

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111021\
 Data File : VN069447.D
 Acq On : 10 Nov 2021 18:19
 Operator : JC/MD
 Sample : M4576-06
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 TW-1

Quant Time: Nov 11 03:14:36 2021
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N111021W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Nov 10 14:36:17 2021
 Response via : Initial Calibration

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

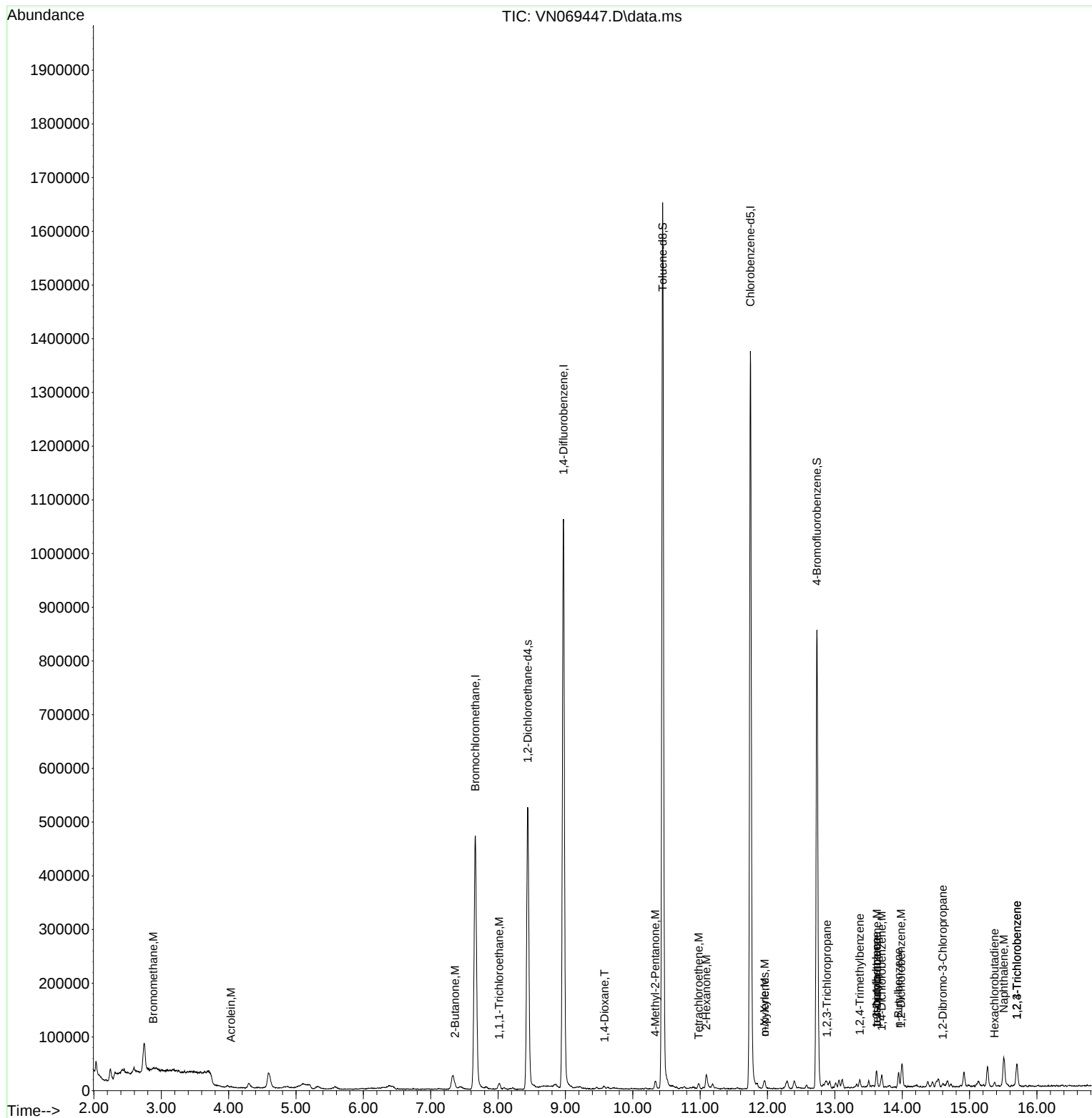
Internal Standards						
1) Bromochloromethane	7.662	128	158694	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	8.971	114	909531	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.746	117	779736	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.440	65	443628	32.233	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	= 107.433%	
60) 4-Bromofluorobenzene	12.733	95	302413	24.236	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	= 80.800%	
63) Toluene-d8	10.443	98	1127448	31.316	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	= 104.400%	
Target Compounds						Qvalue
5) Bromomethane	2.880	94	2011	0.253	ug/l	97
13) Acrolein	4.033	56	659	1.049	ug/l	93
30) 2-Butanone	7.359	43	8998	0.895	ug/l #	65
32) 1,1,1-Trichloroethane	8.016	97	6353	0.392	ug/l #	59
45) 1,4-Dioxane	9.579	88	524	2.223	ug/l #	91
58) 4-Methyl-2-Pentanone	10.333	43	10192	0.595	ug/l	98
59) 2-Hexanone	11.092	43	23393	1.797	ug/l #	90
61) Tetrachloroethene	10.979	164	1867	0.223	ug/l	86
67) m/p-Xylenes	11.958	106	4516	0.256	ug/l	93
68) o-Xylene	11.958	106	4516	0.256	ug/l	99
72) 1,2,3-Trichloropropane	12.881	75	4012	0.271	ug/l	24
79) tert-butylbenzene	13.618	119	8226	0.247	ug/l	57
80) 1,2,4-Trimethylbenzene	13.369	105	7699	0.208	ug/l #	94
82) p-Isopropyltoluene	13.618	119	8226	0.221	ug/l	87
83) 1,3-Dichlorobenzene	13.624	146	6216	0.342	ug/l	93
84) 1,4-Dichlorobenzene	13.696	146	7848	0.445	ug/l	92
85) n-Butylbenzene	13.946	91	14618	0.471	ug/l	96
87) 1,2-Dichlorobenzene	13.983	146	3694	0.211	ug/l	85
88) 1,2-Dibromo-3-Chloropr...	14.603	75	1269	0.476	ug/l #	37
89) 1,2,4-Trichlorobenzene	15.702	180	13456	1.600	ug/l	96
90) Hexachlorobutadiene	15.370	225	1681	0.370	ug/l	76
91) Naphthalene	15.507	128	52169	2.153	ug/l #	94
92) 1,2,3-Trichlorobenzene	15.702	180	13456	1.627	ug/l	98

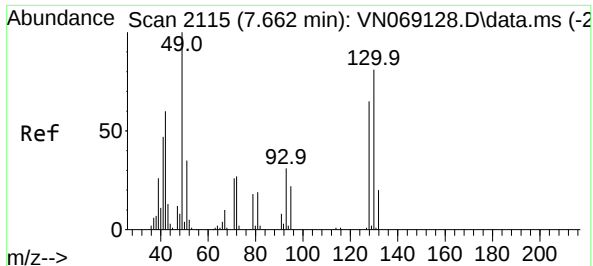
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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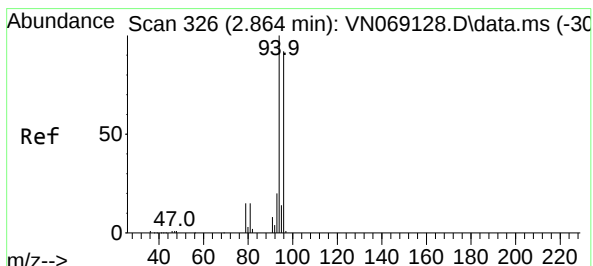
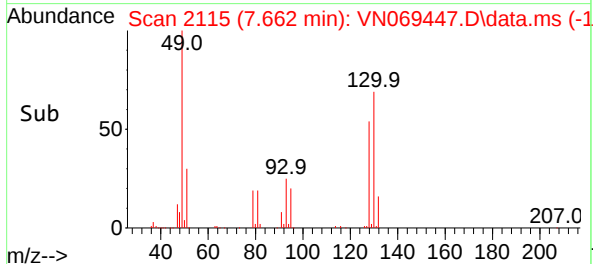
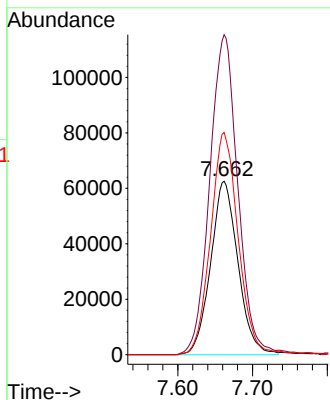
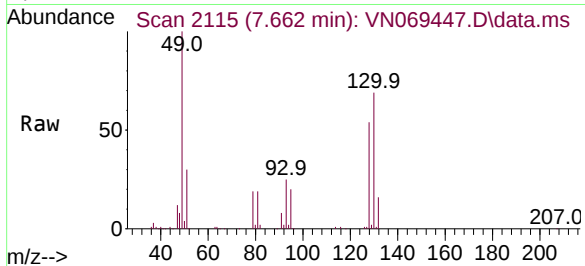




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.662 min Scan# 2115
Delta R.T. -0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

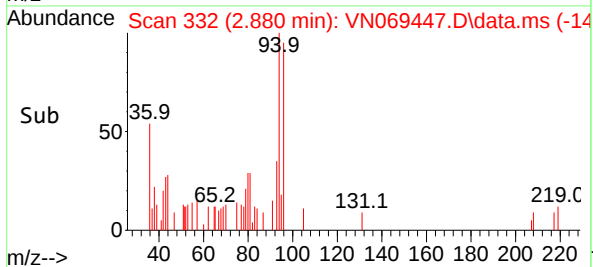
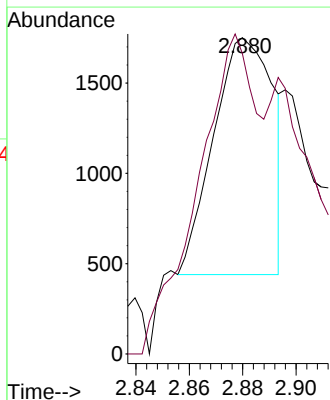
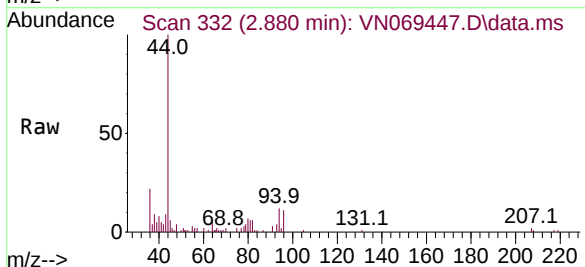
Instrument :
MSVOA_N
ClientSampleId :
TW-1

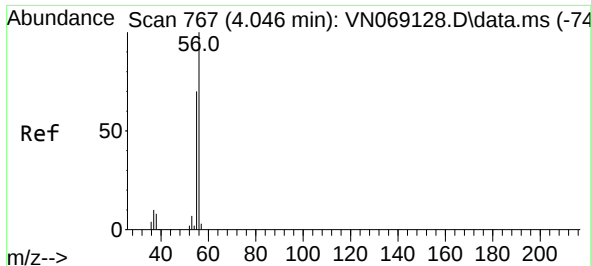
Tgt Ion:128 Resp: 158694
Ion Ratio Lower Upper
128 100
49 188.8 0.0 392.3
130 129.1 0.0 320.2



#5
Bromomethane
Concen: 0.253 ug/l
RT: 2.880 min Scan# 332
Delta R.T. 0.016 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion: 94 Resp: 2011
Ion Ratio Lower Upper
94 100
96 91.2 75.2 112.8





#13

Acrolein

Concen: 1.049 ug/l

RT: 4.033 min Scan# 7

Delta R.T. -0.013 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

Instrument :

MSVOA_N

ClientSampleId :

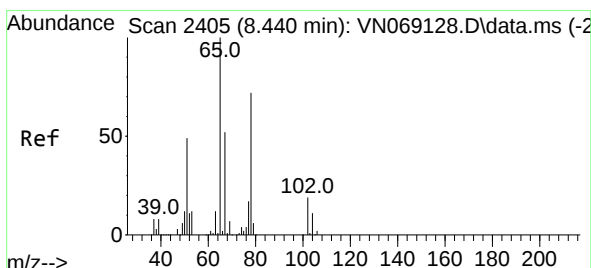
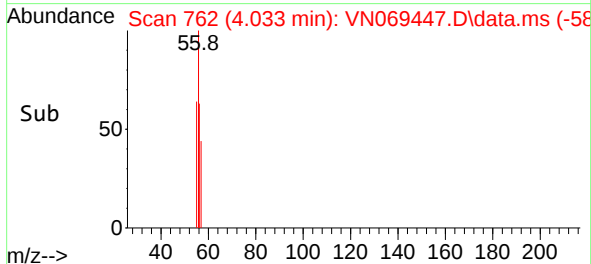
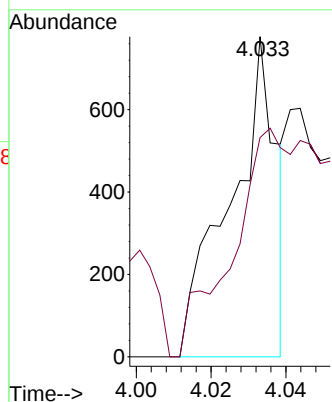
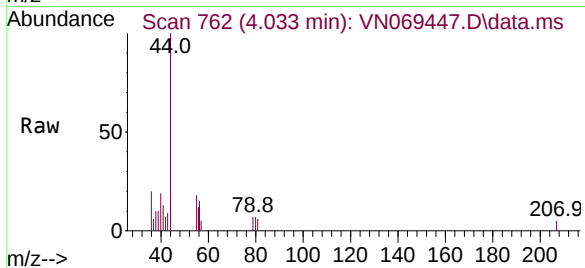
TW-1

Tgt Ion: 56 Resp: 659

Ion Ratio Lower Upper

56 100

55 77.5 57.6 86.4



#27

1,2-Dichloroethane-d4

Concen: 32.233 ug/l

RT: 8.440 min Scan# 2405

Delta R.T. 0.000 min

Lab File: VN069447.D

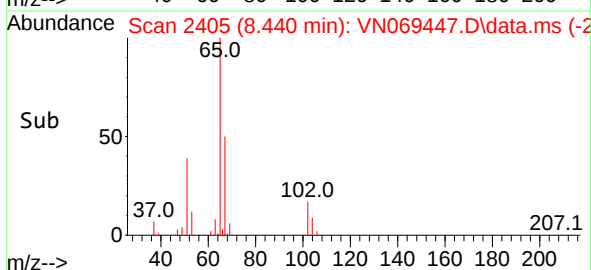
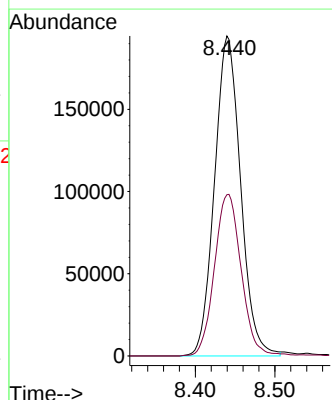
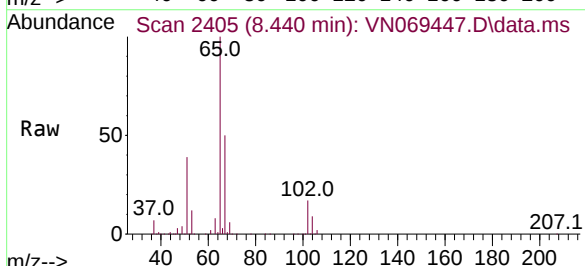
Acq: 10 Nov 2021 18:19

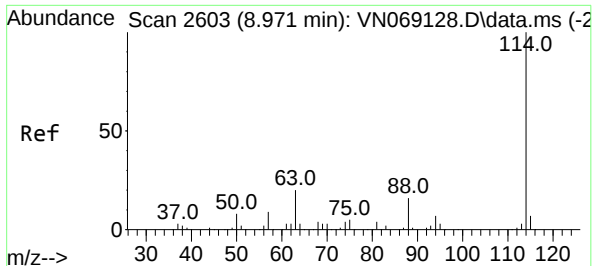
Tgt Ion: 65 Resp: 443628

Ion Ratio Lower Upper

65 100

67 51.6 40.2 60.2





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 8.971 min Scan# 2

Delta R.T. 0.000 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

Instrument :

MSVOA_N

ClientSampleId :

TW-1

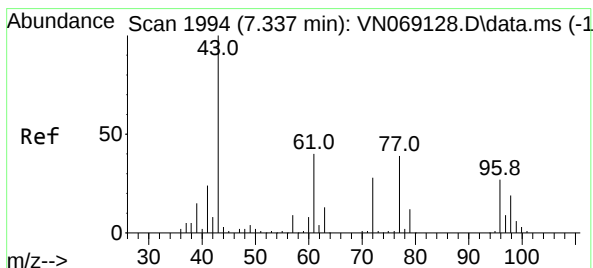
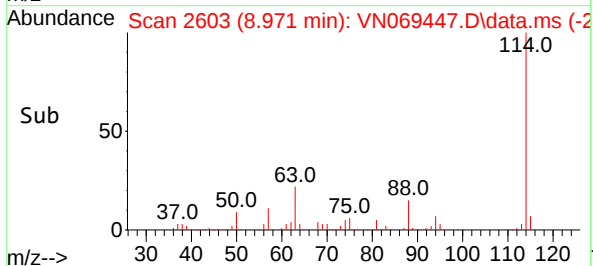
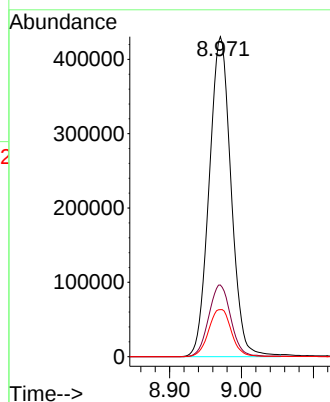
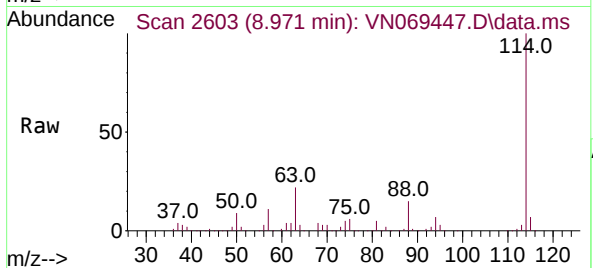
Tgt Ion:114 Resp: 909531

Ion Ratio Lower Upper

114 100

63 22.6 15.8 23.6

88 15.3 11.6 17.4



#30

2-Butanone

Concen: 0.895 ug/l

RT: 7.359 min Scan# 2002

Delta R.T. 0.022 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

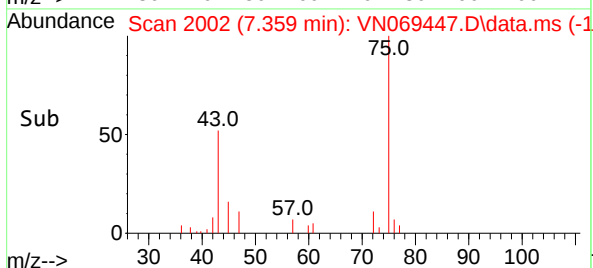
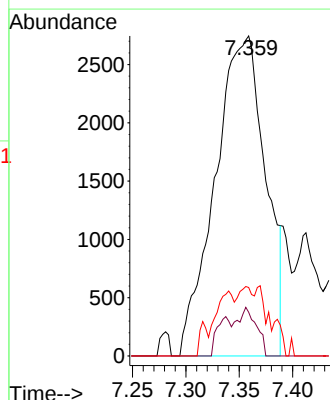
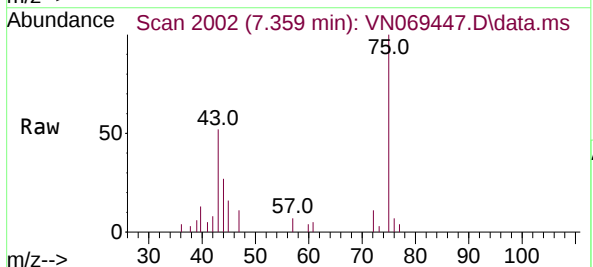
Tgt Ion: 43 Resp: 8998

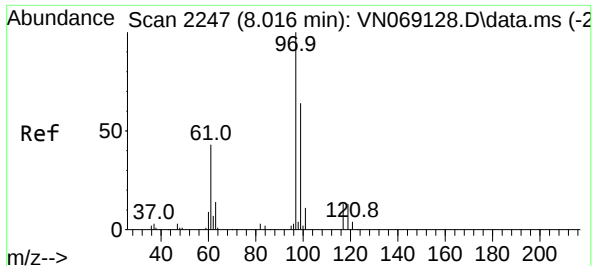
Ion Ratio Lower Upper

43 100

57 4.3 6.7 10.1#

72 6.9 23.2 34.8#

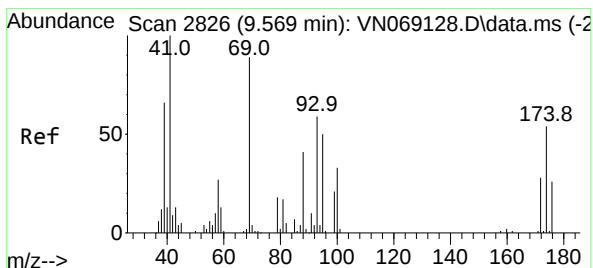
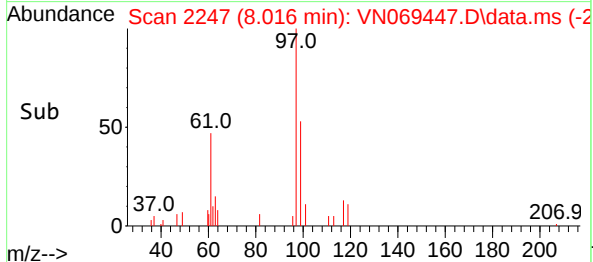
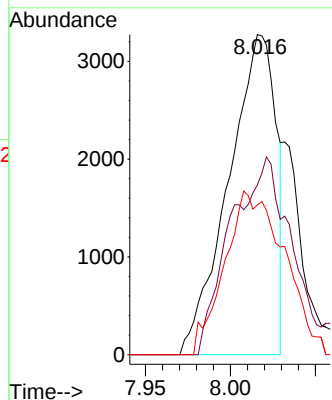
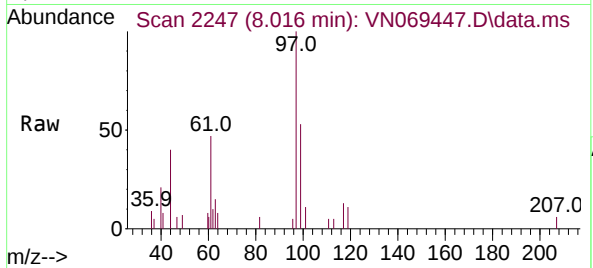




#32
1,1,1-Trichloroethane
Concen: 0.392 ug/l
RT: 8.016 min Scan# 21
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

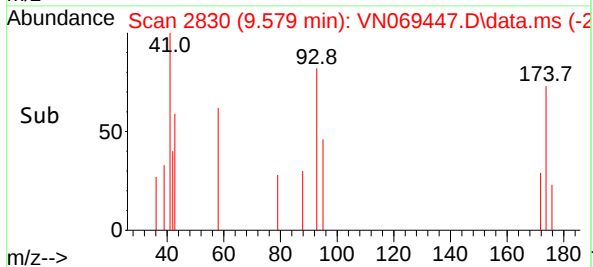
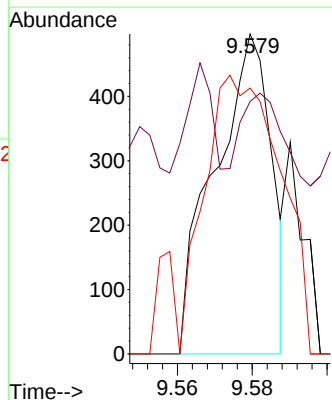
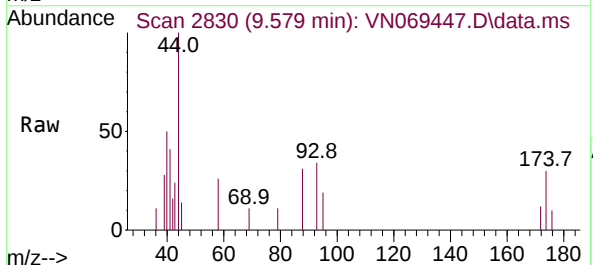
Instrument :
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ClientSampleId :
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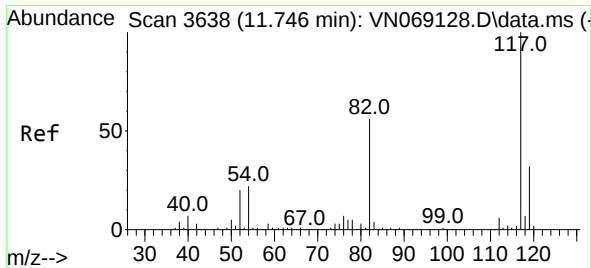
Tgt Ion: 97 Resp: 6353
Ion Ratio Lower Upper
97 100
99 25.6 50.4 75.6#
61 22.9 34.6 51.8#



#45
1,4-Dioxane
Concen: 2.223 ug/l
RT: 9.579 min Scan# 2830
Delta R.T. 0.011 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion: 88 Resp: 524
Ion Ratio Lower Upper
88 100
43 21.0 25.0 37.6#
58 59.0 49.4 74.2

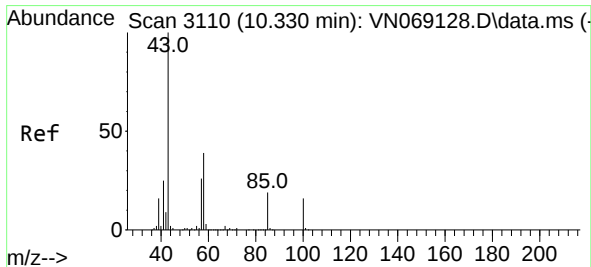
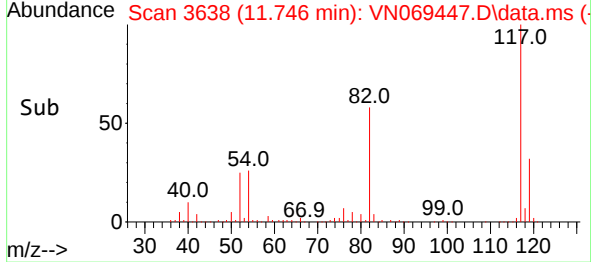
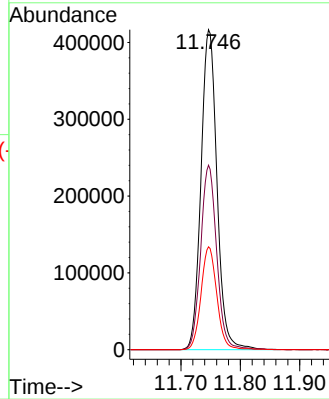
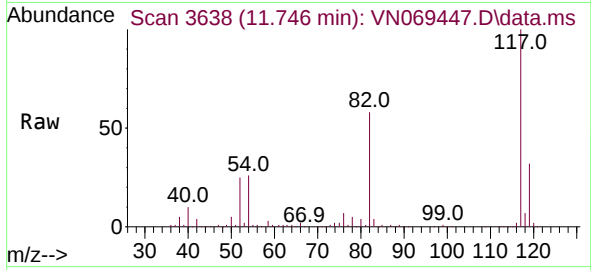




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.746 min Scan# 3011
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

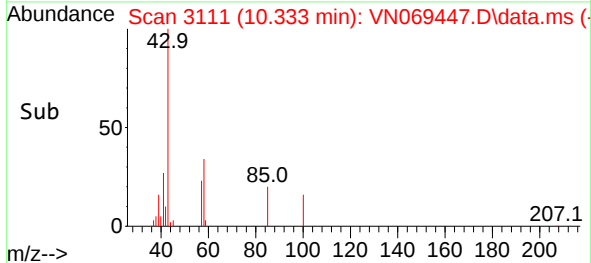
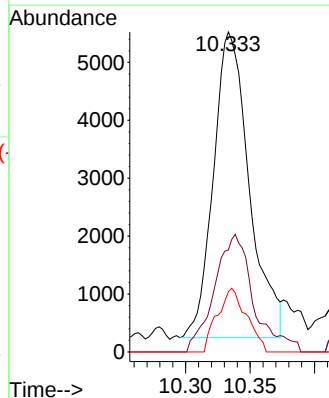
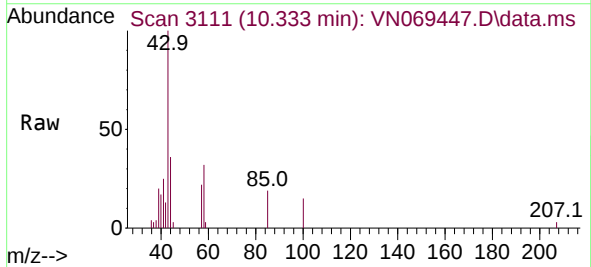
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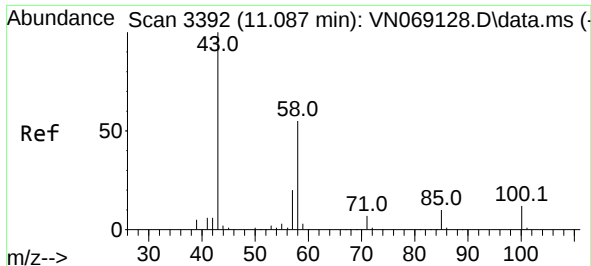
Tgt Ion:	117	Resp:	779736
Ion	Ratio	Lower	Upper
117	100		
82	57.8	43.6	65.4
119	31.6	25.8	38.6



#58
4-Methyl-2-Pentanone
Concen: 0.595 ug/l
RT: 10.333 min Scan# 3111
Delta R.T. 0.003 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion:	43	Resp:	10192
Ion	Ratio	Lower	Upper
43	100		
58	37.6	30.0	45.0
85	16.9	15.0	22.6





#59

2-Hexanone

Concen: 1.797 ug/l

RT: 11.092 min Scan# 31

Delta R.T. 0.005 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

Instrument :

MSVOA_N

ClientSampleId :

TW-1

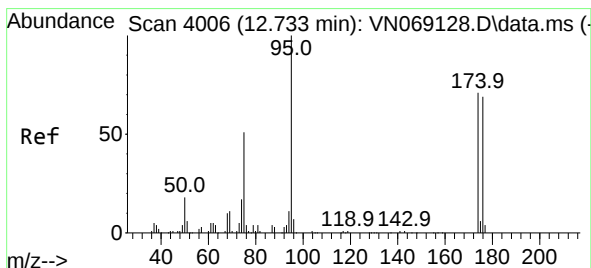
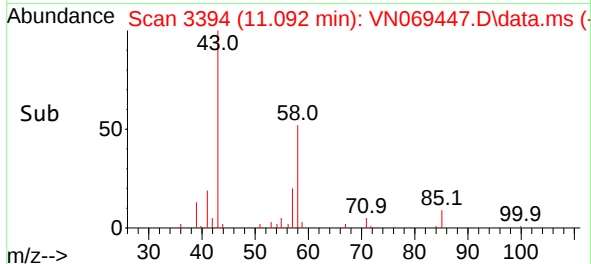
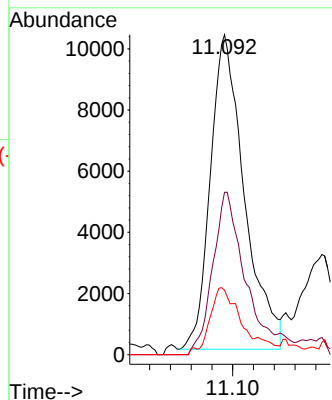
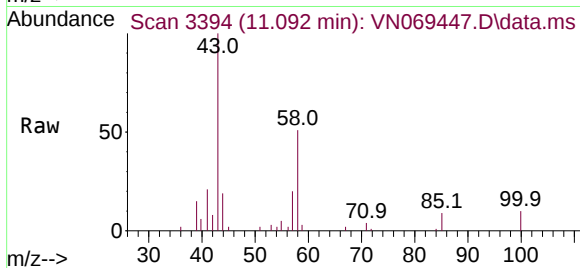
Tgt Ion: 43 Resp: 23393

Ion Ratio Lower Upper

43 100

58 48.3 42.2 63.2

57 10.0 15.0 22.4#



#60

4-Bromofluorobenzene

Concen: 24.236 ug/l

RT: 12.733 min Scan# 4006

Delta R.T. 0.000 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

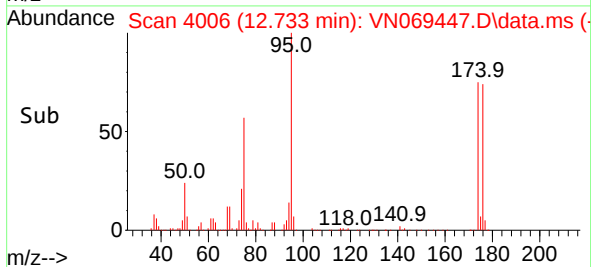
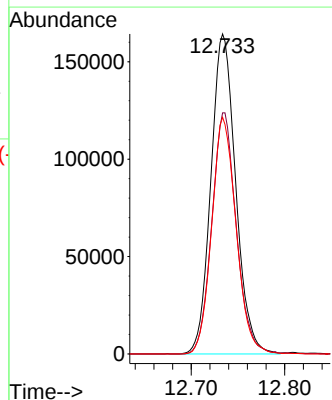
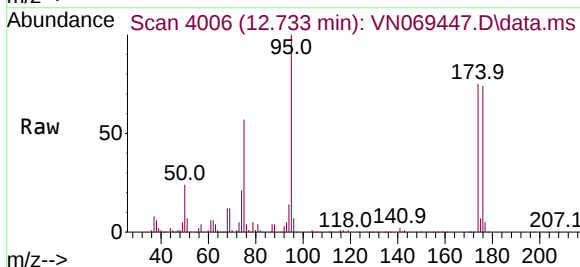
Tgt Ion: 95 Resp: 302413

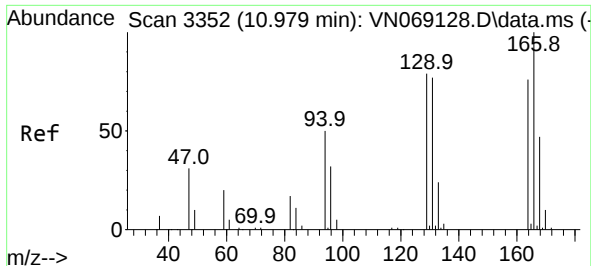
Ion Ratio Lower Upper

95 100

174 74.5 62.9 94.3

176 72.9 61.0 91.4

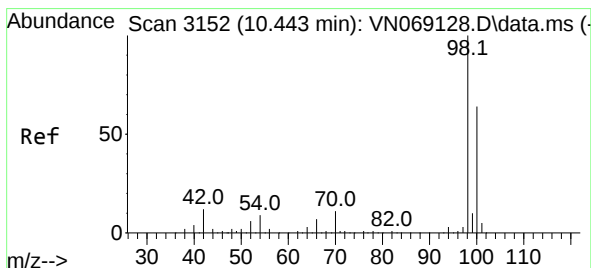
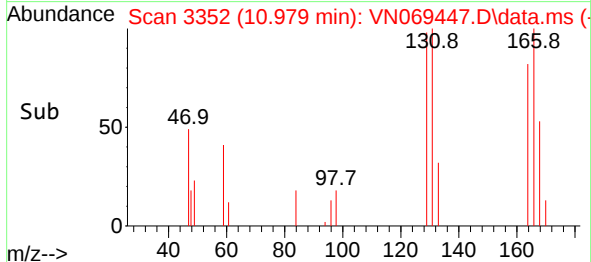
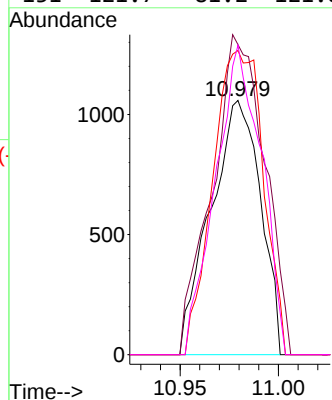
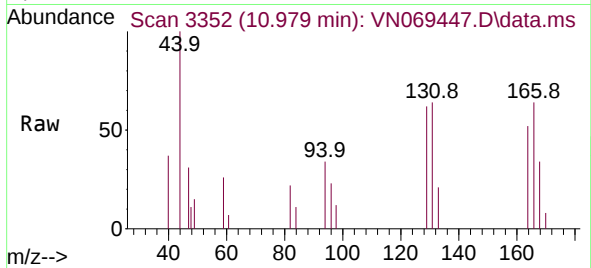




#61
Tetrachloroethene
Concen: 0.223 ug/l
RT: 10.979 min Scan# 3152
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

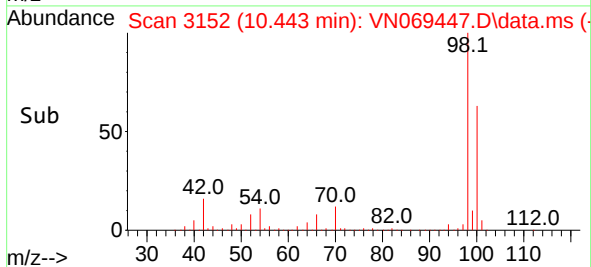
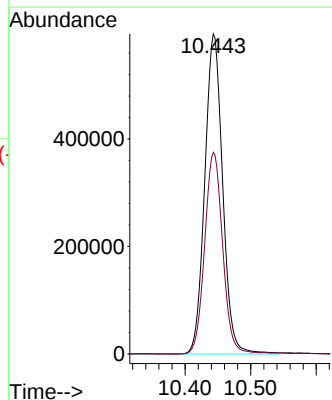
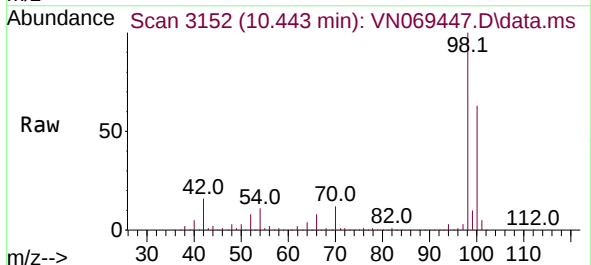
Instrument :
MSVOA_N
ClientSampleId :
TW-1

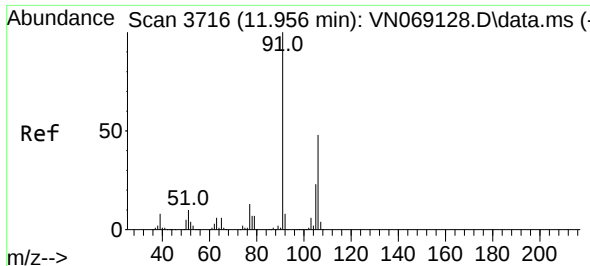
Tgt Ion:164 Resp: 1867
Ion Ratio Lower Upper
164 100
166 122.0 105.8 158.8
129 119.7 82.5 123.7
131 121.7 81.2 121.8



#63
Toluene-d8
Concen: 31.316 ug/l
RT: 10.443 min Scan# 3152
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion: 98 Resp: 1127448
Ion Ratio Lower Upper
98 100
100 63.3 50.6 76.0

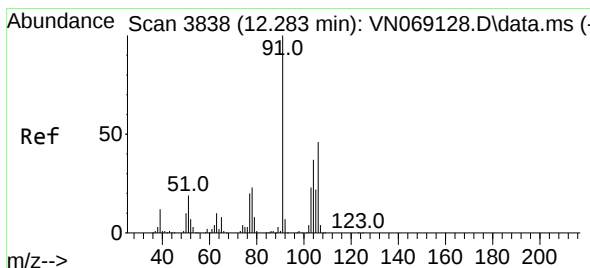
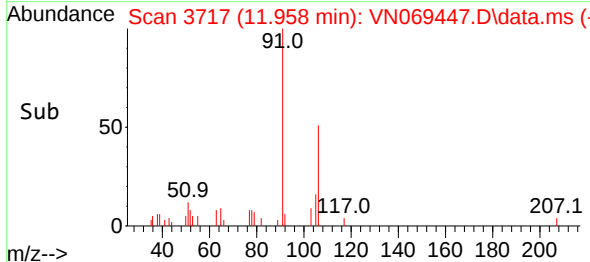
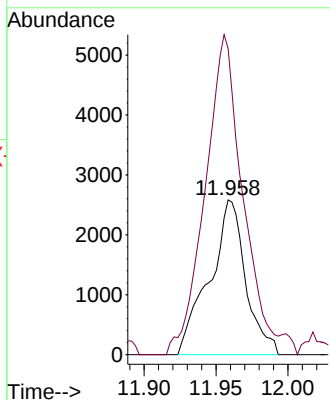
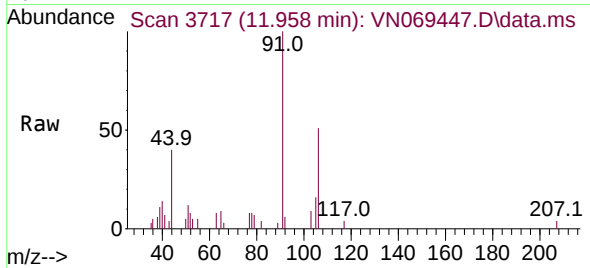




#67
m/p-Xylenes
Concen: 0.256 ug/l
RT: 11.958 min Scan# 3717
Delta R.T. 0.003 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

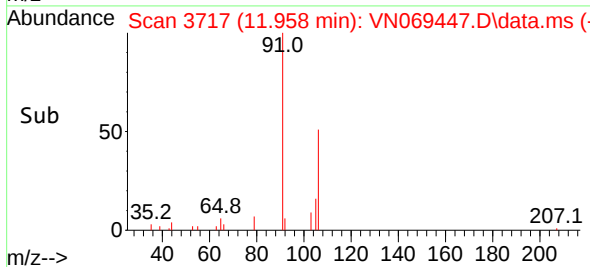
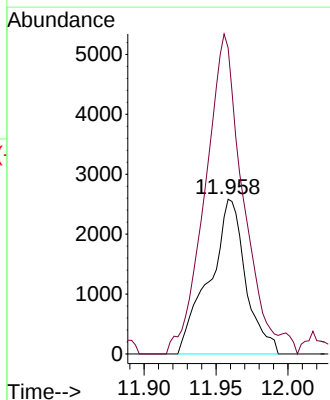
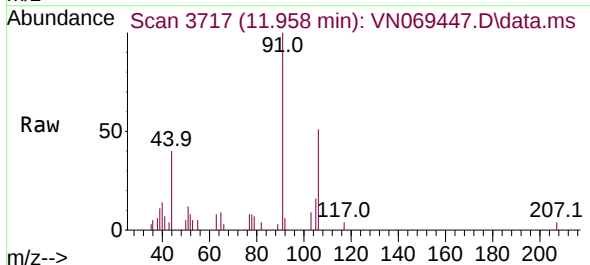
Instrument :
MSVOA_N
ClientSampleId :
TW-1

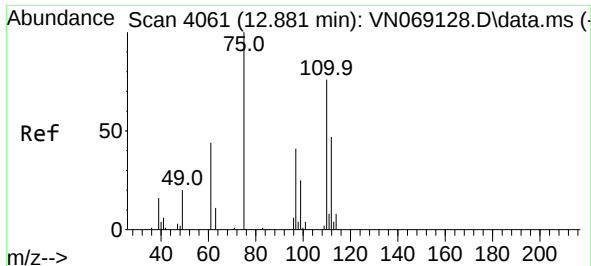
Tgt Ion:106 Resp: 4516
Ion Ratio Lower Upper
106 100
91 214.0 162.9 244.3



#68
o-Xylene
Concen: 0.256 ug/l
RT: 11.958 min Scan# 3717
Delta R.T. -0.324 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion:106 Resp: 4516
Ion Ratio Lower Upper
106 100
91 214.0 107.7 323.1

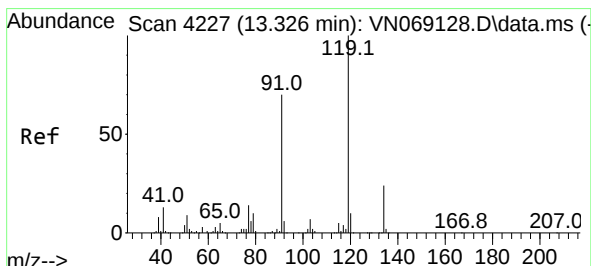
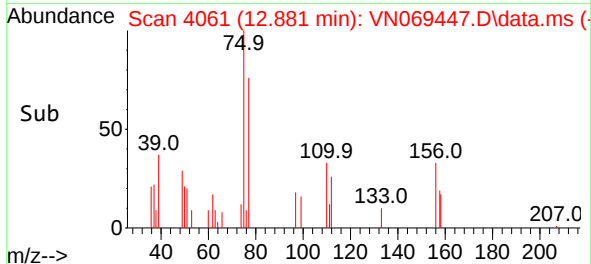
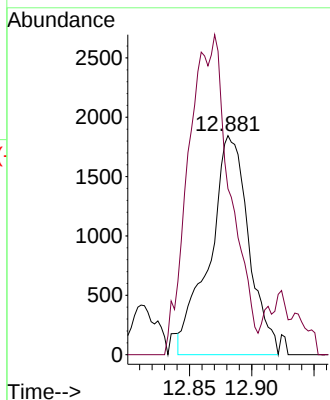
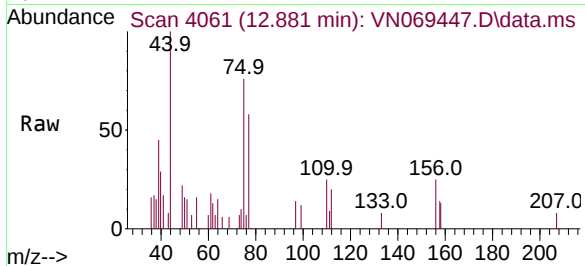




#72
1,2,3-Trichloropropane
Concen: 0.271 ug/l
RT: 12.881 min Scan# 4061
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

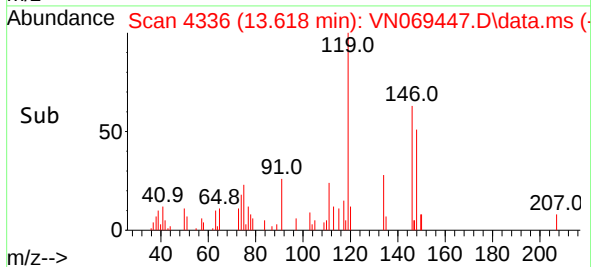
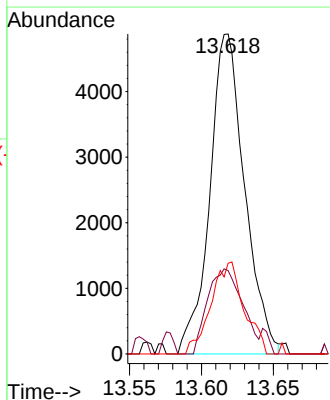
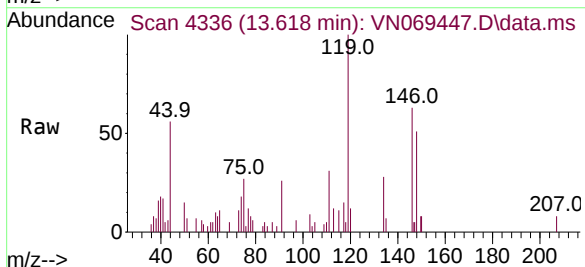
Instrument :
MSVOA_N
ClientSampleId :
TW-1

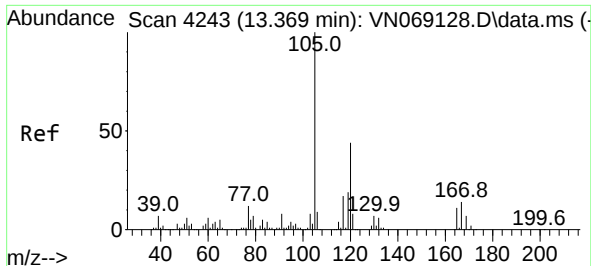
Tgt Ion: 75 Resp: 4012
Ion Ratio Lower Upper
75 100
77 78.2 0.0 378.0



#79
tert-butylbenzene
Concen: 0.247 ug/l
RT: 13.618 min Scan# 4336
Delta R.T. 0.292 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion: 119 Resp: 8226
Ion Ratio Lower Upper
119 100
91 26.8 0.0 137.0
134 14.8 0.0 47.6

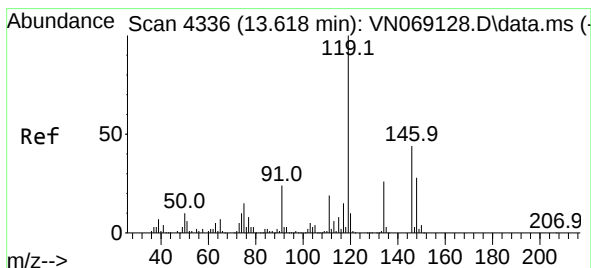
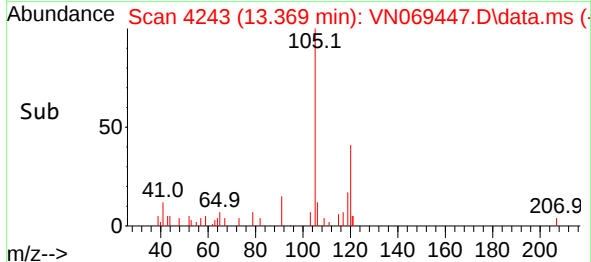
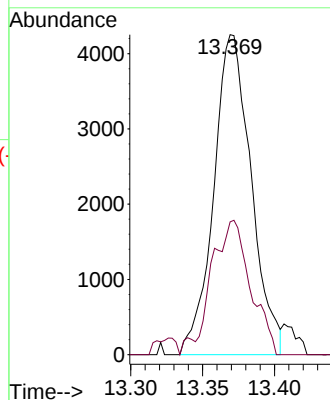
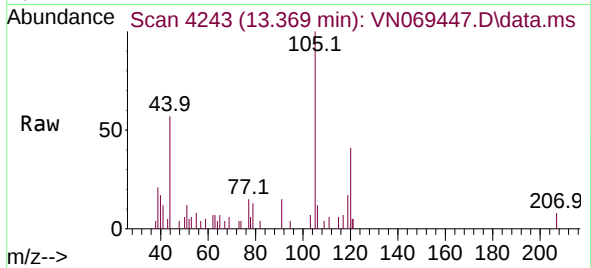




#80
1,2,4-Trimethylbenzene
Concen: 0.208 ug/l
RT: 13.369 min Scan# 4243
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

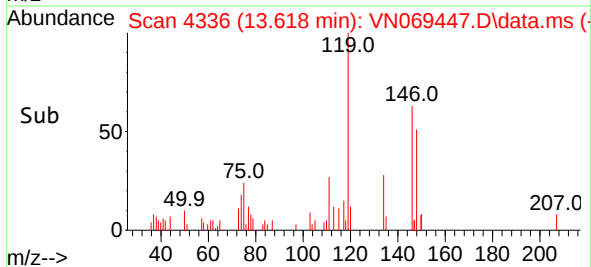
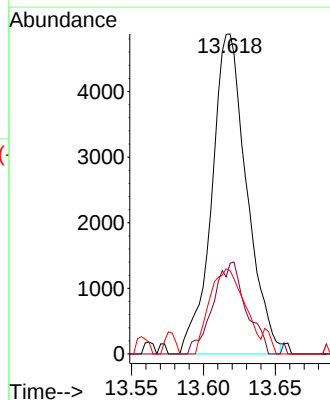
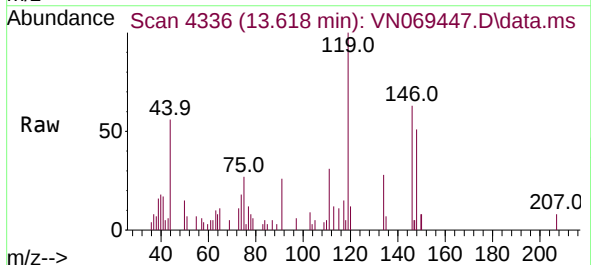
Instrument :
MSVOA_N
ClientSampleId :
TW-1

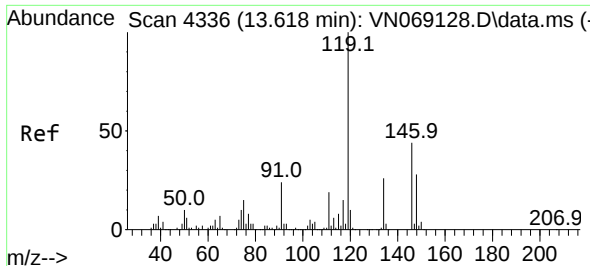
Tgt Ion:105 Resp: 7699
Ion Ratio Lower Upper
105 100
120 14.2 0.0 0.2#



#82
p-Isopropyltoluene
Concen: 0.221 ug/l
RT: 13.618 min Scan# 4336
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion:119 Resp: 8226
Ion Ratio Lower Upper
119 100
134 14.8 0.0 51.8
91 26.8 0.0 50.4





#83

1,3-Dichlorobenzene

Concen: 0.342 ug/l

RT: 13.624 min Scan# 4338

Delta R.T. 0.005 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

Instrument :

MSVOA_N

ClientSampleId :

TW-1

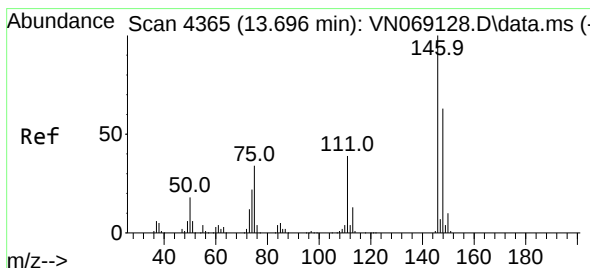
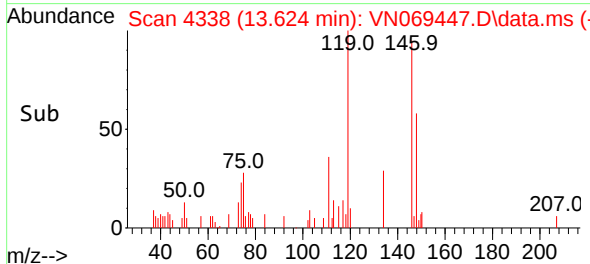
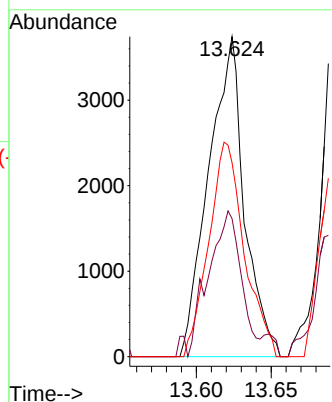
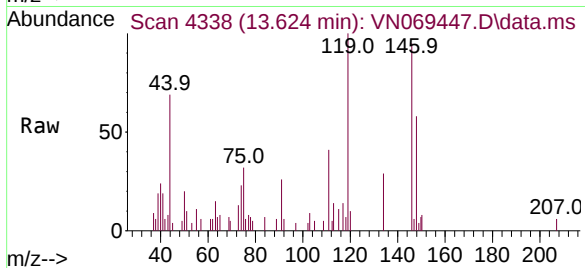
Tgt Ion:146 Resp: 6216

Ion Ratio Lower Upper

146 100

111 35.9 20.8 62.2

148 66.7 31.4 94.3



#84

1,4-Dichlorobenzene

Concen: 0.445 ug/l

RT: 13.696 min Scan# 4365

Delta R.T. 0.000 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

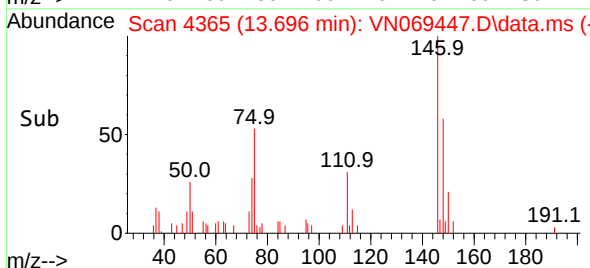
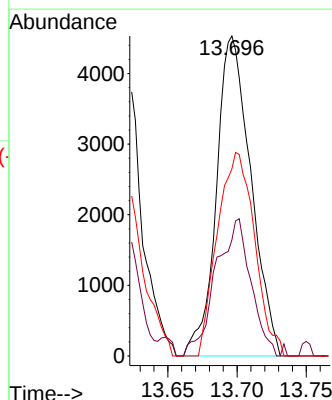
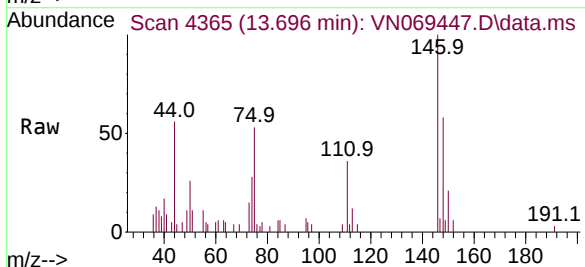
Tgt Ion:146 Resp: 7848

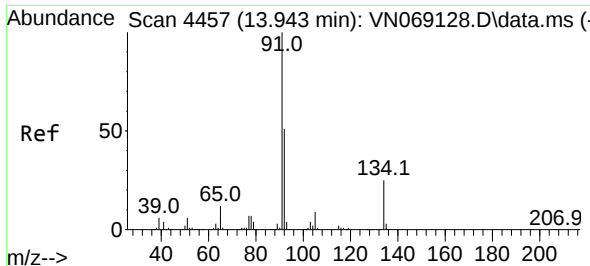
Ion Ratio Lower Upper

146 100

111 43.7 19.5 58.5

148 68.4 31.1 93.5

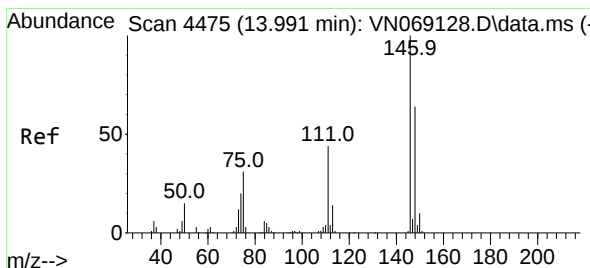
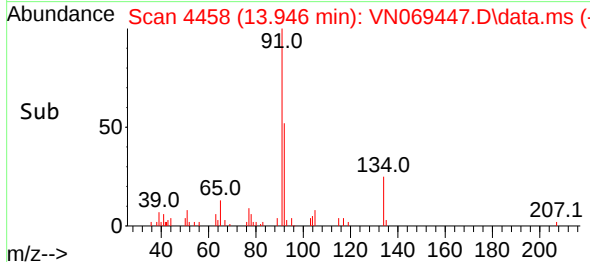
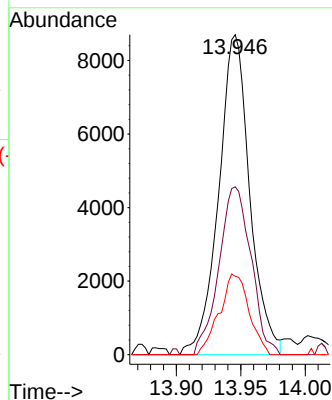
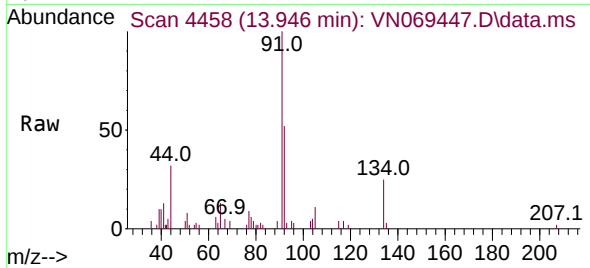




#85
n-Butylbenzene
Concen: 0.471 ug/l
RT: 13.946 min Scan# 4458
Delta R.T. 0.003 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

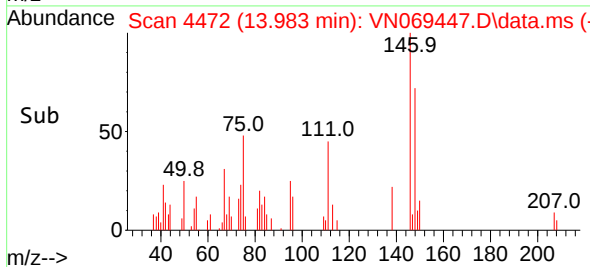
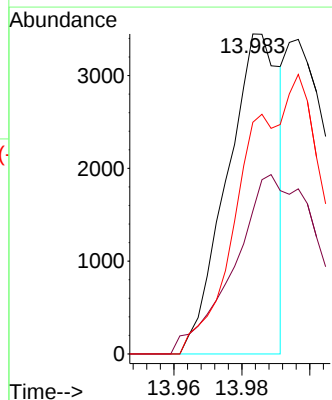
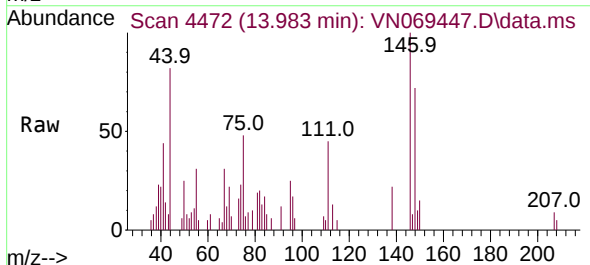
Instrument :
MSVOA_N
ClientSampleId :
TW-1

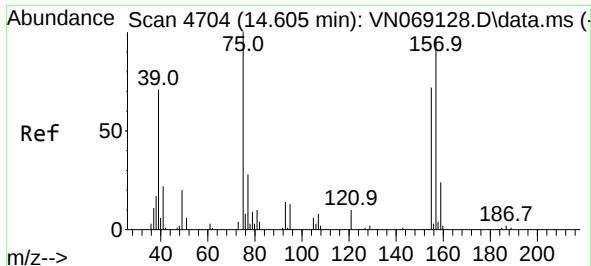
Tgt Ion: 91	Resp: 14618
Ion Ratio	Lower Upper
91	100
92	54.1 0.0 100.6
134	24.0 0.0 50.2



#87
1,2-Dichlorobenzene
Concen: 0.211 ug/l
RT: 13.983 min Scan# 4472
Delta R.T. -0.008 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion: 146	Resp: 3694
Ion Ratio	Lower Upper
146	100
111	58.5 21.4 64.2
148	58.3 32.5 97.4





#88

1,2-Dibromo-3-Chloropropane

Concen: 0.476 ug/l

RT: 14.603 min Scan# 41

Delta R.T. -0.003 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

Instrument :

MSVOA_N

ClientSampleId :

TW-1

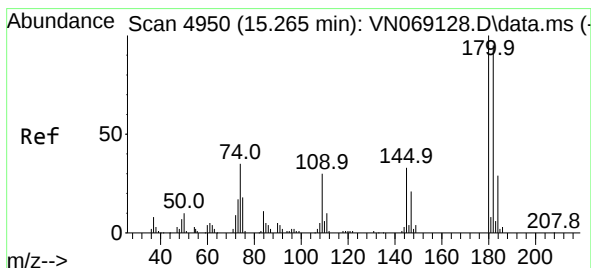
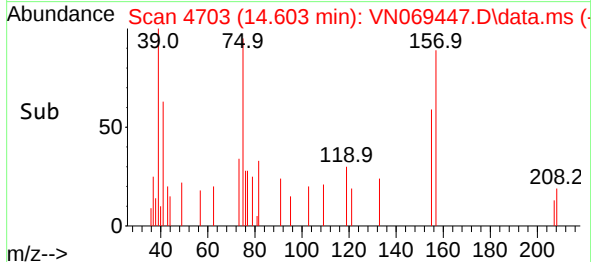
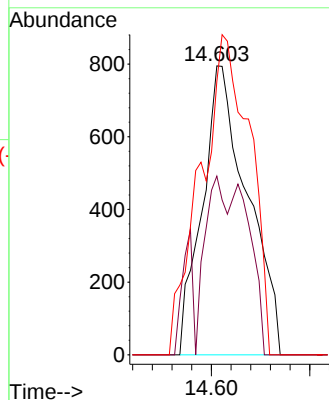
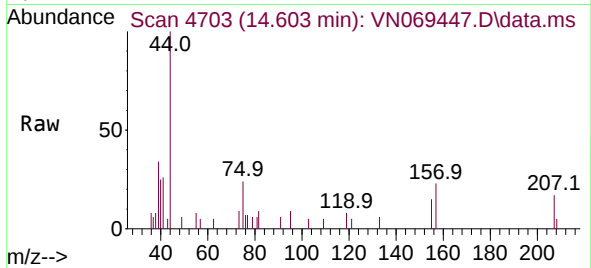
Tgt Ion: 75 Resp: 1269

Ion Ratio Lower Upper

75 100

155 30.0 63.8 95.8#

157 29.4 77.9 116.9#



#89

1,2,4-Trichlorobenzene

Concen: 1.600 ug/l

RT: 15.702 min Scan# 5113

Delta R.T. 0.437 min

Lab File: VN069447.D

Acq: 10 Nov 2021 18:19

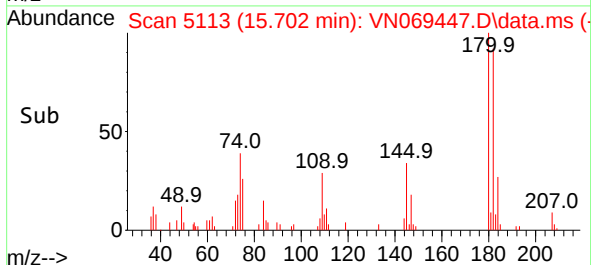
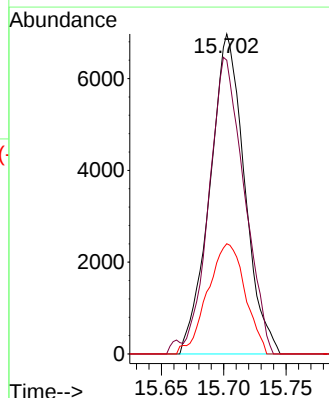
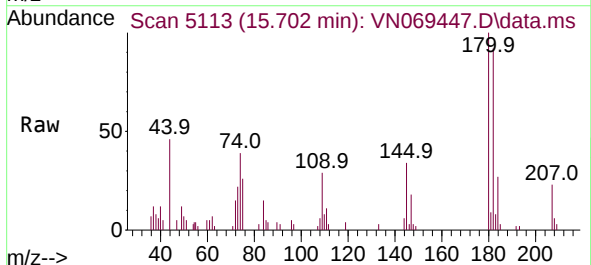
Tgt Ion:180 Resp: 13456

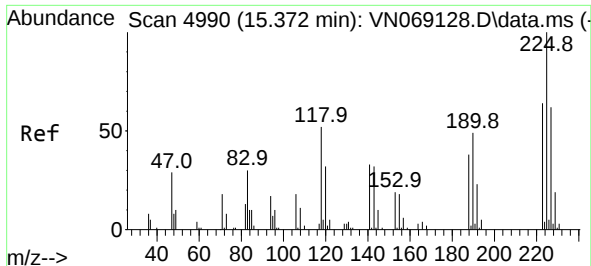
Ion Ratio Lower Upper

180 100

182 93.6 77.7 116.5

145 36.6 26.6 39.8

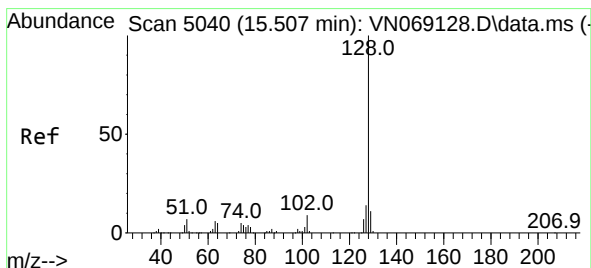
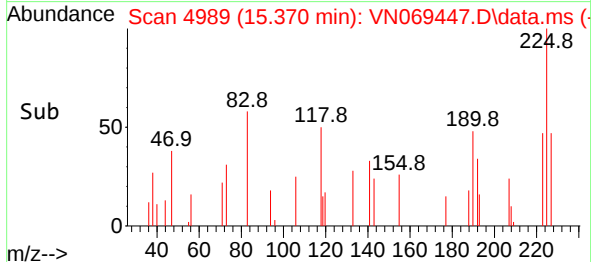
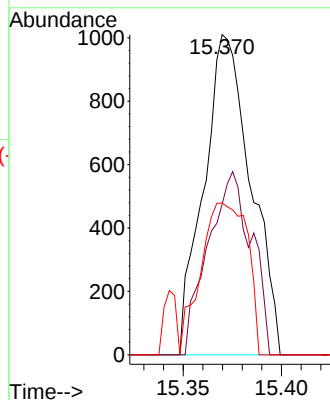
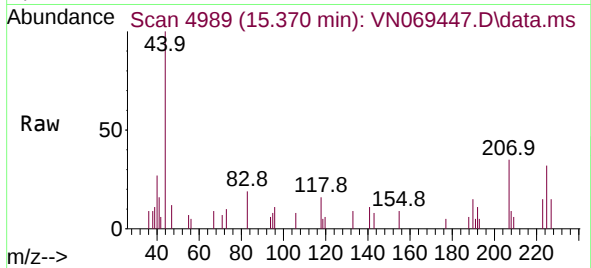




#90
Hexachlorobutadiene
Concen: 0.370 ug/l
RT: 15.370 min Scan# 4990
Delta R.T. -0.003 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

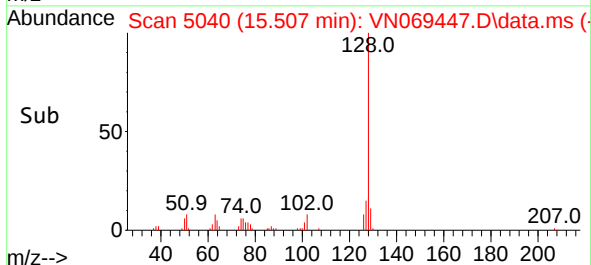
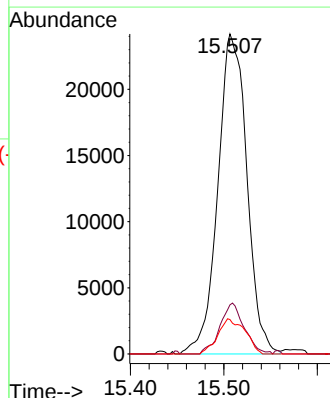
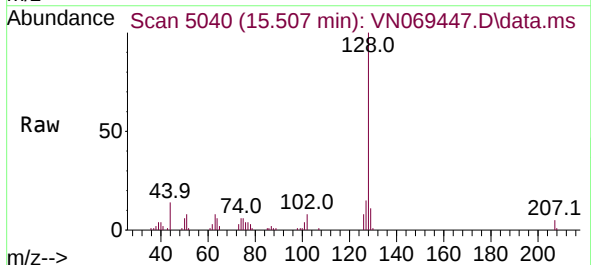
Instrument :
MSVOA_N
ClientSampleId :
TW-1

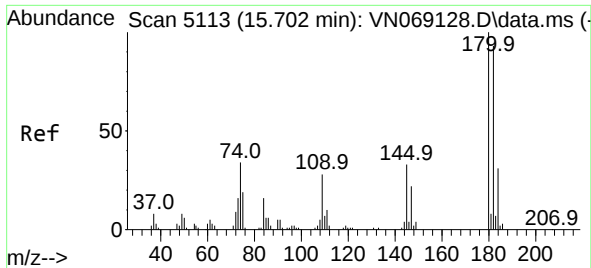
Tgt Ion:225	Resp:	1681
Ion	Ratio	Lower Upper
225	100	
223	44.2	0.0 126.8
227	44.1	0.0 123.0



#91
Naphthalene
Concen: 2.153 ug/l
RT: 15.507 min Scan# 5040
Delta R.T. 0.000 min
Lab File: VN069447.D
Acq: 10 Nov 2021 18:19

Tgt Ion:128	Resp:	52169
Ion	Ratio	Lower Upper
128	100	
127	13.2	10.7 16.1
129	6.4	9.0 13.6





#92

1,2,3-Trichlorobenzene

Concen: 1.627 ug/l

RT: 15.702 min Scan# 51

Delta R.T. 0.000 min

Lab File: VN069447.D

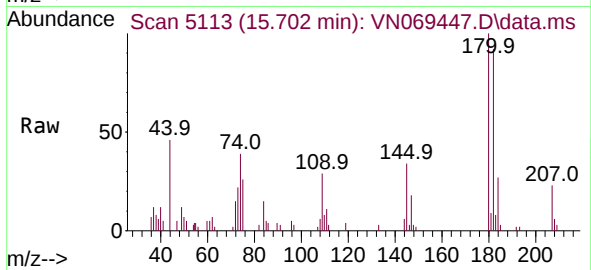
Acq: 10 Nov 2021 18:19

Instrument :

MSVOA_N

ClientSampleId :

TW-1



Tgt Ion:180 Resp: 13456

Ion Ratio Lower Upper

180 100

182 93.6 0.0 190.0

145 36.6 0.0 67.8

