

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090825\
 Data File : VL042906.D
 Acq On : 08 Sep 2025 16:33
 Operator : SY/MD
 Sample : Q3038-01 4X
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1

Quant Time: Sep 09 00:57:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 09 00:52:26 2025
 Response via : Initial Calibration

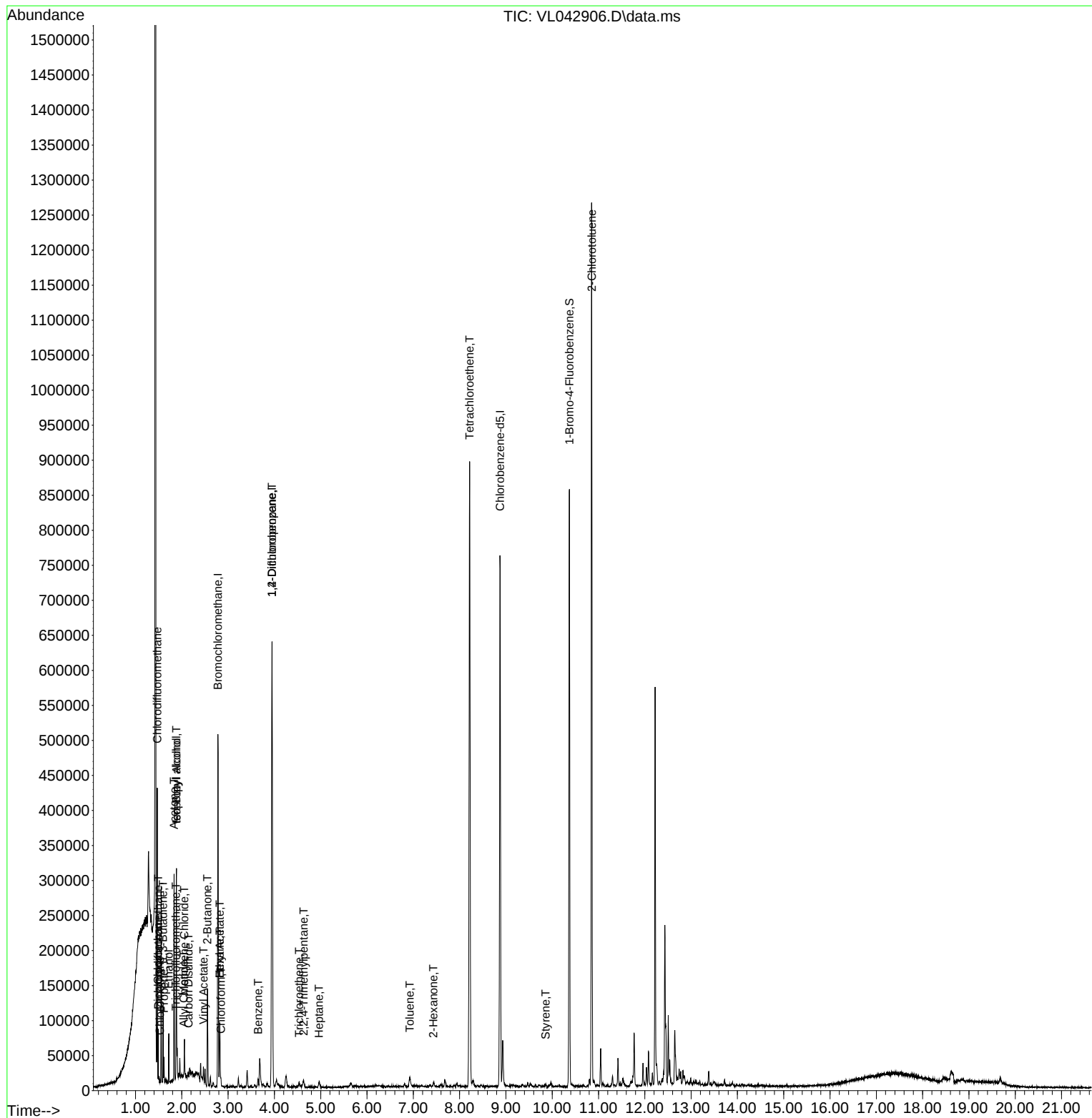
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	2.780	49	142770	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.949	114	358223	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	300604	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	220147	9.765	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.700%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.492	85	2637	0.126	ppbv	100
3) Chlorodifluoromethane	1.470	51	152267	6.584	ppbv	94
4) Chloromethane	1.528	50	1401	0.166	ppbv	88
7) Chloroethane	1.489	64	6952	2.141	ppbv #	42
9) Propene	1.615	41	3018	0.302	ppbv	91
10) Heptane	4.962	43	1067	0.040	ppbv #	26
11) Trichlorofluoromethane	1.874	101	1862	0.090	ppbv	85
13) Ethanol	1.719	45	21534	23.579	ppbv	93
15) Acetone	1.832	43	117769	6.236	ppbv	93
16) 1,3-Butadiene	1.596	39	10410	1.216	ppbv #	28
17) tert-Butyl alcohol	1.884	59	4803	0.214	ppbv	99
19) Isopropyl Alcohol	1.884	45	124685	11.054	ppbv #	37
20) Methylene Chloride	2.055	84	7932	1.003	ppbv	86
21) Allyl Chloride	2.046	41	959	0.072	ppbv #	64
23) Vinyl Acetate	2.470	43	6886	0.265	ppbv #	32
25) Ethyl Acetate	2.819	43	16237	0.355	ppbv #	86
26) Hexane	2.819	57	18740	0.888	ppbv #	46
27) Carbon Disulfide	2.143	76	1718	0.084	ppbv #	1
29) Chloroform	2.845	83	3811	0.127	ppbv	91
34) 2-Butanone	2.554	43	83905	3.469	ppbv	99
36) Benzene	3.651	78	6417	0.187	ppbv #	74
38) Trichloroethene	4.535	130	659	0.042	ppbv #	63
39) 1,2-Dichloropropane	3.949	63	94790	7.566	ppbv #	25
44) 2,2,4-Trimethylpentane	4.632	57	4054	0.070	ppbv #	22
51) 2-Hexanone	7.435	43	1883	0.073	ppbv #	37
52) Tetrachloroethene	8.218	164	145329	11.711	ppbv	96
53) Toluene	6.923	91	8585	0.211	ppbv	97
61) Styrene	9.859	104	907	0.046	ppbv #	80
71) 2-Chlorotoluene	10.853	91	154255	3.250	ppbv #	45

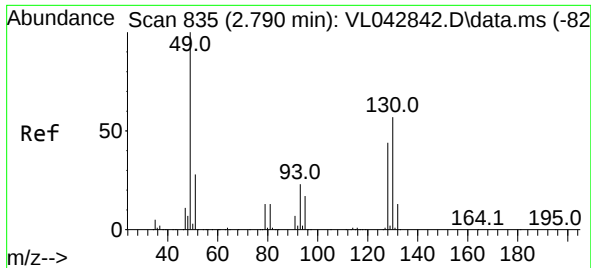
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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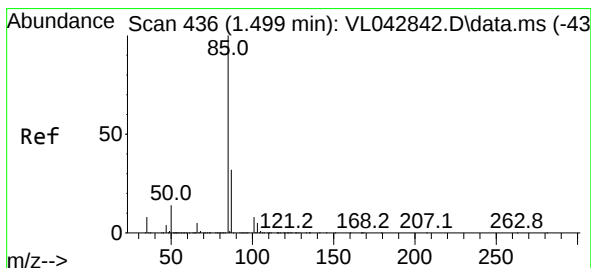
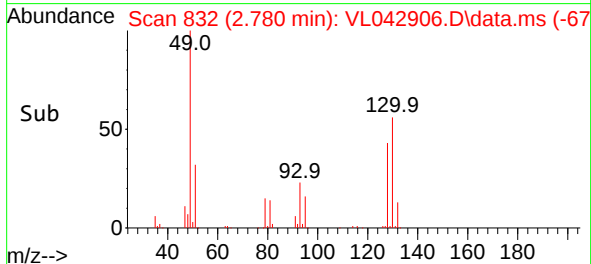
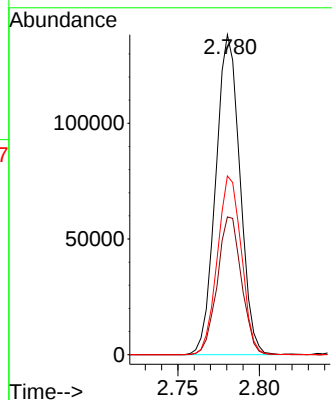
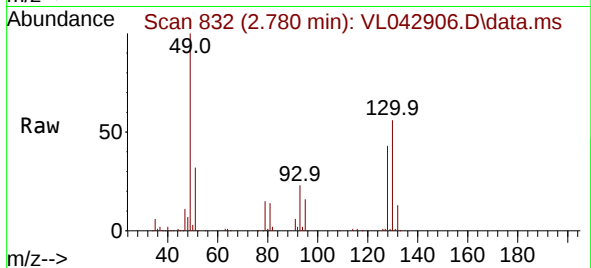




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.780 min Scan# 81
 Delta R.T. 0.003 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

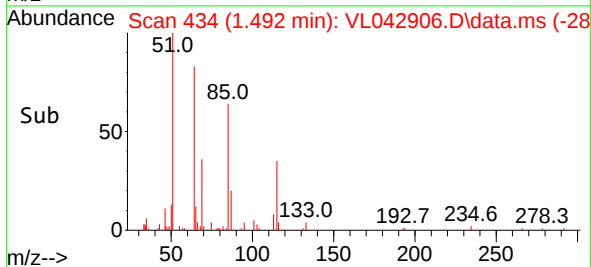
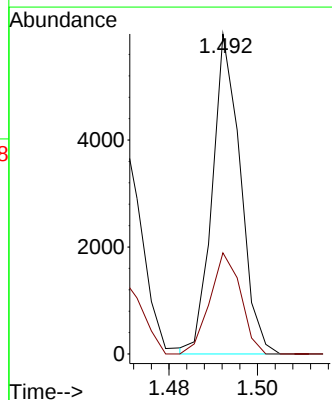
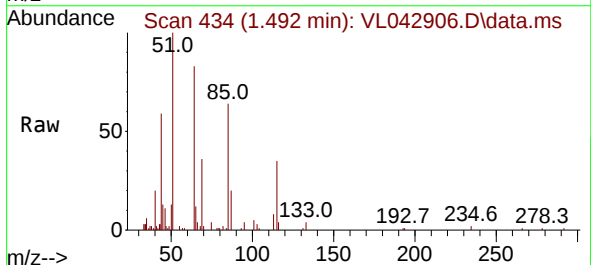
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1

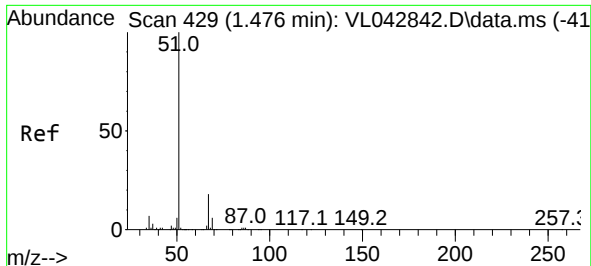
Tgt Ion: 49 Resp: 142770
 Ion Ratio Lower Upper
 49 100
 128 43.0 23.7 71.1
 130 55.5 30.6 91.6



#2
 Dichlorodifluoromethane
 Concen: 0.126 ppbv
 RT: 1.492 min Scan# 434
 Delta R.T. -0.000 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

Tgt Ion: 85 Resp: 2637
 Ion Ratio Lower Upper
 85 100
 87 31.6 25.3 37.9

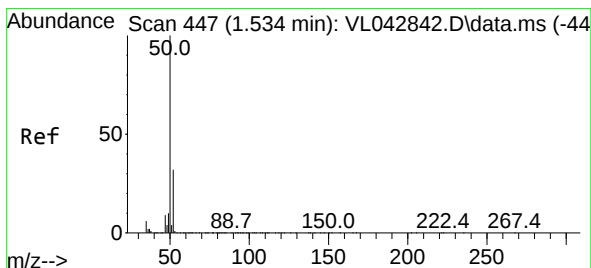
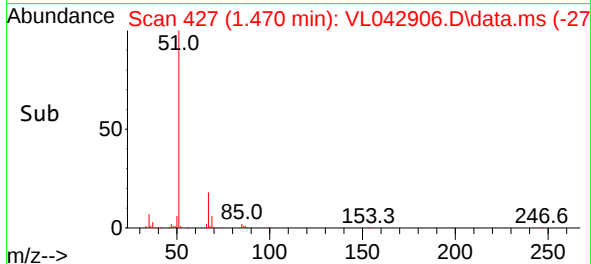
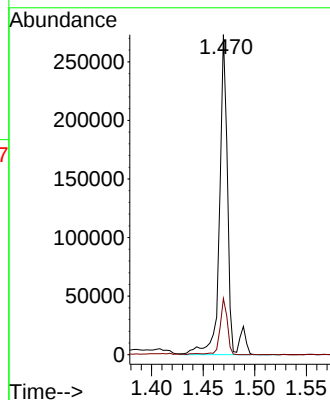
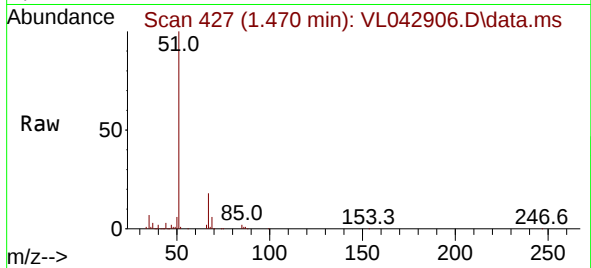




#3
Chlorodifluoromethane
Concen: 6.584 ppbv
RT: 1.470 min Scan# 41
Delta R.T. -0.000 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

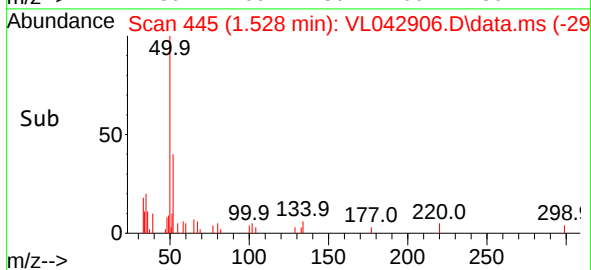
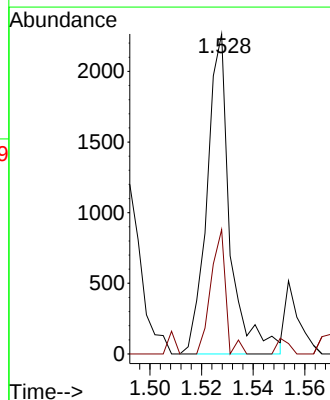
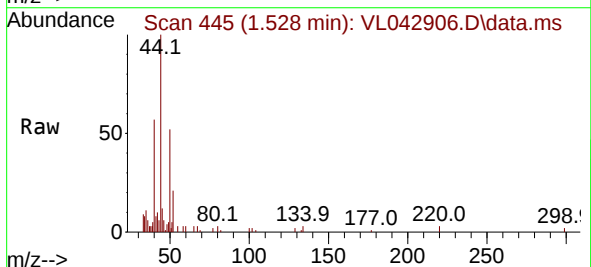
Instrument :
MSVOA_L
ClientSampleId :
SV-1

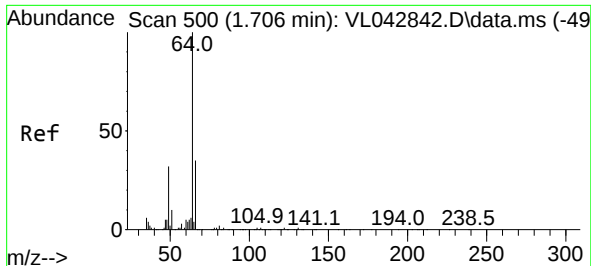
Tgt Ion: 51 Resp: 152267
Ion Ratio Lower Upper
51 100
67 15.8 14.9 22.3



#4
Chloromethane
Concen: 0.166 ppbv
RT: 1.528 min Scan# 445
Delta R.T. -0.000 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 50 Resp: 1401
Ion Ratio Lower Upper
50 100
52 38.9 25.9 38.9

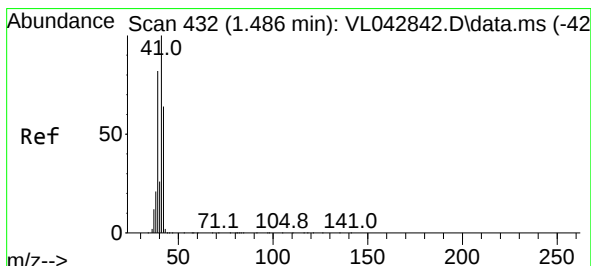
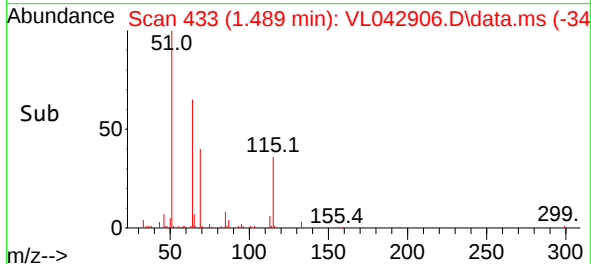
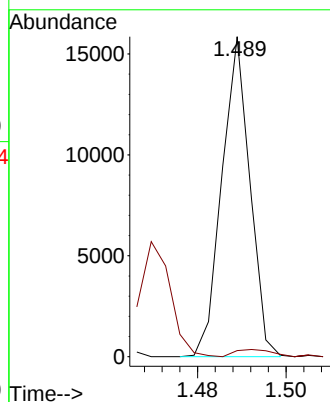
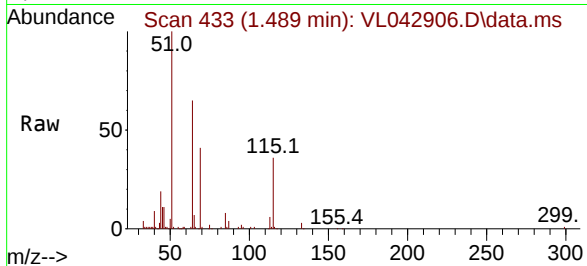




#7
Chloroethane
Concen: 2.141 ppbv
RT: 1.489 min Scan# 41
Delta R.T. -0.211 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

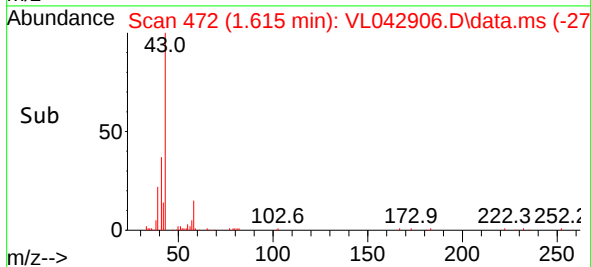
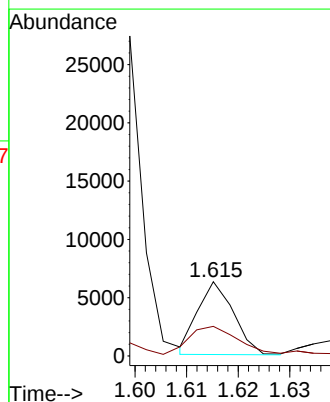
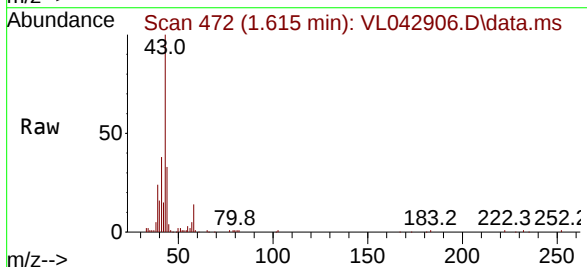
Instrument :
MSVOA_L
ClientSampleId :
SV-1

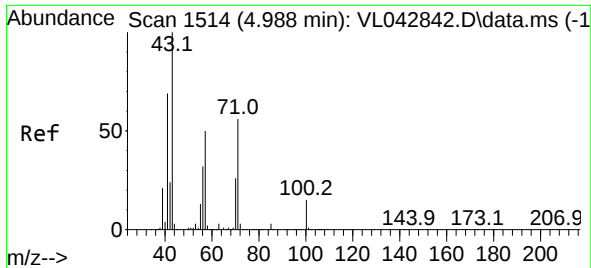
Tgt Ion: 64 Resp: 6952
Ion Ratio Lower Upper
64 100
66 1.9 28.6 42.8#



#9
Propene
Concen: 0.302 ppbv
RT: 1.615 min Scan# 472
Delta R.T. 0.139 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 41 Resp: 3018
Ion Ratio Lower Upper
41 100
42 73.7 53.0 79.4

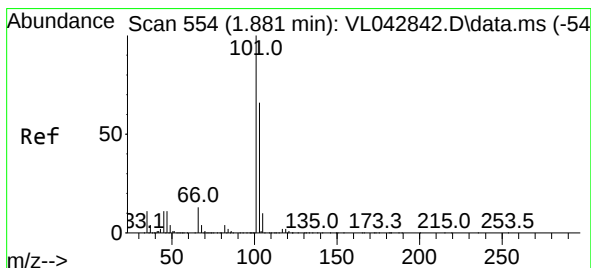
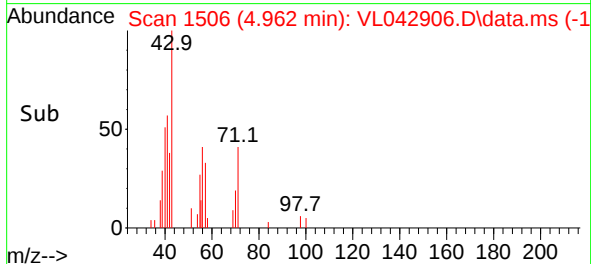
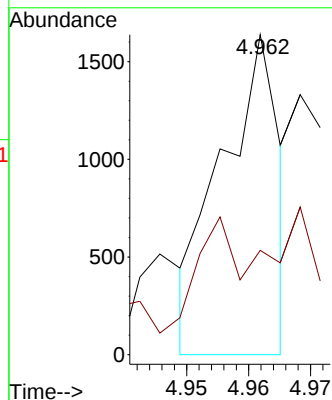
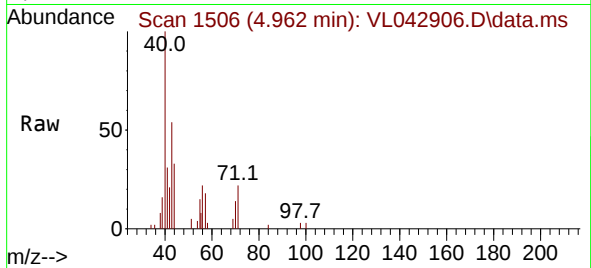




#10
Heptane
Concen: 0.040 ppbv
RT: 4.962 min Scan# 11
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

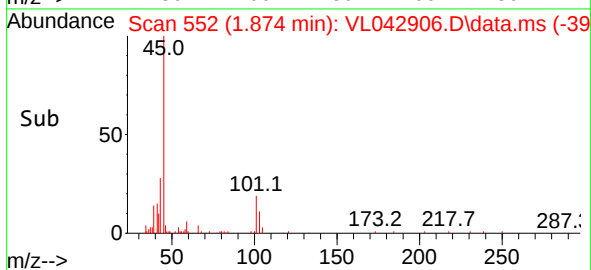
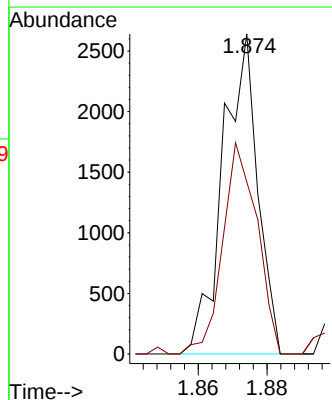
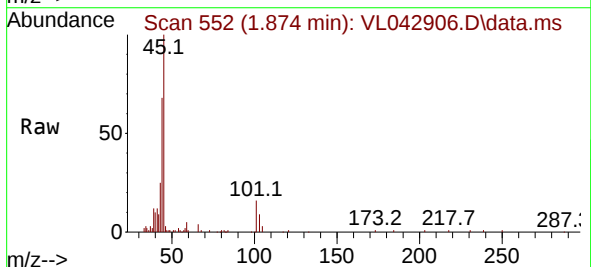
Instrument :
MSVOA_L
ClientSampleId :
SV-1

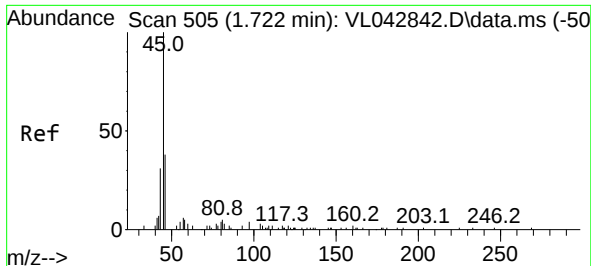
Tgt Ion: 43 Resp: 1067
Ion Ratio Lower Upper
43 100
57 0.0 41.4 62.0#



#11
Trichlorofluoromethane
Concen: 0.090 ppbv
RT: 1.874 min Scan# 552
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion:101 Resp: 1862
Ion Ratio Lower Upper
101 100
103 53.8 52.5 78.7

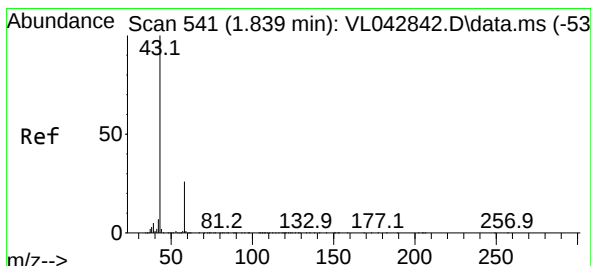
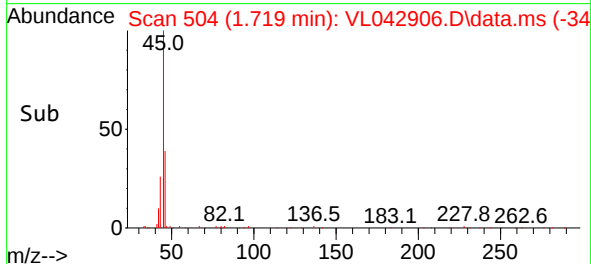
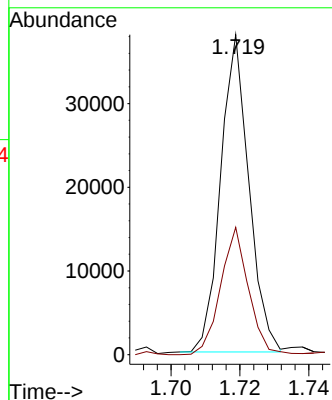
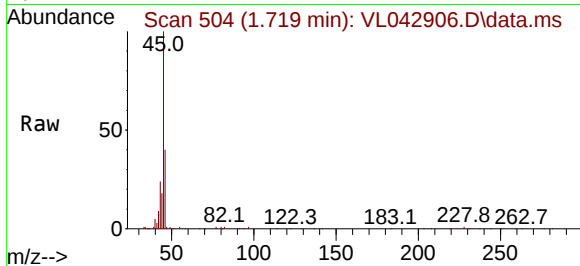




#13
Ethanol
Concen: 23.579 ppbv
RT: 1.719 min Scan# 505
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

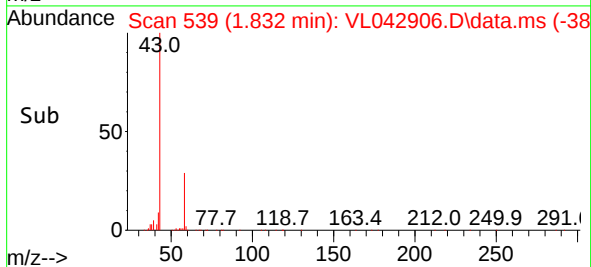
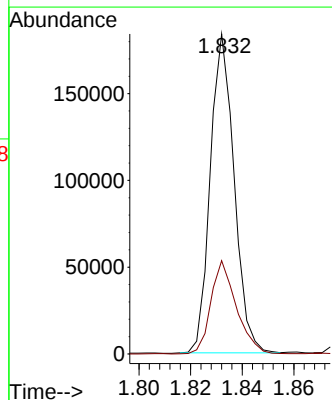
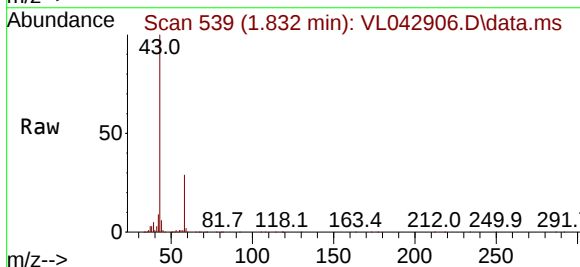
Instrument :
MSVOA_L
ClientSampleId :
SV-1

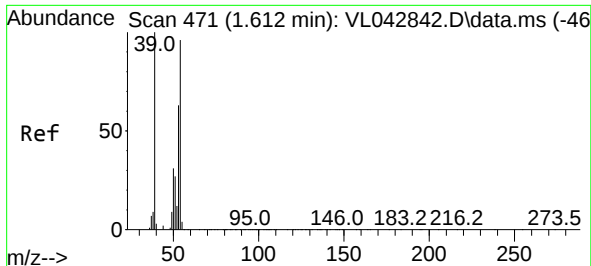
Tgt Ion: 45 Resp: 21534
Ion Ratio Lower Upper
45 100
46 39.5 17.5 69.9



#15
Acetone
Concen: 6.236 ppbv
RT: 1.832 min Scan# 539
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 43 Resp: 117769
Ion Ratio Lower Upper
43 100
58 31.5 22.4 33.6





#16

1,3-Butadiene

Concen: 1.216 ppbv

RT: 1.596 min Scan# 4

Delta R.T. -0.007 min

Lab File: VL042906.D

Acq: 08 Sep 2025 16:33

Instrument :

MSVOA_L

ClientSampleId :

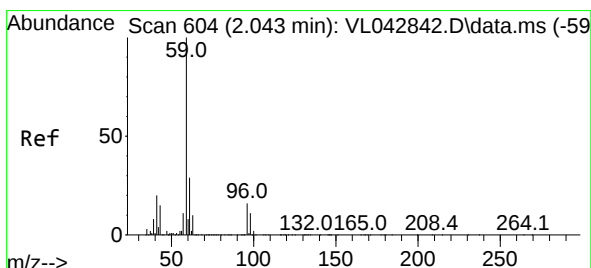
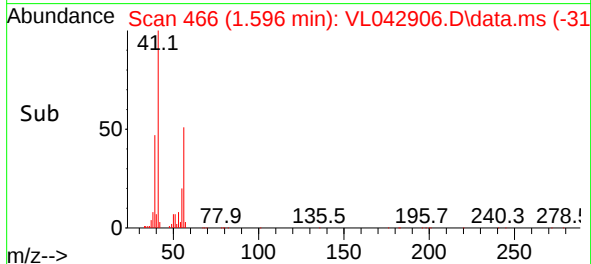
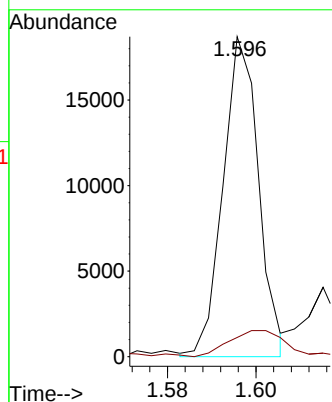
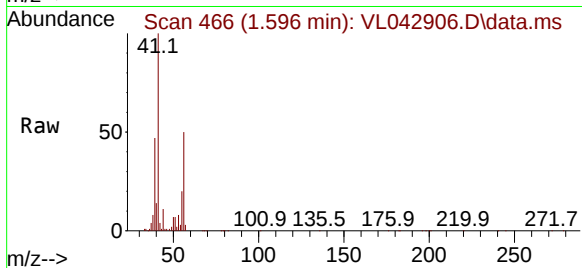
SV-1

Tgt Ion: 39 Resp: 10410

Ion Ratio Lower Upper

39 100

54 16.2 63.6 95.4#



#17

tert-Butyl alcohol

Concen: 0.214 ppbv

RT: 1.884 min Scan# 555

Delta R.T. -0.149 min

Lab File: VL042906.D

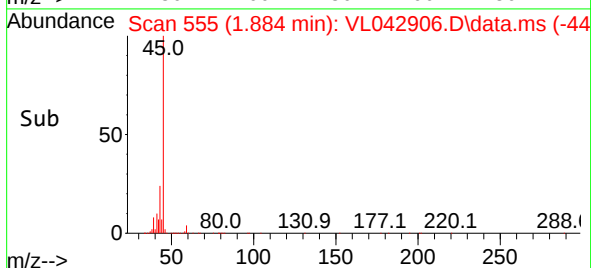
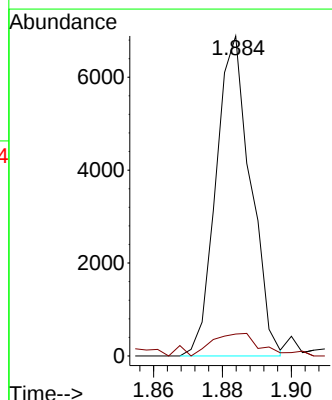
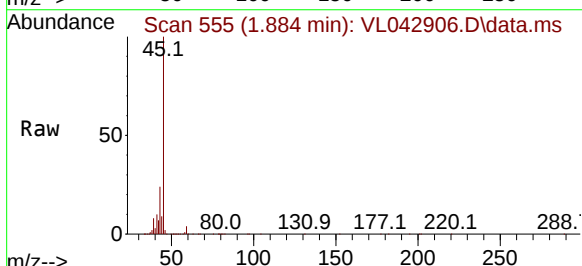
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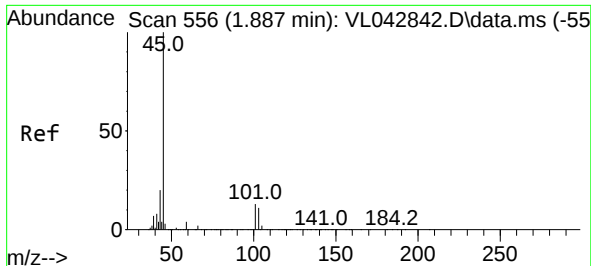
Tgt Ion: 59 Resp: 4803

Ion Ratio Lower Upper

59 100

57 11.0 9.0 13.4

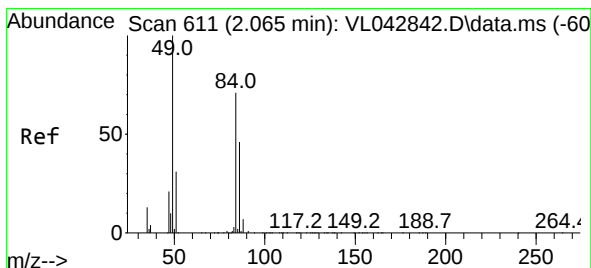
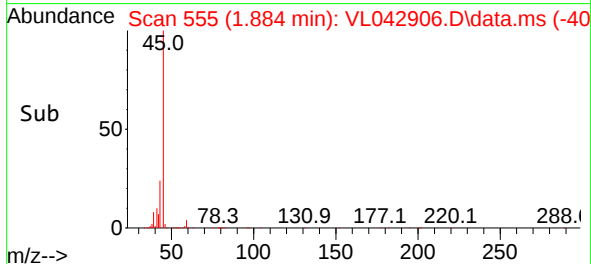
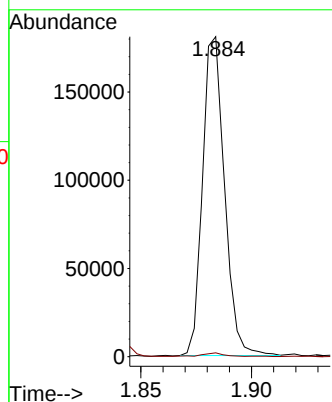
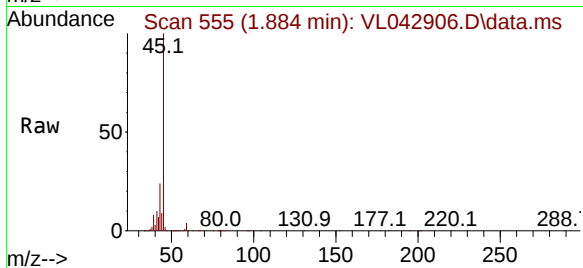




#19
Isopropyl Alcohol
Concen: 11.054 ppbv
RT: 1.884 min Scan# 511
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

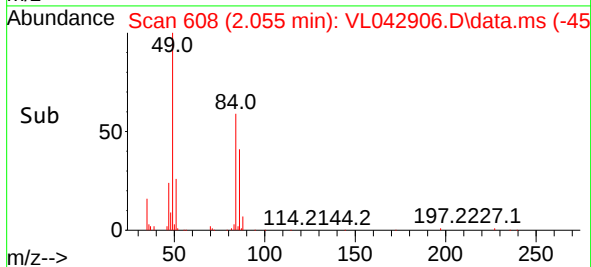
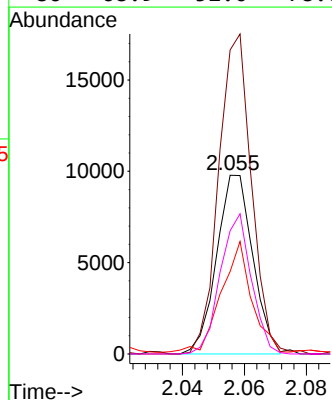
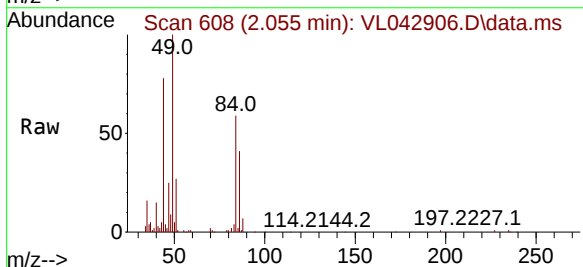
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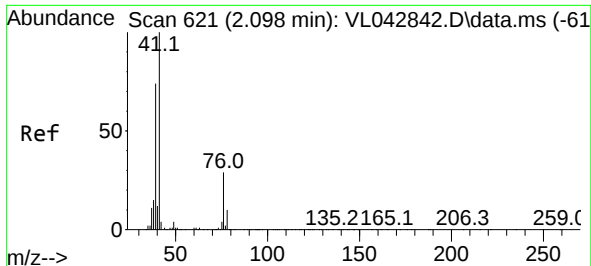
Tgt Ion: 45 Resp: 124685
Ion Ratio Lower Upper
45 100
58 1.9 32.7 49.1#



#20
Methylene Chloride
Concen: 1.003 ppbv
RT: 2.055 min Scan# 608
Delta R.T. -0.000 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 84 Resp: 7932
Ion Ratio Lower Upper
84 100
49 168.1 112.3 168.5
51 44.9 36.0 54.0
86 68.9 52.0 78.0

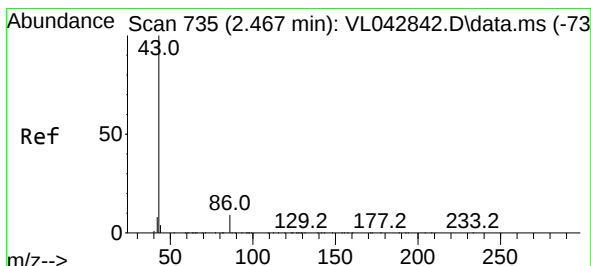
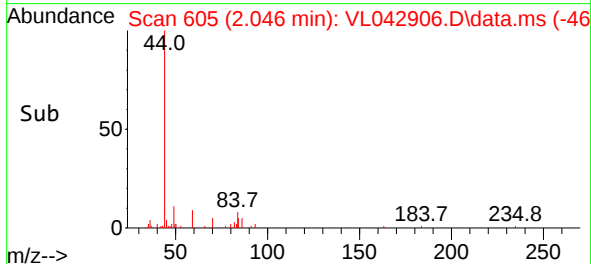
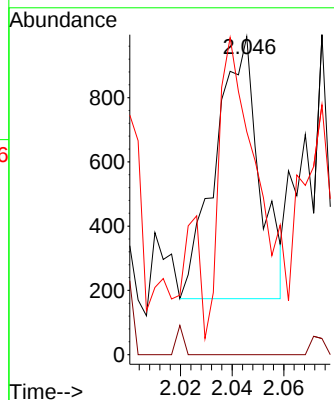
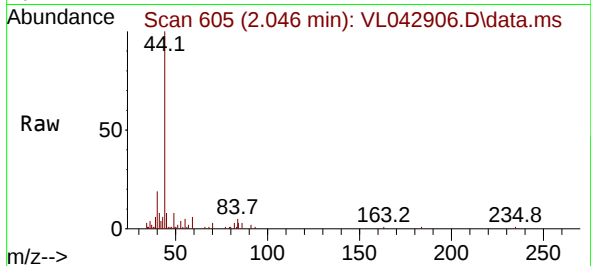




#21
 Allyl Chloride
 Concen: 0.072 ppbv
 RT: 2.046 min Scan# 605
 Delta R.T. -0.042 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

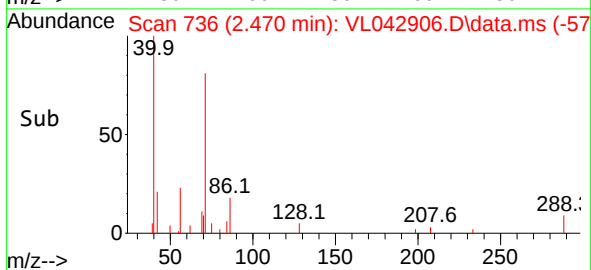
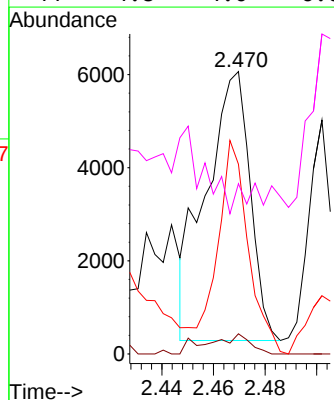
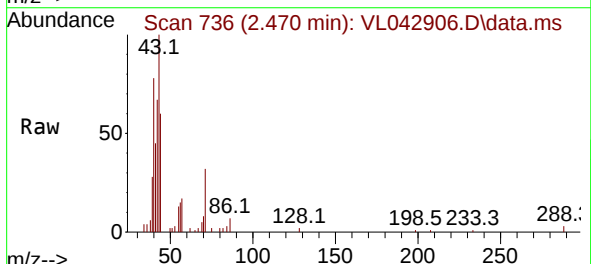
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1

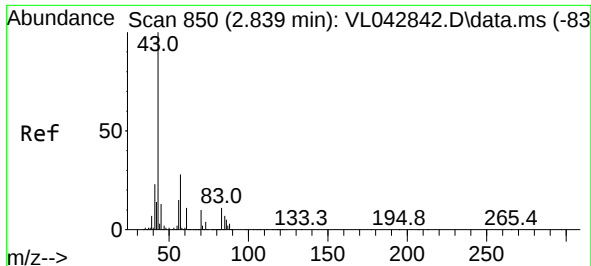
Tgt Ion: 41 Resp: 959
 Ion Ratio Lower Upper
 41 100
 76 0.0 23.9 35.9#
 39 96.1 57.8 86.6#



#23
 Vinyl Acetate
 Concen: 0.265 ppbv
 RT: 2.470 min Scan# 736
 Delta R.T. 0.016 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

Tgt Ion: 43 Resp: 6886
 Ion Ratio Lower Upper
 43 100
 86 7.5 6.6 9.8
 42 69.6 7.0 10.6#
 44 4.8 4.0 6.0





#25

Ethyl Acetate

Concen: 0.355 ppbv

RT: 2.819 min Scan# 844

Delta R.T. -0.007 min

Lab File: VL042906.D

Acq: 08 Sep 2025 16:33

Instrument :

MSVOA_L

ClientSampleId :

SV-1

Tgt Ion: 43 Resp: 16237

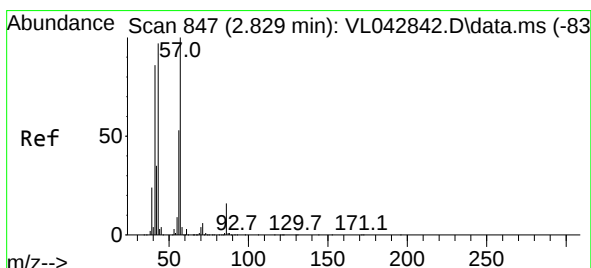
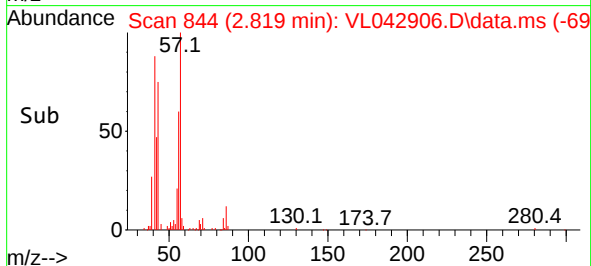
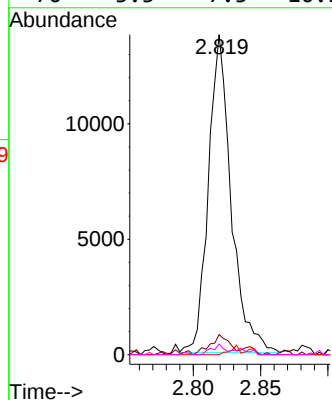
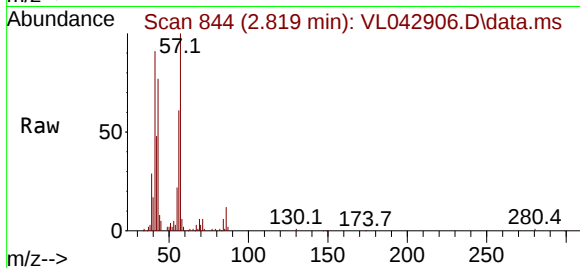
Ion Ratio Lower Upper

43 100

45 7.7 8.1 12.1#

61 1.8 7.4 11.2#

70 3.3 7.3 10.9#



#26

Hexane

Concen: 0.888 ppbv

RT: 2.819 min Scan# 844

Delta R.T. 0.003 min

Lab File: VL042906.D

Acq: 08 Sep 2025 16:33

Tgt Ion: 57 Resp: 18740

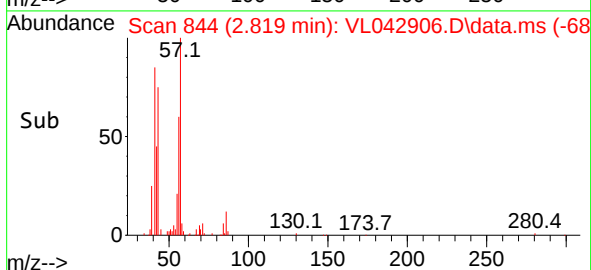
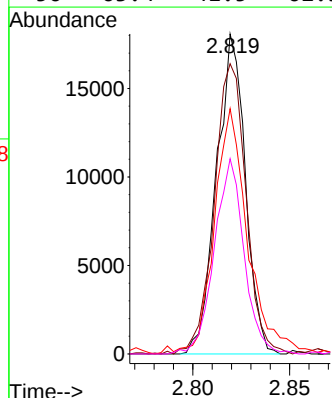
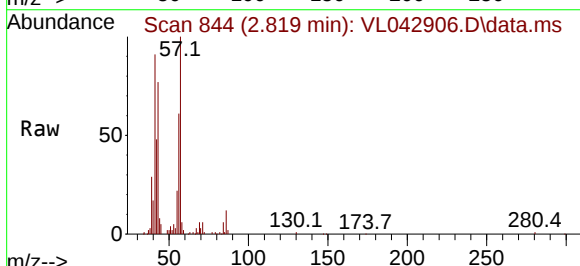
Ion Ratio Lower Upper

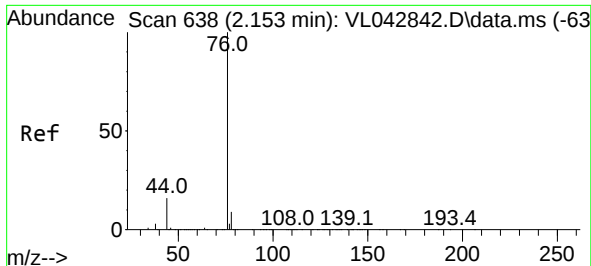
57 100

41 101.0 68.6 103.0

43 86.5 168.5 252.7#

56 63.4 41.5 62.3#

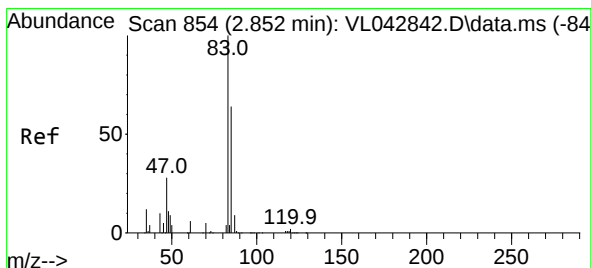
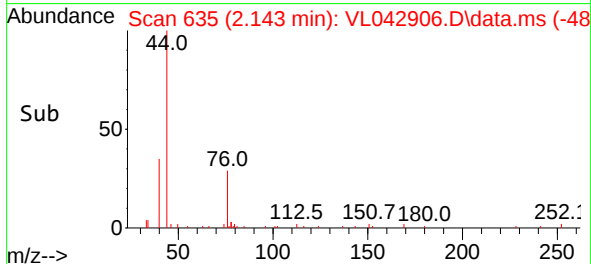
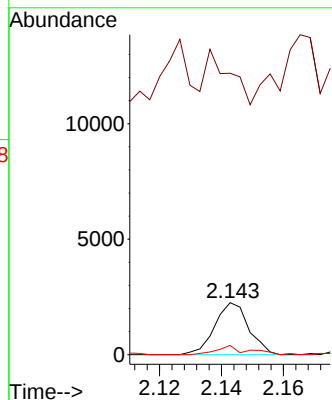
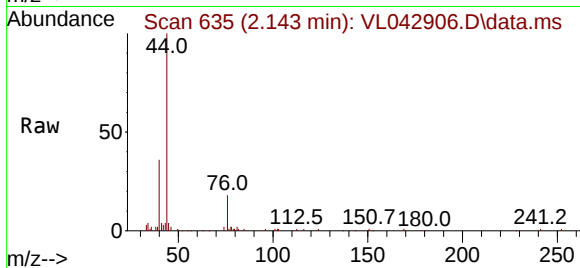




#27
Carbon Disulfide
Concen: 0.084 ppbv
RT: 2.143 min Scan# 61
Delta R.T. -0.000 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

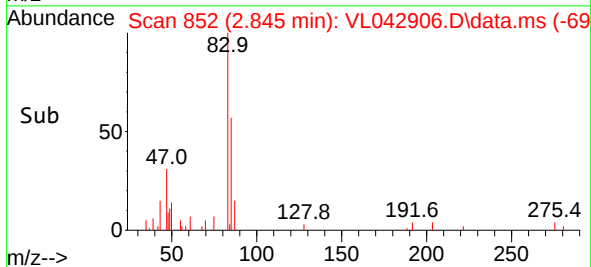
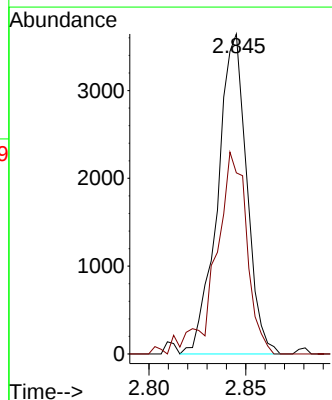
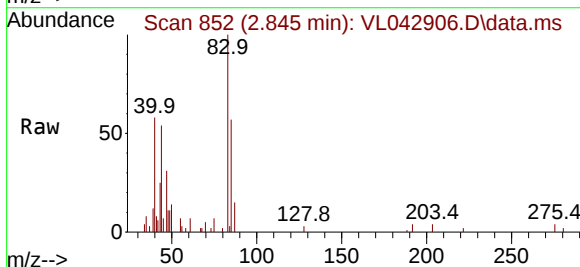
Instrument :
MSVOA_L
ClientSampleId :
SV-1

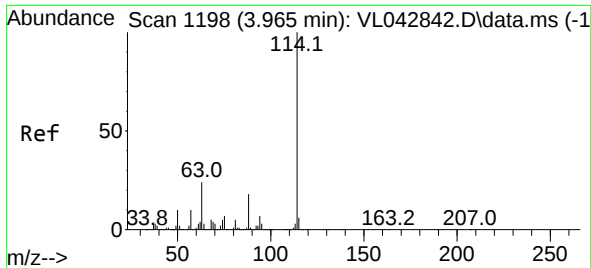
Tgt Ion: 76 Resp: 1718
Ion Ratio Lower Upper
76 100
44 1182.2 15.9 23.9#
78 17.8 9.5 14.3#



#29
Chloroform
Concen: 0.127 ppbv
RT: 2.845 min Scan# 852
Delta R.T. 0.006 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 83 Resp: 3811
Ion Ratio Lower Upper
83 100
85 56.6 51.1 76.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.949 min Scan# 1193

Delta R.T. 0.006 min

Lab File: VL042906.D

Acq: 08 Sep 2025 16:33

Instrument :

MSVOA_L

ClientSampleId :

SV-1

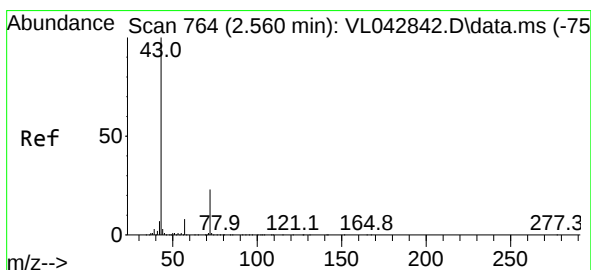
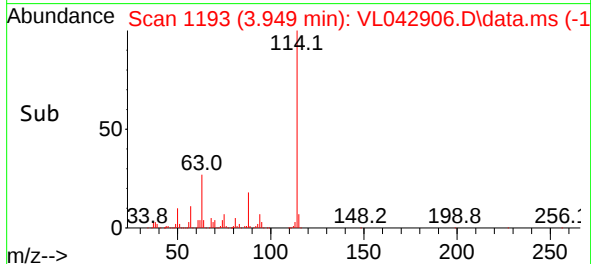
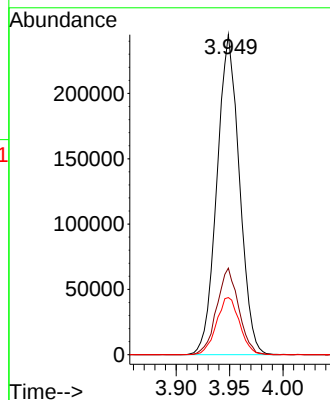
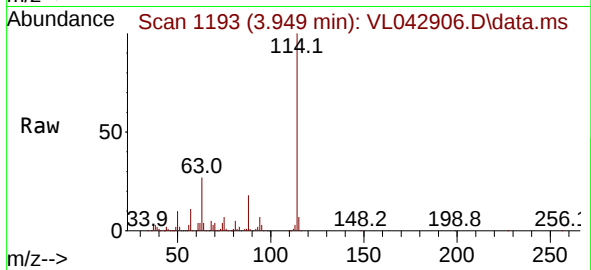
Tgt Ion:114 Resp: 358223

Ion Ratio Lower Upper

114 100

63 26.5 19.7 29.5

88 18.4 14.4 21.6



#34

2-Butanone

Concen: 3.469 ppbv

RT: 2.554 min Scan# 762

Delta R.T. 0.006 min

Lab File: VL042906.D

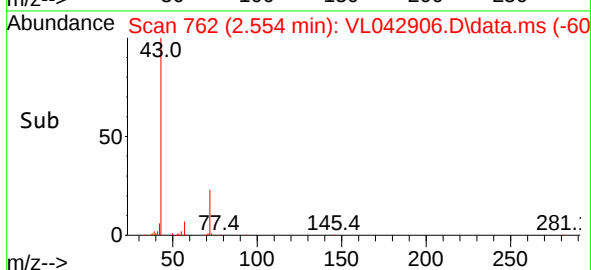
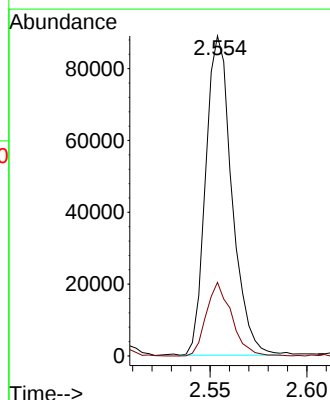
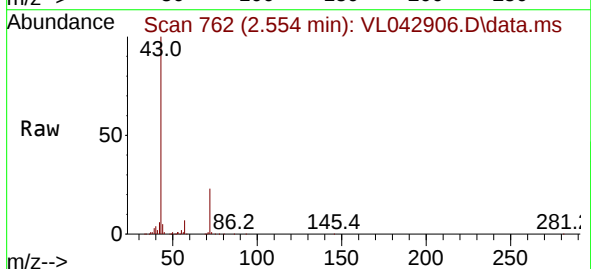
Acq: 08 Sep 2025 16:33

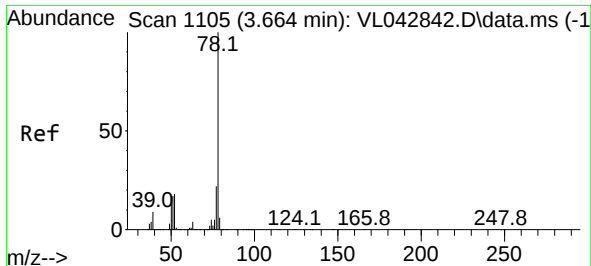
Tgt Ion: 43 Resp: 83905

Ion Ratio Lower Upper

43 100

72 22.6 18.6 28.0

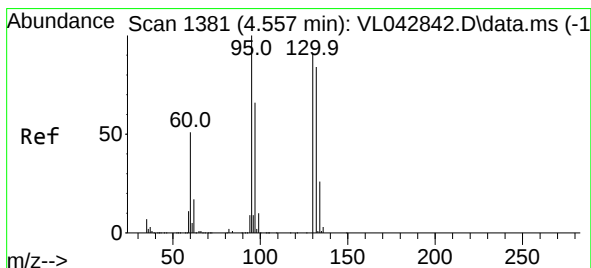
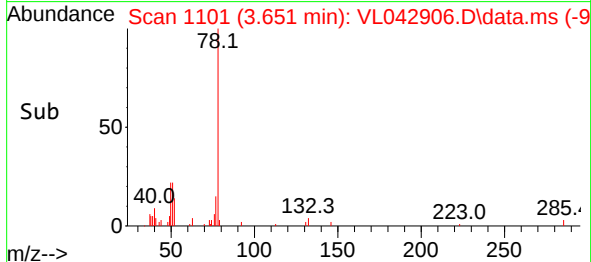
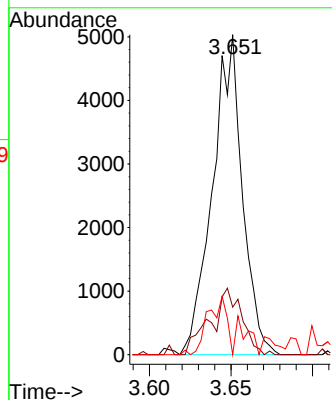
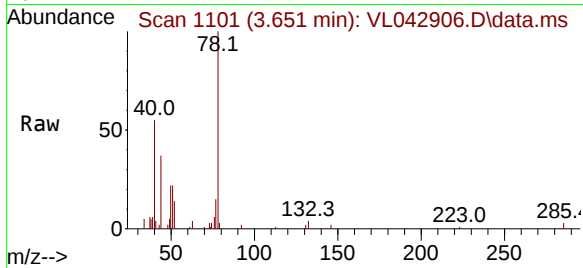




#36
Benzene
Concen: 0.187 ppbv
RT: 3.651 min Scan# 1105
Delta R.T. 0.006 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

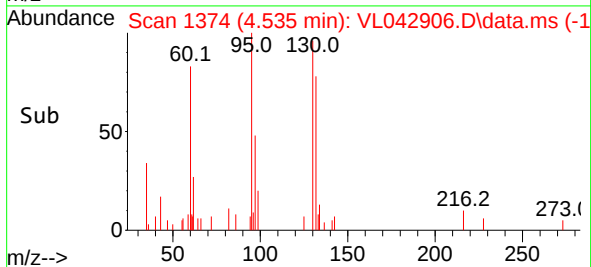
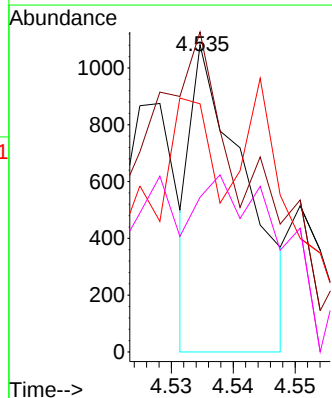
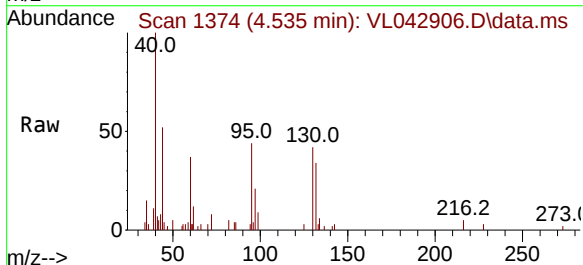
Instrument :
MSVOA_L
ClientSampleId :
SV-1

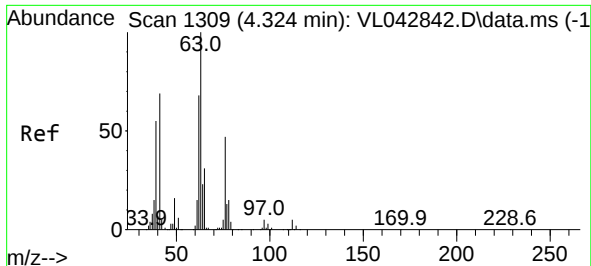
Tgt Ion: 78 Resp: 6417
Ion Ratio Lower Upper
78 100
77 14.9 17.7 26.5#
50 0.0 13.9 20.9#



#38
Trichloroethene
Concen: 0.042 ppbv
RT: 4.535 min Scan# 1374
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion:130 Resp: 659
Ion Ratio Lower Upper
130 100
95 95.0 87.6 131.4
132 45.2 73.8 110.8#
97 26.2 57.5 86.3#





#39

1,2-Dichloropropane

Concen: 7.566 ppbv

RT: 3.949 min Scan# 1193

Delta R.T. -0.350 min

Lab File: VL042906.D

Acq: 08 Sep 2025 16:33

Instrument :

MSVOA_L

ClientSampleId :

SV-1

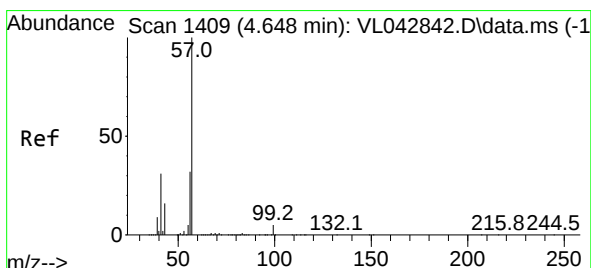
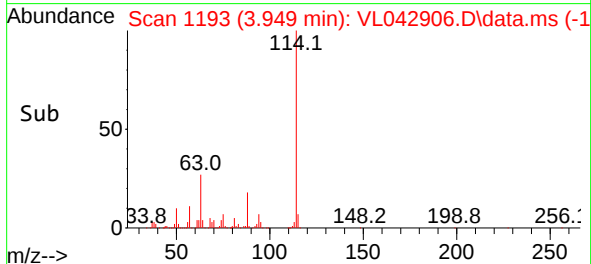
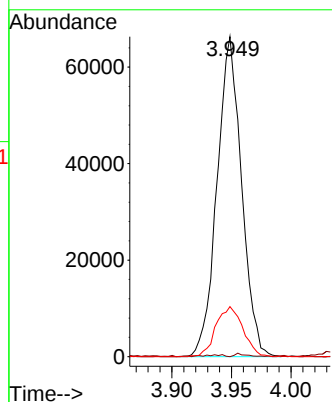
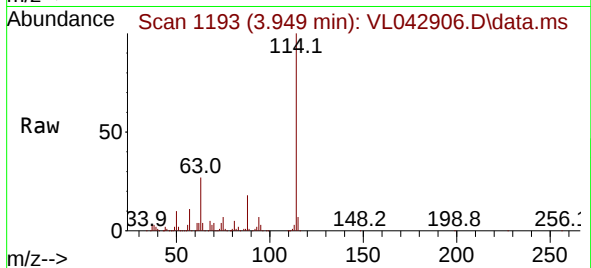
Tgt Ion: 63 Resp: 94790

Ion Ratio Lower Upper

63 100

41 0.0 55.0 82.4#

62 15.6 54.4 81.6#



#44

2,2,4-Trimethylpentane

Concen: 0.070 ppbv

RT: 4.632 min Scan# 1404

Delta R.T. 0.009 min

Lab File: VL042906.D

Acq: 08 Sep 2025 16:33

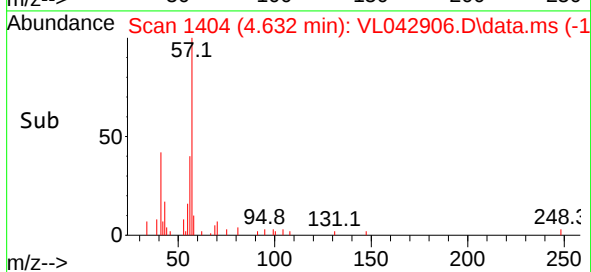
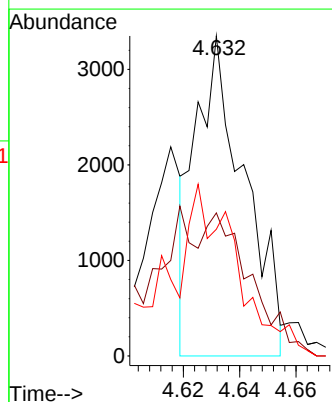
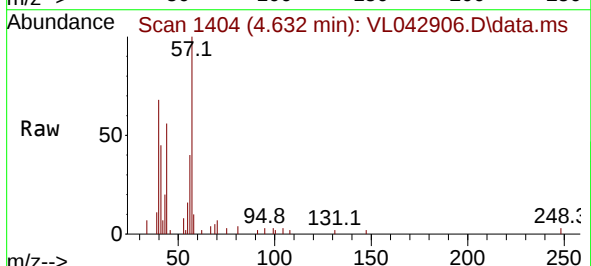
Tgt Ion: 57 Resp: 4054

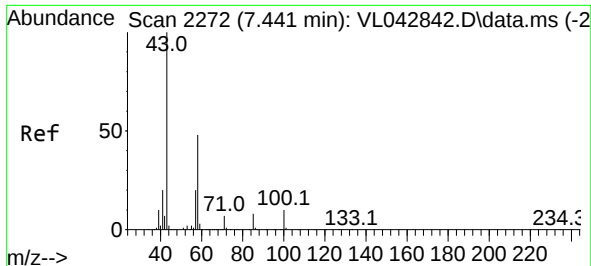
Ion Ratio Lower Upper

57 100

41 0.0 24.8 37.2#

56 87.4 25.5 38.3#

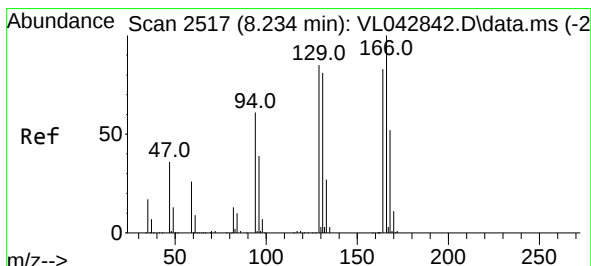
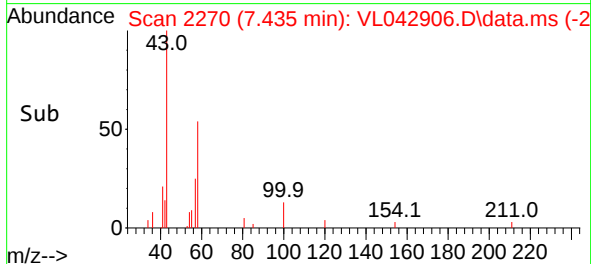
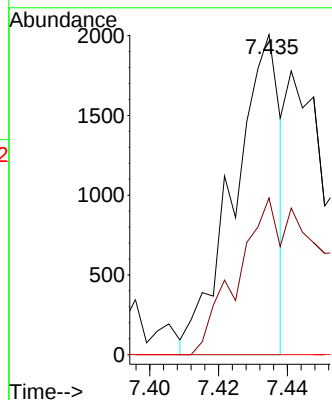
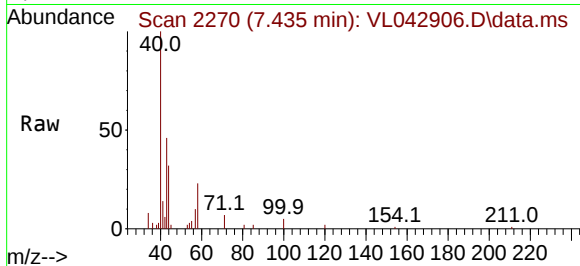




#51
 2-Hexanone
 Concen: 0.073 ppbv
 RT: 7.435 min Scan# 21
 Delta R.T. 0.016 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

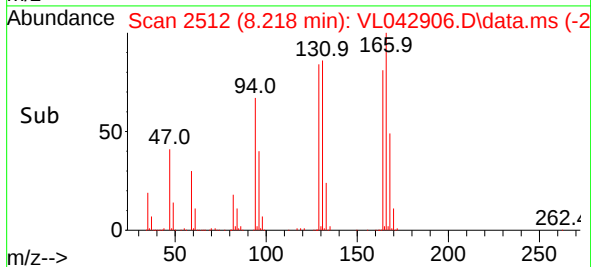
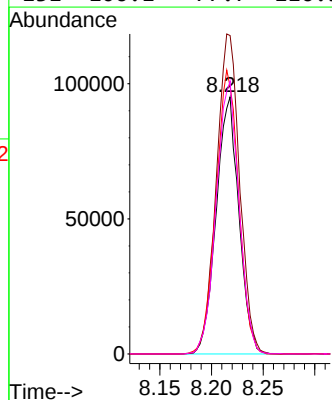
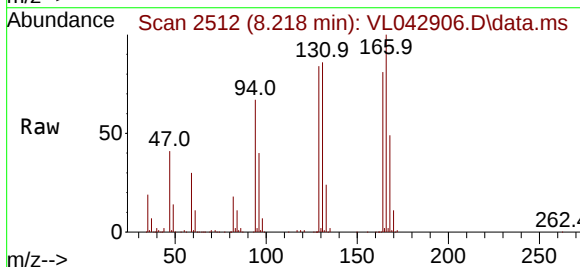
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1

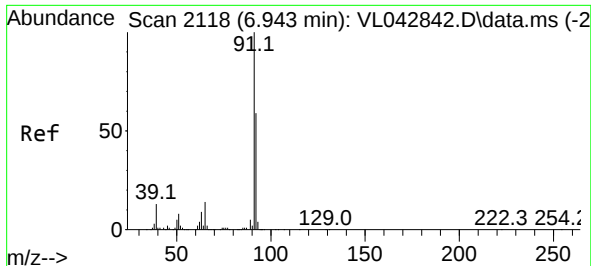
Tgt Ion: 43 Resp: 1883
 Ion Ratio Lower Upper
 43 100
 58 95.5 41.0 61.6#
 98 0.0 0.1 0.1#



#52
 Tetrachloroethene
 Concen: 11.711 ppbv
 RT: 8.218 min Scan# 2512
 Delta R.T. 0.006 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

Tgt Ion: 164 Resp: 145329
 Ion Ratio Lower Upper
 164 100
 166 123.8 96.5 144.7
 129 103.9 81.8 122.6
 131 106.1 77.7 116.5

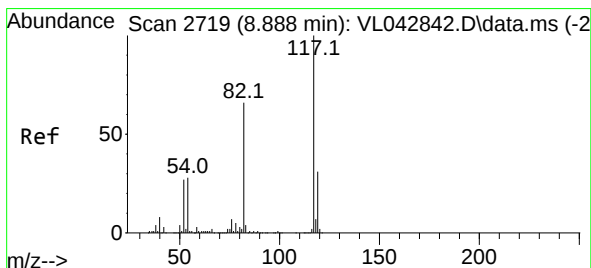
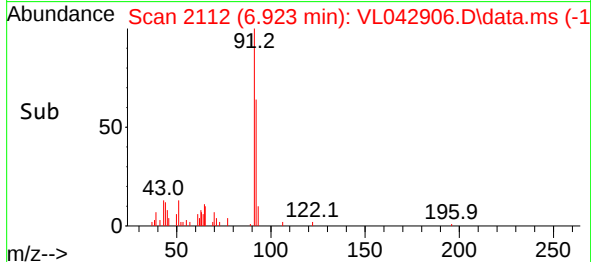
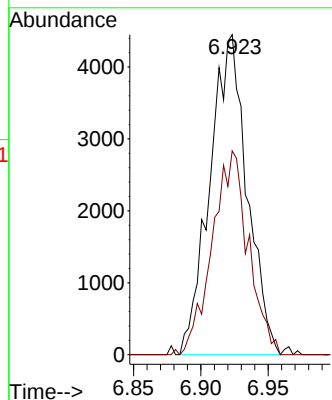
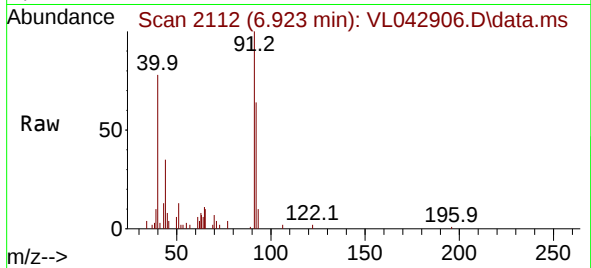




#53
Toluene
Concen: 0.211 ppbv
RT: 6.923 min Scan# 2118
Delta R.T. 0.009 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

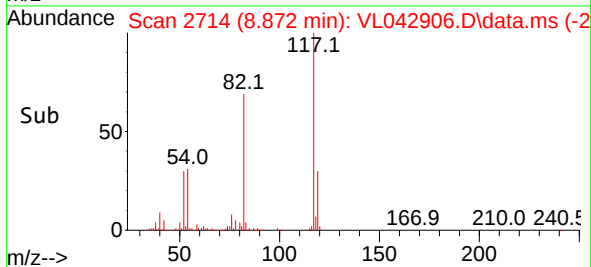
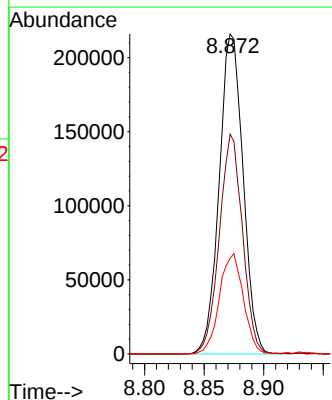
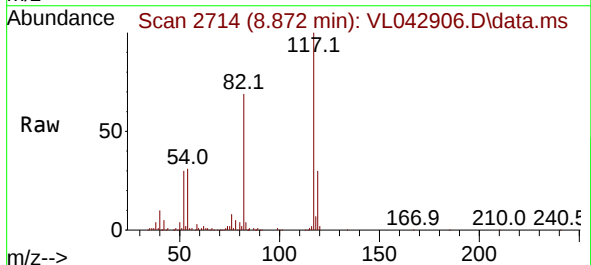
Instrument :
MSVOA_L
ClientSampleId :
SV-1

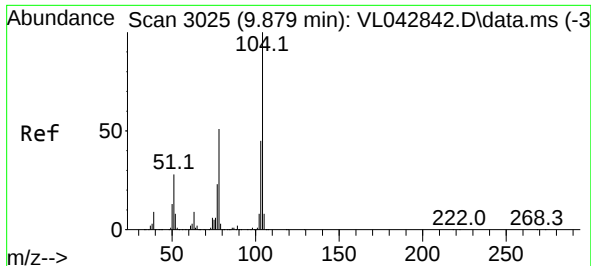
Tgt Ion: 91 Resp: 8585
Ion Ratio Lower Upper
91 100
92 61.6 47.8 71.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.872 min Scan# 2714
Delta R.T. 0.003 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 117 Resp: 300604
Ion Ratio Lower Upper
117 100
82 66.8 54.6 81.8
119 31.6 25.9 38.9

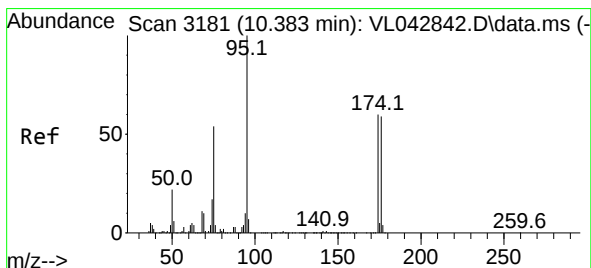
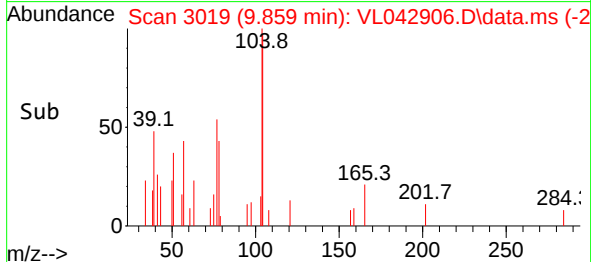
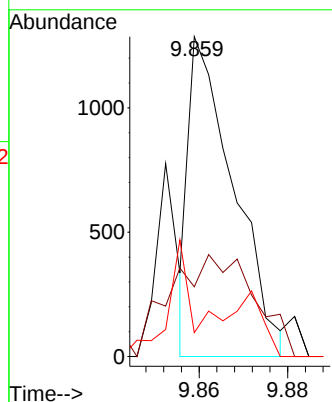
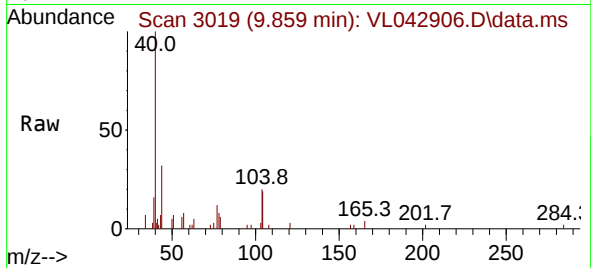




#61
Styrene
Concen: 0.046 ppbv
RT: 9.859 min Scan# 3025
Delta R.T. -0.000 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

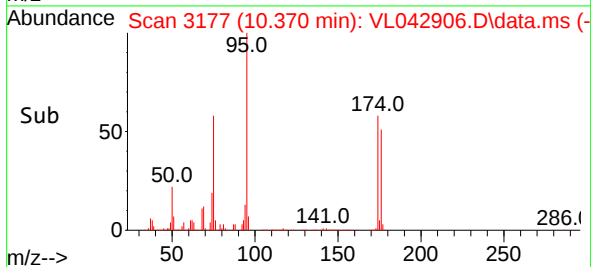
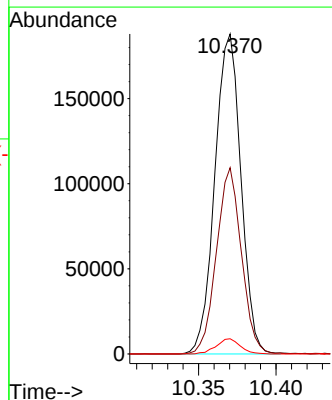
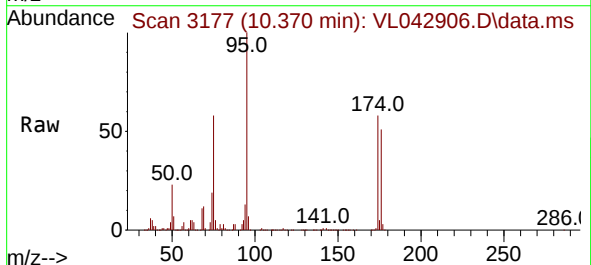
Instrument :
MSVOA_L
ClientSampleId :
SV-1

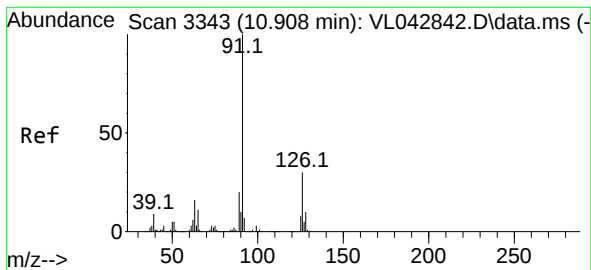
Tgt Ion:104 Resp: 907
Ion Ratio Lower Upper
104 100
78 67.0 40.6 61.0#
103 36.5 37.7 56.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.765 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. 0.006 min
Lab File: VL042906.D
Acq: 08 Sep 2025 16:33

Tgt Ion: 95 Resp: 220147
Ion Ratio Lower Upper
95 100
174 55.8 48.4 72.6
175 4.4 3.8 5.8





#71
 2-Chlorotoluene
 Concen: 3.250 ppbv
 RT: 10.853 min Scan# 31
 Delta R.T. -0.039 min
 Lab File: VL042906.D
 Acq: 08 Sep 2025 16:33

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1

Tgt Ion: 91 Resp: 154255
 Ion Ratio Lower Upper
 91 100
 126 0.0 12.0 47.8#

