

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

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

LAB CHRONICLE

OrderID:	Q3689	OrderDate:	11/20/2025 9:02:00 AM
Client:	Garden State Laboratories, Inc.	Project:	Waste Water 2025
Contact:	Sharon Ercoliani	Location:	VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3689-01	251119071-01 VOA	Water	VOCMS Group1	624.1	11/19/25		11/20/25	11/20/25
Q3689-02	251119025-03 Trip blank	Water	VOCMS Group1	624.1	11/19/25		11/20/25	11/20/25



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

Hit Summary Sheet
SW-846

SDG No.: Q3689

Client: Garden State Laboratories, Inc.

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

0

Total Voc :

Total Concentration:



QC SUMMARY

Surrogate Summary

SDG No.: **Q3689**

Client: **Garden State Laboratories, Inc.**

Analytical Method: **SW624.1**

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%)	
							Low	High
Q3689-01	251119071-01 VOA	1,2-Dichloroethane-d4	30	33.3	111	*	91	110
		Toluene-d8	30	31.2	104		91	112
		4-Bromofluorobenzene	30	27.5	92		63	112
Q3689-02	251119025-03 Trip blank	1,2-Dichloroethane-d4	30	28.0	93		91	110
		Toluene-d8	30	29.3	98		91	112
		4-Bromofluorobenzene	30	23.6	79		63	112
VN1120WBL01	VN1120WBL01	1,2-Dichloroethane-d4	30	28.2	94		91	110
		Toluene-d8	30	29.9	100		91	112
		4-Bromofluorobenzene	30	26.1	87		63	112
VN1120WBS01	VN1120WBS01	1,2-Dichloroethane-d4	30	28.9	96		91	110
		Toluene-d8	30	30.4	101		91	112
		4-Bromofluorobenzene	30	29.1	97		63	112
VN1120WBSD0	VN1120WBSD01	1,2-Dichloroethane-d4	30	28.3	94		91	110
		Toluene-d8	30	30.7	102		91	112
		4-Bromofluorobenzene	30	29.3	98		63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q3689

Analytical Method: SW624.1

Client: Garden State Laboratories, Inc.

Datafile : VN088318.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1120WBS01	Acrolein	100	130	ug/L	130			60	140	
	Acrylonitrile	100	96.7	ug/L	97			60	140	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q3689

Analytical Method: SW624.1

Client: Garden State Laboratories, Inc.

Datafile : VN088319.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1120WBSD01	Acrolein	100	130	ug/L	130	0		60	140	20
	Acrylonitrile	100	97.9	ug/L	98	1		60	140	20

VOLATILE METHOD BLANK SUMMARY

Client ID

VN1120WBL01

Lab Name: Alliance

Contract: GARD04

Lab Code: ACE

SDG NO.: Q3689

Lab File ID: VN088320.D

Lab Sample ID: VN1120WBL01

Date Analyzed: 11/20/2025

Time Analyzed: 10:43

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
VN1120WBS01	VN1120WBS01	VN088318.D	11/20/2025
VN1120WBSD01	VN1120WBSD01	VN088319.D	11/20/2025
251119025-03 Trip blank	Q3689-02	VN088321.D	11/20/2025
251119071-01 VOA	Q3689-01	VN088327.D	11/20/2025

COMMENTS: _____



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Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: GARD04

Lab Code: ACE

SDG NO.: Q3689

Lab File ID: VN088273.D

BFB Injection Date: 11/13/2025

Instrument ID: MSVOA_N

BFB Injection Time: 08:08

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	24.2
75	30.0 - 60.0% of mass 95	57.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.5 (0.8) 1
174	50.0 - 100.0% of mass 95	68.5
175	5.0 - 9.0% of mass 174	5 (7.3) 1
176	95.0 - 101.0% of mass 174	66.3 (96.7) 1
177	5.0 - 9.0% of mass 176	4.3 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VN088274.D	11/13/2025	10:14
VSTDIC020	VSTDIC020	VN088275.D	11/13/2025	10:47
VSTDIC050	VSTDIC050	VN088276.D	11/13/2025	11:08
VSTDIC100	VSTDIC100	VN088277.D	11/13/2025	11:29
VSTDIC150	VSTDIC150	VN088278.D	11/13/2025	11:50



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: GARD04

Lab Code: ACE

SDG NO.: Q3689

Lab File ID: VN088316.D

BFB Injection Date: 11/20/2025

Instrument ID: MSVOA_N

BFB Injection Time: 08:40

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	22
75	30.0 - 60.0% of mass 95	57.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	5.6
173	Less than 2.0% of mass 174	0.6 (0.9) 1
174	50.0 - 100.0% of mass 95	71.2
175	5.0 - 9.0% of mass 174	5.6 (7.9) 1
176	95.0 - 101.0% of mass 174	68.1 (95.6) 1
177	5.0 - 9.0% of mass 176	4.4 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VN088317.D	11/20/2025	09:13
VN1120WBS01	VN1120WBS01	VN088318.D	11/20/2025	09:49
VN1120WBSD01	VN1120WBSD01	VN088319.D	11/20/2025	10:22
VN1120WBL01	VN1120WBL01	VN088320.D	11/20/2025	10:43
251119025-03 Trip blank	Q3689-02	VN088321.D	11/20/2025	11:21
251119071-01 VOA	Q3689-01	VN088327.D	11/20/2025	13:25

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: GARD04
 Lab Code: ACE SDG NO.: Q3689
 Lab File ID: VN088317.D Date Analyzed: 11/20/2025
 Instrument ID: MSVOA_N Time Analyzed: 09:13
 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	49901	7.79	246084	9.08	228625	11.85
UPPER LIMIT	99802	8.294	492168	9.582	457250	12.347
LOWER LIMIT	24950.5	7.294	123042	8.582	114313	11.347
EPA SAMPLE NO.						
251119071-01 VOA	27555	7.79	217180	9.08	175833	11.84
251119025-03 Trip blank	46552	7.79	224837	9.08	205540	11.85
VN1120WBL01	53817	7.79	272055	9.08	237385	11.84
VN1120WBS01	59336	7.79	313817	9.08	285258	11.84
VN1120WBSD01	57168	7.79	285463	9.08	261605	11.84

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: GARD04
 Lab Code: ACE SDG NO.: Q3689
 Lab File ID: VN088317.D Date Analyzed: 11/20/2025
 Instrument ID: MSVOA_N Time Analyzed: 09:13
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	0	0				
UPPER LIMIT	0					
LOWER LIMIT	0					
EPA SAMPLE NO.						
251119071-01 VOA	0	0.00				
251119025-03 Trip blank	0	0.00				
VN1120WBL01	0	0.00				
VN1120WBS01	0	0.00				
VN1120WBSD01	0	0.00				

IS4 =

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



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

Report of Analysis

Client: Garden State Laboratories, Inc.
Project: Waste Water 2025
Client Sample ID: 251119071-01 VOA
Lab Sample ID: Q3689-01
Analytical Method: E624.1
Sample Wt/Vol: 5 mL

Level: LOW
Final Vol: 5000 uL

Date Collected: 11/19/25
Date Received: 11/20/25
SDG No.: Q3689
Matrix: Water
% Solid: 0
Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
107-02-8	Acrolein	6.60	U	1	6.60	25.0	ug/L	11/20/25 13:25	VN112025
107-13-1	Acrylonitrile	2.80	U	1	2.80	25.0	ug/L	11/20/25 13:25	VN112025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	33.2	*		91 - 110	111%	SPK: 30		
2037-26-5	Toluene-d8	31.2			91 - 112	104%	SPK: 30		
460-00-4	4-Bromofluorobenzene	27.5			63 - 112	92%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	27600							
540-36-3	1,4-Difluorobenzene	217000							
3114-55-4	Chlorobenzene-d5	176000							

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\VN112025\
 Data File : VN088327.D
 Acq On : 20 Nov 2025 13:25
 Operator : JC\MD
 Sample : Q3689-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 251119071-01 VOA

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/21/2025
 Supervised By :Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 03:01:20 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	27555	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.076	114	217180	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	175833	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	83680m	33.246	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 110.833%#			
60) 4-Bromofluorobenzene	12.829	95	81767	27.509	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 91.700%			
63) Toluene-d8	10.541	98	259939	31.226	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.100%			
Target Compounds						
8) Diethyl Ether	3.959	74	6820	6.163	ug/l	84
15) Acetone	4.459	58	73163m	225.238	ug/l	
25) Chloroform	7.947	83	6162m	1.754	ug/l	
34) Benzene	8.582	78	52873	4.881	ug/l #	93
58) 4-Methyl-2-Pentanone	10.435	43	32118m	8.076	ug/l	
62) Toluene	10.606	91	259813	25.749	ug/l	98
64) Chlorobenzene	11.870	112	15603	2.497	ug/l	95
66) Ethyl Benzene	11.941	91	145041	13.042	ug/l	99
67) m/p-Xylenes	12.047	106	52869	12.712	ug/l	100
68) o-Xylene	12.376	106	29110	7.420	ug/l	99
70) Isopropylbenzene	12.670	105	19650	1.890	ug/l	97
76) 1,3,5-Trimethylbenzene	13.153	105	11600	1.329	ug/l	90
80) 1,2,4-Trimethylbenzene	13.459	105	39646	4.568	ug/l	94
82) p-Isopropyltoluene	13.706	119	96738	10.742	ug/l	97
84) 1,4-Dichlorobenzene	13.788	146	17631	3.817	ug/l	97
91) Naphthalene	15.611	128	295534	33.813	ug/l	99

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

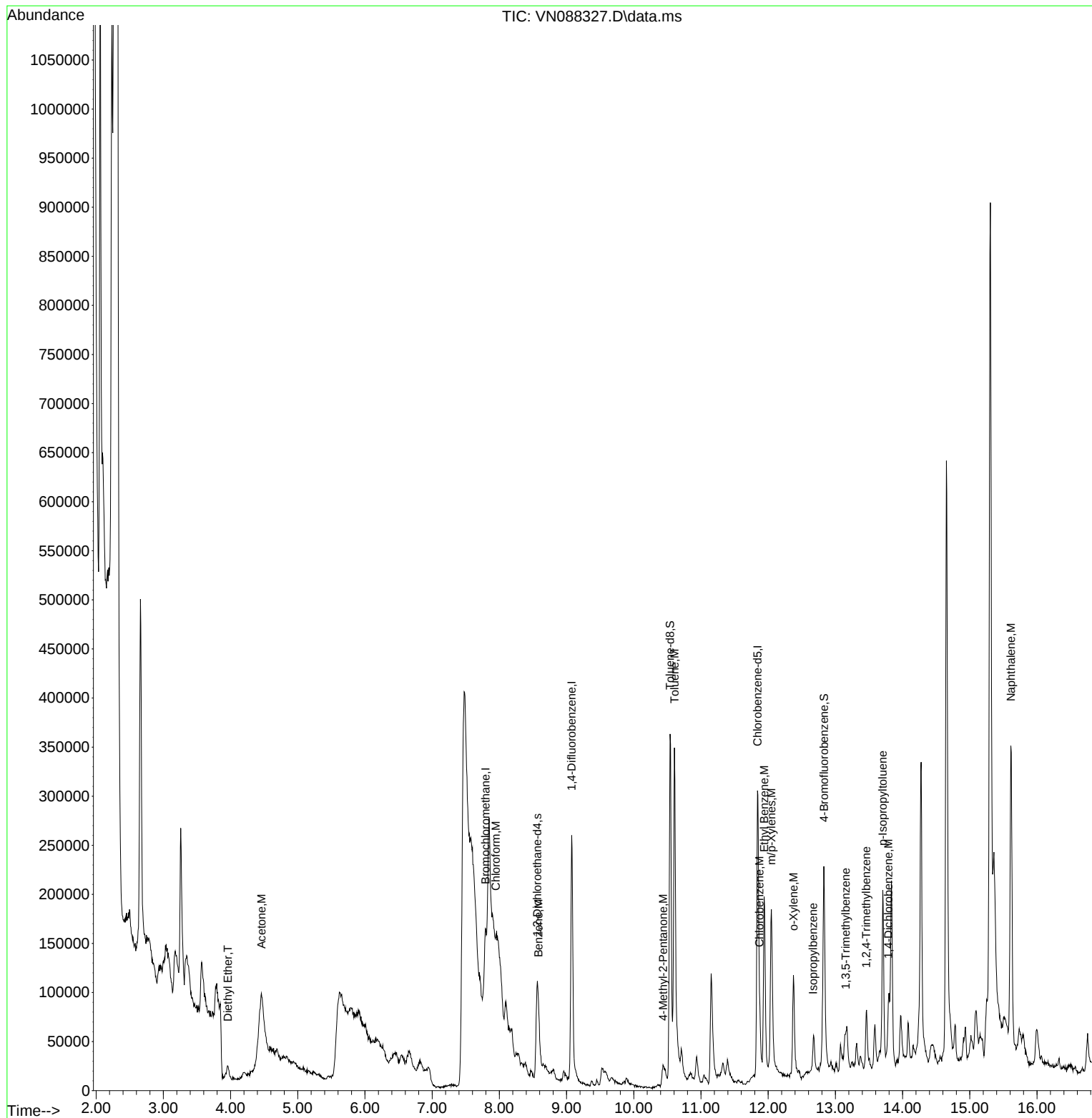
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Data File : VN088327.D
Acq On : 20 Nov 2025 13:25
Operator : JC\MD
Sample : Q3689-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

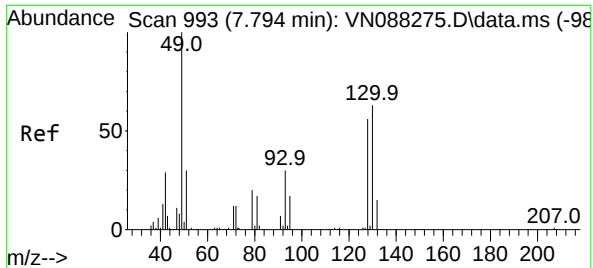
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA

Manual Integrations
APPROVED

Reviewed By : John Carlone 11/21/2025
Supervised By : Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 03:01:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration





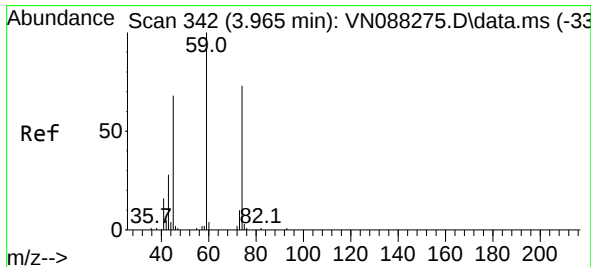
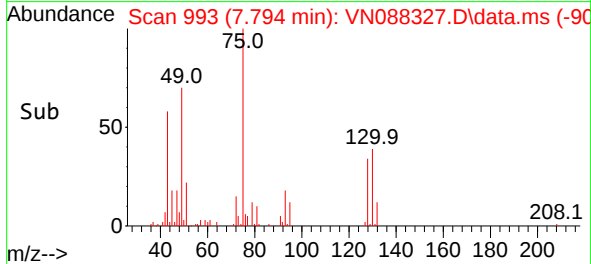
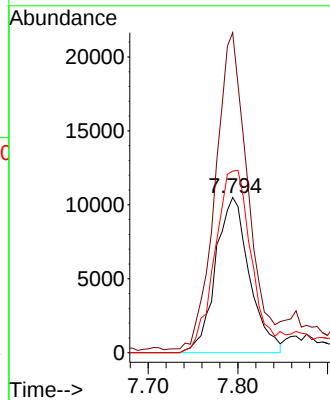
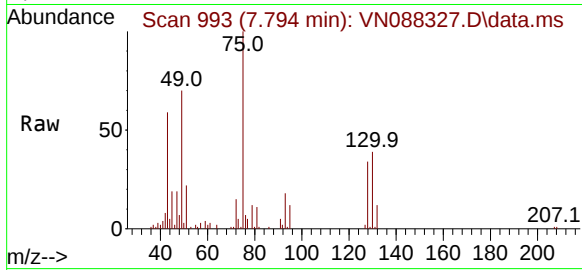
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA

Tgt Ion:128 Resp: 2755
Ion Ratio Lower Upper
128 100
49 192.5 0.0 501.2
130 125.1 0.0 320.2

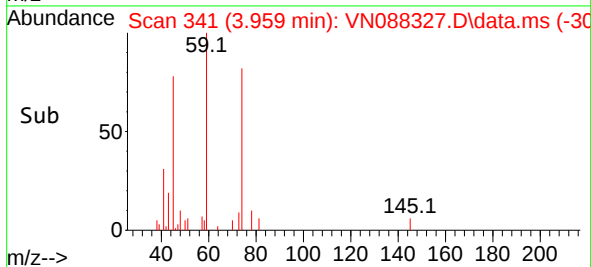
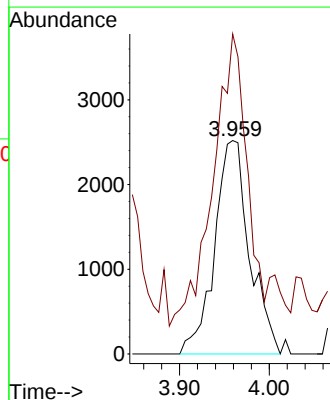
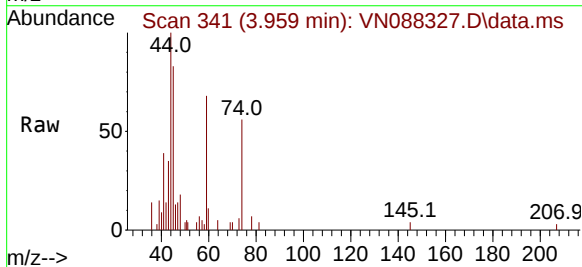
Manual Integrations
APPROVED

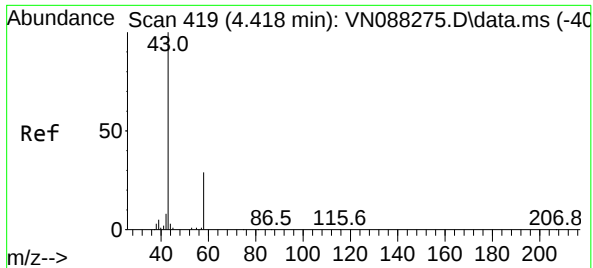
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#8
Diethyl Ether
Concen: 6.163 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.006 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

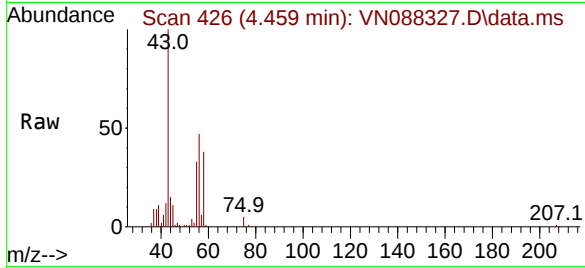
Tgt Ion: 74 Resp: 6820
Ion Ratio Lower Upper
74 100
45 121.1 20.9 187.7





#15
Acetone
Concen: 225.238 ug/l m
RT: 4.459 min Scan# 419
Delta R.T. 0.041 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

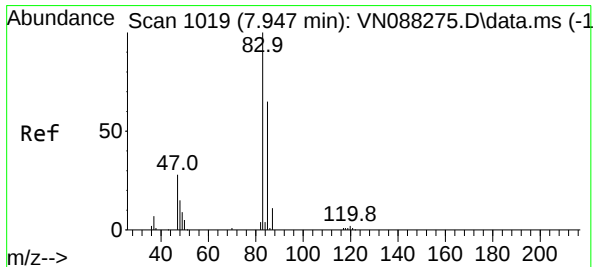
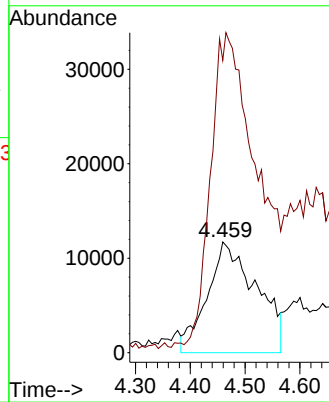
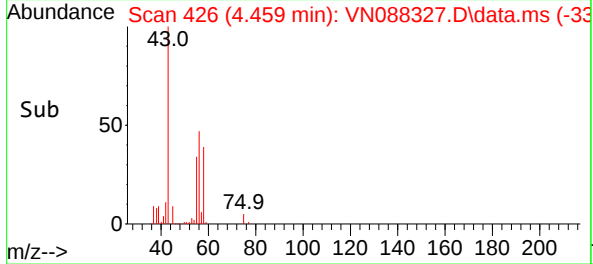
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



Tgt Ion: 58 Resp: 7316
Ion Ratio Lower Upper
58 100
43 263.8 273.9 410.9

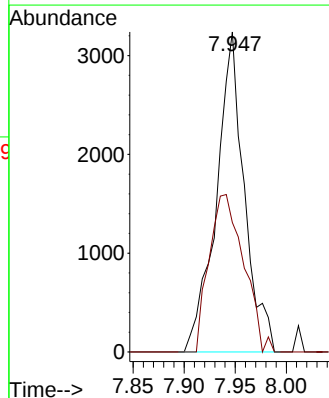
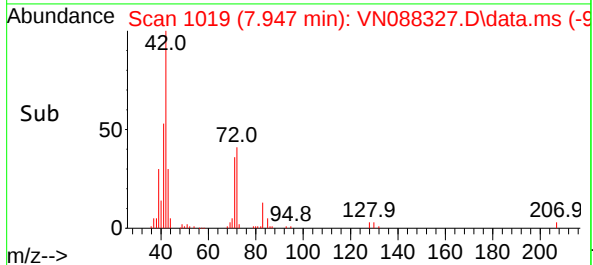
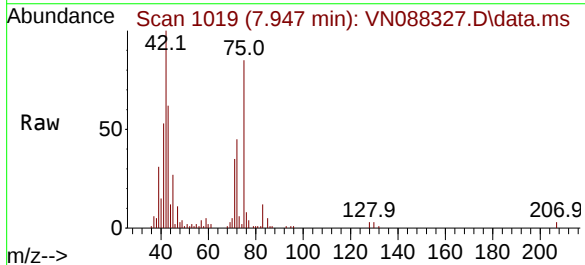
Manual Integrations
APPROVED

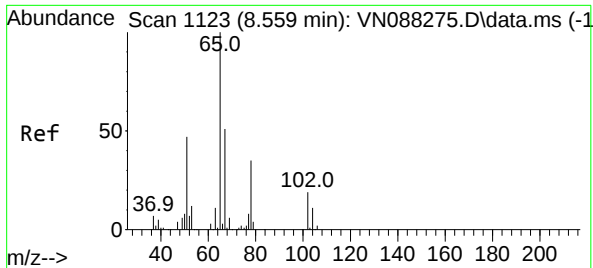
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#25
Chloroform
Concen: 1.754 ug/l m
RT: 7.947 min Scan# 1019
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

Tgt Ion: 83 Resp: 6162
Ion Ratio Lower Upper
83 100
85 40.5 52.2 78.4





#27

1,2-Dichloroethane-d4

Concen: 33.246 ug/l m

RT: 8.565 min Scan# 1123

Delta R.T. 0.006 min

Lab File: VN088327.D

Acq: 20 Nov 2025 13:25

Instrument :

MSVOA_N

ClientSampleId :

251119071-01 VOA

Tgt Ion: 65 Resp: 83680

Ion Ratio Lower Upper

65 100

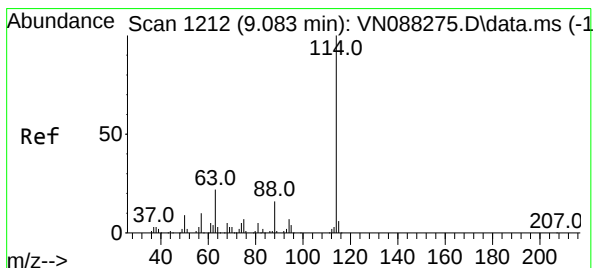
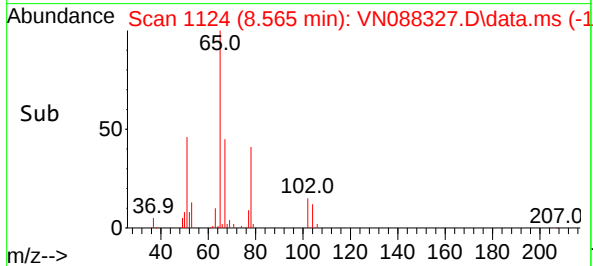
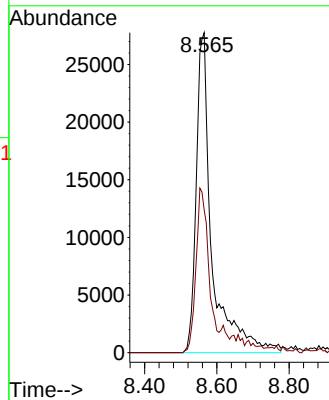
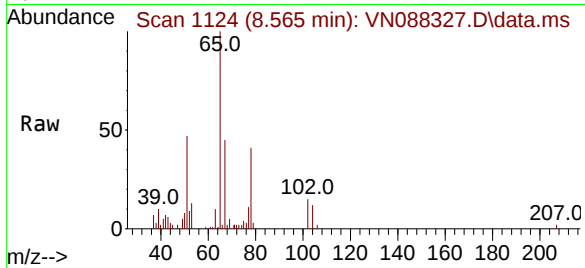
67 41.8 40.2 60.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/21/2025

Supervised By :Semsettin Yesilyurt 11/21/2025



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.076 min Scan# 1211

Delta R.T. -0.006 min

Lab File: VN088327.D

Acq: 20 Nov 2025 13:25

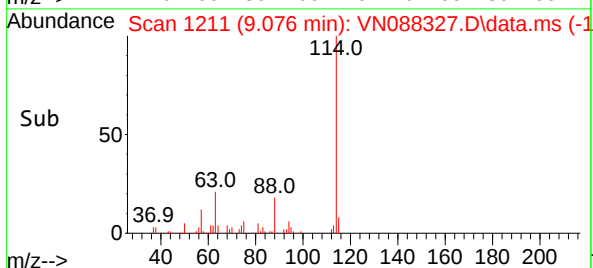
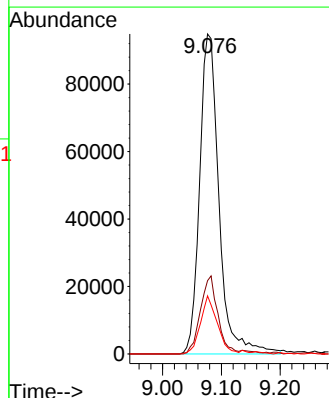
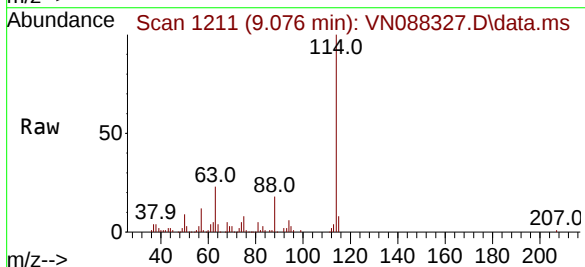
Tgt Ion:114 Resp: 217180

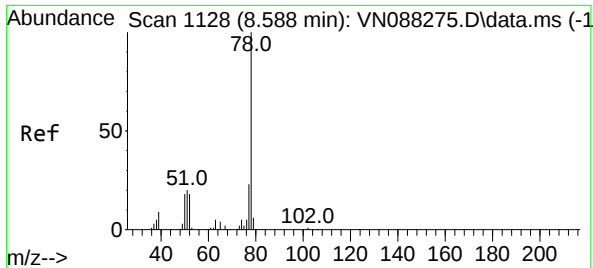
Ion Ratio Lower Upper

114 100

63 21.9 18.9 28.3

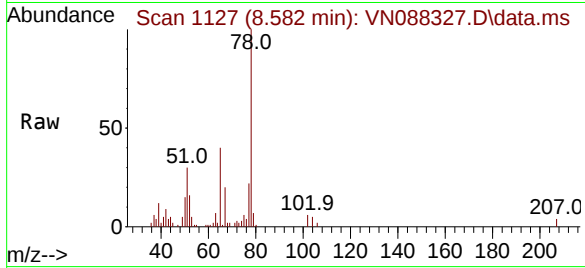
88 15.8 12.8 19.2





#34
Benzene
Concen: 4.881 ug/l
RT: 8.582 min Scan# 1127
Delta R.T. -0.006 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

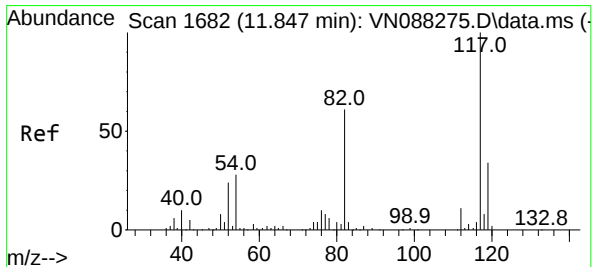
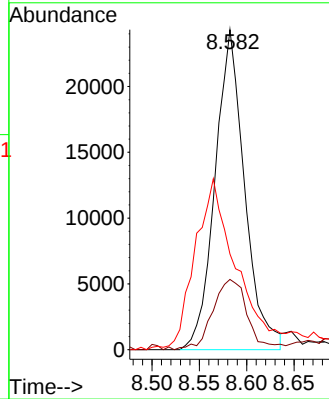
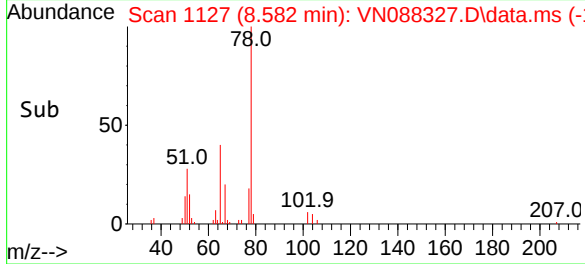
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



Tgt Ion: 78 Resp: 5287
Ion Ratio Lower Upper
78 100
77 21.3 18.6 27.8
51 24.7 15.8 23.8

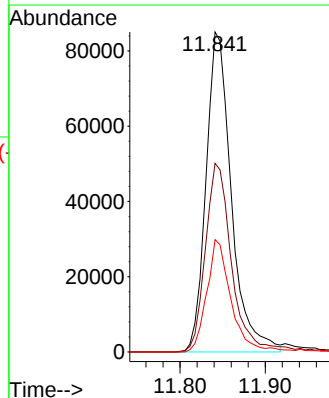
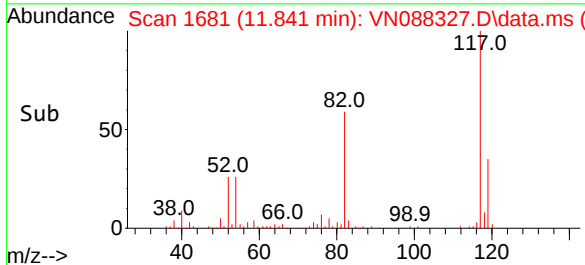
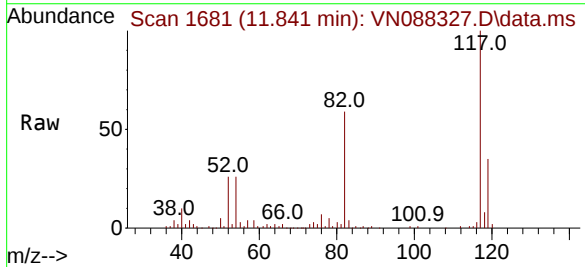
Manual Integrations
APPROVED

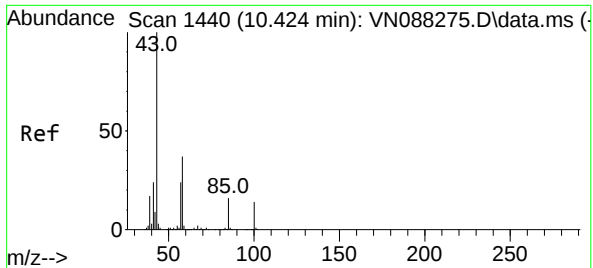
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.841 min Scan# 1681
Delta R.T. -0.006 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

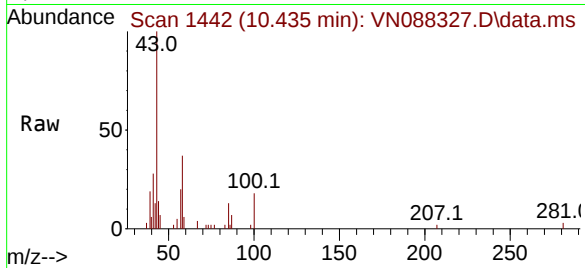
Tgt Ion:117 Resp: 175833
Ion Ratio Lower Upper
117 100
82 60.9 49.3 73.9
119 32.7 26.4 39.6





#58
4-Methyl-2-Pentanone
Concen: 8.076 ug/l m
RT: 10.435 min Scan# 1442
Delta R.T. 0.012 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

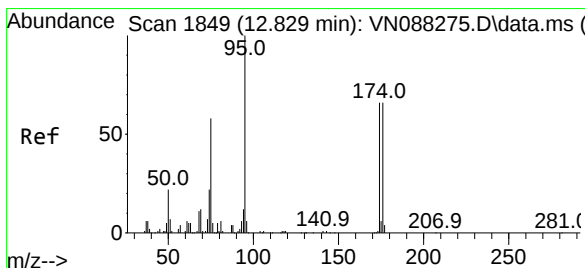
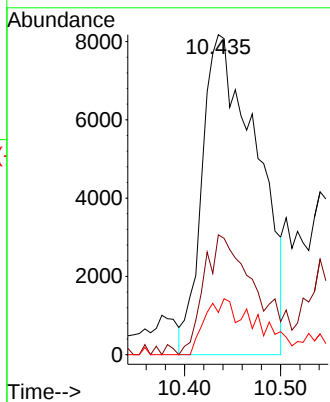
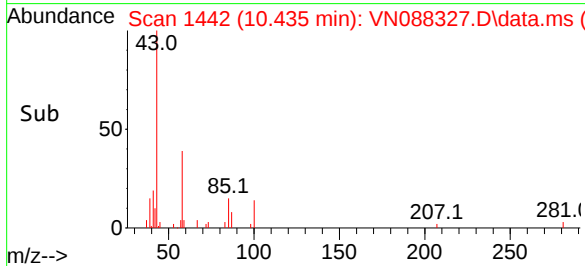
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



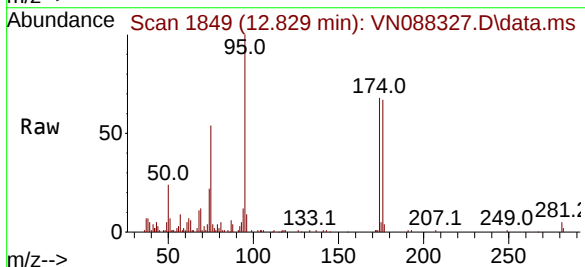
Tgt Ion: 43 Resp: 32118
Ion Ratio Lower Upper
43 100
58 30.6 29.2 43.8
85 3.2 12.6 19.0

Manual Integrations
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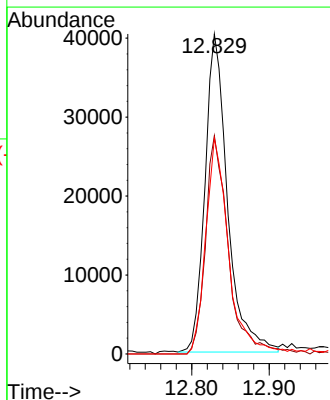
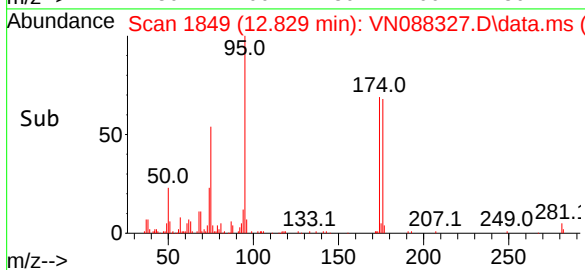
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025

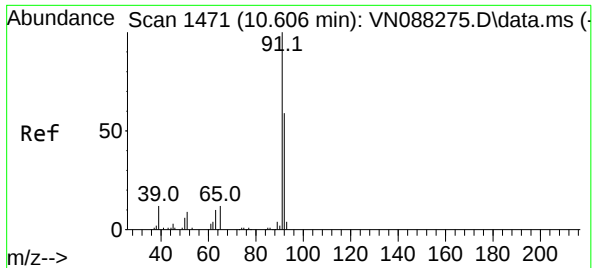


#60
4-Bromofluorobenzene
Concen: 27.509 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25



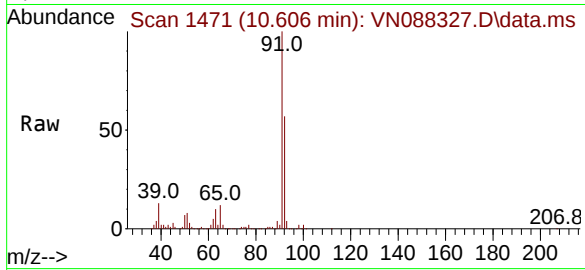
Tgt Ion: 95 Resp: 81767
Ion Ratio Lower Upper
95 100
174 66.5 54.5 81.7
176 68.6 53.8 80.6





#62
Toluene
Concen: 25.749 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

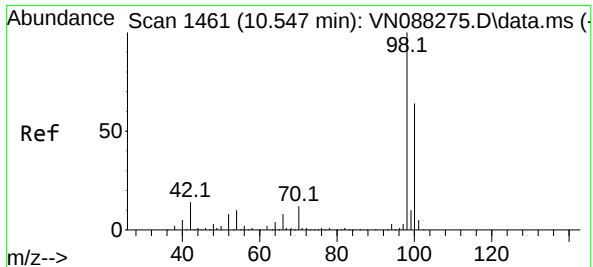
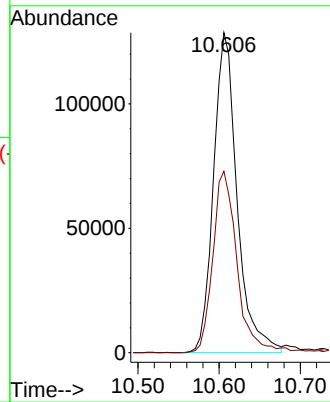
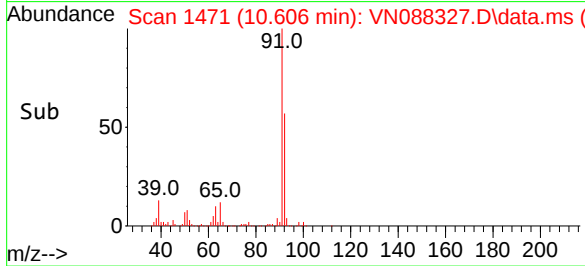
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



Tgt Ion: 91 Resp: 259811
Ion Ratio Lower Upper
91 100
92 57.2 46.7 70.1

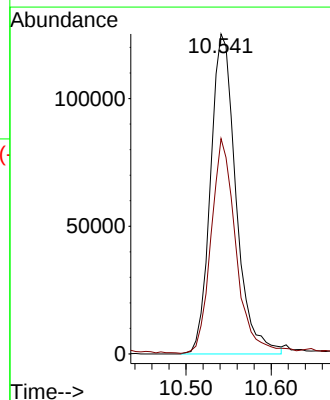
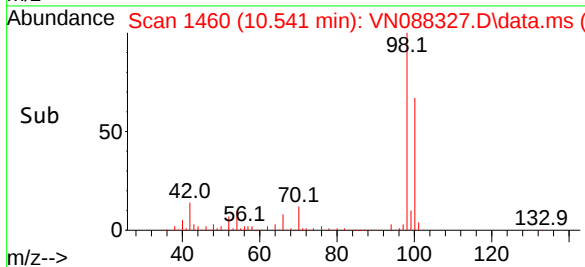
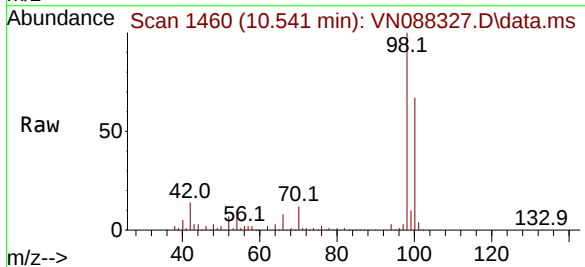
Manual Integrations
APPROVED

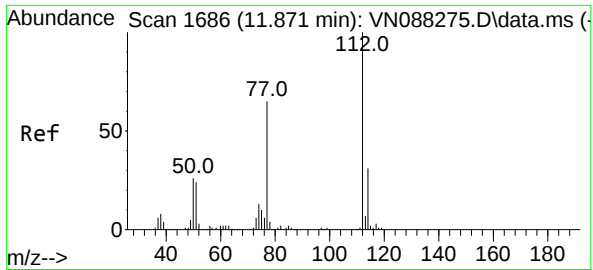
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#63
Toluene-d8
Concen: 31.226 ug/l
RT: 10.541 min Scan# 1460
Delta R.T. -0.006 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

Tgt Ion: 98 Resp: 259939
Ion Ratio Lower Upper
98 100
100 64.9 51.6 77.4





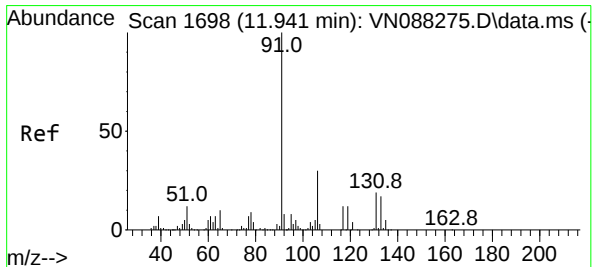
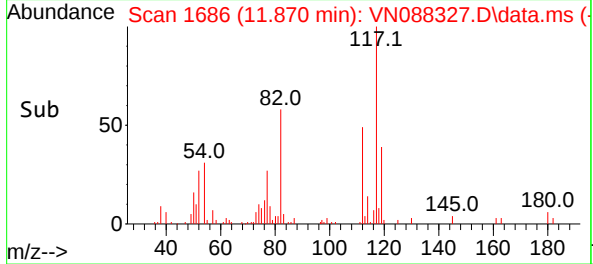
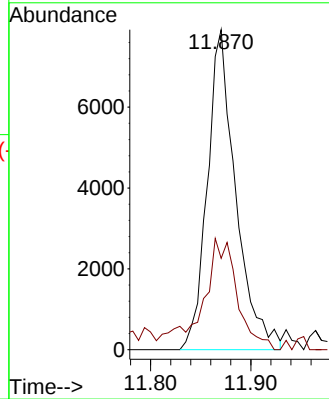
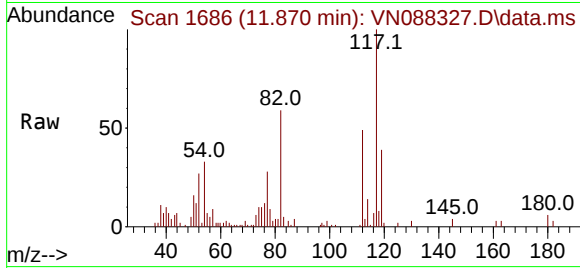
#64
Chlorobenzene
Concen: 2.497 ug/l
RT: 11.870 min Scan# 1686
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA

Tgt Ion:112 Resp: 1560
Ion Ratio Lower Upper
112 100
114 28.6 25.0 37.4

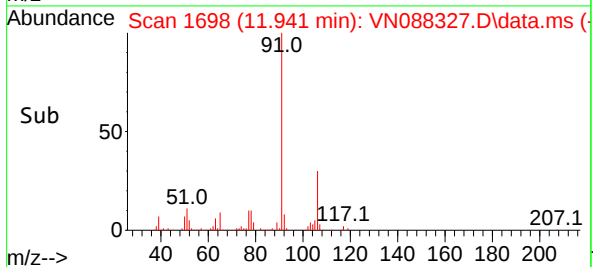
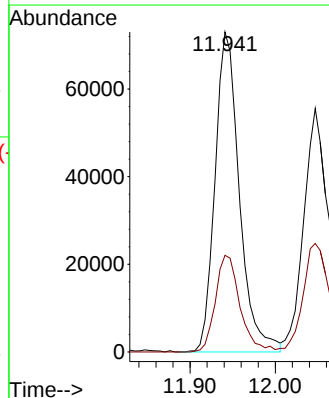
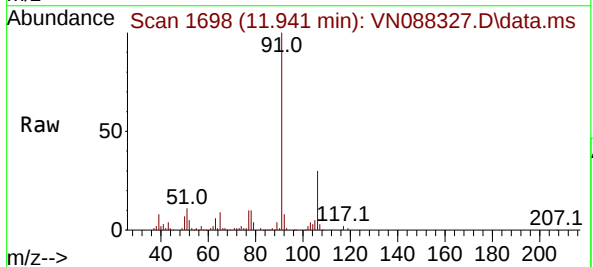
Manual Integrations
APPROVED

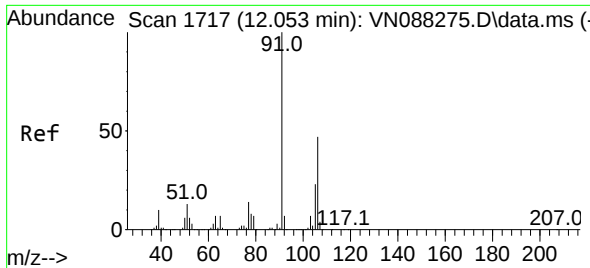
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#66
Ethyl Benzene
Concen: 13.042 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

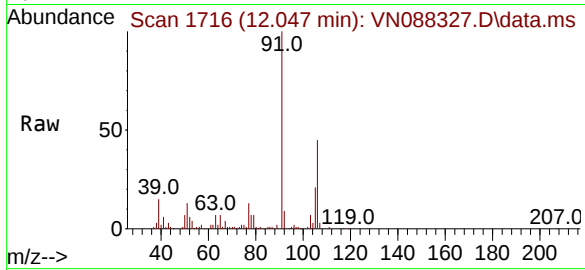
Tgt Ion: 91 Resp: 145041
Ion Ratio Lower Upper
91 100
106 30.2 24.4 36.6





#67
m/p-Xylenes
Concen: 12.712 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. -0.006 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

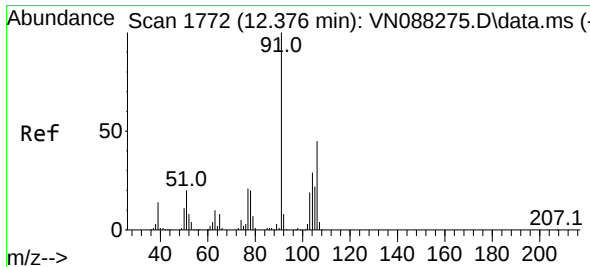
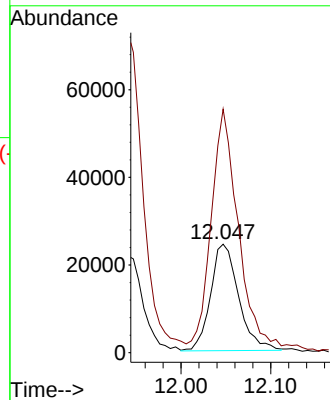
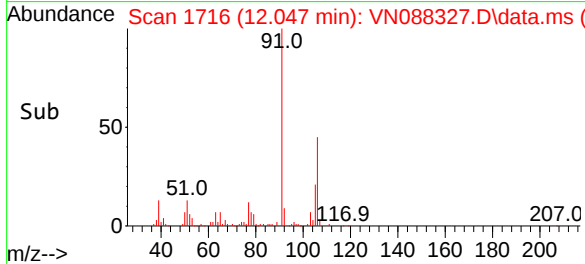
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



Tgt Ion:106 Resp: 52869
Ion Ratio Lower Upper
106 100
91 210.6 168.3 252.5

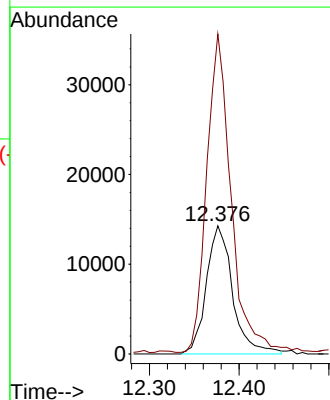
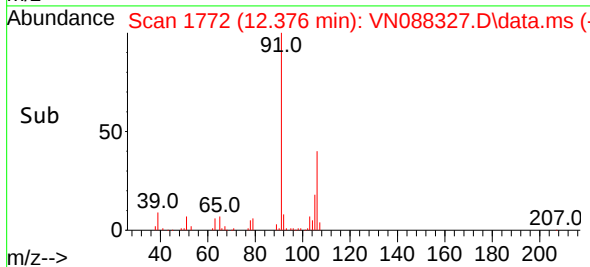
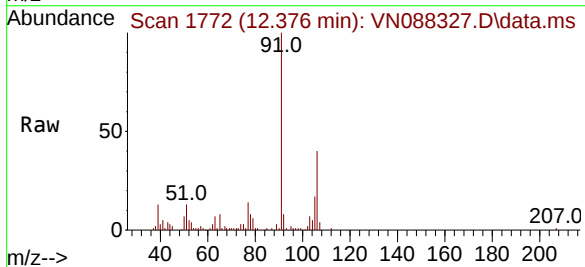
Manual Integrations
APPROVED

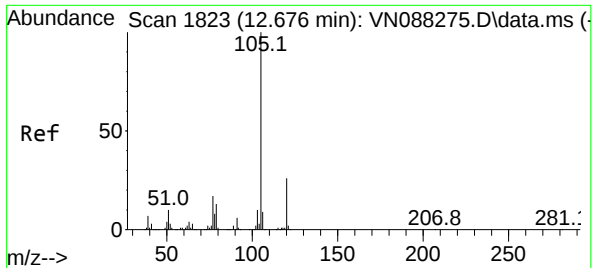
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#68
o-Xylene
Concen: 7.420 ug/l
RT: 12.376 min Scan# 1772
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

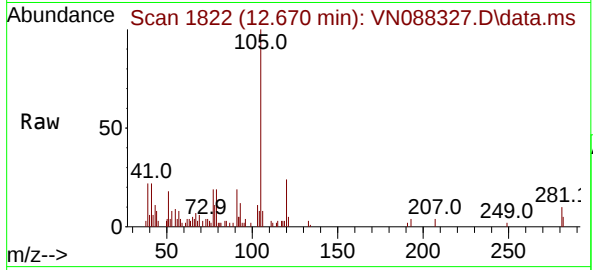
Tgt Ion:106 Resp: 29110
Ion Ratio Lower Upper
106 100
91 230.3 114.0 342.0





#70
Isopropylbenzene
Concen: 1.890 ug/l
RT: 12.670 min Scan# 1823
Delta R.T. -0.006 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

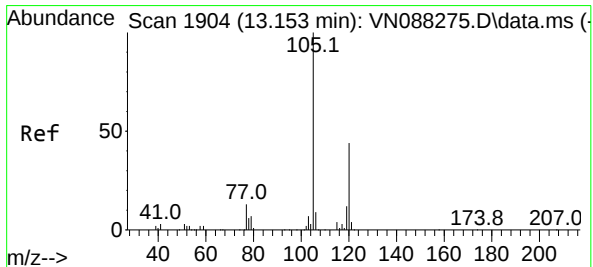
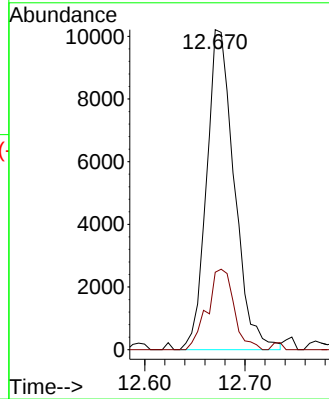
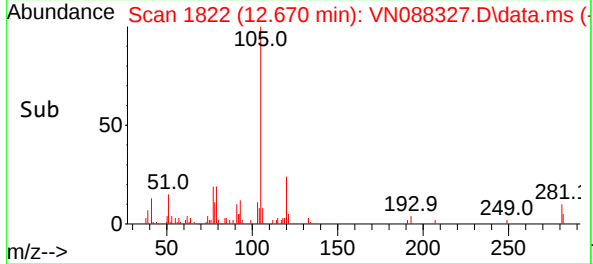
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



Tgt Ion:105 Resp: 19650
Ion Ratio Lower Upper
105 100
120 24.2 18.2 33.8

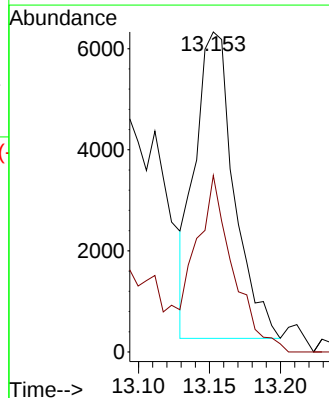
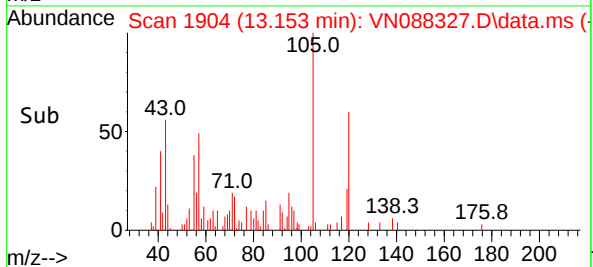
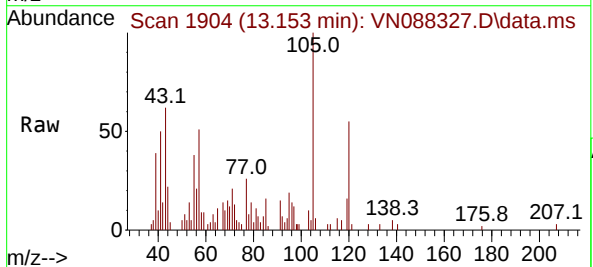
Manual Integrations
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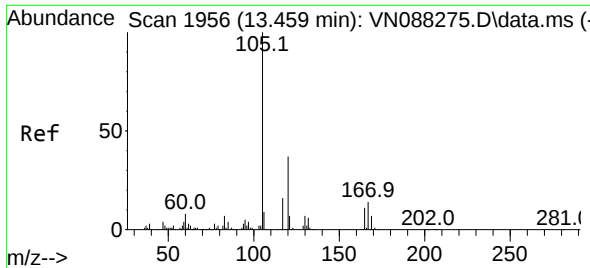
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#76
1,3,5-Trimethylbenzene
Concen: 1.329 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

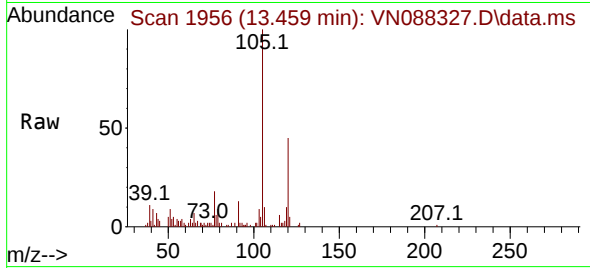
Tgt Ion:105 Resp: 11600
Ion Ratio Lower Upper
105 100
120 54.1 0.0 94.6





#80
1,2,4-Trimethylbenzene
Concen: 4.568 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

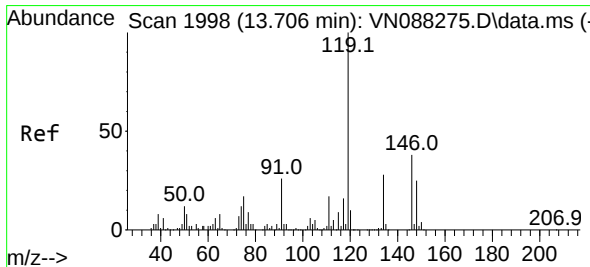
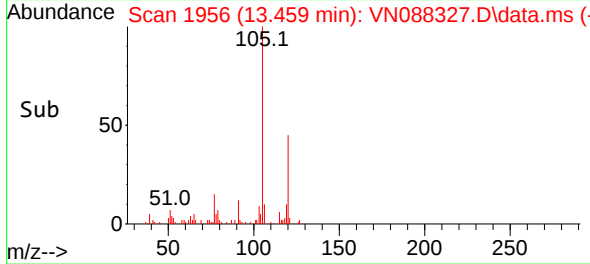
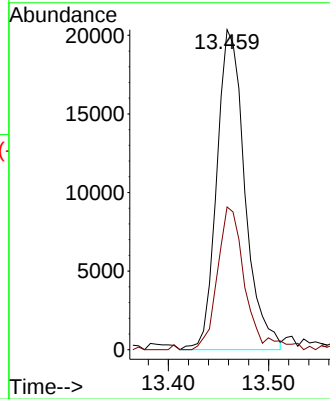
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



Tgt Ion:105 Resp: 39640
Ion Ratio Lower Upper
105 100
120 40.9 0.0 89.2

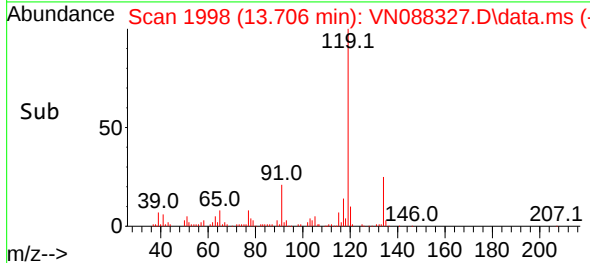
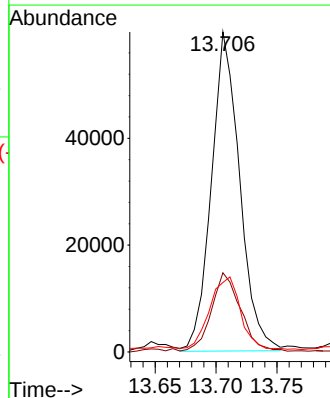
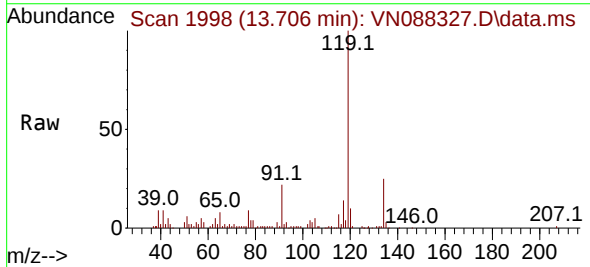
Manual Integrations
APPROVED

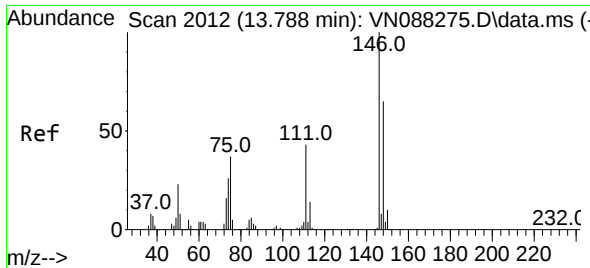
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#82
p-Isopropyltoluene
Concen: 10.742 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

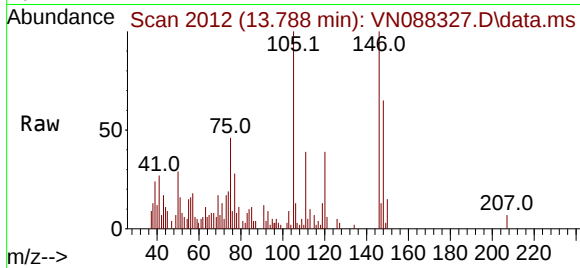
Tgt Ion:119 Resp: 96738
Ion Ratio Lower Upper
119 100
134 25.8 0.0 51.2
91 23.7 0.0 53.4





#84
1,4-Dichlorobenzene
Concen: 3.817 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25

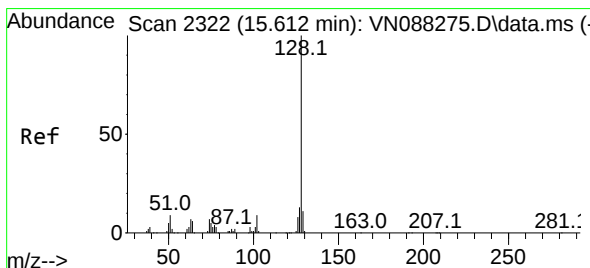
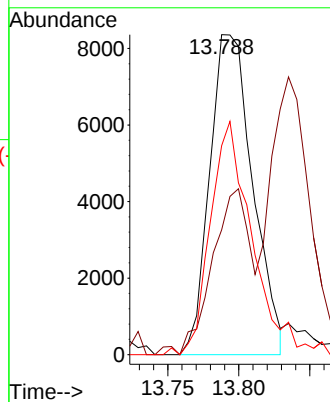
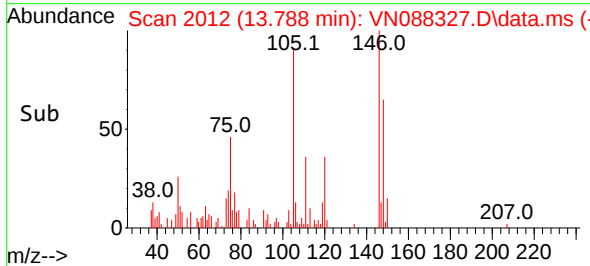
Instrument :
MSVOA_N
ClientSampleId :
251119071-01 VOA



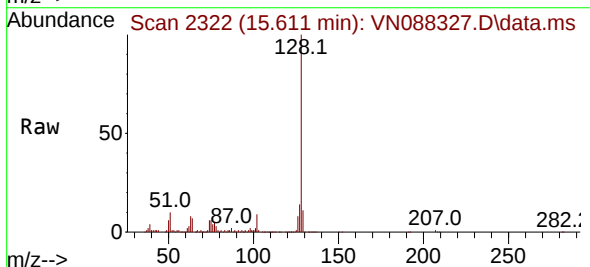
Tgt Ion:146 Resp: 1763
Ion Ratio Lower Upper
146 100
111 45.1 21.8 65.3
148 66.9 31.9 95.5

Manual Integrations
APPROVED

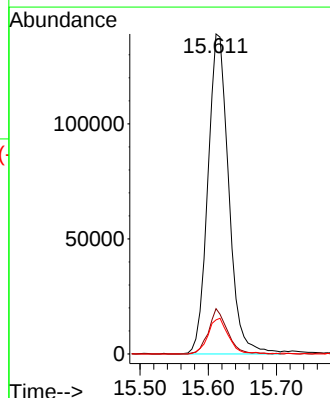
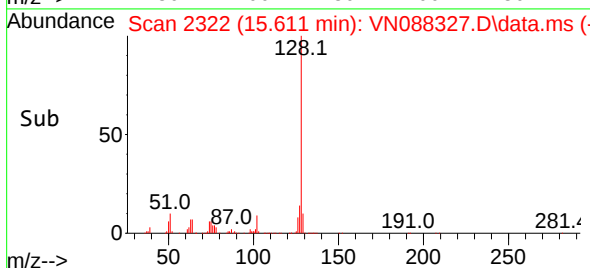
Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025



#91
Naphthalene
Concen: 33.813 ug/l
RT: 15.611 min Scan# 2322
Delta R.T. -0.000 min
Lab File: VN088327.D
Acq: 20 Nov 2025 13:25



Tgt Ion:128 Resp: 295534
Ion Ratio Lower Upper
128 100
127 12.9 10.6 16.0
129 10.8 8.8 13.2





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

Report of Analysis

Client: Garden State Laboratories, Inc.
Project: Waste Water 2025
Client Sample ID: 251119025-03 Trip blank
Lab Sample ID: Q3689-02
Analytical Method: E624.1
Sample Wt/Vol: 5 mL

Level: LOW
Final Vol: 5000 uL

Date Collected: 11/19/25
Date Received: 11/20/25
SDG No.: Q3689
Matrix: Water
% Solid: 0
Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
107-02-8	Acrolein	6.60	U	1	6.60	25.0	ug/L	11/20/25 11:21	VN112025
107-13-1	Acrylonitrile	2.80	U	1	2.80	25.0	ug/L	11/20/25 11:21	VN112025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	28.0			91 - 110	93%	SPK: 30		
2037-26-5	Toluene-d8	29.3			91 - 112	98%	SPK: 30		
460-00-4	4-Bromofluorobenzene	23.6			63 - 112	79%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	46600							
540-36-3	1,4-Difluorobenzene	225000							
3114-55-4	Chlorobenzene-d5	206000							

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\VN112025\
Data File : VN088321.D
Acq On : 20 Nov 2025 11:21
Operator : JC\MD
Sample : Q3689-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
251119025-03 Trip blank

Quant Time: Nov 21 02:57:40 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	46552	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	224837	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	205540	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	119192	28.030	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	93.433%
60) 4-Bromofluorobenzene	12.829	95	81986	23.596	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	78.667%
63) Toluene-d8	10.547	98	284640	29.251	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	97.500%

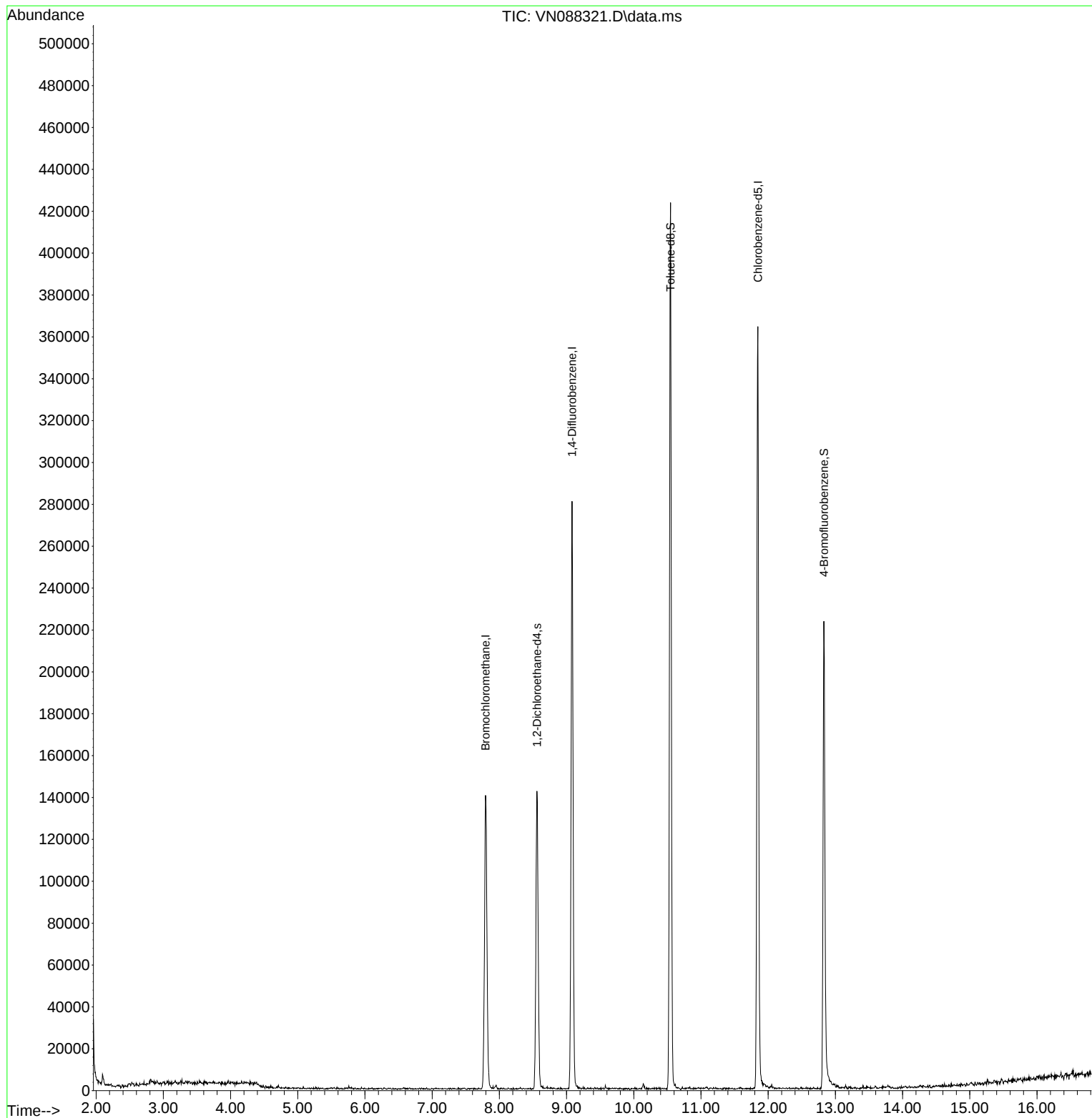
Target Compounds	Qvalue

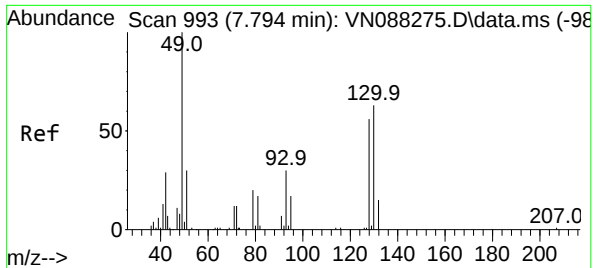
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
Data File : VN088321.D
Acq On : 20 Nov 2025 11:21
Operator : JC\MD
Sample : Q3689-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
251119025-03 Trip blank

Quant Time: Nov 21 02:57:40 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration

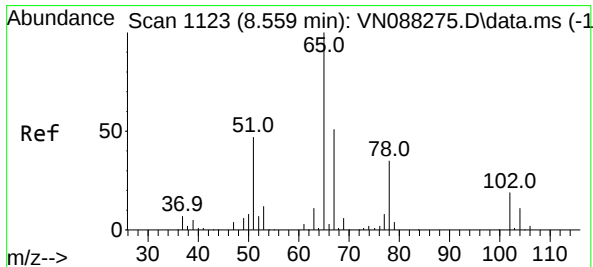
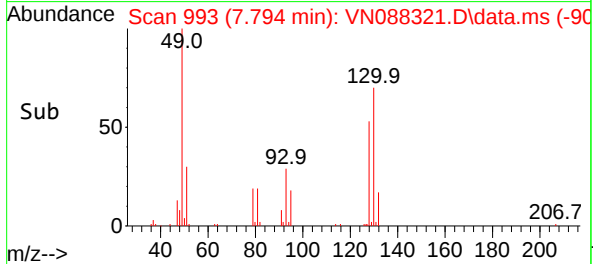
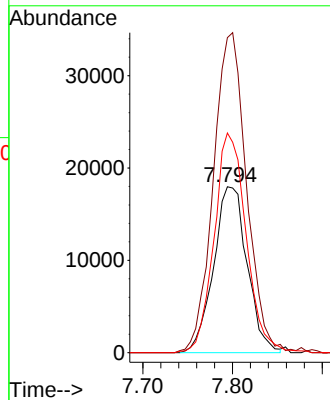
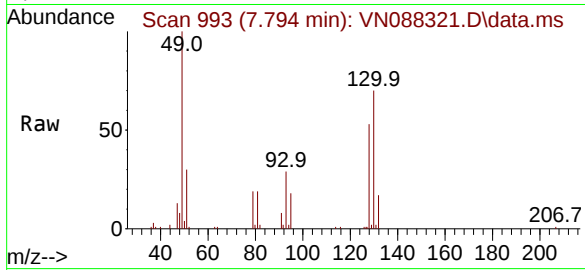




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN088321.D
Acq: 20 Nov 2025 11:21

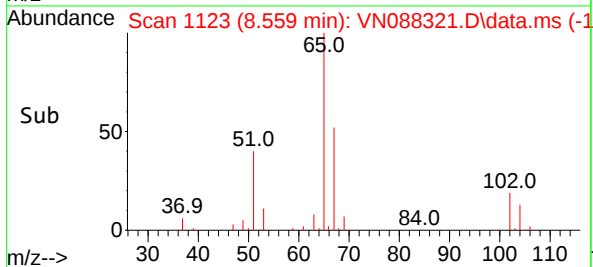
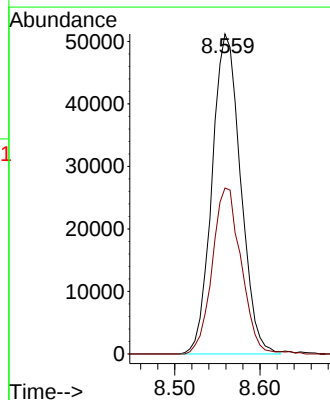
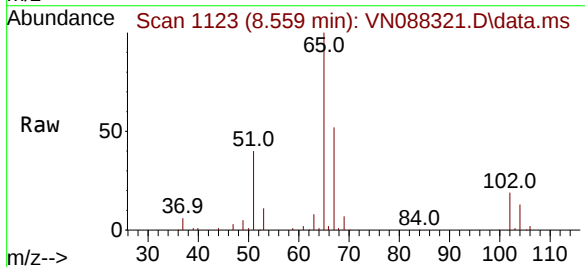
Instrument :
MSVOA_N
ClientSampleId :
251119025-03 Trip blank

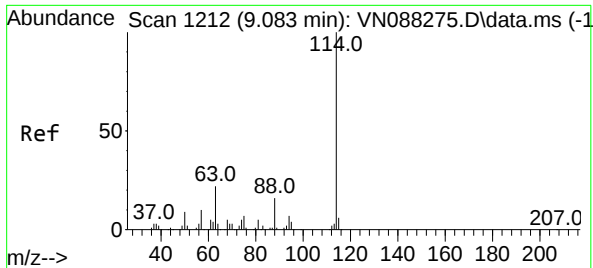
Tgt Ion	Ratio	Lower	Upper
128	100		
49	190.8	0.0	501.2
130	127.1	0.0	320.2



#27
1,2-Dichloroethane-d4
Concen: 28.030 ug/l
RT: 8.559 min Scan# 1123
Delta R.T. -0.000 min
Lab File: VN088321.D
Acq: 20 Nov 2025 11:21

Tgt Ion	Ratio	Lower	Upper
65	100		
67	52.3	40.2	60.2





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.082 min Scan# 11

Delta R.T. -0.000 min

Lab File: VN088321.D

Acq: 20 Nov 2025 11:21

Instrument :

MSVOA_N

ClientSampleId :

251119025-03 Trip blank

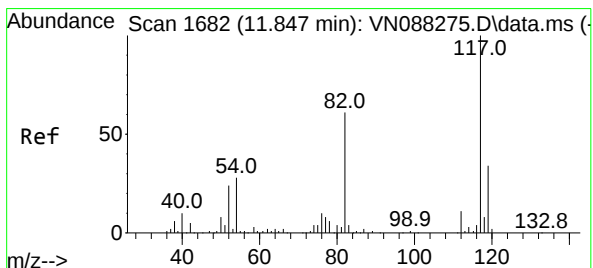
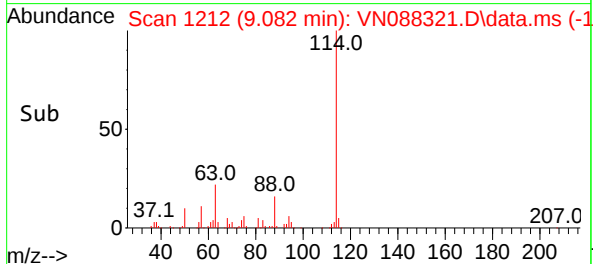
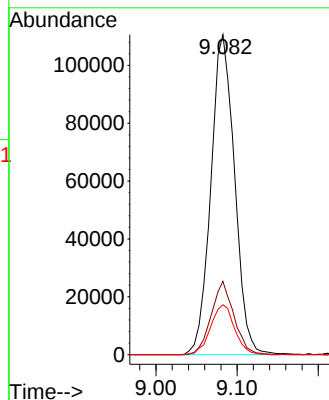
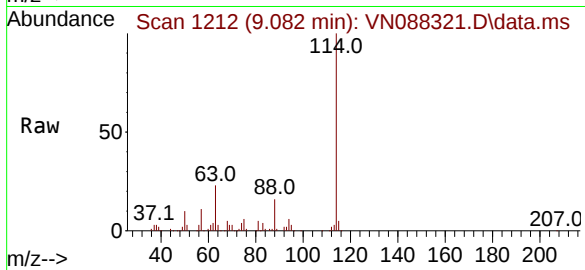
Tgt Ion:114 Resp: 224837

Ion Ratio Lower Upper

114 100

63 21.9 18.9 28.3

88 15.8 12.8 19.2



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.847 min Scan# 1682

Delta R.T. -0.000 min

Lab File: VN088321.D

Acq: 20 Nov 2025 11:21

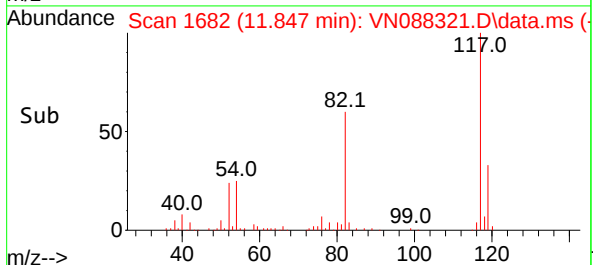
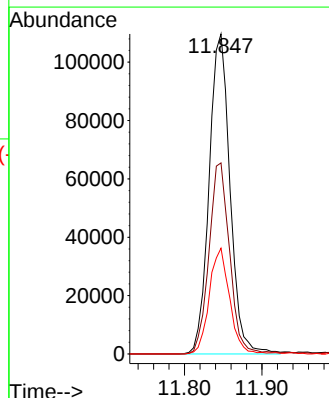
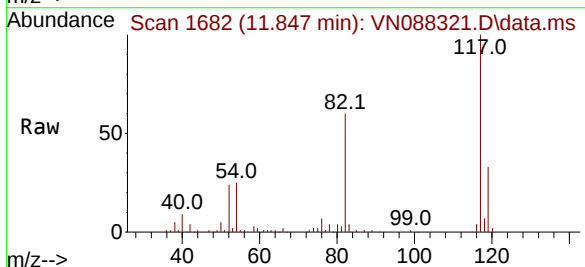
Tgt Ion:117 Resp: 205540

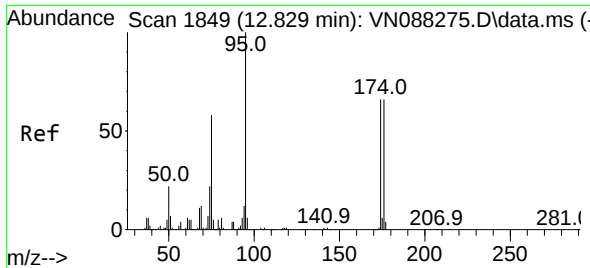
Ion Ratio Lower Upper

117 100

82 59.0 49.3 73.9

119 32.1 26.4 39.6

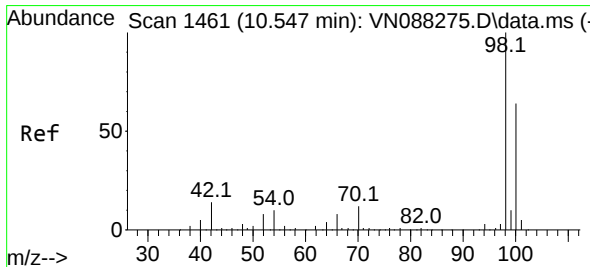
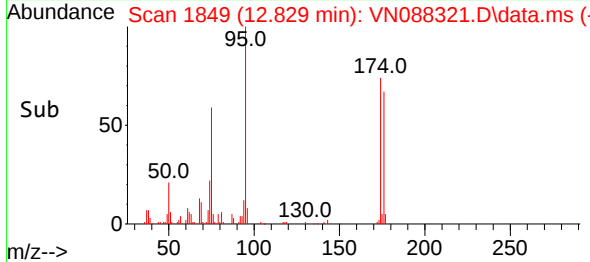
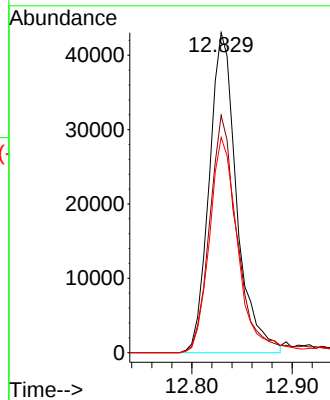
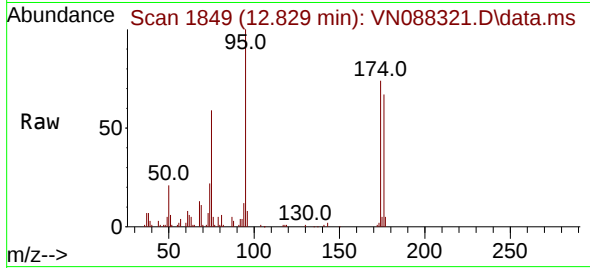




#60
4-Bromofluorobenzene
Concen: 23.596 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN088321.D
Acq: 20 Nov 2025 11:21

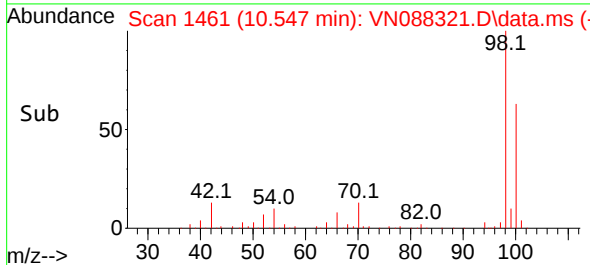
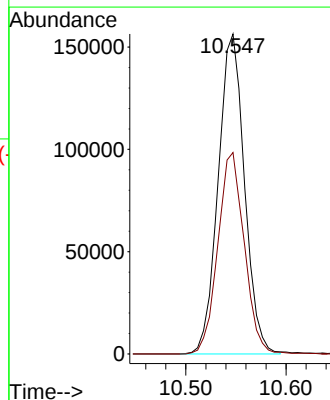
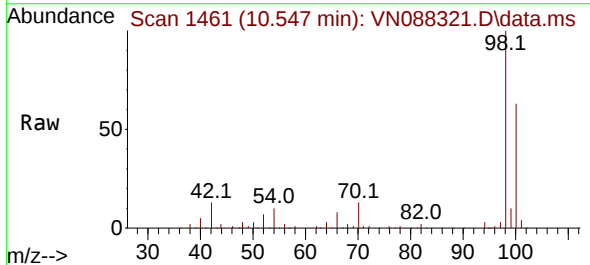
Instrument :
MSVOA_N
ClientSampleId :
251119025-03 Trip blank

Tgt Ion:	95	Resp:	81986
Ion Ratio	Lower	Upper	
95	100		
174	74.9	54.5	81.7
176	70.1	53.8	80.6



#63
Toluene-d8
Concen: 29.251 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN088321.D
Acq: 20 Nov 2025 11:21

Tgt Ion:	98	Resp:	284640
Ion Ratio	Lower	Upper	
98	100		
100	63.2	51.6	77.4





CALIBRATION SUMMARY



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: GARD04
 Lab Code: ACE SDG No.: Q3689
 Instrument ID: MSVOA_N Calibration Date(s): 11/13/2025 11/13/2025
 Heated Purge: (Y/N) N Calibration Time(s): 10:14 11:50
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VN088274.D		RRF020 = VN088275.D		RRF050 = VN088276.D		
		RRF100 = VN088277.D		RRF150 = VN088278.D		RRF =		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
Acrolein	0.445	0.354	0.354	0.399	0.406		0.392	9.9
Acrylonitrile	1.212	1.224	1.162	1.213	1.236		1.209	2.3
1,2-Dichloroethane-d4	2.725	2.740	2.769	2.745	2.723		2.740	0.7
Toluene-d8	1.418	1.455	1.418	1.385	1.426		1.420	1.8
4-Bromofluorobenzene	0.479	0.494	0.513	0.515	0.534		0.507	4.1

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

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N111325W.M
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 Last Update : Fri Nov 14 00:49:21 2025
 Response Via : Initial Calibration

Calibration Files

5 =VN088274.D 20 =VN088275.D 50 =VN088276.D 100 =VN088277.D 150 =VN088278.D

Compound		5	20	50	100	150	Avg	%RSD

1) I	Bromochloromethane	-----ISTD-----						
2) M	Dichlorodifluoro...	1.540	2.366	2.176	2.015	2.447	2.109	17.06
3) M	Chloromethane	2.094	2.291	2.114	2.068	2.305	2.174	5.25
4) M	Vinyl Chloride	2.166	2.413	2.246	2.166	2.505	2.299	6.65
5) M	Bromomethane	1.249	1.214	1.149	1.224	1.294	1.226	4.32
6) M	Chloroethane	1.399	1.495	1.336	1.378	1.498	1.421	5.08
7) M	Trichlorofluorom...	2.922	3.441	3.168	3.005	3.580	3.223	8.72
8) T	Diethyl Ether	1.285	1.200	1.121	1.191	1.226	1.205	4.94
9)	1,1,2-Trichlorot...	1.587	1.800	1.631	1.547	1.889	1.691	8.68
10) M	1,1-Dichloroethene	1.558	1.748	1.601	1.557	1.784	1.650	6.58
11)	Methyl Iodide	1.267	1.744	1.806	1.920	2.041	1.756	16.84
12)	Methyl Acetate	2.674	2.716	2.562	2.661	2.694	2.661	2.23
13) M	Acrolein	0.445	0.354	0.354	0.399	0.406	0.392	9.90
14) M	Acrylonitrile	1.212	1.224	1.162	1.213	1.236	1.209	2.33
15) M	Acetone	0.339	0.364	0.340	0.357	0.369	0.354	3.88
16) M	Carbon Disulfide	5.228	5.928	5.506	5.256	5.901	5.564	6.08
17)	Allyl chloride	3.150	3.298	3.146	3.091	3.344	3.206	3.41
18) M	Methylene Chloride	2.165	2.098	1.983	1.998	2.009	2.050	3.80
19) M	trans-1,2-Dichlo...	1.917	2.036	1.848	1.810	1.993	1.921	4.92
20) T	Diisopropyl ether	6.753	6.994	6.417	6.799	7.288	6.850	4.69
21) M	1,1-Dichloroethane	3.827	4.008	3.728	3.748	3.985	3.859	3.40
22) M	cis-1,2-Dichloro...	2.263	2.268	2.137	2.183	2.312	2.233	3.18
23) M	tert-Butyl Alcohol	0.528	0.435	0.407	0.422	0.431	0.445	10.75
24) M	Methyl tert-Buty...	6.526	6.635	6.404	6.727	6.964	6.651	3.19
25) M	Chloroform	3.861	3.873	3.674	3.755	3.958	3.824	2.90
26)	Cyclohexane	2.831	3.534	3.200	3.018	3.716	3.260	11.16
27) s	1,2-Dichloroetha...	2.725	2.740	2.769	2.745	2.723	2.740	0.67
28) I	1,4-Difluorobenzene	-----ISTD-----						
29)	1,1-Dichloropropene	0.484	0.508	0.471	0.497	0.542	0.501	5.43
30) M	2-Butanone	0.335	0.314	0.299	0.335	0.336	0.324	5.15
31)	2,2-Dichloropropane	0.605	0.623	0.581	0.619	0.659	0.617	4.60
32) M	1,1,1-Trichloroe...	0.623	0.624	0.578	0.609	0.651	0.617	4.30
33) M	Carbon Tetrachlo...	0.524	0.532	0.499	0.511	0.569	0.527	5.04
34) M	Benzene	1.560	1.495	1.392	1.499	1.535	1.496	4.28
35)	Methacrylonitrile	0.355	0.325	0.307	0.355	0.347	0.338	6.21
36) M	1,2-Dichloroethane	0.585	0.575	0.546	0.608	0.597	0.582	4.09
37) M	Trichloroethene	0.350	0.340	0.321	0.335	0.349	0.339	3.43
38)	Methylcyclohexane	0.509	0.593	0.554	0.552	0.661	0.574	9.95
39) M	1,2-Dichloropropane	0.414	0.378	0.356	0.391	0.391	0.386	5.53
40)	Dibromomethane	0.292	0.277	0.254	0.284	0.281	0.277	5.20
41) M	Bromodichloromet...	0.566	0.535	0.518	0.584	0.588	0.558	5.45
42) M	Vinyl Acetate	1.052	1.049	1.034	1.148	1.121	1.081	4.68
43)	Ethyl Acetate	0.675	0.645	0.608	0.680	0.649	0.651	4.40
44)	Isopropyl Acetate	0.981	0.975	0.929	1.071	1.063	1.004	6.08
45) T	1,4-Dioxane	0.006	0.006	0.006	0.006	0.006	0.006	3.52
46)	Methyl methacrylate	0.433	0.448	0.440	0.513	0.515	0.470	8.69
47)	n-amyl Acetate	0.516	0.456	0.455	0.558	0.559	0.509	10.15
48) M	t-1,3-Dichloropr...	0.579	0.559	0.550	0.647	0.651	0.597	8.11
49) T	cis-1,3-Dichloro...	0.606	0.610	0.581	0.651	0.660	0.621	5.33
50) M	1,1,2-Trichloroe...	0.363	0.334	0.318	0.353	0.347	0.343	5.08
51)	Ethyl methacrylate	0.497	0.522	0.533	0.635	0.633	0.564	11.59
52)	1,3-Dichloropropane	0.642	0.612	0.576	0.647	0.646	0.625	4.98
53) M	Dibromochloromet...	0.382	0.377	0.368	0.423	0.420	0.394	6.47
54) M	1,2-Dibromoethane	0.368	0.342	0.325	0.378	0.370	0.356	6.23
55) M	2-Chloroethyl vi...	0.323	0.304	0.282	0.355	0.361	0.325	10.30
56) M	Bromoform	0.229	0.233	0.232	0.278	0.276	0.249	10.05

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N111325W.M

		-----ISTD-----						
57) I	Chlorobenzene-d5							
58) M	4-Methyl-2-Penta...	0.654	0.685	0.642	0.710	0.701	0.679	4.35
59) M	2-Hexanone	0.370	0.436	0.440	0.501	0.505	0.451	12.33
60) S	4-Bromofluoroben...	0.479	0.494	0.513	0.515	0.534	0.507	4.15
61) M	Tetrachloroethene	0.305	0.329	0.295	0.297	0.321	0.309	4.85
62) M	Toluene	1.716	1.777	1.619	1.714	1.782	1.722	3.83
63) S	Toluene-d8	1.418	1.455	1.418	1.385	1.426	1.420	1.76
64) M	Chlorobenzene	1.098	1.065	0.994	1.074	1.099	1.066	4.04
65)	1,1,1,2-Tetrachl...	0.374	0.369	0.338	0.368	0.375	0.365	4.19
66) M	Ethyl Benzene	1.763	1.927	1.813	1.933	2.052	1.897	5.97
67) M	m/p-Xylenes	0.660	0.723	0.687	0.718	0.760	0.710	5.37
68) M	o-Xylene	0.619	0.665	0.643	0.698	0.721	0.669	6.18
69) M	Styrene	1.010	1.113	1.104	1.209	1.248	1.137	8.29
70)	Isopropylbenzene	1.587	1.799	1.703	1.815	1.966	1.774	7.95
71) M	1,1,2,2-Tetrachl...	0.574	0.575	0.541	0.593	0.589	0.575	3.56
72)	1,2,3-Trichlorop...	0.611	0.509	0.524	0.576	0.563	0.557	7.31
73)	Bromobenzene	0.390	0.399	0.386	0.416	0.412	0.400	3.35
74)	n-propylbenzene	1.999	2.235	2.127	2.235	2.380	2.195	6.47
75)	2-Chlorotoluene	1.289	1.337	1.272	1.366	1.410	1.335	4.22
76)	1,3,5-Trimethylb...	1.318	1.500	1.447	1.538	1.642	1.489	8.00
77)	t-1,4-Dichloro-2...	0.144	0.179	0.184	0.220	0.229	0.191	17.90
78)	4-Chlorotoluene	1.240	1.360	1.301	1.407	1.457	1.353	6.33
79)	tert-butylbenzene	1.171	1.273	1.238	1.291	1.402	1.275	6.62
80)	1,2,4-Trimethylb...	1.279	1.474	1.447	1.576	1.627	1.481	9.09
81)	sec-Butylbenzene	1.667	1.917	1.793	1.867	2.053	1.859	7.71
82)	p-Isopropyltoluene	1.325	1.574	1.512	1.559	1.712	1.536	9.09
83) M	1,3-Dichlorobenzene	0.726	0.795	0.753	0.802	0.815	0.778	4.83
84) M	1,4-Dichlorobenzene	0.769	0.785	0.745	0.815	0.826	0.788	4.23
85)	n-Butylbenzene	1.210	1.538	1.426	1.492	1.656	1.464	11.28
86) T	Hexachloroethane	0.283	0.293	0.279	0.298	0.319	0.294	5.42
87) M	1,2-Dichlorobenzene	0.709	0.744	0.697	0.759	0.764	0.734	4.10
88)	1,2-Dibromo-3-Ch...	0.131	0.129	0.128	0.141	0.147	0.135	6.28
89)	1,2,4-Trichlorob...	0.388	0.404	0.390	0.429	0.451	0.412	6.59
90)	Hexachlorobutadiene	0.155	0.165	0.155	0.150	0.175	0.160	6.34
91) M	Naphthalene	1.322	1.441	1.415	1.607	1.671	1.491	9.67
92)	1,2,3-Trichlorob...	0.388	0.404	0.390	0.429	0.451	0.412	6.59

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088274.D
 Acq On : 13 Nov 2025 10:14
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:31:56 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	59982	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	315158	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	280094	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	163453	33.778	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 112.600%#			
60) 4-Bromofluorobenzene	12.829	95	134269	29.108	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 97.033%			
63) Toluene-d8	10.547	98	397107	31.297	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.333%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	15397	4.199	ug/l	99
3) Chloromethane	2.389	50	20933	5.188	ug/l	98
4) Vinyl Chloride	2.536	62	21649	5.144	ug/l	95
5) Bromomethane	2.977	94	12485	5.542	ug/l	87
6) Chloroethane	3.136	64	13983	5.095	ug/l	93
7) Trichlorofluoromethane	3.512	101	29208	5.032	ug/l	91
8) Diethyl Ether	3.959	74	12849	5.169	ug/l	81
9) 1,1,2-Trichlorotrifluo...	4.365	101	15868m	5.132	ug/l	
10) 1,1-Dichloroethene	4.330	96	15573	4.823	ug/l	95
11) Methyl Iodide	4.583	142	12669	4.056	ug/l	92
12) Methyl Acetate	5.012	43	26727	5.139	ug/l	96
13) Acrolein	4.171	56	22260m	28.039	ug/l	
14) Acrylonitrile	5.706	53	60558	24.465	ug/l	99
15) Acetone	4.430	58	16946	23.407	ug/l	93
16) Carbon Disulfide	4.712	76	52263m	5.069	ug/l	
17) Allyl chloride	5.018	41	31489	5.167	ug/l	97
18) Methylene Chloride	5.265	84	21639	5.317	ug/l	93
19) trans-1,2-Dichloroethene	5.771	96	19169	5.139	ug/l #	81
20) Diisopropyl ether	6.659	45	67510	4.944	ug/l	97
21) 1,1-Dichloroethane	6.553	63	38262	5.276	ug/l	98
22) cis-1,2-Dichloroethene	7.465	96	22622	4.954	ug/l #	90
23) tert-Butyl Alcohol	5.524	59	26385m	27.232	ug/l	
24) Methyl tert-Butyl Ether	5.794	73	65238	4.803	ug/l #	82
25) Chloroform	7.953	83	38596	5.219	ug/l	93
26) Cyclohexane	8.229	56	28299m	4.661	ug/l	
29) 1,1-Dichloropropene	8.347	75	25434	5.410	ug/l	98
30) 2-Butanone	7.471	43	87884	26.404	ug/l #	98
31) 2,2-Dichloropropane	7.477	77	31772m	5.318	ug/l	
32) 1,1,1-Trichloroethane	8.147	97	32744	5.623	ug/l	98
33) Carbon Tetrachloride	8.341	117	27520	5.603	ug/l	85
34) Benzene	8.588	78	81926	5.397	ug/l #	93
35) Methacrylonitrile	7.759	41	18631	5.343	ug/l	93
36) 1,2-Dichloroethane	8.653	62	30747	5.714	ug/l	97
37) Trichloroethene	9.335	130	18362	5.154	ug/l	84
38) Methylcyclohexane	9.582	83	26740	4.668	ug/l	98
39) 1,2-Dichloropropane	9.600	63	21746	5.698	ug/l	99
40) Dibromomethane	9.688	93	15320	5.523	ug/l	99
41) Bromodichloromethane	9.865	83	29744	5.289	ug/l #	94
42) Vinyl Acetate	6.588	43	276230	24.145	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088274.D
 Acq On : 13 Nov 2025 10:14
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:31:56 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

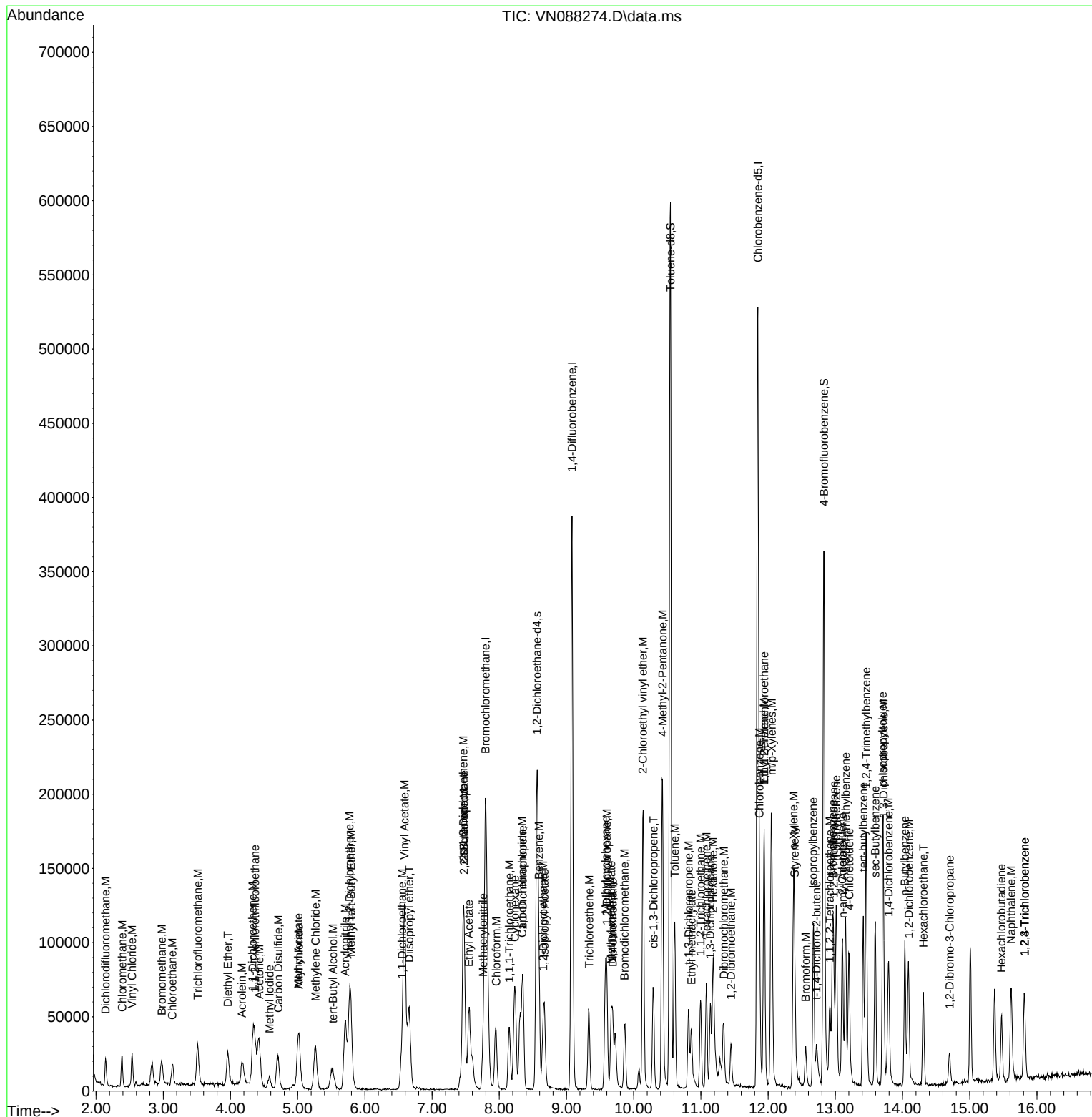
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	35436	5.467	ug/l #	81
44) Isopropyl Acetate	8.671	43	51550	4.931	ug/l	96
45) 1,4-Dioxane	9.682	88	6293	92.862	ug/l #	93
46) Methyl methacrylate	9.665	41	22745	4.800	ug/l	93
47) n-amyl Acetate	13.111	43	27105m	5.506	ug/l	
48) t-1,3-Dichloropropene	10.818	75	30392	4.911	ug/l	99
49) cis-1,3-Dichloropropene	10.294	75	31815	4.902	ug/l	99
50) 1,1,2-Trichloroethane	10.994	97	19062	5.278	ug/l	95
51) Ethyl methacrylate	10.859	69	26099m	4.302	ug/l	
52) 1,3-Dichloropropane	11.141	76	33732	5.305	ug/l	97
53) Dibromochloromethane	11.341	129	20062	4.685	ug/l	99
54) 1,2-Dibromoethane	11.447	107	19322	5.037	ug/l	90
55) 2-Chloroethyl vinyl ether	10.135	63	84863	25.902	ug/l	98
56) Bromoform	12.559	173	12003	4.198	ug/l #	99
58) 4-Methyl-2-Pentanone	10.429	43	152747	24.280	ug/l	100
59) 2-Hexanone	11.182	43	86444	20.905	ug/l	91
61) Tetrachloroethene	11.082	164	14222	4.941	ug/l	97
62) Toluene	10.612	91	80108	4.996	ug/l	99
64) Chlorobenzene	11.870	112	51274	5.070	ug/l	91
65) 1,1,1,2-Tetrachloroethane	11.941	131	17465	5.028	ug/l	100
66) Ethyl Benzene	11.941	91	82280	4.718	ug/l	90
67) m/p-Xylenes	12.053	106	61616	9.227	ug/l	96
68) o-Xylene	12.376	106	28878	4.411	ug/l	96
69) Styrene	12.394	104	47137	4.312	ug/l	97
70) Isopropylbenzene	12.670	105	74065	4.517	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.917	83	26814	4.879	ug/l	99
72) 1,2,3-Trichloropropane	12.976	75	28504m	5.588	ug/l	
73) Bromobenzene	12.959	156	18184	4.642	ug/l	98
74) n-propylbenzene	13.011	91	93306	4.685	ug/l	99
75) 2-Chlorotoluene	13.106	91	60165	4.967	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	61542	4.437	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	6714m	3.347	ug/l	
78) 4-Chlorotoluene	13.206	91	57871	4.703	ug/l	98
79) tert-butylbenzene	13.417	119	54661	4.578	ug/l	98
80) 1,2,4-Trimethylbenzene	13.459	105	59703	4.320	ug/l	99
81) sec-Butylbenzene	13.594	105	77820	4.567	ug/l	98
82) p-Isopropyltoluene	13.706	119	61858	4.288	ug/l	98
83) 1,3-Dichlorobenzene	13.717	146	33873	4.543	ug/l	96
84) 1,4-Dichlorobenzene	13.794	146	35917	4.716	ug/l	95
85) n-Butylbenzene	14.035	91	56470	4.165	ug/l	97
86) Hexachloroethane	14.311	117	13194	4.616	ug/l	98
87) 1,2-Dichlorobenzene	14.094	146	33084	4.551	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.700	75	6096	4.899	ug/l	99
89) 1,2,4-Trichlorobenzene	15.817	180	18113	4.257	ug/l	98
90) Hexachlorobutadiene	15.470	225	7223	4.707	ug/l	96
91) Naphthalene	15.617	128	61691	3.973	ug/l	98
92) 1,2,3-Trichlorobenzene	15.817	180	18113	4.257	ug/l	98

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088275.D
 Acq On : 13 Nov 2025 10:47
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:32:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	56809	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.083	114	316009	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	274966	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	155667	33.966	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 113.233%#			
60) 4-Bromofluorobenzene	12.829	95	135914	30.014	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.033%			
63) Toluene-d8	10.547	98	400066	32.118	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 107.067%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	89611	25.803	ug/l	100
3) Chloromethane	2.383	50	86783	22.710	ug/l	100
4) Vinyl Chloride	2.536	62	91378	22.923	ug/l	100
5) Bromomethane	2.983	94	45970	21.544	ug/l	100
6) Chloroethane	3.142	64	56603	21.775	ug/l	100
7) Trichlorofluoromethane	3.512	101	130333	23.708	ug/l	100
8) Diethyl Ether	3.965	74	45445	19.304	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	68173	23.278	ug/l	100
10) 1,1-Dichloroethene	4.336	96	66195	21.644	ug/l	100
11) Methyl Iodide	4.583	142	66051	22.325	ug/l	100
12) Methyl Acetate	5.018	43	102860	20.884	ug/l	100
13) Acrolein	4.183	56	67002	89.110	ug/l	100
14) Acrylonitrile	5.706	53	231708	98.836	ug/l	100
15) Acetone	4.418	58	68836	100.391	ug/l	100
16) Carbon Disulfide	4.706	76	224507	22.989	ug/l	100
17) Allyl chloride	5.018	41	124920	21.641	ug/l	100
18) Methylene Chloride	5.259	84	79465	20.618	ug/l	100
19) trans-1,2-Dichloroethene	5.783	96	77097m	21.822	ug/l	100
20) Diisopropyl ether	6.653	45	264884	20.483	ug/l	100
21) 1,1-Dichloroethane	6.553	63	151801	22.101	ug/l	100
22) cis-1,2-Dichloroethene	7.471	96	85904	19.863	ug/l	100
23) tert-Butyl Alcohol	5.524	59	82461	89.862	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	251301	19.534	ug/l	100
25) Chloroform	7.947	83	146699	20.947	ug/l	100
26) Cyclohexane	8.241	56	133859	23.277	ug/l	100
29) 1,1-Dichloropropene	8.353	75	107093	22.717	ug/l	100
30) 2-Butanone	7.471	43	330360	98.988	ug/l	100
31) 2,2-Dichloropropane	7.471	77	131341	21.925	ug/l	100
32) 1,1,1-Trichloroethane	8.147	97	131366	22.498	ug/l	100
33) Carbon Tetrachloride	8.341	117	112124	22.765	ug/l	100
34) Benzene	8.588	78	314932	20.690	ug/l	100
35) Methacrylonitrile	7.765	41	68465	19.580	ug/l	100
36) 1,2-Dichloroethane	8.653	62	121133	22.449	ug/l	100
37) Trichloroethene	9.330	130	71676	20.066	ug/l	100
38) Methylcyclohexane	9.577	83	124934	21.749	ug/l	100
39) 1,2-Dichloropropane	9.600	63	79702	20.829	ug/l	100
40) Dibromomethane	9.688	93	58255	20.946	ug/l	100
41) Bromodichloromethane	9.871	83	112790	20.003	ug/l	100
42) Vinyl Acetate	6.589	43	1104913	96.320	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088275.D
 Acq On : 13 Nov 2025 10:47
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:32:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.541	43	135974	20.923	ug/l	100
44) Isopropyl Acetate	8.671	43	205400	19.593	ug/l	100
45) 1,4-Dioxane	9.682	88	26417	388.772	ug/l	100
46) Methyl methacrylate	9.665	41	94347	19.858	ug/l	100
47) n-amyl Acetate	12.671	43	96079m	19.466	ug/l	
48) t-1,3-Dichloropropene	10.812	75	117823	18.989	ug/l	100
49) cis-1,3-Dichloropropene	10.294	75	128462	19.738	ug/l	100
50) 1,1,2-Trichloroethane	10.994	97	70272	19.404	ug/l	100
51) Ethyl methacrylate	10.853	69	110057	18.093	ug/l	100
52) 1,3-Dichloropropane	11.141	76	128846	20.209	ug/l	100
53) Dibromochloromethane	11.335	129	79410	18.494	ug/l	100
54) 1,2-Dibromoethane	11.447	107	71949	18.708	ug/l	100
55) 2-Chloroethyl vinyl ether	10.141	63	320128	97.447	ug/l	100
56) Bromoform	12.565	173	49101	17.127	ug/l	100
58) 4-Methyl-2-Pentanone	10.424	43	627464	101.601	ug/l	100
59) 2-Hexanone	11.177	43	399715	98.468	ug/l	100
61) Tetrachloroethene	11.082	164	60224	21.314	ug/l	100
62) Toluene	10.606	91	325793	20.699	ug/l	100
64) Chlorobenzene	11.871	112	195311	19.673	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.941	131	67699	19.855	ug/l	100
66) Ethyl Benzene	11.941	91	353168	20.628	ug/l	100
67) m/p-Xylenes	12.053	106	265069	40.436	ug/l	100
68) o-Xylene	12.376	106	121940	18.975	ug/l	100
69) Styrene	12.394	104	204002	19.012	ug/l	100
70) Isopropylbenzene	12.676	105	329705	20.485	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.918	83	105470	19.550	ug/l	100
72) 1,2,3-Trichloropropane	12.976	75	93353m	18.642	ug/l	
73) Bromobenzene	12.959	156	73152	19.023	ug/l	100
74) n-propylbenzene	13.012	91	409616	20.952	ug/l	100
75) 2-Chlorotoluene	13.106	91	245108	20.611	ug/l	100
76) 1,3,5-Trimethylbenzene	13.153	105	274988	20.196	ug/l	100
77) t-1,4-Dichloro-2-butene	12.718	75	32812	16.660	ug/l	100
78) 4-Chlorotoluene	13.200	91	249260	20.636	ug/l	100
79) tert-butylbenzene	13.412	119	233396	19.912	ug/l	100
80) 1,2,4-Trimethylbenzene	13.459	105	270223	19.918	ug/l	100
81) sec-Butylbenzene	13.594	105	351400	21.009	ug/l	100
82) p-Isopropyltoluene	13.706	119	288563	20.375	ug/l	100
83) 1,3-Dichlorobenzene	13.712	146	145695	19.906	ug/l	100
84) 1,4-Dichlorobenzene	13.788	146	143865	19.240	ug/l	100
85) n-Butylbenzene	14.035	91	281860	21.176	ug/l	100
86) Hexachloroethane	14.312	117	53696	19.135	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	136306	19.098	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.700	75	23631	19.344	ug/l	100
89) 1,2,4-Trichlorobenzene	15.812	180	73982	17.714	ug/l	100
90) Hexachlorobutadiene	15.476	225	30294	20.112	ug/l	100
91) Naphthalene	15.612	128	264153	17.329	ug/l	100
92) 1,2,3-Trichlorobenzene	15.812	180	73982	17.714	ug/l	100

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

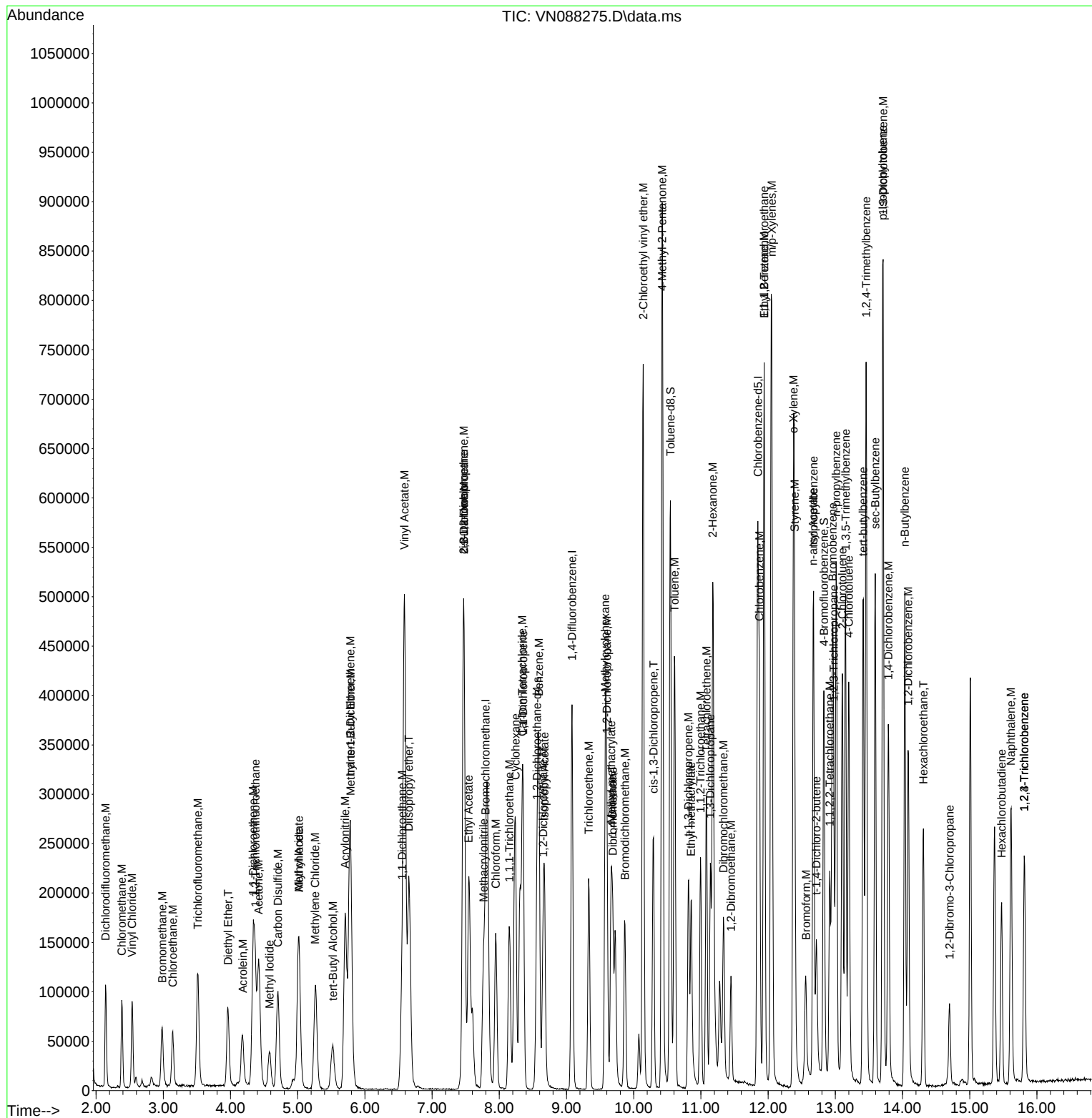
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088275.D
 Acq On : 13 Nov 2025 10:47
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:32:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088276.D
 Acq On : 13 Nov 2025 11:08
 Operator : JC\MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC050

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:33:32 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	55911	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	311518	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	279554	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	154791	34.317	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 114.400%#			
60) 4-Bromofluorobenzene	12.829	95	143308	31.127	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 103.767%			
63) Toluene-d8	10.541	98	396360	31.299	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.333%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	202763	59.321	ug/l	99
3) Chloromethane	2.383	50	196949	52.368	ug/l	95
4) Vinyl Chloride	2.536	62	209252	53.337	ug/l	99
5) Bromomethane	2.977	94	107066	50.983	ug/l	93
6) Chloroethane	3.136	64	124513	48.668	ug/l	95
7) Trichlorofluoromethane	3.512	101	295192	54.558	ug/l	95
8) Diethyl Ether	3.965	74	104470	45.088	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.371	101	151998	52.734	ug/l	82
10) 1,1-Dichloroethene	4.336	96	149214	49.573	ug/l	85
11) Methyl Iodide	4.583	142	168273	57.790	ug/l	85
12) Methyl Acetate	5.018	43	238741	49.250	ug/l	93
13) Acrolein	4.177	56	164787	222.681	ug/l	96
14) Acrylonitrile	5.706	53	541419	234.654	ug/l	99
15) Acetone	4.424	58	158252	234.503	ug/l	94
16) Carbon Disulfide	4.706	76	513072	53.381	ug/l	100
17) Allyl chloride	5.012	41	293130	51.598	ug/l	96
18) Methylene Chloride	5.259	84	184772	48.711	ug/l	93
19) trans-1,2-Dichloroethene	5.777	96	172251	49.537	ug/l	98
20) Diisopropyl ether	6.659	45	597968	46.983	ug/l	97
21) 1,1-Dichloroethane	6.553	63	347380	51.389	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	199123	46.782	ug/l	98
23) tert-Butyl Alcohol	5.530	59	189443m	209.762	ug/l	
24) Methyl tert-Butyl Ether	5.789	73	596789	47.134	ug/l	99
25) Chloroform	7.947	83	342347	49.668	ug/l	97
26) Cyclohexane	8.235	56	298210	52.690	ug/l	100
29) 1,1-Dichloropropene	8.353	75	244552	52.624	ug/l	99
30) 2-Butanone	7.471	43	776756	236.100	ug/l	99
31) 2,2-Dichloropropane	7.471	77	301771	51.101	ug/l	99
32) 1,1,1-Trichloroethane	8.147	97	300299	52.171	ug/l	99
33) Carbon Tetrachloride	8.341	117	258895	53.323	ug/l	96
34) Benzene	8.588	78	722849	48.174	ug/l	98
35) Methacrylonitrile	7.765	41	159534	46.282	ug/l	97
36) 1,2-Dichloroethane	8.653	62	283447	53.288	ug/l	100
37) Trichloroethene	9.329	130	166803	47.370	ug/l	100
38) Methylcyclohexane	9.577	83	287564	50.783	ug/l	99
39) 1,2-Dichloropropane	9.600	63	184617	48.942	ug/l	97
40) Dibromomethane	9.688	93	131620	48.007	ug/l	98
41) Bromodichloromethane	9.865	83	269136	48.418	ug/l	99
42) Vinyl Acetate	6.588	43	2683358m	237.292	ug/l	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088276.D
 Acq On : 13 Nov 2025 11:08
 Operator : JC\MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:33:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

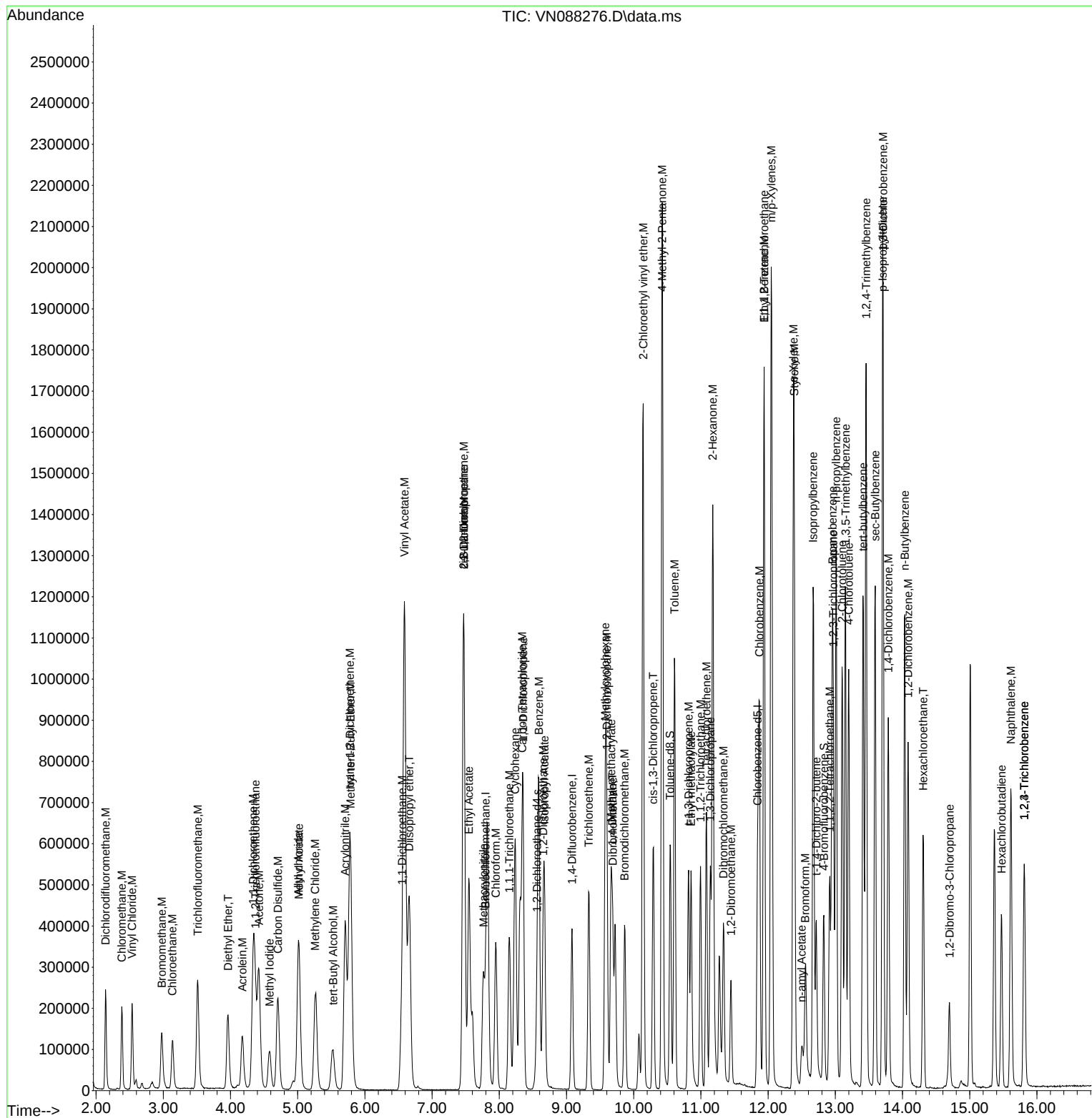
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	315737m	49.283	ug/l	
44) Isopropyl Acetate	8.671	43	482542	46.694	ug/l	99
45) 1,4-Dioxane	9.682	88	59672	890.836	ug/l	96
46) Methyl methacrylate	9.665	41	228386	48.764	ug/l	94
47) n-amyl Acetate	12.500	43	236169m	48.538	ug/l	
48) t-1,3-Dichloropropene	10.818	75	285594	46.692	ug/l	96
49) cis-1,3-Dichloropropene	10.288	75	301442	46.984	ug/l	98
50) 1,1,2-Trichloroethane	10.994	97	165256	46.289	ug/l	95
51) Ethyl methacrylate	10.853	69	276826	46.165	ug/l	96
52) 1,3-Dichloropropane	11.141	76	298832	47.547	ug/l	100
53) Dibromochloromethane	11.335	129	191134	45.155	ug/l	99
54) 1,2-Dibromoethane	11.447	107	168709	44.499	ug/l	99
55) 2-Chloroethyl vinyl ether	10.141	63	732371	226.148	ug/l	98
56) Bromoform	12.553	173	120289	42.562	ug/l	98
58) 4-Methyl-2-Pentanone	10.424	43	1495694	238.212	ug/l	100
59) 2-Hexanone	11.176	43	1024210	248.170	ug/l	100
61) Tetrachloroethene	11.082	164	137527	47.874	ug/l	98
62) Toluene	10.606	91	754127	47.127	ug/l	100
64) Chlorobenzene	11.871	112	463060	45.876	ug/l	98
65) 1,1,1,2-Tetrachloroethane	11.941	131	157503	45.435	ug/l	96
66) Ethyl Benzene	11.941	91	844642	48.524	ug/l	100
67) m/p-Xylenes	12.047	106	639721	95.987	ug/l	100
68) o-Xylene	12.376	106	299638	45.862	ug/l	99
69) Styrene	12.388	104	514330	47.146	ug/l	99
70) Isopropylbenzene	12.670	105	793307	48.480	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.918	83	252114	45.966	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	244240m	47.973	ug/l	
73) Bromobenzene	12.959	156	179669	45.956	ug/l	99
74) n-propylbenzene	13.012	91	991194	49.867	ug/l	100
75) 2-Chlorotoluene	13.100	91	592686	49.020	ug/l	98
76) 1,3,5-Trimethylbenzene	13.153	105	674081	48.695	ug/l	99
77) t-1,4-Dichloro-2-butene	12.718	75	85815	42.857	ug/l	99
78) 4-Chlorotoluene	13.200	91	605977	49.346	ug/l	99
79) tert-butylbenzene	13.412	119	576731	48.395	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	674243	48.884	ug/l	98
81) sec-Butylbenzene	13.594	105	835470	49.130	ug/l	100
82) p-Isopropyltoluene	13.706	119	704697	48.941	ug/l	98
83) 1,3-Dichlorobenzene	13.712	146	350626	47.120	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	346883	45.631	ug/l	98
85) n-Butylbenzene	14.035	91	664503	49.104	ug/l	98
86) Hexachloroethane	14.306	117	129811	45.501	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	324709	44.748	ug/l	97
88) 1,2-Dibromo-3-Chloropr...	14.700	75	59546	47.944	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	181481	42.739	ug/l	98
90) Hexachlorobutadiene	15.476	225	72346	47.241	ug/l	95
91) Naphthalene	15.611	128	659204	42.535	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	181481	42.739	ug/l	98

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC050

Manual Integrations

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088277.D
 Acq On : 13 Nov 2025 11:29
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:34:18 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.800	128	57576	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	302391	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	280939	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	158023	34.021	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 113.400%#			
60) 4-Bromofluorobenzene	12.829	95	144691	31.273	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 104.233%			
63) Toluene-d8	10.547	98	389074	30.572	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.900%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	386633	109.844	ug/l	99
3) Chloromethane	2.383	50	396903	102.483	ug/l	95
4) Vinyl Chloride	2.536	62	415782	102.915	ug/l	100
5) Bromomethane	2.965	94	234848	108.597	ug/l	94
6) Chloroethane	3.130	64	264477	100.386	ug/l	98
7) Trichlorofluoromethane	3.506	101	576793	103.522	ug/l	96
8) Diethyl Ether	3.959	74	228588	95.803	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	296955	100.046	ug/l	99
10) 1,1-Dichloroethene	4.336	96	298818	96.404	ug/l	87
11) Methyl Iodide	4.583	142	368511	122.898	ug/l	84
12) Methyl Acetate	5.018	43	510686	102.304	ug/l	93
13) Acrolein	4.177	56	382851	502.395	ug/l	100
14) Acrylonitrile	5.706	53	1164326	490.032	ug/l	99
15) Acetone	4.424	58	342742	493.199	ug/l	96
16) Carbon Disulfide	4.706	76	1008701	101.913	ug/l	99
17) Allyl chloride	5.012	41	593156	101.390	ug/l	95
18) Methylene Chloride	5.265	84	383510	98.179	ug/l	87
19) trans-1,2-Dichloroethene	5.777	96	347465	97.037	ug/l	97
20) Diisopropyl ether	6.659	45	1304925	99.564	ug/l	94
21) 1,1-Dichloroethane	6.553	63	719300	103.332	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	418959	95.583	ug/l	99
23) tert-Butyl Alcohol	5.524	59	405082	435.560	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	1291019	99.015	ug/l	99
25) Chloroform	7.947	83	720609	101.523	ug/l	98
26) Cyclohexane	8.235	56	579253	99.388	ug/l #	97
29) 1,1-Dichloropropene	8.353	75	500890	111.037	ug/l	98
30) 2-Butanone	7.471	43	1690170	529.244	ug/l	100
31) 2,2-Dichloropropane	7.471	77	623466	108.762	ug/l	99
32) 1,1,1-Trichloroethane	8.147	97	613629	109.824	ug/l	99
33) Carbon Tetrachloride	8.347	117	515390	109.356	ug/l	99
34) Benzene	8.588	78	1510830	103.729	ug/l	99
35) Methacrylonitrile	7.759	41	357832	106.943	ug/l	96
36) 1,2-Dichloroethane	8.653	62	612885	118.700	ug/l	98
37) Trichloroethene	9.329	130	337963	98.874	ug/l	98
38) Methylcyclohexane	9.582	83	556698	101.278	ug/l	99
39) 1,2-Dichloropropane	9.600	63	394096	107.628	ug/l	93
40) Dibromomethane	9.688	93	286468	107.639	ug/l	99
41) Bromodichloromethane	9.865	83	588644	109.095	ug/l	100
42) Vinyl Acetate	6.588	43	5787487	527.240	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088277.D
 Acq On : 13 Nov 2025 11:29
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:34:18 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

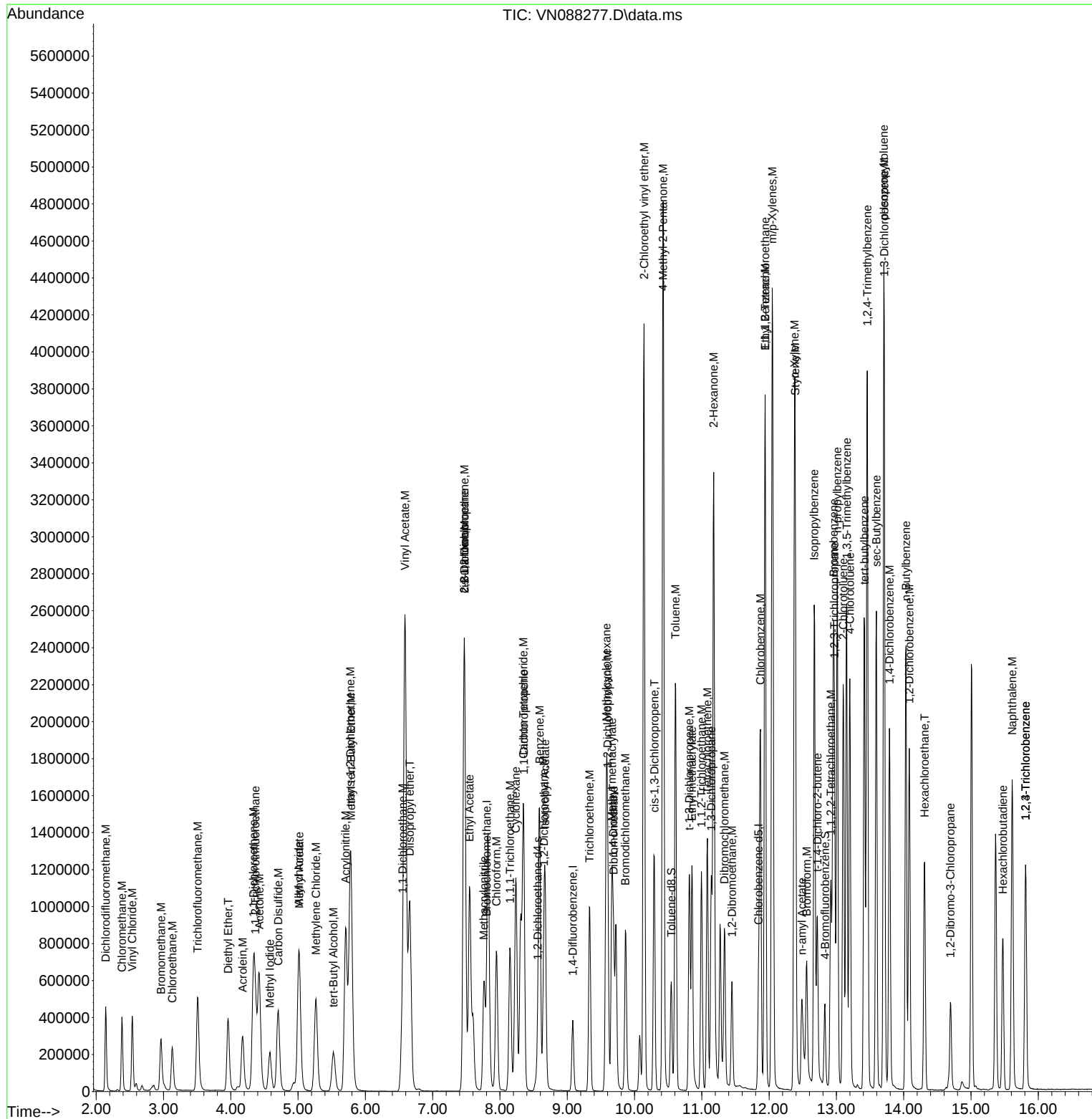
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	685746	110.269	ug/l	100
44) Isopropyl Acetate	8.671	43	1079569	107.619	ug/l	99
45) 1,4-Dioxane	9.682	88	125652	1932.462	ug/l #	94
46) Methyl methacrylate	9.665	41	517547	113.839	ug/l	93
47) n-amyl Acetate	12.488	43	562356m	119.065	ug/l	
48) t-1,3-Dichloropropene	10.812	75	652430	109.885	ug/l	96
49) cis-1,3-Dichloropropene	10.294	75	656345	105.389	ug/l	97
50) 1,1,2-Trichloroethane	10.994	97	355954	102.714	ug/l	96
51) Ethyl methacrylate	10.853	69	640389	110.018	ug/l	94
52) 1,3-Dichloropropane	11.141	76	652611	106.971	ug/l	99
53) Dibromochloromethane	11.335	129	425915	103.658	ug/l	99
54) 1,2-Dibromoethane	11.447	107	380679	103.438	ug/l	97
55) 2-Chloroethyl vinyl ether	10.141	63	1790152	569.464	ug/l	99
56) Bromoform	12.559	173	279810	101.994	ug/l	99
58) 4-Methyl-2-Pentanone	10.424	43	3325706	527.058	ug/l	100
59) 2-Hexanone	11.176	43	2346954	565.872	ug/l	100
61) Tetrachloroethene	11.082	164	277837	96.241	ug/l	95
62) Toluene	10.606	91	1605459	99.833	ug/l	100
64) Chlorobenzene	11.870	112	1005878	99.163	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.941	131	344917	99.007	ug/l	96
66) Ethyl Benzene	11.941	91	1810409	103.494	ug/l	98
67) m/p-Xylenes	12.047	106	1345328	200.864	ug/l	98
68) o-Xylene	12.376	106	654049	99.614	ug/l	100
69) Styrene	12.388	104	1132505	103.300	ug/l	99
70) Isopropylbenzene	12.670	105	1699976	103.375	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	555412	100.764	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	539279m	105.401	ug/l	
73) Bromobenzene	12.959	156	389367	99.102	ug/l	100
74) n-propylbenzene	13.012	91	2093385	104.799	ug/l	100
75) 2-Chlorotoluene	13.100	91	1279663	105.317	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	1440376	103.538	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	206317	102.530	ug/l	95
78) 4-Chlorotoluene	13.200	91	1317180	106.732	ug/l	99
79) tert-butylbenzene	13.417	119	1208602	100.916	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	1476053	106.488	ug/l	98
81) sec-Butylbenzene	13.594	105	1748566	102.318	ug/l	99
82) p-Isopropyltoluene	13.706	119	1459564	100.866	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	751195	100.454	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	763171	99.896	ug/l	99
85) n-Butylbenzene	14.035	91	1397544	102.763	ug/l	98
86) Hexachloroethane	14.312	117	278606	97.175	ug/l	100
87) 1,2-Dichlorobenzene	14.082	146	710660	97.453	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.694	75	132109	105.844	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	401343	94.051	ug/l	97
90) Hexachlorobutadiene	15.476	225	140304	91.164	ug/l	97
91) Naphthalene	15.611	128	1505179	96.642	ug/l	99
92) 1,2,3-Trichlorobenzene	15.811	180	401343	94.051	ug/l	97

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

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088278.D
 Acq On : 13 Nov 2025 11:50
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC150

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:35:04 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:31:19 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.800	128	58005	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	317019	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	293637	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	157963	33.756	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 112.533%#			
60) 4-Bromofluorobenzene	12.829	95	156905	32.446	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 108.167%			
63) Toluene-d8	10.547	98	418750	31.481	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 104.933%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	709810	200.169	ug/l	100
3) Chloromethane	2.383	50	668367	171.300	ug/l	96
4) Vinyl Chloride	2.536	62	726496	178.493	ug/l	99
5) Bromomethane	2.953	94	375277	172.250	ug/l	91
6) Chloroethane	3.124	64	434399	163.663	ug/l	97
7) Trichlorofluoromethane	3.506	101	1038285	184.971	ug/l	95
8) Diethyl Ether	3.959	74	355635	147.948	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.365	101	547868	183.214	ug/l	97
10) 1,1-Dichloroethene	4.336	96	517537	165.732	ug/l	87
11) Methyl Iodide	4.577	142	591847	195.920	ug/l	85
12) Methyl Acetate	5.018	43	781462	155.390	ug/l	94
13) Acrolein	4.177	56	588784	766.915	ug/l	98
14) Acrylonitrile	5.712	53	1792462	748.818	ug/l	99
15) Acetone	4.424	58	534918	764.044	ug/l	91
16) Carbon Disulfide	4.700	76	1711397	171.629	ug/l	99
17) Allyl chloride	5.012	41	969891	164.560	ug/l	96
18) Methylene Chloride	5.265	84	582523	148.024	ug/l	92
19) trans-1,2-Dichloroethene	5.777	96	577960	160.214	ug/l	97
20) Diisopropyl ether	6.659	45	2113687	160.079	ug/l	95
21) 1,1-Dichloroethane	6.553	63	1155893	164.822	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	670659	151.876	ug/l	99
23) tert-Butyl Alcohol	5.530	59	625469	667.554	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	2019738	153.759	ug/l	98
25) Chloroform	7.947	83	1147984	160.537	ug/l	98
26) Cyclohexane	8.235	56	1077697	183.543	ug/l #	98
29) 1,1-Dichloropropene	8.353	75	859630	181.769	ug/l	98
30) 2-Butanone	7.471	43	2664153	795.735	ug/l	100
31) 2,2-Dichloropropane	7.471	77	1044376	173.782	ug/l	98
32) 1,1,1-Trichloroethane	8.153	97	1032260	176.224	ug/l	99
33) Carbon Tetrachloride	8.347	117	901323	182.420	ug/l	99
34) Benzene	8.588	78	2433755	159.383	ug/l	99
35) Methacrylonitrile	7.765	41	549670	156.696	ug/l	98
36) 1,2-Dichloroethane	8.653	62	946592	174.871	ug/l	98
37) Trichloroethene	9.335	130	553150	154.362	ug/l	96
38) Methylcyclohexane	9.582	83	1047944	181.852	ug/l	99
39) 1,2-Dichloropropane	9.600	63	620150	161.548	ug/l	98
40) Dibromomethane	9.688	93	445197	159.562	ug/l	100
41) Bromodichloromethane	9.871	83	931442	164.661	ug/l	99
42) Vinyl Acetate	6.588	43	8882940m	771.895	ug/l	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088278.D
 Acq On : 13 Nov 2025 11:50
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/14/2025
 Supervised By : Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:35:04 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:31:19 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	1028651m	157.776	ug/l	
44) Isopropyl Acetate	8.671	43	1685410	160.261	ug/l	100
45) 1,4-Dioxane	9.682	88	189937	2786.344	ug/l	96
46) Methyl methacrylate	9.665	41	816245	171.256	ug/l	94
47) n-amyl Acetate	12.482	43	886019	178.936	ug/l #	100
48) t-1,3-Dichloropropene	10.818	75	1031386	165.696	ug/l	96
49) cis-1,3-Dichloropropene	10.294	75	1045380	160.111	ug/l	99
50) 1,1,2-Trichloroethane	10.994	97	549793	151.328	ug/l	97
51) Ethyl methacrylate	10.853	69	1004034	164.532	ug/l	95
52) 1,3-Dichloropropane	11.141	76	1024092	160.116	ug/l	100
53) Dibromochloromethane	11.335	129	665870	154.580	ug/l	98
54) 1,2-Dibromoethane	11.447	107	585979	151.875	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	2859403	867.631	ug/l	99
56) Bromoform	12.559	173	437240	152.024	ug/l	98
58) 4-Methyl-2-Pentanone	10.423	43	5148363	780.630	ug/l	100
59) 2-Hexanone	11.176	43	3710506	855.949	ug/l	100
61) Tetrachloroethene	11.082	164	471972	156.418	ug/l	97
62) Toluene	10.606	91	2615873	155.630	ug/l	99
64) Chlorobenzene	11.870	112	1614092	152.242	ug/l	98
65) 1,1,1,2-Tetrachloroethane	11.941	131	550423	151.164	ug/l	96
66) Ethyl Benzene	11.941	91	3012482	164.765	ug/l	97
67) m/p-Xylenes	12.047	106	2231809	318.811	ug/l	98
68) o-Xylene	12.376	106	1059250	154.351	ug/l	100
69) Styrene	12.388	104	1832890	159.954	ug/l	98
70) Isopropylbenzene	12.670	105	2887068	167.970	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	864951	150.136	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	827243m	154.690	ug/l	
73) Bromobenzene	12.959	156	605473	147.441	ug/l	97
74) n-propylbenzene	13.011	91	3494880	167.395	ug/l	100
75) 2-Chlorotoluene	13.100	91	2070119	163.004	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	2410543	165.784	ug/l	99
77) t-1,4-Dichloro-2-butene	12.717	75	335518	159.527	ug/l	99
78) 4-Chlorotoluene	13.200	91	2139279	165.851	ug/l	100
79) tert-butylbenzene	13.417	119	2057918	164.402	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	2388876	164.890	ug/l	99
81) sec-Butylbenzene	13.594	105	3013988	168.738	ug/l	99
82) p-Isopropyltoluene	13.706	119	2513693	166.202	ug/l	99
83) 1,3-Dichlorobenzene	13.711	146	1197075	153.157	ug/l	98
84) 1,4-Dichlorobenzene	13.788	146	1213140	151.929	ug/l	99
85) n-Butylbenzene	14.035	91	2431132	171.034	ug/l	97
86) Hexachloroethane	14.311	117	468741	156.422	ug/l	99
87) 1,2-Dichlorobenzene	14.082	146	1121846	147.186	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.700	75	215743	165.376	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	662170	148.463	ug/l	98
90) Hexachlorobutadiene	15.476	225	257201	159.893	ug/l	96
91) Naphthalene	15.611	128	2454033	150.750	ug/l	100
92) 1,2,3-Trichlorobenzene	15.811	180	662170	148.463	ug/l	98

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

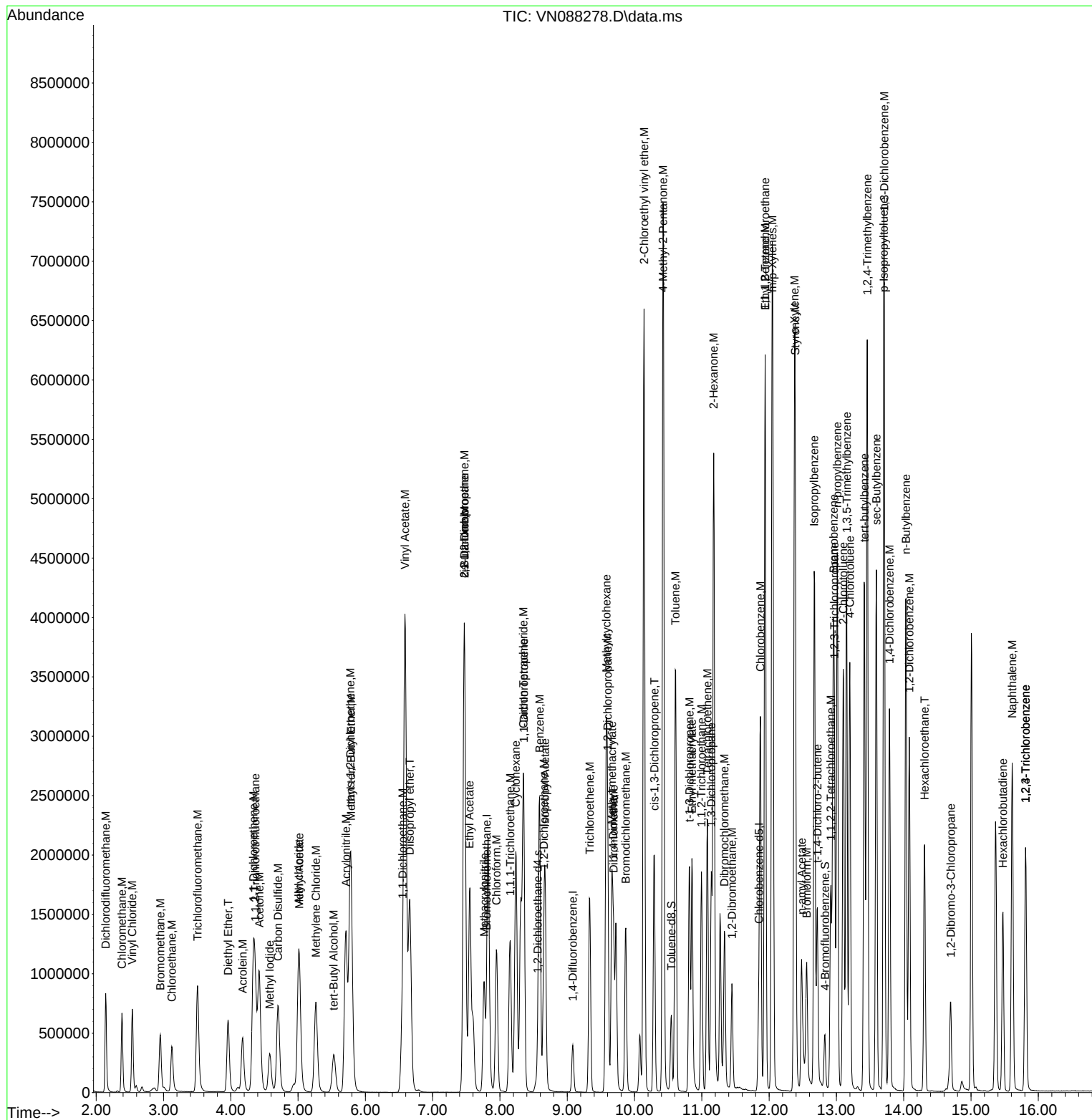
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\  
Data File : VN088278.D  
Acq On    : 13 Nov 2025  11:50  
Operator  : JC\MD  
Sample    : VSTDICC150  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 6      Sample Multiplier: 1
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Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 11/14/2025
Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:35:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:31:19 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Manual Integrations
 APPROVED

Reviewed By :John Carlone 11/14/2025
 Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	59836	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	314478	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	281376	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	164242	30.050	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.167%			
60) 4-Bromofluorobenzene	12.829	95	141628	29.776	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.267%			
63) Toluene-d8	10.541	98	398285	29.898	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.667%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.142	85	77036	18.315	ug/l	98
3) Chloromethane	2.383	50	86177	19.872	ug/l	98
4) Vinyl Chloride	2.536	62	84527	18.433	ug/l	98
5) Bromomethane	2.977	94	48863	19.985	ug/l	97
6) Chloroethane	3.136	64	50576	17.844	ug/l	94
7) Trichlorofluoromethane	3.512	101	110113	17.128	ug/l	100
8) Diethyl Ether	3.965	74	46163	19.212	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.371	101	57310	16.992	ug/l	79
10) 1,1-Dichloroethene	4.336	96	59274	18.015	ug/l	94
11) Methyl Iodide	4.577	142	58877	16.814	ug/l	90
12) Methyl Acetate	5.018	43	105672	19.907	ug/l	92
13) Acrolein	4.177	56	76696	98.203	ug/l	99
14) Acrylonitrile	5.706	53	236180	97.918	ug/l	98
15) Acetone	4.424	58	63872	90.552	ug/l	96
16) Carbon Disulfide	4.706	76	208629	18.801	ug/l	99
17) Allyl chloride	5.006	41	118554	18.542	ug/l	96
18) Methylene Chloride	5.271	84	79620m	19.468	ug/l	
19) trans-1,2-Dichloroethene	5.771	96	71896	18.765	ug/l	89
20) Diisopropyl ether	6.659	45	256681	18.786	ug/l	96
21) 1,1-Dichloroethane	6.553	63	143051	18.584	ug/l	98
22) cis-1,2-Dichloroethene	7.471	96	84864	19.057	ug/l	97
23) tert-Butyl Alcohol	5.524	59	86459	97.482	ug/l #	100
24) Methyl tert-Butyl Ether	5.788	73	257315	19.396	ug/l	100
25) Chloroform	7.953	83	142847	18.728	ug/l	98
26) Cyclohexane	8.235	56	106714	16.413	ug/l #	98
29) 1,1-Dichloropropene	8.347	75	96367	18.365	ug/l	99
30) 2-Butanone	7.471	43	327303	96.429	ug/l	98
31) 2,2-Dichloropropane	7.471	77	112256	17.345	ug/l	98
32) 1,1,1-Trichloroethane	8.147	97	119999	18.551	ug/l	98
33) Carbon Tetrachloride	8.341	117	97677	17.683	ug/l	98
34) Benzene	8.582	78	299669	19.106	ug/l #	93
35) Methacrylonitrile	7.759	41	69495	19.629	ug/l	94
36) 1,2-Dichloroethane	8.653	62	120013	19.661	ug/l	98
37) Trichloroethene	9.329	130	64617	18.180	ug/l	98
38) Methylcyclohexane	9.582	83	99896	16.606	ug/l	99
39) 1,2-Dichloropropane	9.600	63	78870	19.491	ug/l	90
40) Dibromomethane	9.688	93	56759	19.523	ug/l	99
41) Bromodichloromethane	9.865	83	116210	19.856	ug/l	99
42) Vinyl Acetate	6.588	43	1092816	96.465	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

ICVVN111325

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/14/2025

Supervised By :Semsettin Yesilyurt 11/14/2025

Quant Time: Nov 14 00:53:31 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:49:21 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	134361	19.674	ug/l	96
44) Isopropyl Acetate	8.671	43	208844	19.843	ug/l	99
45) 1,4-Dioxane	9.676	88	29023	457.924	ug/l	94
46) Methyl methacrylate	9.659	41	90781	18.433	ug/l	96
47) n-amyl Acetate	12.688	43	103680m	19.440	ug/l	
48) t-1,3-Dichloropropene	10.812	75	116148	18.554	ug/l	100
49) cis-1,3-Dichloropropene	10.294	75	122990	18.883	ug/l	98
50) 1,1,2-Trichloroethane	10.994	97	71176	19.799	ug/l	94
51) Ethyl methacrylate	10.853	69	111049	18.775	ug/l	98
52) 1,3-Dichloropropane	11.141	76	127801	19.520	ug/l	99
53) Dibromochloromethane	11.341	129	80293	19.444	ug/l	98
54) 1,2-Dibromoethane	11.447	107	72030	19.284	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	344568	101.131	ug/l	99
56) Bromoform	12.559	173	48800	18.671	ug/l	99
58) 4-Methyl-2-Pentanone	10.423	43	643377	101.096	ug/l	99
59) 2-Hexanone	11.176	43	393465	93.108	ug/l	100
61) Tetrachloroethene	11.082	164	54040	18.628	ug/l	94
62) Toluene	10.612	91	313035	19.386	ug/l	98
64) Chlorobenzene	11.870	112	191339	19.133	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.941	131	66791	19.513	ug/l	96
66) Ethyl Benzene	11.941	91	332207	18.667	ug/l	98
67) m/p-Xylenes	12.053	106	248347	37.317	ug/l	99
68) o-Xylene	12.376	106	119521	19.038	ug/l	98
69) Styrene	12.394	104	195500	18.335	ug/l	99
70) Isopropylbenzene	12.676	105	294499	17.700	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	101792	18.887	ug/l	98
72) 1,2,3-Trichloropropane	12.976	75	109453m	20.963	ug/l	
73) Bromobenzene	12.959	156	72384	19.271	ug/l	96
74) n-propylbenzene	13.012	91	372792	18.105	ug/l	100
75) 2-Chlorotoluene	13.106	91	227167	18.144	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	251921	18.038	ug/l	98
77) t-1,4-Dichloro-2-butene	12.723	75	31173	17.386	ug/l	89
78) 4-Chlorotoluene	13.200	91	235228	18.540	ug/l	98
79) tert-butylbenzene	13.417	119	212022	17.732	ug/l	100
80) 1,2,4-Trimethylbenzene	13.459	105	252748	18.199	ug/l	98
81) sec-Butylbenzene	13.594	105	303762	17.417	ug/l	99
82) p-Isopropyltoluene	13.706	119	250478	17.381	ug/l	98
83) 1,3-Dichlorobenzene	13.711	146	133127	18.242	ug/l	98
84) 1,4-Dichlorobenzene	13.794	146	138360	18.721	ug/l	99
85) n-Butylbenzene	14.035	91	237919	17.323	ug/l	98
86) Hexachloroethane	14.311	117	48251	17.487	ug/l	97
87) 1,2-Dichlorobenzene	14.088	146	132768	19.274	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.700	75	24904	19.659	ug/l	95
89) 1,2,4-Trichlorobenzene	15.817	180	71398	18.470	ug/l	97
90) Hexachlorobutadiene	15.476	225	26997	17.984	ug/l	94
91) Naphthalene	15.617	128	257726	18.427	ug/l	99
92) 1,2,3-Trichlorobenzene	15.817	180	71398	18.470	ug/l	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

MSVOA_N

Client SampleId :

ICVVN111325

Manual Integrations

APPROVED

Reviewed By : John Carlone 11/14/2025

Supervised By : Semsettin Yesilyurt 11/14/2025

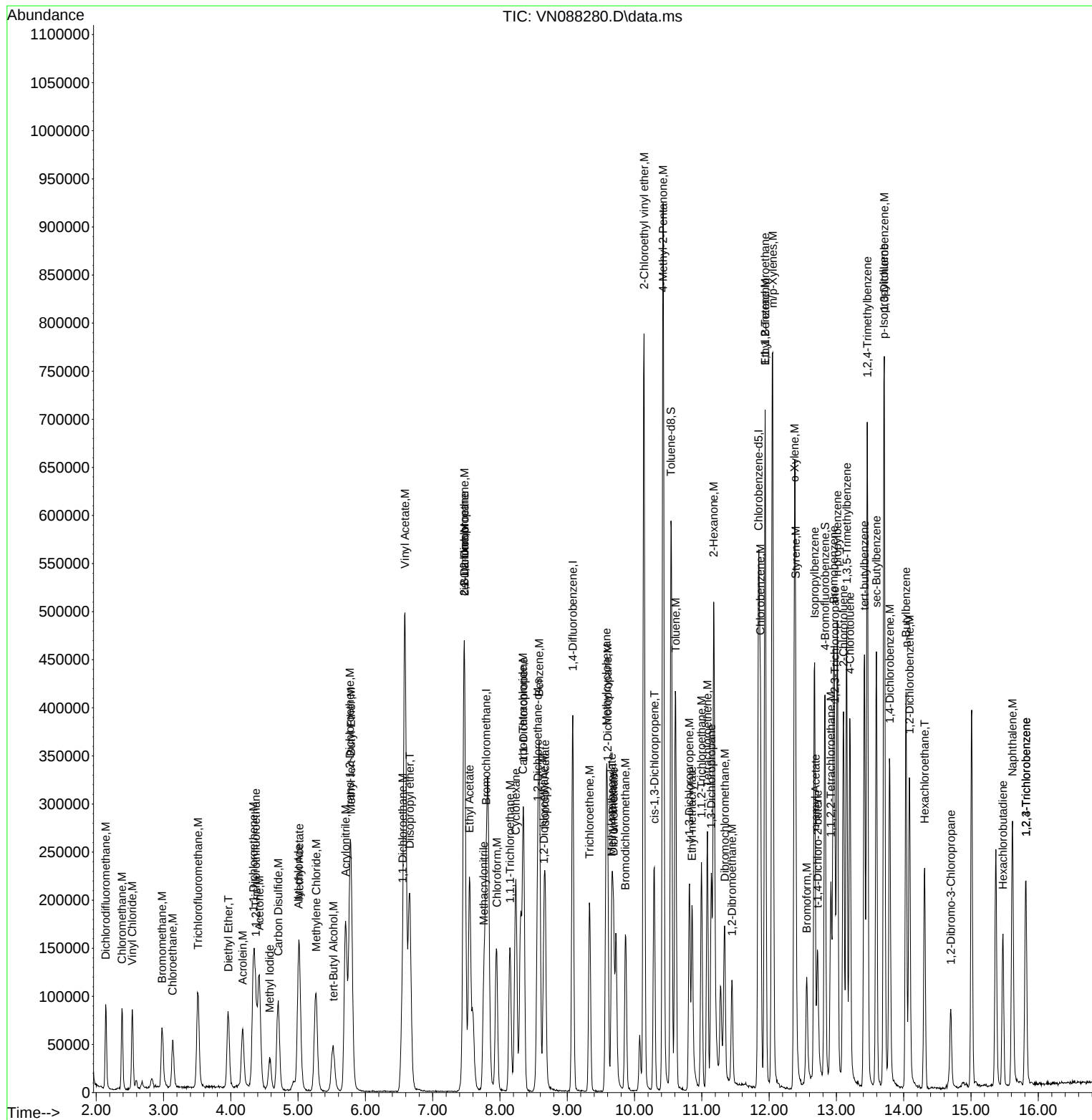
Quant Time: Nov 14 00:53:31 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:49:21 2025

Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	105	0.00
2 M	Dichlorodifluoromethane	2.109	1.931	8.4	86	0.00
3 M	Chloromethane	2.174	2.160	0.6	99	0.00
4 M	Vinyl Chloride	2.299	2.119	7.8	93	0.00
5 M	Bromomethane	1.226	1.225	0.1	106	0.00
6 M	Chloroethane	1.421	1.268	10.8	89	0.00
7 M	Trichlorofluoromethane	3.223	2.760	14.4	84	0.00
8 T	Diethyl Ether	1.205	1.157	4.0	102	0.00
9	1,1,2-Trichlorotrifluoroeth	1.691	1.437	15.0	84	0.00
10 M	1,1-Dichloroethene	1.650	1.486	9.9	90	0.00
11	Methyl Iodide	1.756	1.476	15.9	89	0.00
12	Methyl Acetate	2.661	2.649	0.5	103	0.00
13 M	Acrolein	0.392	0.385	1.8	114	0.00
14 M	Acrylonitrile	1.209	1.184	2.1	102	0.00
15 M	Acetone	0.354	0.320	9.6	93	0.00
16 M	Carbon Disulfide	5.564	5.230	6.0	93	0.00
17	Allyl chloride	3.206	2.972	7.3	95	-0.01
18 M	Methylene Chloride	2.050	1.996	2.6	100	0.01
19 M	trans-1,2-Dichloroethene	1.921	1.802	6.2	93	-0.01
20 T	Diisopropyl ether	6.850	6.435	6.1	97	0.00
21 M	1,1-Dichloroethane	3.859	3.586	7.1	94	0.00
22 M	cis-1,2-Dichloroethene	2.233	2.127	4.7	99	0.00
23 M	tert-Butyl Alcohol	0.445	0.433	2.7	105	0.00
24 M	Methyl tert-Butyl Ether	6.651	6.451	3.0	102	0.00
25 M	Chloroform	3.824	3.581	6.4	97	0.00
26	Cyclohexane	3.260	2.675	17.9	80	0.00
27 s	1,2-Dichloroethane-d4	2.740	2.745	-0.2	106	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
29	1,1-Dichloropropene	0.501	0.460	8.2	90	0.00
30 M	2-Butanone	0.324	0.312	3.7	99	0.00
31	2,2-Dichloropropane	0.617	0.535	13.3	85	0.00
32 M	1,1,1-Trichloroethane	0.617	0.572	7.3	91	0.00
33 M	Carbon Tetrachloride	0.527	0.466	11.6	87	0.00
34 M	Benzene	1.496	1.429	4.5	95	0.00
35	Methacrylonitrile	0.338	0.331	2.1	102	0.00
36 M	1,2-Dichloroethane	0.582	0.572	1.7	99	0.00
37 M	Trichloroethene	0.339	0.308	9.1	90	0.00
38	Methylcyclohexane	0.574	0.476	17.1	80	0.00
39 M	1,2-Dichloropropane	0.386	0.376	2.6	99	0.00
40	Dibromomethane	0.277	0.271	2.2	97	0.00
41 M	Bromodichloromethane	0.558	0.554	0.7	103	0.00
42 M	Vinyl Acetate	1.081	1.043	3.5	99	0.00
43	Ethyl Acetate	0.651	0.641	1.5	99	0.00
44	Isopropyl Acetate	1.004	0.996	0.8	102	0.00
45 T	1,4-Dioxane	0.006	0.007	-16.7	110	0.00
46	Methyl methacrylate	0.470	0.433	7.9	96	0.00
47	n-amyl Acetate	0.509	0.495	2.8	108	0.02
48 M	t-1,3-Dichloropropene	0.597	0.554	7.2	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	0.621	0.587	5.5	96	0.00
50 M	1,1,2-Trichloroethane	0.343	0.339	1.2	101	0.00
51	Ethyl methacrylate	0.564	0.530	6.0	101	0.00
52	1,3-Dichloropropane	0.625	0.610	2.4	99	0.00
53 M	Dibromochloromethane	0.394	0.383	2.8	101	0.00
54 M	1,2-Dibromoethane	0.356	0.344	3.4	100	0.00
55 M	2-Chloroethyl vinyl ether	0.325	0.329	-1.2	108	0.00
56 M	Bromoform	0.249	0.233	6.4	99	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
58 M	4-Methyl-2-Pentanone	0.679	0.686	-1.0	103	0.00
59 M	2-Hexanone	0.451	0.420	6.9	98	0.00
60 S	4-Bromofluorobenzene	0.507	0.503	0.8	104	0.00
61 M	Tetrachloroethene	0.309	0.288	6.8	90	0.00
62 M	Toluene	1.722	1.669	3.1	96	0.00
63 S	Toluene-d8	1.420	1.415	0.4	100	0.00
64 M	Chlorobenzene	1.066	1.020	4.3	98	0.00
65	1,1,1,2-Tetrachloroethane	0.365	0.356	2.5	99	0.00
66 M	Ethyl Benzene	1.897	1.771	6.6	94	0.00
67 M	m/p-Xylenes	0.710	0.662	6.8	94	0.00
68 M	o-Xylene	0.669	0.637	4.8	98	0.00
69 M	Styrene	1.137	1.042	8.4	96	0.00
70	Isopropylbenzene	1.774	1.570	11.5	89	0.00
71 M	1,1,2,2-Tetrachloroethane	0.575	0.543	5.6	97	0.00
72	1,2,3-Trichloropropane	0.557	0.583	-4.7	117	0.00
73	Bromobenzene	0.400	0.386	3.5	99	0.00
74	n-propylbenzene	2.195	1.987	9.5	91	0.00
75	2-Chlorotoluene	1.335	1.211	9.3	93	0.00
76	1,3,5-Trimethylbenzene	1.489	1.343	9.8	92	0.00
77	t-1,4-Dichloro-2-butene	0.191	0.166	13.1	95	0.00
78	4-Chlorotoluene	1.353	1.254	7.3	94	0.00
79	tert-butylbenzene	1.275	1.130	11.4	91	0.00
80	1,2,4-Trimethylbenzene	1.481	1.347	9.0	94	0.00
81	sec-Butylbenzene	1.859	1.619	12.9	86	0.00
82	p-Isopropyltoluene	1.536	1.335	13.1	87	0.00
83 M	1,3-Dichlorobenzene	0.778	0.710	8.7	91	0.00
84 M	1,4-Dichlorobenzene	0.788	0.738	6.3	96	0.00
85	n-Butylbenzene	1.464	1.268	13.4	84	0.00
86 T	Hexachloroethane	0.294	0.257	12.6	90	0.00
87 M	1,2-Dichlorobenzene	0.734	0.708	3.5	97	0.00
88	1,2-Dibromo-3-Chloropropane	0.135	0.133	1.5	105	0.00
89	1,2,4-Trichlorobenzene	0.412	0.381	7.5	97	0.00
90	Hexachlorobutadiene	0.160	0.144	10.0	89	0.00
91 M	Naphthalene	1.491	1.374	7.8	98	0.00
92	1,2,3-Trichlorobenzene	0.412	0.381	7.5	97	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	30.000	30.000	0.0	105	0.00
2 M	Dichlorodifluoromethane	20.000	18.315	8.4	86	0.00
3 M	Chloromethane	20.000	19.872	0.6	99	0.00
4 M	Vinyl Chloride	20.000	18.433	7.8	93	0.00
5 M	Bromomethane	20.000	19.985	0.1	106	0.00
6 M	Chloroethane	20.000	17.844	10.8	89	0.00
7 M	Trichlorofluoromethane	20.000	17.128	14.4	84	0.00
8 T	Diethyl Ether	20.000	19.212	3.9	102	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	16.992	15.0	84	0.00
10 M	1,1-Dichloroethene	20.000	18.015	9.9	90	0.00
11	Methyl Iodide	20.000	16.814	15.9	89	0.00
12	Methyl Acetate	20.000	19.907	0.5	103	0.00
13 M	Acrolein	100.000	98.203	1.8	114	0.00
14 M	Acrylonitrile	100.000	97.918	2.1	102	0.00
15 M	Acetone	100.000	90.552	9.4	93	0.00
16 M	Carbon Disulfide	20.000	18.801	6.0	93	0.00
17	Allyl chloride	20.000	18.542	7.3	95	-0.01
18 M	Methylene Chloride	20.000	19.468	2.7	100	0.01
19 M	trans-1,2-Dichloroethene	20.000	18.765	6.2	93	-0.01
20 T	Diisopropyl ether	20.000	18.786	6.1	97	0.00
21 M	1,1-Dichloroethane	20.000	18.584	7.1	94	0.00
22 M	cis-1,2-Dichloroethene	20.000	19.057	4.7	99	0.00
23 M	tert-Butyl Alcohol	100.000	97.482	2.5	105	0.00
24 M	Methyl tert-Butyl Ether	20.000	19.396	3.0	102	0.00
25 M	Chloroform	20.000	18.728	6.4	97	0.00
26	Cyclohexane	20.000	16.413	17.9	80	0.00
27 s	1,2-Dichloroethane-d4	30.000	30.050	-0.2	106	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	100	0.00
29	1,1-Dichloropropene	20.000	18.365	8.2	90	0.00
30 M	2-Butanone	100.000	96.429	3.6	99	0.00
31	2,2-Dichloropropane	20.000	17.345	13.3	85	0.00
32 M	1,1,1-Trichloroethane	20.000	18.551	7.2	91	0.00
33 M	Carbon Tetrachloride	20.000	17.683	11.6	87	0.00
34 M	Benzene	20.000	19.106	4.5	95	0.00
35	Methacrylonitrile	20.000	19.629	1.9	102	0.00
36 M	1,2-Dichloroethane	20.000	19.661	1.7	99	0.00
37 M	Trichloroethene	20.000	18.180	9.1	90	0.00
38	Methylcyclohexane	20.000	16.606	17.0	80	0.00
39 M	1,2-Dichloropropane	20.000	19.491	2.5	99	0.00
40	Dibromomethane	20.000	19.523	2.4	97	0.00
41 M	Bromodichloromethane	20.000	19.856	0.7	103	0.00
42 M	Vinyl Acetate	100.000	96.465	3.5	99	0.00
43	Ethyl Acetate	20.000	19.674	1.6	99	0.00
44	Isopropyl Acetate	20.000	19.843	0.8	102	0.00
45 T	1,4-Dioxane	400.000	457.924	-14.5	110	0.00
46	Methyl methacrylate	20.000	18.433	7.8	96	0.00
47	n-amyl Acetate	20.000	19.440	2.8	108	0.02
48 M	t-1,3-Dichloropropene	20.000	18.554	7.2	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
 Data File : VN088280.D
 Acq On : 13 Nov 2025 14:52
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN111325

Quant Time: Nov 14 00:53:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	20.000	18.883	5.6	96	0.00
50 M	1,1,2-Trichloroethane	20.000	19.799	1.0	101	0.00
51	Ethyl methacrylate	20.000	18.775	6.1	101	0.00
52	1,3-Dichloropropane	20.000	19.520	2.4	99	0.00
53 M	Dibromochloromethane	20.000	19.444	2.8	101	0.00
54 M	1,2-Dibromoethane	20.000	19.284	3.6	100	0.00
55 M	2-Chloroethyl vinyl ether	100.000	101.131	-1.1	108	0.00
56 M	Bromoform	20.000	18.671	6.6	99	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	102	0.00
58 M	4-Methyl-2-Pentanone	100.000	101.096	-1.1	103	0.00
59 M	2-Hexanone	100.000	93.108	6.9	98	0.00
60 S	4-Bromofluorobenzene	30.000	29.776	0.7	104	0.00
61 M	Tetrachloroethene	20.000	18.628	6.9	90	0.00
62 M	Toluene	20.000	19.386	3.1	96	0.00
63 S	Toluene-d8	30.000	29.898	0.3	100	0.00
64 M	Chlorobenzene	20.000	19.133	4.3	98	0.00
65	1,1,1,2-Tetrachloroethane	20.000	19.513	2.4	99	0.00
66 M	Ethyl Benzene	20.000	18.667	6.7	94	0.00
67 M	m/p-Xylenes	40.000	37.317	6.7	94	0.00
68 M	o-Xylene	20.000	19.038	4.8	98	0.00
69 M	Styrene	20.000	18.335	8.3	96	0.00
70	Isopropylbenzene	20.000	17.700	11.5	89	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	18.887	5.6	97	0.00
72	1,2,3-Trichloropropane	20.000	20.963	-4.8	117	0.00
73	Bromobenzene	20.000	19.271	3.6	99	0.00
74	n-propylbenzene	20.000	18.105	9.5	91	0.00
75	2-Chlorotoluene	20.000	18.144	9.3	93	0.00
76	1,3,5-Trimethylbenzene	20.000	18.038	9.8	92	0.00
77	t-1,4-Dichloro-2-butene	20.000	17.386	13.1	95	0.00
78	4-Chlorotoluene	20.000	18.540	7.3	94	0.00
79	tert-butylbenzene	20.000	17.732	11.3	91	0.00
80	1,2,4-Trimethylbenzene	20.000	18.199	9.0	94	0.00
81	sec-Butylbenzene	20.000	17.417	12.9	86	0.00
82	p-Isopropyltoluene	20.000	17.381	13.1	87	0.00
83 M	1,3-Dichlorobenzene	20.000	18.242	8.8	91	0.00
84 M	1,4-Dichlorobenzene	20.000	18.721	6.4	96	0.00
85	n-Butylbenzene	20.000	17.323	13.4	84	0.00
86 T	Hexachloroethane	20.000	17.487	12.6	90	0.00
87 M	1,2-Dichlorobenzene	20.000	19.274	3.6	97	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	19.659	1.7	105	0.00
89	1,2,4-Trichlorobenzene	20.000	18.470	7.7	97	0.00
90	Hexachlorobutadiene	20.000	17.984	10.1	89	0.00
91 M	Naphthalene	20.000	18.427	7.9	98	0.00
92	1,2,3-Trichlorobenzene	20.000	18.470	7.7	97	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance Contract: GARD04
 Lab Code: ACE SDG No.: Q3689
 Instrument ID: MSVOA_N Calibration Date/Time: 11/20/2025 09:13
 Lab File ID: VN088317.D Init. Calib. Date(s): 11/13/2025 11/13/2025
 Heated Purge: (Y/N) N Init. Calib. Time(s): 10:14 11:50
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Acrolein	0.392	0.304		-22.45	
Acrylonitrile	1.209	0.978		-19.11	
1,2-Dichloroethane-d4	2.740	2.587	0.01	-5.58	
Toluene-d8	1.420	1.426	0.01	0.42	
4-Bromofluorobenzene	0.507	0.477	0.2	-5.92	

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\VN112025\
 Data File : VN088317.D
 Acq On : 20 Nov 2025 09:13
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/21/2025

Supervised By :Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 02:54:12 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:49:21 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	49901	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	246084	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	228625	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	129115	28.326	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	94.433%		
60) 4-Bromofluorobenzene	12.823	95	109083	28.225	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	94.067%		
63) Toluene-d8	10.541	98	326012	30.120	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	100.400%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	57778	16.471	ug/l	98
3) Chloromethane	2.383	50	61938	17.126	ug/l	95
4) Vinyl Chloride	2.536	62	61978	16.207	ug/l	96
5) Bromomethane	2.983	94	37266	18.276	ug/l	87
6) Chloroethane	3.142	64	40568	17.163	ug/l	97
7) Trichlorofluoromethane	3.512	101	87660	16.350	ug/l	99
8) Diethyl Ether	3.965	74	32496	16.216	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.377	101	48435m	17.220	ug/l	
10) 1,1-Dichloroethene	4.336	96	46372	16.899	ug/l	96
11) Methyl Iodide	4.589	142	42167	14.440	ug/l	91
12) Methyl Acetate	5.012	43	73881	16.689	ug/l #	87
13) Acrolein	4.183	56	50547	77.607	ug/l	97
14) Acrylonitrile	5.706	53	162680	80.873	ug/l	98
15) Acetone	4.424	58	47921	81.464	ug/l	91
16) Carbon Disulfide	4.712	76	153067	16.540	ug/l	95
17) Allyl chloride	5.018	41	83581	15.674	ug/l	97
18) Methylene Chloride	5.271	84	61697	18.089	ug/l	94
19) trans-1,2-Dichloroethene	5.777	96	52233	16.347	ug/l	98
20) Diisopropyl ether	6.653	45	187205	16.429	ug/l	95
21) 1,1-Dichloroethane	6.553	63	108041	16.830	ug/l	99
22) cis-1,2-Dichloroethene	7.471	96	62526	16.836	ug/l	94
23) tert-Butyl Alcohol	5.506	59	49262m	66.601	ug/l	
24) Methyl tert-Butyl Ether	5.789	73	176110	15.918	ug/l	99
25) Chloroform	7.953	83	109207	17.168	ug/l	93
26) Cyclohexane	8.235	56	80122	14.776	ug/l #	93
29) 1,1-Dichloropropene	8.353	75	70055	17.061	ug/l	98
30) 2-Butanone	7.471	43	226819	85.398	ug/l	98
31) 2,2-Dichloropropane	7.471	77	91099	17.988	ug/l	96
32) 1,1,1-Trichloroethane	8.153	97	91550	18.087	ug/l	96
33) Carbon Tetrachloride	8.347	117	76597	17.721	ug/l	97
34) Benzene	8.588	78	225525	18.375	ug/l	99
35) Methacrylonitrile	7.759	41	51139	18.459	ug/l	95
36) 1,2-Dichloroethane	8.647	62	84451	17.681	ug/l	99
37) Trichloroethene	9.335	130	50680	18.222	ug/l	92
38) Methylcyclohexane	9.582	83	70984	15.079	ug/l	96
39) 1,2-Dichloropropane	9.600	63	58884	18.596	ug/l	93
40) Dibromomethane	9.688	93	42498	18.680	ug/l	95
41) Bromodichloromethane	9.865	83	88539	19.332	ug/l	98
42) Vinyl Acetate	6.594	43	768278	86.666	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
 Data File : VN088317.D
 Acq On : 20 Nov 2025 09:13
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 11/21/2025

Supervised By :Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 02:54:12 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Fri Nov 14 00:49:21 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	94756m	17.731	ug/l	
44) Isopropyl Acetate	8.671	43	145451	17.661	ug/l	99
45) 1,4-Dioxane	9.682	88	16790	338.539	ug/l #	73
46) Methyl methacrylate	9.659	41	64106	16.634	ug/l	95
47) n-amyl Acetate	12.688	43	73393m	17.586	ug/l	
48) t-1,3-Dichloropropene	10.818	75	86639	17.687	ug/l	100
49) cis-1,3-Dichloropropene	10.288	75	92225	18.095	ug/l	99
50) 1,1,2-Trichloroethane	10.994	97	54708	19.447	ug/l	98
51) Ethyl methacrylate	10.853	69	75216	16.251	ug/l	94
52) 1,3-Dichloropropane	11.141	76	94744	18.493	ug/l	100
53) Dibromochloromethane	11.341	129	62622	19.380	ug/l	99
54) 1,2-Dibromoethane	11.447	107	54745	18.729	ug/l	97
55) 2-Chloroethyl vinyl ether	10.141	63	149711	56.153	ug/l	98
56) Bromoform	12.559	173	38029	18.593	ug/l	100
58) 4-Methyl-2-Pentanone	10.424	43	452392	87.488	ug/l	100
59) 2-Hexanone	11.176	43	300706	87.577	ug/l	99
61) Tetrachloroethene	11.082	164	43256	18.351	ug/l	95
62) Toluene	10.606	91	234271	17.856	ug/l	100
64) Chlorobenzene	11.870	112	146772	18.063	ug/l	93
65) 1,1,1,2-Tetrachloroethane	11.935	131	51974	18.688	ug/l	95
66) Ethyl Benzene	11.941	91	240580	16.638	ug/l	98
67) m/p-Xylenes	12.047	106	187264	34.631	ug/l	100
68) o-Xylene	12.376	106	88005	17.252	ug/l	94
69) Styrene	12.394	104	144836	16.717	ug/l	99
70) Isopropylbenzene	12.670	105	217425	16.083	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.917	83	83861	19.150	ug/l	97
72) 1,2,3-Trichloropropane	12.970	75	68748m	16.205	ug/l	
73) Bromobenzene	12.959	156	56086	18.377	ug/l	94
74) n-propylbenzene	13.012	91	282261	16.872	ug/l	100
75) 2-Chlorotoluene	13.100	91	171401	16.849	ug/l	98
76) 1,3,5-Trimethylbenzene	13.147	105	190504	16.788	ug/l	100
77) t-1,4-Dichloro-2-butene	12.717	75	19945	13.690	ug/l	95
78) 4-Chlorotoluene	13.200	91	182371	17.691	ug/l	99
79) tert-butylbenzene	13.417	119	159847	16.453	ug/l	96
80) 1,2,4-Trimethylbenzene	13.459	105	188180	16.677	ug/l	99
81) sec-Butylbenzene	13.594	105	226318	15.971	ug/l	99
82) p-Isopropyltoluene	13.706	119	186938	15.965	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	108100	18.230	ug/l	98
84) 1,4-Dichlorobenzene	13.788	146	111384	18.548	ug/l	98
85) n-Butylbenzene	14.035	91	182643	16.367	ug/l	98
86) Hexachloroethane	14.306	117	38999	17.395	ug/l	99
87) 1,2-Dichlorobenzene	14.082	146	101312	18.101	ug/l	97
88) 1,2-Dibromo-3-Chloropr...	14.700	75	16820	16.341	ug/l	93
89) 1,2,4-Trichlorobenzene	15.811	180	52905	16.844	ug/l	98
90) Hexachlorobutadiene	15.476	225	21924	17.974	ug/l	97
91) Naphthalene	15.617	128	180279	15.864	ug/l	100
92) 1,2,3-Trichlorobenzene	15.811	180	52905	16.844	ug/l	98

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

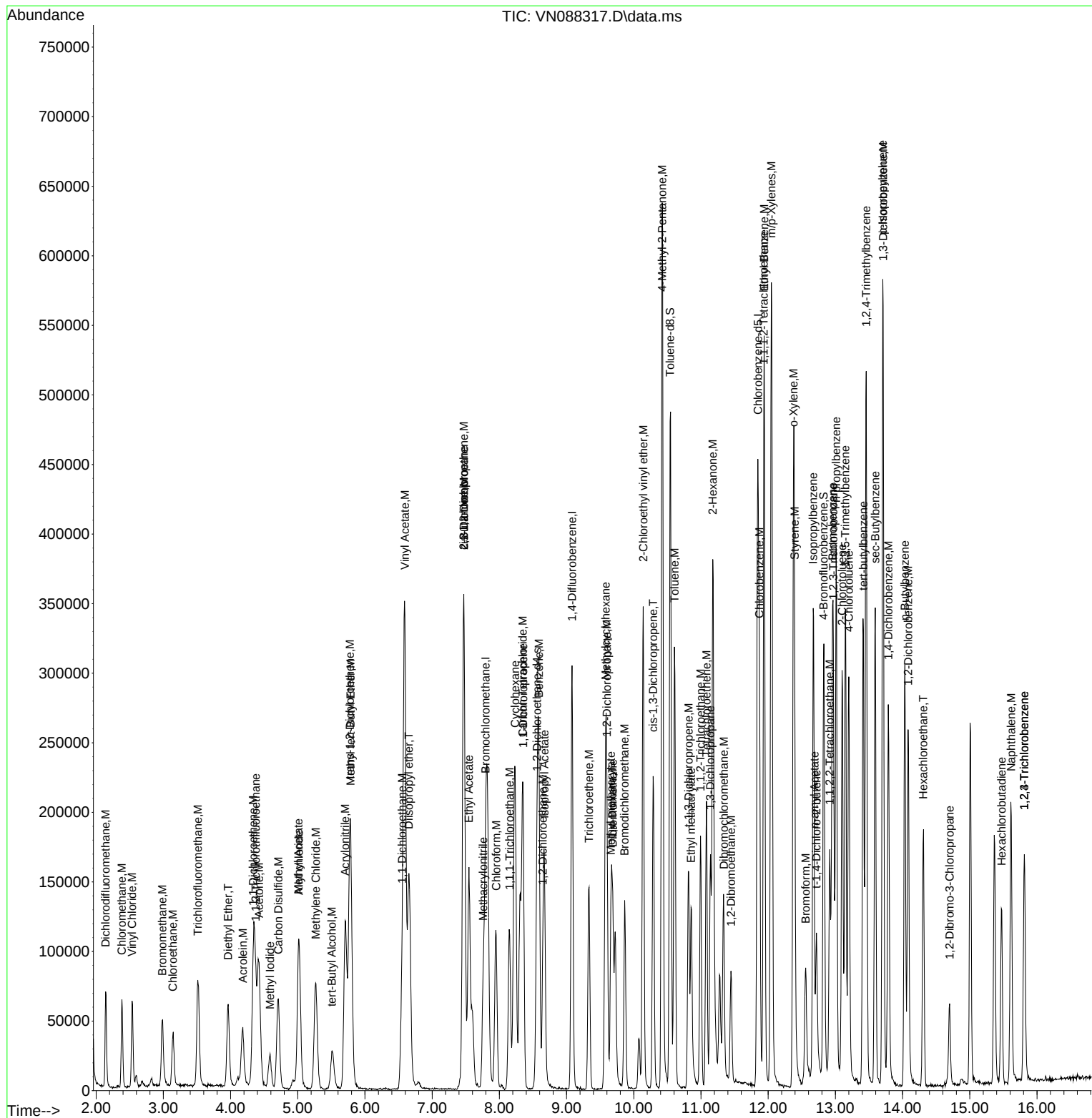
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
 Data File : VN088317.D
 Acq On : 20 Nov 2025 09:13
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020

Manual Integrations APPROVED

Reviewed By : John Carlone 11/21/2025
 Supervised By : Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 02:54:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration



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 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	88	0.00
2 M	Dichlorodifluoromethane	2.109	1.737	17.6	64	0.00
3 M	Chloromethane	2.174	1.862	14.4	71	0.00
4 M	Vinyl Chloride	2.299	1.863	19.0	68	0.00
5 M	Bromomethane	1.226	1.120	8.6	81	0.00
6 M	Chloroethane	1.421	1.219	14.2	72	0.00
7 M	Trichlorofluoromethane	3.223	2.635	18.2	67	0.00
8 T	Diethyl Ether	1.205	0.977	18.9	72	0.00
9	1,1,2-Trichlorotrifluoroeth	1.691	1.456	13.9	71	0.00
10 M	1,1-Dichloroethene	1.650	1.394	15.5	70	0.00
11	Methyl Iodide	1.756	1.268	27.8#	64	0.00
12	Methyl Acetate	2.661	2.221	16.5	72	0.00
13 M	Acrolein	0.392	0.304	22.4	75	0.00
14 M	Acrylonitrile	1.209	0.978	19.1	70	0.00
15 M	Acetone	0.354	0.288	18.6	70	0.00
16 M	Carbon Disulfide	5.564	4.601	17.3	68	0.00
17	Allyl chloride	3.206	2.512	21.6	67	0.00
18 M	Methylene Chloride	2.050	1.855	9.5	78	0.01
19 M	trans-1,2-Dichloroethene	1.921	1.570	18.3	68	0.00
20 T	Diisopropyl ether	6.850	5.627	17.9	71	0.00
21 M	1,1-Dichloroethane	3.859	3.248	15.8	71	0.00
22 M	cis-1,2-Dichloroethene	2.233	1.880	15.8	73	0.00
23 M	tert-Butyl Alcohol	0.445	0.296	33.5#	60	-0.02
24 M	Methyl tert-Butyl Ether	6.651	5.294	20.4	70	0.00
25 M	Chloroform	3.824	3.283	14.1	74	0.00
26	Cyclohexane	3.260	2.408	26.1#	60	0.00
27 s	1,2-Dichloroethane-d4	2.740	2.587	5.6	83	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	78	0.00
29	1,1-Dichloropropene	0.501	0.427	14.8	65	0.00
30 M	2-Butanone	0.324	0.277	14.5	69	0.00
31	2,2-Dichloropropane	0.617	0.555	10.0	69	0.00
32 M	1,1,1-Trichloroethane	0.617	0.558	9.6	70	0.00
33 M	Carbon Tetrachloride	0.527	0.467	11.4	68	0.00
34 M	Benzene	1.496	1.375	8.1	72	0.00
35	Methacrylonitrile	0.338	0.312	7.7	75	0.00
36 M	1,2-Dichloroethane	0.582	0.515	11.5	70	0.00
37 M	Trichloroethene	0.339	0.309	8.8	71	0.00
38	Methylcyclohexane	0.574	0.433	24.6	57	0.00
39 M	1,2-Dichloropropane	0.386	0.359	7.0	74	0.00
40	Dibromomethane	0.277	0.259	6.5	73	0.00
41 M	Bromodichloromethane	0.558	0.540	3.2	78	0.00
42 M	Vinyl Acetate	1.081	0.937	13.3	70	0.00
43	Ethyl Acetate	0.651	0.578	11.2	70	0.00
44	Isopropyl Acetate	1.004	0.887	11.7	71	0.00
45 T	1,4-Dioxane	0.006	0.005	16.7	64	0.00
46	Methyl methacrylate	0.470	0.391	16.8	68	0.00
47	n-amyl Acetate	0.509	0.447	12.2	76	0.02
48 M	t-1,3-Dichloropropene	0.597	0.528	11.6	74	0.00

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 ALS Vial : 3 Sample Multiplier: 1

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 LabSampleId :
 VSTDCCC020

Quant Time: Nov 21 02:54:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	0.621	0.562	9.5	72	0.00
50 M	1,1,2-Trichloroethane	0.343	0.333	2.9	78	0.00
51	Ethyl methacrylate	0.564	0.458	18.8	68	0.00
52	1,3-Dichloropropane	0.625	0.578	7.5	74	0.00
53 M	Dibromochloromethane	0.394	0.382	3.0	79	0.00
54 M	1,2-Dibromoethane	0.356	0.334	6.2	76	0.00
55 M	2-Chloroethyl vinyl ether	0.325	0.183	43.7#	47#	0.00
56 M	Bromoform	0.249	0.232	6.8	77	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00
58 M	4-Methyl-2-Pentanone	0.679	0.594	12.5	72	0.00
59 M	2-Hexanone	0.451	0.395	12.4	75	0.00
60 S	4-Bromofluorobenzene	0.507	0.477	5.9	80	0.00
61 M	Tetrachloroethene	0.309	0.284	8.1	72	0.00
62 M	Toluene	1.722	1.537	10.7	72	0.00
63 S	Toluene-d8	1.420	1.426	-0.4	81	0.00
64 M	Chlorobenzene	1.066	0.963	9.7	75	0.00
65	1,1,1,2-Tetrachloroethane	0.365	0.341	6.6	77	0.00
66 M	Ethyl Benzene	1.897	1.578	16.8	68	0.00
67 M	m/p-Xylenes	0.710	0.614	13.5	71	0.00
68 M	o-Xylene	0.669	0.577	13.8	72	0.00
69 M	Styrene	1.137	0.950	16.4	71	0.00
70	Isopropylbenzene	1.774	1.427	19.6	66	0.00
71 M	1,1,2,2-Tetrachloroethane	0.575	0.550	4.3	80	0.00
72	1,2,3-Trichloropropane	0.557	0.451	19.0	74	0.00
73	Bromobenzene	0.400	0.368	8.0	77	0.00
74	n-propylbenzene	2.195	1.852	15.6	69	0.00
75	2-Chlorotoluene	1.335	1.125	15.7	70	0.00
76	1,3,5-Trimethylbenzene	1.489	1.250	16.1	69	0.00
77	t-1,4-Dichloro-2-butene	0.191	0.131	31.4#	61	0.00
78	4-Chlorotoluene	1.353	1.197	11.5	73	0.00
79	tert-butylbenzene	1.275	1.049	17.7	68	0.00
80	1,2,4-Trimethylbenzene	1.481	1.235	16.6	70	0.00
81	sec-Butylbenzene	1.859	1.485	20.1	64	0.00
82	p-Isopropyltoluene	1.536	1.226	20.2	65	0.00
83 M	1,3-Dichlorobenzene	0.778	0.709	8.9	74	0.00
84 M	1,4-Dichlorobenzene	0.788	0.731	7.2	77	0.00
85	n-Butylbenzene	1.464	1.198	18.2	65	0.00
86 T	Hexachloroethane	0.294	0.256	12.9	73	0.00
87 M	1,2-Dichlorobenzene	0.734	0.665	9.4	74	0.00
88	1,2-Dibromo-3-Chloropropane	0.135	0.110	18.5	71	0.00
89	1,2,4-Trichlorobenzene	0.412	0.347	15.8	72	0.00
90	Hexachlorobutadiene	0.160	0.144	10.0	72	0.00
91 M	Naphthalene	1.491	1.183	20.7	68	0.00
92	1,2,3-Trichlorobenzene	0.412	0.347	15.8	72	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	30.000	30.000	0.0	88	0.00
2 M	Dichlorodifluoromethane	20.000	16.471	17.6	64	0.00
3 M	Chloromethane	20.000	17.126	14.4	71	0.00
4 M	Vinyl Chloride	20.000	16.207	19.0	68	0.00
5 M	Bromomethane	20.000	18.276	8.6	81	0.00
6 M	Chloroethane	20.000	17.163	14.2	72	0.00
7 M	Trichlorofluoromethane	20.000	16.350	18.2	67	0.00
8 T	Diethyl Ether	20.000	16.216	18.9	72	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	17.220	13.9	71	0.00
10 M	1,1-Dichloroethene	20.000	16.899	15.5	70	0.00
11	Methyl Iodide	20.000	14.440	27.8#	64	0.00
12	Methyl Acetate	20.000	16.689	16.6	72	0.00
13 M	Acrolein	100.000	77.607	22.4	75	0.00
14 M	Acrylonitrile	100.000	80.873	19.1	70	0.00
15 M	Acetone	100.000	81.464	18.5	70	0.00
16 M	Carbon Disulfide	20.000	16.540	17.3	68	0.00
17	Allyl chloride	20.000	15.674	21.6	67	0.00
18 M	Methylene Chloride	20.000	18.089	9.6	78	0.01
19 M	trans-1,2-Dichloroethene	20.000	16.347	18.3	68	0.00
20 T	Diisopropyl ether	20.000	16.429	17.9	71	0.00
21 M	1,1-Dichloroethane	20.000	16.830	15.9	71	0.00
22 M	cis-1,2-Dichloroethene	20.000	16.836	15.8	73	0.00
23 M	tert-Butyl Alcohol	100.000	66.601	33.4#	60	-0.02
24 M	Methyl tert-Butyl Ether	20.000	15.918	20.4	70	0.00
25 M	Chloroform	20.000	17.168	14.2	74	0.00
26	Cyclohexane	20.000	14.776	26.1#	60	0.00
27 s	1,2-Dichloroethane-d4	30.000	28.326	5.6	83	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	78	0.00
29	1,1-Dichloropropene	20.000	17.061	14.7	65	0.00
30 M	2-Butanone	100.000	85.398	14.6	69	0.00
31	2,2-Dichloropropane	20.000	17.988	10.1	69	0.00
32 M	1,1,1-Trichloroethane	20.000	18.087	9.6	70	0.00
33 M	Carbon Tetrachloride	20.000	17.721	11.4	68	0.00
34 M	Benzene	20.000	18.375	8.1	72	0.00
35	Methacrylonitrile	20.000	18.459	7.7	75	0.00
36 M	1,2-Dichloroethane	20.000	17.681	11.6	70	0.00
37 M	Trichloroethene	20.000	18.222	8.9	71	0.00
38	Methylcyclohexane	20.000	15.079	24.6	57	0.00
39 M	1,2-Dichloropropane	20.000	18.596	7.0	74	0.00
40	Dibromomethane	20.000	18.680	6.6	73	0.00
41 M	Bromodichloromethane	20.000	19.332	3.3	78	0.00
42 M	Vinyl Acetate	100.000	86.666	13.3	70	0.00
43	Ethyl Acetate	20.000	17.731	11.3	70	0.00
44	Isopropyl Acetate	20.000	17.661	11.7	71	0.00
45 T	1,4-Dioxane	400.000	338.539	15.4	64	0.00
46	Methyl methacrylate	20.000	16.634	16.8	68	0.00
47	n-amyl Acetate	20.000	17.586	12.1	76	0.02
48 M	t-1,3-Dichloropropene	20.000	17.687	11.6	74	0.00

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	20.000	18.095	9.5	72	0.00
50 M	1,1,2-Trichloroethane	20.000	19.447	2.8	78	0.00
51	Ethyl methacrylate	20.000	16.251	18.7	68	0.00
52	1,3-Dichloropropane	20.000	18.493	7.5	74	0.00
53 M	Dibromochloromethane	20.000	19.380	3.1	79	0.00
54 M	1,2-Dibromoethane	20.000	18.729	6.4	76	0.00
55 M	2-Chloroethyl vinyl ether	100.000	56.153	43.8#	47	0.00
56 M	Bromoform	20.000	18.593	7.0	77	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	83	0.00
58 M	4-Methyl-2-Pentanone	100.000	87.488	12.5	72	0.00
59 M	2-Hexanone	100.000	87.577	12.4	75	0.00
60 S	4-Bromofluorobenzene	30.000	28.225	5.9	80	0.00
61 M	Tetrachloroethene	20.000	18.351	8.2	72	0.00
62 M	Toluene	20.000	17.856	10.7	72	0.00
63 S	Toluene-d8	30.000	30.120	-0.4	81	0.00
64 M	Chlorobenzene	20.000	18.063	9.7	75	0.00
65	1,1,1,2-Tetrachloroethane	20.000	18.688	6.6	77	0.00
66 M	Ethyl Benzene	20.000	16.638	16.8	68	0.00
67 M	m/p-Xylenes	40.000	34.631	13.4	71	0.00
68 M	o-Xylene	20.000	17.252	13.7	72	0.00
69 M	Styrene	20.000	16.717	16.4	71	0.00
70	Isopropylbenzene	20.000	16.083	19.6	66	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	19.150	4.3	80	0.00
72	1,2,3-Trichloropropane	20.000	16.205	19.0	74	0.00
73	Bromobenzene	20.000	18.377	8.1	77	0.00
74	n-propylbenzene	20.000	16.872	15.6	69	0.00
75	2-Chlorotoluene	20.000	16.849	15.8	70	0.00
76	1,3,5-Trimethylbenzene	20.000	16.788	16.1	69	0.00
77	t-1,4-Dichloro-2-butene	20.000	13.690	31.6#	61	0.00
78	4-Chlorotoluene	20.000	17.691	11.5	73	0.00
79	tert-butylbenzene	20.000	16.453	17.7	68	0.00
80	1,2,4-Trimethylbenzene	20.000	16.677	16.6	70	0.00
81	sec-Butylbenzene	20.000	15.971	20.1	64	0.00
82	p-Isopropyltoluene	20.000	15.965	20.2	65	0.00
83 M	1,3-Dichlorobenzene	20.000	18.230	8.8	74	0.00
84 M	1,4-Dichlorobenzene	20.000	18.548	7.3	77	0.00
85	n-Butylbenzene	20.000	16.367	18.2	65	0.00
86 T	Hexachloroethane	20.000	17.395	13.0	73	0.00
87 M	1,2-Dichlorobenzene	20.000	18.101	9.5	74	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	16.341	18.3	71	0.00
89	1,2,4-Trichlorobenzene	20.000	16.844	15.8	72	0.00
90	Hexachlorobutadiene	20.000	17.974	10.1	72	0.00
91 M	Naphthalene	20.000	15.864	20.7	68	0.00
92	1,2,3-Trichlorobenzene	20.000	16.844	15.8	72	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



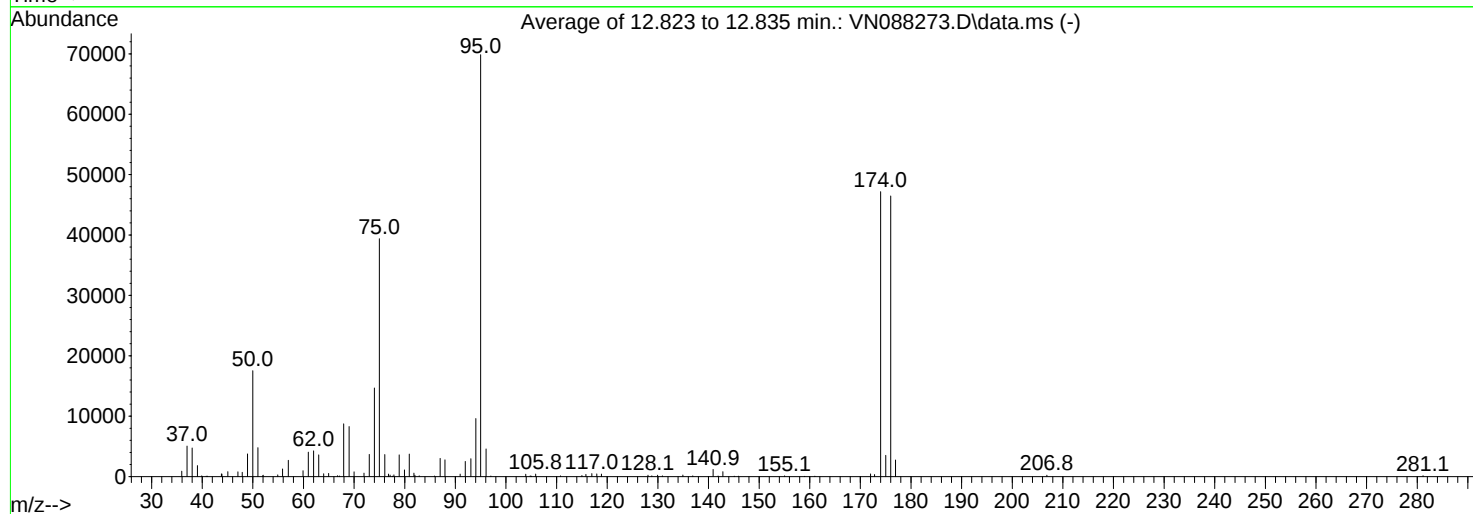
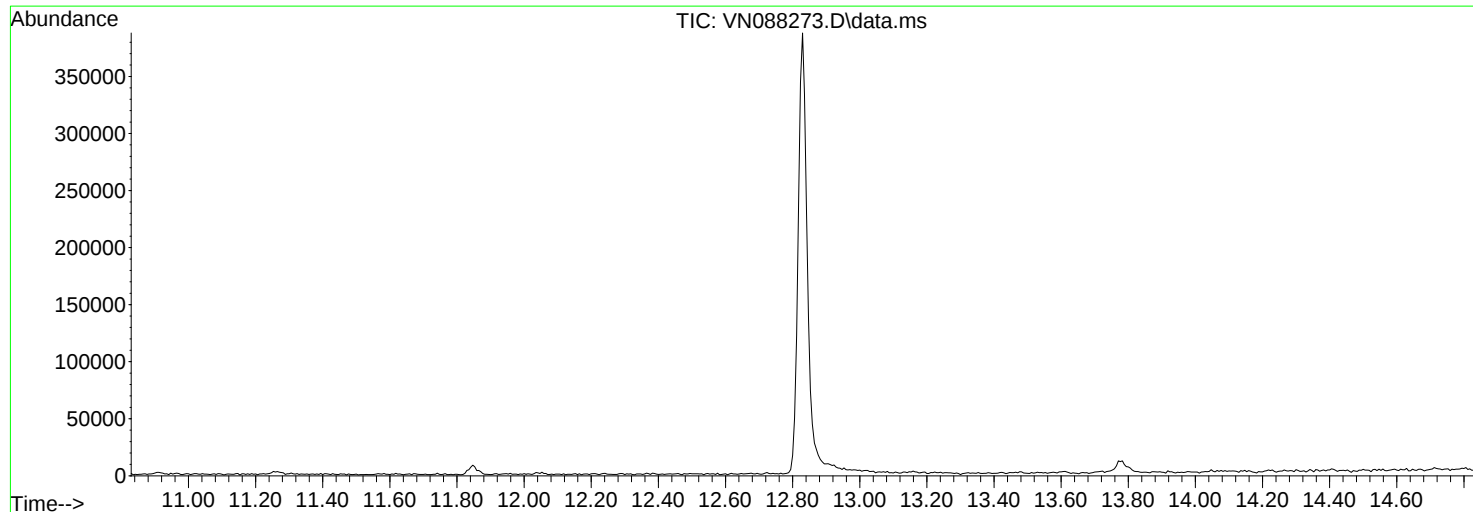
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111325\
Data File : VN088273.D
Acq On : 13 Nov 2025 08:08
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 14 00:49:21 2025



AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1841

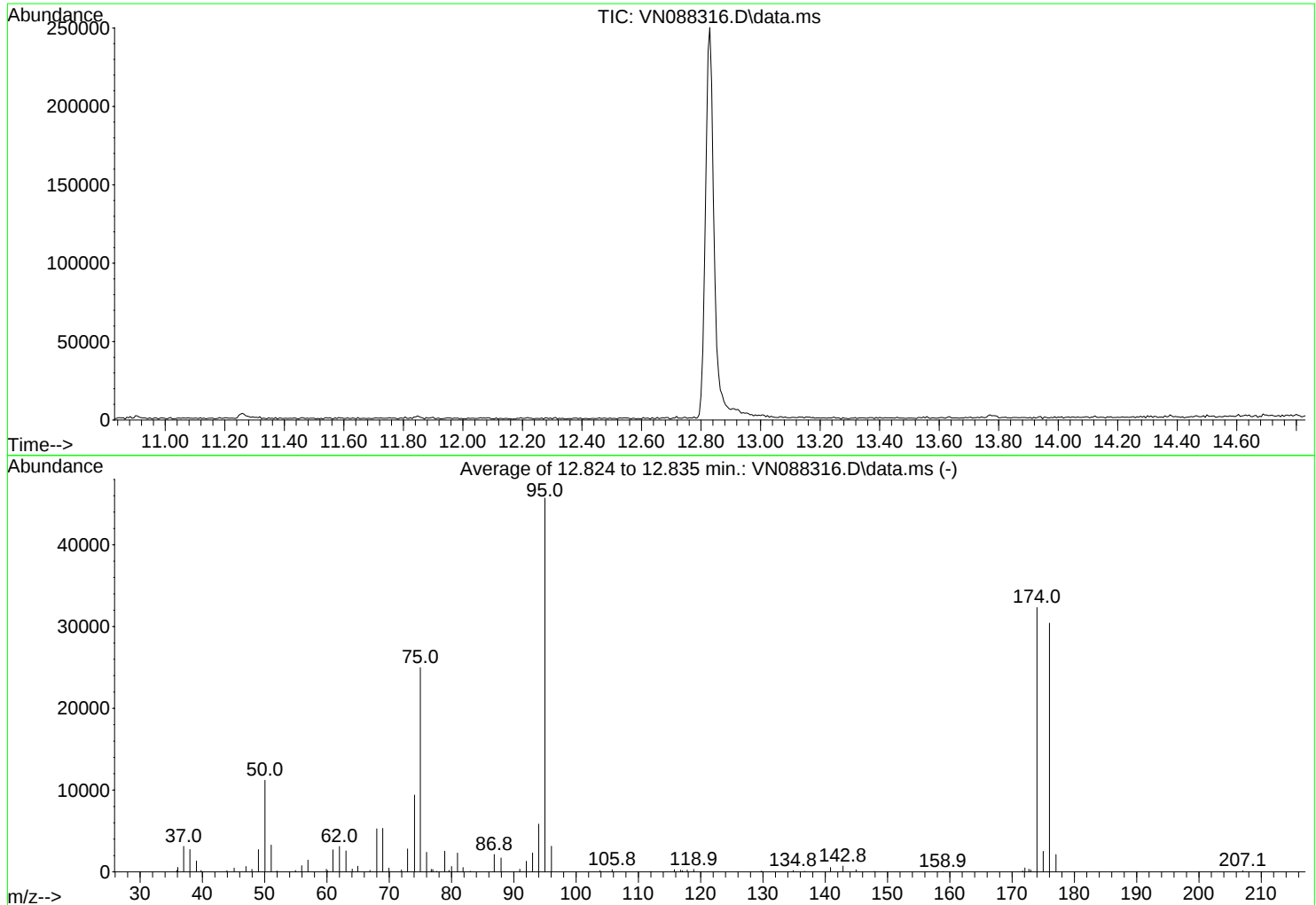
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.1	17526	PASS
75	95	30	60	56.4	39381	PASS
95	95	100	100	100.0	69848	PASS
96	95	5	9	6.5	4575	PASS
173	174	0.00	2	0.7	340	PASS
174	95	50	100	67.5	47176	PASS
175	174	5	9	7.5	3521	PASS
176	174	95	101	98.5	46469	PASS
177	176	5	9	5.9	2756	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
Data File : VN088316.D
Acq On : 20 Nov 2025 08:40
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 14 00:49:21 2025



AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1841

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.5	11202	PASS
75	95	30	60	54.6	24976	PASS
95	95	100	100	100.0	45725	PASS
96	95	5	9	6.9	3138	PASS
173	174	0.00	2	1.0	331	PASS
174	95	50	100	70.7	32339	PASS
175	174	5	9	7.8	2518	PASS
176	174	95	101	94.1	30429	FAIL*
177	176	5	9	7.0	2121	PASS



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

Report of Analysis

Client: Garden State Laboratories, Inc.
Project: Waste Water 2025
Client Sample ID: VN1120WBL01
Lab Sample ID: VN1120WBL01
Analytical Method: E624.1
Sample Wt/Vol: 5 mL

Level: LOW
Final Vol: 5000 uL

Date Collected:
Date Received:
SDG No.: Q3689
Matrix: Water
% Solid: 0
Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
107-02-8	Acrolein	6.60	U	1	6.60	25.0	ug/L	11/20/25 10:43	VN112025
107-13-1	Acrylonitrile	2.80	U	1	2.80	25.0	ug/L	11/20/25 10:43	VN112025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	28.2			91 - 110	94%	SPK: 30		
2037-26-5	Toluene-d8	29.9			91 - 112	100%	SPK: 30		
460-00-4	4-Bromofluorobenzene	26.1			63 - 112	87%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	53800							
540-36-3	1,4-Difluorobenzene	272000							
3114-55-4	Chlorobenzene-d5	237000							

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\VN112025\
Data File : VN088320.D
Acq On : 20 Nov 2025 10:43
Operator : JC\MD
Sample : VN1120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1120WBL01

Quant Time: Nov 21 02:57:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	53817	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	272055	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	237385	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	138545	28.183	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	93.933%
60) 4-Bromofluorobenzene	12.829	95	104805	26.117	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	87.067%
63) Toluene-d8	10.547	98	336342	29.927	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	99.767%

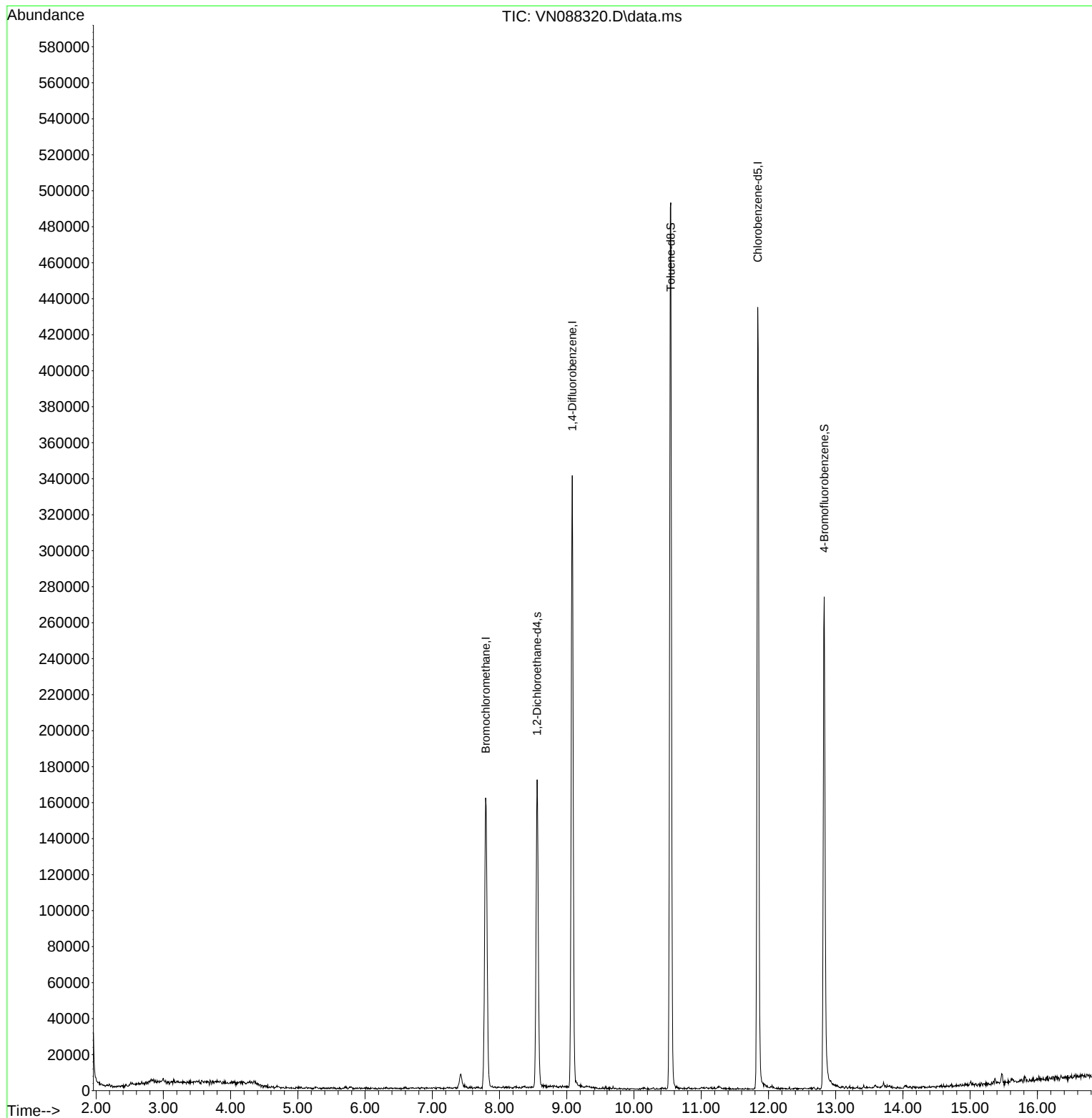
Target Compounds	Qvalue

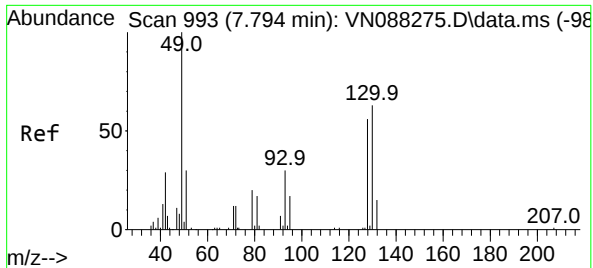
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
Data File : VN088320.D
Acq On : 20 Nov 2025 10:43
Operator : JC\MD
Sample : VN1120WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1120WBL01

Quant Time: Nov 21 02:57:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration

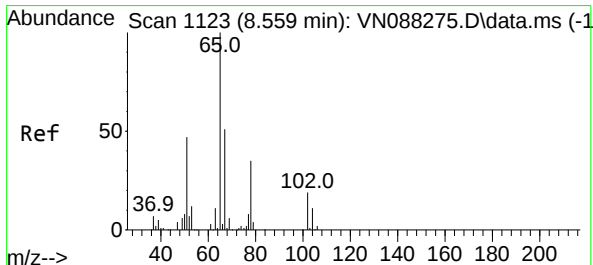
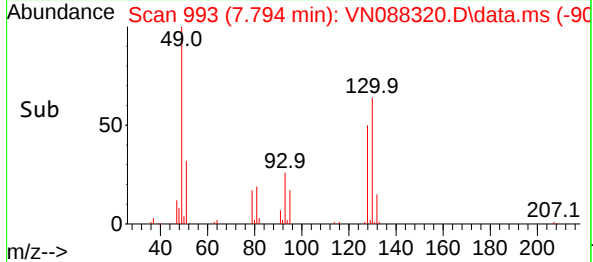
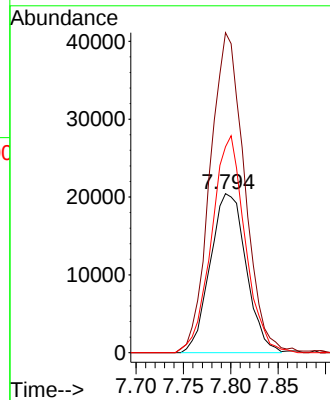
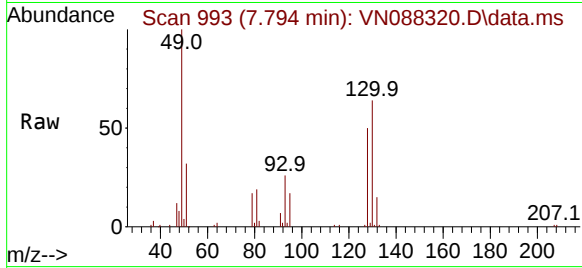




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN088320.D
Acq: 20 Nov 2025 10:43

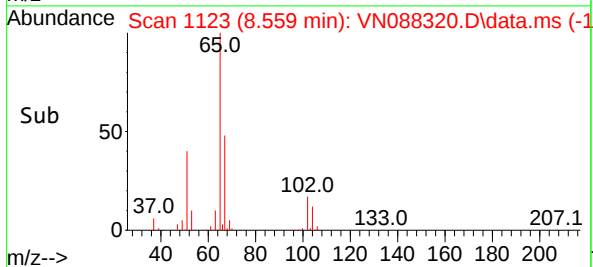
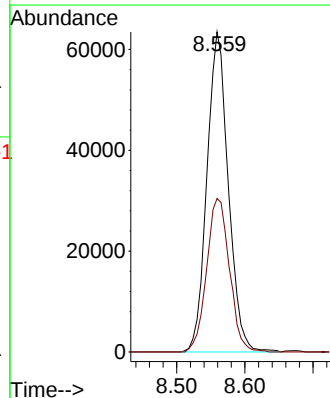
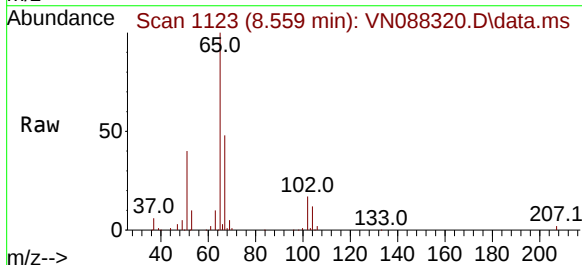
Instrument :
MSVOA_N
ClientSampleId :
VN1120WBL01

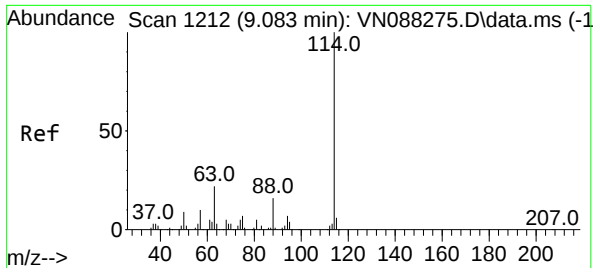
Tgt Ion	Ratio	Lower	Upper
128	100		
49	192.5	0.0	501.2
130	127.4	0.0	320.2



#27
1,2-Dichloroethane-d4
Concen: 28.183 ug/l
RT: 8.559 min Scan# 1123
Delta R.T. -0.000 min
Lab File: VN088320.D
Acq: 20 Nov 2025 10:43

Tgt Ion	Ratio	Lower	Upper
65	100		
67	51.1	40.2	60.2





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.082 min Scan# 11

Delta R.T. -0.000 min

Lab File: VN088320.D

Acq: 20 Nov 2025 10:43

Instrument :

MSVOA_N

ClientSampleId :

VN1120WBL01

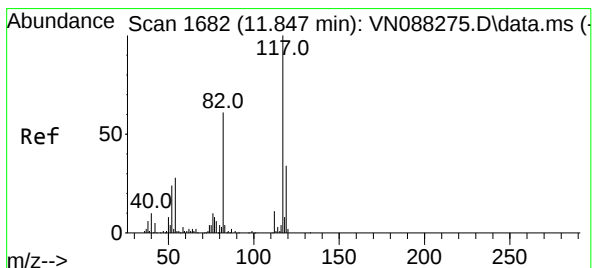
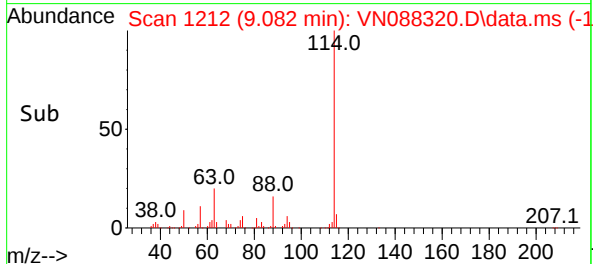
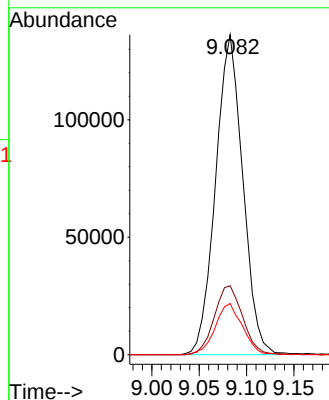
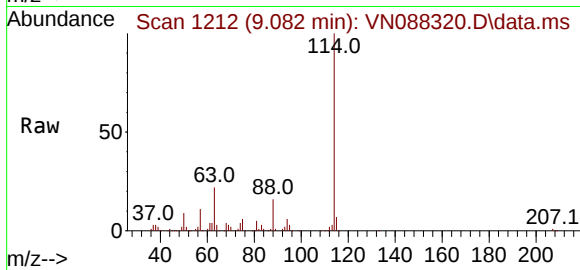
Tgt Ion:114 Resp: 272055

Ion Ratio Lower Upper

114 100

63 22.4 18.9 28.3

88 16.0 12.8 19.2



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.841 min Scan# 1681

Delta R.T. -0.006 min

Lab File: VN088320.D

Acq: 20 Nov 2025 10:43

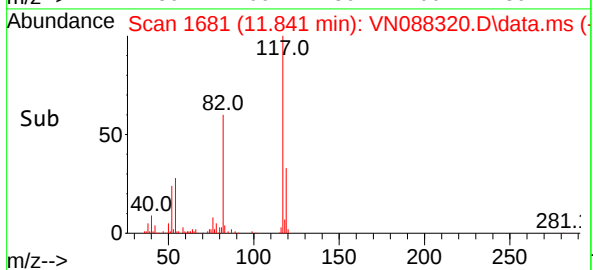
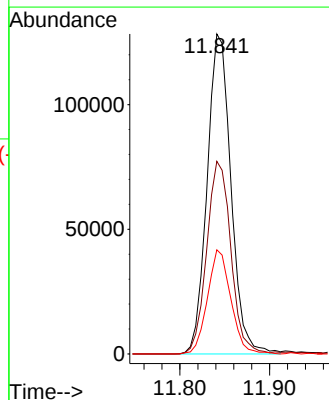
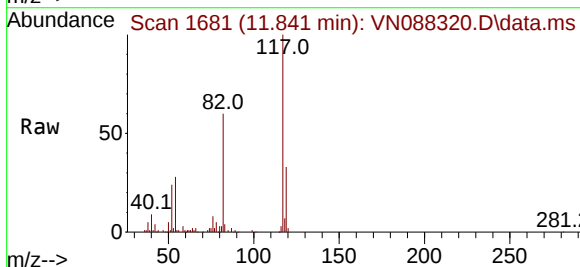
Tgt Ion:117 Resp: 237385

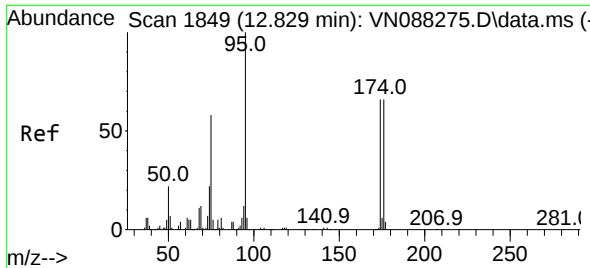
Ion Ratio Lower Upper

117 100

82 60.9 49.3 73.9

119 31.9 26.4 39.6

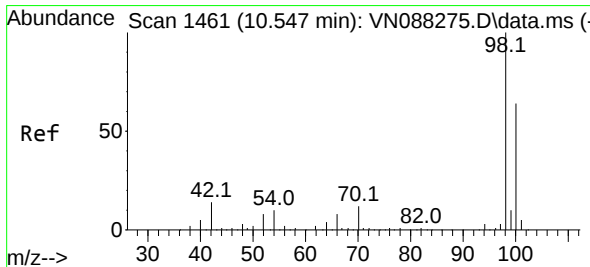
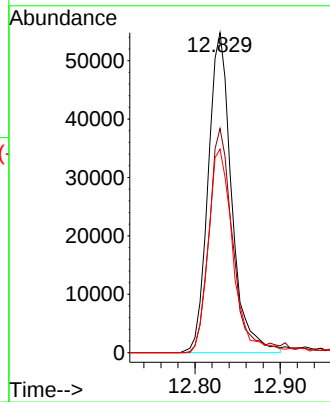
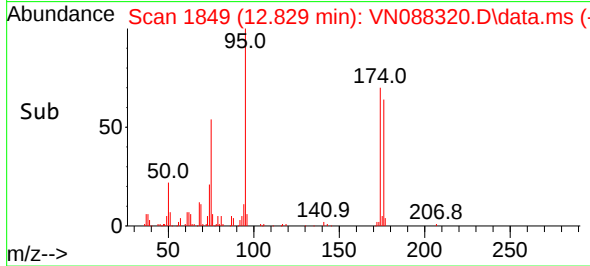
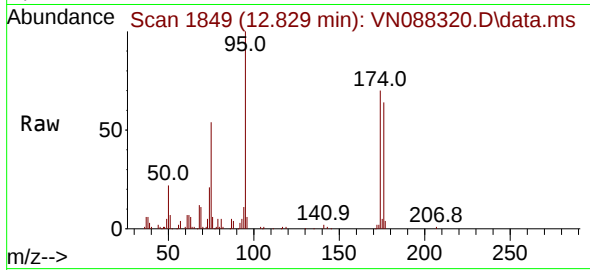




#60
4-Bromofluorobenzene
Concen: 26.117 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN088320.D
Acq: 20 Nov 2025 10:43

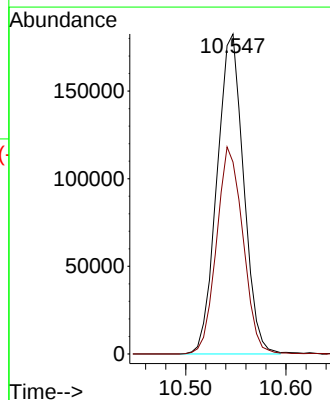
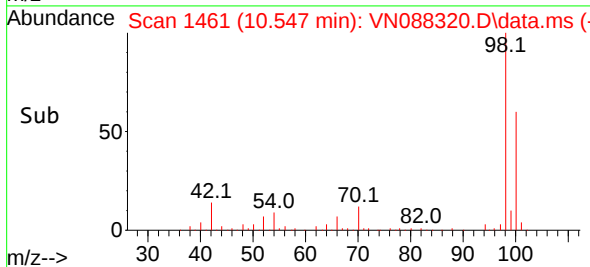
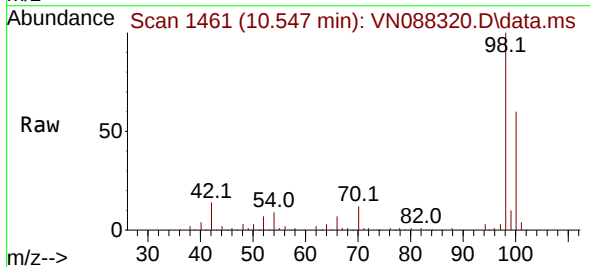
Instrument :
MSVOA_N
ClientSampleId :
VN1120WBL01

Tgt Ion: 95 Resp: 104805
Ion Ratio Lower Upper
95 100
174 69.5 54.5 81.7
176 64.4 53.8 80.6



#63
Toluene-d8
Concen: 29.927 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN088320.D
Acq: 20 Nov 2025 10:43

Tgt Ion: 98 Resp: 336342
Ion Ratio Lower Upper
98 100
100 64.4 51.6 77.4



Report of Analysis

Client: Garden State Laboratories, Inc.
 Project: Waste Water 2025
 Client Sample ID: VN1120WBS01
 Lab Sample ID: VN1120WBS01
 Analytical Method: E624.1
 Sample Wt/Vol: 5 mL

Level: LOW
 Final Vol: 5000 uL

Date Collected:
 Date Received:
 SDG No.: Q3689
 Matrix: Water
 % Solid: 0
 Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
107-02-8	Acrolein	130		1	6.60	25.0	ug/L	11/20/25 09:49	VN112025
107-13-1	Acrylonitrile	96.7		1	2.80	25.0	ug/L	11/20/25 09:49	VN112025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	28.9			91 - 110	96%	SPK: 30		
2037-26-5	Toluene-d8	30.4			91 - 112	101%	SPK: 30		
460-00-4	4-Bromofluorobenzene	29.1			63 - 112	97%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	59300							
540-36-3	1,4-Difluorobenzene	314000							
3114-55-4	Chlorobenzene-d5	285000							

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\VN112025\
 Data File : VN088318.D
 Acq On : 20 Nov 2025 09:49
 Operator : JC\MD
 Sample : VN1120WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1120WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/21/2025
 Supervised By : Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 02:55:20 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	59336	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	313817	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	285258	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	156645	28.901	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	96.333%		
60) 4-Bromofluorobenzene	12.829	95	140335	29.102	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	97.000%		
63) Toluene-d8	10.547	98	410443	30.392	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	101.300%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	91916	22.037	ug/l	91
3) Chloromethane	2.383	50	92240	21.449	ug/l	98
4) Vinyl Chloride	2.536	62	97237	21.384	ug/l	99
5) Bromomethane	2.983	94	53062	21.885	ug/l	86
6) Chloroethane	3.142	64	58511	20.817	ug/l	95
7) Trichlorofluoromethane	3.512	101	139360	21.860	ug/l	97
8) Diethyl Ether	3.959	74	45208	18.973	ug/l	91
9) 1,1,2-Trichlorotrifluo...	4.365	101	76902	22.994	ug/l	84
10) 1,1-Dichloroethene	4.342	96	69972	21.445	ug/l	91
11) Methyl Iodide	4.583	142	66977	19.289	ug/l	89
12) Methyl Acetate	5.018	43	100705	19.131	ug/l	90
13) Acrolein	4.177	56	102499	132.348	ug/l	95
14) Acrylonitrile	5.706	53	231265	96.688	ug/l	99
15) Acetone	4.424	58	67801	96.932	ug/l	97
16) Carbon Disulfide	4.706	76	233972	21.262	ug/l	99
17) Allyl chloride	5.012	41	125056	19.723	ug/l	98
18) Methylene Chloride	5.265	84	84071	20.730	ug/l	99
19) trans-1,2-Dichloroethene	5.783	96	80907m	21.294	ug/l	
20) Diisopropyl ether	6.653	45	276142	20.381	ug/l	99
21) 1,1-Dichloroethane	6.553	63	155685	20.395	ug/l	98
22) cis-1,2-Dichloroethene	7.471	96	90042	20.390	ug/l	95
23) tert-Butyl Alcohol	5.506	59	71601	81.410	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	255754	19.441	ug/l	99
25) Chloroform	7.947	83	157347	20.803	ug/l	100
26) Cyclohexane	8.235	56	132443	20.541	ug/l #	97
29) 1,1-Dichloropropene	8.353	75	110761	21.153	ug/l	99
30) 2-Butanone	7.465	43	322319	95.161	ug/l	100
31) 2,2-Dichloropropane	7.471	77	139482	21.597	ug/l	98
32) 1,1,1-Trichloroethane	8.147	97	137278	21.267	ug/l	96
33) Carbon Tetrachloride	8.341	117	120050	21.779	ug/l	97
34) Benzene	8.588	78	329140	21.029	ug/l	98
35) Methacrylonitrile	7.765	41	67777	19.184	ug/l	94
36) 1,2-Dichloroethane	8.647	62	123337	20.248	ug/l #	91
37) Trichloroethene	9.335	130	76881	21.676	ug/l	91
38) Methylcyclohexane	9.576	83	124809	20.791	ug/l	97
39) 1,2-Dichloropropane	9.600	63	86334	21.380	ug/l	91
40) Dibromomethane	9.688	93	59808	20.615	ug/l	96
41) Bromodichloromethane	9.865	83	125823	21.544	ug/l	94
42) Vinyl Acetate	6.588	43	1113408	98.490	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
 Data File : VN088318.D
 Acq On : 20 Nov 2025 09:49
 Operator : JC\MD
 Sample : VN1120WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1120WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 11/21/2025
 Supervised By : Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 02:55:20 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.547	43	134952	19.802	ug/l	97
44) Isopropyl Acetate	8.671	43	205399	19.557	ug/l	100
45) 1,4-Dioxane	9.676	88	23252	367.642	ug/l	98
46) Methyl methacrylate	9.659	41	95279	19.387	ug/l	93
47) n-amyl Acetate	12.535	43	94649m	17.784	ug/l	
48) t-1,3-Dichloropropene	10.818	75	124036	19.856	ug/l	95
49) cis-1,3-Dichloropropene	10.294	75	137078	21.090	ug/l	97
50) 1,1,2-Trichloroethane	10.994	97	76012	21.188	ug/l	96
51) Ethyl methacrylate	10.853	69	112814	19.114	ug/l	97
52) 1,3-Dichloropropane	11.141	76	133820	20.482	ug/l	100
53) Dibromochloromethane	11.335	129	88093	21.378	ug/l	100
54) 1,2-Dibromoethane	11.447	107	76209	20.445	ug/l	99
55) 2-Chloroethyl vinyl ether	10.141	63	308084	90.614	ug/l	99
56) Bromoform	12.559	173	53911	20.669	ug/l	99
58) 4-Methyl-2-Pentanone	10.423	43	649921	100.734	ug/l	99
59) 2-Hexanone	11.176	43	424810	99.158	ug/l	99
61) Tetrachloroethene	11.082	164	67056	22.800	ug/l	94
62) Toluene	10.606	91	344628	21.053	ug/l	99
64) Chlorobenzene	11.870	112	213258	21.035	ug/l	99
65) 1,1,1,2-Tetrachloroethane	11.941	131	73139	21.077	ug/l	97
66) Ethyl Benzene	11.941	91	373810	20.719	ug/l	97
67) m/p-Xylenes	12.047	106	278659	41.301	ug/l	99
68) o-Xylene	12.376	106	127302	20.001	ug/l	99
69) Styrene	12.388	104	218334	20.198	ug/l	98
70) Isopropylbenzene	12.670	105	348045	20.634	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.917	83	113576	20.787	ug/l	98
72) 1,2,3-Trichloropropane	12.970	75	111102m	20.990	ug/l	
73) Bromobenzene	12.959	156	81275	21.343	ug/l	93
74) n-propylbenzene	13.012	91	439519	21.056	ug/l	100
75) 2-Chlorotoluene	13.100	91	253473	19.970	ug/l	99
76) 1,3,5-Trimethylbenzene	13.147	105	293019	20.695	ug/l	100
77) t-1,4-Dichloro-2-butene	12.717	75	35527	19.545	ug/l	84
78) 4-Chlorotoluene	13.200	91	261153	20.303	ug/l	96
79) tert-butylbenzene	13.412	119	249424	20.576	ug/l	99
80) 1,2,4-Trimethylbenzene	13.459	105	291955	20.736	ug/l	99
81) sec-Butylbenzene	13.594	105	370417	20.950	ug/l	100
82) p-Isopropyltoluene	13.706	119	305244	20.893	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	156053	21.092	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	160164	21.376	ug/l	99
85) n-Butylbenzene	14.035	91	294695	21.165	ug/l	99
86) Hexachloroethane	14.306	117	60631	21.675	ug/l	98
87) 1,2-Dichlorobenzene	14.082	146	148376	21.247	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.694	75	24716	19.245	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	78572	20.050	ug/l	99
90) Hexachlorobutadiene	15.470	225	35705	23.461	ug/l	96
91) Naphthalene	15.611	128	273399	19.281	ug/l	100
92) 1,2,3-Trichlorobenzene	15.811	180	78572	20.050	ug/l	99

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

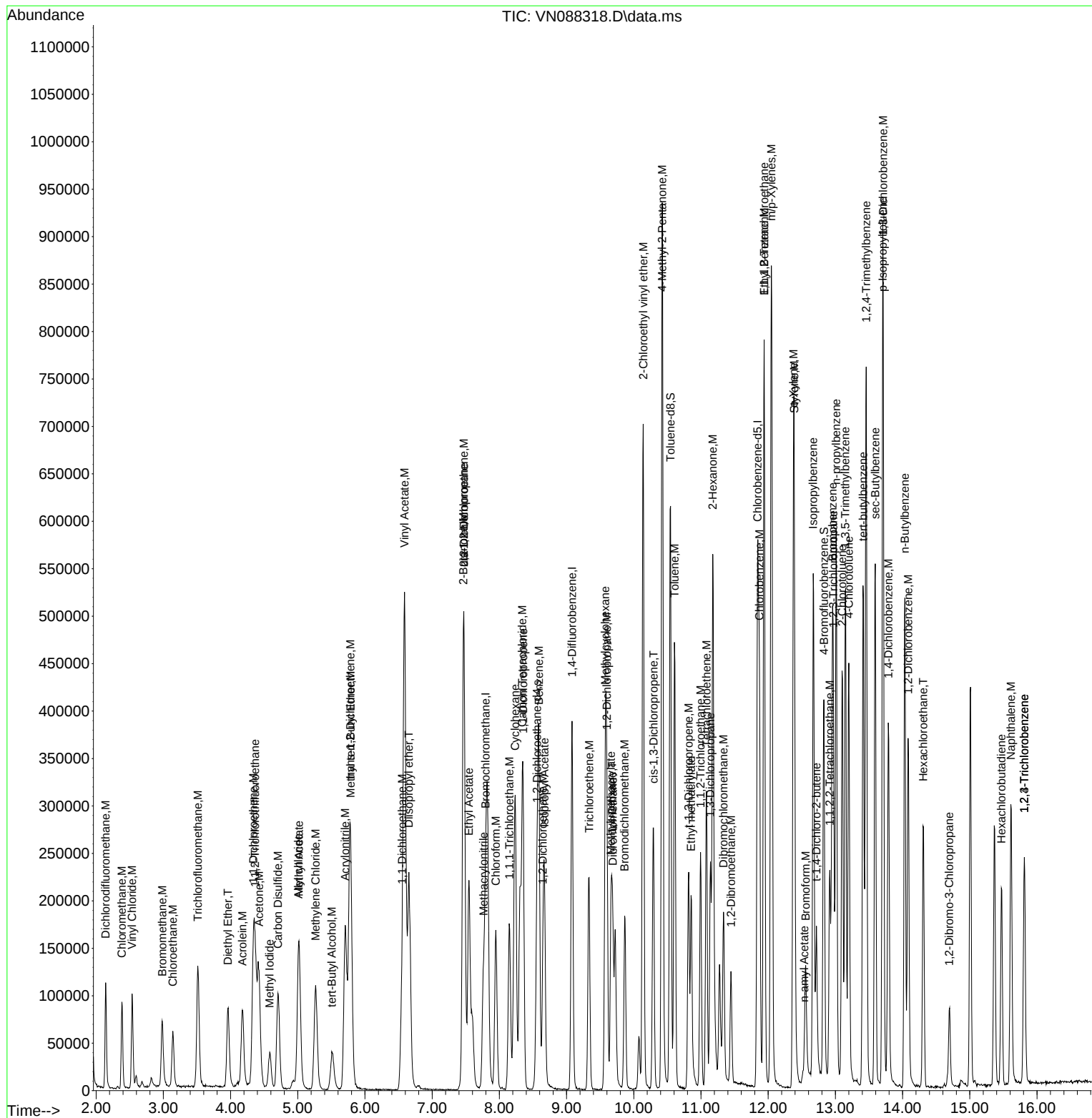
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\  
Data File : VN088318.D  
Acq On    : 20 Nov 2025  09:49  
Operator  : JC\MD  
Sample    : VN1120WBS01  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 4      Sample Multiplier: 1
```

Instrument :
MSVOA_N
ClientSampleId :
VN1120WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 11/21/2025
Supervised By :Semsettin Yesilyurt 11/21/2025

Quant Time: Nov 21 02:55:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 14 00:49:21 2025
Response via : Initial Calibration



Report of Analysis

Client: Garden State Laboratories, Inc.

Project: Waste Water 2025

Client Sample ID: VN1120WBSD01

Lab Sample ID: VN1120WBSD01

Analytical Method: E624.1

Sample Wt/Vol: 5 mL

Level: LOW

Final Vol: 5000 uL

Date Collected:

Date Received:

SDG No.: Q3689

Matrix: Water

% Solid: 0

Test: VOCMS Group1

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS									
107-02-8	Acrolein	130		1	6.60	25.0	ug/L	11/20/25 10:22	VN112025
107-13-1	Acrylonitrile	97.9		1	2.80	25.0	ug/L	11/20/25 10:22	VN112025
SURROGATES									
17060-07-0	1,2-Dichloroethane-d4	28.3			91 - 110	94%	SPK: 30		
2037-26-5	Toluene-d8	30.7			91 - 112	102%	SPK: 30		
460-00-4	4-Bromofluorobenzene	29.3			63 - 112	98%	SPK: 30		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	57200							
540-36-3	1,4-Difluorobenzene	285000							
3114-55-4	Chlorobenzene-d5	262000							

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\VN112025\
 Data File : VN088319.D
 Acq On : 20 Nov 2025 10:22
 Operator : JC\MD
 Sample : VN1120WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1120WBSD01

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

Quant Time: Nov 21 02:56:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.794	128	57168	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	285463	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.841	117	261605	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	147762	28.296	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	94.333%
60) 4-Bromofluorobenzene	12.823	95	129366	29.253	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	97.500%
63) Toluene-d8	10.541	98	380124	30.691	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	102.300%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.142	85	76773	19.104	ug/l	95
3) Chloromethane	2.383	50	80163	19.347	ug/l	99
4) Vinyl Chloride	2.536	62	85076	19.419	ug/l	98
5) Bromomethane	2.983	94	47190	20.201	ug/l	97
6) Chloroethane	3.142	64	51896	19.164	ug/l	97
7) Trichlorofluoromethane	3.518	101	120386	19.600	ug/l	98
8) Diethyl Ether	3.965	74	43709	19.039	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.377	101	65229	20.243	ug/l	99
10) 1,1-Dichloroethene	4.342	96	61324	19.508	ug/l	84
11) Methyl Iodide	4.583	142	59628	17.824	ug/l	88
12) Methyl Acetate	5.018	43	100424	19.802	ug/l	98
13) Acrolein	4.177	56	98928	132.581	ug/l	95
14) Acrylonitrile	5.712	53	225510	97.857	ug/l	99
15) Acetone	4.418	58	63487	94.207	ug/l	95
16) Carbon Disulfide	4.712	76	201244	18.981	ug/l	98
17) Allyl chloride	5.018	41	108063	17.690	ug/l	98
18) Methylene Chloride	5.277	84	75886m	19.421	ug/l	
19) trans-1,2-Dichloroethene	5.777	96	69304	18.932	ug/l	87
20) Diisopropyl ether	6.659	45	251960	19.302	ug/l	96
21) 1,1-Dichloroethane	6.553	63	142469	19.372	ug/l	98
22) cis-1,2-Dichloroethene	7.471	96	81653	19.192	ug/l	98
23) tert-Butyl Alcohol	5.512	59	68882	81.289	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	241923	19.087	ug/l	99
25) Chloroform	7.953	83	143036	19.628	ug/l	96
26) Cyclohexane	8.235	56	113822	18.323	ug/l #	98
29) 1,1-Dichloropropene	8.353	75	94972	19.939	ug/l	98
30) 2-Butanone	7.471	43	312999	101.588	ug/l	99
31) 2,2-Dichloropropane	7.471	77	123378	21.001	ug/l	98
32) 1,1,1-Trichloroethane	8.147	97	122481	20.860	ug/l	98
33) Carbon Tetrachloride	8.341	117	103947	20.731	ug/l	98
34) Benzene	8.588	78	294559	20.689	ug/l	98
35) Methacrylonitrile	7.759	41	66313	20.634	ug/l	95
36) 1,2-Dichloroethane	8.653	62	114702	20.701	ug/l	100
37) Trichloroethene	9.335	130	68380	21.194	ug/l	94
38) Methylcyclohexane	9.582	83	106131	19.435	ug/l	99
39) 1,2-Dichloropropane	9.600	63	78005	21.236	ug/l	89
40) Dibromomethane	9.688	93	56616	21.453	ug/l	98
41) Bromodichloromethane	9.871	83	114051	21.468	ug/l	99
42) Vinyl Acetate	6.589	43	1098774	106.850	ug/l	100

11/21/2025
 Supervised By :Semsettin
 Cesilyurt

11/21/2025

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
 Data File : VN088319.D
 Acq On : 20 Nov 2025 10:22
 Operator : JC\MD
 Sample : VN1120WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1120WBSD01

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

Quant Time: Nov 21 02:56:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.541	43	132783	21.419	ug/l	98
44) Isopropyl Acetate	8.671	43	197773	20.701	ug/l	100
45) 1,4-Dioxane	9.677	88	21463	373.062	ug/l	96
46) Methyl methacrylate	9.665	41	91092	20.376	ug/l	96
47) n-amyl Acetate	12.570	43	76961m	15.897	ug/l	
48) t-1,3-Dichloropropene	10.812	75	115612	20.346	ug/l	98
49) cis-1,3-Dichloropropene	10.288	75	122671	20.748	ug/l	98
50) 1,1,2-Trichloroethane	10.994	97	71560	21.929	ug/l	97
51) Ethyl methacrylate	10.853	69	103494	19.276	ug/l	98
52) 1,3-Dichloropropane	11.141	76	124502	20.949	ug/l	98
53) Dibromochloromethane	11.335	129	81206	21.664	ug/l	99
54) 1,2-Dibromoethane	11.447	107	71329	21.037	ug/l	98
55) 2-Chloroethyl vinyl ether	10.141	63	282197	91.244	ug/l	97
56) Bromoform	12.559	173	50101	21.117	ug/l	96
58) 4-Methyl-2-Pentanone	10.424	43	614867	103.918	ug/l	100
59) 2-Hexanone	11.176	43	399048	101.566	ug/l	100
61) Tetrachloroethene	11.082	164	57183	21.201	ug/l	94
62) Toluene	10.606	91	308506	20.550	ug/l	99
64) Chlorobenzene	11.871	112	191612	20.608	ug/l	97
65) 1,1,1,2-Tetrachloroethane	11.941	131	66552	20.913	ug/l	97
66) Ethyl Benzene	11.941	91	329608	19.921	ug/l	99
67) m/p-Xylenes	12.047	106	244655	39.540	ug/l	97
68) o-Xylene	12.376	106	117332	20.102	ug/l	95
69) Styrene	12.388	104	198890	20.062	ug/l	99
70) Isopropylbenzene	12.676	105	307152	19.856	ug/l	97
71) 1,1,2,2-Tetrachloroethane	12.918	83	109342	21.821	ug/l	99
72) 1,2,3-Trichloropropane	12.970	75	104263m	21.478	ug/l	
73) Bromobenzene	12.959	156	73392	21.016	ug/l	97
74) n-propylbenzene	13.012	91	386385	20.184	ug/l	100
75) 2-Chlorotoluene	13.100	91	227632	19.555	ug/l	99
76) 1,3,5-Trimethylbenzene	13.153	105	260668	20.075	ug/l	99
77) t-1,4-Dichloro-2-butene	12.718	75	33658	20.190	ug/l	88
78) 4-Chlorotoluene	13.200	91	231642	19.637	ug/l	100
79) tert-butylbenzene	13.418	119	218757	19.678	ug/l	98
80) 1,2,4-Trimethylbenzene	13.459	105	258295	20.004	ug/l	99
81) sec-Butylbenzene	13.594	105	327046	20.170	ug/l	99
82) p-Isopropyltoluene	13.706	119	265333	19.803	ug/l	99
83) 1,3-Dichlorobenzene	13.712	146	141326	20.829	ug/l	99
84) 1,4-Dichlorobenzene	13.788	146	142695	20.767	ug/l	95
85) n-Butylbenzene	14.035	91	255540	20.012	ug/l	99
86) Hexachloroethane	14.312	117	51486	20.070	ug/l	97
87) 1,2-Dichlorobenzene	14.082	146	134931	21.068	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.694	75	23604	20.041	ug/l	98
89) 1,2,4-Trichlorobenzene	15.811	180	73575	20.472	ug/l	97
90) Hexachlorobutadiene	15.476	225	30541	21.882	ug/l	99
91) Naphthalene	15.617	128	253021	19.458	ug/l	100
92) 1,2,3-Trichlorobenzene	15.811	180	73575	20.472	ug/l	97

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

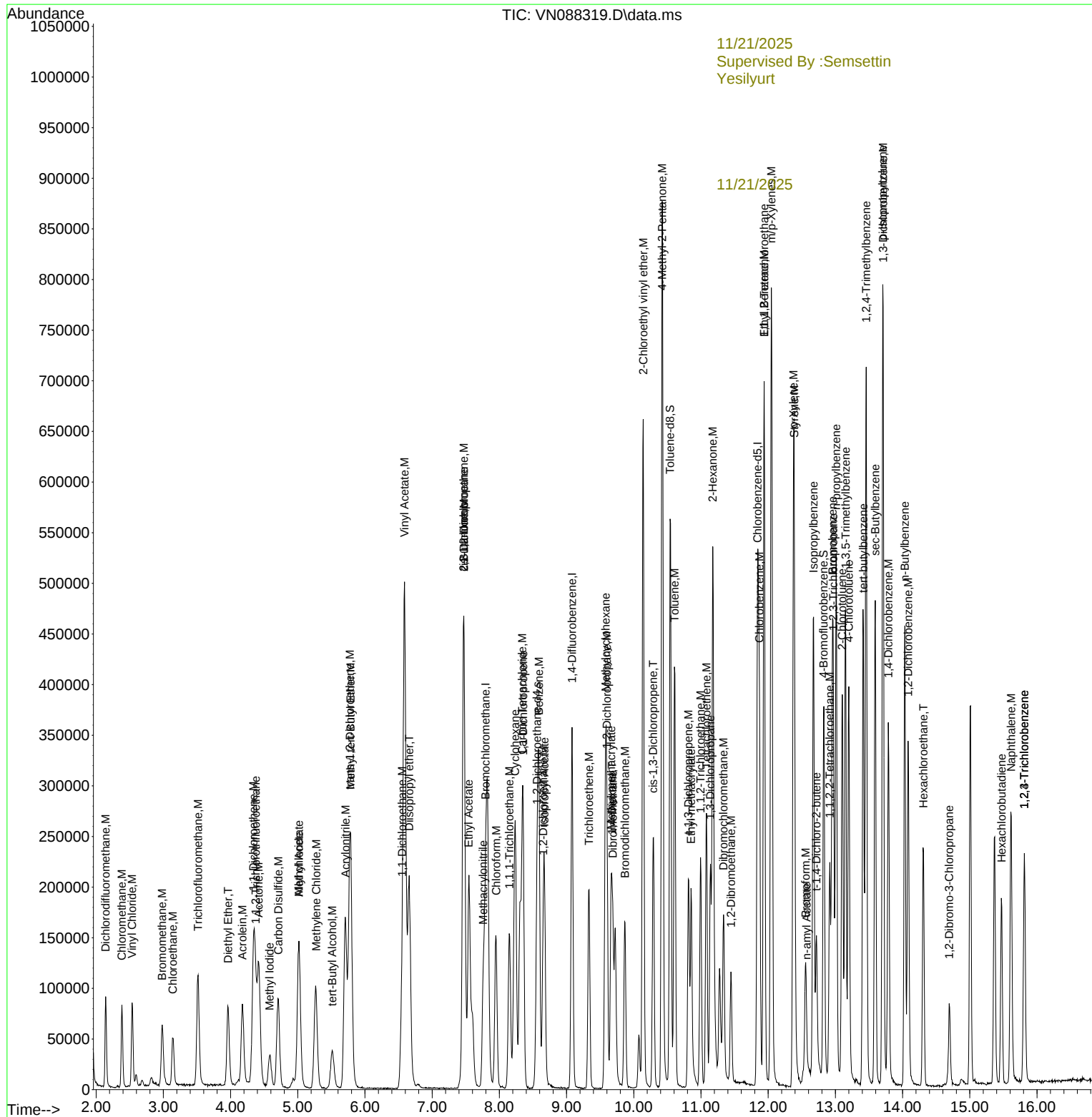
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112025\
 Data File : VN088319.D
 Acq On : 20 Nov 2025 10:22
 Operator : JC\MD
 Sample : VN1120WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1120WBSD01

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

Quant Time: Nov 21 02:56:21 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Nov 14 00:49:21 2025
 Response via : Initial Calibration



Manual Integration Report

Sequence:	VN111325	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VN088274.D	1,1,2-Trichlorotrifluoroethane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	2,2-Dichloropropane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Acrolein	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Carbon Disulfide	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Cyclohexane	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	Ethyl methacrylate	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	n-amyl Acetate	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	t-1,4-Dichloro-2-butene	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICC005	VN088274.D	tert-Butyl Alcohol	JOHN	11/14/2025 8:03:15 AM	sam	11/14/2025 12:24:41 PM	Peak Integrated by Software
VSTDICCC020	VN088275.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:20 AM	sam	11/14/2025 12:24:45 PM	Peak Integrated by Software
VSTDICCC020	VN088275.D	n-amyl Acetate	JOHN	11/14/2025 8:03:20 AM	sam	11/14/2025 12:24:45 PM	Peak Integrated by Software
VSTDICCC020	VN088275.D	trans-1,2-Dichloroethene	JOHN	11/14/2025 8:03:20 AM	sam	11/14/2025 12:24:45 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VN111325

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC050	VN088276.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	Ethyl Acetate	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	n-amyl Acetate	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	tert-Butyl Alcohol	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC050	VN088276.D	Vinyl Acetate	JOHN	11/14/2025 8:03:24 AM	sam	11/14/2025 12:25:04 PM	Peak Integrated by Software
VSTDICC100	VN088277.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:29 AM	sam	11/14/2025 12:24:49 PM	Peak Integrated by Software
VSTDICC100	VN088277.D	n-amyl Acetate	JOHN	11/14/2025 8:03:29 AM	sam	11/14/2025 12:24:49 PM	Peak Integrated by Software
VSTDICC150	VN088278.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:34 AM	sam	11/14/2025 12:25:08 PM	Peak Integrated by Software
VSTDICC150	VN088278.D	Ethyl Acetate	JOHN	11/14/2025 8:03:34 AM	sam	11/14/2025 12:25:08 PM	Peak Integrated by Software
VSTDICC150	VN088278.D	Vinyl Acetate	JOHN	11/14/2025 8:03:34 AM	sam	11/14/2025 12:25:08 PM	Peak Integrated by Software
VSTDICV020	VN088280.D	1,2,3-Trichloropropane	JOHN	11/14/2025 8:03:38 AM	sam	11/14/2025 12:24:55 PM	Peak Integrated by Software
VSTDICV020	VN088280.D	Methylene Chloride	JOHN	11/14/2025 8:03:38 AM	sam	11/14/2025 12:24:55 PM	Peak Integrated by Software
VSTDICV020	VN088280.D	n-amyl Acetate	JOHN	11/14/2025 8:03:38 AM	sam	11/14/2025 12:24:55 PM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

VN111325

Instrument

MSVOA_n

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:	Vn112025	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC020	VN088317.D	1,1,2-Trichlorotrifluoroethane	JOHN	11/21/2025 8:03:03 AM	sam	11/21/2025 11:54:05 AM	Peak Integrated by Software
VSTDCCC020	VN088317.D	1,2,3-Trichloropropane	JOHN	11/21/2025 8:03:03 AM	sam	11/21/2025 11:54:05 AM	Peak Integrated by Software
VSTDCCC020	VN088317.D	Ethyl Acetate	JOHN	11/21/2025 8:03:03 AM	sam	11/21/2025 11:54:05 AM	Peak Integrated by Software
VSTDCCC020	VN088317.D	n-amyl Acetate	JOHN	11/21/2025 8:03:03 AM	sam	11/21/2025 11:54:05 AM	Peak Integrated by Software
VSTDCCC020	VN088317.D	tert-Butyl Alcohol	JOHN	11/21/2025 8:03:03 AM	sam	11/21/2025 11:54:05 AM	Peak Integrated by Software
VN1120WBS01	VN088318.D	1,2,3-Trichloropropane	JOHN	11/21/2025 8:03:09 AM	sam	11/21/2025 11:54:11 AM	Peak Integrated by Software
VN1120WBS01	VN088318.D	n-amyl Acetate	JOHN	11/21/2025 8:03:09 AM	sam	11/21/2025 11:54:11 AM	Peak Integrated by Software
VN1120WBS01	VN088318.D	trans-1,2-Dichloroethene	JOHN	11/21/2025 8:03:09 AM	sam	11/21/2025 11:54:11 AM	Peak Integrated by Software
VN1120WBSD01	VN088319.D	1,2,3-Trichloropropane	JOHN	11/21/2025 8:03:19 AM	sam	11/21/2025 11:54:16 AM	Peak Integrated by Software
VN1120WBSD01	VN088319.D	Methylene Chloride	JOHN	11/21/2025 8:03:19 AM	sam	11/21/2025 11:54:16 AM	Peak Integrated by Software
VN1120WBSD01	VN088319.D	n-amyl Acetate	JOHN	11/21/2025 8:03:19 AM	sam	11/21/2025 11:54:16 AM	Peak Integrated by Software
Q3689-01	VN088327.D	1,2-Dichloroethane-d4	JOHN	11/21/2025 8:03:43 AM	sam	11/21/2025 11:54:33 AM	Peak Integrated by Software
Q3689-01	VN088327.D	4-Methyl-2-Pentanone	JOHN	11/21/2025 8:03:43 AM	sam	11/21/2025 11:54:33 AM	Peak Integrated by Software

Manual Integration Report

Sequence:

Vn112025

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
Q3689-01	VN088327.D	Acetone	JOHN	11/21/2025 8:03:43 AM	sam	11/21/2025 11:54:33 AM	Peak Integrated by Software
Q3689-01	VN088327.D	Chloroform	JOHN	11/21/2025 8:03:43 AM	sam	11/21/2025 11:54:33 AM	Peak Integrated by Software
VSTDCCC020	VN088331.D	1,1-Dichloroethene	JOHN	11/21/2025 8:03:49 AM	sam	11/21/2025 11:54:39 AM	Peak Integrated by Software
VSTDCCC020	VN088331.D	1,2,3-Trichloropropane	JOHN	11/21/2025 8:03:49 AM	sam	11/21/2025 11:54:39 AM	Peak Integrated by Software
VSTDCCC020	VN088331.D	n-amyl Acetate	JOHN	11/21/2025 8:03:49 AM	sam	11/21/2025 11:54:39 AM	Peak Integrated by Software

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN111325

Review By	John Carlone	Review On	11/14/2025 8:03:53 AM
Supervise By	Mahesh Dadoda	Supervise On	11/14/2025 12:39:20 PM
SubDirectory	VN111325	HP Acquire Method	HP Processing Method 624N111325W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP136189		
Initial Calibration Stds	VP136197,VP136198,VP136199,VP136200,VP136201		
CCC			
Internal Standard/PEM			
ICV/I.BLK	VP136212		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN088273.D	13 Nov 2025 08:08	JC\MD	Ok
2	VSTDIC005	VN088274.D	13 Nov 2025 10:14	JC\MD	Ok,M
3	VSTDIC020	VN088275.D	13 Nov 2025 10:47	JC\MD	Ok,M
4	VSTDIC050	VN088276.D	13 Nov 2025 11:08	JC\MD	Ok,M
5	VSTDIC100	VN088277.D	13 Nov 2025 11:29	JC\MD	Ok,M
6	VSTDIC150	VN088278.D	13 Nov 2025 11:50	JC\MD	Ok,M
7	IBLK	VN088279.D	13 Nov 2025 12:11	JC\MD	Ok
8	VSTDICV020	VN088280.D	13 Nov 2025 14:52	JC\MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN112025

Review By	John Carlone	Review On	11/21/2025 8:06:56 AM
Supervise By	Amit Patel	Supervise On	11/21/2025 10:08:14 AM
SubDirectory	VN112025	HP Acquire Method	HP Processing Method 624N111325W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP136340		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP136341,VP136342		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN088316.D	20 Nov 2025 08:40	JC\MD	Ok
2	VSTDCCC020	VN088317.D	20 Nov 2025 09:13	JC\MD	Ok,M
3	VN1120WBS01	VN088318.D	20 Nov 2025 09:49	JC\MD	Ok,M
4	VN1120WBSD01	VN088319.D	20 Nov 2025 10:22	JC\MD	Ok,M
5	VN1120WBL01	VN088320.D	20 Nov 2025 10:43	JC\MD	Ok
6	Q3689-02	VN088321.D	20 Nov 2025 11:21	JC\MD	Ok
7	Q3676-01	VN088322.D	20 Nov 2025 11:42	JC\MD	Ok
8	Q3676-04	VN088323.D	20 Nov 2025 12:02	JC\MD	Dilution
9	Q3676-02MS	VN088324.D	20 Nov 2025 12:23	JC\MD	Ok,M
10	Q3676-03MSD	VN088325.D	20 Nov 2025 12:44	JC\MD	Ok,M
11	IBLK	VN088326.D	20 Nov 2025 13:05	JC\MD	Not Ok
12	Q3689-01	VN088327.D	20 Nov 2025 13:25	JC\MD	Ok,M
13	IBLK	VN088328.D	20 Nov 2025 13:46	JC\MD	Ok
14	IBLK	VN088329.D	20 Nov 2025 14:07	JC\MD	Ok
15	Q3676-04DL	VN088330.D	20 Nov 2025 14:28	JC\MD	Ok
16	VSTDCCC020	VN088331.D	20 Nov 2025 15:11	JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN111325

Review By	John Carlone	Review On	11/14/2025 8:03:53 AM
Supervise By	Maresh Dadoda	Supervise On	11/14/2025 12:39:20 PM
SubDirectory	VN111325	HP Acquire Method	HP Processing Method 624N111325W.M

STD. NAME	STD REF.#
Tune/Reschk	VP136189
Initial Calibration Stds	VP136197,VP136198,VP136199,VP136200,VP136201
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP136212
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN088273.D	13 Nov 2025 08:08		JC\MD	Ok
2	VSTDIC005	VSTDIC005	VN088274.D	13 Nov 2025 10:14		JC\MD	Ok,M
3	VSTDIC020	VSTDIC020	VN088275.D	13 Nov 2025 10:47		JC\MD	Ok,M
4	VSTDIC050	VSTDIC050	VN088276.D	13 Nov 2025 11:08		JC\MD	Ok,M
5	VSTDIC100	VSTDIC100	VN088277.D	13 Nov 2025 11:29		JC\MD	Ok,M
6	VSTDIC150	VSTDIC150	VN088278.D	13 Nov 2025 11:50		JC\MD	Ok,M
7	IBLK	IBLK	VN088279.D	13 Nov 2025 12:11		JC\MD	Ok
8	VSTDICV020	ICVVN111325	VN088280.D	13 Nov 2025 14:52		JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN112025

Review By	John Carlone	Review On	11/21/2025 8:06:56 AM
Supervise By	Amit Patel	Supervise On	11/21/2025 10:08:14 AM
SubDirectory	VN112025	HP Acquire Method	HP Processing Method 624N111325W.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP136340
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP136341,VP136342

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN088316.D	20 Nov 2025 08:40		JC\MD	Ok
2	VSTDCCC020	VSTDCCC020	VN088317.D	20 Nov 2025 09:13	pH#Lot#V12668	JC\MD	Ok,M
3	VN1120WBS01	VN1120WBS01	VN088318.D	20 Nov 2025 09:49		JC\MD	Ok,M
4	VN1120WBSD01	VN1120WBSD01	VN088319.D	20 Nov 2025 10:22		JC\MD	Ok,M
5	VN1120WBL01	VN1120WBL01	VN088320.D	20 Nov 2025 10:43		JC\MD	Ok
6	Q3689-02	251119025-03 Trip blan	VN088321.D	20 Nov 2025 11:21	vial B pH#6.0 TB	JC\MD	Ok
7	Q3676-01	OUTFALL-DSN-001	VN088322.D	20 Nov 2025 11:42	vial A pH<2	JC\MD	Ok
8	Q3676-04	OUTFALL-DSN-002	VN088323.D	20 Nov 2025 12:02	vial A pH<2 Internal Standard Fail;Need 20X	JC\MD	Dilution
9	Q3676-02MS	OUTFALL-DSN-001MS	VN088324.D	20 Nov 2025 12:23	vial A pH<2	JC\MD	Ok,M
10	Q3676-03MSD	OUTFALL-DSN-001MS	VN088325.D	20 Nov 2025 12:44	vial A pH<2	JC\MD	Ok,M
11	IBLK	IBLK	VN088326.D	20 Nov 2025 13:05		JC\MD	Not Ok
12	Q3689-01	251119071-01 VOA	VN088327.D	20 Nov 2025 13:25	vial B pH#6.0 Surrogate fail - See non con	JC\MD	Ok,M
13	IBLK	IBLK	VN088328.D	20 Nov 2025 13:46		JC\MD	Ok
14	IBLK	IBLK	VN088329.D	20 Nov 2025 14:07		JC\MD	Ok
15	Q3676-04DL	OUTFALL-DSN-002DL	VN088330.D	20 Nov 2025 14:28	vial B pH<2	JC\MD	Ok
16	VSTDCCC020	VSTDCCC020EC	VN088331.D	20 Nov 2025 15:11		JC\MD	Ok,M

M : Manual Integration



SHIPPING DOCUMENTS

23689

Garden State Laboratories, Inc.

Main Lab - 410 Hillside Avenue, Hillside NJ 07205 - NJDEP Lab Cert. #20044
Jersey Shore Lab - 54 Main Street, Waretown NJ 08758 - NJDEP Lab Cert. #15037

Tel. 800-273-8901/908-688-8900 Fax 908-688-8966 www.gslabs.com info@gslabs.com

Office and Drop off Locations

North Jersey Office: 225 Sparta Avenue, Sparta, NJ 07871 Tel. 973-729-1827

West Jersey Office: 2050 Route 31 North, Glen Gardner, NJ 08826 Tel. 908-537-7414

CLIENT INFORMATION (REPORT TO BE SENT TO)

Name: Garden State Laboratories, Inc. Contact/Authorized by: Robert Szot
Mailing Address: 410 Hillside Ave. Phone: 908-688-8900 EXT 129
City/State/Zip: Hillside, NJ. 07205 Email: rszot@gslabs.com

SAMPLE INFORMATION

SAMPLE TYPE: WASTE WATER
SAMPLE LOCATION: ACUA SW LANDFILL LEACHATE TANKS

FOR SAMPLE RECEIVING USE ONLY

DATE/TIME/TEMP. REC'D AT LAB:

Page _____ of _____

GSL CLIENT

MICRO #

CHEM. #

SAMPLE REC'D BY:

☐ GSL FIELD SAMPLER/PICK-UP

☐ PICK-UP AT DROP OFF LOCATION

☐ DELIVERED BY CLIENT

Grab Comp	SAMPLE ID	SAMPLE COLLECTION				ANALYSIS REQUIRED (Print Legibly)	CONTAINER INFORMATION			
		Date	Time	AM	PM		No.	Type*	Size	Pres.*
☒	351119071-01 VOA	11/19/25	8:56			EPA 8260 TCL LIST + Acrolien & Acrylonitrile	3	V	40mL	A
☒	351119025-03 Trip blank	-	-	-	-	EPA 8260 TCL LIST + Acrolien & Acrylonitrile	2	V	40mL	A

*Container Type: P = Plastic G = Glass A = Amber Glass I = Sterile Thio V = Vial Other/Specify:

*Preservation Code: A = Non Preserved B = Sulfuric Acid C = Sodium Hydroxide D = Nitric Acid
E = Hydrochloric Acid F = Zinc Acetate G = Sodium Thiosulfate H = Ascorbic Acid I = Cooled Other/Specify:

☒ SUBCONTRACTED WORK

TURNAROUND TIME: ☒ Standard ☐ Rush (IF RUSH REQUESTED) Rush Due by:

SEND TO: Chem Tech

REPORT FORMAT: ☒ Standard Report ☐ Other/Specify:

DATE/TIME:

☐ Standard Report + E2 PWS ID#:

METHOD OF SHIPMENT:

PAYMENT INFORMATION

Deliver

☐ Sampling/Pick-up Fee: \$ ☐ Composite Fee: \$ ☐ Rush Fee: \$ Amount Due: \$

Payment Method: ☐ Credit Card Type: ☐ Check # ☐ Other: See Quote

Note:

VOA UNPRESERVED DUE TO EFFERVESCENCE - 3 DAY TAT PER JORDAN HEDVAT AT216

**SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION
PLEASE PRINT YOUR NAME LEGIBLY, USE FULL LEGAL SIGNATURE, DATE AND TIME**

Sampled by (PRINT):	Signature:	Date/Time:
Client/Client's Representative (PRINT):	Signature:	Date/Time:
1. Received/Relinquished by (PRINT): Kaylee Evans	Signature: Kaylee Evans	Date/Time: 11/19/25 15:06
2. Received/Relinquished by (PRINT): Luis Melendez	Signature: Luis Melendez	Date/Time: 11/19/25 8:57

The liability of Garden State Laboratories, Inc. for services rendered shall in no event exceed the amount of the invoice.
Main Lab certified by NJ Dept. of Health, NJDEP-TNII, NY Dept. of Health #11550 and PADEP #68-03880

Chera

2.4 11/20/25 8:57

CHAIN OF CUSTODY RECORD - PRESS HARD AND PRINT CLEARLY - USE BALL POINT PEN
IMPORTANT: PRINTED NAMES & SIGNATURES ARE REQUIRED

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3689	GARD04	Order Date : 11/20/2025 9:02:00 AM	Project Mgr :
Client Name : Garden State Laboratories, I		Project Name : Waste Water 2025	Report Type : Level 1
Client Contact : Sharon Ercoliani		Receive DateTime : 11/20/2025 8:57:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Garden State Laboratories, I		Purchase Order :	Hard Copy Date :
Invoice Contact : Sharon Ercoliani			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3689-01	251119071-01 VOA	Water	11/19/2025	08:56					
					VOCMS Group1		624.1	10 Bus. Days	
					VOCMS Group2		8260-Low	10 Bus. Days	
Q3689-02	251119025-03 Trip blank	Water	11/19/2025	08:56					
					VOCMS Group1		624.1	10 Bus. Days	
					VOCMS Group2		8260-Low	10 Bus. Days	

Relinquished By :

Date / Time :

CP
11/20/25 9:30

Received By :

Date / Time :

[Signature]
11/20/25

Storage Area : VOA Refridgerator Room

930