

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102221\
 Data File : VN069140.D
 Acq On : 22 Oct 2021 17:43
 Operator : JC/MD
 Sample : M4245-01 5X
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

Quant Time: Oct 23 07:56:01 2021
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N102221W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Oct 22 13:15:19 2021
 Response via : Initial Calibration

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

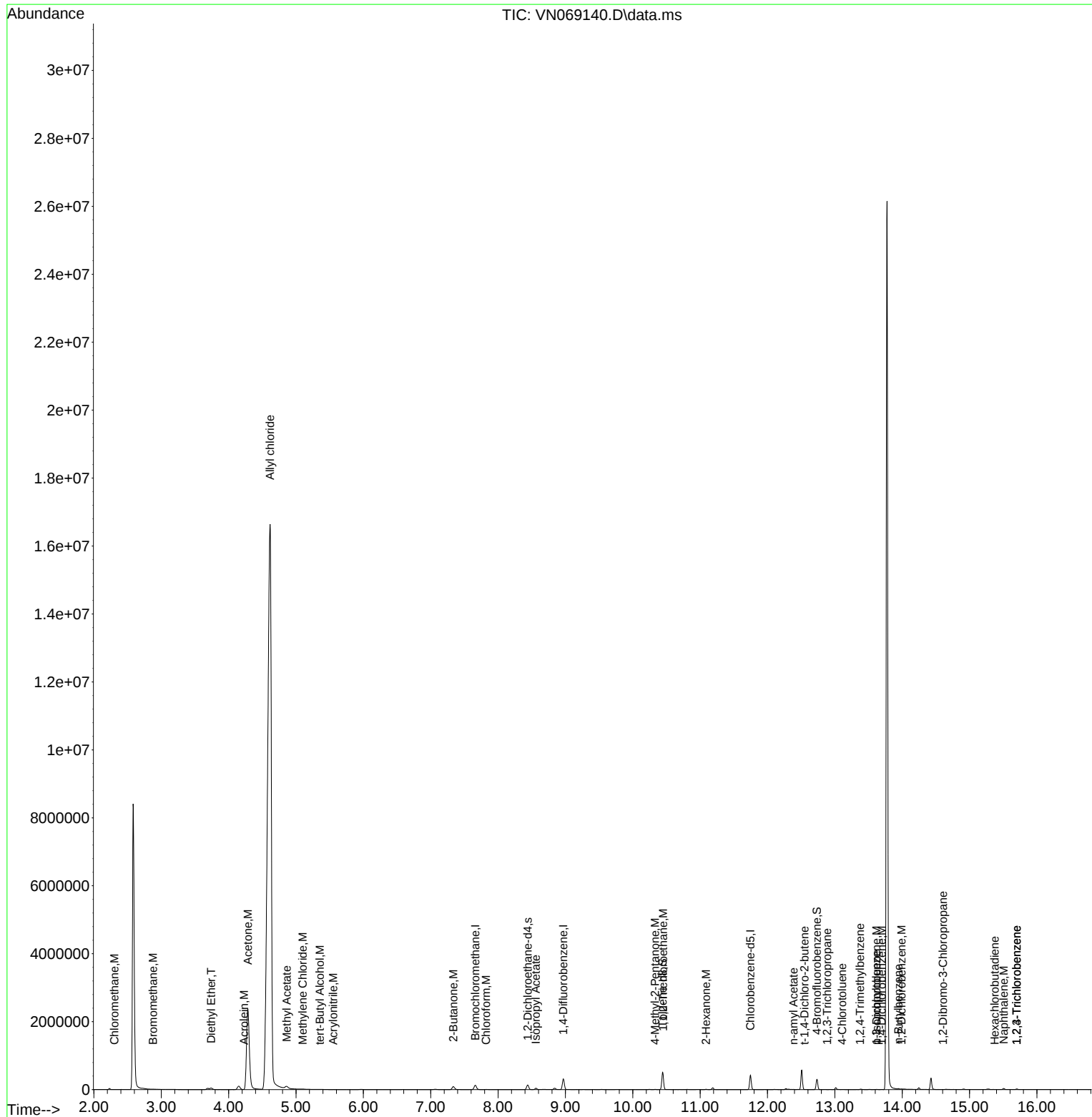
Internal Standards						
1) Bromochloromethane	7.662	128	46971	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	8.968	114	282092	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.747	117	243435	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.440	65	115497	31.569	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 105.233%			
60) 4-Bromofluorobenzene	12.734	95	110884	26.565	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 88.533%			
63) Toluene-d8	10.443	98	342128	31.107	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 103.700%			
Target Compounds						
					Qvalue	
3) Chloromethane	2.303	50	691	0.214	ug/l	90
5) Bromomethane	2.877	94	1653	0.655	ug/l #	69
8) Diethyl Ether	3.741	74	6687	3.789	ug/l #	1
12) Methyl Acetate	4.862	43	130694	25.976	ug/l	96
13) Acrolein	4.229	56	79	0.261	ug/l	90
14) Acrylonitrile	5.554	53	330	0.231	ug/l #	55
15) Acetone	4.285	58	1371043	3072.261	ug/l	97
17) Allyl chloride	4.615	41	3487922	766.701	ug/l #	80
18) Methylene Chloride	5.098	84	1644	0.524	ug/l	97
23) tert-Butyl Alcohol	5.356	59	1332	2.274	ug/l #	100
25) Chloroform	7.820	83	5574	0.962	ug/l #	83
30) 2-Butanone	7.337	43	145755	68.377	ug/l	98
44) Isopropyl Acetate	8.560	43	48834	6.343	ug/l #	88
47) n-amyl Acetate	12.388	43	2626	0.402	ug/l #	75
50) 1,1,2-Trichloroethane	10.451	97	11933	3.518	ug/l #	1
58) 4-Methyl-2-Pentanone	10.331	43	4812	1.172	ug/l	93
59) 2-Hexanone	11.087	43	7310	2.357	ug/l	94
72) 1,2,3-Trichloropropane	12.886	75	1045	0.264	ug/l	68
77) t-1,4-Dichloro-2-butene	12.549	75	346	0.223	ug/l #	8
78) 4-Chlorotoluene	13.109	91	2794	0.258	ug/l	92
80) 1,2,4-Trimethylbenzene	13.375	105	3288	0.255	ug/l #	87
82) p-Isopropyltoluene	13.619	119	2835	0.216	ug/l	96
83) 1,3-Dichlorobenzene	13.619	146	1818	0.289	ug/l	88
84) 1,4-Dichlorobenzene	13.696	146	2414	0.395	ug/l	92
85) n-Butylbenzene	13.943	91	6408	0.583	ug/l	99
87) 1,2-Dichlorobenzene	13.989	146	2529	0.421	ug/l	90
88) 1,2-Dibromo-3-Chloropr...	14.606	75	434	0.505	ug/l #	47
89) 1,2,4-Trichlorobenzene	15.700	180	6189	2.046	ug/l	96
90) Hexachlorobutadiene	15.373	225	528	0.334	ug/l	57
91) Naphthalene	15.507	128	28567	3.264	ug/l	97
92) 1,2,3-Trichlorobenzene	15.700	180	6189	2.141	ug/l	98

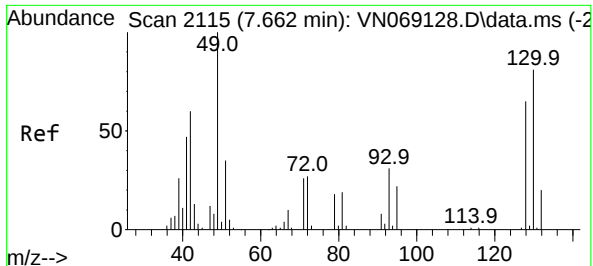
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN102221\
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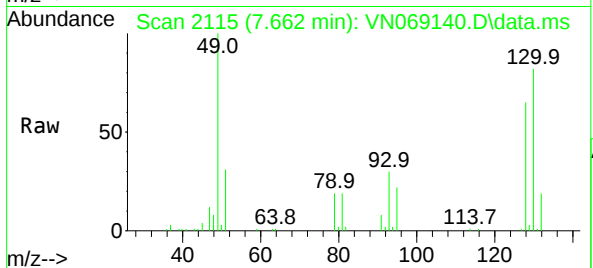
Quant Time: Oct 23 07:56:01 2021
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N102221W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Oct 22 13:15:19 2021
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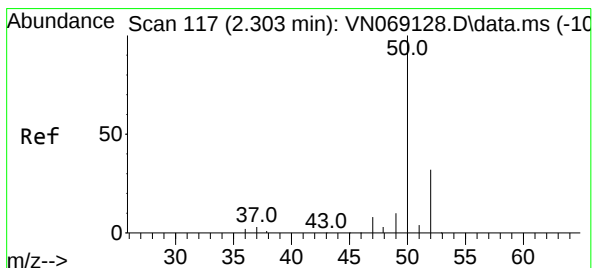
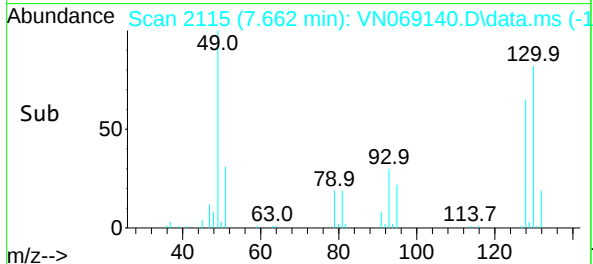
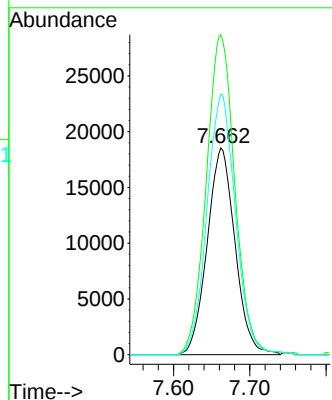


#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.662 min Scan# 2115
Delta R.T. -0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Instrument :
MSVOA_N
ClientSampleId :

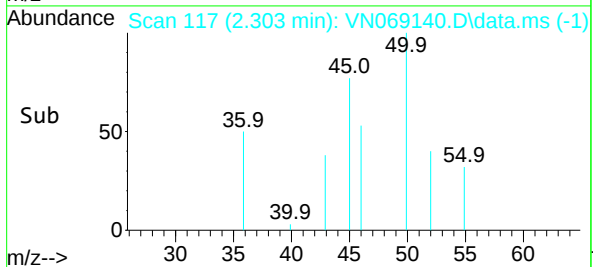
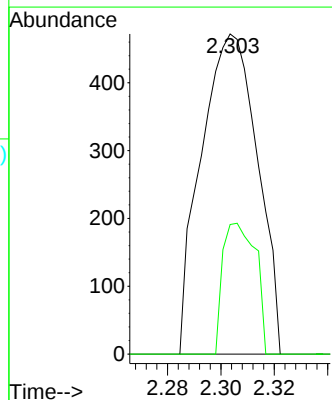
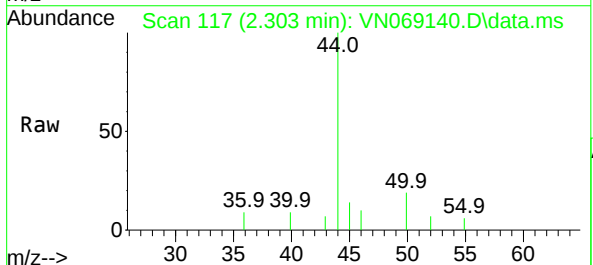


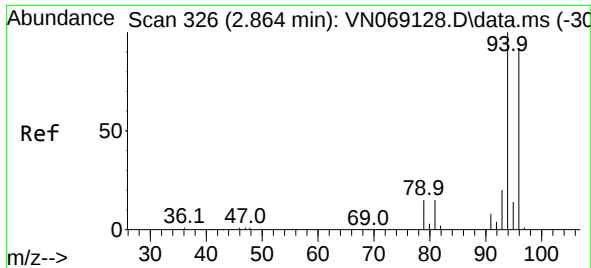
Tgt Ion:128 Resp: 46971
Ion Ratio Lower Upper
128 100
49 158.5 0.0 392.3
130 129.4 0.0 320.2



#3
Chloromethane
Concen: 0.214 ug/l
RT: 2.303 min Scan# 117
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 50 Resp: 691
Ion Ratio Lower Upper
50 100
52 40.5 27.8 41.6

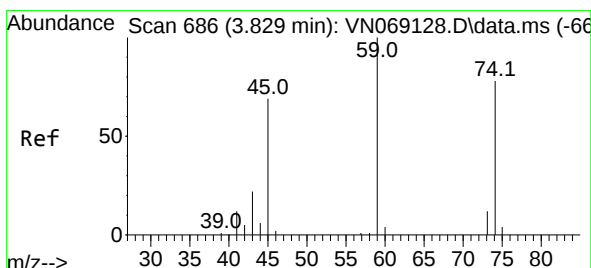
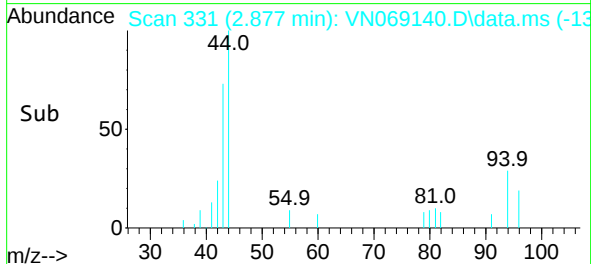
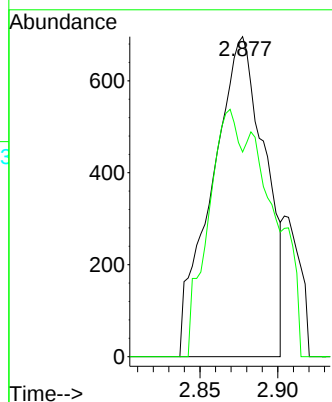
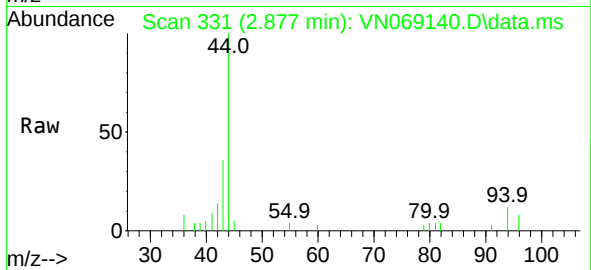




#5
Bromomethane
Concen: 0.655 ug/l
RT: 2.877 min Scan# 31
Delta R.T. 0.014 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

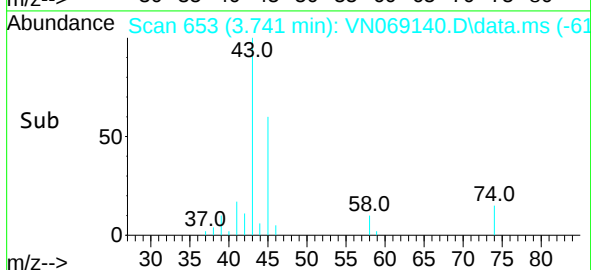
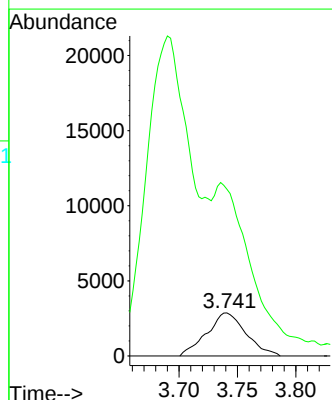
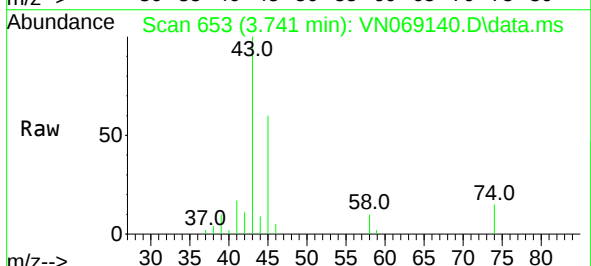
Instrument :
MSVOA_N
ClientSampleId :

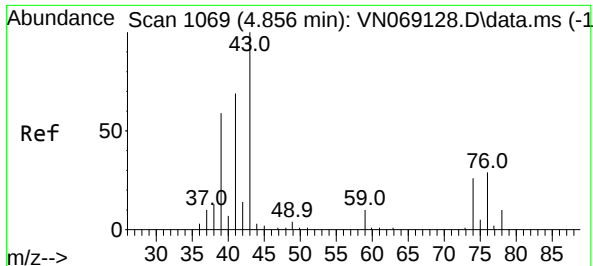
Tgt Ion: 94 Resp: 1653
Ion Ratio Lower Upper
94 100
96 63.9 75.2 112.8#



#8
Diethyl Ether
Concen: 3.789 ug/l
RT: 3.741 min Scan# 653
Delta R.T. -0.088 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 74 Resp: 6687
Ion Ratio Lower Upper
74 100
45 828.1 17.6 158.8#





#12

Methyl Acetate

Concen: 25.976 ug/l

RT: 4.862 min Scan# 1

Delta R.T. 0.006 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

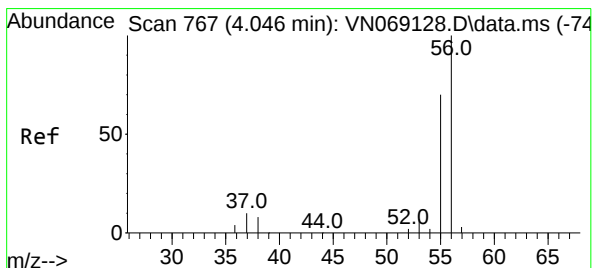
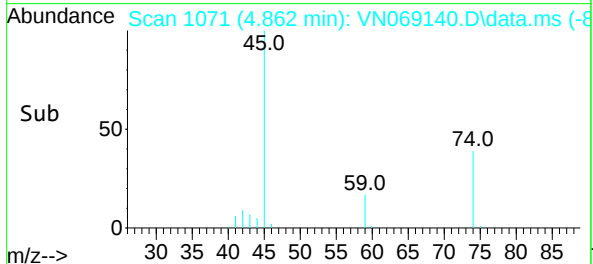
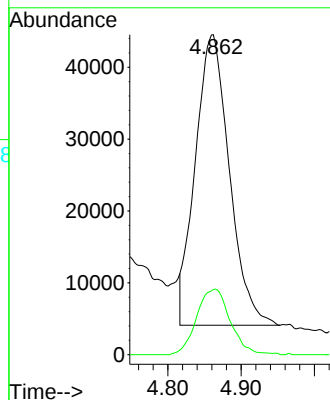
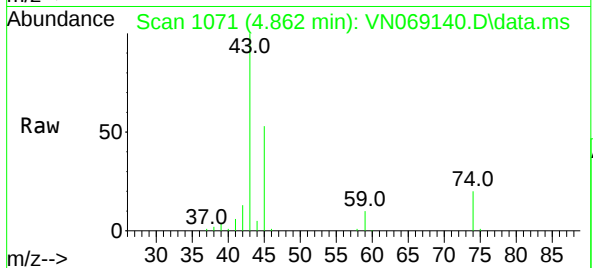
ClientSampleId :

Tgt Ion: 43 Resp: 130694

Ion Ratio Lower Upper

43 100

74 23.7 20.8 31.2



#13

Acrolein

Concen: 0.261 ug/l

RT: 4.229 min Scan# 835

Delta R.T. 0.183 min

Lab File: VN069140.D

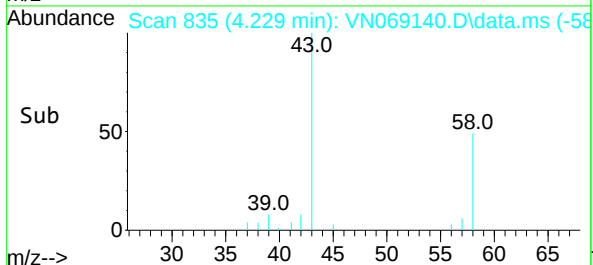
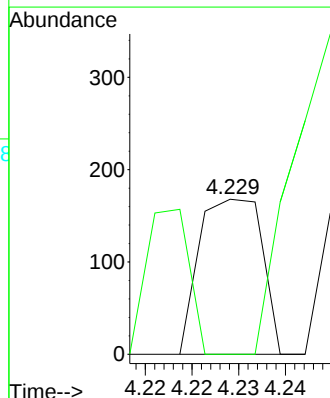
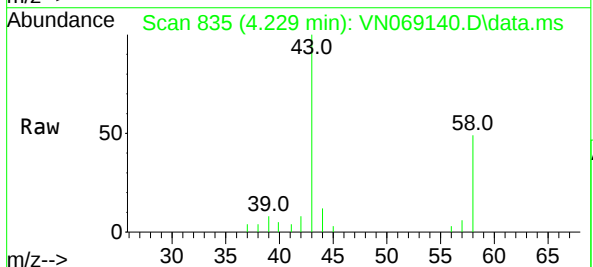
Acq: 22 Oct 2021 17:43

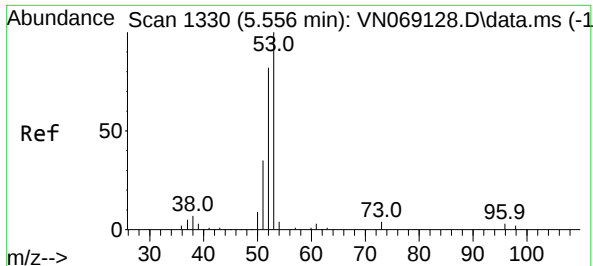
Tgt Ion: 56 Resp: 79

Ion Ratio Lower Upper

56 100

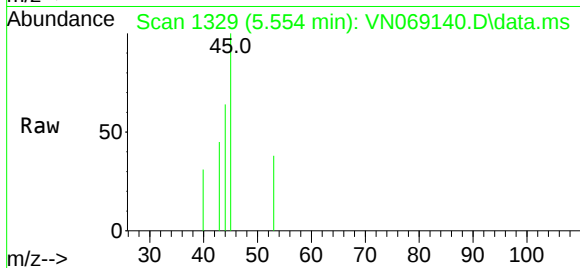
55 63.3 57.6 86.4



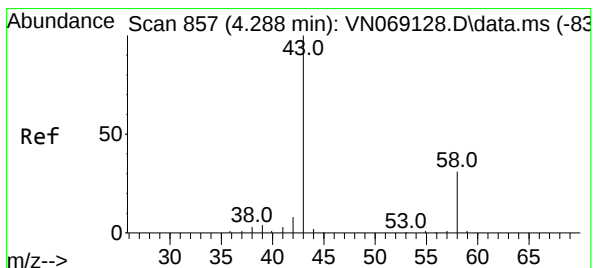
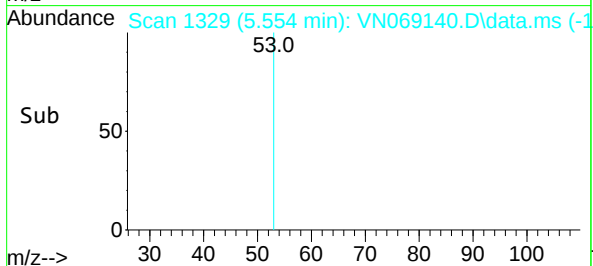
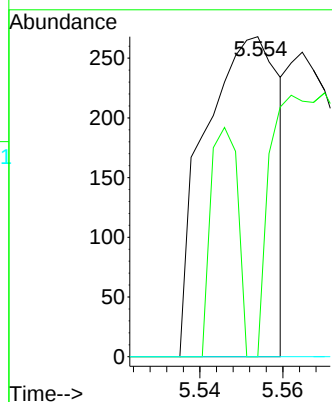


#14
Acrylonitrile
Concen: 0.231 ug/l
RT: 5.554 min Scan# 11
Delta R.T. -0.002 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Instrument :
MSVOA_N
ClientSampleId :

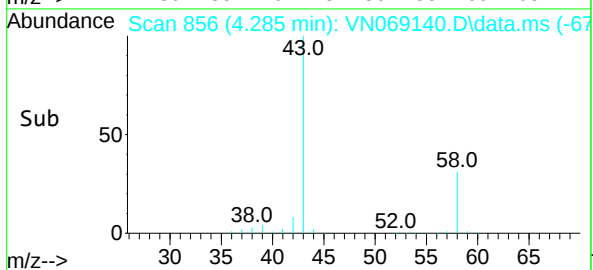
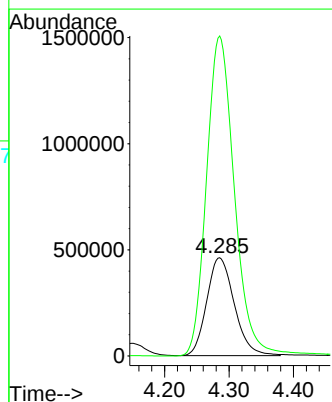
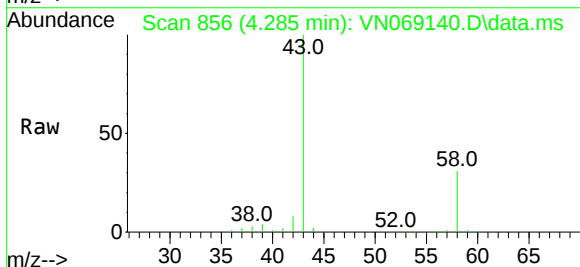


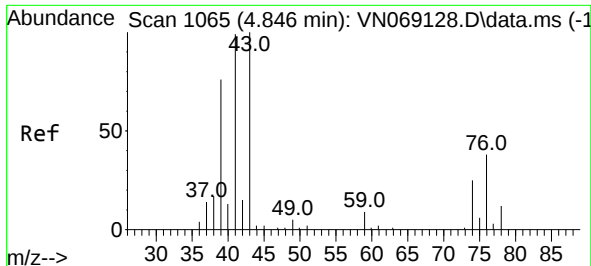
Tgt Ion: 53 Resp: 330
Ion Ratio Lower Upper
53 100
52 50.0 41.8 125.4
51 0.0 19.0 57.0#



#15
Acetone
Concen: 3072.261 ug/l
RT: 4.285 min Scan# 856
Delta R.T. -0.002 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 58 Resp: 1371043
Ion Ratio Lower Upper
58 100
43 326.6 256.6 384.8





#17

Allyl chloride

Concen: 766.701 ug/l

RT: 4.615 min Scan# 91

Delta R.T. -0.230 min

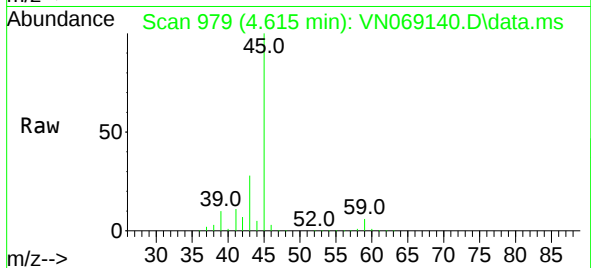
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Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

ClientSampleId :



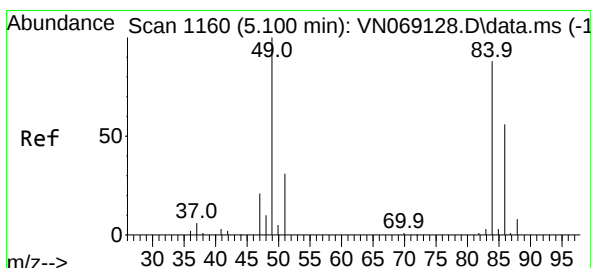
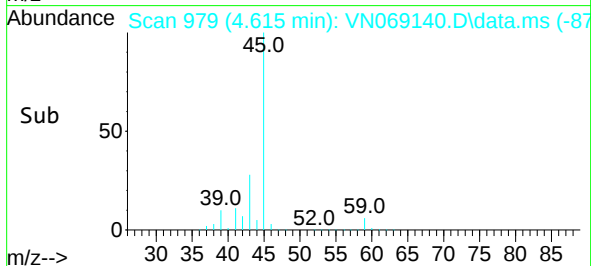
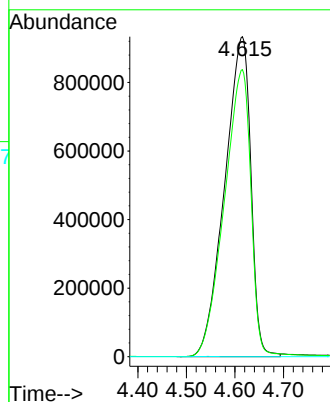
Tgt Ion: 41 Resp: 3487922

Ion Ratio Lower Upper

41 100

39 89.7 44.6 134.0

76 0.0 19.6 58.7#



#18

Methylene Chloride

Concen: 0.524 ug/l

RT: 5.098 min Scan# 1159

Delta R.T. -0.002 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Tgt Ion: 84 Resp: 1644

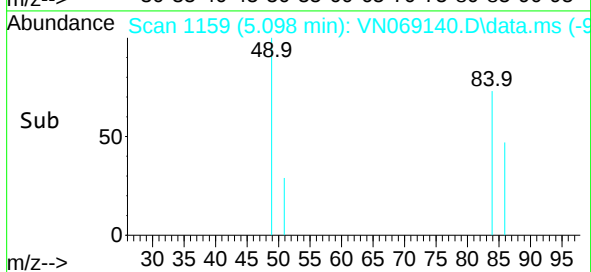
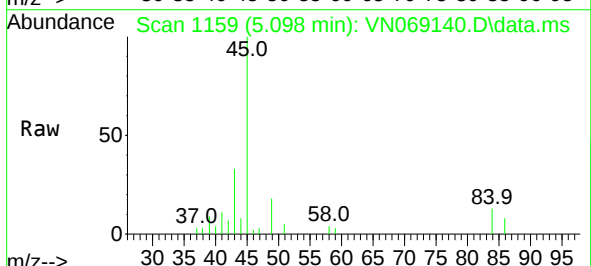
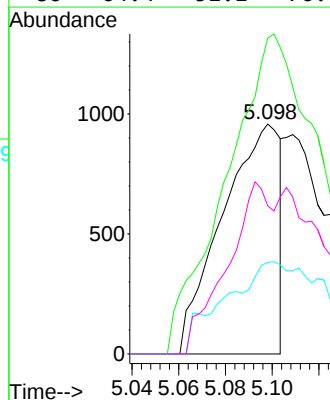
Ion Ratio Lower Upper

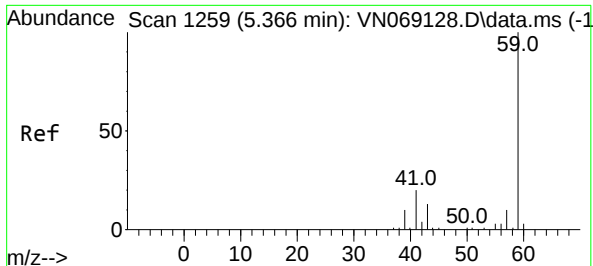
84 100

49 111.0 91.4 137.0

51 39.9 29.4 44.0

86 64.4 51.1 76.7





#23

tert-Butyl Alcohol

Concen: 2.274 ug/l

RT: 5.356 min Scan# 11

Delta R.T. -0.010 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

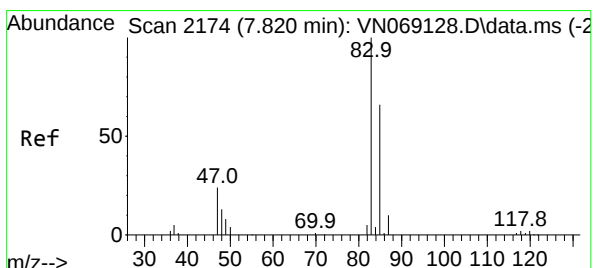
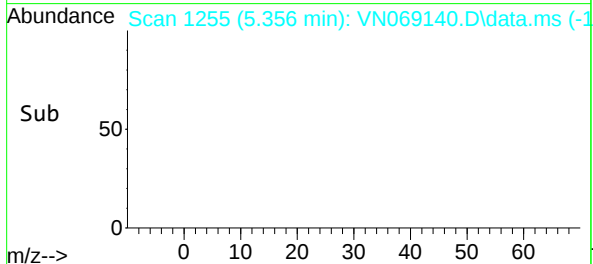
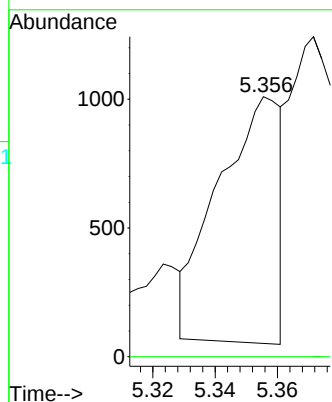
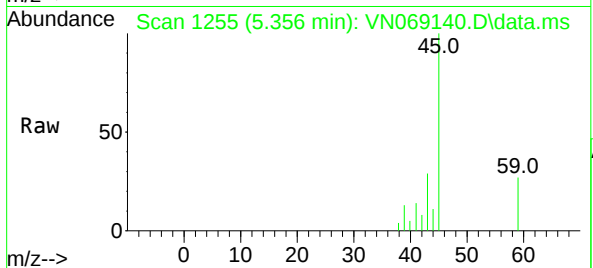
ClientSampleId :

Tgt Ion: 59 Resp: 1332

Ion Ratio Lower Upper

59 100

52 0.0 0.0 0.0



#25

Chloroform

Concen: 0.962 ug/l

RT: 7.820 min Scan# 2174

Delta R.T. 0.000 min

Lab File: VN069140.D

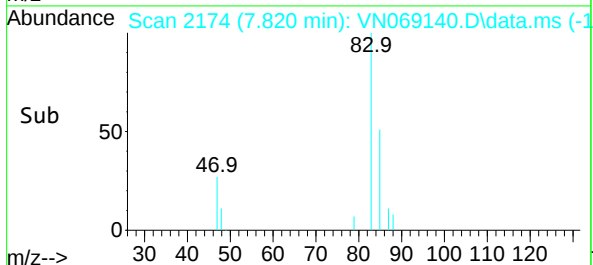
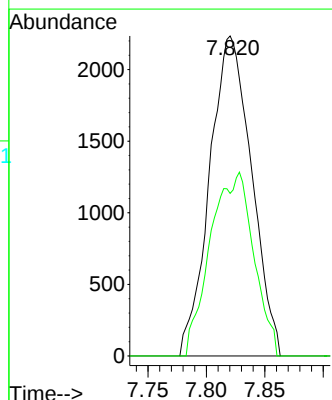
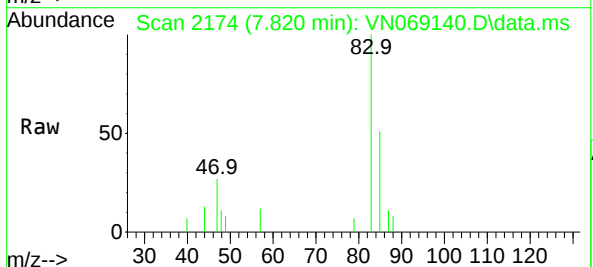
Acq: 22 Oct 2021 17:43

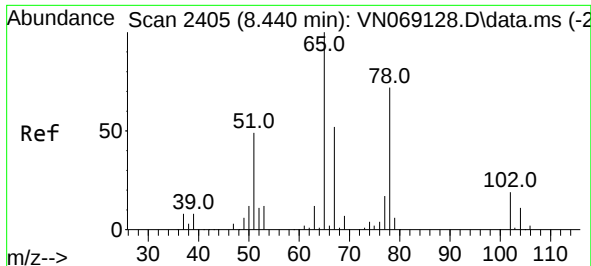
Tgt Ion: 83 Resp: 5574

Ion Ratio Lower Upper

83 100

85 50.8 51.3 76.9#





#27

1,2-Dichloroethane-d4

Concen: 31.569 ug/l

RT: 8.440 min Scan# 24

Delta R.T. 0.000 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

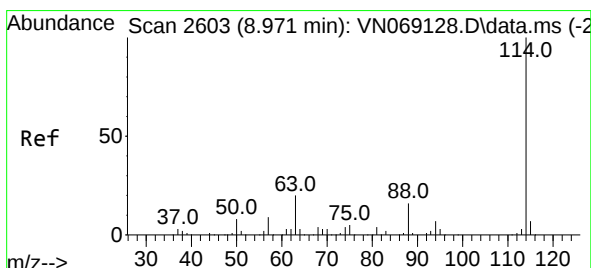
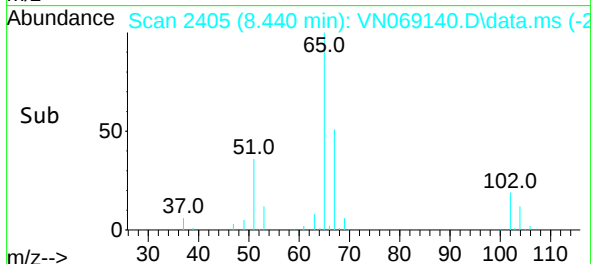
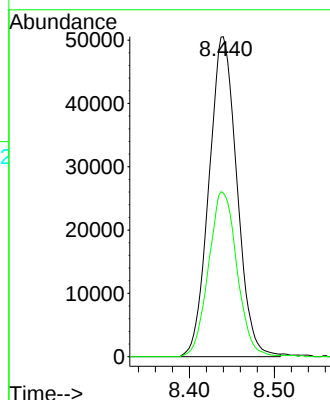
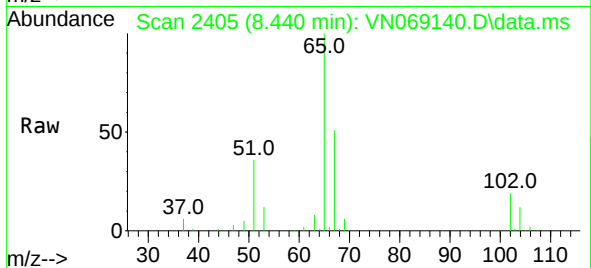
ClientSampleId :

Tgt Ion: 65 Resp: 115497

Ion Ratio Lower Upper

65 100

67 52.5 40.2 60.2



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 8.968 min Scan# 2602

Delta R.T. -0.002 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

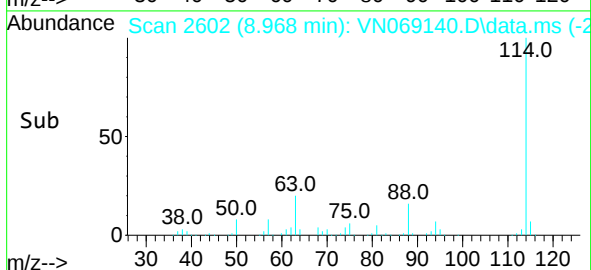
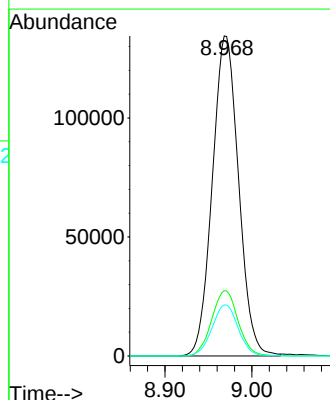
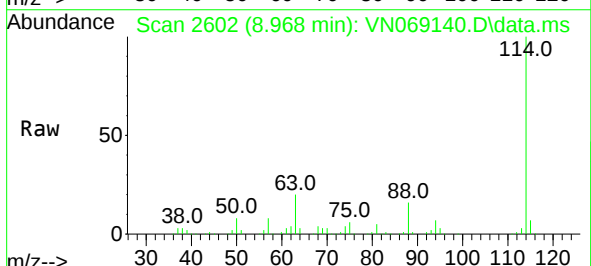
Tgt Ion: 114 Resp: 282092

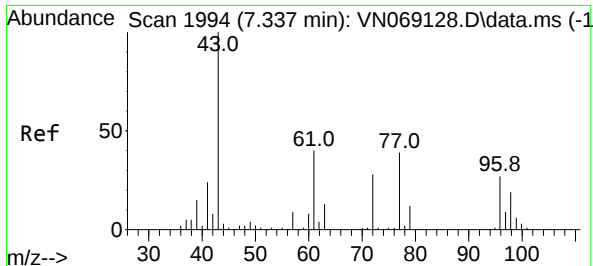
Ion Ratio Lower Upper

114 100

63 20.6 15.8 23.6

88 15.8 11.6 17.4





#30

2-Butanone

Concen: 68.377 ug/l

RT: 7.337 min Scan# 1994

Delta R.T. 0.000 min

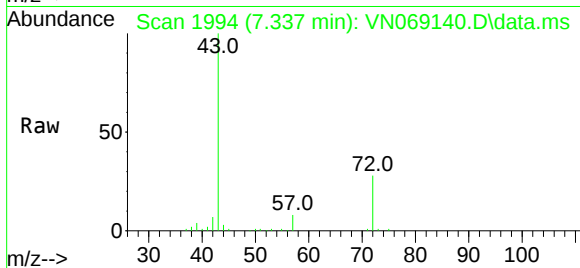
Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

ClientSampleId :



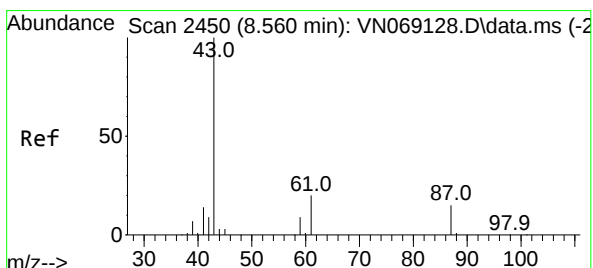
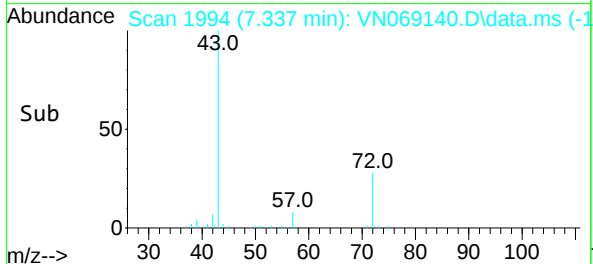
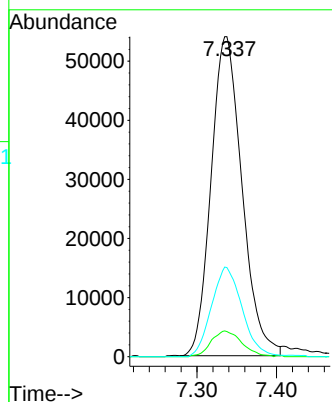
Tgt Ion: 43 Resp: 145755

Ion Ratio Lower Upper

43 100

57 8.1 6.7 10.1

72 27.8 23.2 34.8



#44

Isopropyl Acetate

Concen: 6.343 ug/l

RT: 8.560 min Scan# 2450

Delta R.T. 0.000 min

Lab File: VN069140.D

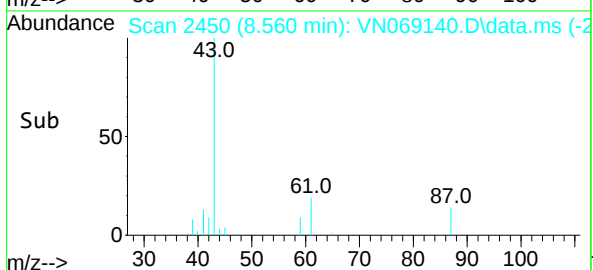
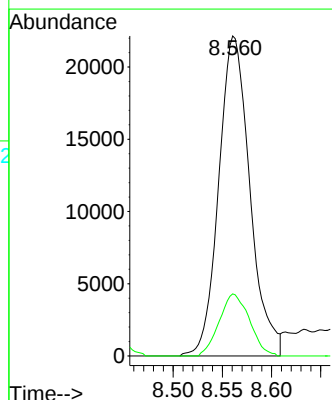
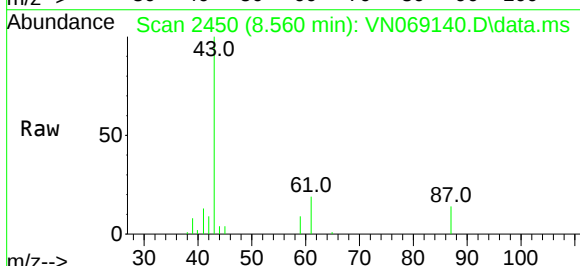
Acq: 22 Oct 2021 17:43

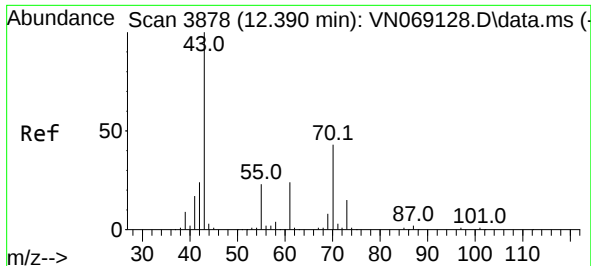
Tgt Ion: 43 Resp: 48834

Ion Ratio Lower Upper

43 100

61 18.8 20.1 30.1#

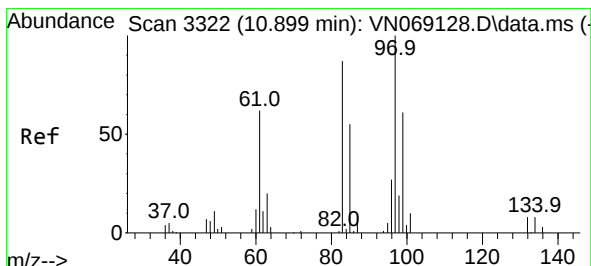
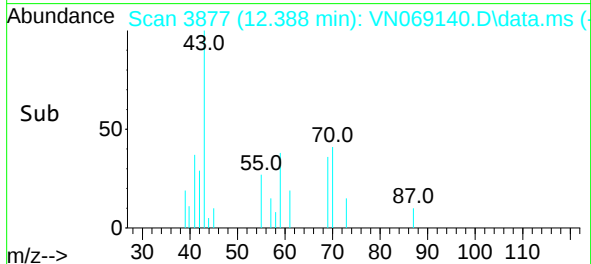
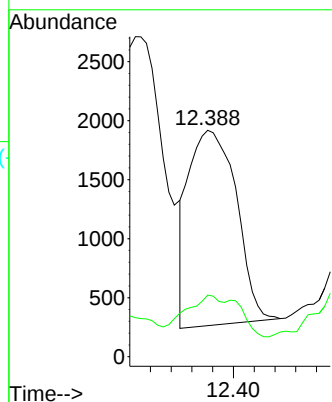
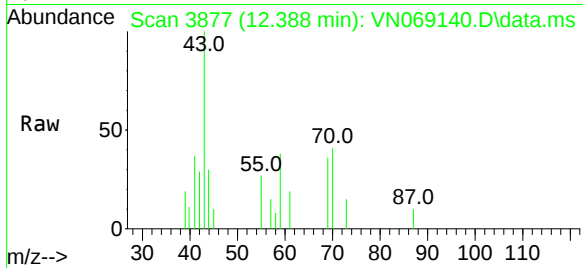




#47
n-amyl acetate
Concen: 0.402 ug/l
RT: 12.388 min Scan# 3155
Delta R.T. -0.002 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

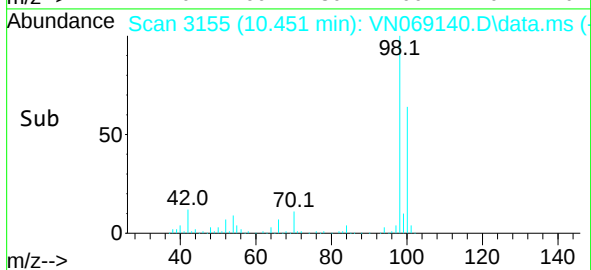
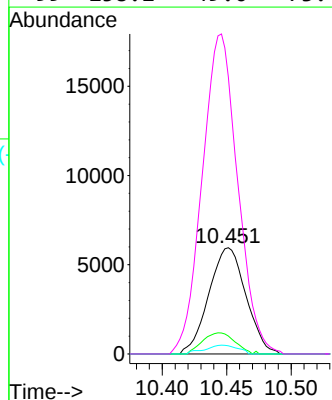
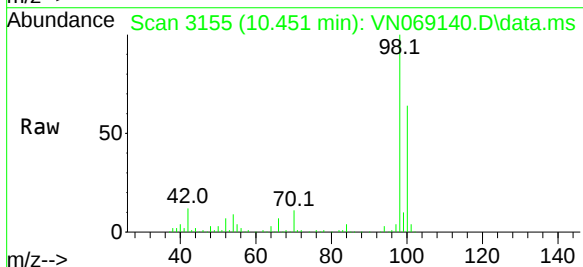
Instrument :
MSVOA_N
ClientSampleId :

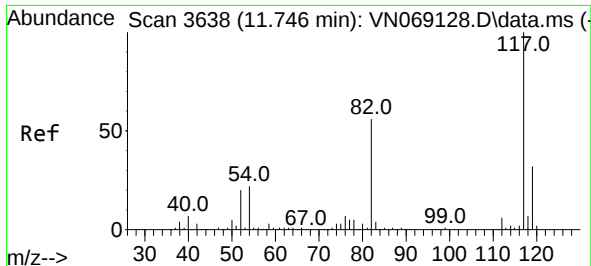
Tgt Ion: 43 Resp: 2626
Ion Ratio Lower Upper
43 100
55 11.5 19.0 28.6#



#50
1,1,2-Trichloroethane
Concen: 3.518 ug/l
RT: 10.451 min Scan# 3155
Delta R.T. -0.448 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 97 Resp: 11933
Ion Ratio Lower Upper
97 100
83 16.9 67.2 100.8#
85 7.7 43.0 64.4#
99 258.2 49.0 73.4#





#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.747 min Scan# 3

Delta R.T. 0.000 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

ClientSampleId :

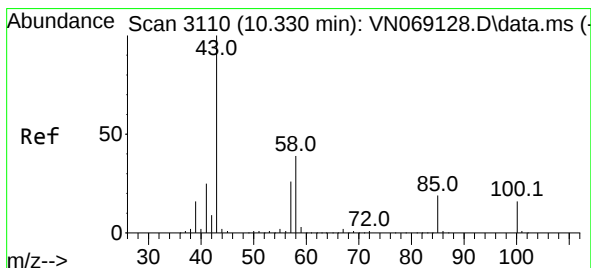
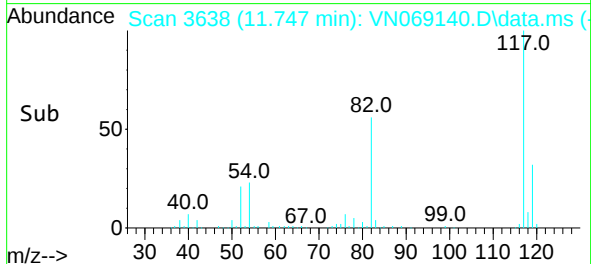
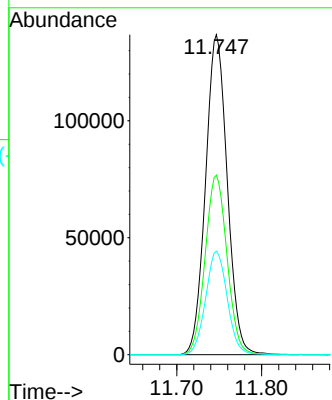
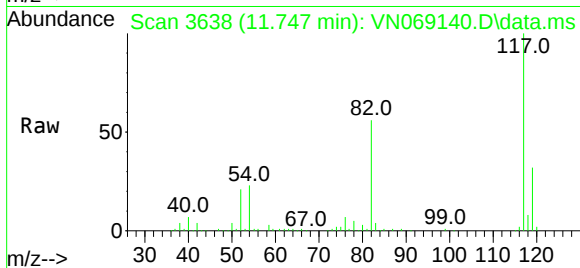
Tgt Ion:117 Resp: 243435

Ion Ratio Lower Upper

117 100

82 56.6 43.6 65.4

119 32.2 25.8 38.6



#58

4-Methyl-2-Pentanone

Concen: 1.172 ug/l

RT: 10.331 min Scan# 3110

Delta R.T. 0.000 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

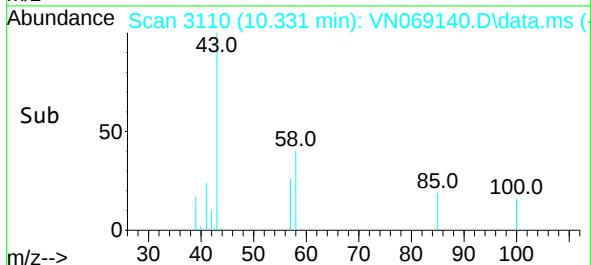
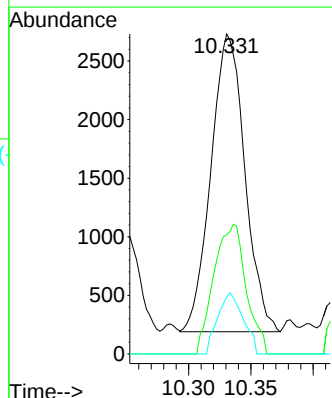
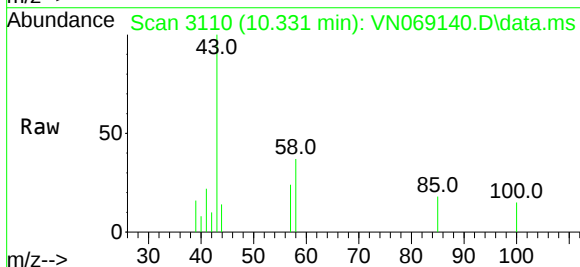
Tgt Ion: 43 Resp: 4812

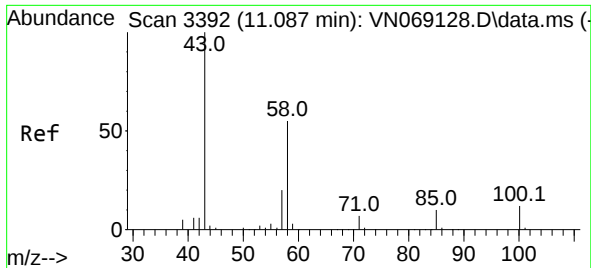
Ion Ratio Lower Upper

43 100

58 41.3 30.0 45.0

85 15.4 15.0 22.6

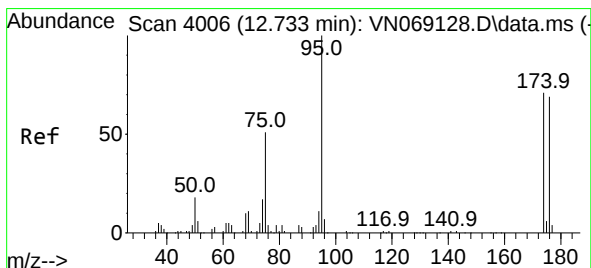
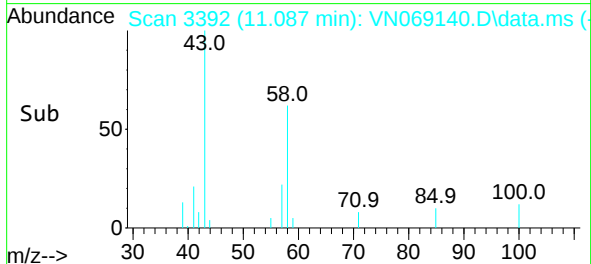
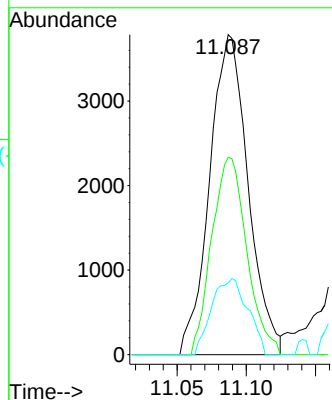
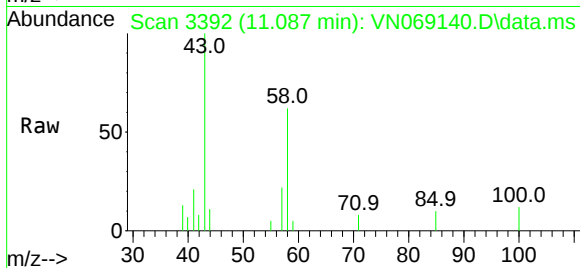




#59
2-Hexanone
Concen: 2.357 ug/l
RT: 11.087 min Scan# 3392
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

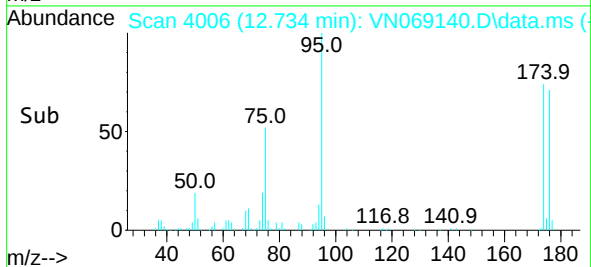
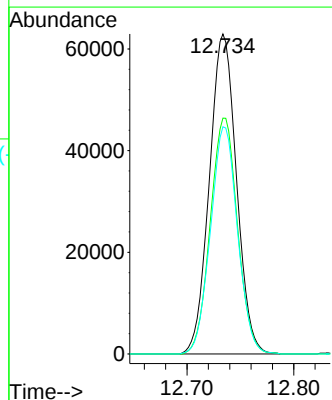
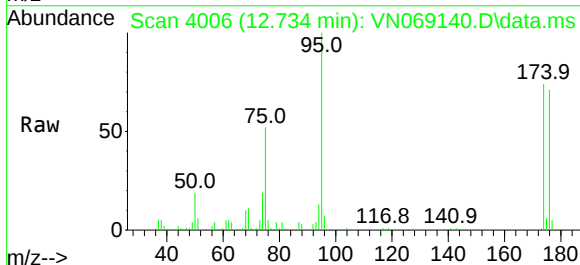
Instrument :
MSVOA_N
ClientSampleId :

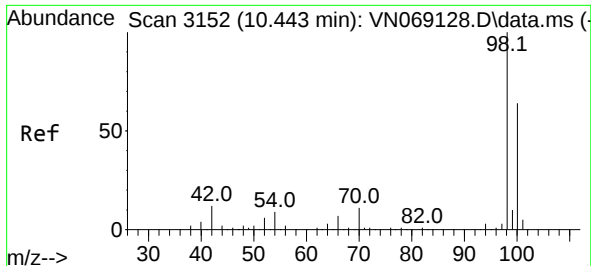
Tgt Ion: 43	Resp: 7310		
Ion Ratio	Lower	Upper	
43	100		
58	56.2	42.2	63.2
57	22.3	15.0	22.4



#60
4-Bromofluorobenzene
Concen: 26.565 ug/l
RT: 12.734 min Scan# 4006
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 95	Resp: 110884
Ion Ratio	Lower Upper
95 100	
174 74.1	62.9 94.3
176 70.9	61.0 91.4

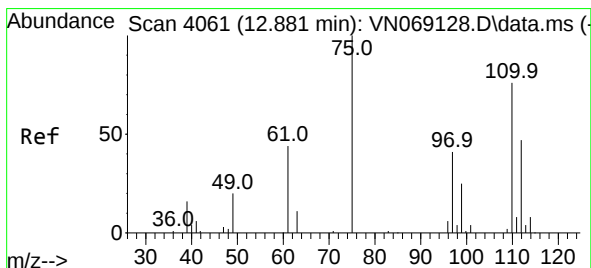
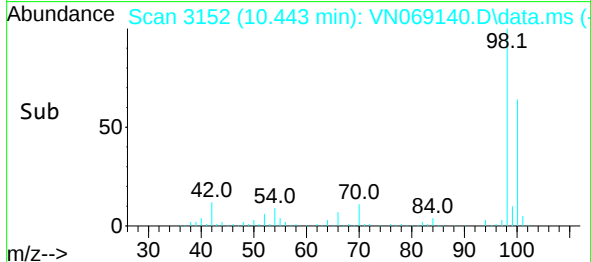
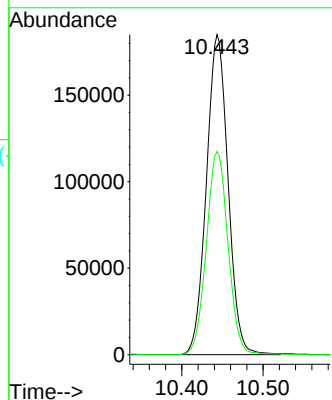
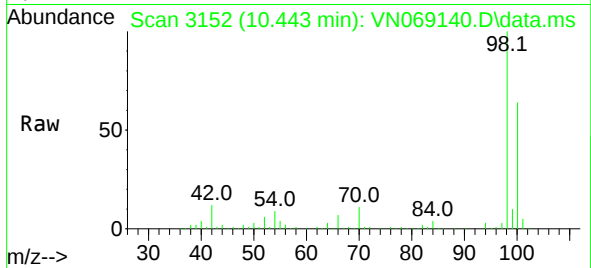




#63
Toluene-d8
Concen: 31.107 ug/l
RT: 10.443 min Scan# 3152
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

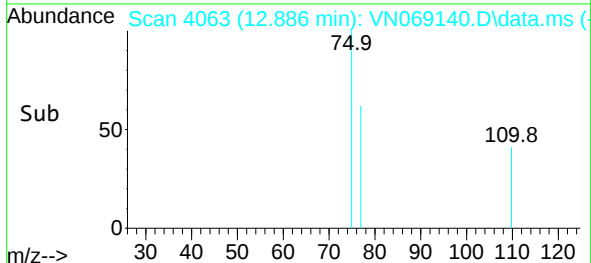
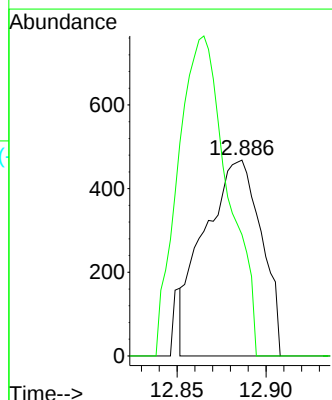
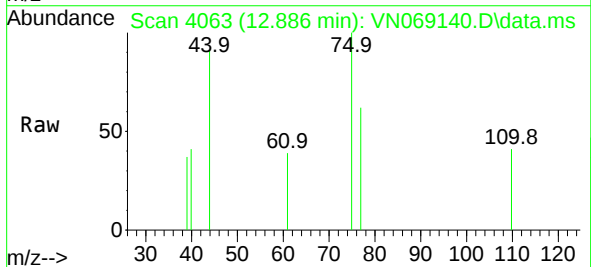
Instrument :
MSVOA_N
ClientSampleId :

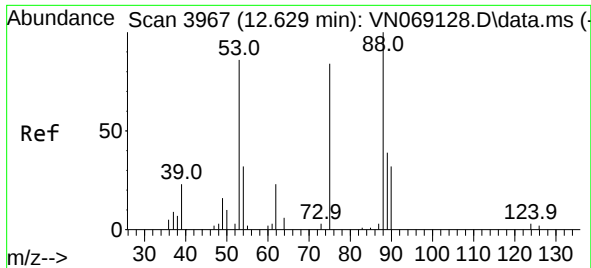
Tgt Ion: 98 Resp: 342128
Ion Ratio Lower Upper
98 100
100 63.6 50.6 76.0



#72
1,2,3-Trichloropropane
Concen: 0.264 ug/l
RT: 12.886 min Scan# 4063
Delta R.T. 0.006 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

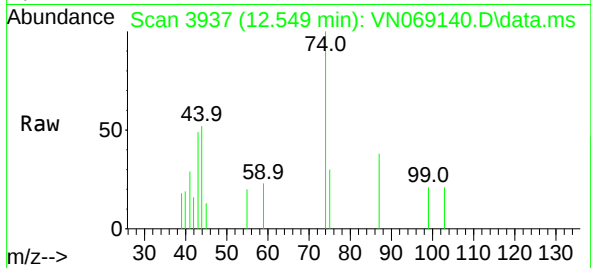
Tgt Ion: 75 Resp: 1045
Ion Ratio Lower Upper
75 100
77 142.0 0.0 378.0



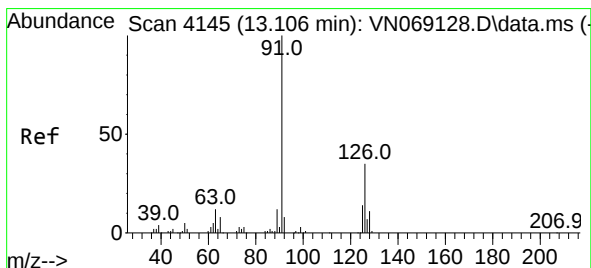
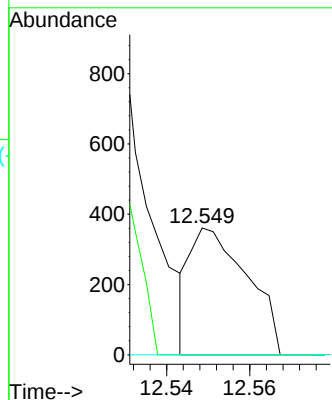
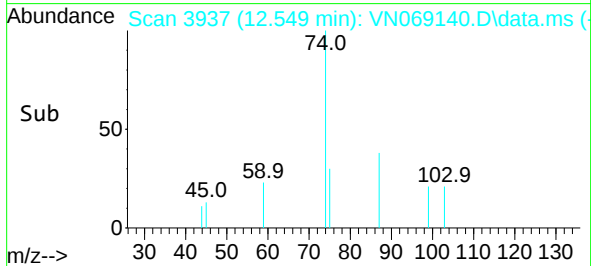


#77
t-1,4-Dichloro-2-butene
Concen: 0.223 ug/l
RT: 12.549 min Scan# 3967
Delta R.T. -0.080 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Instrument :
MSVOA_N
ClientSampleId :

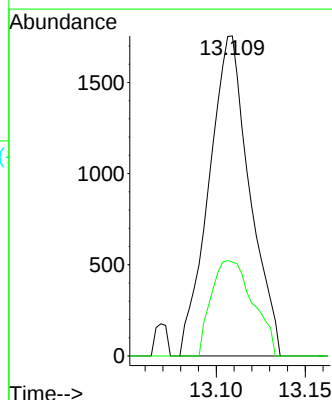
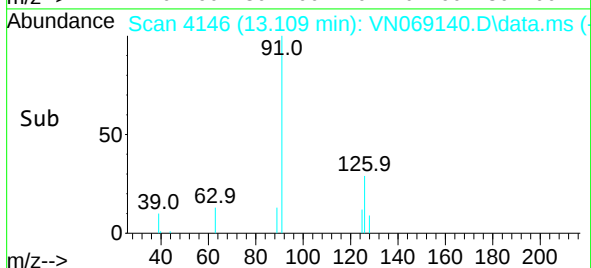
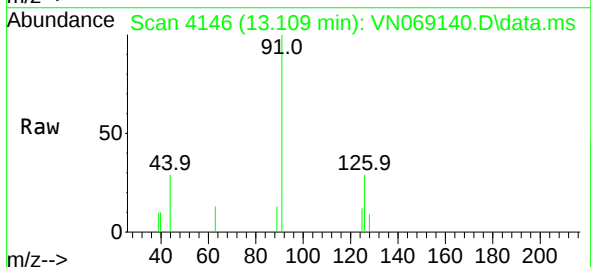


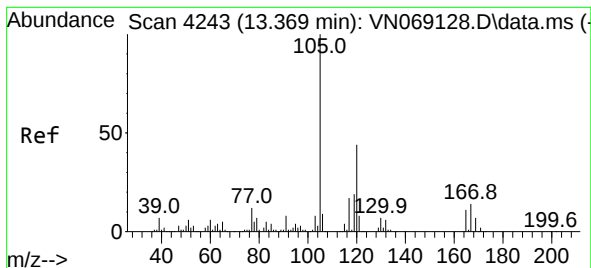
Tgt Ion: 75 Resp: 346
Ion Ratio Lower Upper
75 100
53 0.0 51.8 155.5#
89 0.0 22.9 68.7#



#78
4-Chlorotoluene
Concen: 0.258 ug/l
RT: 13.109 min Scan# 4146
Delta R.T. 0.003 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 91 Resp: 2794
Ion Ratio Lower Upper
91 100
126 30.5 0.0 70.6





#80

1,2,4-Trimethylbenzene

Concen: 0.255 ug/l

RT: 13.375 min Scan# 41

Delta R.T. 0.006 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

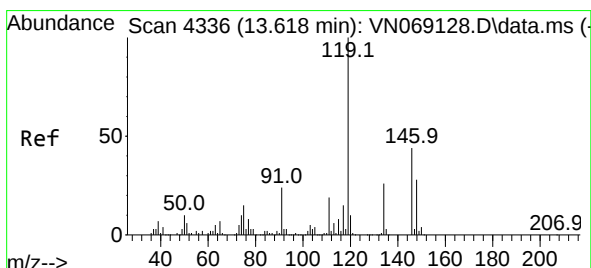
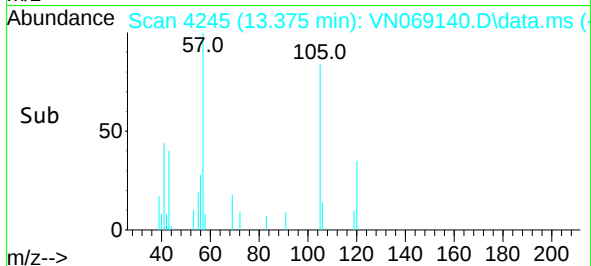
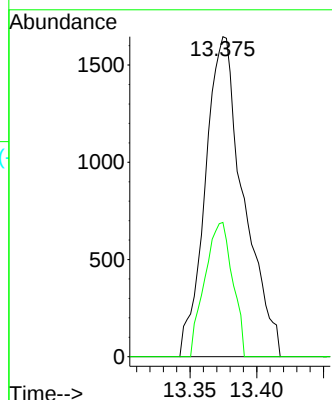
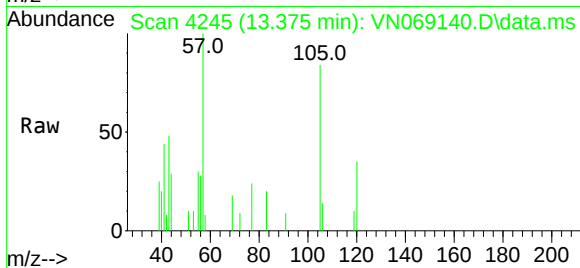
ClientSampleId :

Tgt Ion:105 Resp: 3288

Ion Ratio Lower Upper

105 100

120 30.3 0.0 0.2#



#82

p-Isopropyltoluene

Concen: 0.216 ug/l

RT: 13.619 min Scan# 4336

Delta R.T. 0.000 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

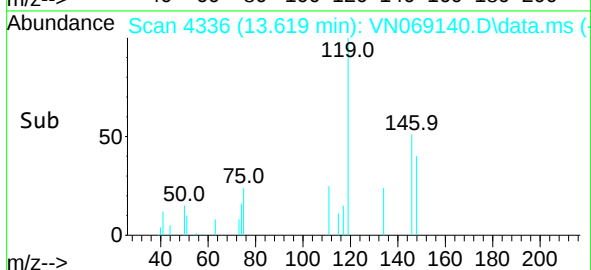
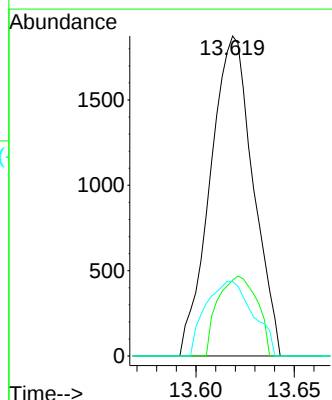
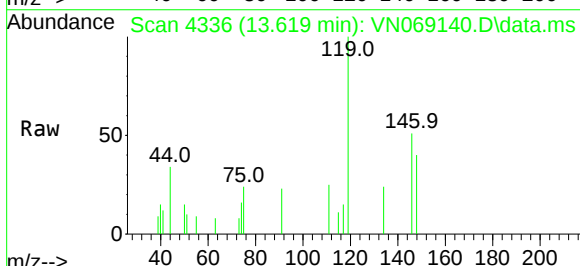
Tgt Ion:119 Resp: 2835

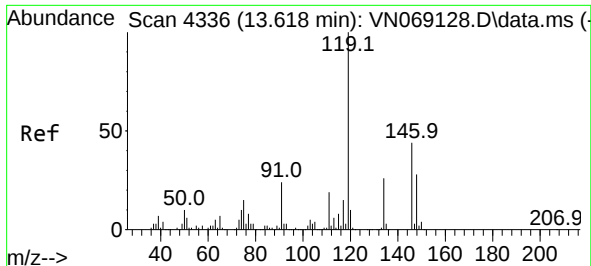
Ion Ratio Lower Upper

119 100

134 22.7 0.0 51.8

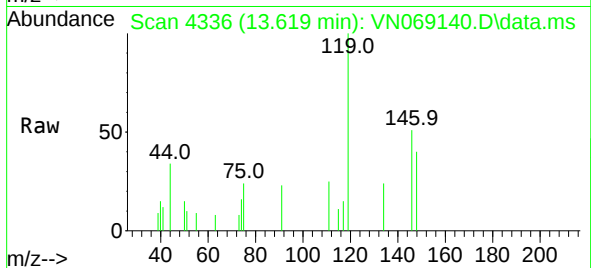
91 25.7 0.0 50.4



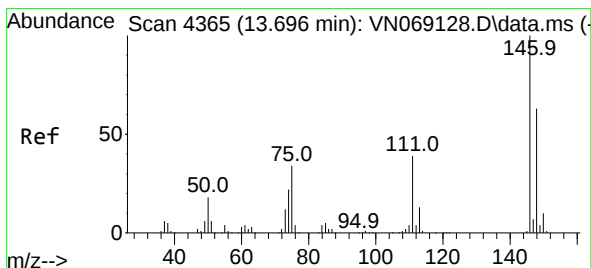
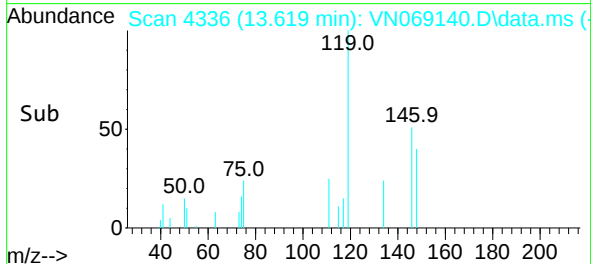
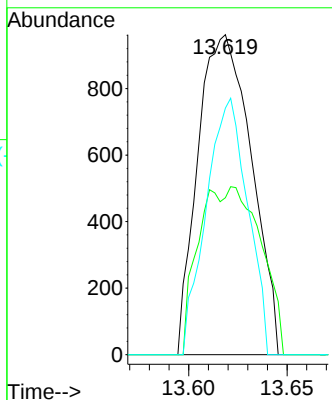


#83
1,3-Dichlorobenzene
Concen: 0.289 ug/l
RT: 13.619 min Scan# 4336
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Instrument :
MSVOA_N
ClientSampleId :

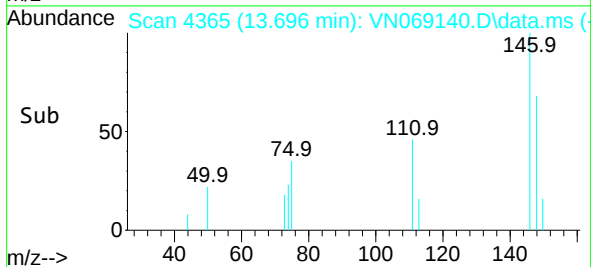
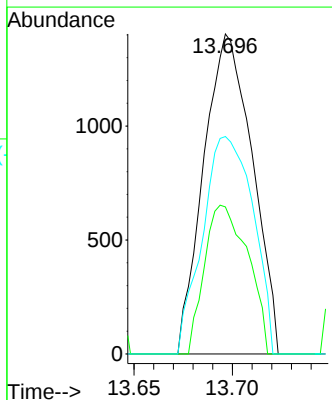
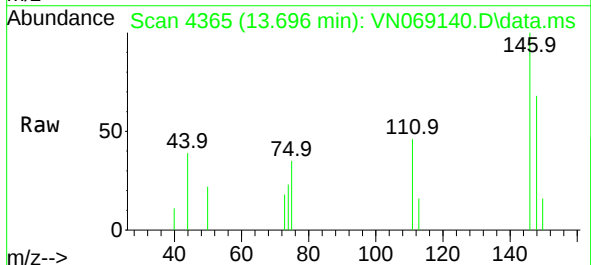


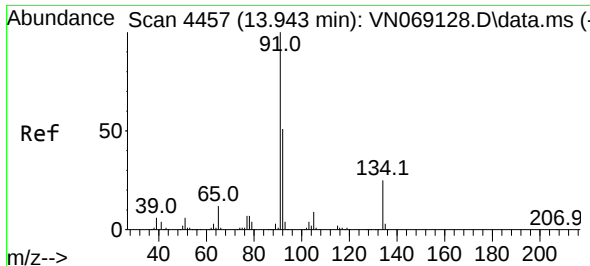
Tgt Ion:146 Resp: 1818
Ion Ratio Lower Upper
146 100
111 24.2 20.8 62.2
148 62.1 31.4 94.3



#84
1,4-Dichlorobenzene
Concen: 0.395 ug/l
RT: 13.696 min Scan# 4365
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion:146 Resp: 2414
Ion Ratio Lower Upper
146 100
111 41.4 19.5 58.5
148 70.6 31.1 93.5

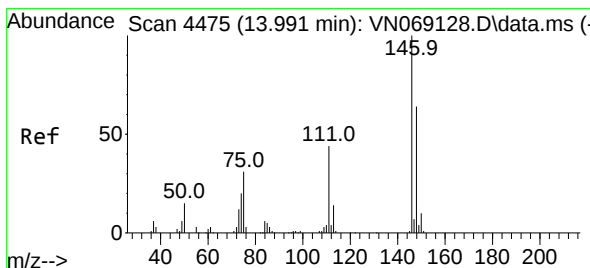
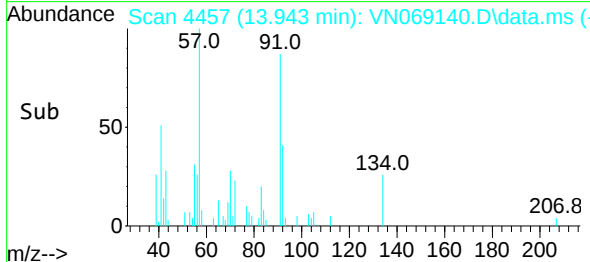
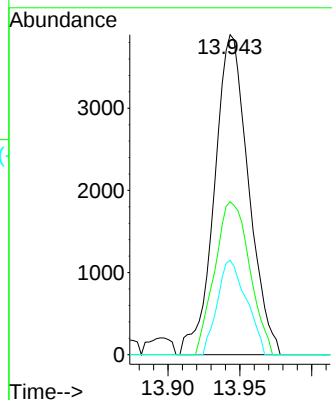
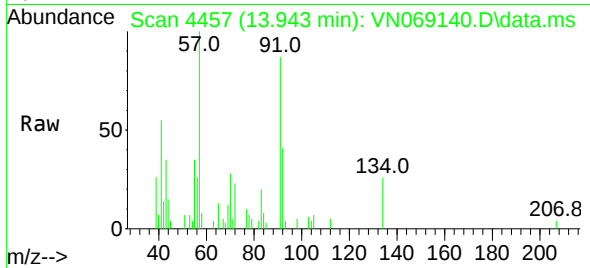




#85
n-Butylbenzene
Concen: 0.583 ug/l
RT: 13.943 min Scan# 4457
Delta R.T. 0.000 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

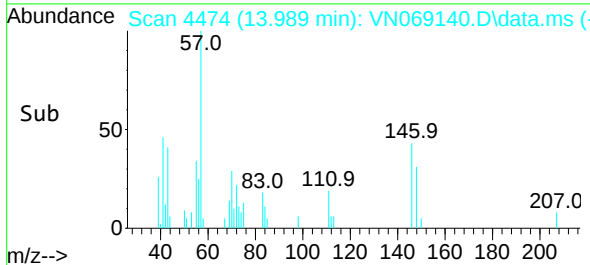
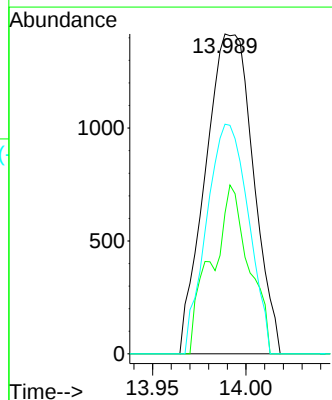
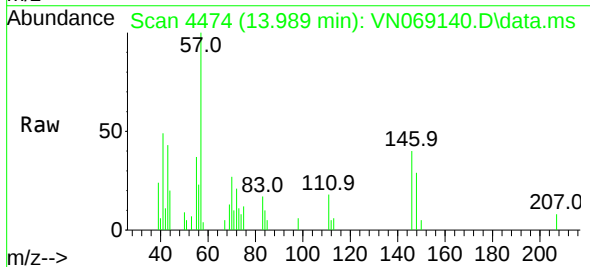
Instrument :
MSVOA_N
ClientSampleId :

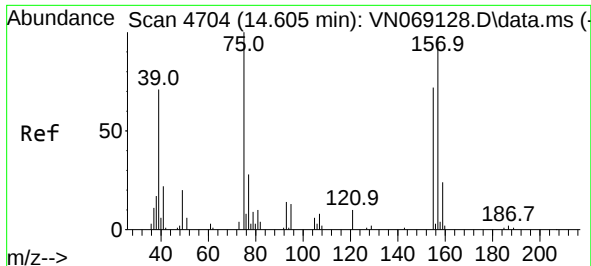
Tgt Ion: 91 Resp: 6408
Ion Ratio Lower Upper
91 100
92 48.9 0.0 100.6
134 25.0 0.0 50.2



#87
1,2-Dichlorobenzene
Concen: 0.421 ug/l
RT: 13.989 min Scan# 4474
Delta R.T. -0.002 min
Lab File: VN069140.D
Acq: 22 Oct 2021 17:43

Tgt Ion: 146 Resp: 2529
Ion Ratio Lower Upper
146 100
111 30.0 21.4 64.2
148 62.6 32.5 97.4





#88

1,2-Dibromo-3-Chloropropane

Concen: 0.505 ug/l

RT: 14.606 min Scan# 41

Delta R.T. 0.000 min

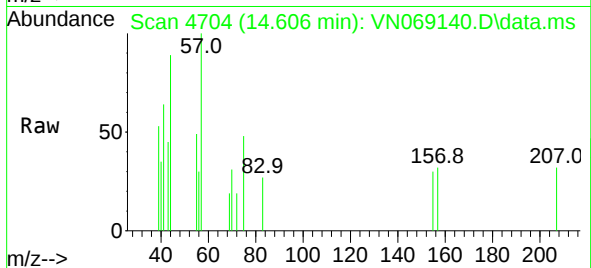
Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

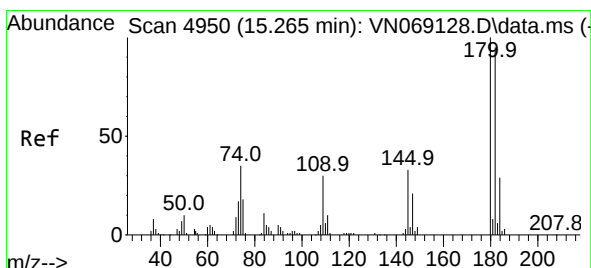
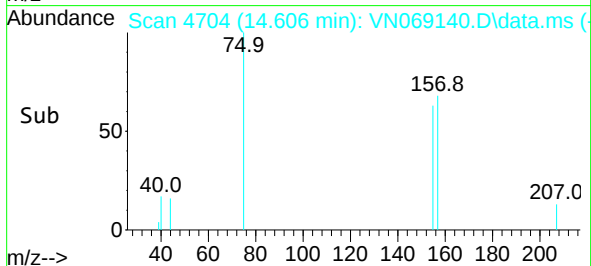
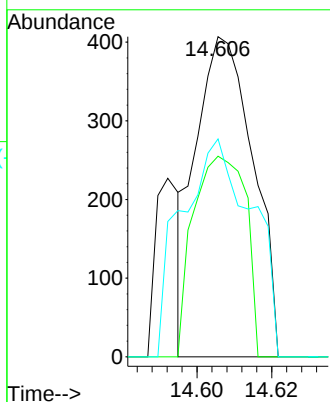
Instrument :

MSVOA_N

ClientSampleId :



Tgt Ion:	75	Resp:	434
Ion	Ratio	Lower	Upper
75	100		
155	57.1	63.8	95.8#
157	22.8	77.9	116.9#



#89

1,2,4-Trichlorobenzene

Concen: 2.046 ug/l

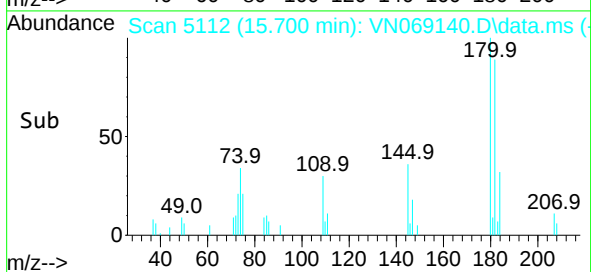
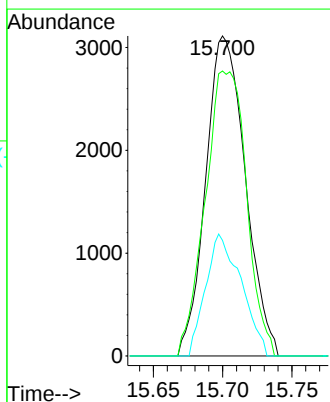
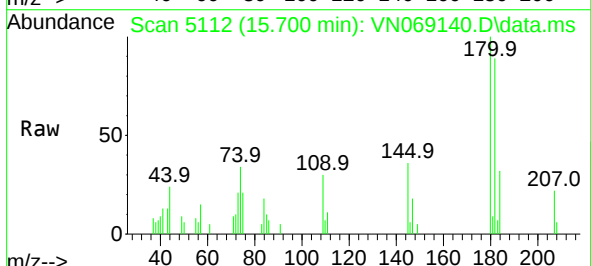
RT: 15.700 min Scan# 5112

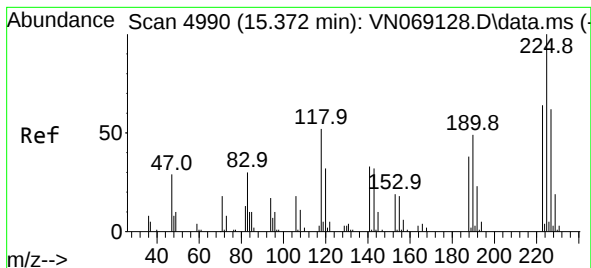
Delta R.T. 0.435 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Tgt Ion:	180	Resp:	6189
Ion	Ratio	Lower	Upper
180	100		
182	92.7	77.7	116.5
145	34.2	26.6	39.8





#90

Hexachlorobutadiene

Concen: 0.334 ug/l

RT: 15.373 min Scan# 4990

Delta R.T. 0.000 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

Instrument :

MSVOA_N

ClientSampleId :

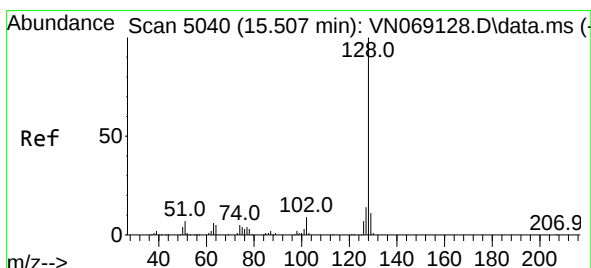
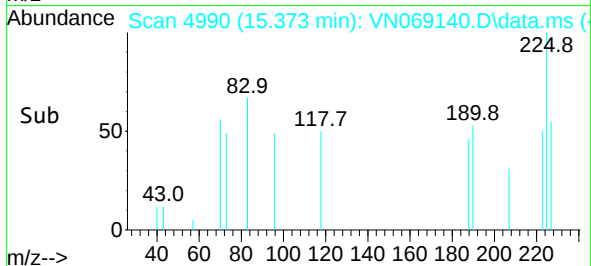
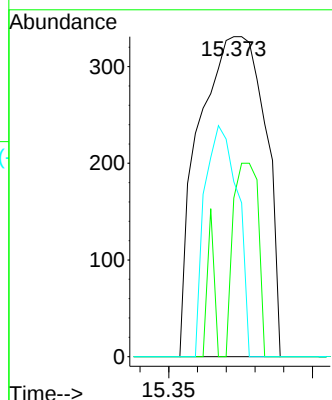
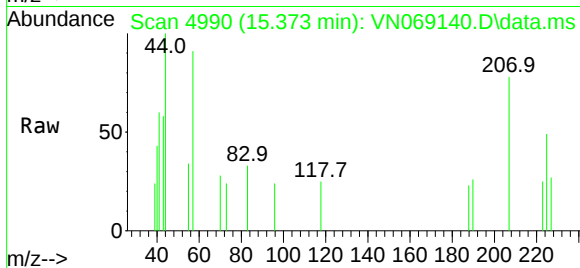
Tgt Ion:225 Resp: 528

Ion Ratio Lower Upper

225 100

223 22.7 0.0 126.8

227 35.8 0.0 123.0



#91

Naphthalene

Concen: 3.264 ug/l

RT: 15.507 min Scan# 5040

Delta R.T. 0.000 min

Lab File: VN069140.D

Acq: 22 Oct 2021 17:43

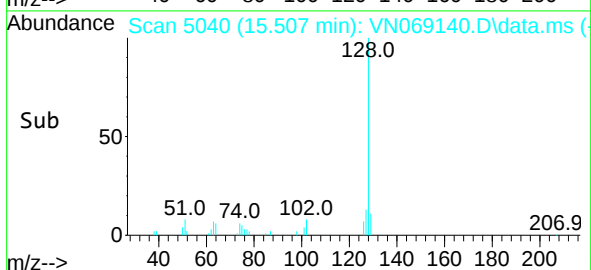
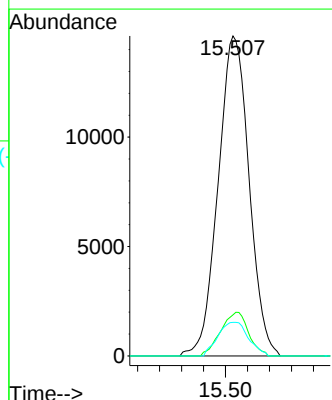
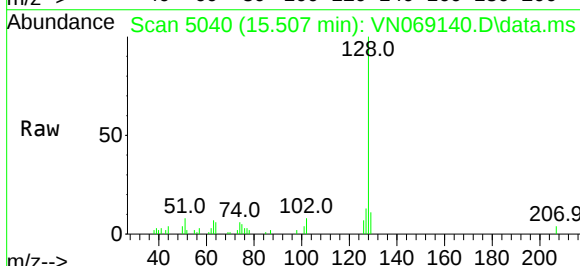
Tgt Ion:128 Resp: 28567

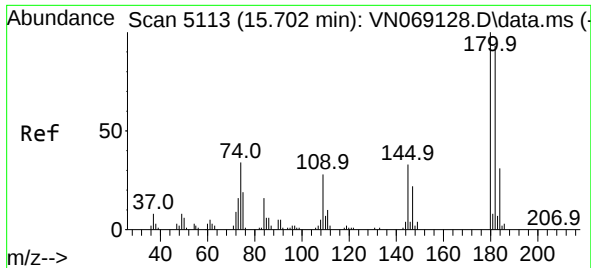
Ion Ratio Lower Upper

128 100

127 12.3 10.7 16.1

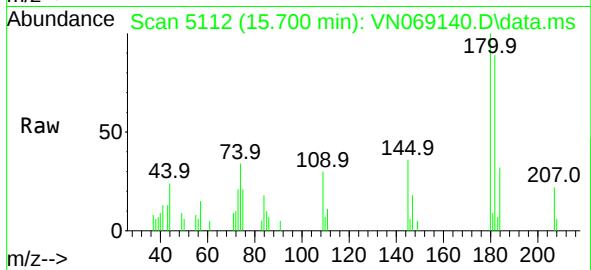
129 10.4 9.0 13.6





#92
 1,2,3-Trichlorobenzene
 Concen: 2.141 ug/l
 RT: 15.700 min Scan# 51
 Delta R.T. -0.002 min
 Lab File: VN069140.D
 Acq: 22 Oct 2021 17:43

Instrument :
 MSVOA_N
 ClientSampleId :



Tgt Ion	Ratio	Lower	Upper
180	100		
182	92.7	0.0	190.0
145	34.2	0.0	67.8

