

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042658.D
 Acq On : 19 Jun 2025 16:52
 Operator : SY/MD
 Sample : Q2369-01DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Quant Time: Jun 20 01:40:30 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

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

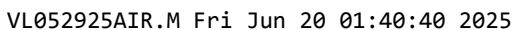
Internal Standards						
1) Bromochloromethane	2.800	49	110592	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.981	114	292501	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.904	117	257428	10.000	ppbv	0.02

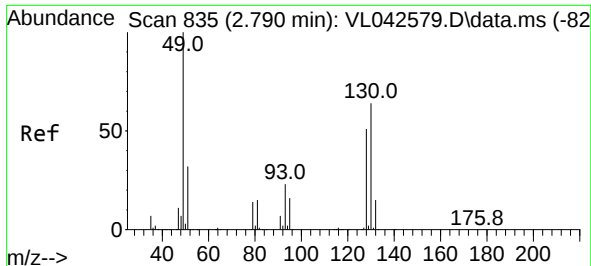
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.396	95	194558	10.082	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.800%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	1.457	51	12018	0.642	ppbv #	61
5) Vinyl Chloride	1.457	62	215	0.039	ppbv #	1
9) Propene	1.489	41	1797	0.238	ppbv	94
10) Heptane	5.004	43	802	0.038	ppbv #	1
13) Ethanol	1.729	45	139621	155.408	ppbv	97
15) Acetone	1.845	43	28438	2.135	ppbv #	80
16) 1,3-Butadiene	1.628	39	2721	0.431	ppbv #	16
17) tert-Butyl alcohol	2.059	59	740	0.053	ppbv #	72
19) Isopropyl Alcohol	1.729	45	139621	17.533	ppbv #	40
20) Methylene Chloride	2.075	84	919	0.209	ppbv	93
21) Allyl Chloride	2.088	41	754	0.080	ppbv #	1
23) Vinyl Acetate	2.486	43	8569	0.476	ppbv #	42
25) Ethyl Acetate	2.855	43	9957	0.273	ppbv	96
26) Hexane	2.845	57	6366	0.384	ppbv #	72
29) Chloroform	2.862	83	932	0.043	ppbv	98
30) Cyclohexane	3.871	84	461	0.034	ppbv #	1
34) 2-Butanone	2.577	43	4513	0.216	ppbv	93
36) Benzene	3.677	78	4284	0.149	ppbv	97
39) 1,2-Dichloropropane	3.981	63	74224	6.968	ppbv #	24
52) Tetrachloroethene	8.251	164	77355	7.187	ppbv	91
53) Toluene	6.962	91	17184	0.516	ppbv	96
58) Ethyl Benzene	9.370	91	3446	0.079	ppbv	89
59) m/p-Xylene	9.555	91	9368	0.273	ppbv #	74
60) o-Xylene	9.985	91	5343	0.156	ppbv	96
74) 1,2,4-Trimethylbenzene	11.549	105	2611	0.067	ppbv #	65
75) 1,3-Dichlorobenzene	11.685	146	1790	0.073	ppbv	87
76) 1,4-Dichlorobenzene	11.685	146	1790	0.073	ppbv	88
77) 1,2-Dichlorobenzene	11.685	146	1790	0.075	ppbv	86

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

Quant Time: Jun 20 01:40:30 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri May 30 02:01:56 2025
Response via : Initial Calibration

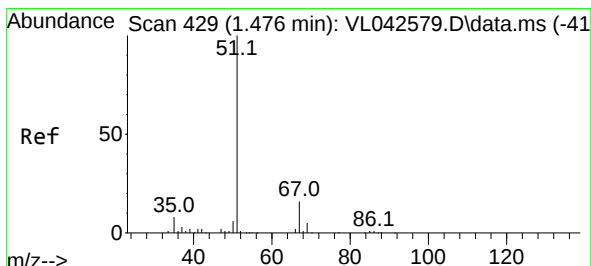
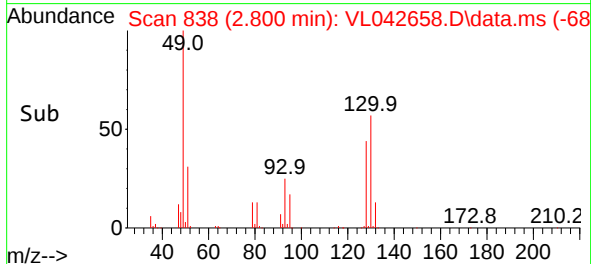
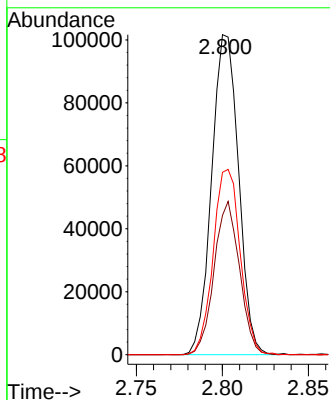
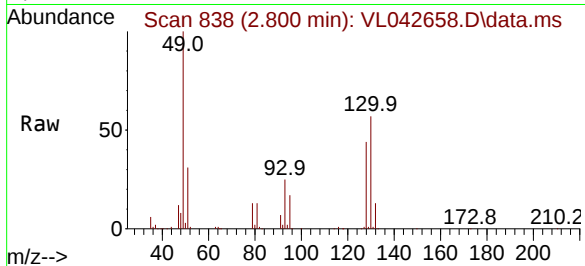




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 81
Delta R.T. 0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

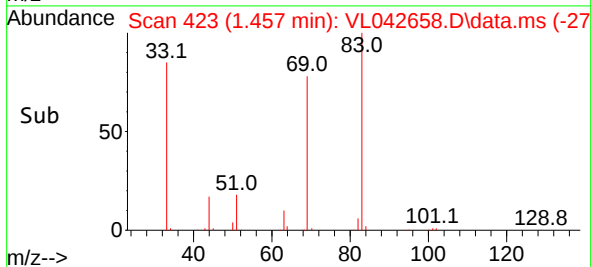
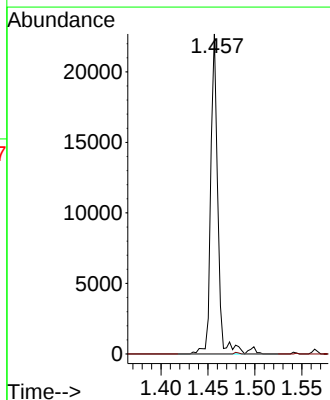
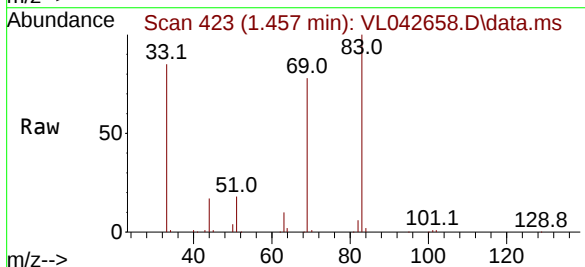
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

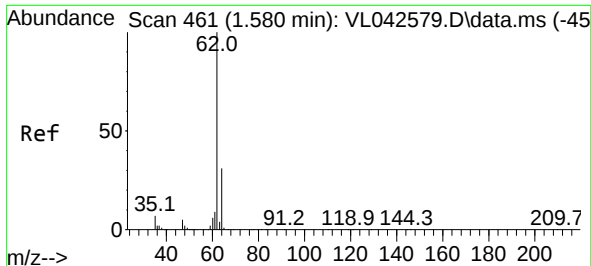
Tgt Ion: 49 Resp: 110592
Ion Ratio Lower Upper
49 100
128 45.3 24.2 72.6
130 58.2 30.4 91.2



#3
Chlorodifluoromethane
Concen: 0.642 ppbv
RT: 1.457 min Scan# 423
Delta R.T. -0.019 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 51 Resp: 12018
Ion Ratio Lower Upper
51 100
67 0.1 13.4 20.2#

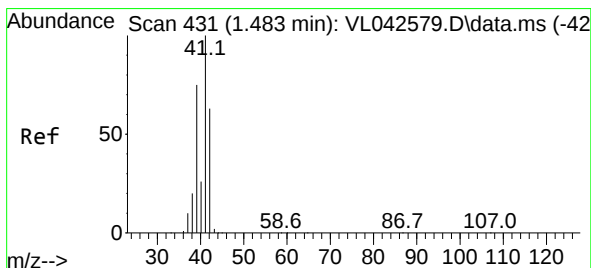
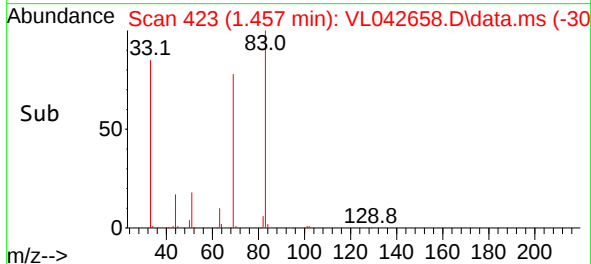
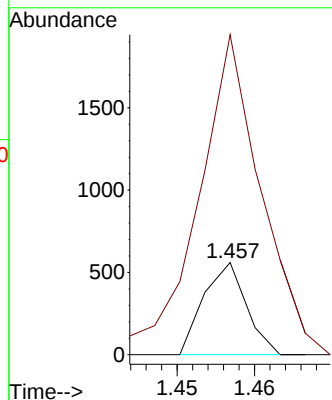
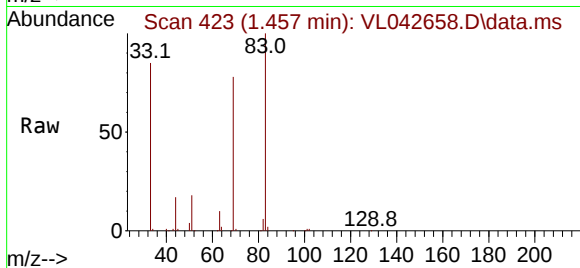




#5
 Vinyl Chloride
 Concen: 0.039 ppbv
 RT: 1.457 min Scan# 41
 Delta R.T. -0.123 min
 Lab File: VL042658.D
 Acq: 19 Jun 2025 16:52

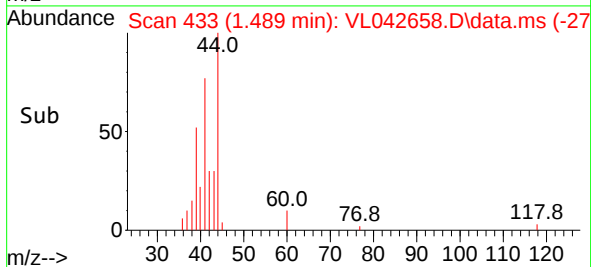
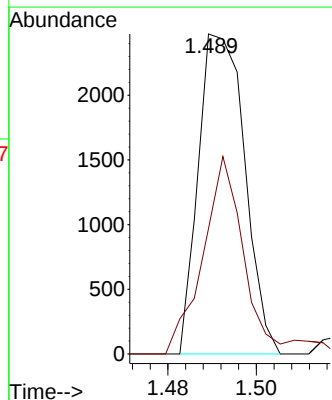
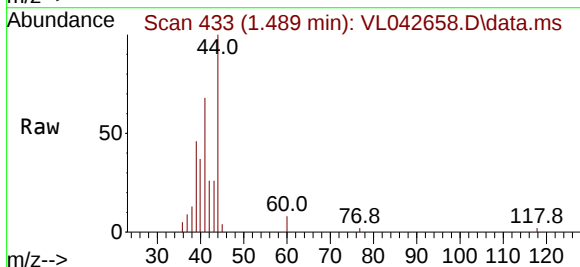
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

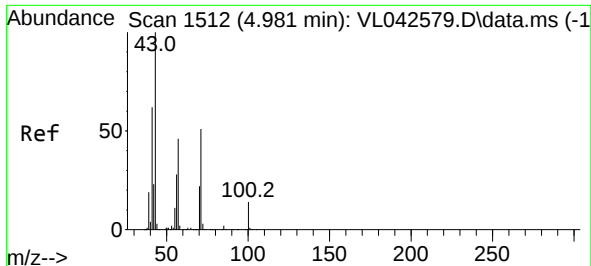
Tgt Ion: 62 Resp: 215
 Ion Ratio Lower Upper
 62 100
 64 267.9 24.9 37.3#



#9
 Propene
 Concen: 0.238 ppbv
 RT: 1.489 min Scan# 433
 Delta R.T. 0.007 min
 Lab File: VL042658.D
 Acq: 19 Jun 2025 16:52

Tgt Ion: 41 Resp: 1797
 Ion Ratio Lower Upper
 41 100
 42 61.5 53.3 79.9

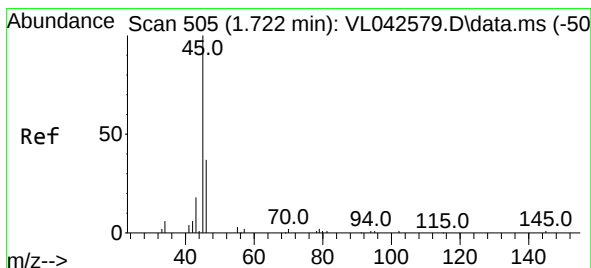
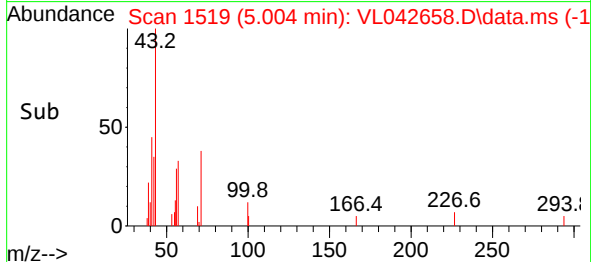
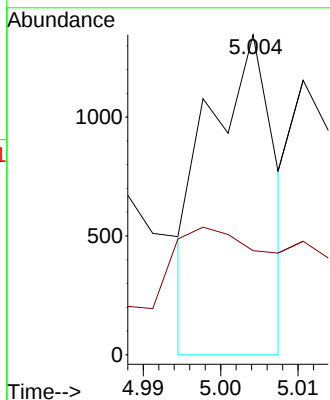
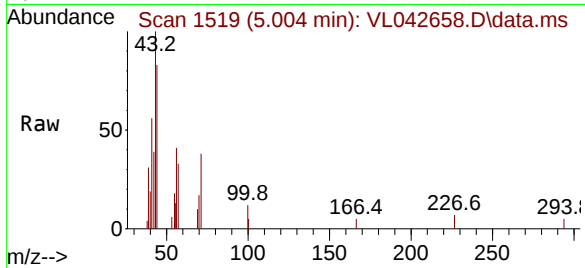




#10
Heptane
Concen: 0.038 ppbv
RT: 5.004 min Scan# 11
Delta R.T. 0.023 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

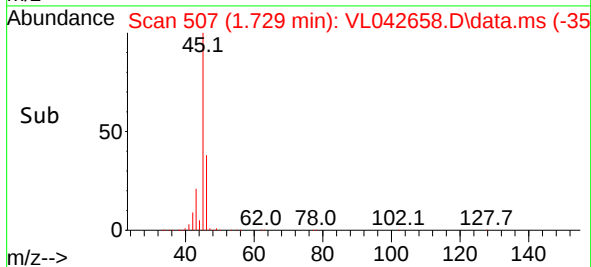
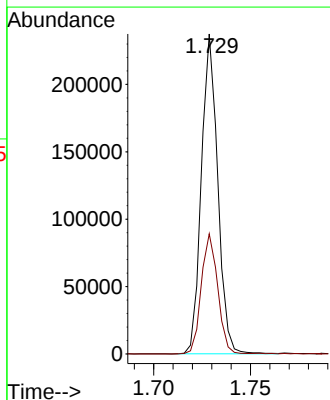
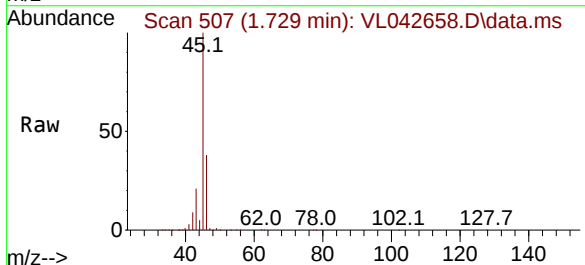
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

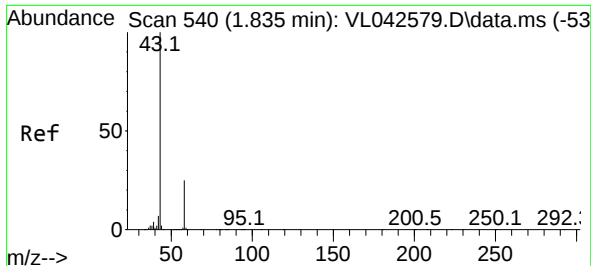
Tgt Ion: 43 Resp: 802
Ion Ratio Lower Upper
43 100
57 128.6 38.9 58.3#



#13
Ethanol
Concen: 155.408 ppbv
RT: 1.729 min Scan# 507
Delta R.T. 0.007 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 45 Resp: 139621
Ion Ratio Lower Upper
45 100
46 38.2 14.5 58.1





#15

Acetone

Concen: 2.135 ppbv

RT: 1.845 min Scan# 54

Delta R.T. 0.010 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Instrument :

MSVOA_L

ClientSampleId :

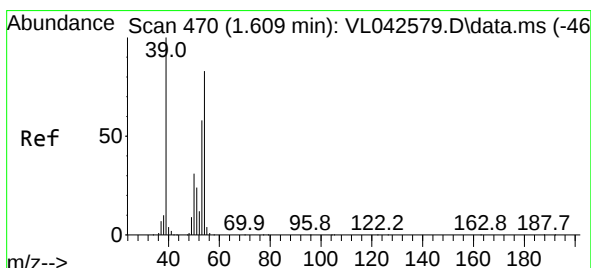
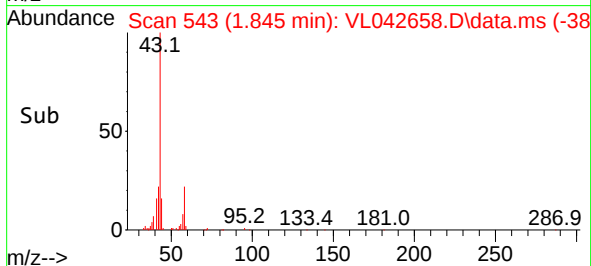
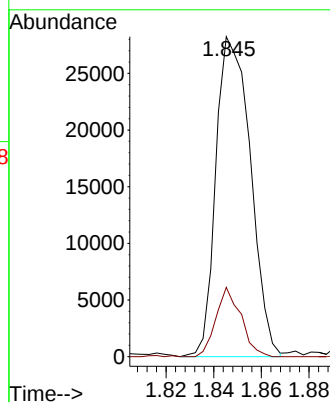
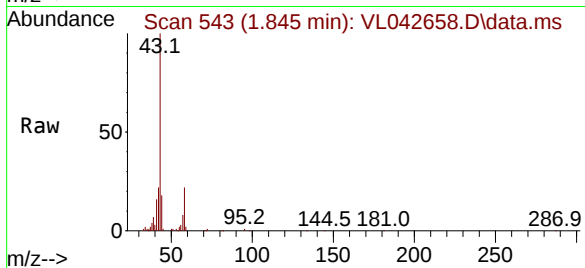
SV1DL

Tgt Ion: 43 Resp: 28438

Ion Ratio Lower Upper

43 100

58 15.9 21.0 31.4#



#16

1,3-Butadiene

Concen: 0.431 ppbv

RT: 1.628 min Scan# 476

Delta R.T. 0.020 min

Lab File: VL042658.D

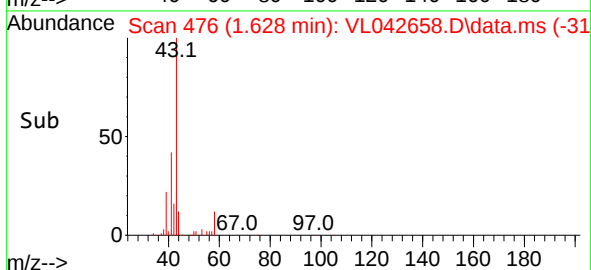
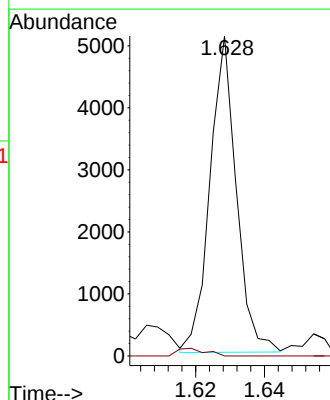
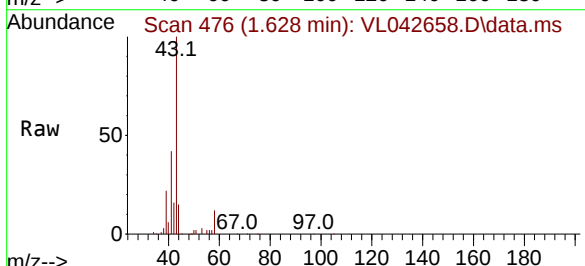
Acq: 19 Jun 2025 16:52

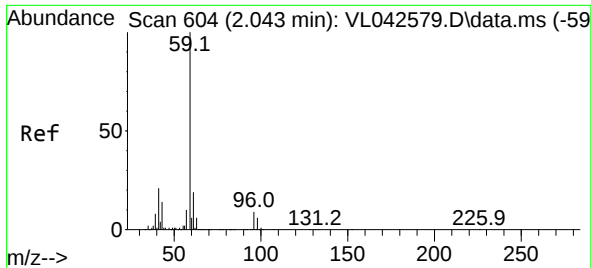
Tgt Ion: 39 Resp: 2721

Ion Ratio Lower Upper

39 100

54 2.6 57.9 86.9#





#17

tert-Butyl alcohol

Concen: 0.053 ppbv

RT: 2.059 min Scan# 604

Delta R.T. 0.016 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Instrument :

MSVOA_L

ClientSampleId :

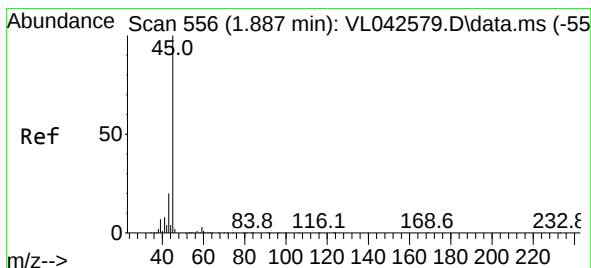
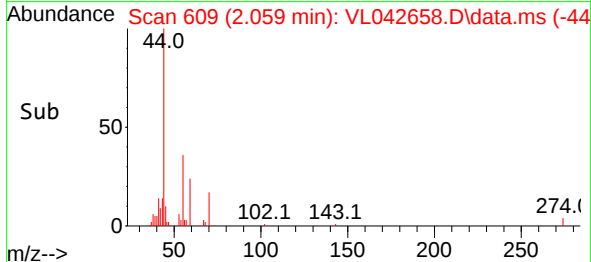
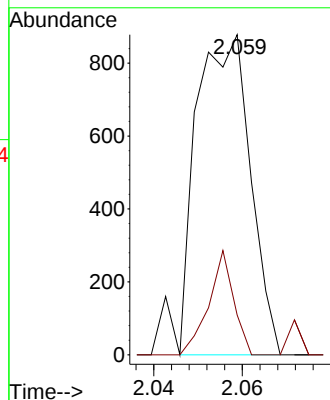
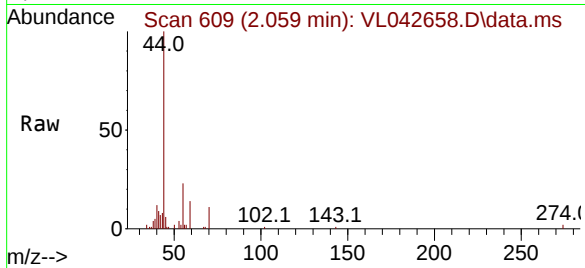
SV1DL

Tgt Ion: 59 Resp: 740

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#



#19

Isopropyl Alcohol

Concen: 17.533 ppbv

RT: 1.729 min Scan# 507

Delta R.T. -0.159 min

Lab File: VL042658.D

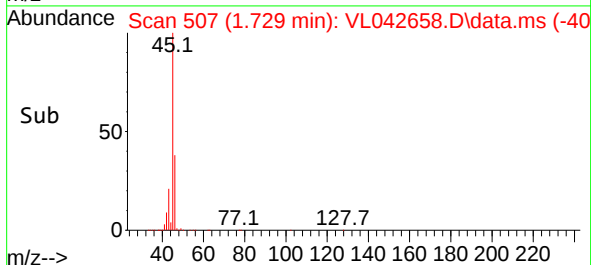
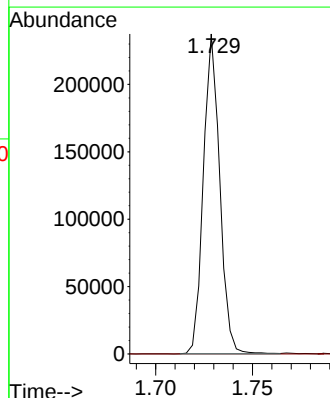
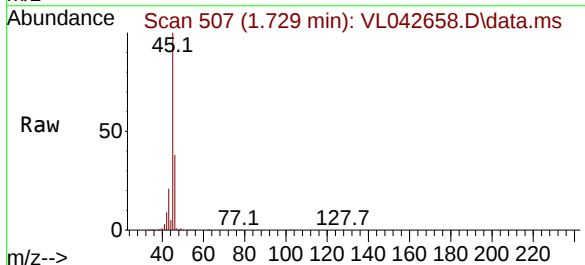
Acq: 19 Jun 2025 16:52

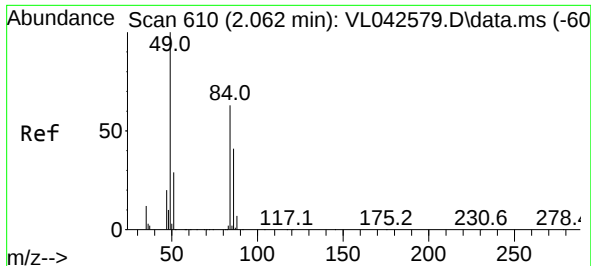
Tgt Ion: 45 Resp: 139621

Ion Ratio Lower Upper

45 100

58 1.1 29.4 44.2#

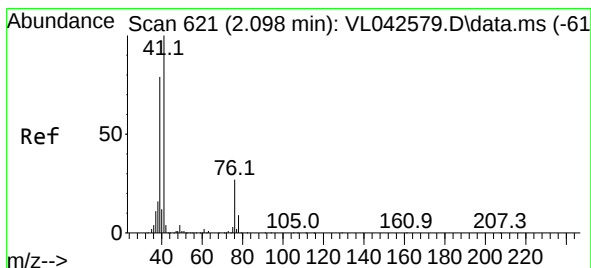
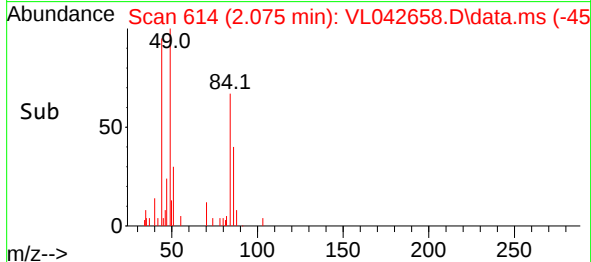
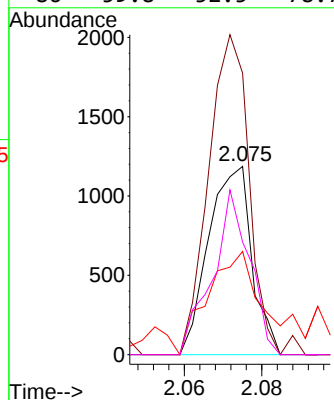
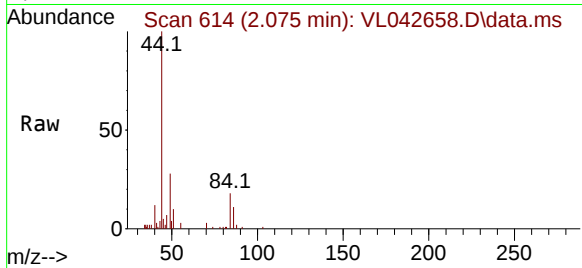




#20
Methylene Chloride
Concen: 0.209 ppbv
RT: 2.075 min Scan# 610
Delta R.T. 0.013 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

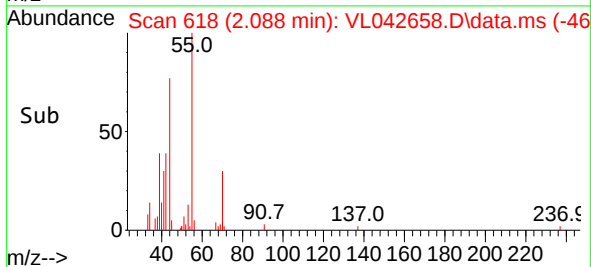
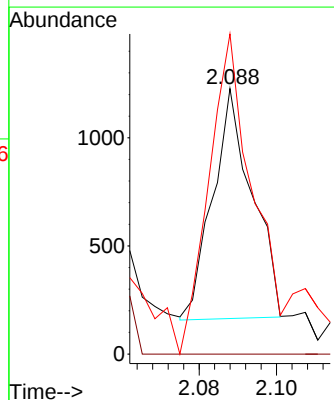
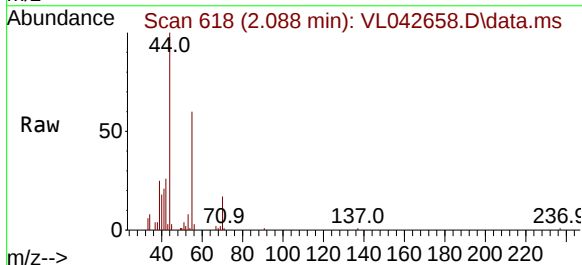
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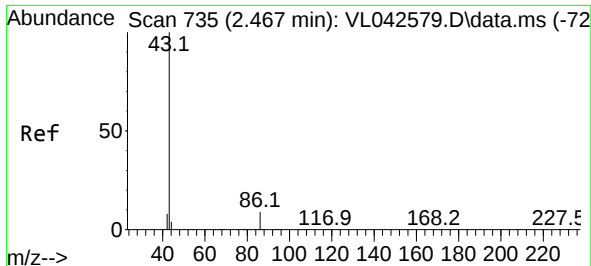
Tgt Ion:	84	Resp:	919
Ion	Ratio	Lower	Upper
84	100		
49	169.2	128.8	193.2
51	54.8	38.6	57.8
86	59.8	52.5	78.7



#21
Allyl Chloride
Concen: 0.080 ppbv
RT: 2.088 min Scan# 618
Delta R.T. -0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion:	41	Resp:	754
Ion	Ratio	Lower	Upper
41	100		
76	0.0	21.2	31.8#
39	232.0	60.9	91.3#

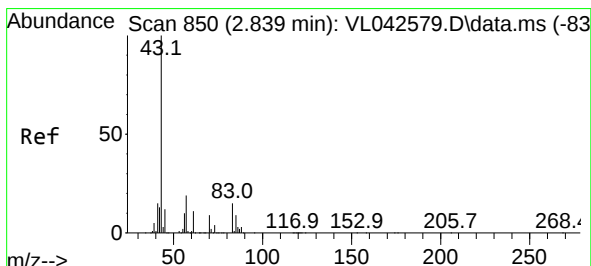
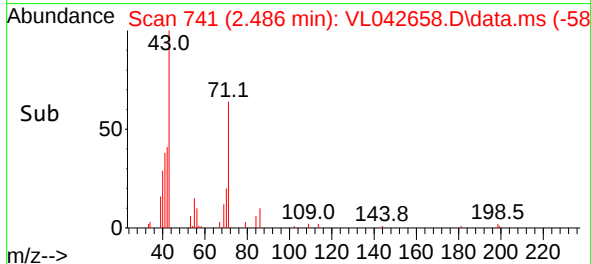
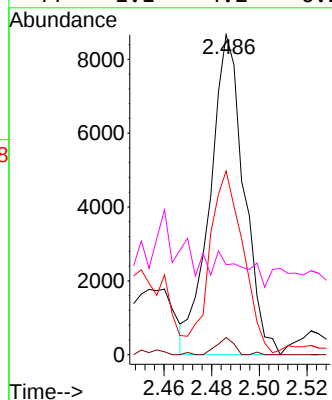
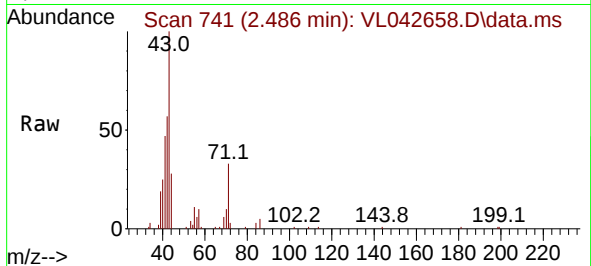




#23
 Vinyl Acetate
 Concen: 0.476 ppbv
 RT: 2.486 min Scan# 741
 Delta R.T. 0.020 min
 Lab File: VL042658.D
 Acq: 19 Jun 2025 16:52

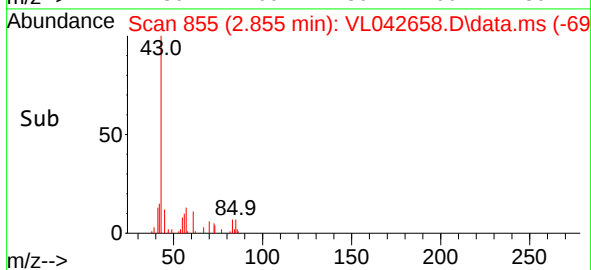
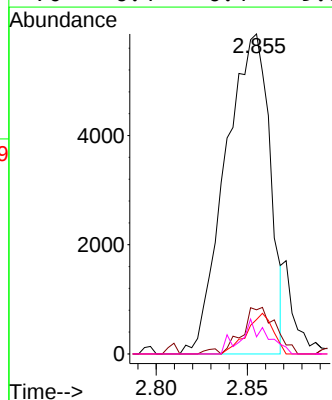
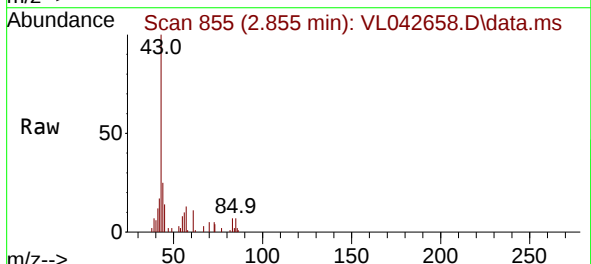
Instrument :
 MSVOA_L
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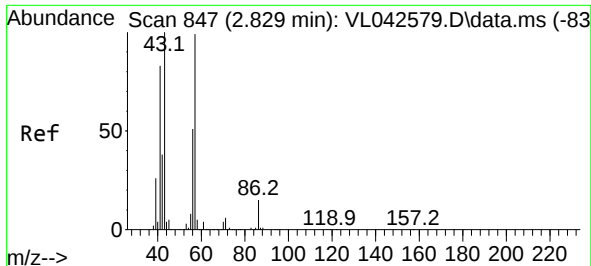
Tgt Ion: 43	Resp: 8569
Ion Ratio	Lower Upper
43 100	
86 5.4	6.6 9.8#
42 55.9	7.0 10.4#
44 1.1	4.2 6.2#



#25
 Ethyl Acetate
 Concen: 0.273 ppbv
 RT: 2.855 min Scan# 855
 Delta R.T. 0.016 min
 Lab File: VL042658.D
 Acq: 19 Jun 2025 16:52

Tgt Ion: 43	Resp: 9957
Ion Ratio	Lower Upper
43 100	
45 11.5	8.2 12.2
61 7.6	7.1 10.7
70 6.4	6.4 9.6

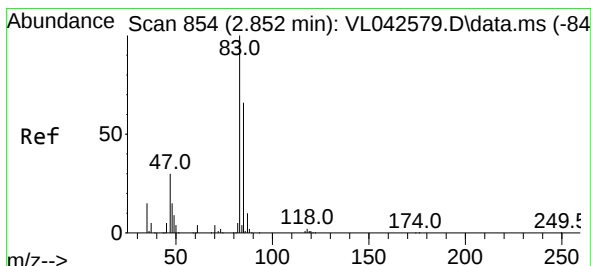
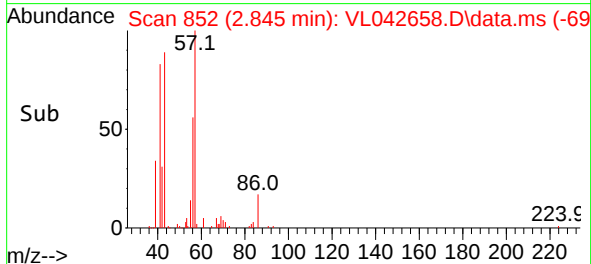
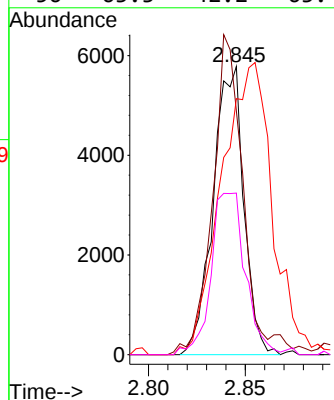
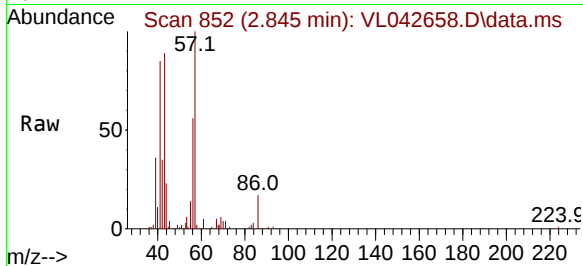




#26
Hexane
Concen: 0.384 ppbv
RT: 2.845 min Scan# 81
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

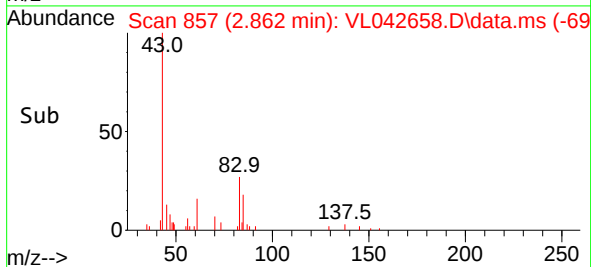
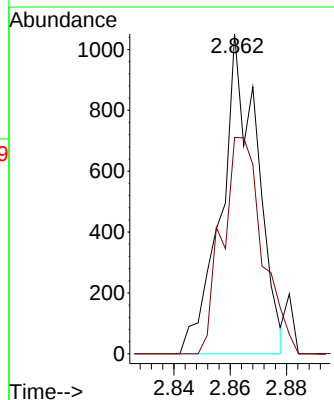
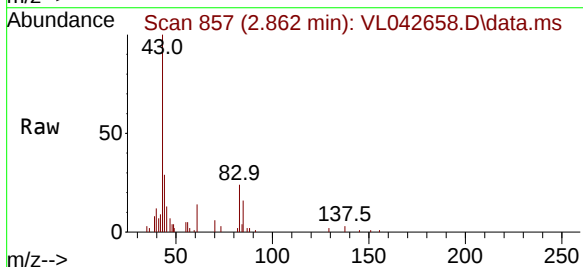
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

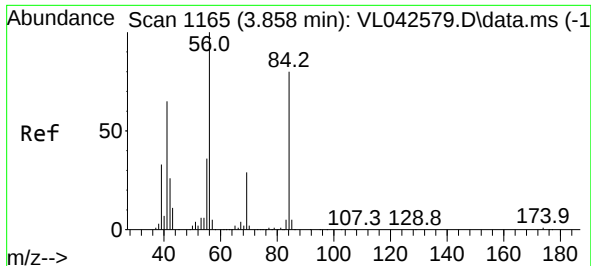
Tgt Ion: 57 Resp: 6366
Ion Ratio Lower Upper
57 100
41 110.4 70.6 106.0#
43 171.7 181.1 271.7#
56 63.3 42.2 63.4



#29
Chloroform
Concen: 0.043 ppbv
RT: 2.862 min Scan# 857
Delta R.T. 0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 83 Resp: 932
Ion Ratio Lower Upper
83 100
85 67.6 52.8 79.2

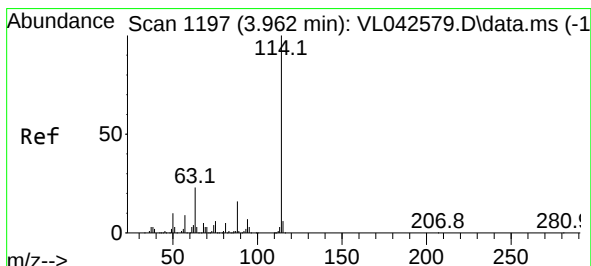
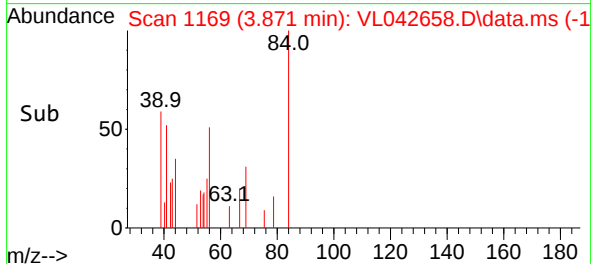
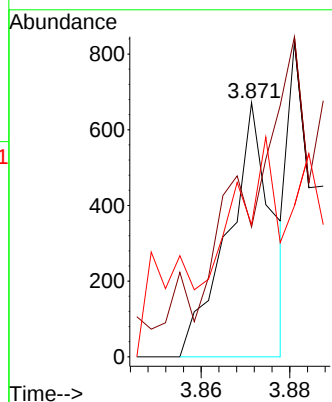
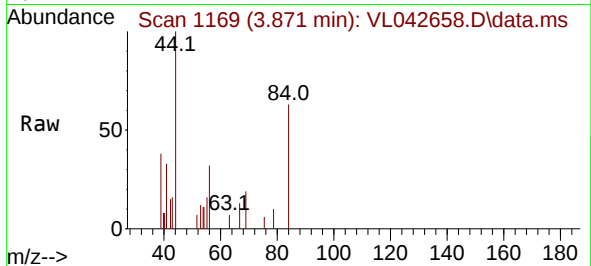




#30
Cyclohexane
Concen: 0.034 ppbv
RT: 3.871 min Scan# 1165
Delta R.T. 0.013 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

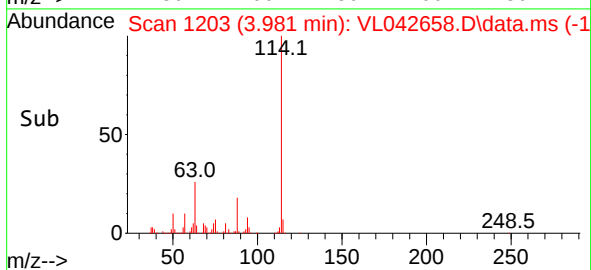
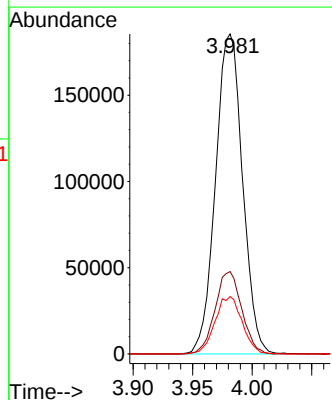
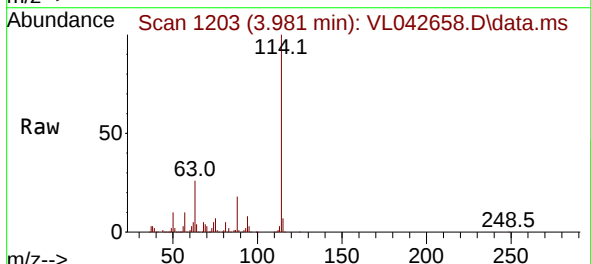
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

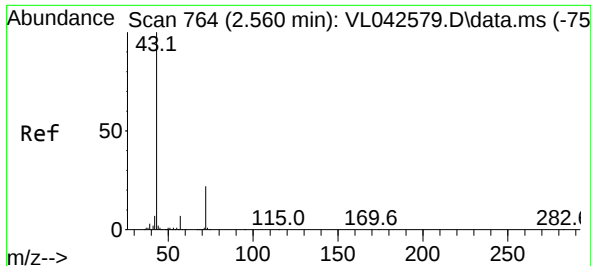
Tgt Ion: 84 Resp: 461
Ion Ratio Lower Upper
84 100
56 0.0 103.7 155.5#
41 246.0 65.1 97.7#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.981 min Scan# 1203
Delta R.T. 0.019 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 114 Resp: 292501
Ion Ratio Lower Upper
114 100
63 25.4 19.0 28.6
88 18.0 13.6 20.4

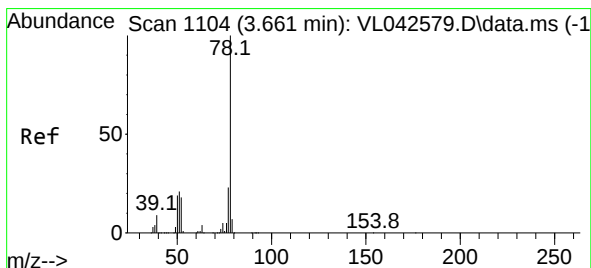
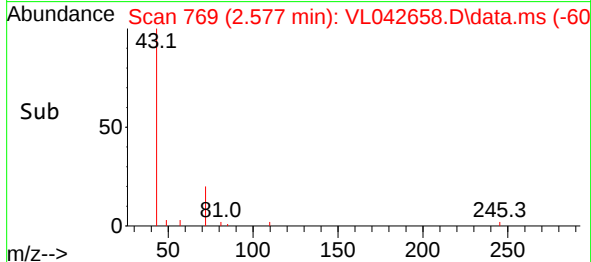
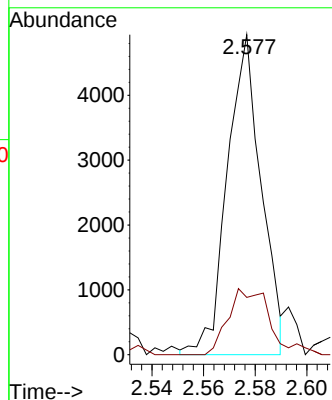
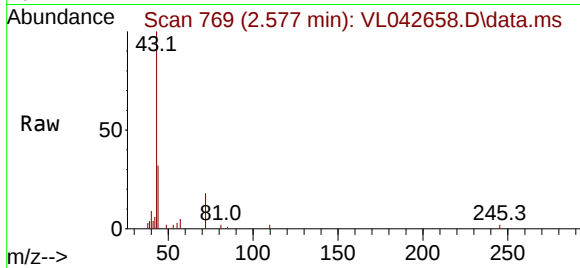




#34
2-Butanone
Concen: 0.216 ppbv
RT: 2.577 min Scan# 769
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

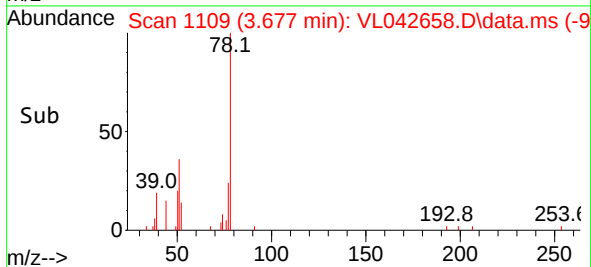
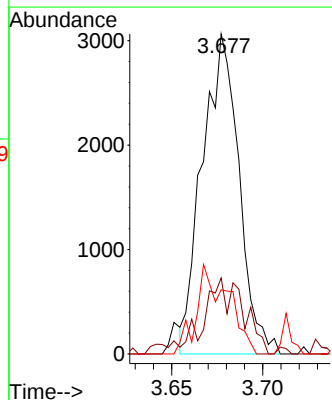
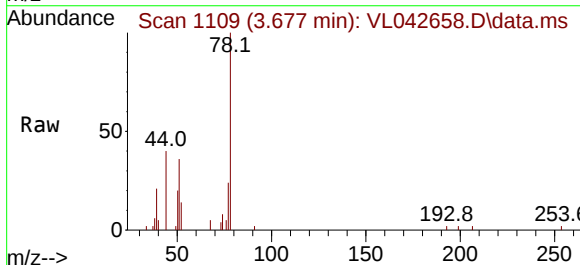
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

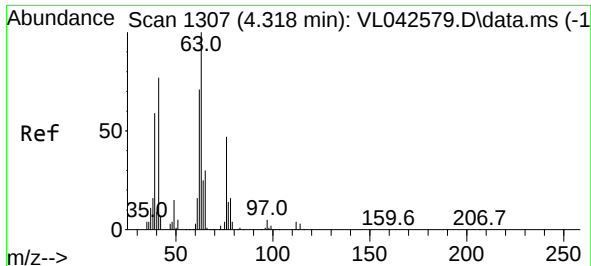
Tgt Ion: 43 Resp: 4513
Ion Ratio Lower Upper
43 100
72 25.3 17.7 26.5



#36
Benzene
Concen: 0.149 ppbv
RT: 3.677 min Scan# 1109
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 78 Resp: 4284
Ion Ratio Lower Upper
78 100
77 21.7 18.2 27.2
50 17.0 15.2 22.8





#39

1,2-Dichloropropane

Concen: 6.968 ppbv

RT: 3.981 min Scan# 11

Delta R.T. -0.337 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

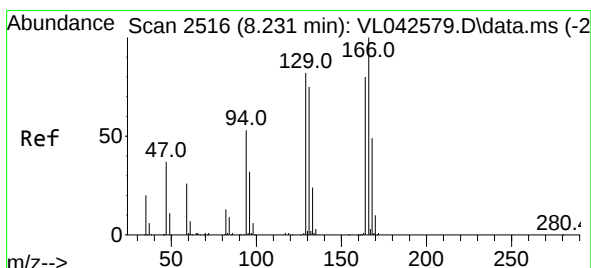
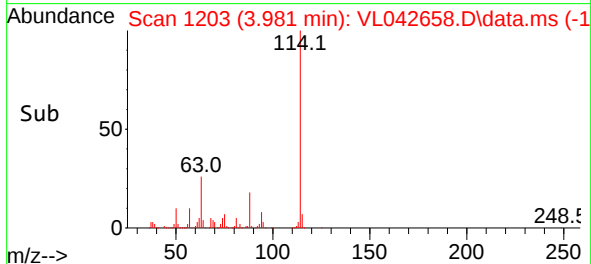
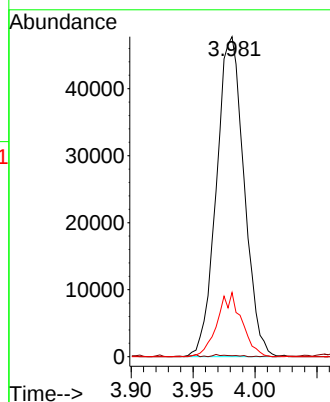
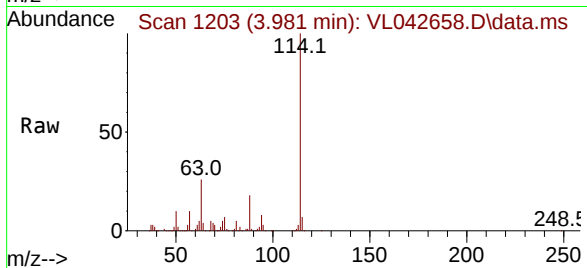
Tgt Ion: 63 Resp: 74224

Ion Ratio Lower Upper

63 100

41 0.1 61.8 92.6#

62 20.0 56.6 85.0#



#52

Tetrachloroethene

Concen: 7.187 ppbv

RT: 8.251 min Scan# 2522

Delta R.T. 0.020 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Tgt Ion:164 Resp: 77355

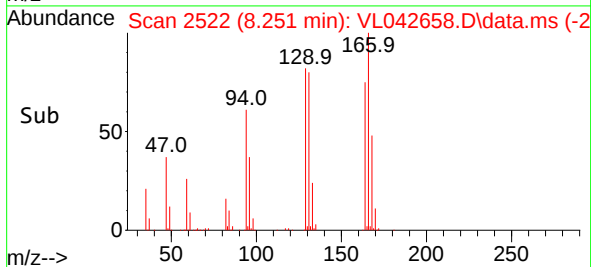
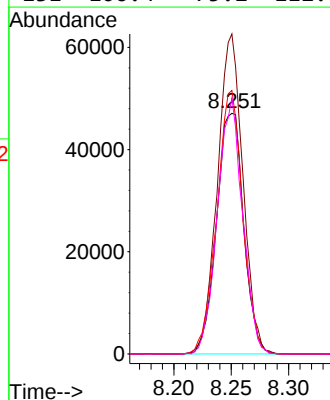
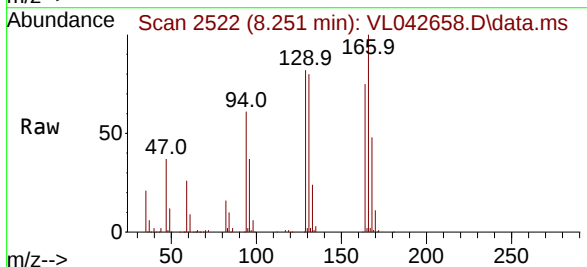
Ion Ratio Lower Upper

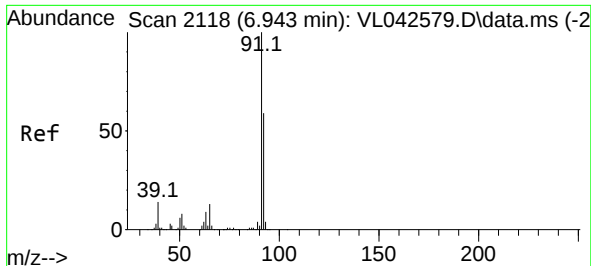
164 100

166 132.9 100.0 150.0

129 109.5 82.2 123.4

131 106.4 75.2 112.8

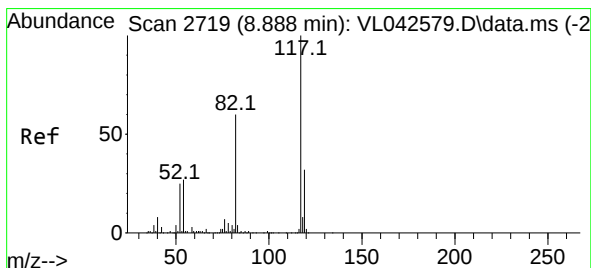
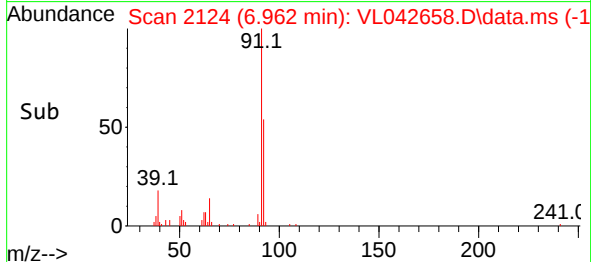
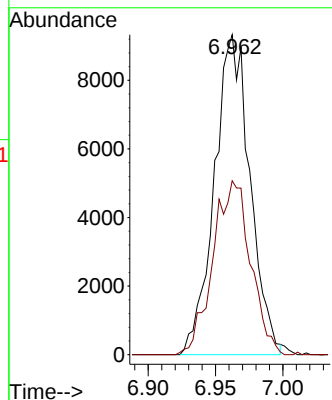
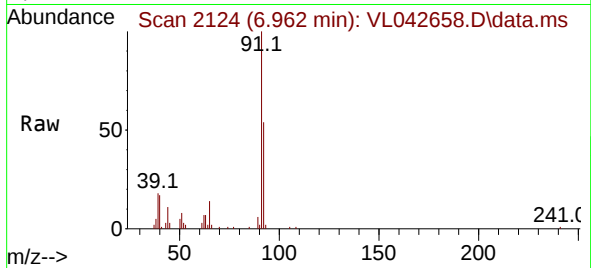




#53
Toluene
Concen: 0.516 ppbv
RT: 6.962 min Scan# 2118
Delta R.T. 0.020 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

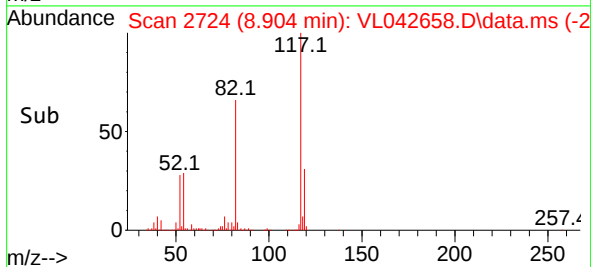
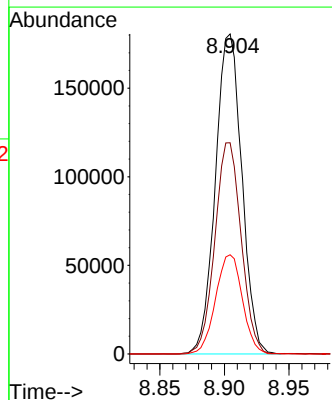
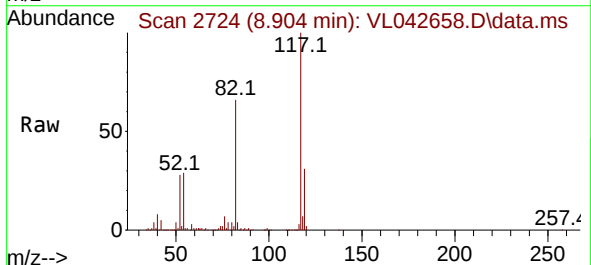
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

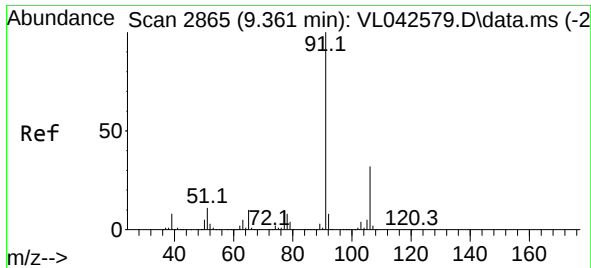
Tgt Ion: 91 Resp: 17184
Ion Ratio Lower Upper
91 100
92 57.5 48.2 72.4



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.904 min Scan# 2724
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 117 Resp: 257428
Ion Ratio Lower Upper
117 100
82 65.6 51.2 76.8
119 31.4 26.3 39.5

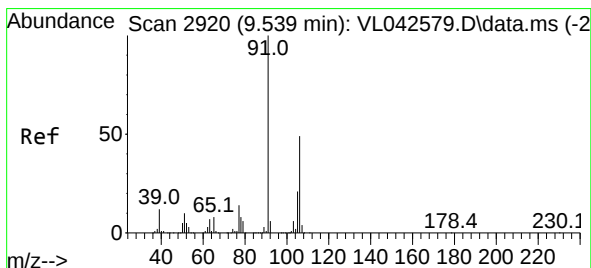
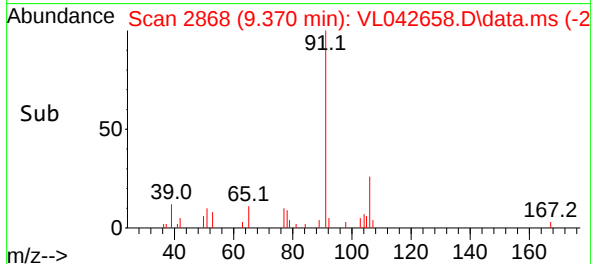
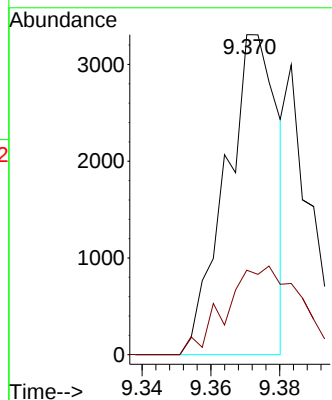
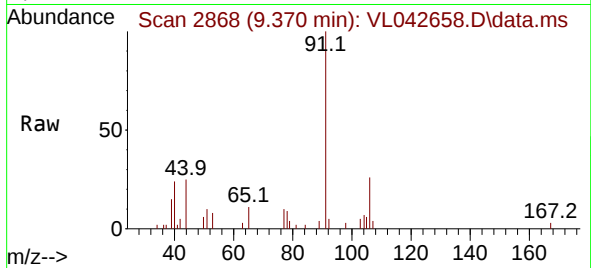




#58
Ethyl Benzene
Concen: 0.079 ppbv
RT: 9.370 min Scan# 21
Delta R.T. 0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

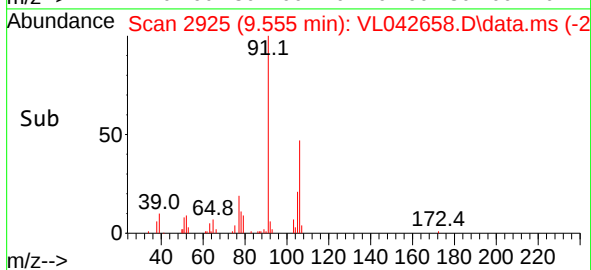
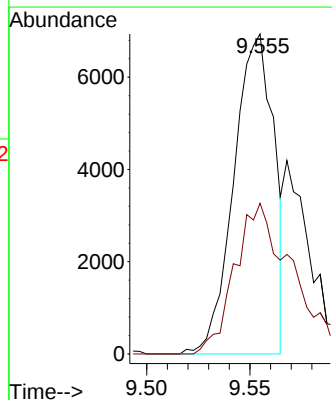
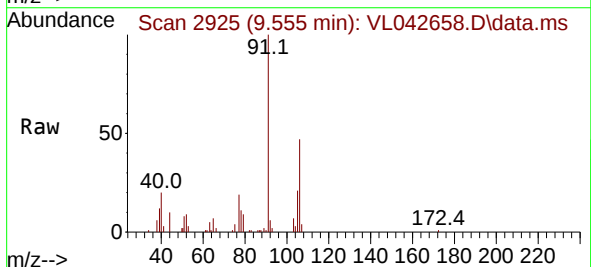
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

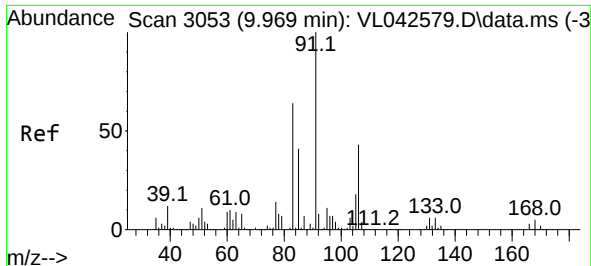
Tgt Ion: 91 Resp: 3446
Ion Ratio Lower Upper
91 100
106 26.4 25.9 38.9



#59
m/p-Xylene
Concen: 0.273 ppbv
RT: 9.555 min Scan# 2925
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 91 Resp: 9368
Ion Ratio Lower Upper
91 100
106 66.1 38.8 58.2#

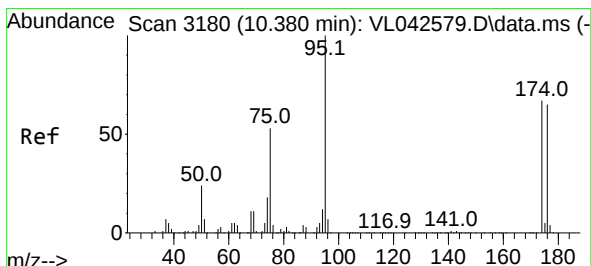
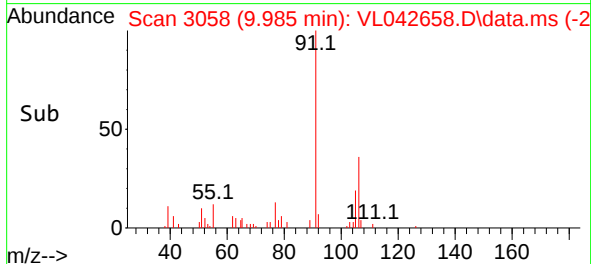
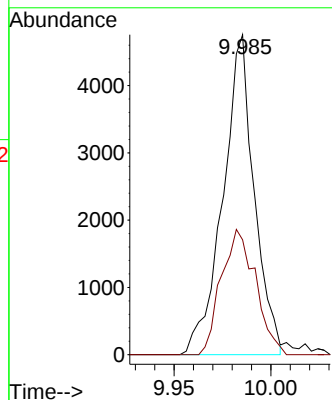
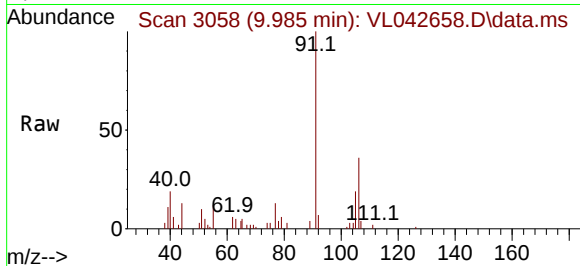




#60
o-Xylene
Concen: 0.156 ppbv
RT: 9.985 min Scan# 3053
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

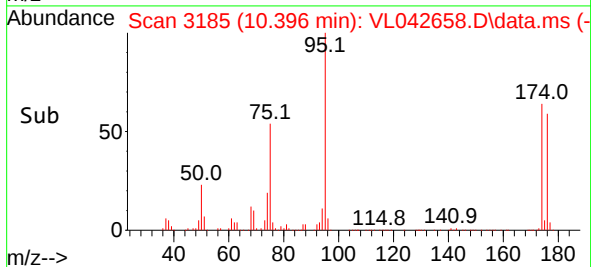
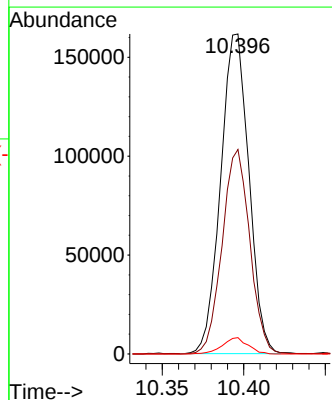
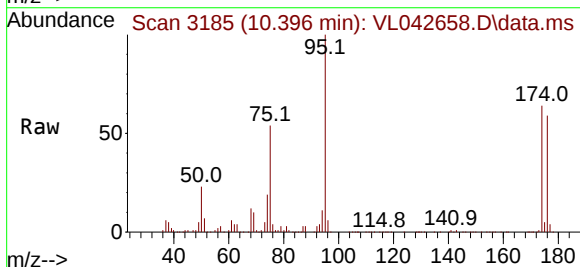
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

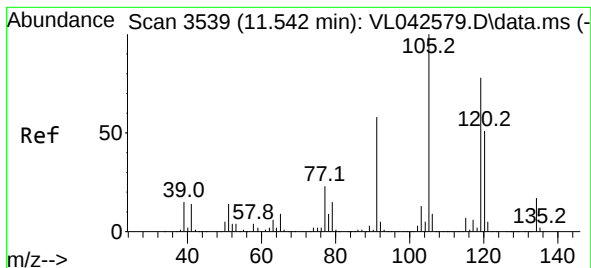
Tgt Ion: 91 Resp: 5343
Ion Ratio Lower Upper
91 100
106 42.9 22.9 68.5



#68
1-Bromo-4-Fluorobenzene
Concen: 10.082 ppbv
RT: 10.396 min Scan# 3185
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 95 Resp: 194558
Ion Ratio Lower Upper
95 100
174 62.9 53.1 79.7
175 4.6 4.2 6.2





#74

1,2,4-Trimethylbenzene

Concen: 0.067 ppbv

RT: 11.549 min Scan# 3541

Delta R.T. 0.007 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

Tgt Ion:105 Resp: 2611

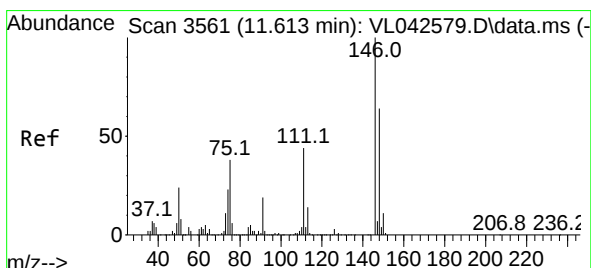
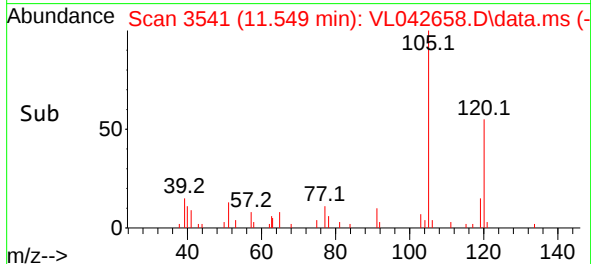
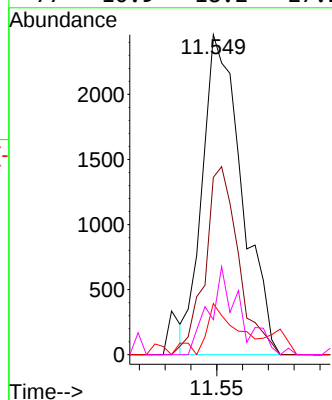
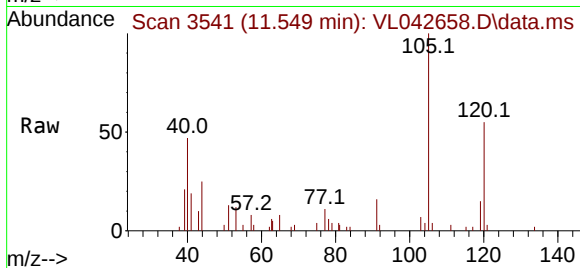
Ion Ratio Lower Upper

105 100

120 57.9 40.8 61.2

91 12.4 46.8 70.2#

77 10.9 18.2 27.2#



#75

1,3-Dichlorobenzene

Concen: 0.073 ppbv

RT: 11.685 min Scan# 3583

Delta R.T. 0.071 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

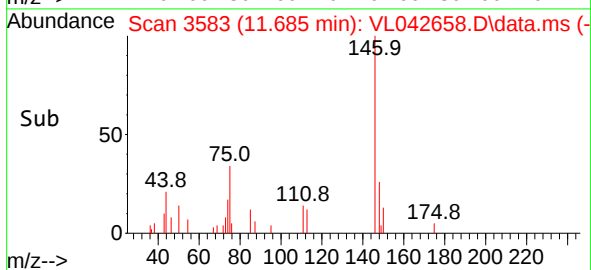
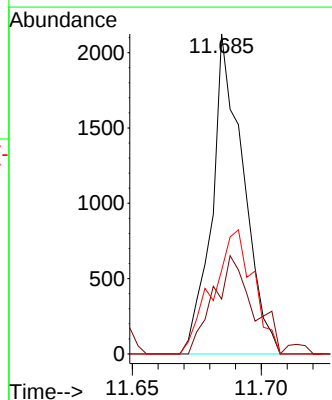
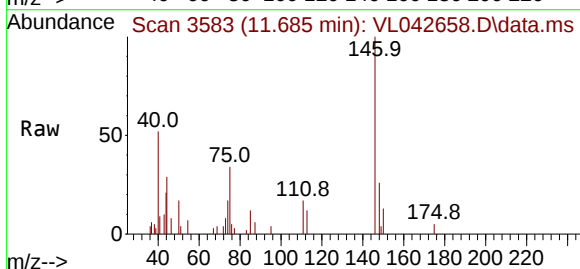
Tgt Ion:146 Resp: 1790

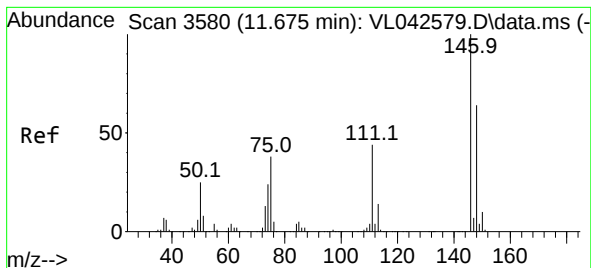
Ion Ratio Lower Upper

146 100

111 40.4 22.4 67.3

148 50.4 32.0 96.2





#76

1,4-Dichlorobenzene

Concen: 0.073 ppbv

RT: 11.685 min Scan# 3583

Delta R.T. 0.010 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

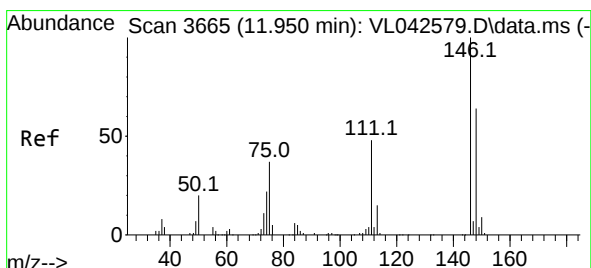
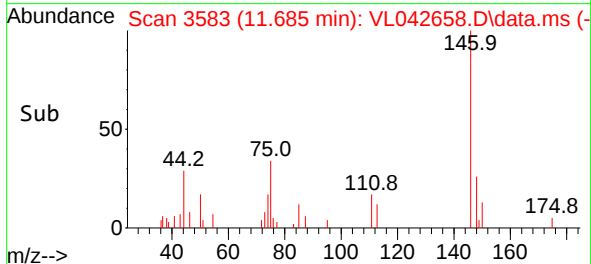
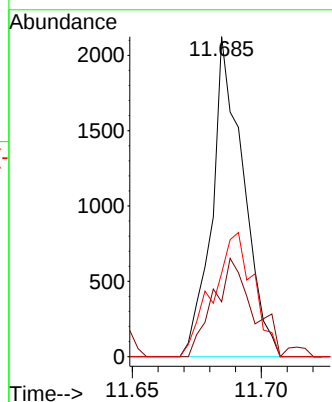
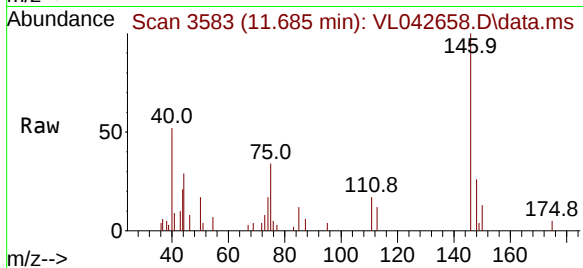
Tgt Ion:146 Resp: 1790

Ion Ratio Lower Upper

146 100

111 40.4 21.6 64.8

148 50.5 32.1 96.5



#77

1,2-Dichlorobenzene

Concen: 0.075 ppbv

RT: 11.685 min Scan# 3583

Delta R.T. -0.265 min

Lab File: VL042658.D

Acq: 19 Jun 2025 16:52

Tgt Ion:146 Resp: 1790

Ion Ratio Lower Upper

146 100

111 40.4 23.1 69.3

148 50.5 32.1 96.3

