

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072425\
 Data File : VL042765.D
 Acq On : 24 Jul 2025 15:05
 Operator : SY/MD
 Sample : Q2671-01DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 118-AAIDUP

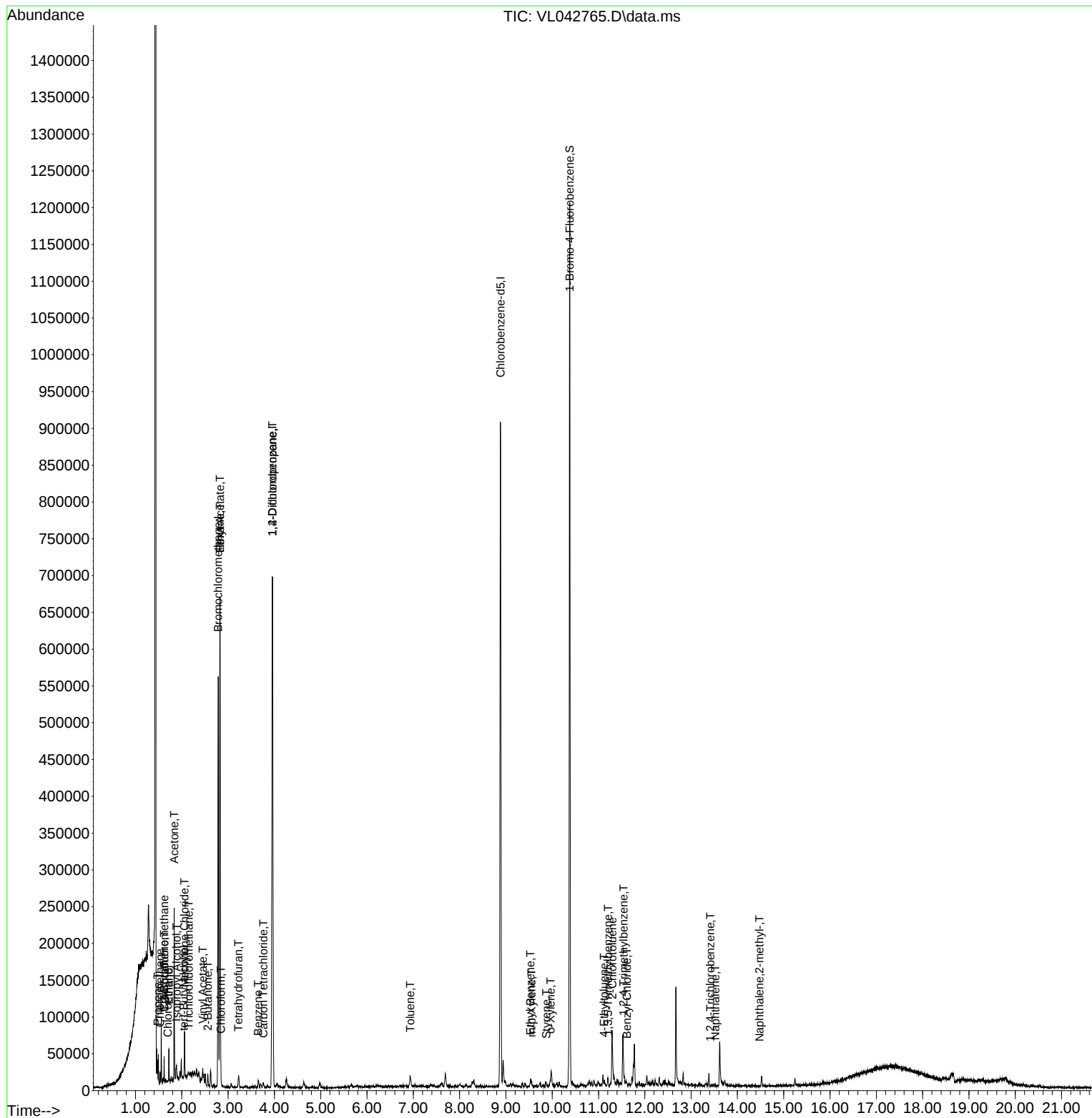
Quant Time: Jul 25 01:27:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Jul 24 05:24:41 2025
 Response via : Initial Calibration

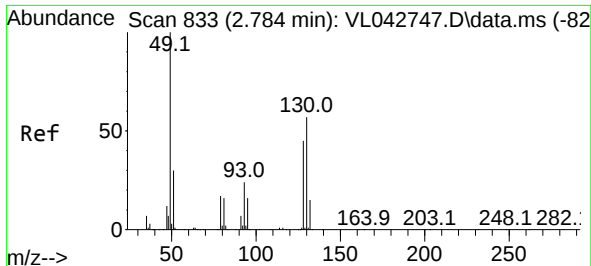
Compound	R.T. QIon		Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.787	49	152008	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.959	114	406880	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.882	117	361575	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	293717	10.257	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 102.600%	
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	1.619	51	823	0.031	ppbv	95
4) Chloromethane	1.528	50	3365	0.414	ppbv	95
7) Chloroethane	1.700	64	72	0.023	ppbv #	45
9) Propene	1.483	41	2154	0.226	ppbv	100
11) Trichlorofluoromethane	2.150	101	465	0.022	ppbv	86
13) Ethanol	1.722	45	15626	21.402	ppbv #	31
15) Acetone	1.836	43	94769	4.515	ppbv	99
16) 1,3-Butadiene	1.619	39	2017	0.225	ppbv #	16
17) tert-Butyl alcohol	2.043	59	1193	0.063	ppbv #	84
19) Isopropyl Alcohol	1.888	45	7336	0.658	ppbv #	1
20) Methylene Chloride	2.059	84	8513	1.287	ppbv	96
23) Vinyl Acetate	2.454	43	7576	0.298	ppbv #	76
25) Ethyl Acetate	2.826	43	111582	2.402	ppbv #	78
26) Hexane	2.826	57	157154	7.711	ppbv #	41
29) Chloroform	2.849	83	1294	0.041	ppbv	90
34) 2-Butanone	2.564	43	10963	0.380	ppbv	95
35) Carbon Tetrachloride	3.762	117	963	0.032	ppbv #	46
36) Benzene	3.651	78	3809	0.099	ppbv #	79
39) 1,2-Dichloropropane	3.959	63	107432	7.548	ppbv #	20
41) Tetrahydrofuran	3.224	42	652	0.044	ppbv #	51
53) Toluene	6.933	91	7822	0.189	ppbv	84
58) Ethyl Benzene	9.529	91	3093	0.054	ppbv	94
59) m/p-Xylene	9.552	91	922	0.020	ppbv #	30
60) o-Xylene	9.966	91	1150	0.025	ppbv #	32
61) Styrene	9.872	104	550	0.029	ppbv #	80
66) Benzyl Chloride	11.614	91	137	0.028	ppbv #	65
71) 2-Chlorotoluene	11.300	91	1798	0.035	ppbv	80
72) 4-Ethyltoluene	11.122	105	2535	0.047	ppbv #	90
73) 1,3,5-Trimethylbenzene	11.209	105	2187	0.049	ppbv #	86
74) 1,2,4-Trimethylbenzene	11.539	105	8363	0.171	ppbv #	59
79) Naphthalene	13.523	128	463	0.443	ppbv #	80
80) Naphthalene,2-methyl-	14.475	142	139	1.133	ppbv #	56
81) 1,2,4-Trichlorobenzene	13.416	180	24	0.436	ppbv #	1

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

Quant Time: Jul 25 01:27:46 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Jul 24 05:24:41 2025
Response via : Initial Calibration

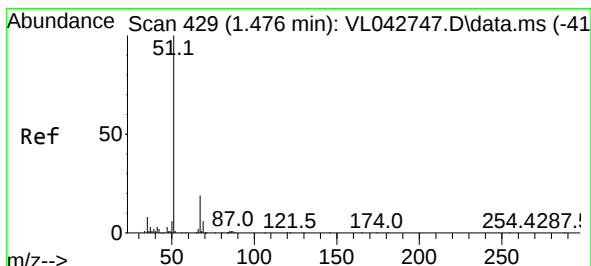
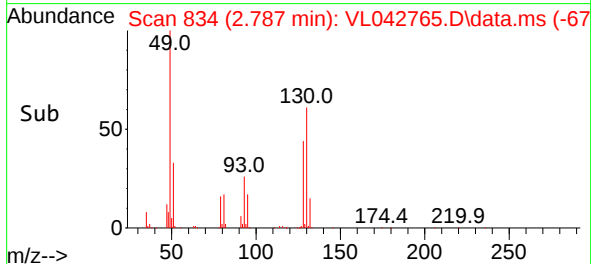
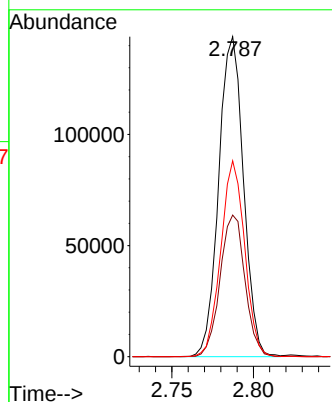
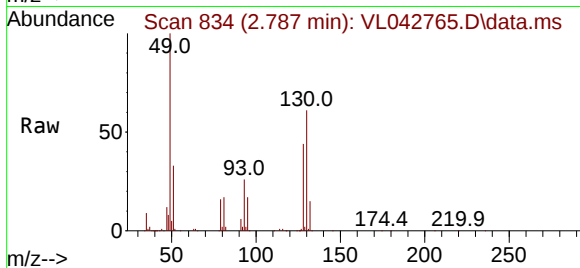




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.787 min Scan# 81
 Delta R.T. 0.003 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

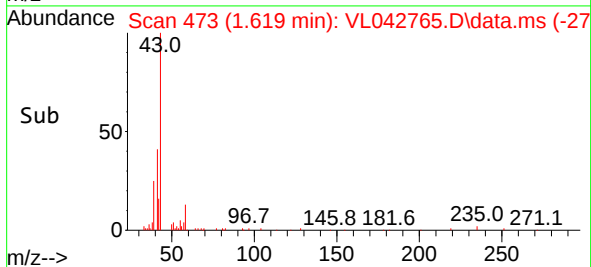
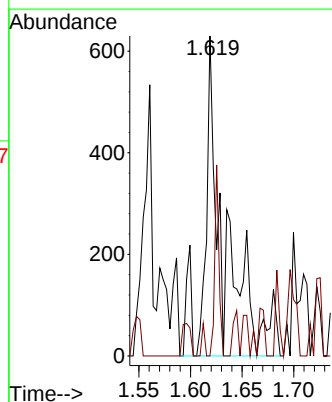
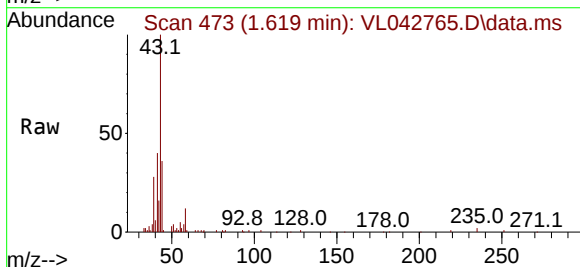
Instrument :
 MSVOA_L
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 118-AAIDUP

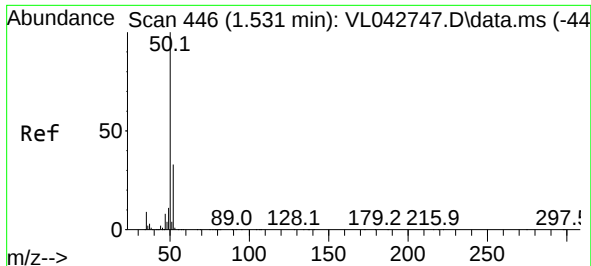
Tgt Ion: 49 Resp: 152008
 Ion Ratio Lower Upper
 49 100
 128 44.6 23.6 71.0
 130 59.1 30.3 90.8



#3
 Chlorodifluoromethane
 Concen: 0.031 ppbv
 RT: 1.619 min Scan# 473
 Delta R.T. 0.143 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

Tgt Ion: 51 Resp: 823
 Ion Ratio Lower Upper
 51 100
 67 16.4 15.0 22.6

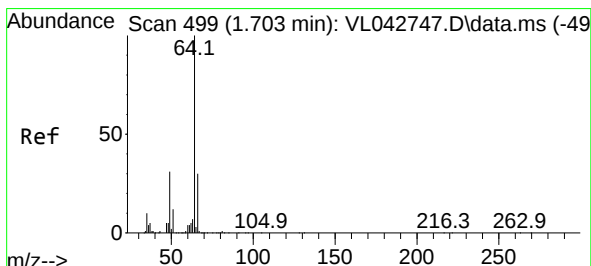
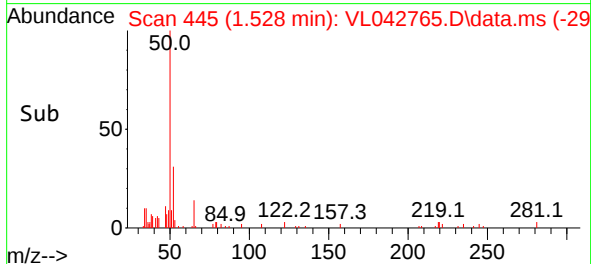
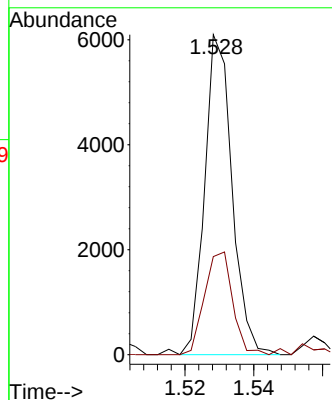
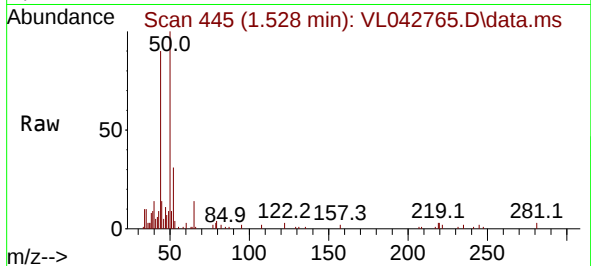




#4
Chloromethane
Concen: 0.414 ppbv
RT: 1.528 min Scan# 446
Delta R.T. -0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

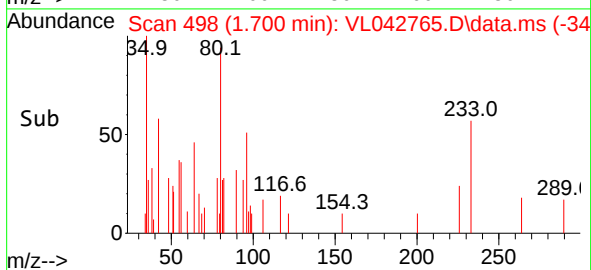
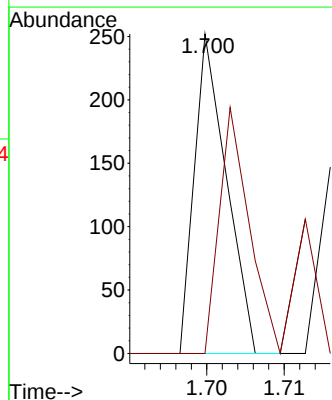
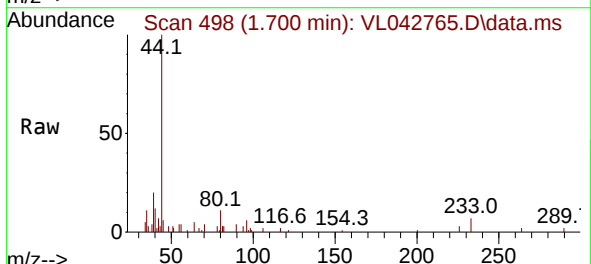
Instrument :
MSVOA_1
ClientSampleId :
118-AAIDUP

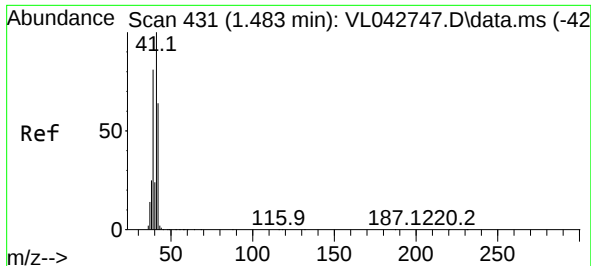
Tgt Ion: 50 Resp: 3365
Ion Ratio Lower Upper
50 100
52 30.6 26.6 40.0



#7
Chloroethane
Concen: 0.023 ppbv
RT: 1.700 min Scan# 498
Delta R.T. -0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 64 Resp: 72
Ion Ratio Lower Upper
64 100
66 0.0 24.1 36.1#





#9

Propene

Concen: 0.226 ppbv

RT: 1.483 min Scan# 41

Delta R.T. 0.000 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

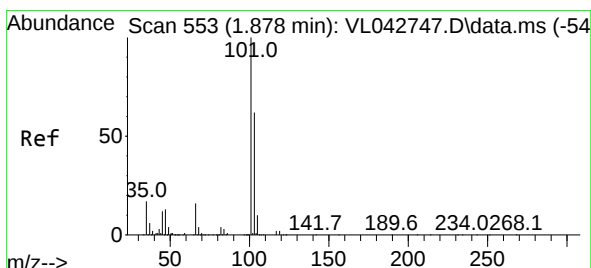
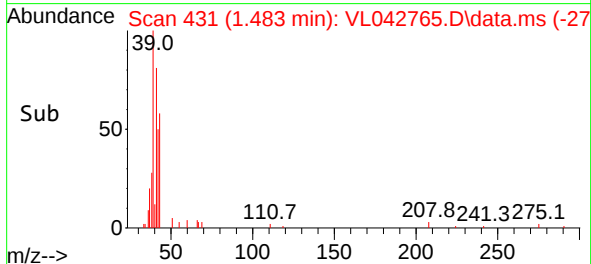
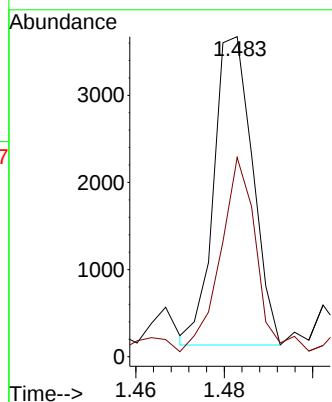
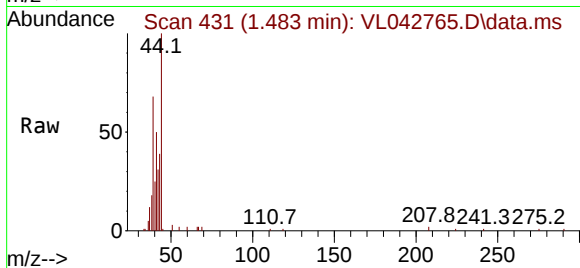
118-AAIDUP

Tgt Ion: 41 Resp: 2154

Ion Ratio Lower Upper

41 100

42 66.6 53.2 79.8



#11

Trichlorofluoromethane

Concen: 0.022 ppbv

RT: 2.150 min Scan# 637

Delta R.T. 0.272 min

Lab File: VL042765.D

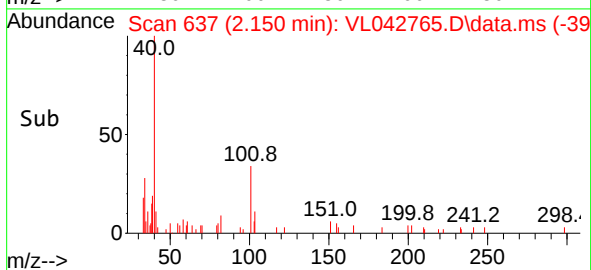
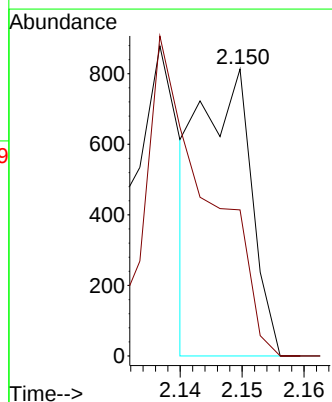
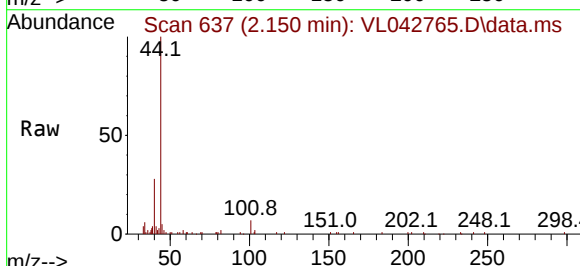
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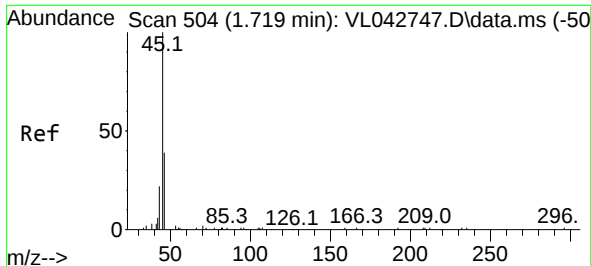
Tgt Ion: 101 Resp: 465

Ion Ratio Lower Upper

101 100

103 50.9 49.6 74.4

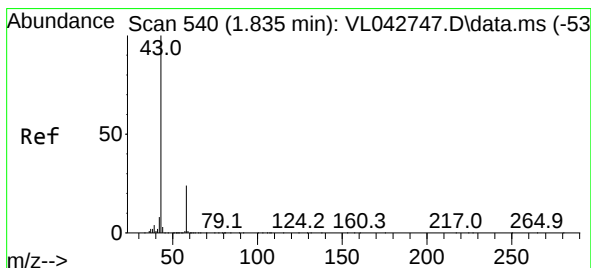
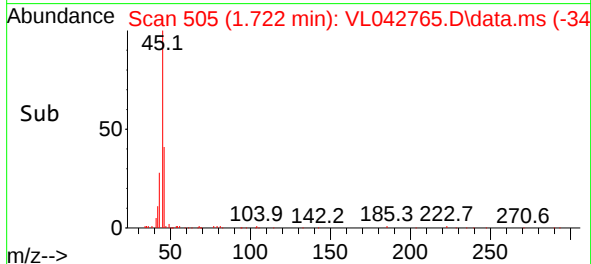
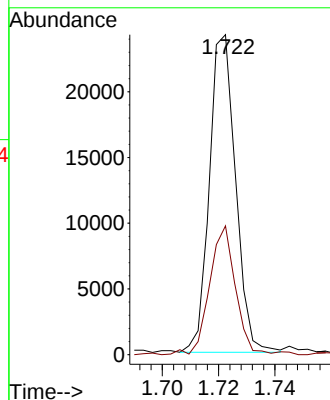
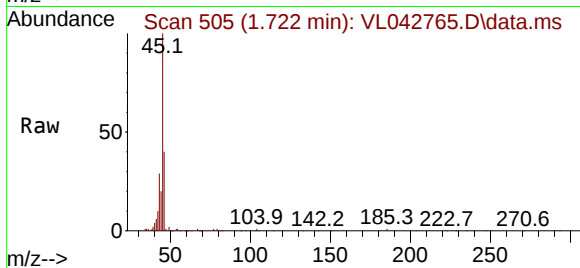




#13
 Ethanol
 Concen: 21.402 ppbv
 RT: 1.722 min Scan# 504
 Delta R.T. 0.003 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

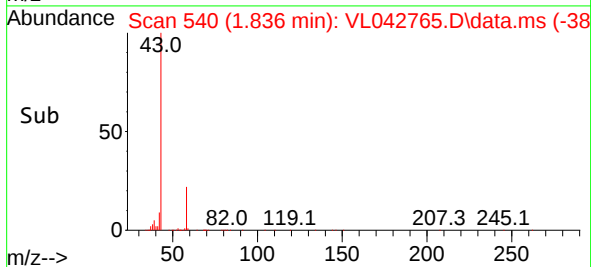
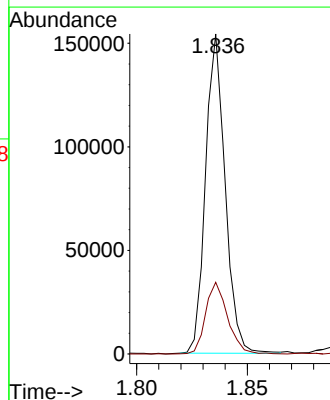
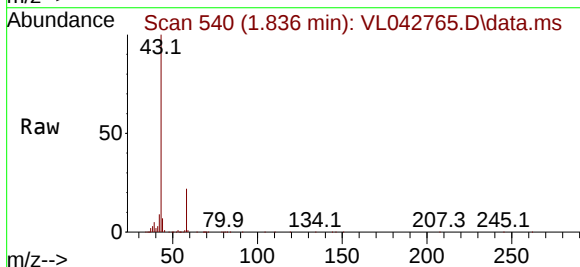
Instrument :
 MSVOA_L
 ClientSampleId :
 118-AAIDUP

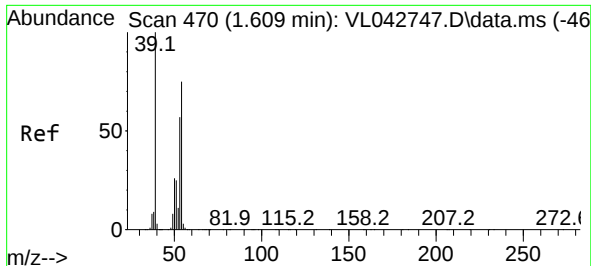
Tgt Ion: 45 Resp: 15626
 Ion Ratio Lower Upper
 45 100
 46 0.0 17.8 71.4#



#15
 Acetone
 Concen: 4.515 ppbv
 RT: 1.836 min Scan# 540
 Delta R.T. 0.000 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

Tgt Ion: 43 Resp: 94769
 Ion Ratio Lower Upper
 43 100
 58 25.3 19.8 29.8

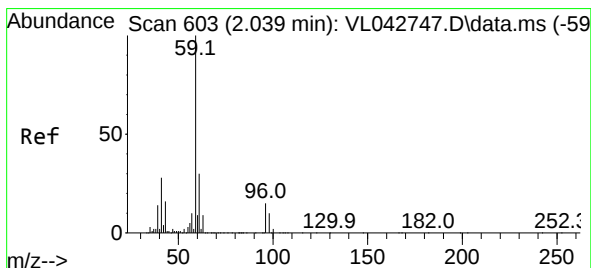
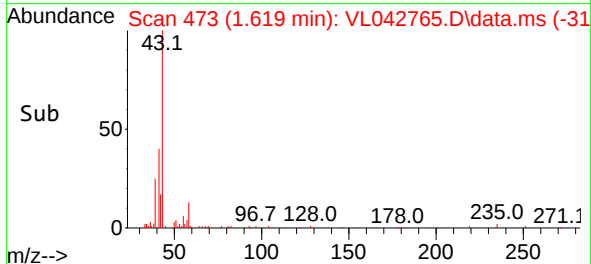
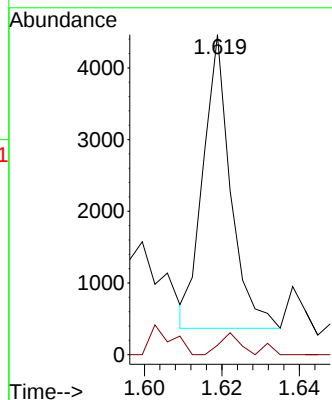
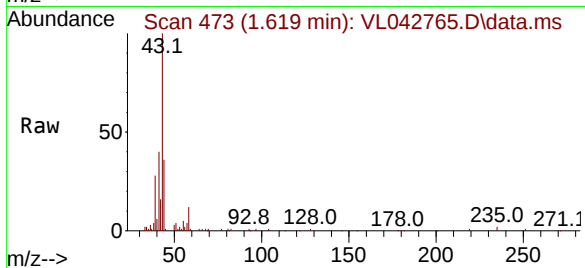




#16
1,3-Butadiene
Concen: 0.225 ppbv
RT: 1.619 min Scan# 41
Delta R.T. 0.010 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

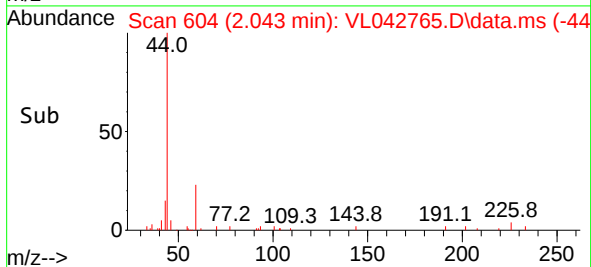
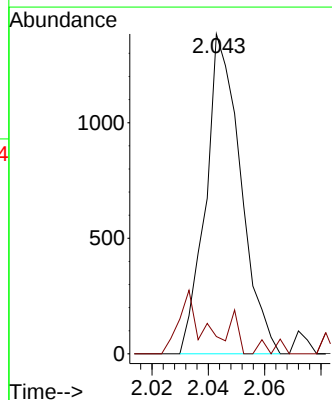
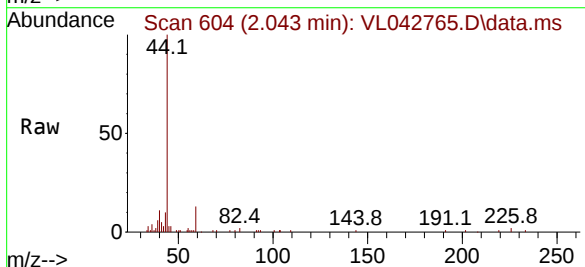
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

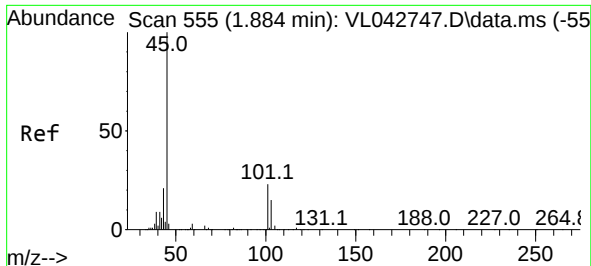
Tgt Ion: 39 Resp: 2017
Ion Ratio Lower Upper
39 100
54 0.0 54.5 81.7#



#17
tert-Butyl alcohol
Concen: 0.063 ppbv
RT: 2.043 min Scan# 604
Delta R.T. 0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 59 Resp: 1193
Ion Ratio Lower Upper
59 100
57 16.3 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 0.658 ppbv

RT: 1.888 min Scan# 511

Delta R.T. 0.003 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

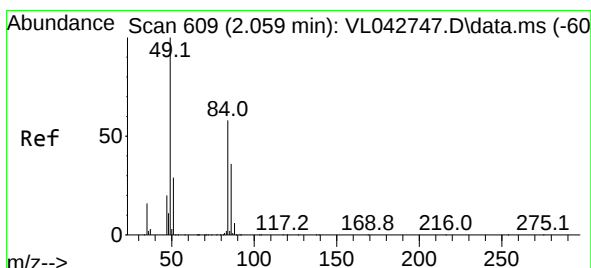
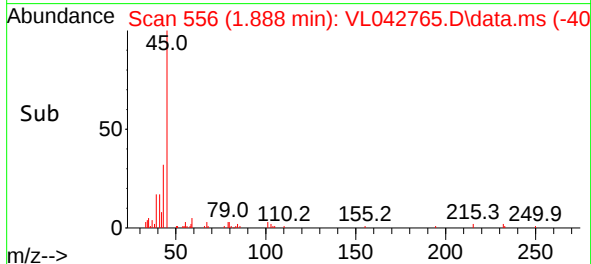
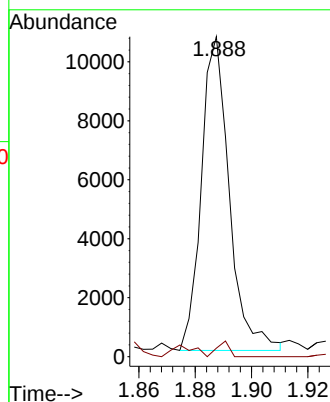
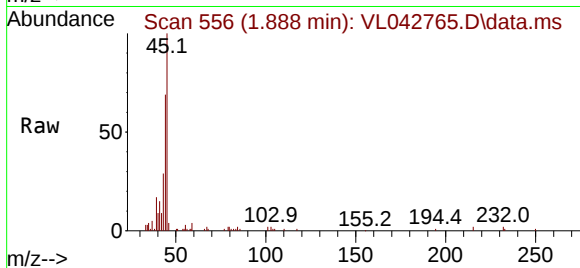
118-AAIDUP

Tgt Ion: 45 Resp: 7336

Ion Ratio Lower Upper

45 100

58 326.9 30.0 45.0#



#20

Methylene Chloride

Concen: 1.287 ppbv

RT: 2.059 min Scan# 609

Delta R.T. 0.000 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Tgt Ion: 84 Resp: 8513

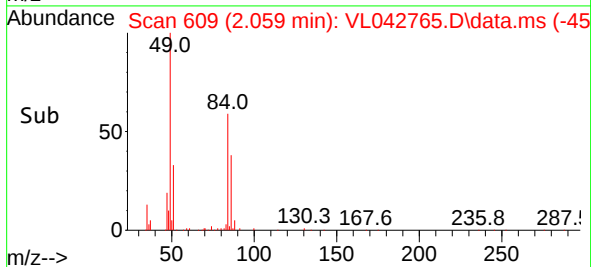
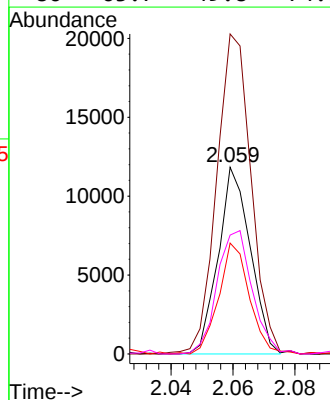
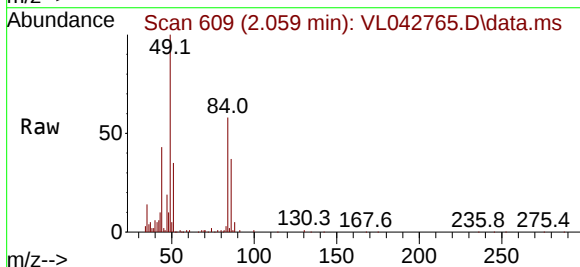
Ion Ratio Lower Upper

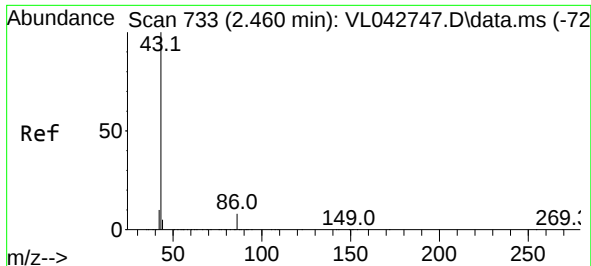
84 100

49 170.1 138.6 208.0

51 58.7 40.6 61.0

86 63.7 49.8 74.8



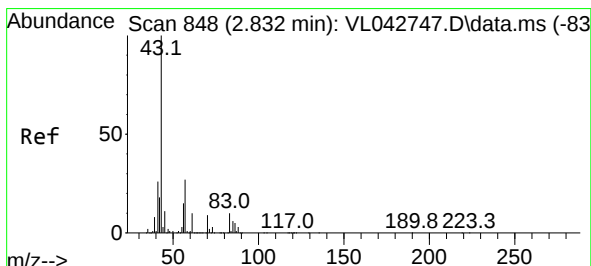
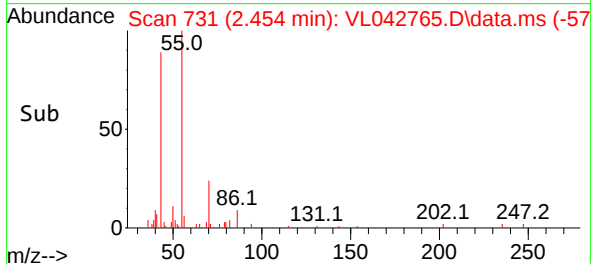
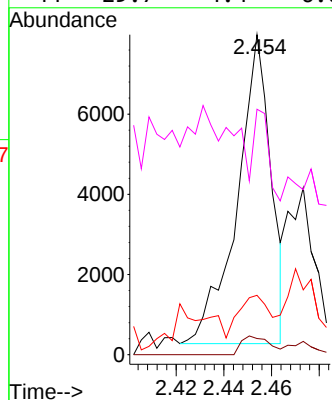
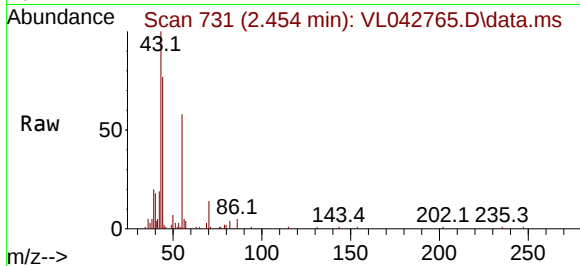


#23
 Vinyl Acetate
 Concen: 0.298 ppbv
 RT: 2.454 min Scan# 71
 Delta R.T. -0.006 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

Instrument :
 MSVOA_L
 ClientSampleId :
 118-AAIDUP

Tgt Ion: 43 Resp: 7576

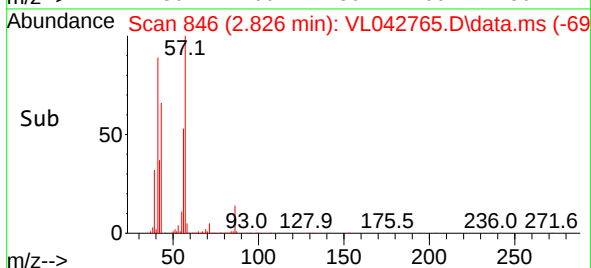
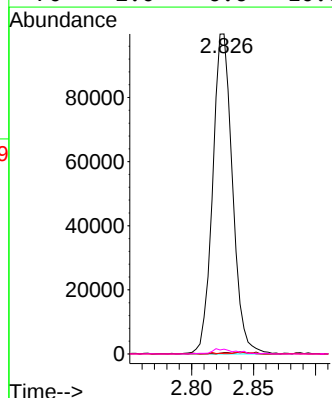
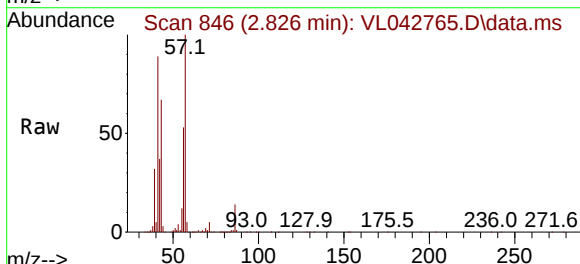
Ion	Ratio	Lower	Upper
43	100		
86	5.2	6.1	9.1#
42	6.4	7.8	11.8#
44	29.7	4.4	6.6#

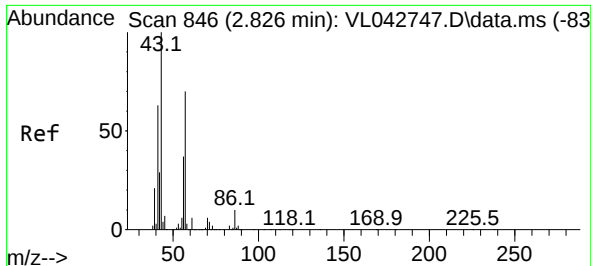


#25
 Ethyl Acetate
 Concen: 2.402 ppbv
 RT: 2.826 min Scan# 846
 Delta R.T. -0.006 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

Tgt Ion: 43 Resp: 111582

Ion	Ratio	Lower	Upper
43	100		
45	0.7	7.8	11.6#
61	0.6	6.7	10.1#
70	2.0	6.6	10.0#

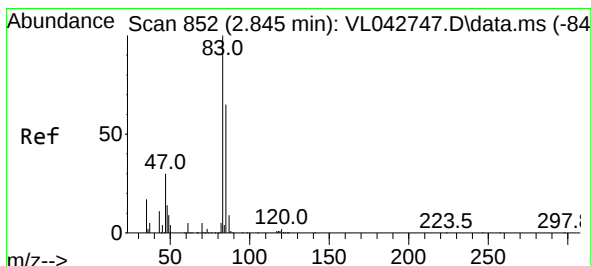
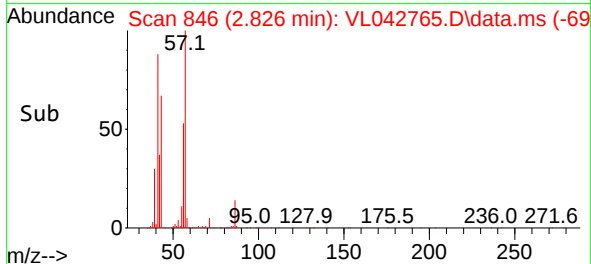
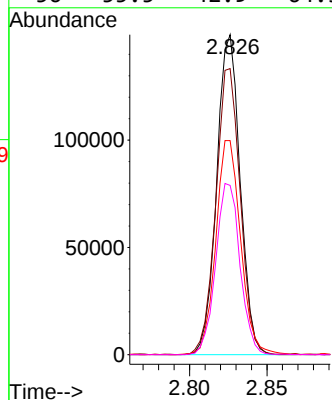
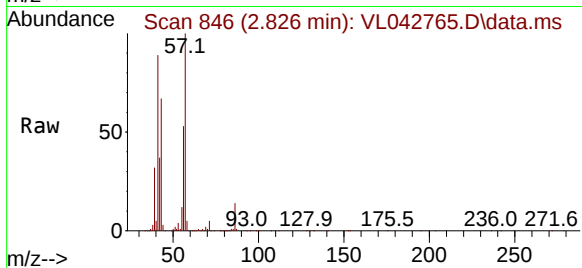




#26
Hexane
Concen: 7.711 ppbv
RT: 2.826 min Scan# 846
Delta R.T. 0.000 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

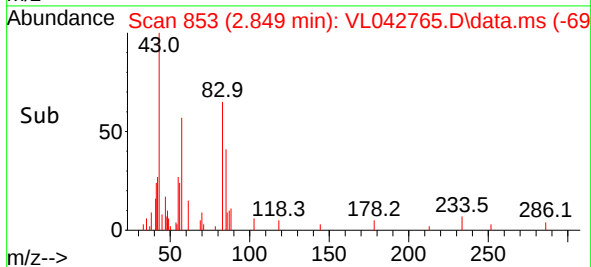
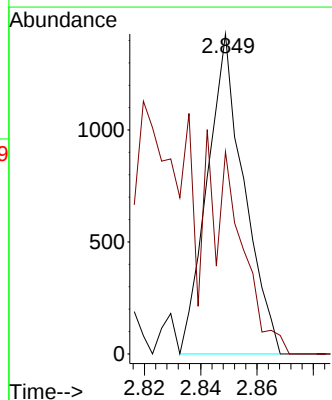
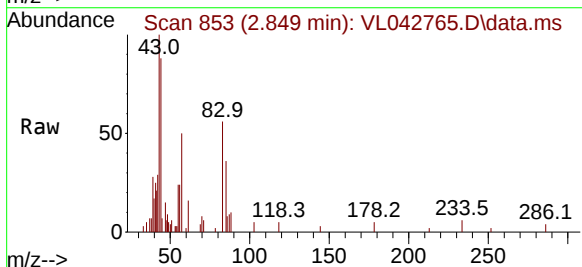
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

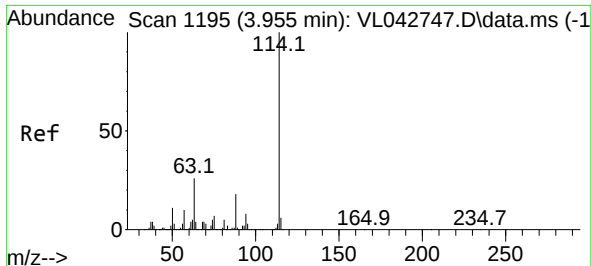
Tgt Ion:	57	Resp:	157154
Ion	Ratio	Lower	Upper
57	100		
41	93.5	75.4	113.2
43	71.1	185.0	277.6#
56	55.5	42.9	64.3



#29
Chloroform
Concen: 0.041 ppbv
RT: 2.849 min Scan# 853
Delta R.T. 0.004 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion:	83	Resp:	1294
Ion	Ratio	Lower	Upper
83	100		
85	57.4	52.2	78.2

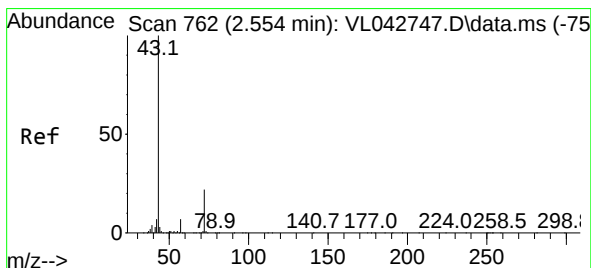
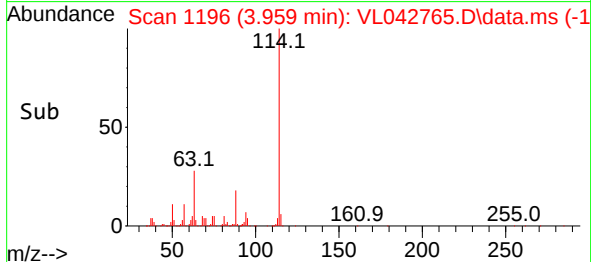
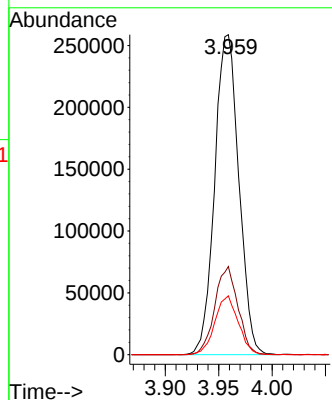
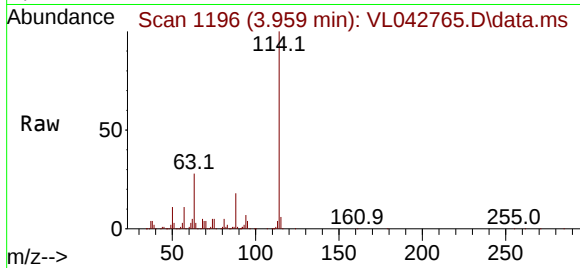




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.959 min Scan# 1196
 Delta R.T. 0.004 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

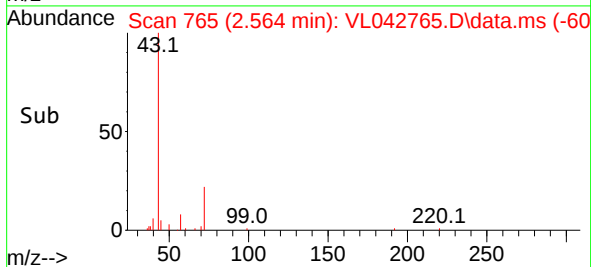
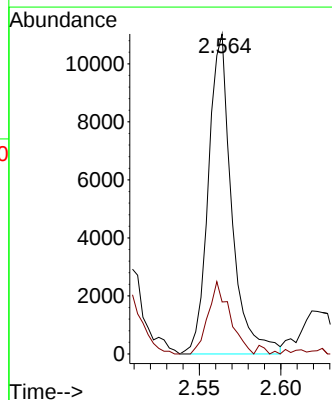
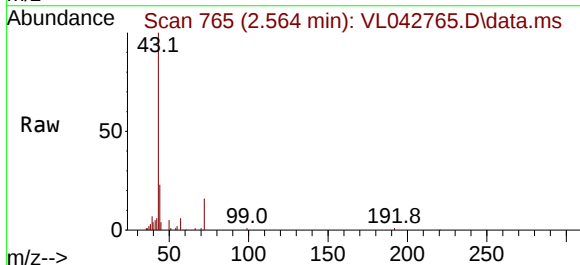
Instrument :
 MSVOA_L
 ClientSampleId :
 118-AAIDUP

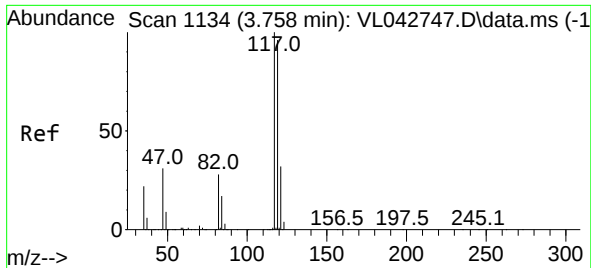
Tgt Ion:114 Resp: 406880
 Ion Ratio Lower Upper
 114 100
 63 26.5 20.5 30.7
 88 17.8 14.0 21.0



#34
 2-Butanone
 Concen: 0.380 ppbv
 RT: 2.564 min Scan# 765
 Delta R.T. 0.010 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

Tgt Ion: 43 Resp: 10963
 Ion Ratio Lower Upper
 43 100
 72 23.9 17.4 26.0

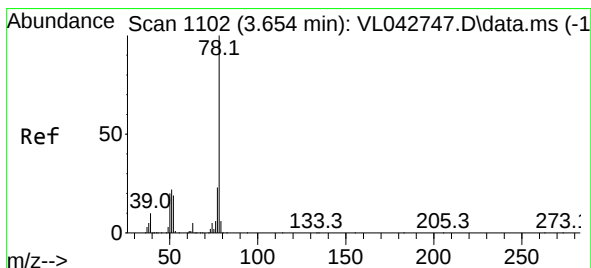
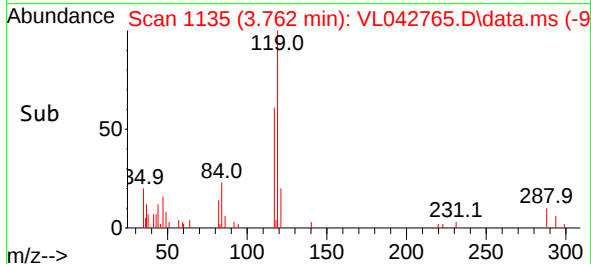
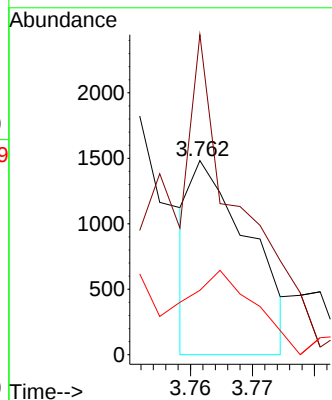
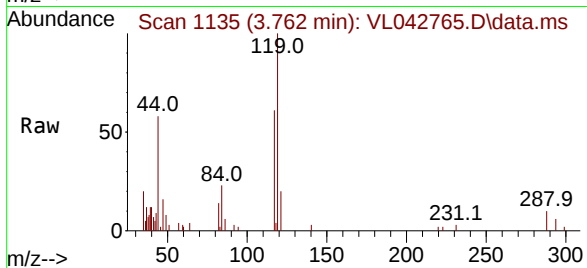




#35
Carbon Tetrachloride
Concen: 0.032 ppbv
RT: 3.762 min Scan# 1134
Delta R.T. 0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

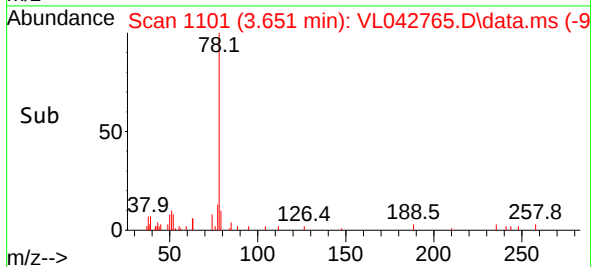
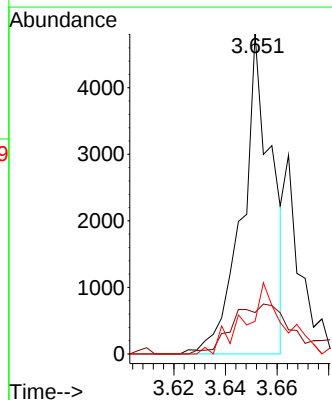
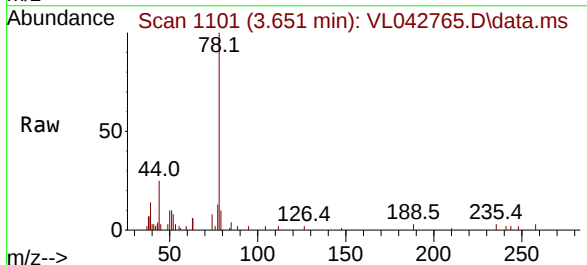
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

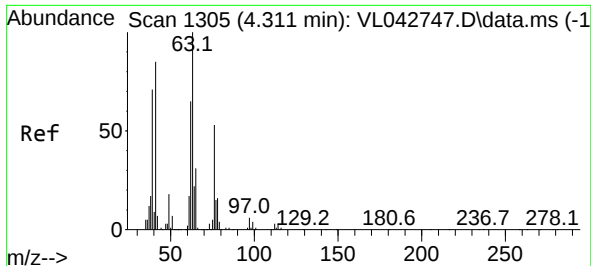
Tgt Ion:117 Resp: 963
Ion Ratio Lower Upper
117 100
119 165.9 77.1 115.7#
121 29.5 25.5 38.3



#36
Benzene
Concen: 0.099 ppbv
RT: 3.651 min Scan# 1101
Delta R.T. -0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 78 Resp: 3809
Ion Ratio Lower Upper
78 100
77 13.0 18.5 27.7#
50 10.2 16.2 24.2#





#39

1,2-Dichloropropane

Concen: 7.548 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. -0.353 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

118-AAIDUP

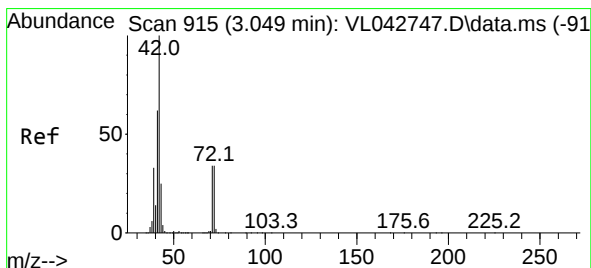
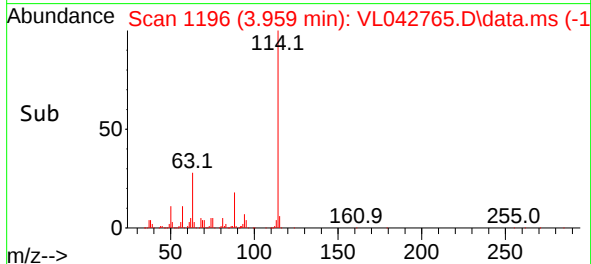
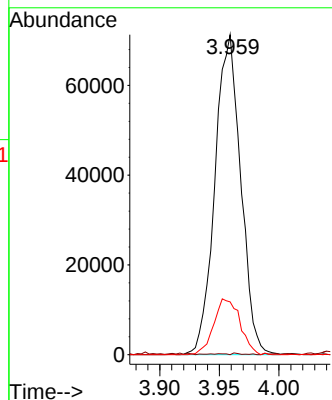
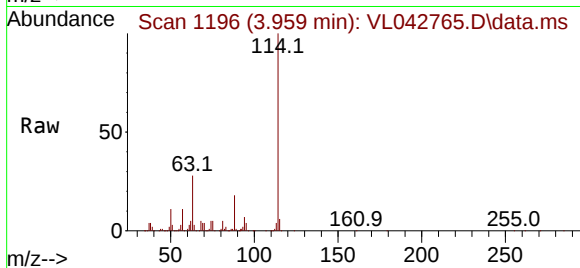
Tgt Ion: 63 Resp: 107432

Ion Ratio Lower Upper

63 100

41 0.0 68.2 102.4#

62 16.5 52.0 78.0#



#41

Tetrahydrofuran

Concen: 0.044 ppbv

RT: 3.224 min Scan# 969

Delta R.T. 0.175 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

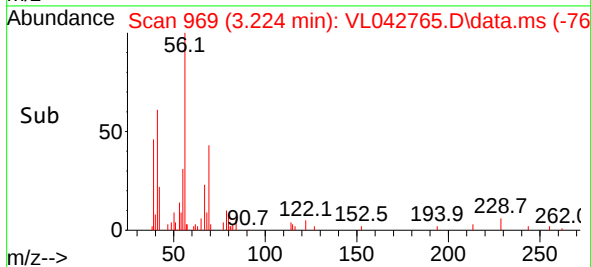
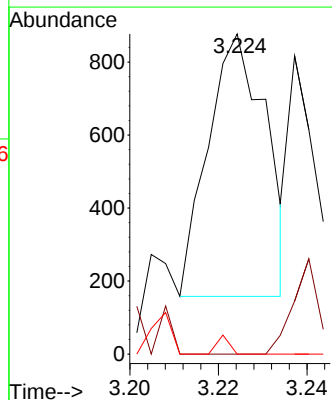
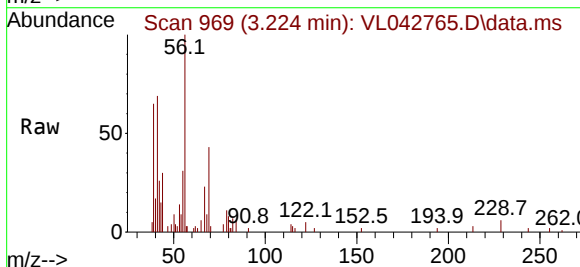
Tgt Ion: 42 Resp: 652

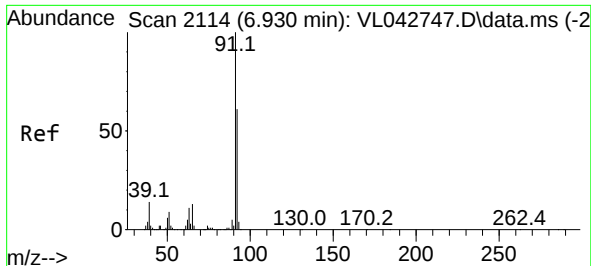
Ion Ratio Lower Upper

42 100

72 15.6 30.9 46.3#

71 0.0 28.6 43.0#

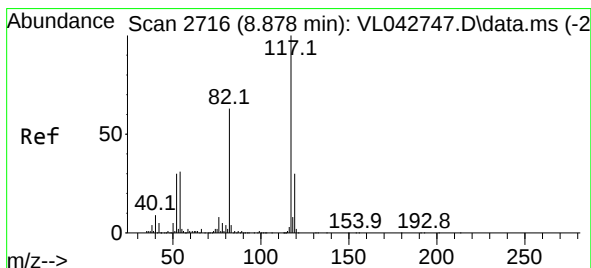
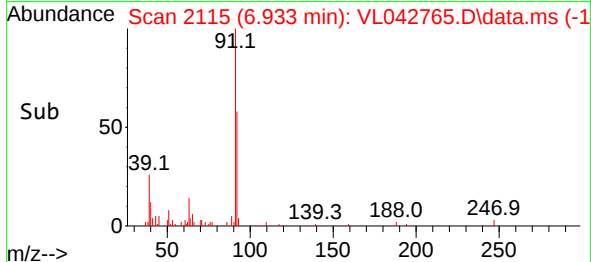
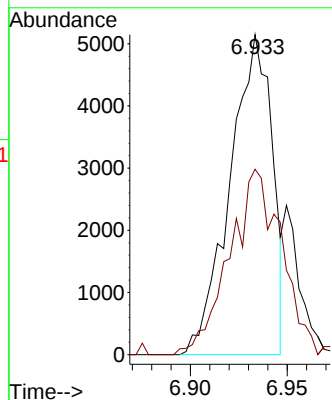
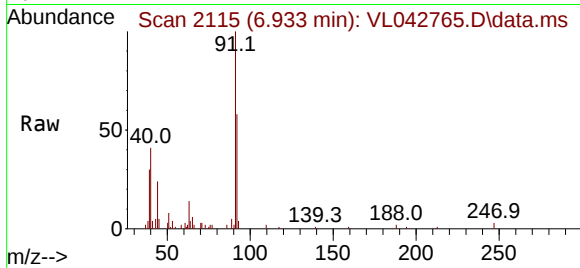




#53
Toluene
Concen: 0.189 ppbv
RT: 6.933 min Scan# 2115
Delta R.T. 0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

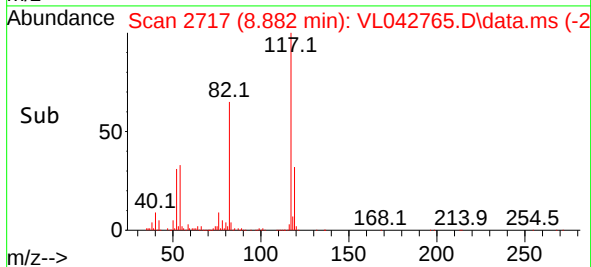
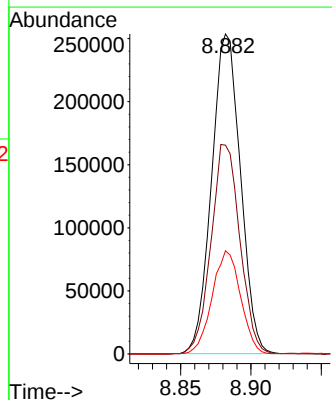
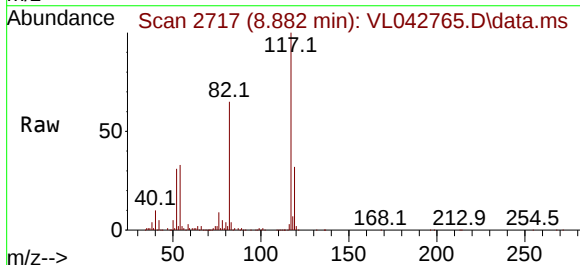
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

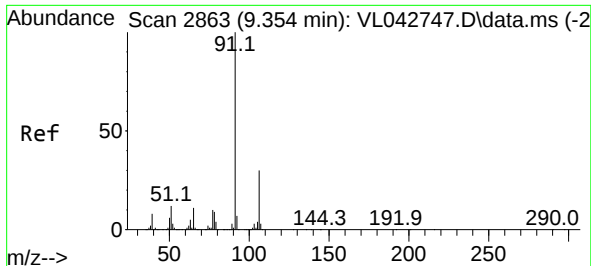
Tgt Ion: 91 Resp: 7822
Ion Ratio Lower Upper
91 100
92 71.9 48.0 72.0



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.882 min Scan# 2717
Delta R.T. 0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 117 Resp: 361575
Ion Ratio Lower Upper
117 100
82 65.8 53.3 79.9
119 31.9 25.8 38.6

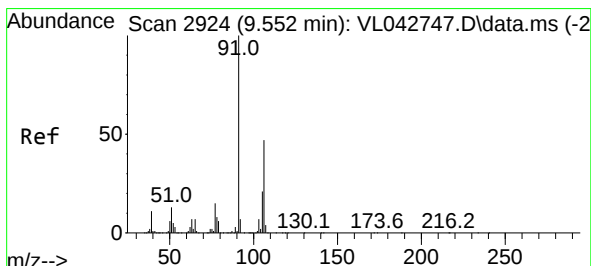
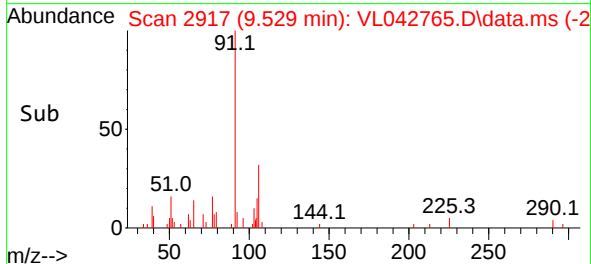
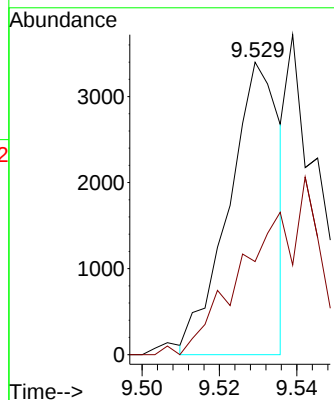
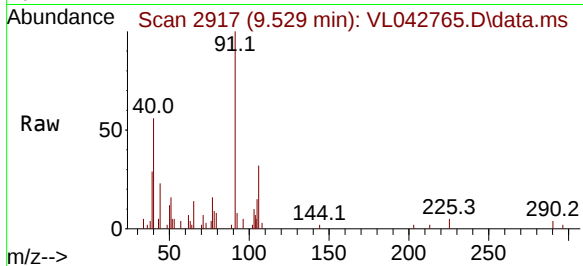




#58
Ethyl Benzene
Concen: 0.054 ppbv
RT: 9.529 min Scan# 2917
Delta R.T. 0.175 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

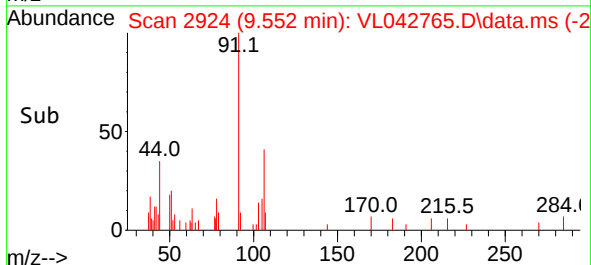
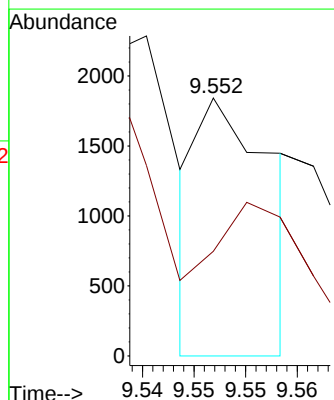
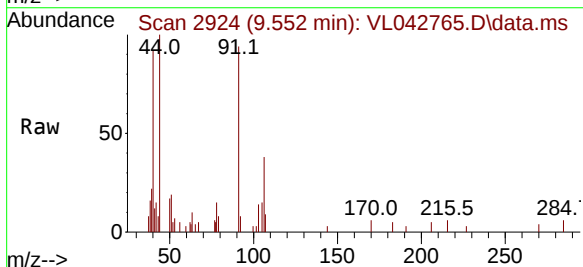
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

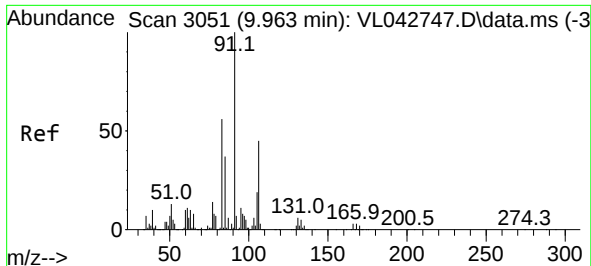
Tgt Ion: 91 Resp: 3093
Ion Ratio Lower Upper
91 100
106 32.9 23.8 35.6



#59
m/p-Xylene
Concen: 0.020 ppbv
RT: 9.552 min Scan# 2924
Delta R.T. 0.000 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 91 Resp: 922
Ion Ratio Lower Upper
91 100
106 0.0 37.4 56.2#

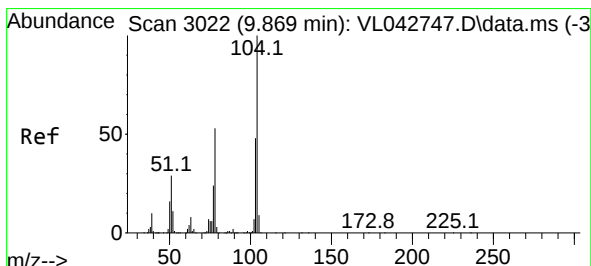
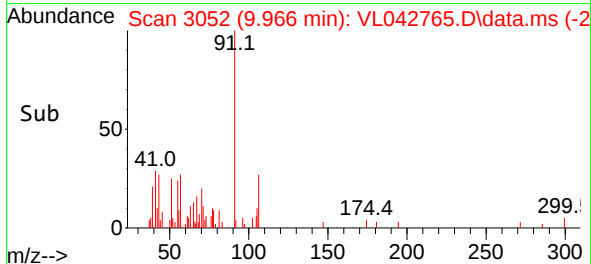
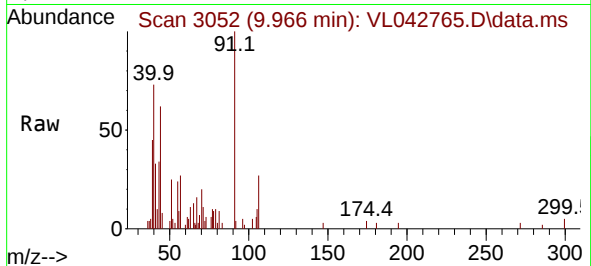




#60
o-Xylene
Concen: 0.025 ppbv
RT: 9.966 min Scan# 3051
Delta R.T. 0.004 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

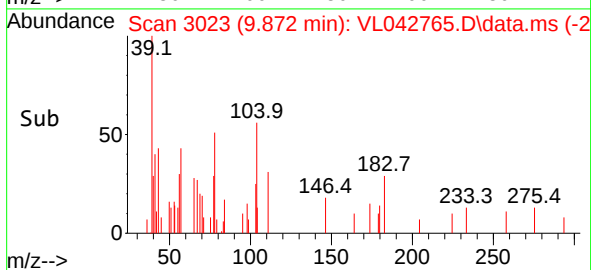
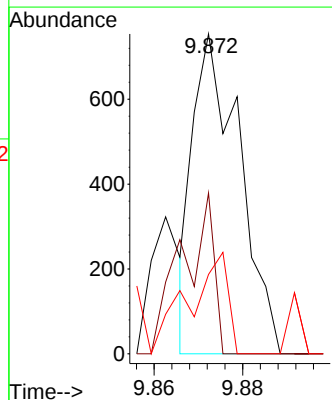
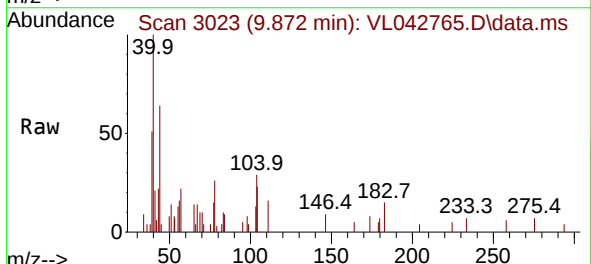
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

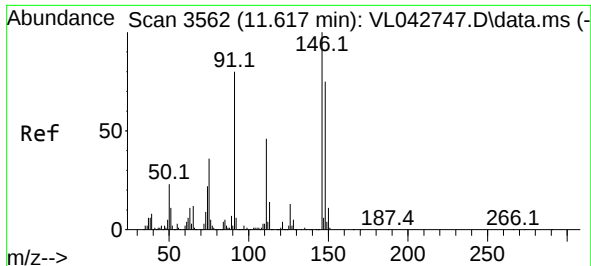
Tgt Ion: 91 Resp: 1150
Ion Ratio Lower Upper
91 100
106 0.0 22.0 66.0#



#61
Styrene
Concen: 0.029 ppbv
RT: 9.872 min Scan# 3023
Delta R.T. 0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 104 Resp: 550
Ion Ratio Lower Upper
104 100
78 34.5 41.5 62.3#
103 37.1 37.5 56.3#

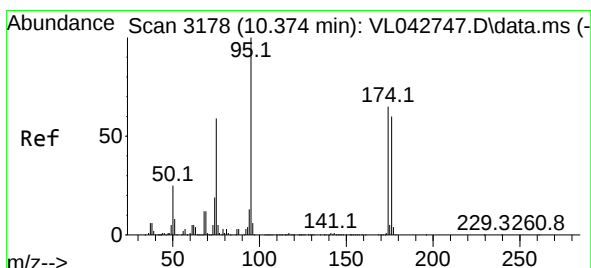
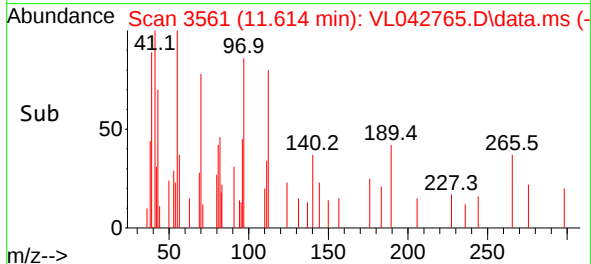
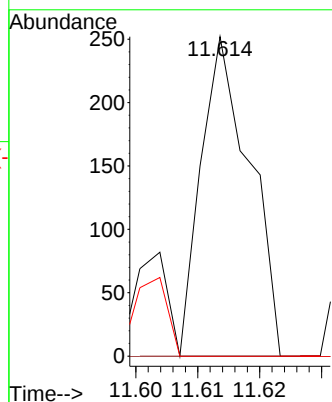
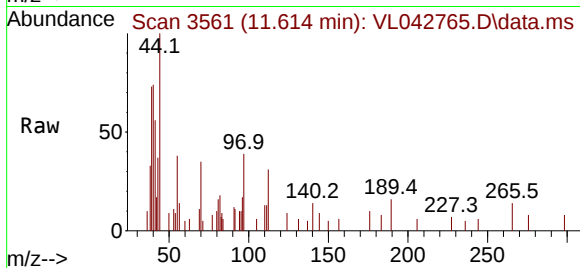




#66
Benzyl Chloride
Concen: 0.028 ppbv
RT: 11.614 min Scan# 3156
Delta R.T. -0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

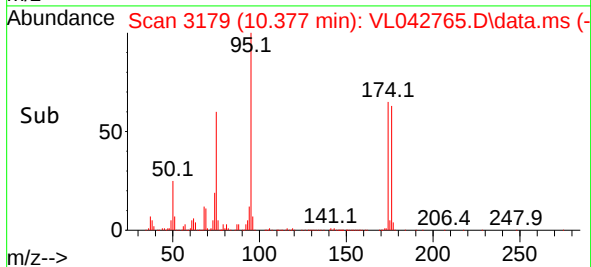
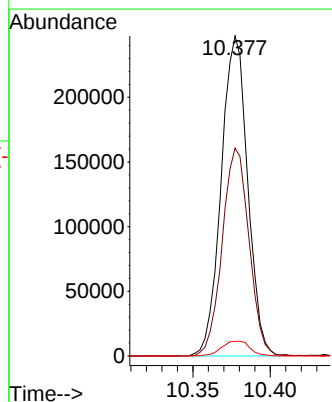
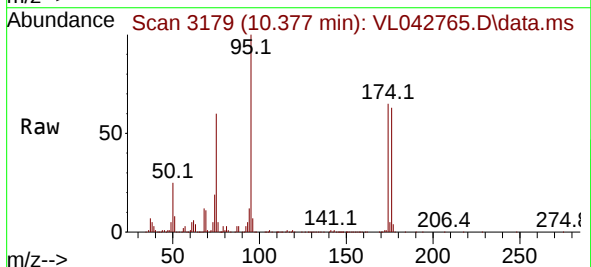
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

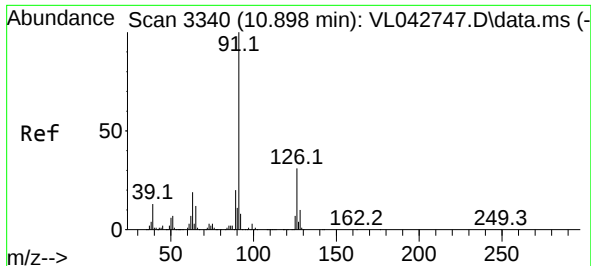
Tgt Ion: 91 Resp: 137
Ion Ratio Lower Upper
91 100
126 0.0 14.4 21.6#
128 0.0 5.2 7.8#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.257 ppbv
RT: 10.377 min Scan# 3179
Delta R.T. 0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 95 Resp: 293717
Ion Ratio Lower Upper
95 100
174 65.8 53.8 80.6
175 5.0 4.0 6.0

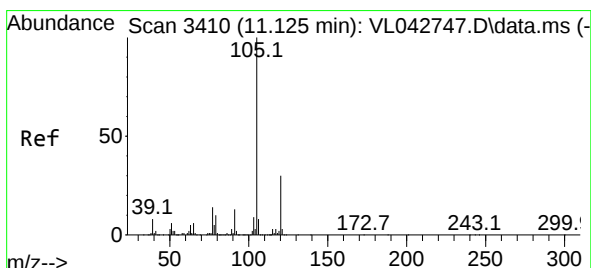
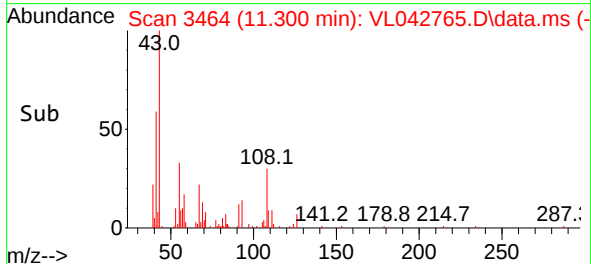
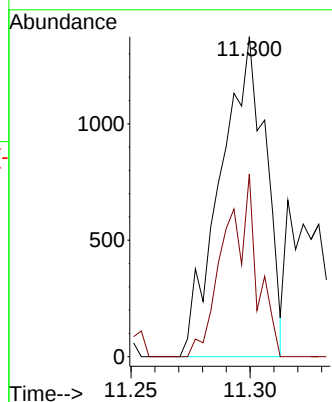
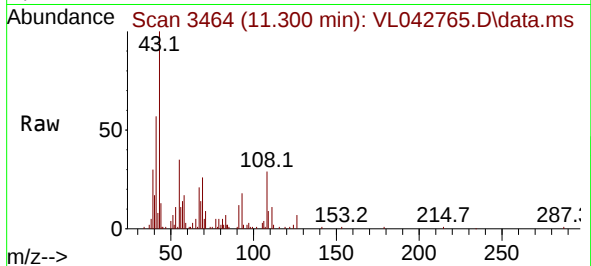




#71
2-Chlorotoluene
Concen: 0.035 ppbv
RT: 11.300 min Scan# 3409
Delta R.T. 0.402 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

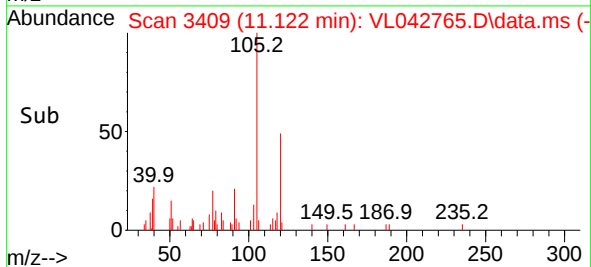
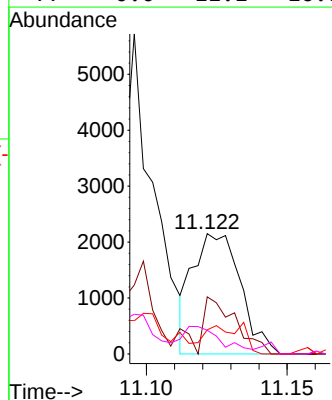
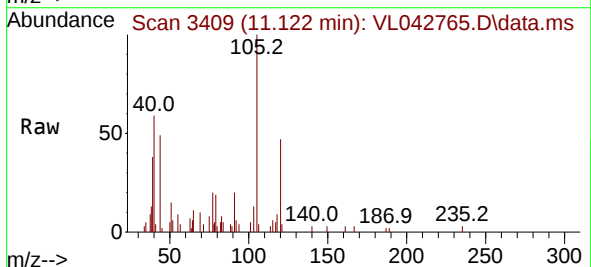
Instrument :
MSVOA_L
ClientSampleId :
118-AAIDUP

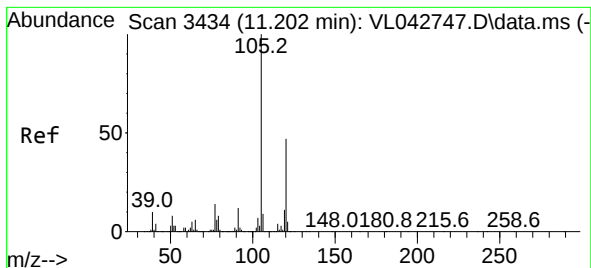
Tgt Ion: 91 Resp: 1798
Ion Ratio Lower Upper
91 100
126 41.1 12.0 48.2



#72
4-Ethyltoluene
Concen: 0.047 ppbv
RT: 11.122 min Scan# 3409
Delta R.T. -0.003 min
Lab File: VL042765.D
Acq: 24 Jul 2025 15:05

Tgt Ion: 105 Resp: 2535
Ion Ratio Lower Upper
105 100
120 31.3 24.4 36.6
91 15.3 10.6 15.8
77 0.0 11.1 16.7#





#73

1,3,5-Trimethylbenzene

Concen: 0.049 ppbv

RT: 11.209 min Scan# 3434

Delta R.T. 0.007 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

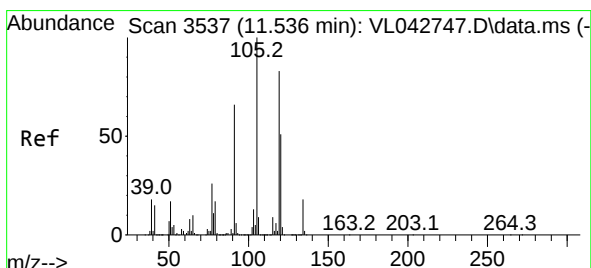
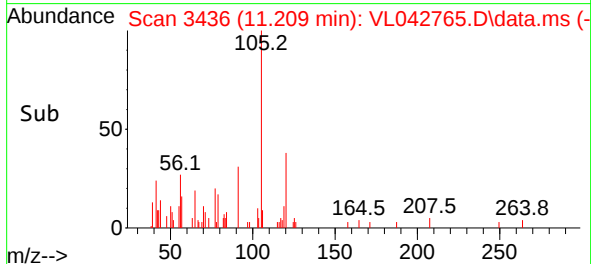
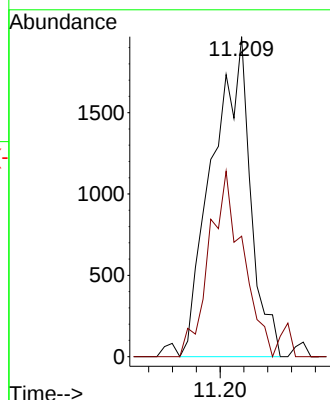
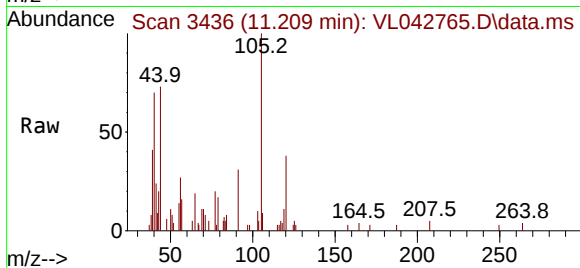
118-AAIDUP

Tgt Ion:105 Resp: 2187

Ion Ratio Lower Upper

105 100

120 37.7 37.8 56.8#



#74

1,2,4-Trimethylbenzene

Concen: 0.171 ppbv

RT: 11.539 min Scan# 3538

Delta R.T. 0.003 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Tgt Ion:105 Resp: 8363

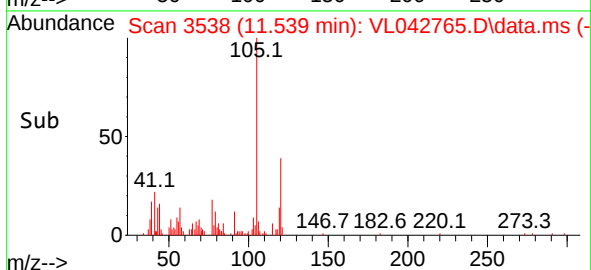
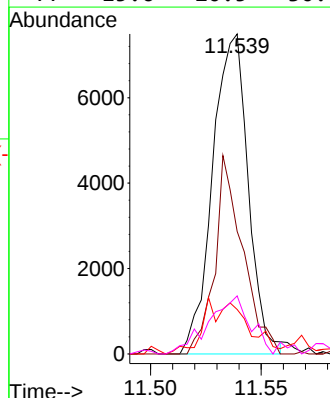
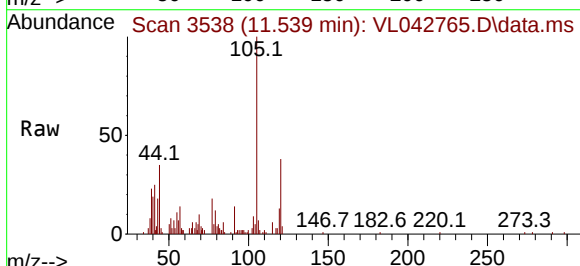
Ion Ratio Lower Upper

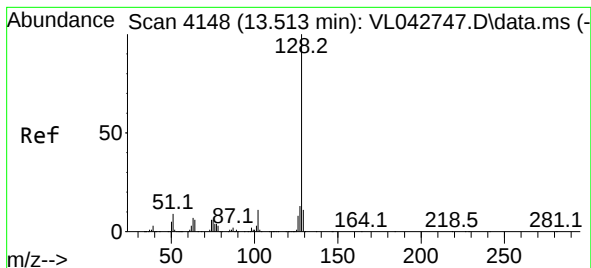
105 100

120 38.3 40.8 61.2#

91 12.2 53.0 79.4#

77 15.6 20.5 30.7#





#79

Naphthalene

Concen: 0.443 ppbv

RT: 13.523 min Scan# 4148

Delta R.T. 0.010 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

118-AAIDUP

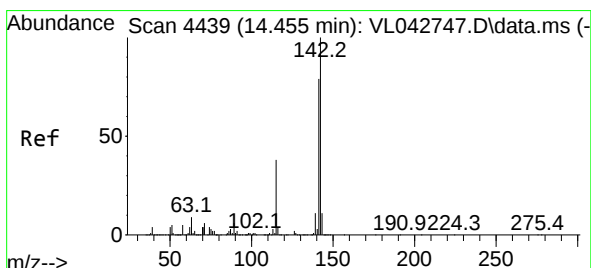
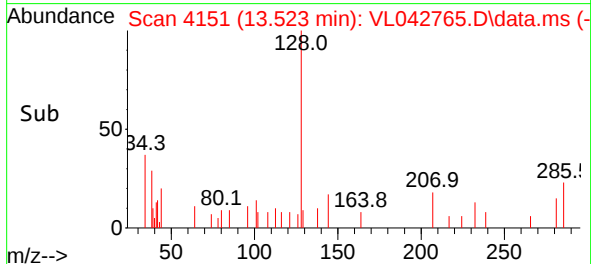
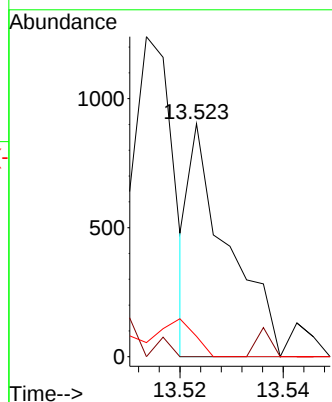
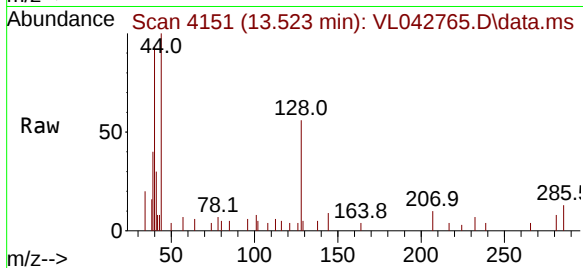
Tgt Ion:128 Resp: 463

Ion Ratio Lower Upper

128 100

127 0.0 10.5 15.7#

129 8.7 8.6 13.0



#80

Naphthalene,2-methyl-

Concen: 1.133 ppbv

RT: 14.475 min Scan# 4445

Delta R.T. 0.020 min

Lab File: VL042765.D

Acq: 24 Jul 2025 15:05

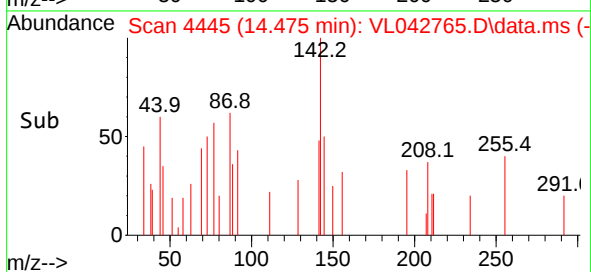
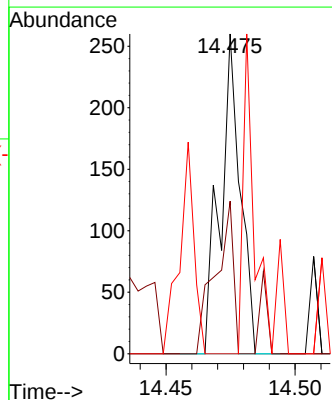
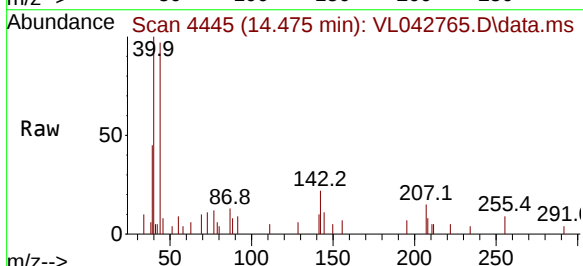
Tgt Ion:142 Resp: 139

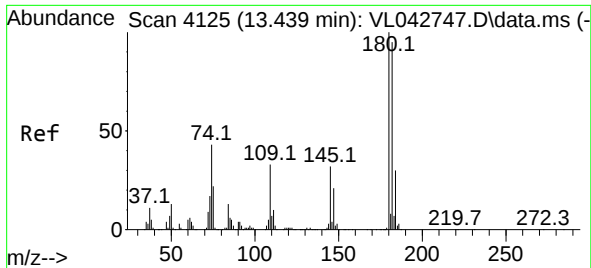
Ion Ratio Lower Upper

142 100

141 52.5 65.8 98.8#

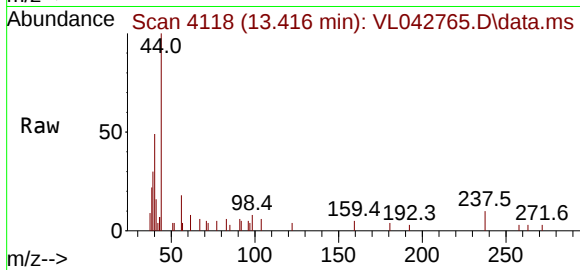
115 79.9 31.2 46.8#





#81
 1,2,4-Trichlorobenzene
 Concen: 0.436 ppbv
 RT: 13.416 min Scan# 41
 Delta R.T. -0.022 min
 Lab File: VL042765.D
 Acq: 24 Jul 2025 15:05

Instrument :
 MSVOA_L
 ClientSampleId :
 118-AAIDUP



Tgt Ion:180 Resp: 24
 Ion Ratio Lower Upper
 180 100
 182 250.0 76.2 114.2#
 184 100.0 24.8 37.2#

