

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL121824\
 Data File : VL041808.D
 Acq On : 18 Dec 2024 23:08
 Operator : SY/MD
 Sample : P5295-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 19 08:01:14 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121624AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Dec 19 07:32:09 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.797	49	71123	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.975	114	168368	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.894	117	158378	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	132533	10.042	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.400%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.502	85	1642	0.130	ppbv #	71
4) Chloromethane	1.534	50	528	0.107	ppbv #	75
8) Dichlorotetrafluoroethane	1.502	85	1642	0.145	ppbv #	20
9) Propene	1.489	41	993	0.198	ppbv	98
11) Trichlorofluoromethane	1.881	101	922	0.069	ppbv	99
13) Ethanol	1.725	45	5417	13.013	ppbv #	34
15) Acetone	1.842	43	14582	1.054	ppbv	97
16) 1,3-Butadiene	1.606	39	511	0.094	ppbv #	36
17) tert-Butyl alcohol	2.052	59	808	0.059	ppbv #	93
19) Isopropyl Alcohol	1.894	45	5356	0.645	ppbv #	39
20) Methylene Chloride	2.068	84	1852	0.469	ppbv	94
23) Vinyl Acetate	2.460	43	2407	0.375	ppbv #	91
25) Ethyl Acetate	2.852	43	1628	0.063	ppbv #	18
26) Hexane	2.842	57	309	0.032	ppbv #	1
29) Chloroform	2.855	83	92098	6.186	ppbv	100
32) 1,1,1-Trichloroethane	3.382	97	663	0.044	ppbv #	61
34) 2-Butanone	2.570	43	2200	0.162	ppbv	93
35) Carbon Tetrachloride	3.774	117	4129	0.345	ppbv	88
39) 1,2-Dichloropropane	3.972	63	47676	7.569	ppbv #	18
41) Tetrahydrofuran	3.075	42	232	0.031	ppbv #	39
52) Tetrachloroethene	8.247	164	259	0.040	ppbv #	71
53) Toluene	6.949	91	4465	0.226	ppbv #	44
57) Chlorobenzene	8.930	112	503	0.031	ppbv #	38
58) Ethyl Benzene	9.370	91	2117	0.074	ppbv	98
59) m/p-Xylene	9.561	91	1606	0.070	ppbv #	100
60) o-Xylene	9.975	91	2603	0.113	ppbv	97
61) Styrene	9.878	104	521	0.052	ppbv #	80
65) tert-Butylbenzene	11.788	119	55082	1.767	ppbv #	23
67) sec-Butylbenzene	11.788	105	14568	0.338	ppbv #	76
69) p-Isopropyltoluene	11.788	119	55048	1.549	ppbv #	57
75) 1,3-Dichlorobenzene	11.782	146	1016	0.066	ppbv #	23
76) 1,4-Dichlorobenzene	11.782	146	1016	0.067	ppbv #	24
77) 1,2-Dichlorobenzene	11.788	146	1635	0.110	ppbv #	1

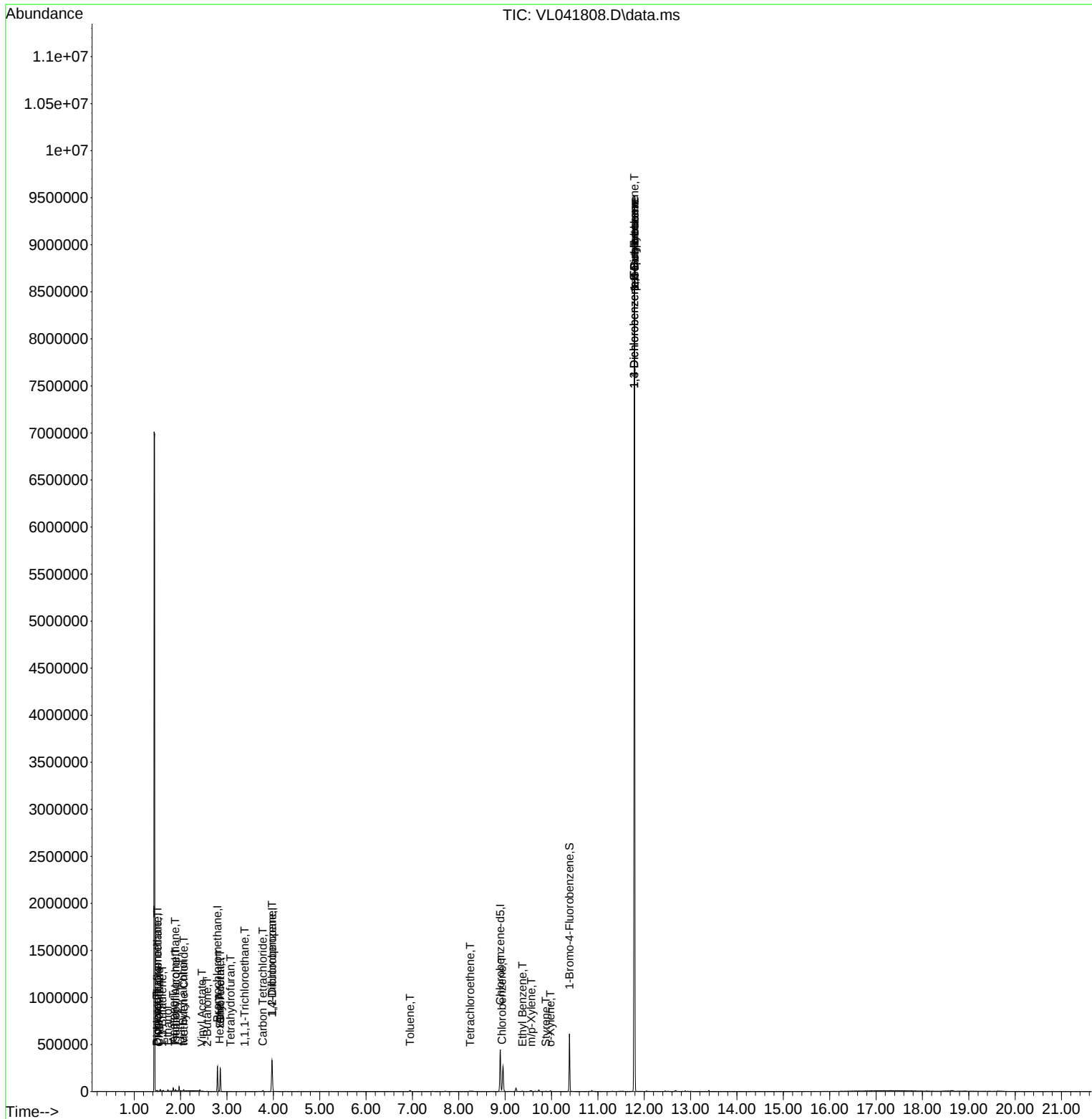
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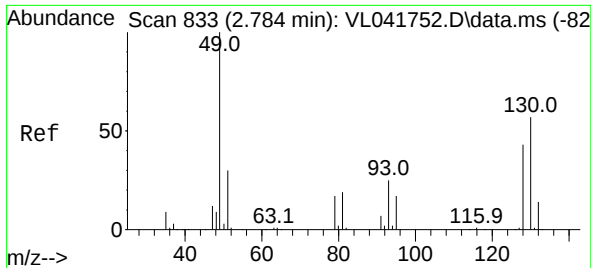
Instrument :

MSVOA_L

ClientSampleId :

Quant Time: Dec 19 08:01:14 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121624AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Dec 19 07:32:09 2024
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 2.797 min Scan# 841

Delta R.T. 0.013 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :

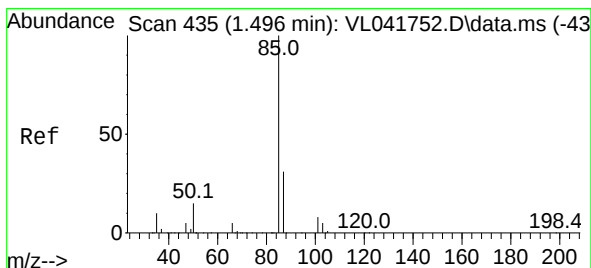
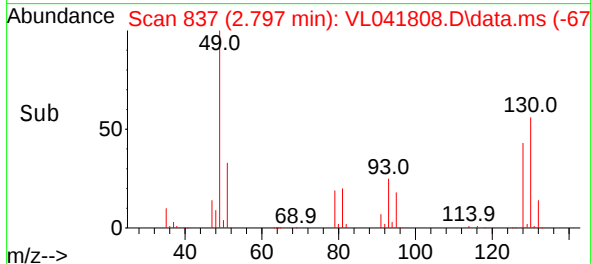
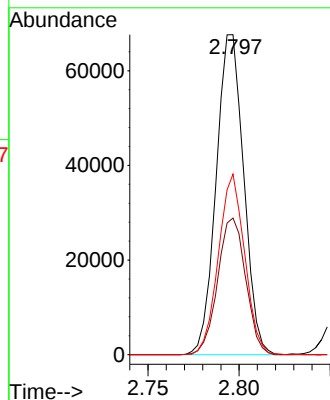
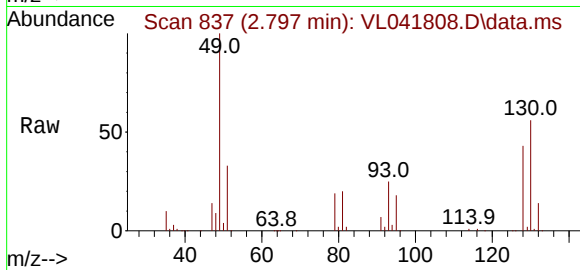
Tgt Ion: 49 Resp: 71123

Ion Ratio Lower Upper

49 100

128 43.3 21.6 64.6

130 53.8 28.3 85.0



#2

Dichlorodifluoromethane

Concen: 0.130 ppbv

RT: 1.502 min Scan# 437

Delta R.T. 0.006 min

Lab File: VL041808.D

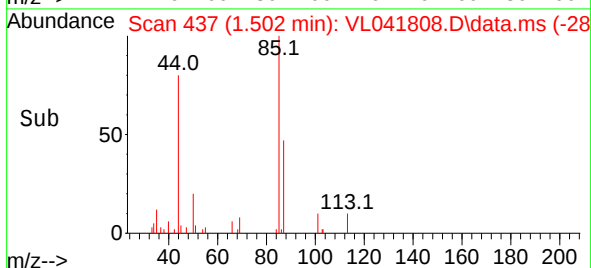
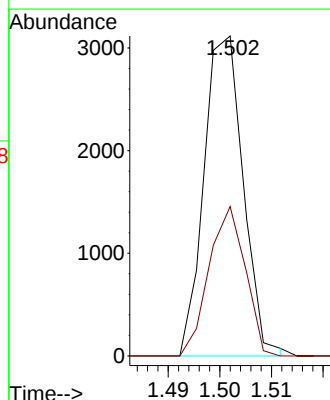
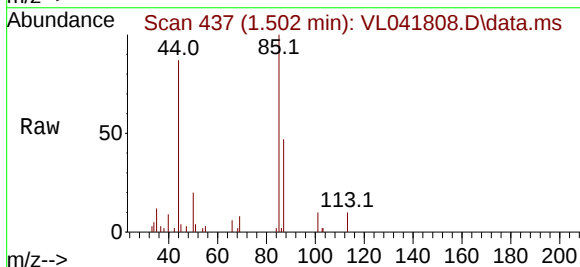
Acq: 18 Dec 2024 23:08

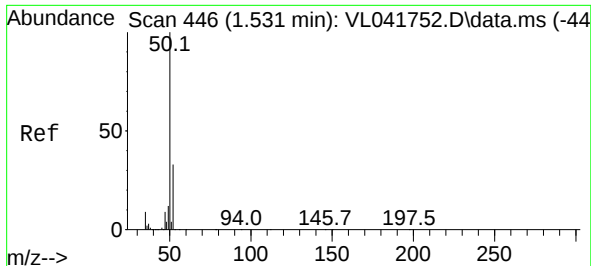
Tgt Ion: 85 Resp: 1642

Ion Ratio Lower Upper

85 100

87 46.7 24.5 36.7#

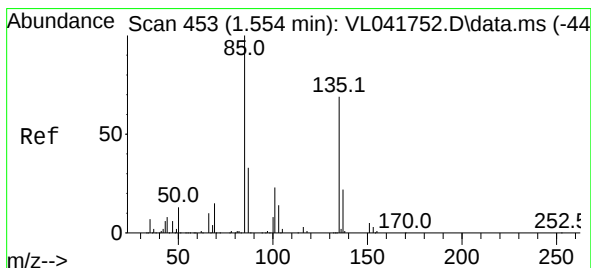
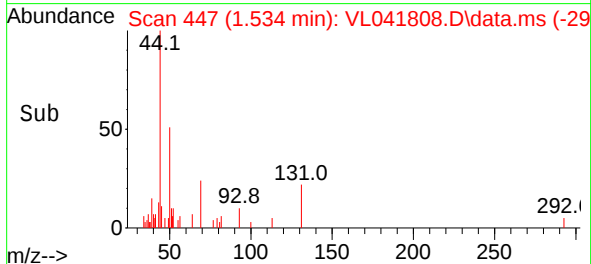
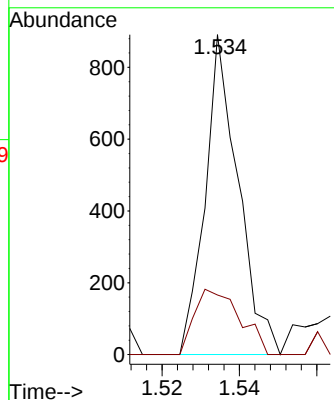
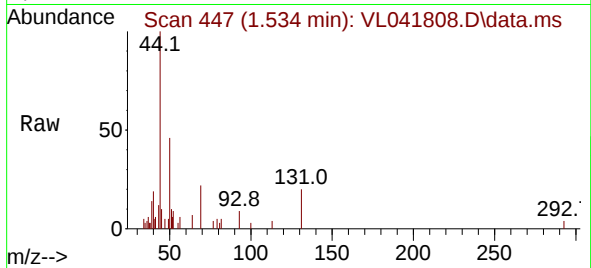




#4
Chloromethane
Concen: 0.107 ppbv
RT: 1.534 min Scan# 446
Delta R.T. 0.003 min
Lab File: VL041808.D
Acq: 18 Dec 2024 23:08

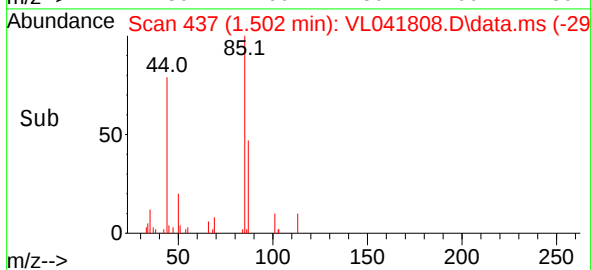
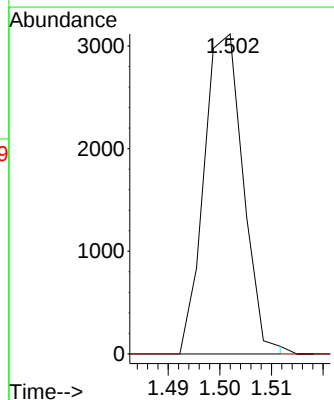
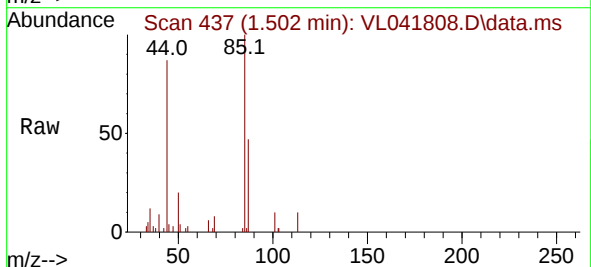
Instrument :
MSVOA_L
ClientSampleId :

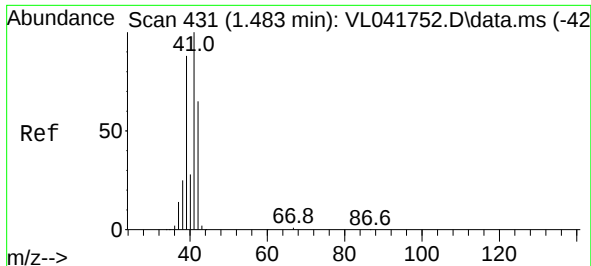
Tgt Ion: 50 Resp: 528
Ion Ratio Lower Upper
50 100
52 18.6 26.2 39.2#



#8
Dichlorotetrafluoroethane
Concen: 0.145 ppbv
RT: 1.502 min Scan# 437
Delta R.T. -0.052 min
Lab File: VL041808.D
Acq: 18 Dec 2024 23:08

Tgt Ion: 85 Resp: 1642
Ion Ratio Lower Upper
85 100
135 1.5 51.9 77.9#





#9

Propene

Concen: 0.198 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

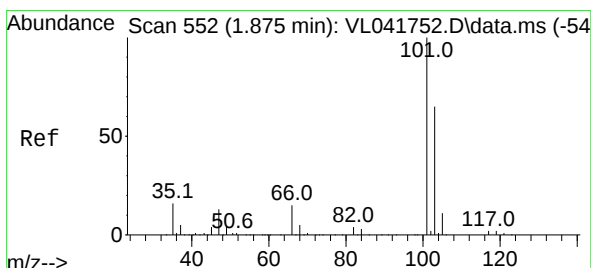
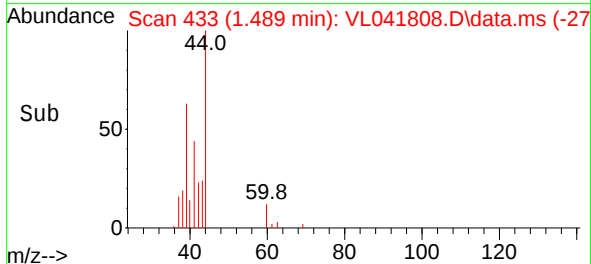
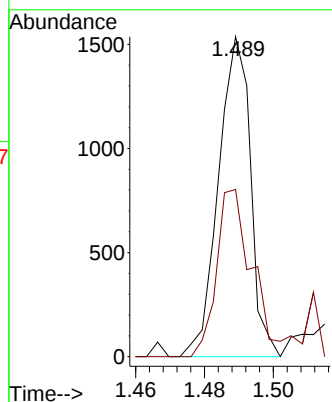
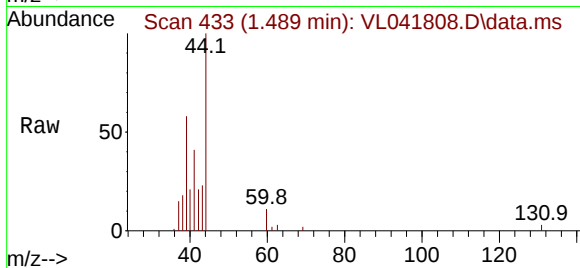
ClientSampleId :

Tgt Ion: 41 Resp: 993

Ion Ratio Lower Upper

41 100

42 66.8 52.4 78.6



#11

Trichlorofluoromethane

Concen: 0.069 ppbv

RT: 1.881 min Scan# 554

Delta R.T. 0.006 min

Lab File: VL041808.D

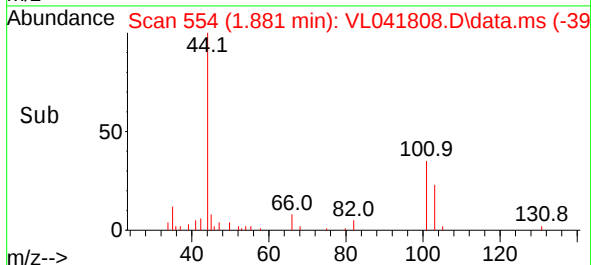
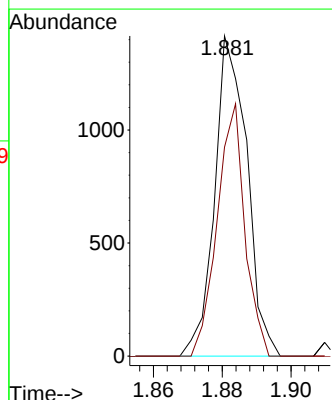
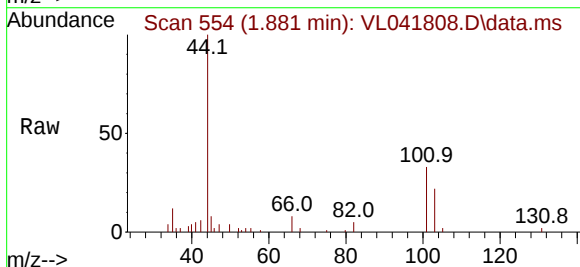
Acq: 18 Dec 2024 23:08

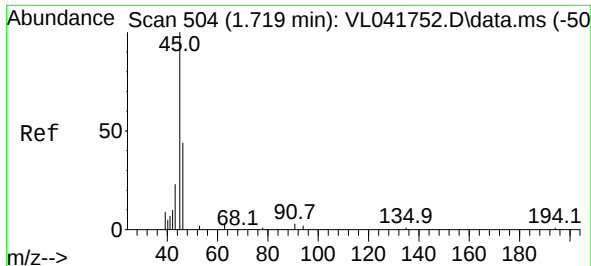
Tgt Ion: 101 Resp: 922

Ion Ratio Lower Upper

101 100

103 65.3 51.8 77.8





#13

Ethanol

Concen: 13.013 ppbv

RT: 1.725 min Scan# 504

Delta R.T. 0.006 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

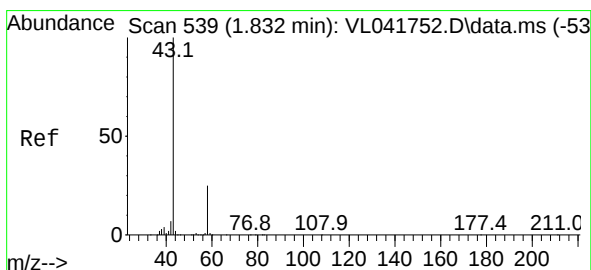
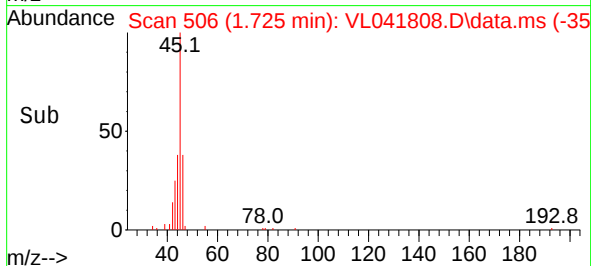
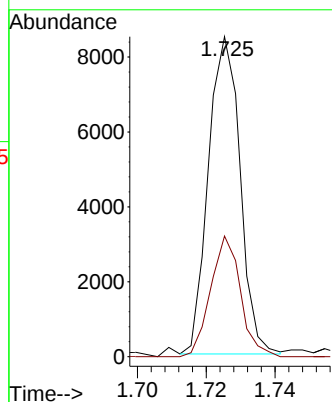
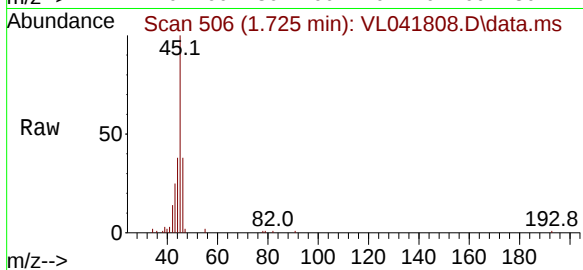
ClientSampleId :

Tgt Ion: 45 Resp: 5417

Ion Ratio Lower Upper

45 100

46 0.0 16.4 65.8#



#15

Acetone

Concen: 1.054 ppbv

RT: 1.842 min Scan# 542

Delta R.T. 0.009 min

Lab File: VL041808.D

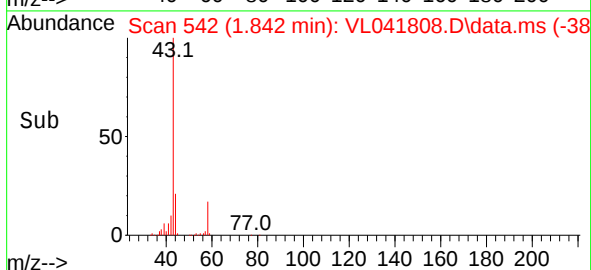
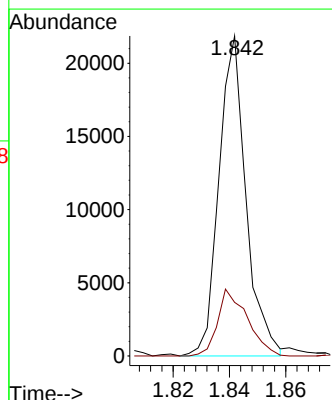
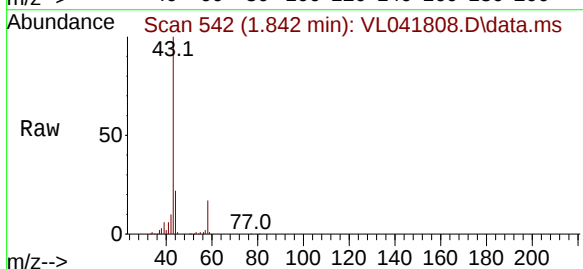
Acq: 18 Dec 2024 23:08

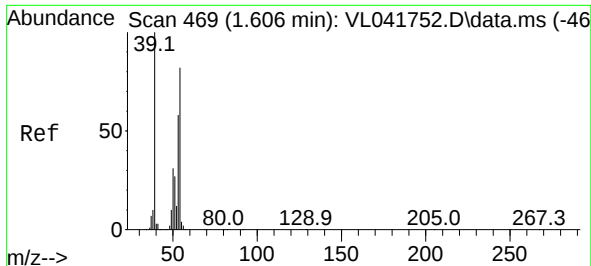
Tgt Ion: 43 Resp: 14582

Ion Ratio Lower Upper

43 100

58 23.2 19.7 29.5





#16

1,3-Butadiene

Concen: 0.094 ppbv

RT: 1.606 min Scan# 4

Delta R.T. -0.000 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

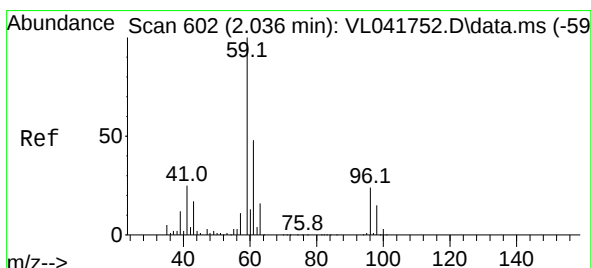
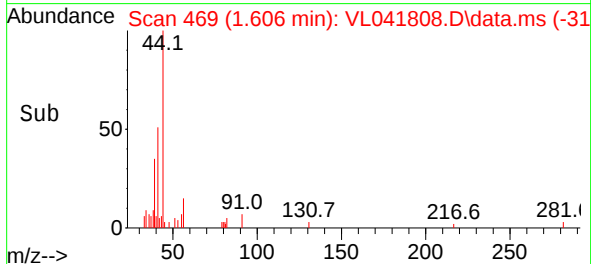
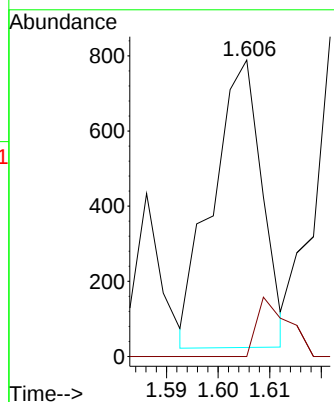
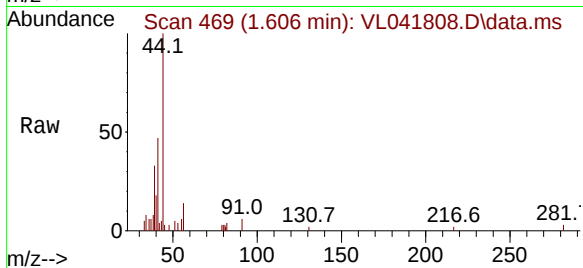
ClientSampleId :

Tgt Ion: 39 Resp: 511

Ion Ratio Lower Upper

39 100

54 19.6 58.4 87.6#



#17

tert-Butyl alcohol

Concen: 0.059 ppbv

RT: 2.052 min Scan# 607

Delta R.T. 0.016 min

Lab File: VL041808.D

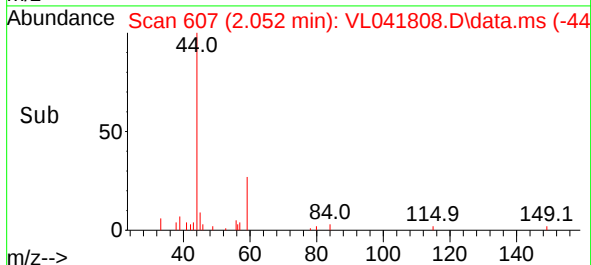
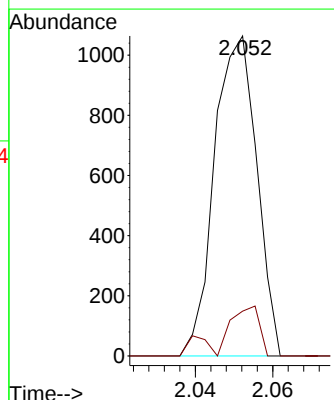
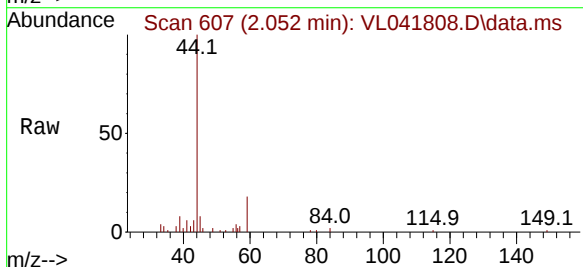
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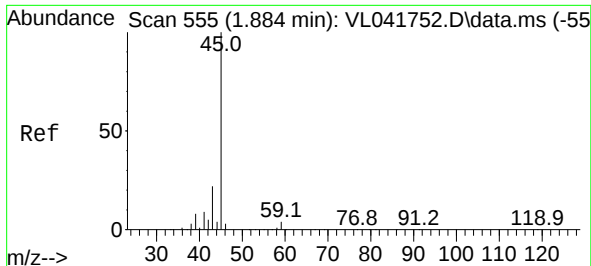
Tgt Ion: 59 Resp: 808

Ion Ratio Lower Upper

59 100

57 13.4 8.6 13.0#





#19

Isopropyl Alcohol

Concen: 0.645 ppbv

RT: 1.894 min Scan# 51

Delta R.T. 0.009 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

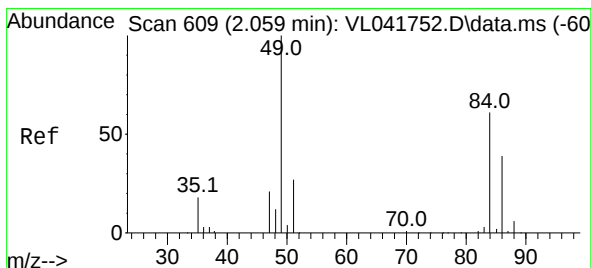
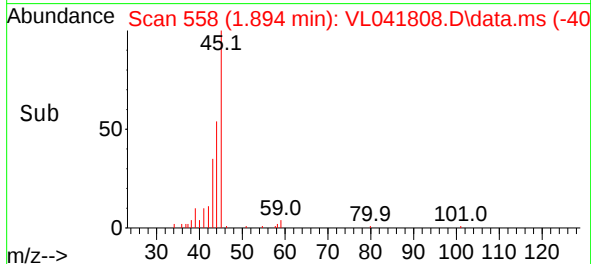
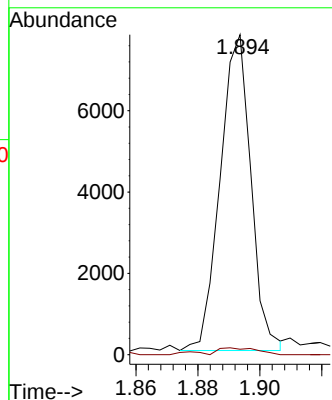
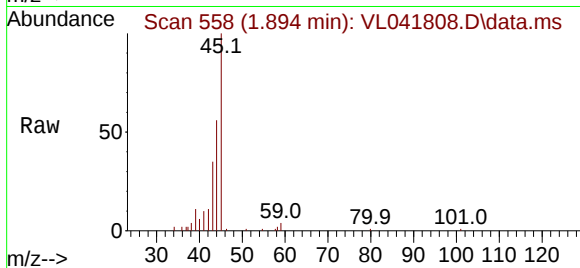
ClientSampleId :

Tgt Ion: 45 Resp: 5356

Ion Ratio Lower Upper

45 100

58 3.4 33.3 49.9#



#20

Methylene Chloride

Concen: 0.469 ppbv

RT: 2.068 min Scan# 612

Delta R.T. 0.009 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Tgt Ion: 84 Resp: 1852

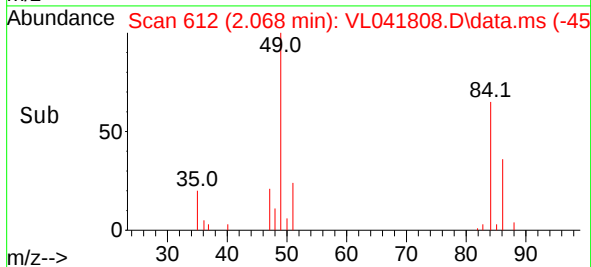
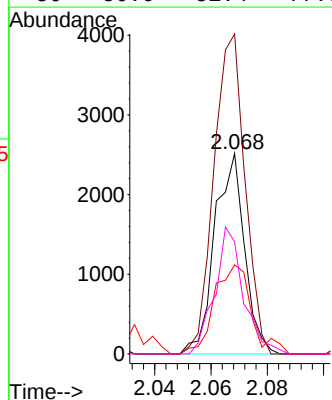
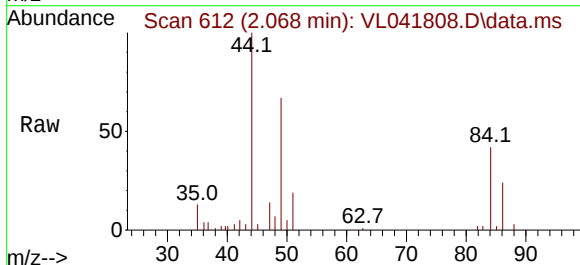
Ion Ratio Lower Upper

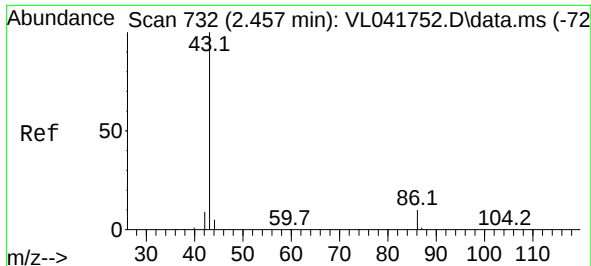
84 100

49 159.6 132.6 198.8

51 44.5 37.6 56.4

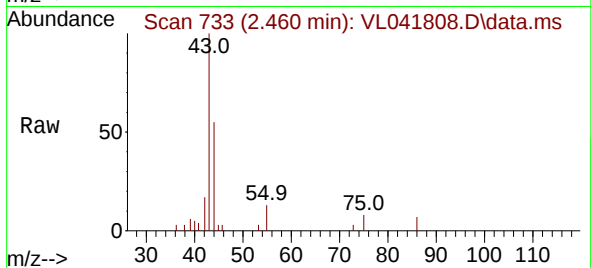
86 56.0 51.4 77.0



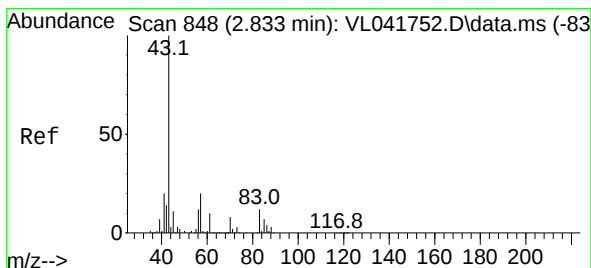
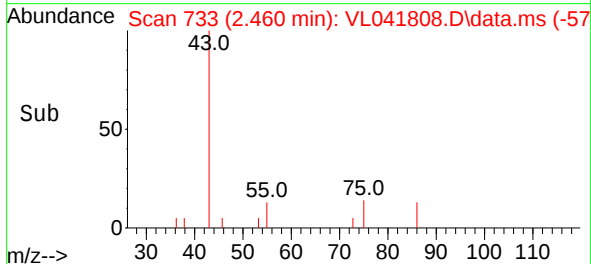
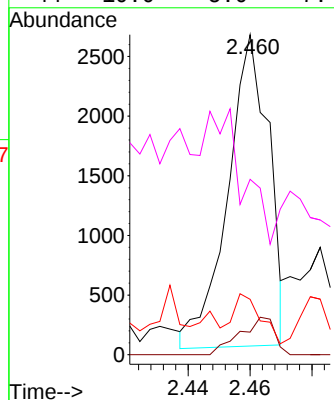


#23
 Vinyl Acetate
 Concen: 0.375 ppbv
 RT: 2.460 min Scan# 741
 Delta R.T. 0.003 min
 Lab File: VL041808.D
 Acq: 18 Dec 2024 23:08

Instrument :
 MSVOA_L
 ClientSampleId :

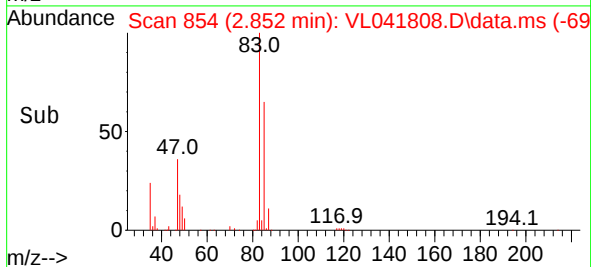
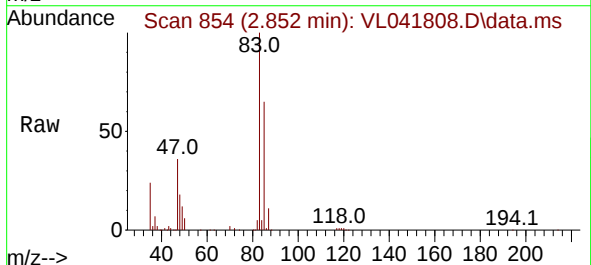
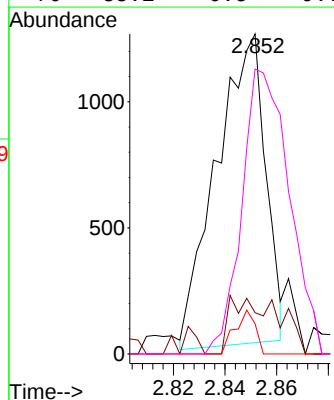


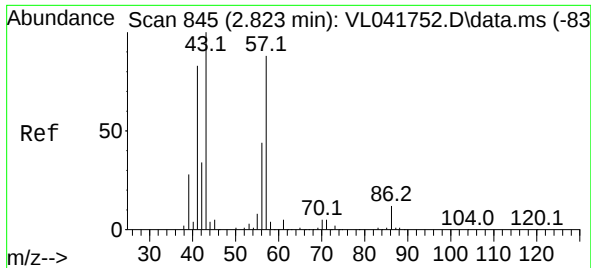
Tgt Ion: 43	Resp: 2407
Ion Ratio	Lower Upper
43 100	
86 7.6	6.6 10.0
42 15.0	8.2 12.2#
44 10.0	5.0 7.4#



#25
 Ethyl Acetate
 Concen: 0.063 ppbv
 RT: 2.852 min Scan# 854
 Delta R.T. 0.019 min
 Lab File: VL041808.D
 Acq: 18 Dec 2024 23:08

Tgt	Ion: 43	Resp:	1628
Ion	Ratio	Lower	Upper
43	100		
45	21.3	8.1	12.1#
61	5.8	7.0	10.6#
70	88.2	6.5	9.7#

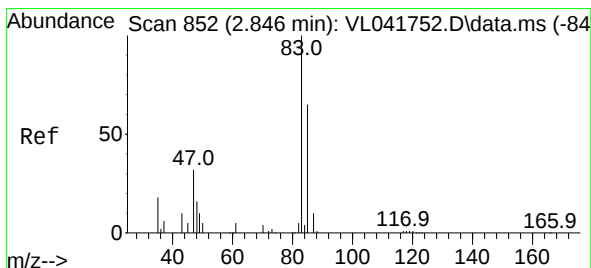
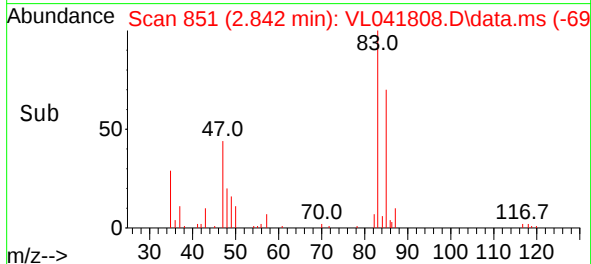
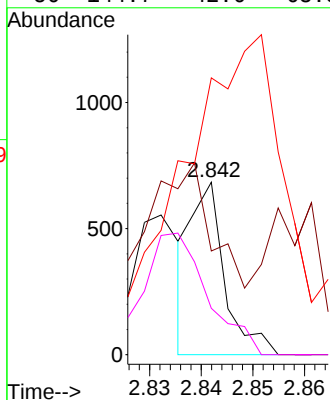
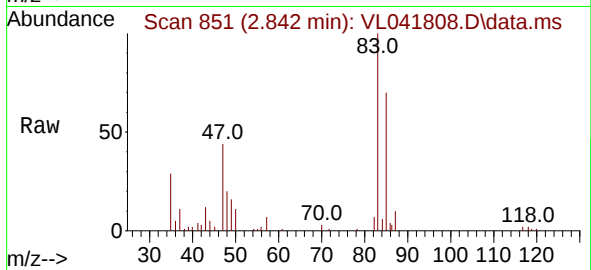




#26
Hexane
Concen: 0.032 ppbv
RT: 2.842 min Scan# 845
Delta R.T. 0.019 min
Lab File: VL041808.D
Acq: 18 Dec 2024 23:08

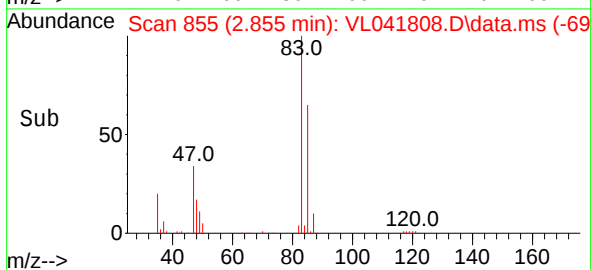
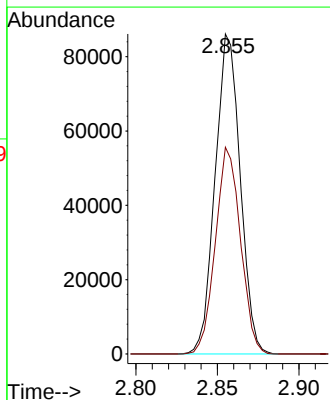
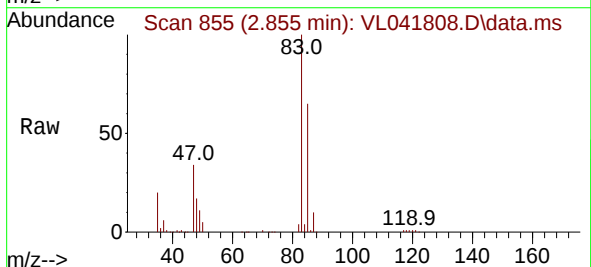
Instrument :
MSVOA_L
ClientSampleId :

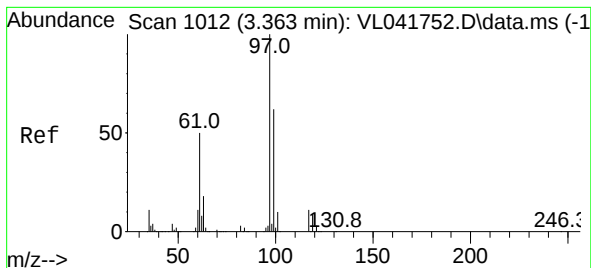
Tgt Ion: 57 Resp: 309
Ion Ratio Lower Upper
57 100
41 430.1 79.6 119.4#
43 623.9 211.0 316.6#
56 144.7 42.6 63.8#



#29
Chloroform
Concen: 6.186 ppbv
RT: 2.855 min Scan# 855
Delta R.T. 0.009 min
Lab File: VL041808.D
Acq: 18 Dec 2024 23:08

Tgt Ion: 83 Resp: 92098
Ion Ratio Lower Upper
83 100
85 64.6 51.8 77.6





#32

1,1,1-Trichloroethane

Concen: 0.044 ppbv

RT: 3.382 min Scan# 1012

Delta R.T. 0.019 min

Lab File: VL041808.D

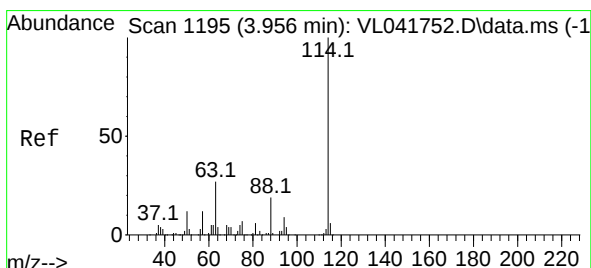
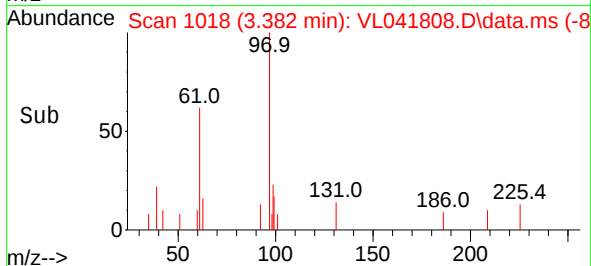
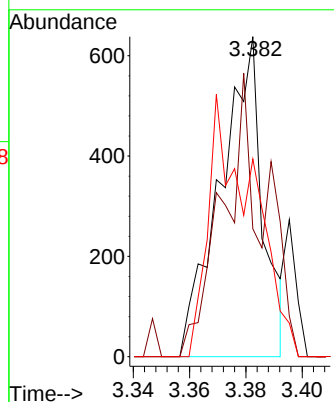
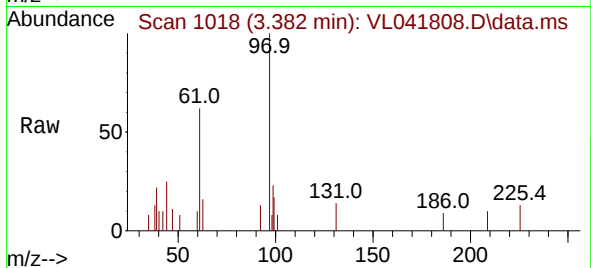
Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :

Tgt Ion:	97	Resp:	663
Ion	Ratio	Lower	Upper
97	100		
99	89.6	51.0	76.4#
61	85.8	42.2	63.2#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

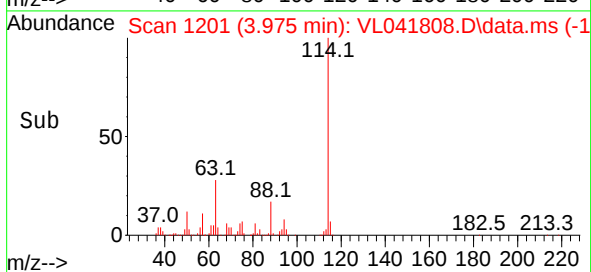
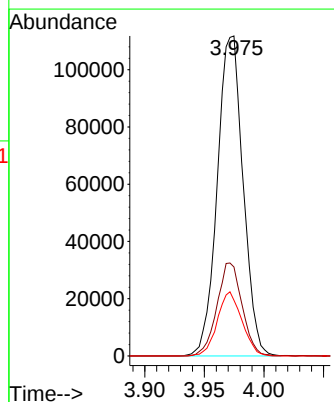
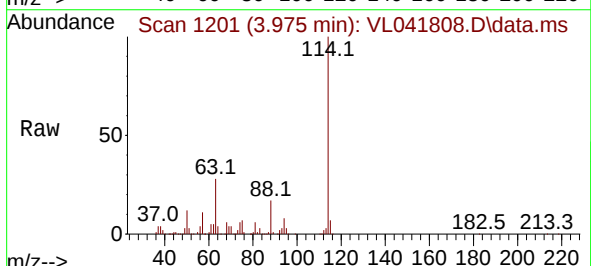
RT: 3.975 min Scan# 1201

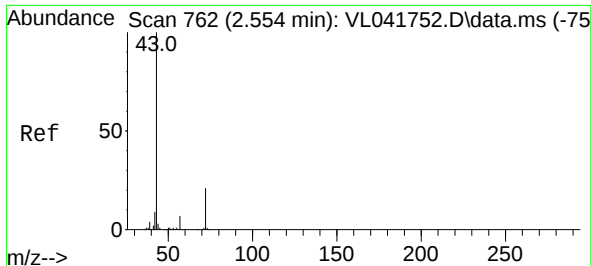
Delta R.T. 0.019 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Tgt Ion:	114	Resp:	168368
Ion	Ratio	Lower	Upper
114	100		
63	28.3	21.8	32.8
88	19.1	14.8	22.2





#34

2-Butanone

Concen: 0.162 ppbv

RT: 2.570 min Scan# 7

Delta R.T. 0.016 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

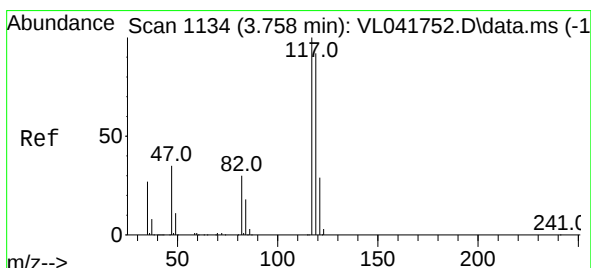
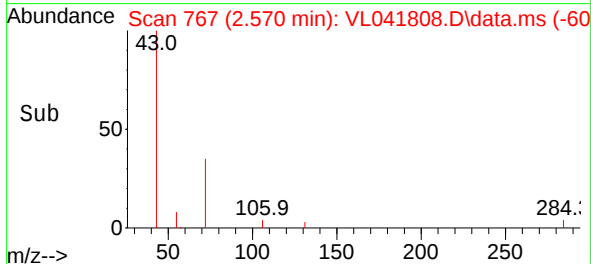
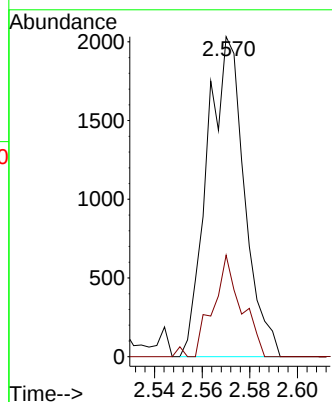
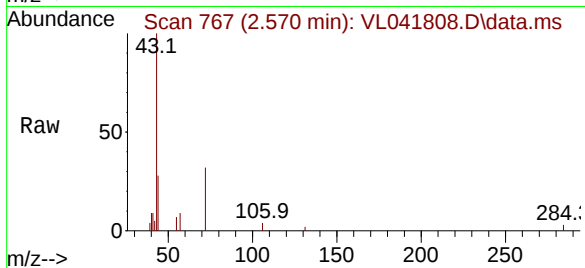
ClientSampleId :

Tgt Ion: 43 Resp: 2200

Ion Ratio Lower Upper

43 100

72 24.4 16.8 25.2



#35

Carbon Tetrachloride

Concen: 0.345 ppbv

RT: 3.774 min Scan# 1139

Delta R.T. 0.016 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

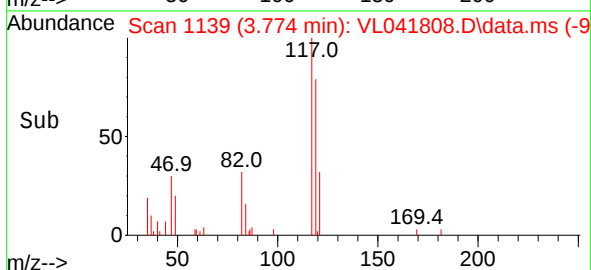
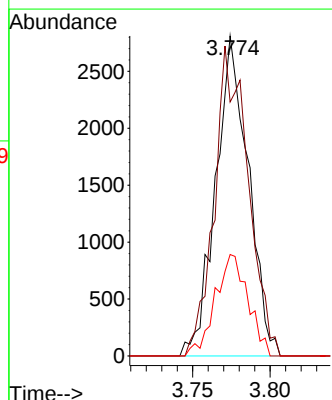
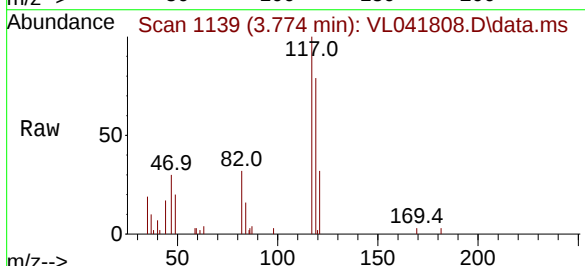
Tgt Ion: 117 Resp: 4129

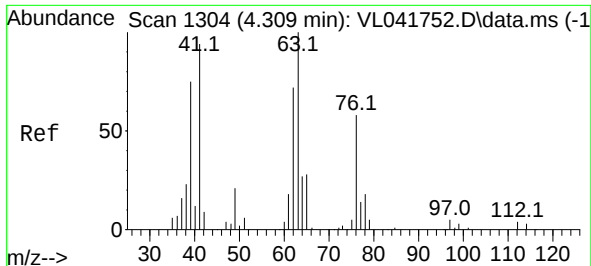
Ion Ratio Lower Upper

117 100

119 79.3 73.7 110.5

121 31.7 23.0 34.4





#39

1,2-Dichloropropane

Concen: 7.569 ppbv

RT: 3.972 min Scan# 11

Delta R.T. -0.337 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :

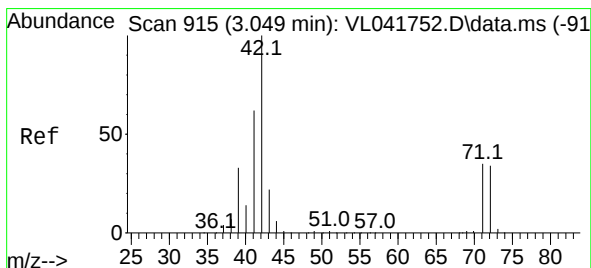
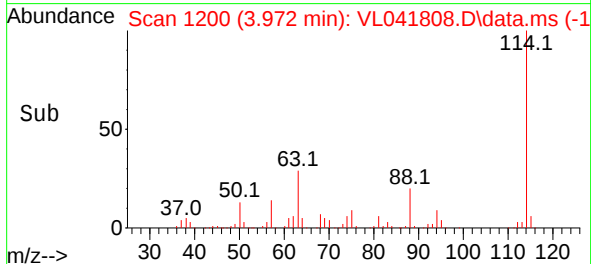
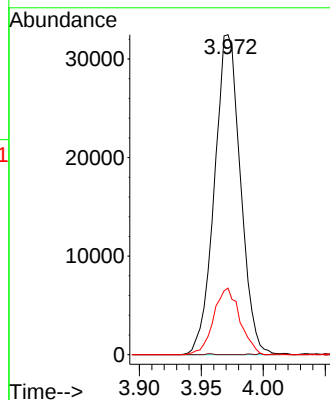
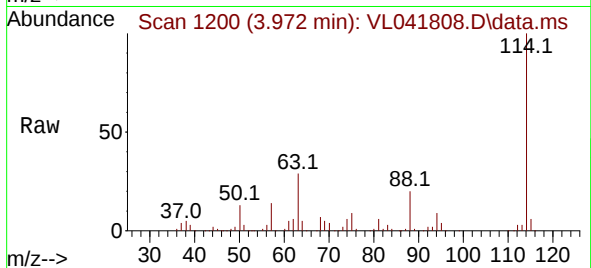
Tgt Ion: 63 Resp: 47676

Ion Ratio Lower Upper

63 100

41 0.0 75.3 112.9#

62 20.8 57.3 85.9#



#41

Tetrahydrofuran

Concen: 0.031 ppbv

RT: 3.075 min Scan# 923

Delta R.T. 0.026 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

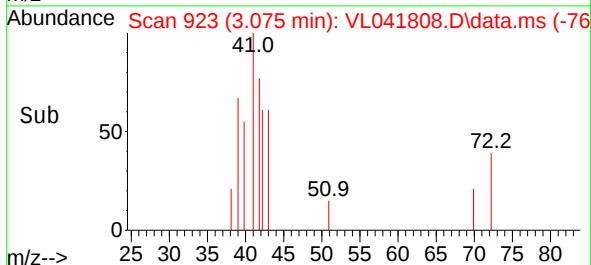
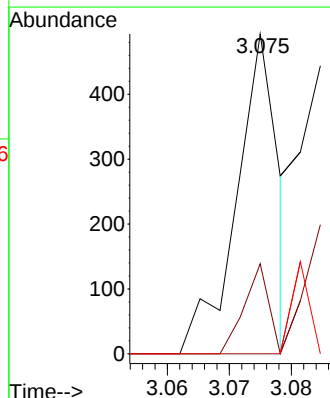
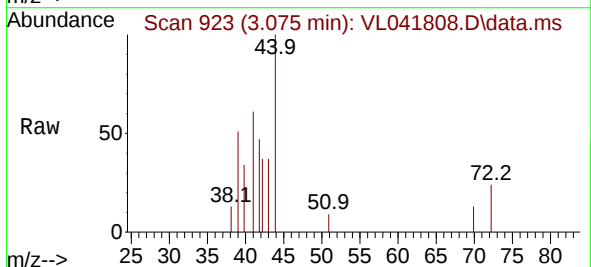
Tgt Ion: 42 Resp: 232

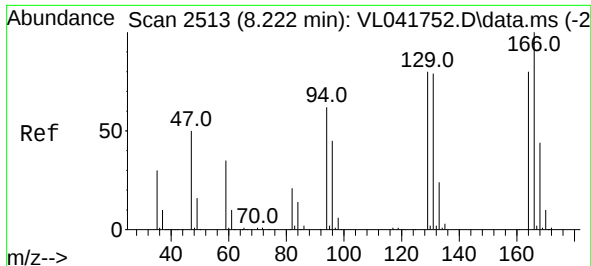
Ion Ratio Lower Upper

42 100

72 0.0 29.1 43.7#

71 0.0 28.4 42.6#





#52

Tetrachloroethene

Concen: 0.040 ppbv

RT: 8.247 min Scan# 2120

Delta R.T. 0.026 min

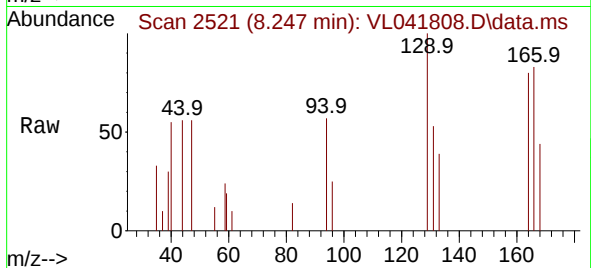
Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion:164 Resp: 259

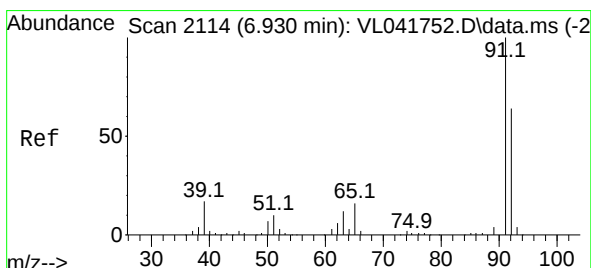
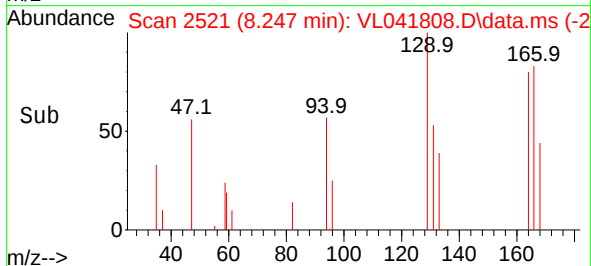
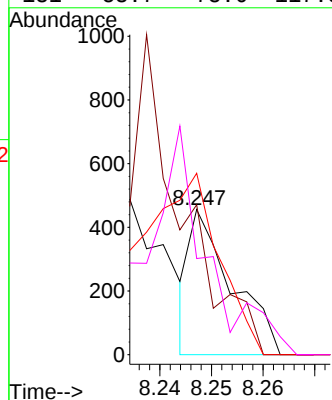
Ion Ratio Lower Upper

164 100

166 103.3 99.8 149.6

129 125.0 79.6 119.4#

131 53.7 78.6 117.8#



#53

Toluene

Concen: 0.226 ppbv

RT: 6.949 min Scan# 2120

Delta R.T. 0.019 min

Lab File: VL041808.D

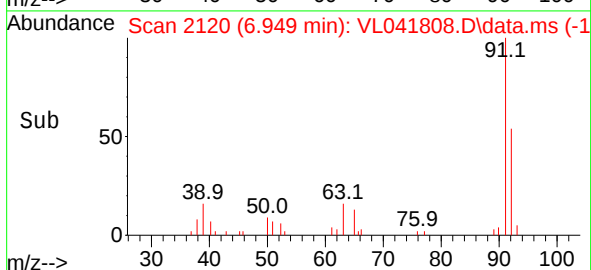
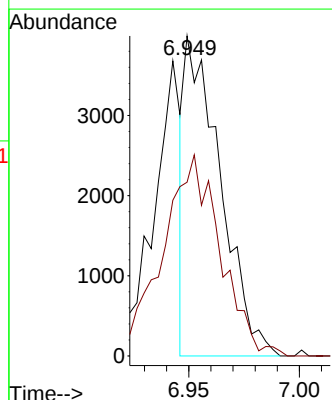
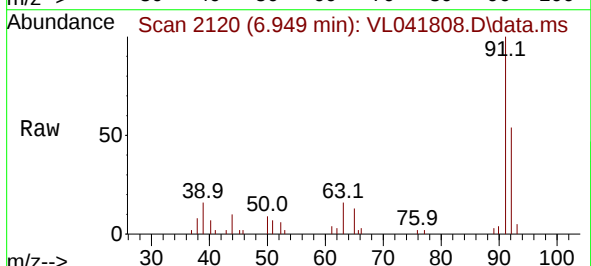
Acq: 18 Dec 2024 23:08

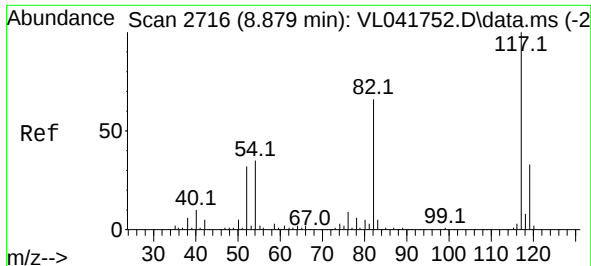
Tgt Ion: 91 Resp: 4465

Ion Ratio Lower Upper

91 100

92 102.0 47.9 71.9#





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.894 min Scan# 21

Delta R.T. 0.016 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :

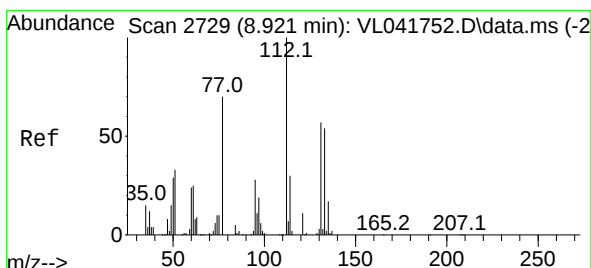
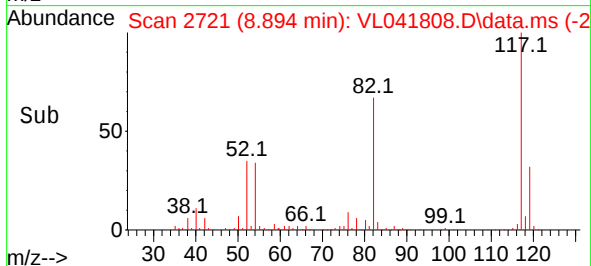
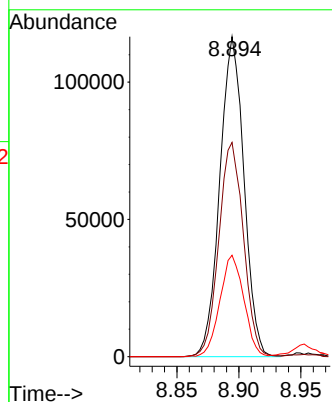
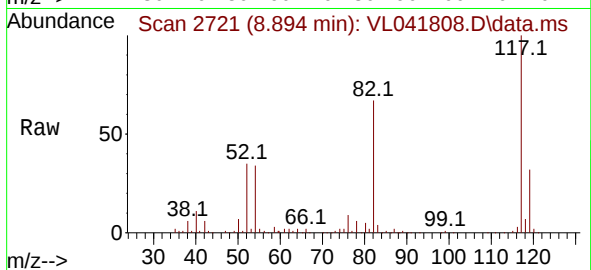
Tgt Ion:117 Resp: 158378

Ion Ratio Lower Upper

117 100

82 68.2 53.8 80.8

119 31.5 26.7 40.1



#57

Chlorobenzene

Concen: 0.031 ppbv

RT: 8.930 min Scan# 2732

Delta R.T. 0.009 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

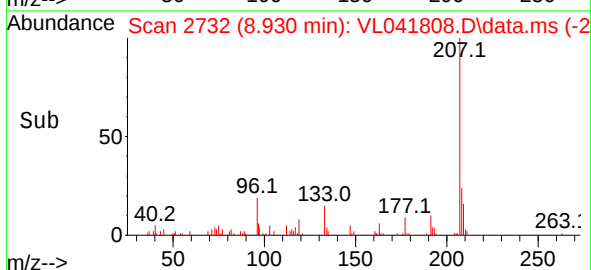
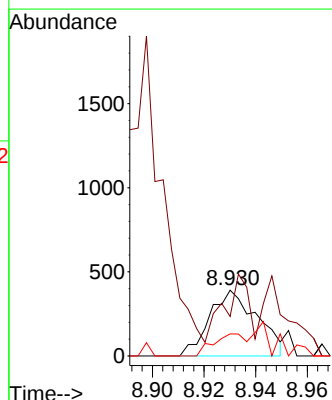
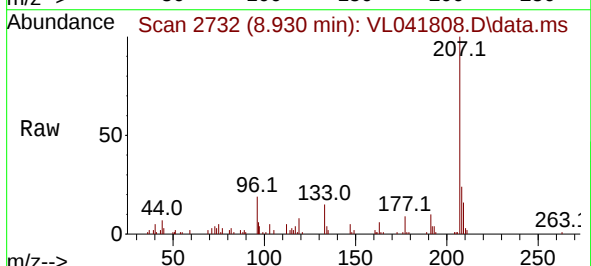
Tgt Ion:112 Resp: 503

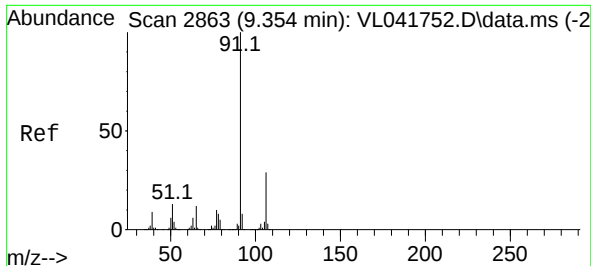
Ion Ratio Lower Upper

112 100

77 0.0 57.4 86.0#

114 33.5 27.4 33.4#





#58

Ethyl Benzene

Concen: 0.074 ppbv

RT: 9.370 min Scan# 2117

Delta R.T. 0.016 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

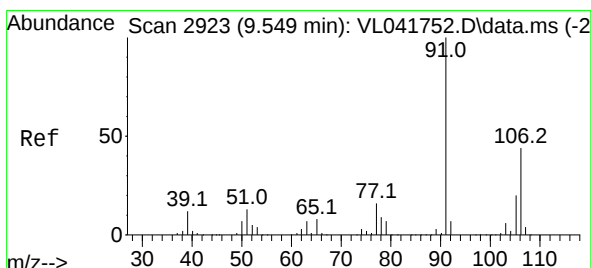
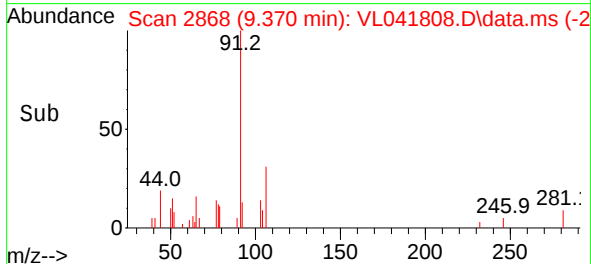
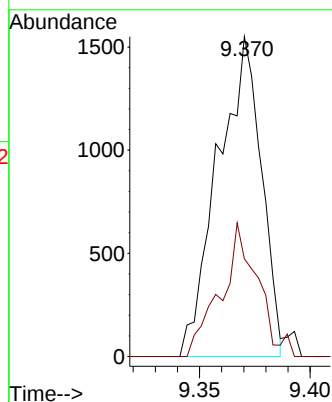
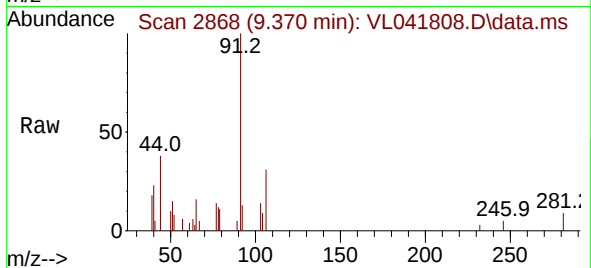
ClientSampleId :

Tgt Ion: 91 Resp: 2117

Ion Ratio Lower Upper

91 100

106 30.6 23.5 35.3



#59

m/p-Xylene

Concen: 0.070 ppbv

RT: 9.561 min Scan# 2927

Delta R.T. 0.013 min

Lab File: VL041808.D

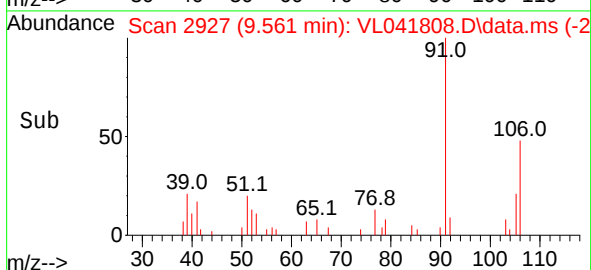
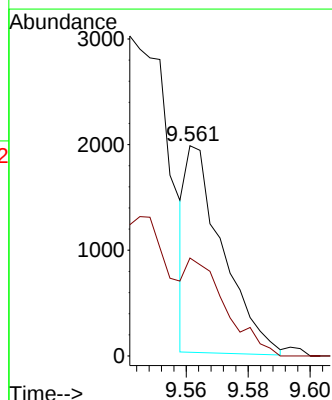
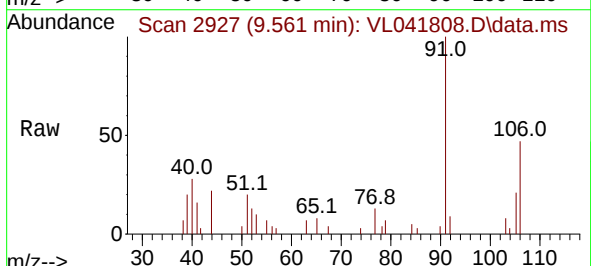
Acq: 18 Dec 2024 23:08

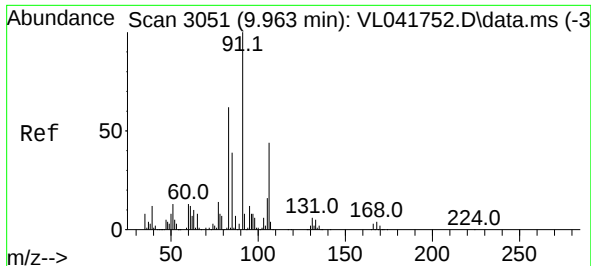
Tgt Ion: 91 Resp: 1606

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0





#60

o-Xylene

Concen: 0.113 ppbv

RT: 9.975 min Scan# 3051

Delta R.T. 0.013 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

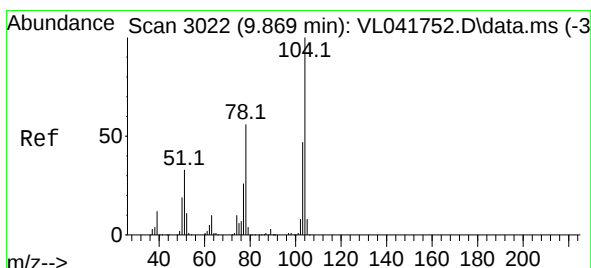
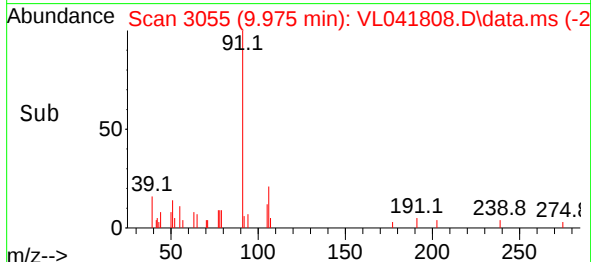
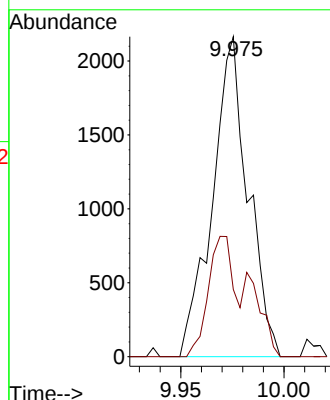
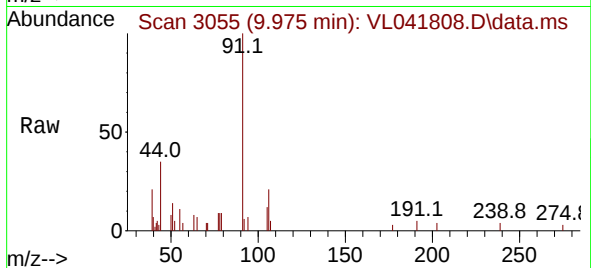
ClientSampleId :

Tgt Ion: 91 Resp: 2603

Ion Ratio Lower Upper

91 100

106 40.3 21.1 63.4



#61

Styrene

Concen: 0.052 ppbv

RT: 9.878 min Scan# 3025

Delta R.T. 0.009 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

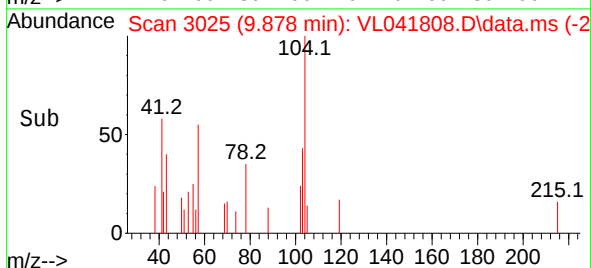
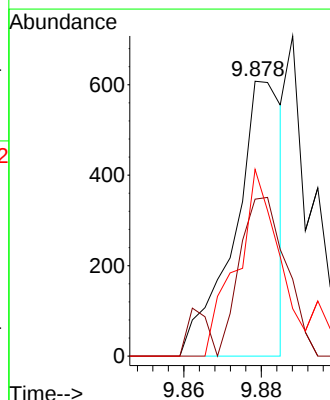
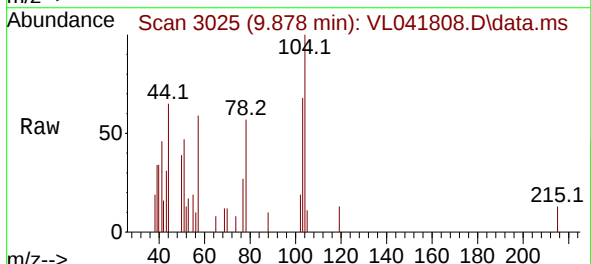
Tgt Ion:104 Resp: 521

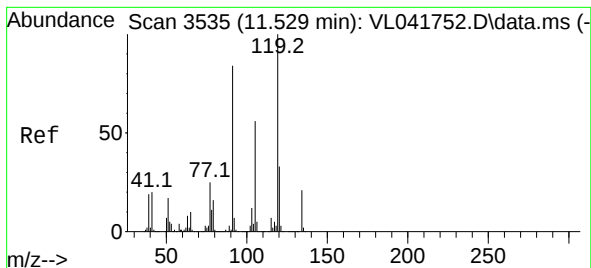
Ion Ratio Lower Upper

104 100

78 63.3 43.8 65.6

103 67.4 37.8 56.6#





#65

tert-Butylbenzene

Concen: 1.767 ppbv

RT: 11.788 min Scan# 3615

Delta R.T. 0.259 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :

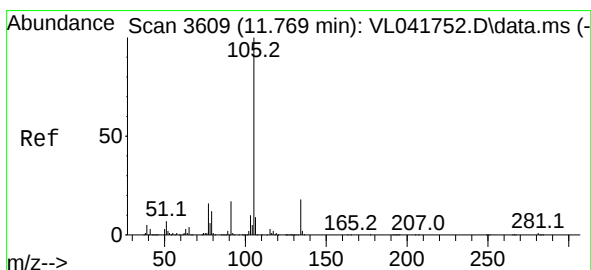
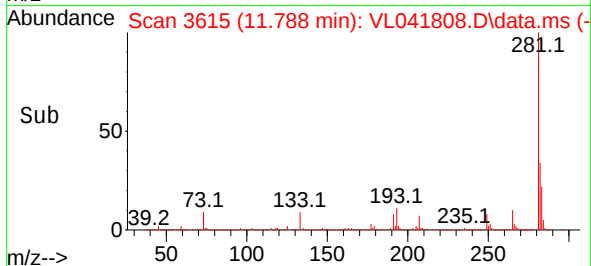
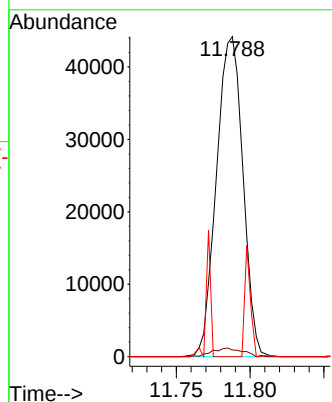
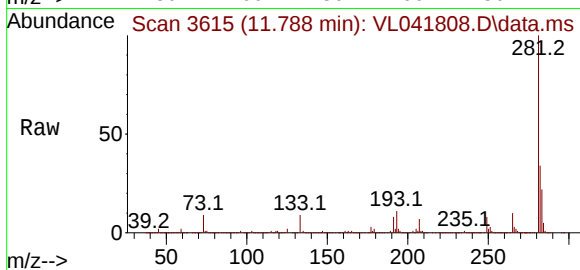
Tgt Ion:119 Resp: 55082

Ion Ratio Lower Upper

119 100

91 3.1 67.0 100.4#

134 7.6 16.5 24.7#



#67

sec-Butylbenzene

Concen: 0.338 ppbv

RT: 11.788 min Scan# 3615

Delta R.T. 0.019 min

Lab File: VL041808.D

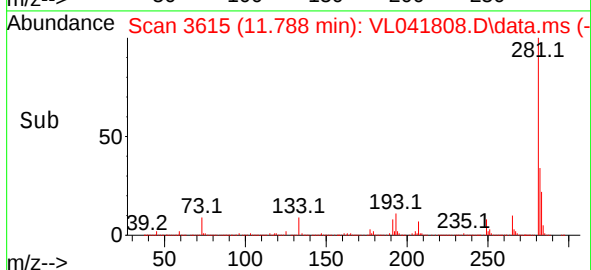
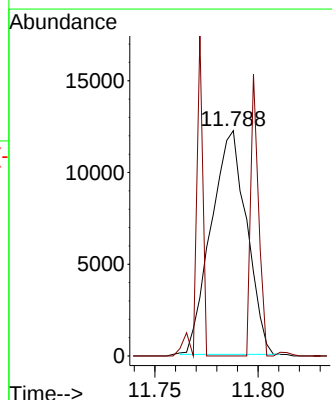
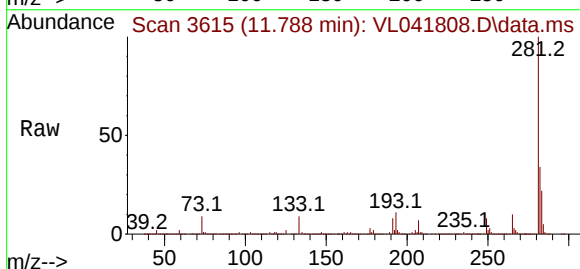
Acq: 18 Dec 2024 23:08

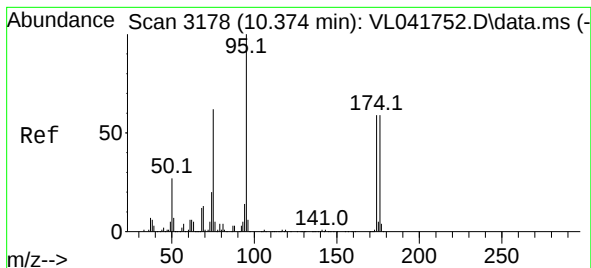
Tgt Ion:105 Resp: 14568

Ion Ratio Lower Upper

105 100

134 28.8 14.5 21.7#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.042 ppbv

RT: 10.387 min Scan# 3178

Delta R.T. 0.013 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :

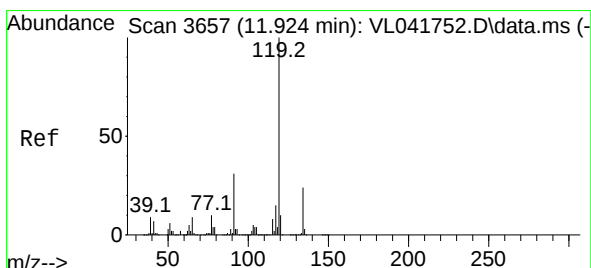
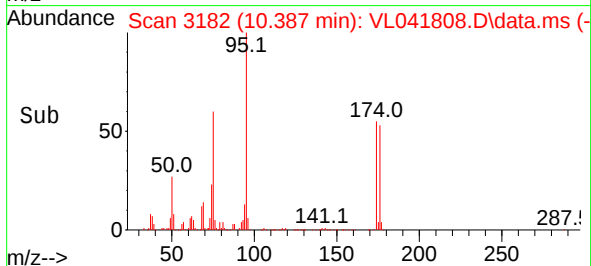
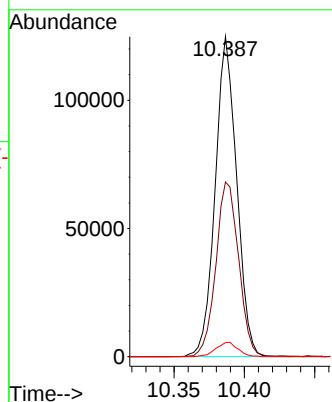
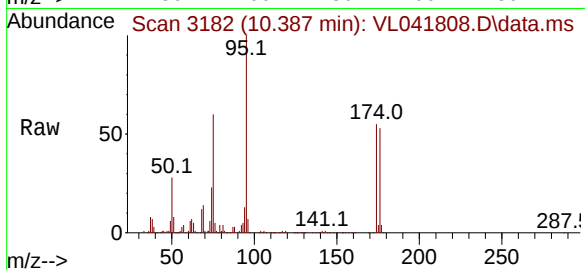
Tgt Ion: 95 Resp: 132533

Ion Ratio Lower Upper

95 100

174 58.0 47.6 71.4

175 4.6 3.7 5.5



#69

p-Isopropyltoluene

Concen: 1.549 ppbv

RT: 11.788 min Scan# 3615

Delta R.T. -0.136 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

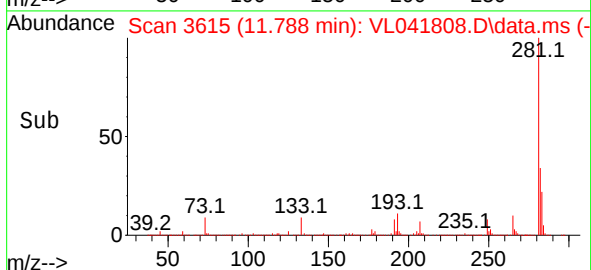
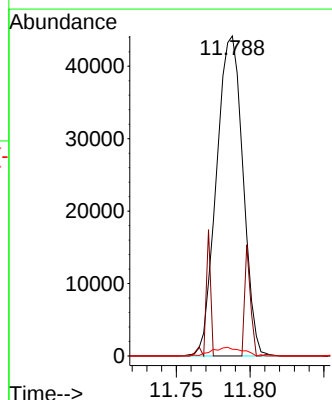
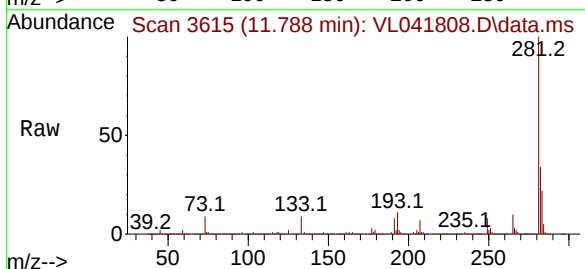
Tgt Ion: 119 Resp: 55048

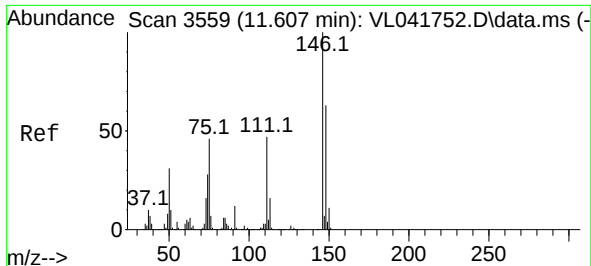
Ion Ratio Lower Upper

119 100

134 7.6 19.6 29.4#

91 3.1 24.4 36.6#





#75

1,3-Dichlorobenzene

Concen: 0.066 ppbv

RT: 11.782 min Scan# 3613

Delta R.T. 0.174 min

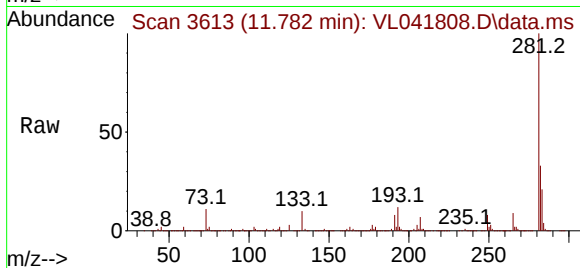
Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

Instrument :

MSVOA_L

ClientSampleId :



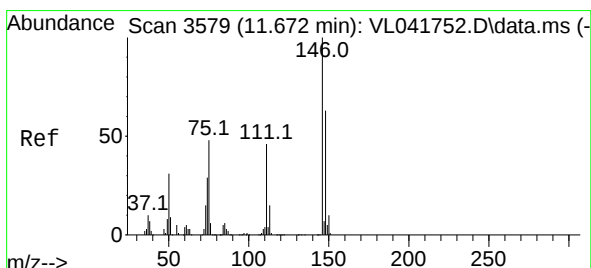
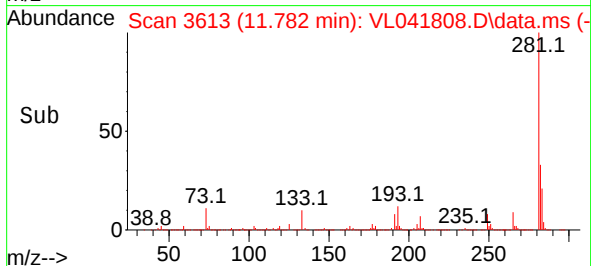
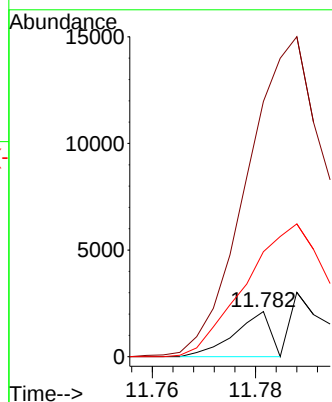
Tgt Ion:146 Resp: 1016

Ion Ratio Lower Upper

146 100

111 0.0 23.4 70.3#

148 0.0 31.6 95.0#



#76

1,4-Dichlorobenzene

Concen: 0.067 ppbv

RT: 11.782 min Scan# 3613

Delta R.T. 0.110 min

Lab File: VL041808.D

Acq: 18 Dec 2024 23:08

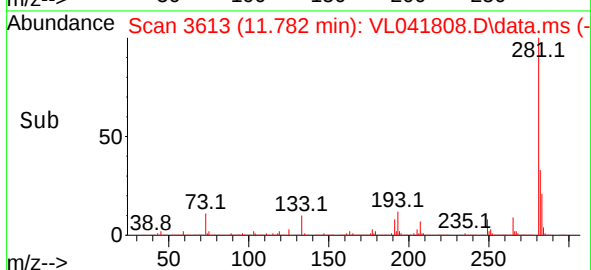
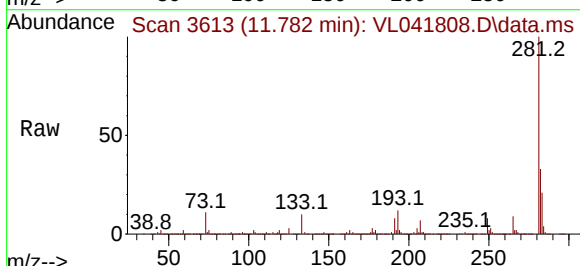
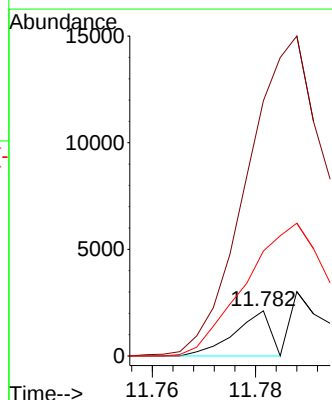
Tgt Ion:146 Resp: 1016

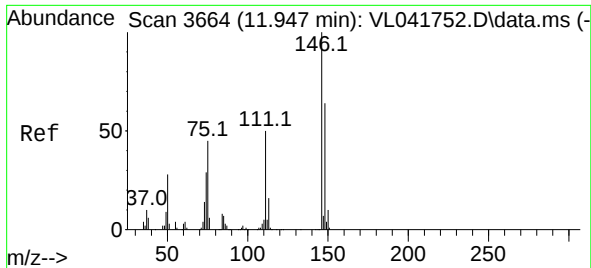
Ion Ratio Lower Upper

146 100

111 0.0 22.7 68.1#

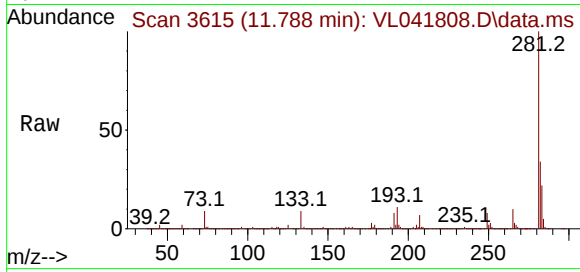
148 0.0 31.4 94.0#





#77
 1,2-Dichlorobenzene
 Concen: 0.110 ppbv
 RT: 11.788 min Scan# 3615
 Delta R.T. -0.159 min
 Lab File: VL041808.D
 Acq: 18 Dec 2024 23:08

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion:146 Resp: 1635
 Ion Ratio Lower Upper
 146 100
 111 1002.1 24.8 74.3#
 148 433.0 31.8 95.4#

