

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW111825\
 Data File : VW032477.D
 Acq On : 18 Nov 2025 13:40
 Operator : SY/MD
 Sample : Q3638-03
 Misc : 3.00g/5mL/MSVOA_W/SOIL/A
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 MOO-25-0328

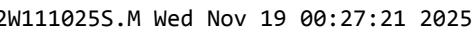
Quant Time: Nov 19 00:27:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W111025S.M
 Quant Title : SW846 8260
 QLast Update : Tue Nov 11 03:48:21 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.965	168	218113	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.849	114	525090	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.629	117	557342	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	282797	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	169542	60.292	ug/l	0.00
Spiked Amount 50.000	Range 63 - 155		Recovery = 120.580%			
35) Dibromofluoromethane	7.898	113	153315	48.767	ug/l	0.00
Spiked Amount 50.000	Range 70 - 134		Recovery = 97.540%			
50) Toluene-d8	10.325	98	553394	45.884	ug/l	0.00
Spiked Amount 50.000	Range 74 - 123		Recovery = 91.760%			
62) 4-Bromofluorobenzene	12.617	95	268391	58.908	ug/l	0.00
Spiked Amount 50.000	Range 17 - 146		Recovery = 117.820%			
Target Compounds					Qvalue	
8) Diethyl Ether	3.734	74	2226	1.451	ug/l	86
11) Tert butyl alcohol	5.204	59	9561	39.321	ug/l #	84
13) Acrolein	3.929	56	6321	15.494	ug/l	84
14) Allyl chloride	4.643	41	15177	3.366	ug/l #	52
15) Acrylonitrile	5.405	53	7004	7.894	ug/l	97
16) Acetone	4.161	43	82219	97.731	ug/l	95
18) Methyl Acetate	4.716	43	13930	6.687	ug/l	94
20) Methylene Chloride	4.960	84	20982	6.974	ug/l	97
23) Vinyl Acetate	6.429	43	17993	2.861	ug/l #	72
25) 2-Butanone	7.197	43	23270	18.775	ug/l	97
26) 2,2-Dichloropropane	7.167	77	12186	4.348	ug/l #	52
29) Tetrahydrofuran	7.563	42	2580	3.280	ug/l #	46
31) Cyclohexane	7.959	56	5849	1.257	ug/l #	1
36) 1,1-Dichloropropene	7.959	75	20008	4.319	ug/l #	49
37) Ethyl Acetate	7.197	43	23270	6.756	ug/l #	69
38) Carbon Tetrachloride	7.965	117	23864	5.798	ug/l #	18
48) Methyl methacrylate	9.416	41	6467	2.231	ug/l #	41
52) Toluene	10.392	92	9375	1.017	ug/l	88
68) m/p-Xylenes	11.837	106	16664	2.135	ug/l	94
76) 1,2,3-Trichloropropane	12.617	75	127722	32.938	ug/l #	1
77) Bromobenzene	12.867	156	34675	7.051	ug/l #	1
81) trans-1,4-Dichloro-2-b...	12.617	75	127722	75.443	ug/l #	12
84) 1,2,4-Trimethylbenzene	13.245	105	36021	2.067	ug/l	100
86) p-Isopropyltoluene	13.495	119	273505	14.922	ug/l	98

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

Quant Time: Nov 19 00:27:12 2025
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QLast Update : Tue Nov 11 03:48:21 2025
Response via : Initial Calibration

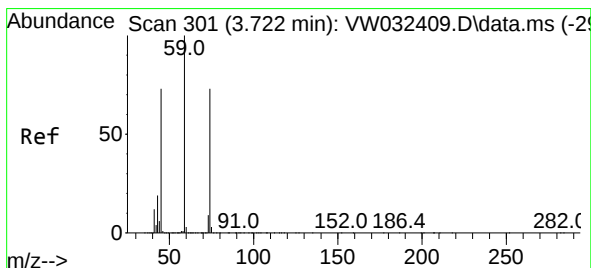
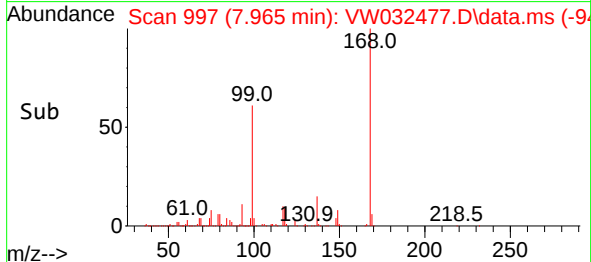
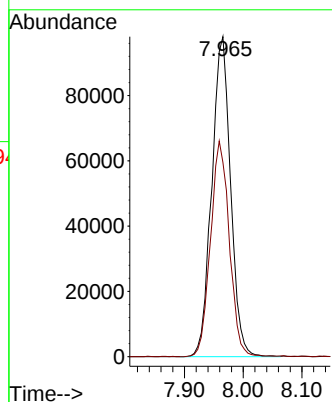
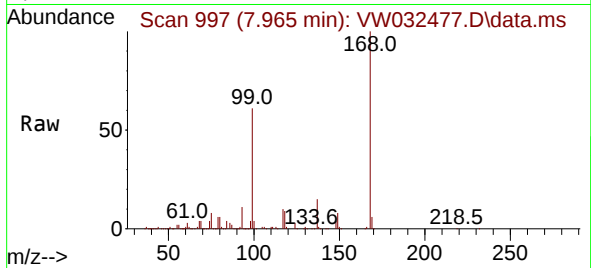




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.965 min Scan# 997
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

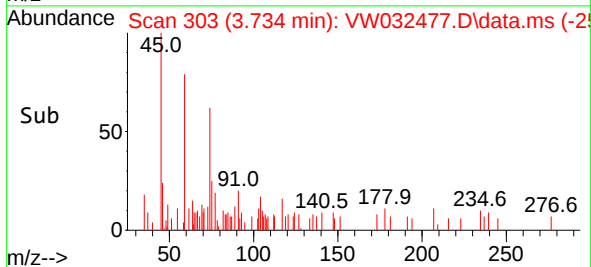
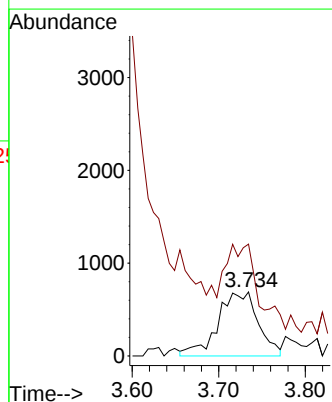
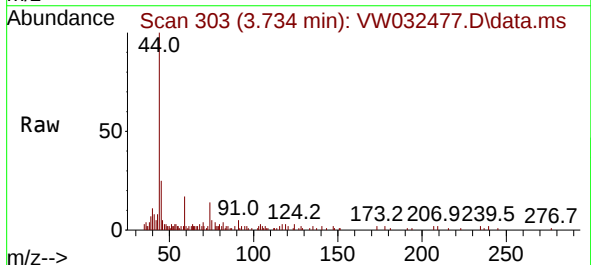
Instrument :
MSVOA_W
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MOO-25-0328

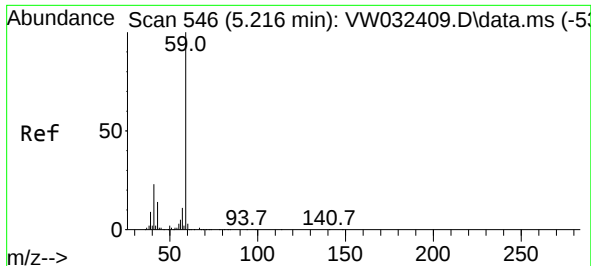
Tgt Ion:168 Resp: 218113
Ion Ratio Lower Upper
168 100
99 60.7 45.4 68.2



#8
Diethyl Ether
Concen: 1.451 ug/l
RT: 3.734 min Scan# 303
Delta R.T. 0.012 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 74 Resp: 2226
Ion Ratio Lower Upper
74 100
45 118.0 51.8 155.4

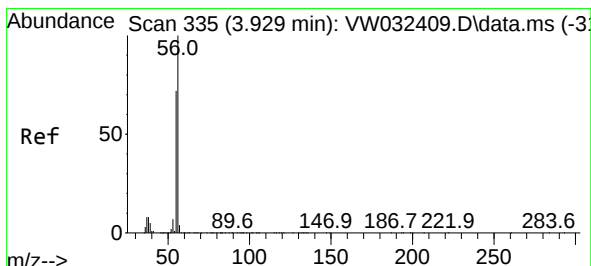
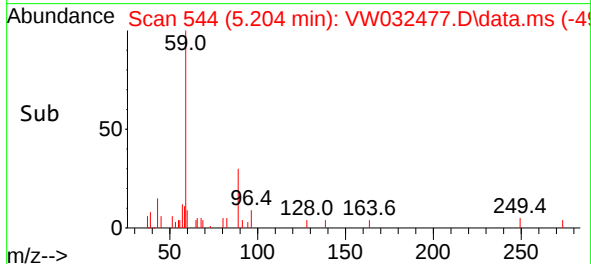
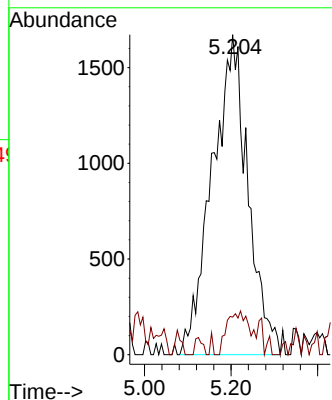
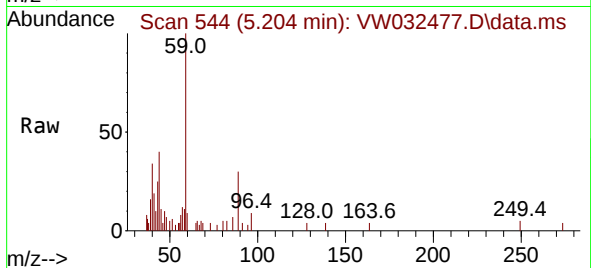




#11
Tert butyl alcohol
Concen: 39.321 ug/l
RT: 5.204 min Scan# 546
Delta R.T. -0.012 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

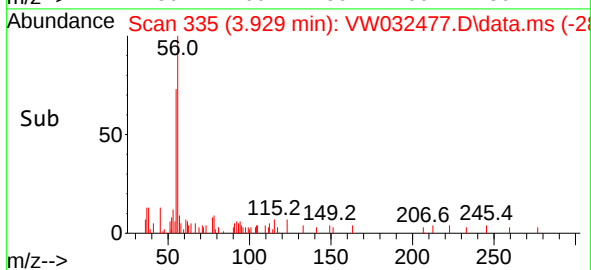
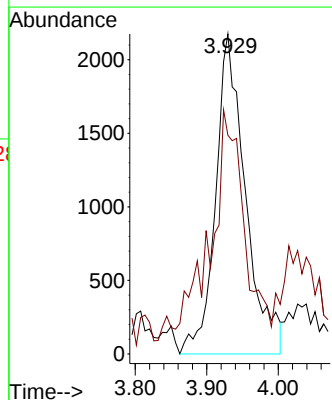
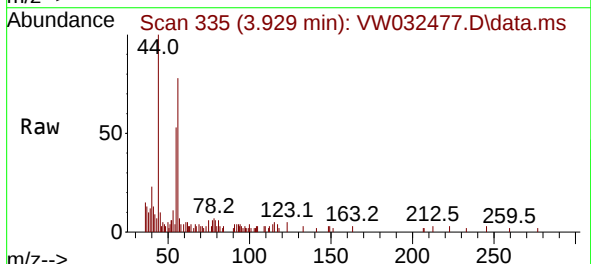
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ClientSampleId :
MOO-25-0328

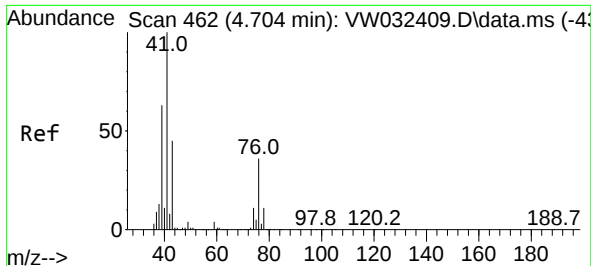
Tgt Ion: 59 Resp: 9561
Ion Ratio Lower Upper
59 100
57 4.5 8.6 12.8#



#13
Acrolein
Concen: 15.494 ug/l
RT: 3.929 min Scan# 335
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 56 Resp: 6321
Ion Ratio Lower Upper
56 100
55 83.4 56.3 84.5

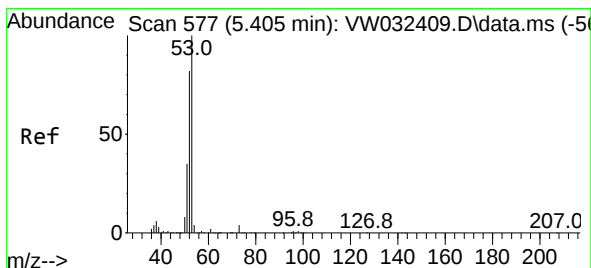
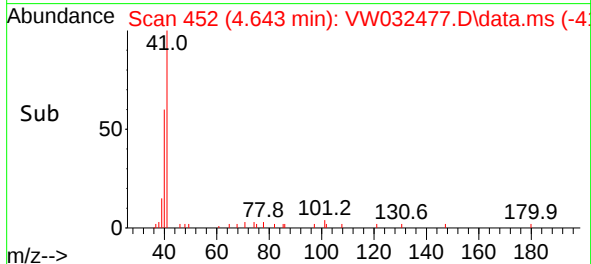
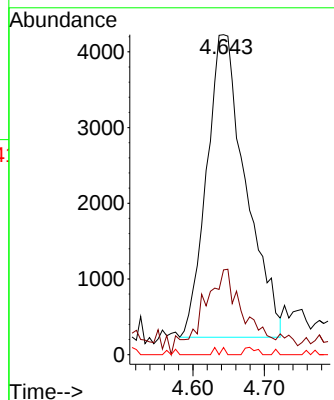
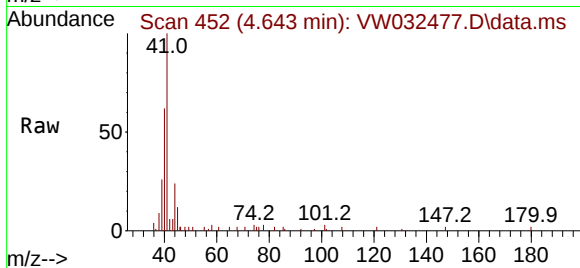




#14
 Allyl chloride
 Concen: 3.366 ug/l
 RT: 4.643 min Scan# 41
 Delta R.T. -0.061 min
 Lab File: VW032477.D
 Acq: 18 Nov 2025 13:40

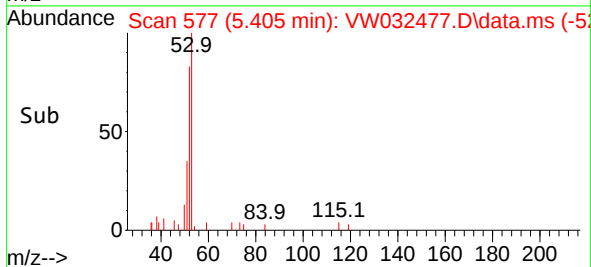
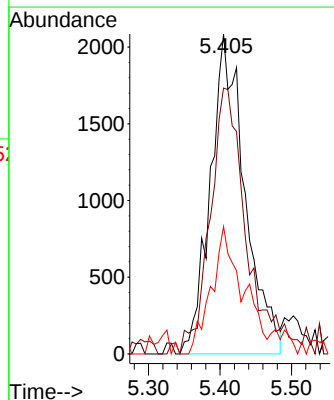
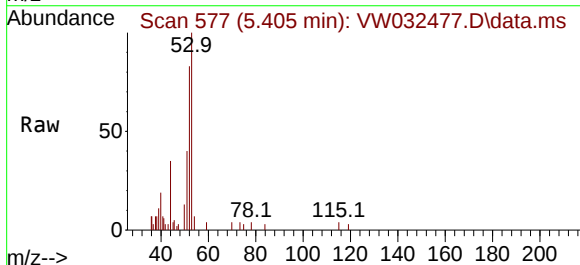
Instrument :
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 ClientSampleId :
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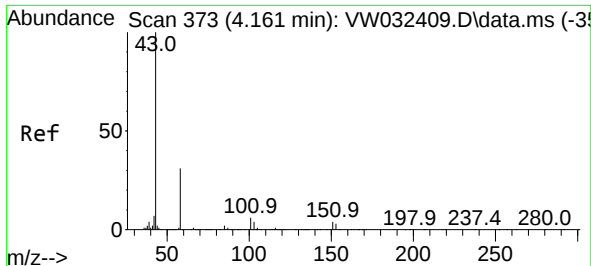
Tgt Ion: 41 Resp: 15177
 Ion Ratio Lower Upper
 41 100
 39 30.3 50.2 75.2#
 76 0.5 27.0 40.6#



#15
 Acrylonitrile
 Concen: 7.894 ug/l
 RT: 5.405 min Scan# 577
 Delta R.T. 0.000 min
 Lab File: VW032477.D
 Acq: 18 Nov 2025 13:40

Tgt Ion: 53 Resp: 7004
 Ion Ratio Lower Upper
 53 100
 52 87.0 66.4 99.6
 51 36.2 28.6 43.0

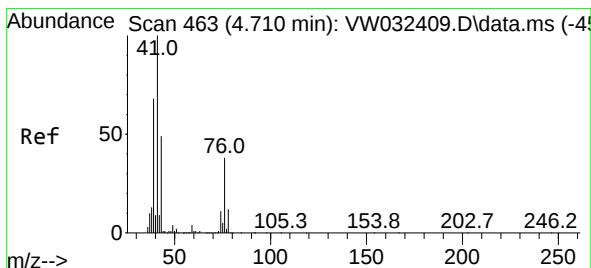
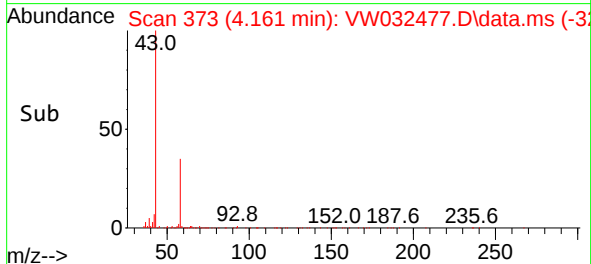
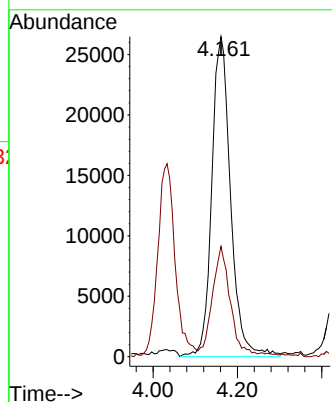
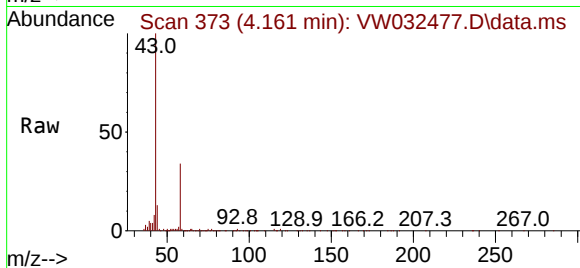




#16
Acetone
Concen: 97.731 ug/l
RT: 4.161 min Scan# 373
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

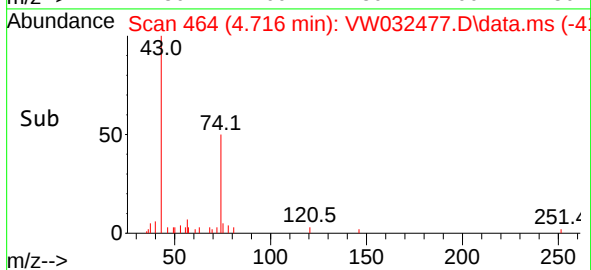
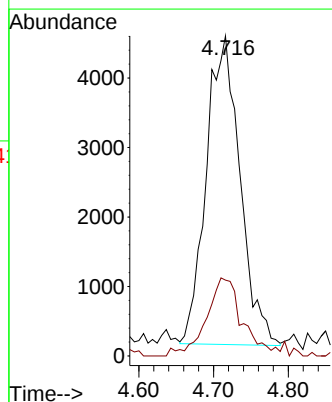
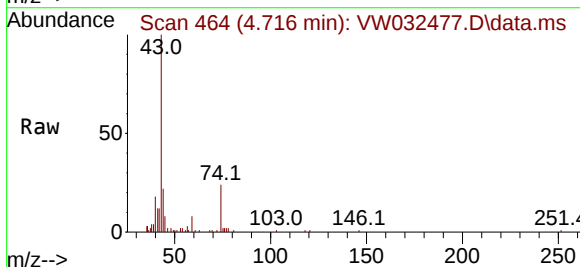
Instrument :
MSVOA_W
ClientSampleId :
MOO-25-0328

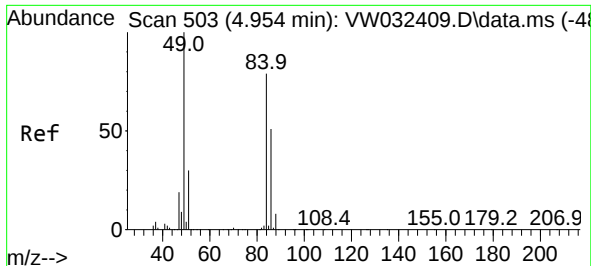
Tgt Ion: 43 Resp: 82219
Ion Ratio Lower Upper
43 100
58 33.9 24.8 37.2



#18
Methyl Acetate
Concen: 6.687 ug/l
RT: 4.716 min Scan# 464
Delta R.T. 0.006 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 43 Resp: 13930
Ion Ratio Lower Upper
43 100
74 26.5 18.9 28.3

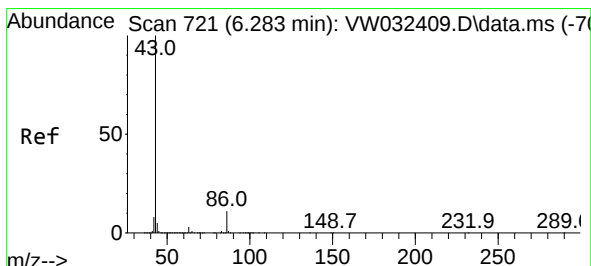
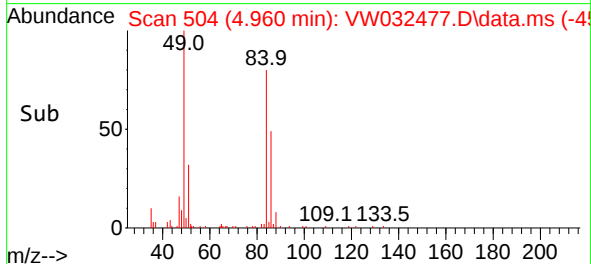
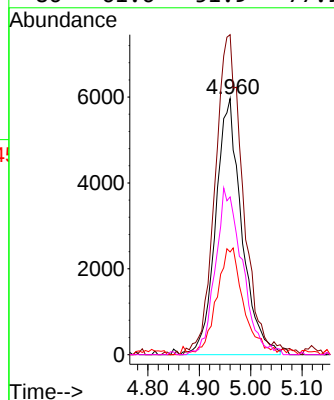
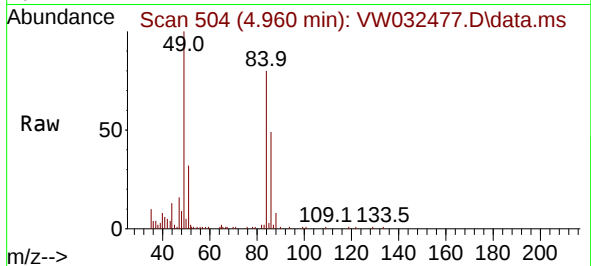




#20
Methylene Chloride
Concen: 6.974 ug/l
RT: 4.960 min Scan# 503
Delta R.T. 0.006 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

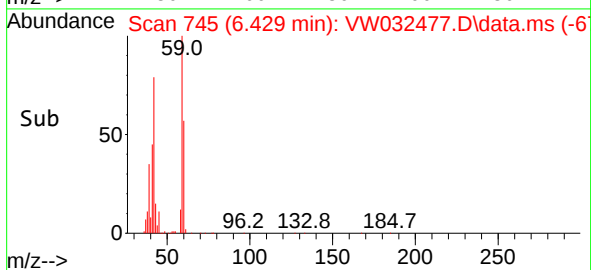
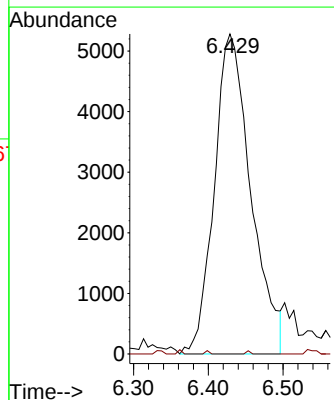
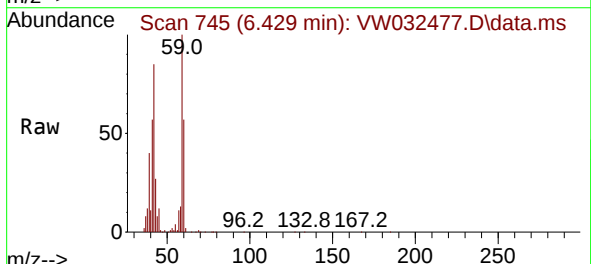
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ClientSampleId :
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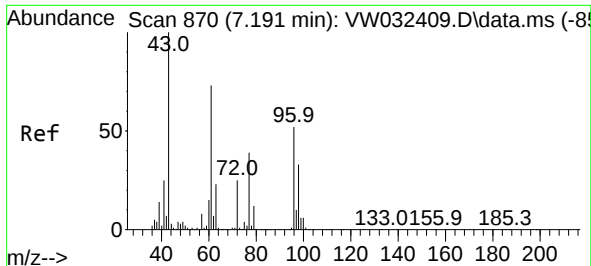
Tgt Ion:	84	Resp:	20982
Ion	Ratio	Lower	Upper
84	100		
49	124.9	101.5	152.3
51	40.1	30.6	46.0
86	61.6	51.9	77.9



#23
Vinyl Acetate
Concen: 2.861 ug/l
RT: 6.429 min Scan# 745
Delta R.T. 0.146 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion:	43	Resp:	17993
Ion	Ratio	Lower	Upper
43	100		
86	0.0	8.6	12.8

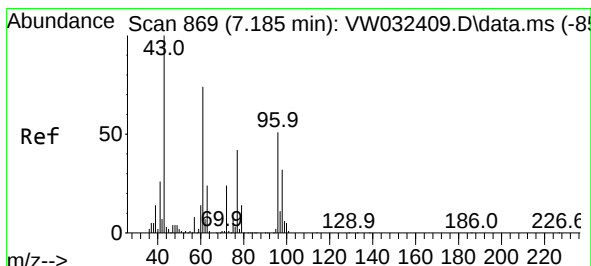
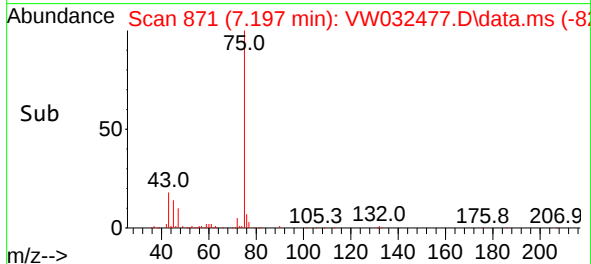
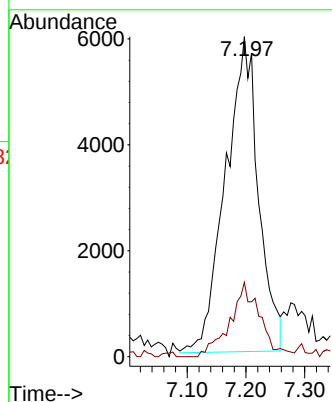
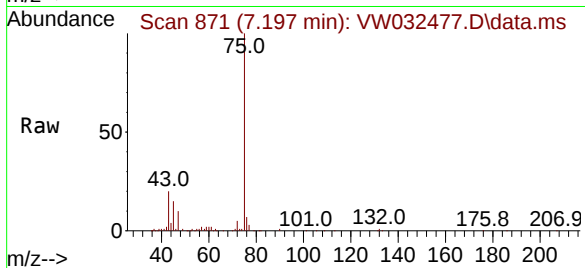




#25
 2-Butanone
 Concen: 18.775 ug/l
 RT: 7.197 min Scan# 871
 Delta R.T. 0.006 min
 Lab File: VW032477.D
 Acq: 18 Nov 2025 13:40

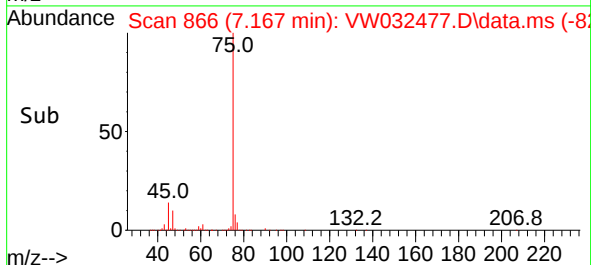
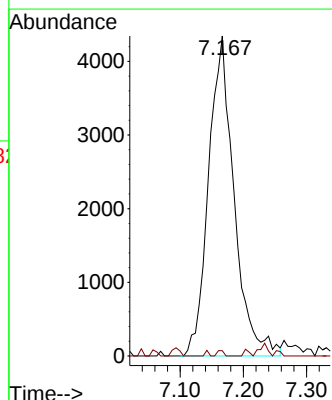
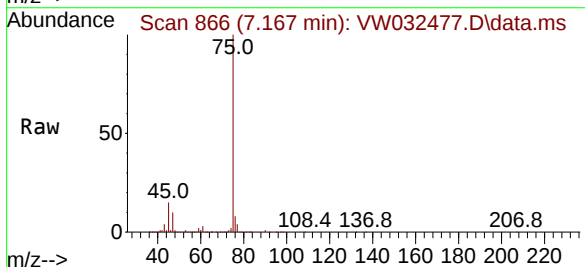
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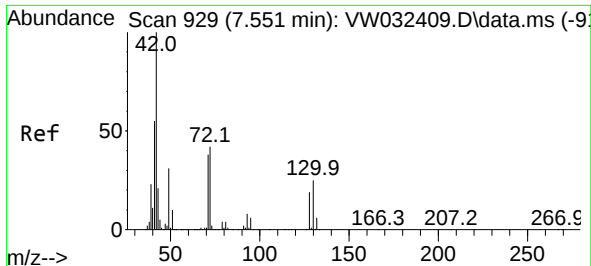
Tgt Ion: 43 Resp: 23270
 Ion Ratio Lower Upper
 43 100
 72 23.7 20.0 30.0



#26
 2,2-Dichloropropane
 Concen: 4.348 ug/l
 RT: 7.167 min Scan# 866
 Delta R.T. -0.018 min
 Lab File: VW032477.D
 Acq: 18 Nov 2025 13:40

Tgt Ion: 77 Resp: 12186
 Ion Ratio Lower Upper
 77 100
 97 0.4 12.3 36.8





#29

Tetrahydrofuran

Concen: 3.280 ug/l

RT: 7.563 min Scan# 91

Delta R.T. 0.012 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

Instrument :

MSVOA_W

ClientSampleId :

MOO-25-0328

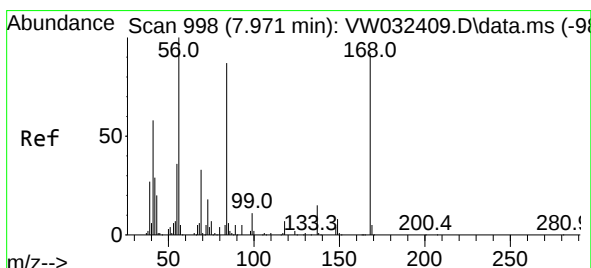
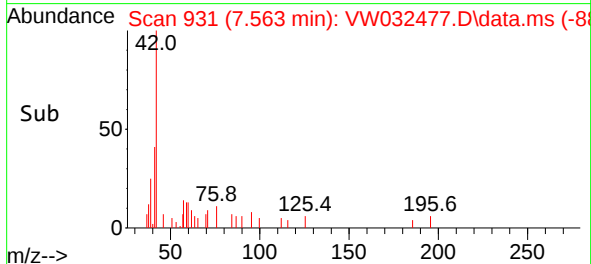
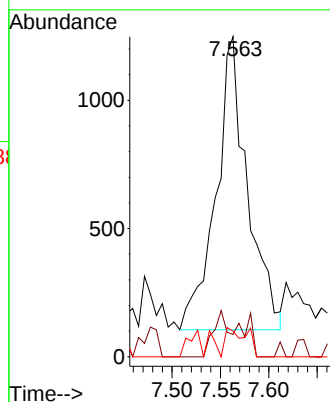
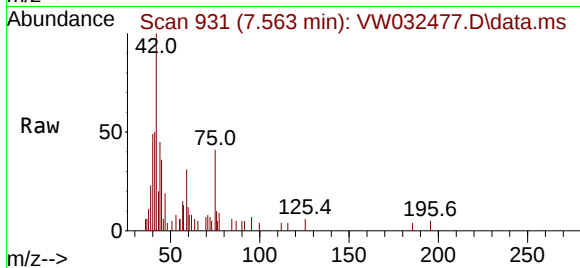
Tgt Ion: 42 Resp: 2580

Ion Ratio Lower Upper

42 100

72 7.8 33.6 50.4#

71 6.7 31.4 47.0#



#31

Cyclohexane

Concen: 1.257 ug/l

RT: 7.959 min Scan# 996

Delta R.T. -0.012 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

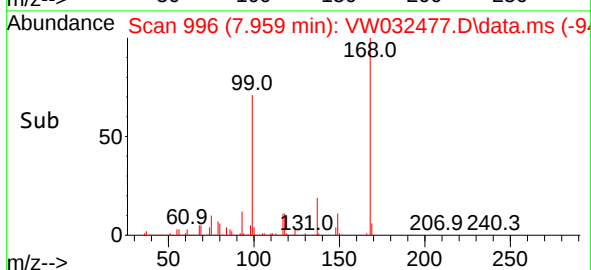
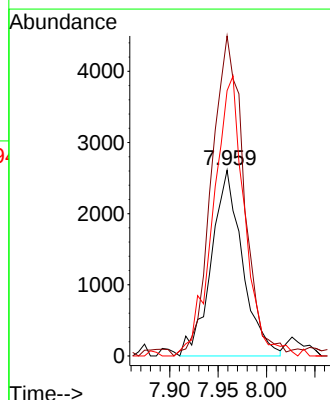
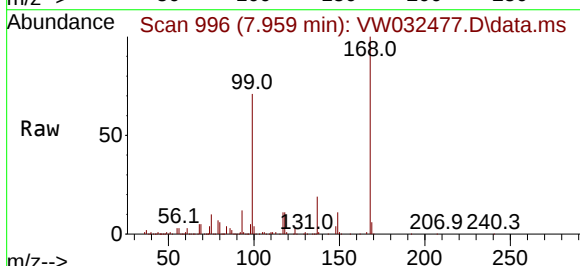
Tgt Ion: 56 Resp: 5849

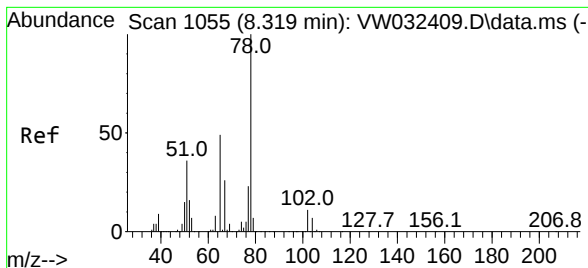
Ion Ratio Lower Upper

56 100

69 169.4 26.5 39.7#

84 139.8 69.6 104.4#





#33

1,2-Dichloroethane-d4

Concen: 60.292 ug/l

RT: 8.319 min Scan# 1055

Delta R.T. 0.000 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

Instrument :

MSVOA_W

ClientSampleId :

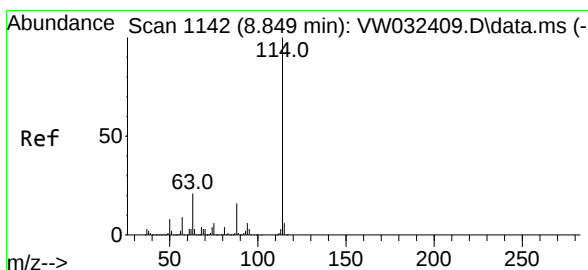
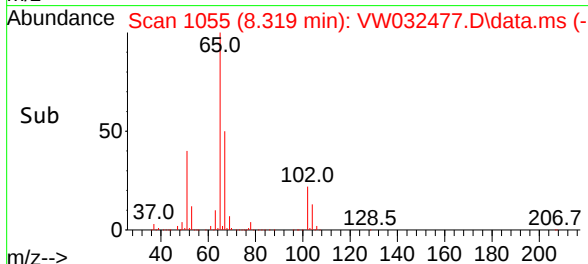
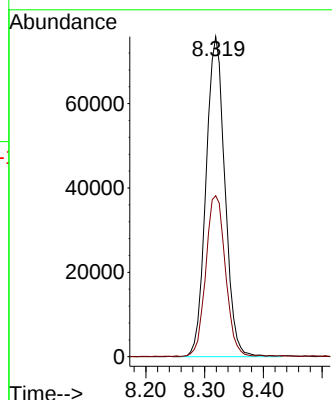
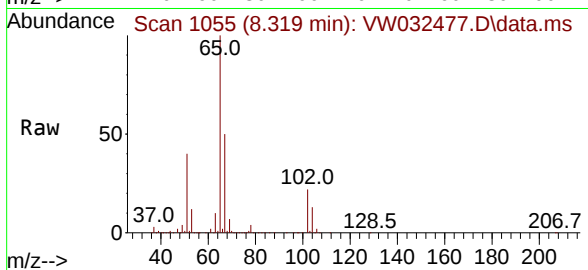
MOO-25-0328

Tgt Ion: 65 Resp: 169542

Ion Ratio Lower Upper

65 100

67 52.0 0.0 106.8



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.849 min Scan# 1142

Delta R.T. 0.000 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

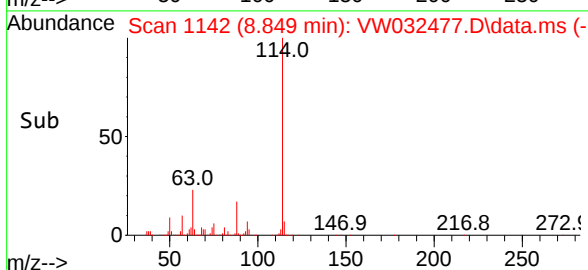
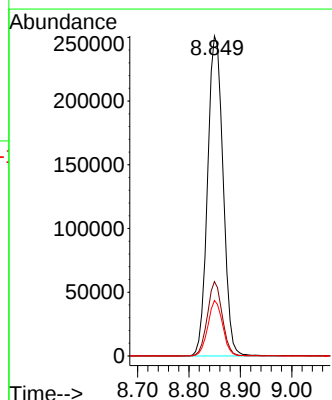
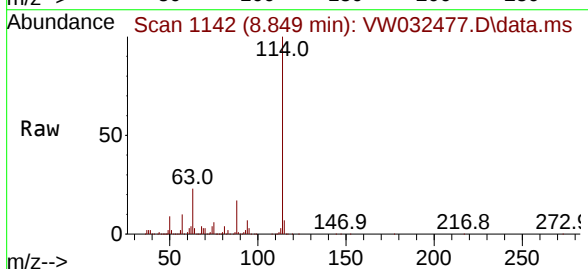
Tgt Ion: 114 Resp: 525090

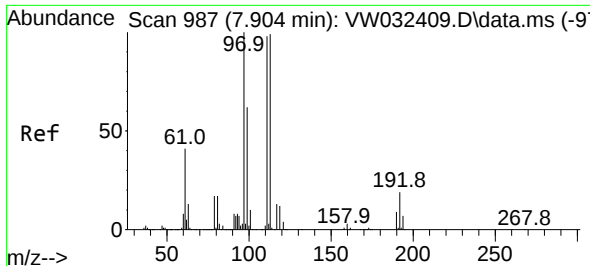
Ion Ratio Lower Upper

114 100

63 23.3 0.0 41.8

88 17.3 0.0 32.6

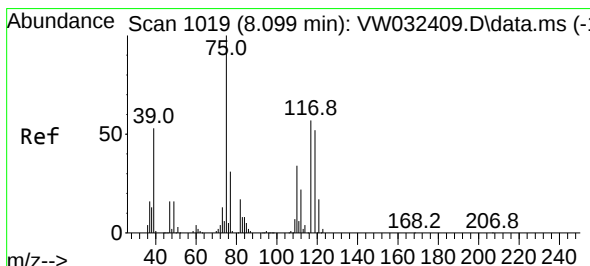
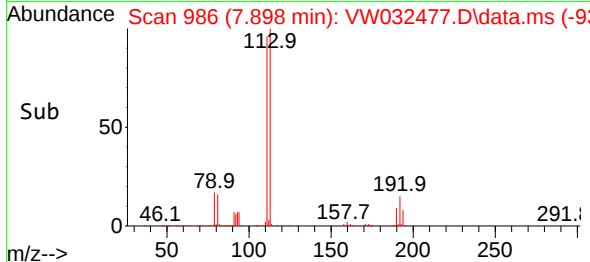
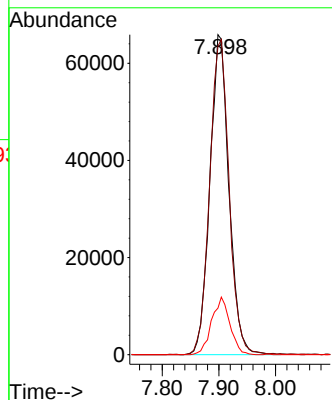
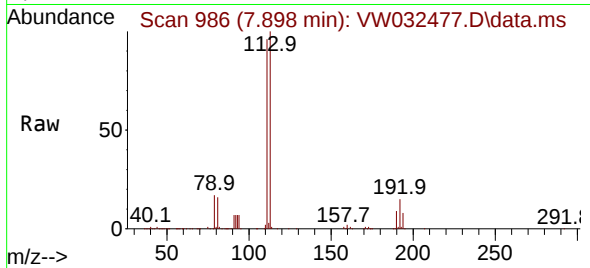




#35
Dibromofluoromethane
Concen: 48.767 ug/l
RT: 7.898 min Scan# 911
Delta R.T. -0.006 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

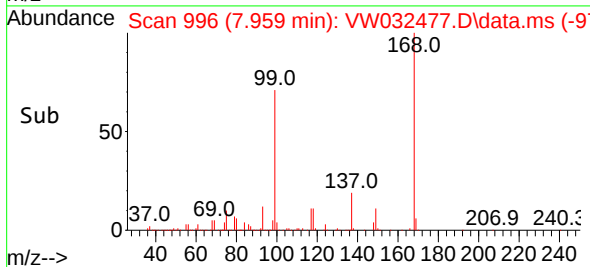
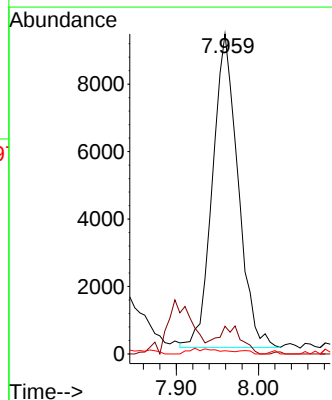
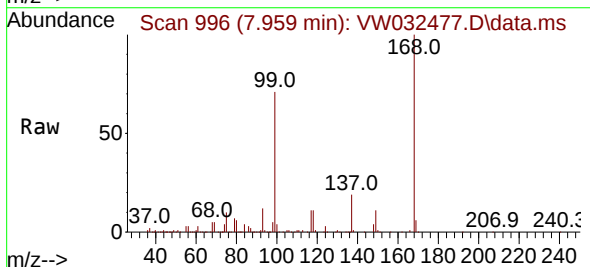
Instrument :
MSVOA_W
ClientSampleId :
MOO-25-0328

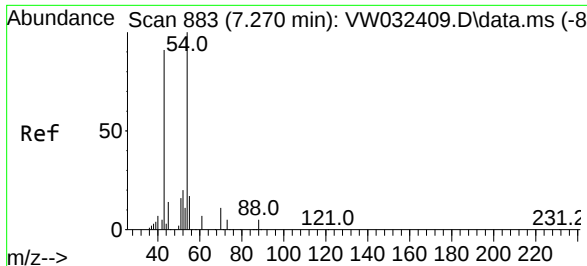
Tgt Ion:113 Resp: 153315
Ion Ratio Lower Upper
113 100
111 100.7 83.1 124.7
192 17.2 13.4 20.2



#36
1,1-Dichloropropene
Concen: 4.319 ug/l
RT: 7.959 min Scan# 996
Delta R.T. -0.140 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 75 Resp: 20008
Ion Ratio Lower Upper
75 100
110 8.0 17.2 51.5#
77 0.0 24.5 36.7#

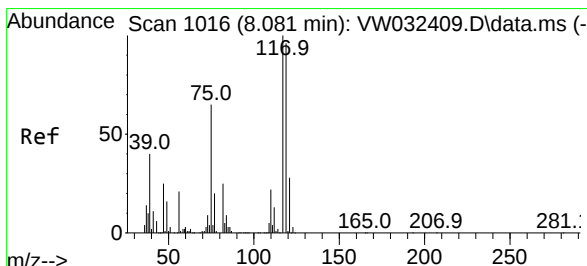
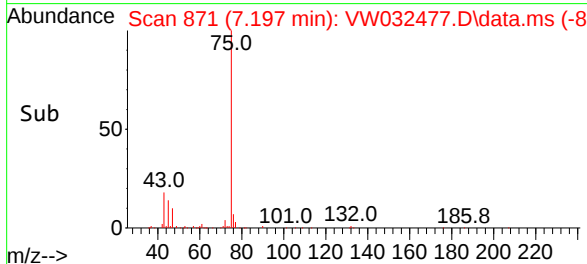
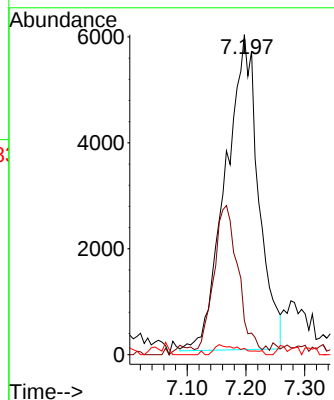
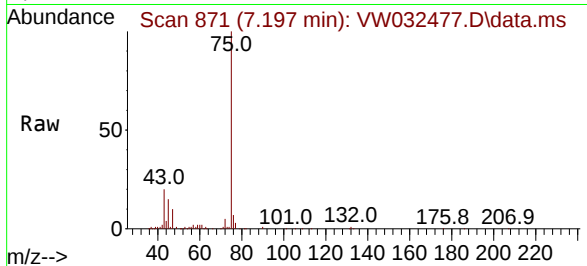




#37
Ethyl Acetate
Concen: 6.756 ug/l
RT: 7.197 min Scan# 81
Delta R.T. -0.073 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

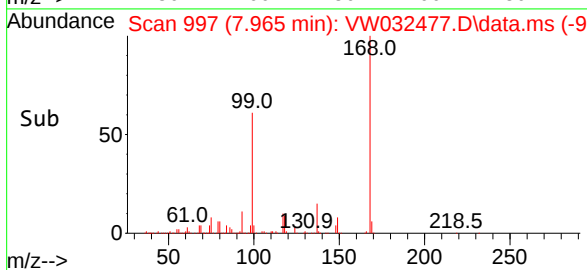
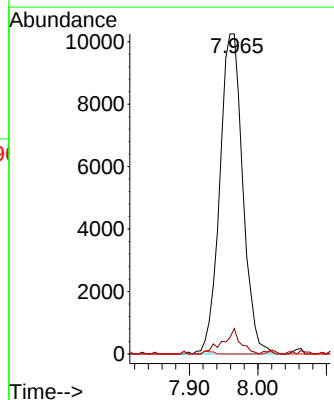
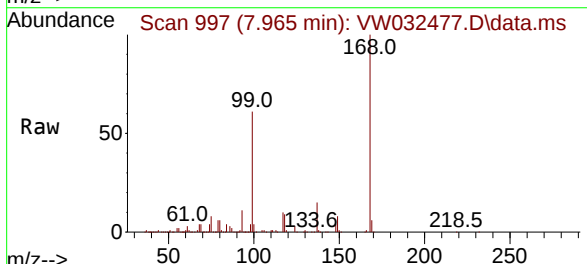
Instrument :
MSVOA_W
ClientSampleId :
MOO-25-0328

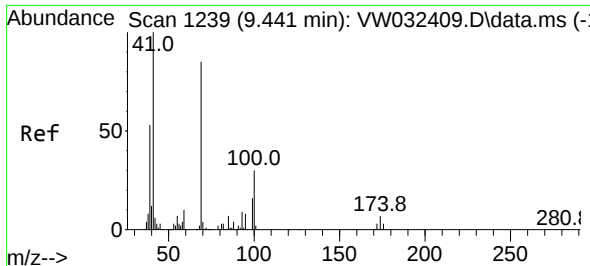
Tgt Ion: 43 Resp: 23270
Ion Ratio Lower Upper
43 100
61 0.0 11.0 16.6#
70 0.0 8.3 12.5#



#38
Carbon Tetrachloride
Concen: 5.798 ug/l
RT: 7.965 min Scan# 997
Delta R.T. -0.116 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 117 Resp: 23864
Ion Ratio Lower Upper
117 100
119 8.0 77.0 115.4#
121 0.0 22.0 33.0#

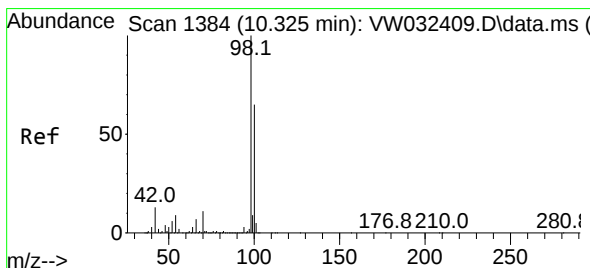
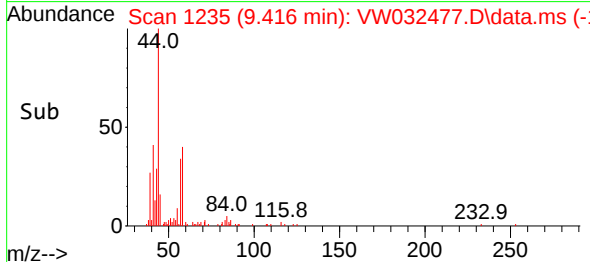
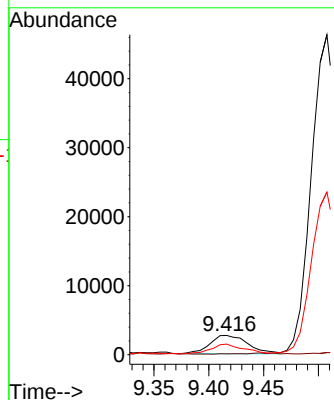
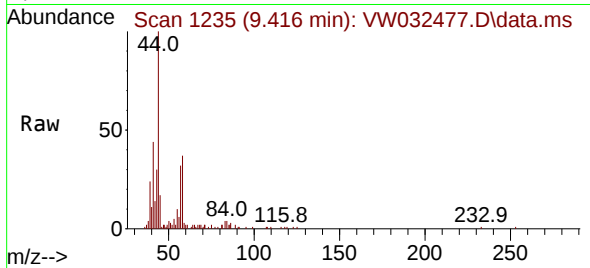




#48
Methyl methacrylate
Concen: 2.231 ug/l
RT: 9.416 min Scan# 11
Delta R.T. -0.024 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

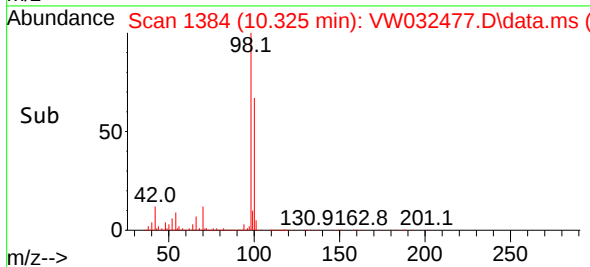
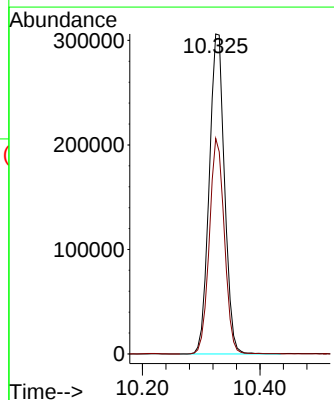
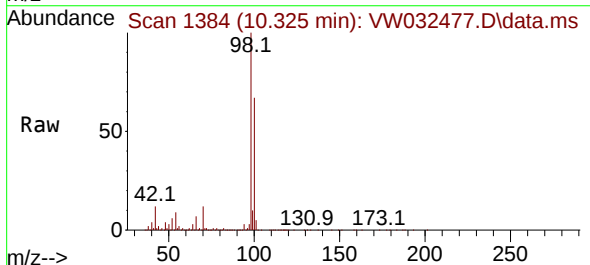
Instrument :
MSVOA_W
ClientSampleId :
MOO-25-0328

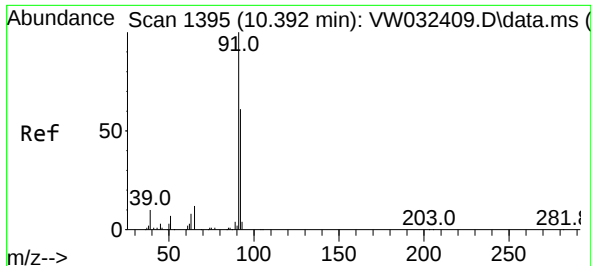
Tgt Ion: 41 Resp: 6467
Ion Ratio Lower Upper
41 100
69 0.0 65.8 98.6#
39 45.6 38.6 57.8



#50
Toluene-d8
Concen: 45.884 ug/l
RT: 10.325 min Scan# 1384
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 98 Resp: 553394
Ion Ratio Lower Upper
98 100
100 66.2 53.3 79.9

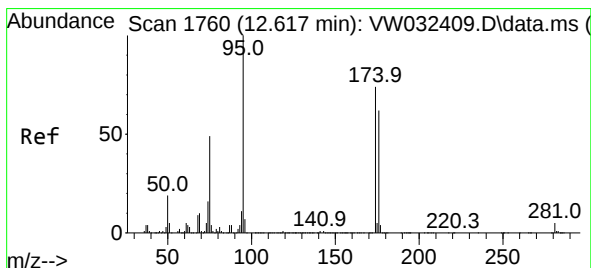
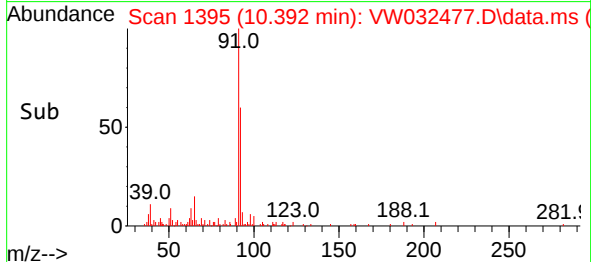
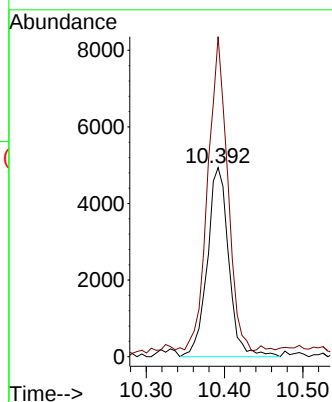
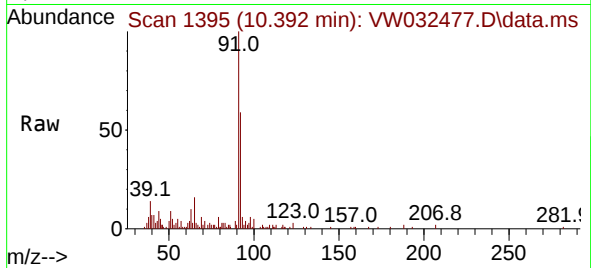




#52
Toluene
Concen: 1.017 ug/l
RT: 10.392 min Scan# 1395
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

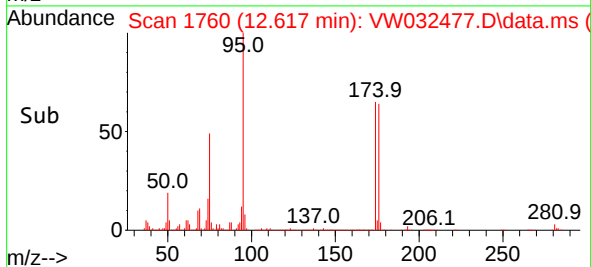
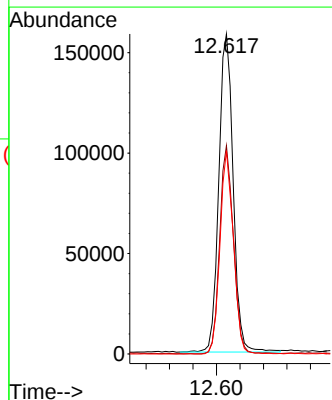
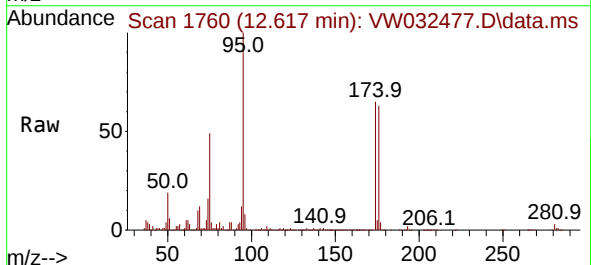
Instrument :
MSVOA_W
ClientSampleId :
MOO-25-0328

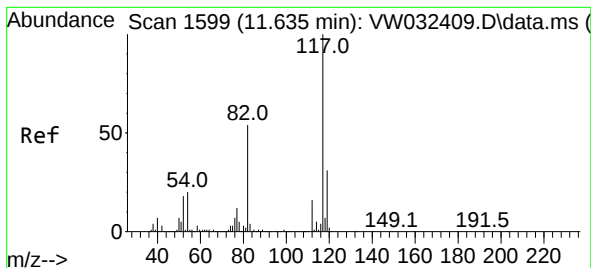
Tgt Ion: 92 Resp: 9375
Ion Ratio Lower Upper
92 100
91 153.7 136.6 205.0



#62
4-Bromofluorobenzene
Concen: 58.908 ug/l
RT: 12.617 min Scan# 1760
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion: 95 Resp: 268391
Ion Ratio Lower Upper
95 100
174 62.5 0.0 135.4
176 59.9 0.0 131.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.629 min Scan# 11

Delta R.T. -0.006 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

Instrument :

MSVOA_W

ClientSampleId :

MOO-25-0328

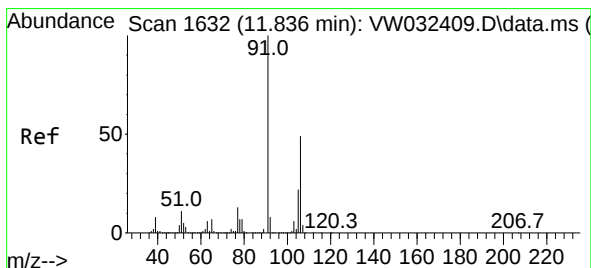
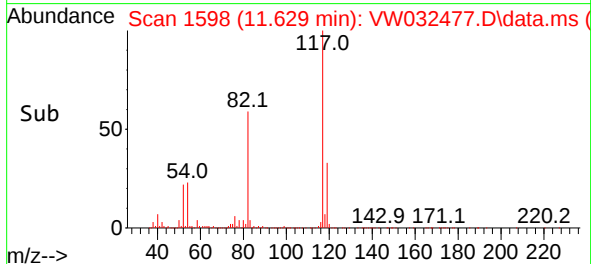
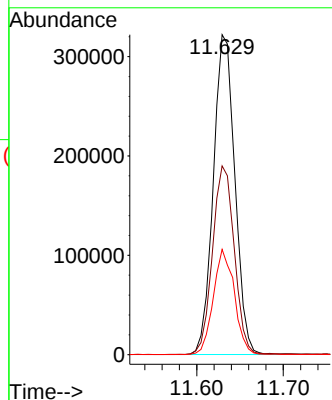
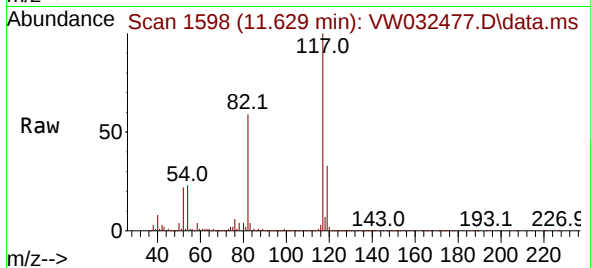
Tgt Ion:117 Resp: 557342

Ion Ratio Lower Upper

117 100

82 58.9 43.0 64.4

119 32.9 25.0 37.6



#68

m/p-Xylenes

Concen: 2.135 ug/l

RT: 11.837 min Scan# 1632

Delta R.T. 0.000 min

Lab File: VW032477.D

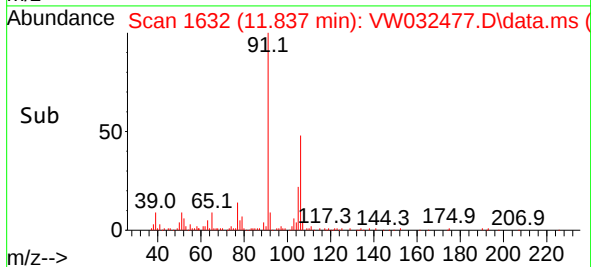
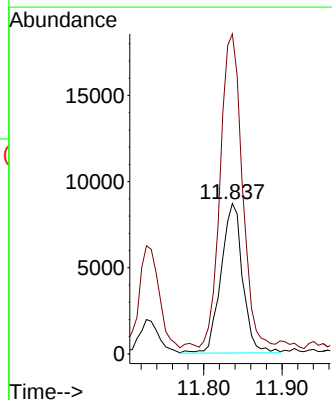
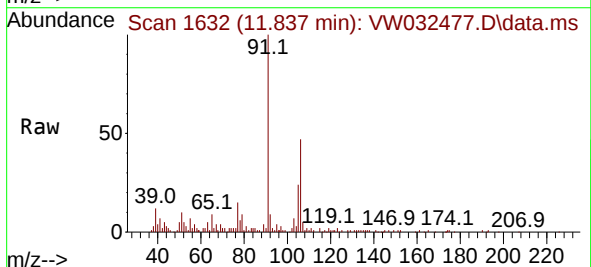
Acq: 18 Nov 2025 13:40

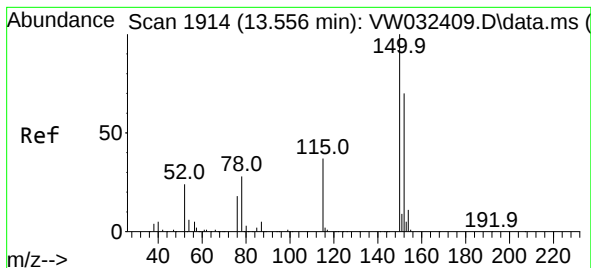
Tgt Ion:106 Resp: 16664

Ion Ratio Lower Upper

106 100

91 215.9 165.5 248.3

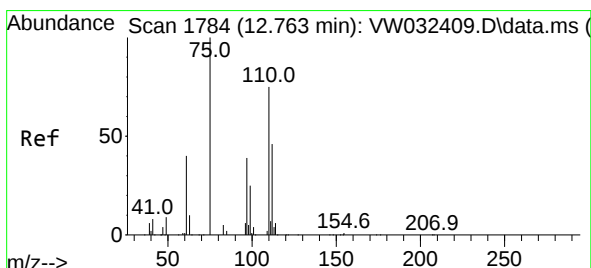
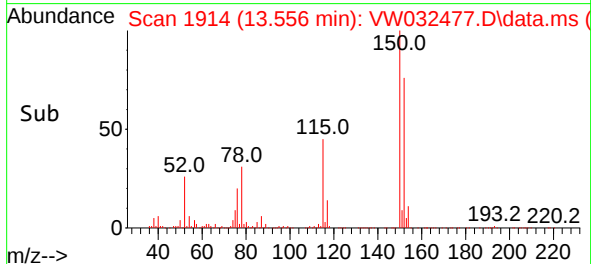
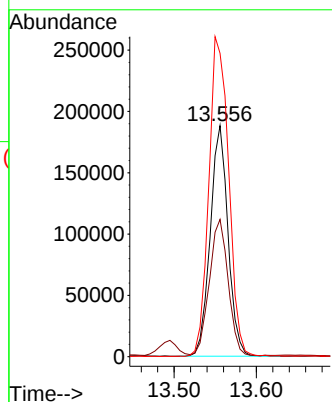
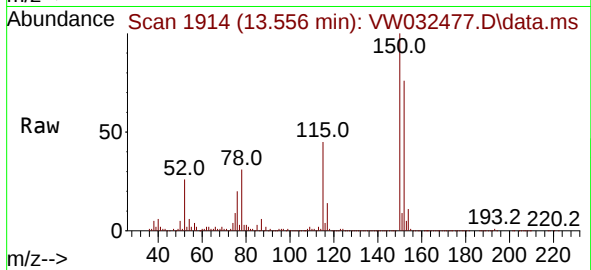




#72
 1,4-Dichlorobenzene-d4
 Concen: 50.000 ug/l
 RT: 13.556 min Scan# 1914
 Delta R.T. 0.000 min
 Lab File: VW032477.D
 Acq: 18 Nov 2025 13:40

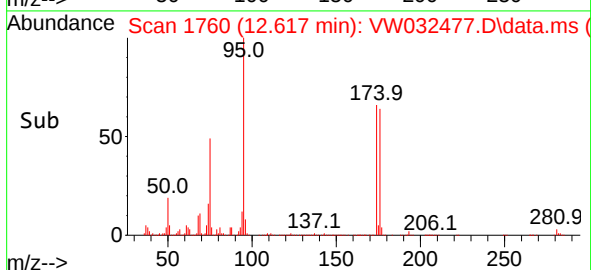
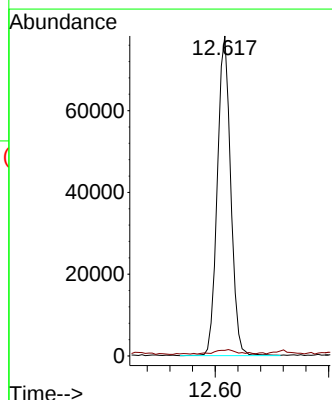
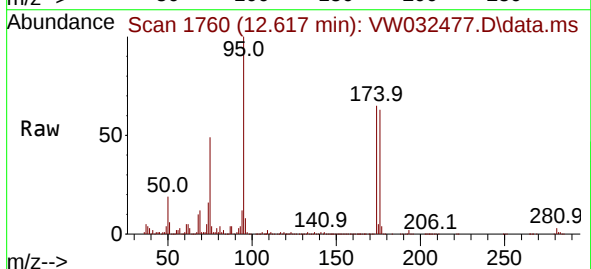
Instrument :
 MSVOA_W
 ClientSampleId :
 MOO-25-0328

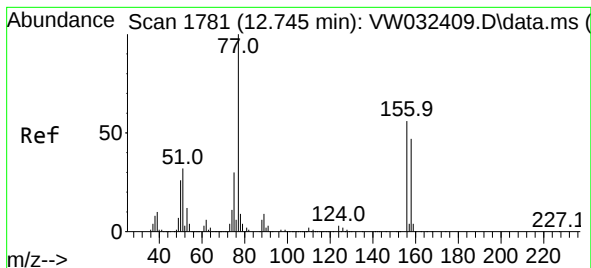
Tgt Ion:152 Resp: 282797
 Ion Ratio Lower Upper
 152 100
 115 62.2 32.8 98.3
 150 154.7 0.0 356.6



#76
 1,2,3-Trichloropropane
 Concen: 32.938 ug/l
 RT: 12.617 min Scan# 1760
 Delta R.T. -0.146 min
 Lab File: VW032477.D
 Acq: 18 Nov 2025 13:40

Tgt Ion: 75 Resp: 127722
 Ion Ratio Lower Upper
 75 100
 77 2.3 151.6 454.8#





#77

Bromobenzene

Concen: 7.051 ug/l

RT: 12.867 min Scan# 1781

Delta R.T. 0.122 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

Instrument :

MSVOA_W

ClientSampleId :

MOO-25-0328

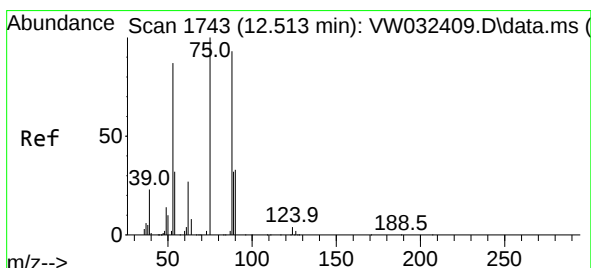
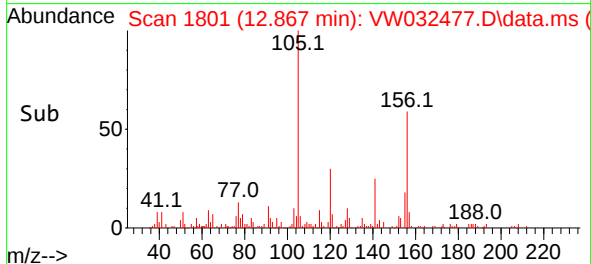
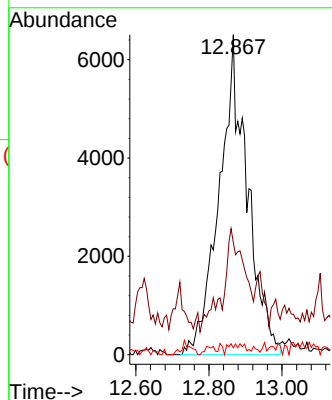
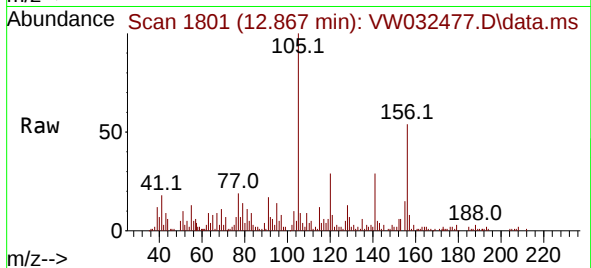
Tgt Ion:156 Resp: 34675

Ion Ratio Lower Upper

156 100

77 16.2 108.0 324.0#

158 0.8 45.1 135.5#



#81

trans-1,4-Dichloro-2-butene

Concen: 75.443 ug/l

RT: 12.617 min Scan# 1760

Delta R.T. 0.104 min

Lab File: VW032477.D

Acq: 18 Nov 2025 13:40

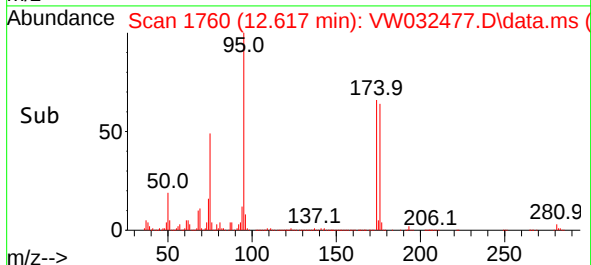
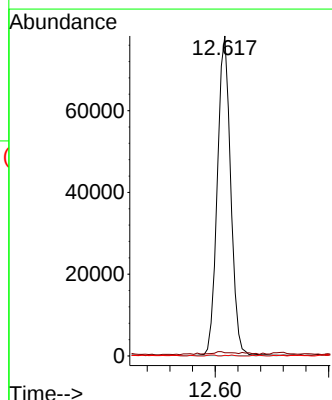
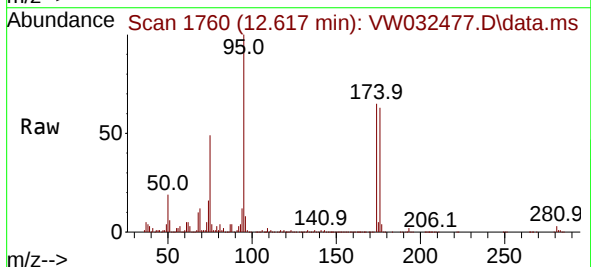
Tgt Ion: 75 Resp: 127722

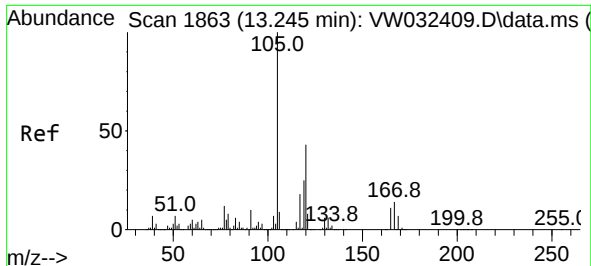
Ion Ratio Lower Upper

75 100

53 1.1 77.8 116.8#

89 0.0 35.6 53.4#

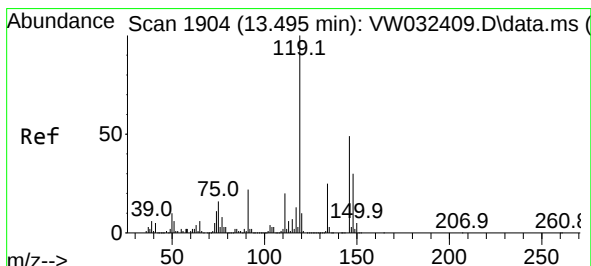
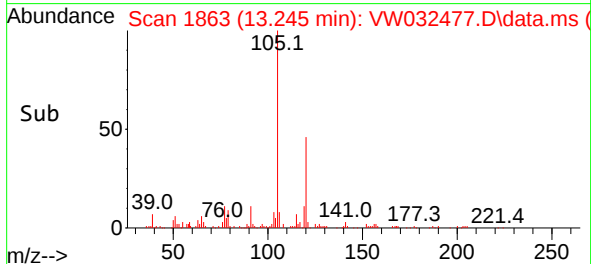
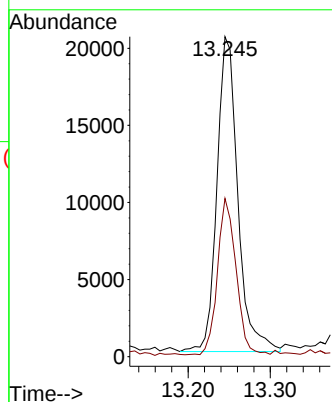
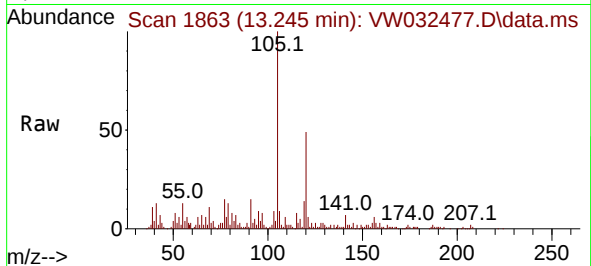




#84
1,2,4-Trimethylbenzene
Concen: 2.067 ug/l
RT: 13.245 min Scan# 1863
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Instrument :
MSVOA_W
ClientSampleId :
MOO-25-0328

Tgt Ion:105 Resp: 36021
Ion Ratio Lower Upper
105 100
120 44.0 22.1 66.5



#86
p-Isopropyltoluene
Concen: 14.922 ug/l
RT: 13.495 min Scan# 1904
Delta R.T. 0.000 min
Lab File: VW032477.D
Acq: 18 Nov 2025 13:40

Tgt Ion:119 Resp: 273505
Ion Ratio Lower Upper
119 100
134 25.0 12.7 38.1
91 24.9 11.9 35.5

