

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:	P4528	OrderDate:	10/24/2024 10:00:00 AM
Client:	Garden State Laboratories, Inc.	Project:	Waste Water 2024
Contact:	Sharon Ercoliani	Location:	VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4528-01	241023062-02-VOA	Water	VOCMS Group1	624.1	10/22/24		10/25/24	10/24/24
P4528-02	241023062-05-TRIP-BLANK	Water	VOCMS Group1	624.1	10/24/24		10/25/24	10/24/24



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Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: P4528
Client: Garden State Laboratories, Inc.

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



QC SUMMARY

Surrogate Summary

SDG No.: **P4528**

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

Analytical Method: **SW624.1**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P4528-01	241023062-02-VOA	1,2-Dichloroethane-d4	30	29.6	98	91	110
		Toluene-d8	30	28.5	95	91	112
		4-Bromofluorobenzene	30	26.7	89	63	112
P4528-02	241023062-05-TRIP-BLANK	1,2-Dichloroethane-d4	30	30.2	101	91	110
		Toluene-d8	30	28.9	96	91	112
		4-Bromofluorobenzene	30	25.4	85	63	112
VN1025WBL01	VN1025WBL01	1,2-Dichloroethane-d4	30	30.0	100	91	110
		Toluene-d8	30	30.1	100	91	112
		4-Bromofluorobenzene	30	26.2	87	63	112
VN1025WBS01	VN1025WBS01	1,2-Dichloroethane-d4	30	30.3	101	91	110
		Toluene-d8	30	29.9	100	91	112
		4-Bromofluorobenzene	30	30.6	102	63	112
VN1025WBSD0	VN1025WBSD01	1,2-Dichloroethane-d4	30	30.3	101	91	110
		Toluene-d8	30	29.5	98	91	112
		4-Bromofluorobenzene	30	30.3	101	63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4528

Client: Garden State Laboratories, Inc.

Analytical Method: SW624.1

Datafile : VN084505.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1025WBS01	Acrolein	100	99.2	ug/L	99			60	140	
	Acrylonitrile	100	89.2	ug/L	89			60	140	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4528

Client: Garden State Laboratories, Inc.

Analytical Method: SW624.1

Datafile : VN084506.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1025WBSD01	Acrolein	100	100	ug/L	100	1		60	140	20
	Acrylonitrile	100	92.5	ug/L	93	4		60	140	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1025WBL01

Lab Name: CHEMTECH

Contract: GARD04

Lab Code: CHEM Case No.: P4528

SAS No.: P4528 SDG NO.: P4528

Lab File ID: VN084507.D

Lab Sample ID: VN1025WBL01

Date Analyzed: 10/25/2024

Time Analyzed: 11:27

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

Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1025WBS01	VN1025WBS01	VN084505.D	10/25/2024
VN1025WBSD01	VN1025WBSD01	VN084506.D	10/25/2024
241023062-05-TRIP-BLANK	P4528-02	VN084511.D	10/25/2024
241023062-02-VOA	P4528-01	VN084513.D	10/25/2024

COMMENTS: _____



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GARD04
Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG NO.: P4528
Lab File ID: VN084336.D BFB Injection Date: 10/08/2024
Instrument ID: MSVOA_N BFB Injection Time: 09:08
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	19
75	30.0 - 60.0% of mass 95	51.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5) 1
176	95.0 - 101.0% of mass 174	70.3 (95.4) 1
177	5.0 - 9.0% of mass 176	4.4 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC150	VSTDICC150	VN084337.D	10/08/2024	09:43
VSTDICC100	VSTDICC100	VN084338.D	10/08/2024	10:07
VSTDICC050	VSTDICC050	VN084339.D	10/08/2024	10:31
VSTDICCC020	VSTDICCC020	VN084340.D	10/08/2024	10:55
VSTDICC005	VSTDICC005	VN084341.D	10/08/2024	11:19



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GARD04
Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG NO.: P4528
Lab File ID: VN084502.D BFB Injection Date: 10/25/2024
Instrument ID: MSVOA_N BFB Injection Time: 08:21
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	54
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6 (0.7) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	72.6 (95.4) 1
177	5.0 - 9.0% of mass 176	4.5 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VN084504.D	10/25/2024	10:04
VN1025WBS01	VN1025WBS01	VN084505.D	10/25/2024	10:40
VN1025WBSD01	VN1025WBSD01	VN084506.D	10/25/2024	11:04
VN1025WBL01	VN1025WBL01	VN084507.D	10/25/2024	11:27
241023062-05-TRIP-BLANK	P4528-02	VN084511.D	10/25/2024	13:15
241023062-02-VOA	P4528-01	VN084513.D	10/25/2024	14:03

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG NO.: P4528
 Lab File ID: _____ Date Analyzed: _____
 Instrument ID: _____ Time Analyzed: _____
 GC Column: _____ ID: _____ (mm) Heated Purge: (Y/N) _____

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

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: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG NO.: P4528
 Lab File ID: _____ Date Analyzed: _____
 Instrument ID: _____ Time Analyzed: _____
 GC Column: _____ ID: _____ (mm) Heated Purge: (Y/N) _____

	IS4 AREA #	RT #				
12 HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

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: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG NO.: P4528
 Lab File ID: VN084504.D Date Analyzed: 10/25/2024
 Instrument ID: MSVOA_N Time Analyzed: 10:04
 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	35506	7.81	200200	9.10	180518	11.87
UPPER LIMIT	71012	8.312	400400	9.6	361036	12.365
LOWER LIMIT	17753	7.312	100100	8.6	90259	11.365
EPA SAMPLE NO.						
241023062-02-VOA	30028	7.81	157495	9.10	139902	11.87
241023062-05-TRIP-BLANK	24080	7.82	119946	9.10	106273	11.87
VN1025WBL01	32302	7.81	175246	9.10	150285	11.87
VN1025WBS01	35006	7.81	196424	9.10	178483	11.87
VN1025WBSD01	34702	7.81	195213	9.10	177752	11.87

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: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG NO.: P4528
 Lab File ID: VN084504.D Date Analyzed: 10/25/2024
 Instrument ID: MSVOA_N Time Analyzed: 10:04
 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.						
241023062-02-VOA	0	0.00				
241023062-05-TRIP-BLANK	0	0.00				
VN1025WBL01	0	0.00				
VN1025WBS01	0	0.00				
VN1025WBSD01	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

Report of Analysis

Client:	Garden State Laboratories, Inc.	Date Collected:	10/22/24
Project:	Waste Water 2024	Date Received:	10/24/24
Client Sample ID:	241023062-02-VOA	SDG No.:	P4528
Lab Sample ID:	P4528-01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOCMS Group1

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084513.D	1		10/25/24 14:03	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	29.5		91 - 110	98%	SPK: 30
2037-26-5	Toluene-d8	28.5		91 - 112	95%	SPK: 30
460-00-4	4-Bromofluorobenzene	26.7		63 - 112	89%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	30000	7.812			
540-36-3	1,4-Difluorobenzene	157000	9.1			
3114-55-4	Chlorobenzene-d5	140000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084513.D
 Acq On : 25 Oct 2024 14:03
 Operator : JC\MD
 Sample : P4528-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 241023062-02-VOA

Quant Time: Oct 26 05:29:18 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration

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

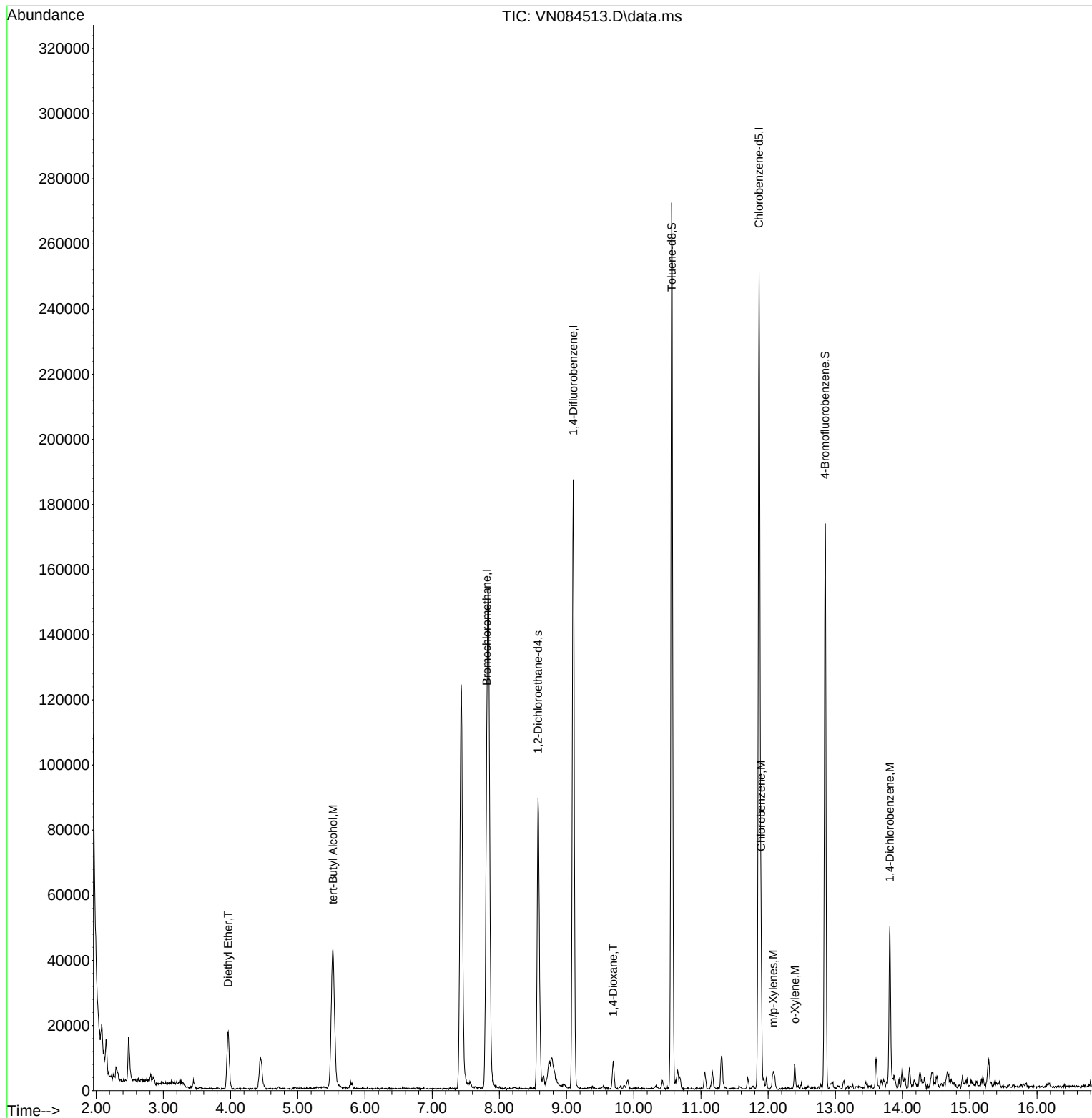
Internal Standards						
1) Bromochloromethane	7.812	128	30028	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	157495	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	139902	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	71428	29.546	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.500%		
60) 4-Bromofluorobenzene	12.847	95	61605	26.681	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	88.933%		
63) Toluene-d8	10.565	98	184765	28.508	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	95.033%		
Target Compounds						
					Qvalue	
8) Diethyl Ether	3.965	74	10018	8.176	ug/l	99
23) tert-Butyl Alcohol	5.524	59	79263	196.503	ug/l #	100
45) 1,4-Dioxane	9.694	88	5167	128.996	ug/l #	91
64) Chlorobenzene	11.894	112	27605	5.416	ug/l	98
67) m/p-Xylenes	12.076	106	1777	0.526	ug/l #	68
68) o-Xylene	12.400	106	1731	0.532	ug/l	82
84) 1,4-Dichlorobenzene	13.812	146	20599	5.546	ug/l	97

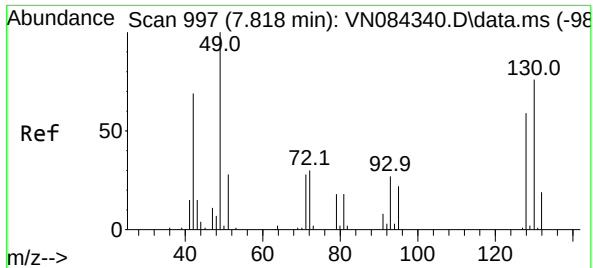
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084513.D
Acq On : 25 Oct 2024 14:03
Operator : JC\MD
Sample : P4528-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
241023062-02-VOA

Quant Time: Oct 26 05:29:18 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration

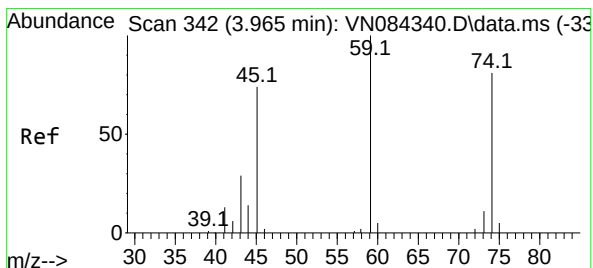
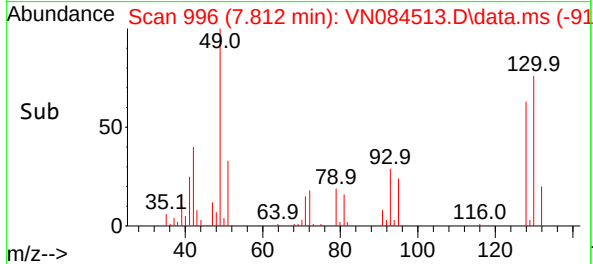
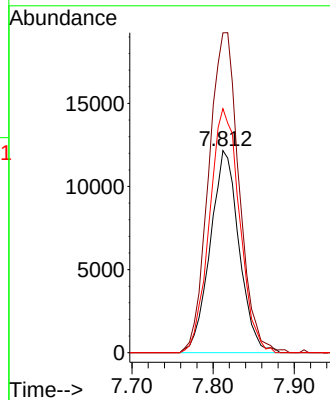
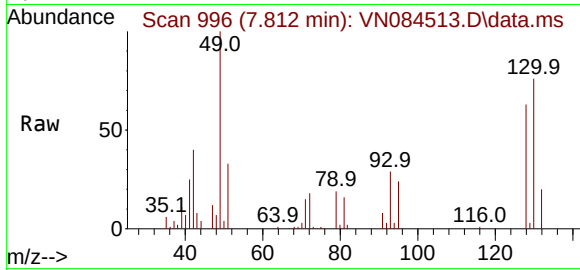




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 996
Delta R.T. -0.006 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

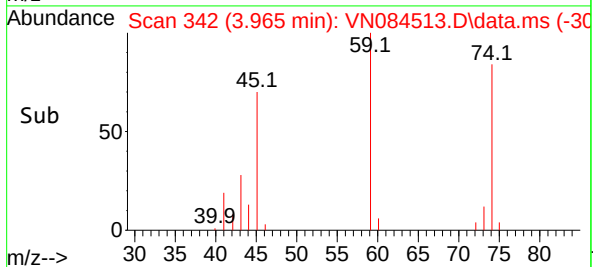
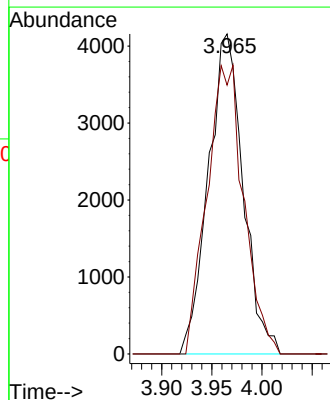
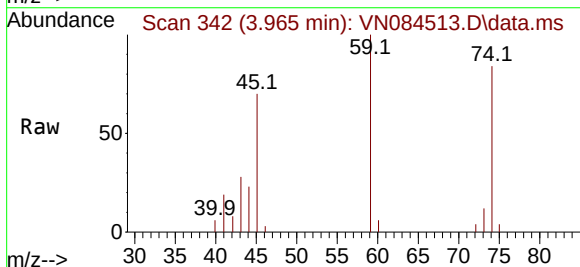
Instrument :
MSVOA_N
ClientSampleId :
241023062-02-VOA

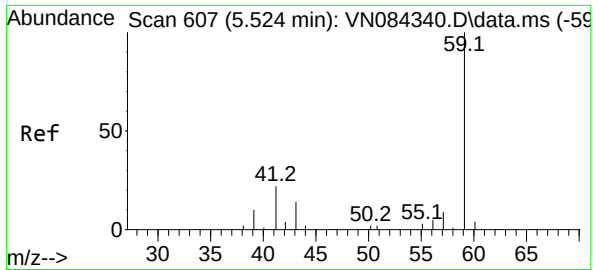
Tgt Ion:128 Resp: 30028
Ion Ratio Lower Upper
128 100
49 166.7 0.0 430.0
130 126.0 0.0 329.8



#8
Diethyl Ether
Concen: 8.176 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.000 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

Tgt Ion: 74 Resp: 10018
Ion Ratio Lower Upper
74 100
45 95.6 19.2 173.2

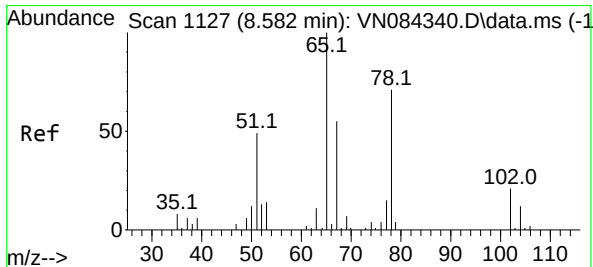
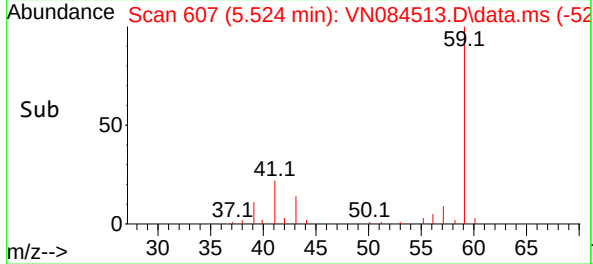
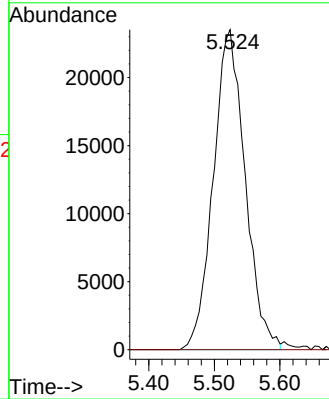
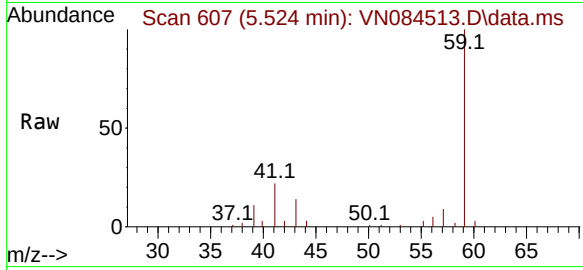




#23
tert-Butyl Alcohol
Concen: 196.503 ug/l
RT: 5.524 min Scan# 607
Delta R.T. 0.000 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

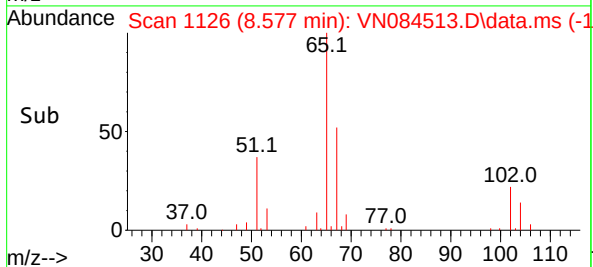
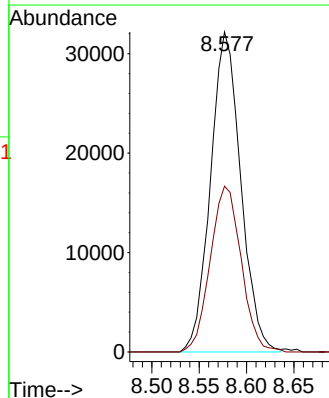
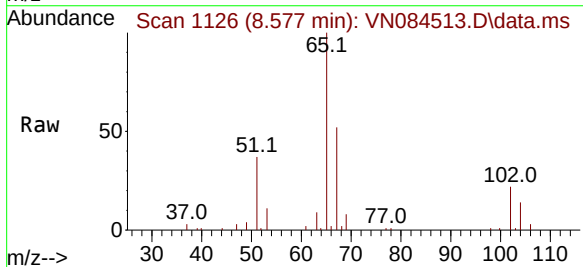
Instrument :
MSVOA_N
ClientSampleId :
241023062-02-VOA

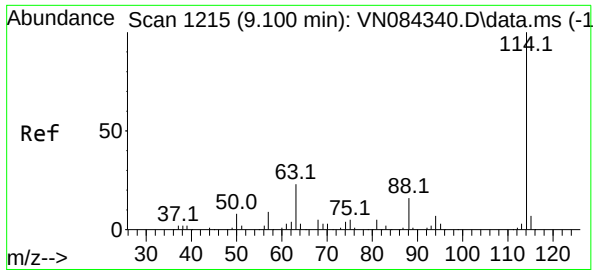
Tgt Ion: 59 Resp: 79263
Ion Ratio Lower Upper
59 100
52 0.0 0.0 0.0



#27
1,2-Dichloroethane-d4
Concen: 29.546 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. -0.006 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

Tgt Ion: 65 Resp: 71428
Ion Ratio Lower Upper
65 100
67 53.0 41.5 62.3





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN084513.D

Acq: 25 Oct 2024 14:03

Instrument :

MSVOA_N

ClientSampleId :

241023062-02-VOA

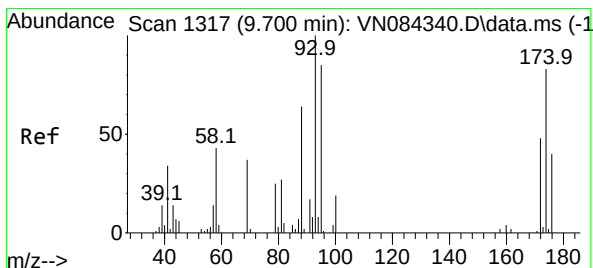
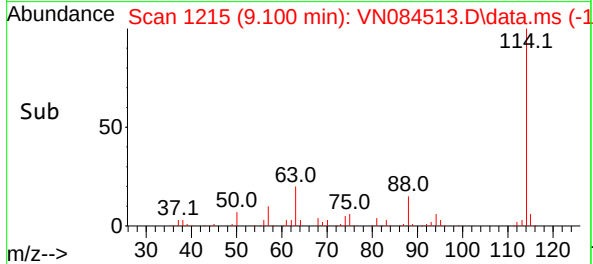
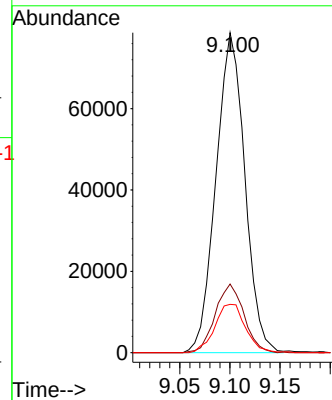
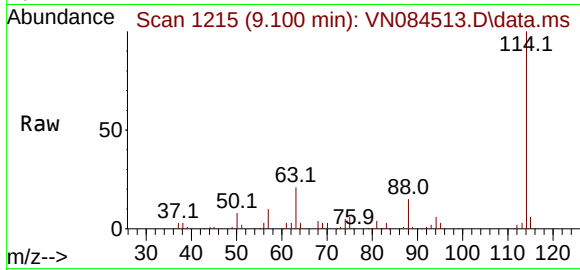
Tgt Ion:114 Resp: 157495

Ion Ratio Lower Upper

114 100

63 21.3 17.4 26.0

88 16.1 13.2 19.8



#45

1,4-Dioxane

Concen: 128.996 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. -0.006 min

Lab File: VN084513.D

Acq: 25 Oct 2024 14:03

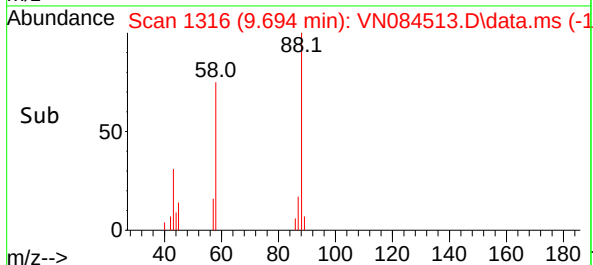
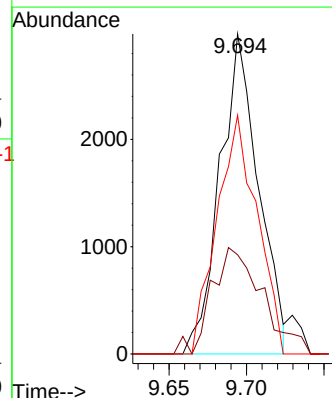
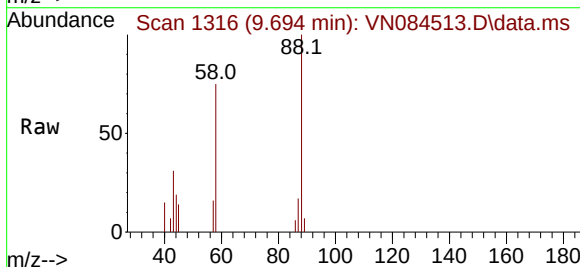
Tgt Ion: 88 Resp: 5167

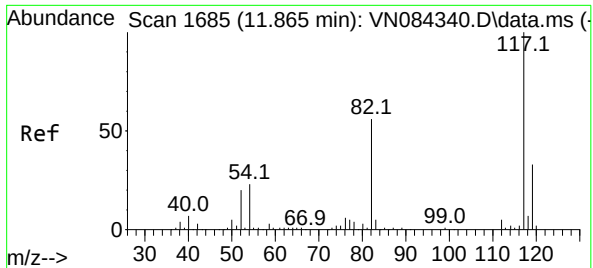
Ion Ratio Lower Upper

88 100

43 40.1 22.4 33.6#

58 77.5 59.7 89.5





#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.865 min Scan# 1

Delta R.T. 0.000 min

Lab File: VN084513.D

Acq: 25 Oct 2024 14:03

Instrument :

MSVOA_N

ClientSampleId :

241023062-02-VOA

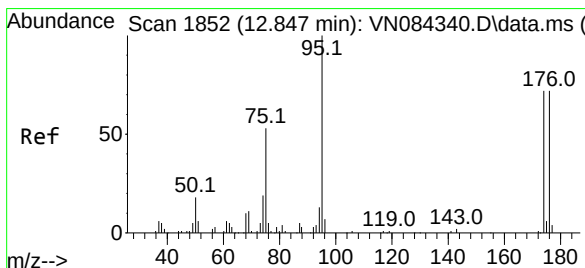
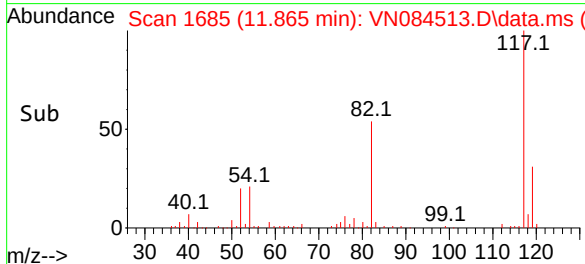
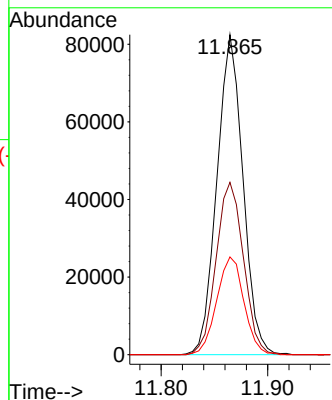
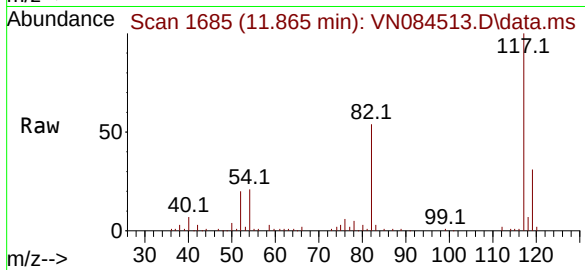
Tgt Ion:117 Resp: 139902

Ion Ratio Lower Upper

117 100

82 56.6 46.2 69.4

119 32.0 25.4 38.2



#60

4-Bromofluorobenzene

Concen: 26.681 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.000 min

Lab File: VN084513.D

Acq: 25 Oct 2024 14:03

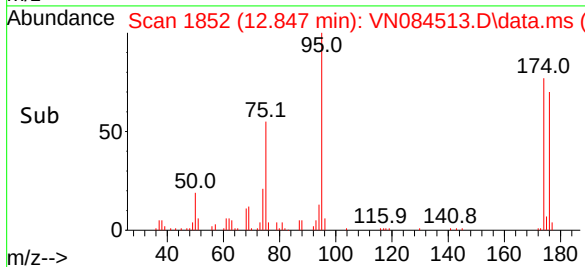
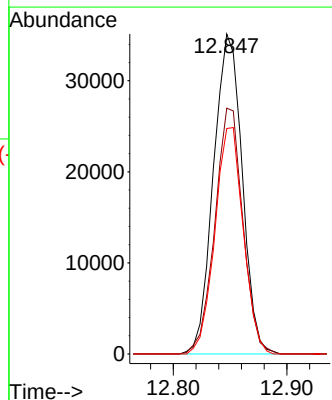
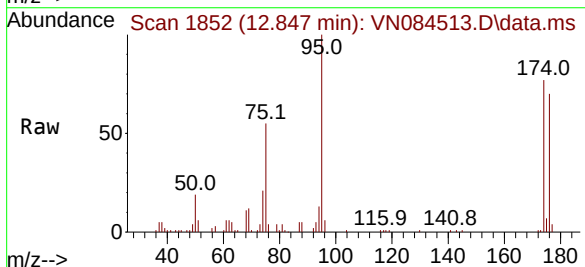
Tgt Ion: 95 Resp: 61605

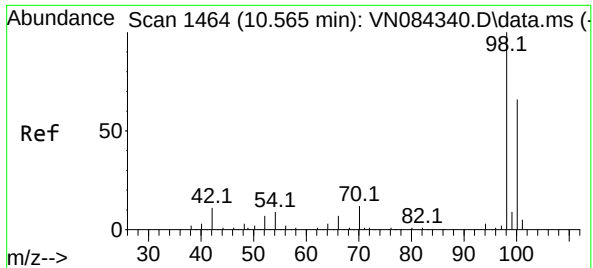
Ion Ratio Lower Upper

95 100

174 75.1 58.2 87.2

176 70.0 56.4 84.6

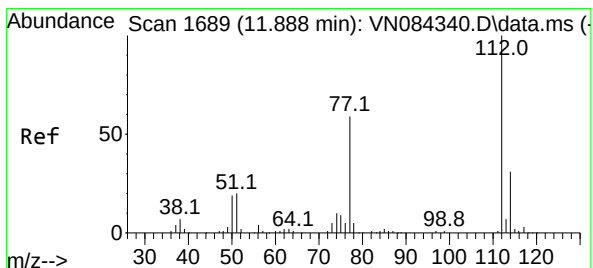
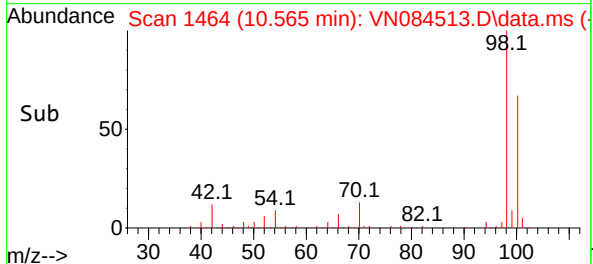
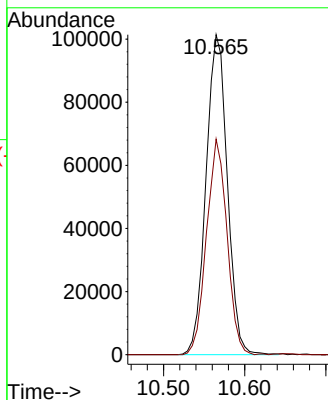
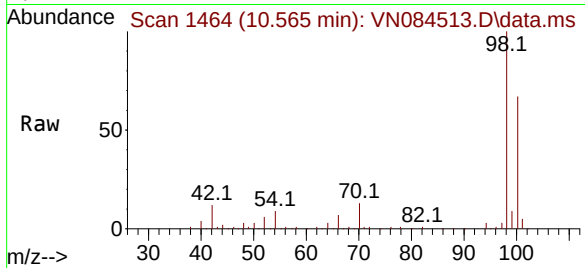




#63
Toluene-d8
Concen: 28.508 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.000 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

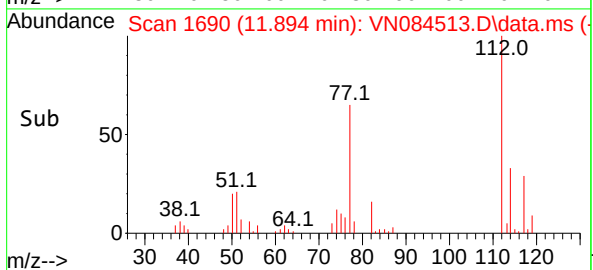
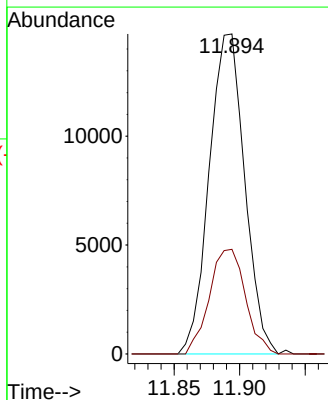
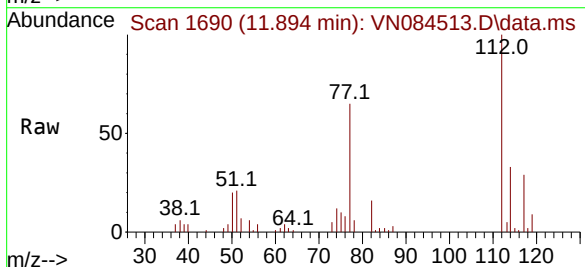
Instrument :
MSVOA_N
ClientSampleId :
241023062-02-VOA

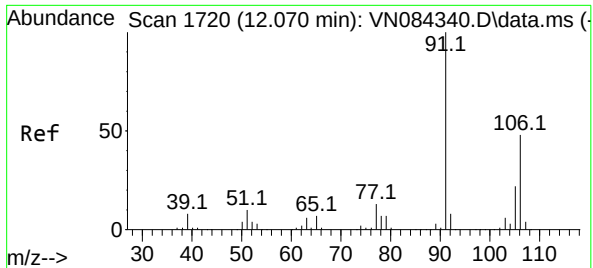
Tgt Ion: 98 Resp: 184765
Ion Ratio Lower Upper
98 100
100 64.8 52.5 78.7



#64
Chlorobenzene
Concen: 5.416 ug/l
RT: 11.894 min Scan# 1690
Delta R.T. 0.006 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

Tgt Ion: 112 Resp: 27605
Ion Ratio Lower Upper
112 100
114 32.7 25.1 37.7

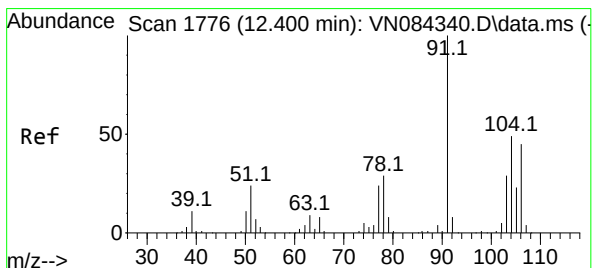
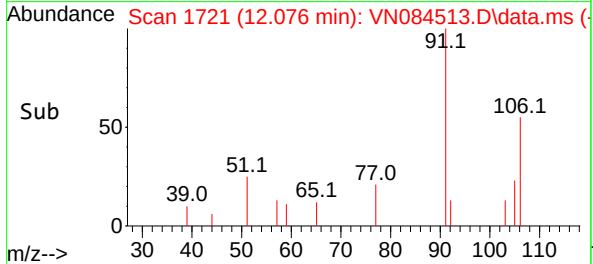
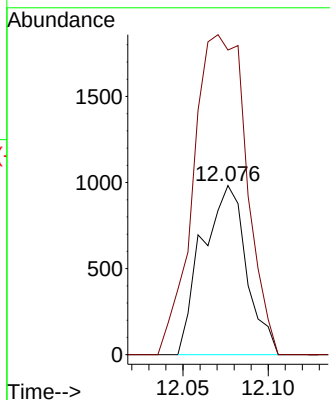
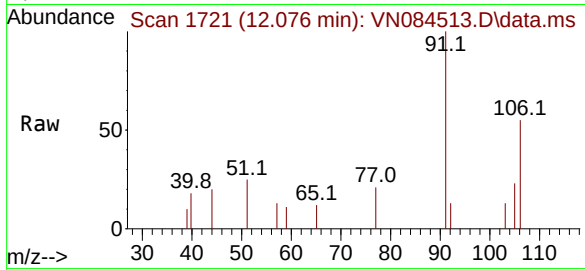




#67
m/p-Xylenes
Concen: 0.526 ug/l
RT: 12.076 min Scan# 1720
Delta R.T. 0.006 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

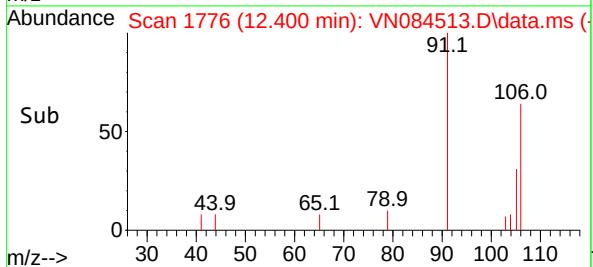
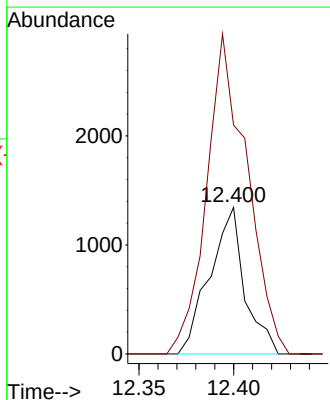
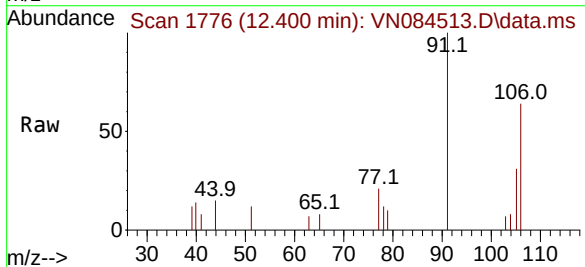
Instrument :
MSVOA_N
ClientSampleId :
241023062-02-VOA

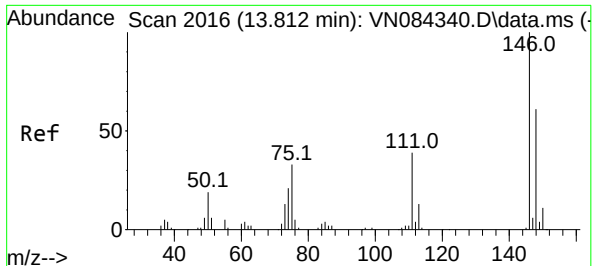
Tgt Ion:106 Resp: 1777
Ion Ratio Lower Upper
106 100
91 159.3 166.7 250.1#



#68
o-Xylene
Concen: 0.532 ug/l
RT: 12.400 min Scan# 1776
Delta R.T. 0.000 min
Lab File: VN084513.D
Acq: 25 Oct 2024 14:03

Tgt Ion:106 Resp: 1731
Ion Ratio Lower Upper
106 100
91 250.6 110.9 332.9





#84

1,4-Dichlorobenzene

Concen: 5.546 ug/l

RT: 13.812 min Scan# 20

Delta R.T. 0.000 min

Lab File: VN084513.D

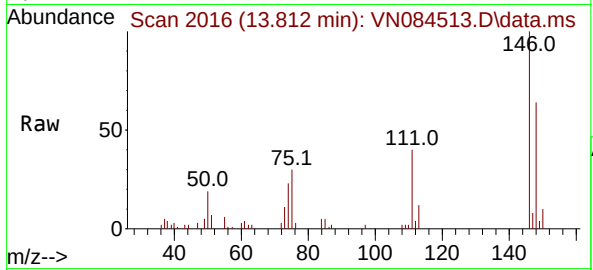
Acq: 25 Oct 2024 14:03

Instrument :

MSVOA_N

ClientSampleId :

241023062-02-VOA



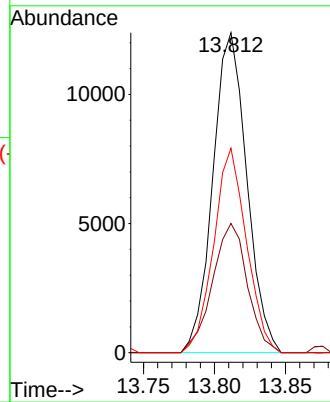
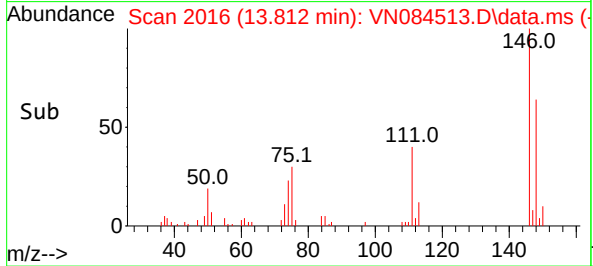
Tgt Ion:146 Resp: 20599

Ion Ratio Lower Upper

146 100

111 41.6 20.5 61.5

148 61.7 32.5 97.4



Report of Analysis

Client:	Garden State Laboratories, Inc.	Date Collected:	10/24/24
Project:	Waste Water 2024	Date Received:	10/24/24
Client Sample ID:	241023062-05-TRIP-BLANK	SDG No.:	P4528
Lab Sample ID:	P4528-02	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084511.D	1		10/25/24 13:15	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.2		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	28.9		91 - 112	96%	SPK: 30
460-00-4	4-Bromofluorobenzene	25.4		63 - 112	85%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	24100	7.818			
540-36-3	1,4-Difluorobenzene	120000	9.1			
3114-55-4	Chlorobenzene-d5	106000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084511.D
Acq On : 25 Oct 2024 13:15
Operator : JC\MD
Sample : P4528-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
241023062-05-TRIP-BLANK

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:28:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.818	128	24080m	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	119946	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	106273	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	58572	30.213	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	100.700%
60) 4-Bromofluorobenzene	12.847	95	44632	25.447	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	84.833%
63) Toluene-d8	10.565	98	142449	28.934	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	96.433%

Target Compounds	Qvalue

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

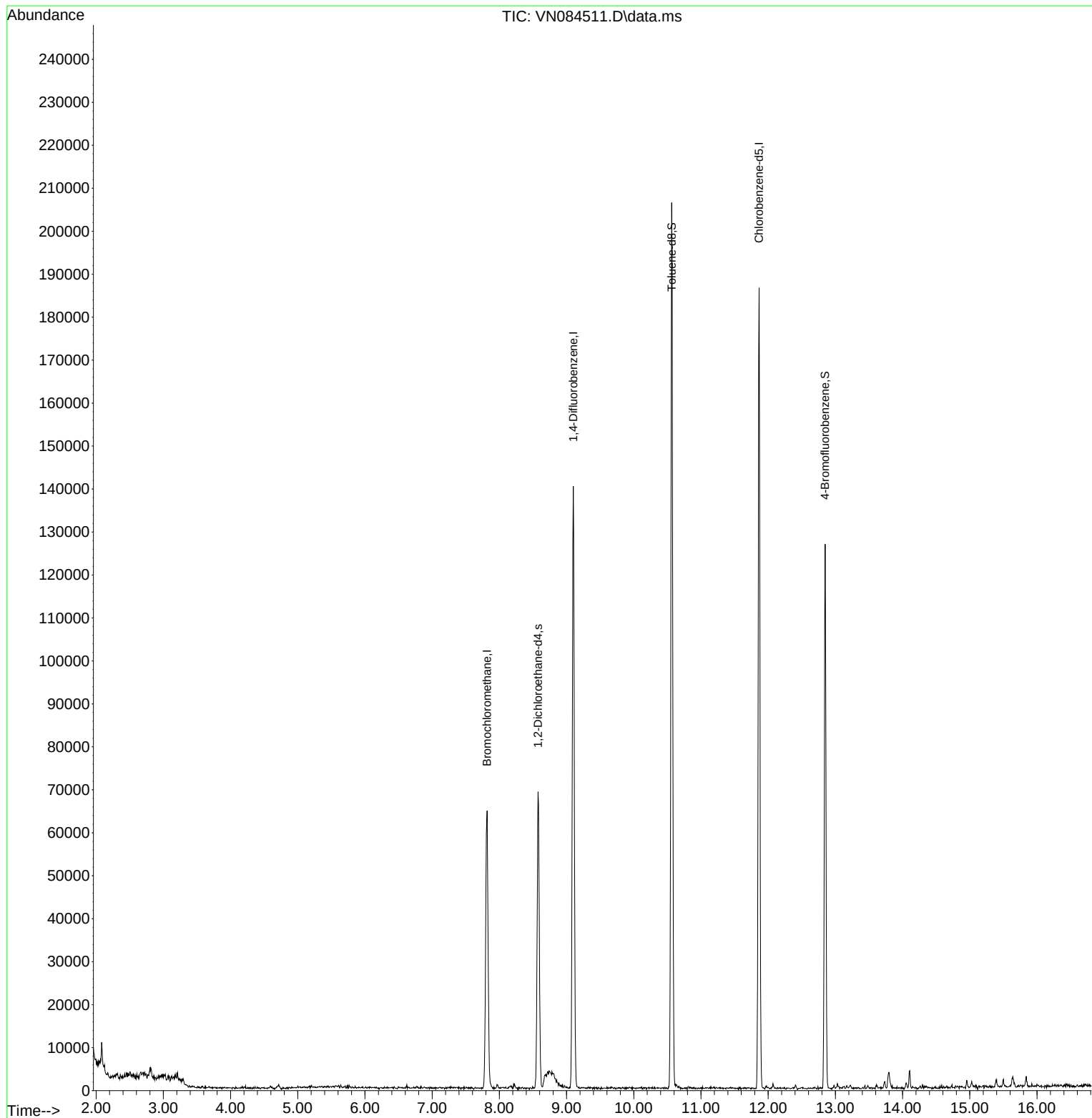
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084511.D
Acq On : 25 Oct 2024 13:15
Operator : JC\MD
Sample : P4528-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

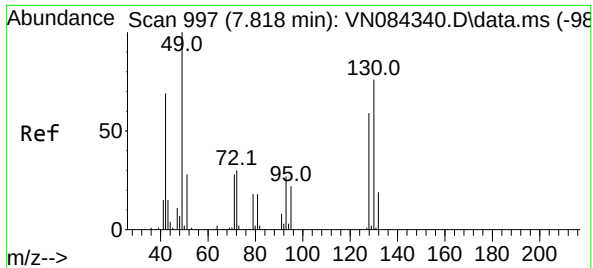
Instrument :
MSVOA_N
ClientSampleId :
241023062-05-TRIP-BLANK

Quant Time: Oct 26 05:28:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration

Manual Integrations
APPROVED

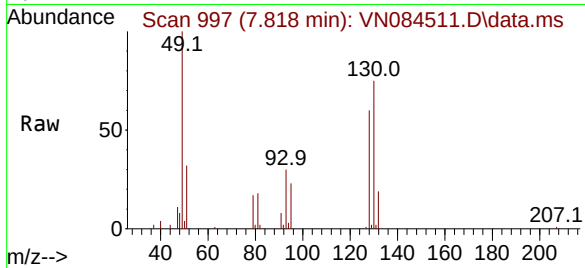
Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024





#1
Bromochloromethane
Concen: 30.000 ug/l m
RT: 7.818 min Scan# 997
Delta R.T. -0.000 min
Lab File: VN084511.D
Acq: 25 Oct 2024 13:15

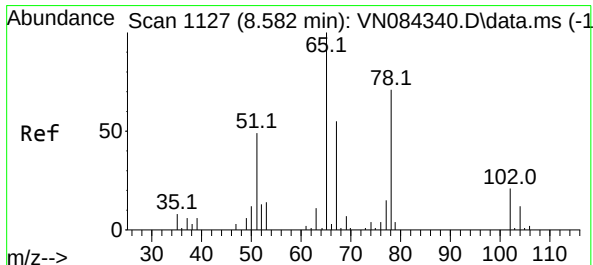
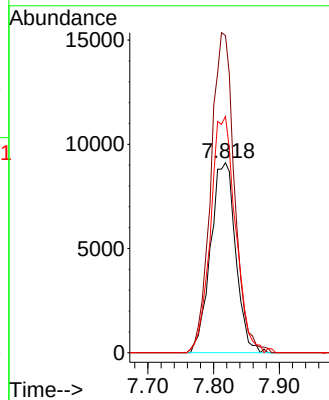
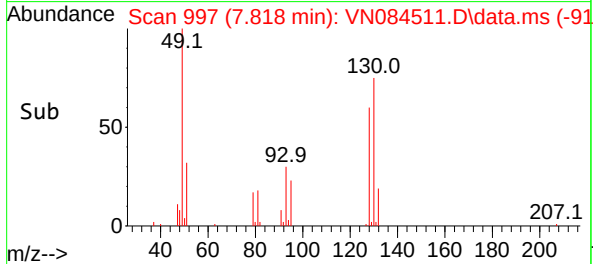
Instrument :
MSVOA_N
ClientSampleId :
241023062-05-TRIP-BLANK



Tgt Ion:128 Resp: 24080
Ion Ratio Lower Upper
128 100
49 0.0 0.0 430.0
130 0.6 0.0 329.8

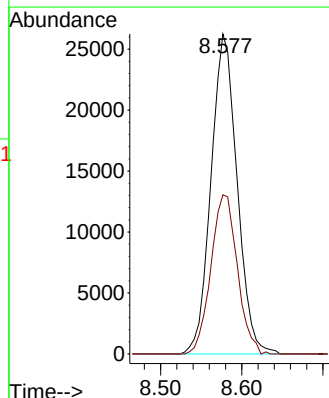
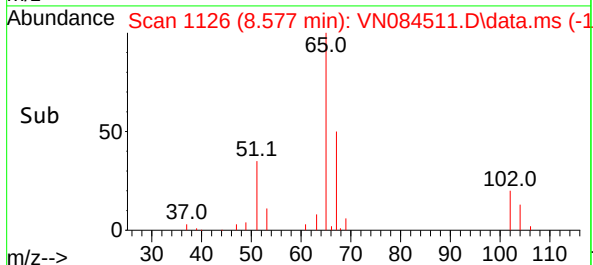
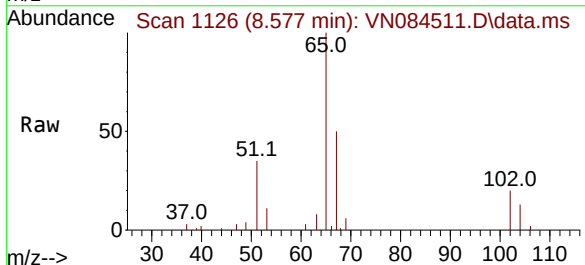
Manual Integrations
APPROVED

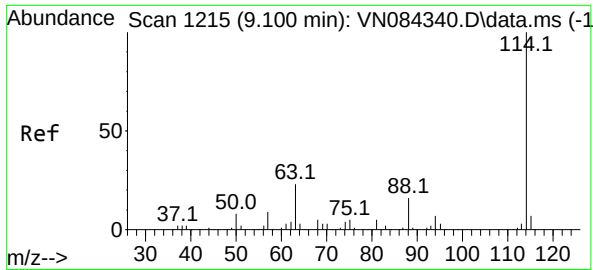
Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024



#27
1,2-Dichloroethane-d4
Concen: 30.213 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. -0.006 min
Lab File: VN084511.D
Acq: 25 Oct 2024 13:15

Tgt Ion: 65 Resp: 58572
Ion Ratio Lower Upper
65 100
67 50.3 41.5 62.3





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN084511.D

Acq: 25 Oct 2024 13:15

Instrument :

MSVOA_N

ClientSampleId :

241023062-05-TRIP-BLANK

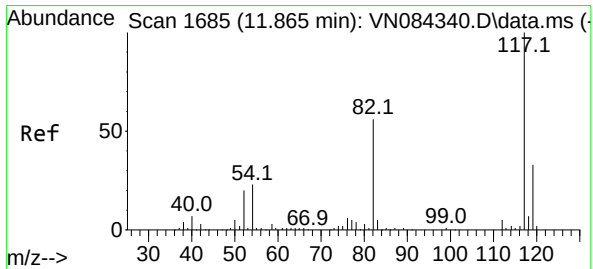
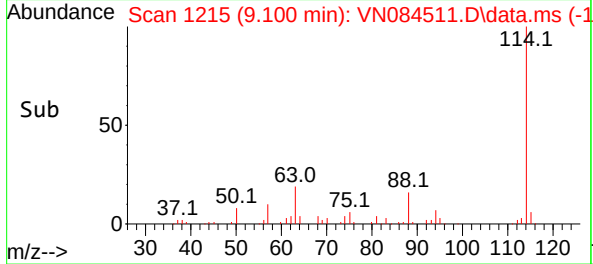
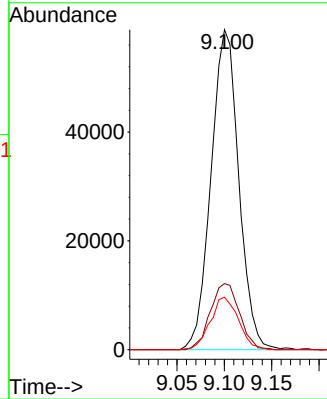
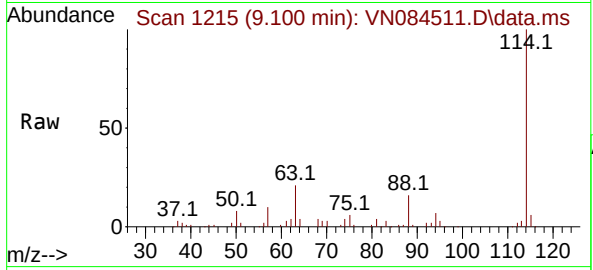
Tgt Ion:114 Resp: 119940

Ion	Ratio	Lower	Upper
114	100		
63	21.6	17.4	26.0
88	16.6	13.2	19.8

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.865 min Scan# 1685

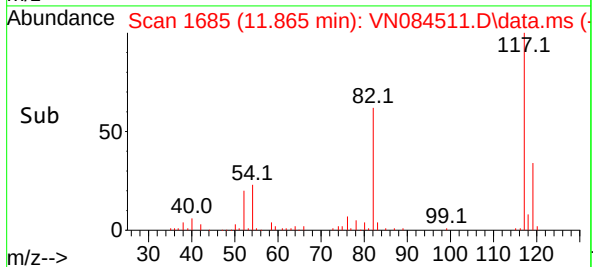
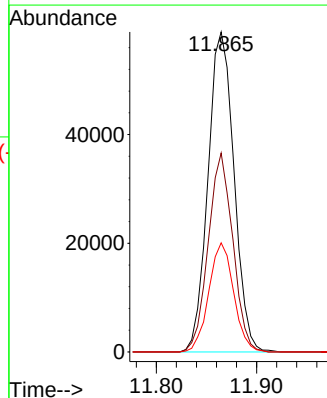
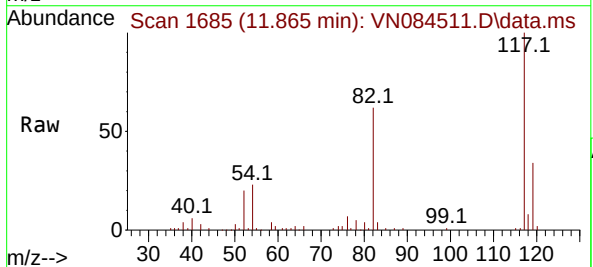
Delta R.T. 0.000 min

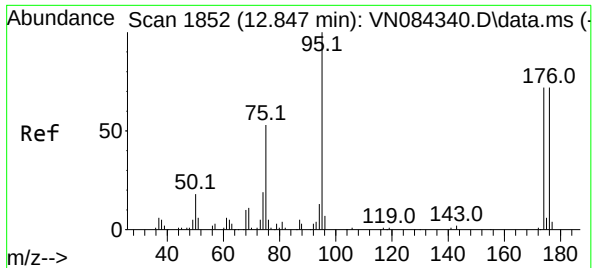
Lab File: VN084511.D

Acq: 25 Oct 2024 13:15

Tgt Ion:117 Resp: 106273

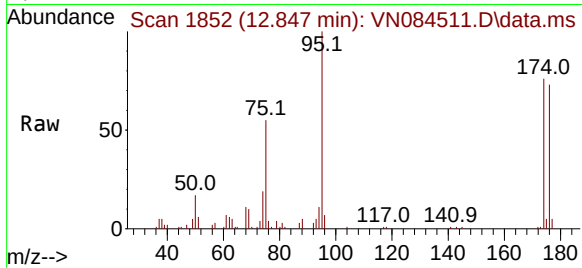
Ion	Ratio	Lower	Upper
117	100		
82	58.7	46.2	69.4
119	32.6	25.4	38.2





#60
4-Bromofluorobenzene
Concen: 25.447 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN084511.D
Acq: 25 Oct 2024 13:15

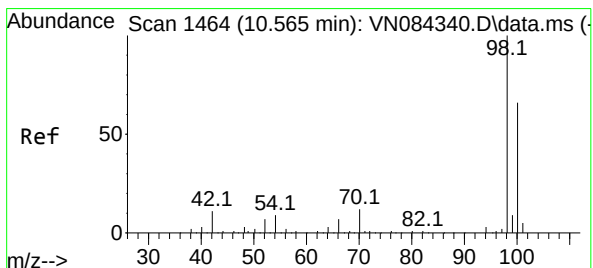
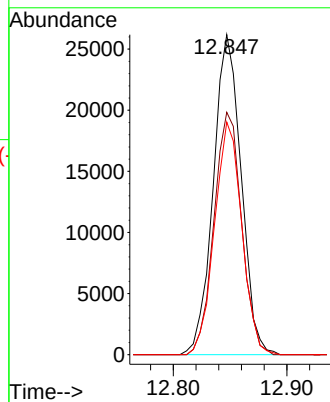
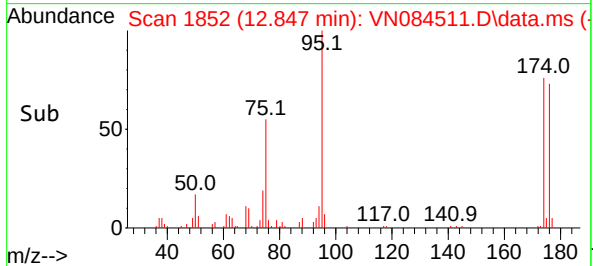
Instrument :
MSVOA_N
ClientSampleId :
241023062-05-TRIP-BLANK



Tgt Ion: 95 Resp: 44632
Ion Ratio Lower Upper
95 100
174 75.1 58.2 87.2
176 71.2 56.4 84.6

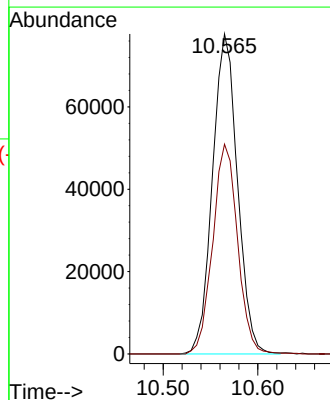
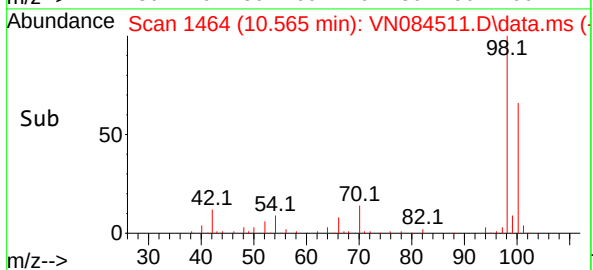
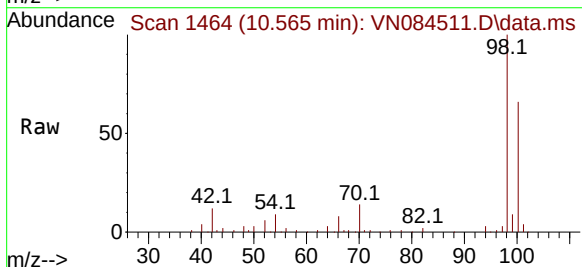
Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024



#63
Toluene-d8
Concen: 28.934 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.000 min
Lab File: VN084511.D
Acq: 25 Oct 2024 13:15

Tgt Ion: 98 Resp: 142449
Ion Ratio Lower Upper
98 100
100 65.3 52.5 78.7





CALIBRATION SUMMARY



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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GARD04
 Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG No.: P4528
 Instrument ID: MSVOA_N Calibration Date(s): 10/08/2024 10/08/2024
 Heated Purge: (Y/N) N Calibration Time(s): 09:43 11:19
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF150 = VN084337.D		RRF100 = VN084338.D		RRF050 = VN084339.D		
		RRF020 = VN084340.D		RRF005 = VN084341.D		RRF =		
COMPOUND	RRF150	RRF100	RRF050	RRF020	RRF005	RRF	RRF	% RSD
Acrolein	0.440	0.450	0.431	0.402	0.449		0.434	4.5
Acrylonitrile	1.069	1.026	1.064	1.069	1.024		1.051	2.2
1,2-Dichloroethane-d4	2.393	2.419	2.371	2.467	2.428		2.415	1.5
Toluene-d8	1.397	1.374	1.378	1.395	1.404		1.390	0.9
4-Bromofluorobenzene	0.514	0.506	0.498	0.492	0.465		0.495	3.8

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

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N100824W.M
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 Last Update : Wed Oct 09 02:22:28 2024
 Response Via : Initial Calibration

Calibration Files

5 =VN084341.D 20 =VN084340.D 50 =VN084339.D 100 =VN084338.D 150 =VN084337.D

	Compound	5	20	50	100	150	Avg	%RSD
1) I	Bromochloromethane	-----ISTD-----						
2) M	Dichlorodifluoro...	1.918	1.931	1.768	1.757	1.784	1.832	4.66
3) M	Chloromethane	2.148	2.146	2.024	2.037	2.067	2.084	2.85
4) M	Vinyl Chloride	2.113	2.098	2.005	1.986	2.018	2.044	2.81
5) M	Bromomethane	1.635	1.418	1.249	1.234	1.236	1.354	12.91
6) M	Chloroethane	1.607	1.396	1.228	1.205	1.264	1.340	12.44
7) M	Trichlorofluorom...	3.505	3.403	3.256	3.246	3.237	3.329	3.60
8) T	Diethyl Ether	1.232	1.232	1.226	1.207	1.223	1.224	0.85
9)	1,1,2-Trichlorot...	1.981	1.891	1.799	1.829	1.861	1.872	3.73
10) M	1,1-Dichloroethene	1.971	1.834	1.870	1.832	1.833	1.868	3.20
11)	Methyl Iodide	2.378	2.469	2.473	2.450	2.503	2.455	1.90
12)	Methyl Acetate	2.221	2.287	2.435	2.367	2.383	2.339	3.62
13) M	Acrolein	0.449	0.402	0.431	0.450	0.440	0.434	4.50
14) M	Acrylonitrile	1.024	1.069	1.064	1.026	1.069	1.051	2.23
15) M	Acetone	0.265	0.286	0.306	0.315	0.329	0.300	8.31
16) M	Carbon Disulfide	6.106	5.704	5.346	5.270	5.386	5.562	6.23
17)	Allyl chloride	2.962	3.091	3.040	3.017	3.030	3.028	1.53
18) M	Methylene Chloride	2.203	2.147	2.090	2.014	2.067	2.104	3.47
19) M	trans-1,2-Dichlo...	2.055	2.012	1.947	1.923	1.948	1.977	2.76
20) T	Diisopropyl ether	6.257	6.655	6.558	6.487	6.595	6.510	2.37
21) M	1,1-Dichloroethane	3.908	3.837	3.659	3.601	3.674	3.736	3.49
22) M	cis-1,2-Dichloro...	2.284	2.364	2.294	2.240	2.321	2.300	2.00
23) M	tert-Butyl Alcohol	0.402	0.399	0.413	0.406	0.394	0.403	1.71
24) M	Methyl tert-Buty...	6.019	6.312	6.286	6.268	6.327	6.242	2.04
25) M	Chloroform	3.812	3.901	3.795	3.650	3.759	3.783	2.41
26)	Cyclohexane	2.941	3.291	3.090	3.107	3.193	3.124	4.15
27) s	1,2-Dichloroetha...	2.428	2.467	2.370	2.419	2.393	2.415	1.51
28) I	1,4-Difluorobenzene	-----ISTD-----						
29)	1,1-Dichloropropene	0.482	0.493	0.487	0.493	0.508	0.492	2.00
30) M	2-Butanone	0.242	0.257	0.268	0.269	0.275	0.262	5.01
31)	2,2-Dichloropropane	0.560	0.576	0.569	0.583	0.605	0.579	2.98
32) M	1,1,1-Trichloroe...	0.621	0.648	0.619	0.629	0.630	0.629	1.79
33) M	Carbon Tetrachlo...	0.547	0.544	0.531	0.548	0.556	0.545	1.63
34) M	Benzene	1.555	1.557	1.511	1.514	1.571	1.542	1.77
35)	Methacrylonitrile	0.231	0.273	0.289	0.297	0.308	0.280	10.66
36) M	1,2-Dichloroethane	0.515	0.522	0.508	0.505	0.520	0.514	1.42
37) M	Trichloroethene	0.353	0.366	0.345	0.353	0.358	0.355	2.13
38)	Methylcyclohexane	0.491	0.519	0.535	0.566	0.593	0.541	7.36
39) M	1,2-Dichloropropane	0.375	0.386	0.363	0.371	0.384	0.376	2.49
40)	Dibromomethane	0.269	0.263	0.257	0.257	0.268	0.263	2.12
41) M	Bromodichloromet...	0.559	0.559	0.550	0.552	0.568	0.558	1.30
42) M	Vinyl Acetate	0.837	0.888	0.930	0.945	0.960	0.912	5.46
43)	Ethyl Acetate	0.495	0.509	0.517	0.532	0.534	0.517	3.14
44)	Isopropyl Acetate	0.766	0.840	0.862	0.872	0.891	0.846	5.75
45) T	1,4-Dioxane	0.007	0.007	0.008	0.008	0.008	0.008	7.69
46)	Methyl methacrylate	0.369	0.404	0.420	0.420	0.431	0.409	5.91
47)	n-amyl Acetate	0.630	0.740	0.769	0.796	0.829	0.753	10.09
48) M	t-1,3-Dichloropr...	0.564	0.561	0.573	0.581	0.603	0.576	2.90
49) T	cis-1,3-Dichloro...	0.551	0.613	0.603	0.616	0.637	0.604	5.34
50) M	1,1,2-Trichloroe...	0.358	0.354	0.350	0.349	0.356	0.353	1.10
51)	Ethyl methacrylate	0.479	0.575	0.606	0.616	0.641	0.583	10.77
52)	1,3-Dichloropropane	0.619	0.625	0.607	0.610	0.627	0.617	1.47
53) M	Dibromochloromet...	0.407	0.416	0.416	0.417	0.431	0.417	2.04
54) M	1,2-Dibromoethane	0.352	0.370	0.361	0.363	0.371	0.364	2.09
55) M	2-Chloroethyl vi...	0.224	0.250	0.269	0.286	0.294	0.265	10.65
56) M	Bromoform	0.261	0.264	0.276	0.287	0.295	0.277	5.22

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
 Method File : 624N100824W.M

57) I	Chlorobenzene-d5	-----ISTD-----						
58) M	4-Methyl-2-Penta...	0.517	0.559	0.573	0.565	0.580	0.559	4.39
59) M	2-Hexanone	0.367	0.408	0.434	0.428	0.440	0.415	7.19
60) S	4-Bromofluoroben...	0.465	0.492	0.498	0.506	0.514	0.495	3.80
61) M	Tetrachloroethene	0.357	0.342	0.332	0.328	0.338	0.339	3.37
62) M	Toluene	1.767	1.761	1.746	1.732	1.775	1.756	0.99
63) S	Toluene-d8	1.404	1.395	1.378	1.374	1.397	1.390	0.94
64) M	Chlorobenzene	1.136	1.086	1.072	1.069	1.102	1.093	2.53
65)	1,1,1,2-Tetrachl...	0.377	0.383	0.380	0.374	0.386	0.380	1.24
66) M	Ethyl Benzene	1.715	1.889	1.930	1.969	2.036	1.908	6.33
67) M	m/p-Xylenes	0.654	0.725	0.740	0.732	0.768	0.724	5.87
68) M	o-Xylene	0.641	0.692	0.708	0.710	0.738	0.698	5.15
69) M	Styrene	1.059	1.183	1.226	1.232	1.289	1.198	7.20
70)	Isopropylbenzene	1.587	1.786	1.813	1.828	1.892	1.781	6.47
71) M	1,1,2,2-Tetrachl...	0.543	0.549	0.557	0.544	0.562	0.551	1.49
72)	1,2,3-Trichlorop...	0.452	0.466	0.479	0.471	0.492	0.472	3.15
73)	Bromobenzene	0.416	0.428	0.435	0.431	0.446	0.431	2.52
74)	n-propylbenzene	1.881	2.107	2.158	2.177	2.289	2.123	7.09
75)	2-Chlorotoluene	1.233	1.322	1.315	1.329	1.396	1.319	4.42
76)	1,3,5-Trimethylb...	1.323	1.488	1.532	1.543	1.614	1.500	7.26
77)	t-1,4-Dichloro-2...	0.171	0.187	0.211	0.213	0.225	0.202	10.84
78)	4-Chlorotoluene	1.248	1.323	1.352	1.353	1.428	1.341	4.84
79)	tert-butylbenzene	1.122	1.260	1.309	1.330	1.376	1.279	7.63
80)	1,2,4-Trimethylb...	1.347	1.502	1.550	1.567	1.642	1.522	7.21
81)	sec-Butylbenzene	1.522	1.746	1.794	1.831	1.913	1.762	8.34
82)	p-Isopropyltoluene	1.286	1.439	1.499	1.549	1.641	1.483	8.95
83) M	1,3-Dichlorobenzene	0.750	0.790	0.808	0.811	0.851	0.802	4.57
84) M	1,4-Dichlorobenzene	0.786	0.761	0.788	0.805	0.842	0.796	3.77
85)	n-Butylbenzene	1.065	1.199	1.302	1.371	1.484	1.284	12.49
86) T	Hexachloroethane	0.276	0.279	0.282	0.289	0.302	0.286	3.59
87) M	1,2-Dichlorobenzene	0.748	0.756	0.780	0.783	0.811	0.775	3.21
88)	1,2-Dibromo-3-Ch...	0.098	0.110	0.119	0.116	0.120	0.113	8.01
89)	1,2,4-Trichlorob...	0.372	0.381	0.410	0.416	0.436	0.403	6.49
90)	Hexachlorobutadiene	0.220	0.173	0.179	0.177	0.183	0.187	10.28
91) M	Naphthalene	1.093	1.285	1.420	1.481	1.554	1.366	13.33
92)	1,2,3-Trichlorob...	0.372	0.381	0.410	0.416	0.436	0.403	6.49

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084337.D
 Acq On : 08 Oct 2024 09:43
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:05:45 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:04:33 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.818	128	33784	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	181536	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	171821	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.576	65	80830	29.718	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	99.067%		
60) 4-Bromofluorobenzene	12.847	95	88349	31.155	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	103.867%		
63) Toluene-d8	10.565	98	240116	30.166	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	100.567%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	301403	146.123	ug/l	96
3) Chloromethane	2.359	50	349225	148.780	ug/l	99
4) Vinyl Chloride	2.512	62	340879	148.089	ug/l	97
5) Bromomethane	2.924	94	208863	136.955	ug/l	99
6) Chloroethane	3.100	64	213547	141.510	ug/l	95
7) Trichlorofluoromethane	3.489	101	546712	145.812	ug/l	99
8) Diethyl Ether	3.959	74	206608	149.881	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.365	101	314320	149.095	ug/l	98
10) 1,1-Dichloroethene	4.330	96	309616	147.186	ug/l	92
11) Methyl Iodide	4.583	142	422778	152.937	ug/l	99
12) Methyl Acetate	5.018	43	402489	152.836	ug/l	99
13) Acrolein	4.177	56	371221	758.829	ug/l	100
14) Acrylonitrile	5.718	53	902986	763.216	ug/l	99
15) Acetone	4.424	58	277575	821.289	ug/l	95
16) Carbon Disulfide	4.706	76	909776	145.236	ug/l	100
17) Allyl chloride	5.018	41	511759	150.078	ug/l	95
18) Methylene Chloride	5.271	84	349106	147.322	ug/l	98
19) trans-1,2-Dichloroethene	5.783	96	329107	147.827	ug/l	97
20) Diisopropyl ether	6.671	45	1114091	151.956	ug/l	96
21) 1,1-Dichloroethane	6.571	63	620566	147.512	ug/l	97
22) cis-1,2-Dichloroethene	7.482	96	392124	151.363	ug/l	98
23) tert-Butyl Alcohol	5.524	59	333149	734.096	ug/l #	100
24) Methyl tert-Butyl Ether	5.794	73	1068810	152.038	ug/l #	85
25) Chloroform	7.965	83	634973	149.030	ug/l	99
26) Cyclohexane	8.253	56	539286	153.272	ug/l #	97
29) 1,1-Dichloropropene	8.371	75	461334	154.807	ug/l	100
30) 2-Butanone	7.482	43	1249418	787.459	ug/l	99
31) 2,2-Dichloropropane	7.488	77	549477	156.907	ug/l #	80
32) 1,1,1-Trichloroethane	8.165	97	571549	150.045	ug/l	99
33) Carbon Tetrachloride	8.359	117	504637	152.921	ug/l	97
34) Benzene	8.606	78	1425580	152.821	ug/l	96
35) Methacrylonitrile	7.777	41	279509	165.128	ug/l	99
36) 1,2-Dichloroethane	8.671	62	471651	151.686	ug/l	100
37) Trichloroethene	9.353	130	324930	151.266	ug/l	95
38) Methylcyclohexane	9.600	83	538684	164.564	ug/l	99
39) 1,2-Dichloropropane	9.618	63	348207	153.071	ug/l	97
40) Dibromomethane	9.706	93	243118	152.917	ug/l	98
41) Bromodichloromethane	9.888	83	515968	152.872	ug/l	94
42) Vinyl Acetate	6.600	43	4357419	789.646	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084337.D
 Acq On : 08 Oct 2024 09:43
 Operator : JC\MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:05:45 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:04:33 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	484255	154.753	ug/l	100
44) Isopropyl Acetate	8.688	43	808933	157.943	ug/l	99
45) 1,4-Dioxane	9.694	88	147762	3200.393	ug/l	98
46) Methyl methacrylate	9.676	41	391545	158.224	ug/l	100
47) n-amyl Acetate	12.494	43	752246	165.124	ug/l	97
48) t-1,3-Dichloropropene	10.835	75	547316	156.926	ug/l	97
49) cis-1,3-Dichloropropene	10.312	75	578523	158.273	ug/l	98
50) 1,1,2-Trichloroethane	11.018	97	323065	151.179	ug/l	96
51) Ethyl methacrylate	10.870	69	581930	164.863	ug/l	95
52) 1,3-Dichloropropane	11.165	76	568999	152.279	ug/l	99
53) Dibromochloromethane	11.359	129	390970	154.875	ug/l	100
54) 1,2-Dibromoethane	11.470	107	336624	153.033	ug/l	98
55) 2-Chloroethyl vinyl ether	10.159	63	1333727	833.093	ug/l	99
56) Bromoform	12.576	173	268044	160.094	ug/l	99
58) 4-Methyl-2-Pentanone	10.447	43	2491181	778.311	ug/l	99
59) 2-Hexanone	11.194	43	1891152	795.133	ug/l	99
61) Tetrachloroethene	11.106	164	290573	149.507	ug/l	97
62) Toluene	10.629	91	1525116	151.621	ug/l	99
64) Chlorobenzene	11.894	112	946501	151.211	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	331211	152.311	ug/l	99
66) Ethyl Benzene	11.964	91	1749567	160.094	ug/l	99
67) m/p-Xylenes	12.070	106	1319448	318.270	ug/l	100
68) o-Xylene	12.394	106	633813	158.611	ug/l	99
69) Styrene	12.412	104	1107376	161.432	ug/l	99
70) Isopropylbenzene	12.694	105	1625283	159.320	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	483003	153.053	ug/l	99
72) 1,2,3-Trichloropropane	12.994	75	422311m	156.469	ug/l	
73) Bromobenzene	12.982	156	383306	155.148	ug/l	100
74) n-propylbenzene	13.035	91	1966655	161.778	ug/l	99
75) 2-Chlorotoluene	13.123	91	1199693	158.816	ug/l	99
76) 1,3,5-Trimethylbenzene	13.170	105	1386742	161.447	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	193413	167.468	ug/l	98
78) 4-Chlorotoluene	13.223	91	1227049	159.769	ug/l	100
79) tert-butylbenzene	13.435	119	1182498	161.368	ug/l	99
80) 1,2,4-Trimethylbenzene	13.482	105	1410559	161.849	ug/l	100
81) sec-Butylbenzene	13.617	105	1643555	162.908	ug/l	99
82) p-Isopropyltoluene	13.729	119	1409541	165.992	ug/l	100
83) 1,3-Dichlorobenzene	13.735	146	731253	159.183	ug/l	99
84) 1,4-Dichlorobenzene	13.811	146	723724	158.652	ug/l	99
85) n-Butylbenzene	14.053	91	1274832	173.335	ug/l	98
86) Hexachloroethane	14.335	117	259393	158.553	ug/l	99
87) 1,2-Dichlorobenzene	14.106	146	696639	156.847	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	102940	159.510	ug/l	97
89) 1,2,4-Trichlorobenzene	15.841	180	374861	162.329	ug/l	99
90) Hexachlorobutadiene	15.500	225	157242	147.184	ug/l	97
91) Naphthalene	15.641	128	1334733	170.565	ug/l	99
92) 1,2,3-Trichlorobenzene	15.841	180	374861	162.329	ug/l	99

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

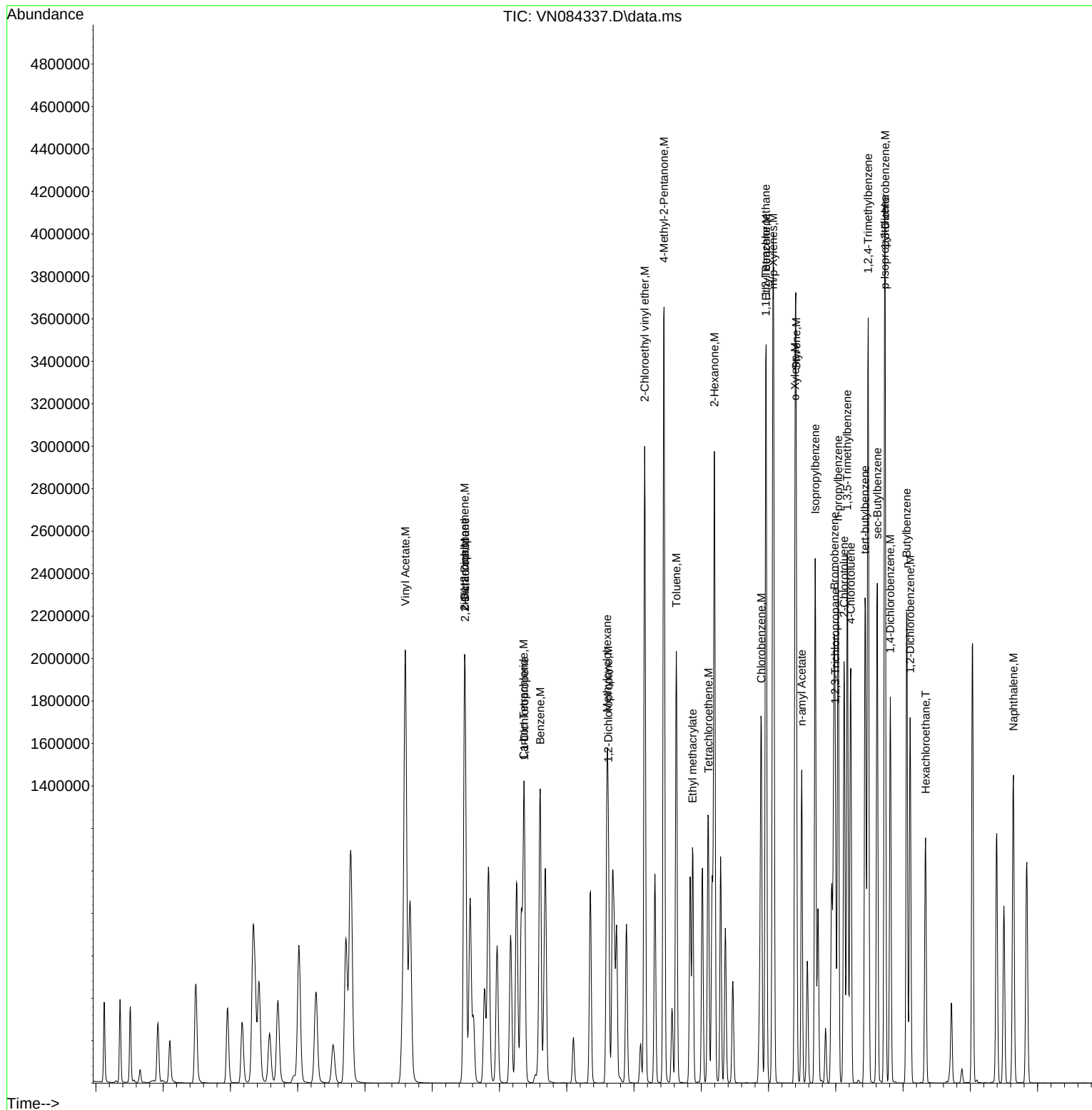
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084337.D
Acq On : 08 Oct 2024 09:43
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By : John Carlone 10/09/2024
Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:05:45 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:04:33 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084338.D
 Acq On : 08 Oct 2024 10:07
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :John Carlone 10/09/2024

Supervised By :Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:06:44 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Wed Oct 09 02:04:33 2024

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	35068	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	190456	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	179975	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	84835	30.048	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.167%			
60) 4-Bromofluorobenzene	12.847	95	91083	30.664	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 102.200%			
63) Toluene-d8	10.565	98	247263	29.656	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.867%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	205380	95.924	ug/l	97
3) Chloromethane	2.359	50	238067	97.710	ug/l	99
4) Vinyl Chloride	2.512	62	232167	97.168	ug/l	98
5) Bromomethane	2.930	94	144198	91.091	ug/l	97
6) Chloroethane	3.106	64	140802	89.888	ug/l	97
7) Trichlorofluoromethane	3.489	101	379462	97.500	ug/l	92
8) Diethyl Ether	3.959	74	141064	98.586	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.365	101	213828	97.714	ug/l	99
10) 1,1-Dichloroethene	4.336	96	214197	98.097	ug/l	93
11) Methyl Iodide	4.583	142	286385	99.804	ug/l	99
12) Methyl Acetate	5.024	43	276654	101.206	ug/l	100
13) Acrolein	4.177	56	263202	518.323	ug/l	99
14) Acrylonitrile	5.712	53	599763	488.367	ug/l	98
15) Acetone	4.424	58	184044	524.611	ug/l	93
16) Carbon Disulfide	4.706	76	615999	94.737	ug/l	100
17) Allyl chloride	5.018	41	352646	99.630	ug/l	93
18) Methylene Chloride	5.271	84	235470	95.730	ug/l	96
19) trans-1,2-Dichloroethene	5.783	96	224774	97.266	ug/l	93
20) Diisopropyl ether	6.671	45	758291	99.640	ug/l	97
21) 1,1-Dichloroethane	6.565	63	420888	96.384	ug/l	97
22) cis-1,2-Dichloroethene	7.483	96	261797	97.356	ug/l	98
23) tert-Butyl Alcohol	5.524	59	237527	504.229	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	732699	100.410	ug/l #	85
25) Chloroform	7.965	83	426680	96.476	ug/l	99
26) Cyclohexane	8.253	56	363184	99.442	ug/l #	94
29) 1,1-Dichloropropene	8.371	75	312760	100.036	ug/l	99
30) 2-Butanone	7.483	43	852543	512.158	ug/l	99
31) 2,2-Dichloropropane	7.489	77	370236	100.772	ug/l #	80
32) 1,1,1-Trichloroethane	8.165	97	399456	99.955	ug/l	99
33) Carbon Tetrachloride	8.359	117	347588	100.397	ug/l	97
34) Benzene	8.606	78	960915	98.185	ug/l	97
35) Methacrylonitrile	7.777	41	188397	106.088	ug/l	97
36) 1,2-Dichloroethane	8.671	62	320751	98.324	ug/l	100
37) Trichloroethene	9.353	130	224110	99.445	ug/l	93
38) Methylcyclohexane	9.600	83	359108	104.567	ug/l	99
39) 1,2-Dichloropropane	9.618	63	235798	98.802	ug/l	98
40) Dibromomethane	9.706	93	163396	97.960	ug/l	98
41) Bromodichloromethane	9.888	83	350730	99.048	ug/l	92
42) Vinyl Acetate	6.600	43	2998867	517.998	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084338.D
 Acq On : 08 Oct 2024 10:07
 Operator : JC\MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC100

Manual Integrations

APPROVED

Reviewed By :John Carlone 10/09/2024

Supervised By :Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:06:44 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Wed Oct 09 02:04:33 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	337577	102.827	ug/l	97
44) Isopropyl Acetate	8.688	43	553772	103.059	ug/l	99
45) 1,4-Dioxane	9.694	88	102529	2116.681	ug/l	95
46) Methyl methacrylate	9.677	41	266510	102.653	ug/l	99
47) n-amyl Acetate	12.494	43	505509	105.767	ug/l	97
48) t-1,3-Dichloropropene	10.835	75	368556	100.723	ug/l	99
49) cis-1,3-Dichloropropene	10.312	75	391167	102.004	ug/l	95
50) 1,1,2-Trichloroethane	11.012	97	221414	98.758	ug/l	98
51) Ethyl methacrylate	10.871	69	391063	105.601	ug/l	92
52) 1,3-Dichloropropane	11.159	76	387077	98.740	ug/l	100
53) Dibromochloromethane	11.359	129	264647	99.925	ug/l	99
54) 1,2-Dibromoethane	11.465	107	230529	99.892	ug/l	99
55) 2-Chloroethyl vinyl ether	10.159	63	906371	539.636	ug/l	99
56) Bromoform	12.576	173	181985	103.603	ug/l	99
58) 4-Methyl-2-Pentanone	10.441	43	1693999	505.272	ug/l	100
59) 2-Hexanone	11.194	43	1283238	515.092	ug/l	99
61) Tetrachloroethene	11.100	164	196676	96.610	ug/l	96
62) Toluene	10.629	91	1038960	98.609	ug/l	99
64) Chlorobenzene	11.888	112	641078	97.777	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	224096	98.384	ug/l	99
66) Ethyl Benzene	11.965	91	1181271	103.195	ug/l	100
67) m/p-Xylenes	12.071	106	878405	202.285	ug/l	99
68) o-Xylene	12.400	106	426068	101.792	ug/l	99
69) Styrene	12.412	104	739030	102.854	ug/l	99
70) Isopropylbenzene	12.694	105	1096352	102.602	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	326404	98.744	ug/l	99
72) 1,2,3-Trichloropropane	12.994	75	282274m	99.846	ug/l	
73) Bromobenzene	12.976	156	258761	99.991	ug/l	99
74) n-propylbenzene	13.035	91	1306104	102.573	ug/l	99
75) 2-Chlorotoluene	13.123	91	797168	100.748	ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	925442	102.861	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	128080	105.874	ug/l	99
78) 4-Chlorotoluene	13.218	91	811956	100.932	ug/l	99
79) tert-butylbenzene	13.435	119	797890	103.950	ug/l	99
80) 1,2,4-Trimethylbenzene	13.482	105	940023	102.973	ug/l	99
81) sec-Butylbenzene	13.618	105	1098551	103.955	ug/l	99
82) p-Isopropyltoluene	13.729	119	929312	104.480	ug/l	99
83) 1,3-Dichlorobenzene	13.735	146	486367	101.078	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	482980	101.080	ug/l	99
85) n-Butylbenzene	14.053	91	822416	106.755	ug/l	97
86) Hexachloroethane	14.335	117	173285	101.121	ug/l	100
87) 1,2-Dichlorobenzene	14.106	146	469667	100.954	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	69709	103.123	ug/l	98
89) 1,2,4-Trichlorobenzene	15.841	180	249678	103.221	ug/l	96
90) Hexachlorobutadiene	15.500	225	106287	94.981	ug/l	98
91) Naphthalene	15.641	128	888428	108.388	ug/l	99
92) 1,2,3-Trichlorobenzene	15.841	180	249678	103.221	ug/l	96

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

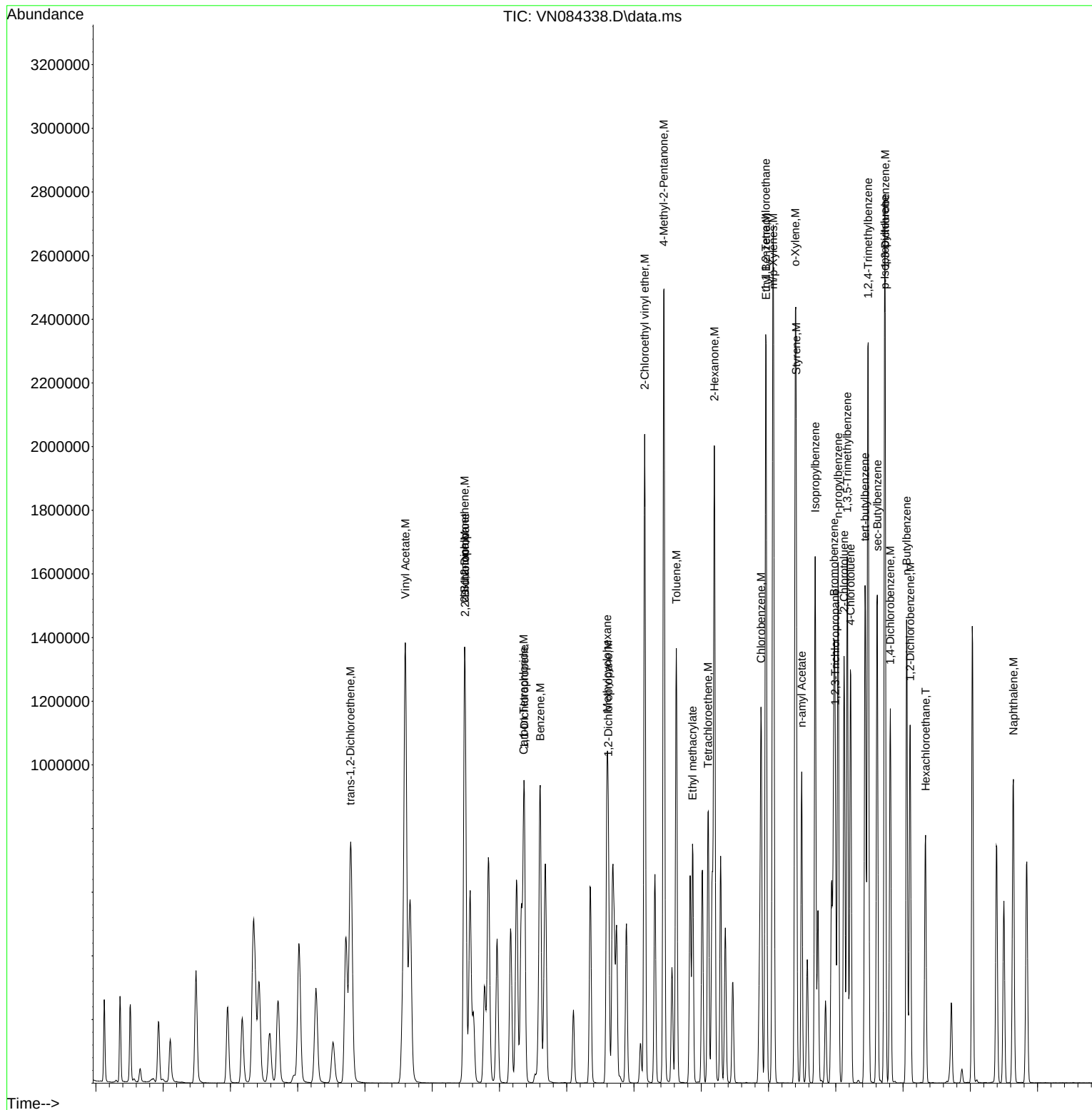
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084338.D
Acq On : 08 Oct 2024 10:07
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By : John Carlone 10/09/2024
Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:06:44 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:04:33 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084339.D
 Acq On : 08 Oct 2024 10:31
 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 10/09/2024

Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:07:41 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Wed Oct 09 02:04:33 2024

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	35466	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	196182	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	180971	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	84072	29.444	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.133%		
60) 4-Bromofluorobenzene	12.847	95	90206	30.202	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	100.667%		
63) Toluene-d8	10.565	98	249414	29.750	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	99.167%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	104507	48.263	ug/l	96
3) Chloromethane	2.359	50	119618	48.544	ug/l	99
4) Vinyl Chloride	2.512	62	118532	49.052	ug/l	93
5) Bromomethane	2.947	94	73816	46.107	ug/l	98
6) Chloroethane	3.118	64	72586	45.819	ug/l	95
7) Trichlorofluoromethane	3.495	101	192447	48.893	ug/l	94
8) Diethyl Ether	3.959	74	72484	50.089	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.365	101	106319	48.040	ug/l	98
10) 1,1-Dichloroethene	4.342	96	110533	50.053	ug/l	89
11) Methyl Iodide	4.589	142	146194	50.376	ug/l	97
12) Methyl Acetate	5.024	43	143947	52.068	ug/l	95
13) Acrolein	4.177	56	127301	247.880	ug/l	99
14) Acrylonitrile	5.718	53	314551	253.254	ug/l	98
15) Acetone	4.430	58	90377	254.725	ug/l	96
16) Carbon Disulfide	4.712	76	316013	48.056	ug/l	98
17) Allyl chloride	5.024	41	179722	50.205	ug/l	93
18) Methylene Chloride	5.277	84	123536	49.660	ug/l	97
19) trans-1,2-Dichloroethene	5.783	96	115099	49.248	ug/l	89
20) Diisopropyl ether	6.671	45	387668	50.368	ug/l	96
21) 1,1-Dichloroethane	6.571	63	216289	48.975	ug/l	96
22) cis-1,2-Dichloroethene	7.488	96	135603	49.862	ug/l	100
23) tert-Butyl Alcohol	5.524	59	121932	255.936	ug/l #	100
24) Methyl tert-Butyl Ether	5.800	73	371557m	50.347	ug/l	
25) Chloroform	7.965	83	224326	50.153	ug/l	99
26) Cyclohexane	8.259	56	182672	49.456	ug/l #	97
29) 1,1-Dichloropropene	8.371	75	159132	49.412	ug/l	99
30) 2-Butanone	7.482	43	438443	255.703	ug/l	99
31) 2,2-Dichloropropane	7.488	77	186163	49.191	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	202531	49.200	ug/l	99
33) Carbon Tetrachloride	8.359	117	173775	48.728	ug/l	94
34) Benzene	8.606	78	494102	49.013	ug/l	96
35) Methacrylonitrile	7.777	41	94562	51.695	ug/l	96
36) 1,2-Dichloroethane	8.671	62	165947	49.385	ug/l	100
37) Trichloroethene	9.353	130	112853	48.615	ug/l	98
38) Methylcyclohexane	9.600	83	175023	49.477	ug/l	99
39) 1,2-Dichloropropane	9.618	63	118717	48.292	ug/l	98
40) Dibromomethane	9.706	93	84017	48.900	ug/l	98
41) Bromodichloromethane	9.888	83	179758	49.283	ug/l	92
42) Vinyl Acetate	6.606	43	1520354	254.948	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084339.D
 Acq On : 08 Oct 2024 10:31
 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 10/09/2024

Supervised By :Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:07:41 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Wed Oct 09 02:04:33 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	168929	49.954	ug/l	94
44) Isopropyl Acetate	8.688	43	281915	50.934	ug/l	99
45) 1,4-Dioxane	9.694	88	51791	1038.003	ug/l	95
46) Methyl methacrylate	9.682	41	137372	51.368	ug/l	98
47) n-amyl Acetate	12.494	43	251442	51.073	ug/l	99
48) t-1,3-Dichloropropene	10.835	75	187402	49.721	ug/l	100
49) cis-1,3-Dichloropropene	10.312	75	197144	49.908	ug/l	96
50) 1,1,2-Trichloroethane	11.018	97	114315	49.500	ug/l	98
51) Ethyl methacrylate	10.871	69	198002	51.907	ug/l	96
52) 1,3-Dichloropropane	11.165	76	198343	49.119	ug/l	99
53) Dibromochloromethane	11.359	129	135901	49.816	ug/l	99
54) 1,2-Dibromoethane	11.470	107	118129	49.693	ug/l	99
55) 2-Chloroethyl vinyl ether	10.159	63	439901	254.264	ug/l	99
56) Bromoform	12.576	173	90199	49.851	ug/l	98
58) 4-Methyl-2-Pentanone	10.441	43	864518	256.442	ug/l	100
59) 2-Hexanone	11.194	43	654698	261.350	ug/l	100
61) Tetrachloroethene	11.100	164	100050	48.875	ug/l	97
62) Toluene	10.629	91	526619	49.707	ug/l	99
64) Chlorobenzene	11.888	112	323202	49.023	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	114617	50.043	ug/l	99
66) Ethyl Benzene	11.965	91	582229	50.583	ug/l	99
67) m/p-Xylenes	12.070	106	446529	102.264	ug/l	99
68) o-Xylene	12.400	106	213661	50.765	ug/l	99
69) Styrene	12.412	104	369695	51.169	ug/l	99
70) Isopropylbenzene	12.694	105	546834	50.894	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	167855	50.500	ug/l	100
72) 1,2,3-Trichloropropane	12.994	75	144614m	50.872	ug/l	
73) Bromobenzene	12.982	156	131272	50.447	ug/l	98
74) n-propylbenzene	13.035	91	650890	50.836	ug/l	99
75) 2-Chlorotoluene	13.123	91	396493	49.834	ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	461964	51.064	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	63656	52.330	ug/l	96
78) 4-Chlorotoluene	13.223	91	407771	50.410	ug/l	99
79) tert-butylbenzene	13.435	119	394929	51.169	ug/l	98
80) 1,2,4-Trimethylbenzene	13.482	105	467589	50.939	ug/l	100
81) sec-Butylbenzene	13.617	105	541224	50.934	ug/l	99
82) p-Isopropyltoluene	13.729	119	451993	50.537	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	243731	50.374	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	237600	49.452	ug/l	99
85) n-Butylbenzene	14.053	91	392578	50.679	ug/l	98
86) Hexachloroethane	14.335	117	85140	49.410	ug/l	100
87) 1,2-Dichlorobenzene	14.106	146	235213	50.280	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	35951	52.891	ug/l	98
89) 1,2,4-Trichlorobenzene	15.841	180	123597	50.816	ug/l	97
90) Hexachlorobutadiene	15.500	225	53904	47.905	ug/l	99
91) Naphthalene	15.641	128	428263	51.960	ug/l	100
92) 1,2,3-Trichlorobenzene	15.841	180	123597	50.816	ug/l	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084339.D
Acq On : 08 Oct 2024 10:31
Operator : JC\MD
Sample : VSTDIC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDIC050

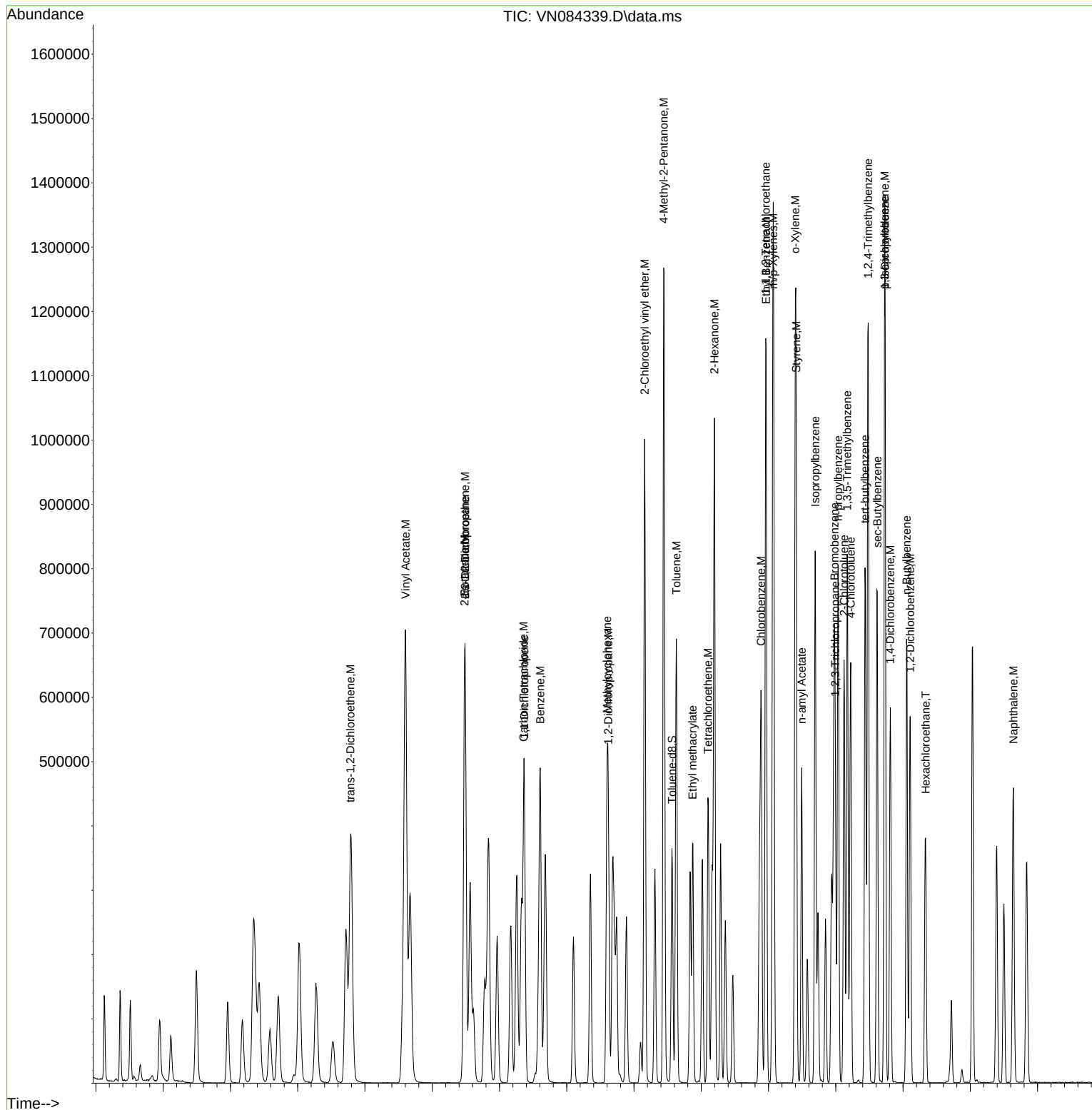
Manual Integrations

APPROVED

Reviewed By :John Carlone 10/09/2024

Supervised By :Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:07:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:04:33 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084340.D
 Acq On : 08 Oct 2024 10:55
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:08:40 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:04:33 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.818	128	34673	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	193364	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	180372	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.582	65	85525	30.638	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.133%			
60) 4-Bromofluorobenzene	12.847	95	88736	29.808	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.367%			
63) Toluene-d8	10.565	98	251690	30.121	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 100.400%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	44634	21.084	ug/l	100
3) Chloromethane	2.359	50	49609	20.593	ug/l	100
4) Vinyl Chloride	2.512	62	48486	20.524	ug/l	100
5) Bromomethane	2.959	94	32772	20.938	ug/l	100
6) Chloroethane	3.118	64	32274	20.839	ug/l	100
7) Trichlorofluoromethane	3.495	101	78670	20.444	ug/l	100
8) Diethyl Ether	3.965	74	28475	20.127	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	43710	20.202	ug/l	100
10) 1,1-Dichloroethene	4.342	96	42386	19.633	ug/l	100
11) Methyl Iodide	4.594	142	57080	20.119	ug/l	100
12) Methyl Acetate	5.030	43	52868	19.561	ug/l	100
13) Acrolein	4.183	56	46516	92.647	ug/l	100
14) Acrylonitrile	5.718	53	123604	101.793	ug/l	100
15) Acetone	4.424	58	33083	95.376	ug/l	100
16) Carbon Disulfide	4.706	76	131855	20.510	ug/l	100
17) Allyl chloride	5.024	41	71450	20.416	ug/l	100
18) Methylene Chloride	5.277	84	49627	20.406	ug/l	100
19) trans-1,2-Dichloroethene	5.789	96	46499	20.351	ug/l	100
20) Diisopropyl ether	6.671	45	153833	20.444	ug/l	100
21) 1,1-Dichloroethane	6.571	63	88689	20.541	ug/l	100
22) cis-1,2-Dichloroethene	7.488	96	54636	20.549	ug/l	100
23) tert-Butyl Alcohol	5.524	59	46138	99.059	ug/l #	100
24) Methyl tert-Butyl Ether	5.800	73	145915	20.224	ug/l	100
25) Chloroform	7.965	83	90176	20.622	ug/l	100
26) Cyclohexane	8.253	56	76065	21.064	ug/l #	100
29) 1,1-Dichloropropene	8.371	75	63494	20.003	ug/l	100
30) 2-Butanone	7.483	43	165771	98.088	ug/l	100
31) 2,2-Dichloropropane	7.488	77	74258	19.908	ug/l	100
32) 1,1,1-Trichloroethane	8.171	97	83522	20.585	ug/l	100
33) Carbon Tetrachloride	8.365	117	70174	19.964	ug/l	100
34) Benzene	8.606	78	200730	20.202	ug/l	100
35) Methacrylonitrile	7.783	41	35246	19.549	ug/l	100
36) 1,2-Dichloroethane	8.671	62	67270	20.311	ug/l	100
37) Trichloroethene	9.347	130	47143	20.604	ug/l	100
38) Methylcyclohexane	9.600	83	66905	19.189	ug/l	100
39) 1,2-Dichloropropane	9.624	63	49785	20.547	ug/l	100
40) Dibromomethane	9.706	93	33881	20.007	ug/l	100
41) Bromodichloromethane	9.888	83	72106	20.057	ug/l	100
42) Vinyl Acetate	6.600	43	572205	97.351	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084340.D
 Acq On : 08 Oct 2024 10:55
 Operator : JC\MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:08:40 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:04:33 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	65636	19.692	ug/l	100
44) Isopropyl Acetate	8.688	43	108346	19.860	ug/l	100
45) 1,4-Dioxane	9.700	88	18510	376.387	ug/l	100
46) Methyl methacrylate	9.682	41	52087	19.761	ug/l	100
47) n-amyl Acetate	12.494	43	95368	19.654	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	72331	19.470	ug/l	100
49) cis-1,3-Dichloropropene	10.312	75	79003	20.292	ug/l	100
50) 1,1,2-Trichloroethane	11.018	97	45599	20.033	ug/l	100
51) Ethyl methacrylate	10.876	69	74070	19.701	ug/l	100
52) 1,3-Dichloropropane	11.165	76	80622	20.257	ug/l	100
53) Dibromochloromethane	11.359	129	53563	19.920	ug/l	100
54) 1,2-Dibromoethane	11.470	107	47708	20.362	ug/l	100
55) 2-Chloroethyl vinyl ether	10.159	63	161430	94.667	ug/l	100
56) Bromoform	12.576	173	34047	19.091	ug/l	100
58) 4-Methyl-2-Pentanone	10.447	43	336052	100.014	ug/l	100
59) 2-Hexanone	11.194	43	245030	98.139	ug/l	100
61) Tetrachloroethene	11.100	164	41072	20.131	ug/l	100
62) Toluene	10.629	91	211795	20.058	ug/l	100
64) Chlorobenzene	11.888	112	130620	19.878	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.959	131	46005	20.153	ug/l	100
66) Ethyl Benzene	11.965	91	227198	19.804	ug/l	100
67) m/p-Xylenes	12.070	106	174434	40.081	ug/l	100
68) o-Xylene	12.400	106	83154	19.823	ug/l	100
69) Styrene	12.412	104	142239	19.752	ug/l	100
70) Isopropylbenzene	12.694	105	214822	20.060	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.935	83	66030	19.931	ug/l	100
72) 1,2,3-Trichloropropane	12.988	75	56046m	19.781	ug/l	
73) Bromobenzene	12.982	156	51441	19.834	ug/l	100
74) n-propylbenzene	13.035	91	253393	19.856	ug/l	100
75) 2-Chlorotoluene	13.123	91	158981	20.048	ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	178878	19.838	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	22530	18.583	ug/l	100
78) 4-Chlorotoluene	13.217	91	159107	19.735	ug/l	100
79) tert-butylbenzene	13.435	119	151487	19.692	ug/l	100
80) 1,2,4-Trimethylbenzene	13.482	105	180628	19.743	ug/l	100
81) sec-Butylbenzene	13.617	105	210010	19.829	ug/l	100
82) p-Isopropyltoluene	13.729	119	173074	19.415	ug/l	100
83) 1,3-Dichlorobenzene	13.735	146	95054	19.711	ug/l	100
84) 1,4-Dichlorobenzene	13.812	146	91564	19.121	ug/l	100
85) n-Butylbenzene	14.053	91	144192	18.676	ug/l	100
86) Hexachloroethane	14.335	117	33531	19.524	ug/l	100
87) 1,2-Dichlorobenzene	14.106	146	90933	19.503	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	14.723	75	13240	19.543	ug/l	100
89) 1,2,4-Trichlorobenzene	15.841	180	45853	18.915	ug/l	100
90) Hexachlorobutadiene	15.500	225	20860	18.600	ug/l	100
91) Naphthalene	15.641	128	154471	18.804	ug/l	100
92) 1,2,3-Trichlorobenzene	15.841	180	45853	18.915	ug/l	100

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

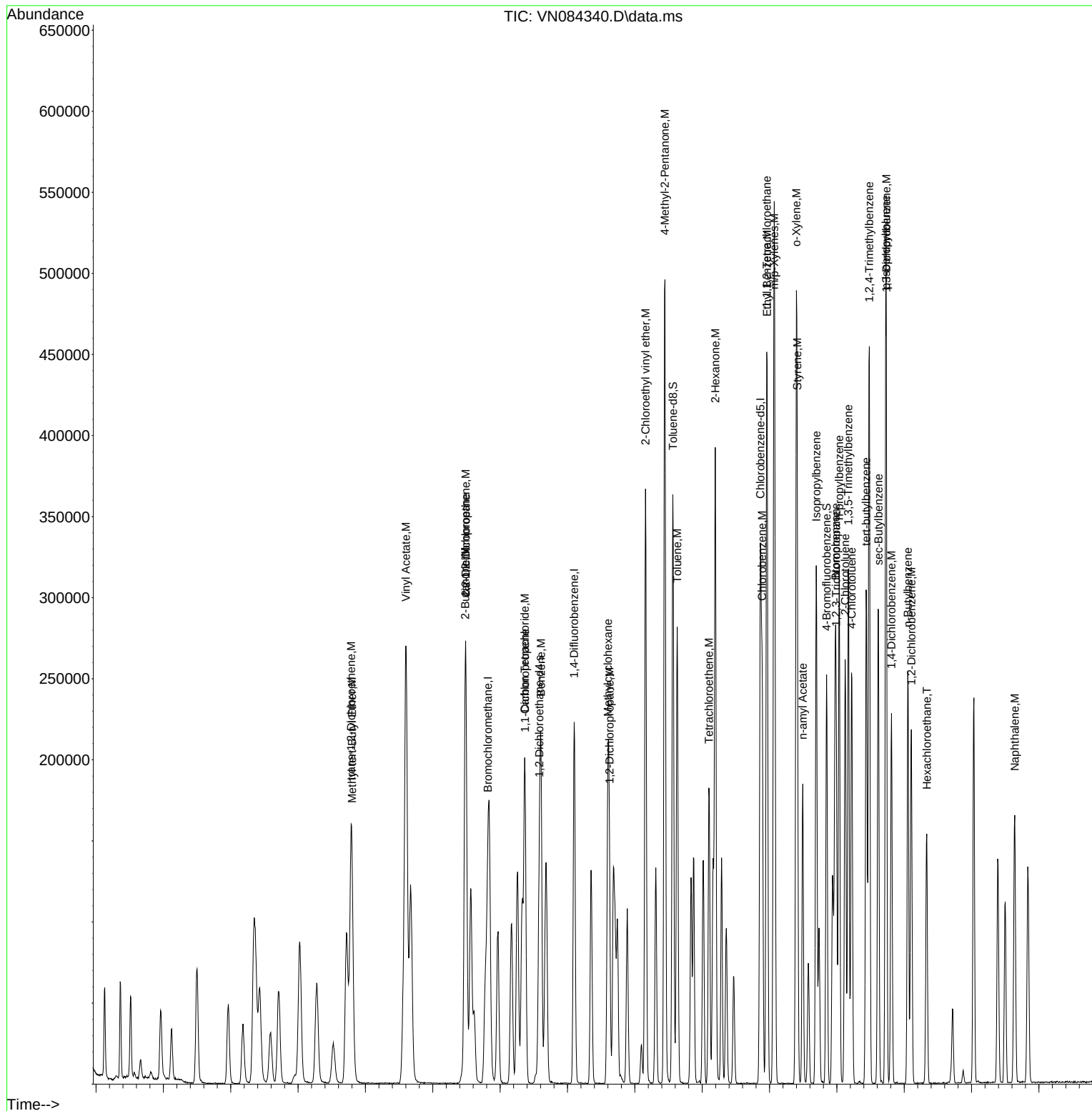
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084340.D
Acq On : 08 Oct 2024 10:55
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC020

Manual Integrations
APPROVED

Reviewed By : John Carlone 10/09/2024
Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:08:40 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:04:33 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084341.D
 Acq On : 08 Oct 2024 11:19
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 10/09/2024

Supervised By :Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:09:40 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Wed Oct 09 02:04:33 2024

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	33135	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	182092	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	168912	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	80437	30.153	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.500%			
60) 4-Bromofluorobenzene	12.847	95	78531	28.170	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 93.900%			
63) Toluene-d8	10.565	98	237159	30.307	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.033%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.130	85	10592	5.236	ug/l	94
3) Chloromethane	2.359	50	11862	5.153	ug/l	93
4) Vinyl Chloride	2.512	62	11670	5.169	ug/l	90
5) Bromomethane	2.953	94	9027	6.035	ug/l	96
6) Chloroethane	3.118	64	8876	5.997	ug/l	92
7) Trichlorofluoromethane	3.500	101	19359	5.264	ug/l	91
8) Diethyl Ether	3.959	74	6806m	5.034	ug/l	
9) 1,1,2-Trichlorotrifluoro...	4.377	101	10938	5.290	ug/l	70
10) 1,1-Dichloroethene	4.342	96	10884	5.275	ug/l	97
11) Methyl Iodide	4.595	142	13135	4.845	ug/l	98
12) Methyl Acetate	5.030	43	12264	4.748	ug/l	97
13) Acrolein	4.183	56	12398	25.840	ug/l	93
14) Acrylonitrile	5.730	53	28276m	24.367	ug/l	
15) Acetone	4.436	58	7318	22.077	ug/l	94
16) Carbon Disulfide	4.706	76	33723	5.489	ug/l	98
17) Allyl chloride	5.030	41	16359	4.891	ug/l	97
18) Methylene Chloride	5.277	84	12168m	5.235	ug/l	
19) trans-1,2-Dichloroethene	5.783	96	11347	5.197	ug/l	86
20) Diisopropyl ether	6.677	45	34552	4.805	ug/l #	93
21) 1,1-Dichloroethane	6.571	63	21583	5.231	ug/l	93
22) cis-1,2-Dichloroethene	7.483	96	12611	4.963	ug/l	96
23) tert-Butyl Alcohol	5.524	59	11110	24.960	ug/l #	100
24) Methyl tert-Butyl Ether	5.800	73	33238	4.821	ug/l #	91
25) Chloroform	7.971	83	21052	5.038	ug/l	92
26) Cyclohexane	8.259	56	16244	4.707	ug/l #	96
29) 1,1-Dichloropropene	8.371	75	14635	4.896	ug/l	99
30) 2-Butanone	7.488	43	36686	23.051	ug/l #	98
31) 2,2-Dichloropropane	7.494	77	16984	4.835	ug/l #	78
32) 1,1,1-Trichloroethane	8.159	97	18852m	4.934	ug/l	
33) Carbon Tetrachloride	8.365	117	16613	5.019	ug/l	91
34) Benzene	8.600	78	47206	5.045	ug/l #	80
35) Methacrylonitrile	7.771	41	7020m	4.135	ug/l	
36) 1,2-Dichloroethane	8.671	62	15630	5.011	ug/l	100
37) Trichloroethene	9.353	130	10715	4.973	ug/l	96
38) Methylcyclohexane	9.600	83	14911	4.541	ug/l	92
39) 1,2-Dichloropropane	9.618	63	11390	4.992	ug/l	90
40) Dibromomethane	9.706	93	8154	5.113	ug/l	98
41) Bromodichloromethane	9.882	83	16959	5.009	ug/l	93
42) Vinyl Acetate	6.606	43	127008	22.946	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084341.D
 Acq On : 08 Oct 2024 11:19
 Operator : JC\MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:09:40 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:04:33 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.565	43	15009m	4.782	ug/l	
44) Isopropyl Acetate	8.694	43	23240	4.524	ug/l	100
45) 1,4-Dioxane	9.694	88	4149	89.589	ug/l	97
46) Methyl methacrylate	9.682	41	11210	4.516	ug/l	88
47) n-amyl Acetate	12.494	43	19132	4.187	ug/l	98
48) t-1,3-Dichloropropene	10.841	75	17119	4.893	ug/l	92
49) cis-1,3-Dichloropropene	10.312	75	16720	4.560	ug/l #	86
50) 1,1,2-Trichloroethane	11.018	97	10856	5.065	ug/l	92
51) Ethyl methacrylate	10.871	69	14547	4.109	ug/l	90
52) 1,3-Dichloropropane	11.165	76	18781	5.011	ug/l	98
53) Dibromochloromethane	11.353	129	12356	4.880	ug/l	99
54) 1,2-Dibromoethane	11.471	107	10689	4.844	ug/l	98
55) 2-Chloroethyl vinyl ether	10.159	63	33972	21.155	ug/l	97
56) Bromoform	12.576	173	7936	4.725	ug/l #	92
58) 4-Methyl-2-Pentanone	10.447	43	72827	23.145	ug/l	97
59) 2-Hexanone	11.194	43	51606	22.071	ug/l	97
61) Tetrachloroethene	11.100	164	10061	5.266	ug/l	93
62) Toluene	10.629	91	49743	5.030	ug/l	97
64) Chlorobenzene	11.888	112	31991	5.199	ug/l	99
65) 1,1,1,2-Tetrachloroethane	11.965	131	10606	4.961	ug/l	98
66) Ethyl Benzene	11.965	91	48285	4.494	ug/l	99
67) m/p-Xylenes	12.070	106	36802	9.030	ug/l	99
68) o-Xylene	12.400	106	18036	4.591	ug/l	94
69) Styrene	12.412	104	29815	4.421	ug/l	97
70) Isopropylbenzene	12.694	105	44677	4.455	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	15289	4.928	ug/l	99
72) 1,2,3-Trichloropropane	12.988	75	12720m	4.794	ug/l	
73) Bromobenzene	12.982	156	11720	4.826	ug/l	97
74) n-propylbenzene	13.035	91	52955	4.431	ug/l	98
75) 2-Chlorotoluene	13.123	91	34704	4.673	ug/l	98
76) 1,3,5-Trimethylbenzene	13.176	105	37234	4.410	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	4820	4.245	ug/l	83
78) 4-Chlorotoluene	13.217	91	35132	4.653	ug/l	97
79) tert-butylbenzene	13.435	119	31579	4.384	ug/l	98
80) 1,2,4-Trimethylbenzene	13.482	105	37927	4.427	ug/l	95
81) sec-Butylbenzene	13.612	105	42859	4.321	ug/l	99
82) p-Isopropyltoluene	13.729	119	36191	4.335	ug/l	100
83) 1,3-Dichlorobenzene	13.735	146	21112	4.675	ug/l	95
84) 1,4-Dichlorobenzene	13.812	146	22118	4.932	ug/l	97
85) n-Butylbenzene	14.053	91	29988	4.148	ug/l	98
86) Hexachloroethane	14.335	117	7779	4.837	ug/l	98
87) 1,2-Dichlorobenzene	14.106	146	21047	4.820	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	2761	4.352	ug/l	94
89) 1,2,4-Trichlorobenzene	15.841	180	10483	4.618	ug/l	99
90) Hexachlorobutadiene	15.500	225	6201	5.904	ug/l	98
91) Naphthalene	15.641	128	30757	3.998	ug/l	99
92) 1,2,3-Trichlorobenzene	15.841	180	10483	4.618	ug/l	99

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

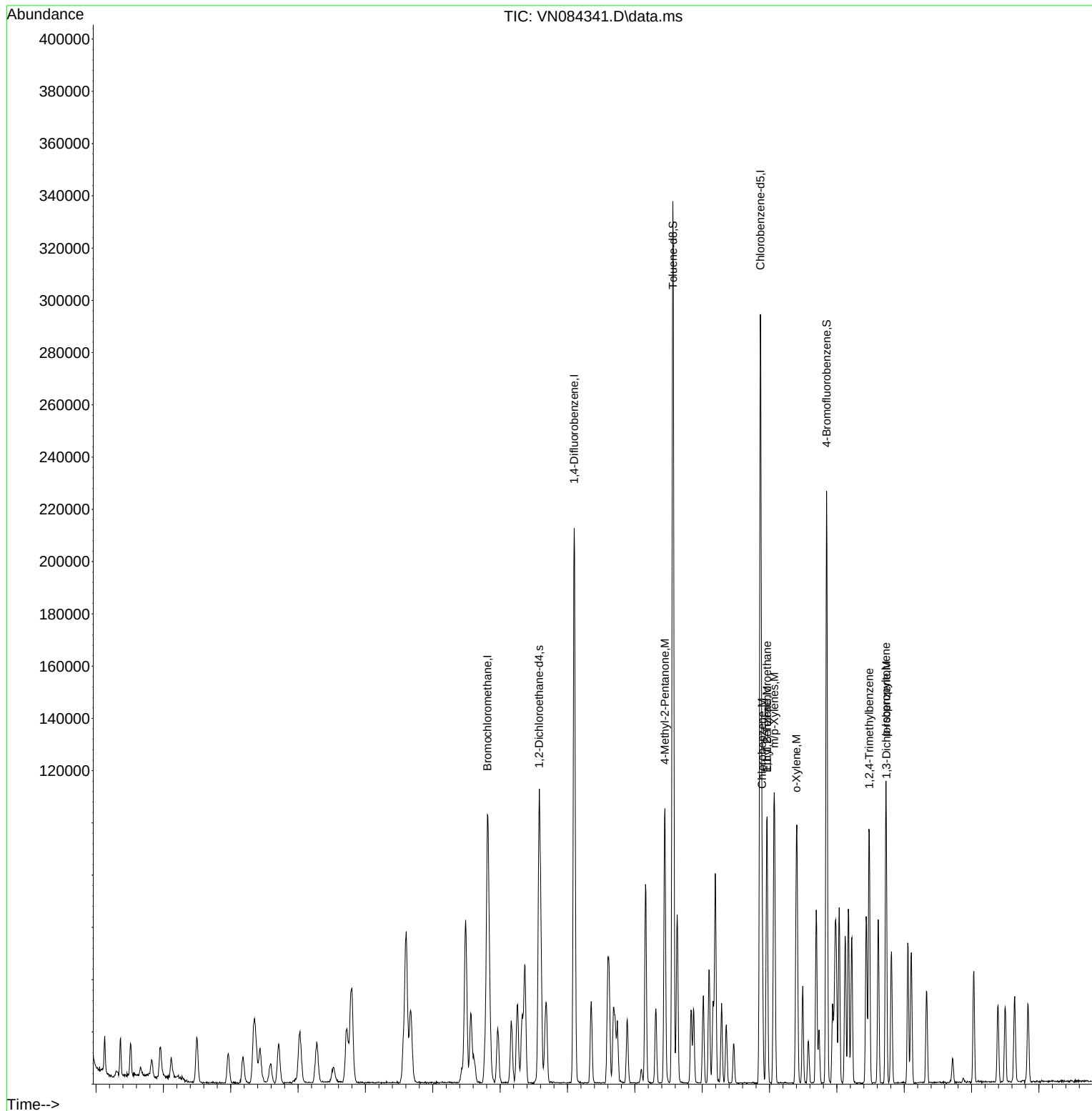
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084341.D
Acq On : 08 Oct 2024 11:19
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By : John Carlone 10/09/2024
Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:09:40 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:04:33 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084343.D
 Acq On : 08 Oct 2024 12:09
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN100824

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:27:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:21:08 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.818	128	35827	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	193781	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	180191	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.582	65	86558	30.009	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.033%			
60) 4-Bromofluorobenzene	12.847	95	91549	30.784	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 102.600%			
63) Toluene-d8	10.565	98	253573	30.377	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.267%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.124	85	43254	19.774	ug/l	99
3) Chloromethane	2.365	50	49667	19.953	ug/l	98
4) Vinyl Chloride	2.512	62	49435	20.252	ug/l	99
5) Bromomethane	2.959	94	31882	19.713	ug/l	93
6) Chloroethane	3.118	64	32723	20.448	ug/l	92
7) Trichlorofluoromethane	3.500	101	77185	19.412	ug/l	91
8) Diethyl Ether	3.965	74	28565	19.540	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.377	101	45902	20.532	ug/l	98
10) 1,1-Dichloroethene	4.342	96	43131	19.334	ug/l	84
11) Methyl Iodide	4.594	142	56446	19.255	ug/l	99
12) Methyl Acetate	5.030	43	52991	18.975	ug/l	99
13) Acrolein	4.183	56	48906	94.270	ug/l	99
14) Acrylonitrile	5.718	53	116456	92.817	ug/l	98
15) Acetone	4.430	58	39824	111.112	ug/l	100
16) Carbon Disulfide	4.712	76	126253	19.006	ug/l	99
17) Allyl chloride	5.024	41	68924	19.060	ug/l	86
18) Methylene Chloride	5.271	84	50598	20.135	ug/l	97
19) trans-1,2-Dichloroethene	5.789	96	45883	19.434	ug/l	98
20) Diisopropyl ether	6.677	45	158301	20.360	ug/l	97
21) 1,1-Dichloroethane	6.565	63	88993	19.948	ug/l	98
22) cis-1,2-Dichloroethene	7.483	96	54789	19.943	ug/l	100
23) tert-Butyl Alcohol	5.524	59	43150	89.659	ug/l #	100
24) Methyl tert-Butyl Ether	5.800	73	146831	19.696	ug/l #	86
25) Chloroform	7.965	83	91875	20.334	ug/l	98
26) Cyclohexane	8.253	56	70636	18.931	ug/l #	92
29) 1,1-Dichloropropene	8.371	75	63709	20.028	ug/l	99
30) 2-Butanone	7.483	43	170510	100.675	ug/l	99
31) 2,2-Dichloropropane	7.488	77	78528	21.007	ug/l #	82
32) 1,1,1-Trichloroethane	8.165	97	83527	20.543	ug/l	99
33) Carbon Tetrachloride	8.365	117	70593	20.040	ug/l	97
34) Benzene	8.606	78	201095	20.195	ug/l	98
35) Methacrylonitrile	7.782	41	35261	19.515	ug/l	99
36) 1,2-Dichloroethane	8.671	62	67448	20.321	ug/l	99
37) Trichloroethene	9.353	130	46466	20.265	ug/l	92
38) Methylcyclohexane	9.600	83	69219	19.810	ug/l	98
39) 1,2-Dichloropropane	9.618	63	49546	20.404	ug/l	94
40) Dibromomethane	9.706	93	34353	20.242	ug/l	98
41) Bromodichloromethane	9.888	83	72371	20.087	ug/l	92
42) Vinyl Acetate	6.606	43	581959	98.798	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084343.D
 Acq On : 08 Oct 2024 12:09
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN100824

Manual Integrations
 APPROVED

Reviewed By : John Carlone 10/09/2024
 Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:27:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:21:08 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	63334m	18.961	ug/l	
44) Isopropyl Acetate	8.688	43	106167	19.419	ug/l	100
45) 1,4-Dioxane	9.700	88	17788	360.927	ug/l	96
46) Methyl methacrylate	9.682	41	51122	19.353	ug/l	97
47) n-amyl Acetate	12.494	43	94442	19.421	ug/l	99
48) t-1,3-Dichloropropene	10.835	75	74857	20.107	ug/l	98
49) cis-1,3-Dichloropropene	10.312	75	80340	20.591	ug/l	95
50) 1,1,2-Trichloroethane	11.012	97	45700	20.034	ug/l	99
51) Ethyl methacrylate	10.871	69	73999	19.639	ug/l	97
52) 1,3-Dichloropropane	11.159	76	80053	20.070	ug/l	100
53) Dibromochloromethane	11.359	129	54490	20.221	ug/l	99
54) 1,2-Dibromoethane	11.470	107	45857	19.530	ug/l	95
55) 2-Chloroethyl vinyl ether	10.159	63	150677	88.171	ug/l	99
56) Bromoform	12.576	173	35946	20.113	ug/l	97
58) 4-Methyl-2-Pentanone	10.441	43	326914	97.392	ug/l	99
59) 2-Hexanone	11.194	43	248144	99.486	ug/l	99
61) Tetrachloroethene	11.100	164	41736	20.477	ug/l	95
62) Toluene	10.629	91	216792	20.551	ug/l	98
64) Chlorobenzene	11.894	112	131028	19.960	ug/l	98
65) 1,1,1,2-Tetrachloroethane	11.959	131	45996	20.169	ug/l	100
66) Ethyl Benzene	11.965	91	229654	20.038	ug/l	95
67) m/p-Xylenes	12.070	106	179863	41.370	ug/l	98
68) o-Xylene	12.394	106	84107	20.070	ug/l	99
69) Styrene	12.412	104	144766	20.124	ug/l	100
70) Isopropylbenzene	12.694	105	213142	19.923	ug/l	98
71) 1,1,2,2-Tetrachloroethane	12.935	83	65966	19.932	ug/l	99
72) 1,2,3-Trichloropropane	12.994	75	63849m	22.527	ug/l	
73) Bromobenzene	12.976	156	51798	19.992	ug/l	98
74) n-propylbenzene	13.035	91	260928	20.467	ug/l	100
75) 2-Chlorotoluene	13.123	91	158449	20.001	ug/l	99
76) 1,3,5-Trimethylbenzene	13.170	105	181926	20.196	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	22878	18.889	ug/l	98
78) 4-Chlorotoluene	13.217	91	161150	20.008	ug/l	99
79) tert-butylbenzene	13.435	119	155215	20.197	ug/l	99
80) 1,2,4-Trimethylbenzene	13.482	105	186446	20.399	ug/l	99
81) sec-Butylbenzene	13.617	105	212421	20.077	ug/l	99
82) p-Isopropyltoluene	13.729	119	178265	20.018	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	96137	19.955	ug/l	98
84) 1,4-Dichlorobenzene	13.812	146	92714	19.380	ug/l	98
85) n-Butylbenzene	14.053	91	148207	19.215	ug/l	99
86) Hexachloroethane	14.335	117	34925	20.356	ug/l	98
87) 1,2-Dichlorobenzene	14.106	146	91342	19.610	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.717	75	12734	18.815	ug/l	97
89) 1,2,4-Trichlorobenzene	15.835	180	43683	18.038	ug/l	99
90) Hexachlorobutadiene	15.500	225	21663	19.335	ug/l	98
91) Naphthalene	15.641	128	137791	16.790	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	43683	18.038	ug/l	99

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

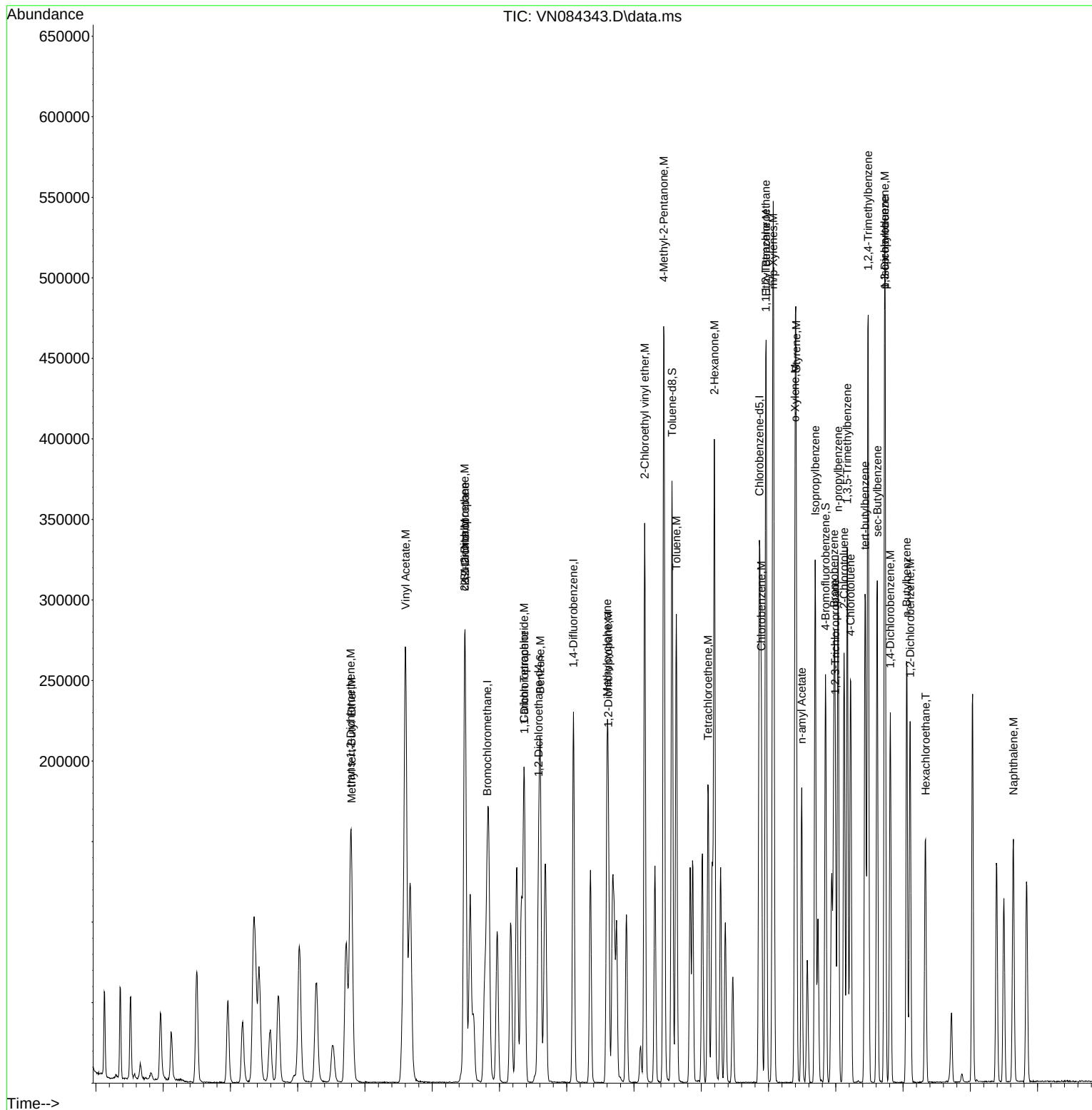
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084343.D
Acq On : 08 Oct 2024 12:09
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN100824

Manual Integrations
APPROVED

Reviewed By : John Carlone 10/09/2024
Supervised By : Mahesh Dadoda 10/09/2024

Quant Time: Oct 09 02:27:08 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:21:08 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084343.D
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Quant Time: Oct 09 02:27:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:21:08 2024
 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	103	0.00
2 M	Dichlorodifluoromethane	1.832	1.811	1.1	97	0.00
3 M	Chloromethane	2.084	2.079	0.2	100	0.00
4 M	Vinyl Chloride	2.044	2.070	-1.3	102	0.00
5 M	Bromomethane	1.354	1.335	1.4	97	0.00
6 M	Chloroethane	1.340	1.370	-2.2	101	0.00
7 M	Trichlorofluoromethane	3.329	3.232	2.9	98	0.00
8 T	Diethyl Ether	1.224	1.196	2.3	100	0.00
9	1,1,2-Trichlorotrifluoroeth	1.872	1.922	-2.7	105	0.01
10 M	1,1-Dichloroethene	1.868	1.806	3.3	102	0.00
11	Methyl Iodide	2.455	2.363	3.7	99	0.00
12	Methyl Acetate	2.339	2.219	5.1	100	0.00
13 M	Acrolein	0.434	0.410	5.5	105	0.00
14 M	Acrylonitrile	1.051	0.975	7.2	94	0.00
15 M	Acetone	0.300	0.333	-11.0	120	0.00
16 M	Carbon Disulfide	5.562	5.286	5.0	96	0.00
17	Allyl chloride	3.028	2.886	4.7	96	0.00
18 M	Methylene Chloride	2.104	2.118	-0.7	102	0.00
19 M	trans-1,2-Dichloroethene	1.977	1.921	2.8	99	0.00
20 T	Diisopropyl ether	6.510	6.628	-1.8	103	0.00
21 M	1,1-Dichloroethane	3.736	3.726	0.3	100	0.00
22 M	cis-1,2-Dichloroethene	2.300	2.294	0.3	100	0.00
23 M	tert-Butyl Alcohol	0.403	0.361	10.4	94	0.00
24 M	Methyl tert-Butyl Ether	6.242	6.148	1.5	101	0.00
25 M	Chloroform	3.783	3.847	-1.7	102	0.00
26	Cyclohexane	3.124	2.957	5.3	93	0.00
27 s	1,2-Dichloroethane-d4	2.415	2.416	-0.0	101	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
29	1,1-Dichloropropene	0.492	0.493	-0.2	100	0.00
30 M	2-Butanone	0.262	0.264	-0.8	103	0.00
31	2,2-Dichloropropane	0.579	0.608	-5.0	106	0.00
32 M	1,1,1-Trichloroethane	0.629	0.647	-2.9	100	0.00
33 M	Carbon Tetrachloride	0.545	0.546	-0.2	101	0.00
34 M	Benzene	1.542	1.557	-1.0	100	0.00
35	Methacrylonitrile	0.280	0.273	2.5	100	0.00
36 M	1,2-Dichloroethane	0.514	0.522	-1.6	100	0.00
37 M	Trichloroethene	0.355	0.360	-1.4	99	0.00
38	Methylcyclohexane	0.541	0.536	0.9	103	0.00
39 M	1,2-Dichloropropane	0.376	0.384	-2.1	100	0.00
40	Dibromomethane	0.263	0.266	-1.1	101	0.00
41 M	Bromodichloromethane	0.558	0.560	-0.4	100	0.00
42 M	Vinyl Acetate	0.912	0.901	1.2	102	0.00
43	Ethyl Acetate	0.517	0.490	5.2	96	0.00
44	Isopropyl Acetate	0.846	0.822	2.8	98	0.00
45 T	1,4-Dioxane	0.008	0.007	12.5	96	0.00
46	Methyl methacrylate	0.409	0.396	3.2	98	0.00
47	n-amyl Acetate	0.753	0.731	2.9	99	0.00
48 M	t-1,3-Dichloropropene	0.576	0.579	-0.5	103	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084343.D
 Acq On : 08 Oct 2024 12:09
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN100824

Quant Time: Oct 09 02:27:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:21:08 2024
 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	0.604	0.622	-3.0	102	0.00
50 M	1,1,2-Trichloroethane	0.353	0.354	-0.3	100	0.00
51	Ethyl methacrylate	0.583	0.573	1.7	100	0.00
52	1,3-Dichloropropane	0.617	0.620	-0.5	99	0.00
53 M	Dibromochloromethane	0.417	0.422	-1.2	102	0.00
54 M	1,2-Dibromoethane	0.364	0.355	2.5	96	0.00
55 M	2-Chloroethyl vinyl ether	0.265	0.233	12.1	93	0.00
56 M	Bromoform	0.277	0.278	-0.4	106	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
58 M	4-Methyl-2-Pentanone	0.559	0.544	2.7	97	0.00
59 M	2-Hexanone	0.415	0.413	0.5	101	0.00
60 S	4-Bromofluorobenzene	0.495	0.508	-2.6	103	0.00
61 M	Tetrachloroethene	0.339	0.347	-2.4	102	0.00
62 M	Toluene	1.756	1.805	-2.8	102	0.00
63 S	Toluene-d8	1.390	1.407	-1.2	101	0.00
64 M	Chlorobenzene	1.093	1.091	0.2	100	0.00
65	1,1,1,2-Tetrachloroethane	0.380	0.383	-0.8	100	0.00
66 M	Ethyl Benzene	1.908	1.912	-0.2	101	0.00
67 M	m/p-Xylenes	0.724	0.749	-3.5	103	0.00
68 M	o-Xylene	0.698	0.700	-0.3	101	0.00
69 M	Styrene	1.198	1.205	-0.6	102	0.00
70	Isopropylbenzene	1.781	1.774	0.4	99	0.00
71 M	1,1,2,2-Tetrachloroethane	0.551	0.549	0.4	100	0.00
72	1,2,3-Trichloropropane	0.472	0.532	-12.7	114	0.00
73	Bromobenzene	0.431	0.431	0.0	101	0.00
74	n-propylbenzene	2.123	2.172	-2.3	103	0.00
75	2-Chlorotoluene	1.319	1.319	0.0	100	0.00
76	1,3,5-Trimethylbenzene	1.500	1.514	-0.9	102	0.00
77	t-1,4-Dichloro-2-butene	0.202	0.190	5.9	102	0.00
78	4-Chlorotoluene	1.341	1.341	0.0	101	0.00
79	tert-butylbenzene	1.279	1.292	-1.0	102	0.00
80	1,2,4-Trimethylbenzene	1.522	1.552	-2.0	103	0.00
81	sec-Butylbenzene	1.762	1.768	-0.3	101	0.00
82	p-Isopropyltoluene	1.483	1.484	-0.1	103	0.00
83 M	1,3-Dichlorobenzene	0.802	0.800	0.2	101	0.00
84 M	1,4-Dichlorobenzene	0.796	0.772	3.0	101	0.00
85	n-Butylbenzene	1.284	1.234	3.9	103	0.00
86 T	Hexachloroethane	0.286	0.291	-1.7	104	0.00
87 M	1,2-Dichlorobenzene	0.775	0.760	1.9	100	0.00
88	1,2-Dibromo-3-Chloropropane	0.113	0.106	6.2	96	0.00
89	1,2,4-Trichlorobenzene	0.403	0.364	9.7	95	0.00
90	Hexachlorobutadiene	0.187	0.180	3.7	104	0.00
91 M	Naphthalene	1.366	1.147	16.0	89	0.00
92	1,2,3-Trichlorobenzene	0.403	0.364	9.7	95	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084343.D
 Acq On : 08 Oct 2024 12:09
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICSVVN100824

Quant Time: Oct 09 02:27:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:21:08 2024
 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	103	0.00
2 M	Dichlorodifluoromethane	20.000	19.774	1.1	97	0.00
3 M	Chloromethane	20.000	19.953	0.2	100	0.00
4 M	Vinyl Chloride	20.000	20.252	-1.3	102	0.00
5 M	Bromomethane	20.000	19.713	1.4	97	0.00
6 M	Chloroethane	20.000	20.448	-2.2	101	0.00
7 M	Trichlorofluoromethane	20.000	19.412	2.9	98	0.00
8 T	Diethyl Ether	20.000	19.540	2.3	100	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	20.532	-2.7	105	0.01
10 M	1,1-Dichloroethene	20.000	19.334	3.3	102	0.00
11	Methyl Iodide	20.000	19.255	3.7	99	0.00
12	Methyl Acetate	20.000	18.975	5.1	100	0.00
13 M	Acrolein	100.000	94.270	5.7	105	0.00
14 M	Acrylonitrile	100.000	92.817	7.2	94	0.00
15 M	Acetone	100.000	111.112	-11.1	120	0.00
16 M	Carbon Disulfide	20.000	19.006	5.0	96	0.00
17	Allyl chloride	20.000	19.060	4.7	96	0.00
18 M	Methylene Chloride	20.000	20.135	-0.7	102	0.00
19 M	trans-1,2-Dichloroethene	20.000	19.434	2.8	99	0.00
20 T	Diisopropyl ether	20.000	20.360	-1.8	103	0.00
21 M	1,1-Dichloroethane	20.000	19.948	0.3	100	0.00
22 M	cis-1,2-Dichloroethene	20.000	19.943	0.3	100	0.00
23 M	tert-Butyl Alcohol	100.000	89.659	10.3	94	0.00
24 M	Methyl tert-Butyl Ether	20.000	19.696	1.5	101	0.00
25 M	Chloroform	20.000	20.334	-1.7	102	0.00
26	Cyclohexane	20.000	18.931	5.3	93	0.00
27 s	1,2-Dichloroethane-d4	30.000	30.009	-0.0	101	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	100	0.00
29	1,1-Dichloropropene	20.000	20.028	-0.1	100	0.00
30 M	2-Butanone	100.000	100.675	-0.7	103	0.00
31	2,2-Dichloropropane	20.000	21.007	-5.0	106	0.00
32 M	1,1,1-Trichloroethane	20.000	20.543	-2.7	100	0.00
33 M	Carbon Tetrachloride	20.000	20.040	-0.2	101	0.00
34 M	Benzene	20.000	20.195	-1.0	100	0.00
35	Methacrylonitrile	20.000	19.515	2.4	100	0.00
36 M	1,2-Dichloroethane	20.000	20.321	-1.6	100	0.00
37 M	Trichloroethene	20.000	20.265	-1.3	99	0.00
38	Methylcyclohexane	20.000	19.810	1.0	103	0.00
39 M	1,2-Dichloropropane	20.000	20.404	-2.0	100	0.00
40	Dibromomethane	20.000	20.242	-1.2	101	0.00
41 M	Bromodichloromethane	20.000	20.087	-0.4	100	0.00
42 M	Vinyl Acetate	100.000	98.798	1.2	102	0.00
43	Ethyl Acetate	20.000	18.961	5.2	96	0.00
44	Isopropyl Acetate	20.000	19.419	2.9	98	0.00
45 T	1,4-Dioxane	400.000	360.927	9.8	96	0.00
46	Methyl methacrylate	20.000	19.353	3.2	98	0.00
47	n-amyl Acetate	20.000	19.421	2.9	99	0.00
48 M	t-1,3-Dichloropropene	20.000	20.107	-0.5	103	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
 Data File : VN084343.D
 Acq On : 08 Oct 2024 12:09
 Operator : JC\MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 ICVVN100824

Quant Time: Oct 09 02:27:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:21:08 2024
 Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	20.000	20.591	-3.0	102	0.00
50 M	1,1,2-Trichloroethane	20.000	20.034	-0.2	100	0.00
51	Ethyl methacrylate	20.000	19.639	1.8	100	0.00
52	1,3-Dichloropropane	20.000	20.070	-0.4	99	0.00
53 M	Dibromochloromethane	20.000	20.221	-1.1	102	0.00
54 M	1,2-Dibromoethane	20.000	19.530	2.3	96	0.00
55 M	2-Chloroethyl vinyl ether	100.000	88.171	11.8	93	0.00
56 M	Bromoform	20.000	20.113	-0.6	106	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	100	0.00
58 M	4-Methyl-2-Pentanone	100.000	97.392	2.6	97	0.00
59 M	2-Hexanone	100.000	99.486	0.5	101	0.00
60 S	4-Bromofluorobenzene	30.000	30.784	-2.6	103	0.00
61 M	Tetrachloroethene	20.000	20.477	-2.4	102	0.00
62 M	Toluene	20.000	20.551	-2.8	102	0.00
63 S	Toluene-d8	30.000	30.377	-1.3	101	0.00
64 M	Chlorobenzene	20.000	19.960	0.2	100	0.00
65	1,1,1,2-Tetrachloroethane	20.000	20.169	-0.8	100	0.00
66 M	Ethyl Benzene	20.000	20.038	-0.2	101	0.00
67 M	m/p-Xylenes	40.000	41.370	-3.4	103	0.00
68 M	o-Xylene	20.000	20.070	-0.4	101	0.00
69 M	Styrene	20.000	20.124	-0.6	102	0.00
70	Isopropylbenzene	20.000	19.923	0.4	99	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	19.932	0.3	100	0.00
72	1,2,3-Trichloropropane	20.000	22.527	-12.6	114	0.00
73	Bromobenzene	20.000	19.992	0.0	101	0.00
74	n-propylbenzene	20.000	20.467	-2.3	103	0.00
75	2-Chlorotoluene	20.000	20.001	-0.0	100	0.00
76	1,3,5-Trimethylbenzene	20.000	20.196	-1.0	102	0.00
77	t-1,4-Dichloro-2-butene	20.000	18.889	5.6	102	0.00
78	4-Chlorotoluene	20.000	20.008	-0.0	101	0.00
79	tert-butylbenzene	20.000	20.197	-1.0	102	0.00
80	1,2,4-Trimethylbenzene	20.000	20.399	-2.0	103	0.00
81	sec-Butylbenzene	20.000	20.077	-0.4	101	0.00
82	p-Isopropyltoluene	20.000	20.018	-0.1	103	0.00
83 M	1,3-Dichlorobenzene	20.000	19.955	0.2	101	0.00
84 M	1,4-Dichlorobenzene	20.000	19.380	3.1	101	0.00
85	n-Butylbenzene	20.000	19.215	3.9	103	0.00
86 T	Hexachloroethane	20.000	20.356	-1.8	104	0.00
87 M	1,2-Dichlorobenzene	20.000	19.610	2.0	100	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	18.815	5.9	96	0.00
89	1,2,4-Trichlorobenzene	20.000	18.038	9.8	95	0.00
90	Hexachlorobutadiene	20.000	19.335	3.3	104	0.00
91 M	Naphthalene	20.000	16.790	16.1	89	0.00
92	1,2,3-Trichlorobenzene	20.000	18.038	9.8	95	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: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4528 SAS No.: P4528 SDG No.: P4528

Instrument ID: MSVOA_N Calibration Date/Time: 10/25/2024 10:04

Lab File ID: VN084504.D Init. Calib. Date(s): 10/08/2024 10/08/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:43 11:19

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Acrolein	0.434	0.431		-0.69	
Acrylonitrile	1.051	0.953		-9.32	
1,2-Dichloroethane-d4	2.415	2.412	0.01	-0.12	
Toluene-d8	1.390	1.390	0.01	0	
4-Bromofluorobenzene	0.495	0.511	0.2	3.23	

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\VN102524\
 Data File : VN084504.D
 Acq On : 25 Oct 2024 10:04
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
 Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:24:48 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	35506	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	200200	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	180518	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	85643	29.960	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	99.867%		
60) 4-Bromofluorobenzene	12.847	95	92192	30.944	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	103.133%		
63) Toluene-d8	10.565	98	251001	30.014	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	100.033%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.130	85	39661	18.295	ug/l	98
3) Chloromethane	2.359	50	43348	17.572	ug/l	100
4) Vinyl Chloride	2.518	62	44364	18.338	ug/l	98
5) Bromomethane	2.959	94	28146	17.561	ug/l	90
6) Chloroethane	3.124	64	30160	19.017	ug/l	96
7) Trichlorofluoromethane	3.501	101	73931	18.762	ug/l	89
8) Diethyl Ether	3.959	74	27242	18.804	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.377	101	44085	19.897	ug/l	62
10) 1,1-Dichloroethene	4.342	96	40585	18.358	ug/l	91
11) Methyl Iodide	4.595	142	53535	18.427	ug/l	96
12) Methyl Acetate	5.024	43	58784	21.239	ug/l	99
13) Acrolein	4.183	56	50962	99.121	ug/l	99
14) Acrylonitrile	5.724	53	112734	90.663	ug/l	98
15) Acetone	4.430	58	43514	122.505	ug/l	98
16) Carbon Disulfide	4.712	76	109654	16.656	ug/l	100
17) Allyl chloride	5.024	41	66059	18.433	ug/l	90
18) Methylene Chloride	5.283	84	45898	18.429	ug/l	98
19) trans-1,2-Dichloroethene	5.783	96	42534	18.179	ug/l	95
20) Diisopropyl ether	6.665	45	146490	19.011	ug/l #	98
21) 1,1-Dichloroethane	6.565	63	85721	19.388	ug/l	97
22) cis-1,2-Dichloroethene	7.483	96	53018	19.473	ug/l	98
23) tert-Butyl Alcohol	5.518	59	43059	90.279	ug/l #	100
24) Methyl tert-Butyl Ether	5.789	73	141150	19.105	ug/l #	84
25) Chloroform	7.965	83	90521	20.215	ug/l	98
26) Cyclohexane	8.253	56	65248	17.645	ug/l #	95
29) 1,1-Dichloropropene	8.371	75	59606	18.137	ug/l	98
30) 2-Butanone	7.483	43	168367	96.222	ug/l	100
31) 2,2-Dichloropropane	7.488	77	75888	19.650	ug/l #	82
32) 1,1,1-Trichloroethane	8.165	97	80476	19.158	ug/l	99
33) Carbon Tetrachloride	8.359	117	67238	18.476	ug/l	98
34) Benzene	8.606	78	192502	18.712	ug/l #	93
35) Methacrylonitrile	7.777	41	33984	18.205	ug/l	95
36) 1,2-Dichloroethane	8.665	62	65072	18.977	ug/l	99
37) Trichloroethene	9.353	130	44712	18.875	ug/l	88
38) Methylcyclohexane	9.600	83	64890	17.975	ug/l	98
39) 1,2-Dichloropropane	9.618	63	47058	18.758	ug/l	97
40) Dibromomethane	9.706	93	33034	18.841	ug/l	98
41) Bromodichloromethane	9.888	83	69922	18.785	ug/l	98
42) Vinyl Acetate	6.600	43	537529	88.329	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084504.D
 Acq On : 25 Oct 2024 10:04
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
 Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:24:48 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	58695	17.008	ug/l	95
44) Isopropyl Acetate	8.688	43	129797m	22.980	ug/l	
45) 1,4-Dioxane	9.694	88	17930	352.143	ug/l	97
46) Methyl methacrylate	9.677	41	46876	17.177	ug/l	96
47) n-amyl Acetate	12.494	43	89176	17.750	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	71062	18.475	ug/l	98
49) cis-1,3-Dichloropropene	10.312	75	75370	18.697	ug/l	97
50) 1,1,2-Trichloroethane	11.012	97	44728	18.979	ug/l	96
51) Ethyl methacrylate	10.871	69	70772	18.181	ug/l	95
52) 1,3-Dichloropropane	11.159	76	77213	18.738	ug/l	99
53) Dibromochloromethane	11.359	129	52385	18.817	ug/l	99
54) 1,2-Dibromoethane	11.471	107	44557	18.368	ug/l	96
55) 2-Chloroethyl vinyl ether	10.159	63	156467	88.623	ug/l	99
56) Bromoform	12.576	173	34361	18.609	ug/l	97
58) 4-Methyl-2-Pentanone	10.441	43	318910	94.836	ug/l	100
59) 2-Hexanone	11.194	43	244527	97.858	ug/l	100
61) Tetrachloroethene	11.106	164	41919	20.529	ug/l	98
62) Toluene	10.629	91	202597	19.171	ug/l	99
64) Chlorobenzene	11.888	112	124737	18.968	ug/l	96
65) 1,1,1,2-Tetrachloroethane	11.959	131	45259	19.810	ug/l	99
66) Ethyl Benzene	11.965	91	221348	19.279	ug/l	96
67) m/p-Xylenes	12.071	106	168410	38.666	ug/l	100
68) o-Xylene	12.394	106	79405	18.914	ug/l	99
69) Styrene	12.412	104	136543	18.946	ug/l	99
70) Isopropylbenzene	12.694	105	204870	19.115	ug/l	96
71) 1,1,2,2-Tetrachloroethane	12.935	83	64257	19.381	ug/l	97
72) 1,2,3-Trichloropropane	12.994	75	51869m	18.267	ug/l	
73) Bromobenzene	12.976	156	49657	19.131	ug/l	99
74) n-propylbenzene	13.035	91	249446	19.531	ug/l	99
75) 2-Chlorotoluene	13.123	91	154107	19.418	ug/l	99
76) 1,3,5-Trimethylbenzene	13.170	105	178201	19.747	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	22508	18.550	ug/l	98
78) 4-Chlorotoluene	13.218	91	156277	19.368	ug/l	98
79) tert-butylbenzene	13.435	119	149853	19.464	ug/l	98
80) 1,2,4-Trimethylbenzene	13.482	105	174715	19.081	ug/l	99
81) sec-Butylbenzene	13.612	105	207746	19.600	ug/l	98
82) p-Isopropyltoluene	13.729	119	171934	19.272	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	93180	19.307	ug/l	98
84) 1,4-Dichlorobenzene	13.812	146	92963	19.397	ug/l	99
85) n-Butylbenzene	14.053	91	146629	18.976	ug/l	98
86) Hexachloroethane	14.329	117	32190	18.728	ug/l	97
87) 1,2-Dichlorobenzene	14.106	146	93148	19.962	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	13174	19.430	ug/l	98
89) 1,2,4-Trichlorobenzene	15.835	180	44516	18.348	ug/l	97
90) Hexachlorobutadiene	15.500	225	22167	19.749	ug/l	95
91) Naphthalene	15.641	128	139887	17.015	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	44516	18.348	ug/l	97

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

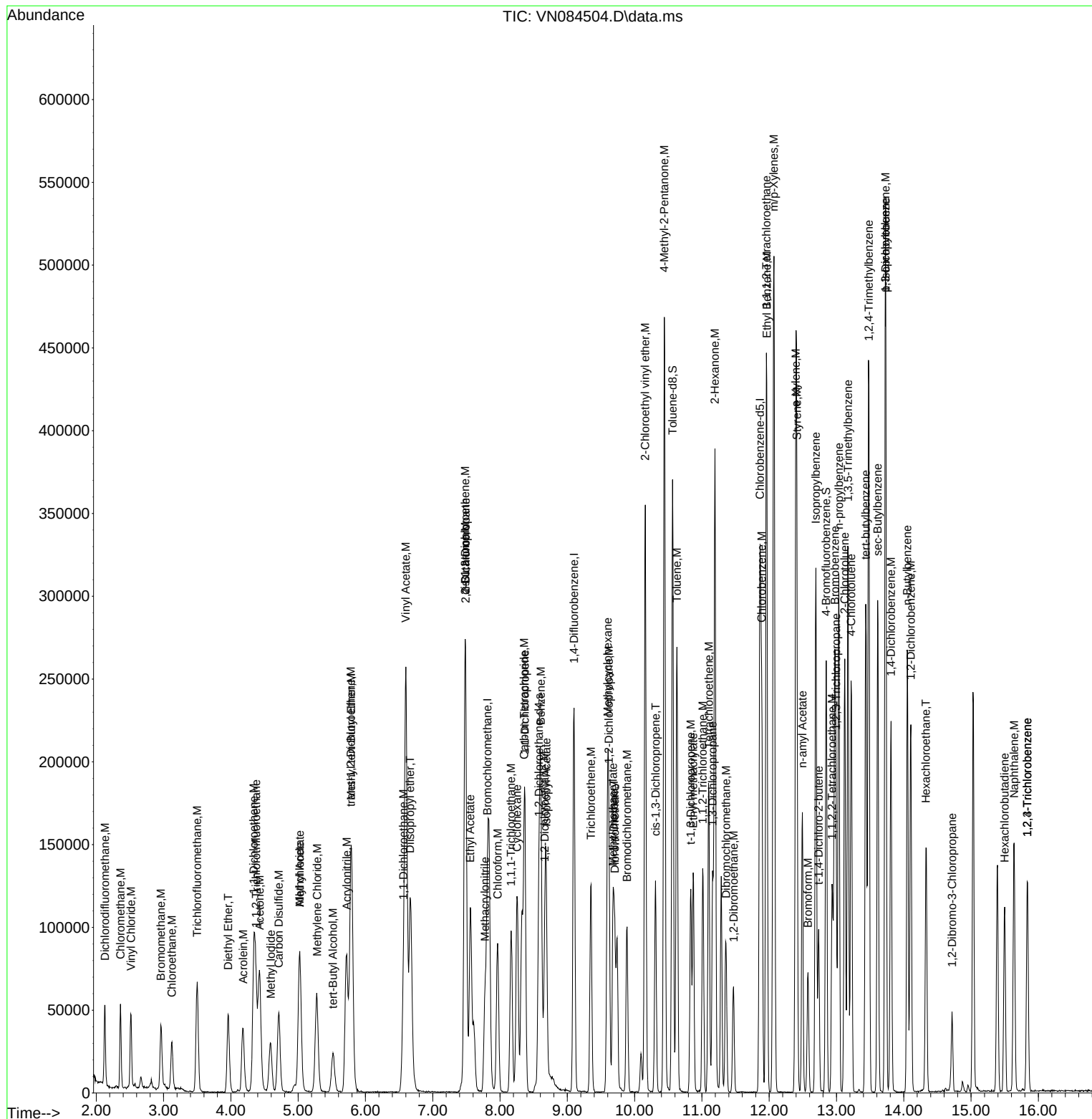
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084504.D
Acq On : 25 Oct 2024 10:04
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:24:48 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084504.D
 Acq On : 25 Oct 2024 10:04
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Oct 26 05:24:48 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 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	102	0.00
2 M	Dichlorodifluoromethane	1.832	1.676	8.5	89	0.00
3 M	Chloromethane	2.084	1.831	12.1	87	0.00
4 M	Vinyl Chloride	2.044	1.874	8.3	91	0.00
5 M	Bromomethane	1.354	1.189	12.2	86	0.00
6 M	Chloroethane	1.340	1.274	4.9	93	0.00
7 M	Trichlorofluoromethane	3.329	3.123	6.2	94	0.00
8 T	Diethyl Ether	1.224	1.151	6.0	96	0.00
9	1,1,2-Trichlorotrifluoroeth	1.872	1.862	0.5	101	0.01
10 M	1,1-Dichloroethene	1.868	1.715	8.2	96	0.00
11	Methyl Iodide	2.455	2.262	7.9	94	0.00
12	Methyl Acetate	2.339	2.483	-6.2	111	0.00
13 M	Acrolein	0.434	0.431	0.7	110	0.00
14 M	Acrylonitrile	1.051	0.953	9.3	91	0.00
15 M	Acetone	0.300	0.368	-22.7	132	0.00
16 M	Carbon Disulfide	5.562	4.632	16.7	83	0.00
17	Allyl chloride	3.028	2.791	7.8	92	0.00
18 M	Methylene Chloride	2.104	1.939	7.8	92	0.00
19 M	trans-1,2-Dichloroethene	1.977	1.797	9.1	91	0.00
20 T	Diisopropyl ether	6.510	6.189	4.9	95	0.00
21 M	1,1-Dichloroethane	3.736	3.621	3.1	97	0.00
22 M	cis-1,2-Dichloroethene	2.300	2.240	2.6	97	0.00
23 M	tert-Butyl Alcohol	0.403	0.364	9.7	93	0.00
24 M	Methyl tert-Butyl Ether	6.242	5.963	4.5	97	-0.01
25 M	Chloroform	3.783	3.824	-1.1	100	0.00
26	Cyclohexane	3.124	2.756	11.8	86	0.00
27 s	1,2-Dichloroethane-d4	2.415	2.412	0.1	100	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	104	0.00
29	1,1-Dichloropropene	0.492	0.447	9.1	94	0.00
30 M	2-Butanone	0.262	0.252	3.8	102	0.00
31	2,2-Dichloropropane	0.579	0.569	1.7	102	0.00
32 M	1,1,1-Trichloroethane	0.629	0.603	4.1	96	0.00
33 M	Carbon Tetrachloride	0.545	0.504	7.5	96	0.00
34 M	Benzene	1.542	1.442	6.5	96	0.00
35	Methacrylonitrile	0.280	0.255	8.9	96	0.00
36 M	1,2-Dichloroethane	0.514	0.488	5.1	97	0.00
37 M	Trichloroethene	0.355	0.335	5.6	95	0.00
38	Methylcyclohexane	0.541	0.486	10.2	97	0.00
39 M	1,2-Dichloropropane	0.376	0.353	6.1	95	0.00
40	Dibromomethane	0.263	0.248	5.7	98	0.00
41 M	Bromodichloromethane	0.558	0.524	6.1	97	0.00
42 M	Vinyl Acetate	0.912	0.805	11.7	94	0.00
43	Ethyl Acetate	0.517	0.440	14.9	89	0.00
44	Isopropyl Acetate	0.846	0.973	-15.0	120	0.00
45 T	1,4-Dioxane	0.008	0.007	12.5	97	0.00
46	Methyl methacrylate	0.409	0.351	14.2	90	0.00
47	n-amyl Acetate	0.753	0.668	11.3	94	0.00
48 M	t-1,3-Dichloropropene	0.576	0.532	7.6	98	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084504.D
 Acq On : 25 Oct 2024 10:04
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Oct 26 05:24:48 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 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	0.604	0.565	6.5	95	0.00
50 M	1,1,2-Trichloroethane	0.353	0.335	5.1	98	0.00
51	Ethyl methacrylate	0.583	0.530	9.1	96	0.00
52	1,3-Dichloropropane	0.617	0.579	6.2	96	0.00
53 M	Dibromochloromethane	0.417	0.392	6.0	98	0.00
54 M	1,2-Dibromoethane	0.364	0.334	8.2	93	0.00
55 M	2-Chloroethyl vinyl ether	0.265	0.234	11.7	97	0.00
56 M	Bromoform	0.277	0.257	7.2	101	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
58 M	4-Methyl-2-Pentanone	0.559	0.530	5.2	95	0.00
59 M	2-Hexanone	0.415	0.406	2.2	100	0.00
60 S	4-Bromofluorobenzene	0.495	0.511	-3.2	104	0.00
61 M	Tetrachloroethene	0.339	0.348	-2.7	102	0.00
62 M	Toluene	1.756	1.683	4.2	96	0.00
63 S	Toluene-d8	1.390	1.390	0.0	100	0.00
64 M	Chlorobenzene	1.093	1.036	5.2	95	0.00
65	1,1,1,2-Tetrachloroethane	0.380	0.376	1.1	98	0.00
66 M	Ethyl Benzene	1.908	1.839	3.6	97	0.00
67 M	m/p-Xylenes	0.724	0.700	3.3	97	0.00
68 M	o-Xylene	0.698	0.660	5.4	95	0.00
69 M	Styrene	1.198	1.135	5.3	96	0.00
70	Isopropylbenzene	1.781	1.702	4.4	95	0.00
71 M	1,1,2,2-Tetrachloroethane	0.551	0.534	3.1	97	0.00
72	1,2,3-Trichloropropane	0.472	0.431	8.7	93	0.00
73	Bromobenzene	0.431	0.413	4.2	97	0.00
74	n-propylbenzene	2.123	2.073	2.4	98	0.00
75	2-Chlorotoluene	1.319	1.281	2.9	97	0.00
76	1,3,5-Trimethylbenzene	1.500	1.481	1.3	100	0.00
77	t-1,4-Dichloro-2-butene	0.202	0.187	7.4	100	0.00
78	4-Chlorotoluene	1.341	1.299	3.1	98	0.00
79	tert-butylbenzene	1.279	1.245	2.7	99	0.00
80	1,2,4-Trimethylbenzene	1.522	1.452	4.6	97	0.00
81	sec-Butylbenzene	1.762	1.726	2.0	99	0.00
82	p-Isopropyltoluene	1.483	1.429	3.6	99	0.00
83 M	1,3-Dichlorobenzene	0.802	0.774	3.5	98	0.00
84 M	1,4-Dichlorobenzene	0.796	0.772	3.0	102	0.00
85	n-Butylbenzene	1.284	1.218	5.1	102	0.00
86 T	Hexachloroethane	0.286	0.267	6.6	96	0.00
87 M	1,2-Dichlorobenzene	0.775	0.774	0.1	102	0.00
88	1,2-Dibromo-3-Chloropropane	0.113	0.109	3.5	100	0.00
89	1,2,4-Trichlorobenzene	0.403	0.370	8.2	97	0.00
90	Hexachlorobutadiene	0.187	0.184	1.6	106	0.00
91 M	Naphthalene	1.366	1.162	14.9	91	0.00
92	1,2,3-Trichlorobenzene	0.403	0.370	8.2	97	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084504.D
 Acq On : 25 Oct 2024 10:04
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Oct 26 05:24:48 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 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	102	0.00
2 M	Dichlorodifluoromethane	20.000	18.295	8.5	89	0.00
3 M	Chloromethane	20.000	17.572	12.1	87	0.00
4 M	Vinyl Chloride	20.000	18.338	8.3	91	0.00
5 M	Bromomethane	20.000	17.561	12.2	86	0.00
6 M	Chloroethane	20.000	19.017	4.9	93	0.00
7 M	Trichlorofluoromethane	20.000	18.762	6.2	94	0.00
8 T	Diethyl Ether	20.000	18.804	6.0	96	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	19.897	0.5	101	0.01
10 M	1,1-Dichloroethene	20.000	18.358	8.2	96	0.00
11	Methyl Iodide	20.000	18.427	7.9	94	0.00
12	Methyl Acetate	20.000	21.239	-6.2	111	0.00
13 M	Acrolein	100.000	99.121	0.9	110	0.00
14 M	Acrylonitrile	100.000	90.663	9.3	91	0.00
15 M	Acetone	100.000	122.505	-22.5	132	0.00
16 M	Carbon Disulfide	20.000	16.656	16.7	83	0.00
17	Allyl chloride	20.000	18.433	7.8	92	0.00
18 M	Methylene Chloride	20.000	18.429	7.9	92	0.00
19 M	trans-1,2-Dichloroethene	20.000	18.179	9.1	91	0.00
20 T	Diisopropyl ether	20.000	19.011	4.9	95	0.00
21 M	1,1-Dichloroethane	20.000	19.388	3.1	97	0.00
22 M	cis-1,2-Dichloroethene	20.000	19.473	2.6	97	0.00
23 M	tert-Butyl Alcohol	100.000	90.279	9.7	93	0.00
24 M	Methyl tert-Butyl Ether	20.000	19.105	4.5	97	-0.01
25 M	Chloroform	20.000	20.215	-1.1	100	0.00
26	Cyclohexane	20.000	17.645	11.8	86	0.00
27 s	1,2-Dichloroethane-d4	30.000	29.960	0.1	100	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	104	0.00
29	1,1-Dichloropropene	20.000	18.137	9.3	94	0.00
30 M	2-Butanone	100.000	96.222	3.8	102	0.00
31	2,2-Dichloropropane	20.000	19.650	1.8	102	0.00
32 M	1,1,1-Trichloroethane	20.000	19.158	4.2	96	0.00
33 M	Carbon Tetrachloride	20.000	18.476	7.6	96	0.00
34 M	Benzene	20.000	18.712	6.4	96	0.00
35	Methacrylonitrile	20.000	18.205	9.0	96	0.00
36 M	1,2-Dichloroethane	20.000	18.977	5.1	97	0.00
37 M	Trichloroethene	20.000	18.875	5.6	95	0.00
38	Methylcyclohexane	20.000	17.975	10.1	97	0.00
39 M	1,2-Dichloropropane	20.000	18.758	6.2	95	0.00
40	Dibromomethane	20.000	18.841	5.8	98	0.00
41 M	Bromodichloromethane	20.000	18.785	6.1	97	0.00
42 M	Vinyl Acetate	100.000	88.329	11.7	94	0.00
43	Ethyl Acetate	20.000	17.008	15.0	89	0.00
44	Isopropyl Acetate	20.000	22.980	-14.9	120	0.00
45 T	1,4-Dioxane	400.000	352.143	12.0	97	0.00
46	Methyl methacrylate	20.000	17.177	14.1	90	0.00
47	n-amyl Acetate	20.000	17.750	11.3	94	0.00
48 M	t-1,3-Dichloropropene	20.000	18.475	7.6	98	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084504.D
 Acq On : 25 Oct 2024 10:04
 Operator : JC\MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 LabSampleId :
 VSTDCCC020

Quant Time: Oct 26 05:24:48 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 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	18.697	6.5	95	0.00
50 M	1,1,2-Trichloroethane	20.000	18.979	5.1	98	0.00
51	Ethyl methacrylate	20.000	18.181	9.1	96	0.00
52	1,3-Dichloropropane	20.000	18.738	6.3	96	0.00
53 M	Dibromochloromethane	20.000	18.817	5.9	98	0.00
54 M	1,2-Dibromoethane	20.000	18.368	8.2	93	0.00
55 M	2-Chloroethyl vinyl ether	100.000	88.623	11.4	97	0.00
56 M	Bromoform	20.000	18.609	7.0	101	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	100	0.00
58 M	4-Methyl-2-Pentanone	100.000	94.836	5.2	95	0.00
59 M	2-Hexanone	100.000	97.858	2.1	100	0.00
60 S	4-Bromofluorobenzene	30.000	30.944	-3.1	104	0.00
61 M	Tetrachloroethene	20.000	20.529	-2.6	102	0.00
62 M	Toluene	20.000	19.171	4.1	96	0.00
63 S	Toluene-d8	30.000	30.014	-0.0	100	0.00
64 M	Chlorobenzene	20.000	18.968	5.2	95	0.00
65	1,1,1,2-Tetrachloroethane	20.000	19.810	1.0	98	0.00
66 M	Ethyl Benzene	20.000	19.279	3.6	97	0.00
67 M	m/p-Xylenes	40.000	38.666	3.3	97	0.00
68 M	o-Xylene	20.000	18.914	5.4	95	0.00
69 M	Styrene	20.000	18.946	5.3	96	0.00
70	Isopropylbenzene	20.000	19.115	4.4	95	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	19.381	3.1	97	0.00
72	1,2,3-Trichloropropane	20.000	18.267	8.7	93	0.00
73	Bromobenzene	20.000	19.131	4.3	97	0.00
74	n-propylbenzene	20.000	19.531	2.3	98	0.00
75	2-Chlorotoluene	20.000	19.418	2.9	97	0.00
76	1,3,5-Trimethylbenzene	20.000	19.747	1.3	100	0.00
77	t-1,4-Dichloro-2-butene	20.000	18.550	7.2	100	0.00
78	4-Chlorotoluene	20.000	19.368	3.2	98	0.00
79	tert-butylbenzene	20.000	19.464	2.7	99	0.00
80	1,2,4-Trimethylbenzene	20.000	19.081	4.6	97	0.00
81	sec-Butylbenzene	20.000	19.600	2.0	99	0.00
82	p-Isopropyltoluene	20.000	19.272	3.6	99	0.00
83 M	1,3-Dichlorobenzene	20.000	19.307	3.5	98	0.00
84 M	1,4-Dichlorobenzene	20.000	19.397	3.0	102	0.00
85	n-Butylbenzene	20.000	18.976	5.1	102	0.00
86 T	Hexachloroethane	20.000	18.728	6.4	96	0.00
87 M	1,2-Dichlorobenzene	20.000	19.962	0.2	102	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	19.430	2.9	100	0.00
89	1,2,4-Trichlorobenzene	20.000	18.348	8.3	97	0.00
90	Hexachlorobutadiene	20.000	19.749	1.3	106	0.00
91 M	Naphthalene	20.000	17.015	14.9	91	0.00
92	1,2,3-Trichlorobenzene	20.000	18.348	8.3	97	0.00

(#) = Out of Range

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



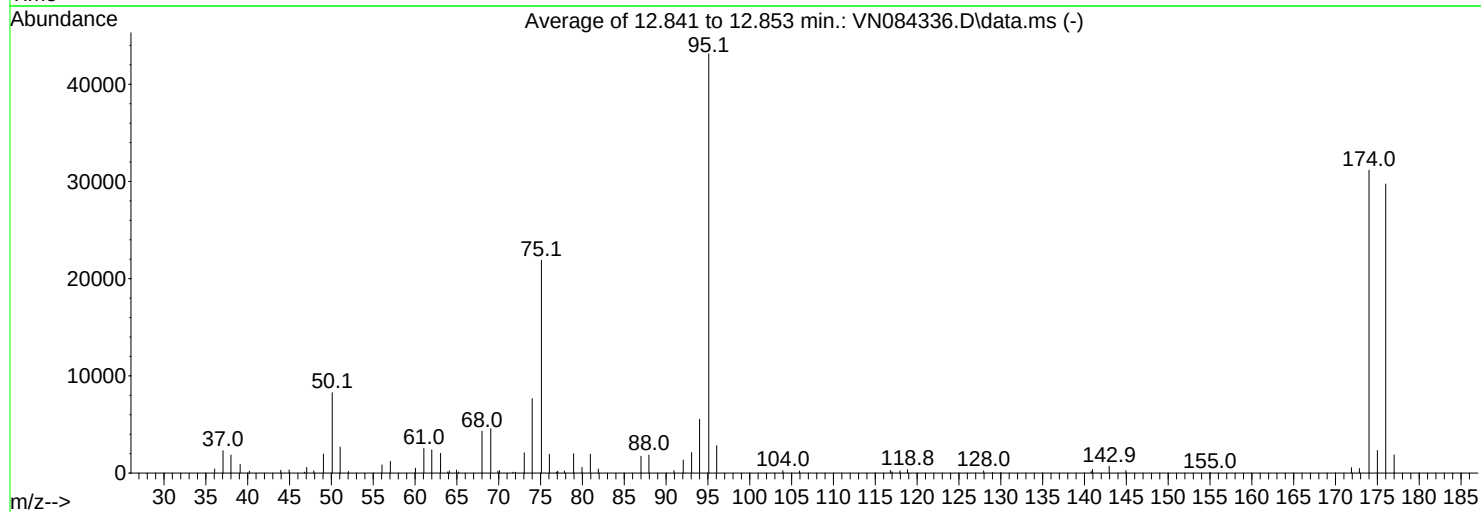
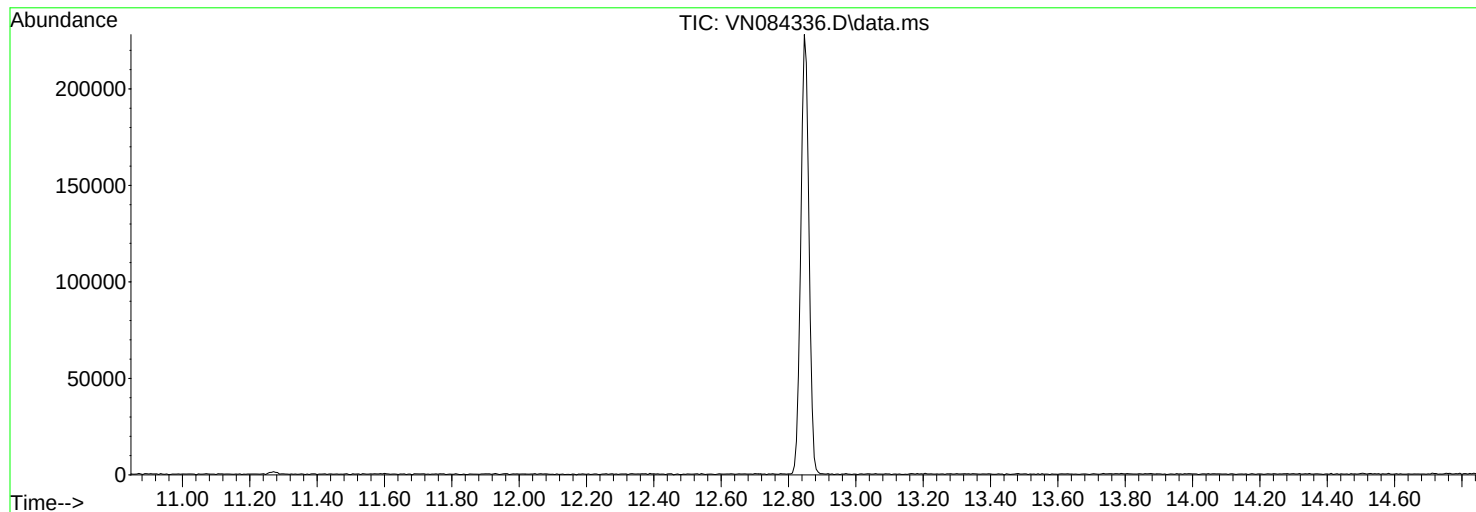
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN100824\
Data File : VN084336.D
Acq On : 08 Oct 2024 09:08
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\624N100824W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Wed Oct 09 02:22:28 2024



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1844

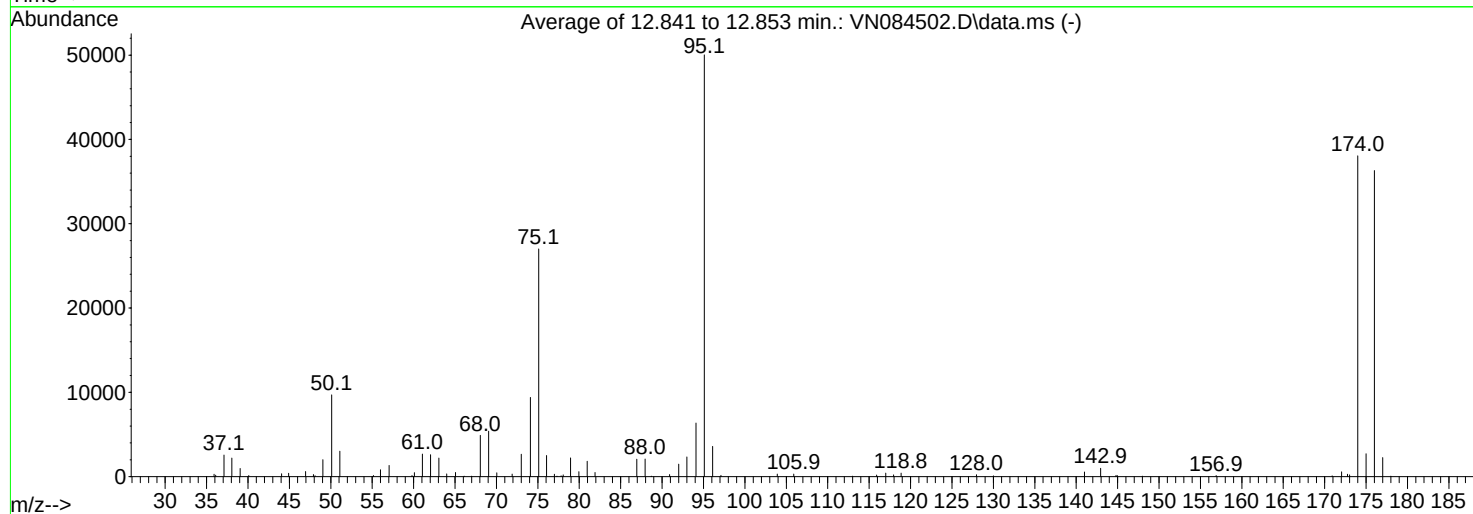
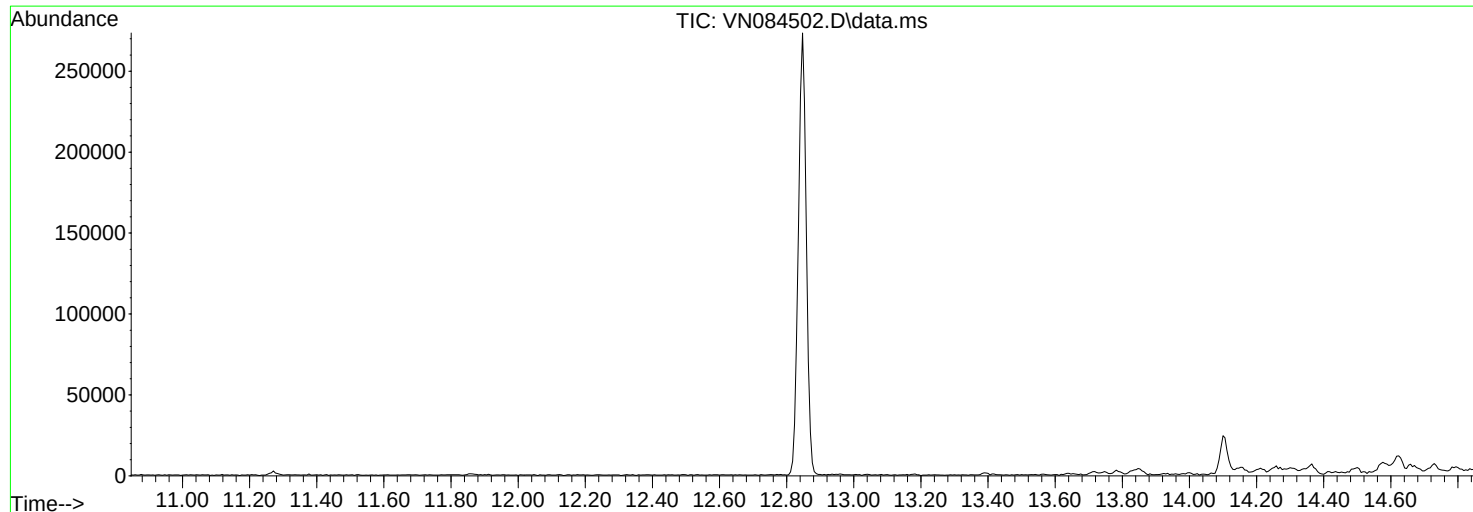
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	8273	PASS
75	95	30	60	50.8	21899	PASS
95	95	100	100	100.0	43144	PASS
96	95	5	9	6.5	2825	PASS
173	174	0.00	2	1.5	464	PASS
174	95	50	100	72.2	31163	PASS
175	174	5	9	7.5	2328	PASS
176	174	95	101	95.4	29744	PASS
177	176	5	9	6.3	1873	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084502.D
Acq On : 25 Oct 2024 08:21
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N093024W.M
Title : SW846 8260
Last Update : Tue Oct 01 07:11:01 2024



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1843

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	9707	PASS
75	95	30	60	54.0	27013	PASS
95	95	100	100	100.0	50032	PASS
96	95	5	9	7.2	3591	PASS
173	174	0.00	2	0.7	282	PASS
174	95	50	100	76.0	38048	PASS
175	174	5	9	7.1	2716	PASS
176	174	95	101	95.4	36315	PASS
177	176	5	9	6.2	2254	PASS

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	294	49.05	2007	64.00	332	76.05	250
36.10	164	50.10	9707	65.05	491	77.00	28
37.10	2565	51.10	3013	66.10	56	77.30	6
38.05	2205	55.15	142	67.00	56	77.80	9
39.05	964	56.00	826	68.05	4890	78.05	207
40.10	143	57.05	1321	69.05	5382	78.95	2215
44.05	345	59.80	128	70.05	462	79.95	596
44.90	395	60.10	473	71.90	311	80.95	1825
46.95	600	61.05	2683	73.00	2658	81.90	489
47.90	241	62.05	2607	74.10	9393	86.95	2073
48.10	110	63.05	2197	75.10	27013	87.95	2085

Average of 12.841 to 12.853 min.: VN084502.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.70	61	115.90	187	156.90	134		
90.90	252	117.00	415	170.90	93		
92.00	1476	117.95	206	172.05	569		
93.00	2335	118.85	420	172.75	282		
94.10	6368	127.95	234	173.00	213		
95.10	50032	130.00	105	174.00	38048		
96.10	3591	141.00	543	175.00	2716		
97.10	161	142.95	993	176.00	36315		
103.90	297	144.80	144	177.00	2254		
105.90	305	144.95	136	178.00	52		
113.00	57	148.00	58				

Report of Analysis

Client:	Garden State Laboratories, Inc.		Date Collected:	
Project:	Waste Water 2024		Date Received:	
Client Sample ID:	VN1025WBL01		SDG No.:	P4528
Lab Sample ID:	VN1025WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084507.D	1		10/25/24 11:27	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.0		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	30.1		91 - 112	100%	SPK: 30
460-00-4	4-Bromofluorobenzene	26.2		63 - 112	87%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	32300	7.812			
540-36-3	1,4-Difluorobenzene	175000	9.1			
3114-55-4	Chlorobenzene-d5	150000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084507.D
Acq On : 25 Oct 2024 11:27
Operator : JC\MD
Sample : VN1025WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1025WBL01

Quant Time: Oct 26 05:28:03 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	32302	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	175246	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	150285	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	77974	29.983	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	99.933%
60) 4-Bromofluorobenzene	12.847	95	65032	26.219	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	87.400%
63) Toluene-d8	10.565	98	209499	30.091	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	100.300%

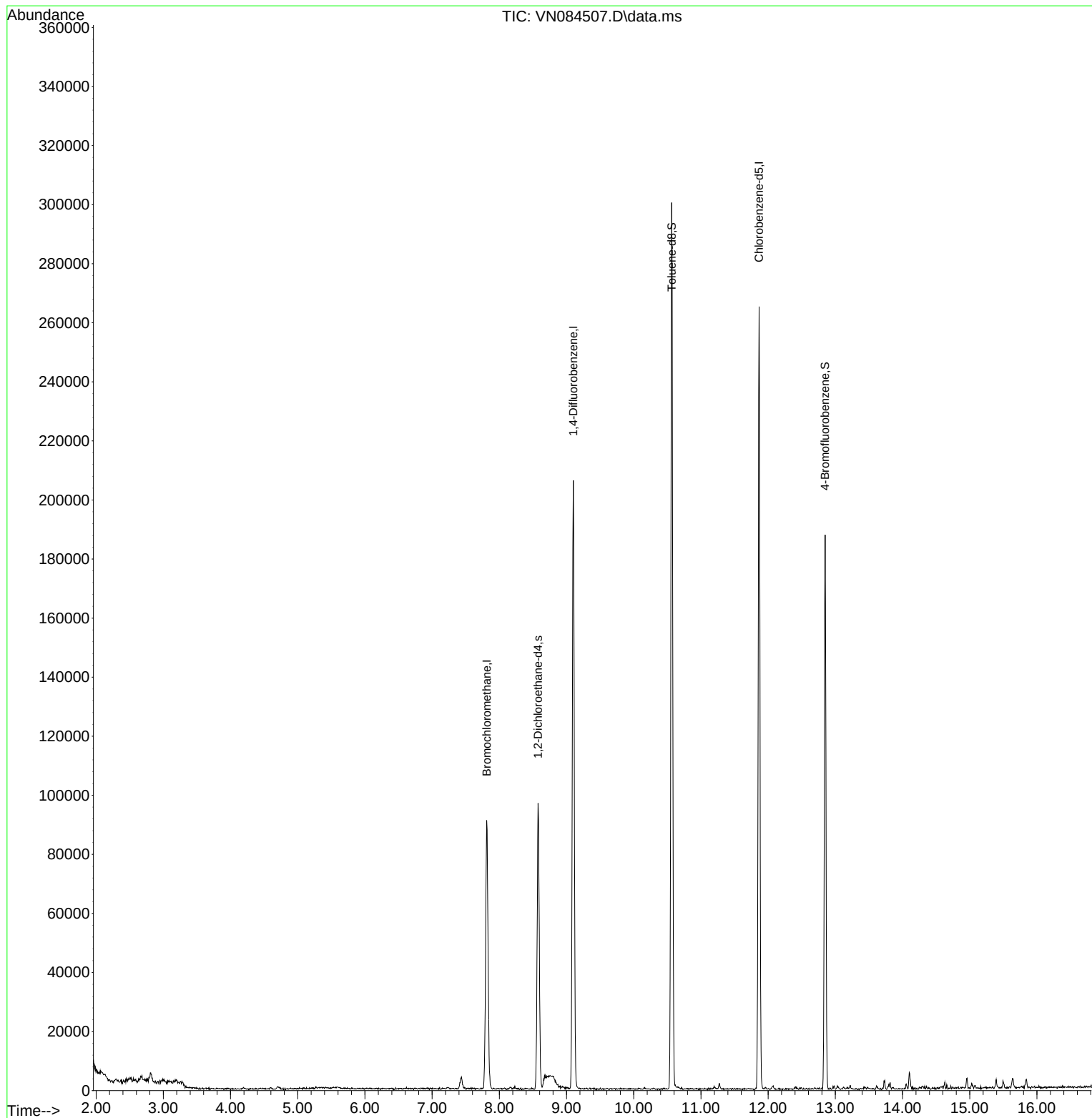
Target Compounds	Qvalue

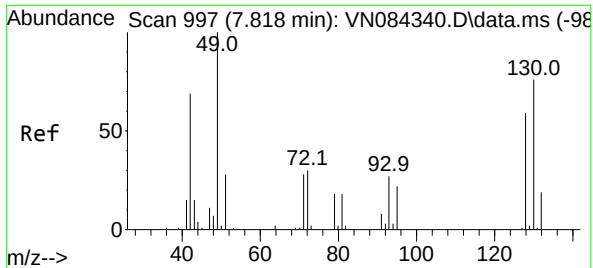
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084507.D
Acq On : 25 Oct 2024 11:27
Operator : JC\MD
Sample : VN1025WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1025WBL01

Quant Time: Oct 26 05:28:03 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration

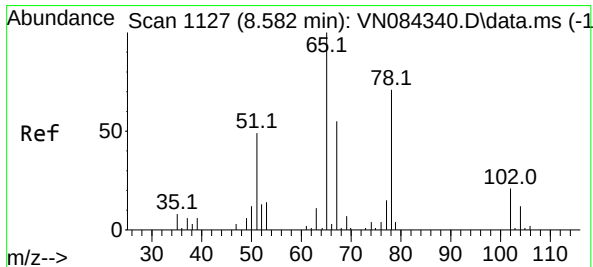
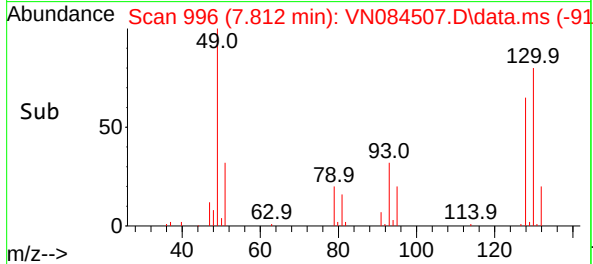
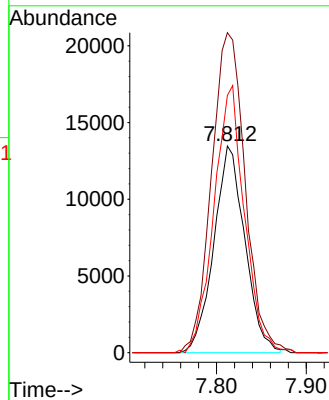
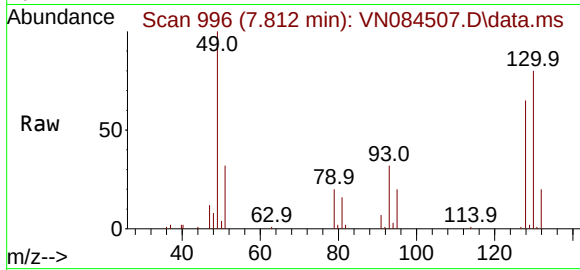




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 996
Delta R.T. -0.006 min
Lab File: VN084507.D
Acq: 25 Oct 2024 11:27

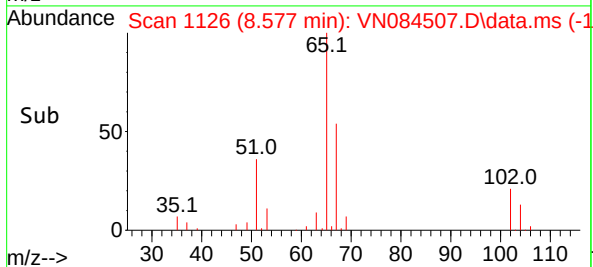
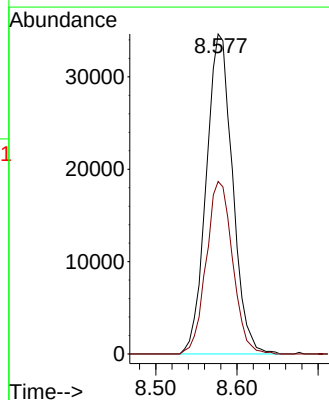
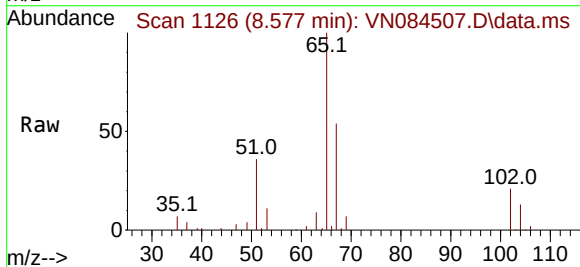
Instrument :
MSVOA_N
ClientSampleId :
VN1025WBL01

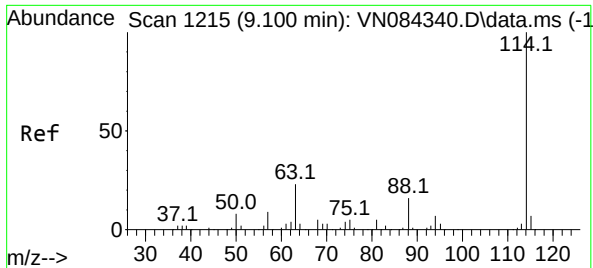
Tgt Ion	Ratio	Lower	Upper
128	100		
49	168.1	0.0	430.0
130	127.3	0.0	329.8



#27
1,2-Dichloroethane-d4
Concen: 29.983 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. -0.006 min
Lab File: VN084507.D
Acq: 25 Oct 2024 11:27

Tgt Ion	Ratio	Lower	Upper
65	100		
67	54.1	41.5	62.3





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN084507.D

Acq: 25 Oct 2024 11:27

Instrument :

MSVOA_N

ClientSampleId :

VN1025WBL01

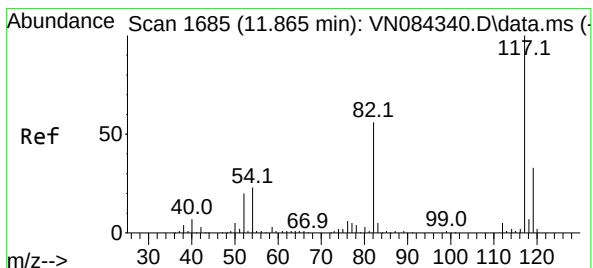
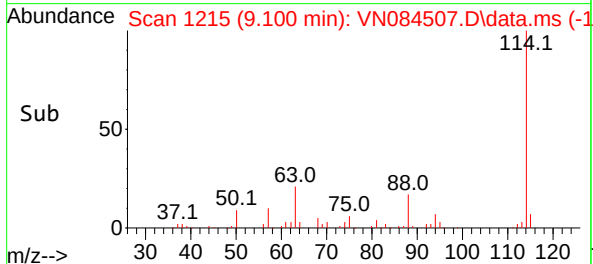
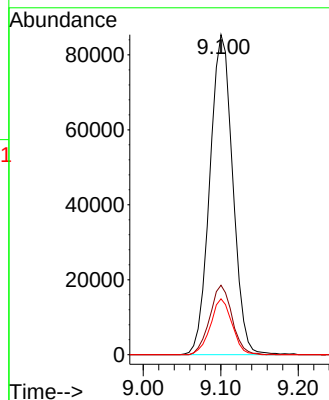
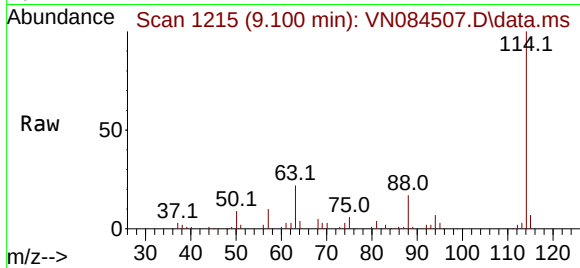
Tgt Ion:114 Resp: 175246

Ion Ratio Lower Upper

114 100

63 21.1 17.4 26.0

88 16.4 13.2 19.8



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN084507.D

Acq: 25 Oct 2024 11:27

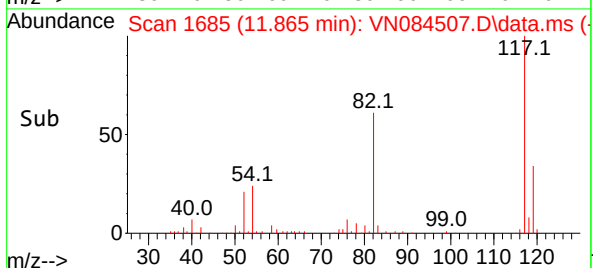
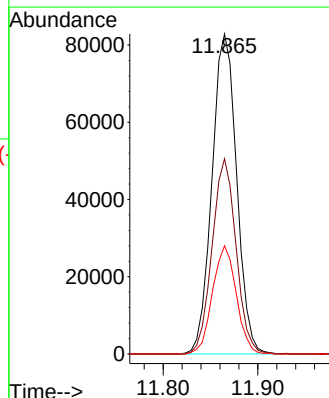
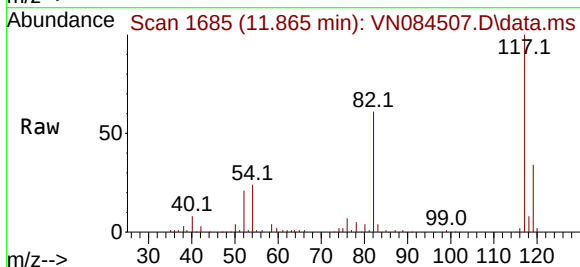
Tgt Ion:117 Resp: 150285

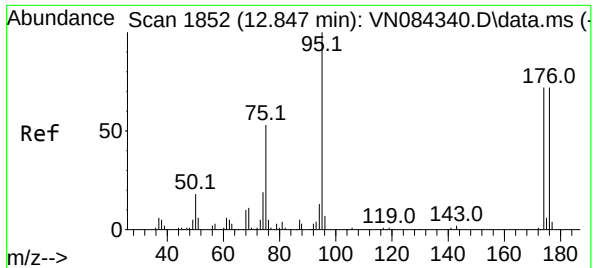
Ion Ratio Lower Upper

117 100

82 59.1 46.2 69.4

119 32.6 25.4 38.2

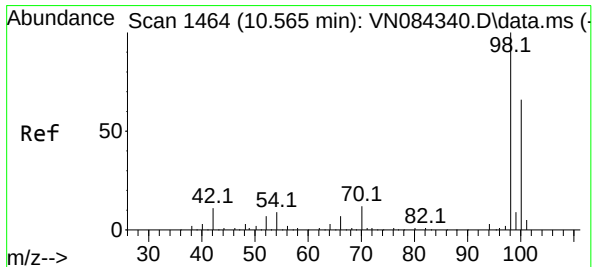
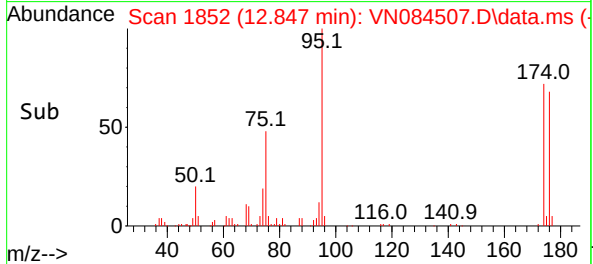
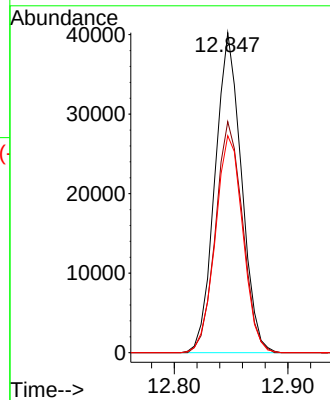
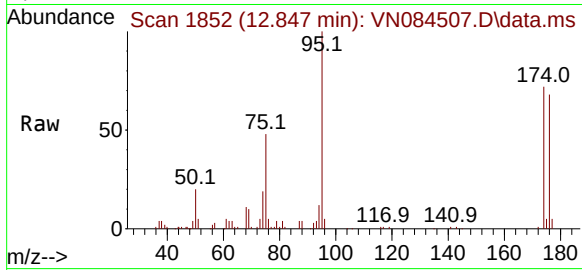




#60
4-Bromofluorobenzene
Concen: 26.219 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN084507.D
Acq: 25 Oct 2024 11:27

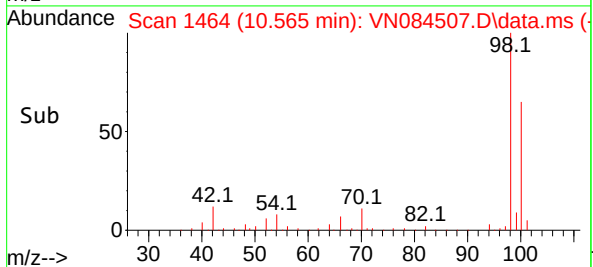
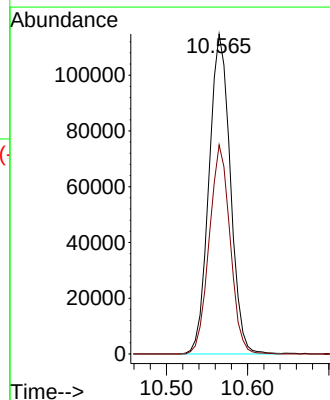
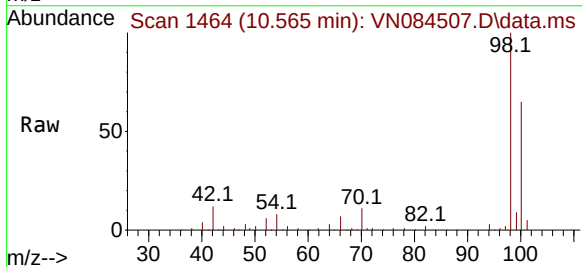
Instrument :
MSVOA_N
ClientSampleId :
VN1025WBL01

Tgt Ion: 95 Resp: 65032
Ion Ratio Lower Upper
95 100
174 73.9 58.2 87.2
176 70.7 56.4 84.6



#63
Toluene-d8
Concen: 30.091 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.000 min
Lab File: VN084507.D
Acq: 25 Oct 2024 11:27

Tgt Ion: 98 Resp: 209499
Ion Ratio Lower Upper
98 100
100 63.7 52.5 78.7



Report of Analysis

Client:	Garden State Laboratories, Inc.	Date Collected:	
Project:	Waste Water 2024	Date Received:	
Client Sample ID:	VN1025WBS01	SDG No.:	P4528
Lab Sample ID:	VN1025WBS01	Matrix:	Water
Analytical Method:	E624.1	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084505.D	1		10/25/24 10:40	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	99.2		9.30	25.0	ug/L
107-13-1	Acrylonitrile	89.2		3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.3		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.9		91 - 112	100%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.6		63 - 112	102%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	35000	7.812			
540-36-3	1,4-Difluorobenzene	196000	9.1			
3114-55-4	Chlorobenzene-d5	178000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084505.D
 Acq On : 25 Oct 2024 10:40
 Operator : JC\MD
 Sample : VN1025WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1025WBS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
 Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:25:55 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	35006	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	196424	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	178483	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	85431	30.313	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 101.033%			
60) 4-Bromofluorobenzene	12.847	95	90213	30.625	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 102.100%			
63) Toluene-d8	10.565	98	247087	29.883	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.600%			
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.130	85	37425	17.511	ug/l	96
3) Chloromethane	2.359	50	42455	17.456	ug/l	98
4) Vinyl Chloride	2.512	62	43498	18.237	ug/l	99
5) Bromomethane	2.965	94	27594	17.462	ug/l	95
6) Chloroethane	3.124	64	28969	18.527	ug/l	89
7) Trichlorofluoromethane	3.501	101	72738	18.723	ug/l	97
8) Diethyl Ether	3.965	74	26272	18.393	ug/l	99
9) 1,1,2-Trichlorotrifluo...	4.371	101	43494	19.911	ug/l	95
10) 1,1-Dichloroethene	4.342	96	40269	18.475	ug/l	93
11) Methyl Iodide	4.583	142	51000	17.805	ug/l	99
12) Methyl Acetate	5.024	43	57902	21.219	ug/l	95
13) Acrolein	4.177	56	50260	99.152	ug/l	98
14) Acrylonitrile	5.724	53	109397	89.236	ug/l	96
15) Acetone	4.424	58	39266	112.125	ug/l	88
16) Carbon Disulfide	4.706	76	107167	16.511	ug/l	98
17) Allyl chloride	5.018	41	62267	17.623	ug/l	93
18) Methylene Chloride	5.271	84	46706	19.022	ug/l	98
19) trans-1,2-Dichloroethene	5.783	96	41066	17.802	ug/l	94
20) Diisopropyl ether	6.671	45	146499	19.284	ug/l	96
21) 1,1-Dichloroethane	6.571	63	82163	18.849	ug/l	96
22) cis-1,2-Dichloroethene	7.483	96	49779	18.544	ug/l	98
23) tert-Butyl Alcohol	5.518	59	40923	87.026	ug/l #	100
24) Methyl tert-Butyl Ether	5.795	73	136638	18.758	ug/l #	84
25) Chloroform	7.965	83	85704	19.413	ug/l	99
26) Cyclohexane	8.259	56	63628	17.453	ug/l #	94
29) 1,1-Dichloropropene	8.371	75	57539	17.845	ug/l	98
30) 2-Butanone	7.483	43	164064	95.566	ug/l	99
31) 2,2-Dichloropropane	7.489	77	73609	19.426	ug/l #	81
32) 1,1,1-Trichloroethane	8.171	97	74667	18.116	ug/l	96
33) Carbon Tetrachloride	8.359	117	66737	18.691	ug/l	98
34) Benzene	8.606	78	183430	18.173	ug/l #	94
35) Methacrylonitrile	7.777	41	33276	18.169	ug/l	98
36) 1,2-Dichloroethane	8.665	62	63174	18.777	ug/l	99
37) Trichloroethene	9.353	130	43004	18.502	ug/l	91
38) Methylcyclohexane	9.600	83	61561	17.381	ug/l	99
39) 1,2-Dichloropropane	9.618	63	45243	18.381	ug/l	95
40) Dibromomethane	9.706	93	31615	18.378	ug/l	98
41) Bromodichloromethane	9.883	83	69934	19.150	ug/l #	95
42) Vinyl Acetate	6.600	43	524167	87.789	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084505.D
 Acq On : 25 Oct 2024 10:40
 Operator : JC\MD
 Sample : VN1025WBS01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1025WBS01

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 10/28/2024
 Supervised By : Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:25:55 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	53166	15.702	ug/l #	92
44) Isopropyl Acetate	8.688	43	121028	21.839	ug/l	90
45) 1,4-Dioxane	9.694	88	17805	356.411	ug/l	96
46) Methyl methacrylate	9.677	41	46112	17.222	ug/l	95
47) n-amyl Acetate	12.494	43	86813	17.612	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	67004	17.755	ug/l	99
49) cis-1,3-Dichloropropene	10.312	75	71632	18.112	ug/l	96
50) 1,1,2-Trichloroethane	11.012	97	43132	18.654	ug/l	96
51) Ethyl methacrylate	10.871	69	67198	17.595	ug/l	98
52) 1,3-Dichloropropane	11.159	76	75556	18.688	ug/l	98
53) Dibromochloromethane	11.359	129	51619	18.898	ug/l	99
54) 1,2-Dibromoethane	11.465	107	42803	17.984	ug/l	98
55) 2-Chloroethyl vinyl ether	10.159	63	153339	88.521	ug/l	99
56) Bromoform	12.576	173	32397	17.883	ug/l	98
58) 4-Methyl-2-Pentanone	10.441	43	307964	92.625	ug/l	99
59) 2-Hexanone	11.194	43	233137	94.363	ug/l	100
61) Tetrachloroethene	11.100	164	38956	19.296	ug/l	96
62) Toluene	10.630	91	196630	18.818	ug/l	99
64) Chlorobenzene	11.888	112	120580	18.545	ug/l	99
65) 1,1,1,2-Tetrachloroethane	11.959	131	43584	19.294	ug/l	97
66) Ethyl Benzene	11.965	91	210798	18.569	ug/l	96
67) m/p-Xylenes	12.071	106	162032	37.626	ug/l	99
68) o-Xylene	12.400	106	76484	18.426	ug/l	98
69) Styrene	12.412	104	133735	18.768	ug/l	98
70) Isopropylbenzene	12.694	105	200837	18.952	ug/l	99
71) 1,1,2,2-Tetrachloroethane	12.935	83	61873	18.874	ug/l	98
72) 1,2,3-Trichloropropane	12.994	75	50617m	18.029	ug/l	
73) Bromobenzene	12.976	156	48953	19.075	ug/l	98
74) n-propylbenzene	13.035	91	239983	19.004	ug/l	100
75) 2-Chlorotoluene	13.123	91	149369	19.035	ug/l	99
76) 1,3,5-Trimethylbenzene	13.171	105	170711	19.133	ug/l	99
77) t-1,4-Dichloro-2-butene	12.735	75	21547	17.960	ug/l	98
78) 4-Chlorotoluene	13.218	91	150297	18.839	ug/l	99
79) tert-butylbenzene	13.435	119	145820	19.156	ug/l	98
80) 1,2,4-Trimethylbenzene	13.482	105	171754	18.972	ug/l	98
81) sec-Butylbenzene	13.612	105	198811	18.971	ug/l	98
82) p-Isopropyltoluene	13.729	119	164354	18.632	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	90986	19.067	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	89542	18.896	ug/l	99
85) n-Butylbenzene	14.053	91	140914	18.444	ug/l	100
86) Hexachloroethane	14.329	117	31139	18.323	ug/l	100
87) 1,2-Dichlorobenzene	14.106	146	87916	19.055	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	14.717	75	12838	19.150	ug/l	98
89) 1,2,4-Trichlorobenzene	15.841	180	42844	17.861	ug/l	98
90) Hexachlorobutadiene	15.494	225	20560	18.527	ug/l	98
91) Naphthalene	15.641	128	136862	16.837	ug/l	99
92) 1,2,3-Trichlorobenzene	15.841	180	42844	17.861	ug/l	98

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

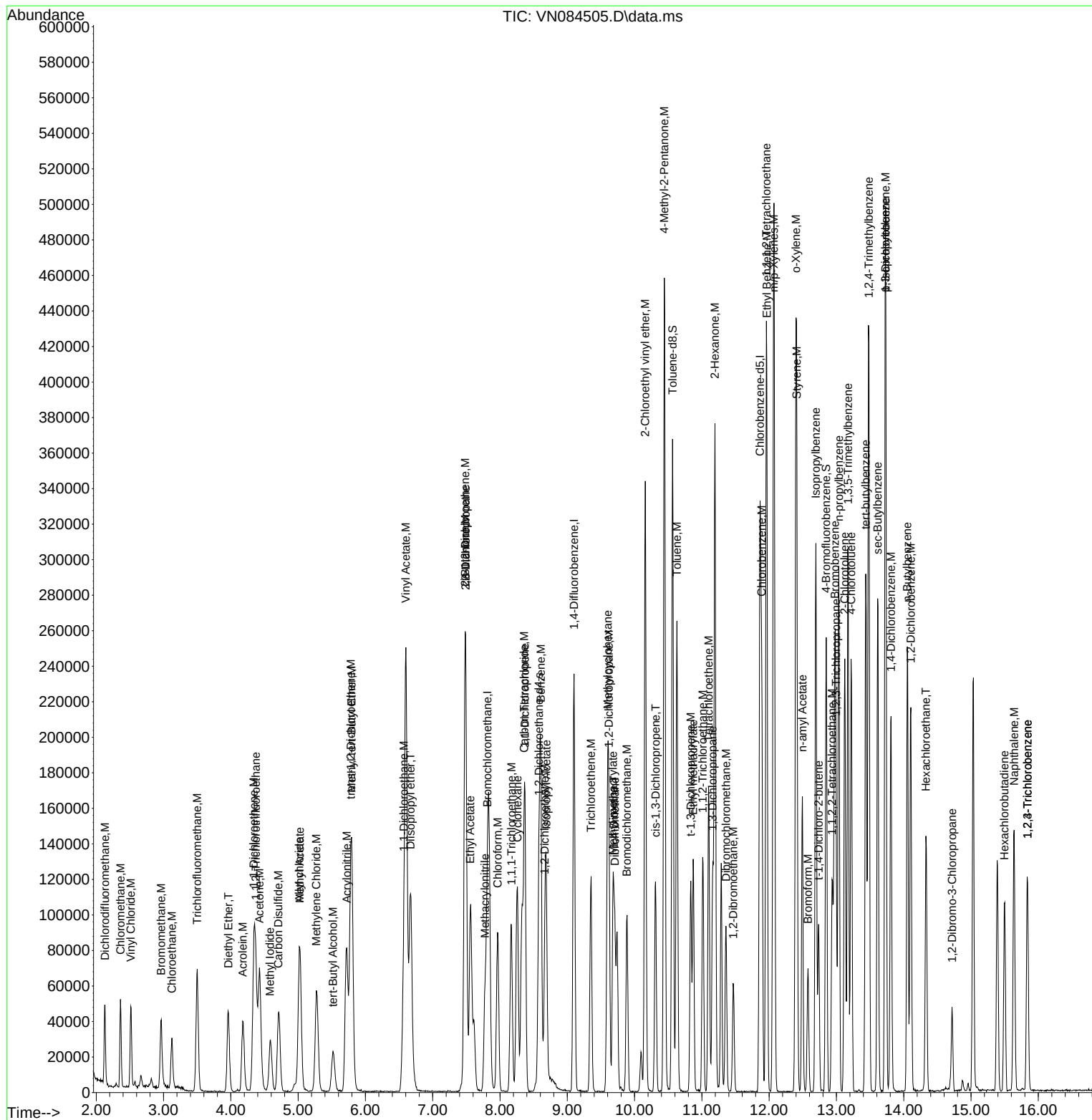
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
Data File : VN084505.D
Acq On : 25 Oct 2024 10:40
Operator : JC\MD
Sample : VN1025WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN1025WBS01

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:25:55 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Oct 09 02:22:28 2024
Response via : Initial Calibration



Report of Analysis

Client:	Garden State Laboratories, Inc.			Date Collected:	
Project:	Waste Water 2024			Date Received:	
Client Sample ID:	VN1025WBSD01			SDG No.:	P4528
Lab Sample ID:	VN1025WBSD01			Matrix:	Water
Analytical Method:	E624.1			% Solid:	0
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000 uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID :	0.25	Level :	LOW
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084506.D	1		10/25/24 11:04	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
107-02-8	Acrolein	100		9.30	25.0	ug/L
107-13-1	Acrylonitrile	92.5		3.70	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.3		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.5		91 - 112	98%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.3		63 - 112	101%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	34700	7.812			
540-36-3	1,4-Difluorobenzene	195000	9.1			
3114-55-4	Chlorobenzene-d5	178000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084506.D
 Acq On : 25 Oct 2024 11:04
 Operator : JC\MD
 Sample : VN1025WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1025WBSD01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024
 Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:26:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	7.812	128	34702	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	195213	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	177752	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	84628	30.291	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.967%			
60) 4-Bromofluorobenzene	12.847	95	88864	30.291	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.967%			
63) Toluene-d8	10.565	98	243186	29.532	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 98.433%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	36422	17.191	ug/l	97
3) Chloromethane	2.359	50	40390	16.752	ug/l	100
4) Vinyl Chloride	2.512	62	42500	17.975	ug/l	90
5) Bromomethane	2.965	94	26896	17.170	ug/l	91
6) Chloroethane	3.124	64	28823	18.595	ug/l	96
7) Trichlorofluoromethane	3.495	101	70666	18.349	ug/l	100
8) Diethyl Ether	3.959	74	25446	17.971	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	40889	18.882	ug/l	97
10) 1,1-Dichloroethene	4.336	96	38691	17.906	ug/l	88
11) Methyl Iodide	4.589	142	49750	17.521	ug/l	98
12) Methyl Acetate	5.024	43	59249	21.903	ug/l	97
13) Acrolein	4.177	56	52346	104.172	ug/l	99
14) Acrylonitrile	5.718	53	112460	92.538	ug/l	98
15) Acetone	4.424	58	38657	111.353	ug/l	96
16) Carbon Disulfide	4.712	76	102112	15.870	ug/l	97
17) Allyl chloride	5.024	41	63362	18.090	ug/l	98
18) Methylene Chloride	5.283	84	45436	18.667	ug/l	95
19) trans-1,2-Dichloroethene	5.789	96	40072	17.523	ug/l	97
20) Diisopropyl ether	6.671	45	143102	19.002	ug/l	97
21) 1,1-Dichloroethane	6.571	63	80838	18.707	ug/l	94
22) cis-1,2-Dichloroethene	7.488	96	49067	18.439	ug/l	97
23) tert-Butyl Alcohol	5.518	59	43998	94.385	ug/l #	100
24) Methyl tert-Butyl Ether	5.800	73	138022	19.114	ug/l #	87
25) Chloroform	7.965	83	82367	18.820	ug/l	95
26) Cyclohexane	8.253	56	62057	17.171	ug/l #	94
29) 1,1-Dichloropropene	8.371	75	55926	17.452	ug/l	99
30) 2-Butanone	7.483	43	166499	97.586	ug/l #	81
31) 2,2-Dichloropropane	7.483	77	72293	19.197	ug/l #	81
32) 1,1,1-Trichloroethane	8.165	97	74656	18.226	ug/l	98
33) Carbon Tetrachloride	8.359	117	65486	18.454	ug/l	98
34) Benzene	8.606	78	185185	18.461	ug/l	95
35) Methacrylonitrile	7.777	41	34201	18.790	ug/l	96
36) 1,2-Dichloroethane	8.671	62	62515	18.697	ug/l	99
37) Trichloroethene	9.353	130	42690	18.481	ug/l	91
38) Methylcyclohexane	9.600	83	60037	17.056	ug/l	99
39) 1,2-Dichloropropane	9.618	63	44464	18.177	ug/l	96
40) Dibromomethane	9.706	93	31527	18.441	ug/l	97
41) Bromodichloromethane	9.888	83	67112	18.491	ug/l	94
42) Vinyl Acetate	6.600	43	519106	87.481	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084506.D
 Acq On : 25 Oct 2024 11:04
 Operator : JC\MD
 Sample : VN1025WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_N

ClientSampleId :

VN1025WBSD01

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/28/2024

Supervised By :Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:26:58 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Wed Oct 09 02:22:28 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	7.559	43	59398	17.652	ug/l	97
44) Isopropyl Acetate	8.688	43	109016	19.794	ug/l	96
45) 1,4-Dioxane	9.694	88	17576	354.009	ug/l	98
46) Methyl methacrylate	9.682	41	47794	17.961	ug/l	97
47) n-amyl Acetate	12.494	43	87873	17.937	ug/l	100
48) t-1,3-Dichloropropene	10.835	75	66779	17.805	ug/l	99
49) cis-1,3-Dichloropropene	10.312	75	72971	18.565	ug/l	92
50) 1,1,2-Trichloroethane	11.018	97	42706	18.584	ug/l	95
51) Ethyl methacrylate	10.871	69	69514	18.314	ug/l	99
52) 1,3-Dichloropropane	11.159	76	74470	18.534	ug/l	100
53) Dibromochloromethane	11.359	129	49660	18.294	ug/l	98
54) 1,2-Dibromoethane	11.465	107	42517	17.974	ug/l	97
55) 2-Chloroethyl vinyl ether	10.159	63	152493	88.579	ug/l	99
56) Bromoform	12.576	173	32774	18.203	ug/l	98
58) 4-Methyl-2-Pentanone	10.441	43	317615	95.920	ug/l	100
59) 2-Hexanone	11.194	43	239404	97.299	ug/l	100
61) Tetrachloroethene	11.100	164	37279	18.541	ug/l	98
62) Toluene	10.629	91	193173	18.564	ug/l	99
64) Chlorobenzene	11.888	112	120005	18.532	ug/l	99
65) 1,1,1,2-Tetrachloroethane	11.959	131	42428	18.860	ug/l	99
66) Ethyl Benzene	11.965	91	205594	18.185	ug/l	100
67) m/p-Xylenes	12.070	106	159912	37.286	ug/l	99
68) o-Xylene	12.394	106	76327	18.463	ug/l	99
69) Styrene	12.412	104	130016	18.321	ug/l	100
70) Isopropylbenzene	12.694	105	195104	18.487	ug/l	97
71) 1,1,2,2-Tetrachloroethane	12.935	83	62486	19.140	ug/l	99
72) 1,2,3-Trichloropropane	12.994	75	59504m	21.282	ug/l	
73) Bromobenzene	12.982	156	46579	18.224	ug/l	98
74) n-propylbenzene	13.035	91	229550	18.253	ug/l	99
75) 2-Chlorotoluene	13.123	91	145197	18.580	ug/l	100
76) 1,3,5-Trimethylbenzene	13.170	105	164553	18.518	ug/l	100
77) t-1,4-Dichloro-2-butene	12.735	75	21527	18.017	ug/l	96
78) 4-Chlorotoluene	13.217	91	145653	18.332	ug/l	97
79) tert-butylbenzene	13.435	119	142685	18.822	ug/l	98
80) 1,2,4-Trimethylbenzene	13.482	105	162818	18.059	ug/l	99
81) sec-Butylbenzene	13.612	105	192819	18.474	ug/l	100
82) p-Isopropyltoluene	13.729	119	160343	18.252	ug/l	99
83) 1,3-Dichlorobenzene	13.729	146	87899	18.496	ug/l	99
84) 1,4-Dichlorobenzene	13.812	146	84764	17.962	ug/l	99
85) n-Butylbenzene	14.053	91	132654	17.435	ug/l	99
86) Hexachloroethane	14.329	117	29867	17.647	ug/l	99
87) 1,2-Dichlorobenzene	14.106	146	84315	18.350	ug/l	98
88) 1,2-Dibromo-3-Chloropr...	14.723	75	12707	19.033	ug/l	98
89) 1,2,4-Trichlorobenzene	15.835	180	42050	17.602	ug/l	97
90) Hexachlorobutadiene	15.500	225	19449	17.598	ug/l	100
91) Naphthalene	15.641	128	135282	16.711	ug/l	100
92) 1,2,3-Trichlorobenzene	15.835	180	42050	17.602	ug/l	97

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

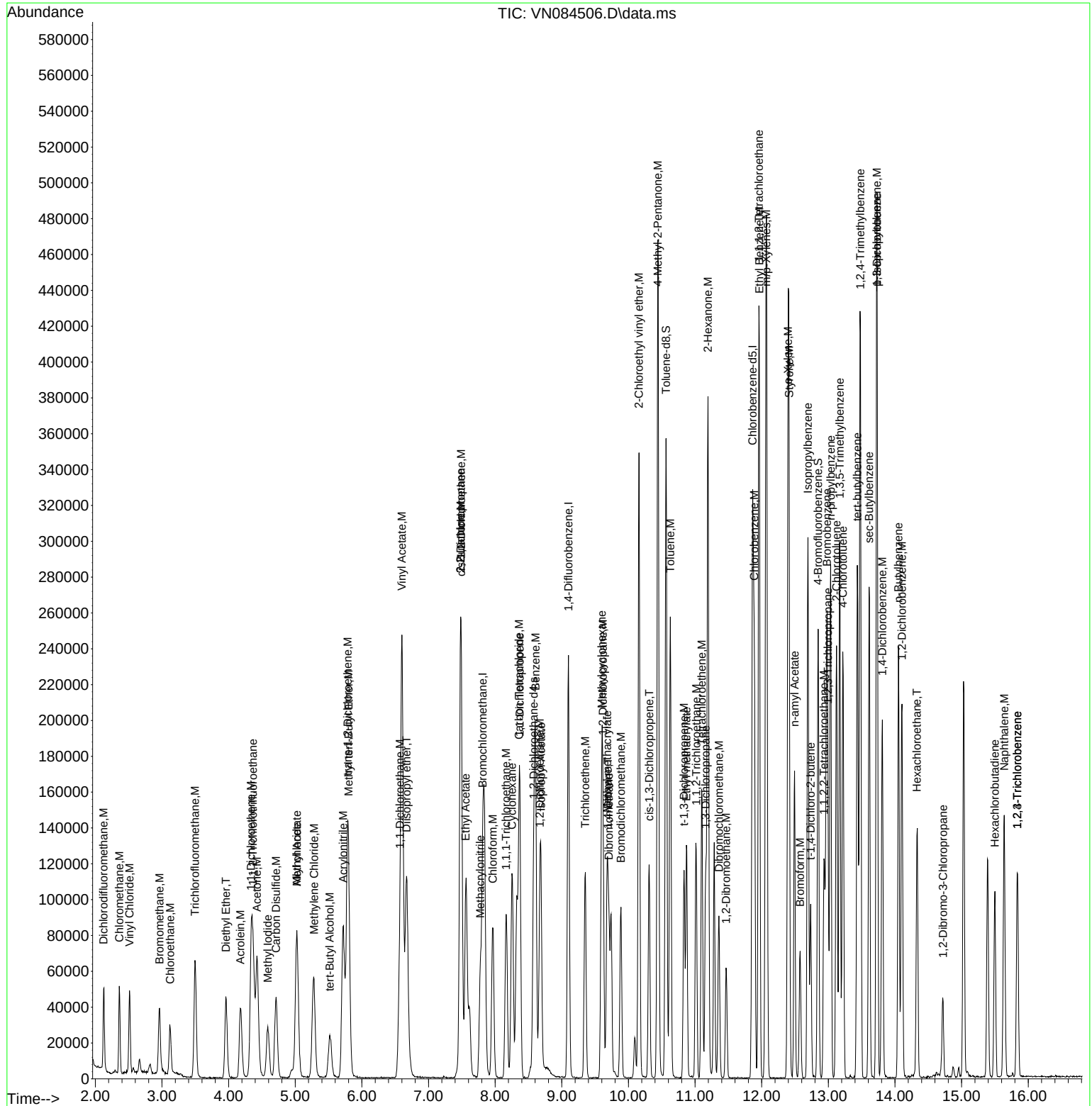
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102524\
 Data File : VN084506.D
 Acq On : 25 Oct 2024 11:04
 Operator : JC\MD
 Sample : VN1025WBSD01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VN1025WBSD01

Manual Integrations APPROVED

Reviewed By : Semsettin Yesilyurt 10/28/2024
 Supervised By : Mahesh Dadoda 10/28/2024

Quant Time: Oct 26 05:26:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100824W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Oct 09 02:22:28 2024
 Response via : Initial Calibration



Manual Integration Report

Sequence:	vn100824	Instrument	MSVOA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC150	VN084337.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:43:58 AM	MMDadoda	10/9/2024 8:55:19 PM	Peak Integrated by Software
VSTDICC100	VN084338.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:44:02 AM	MMDadoda	10/9/2024 8:55:22 PM	Peak Integrated by Software
VSTDICC050	VN084339.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:44:07 AM	MMDadoda	10/9/2024 8:55:25 PM	Peak Integrated by Software
VSTDICC050	VN084339.D	Methyl tert-Butyl Ether	JOHN	10/9/2024 9:44:07 AM	MMDadoda	10/9/2024 8:55:25 PM	Peak Integrated by Software
VSTDICCC020	VN084340.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:44:11 AM	MMDadoda	10/9/2024 8:55:28 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	1,1,1-Trichloroethane	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	Acrylonitrile	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	Diethyl Ether	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	Ethyl Acetate	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	Methacrylonitrile	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICC005	VN084341.D	Methylene Chloride	JOHN	10/9/2024 9:44:15 AM	MMDadoda	10/9/2024 8:55:31 PM	Peak Integrated by Software
VSTDICV020	VN084343.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:44:19 AM	MMDadoda	10/9/2024 8:55:36 PM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

vn100824

Instrument

MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV020	VN084343.D	Ethyl Acetate	JOHN	10/9/2024 9:44:19 AM	MMDadoda	10/9/2024 8:55:36 PM	Peak Integrated by Software
VSTDCCC020	VN084355.D	1,2,3-Trichloropropane	JOHN	10/9/2024 9:44:52 AM	MMDadoda	10/9/2024 8:55:52 PM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

vn102524

Instrument

MSVOA_n

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN100824

Review By	John Carlone	Review On	10/9/2024 9:46:14 AM
Supervise By	Mahesh Dadoda	Supervise On	10/9/2024 8:56:13 PM
SubDirectory	VN100824	HP Acquire Method	HP Processing Method 624N100824W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP130714		
Initial Calibration Stds	VP130724,VP130725,VP130726,VP130727,VP130728		
CCC	VP130715		
Internal Standard/PEM			
ICV/I.BLK	VP130729		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN084336.D	08 Oct 2024 09:08	JC\MD	Ok
2	VSTDIC150	VN084337.D	08 Oct 2024 09:43	JC\MD	Ok,M
3	VSTDIC100	VN084338.D	08 Oct 2024 10:07	JC\MD	Ok,M
4	VSTDIC050	VN084339.D	08 Oct 2024 10:31	JC\MD	Ok,M
5	VSTDICCC020	VN084340.D	08 Oct 2024 10:55	JC\MD	Ok,M
6	VSTDIC005	VN084341.D	08 Oct 2024 11:19	JC\MD	Ok,M
7	IBLK	VN084342.D	08 Oct 2024 11:43	JC\MD	Ok
8	VSTDICV020	VN084343.D	08 Oct 2024 12:09	JC\MD	Ok,M
9	VN1008WBS01	VN084344.D	08 Oct 2024 12:46	JC\MD	Ok,M
10	VN1008WBSD01	VN084345.D	08 Oct 2024 13:21	JC\MD	Ok,M
11	VN1008WBL01	VN084346.D	08 Oct 2024 13:45	JC\MD	Ok
12	P4271-01	VN084347.D	08 Oct 2024 14:11	JC\MD	Ok
13	P4334-01	VN084348.D	08 Oct 2024 14:53	JC\MD	Ok,M
14	P4334-02	VN084349.D	08 Oct 2024 15:17	JC\MD	Ok
15	P4337-01	VN084350.D	08 Oct 2024 15:41	JC\MD	Ok
16	P4337-02	VN084351.D	08 Oct 2024 16:05	JC\MD	Ok
17	P4289-01	VN084352.D	08 Oct 2024 16:29	JC\MD	Ok,M
18	IBLK	VN084353.D	08 Oct 2024 16:53	JC\MD	Ok,M
19	IBLK	VN084354.D	08 Oct 2024 17:16	JC\MD	Ok,M
20	VSTDICCC020	VN084355.D	08 Oct 2024 17:40	JC\MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QCBatch ID # VN102524

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	VN102524	HP Acquire Method	MSVOA_N	HP Processing Method	82n093024w.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP131110,VP131122			
CCC		VP131111,VP131112,VP131123,VP131124			
Internal Standard/PEM		VP128298			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN084502.D	25 Oct 2024 08:21	JC\MD	Ok
2	VSTDCCC050	VN084503.D	25 Oct 2024 08:59	JC\MD	Ok,NR
3	VSTDCCC020	VN084504.D	25 Oct 2024 10:04	JC\MD	Ok,NR
4	VN1025WBS01	VN084505.D	25 Oct 2024 10:40	JC\MD	Ok,NR
5	VN1025WBSD01	VN084506.D	25 Oct 2024 11:04	JC\MD	Ok,NR
6	VN1025WBL01	VN084507.D	25 Oct 2024 11:27	JC\MD	Ok
7	VN1025WBL02	VN084508.D	25 Oct 2024 11:51	JC\MD	Ok
8	VN1025WBS02	VN084509.D	25 Oct 2024 12:27	JC\MD	Ok,NR
9	VN1025WBSD02	VN084510.D	25 Oct 2024 12:51	JC\MD	Ok,NR
10	P4528-02	VN084511.D	25 Oct 2024 13:15	JC\MD	Ok,NR
11	P4549-01	VN084512.D	25 Oct 2024 13:39	JC\MD	Ok
12	P4528-01	VN084513.D	25 Oct 2024 14:03	JC\MD	Ok
13	VIBLK	VN084514.D	25 Oct 2024 14:27	JC\MD	Ok
14	P4549-03	VN084515.D	25 Oct 2024 14:51	JC\MD	Not Ok
15	P4549-02	VN084516.D	25 Oct 2024 15:15	JC\MD	Not Ok
16	P4549-04	VN084517.D	25 Oct 2024 15:39	JC\MD	Not Ok
17	P4554-01	VN084518.D	25 Oct 2024 16:03	JC\MD	Ok,NR
18	P4550-01	VN084519.D	25 Oct 2024 16:27	JC\MD	ReRun
19	P4528-02	VN084520.D	25 Oct 2024 16:50	JC\MD	ReRun
20	P4528-01	VN084521.D	25 Oct 2024 17:14	JC\MD	ReRun
21	P4550-02	VN084522.D	25 Oct 2024 17:38	JC\MD	ReRun

Instrument ID: **MSVOA_N**

Daily Analysis Runlog For Sequence/QC Batch ID # VN102524

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	VN102524	HP Acquire Method	MSVOA_N	HP Processing Method	82n093024w.m
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP131110,VP131122			
CCC		VP131111,VP131112,VP131123,VP131124			
Internal Standard/PEM		VP128298			
ICV/I.BLK					
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

22	P4550-03	VN084523.D	25 Oct 2024 18:02	JC\MD	Ok
23	P4550-04	VN084524.D	25 Oct 2024 18:26	JC\MD	Ok
24	P4550-05	VN084525.D	25 Oct 2024 18:49	JC\MD	ReRun
25	VSTDCCC050	VN084526.D	25 Oct 2024 19:13	JC\MD	Ok,NR
26	VSTDCCC020	VN084527.D	25 Oct 2024 19:37	JC\MD	Ok,NR

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN100824

Review By	John Carlone	Review On	10/9/2024 9:46:14 AM
Supervise By	Maresh Dadoda	Supervise On	10/9/2024 8:56:13 PM
SubDirectory	VN100824	HP Acquire Method	HP Processing Method 624N100824W.M

STD. NAME	STD REF.#
Tune/Reschk	VP130714
Initial Calibration Stds	VP130724,VP130725,VP130726,VP130727,VP130728
CCC	VP130715
Internal Standard/PEM	
ICV/I.BLK	VP130729
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN084336.D	08 Oct 2024 09:08		JC\MD	Ok
2	VSTDICC150	VSTDICC150	VN084337.D	08 Oct 2024 09:43	V13516	JC\MD	Ok,M
3	VSTDICC100	VSTDICC100	VN084338.D	08 Oct 2024 10:07		JC\MD	Ok,M
4	VSTDICC050	VSTDICC050	VN084339.D	08 Oct 2024 10:31		JC\MD	Ok,M
5	VSTDICCC020	VSTDICCC020	VN084340.D	08 Oct 2024 10:55		JC\MD	Ok,M
6	VSTDICC005	VSTDICC005	VN084341.D	08 Oct 2024 11:19		JC\MD	Ok,M
7	IBLK	IBLK	VN084342.D	08 Oct 2024 11:43		JC\MD	Ok
8	VSTDICV020	ICVVN100824	VN084343.D	08 Oct 2024 12:09		JC\MD	Ok,M
9	VN1008WBS01	VN1008WBS01	VN084344.D	08 Oct 2024 12:46		JC\MD	Ok,M
10	VN1008WBSD01	VN1008WBSD01	VN084345.D	08 Oct 2024 13:21		JC\MD	Ok,M
11	VN1008WBL01	VN1008WBL01	VN084346.D	08 Oct 2024 13:45		JC\MD	Ok
12	P4271-01	14B-1	VN084347.D	08 Oct 2024 14:11	vial B pH#6.0	JC\MD	Ok
13	P4334-01	001-WILLETS-PT-BLVD	VN084348.D	08 Oct 2024 14:53	vial A pH<2	JC\MD	Ok,M
14	P4334-02	002-35TH-AVE(SEP)	VN084349.D	08 Oct 2024 15:17	vial A pH<2	JC\MD	Ok
15	P4337-01	001-WILLETS-PT-BLVD	VN084350.D	08 Oct 2024 15:41	vial A pH<2	JC\MD	Ok
16	P4337-02	002-35TH-AVE(OCT)	VN084351.D	08 Oct 2024 16:05	vial A pH<2	JC\MD	Ok
17	P4289-01	EFF-Waste Water	VN084352.D	08 Oct 2024 16:29	vial B pH<2	JC\MD	Ok,M
18	IBLK	IBLK	VN084353.D	08 Oct 2024 16:53		JC\MD	Ok,M

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN100824

Review By	John Carlone	Review On	10/9/2024 9:46:14 AM
Supervise By	Mahesh Dadoda	Supervise On	10/9/2024 8:56:13 PM
SubDirectory	VN100824	HP Acquire Method	HP Processing Method 624N100824W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP130714		
Initial Calibration Stds	VP130724,VP130725,VP130726,VP130727,VP130728		
CCC	VP130715		
Internal Standard/PEM			
ICV/I.BLK	VP130729		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	IBLK	IBLK	VN084354.D	08 Oct 2024 17:16		JC\MD	Ok,M
20	VSTDCCC020	VSTDCCC020EC	VN084355.D	08 Oct 2024 17:40		JC\MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN102524

Review By	Review On				
Supervise By	Supervise On				
SubDirectory	VN102524	HP Acquire Method	MSVOA_N	HP Processing Method	82n093024w.m
STD. NAME	STD REF.#				
Tune/Reschk Initial Calibration Stds	VP131110,VP131122				
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP131111,VP131112,VP131123,VP131124 VP128298				

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN084502.D	25 Oct 2024 08:21		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN084503.D	25 Oct 2024 08:59	CCC Failed for comp. #02	JC\MD	Ok,NR
3	VSTDCCC020	VSTDCCC020	VN084504.D	25 Oct 2024 10:04		JC\MD	Ok,NR
4	VN1025WBS01	VN1025WBS01	VN084505.D	25 Oct 2024 10:40		JC\MD	Ok,NR
5	VN1025WBSD01	VN1025WBSD01	VN084506.D	25 Oct 2024 11:04		JC\MD	Ok,NR
6	VN1025WBL01	VN1025WBL01	VN084507.D	25 Oct 2024 11:27		JC\MD	Ok
7	VN1025WBL02	VN1025WBL02	VN084508.D	25 Oct 2024 11:51	8260	JC\MD	Ok
8	VN1025WBS02	VN1025WBS02	VN084509.D	25 Oct 2024 12:27	8260	JC\MD	Ok,NR
9	VN1025WBSD02	VN1025WBSD02	VN084510.D	25 Oct 2024 12:51	8260	JC\MD	Ok,NR
10	P4528-02	241023062-05-TRIP-BL	VN084511.D	25 Oct 2024 13:15	TB	JC\MD	Ok,NR
11	P4549-01	TT-TB-20241024	VN084512.D	25 Oct 2024 13:39	TB	JC\MD	Ok
12	P4528-01	241023062-02-VOA	VN084513.D	25 Oct 2024 14:03		JC\MD	Ok
13	VIBLK	VIBLK	VN084514.D	25 Oct 2024 14:27		JC\MD	Ok
14	P4549-03	TT-068-IDWGW-20241	VN084515.D	25 Oct 2024 14:51	Need Straight Run	JC\MD	Not Ok
15	P4549-02	TT-067-IDWGW-20241	VN084516.D	25 Oct 2024 15:15	Need Straight Run	JC\MD	Not Ok
16	P4549-04	TT-069-IDWGW-20241	VN084517.D	25 Oct 2024 15:39	Need Straight Run	JC\MD	Not Ok
17	P4554-01	001-WILLETS-BLVD(SI	VN084518.D	25 Oct 2024 16:03		JC\MD	Ok,NR
18	P4550-01	BP-VPB-190-TB-20241	VN084519.D	25 Oct 2024 16:27	TB;Surrogate fail	JC\MD	ReRun

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QC Batch ID # VN102524

Review By	Review On
Supervise By	Supervise On
SubDirectory	VN102524
HP Acquire Method	MSVOA_N
HP Processing Method	82n093024w.m
STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP131110,VP131122
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP131111,VP131112,VP131123,VP131124 VP128298

19	P4528-02	241023062-05-TRIP-BL	VN084520.D	25 Oct 2024 16:50	TB;CCC Failed for comp. #02	JC\MD	ReRun
20	P4528-01	241023062-02-VOA	VN084521.D	25 Oct 2024 17:14	CCC Failed for comp. #02	JC\MD	ReRun
21	P4550-02	VPB190-HYD-2024102	VN084522.D	25 Oct 2024 17:38	Surrogate fail	JC\MD	ReRun
22	P4550-03	BP-VPB-190-EB-20241	VN084523.D	25 Oct 2024 18:02	EB	JC\MD	Ok
23	P4550-04	BP-VPB-190-GW-298-3	VN084524.D	25 Oct 2024 18:26		JC\MD	Ok
24	P4550-05	BP-VPB-190-GW-318-3	VN084525.D	25 Oct 2024 18:49	Surrogate fail	JC\MD	ReRun
25	VSTDCCC050	VSTDCCC050EC	VN084526.D	25 Oct 2024 19:13		JC\MD	Ok,NR
26	VSTDCCC020	VSTDCCC020EC	VN084527.D	25 Oct 2024 19:37		JC\MD	Ok,NR

M : Manual Integration



SHIPPING DOCUMENTS

CHAIN OF CUSTODY RECORD - PRESS HARD AND PRINT CLEARLY - USE BALL POINT PEN

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 *Pinelands Park*
SAMPLE LOCATION: ACQUA ~~OW~~ LANDFILL LEACHATE TANKS

P4528

OR 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	☐ List attached	Total Pages	No.	Type*	Size	Pres.*		
✓	241023068-02 VOA	10/23/24	8:40	X		EPA 8260 TCL LIST + Acrolien & Acrylonitrile	3	V	V	40ml	A		
X	241023062-05 Trip blank	10/23/24				EPA 8260 TCL LIST + Acrolien & Aci	2	V	V	40ml	A		

Container Type: P = Plastic G = Glass A = Amber Glass T = 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: ☒ Stand ☐ Rush (IF RUSH REQUESTED) Rush Due by:

REPORT FORM: ☒ Standard Report ☐ Other/Specify:

Standard Report + E2 PWS ID#:

SEND TO: Chem Tech

DATE/TIME: 10-24-24 - 9:52 AM

METHOD OF SHIPMENT Deliver

PAYMENT INFORMATION

☐ 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 HE

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): Daniel Asken	Signature: Daniel Asken	Date/Time: 10/23/24 15:58
2. Received/Relinquished by (PRINT): C. Pena	Signature: C. Pena	Date/Time: 10-24-24 9:52 AM

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-TNI, NY Dept. of Health #11550 and PADEP #68-03680

10-24-24 9:52

2.6°C



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4528	GARD04	Order Date : 10/24/2024 10:00:00 AM	Project Mgr :
Client Name : Garden State Laboratories, I		Project Name : Waste Water 2024	Report Type : Level 1
Client Contact : Sharon Ercoliani		Receive DateTime : 10/24/2024 9:52:00 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
P4528-01	241023062-02-VOA	Water	10/24/2024	08:40					
					VOCMS Group1		624.1	10 Bus. Days	
					VOCMS Group2		8260-Low	10 Bus. Days	
P4528-02	241023062-05-TRIP-BLANK	Water	10/24/2024	08:40					
					VOCMS Group1		624.1	10 Bus. Days	
					VOCMS Group2		8260-Low	10 Bus. Days	

Relinquished By :

Date / Time : 10-24-24 12:30

Received By :

Date / Time :

Storage Area : VOA Refridgerator Room