

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051425\
 Data File : VL042539.D
 Acq On : 14 May 2025 12:40
 Operator : SY/MD
 Sample : Q2011-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Quant Time: May 15 01:33:36 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL051225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue May 13 02:07:03 2025
 Response via : Initial Calibration

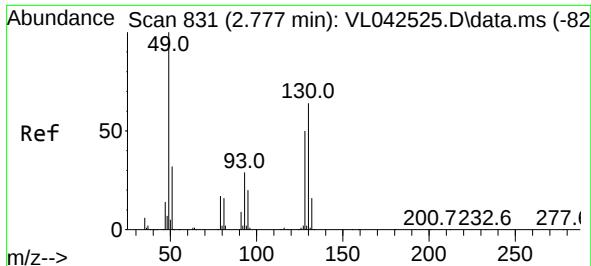
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.790	49	122046	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.965	114	349665	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.888	117	298337	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.383	95	247100	9.519	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	8382	0.423	ppbv	97
3) Chlorodifluoromethane	1.466	51	15794	0.782	ppbv #	70
4) Chloromethane	1.534	50	4062	0.502	ppbv #	88
7) Chloroethane	1.466	64	23088	7.065	ppbv #	44
9) Propene	1.489	41	18933	4.323	ppbv #	1
11) Trichlorofluoromethane	1.881	101	3779	0.198	ppbv #	71
12) 1,1,2-Trichlorotrifluo...	2.146	101	1161	0.076	ppbv	97
13) Ethanol	1.722	45	20881	17.724	ppbv	97
15) Acetone	1.835	43	760803	38.674	ppbv	100
16) 1,3-Butadiene	1.622	39	2024	0.231	ppbv #	38
17) tert-Butyl alcohol	2.046	59	1346	0.075	ppbv #	72
19) Isopropyl Alcohol	1.891	45	20435	1.929	ppbv #	1
20) Methylene Chloride	2.065	84	3039	0.448	ppbv	89
21) Allyl Chloride	2.046	41	546	0.042	ppbv #	28
23) Vinyl Acetate	2.457	43	5444	0.267	ppbv #	70
25) Ethyl Acetate	2.836	43	1105	0.032	ppbv #	75
26) Hexane	2.829	57	1584	0.113	ppbv #	68
29) Chloroform	2.852	83	1170	0.040	ppbv #	73
34) 2-Butanone	2.564	43	8562	0.371	ppbv	97
35) Carbon Tetrachloride	3.768	117	1616	0.051	ppbv #	81
36) Benzene	3.664	78	3668	0.118	ppbv #	86
39) 1,2-Dichloropropane	3.965	63	87938	7.619	ppbv #	17
53) Toluene	6.953	91	1711	0.056	ppbv #	21
61) Styrene	9.882	104	566	0.043	ppbv #	26
76) 1,4-Dichlorobenzene	11.678	146	45709	1.636	ppbv	97
77) 1,2-Dichlorobenzene	11.678	146	45709	1.507	ppbv	97
79) Naphthalene	13.523	128	2561	0.079	ppbv #	95
80) Naphthalene,2-methyl-	14.462	142	1774	0.095	ppbv #	65
81) 1,2,4-Trichlorobenzene	13.449	180	1112	0.056	ppbv	86

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

Quant Time: May 15 01:33:36 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL051225AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue May 13 02:07:03 2025
Response via : Initial Calibration

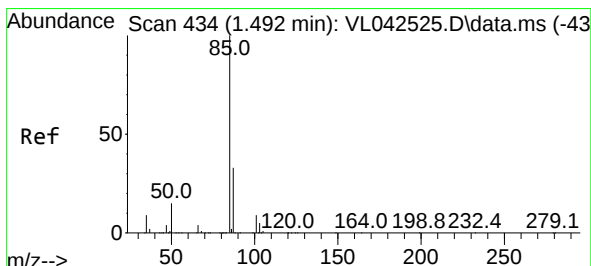
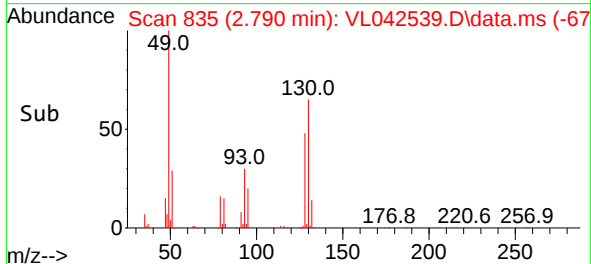
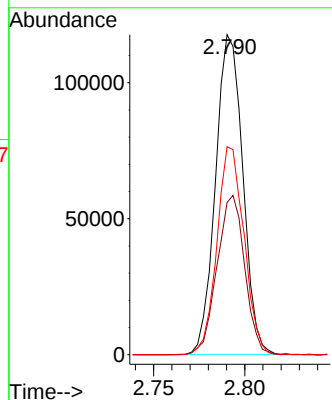
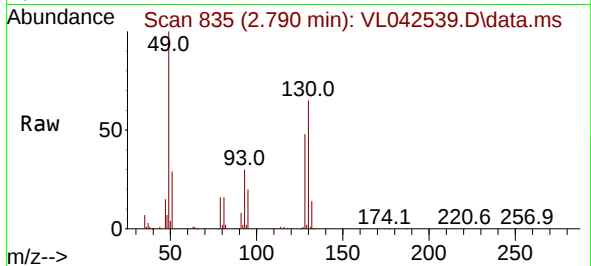




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.790 min Scan# 81
Delta R.T. 0.013 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

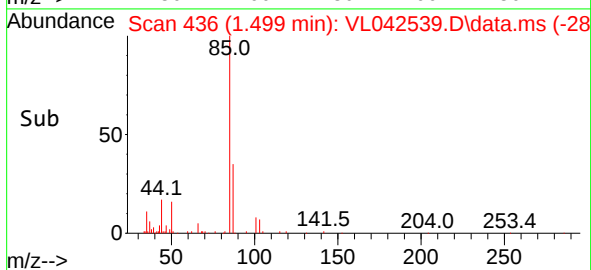
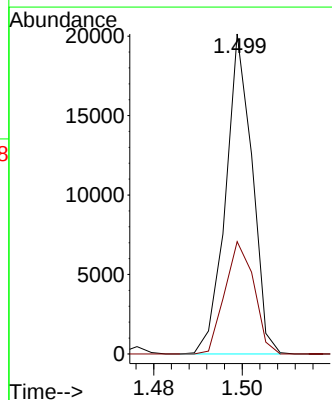
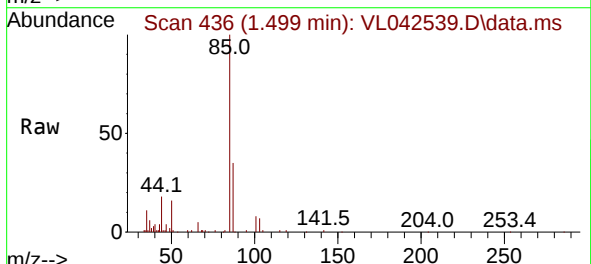
Instrument :
MSVOA_L
ClientSampleId :
IA1

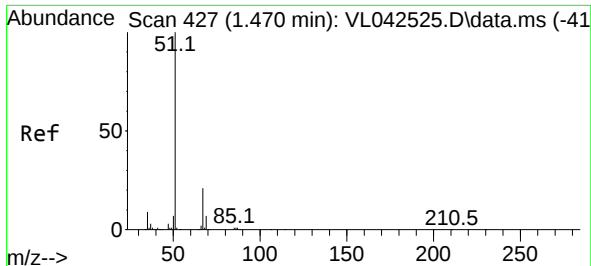
Tgt Ion: 49 Resp: 122046
Ion Ratio Lower Upper
49 100
128 50.5 24.9 74.6
130 64.6 32.5 97.5



#2
Dichlorodifluoromethane
Concen: 0.423 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.006 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 85 Resp: 8382
Ion Ratio Lower Upper
85 100
87 35.1 26.8 40.2

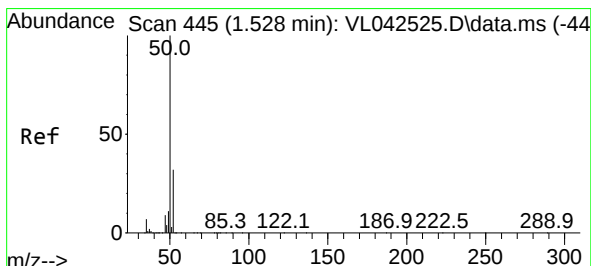
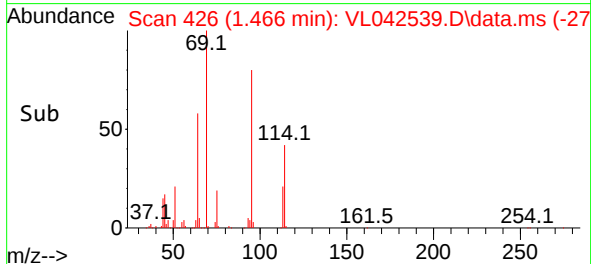
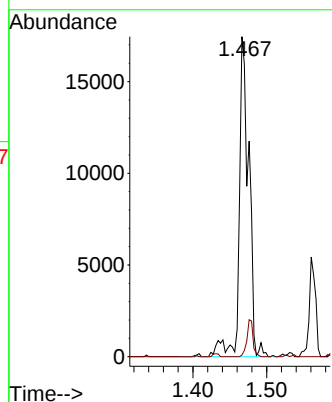
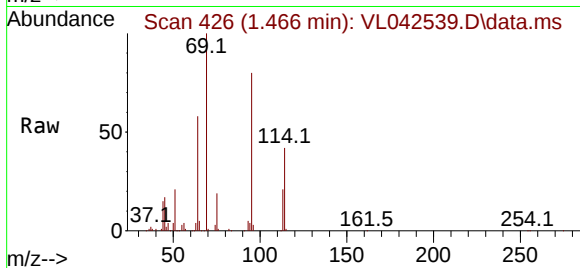




#3
Chlorodifluoromethane
Concen: 0.782 ppbv
RT: 1.466 min Scan# 41
Delta R.T. -0.003 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

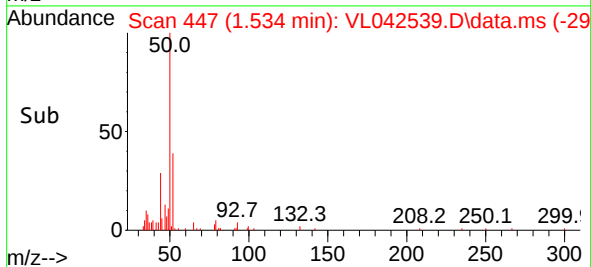
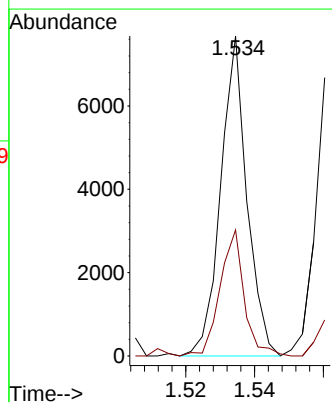
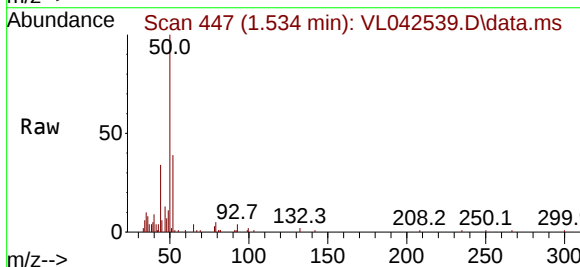
Instrument :
MSVOA_1
ClientSampleId :
IA1

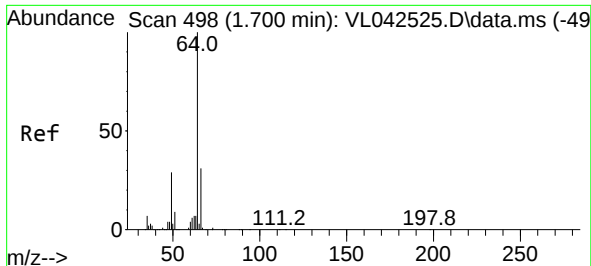
Tgt Ion: 51 Resp: 15794
Ion Ratio Lower Upper
51 100
67 7.3 17.4 26.0#



#4
Chloromethane
Concen: 0.502 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.006 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 50 Resp: 4062
Ion Ratio Lower Upper
50 100
52 39.4 25.9 38.9#

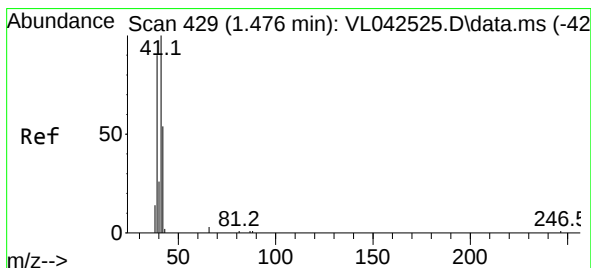
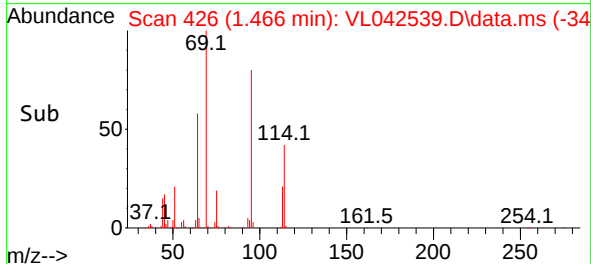
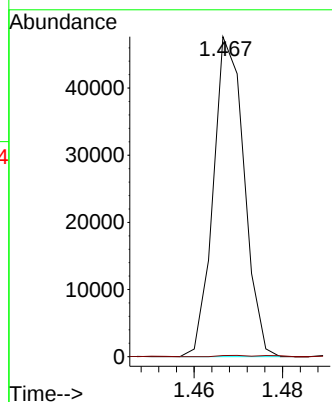
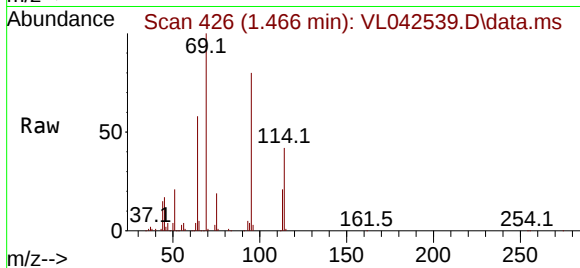




#7
Chloroethane
Concen: 7.065 ppbv
RT: 1.466 min Scan# 41
Delta R.T. -0.233 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

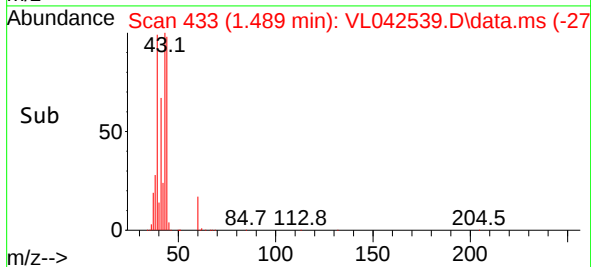
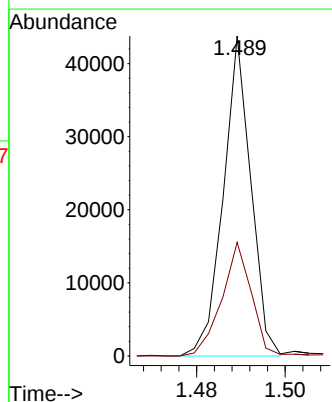
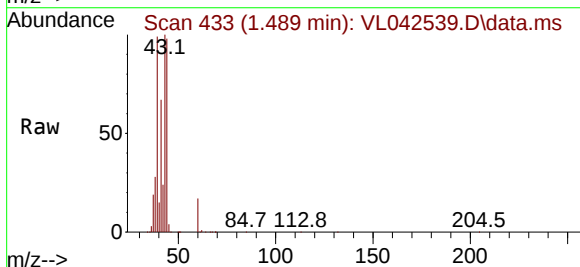
Instrument :
MSVOA_L
ClientSampleId :
IA1

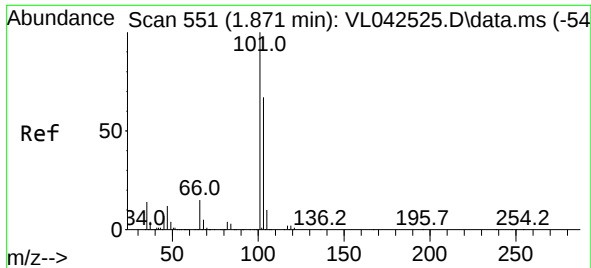
Tgt Ion: 64 Resp: 23088
Ion Ratio Lower Upper
64 100
66 0.4 25.1 37.7#



#9
Propene
Concen: 4.323 ppbv
RT: 1.489 min Scan# 433
Delta R.T. 0.013 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 41 Resp: 18933
Ion Ratio Lower Upper
41 100
42 39.4 4.1 6.1#

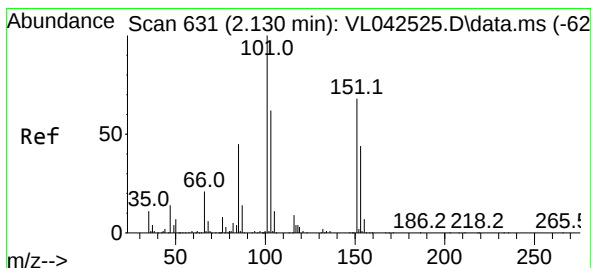
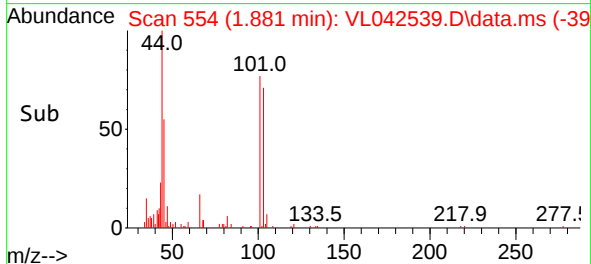
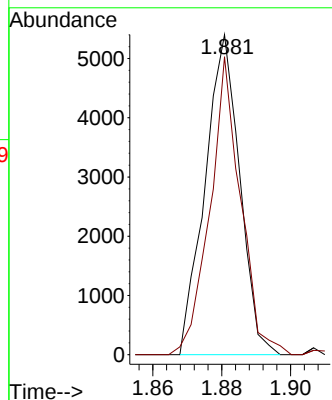
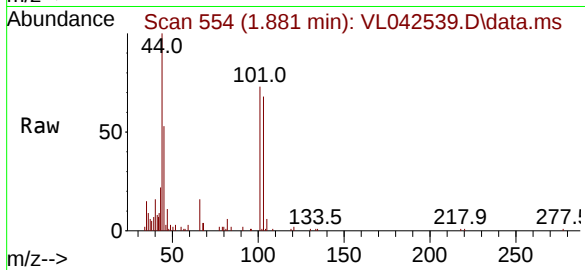




#11
 Trichlorofluoromethane
 Concen: 0.198 ppbv
 RT: 1.881 min Scan# 511
 Delta R.T. 0.010 min
 Lab File: VL042539.D
 Acq: 14 May 2025 12:40

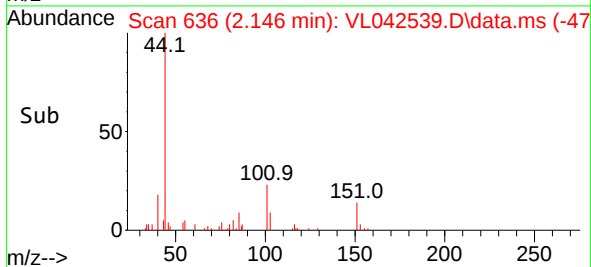
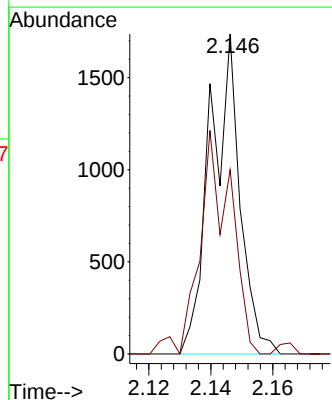
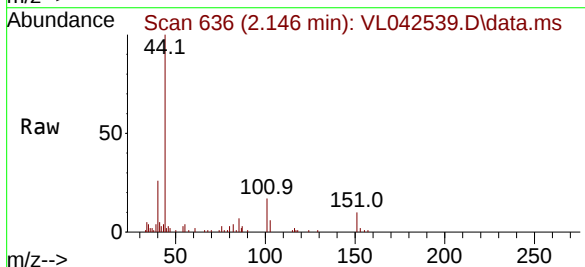
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

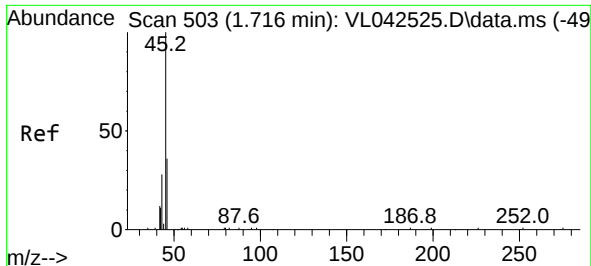
Tgt Ion:101 Resp: 3779
 Ion Ratio Lower Upper
 101 100
 103 90.6 53.8 80.6#



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.076 ppbv
 RT: 2.146 min Scan# 636
 Delta R.T. 0.016 min
 Lab File: VL042539.D
 Acq: 14 May 2025 12:40

Tgt Ion:101 Resp: 1161
 Ion Ratio Lower Upper
 101 100
 151 75.0 57.8 86.8

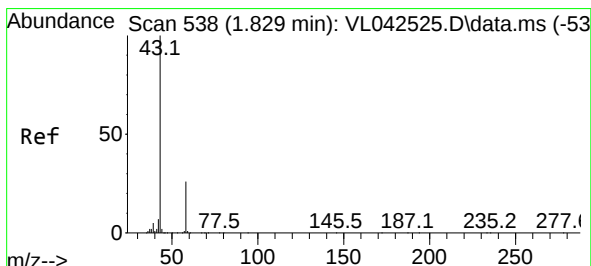
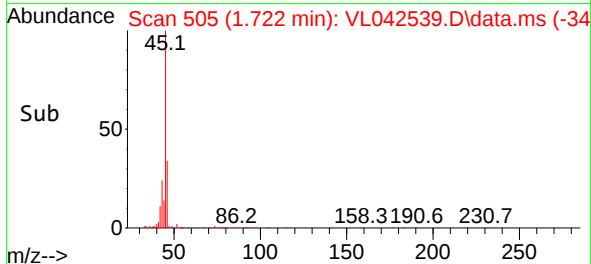
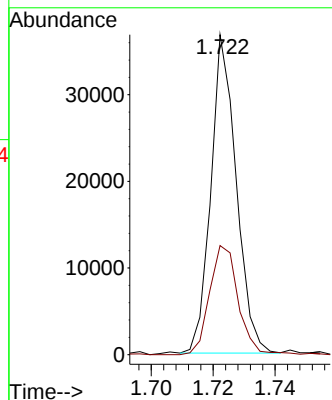
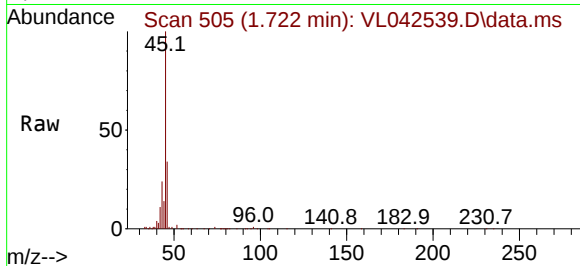




#13
Ethanol
Concen: 17.724 ppbv
RT: 1.722 min Scan# 503
Delta R.T. 0.006 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

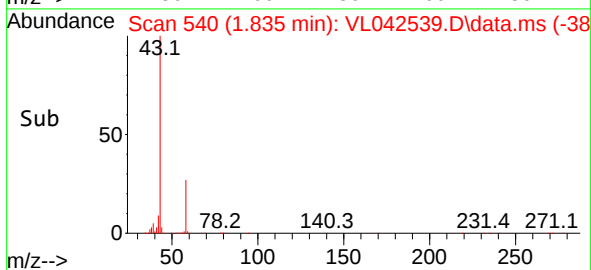
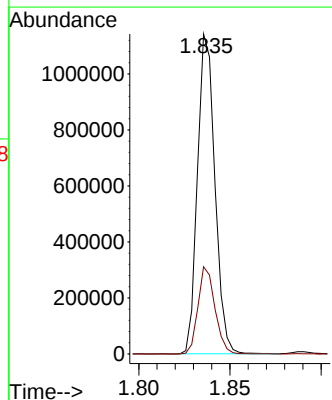
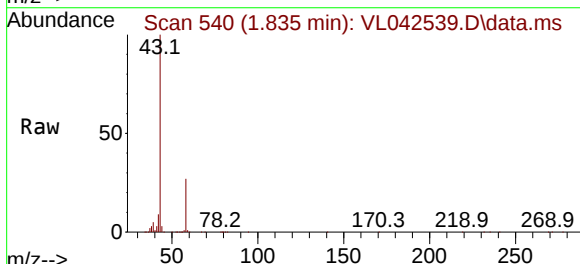
Instrument :
MSVOA_L
ClientSampleId :
IA1

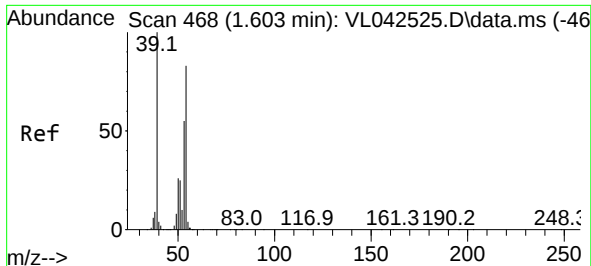
Tgt Ion: 45 Resp: 20881
Ion Ratio Lower Upper
45 100
46 39.2 14.8 59.4



#15
Acetone
Concen: 38.674 ppbv
RT: 1.835 min Scan# 540
Delta R.T. 0.006 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 43 Resp: 760803
Ion Ratio Lower Upper
43 100
58 26.5 21.3 31.9

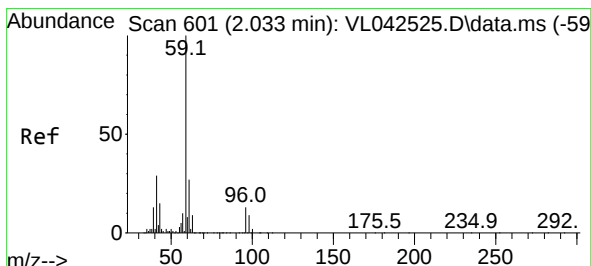
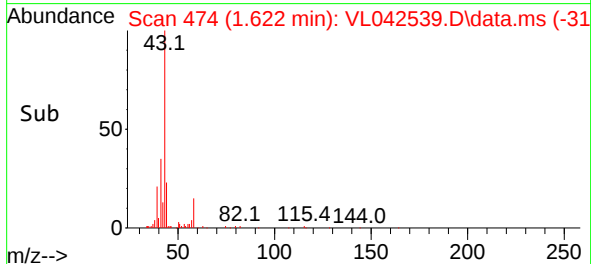
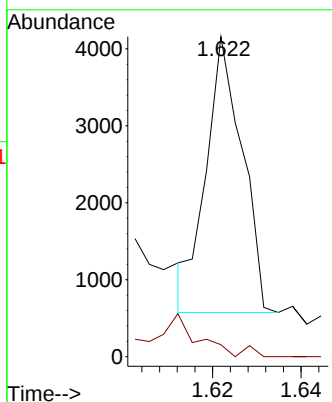
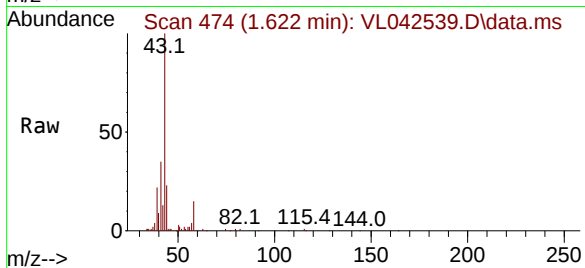




#16
1,3-Butadiene
Concen: 0.231 ppbv
RT: 1.622 min Scan# 41
Delta R.T. 0.019 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

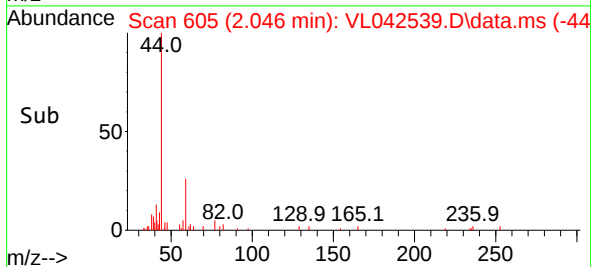
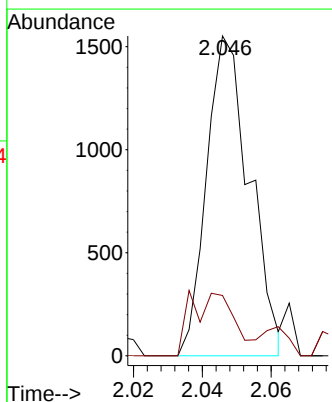
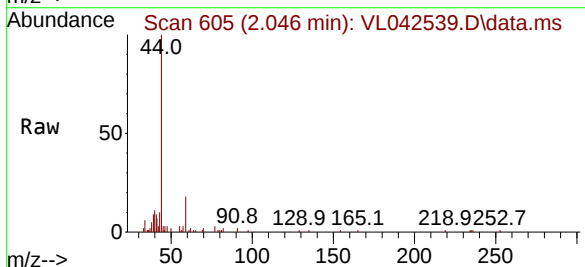
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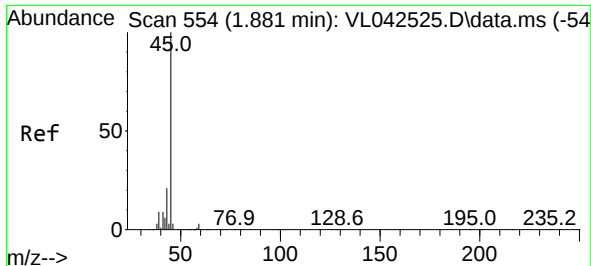
Tgt Ion: 39 Resp: 2024
Ion Ratio Lower Upper
39 100
54 20.5 57.8 86.6#



#17
tert-Butyl alcohol
Concen: 0.075 ppbv
RT: 2.046 min Scan# 605
Delta R.T. 0.013 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 59 Resp: 1346
Ion Ratio Lower Upper
59 100
57 0.0 8.2 12.4#

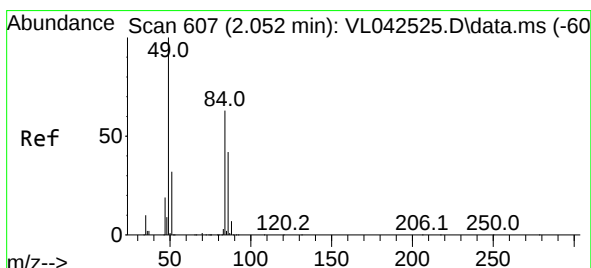
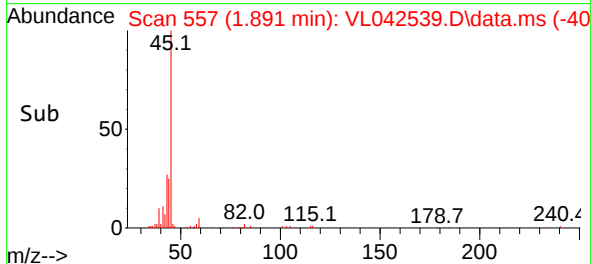
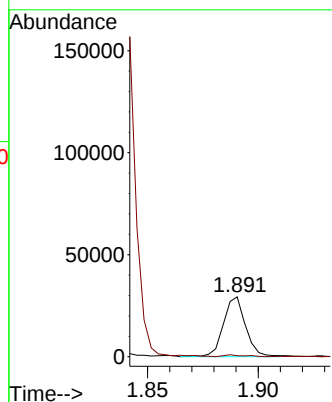
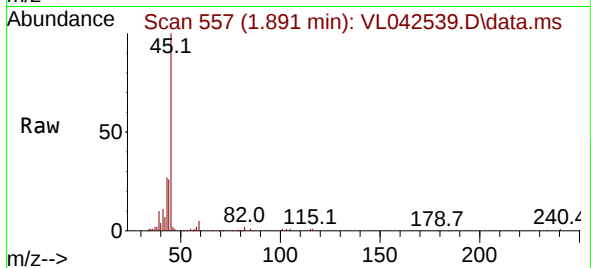




#19
Isopropyl Alcohol
Concen: 1.929 ppbv
RT: 1.891 min Scan# 511
Delta R.T. 0.010 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

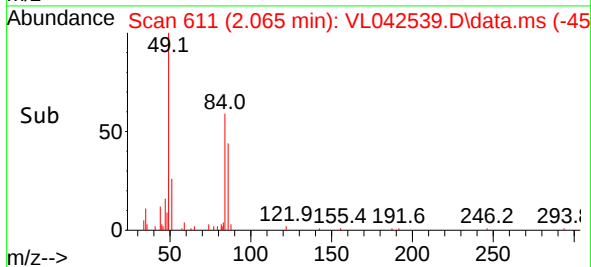
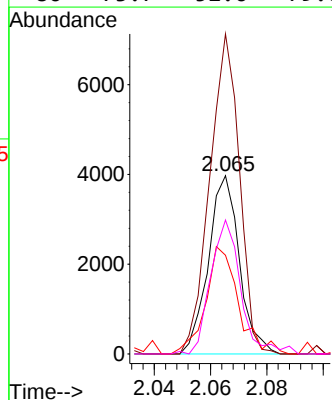
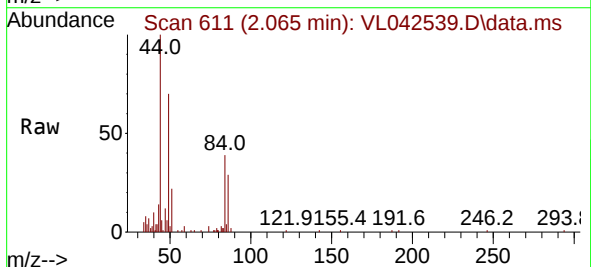
Instrument :
MSVOA_L
ClientSampleId :
IA1

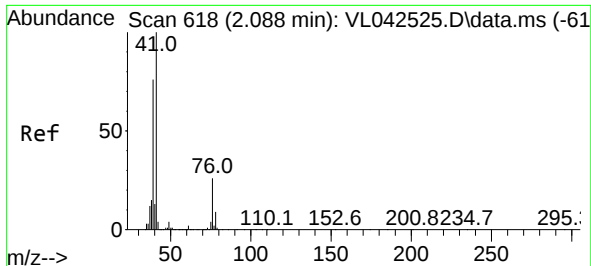
Tgt Ion: 45 Resp: 20435
Ion Ratio Lower Upper
45 100
58 991.3 1.5 2.3#



#20
Methylene Chloride
Concen: 0.448 ppbv
RT: 2.065 min Scan# 611
Delta R.T. 0.013 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 84 Resp: 3039
Ion Ratio Lower Upper
84 100
49 179.6 128.2 192.4
51 53.6 41.7 62.5
86 73.7 52.6 79.0

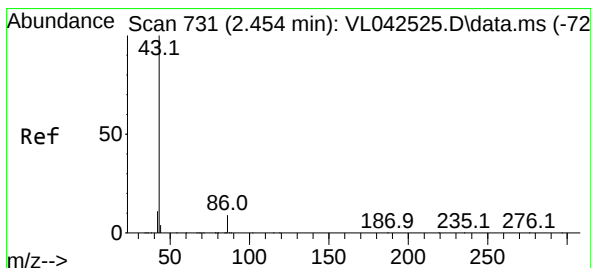
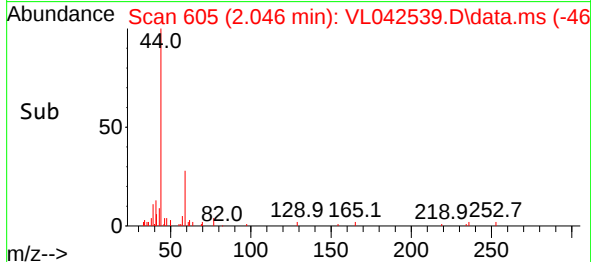
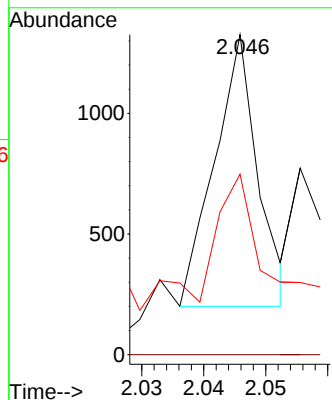
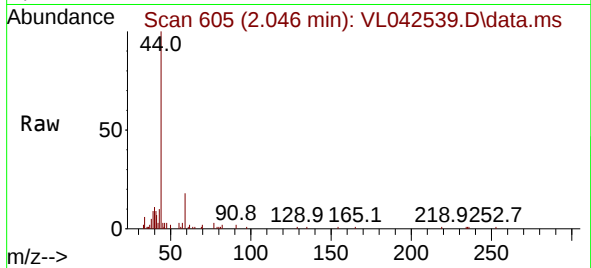




#21
 Allyl Chloride
 Concen: 0.042 ppbv
 RT: 2.046 min Scan# 605
 Delta R.T. -0.042 min
 Lab File: VL042539.D
 Acq: 14 May 2025 12:40

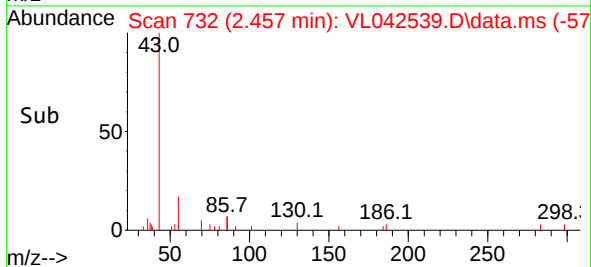
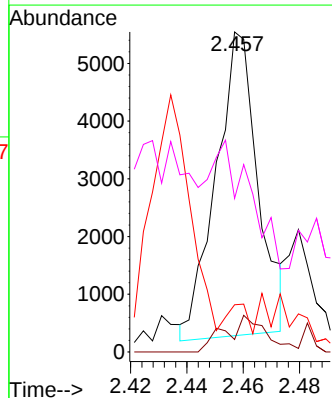
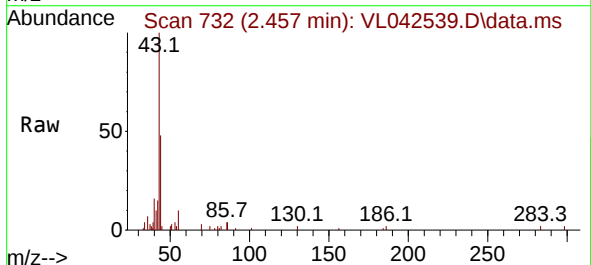
Instrument :
 MSVOA_1
 ClientSampleId :
 IA1

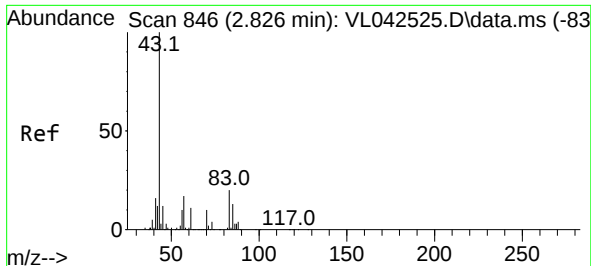
Tgt Ion: 41 Resp: 546
 Ion Ratio Lower Upper
 41 100
 76 12.8 22.0 33.0#
 39 0.0 59.5 89.3#



#23
 Vinyl Acetate
 Concen: 0.267 ppbv
 RT: 2.457 min Scan# 732
 Delta R.T. 0.003 min
 Lab File: VL042539.D
 Acq: 14 May 2025 12:40

Tgt Ion: 43 Resp: 5444
 Ion Ratio Lower Upper
 43 100
 86 4.3 6.8 10.2#
 42 0.0 8.8 13.2#
 44 26.2 4.2 6.4#





#25

Ethyl Acetate

Concen: 0.032 ppbv

RT: 2.836 min Scan# 84

Delta R.T. 0.010 min

Lab File: VL042539.D

Acq: 14 May 2025 12:40

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion: 43 Resp: 1105

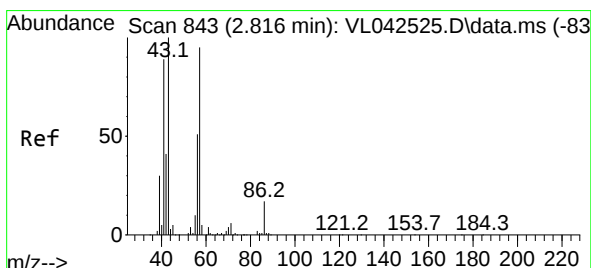
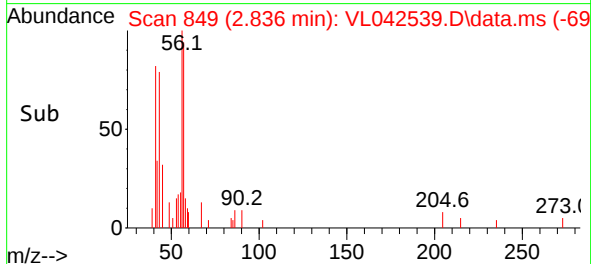
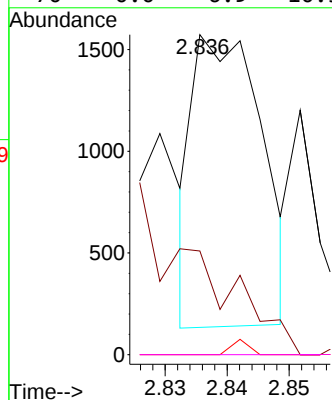
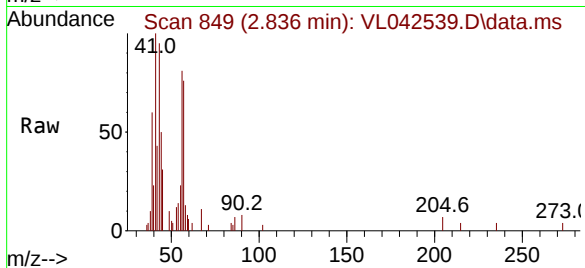
Ion Ratio Lower Upper

43 100

45 0.0 7.9 11.9#

61 0.0 7.1 10.7#

70 0.0 6.9 10.3#



#26

Hexane

Concen: 0.113 ppbv

RT: 2.829 min Scan# 847

Delta R.T. 0.013 min

Lab File: VL042539.D

Acq: 14 May 2025 12:40

Tgt Ion: 57 Resp: 1584

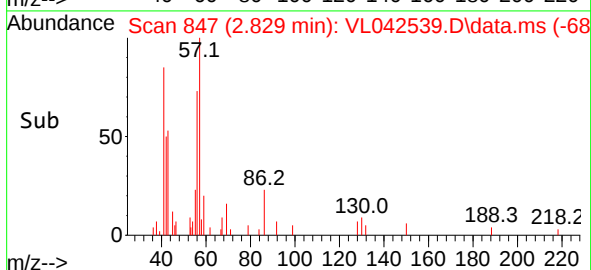
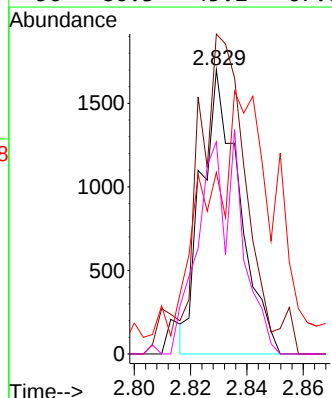
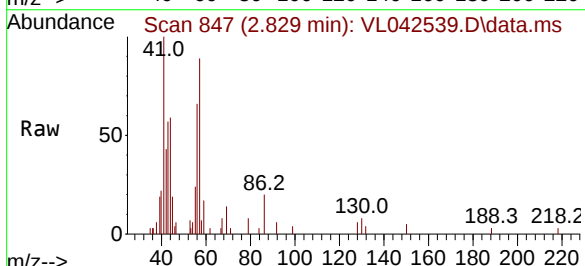
Ion Ratio Lower Upper

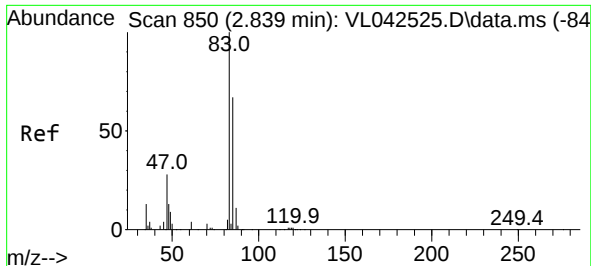
57 100

41 146.5 76.1 114.1#

43 201.0 188.9 283.3

56 86.3 45.2 67.8#





#29

Chloroform

Concen: 0.040 ppbv

RT: 2.852 min Scan# 81

Delta R.T. 0.013 min

Lab File: VL042539.D

Acq: 14 May 2025 12:40

Instrument :

MSVOA_L

ClientSampleId :

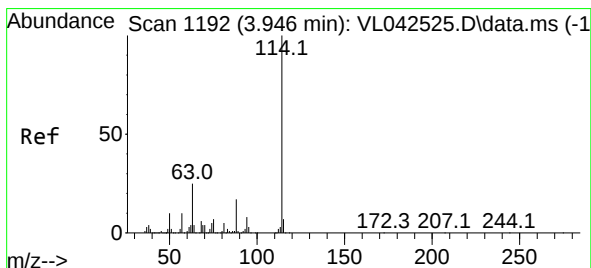
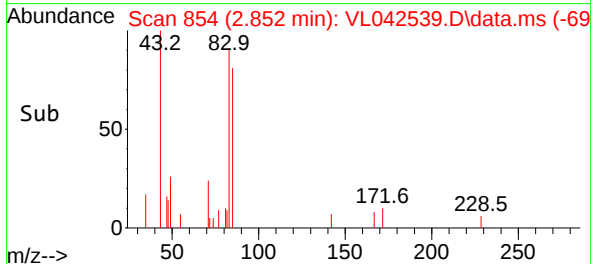
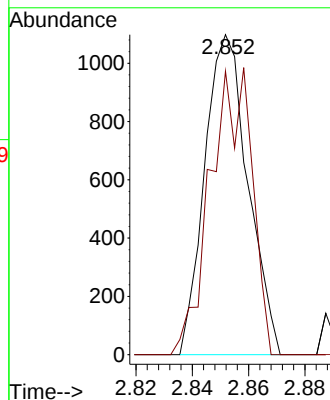
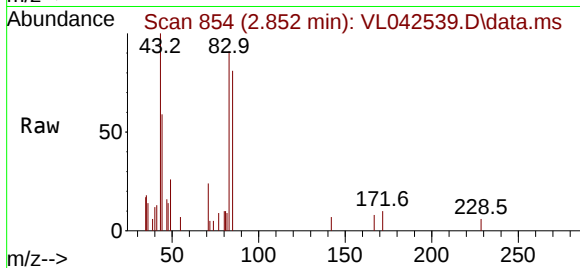
IA1

Tgt Ion: 83 Resp: 1170

Ion Ratio Lower Upper

83 100

85 88.6 53.5 80.3#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.965 min Scan# 1198

Delta R.T. 0.019 min

Lab File: VL042539.D

Acq: 14 May 2025 12:40

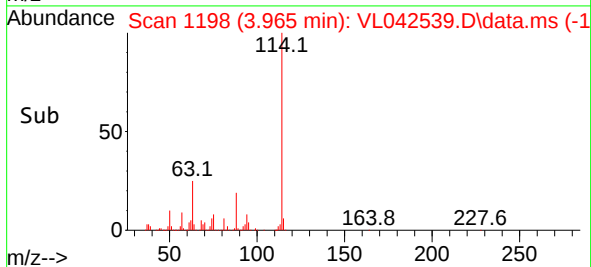
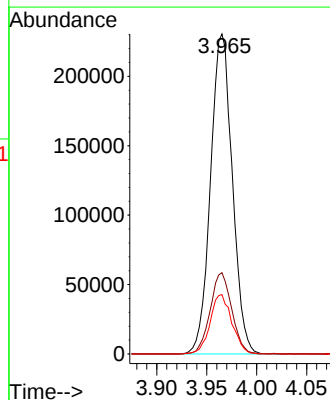
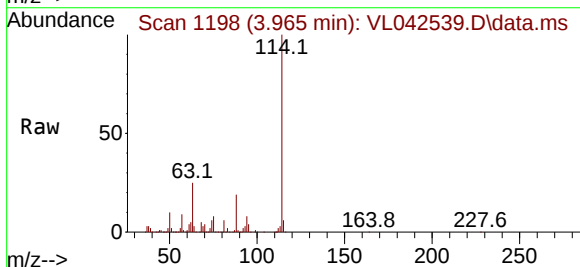
Tgt Ion: 114 Resp: 349665

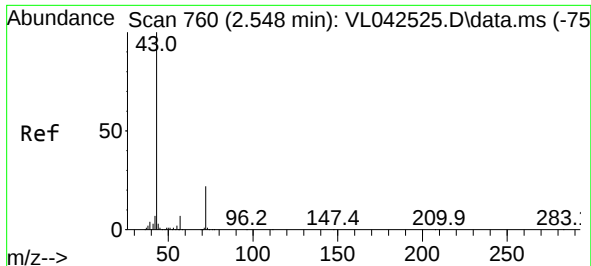
Ion Ratio Lower Upper

114 100

63 25.2 20.4 30.6

88 18.6 14.5 21.7

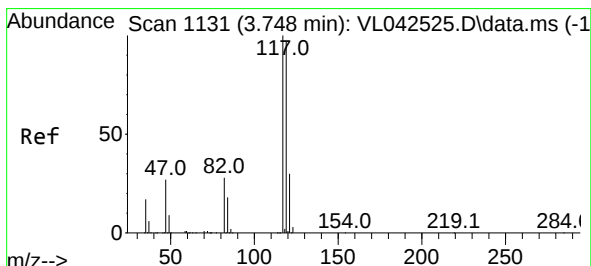
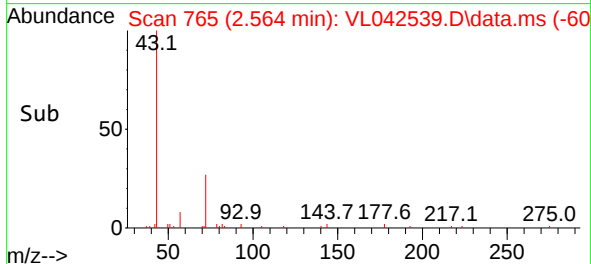
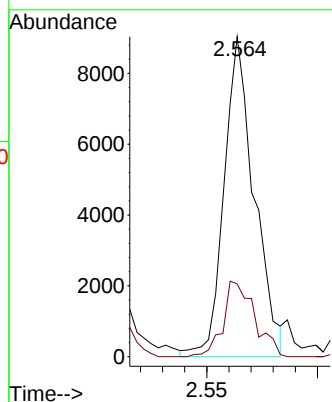
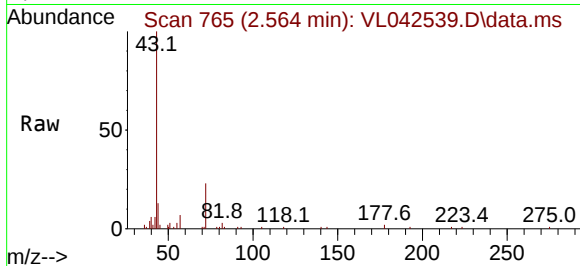




#34
2-Butanone
Concen: 0.371 ppbv
RT: 2.564 min Scan# 765
Delta R.T. 0.016 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

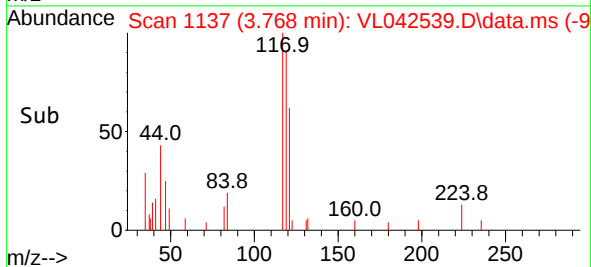
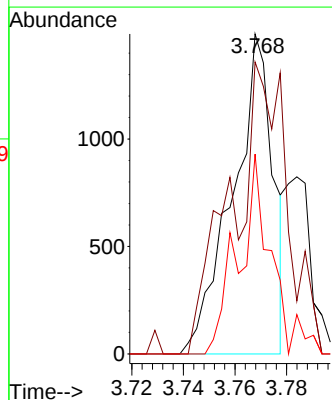
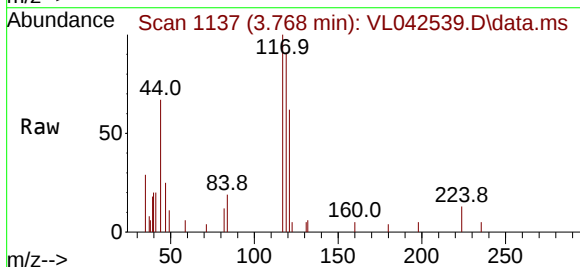
Instrument :
MSVOA_L
ClientSampleId :
IA1

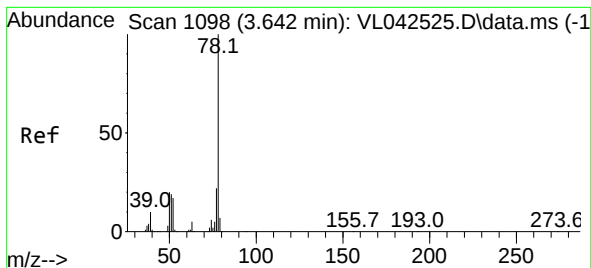
Tgt Ion: 43 Resp: 8562
Ion Ratio Lower Upper
43 100
72 24.7 18.7 28.1



#35
Carbon Tetrachloride
Concen: 0.051 ppbv
RT: 3.768 min Scan# 1137
Delta R.T. 0.019 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 117 Resp: 1616
Ion Ratio Lower Upper
117 100
119 91.3 77.7 116.5
121 62.5 24.0 36.0#





#36

Benzene

Concen: 0.118 ppbv

RT: 3.664 min Scan# 1105

Delta R.T. 0.023 min

Lab File: VL042539.D

Acq: 14 May 2025 12:40

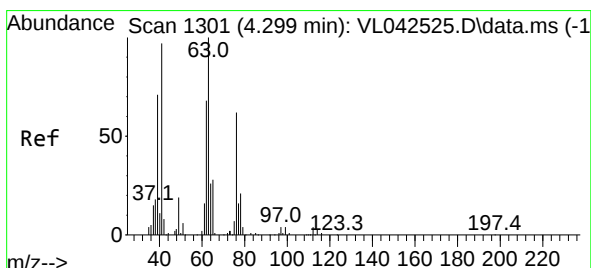
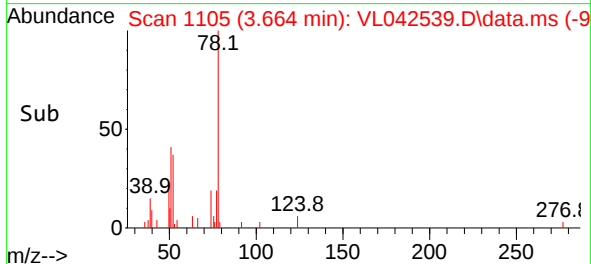
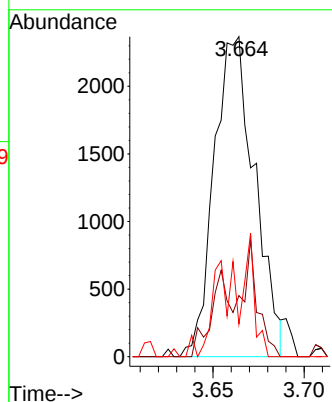
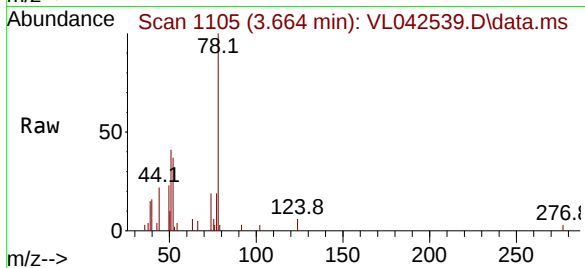
Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion: 78	Resp: 3668
Ion Ratio	Lower Upper
78 100	
77 19.1	17.4 26.2
50 10.2	16.3 24.5#



#39

1,2-Dichloropropane

Concen: 7.619 ppbv

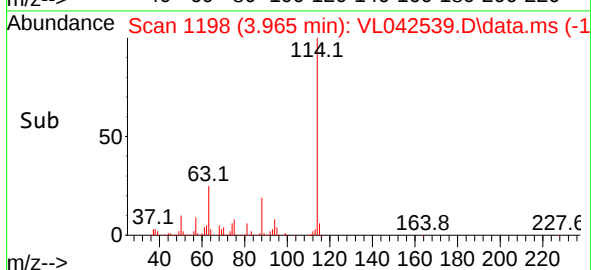
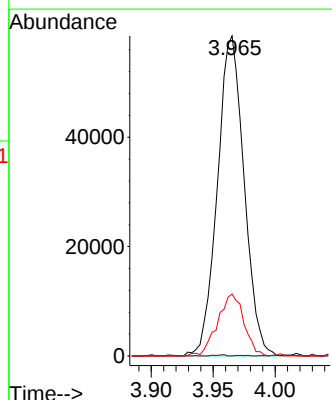
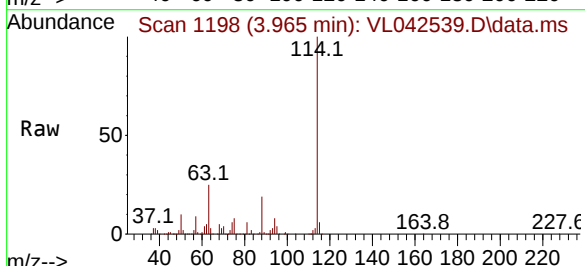
RT: 3.965 min Scan# 1198

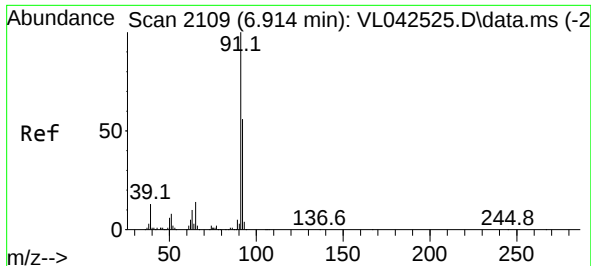
Delta R.T. -0.333 min

Lab File: VL042539.D

Acq: 14 May 2025 12:40

Tgt Ion: 63	Resp: 87938
Ion Ratio	Lower Upper
63 100	
41 0.0	77.5 116.3#
62 19.3	54.6 82.0#

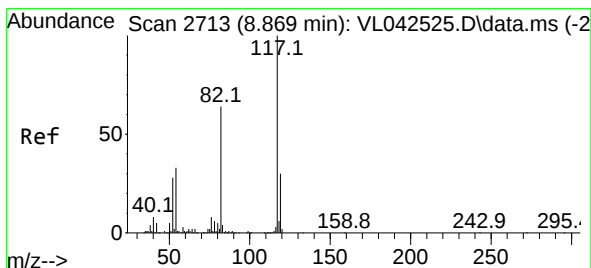
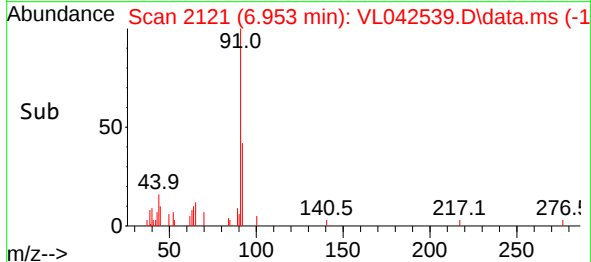
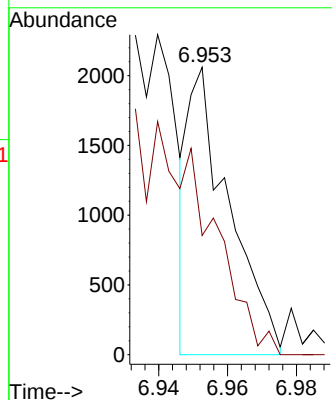
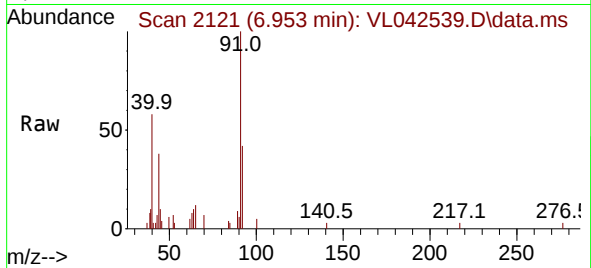




#53
Toluene
Concen: 0.056 ppbv
RT: 6.953 min Scan# 2109
Delta R.T. 0.039 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

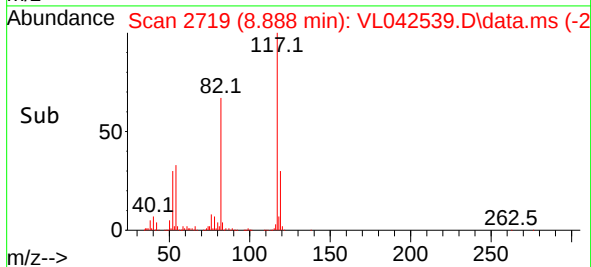
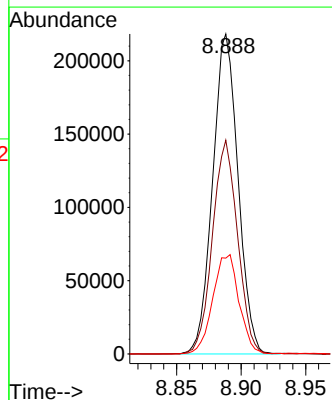
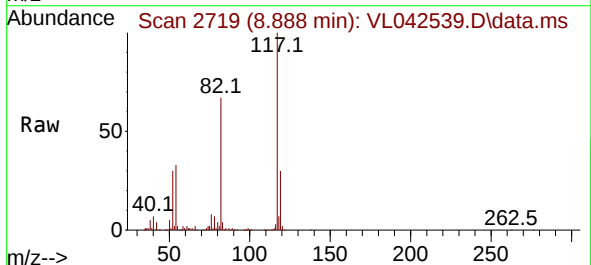
Instrument :
MSVOA_L
ClientSampleId :
IA1

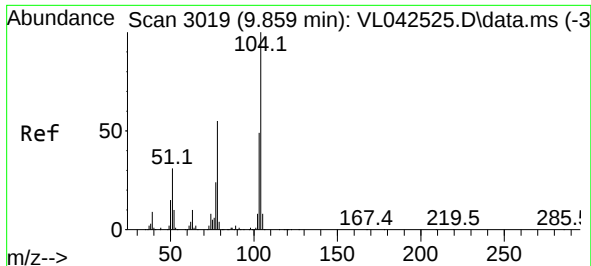
Tgt Ion: 91 Resp: 1711
Ion Ratio Lower Upper
91 100
92 0.0 47.8 71.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.888 min Scan# 2719
Delta R.T. 0.019 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 117 Resp: 298337
Ion Ratio Lower Upper
117 100
82 66.2 55.0 82.4
119 32.1 25.8 38.6

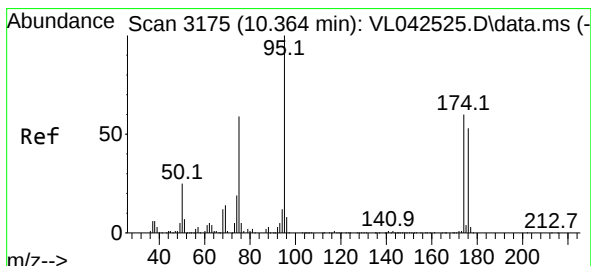
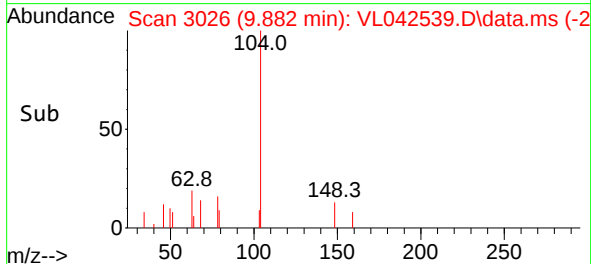
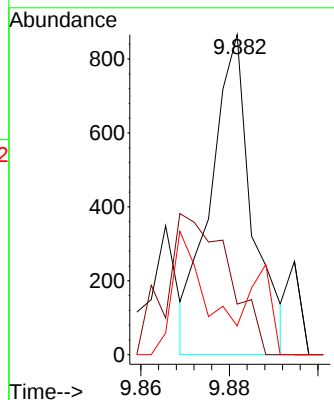
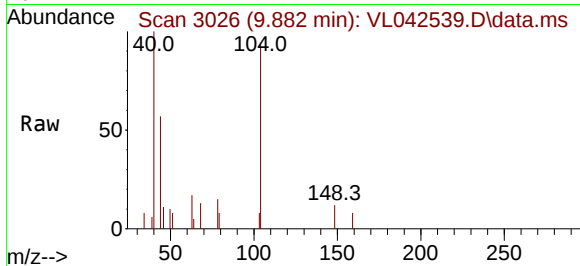




#61
Styrene
Concen: 0.043 ppbv
RT: 9.882 min Scan# 3019
Delta R.T. 0.023 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

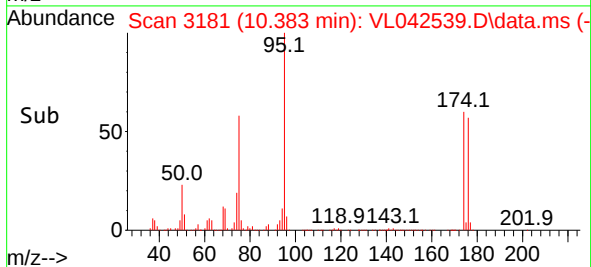
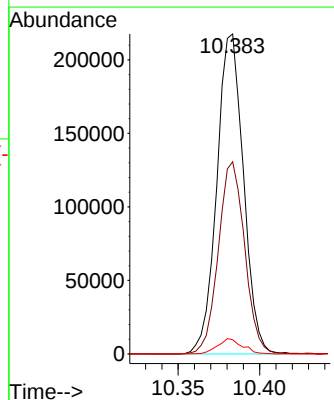
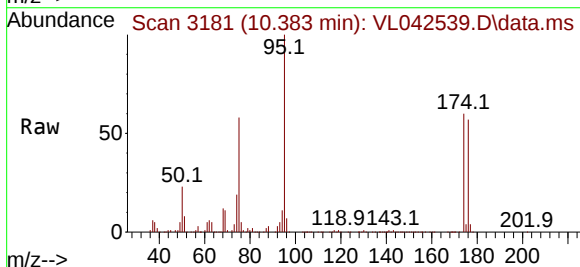
Instrument :
MSVOA_L
ClientSampleId :
IA1

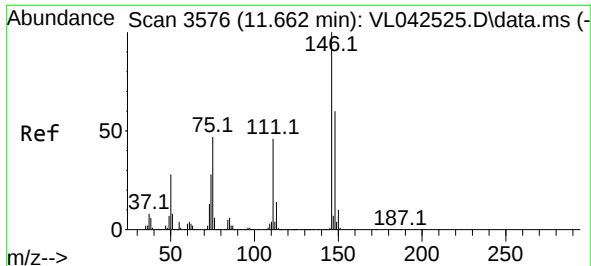
Tgt Ion:104 Resp: 566
Ion Ratio Lower Upper
104 100
78 0.0 44.7 67.1#
103 0.0 38.6 58.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.519 ppbv
RT: 10.383 min Scan# 3181
Delta R.T. 0.019 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion: 95 Resp: 247100
Ion Ratio Lower Upper
95 100
174 59.4 48.0 72.0
175 4.5 3.5 5.3

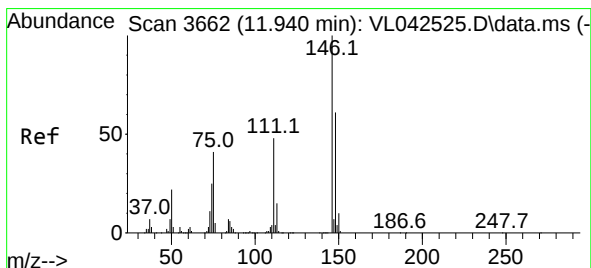
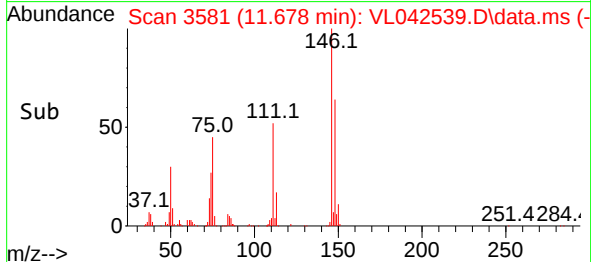
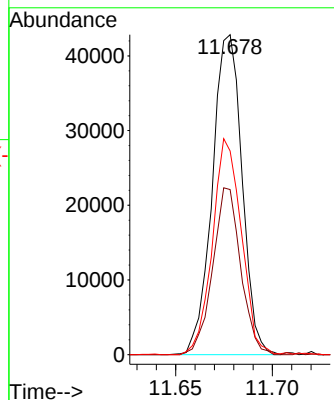
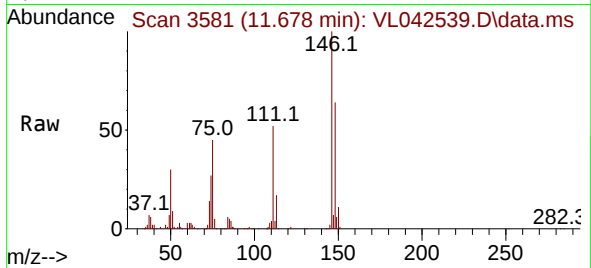




#76
1,4-Dichlorobenzene
Concen: 1.636 ppbv
RT: 11.678 min Scan# 3581
Delta R.T. 0.016 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

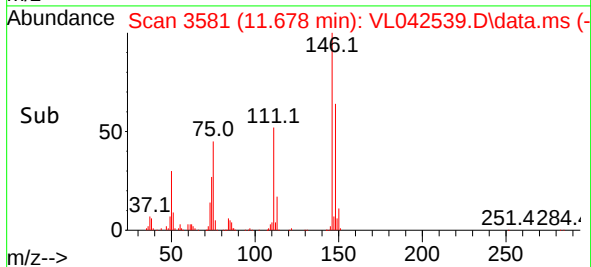
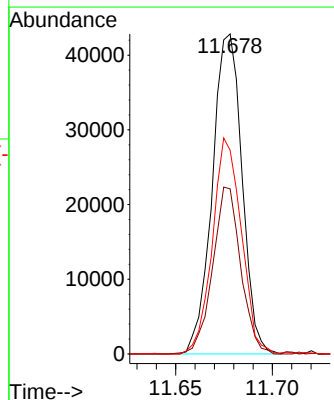
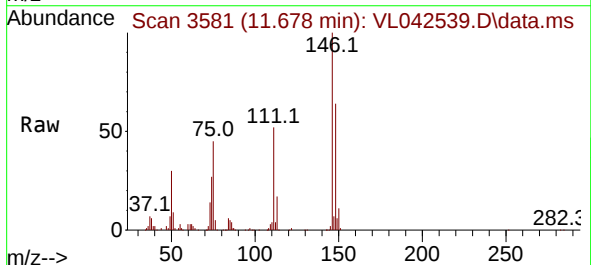
Instrument :
MSVOA_L
ClientSampleId :
IA1

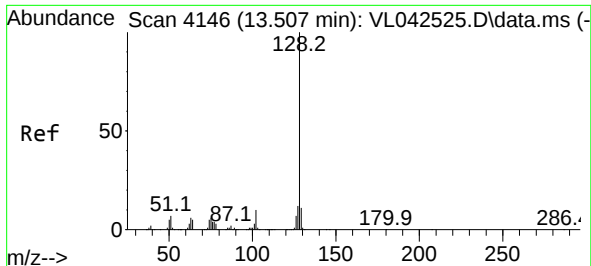
Tgt Ion:146 Resp: 45709
Ion Ratio Lower Upper
146 100
111 49.0 23.4 70.3
148 66.0 31.6 94.7



#77
1,2-Dichlorobenzene
Concen: 1.507 ppbv
RT: 11.678 min Scan# 3581
Delta R.T. -0.262 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion:146 Resp: 45709
Ion Ratio Lower Upper
146 100
111 49.1 24.9 74.8
148 66.0 31.4 94.2

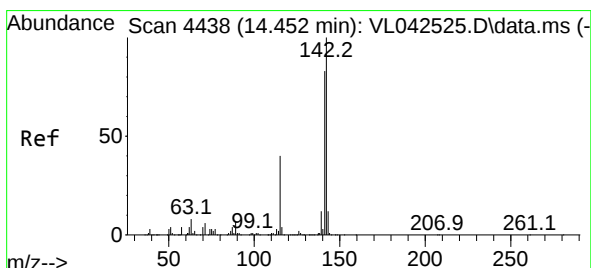
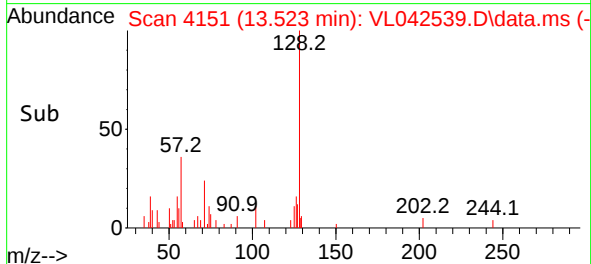
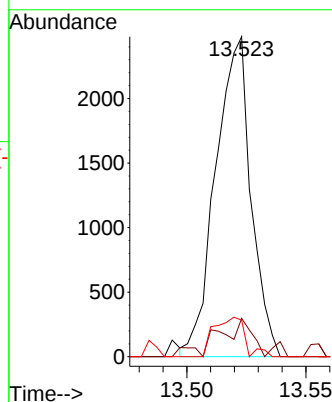
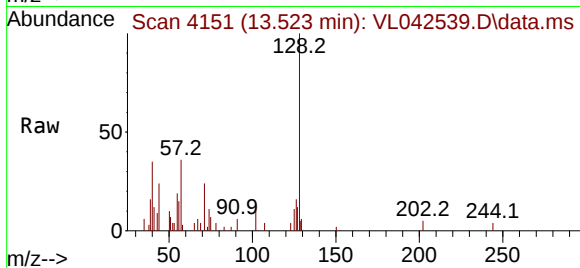




#79
Naphthalene
Concen: 0.079 ppbv
RT: 13.523 min Scan# 4146
Delta R.T. 0.016 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

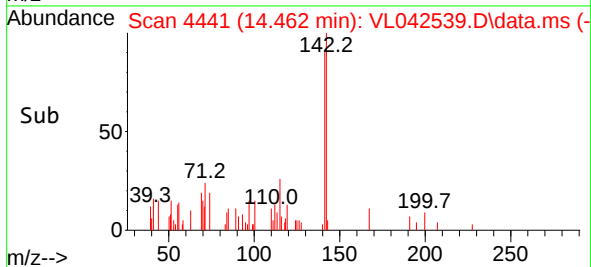
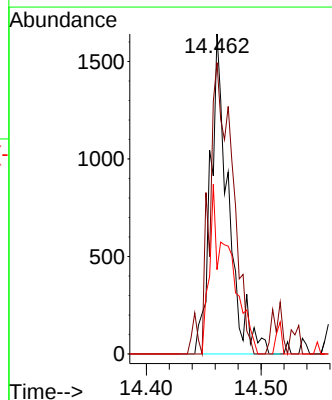
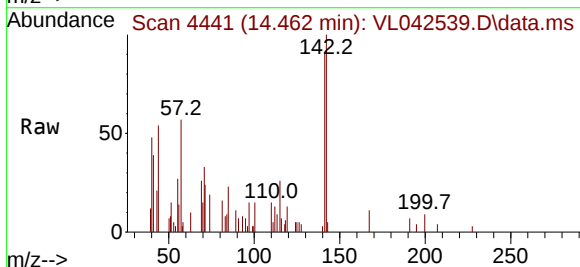
Instrument :
MSVOA_L
ClientSampleId :
IA1

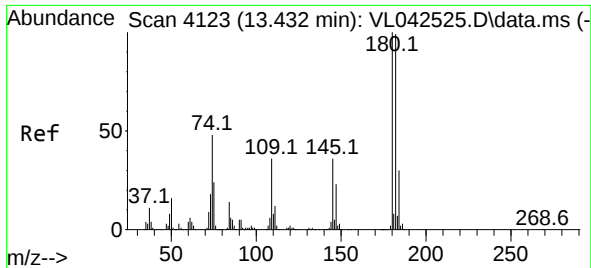
Tgt Ion	Ratio	Lower	Upper
128	100		
127	9.2	9.8	14.8#
129	11.4	8.6	12.8



#80
Naphthalene, 2-methyl-
Concen: 0.095 ppbv
RT: 14.462 min Scan# 4441
Delta R.T. 0.010 min
Lab File: VL042539.D
Acq: 14 May 2025 12:40

Tgt Ion	Ratio	Lower	Upper
142	100		
141	118.1	66.8	100.2#
115	59.5	33.0	49.6#





#81

1,2,4-Trichlorobenzene

Concen: 0.056 ppbv

RT: 13.449 min Scan# 41

Delta R.T. 0.016 min

Lab File: VL042539.D

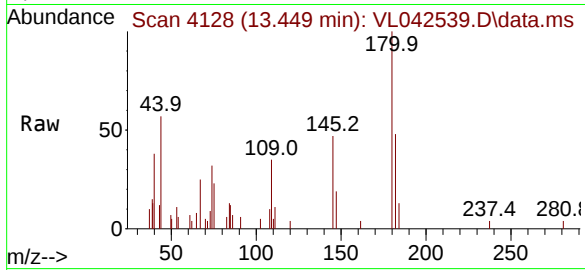
Acq: 14 May 2025 12:40

Instrument :

MSVOA_L

ClientSampleId :

IA1



Tgt Ion:180 Resp: 1112

Ion Ratio Lower Upper

180 100

182 111.1 76.6 114.8

184 26.3 24.6 36.8

