

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120825\
 Data File : VL043312.D
 Acq On : 08 Dec 2025 13:52
 Operator : SY/MD
 Sample : Q3799-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 9B-IA-1

Quant Time: Dec 09 00:11:27 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

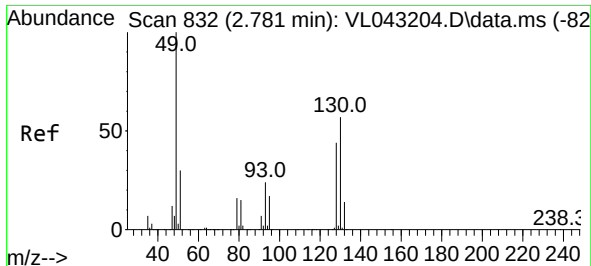
Compound		R.T. QIon		Response	Conc	Units	Dev(Min)

Internal Standards							
1) Bromochloromethane		2.784	49	137082	10.000	ppbv	0.00
33) 1,4-Difluorobenzene		3.952	114	357699	10.000	ppbv	0.00
55) Chlorobenzene-d5		8.875	117	281919	10.000	ppbv	0.00
System Monitoring Compounds							
68) 1-Bromo-4-Fluorobenzene		10.370	95	213574	10.335	ppbv	0.00
Spiked Amount		10.000	Range 65 - 135		Recovery	= 103.400%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane		1.499	85	7699	0.398	ppbv	99
3) Chlorodifluoromethane		1.476	51	9652	0.508	ppbv #	78
4) Chloromethane		1.531	50	3969	0.549	ppbv	92
9) Propene		1.486	41	4514	0.559	ppbv #	1
11) Trichlorofluoromethane		1.877	101	3724	0.199	ppbv	89
12) 1,1,2-Trichlorotrifluo...		2.140	101	1125	0.077	ppbv	87
13) Ethanol		1.722	45	50530	17.797	ppbv	99
15) Acetone		1.835	43	166746	8.755	ppbv	99
16) 1,3-Butadiene		1.599	39	943	0.111	ppbv #	38
17) tert-Butyl alcohol		1.884	59	3955	0.158	ppbv	95
19) Isopropyl Alcohol		1.884	45	109957	10.217	ppbv	99
20) Methylene Chloride		2.059	84	6881	0.479	ppbv	83
23) Vinyl Acetate		2.454	43	7277	0.316	ppbv #	92
25) Ethyl Acetate		2.826	43	15972	0.389	ppbv #	91
26) Hexane		2.826	57	15912	0.884	ppbv #	52
29) Chloroform		2.842	83	1770	0.069	ppbv	84
34) 2-Butanone		2.560	43	7477	0.296	ppbv	94
35) Carbon Tetrachloride		3.755	117	1086	0.040	ppbv #	64
36) Benzene		3.648	78	5022	0.147	ppbv #	77
39) 1,2-Dichloropropane		3.952	63	88229	7.037	ppbv #	24
43) Methyl Methacrylate		4.868	69	1326	0.073	ppbv #	1
53) Toluene		6.923	91	2002	0.049	ppbv #	2
60) o-Xylene		9.953	91	1733	0.040	ppbv	91

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

Quant Time: Dec 09 00:11:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

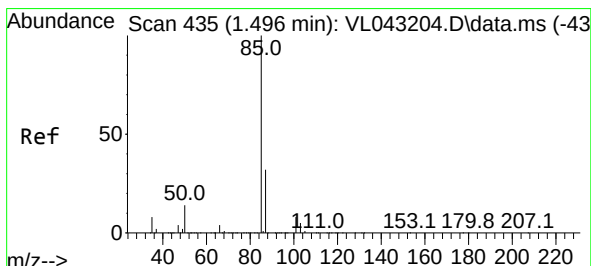
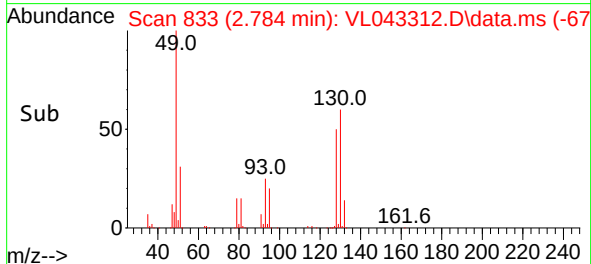
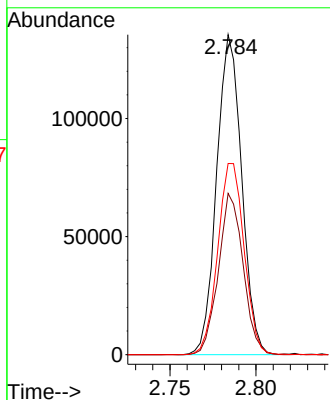
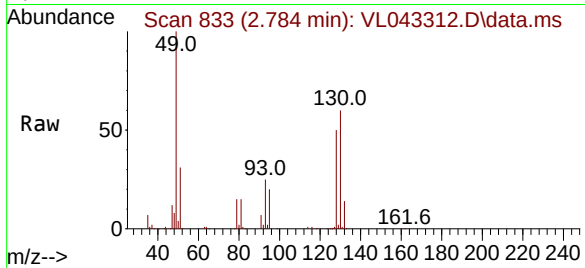




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

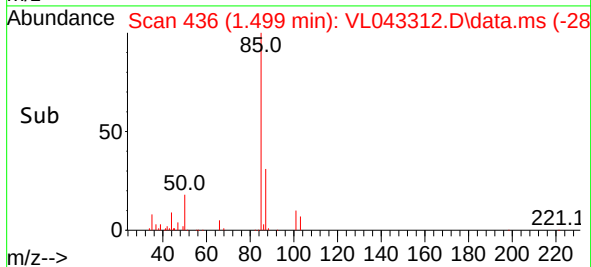
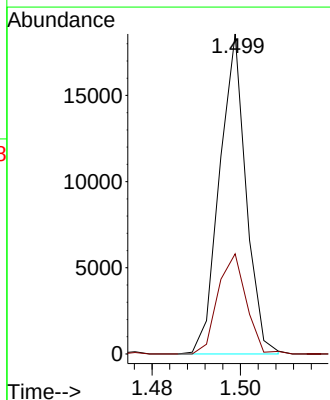
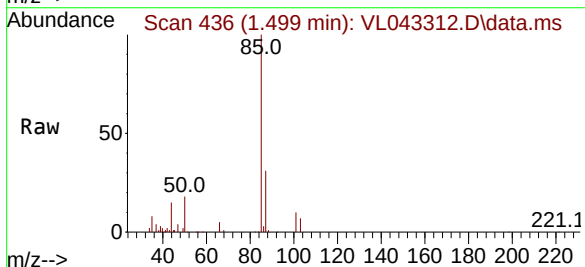
Instrument :
MSVOA_L
ClientSampleId :
9B-IA-1

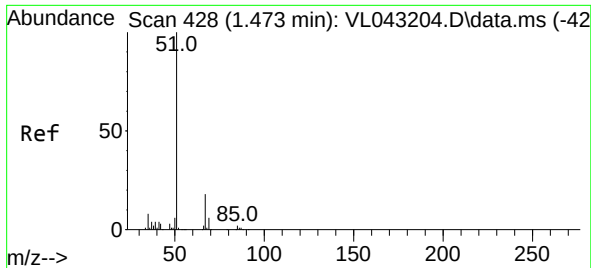
Tgt Ion: 49 Resp: 137082
Ion Ratio Lower Upper
49 100
128 49.8 23.0 69.0
130 63.2 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.398 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 85 Resp: 7699
Ion Ratio Lower Upper
85 100
87 31.3 25.4 38.2





#3

Chlorodifluoromethane

Concen: 0.508 ppbv

RT: 1.476 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043312.D

Acq: 08 Dec 2025 13:52

Instrument :

MSVOA_L

ClientSampleId :

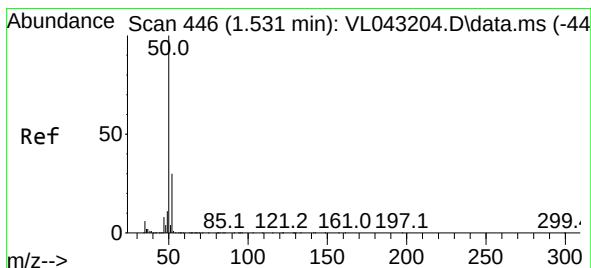
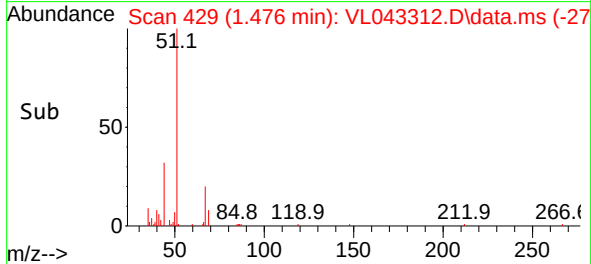
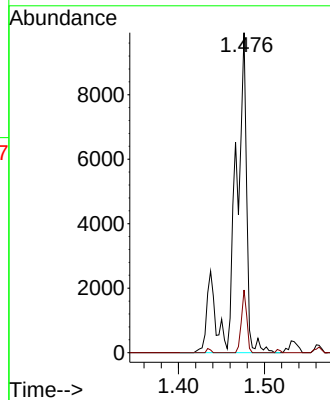
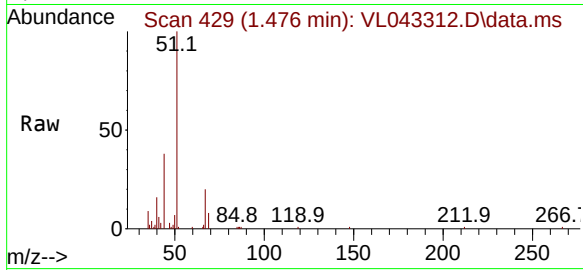
9B-IA-1

Tgt Ion: 51 Resp: 9652

Ion Ratio Lower Upper

51 100

67 8.7 14.9 22.3#



#4

Chloromethane

Concen: 0.549 ppbv

RT: 1.531 min Scan# 446

Delta R.T. -0.000 min

Lab File: VL043312.D

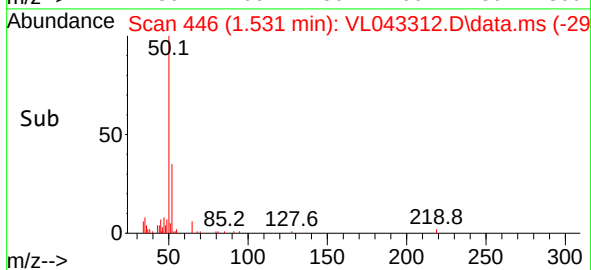
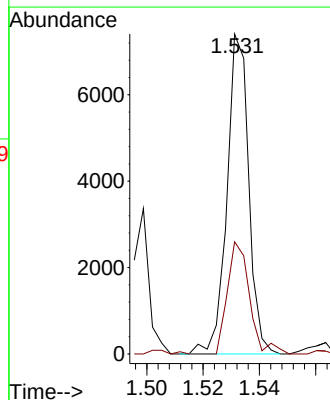
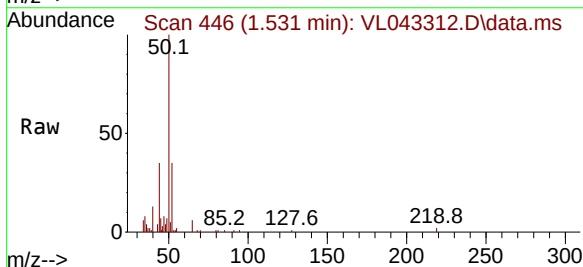
Acq: 08 Dec 2025 13:52

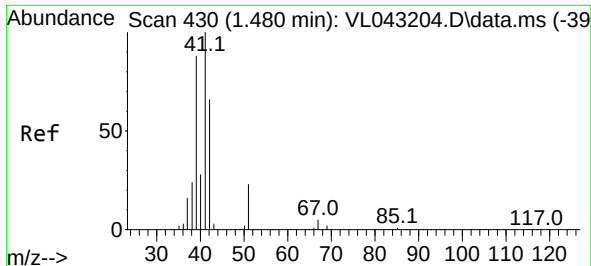
Tgt Ion: 50 Resp: 3969

Ion Ratio Lower Upper

50 100

52 34.3 24.1 36.1





#9

Propene

Concen: 0.559 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043312.D

Acq: 08 Dec 2025 13:52

Instrument :

MSVOA_L

ClientSampleId :

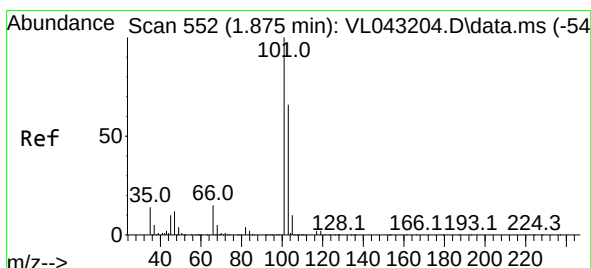
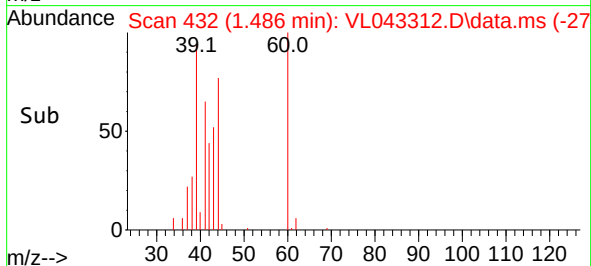
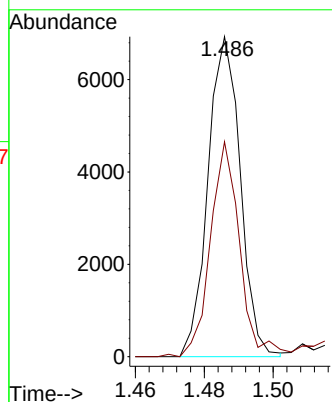
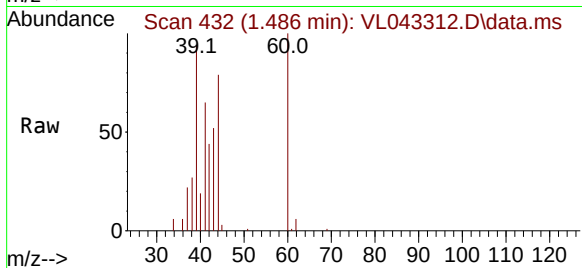
9B-IA-1

Tgt Ion: 41 Resp: 4514

Ion Ratio Lower Upper

41 100

42 61.9 3.7 5.5#



#11

Trichlorofluoromethane

Concen: 0.199 ppbv

RT: 1.877 min Scan# 553

Delta R.T. 0.003 min

Lab File: VL043312.D

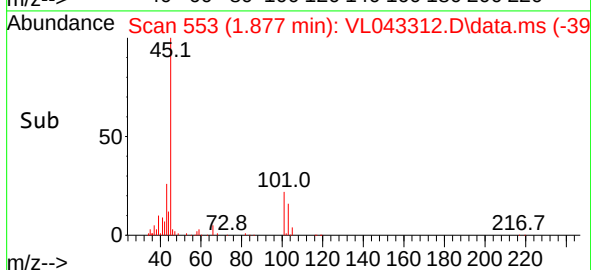
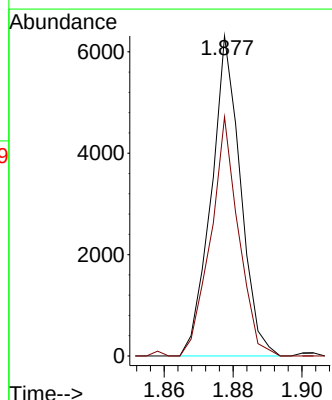
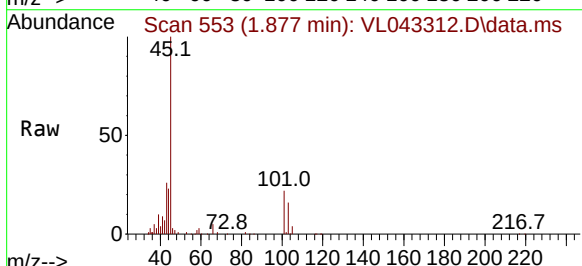
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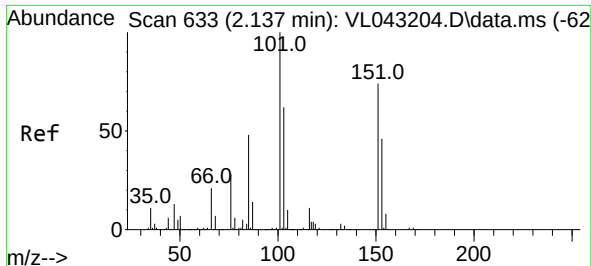
Tgt Ion: 101 Resp: 3724

Ion Ratio Lower Upper

101 100

103 74.7 52.6 79.0

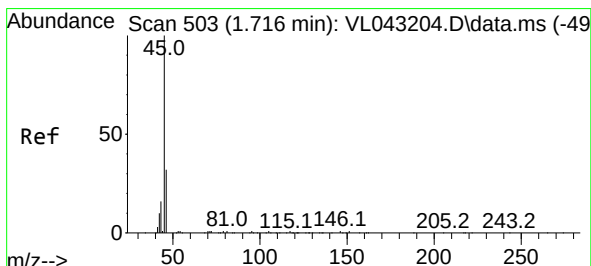
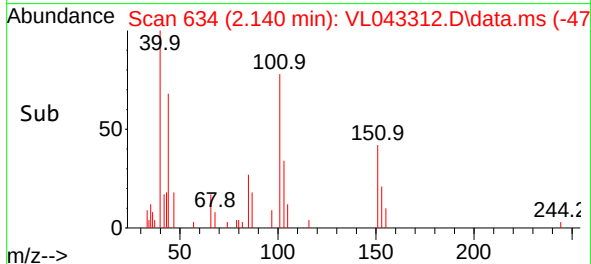
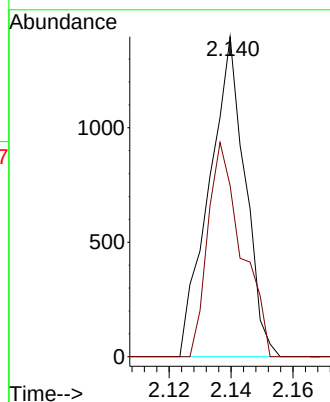
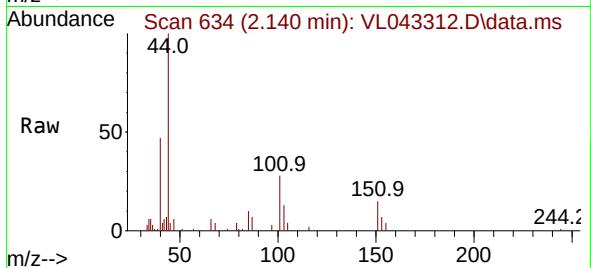




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.077 ppbv
 RT: 2.140 min Scan# 61
 Delta R.T. 0.003 min
 Lab File: VL043312.D
 Acq: 08 Dec 2025 13:52

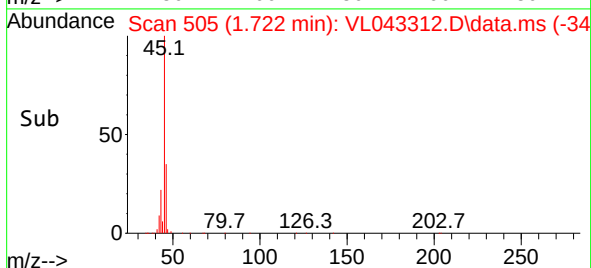
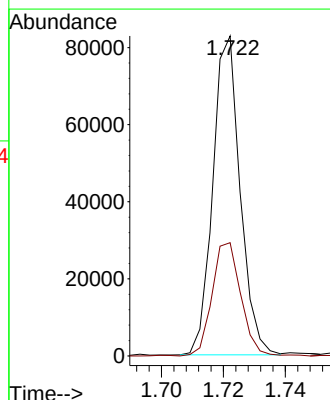
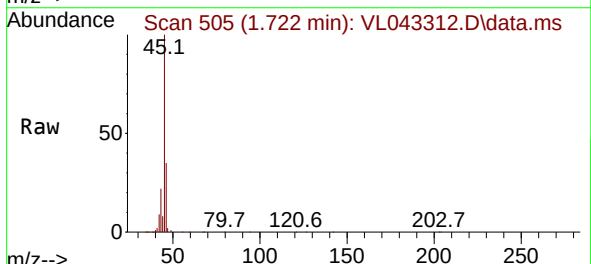
Instrument :
 MSVOA_L
 ClientSampleId :
 9B-IA-1

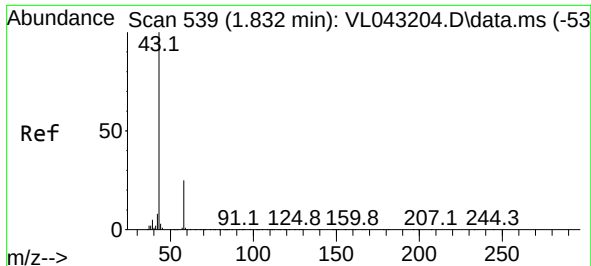
Tgt Ion:101 Resp: 1125
 Ion Ratio Lower Upper
 101 100
 151 63.0 59.2 88.8



#13
 Ethanol
 Concen: 17.797 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.006 min
 Lab File: VL043312.D
 Acq: 08 Dec 2025 13:52

Tgt Ion: 45 Resp: 50530
 Ion Ratio Lower Upper
 45 100
 46 38.1 15.0 59.8

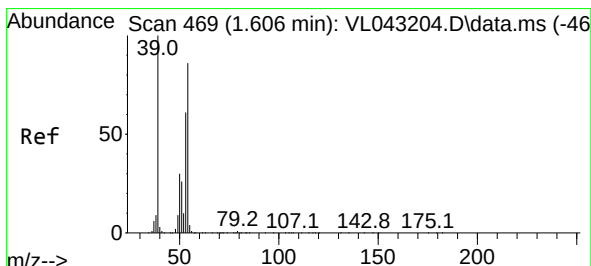
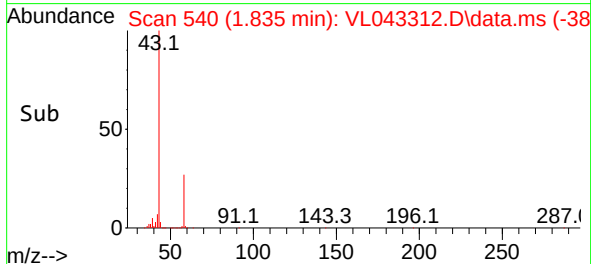
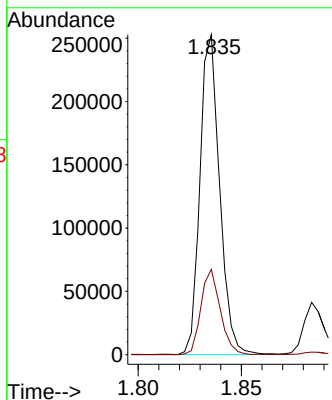
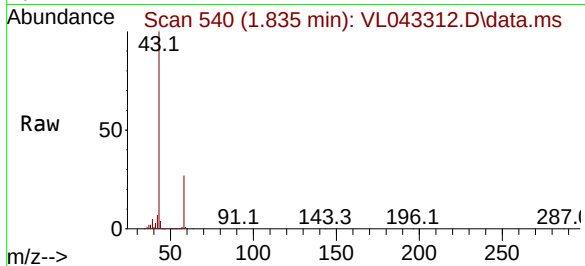




#15
Acetone
Concen: 8.755 ppbv
RT: 1.835 min Scan# 54
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

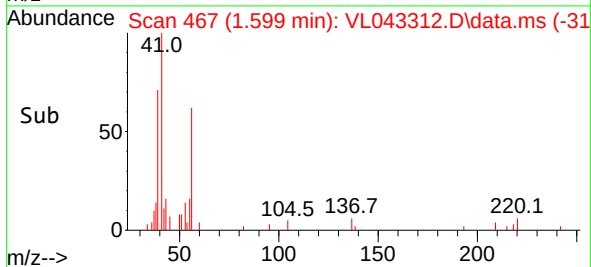
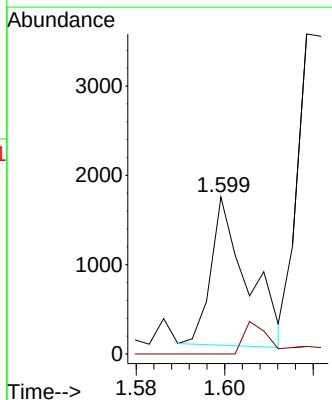
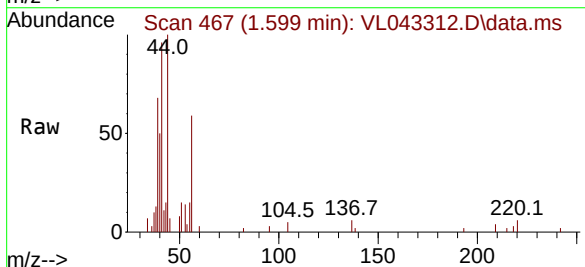
Instrument :
MSVOA_1
ClientSampleId :
9B-IA-1

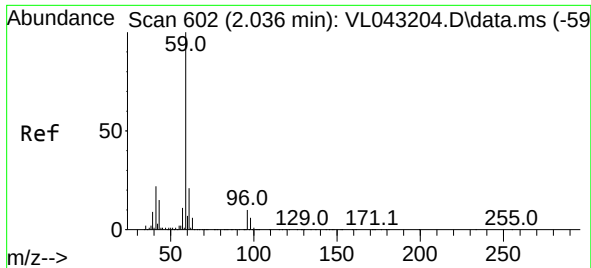
Tgt Ion: 43 Resp: 166746
Ion Ratio Lower Upper
43 100
58 26.3 20.7 31.1



#16
1,3-Butadiene
Concen: 0.111 ppbv
RT: 1.599 min Scan# 467
Delta R.T. -0.007 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 39 Resp: 943
Ion Ratio Lower Upper
39 100
54 21.5 59.4 89.2#

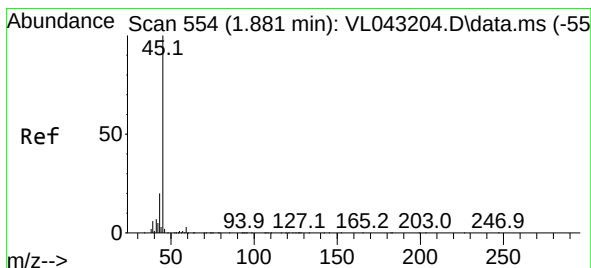
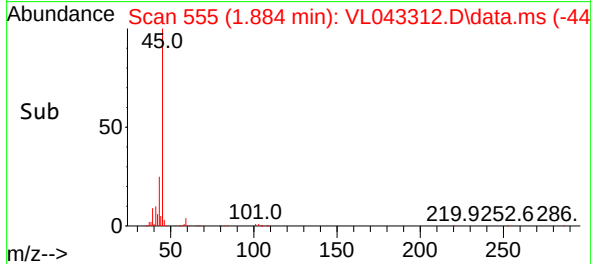
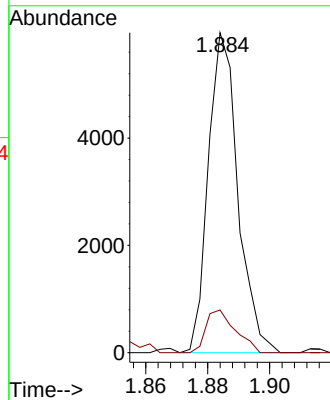
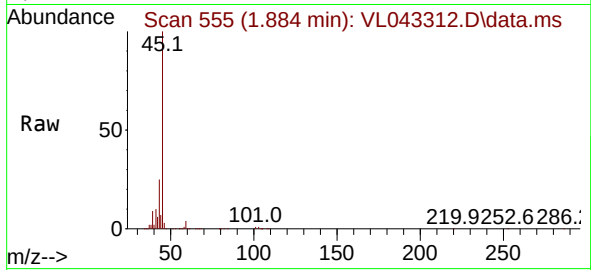




#17
tert-Butyl alcohol
Concen: 0.158 ppbv
RT: 1.884 min Scan# 555
Delta R.T. -0.152 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

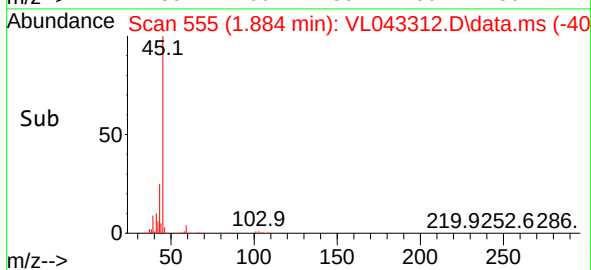
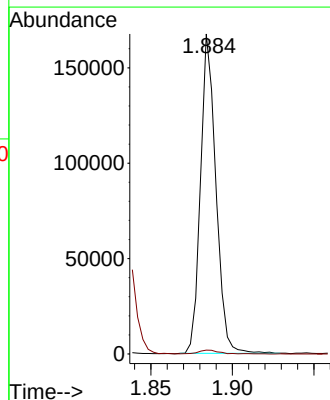
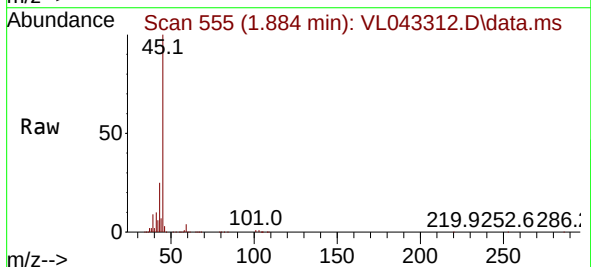
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MSVOA_L
ClientSampleId :
9B-IA-1

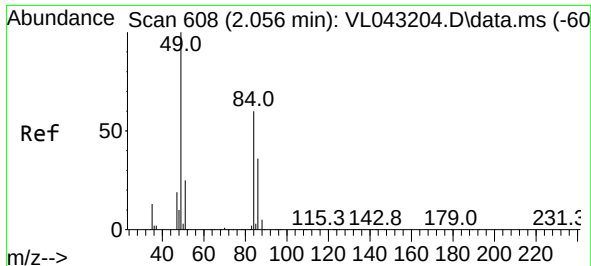
Tgt Ion: 59 Resp: 3955
Ion Ratio Lower Upper
59 100
57 13.3 9.0 13.4



#19
Isopropyl Alcohol
Concen: 10.217 ppbv
RT: 1.884 min Scan# 555
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 45 Resp: 109957
Ion Ratio Lower Upper
45 100
58 39.9 31.3 46.9



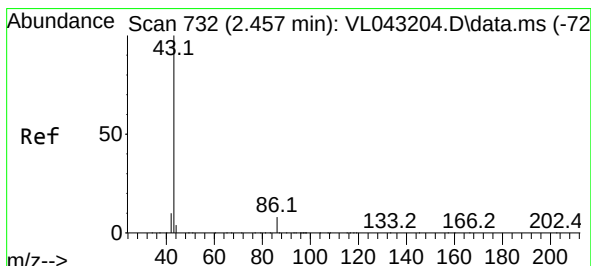
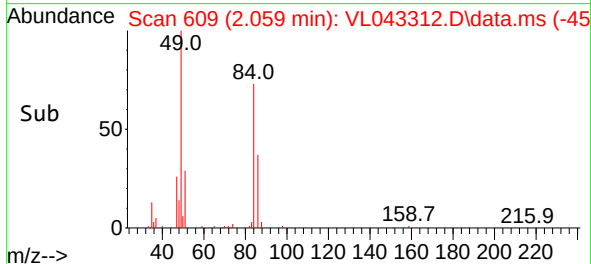
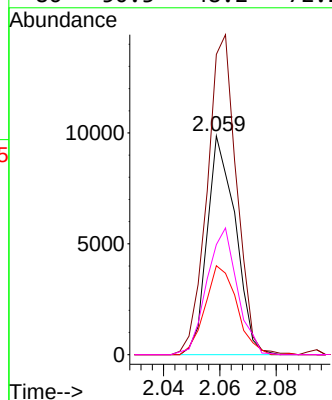
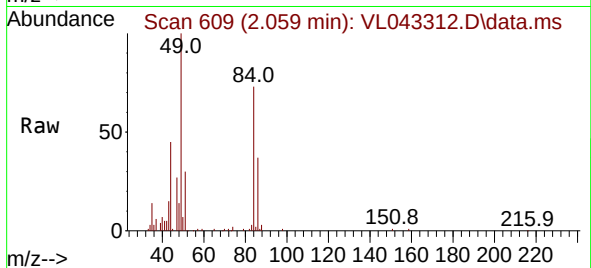


#20
Methylene Chloride
Concen: 0.479 ppbv
RT: 2.059 min Scan# 608
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Instrument :
MSVOA_L
ClientSampleId :
9B-IA-1

Tgt Ion: 84 Resp: 6881

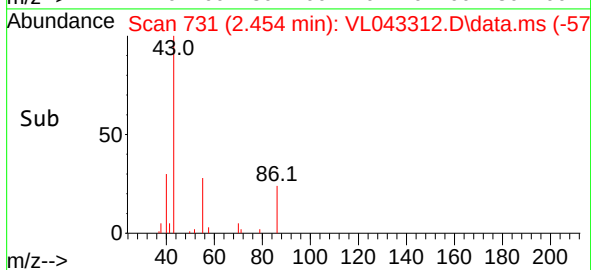
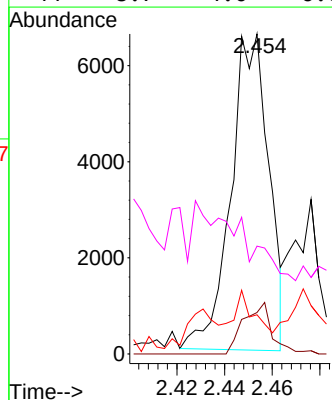
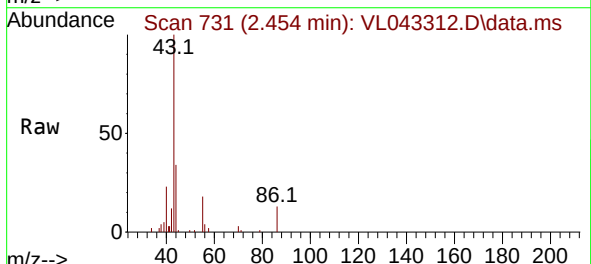
Ion	Ratio	Lower	Upper
84	100		
49	136.6	132.9	199.3
51	40.7	34.8	52.2
86	50.3	48.2	72.2

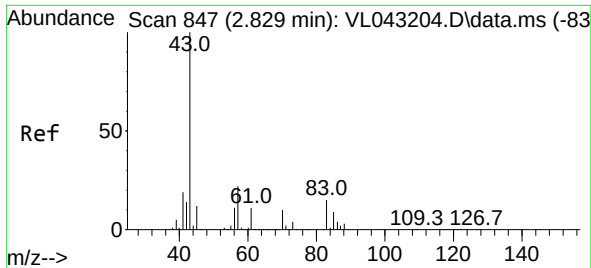


#23
Vinyl Acetate
Concen: 0.316 ppbv
RT: 2.454 min Scan# 731
Delta R.T. -0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 43 Resp: 7277

Ion	Ratio	Lower	Upper
43	100		
86	13.2	6.2	9.2#
42	9.7	8.0	12.0
44	8.7	4.0	6.0#

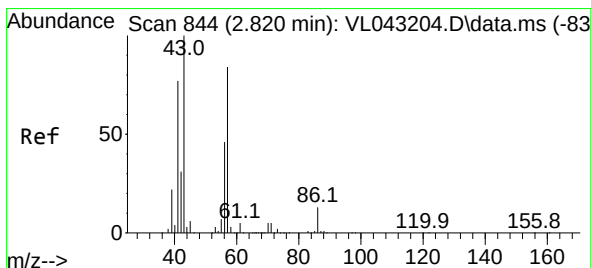
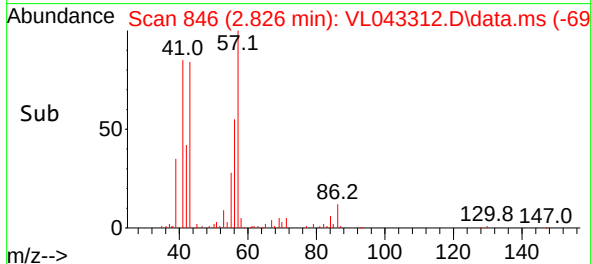
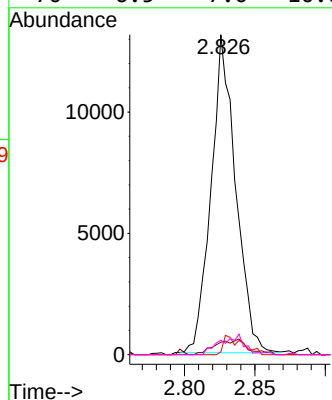
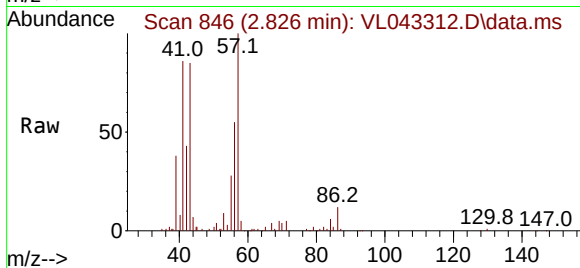




#25
Ethyl Acetate
Concen: 0.389 ppbv
RT: 2.826 min Scan# 846
Delta R.T. -0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

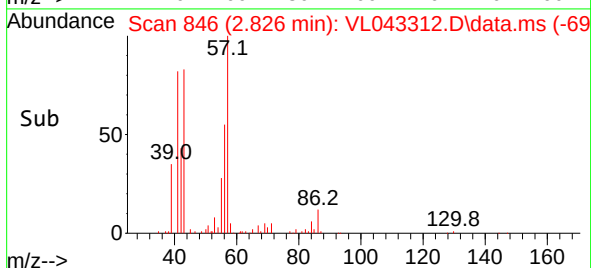
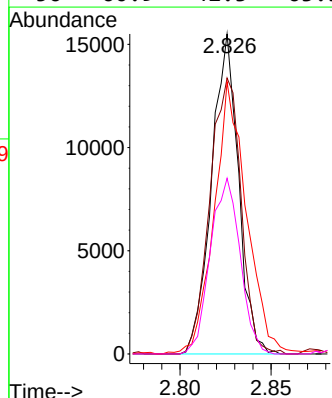
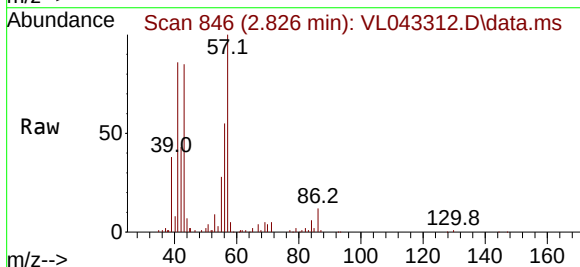
Instrument :
MSVOA_L
ClientSampleId :
9B-IA-1

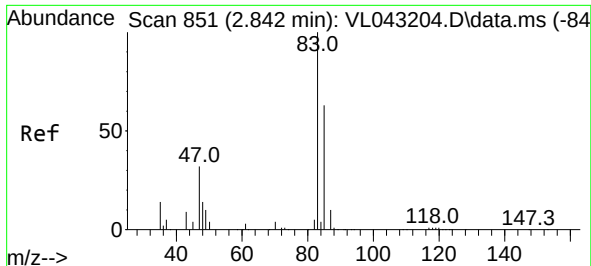
Tgt Ion: 43	Resp: 15972
Ion Ratio	Lower Upper
43 100	
45 6.7	8.1 12.1#
61 4.6	7.0 10.4#
70 6.5	7.0 10.6#



#26
Hexane
Concen: 0.884 ppbv
RT: 2.826 min Scan# 846
Delta R.T. 0.006 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 57	Resp: 15912
Ion Ratio	Lower Upper
57 100	
41 100.0	74.6 111.8
43 104.4	179.0 268.4#
56 60.9	42.3 63.5





#29

Chloroform

Concen: 0.069 ppbv

RT: 2.842 min Scan# 81

Delta R.T. -0.000 min

Lab File: VL043312.D

Acq: 08 Dec 2025 13:52

Instrument :

MSVOA_L

ClientSampleId :

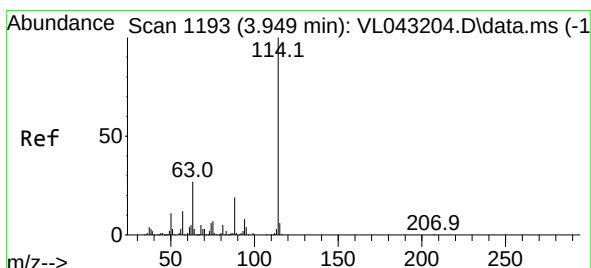
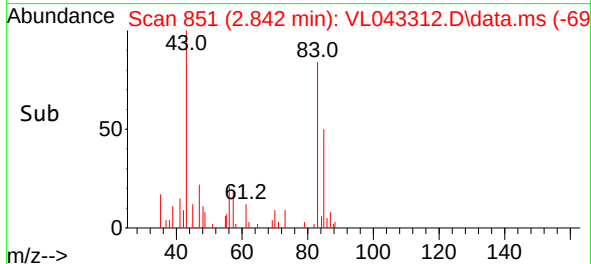
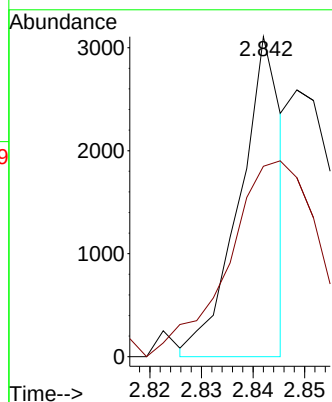
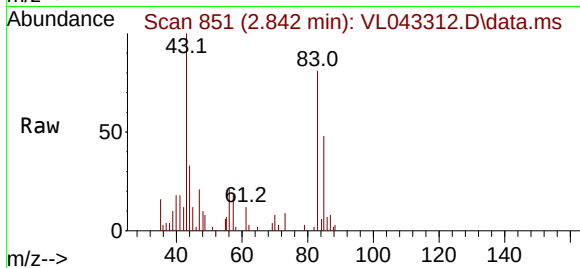
9B-IA-1

Tgt Ion: 83 Resp: 1770

Ion Ratio Lower Upper

83 100

85 50.8 50.5 75.7



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. 0.003 min

Lab File: VL043312.D

Acq: 08 Dec 2025 13:52

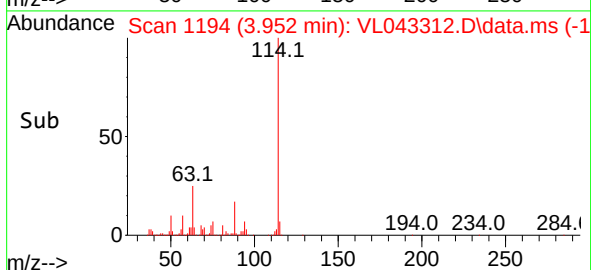
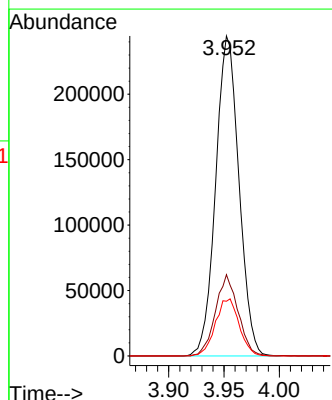
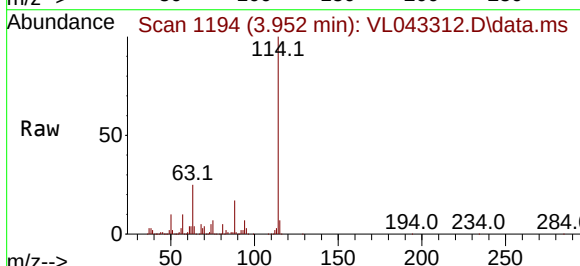
Tgt Ion: 114 Resp: 357699

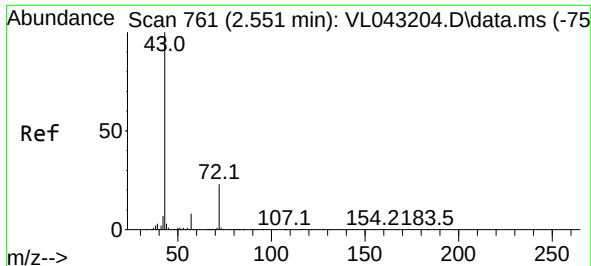
Ion Ratio Lower Upper

114 100

63 24.7 21.0 31.6

88 18.3 14.9 22.3

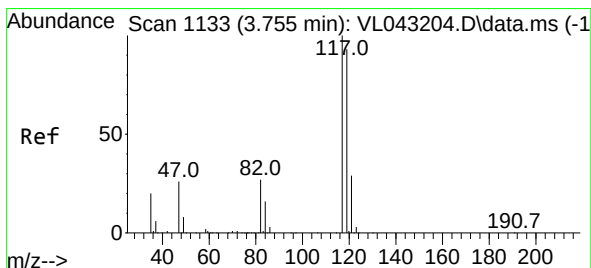
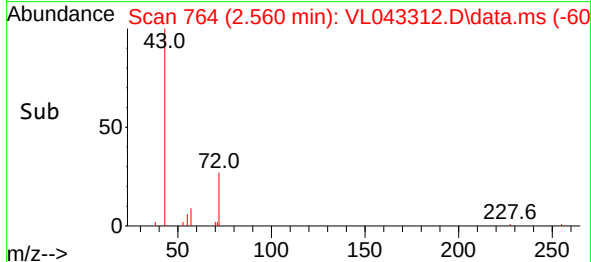
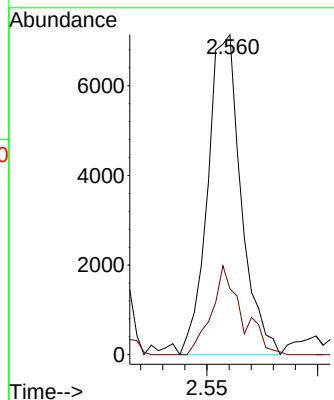
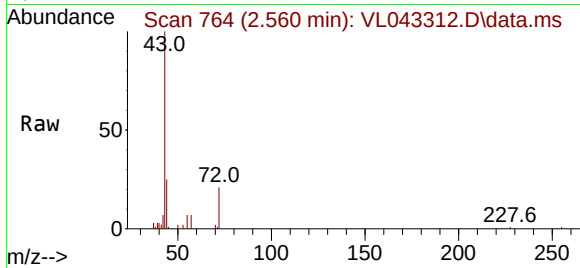




#34
2-Butanone
Concen: 0.296 ppbv
RT: 2.560 min Scan# 764
Delta R.T. 0.009 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

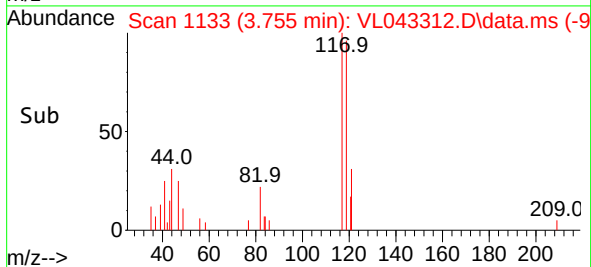
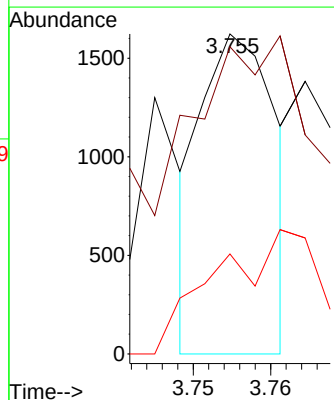
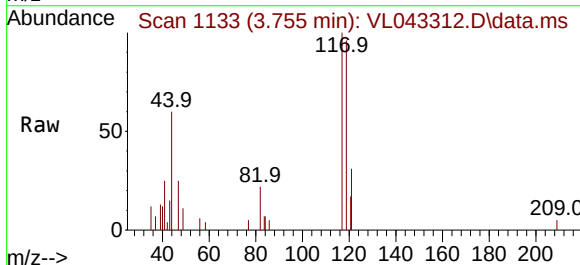
Instrument :
MSVOA_L
ClientSampleId :
9B-IA-1

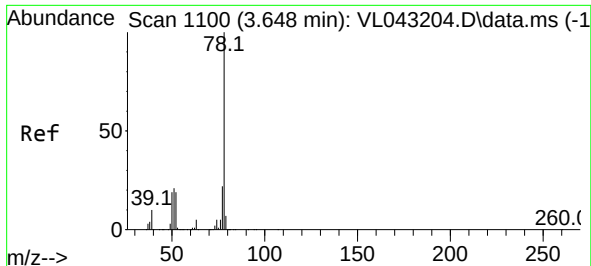
Tgt Ion: 43 Resp: 7477
Ion Ratio Lower Upper
43 100
72 25.3 18.1 27.1



#35
Carbon Tetrachloride
Concen: 0.040 ppbv
RT: 3.755 min Scan# 1133
Delta R.T. -0.000 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 117 Resp: 1086
Ion Ratio Lower Upper
117 100
119 49.7 74.6 112.0#
121 32.1 23.2 34.8

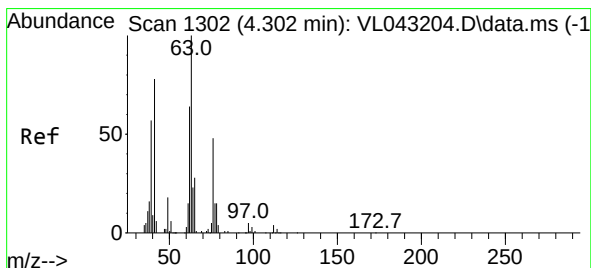
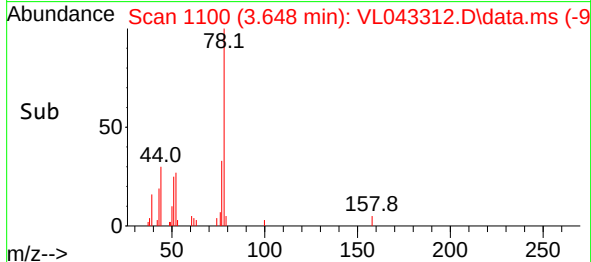
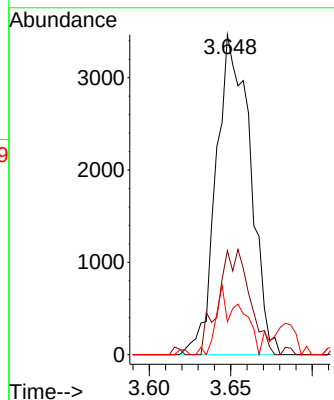
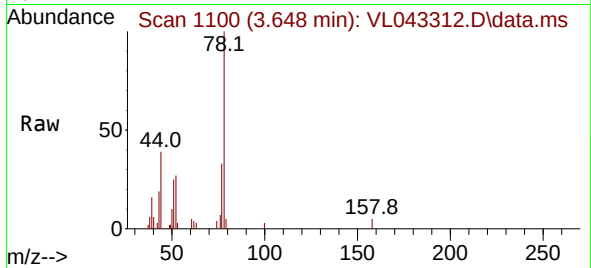




#36
Benzene
Concen: 0.147 ppbv
RT: 3.648 min Scan# 1100
Delta R.T. -0.000 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

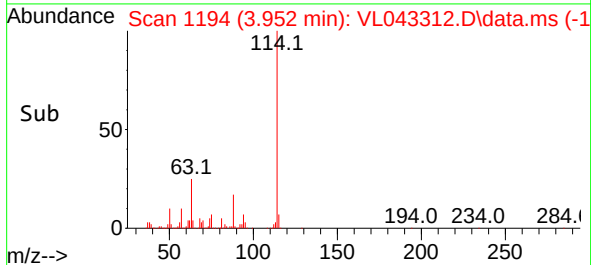
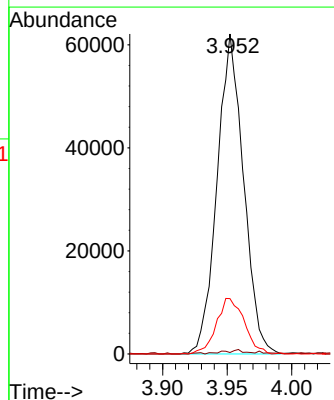
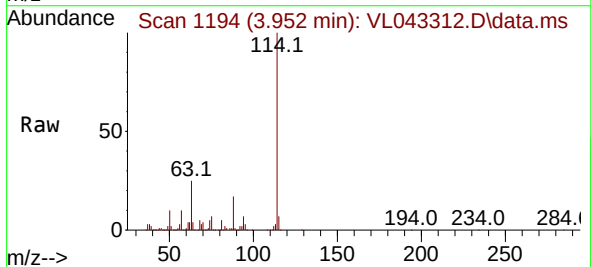
Instrument :
MSVOA_L
ClientSampleId :
9B-IA-1

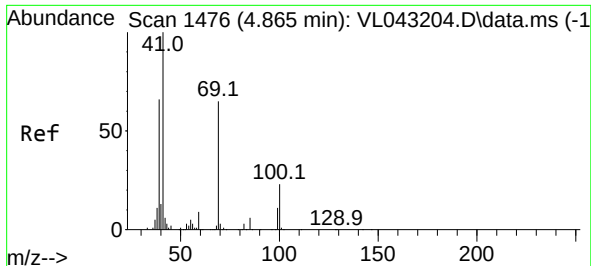
Tgt Ion: 78 Resp: 5022
Ion Ratio Lower Upper
78 100
77 32.5 17.5 26.3#
50 8.7 15.5 23.3#



#39
1,2-Dichloropropane
Concen: 7.037 ppbv
RT: 3.952 min Scan# 1194
Delta R.T. -0.350 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 63 Resp: 88229
Ion Ratio Lower Upper
63 100
41 0.4 62.6 93.8#
62 17.3 51.0 76.6#

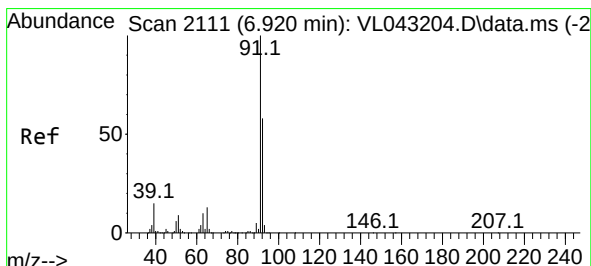
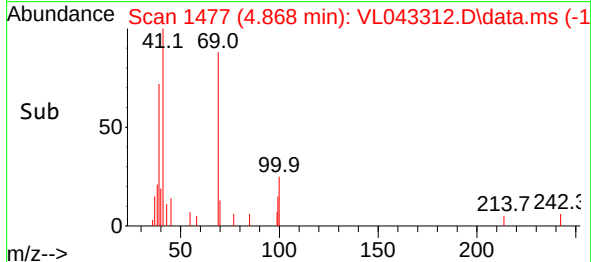
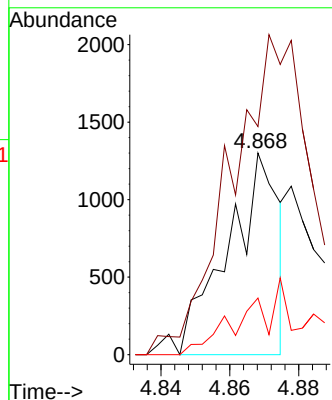
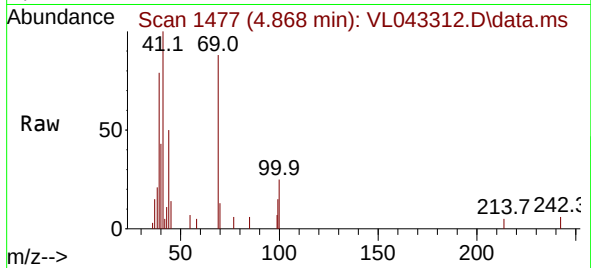




#43
Methyl Methacrylate
Concen: 0.073 ppbv
RT: 4.868 min Scan# 1476
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

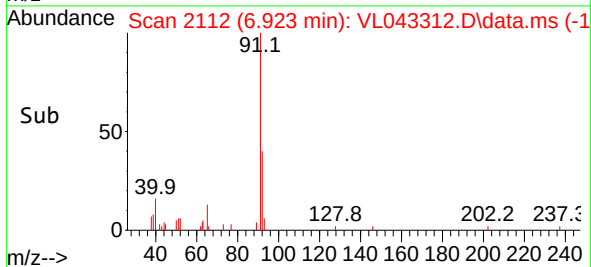
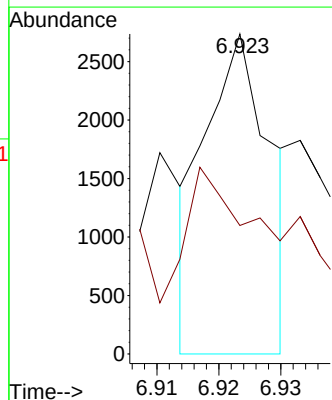
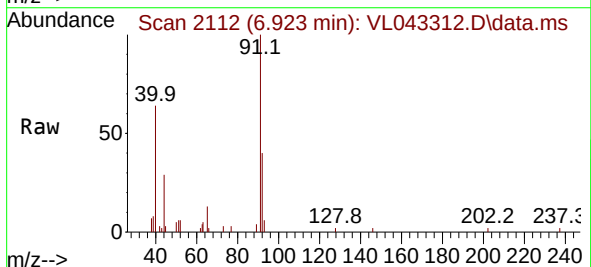
Instrument :
MSVOA_1
ClientSampleId :
9B-IA-1

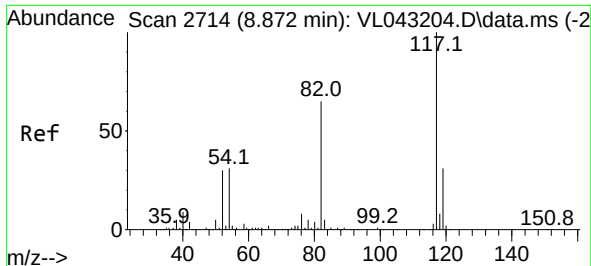
Tgt Ion: 69 Resp: 1326
Ion Ratio Lower Upper
69 100
41 0.0 126.7 190.1#
100 0.0 28.6 43.0#



#53
Toluene
Concen: 0.049 ppbv
RT: 6.923 min Scan# 2112
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 91 Resp: 2002
Ion Ratio Lower Upper
91 100
92 132.6 47.4 71.0#

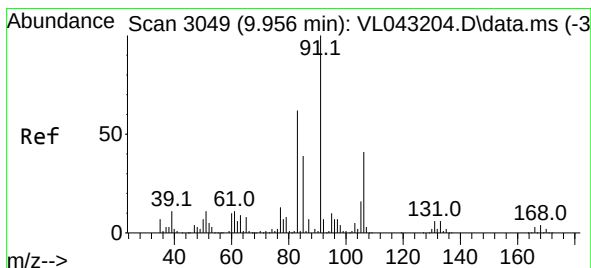
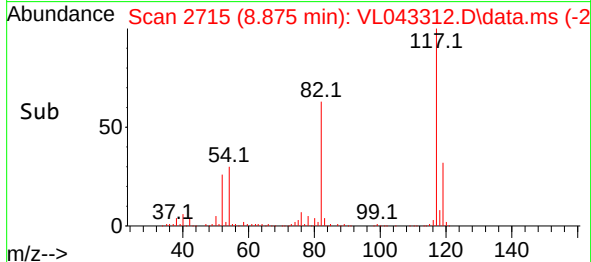
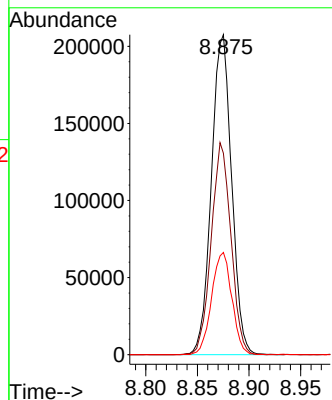
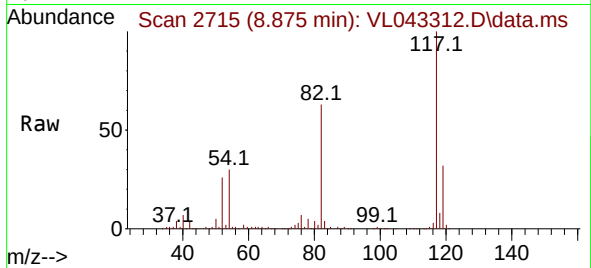




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

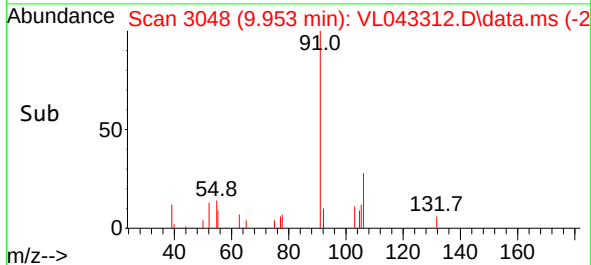
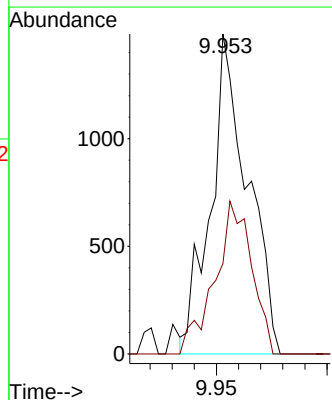
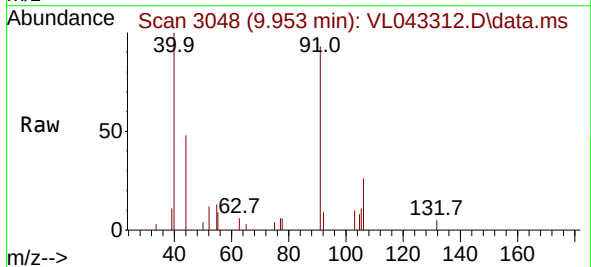
Instrument :
MSVOA_L
ClientSampleId :
9B-IA-1

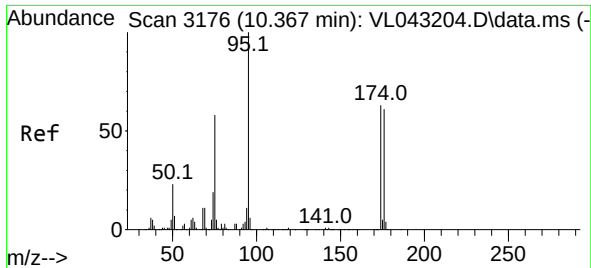
Tgt Ion:117 Resp: 281919
Ion Ratio Lower Upper
117 100
82 64.8 56.1 84.1
119 32.1 25.0 37.6



#60
o-Xylene
Concen: 0.040 ppbv
RT: 9.953 min Scan# 3048
Delta R.T. -0.004 min
Lab File: VL043312.D
Acq: 08 Dec 2025 13:52

Tgt Ion: 91 Resp: 1733
Ion Ratio Lower Upper
91 100
106 47.3 20.9 62.8





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.335 ppbv
 RT: 10.370 min Scan# 3177
 Delta R.T. 0.003 min
 Lab File: VL043312.D
 Acq: 08 Dec 2025 13:52

Instrument :
 MSVOA_L
 ClientSampleId :
 9B-IA-1

Tgt Ion: 95 Resp: 213574
 Ion Ratio Lower Upper
 95 100
 174 68.6 50.2 75.2
 175 4.9 4.1 6.1

