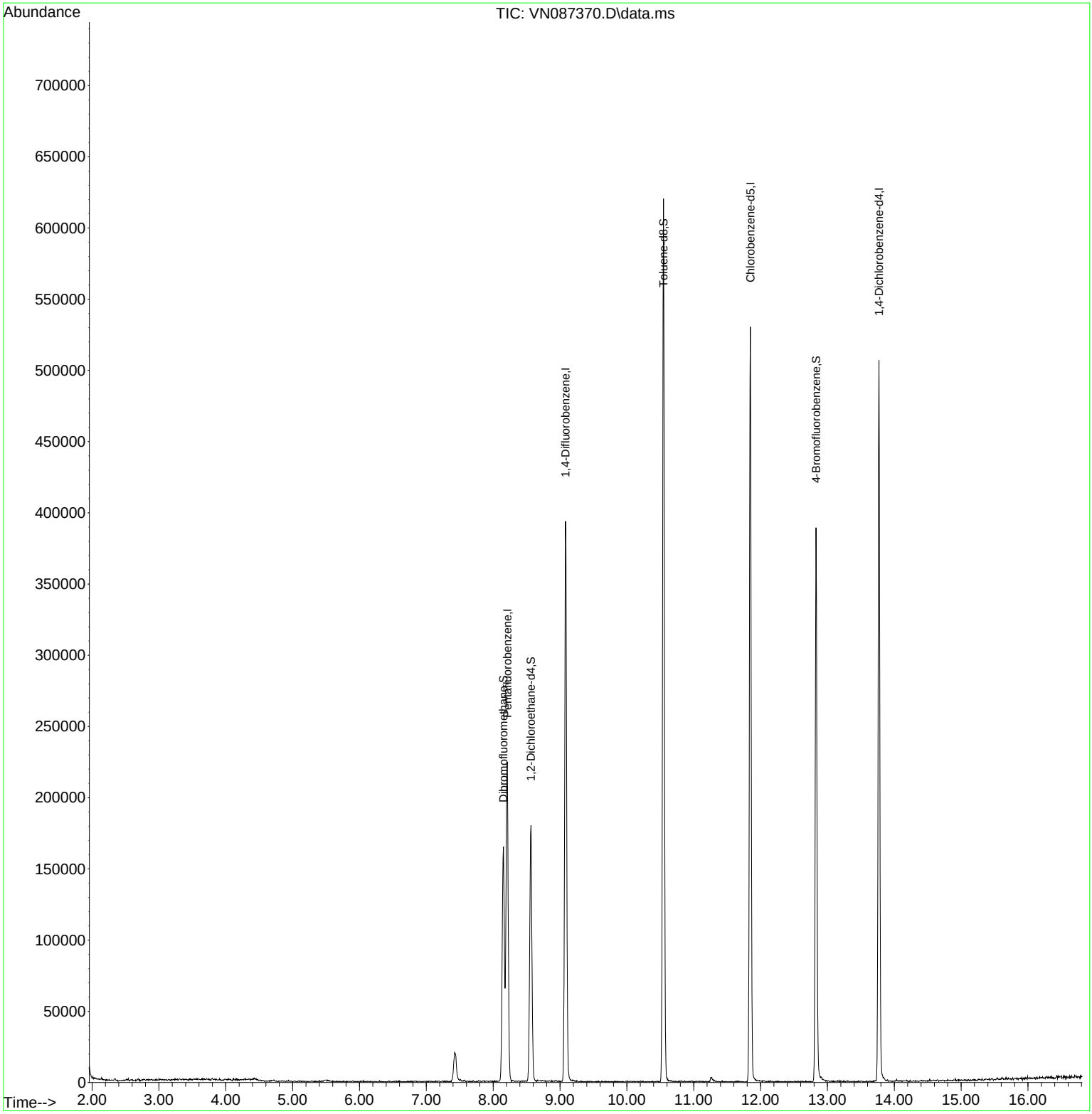
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	164239	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.083	114	328305	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	300772	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.771	152	133337	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	152384	54.681	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 109.360%			
35) Dibromofluoromethane	8.153	113	116283	51.347	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.700%			
50) Toluene-d8	10.547	98	411775	50.973	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.940%			
62) 4-Bromofluorobenzene	12.829	95	138566	46.428	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 92.860%			
Target Compounds						Qvalue

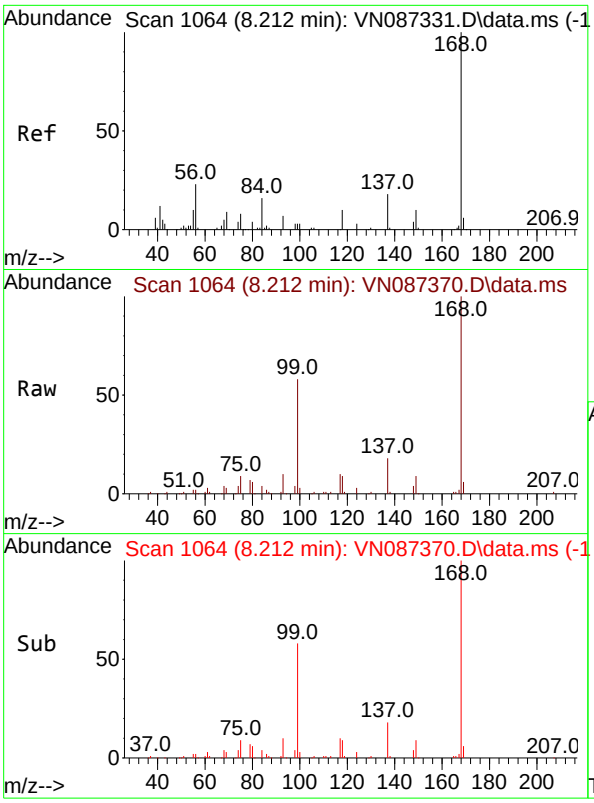
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087370.D
Acq On : 21 Jul 2025 11:34
Operator : JC\MD
Sample : VN0721WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBL01

Quant Time: Jul 22 03:04:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration



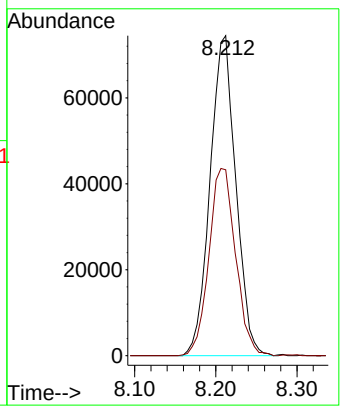


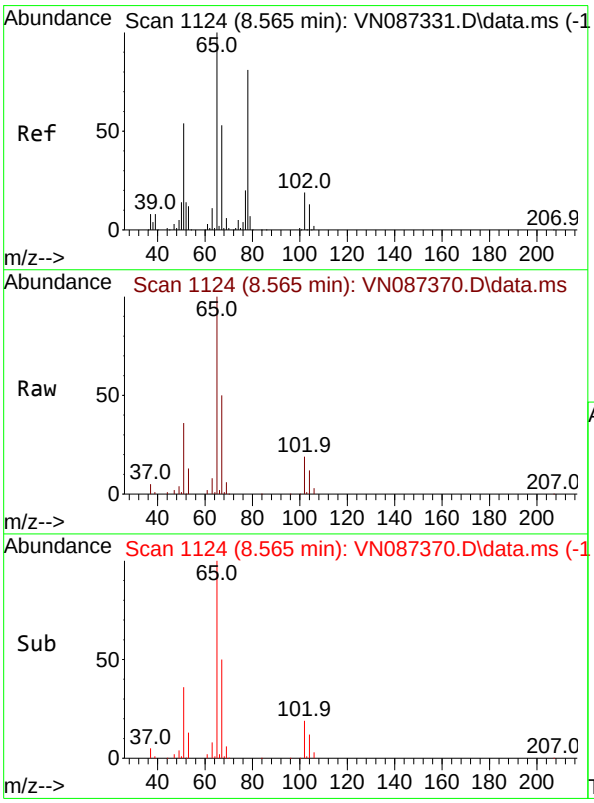
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBL01

Tgt Ion:168 Resp: 164239

Ion	Ratio	Lower	Upper
168	100		
99	58.1	47.9	71.9

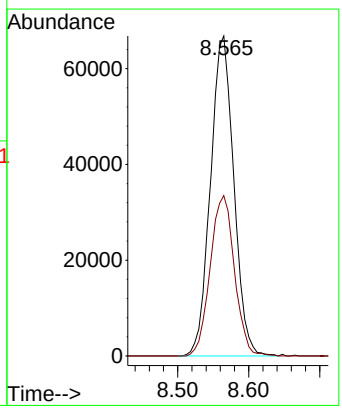


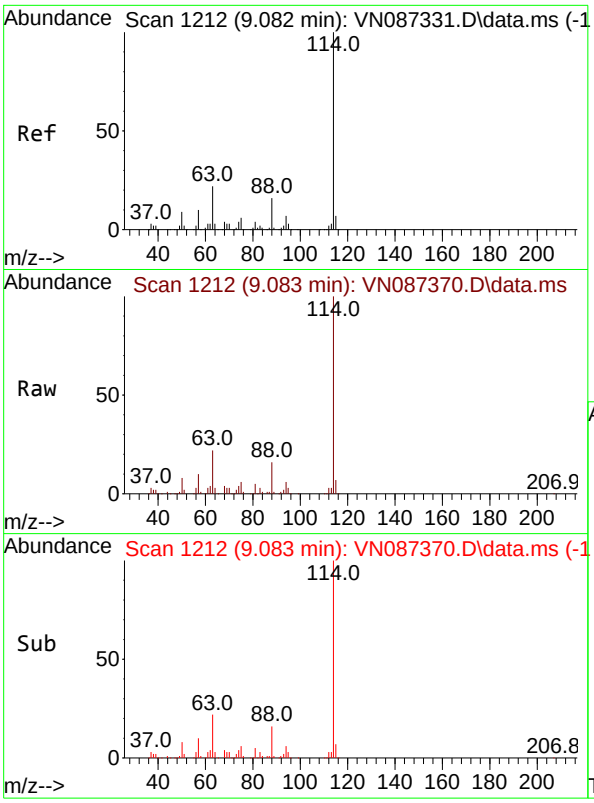


#33
1,2-Dichloroethane-d4
Concen: 54.681 ug/l
RT: 8.565 min Scan# 1124
Delta R.T. 0.000 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Tgt Ion: 65 Resp: 152384

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	104.0



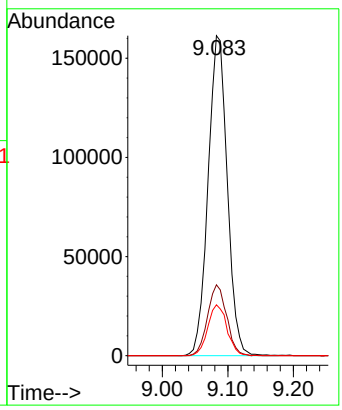


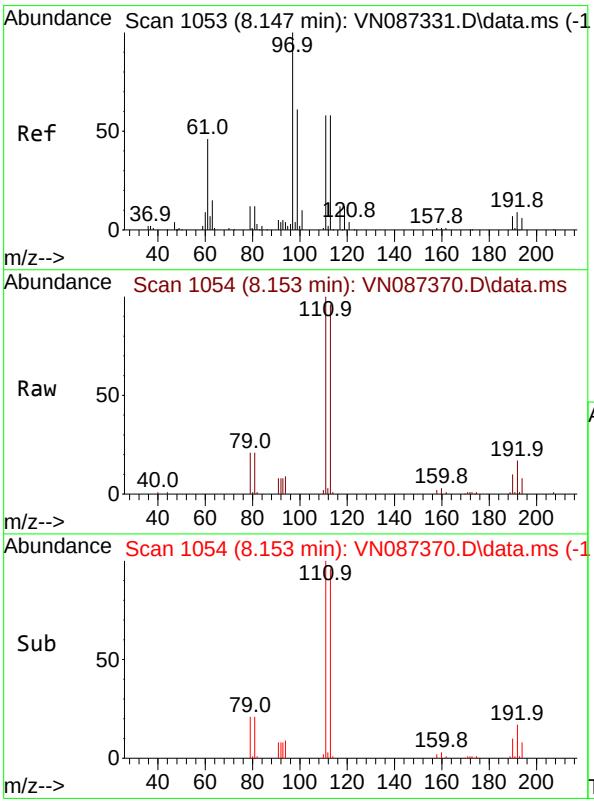
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.083 min Scan# 1
Delta R.T. 0.001 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBL01

Tgt Ion:114 Resp: 328305

Ion	Ratio	Lower	Upper
114	100		
63	22.2	0.0	44.6
88	15.9	0.0	32.8

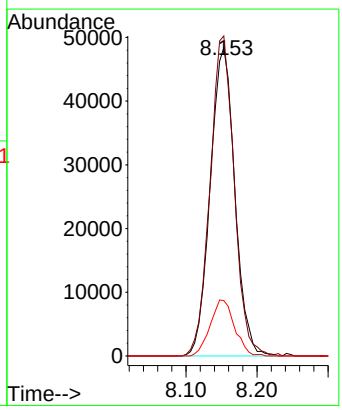


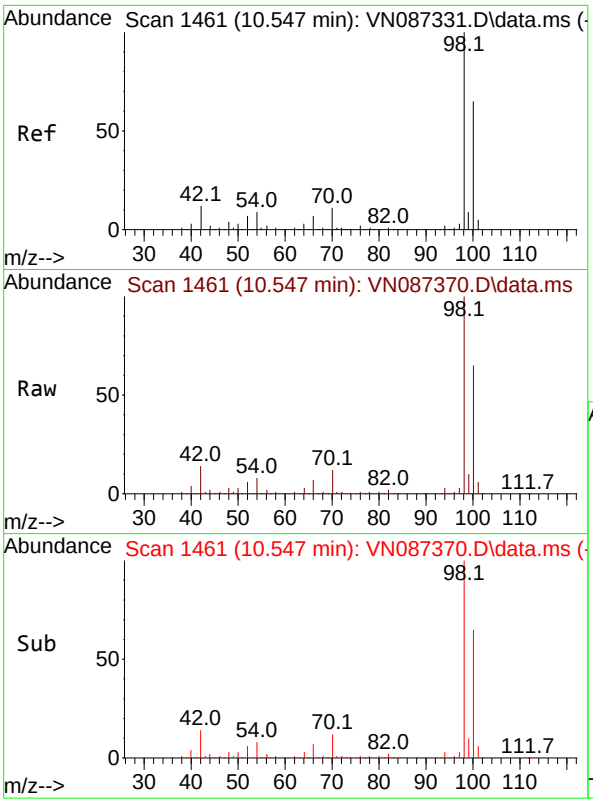


#35
Dibromofluoromethane
Concen: 51.347 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Tgt Ion:113 Resp: 116283

Ion	Ratio	Lower	Upper
113	100		
111	101.7	82.5	123.7
192	18.0	13.7	20.5



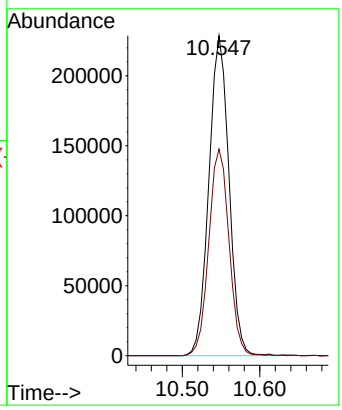


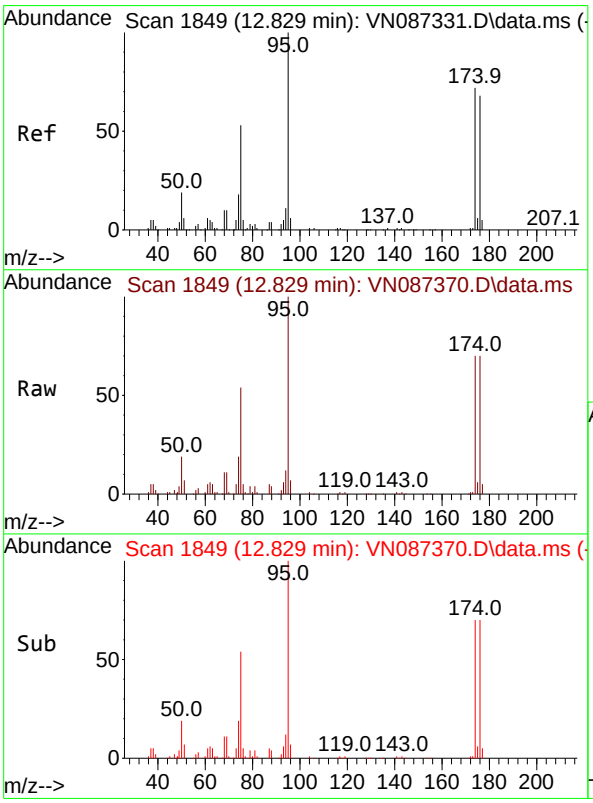
#50
Toluene-d8
Concen: 50.973 ug/l
RT: 10.547 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBL01

Tgt Ion: 98 Resp: 411775

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.1	78.1

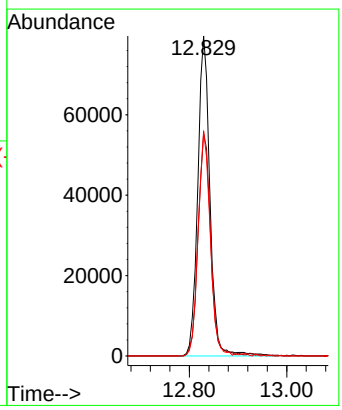


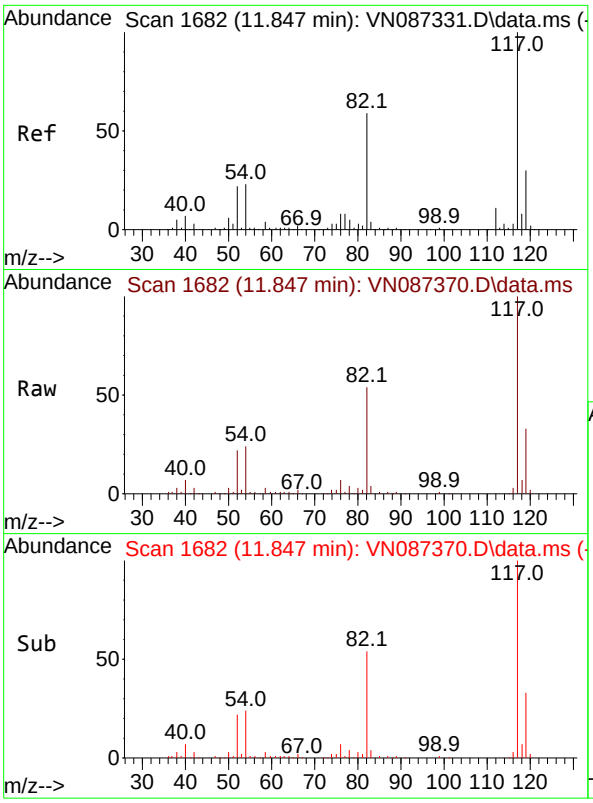


#62
4-Bromofluorobenzene
Concen: 46.428 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Tgt Ion: 95 Resp: 138566

Ion	Ratio	Lower	Upper
95	100		
174	71.3	0.0	149.4
176	70.0	0.0	141.2



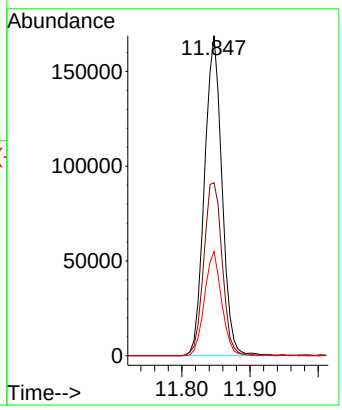


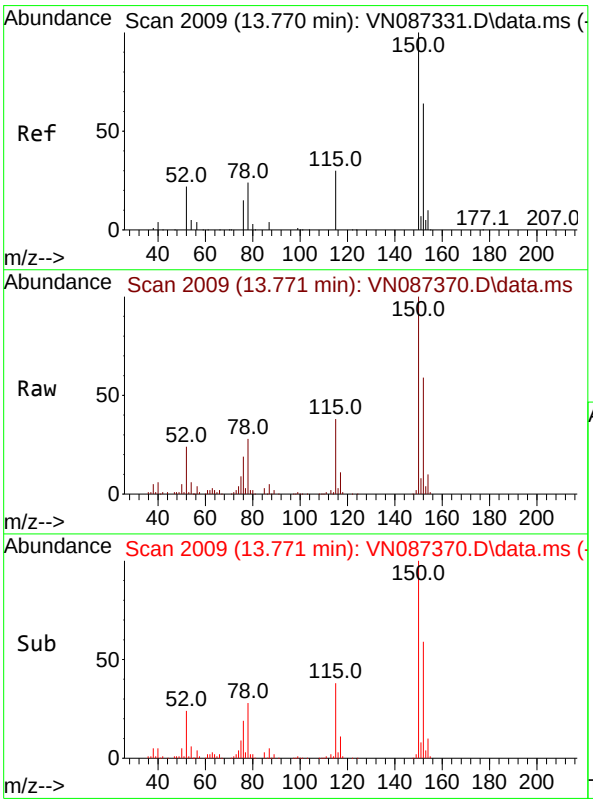
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBL01

Tgt Ion:117 Resp: 300772

Ion	Ratio	Lower	Upper
117	100		
82	54.1	47.4	71.2
119	32.6	23.8	35.8

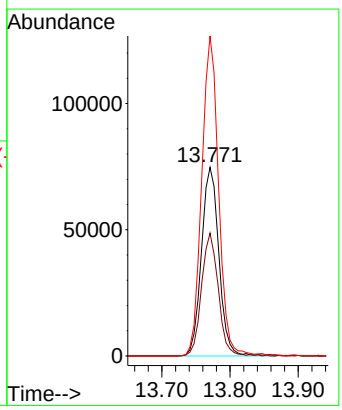




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.771 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087370.D
Acq: 21 Jul 2025 11:34

Tgt Ion:152 Resp: 133337

Ion	Ratio	Lower	Upper
152	100		
115	62.5	31.1	93.5
150	164.0	0.0	349.0



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

Report of Analysis

Client:	Weston Solutions, Inc.		Date Collected:		
Project:	RFP 905A		Date Received:		
Client Sample ID:	VN0721WBS01		SDG No.:	Q2641	
Lab Sample ID:	VN0721WBS01		Matrix:	TCLP	
Analytical Method:	8260D		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087371.D	1	07/21/25 11:55	VN072125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	19.0		0.26	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.23	5.00	ug/L
78-93-3	2-Butanone	86.4		0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	19.6		0.25	5.00	ug/L
67-66-3	Chloroform	17.9		0.25	5.00	ug/L
71-43-2	Benzene	19.4		0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	18.3		0.22	5.00	ug/L
79-01-6	Trichloroethene	18.8		0.090	5.00	ug/L
127-18-4	Tetrachloroethene	18.3		0.23	5.00	ug/L
108-90-7	Chlorobenzene	18.6		0.12	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.3		74 - 125	95%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		75 - 124	98%	SPK: 50
2037-26-5	Toluene-d8	50.4		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.9		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	195000	8.206			
540-36-3	1,4-Difluorobenzene	337000	9.088			
3114-55-4	Chlorobenzene-d5	309000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	161000	13.77			

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\VN072125\
Data File : VN087371.D
Acq On : 21 Jul 2025 11:55
Operator : JC\MD
Sample : VN0721WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 22 03:04:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	195078	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.088	114	337215	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	308523	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	161452	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	156616	47.315	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 94.640%			
35) Dibromofluoromethane	8.153	113	113549	48.815	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 97.640%			
50) Toluene-d8	10.547	98	418084	50.387	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.780%			
62) 4-Bromofluorobenzene	12.829	95	152963	49.898	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 99.800%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	45478	21.949	ug/l	93
3) Chloromethane	2.389	50	49057	18.828	ug/l	96
4) Vinyl Chloride	2.542	62	49167	18.988	ug/l	97
5) Bromomethane	2.983	94	25728	19.187	ug/l	97
6) Chloroethane	3.142	64	30502	18.063	ug/l	92
7) Trichlorofluoromethane	3.512	101	73088	19.089	ug/l	89
8) Diethyl Ether	3.965	74	25832	17.392	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.365	101	40048	20.375	ug/l	98
10) Methyl Iodide	4.577	142	28199	18.006	ug/l	98
11) Tert butyl alcohol	5.524	59	53952	85.841	ug/l	98
12) 1,1-Dichloroethene	4.336	96	40303	18.095	ug/l	95
13) Acrolein	4.183	56	42192	83.649	ug/l	93
14) Allyl chloride	5.018	41	69156	17.157	ug/l	99
15) Acrylonitrile	5.712	53	142826	83.743	ug/l	99
16) Acetone	4.424	43	133162	85.801	ug/l	99
17) Carbon Disulfide	4.706	76	121611	18.416	ug/l	95
18) Methyl Acetate	5.018	43	68652	17.607	ug/l	98
19) Methyl tert-butyl Ether	5.794	73	140893	17.162	ug/l	97
20) Methylene Chloride	5.271	84	46556	17.327	ug/l	89
21) trans-1,2-Dichloroethene	5.771	96	44578	17.750	ug/l	92
22) Diisopropyl ether	6.659	45	157889	18.674	ug/l	94
23) Vinyl Acetate	6.588	43	694729	93.948	ug/l	99
24) 1,1-Dichloroethane	6.559	63	85653	17.559	ug/l	98
25) 2-Butanone	7.471	43	207099	86.364	ug/l	99
26) 2,2-Dichloropropane	7.477	77	77666	20.479	ug/l	96
27) cis-1,2-Dichloroethene	7.471	96	51900	17.950	ug/l	98
28) Bromochloromethane	7.800	49	41440	17.751	ug/l	99
29) Tetrahydrofuran	7.830	42	131520	84.427	ug/l	99
30) Chloroform	7.947	83	87539	17.929	ug/l	97
31) Cyclohexane	8.241	56	81992	20.149	ug/l	93
32) 1,1,1-Trichloroethane	8.153	97	78792	18.632	ug/l	97
36) 1,1-Dichloropropene	8.359	75	61263	19.935	ug/l	100
37) Ethyl Acetate	7.553	43	78541	17.696	ug/l	96
38) Carbon Tetrachloride	8.347	117	66297	19.583	ug/l	93
39) Methylcyclohexane	9.582	83	69647	20.933	ug/l #	91
40) Benzene	8.588	78	192485	19.379	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087371.D
Acq On : 21 Jul 2025 11:55
Operator : JC\MD
Sample : VN0721WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 22 03:04:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	41272	17.784	ug/l		96
42) 1,2-Dichloroethane	8.653	62	68935	18.301	ug/l		99
43) Isopropyl Acetate	8.677	43	124383	18.053	ug/l		100
44) Trichloroethene	9.335	130	44065	18.776	ug/l		86
45) 1,2-Dichloropropane	9.600	63	48604	19.258	ug/l	#	87
46) Dibromomethane	9.694	93	34607	18.314	ug/l		98
47) Bromodichloromethane	9.871	83	69750	18.326	ug/l		94
48) Methyl methacrylate	9.665	41	55452	17.877	ug/l		97
49) 1,4-Dioxane	9.677	88	17060	359.104	ug/l	#	97
51) 4-Methyl-2-Pentanone	10.429	43	401014	92.023	ug/l		99
52) Toluene	10.612	92	116138	19.237	ug/l		99
53) t-1,3-Dichloropropene	10.818	75	72070	18.710	ug/l		100
54) cis-1,3-Dichloropropene	10.294	75	74540	18.734	ug/l		96
55) 1,1,2-Trichloroethane	11.000	97	45751	18.718	ug/l	#	87
56) Ethyl methacrylate	10.859	69	66938	17.074	ug/l		97
57) 1,3-Dichloropropane	11.141	76	78676	18.617	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	195869	97.690	ug/l		100
59) 2-Hexanone	11.176	43	264794	91.587	ug/l		99
60) Dibromochloromethane	11.341	129	52477	18.826	ug/l		96
61) 1,2-Dibromoethane	11.453	107	44615	17.360	ug/l		99
64) Tetrachloroethene	11.082	164	36432	18.347	ug/l		97
65) Chlorobenzene	11.871	112	128645	18.573	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.941	131	44082	18.716	ug/l		99
67) Ethyl Benzene	11.941	91	206561	18.115	ug/l		99
68) m/p-Xylenes	12.053	106	168727	39.515	ug/l		98
69) o-Xylene	12.376	106	75002	18.388	ug/l		100
70) Styrene	12.394	104	132593	19.325	ug/l		99
71) Bromoform	12.559	173	34591	18.179	ug/l	#	97
73) Isopropylbenzene	12.676	105	198119	19.497	ug/l		98
74) N-amyl acetate	12.512	43	82883m	19.632	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	70547	18.451	ug/l		98
76) 1,2,3-Trichloropropane	12.970	75	61699m	17.042	ug/l		
77) Bromobenzene	12.959	156	49824	18.906	ug/l		99
78) n-propylbenzene	13.018	91	256928	20.096	ug/l		100
79) 2-Chlorotoluene	13.106	91	152583	19.419	ug/l		97
80) 1,3,5-Trimethylbenzene	13.153	105	174332	20.136	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.723	75	22951	17.345	ug/l		95
82) 4-Chlorotoluene	13.200	91	154290	18.861	ug/l		99
83) tert-Butylbenzene	13.417	119	146165	20.214	ug/l		97
84) 1,2,4-Trimethylbenzene	13.459	105	177920	20.123	ug/l		100
85) sec-Butylbenzene	13.594	105	220837	20.275	ug/l		99
86) p-Isopropyltoluene	13.706	119	181563	20.801	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	98893	19.120	ug/l		98
88) 1,4-Dichlorobenzene	13.788	146	99576	18.026	ug/l		95
89) n-Butylbenzene	14.035	91	170515	20.458	ug/l		99
90) Hexachloroethane	14.306	117	36514	19.744	ug/l		96
91) 1,2-Dichlorobenzene	14.082	146	94733	19.334	ug/l		95
92) 1,2-Dibromo-3-Chloropr...	14.694	75	16367	16.304	ug/l		95
93) 1,2,4-Trichlorobenzene	15.370	180	55564	19.305	ug/l		99
94) Hexachlorobutadiene	15.476	225	24726	23.120	ug/l		96
95) Naphthalene	15.617	128	175395	17.202	ug/l		99
96) 1,2,3-Trichlorobenzene	15.811	180	54756	18.966	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087371.D
Acq On : 21 Jul 2025 11:55
Operator : JC\MD
Sample : VN0721WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 22 03:04:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087371.D
Acq On : 21 Jul 2025 11:55
Operator : JC\MD
Sample : VN0721WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 22 03:04:34 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
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ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

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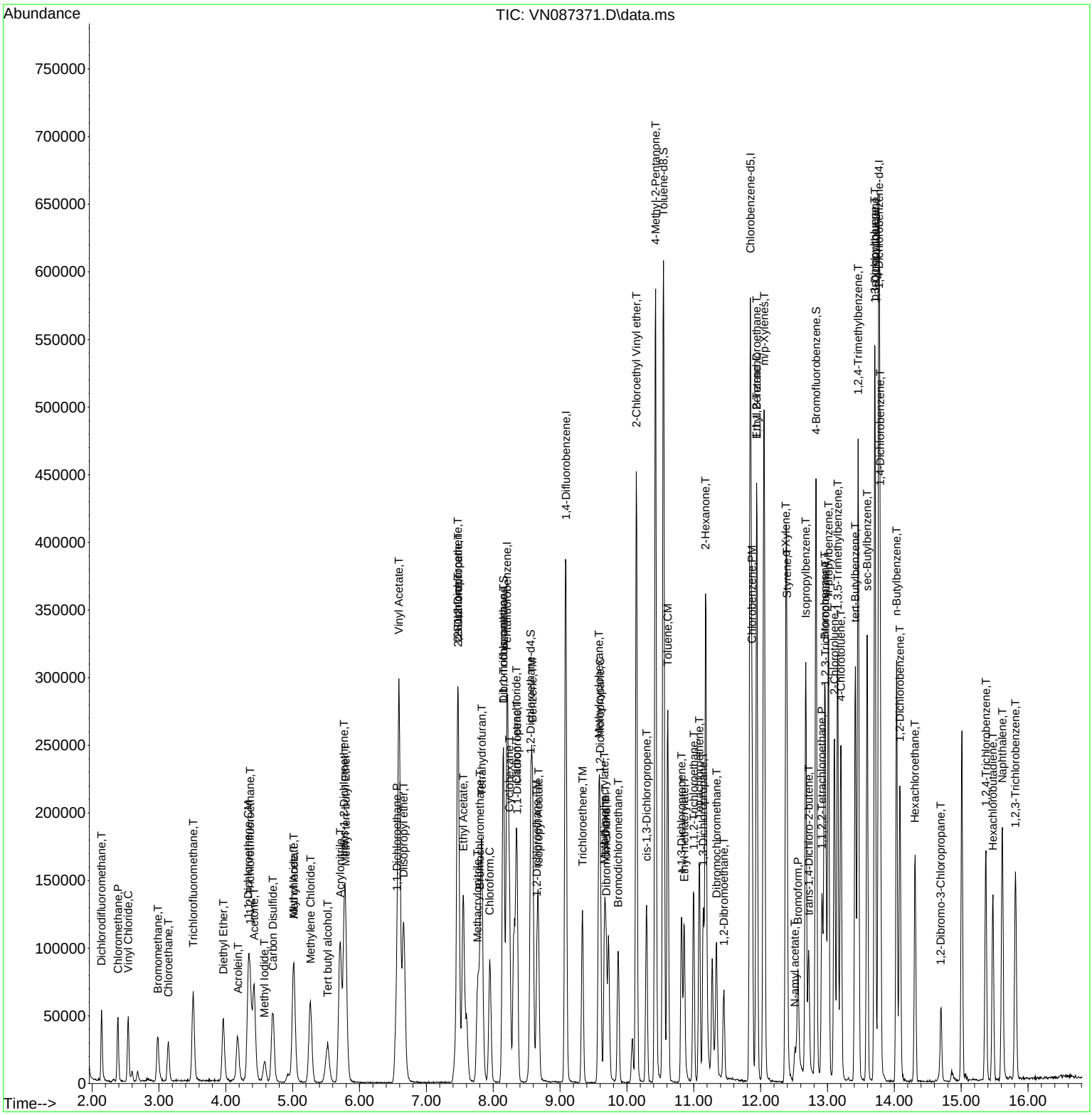
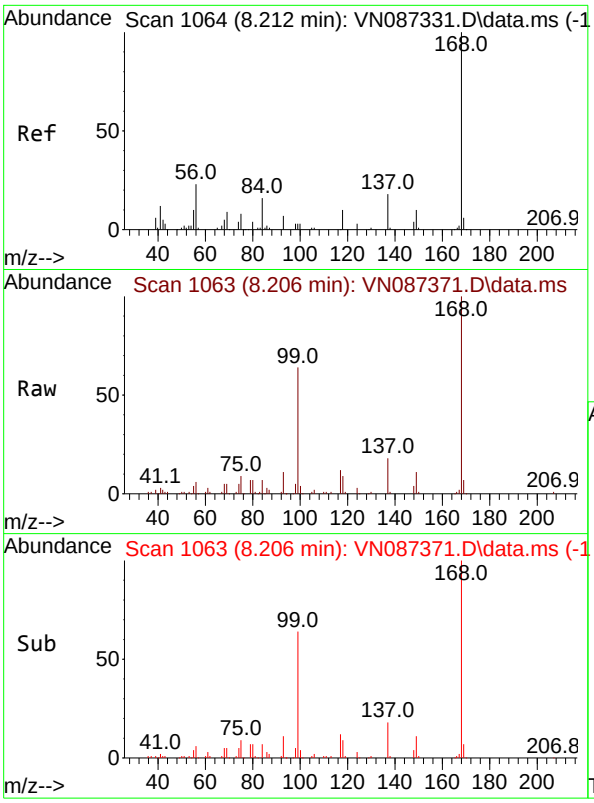
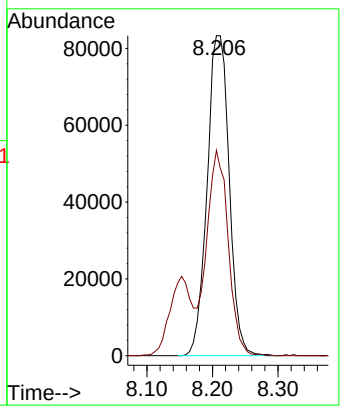




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:168 Resp: 19507

Ion	Ratio	Lower	Upper
168	100		
99	64.1	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
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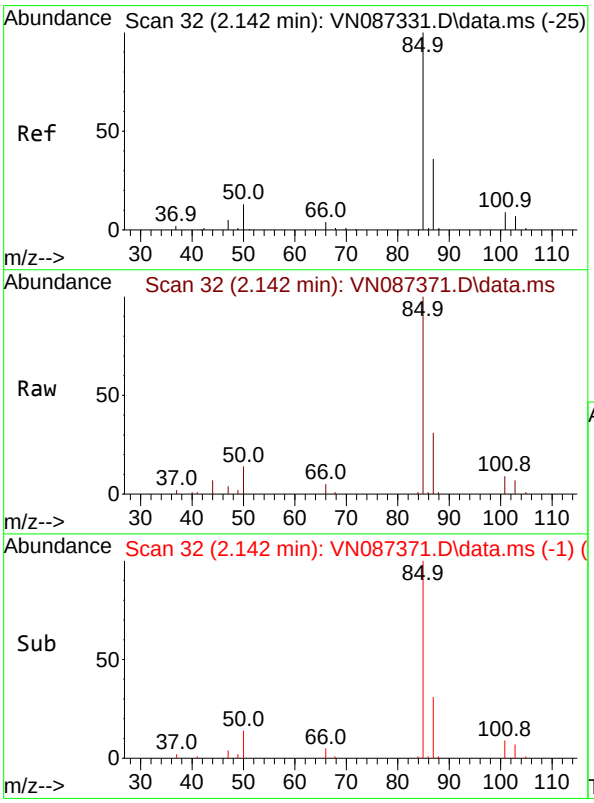
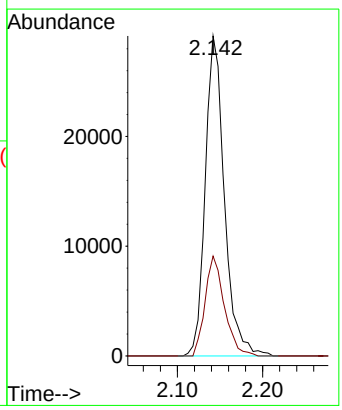
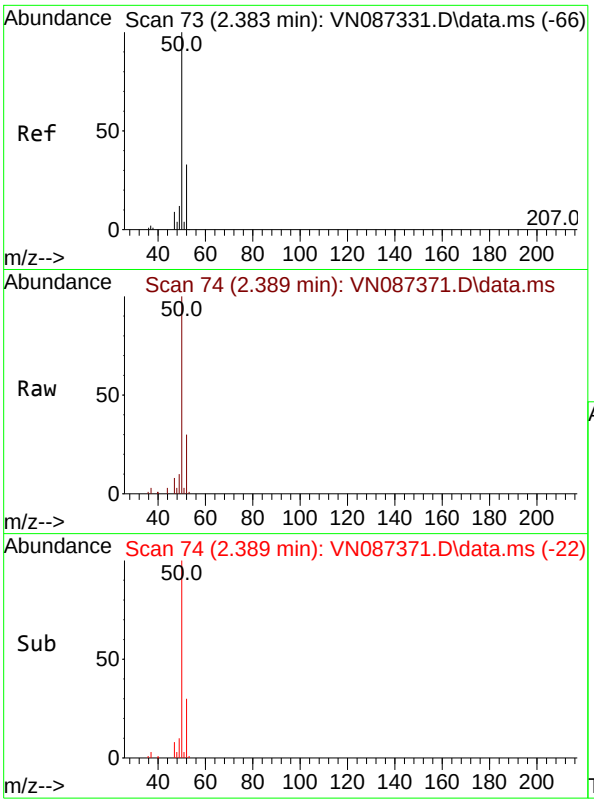


#2
Dichlorodifluoromethane
Concen: 21.949 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 85 Resp: 45478

Ion	Ratio	Lower	Upper
85	100		
87	31.2	17.8	53.3

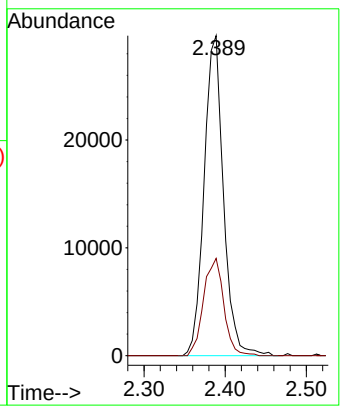




#3
Chloromethane
Concen: 18.828 ug/l
RT: 2.389 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 50 Resp: 4905

Ion	Ratio	Lower	Upper
50	100		
52	30.4	26.3	39.5



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations
APPROVED

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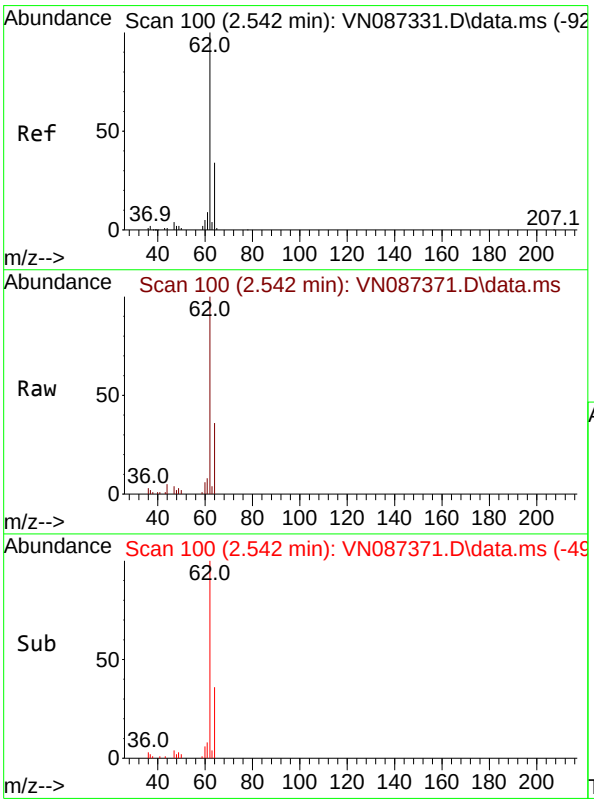
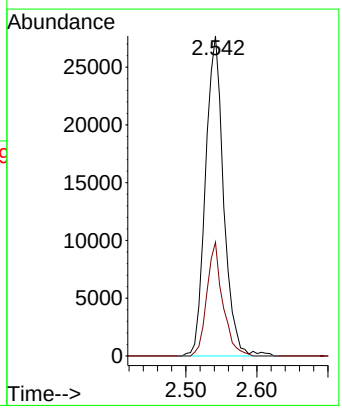
Supervised By :Mahesh Dadoda 07/22/2025

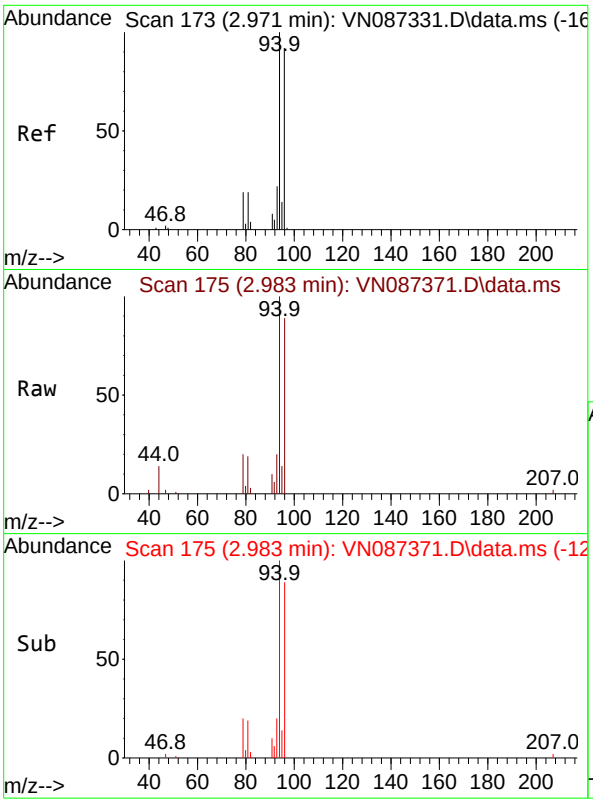


#4
Vinyl Chloride
Concen: 18.988 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 62 Resp: 49167

Ion	Ratio	Lower	Upper
62	100		
64	35.5	27.0	40.6

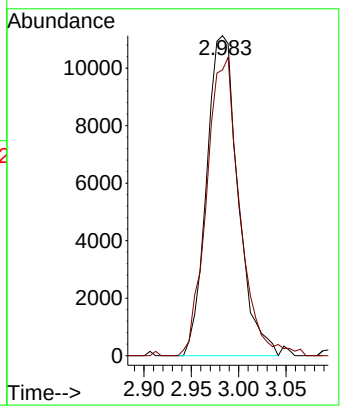




#5
Bromomethane
Concen: 19.187 ug/l
RT: 2.983 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 94 Resp: 2572

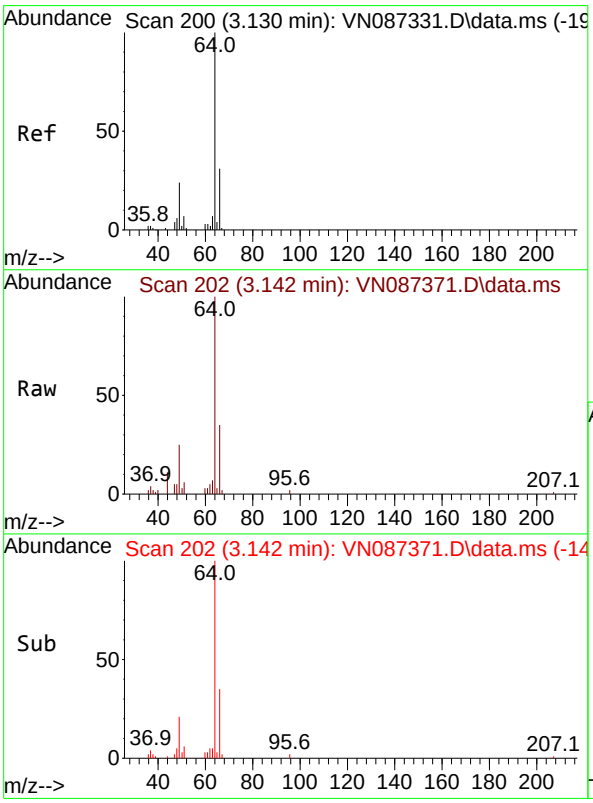
Ion	Ratio	Lower	Upper
94	100		
96	89.3	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

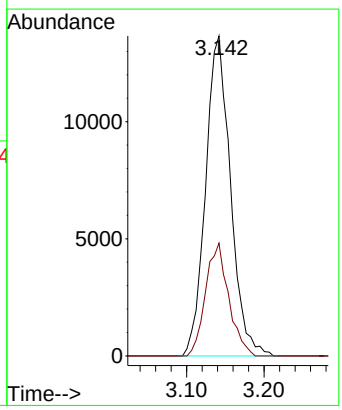
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

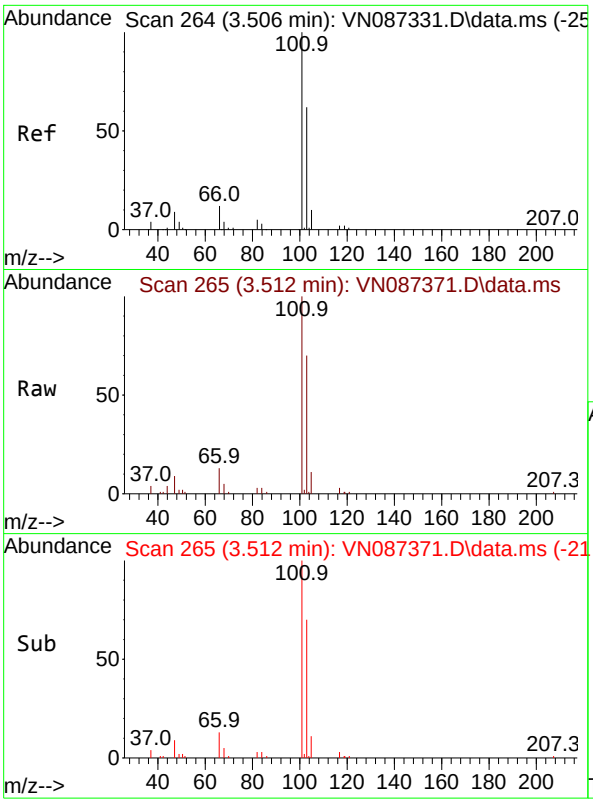


#6
Chloroethane
Concen: 18.063 ug/l
RT: 3.142 min Scan# 202
Delta R.T. 0.012 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 64 Resp: 30502

Ion	Ratio	Lower	Upper
64	100		
66	35.3	24.6	36.8

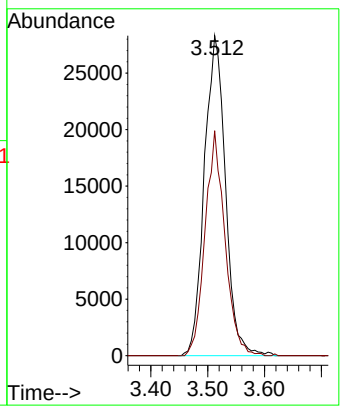




#7
Trichlorofluoromethane
Concen: 19.089 ug/l
RT: 3.512 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:101 Resp: 7308

Ion	Ratio	Lower	Upper
101	100		
103	70.3	49.8	74.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

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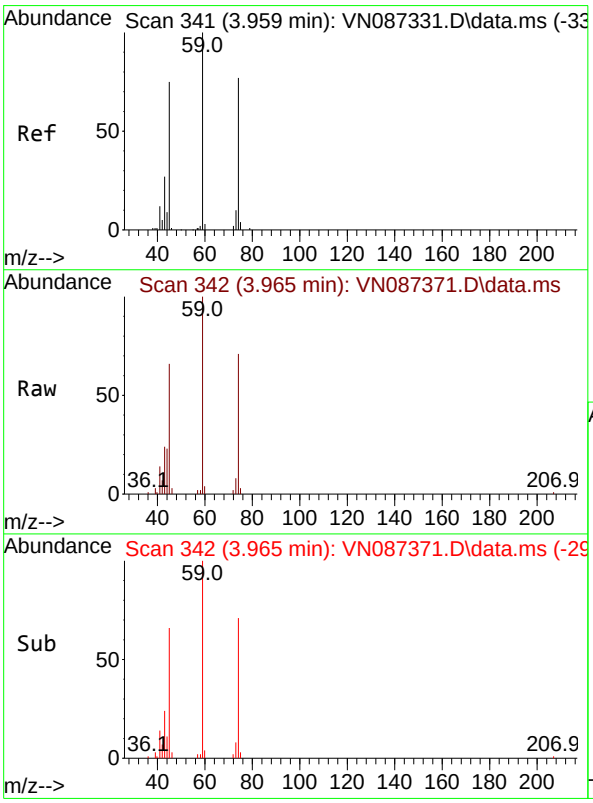
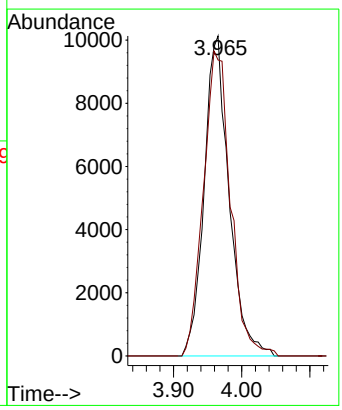
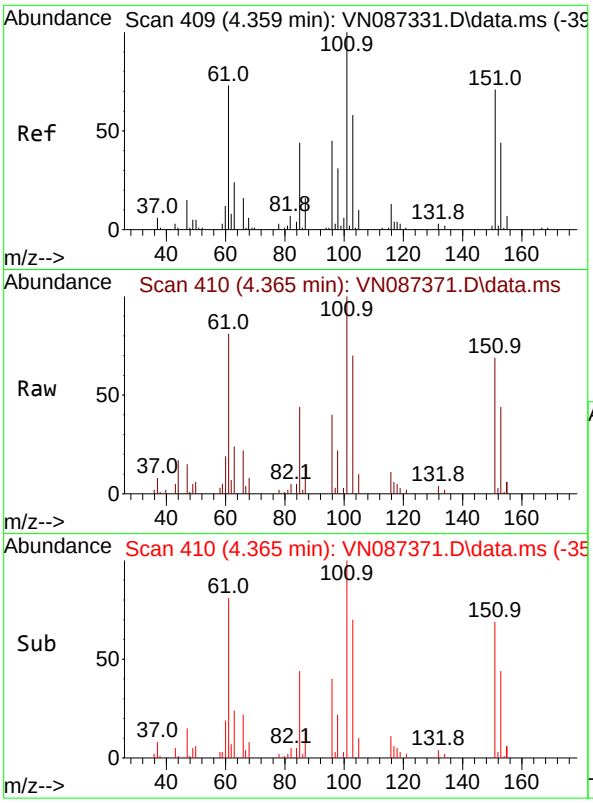


#8
Diethyl Ether
Concen: 17.392 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 74 Resp: 25832

Ion	Ratio	Lower	Upper
74	100		
45	103.4	50.8	152.5

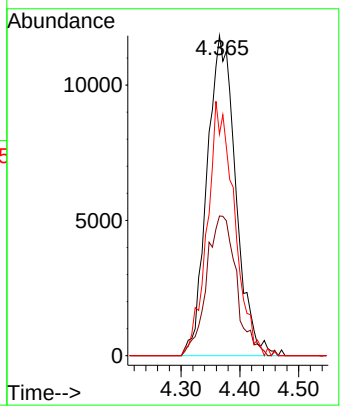




#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.375 ug/l
RT: 4.365 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:101 Resp: 4004

Ion	Ratio	Lower	Upper
101	100		
85	45.4	37.3	55.9
151	74.8	58.9	88.3



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations
APPROVED

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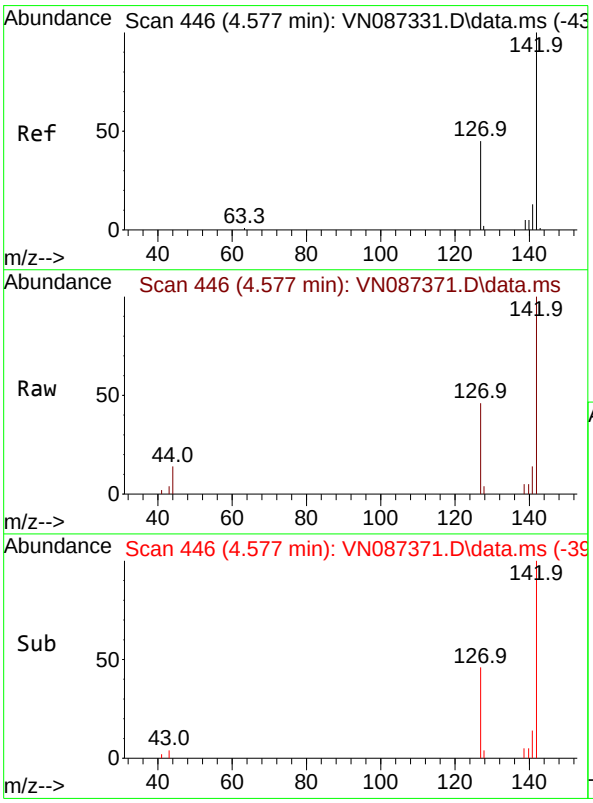
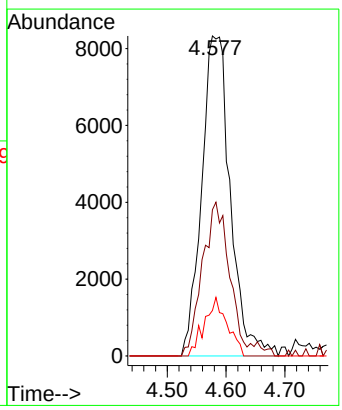
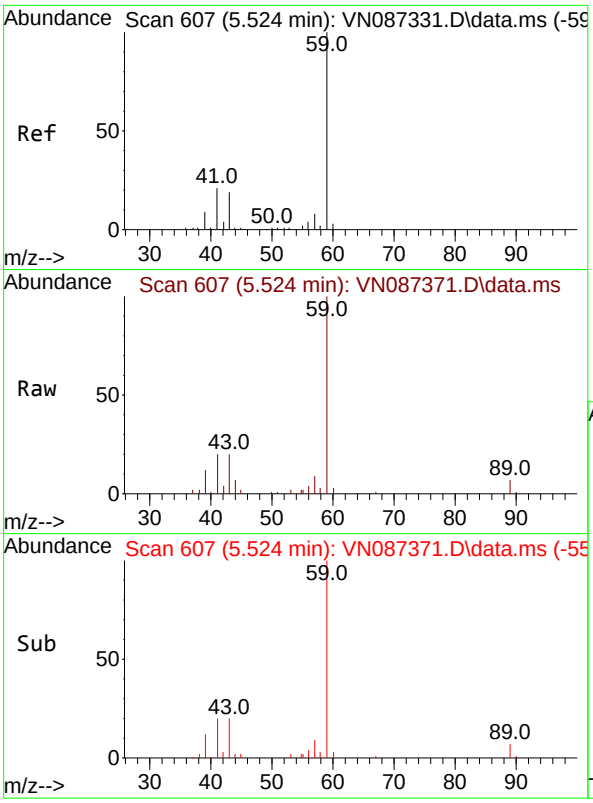


#10
Methyl Iodide
Concen: 18.006 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:142 Resp: 28199

Ion	Ratio	Lower	Upper
142	100		
127	45.7	35.7	53.5
141	14.2	10.4	15.6

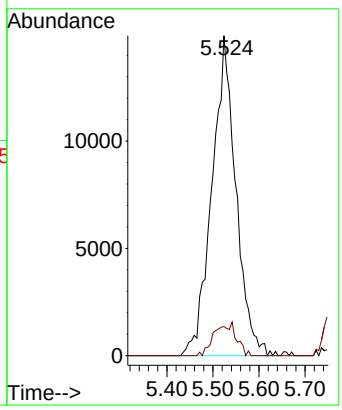




#11
Tert butyl alcohol
Concen: 85.841 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 59 Resp: 5395

Ion	Ratio	Lower	Upper
59	100		
57	9.5	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations
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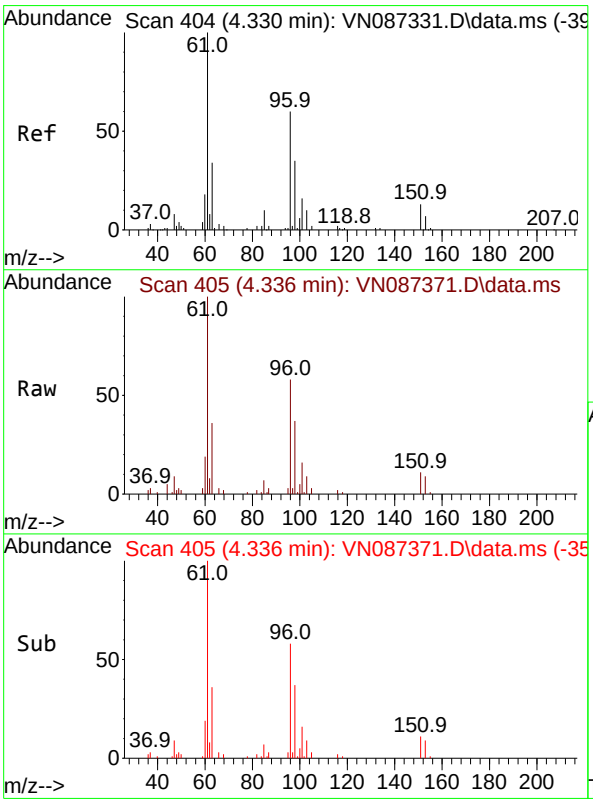
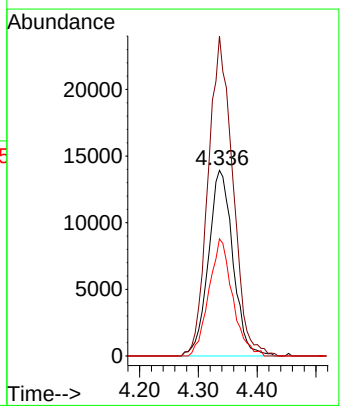
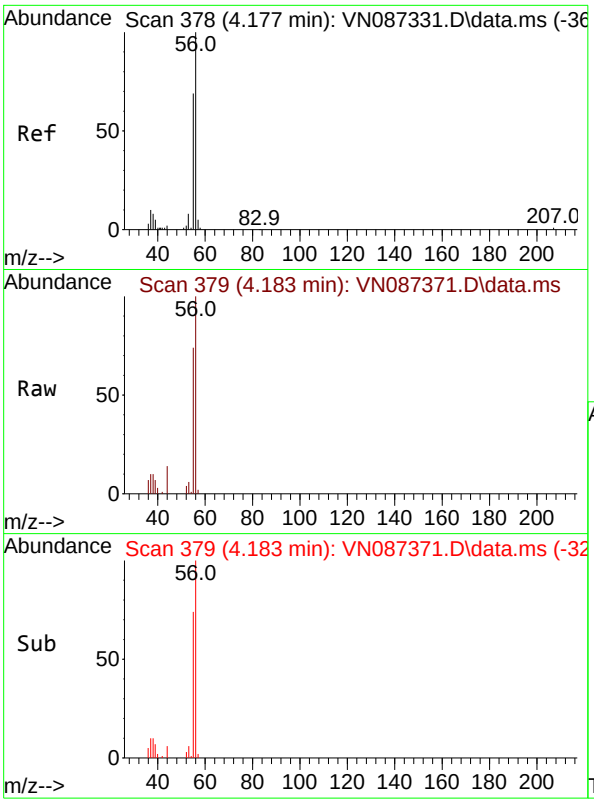


#12
1,1-Dichloroethene
Concen: 18.095 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 96 Resp: 40303

Ion	Ratio	Lower	Upper
96	100		
61	172.4	132.3	198.5
98	63.1	46.8	70.2

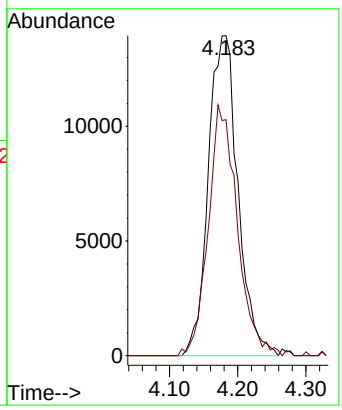




#13
Acrolein
Concen: 83.649 ug/l
RT: 4.183 min Scan# 3
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 56 Resp: 4219

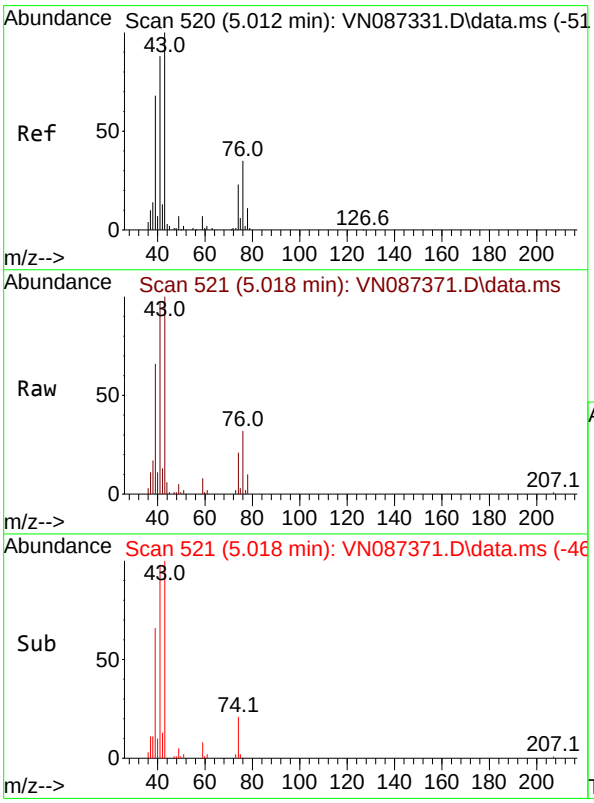
Ion	Ratio	Lower	Upper
56	100		
55	76.4	56.2	84.4



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations
APPROVED

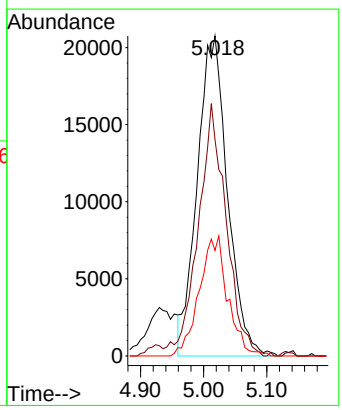
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

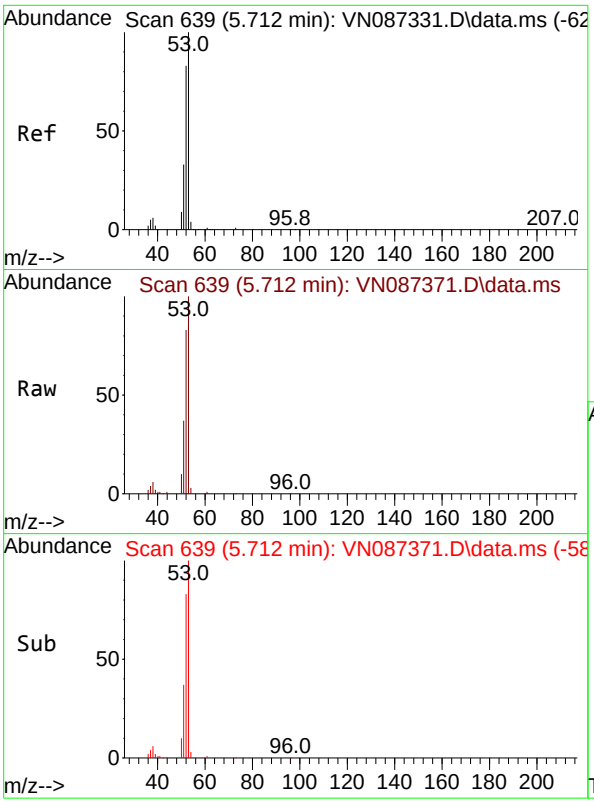


#14
Allyl chloride
Concen: 17.157 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 41 Resp: 69156

Ion	Ratio	Lower	Upper
41	100		
39	72.7	59.0	88.6
76	35.2	28.7	43.1

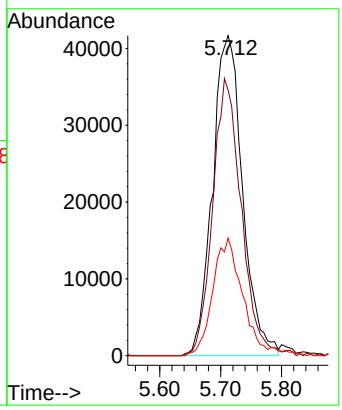




#15
Acrylonitrile
Concen: 83.743 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 53 Resp: 14282

Ion	Ratio	Lower	Upper
53	100		
52	82.5	65.5	98.3
51	36.9	28.7	43.1



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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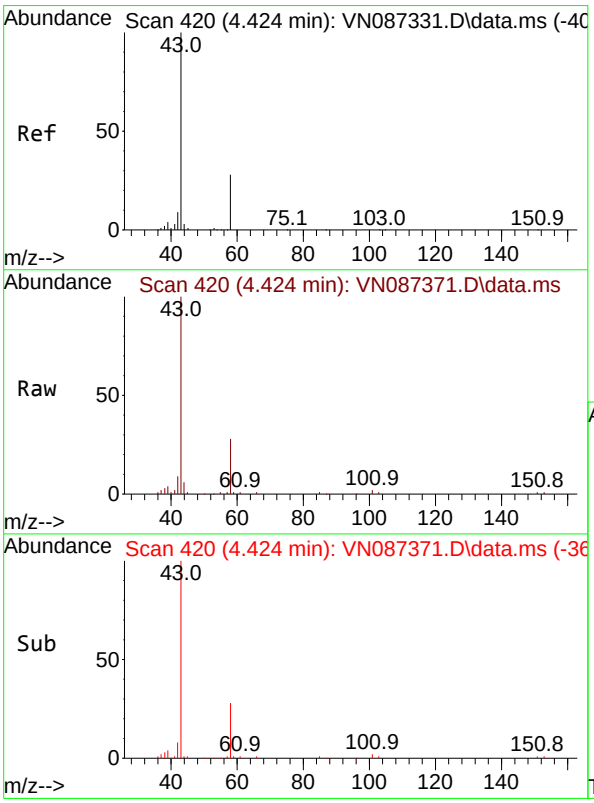
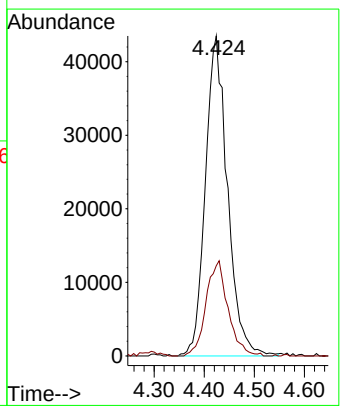
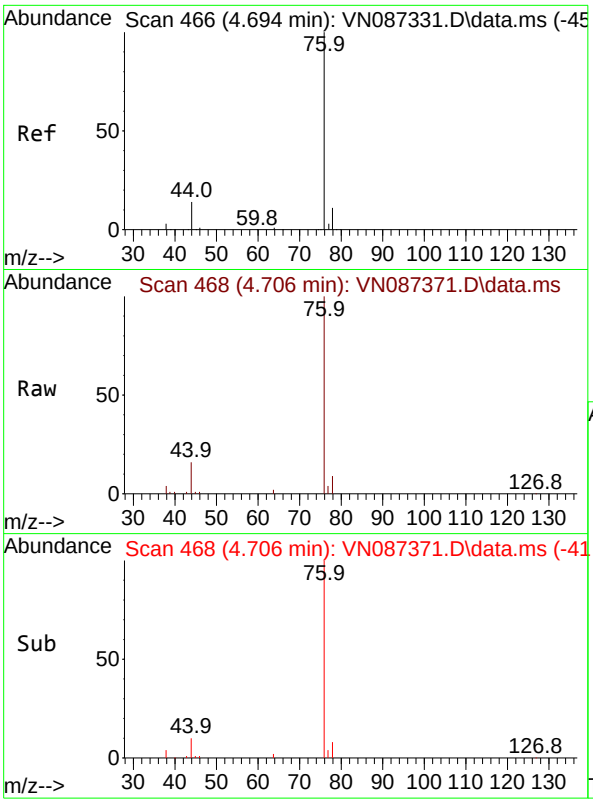


#16
Acetone
Concen: 85.801 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 133162

Ion	Ratio	Lower	Upper
43	100		
58	28.2	22.3	33.5

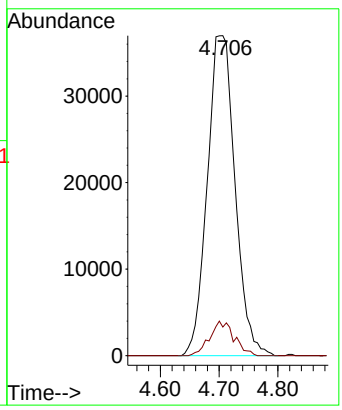




#17
Carbon Disulfide
Concen: 18.416 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.012 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 76 Resp: 12161

Ion	Ratio	Lower	Upper
76	100		
78	9.0	8.6	13.0



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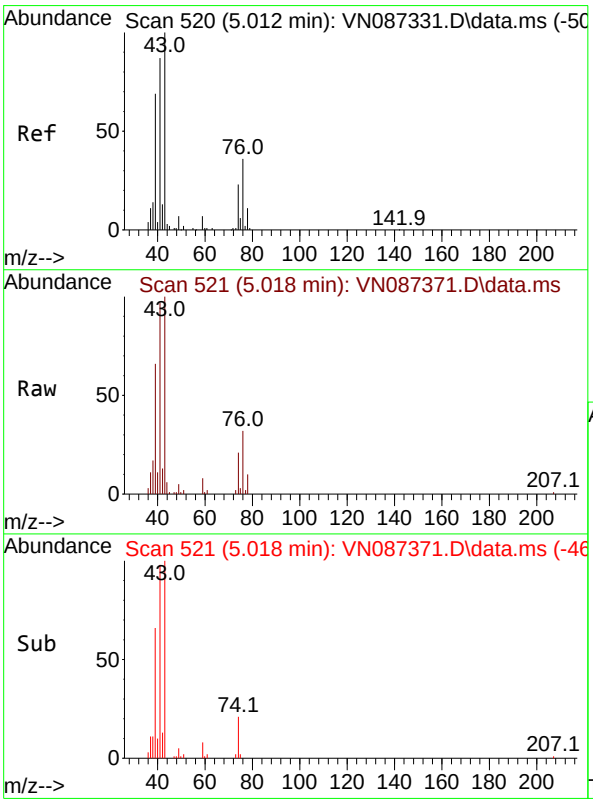
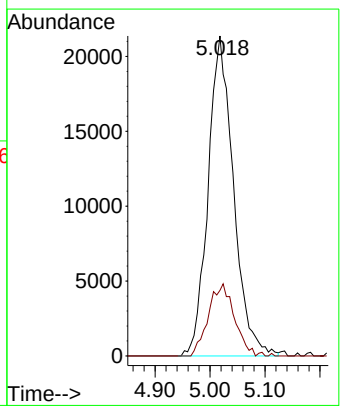
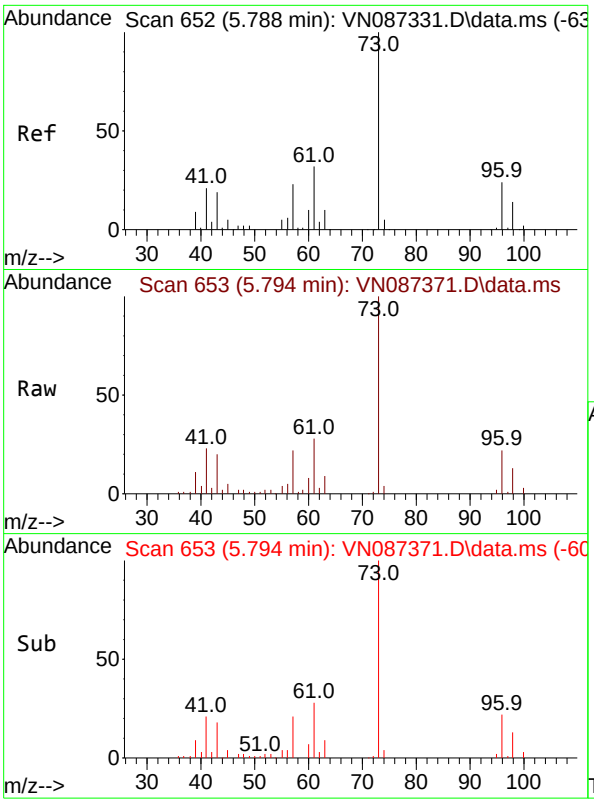


#18
Methyl Acetate
Concen: 17.607 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 68652

Ion	Ratio	Lower	Upper
43	100		
74	23.1	17.8	26.6

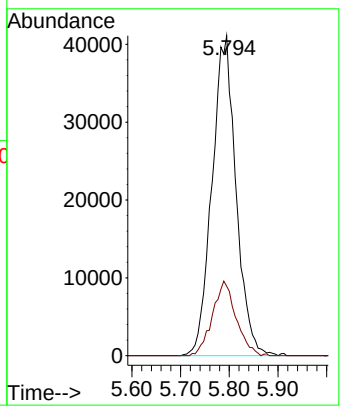




#19
Methyl tert-butyl Ether
Concen: 17.162 ug/l
RT: 5.794 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 73 Resp: 14089

Ion	Ratio	Lower	Upper
73	100		
57	21.7	18.6	27.8



Instrument :
MSVOA_N
ClientSampleId :
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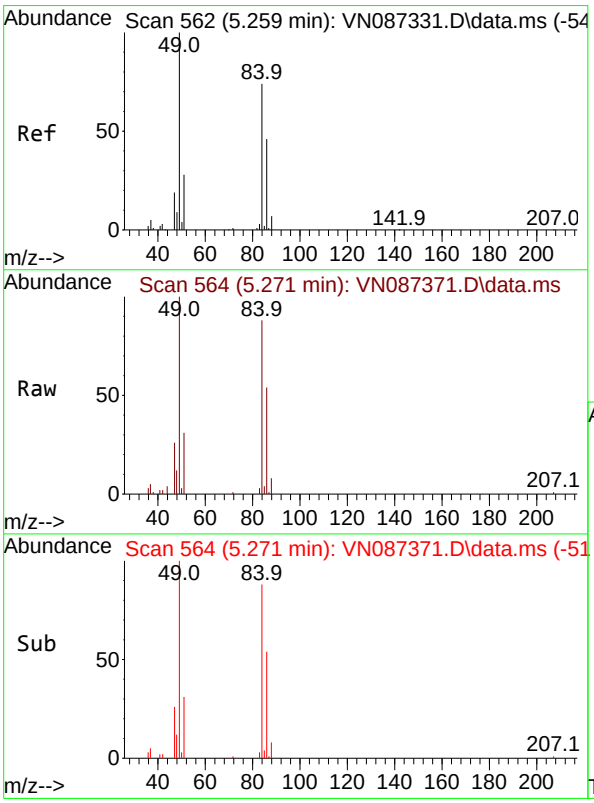
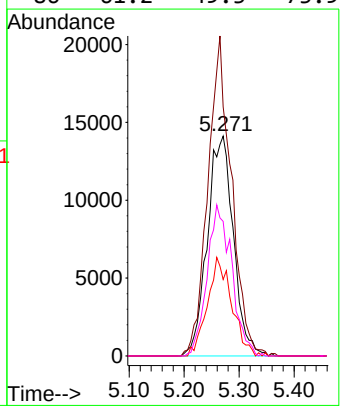
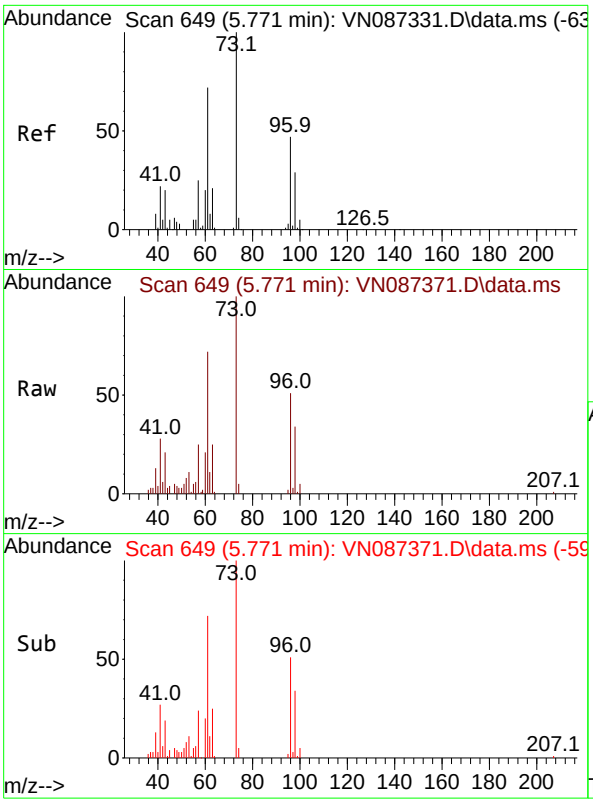


#20
Methylene Chloride
Concen: 17.327 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.012 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 84 Resp: 46556

Ion	Ratio	Lower	Upper
84	100		
49	113.4	107.5	161.3
51	34.8	30.2	45.2
86	61.2	49.3	73.9





#21
trans-1,2-Dichloroethene
Concen: 17.750 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 96 Resp: 4457

Ion	Ratio	Lower	Upper
96	100		
61	141.8	122.0	183.0
98	67.2	50.0	75.0

Instrument :
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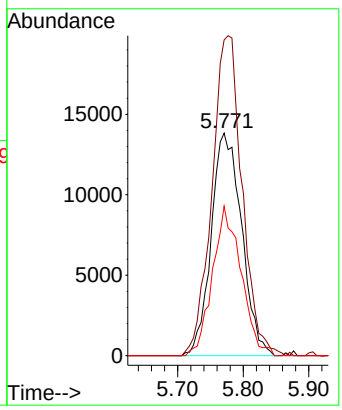
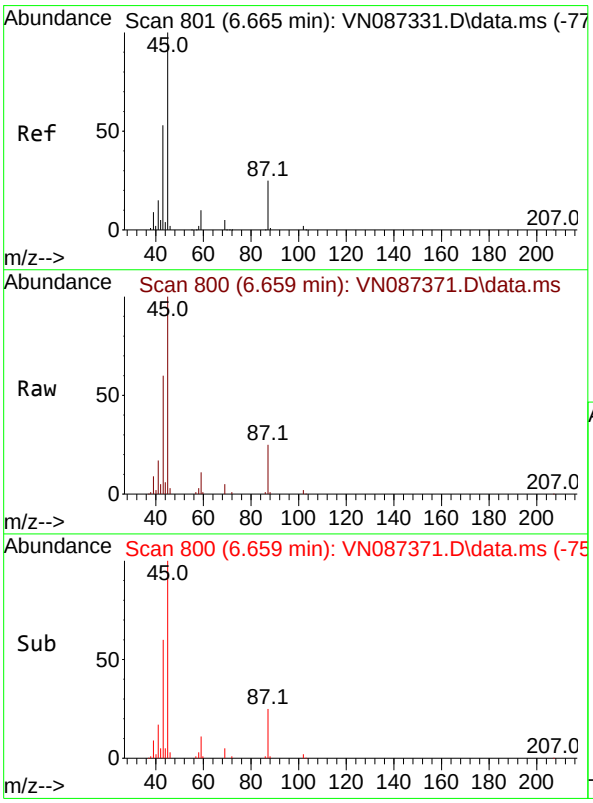
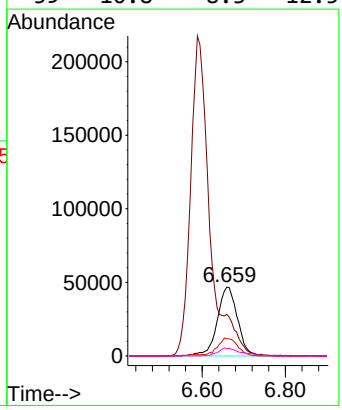


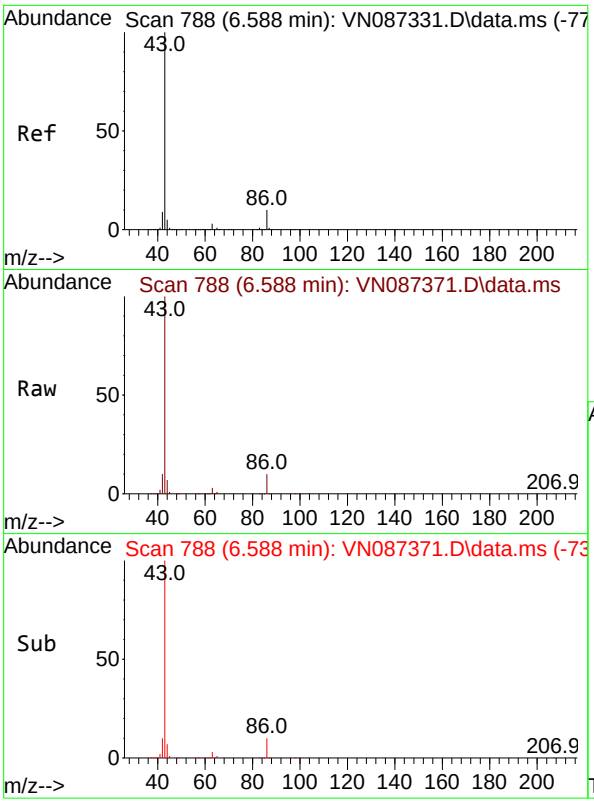


#22
Diisopropyl ether
Concen: 18.674 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 45 Resp: 157889

Ion	Ratio	Lower	Upper
45	100		
43	59.7	42.8	64.2
87	25.2	19.8	29.6
59	10.8	8.3	12.5





#23
Vinyl Acetate
Concen: 93.948 ug/l
RT: 6.588 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 69472

Ion	Ratio	Lower	Upper
43	100		
86	10.1	7.7	11.5

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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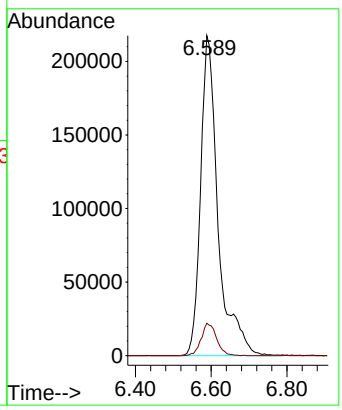
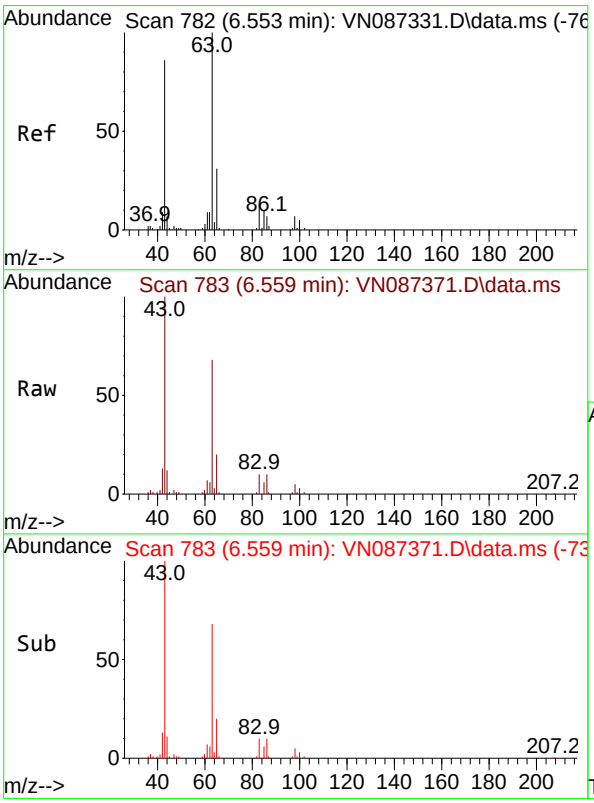
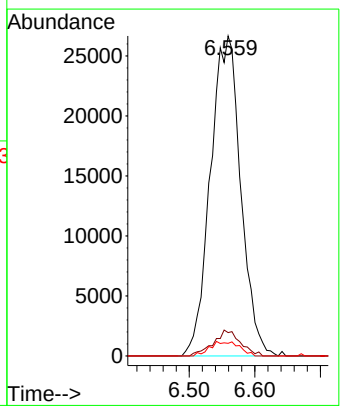


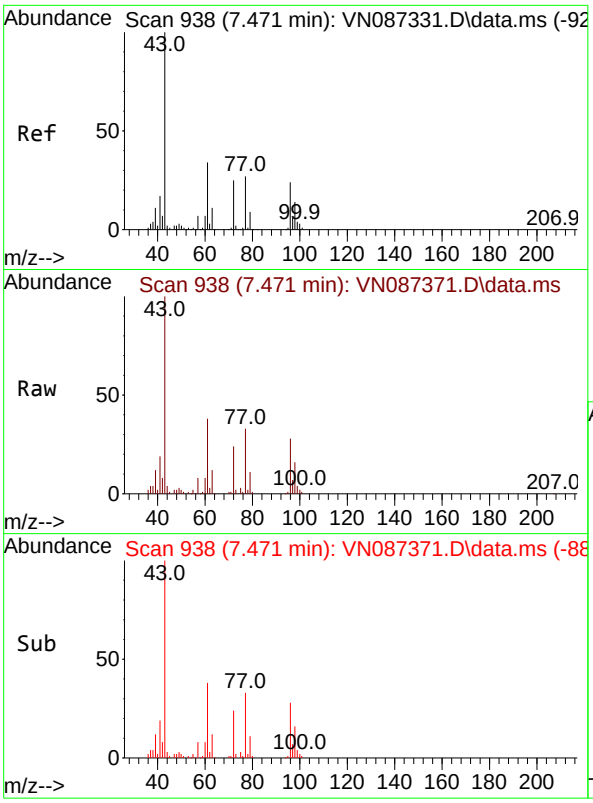


#24
1,1-Dichloroethane
Concen: 17.559 ug/l
RT: 6.559 min Scan# 783
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 63 Resp: 85653

Ion	Ratio	Lower	Upper
63	100		
98	7.3	3.3	9.9
100	4.0	2.5	7.4

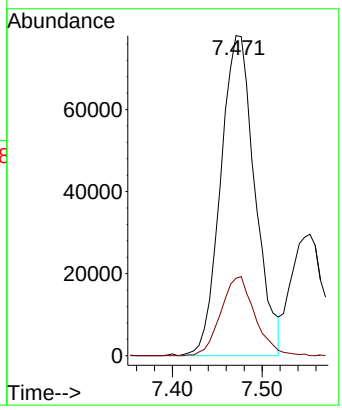




#25
2-Butanone
Concen: 86.364 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 20709

Ion	Ratio	Lower	Upper
43	100		
72	24.2	19.6	29.4



Instrument :
MSVOA_N
ClientSampleId :
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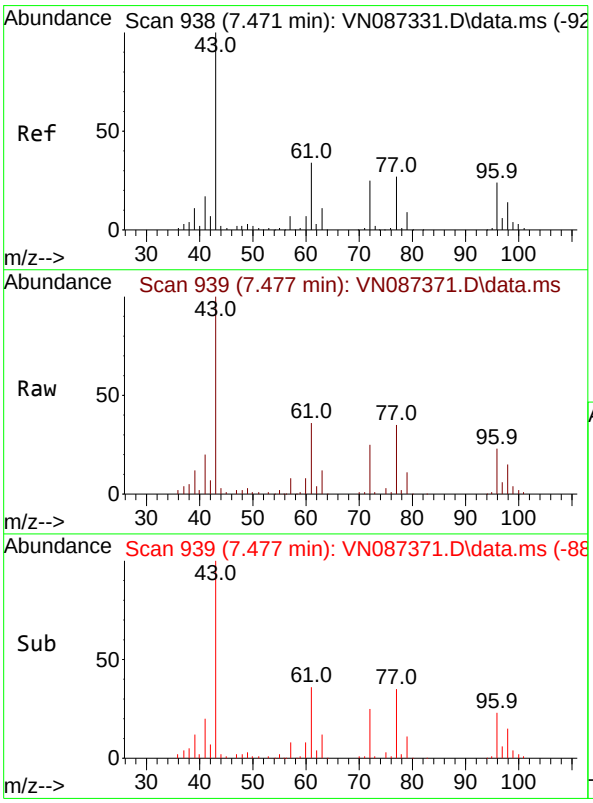
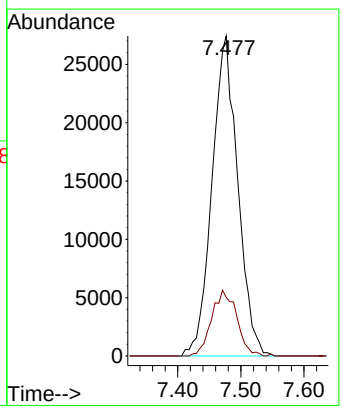
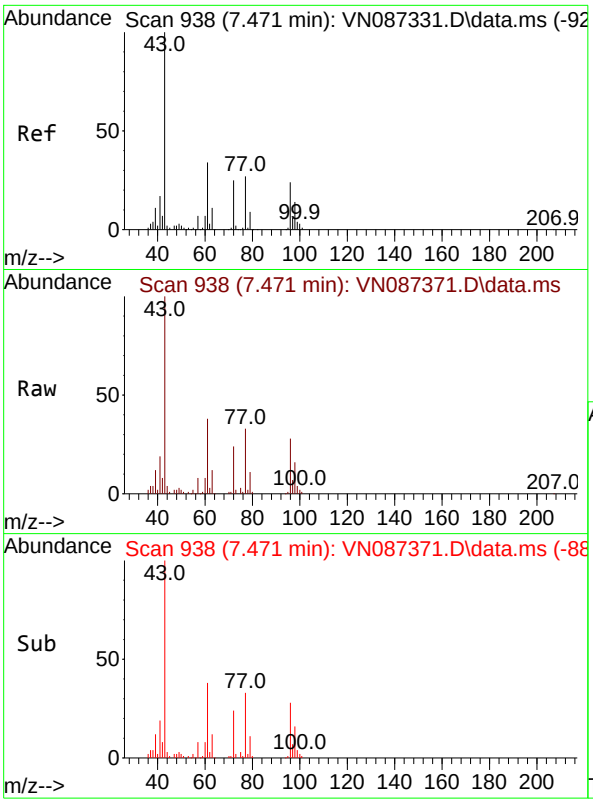


#26
2,2-Dichloropropane
Concen: 20.479 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 77 Resp: 77666

Ion	Ratio	Lower	Upper
77	100		
97	20.0	11.1	33.1

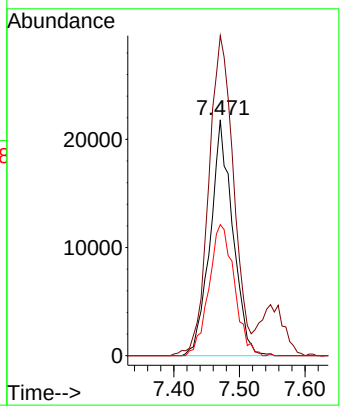




#27
cis-1,2-Dichloroethene
Concen: 17.950 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 96 Resp: 5190

Ion	Ratio	Lower	Upper
96	100		
61	149.3	0.0	297.8
98	62.5	0.0	132.4



Instrument :
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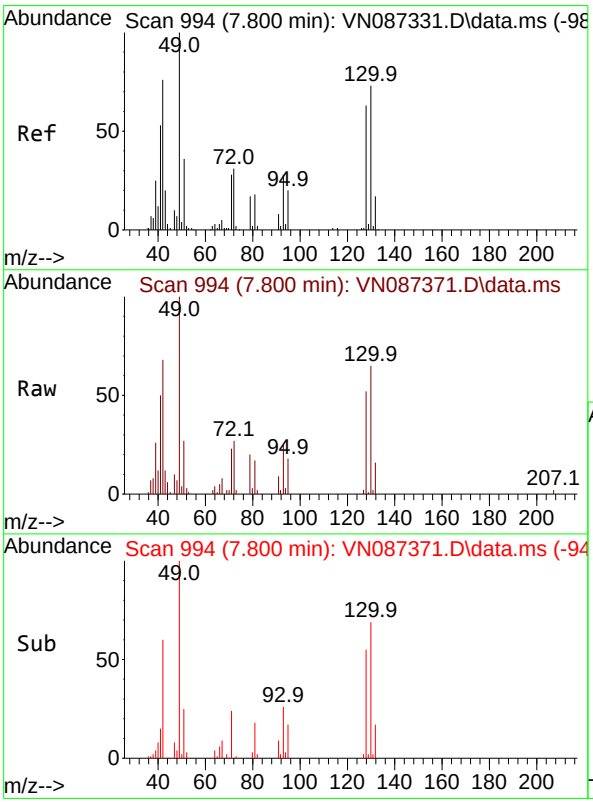
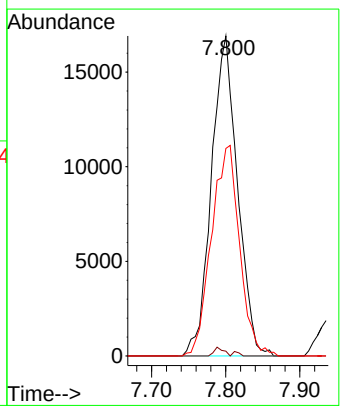
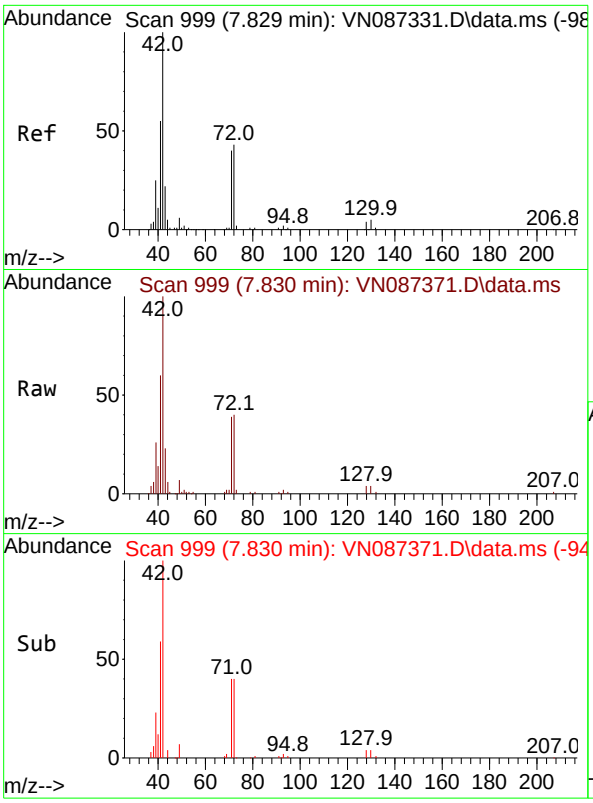


#28
Bromochloromethane
Concen: 17.751 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 49 Resp: 41440

Ion	Ratio	Lower	Upper
49	100		
129	0.3	0.0	4.2
130	70.6	57.3	85.9





#29
Tetrahydrofuran
Concen: 84.427 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 42 Resp: 13152

Ion	Ratio	Lower	Upper
42	100		
72	40.6	33.4	50.0
71	38.6	31.2	46.8

Instrument :
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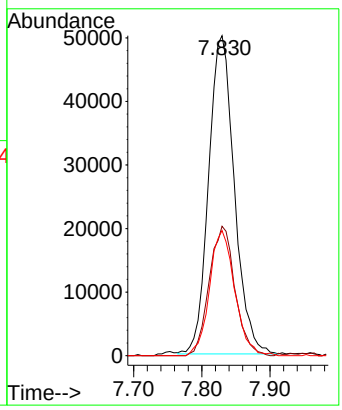
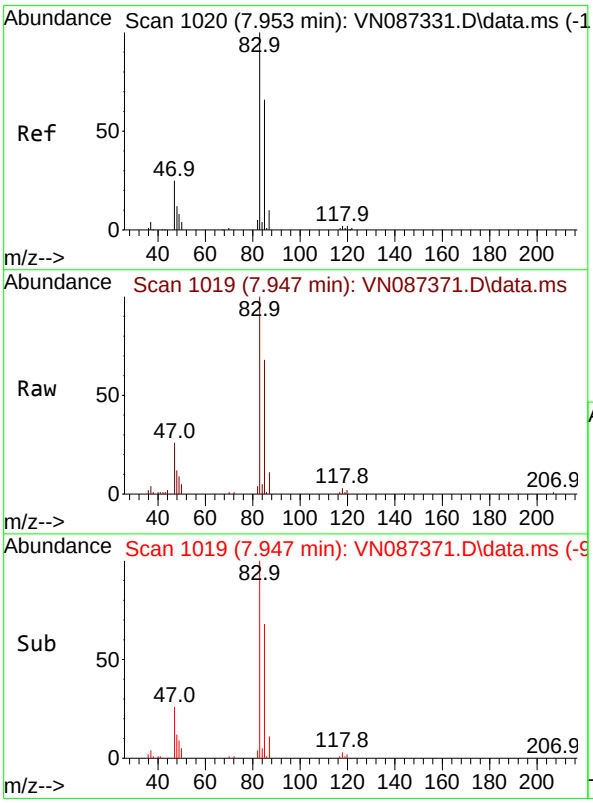
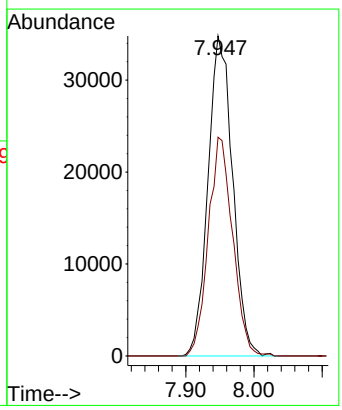


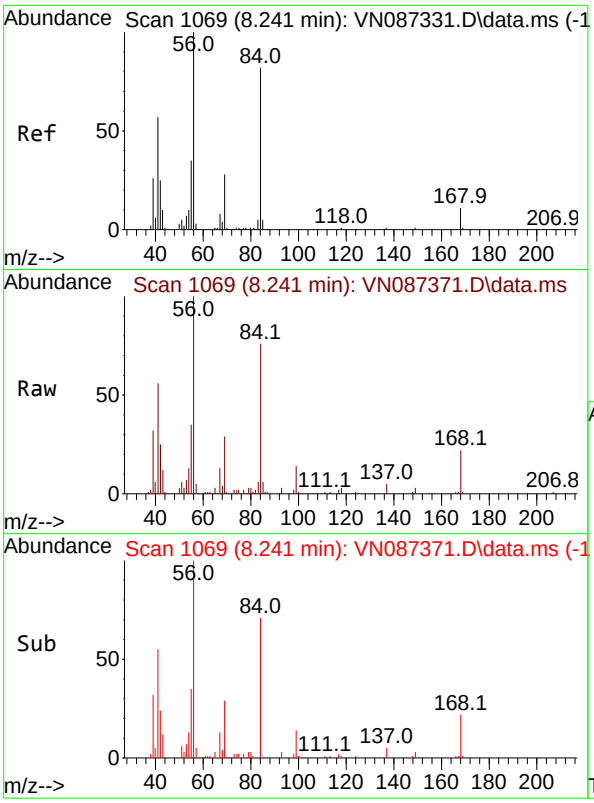


#30
Chloroform
Concen: 17.929 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 83 Resp: 87539

Ion	Ratio	Lower	Upper
83	100		
85	68.3	52.7	79.1

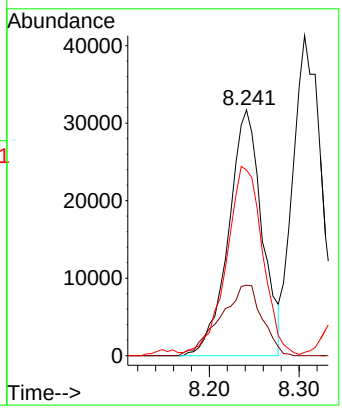




#31
Cyclohexane
Concen: 20.149 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 56 Resp: 8199

Ion	Ratio	Lower	Upper
56	100		
69	28.7	22.7	34.1
84	74.2	65.8	98.6



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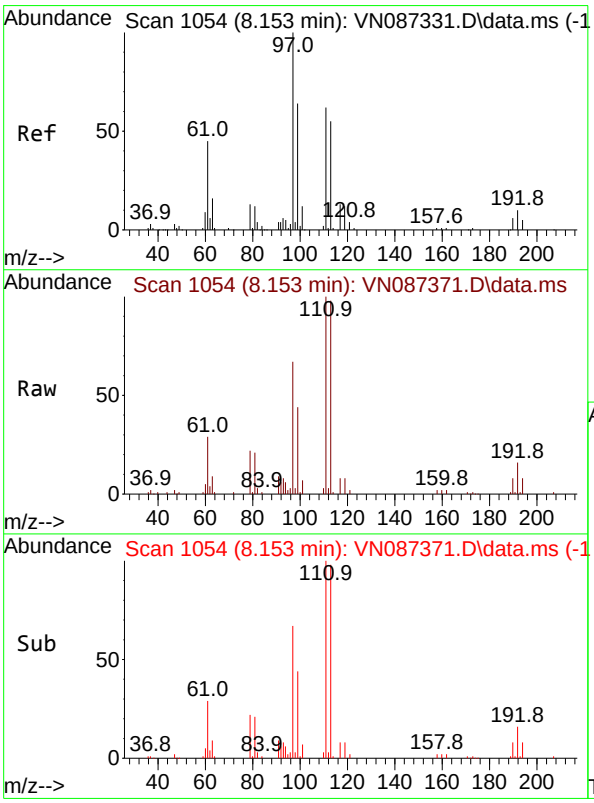
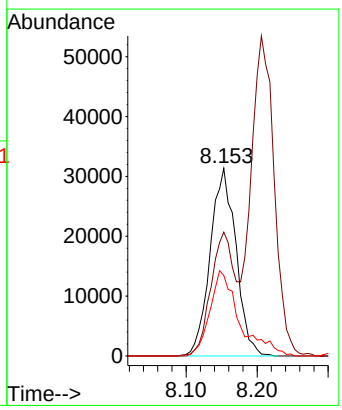
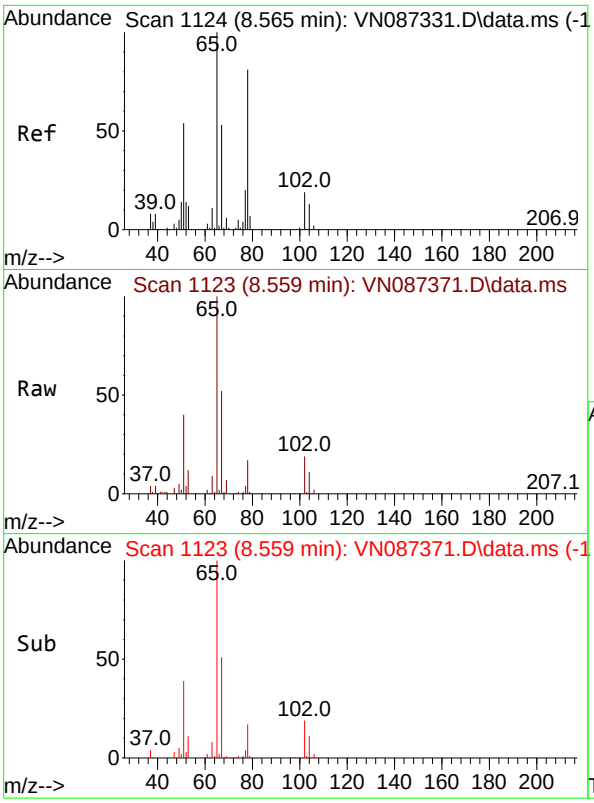


#32
1,1,1-Trichloroethane
Concen: 18.632 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 97 Resp: 78792

Ion	Ratio	Lower	Upper
97	100		
99	63.9	51.8	77.8
61	52.4	38.7	58.1

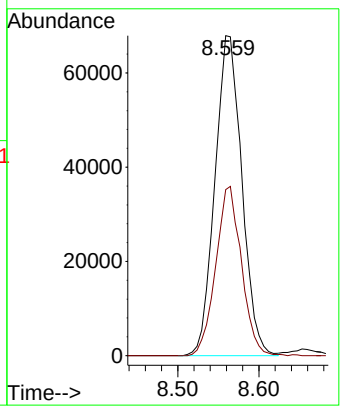




#33
1,2-Dichloroethane-d4
Concen: 47.315 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 65 Resp: 15661

Ion	Ratio	Lower	Upper
65	100		
67	50.5	0.0	104.0



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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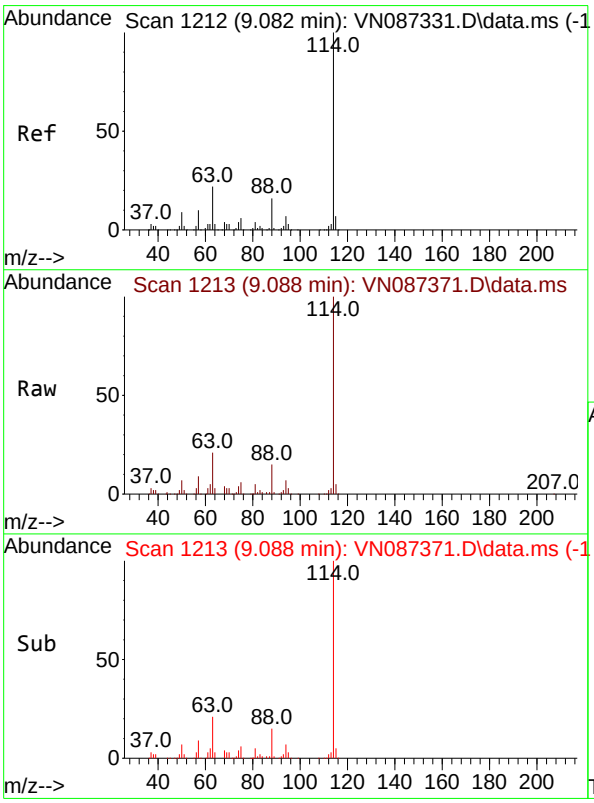
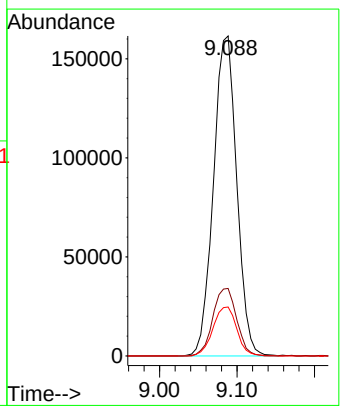
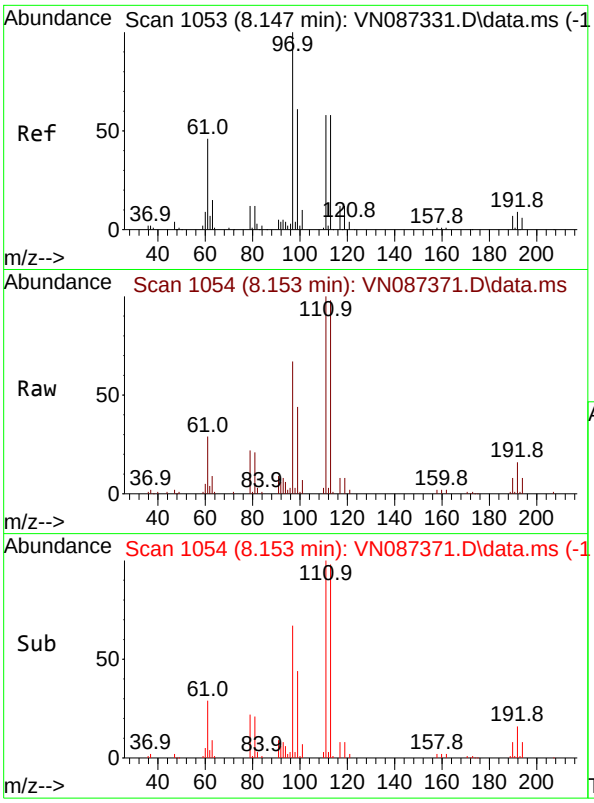


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.088 min Scan# 1213
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:114 Resp: 337215

Ion	Ratio	Lower	Upper
114	100		
63	21.1	0.0	44.6
88	15.3	0.0	32.8

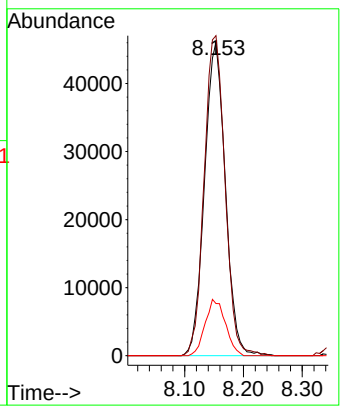




#35
Dibromofluoromethane
Concen: 48.815 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:113 Resp: 11354

Ion	Ratio	Lower	Upper
113	100		
111	101.9	82.5	123.7
192	17.5	13.7	20.5



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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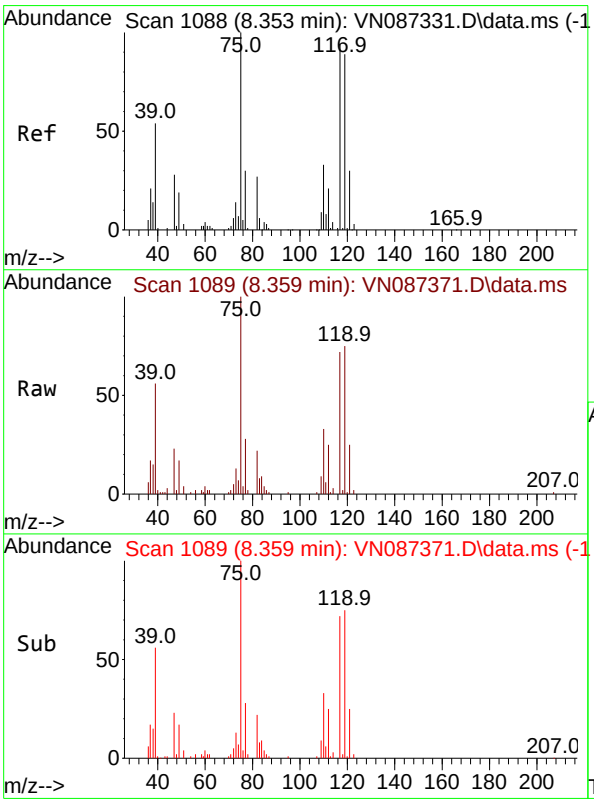
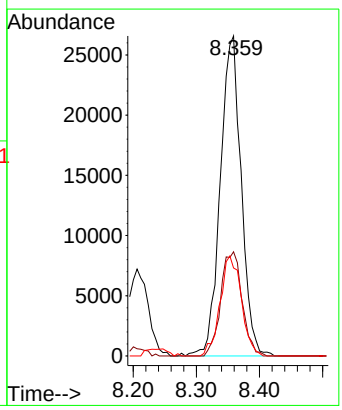
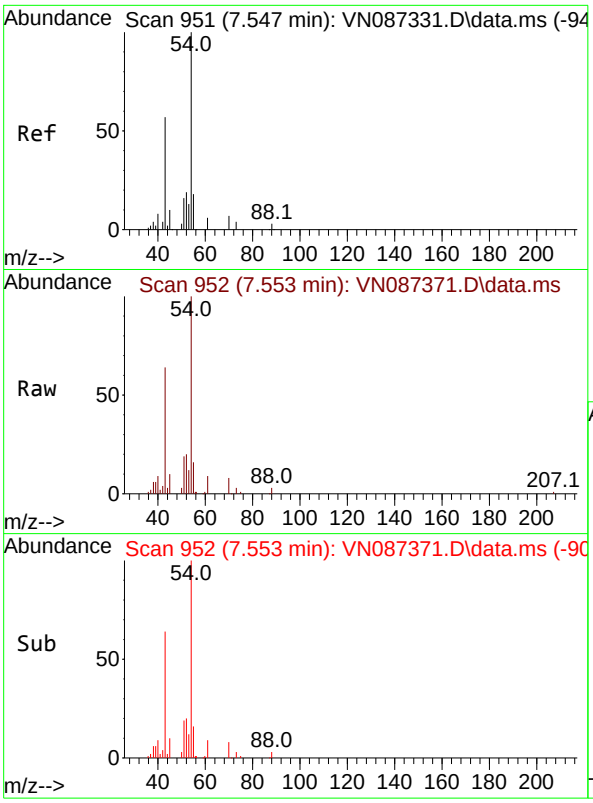


#36
1,1-Dichloropropene
Concen: 19.935 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 75 Resp: 61263

Ion	Ratio	Lower	Upper
75	100		
110	33.2	16.7	50.1
77	31.6	25.2	37.8

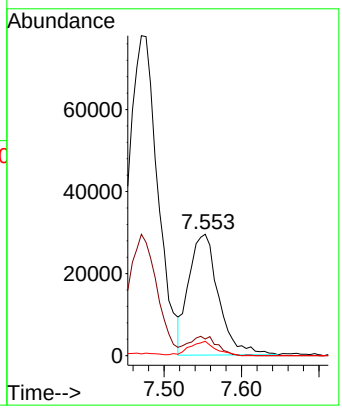




#37
Ethyl Acetate
Concen: 17.696 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 7854

Ion	Ratio	Lower	Upper
43	100		
61	15.5	10.9	16.3
70	10.5	7.4	11.0



Instrument :
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ClientSampleId :
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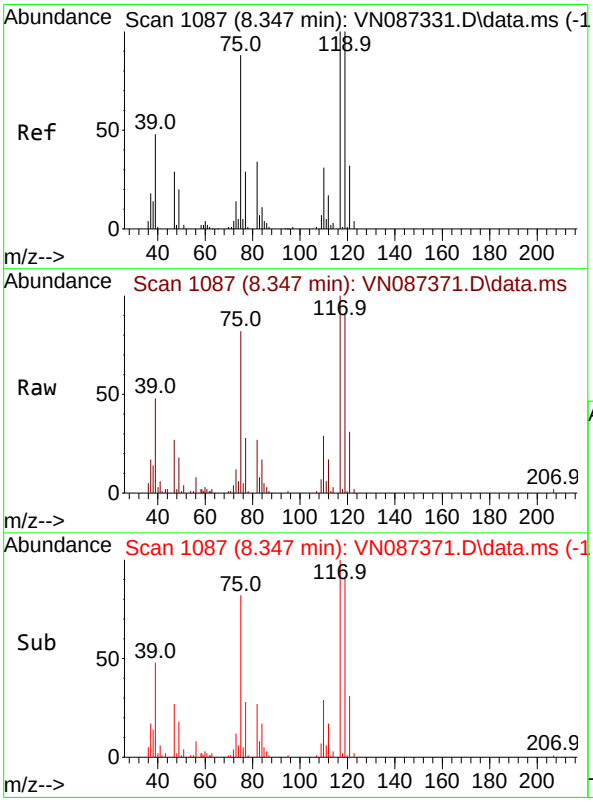
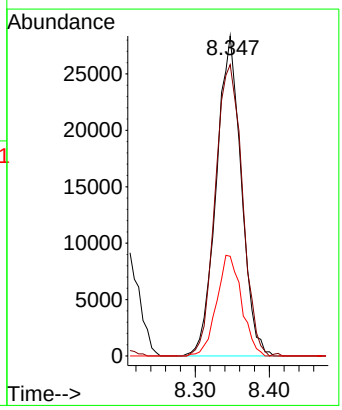
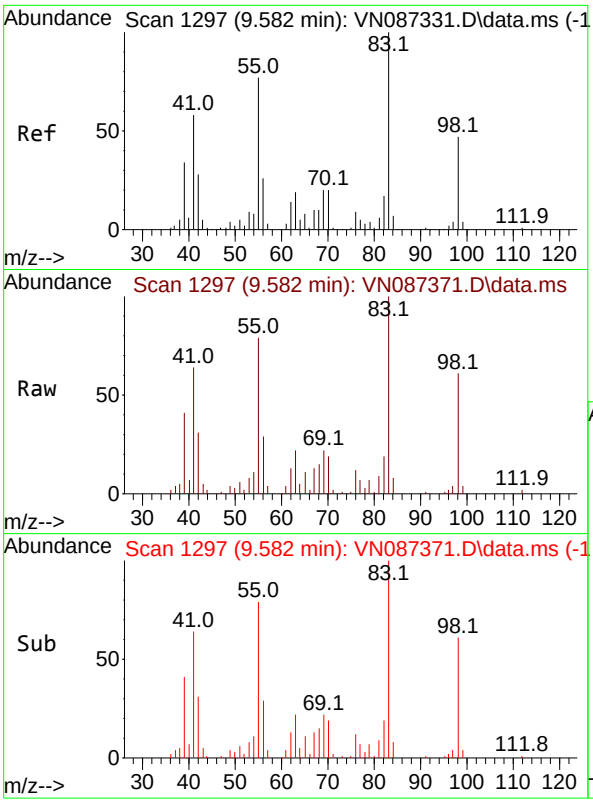


#38
Carbon Tetrachloride
Concen: 19.583 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:117 Resp: 66297

Ion	Ratio	Lower	Upper
117	100		
119	91.0	80.2	120.2
121	31.1	25.4	38.2

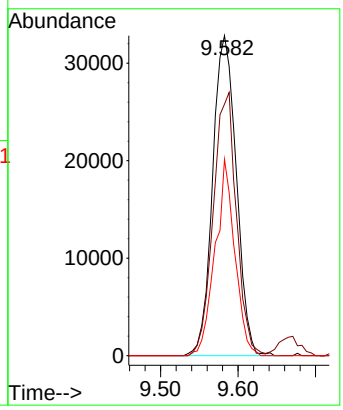




#39
Methylcyclohexane
Concen: 20.933 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 83 Resp: 6964

Ion	Ratio	Lower	Upper
83	100		
55	78.6	61.3	91.9
98	61.4	37.9	56.9



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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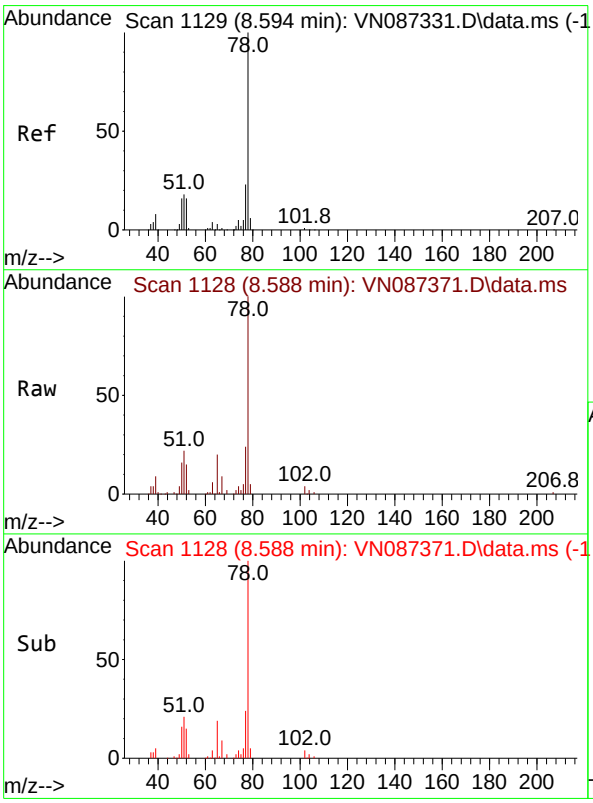
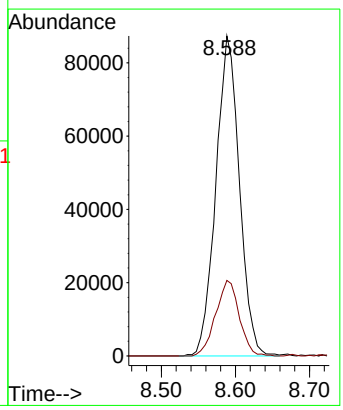
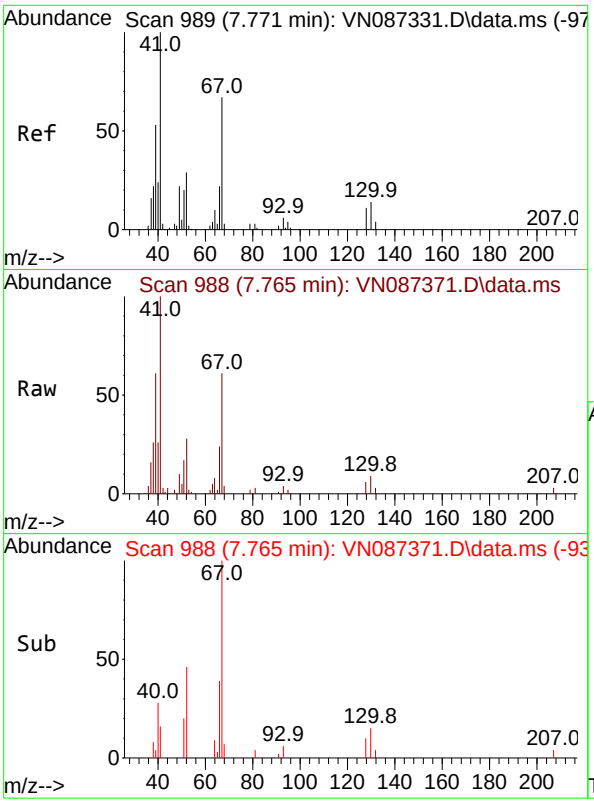


#40
Benzene
Concen: 19.379 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 78 Resp: 192485

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.2	27.2

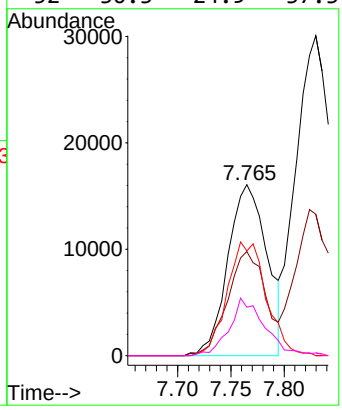




#41
Methacrylonitrile
Concen: 17.784 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 41 Resp: 4127

Ion	Ratio	Lower	Upper
41	100		
39	59.2	43.4	65.0
67	66.4	55.1	82.7
52	30.3	24.9	37.3



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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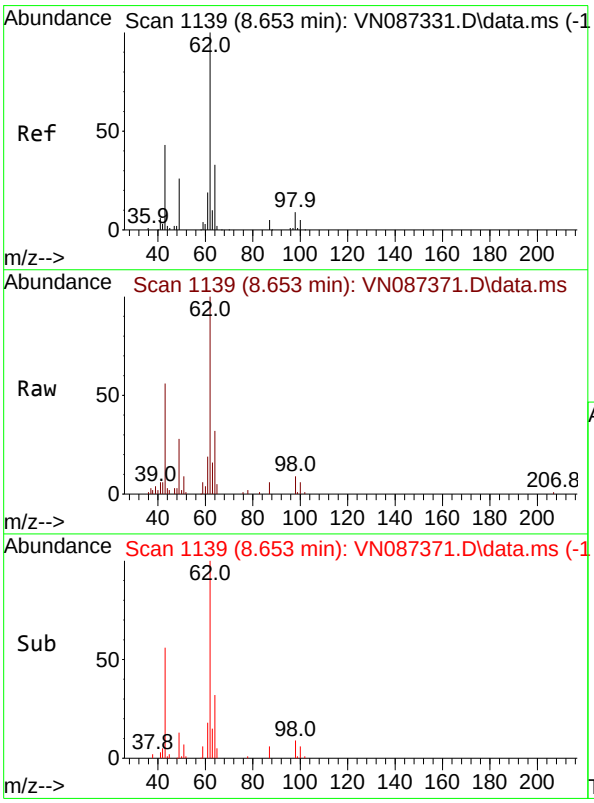
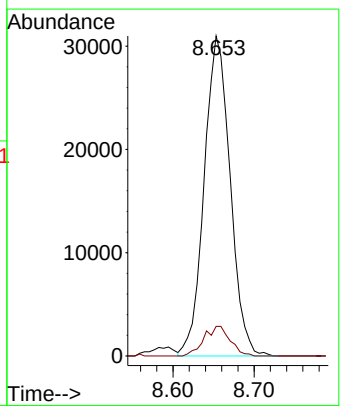
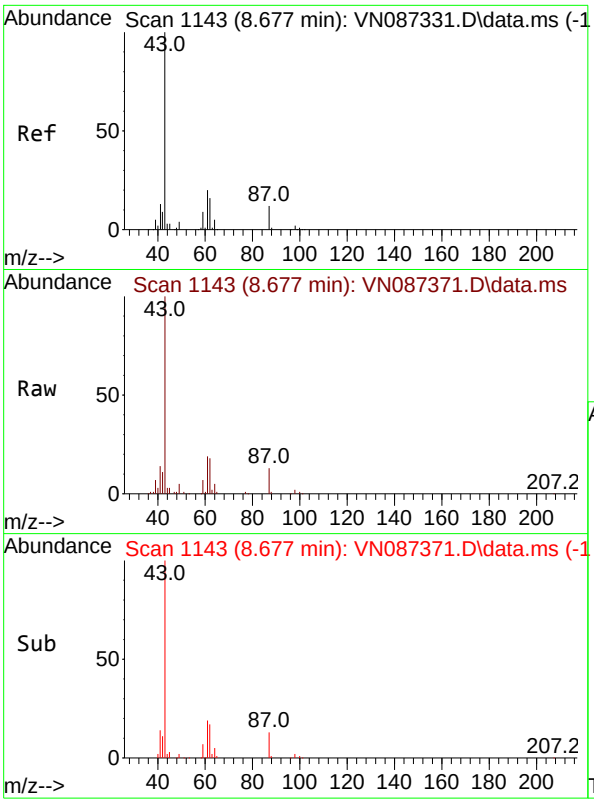


#42
1,2-Dichloroethane
Concen: 18.301 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 62 Resp: 68935

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	18.0

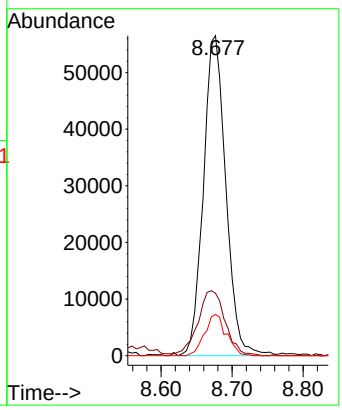




#43
Isopropyl Acetate
Concen: 18.053 ug/l
RT: 8.677 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 12438

Ion	Ratio	Lower	Upper
43	100		
61	24.7	19.8	29.8
87	12.5	9.8	14.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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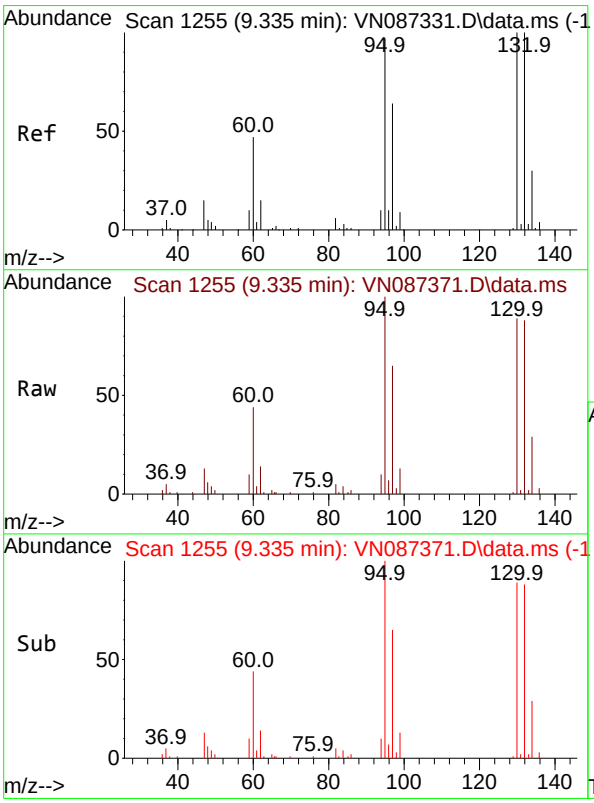
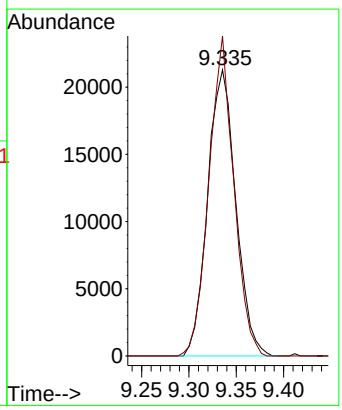
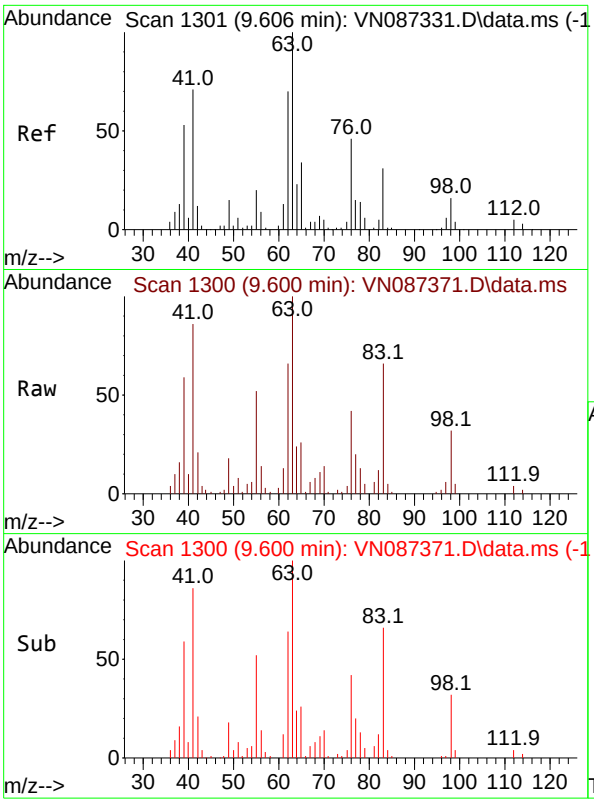


#44
Trichloroethene
Concen: 18.776 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:130 Resp: 44065

Ion	Ratio	Lower	Upper
130	100		
95	111.8	0.0	195.2

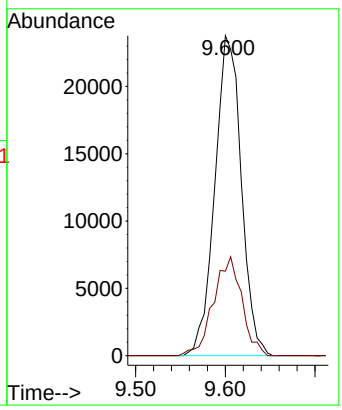




#45
1,2-Dichloropropane
Concen: 19.258 ug/l
RT: 9.600 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 63 Resp: 4860

Ion	Ratio	Lower	Upper
63	100		
65	26.4	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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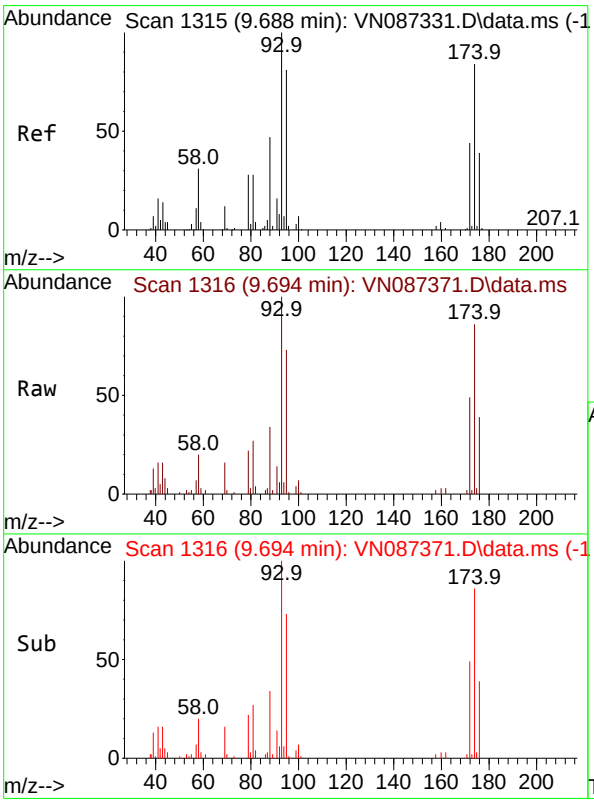
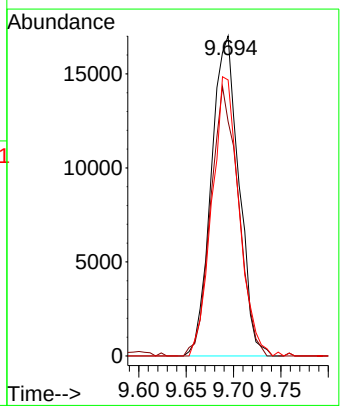
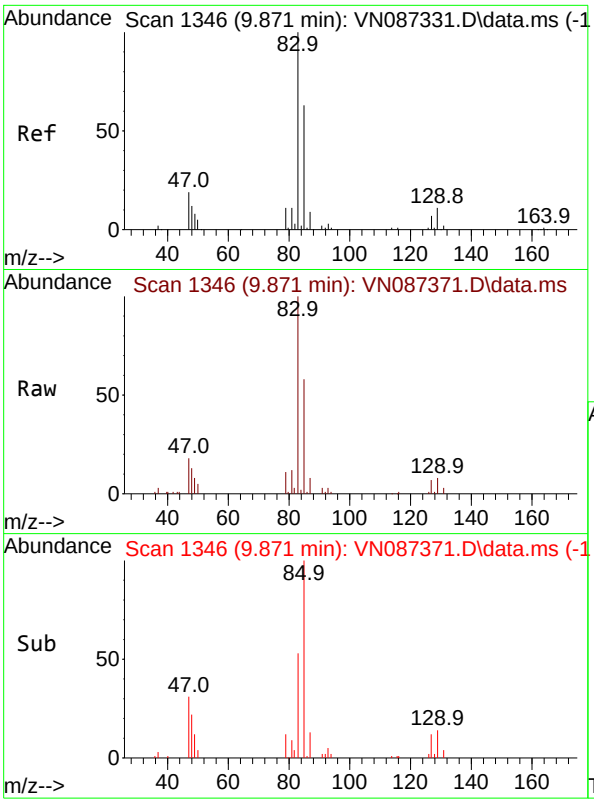


#46
Dibromomethane
Concen: 18.314 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 93 Resp: 34607

Ion	Ratio	Lower	Upper
93	100		
95	84.1	65.8	98.8
174	85.7	69.9	104.9

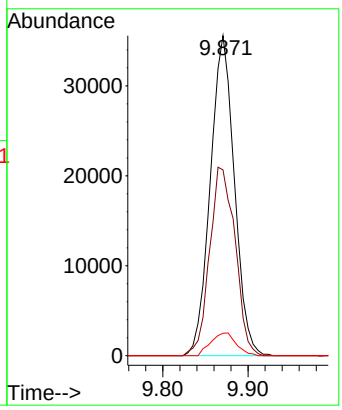




#47
Bromodichloromethane
Concen: 18.326 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 83 Resp: 6975

Ion	Ratio	Lower	Upper
83	100		
85	58.0	50.4	75.6
127	7.0	5.8	8.8



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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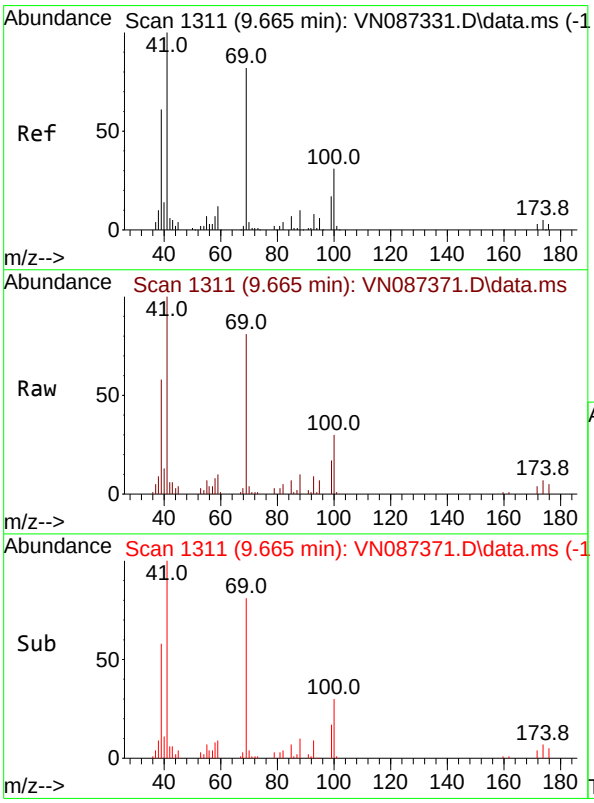
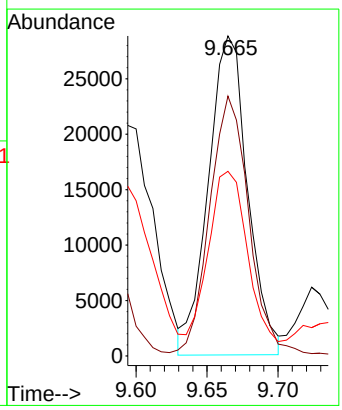
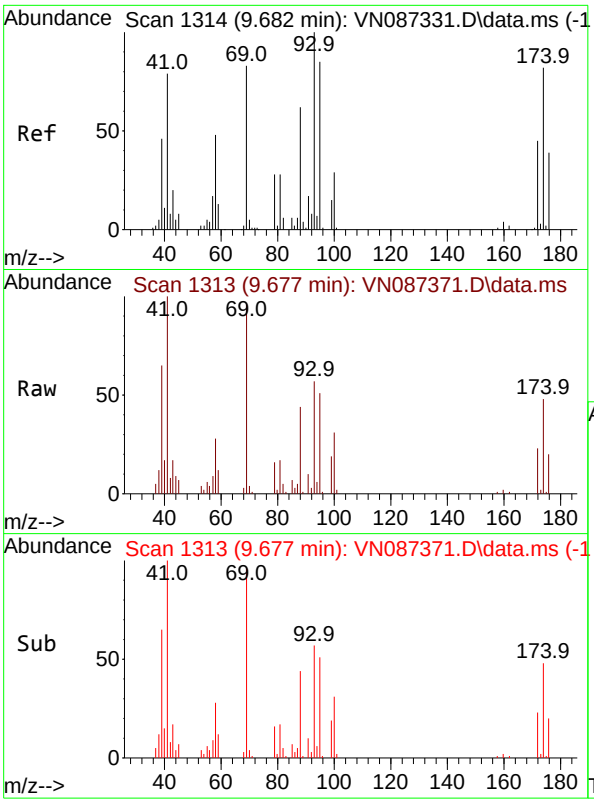


#48
Methyl methacrylate
Concen: 17.877 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 41 Resp: 55452

Ion	Ratio	Lower	Upper
41	100		
69	82.6	64.1	96.1
39	59.9	45.5	68.3

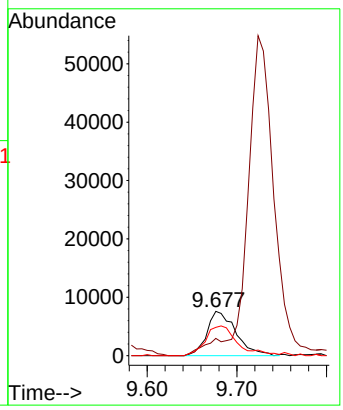




#49
1,4-Dioxane
Concen: 359.104 ug/l
RT: 9.677 min Scan# 1
Delta R.T. -0.005 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 88 Resp: 1706

Ion	Ratio	Lower	Upper
88	100		
43	24.9	0.0	0.0
58	73.5	61.1	91.7



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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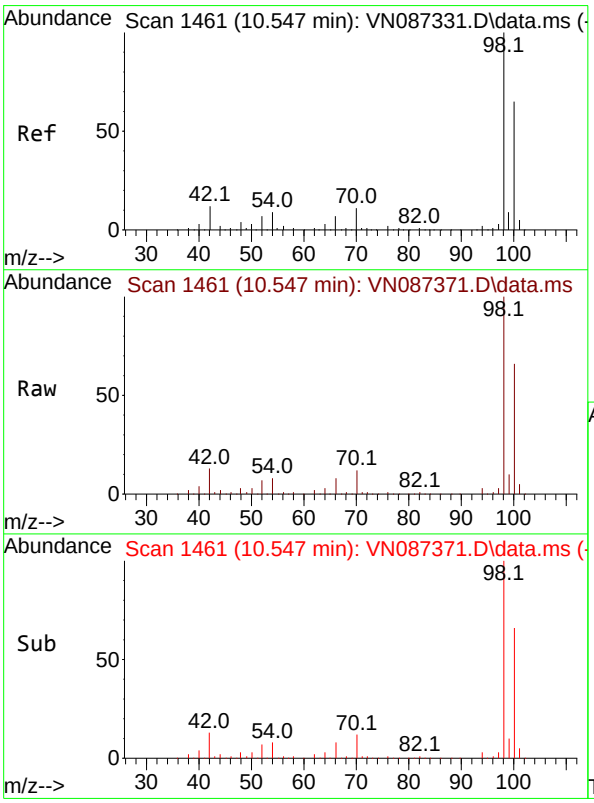
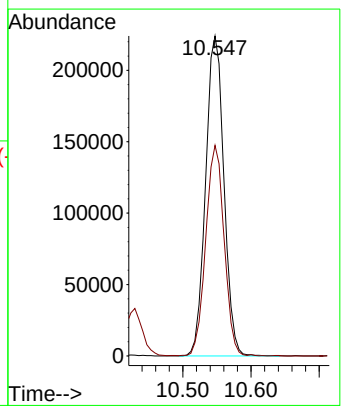
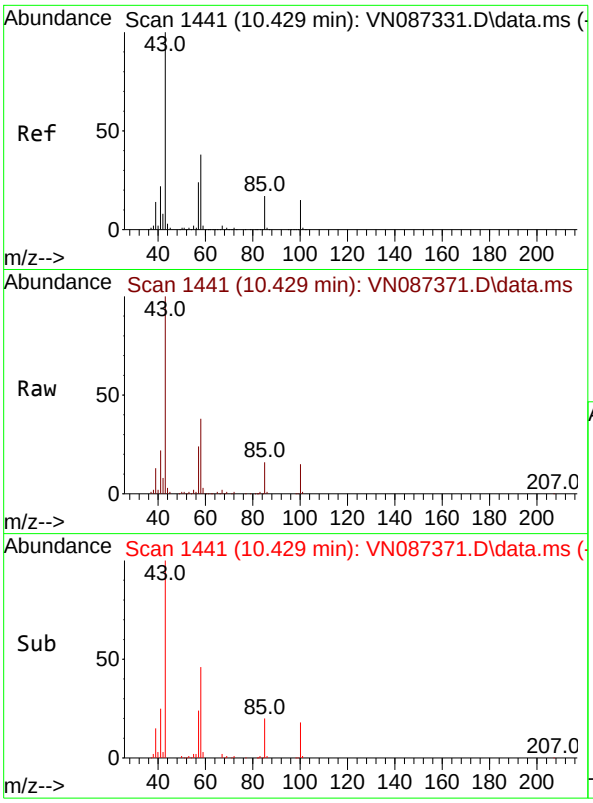


#50
Toluene-d8
Concen: 50.387 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 98 Resp: 418084

Ion	Ratio	Lower	Upper
98	100		
100	66.2	52.1	78.1

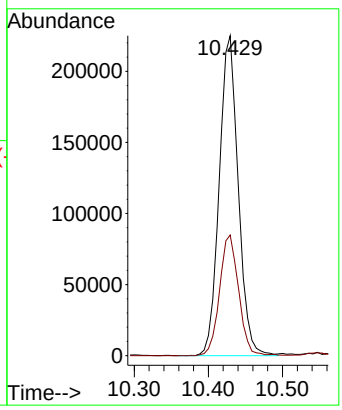




#51
4-Methyl-2-Pentanone
Concen: 92.023 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 40101

Ion	Ratio	Lower	Upper
43	100		
58	37.8	30.8	46.2



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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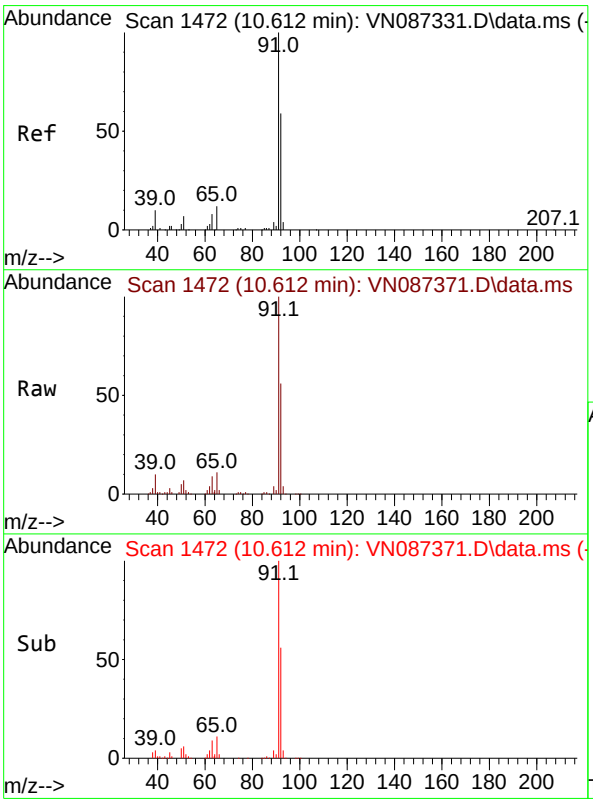
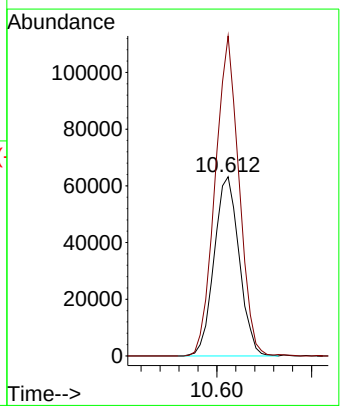
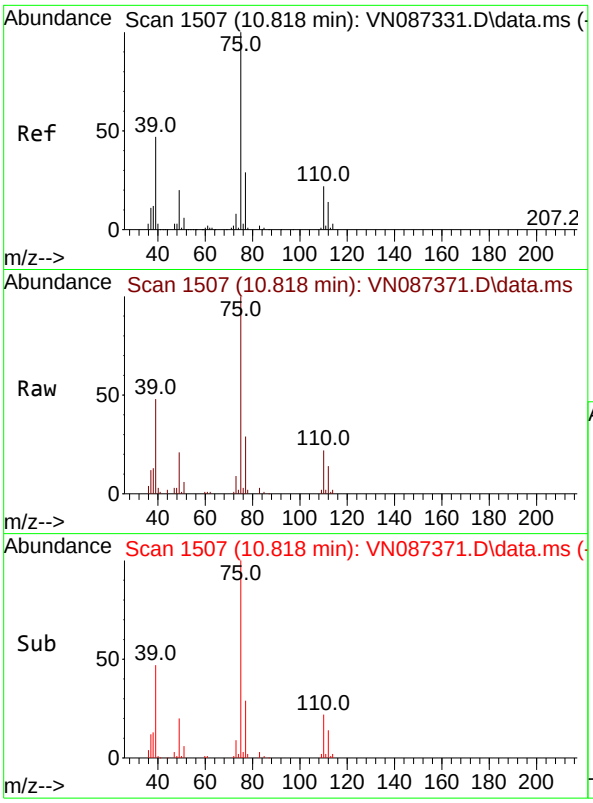


#52
Toluene
Concen: 19.237 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 92 Resp: 116138

Ion	Ratio	Lower	Upper
92	100		
91	170.1	135.1	202.7

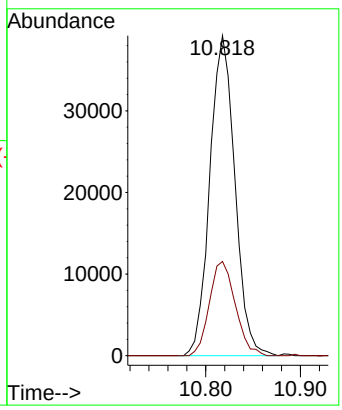




#53
t-1,3-Dichloropropene
Concen: 18.710 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 75 Resp: 7207

Ion	Ratio	Lower	Upper
75	100		
77	29.5	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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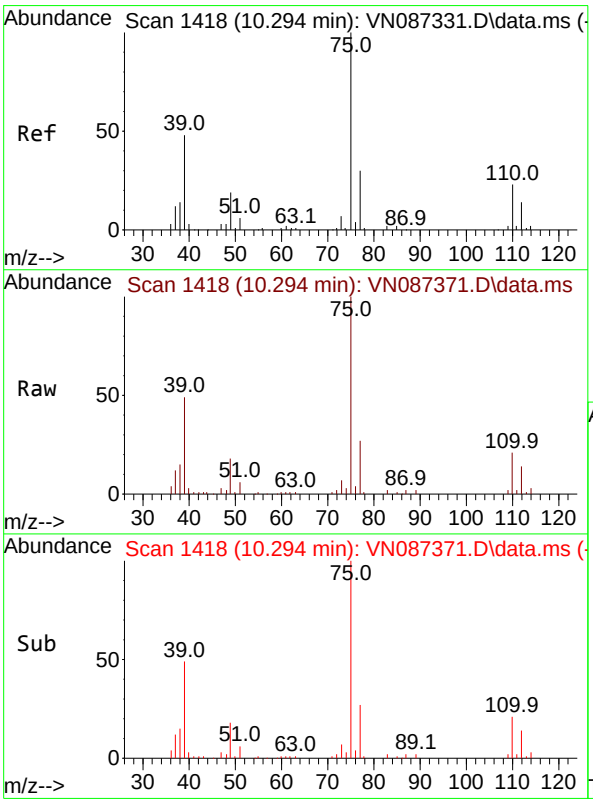
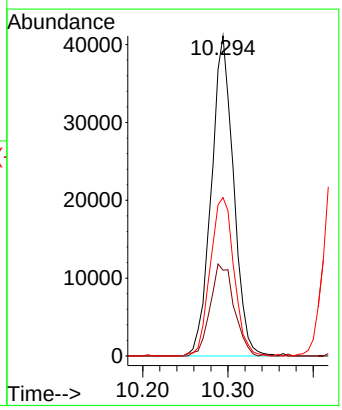
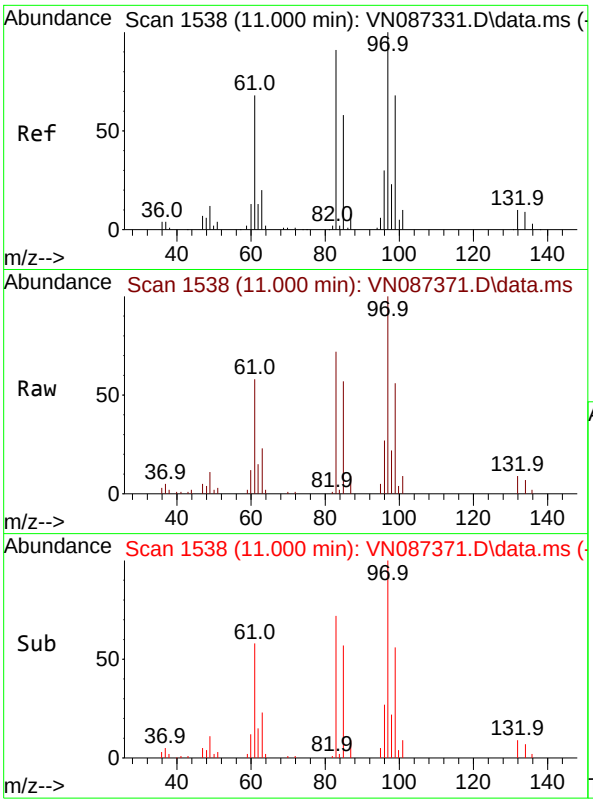


#54
cis-1,3-Dichloropropene
Concen: 18.734 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 75 Resp: 74540

Ion	Ratio	Lower	Upper
75	100		
77	26.8	24.2	36.2
39	49.5	38.4	57.6

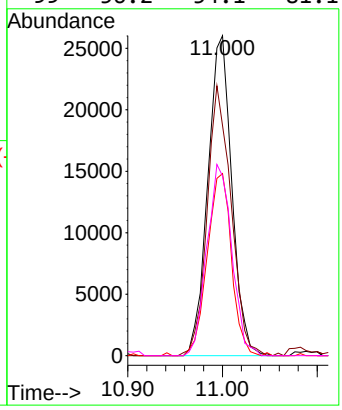




#55
1,1,2-Trichloroethane
Concen: 18.718 ug/l
RT: 11.000 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 97 Resp: 4575

Ion	Ratio	Lower	Upper
97	100		
83	72.0	72.6	109.0#
85	56.9	46.7	70.1
99	56.2	54.1	81.1



Instrument :
MSVOA_N
ClientSampleId :
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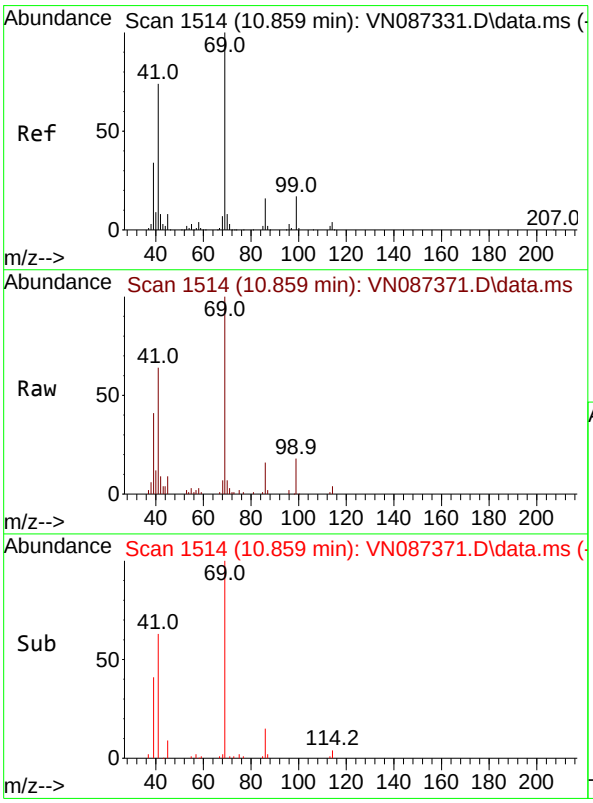
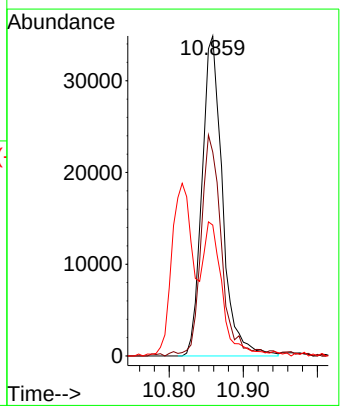
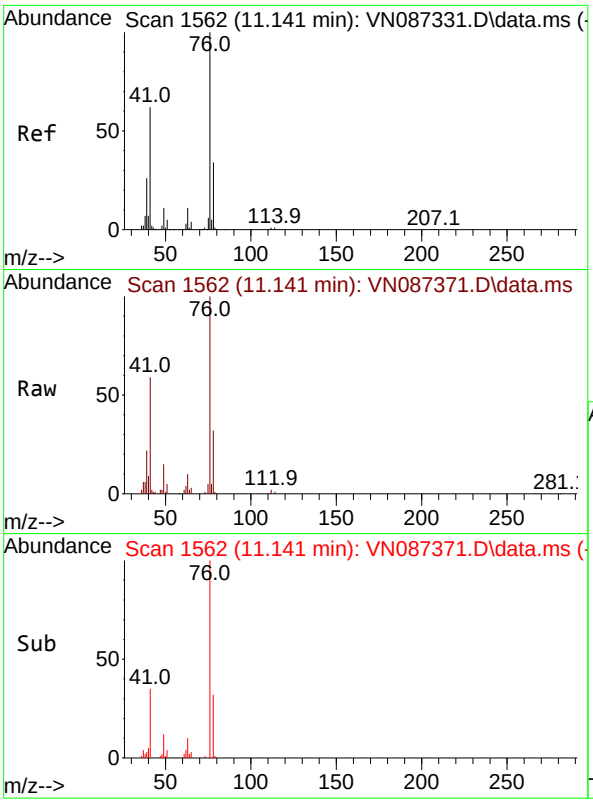


#56
Ethyl methacrylate
Concen: 17.074 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 69 Resp: 66938

Ion	Ratio	Lower	Upper
69	100		
41	65.8	55.1	82.7
39	35.8	27.9	41.9

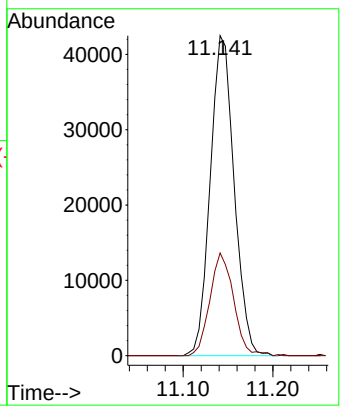




#57
1,3-Dichloropropane
Concen: 18.617 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 76 Resp: 7867

Ion	Ratio	Lower	Upper
76	100		
78	31.8	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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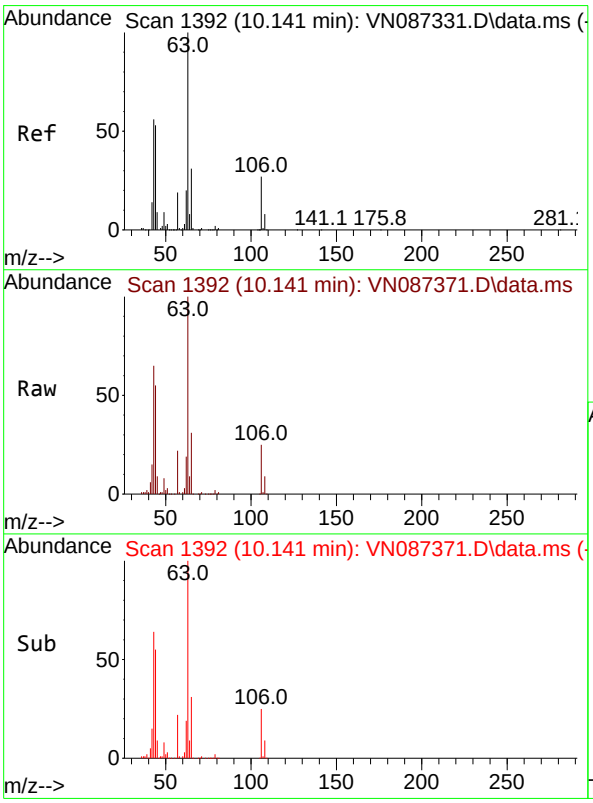
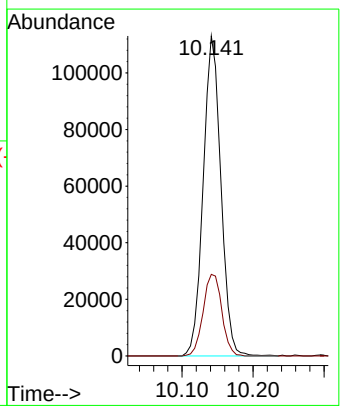
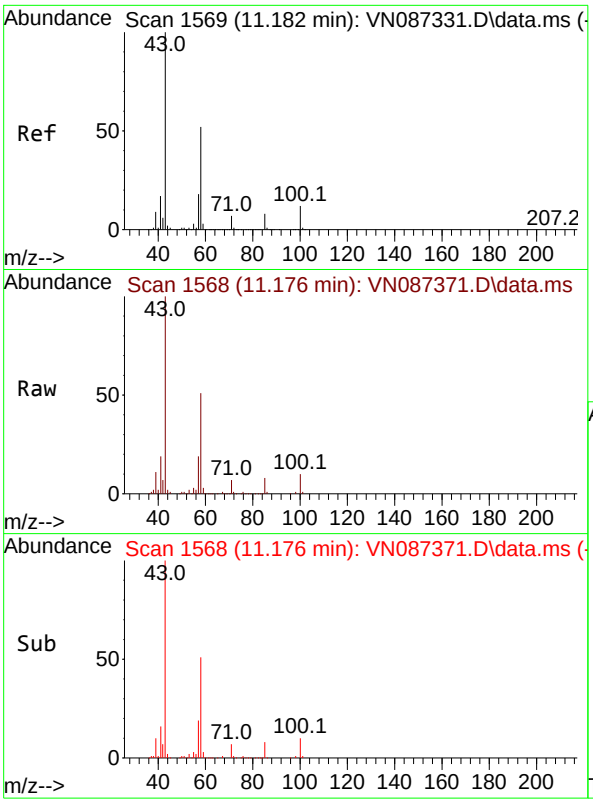


#58
2-Chloroethyl Vinyl ether
Concen: 97.690 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 63 Resp: 195869

Ion	Ratio	Lower	Upper
63	100		
106	26.9	21.7	32.5





#59
2-Hexanone
Concen: 91.587 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 26479

Ion	Ratio	Lower	Upper
43	100		
58	52.6	26.7	80.0

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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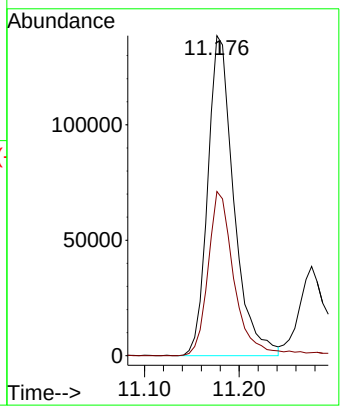
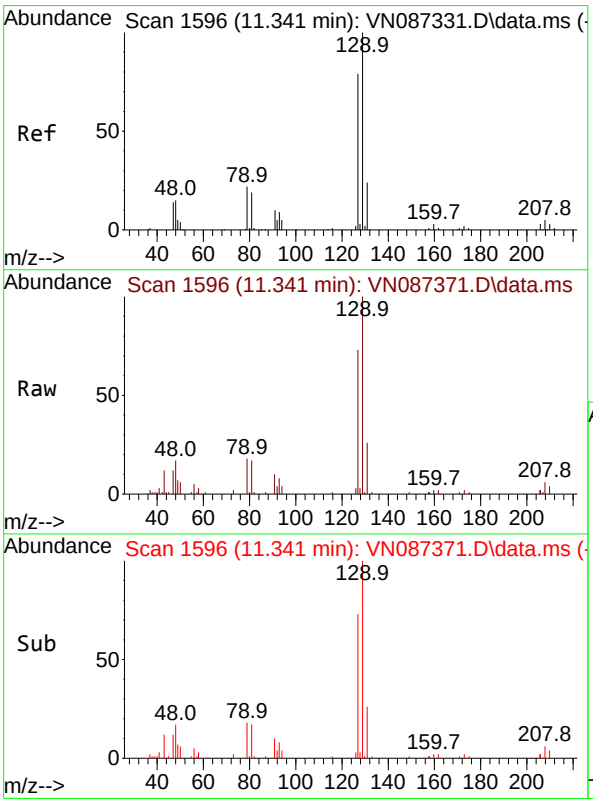
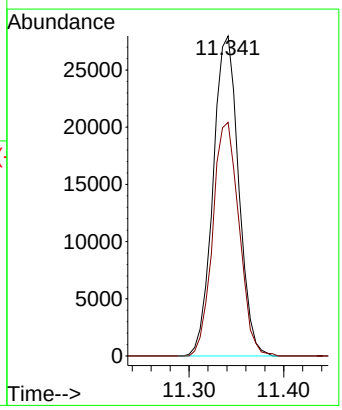


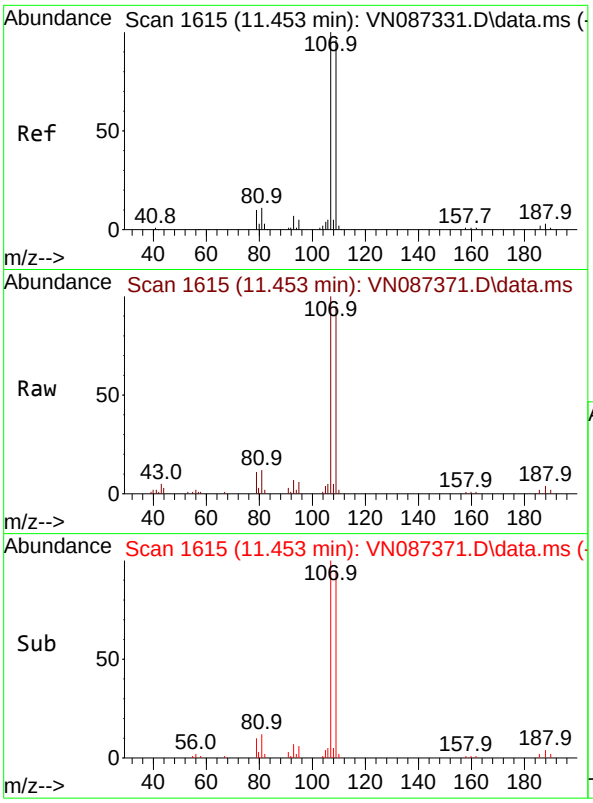


#60
Dibromochloromethane
Concen: 18.826 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:129 Resp: 52477

Ion	Ratio	Lower	Upper
129	100		
127	75.0	39.1	117.5





#61
1,2-Dibromoethane
Concen: 17.360 ug/l
RT: 11.453 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:107 Resp: 4461

Ion	Ratio	Lower	Upper
107	100		
109	96.3	77.5	116.3

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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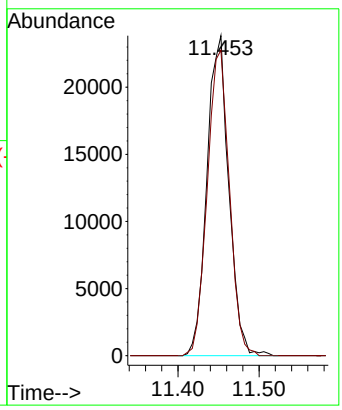
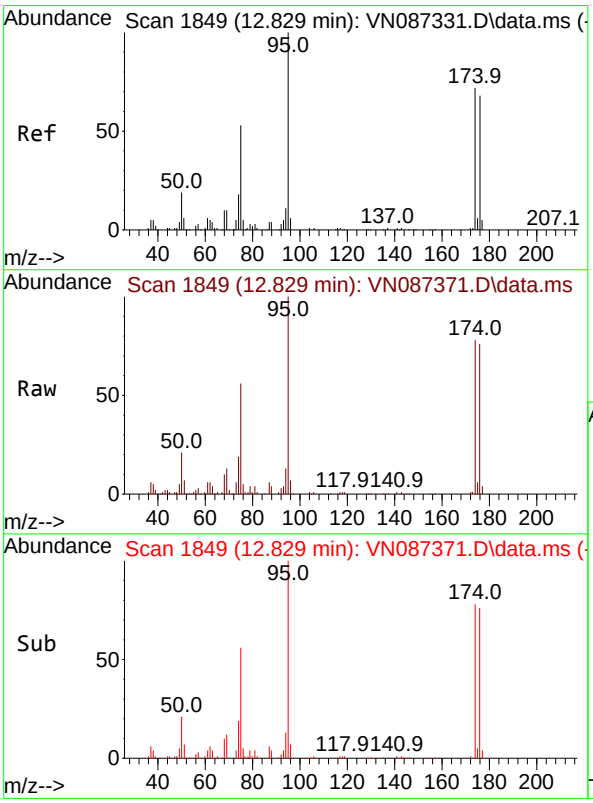
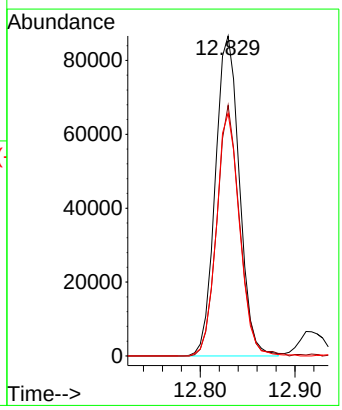


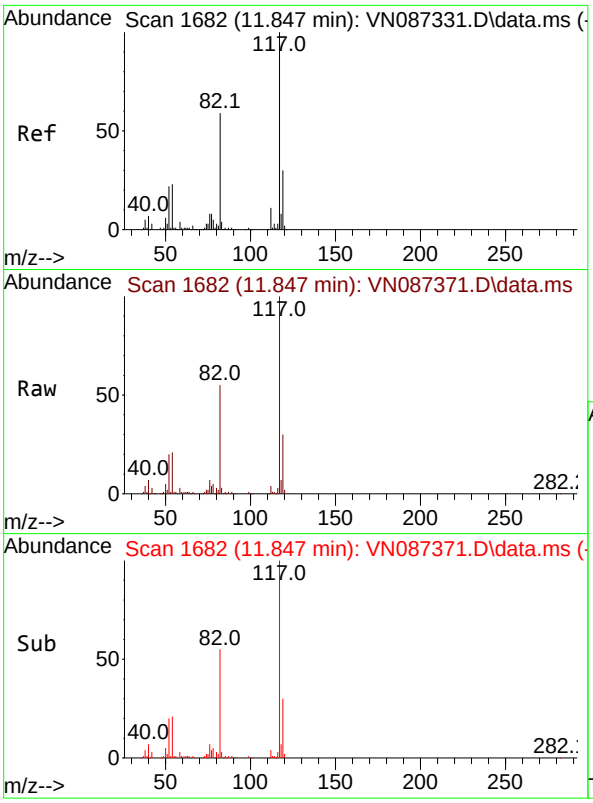


#62
4-Bromofluorobenzene
Concen: 49.898 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 95 Resp: 152963

Ion	Ratio	Lower	Upper
95	100		
174	74.3	0.0	149.4
176	73.4	0.0	141.2

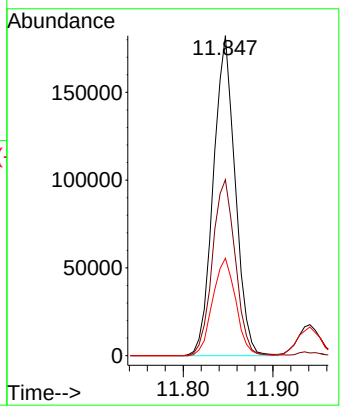




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:117 Resp: 30852

Ion	Ratio	Lower	Upper
117	100		
82	55.0	47.4	71.2
119	30.4	23.8	35.8



Instrument :
MSVOA_N
ClientSampleId :
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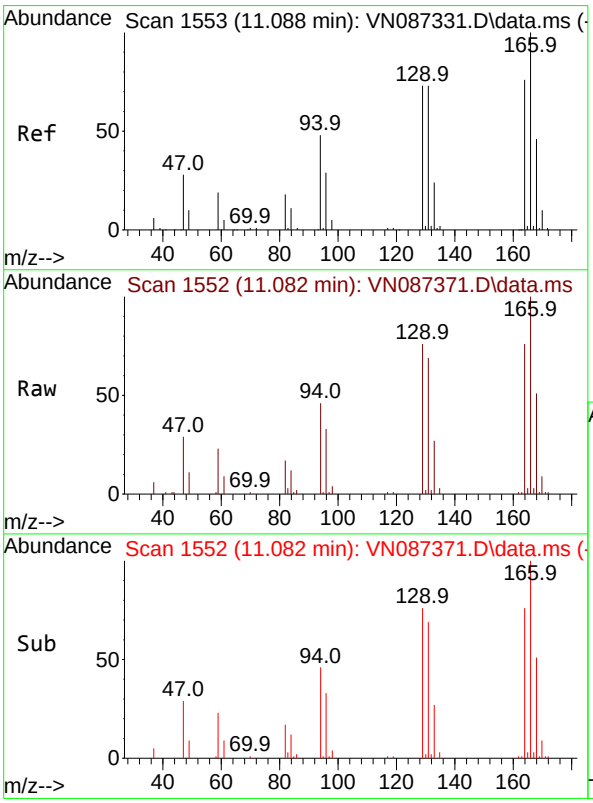
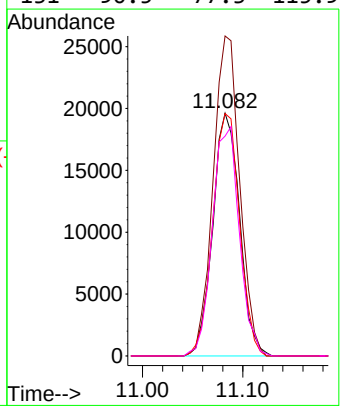
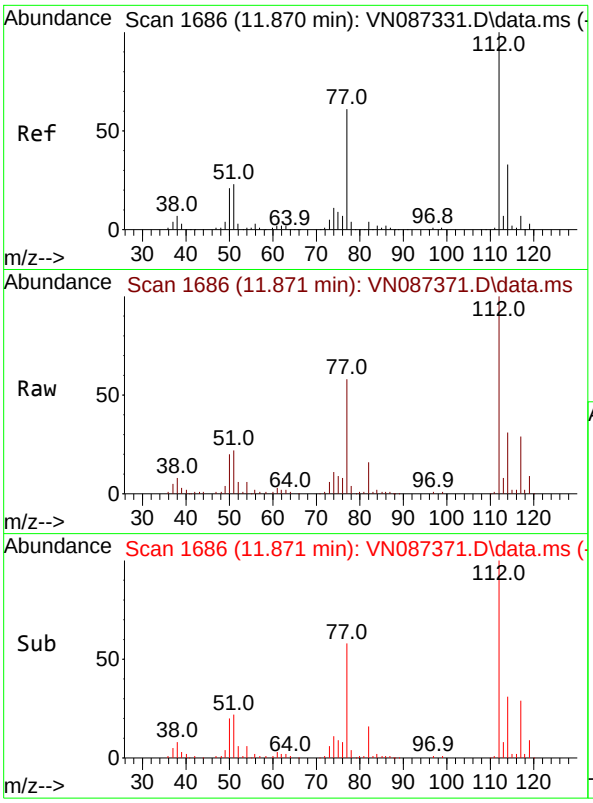


#64
Tetrachloroethene
Concen: 18.347 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:164 Resp: 36432

Ion	Ratio	Lower	Upper
164	100		
166	131.8	105.5	158.3
129	99.8	77.4	116.2
131	90.5	77.3	115.9

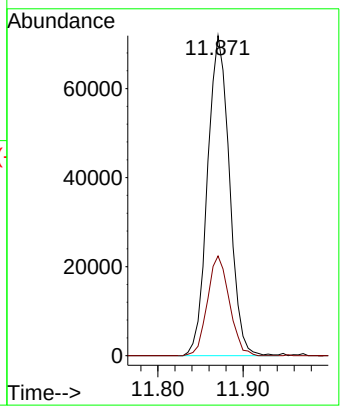




#65
Chlorobenzene
Concen: 18.573 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:112 Resp: 12864

Ion	Ratio	Lower	Upper
112	100		
114	31.2	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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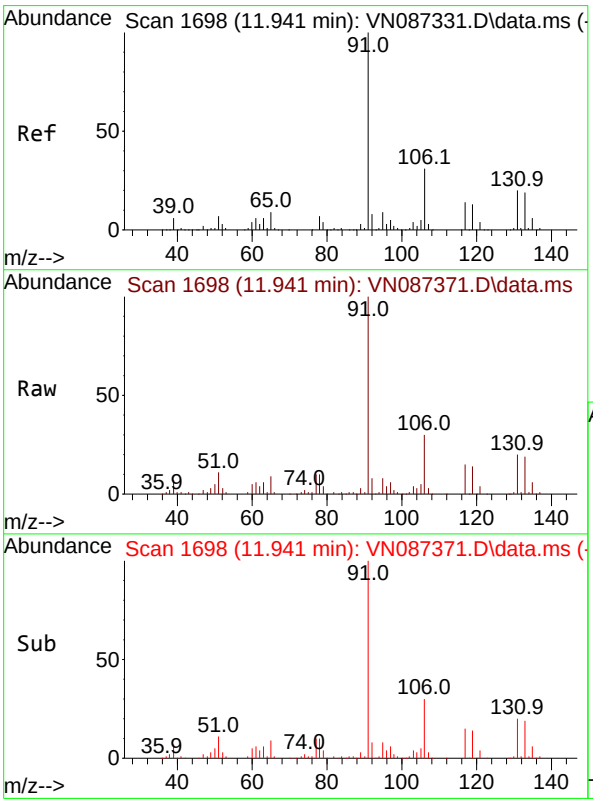
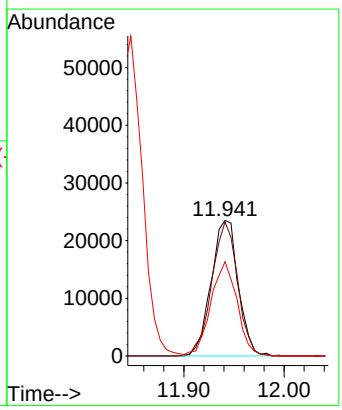
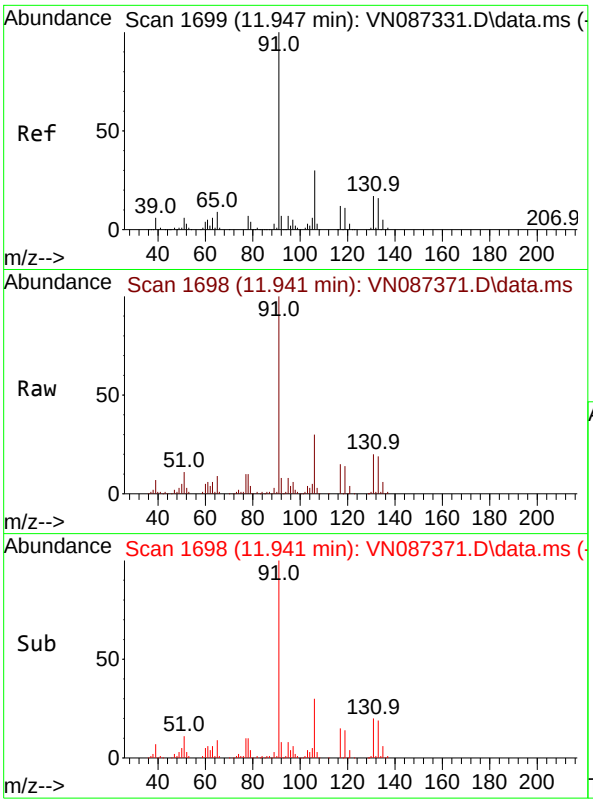


#66
1,1,1,2-Tetrachloroethane
Concen: 18.716 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:131 Resp: 44082

Ion	Ratio	Lower	Upper
131	100		
133	94.5	47.4	142.3
119	67.3	33.1	99.2





#67
Ethyl Benzene
Concen: 18.115 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 91 Resp: 20656

Ion	Ratio	Lower	Upper
91	100		
106	29.8	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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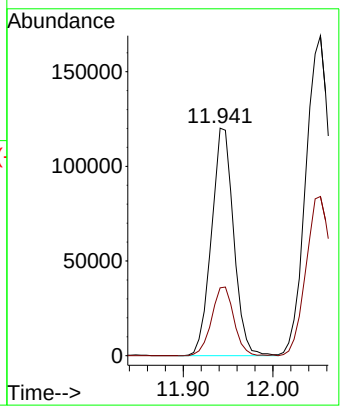
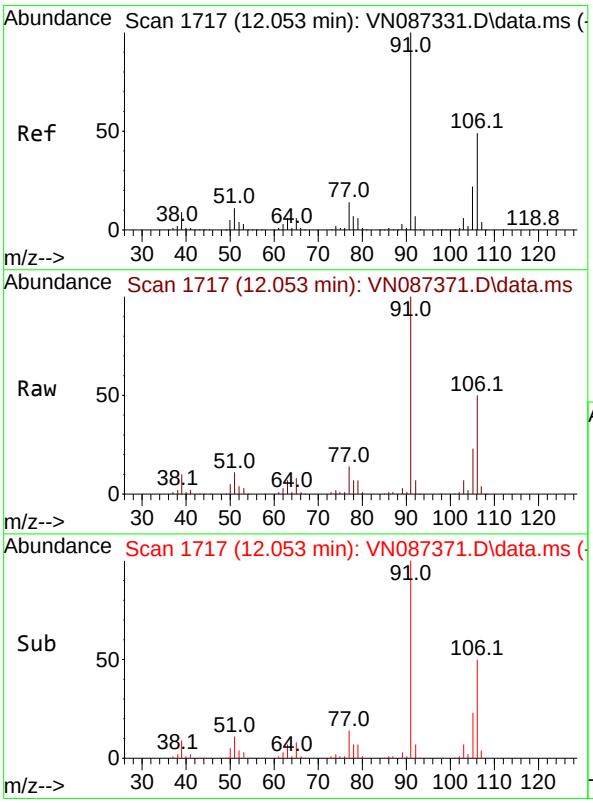
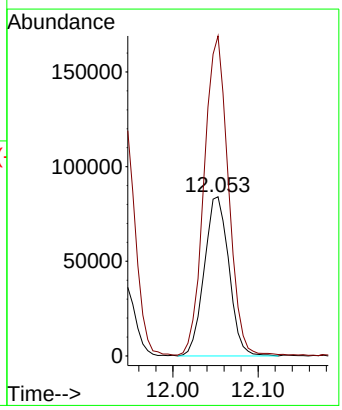


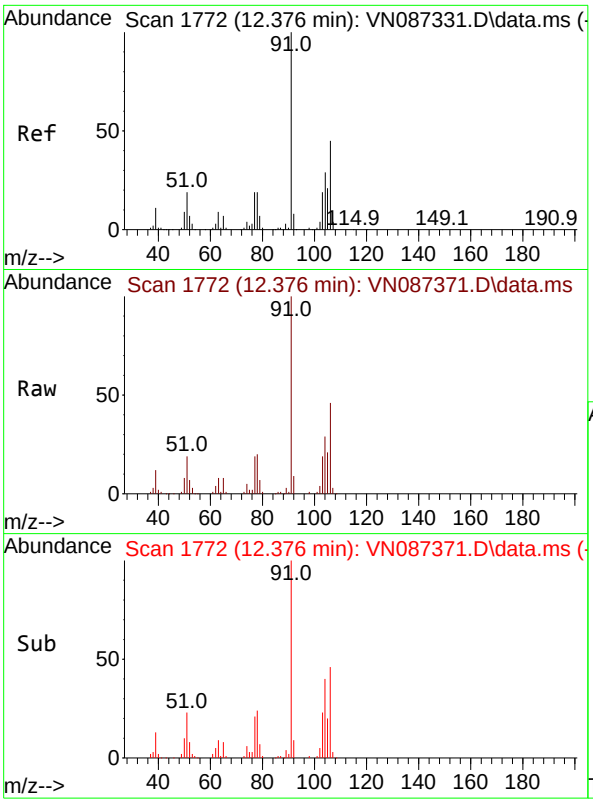


#68
m/p-Xylenes
Concen: 39.515 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:106 Resp: 168727

Ion	Ratio	Lower	Upper
106	100		
91	198.8	162.0	243.0





#69
o-Xylene
Concen: 18.388 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:106 Resp: 7500

Ion	Ratio	Lower	Upper
106	100		
91	216.0	107.7	323.3

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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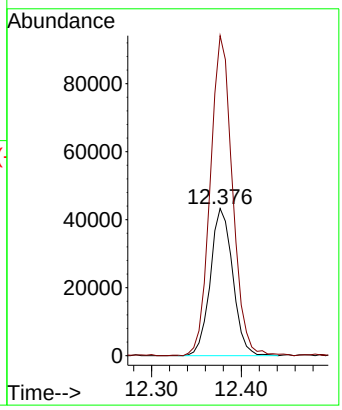
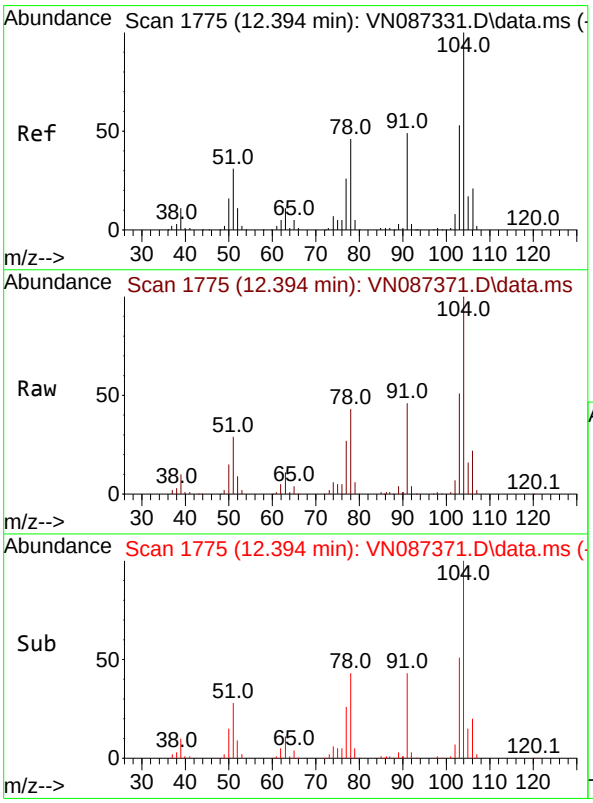
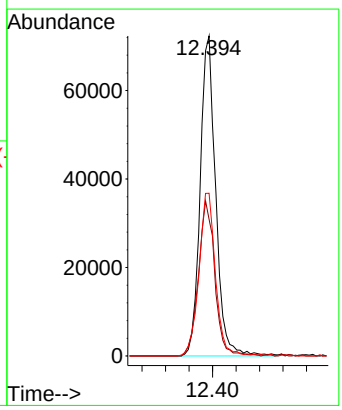


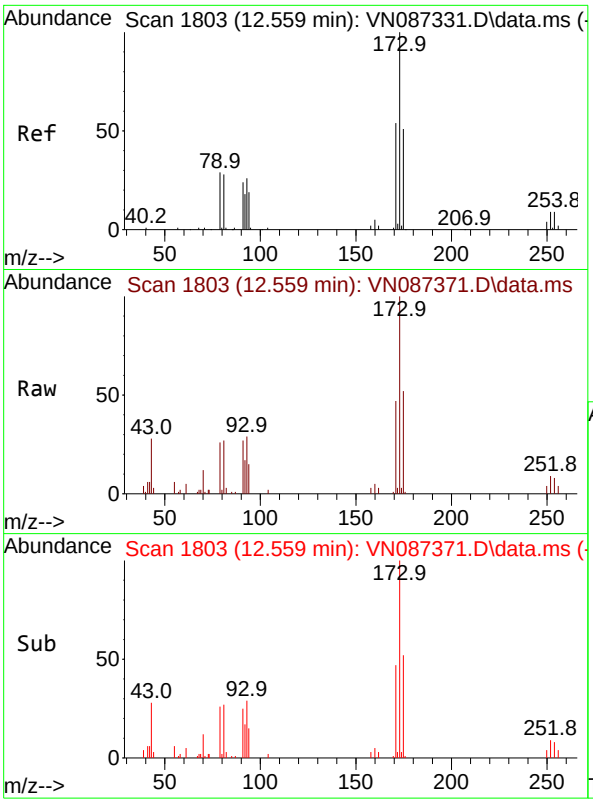


#70
Styrene
Concen: 19.325 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:104 Resp: 132593

Ion	Ratio	Lower	Upper
104	100		
78	50.8	41.0	61.6
103	54.2	43.9	65.9

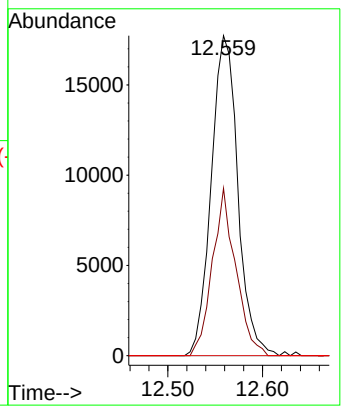




#71
Bromoform
Concen: 18.179 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:173 Resp: 3459

Ion	Ratio	Lower	Upper
173	100		
175	46.1	24.1	72.3
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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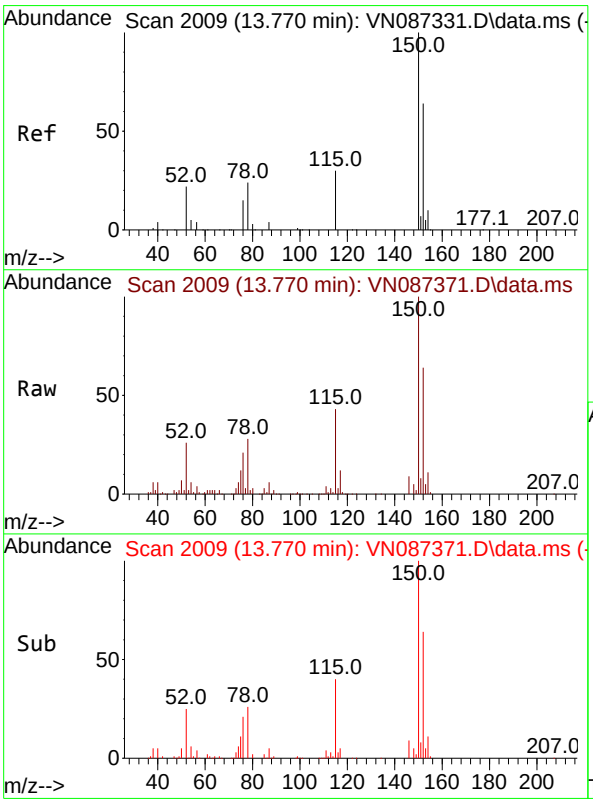
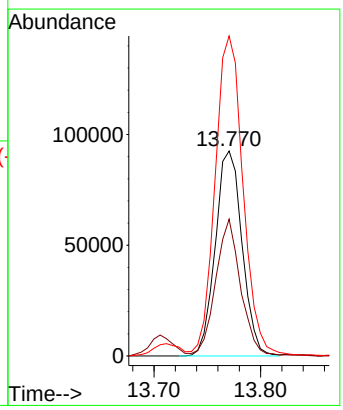
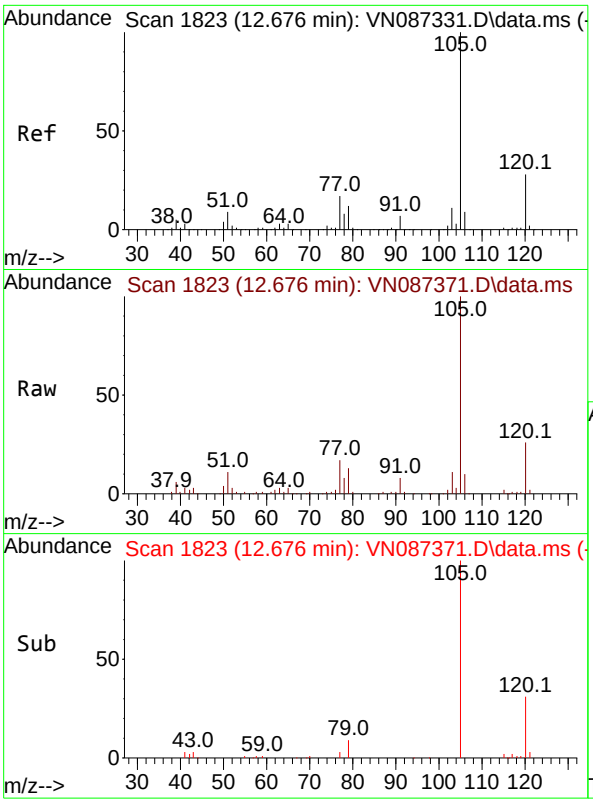


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:152 Resp: 161452

Ion	Ratio	Lower	Upper
152	100		
115	62.5	31.1	93.5
150	163.6	0.0	349.0

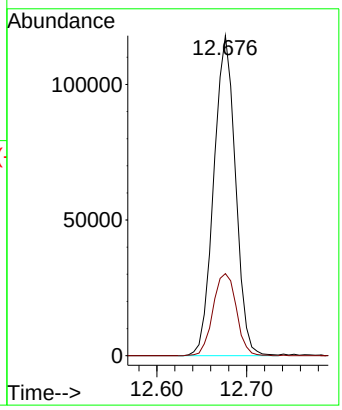




#73
Isopropylbenzene
Concen: 19.497 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:105 Resp: 19811

Ion	Ratio	Lower	Upper
105	100		
120	27.5	13.4	40.1



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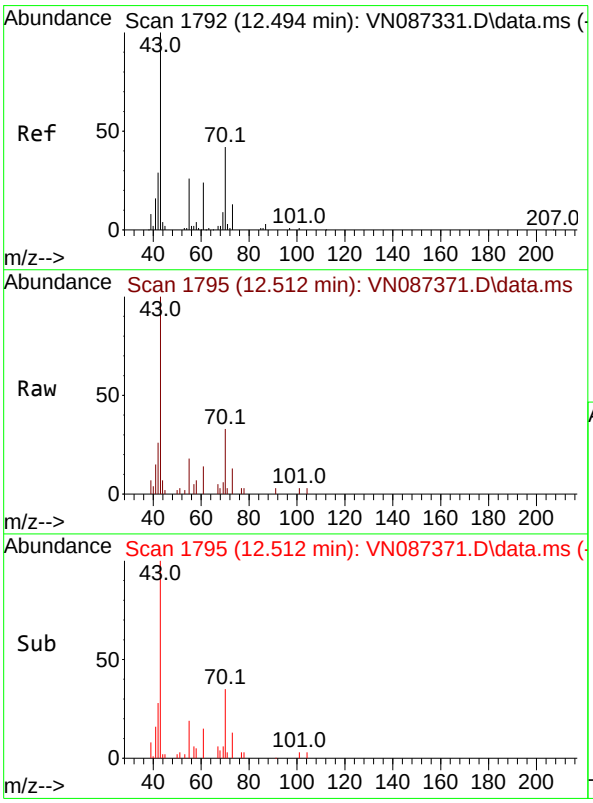
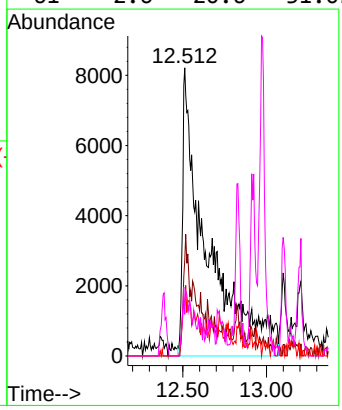
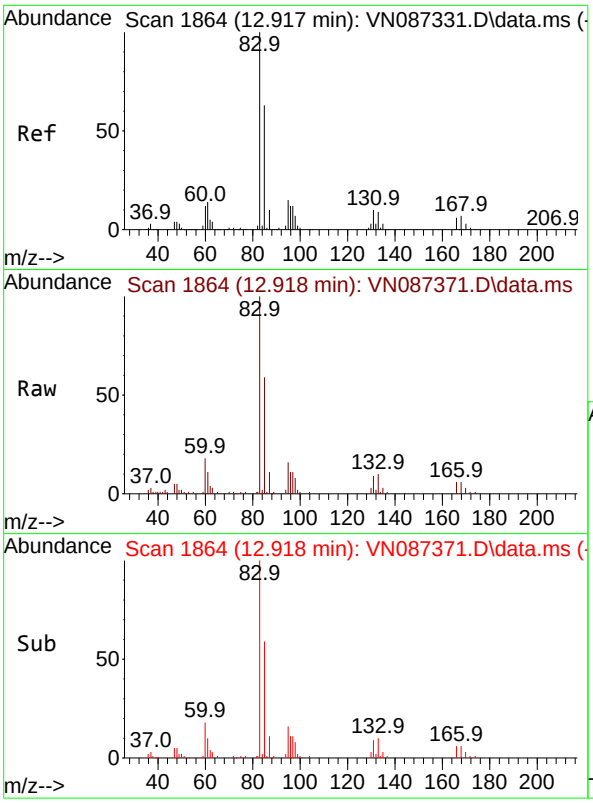


#74
N-amyl acetate
Concen: 19.632 ug/l m
RT: 12.512 min Scan# 1795
Delta R.T. 0.018 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 43 Resp: 82883

Ion	Ratio	Lower	Upper
43	100		
70	10.3	37.6	56.4#
55	5.1	19.6	29.4#
61	2.6	20.6	31.0#

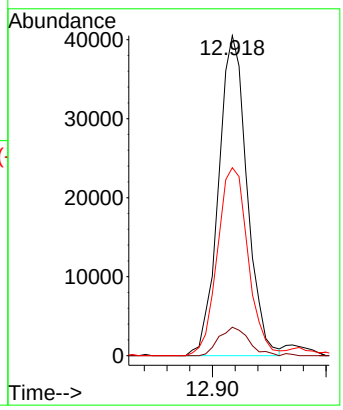




#75
1,1,2,2-Tetrachloroethane
Concen: 18.451 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 83 Resp: 7054

Ion	Ratio	Lower	Upper
83	100		
131	9.3	5.1	15.3
85	63.1	32.5	97.4



Instrument :
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ClientSampleId :
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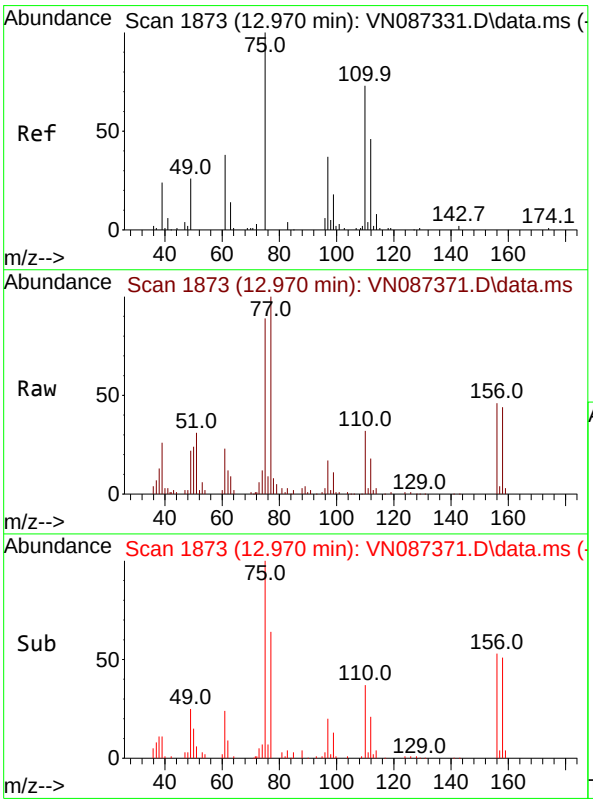
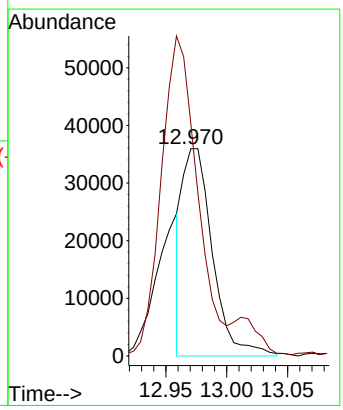
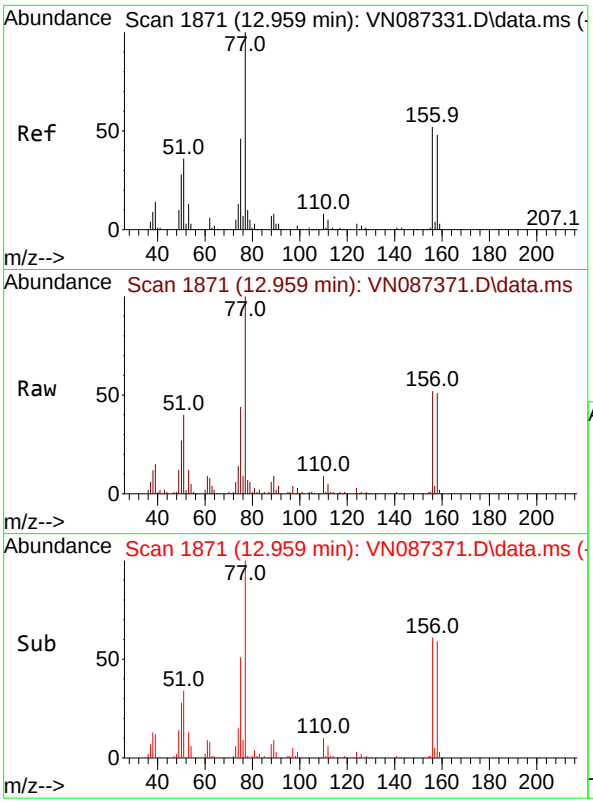


#76
1,2,3-Trichloropropane
Concen: 17.042 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 75 Resp: 61699

Ion	Ratio	Lower	Upper
75	100		
77	185.6	94.5	283.6

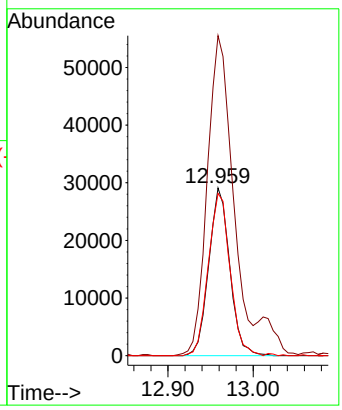




#77
Bromobenzene
Concen: 18.906 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:156 Resp: 4982

Ion	Ratio	Lower	Upper
156	100		
77	229.8	114.9	344.6
158	100.3	48.5	145.5



Instrument :
MSVOA_N
ClientSampleId :
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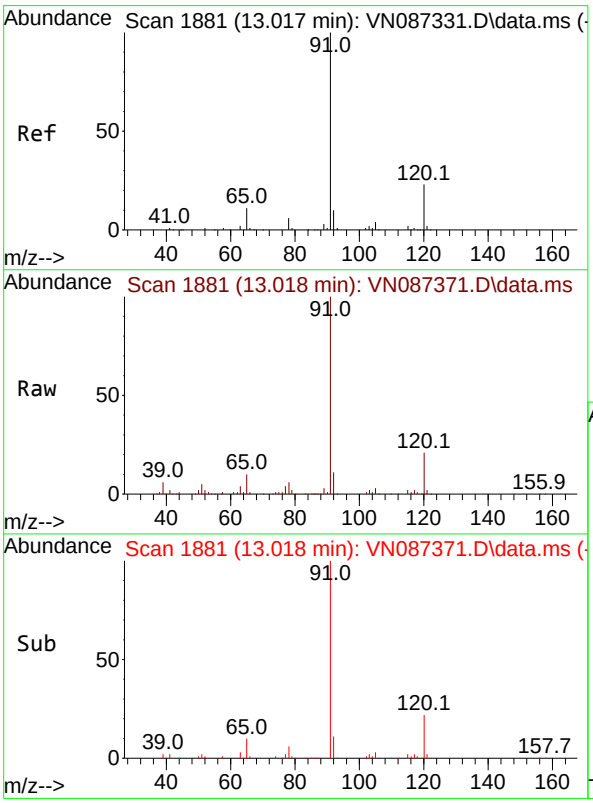
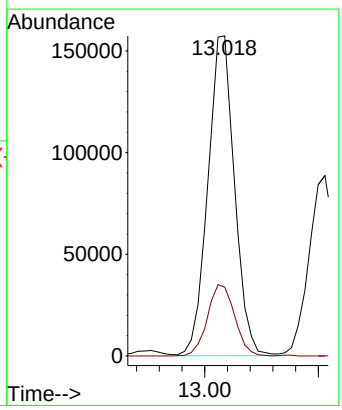
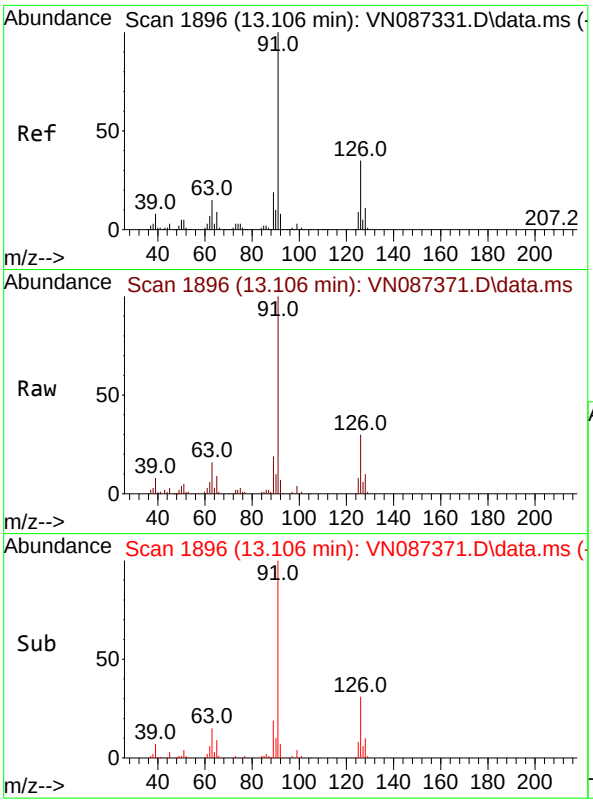


#78
n-propylbenzene
Concen: 20.096 ug/l
RT: 13.018 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 91 Resp: 256928

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.3	33.8

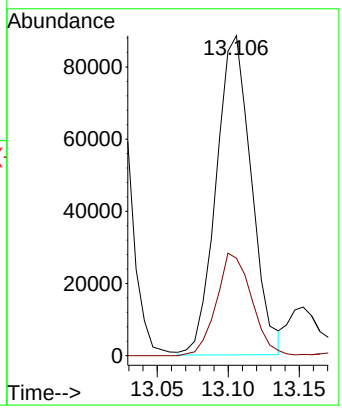




#79
2-Chlorotoluene
Concen: 19.419 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 91 Resp: 15258

Ion	Ratio	Lower	Upper
91	100		
126	32.2	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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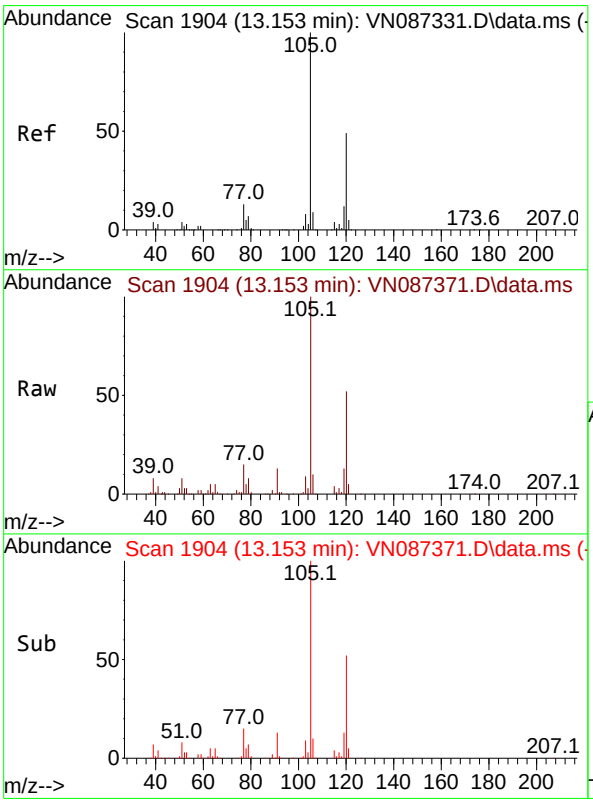
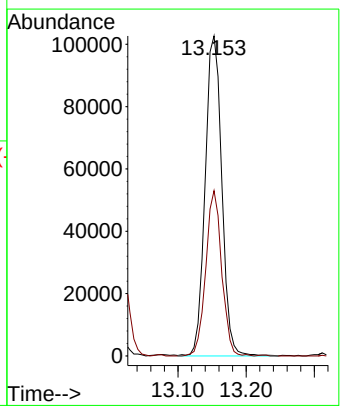
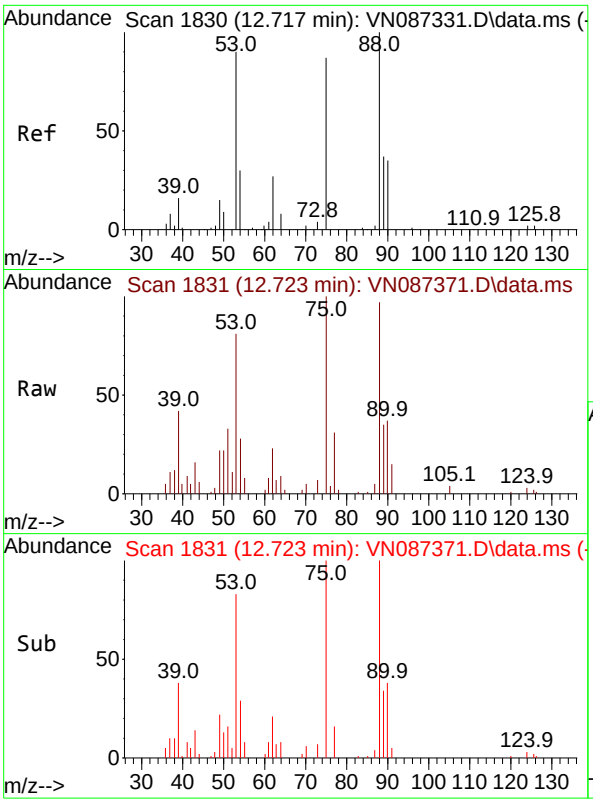


#80
1,3,5-Trimethylbenzene
Concen: 20.136 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:105 Resp: 174332

Ion	Ratio	Lower	Upper
105	100		
120	49.4	24.3	72.8

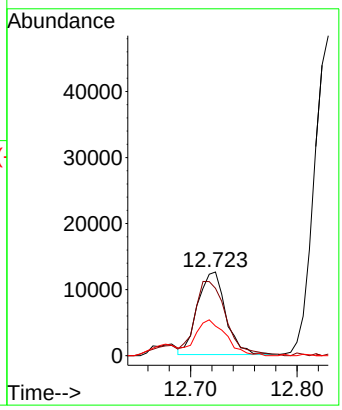




#81
trans-1,4-Dichloro-2-butene
Concen: 17.345 ug/l
RT: 12.723 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 75 Resp: 2295

Ion	Ratio	Lower	Upper
75	100		
53	111.1	83.5	125.3
89	47.8	38.4	57.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

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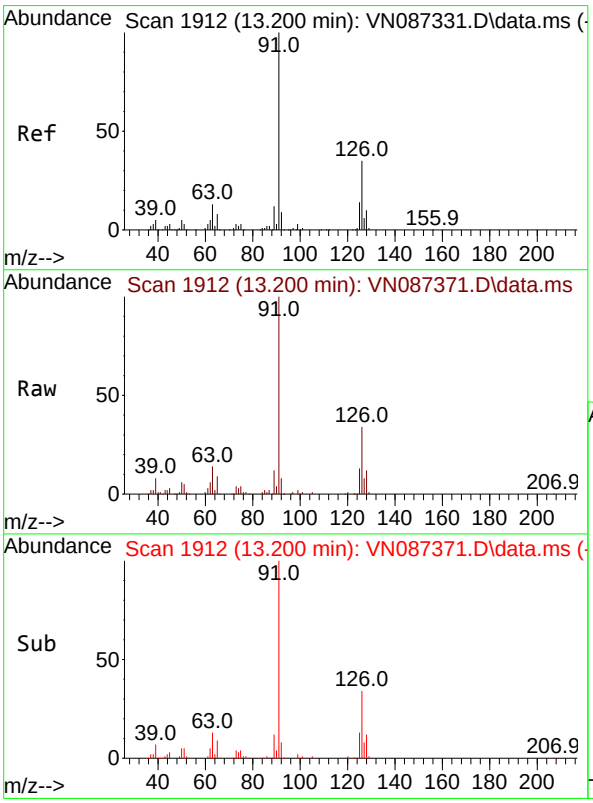
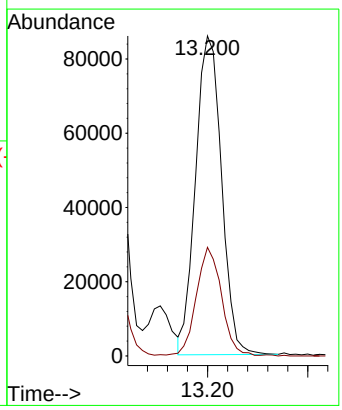
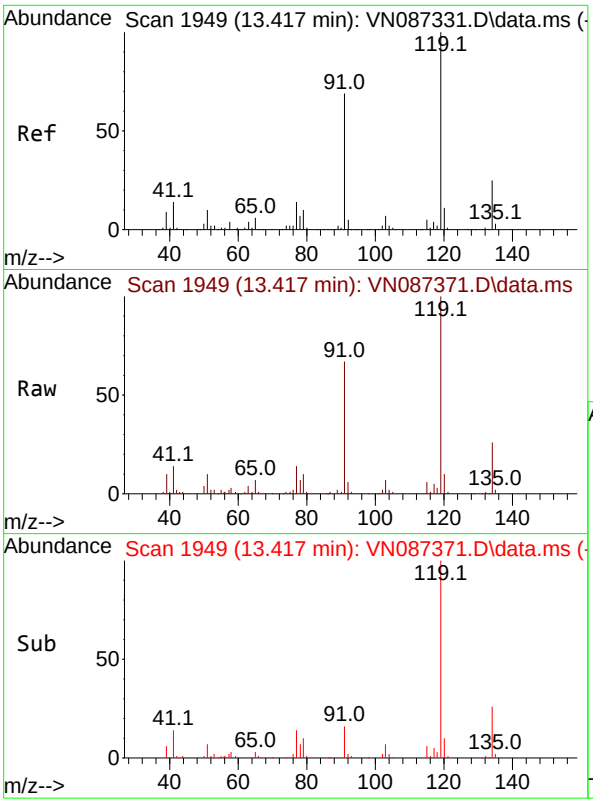


#82
4-Chlorotoluene
Concen: 18.861 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 91 Resp: 154290

Ion	Ratio	Lower	Upper
91	100		
126	32.7	16.6	49.7

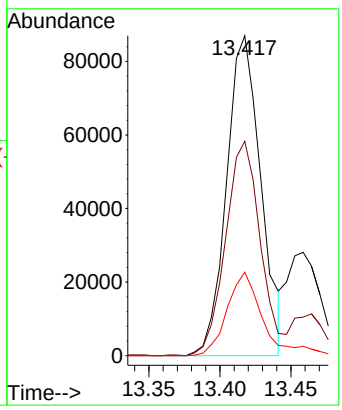




#83
tert-Butylbenzene
Concen: 20.214 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:119 Resp: 14616

Ion	Ratio	Lower	Upper
119	100		
91	68.5	35.0	105.1
134	27.3	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
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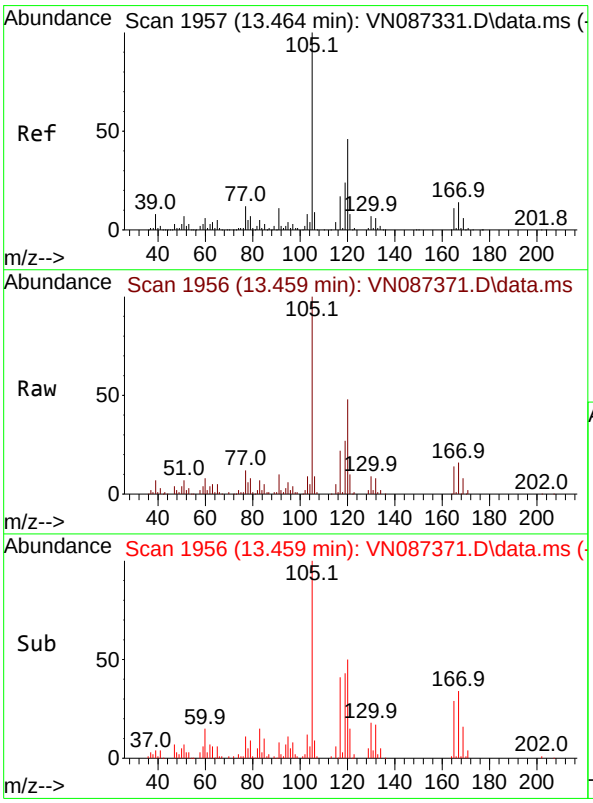
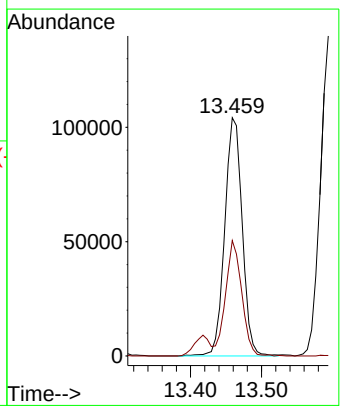
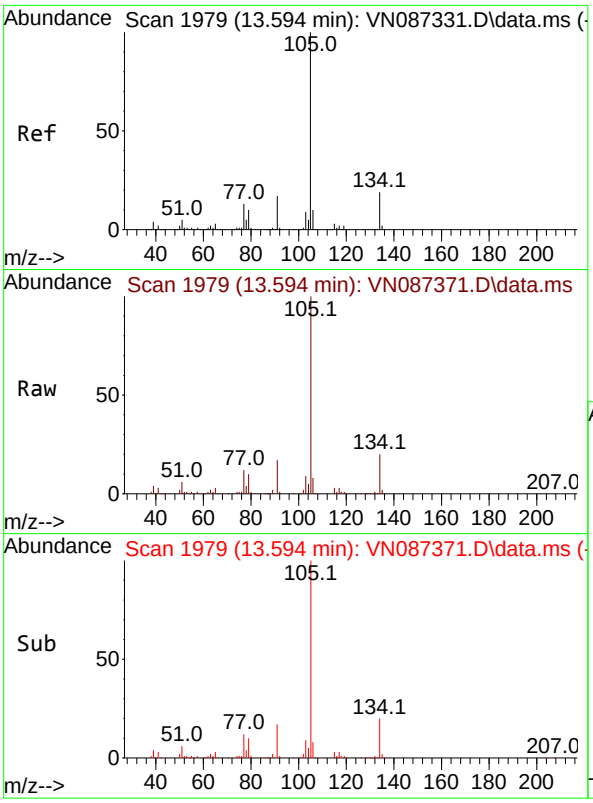


#84
1,2,4-Trimethylbenzene
Concen: 20.123 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:105 Resp: 177920

Ion	Ratio	Lower	Upper
105	100		
120	45.3	22.8	68.3

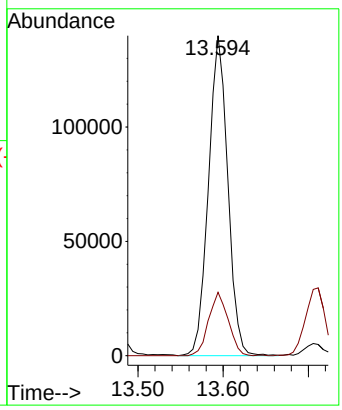




#85
sec-Butylbenzene
Concen: 20.275 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:105 Resp: 22083

Ion	Ratio	Lower	Upper
105	100		
134	20.1	9.8	29.4



Instrument :
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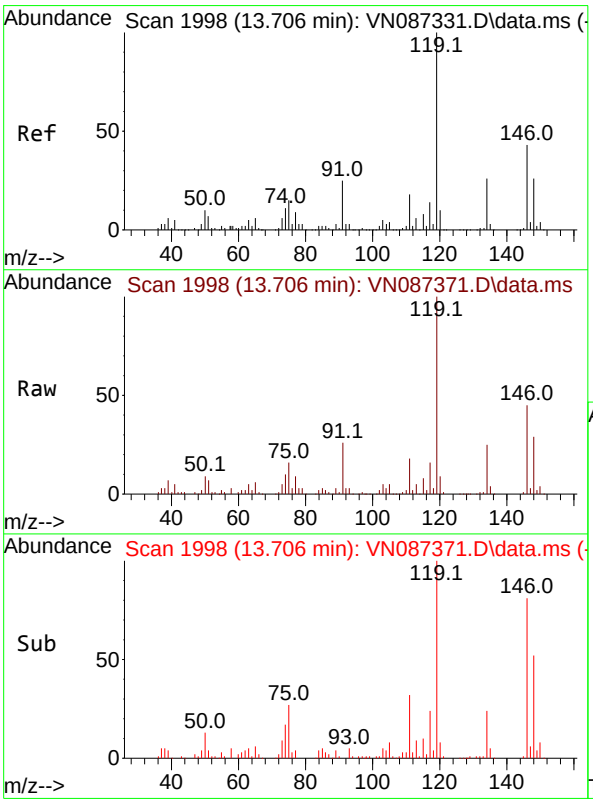
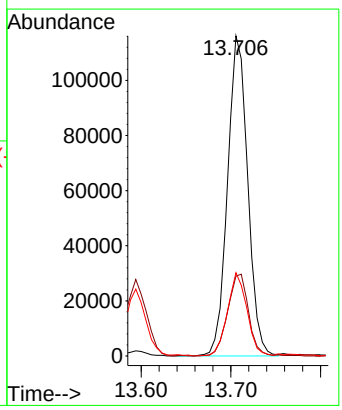
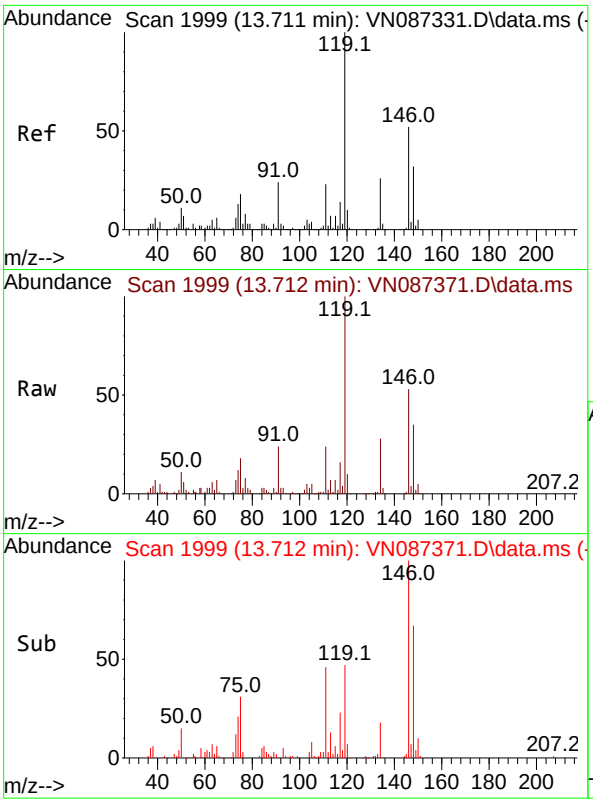


#86
p-Isopropyltoluene
Concen: 20.801 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:119 Resp: 181563

Ion	Ratio	Lower	Upper
119	100		
134	26.5	13.5	40.5
91	25.1	12.2	36.6

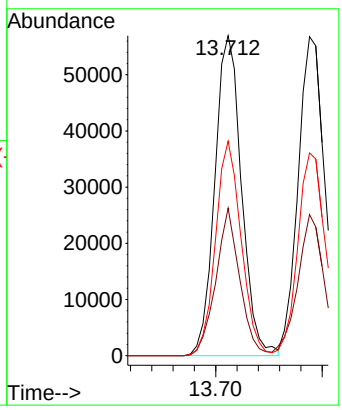




#87
1,3-Dichlorobenzene
Concen: 19.120 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:146 Resp: 9889

Ion	Ratio	Lower	Upper
146	100		
111	41.5	21.4	64.3
148	64.6	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
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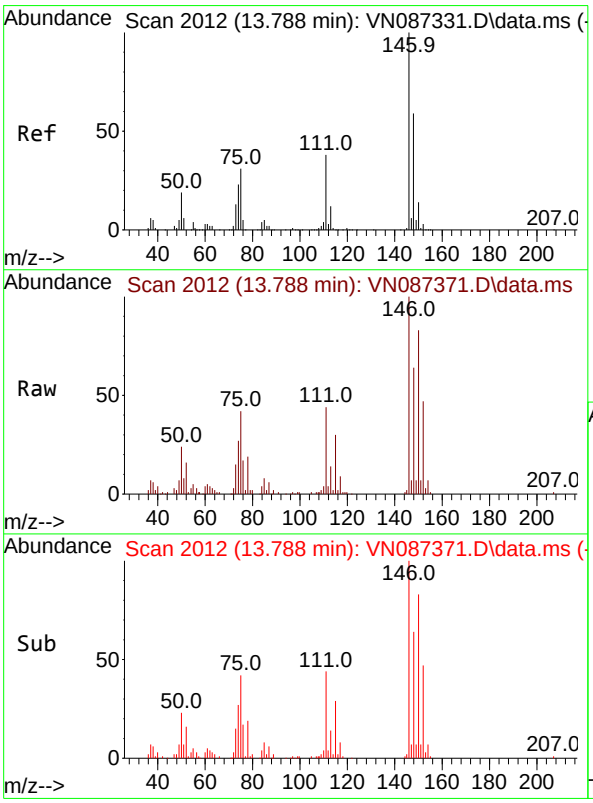
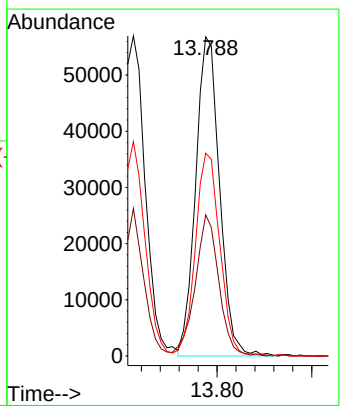
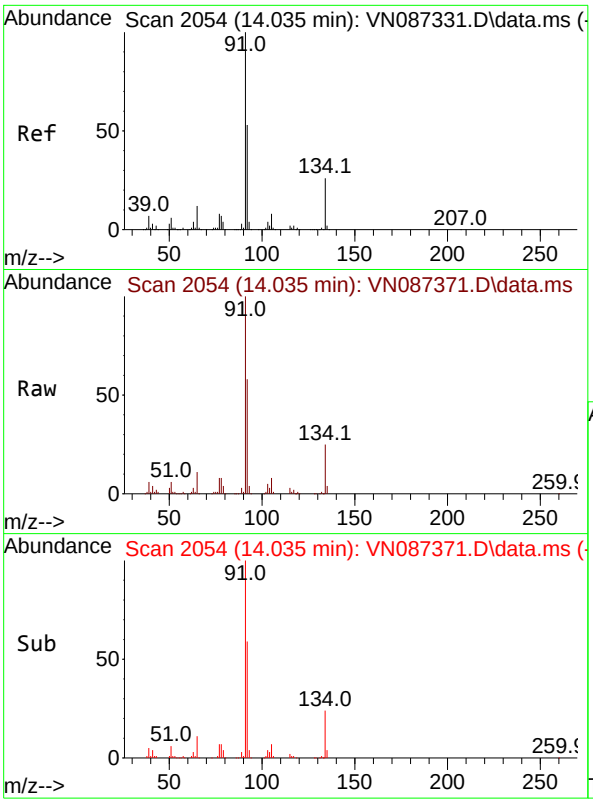


#88
1,4-Dichlorobenzene
Concen: 18.026 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:146 Resp: 99576

Ion	Ratio	Lower	Upper
146	100		
111	43.5	19.6	58.7
148	65.2	31.4	94.0

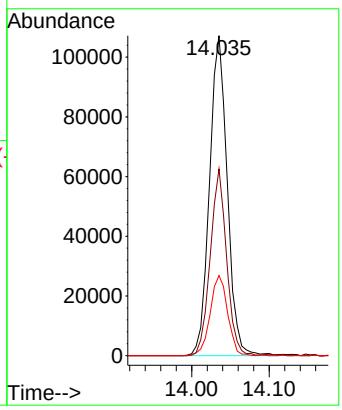




#89
n-Butylbenzene
Concen: 20.458 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 91 Resp: 17051

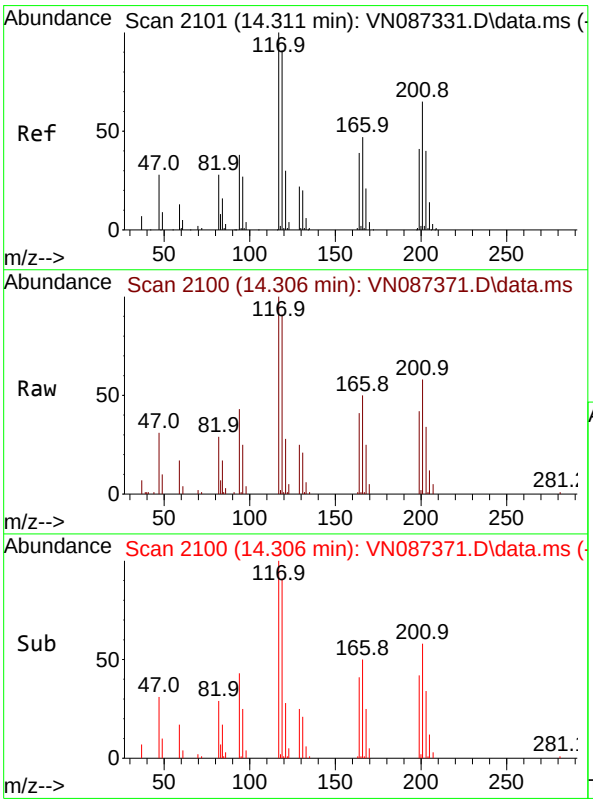
Ion	Ratio	Lower	Upper
91	100		
92	53.7	26.2	78.6
134	24.5	12.4	37.2



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

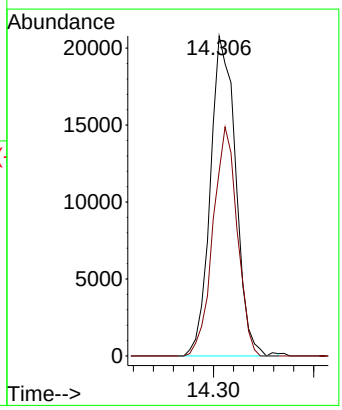
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

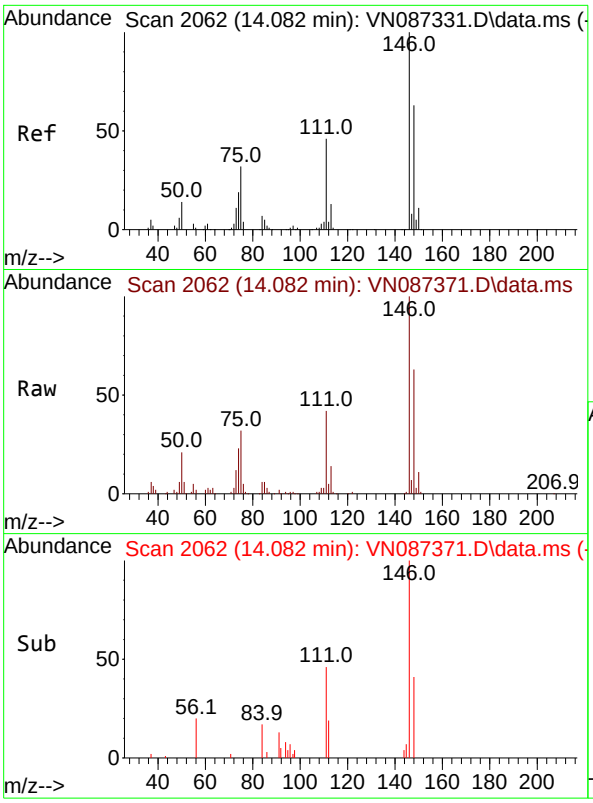


#90
Hexachloroethane
Concen: 19.744 ug/l
RT: 14.306 min Scan# 2100
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:117 Resp: 36514

Ion	Ratio	Lower	Upper
117	100		
201	68.4	32.8	98.4

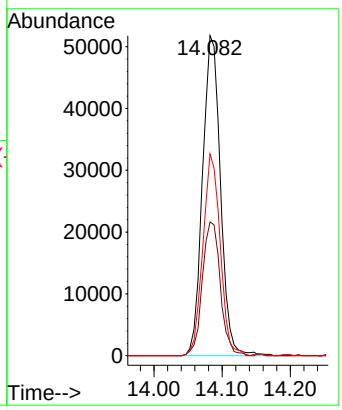




#91
1,2-Dichlorobenzene
Concen: 19.334 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:146 Resp: 9473

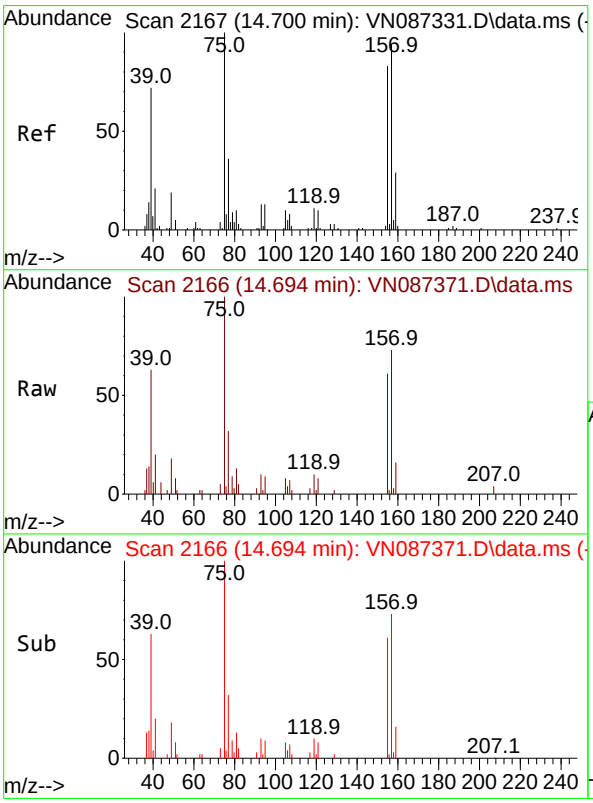
Ion	Ratio	Lower	Upper
146	100		
111	41.9	22.0	66.0
148	60.9	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

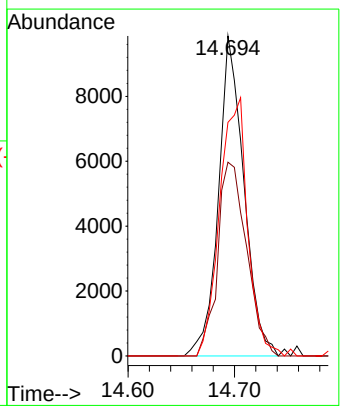
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

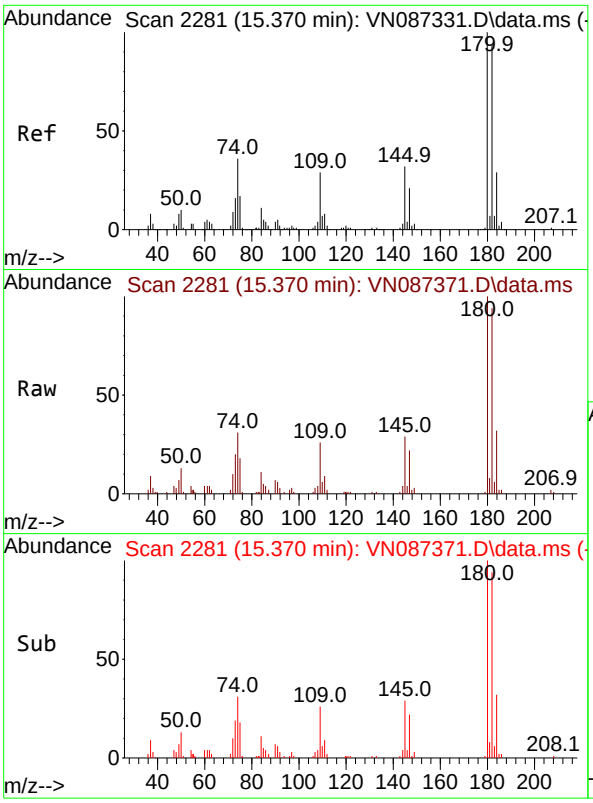


#92
1,2-Dibromo-3-Chloropropane
Concen: 16.304 ug/l
RT: 14.694 min Scan# 2166
Delta R.T. -0.006 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion: 75 Resp: 16367

Ion	Ratio	Lower	Upper
75	100		
155	68.7	37.3	111.8
157	89.0	46.2	138.6





#93
1,2,4-Trichlorobenzene
Concen: 19.305 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

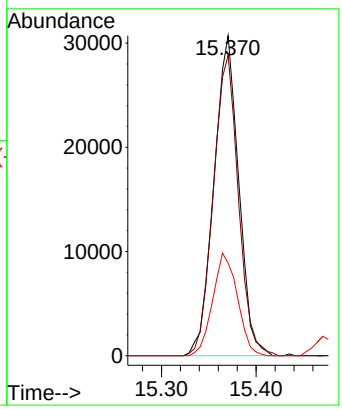
Tgt Ion:180 Resp: 5556

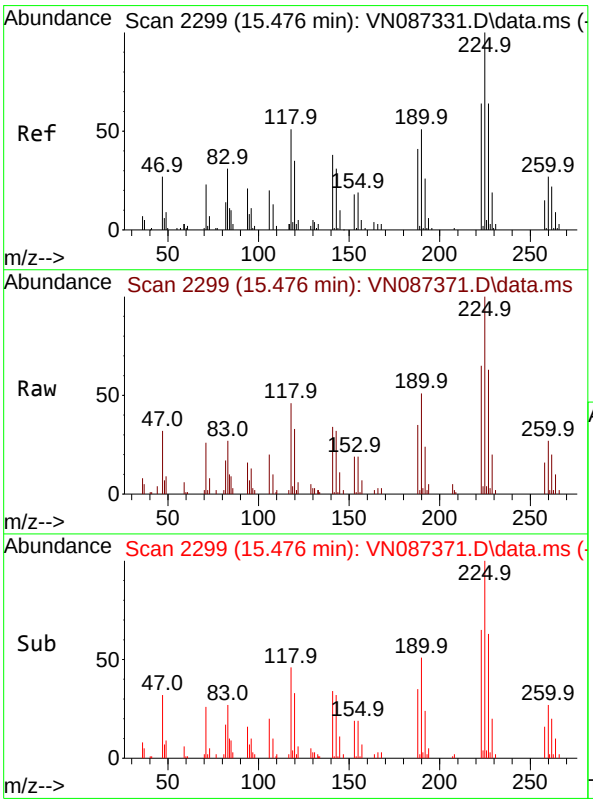
Ion	Ratio	Lower	Upper
180	100		
182	95.0	47.3	141.8
145	32.1	15.4	46.4

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025

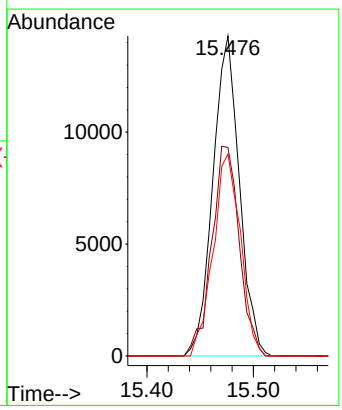


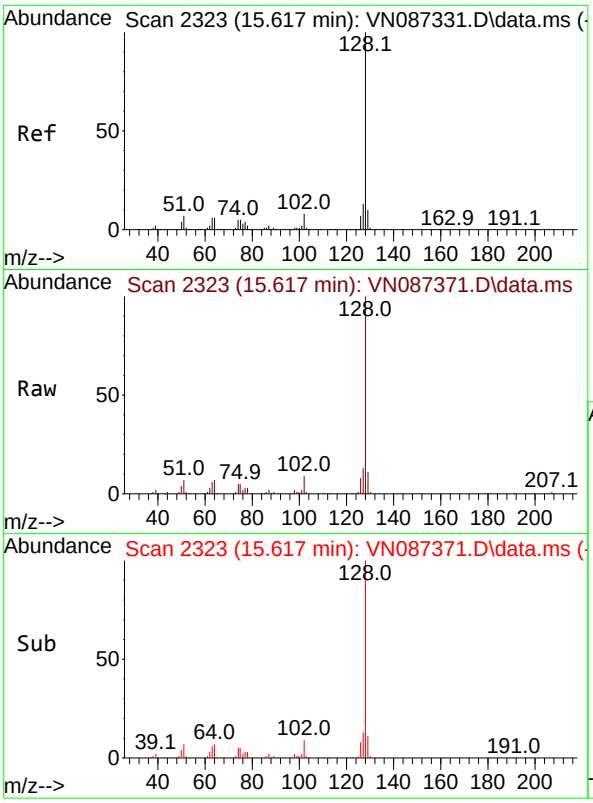


#94
Hexachlorobutadiene
Concen: 23.120 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:225 Resp: 24726

Ion	Ratio	Lower	Upper
225	100		
223	68.1	32.1	96.3
227	64.9	31.3	93.9

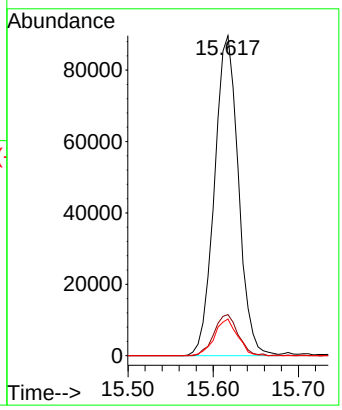




#95
Naphthalene
Concen: 17.202 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:128 Resp: 17539

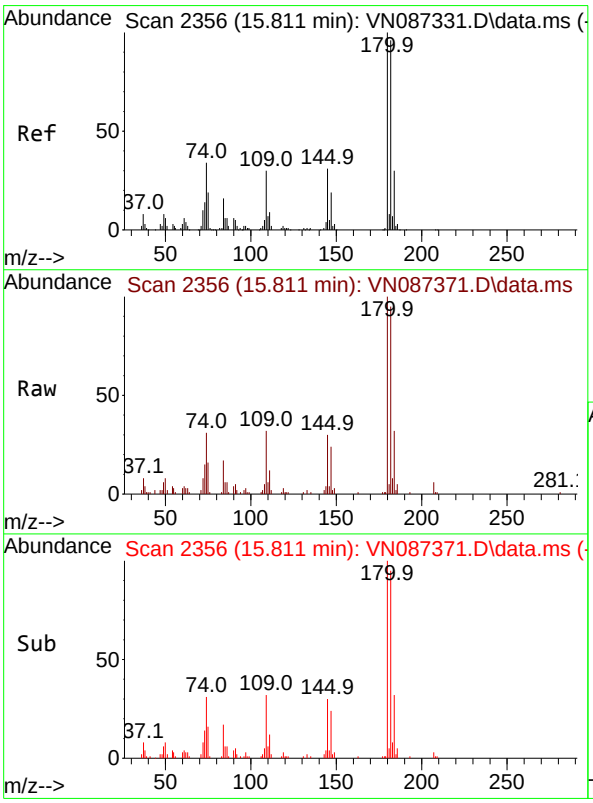
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.5	15.7
129	11.0	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBS01

Manual Integrations APPROVED

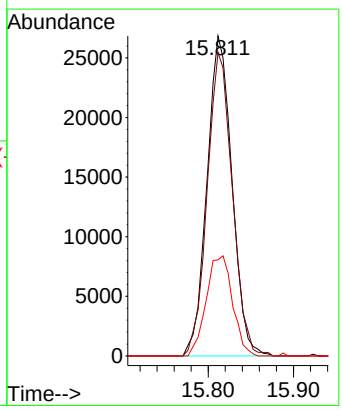
Reviewed By :John Carlone 07/22/2025
Supervised By :Mahesh Dadoda 07/22/2025



#96
1,2,3-Trichlorobenzene
Concen: 18.966 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087371.D
Acq: 21 Jul 2025 11:55

Tgt Ion:180 Resp: 54756

Ion	Ratio	Lower	Upper
180	100		
182	95.0	47.1	141.4
145	32.8	16.9	50.6



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

Report of Analysis

Client:	Weston Solutions, Inc.		Date Collected:		
Project:	RFP 905A		Date Received:		
Client Sample ID:	VN0721WBSD01		SDG No.:	Q2641	
Lab Sample ID:	VN0721WBSD01		Matrix:	TCLP	
Analytical Method:	8260D		% Solid:	0	
Sample Wt/Vol:	5 Units: mL		Final Vol:	5000	uL
Soil Aliquot Vol:	uL		Test:	TCLP VOA	
GC Column:	RXI-624 ID : 0.25		Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087372.D	1	07/21/25 12:30	VN072125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	19.0		0.26	5.00	ug/L
75-35-4	1,1-Dichloroethene	17.6		0.23	5.00	ug/L
78-93-3	2-Butanone	88.2		0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	19.8		0.25	5.00	ug/L
67-66-3	Chloroform	18.4		0.25	5.00	ug/L
71-43-2	Benzene	19.2		0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	18.8		0.22	5.00	ug/L
79-01-6	Trichloroethene	18.8		0.090	5.00	ug/L
127-18-4	Tetrachloroethene	19.3		0.23	5.00	ug/L
108-90-7	Chlorobenzene	18.6		0.12	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.2		74 - 125	94%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	50.6		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.0		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	191000	8.206			
540-36-3	1,4-Difluorobenzene	329000	9.082			
3114-55-4	Chlorobenzene-d5	296000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	159000	13.77			

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\VN072125\
Data File : VN087372.D
Acq On : 21 Jul 2025 12:30
Operator : JC\MD
Sample : VN0721WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 22 03:05:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Semsettin Yesilyurt 07/22/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	190787	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	328848	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	296338	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	158557	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	152790	47.198	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 94.400%			
35) Dibromofluoromethane	8.147	113	114140	50.318	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.640%			
50) Toluene-d8	10.547	98	409499	50.608	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.220%			
62) 4-Bromofluorobenzene	12.829	95	149416	49.981	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 99.960%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	45407	22.408	ug/l	90
3) Chloromethane	2.383	50	47847	18.776	ug/l	91
4) Vinyl Chloride	2.542	62	48142	19.010	ug/l	92
5) Bromomethane	2.983	94	26007	19.831	ug/l	98
6) Chloroethane	3.136	64	30475	18.453	ug/l	100
7) Trichlorofluoromethane	3.512	101	73764	19.698	ug/l	88
8) Diethyl Ether	3.959	74	25592	17.618	ug/l	89
9) 1,1,2-Trichlorotrifluo...	4.359	101	37700	19.612	ug/l	98
10) Methyl Iodide	4.577	142	30353	19.251	ug/l	98
11) Tert butyl alcohol	5.518	59	56647	92.156	ug/l	99
12) 1,1-Dichloroethene	4.330	96	38399	17.628	ug/l	93
13) Acrolein	4.177	56	42955	87.077	ug/l	98
14) Allyl chloride	5.018	41	65923	16.722	ug/l	98
15) Acrylonitrile	5.706	53	148783	89.198	ug/l	99
16) Acetone	4.430	43	126421	83.289	ug/l	99
17) Carbon Disulfide	4.700	76	119923	18.569	ug/l	96
18) Methyl Acetate	5.018	43	69706	18.279	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	144862	18.042	ug/l	99
20) Methylene Chloride	5.265	84	46355	17.652	ug/l	95
21) trans-1,2-Dichloroethene	5.771	96	43844	17.851	ug/l	86
22) Diisopropyl ether	6.659	45	157443	19.040	ug/l #	95
23) Vinyl Acetate	6.589	43	712495	98.517	ug/l	99
24) 1,1-Dichloroethane	6.547	63	86682	18.170	ug/l	97
25) 2-Butanone	7.471	43	206854	88.202	ug/l	99
26) 2,2-Dichloropropane	7.471	77	75365	20.319	ug/l	98
27) cis-1,2-Dichloroethene	7.471	96	52133	18.436	ug/l	96
28) Bromochloromethane	7.800	49	42566	18.643	ug/l	99
29) Tetrahydrofuran	7.830	42	136575	89.644	ug/l	96
30) Chloroform	7.947	83	87803	18.388	ug/l	99
31) Cyclohexane	8.235	56	78716	19.779	ug/l	98
32) 1,1,1-Trichloroethane	8.153	97	78287	18.929	ug/l	93
36) 1,1-Dichloropropene	8.353	75	59988	20.016	ug/l	99
37) Ethyl Acetate	7.547	43	77704	17.953	ug/l	98
38) Carbon Tetrachloride	8.347	117	65528	19.849	ug/l	99
39) Methylcyclohexane	9.582	83	67946	20.941	ug/l	96
40) Benzene	8.588	78	185496	19.151	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087372.D
Acq On : 21 Jul 2025 12:30
Operator : JC\MD
Sample : VN0721WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 22 03:05:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Semsettin Yesilyurt 07/22/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	40867	18.057	ug/l		95
42) 1,2-Dichloroethane	8.653	62	69079	18.806	ug/l		99
43) Isopropyl Acetate	8.671	43	127752	19.014	ug/l		99
44) Trichloroethene	9.335	130	43070	18.818	ug/l		96
45) 1,2-Dichloropropane	9.606	63	47601	19.341	ug/l		100
46) Dibromomethane	9.694	93	34895	18.937	ug/l		99
47) Bromodichloromethane	9.865	83	69620	18.757	ug/l		98
48) Methyl methacrylate	9.665	41	57104	18.878	ug/l		99
49) 1,4-Dioxane	9.688	88	16301	351.858	ug/l	#	93
51) 4-Methyl-2-Pentanone	10.429	43	399338	93.970	ug/l		99
52) Toluene	10.612	92	114736	19.488	ug/l		97
53) t-1,3-Dichloropropene	10.818	75	70010	18.637	ug/l		96
54) cis-1,3-Dichloropropene	10.294	75	75349	19.419	ug/l		97
55) 1,1,2-Trichloroethane	10.994	97	46825	19.645	ug/l		88
56) Ethyl methacrylate	10.859	69	69998	18.249	ug/l		95
57) 1,3-Dichloropropane	11.147	76	78181	18.971	ug/l		97
58) 2-Chloroethyl Vinyl ether	10.141	63	202470	103.552	ug/l		100
59) 2-Hexanone	11.176	43	264149	93.688	ug/l		99
60) Dibromochloromethane	11.341	129	49899	18.357	ug/l		100
61) 1,2-Dibromoethane	11.447	107	47255	18.856	ug/l		95
64) Tetrachloroethene	11.082	164	36839	19.315	ug/l		95
65) Chlorobenzene	11.871	112	123556	18.571	ug/l		94
66) 1,1,1,2-Tetrachloroethane	11.941	131	43600	19.273	ug/l		100
67) Ethyl Benzene	11.941	91	204755	18.695	ug/l		100
68) m/p-Xylenes	12.047	106	159328	38.848	ug/l		100
69) o-Xylene	12.382	106	73560	18.777	ug/l		97
70) Styrene	12.394	104	127855	19.400	ug/l		99
71) Bromoform	12.559	173	34274	18.753	ug/l	#	96
73) Isopropylbenzene	12.676	105	192540	19.294	ug/l		100
74) N-amyl acetate	12.518	43	83031m	20.026	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	71491	19.039	ug/l		99
76) 1,2,3-Trichloropropane	12.976	75	62574m	17.599	ug/l		
77) Bromobenzene	12.959	156	48290	18.659	ug/l		98
78) n-propylbenzene	13.018	91	243308	19.379	ug/l		100
79) 2-Chlorotoluene	13.106	91	143207	18.559	ug/l		97
80) 1,3,5-Trimethylbenzene	13.153	105	162843	19.152	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.718	75	22418	17.252	ug/l		98
82) 4-Chlorotoluene	13.206	91	148212	18.449	ug/l		98
83) tert-Butylbenzene	13.418	119	138461	19.498	ug/l		99
84) 1,2,4-Trimethylbenzene	13.459	105	172373	19.852	ug/l		98
85) sec-Butylbenzene	13.594	105	212425	19.859	ug/l		100
86) p-Isopropyltoluene	13.706	119	175039	20.419	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	98015	19.297	ug/l		98
88) 1,4-Dichlorobenzene	13.788	146	99611	18.362	ug/l		98
89) n-Butylbenzene	14.035	91	168514	20.587	ug/l		99
90) Hexachloroethane	14.312	117	35162	19.360	ug/l		98
91) 1,2-Dichlorobenzene	14.082	146	94601	19.659	ug/l		94
92) 1,2-Dibromo-3-Chloropr...	14.700	75	16412	16.647	ug/l		98
93) 1,2,4-Trichlorobenzene	15.370	180	52419	18.545	ug/l		99
94) Hexachlorobutadiene	15.476	225	24088	22.935	ug/l		99
95) Naphthalene	15.617	128	172523	17.229	ug/l		99
96) 1,2,3-Trichlorobenzene	15.817	180	52053	18.358	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087372.D
Acq On : 21 Jul 2025 12:30
Operator : JC\MD
Sample : VN0721WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 22 03:05:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Semsettin Yesilyurt 07/22/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072125\
Data File : VN087372.D
Acq On : 21 Jul 2025 12:30
Operator : JC\MD
Sample : VN0721WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 22 03:05:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N071625W.M
Quant Title : SW846 8260
QLast Update : Thu Jul 17 02:56:13 2025
Response via : Initial Calibration

Instrument :
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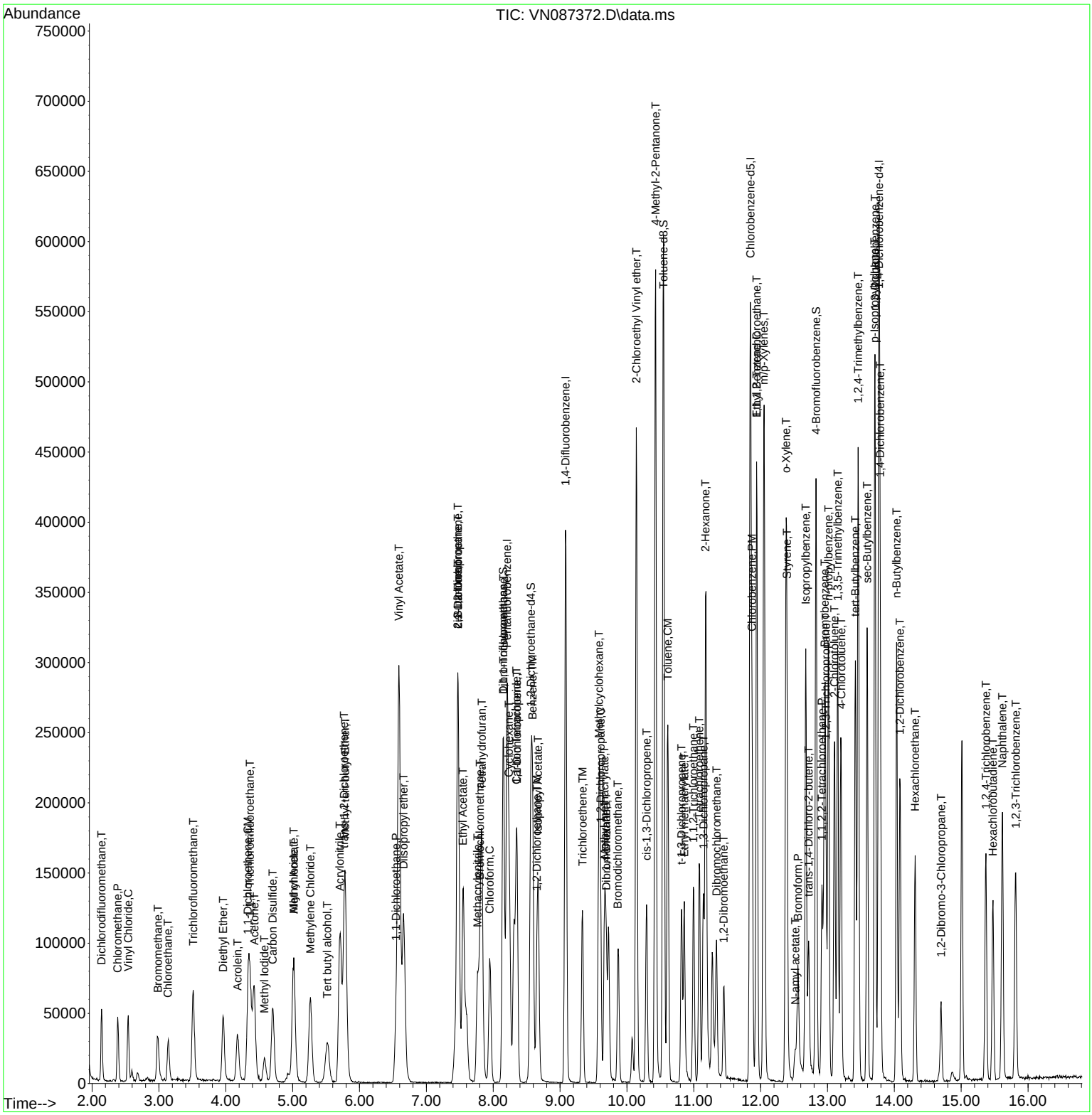
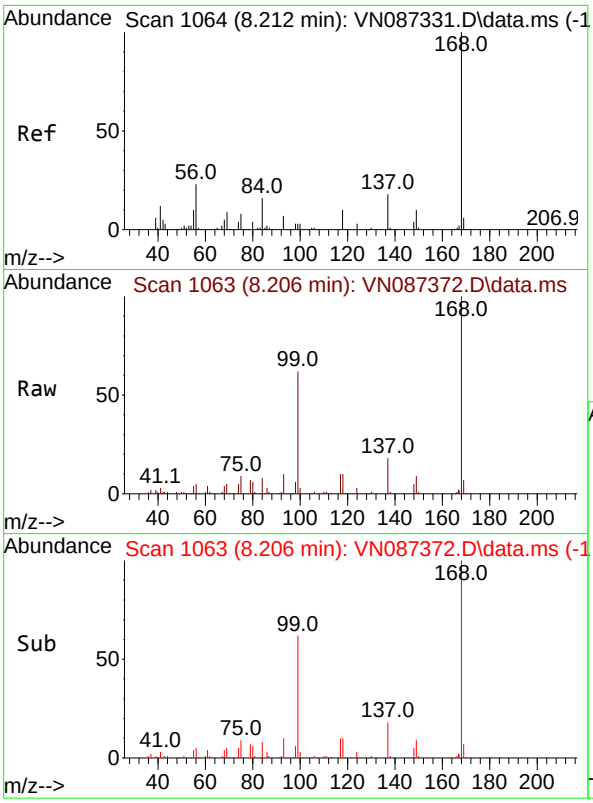
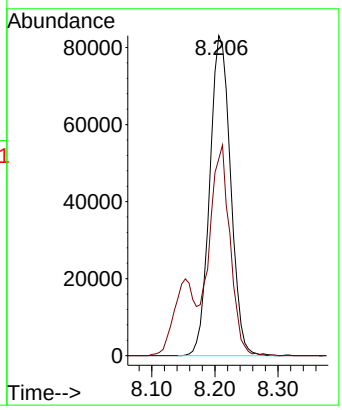




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:168 Resp: 19078

Ion	Ratio	Lower	Upper
168	100		
99	61.5	47.9	71.9



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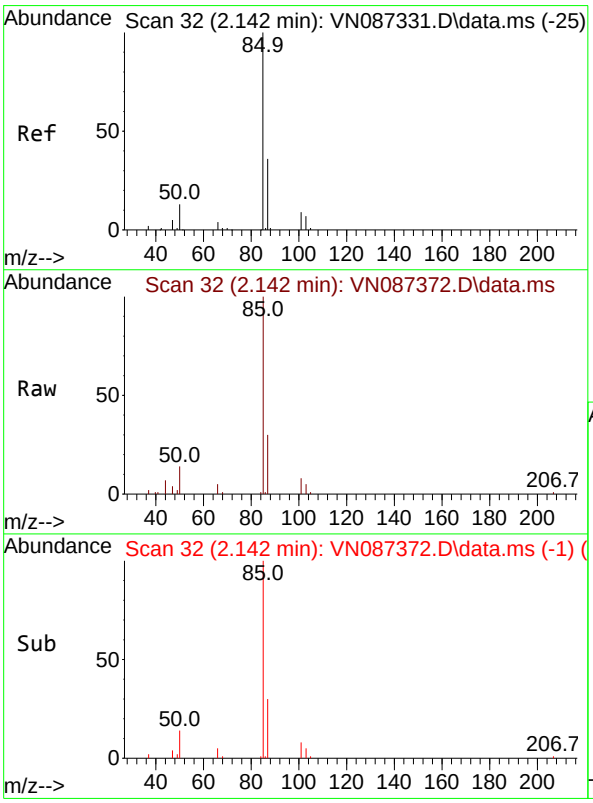
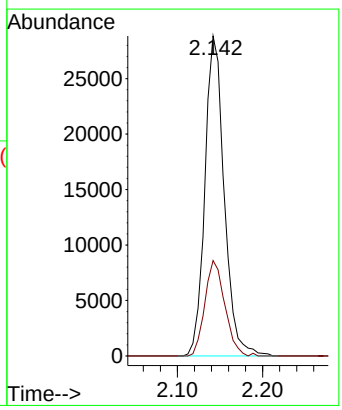
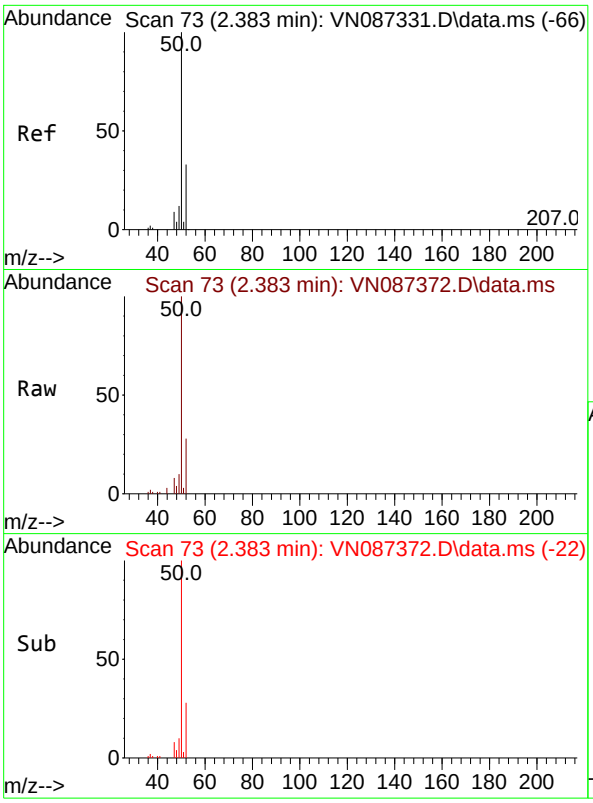


#2
Dichlorodifluoromethane
Concen: 22.408 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 85 Resp: 45407

Ion	Ratio	Lower	Upper
85	100		
87	29.8	17.8	53.3

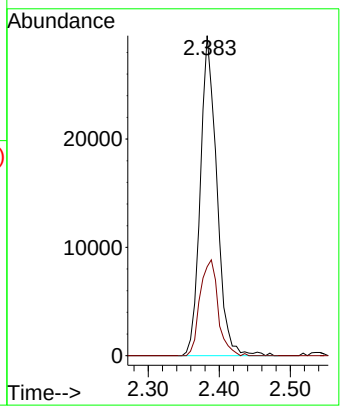




#3
Chloromethane
Concen: 18.776 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 50 Resp: 4784

Ion	Ratio	Lower	Upper
50	100		
52	27.8	26.3	39.5



Instrument :
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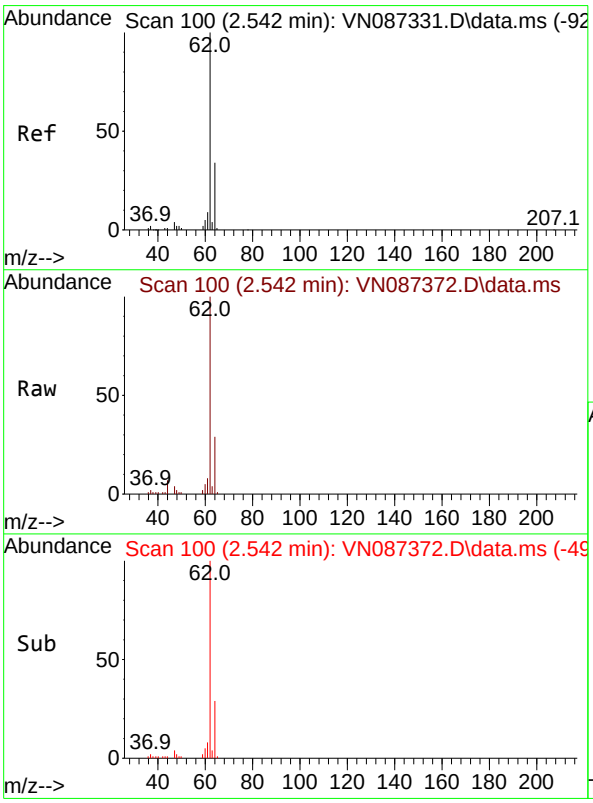
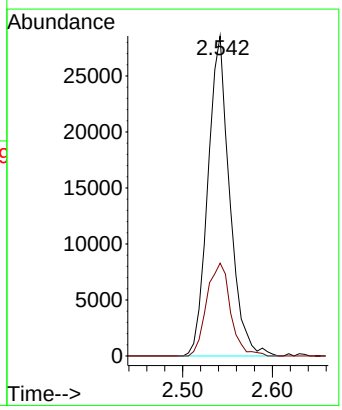
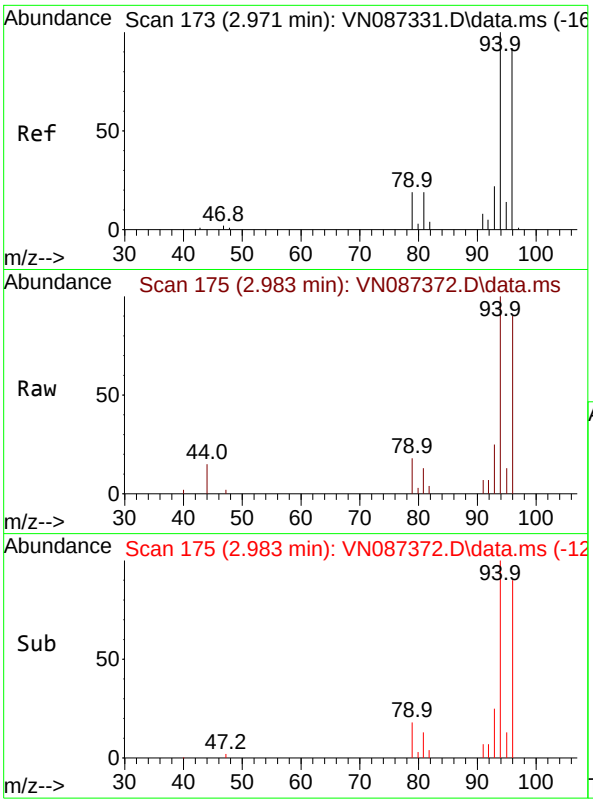


#4
Vinyl Chloride
Concen: 19.010 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 62 Resp: 48142

Ion	Ratio	Lower	Upper
62	100		
64	29.0	27.0	40.6

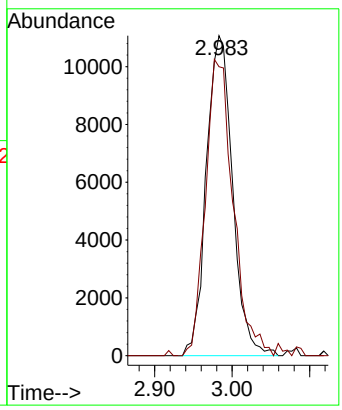




#5
Bromomethane
Concen: 19.831 ug/l
RT: 2.983 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 94 Resp: 2600

Ion	Ratio	Lower	Upper
94	100		
96	90.3	73.4	110.2



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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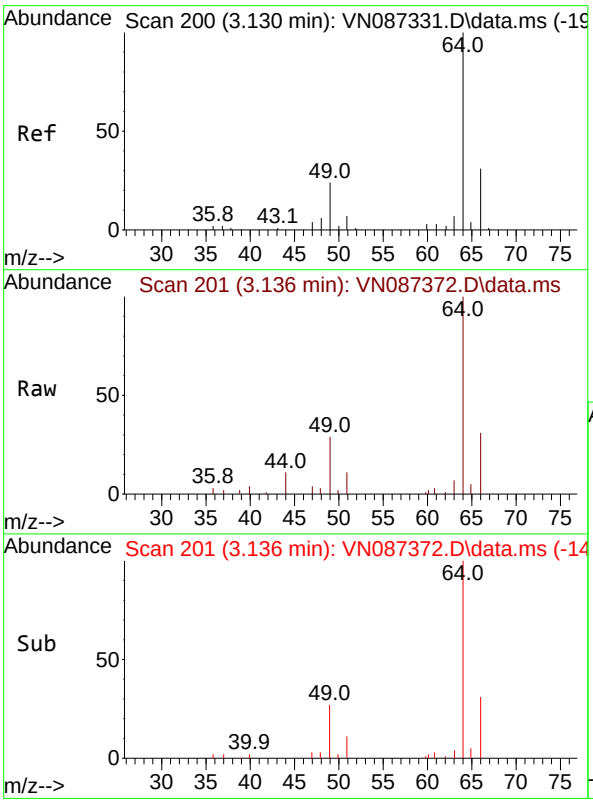
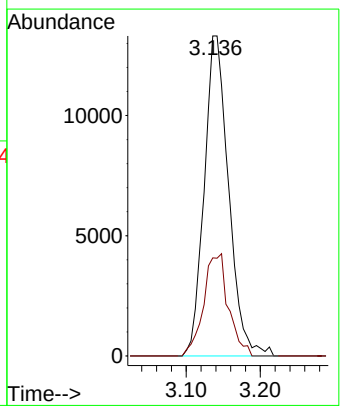
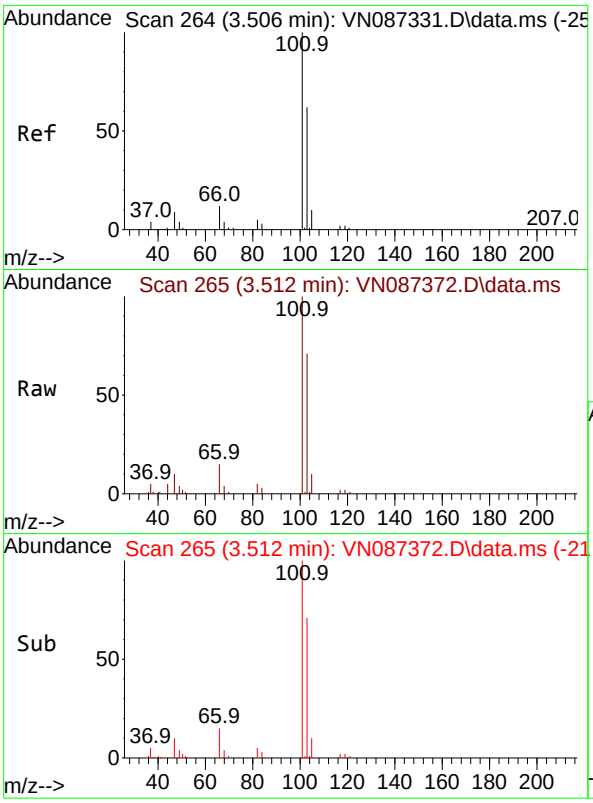


#6
Chloroethane
Concen: 18.453 ug/l
RT: 3.136 min Scan# 201
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 64 Resp: 30475

Ion	Ratio	Lower	Upper
64	100		
66	30.7	24.6	36.8

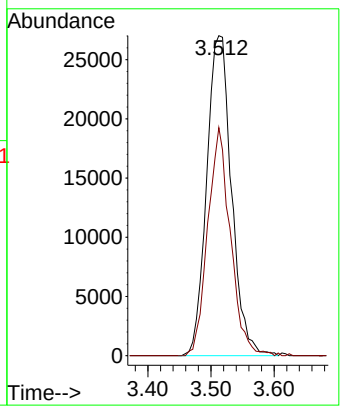




#7
Trichlorofluoromethane
Concen: 19.698 ug/l
RT: 3.512 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:101 Resp: 7376

Ion	Ratio	Lower	Upper
101	100		
103	71.3	49.8	74.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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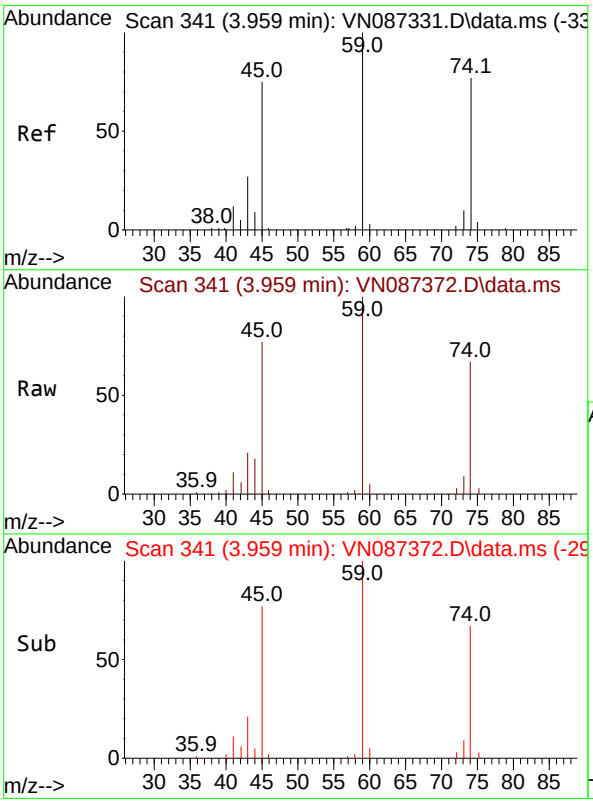
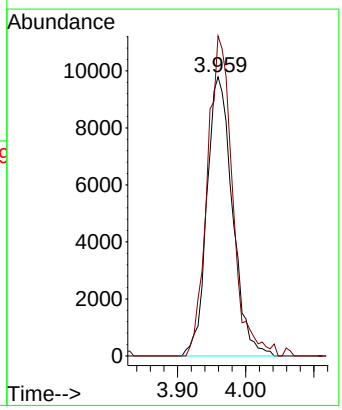
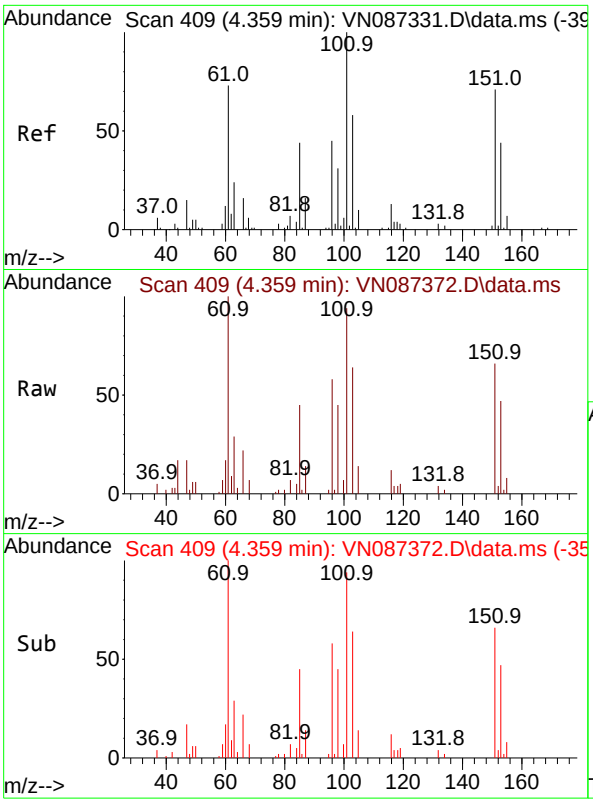


#8
Diethyl Ether
Concen: 17.618 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 74 Resp: 25592

Ion	Ratio	Lower	Upper
74	100		
45	112.5	50.8	152.5

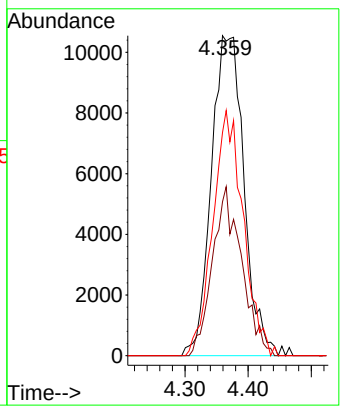




#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.612 ug/l
RT: 4.359 min Scan# 4(
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:101 Resp: 3770(

Ion	Ratio	Lower	Upper
101	100		
85	47.3	37.3	55.9
151	71.9	58.9	88.3



Instrument :
MSVOA_N
ClientSampleId :
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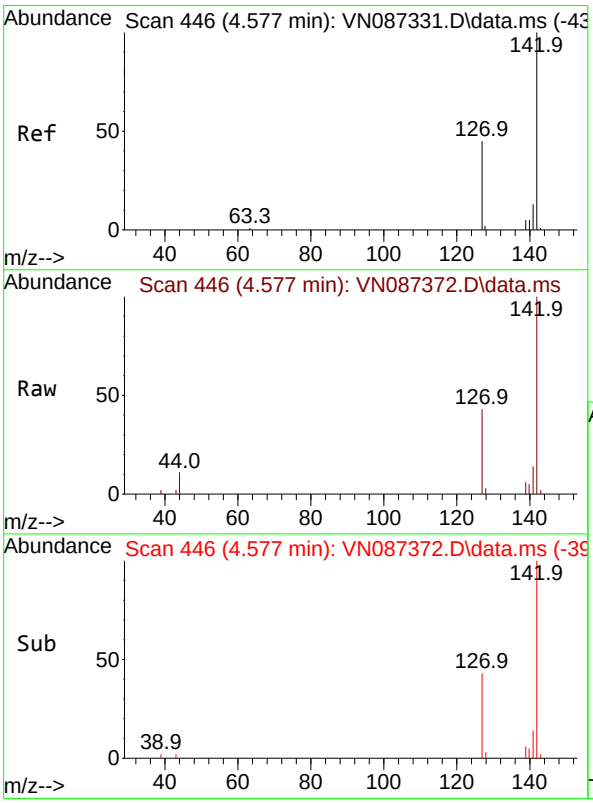
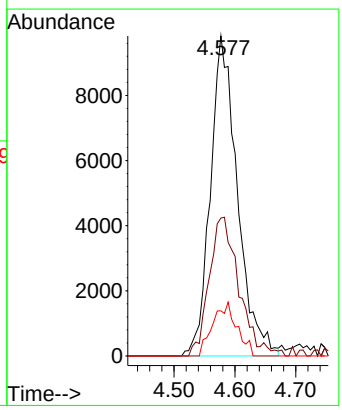
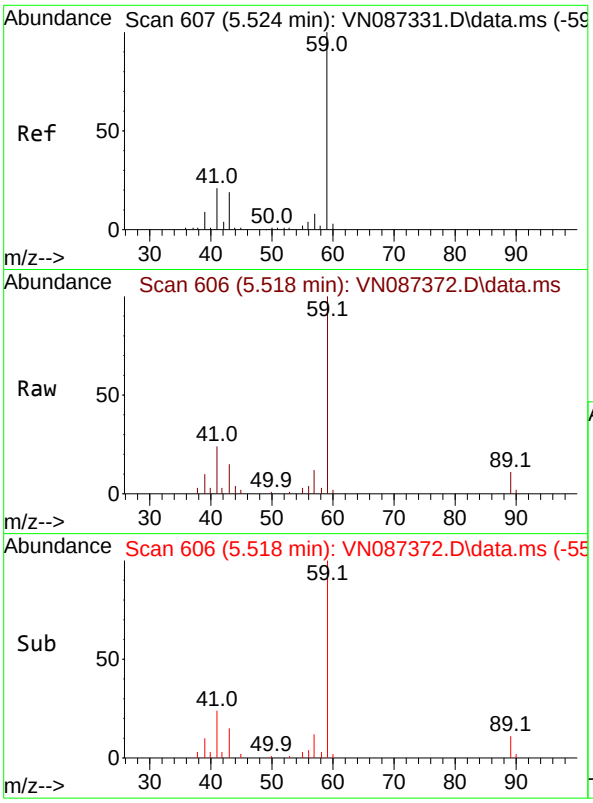


#10
Methyl Iodide
Concen: 19.251 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:142 Resp: 30353

Ion	Ratio	Lower	Upper
142	100		
127	43.1	35.7	53.5
141	14.1	10.4	15.6

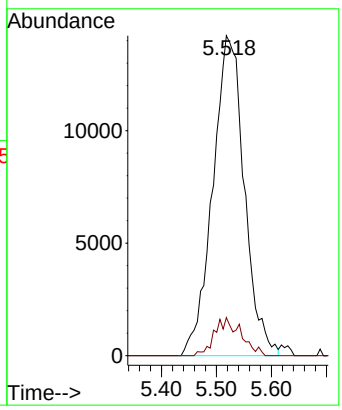




#11
Tert butyl alcohol
Concen: 92.156 ug/l
RT: 5.518 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 59 Resp: 5664

Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.3	12.5



Instrument :
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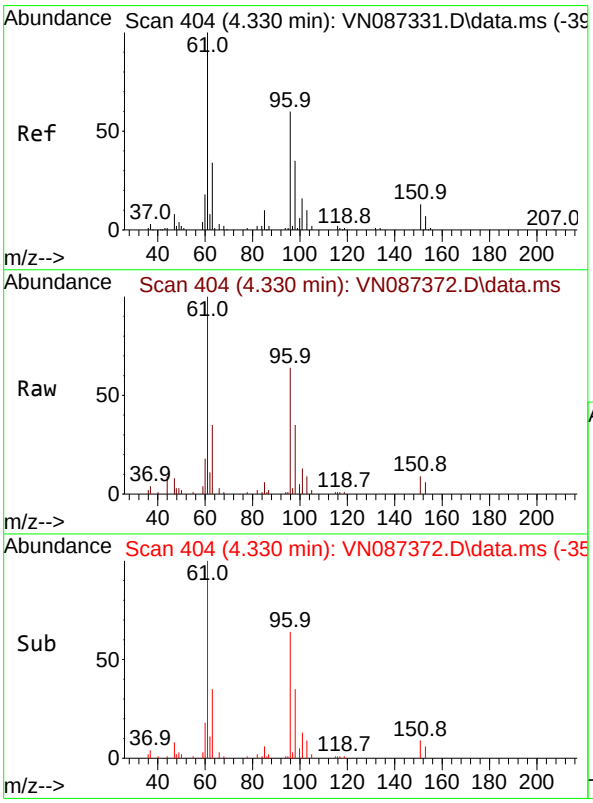
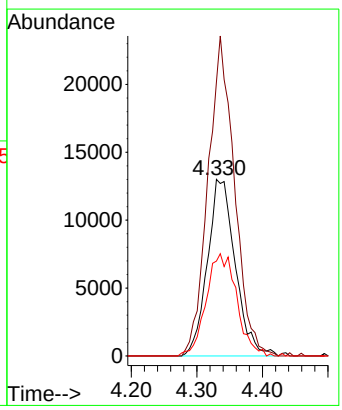
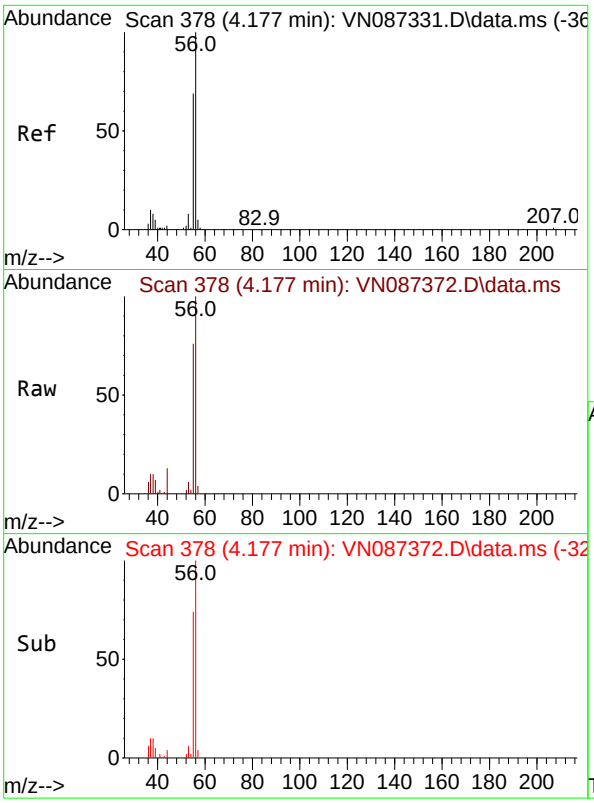


#12
1,1-Dichloroethene
Concen: 17.628 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 96 Resp: 38399

Ion	Ratio	Lower	Upper
96	100		
61	155.2	132.3	198.5
98	53.7	46.8	70.2

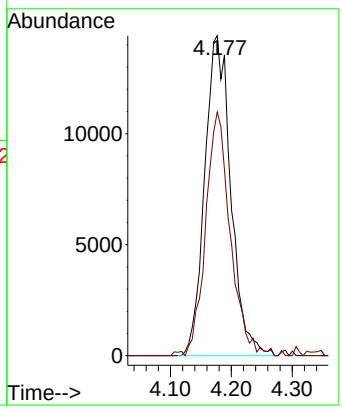




#13
Acrolein
Concen: 87.077 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 56 Resp: 4295

Ion	Ratio	Lower	Upper
56	100		
55	72.0	56.2	84.4



Instrument :
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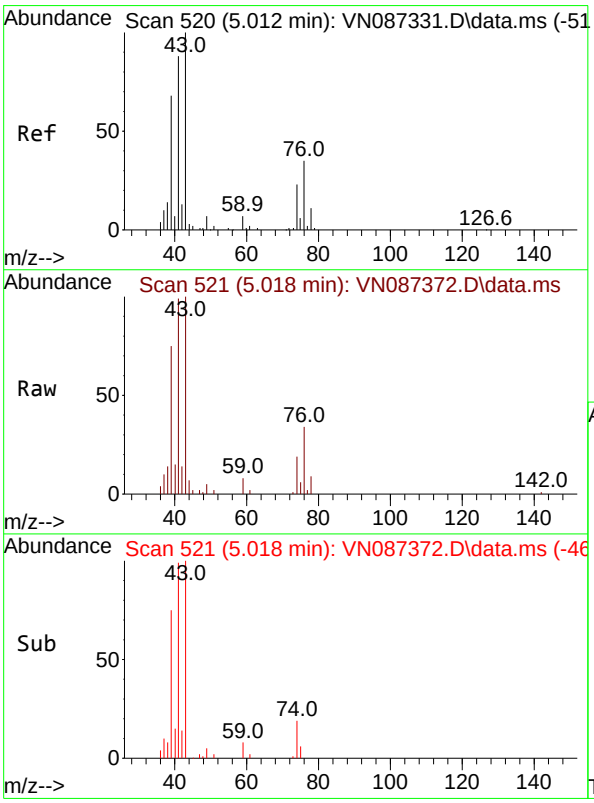
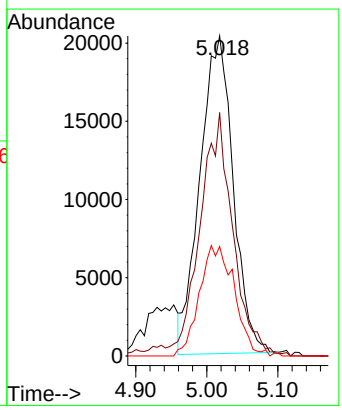
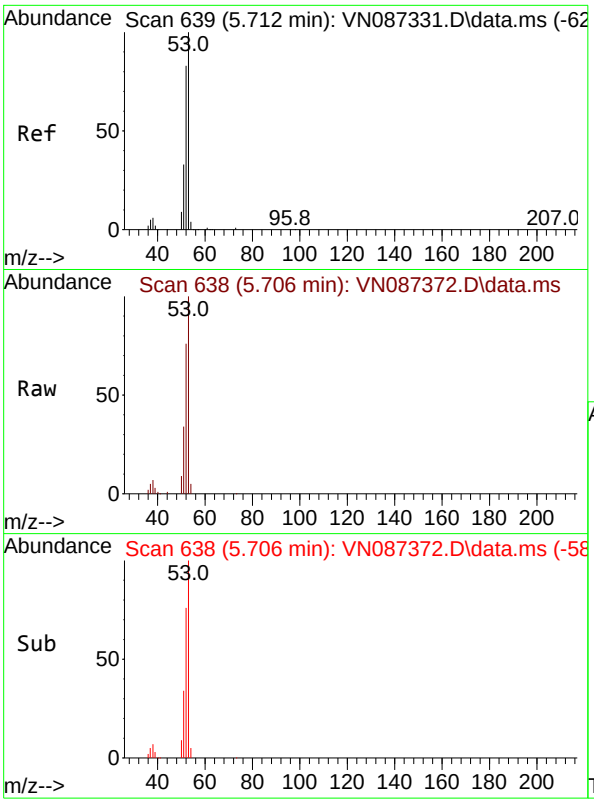


#14
Allyl chloride
Concen: 16.722 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 41 Resp: 65923

Ion	Ratio	Lower	Upper
41	100		
39	75.4	59.0	88.6
76	36.7	28.7	43.1





#15
Acrylonitrile
Concen: 89.198 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 53 Resp: 14878

Ion	Ratio	Lower	Upper
53	100		
52	81.5	65.5	98.3
51	35.0	28.7	43.1

Instrument :
MSVOA_N
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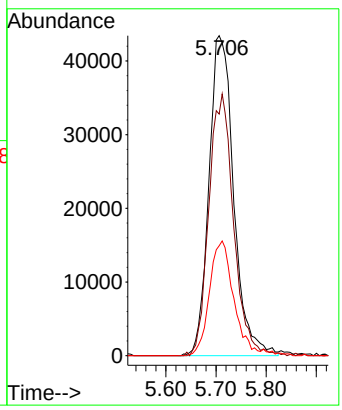
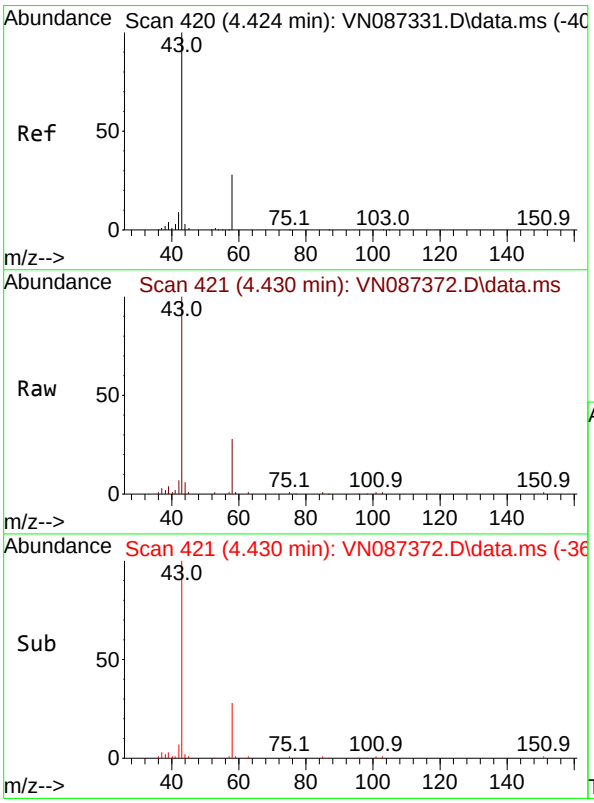
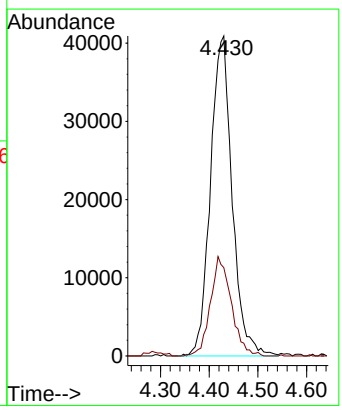


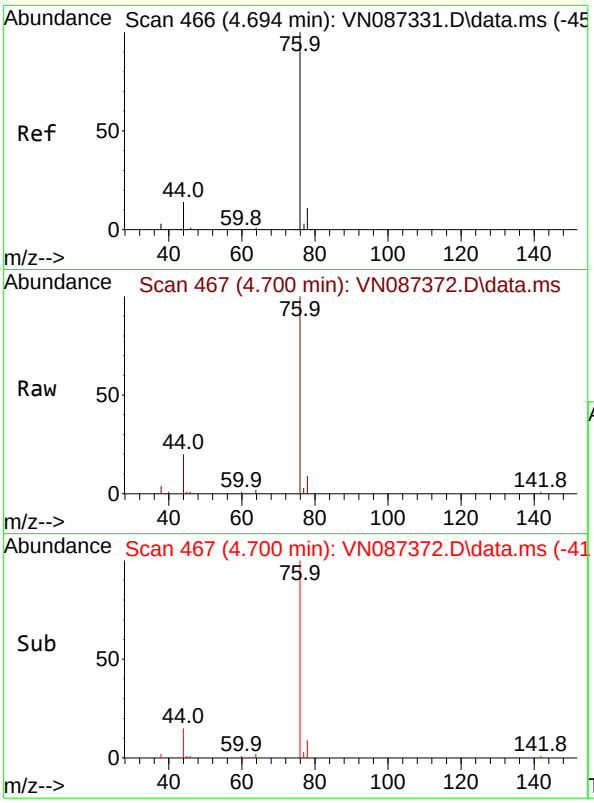


#16
Acetone
Concen: 83.289 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 126421

Ion	Ratio	Lower	Upper
43	100		
58	27.6	22.3	33.5





#17
Carbon Disulfide
Concen: 18.569 ug/l
RT: 4.700 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 76 Resp: 11992

Ion	Ratio	Lower	Upper
76	100		
78	9.3	8.6	13.0

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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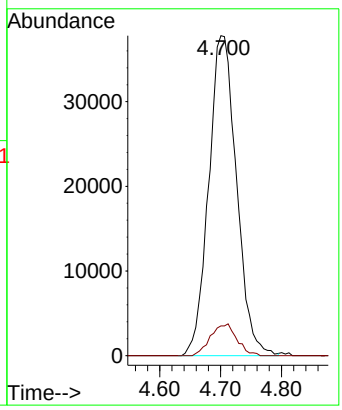
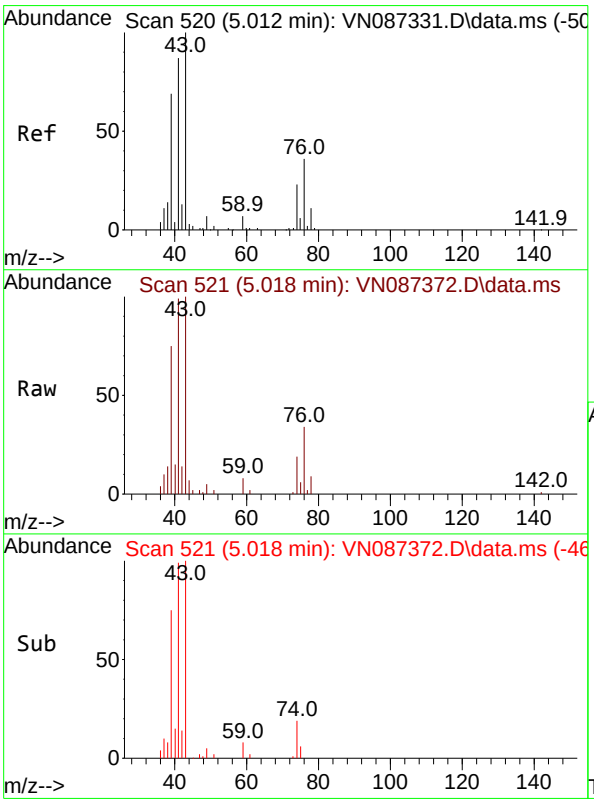
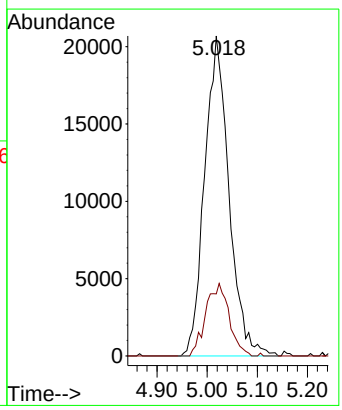


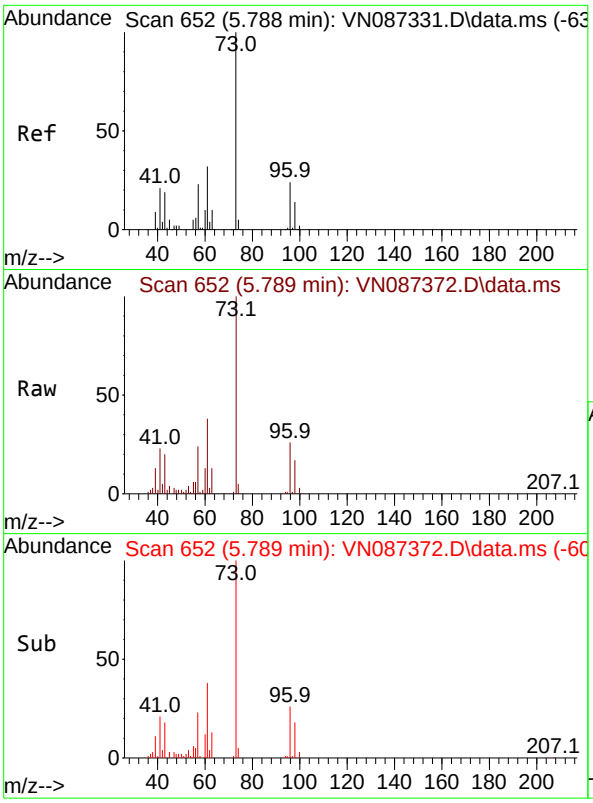


#18
Methyl Acetate
Concen: 18.279 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 69706

Ion	Ratio	Lower	Upper
43	100		
74	21.8	17.8	26.6





#19
Methyl tert-butyl Ether
Concen: 18.042 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 73 Resp: 14486

Ion	Ratio	Lower	Upper
73	100		
57	23.7	18.6	27.8

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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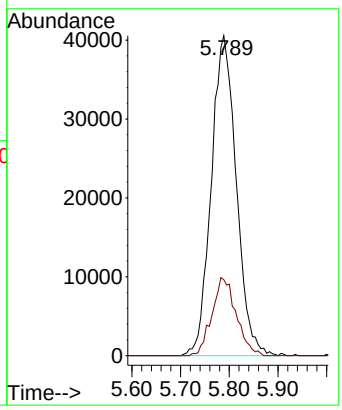
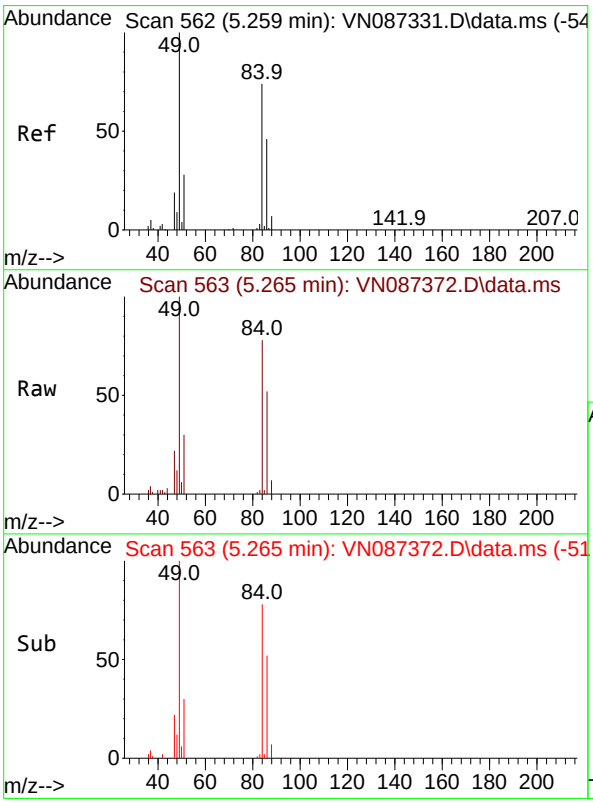
Supervised By :Semsettin Yesilyurt 07/22/2025

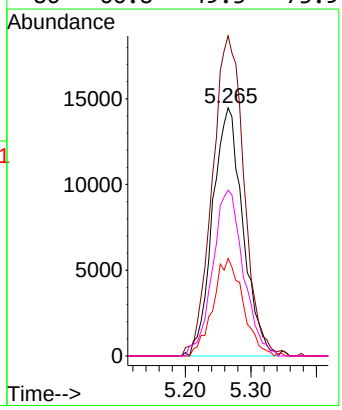


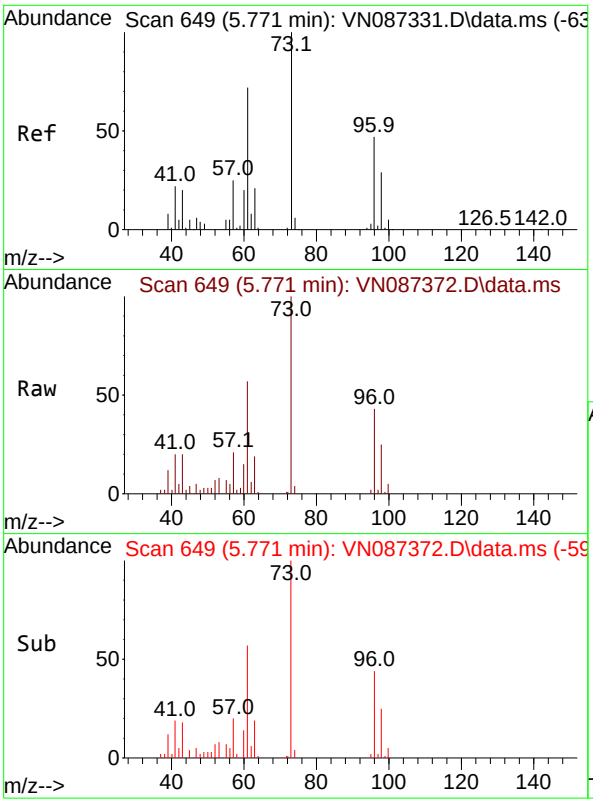


#20
Methylene Chloride
Concen: 17.652 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 84 Resp: 46355

Ion	Ratio	Lower	Upper
84	100		
49	129.0	107.5	161.3
51	39.3	30.2	45.2
86	66.8	49.3	73.9





#21
trans-1,2-Dichloroethene
Concen: 17.851 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 96 Resp: 4384

Ion	Ratio	Lower	Upper
96	100		
61	131.2	122.0	183.0
98	57.8	50.0	75.0

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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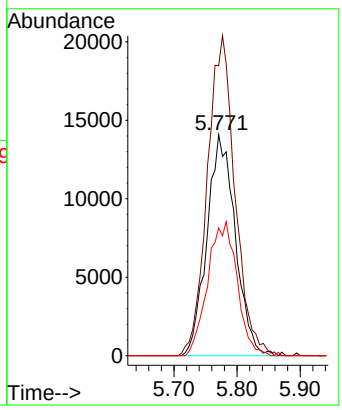
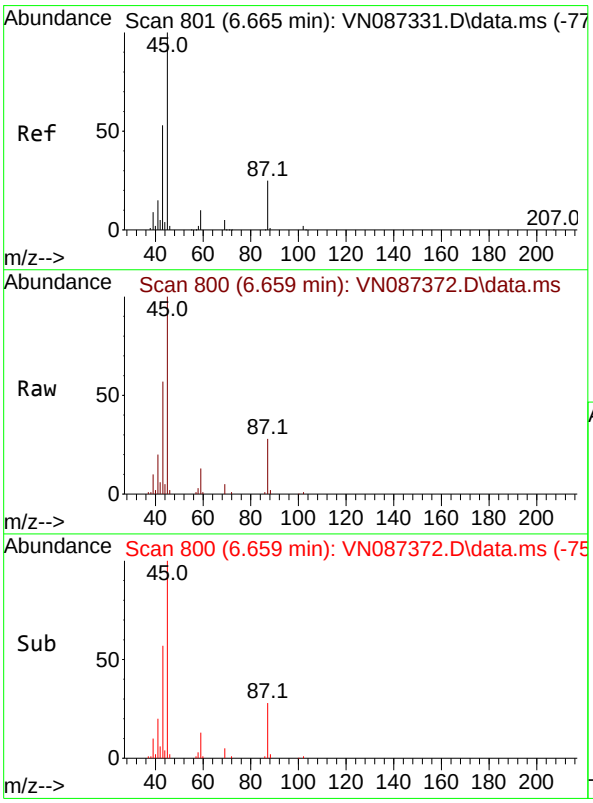
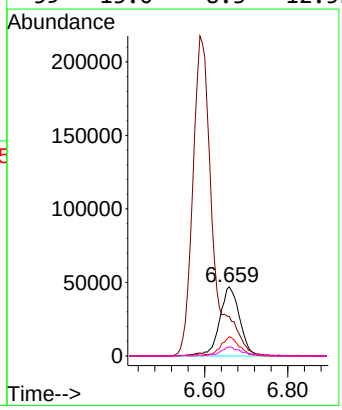


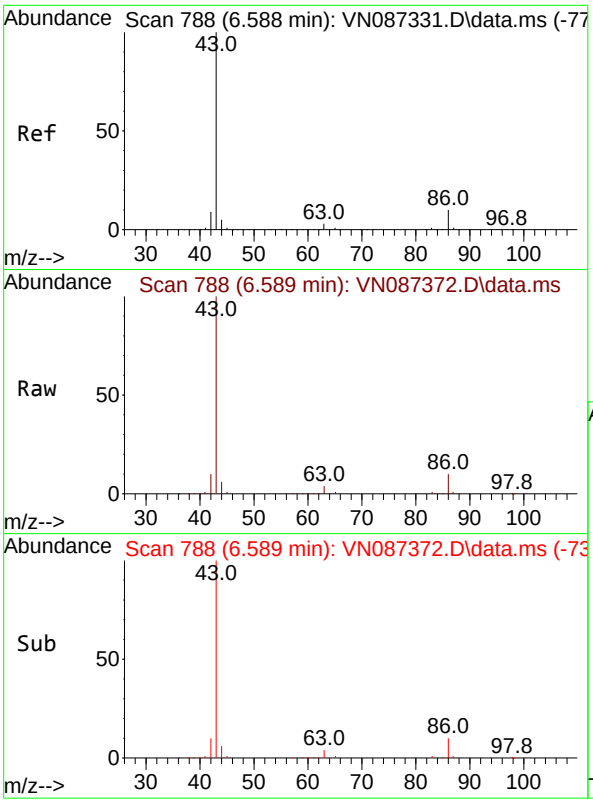


#22
Diisopropyl ether
Concen: 19.040 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 45 Resp: 157443

Ion	Ratio	Lower	Upper
45	100		
43	56.0	42.8	64.2
87	28.0	19.8	29.6
59	13.0	8.3	12.5#





#23
Vinyl Acetate
Concen: 98.517 ug/l
RT: 6.589 min Scan# 7
Delta R.T. 0.001 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 71249

Ion	Ratio	Lower	Upper
43	100		
86	9.9	7.7	11.5

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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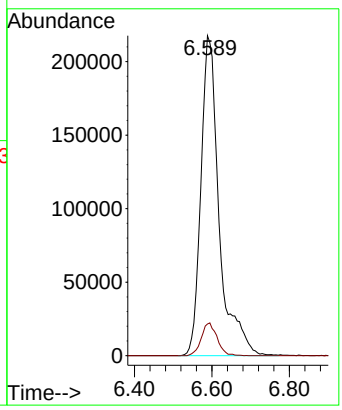
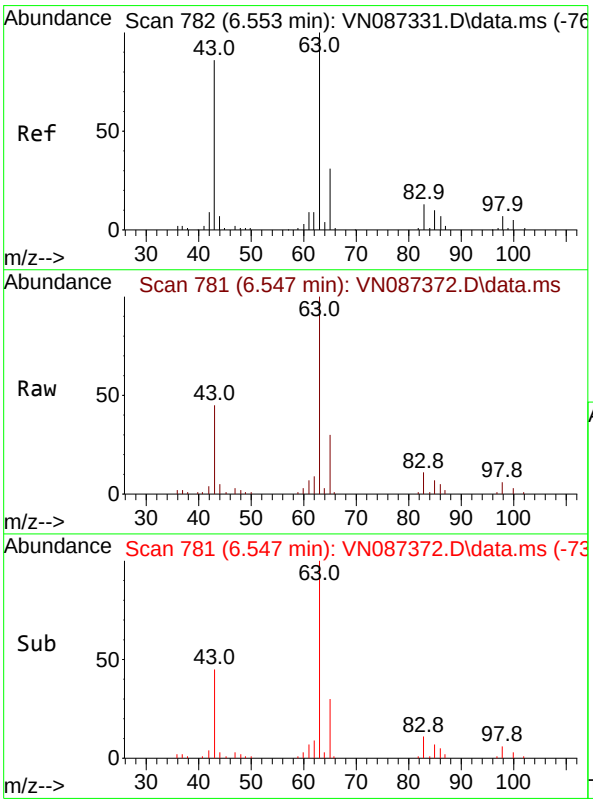
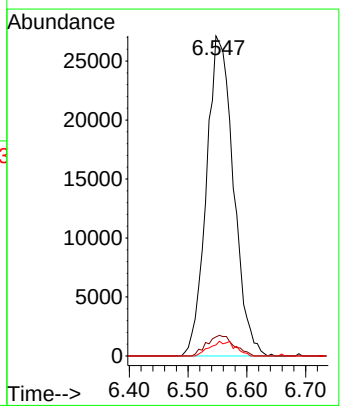


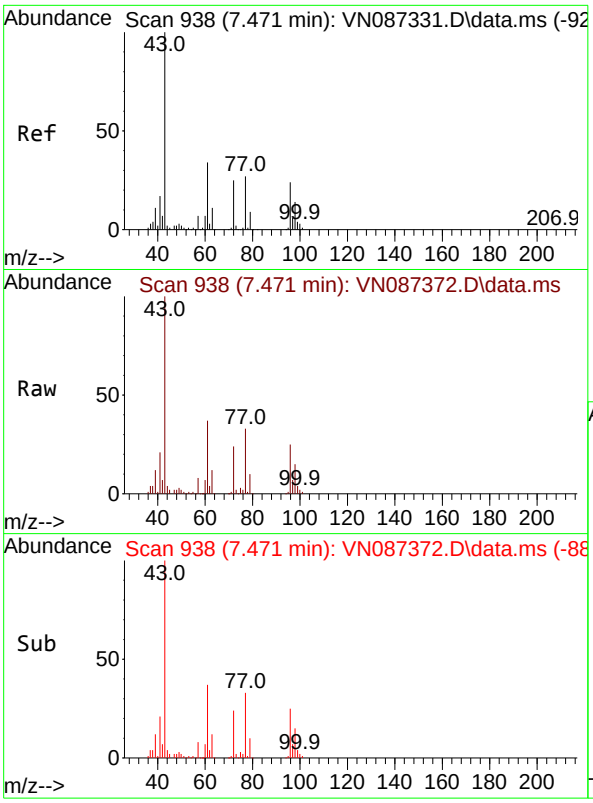


#24
1,1-Dichloroethane
Concen: 18.170 ug/l
RT: 6.547 min Scan# 781
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 63 Resp: 86682

Ion	Ratio	Lower	Upper
63	100		
98	5.9	3.3	9.9
100	3.4	2.5	7.4





#25
2-Butanone
Concen: 88.202 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 20685

Ion	Ratio	Lower	Upper
43	100		
72	24.1	19.6	29.4

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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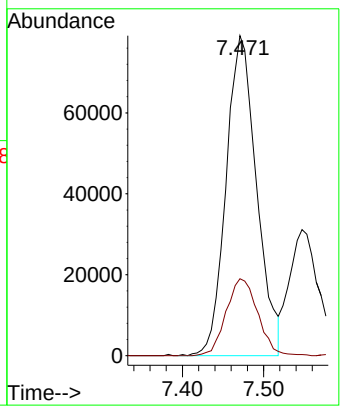
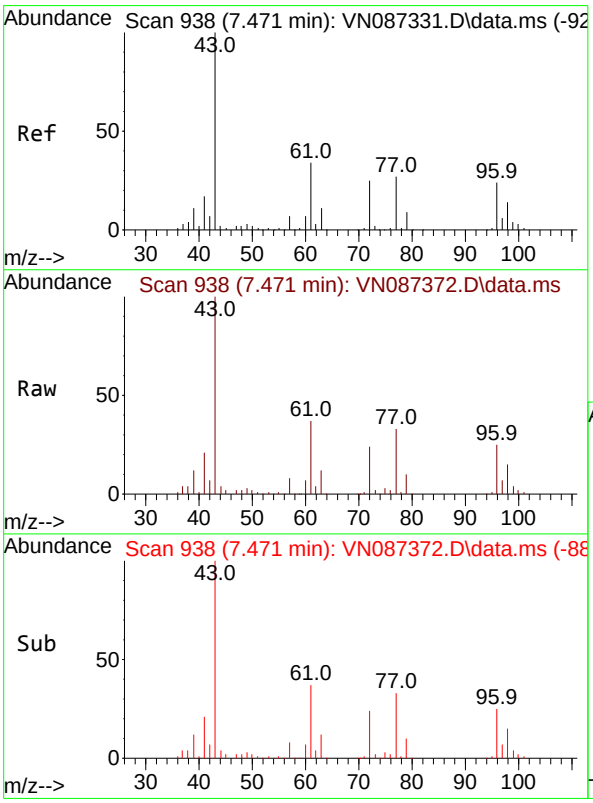
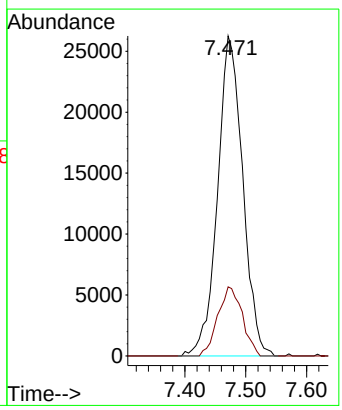


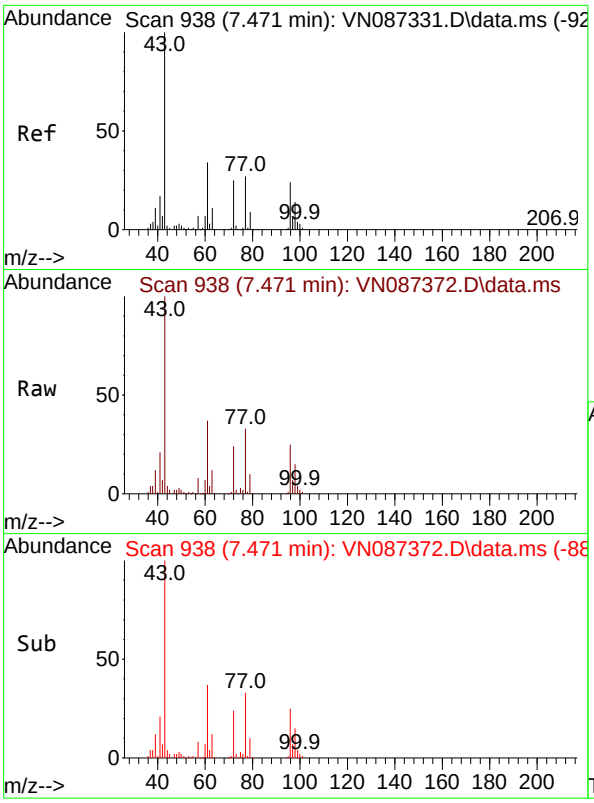


#26
2,2-Dichloropropane
Concen: 20.319 ug/l
RT: 7.471 min Scan# 938
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 77 Resp: 75365

Ion	Ratio	Lower	Upper
77	100		
97	21.0	11.1	33.1

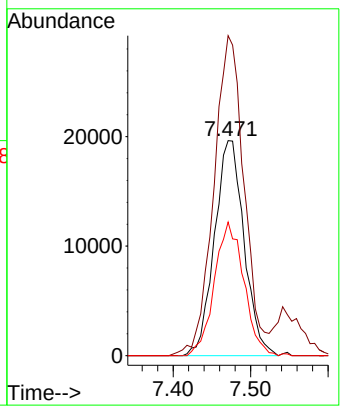




#27
cis-1,2-Dichloroethene
Concen: 18.436 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 96 Resp: 5213

Ion	Ratio	Lower	Upper
96	100		
61	152.8	0.0	297.8
98	61.7	0.0	132.4



Instrument :
MSVOA_N
ClientSampleId :
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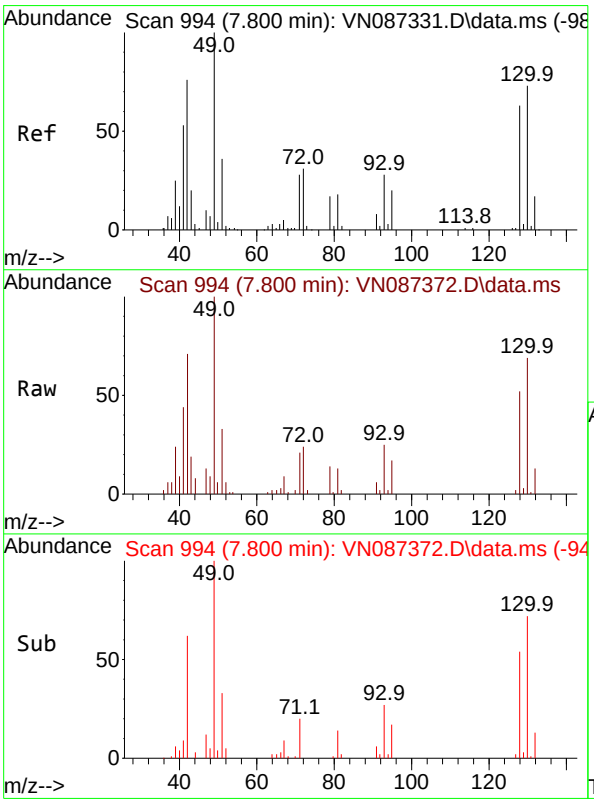
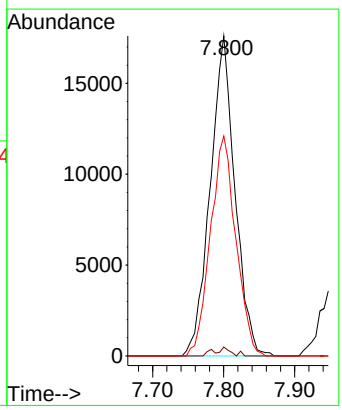
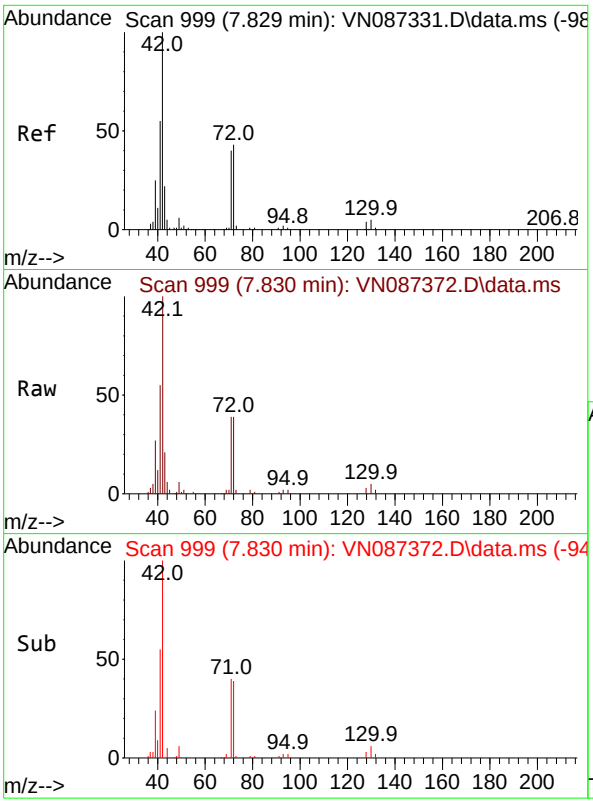


#28
Bromochloromethane
Concen: 18.643 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 49 Resp: 42566

Ion	Ratio	Lower	Upper
49	100		
129	1.0	0.0	4.2
130	70.6	57.3	85.9





#29
Tetrahydrofuran
Concen: 89.644 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 42 Resp: 13657

Ion	Ratio	Lower	Upper
42	100		
72	38.8	33.4	50.0
71	36.8	31.2	46.8

Instrument :
MSVOA_N
ClientSampleId :
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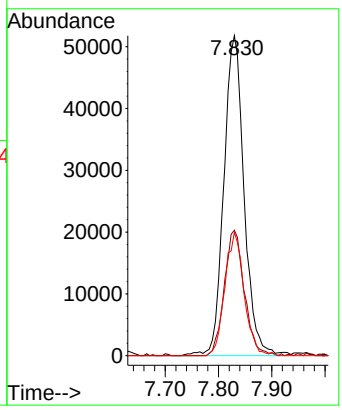
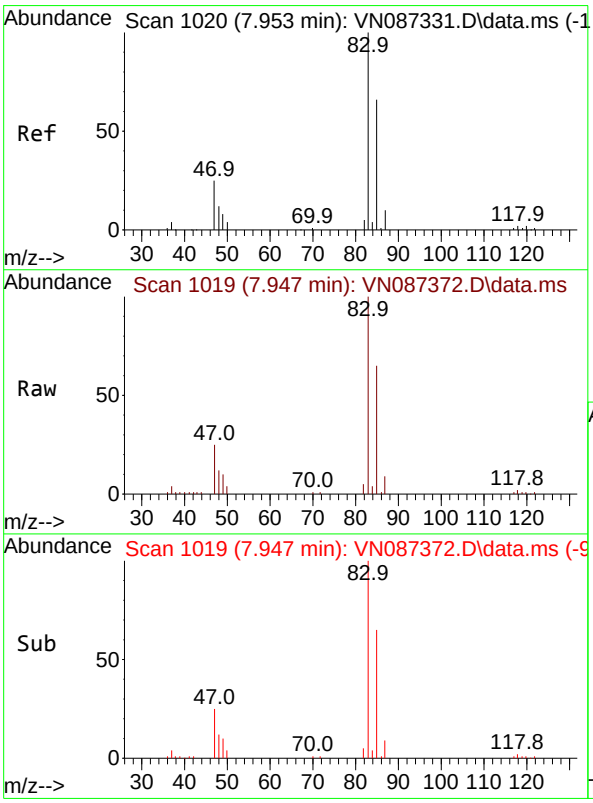
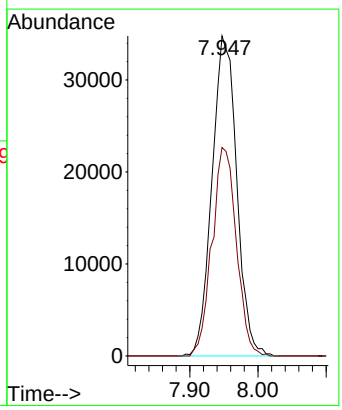


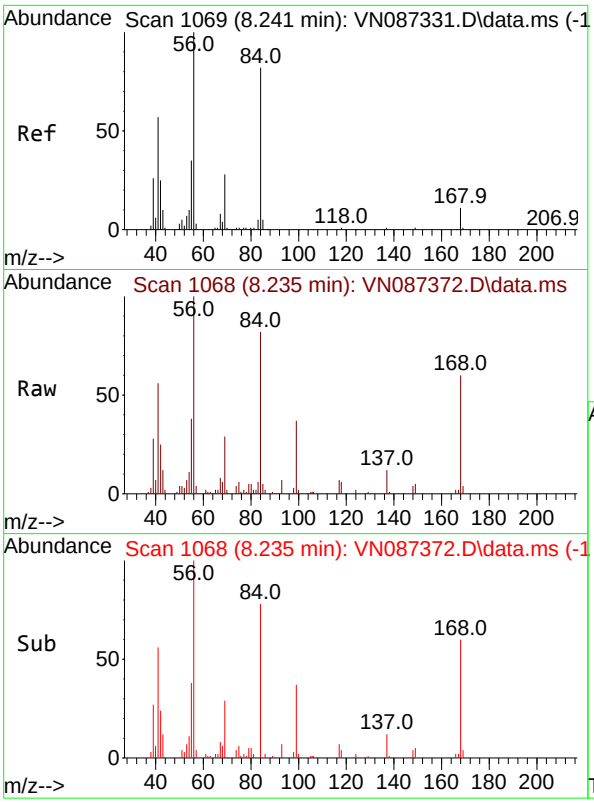


#30
Chloroform
Concen: 18.388 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 83 Resp: 87803

Ion	Ratio	Lower	Upper
83	100		
85	65.2	52.7	79.1

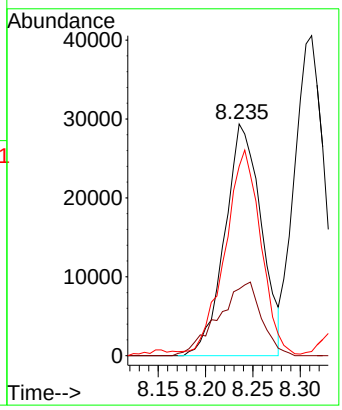




#31
Cyclohexane
Concen: 19.779 ug/l
RT: 8.235 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 56 Resp: 7871

Ion	Ratio	Lower	Upper
56	100		
69	27.9	22.7	34.1
84	80.0	65.8	98.6



Instrument :
MSVOA_N
ClientSampleId :
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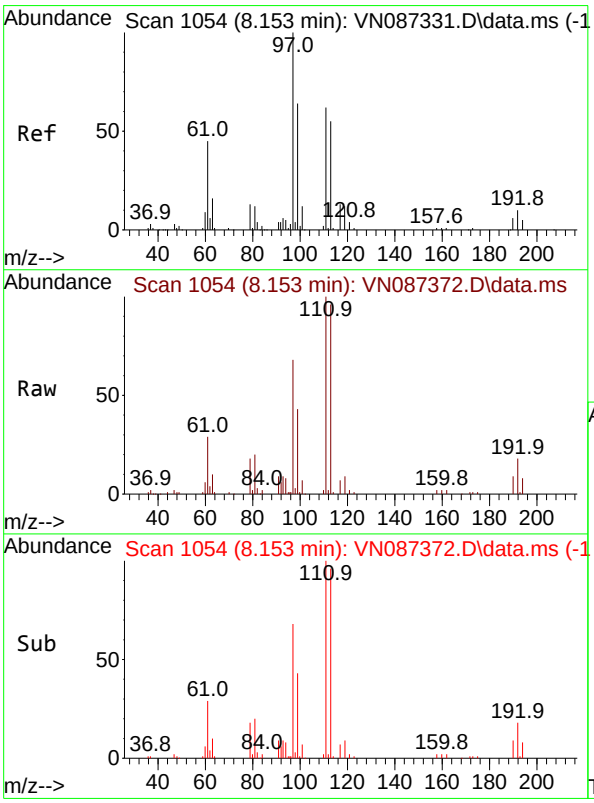
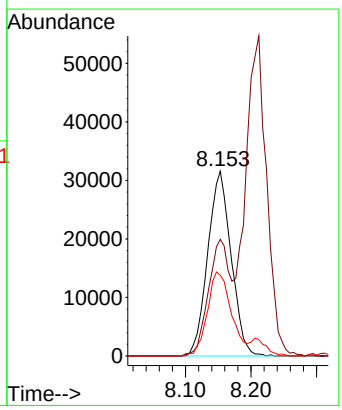
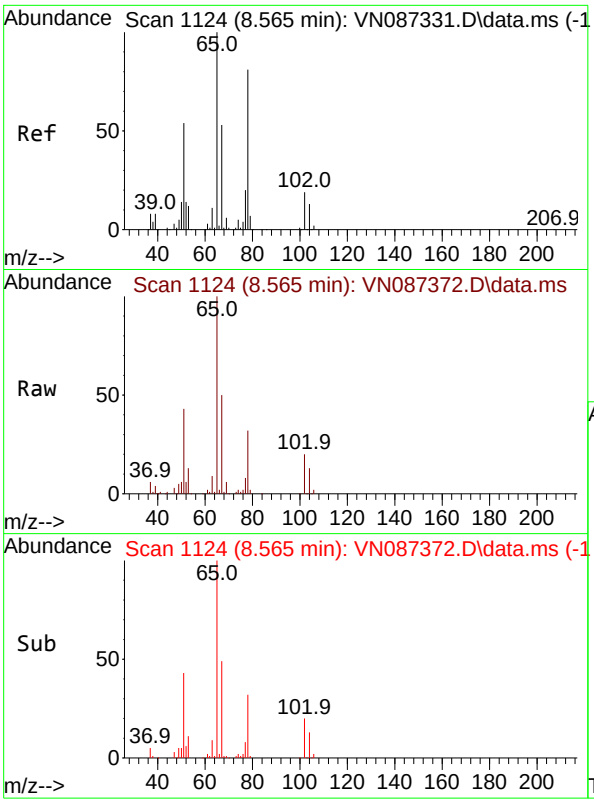


#32
1,1,1-Trichloroethane
Concen: 18.929 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 97 Resp: 78287

Ion	Ratio	Lower	Upper
97	100		
99	57.1	51.8	77.8
61	46.6	38.7	58.1

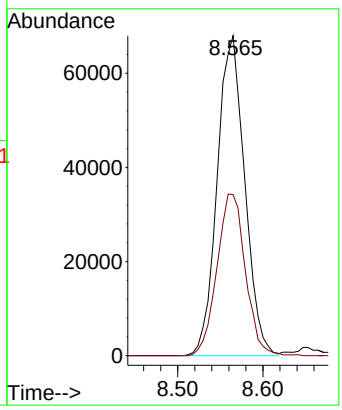




#33
1,2-Dichloroethane-d4
Concen: 47.198 ug/l
RT: 8.565 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 65 Resp: 15279

Ion	Ratio	Lower	Upper
65	100		
67	52.2	0.0	104.0



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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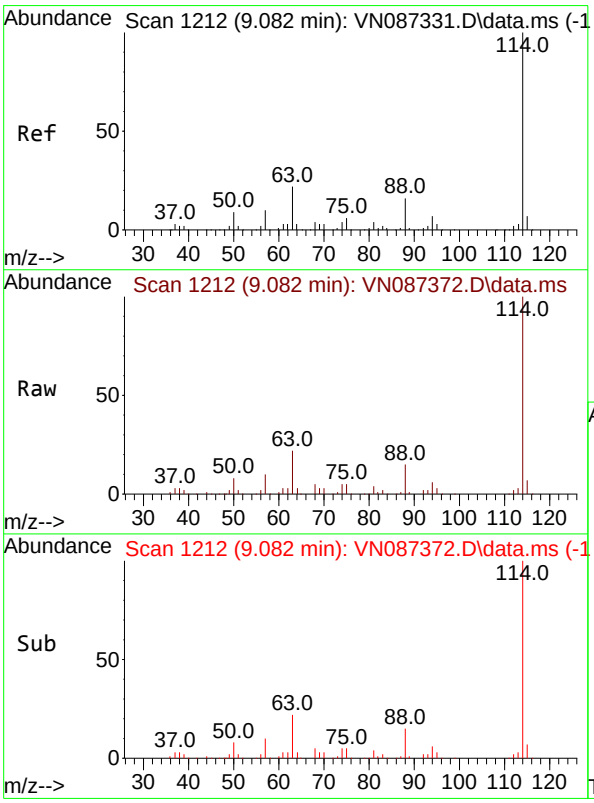
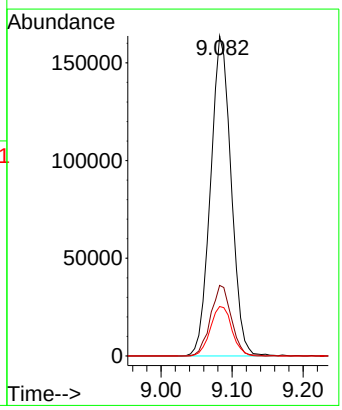
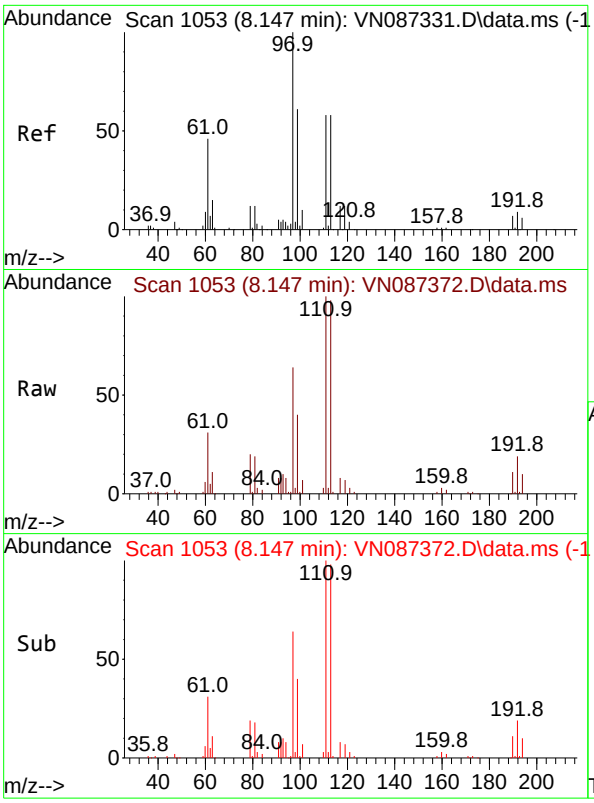


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:114 Resp: 328848

Ion	Ratio	Lower	Upper
114	100		
63	22.1	0.0	44.6
88	15.4	0.0	32.8

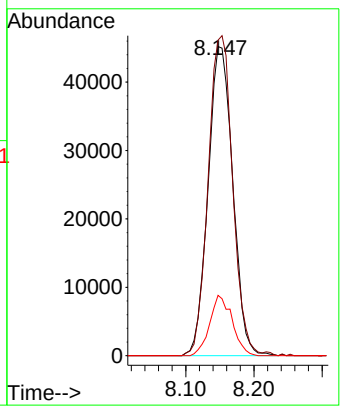




#35
Dibromofluoromethane
Concen: 50.318 ug/l
RT: 8.147 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:113 Resp: 11414

Ion	Ratio	Lower	Upper
113	100		
111	102.8	82.5	123.7
192	17.8	13.7	20.5



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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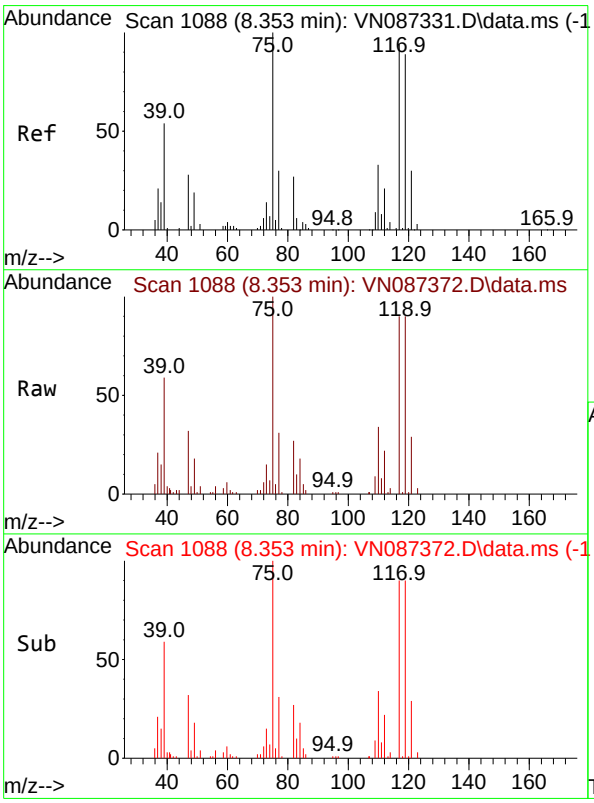
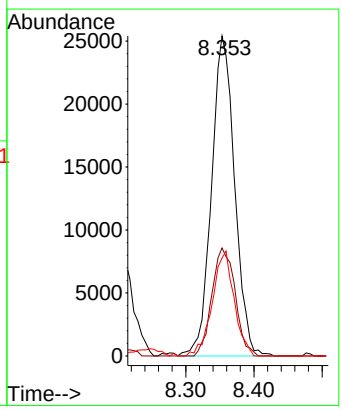
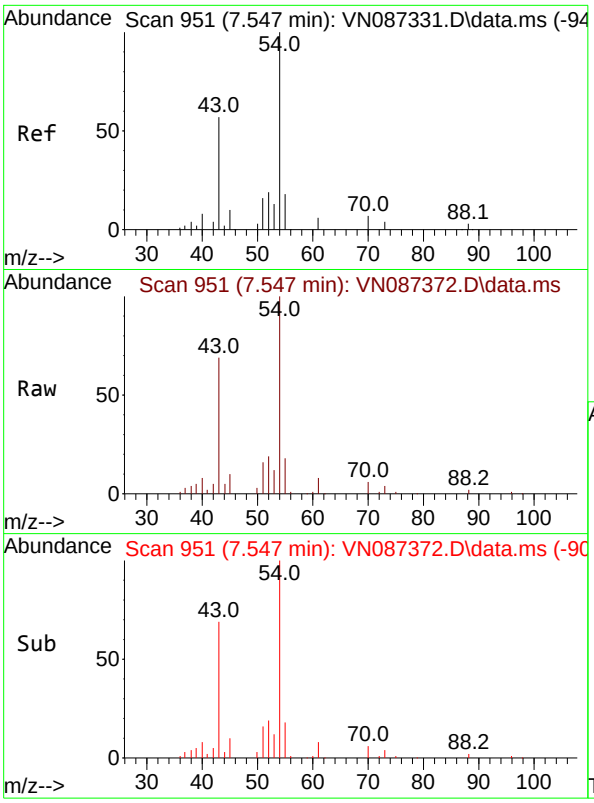


#36
1,1-Dichloropropene
Concen: 20.016 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 75 Resp: 59988

Ion	Ratio	Lower	Upper
75	100		
110	33.8	16.7	50.1
77	30.9	25.2	37.8





#37
Ethyl Acetate
Concen: 17.953 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 7770

Ion	Ratio	Lower	Upper
43	100		
61	12.8	10.9	16.3
70	10.3	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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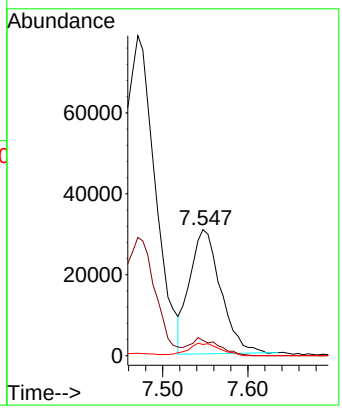
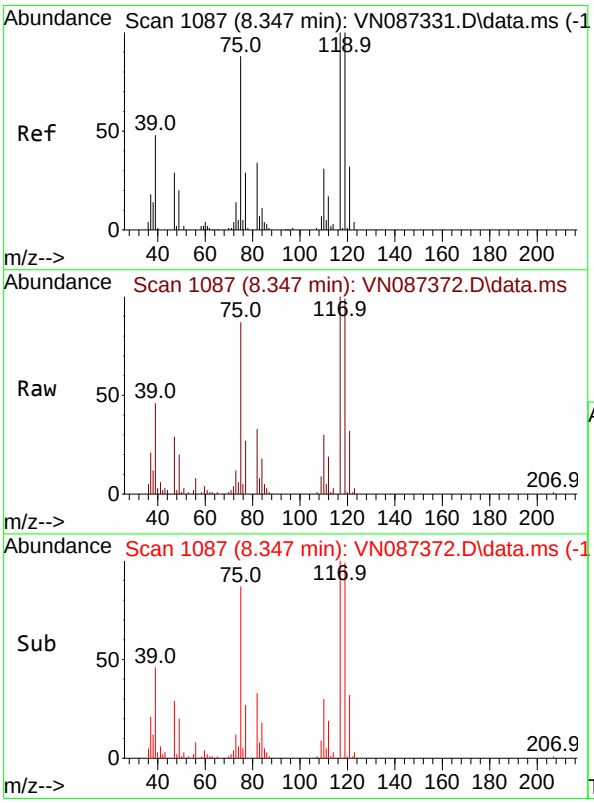
Reviewed By :John Carlone 07/22/2025
Supervised By :Semsettin Yesilyurt 07/22/2025

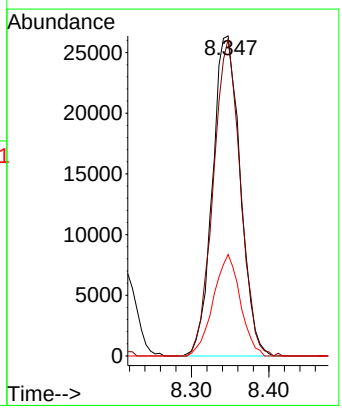


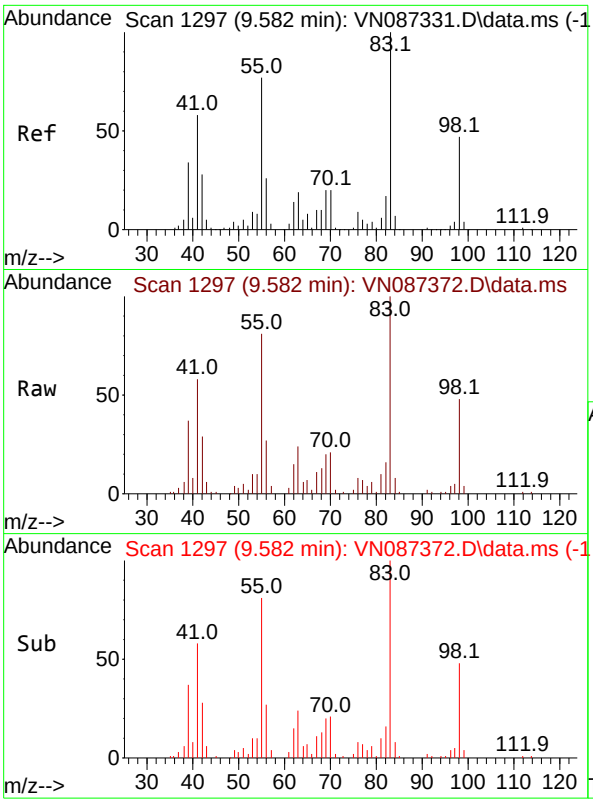


#38
Carbon Tetrachloride
Concen: 19.849 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:117 Resp: 65528

Ion	Ratio	Lower	Upper
117	100		
119	98.9	80.2	120.2
121	31.7	25.4	38.2

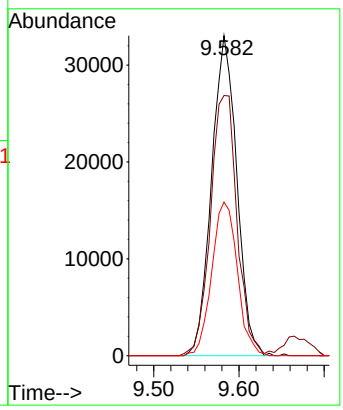




#39
Methylcyclohexane
Concen: 20.941 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 83 Resp: 6794

Ion	Ratio	Lower	Upper
83	100		
55	81.3	61.3	91.9
98	48.0	37.9	56.9



Instrument :
MSVOA_N
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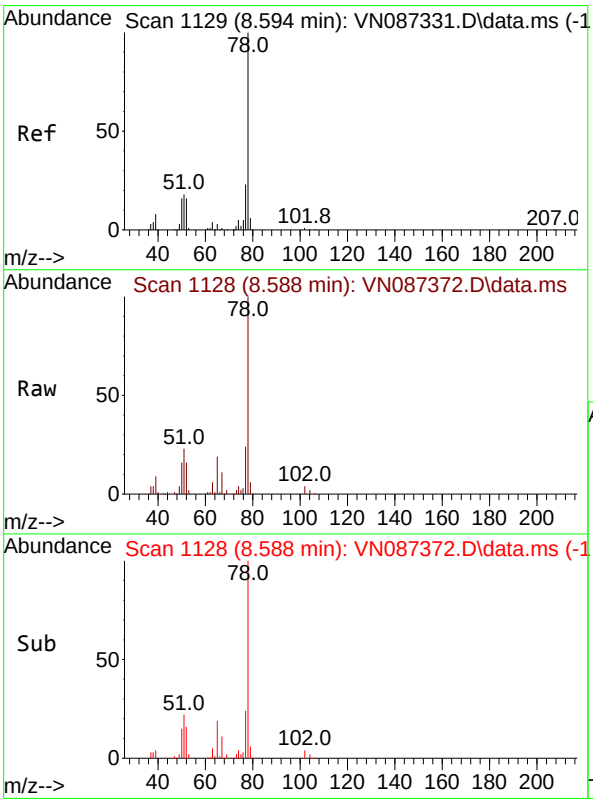
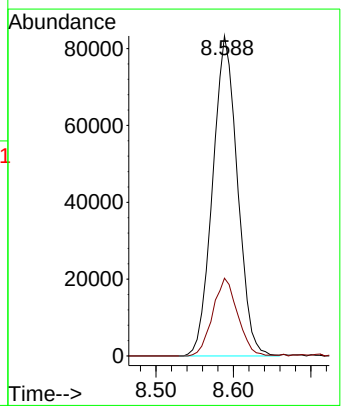
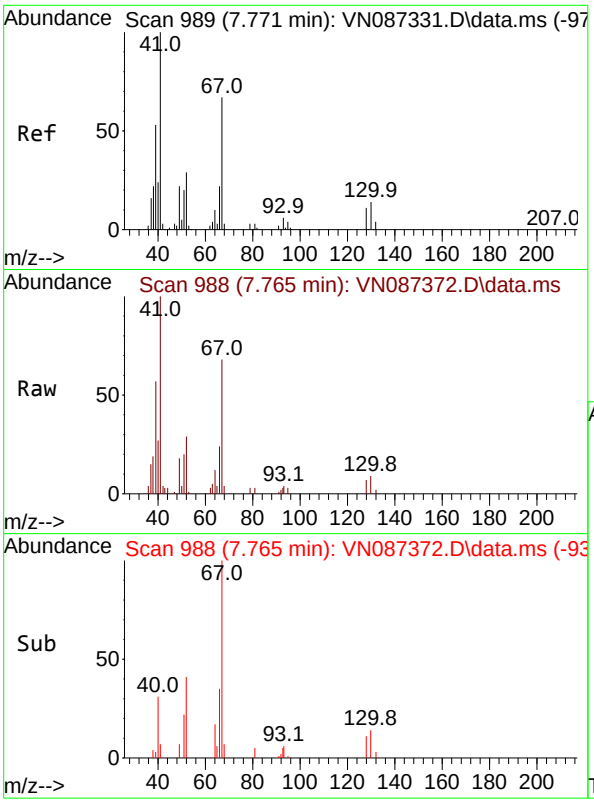


#40
Benzene
Concen: 19.151 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 78 Resp: 185496

Ion	Ratio	Lower	Upper
78	100		
77	24.3	18.2	27.2

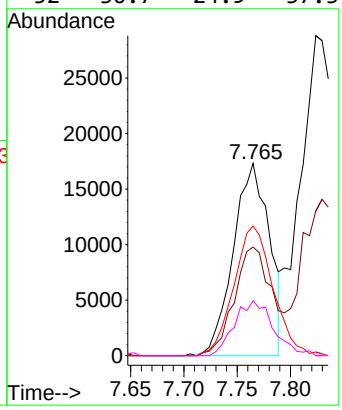




#41
Methacrylonitrile
Concen: 18.057 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 41 Resp: 4086

Ion	Ratio	Lower	Upper
41	100		
39	59.3	43.4	65.0
67	73.0	55.1	82.7
52	30.7	24.9	37.3



Instrument :
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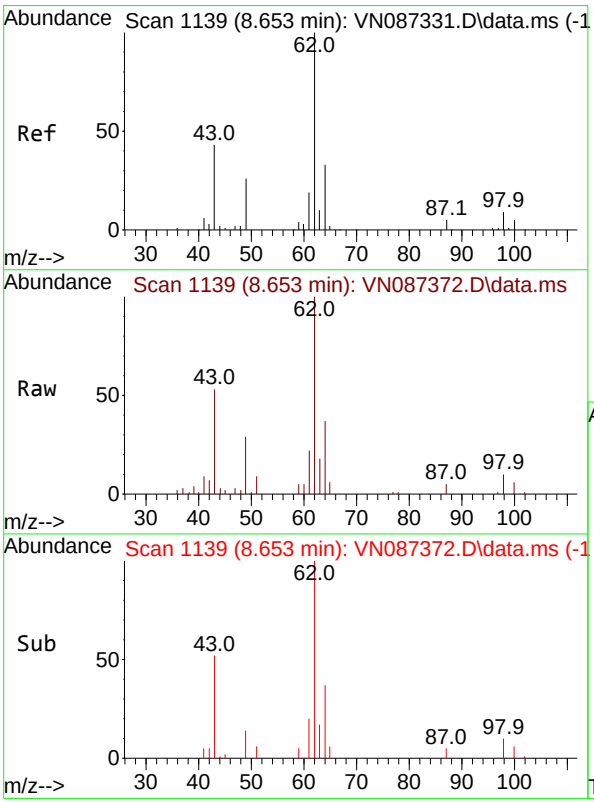
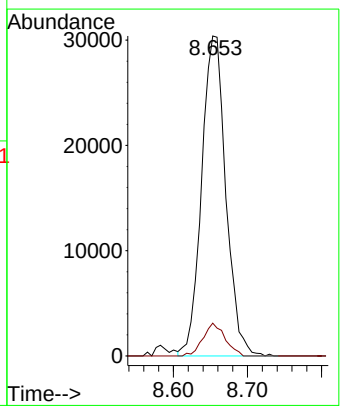
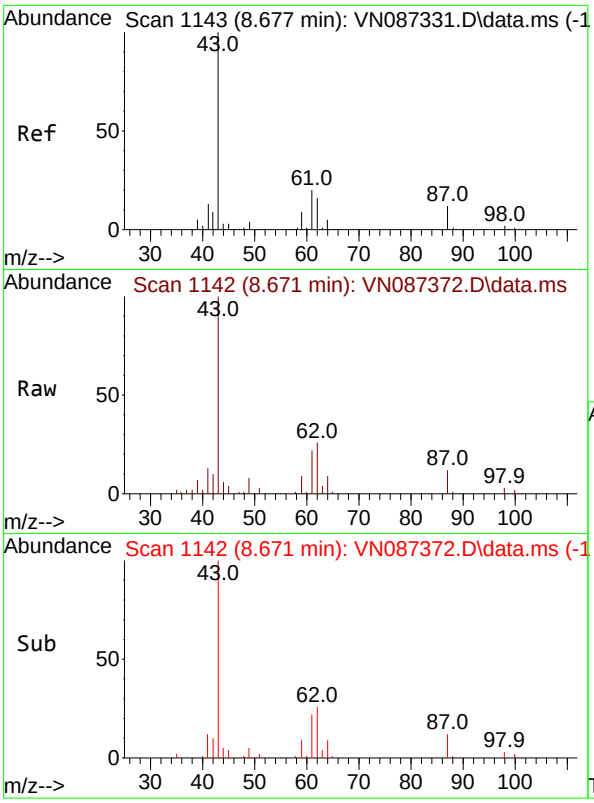


#42
1,2-Dichloroethane
Concen: 18.806 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 62 Resp: 69079

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	18.0

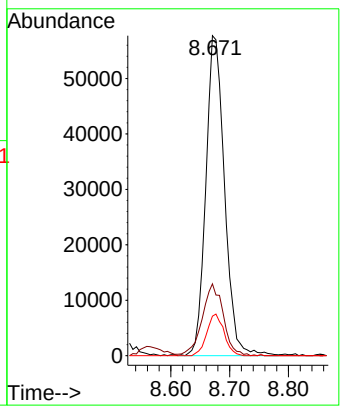




#43
Isopropyl Acetate
Concen: 19.014 ug/l
RT: 8.671 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 12775

Ion	Ratio	Lower	Upper
43	100		
61	25.2	19.8	29.8
87	12.0	9.8	14.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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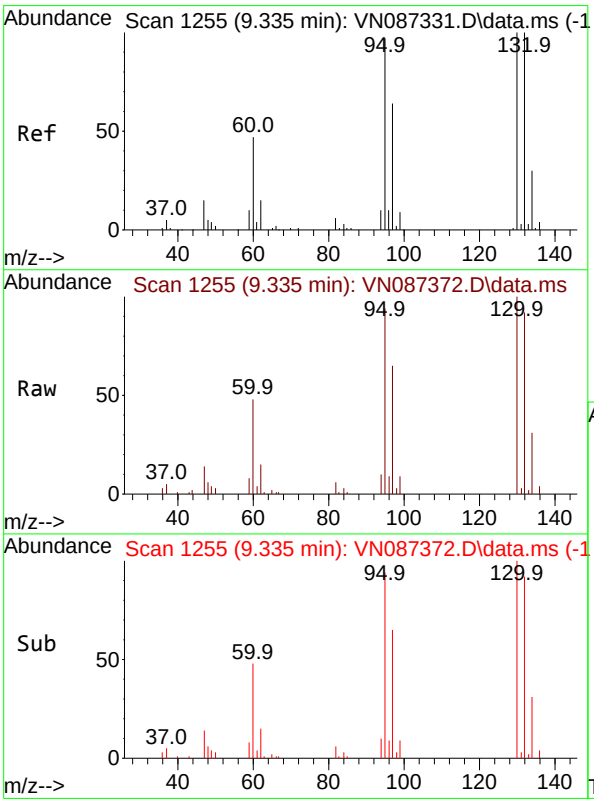
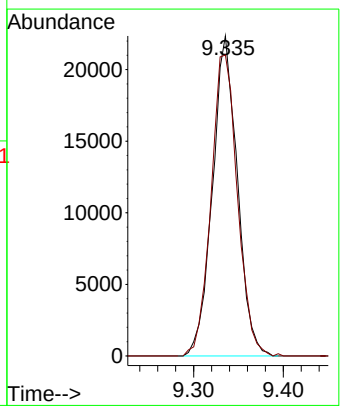
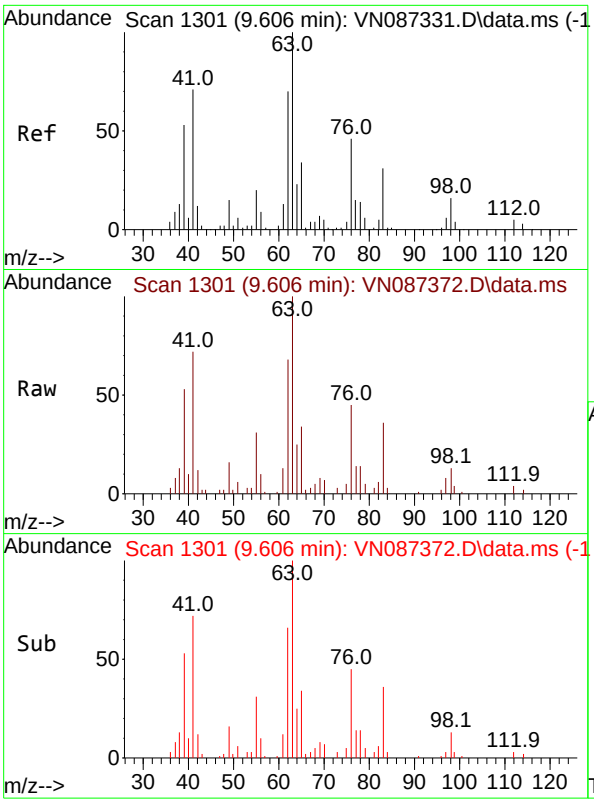


#44
Trichloroethene
Concen: 18.818 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:130 Resp: 43070

Ion	Ratio	Lower	Upper
130	100		
95	94.1	0.0	195.2

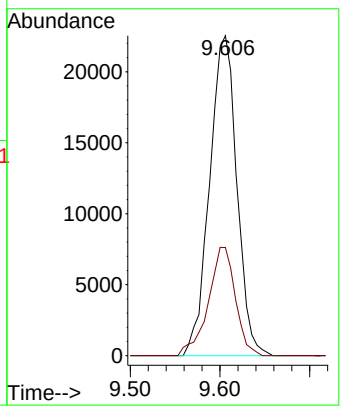




#45
1,2-Dichloropropane
Concen: 19.341 ug/l
RT: 9.606 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 63 Resp: 4760

Ion	Ratio	Lower	Upper
63	100		
65	33.8	27.0	40.4



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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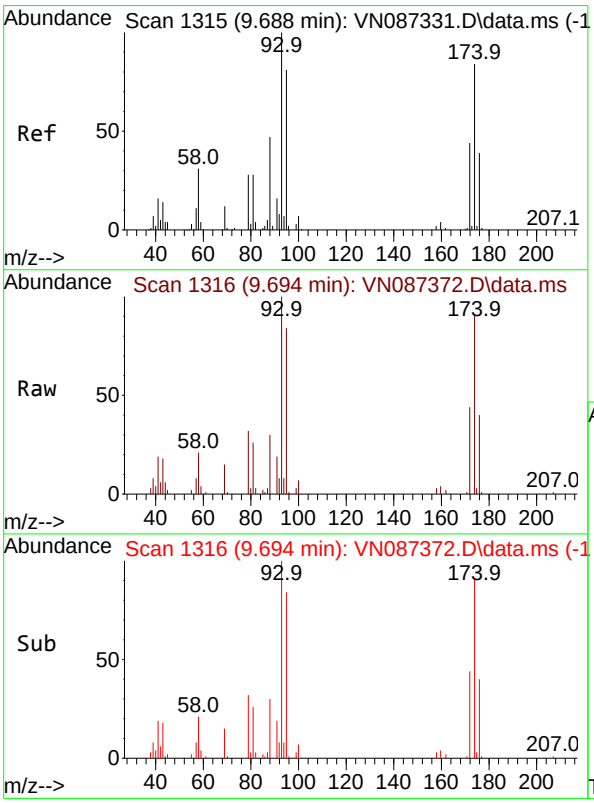
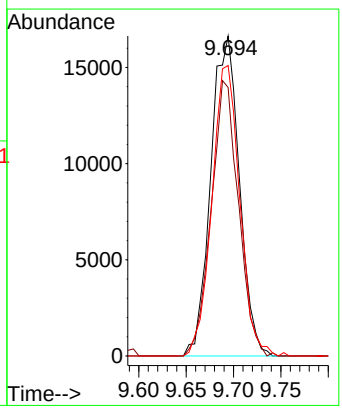
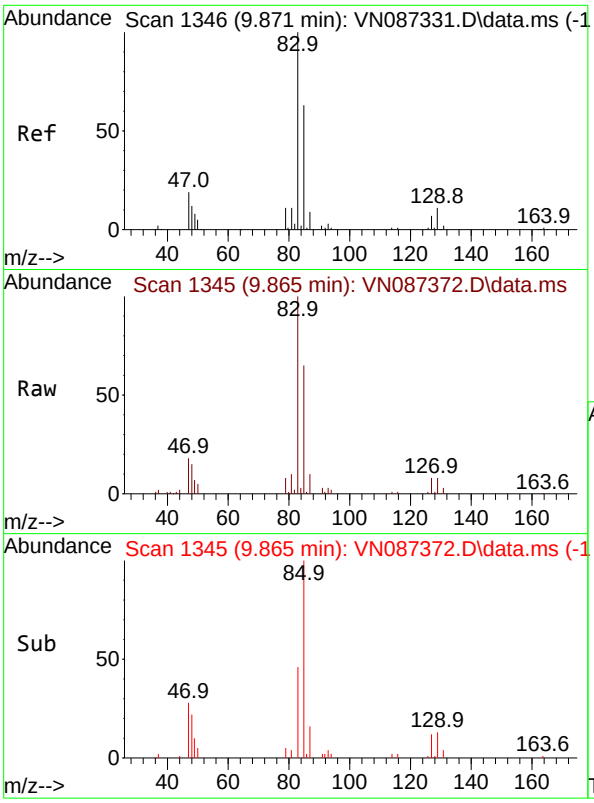


#46
Dibromomethane
Concen: 18.937 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 93 Resp: 34895

Ion	Ratio	Lower	Upper
93	100		
95	82.2	65.8	98.8
174	88.7	69.9	104.9

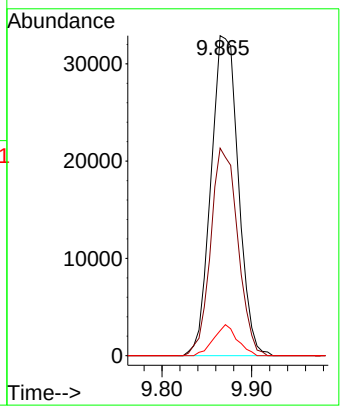




#47
Bromodichloromethane
Concen: 18.757 ug/l
RT: 9.865 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 83 Resp: 6962

Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.4	75.6
127	7.8	5.8	8.8



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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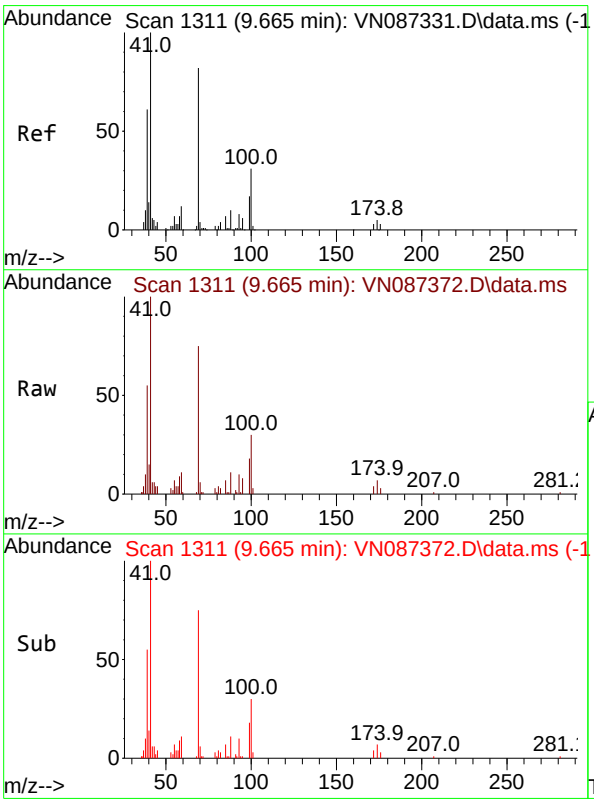
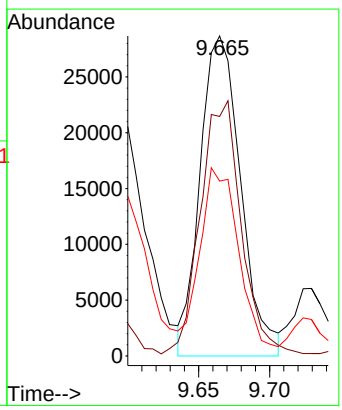
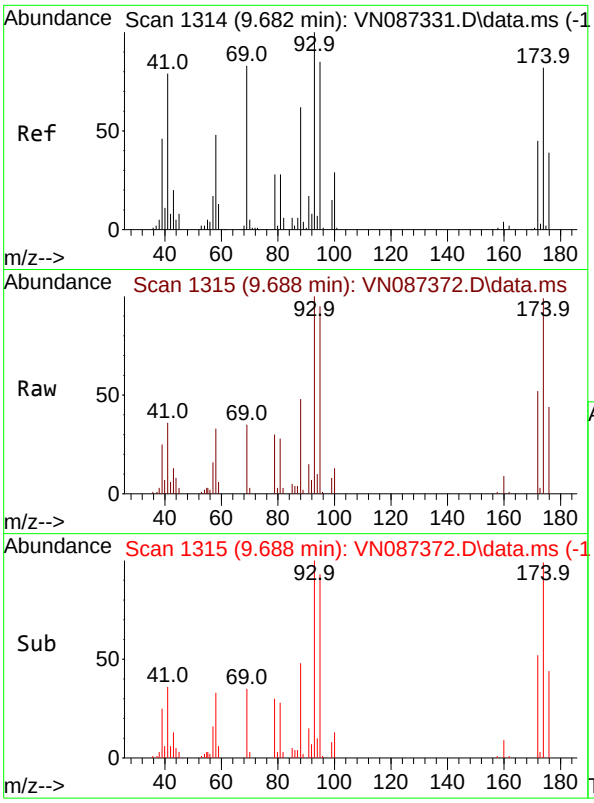


#48
Methyl methacrylate
Concen: 18.878 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 41 Resp: 57104

Ion	Ratio	Lower	Upper
41	100		
69	79.5	64.1	96.1
39	57.4	45.5	68.3





#49
1,4-Dioxane
Concen: 351.858 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 88 Resp: 1630

Ion	Ratio	Lower	Upper
88	100		
43	28.8	0.0	0.0
58	82.7	61.1	91.7

Instrument :
MSVOA_N
ClientSampleId :
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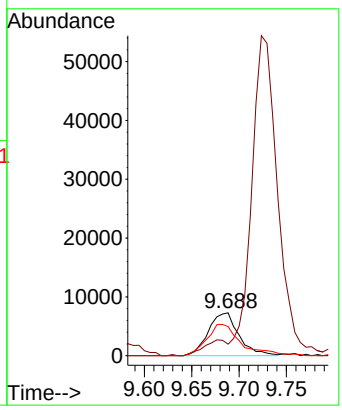
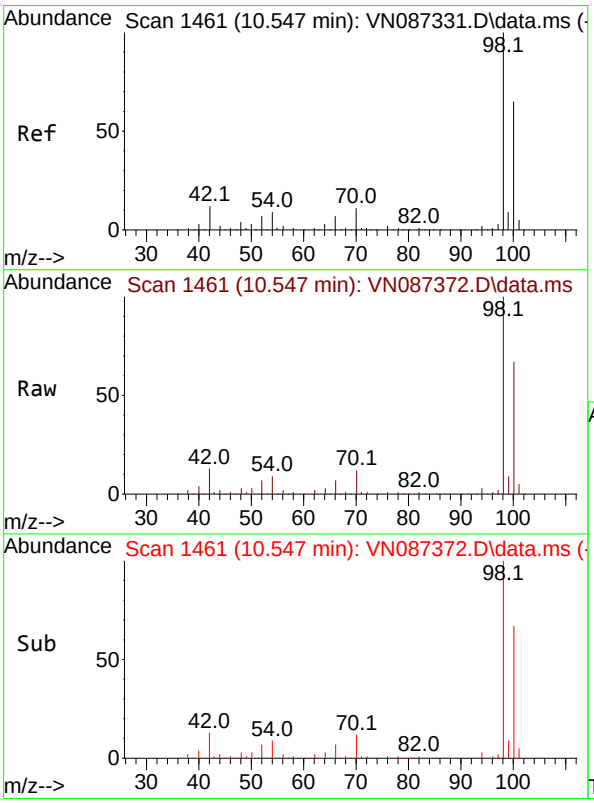
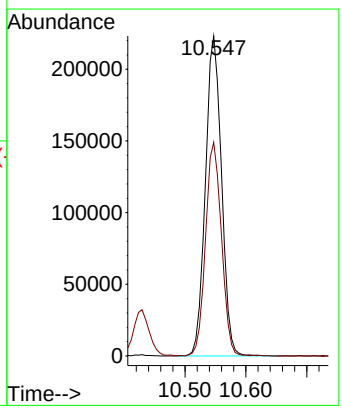


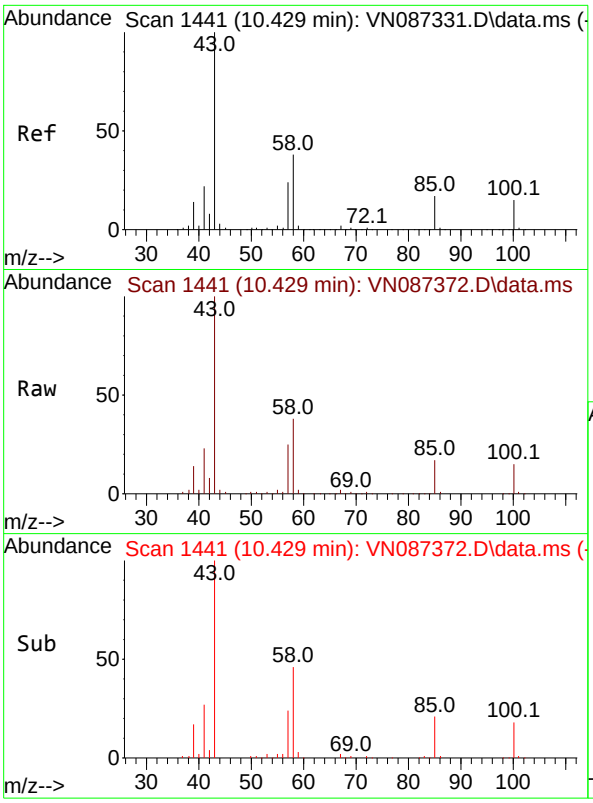


#50
Toluene-d8
Concen: 50.608 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 98 Resp: 409499

Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 93.970 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 39933

Ion	Ratio	Lower	Upper
43	100		
58	38.0	30.8	46.2

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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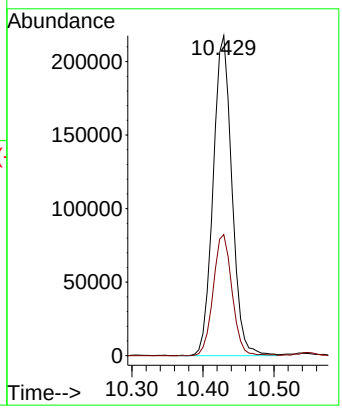
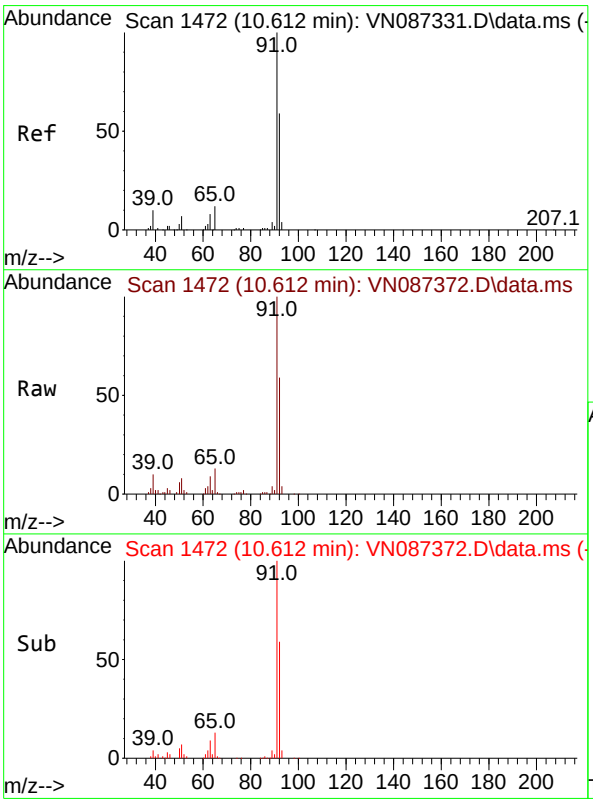
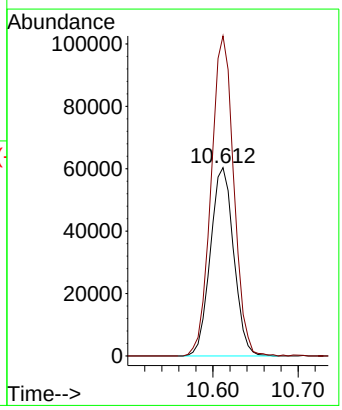


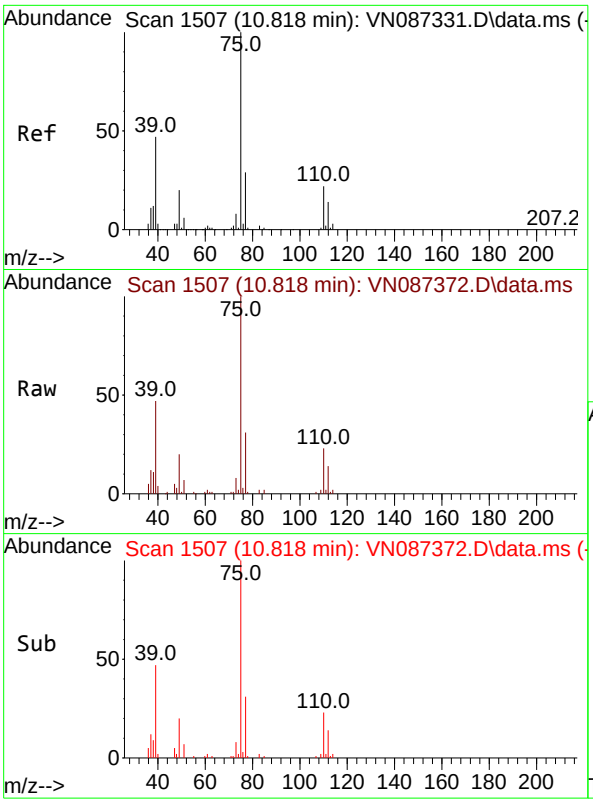


#52
Toluene
Concen: 19.488 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 92 Resp: 114736

Ion	Ratio	Lower	Upper
92	100		
91	165.2	135.1	202.7





#53
t-1,3-Dichloropropene
Concen: 18.637 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 75 Resp: 7001

Ion	Ratio	Lower	Upper
75	100		
77	31.5	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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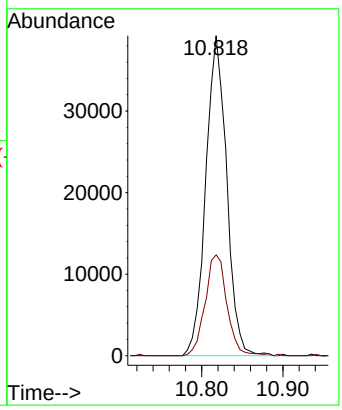
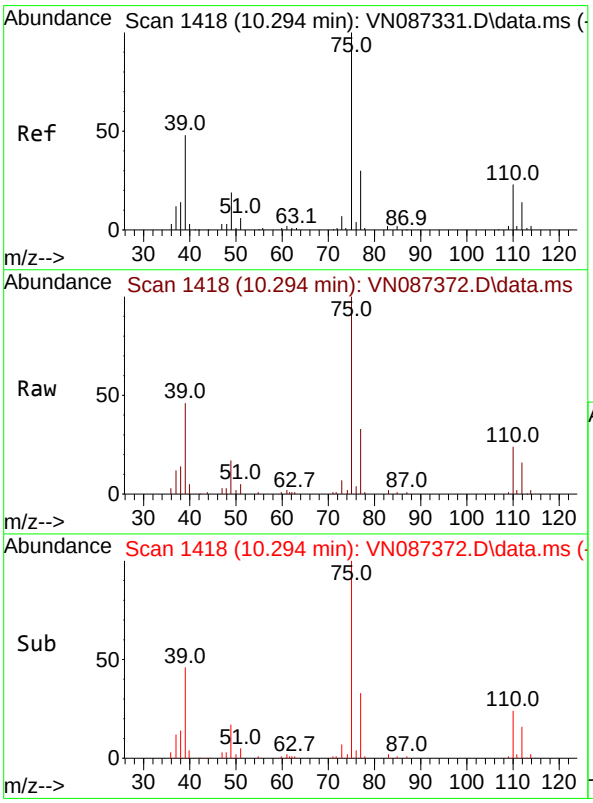
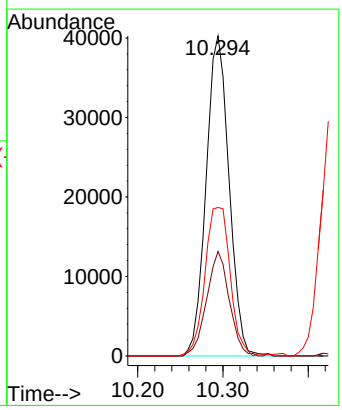


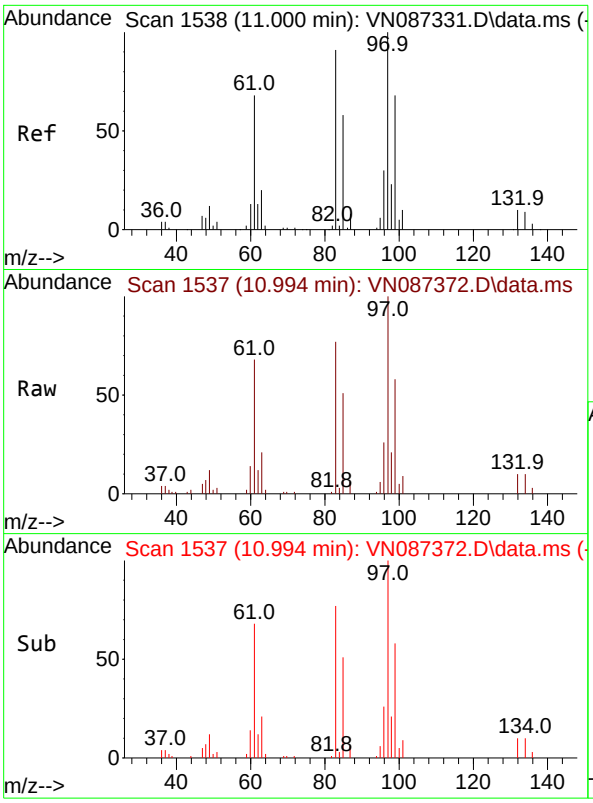


#54
cis-1,3-Dichloropropene
Concen: 19.419 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 75 Resp: 75349

Ion	Ratio	Lower	Upper
75	100		
77	32.7	24.2	36.2
39	46.4	38.4	57.6

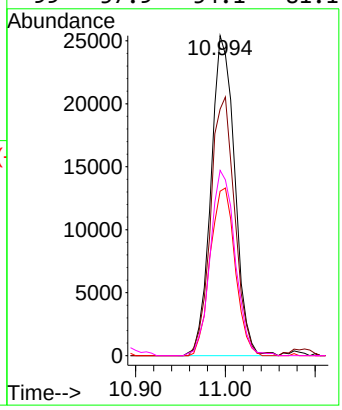




#55
1,1,2-Trichloroethane
Concen: 19.645 ug/l
RT: 10.994 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 97 Resp: 4682

Ion	Ratio	Lower	Upper
97	100		
83	77.0	72.6	109.0
85	51.4	46.7	70.1
99	57.9	54.1	81.1



Instrument :
MSVOA_N
ClientSampleId :
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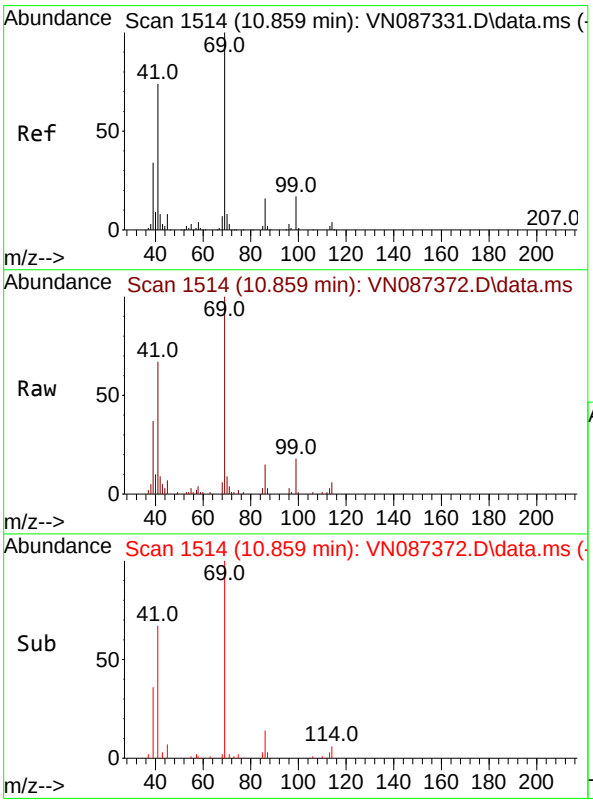
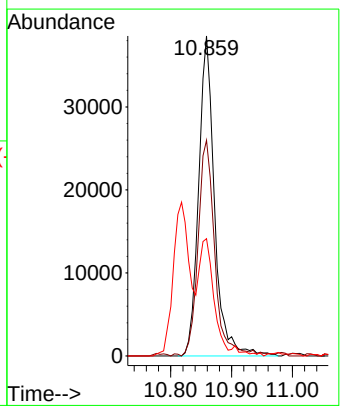
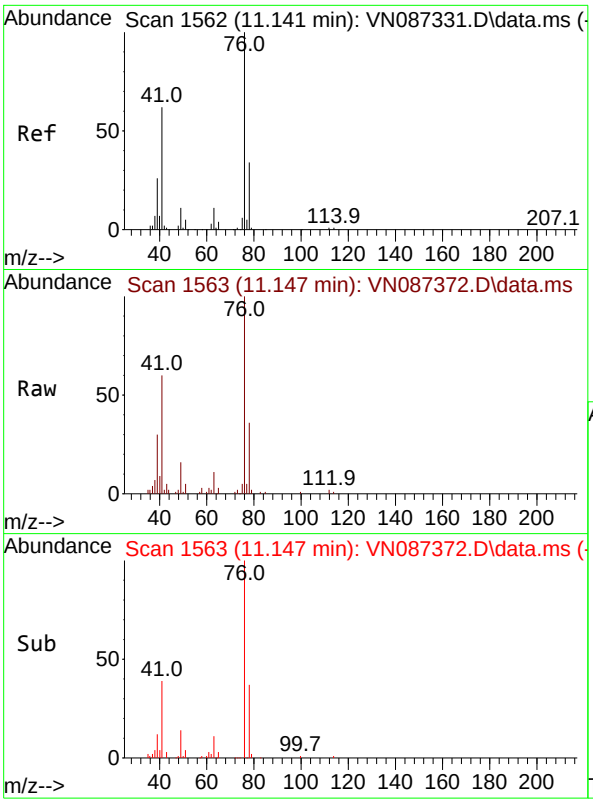


#56
Ethyl methacrylate
Concen: 18.249 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. -0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 69 Resp: 69998

Ion	Ratio	Lower	Upper
69	100		
41	71.3	55.1	82.7
39	30.4	27.9	41.9

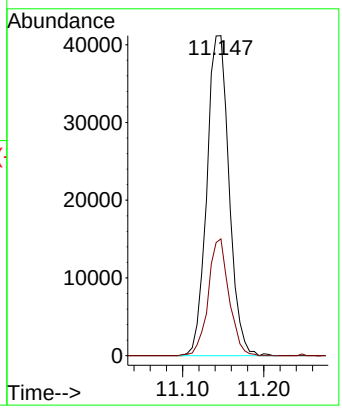




#57
1,3-Dichloropropane
Concen: 18.971 ug/l
RT: 11.147 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 76 Resp: 7818

Ion	Ratio	Lower	Upper
76	100		
78	34.1	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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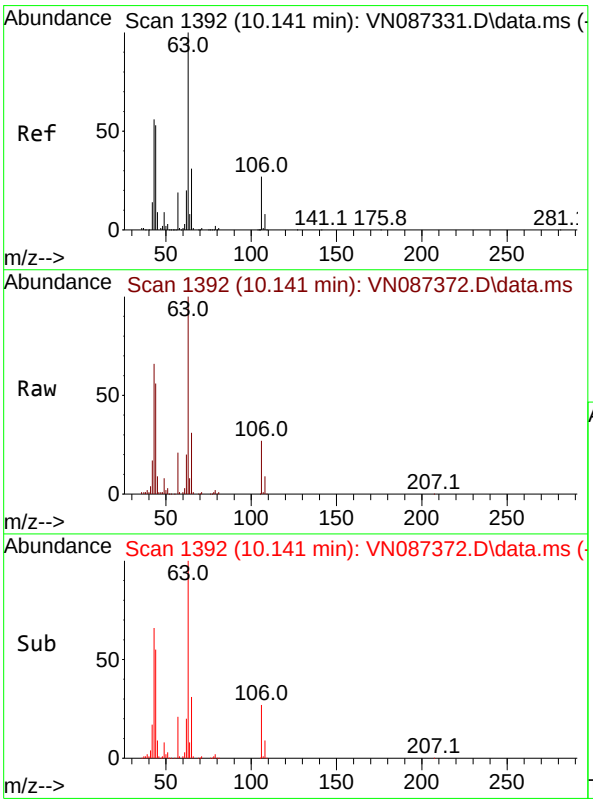
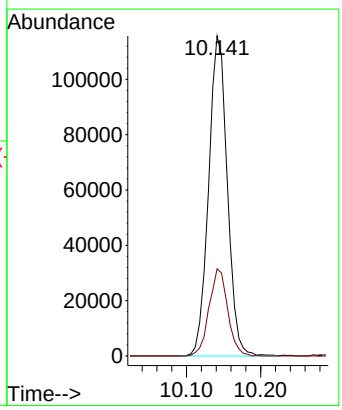
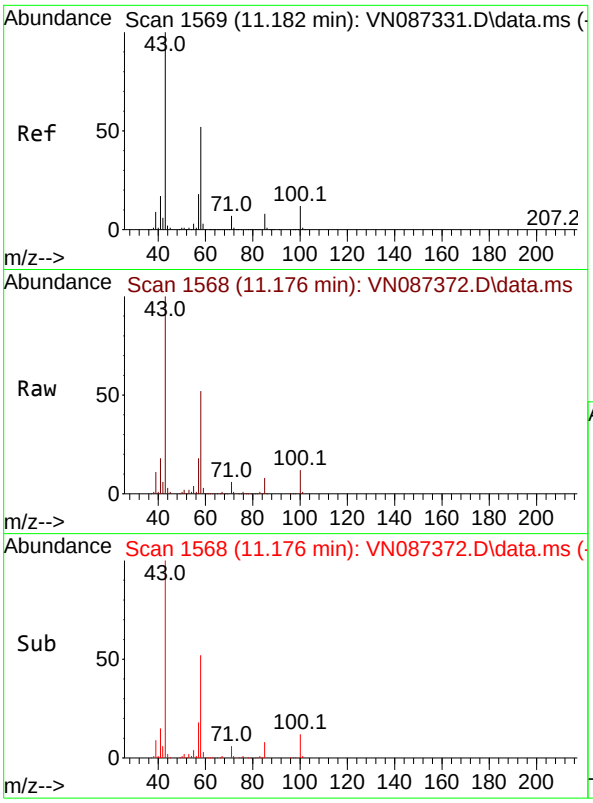


#58
2-Chloroethyl Vinyl ether
Concen: 103.552 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 63 Resp: 202470

Ion	Ratio	Lower	Upper
63	100		
106	27.1	21.7	32.5

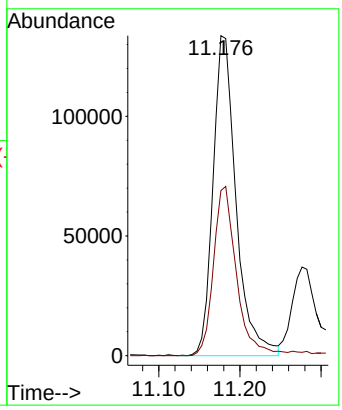




#59
2-Hexanone
Concen: 93.688 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 26414

Ion	Ratio	Lower	Upper
43	100		
58	52.7	26.7	80.0



Instrument :
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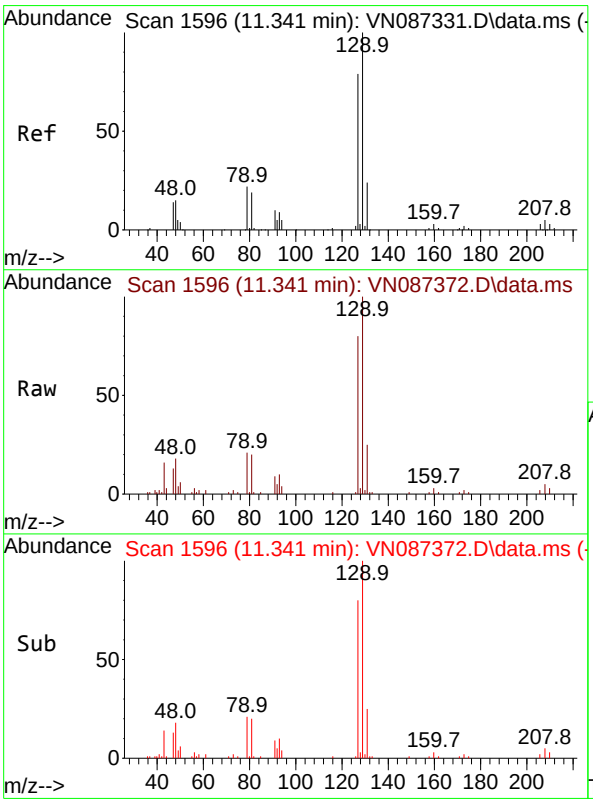
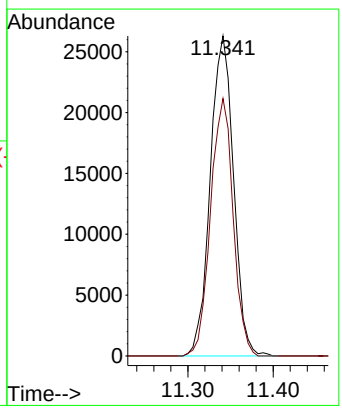
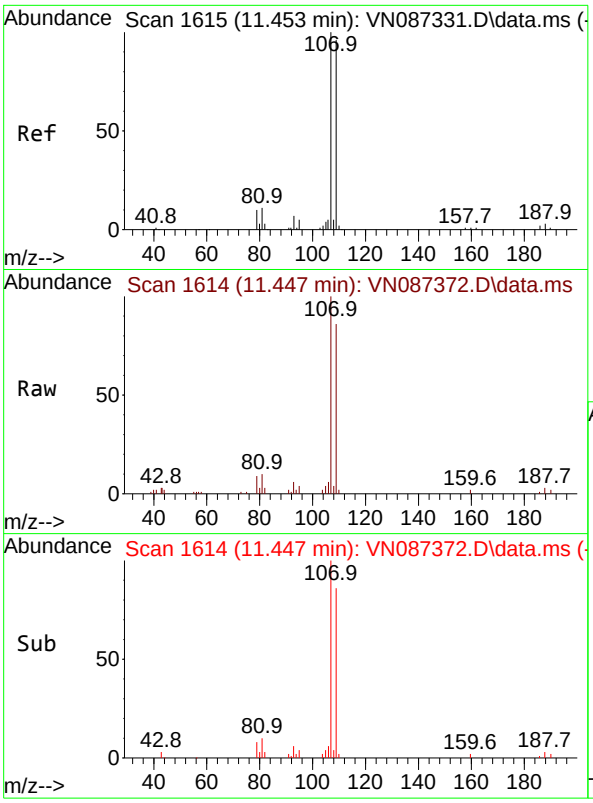


#60
Dibromochloromethane
Concen: 18.357 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:129 Resp: 49899

Ion	Ratio	Lower	Upper
129	100		
127	77.9	39.1	117.5





#61
1,2-Dibromoethane
Concen: 18.856 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:107 Resp: 4725

Ion	Ratio	Lower	Upper
107	100		
109	92.1	77.5	116.3

Instrument :
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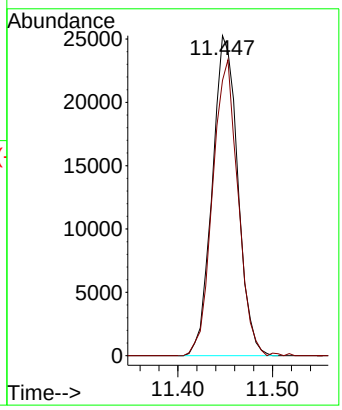
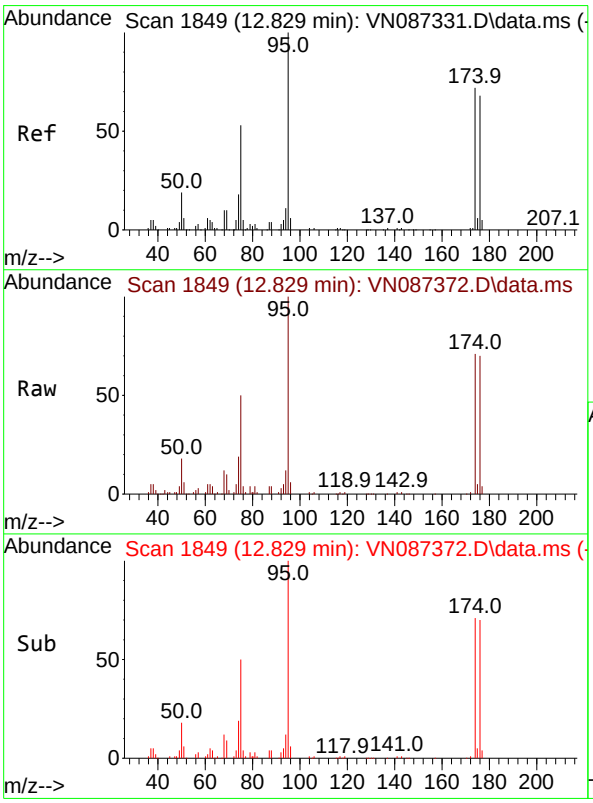
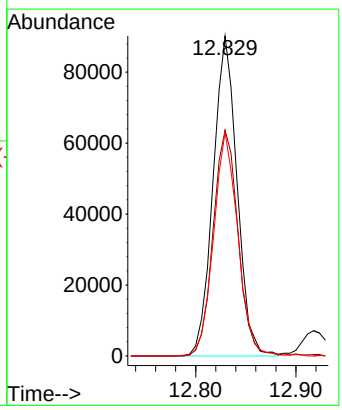


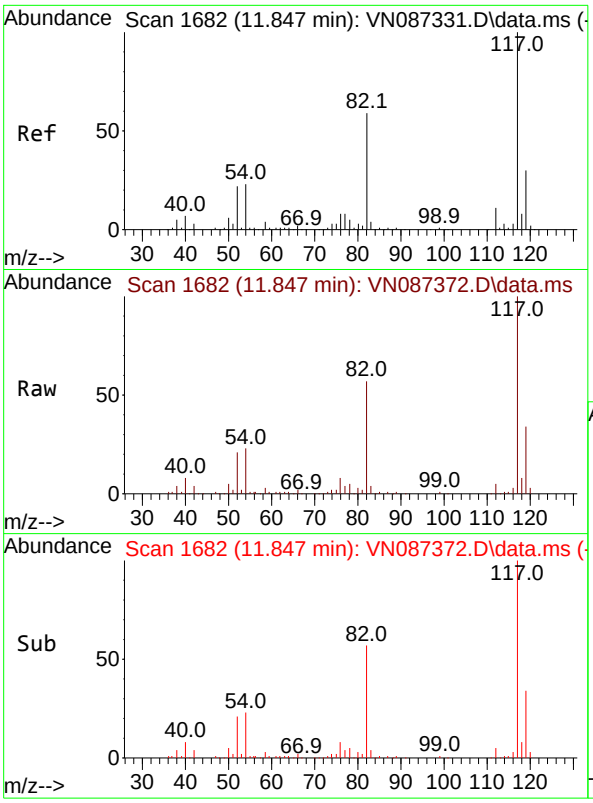


#62
4-Bromofluorobenzene
Concen: 49.981 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 95 Resp: 149416

Ion	Ratio	Lower	Upper
95	100		
174	74.0	0.0	149.4
176	70.7	0.0	141.2

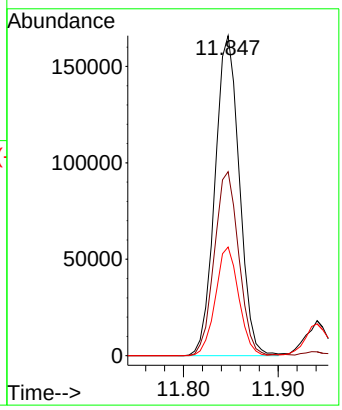




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:117 Resp: 29633

Ion	Ratio	Lower	Upper
117	100		
82	57.5	47.4	71.2
119	34.0	23.8	35.8



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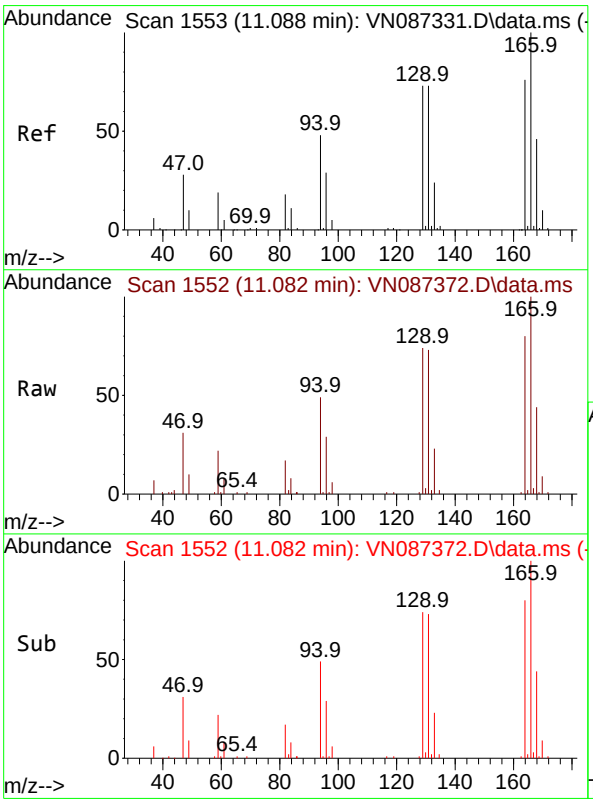
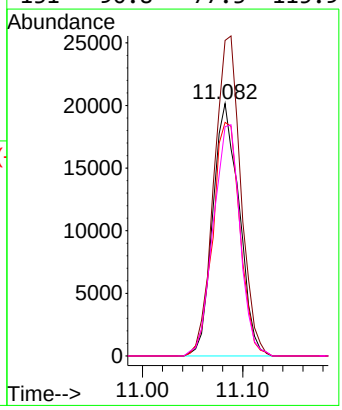
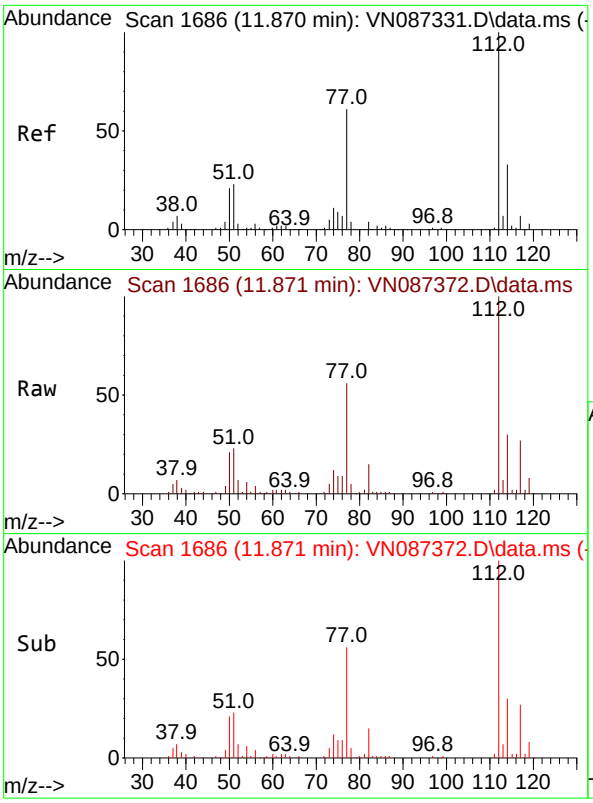


#64
Tetrachloroethene
Concen: 19.315 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:164 Resp: 36839

Ion	Ratio	Lower	Upper
164	100		
166	125.0	105.5	158.3
129	92.5	77.4	116.2
131	90.8	77.3	115.9

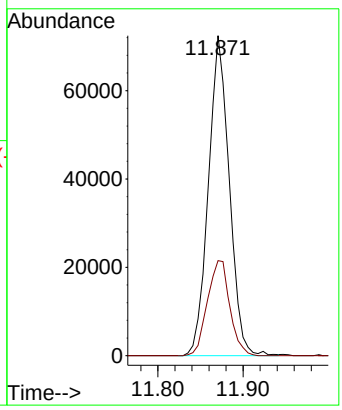




#65
Chlorobenzene
Concen: 18.571 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:112 Resp: 12355

Ion	Ratio	Lower	Upper
112	100		
114	29.7	26.5	39.7



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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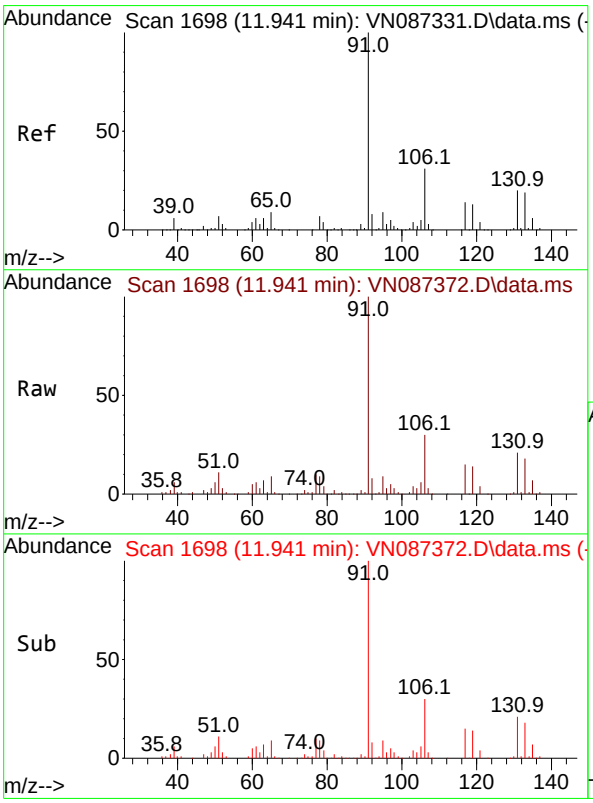
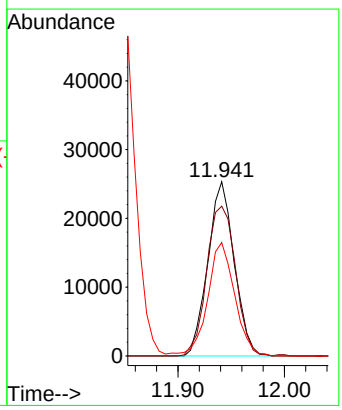
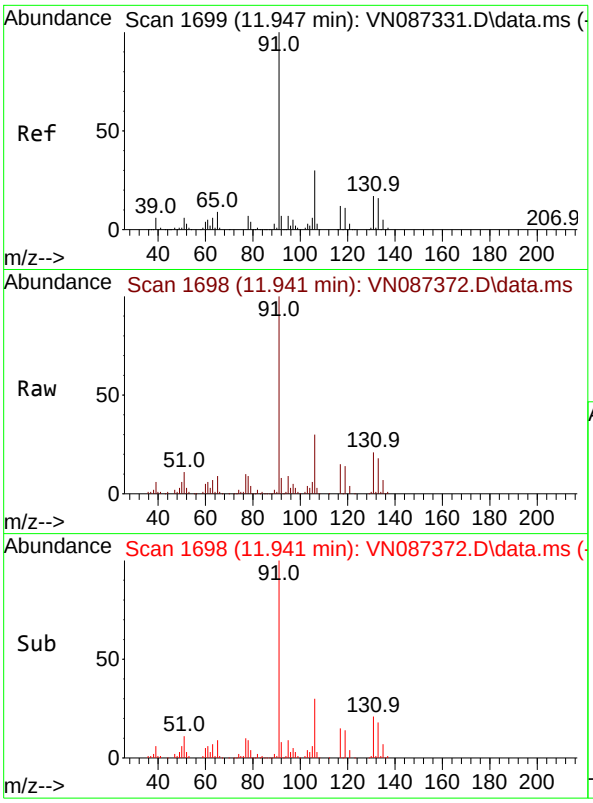


#66
1,1,1,2-Tetrachloroethane
Concen: 19.273 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:131 Resp: 43600

Ion	Ratio	Lower	Upper
131	100		
133	94.3	47.4	142.3
119	66.3	33.1	99.2





#67
Ethyl Benzene
Concen: 18.695 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 91 Resp: 20475

Ion	Ratio	Lower	Upper
91	100		
106	30.2	24.3	36.5

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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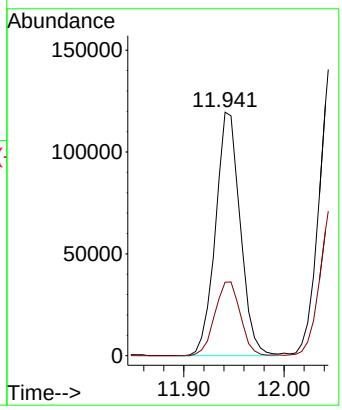
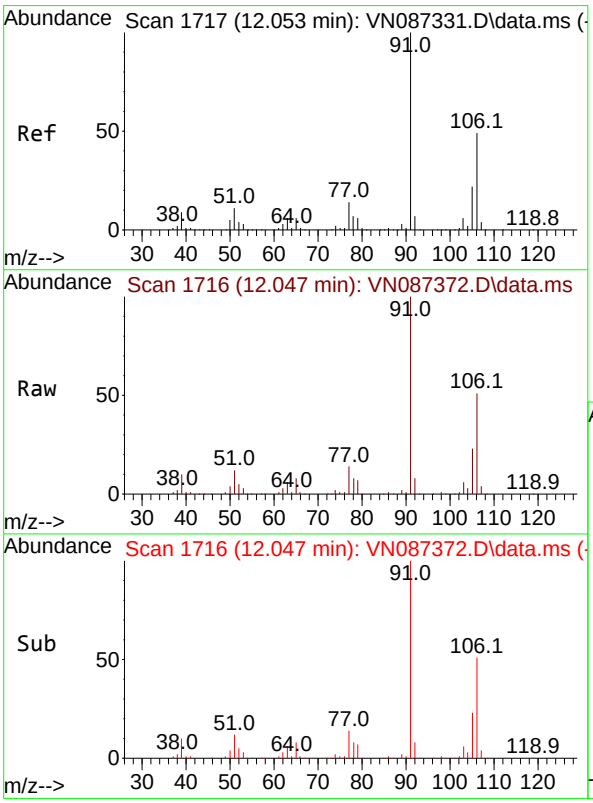
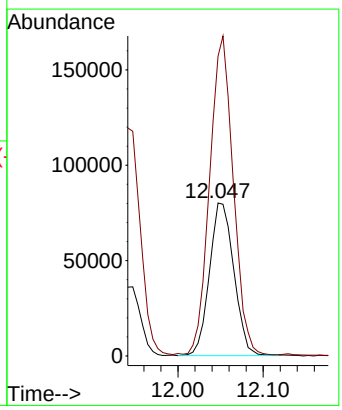


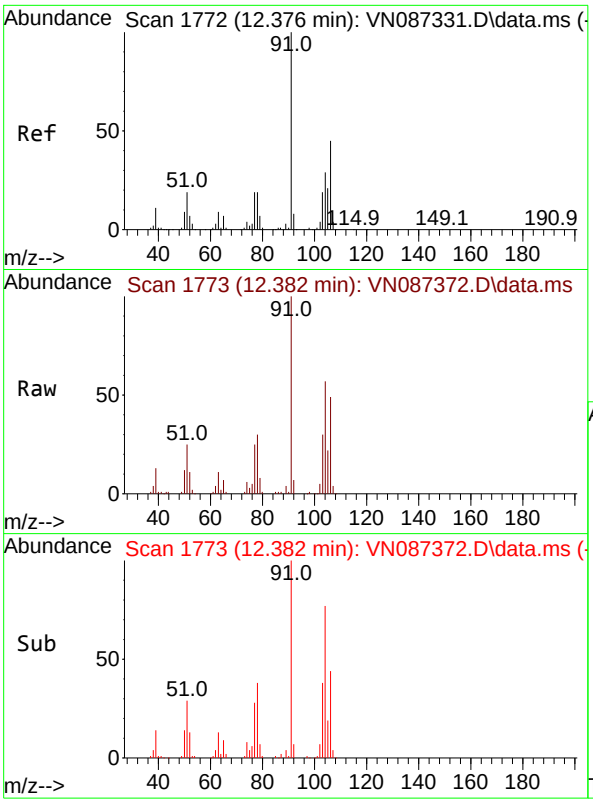


#68
m/p-Xylenes
Concen: 38.848 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:106 Resp: 159328

Ion	Ratio	Lower	Upper
106	100		
91	202.2	162.0	243.0





#69
o-Xylene
Concen: 18.777 ug/l
RT: 12.382 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:106 Resp: 7356

Ion	Ratio	Lower	Upper
106	100		
91	220.6	107.7	323.3

Instrument :
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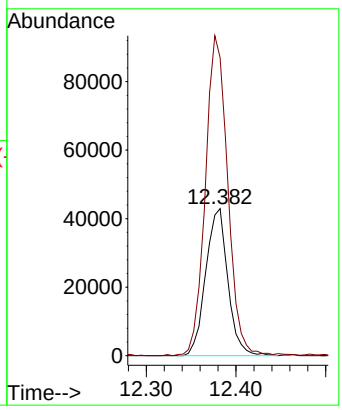
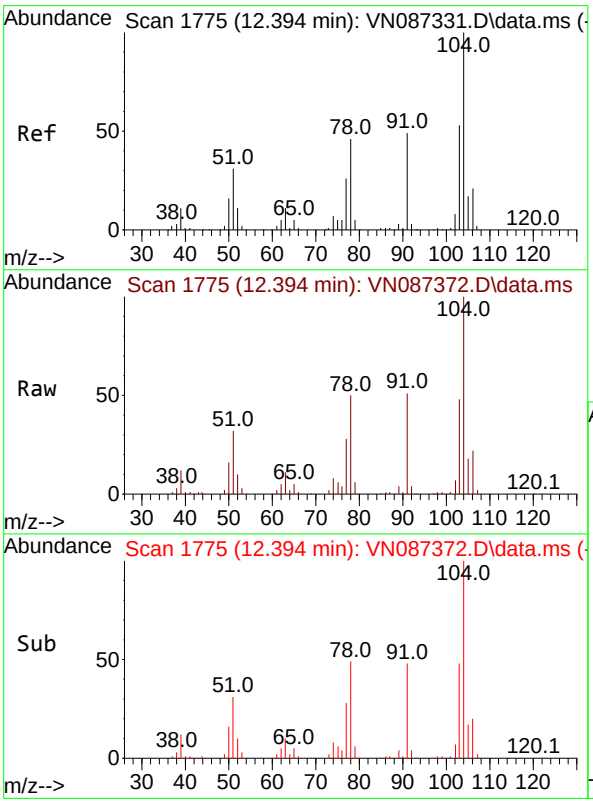
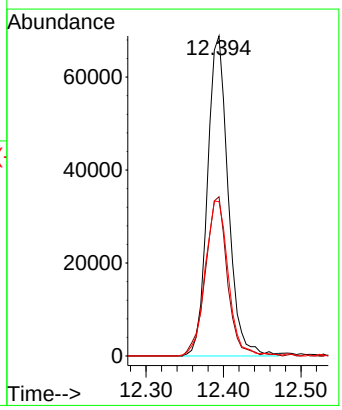


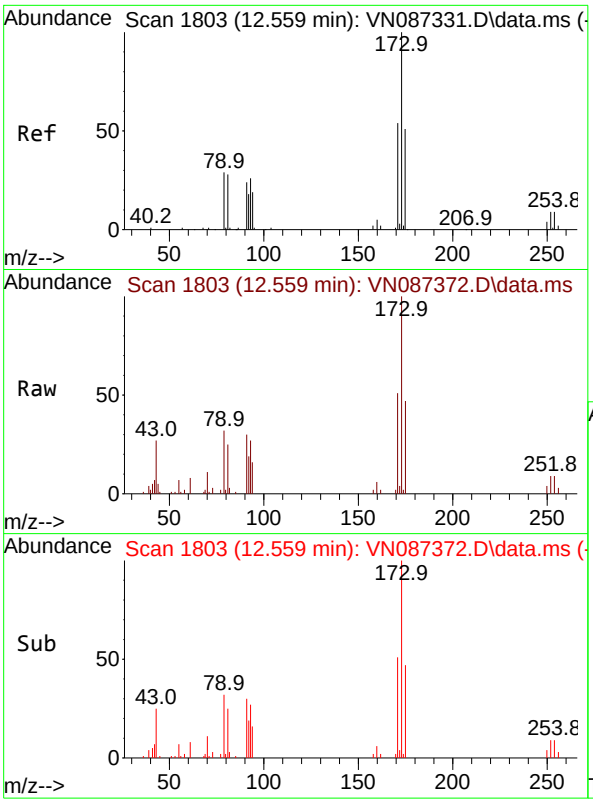


#70
Styrene
Concen: 19.400 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:104 Resp: 127855

Ion	Ratio	Lower	Upper
104	100		
78	52.5	41.0	61.6
103	54.1	43.9	65.9

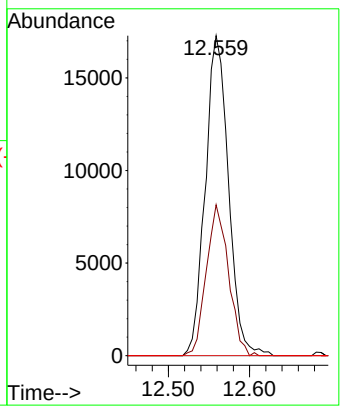




#71
Bromoform
Concen: 18.753 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:173 Resp: 3427

Ion	Ratio	Lower	Upper
173	100		
175	45.2	24.1	72.3
254	0.0	0.0	0.0



Instrument :
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ClientSampleId :
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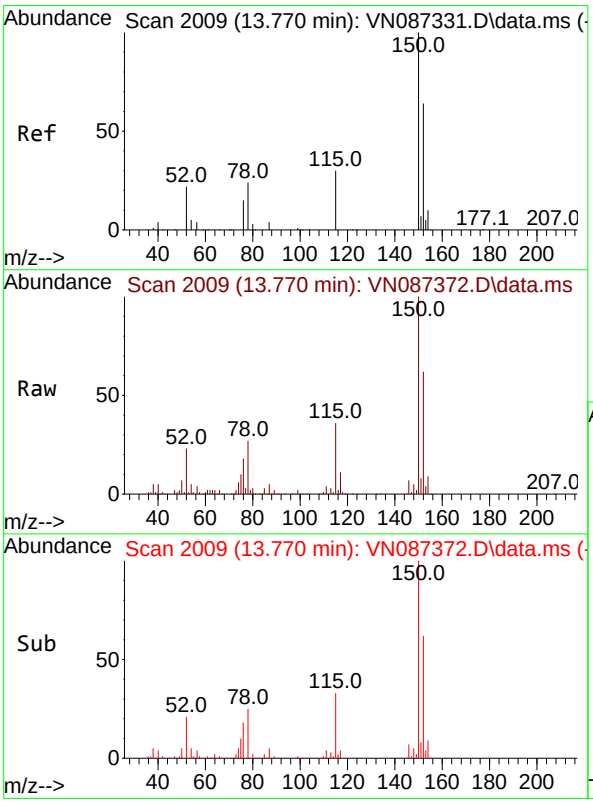
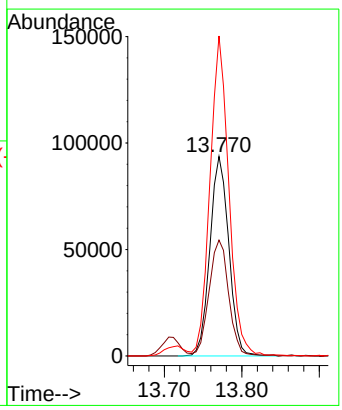
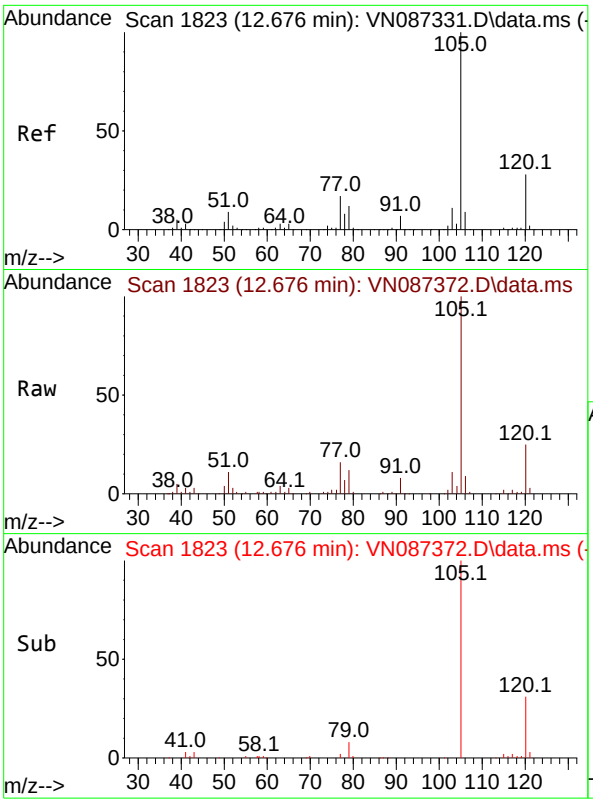


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:152 Resp: 158557

Ion	Ratio	Lower	Upper
152	100		
115	60.5	31.1	93.5
150	160.2	0.0	349.0





#73
Isopropylbenzene
Concen: 19.294 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:105 Resp: 19254

Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.4	40.1

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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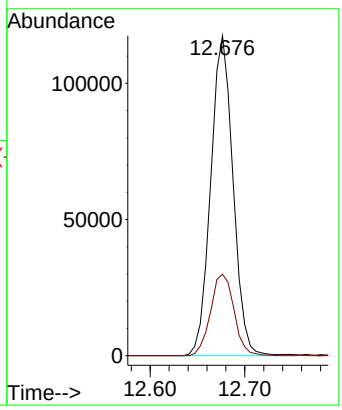
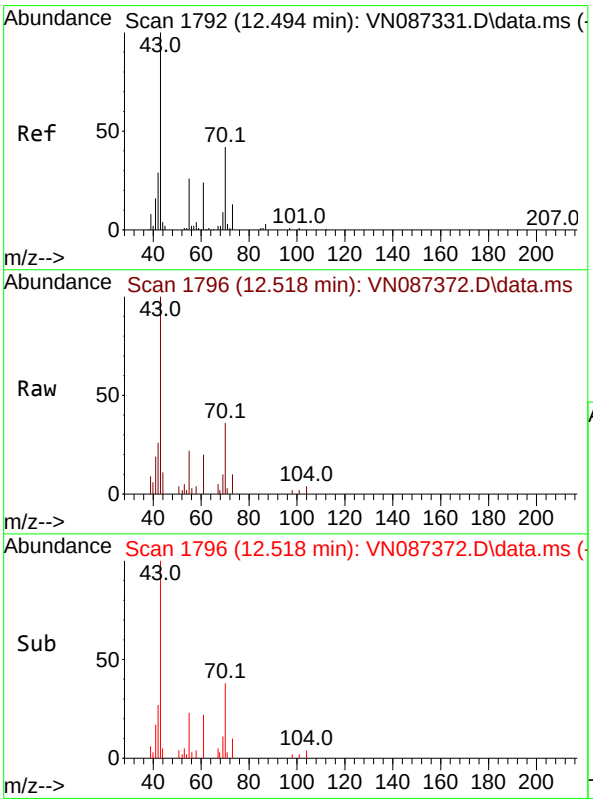
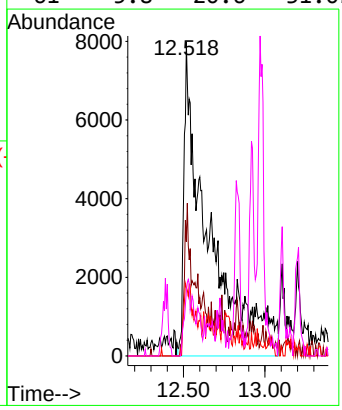


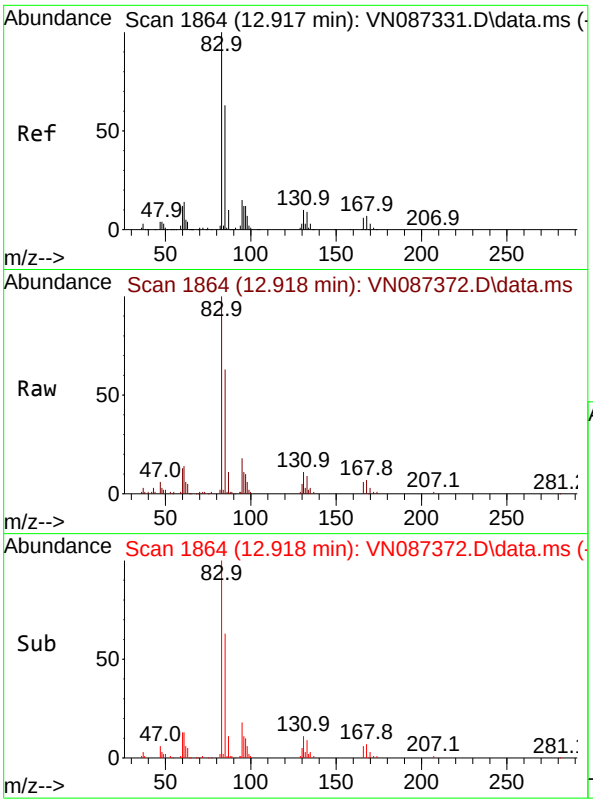


#74
N-amyl acetate
Concen: 20.026 ug/l m
RT: 12.518 min Scan# 1796
Delta R.T. 0.024 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 43 Resp: 83031

Ion	Ratio	Lower	Upper
43	100		
70	17.7	37.6	56.4#
55	4.3	19.6	29.4#
61	5.8	20.6	31.0#

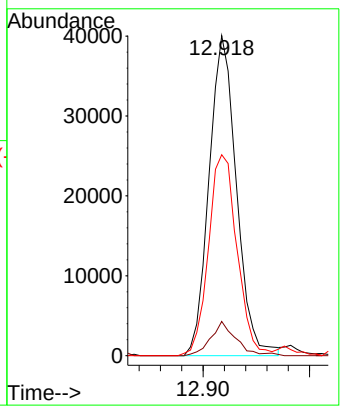




#75
1,1,2,2-Tetrachloroethane
Concen: 19.039 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 83 Resp: 7149

Ion	Ratio	Lower	Upper
83	100		
131	9.9	5.1	15.3
85	65.4	32.5	97.4



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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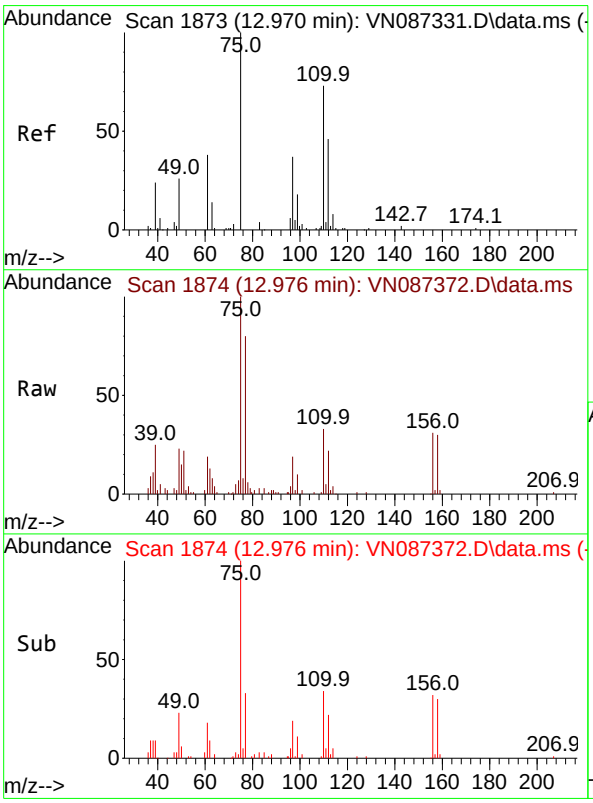
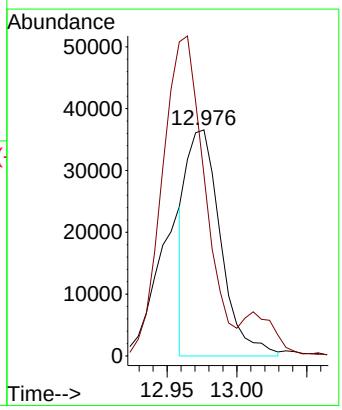
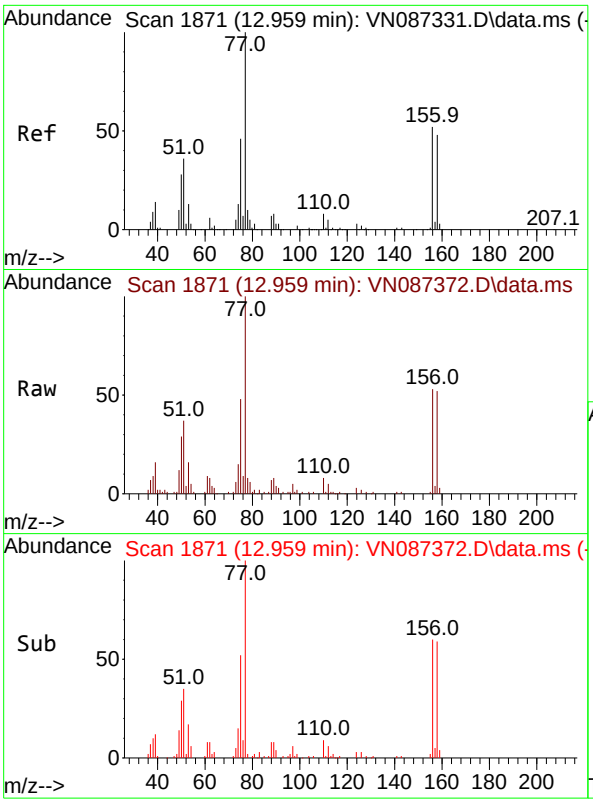


#76
1,2,3-Trichloropropane
Concen: 17.599 ug/l m
RT: 12.976 min Scan# 1874
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 75 Resp: 62574

Ion	Ratio	Lower	Upper
75	100		
77	175.6	94.5	283.6

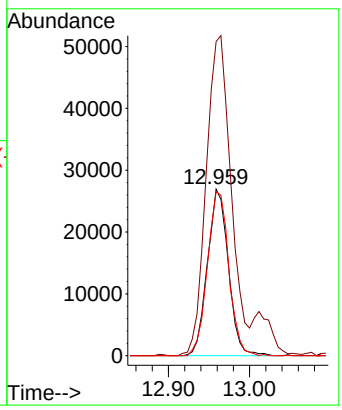




#77
Bromobenzene
Concen: 18.659 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:156 Resp: 4829

Ion	Ratio	Lower	Upper
156	100		
77	227.6	114.9	344.6
158	100.7	48.5	145.5



Instrument :
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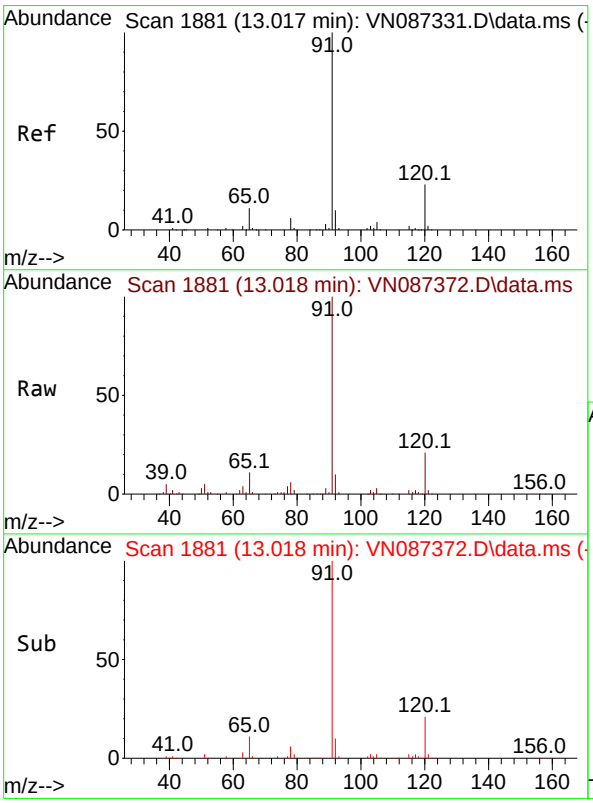
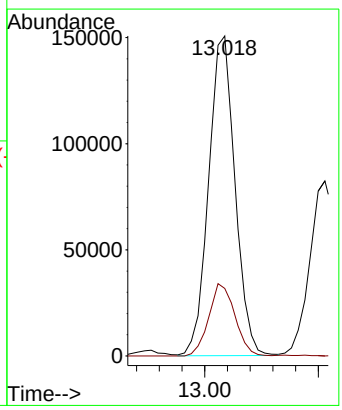
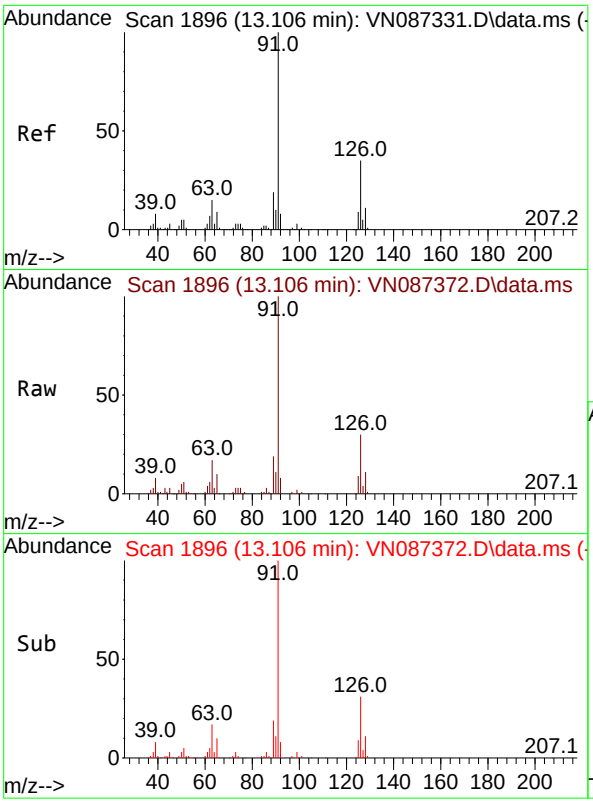


#78
n-propylbenzene
Concen: 19.379 ug/l
RT: 13.018 min Scan# 1881
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 91 Resp: 243308

Ion	Ratio	Lower	Upper
91	100		
120	22.4	11.3	33.8

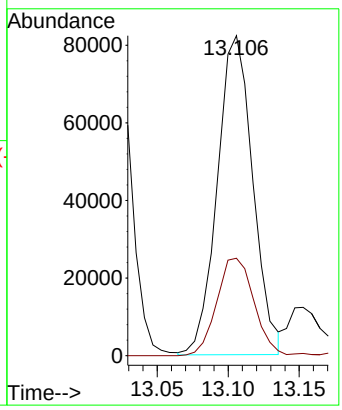




#79
2-Chlorotoluene
Concen: 18.559 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 91 Resp: 14320

Ion	Ratio	Lower	Upper
91	100		
126	32.3	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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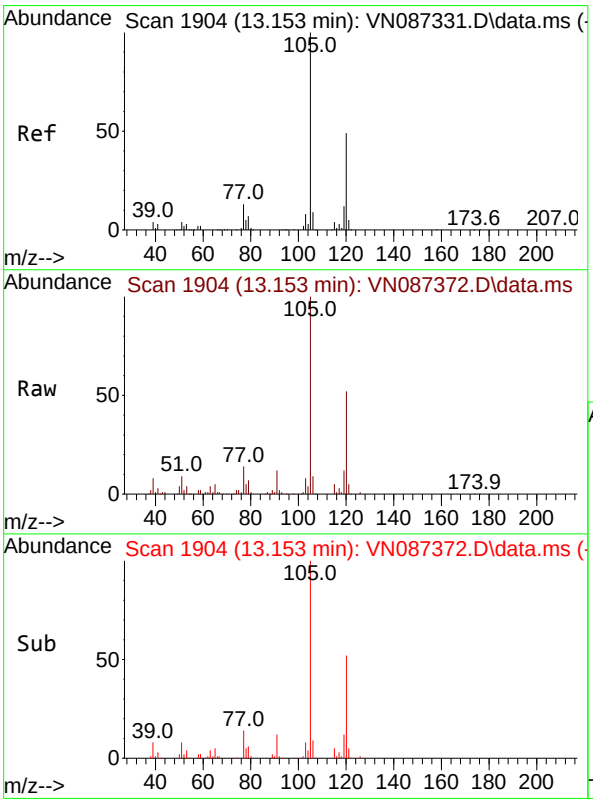
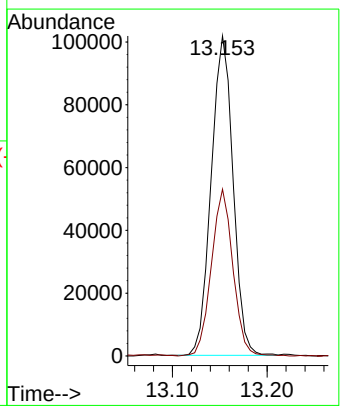
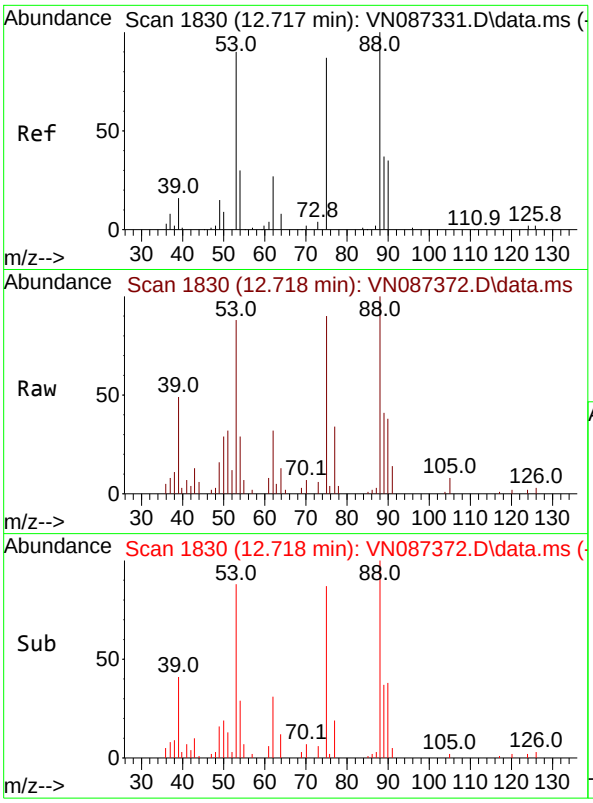


#80
1,3,5-Trimethylbenzene
Concen: 19.152 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:105 Resp: 162843

Ion	Ratio	Lower	Upper
105	100		
120	51.5	24.3	72.8

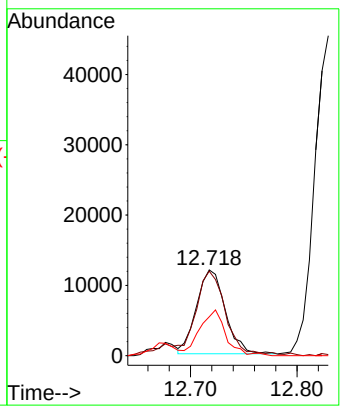




#81
trans-1,4-Dichloro-2-butene
Concen: 17.252 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 75 Resp: 2241

Ion	Ratio	Lower	Upper
75	100		
53	101.6	83.5	125.3
89	48.7	38.4	57.6



Instrument :
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ClientSampleId :
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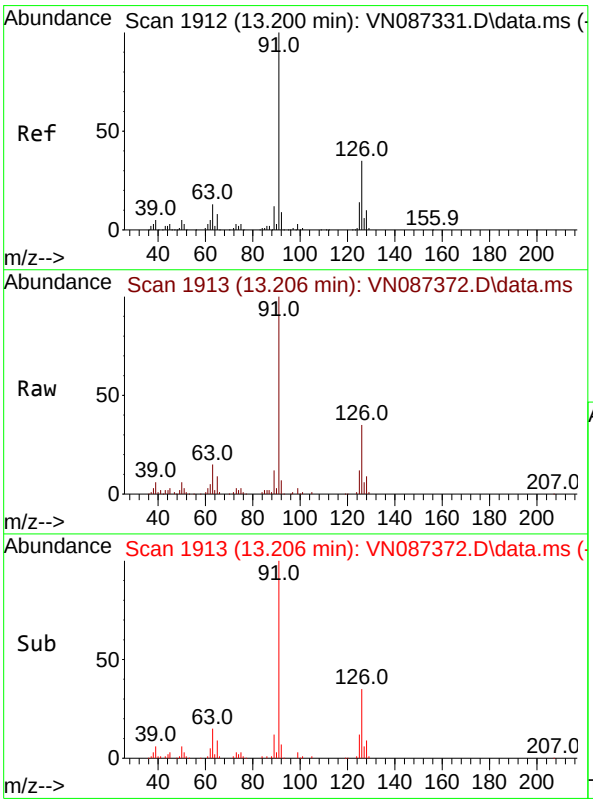
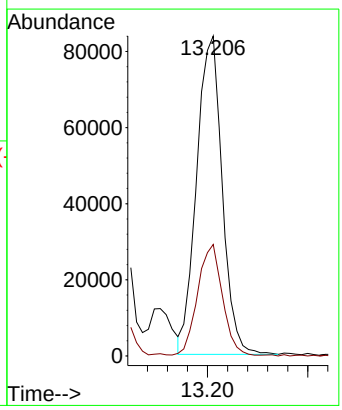
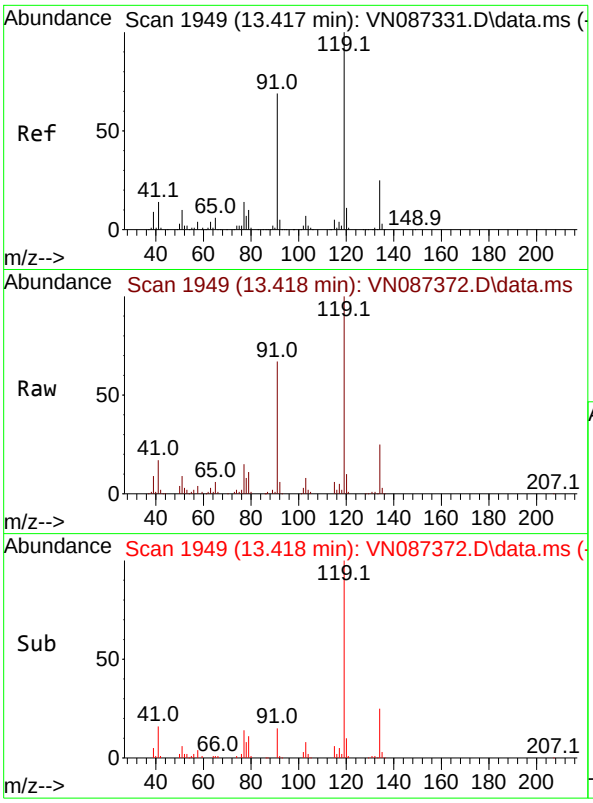


#82
4-Chlorotoluene
Concen: 18.449 ug/l
RT: 13.206 min Scan# 1913
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 91 Resp: 148212

Ion	Ratio	Lower	Upper
91	100		
126	34.4	16.6	49.7

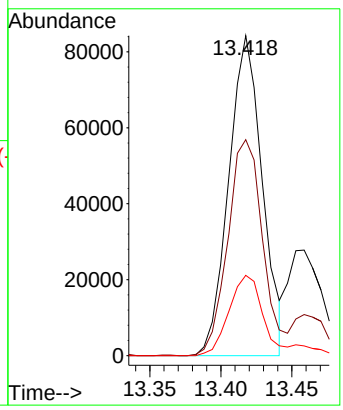




#83
tert-Butylbenzene
Concen: 19.498 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:119 Resp: 13846

Ion	Ratio	Lower	Upper
119	100		
91	70.6	35.0	105.1
134	25.2	12.6	37.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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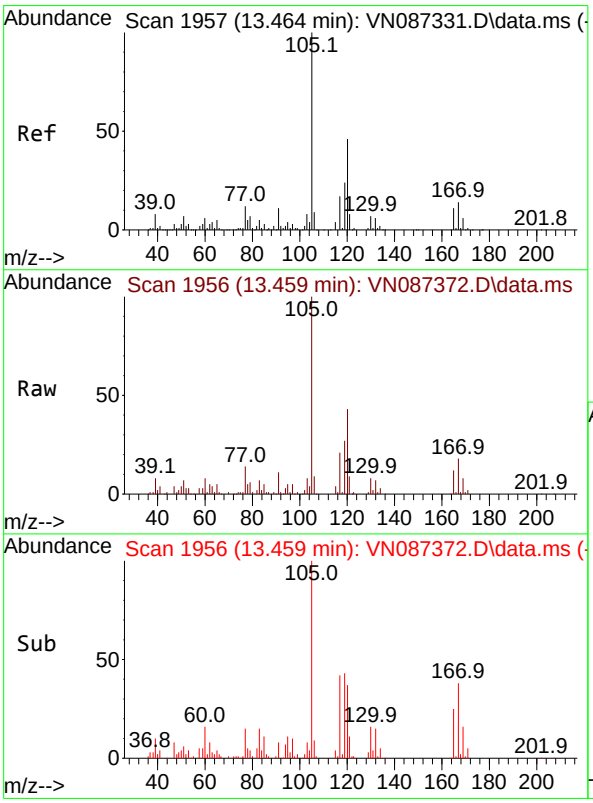
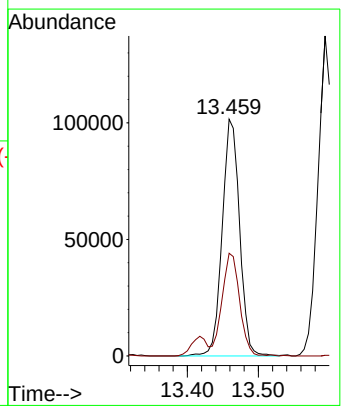
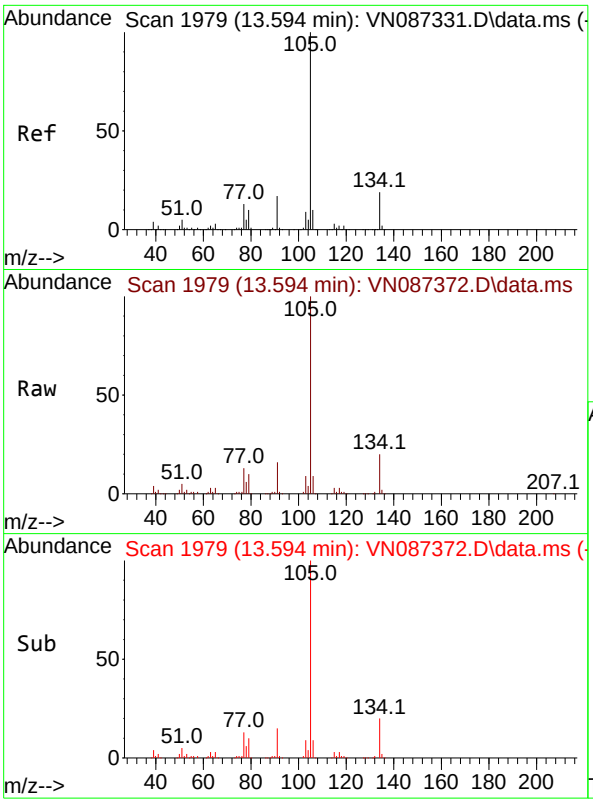


#84
1,2,4-Trimethylbenzene
Concen: 19.852 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:105 Resp: 172373

Ion	Ratio	Lower	Upper
105	100		
120	44.2	22.8	68.3

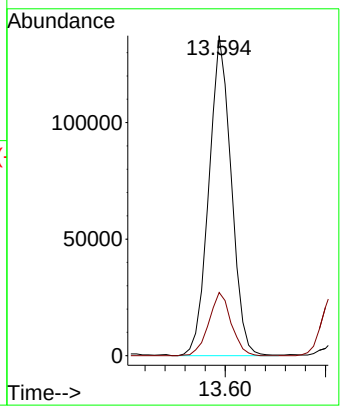




#85
sec-Butylbenzene
Concen: 19.859 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:105 Resp: 21242

Ion	Ratio	Lower	Upper
105	100		
134	19.7	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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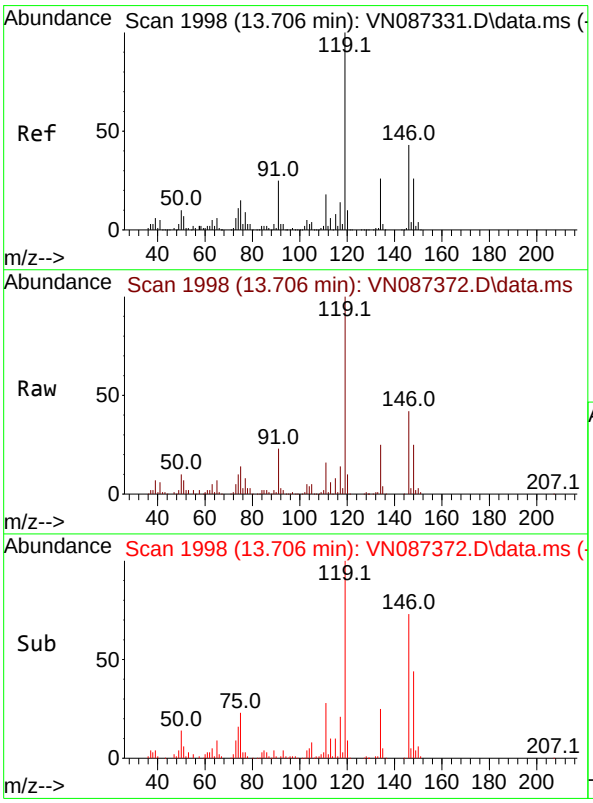
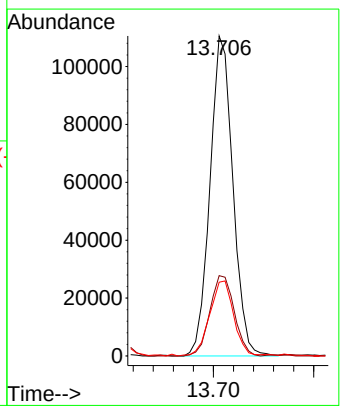
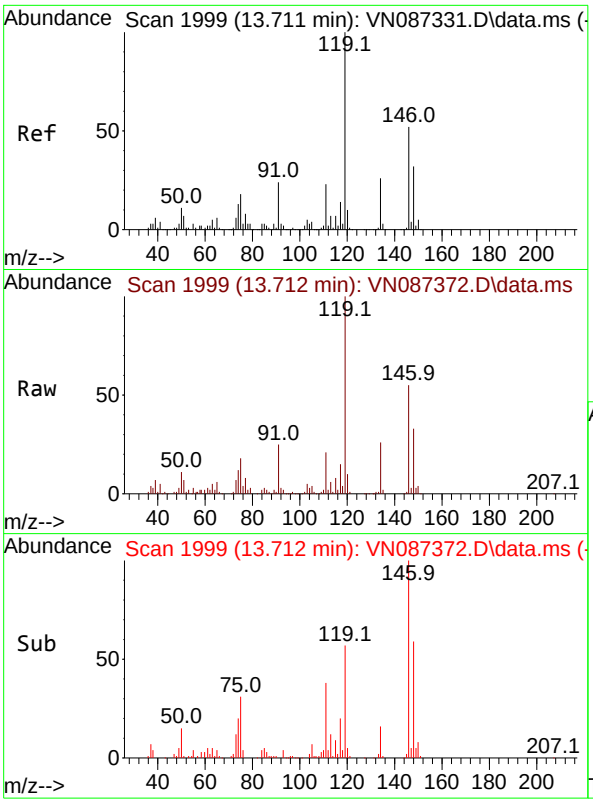


#86
p-Isopropyltoluene
Concen: 20.419 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:119 Resp: 175039

Ion	Ratio	Lower	Upper
119	100		
134	26.7	13.5	40.5
91	24.8	12.2	36.6

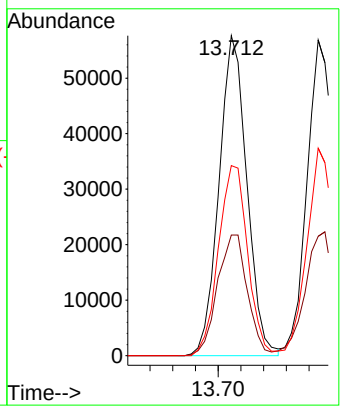




#87
1,3-Dichlorobenzene
Concen: 19.297 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:146 Resp: 9801

Ion	Ratio	Lower	Upper
146	100		
111	40.6	21.4	64.3
148	62.2	31.6	95.0



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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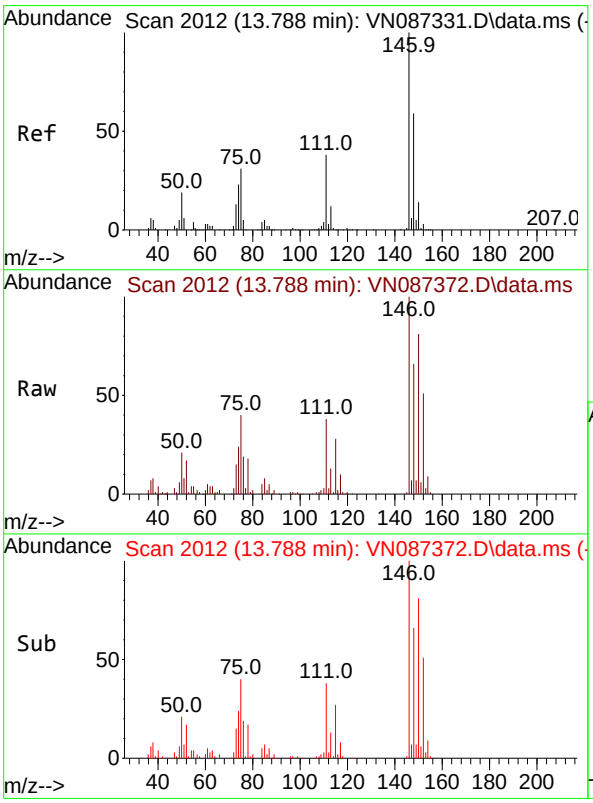
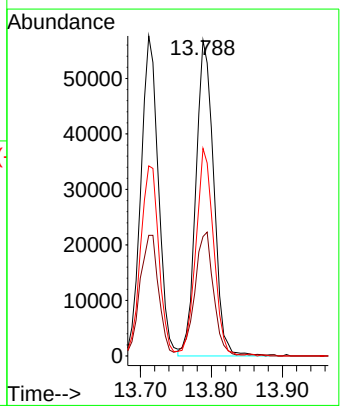
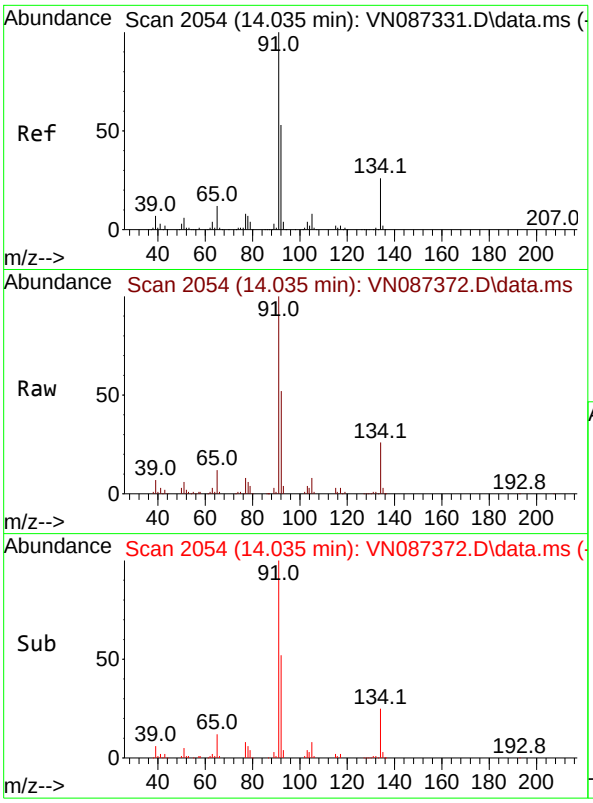


#88
1,4-Dichlorobenzene
Concen: 18.362 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:146 Resp: 99611

Ion	Ratio	Lower	Upper
146	100		
111	40.7	19.6	58.7
148	64.6	31.4	94.0

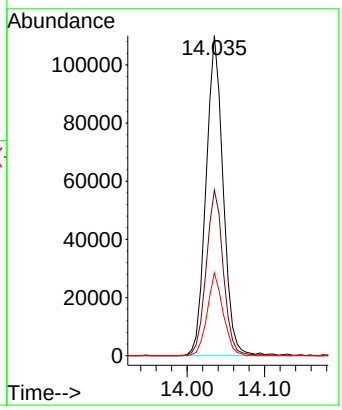




#89
n-Butylbenzene
Concen: 20.587 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 91 Resp: 16851

Ion	Ratio	Lower	Upper
91	100		
92	51.8	26.2	78.6
134	24.2	12.4	37.2



Instrument :
MSVOA_N
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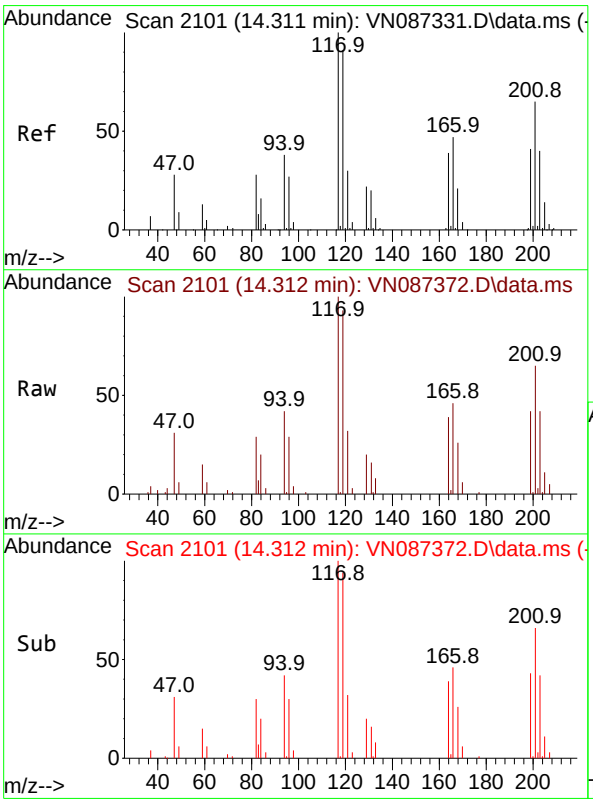
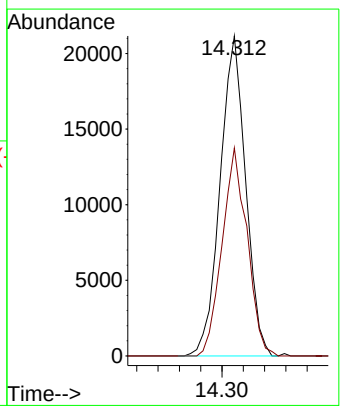
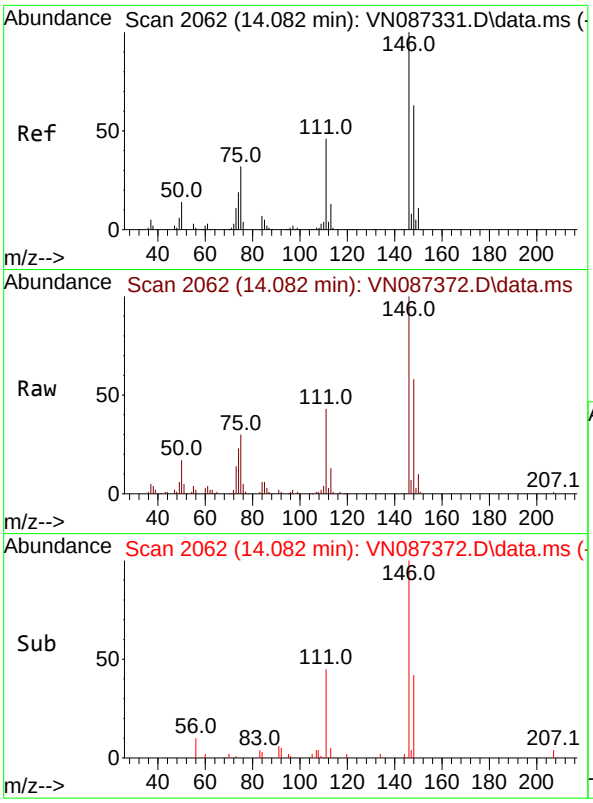


#90
Hexachloroethane
Concen: 19.360 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:117 Resp: 35162

Ion	Ratio	Lower	Upper
117	100		
201	63.9	32.8	98.4

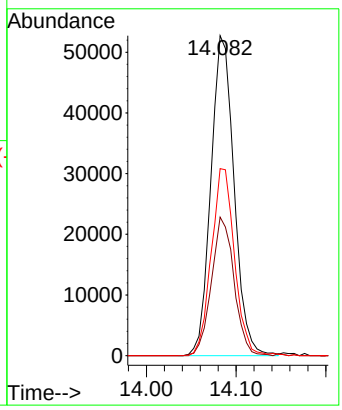




#91
1,2-Dichlorobenzene
Concen: 19.659 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:146 Resp: 9460

Ion	Ratio	Lower	Upper
146	100		
111	42.2	22.0	66.0
148	58.8	32.7	98.1



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

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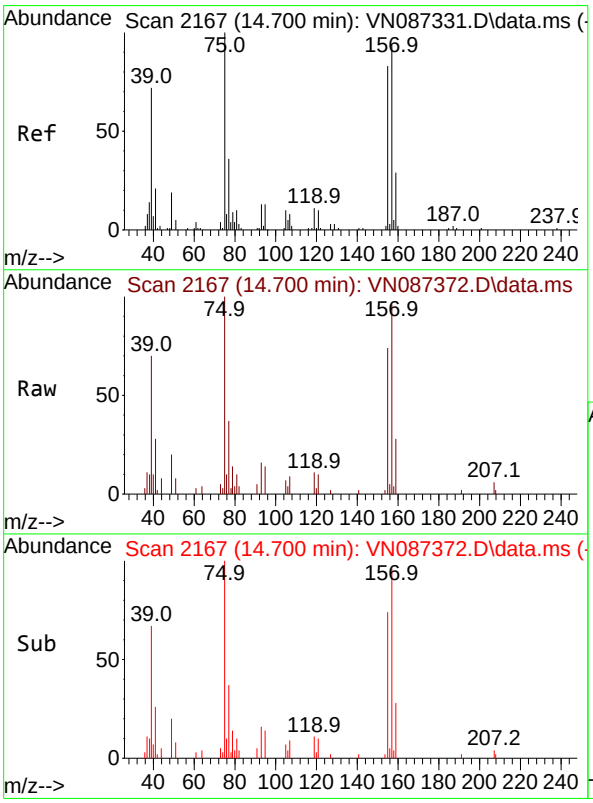
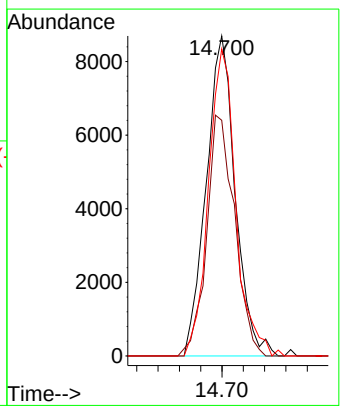
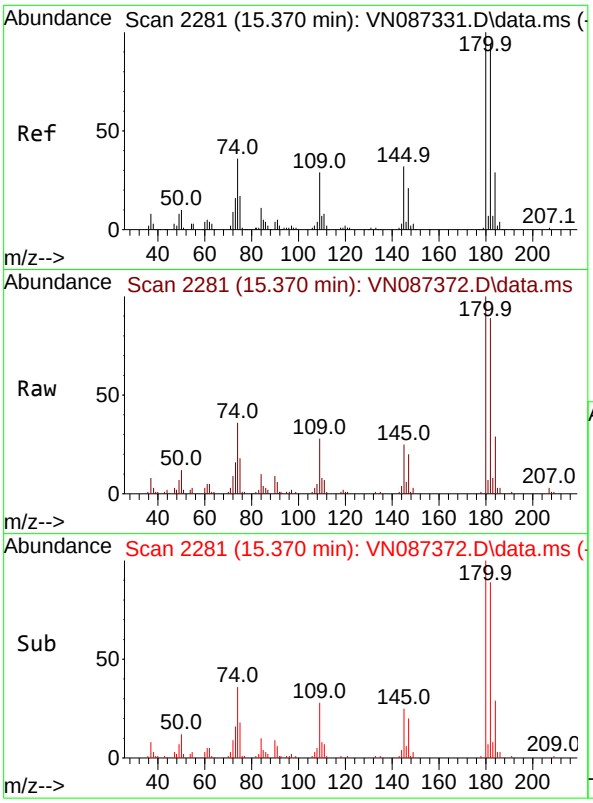


#92
1,2-Dibromo-3-Chloropropane
Concen: 16.647 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion: 75 Resp: 16412

Ion	Ratio	Lower	Upper
75	100		
155	72.6	37.3	111.8
157	90.4	46.2	138.6





#93
1,2,4-Trichlorobenzene
Concen: 18.545 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

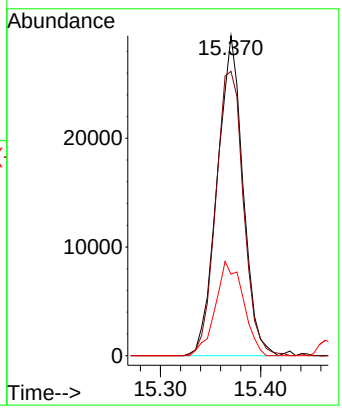
Tgt Ion:180 Resp: 5241

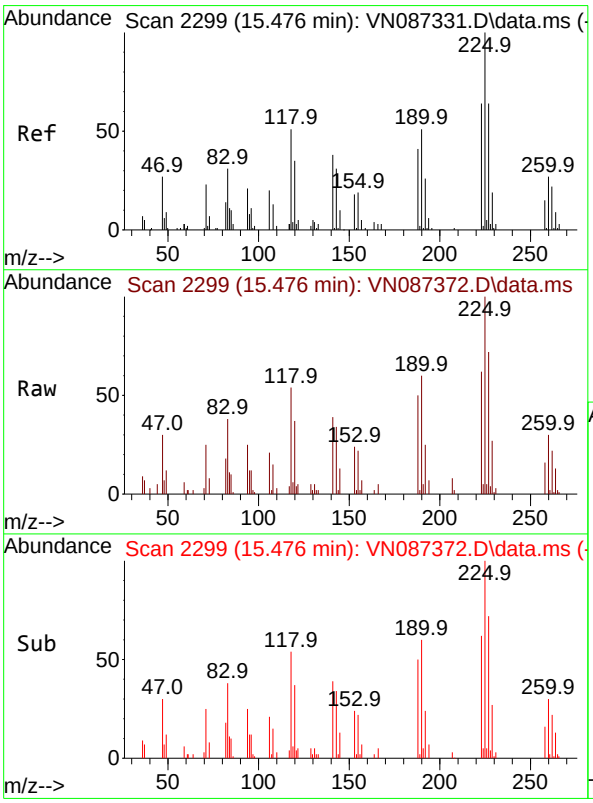
Ion	Ratio	Lower	Upper
180	100		
182	95.5	47.3	141.8
145	31.9	15.4	46.4

Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 07/22/2025
Supervised By :Semsettin Yesilyurt 07/22/2025

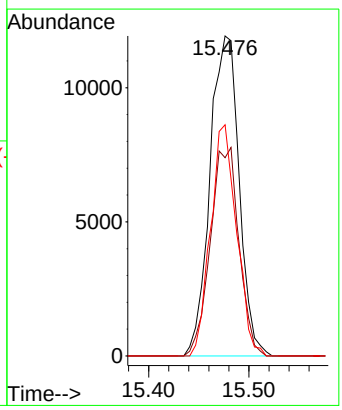


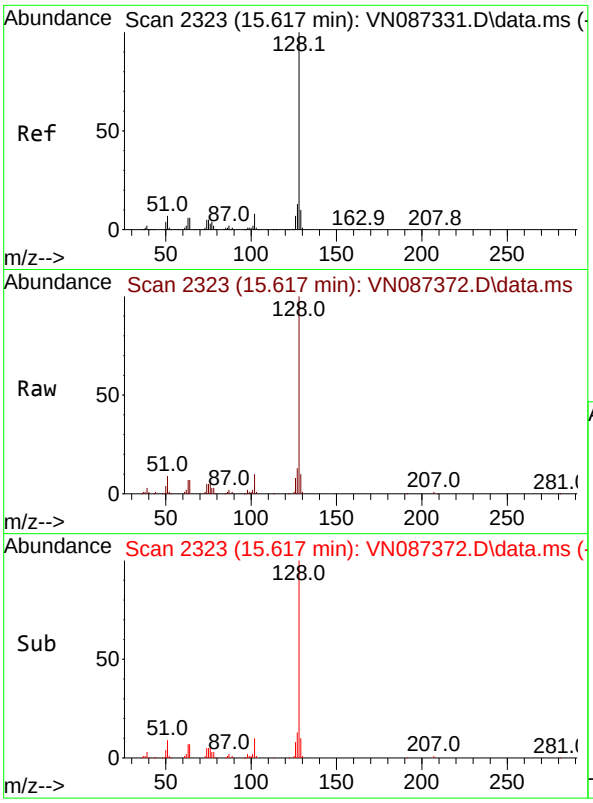


#94
Hexachlorobutadiene
Concen: 22.935 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:225 Resp: 24088

Ion	Ratio	Lower	Upper
225	100		
223	64.0	32.1	96.3
227	64.7	31.3	93.9

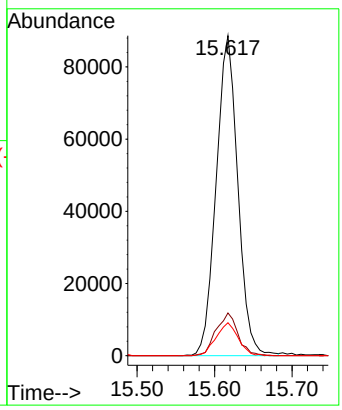




#95
Naphthalene
Concen: 17.229 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:128 Resp: 17252

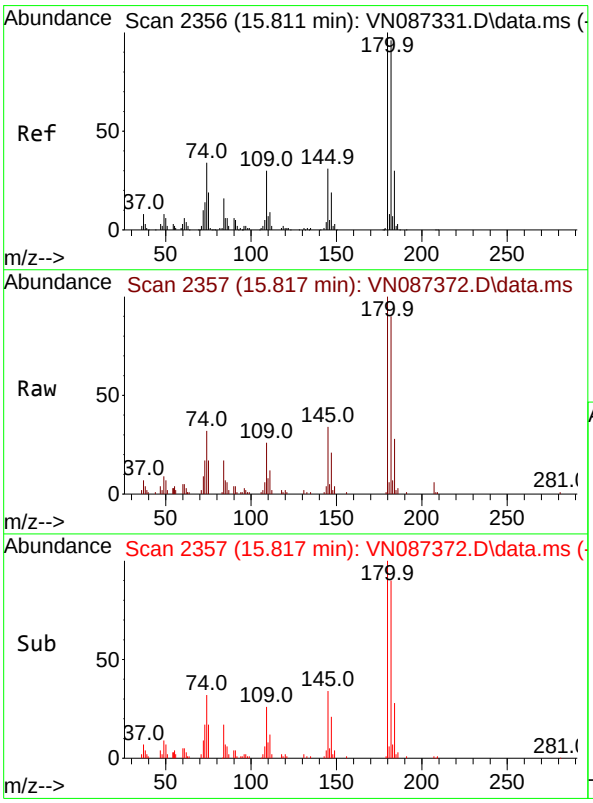
Ion	Ratio	Lower	Upper
128	100		
127	13.5	10.5	15.7
129	10.5	8.4	12.6



Instrument :
MSVOA_N
ClientSampleId :
VN0721WBSD01

Manual Integrations
APPROVED

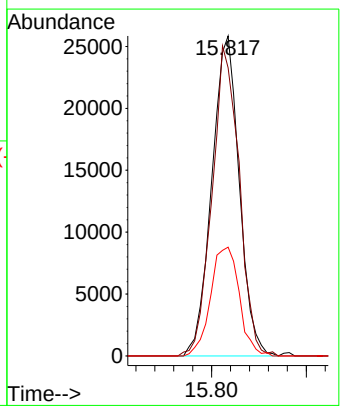
Reviewed By :John Carlone 07/22/2025
Supervised By :Semsettin Yesilyurt 07/22/2025



#96
1,2,3-Trichlorobenzene
Concen: 18.358 ug/l
RT: 15.817 min Scan# 2357
Delta R.T. 0.006 min
Lab File: VN087372.D
Acq: 21 Jul 2025 12:30

Tgt Ion:180 Resp: 52053

Ion	Ratio	Lower	Upper
180	100		
182	95.4	47.1	141.4
145	35.6	16.9	50.6



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

Manual Integration Report

Sequence:	VN071625	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VN087328.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:19:52 AM	Sam	7/17/2025 8:24:59 AM	Peak Integrated by Software
VSTDICC001	VN087328.D	1,4-Dichlorobenzene	MMDadoda	7/17/2025 8:19:52 AM	Sam	7/17/2025 8:24:59 AM	Peak Integrated by Software
VSTDICC001	VN087328.D	Acetone	MMDadoda	7/17/2025 8:19:52 AM	Sam	7/17/2025 8:24:59 AM	Peak Integrated by Software
VSTDICC001	VN087328.D	Allyl chloride	MMDadoda	7/17/2025 8:19:52 AM	Sam	7/17/2025 8:24:59 AM	Peak Integrated by Software
VSTDICC001	VN087328.D	Methyl tert-butyl Ether	MMDadoda	7/17/2025 8:19:52 AM	Sam	7/17/2025 8:24:59 AM	Peak Integrated by Software
VSTDICC001	VN087328.D	N-amyl acetate	MMDadoda	7/17/2025 8:19:52 AM	Sam	7/17/2025 8:24:59 AM	Peak Integrated by Software
VSTDICC005	VN087329.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:19:53 AM	Sam	7/17/2025 8:24:55 AM	Peak Integrated by Software
VSTDICC005	VN087329.D	Methyl Iodide	MMDadoda	7/17/2025 8:19:53 AM	Sam	7/17/2025 8:24:55 AM	Peak Integrated by Software
VSTDICC005	VN087329.D	N-amyl acetate	MMDadoda	7/17/2025 8:19:53 AM	Sam	7/17/2025 8:24:55 AM	Peak Integrated by Software
VSTDICC020	VN087330.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:19:54 AM	Sam	7/17/2025 8:24:56 AM	Peak Integrated by Software
VSTDICC020	VN087330.D	N-amyl acetate	MMDadoda	7/17/2025 8:19:54 AM	Sam	7/17/2025 8:24:56 AM	Peak Integrated by Software
VSTDICCC050	VN087331.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:19:56 AM	Sam	7/17/2025 8:25:01 AM	Peak Integrated by Software
VSTDICCC050	VN087331.D	N-amyl acetate	MMDadoda	7/17/2025 8:19:56 AM	Sam	7/17/2025 8:25:01 AM	Peak Integrated by Software

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Manual Integration Report

Sequence:	VN071625	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC100	VN087332.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:19:58 AM	Sam	7/17/2025 8:25:00 AM	Peak Integrated by Software
VSTDICC150	VN087333.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:19:59 AM	Sam	7/17/2025 8:25:02 AM	Peak Integrated by Software
VSTDICV050	VN087335.D	1,2,3-Trichloropropane	MMDadoda	7/17/2025 8:20:01 AM	Sam	7/17/2025 8:25:03 AM	Peak Integrated by Software
VSTDICV050	VN087335.D	N-amyl acetate	MMDadoda	7/17/2025 8:20:01 AM	Sam	7/17/2025 8:25:03 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	vn072125	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN087368.D	1,2,3-Trichloropropane	JOHN	7/22/2025 9:00:11 AM	MMDadoda	7/22/2025 1:40:43 PM	Peak Integrated by Software
VN0721WBS01	VN087371.D	1,2,3-Trichloropropane	JOHN	7/22/2025 9:00:17 AM	MMDadoda	7/22/2025 1:40:41 PM	Peak Integrated by Software
VN0721WBS01	VN087371.D	N-amyl acetate	JOHN	7/22/2025 9:00:17 AM	MMDadoda	7/22/2025 1:40:41 PM	Peak Integrated by Software
VN0721WBSD01	VN087372.D	1,2,3-Trichloropropane	JOHN	7/22/2025 9:00:21 AM	SAM	7/22/2025 1:54:42 PM	Peak Integrated by Software
VN0721WBSD01	VN087372.D	N-amyl acetate	JOHN	7/22/2025 9:00:21 AM	SAM	7/22/2025 1:54:42 PM	Peak Integrated by Software
VSTDCCC050	VN087387.D	1,2,3-Trichloropropane	JOHN	7/22/2025 9:00:47 AM	MMDadoda	7/22/2025 1:40:38 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 # VN071625

Review By	Mahesh Dadoda	Review On	7/17/2025 8:20:05 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	7/17/2025 8:25:10 AM		
SubDirectory	VN071625	HP Acquire Method		HP Processing Method	82N071625W.M

STD. NAME	STD REF.#
Tune/Reschk	VP134794
Initial Calibration Stds	VP134795,VP134796,VP134797,VP134798,VP134799,VP134800
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP134801
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN087327.D	16 Jul 2025 16:10	JC\MD	Ok
2	VSTDICC001	VN087328.D	16 Jul 2025 17:05	JC\MD	Ok,M
3	VSTDICC005	VN087329.D	16 Jul 2025 17:27	JC\MD	Ok,M
4	VSTDICC020	VN087330.D	16 Jul 2025 17:49	JC\MD	Ok,M
5	VSTDICCC050	VN087331.D	16 Jul 2025 18:11	JC\MD	Ok,M
6	VSTDICC100	VN087332.D	16 Jul 2025 18:32	JC\MD	Ok,M
7	VSTDICC150	VN087333.D	16 Jul 2025 18:54	JC\MD	Ok,M
8	IBLK	VN087334.D	16 Jul 2025 19:16	JC\MD	Ok
9	VSTDICV050	VN087335.D	16 Jul 2025 19:59	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 # VN072125

Review By	John Carlone	Review On	7/22/2025 9:07:37 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/22/2025 1:40:47 PM		
SubDirectory	VN072125	HP Acquire Method		HP Processing Method	82N071625W.M

STD. NAME	STD REF.#
Tune/Reschk	VP134840
Initial Calibration Stds	
CCC	VP134841,VP134842
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN087367.D	21 Jul 2025 10:05	JC\MD	Ok
2	VSTDCCC050	VN087368.D	21 Jul 2025 10:38	JC\MD	Ok,M
3	VN0721MBL01	VN087369.D	21 Jul 2025 11:13	JC\MD	Ok
4	VN0721WBL01	VN087370.D	21 Jul 2025 11:34	JC\MD	Ok
5	VN0721WBS01	VN087371.D	21 Jul 2025 11:55	JC\MD	Ok,M
6	VN0721WBSD01	VN087372.D	21 Jul 2025 12:30	JC\MD	Ok,M
7	Q2646-01	VN087373.D	21 Jul 2025 12:51	JC\MD	Ok
8	IBLK	VN087374.D	21 Jul 2025 13:13	JC\MD	Ok
9	PB168920TB	VN087375.D	21 Jul 2025 13:34	JC\MD	Ok
10	Q2641-02	VN087376.D	21 Jul 2025 13:55	JC\MD	Ok
11	Q2645-03	VN087377.D	21 Jul 2025 14:16	JC\MD	Ok
12	Q2649-04	VN087378.D	21 Jul 2025 14:38	JC\MD	Ok
13	Q2649-08	VN087379.D	21 Jul 2025 14:59	JC\MD	Ok,M
14	Q2649-12	VN087380.D	21 Jul 2025 15:20	JC\MD	Ok
15	Q2649-16	VN087381.D	21 Jul 2025 15:42	JC\MD	Ok
16	Q2649-20	VN087382.D	21 Jul 2025 16:03	JC\MD	Ok
17	Q2649-24	VN087383.D	21 Jul 2025 16:24	JC\MD	Ok
18	PB168921TB	VN087384.D	21 Jul 2025 16:46	JC\MD	Ok
19	Q2646-03	VN087385.D	21 Jul 2025 17:07	JC\MD	Ok
20	Q2664-01	VN087386.D	21 Jul 2025 17:29	JC\MD	Ok
21	VSTDCCC050	VN087387.D	21 Jul 2025 17:50	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 # VN071625

Review By	Mahesh Dadoda	Review On	7/17/2025 8:20:05 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	7/17/2025 8:25:10 AM		
SubDirectory	VN071625	HP Acquire Method		HP Processing Method	82N071625W.M

STD. NAME	STD REF.#
Tune/Reschk	VP134794
Initial Calibration Stds	VP134795,VP134796,VP134797,VP134798,VP134799,VP134800
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP134801
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN087327.D	16 Jul 2025 16:10		JC\MD	Ok
2	VSTDICC001	VSTDICC001	VN087328.D	16 Jul 2025 17:05		JC\MD	Ok,M
3	VSTDICC005	VSTDICC005	VN087329.D	16 Jul 2025 17:27	% d fail for com.#10 in 5 ppb	JC\MD	Ok,M
4	VSTDICC020	VSTDICC020	VN087330.D	16 Jul 2025 17:49	LR- 10,20	JC\MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VN087331.D	16 Jul 2025 18:11	QR- 56	JC\MD	Ok,M
6	VSTDICC100	VSTDICC100	VN087332.D	16 Jul 2025 18:32		JC\MD	Ok,M
7	VSTDICC150	VSTDICC150	VN087333.D	16 Jul 2025 18:54		JC\MD	Ok,M
8	IBLK	IBLK	VN087334.D	16 Jul 2025 19:16		JC\MD	Ok
9	VSTDICV050	ICVVN071625	VN087335.D	16 Jul 2025 19:59		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 # VN072125

Review By	John Carlone	Review On	7/22/2025 9:07:37 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/22/2025 1:40:47 PM		
SubDirectory	VN072125	HP Acquire Method		HP Processing Method	82N071625W.M

STD. NAME	STD REF.#
Tune/Reschk	VP134840
Initial Calibration Stds	
CCC	VP134841,VP134842
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN087367.D	21 Jul 2025 10:05		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN087368.D	21 Jul 2025 10:38	pH#Lot#V12668	JC\MD	Ok,M
3	VN0721MBL01	VN0721MBL01	VN087369.D	21 Jul 2025 11:13		JC\MD	Ok
4	VN0721WBL01	VN0721WBL01	VN087370.D	21 Jul 2025 11:34		JC\MD	Ok
5	VN0721WBS01	VN0721WBS01	VN087371.D	21 Jul 2025 11:55		JC\MD	Ok,M
6	VN0721WBSD01	VN0721WBSD01	VN087372.D	21 Jul 2025 12:30		JC\MD	Ok,M
7	Q2646-01	FRAC TANK	VN087373.D	21 Jul 2025 12:51	vial A pH<2 turbid/brown sample	JC\MD	Ok
8	IBLK	IBLK	VN087374.D	21 Jul 2025 13:13		JC\MD	Ok
9	PB168920TB	PB168920TB	VN087375.D	21 Jul 2025 13:34		JC\MD	Ok
10	Q2641-02	P001-CONCRETE001-	VN087376.D	21 Jul 2025 13:55	vial A pH#5.0	JC\MD	Ok
11	Q2645-03	RW5B-CARBON-2025(	VN087377.D	21 Jul 2025 14:16	vial A pH#5.0	JC\MD	Ok
12	Q2649-04	WC-1	VN087378.D	21 Jul 2025 14:38	vial A pH#5.0	JC\MD	Ok
13	Q2649-08	WC-2	VN087379.D	21 Jul 2025 14:59	vial A pH#5.0	JC\MD	Ok,M
14	Q2649-12	WC-3	VN087380.D	21 Jul 2025 15:20	vial A pH#5.0	JC\MD	Ok
15	Q2649-16	WC-4	VN087381.D	21 Jul 2025 15:42	vial A pH#5.0	JC\MD	Ok
16	Q2649-20	WC-5	VN087382.D	21 Jul 2025 16:03	vial A pH#5.0	JC\MD	Ok
17	Q2649-24	WC-6	VN087383.D	21 Jul 2025 16:24	vial A pH#5.0	JC\MD	Ok
18	PB168921TB	PB168921TB	VN087384.D	21 Jul 2025 16:46		JC\MD	Ok

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Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN072125

Review By	John Carlone	Review On	7/22/2025 9:07:37 AM		
Supervise By	Mahesh Dadoda	Supervise On	7/22/2025 1:40:47 PM		
SubDirectory	VN072125	HP Acquire Method		HP Processing Method	82N071625W.M

STD. NAME	STD REF.#
Tune/Reschk	VP134840
Initial Calibration Stds	
CCC	VP134841,VP134842
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q2646-03	FRAC TANK	VN087385.D	21 Jul 2025 17:07	vial A pH#5.0	JC\MD	Ok
20	Q2664-01	GDW3	VN087386.D	21 Jul 2025 17:29	vial A pH<2	JC\MD	Ok
21	VSTDCCC050	VSTDCCC050EC	VN087387.D	21 Jul 2025 17:50		JC\MD	Ok,M

M : Manual Integration

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB168920

SOP ID : M1311-TCLP-16

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : ZHE-1

TCLP Filter ID : 50223706

Start Prep Date : 07/18/2025 **Time :** 17:00

End Prep Date : 07/19/2025 **Time :** 11:25

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 78

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP112804
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
40ml VOA Vials	430992	N/A

Extraction Conformance/Non-Conformance Comments:

TUMBLER ZHE-1 /ZHE-2 checked,30 rpm. ALL ZHE samples are extracted and given as vial A & B. Leck checked after 10 minutes of tumbling.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
07/21/25 11:30	JP TCLP Room	MD VOC245
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB168920

Sample ID	ClientID	ZHE Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB168920TB	LEB920	09	N/A	500	N/A	N/A	N/A	4.93	N/A	ZHE-1
Q2641-02	P001-CONCRETE001-01	01	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2645-03	RW5B-CARBON-20250716	02	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2649-04	WC-1	03	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2649-08	WC-2	04	25.01	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2649-12	WC-3	05	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2649-16	WC-4	06	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2649-20	WC-5	07	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q2649-24	WC-6	08	25.01	500	N/A	N/A	N/A	N/A	N/A	ZHE-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB168920TB	LEB920	N/A	N/A	N/A	N/A	N/A	N/A
Q2641-02	P001-CONCRETE001-01	N/A	N/A	N/A	N/A	100	N/A
Q2645-03	RW5B-CARBON-20250716	N/A	N/A	N/A	N/A	100	N/A
Q2649-04	WC-1	N/A	N/A	N/A	N/A	100	N/A
Q2649-08	WC-2	N/A	N/A	N/A	N/A	100	N/A
Q2649-12	WC-3	N/A	N/A	N/A	N/A	100	N/A
Q2649-16	WC-4	N/A	N/A	N/A	N/A	100	N/A
Q2649-20	WC-5	N/A	N/A	N/A	N/A	100	N/A
Q2649-24	WC-6	N/A	N/A	N/A	N/A	100	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : tclp zhe q2649 **WorkList ID :** 190829 **Department :** TCLP Extraction **Date :** 07-18-2025 15:02:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2641-02	P001-CONCRETE001-01	Solid	TCLP ZHE Extraction	Cool 4 deg C	ROYF02	O22	07/16/2025	1311 ZHE
Q2645-03	RW5B-CARBON-20250716	Solid	TCLP ZHE Extraction	Cool 4 deg C	TETR06	O41	07/16/2025	1311 ZHE
Q2649-04	WC-1	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	D41	07/18/2025	1311 ZHE
Q2649-08	WC-2	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	D41	07/18/2025	1311 ZHE
Q2649-12	WC-3	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	D41	07/18/2025	1311 ZHE
Q2649-16	WC-4	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	D41	07/18/2025	1311 ZHE
Q2649-20	WC-5	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	D41	07/18/2025	1311 ZHE
Q2649-24	WC-6	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	D41	07/18/2025	1311 ZHE

Date/Time 07/18/25 15:35
Raw Sample Received by:
Raw Sample Relinquished by:

07/18/25
Date/Time 07/18/25 18:00
Raw Sample Received by:
Raw Sample Relinquished by:

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Prep Standard - Chemical Standard Summary

Order ID : Q2641

Test : TCLP VOA

Prepbatch ID :

Sequence ID/Qc Batch ID: VN072125,

Standard ID :
VP133174,VP133935,VP133953,VP134142,VP134149,VP134478,VP134810,VP134840,VP134841,VP134842,

Chemical ID :
V13391,V13706,V14290,V14438,V14440,V14505,V14506,V14527,V14528,V14613,V14626,V14629,V14636,V14637,V14638,V14639,V14668,V14671,V14673,V14675,V14708,V14712,V14713,V14748,V14752,V14808,V14822,V14843,V14921,V14929,V15050,V15051,V15052,W3112,

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
617	8260 Surrogate, 400PPM	VP133174	02/27/2025	08/27/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/04/2025

FROM 0.40000ml of V13706 + 24.60000ml of V14613 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP133935	05/16/2025	11/12/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 05/21/2025

FROM 0.25000ml of V14290 + 24.75000ml of V14921 = Final Quantity: 25.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP133953	05/19/2025	11/09/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 05/21/2025

FROM 0.25000ml of V13391 + 24.75000ml of V14626 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
719	8260 Working STD (BCM)-First source, 400PPM	VP134142	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/10/2025

FROM 1.00000ml of V14668 + 1.00000ml of V14671 + 1.00000ml of V14673 + 1.00000ml of V14675 + 16.00000ml of V14929 = Final Quantity: 20.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP134149	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/10/2025

FROM 1.00000ml of V14636 + 1.00000ml of V14637 + 1.00000ml of V14638 + 1.00000ml of V14639 + 46.00000ml of V14929 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP134478	06/24/2025	08/09/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/26/2025

FROM 0.40000ml of V14843 + 1.00000ml of V14438 + 1.00000ml of V14440 + 1.00000ml of V14505 + 1.00000ml of V14506 + 1.00000ml of V14527 + 1.00000ml of V14528 + 1.00000ml of V14708 + 1.00000ml of V14748 + 1.00000ml of V14752 + 1.00000ml of V14808 + 1.00000ml of V14822 + 1.50000ml of V14712 + 1.50000ml of V14713 + 10.60000ml of V14929 = Final Quantity: 25.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP134810	07/18/2025	08/16/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/23/2025

FROM 1.00000ml of V15052 + 1.50000ml of V15050 + 1.50000ml of V15051 + 21.00000ml of V14629 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP134840	07/21/2025	07/22/2025	John Carlone	None	None	Mahesh Dadoda 07/23/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP133953 = Final Quantity: 40.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP134841	07/21/2025	07/22/2025	John Carlone	None	None	Mahesh Dadoda 07/23/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP133174 + 0.00500ml of VP134142 + 0.00800ml of VP133935 + 0.01250ml of VP134149 + 0.01250ml of VP134478 + 0.01250ml of VP134810 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP134842	07/21/2025	07/22/2025	John Carlone	None	None	Mahesh Dadoda 07/23/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP133174 + 0.00500ml of VP134142 + 0.00800ml of VP133935 + 0.01250ml of VP134149 + 0.01250ml of VP134478 + 0.01250ml of VP134810 = Final Quantity: 40.000 ml

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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	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0196865	02/27/2026	02/27/2025 / SAM	04/12/2023 / SAM	V13706

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0210184	12/12/2025	12/12/2024 / SAM	04/15/2024 / SAM	V14290

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	09/30/2025	06/23/2025 / SAM	08/15/2024 / SAM	V14438

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	09/30/2025	06/23/2025 / SAM	08/15/2024 / SAM	V14440

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	12/23/2025	06/23/2025 / SAM	09/17/2024 / SAM	V14505

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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	12/23/2025	06/23/2025 / SAM	09/17/2024 / SAM	V14506

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	12/23/2025	06/23/2025 / SAM	09/18/2024 / SAM	V14527

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	12/23/2025	06/23/2025 / SAM	09/18/2024 / SAM	V14528

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	08/27/2025	02/27/2025 / SAM	11/26/2024 / SAM	V14613

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	11/09/2025	05/09/2025 / SAM	11/26/2024 / SAM	V14626

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	01/09/2026	07/07/2025 / SAM	11/26/2024 / SAM	V14629

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14636

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14637

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14638

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14639

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14671

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14673

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14675

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	12/23/2025	06/23/2025 / SAM	12/17/2024 / SAM	V14708

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	12/23/2025	06/23/2025 / SAM	12/17/2024 / SAM	V14712

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	12/23/2025	06/23/2025 / SAM	12/17/2024 / SAM	V14713

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	12/23/2025	06/23/2025 / SAM	12/17/2024 / SAM	V14748

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CHEMICAL RECEIPT LOG BOOK

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	12/23/2025	06/23/2025 / SAM	12/17/2024 / SAM	V14752

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	12/23/2025	06/23/2025 / SAM	01/08/2025 / SAM	V14808

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	12/23/2025	06/23/2025 / SAM	01/08/2025 / SAM	V14822

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	11/12/2025	05/12/2025 / SAM	01/21/2025 / SAM	V14843

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)	24G0262002	11/12/2025	05/12/2025 / SAM	05/09/2025 / SAM	V14921

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)	24G0262002	12/06/2025	06/06/2025 / SAM	05/09/2025 / SAM	V14929

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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)	071625	08/16/2025	07/17/2025 / SAM	07/17/2025 / SAM	V15050

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	071625	08/16/2025	07/17/2025 / SAM	07/17/2025 / SAM	V15051

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	071625	08/16/2025	07/17/2025 / SAM	07/17/2025 / SAM	V15052

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

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

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

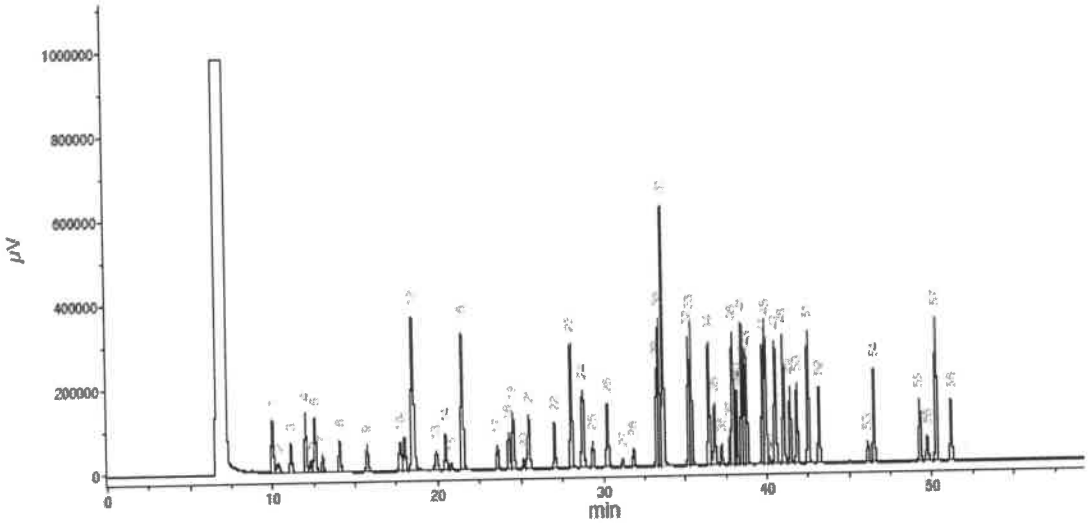
	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached 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	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	27.02
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	35.39
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	41.63
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.

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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.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	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

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
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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

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

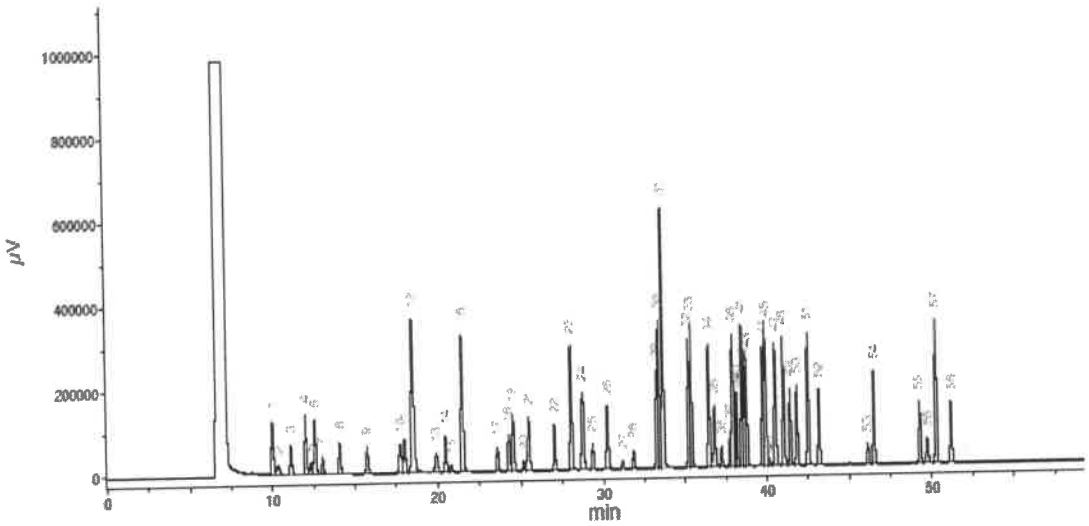
	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached 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)	MKCR6561	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	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	27.02
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethene	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	41.42
50	1,4-Dichlorobenzene	41.63
51	n-Butylbenzene	42.82
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	49.26
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.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	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

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

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 09/16/24 2 Vials

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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

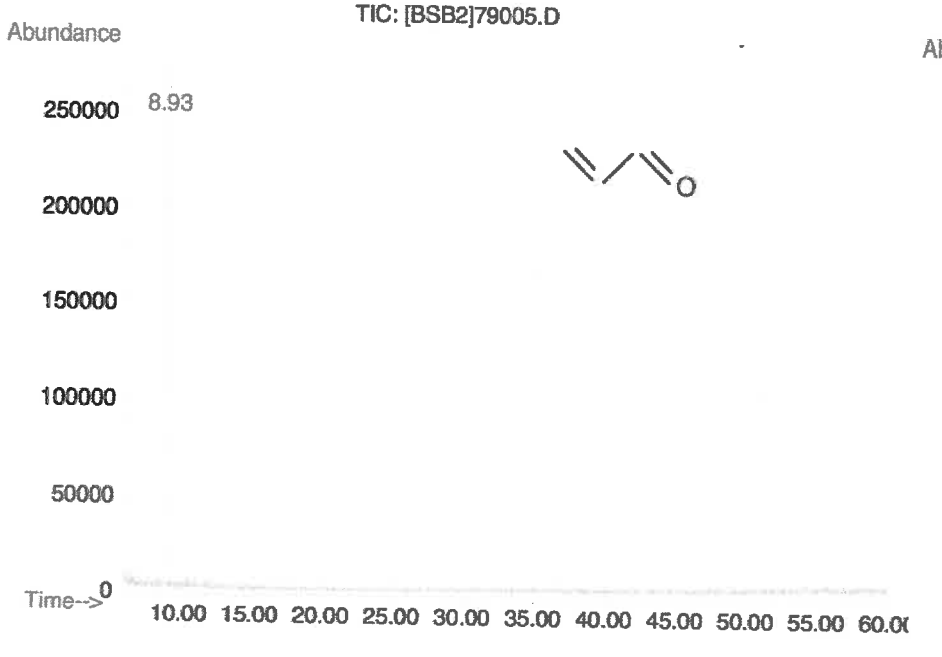
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

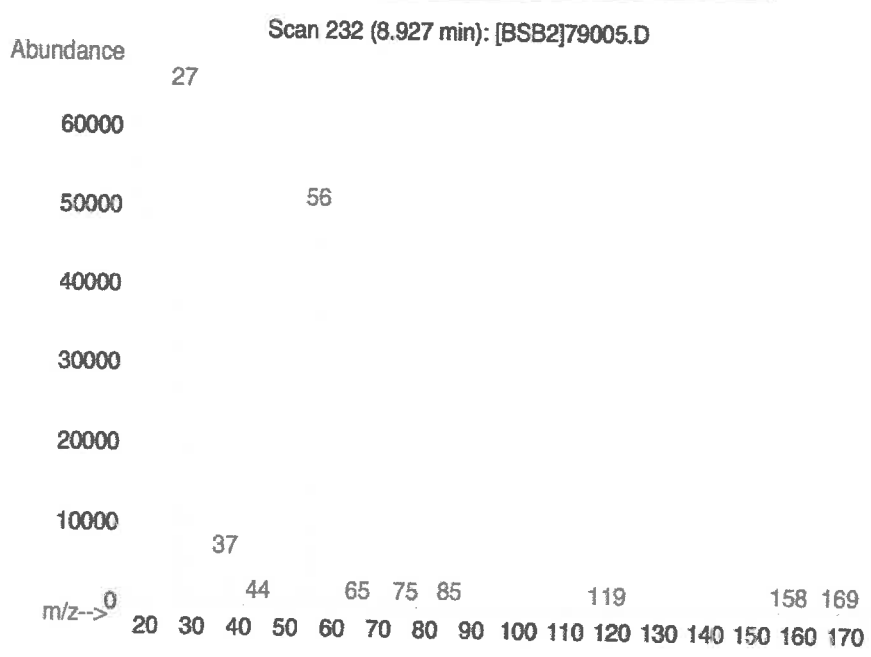
Justin Dippold 091424
Formulated By: Justin Dippold DATE

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).

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Rec 09/16/24 2 Vials

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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

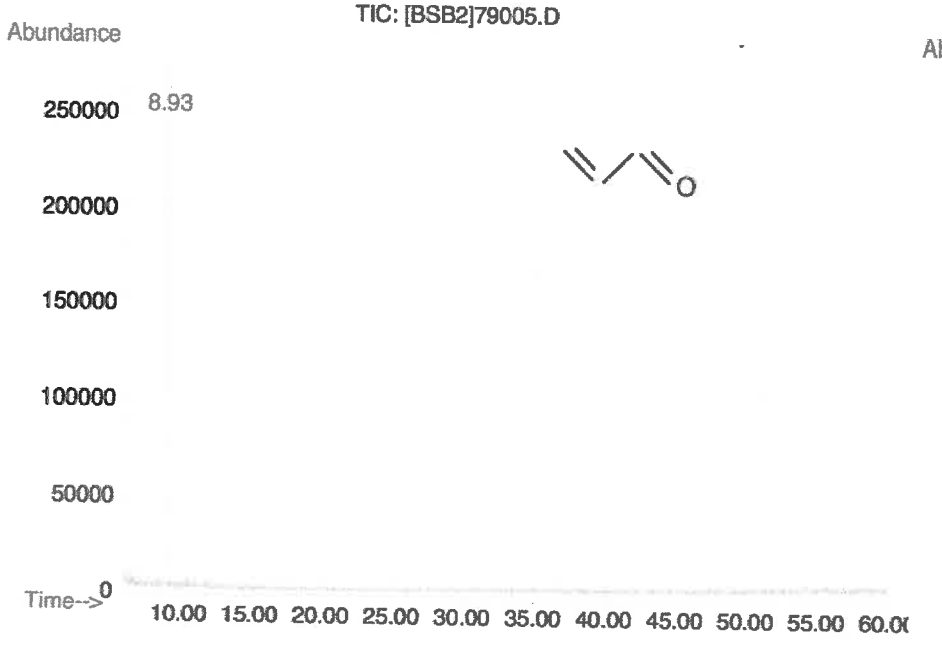
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

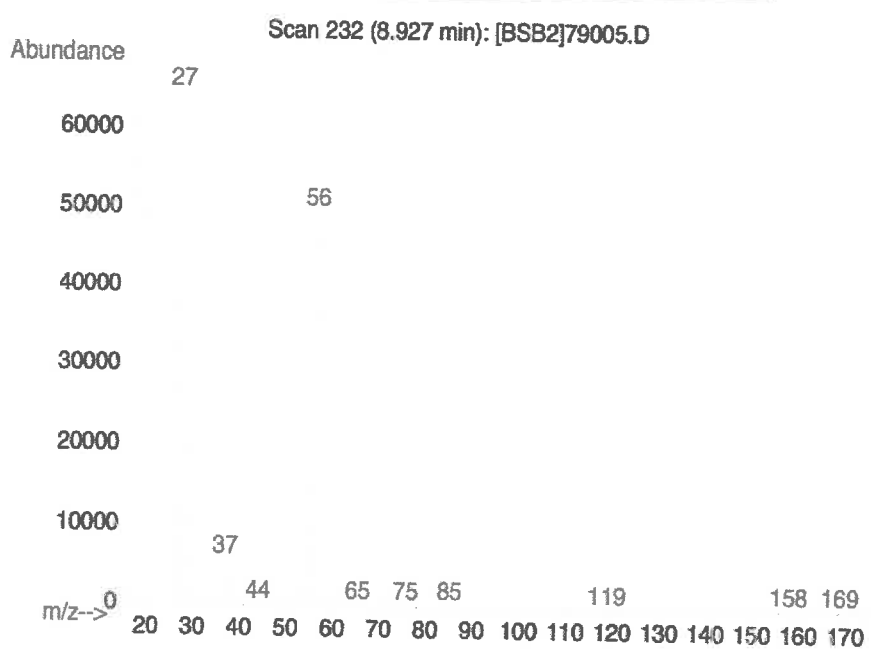
Justin Dippold 091424
Formulated By: Justin Dippold DATE

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.





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Certified Reference Material CRM

Rec 12/6/24
20 vial
V14630 to
V14649

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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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

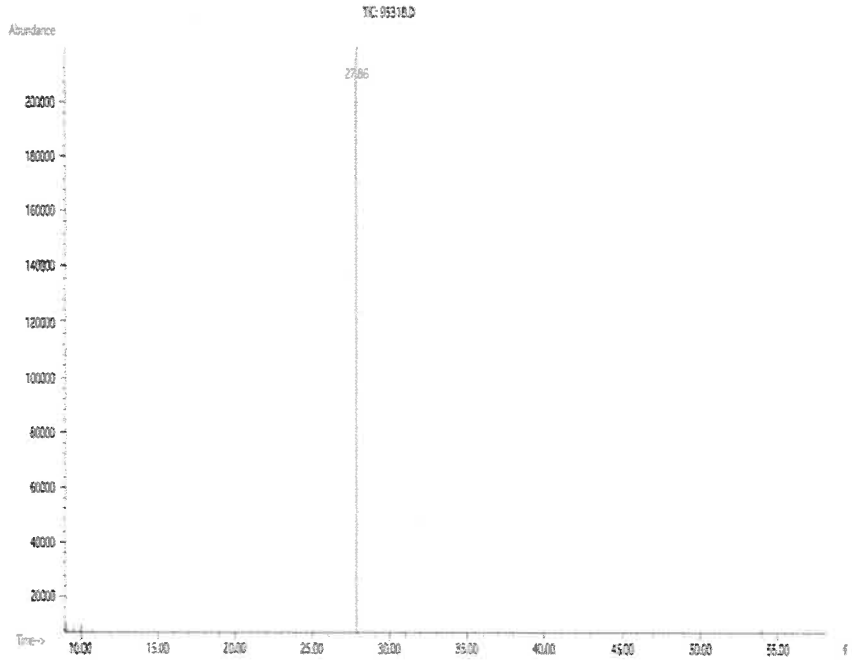
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

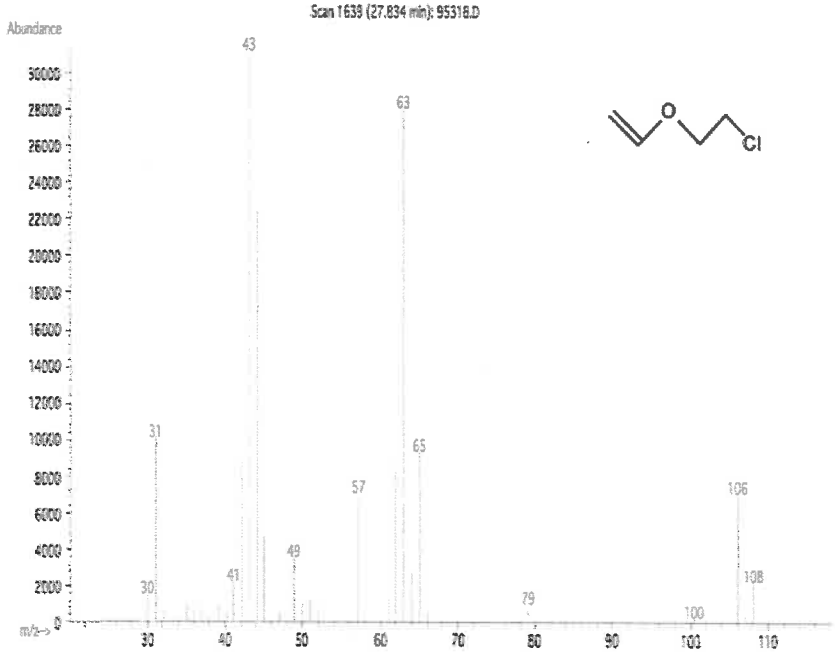
Prashant Chauhan 120524
Formulated By: Prashant Chauhan DATE

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.





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Absolute Standards Inc.
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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.

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Rec 12/6/24
20 vial

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

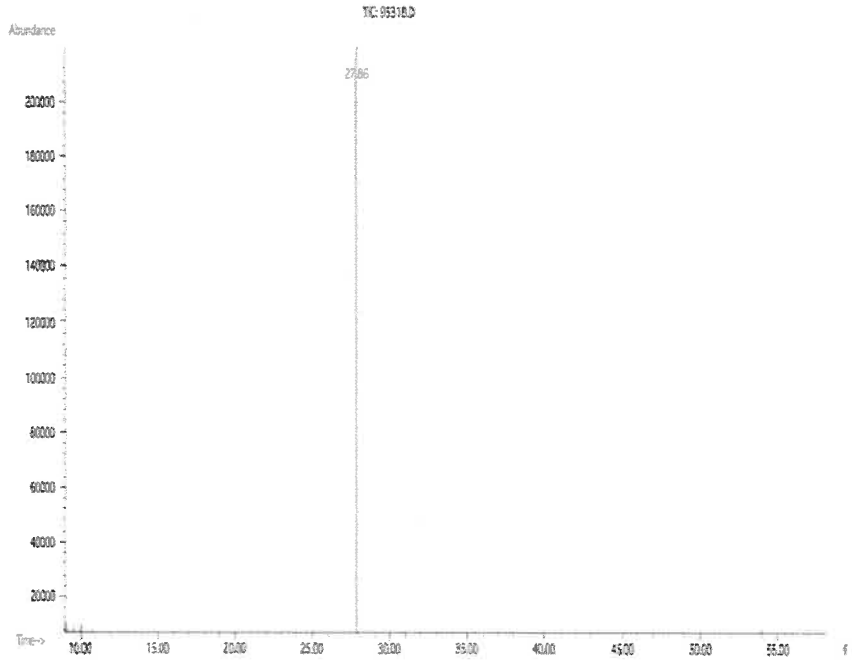
V14630 to V14649

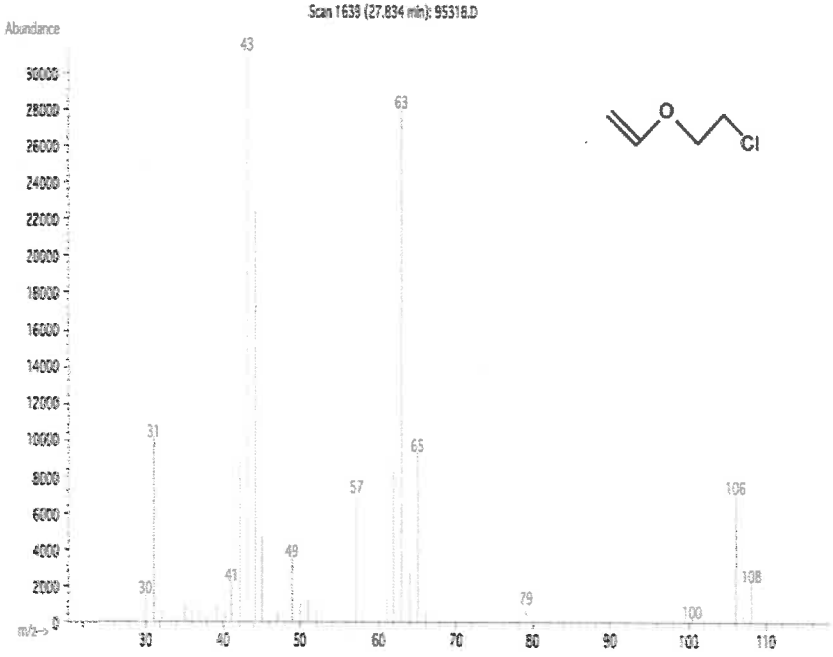
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	120524 DATE
Reviewed By:	Pedro L. Rentas	120524 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.





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Phone: 203-281-2917
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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.
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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).

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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

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Absolute Standards, Inc.
800-368-1131
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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

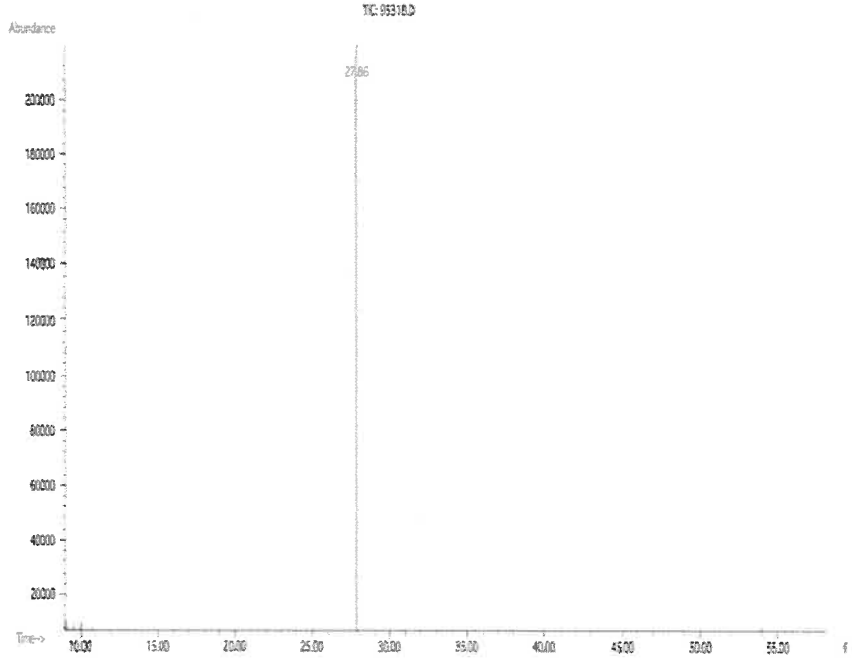
Solvent(s): Methanol **Lot#** EJ143-US

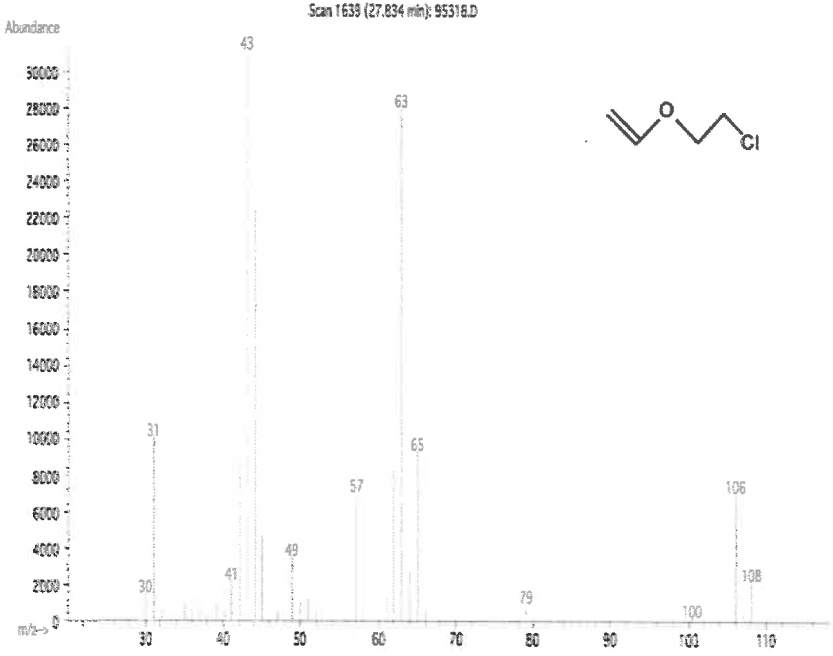
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

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.
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Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
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Solubility in Water COMPLETE

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UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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Nominal Concentration (µg/mL): 10000
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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
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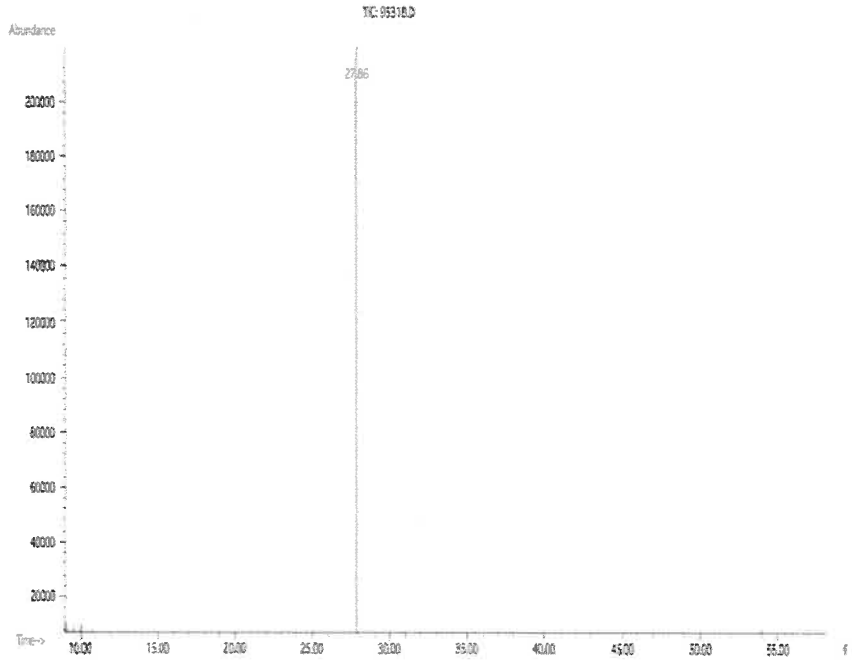

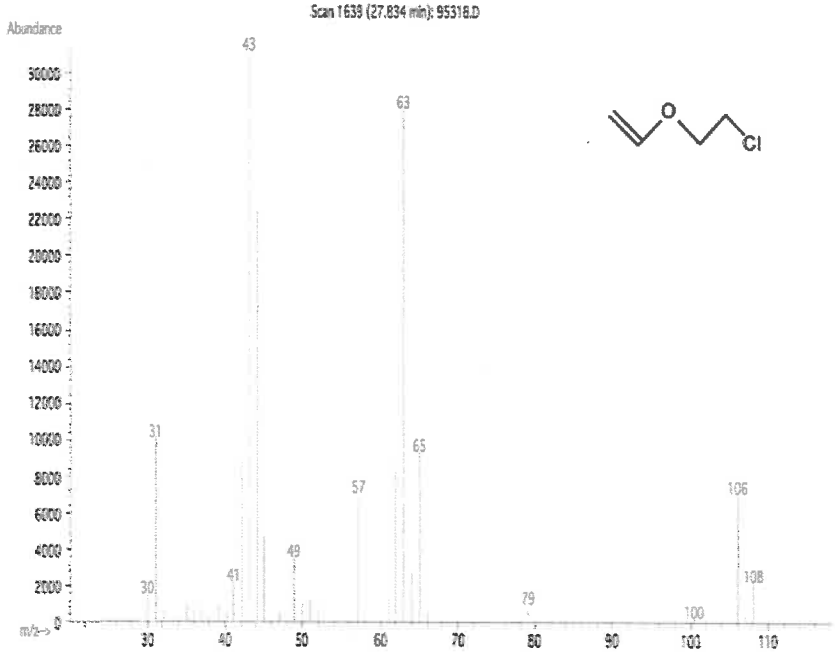

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IATA
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RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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.)

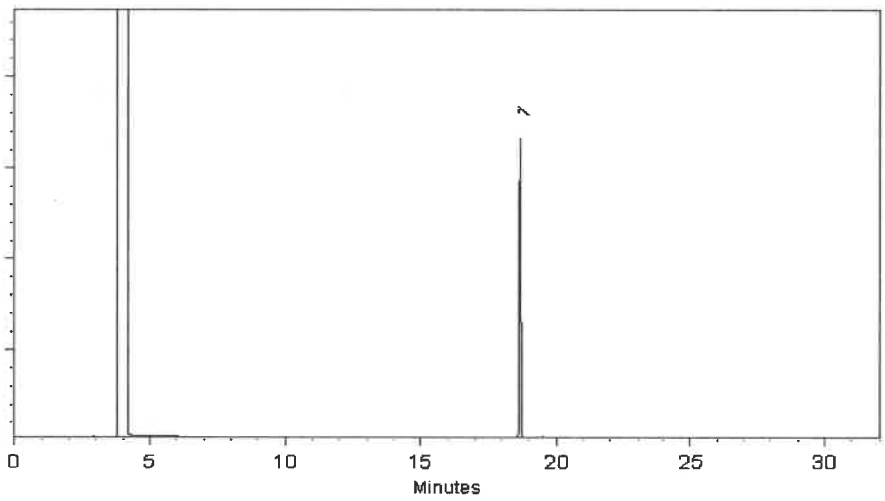
Inj. Temp:
200°C

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
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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0196865

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°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-32845	99%	25,036.0 µg/mL	+/- 1,417.9179
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	25,132.0 µg/mL	+/- 1,423.3549
3	Dibromofluoromethane	1868-53-7	022013	99%	25,040.0 µg/mL	+/- 1,418.1445
4	Toluene-d8	2037-26-5	PR-33397	99%	25,028.0 µg/mL	+/- 1,417.4648

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 11-Apr-2023 **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.

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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.)

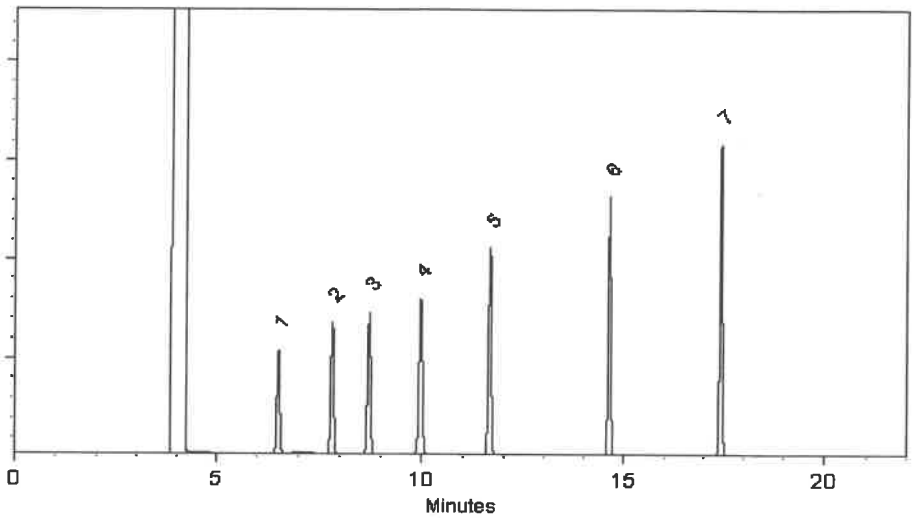
Inj. Temp:
200°C

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:

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  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.
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Certificate of Analysis

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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.)

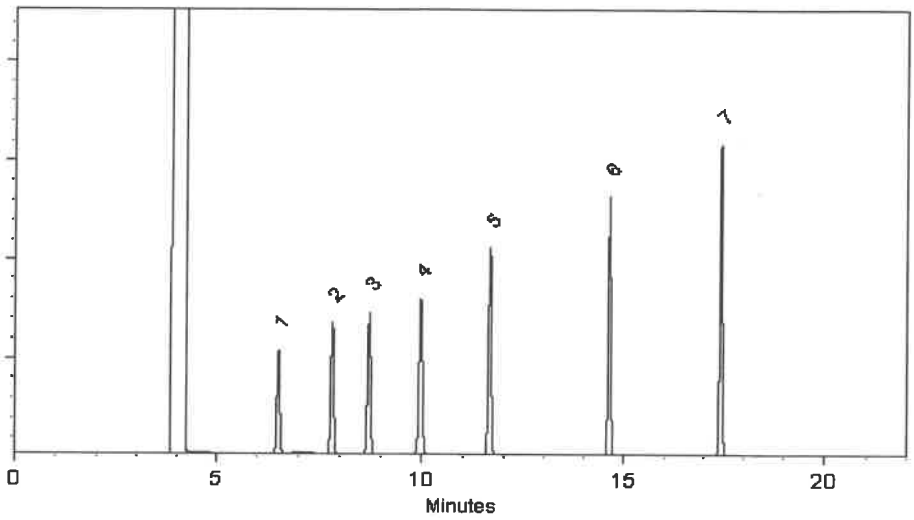
Inj. Temp:
200°C

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.
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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0210184

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2027 **Storage:** 10°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-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	25,212.0 µg/mL	+/- 1,427.8857
2	1,4-Difluorobenzene	540-36-3	MKCS8657	99%	25,220.0 µg/mL	+/- 1,428.3388
3	Chlorobenzene-d5	3114-55-4	PR-31132	99%	25,116.0 µg/mL	+/- 1,422.4487
4	Pentafluorobenzene	363-72-4	MKCR9383	99%	25,180.0 µg/mL	+/- 1,426.0734

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 11-Apr-2024 **Balance:** 1127510105

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:

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- Purity of isomeric compounds is reported as the sum of the isomers.
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Certified Uncertainty Value Notes:

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  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:

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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.)

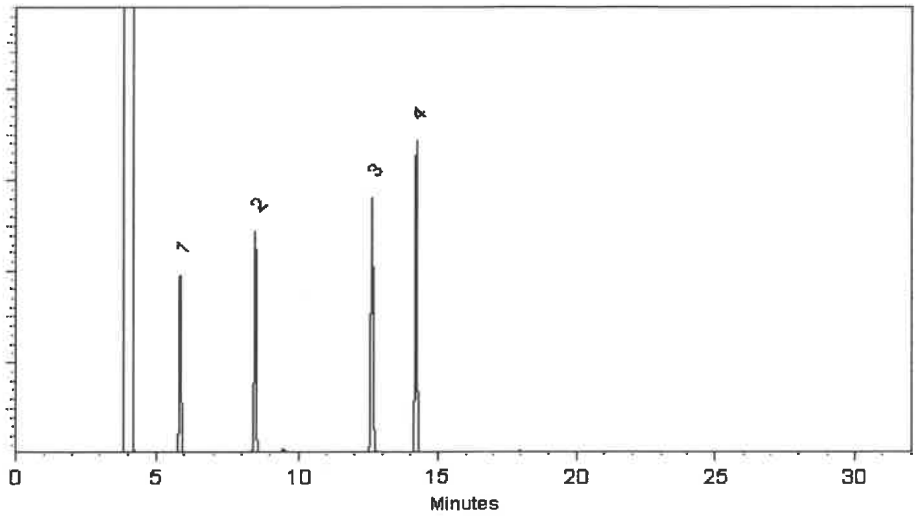
Inj. Temp:
200°C

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:

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  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:

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

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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.)

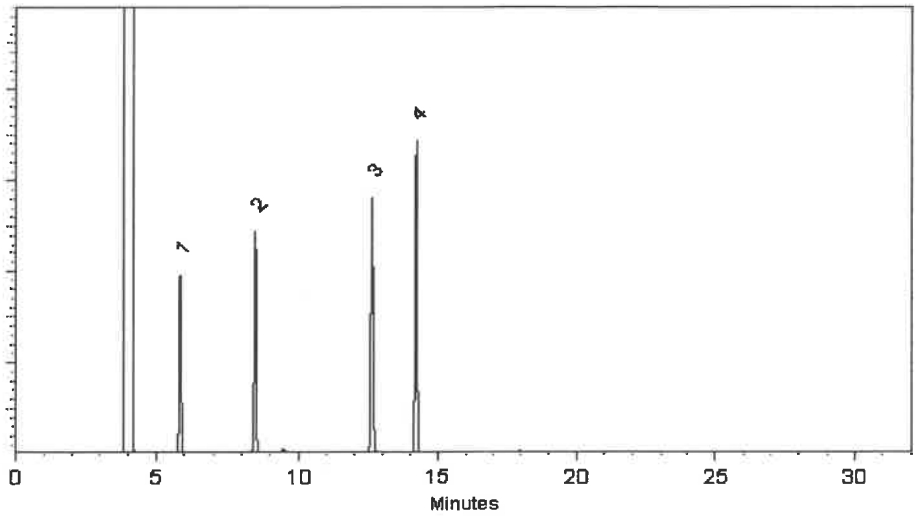
Inj. Temp:
200°C

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.
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CERTIFIED REFERENCE MATERIAL

30 V.4

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 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.)

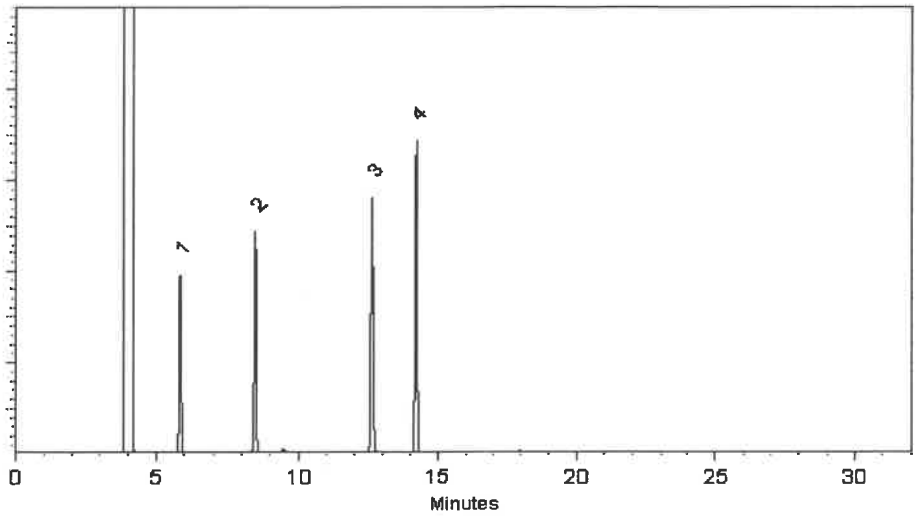
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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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:

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Purity Notes:

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- 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:

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  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:

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Rec: 12/09/24

Certificate of Analysis

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **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	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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.)

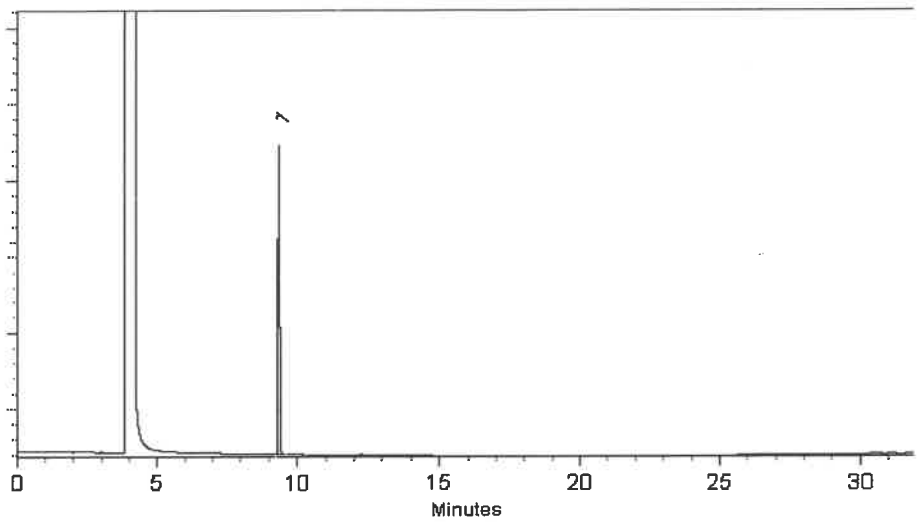
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I **Date Mixed:** 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 14-Aug-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.
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Certified Uncertainty Value Notes:

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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:

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Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **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	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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.)

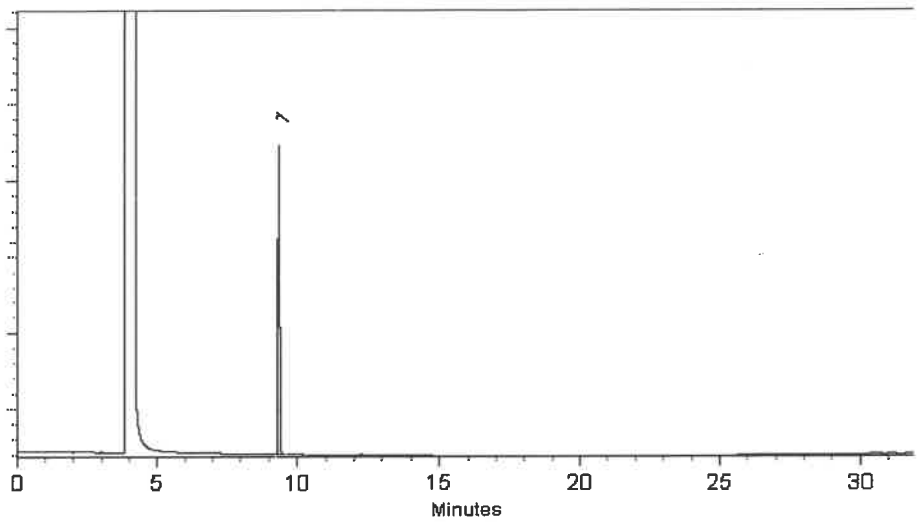
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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Certified Uncertainty Value Notes:

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Manufacturing Notes:

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CERTIFIED REFERENCE MATERIAL

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Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **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	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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
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Carrier Gas:
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Temp. Program:
40°C (hold 2 min.) to 240°C
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Inj. Temp:
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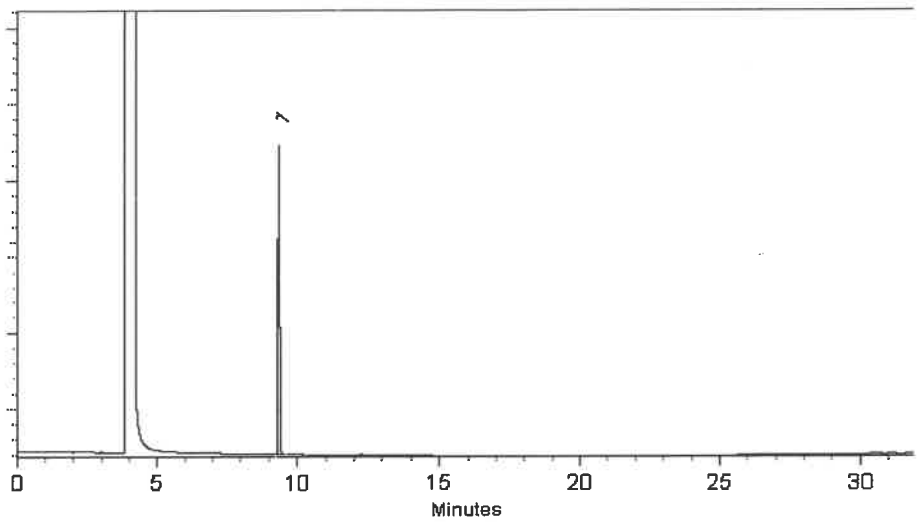
Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **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	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

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Solvent: P&T Methanol
CAS # 67-56-1
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Det. Type:
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Split Vent:
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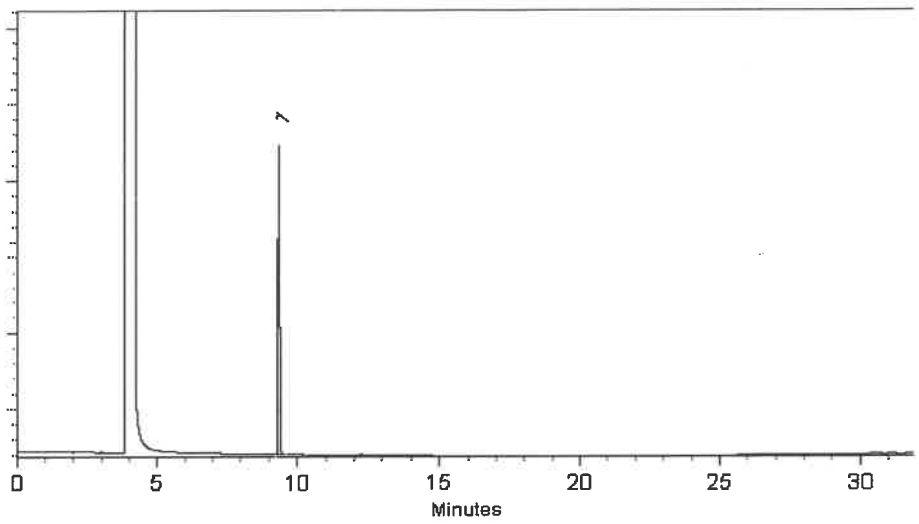

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Stacey Wanner - Operations Technician I **Date Mixed:** 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 14-Aug-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Fax: 1-814-353-1309

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Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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.:** 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.

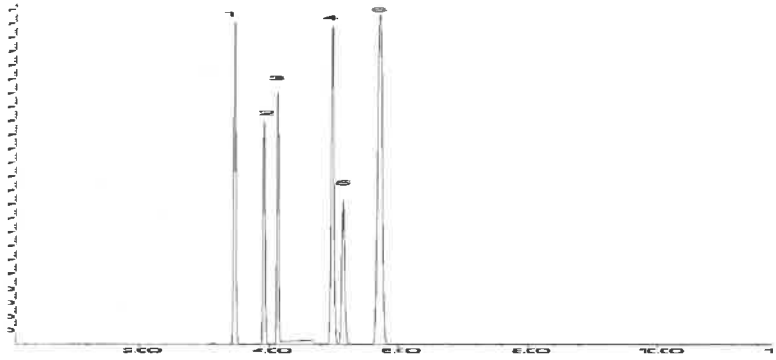
Inj. Temp:
200°C

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.
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Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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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
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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.

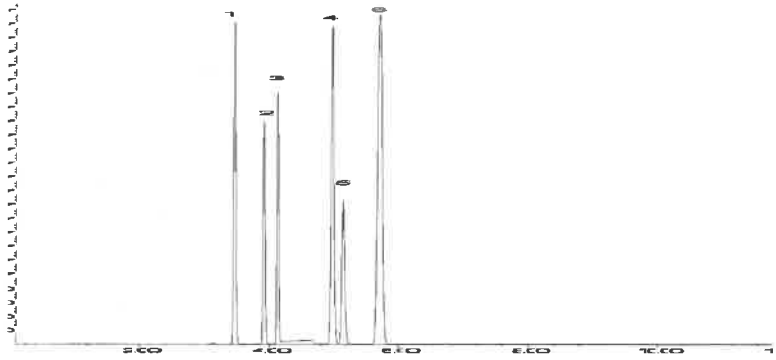
Inj. Temp:
200°C

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.
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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.)

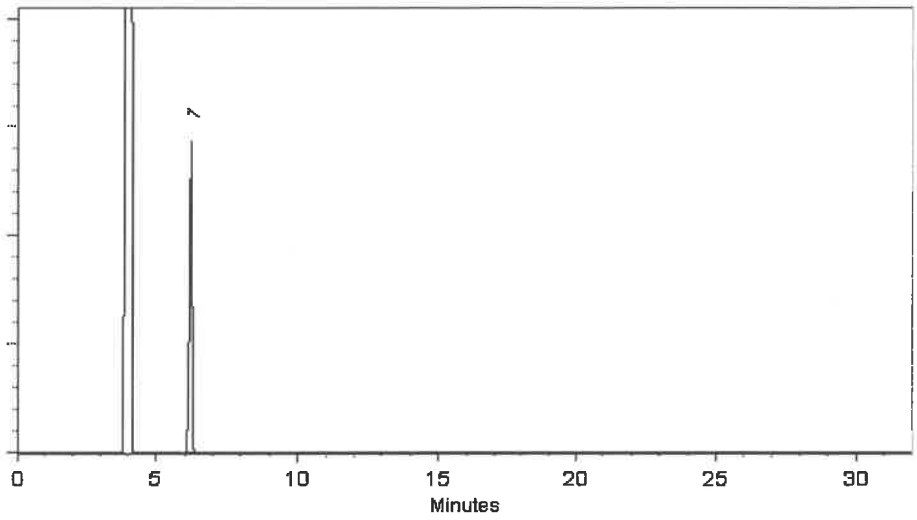
Inj. Temp:
200°C

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.
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Vinyl Rec 01/08/21

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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.)

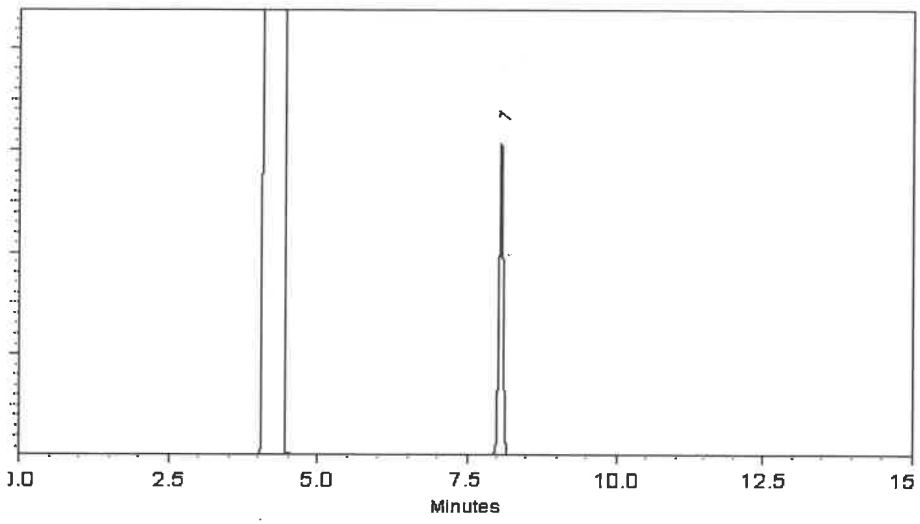
Inj. Temp:
200°C

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.
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Zoey Rec 01/08/21

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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.)

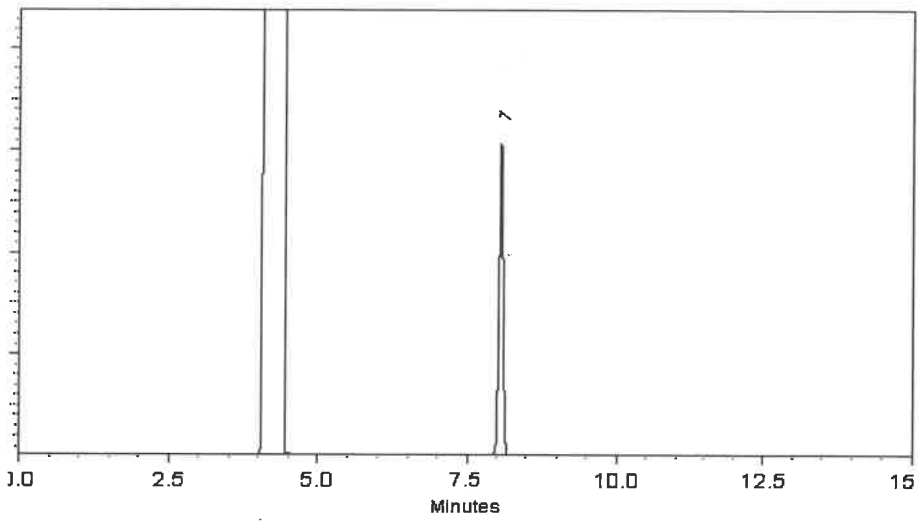
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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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:

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- 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
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For Purge and Trap Analysis

Rec 05/09/25

avantor™ | J.T.Baker®

V14921 to
V14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Rec 05/09/25

avantor™ | J.T.Baker®

V14921 to
V14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
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846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 07/17/25 5 vial

ANAB ISO 17034 Accredite
AR-1539 Certificate Number
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 071625
Description: Acrolein

Expiration Date: 081625
Recommended Storage: Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 041725Q

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

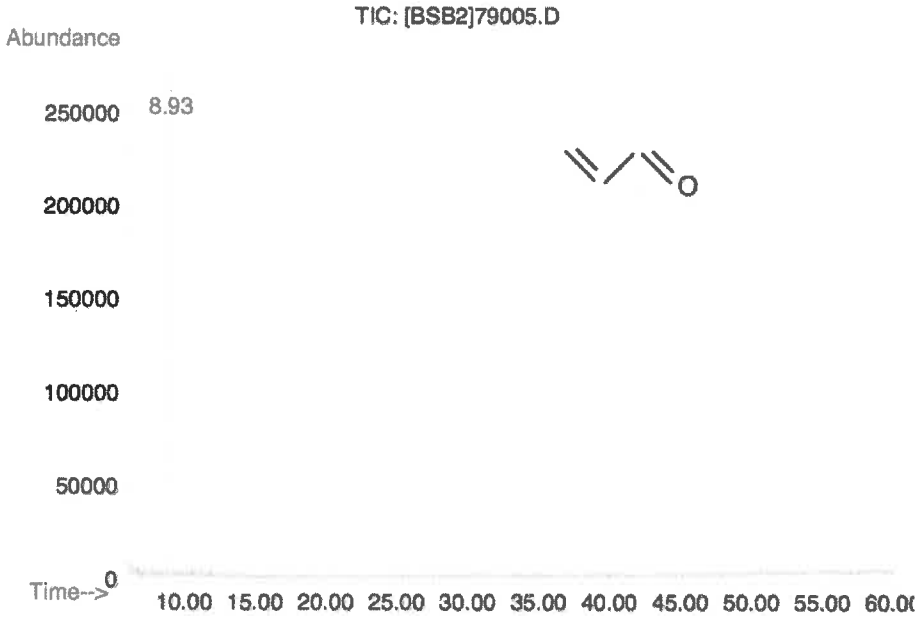
V15050 to
V15054 to
V15054

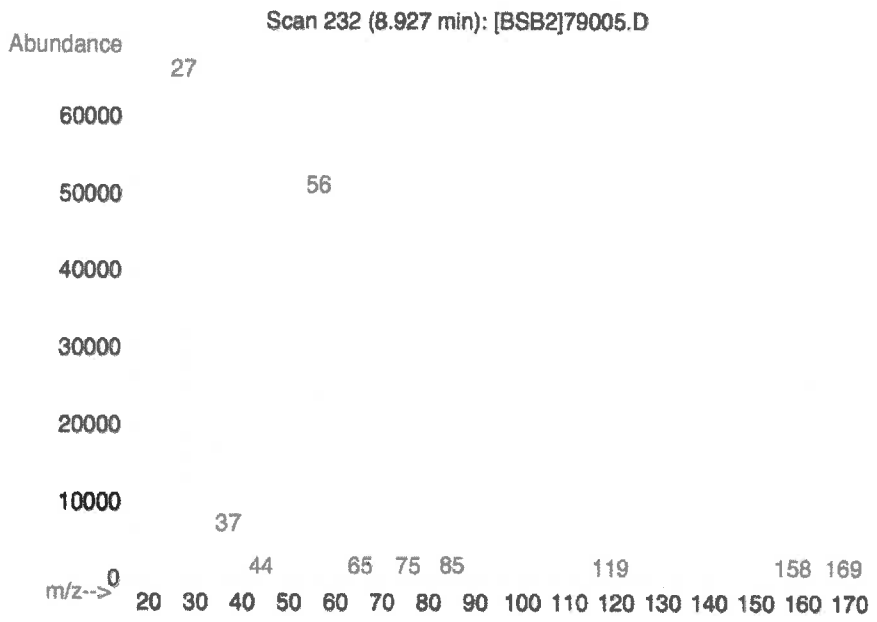
Gabriel Helland 071625
Formulated By: Gabriel Helland DATE

Pedro Rentas 071625
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	0.05181	5014.7	52.6	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 by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
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- 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).

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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 07/17/25 5 vial

ANAB ISO 17034 Accredite
AR-1539 Certificate Number
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 071625
Description: Acrolein

Expiration Date: 081625
Recommended Storage: Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 041725Q

V15050 to
V15054

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

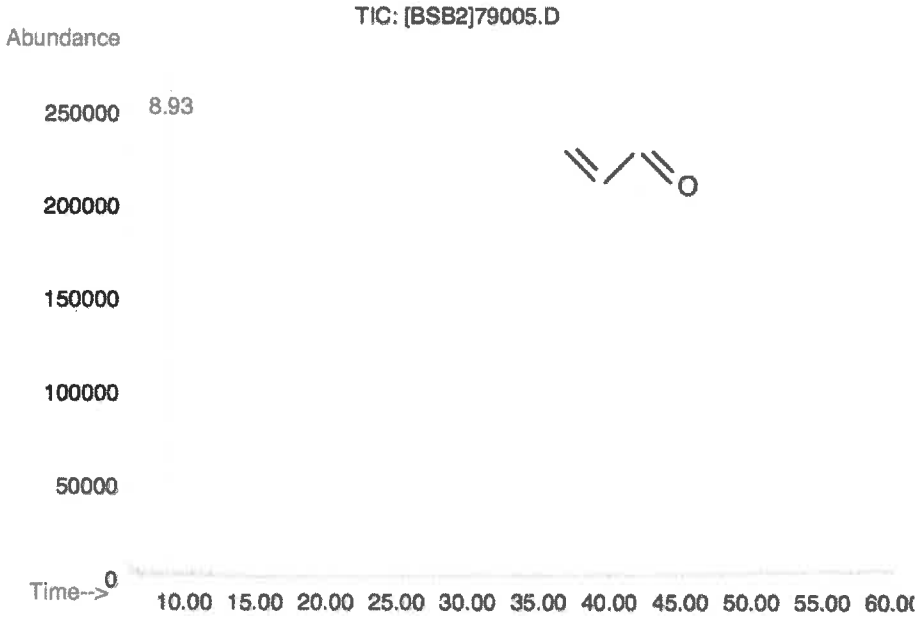
Weight(s) shown below were combined and diluted to (mL): 10.0

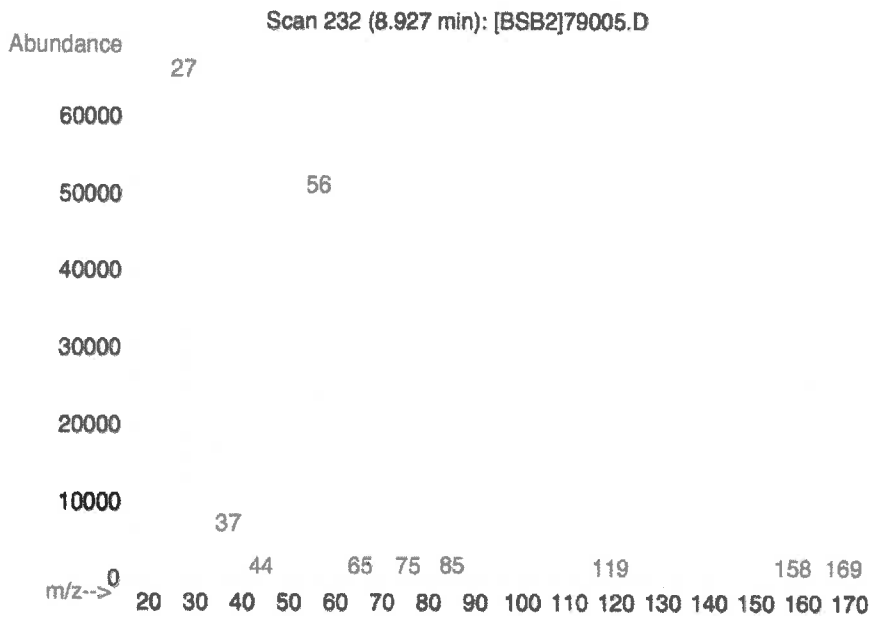
Gabriel Helland 071625
Formulated By: Gabriel Helland DATE

Pedro Rentas 071625
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	0.05181	5014.7	52.6	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.





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Absolute Standards, Inc.
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Certified Reference Material CRM

Rec 07/17/25 5 vial

ANAB ISO 17034 Accredite
AR-1539 Certificate Number
https://Absolutestandards.co

CERTIFIED WEIGHT REPORT

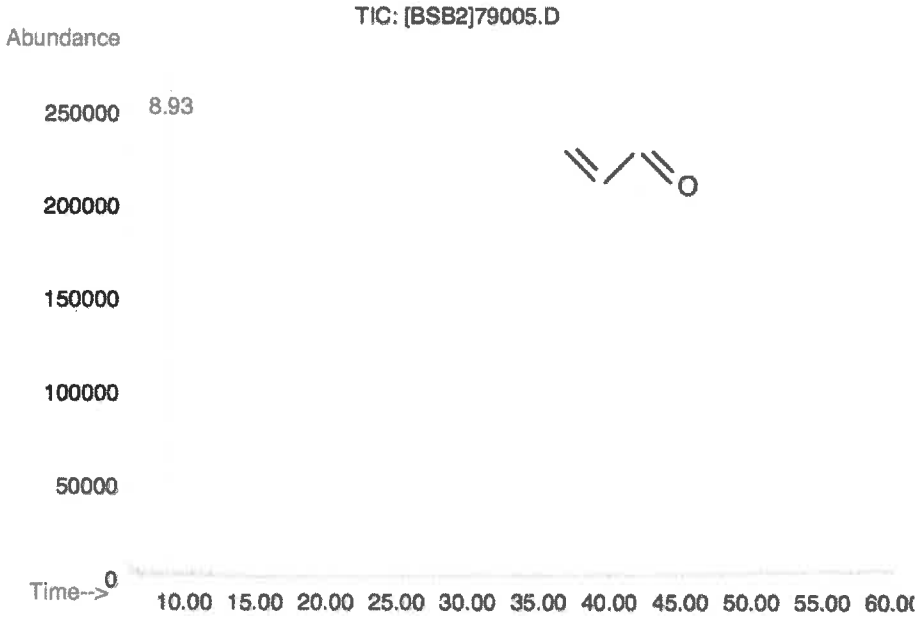
Part Number:	91980	**Solvent(s):**	**Lot#**
Lot Number:	071625	Water	041725Q
Description:	Acrolein		
Expiration Date:	081625		
Recommended Storage:	Refrigerate (2°C to 8°C)		
Nominal Concentration (µg/mL):	5000		
NIST Test ID#:	6UTB	5E-05	Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL):	10.0	0.001	Flask Uncertainty

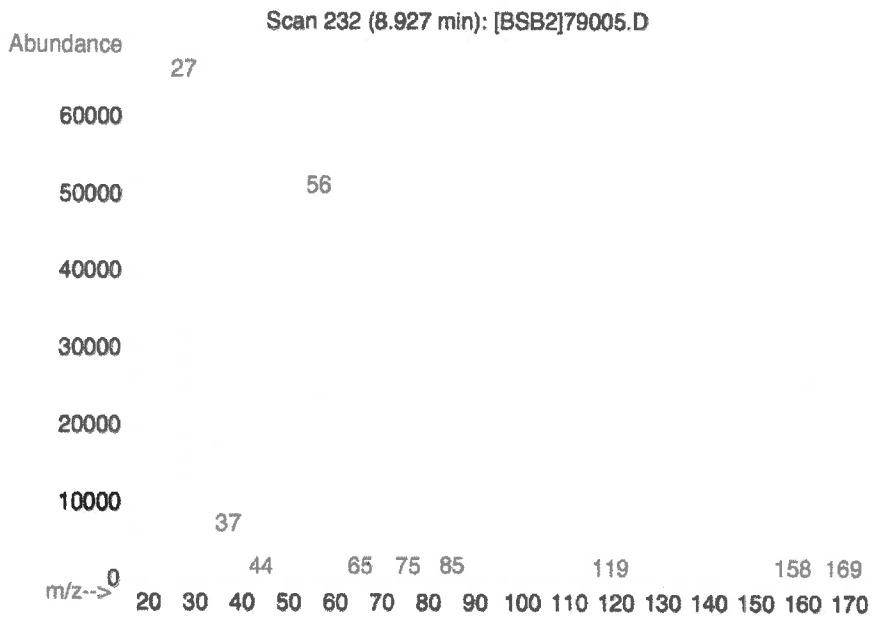
V15050 to ~~V15054~~ V15054

Gabriel Helland		071625
Formulated By:	Gabriel Helland	DATE
Pedro Rentas		071625
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	0.05181	5014.7	52.6	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.





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Rev 1.0, 2/25/2025

SHIPPING DOCUMENTS

Q 2641

USEPA
DateShipped: 7/17/2025
CarrierName: FedEx
AirbillNo: 882857171649

CHAIN OF CUSTODY RECORD
Site #: 02FP
Contact Name Josh Frizzell
(470) 277-4600

No: 2-071725-0040-0037-001
RFP #905A
Lab: Alliance Technical Group, LLC - Non CLP
Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-Concrete001-01	P001-Concrete001-01		A	TAL PCBs (TAT 7 Days)		7/16/2025	13:00	1	8 oz. Glass	4 C	N
	P001-Concrete001-01	P001-Concrete001-01		B	TCLP VOCs (TAT 7 Days)		7/16/2025	13:00	2	4 oz glass w/septum	4 C	N
	P001-Concrete001-01	P001-Concrete001-01		C	TCLP RCRA 8 Metals (TAT 7 Days)		7/16/2025	13:00	1	8 oz. Glass	4 C	N
	P001-Concrete001-01	P001-Concrete001-01		D	TCLP Pesticides (TAT 7 Days)		7/16/2025	13:00	1	8 oz. Glass	4 C	N
	P001-Concrete001-01	P001-Concrete001-01		E	TCLP SVOCs (TAT 7 Days)		7/16/2025	13:00	1	8 oz. Glass	4 C	N
	P001-Concrete001-01	P001-Concrete001-01		F	TCLP Herbicides (TAT 7 Days)		7/16/2025	13:00	1	8 oz. Glass	4 C	N

Special Instructions: TAT 7 days preliminary, 14 days final report. Please copy s.sumbaly@westonsolutions.com and josh.frizzell@westonsolutions.com.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
All Samples/ All Analyses	[signature] Weston	7-17-2025/1400	[signature]	9:55 7/18/25	[illegible] # 1 1.9° C

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