

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN110723\
 Data File : VN079974.D
 Acq On : 07 Nov 2023 18:58
 Operator : JC\MD
 Sample : 05107-30 20X
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

Quant Time: Nov 08 04:33:45 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N110123W.M
 Quant Title : SW846 8260
 QLast Update : Thu Nov 02 05:49:08 2023
 Response via : Initial Calibration

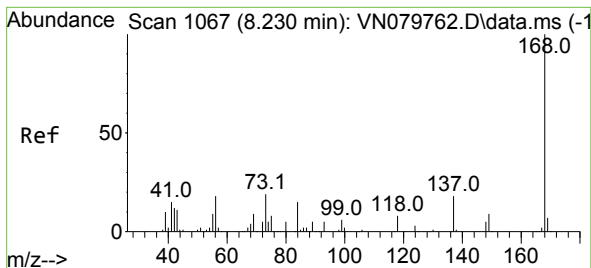
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	8.230	168	282127	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.106	114	585034	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.871	117	614579	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	251702	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.583	65	246044	57.242	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 114.480%			
35) Dibromofluoromethane	8.171	113	203324	49.105	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 98.200%			
50) Toluene-d8	10.571	98	741152	48.622	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 97.240%			
62) 4-Bromofluorobenzene	12.853	95	270382	53.484	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 106.960%			
Target Compounds						Qvalue
3) Chloromethane	2.360	50	1133	Below Cal		91
11) Tert butyl alcohol	5.518	59	294	0.536 ug/l #		72
16) Acetone	4.448	43	10270	6.802 ug/l #		81
18) Methyl Acetate	5.048	43	3509	0.486 ug/l #		52
20) Methylene Chloride	5.289	84	2453	0.644 ug/l #		59
25) 2-Butanone	7.500	43	1825	0.825 ug/l #		64
26) 2,2-Dichloropropane	7.436	77	1172	0.216 ug/l #		53
31) Cyclohexane	8.224	56	8807	1.551 ug/l #		54
36) 1,1-Dichloropropene	8.230	75	26794	4.532 ug/l #		46
38) Carbon Tetrachloride	8.224	117	29968	5.030 ug/l #		17
40) Benzene	8.612	78	475791	26.869 ug/l		96
42) 1,2-Dichloroethane	8.606	62	4490	0.726 ug/l		77
43) Isopropyl Acetate	8.706	43	14351	1.509 ug/l #		74
51) 4-Methyl-2-Pentanone	10.447	43	2277	0.425 ug/l #		67
52) Toluene	10.635	92	170906	16.280 ug/l		100
53) t-1,3-Dichloropropene	10.641	75	2339	0.362 ug/l #		1
54) cis-1,3-Dichloropropene	10.365	75	2843	0.404 ug/l #		59
55) 1,1,2-Trichloroethane	10.888	97	1300	0.308 ug/l #		16
59) 2-Hexanone	11.171	43	7261	1.773 ug/l #		19
67) Ethyl Benzene	11.971	91	18282	0.787 ug/l		99
68) m/p-Xylenes	12.071	106	27851	3.219 ug/l		90
69) o-Xylene	12.400	106	19140	2.297 ug/l		95
70) Styrene	12.412	104	4990	0.373 ug/l #		42
71) Bromoform	12.853	173	1972	0.578 ug/l #		1
76) 1,2,3-Trichloropropane	12.853	75	146107	24.725 ug/l #		1
80) 1,3,5-Trimethylbenzene	13.176	105	4754	0.320 ug/l		92
81) trans-1,4-Dichloro-2-b...	12.853	75	146107	67.272 ug/l #		15
84) 1,2,4-Trimethylbenzene	13.488	105	14078	0.963 ug/l		84
85) sec-Butylbenzene	13.488	105	14078	0.835 ug/l #		57
95) Naphthalene	15.647	128	203607	15.374 ug/l		99

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

Quant Time: Nov 08 04:33:45 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N110123W.M
Quant Title : SW846 8260
QLast Update : Thu Nov 02 05:49:08 2023
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 8.230 min Scan# 10

Delta R.T. 0.001 min

Lab File: VN079974.D

Acq: 07 Nov 2023 18:58

Instrument :

MSVOA_N

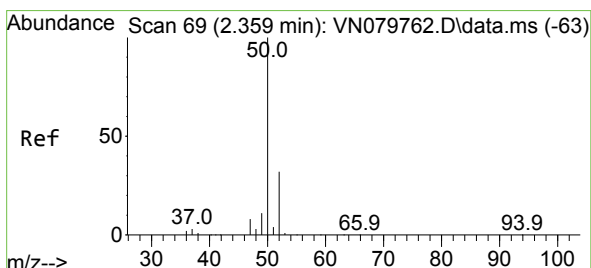
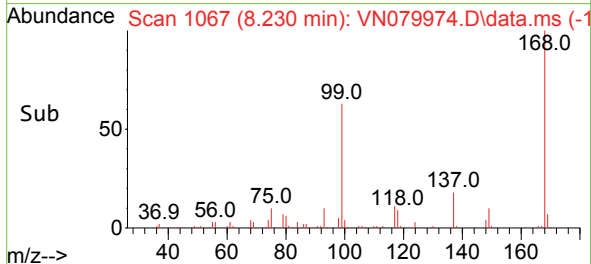
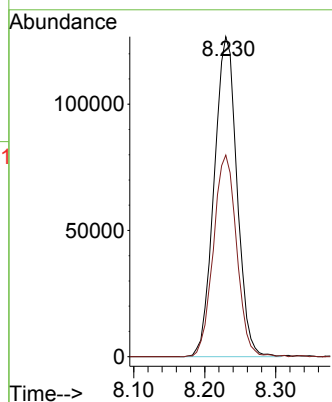
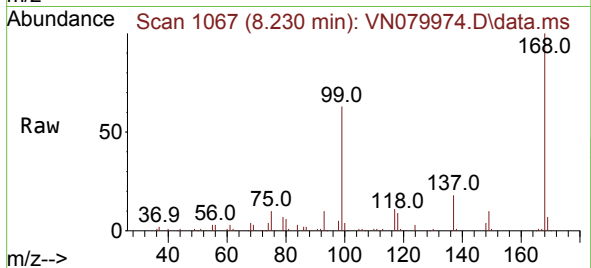
ClientSampleId :

Tgt Ion:168 Resp: 282127

Ion Ratio Lower Upper

168 100

99 63.0 53.0 79.6



#3

Chloromethane

Concen: Below Cal

RT: 2.360 min Scan# 69

Delta R.T. 0.001 min

Lab File: VN079974.D

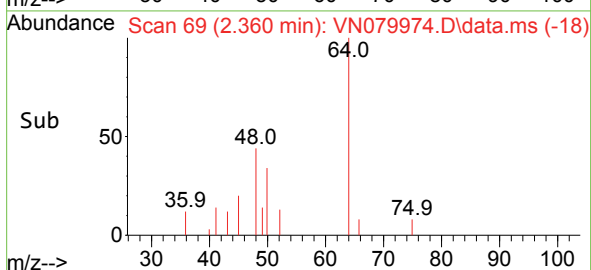
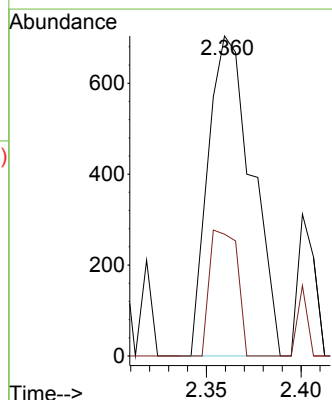
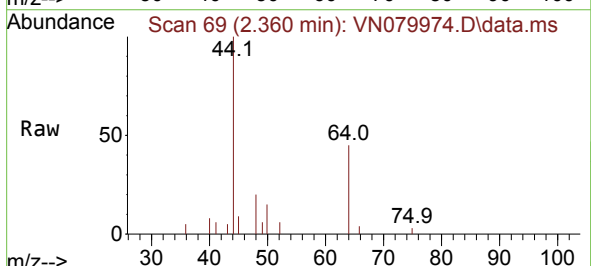
Acq: 07 Nov 2023 18:58

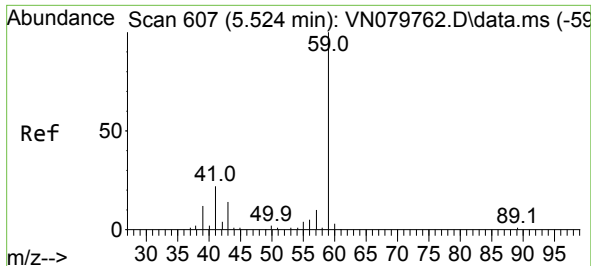
Tgt Ion: 50 Resp: 1133

Ion Ratio Lower Upper

50 100

52 38.1 26.5 39.7

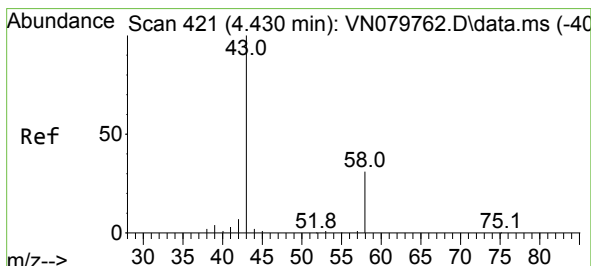
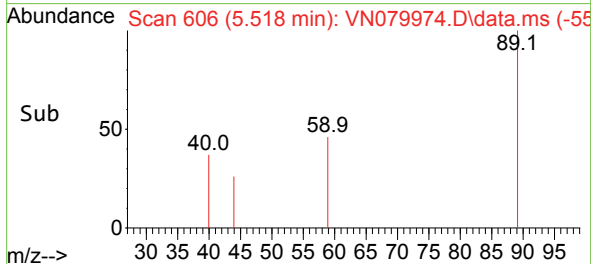
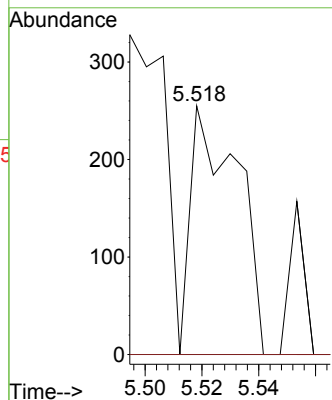
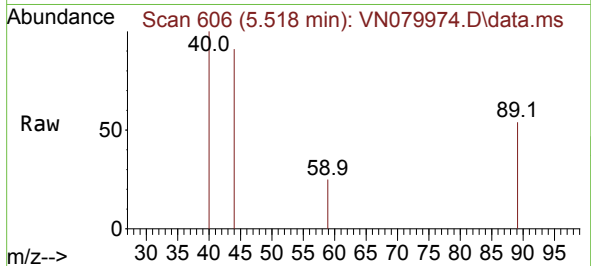




#11
Tert butyl alcohol
Concen: 0.536 ug/l
RT: 5.518 min Scan# 607
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

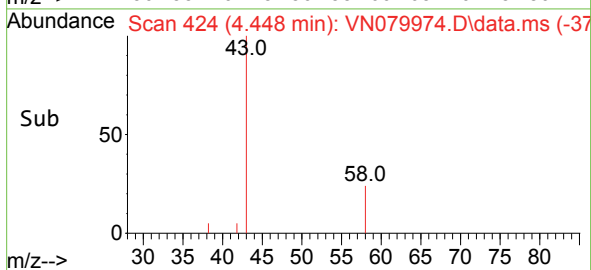
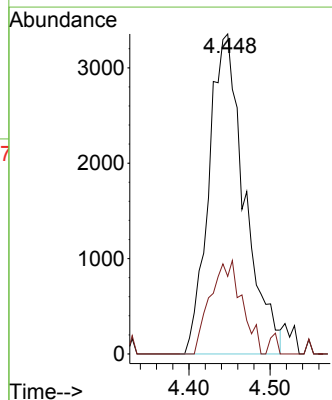
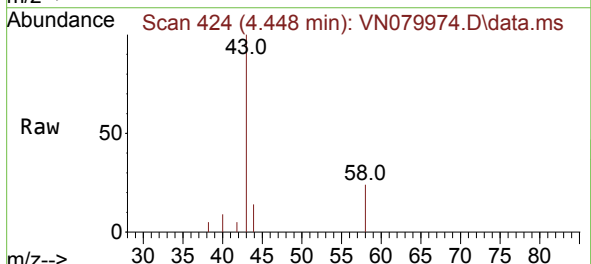
Instrument :
MSVOA_N
ClientSampleId :

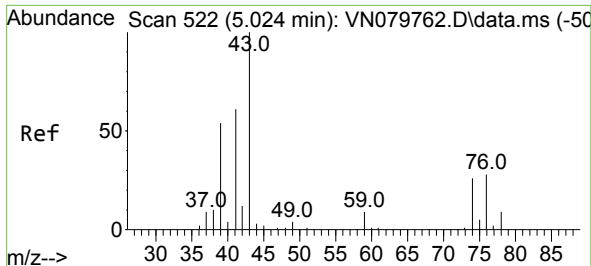
Tgt Ion: 59 Resp: 294
Ion Ratio Lower Upper
59 100
57 0.0 8.2 12.4#



#16
Acetone
Concen: 6.802 ug/l
RT: 4.448 min Scan# 424
Delta R.T. 0.018 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

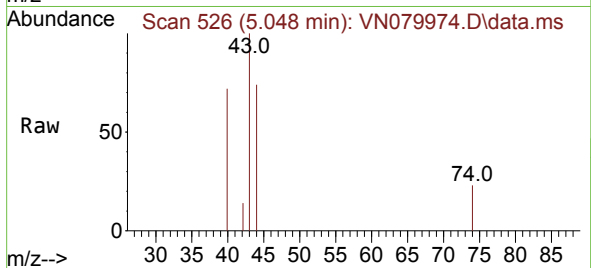
Tgt Ion: 43 Resp: 10270
Ion Ratio Lower Upper
43 100
58 24.2 28.0 42.0#



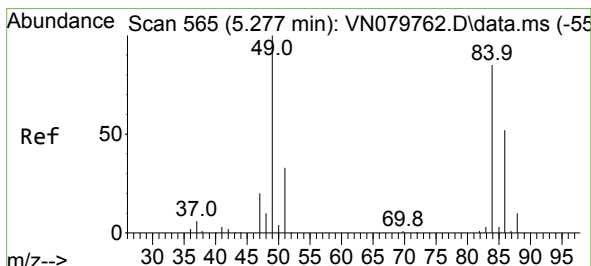
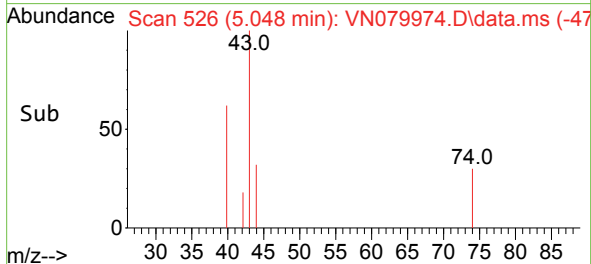
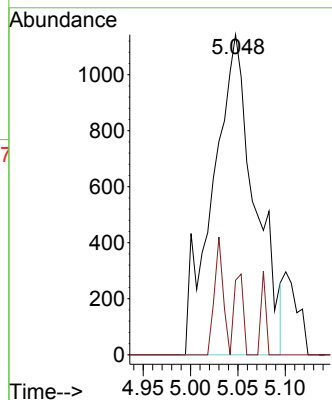


#18
Methyl Acetate
Concen: 0.486 ug/l
RT: 5.048 min Scan# 51
Delta R.T. 0.024 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Instrument :
MSVOA_N
ClientSampleId :

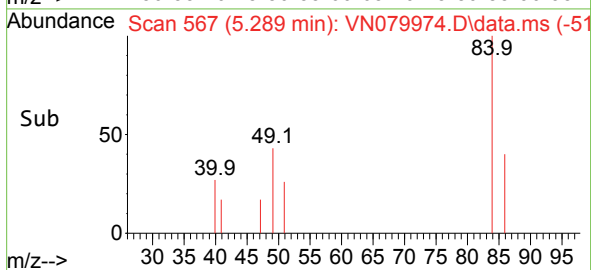
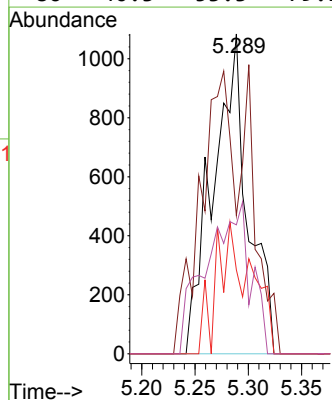
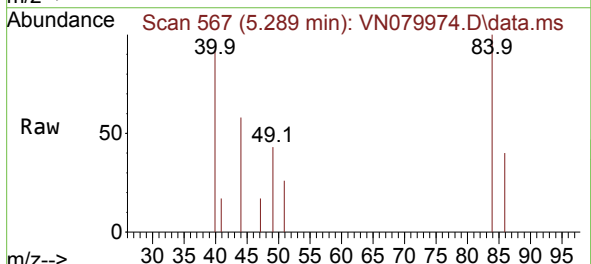


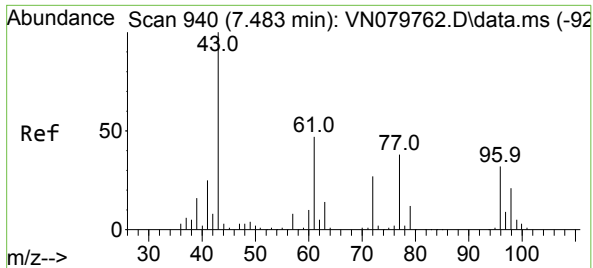
Tgt Ion: 43 Resp: 3509
Ion Ratio Lower Upper
43 100
74 5.6 26.2 39.4#



#20
Methylene Chloride
Concen: 0.644 ug/l
RT: 5.289 min Scan# 567
Delta R.T. 0.018 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion: 84 Resp: 2453
Ion Ratio Lower Upper
84 100
49 43.3 79.7 119.5#
51 26.3 25.2 37.8
86 40.3 53.3 79.9#

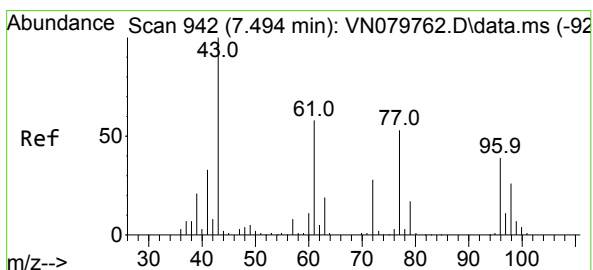
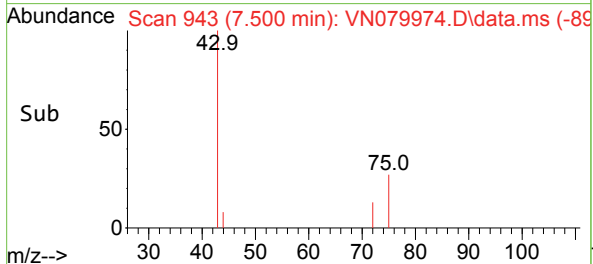
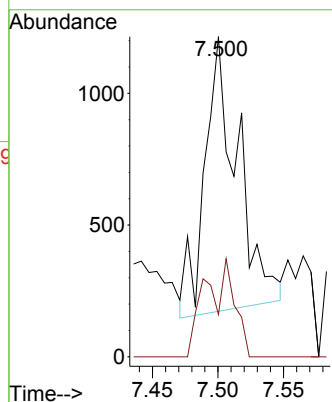
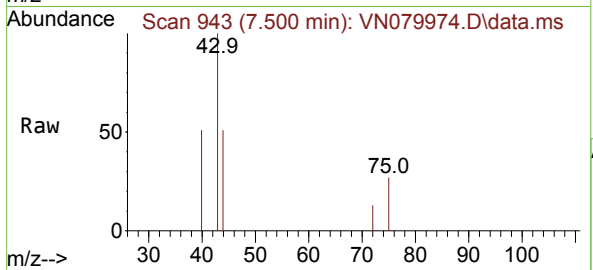




#25
2-Butanone
Concen: 0.825 ug/l
RT: 7.500 min Scan# 940
Delta R.T. 0.012 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

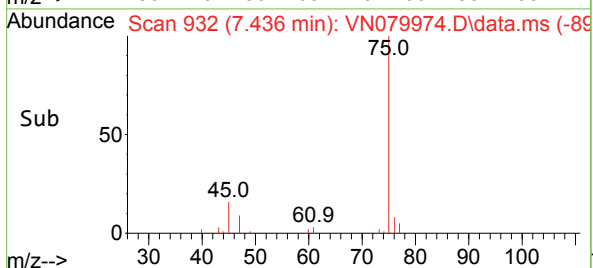
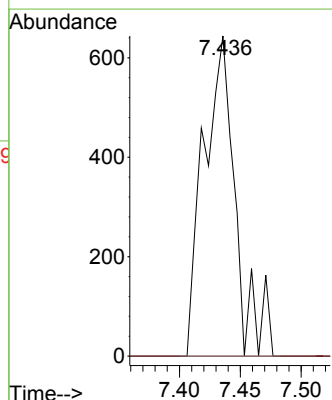
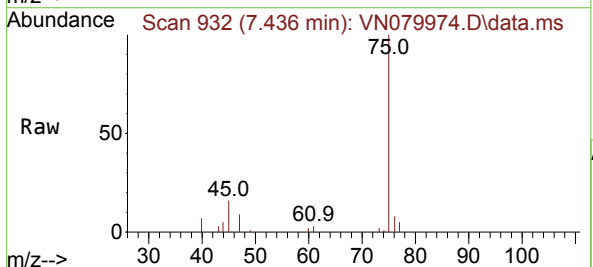
Instrument :
MSVOA_N
ClientSampleId :

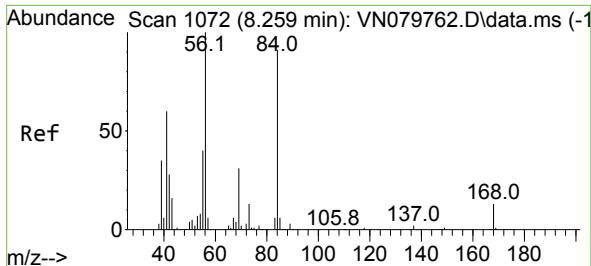
Tgt Ion: 43 Resp: 1825
Ion Ratio Lower Upper
43 100
72 16.1 30.2 45.2#



#26
2,2-Dichloropropane
Concen: 0.216 ug/l
RT: 7.436 min Scan# 932
Delta R.T. -0.053 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

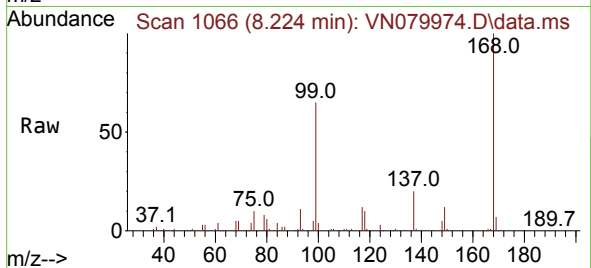
Tgt Ion: 77 Resp: 1172
Ion Ratio Lower Upper
77 100
97 0.0 11.2 33.6#



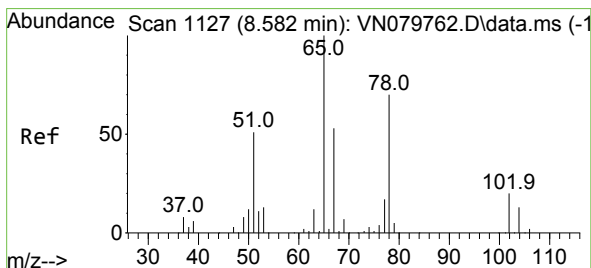
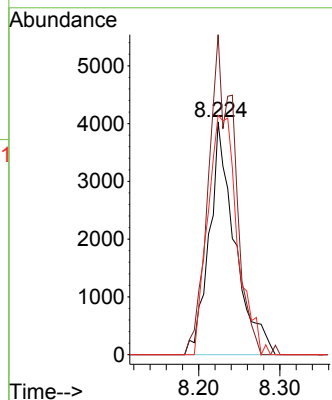
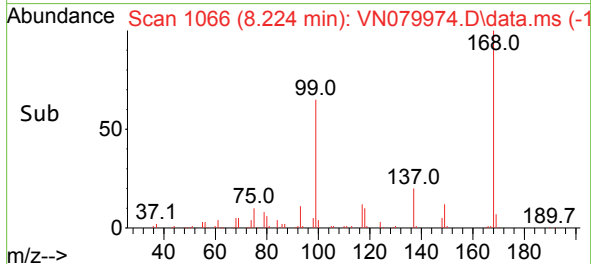


#31
Cyclohexane
Concen: 1.551 ug/l
RT: 8.224 min Scan# 1066
Delta R.T. -0.035 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Instrument :
MSVOA_N
ClientSampleId :

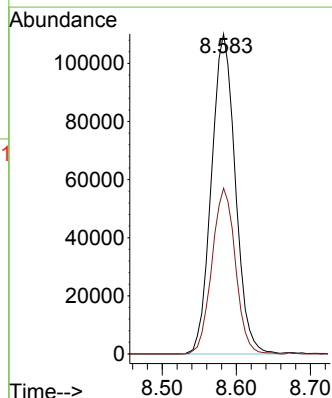
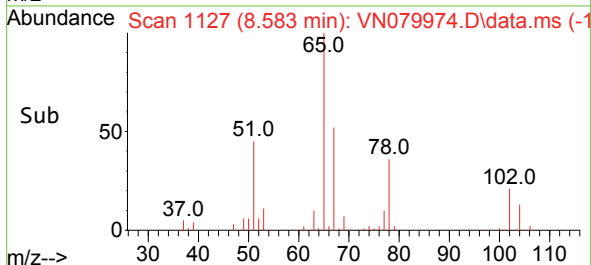
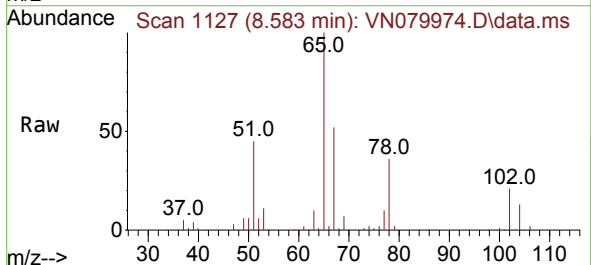


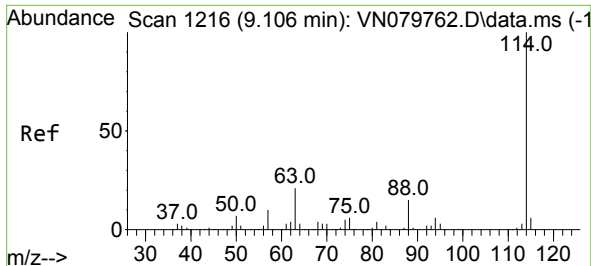
Tgt Ion: 56 Resp: 8807
Ion Ratio Lower Upper
56 100
69 137.5 26.8 40.2#
84 102.9 81.8 122.6



#33
1,2-Dichloroethane-d4
Concen: 57.242 ug/l
RT: 8.583 min Scan# 1127
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion: 65 Resp: 246044
Ion Ratio Lower Upper
65 100
67 50.9 0.0 106.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.106 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN079974.D

Acq: 07 Nov 2023 18:58

Instrument :

MSVOA_N

ClientSampleId :

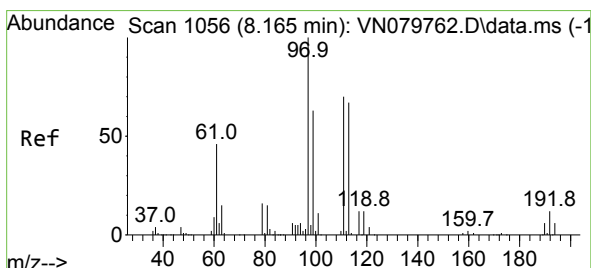
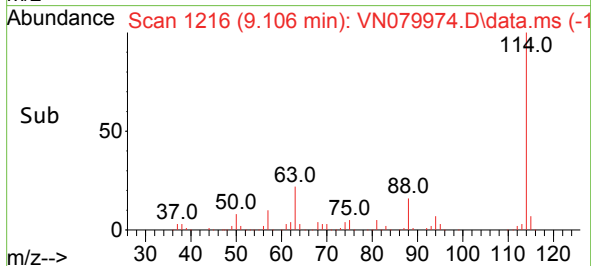
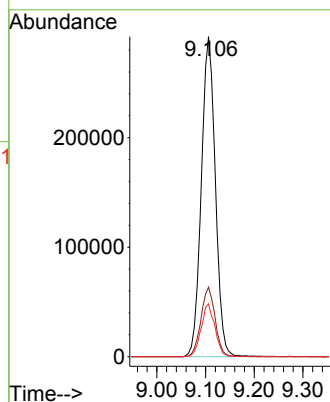
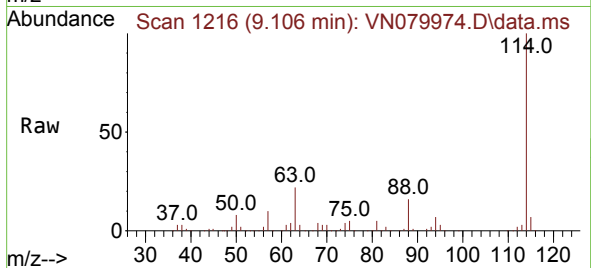
Tgt Ion:114 Resp: 585034

Ion Ratio Lower Upper

114 100

63 21.8 0.0 36.4

88 16.5 0.0 30.6



#35

Dibromofluoromethane

Concen: 49.105 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. 0.000 min

Lab File: VN079974.D

Acq: 07 Nov 2023 18:58

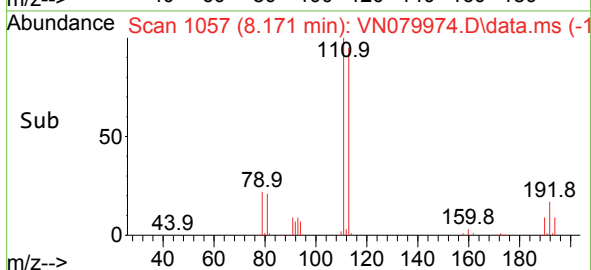
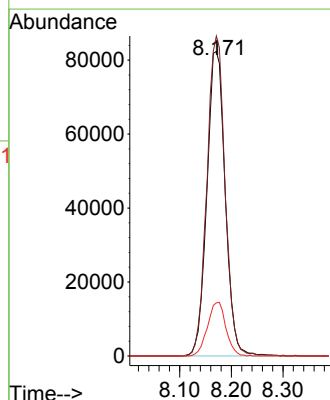
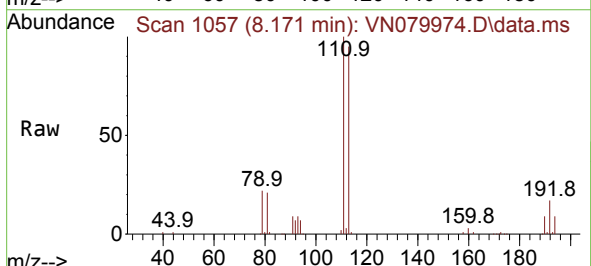
Tgt Ion:113 Resp: 203324

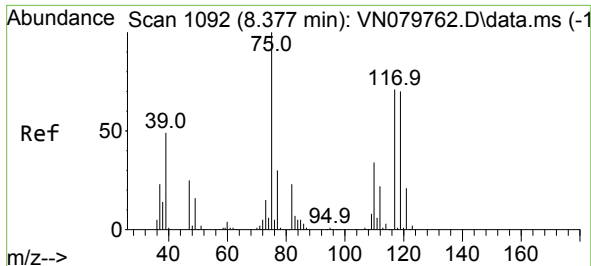
Ion Ratio Lower Upper

113 100

111 104.1 82.6 123.8

192 17.7 12.7 19.1

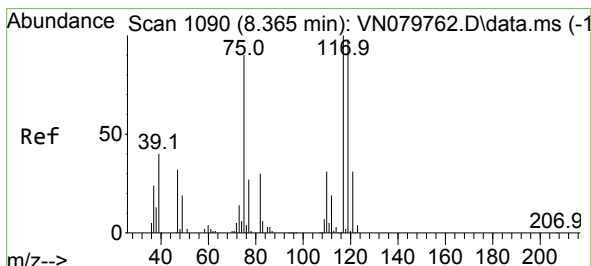
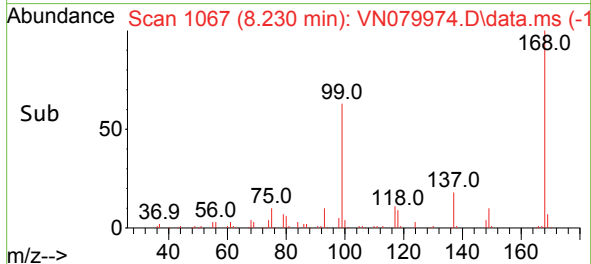
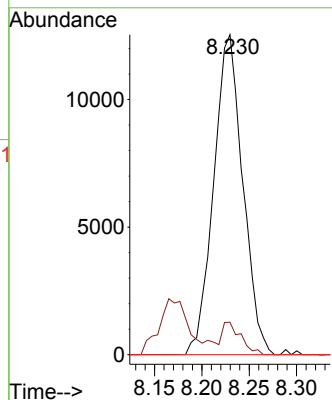
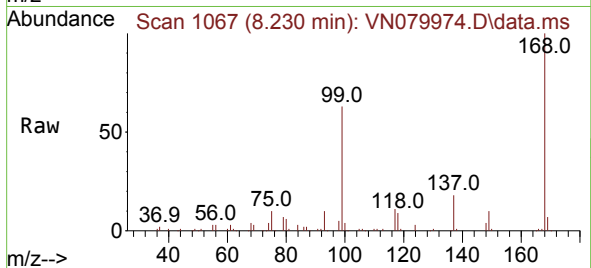




#36
1,1-Dichloropropene
Concen: 4.532 ug/l
RT: 8.230 min Scan# 1066
Delta R.T. -0.147 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

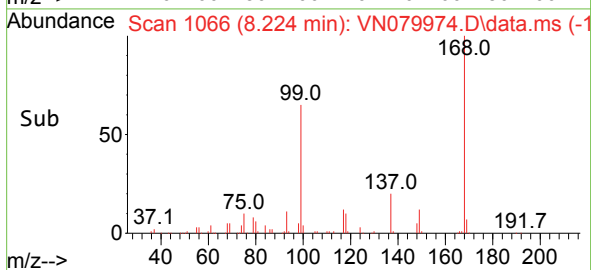
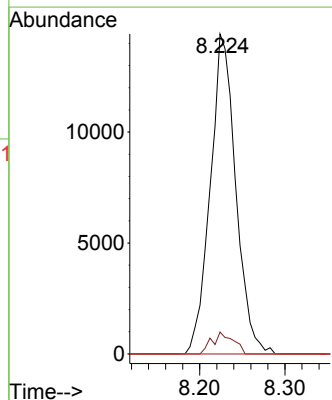
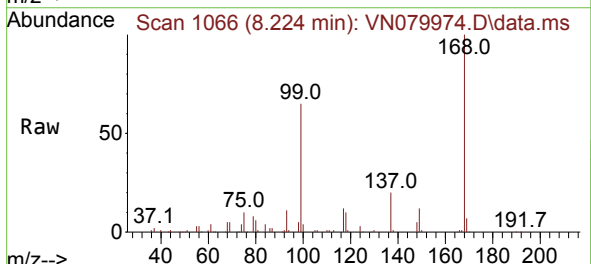
Instrument :
MSVOA_N
ClientSampleId :

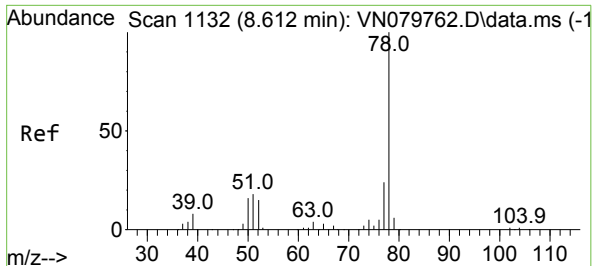
Tgt Ion: 75 Resp: 26794
Ion Ratio Lower Upper
75 100
110 6.9 19.1 57.3#
77 0.0 25.0 37.4#



#38
Carbon Tetrachloride
Concen: 5.030 ug/l
RT: 8.224 min Scan# 1066
Delta R.T. -0.135 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion: 117 Resp: 29968
Ion Ratio Lower Upper
117 100
119 6.9 77.3 115.9#
121 0.0 23.3 34.9#

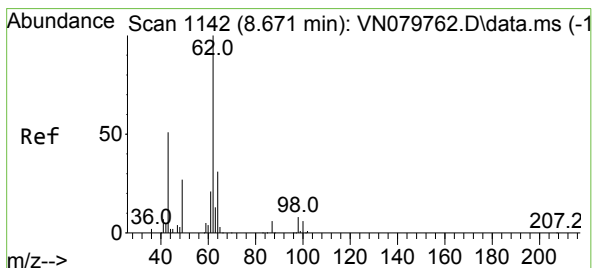
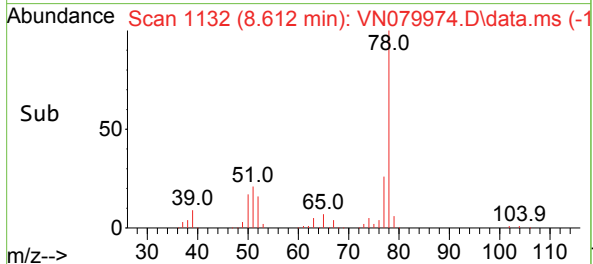
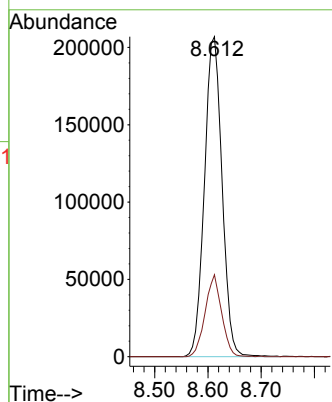
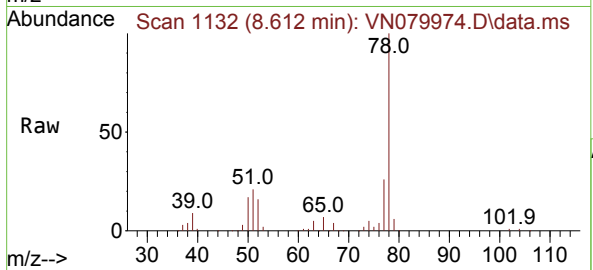




#40
Benzene
Concen: 26.869 ug/l
RT: 8.612 min Scan# 1132
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

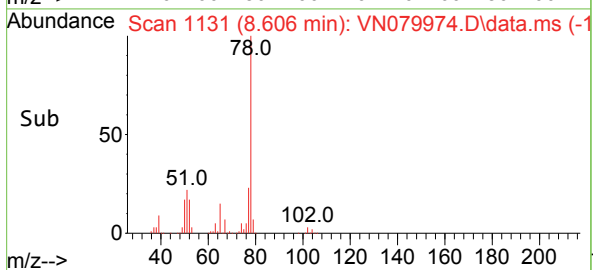
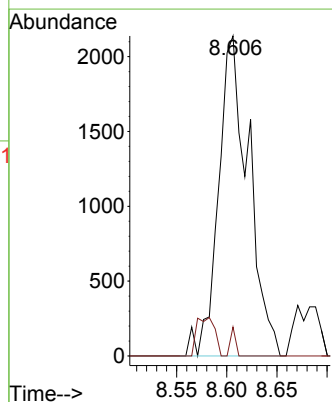
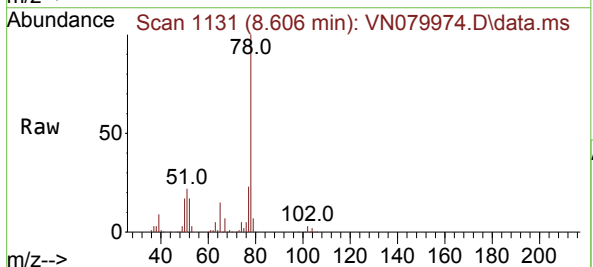
Instrument :
MSVOA_N
ClientSampleId :

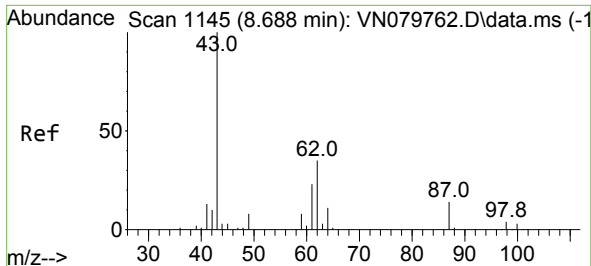
Tgt Ion: 78 Resp: 475791
Ion Ratio Lower Upper
78 100
77 25.6 19.0 28.6



#42
1,2-Dichloroethane
Concen: 0.726 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. -0.064 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion: 62 Resp: 4490
Ion Ratio Lower Upper
62 100
98 1.5 0.0 19.8

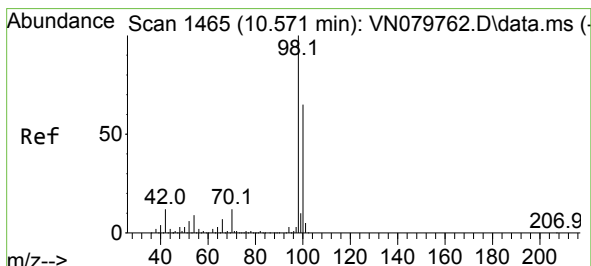
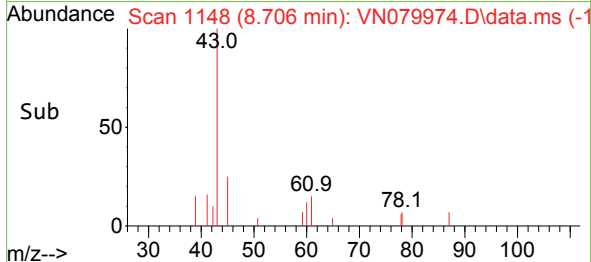
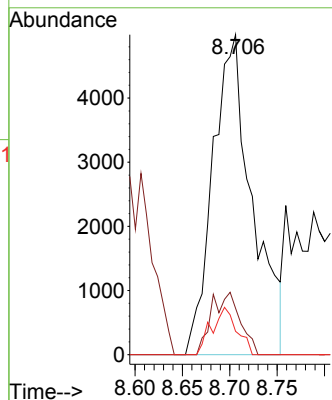
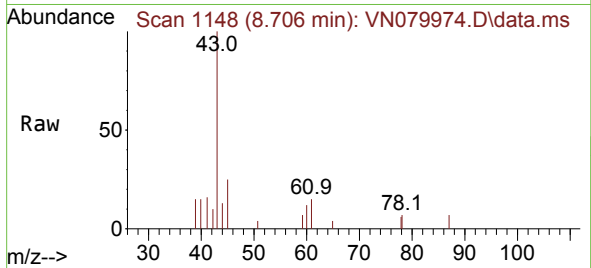




#43
Isopropyl Acetate
Concen: 1.509 ug/l
RT: 8.706 min Scan# 1145
Delta R.T. 0.018 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

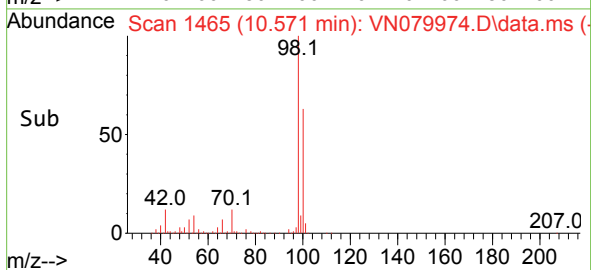
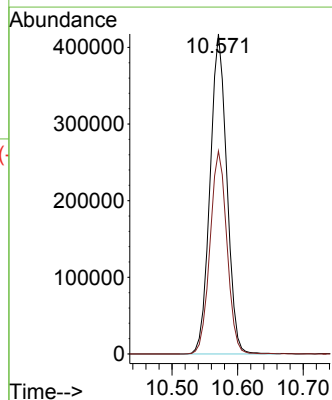
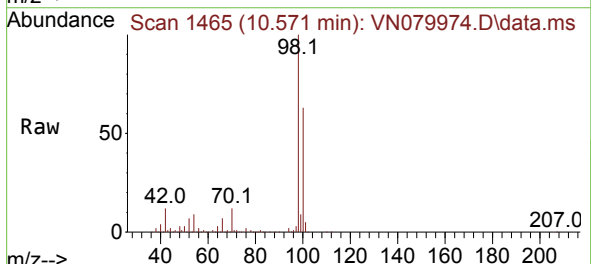
Instrument :
MSVOA_N
ClientSampleId :

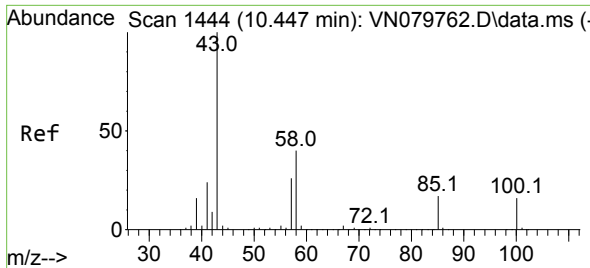
Tgt Ion: 43 Resp: 14351
Ion Ratio Lower Upper
43 100
61 14.3 24.7 37.1#
87 9.5 14.6 21.8#



#50
Toluene-d8
Concen: 48.622 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion: 98 Resp: 741152
Ion Ratio Lower Upper
98 100
100 63.9 52.0 78.0

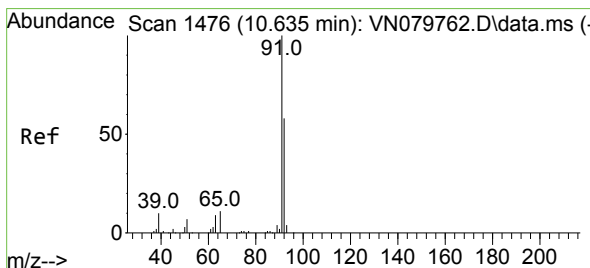
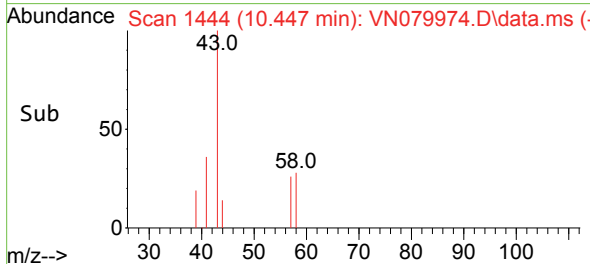
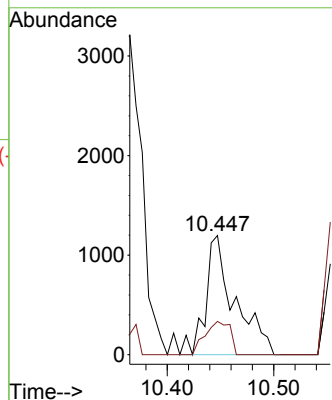
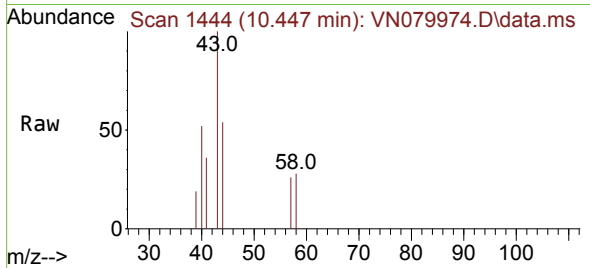




#51
4-Methyl-2-Pentanone
Concen: 0.425 ug/l
RT: 10.447 min Scan# 1444
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

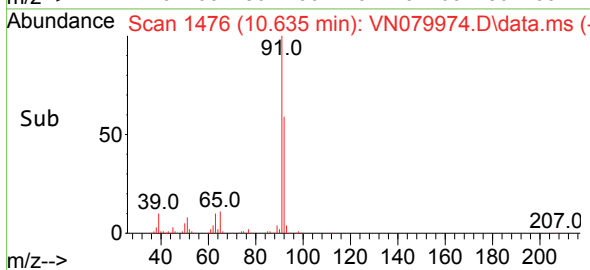
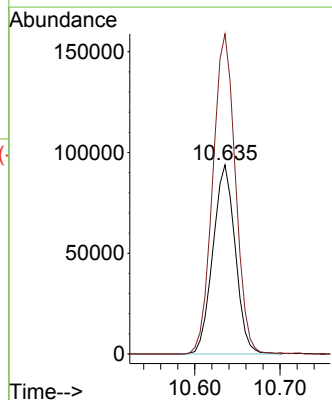
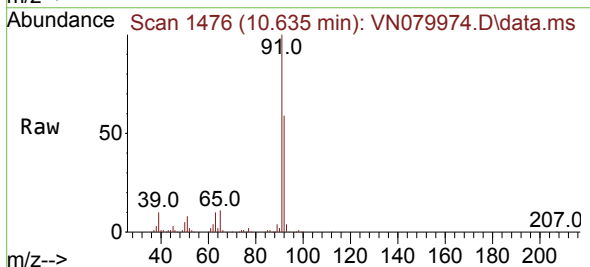
Instrument :
MSVOA_N
ClientSampleId :

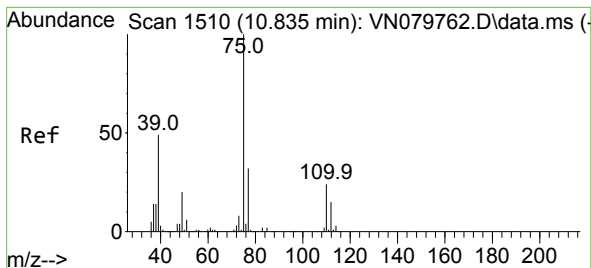
Tgt Ion: 43 Resp: 2277
Ion Ratio Lower Upper
43 100
58 24.0 36.6 54.8#



#52
Toluene
Concen: 16.280 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion: 92 Resp: 170906
Ion Ratio Lower Upper
92 100
91 171.5 137.4 206.0

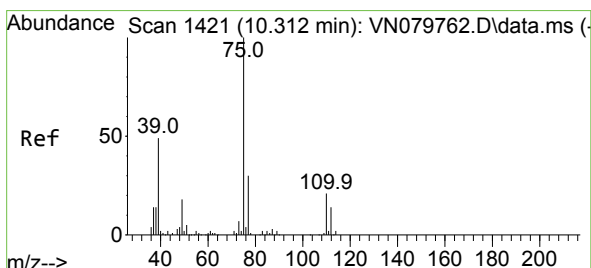
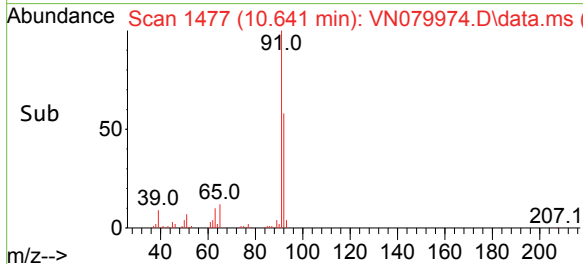
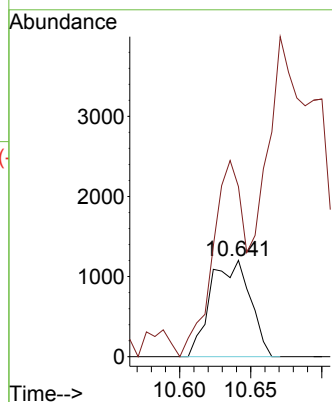
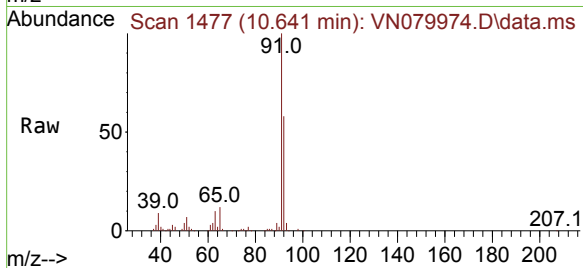




#53
 t-1,3-Dichloropropene
 Concen: 0.362 ug/l
 RT: 10.641 min Scan# 14
 Delta R.T. -0.200 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

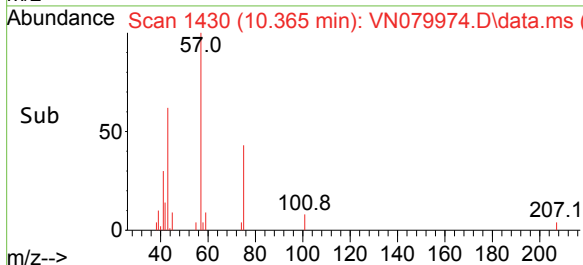
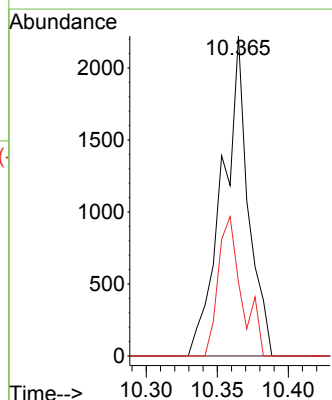
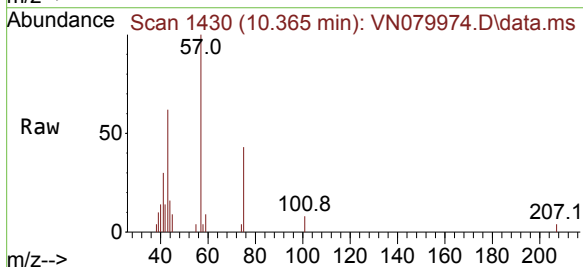
Instrument :
 MSVOA_N
 ClientSampleId :

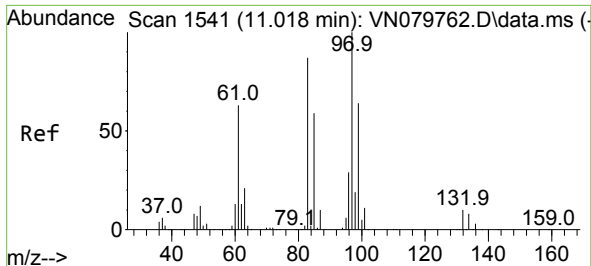
Tgt Ion: 75 Resp: 2339
 Ion Ratio Lower Upper
 75 100
 77 176.6 25.4 38.0#



#54
 cis-1,3-Dichloropropene
 Concen: 0.404 ug/l
 RT: 10.365 min Scan# 1430
 Delta R.T. 0.047 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

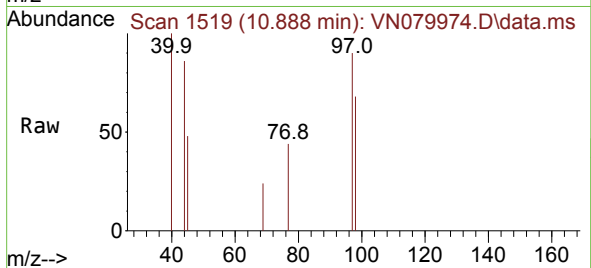
Tgt Ion: 75 Resp: 2843
 Ion Ratio Lower Upper
 75 100
 77 0.0 26.1 39.1#
 39 23.1 31.6 47.4#



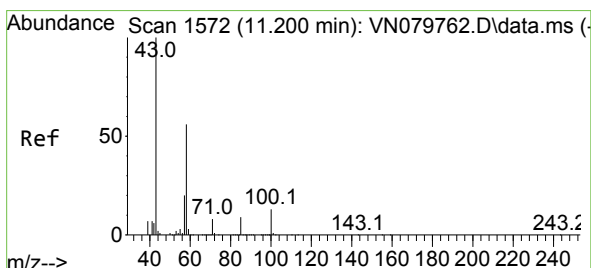
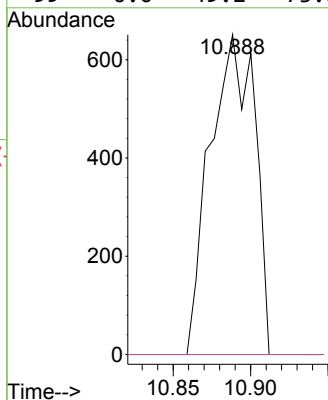
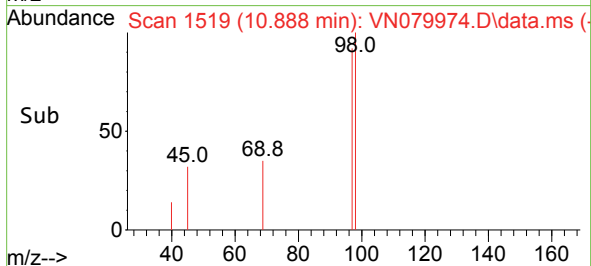


#55
 1,1,2-Trichloroethane
 Concen: 0.308 ug/l
 RT: 10.888 min Scan# 1519
 Delta R.T. -0.129 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

Instrument :
 MSVOA_N
 ClientSampleId :

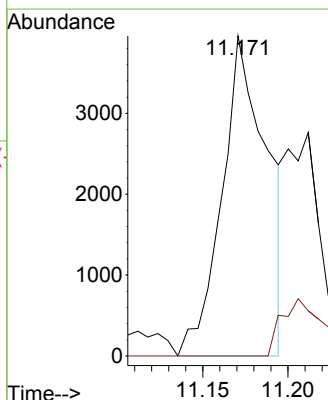
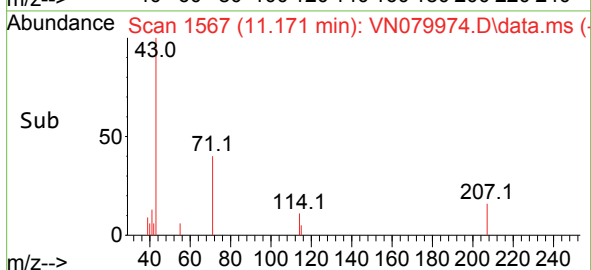
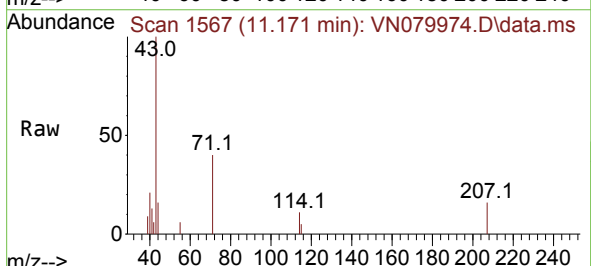


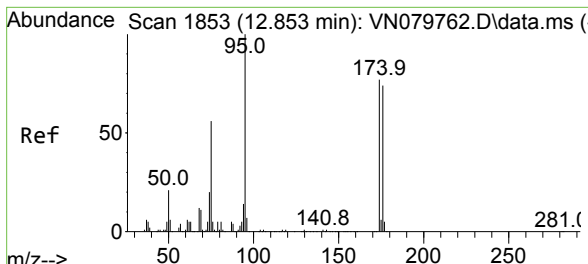
Tgt Ion: 97	Resp: 1300
Ion Ratio	Lower Upper
97 100	
83 0.0	65.1 97.7#
85 0.0	43.4 65.2#
99 0.0	49.2 73.8#



#59
 2-Hexanone
 Concen: 1.773 ug/l
 RT: 11.171 min Scan# 1567
 Delta R.T. -0.029 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

Tgt Ion: 43	Resp: 7261		
Ion Ratio	Lower	Upper	
43 100			
58 0.0	31.7	95.1#	

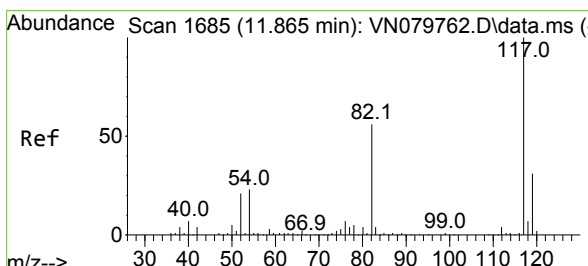
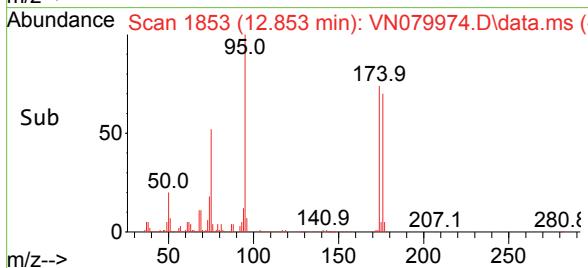
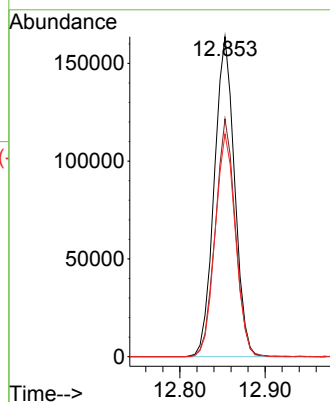
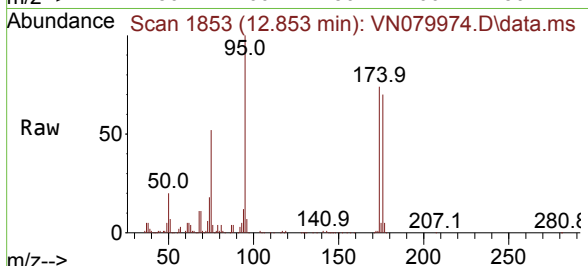




#62
 4-Bromofluorobenzene
 Concen: 53.484 ug/l
 RT: 12.853 min Scan# 1853
 Delta R.T. 0.000 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

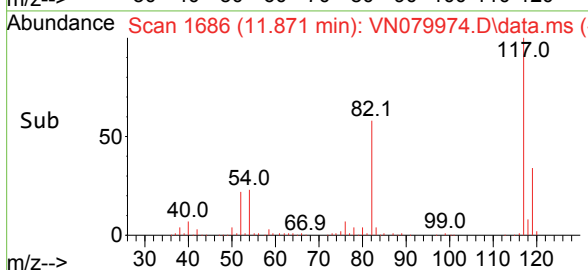
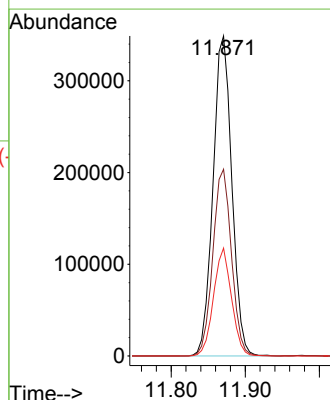
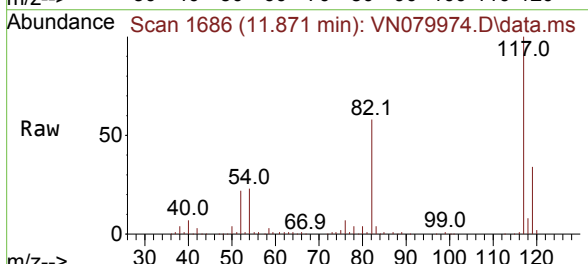
Instrument :
 MSVOA_N
 ClientSampleId :

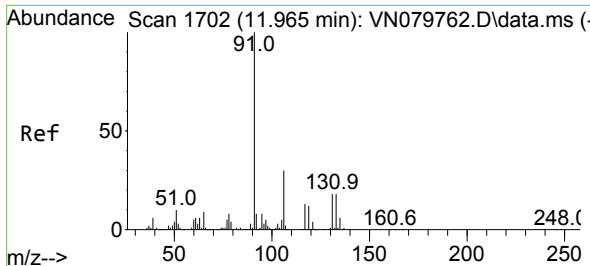
Tgt Ion:	95	Resp:	270382
Ion	Ratio	Lower	Upper
95	100		
174	73.4	0.0	143.8
176	69.9	0.0	135.8



#63
 Chlorobenzene-d5
 Concen: 50.000 ug/l
 RT: 11.871 min Scan# 1686
 Delta R.T. 0.000 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

Tgt Ion:	117	Resp:	614579
Ion	Ratio	Lower	Upper
117	100		
82	58.3	44.0	66.0
119	33.7	25.6	38.4

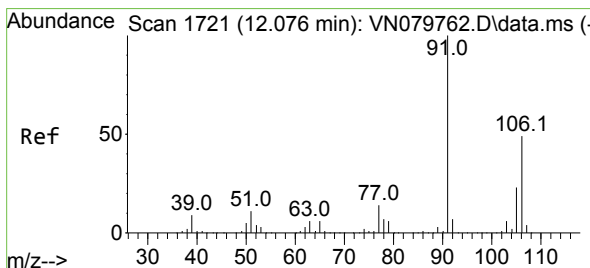
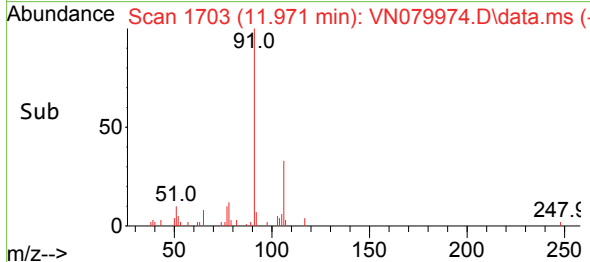
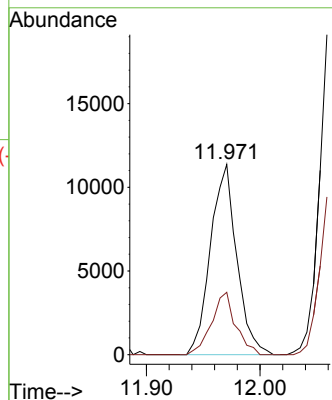
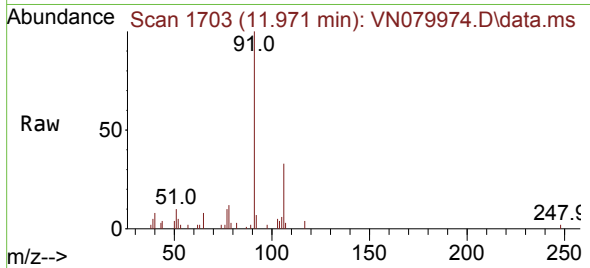




#67
Ethyl Benzene
Concen: 0.787 ug/l
RT: 11.971 min Scan# 1703
Delta R.T. 0.006 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

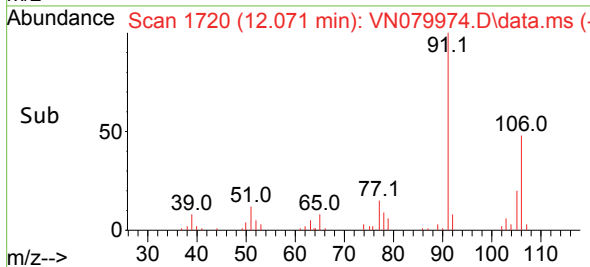
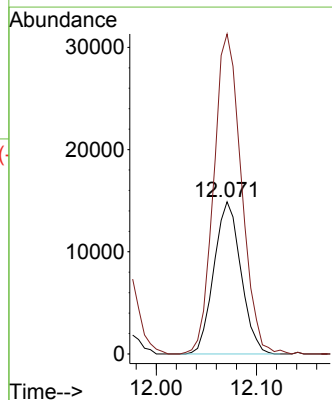
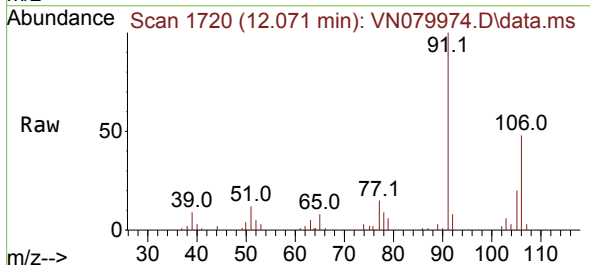
Instrument :
MSVOA_N
ClientSampleId :

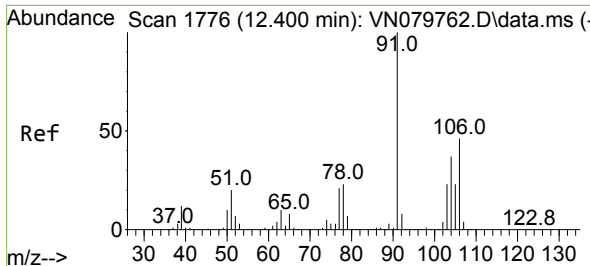
Tgt Ion: 91 Resp: 18282
Ion Ratio Lower Upper
91 100
106 32.7 25.6 38.4



#68
m/p-Xylenes
Concen: 3.219 ug/l
RT: 12.071 min Scan# 1720
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion:106 Resp: 27851
Ion Ratio Lower Upper
106 100
91 215.4 159.6 239.4

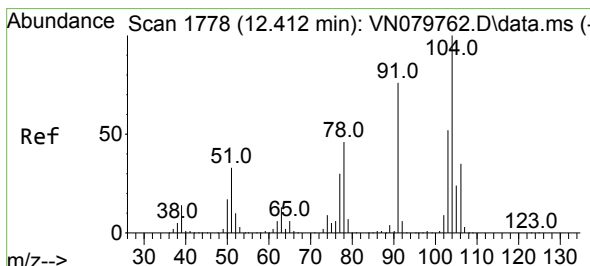
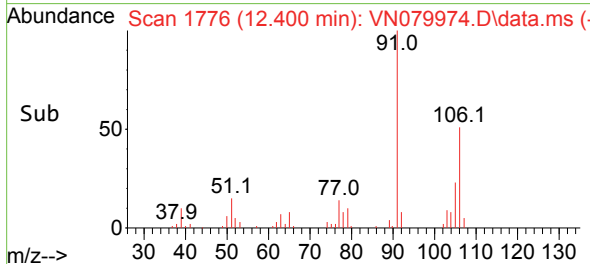
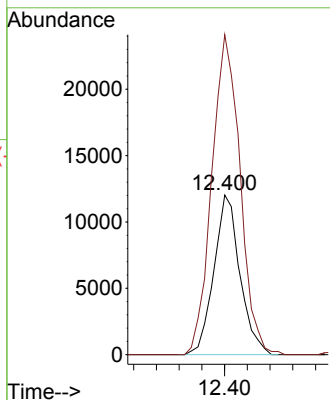
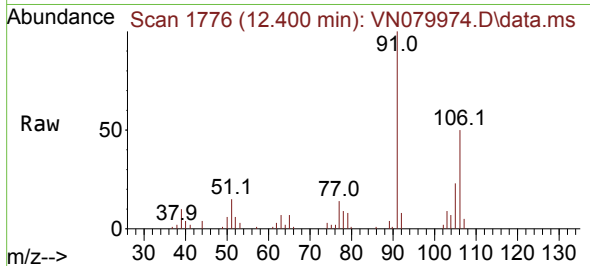




#69
o-Xylene
Concen: 2.297 ug/l
RT: 12.400 min Scan# 1776
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

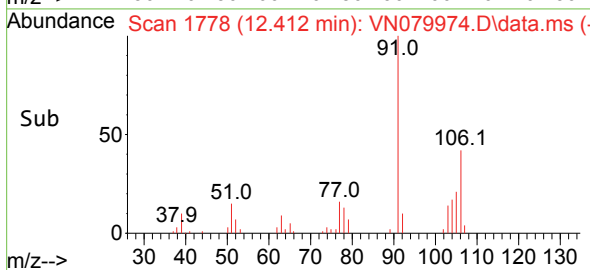
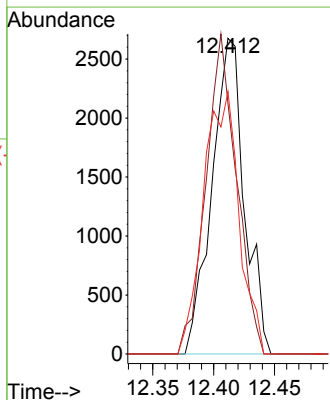
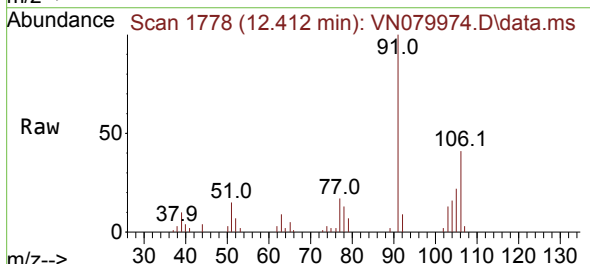
Instrument :
MSVOA_N
ClientSampleId :

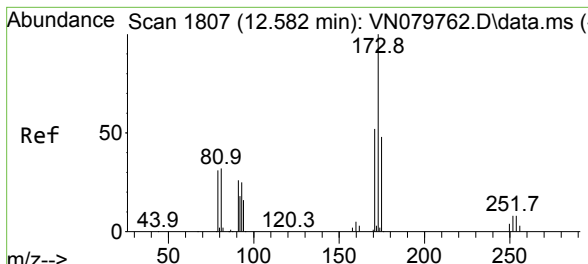
Tgt Ion:106 Resp: 19140
Ion Ratio Lower Upper
106 100
91 217.9 105.2 315.5



#70
Styrene
Concen: 0.373 ug/l
RT: 12.412 min Scan# 1778
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

Tgt Ion:104 Resp: 4990
Ion Ratio Lower Upper
104 100
78 95.3 39.5 59.3#
103 90.3 43.2 64.8#

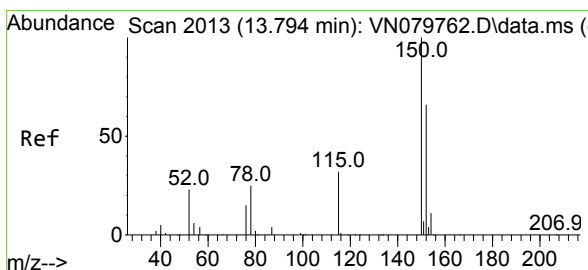
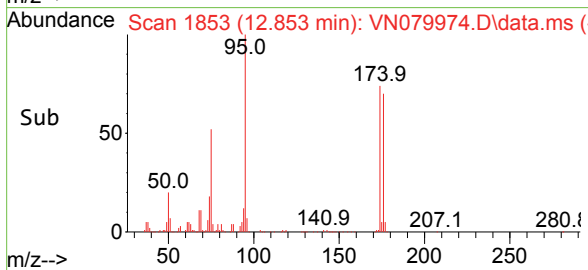
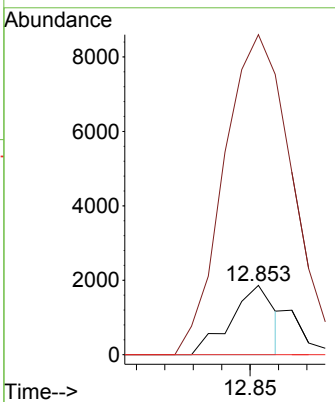
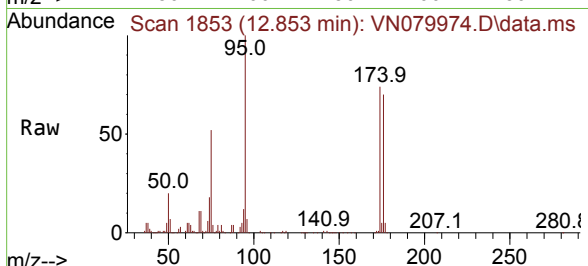




#71
 Bromoform
 Concen: 0.578 ug/l
 RT: 12.853 min Scan# 1807
 Delta R.T. 0.271 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

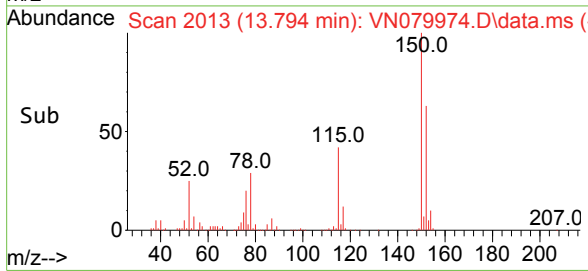
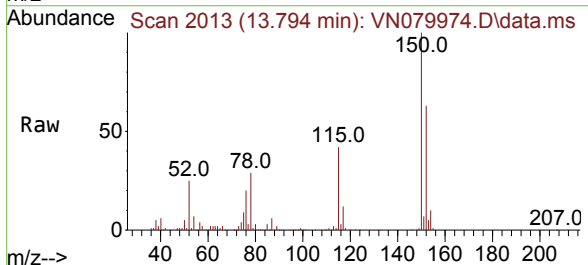
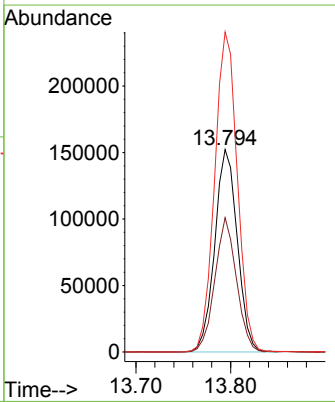
Instrument :
 MSVOA_N
 ClientSampleId :

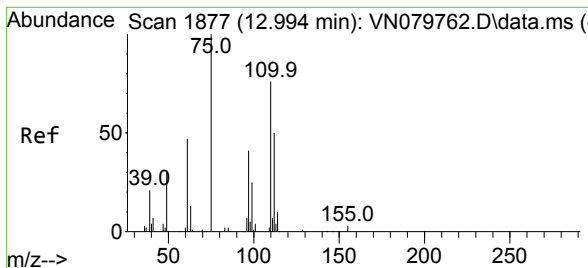
Tgt Ion:	173	Resp:	1972
Ion Ratio	Lower	Upper	
173	100		
175	574.5	24.3	73.0#
254	0.0	0.0	0.0



#72
 1,4-Dichlorobenzene-d4
 Concen: 50.000 ug/l
 RT: 13.794 min Scan# 2013
 Delta R.T. 0.000 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

Tgt Ion:	152	Resp:	251702
Ion Ratio	Lower	Upper	
152	100		
115	63.9	32.3	96.8
150	159.0	0.0	355.8

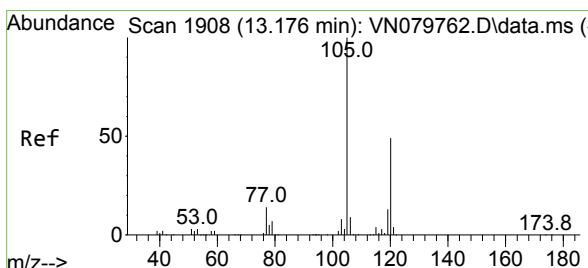
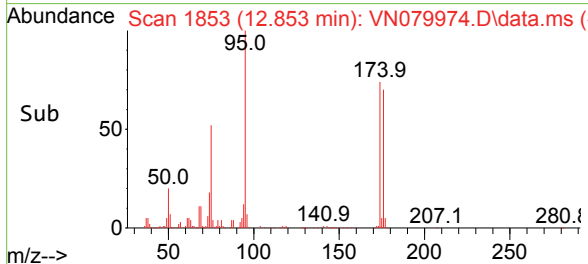
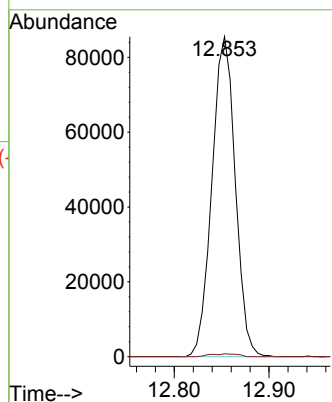
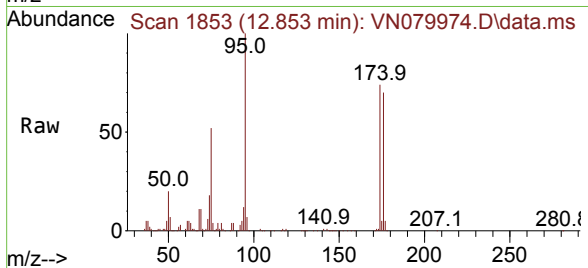




#76
1,2,3-Trichloropropane
Concen: 24.725 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.141 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

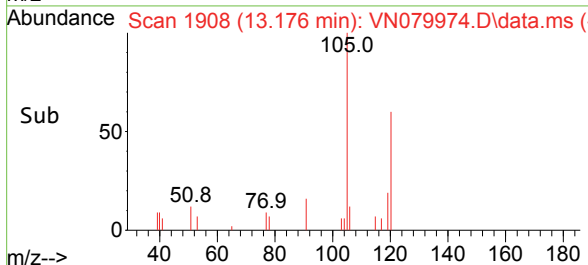
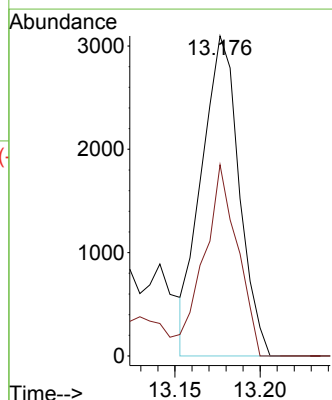
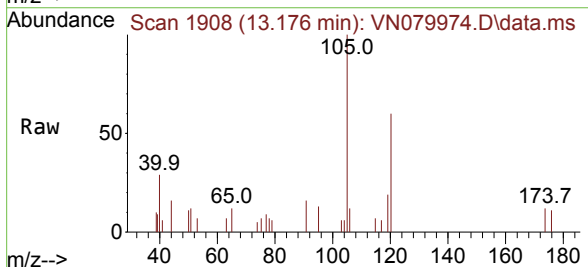
Instrument :
MSVOA_N
ClientSampleId :

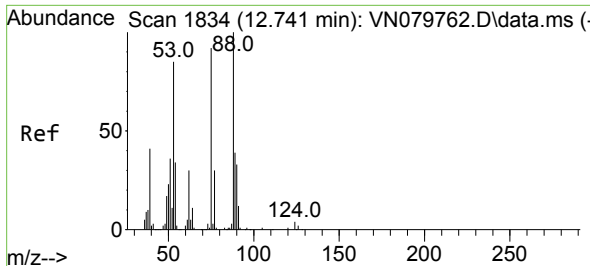
Tgt Ion: 75 Resp: 146107
Ion Ratio Lower Upper
75 100
77 1.1 84.5 253.5#



#80
1,3,5-Trimethylbenzene
Concen: 0.320 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.000 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

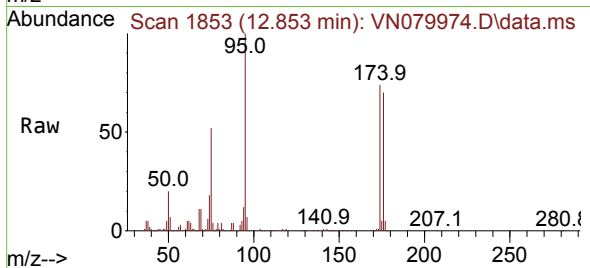
Tgt Ion:105 Resp: 4754
Ion Ratio Lower Upper
105 100
120 53.8 24.1 72.3



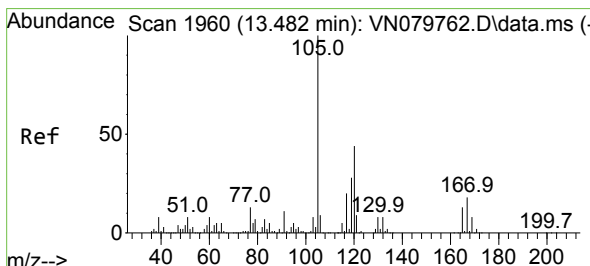
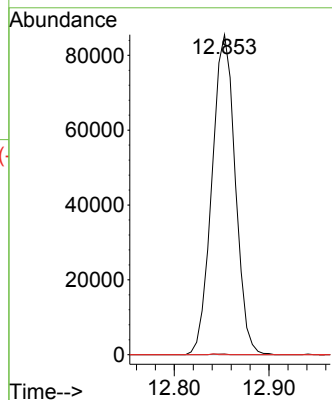
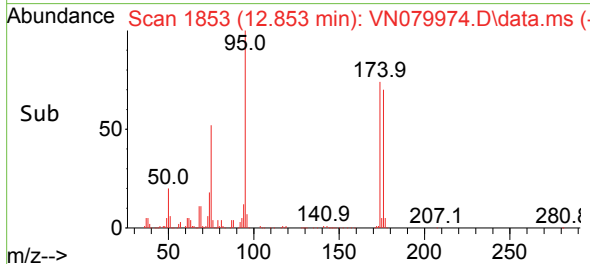


#81
trans-1,4-Dichloro-2-butene
Concen: 67.272 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. 0.118 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58

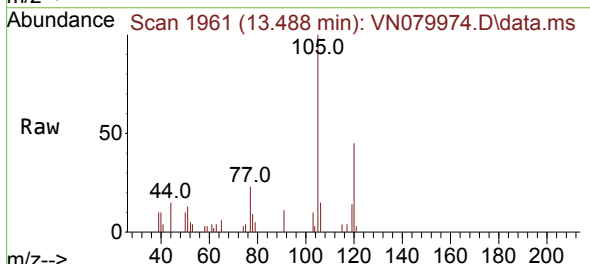
Instrument :
MSVOA_N
ClientSampleId :



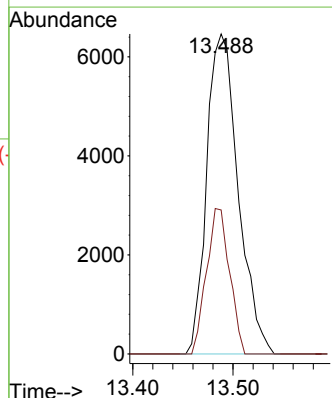
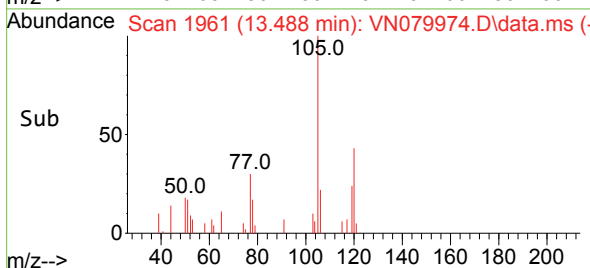
Tgt Ion: 75 Resp: 146107
Ion Ratio Lower Upper
75 100
53 0.1 67.4 101.2#
89 0.1 38.8 58.2#

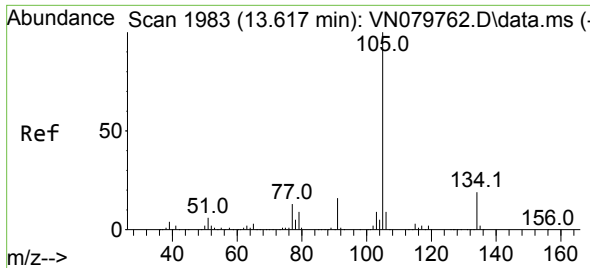


#84
1,2,4-Trimethylbenzene
Concen: 0.963 ug/l
RT: 13.488 min Scan# 1961
Delta R.T. 0.006 min
Lab File: VN079974.D
Acq: 07 Nov 2023 18:58



Tgt Ion: 105 Resp: 14078
Ion Ratio Lower Upper
105 100
120 33.4 22.0 66.0

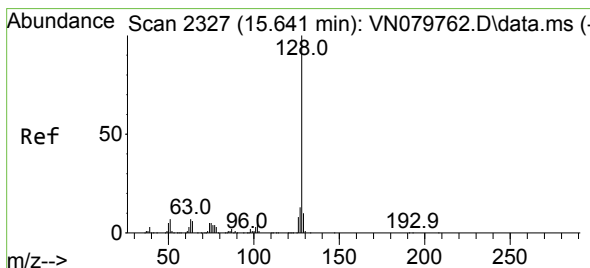
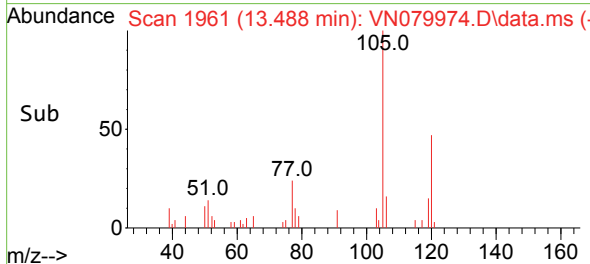
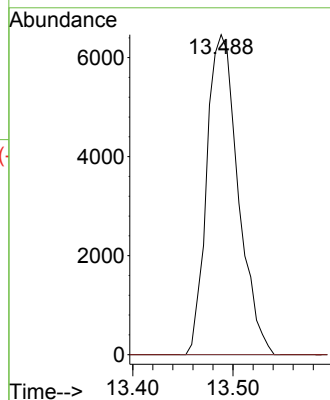
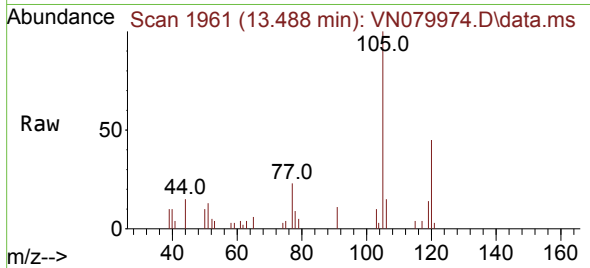




#85
 sec-Butylbenzene
 Concen: 0.835 ug/l
 RT: 13.488 min Scan# 1983
 Delta R.T. -0.129 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

Instrument :
 MSVOA_N
 ClientSampleId :

Tgt Ion:105 Resp: 14078
 Ion Ratio Lower Upper
 105 100
 134 0.0 9.8 29.3#



#95
 Naphthalene
 Concen: 15.374 ug/l
 RT: 15.647 min Scan# 2328
 Delta R.T. 0.006 min
 Lab File: VN079974.D
 Acq: 07 Nov 2023 18:58

Tgt Ion:128 Resp: 203607
 Ion Ratio Lower Upper
 128 100
 127 12.6 10.0 15.0
 129 11.5 8.7 13.1

