

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN081123\
 Data File : VN078858.D
 Acq On : 11 Aug 2023 11:56
 Operator : JC\MD
 Sample : 03960-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 230809051-02-VOA

Quant Time: Aug 12 01:39:58 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N080823W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Aug 09 05:05:47 2023
 Response via : Initial Calibration

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

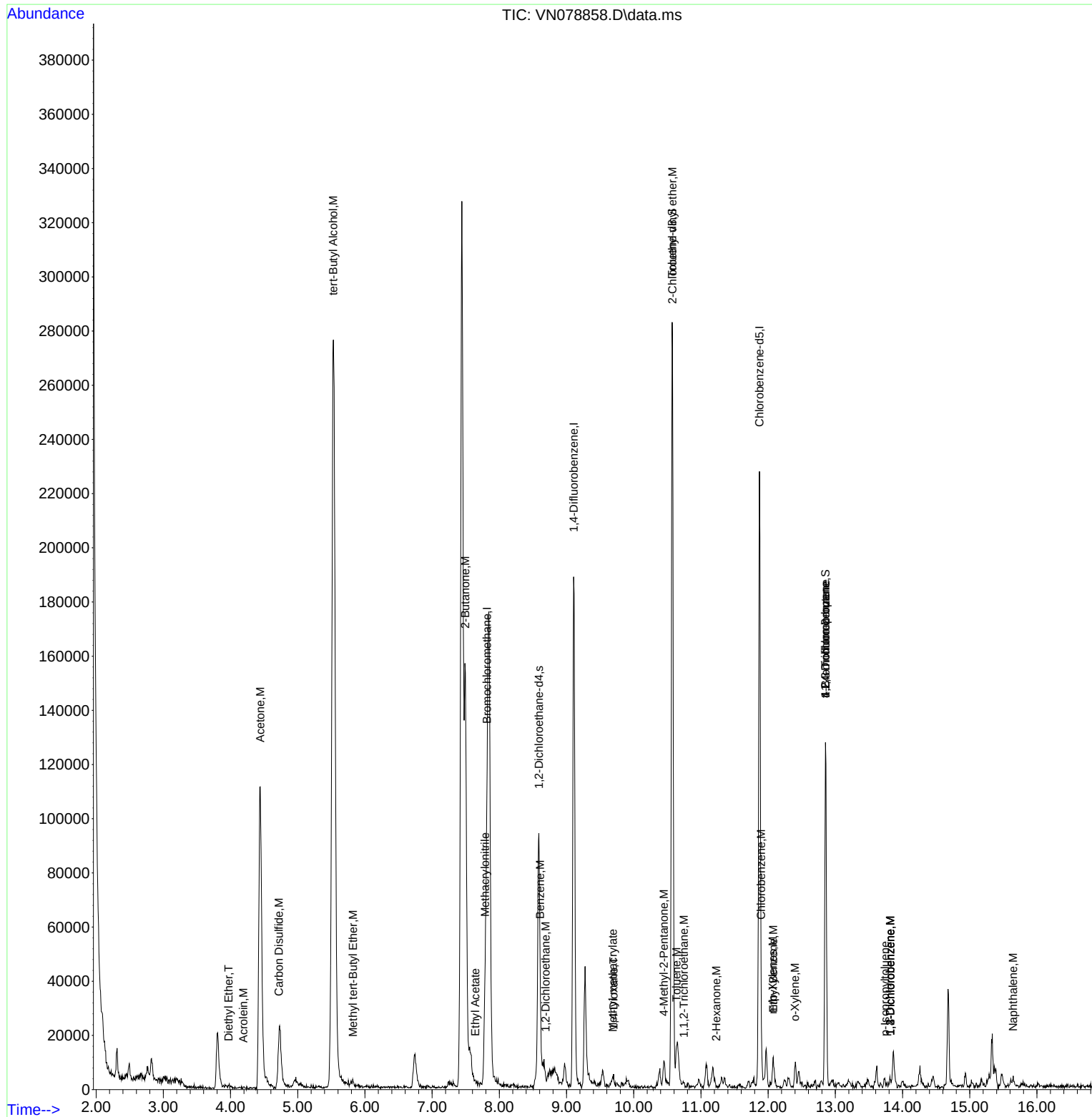
Internal Standards						
1) Bromochloromethane	7.818	128	29088	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.106	114	155277	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.871	117	125026	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.588	65	70222	29.986	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	99.967%
60) 4-Bromofluorobenzene	12.853	95	40593	23.130	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	77.100%
63) Toluene-d8	10.571	98	187030	30.527	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	101.767%
Target Compounds						
					Qvalue	
8) Diethyl Ether	3.971	74	277	0.250	ug/l #	1
13) Acrolein	4.189	56	150	0.402	ug/l #	13
15) Acetone	4.442	58	64875	271.392	ug/l	86
16) Carbon Disulfide	4.718	76	5994	1.278	ug/l #	74
23) tert-Butyl Alcohol	5.530	59	482806	1400.463	ug/l #	100
24) Methyl tert-Butyl Ether	5.824	73	1190	0.219	ug/l #	91
30) 2-Butanone	7.494	43	237493	192.074	ug/l #	91
34) Benzene	8.606	78	2718	0.354	ug/l #	14
35) Methacrylonitrile	7.789	41	5226	3.599	ug/l #	31
36) 1,2-Dichloroethane	8.688	62	597	0.222	ug/l #	75
43) Ethyl Acetate	7.641	43	706	0.275	ug/l #	79
45) 1,4-Dioxane	9.700	88	1314	42.493	ug/l #	85
46) Methyl methacrylate	9.688	41	510	0.261	ug/l #	8
50) 1,1,2-Trichloroethane	10.747	97	538	0.293	ug/l #	16
55) 2-Chloroethyl vinyl ether	10.577	63	277	0.292	ug/l #	11
58) 4-Methyl-2-Pentanone	10.447	43	4444	1.849	ug/l #	76
59) 2-Hexanone	11.230	43	368	0.220	ug/l #	1
62) Toluene	10.635	91	9597	1.304	ug/l	98
64) Chlorobenzene	11.894	112	1409	0.327	ug/l	94
66) Ethyl Benzene	12.077	91	7212	0.943	ug/l	96
67) m/p-Xylenes	12.071	106	2961	1.056	ug/l	74
68) o-Xylene	12.400	106	1951	0.699	ug/l	58
72) 1,2,3-Trichloropropane	12.853	75	24287	11.914	ug/l	1
77) t-1,4-Dichloro-2-butene	12.853	75	24287	37.958	ug/l #	15
82) p-Isopropyltoluene	13.741	119	1952	0.414	ug/l #	66
83) 1,3-Dichlorobenzene	13.818	146	728	0.286	ug/l #	12
84) 1,4-Dichlorobenzene	13.818	146	728	0.299	ug/l #	9
87) 1,2-Dichlorobenzene	13.818	146	728	0.291	ug/l #	13
91) Naphthalene	15.647	128	2555	1.179	ug/l #	89

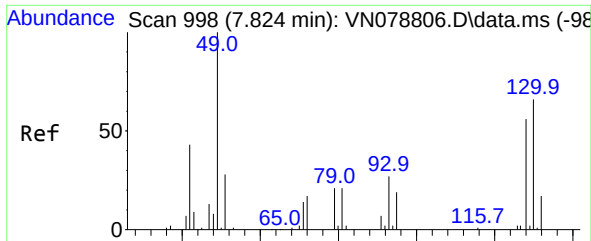
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Aug 09 05:05:47 2023
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.818 min Scan# 91

Delta R.T. -0.006 min

Lab File: VN078858.D

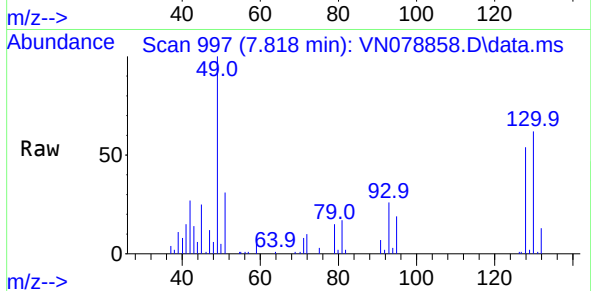
Acq: 11 Aug 2023 11:56

Instrument :

MSVOA_N

ClientSampleId :

230809051-02-VOA



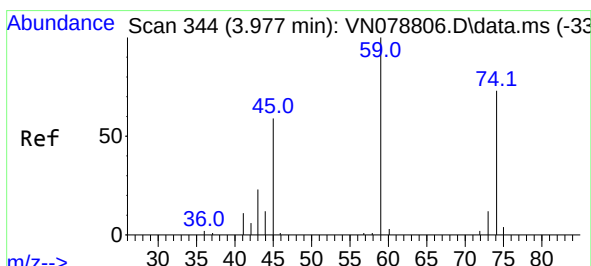
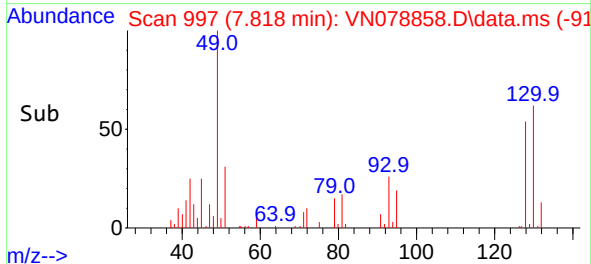
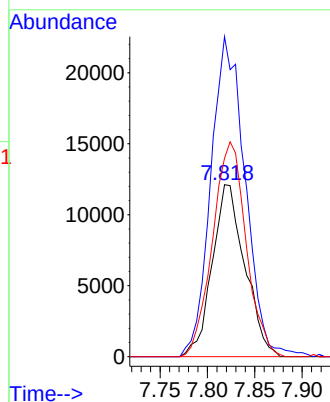
Tgt Ion:128 Resp: 29088

Ion Ratio Lower Upper

128 100

49 195.3 0.0 370.8

130 128.4 0.0 307.0



#8

Diethyl Ether

Concen: 0.250 ug/l

RT: 3.971 min Scan# 343

Delta R.T. -0.006 min

Lab File: VN078858.D

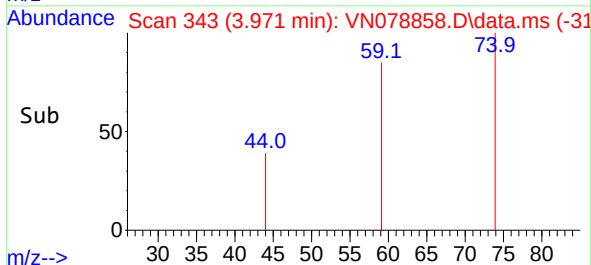
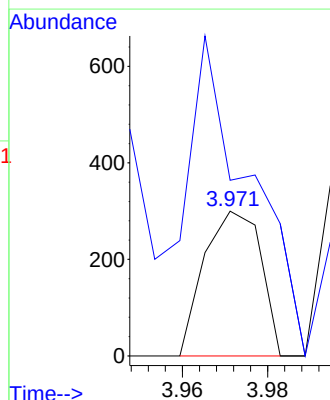
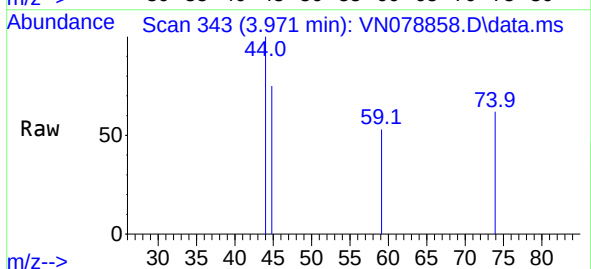
Acq: 11 Aug 2023 11:56

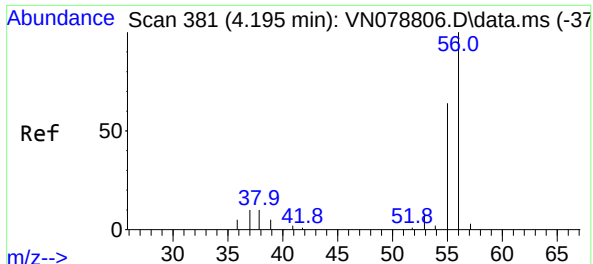
Tgt Ion: 74 Resp: 277

Ion Ratio Lower Upper

74 100

45 244.0 16.3 146.5#

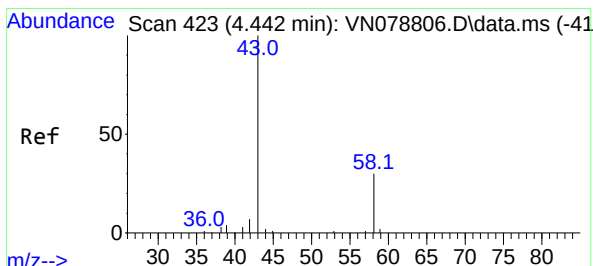
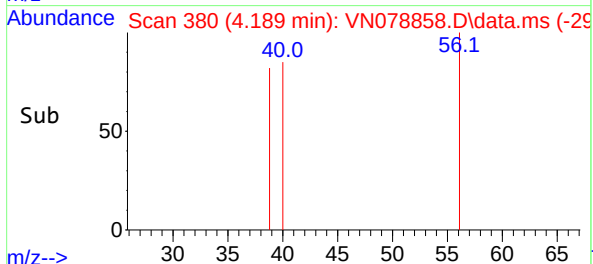
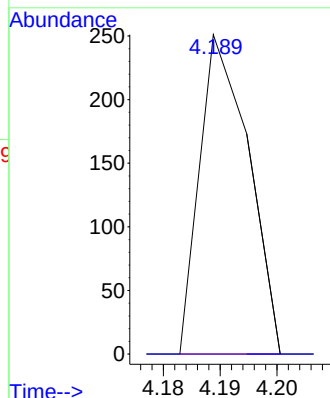
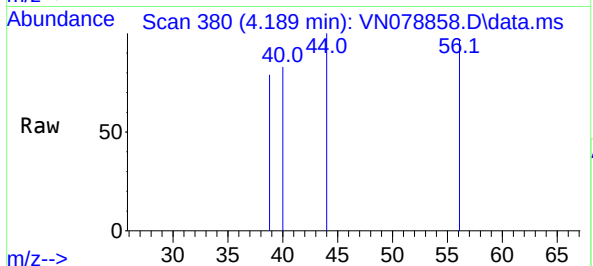




#13
Acrolein
Concen: 0.402 ug/l
RT: 4.189 min Scan# 381
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

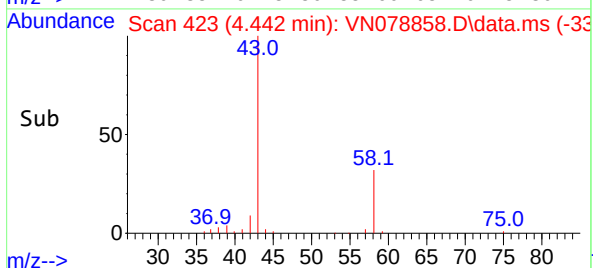
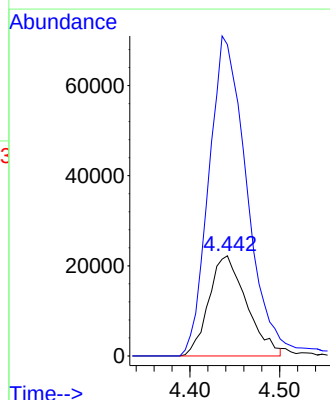
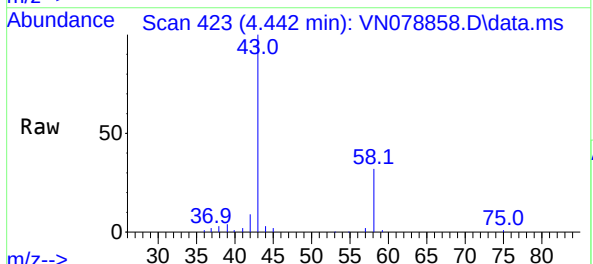
Instrument :
MSVOA_N
ClientSampleId :
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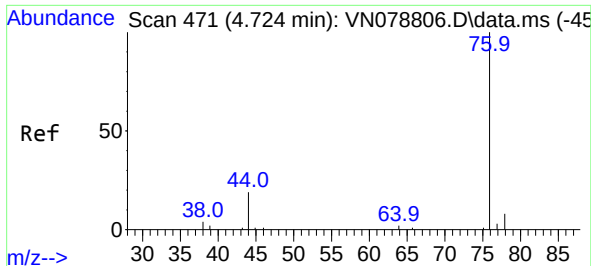
Tgt Ion: 56 Resp: 150
Ion Ratio Lower Upper
56 100
55 0.0 59.0 88.4#



#15
Acetone
Concen: 271.392 ug/l
RT: 4.442 min Scan# 423
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 58 Resp: 64875
Ion Ratio Lower Upper
58 100
43 310.8 227.5 341.3

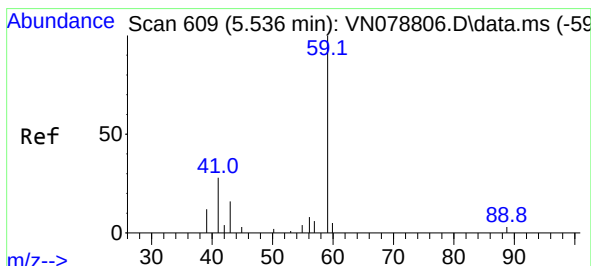
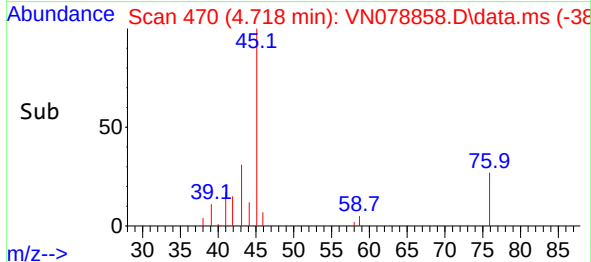
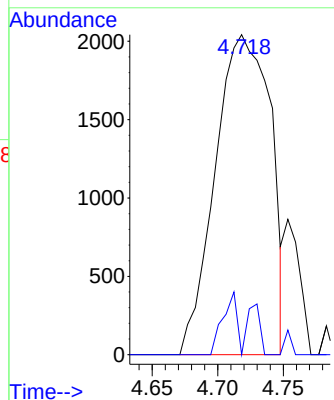
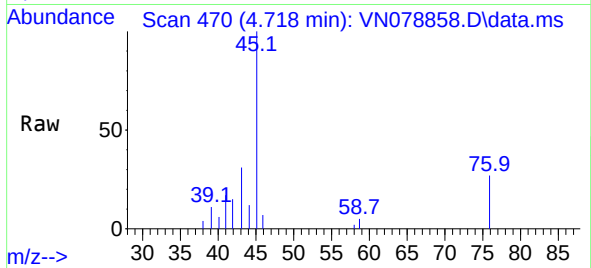




#16
Carbon Disulfide
Concen: 1.278 ug/l
RT: 4.718 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

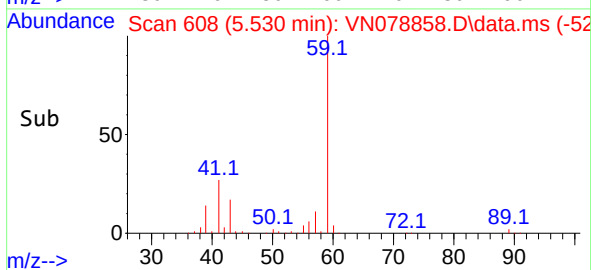
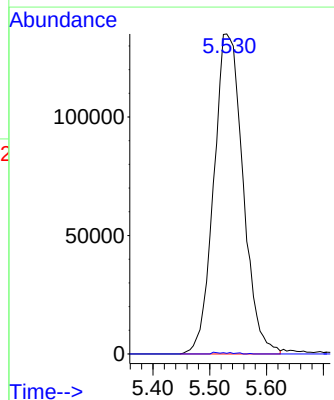
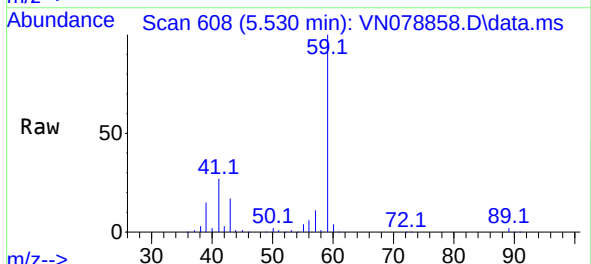
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

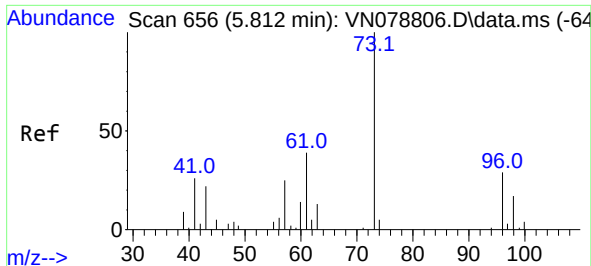
Tgt Ion: 76 Resp: 5994
Ion Ratio Lower Upper
76 100
78 0.0 7.7 11.5#



#23
tert-Butyl Alcohol
Concen: 1400.463 ug/l
RT: 5.530 min Scan# 608
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 59 Resp: 482806
Ion Ratio Lower Upper
59 100
52 0.1 0.1 0.1#

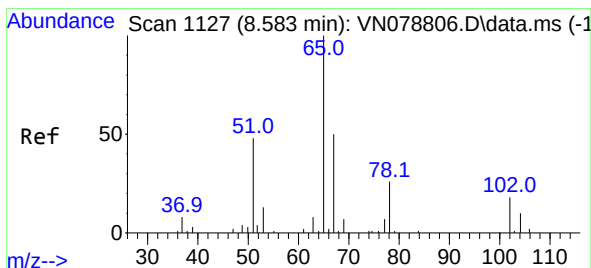
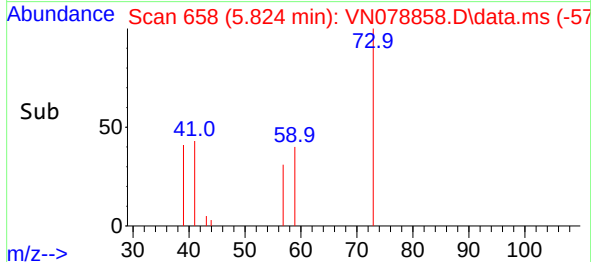
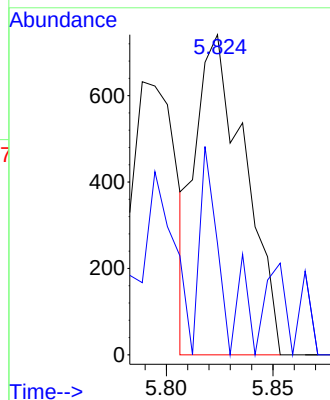
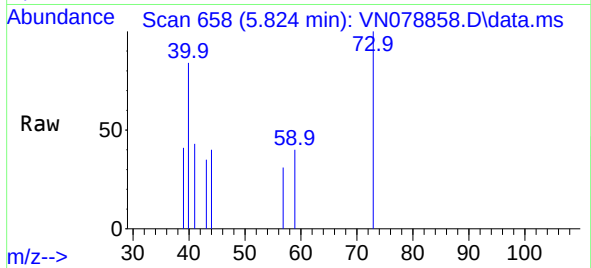




#24
Methyl tert-Butyl Ether
Concen: 0.219 ug/l
RT: 5.824 min Scan# 61
Delta R.T. 0.012 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

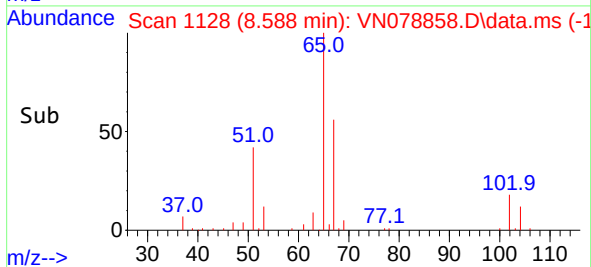
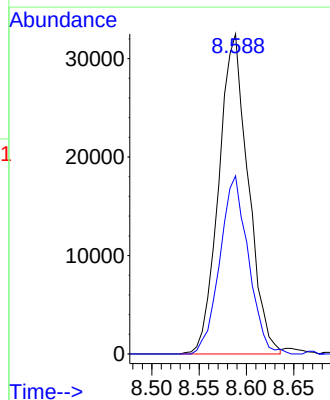
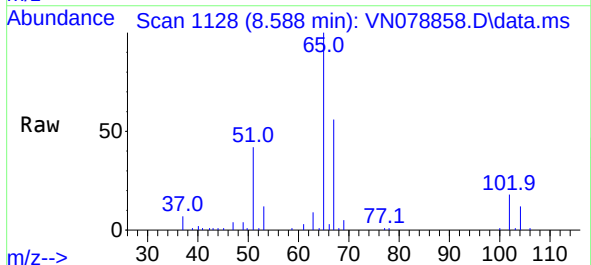
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

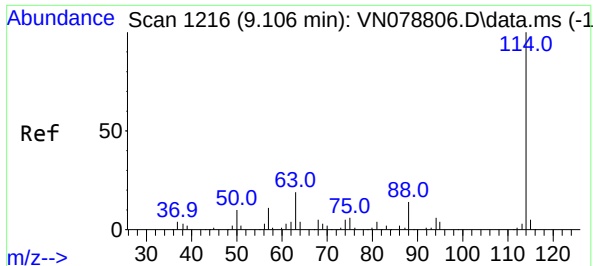
Tgt Ion: 73 Resp: 1190
Ion Ratio Lower Upper
73 100
43 21.9 14.5 21.7#



#27
1,2-Dichloroethane-d4
Concen: 29.986 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 65 Resp: 70222
Ion Ratio Lower Upper
65 100
67 53.5 42.9 64.3

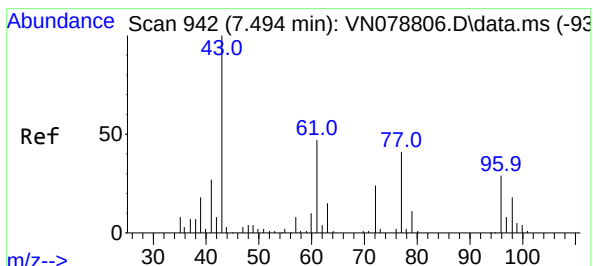
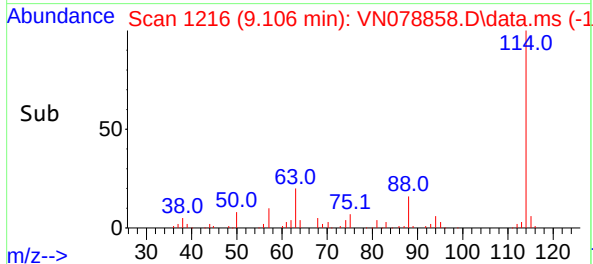
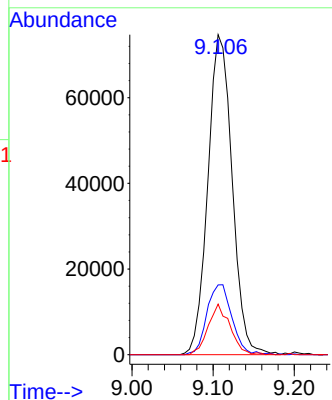
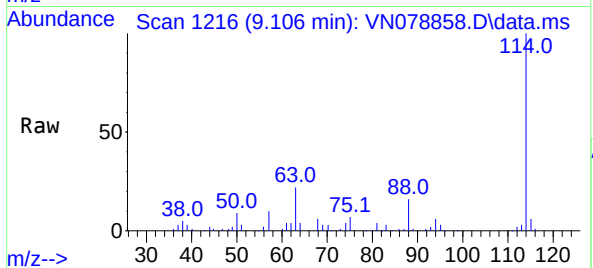




#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.106 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

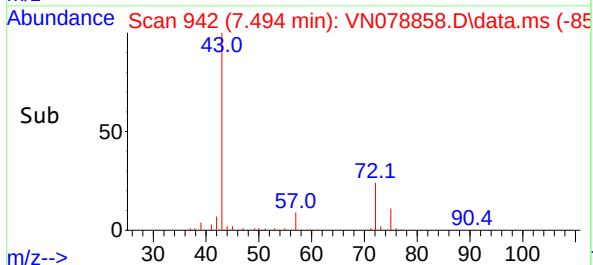
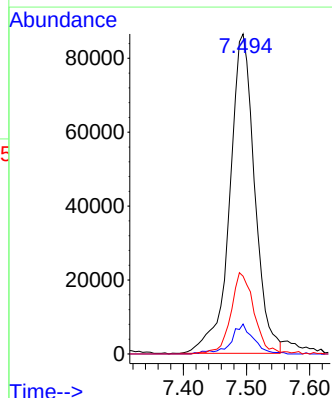
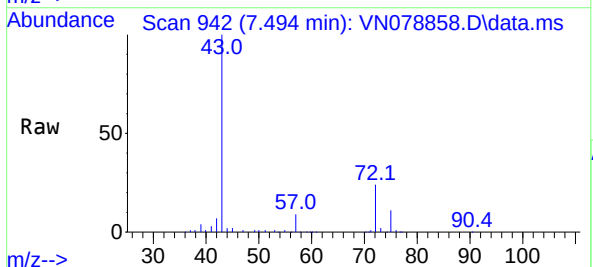
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

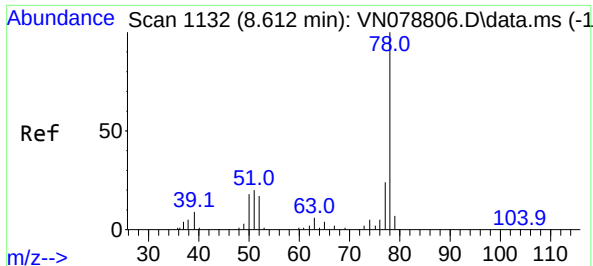
Tgt Ion:114 Resp: 155277
Ion Ratio Lower Upper
114 100
63 22.4 15.2 22.8
88 14.2 12.5 18.7



#30
2-Butanone
Concen: 192.074 ug/l
RT: 7.494 min Scan# 942
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 43 Resp: 237493
Ion Ratio Lower Upper
43 100
57 8.0 6.8 10.2
72 23.4 23.8 35.6#

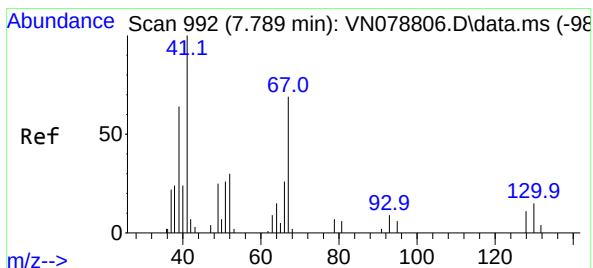
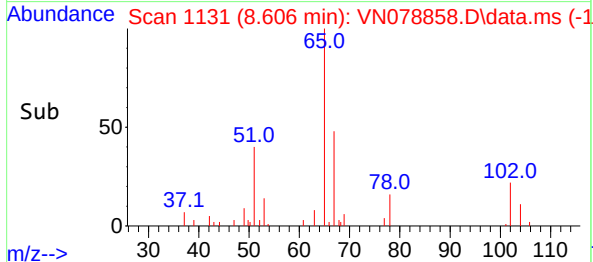
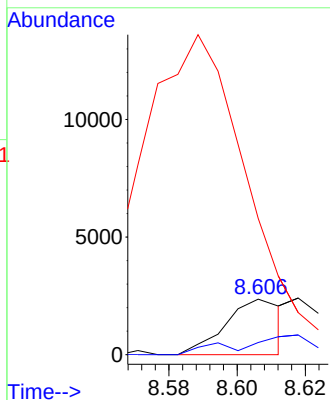
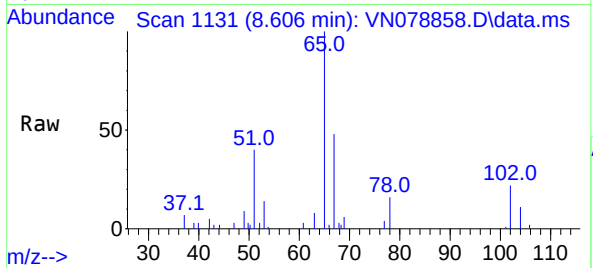




#34
Benzene
Concen: 0.354 ug/l
RT: 8.606 min Scan# 1132
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

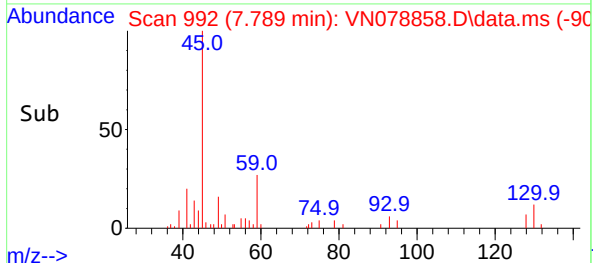
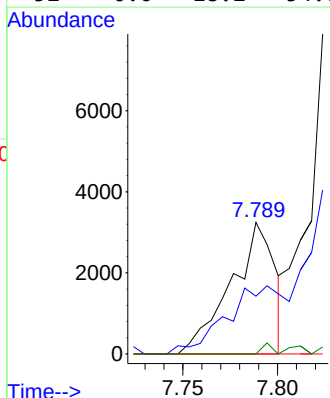
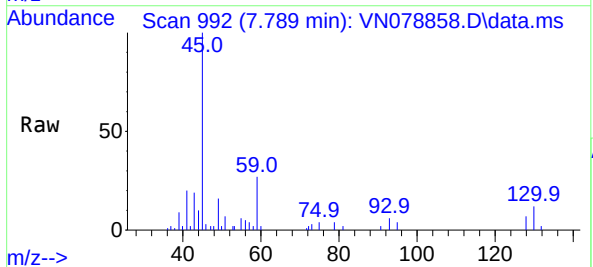
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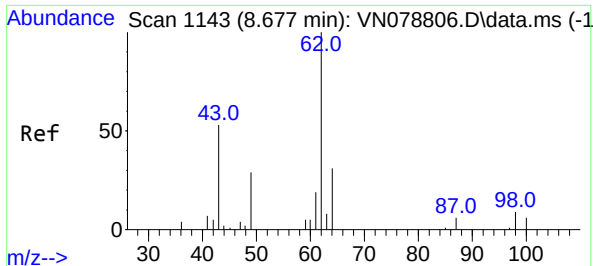
Tgt Ion:	78	Resp:	2718
Ion	Ratio	Lower	Upper
78	100		
77	22.0	18.3	27.5
51	103.3	13.7	20.5#



#35
Methacrylonitrile
Concen: 3.599 ug/l
RT: 7.789 min Scan# 992
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion:	41	Resp:	5226
Ion	Ratio	Lower	Upper
41	100		
39	37.8	33.9	101.6
67	0.0	45.9	137.6#
52	0.0	18.2	54.6#

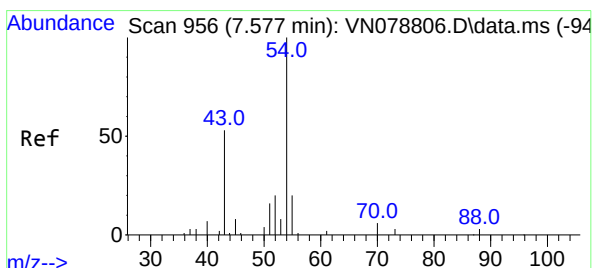
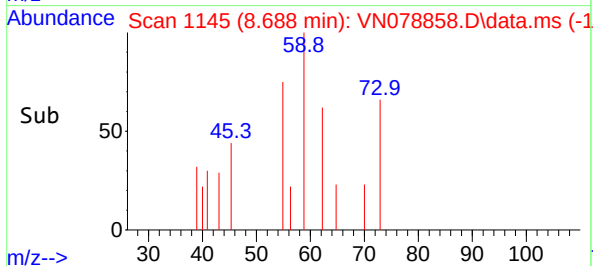
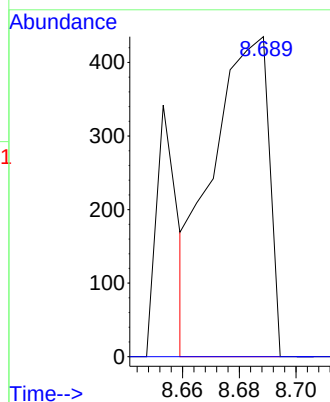
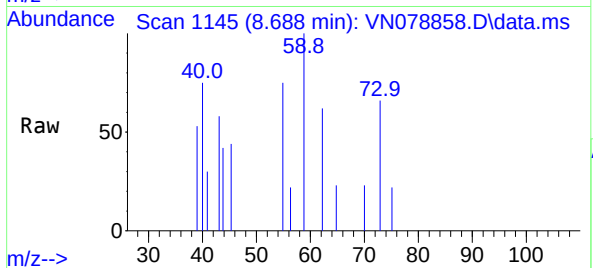




#36
1,2-Dichloroethane
Concen: 0.222 ug/l
RT: 8.688 min Scan# 1143
Delta R.T. 0.012 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

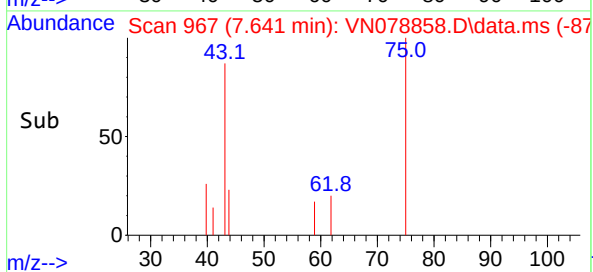
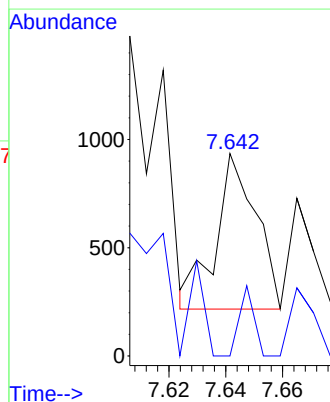
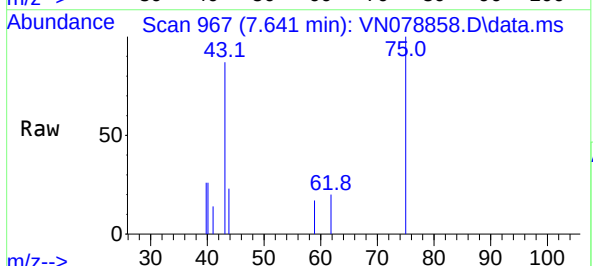
Instrument :
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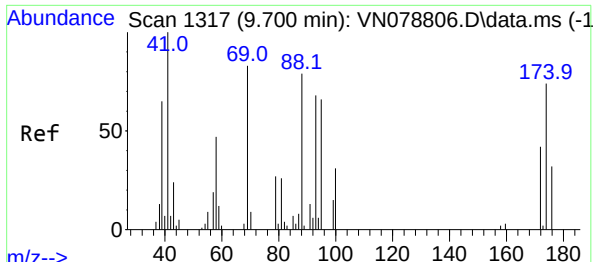
Tgt Ion: 62 Resp: 597
Ion Ratio Lower Upper
62 100
98 0.0 7.4 11.0#



#43
Ethyl Acetate
Concen: 0.275 ug/l
RT: 7.641 min Scan# 967
Delta R.T. 0.065 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

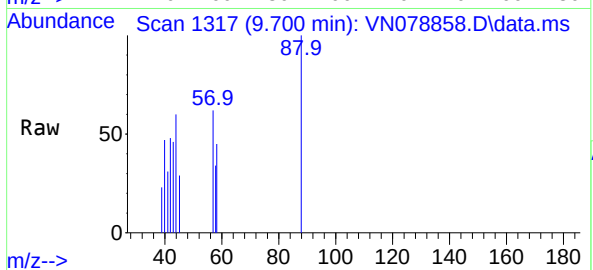
Tgt Ion: 43 Resp: 706
Ion Ratio Lower Upper
43 100
45 22.0 10.9 16.3#



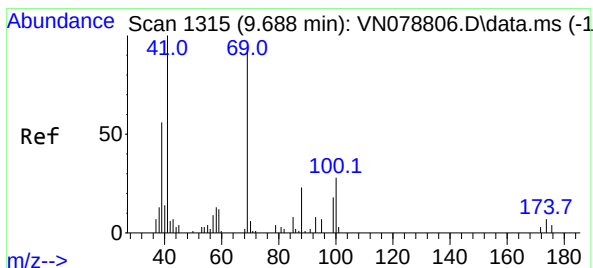
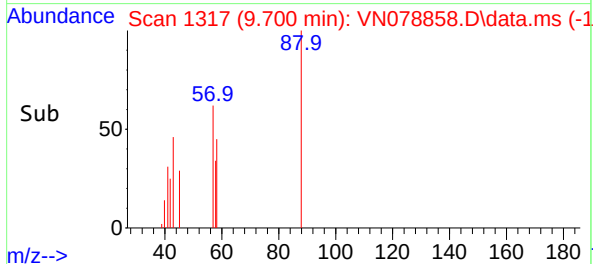
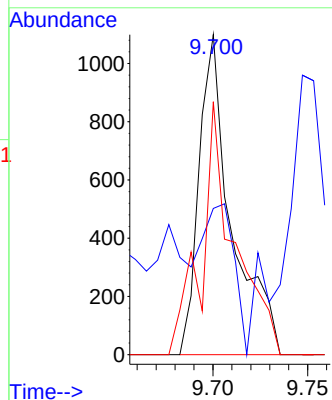


#45
1,4-Dioxane
Concen: 42.493 ug/l
RT: 9.700 min Scan# 1317
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

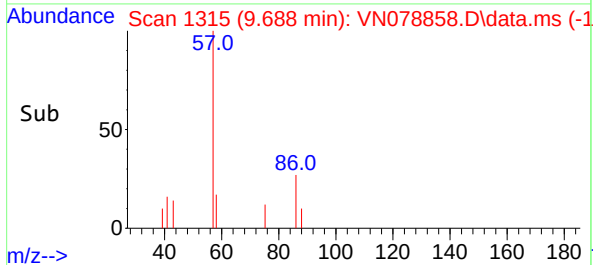
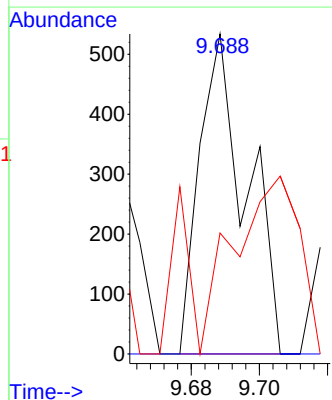
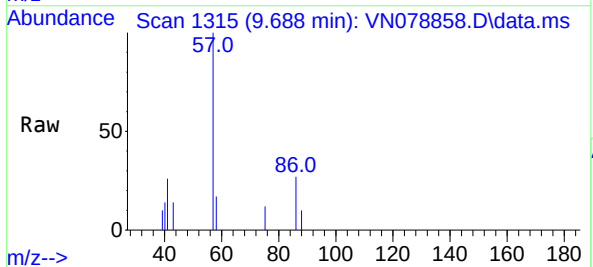


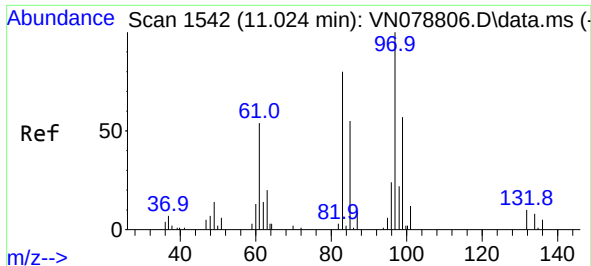
Tgt Ion: 88 Resp: 1314
Ion Ratio Lower Upper
88 100
43 46.7 19.0 28.6#
58 61.9 48.2 72.2



#46
Methyl methacrylate
Concen: 0.261 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 41 Resp: 510
Ion Ratio Lower Upper
41 100
69 0.0 49.0 147.0#
39 0.0 31.6 94.8#





#50

1,1,2-Trichloroethane

Concen: 0.293 ug/l

RT: 10.747 min Scan# 14

Delta R.T. -0.276 min

Lab File: VN078858.D

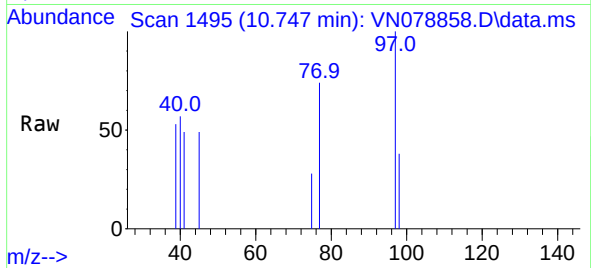
Acq: 11 Aug 2023 11:56

Instrument :

MSVOA_N

ClientSampleId :

230809051-02-VOA



Tgt Ion: 97 Resp: 538

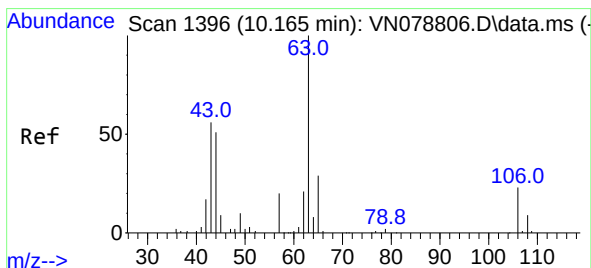
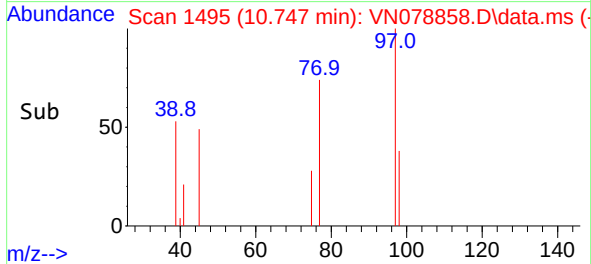
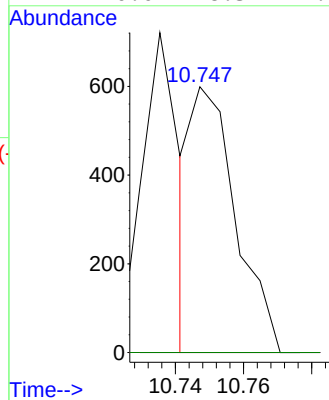
Ion Ratio Lower Upper

97 100

83 0.0 66.8 100.2#

85 0.0 42.5 63.7#

99 0.0 48.3 72.5#



#55

2-Chloroethyl vinyl ether

Concen: 0.292 ug/l

RT: 10.577 min Scan# 1466

Delta R.T. 0.412 min

Lab File: VN078858.D

Acq: 11 Aug 2023 11:56

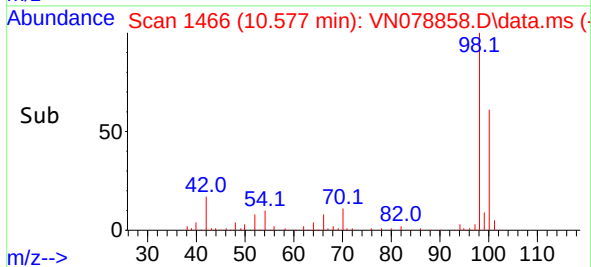
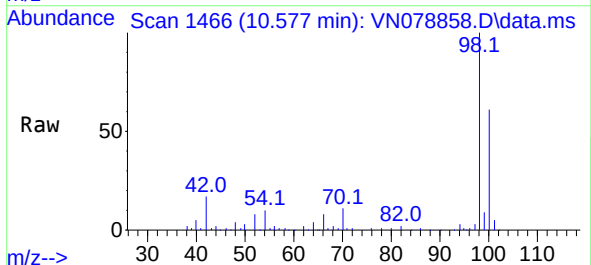
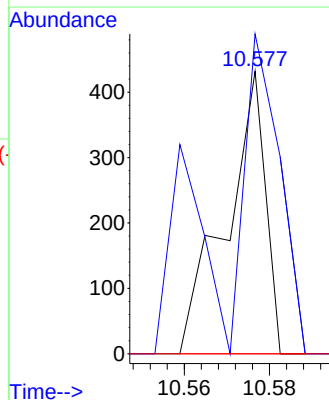
Tgt Ion: 63 Resp: 277

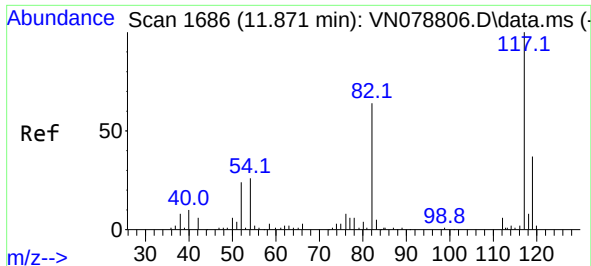
Ion Ratio Lower Upper

63 100

65 100.7 26.3 39.5#

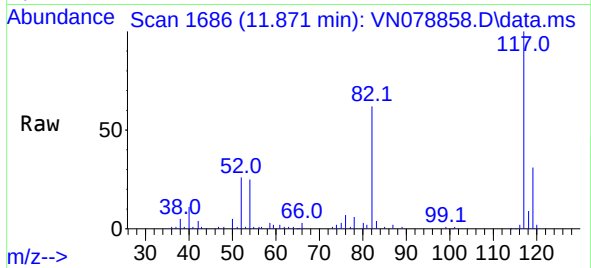
106 0.0 23.8 35.6#



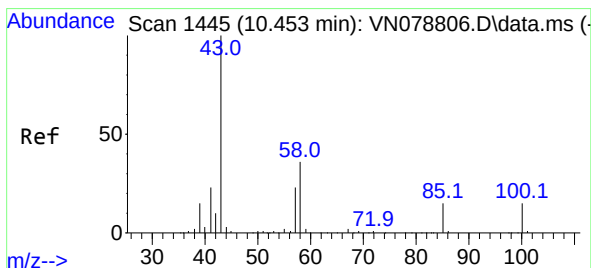
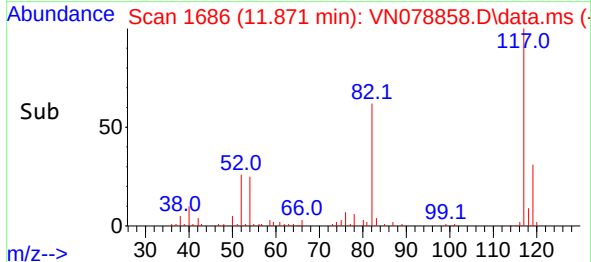
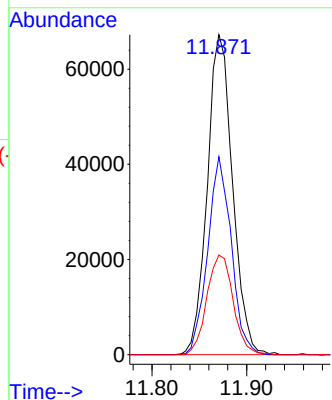


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.871 min Scan# 117
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

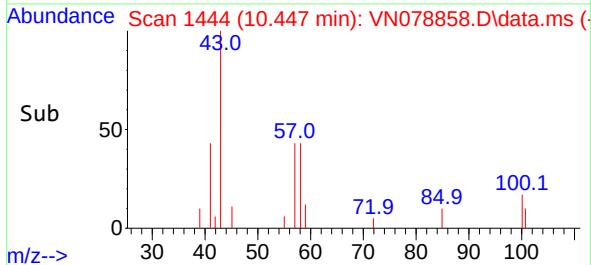
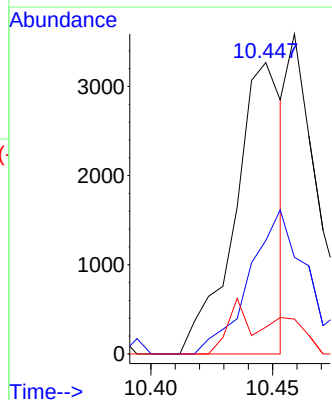
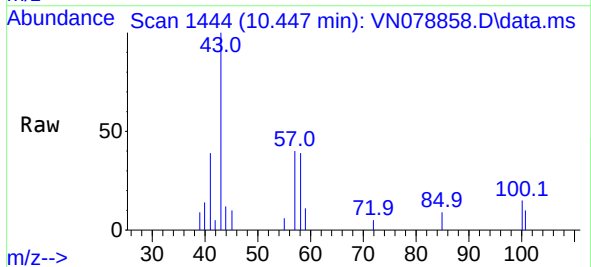


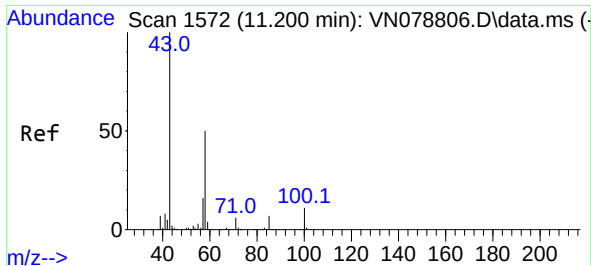
Tgt Ion:117 Resp: 125026
Ion Ratio Lower Upper
117 100
82 57.7 43.9 65.9
119 32.4 26.2 39.4



#58
4-Methyl-2-Pentanone
Concen: 1.849 ug/l
RT: 10.447 min Scan# 1444
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 43 Resp: 4444
Ion Ratio Lower Upper
43 100
58 56.6 32.6 48.8#
85 10.4 16.2 24.2#

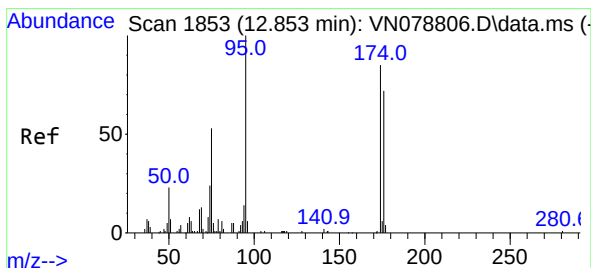
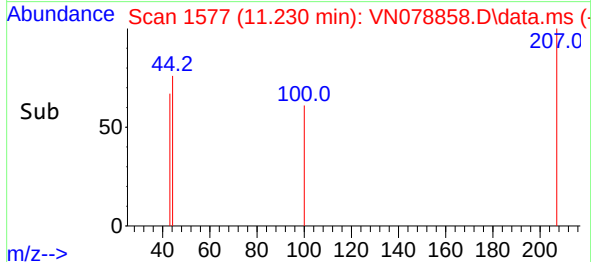
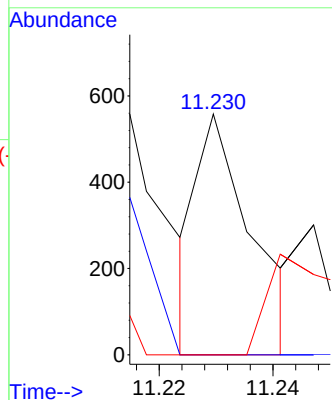
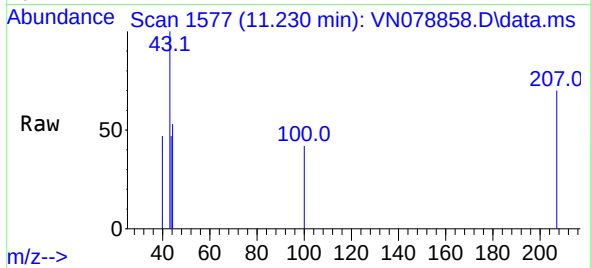




#59
2-Hexanone
Concen: 0.220 ug/l
RT: 11.230 min Scan# 11
Delta R.T. 0.029 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

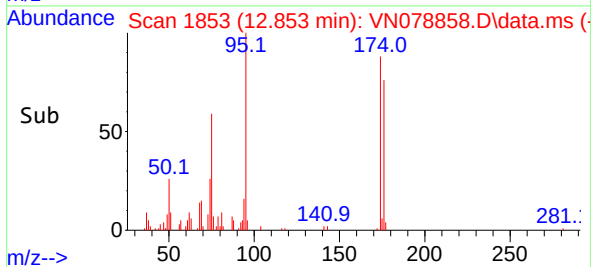
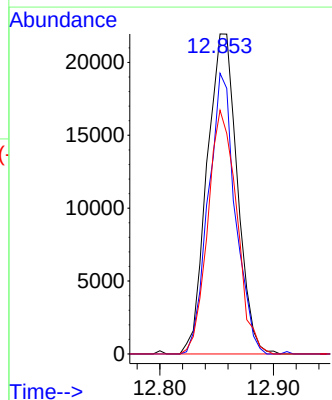
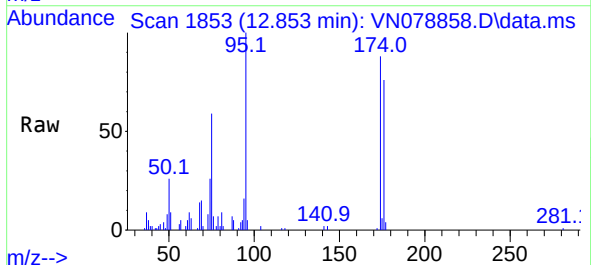
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

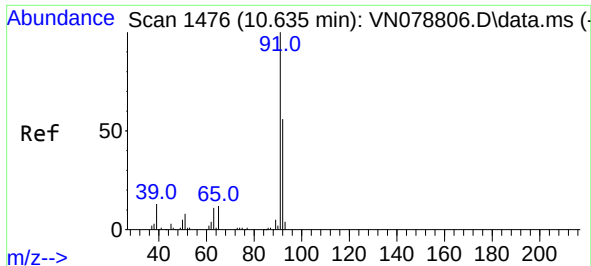
Tgt Ion: 43 Resp: 368
Ion Ratio Lower Upper
43 100
58 111.4 45.9 68.9#
57 130.7 15.8 23.6#



#60
4-Bromofluorobenzene
Concen: 23.130 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 95 Resp: 40593
Ion Ratio Lower Upper
95 100
174 78.4 61.7 92.5
176 72.7 58.1 87.1

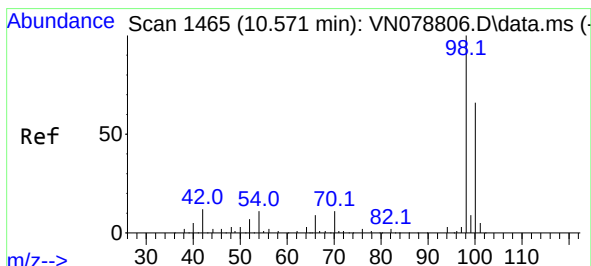
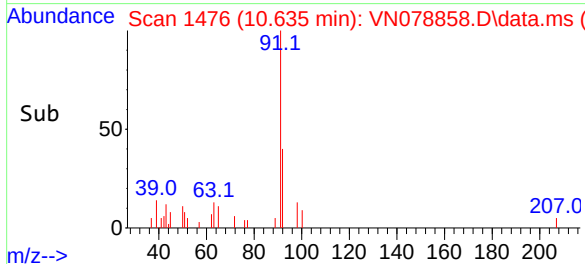
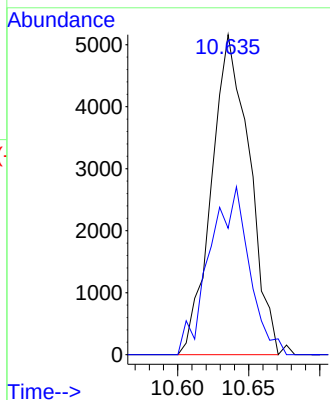
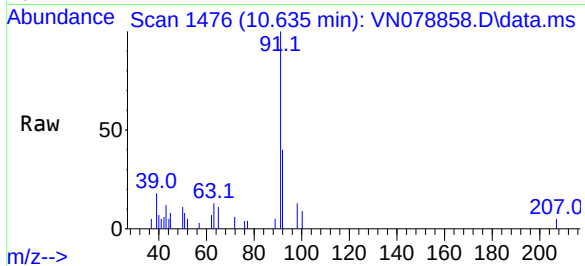




#62
Toluene
Concen: 1.304 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

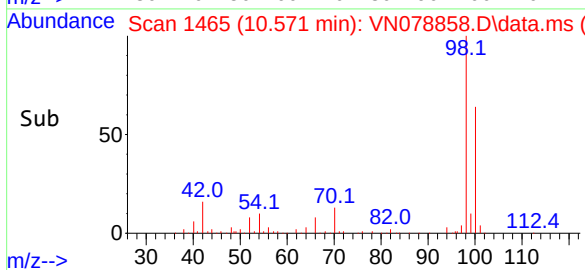
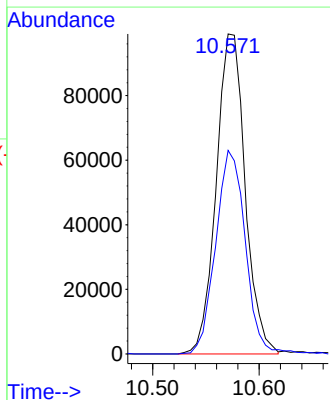
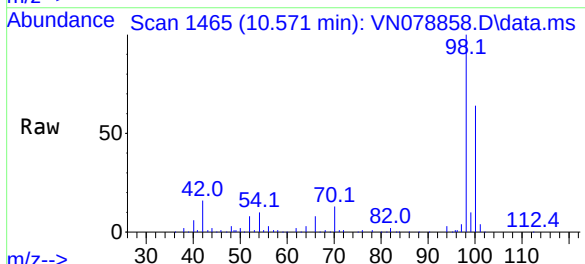
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

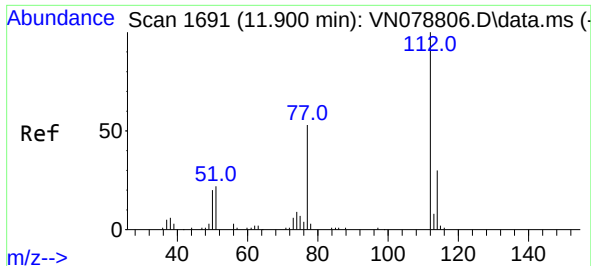
Tgt Ion: 91 Resp: 9597
Ion Ratio Lower Upper
91 100
92 54.9 45.2 67.8



#63
Toluene-d8
Concen: 30.527 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

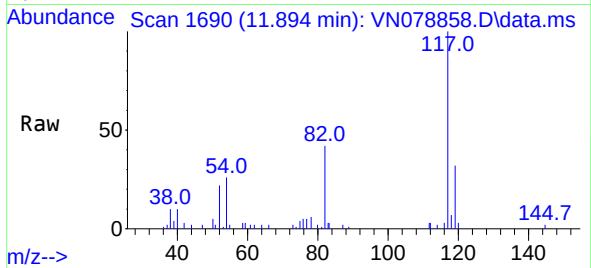
Tgt Ion: 98 Resp: 187030
Ion Ratio Lower Upper
98 100
100 65.1 49.7 74.5



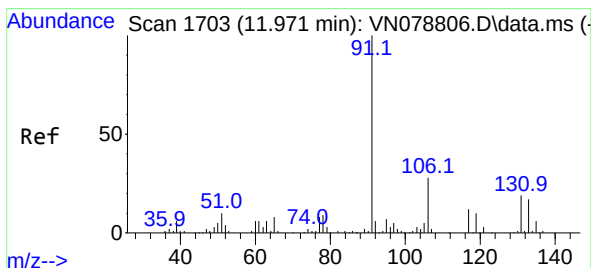
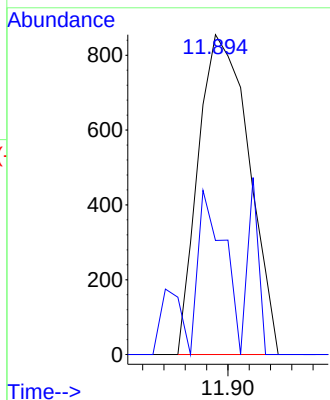
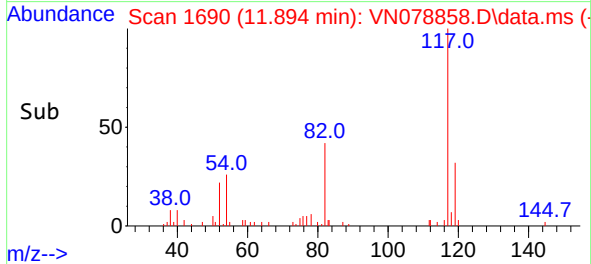


#64
Chlorobenzene
Concen: 0.327 ug/l
RT: 11.894 min Scan# 11
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

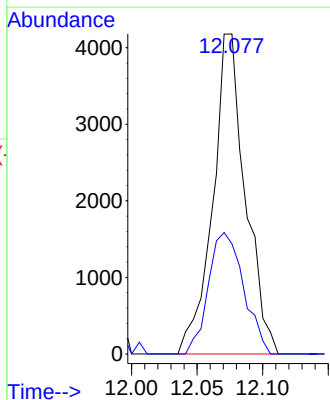
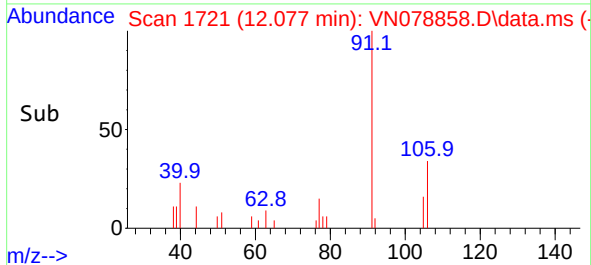
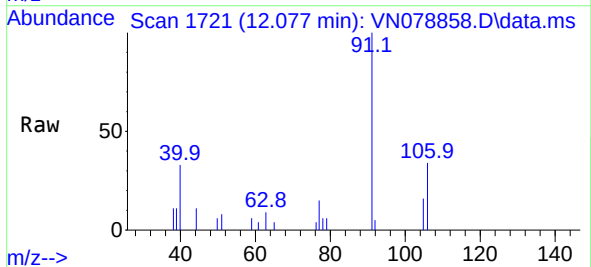


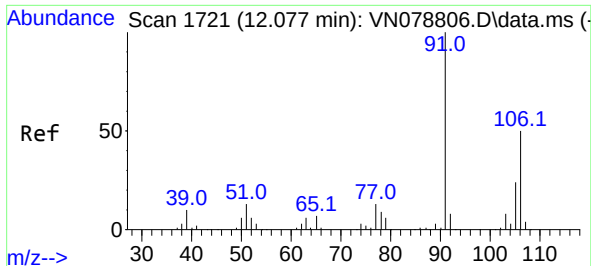
Tgt Ion:112 Resp: 1409
Ion Ratio Lower Upper
112 100
114 35.7 25.9 38.9



#66
Ethyl Benzene
Concen: 0.943 ug/l
RT: 12.077 min Scan# 1721
Delta R.T. 0.106 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 91 Resp: 7212
Ion Ratio Lower Upper
91 100
106 34.4 25.6 38.4

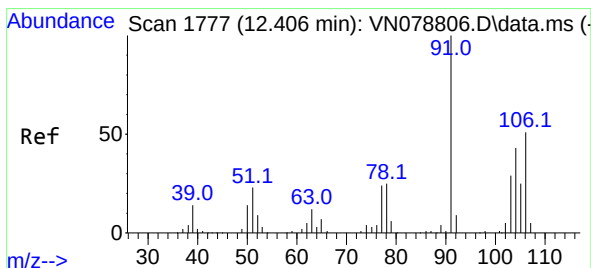
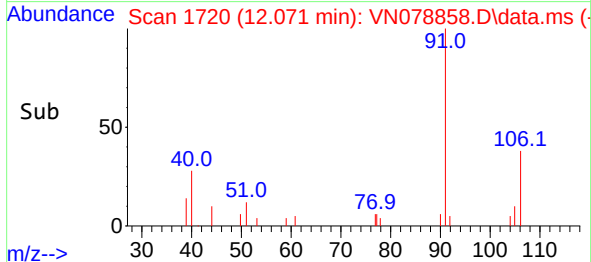
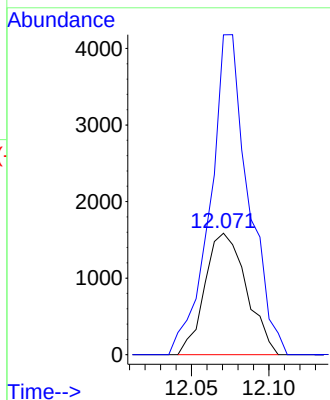
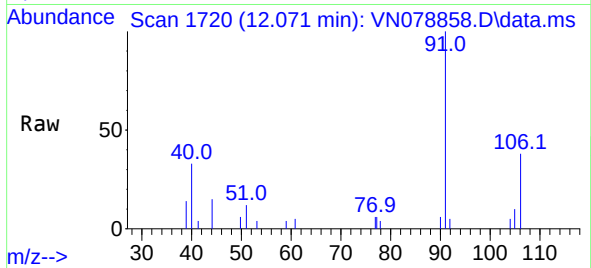




#67
m/p-Xylenes
Concen: 1.056 ug/l
RT: 12.071 min Scan# 1720
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

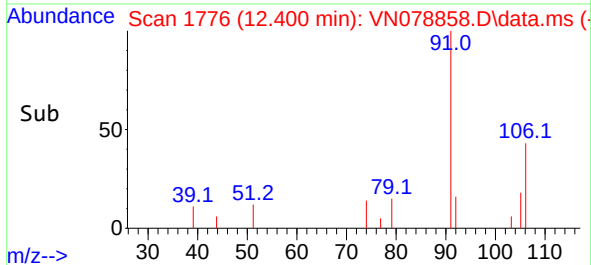
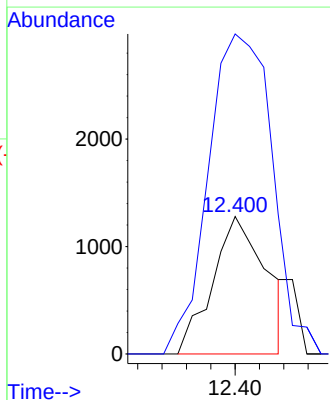
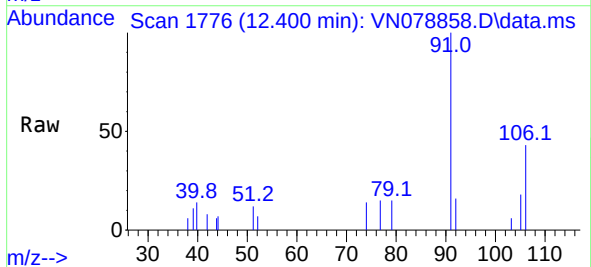
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

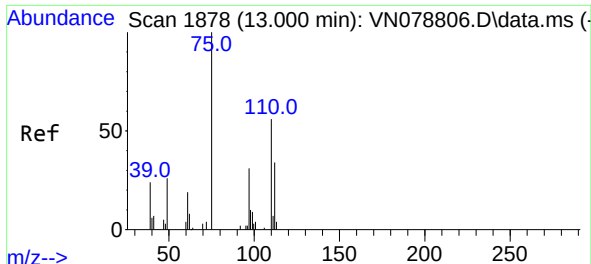
Tgt Ion:106 Resp: 2961
Ion Ratio Lower Upper
106 100
91 243.6 162.5 243.7



#68
o-Xylene
Concen: 0.699 ug/l
RT: 12.400 min Scan# 1776
Delta R.T. -0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion:106 Resp: 1951
Ion Ratio Lower Upper
106 100
91 278.4 106.1 318.3

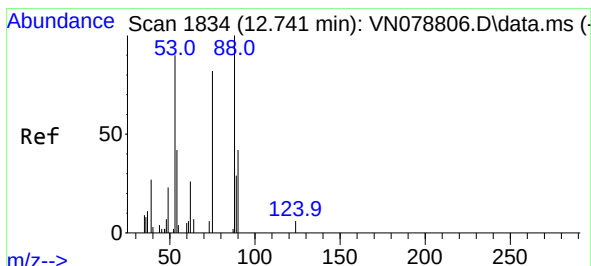
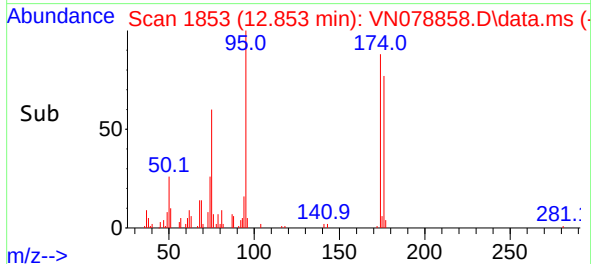
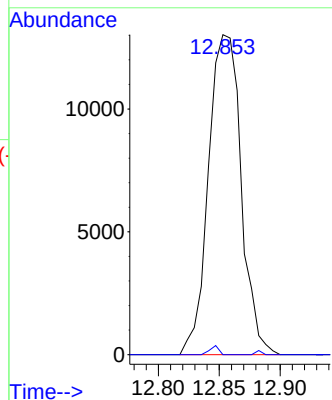
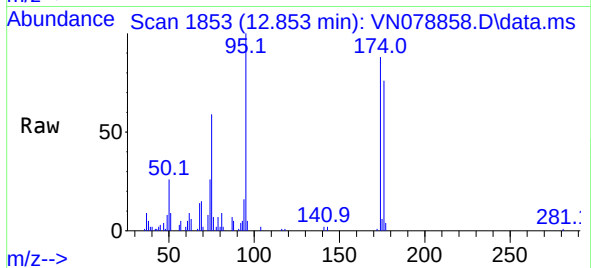




#72
1,2,3-Trichloropropane
Concen: 11.914 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. -0.147 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

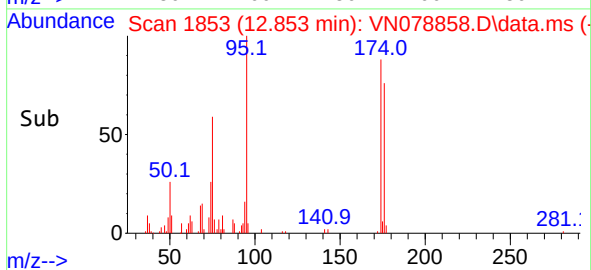
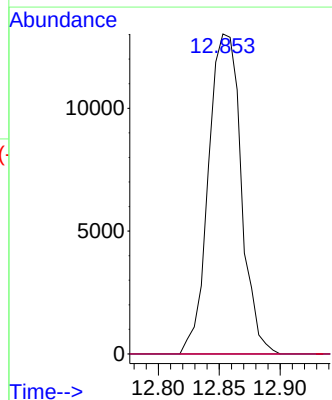
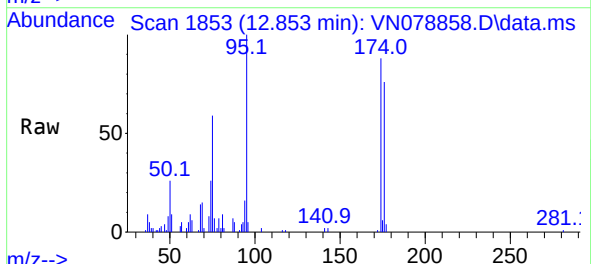
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

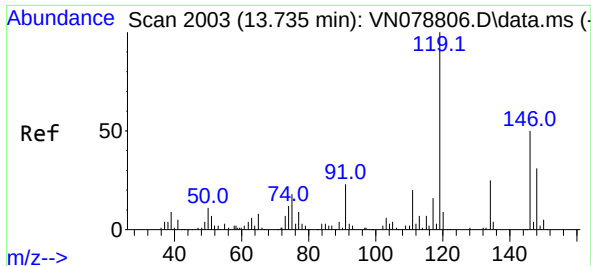
Tgt Ion: 75 Resp: 24287
Ion Ratio Lower Upper
75 100
77 0.8 0.0 387.4



#77
t-1,4-Dichloro-2-butene
Concen: 37.958 ug/l
RT: 12.853 min Scan# 1853
Delta R.T. 0.112 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion: 75 Resp: 24287
Ion Ratio Lower Upper
75 100
53 0.0 41.6 124.9#
89 0.0 25.1 75.4#

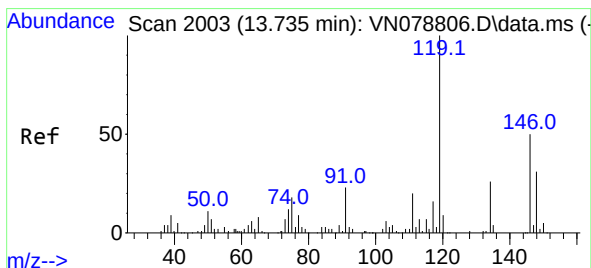
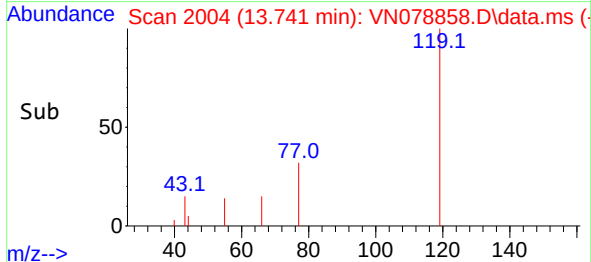
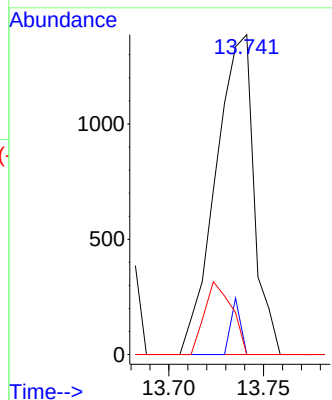
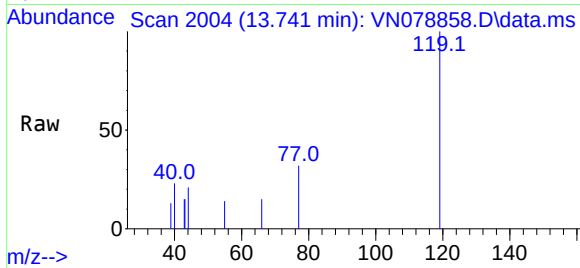




#82
p-Isopropyltoluene
Concen: 0.414 ug/l
RT: 13.741 min Scan# 2017
Delta R.T. 0.006 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

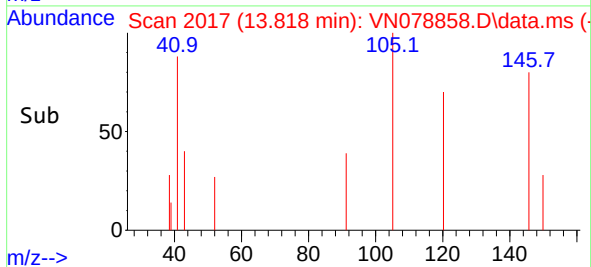
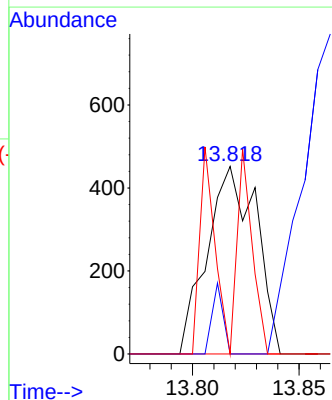
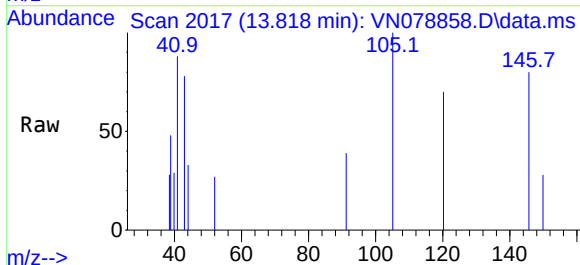
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

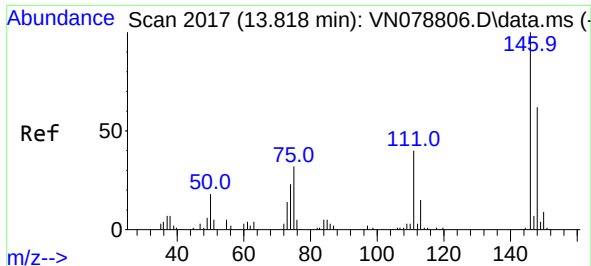
Tgt Ion:119 Resp: 1952
Ion Ratio Lower Upper
119 100
134 0.0 0.0 52.4
91 16.3 0.0 48.2



#83
1,3-Dichlorobenzene
Concen: 0.286 ug/l
RT: 13.818 min Scan# 2017
Delta R.T. 0.082 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Tgt Ion:146 Resp: 728
Ion Ratio Lower Upper
146 100
111 145.9 21.6 64.6#
148 33.2 31.9 95.5

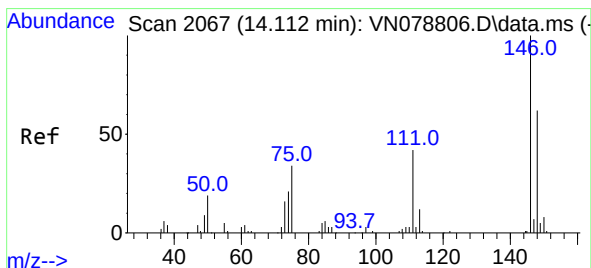
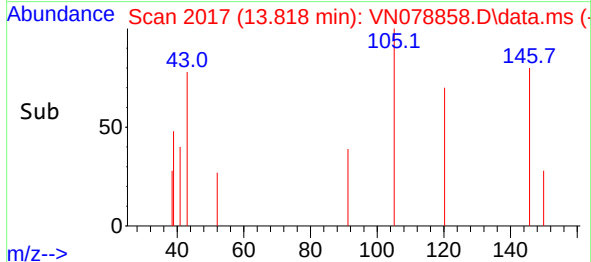
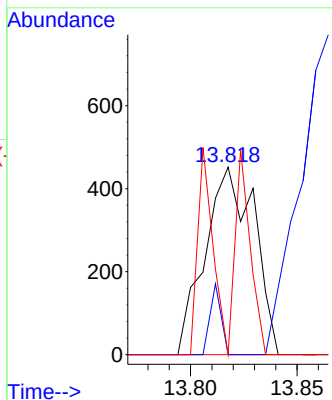
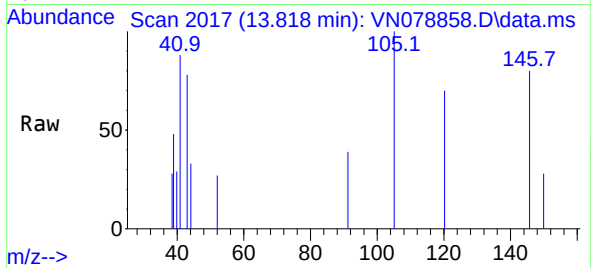




#84
1,4-Dichlorobenzene
Concen: 0.299 ug/l
RT: 13.818 min Scan# 2017
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

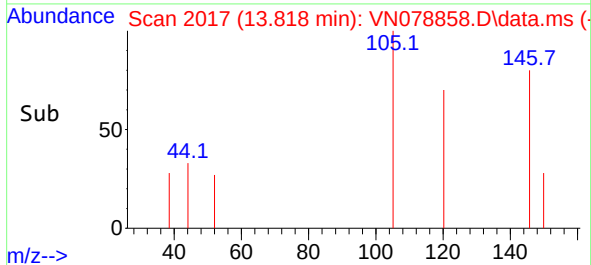
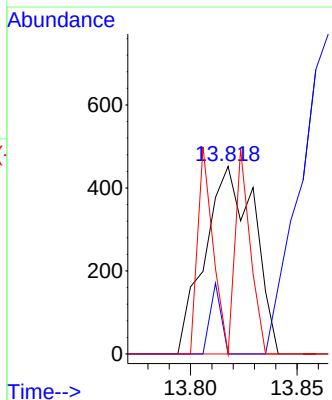
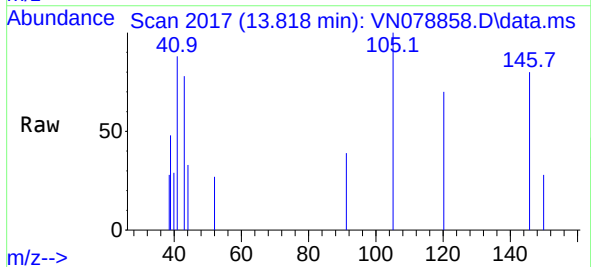
Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA

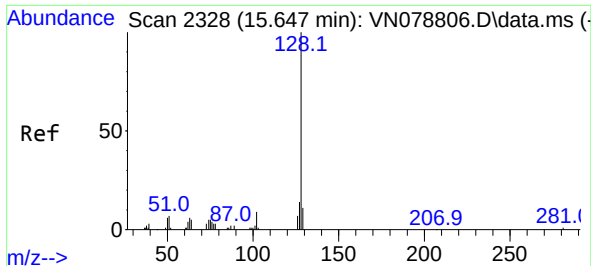
Tgt Ion:146 Resp: 728
Ion Ratio Lower Upper
146 100
111 145.9 19.4 58.2#
148 33.2 31.4 94.3



#87
1,2-Dichlorobenzene
Concen: 0.291 ug/l
RT: 13.818 min Scan# 2017
Delta R.T. -0.294 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

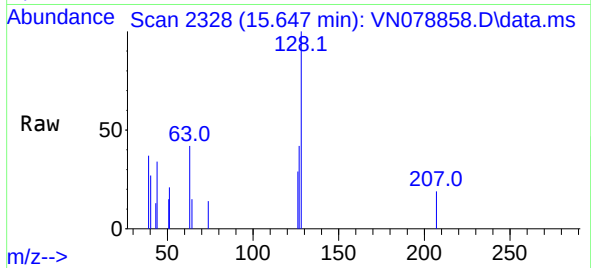
Tgt Ion:146 Resp: 728
Ion Ratio Lower Upper
146 100
111 145.9 22.4 67.3#
148 33.2 33.4 100.1#





#91
Naphthalene
Concen: 1.179 ug/l
RT: 15.647 min Scan# 21
Delta R.T. -0.000 min
Lab File: VN078858.D
Acq: 11 Aug 2023 11:56

Instrument :
MSVOA_N
ClientSampleId :
230809051-02-VOA



Tgt Ion:128 Resp: 2555
Ion Ratio Lower Upper
128 100
127 12.3 10.2 15.2
129 2.6 9.0 13.4#

